PROJECT ID: 1229-04-71, -72, -73

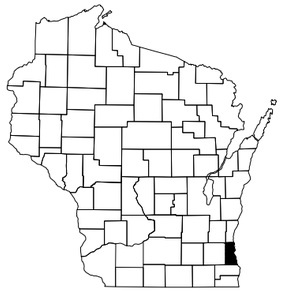
WITH: N/A

COUNTY: MILWAUKEE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
~~Section No.~~	~~3~~	~~Estimate of Quantities~~
~~Section No.~~	~~3~~	~~Miscellaneous Quantities~~
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
~~Section No.~~	~~6~~	~~Standard Detail Drawings~~
~~Section No.~~	~~7~~	~~Sign Plates~~
~~Section No.~~	~~8~~	~~Structure Plans~~
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS =



DESIGN DESIGNATION			PORT WASHINGTON ROAD	IH-43 BTWN SILVER SPRING DR & GOOD HOPE RD	IH-43 BTWN GOOD HOPE RD & BROWN DEER RD	IH-43 BTWN BROWN DEER RD & COUNTY LINE RD
A.A.D.T.	2025	=	10,900	104,400	94,200	78,100
A.A.D.T.	2045	=	11,300	111,700	102,000	84,500
D.H.V.		=	1500	8,800	8,400	7,500
D.D.		=	53/47	52/48	54/46	57/43
T.	NB/SB	=	2%	8.7%	8.2%	10.3%
DESIGN SPEED		=	40 MPH	70 MPH	70 MPH	70 MPH
ESALS		=				

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

V RIVER HILLS, N PORT WASHINGTON ROAD

BENDER RD TO W DAPHNE RD

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT NUMBER 1229-04-71

REV 1

I-43 NORTH SOUTH FREEWAY

UNION PACIFIC RR BRIDGE B-40-921

IH-43

MILWAUKEE COUNTY

STATE PROJECT NUMBER 1229-04-72

I-43 NORTH SOUTH FREEWAY

BENDER ROAD TO BROWN DEER ROAD

IH-43

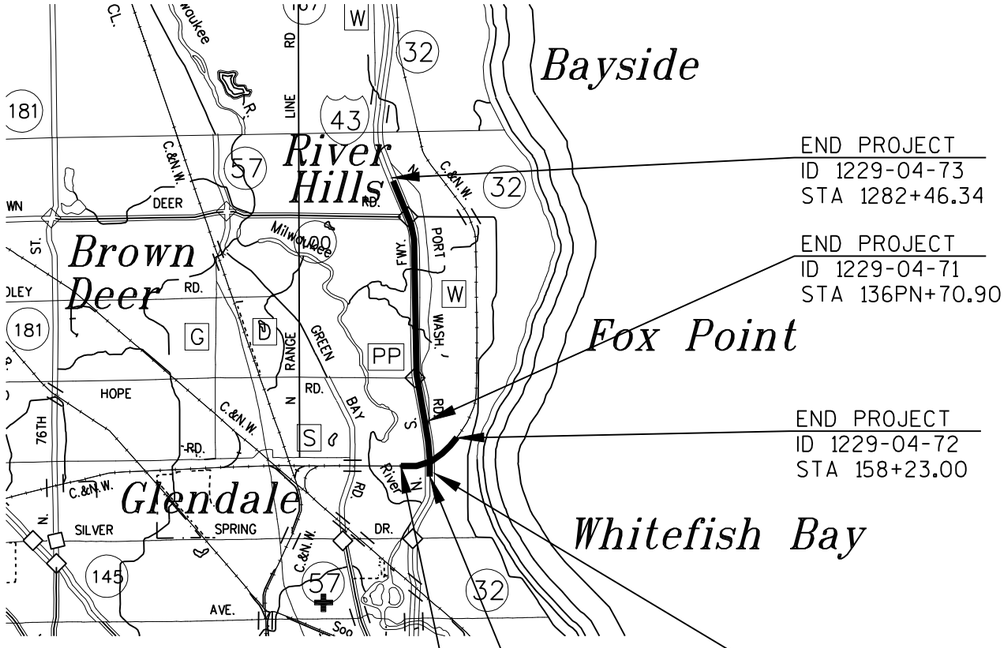
MILWAUKEE COUNTY

STATE PROJECT NUMBER 1229-04-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1229-04-71		
1229-04-72		
1229-04-73		

APPROVED FOR DESIGN OF UTILITY ADJUSTMENTS

OCTOBER 1st, 2021



TOTAL NET LENGTH OF CENTERLINE =	5.348 MI
TOTAL NET LENGTH OF CENTERLINE PROJECT 1229-04-71 =	0.691MI
TOTAL NET LENGTH OF CENTERLINE PROJECT 1229-04-72 =	0.801MI
TOTAL NET LENGTH OF CENTERLINE PROJECT 1229-04-73 =	3.856MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAN.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2007).

STRUCTURE SUMMARY TABLE

RETAINING WALLS
R-40-412
R-40-413
R-40-414
R-40-415
R-40-636
R-40-637
R-40-639
R-40-640
R-40-641
R-40-642
R-40-643
R-40-645
R-40-646
R-40-647
R-40-648
R-40-649

SIGN STRUCTURES
S-40-461
S-40-3033
S-40-3034
S-40-3035
S-40-3036
S-40-3037
S-40-3038
S-40-3039
S-40-3040
S-40-3041
S-40-3043
S-40-3044
S-40-3045
S-40-3046
S-40-3047
S-40-3048
S-40-3049
S-40-3050
S-40-3051
S-40-3052
S-40-3053
S-40-3054
S-40-3055
S-40-3056
S-40-3057

NOISE WALLS
N-40-99
N-40-100
N-40-102
N-40-103

BRIDGES
B-40-732
B-40-733
B-40-734
B-40-735
B-40-921
B-40-1026
B-40-1027
B-40-1028

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE MILWAUKEE, WI 53202 (414) 359-2300

(Date) (Signature)

ORIGINAL PLANS PREPARED BY

kapur

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT, AYRES, KAPUR
Designer	HNTB
Project Manager	STEVE HOFF
Regional Examiner	
Regional Supervisor	MANOJOY NAG

APPROVED FOR THE DEPARTMENT

DATE: _____ (Signature)

E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256212\010101_TI-1229-04-71-72-73.DWG PLOT DATE : 9/28/2021 12:23 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME :

UTILITY CONTACTS

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
KRISTINA BETZOLD
DNR SERVICE CENTER
2300 N. MARTIN LUTHER KING JR.
MILWAUKEE WI 53212
PHONE: (414) 507-4946
KRISTINA.BETZOLD@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
DOBRA PAYANT - ENVIRONMENTAL ANALYST AND REVIEW SPECIALIST
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
CELL: (414) 750-2677
DOBRA.PAYANT@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
MIKE BIRSCHBACH
CONSTRUCTION UTILITY COORDINATING ENGINEER
141 NW BARSTOW STREET
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MICHAEL.BIRSCHBACH@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
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WISCONSIN DEPARTMENT OF TRANSPORTATION
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WAUKESHA, WI 53187-0798
PHONE: (262) 548-6424
BIANCA.CLAYTON@DOT.WI.GOV

OTHER AGENCIES

MILWAUKEE COUNTY – ROAD FACILITY
DANIEL MURPHY
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-5942
DANIEL.MURPHY@MILWAUKEECOUNTYWI.GOV

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ROB MERRY
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
CELL: (920) 912-1036
RMERRY@SEWRPC.ORG

MILWAUKEE COUNTY- TRANSPORTATION SERVICES
ANDREA WEDDLE-HENNING
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-5934
ANDREA.WEDDLE-HENNING@MILWAUKEECOUNTYWI.GOV

UNION PACIFIC RAILROAD COMPANY
SEAN COLLIER
1525 RALEIGH STREET, SUITE 400
DENVER, CO 80204
PHONE: (303) 374-3162
SCOLLIER@OLSSON.COM

MILWAUKEE COUNTY – HIGHWAY MAINTENANCE
EDUARDO SANTIAGO
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-6569
EDUARDO.SANTIAGO@MILWAUKEECOUNTYWI.GOV

DESIGN CONTACTS

DAN BAUMANN
HNTB CORPORATION
250 E. WISCONSIN AVE, SUITE 2000
MILWAUKEE WI 53202
PHONE (414) 410-6830

NICHOLAS DAMRO
KAPUR AND ASSOCIATES
7711 N. PORT WASHINGTON RD
MILWAUKEE, WI 53217
PHONE (414) 751-7248

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH COMPACTED GRANULAR BACKFILL UNLESS REGULATIONS REQUIRE OTHERWISE. BACKFILLING OPERATIONS AND MATERIAL CONSIDERED INCIDENTAL TO THE REMOVING MANHOLE, REMOVING INLET AND REMOVING STORM SEWER ITEMS.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF SALVAGED TOPSOIL IS COMPUTED FROM MEASUREMENTS BETWEEN THE SUBGRADE SHOULDER POINTS AND THE SLOPE INTERCEPTS AS SHOWN ON THE CROSS SECTIONS.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP OR HEAVY RIPRAP OR EBS BACKFILL.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH IN RURAL SECTIONS AND 6-INCH TYPICAL DEPTH IN URBAN SECTIONS.

A SAWED JOINT IS REQUIRED WHERE HMA PAVEMENT MEETS EXISTING ASPHALTIC CONCRETE SURFACE. SAWING ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PAVING DETAILS OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

FERTILIZER SHALL NOT BE USED WITHIN 20 FEET OF NAVIGABLE WATERWAYS OR WETLANDS.

SALVAGED TOPSOIL, FERTILIZER, MULCH AND SEED SHALL BE PLACED AS DIRECTED BY THE ENGINEER. IN DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

INLET PROTECTION IS REQUIRED AT ALL INLETS AS SHOWN ON THE EROSION CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE A CONCRETE JOINT DETAIL 14 DAYS PRIOR TO PAVING FOR APPROVAL BY THE ENGINEER. 15' MAXIMUM SPACING FOR LONGITUDINAL JOINTS.

CONCRETE PAVEMENT TINING SHALL BE LONGITUDINAL

SIGNS IN CONFLICT WITH TRAFFIC CONTROL 'IN USE' SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS TYPE I OR TYPE II.

MAINTAIN DRAINAGE OF THE EXISTING STORM SEWER SYSTEM UNTIL THE PROPOSED STORM SEWER SYSTEM IS FUNCTIONAL.

ALL INLET COVERS WITHIN LIVE TRAFFIC DURING STAGED CONSTRUCTION SHALL BE FASTENED ACCORDING TO THE SPECIAL PROVISIONS.

TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.05 GAL/SY FOR FULL DEPTH HMA PAVEMENT SECTIONS (SHALL BE APPLIED BETWEEN ALL LAYERS OF ASPHALTIC PAVEMENT). 0.07 GAL/SY USED TO ESTIMATE HMA LAYERS OVER EXISTING PAVEMENTS.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADII DIMENSIONS ARE MEASURED TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE MEDIAN SLOPED NOSE SHALL BE CONSTRUCTED FOR ALL MEDIAN OPENINGS AT INTERSECTIONS WITH CURB & GUTTER. REFER TO PLAN DETAILS FOR SPECIFIC LOCATIONS.

SEEDING MIXTURE NO. 70A IN HABITAT RESTORATION/CREATION AREAS.

CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO (2) WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

FOR SECTION CORNER REPLACEMENT CONTACT ROB MERRY WITH SEWRPC AT 262-953-4286 OR RMERRY@SEWRPC.ORG AT LEAST TWO WEEKS BEFORE STARTING CONSTRUCTION OPERATIONS.

CONSTRUCT HMA PAVEMENT WITH THE FOLLOWING LAYERS AND GRADATIONS:

HMA PAVEMENT TYPE	TOTAL PAVEMENT THICKNESS	LAYERS
58-28 S	5"	2" UPPER LAYER
		3" LOWER LAYER

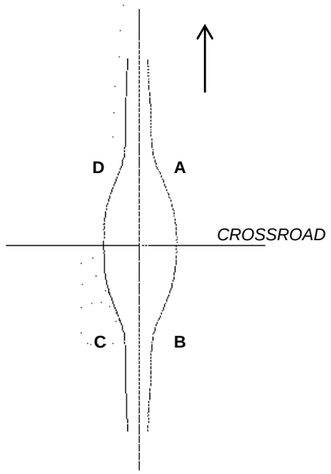
THE PRESENCE OR REMOVAL OF ANY REINFORCEMENT, REBAR OR WIRE MESH FOUND IN ANY EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM.

ALIGNMENT NAMING ABBREVIATIONS

ROAD ABBREVIATION

GOOD HOPE ROAD EB	GHE
GOOD HOPE ROAD WB	GHW
GOOD HOPE ROAD RAMP A	GHA
GOOD HOPE ROAD RAMP B	GHB
GOOD HOPE ROAD RAMP C	GHC
GOOD HOPE ROAD RAMP D	GHD
BROWN DEER ROAD EB	BDE
BROWN DEER ROAD WB	BDW
BROWN DEER ROAD RAMP A	BDA
BROWN DEER ROAD RAMP B	BDB
BROWN DEER ROAD RAMP C	BDC
BROWN DEER ROAD RAMP D	BDD
BROWN DEER ROAD RAMP NE	BDNE
BROWN DEER ROAD RAMP ES	BDES
BROWN DEER ROAD RAMP WN	BDWN
BROWN DEER ROAD RAMP SW	BDSW
N PORT WASHINGTON ROAD NB	
@ BENDER ROAD	PN
@ GOOD HOPE ROAD	PNGH
@ BROWN DEER ROAD	PNBD
N PORT WASHINGTON ROAD SB	
@ BENDER ROAD	PS
@ GOOD HOPE ROAD	PSGH
@ BROWN DEER ROAD	PSBD
JEAN NICOLET ROAD	JN
FAIRFIELD COURT	FA
KARL CAMPUS DRIVE EB	CSE
KARL CAMPUS DRIVE WB	CSW
W BRENTWOOD LANE	BE
W CLOVERNOOK LANE	CK
W APPLETREE ROAD	AE
W DAPHNE ROAD	DE
BENDER ROAD	BN
GREEN BAY ROAD	GB
RANGE LINE ROAD	RG
PHEASANT LANE	
@GOOD HOPE ROAD	PHG
@BROWN DEER ROAD	PHB

RAMP QUADRANT IDENTIFICATION



STANDARD ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
COS	CENTER OF STRUCTURE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
FTMS PLAN
STORM SEWER
POND DETAILS
PERMANENT SIGNING
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
ALIGNMENT PLAN

2

2

GENERAL NOTES

1. Contractors shall notify Service Alert, (800) 642-2444 and UPRR Fiber Optics Hotline (800) 336-9193, 48 hours prior to any excavation. The USA Authorization Numbers shall be kept at the job site.
2. No work whatsoever shall be commenced without first notifying the UPRR Engineer.
3. The Contractor shall comply with all Federal, State, County, and City Laws and Ordinances and Regulations of the Department of Industrial Relations, OSHA, NPDES and Industrial Accident Commission related to the safety and character of the work, equipment and labor personnel.
4. Contractor shall be responsible for coordinating with all Utility agencies.
5. Contractor shall protect in place (by any means necessary) all existing utilities to remain unless otherwise specified herein, contractor shall be responsible for the complete repair at his expense, for any damage to existing utilities, structures, or other site features, as a result of his work.
6. Prior to placing curbs, pavements, base, subbase, track, etc., all underground utilities shall be installed, backfill completed, and the Engineer notified by each of the utility companies having facilities within the work area, that the utility installation has satisfactorily passed acceptance tests.
7. All existing underground utilities, that are not to be re-used shall be abandoned in place. All existing pipelines to be abandoned in place shall be cement slurry filled and capped at least 3'-0" below top of proposed subgrade.
8. Contractor shall verify locations and elevations of existing utilities whether known or unknown prior to beginning construction.
9. Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, and pipelines not located prior to construction shall be brought to the attention of the engineer for determiniation of appropriate action such as removal or treatment in a manner judged suitable to the engineer.
10. Contractor shall coordinate location of all proposed utilities with UPRR to assure accuracy of utility connections and compliance with local codes.
11. Any existing conditions found to be a variance with these drawings must be immediately reported to the Engineer.
12. Contractor shall maintain and clean to the satisfaction of the Engineer, all access and service roads used during construction.
13. Contractor shall perform all construction in such a manner as to protect adjacent existing buildings, and other site elements which are to remain in service.
14. Contractor shall provide As-built Drawings for all improvements.
15. No field changes will be permitted without direct written authorization from the UPRR Engineer or his representative.
16. Contractor shall coordinate work which affects adjacent property owners. Any questions or agreements between adjacent property owners and contractor shall be made in writing. A copy of such agreement shall be provided to the UPRR Engineer or his representative.
17. The contractor is responsbile for preparing a Stormwater Pollution Prevention Plan (SWPPP) to comply with State regulations. General specifications and typical erosion control details are included in the plan set.
18. Right-of-way lines shown on the plans were taken from existing UPRR right-of-way map and are approximate.
19. Match lines for sheets are based on the existing Main Line stationing unless otherwise specified.
20. Track laying, ballasting, and installation of road crossing panels will be done by UPRR unless otherwise stated.
21. Where existing culverts are to be extended, the contractor shall expose existing drainage structures and field verify size and type before ordering.
22. The contractor is responsible for the removal of all pavement markings that will be in conflict with the proposed work.
23. Contractor shall comply with all STATE and CITY standard specifications for construction of public improvements requirements. CITY standard specifications shall prevail.
24. Contractor shall maintain at least one access to all affected business. If necessary, multiphase construction shall be utilized.
25. UPRR General Conditions and Specifications will be followed unless project specifications exceed and deviations are approved by UPRR Engineer.

TRAFFIC NOTES

1. All barricades, warning signs, lights, devices, etc. for the guidance of vehicle traffic and pedestrians must conform to the installation shown in the Manual on Uniform Traffic Control Devices (MUTCD), current edition.
2. Contractor shall make twice daily inspections of barricades and flashing lights to ensure proper placement and functioning of warning devices.
3. Grade crossings closed to traffic during construction shall be barricaded in accordance with the MUTCD.
4. At all grade crossings, all grade crossing warning signs (crossbuck) shall temporarily be relocated during construction and reset after the grade crossings construction is completed to a point adjacent to the roadway and 15 feet from the centerline of the near track as stated in the MUTCD except where automatic grade crossing warning signals/gates exisit. All automatic warning devices are the responsibility of UPRR. At no time shall a crossing be left open without proper warning signs in place.
5. Contractor shall submit traffic control plans to CITY Traffic Department for approval at least 2 weeks prior to each road closure. Plans shall be 11" x 17" engineered drawings, sealed by a professional engineer from the STATE.
6. The contractor is responsible for the prompt replacememt and/or repair of all traffic control devices and appurtenances damaged or disturbed due to construction.

DESIGN CRITERIA

1. UPRR standard plans and trackworks
2. WisDOT Roadway Standards
3. CITY Public Works Engineering Division

SURVEY NOTES

1. Railroad stationing for project profiles and alignments is based on stations established for chord definition spiraled curves at the centerline of the existing UPRR Main Line unless otherwise noted.
2. The contractor is responsible for the preservation of all survey control monuments. In the event monuments are damaged or destroyed by the contractor, the Engineer will replace the monument solely at the contractor's expense.

	DATUM
HORIZONTAL	MILWAUKEE COUNTY, NAD83 (2007)
VERTICAL	NAVD88 (2007)

Survey completed in April, 2015

PROJECT CONTACTS

CONTACT	PHONE NUMBER	UPRR

CONTACT	PHONE NUMBER	FIBER

CONTACT	PHONE NUMBER	UTILITIES

CONTACT	PHONE NUMBER	FEDERAL AND LOCAL GOVERMENT AGENCY

PHONE NUMBER	GENERAL
(800) 336-9193	UPRR CALL BEFORE YOU DIG
(888) 258-0808	CALL BEFORE YOU DIG (NATIONAL DIRECTORY)
(888) 877-7267	UPRR Response Management Communications Center (RMCC)

PROJECT REVISIONS

REV. #	BY	DATE:	SHEET:	DESCRIPTION
0	WisDOT	10/25/2013	ALL	CONCEPT SUBMITTAL
1	WisDOT	02/20/2015	ALL	CONCEPT RESUBMITTAL
2	WisDOT	01/14/2021	ALL	25% SUBMITTAL
3	WisDOT	06/01/2021	ALL	25% RESUBMITTAL

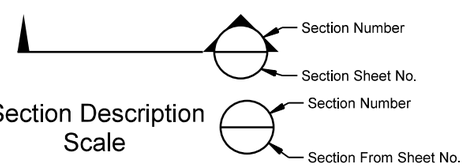
ABBREVIATIONS

MISCELLANEOUS

Ac.	Acres
Ave.	Avenue
Blvd.	Boulevard
Bldg.	Building
BNSF	BNSF Railway
C.Y.	Cubic Yards
Conc.	Concrete
^	Degree (s)
Dia.	Diameter
Dr.	Drive
Dwg.	Drawing
E	East
Elev.	Elevation
Exist.	Existing
'	Foot, Feet or Minute (s)
F.S.	Finished Surface
Horiz.	Horizontal
"	Inch, Inches or Second (s)
Inv.	Invert
Lt.	Left
L	Length
L.F.	Lineal Feet
Max.	Maximum
Min.	Minimum
N	North
NTS	Not to Scale
No.	Number
OH	Overhead
Prop.	Proposed
RR	Railroad
Rwy	Railway
R/W	Right of Way
Rt.	Right
S	South
S.F.	Square Feet
Sta.	Station
Std.	Standard
St.	Street
Twp.	Township
Typ.	Typical
UG	Underground
UPRR	Union Pacific Railroad
V	Velocity
Wt.	Weight
W	West
X-ing	Crossing

SIGNAL

ABS	Automatic Block Signal
ATC	Automatic Train Control
CTC	Centralized Traffic Control
DED	Dragging Equipment Detector
DTC	Direct Traffic Control
ELTO	Electric Lock Turnout
HBD	Hot Box Detector
HTTO	Hand Throw Turnout
HWD	High Wide Dectector
POTO	Power Operated Turnout
TWC	Track Warrant Control
WILD	Wheel Impact Load Dectector



STRUCTURES

Bldg.	Building
Br.	Bridge
CB	Catch Basin
CPT	Concrete Pile Trestle - Ballast Deck
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
Culv.	Culvert
DI	Drop Inlet
DPGBD	Deck Plate Girder - Ballast Deck
DPGOD	Deck Plate Girder - Open Deck
EBW	East Backwall
F.L.	Flowline
F.F.	Finished Floor
GIP	Galvanized Iron Pipe
Hdwl	Headwall
NBW	North Backwall
PCB	Prestressed Concrete Box
PSCT	Prestressed Concrete Trestle
RCA	Reinforced Concrete Arch
RCB	Reinforced Concrete Box
RCP	Reinforced Concrete Pipe
SBW	South Backwall
SSP	Smooth Steel Pipe
SPTBD	Steel Pile Trestle - Ballast Deck
SPTOD	Steel Pile Trestle - Open Deck
SPP	Structural Plate Pipe
TPGBD	Through Plate Girder - Ballast Deck
TPGOD	Through Plate Girder - Open Deck
TPTBD	Timber Pile Trestle - Ballast Deck
TPTOD	Timber Pile Trestle - Open Deck
TTBD	Through Truss - Ballast Deck
TTOD	Through Truss - Open Deck
TWB	Treated Wood Box
VCP	Vitrified Clay Pipe
Viad.	Viaduct
WBW	West Backwall
WIP	Wrought Iron Pipe

TRACK

ATR	Above Top of Rail
Align.	Alignment
BBR	Below Base of Rail
Cntrs.	Centers
CWR	Continuous Welded Rail
DSPD	Double Switch Point Derail
EOT	End of Track
HH	Head Hardened
Jtd.	Jointed Rail
LH	Left Hand
ML	Main Line
MM	Mile Marker
MP	Mile Post
NSC	Not Sufficient Clearance
OTM	Other Track Material
PCC	Point of Compound Curve
PC	Point of Curve
PCS	Point of Curve to Spiral
POC	Point on Curve
PF	1/2" Point of Frog
PI	Point of Intersection
PITO	Point of Intersection of Turnout
PS	Point of Spiral
PSC	Point of Spiral to Curve
POS	Point on Spiral
PT	Point of Tangent
POT	Point on Tangent
Pt. Sw.	Point of Switch
PVC	Point of Vertical Curve
PVI	Point of Vertical Intersection
PVT	Point of Vertical Tangent
RH	Right Hand
SH	Second Hand
SSPD	Single Switch Point Derail
TC	Track Centers
T.F.	Track Feet
Trk.	Track
UXO	Universal Cross-Over
X-Over	Cross-Over

UTILITIES

- Compressed Air
- Fiber Optic Cable
- Gas Pipeline
- Overhead Power Line
- Sanitary Sewer
- Overhead Signal Line
- Underground Signal Line
- Steam Line
- Storm Sewer
- Telephone
- Underground Electric
- Water Main
- Underground Wire
- Under Drain
- Valve
- Manhole
- Catch Basin
- Fire Hydrant
- Junction Box
- Electric Meter
- Gas Meter
- Water Meter
- Monitoring Well
- Pump

TRACK

- Existing Mainline
- Existing Siding or Spur
- Proposed
- Remove
- Shift
- Relay
- Surface & Line
- Future
- Foreign Railroad or Industry
- In Buildings or Under Structures
- Turnout
- Power Turnout
- Bumping Post
- Earthen Bumper
- Inert Retarder
- Dowty Retarder
- Hayes Derail
- Double Switch Point Derail

PROPERTY

- Section Line
- Center Section Line
- Parcel or Easement Line
- Right of Way
- Former Right of Way
- Right of Way to be Acquired
- Easement to be Aquired
- Foreign Right of Way

ROAD CROSSING WARNING DEVICES

- Crossbuck Sign
- Flashing Light Warning Device
- Flashing Light Warning Device with Gate
- Cantilever Flashing Light Warning Device
- Cantilever Flashing Light Signal with Gate

SIGNAL

- Absolute Signal
- Signal Bridge
- Cantilever Signal
- ACS or CTC Signal
- Dwarf Signal
- Begin CTC
- Microwave Tower
- AEI
- Battery Box
- Dragging Equipment Detector
- Generator
- Hot Box Detector

STRUCTURES

- Culvert
- Culvert with Headwalls
- Double Culvert
- Railroad Bridge
- Highway Overpass
- Highway Underpass
- Tunnel
- Building
- Flag Pole

OTHER

- Embankment
- Flow Line
- Milepost
- Milemarker
- Control Point
- Revision Number
- Revision Cloud

SIGNS

- Stop
- Yard Limit
- 1 Mile to Yard Limit
- Whistle Post
- Flanger
- Station
- Reduce Speed
- Resume Speed
- General Purpose

FENCES

- Barbed Wire
- Chain Link
- Snow / Sand
- Cattle Guard

ROADS

- Paved Road
- Unimproved Road
- Interstate Highway
- Federal Highway
- State Highway
- County Highway

PERMITTING

- Temporary Workspace - Permitted
- Sensitive Resources - Impacted / Permitted
- Sensitive Resources - Do Not Impact

CONSTRUCTION

- Note (Work by Contractor)
- Note (Work by Others)
- Cut Lines
- Fill Lines
- Grading Limits

LIGHTING

- Light Pole
- Light Tower

2

SURVEY CONTROL POINTS

POINT ID	NORTHING	EASTING	ELEVATION

2

MILWAUKEE RIVER

CITY OF GLENDALE

N

BEGIN PROJECT 1229-04-73
STA 1077+86.69
Y = 332658.16
X = 604942.041

BEGIN PROJECT 1229-04-72
STA = 115UPRR+94.00
Y = 333496.802
X = 604775.883

NOISE WALL
N-40-102

S-40-3035

R-40-639

R/L IH 43

R-40-640

EXIST B-40-917
(TO REMAIN)

R-40-642
R-40-643

R-40-641

R-40-645
RAMP B
S-40-3038

S-40-3039

EXIST B-40-734
(MODIFIED)

S-40-3045

S-40-3044

S-40-3043

RAMP C

W GREEN TREE RD

W GOOD HOPE RD

EXIST B-40-735
(TO REMAIN)

EXIST R-40-414
(MODIFIED)

S-40-3040

RAMP D

S-40-3047

S-40-3046

NOISE WALL
N-40-100

R-40-646
R-40-647

RAMP A

EXIST R-40-415
(MODIFIED)

S-40-3041

MATCHLINE STA 1185+00

EXIST B-40-578
(TO REMAIN)

W BENDER RD

UP RR

W FAIRFIELD CT

W BRENTWOOD LN

W ACACIA RD

W APPLE TREE RD

W DAPHNE RD

N JEAN NICOLET RD

1070

1080

1090

1100

1110

1120

1130

1140

1150

1160

1170

1180

N PORT WASHINGTON RD

S-40-3033
EXIST B-40-577
(TO REMAIN)

W DEVON ST

R-40-636

S-40-3034

R-40-637

W BRENTWOOD LN

R-40-649

B-40-921

S-40-3036

BEGIN PROJECT 1229-04-71
STA 100PN+20.07
Y = 332726.955
X = 605072.378

END PROJECT 1229-04-71
STA 136PN+70.90
Y = 336364.595
X = 605010.260

END PROJECT 1229-04-72
STA 158UPRR+23.00
Y = 335340.416
X = 606849.926

VILLAGE OF FOX POINT

PROJECT NO: 1229-04-71, -72, -73	HWY: IH 43	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E

FILE NAME : C:\CADDLIB\PW\DBAUMANN\PWGREAT_LAKES\D0256213\020201_PO.DWG PLOT DATE : 10/1/2021 9:23 AM PLOT BY : DAN BAUMANN PLOT NAME : PLOT SCALE : 1 IN:800 FT

2

N

VILLAGE OF RIVER HILLS

END PROJECT 1229-04-73
STA 1282+46.34
Y = 352801.17
X = 602840.92

W COUNTY LINE RD

W BROWN DEER RD / STH 100

S-40-3051
S-40-3052
RAMP C
PROPOSED STORMWATER POND
EXIST B-40-733 (MODIFIED)
S-40-3056
EXIST R-40-412 (MODIFIED)
RAMP D
S-40-3055
S-40-3057

N PORT WASHINGTON RD

1310
1300
1290
1280
1270
1260
1250
1240

FISH CREEK

PROJECT ID
1229-04-74
BY OTHERS

INDIAN CREEK

W HEATHER LN

W DEAN RD

S-40-3050
R-40-648

B-40-1026
B-40-1027
B-40-1028

N PHEASANT LN

1190
1200
1210
1220
1230
1240
1250

NOISE WALL N-40-103

RAMP A

EXIST R-40-413 (MODIFIED)

S-40-3053

S-40-3054

RAMP B

S-40-3049

EXIST B-40-732 (MODIFIED)

NOISE WALL N-40-99

S-40-461

S-40-3048

NOISE WALL N-40-100

MATCHLINE STA 1185+00

MILWAUKEE COUNTY
OZAUKEE COUNTY

VILLAGE OF FOX POINT

VILLAGE OF BAYSIDE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E

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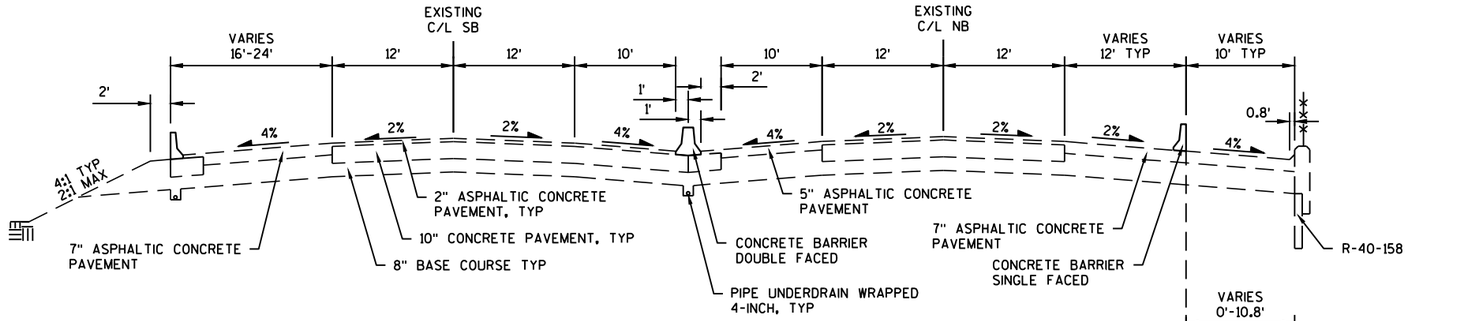
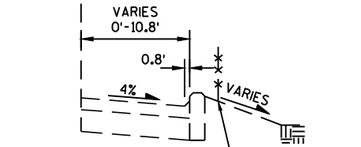
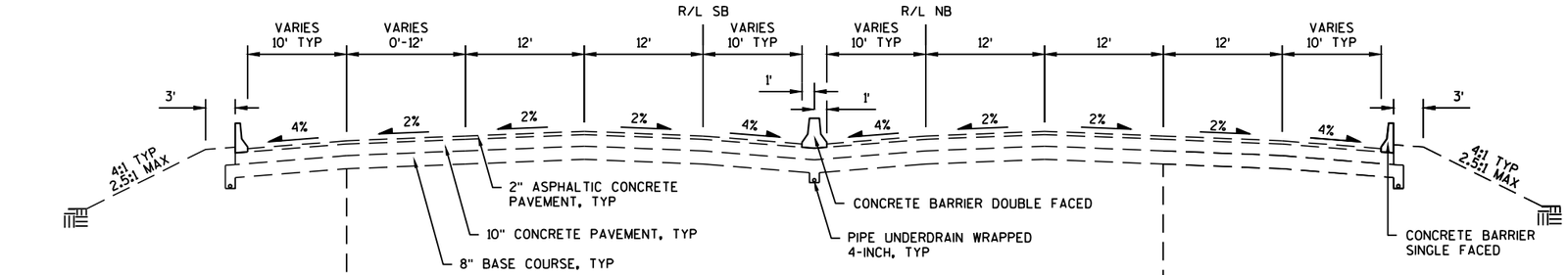


TYPICAL EXISTING SECTION
IH 43

STA 1079+10 TO STA 1086+62



STA 1085+04 TO STA 1086+62



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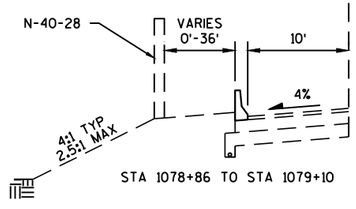
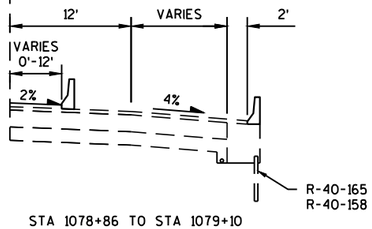
IH 43

STA 1078+86 TO STA 1079+10

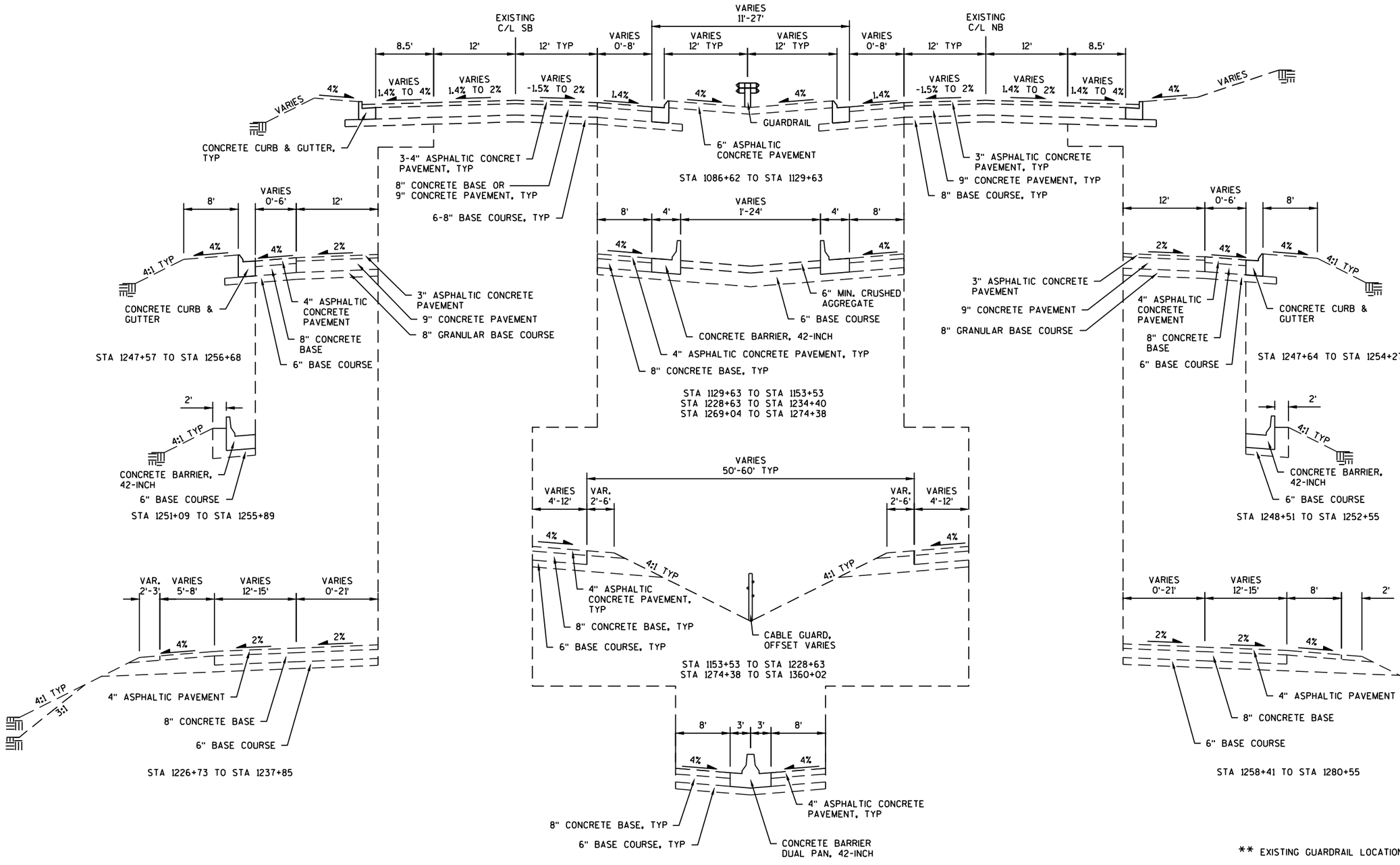


STA 1078+86 TO STA 1079+10



STA 1078+86 TO STA 1079+10

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E



TYPICAL EXISTING SECTION
IH 43

STA 1086+62 TO STA 1282+46

** EXISTING GUARDRAIL LOCATIONS

SB				NB			
STA 1086+62	-	STA 1128+01	LT	STA 1088+43	-	STA 1111+55	RT
STA 1132+60	-	STA 1135+78	LT	STA 1142+92	-	STA 1144+12	RT
STA 1146+46	-	STA 1147+94	LT	STA 1213+68	-	STA 1216+65	RT
STA 1154+88	-	STA 1155+58	RT	STA 1227+52	-	STA 1228+22	LT
STA 1263+16	-	STA 1265+07	LT	STA 1260+74	-	STA 1261+77	RT
STA 1274+36	-	STA 1275+07	RT	STA 1279+52	-	STA 1280+53	RT

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E

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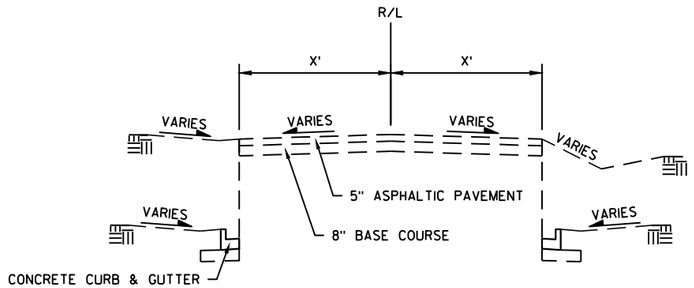
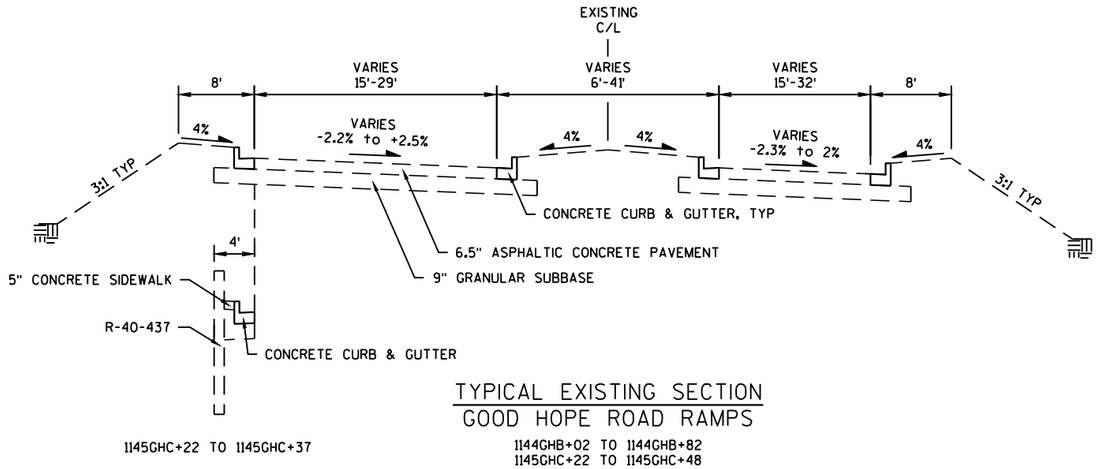


TYPICAL EXISTING SECTION
SIDE ROADS (SEE TABLE)

ROAD NAME	X'
W FAIRFIELD COURT	15
W BRENTWOOD LANE (WEST)	14
W BRENTWOOD LANE (EAST)	12
W CLOVERNOOK LANE (EAST)	12
W ACACIA ROAD (WEST)	12
W APPLE TREE ROAD (WEST)	13
W APPLE TREE ROAD (EAST)	11
W DAPHNE ROAD (WEST)	15
W DAPHNE ROAD (EAST)	11

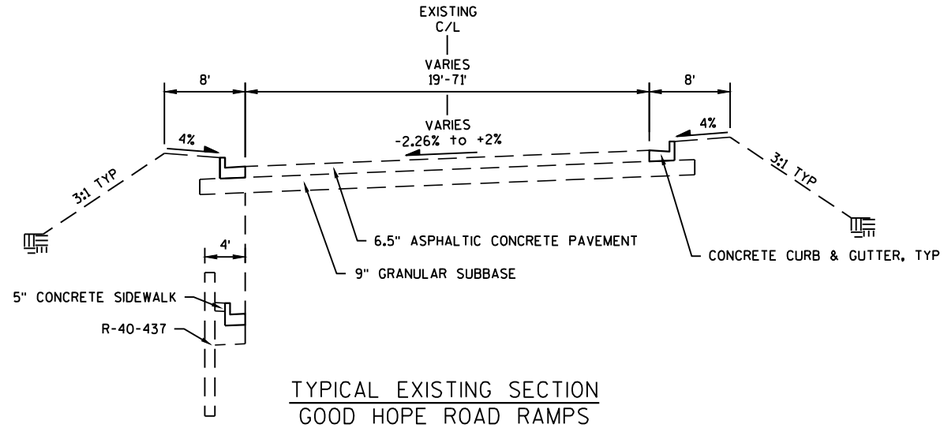
2



TYPICAL EXISTING SECTION
GOOD HOPE ROAD RAMPS

1145GHC+22 TO 1145GHC+37

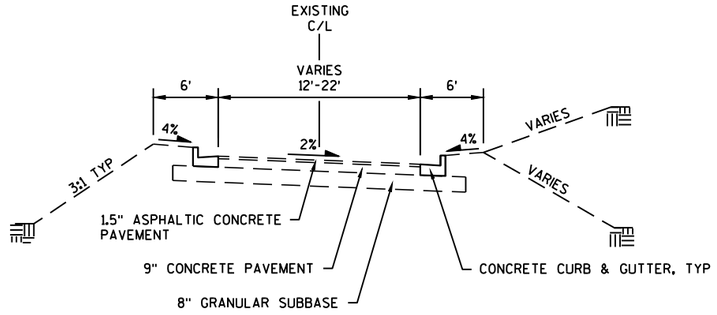
1144GHB+02 TO 1144GHB+82
1145GHC+22 TO 1145GHC+48
1145GHD+79 TO 1146GHD+83



TYPICAL EXISTING SECTION
GOOD HOPE ROAD RAMPS

1144GHC+79 TO 1145GHC+22

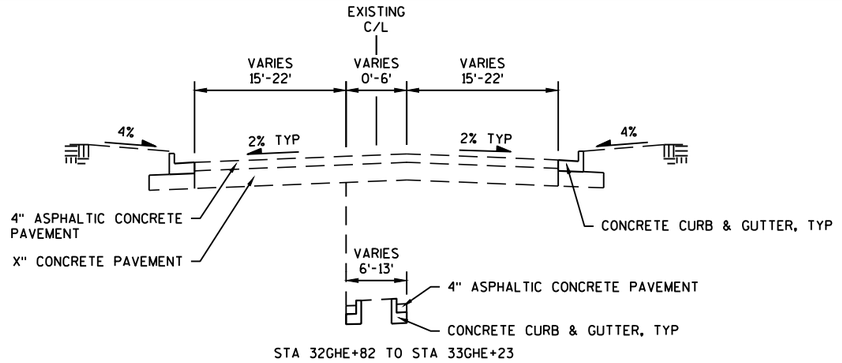
1145GHA+97 TO 1148GHA+15
1141GHB+97 TO 1144GHB+02
1141GHC+76 TO 1145GHC+22
1146GHD+83 TO 1147GHD+76



TYPICAL EXISTING SECTION
GOOD HOPE ROAD RAMPS

1148GHA+15 TO 1153GHA+01
1137GHB+59 TO 1141GHB+97
1139GHC+10 TO 1141GHC+76
1147GHD+76 TO 1152GHD+83

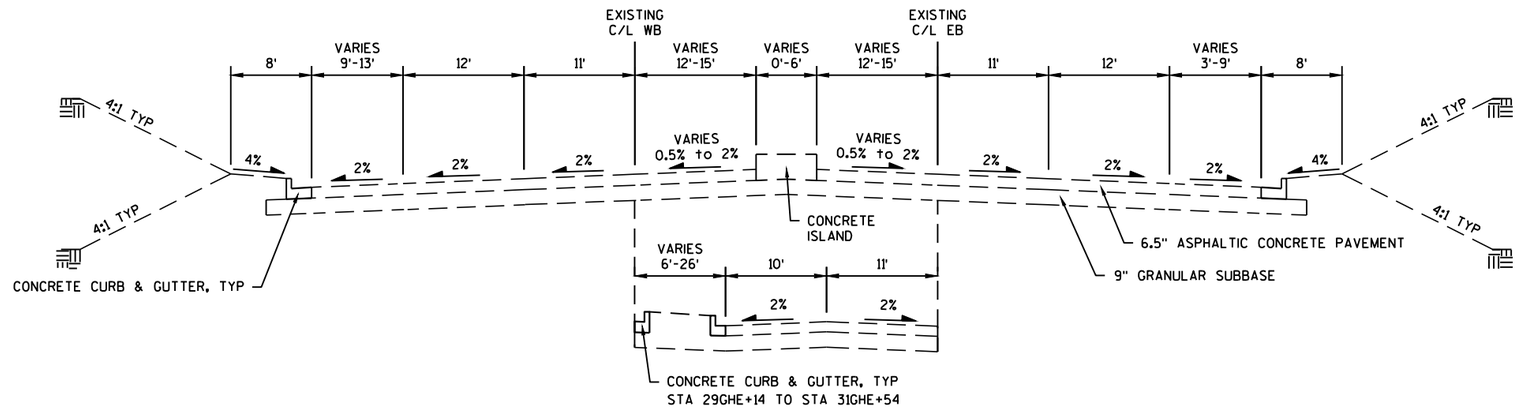
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E



STA 32GHE+82 TO STA 33GHE+23

TYPICAL EXISTING SECTION
GOOD HOPE ROAD

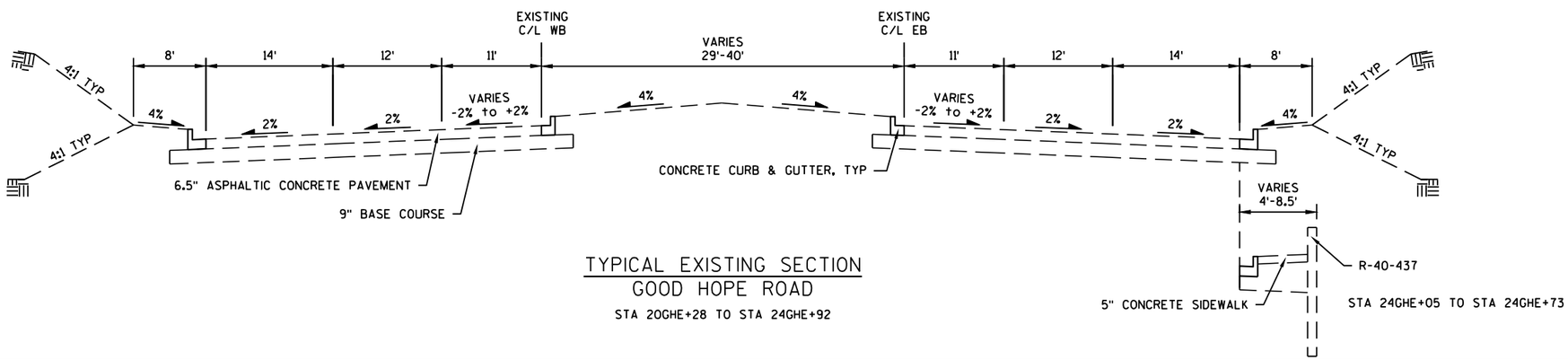
STA 32GHE+82 TO STA 35GHE+33



STA 29GHE+14 TO STA 31GHE+54

TYPICAL EXISTING SECTION
GOOD HOPE ROAD

STA 24GHE+92 TO STA 26GHE+31
STA 27GHE+74 TO STA 31GHE+54



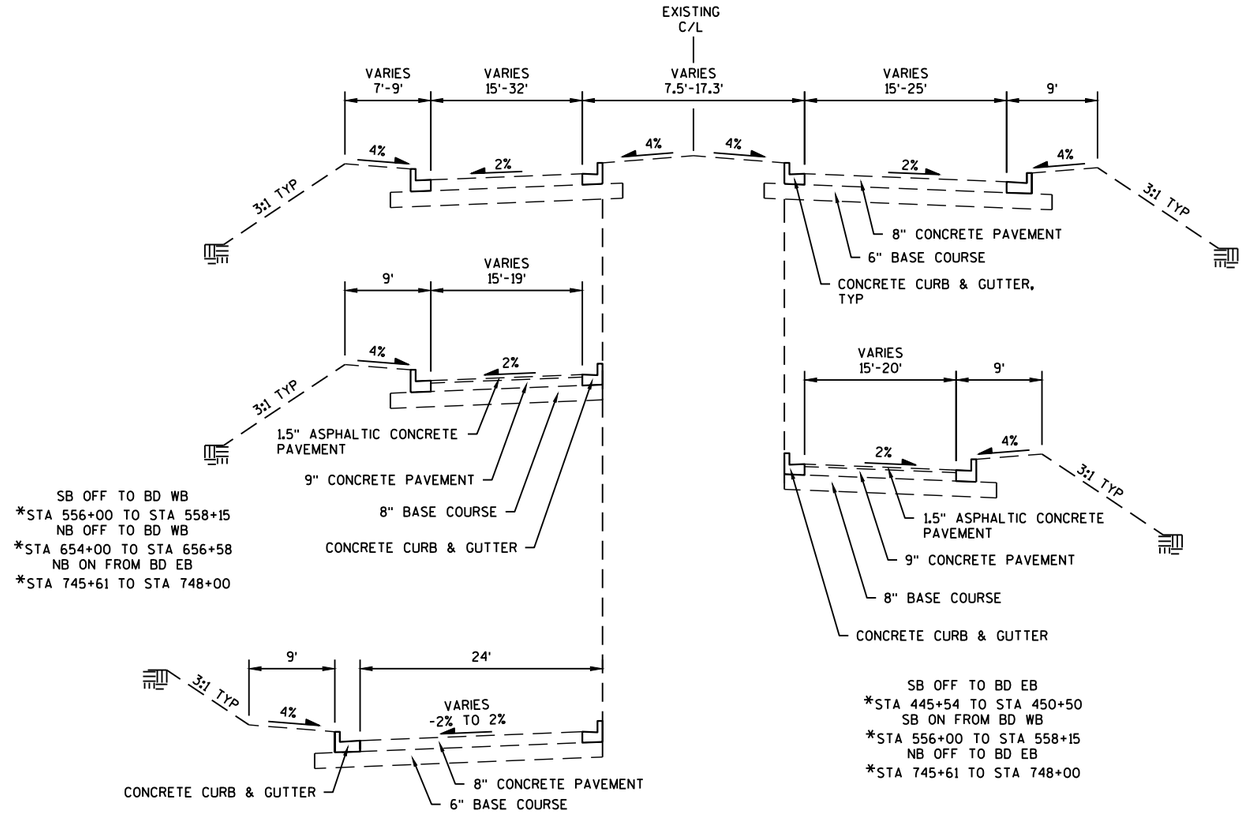
STA 24GHE+05 TO STA 24GHE+73

TYPICAL EXISTING SECTION
GOOD HOPE ROAD

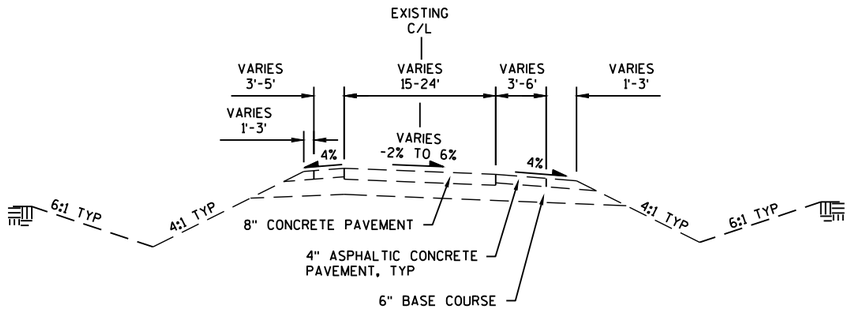
STA 20GHE+28 TO STA 24GHE+92

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E

2



SB ON RAMP FROM BD EB
*STA 446+67 TO STA 450+50

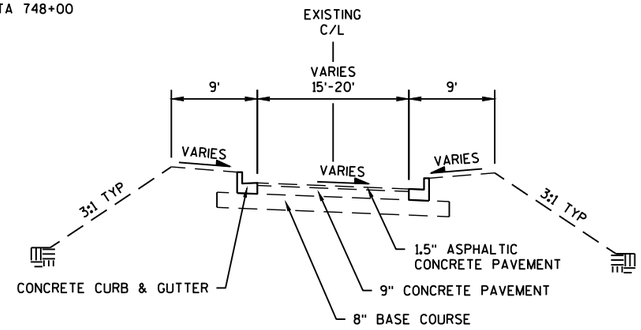


TYPICAL EXISTING SECTION
BROWN DEER ROAD RAMPS*

SB ON RAMP FROM BD EB
STA 440+85 TO STA 446+67
NB ON RAMP FROM BD WB
STA 656+58 TO STA 658+50

TYPICAL EXISTING SECTION
BROWN DEER ROAD RAMPS*

SB ON RAMP FROM BD EB
STA 446+67 TO STA 453+72
SB OFF RAMP TO BD EB
STA 446+67 TO STA 453+72
SB ON RAMP FROM BD WB
STA 552+37 TO 558+15
SB OFF RAMP TO BD WB
STA 552+37 TO 558+15
NB ON RAMP FROM BD WB
STA 649+57 TO STA 656+58
NB OFF RAMP TO BD WB
STA 649+57 TO STA 656+58
NB ON RAMP FROM BD EB
STA 745+61 TO STA 750+22
NB OFF RAMP TO BD EB
STA 745+61 TO STA 750+05

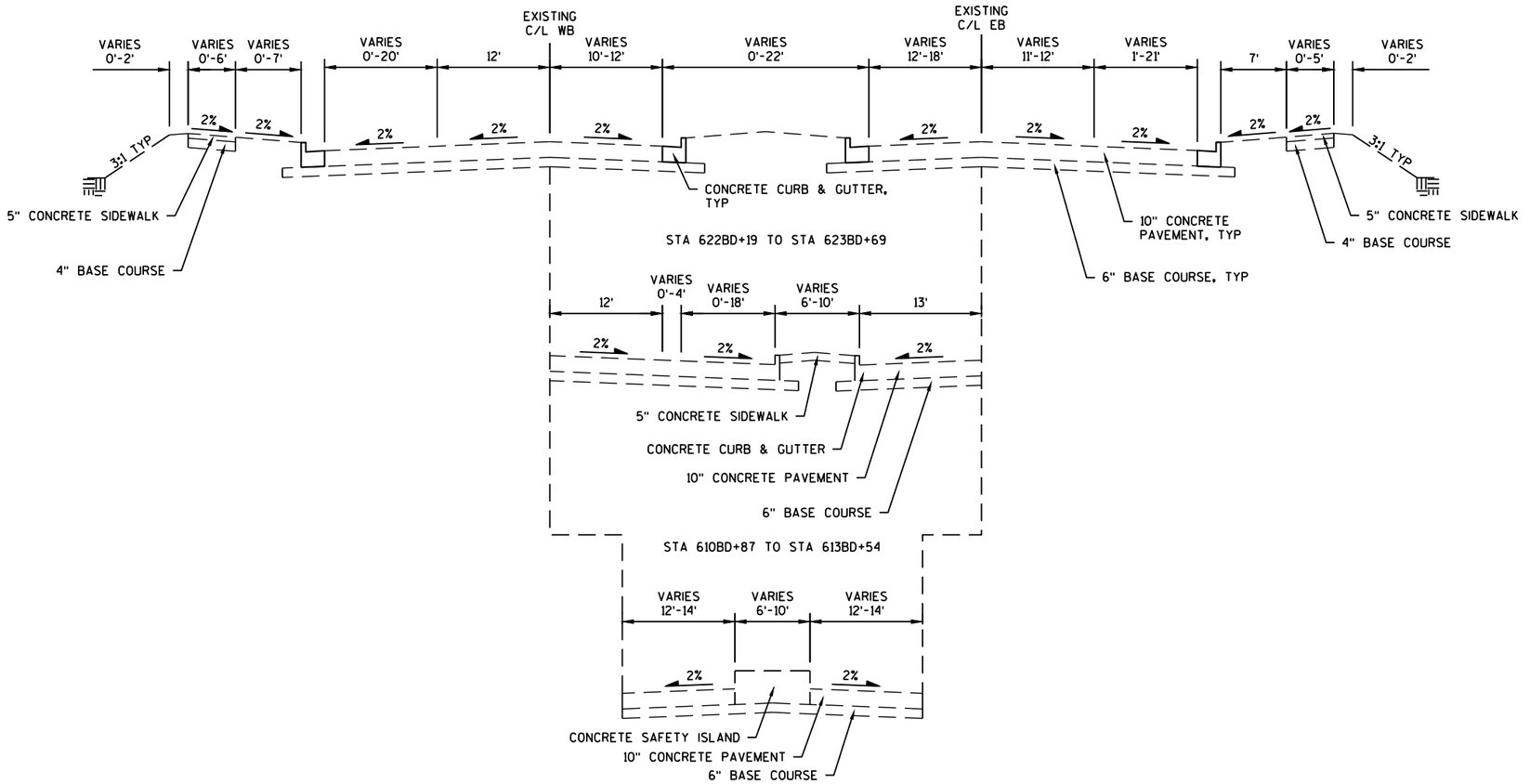


TYPICAL EXISTING SECTION
BROWN DEER ROAD RAMPS*

SB OFF RAMP TO BD EB
STA 443+00 TO STA 446+67
SB OFF RAMP TO BD WB
STA 558+15 TO STA 561+60
SB ON RAMP FROM BD WB
STA 558+15 TO STA 560+25
NB OFF RAMP TO BD WB
STA 656+58 TO STA 658+10
NB OFF RAMP TO BD EB
STA 741+25 TO STA 745+61
NB ON RAMP FROM BD EB
STA 743+75 TO STA 745+61

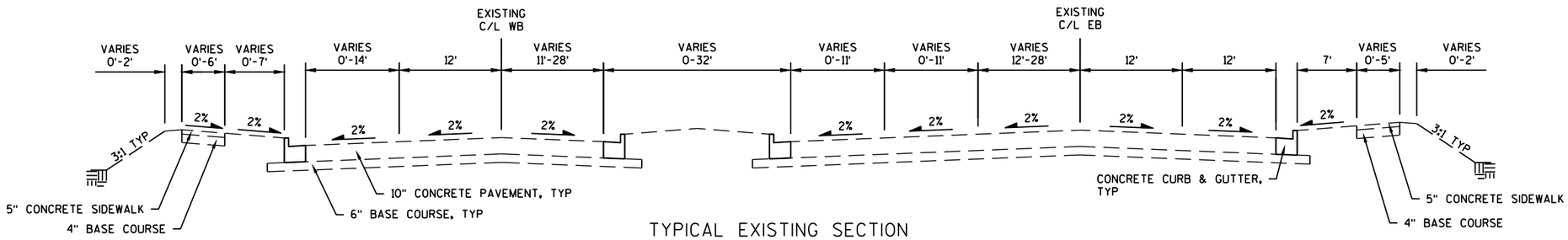
*STATION RANGES ARE GIVEN FOR INFORMATION ONLY AND ARE BASED ON EXISTING RAMP ALIGNMENTS. EXISTING STATIONING NOT SHOWN IN PLANS.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E



TYPICAL EXISTING SECTION
BROWN DEER ROAD

STA 609BD+72 TO STA 616BD+71
STA 618BD+26 TO STA 623BD+69

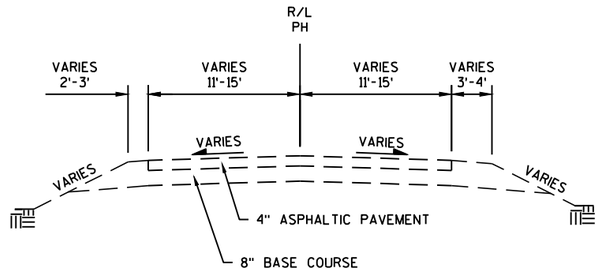


TYPICAL EXISTING SECTION
BROWN DEER ROAD

STA 605BD+76 TO STA 609BD+72
STA 623BD+69 TO STA 628BD+40

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E

2

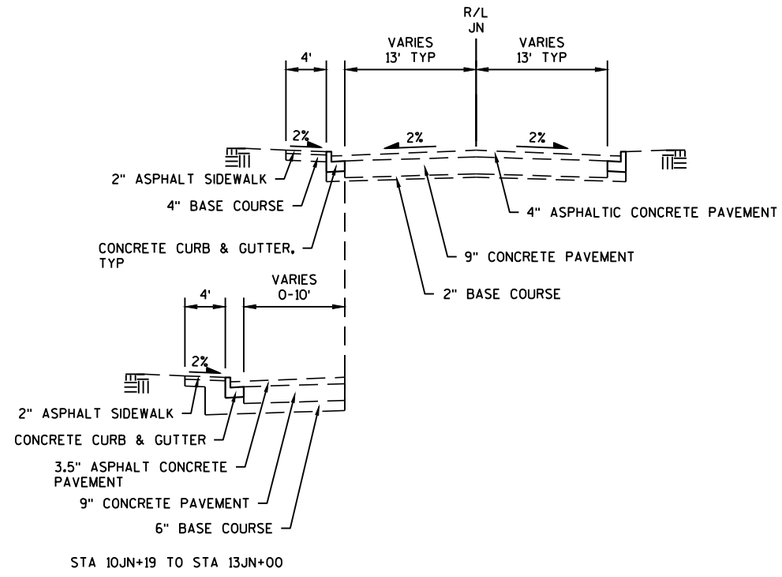


TYPICAL EXISTING SECTION
PHEASANT LANE

STA 10PHG+36 TO STA 10PHG+91
STA 11PH+50 TO STA 16PH+50
STA 101PH+50 TO STA 103PH+50

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E

2



STA 10JN+19 TO STA 13JN+00

TYPICAL EXISTING SECTION
JEAN NICOLET ROAD

STA 10JN+20 TO STA 63JN+14

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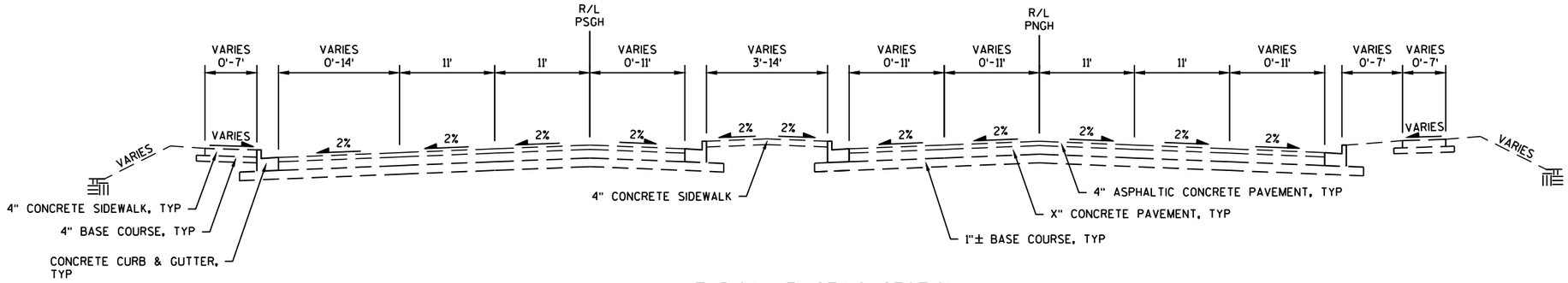
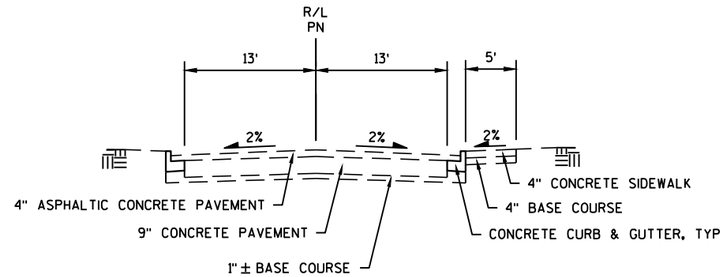


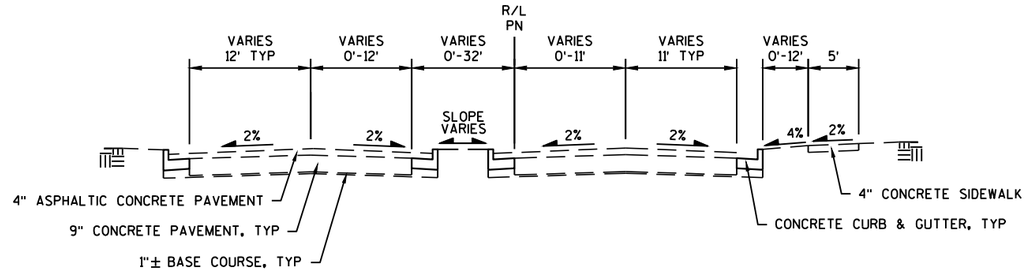
TYPICAL EXISTING SECTION
N. PORT WASHINGTON ROAD

STA 209PNGH+40 TO STA 211PNGH+77



TYPICAL EXISTING SECTION
N. PORT WASHINGTON ROAD

STA 104PN+26 TO STA 132PN+05

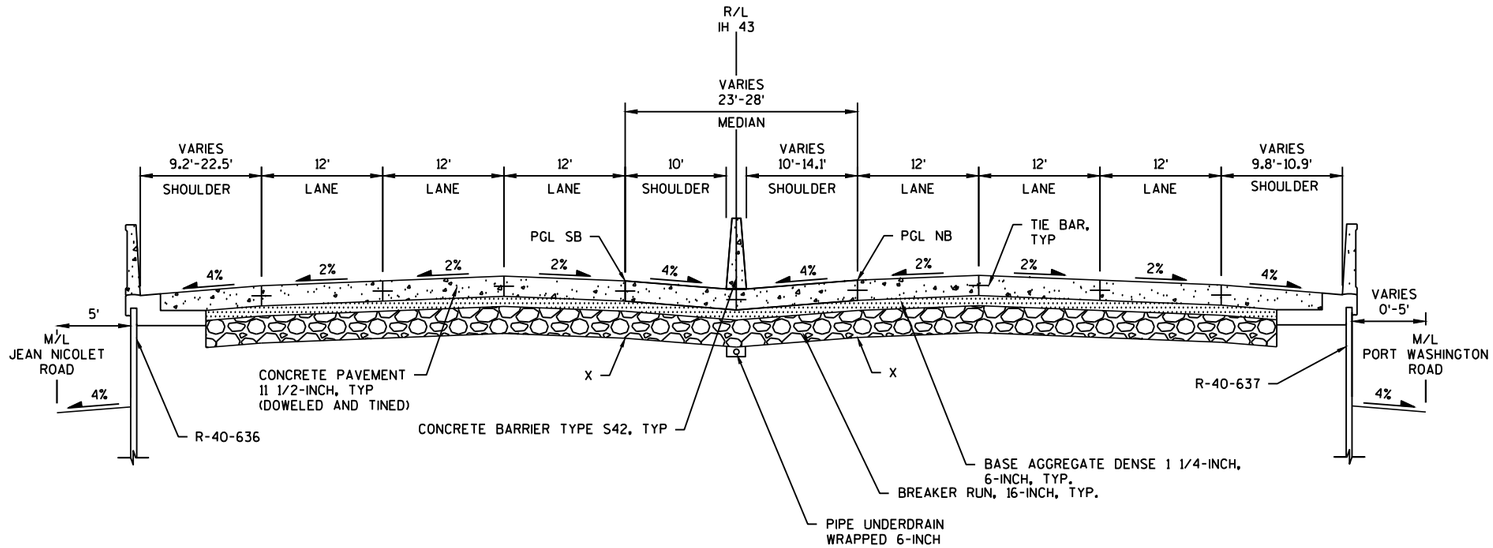


TYPICAL EXISTING SECTION
N. PORT WASHINGTON ROAD

STA 100PN+20 TO STA 104PN+26
STA 132PN+05 TO STA 136PN+70

PROJECT NO: 1229-04-71/-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTIONS	SHEET	E

2



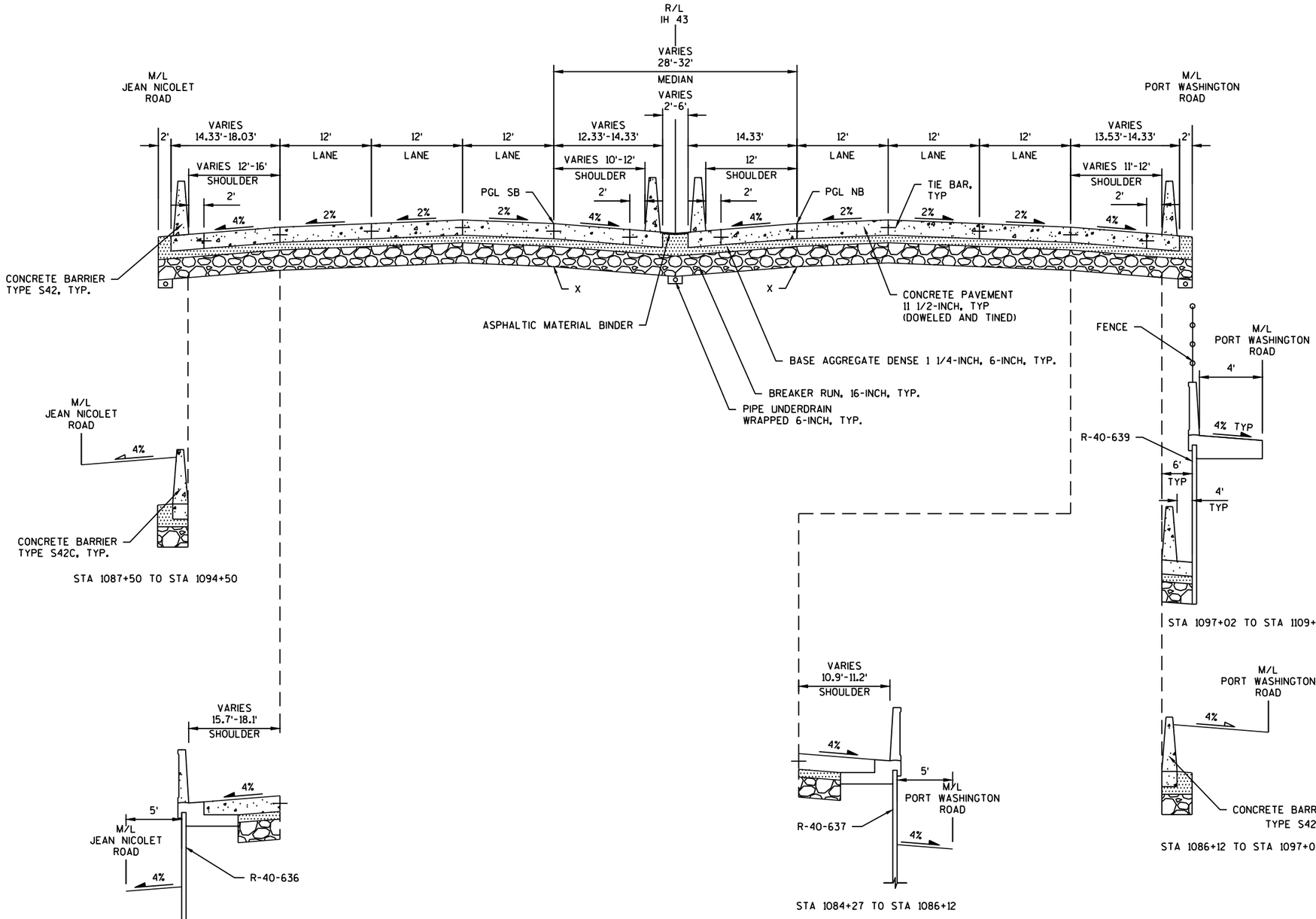
TYPICAL FINISHED SECTION
IH 43

STA 1078+88 TO STA 1084+27

NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X = POINT REFERRED TO ON CROSS-SECTION FERTILIZER TYPE B, AND EROSION MAT

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
IH 43

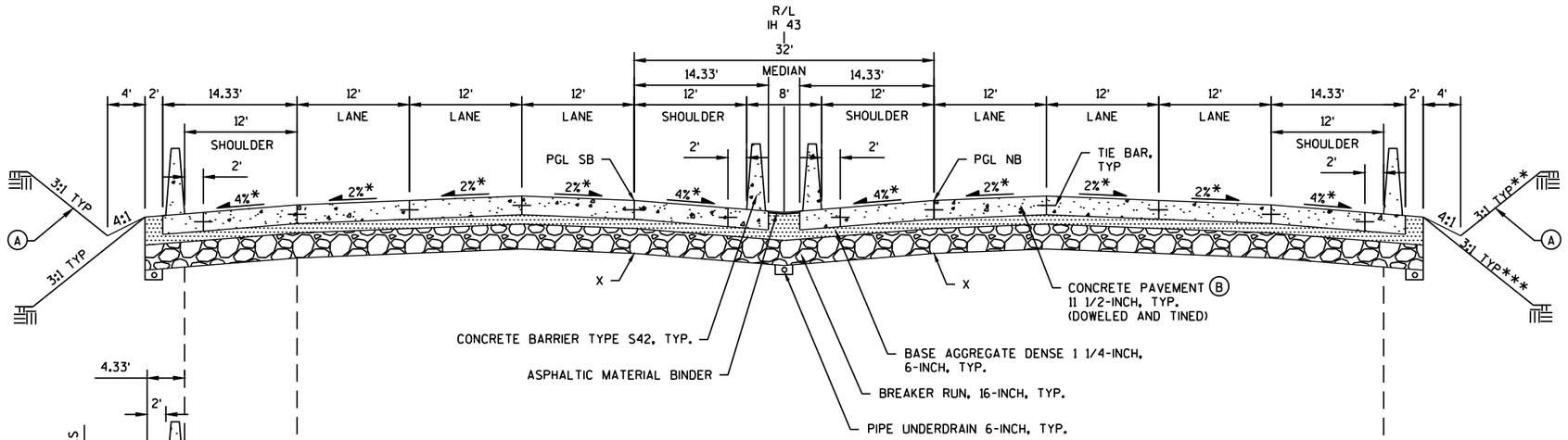
STA 1084+27 TO STA 1098+98

* CONCRETE BARRIER TYPE S56C FROM STA 1089+00 TO STA 1092+75

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

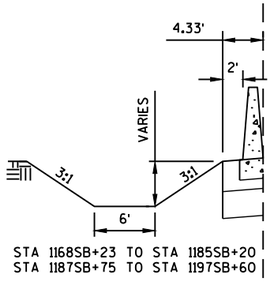
X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

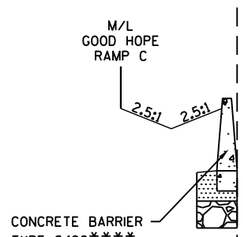


TYPICAL FINISHED SECTION
IH 43

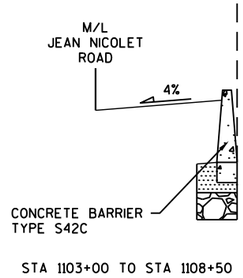
STA 1098+98 TO STA 1282+46



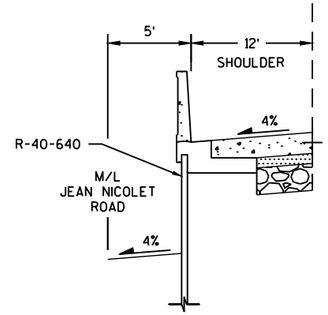
STA 1168SB+23 TO STA 1185SB+20
STA 1187SB+75 TO STA 1197SB+60



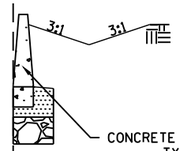
STA 1136+47 TO STA 1140+58



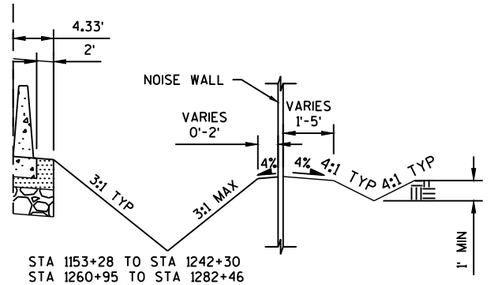
STA 1103+00 TO STA 1108+50



STA 1110+28 TO STA 1126+25



STA 1114+67 TO STA 1121+55



STA 1153+28 TO STA 1242+30
STA 1260+95 TO STA 1282+46
STA 1155+40 TO STA 1215+30
STA 1216+80 TO STA 1238+90
STA 1260+80 TO STA 1282+46

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

A TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

B CONCRETE PAVEMENT 10 1/2-INCH, TYP FROM STA 1185+00 TO 1282+46

PAVEMENT SECTION SHOWN IS ASSUMED AND SUBJECT TO CHANGE.

* SEE ALIGNMENT PLAN FOR SUPERELEVATION RATE.

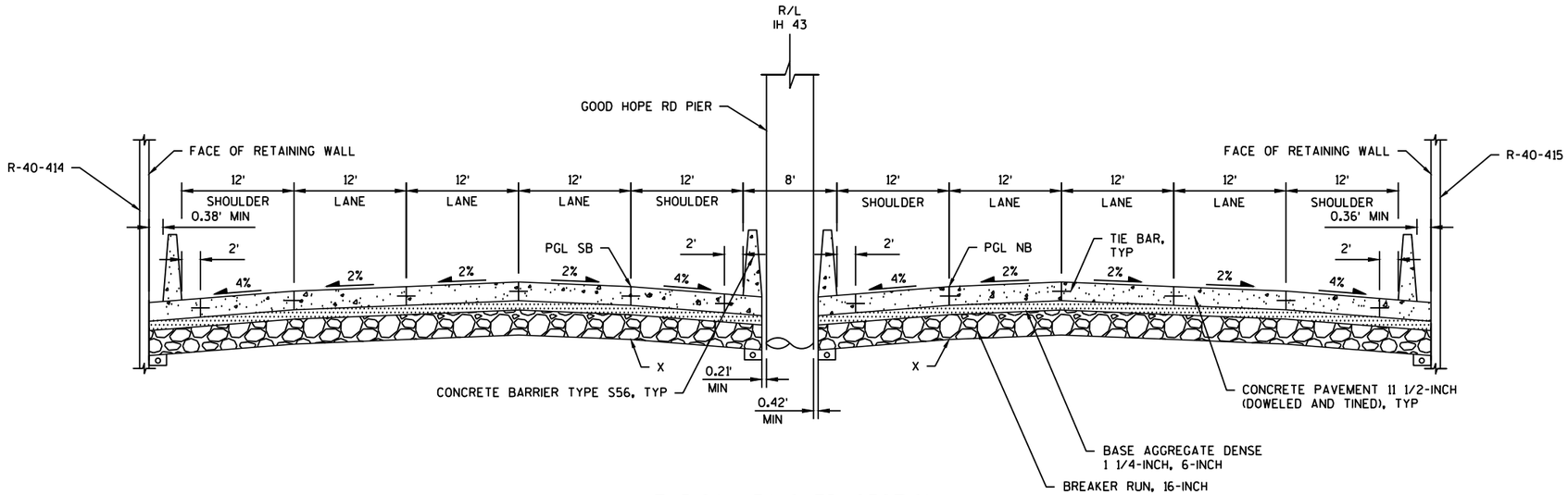
** 2.5:1 MAX. STA 1209NB+00 TO STA 1213NB+00.

*** 2.5:1 MAX. STA 1214NB+50 TO STA 1218NB+50, AND STA 1225NB+50 TO STA 1230NB+00.

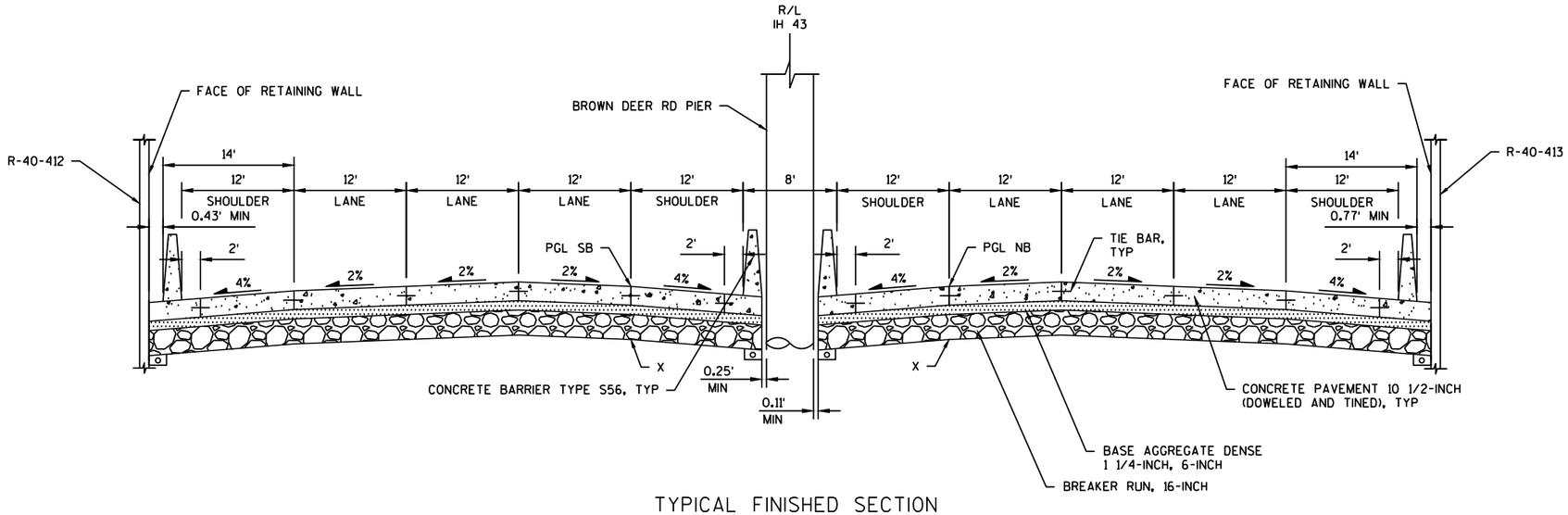
**** CONCRETE BARRIER TYPE S56C FROM STA 1138+20 TO STA 1139+50

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
IH 43 AT GOOD HOPE RD



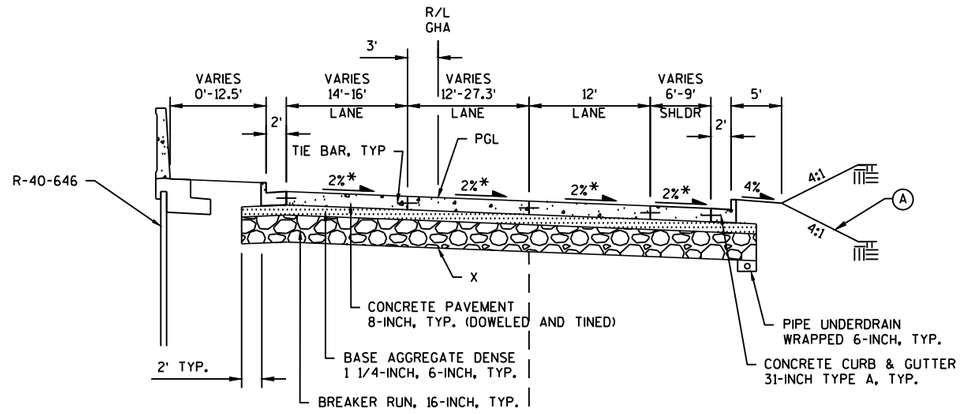
TYPICAL FINISHED SECTION
IH 43 AT BROWN DEER RD

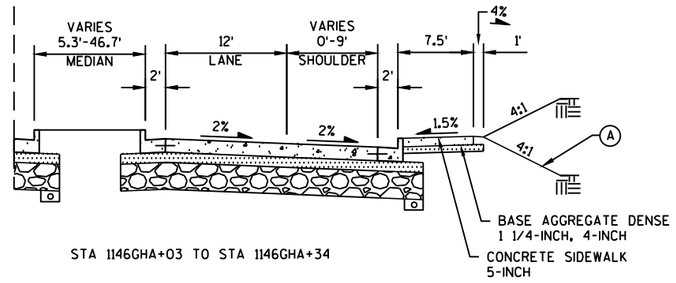
NOTES:
X= POINT REFERRED TO ON CROSS-SECTION

DIMENSIONS ARE SHOWN PERPENDICULAR TO ROADWAY. ACTUAL DIMENSIONS ALONG R/L OF UPPER ROADWAY OR RAILROAD WILL DIFFER DUE TO SKEWED CROSSING.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2





STA 1146GHA+03 TO STA 1146GHA+34

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP A

STA 1146GHA+03 TO STA 1147GHA+10

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

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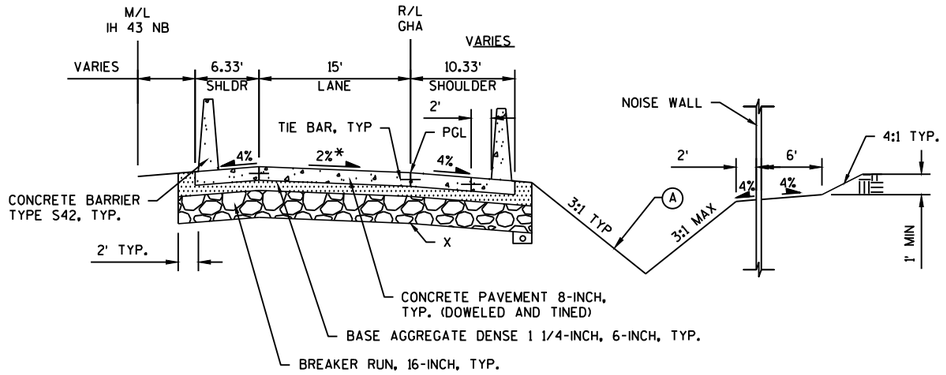
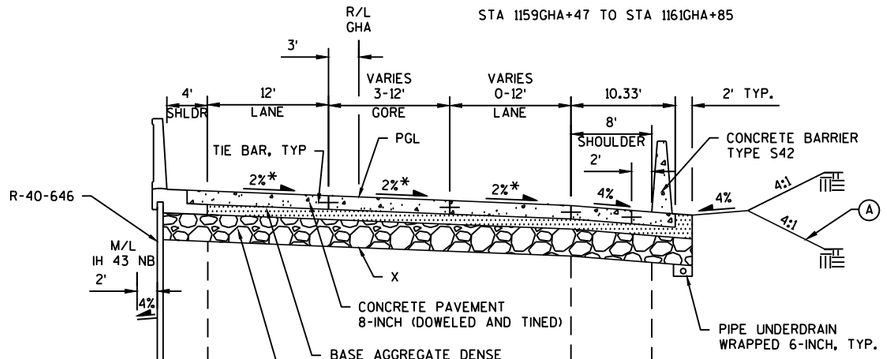
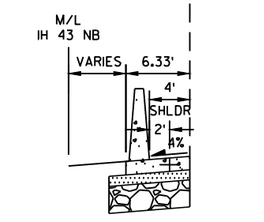


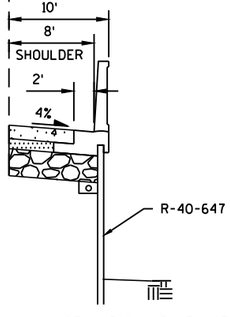
TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP A

STA 1159GHA+47 TO STA 1161GHA+85

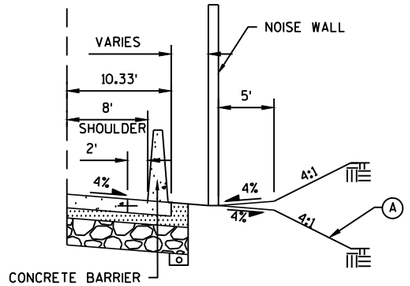




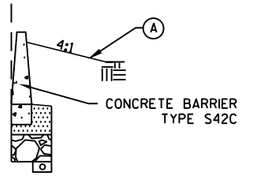
STA 1155GHA+75 TO STA 1159GHA+47



STA 1152GHA+58 TO STA 1153GHA+50



STA 1153GHA+50 TO STA 1159GHA+47



STA 1151GHA+50 TO STA 1152GHA+10

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP A

STA 1147GHA+10 TO STA 1159GHA+47

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

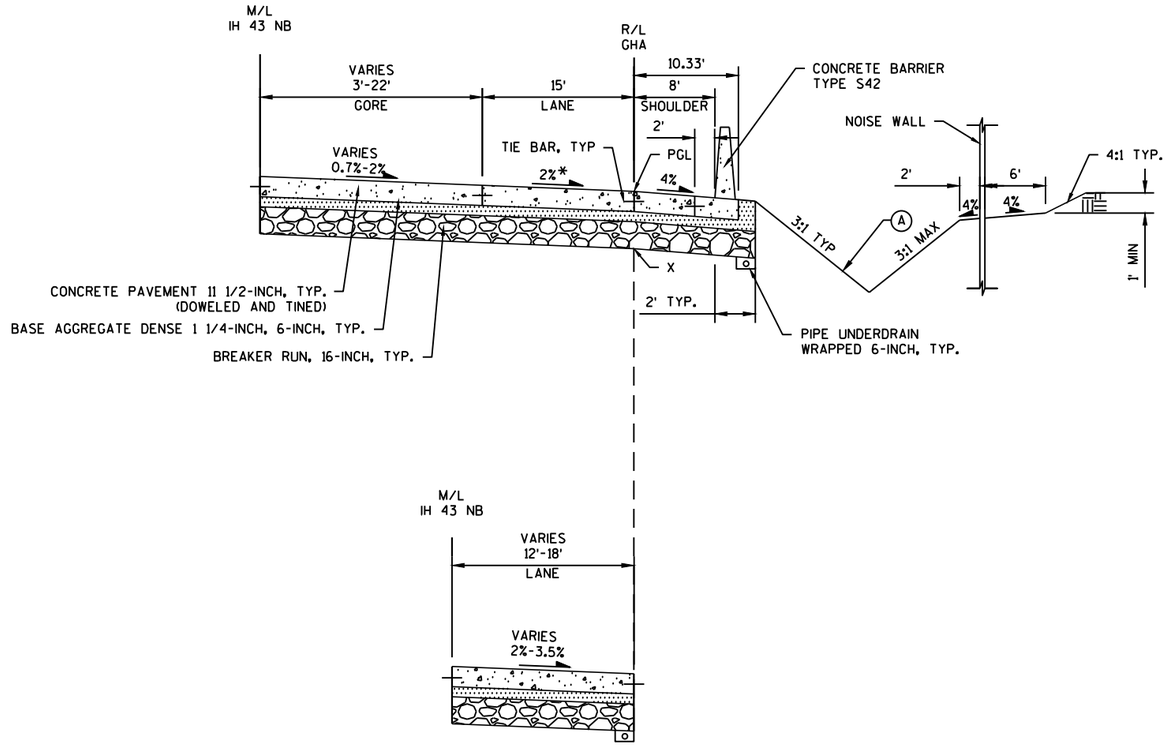
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 1166GHA+51 TO STA 1174GHA+51

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP A

STA 1161GHA+85 TO STA 1174GHA+51

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

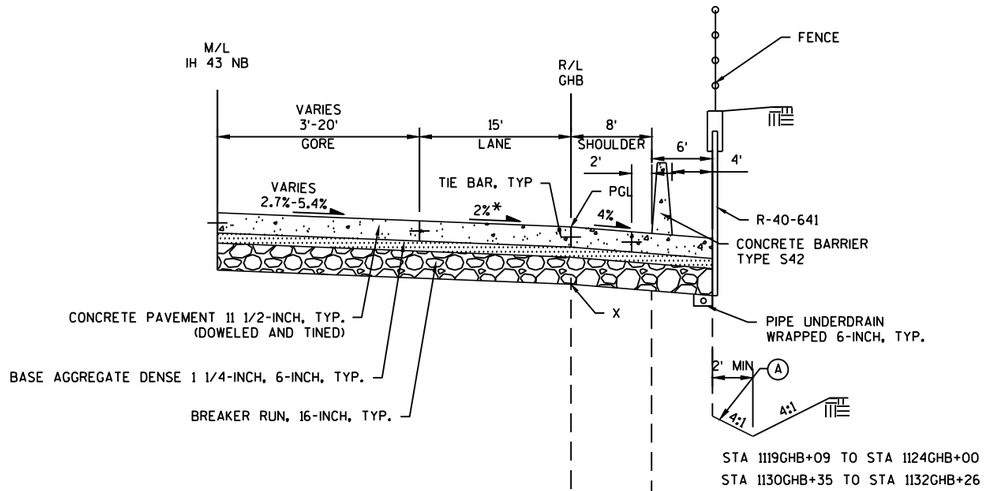
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

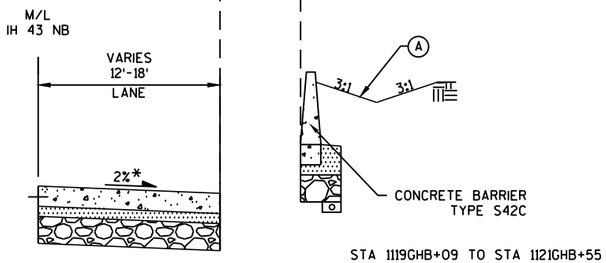
* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 1119GHB+09 TO STA 1124GHB+00
STA 1130GHB+35 TO STA 1132GHB+26



STA 1119GHB+09 TO STA 1128GHB+19

STA 1119GHB+09 TO STA 1121GHB+55

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP B

STA 1119GHB+09 TO STA 1132GHB+55

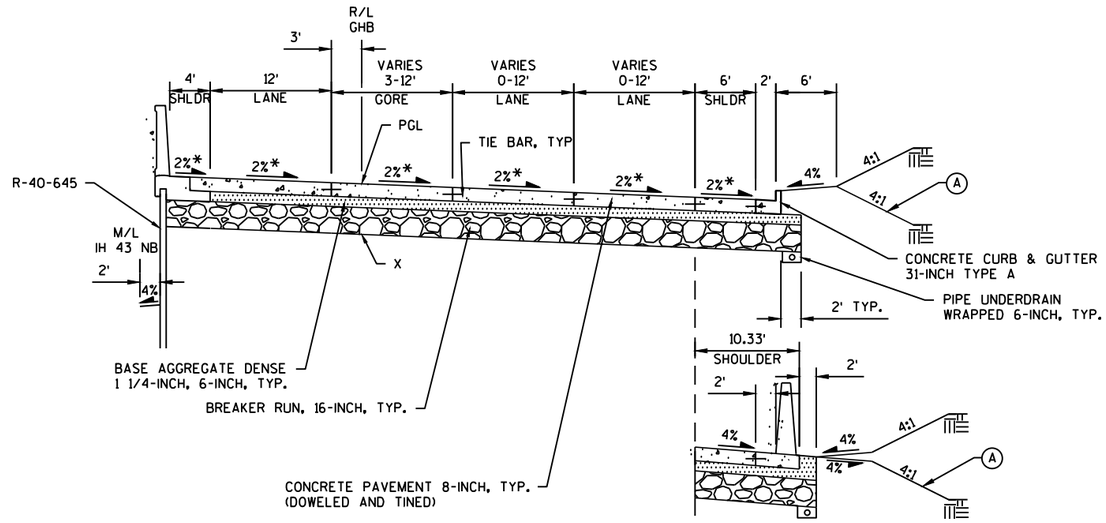
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

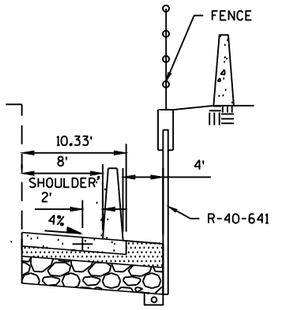
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



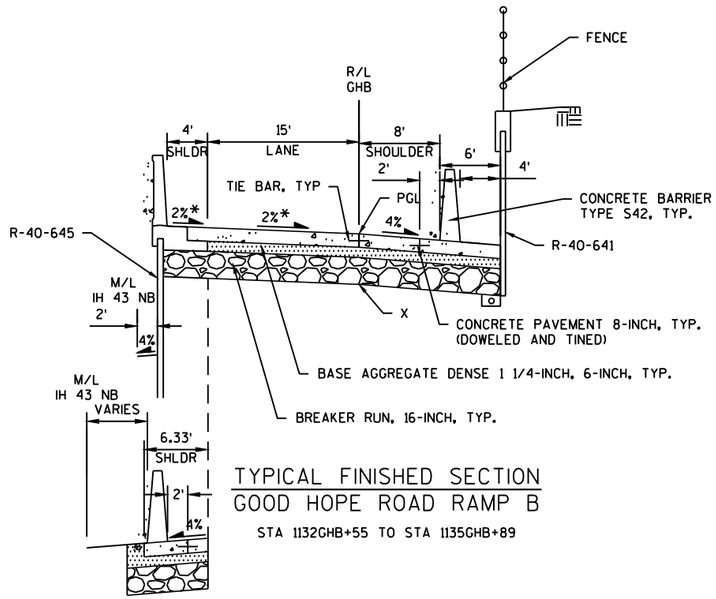
TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP B

STA 1135GHB+89 TO STA 1143GHB+69

STA 1139GHB+25 TO STA 1142GHB+59



STA 1135GHB+89 TO STA 1139GHB+25



TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP B

STA 1132GHB+55 TO STA 1135GHB+89

STA 1132GHB+55 TO STA 1134GHB+25

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

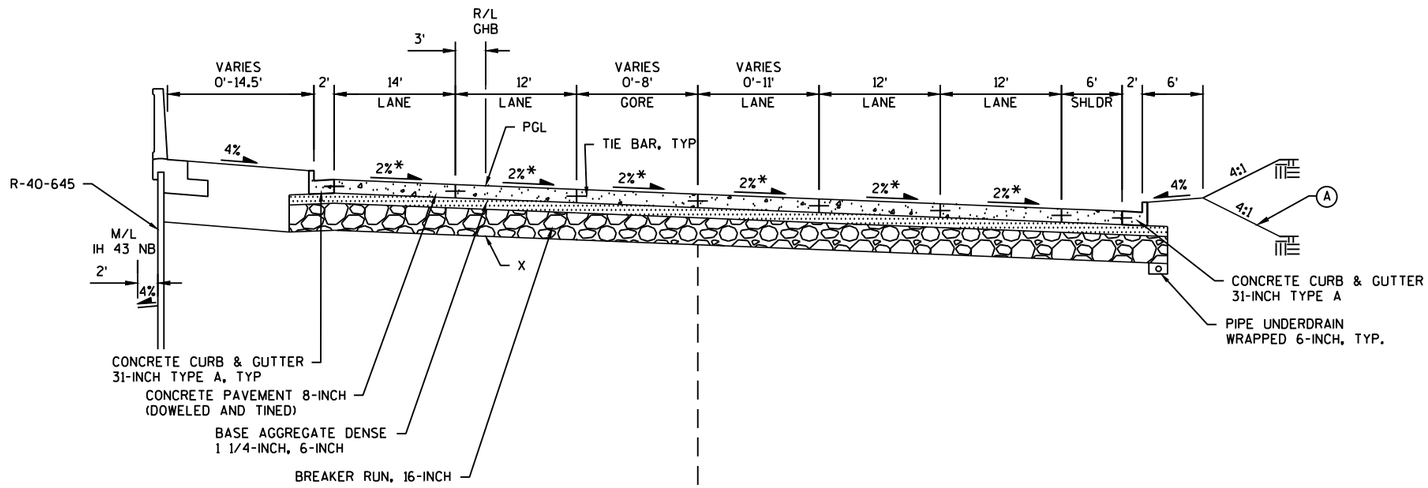
X= POINT REFERRED TO ON CROSS-SECTION

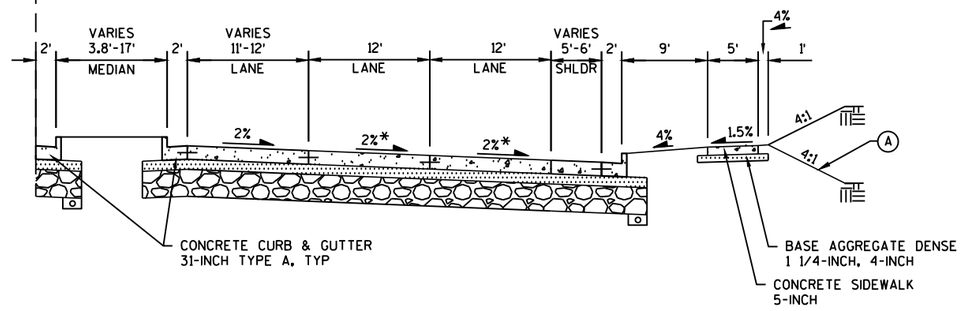
(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2





STA 1144GHB+57 TO STA 1144GHB+77

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP B

STA 1143GHB+69 TO STA 1144GHB+77

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

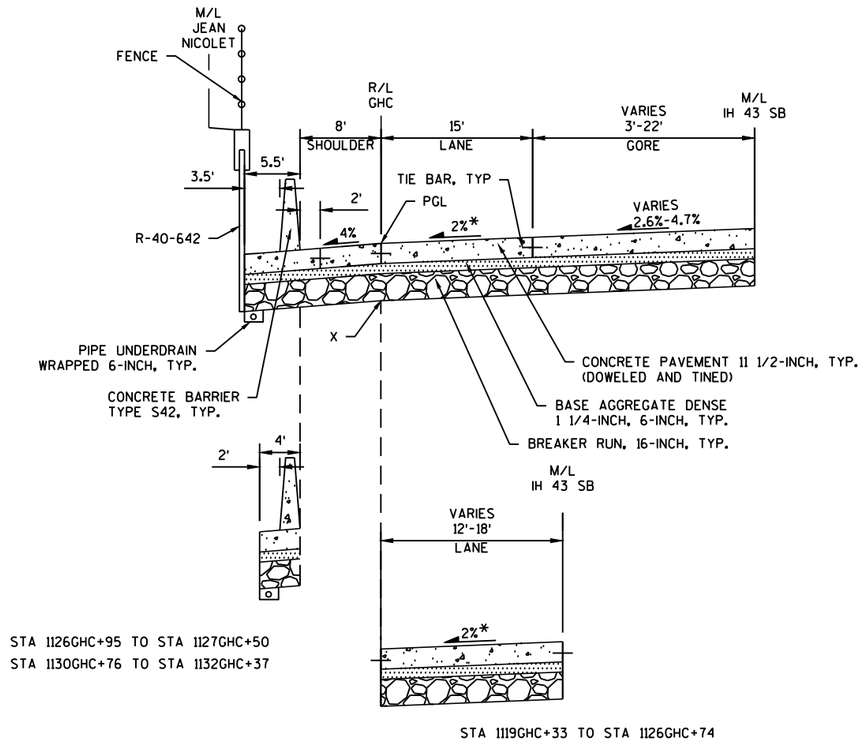
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP C

STA 1119GHC+33 TO STA 1132GHC+37

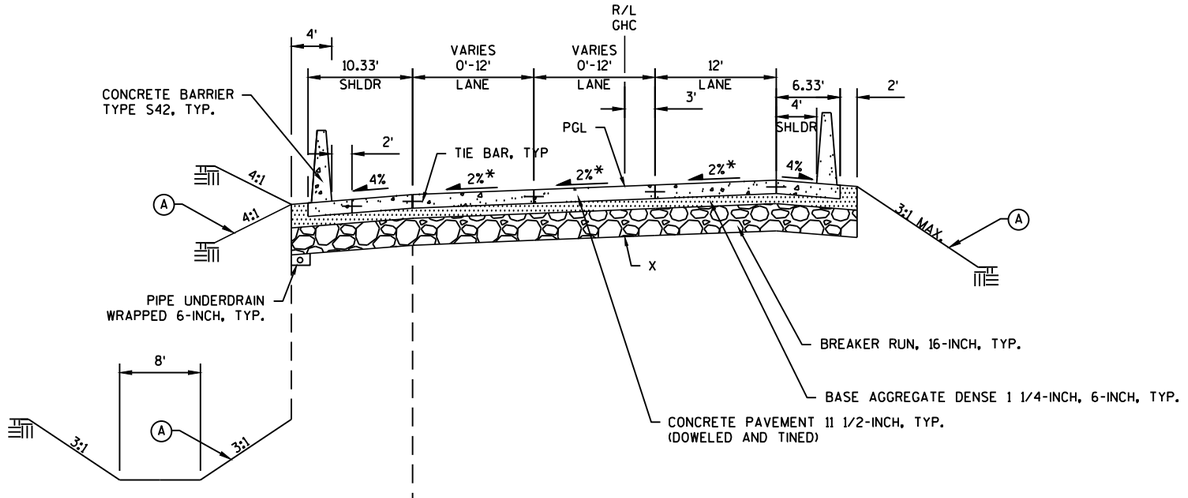
NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X = POINT REFERRED TO ON CROSS-SECTION

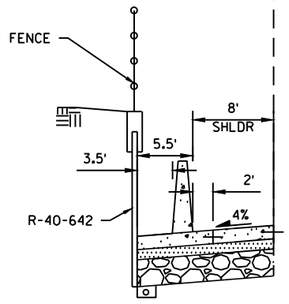
*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 1133GHC+23 TO STA 1140GHC+00



STA 1132GHC+37 TO STA 1133GHC+23

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP C

STA 1132GHC+37 TO STA 1144GHC+35

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

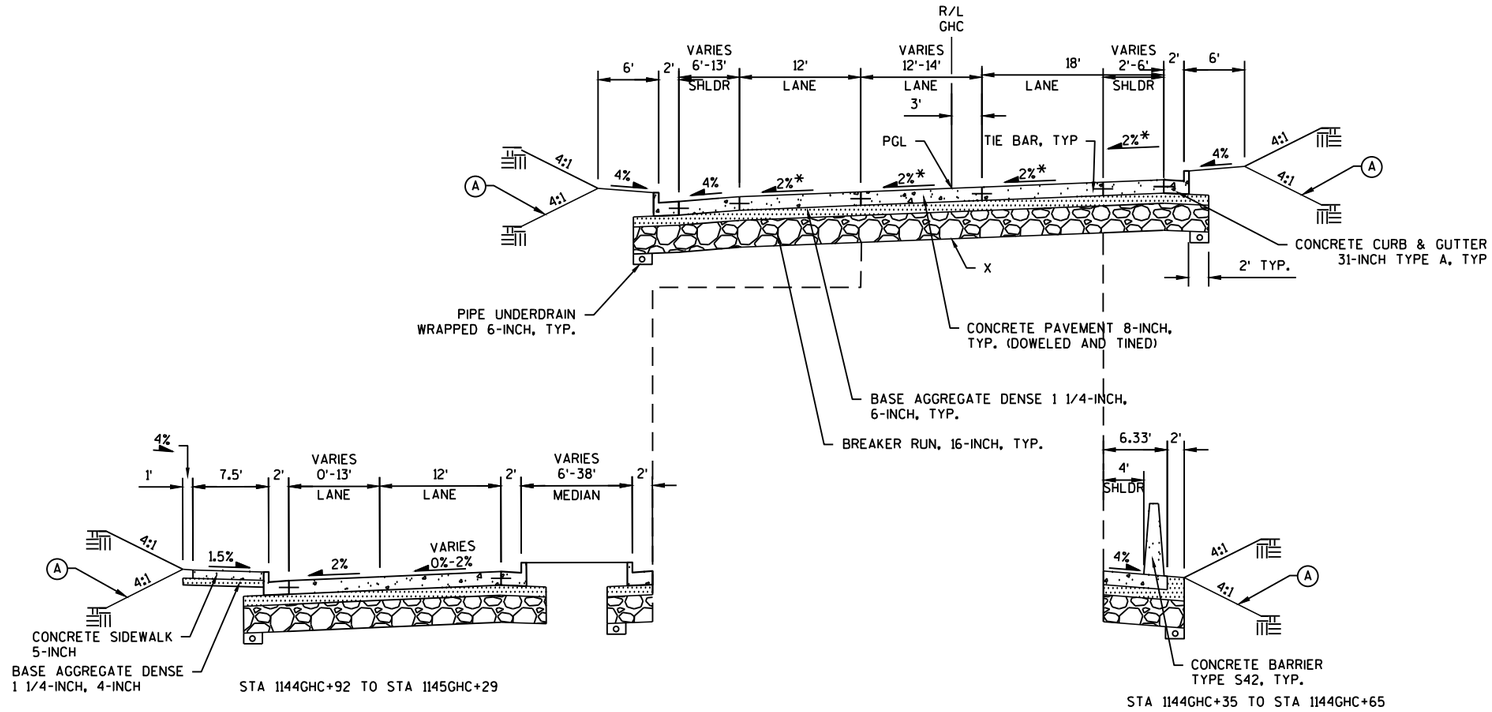
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP C

STA 1144GHC+35 TO STA 1145GHC+32

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

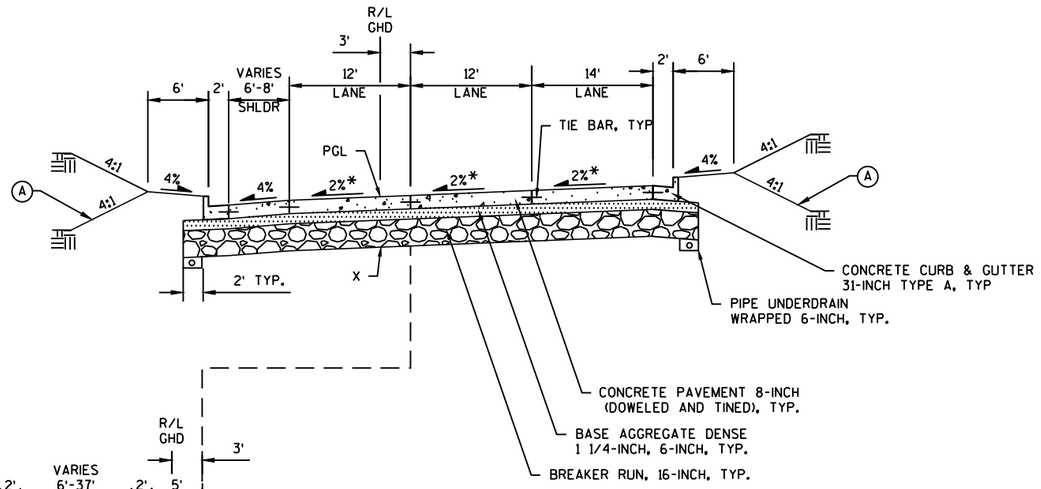
X= POINT REFERRED TO ON CROSS-SECTION

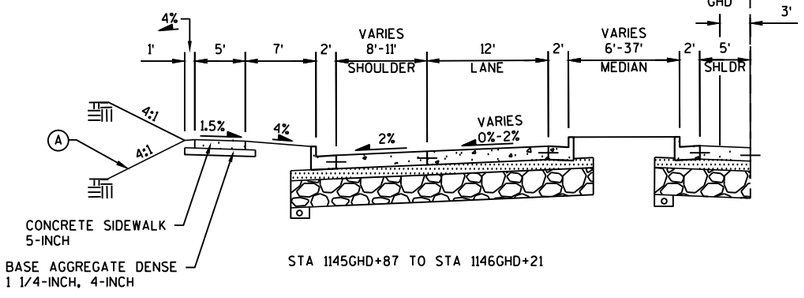
(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2





STA 1145GHD+87 TO STA 1146GHD+21

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP D

STA 1145GHD+87 TO STA 1146GHD+71

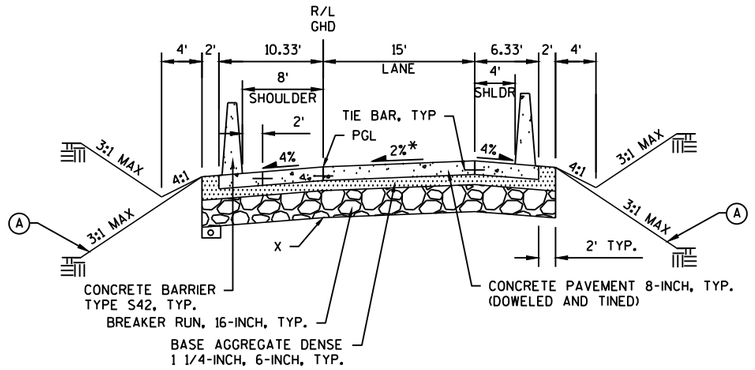
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

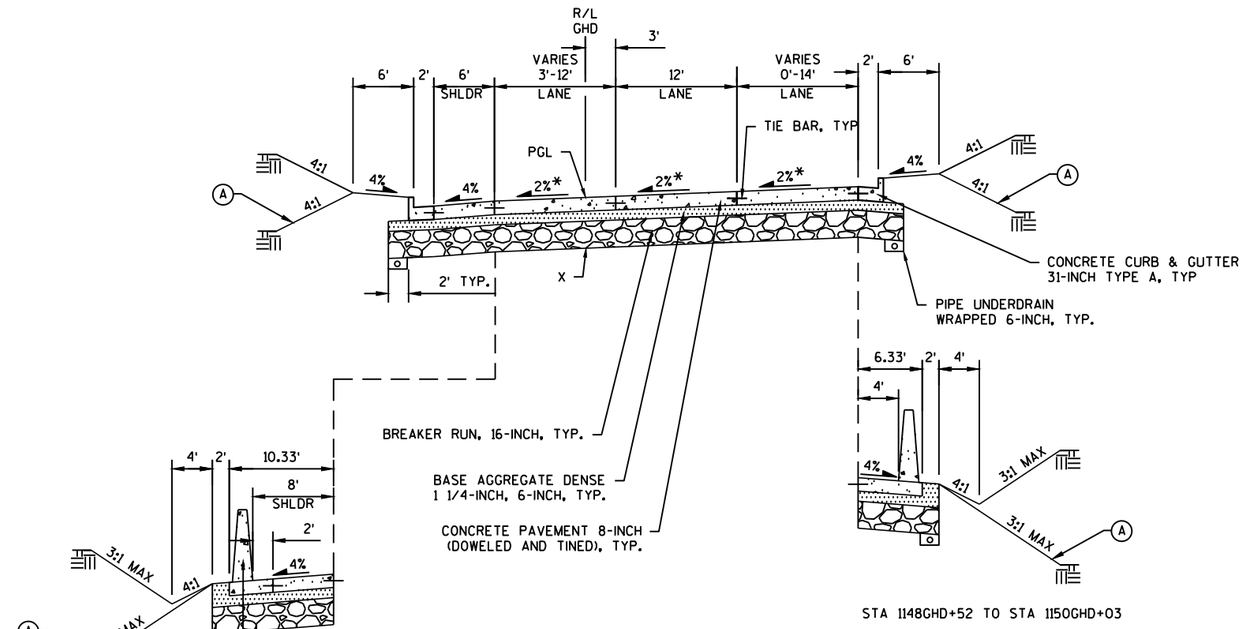
* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP D

STA 1150GHD+03 TO STA 1156GHD+37



STA 1148GHD+52 TO STA 1150GHD+03

STA 1148GHD+52 TO STA 1150GHD+03

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP D

STA 1146GHD+71 TO STA 1150GHD+03

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

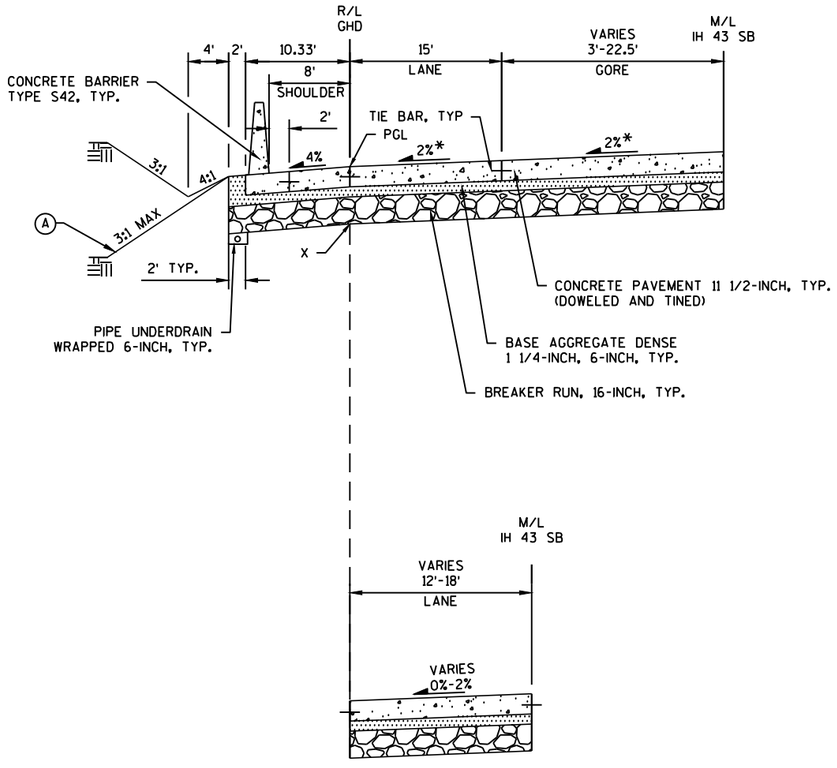
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 1159GHD+07 TO STA 1168GHD+23

TYPICAL FINISHED SECTION
GOOD HOPE ROAD RAMP D

STA 1156GHD+37 TO STA 1168GHD+23

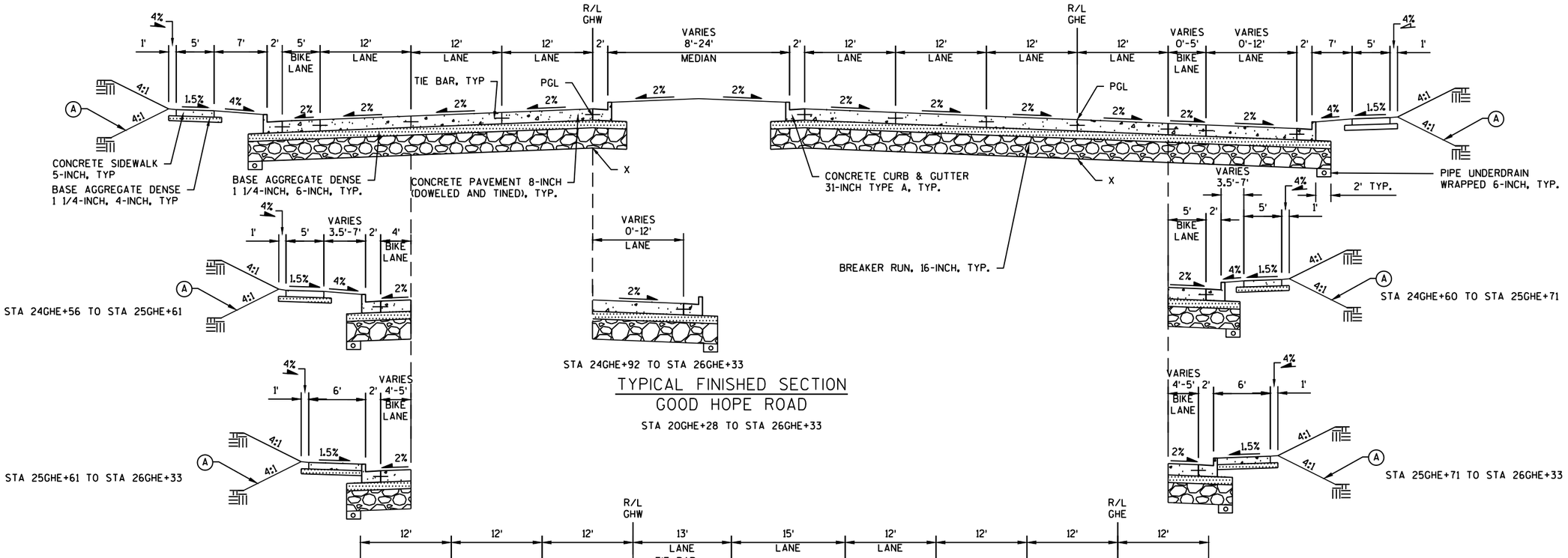
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

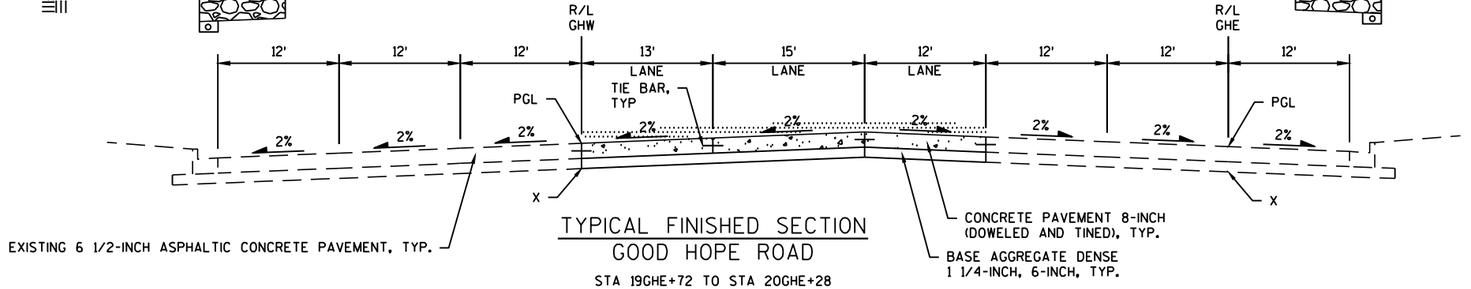
(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

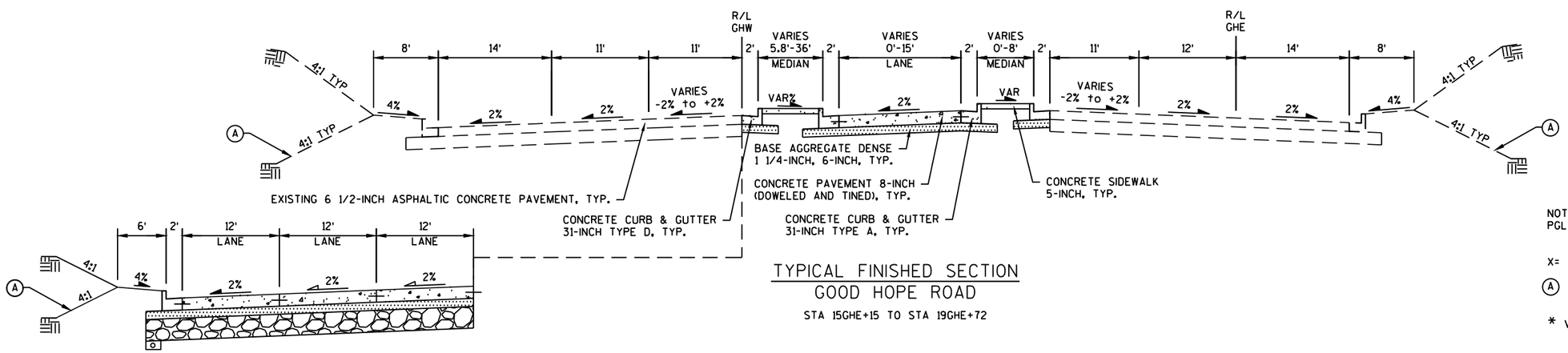
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
GOOD HOPE ROAD
STA 20GHE+28 TO STA 26GHE+33



TYPICAL FINISHED SECTION
GOOD HOPE ROAD
STA 19GHE+72 TO STA 20GHE+28



TYPICAL FINISHED SECTION
GOOD HOPE ROAD
STA 15GHE+15 TO STA 19GHE+72

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

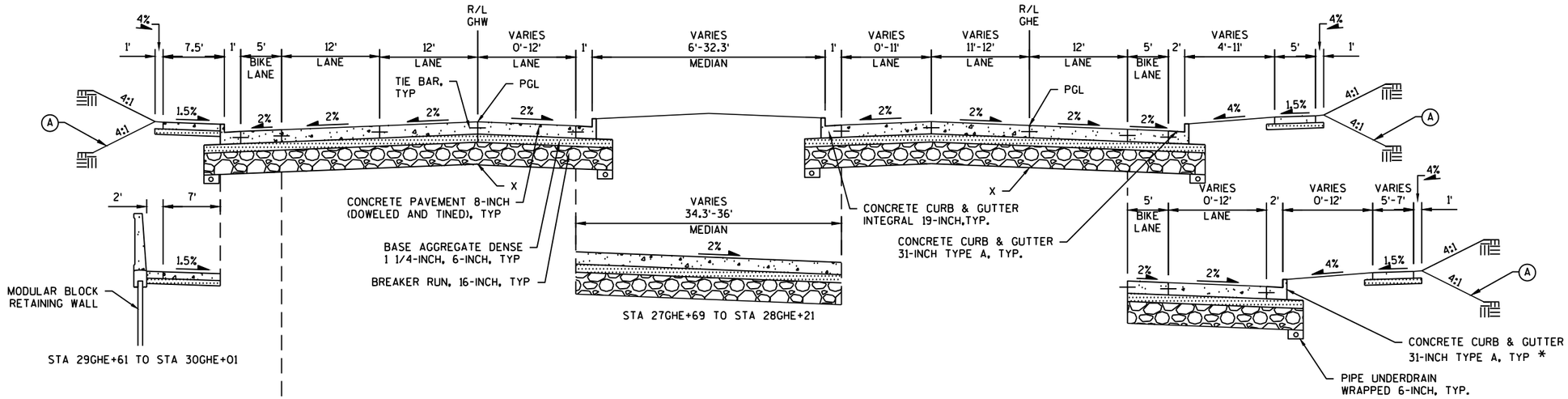
(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

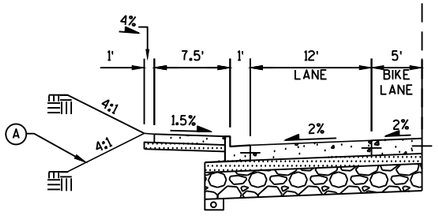
* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256213\020402_TS.DWG PLOT DATE : 9/28/2021 1:32 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1:15

2





TYPICAL FINISHED SECTION
GOOD HOPE ROAD

STA 27GHE+69 TO STA 31GHE+56

*CONCRETE CURB & GUTTER
INTEGRAL 19-INCH, STA 30GHE+28 TO
STA 31GHE+56

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION.

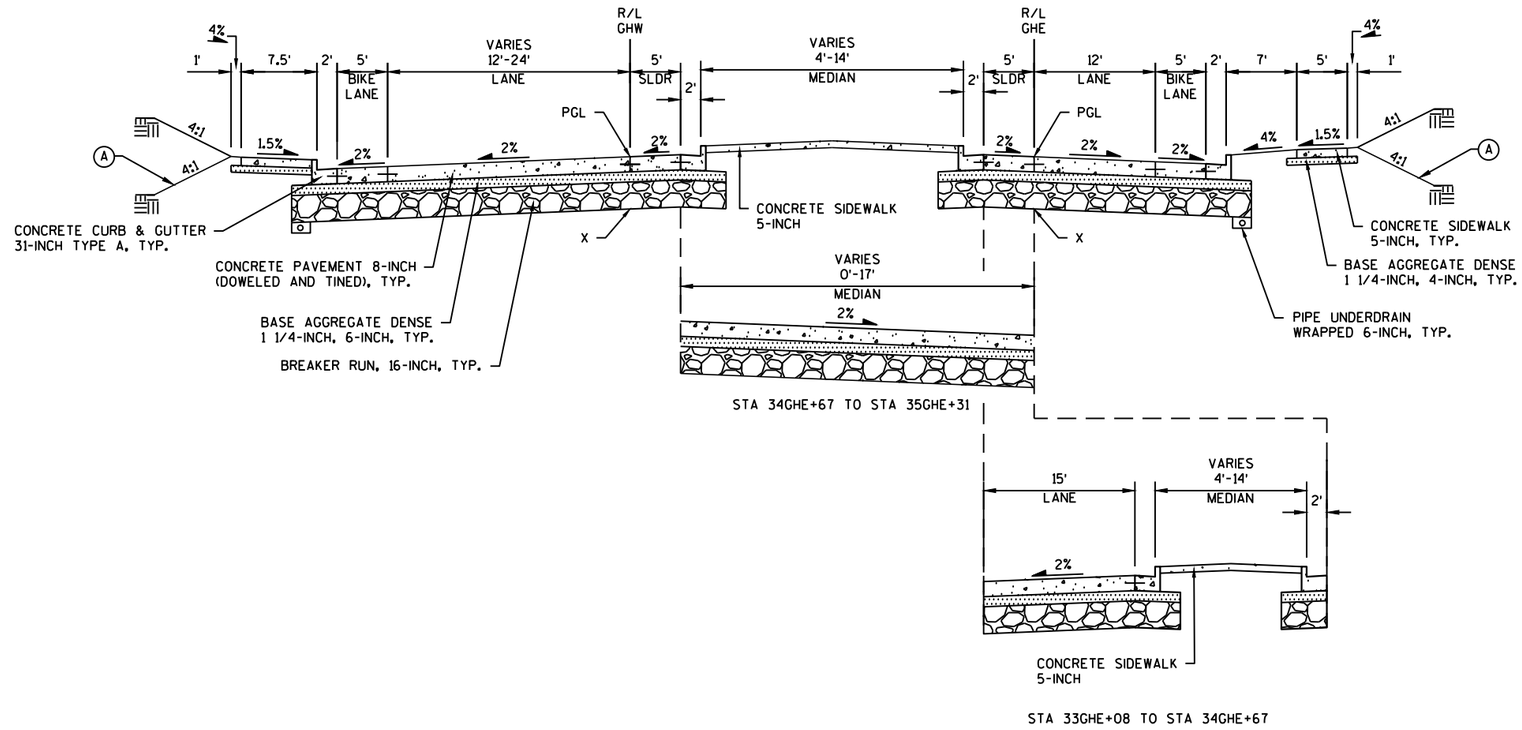
X= POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL,
FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
GOOD HOPE ROAD

STA 32GHE+65 TO STA 35GHE+31

*CONCRETE CURB & GUTTER INTEGRAL 19-INCH, STA 30GHE+28 TO STA 31GHE+56

NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

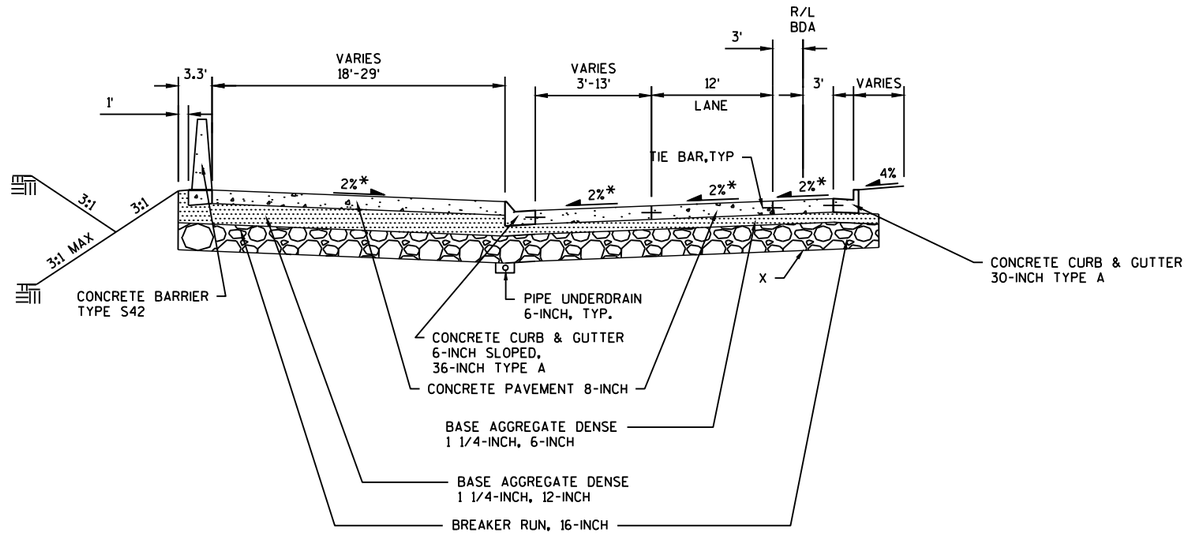
X = POINT REFERRED TO ON CROSS-SECTION

(A) TOPSOIL SPECIAL, SEEDING NO. 30 SPECIAL, FERTILIZER TYPE B, AND EROSION MAT

* VARIES 2% NORMAL

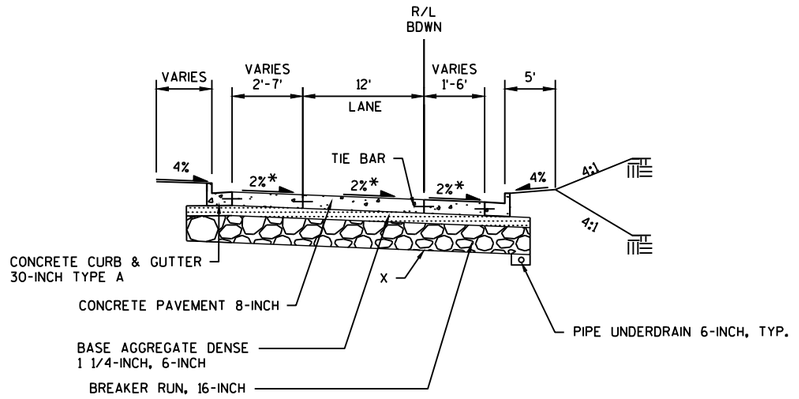
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP A

STA 1251BDA+10 TO STA 1253BDA+22



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP A

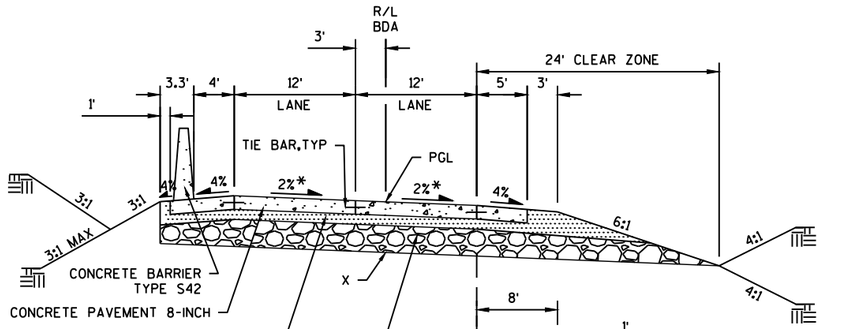
STA 102BDWN+15 TO STA 104BDWN+30

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

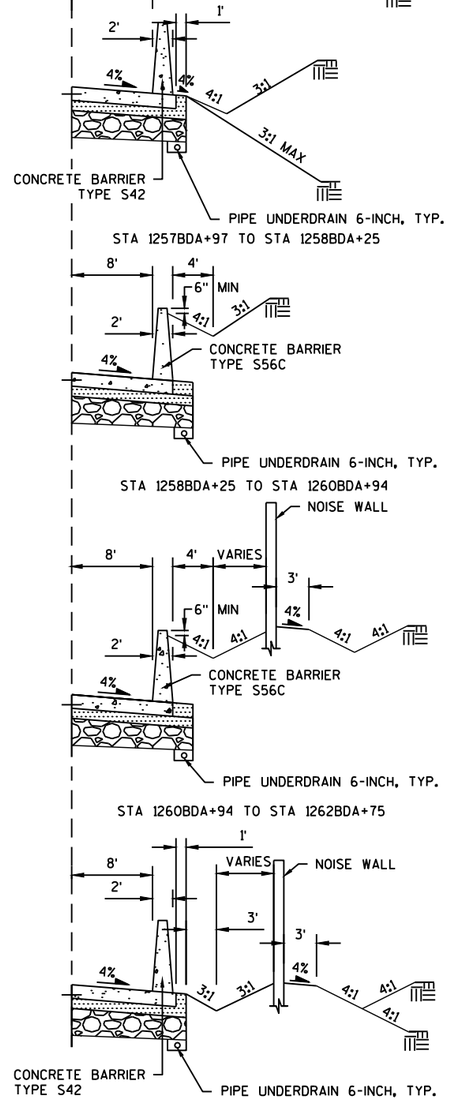
*VARIES 2% NORMAL

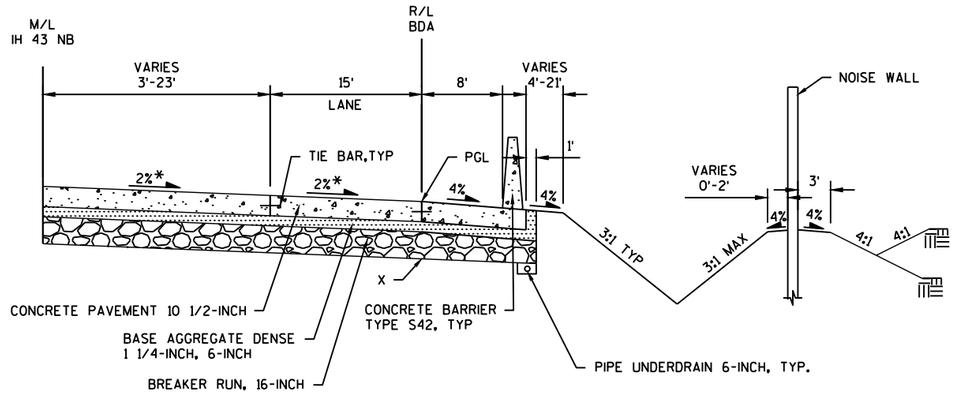
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP A

STA 1253BDA+22 TO STA 1263BDA+32





TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP A

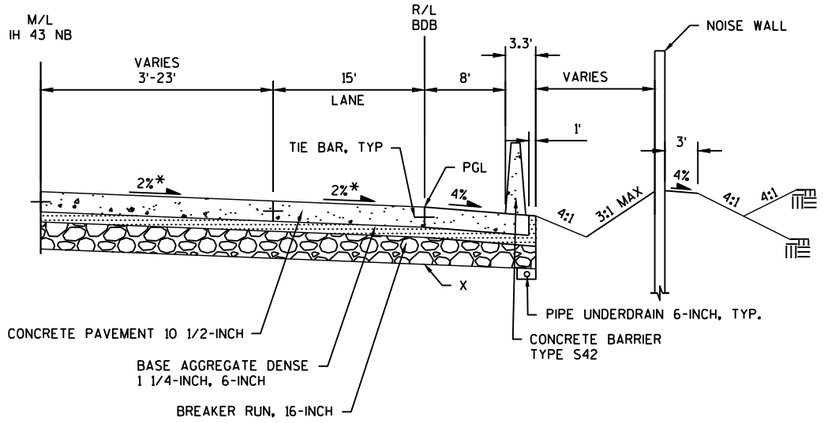
STA 1263BDA+32 TO STA 1270BDA+75

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

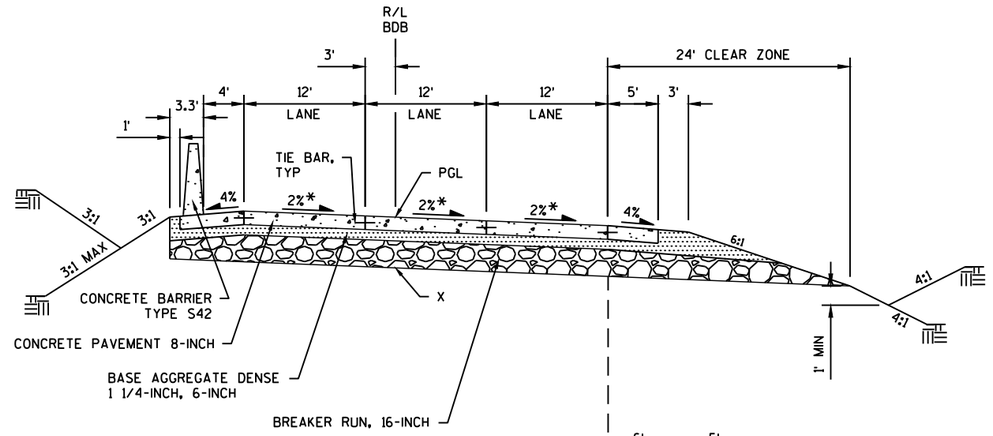
*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



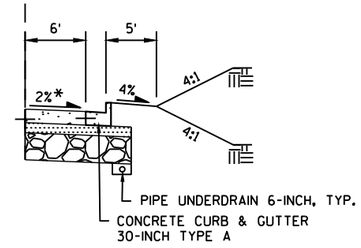
TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP B

STA 1237BDB+98 TO STA 1240BDB+83

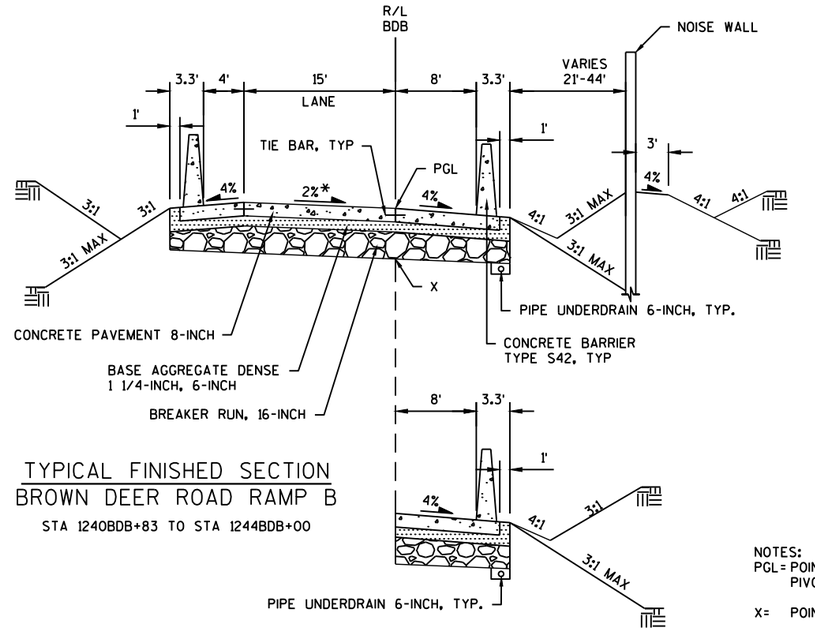


TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP B

STA 1244BDB+00 TO STA 1249BDB+28



STA 1248BDB+00 TO STA 1249BDB+28



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP B

STA 1240BDB+83 TO STA 1244BDB+00

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

STA 1242BDB+50 TO STA 1244BDB+00

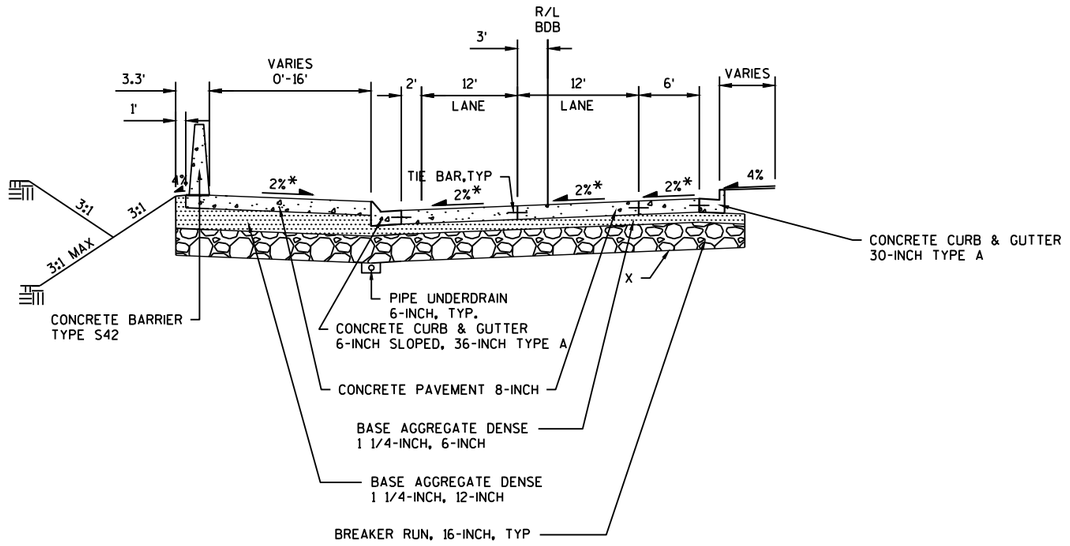
2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256213\020403_TS.DWG PLOT DATE : 9/27/2021 10:51 AM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1:15

WISDOT/CADDS SHEET 42

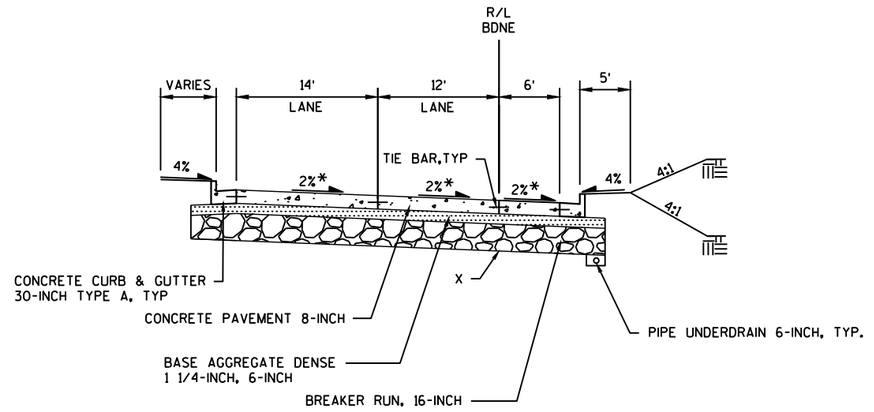
2



TYPICAL FINISHED SECTION

BROWN DEER ROAD RAMP B

STA 1249BDB+28 TO STA 1250BDB+86



TYPICAL FINISHED SECTION

BROWN DEER ROAD RAMP B

STA 201BDNE+00 TO STA 202BDNE+40

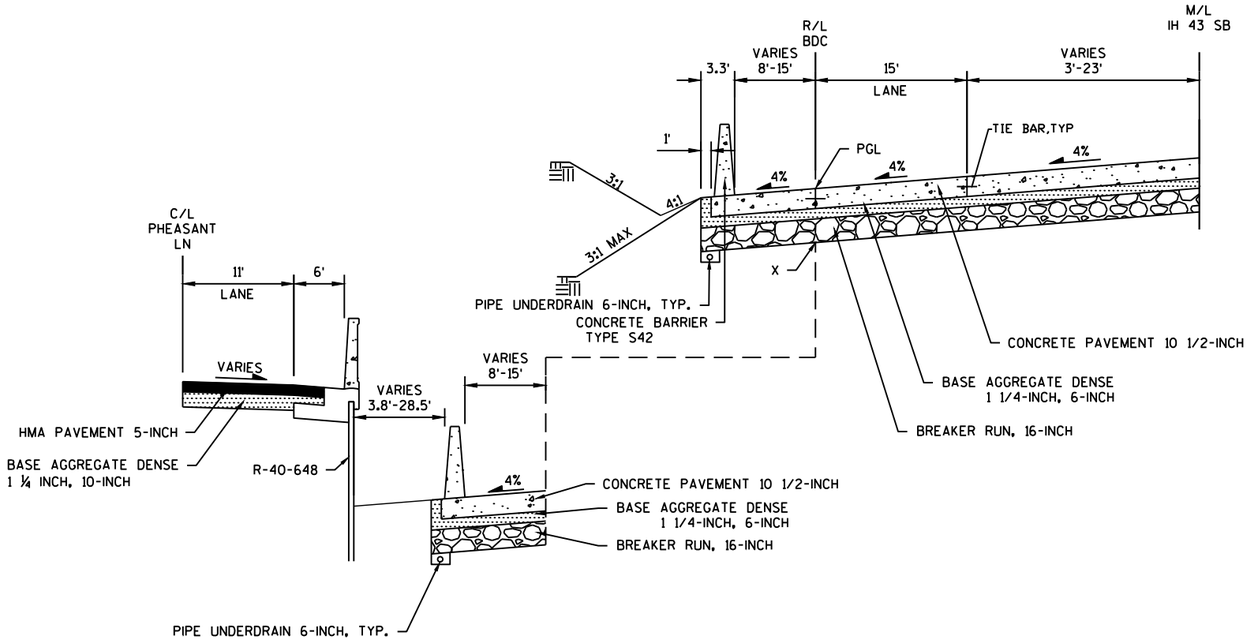
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 1235BDC+34 TO STA 1238BDC+20

TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP C

STA 1232BDC+38 TO STA 1238BDC+20

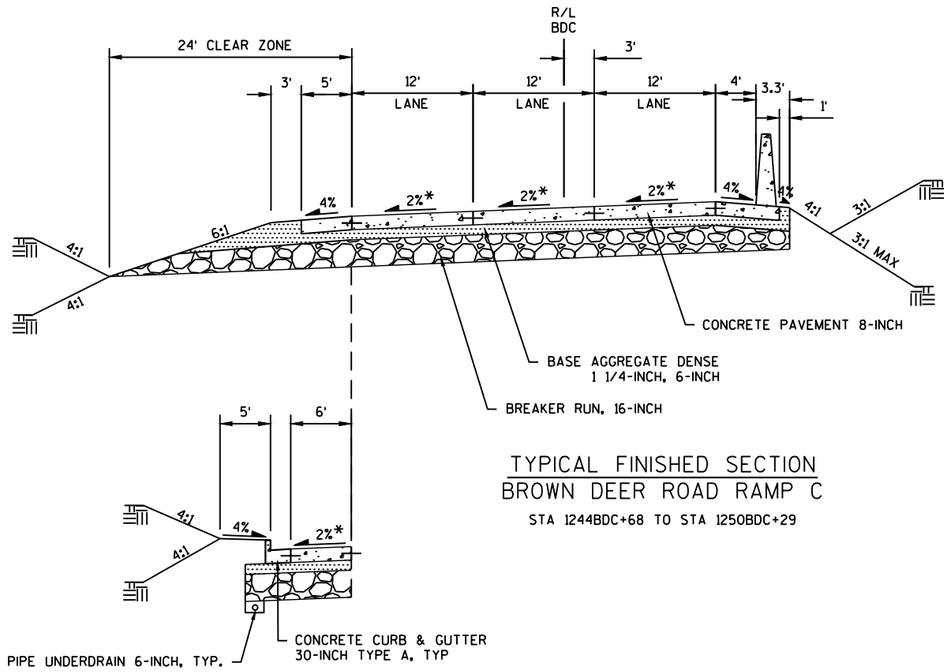
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

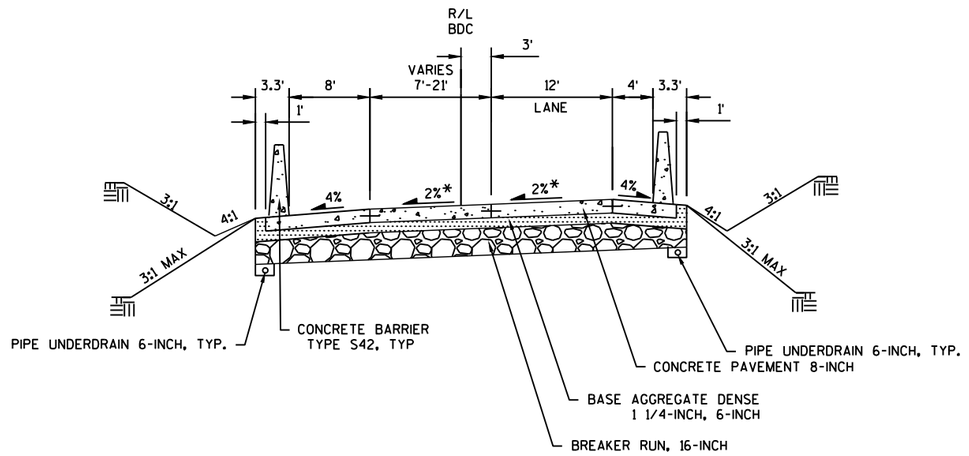
2



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP C

STA 1244BDC+68 TO STA 1250BDC+29

STA 1249BDC+36 TO STA 1250BDC+07



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP C

STA 1238BDC+20 TO STA 1244BDC+68

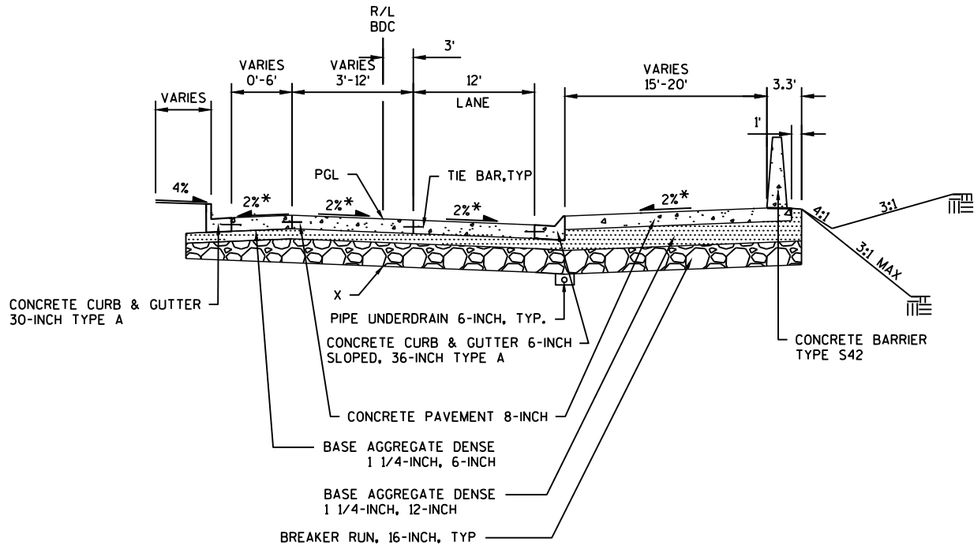
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

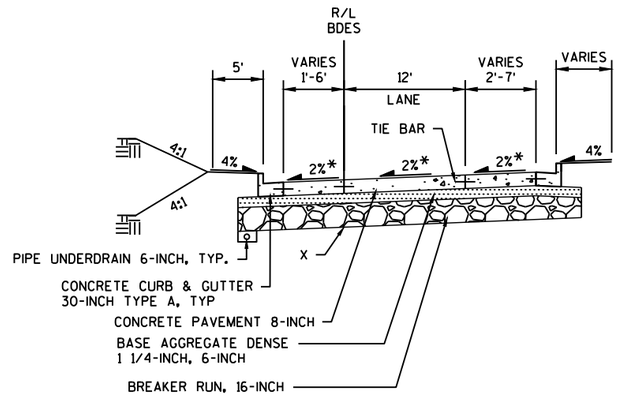
2



TYPICAL FINISHED SECTION

BROWN DEER ROAD RAMP C

STA 1250BDC+29 TO STA 1251BDC+77



TYPICAL FINISHED SECTION

BROWN DEER ROAD RAMP C

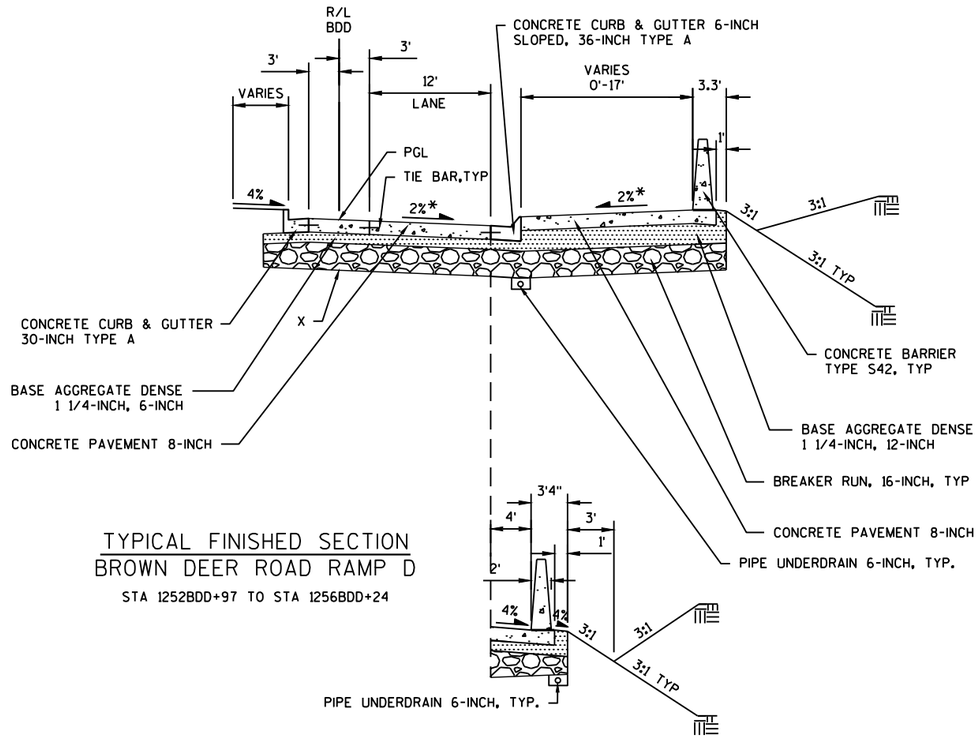
STA 300BDES+60 TO STA 302BDES+68

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

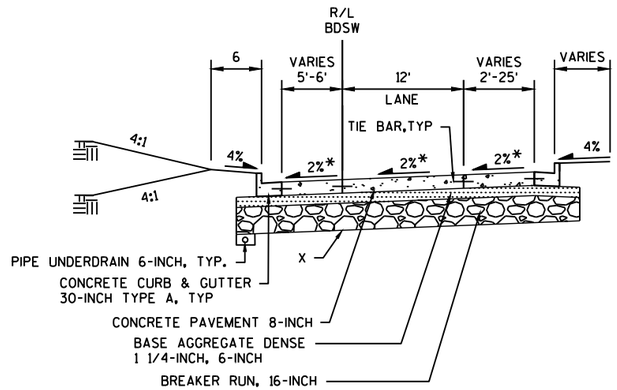
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP D

STA 1252BDD+97 TO STA 1256BDD+24

STA 1254BDD+14 TO STA 1256BDD+24



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP D

STA 403BDSW+55 TO STA 407BDSW+59

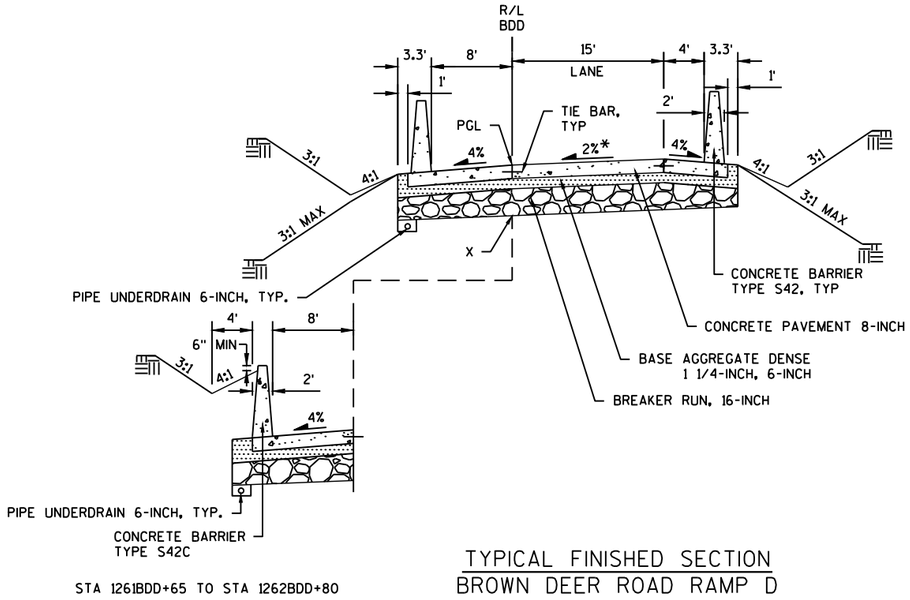
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

* VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

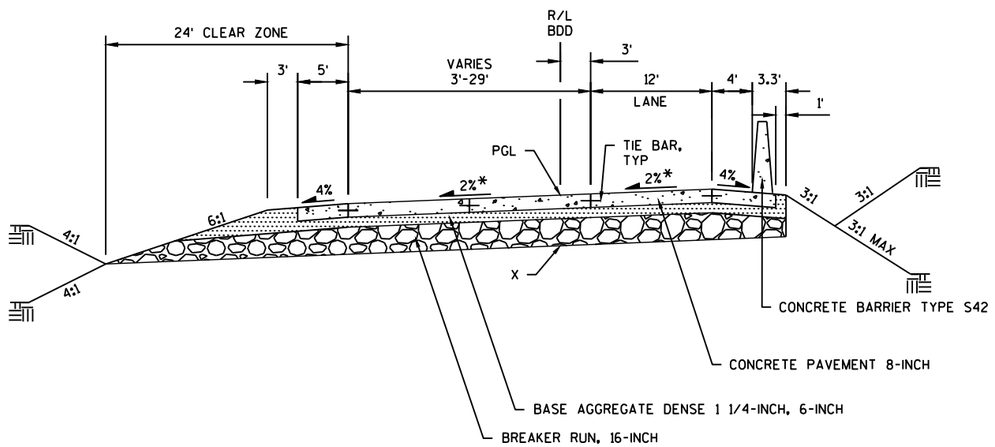
FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256213\020403_TS.DWG PLOT DATE : 9/27/2021 10:51 AM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1:15
WISDOT/CADDS SHEET 42



STA 1261BDD+65 TO STA 1262BDD+80

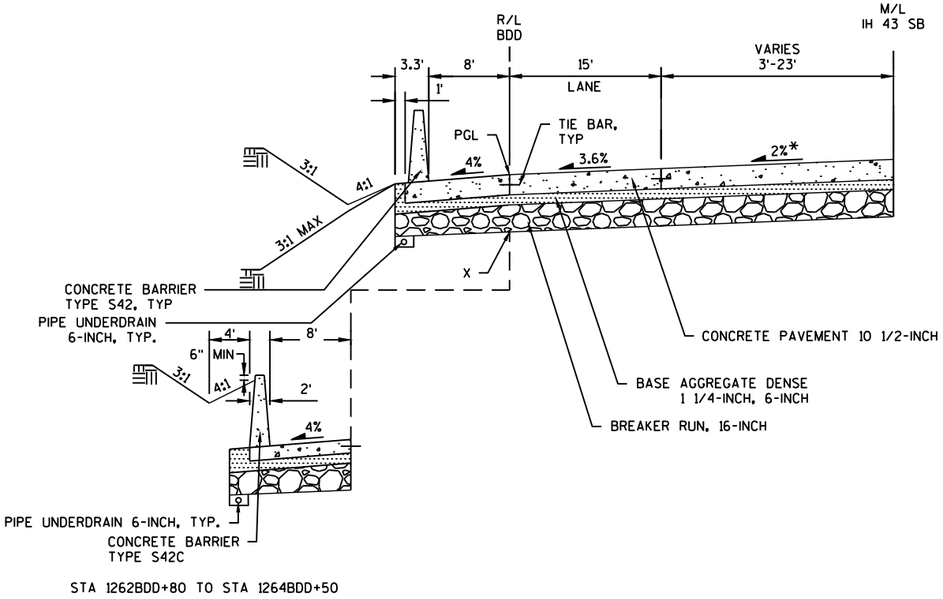
TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP D

STA 1259BDD+97 TO STA 1262BDD+80



TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP D

STA 1256BDD+24 TO STA 1259BDD+97



STA 1262BDD+80 TO STA 1264BDD+50

TYPICAL FINISHED SECTION
BROWN DEER ROAD RAMP D

STA 1262BDD+80 TO STA 1264BDD+97

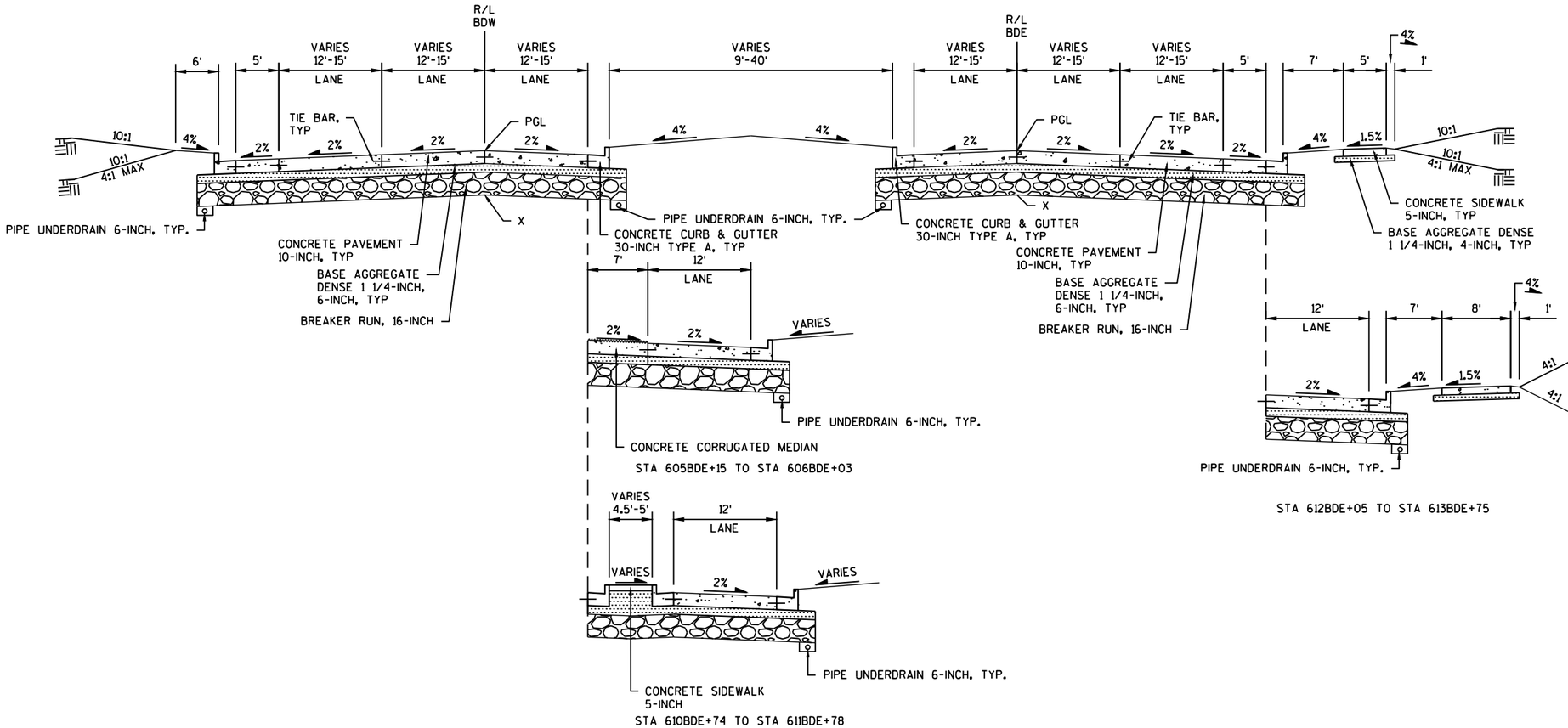
NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

*VARIES 2% NORMAL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
BROWN DEER ROAD

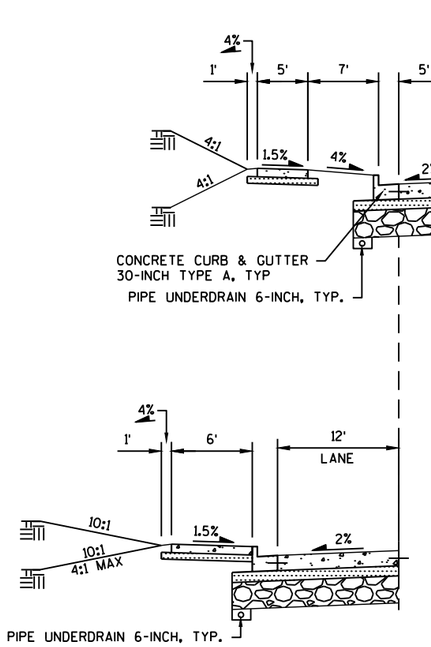
STA 605BDE+15 TO STA 614BDE+82

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

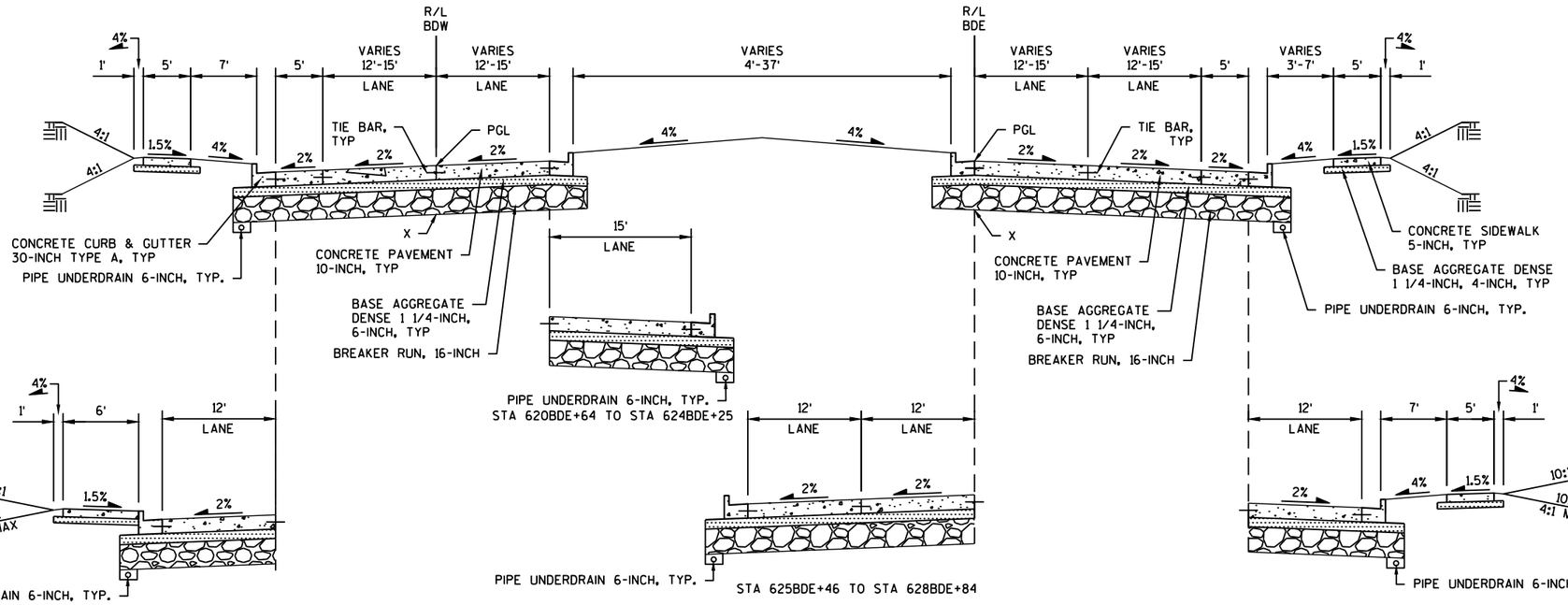
X= POINT REFERRED TO ON CROSS-SECTION

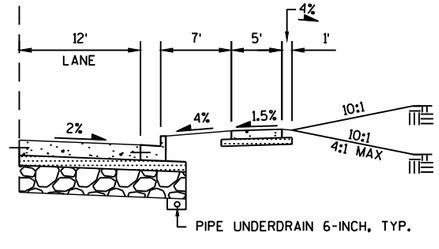
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



STA 621BDE+20 TO STA 623BDE+73





STA 624BDE+90 TO STA 628BDE+84

TYPICAL FINISHED SECTION
BROWN DEER ROAD

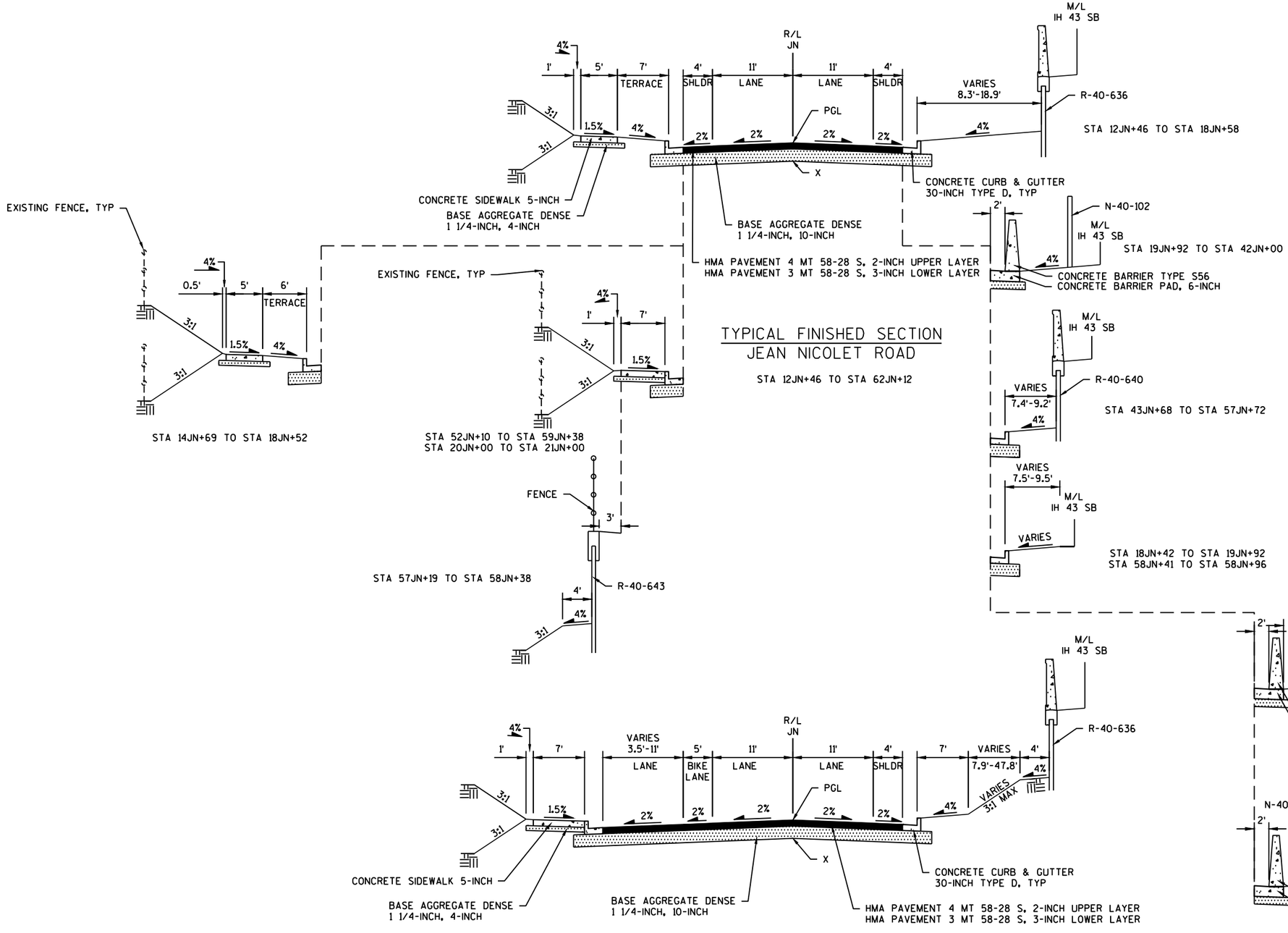
STA 620BDE+64 TO STA 628BDE+84

NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
JEAN NICOLET ROAD

STA 12JN+46 TO STA 62JN+12

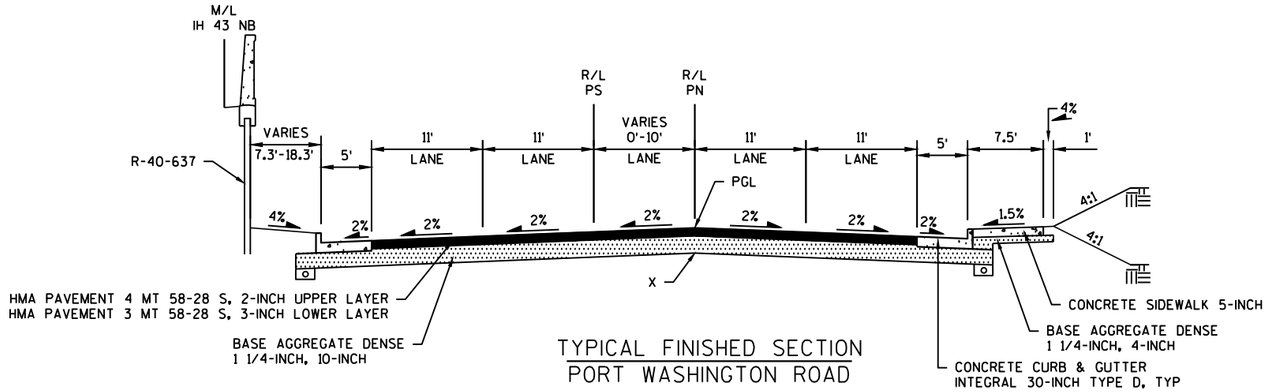
TYPICAL FINISHED SECTION
JEAN NICOLET ROAD

STA 10JN+20 TO STA 12JN+46

NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

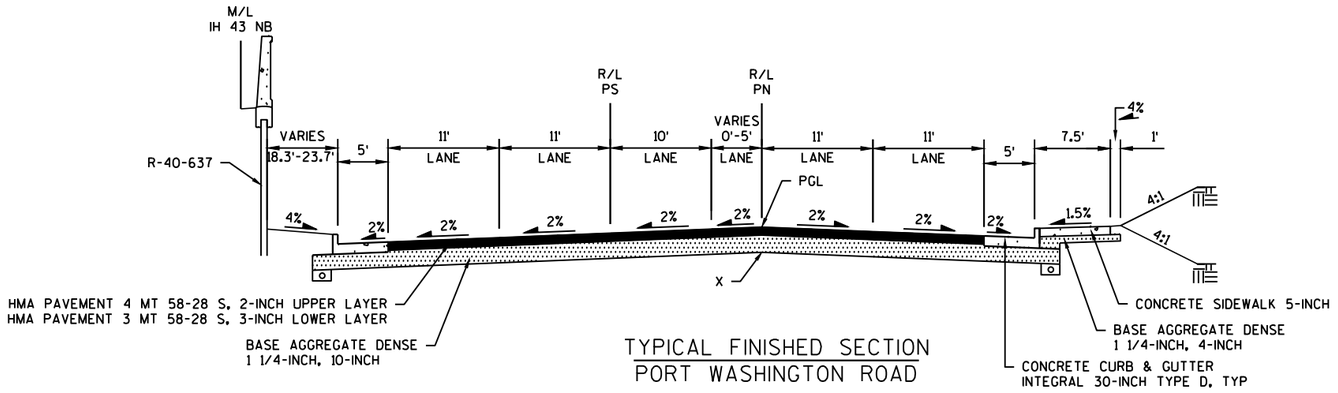
X = POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



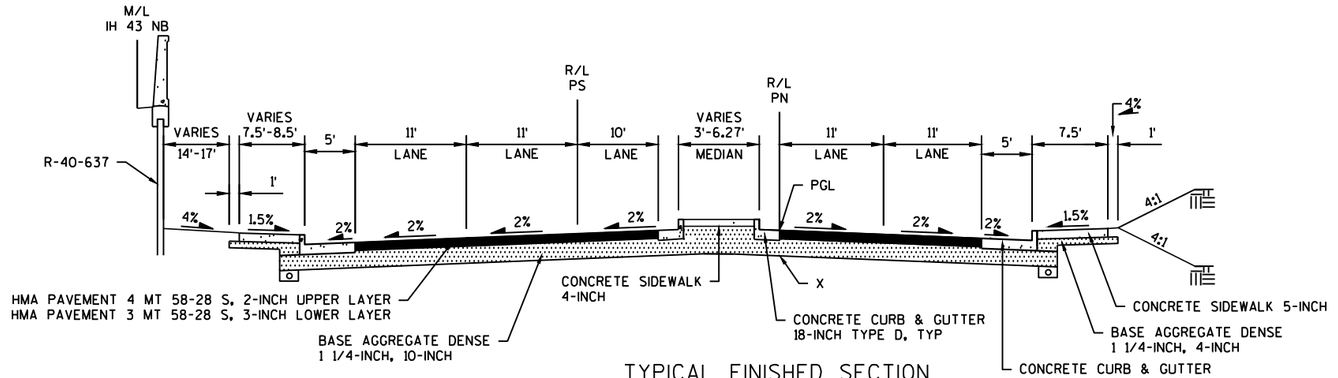
TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 101PN+79 TO STA 103PN+05



TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 101PN+29 TO STA 101PN+79



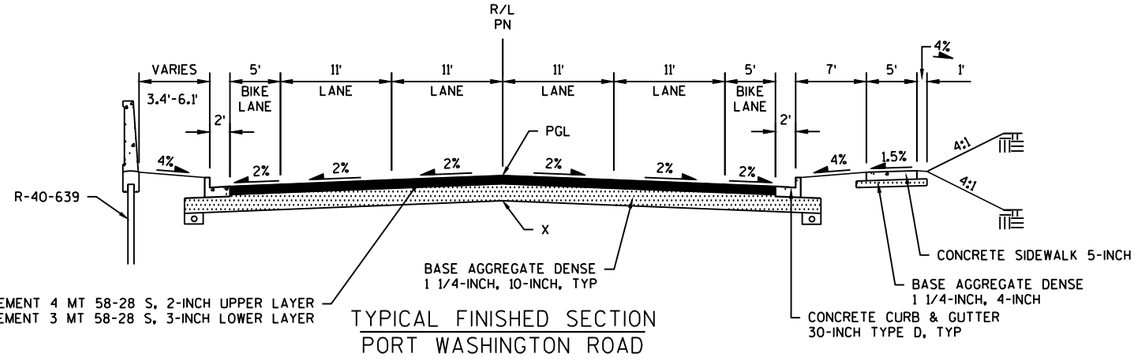
TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 100PN+20 TO STA 101PN+19

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

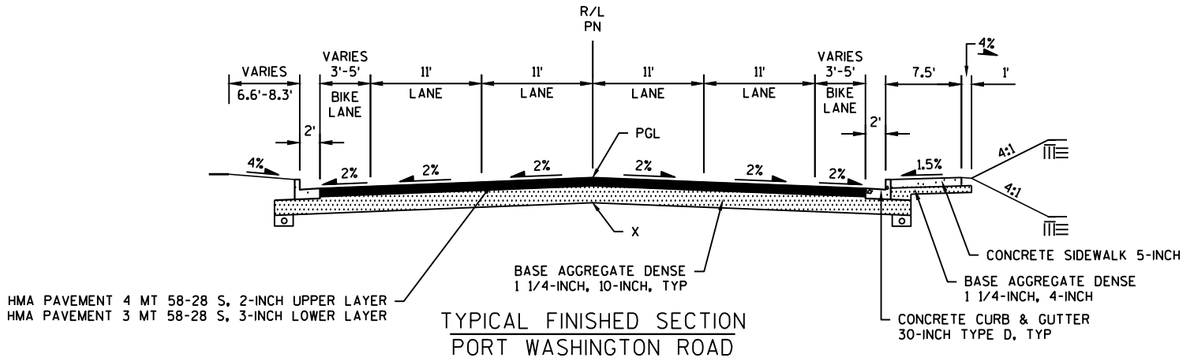
X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



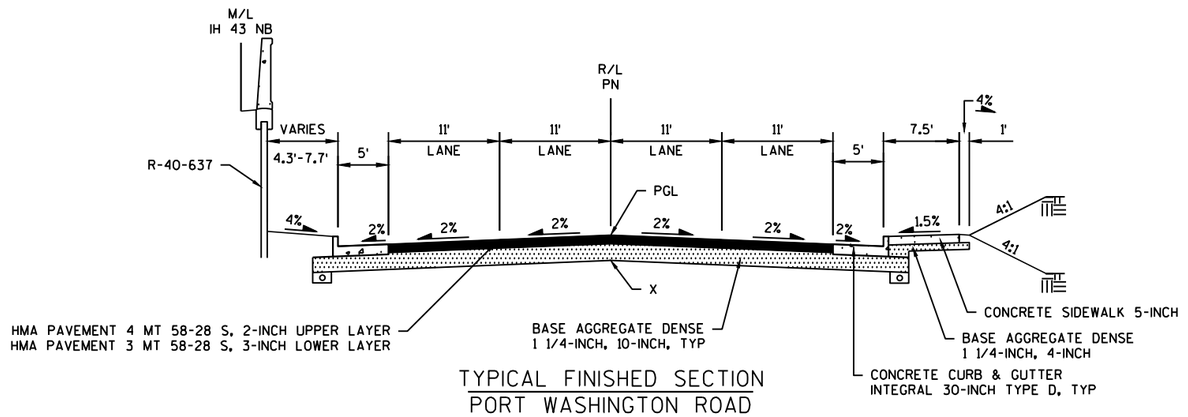
TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 111PN+69 TO STA 115PN+91



TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 107PN+53 TO STA 111PN+69



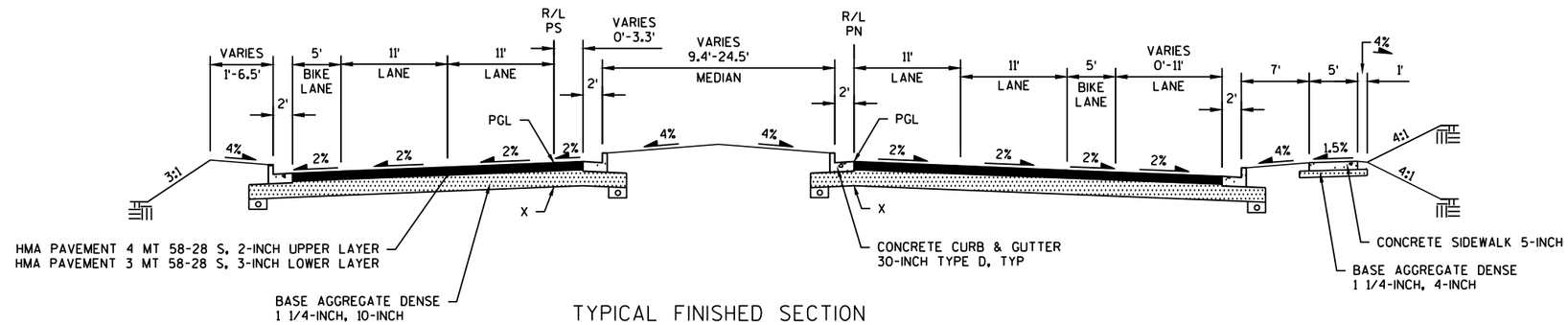
TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 103PN+05 TO STA 107PN+53

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

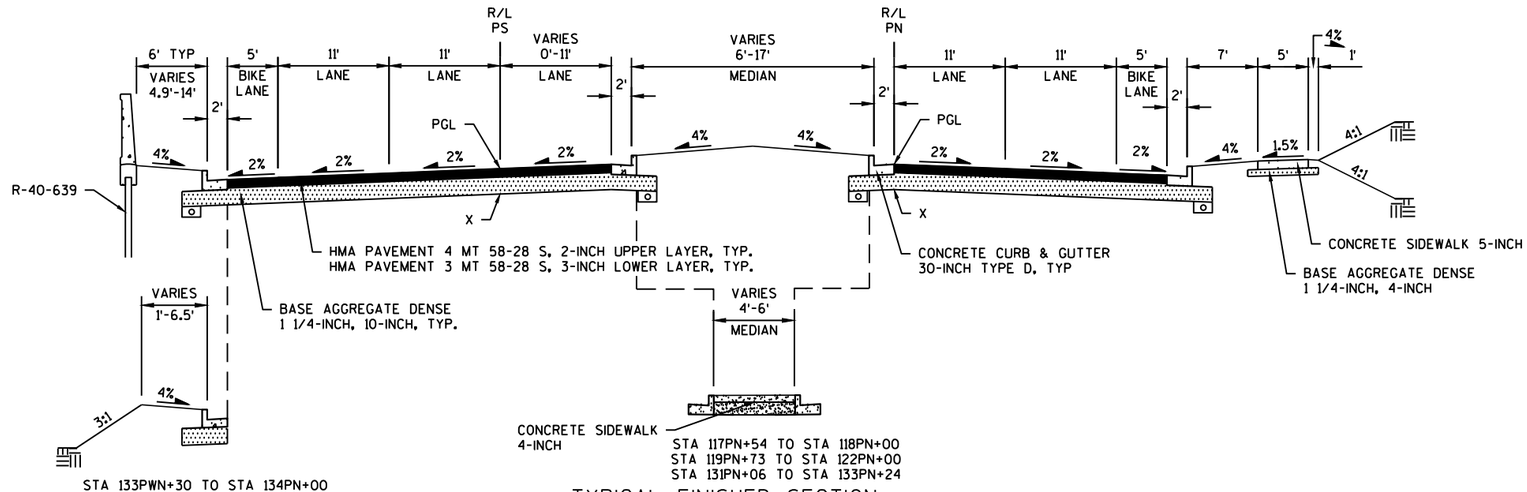
X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 134PN+00 TO STA 136PN+71

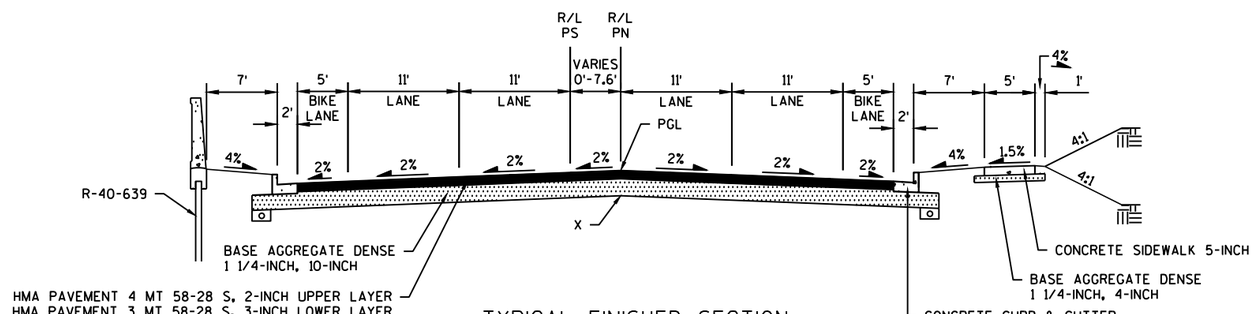


STA 133PWN+30 TO STA 134PN+00

STA 117PN+54 TO STA 118PN+00
STA 119PN+73 TO STA 122PN+00
STA 131PN+06 TO STA 133PN+24

TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 117PN+54 TO STA 134PN+00



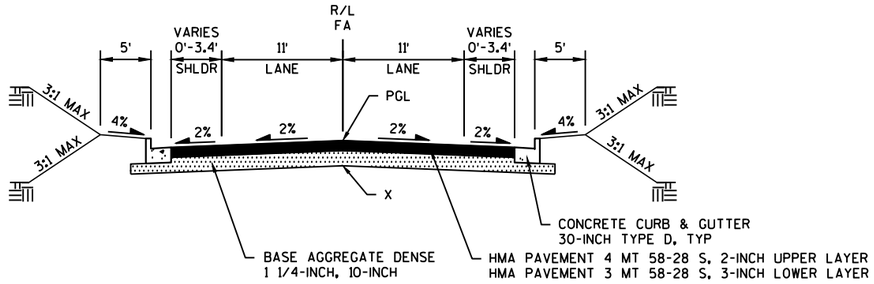
TYPICAL FINISHED SECTION
PORT WASHINGTON ROAD

STA 115PN+91 TO STA 117PN+54

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

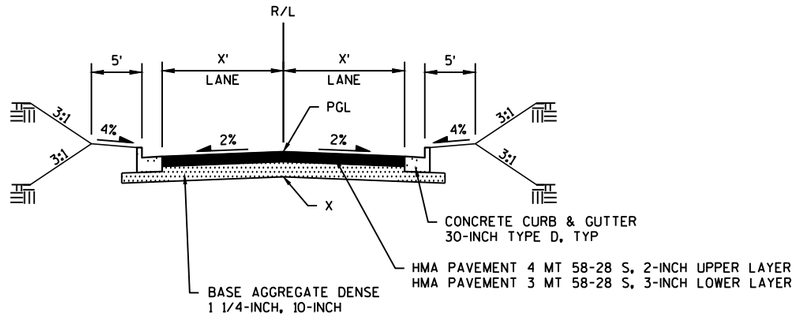
X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



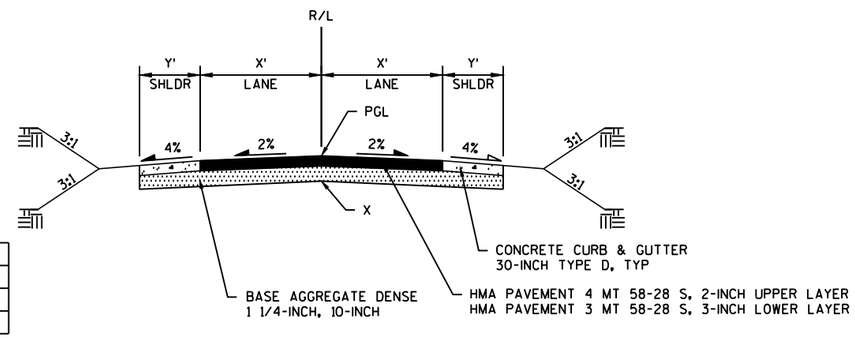
TYPICAL FINISHED SECTION
W. FAIRFIELD COURT

STA 10FA+80 TO STA 15FA+65



TYPICAL FINISHED SECTION
SIDE ROADS (SEE TABLE - MATCH EXISTING)

ROAD NAME	X'
KARL CAMPUS DR (EAST)	14
W BRENTWOOD LN (WEST)	14
W BRENTWOOD LN (EAST)	12
W CLOVERNOOK LANE (EAST)	12
W APPLE TREE ROAD (EAST)	11
W DAPHNE ROAD (WEST)	13
W DAPHNE ROAD (EAST)	12



TYPICAL FINISHED SECTION
SIDE ROADS (SEE TABLE - MATCH EXISTING)

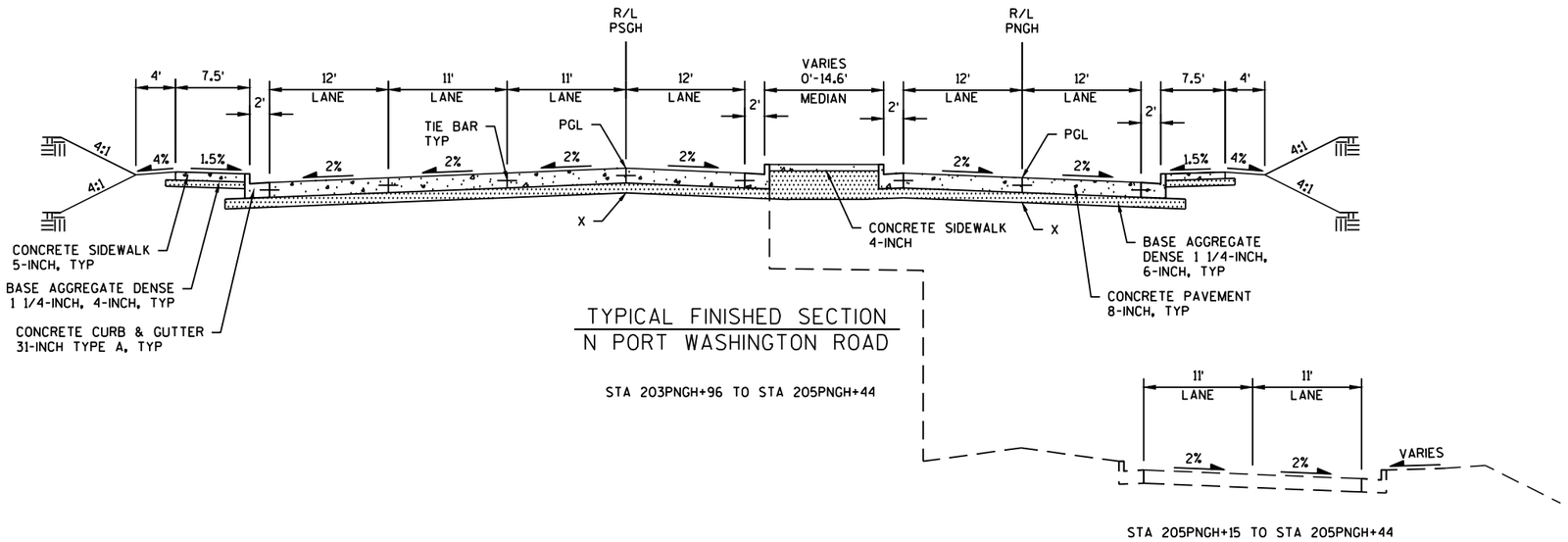
ROAD NAME	X'	Y'
W ACACIA ROAD (WEST)	12	0
W APPLE TREE ROAD (WEST)	13	0
PHEASANT LANE (GOOD HOPE)	15	4

NOTES:
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

PAVEMENT SECTION SHOWN IS ASSUMED AND SUBJECT TO CHANGE.

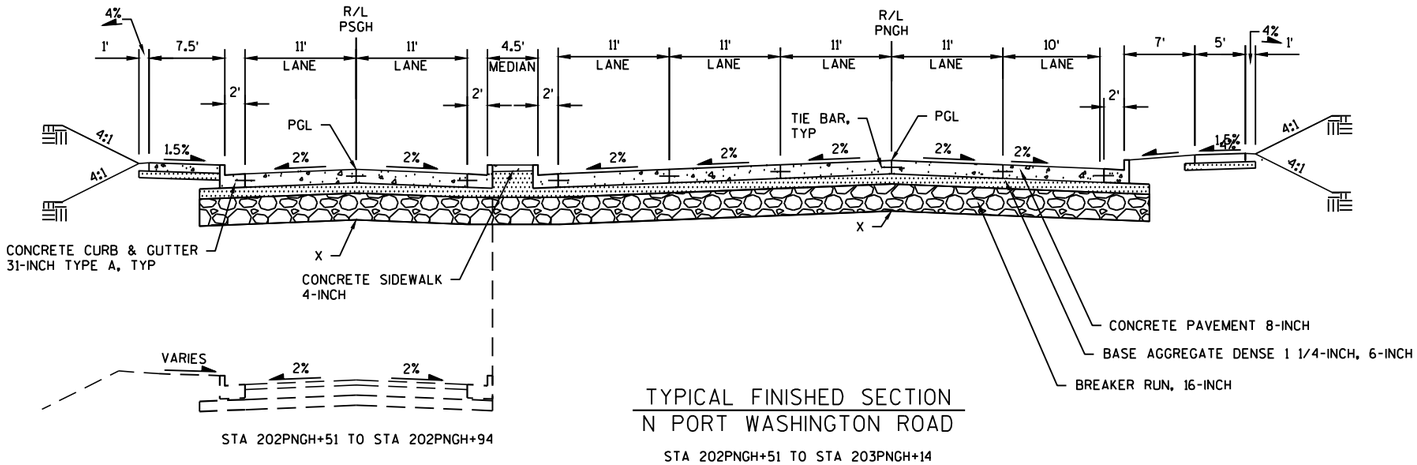
PROJECT NO: 1229-04-71/-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E



TYPICAL FINISHED SECTION
N PORT WASHINGTON ROAD

STA 203PNGH+96 TO STA 205PNGH+44

STA 205PNGH+15 TO STA 205PNGH+44



TYPICAL FINISHED SECTION
N PORT WASHINGTON ROAD

STA 202PNGH+51 TO STA 202PNGH+94

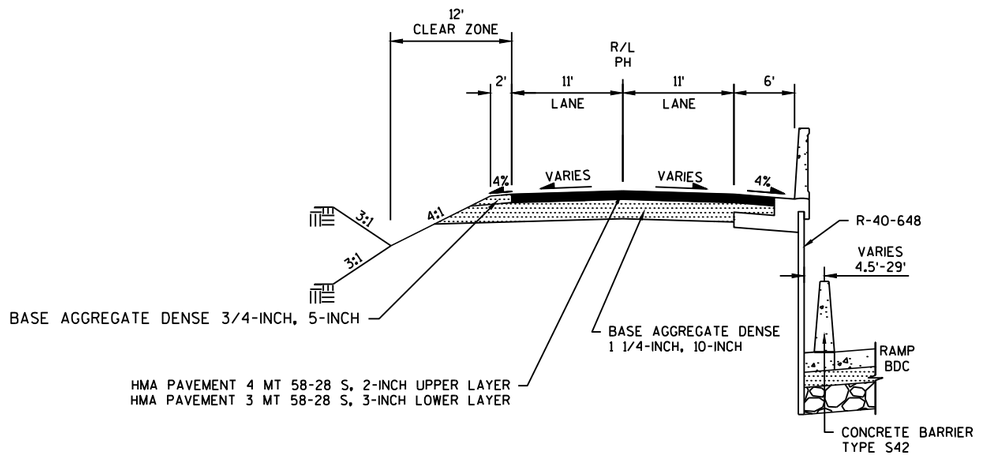
STA 202PNGH+51 TO STA 203PNGH+14

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

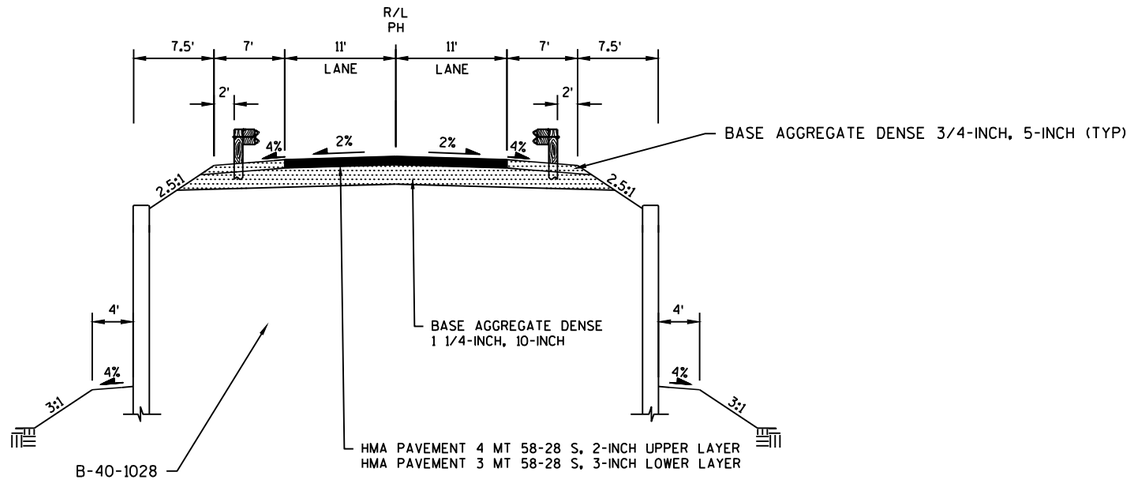
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
PHEASANT LANE
(NEAR BROWN DEER ROAD)

STA 12PH+00 TO STA 16PH+50



TYPICAL FINISHED SECTION
PHEASANT LANE
(AT INDIAN CREEK)

STA 101PHB+50 TO STA 103PHB+50

NOTES:
PGL= POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION.

X= POINT REFERRED TO ON CROSS-SECTION

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET	E

NOTES:

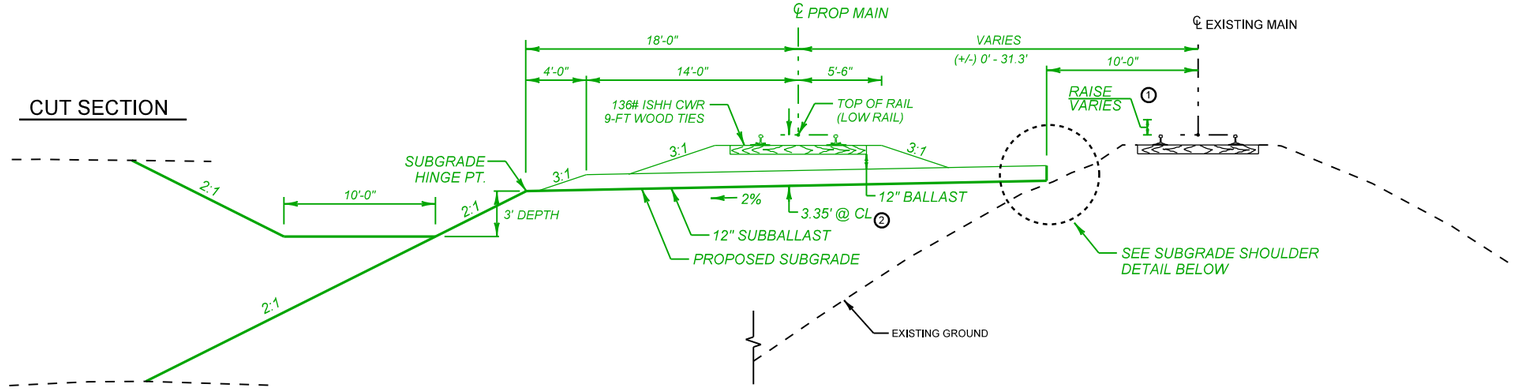
1. TYPICAL SECTIONS SHOW TYPICAL DIMENSIONS. TRACK CENTERS ARE VARIABLE. SEE PLANS AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
2. SEE PLANS AND CROSS SECTIONS FOR EXISTING AND PROPOSED RIGHT-OF-WAY DIMENSIONS.
3. TYPICAL SECTION TRANSITIONS ARE BETWEEN STA 126+00 - 126+50, STA 138+75 - 139+25, STA 142+25 - 142+75 AND STA 145+10 - 145+60. SEE PROPOSED BRIDGE PLANS FOR STA 131+55 - 135+00.

(1) GRADE RAISE VARIES. SEE PLAN AND PROFILE AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.

(2) TYPICAL DEPTH SHOWN BASED ON UPRR TYPICAL SECTIONS FOR 136LB RAIL ON WOOD TIES WITH 12 INCHES OF BOTH BALLAST AND SUBBALLAST.

(3) PROPOSED W. FAIRFIELD CT IS BETWEEN STA 126+70 TO STA 131+55.

CUT SECTION

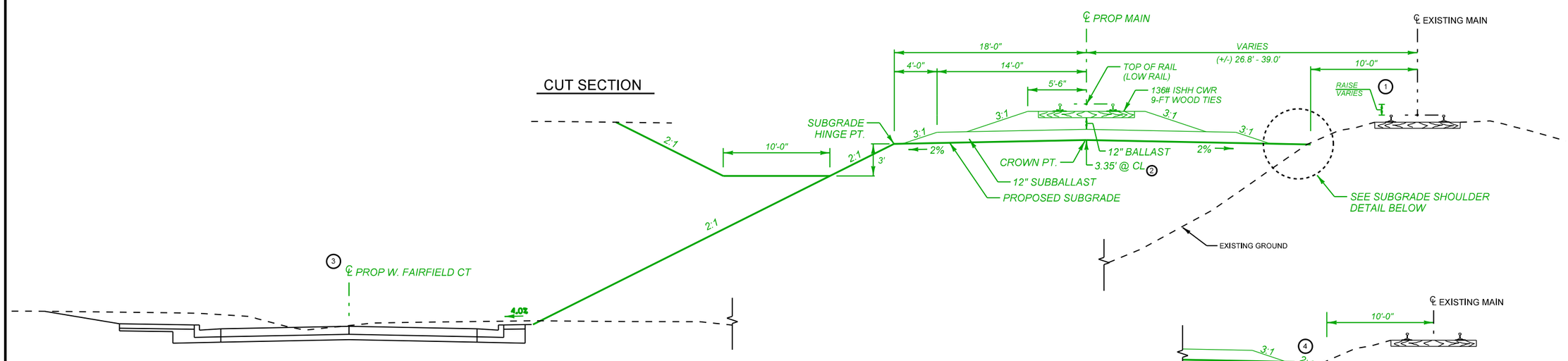


FILL SECTION

PHASE 1A TYPICAL TRACK SECTION - A

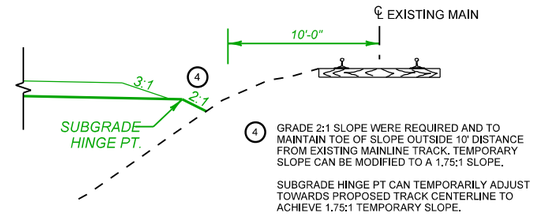
START STA	END STA
115+94	126+00
145+60	157+00

CUT SECTION



PHASE 1A TYPICAL TRACK SECTION - B

START STA	END STA
126+50	131+55
135+00	138+75
142+75	145+10



4 GRADE 2:1 SLOPE WERE REQUIRED AND TO MAINTAIN TOE OF SLOPE OUTSIDE 10' DISTANCE FROM EXISTING MAINLINE TRACK. TEMPORARY SLOPE CAN BE MODIFIED TO A 1.75:1 SLOPE.

SUBGRADE HINGE PT CAN TEMPORARILY ADJUST TOWARDS PROPOSED TRACK CENTERLINE TO ACHIEVE 1.75:1 TEMPORARY SLOPE.

SUBGRADE SHOULDER DETAIL

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK TYPICAL SECTIONS	SHEET 6 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\020301_ts.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 10:1

NOTES:

1. TYPICAL SECTIONS SHOW TYPICAL DIMENSIONS. TRACK CENTERS ARE VARIABLE. SEE PLANS AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
2. SEE PLANS AND CROSS SECTIONS FOR EXISTING AND PROPOSED RIGHT-OF-WAY DIMENSIONS.
3. PHASE 1A TYPICAL SECTION TRANSITIONS ARE BETWEEN STA 128+00 - 128+50 AND STA 145+10 - 145+60. PHASE 1C TRANSISTIONS ARE BETWEEN STA 128+00 -128+50, STA 137+50 - 138+00 AND STA 141+50 - 141+50. SEE PROPOSED BRIDGE PLANS FOR STA 131+55 - 135+00.

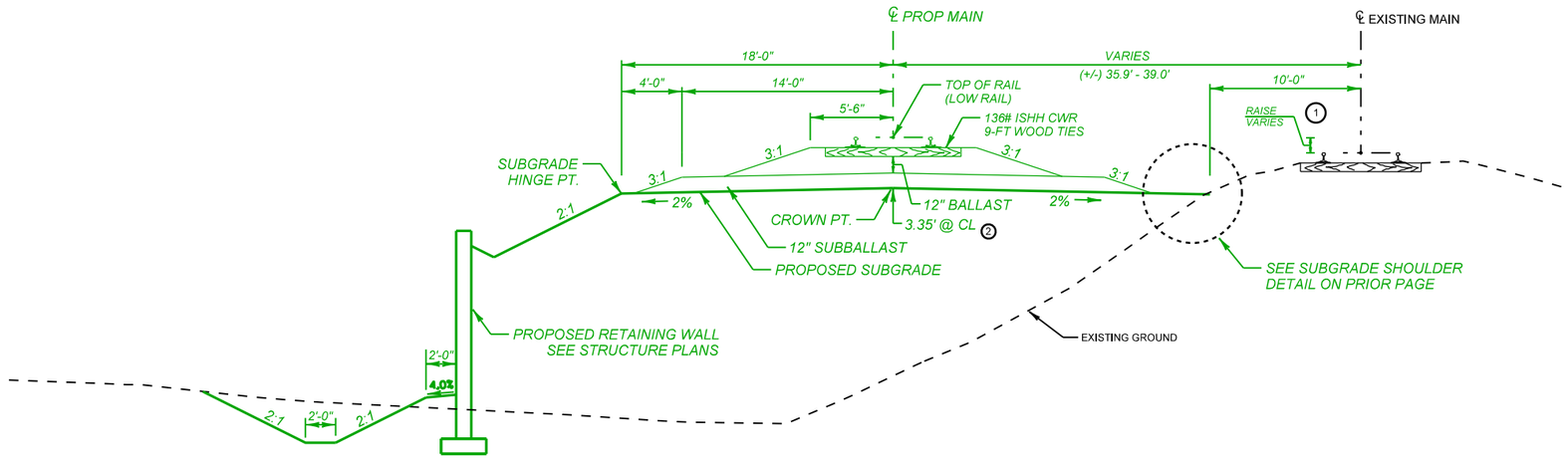
(1) GRADE RAISE VARIES. SEE PLAN AND PROFILE AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.

(2) TYPICAL DEPTH SHOWN BASED ON UPRR TYPICAL SECTIONS FOR 136LB RAIL ON WOOD TIES WITH 12 INCHES OF BOTH BALLAST AND SUBBALLAST.

(3) GRADING TO BE PERFORMED AFTER UPRR SHIFTS ALL OPERATIONS TO THE NEW ALIGNMENT.

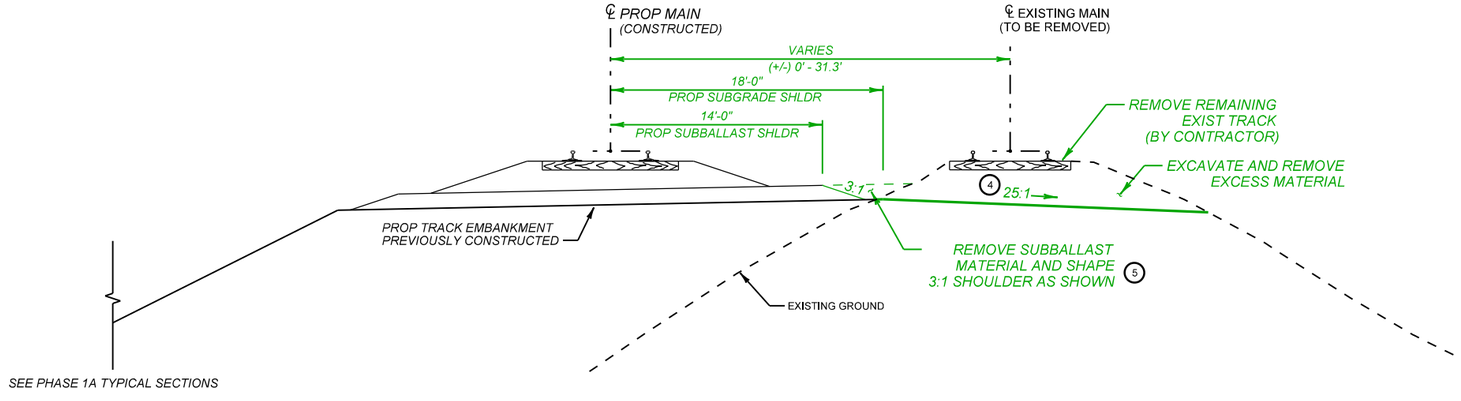
(4) 2:1 FILL SLOPE TO BE UTILIZED IN LOCATIONS WHERE 25:1 SLOPE WILL NOT INTERSECT EXISTING GROUND.

(5) GRADING SHALL NOT BE WITHIN 10' OF EXISTING MAIN TRACK AFTER UPRR SHIFTS ALL OPERATIONS TO THE NEW ALIGNMENT



PHASE 1A TYPICAL TRACK SECTION - C

START STA	END STA
139+25	142+25



PHASE 1C TYPICAL TRACK SECTION - A (3)

START STA	END STA
115+94	128+00

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK TYPICAL SECTIONS	SHEET 7 OF 73	E

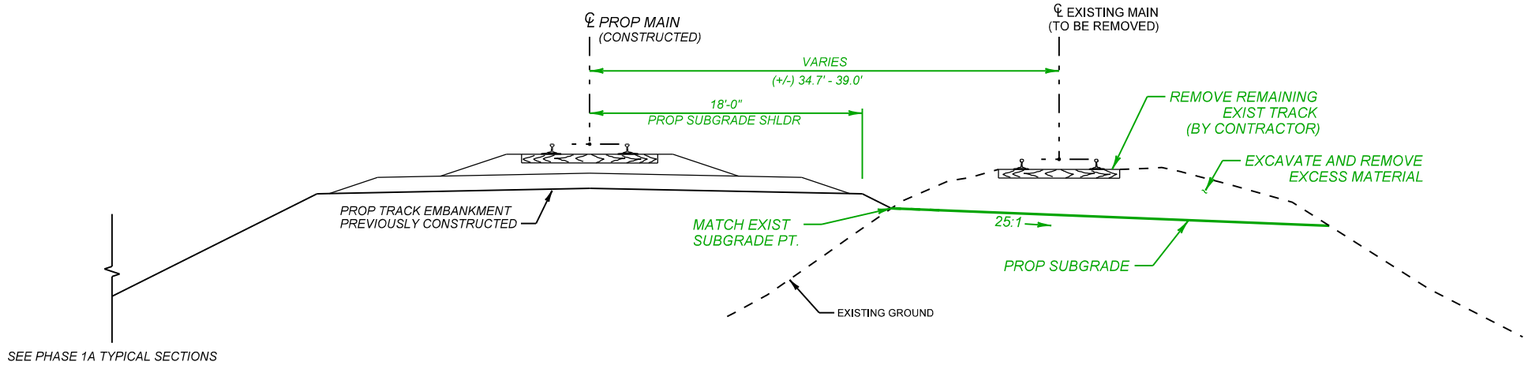
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\020302_ts.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 10:1
WISDOT/CADDS SHEET 42

2

NOTES:

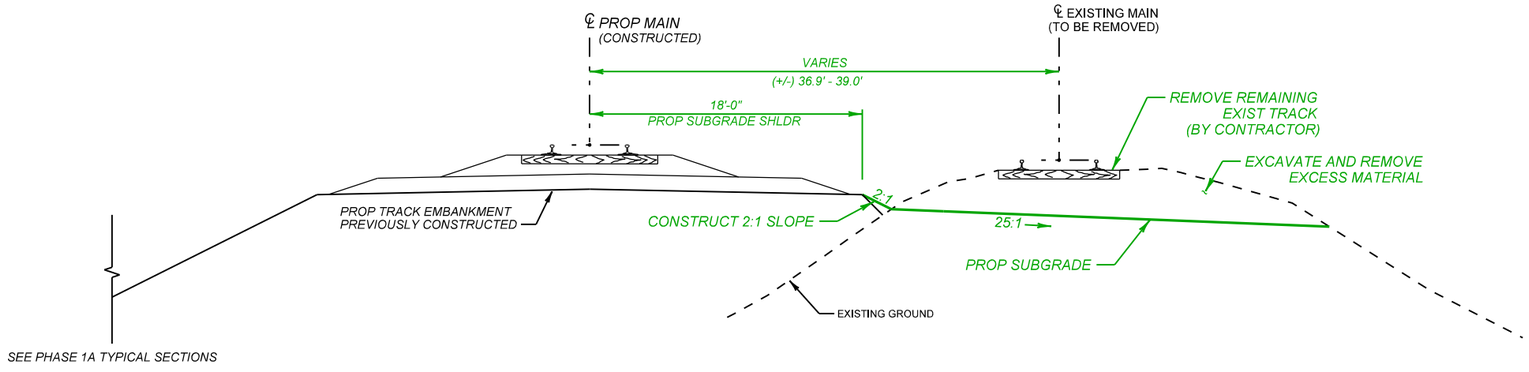
1. TYPICAL SECTIONS SHOW TYPICAL DIMENSIONS. TRACK CENTERS ARE VARIABLE. SEE PLANS AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
2. SEE PLANS AND CROSS SECTIONS FOR EXISTING AND PROPOSED RIGHT-OF-WAY DIMENSIONS.
3. PHASE 1A TYPICAL SECTION TRANSITIONS ARE BETWEEN STA 128+00 - 128+50 AND STA 145+10 - 145+60. PHASE 1C TRANSISTIONS ARE BETWEEN STA 128+00 -128+50, STA 137+50 - 138+00 AND STA 141+50 - 141+50. SEE PROPOSED BRIDGE PLANS FOR STA 131+55 - 135+00.

(1) GRADING TO BE PERFORMED AFTER UPRR SHIFTS ALL OPERATIONS TO THE NEW ALIGNMENT.



PHASE 1C TYPICAL TRACK SECTION - B (1)

START STA	END STA
128+50	131+55
135+00	137+50
141+50	143+00

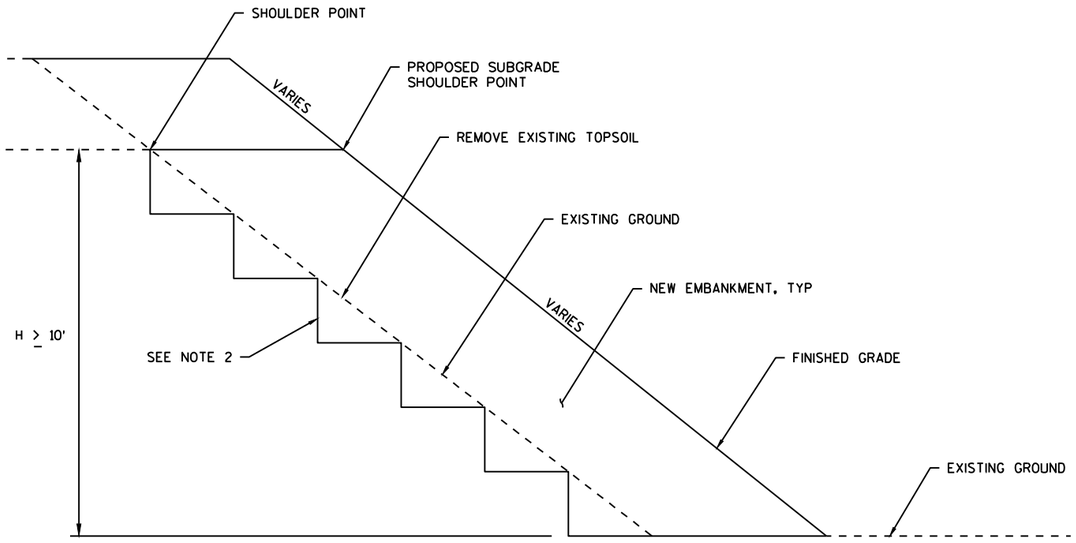


PHASE 1C TYPICAL TRACK SECTION - C (1)

START STA	END STA
138+00	141+00

NOTES

1. EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS.
2. BENCH AS REQUIRED TO FACILITATE CONSTRUCTION FILLING OPERATIONS (3' MAXIMUM BENCH DEPTH, INCIDENTAL).

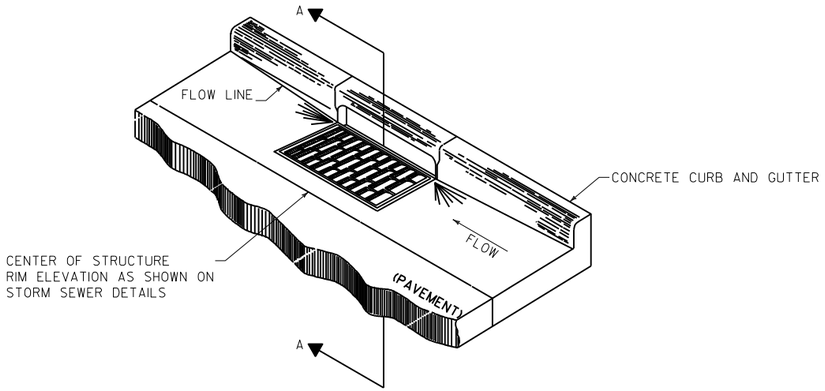


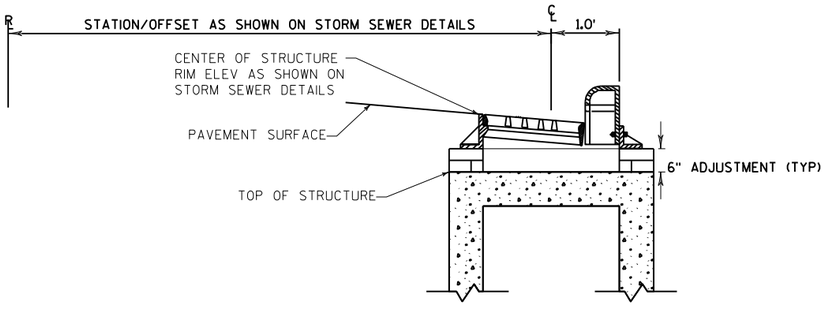
STEPPED EMBANKMENT

APPLICATION OF THIS DETAIL TO BE DETERMINED IN THE FIELD BY THE ENGINEER AT LOCATIONS OF FILLS GREATER THAN OR EQUAL TO 10'

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

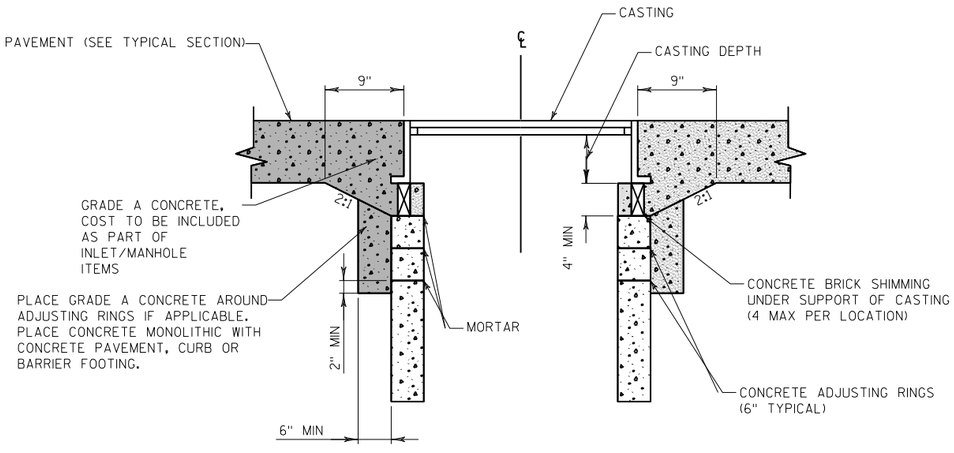




SECTION A-A

STORM SEWER STRUCTURES

STATION/OFFSET LOCATION AND RIM ELEV



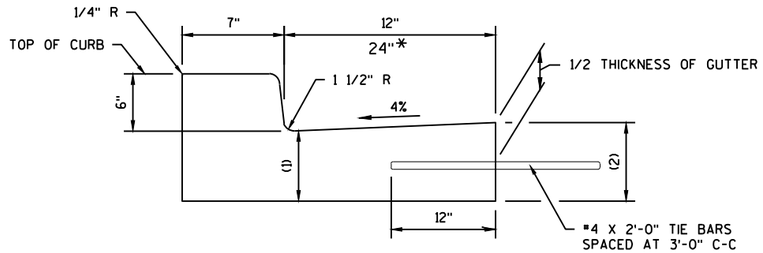
MONOLITHIC CONCRETE SHIMMING DETAIL

FOR FINAL ADJUSTMENT OF PAVEMENT STRUCTURES
LOCATED WITHIN THE ROADWAY

NOTES

DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS

PROJECT NO: 1229-04-71/-72/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



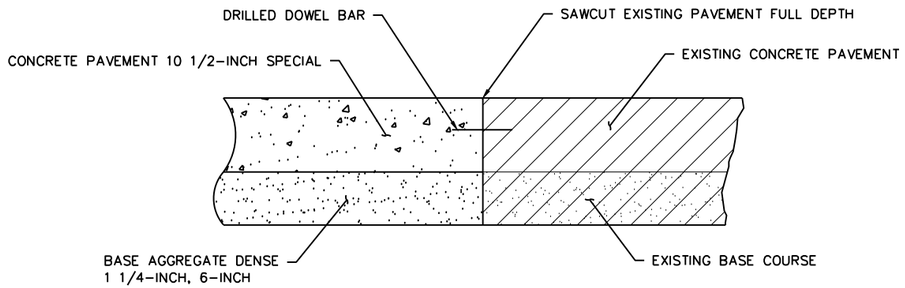
NOTES

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTER ADJACENT TO NEW CONCRETE PAVEMENT.
2. OMIT TIE BARS WHERE INTEGRAL CURB AND GUTTER IS REQUIRED.
3. SEE STANDARD DETAIL DRAWING FOR DETAILS NOT SHOWN HERE.

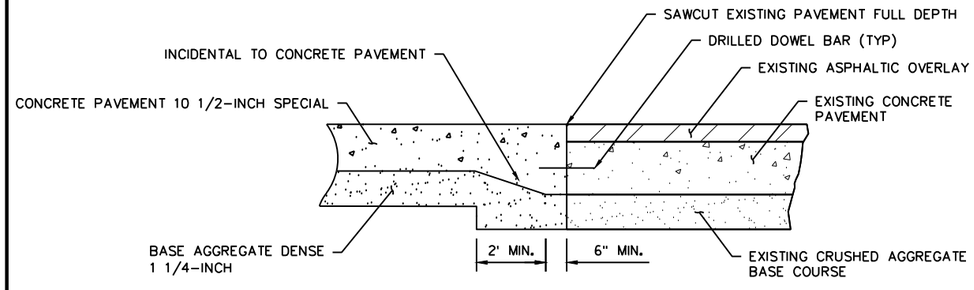
(1) 7" MINIMUM
(2) 8-1/2" MINIMUM IF BOTTOM OF CURB AND GUTTER CONSTRUCTED LEVEL

CONCRETE CURB AND GUTTER 19-INCH* AND 31-INCH*

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

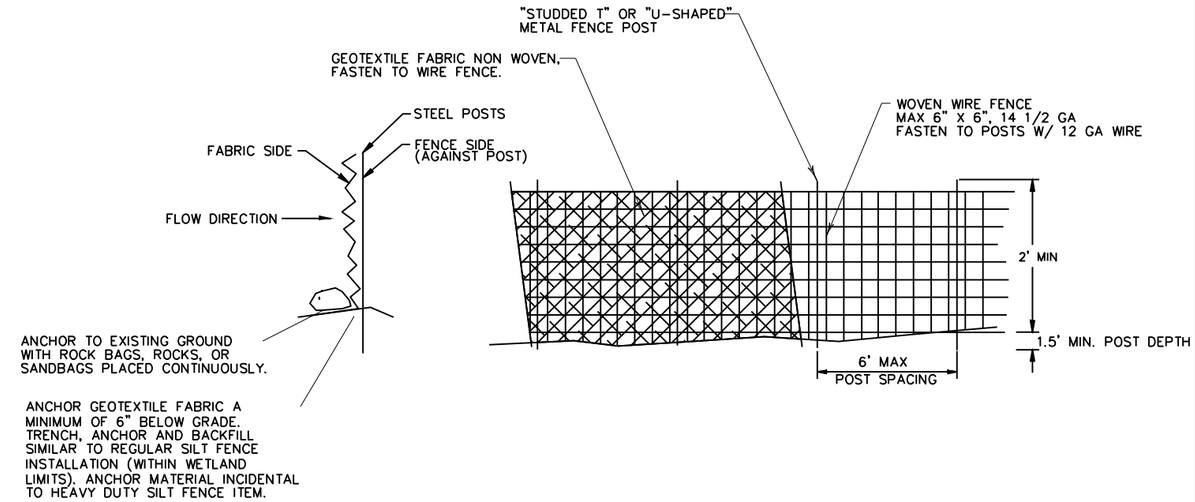


MATCH AT EXISTING CONCRETE PAVEMENT



MATCH AT EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY

2

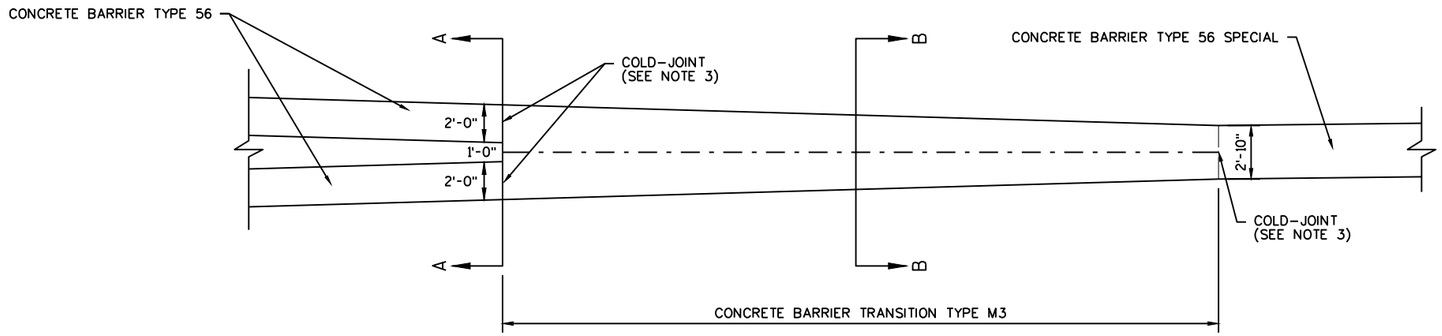


HEAVY DUTY SILT FENCE

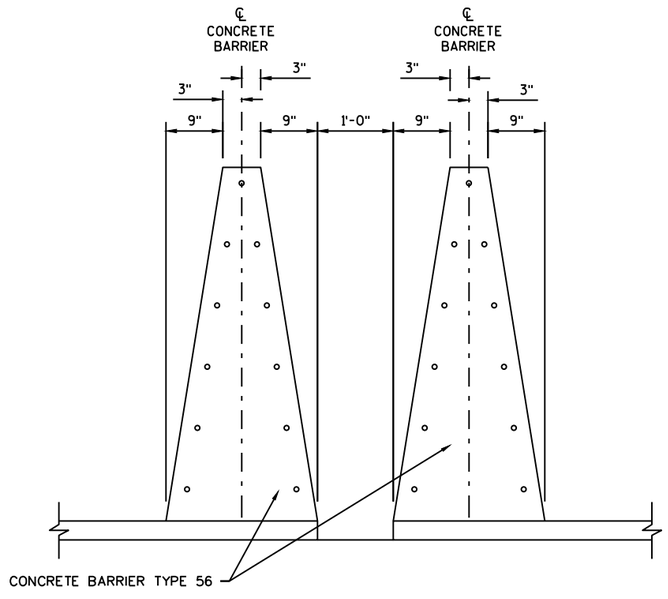
SEE EROSION CONTROL PLAN FOR LOCATIONS

PROJECT NO: 1229-04-71/-72/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

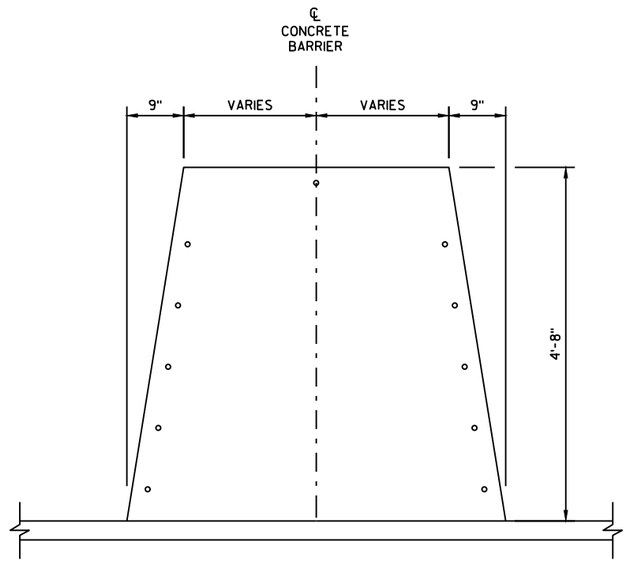
FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256213\021002_CD.DWG PLOT DATE : 9/28/2021 4:04 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:2 FT
WISDOT/CADDS SHEET 42



PLAN



SECTION A-A



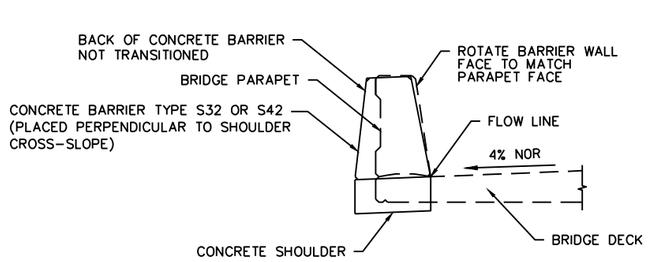
SECTION B-B

NOTES

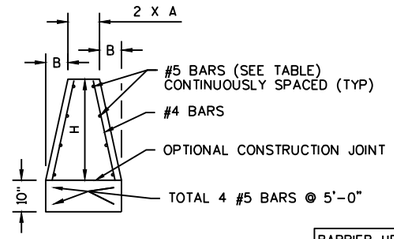
1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.

CONCRETE BARRIER TRANSITION TYPE M3

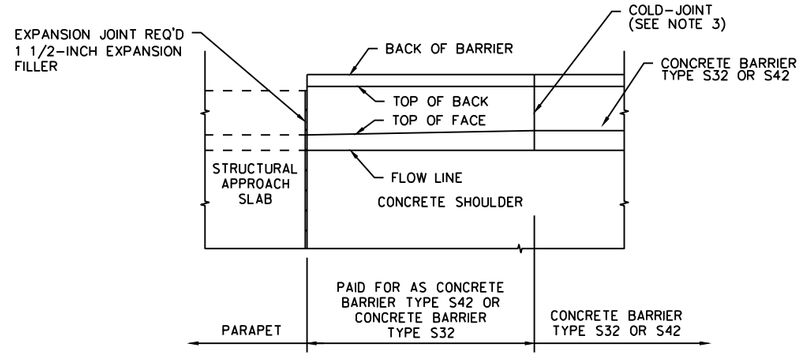
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



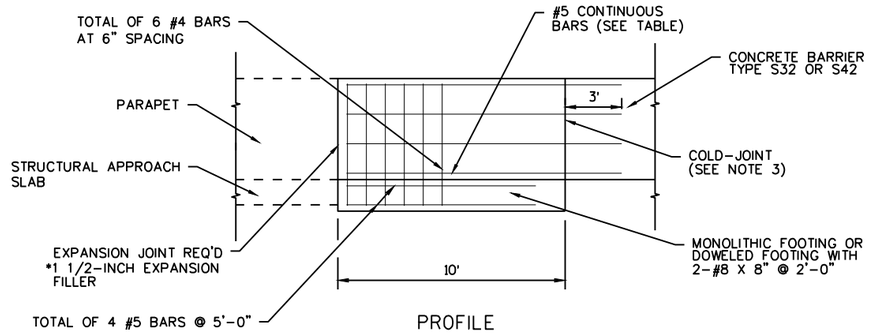
CROSS SECTION



BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
42	5 1/4	6 3/4	10



PLAN



PROFILE

NOTES

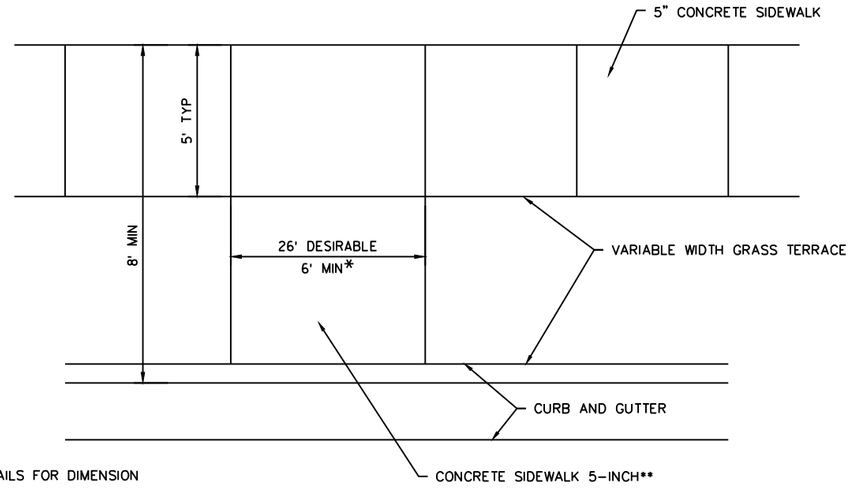
1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. ANCHORAGE IS INCIDENTAL TO CONCRETE BARRIER SINGLE SLOPE.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.

* SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN AT EXTERIOR FACE. 1-INCH DEEP AND HOLD 1/8-INCH BELOW SURFACE OF CONCRETE.

CONCRETE BARRIER TYPE S32 OR CONCRETE BARRIER TYPE S42 TRANSITION TO PARAPET 32" OR 42"

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2



* SEE PLAN DETAILS FOR DIMENSION

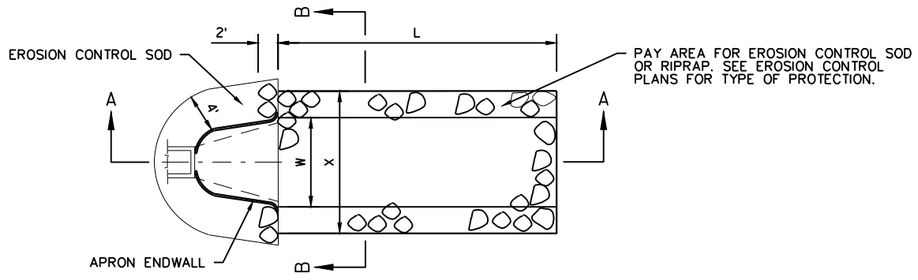
** CONCRETE SIDEWALK 6-INCH REQUIRED AT BUS SHELTER LOCATIONS

NOTES

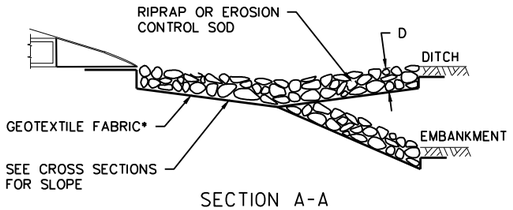
1. MAXIMUM SLOPE OF BUS STOP SHALL BE 1.5%
2. NON SLIP SURFACE REQUIRED (BROOM FINISH)

TYPICAL ADA BUS STOP

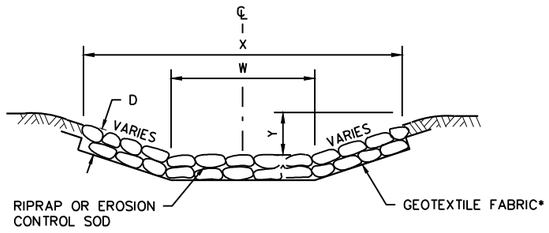
SEE PLAN DETAILS FOR ADA BUS STOP LOCATIONS



PLAN VIEW



SECTION A-A



SECTION B-B

L = 3 x W (NOR) OR 10' MIN
OR AS INDICATED IN THE PLANS
OR AS DIRECTED BY THE ENGINEER

D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

X = W+2' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+5' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

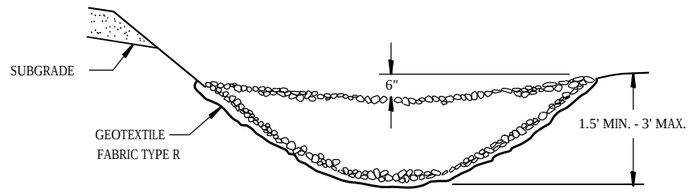
Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

* TYPE R (FOR RIPRAP LIGHT ONLY)
TYPE HR (FOR RIPRAP HEAVY AND MEDIUM ONLY)

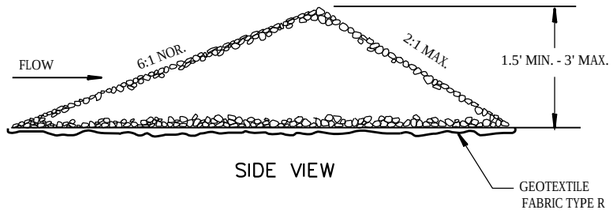
SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

SEE EROSION CONTROL PLAN FOR LOCATIONS

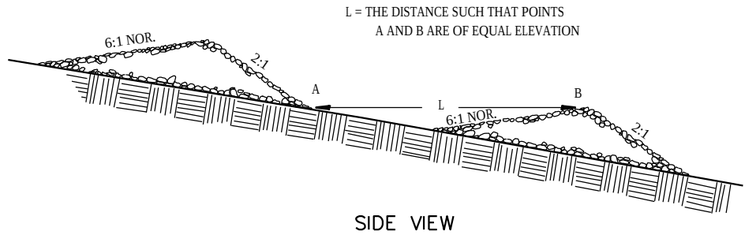
2



CROSS SECTIONAL VIEW



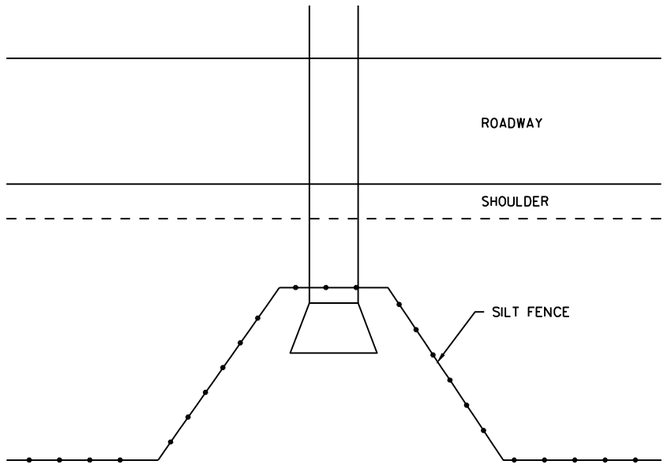
SIDE VIEW



SIDE VIEW

STONE DITCH CHECK

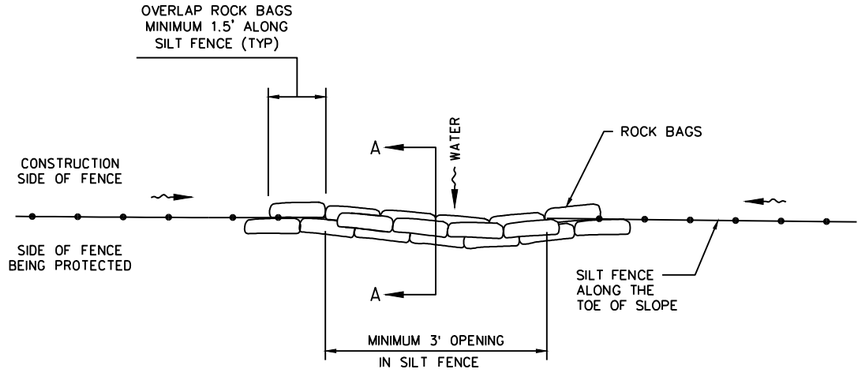
PROJECT NO: 1229-04-71/-72/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



NOTE

SEE SILT FENCE SDD FOR ADDITIONAL INFORMATION.

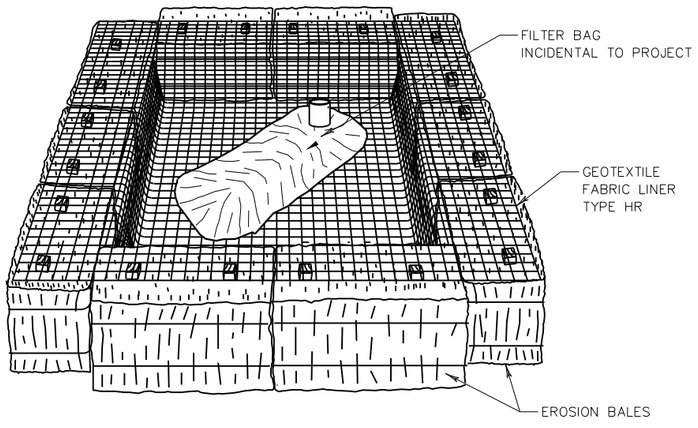
TYPICAL SILT FENCE DETAIL AT PIPE INLET



PLAN VIEW

SECTION A-A

SILT FENCE DRAINAGE OUTLET, ROCK BAGS



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

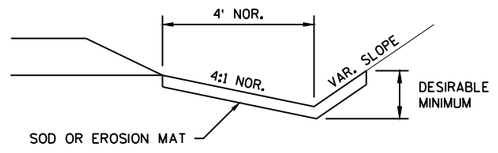
STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

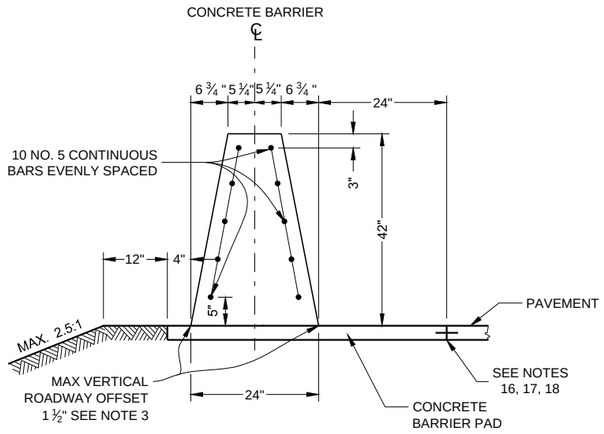
$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

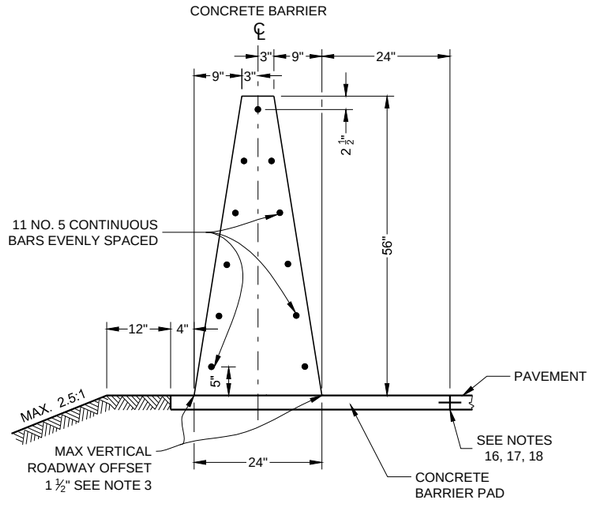


SOD OR EROSION MAT DETAIL FOR DITCHES

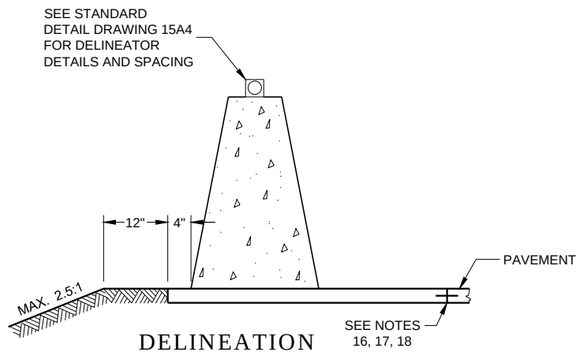
PROJECT NO: 1229-04-71/-72/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



CONCRETE BARRIER TYPE S42 SPECIAL



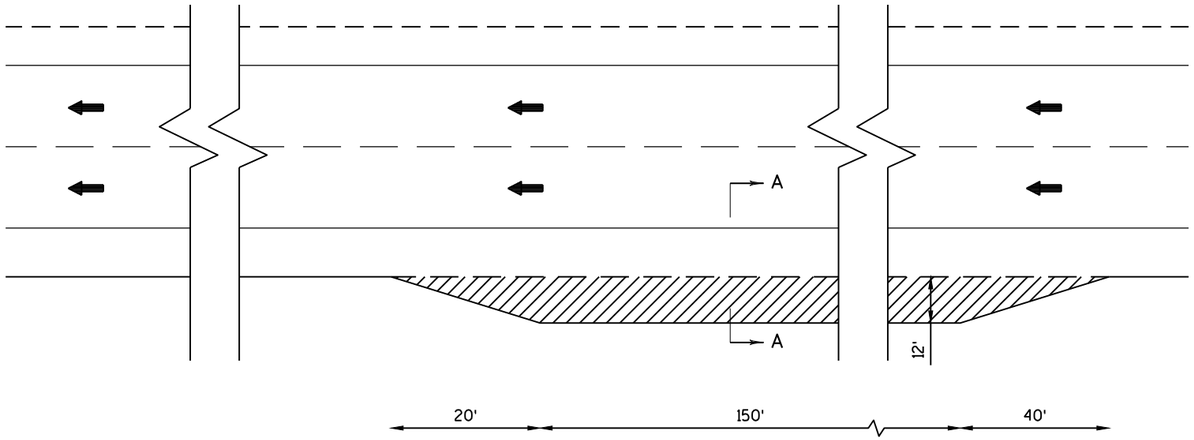
CONCRETE BARRIER TYPE S56 SPECIAL



DELINEATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OF ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAT 1", USE TYPE A.
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1' - 0".
6. MONOLITHIC FOOTING OR DOWELED FOOTING 2 - #8 X 8" @ 2'- 0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP FORMING CUT-OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. NO ADDITIONAL VERTICAL STEEL IS NEEDED.
14. DEPTH OF FOOTING 10".
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD IS EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
17. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
18. SEE SDD 13C1 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.
19. PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER FOOTING AND BARRIER. JOINT IS TO MATCH ADJACENT CONCRETE JOINTS.



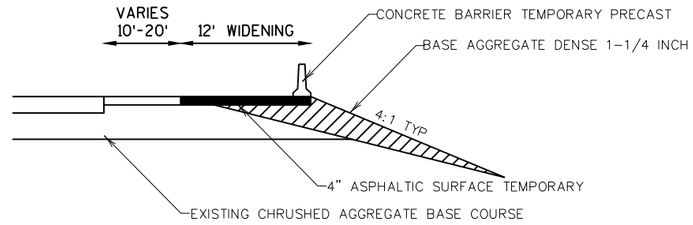
PLAN VIEW

NOTE:

1) TEMPORARY EMERGENCY PULLOUT MEDIAN PAID AS TEMPORARY EMERGENCY PULLOUT.

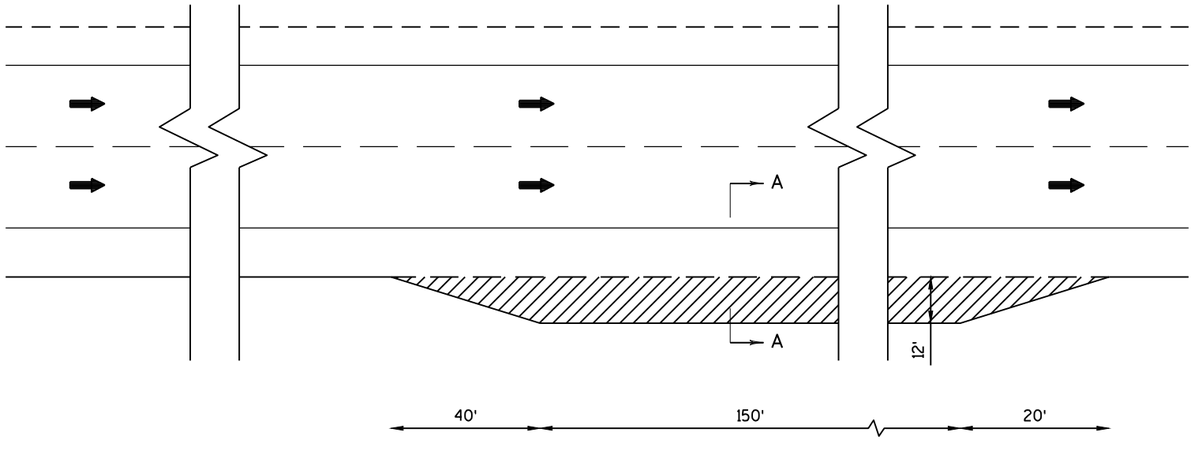
2) ASPHALTIC SURFACE TEMPORARY PAID SEPARATELY.

3) REMOVAL OF ASPHALTIC SURFACE TEMPORARY CONSIDERED INCIDENTAL TO BID ITEM.



SECTION A-A

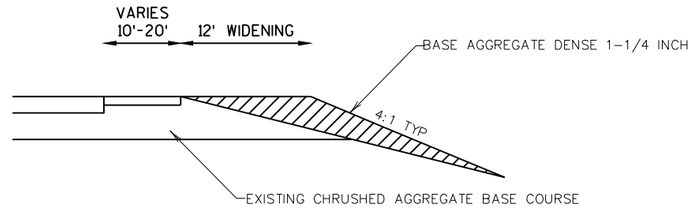
TEMPORARY EMERGENCY PULLOUT MEDIAN



PLAN VIEW

NOTE:

TEMPORARY EMERGENCY PULLOUT TO BE PLACED DURING STAGE 1B AND REMOVED DURING STAGE 4. REMOVAL INCLUDED IN BID ITEM.

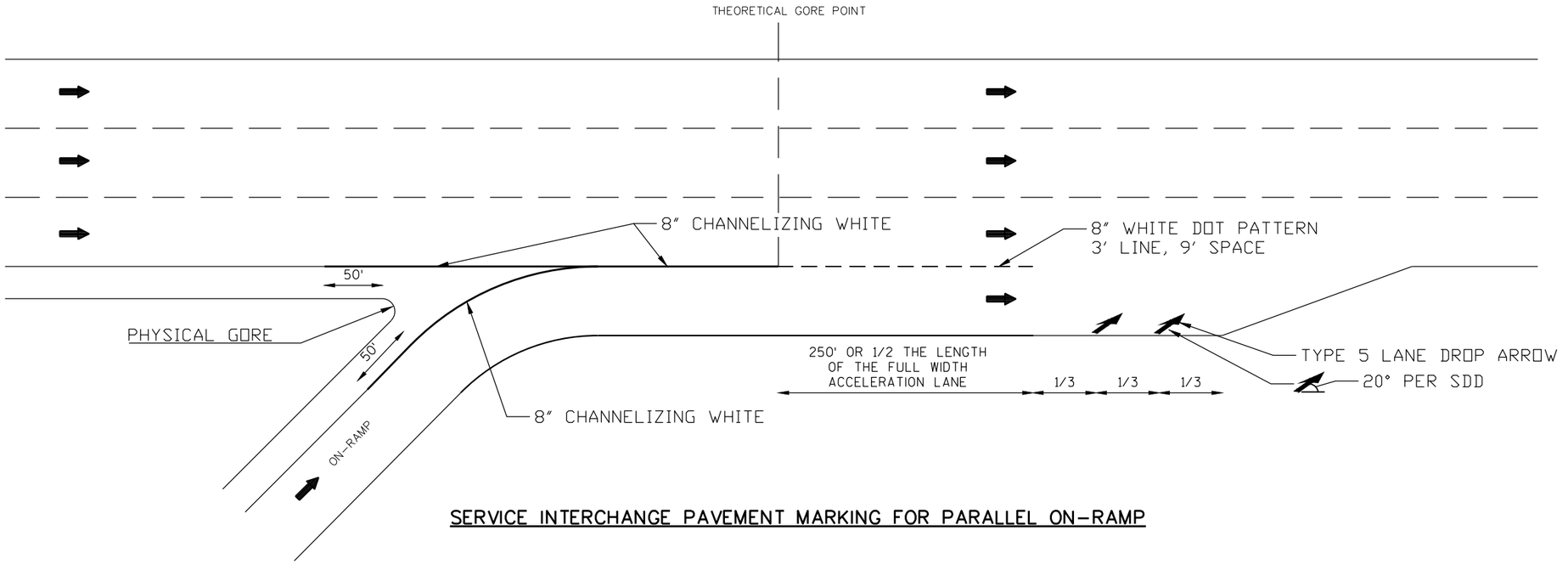


SECTION A-A

TEMPORARY EMERGENCY PULLOUT

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2



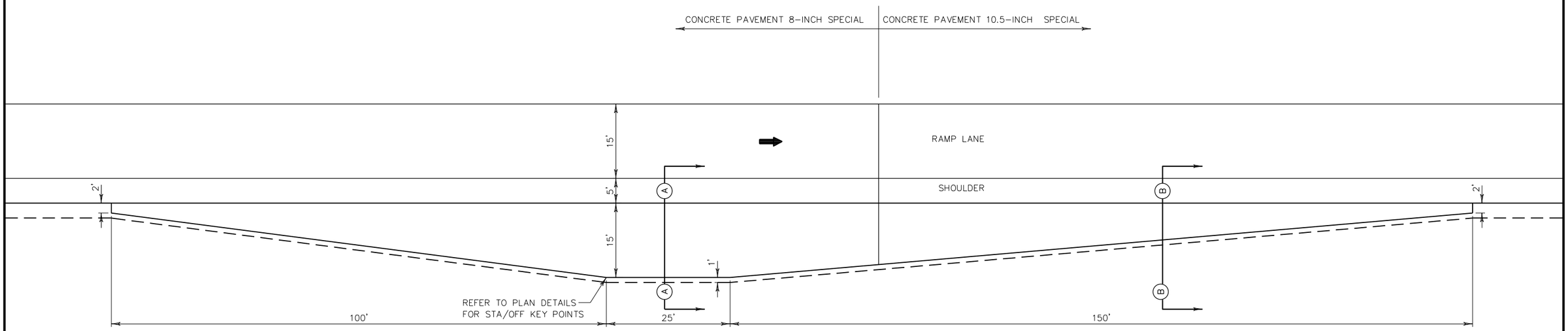
NOTE:

1. ARROW @ 1/3 POINTS
2. THIS DETAIL INCLUDES TYPE 5 LANE DROP ARROWS, BUT OTHERWISE IS INTENDED TO MATCH STANDARD DETAIL DRAWING.

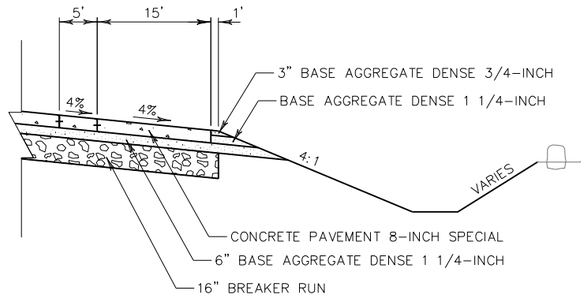
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ON-RAMP

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

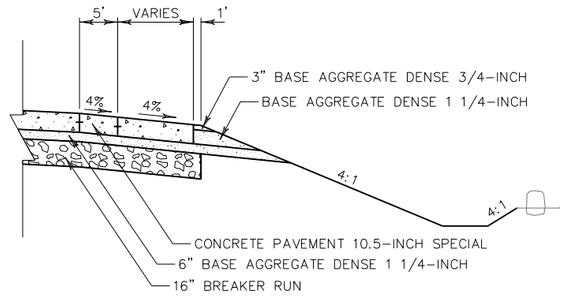
2



PLAN VIEW



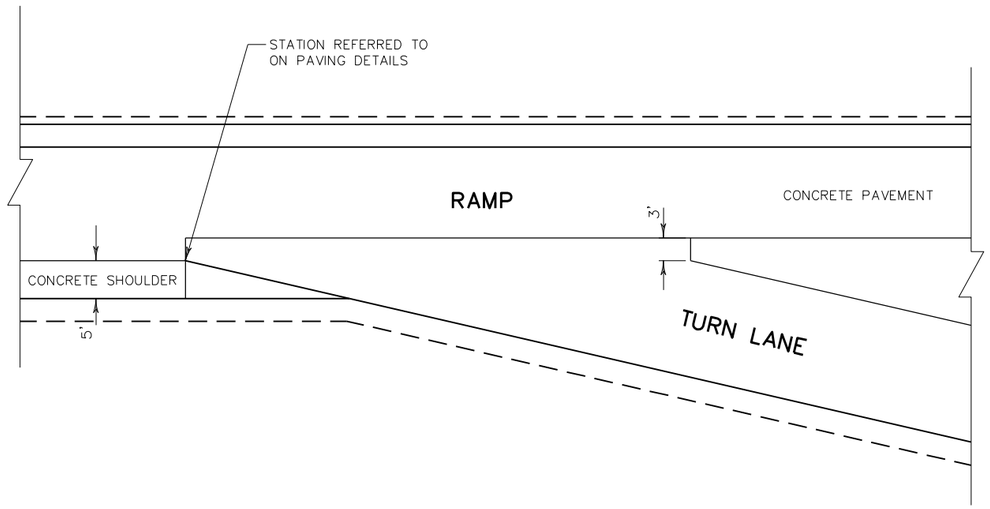
SECTION A–A



SECTION B–B

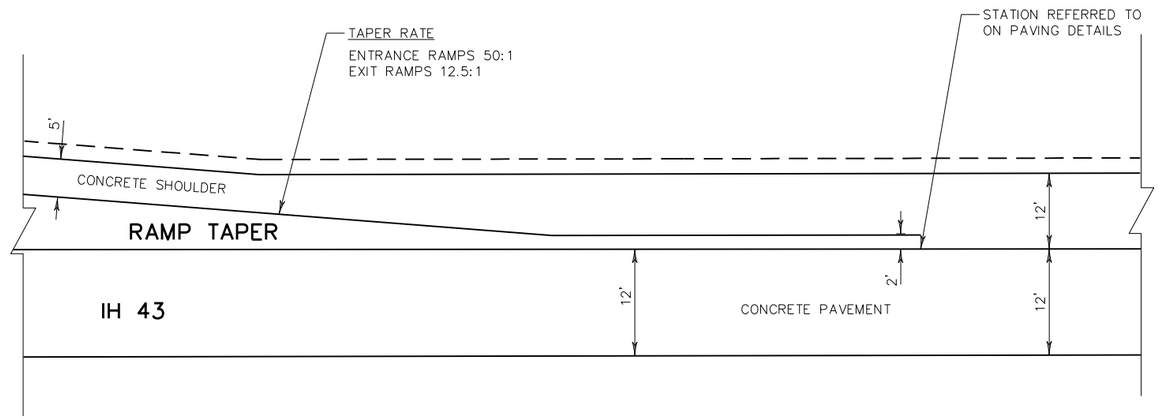
SPEED ENFORCEMENT PAD

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



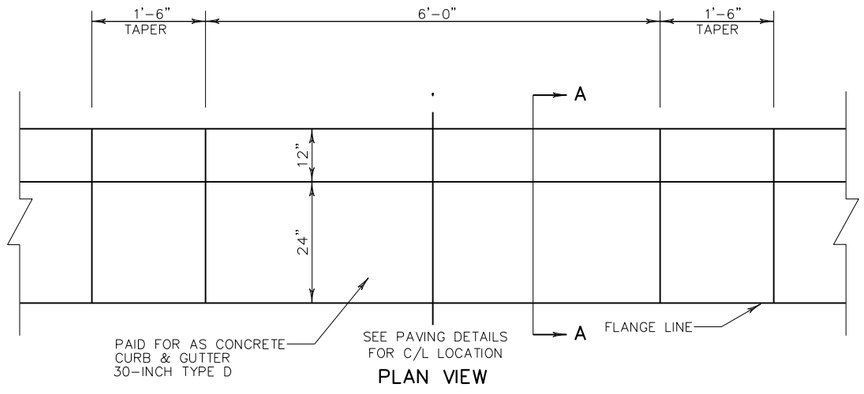
TAPER END LAYOUT FOR CONCRETE PAVEMENT

FOR TURN LANE ON RAMPS WITH CONCRETE SHOULDER

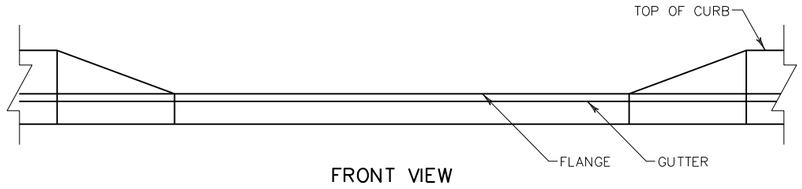


TAPER END LAYOUT FOR CONCRETE PAVEMENT

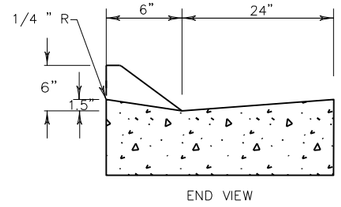
FOR ENTRANCE AND EXIT RAMP PAVEMENT NOTCH AT TAPER POINT



PLAN VIEW



FRONT VIEW

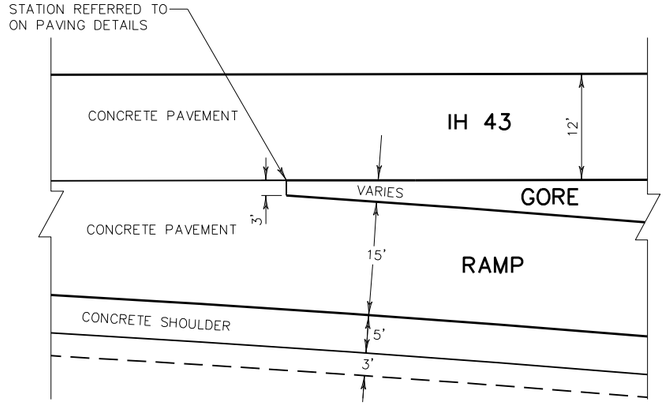


END VIEW

SECTION A-A

MAINTENANCE OPENING

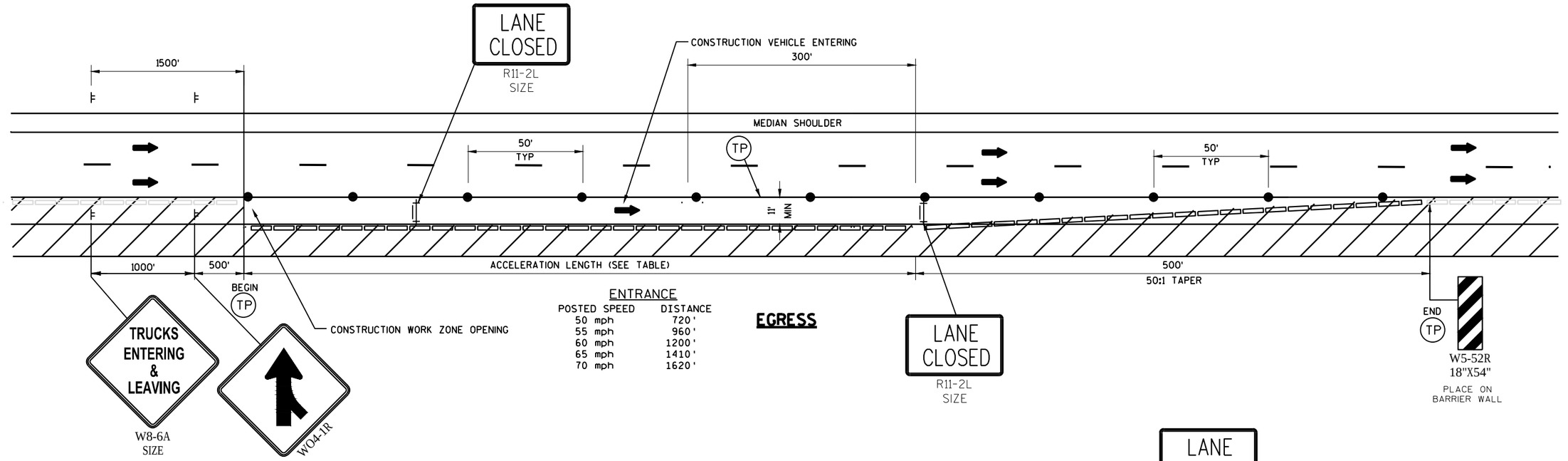
LOCATIONS SHOWN ON PAVING DETAILS



TAPER END LAYOUT FOR CONCRETE PAVEMENT

FOR ENTRANCE AND EXIT RAMP PAVEMENT NOTCH AT GORE

PROJECT NO: 1229-04-71/-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E



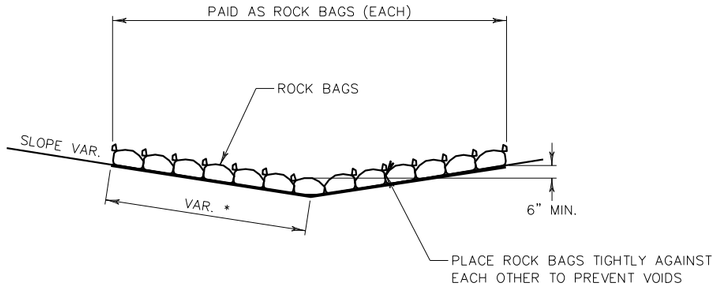
WORK ZONE INGRESS/EGRESS – 4 LANE

NOTES

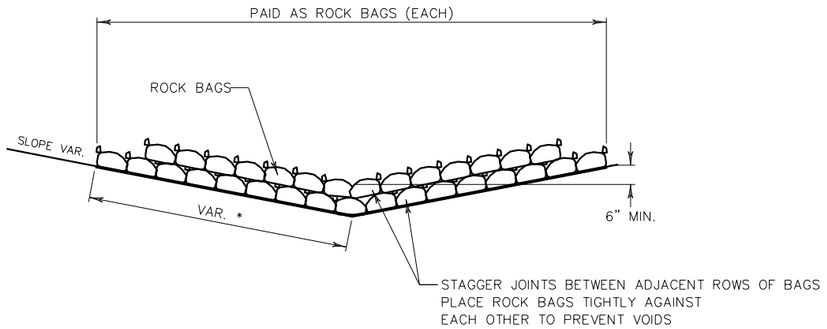
1. RIGHT LANE ACCESS SHOWN (MEDIAN LANE ACCESS SIMILAR).
2. WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.
3. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
4. TEMPORARY SUPPORTS MAYBE USED IF PLACED BEHIND TEMPORARY BARRIER WALL.
5. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
6. THE "WO" SINGS ARE THE SAME AS "W" SIGNS.
7. TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.
8. FREE FLOW TRAFFIC LANES SHALL BE A MINIMUM WIDTH OF ELEVEN FEET AND ACCOMMODATE A ONE FOOT SHY DISTANCE FROM TRAFFIC CONTROL DEVICES.
9. ITEMS ON THIS SHEET TO BE PAID USING STANDARD BID ITEMS.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2



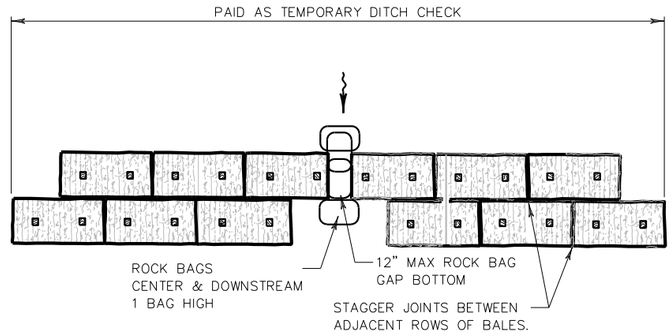
SIDE VIEW (SINGLE LAYER)



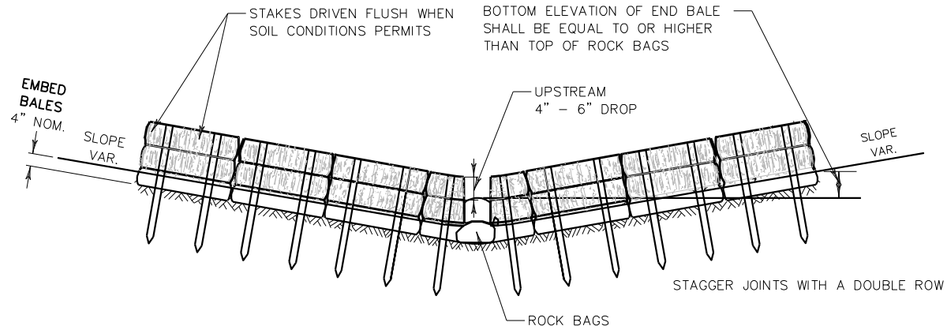
* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL.

SIDE VIEW (DOUBLE LAYER)

TEMPORARY DITCH CHECK, ROCK BAGS, SINGLE LAYER AND DOUBLE LAYER



PLAN VIEW



FRONT ELEVATION

NOTE

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TEMPORARY DITCH CHECK, MODIFIED

TEMPORARY DITCH CHECKS

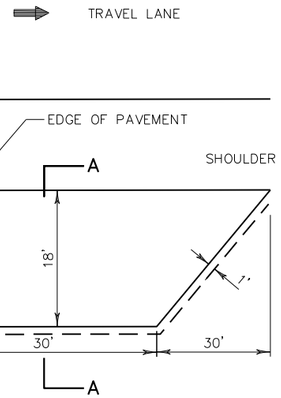
PROJECT NO: 1229-04-71/-72/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256213\021002_CD.DWG PLOT DATE : 9/28/2021 4:04 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 0.499999

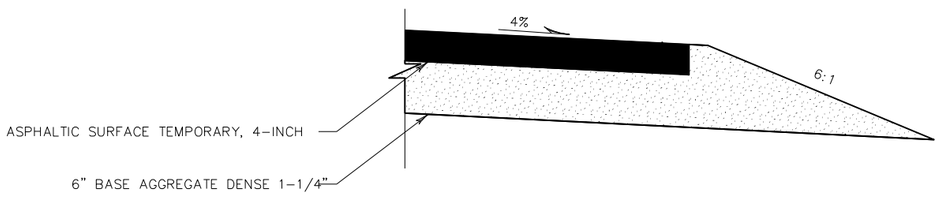
WISDOT/CADDS SHEET 42

NOTES:

1) DRAINAGE FEATURES, IF REQUIRED, ARE SHOWN ELSEWHERE. MAINTAIN MINIMUM 0.5% DITCH SLOPE



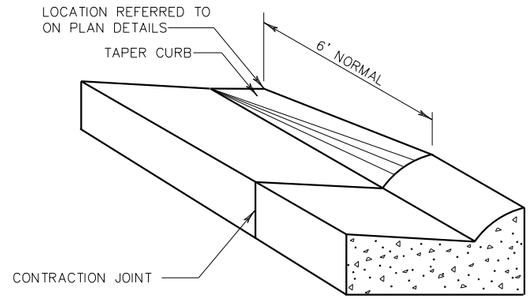
PLAN VIEW



SECTION A-A

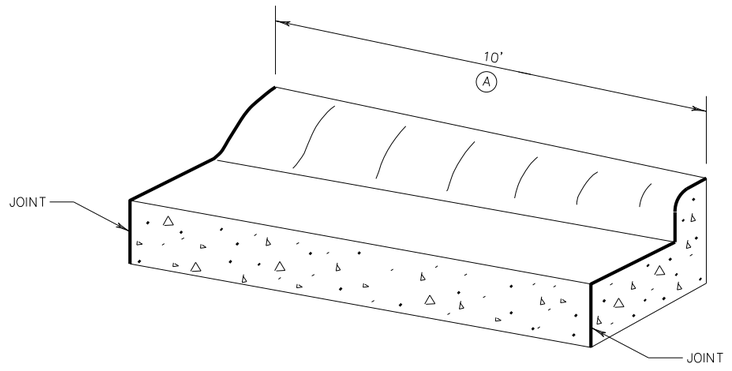
SPEED ENFORCEMENT PAD - TEMPORARY

(CONSTRUCT STAGE 3 NB STA 1648+00)



CURB & GUTTER TERMINI

SEE PLAN DETAILS FOR LOCATIONS



NOTE

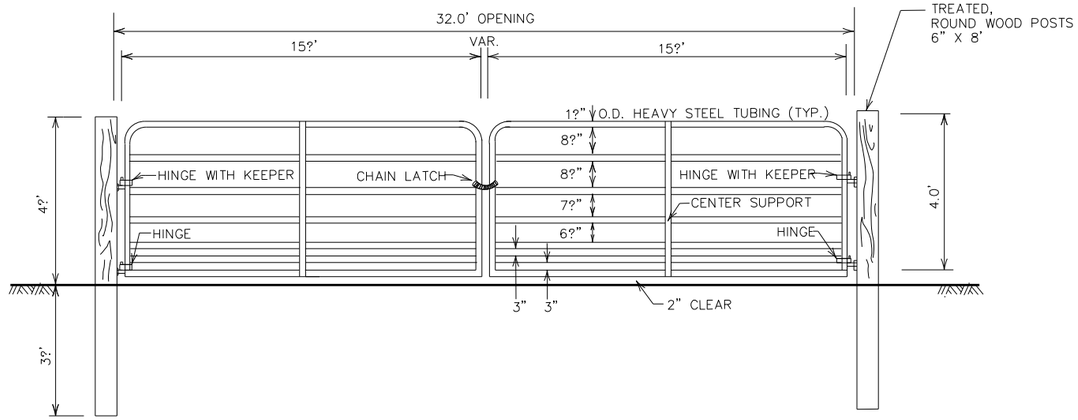
Ⓐ 36" CURB & GUTTER TO 30" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CURB & GUTTER)

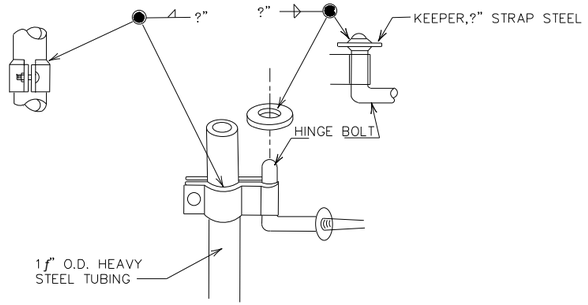
CURB & GUTTER TRANSITION

SEE PLAN DETAILS FOR LOCATIONS

PROJECT NO: 1229-04-71/-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

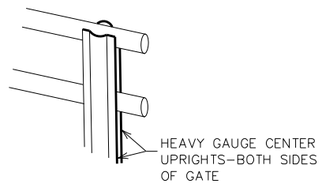




DETAIL FOR
WRAP–AROUND HINGE

NOTES:

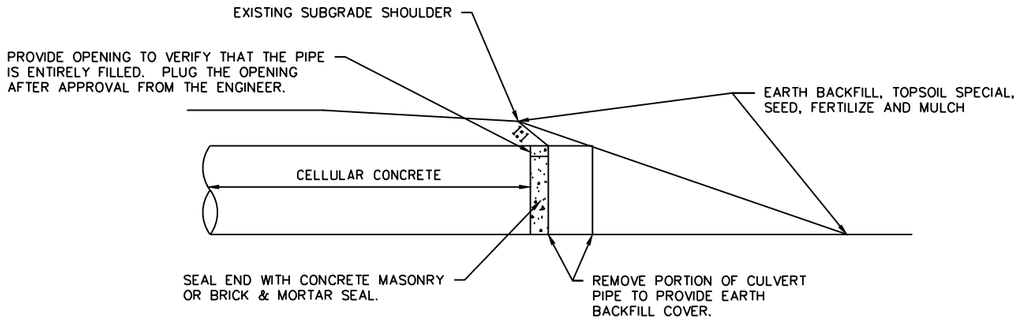
1. KEEPER TO BE ATTACHED TO TOP HINGE OF EACH GATE ONLY.
2. KEEPER SHALL BE FITTED AFTER THE GATE IS HUNG IN PLACE.
3. KEEPER TO BE OF SUCH DIMENSIONS TO PROVIDE CLEARANCE FOR LATERAL SWING.
4. DRILL HOLE IN KEEPER OF SUFFICIENT DIAMETER TO PROVIDE SNUG FIT OVER HINGE BOLT.
5. EXACT LOCATION OF GATE TO LINE UP WITH TEMPORARY RAILROAD CROSSING.
6. A 1"X4' LONG STEEL REINFROCEMENT ROD SHALL BE EMBEDDED 3' INTO THE GROUND AT EACH GATE TO PREVENT THE GATES FROM SWINGING TOWARDS THE TRACKS.



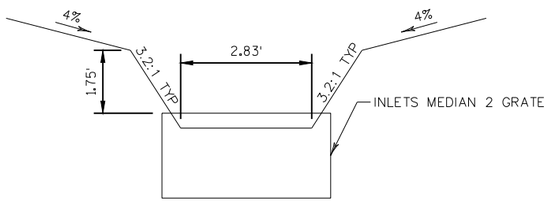
DETAIL FOR
CENTER SUPPORT

DETAIL FOR
TEMPORARY ACCESS GATES

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

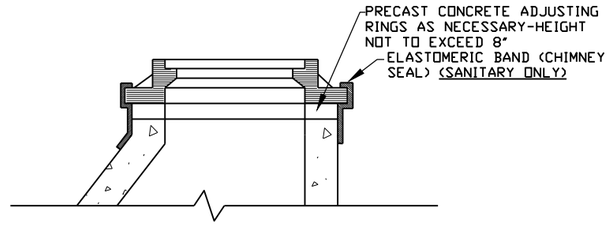


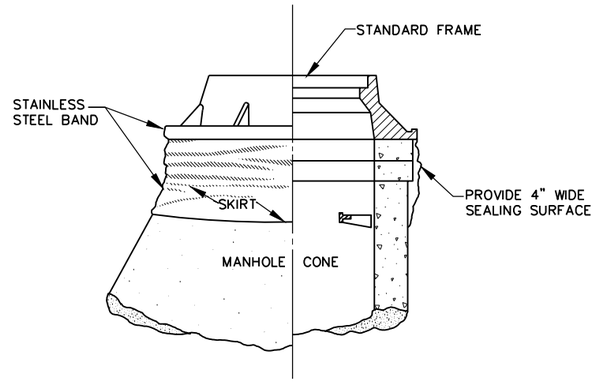
ABANDONING SEWER DETAIL



TYPICAL SECTION AT MEDIAN INLET

NOT TO SCALE

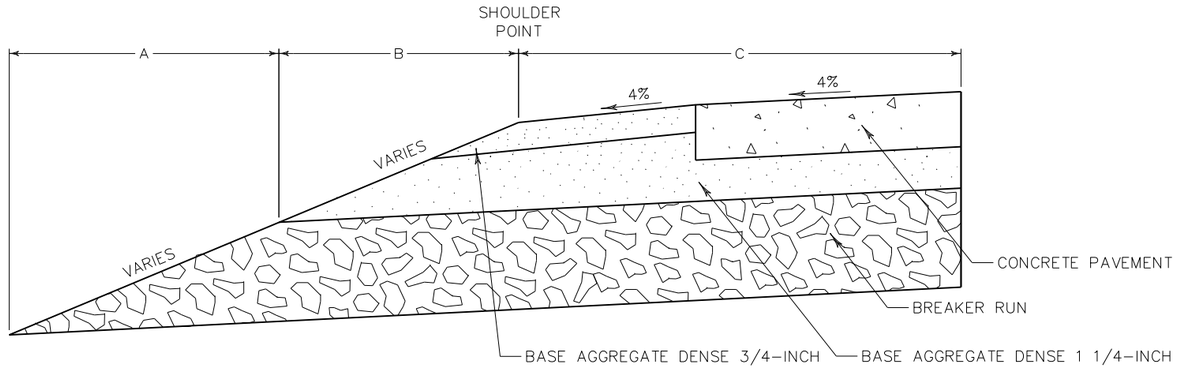




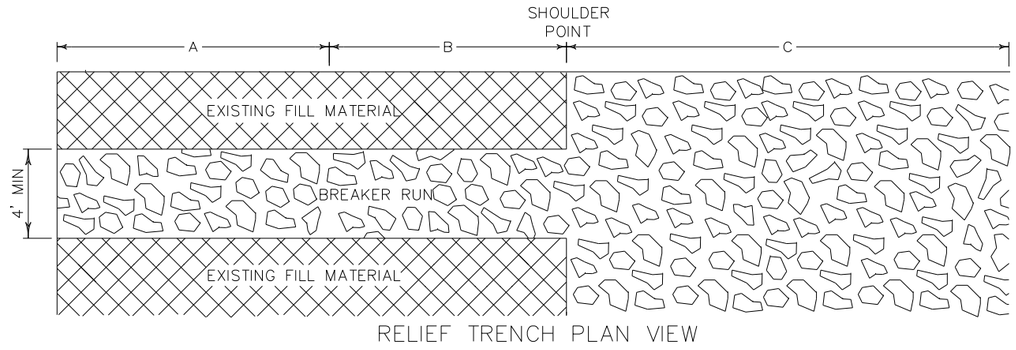
1. CHIMNEY SEALS SHALL BE INSTALLED ON ALL SANITARY SEWERAGE SYSTEM MANHOLES.
2. CRETEX OR NPC FLEXRIB EXTERNAL OR INTERNAL SEALS ARE RECOMMENDED; ALL OTHER PRODUCTS OR OTHER DESIGN SOLUTIONS SHALL REQUIRE THE APPROVAL OF THE ENGINEER.
3. CHIMNEY SEALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

ADJUSTING SANITARY MANHOLE

2



TYPICAL HALF SECTION WITH RELIEF TRENCH



RELIEF TRENCH PLAN VIEW

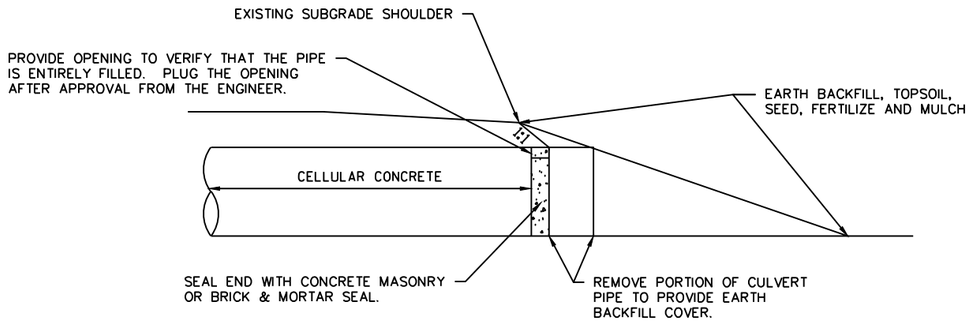
RELIEF TRENCH

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256213\021002_CD.DWG PLOT DATE : 9/28/2021 4:04 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 0.499998

WISDOT/CADDS SHEET 42

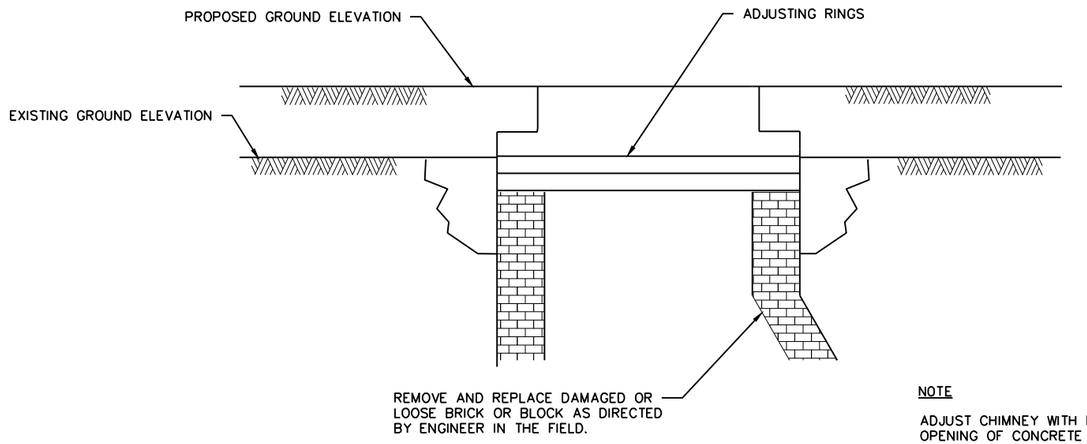
2



ABANDONING SEWER DETAIL

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

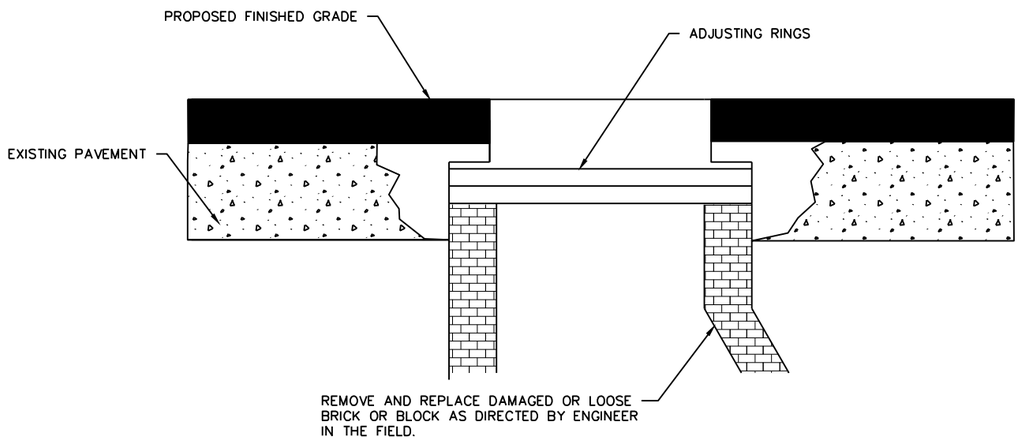
2



NON-PAVED AREA

NOTE

ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE. (BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVER.)

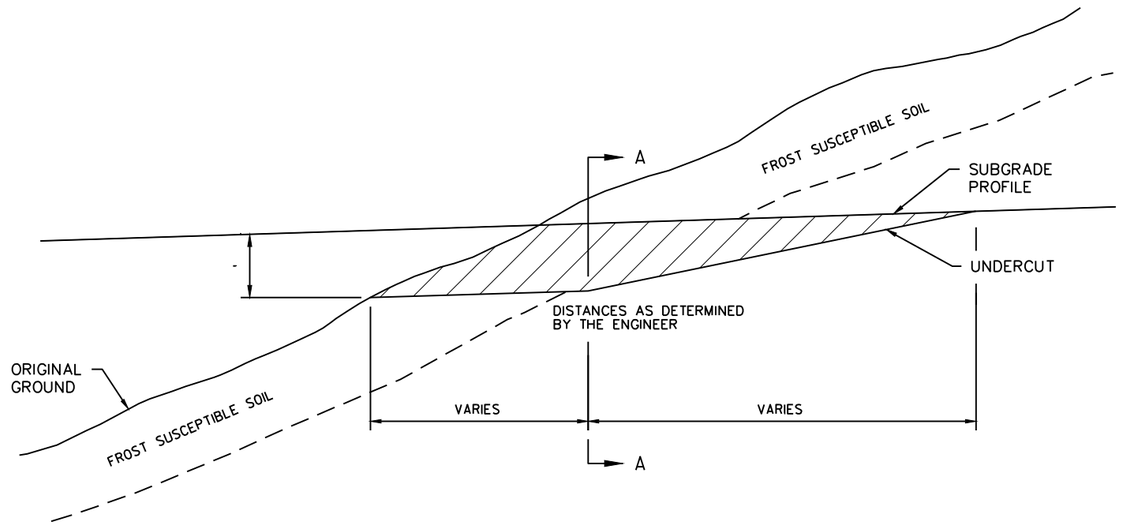


PAVED AREA

ADJUSTING MANHOLE OR INLET COVERS

PROJECT NO: 1229-04-71/-73/-95	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2



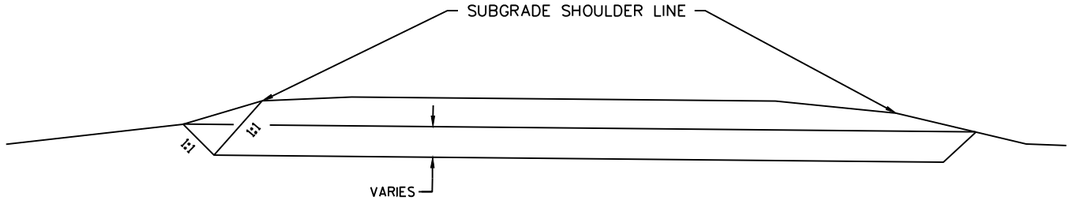
NOTE

EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.

BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.

THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.



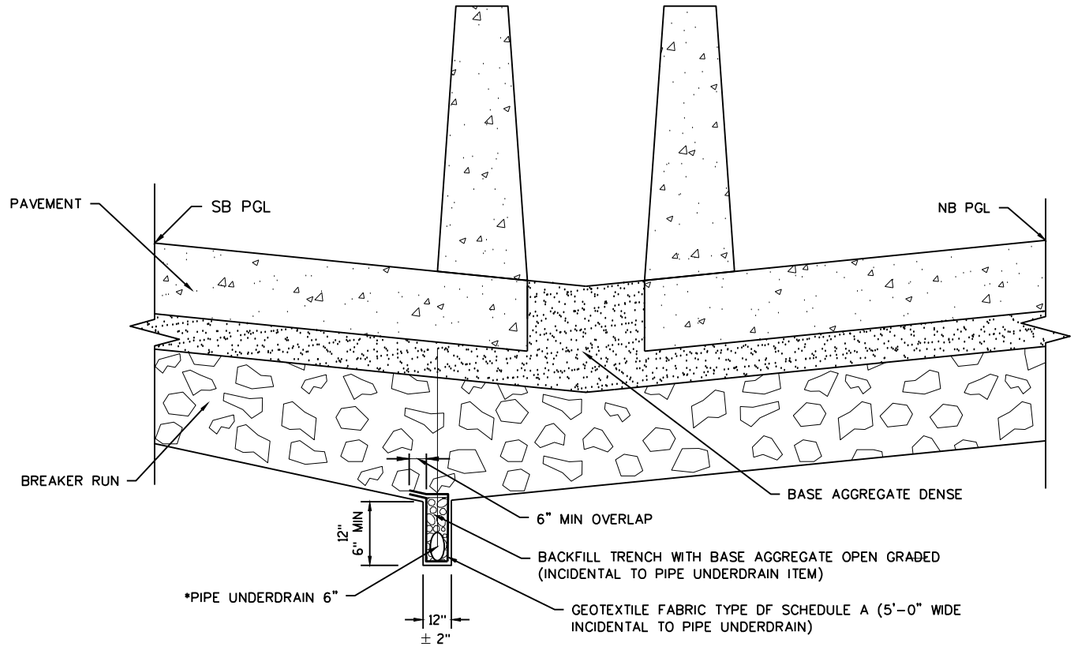
SECTION A-A

CROSS SECTION SHOWING UNDERCUT

EXCAVATION BELOW SUBGRADE AT CUTS

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2



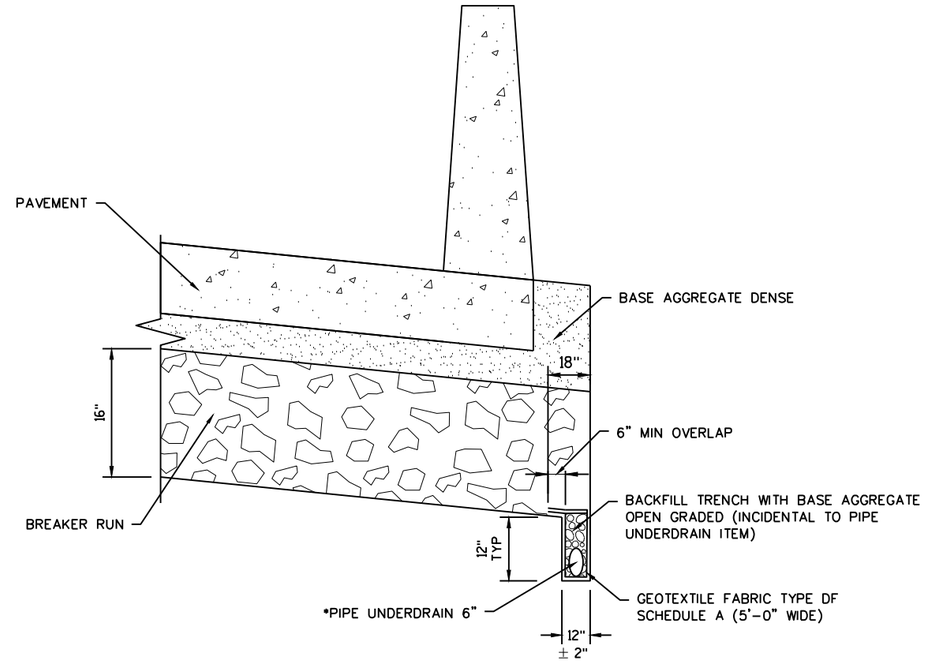
MEDIAN UNDERDRAIN TRENCH DETAIL

NOTE

* WHEN PROJECT IS SPLIT INTO STAGES INSTALL PIPE UNDERDRAIN IN EARLY STAGE.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

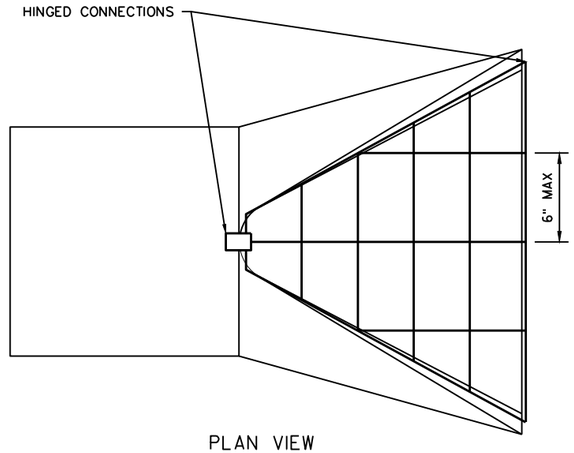
2



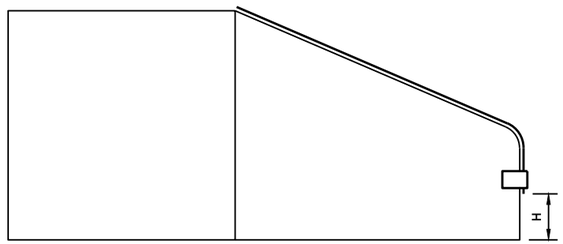
OUTSIDE SHOULDER UNDERDRAIN TRENCH DETAIL

NOTE

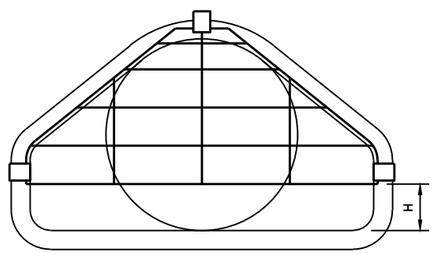
*WHEN PROJECT IS SPLIT INTO STAGES INSTALL PIPE UNDERDRAIN IN EARLY STAGE.



PLAN VIEW



SIDE VIEW



END VIEW

GRATE CLEARANCE HEIGHT

ROUND PIPE		ARCH PIPE	
PIPE SIZE	H	PIPE SIZE	H
12"	2 1/2"	22" - 29"	4"
15"	3"	36" - 44"	5"
18" - 24"	4"	51" - 65"	6"
27" - 36"	5"	73" - 85"	7"
42" - 54"	6"		
60" - 72"	7"		
78" - 90"	8"		

GRATE BAR SIZES

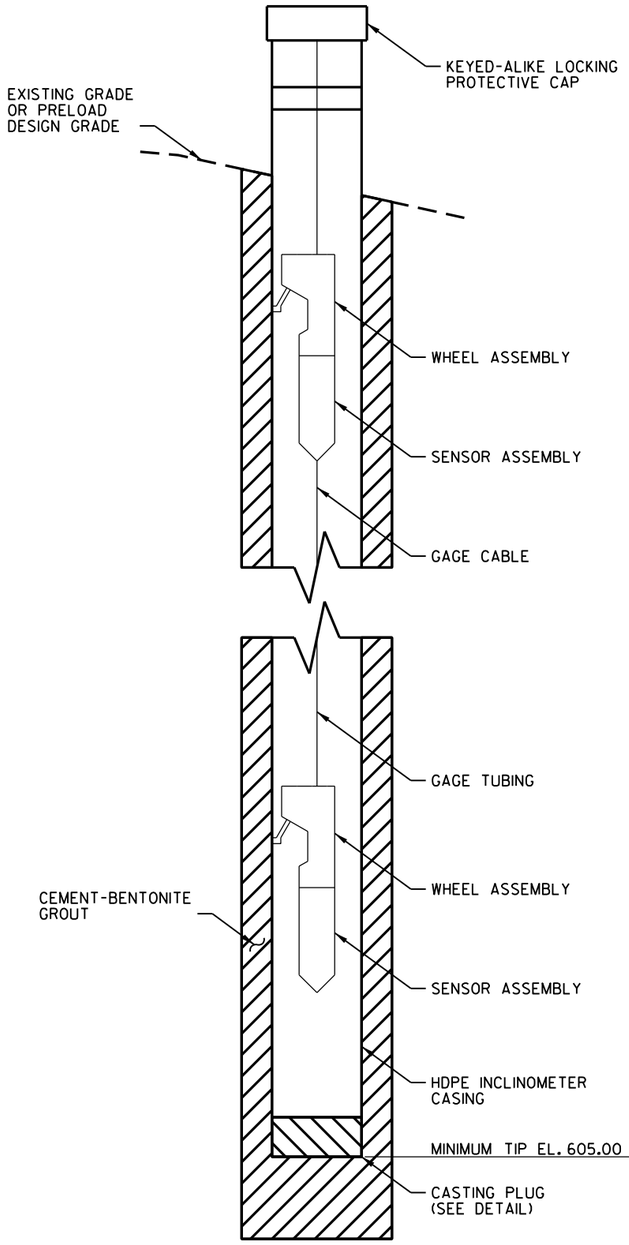
(STANDARD DESIGN)

		HOLE DIAMETER REQUIRED	BOLT DIAMETER	BAR SIZE
ROUND PIPE	12" - 24"	3/4"	5/8"	5/8"
	27" - 48"	7/8"	3/4"	3/4"
	54" - 90"	1 1/8"	1"	1"
ARCH PIPE	22" - 29"	3/4"	5/8"	5/8"
	36" - 59"	7/8"	3/4"	3/4"
	65" - 85"	1 1/8"	1"	1"

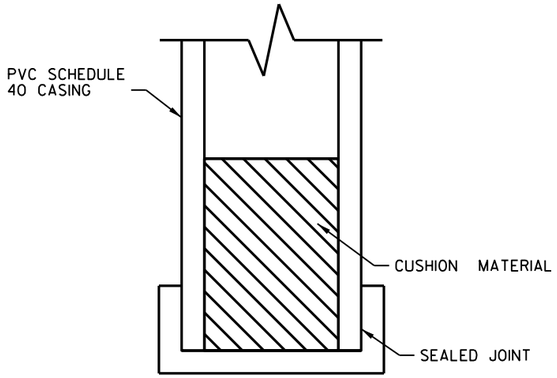
BOLT LENGTH = PIPE WALL THICKNESS + 2 1/2"

PIPE GRATE

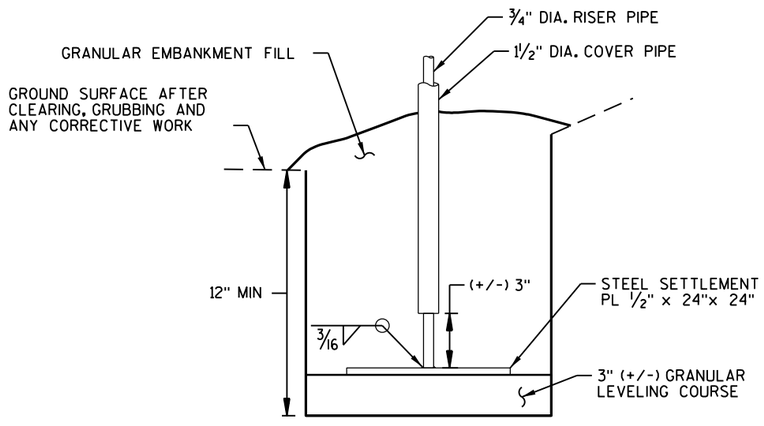
NOTE TO DESIGNERS: WHEN USING THIS DETAIL DRAWING, INCLUDE STSP 611.010



INCLINOMETER DETAIL
NOT TO SCALE



INCLINOMETER CASING PLUG DETAIL
NOT TO SCALE



SETTLEMENT GAUGE DETAIL
NOT TO SCALE

GENERAL NOTE

1. SETTLEMENT GAUGES AND INCLINOMETERS SHALL BE INSTALLED AND LOCATED PER THE GEOTECHNICAL REPORT DATED JUNE 1, 2021.

INCLINOMETER NOTES

1. DRILL 4" HOLE OR LARGER FOR INCLINOMETER INSTALLATION AND BACKFILL ANNULAR SPACE WITH A CEMENT-BENTONITE GROUT MIXTURE.
2. EXTEND TOP OF INCLINOMETER CASING DURING THE PLACEMENT OF FILL TO ENSURE ACCESS OF DATA MEASUREMENT AND RECORDING.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING INCLINOMETERS AS SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING AND EVALUATING THE INCLINOMETERS AT A MINIMUM OF ONCE PER DAY DURING EMBANKMENT PLACING OR AS INSTRUCTED BY WISDOT. THE RESULTS SHOULD BE PROVIDED BY THE CONTRACTOR TO WISDOT THE SAME DAY AS THE READINGS. IF SLOPE MOVEMENT IS NOTED, ALL CONSTRUCTION ACTIVITY SHOULD BE REVIEWED BY THE ENGINEER AND WISDOT AND HALTED.

SETTLEMENT GAUGE NOTES

1. BEFORE PLACING EMBANKMENT FILL, CONSTRUCT AND MONITOR SETTLEMENT GAUGES IN ACCORDANCE WITH THE PROJECT MANUAL, AT PLAN LOCATIONS SHOWN.
2. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE SETTLEMENT GAUGES FROM DAMAGE AND KEEP RISER PIPE AND COVER PIPE IN A PLUMB POSITION. REPAIR OR REPLACE ANY DAMAGED OR INOPERABLE SETTLEMENT GAUGES.
3. COLLECT SETTLEMENT GAUGE READINGS AND PROVIDE READINGS TO UPRR AS READINGS ARE COLLECTED. BENCHMARK USED SHALL MEET WITH UPRR'S APPROVAL AND SHALL BE LOCATED OUTSIDE THE INFLUENCE OF CONSTRUCTION AND FILL PLACEMENT. COLLECT SETTLEMENT GAUGE READINGS EACH DAY FILL IS PLACED. FOLLOWING COMPLETION OF FULL HEIGHT CONSTRUCTION COLLECT SETTLEMENT GAUGE READINGS TWICE WEEKLY OR AS DIRECTED BY UPRR'S ENGINEER.

SETTLEMENT GAUGE AND INCLINOMETER LOCATIONS

STATION	OFFSET FROM EXISTING CL	DESCRIPTION	SETTLEMENT GAUGE LOCATION	INCLINOMETER TIP ELEVATION
124+00	10' N	NORTH EDGE, TOP OF EXISTING EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	605'
124+00	40' N	MIDDLE PORTION OF PROPOSED EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	N/A
124+00	70' N	TOE OF EXISTING EMBARNKMENT, NORTH SIDE	N/A	605'
124+00	50' S	LOWER PORTION OF EXISTING EMBANKMENT, SOUTH SIDE	N/A	605'
126+00	10' N	NORTH EDGE, TOP OF EXISTING EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	605'
126+00	45' N	MIDDLE PORTION OF PROPOSED EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	N/A
126+00	85' N	TOE OF EXISTING EMBARNKMENT, NORTH SIDE	N/A	605'
129+00	10' N	NORTH EDGE, TOP OF EXISTING EMBANKMENT	N/A	605'
129+00	55' N	MIDDLE PORTION OF PROPOSED EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	N/A
129+00	70' N	TOE OF EXISTING EMBARNKMENT, NORTH SIDE	1 FT BELOW FINISHED SUBGRADE ELEVATION	605'
131+00	55' S	LOWER PORTION OF EXISTING EMBANKMENT, SOUTH SIDE	N/A	605'
135+00	10' N	NORTH EDGE, TOP OF EXISTING EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	605'
135+00	50' N	MIDDLE PORTION OF PROPOSED EMBANKMENT	1 FT BELOW FINISHED SUBGRADE ELEVATION	N/A
135+00	70' N	TOE OF EXISTING EMBARNKMENT, NORTH SIDE	N/A	605'

2

2

1085+75.00

W. BENDER RD.

N. JEAN NICOLET RD.

SB IH 43

NB IH 43

N. PORT WASHINGTON RD.

E. DEVON ST.

EXCV1077

(1) INSTALL PROPOSED CONDUIT INTO EXISTING ITEM
(76) F.O. SPLICES IN NEW SPLICE ENCLOSURE (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

MB1078

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

EX-AFS4

CCTV-400-0238

(1) 50-FOOT CAMERA POLE CONCRETE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(2) MICROWAVE VEHICLE DETECTORS (ETHERNET) (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX (S-F)
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

(3) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

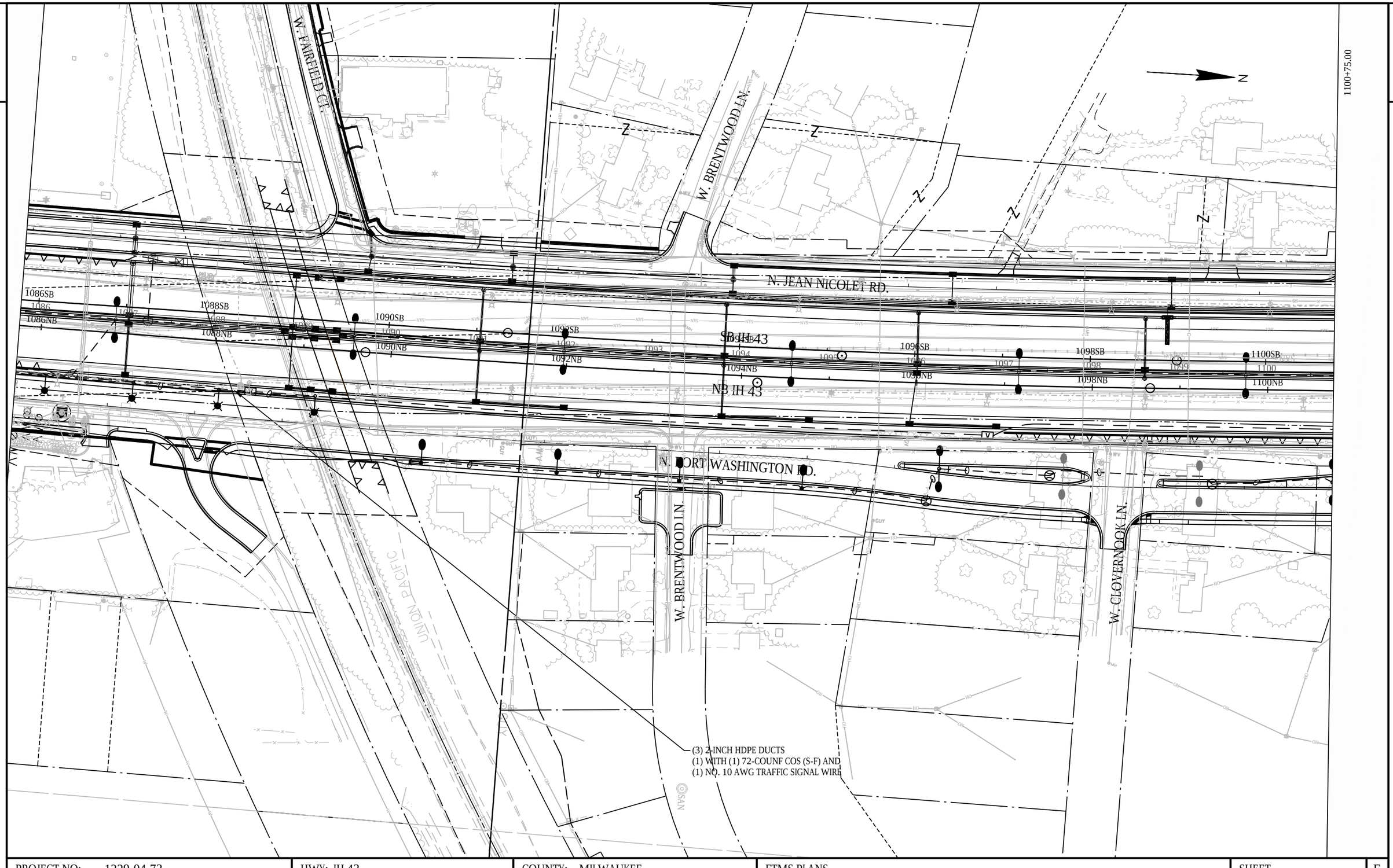
1071 1072SB 1072 1072NB 1073 1074SB 1074 1074NB 1075 1076SB 1076 1076NB 1077 1078SB 1078 1078NB 1079 1080SB 1080 1080NB 1081 1082SB 1082 1082NB 1083 1084SB 1084 1084NB 1085

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (20)

PLOT DATE : 9/29/2021 2:26 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (21)

PLOT DATE : 9/29/2021 2:27 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

1115+75.00

W. ACACIA RD.

W. APPLE TREE RD.

N. JEAN NICOLET RD.

W. DAPHNE RD.

SB IH 43

NB IH 43

N. PORT WASHINGTON RD.

W. APPLE TREE RD.

W. DAPHNE RD.

1101 1102SB 1102NB 1103 1104SB 1104NB 1104 1105 1106SB 1106NB 1106 1107 1108SB 1108NB 1108 1109 1110SB 1110NB 1110 1111 1112SB 1112NB 1112 1113 1114SB 1114NB 1114 1115

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CV1112
(1) TYPE 1 COMMUNICATIONS VAULT
(4) F.O. SPLICES IN NEW SPLICE ENCLOSURE (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

MBCCTV400079
(1) ELECTRICAL SERVICE METER BREAKER PEDESTAL

CCTV-40-0079 / SDS-40-0054
(1) 50-FOOT CAMERA POLE CONCRETE BASE (S-F)
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(2) MICROWAVE VEHICLE DETECTORS (ETHERNET) (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) FO TERMINATIONS
(1) ETHERNET SWITCH (S-F)

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

2

2

N. JEAN NICOLET RD.

SB IH 43

NB IH 43

1116SB 1118SB 1120SB 1122SB 1124SB 1126SB 1128SB 1130SB

1116NB 1118NB 1120NB 1122NB 1124NB 1126NB 1128NB 1130NB

1120GHE 1121+00 1122GHE 1123+00 1124GHE 1125+00 1126GHE 1127+00 1128GHE 1129+00 1130GHE 1131+00.00

1120GHB 1121+00 1122GHB 1123+00 1124GHB 1125+00 1126GHB 1127+00 1128GHB 1129+00 1130GHB

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

DP1133
(1) TYPE 6 CONCRETE BASE
(1) 12-1/2-INCH TRANSFORMER BASE
(1) TYPE 6 POLE
(3) MICROWAVE VEHICLE DETECTORS (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES

PB1133

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE
(1) WITH (6) LDLIC

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) MD CABLES AND (1) NO. 10 AWG
TRAFFIC SIGNAL WIRE

(3) OVERHEAD RAMP CONTROL
SIGNAL ASSEMBLIES

(1) 2-INCH NONMETALLIC CONDUIT WITH
(1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CV1145

MB1145
(1) ELECTRICAL SERVICE METER BREAKER PEDESTAL

CB CCTV-40-0080 / RM-40-0023
(1) ITS FIELD CABINET BASE
(1) ITS FIELD CABINET (S-F)
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)
(1) TERMINAL SERVER (S-F)
(1) RAMP METER CONTROLLER (S-F)
(8) LOOP EMULATION CARDS (S-F)
(11) LOOP AMPLIFIER CARDS (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) LDLIC AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES
(1) WITH (1) 9/C NO. 14 AWG
TRAFFIC SIGNAL CABLE
(1) WITH (9) LDLIC

PB1142
PB1143
PB1144
PB1145
PB1146

(3) 2-INCH HDPE DUCTS
BEHIND RETAINING WALL
(1) WITH (1) 72-COUNT FOC (S-F)
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CB-CCTV-40-0080 / RM-40-0023 CONDUIT AND CABLE
MB1145 - BREAKER DISCONNECT BOX
(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES
CB-CCTV-40-0080 - PB1143
(6) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (11) LDLIC
(1) WITH (6) MD CABLES
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE
(1) WITH (1) CAMERA CABLE
PB1143 - FY 1144
(1) 2-INCH NONMETALLIC CONDUIT WITH
(2) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLES
PB1143 - PB 1144
(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) CAMERA CABLE
PB1144 - FY1145
(1) 2-INCH NONMETALLIC CONDUIT WITH
(1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE
PB1145 - PB1146
(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) CAMERA CABLE
PB1146 - CCTV-40-0080
(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) CAMERA CABLE

CCTV-40-0080
(1) 50-FOOT CAMERA POLE BASE (S-F)
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CV1144

W. GREEN TREE RD.
S. 76TH ST.
S. 60TH ST.
S. 51ST ST.
S. 43RD ST.
S. 35TH ST.
S. 27TH ST.
S. 19TH ST.
S. 12TH ST.
S. 6TH ST.
S. LOOP FREEWAY
S. HOPE RD.
SB IH 43
NB IH 43
1132SB
1134SB
1136SB
1138SB
1140SB
1142SB
1144SB
1132NB
1134NB
1136NB
1138NB
1140NB
1142NB
1144NB
1132GHB
1134GHB
1136GHB
1138GHB
1140GHB
1142GHB
1144GHB
1132GHC
1134GHC
1136GHC
1138GHC
1140GHC
1142GHC
1144GHC
24GHE
24GHW
26GHE
26GHW
28GHE
28GHW
30GHE
30GHW
S-48-0045
PI: 202+78.82
PI: 204+01.17
200+00.00
1146+00.00

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (24)
PLOT DATE : 9/29/2021 2:30 PM
PLOT BY : PAUL KUTZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F), (1) 6-COUNT FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F), (1) 6-COUNT FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(FOR FUTURE USE)

PB1150

PB1147

(2) 2-INCH NONMETALLIC CONDUITS
(FOR FUTURE USE)

PB1148

(3) 2-INCH HDPE DUCTS, DIREC TIONAL BORE
(1) WITH (1) 72-COUNT FOC (S-F), (1) 6-COUNT FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CV1157
(84) F.O. SPLICES IN NEW
F.O. SPLICE ENCLOSURE (S-F)

(3) 2-INCH HDPE DUCTS UNDER SHOULDER
(1) WITH (1) 72-COUNT FOC (S-F), (1) TRAFFIC SIGNAL FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CV1151

(2) 2-INCH NONMETALLIC CONDUITS
(FOR FUTURE USE)

PB1149

(6) 2-INCH NONMETALLIC CONDUITS
(FOR FUTURE USE)

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC, (1) TRAFFIC SIGNAL FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CB1149
(1) ITS FIELD CABINET CONCRETE BASE
(CONCRETE BASE ONLY - FOR FUTURE USE)
(CAP CONDUIT EXTENSIONS ABOVE CONCRETE BASE)

CV1146

(2) 2-INCH NONMETALLIC CONDUITS
(FOR FUTURE USE)

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

SB IH 43

NB IH 43

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (25)

PLOT DATE : 9/29/2021 2:31 PM

PLOT BY : PAUL KUTZ

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

2

N

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES

DP1162
(1) TYPE 6 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 6 POLE
(3) MICROWAVE VEHICLE DETECTORS (SERIAL) (S-F)

1176+00.00

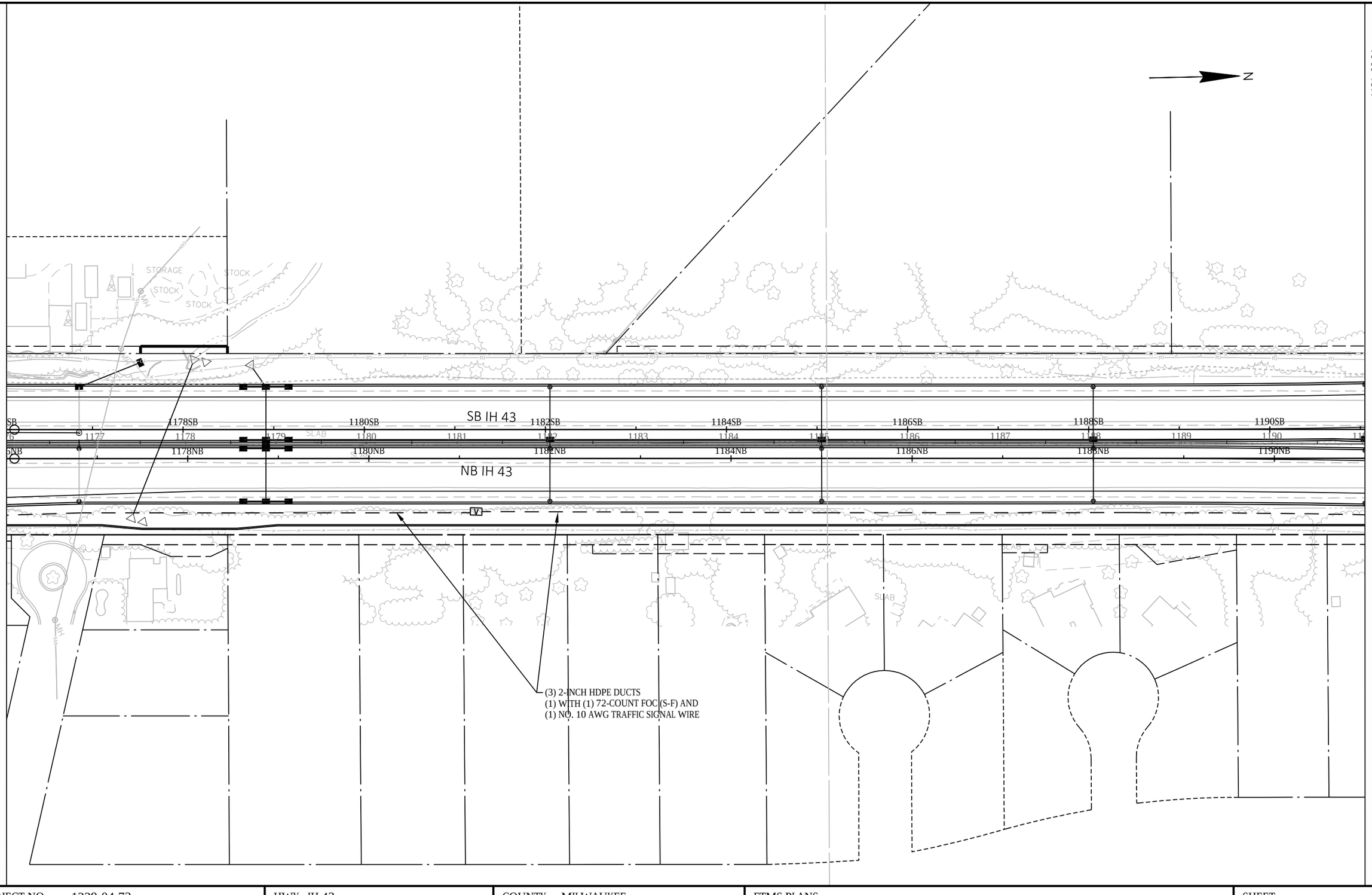
1162SB 1164SB 1166SB 1168SB 1170SB 1172SB SB IH 43 1174SB

1162NB 1164NB 1166NB 1168NB 1170NB 1172NB NB IH 43 1174NB

1162GHA 1163+00 1164GHA 1165+00 1166GHA 1167+00 1168GHA 1169+00 1170GHA 1171+00 1172GHA 1173+00 1174GHA

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (27)
PLOT DATE : 9/29/2021 2:33 PM
PLOT BY : PAUL KUTZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

1206+00.00

CV1205
(1) TYPE 1 COMMUNICATIONS VAULT
(74) F.O. SPLICES IN NEW F.O. SPLICE ENCLOSURE (S-F)

S-40-461 / DMS-40-0039
INSTALL ON OVERHEAD SIGN BRIDGE
(1) OH FREEWAY DMS
(1) POLE-MOUNTED CABINET (S-F)
(1) ELECTRICAL SERVICE BREAKER DISCONNECT BOX
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

W. BRADLEY RD.

N. PHEASANT LN.

SB IH 43

NB IH 43

1192SB 1192 1192NB
1193
1194SB 1194 1194NB
1195
1196SB 1196 1196NB
1197
1198SB 1198 1198NB
1199
1200SB 1200 1200NB
1201
1202SB 1202 1202NB
1203
1204SB 1204 1204NB
1205
1206

SLAB

(1) 2-INCH NONMETALLIC CONDUIT WITH
(4) NO. 2 AWG TRAFFIC SIGNAL WIRES

MBDMS400039
(1) ELECTRICAL SERVICE METER BREAKER PEDESTAL

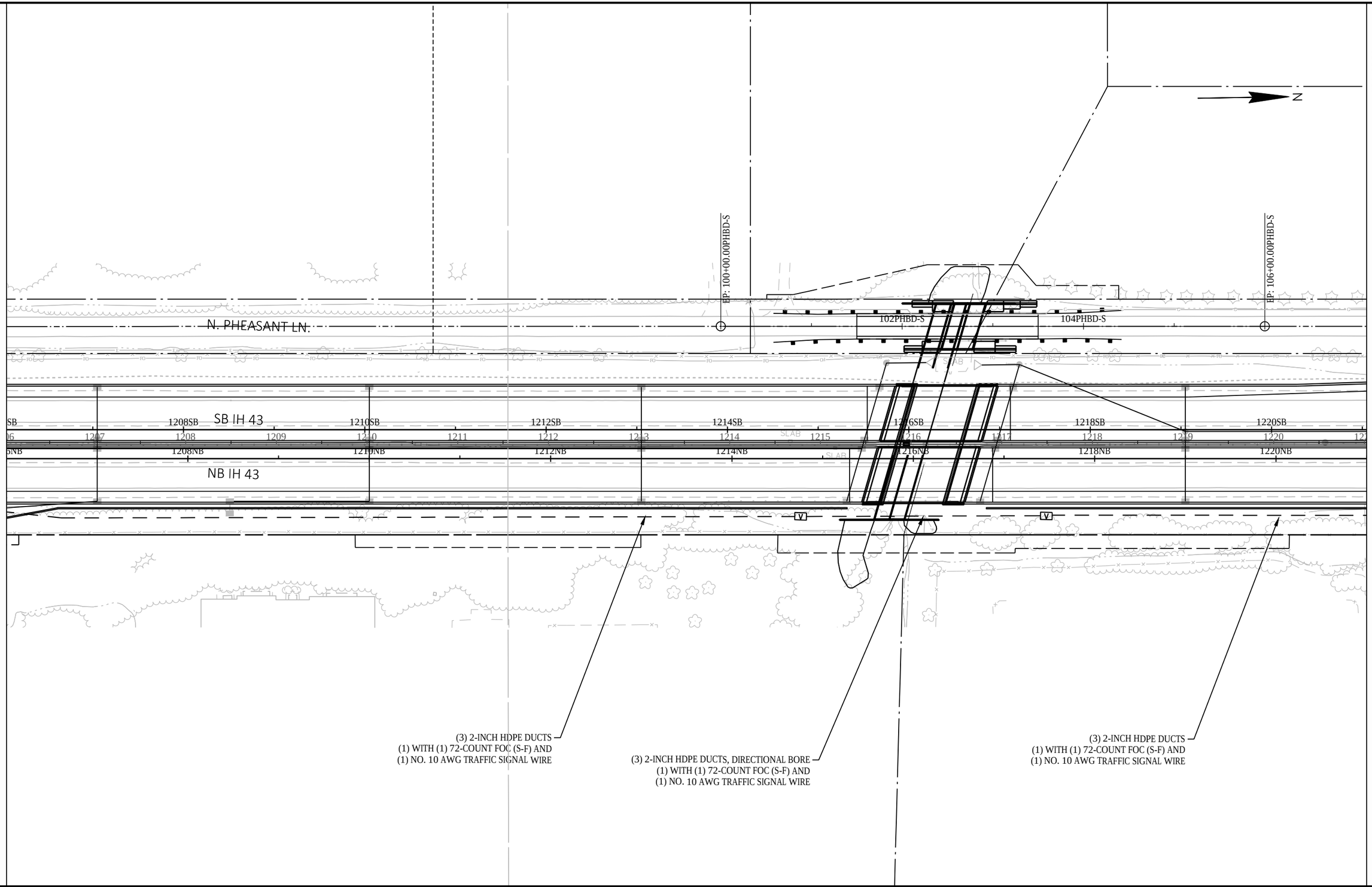
(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

DP1205
(1) TYPE 6 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 6 POLE
(2) MICROWAVE VEHICLE DETECTORS (ETHERNET) (S-F)

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (28)
PLOT DATE : 9/29/2021 2:34 PM
PLOT BY : PAUL KUTZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

2

2

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

DP1233
(1) TYPE 6 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 6 POLE
(2) MICROWAVE VEHICLE DETECTORS (SERIAL) (S-F)

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

W. DEAN RD.

N. PHEASANT LN.

SB IH 43

NB IH 43

EXSDS-40-0056

1236+00.00

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (30)

PLOT DATE : 9/29/2021 2:36 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) MD CABLES AND (7) LDLIC
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) LDLIC, (3) MD CABLES, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE

MBRM400084
(1) ELECTRICAL SERVICE METER BREAKER PEDESTAL

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) NO. 6 AWG TRAFFIC SIGNAL WIRES
(1) WITH (2) LDLIC, (3) MD CABLES, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE

W. HEATHER LN.

1251+00.00

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) S-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F), AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (3) NO. 6 AWG TRAFFIC SIGNAL WIRES

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) MD CABLES AND (4) LDLIC
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CB-RM-40-0023
(1) ITS FIELD CABINET BASE
(1) ITS FIELD CABINET (S-F)
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)
(1) TERMINAL SERVER (S-F)
(1) RAMP METER CONTROLLER (S-F)
(8) LOOP EMULATION CARDS (S-F)
(11) LOOP AMPLIFIER CARDS (S-F)

S-40-3050
(3) OVERHEAD RAMP CONTROL
SIGNAL ASSEMBLIES

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) MD CABLES AND (2) LDLIC
(1) WITH (1) 9/C NO. 14 AWG TRAFFIC SIGNAL CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

SB IH 43

NB IH 43

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) ABD
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) 6-COUNT FOCS, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

CCTV-40-0089
(1) 50-FOOT CAMERA POLE CONCRETE BASE (S-F)
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) FO TERMINATIONS
(1) ETHERNET SWITCH (S-F)

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

W. BROWN DEER RD.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

2

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) LDLC, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (2) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLES
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

TY1256

W. BROWNDEER RD.

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) LDLC

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5/C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

TY1255

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

DP1162
(1) TYPE 6 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 6 POLE
(3) MICROWAVE VEHICLE DETECTORS (SERIAL) (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (3) MD CABLES AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

1266+00.00

N

SB IH 43

NB IH 43

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (32)

PLOT DATE : 9/29/2021 2:46 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

1281+00.00

N

SB IH 43

NB IH 43

1266SB 1268SB 1270SB 1272SB 1274SB 1276SB 1278SB 1280SB

1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280

1266NB 1268NB 1270NB 1272NB 1274NB 1276NB 1278NB 1280NB

1266BDA 1267BDA 1268BDA 1269BDA 1270BDA 1271BDA 1272BDA 1273BDA 1274BDA 1275BDA 1276BDA 1277BDA 1278BDA

(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (33)

PLOT DATE : 9/29/2021 2:39 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

W. FAIRY CHASM RD.

N. PHEASANT LN.

SB IH 43

NB IH 43

1282SB 1284SB 1286SB 1288SB 1290SB 1292SB 1294SB 1296SB

1282NB 1284NB 1286NB 1288NB 1290NB 1292NB 1294NB 1296NB

1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296

1289CNC 1290CNC 1291CNC 1292CNC 1293CNC 1294CNC 1295CNC 1296CNC

N. PORT WASHINGTON RD.

EXCV1282
(1) INSTALL PROPOSED CONDUIT INTO
EXISTING COMMUNICATIONS VAULT
(72) F.O. SPLICES IN EXISTING SPLICE ENCLOSURE

(3) 2-INCH HDPE DUCTS BARRIER
(1) WITH (2) 72-COUNT FOCS (S-F)

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (34)
PLOT DATE : 9/29/2021 2:40 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

22+00.00

EXCVGH01
(1) INSTALL PROPOSED CONDUIT INTO EXISTING ITEM
(72) F.O. SPLICES IN NEW F.O. SPLICE ENCLOSURE (S-F)

(3) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

12GHW 14GHW 16GHW 18GHW 20GHW 22

12GHE 14GHE 16GHE 18GHE 20GHE 22

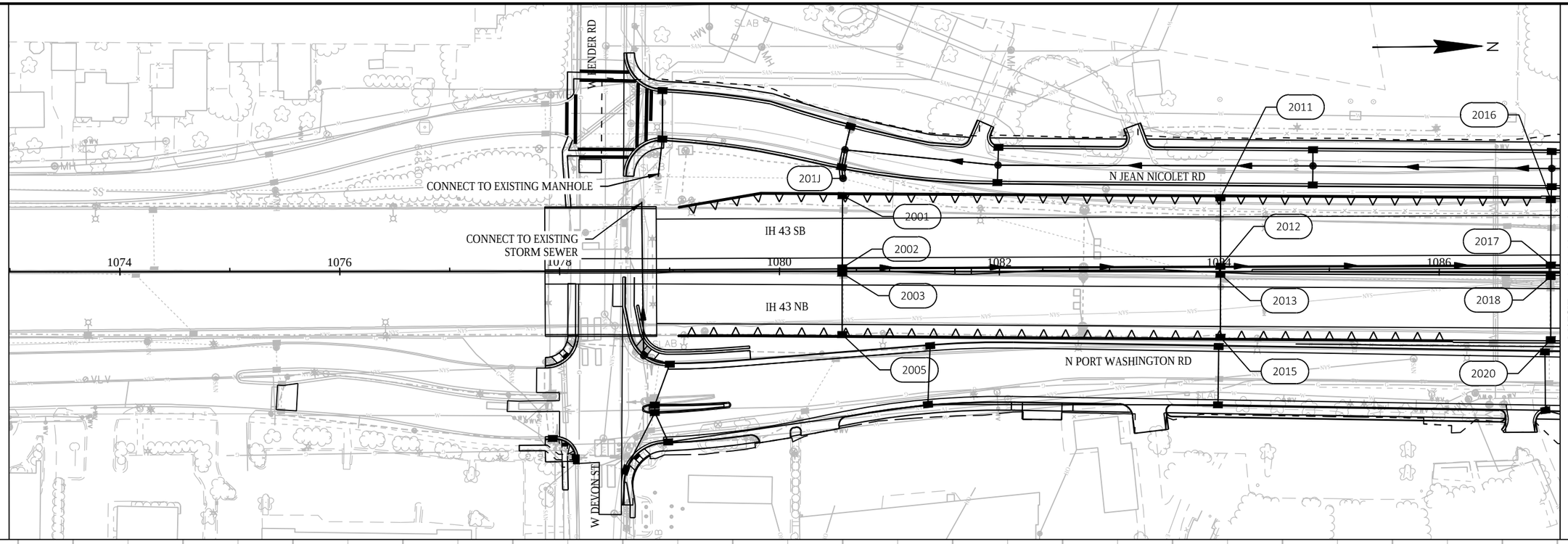
W. GOOD HOPE RD

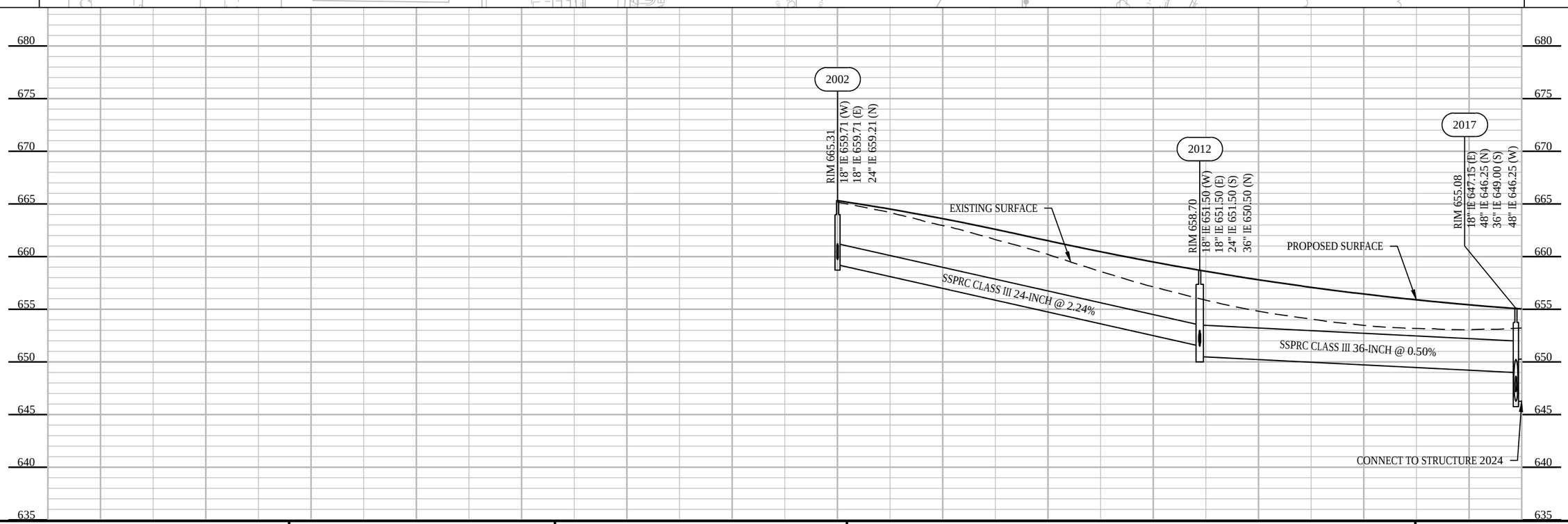
(3) 2-INCH HDPE DUCTS
(1) WITH (1) 72-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

FILE NAME : C:\CADDLIB\PW\PKUTZ\PWGREAT_LAKES\D0246023\FM_IH_43_GH_BD.DWG
LAYOUT NAME - (71)

PLOT DATE : 9/29/2021 2:41 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

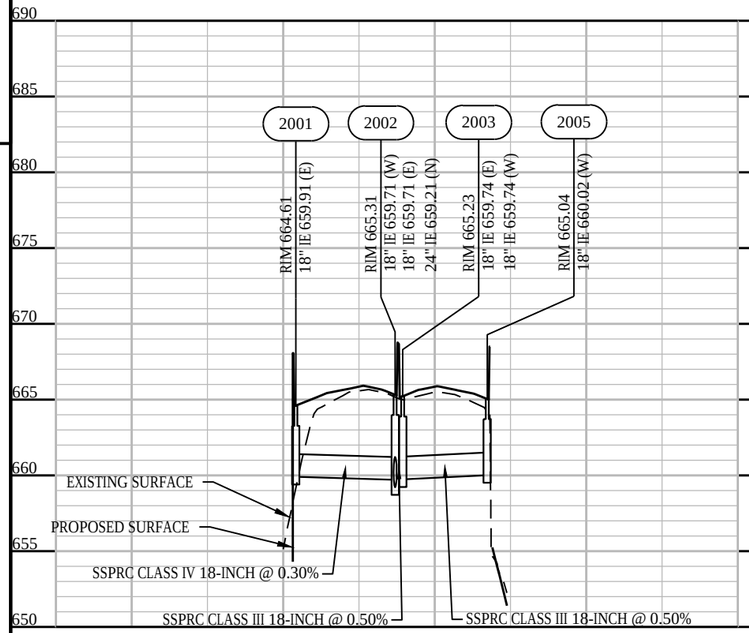


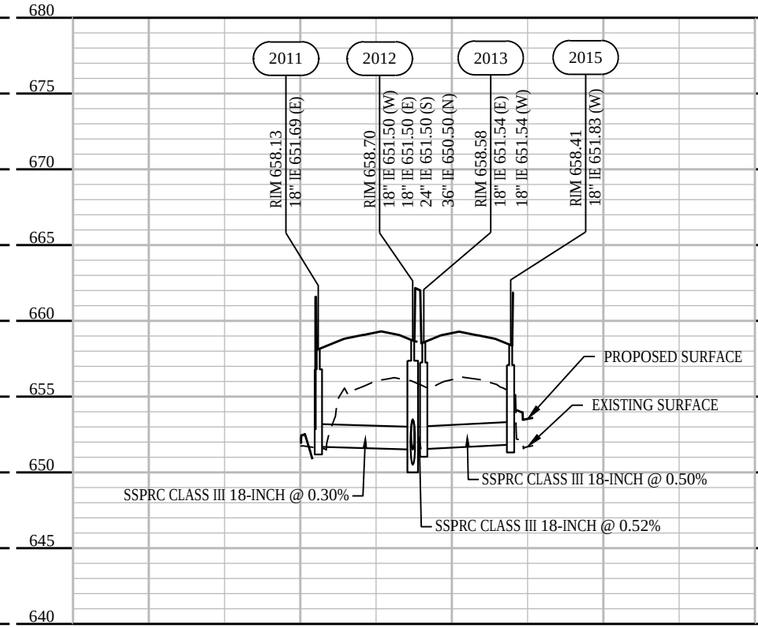


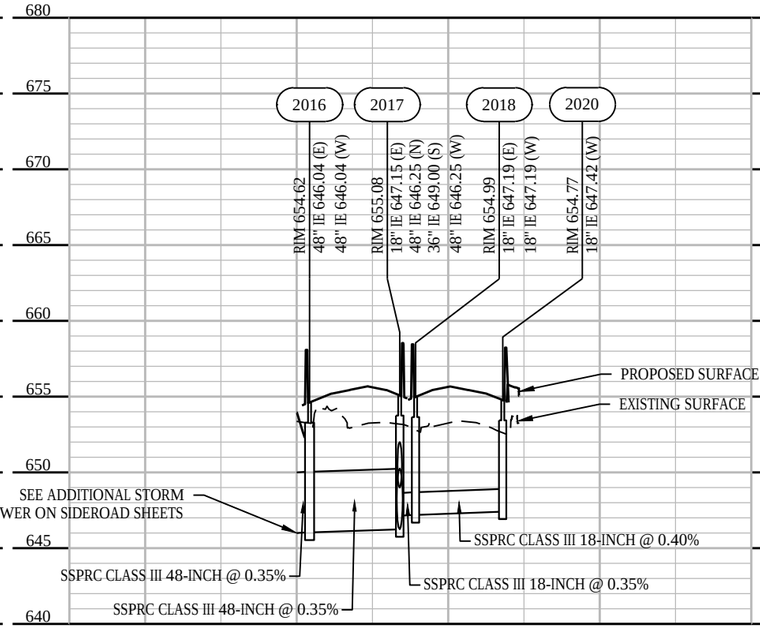
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _001

PLOT DATE : 9/28/2021 9:15 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



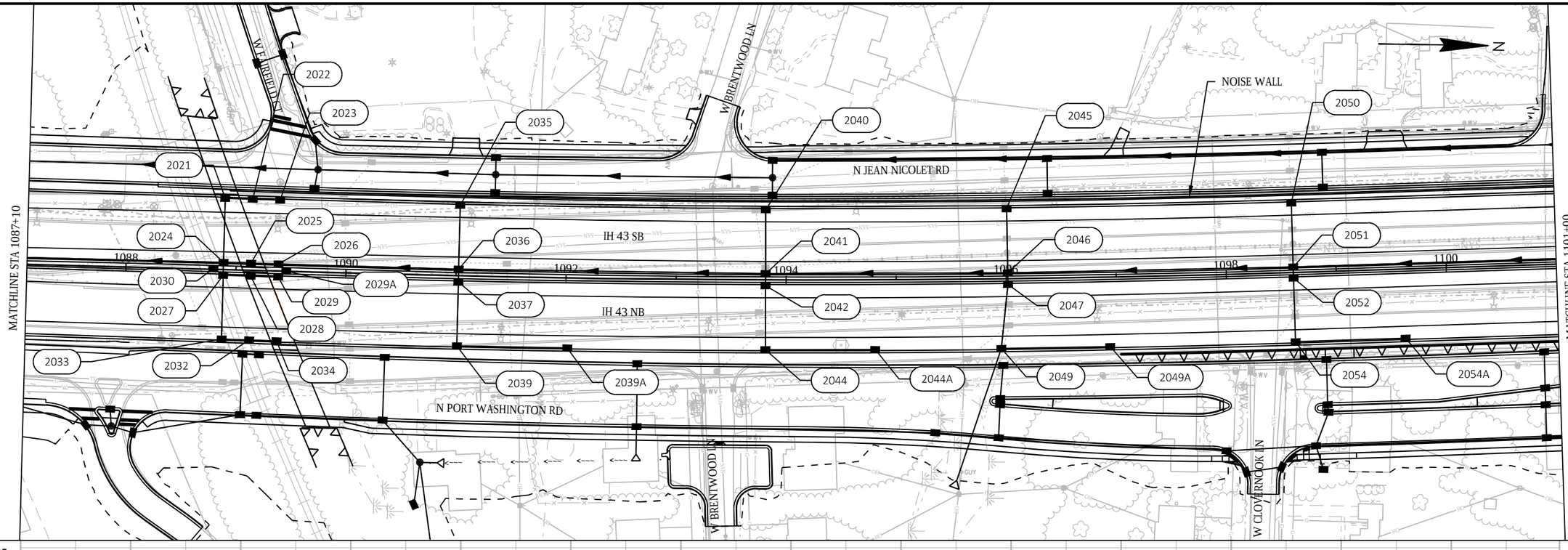


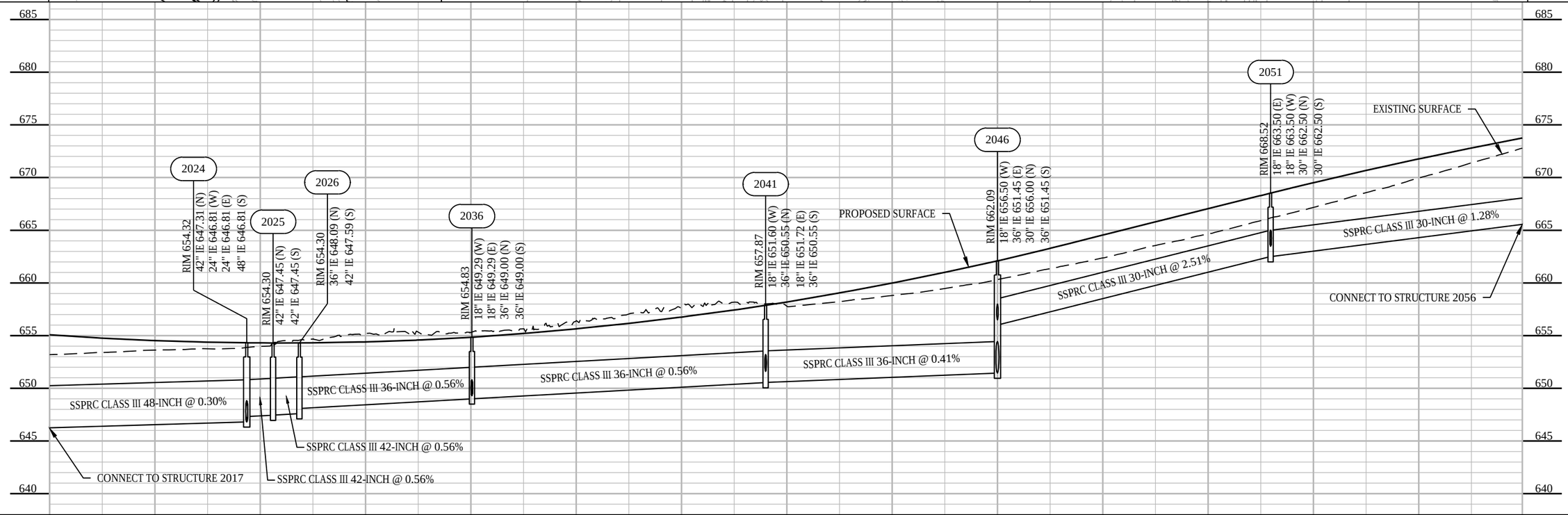


2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

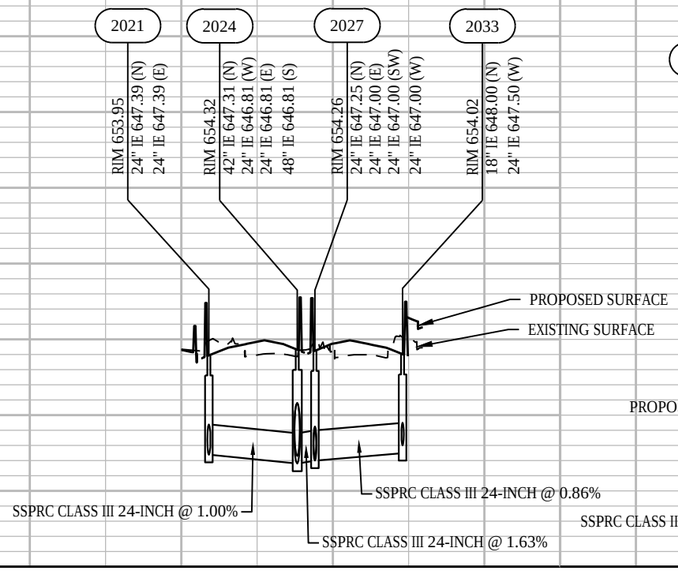
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _001(1)
PLOT DATE : 9/28/2021 9:16 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

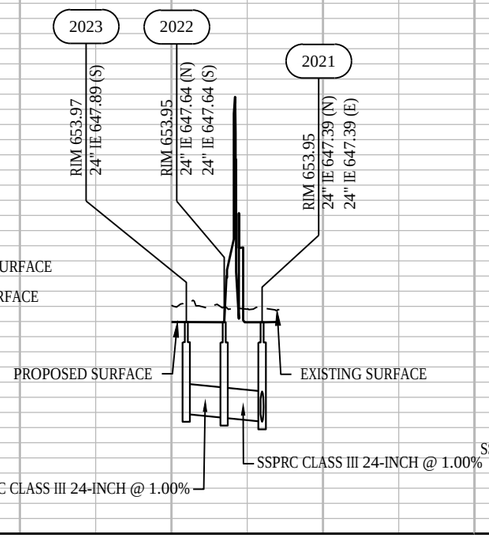


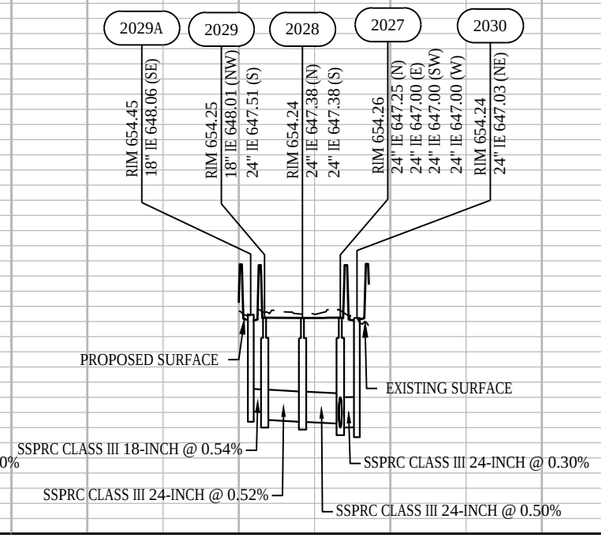


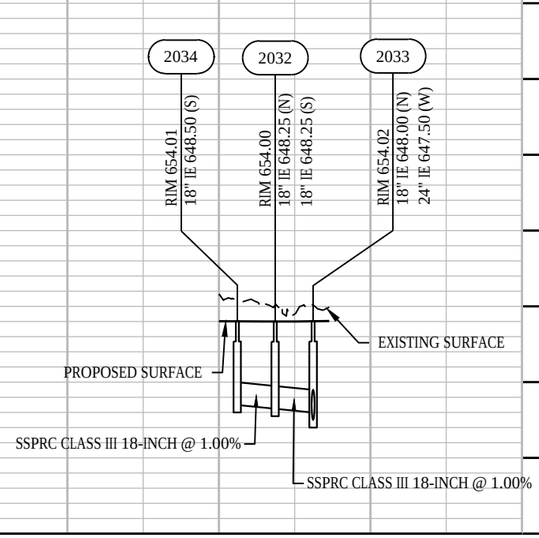
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

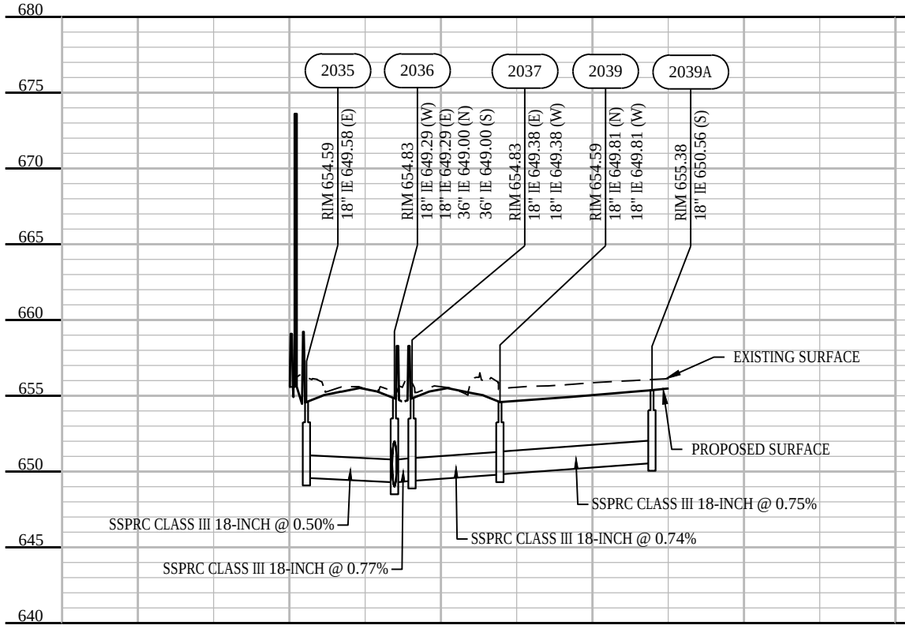
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _002
PLOT DATE : 9/30/2021 10:11 AM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

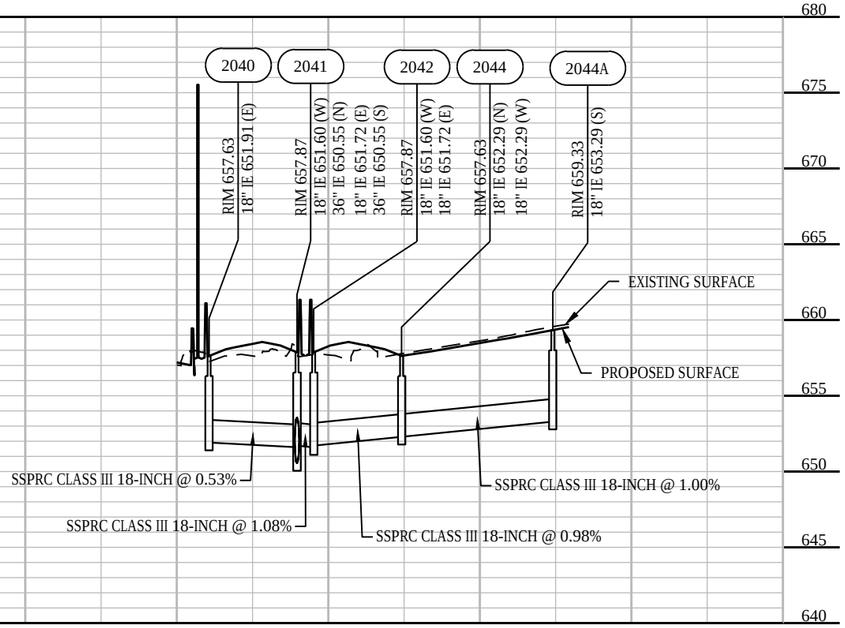








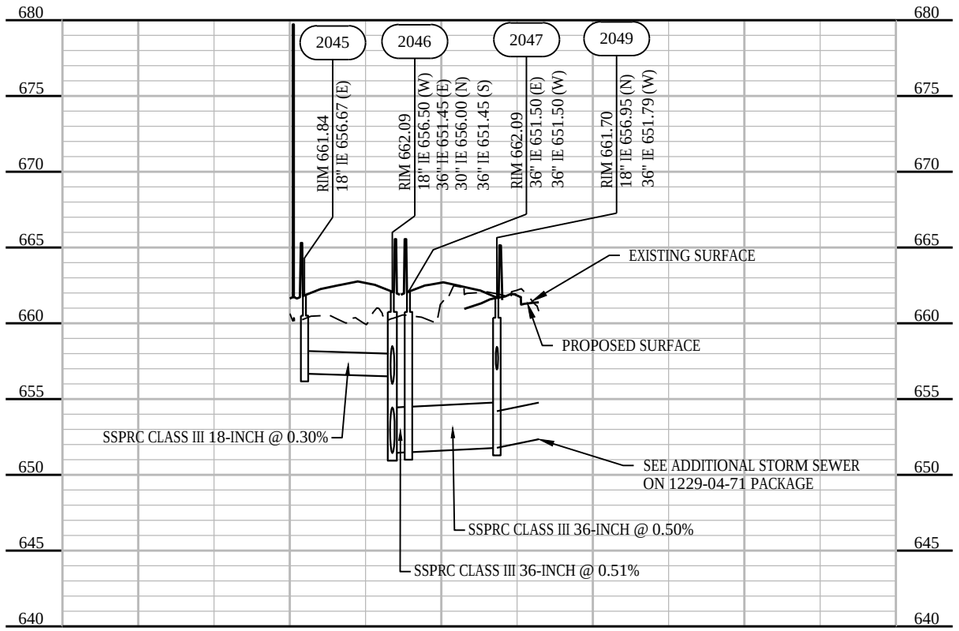


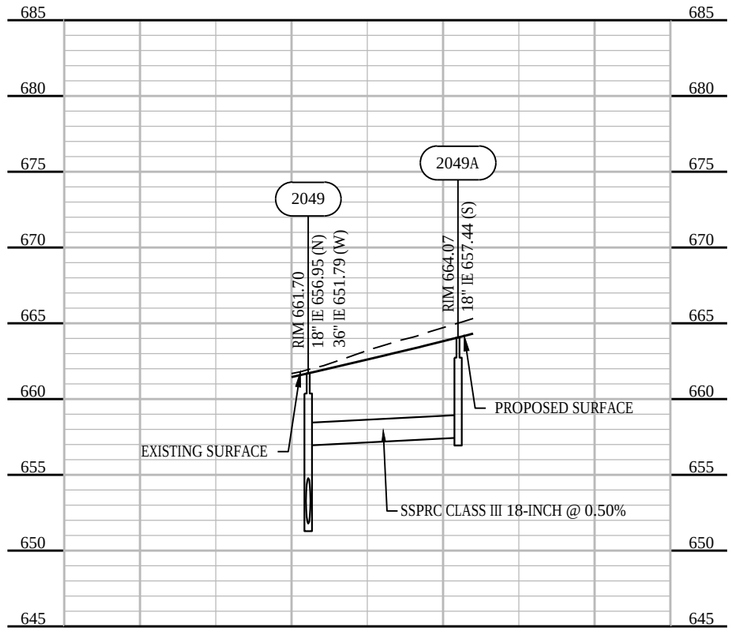


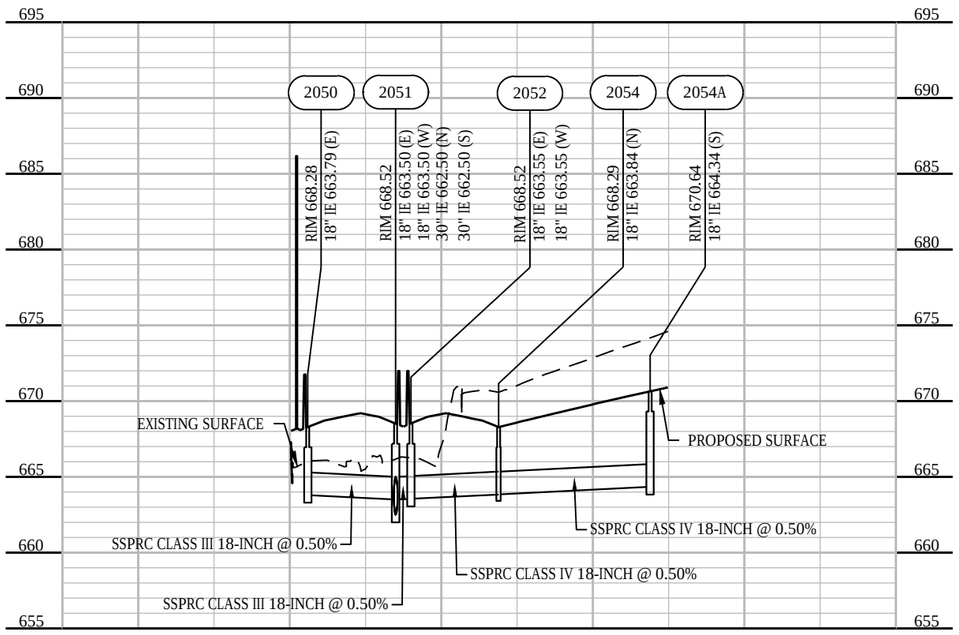
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _002(1)

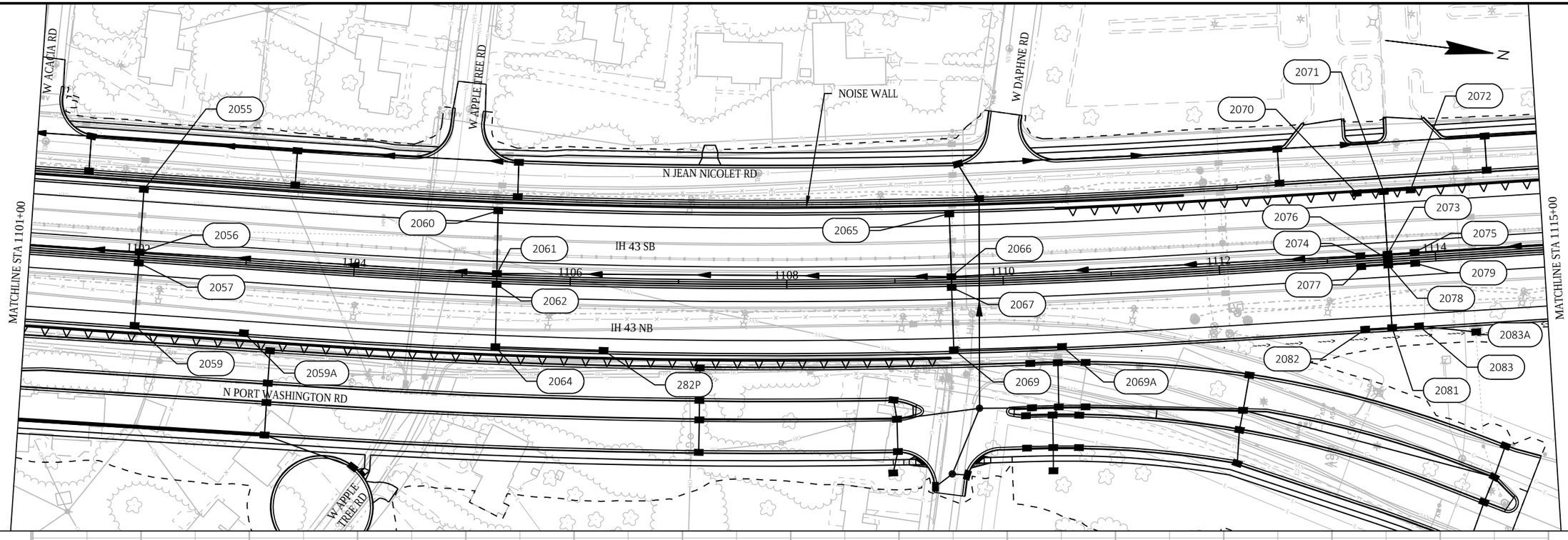
PLOT DATE : 9/28/2021 9:20 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

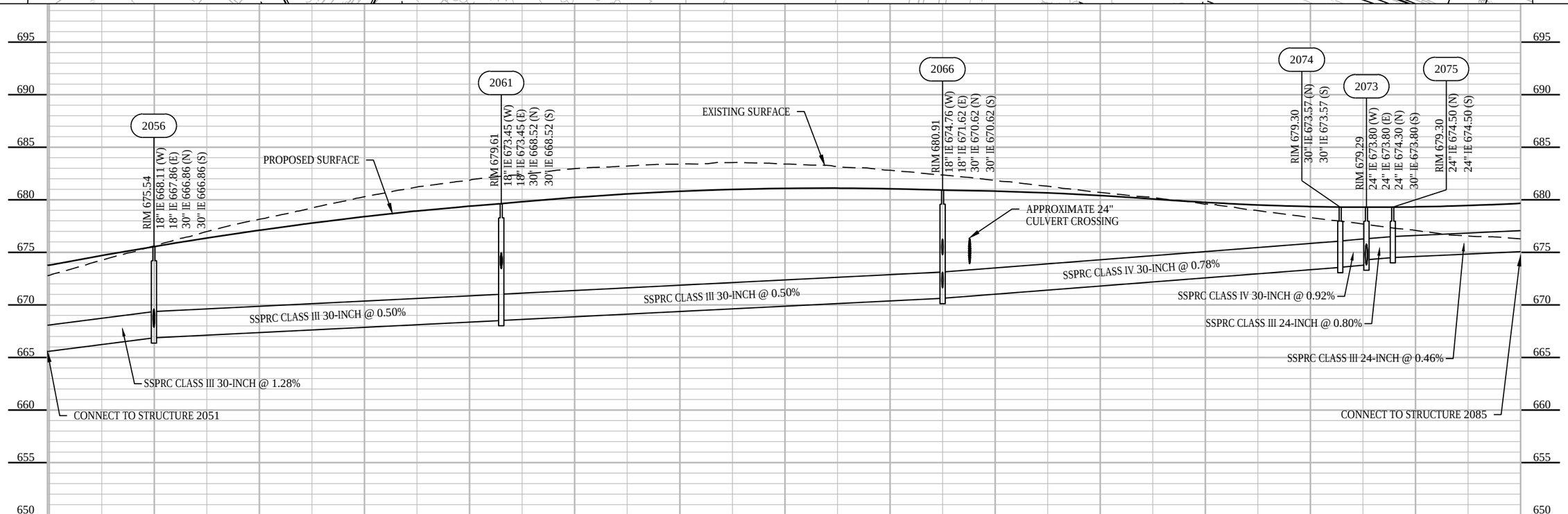






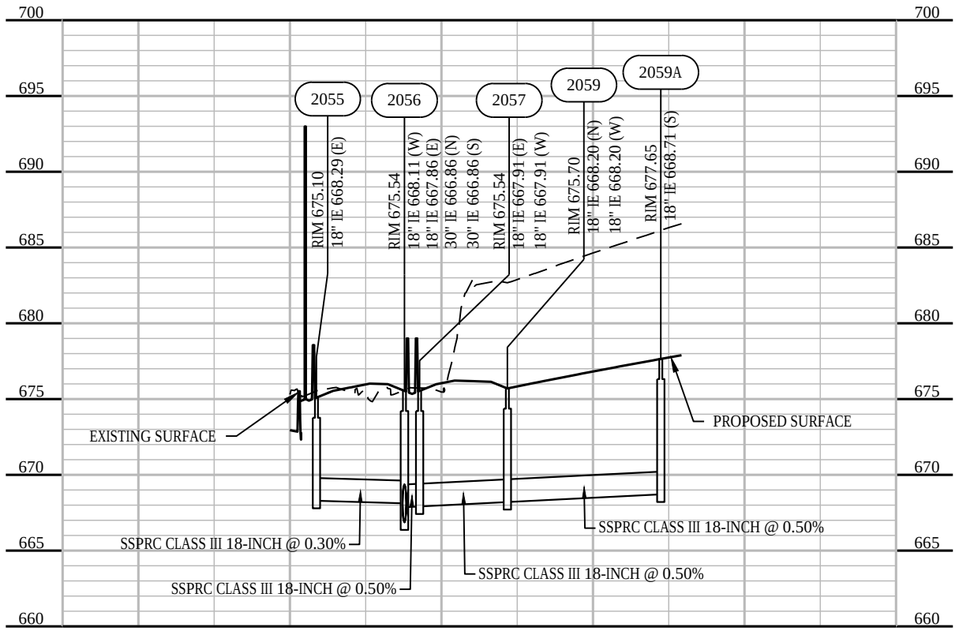
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

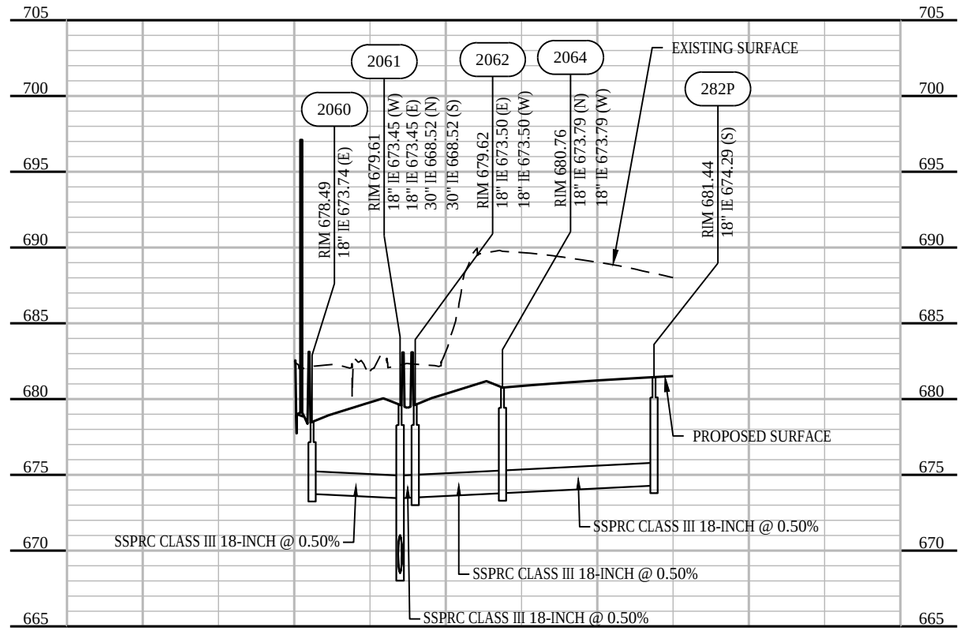


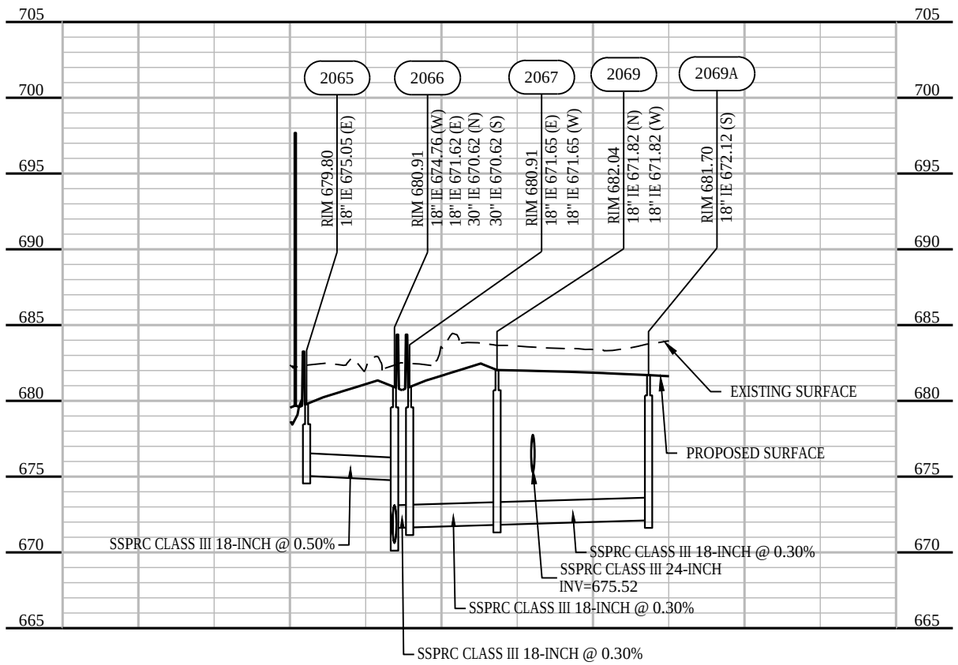


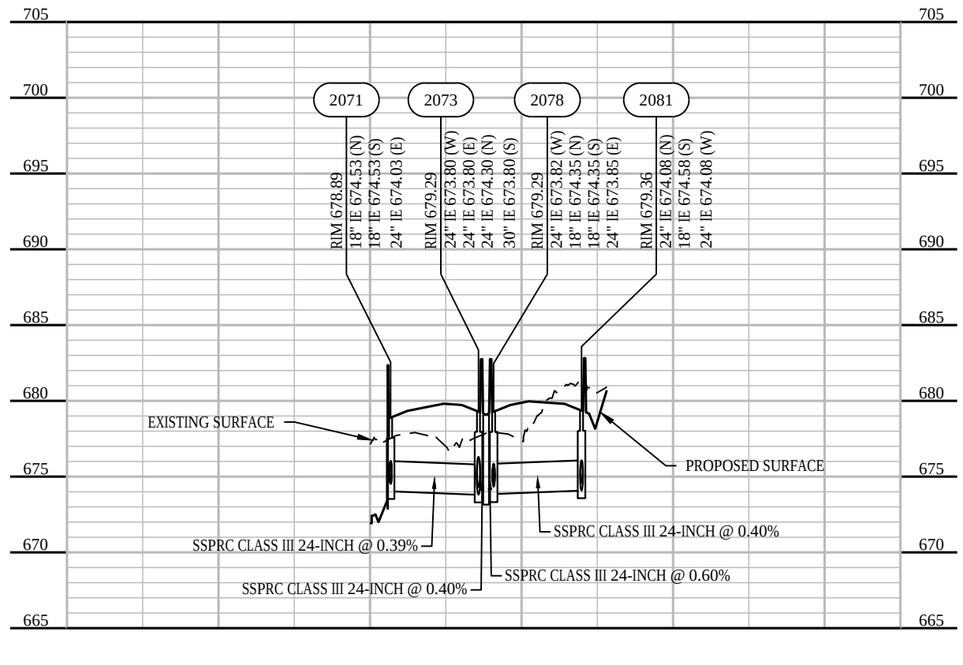
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _003
PLOT DATE : 9/28/2021 9:26 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



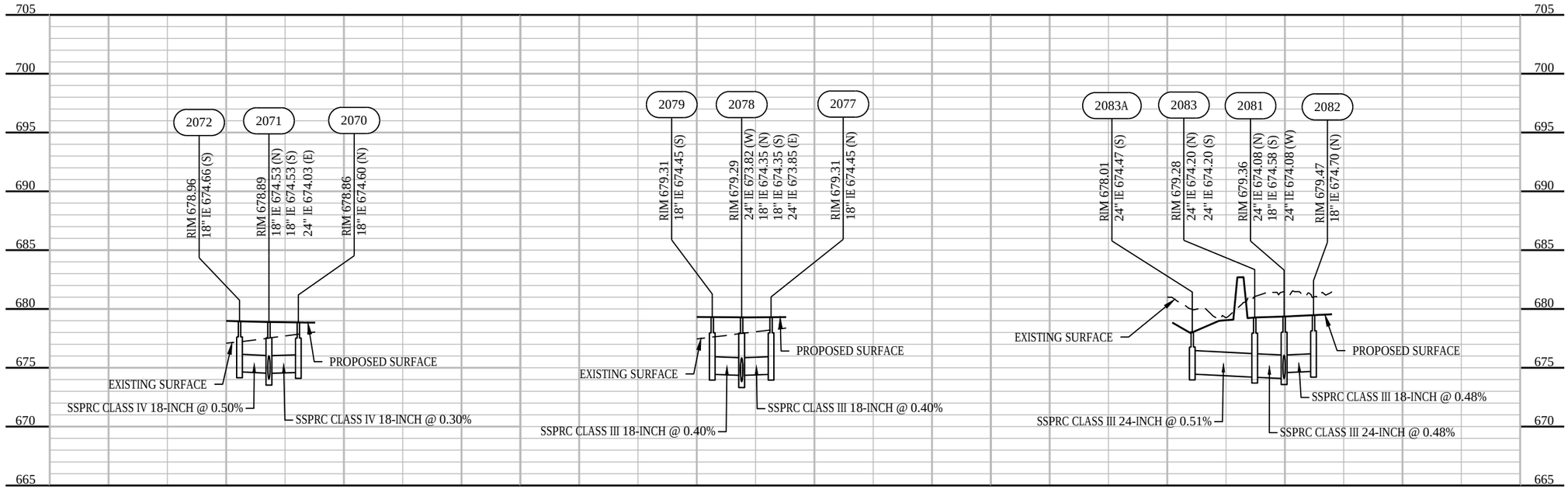






PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

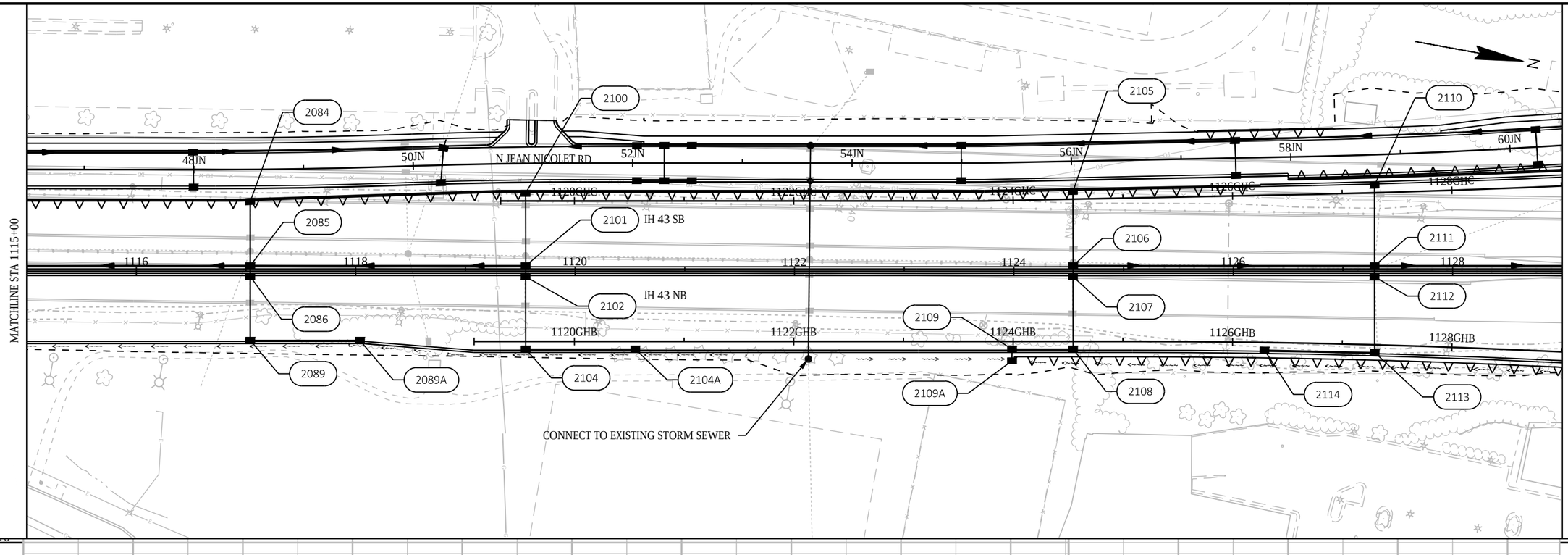
2

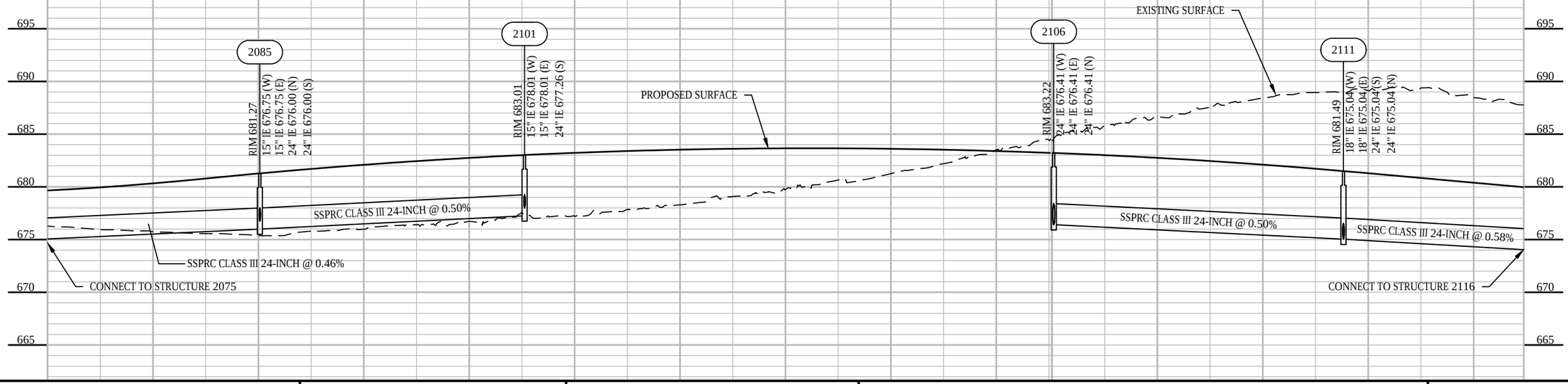


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022501_SS.DWG
LAYOUT NAME - _003(2)

PLOT DATE : 9/28/2021 9:05 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

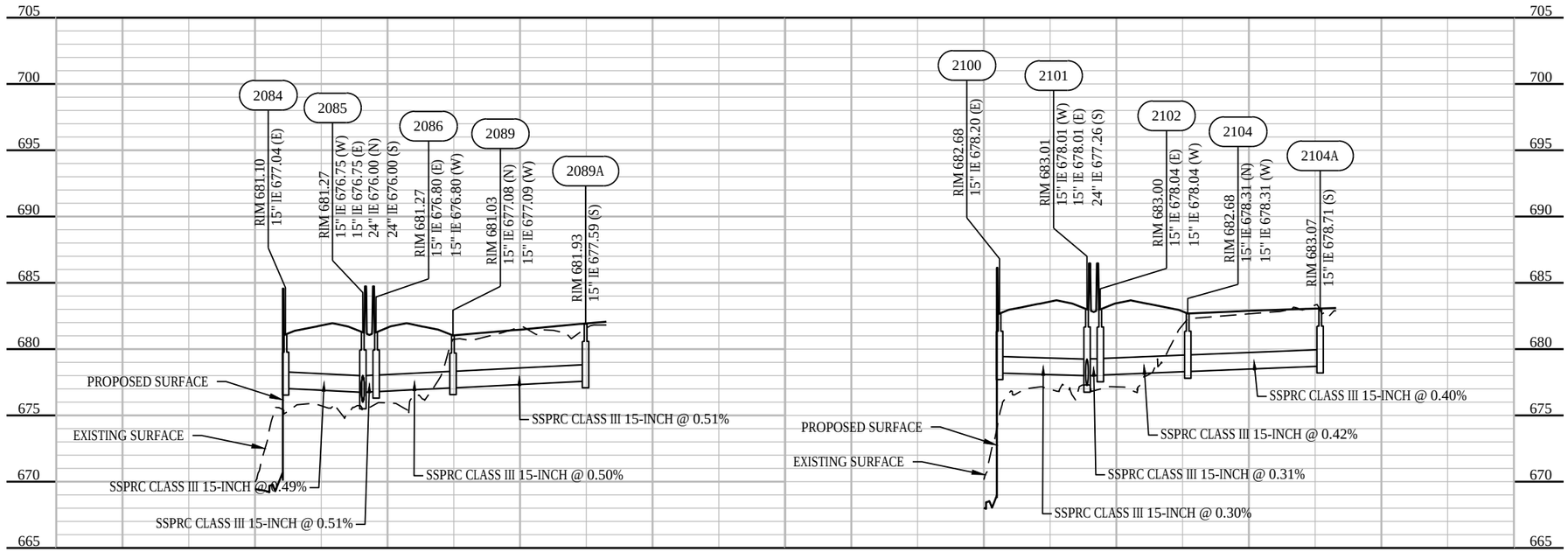


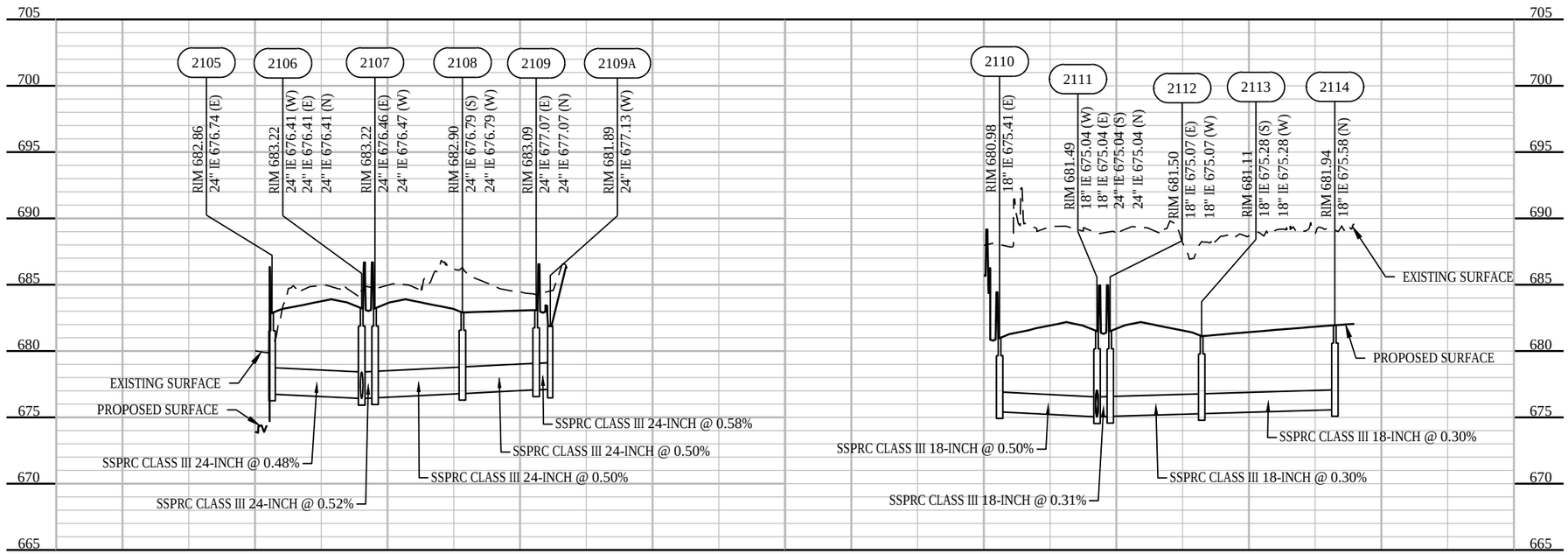


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022502_SS.DWG
LAYOUT NAME - _004

PLOT DATE : 9/28/2021 5:58 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE	SHEET	E

2

CONNECT TO EXISTING STORM SEWER

MATCHLINE STA 1129+00

MATCHLINE STA 1143+00

38CT

62IN

W GREEN TREE RD

42CT

CONNECT TO EXISTING STORM SEWER

CONNECT TO EXISTING STORM SEWER

IH 43 SB

IH 43 NB

RAMP C

RAMP B

CONNECT TO EXISTING STORM SEWER

2115 2116 2117 2118 2119 2120 2121 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2134 2135 2135A 2136 2137 2138 2139 2140 2141 2142 2143 2144 2146 2147 2150 2151 2152 2153 2154 2302 2309 2310 2316

1130GHB 1132GHB 1134GHB 1136GHB 1138GHB 1140GHB 1142GHB

1130GHC 1132GHC 1134GHC 1136GHC 1138GHC 1140GHC 1142GHC

1130 1132 1134 1136 1138 1140 1142

705 700 695 690 685 680 675 670 665

2116
RIM 678.58
18" IE 673.15 (W)
18" IE 673.15 (E)
24" IE 673.15 (S)
24" IE 673.15 (N)

2121
RIM 677.61
24" IE 672.50 (S)
30" IE 672.00 (W)

2126
RIM 677.44
18" IE 672.36 (N)

2127
RIM 677.42
30" IE 671.24 (E)
18" IE 671.24 (W)
18" IE 672.24 (S)
30" IE 671.24 (N)

2128
RIM 677.44
30" IE 671.15 (S)
30" IE 671.15 (N)

2138
RIM 677.92
18" IE 671.65 (E)
30" IE 670.65 (S)
30" IE 670.65 (W)

EXISTING SURFACE

2143
RIM 681.44
18" IE 675.32 (E)
30" IE 674.82 (N)
30" IE 674.82 (W)

2151
RIM 686.89
18" IE 681.00 (W)
18" IE 682.00 (E)
30" IE 681.00 (N)
30" IE 681.00 (S)

PROPOSED SURFACE

SSPRC CLASS IV 24-INCH @ 0.35%

CONNECT TO STRUCTURE 2111

SSPRC CLASS III 30-INCH @ 0.35%

SSPRC CLASS III 30-INCH @ 0.35%

SSPRC CLASS III 18-INCH @ 0.50%

SSPRC CLASS III 30-INCH @ 2.06%

SSPRC CLASS III 30-INCH @ 0.64%

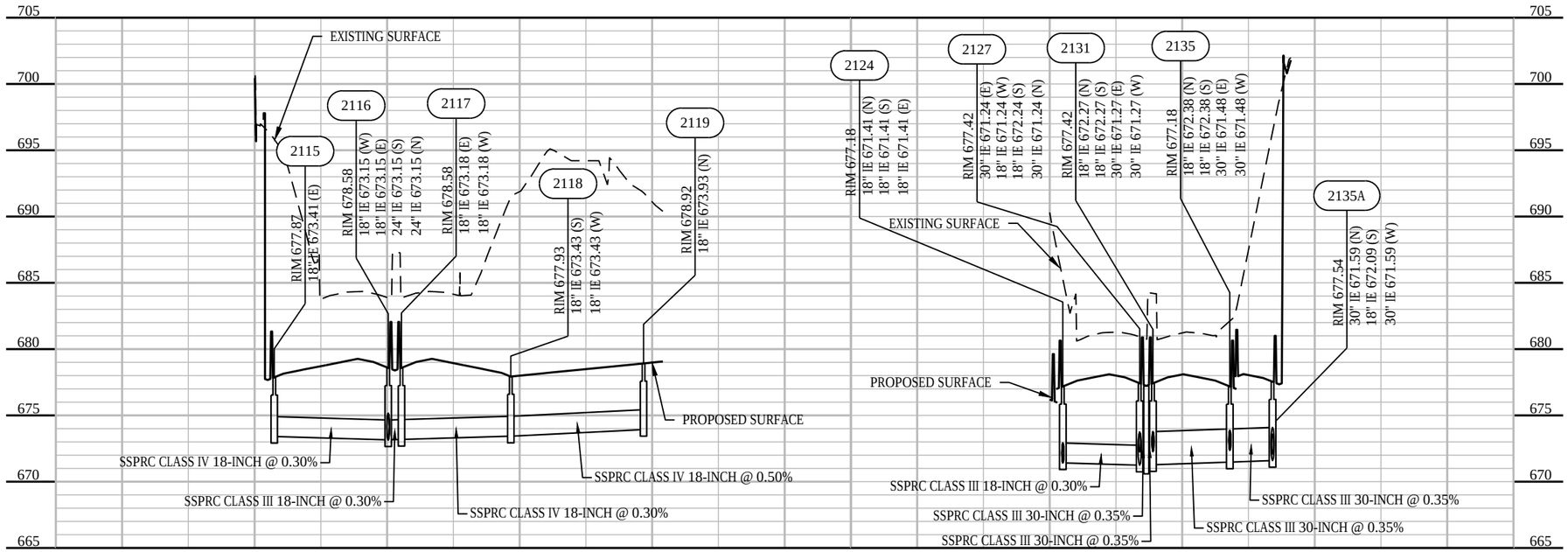
CONNECT TO STRUCTURE 2156

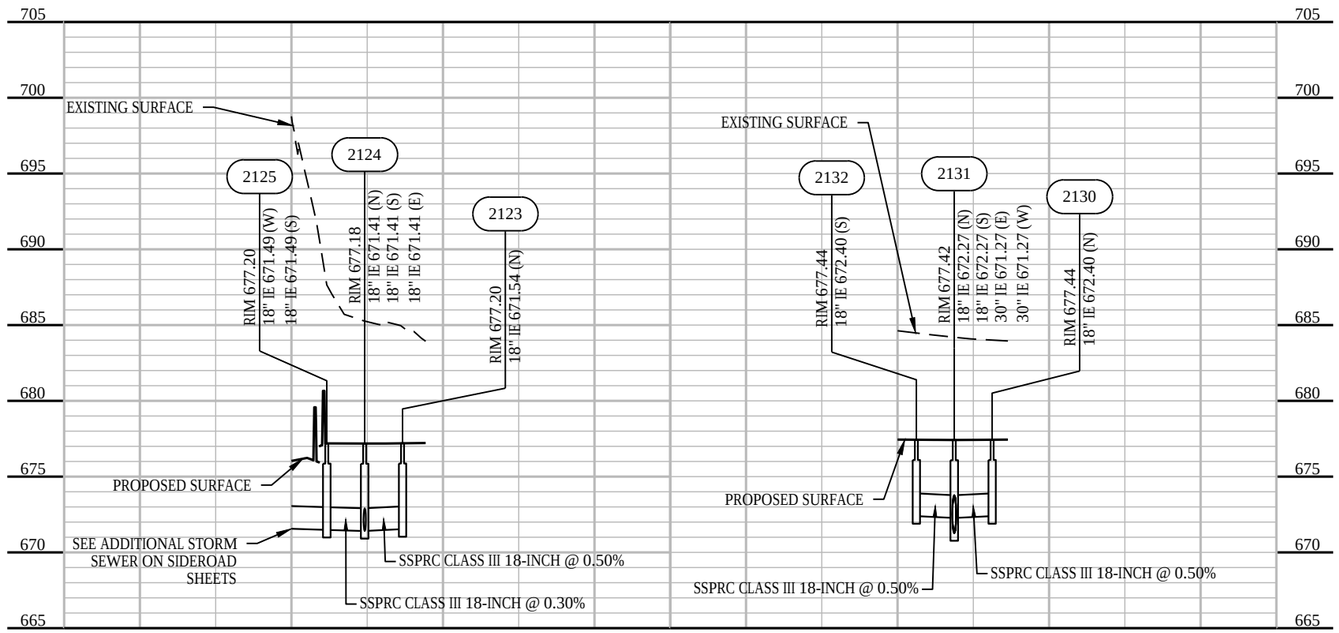
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022502_SS.DWG
LAYOUT NAME - _005

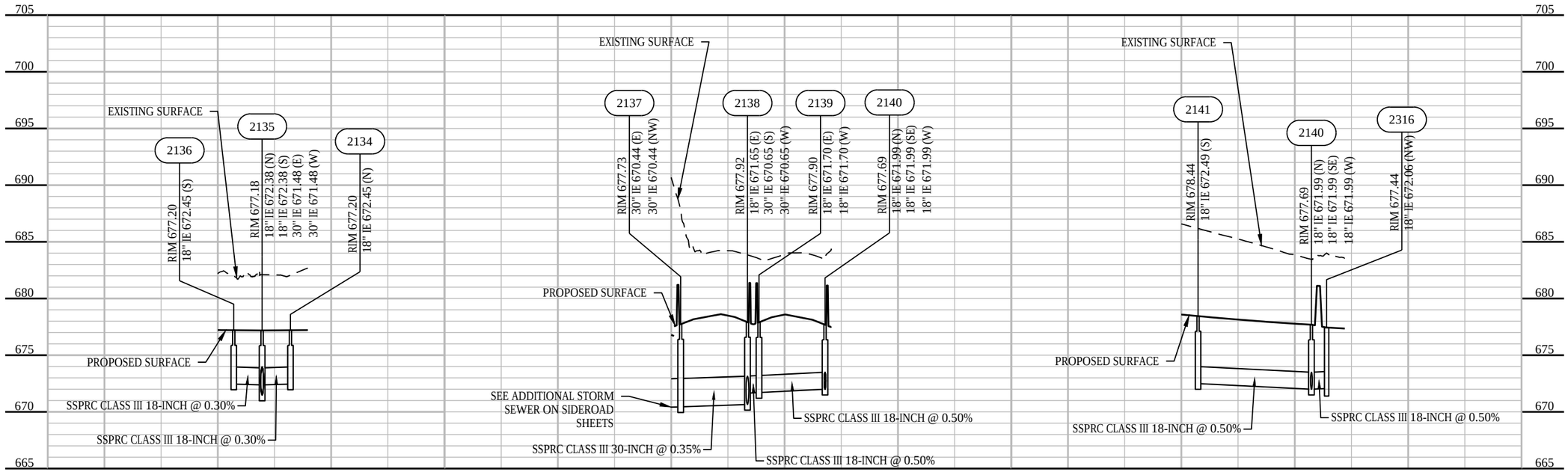
PLOT DATE : 9/30/2021 10:25 AM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

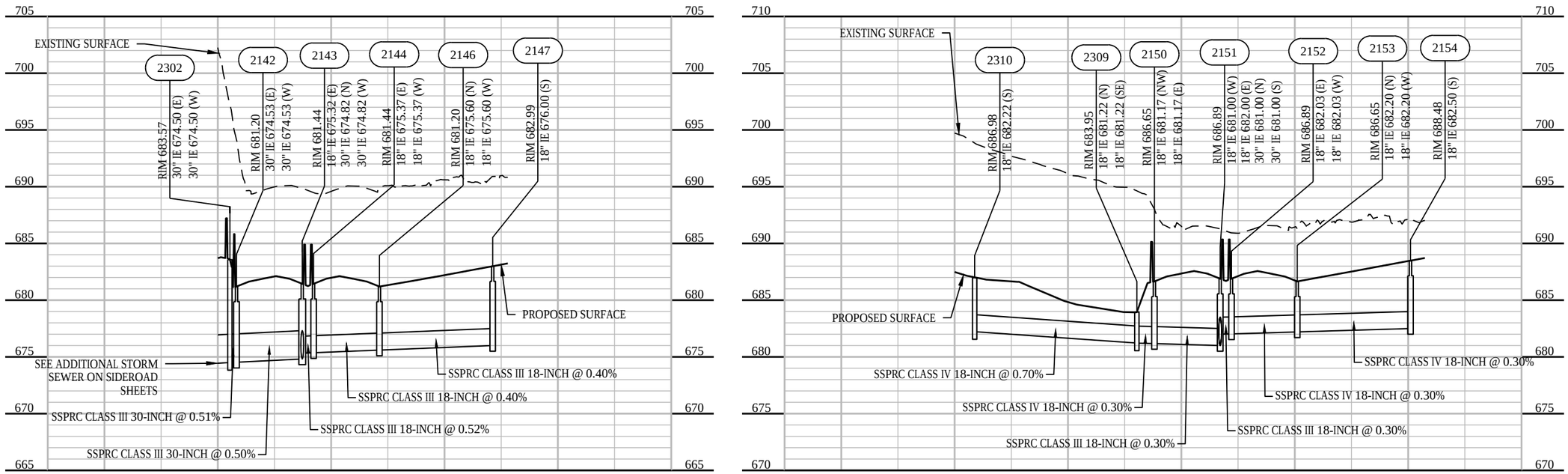
WISDOT/CADDS SHEET 41





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE	SHEET	E

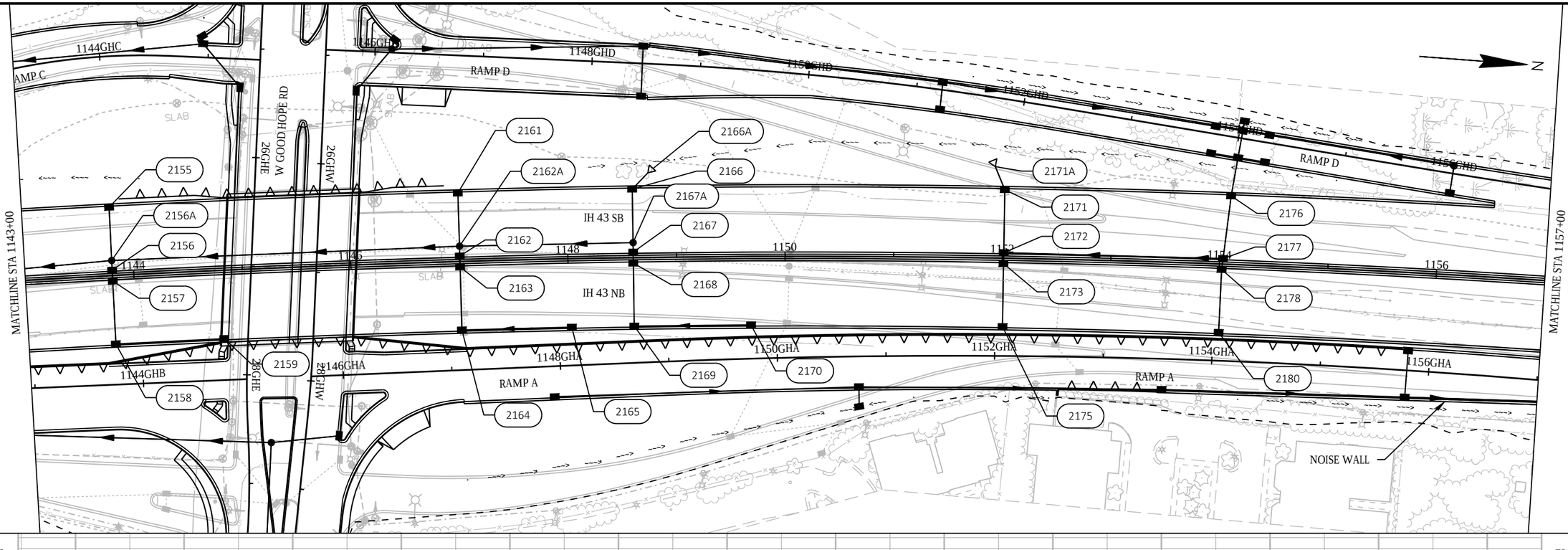


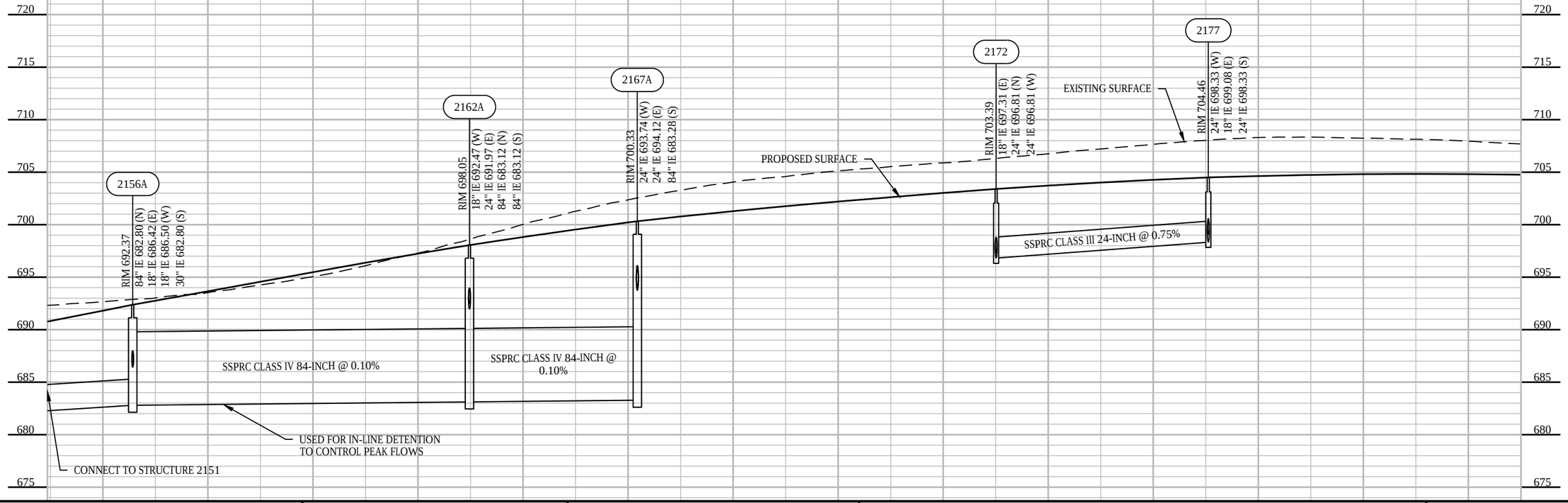


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022502_SS.DWG
LAYOUT NAME - _005(2)

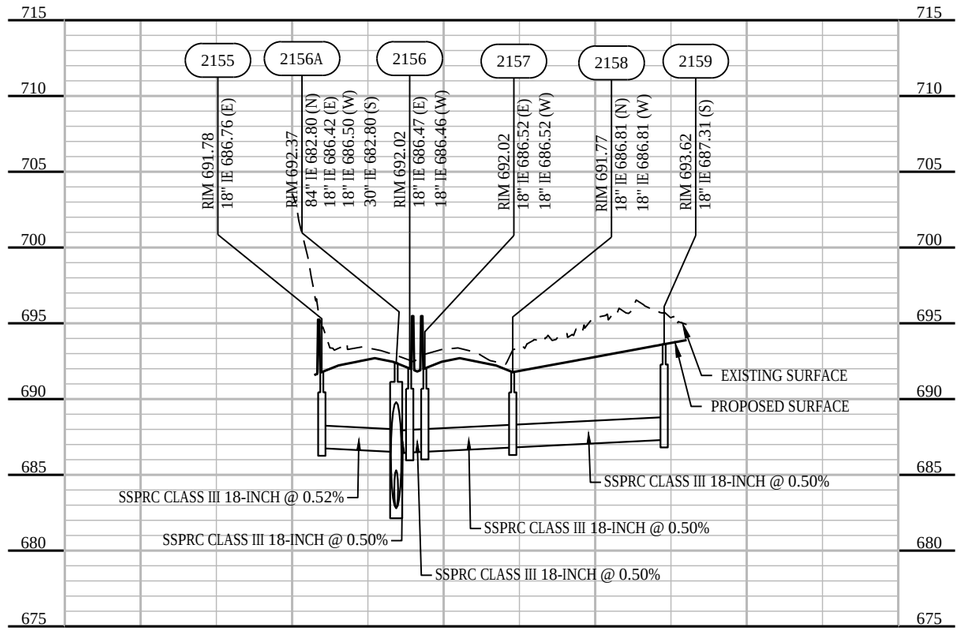
PLOT DATE : 9/28/2021 6:02 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

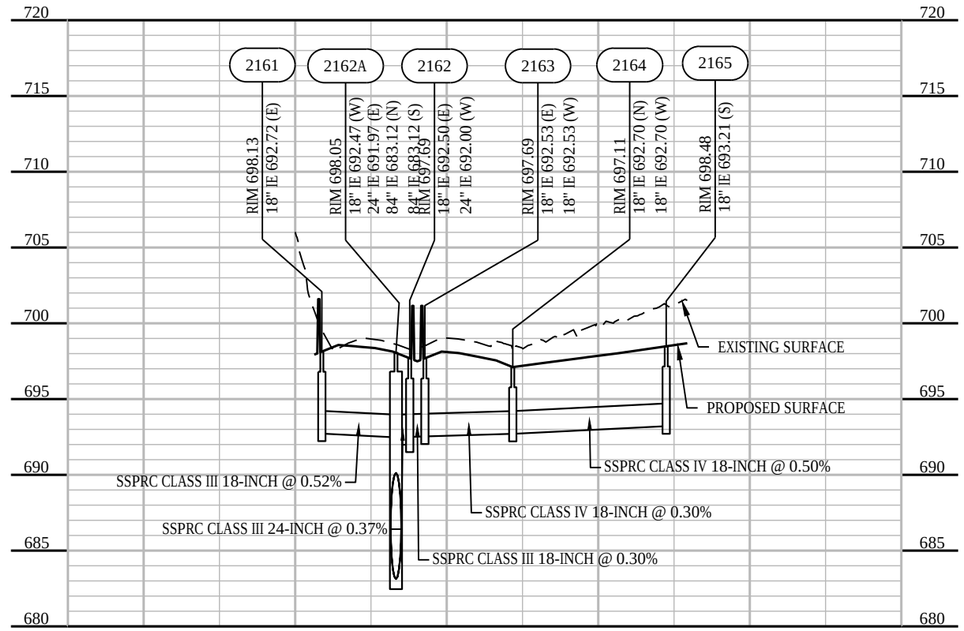


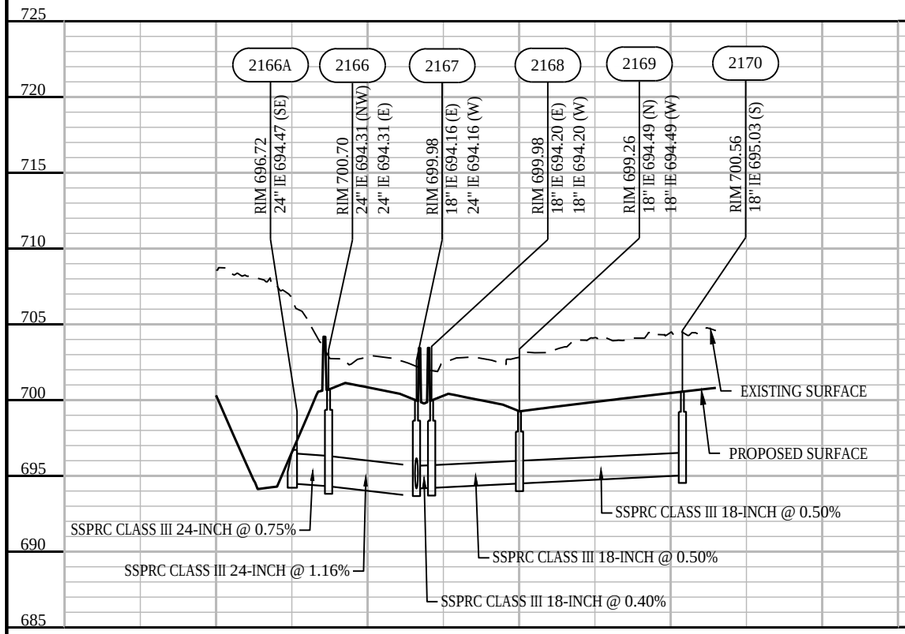


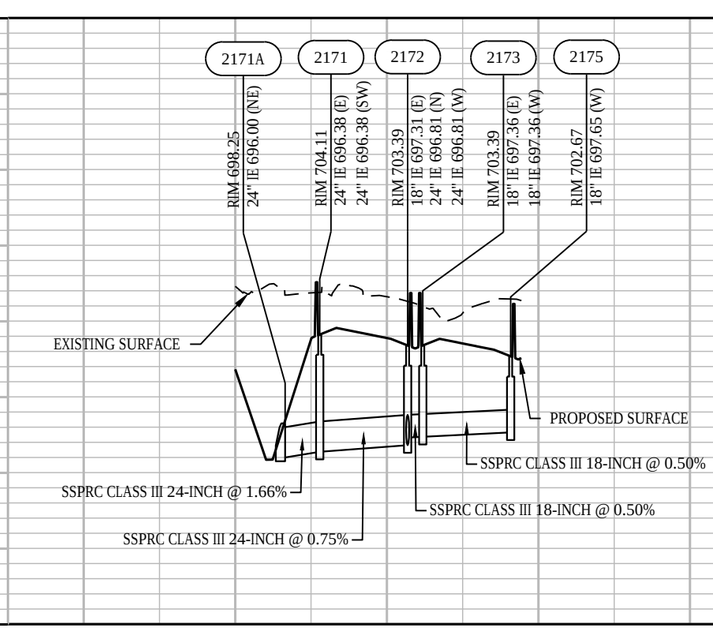
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

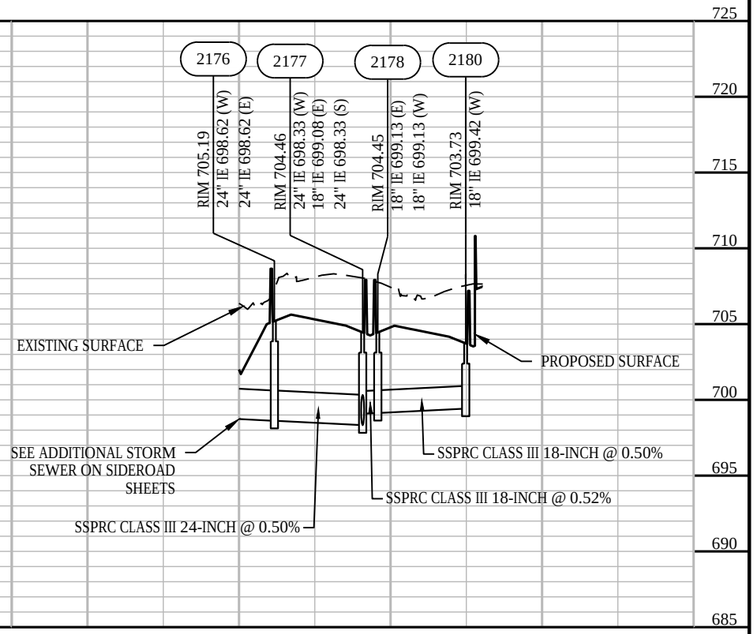
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022502_SS.DWG
LAYOUT NAME - _006
PLOT DATE : 9/28/2021 6:04 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41







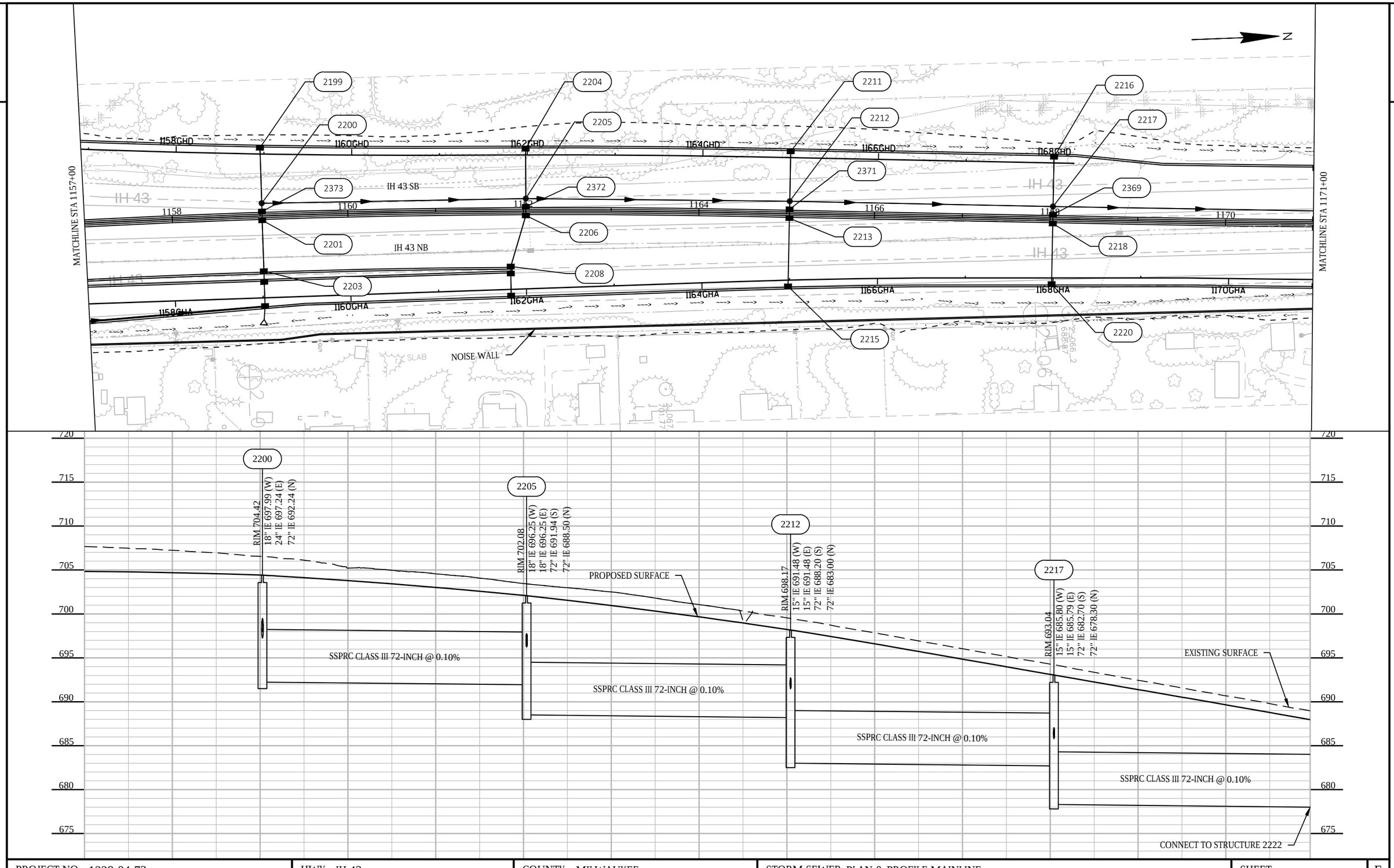




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & RPOFILE	SHEET	E

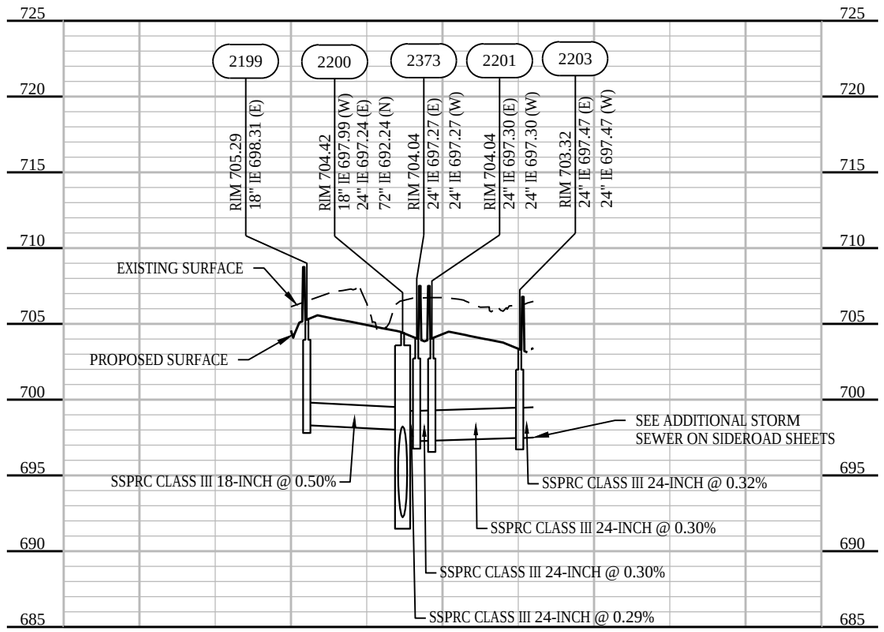
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022502_SS.DWG
LAYOUT NAME - _006(1)

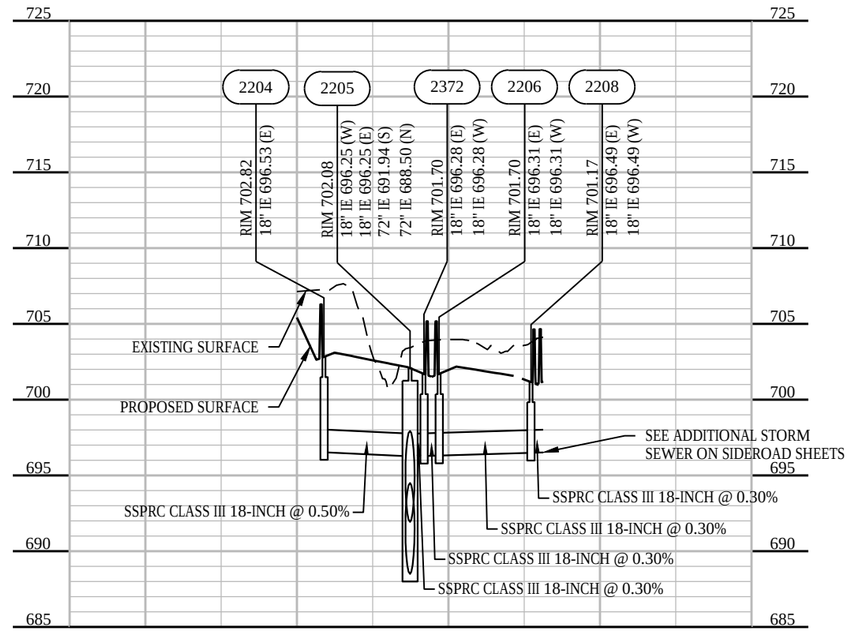
PLOT DATE : 9/28/2021 6:05 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

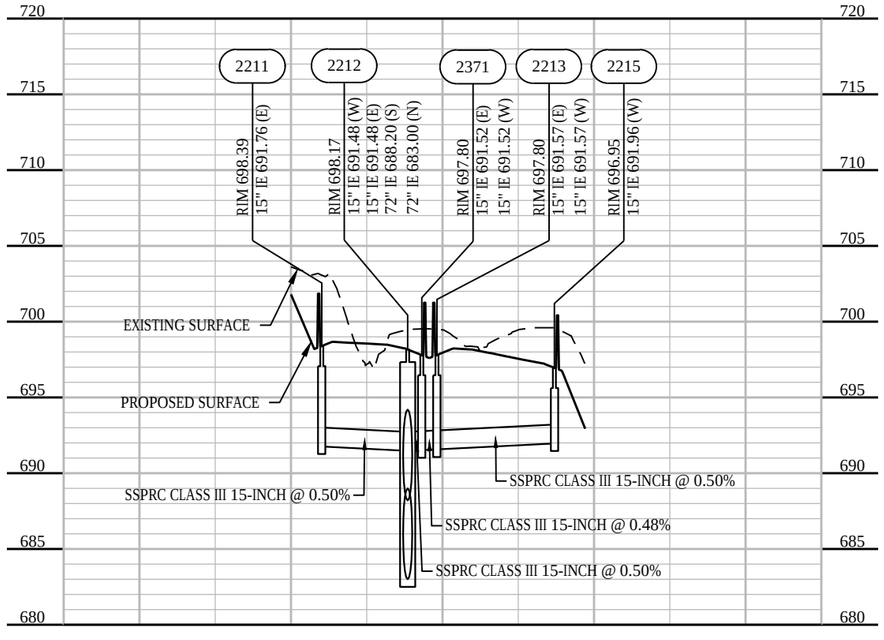


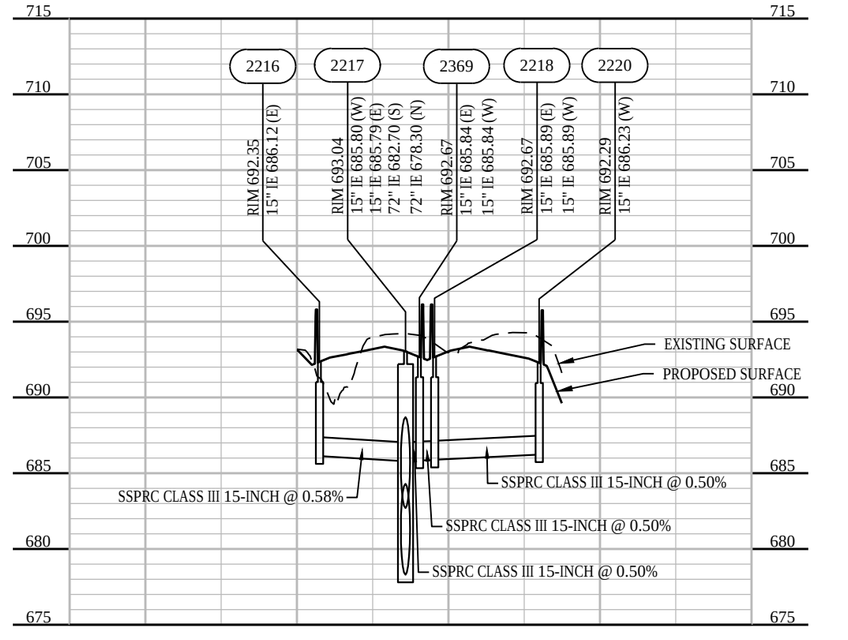
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022503_SS.DWG
LAYOUT NAME - _007
PLOT DATE : 9/28/2021 6:32 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

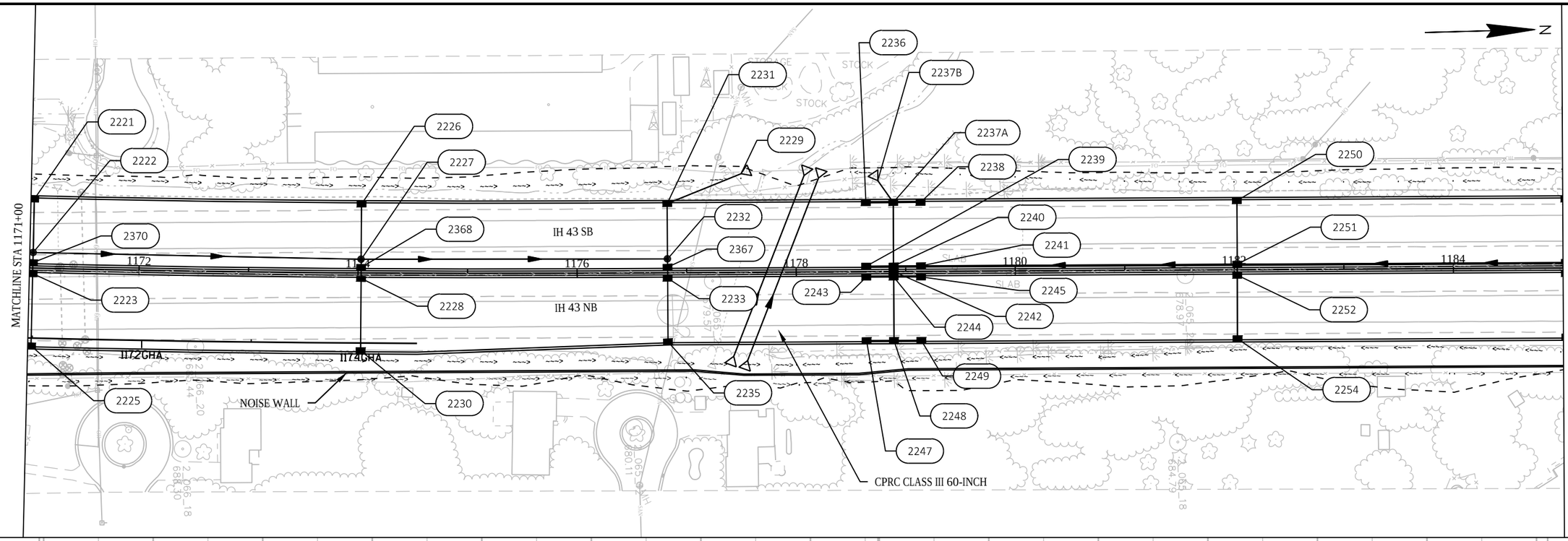


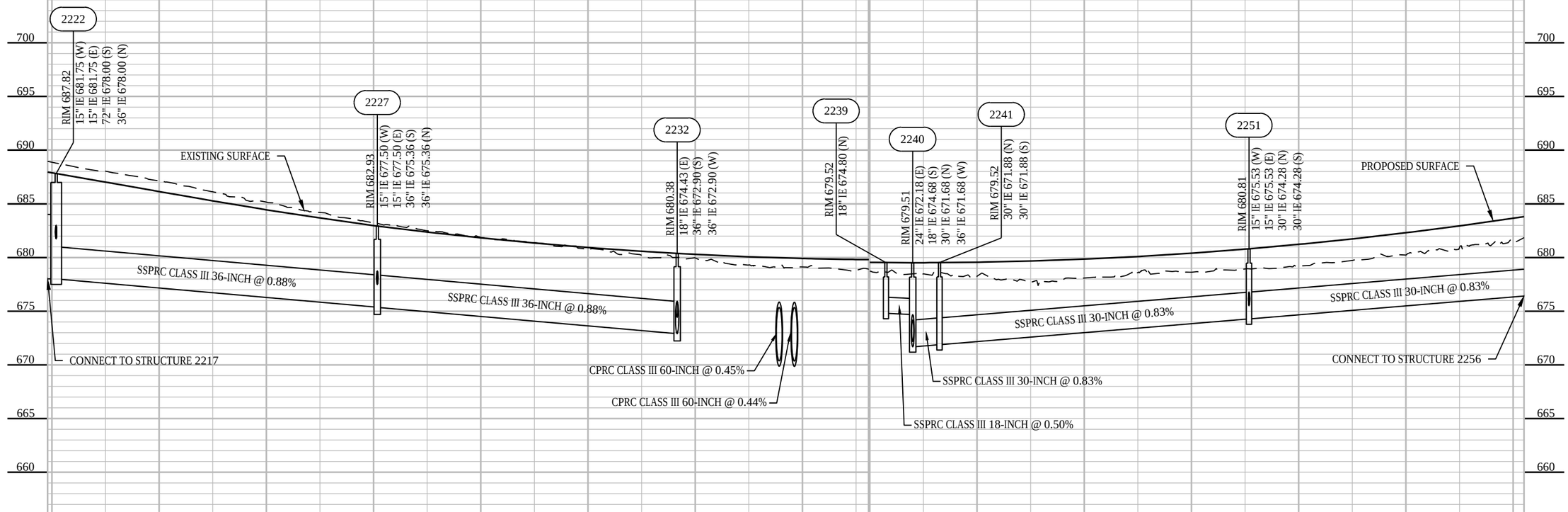






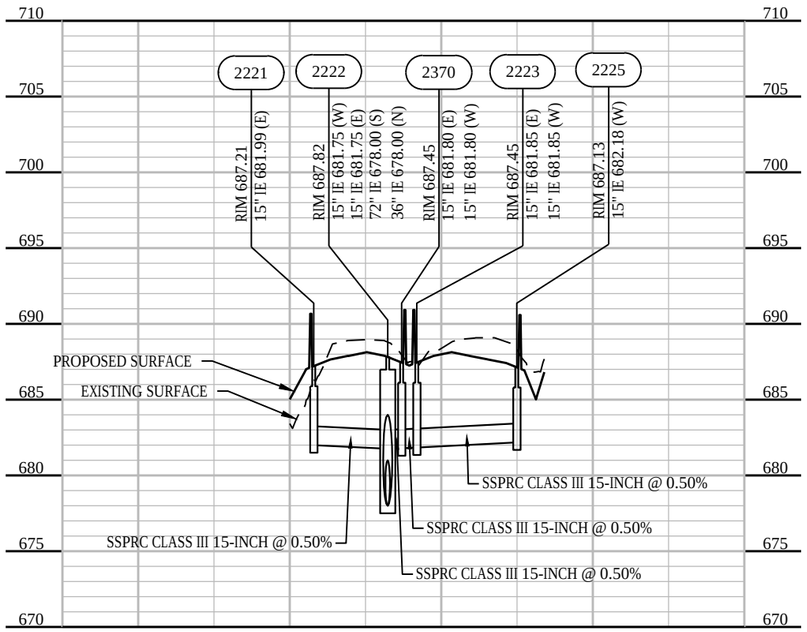
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

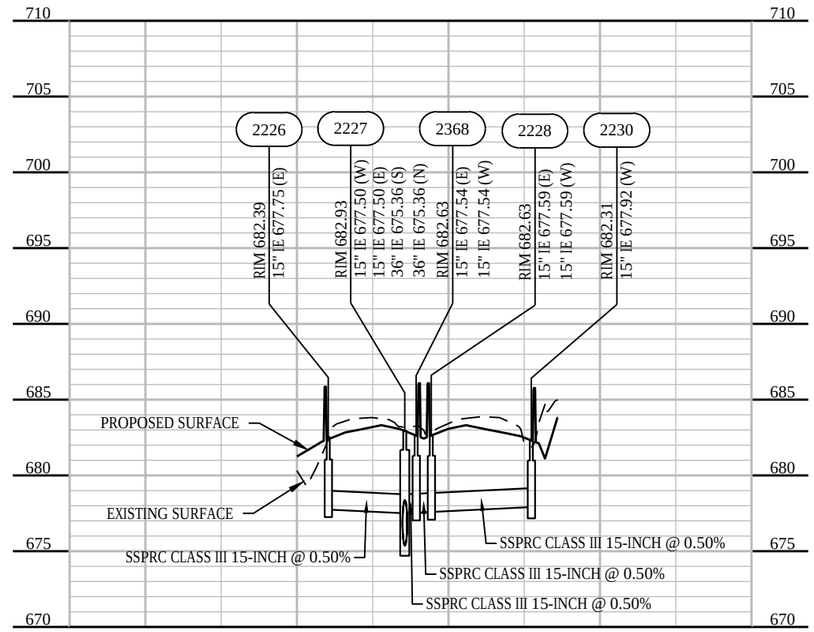


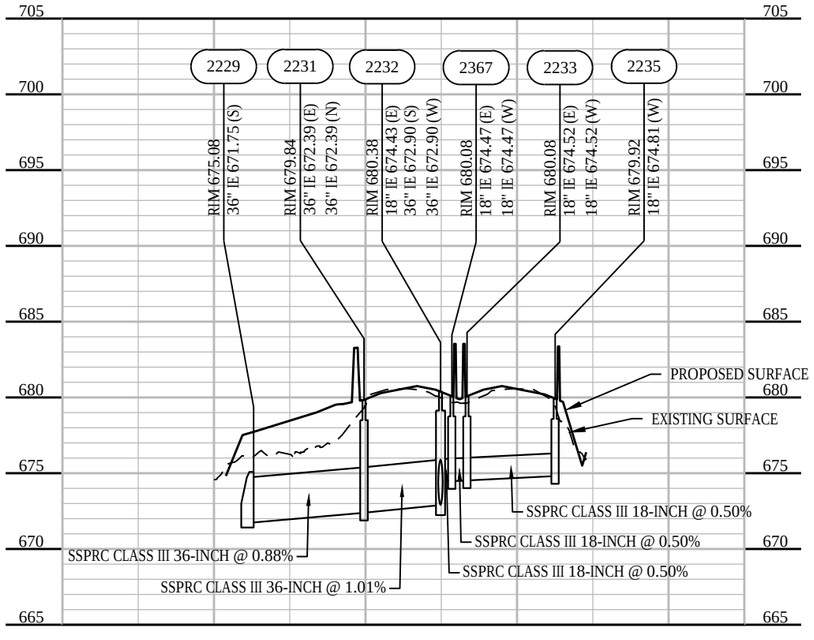


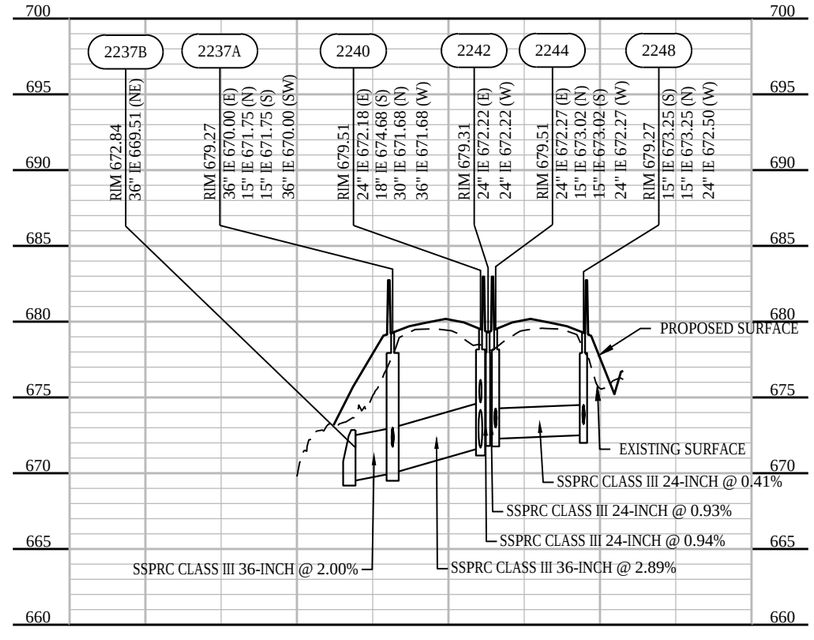
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022503_SS.DWG
LAYOUT NAME - _008
PLOT DATE : 9/28/2021 6:35 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

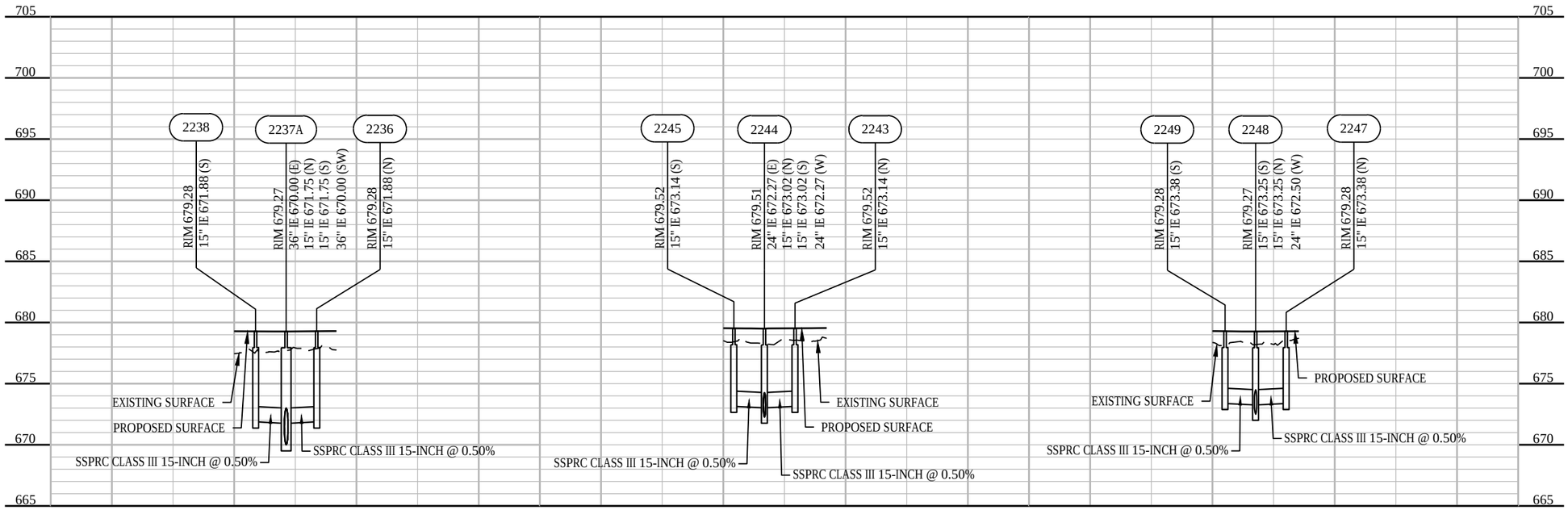


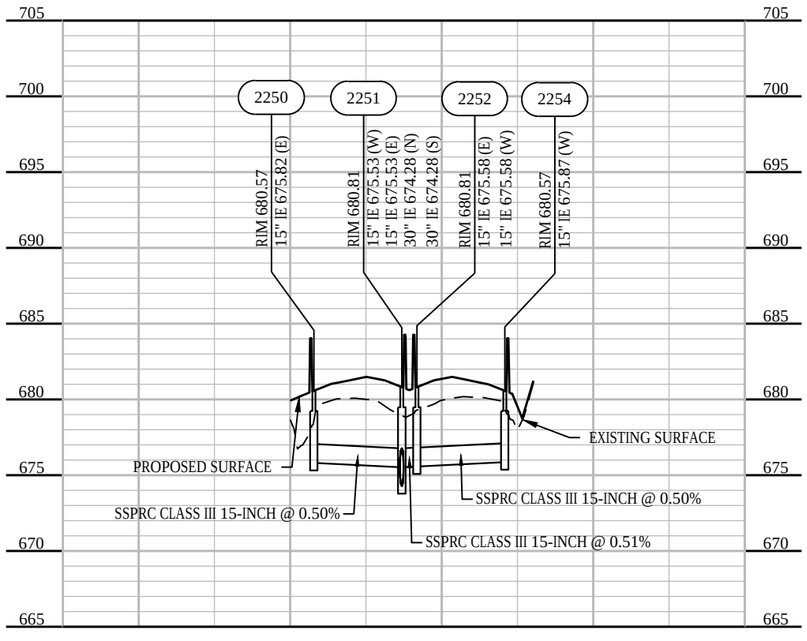






PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MIANLINE	SHEET	E

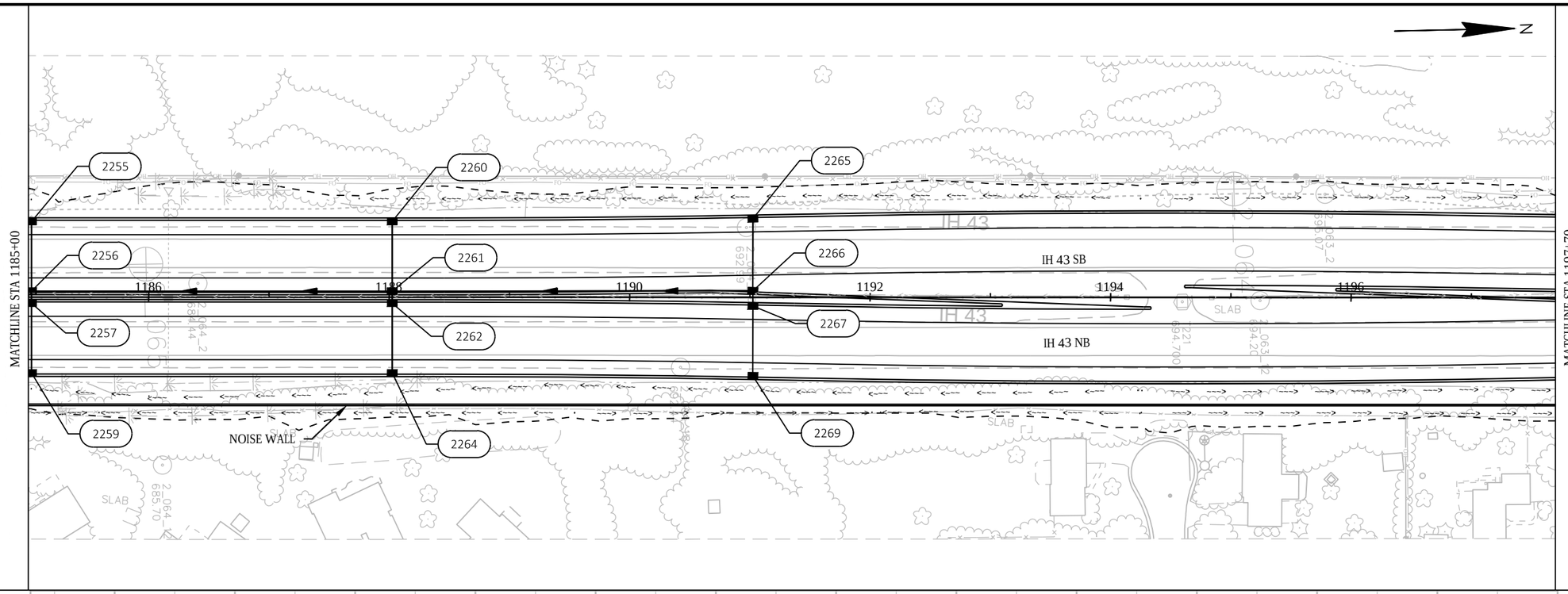


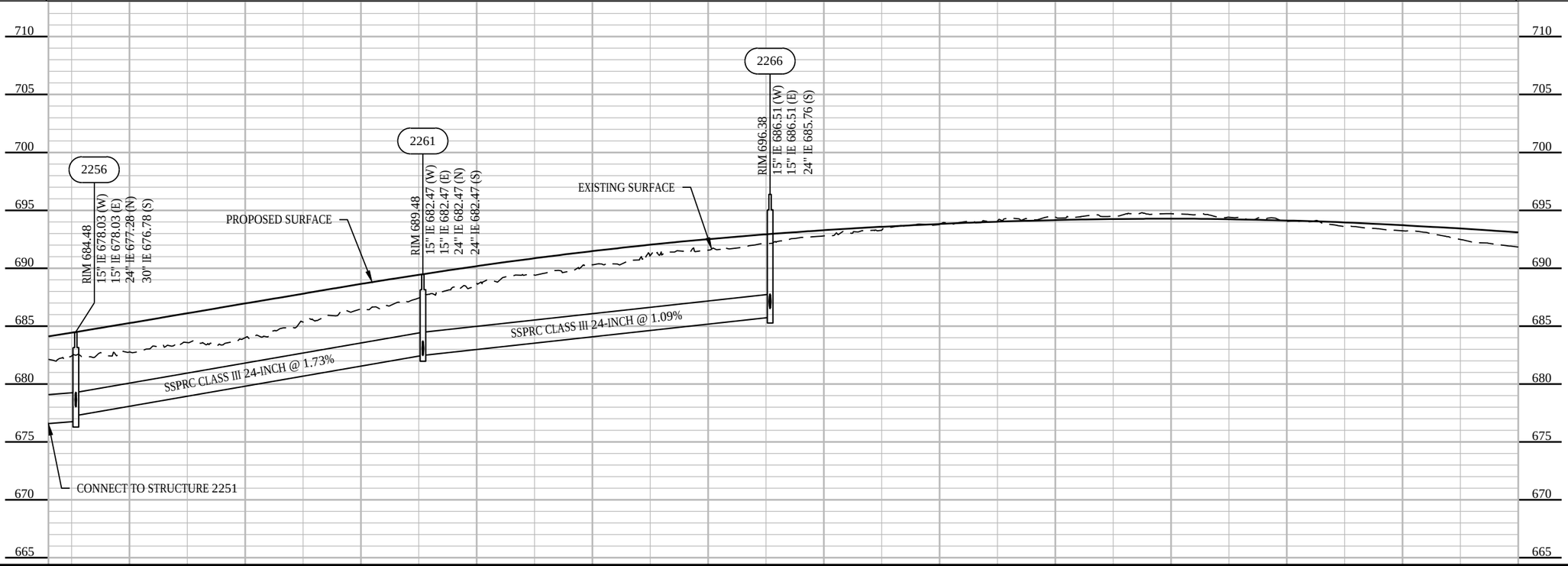


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

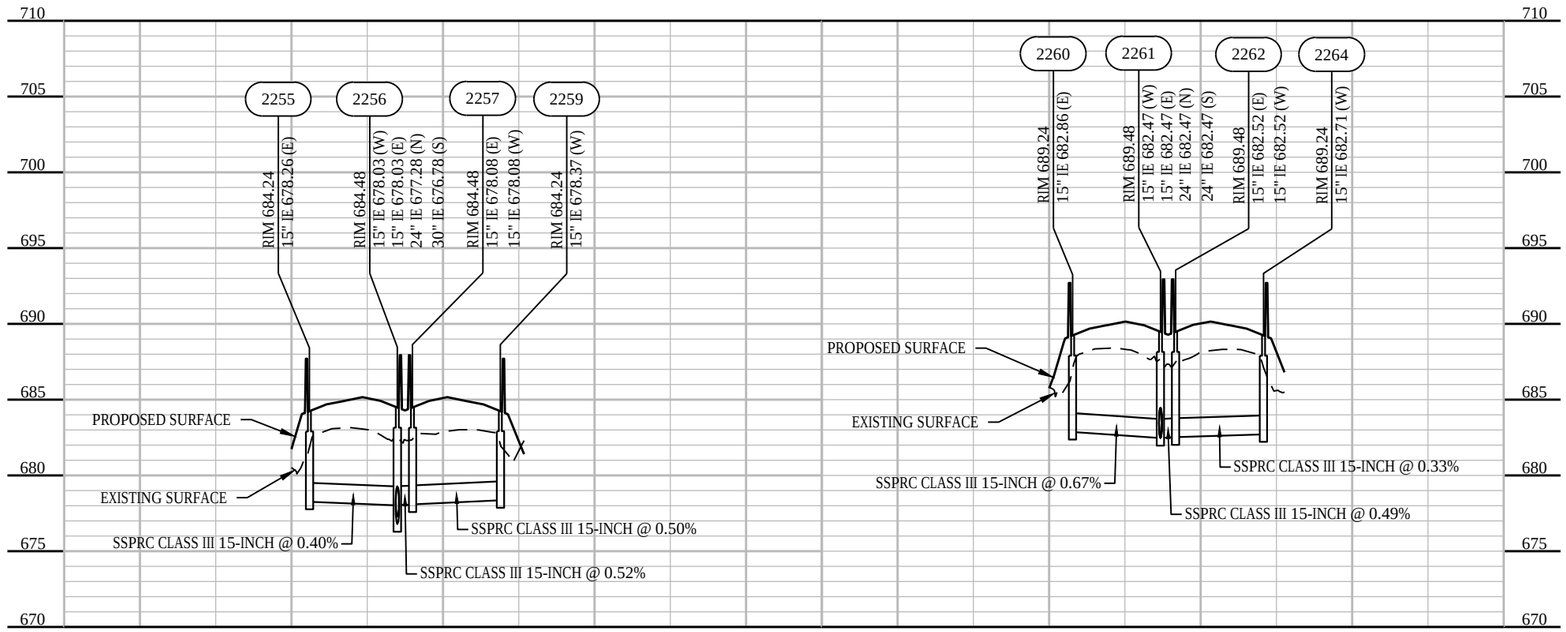
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022503_SS.DWG
LAYOUT NAME - _008(2)

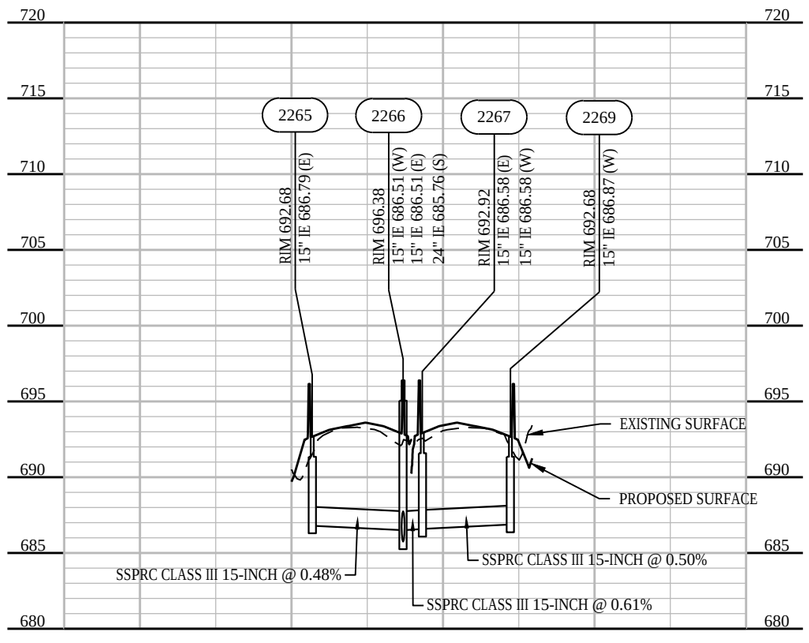
PLOT DATE : 9/28/2021 6:37 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



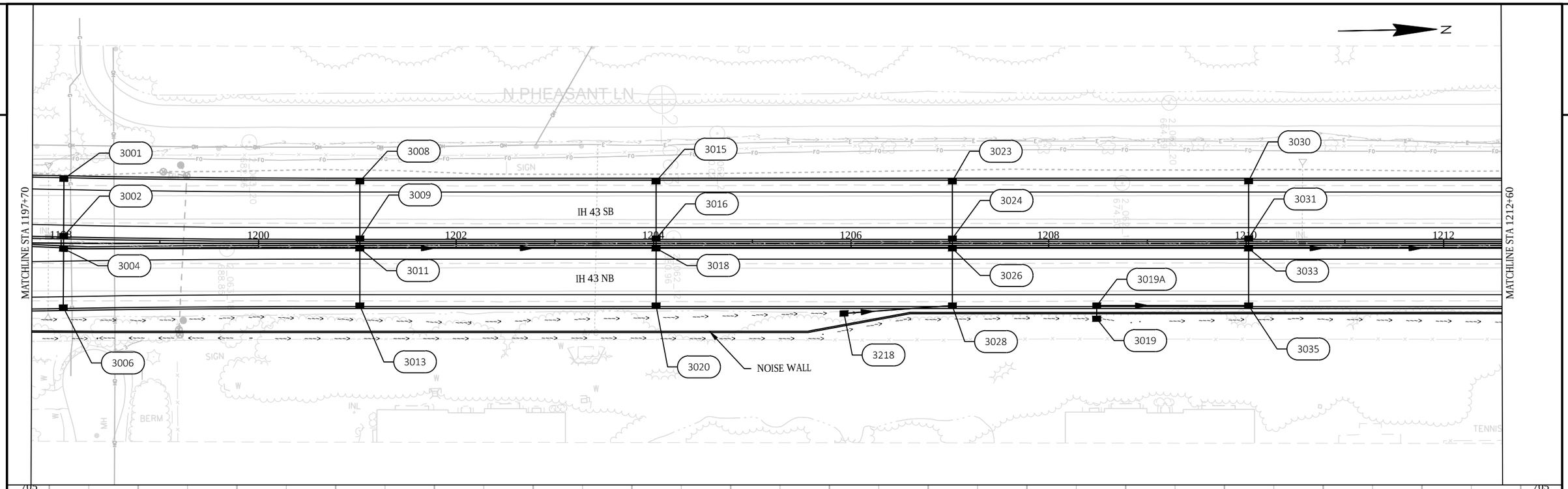


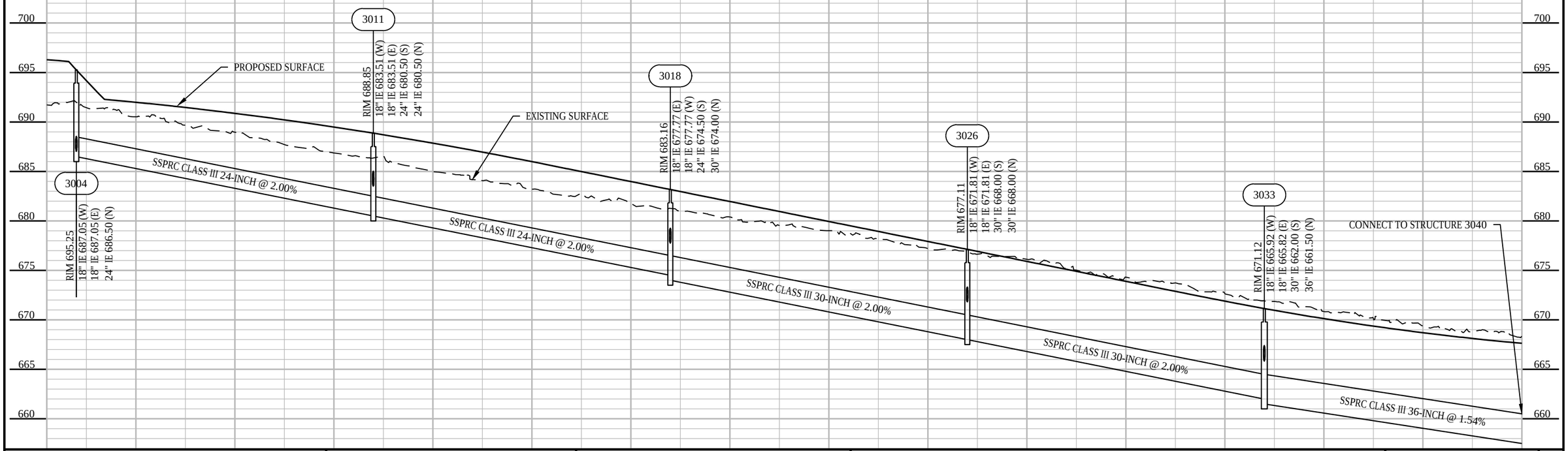
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E





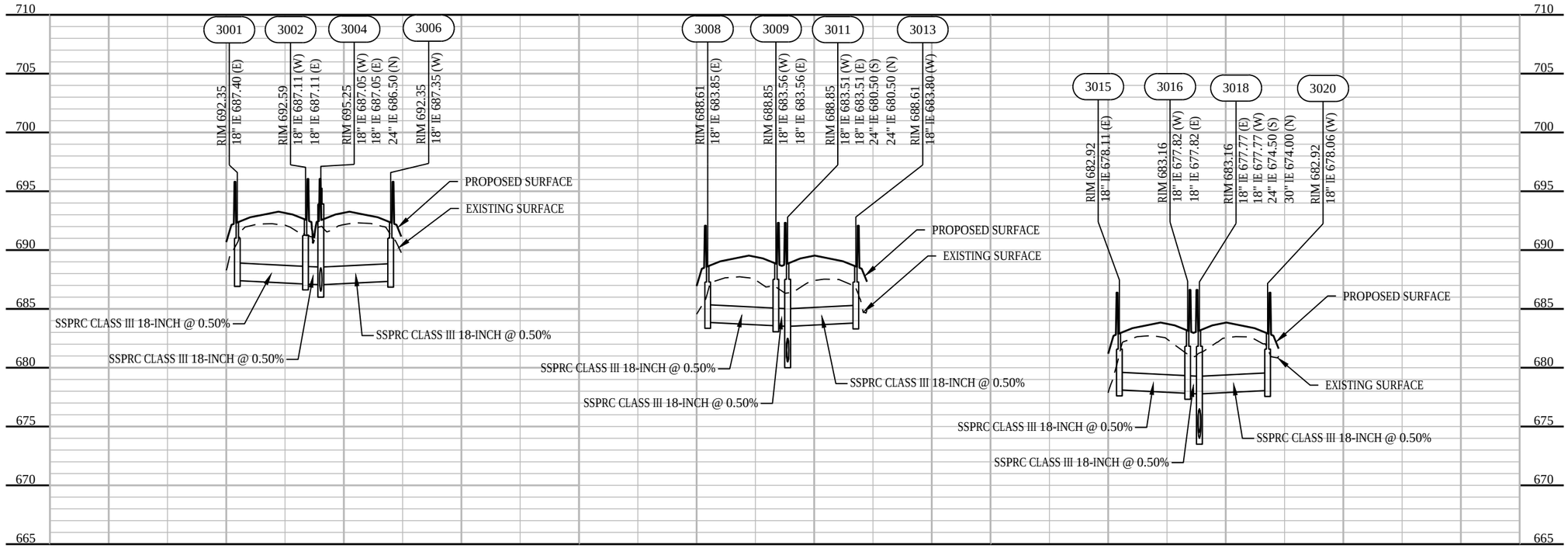
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

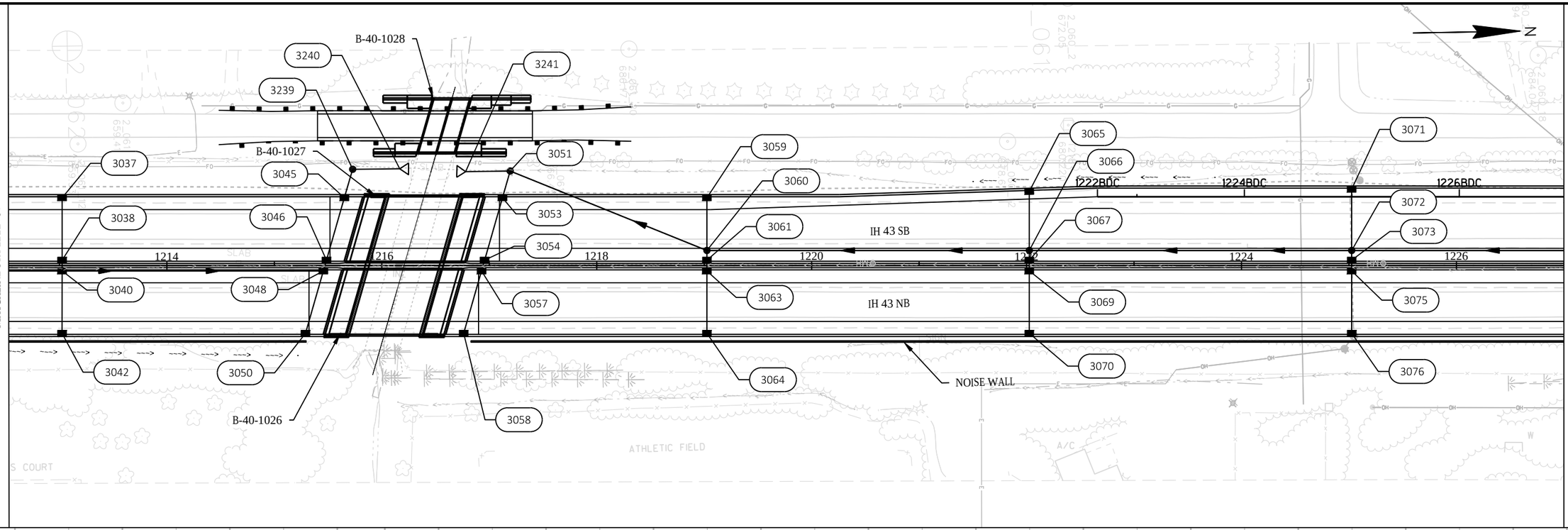
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022504_SS.DWG
LAYOUT NAME - _010
PLOT DATE : 9/28/2021 8:00 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

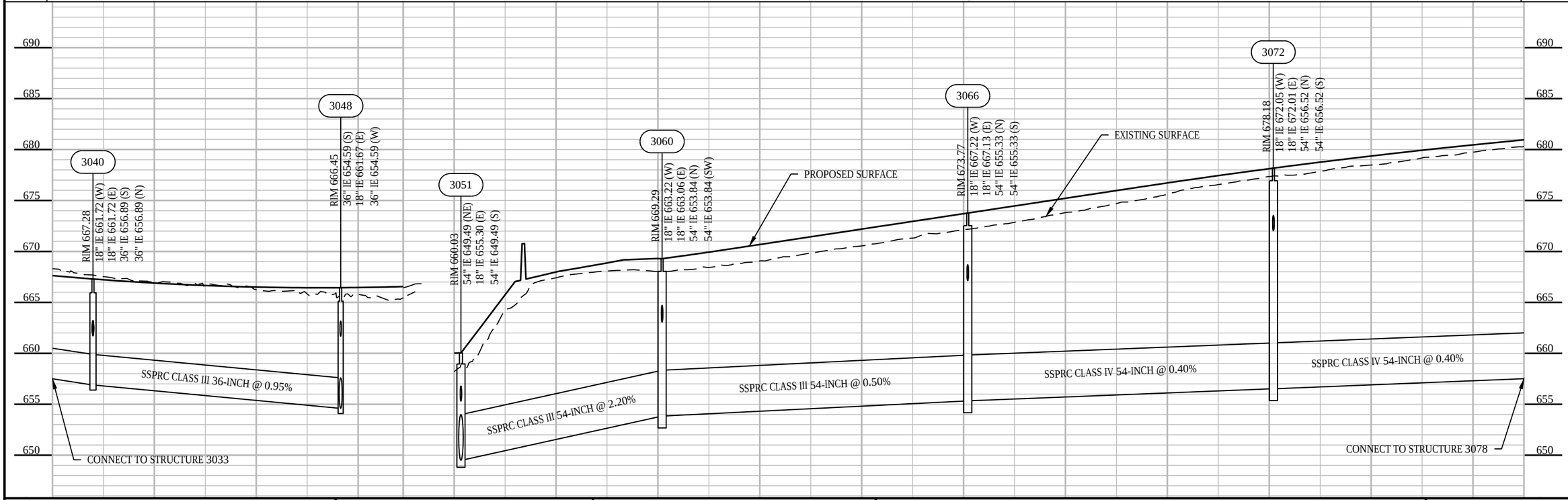


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022504_SS.DWG
LAYOUT NAME - _010(1)

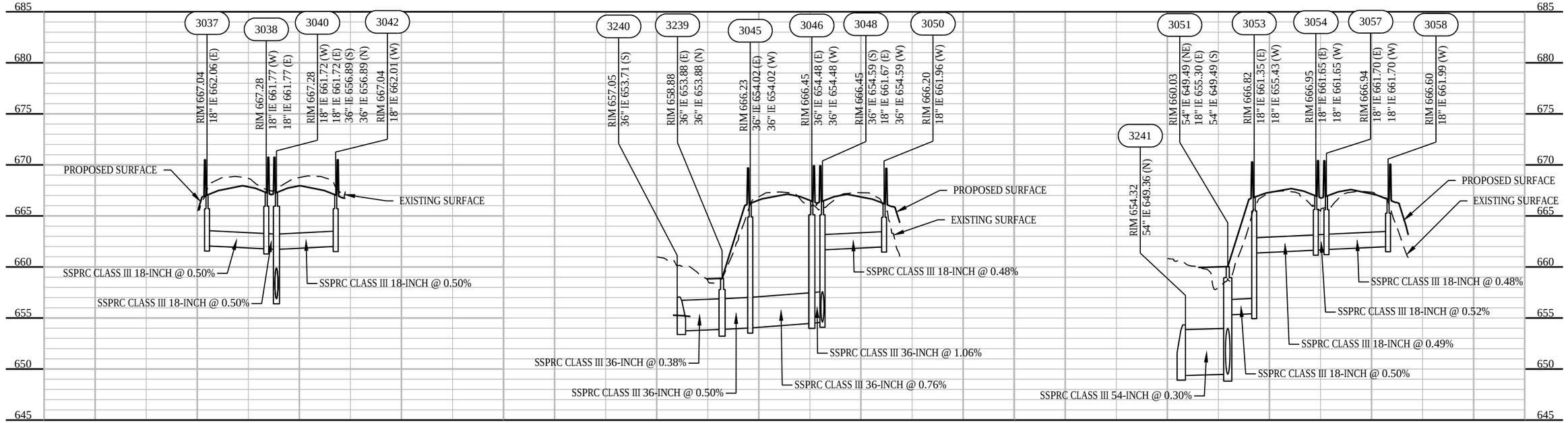
PLOT DATE : 9/28/2021 7:34 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022504_SS.DWG
LAYOUT NAME - _011
PLOT DATE : 9/28/2021 7:36 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

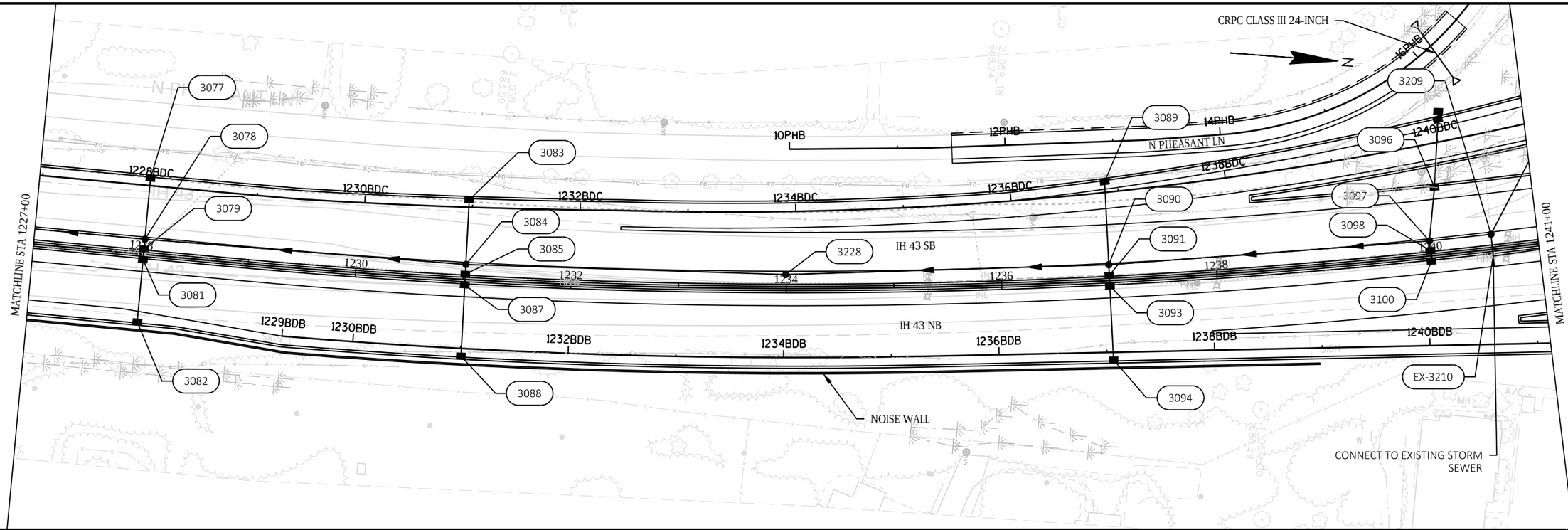


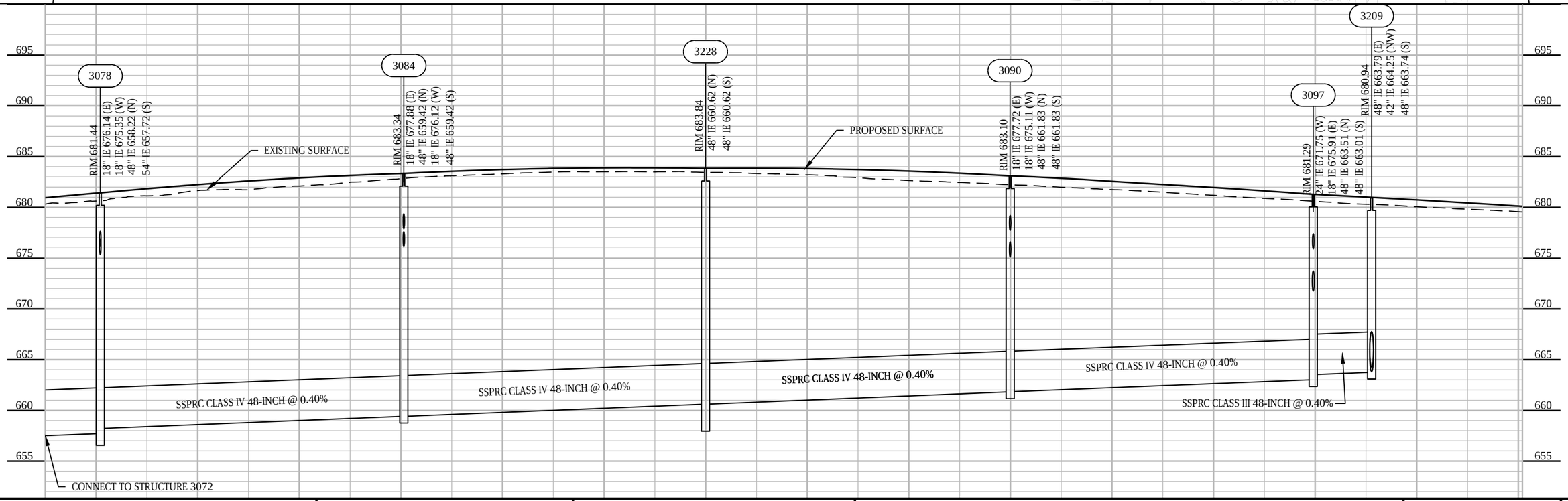
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022504_SS.DWG
LAYOUT NAME - _011(1)

PLOT DATE : 9/28/2021 7:37 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

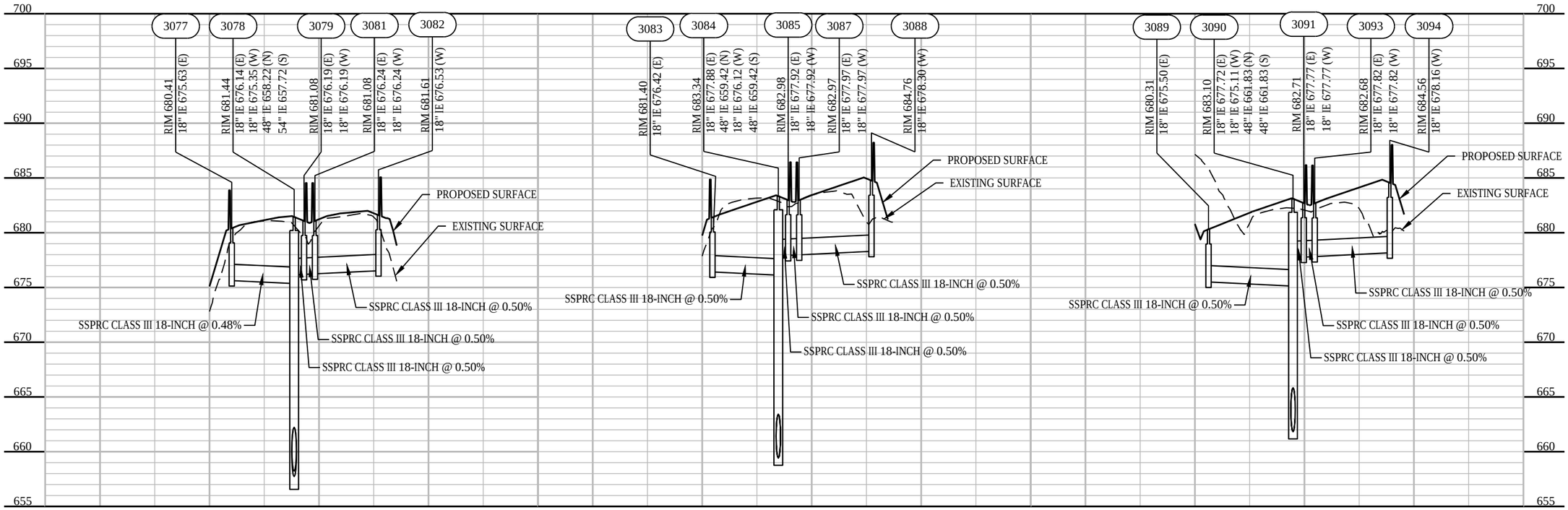
WISDOT/CADDS SHEET 42

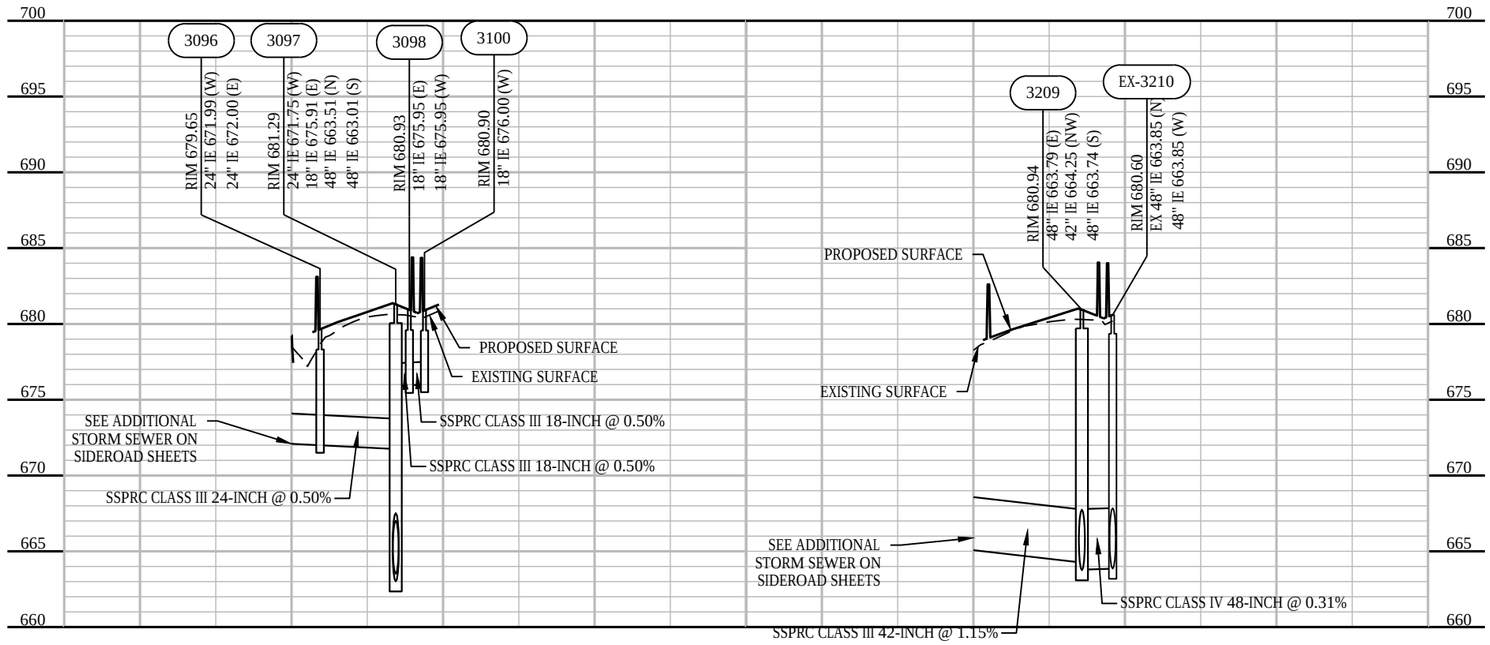




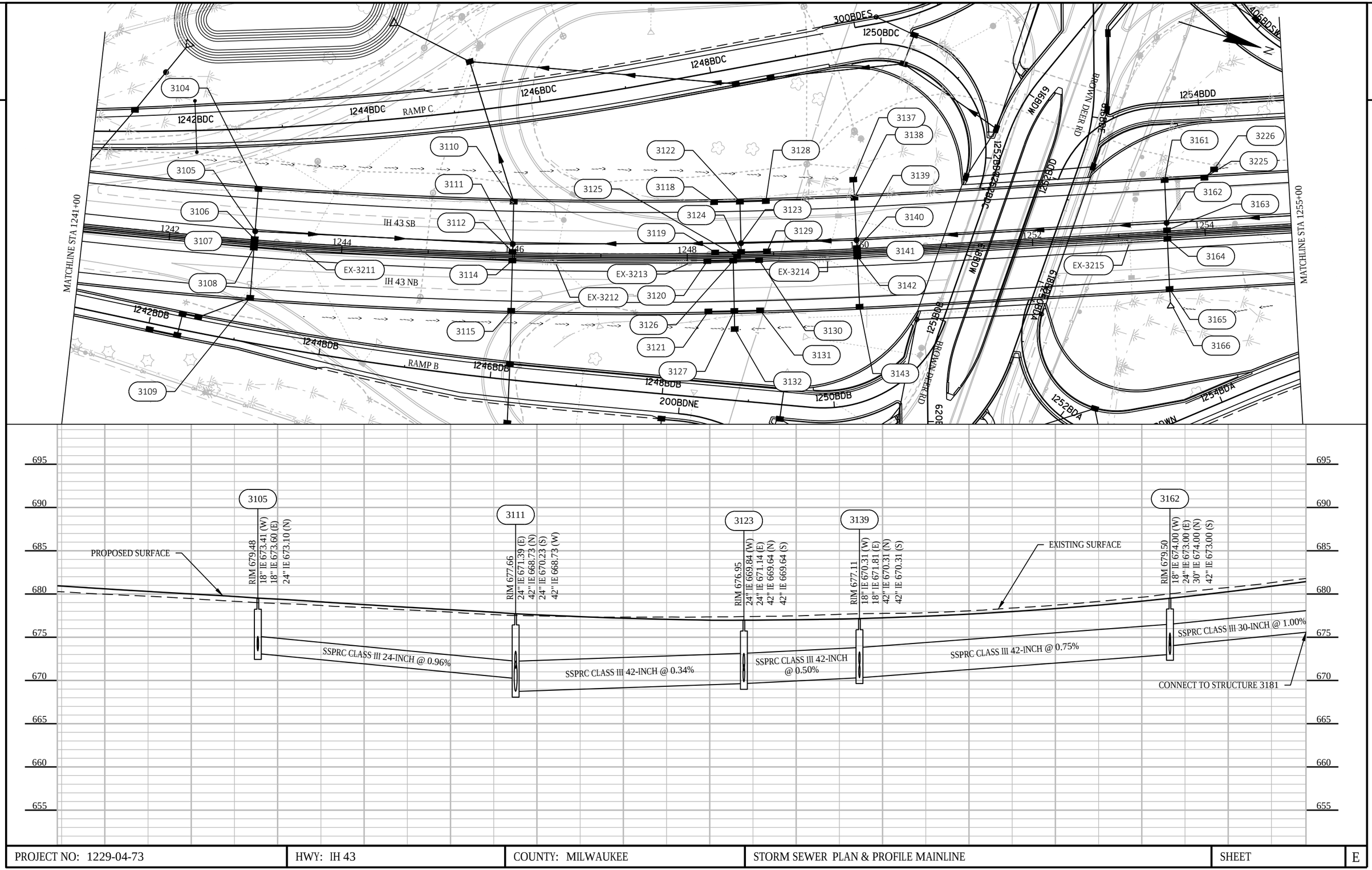
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022504_SS.DWG
LAYOUT NAME - _012
PLOT DATE : 9/28/2021 7:38 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41





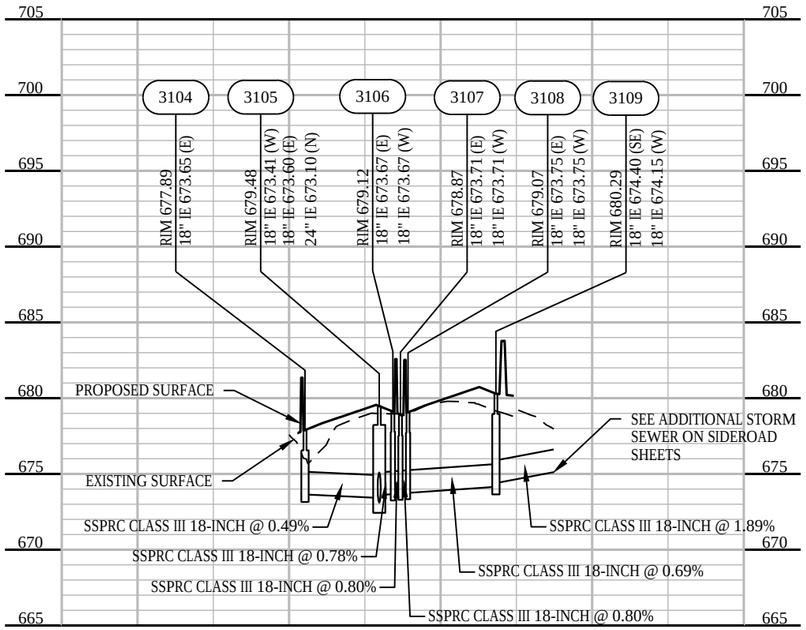
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

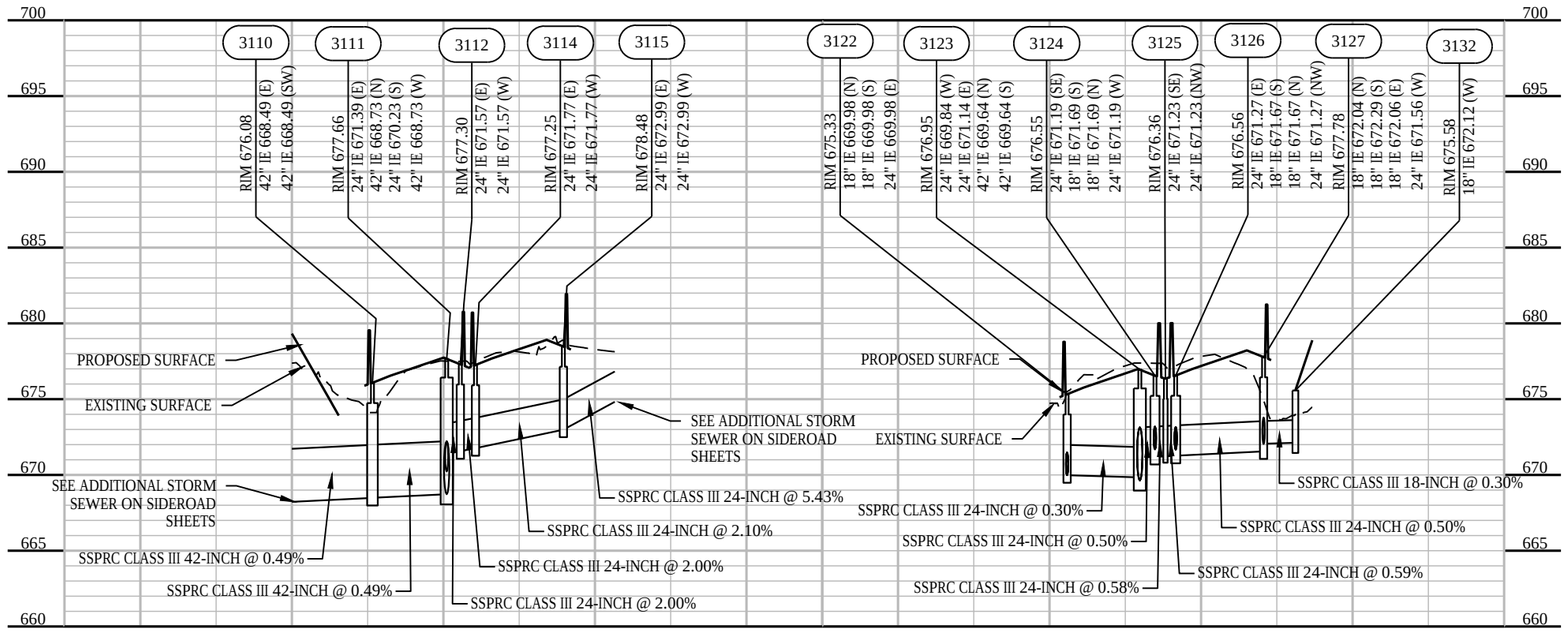


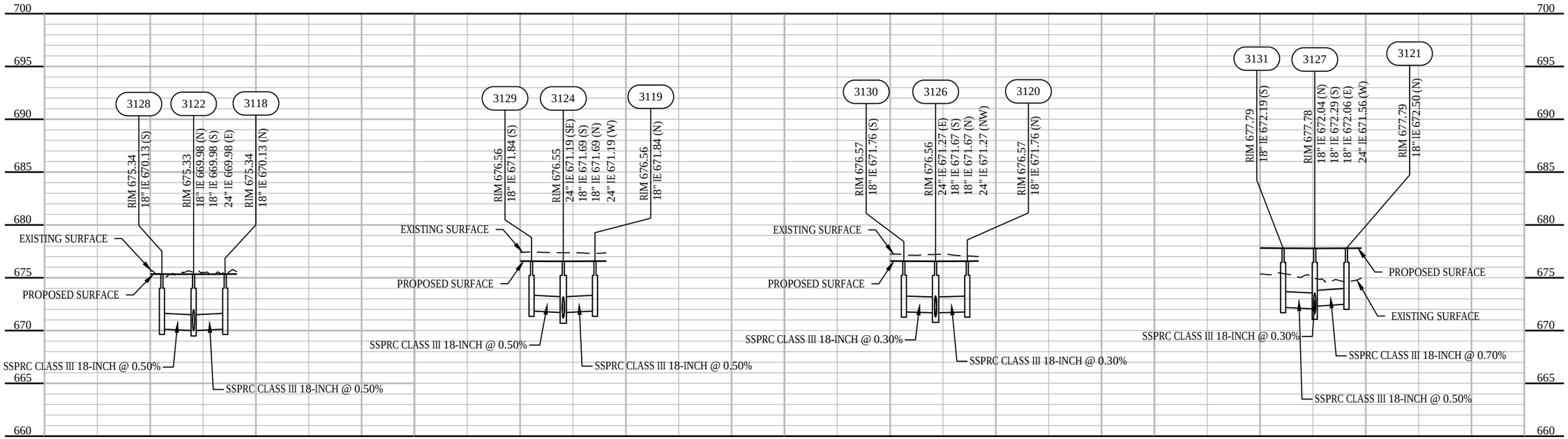
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _013

PLOT DATE : 9/28/2021 7:45 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



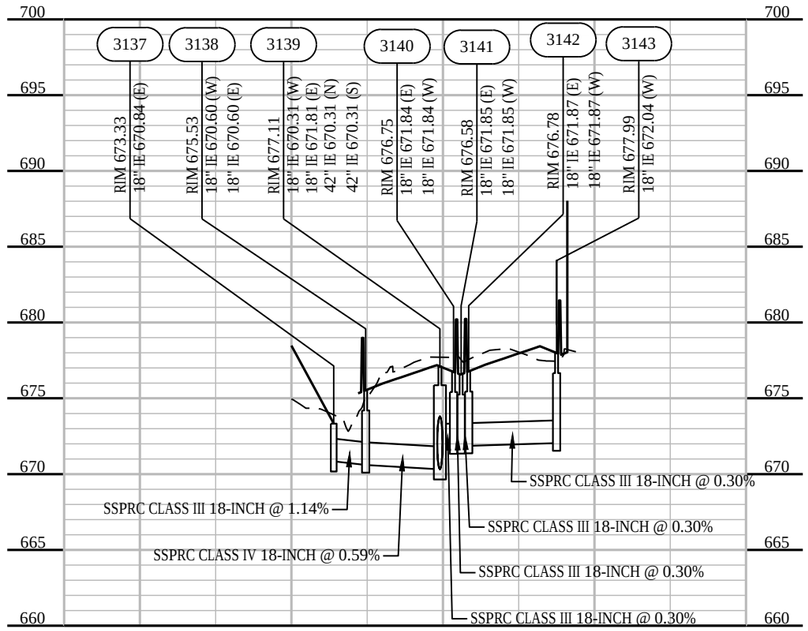


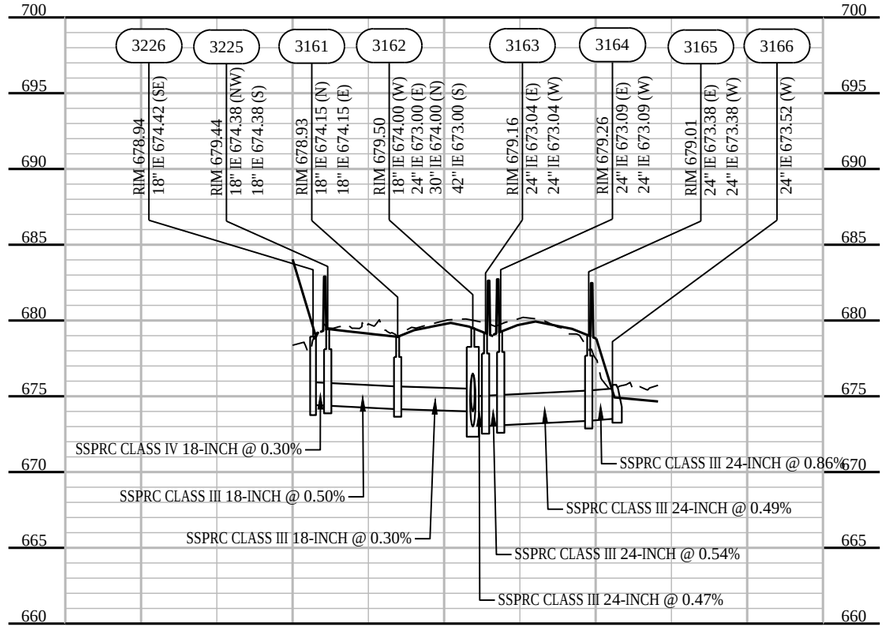


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _013(1)

PLOT DATE : 9/28/2021 7:46 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



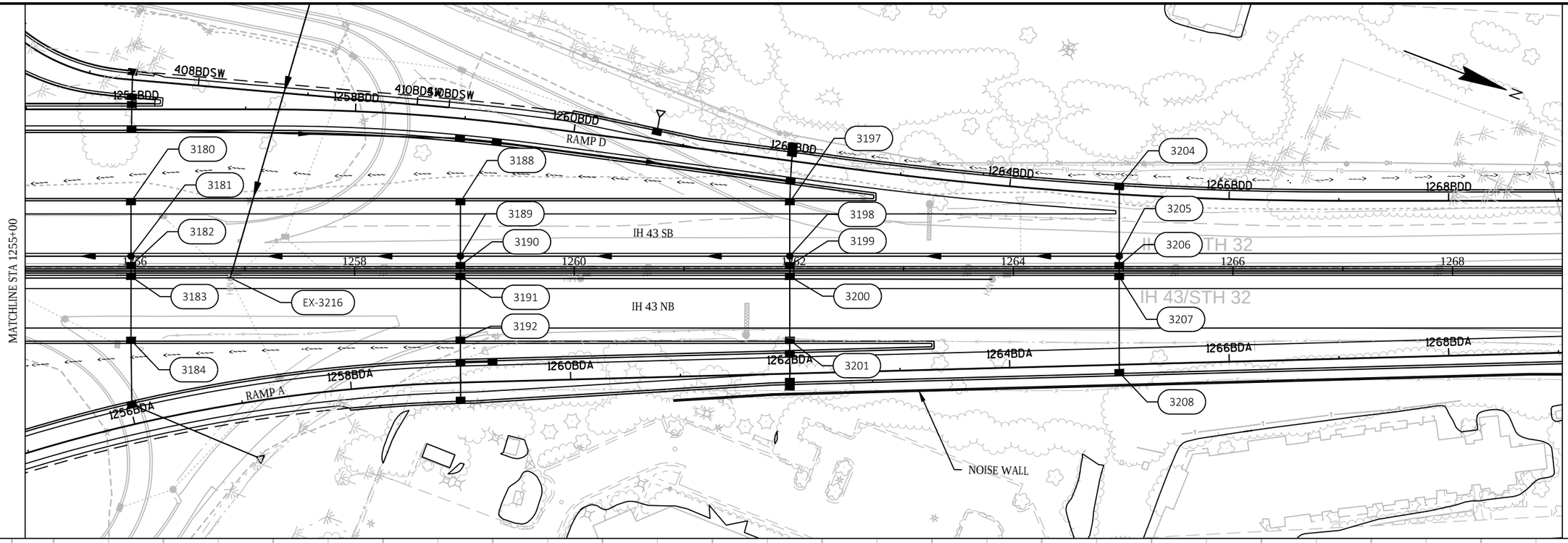


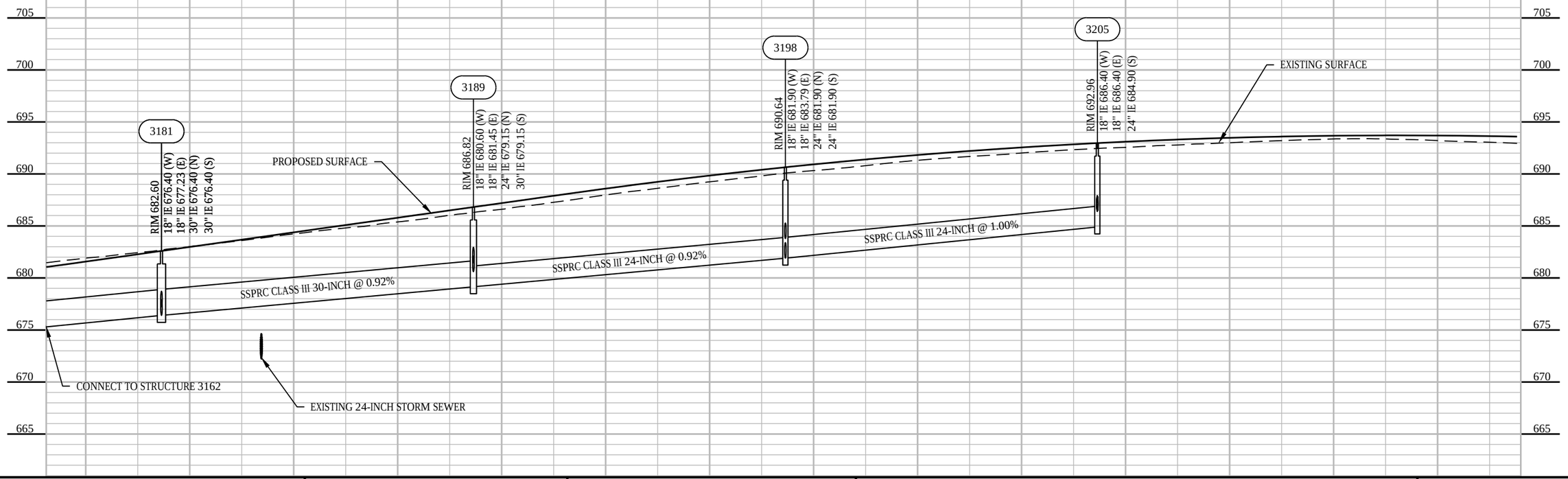
2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _013(2)
PLOT DATE : 9/28/2021 7:47 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

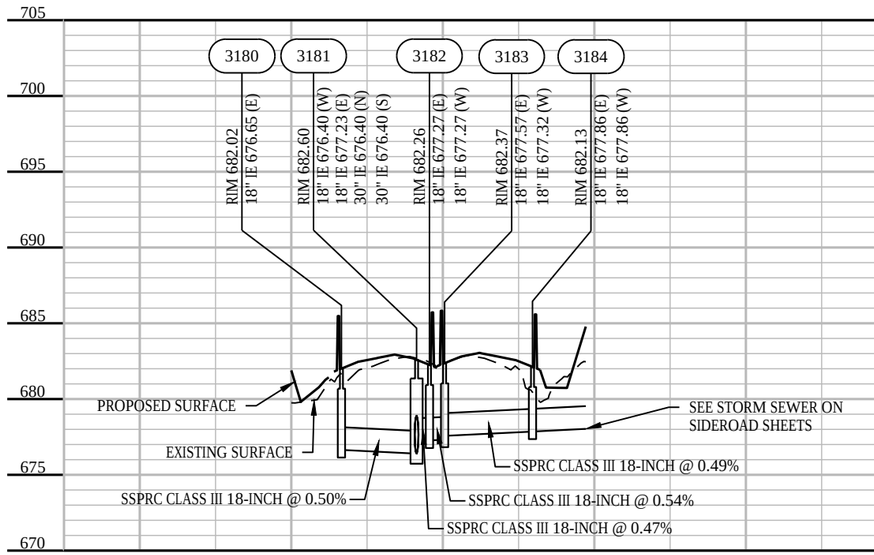


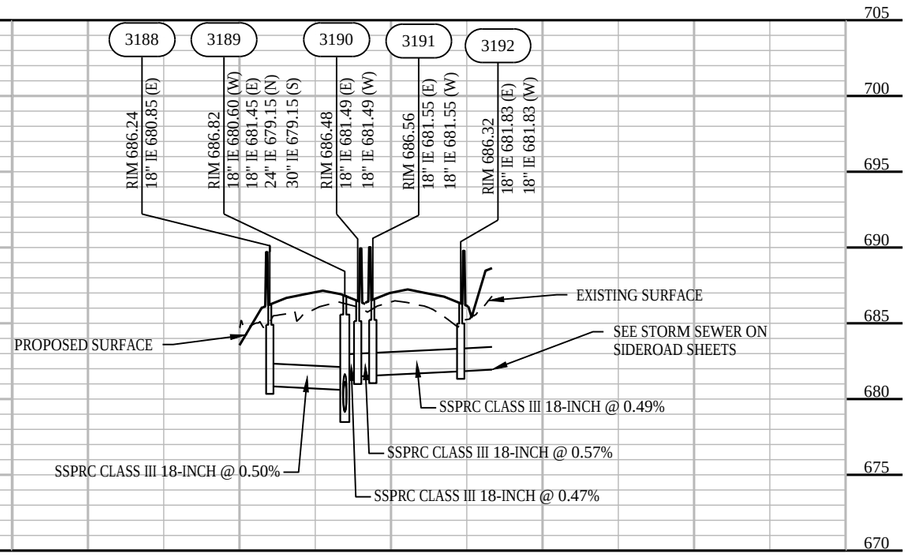


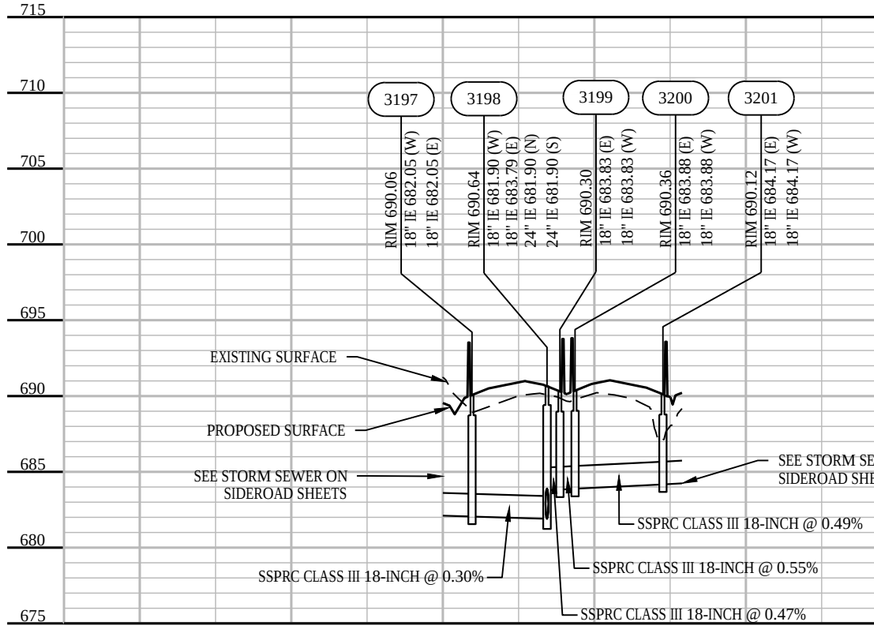
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

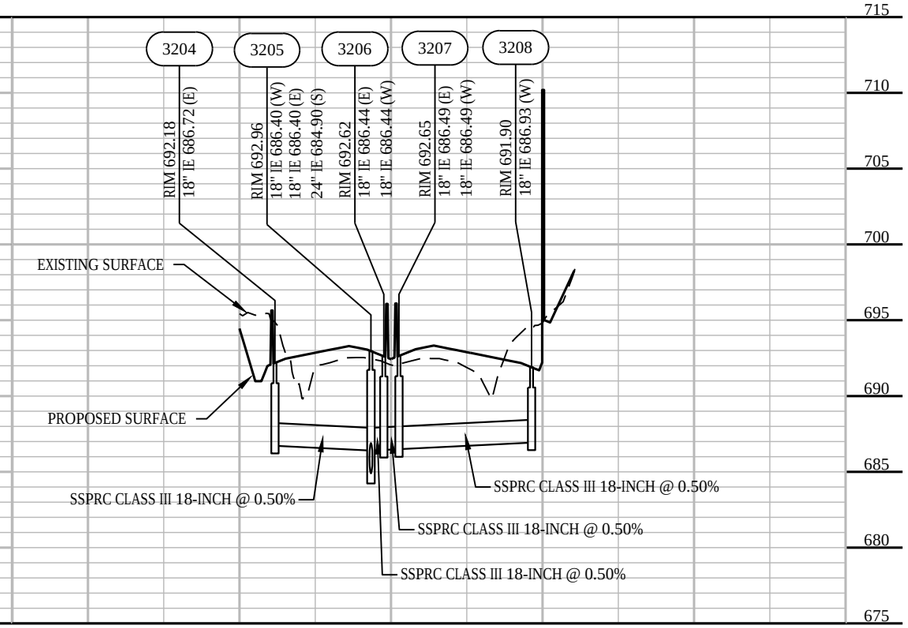
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _014
PLOT DATE : 9/28/2021 7:49 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

2





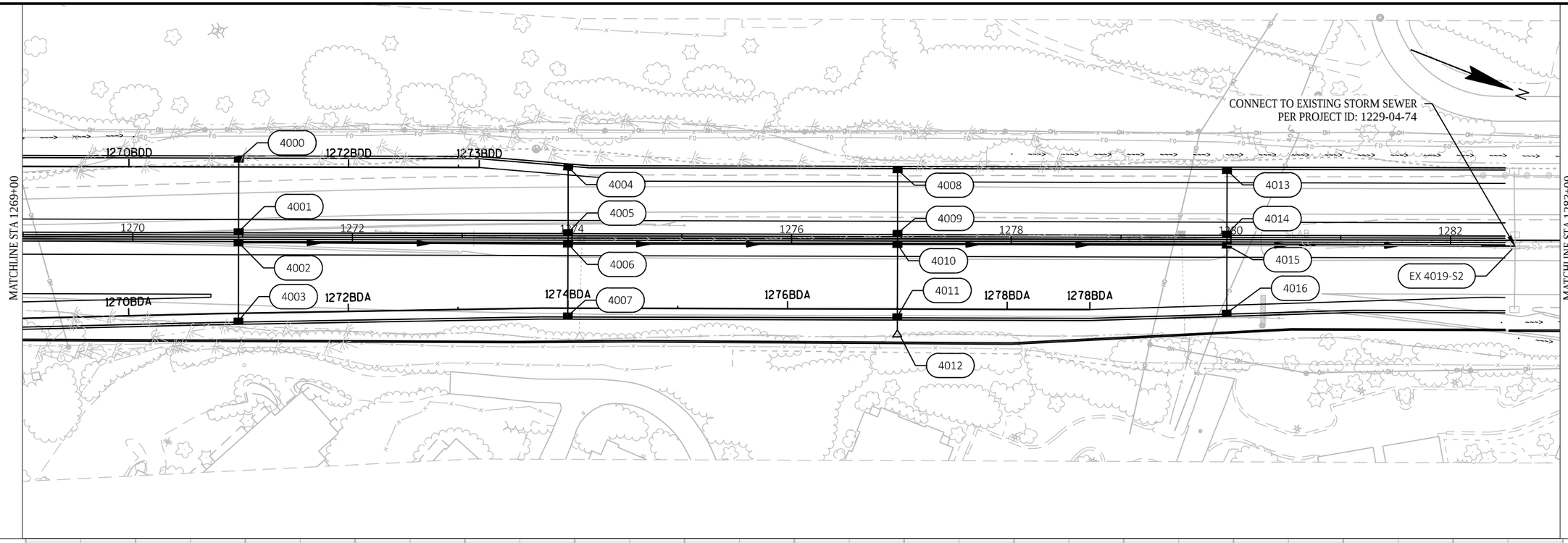


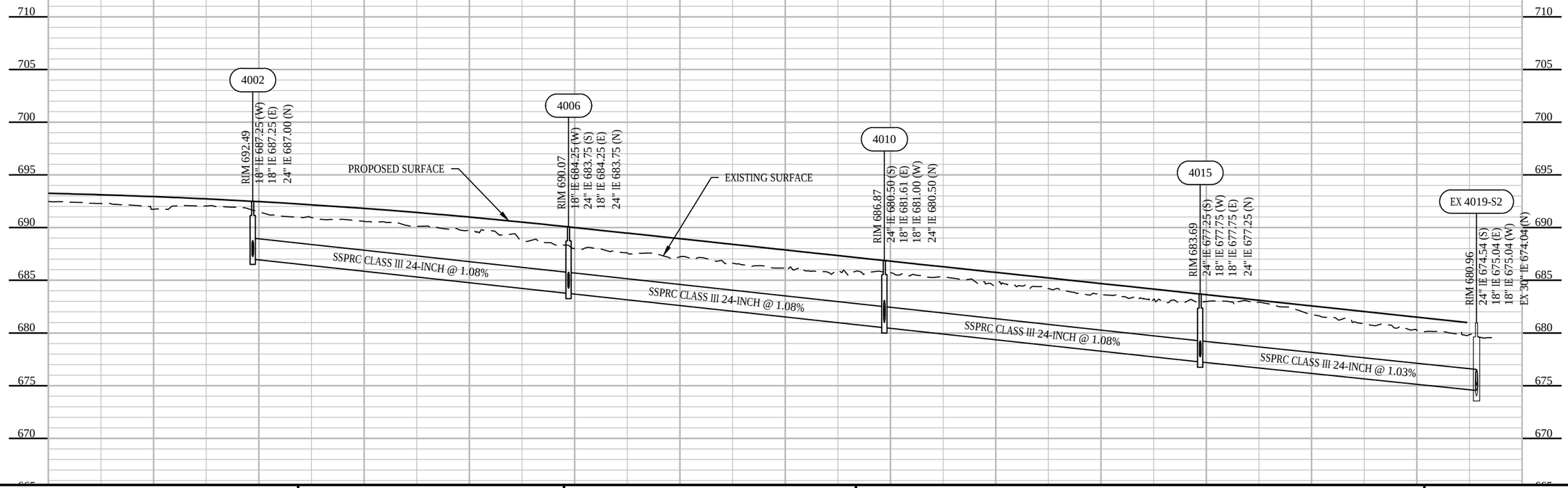


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _014(1)

PLOT DATE : 9/28/2021 7:49 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

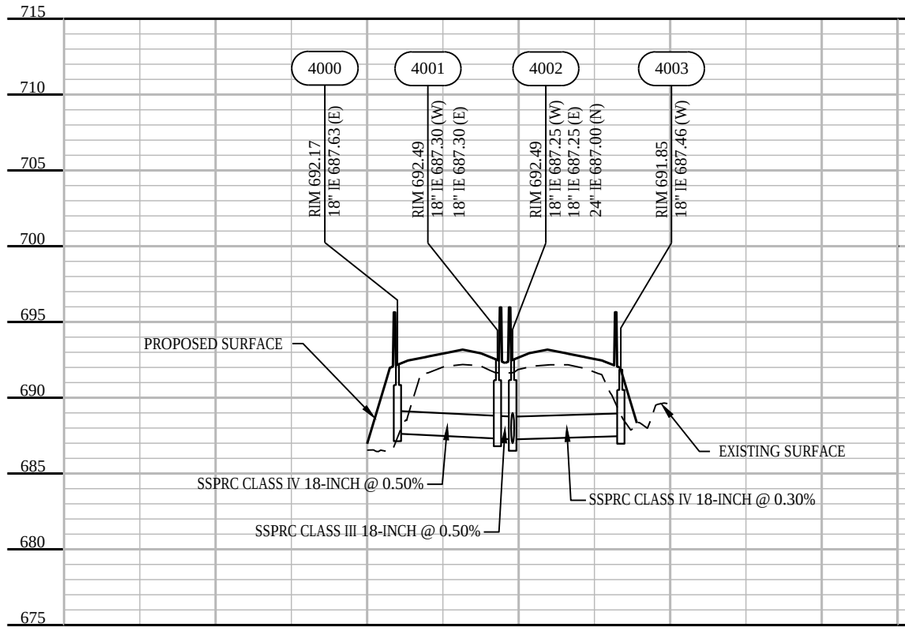


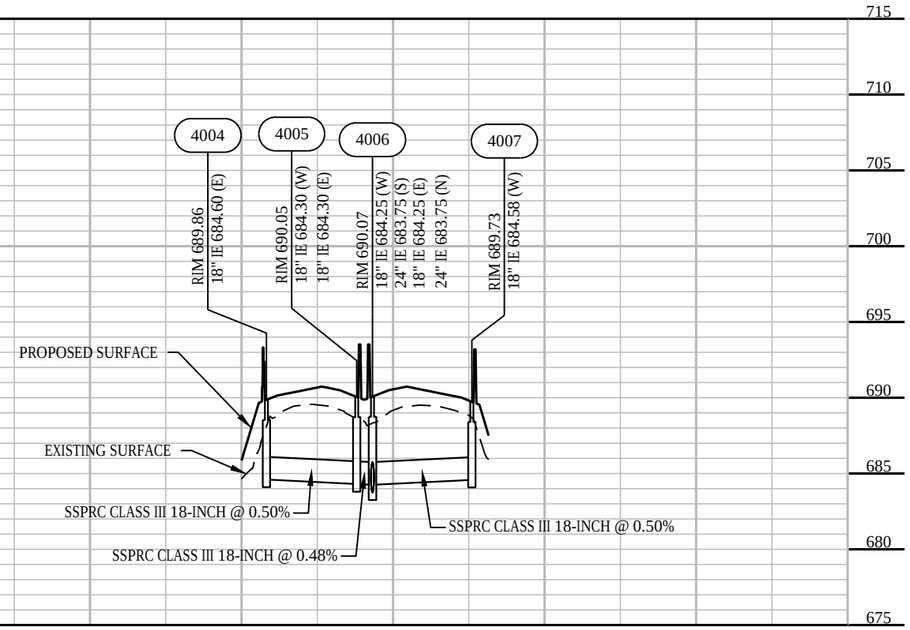


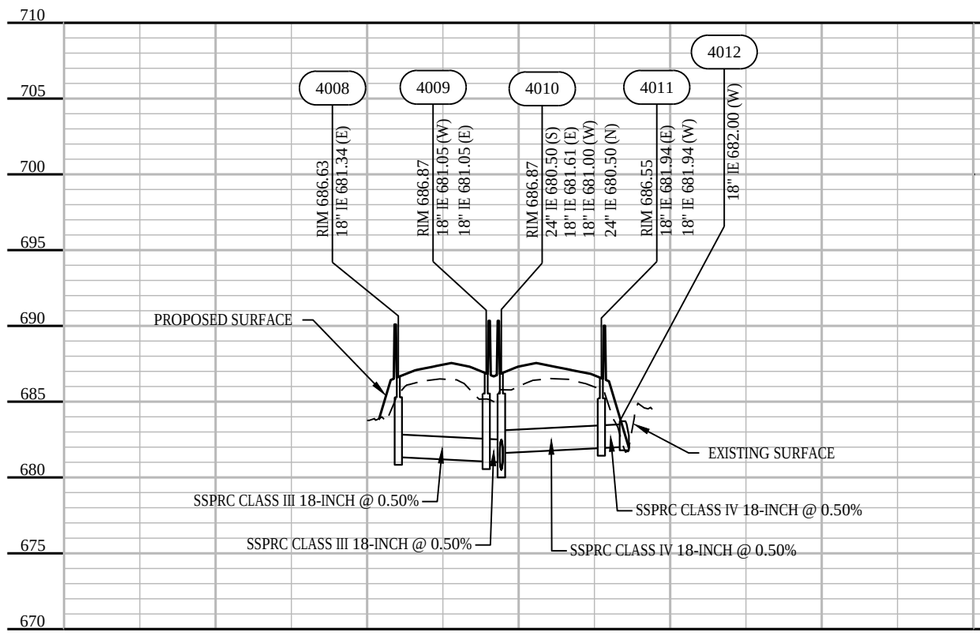
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

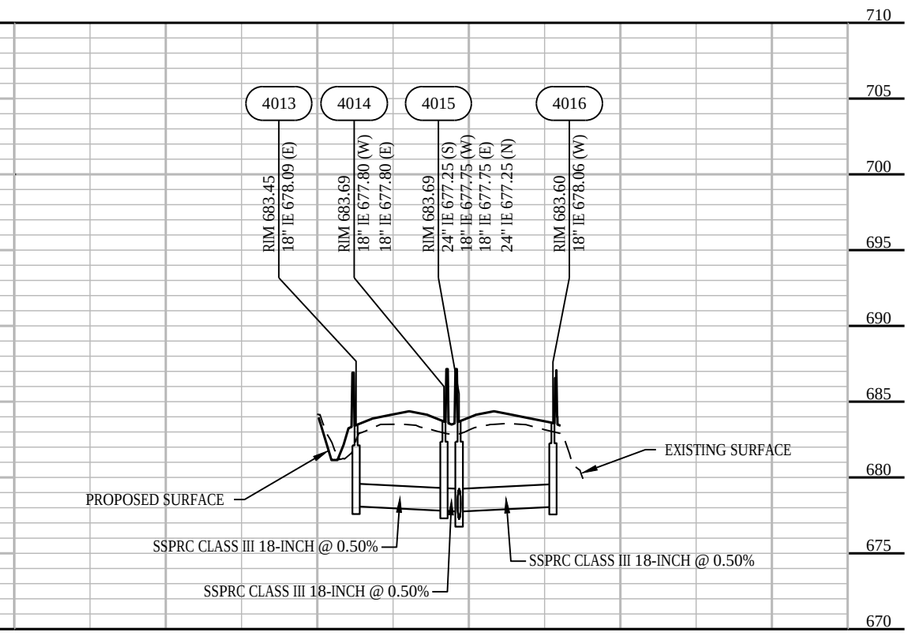
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _015

PLOT DATE : 9/28/2021 7:57 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT





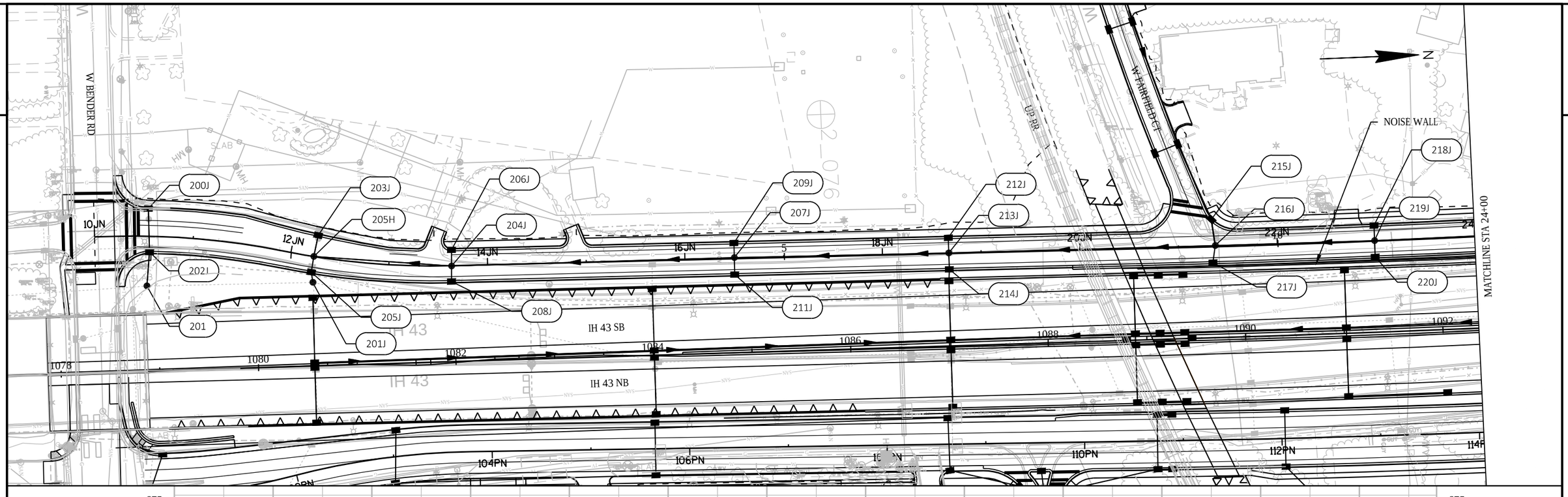


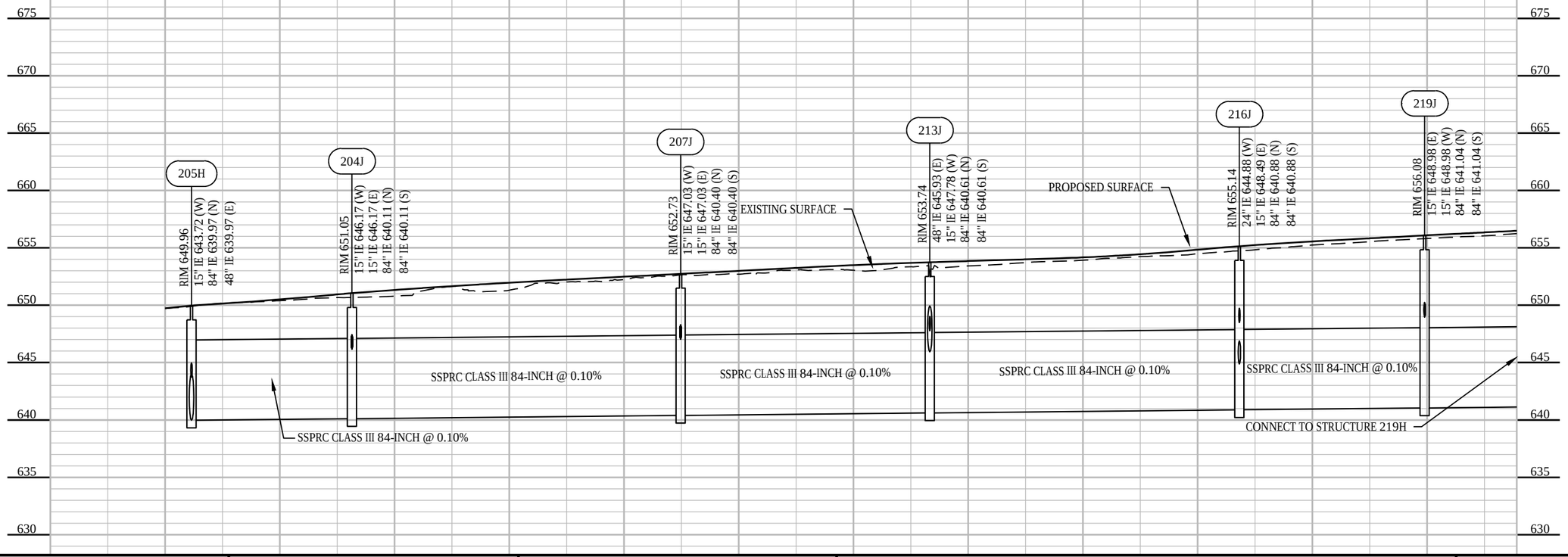


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022505_SS.DWG
LAYOUT NAME - _015(1)

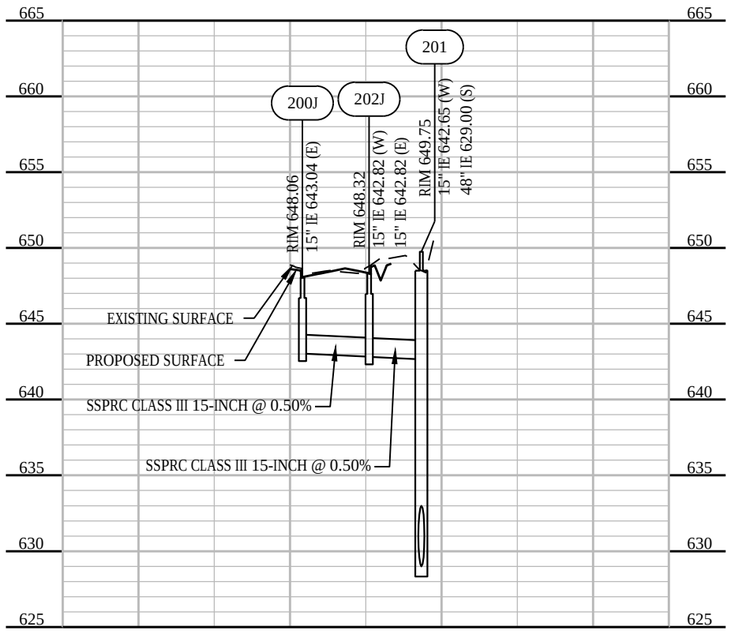
PLOT DATE : 9/28/2021 7:52 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

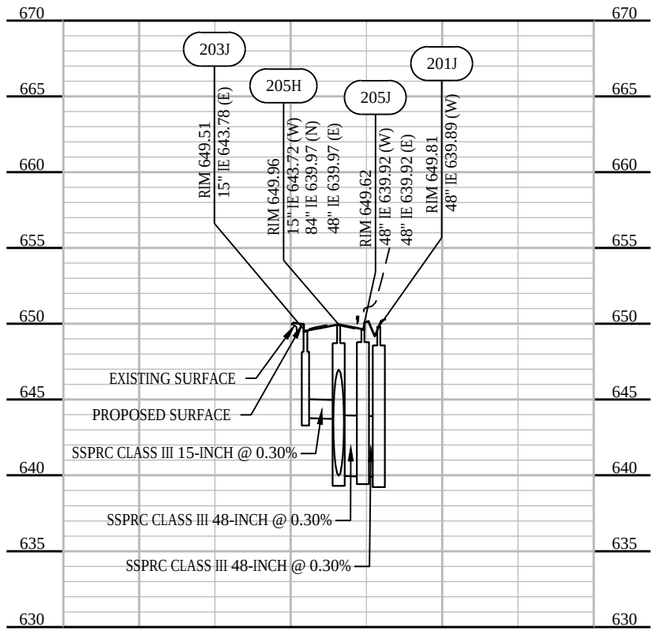


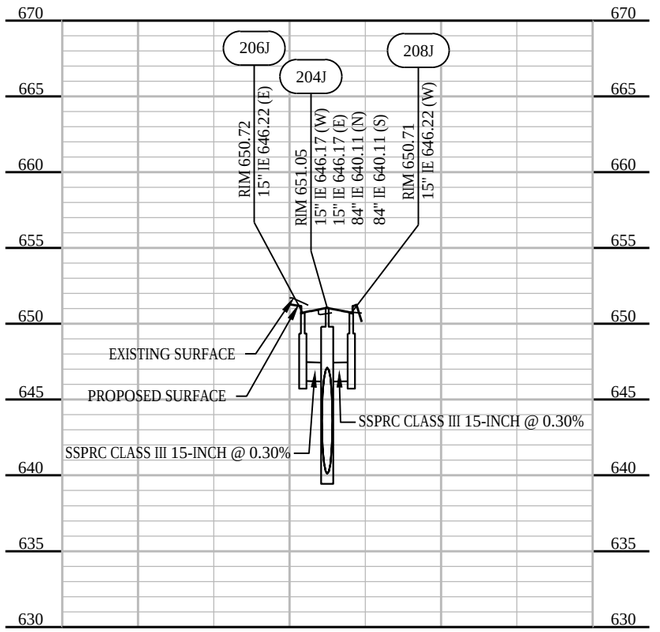


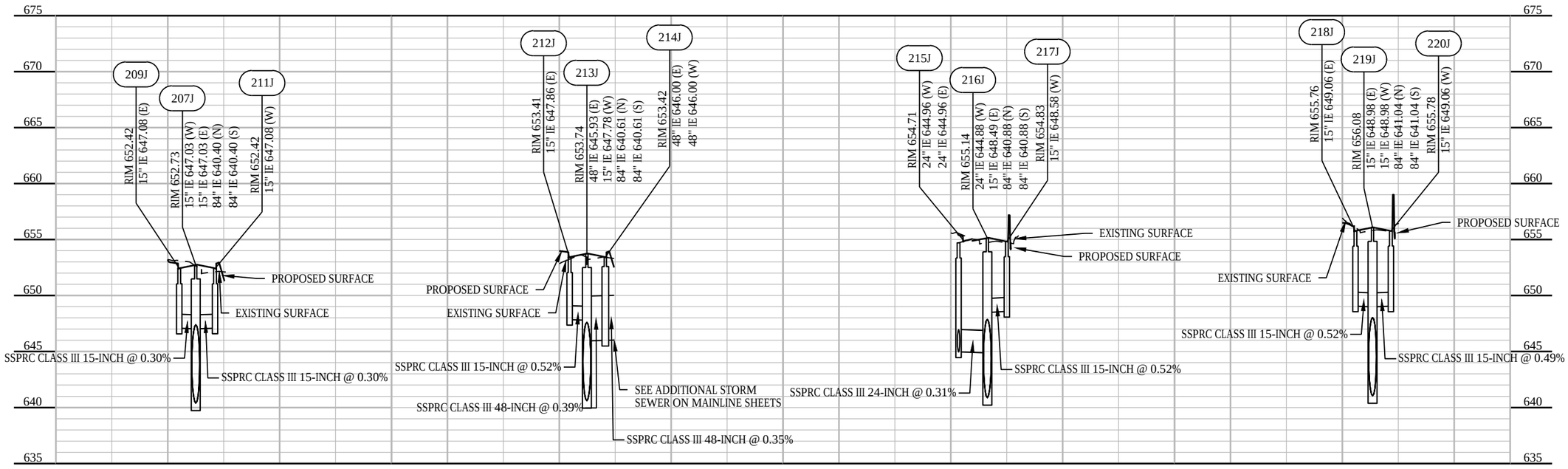
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _001
PLOT DATE : 9/28/2021 6:46 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

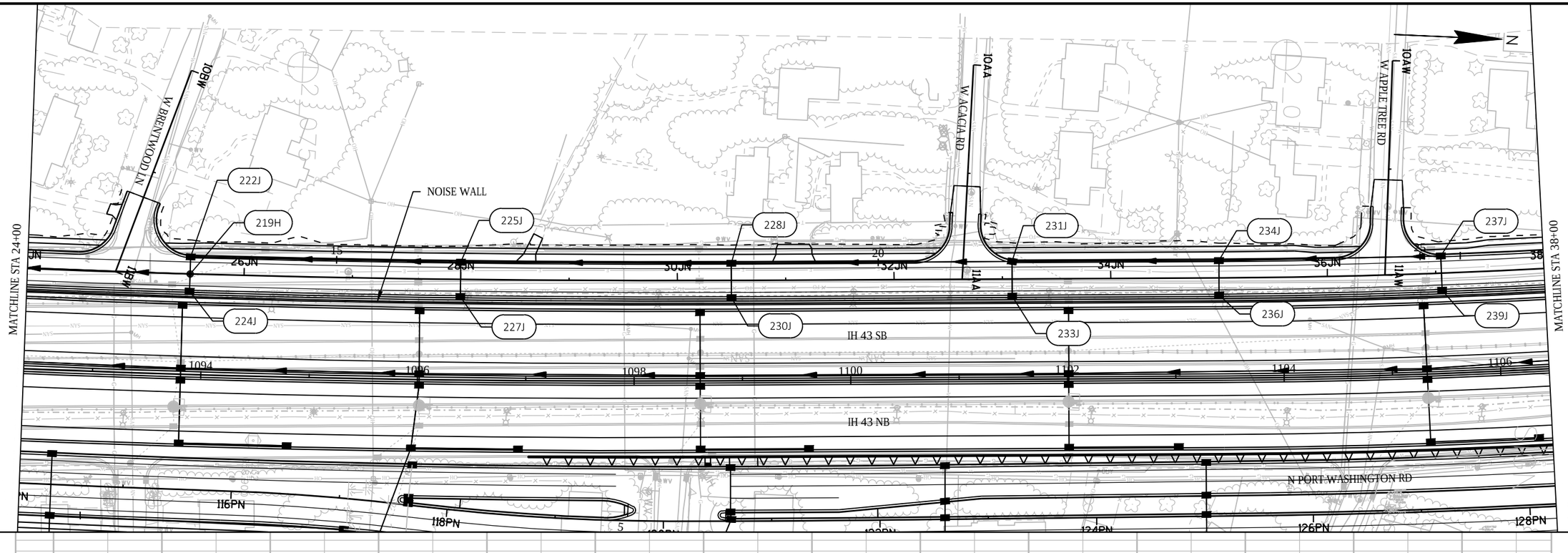


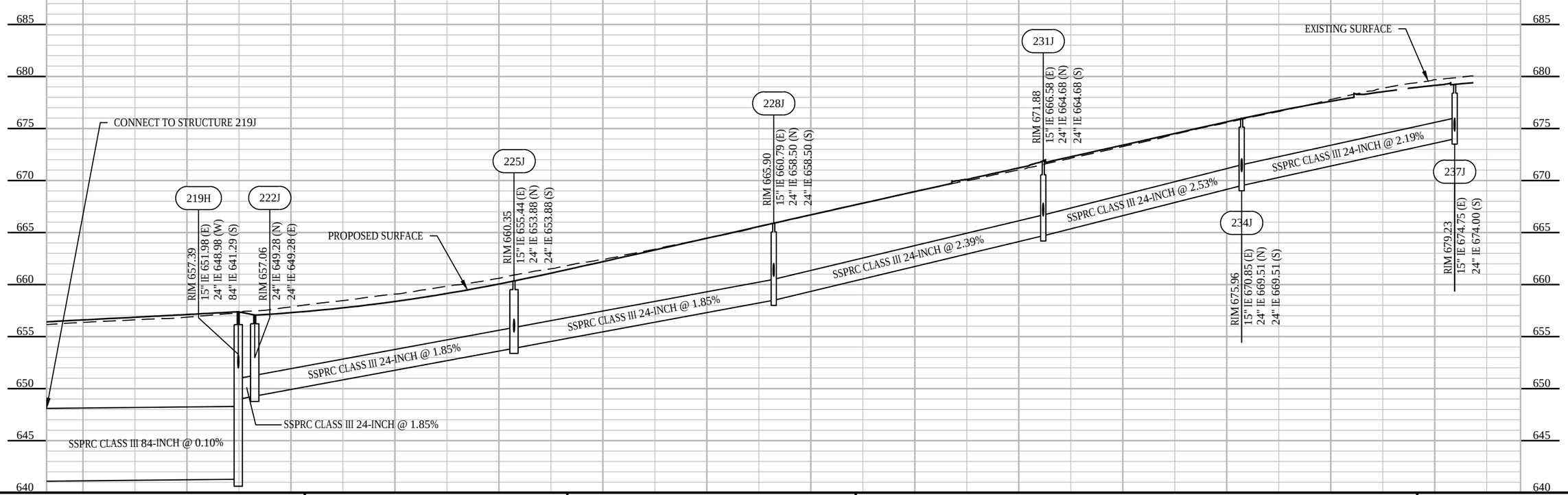






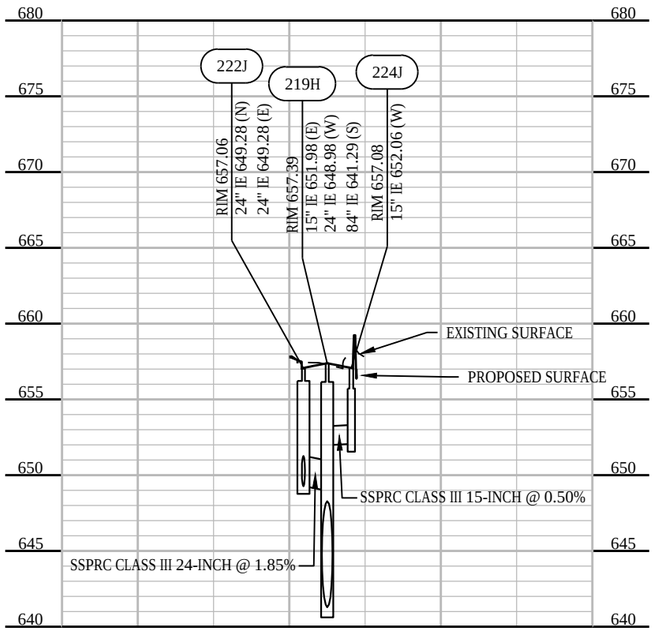
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEORAD - JEAN NICOLET	SHEET	E

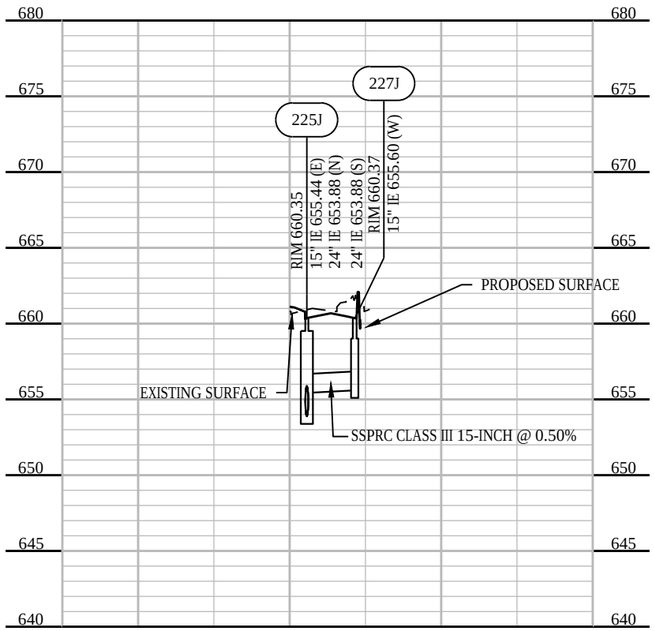


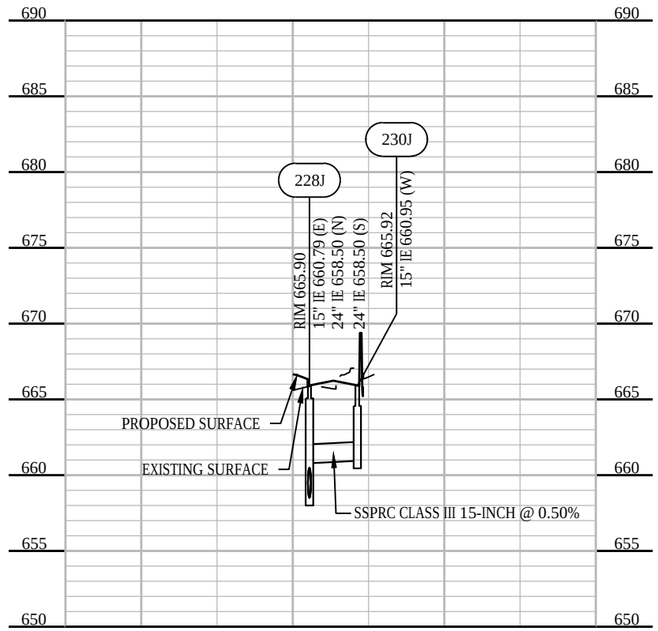


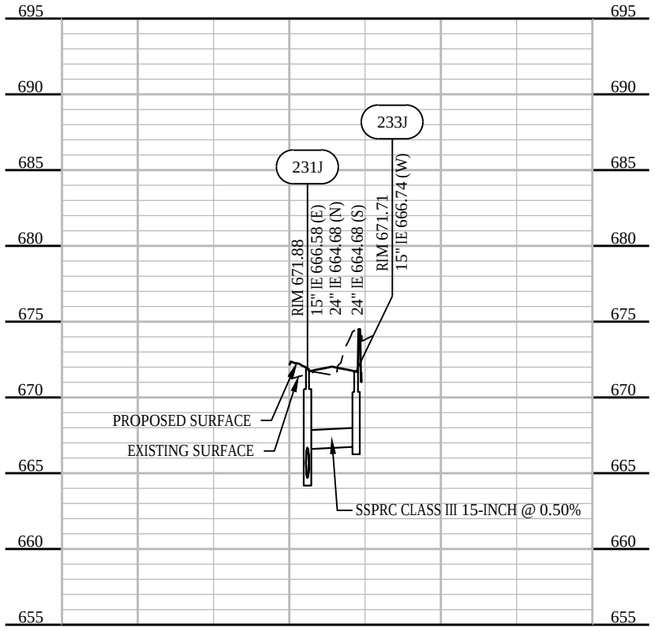
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

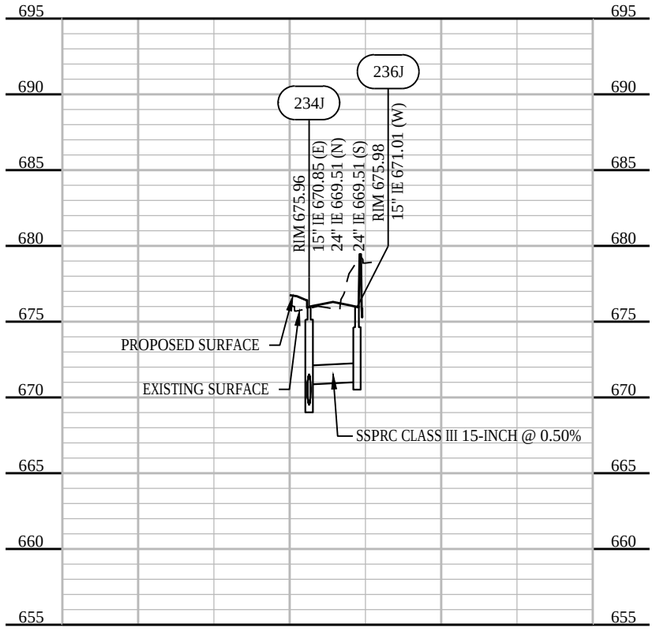
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _002
PLOT DATE : 9/29/2021 10:08 AM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

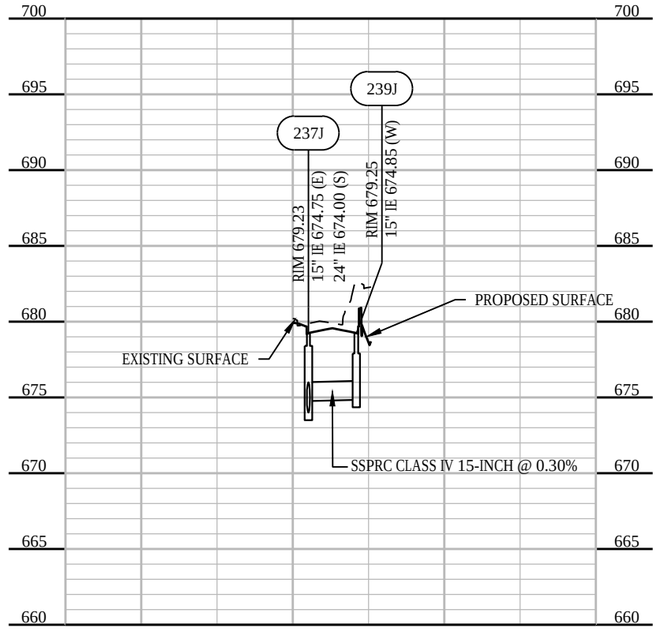








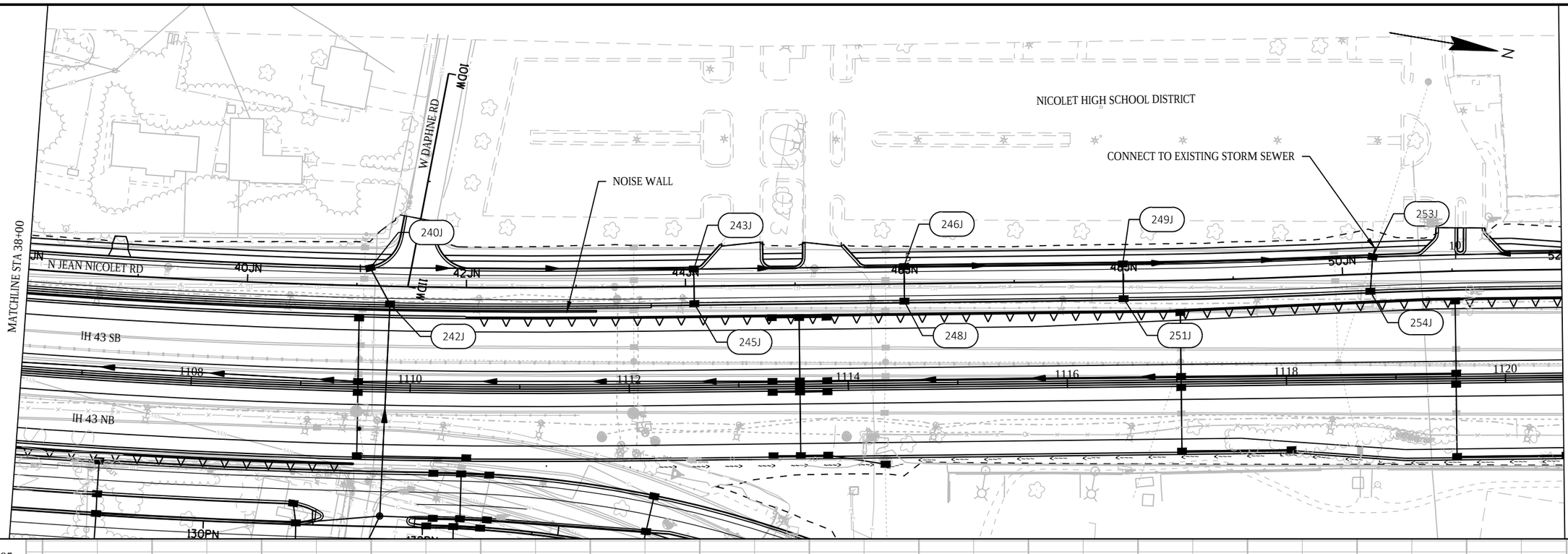


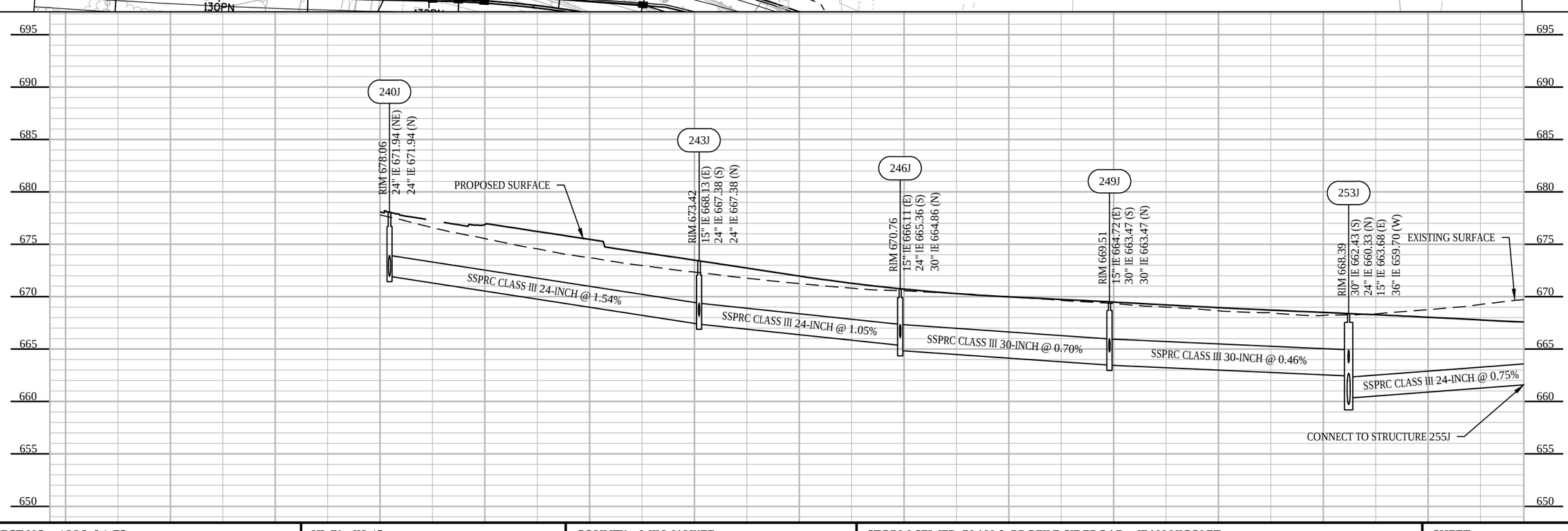


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _002(1)
PLOT DATE : 9/28/2021 6:34 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

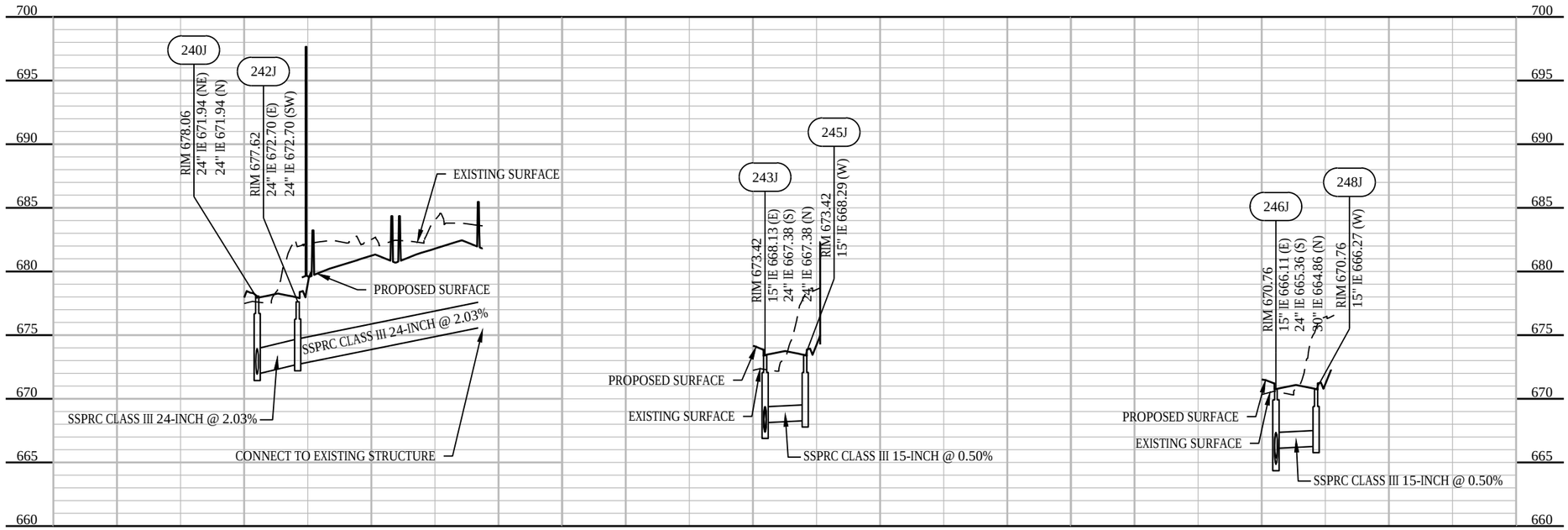
2

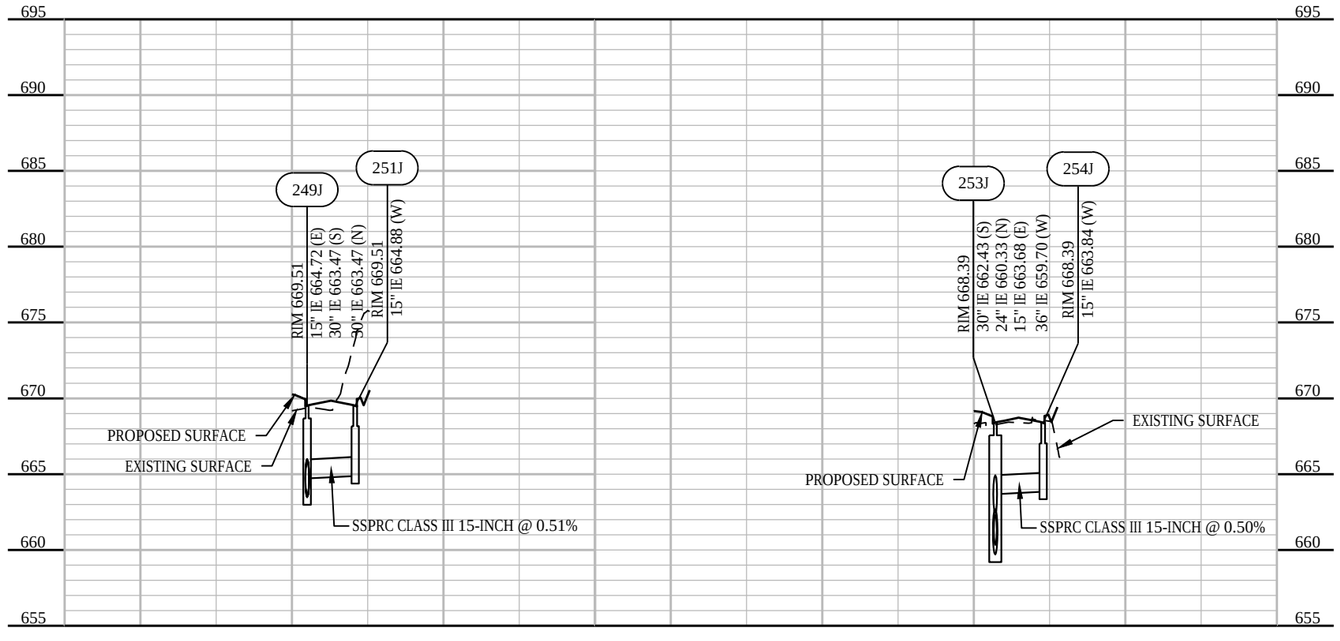




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

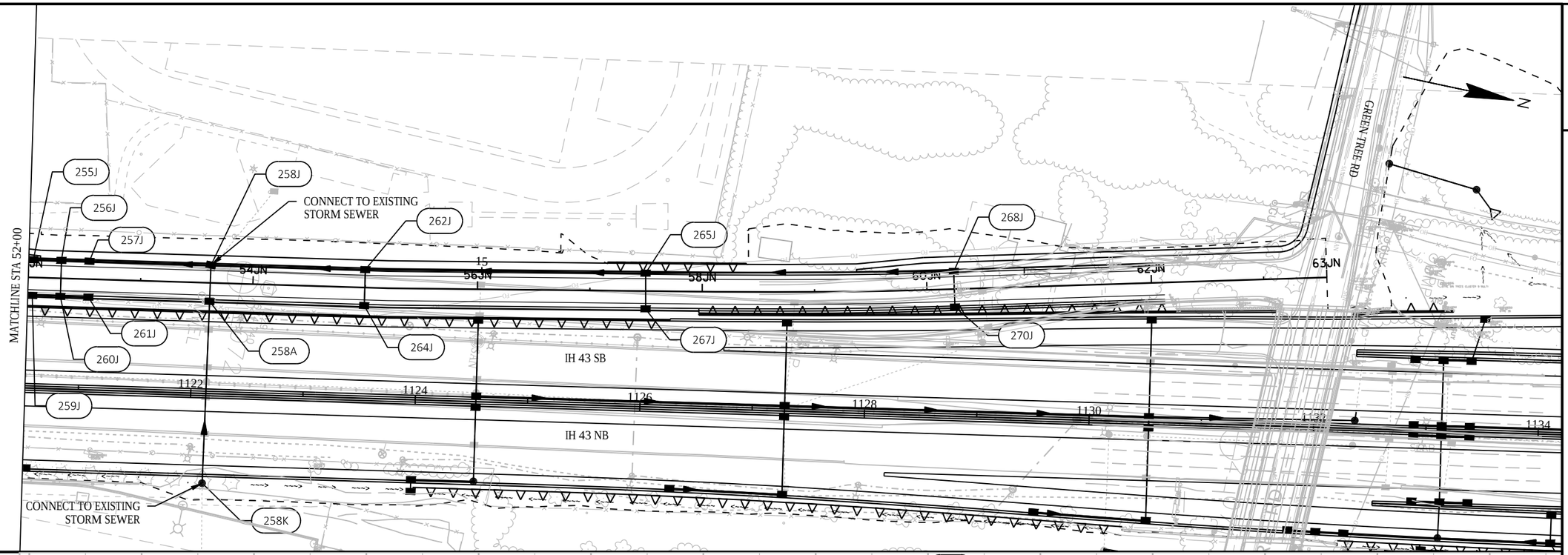
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _003
PLOT DATE : 9/28/2021 6:37 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

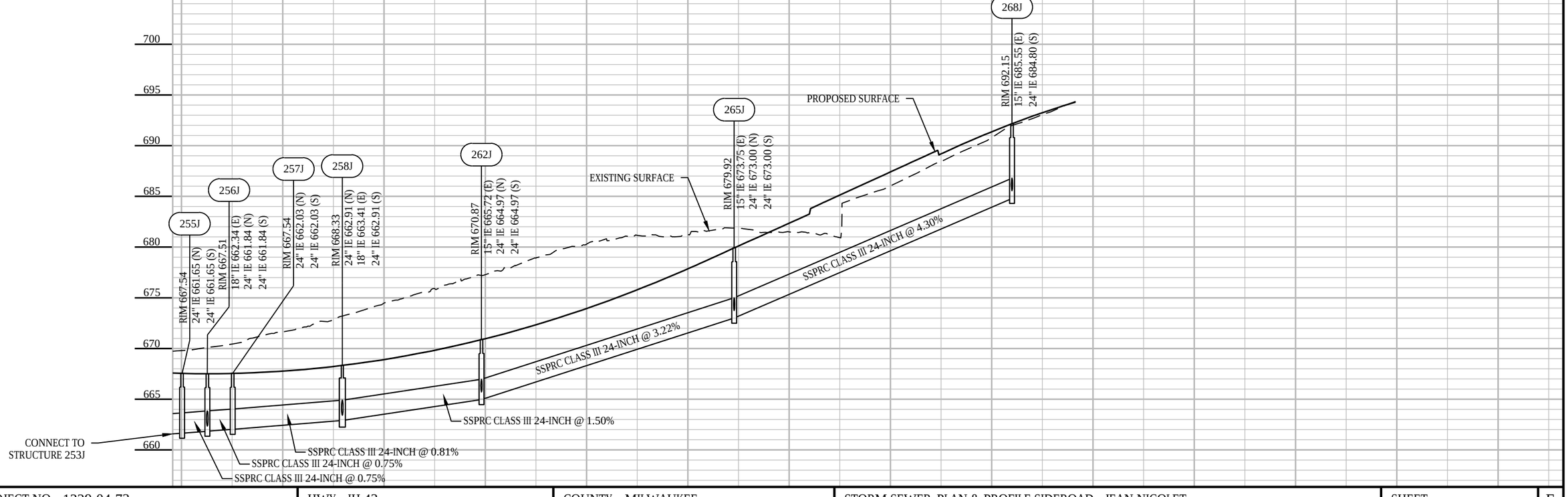




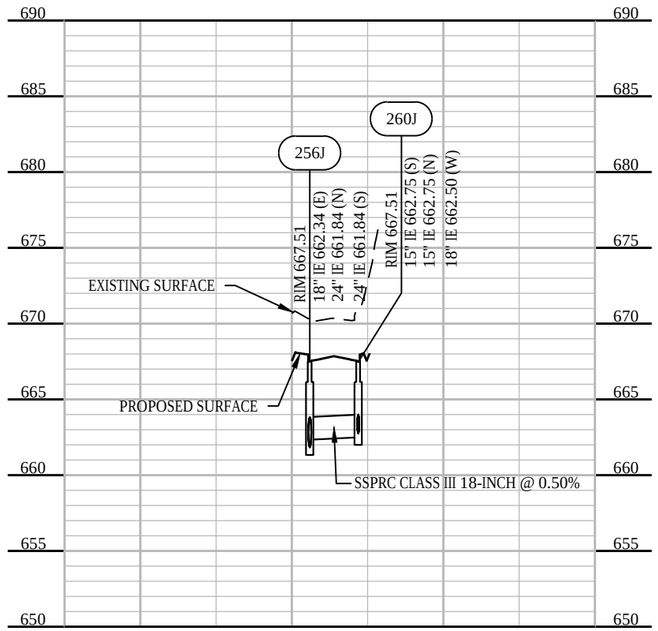
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

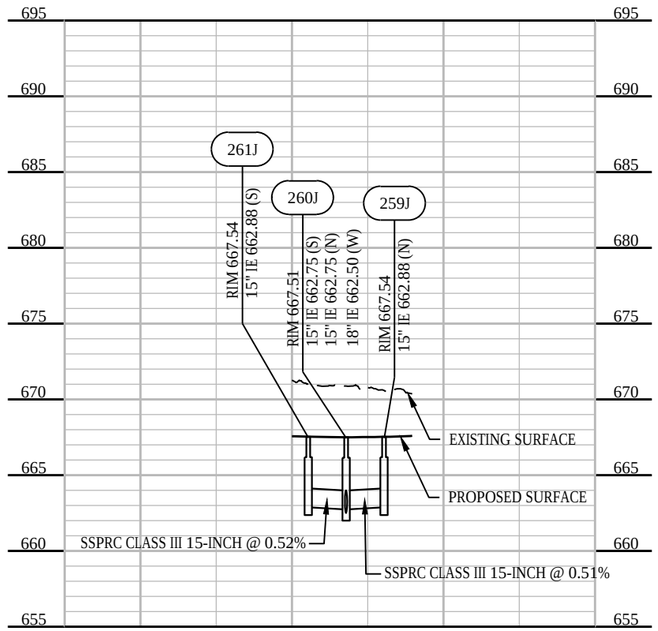
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _003(1)
PLOT DATE : 9/28/2021 6:38 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

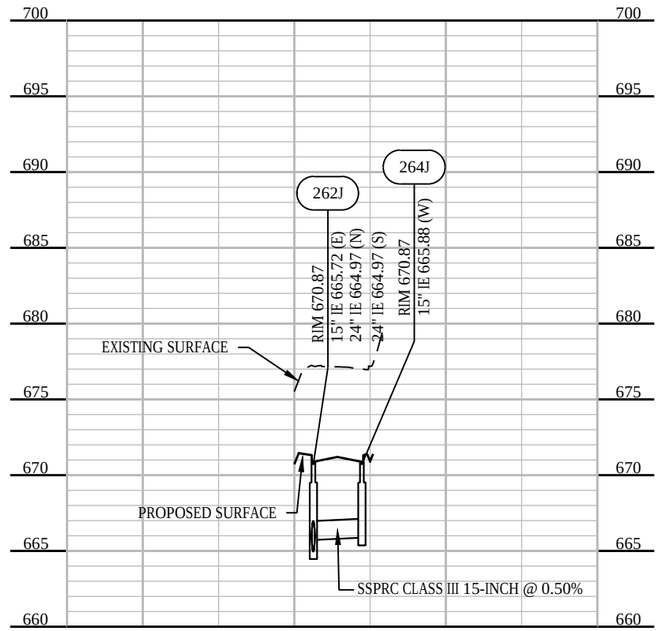


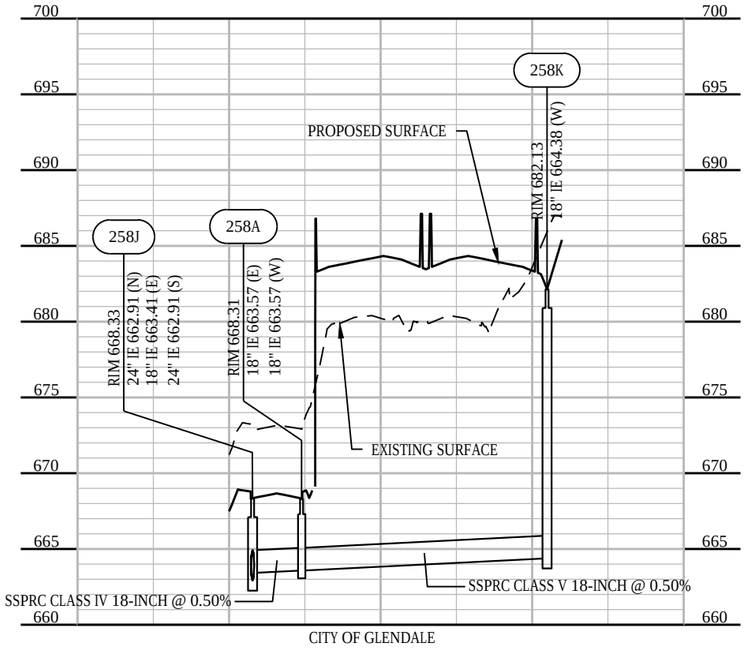


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

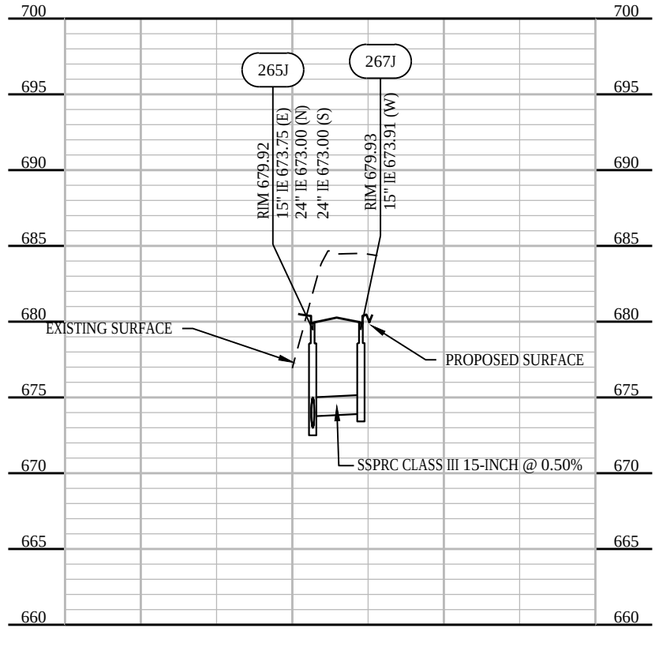


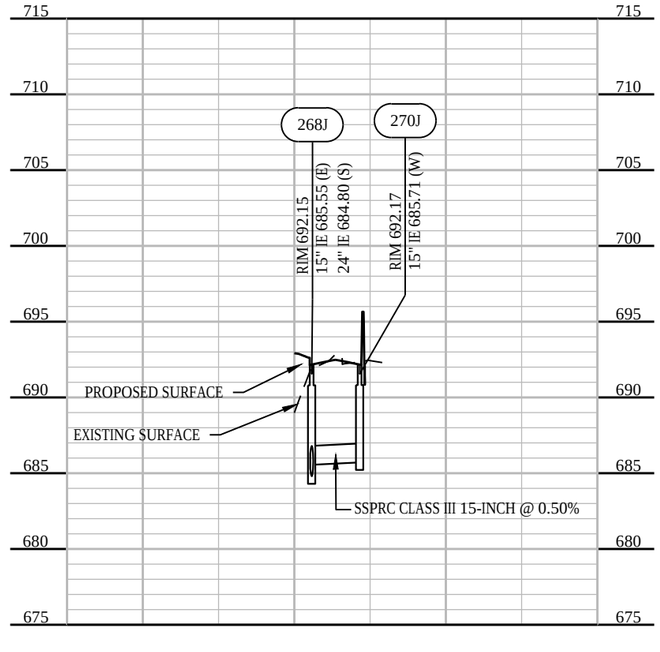






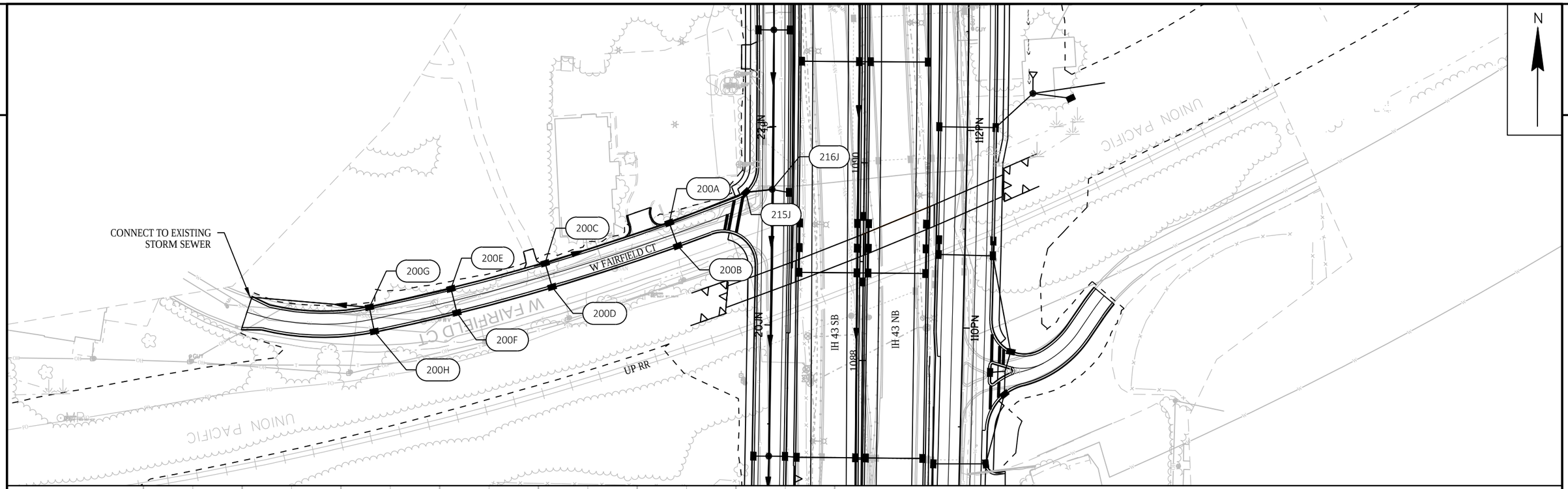
CITY OF GLENDALE





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - JEAN NICOLET	SHEET	E

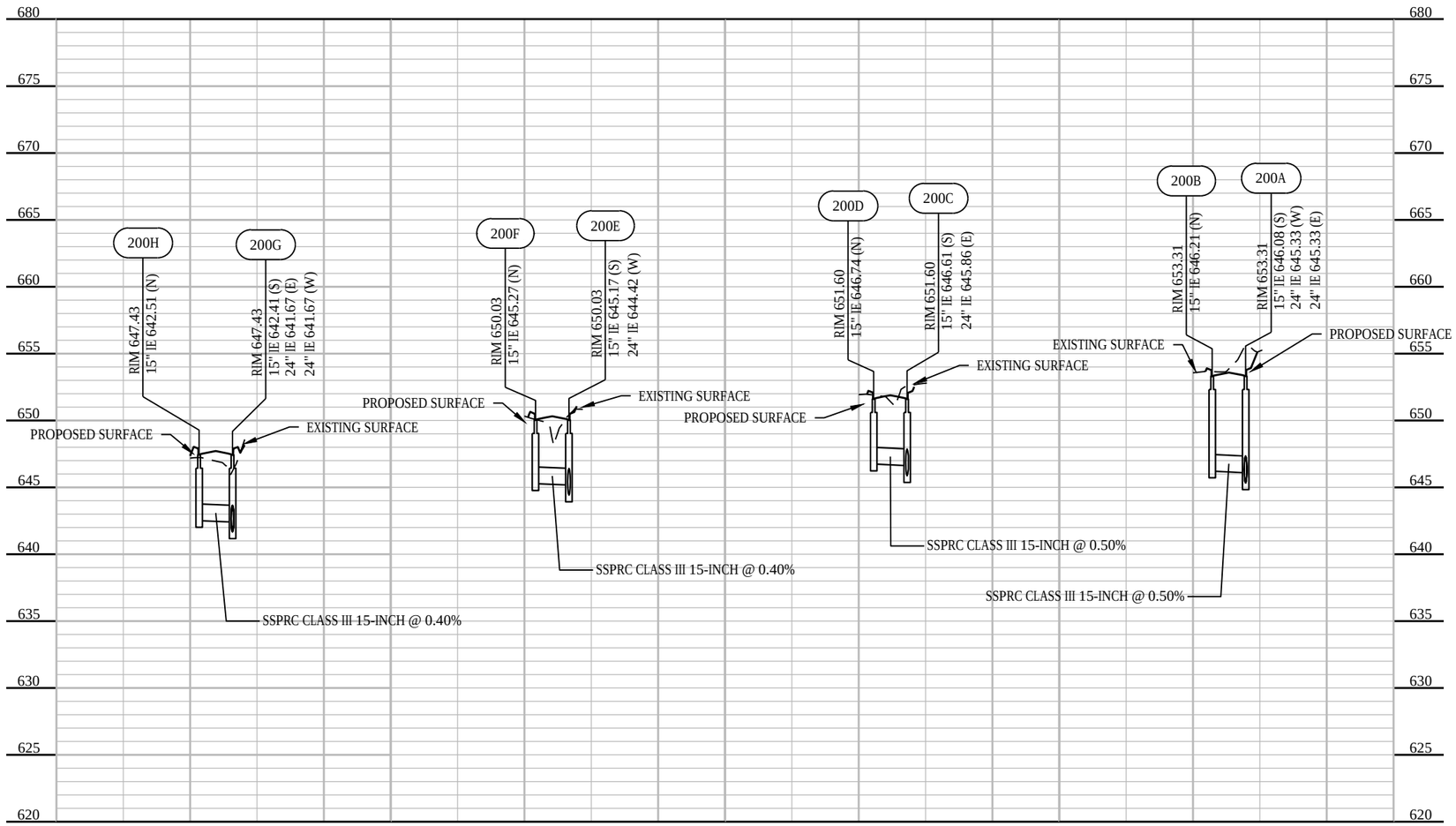
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _004(1)
PLOT DATE : 9/28/2021 6:41 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - FAIRFIELD CT	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _005
PLOT DATE : 9/29/2021 9:59 AM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

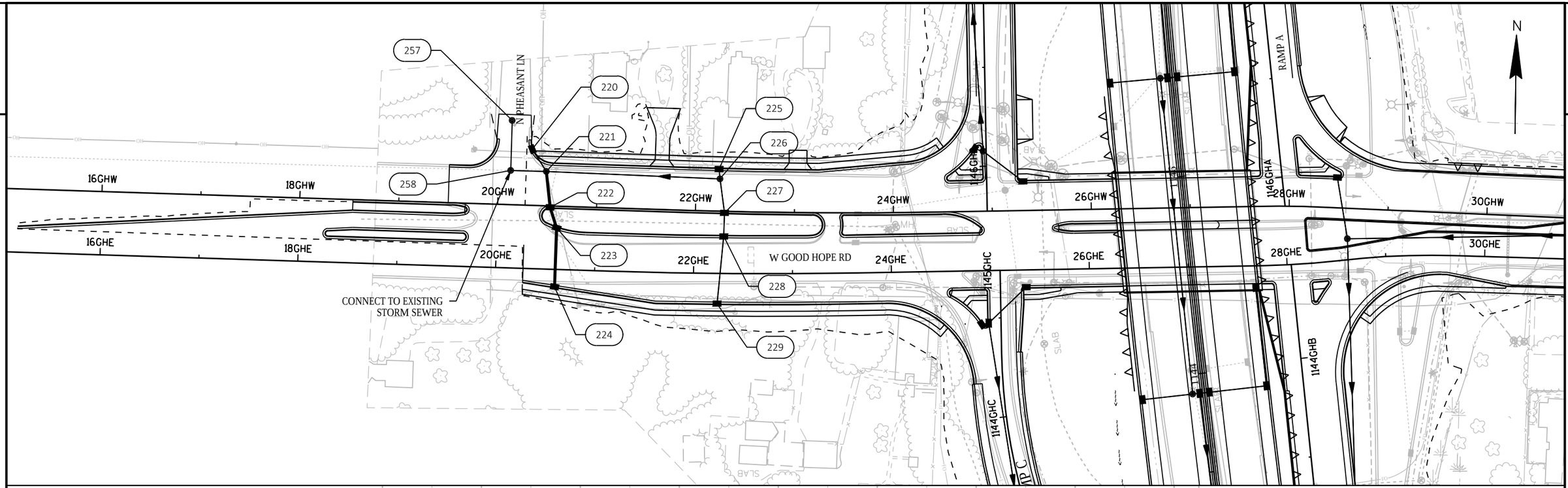
2

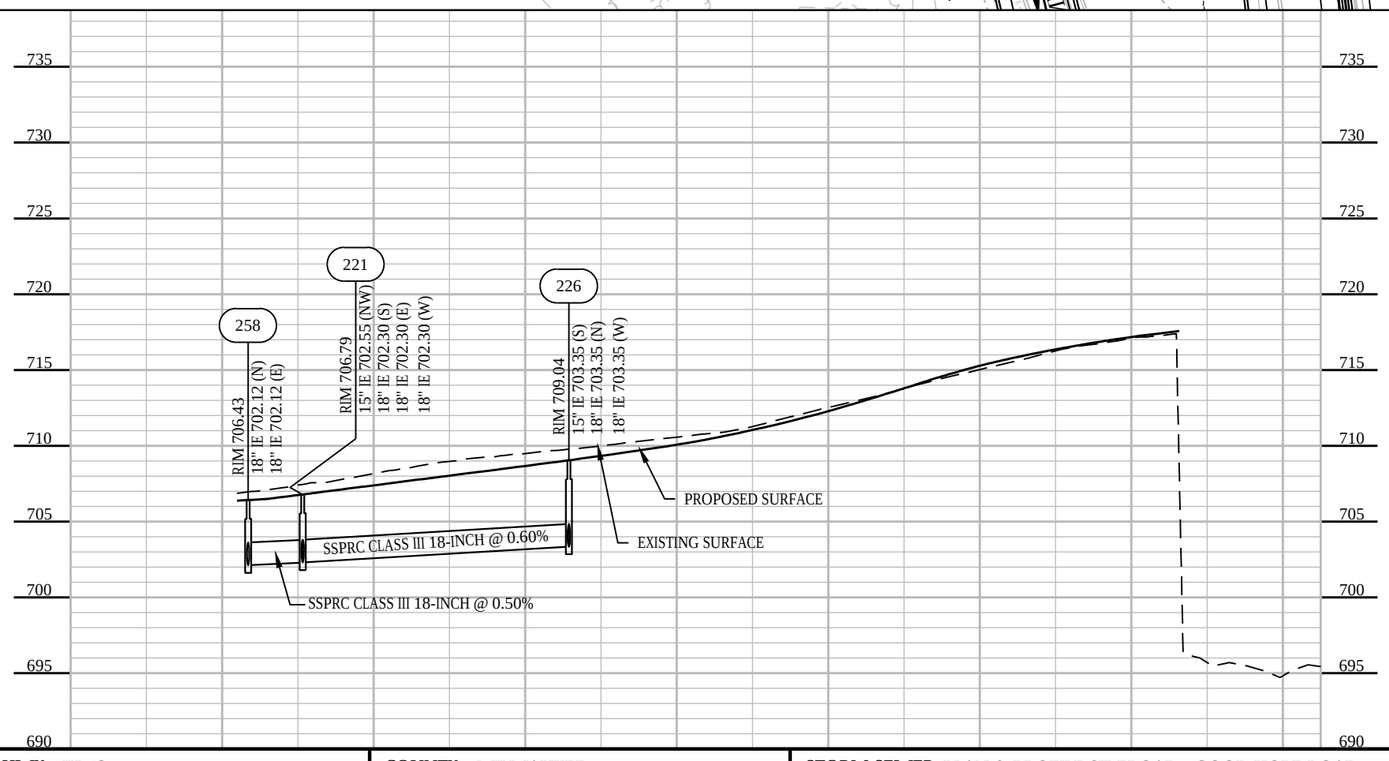


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - FAIRFIELD CT	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022506_SS_GH-SR.DWG
LAYOUT NAME - _005(1)

PLOT DATE : 9/29/2021 10:01 AM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

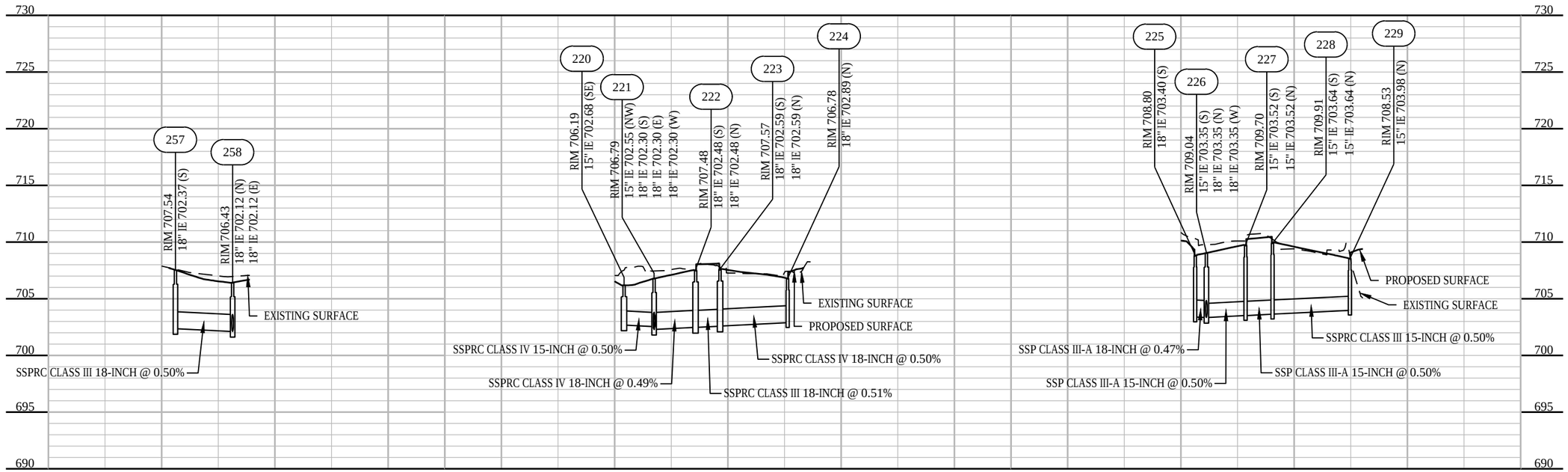




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD	SHEET	E

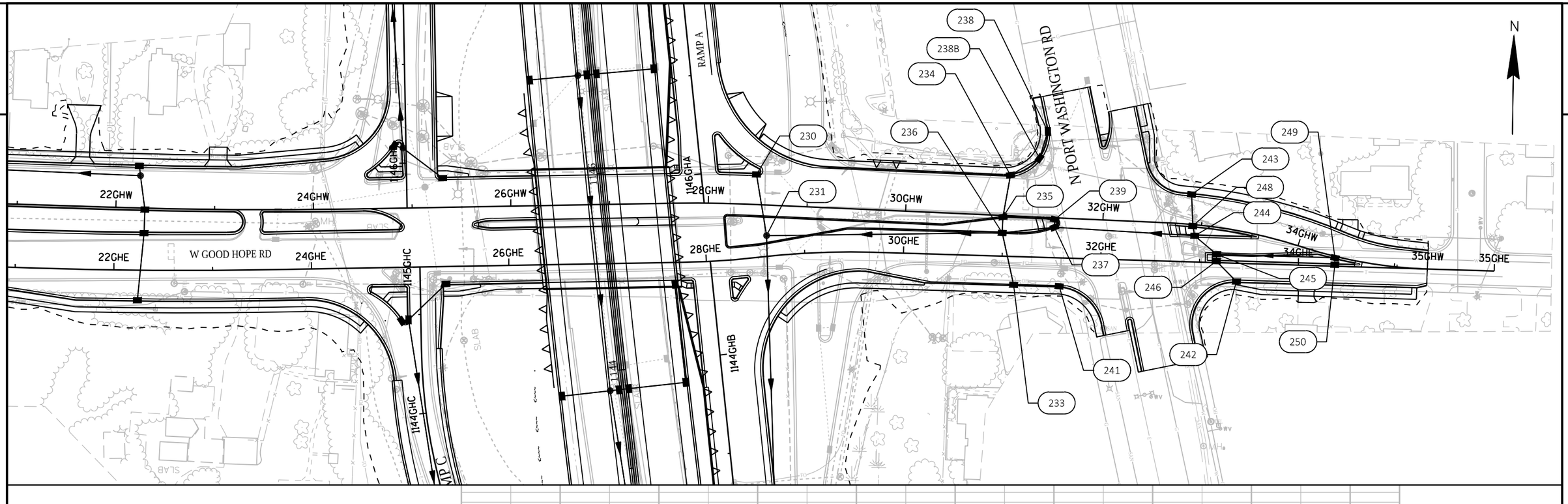
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _005

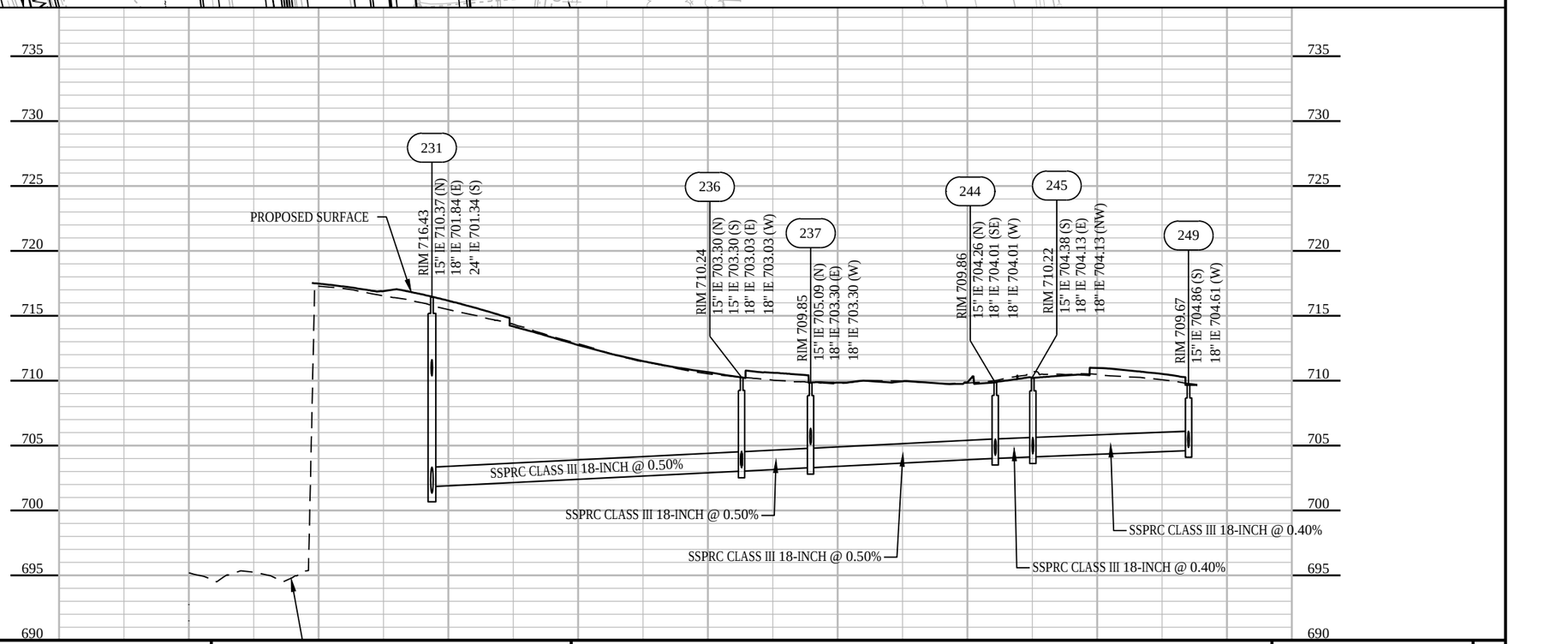
PLOT DATE : 9/28/2021 5:42 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _005(1)
PLOT DATE : 9/28/2021 5:45 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

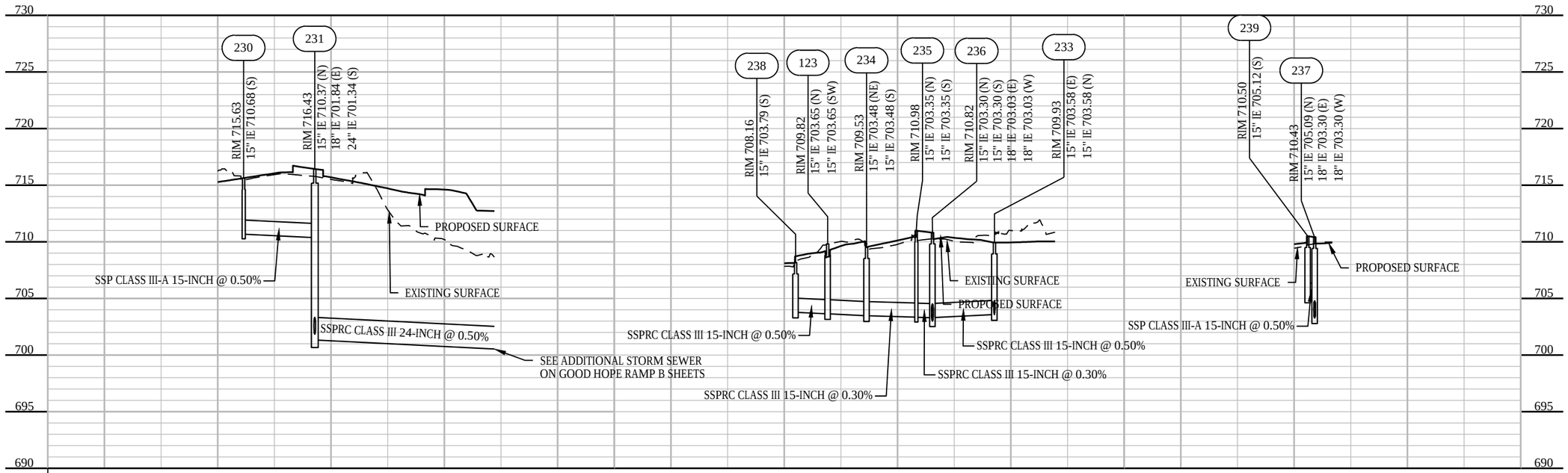


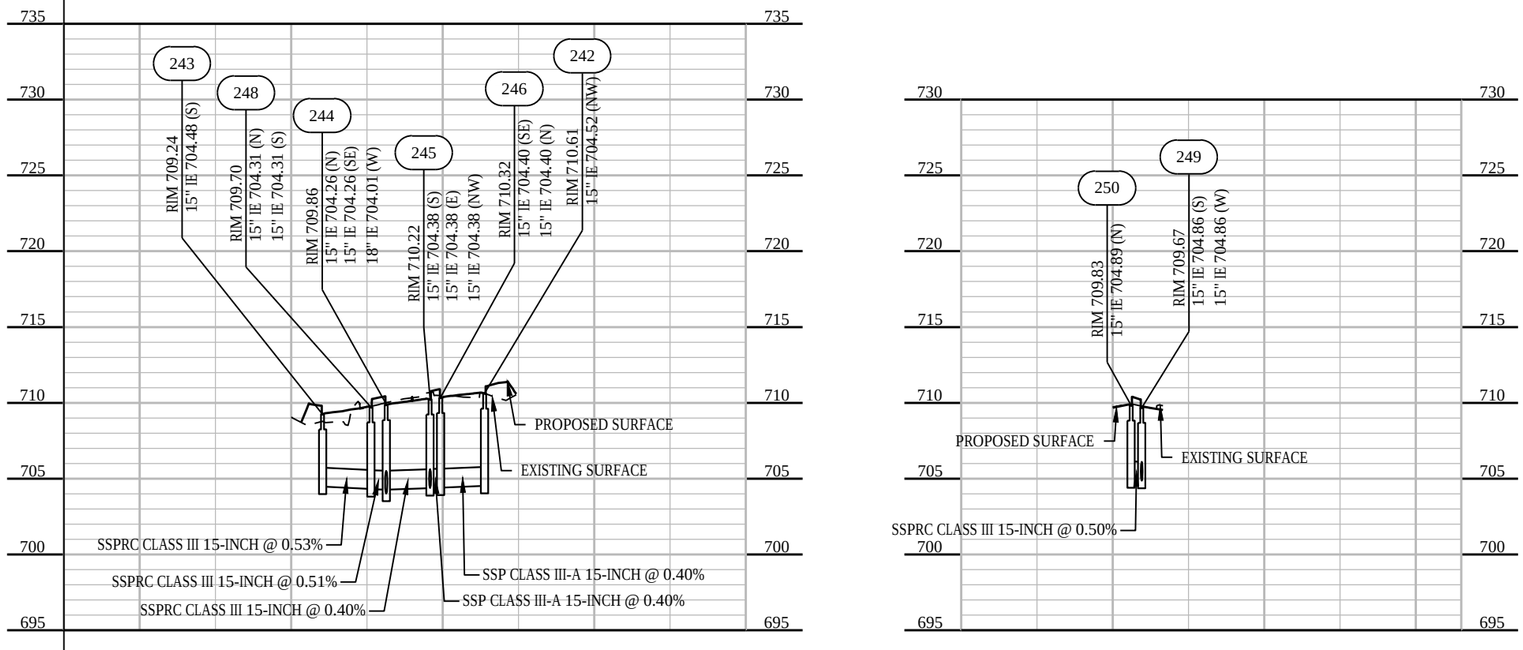


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD	SHEET	E

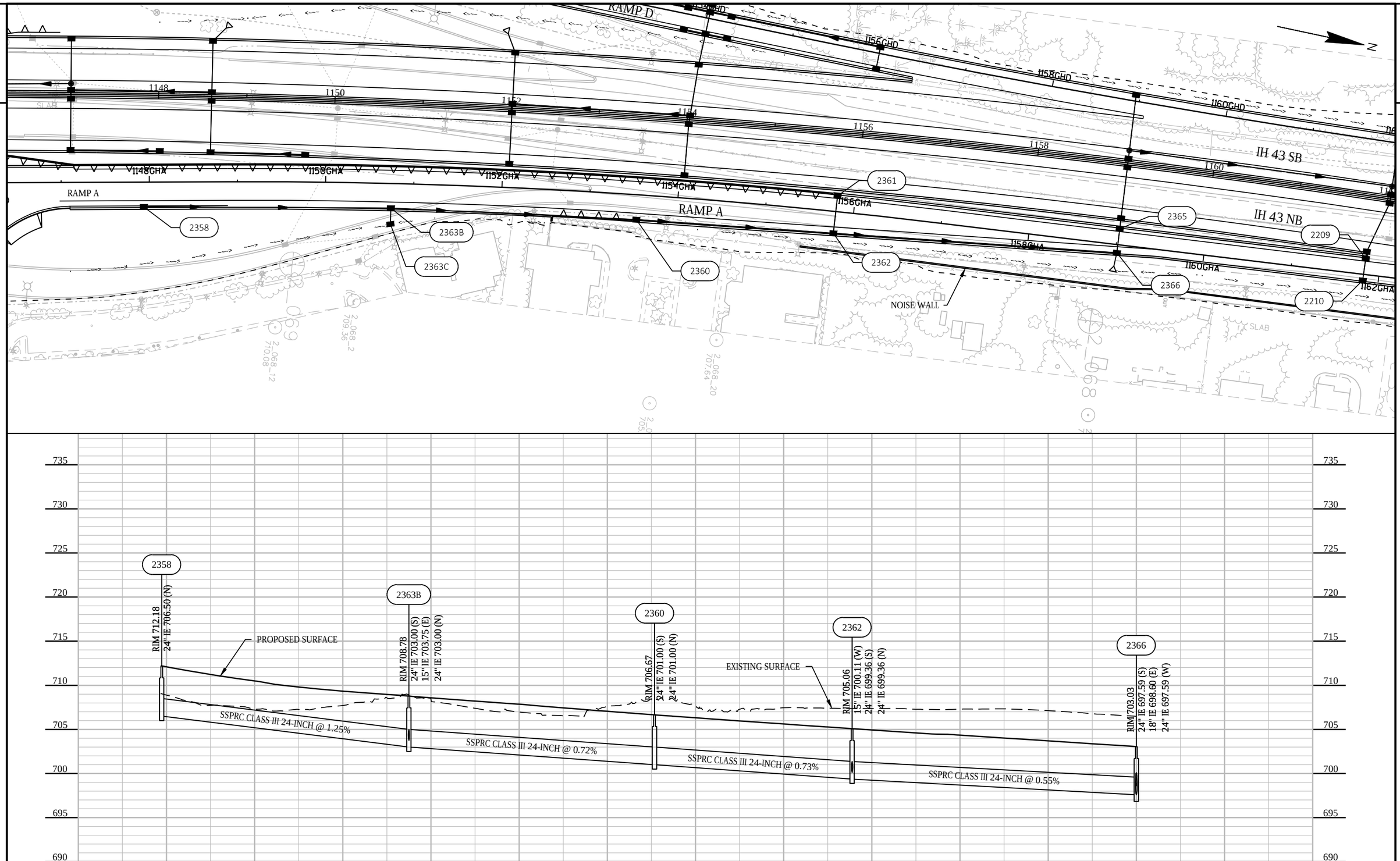
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _005 (2)

PLOT DATE : 9/29/2021 1:23 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT





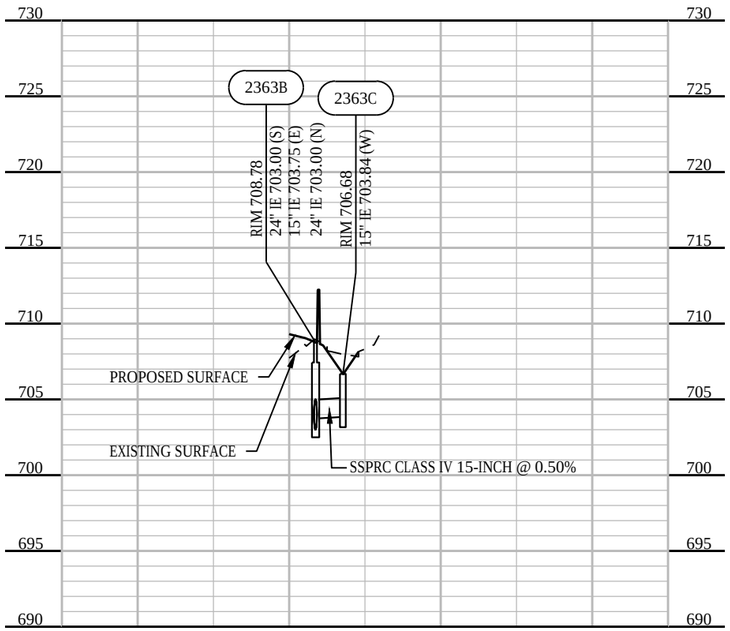
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD	SHEET	E

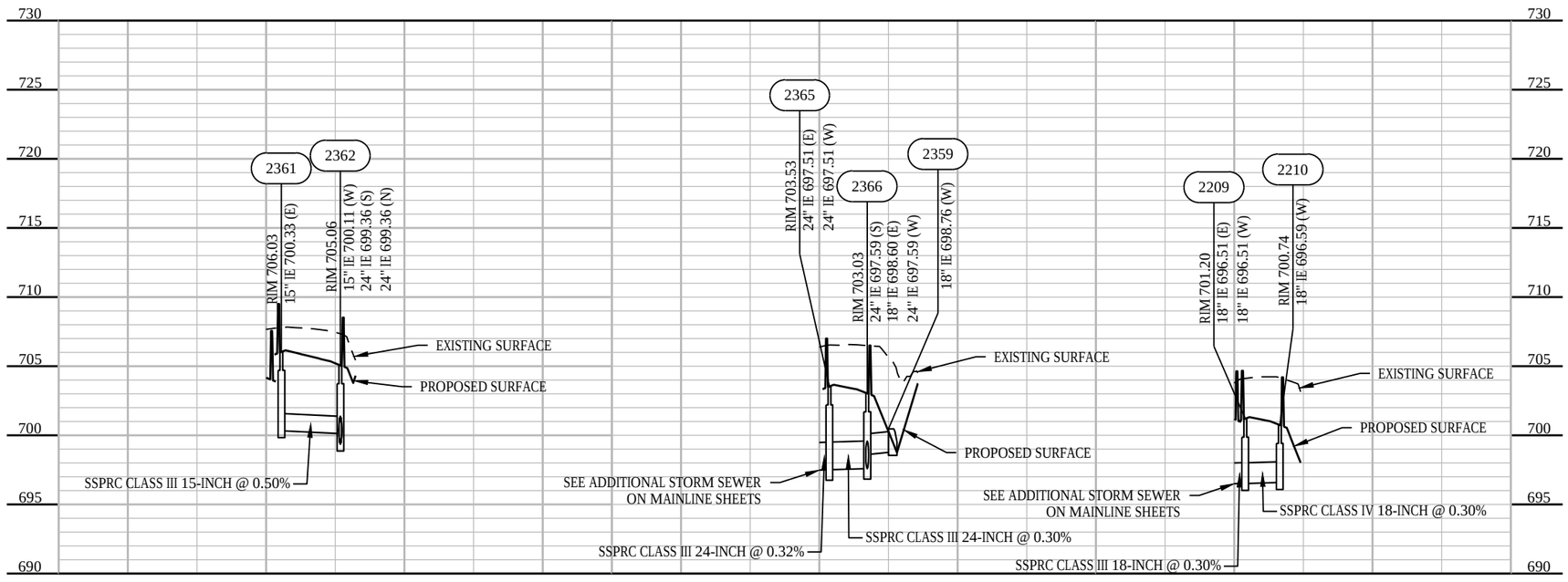


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _006

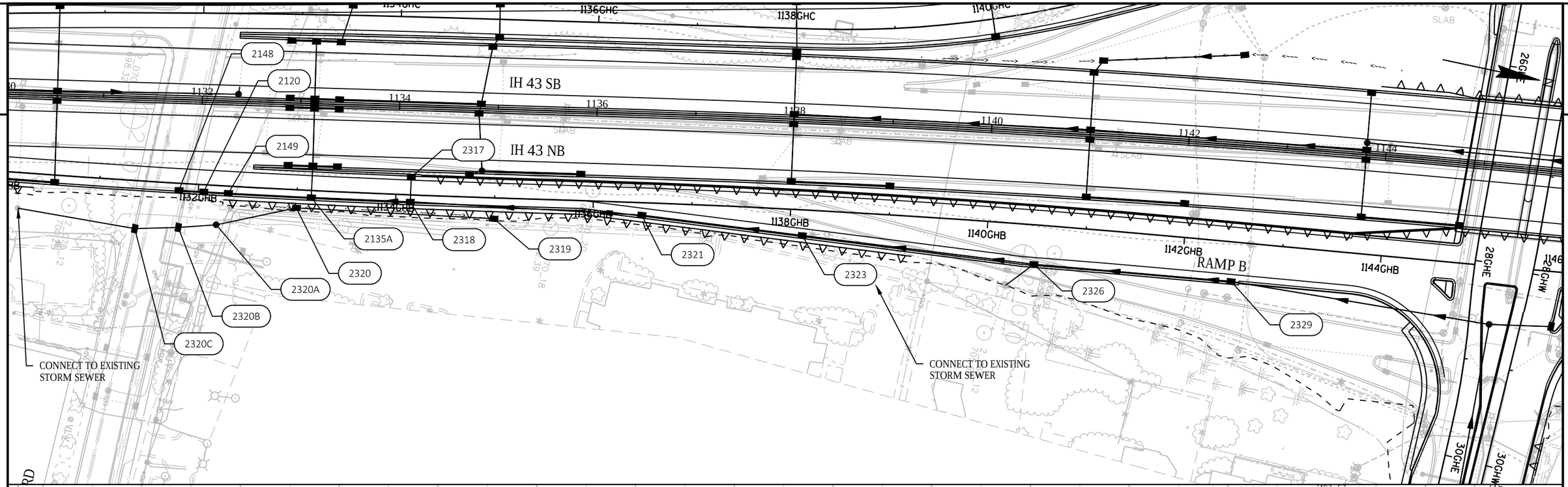
PLOT DATE : 9/28/2021 5:48 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

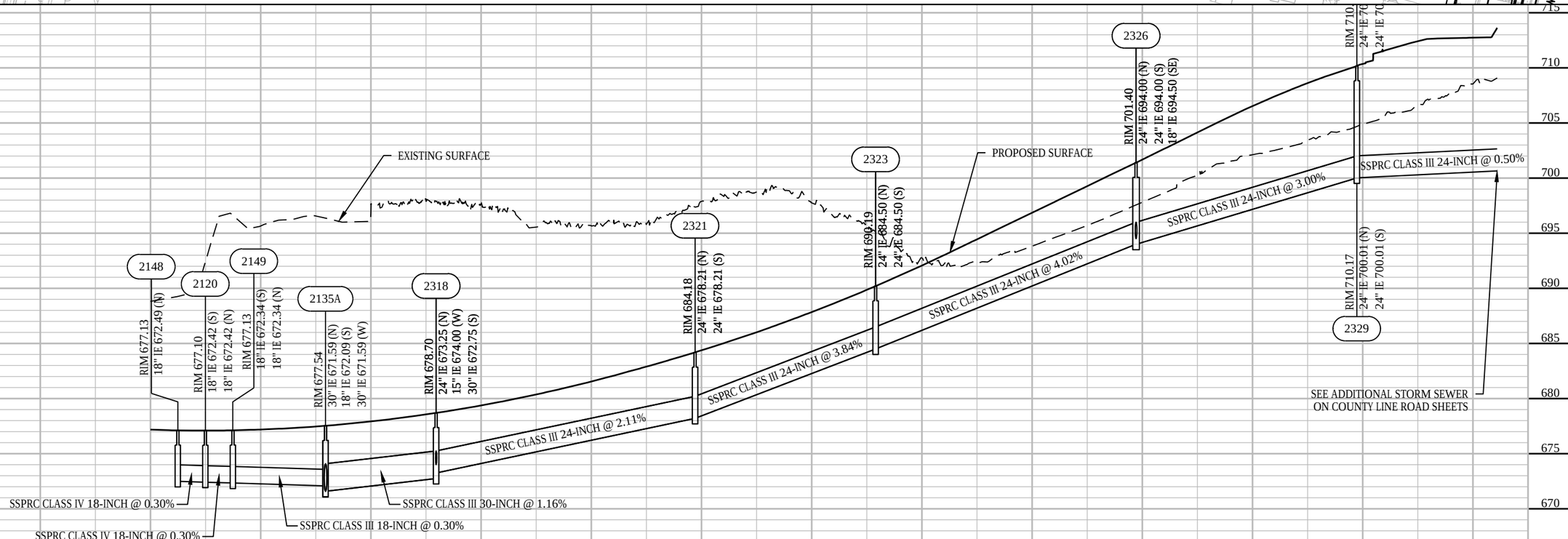




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP A	SHEET	E

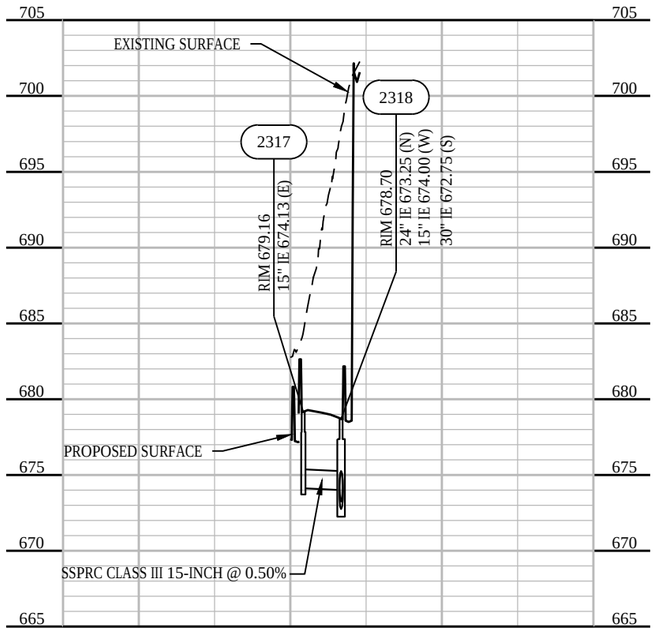
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _006(1)
PLOT DATE : 9/28/2021 5:48 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

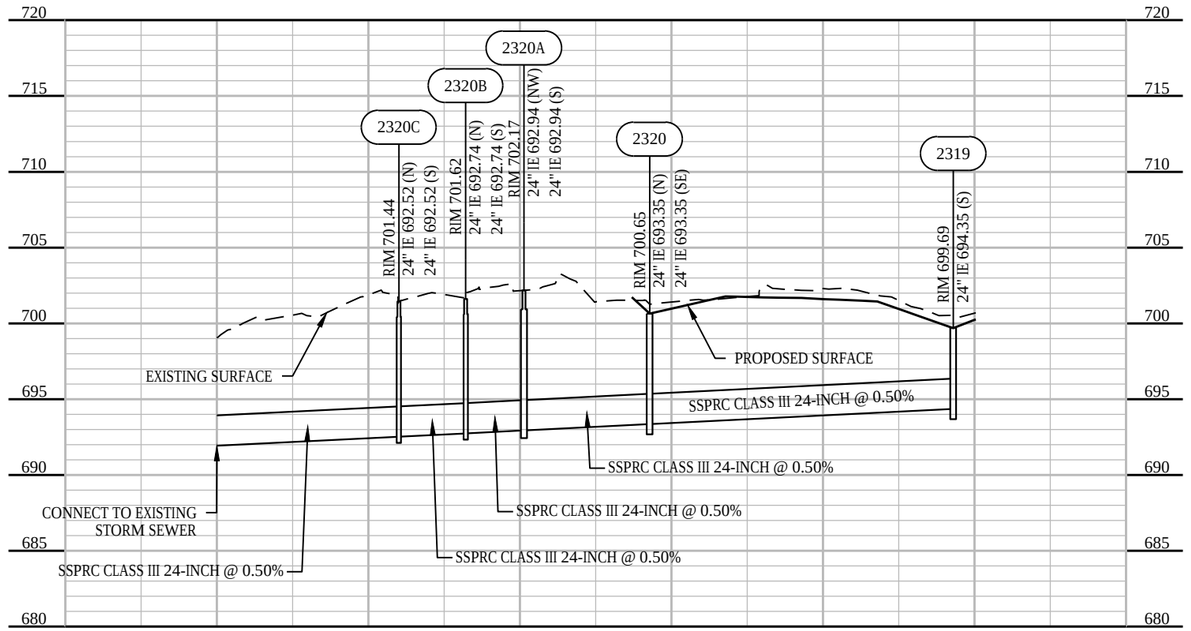




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _007
PLOT DATE : 9/28/2021 5:50 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

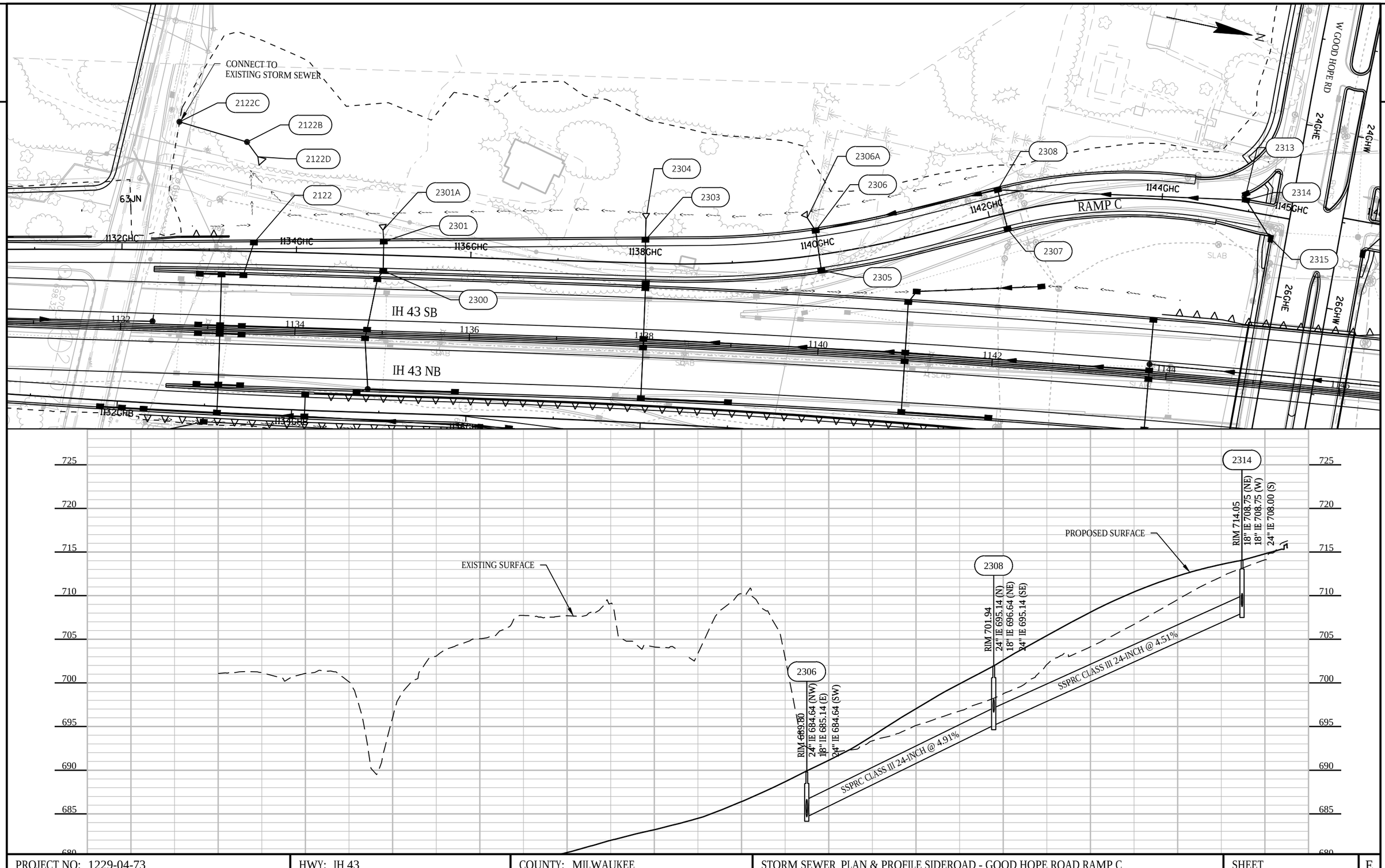




2

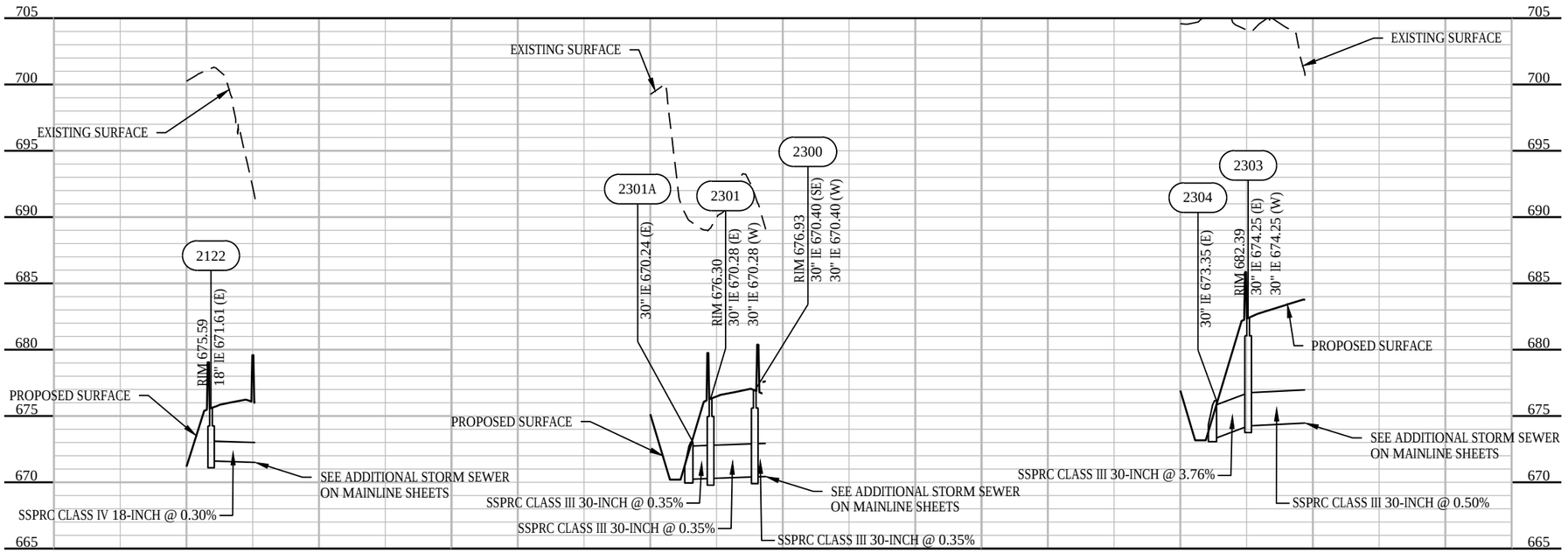
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP B	SHEET	E

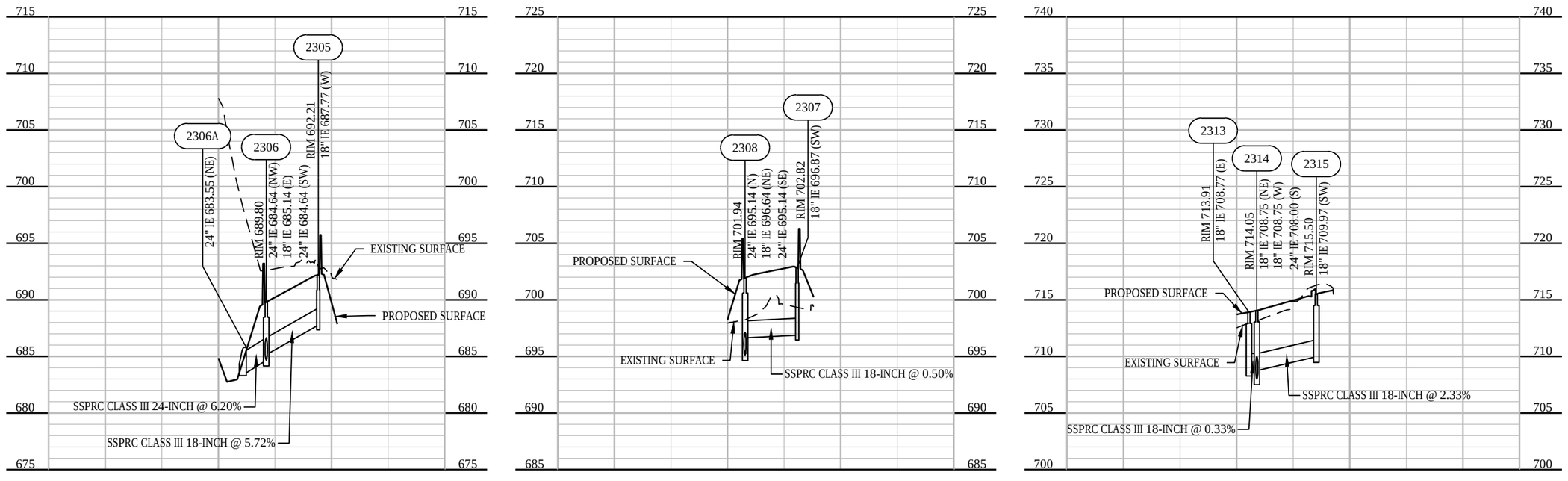
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _007(1)
PLOT DATE : 9/28/2021 5:51 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP C	SHEET	E

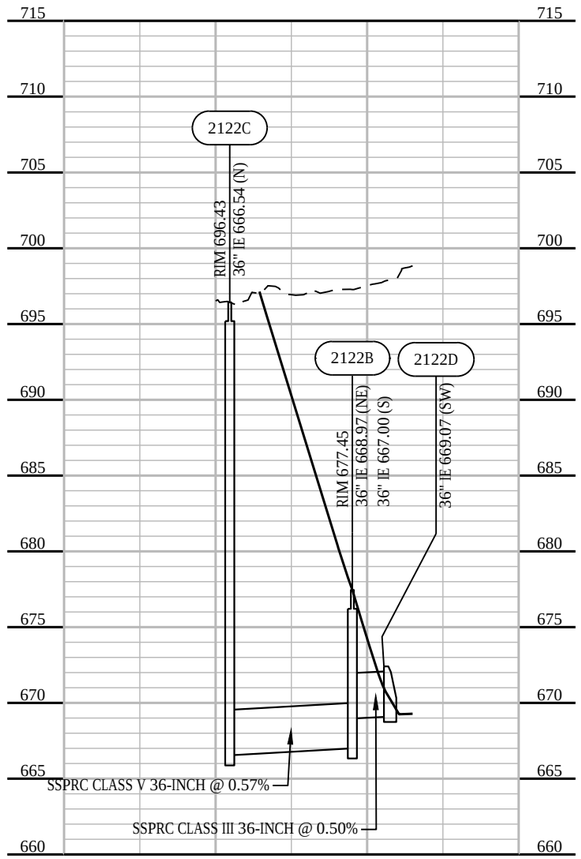
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _008
PLOT DATE : 9/28/2021 5:53 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP C	SHEET	E

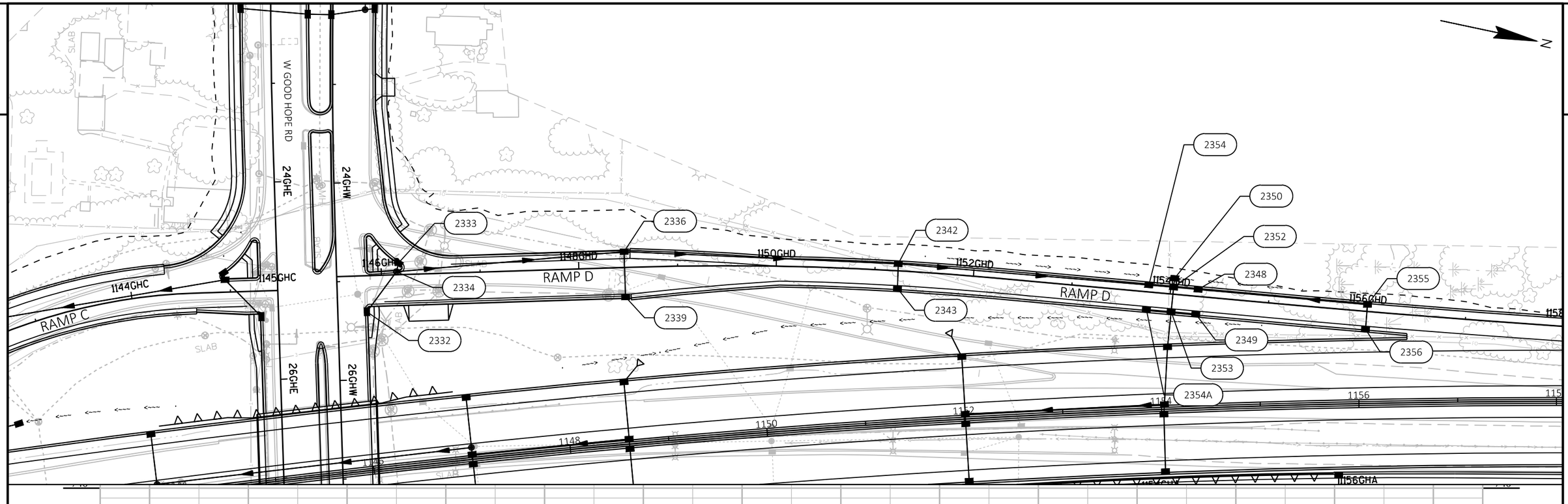
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _008(1)
PLOT DATE : 9/28/2021 5:53 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

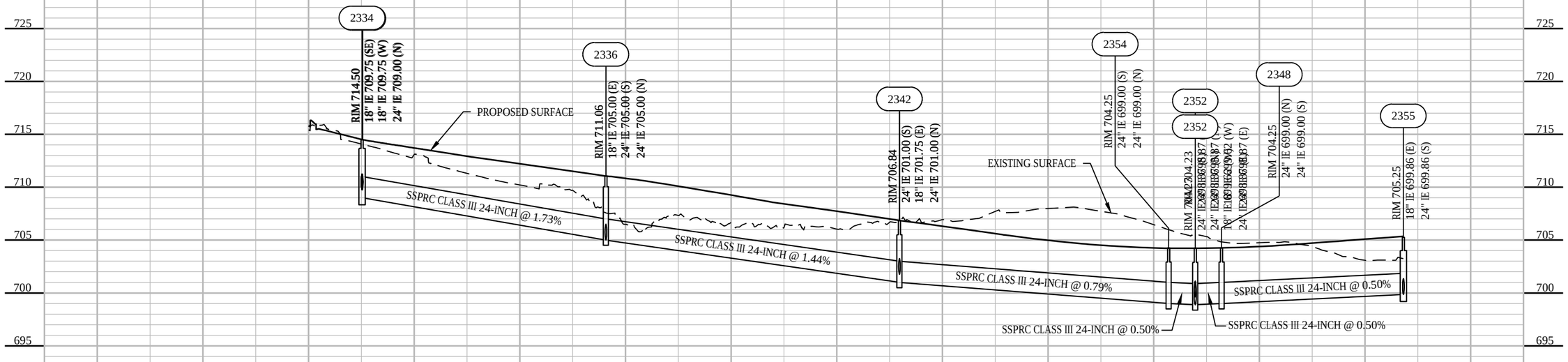


2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP C	SHEET	E

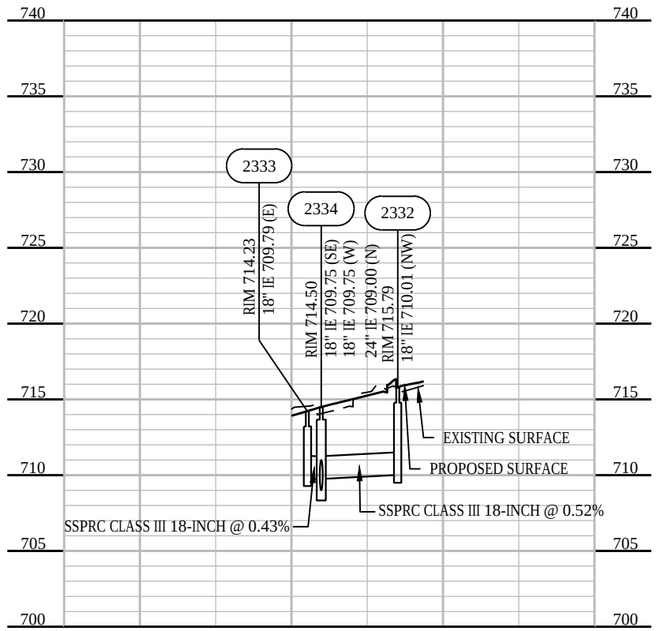
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _008(2)
PLOT DATE : 9/29/2021 12:59 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

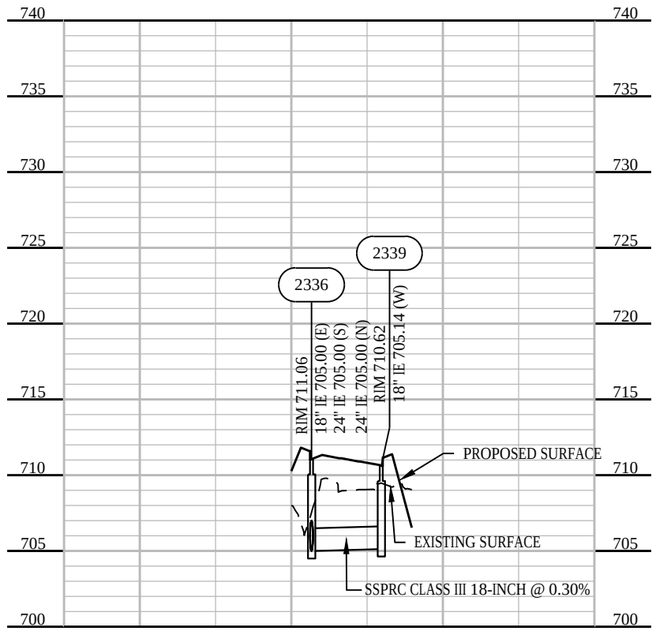


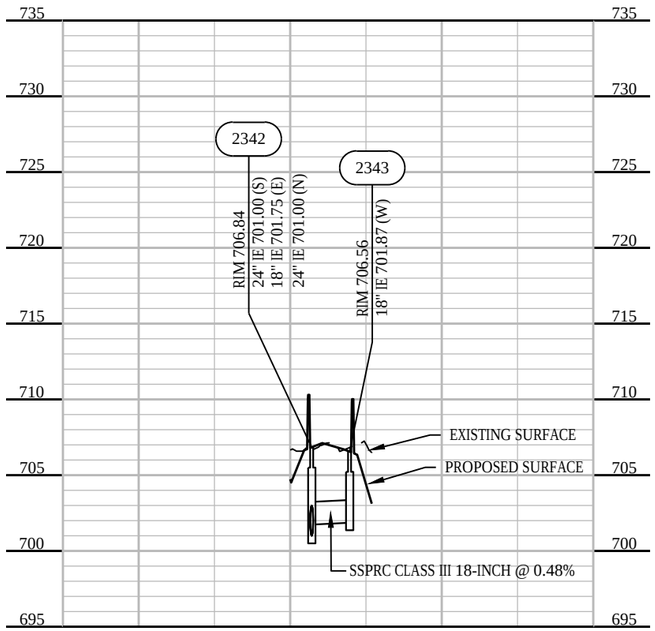


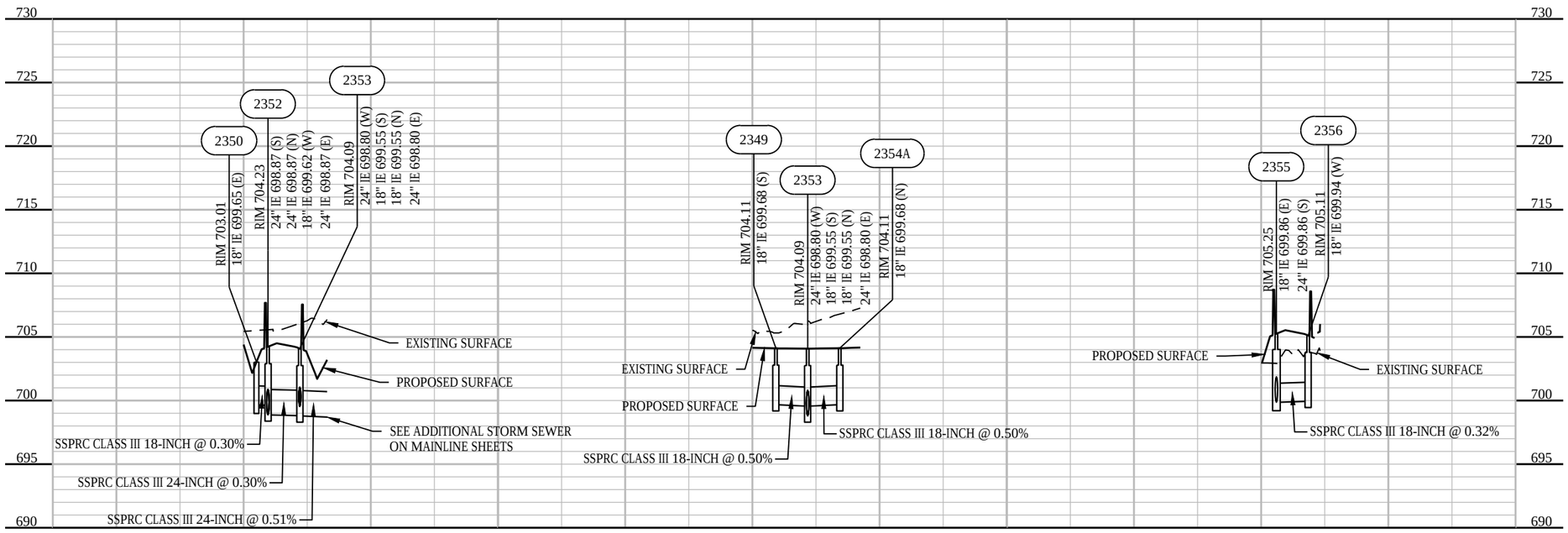
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _009
PLOT DATE : 9/28/2021 5:56 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41



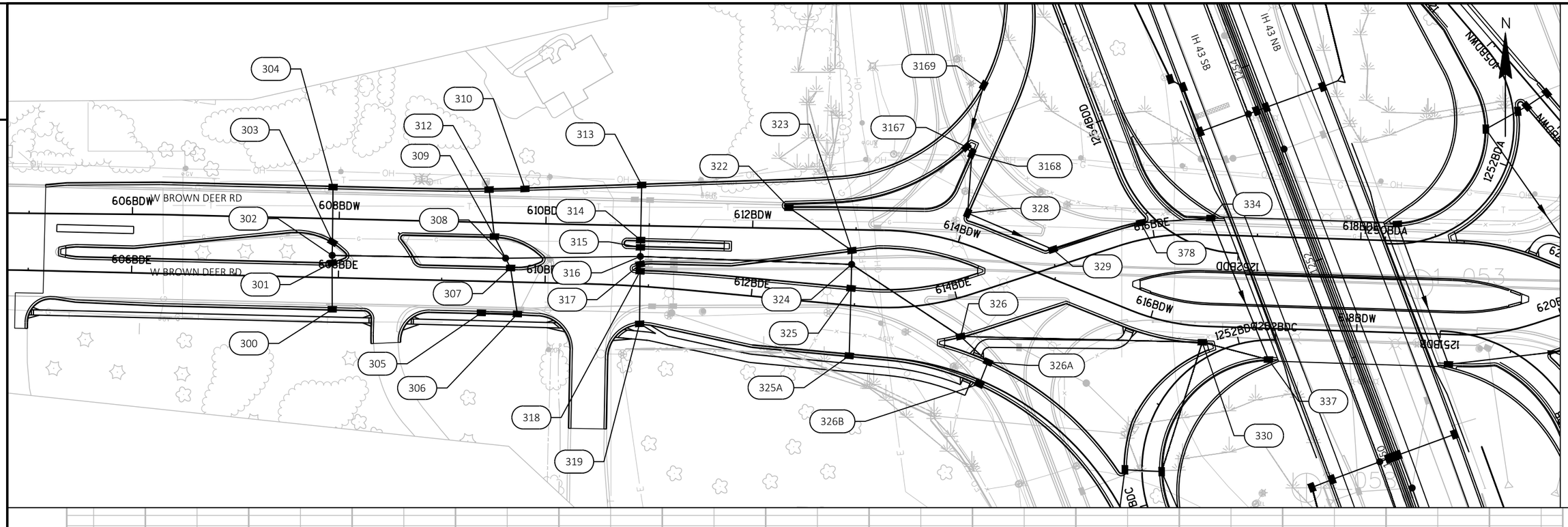






PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - GOOD HOPE ROAD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256213\022507_SS_GH-SR.DWG
LAYOUT NAME - _009(1)
PLOT DATE : 9/28/2021 5:57 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42


N
IH 43 SB
IH 43 NB
W BROWN DEER RD
W BROWN DEER RD
606BDW
606BDE
608BDW
608BDE
610BDW
610BDE
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612BDE
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614BDE
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1252BDB
1252BDC
1252BDD
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1254BDB
1254BDC
1254BDD
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1256BDB
1256BDC
1256BDD
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1258BDC
1258BDD
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1266BDB
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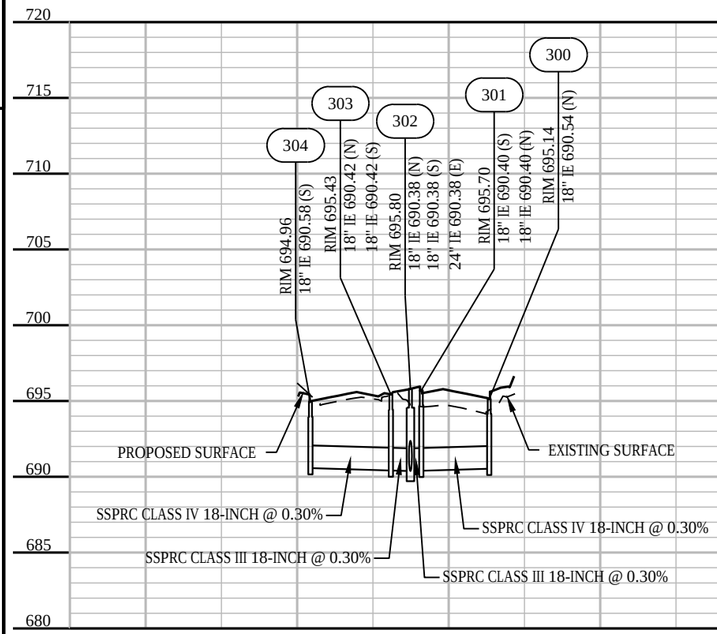
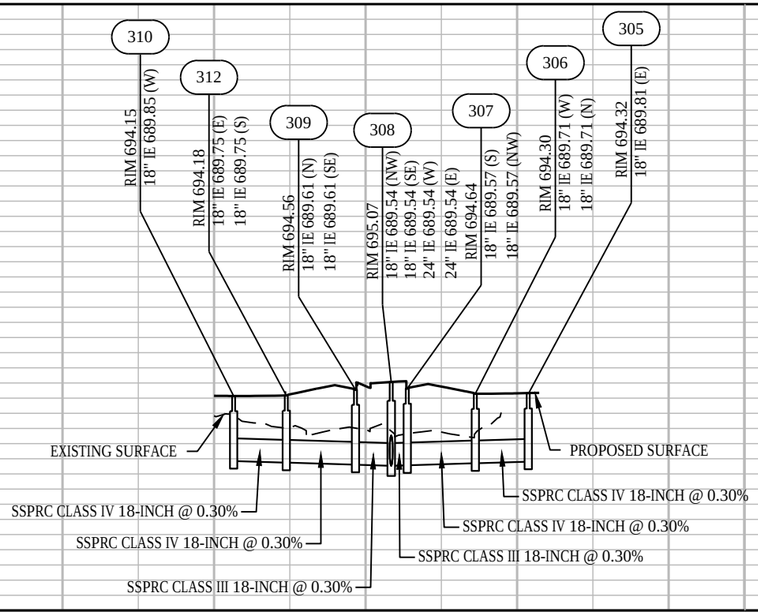
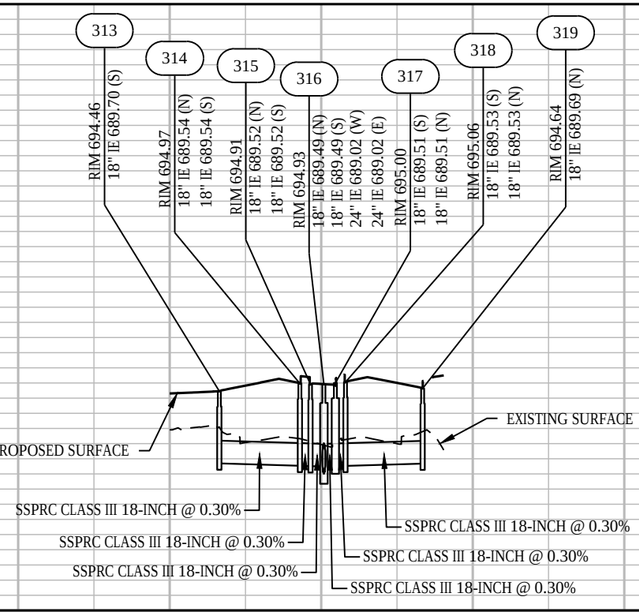
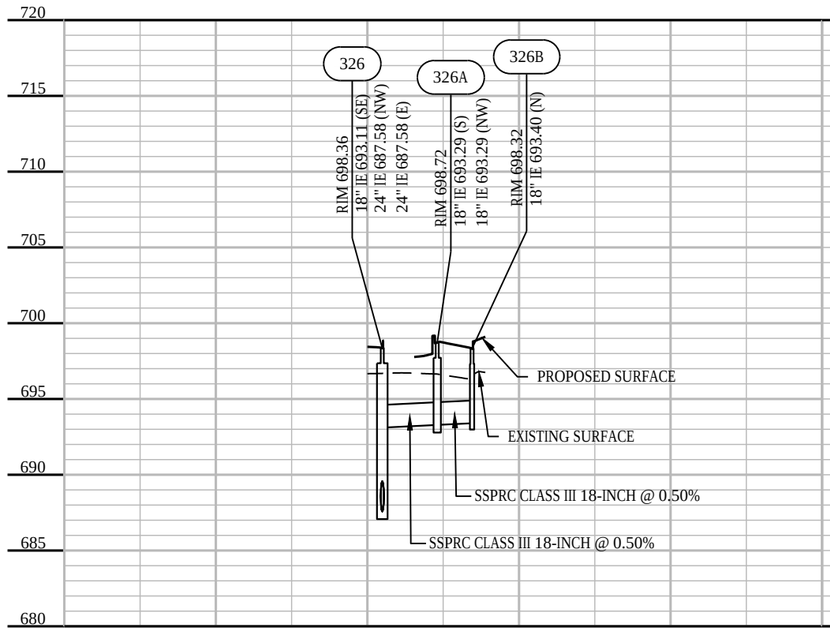
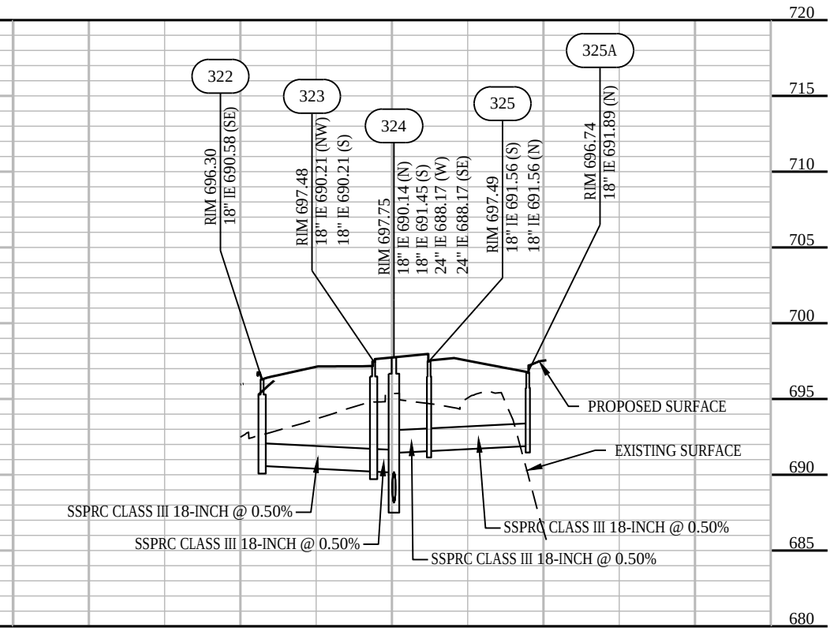






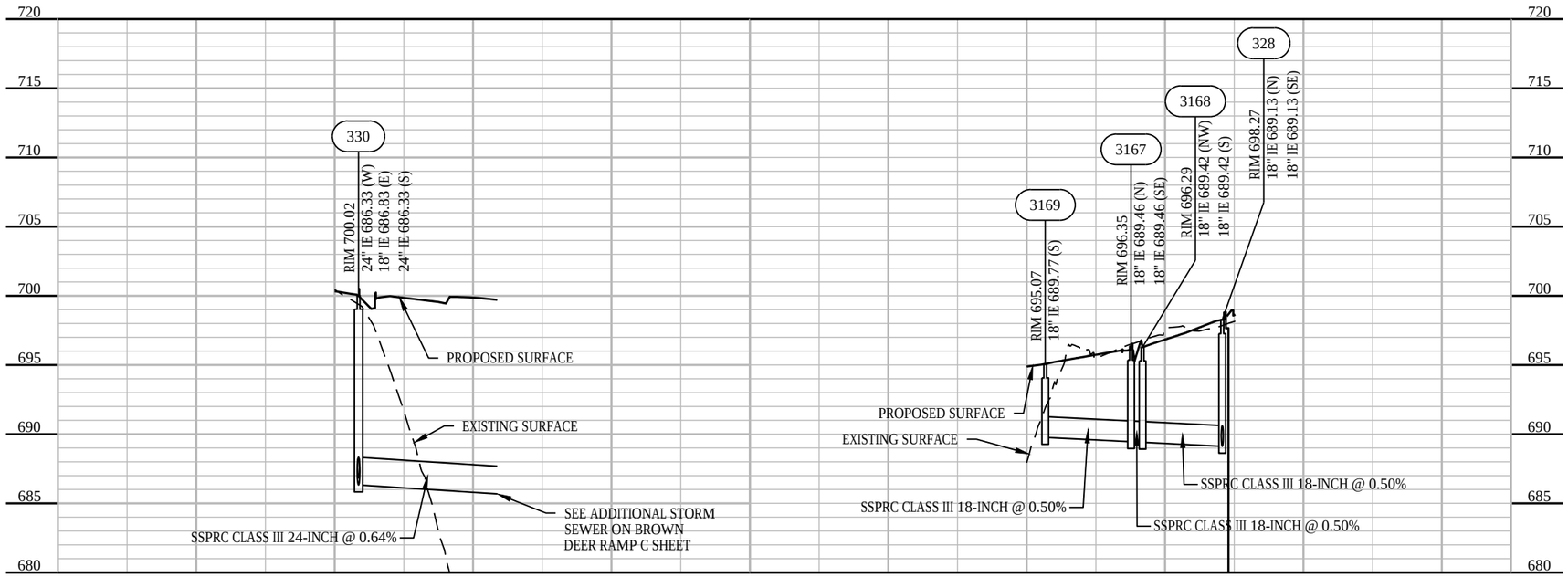


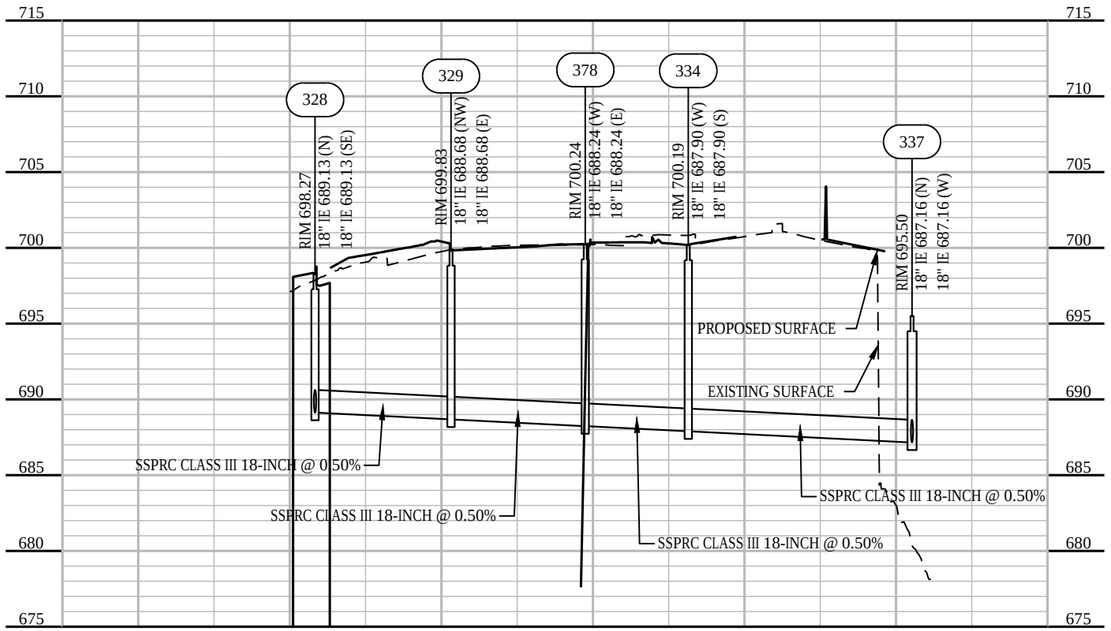


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD	SHEET	E

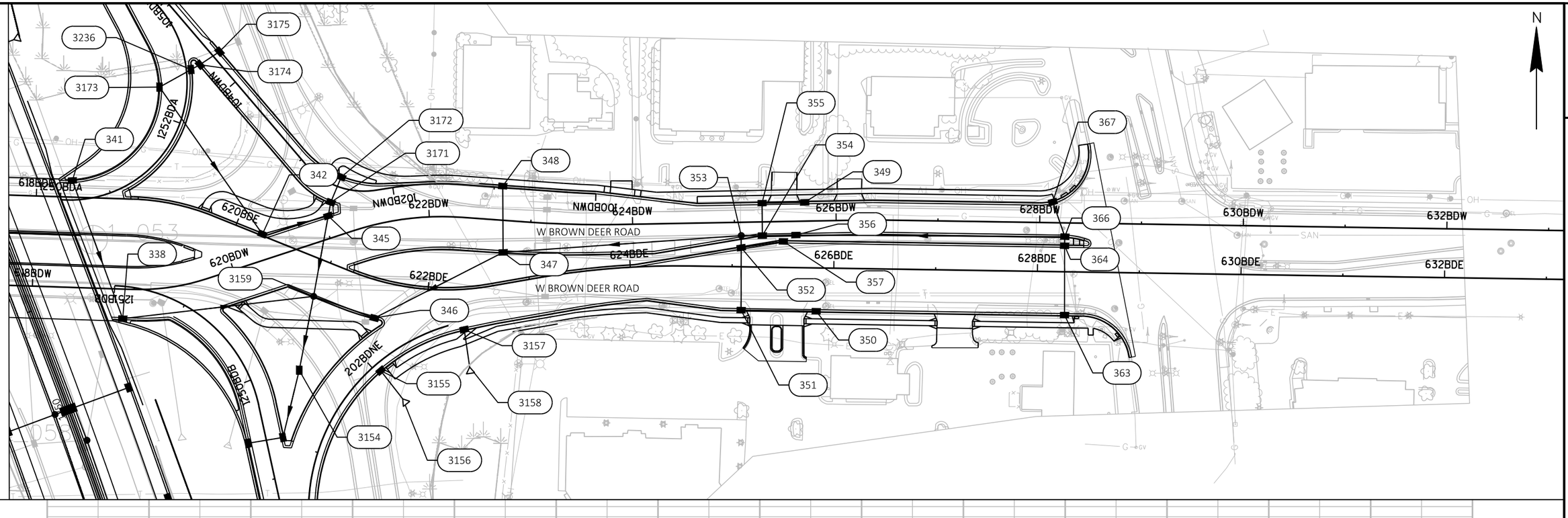
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022508_SS_BD-SR.DWG
LAYOUT NAME - _010(1)

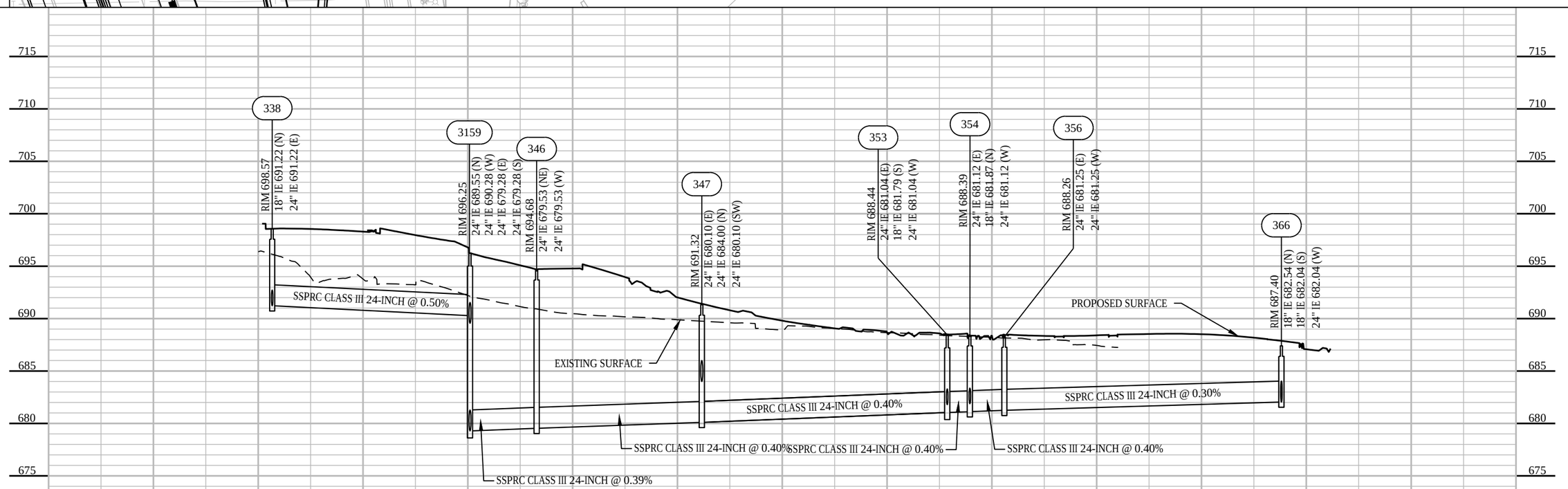
PLOT DATE : 9/30/2021 2:17 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT





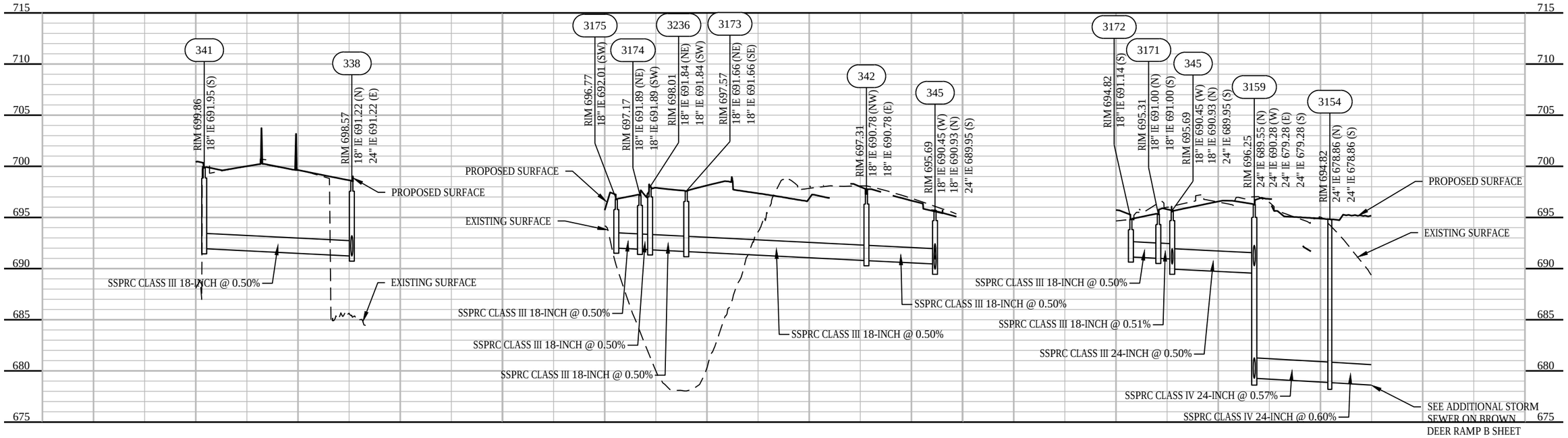
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD	SHEET	E

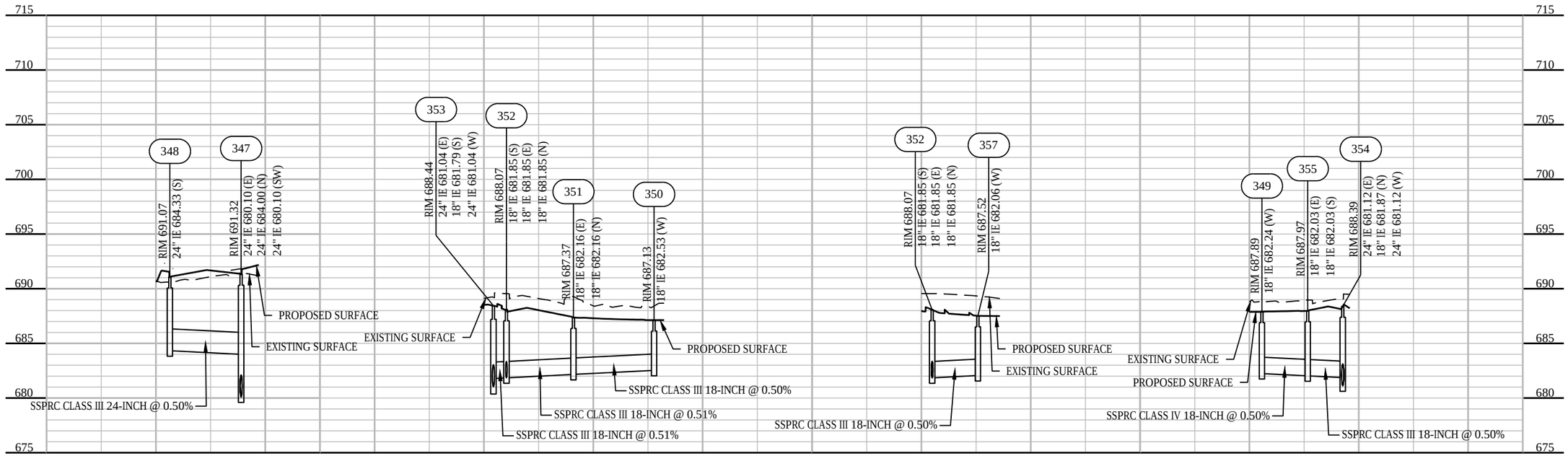




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022508_SS_BD-SR.DWG
LAYOUT NAME - _011
PLOT DATE : 9/30/2021 2:19 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 41





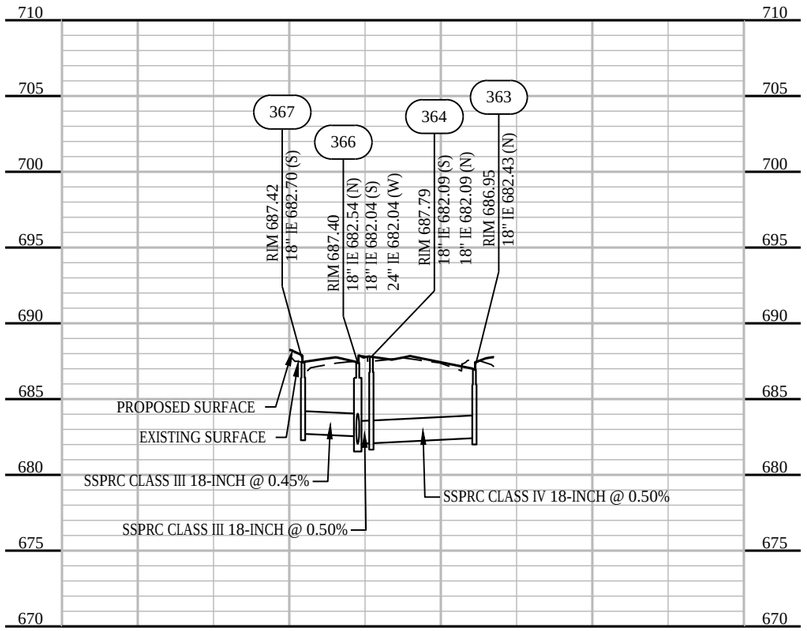
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEORAD - BROWN DEER ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022508_SS_BD-SR.DWG
LAYOUT NAME - _011(1)

PLOT DATE : 9/30/2021 2:20 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

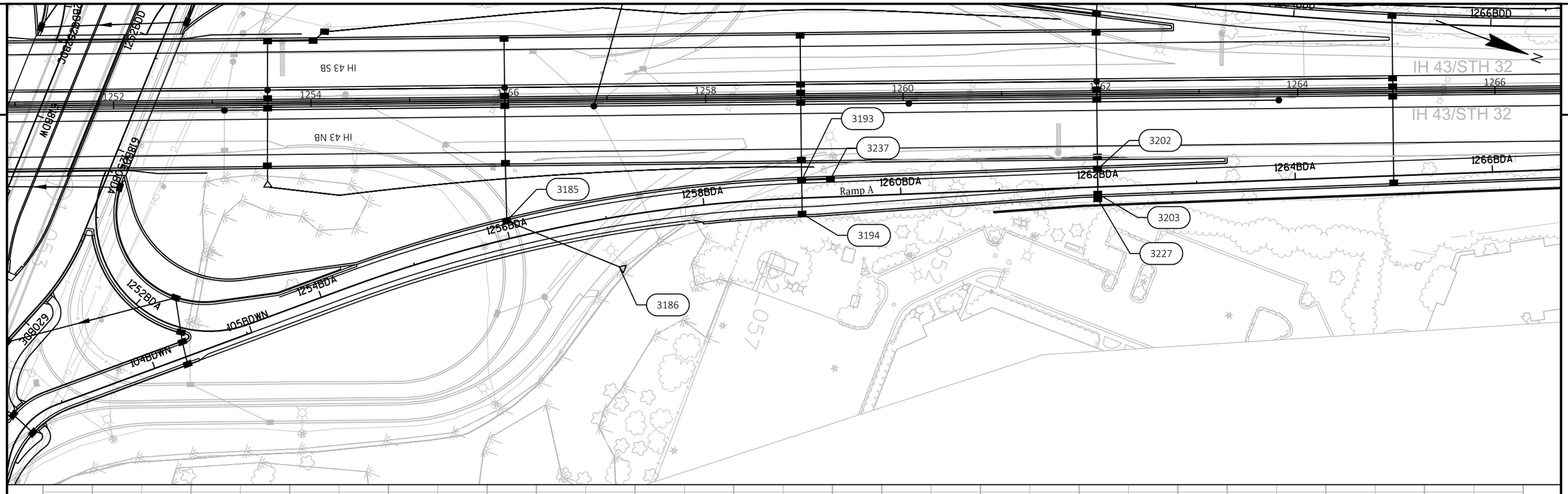
2

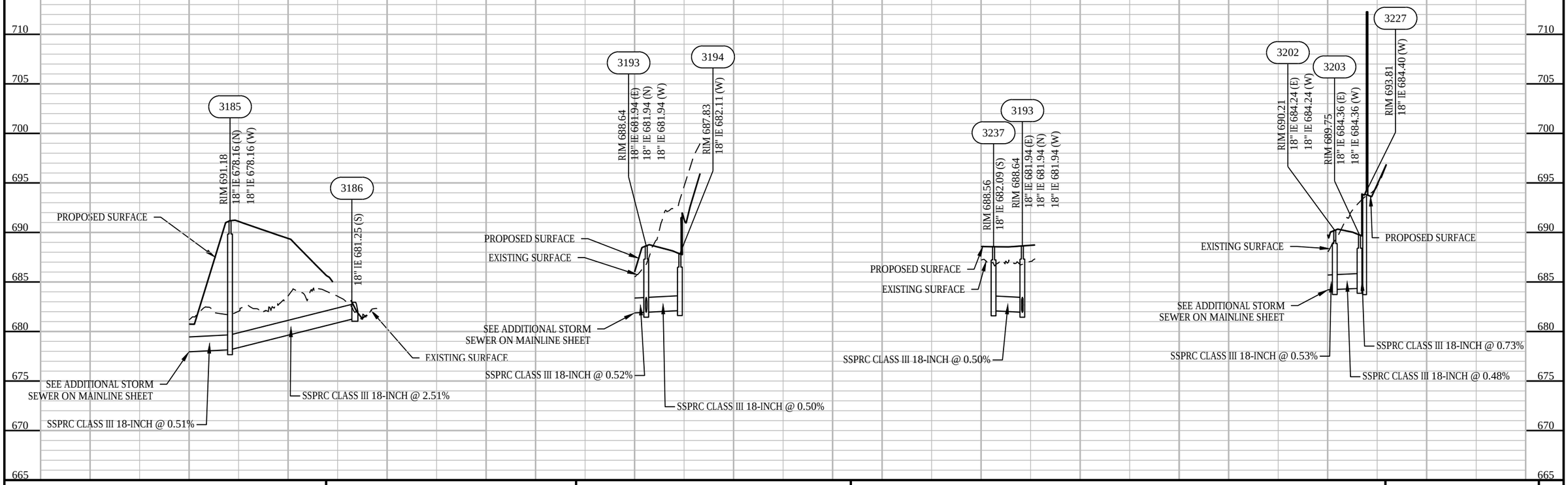


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022508_SS_BD-SR.DWG
LAYOUT NAME - _011(2)

PLOT DATE : 9/30/2021 2:21 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

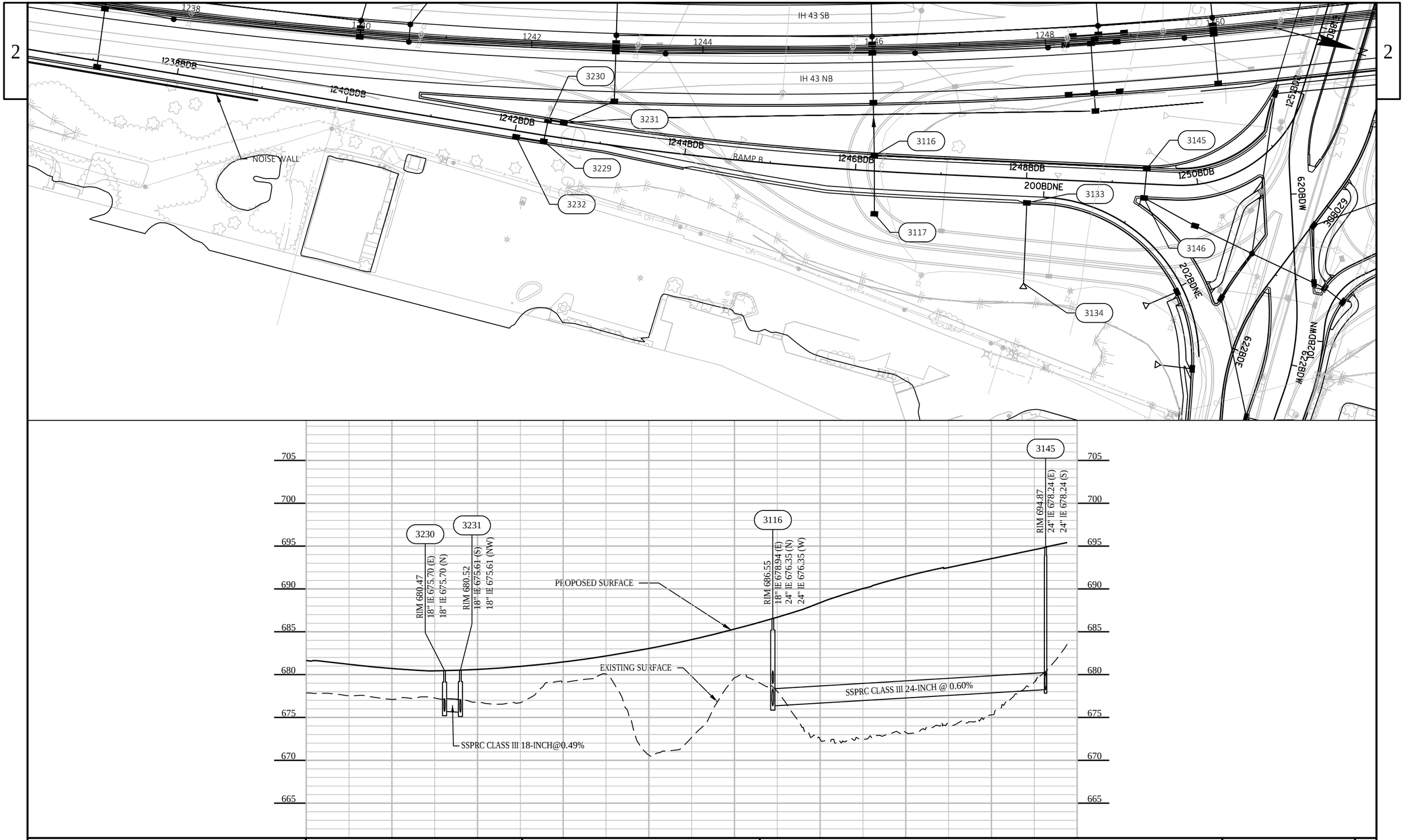




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022508_SS_BD-SR.DWG
LAYOUT NAME - _012

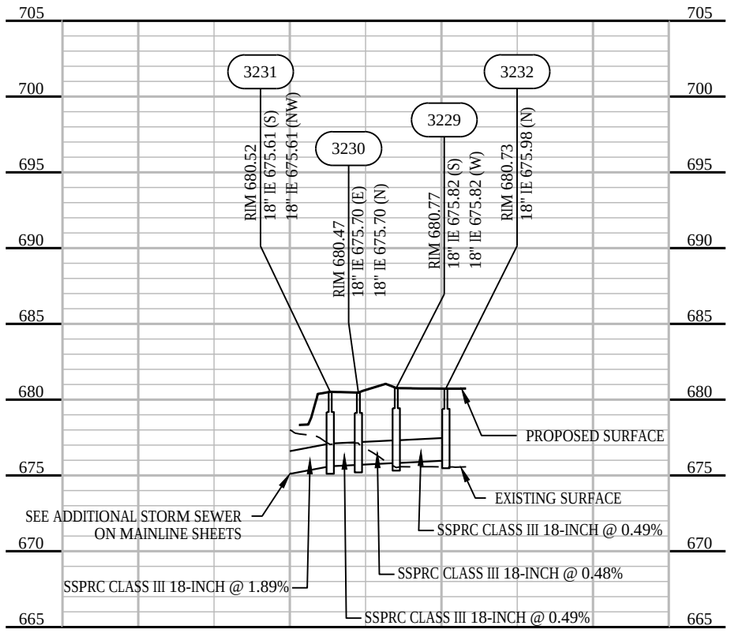
PLOT DATE : 9/30/2021 2:23 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

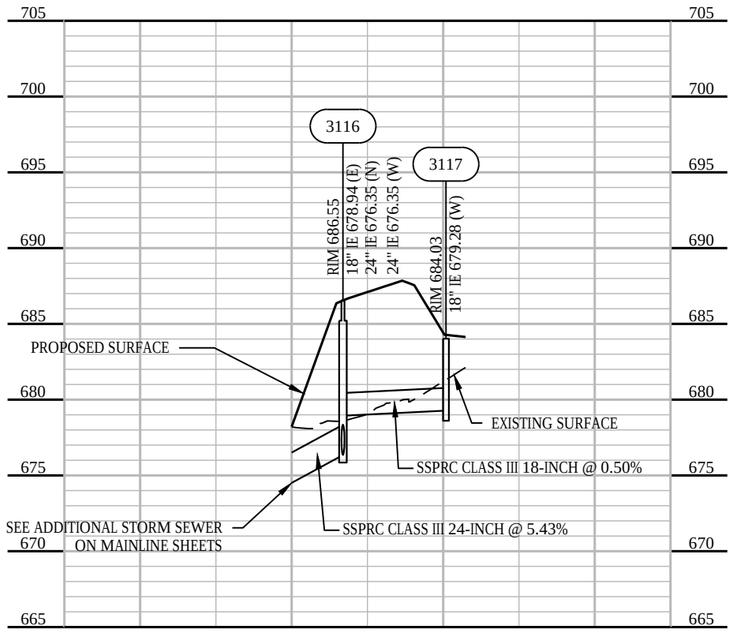


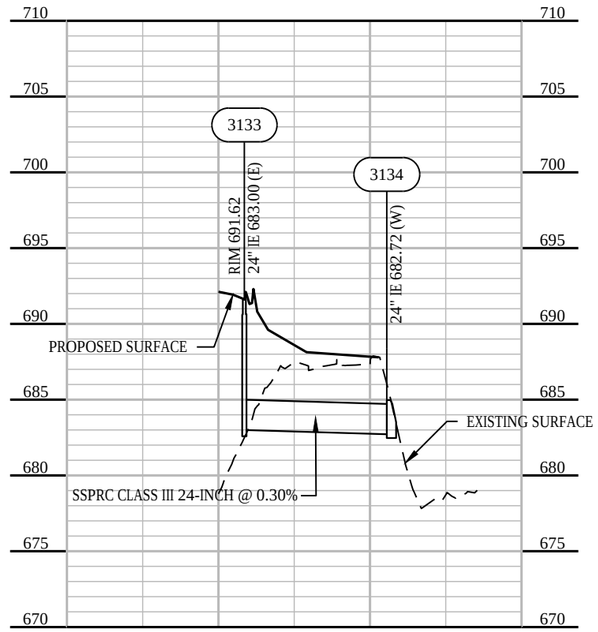
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP B	SHEET	E

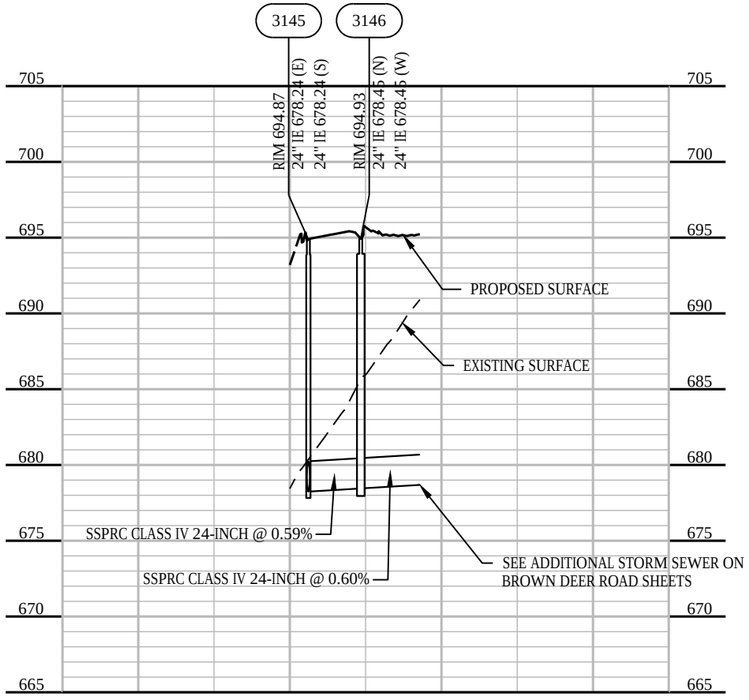
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _013

PLOT DATE : 9/30/2021 2:26 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT







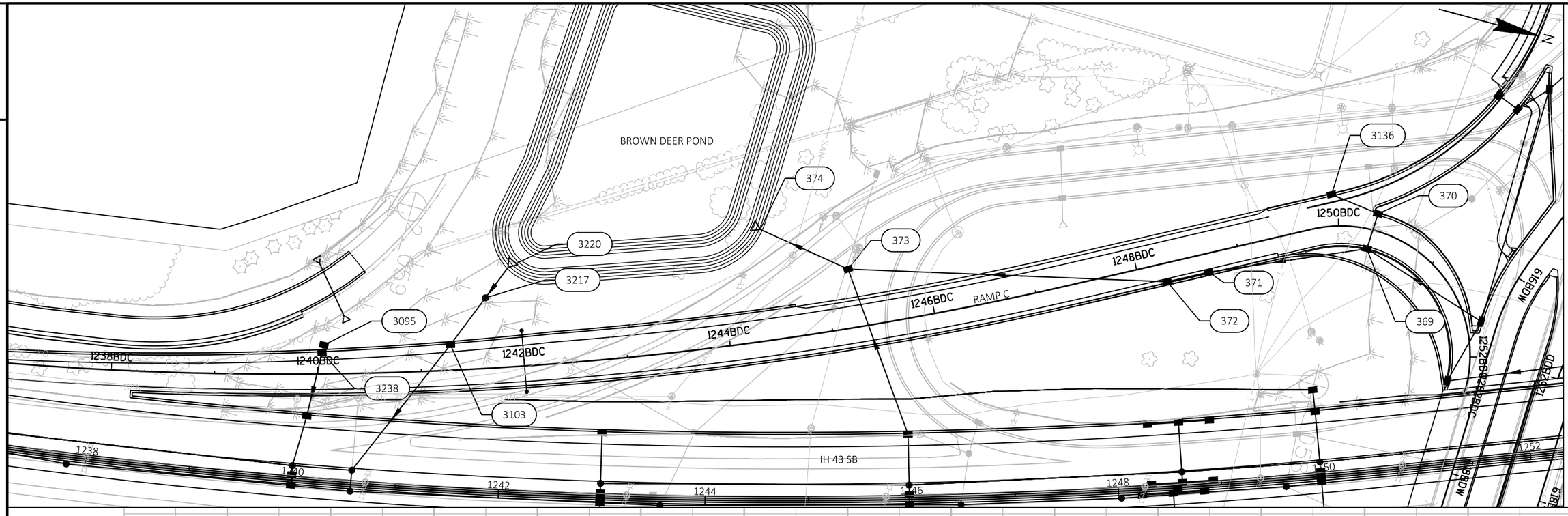


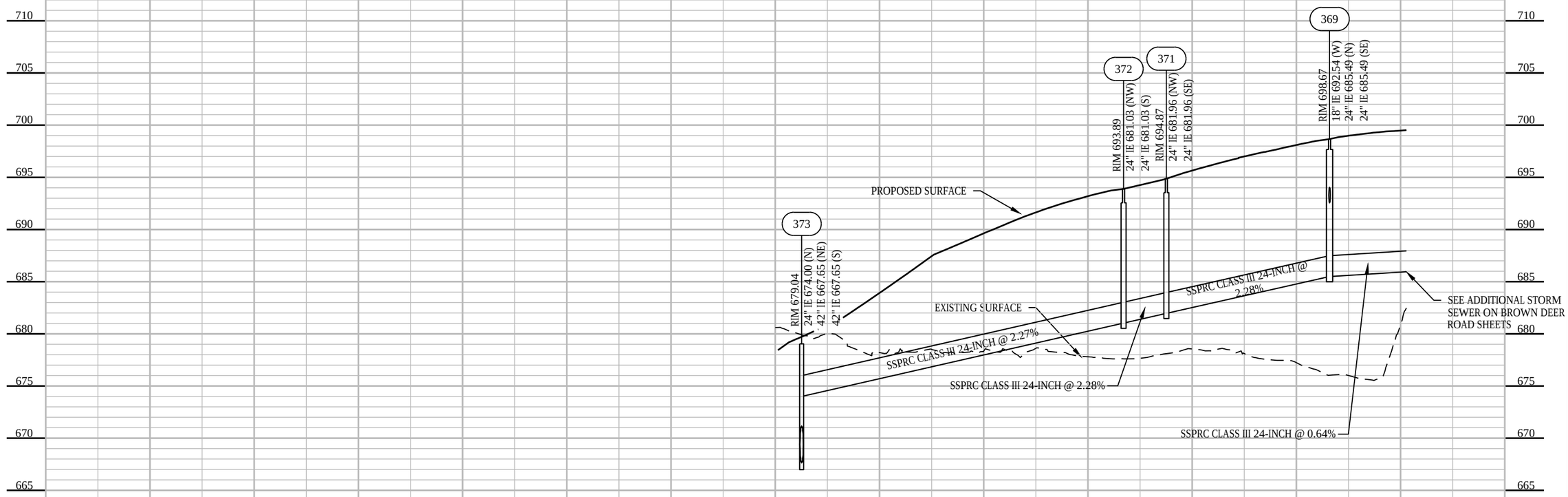
2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _013(1)
PLOT DATE : 9/30/2021 2:27 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

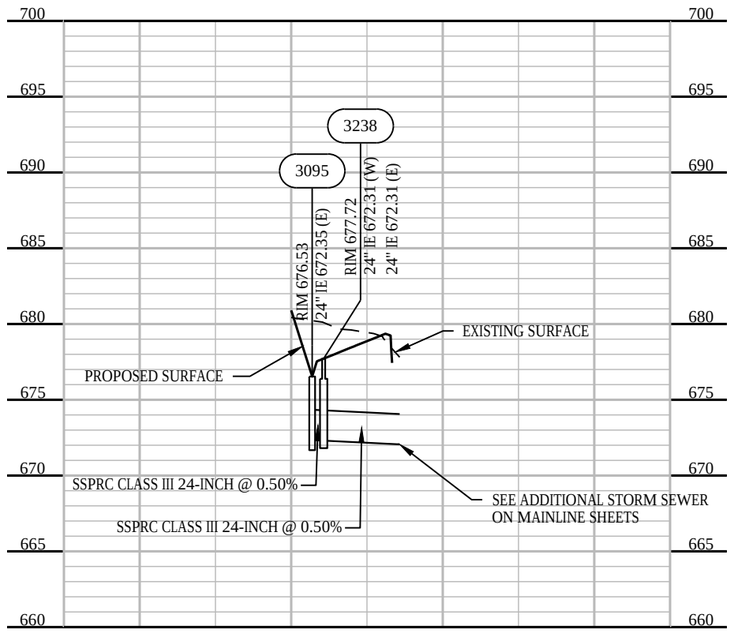


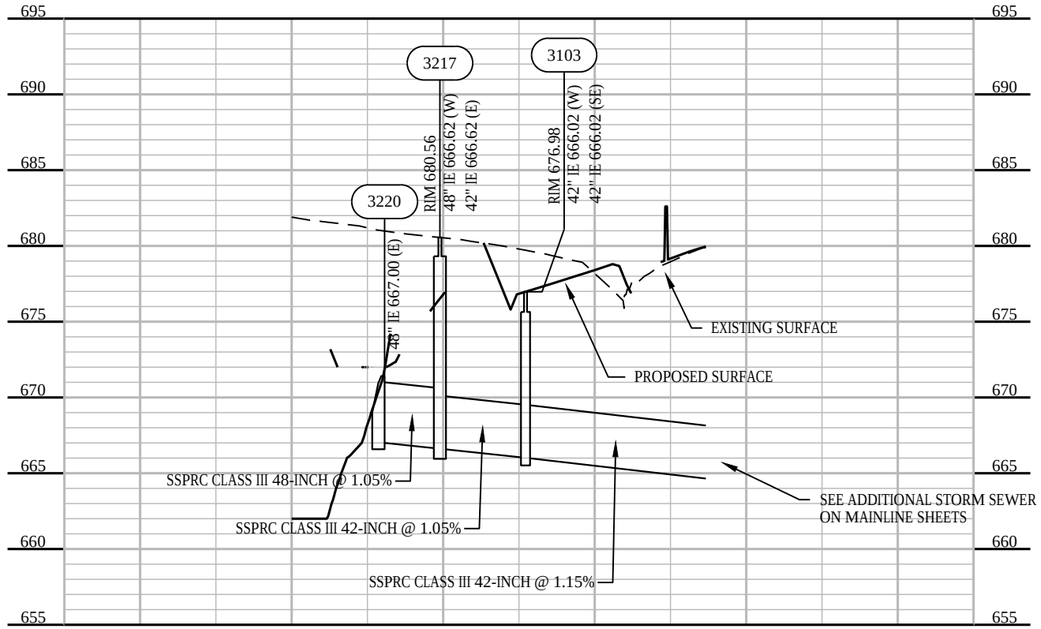


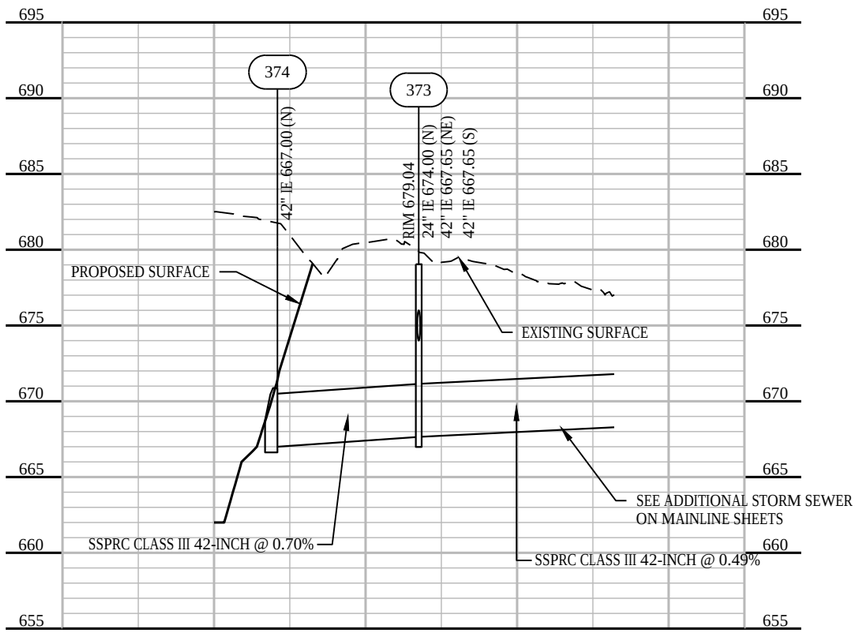
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP C	SHEET	E

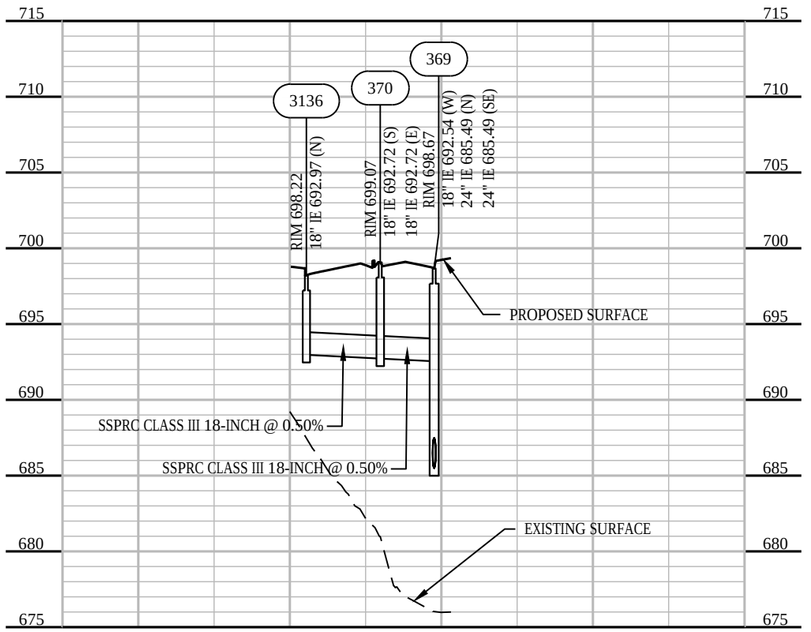
FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _014

PLOT DATE : 9/30/2021 2:29 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT



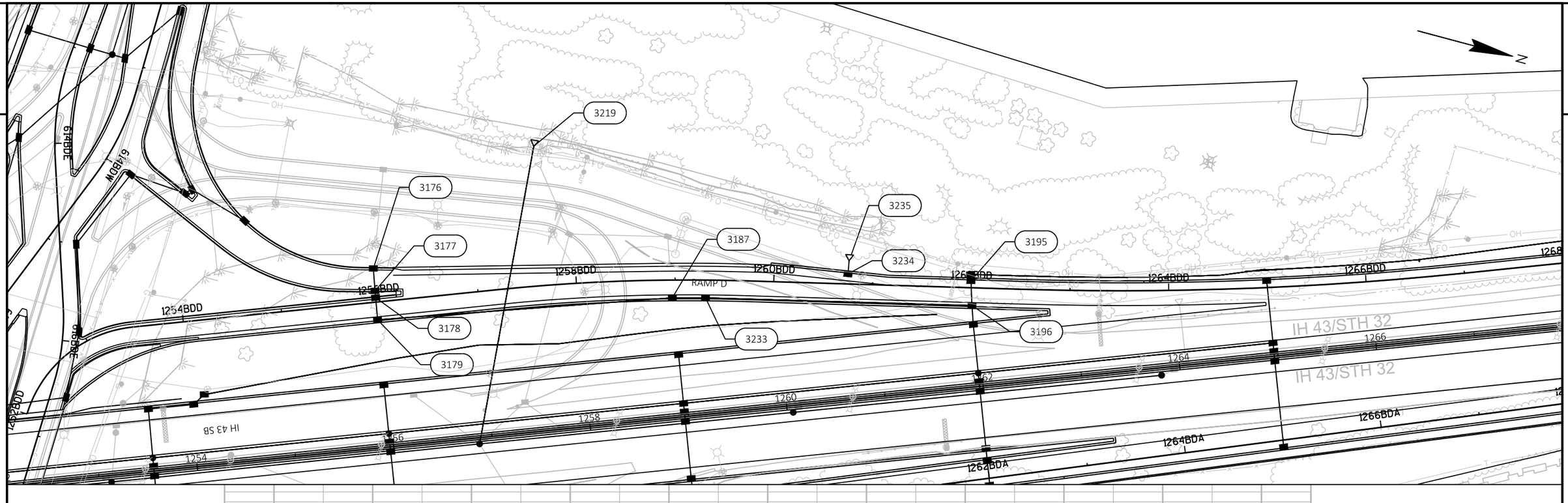


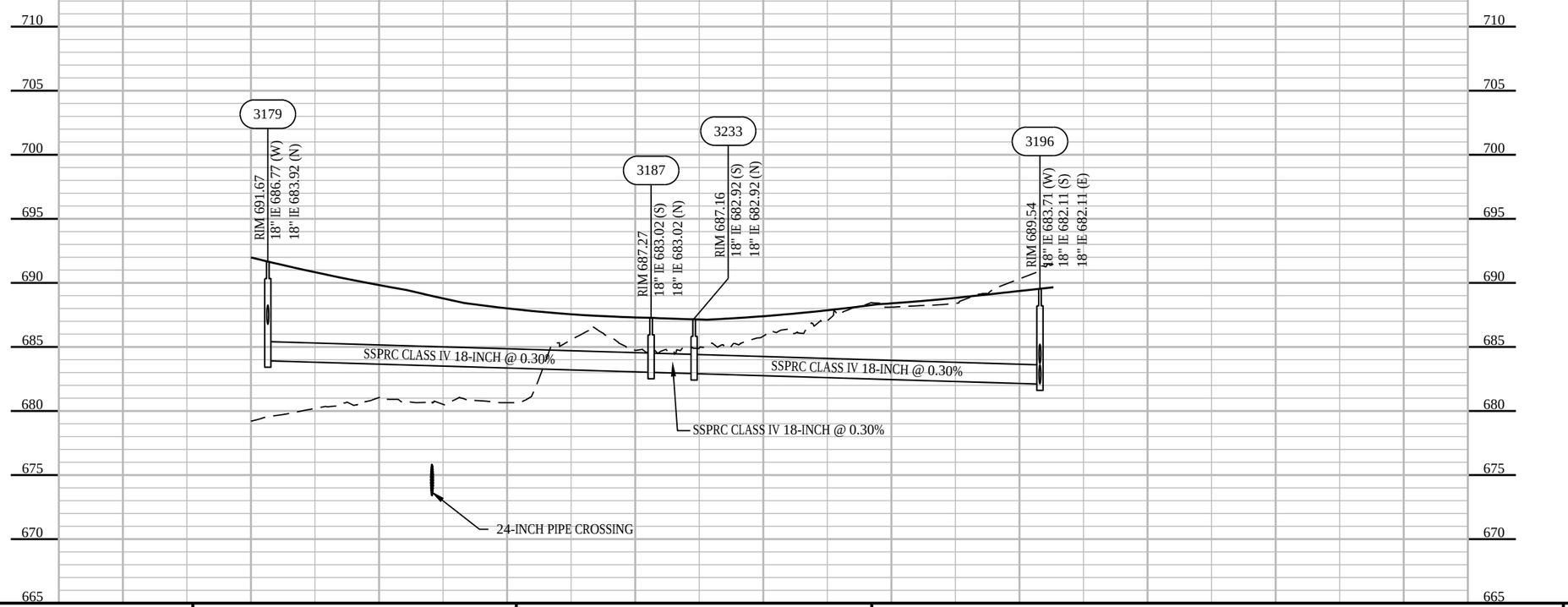




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEORAD - BROWN DEER ROAD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _014(1)
PLOT DATE : 9/30/2021 2:30 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



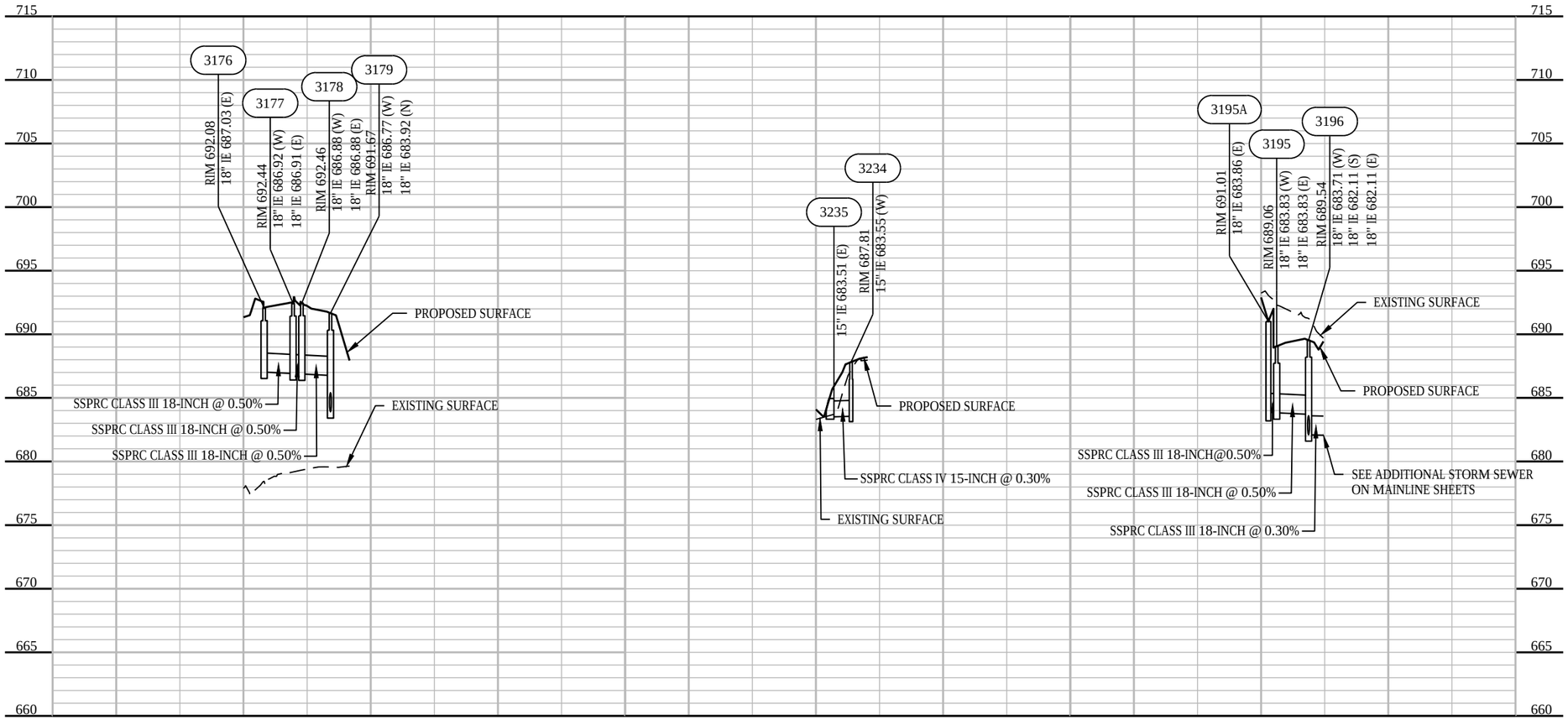


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _015

PLOT DATE : 9/30/2021 2:32 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

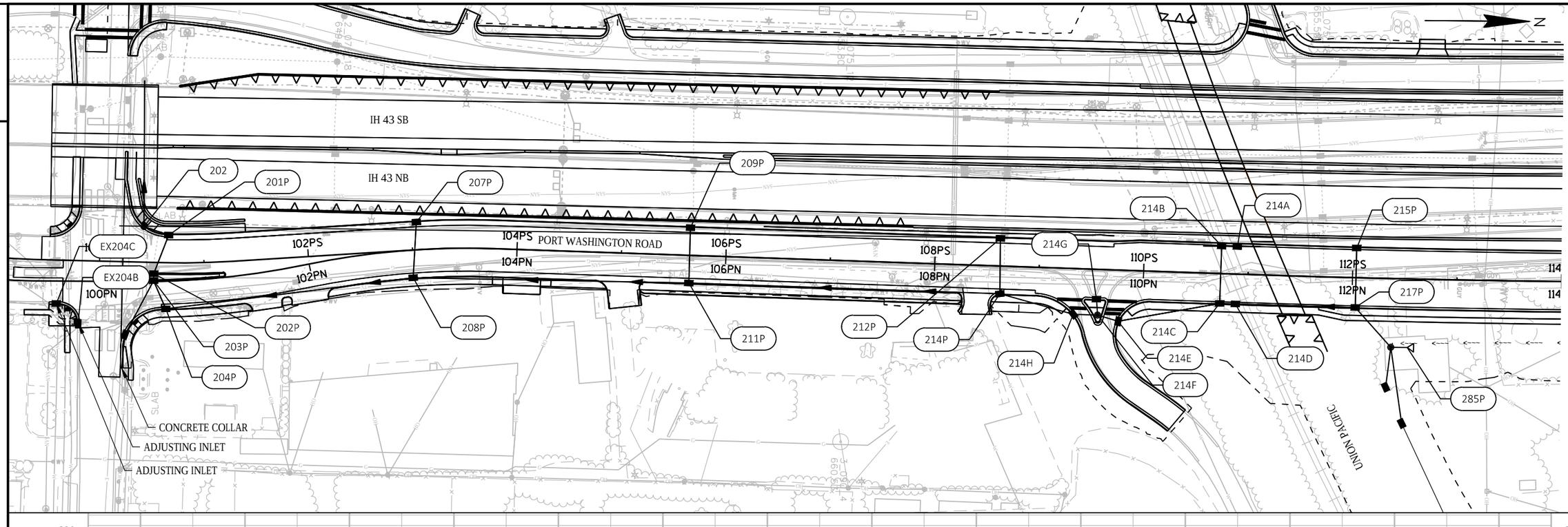
2

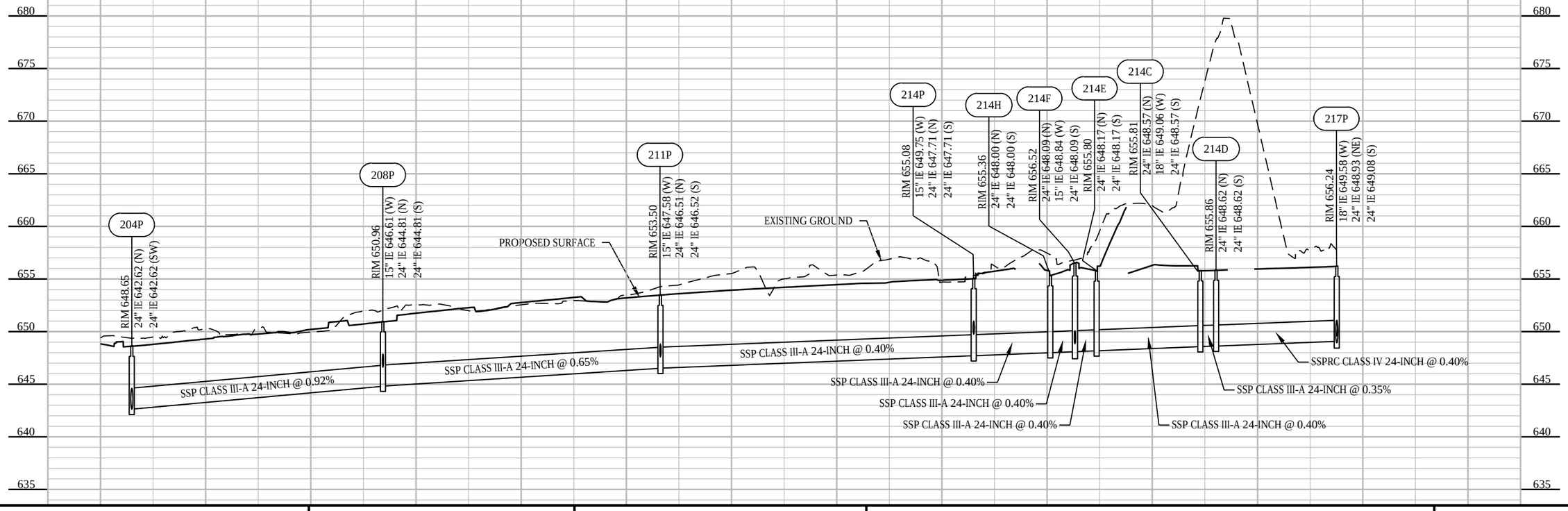


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - BROWN DEER ROAD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022509_SS_BD-SR.DWG
LAYOUT NAME - _015(1)

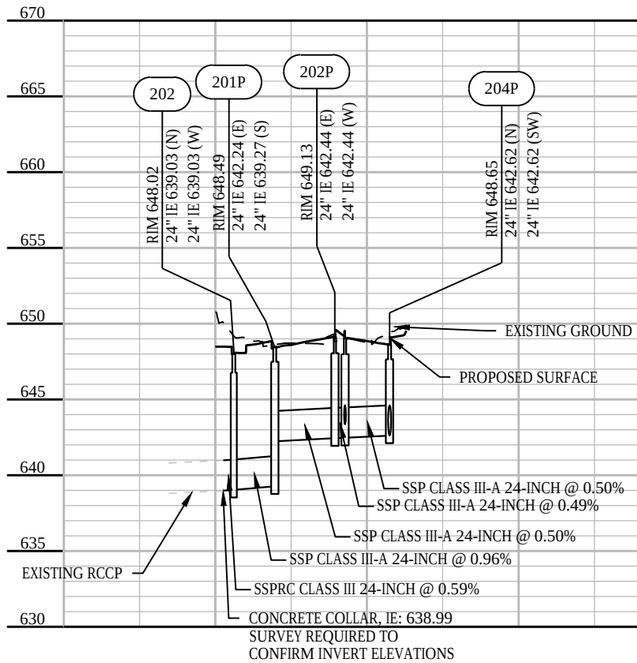
PLOT DATE : 9/30/2021 2:33 PM PLOT BY : ANDREW PATEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

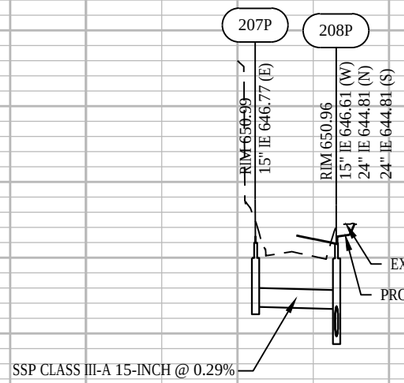


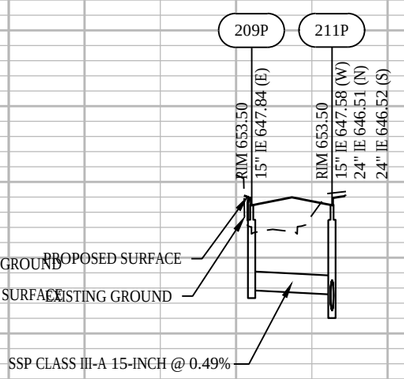


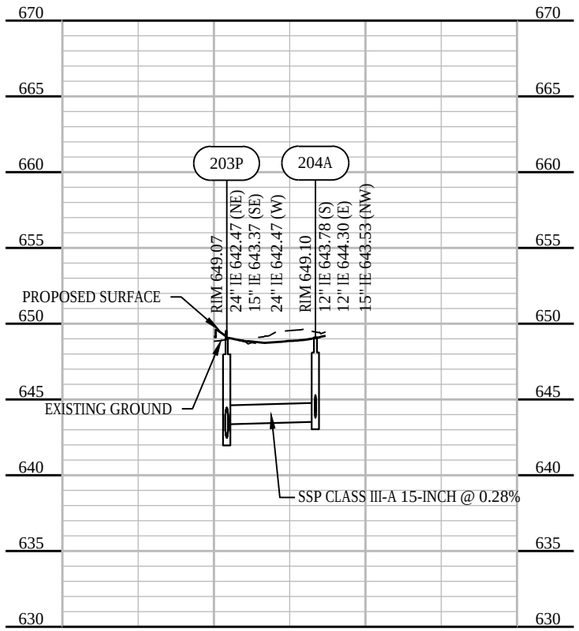
PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

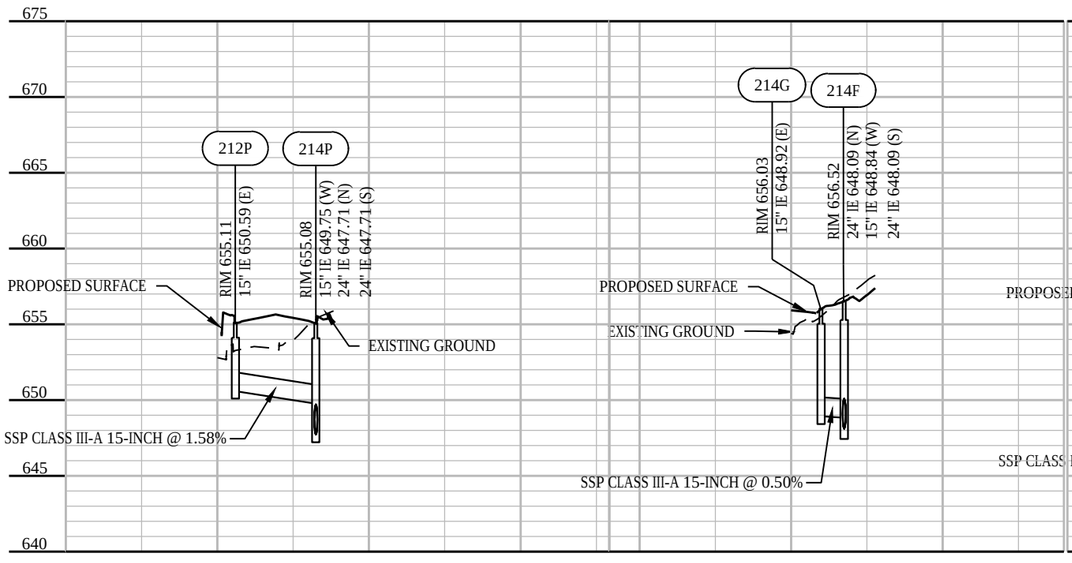
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256189\022501_SS_PW.DWG
LAYOUT NAME - _001
PLOT DATE : 9/28/2021 8:36 PM
PLOT BY : ANDREW SZYMASZEK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

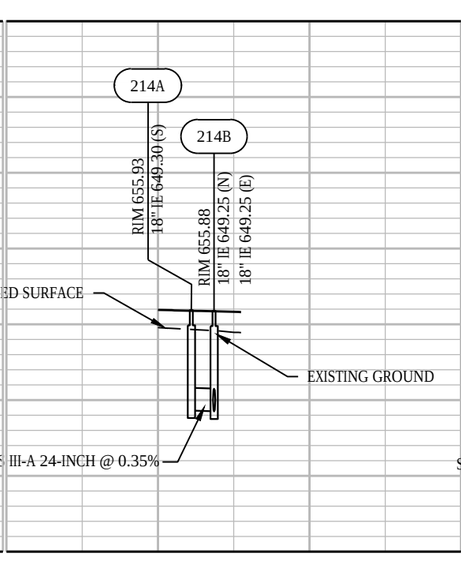


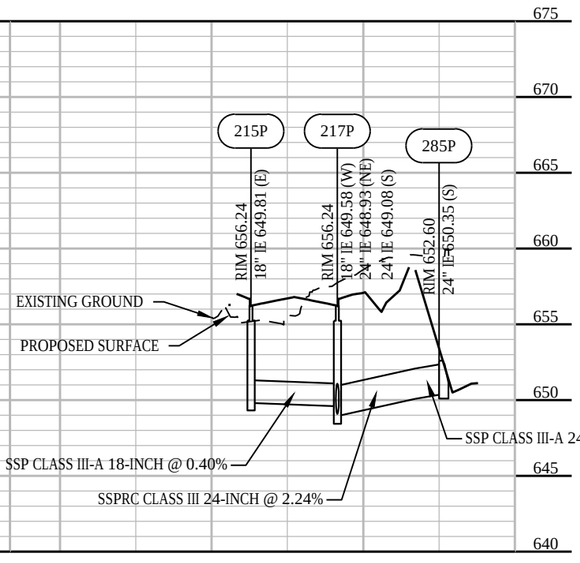




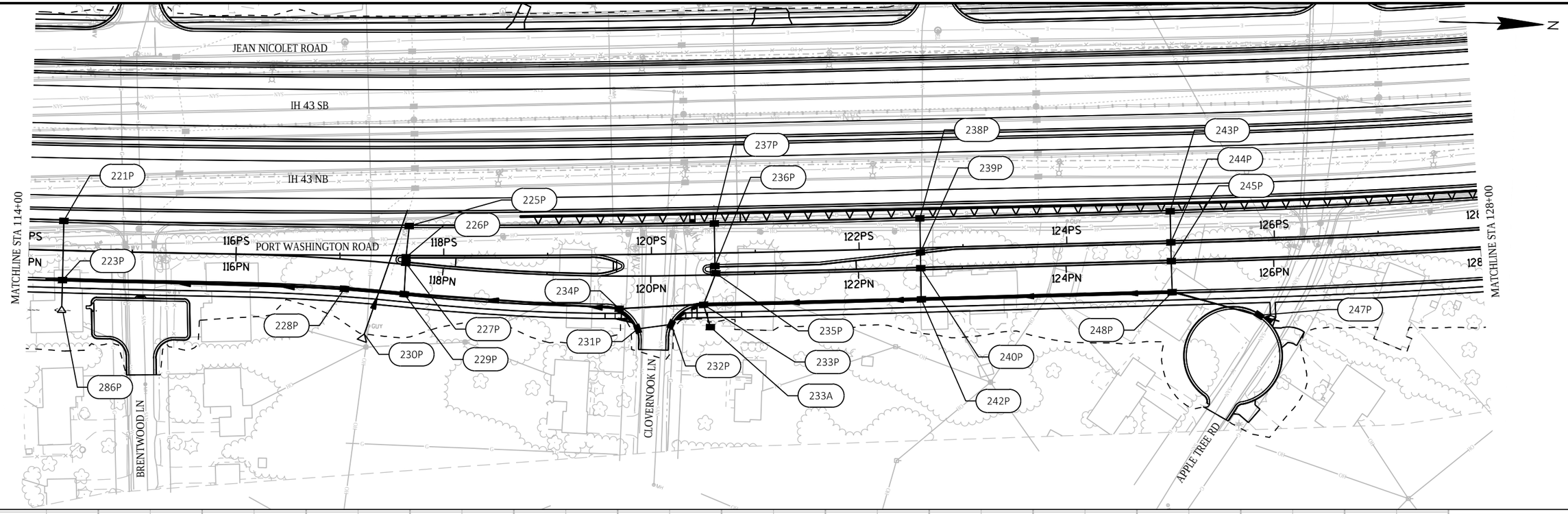








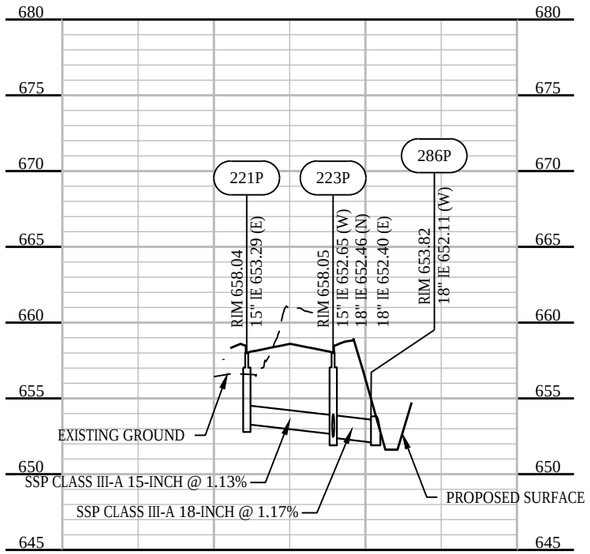
PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

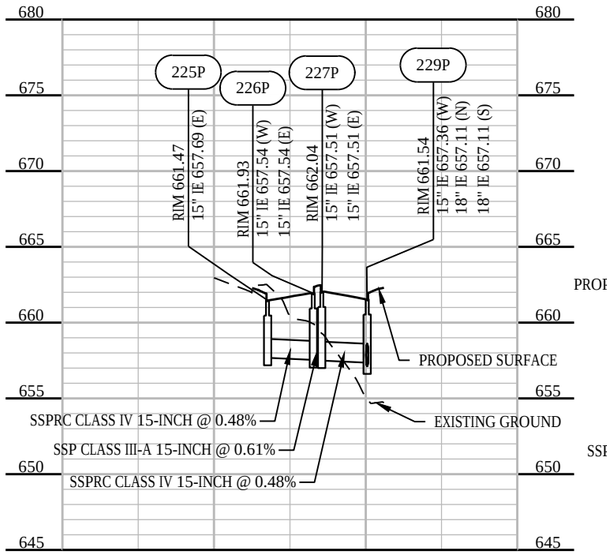


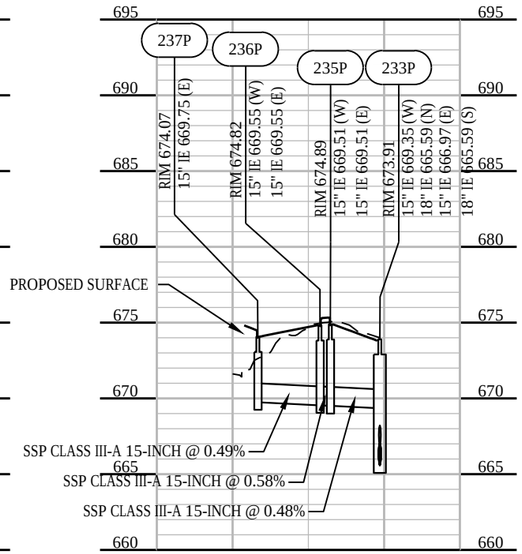
PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

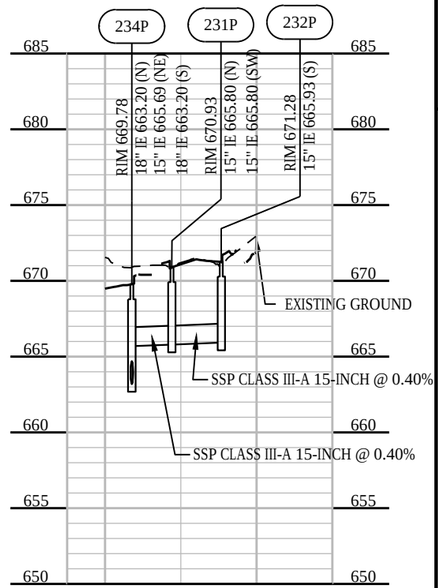
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256189\022501_SS_PW.DWG
LAYOUT NAME - _003

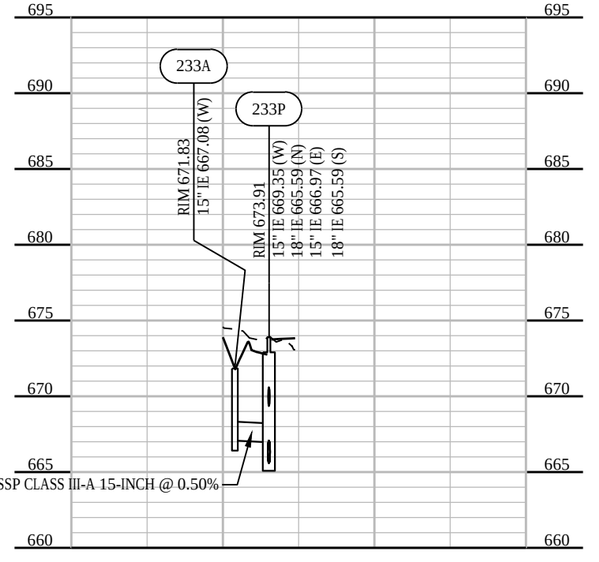
PLOT DATE : 9/28/2021 8:11 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

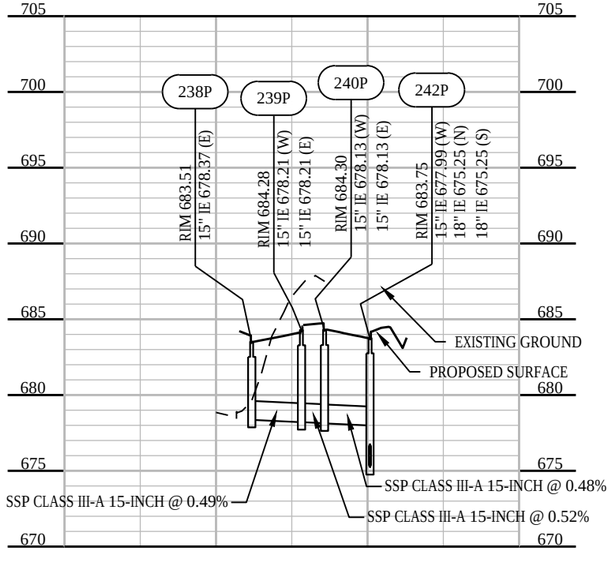


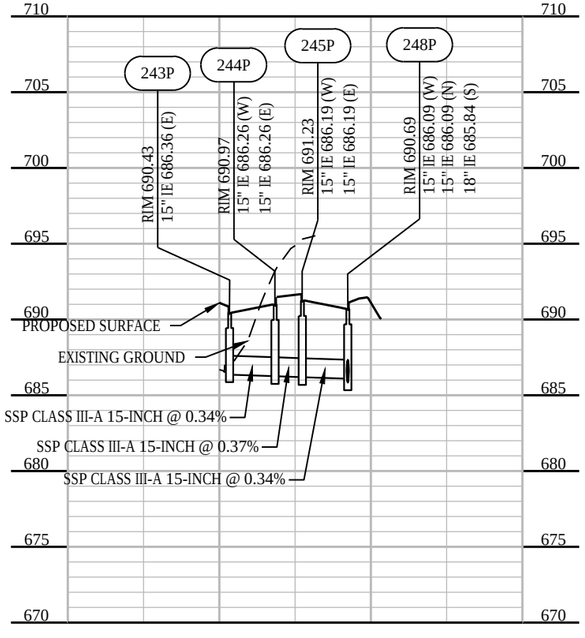








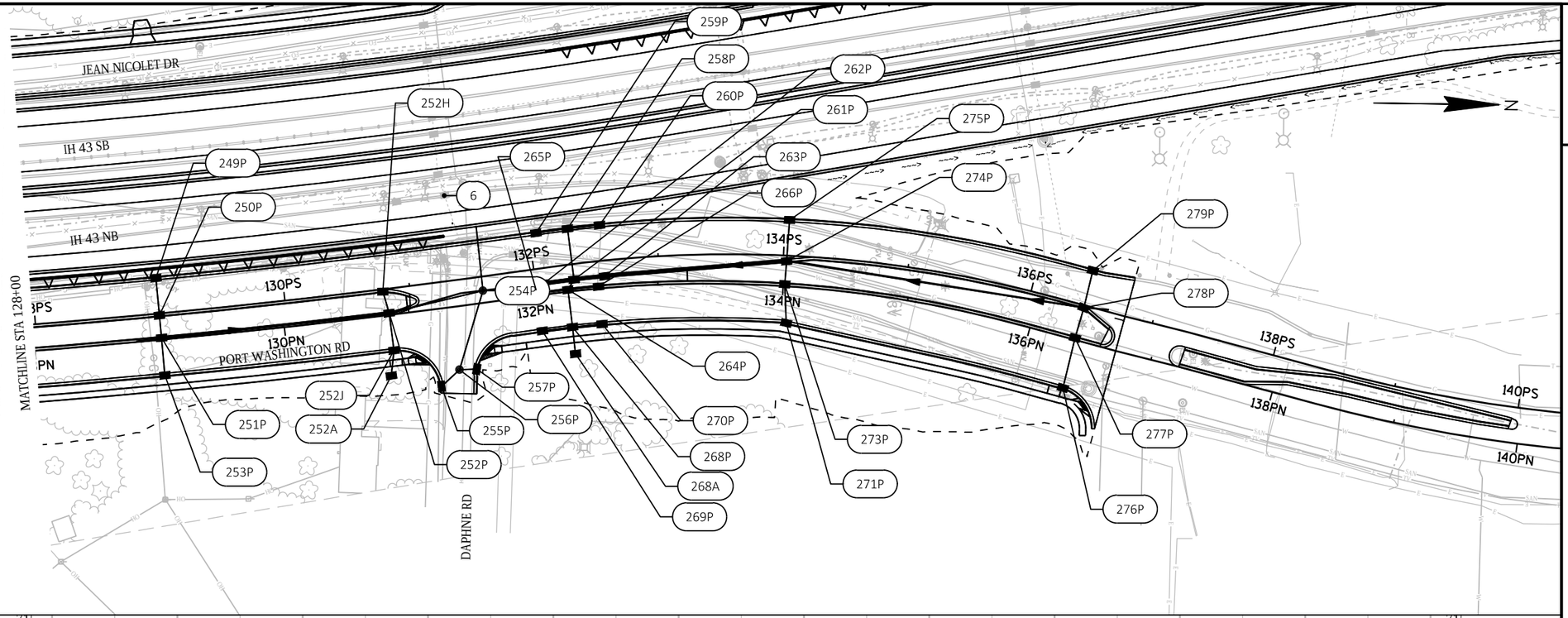


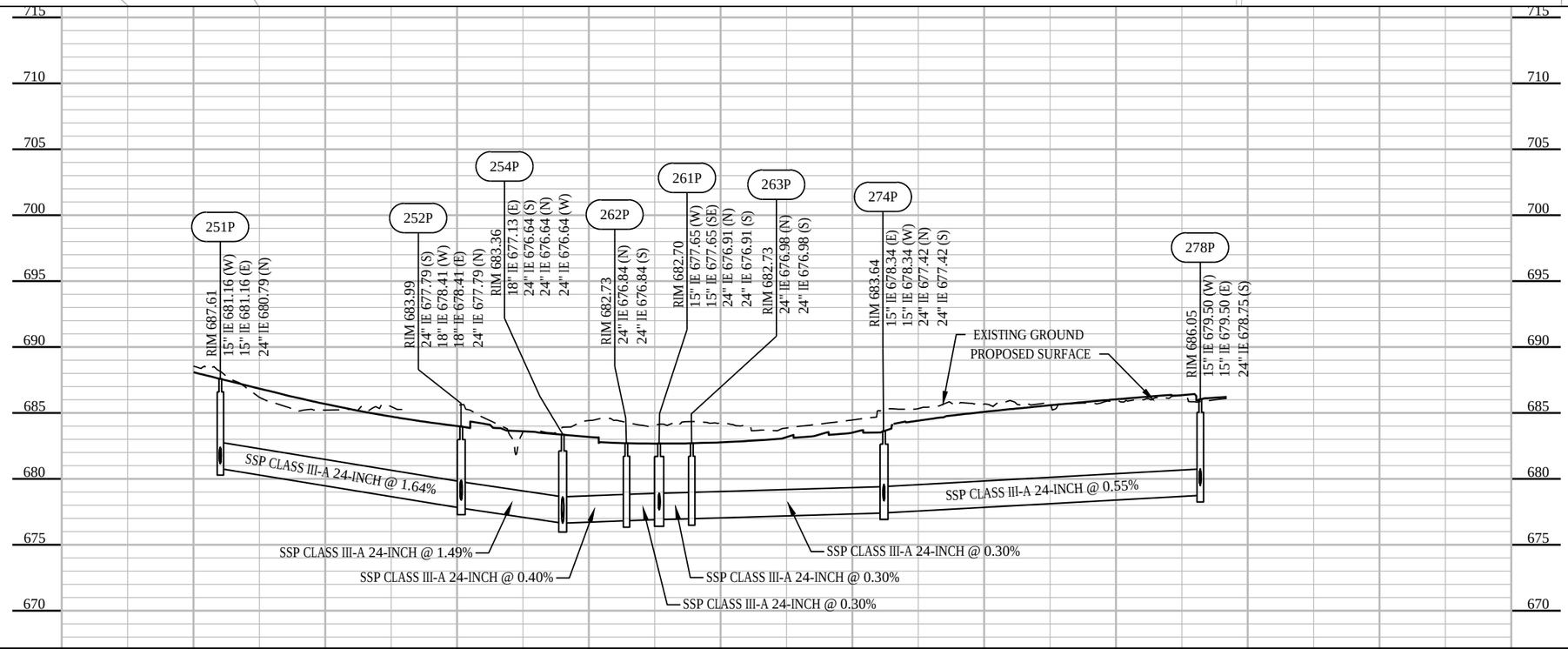


PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256189\022501_SS_PW.DWG
LAYOUT NAME - _004

PLOT DATE : 9/28/2021 8:12 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

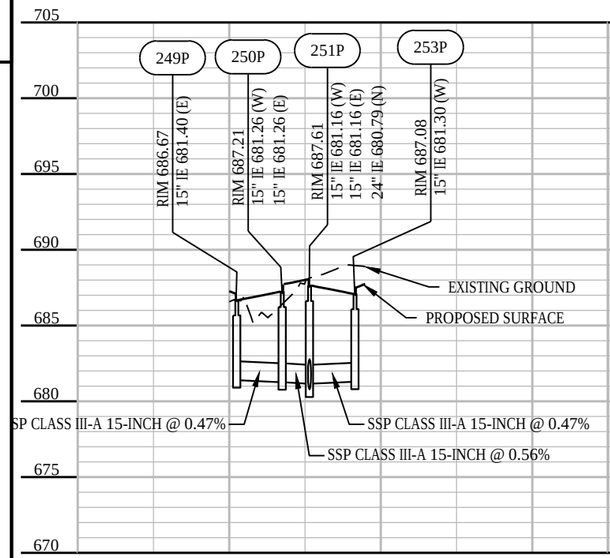


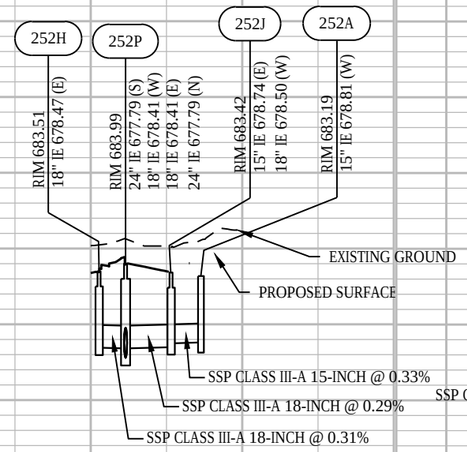


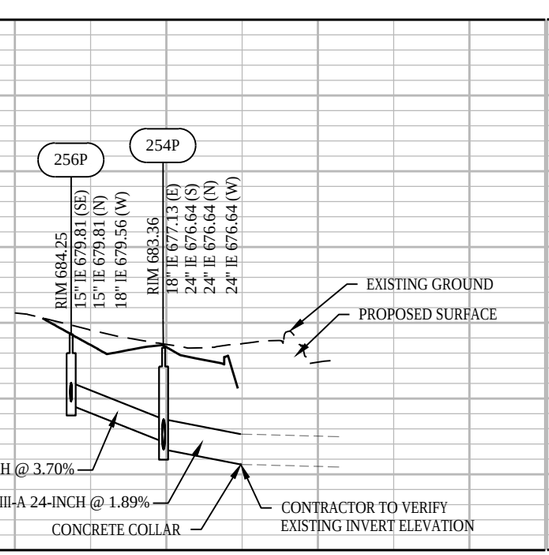
PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

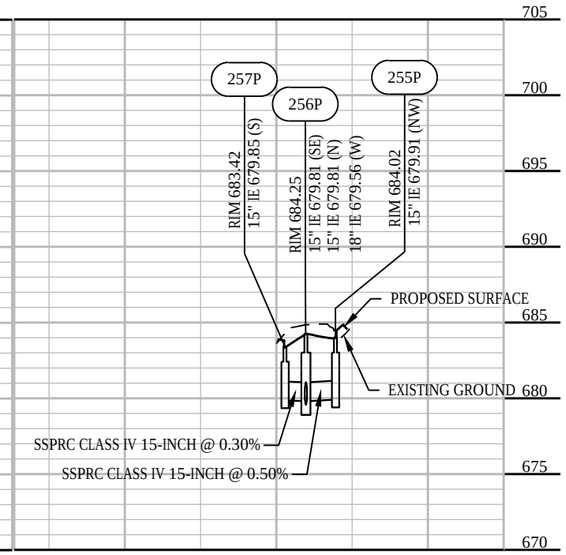
FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256189\022501_SS_PW.DWG
LAYOUT NAME - _005

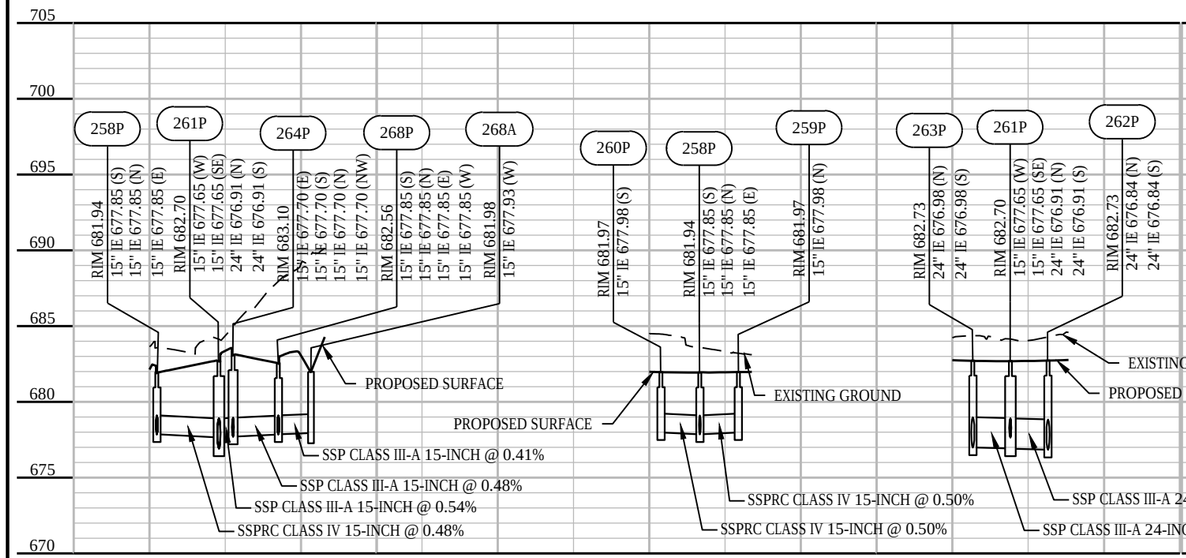
PLOT DATE : 9/28/2021 8:14 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT

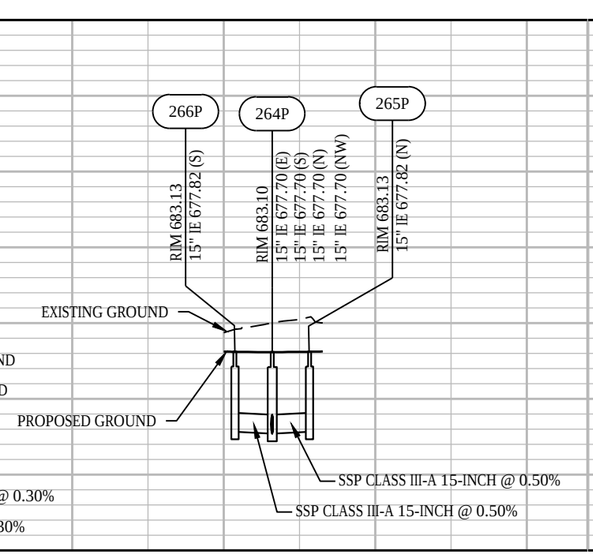


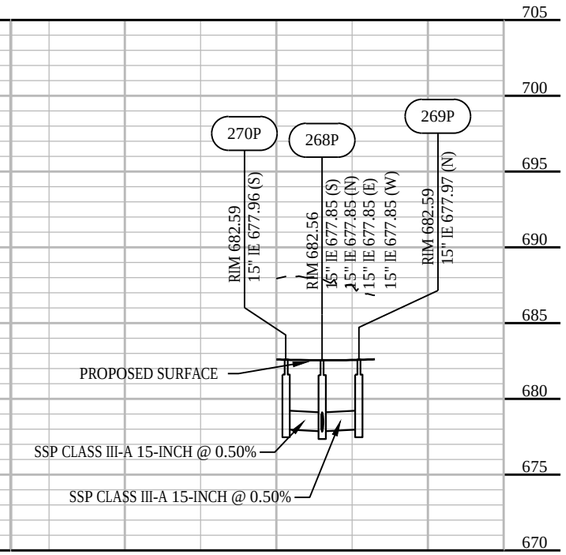






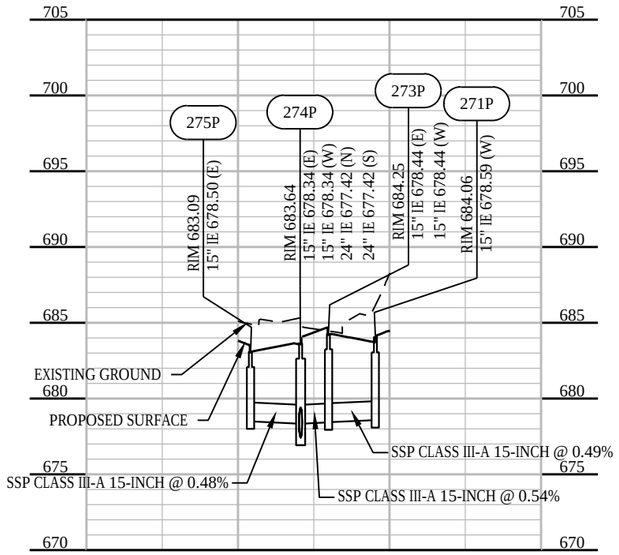


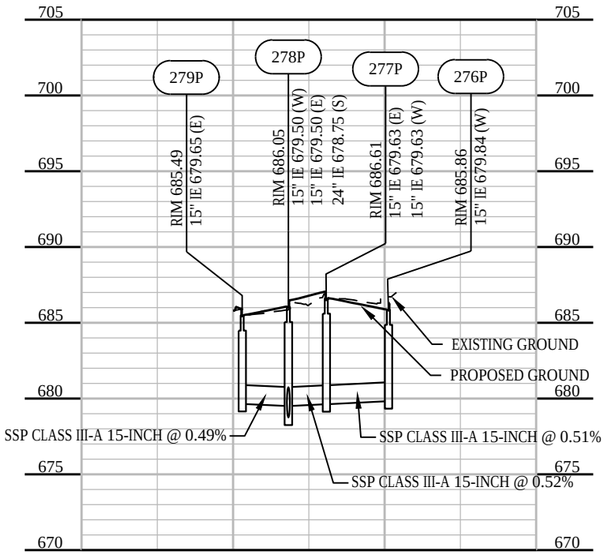




PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

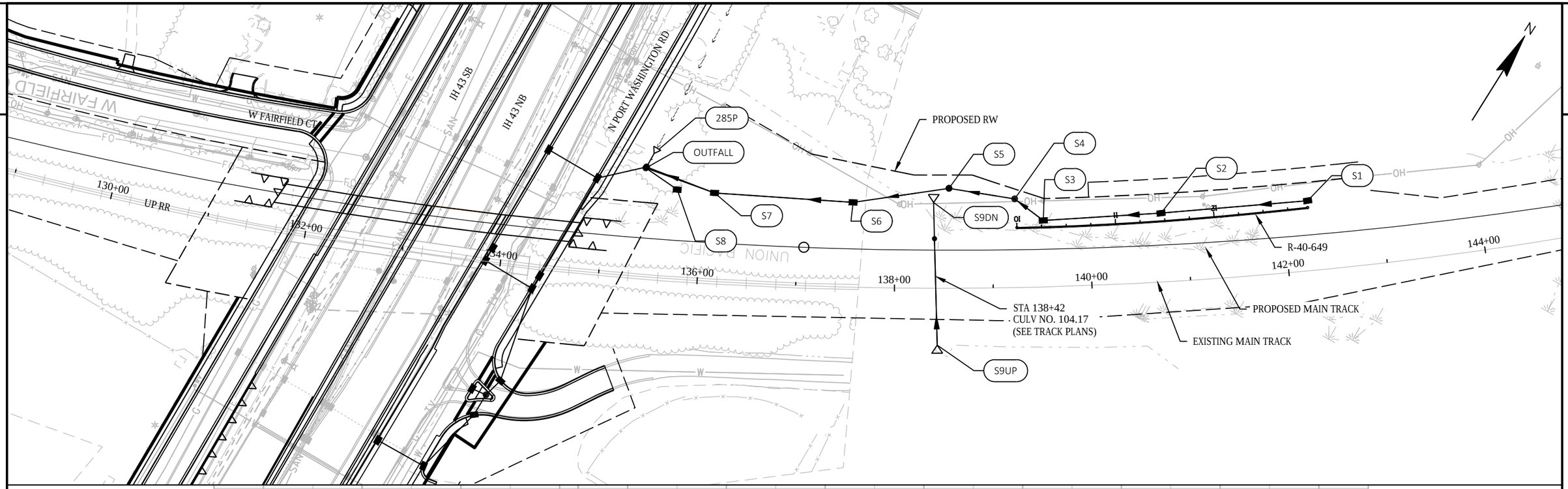
2

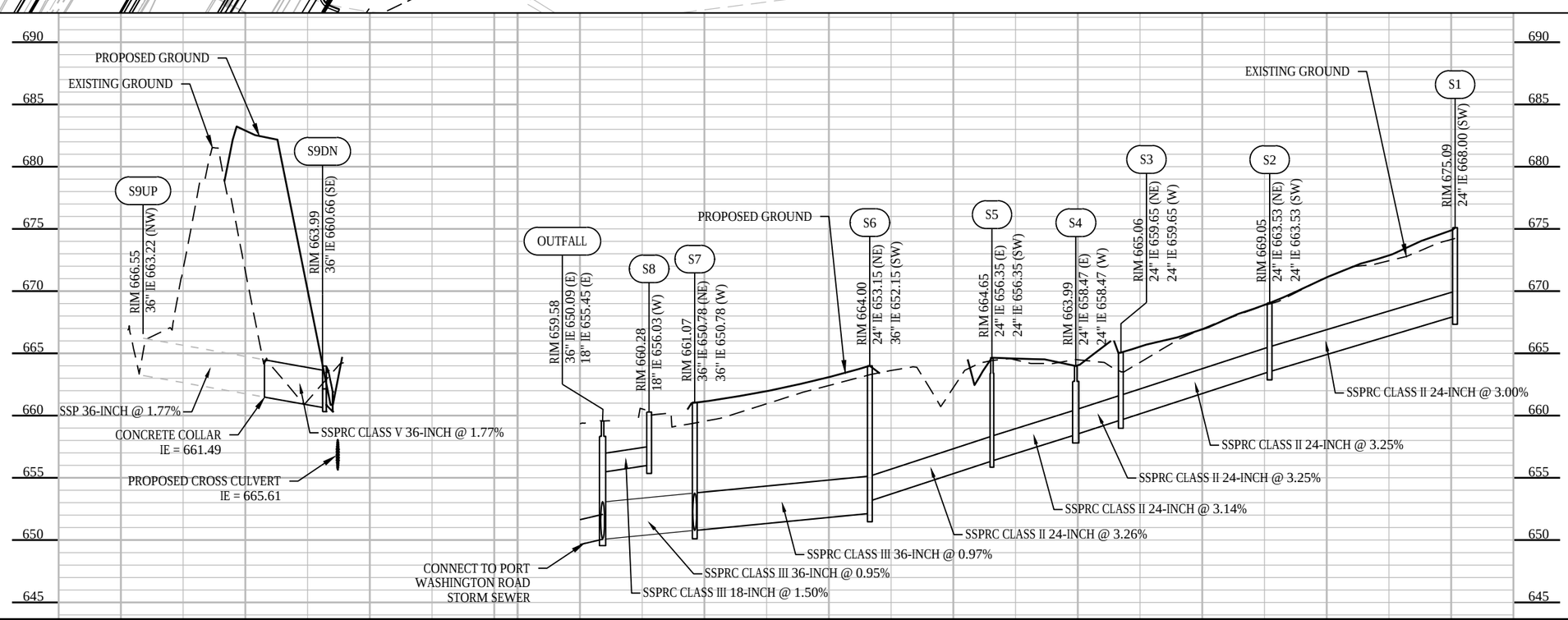




PROJECT NO: 1229-04-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN & PROFILE SIDEROAD - PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\ASZYMASZEK\GREATLAKES\D0256189\022501_SS_PW.DWG
LAYOUT NAME - _007
PLOT DATE : 9/28/2021 8:16 PM PLOT BY : ANDREW SZYMASZEK PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

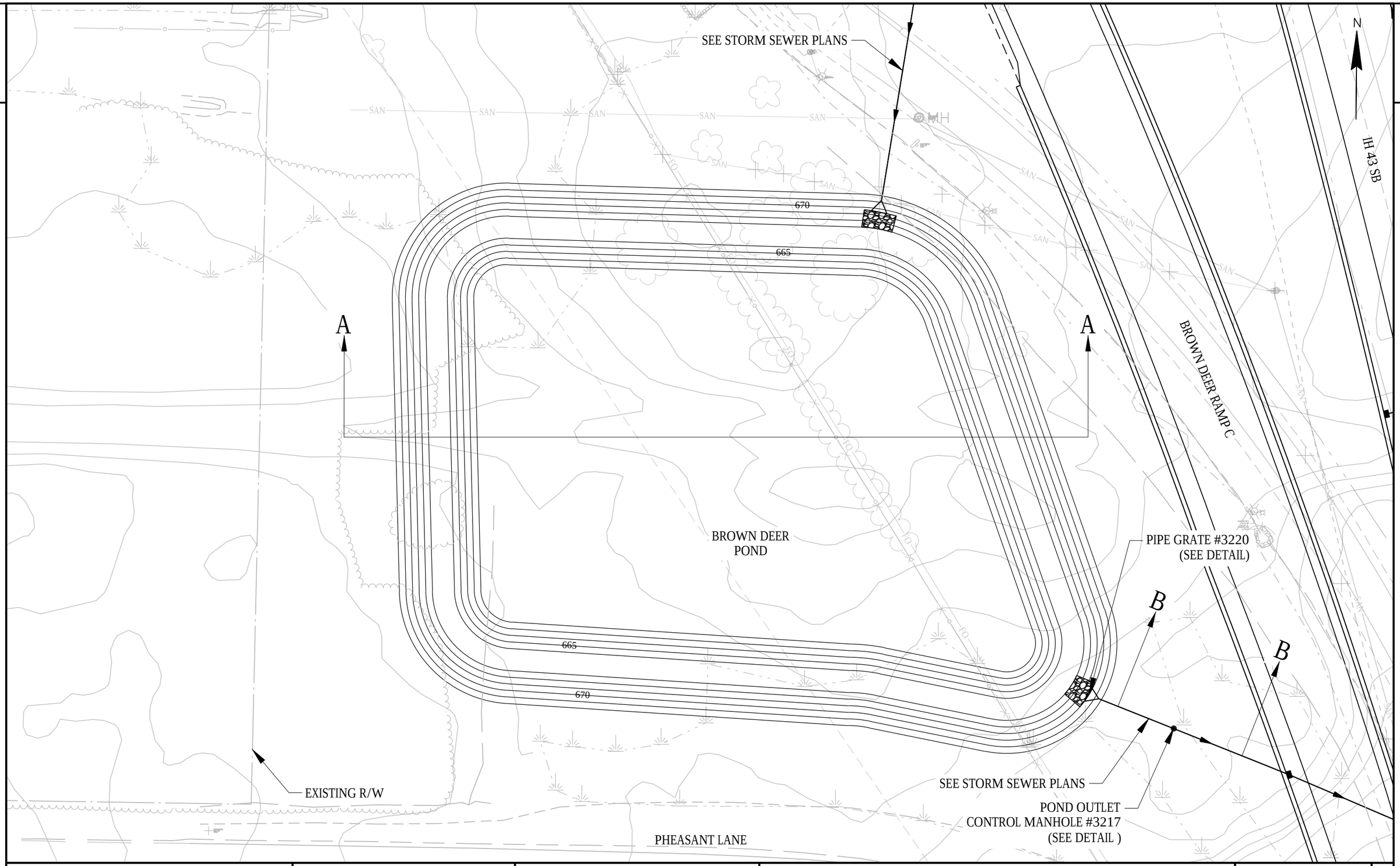




PROJECT NO: 1229-04-72	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256201\022511_SS_UPRR.DWG PLOT DATE : 9/30/2021 11:26 AM PLOT BY : ANDREW PATEK PLOT NAME :

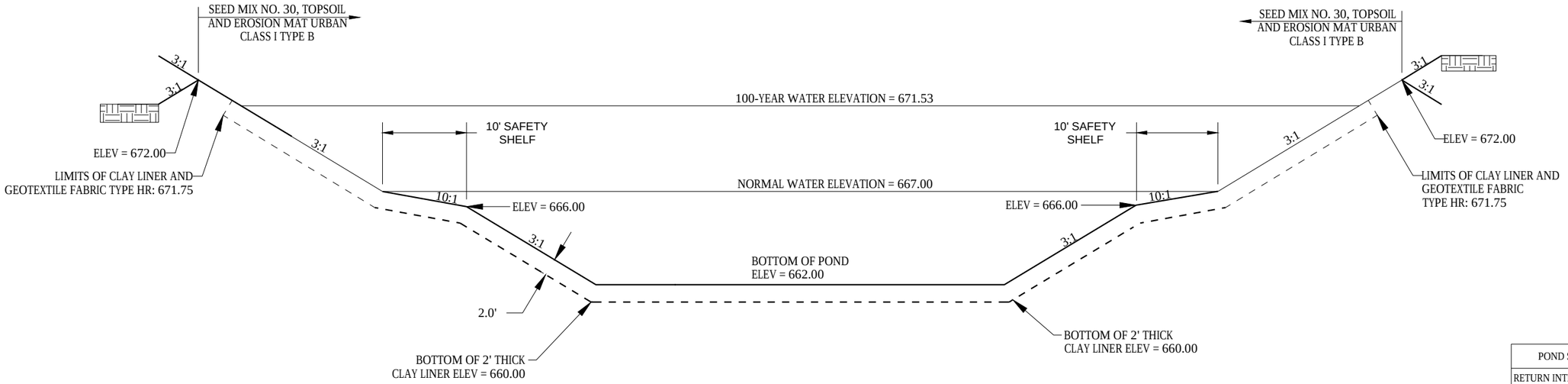
2



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORMWATER MANAGEMENT - BROWN DEER POND DETAILS	SHEET	E

FILE NAME : C:\CADDLIB\PW\APATEK\GREATLAKES\D0256213\022901_SW.DWG
LAYOUT NAME - 01_BD POND
PLOT DATE : 9/28/2021 10:10 PM
PLOT BY : ANDREW PATEK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

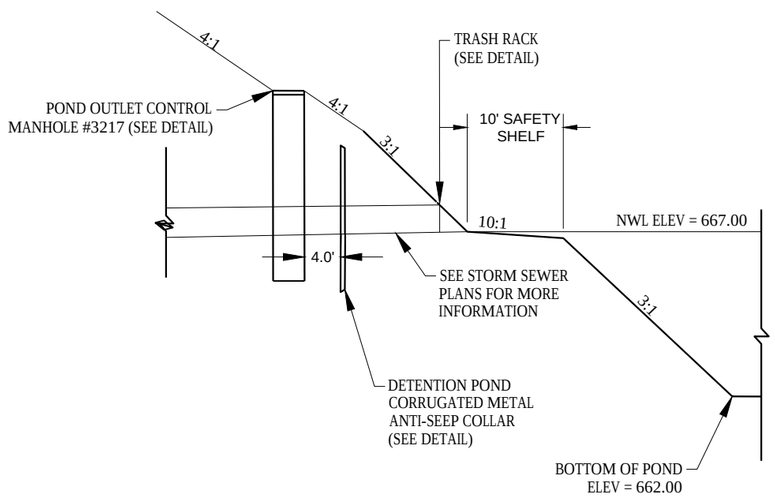
2



BROWN DEER POND
SECTION A-A

NOT TO SCALE

POND SURFACE ELEVATION	
RETURN INTERVAL	WATER ELEVATION
2-YEAR	669.21
10-YEAR	670.22
25-YEAR	670.74
50-YEAR	671.14
100-YEAR	671.53



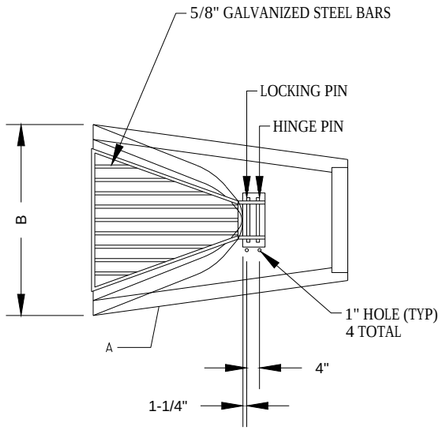
BROWN DEER POND
SECTION B -B

NOT TO SCALE

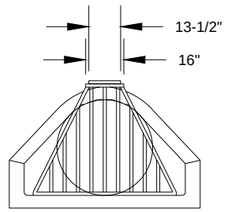
NOTES:

DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS

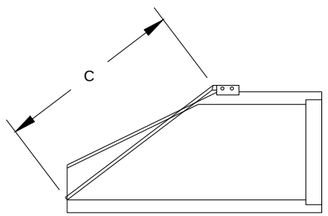
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORMWATER MANAGEMENT - BROWN DEER POND DETAILS	SHEET	E



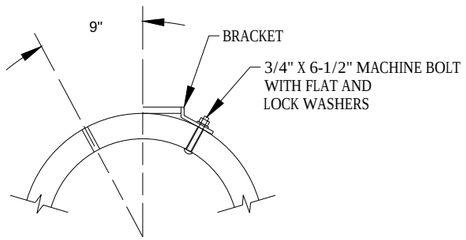
PLAN VIEW



END VIEW



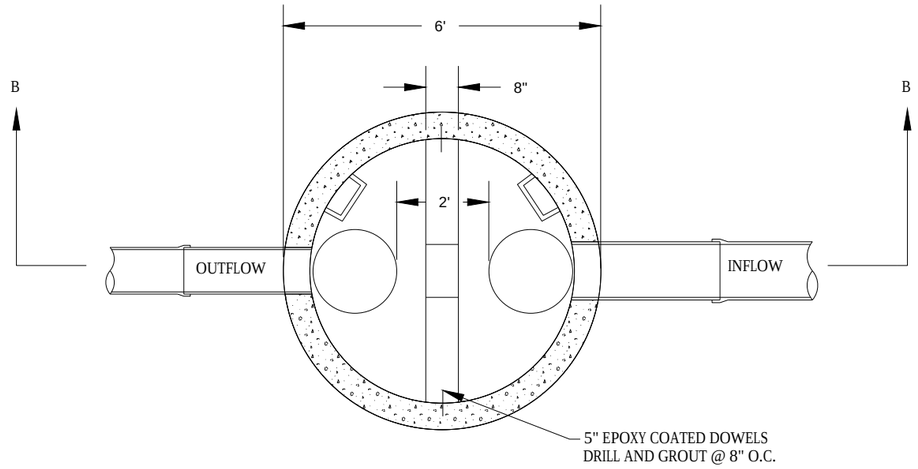
SIDE VIEW

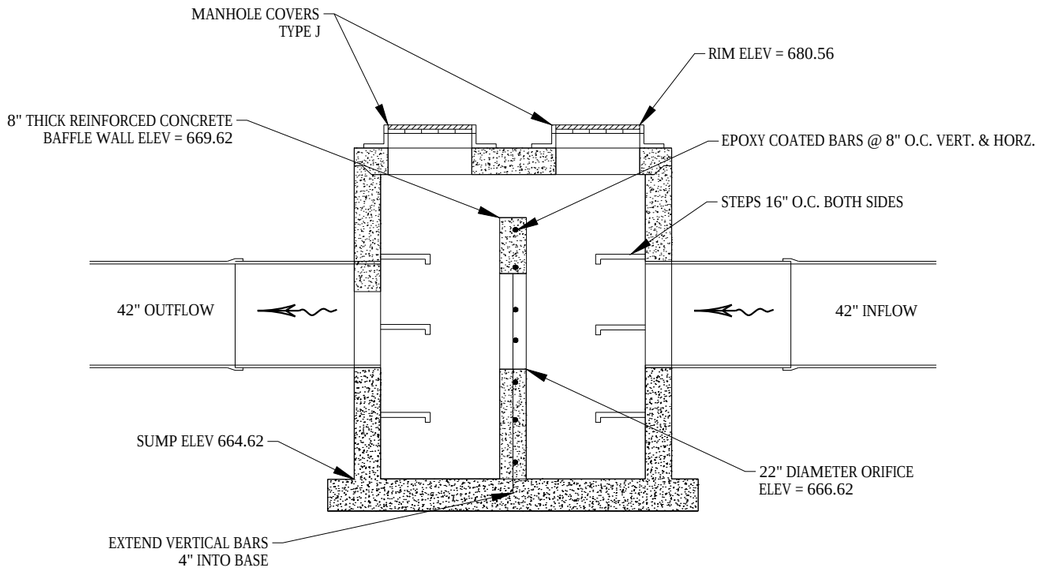


CROSS SECTION

PIPE GRATE DETAIL

NOT TO SCALE





POND OUTLET CONTROL MANHOLE
SECTION B - B

NOT TO SCALE

NOTES:

DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	STORMWATER MANAGEMENT - BROWN DEER ROAD POND DETAILS	SHEET	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N

W BENDER RD

Silver Spring Dr ½
190 Capitol Dr 2½
Locust St 4

TYPE I
BUTTERFLY SIGN BRIDGE
S-40-3034
STA. 1081+67
1229-04-73

IH-43

1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082

IH-43

EXIT 80

PP
Good Hope Rd
1 MILE

TYPE I SIGN
S-40-3033 CANTILEVER
STA. 1076+75
1229-04-73

BEGIN PROJECT
1229-04-71
STA. 1077+86.69

FRONTAGE RD
WORK PART
1229-04-71

W DEVON ST

SHEET 6 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 10/1/2021 9:32 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

TYPE I
BUTTERFLY SIGN BRIDGE
S-40-3034
STA. 1081+67
1229-04-73

IH-43

1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096

IH-43

FRONTAGE ROAD
PART OF 1229-04-71

W FAIRFIELD CT

BRENTWOOD LN

KARL CAMPUS DR

UNION PACIFIC

ATHLETIC FIELD

BRENTWOOD LN

N

SHEET 7 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 10/1/2021 9:34 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N

EXIT 78
Silver Spring Dr
1 MILE

TYPE I
S-40-3035
CANTILEVER
STA 1098+86

ACQUA RD

APPLE TREE RD

DAPHNE RD

IH-43

1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110

IH-43

CLOVERNOOK LN

APPLE TREE RD

Future Traffic Generator Sign
20'W X 12'H
S-40-3036
CANTILEVER
STA 1104+14

DAPHNE RD

2

SHEET 8 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023208_PS

PLOT DATE : 10/1/2021 9:35 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

VMS VARIABLE MESSAGE SIGN

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

N

DAPHNE RD

BLEACHERS

TENNIS COURT

ATHLETIC FIELD

ATHLETIC TRACK

BLEACHERS

ATHLETIC FIELD

BLEACHERS

IH-43

1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125

IH-43

END
1229-04-71

EXIT 80

PP

Good Hope Rd

EXIT ONLY

TYPE I
S-40-3037
CANTILEVER
1229-04-73
STA 1120+70

SHEET 9 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023209_PS

PLOT DATE : 10/1/2021 9:37 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N

W GREENTREE RD

LEFT LANE SIGNAL | CENTER LANE SIGNAL | RIGHT TURN SIGNAL

R10-10L 24"X30" | R10-10R 24"X30" | R10-10R 24"X30"

TYPE II SIGNS
S-40-3045
FULL SPAN
STA 1139GHC+25
RAMP METER
SIGNS AND SIGNALS

NEED TO ADJUST LOCATION OF FULL SPAN (COLUMN IN SHOULDER)

IH-43

1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140

IH-43

W GREENTREE RD

SHEET 10 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET E

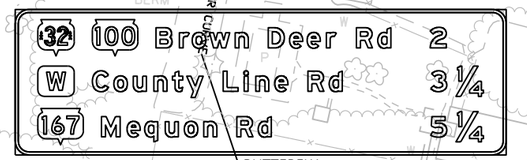
FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 10/1/2021 9:38 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

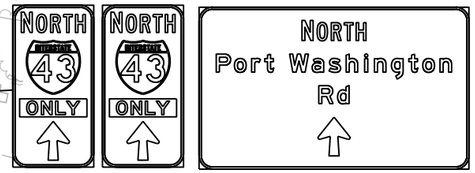
LEGEND

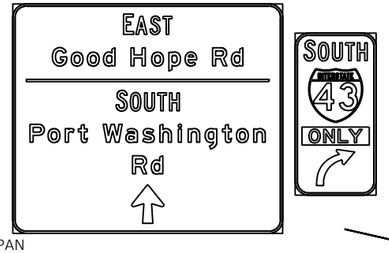
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



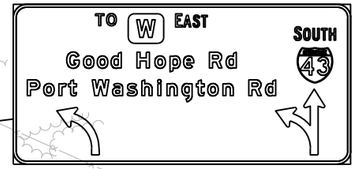
BUTTERFLY
S-40-3039
STA 1143+99

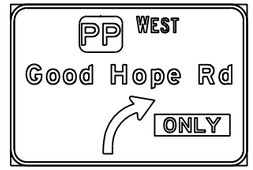
S-40-3045
ALSO
SHOWN ON
PG 5 AT STA
1138+00-ISH





FULL SPAN
TYPE I
S-40-3044
STA 22GHE+80

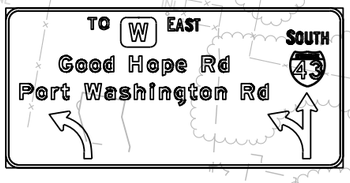


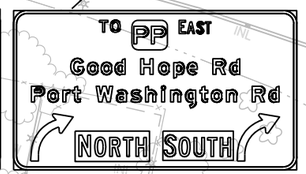


FULL SPAN
TYPE I
S-40-3040
STA 1148GHD+23

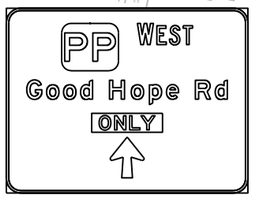
IH-43

FULL SPAN
TYPE I
S-40-3038
STA 1142GHB+26

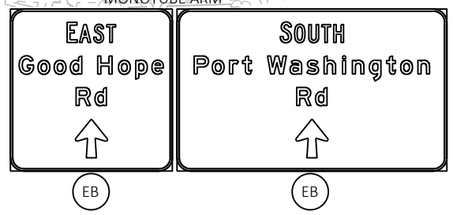




FULL SPAN
TYPE I
S-40-3041
STA 29GHW+05



SHOWN ON SIGNAL
MONOTUBE ARM



CANTILEVER
TYPE I
S-40-3043
STA 25GHE+97.5

R10-10L 24"X30" R10-10G 24"X30" R10-10R 24"X30"
TYPE II SIGNS
S-40-3046
FULL SPAN
STA 1153GHA+63

SHEET 11 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 10/1/2021 9:40 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N

EXIT 80
PP
Good Hope Rd
EXIT ONLY

S-40-3047
CANTILEVER
STA 1167+00

IH-43

1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168

IH-43

S-40-3046
SHOWN ON
PERVIOUS PAGE

SLAB

SHEET 12 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023212_PS

PLOT DATE : 10/1/2021 9:42 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

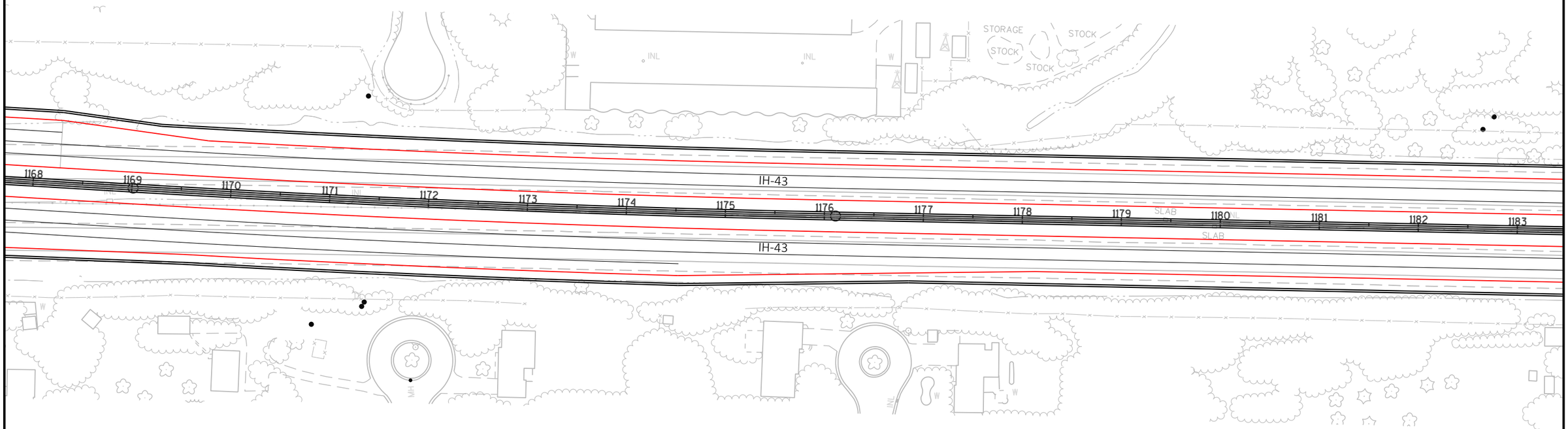
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 13 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023213_PS

PLOT DATE : 10/1/2021 9:43 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

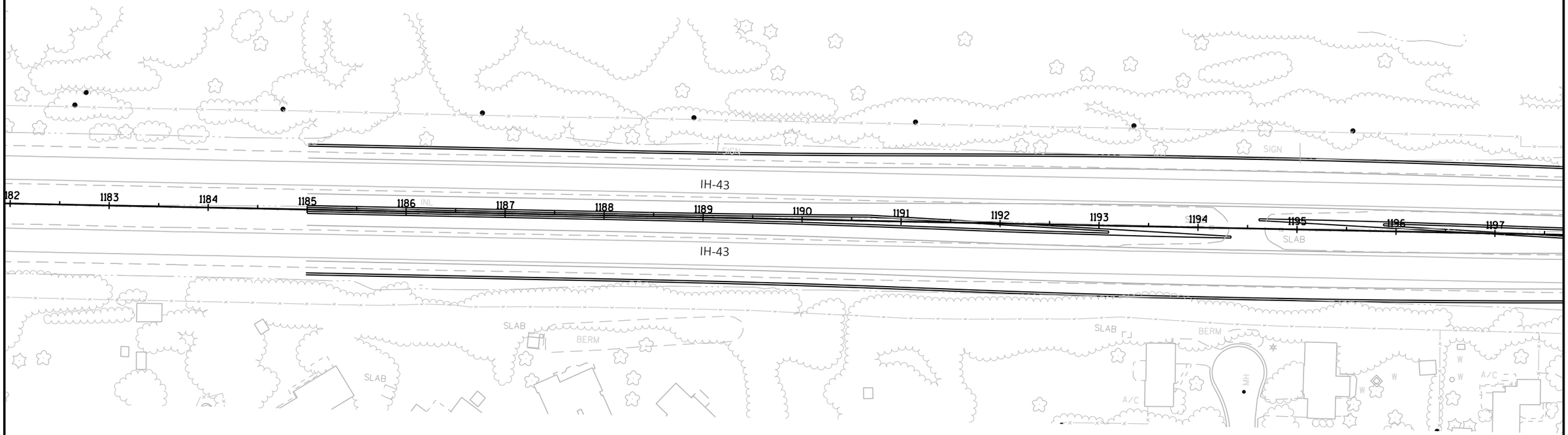
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N



BROWN DEER RD EXIT

SHEET 14 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023214_PS

PLOT DATE : 9/30/2021 4:15 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

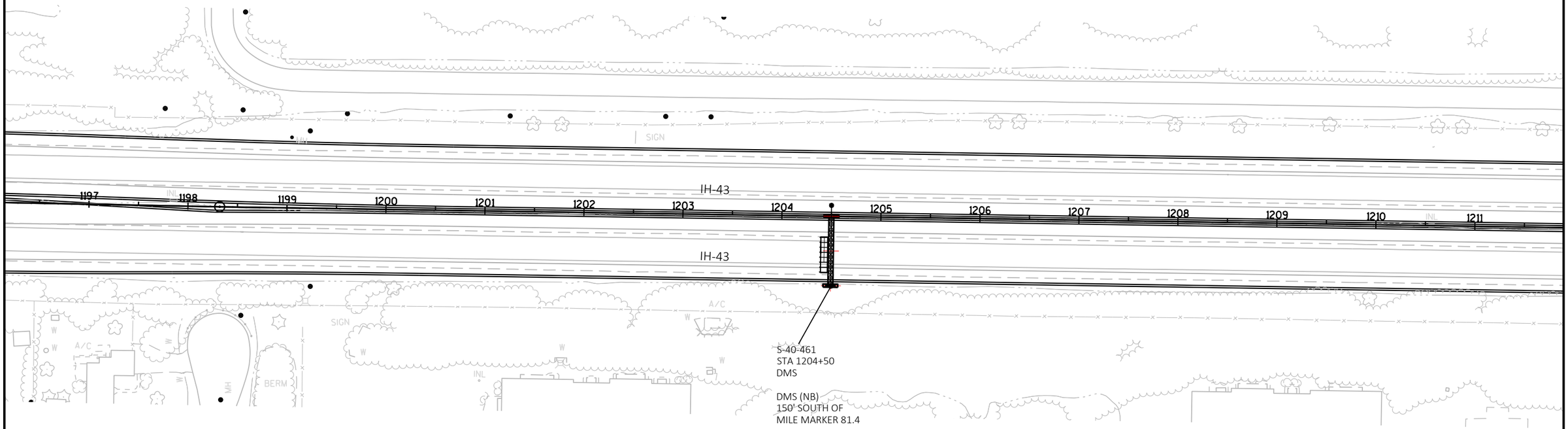
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 15 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023215_PS

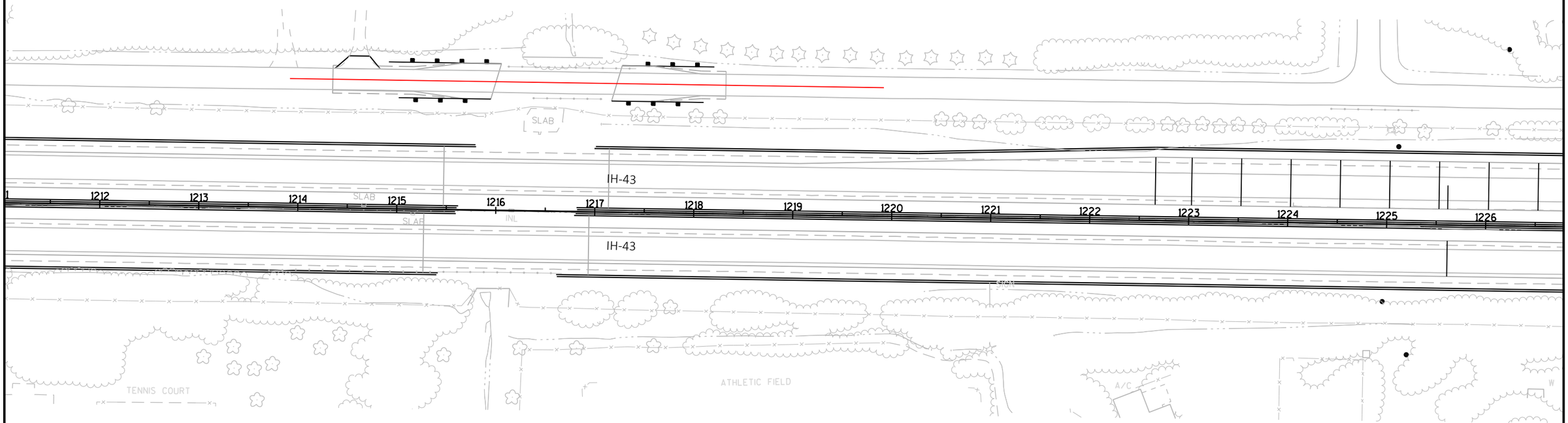
PLOT DATE : 9/30/2021 4:16 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 16 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023216_PS

PLOT DATE : 9/30/2021 4:18 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

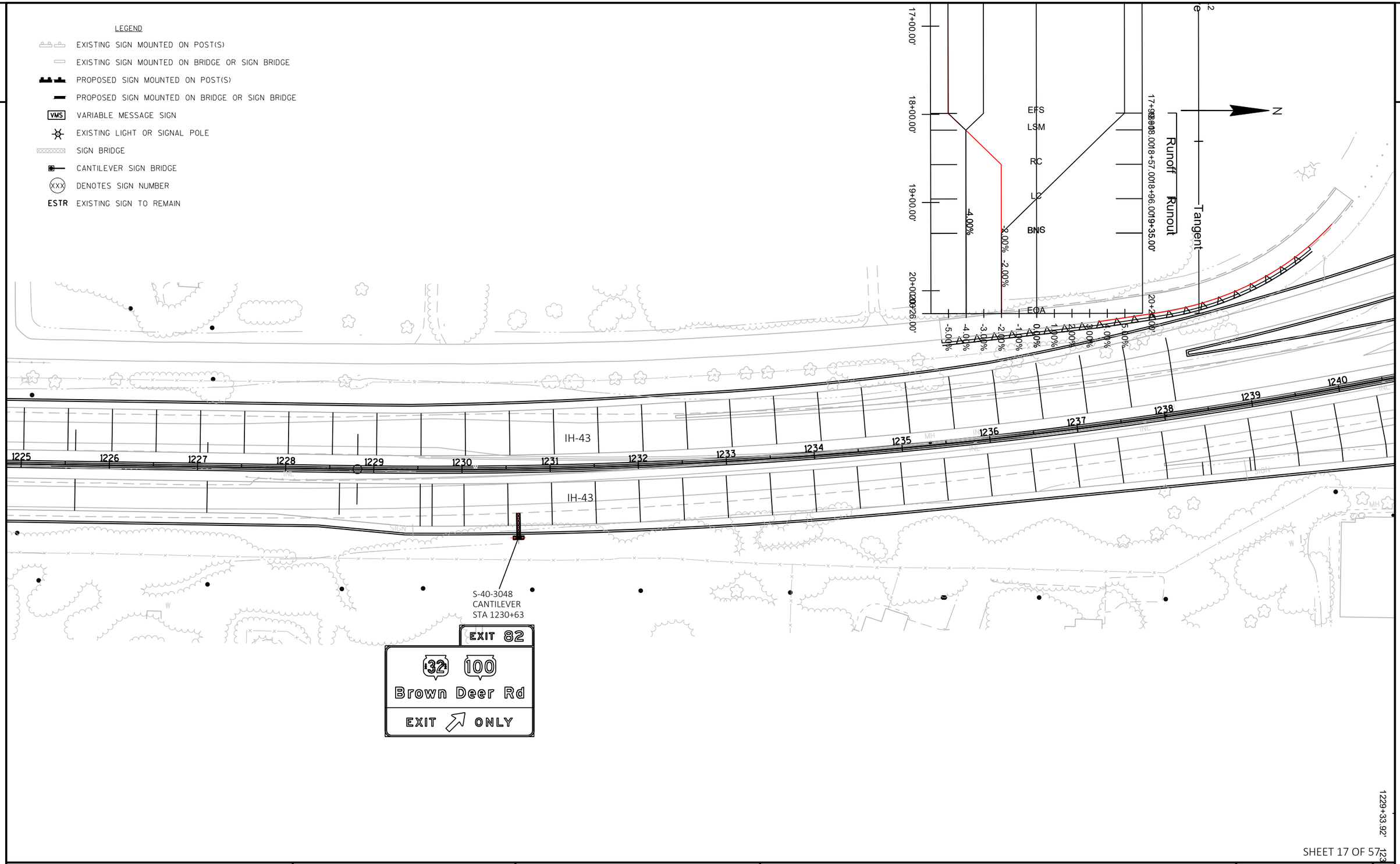
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 17 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023217_PS

PLOT DATE : 9/30/2021 4:20 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

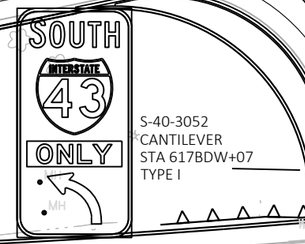
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

R10-10L 24"X30" | R10-10C 24"X30" | R10-10R 24"X30"

S-40-3050
FULL SPAN
STA 1242BDC+00
TYPE II

RAMP METER
SIGNS & SIGNALS

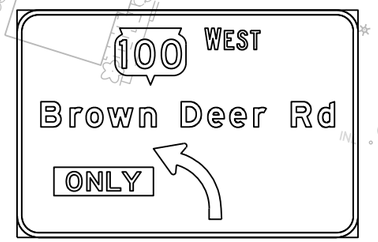
S-40-3051
FULL SPAN
STA 612BDE+79
TYPE I
(EB)



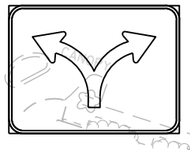
S-40-3052
CANTILEVER
STA 617BDW+07
TYPE I

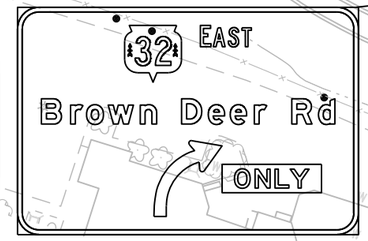
W BROWN DEER RD

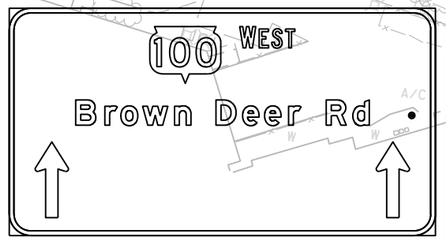
IH-43



S-40-3049
FULL SPAN
STA 1246BDB+79
TYPE I

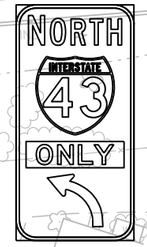






S-40-3054
FULL SPAN
STA 622BOW+98
TYPE I

S-40-3053
CANTILEVER
STA 618BDE+34
TYPE I



W BROWN DEER RD

SHEET 18 OF 57

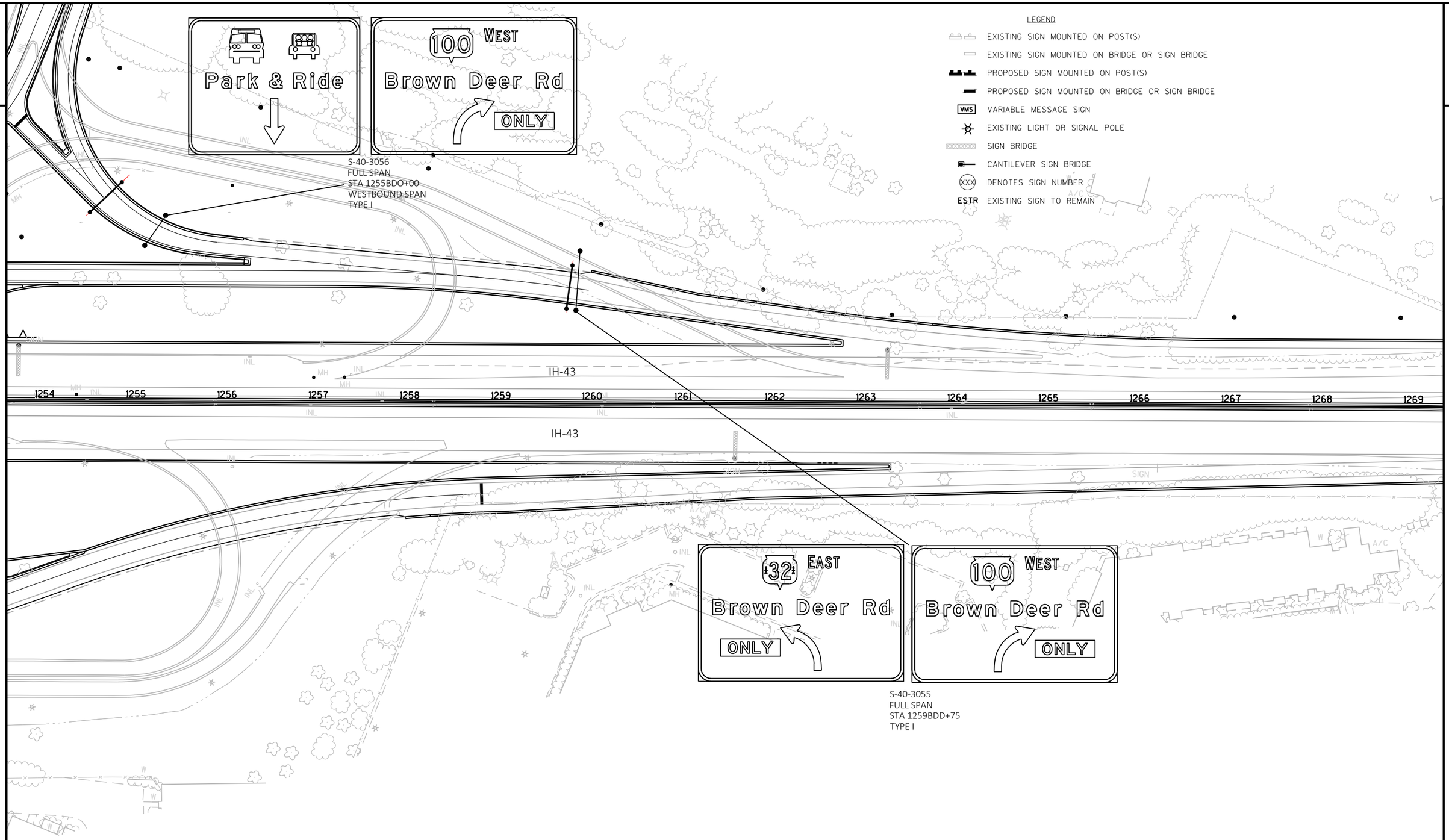
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG PLOT DATE : 10/1/2021 10:08 AM PLOT BY : WAGNER, SCOTT H PLOT NAME :

WISDOT/CADDS SHEET 42

2

2



SHEET 19 OF 57

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG PLOT DATE : 10/1/2021 10:10 AM PLOT BY : WAGNER, SCOTT H PLOT NAME :

WISDOT/CADDS SHEET 42

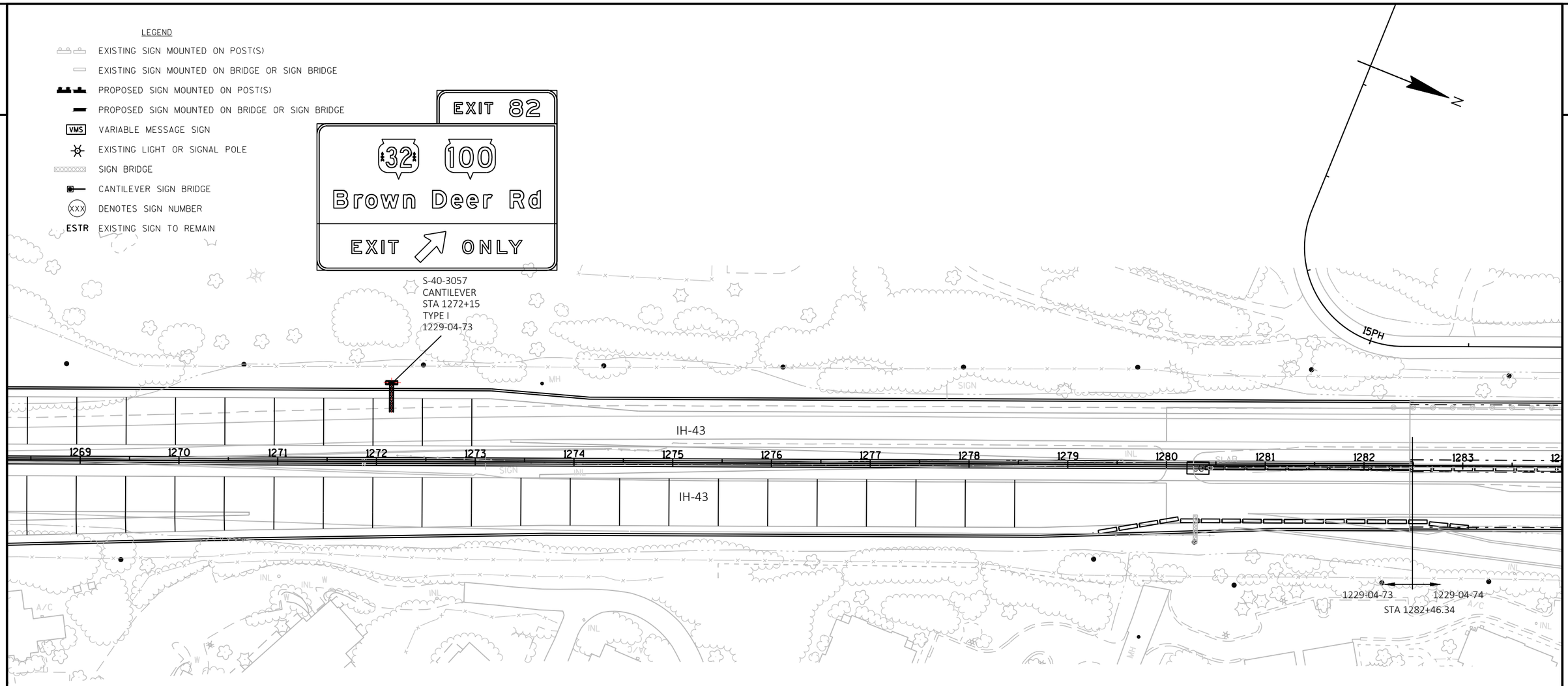
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN

S-40-3057
CANTILEVER
STA 1272+15
TYPE I
1229-04-73



SHEET 20 OF 57

PROJECT NO: 1229-04-73/74	HWY: IH 43	COUNTY: MILWAUKEE	PERMANENT SIGNING - GUIDE SIGNS	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\12290401\SIGN\023201_PS_18_GUIDESIGNS_COLOR.DWG
LAYOUT NAME - 023220_PS

PLOT DATE : 9/30/2021 4:24 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACKFEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION. THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE AND A MINIMUM OF 3 INCHES BELOW ALL PAVEMENT BASE MATERIALS. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING AT THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR SUBSEQUENT POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE RESPECTIVE CONDUCTOR(S) PAST THE LAST POLE THE PHASE WAS UTILIZED. REMOVE UNUSED CONDUCTOR(S) EXPOSED BEYOND THE CID RACEWAY IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED FOAM CONDUIT SEALANT. PROVIDE A 1/2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN THE CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	10-FT	LIGHTING CONTROL CENTERS:	10-FT
EMBEDDED JUNCTION BOXES:	3-FT	POLES:	5-FT IN AND 5-FT OUT

SIGN STRUCTURES WHICH HAVE A BASE THAT EXTENDS THE COMPLETE WIDTH OF THE MEDIAN TYPICALLY HAVE A 4" SLEEVE FOR LIGHTING.

WIRE AND CONDUIT IS LISTED IN THE MISCELLANEOUS QUANTITIES BASED UPON THE EARLIEST STAGE SHOWN. CONTRACTOR MAY INSTALL LATER WHEN LOAD NEEDS TO BE ENERGIZED.

CONDUCTOR COLORS: 120/240V, 1 PHASE - BLACK / RED / WHITE (NEUTRAL) / BARE OR GREEN (GROUND)

STAGING NOTES

MAINTAIN LIGHTING AT ALL TIMES DURING CONSTRUCTION USING EXISTING LIGHTING, PROPOSED TEMPORARY, FINAL LIGHTING OR COMBINATIONS.

DO NOT REMOVE EXISTING LIGHTING UNTIL THE NEW OR TEMPORARY LIGHTING IS OPERATIONAL. REFER TO DRAWINGS FOR STAGING INFORMATION.

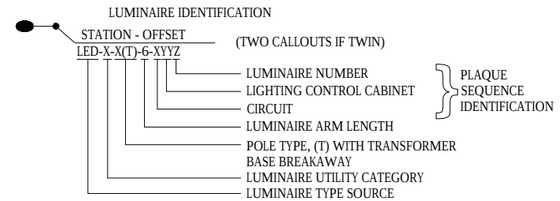
MAINTAINING SYSTEM CONTINUITY SHALL BE INCIDENTAL TO THE "REMOVE EXISTING STREET LIGHTS" BID ITEM.

DUE TO THE PHASING OF CONSTRUCTION SOME FINAL LIGHTING UNITS MAY BE ORPHANED UNTIL A LATER STAGE IS COMPLETE. IT IS AT THE DISCRETION OF THE CONTRACTOR TO SCHEDULE THESE ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE PLACEMENT OF RACEWAY THAT SPANS TWO DIFFERENT PHASES OF CONSTRUCTION. MISCELLANEOUS QUANTITIES SHOW WIRING ADDED WHEN CONDUIT IS INSTALLED. WIRING INSTALLATION MAY BE DEFERRED SUBJECT TO THE LIMITATIONS NOTED HEREIN.

TEMPORARY OR FINAL LIGHTING MUST ILLUMINATE AN AREA BEFORE EXISTING LIGHTING UNITS IN AN AREA CAN BE REMOVED. THE SCHEDULING OF REMOVAL IS AT THE DISCRETION OF THE CONTRACTOR WITH THE PROVISION THAT LIGHTING OF THE ROADWAY IS PROVIDED AT ALL TIMES. COORDINATE POLE REMOVAL WITH TRAFFIC CONTROL.

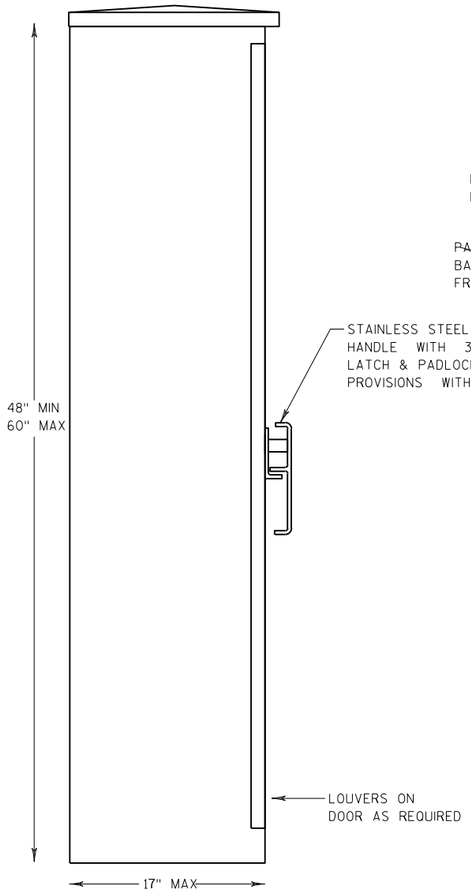
LEGEND - FINAL LIGHTING

- CABLE IN CONDUIT - 2", UNLESS NOTED IN PLAN
- PROPOSED SINGLE ARM FREEWAY LIGHTING UNIT
- EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- STUBOUT
- EX — EXISTING
- XX — DENOTES THE CONSTRUCTION STAGE FOR INSTALLTION

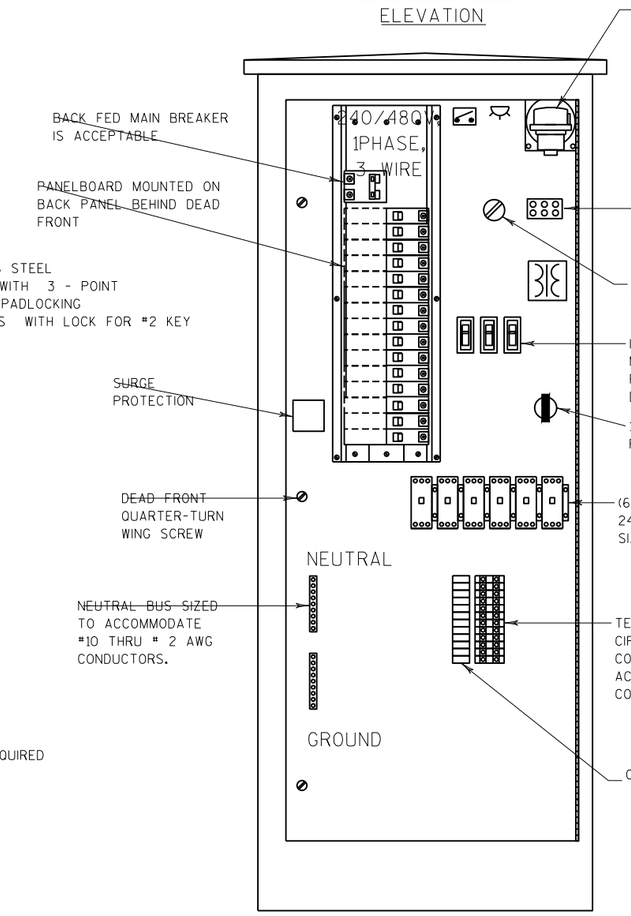


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - GENERAL NOTES	SHEET	E

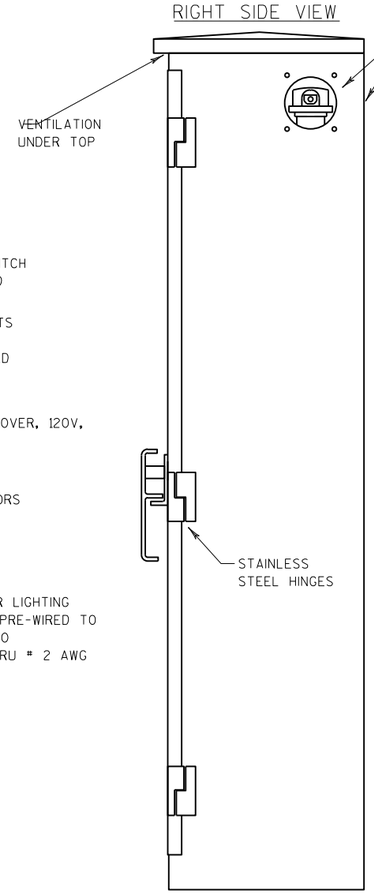
LEFT SIDE VIEW

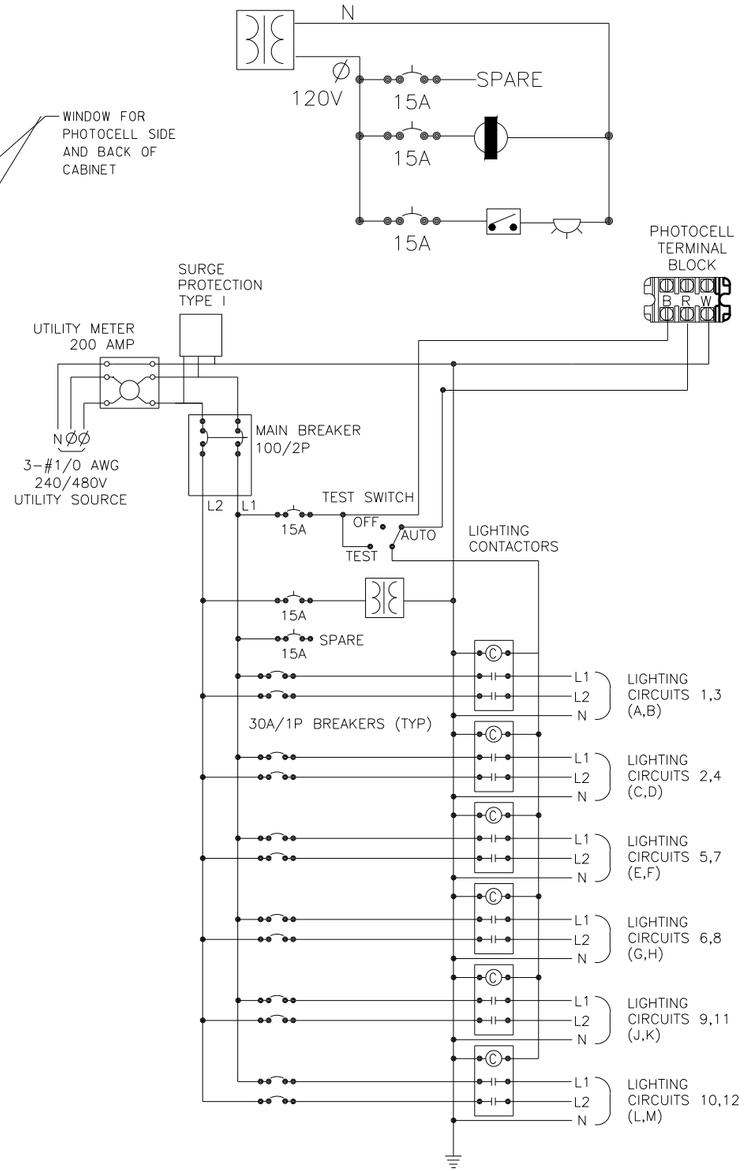


FRONT INTERIOR
ELEVATION



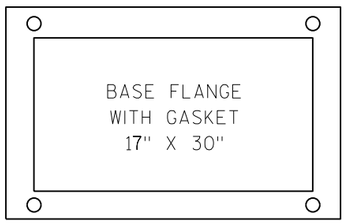
RIGHT SIDE VIEW





LEGEND:

- 15AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- 1.5KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 240//120V, 60HZ
- SPST, 20AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE 60WATT, 120V LAMP.
- 15AMP/1P CIRCUIT BREAKER, 120V



PANELBOARD:
- 30 CIRCUIT MIN.
- 100AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (2) 15A/1P CONTROL BREAKER, 240V
- (1) 15A/1P CONTROL BREAKER, 240V, SPARE
- (12) 30A/1P BRANCH BREAKERS

BOX CONSTRUCTION:
- NEMA3R
- UL LISTED
- 1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

LIGHTING CONTROL CABINET SCHEMATIC

240/480 VOLT
LIGHTING CONTROL
CABINET POV-WISDOT
240/480

DETAIL - DISTRIBUTION CENTER - DOT

240/480 VOLT LIGHTING CONTROL CABINET POV-WISDOT 240/480

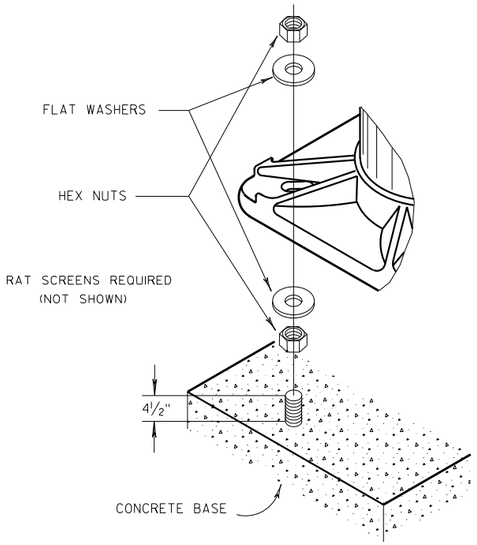
PROJECT NO: 1226-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - DETAILS	SHEET	E

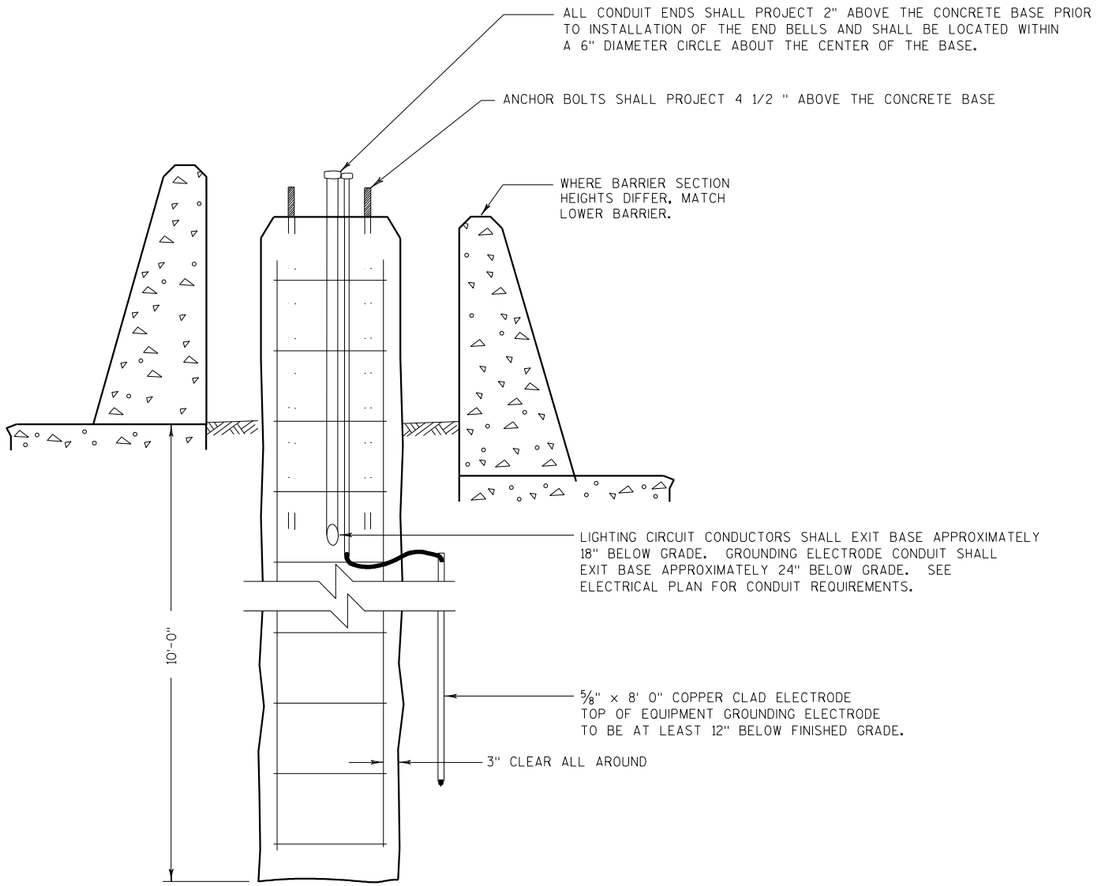
2

NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

DETAILS OF CONSTRUCTION WITH THE EXCEPTION OF HEIGHT ABOVE GRADE AND CONDUIT SIZE SHALL BE AS DEFINED IN THE STANDARD DETAIL FOR TYPE B BASE.





CONCRETE BASE, TYPE "B"

(1" ANCHOR RODS, 15" BOLT CIRCLE, 4½" PROJECTION)

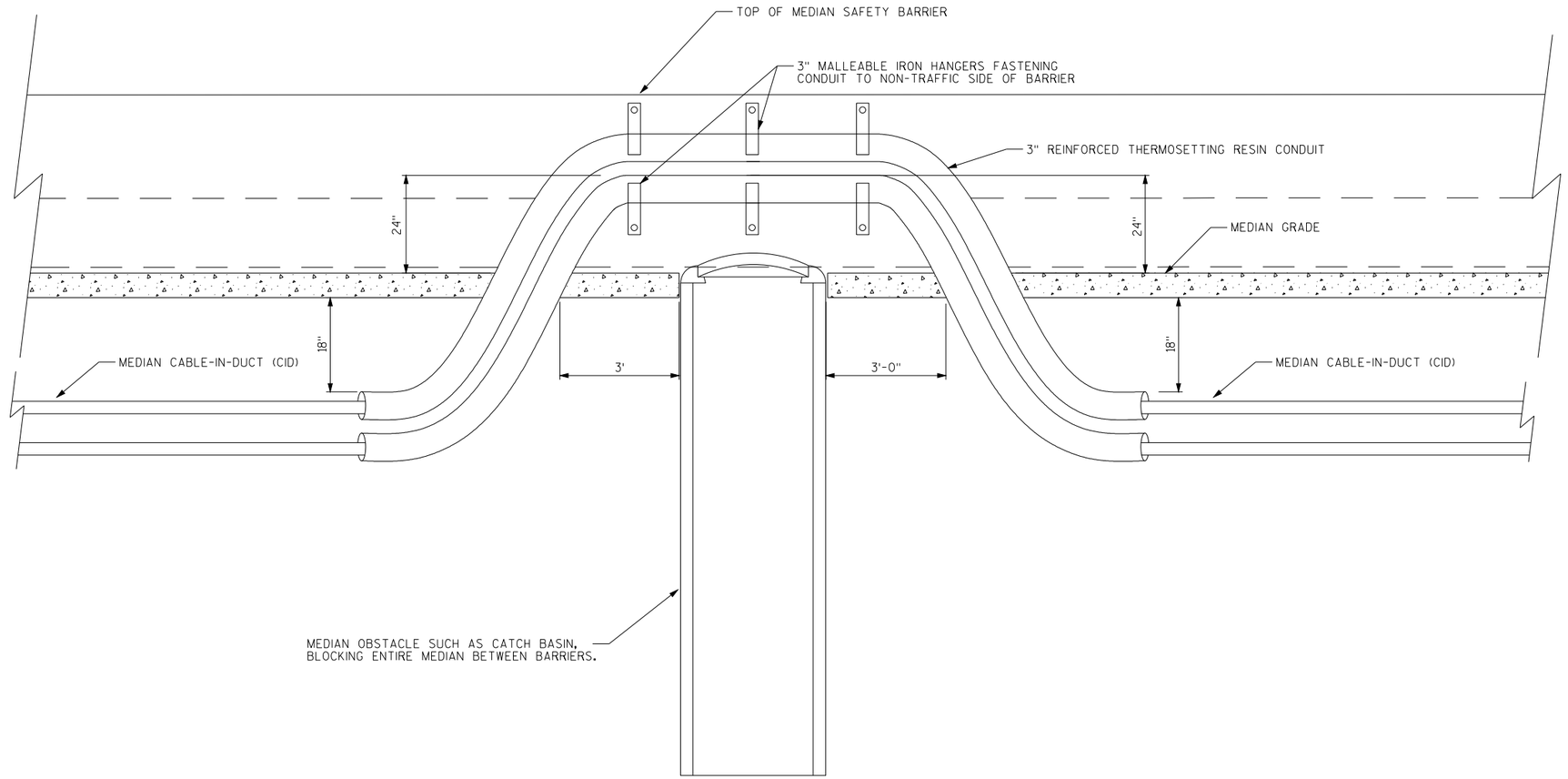
SPV. 0060.1010

PROJECT NO: 1226-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - DETAILS	SHEET	E

2

NOTE

1. PROVIDE ONLY ONE RTRC CONDUIT IF ONLY ONE CID CKT IN MEDIAN. RTRC CONDUIT IS INCIDENTAL TO THE CID.
2. ROUTE CONDUIT SIMILARLY PAST A MEDIAN OBSTRUCTION. ROUTE WITHOUT A CARRIER CONDUIT.



ROUTING OF CID PAST MEDIAN OBSTACLE

NTS

PROJECT NO: 1226-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - DETAILS	SHEET	E

GENERAL NOTES

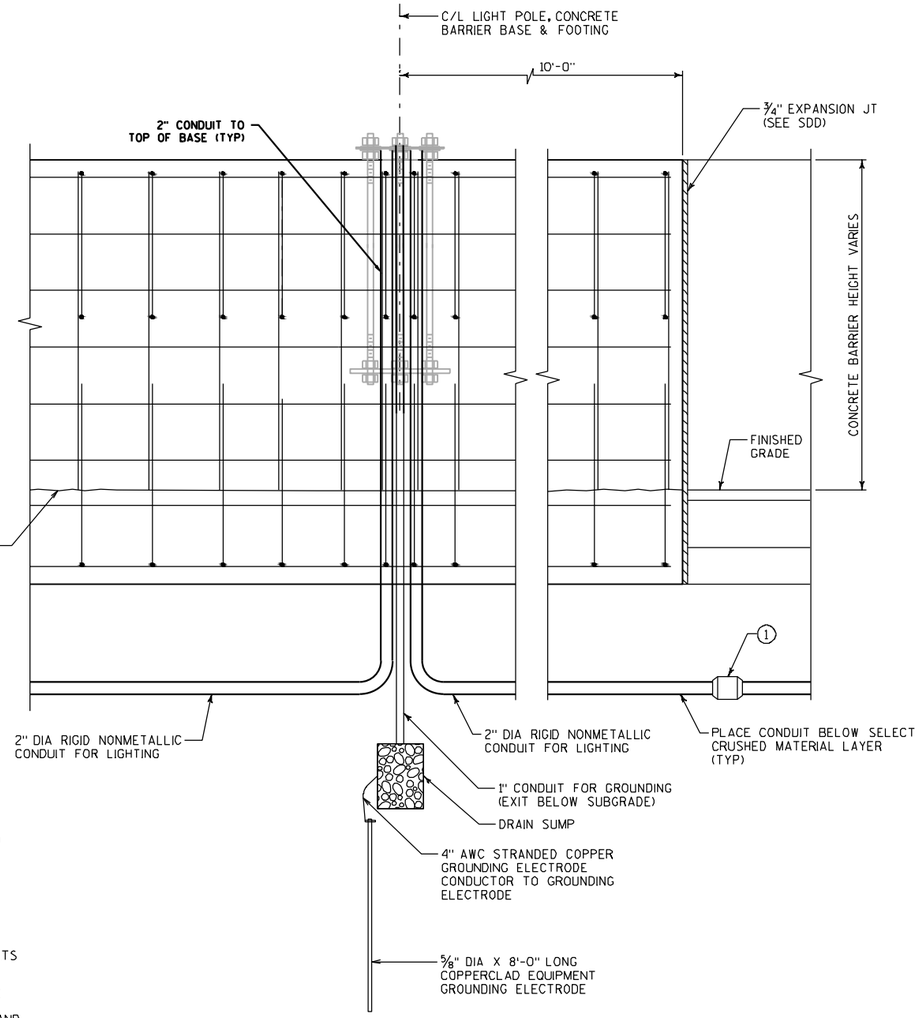
1. CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.
2. MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.
3. CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 2-INCHES, PRIOR TO INSTALLING END BELL.
4. ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN PLUGGED.
5. BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.
6. A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR ALL BASES.
7. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE IN THE JUNCTION BOXES. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS AND NEATLY COILED AND THE COIL TIED TOGETHER.
8. ANCHOR BOLTS SHALL BE THREADED 5-INCHES IN LENGTH ON EACH END OF THE BOLT UNLESS OTHERWISE NOTED. ANCHOR BOLTS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2 OF THE STANDARD SPECIFICATIONS CONFORMING TO ASTM F1554 (GRADE 105).
9. WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR BOLTS.
10. VERIFY COMPATIBILITY OF ANCHOR BOLT SIZE AND PATTERN PRIOR TO FORMING THE CONCRETE BASE.
11. ANCHOR BOLTS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL PER SECTION 5.17.5.3 AASHTO 2013 6TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
12. GALVANIZED STEEL MESH WITH ¾" STAINLESS STEEL BANDING USED FOR RODENT SCREEN REQUIRED FOR ALL POLES. MESH AND BANDING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM.
13. WELDING OF THE ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.
14. BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION). BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
15. THE DIMENSIONS OF THE CONCRETE BASES WILL VARY FROM WHAT IS SHOWN ON THIS DETAIL DEPENDING ON THE VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE NORTHBOUND AND SOUTHBOUND TRAVEL LANES. THIS DETAIL PROVIDES TYPICAL DIMENSIONS FOR THE MAJORITY OF BASES. REINFORCEMENT WILL VARY IN TRANSITION SECTIONS. MAKE FIELD ADJUSTMENTS AS REQUIRED.
16. ADDITIONAL QUANTITIES AND STAKING REQUIRED IN TRANSITION SECTIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASE MEDIAN BARRIER BID ITEM.
17. THE CONCRETE SURFACE SHALL MATCH THE PROPOSED MEDIAN BARRIER WALL FINISH.
18. ALL STEEL CONDUIT SHALL BE GROUNDED. FURNISH AND INSTALL GROUNDING BUSHING WITH LAY-IN TYPE GROUND LUG AND COPPER GROUNDING JUMPER.

FOUNDATION DATA

MINIMUM ASSUMED ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF

6 BOLT ASSEMBLY

(TYPE F POLES)



PARTIAL ELEVATION

FOR REINFORCING CALLOUTS & SPACING, SEE PLAN VIEW & SECTION CUTS

LEGEND

(1) NONMETALLIC EXPANSION FITTING 2". WRAP FITTING AND CONDUIT 9" ON BOTH SIDES OF EXPANSION JOINT. TWO WRAPS OF 1/2" SPONGE RUBBER WRAP, AASHTO M153, TYPE I OR EQUIVALENT. SECURE WITH PLASTIC TIE WRAPS. SET FITTING AT MIDPOINT OF ITS TRAVEL. FITTINGS AND WRAPS ARE INCIDENTAL TO CONDUIT. TWO EXPANSION FITTINGS PER BASE REQUIRED.

△ VERTICAL OFFSET BETWEEN ROADWAY SURFACES, SEE LIGHT POLE BASE SECTION CUTS FOR LOCATION. IF OFFSET IS NEGATIVE, SECTION CUTS SHOULD BE MIRRORED TO GET CORRECT ORIENTATION OF ROADWAY SURFACES.

ANCHOR ASSEMBLY LIGHT POLE STRUCTURES

CONCRETE BARRIER TYPE S42, S42A, S56, S56A LIGHT POLE BASE

2

N

W. BENDER RD.

EX-AFS4

1073+78.72,59.54' LT
EX-BFS3

IH 43 SB

1076+48.51,59.06' LT
EX-AFS3
(SEE NOTE 1)

1073+72.00,59.40' RT
EX-DFS3

IH 43 NB

1076+42.63,59.39' RT
EX-CFS3
(SEE NOTE 1)

EX-CFS4

2"C , IN PARAPET

SEE NOTE 1

R-40-636

N. JEAN NICOLET RD.

1079+20.00,0.65' LT
LED D - F-4-DFS12

1081+91.94,0.71' LT
LED D - F-4-CFS11

1084+34.40,1.01' LT
LED - D - A(T)-4-DFS10

1079+20.00,0.65' LT
LED D - F - 4-CFS12

1081+91.94,0.71' LT
LED - D - F-4-DFS11

1084+34.40,1.01' LT
LED D - A(T)-4-CFS10

SEE NOTE 1

2"C, IN PARAPET

R-40-637

W. PORT WASHINGTON RD.

MATCHLINE STA 1084+75

NOTE:
1. RECONNECT PROPOSED CONDUIT IN PARAPET TO EXISTING CONDUIT IN BRIDGE PARAPET. SEE STRUCTURAL PLAN FOR DETAIL.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-1

PLOT DATE : 9/29/2021 10:19 AM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

2"C , IN PARAPET

1087+23.76,72.22' LT
LPB-FS-01
R-40-636

1087+53.55,70.82' LT
HL-40-FS

UPRR

W. FAIRFIELD CT.

W. BRENTWOOD LN.

N. JEAN NICOLET RD.

MATCHLINE STA 1084+75

1086+86.41,0.07' RT
LED D - A(T)-4-CFS9

1087+23.05,1.31' LT
LPB-FS-02

2'-3"

1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098

1089+58.81,0.50' LT
LED D - A(T)-4-EFS1

IH 43 SB

1091+98.64,0.00'
LED D - A(T)-4-FFS2

1094+58.33,0.00'
LED D - A(T)-4-EFS3

1097+17.49,0.00'
LED D - A(T)-4-FFS4

1086+86.41,0.07' RT
LED D - A(T)-4-DFS9

2'-3"

1089+58.81,0.50' LT
LED D - A(T)-4-FFS1

IH 43 NB

1091+98.64,0.00'
LED D - A(T)-4-EFS2

1094+58.33,0.00'
LED D - A(T)-4-FFS3

1097+17.49,0.00'
LED D - A(T)-4-EFS4

MATCHLINE STA 1098+50

R-40-637

1086+41.94,66.07' RT
LPB-FS-03

2"C, IN PARAPET

W. PORT WASHINGTON RD.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-2

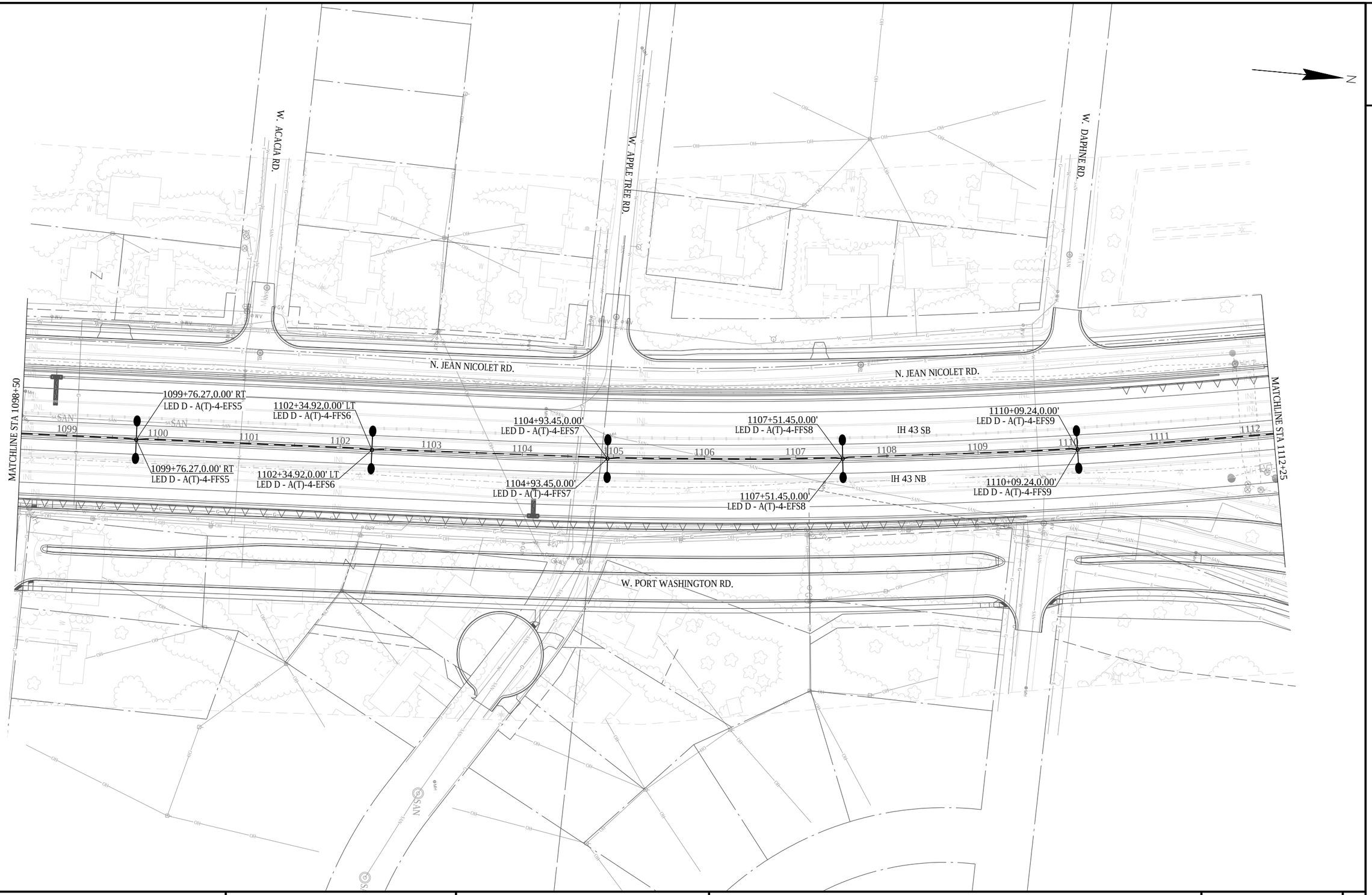
PLOT DATE : 9/29/2021 10:19 AM

PLOT BY : KIAN K. CHAI

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

2

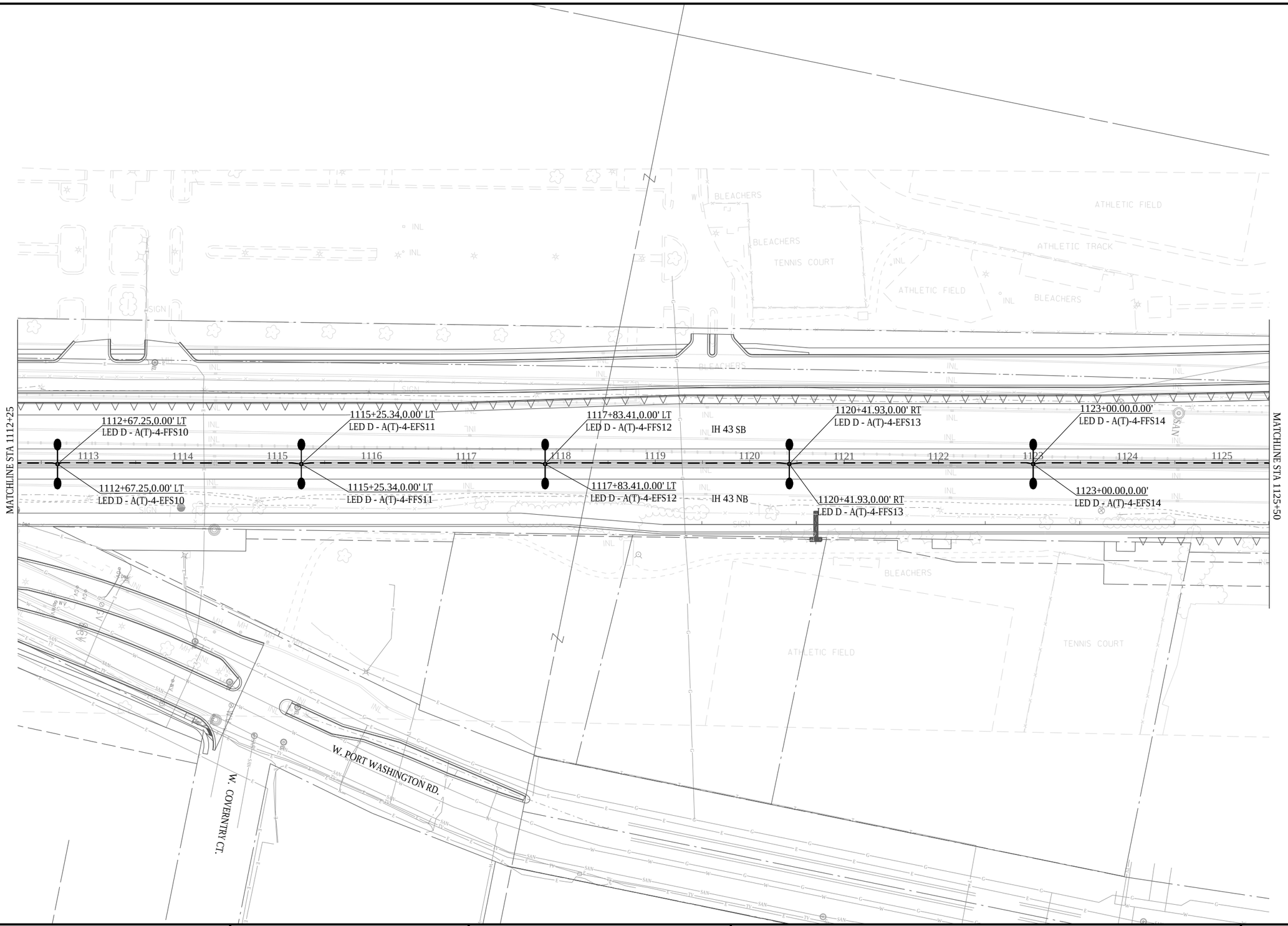


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-3

PLOT DATE : 9/29/2021 10:20 AM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1228-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-4

PLOT DATE : 9/29/2021 10:20 AM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE STA 1125+50

MATCHLINE STA 1140+75

1125+58

1126

1126GHB

1126GHC

1127

1128

1128+16

1128GHB

1128GHC

1129

1130

1130GHB

1130GHC

1130+74

1131

1132

1132GHB

1132GHC

1133

1133+32

1133+50, 20.0' RT

1134

1134+00, 24.5' LT

1134GHB

1134GHC

1135

1135+02, 24.2' RT

1135+49, 30.0' LT

1135+91

1136

1136GHB

1136GHC

1136+57, 30.5' RT

1137

1137+00, 35.7' LT

1138

1138GHB

1138GHC

1138+22, 43.8' RT

1138+48

1138+51, 40.9' LT

1139

1139+72, 54' RT

1140

1140GHB

1140GHC

1140+34, 41' LT

IH 43 SB

IH 43 NB

W GREEN TREE RD

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023601-lp

PLOT DATE : 9/29/2021 2:21 PM

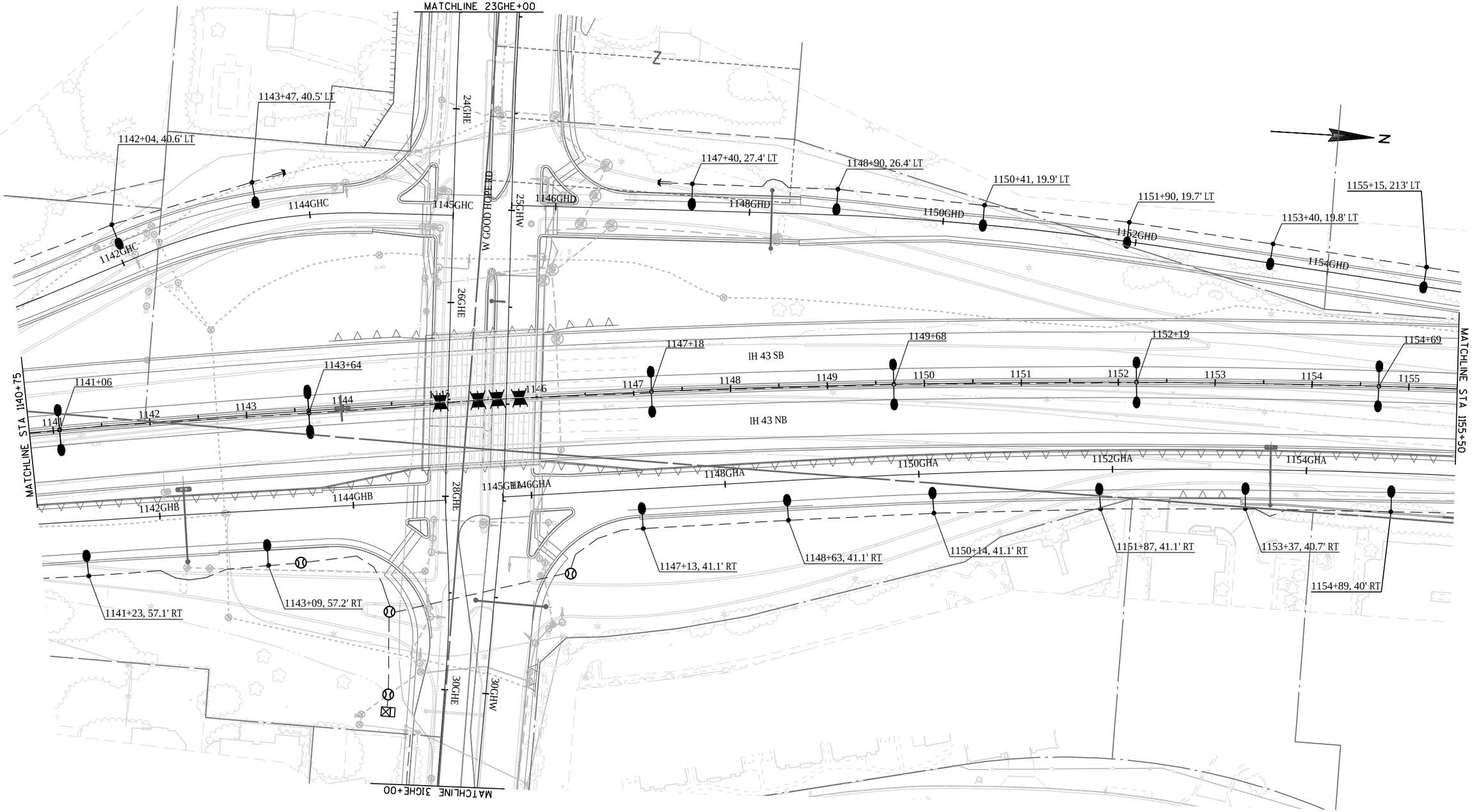
PLOT BY : WILLIAM NEAVE

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - GOOD HOPE INTERCHANGE	SHEET	E

2

N

1156+51, 20.2' LT
1158+01, 20.1' LT
1159+51, 20.3' LT
1156GHD
1158GHD
1160GHD
1162GHD
1164GHD
1166GHD
1168GHD
1157+19
1159+69
1162+19
1164+69
1167+19
1169+69
IH 43 SB
IH 43 NB
MATCHLINE STA 1155+50
1156
1157
1158
1159
1160
1161
1162
1163
1164
1165
1166
1167
1168
1169
1170
MATCHLINE STA 1170+30
1156GHA
1158GHA
1160GHA
1162GHA
1164GHA
1166GHA
1168GHA
1170GHA
1156+55, 35.0' RT
1158+07, 27.4' RT
1159+57, 20.1' RT
1161+07, 20.1' RT

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023603-lp
PLOT DATE : 9/29/2021 2:23 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE STA 1170+30

1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185

1172+19 1174+69 1177+19 1179+69 1182+19 1184+69

IH 43 SB

IH 43 NB

1172GHA 1174GHA 1174GHA

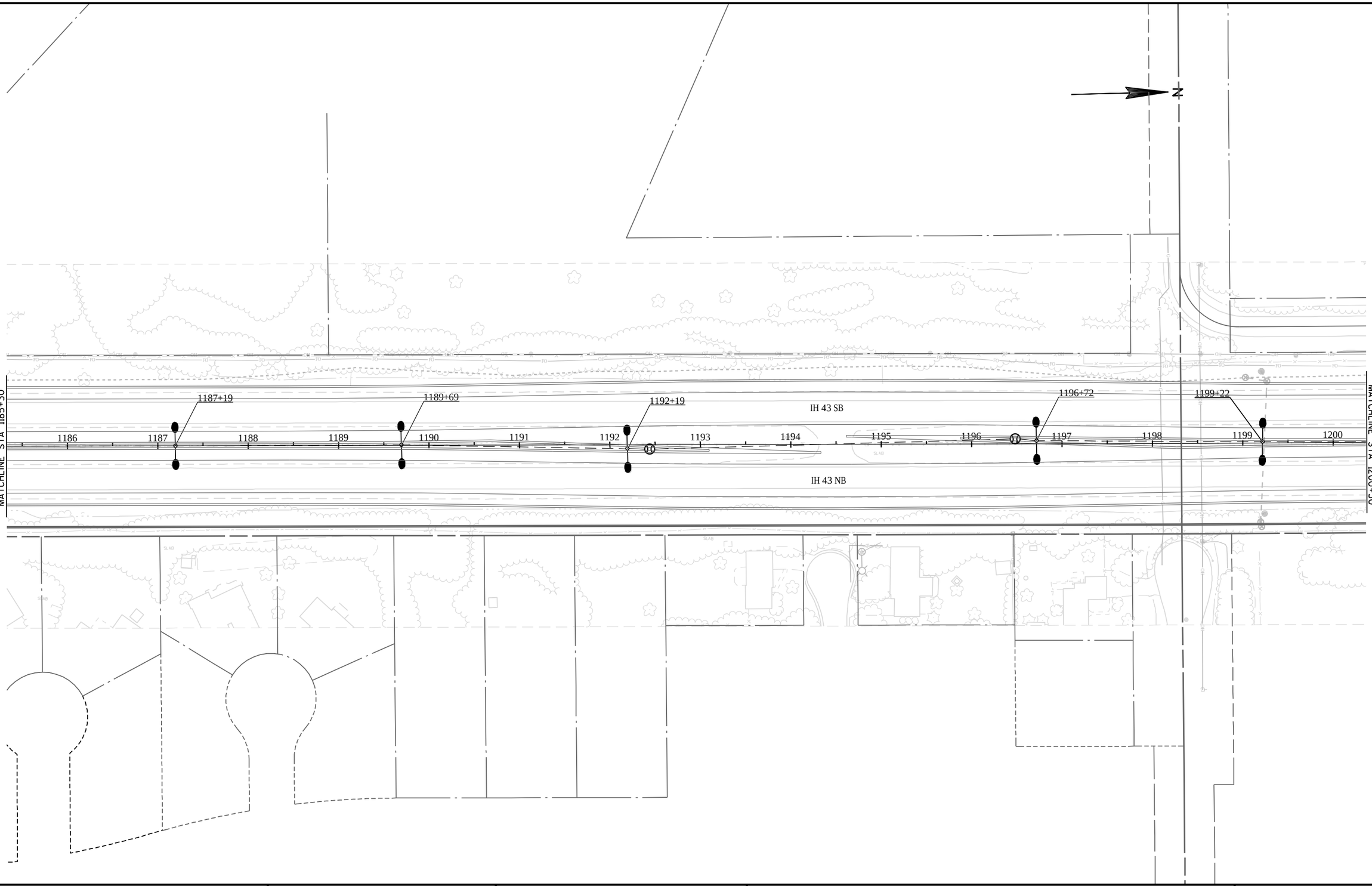
MATCHLINE STA 1185+30

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023604-lp

PLOT DATE : 9/29/2021 2:24 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023605-lp

PLOT DATE : 9/29/2021 2:24 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

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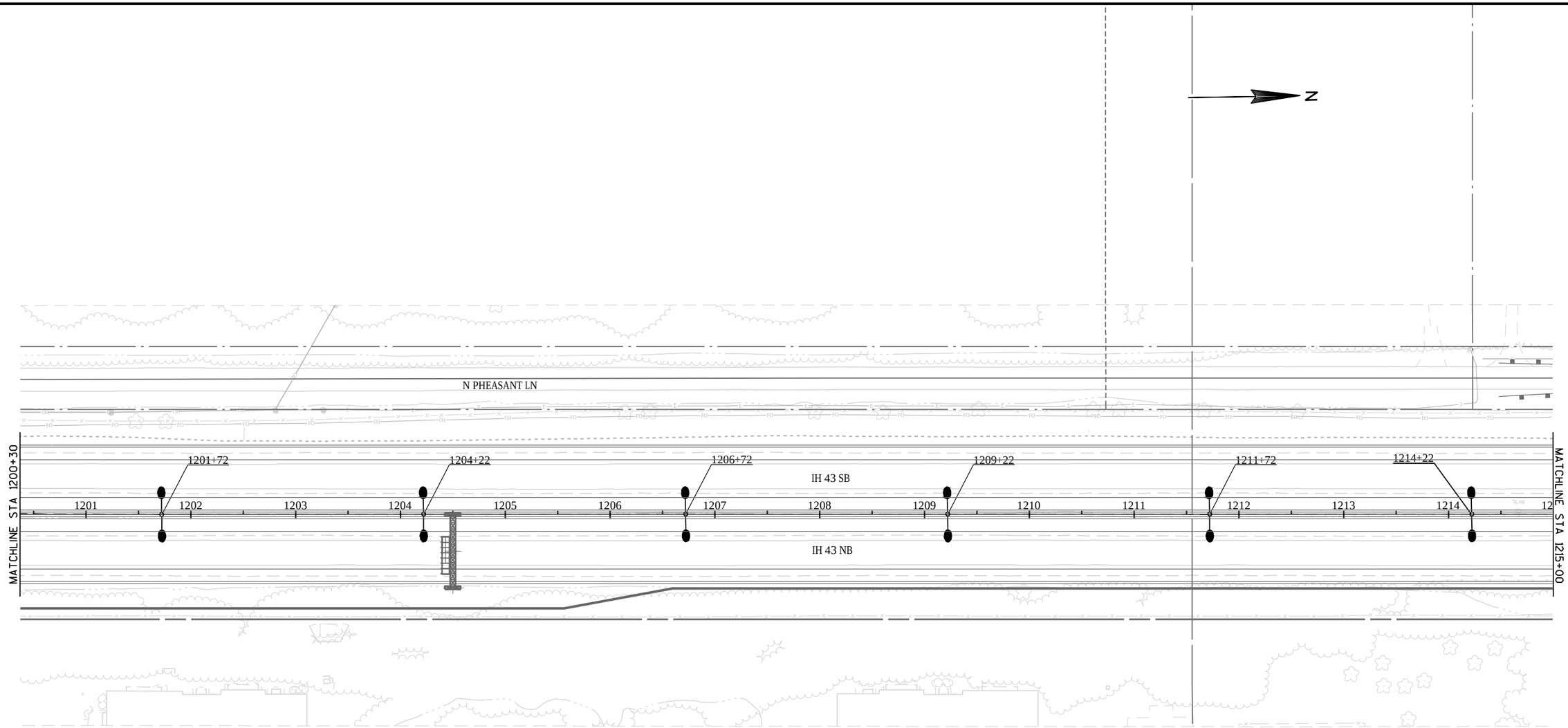


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023606-lp

PLOT DATE : 9/29/2021 2:25 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

N PHEASANT LN

MATCHLINE STA 1215+00

MATCHLINE STA 1229+50

1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229

1217+40 1219+90 1222+40 1225+21 1227+71

IH 43 SB

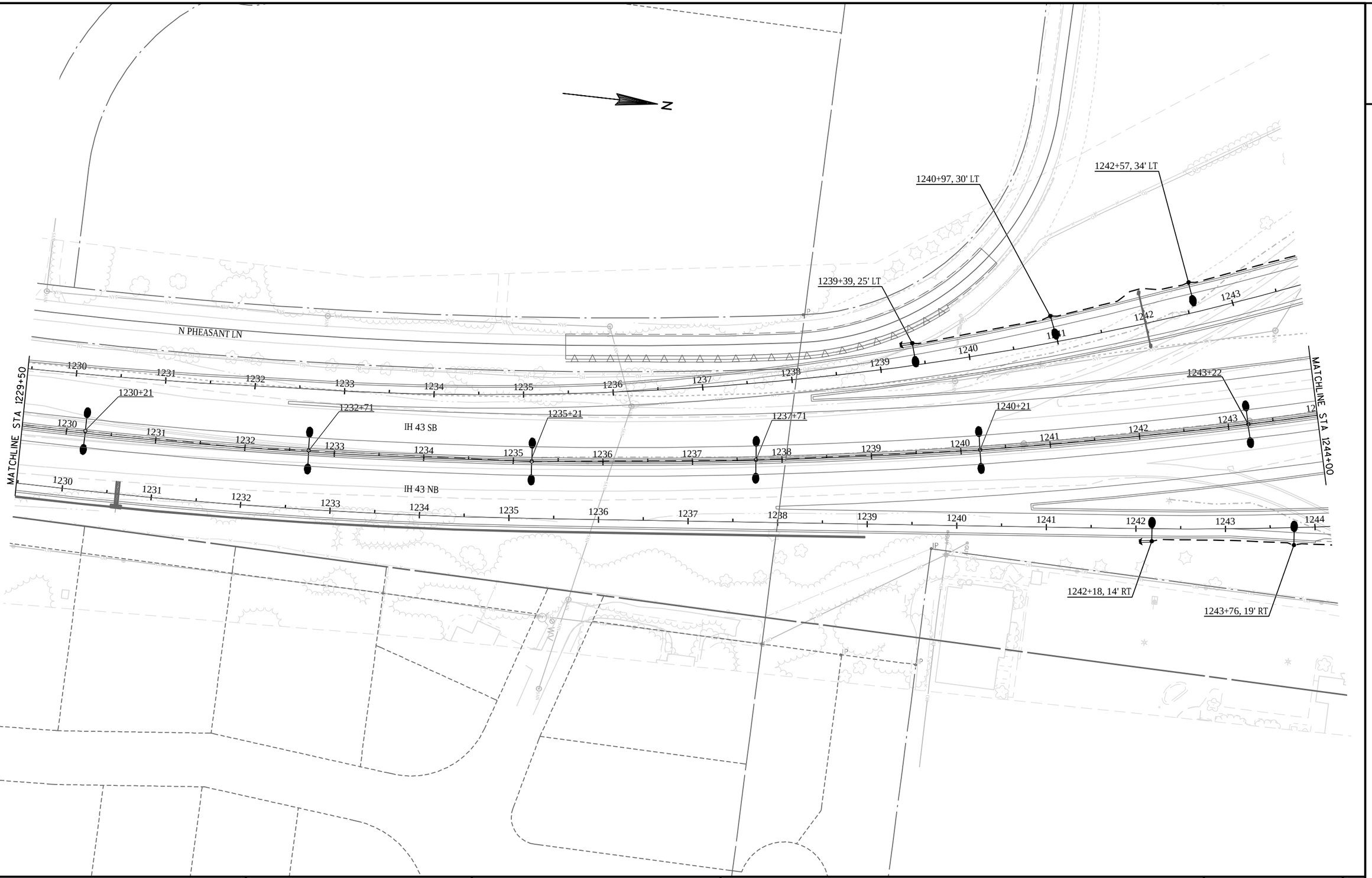
IH 43 NB

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023607-lp

PLOT DATE : 9/29/2021 2:26 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



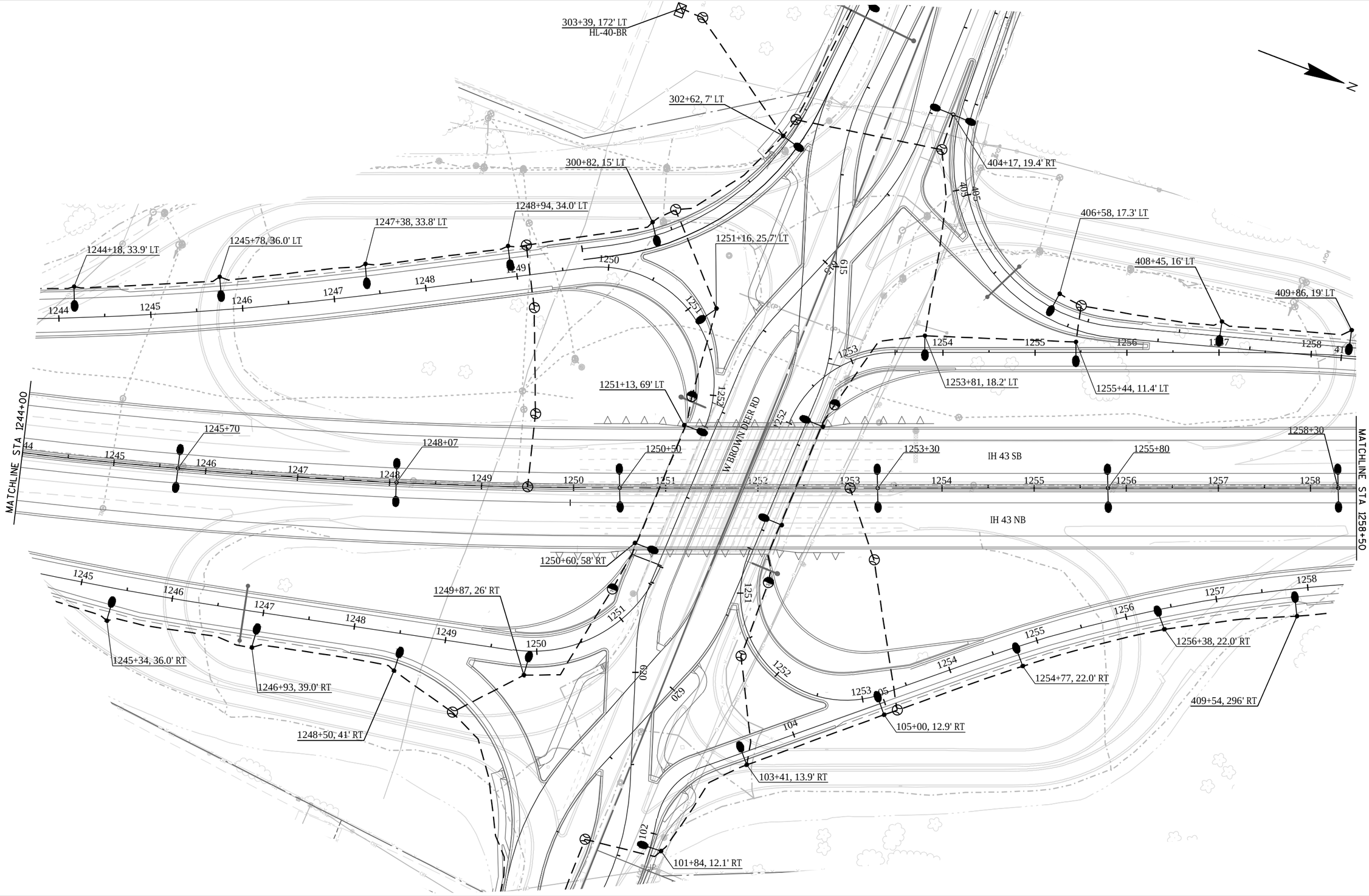
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023608-lp

PLOT DATE : 9/29/2021 2:27 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

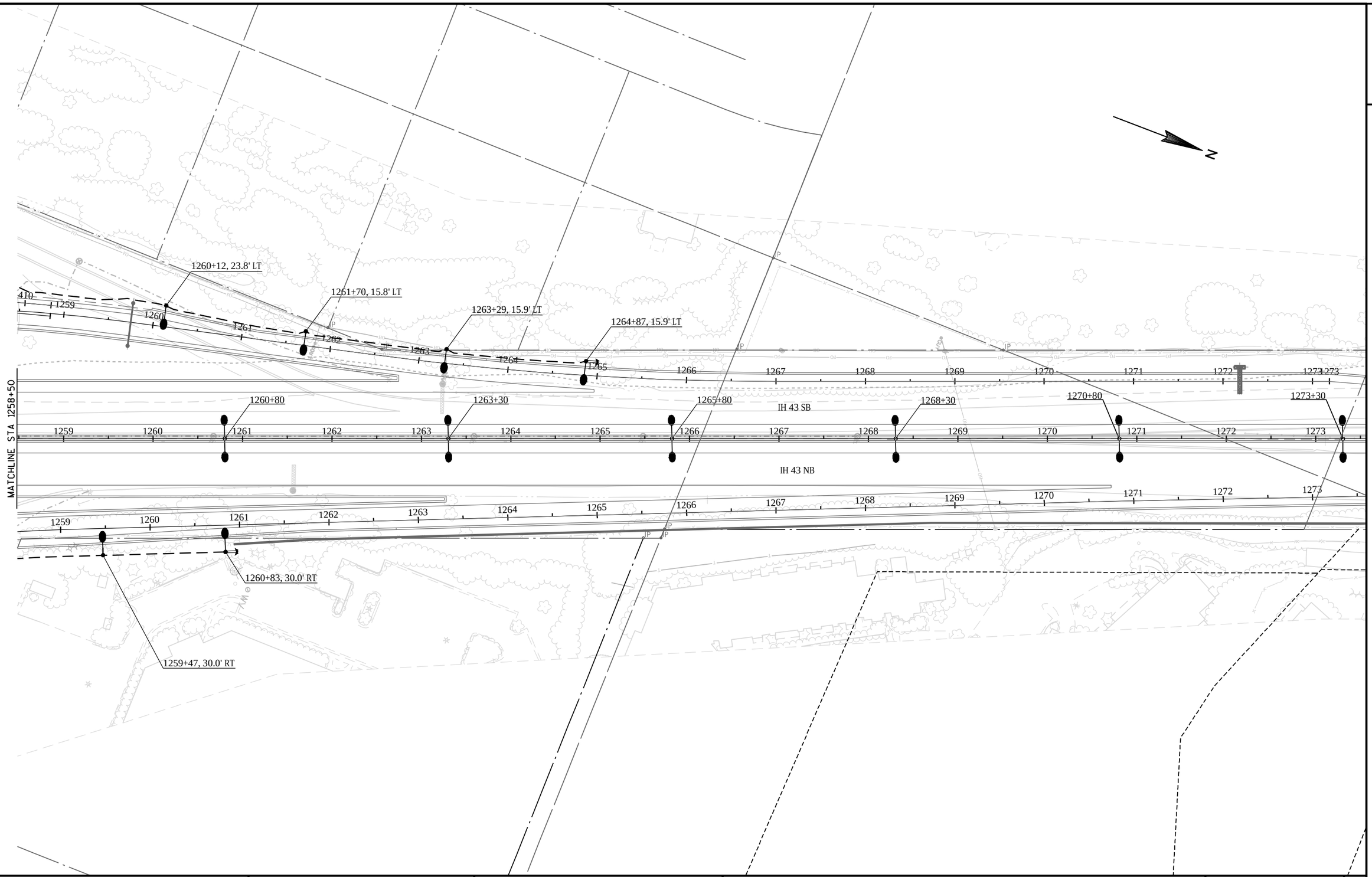


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - BROWN DEER INTERCHANGE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023609-lp
PLOT DATE : 9/29/2021 2:28 PM
PLOT BY : WILLIAM NEAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

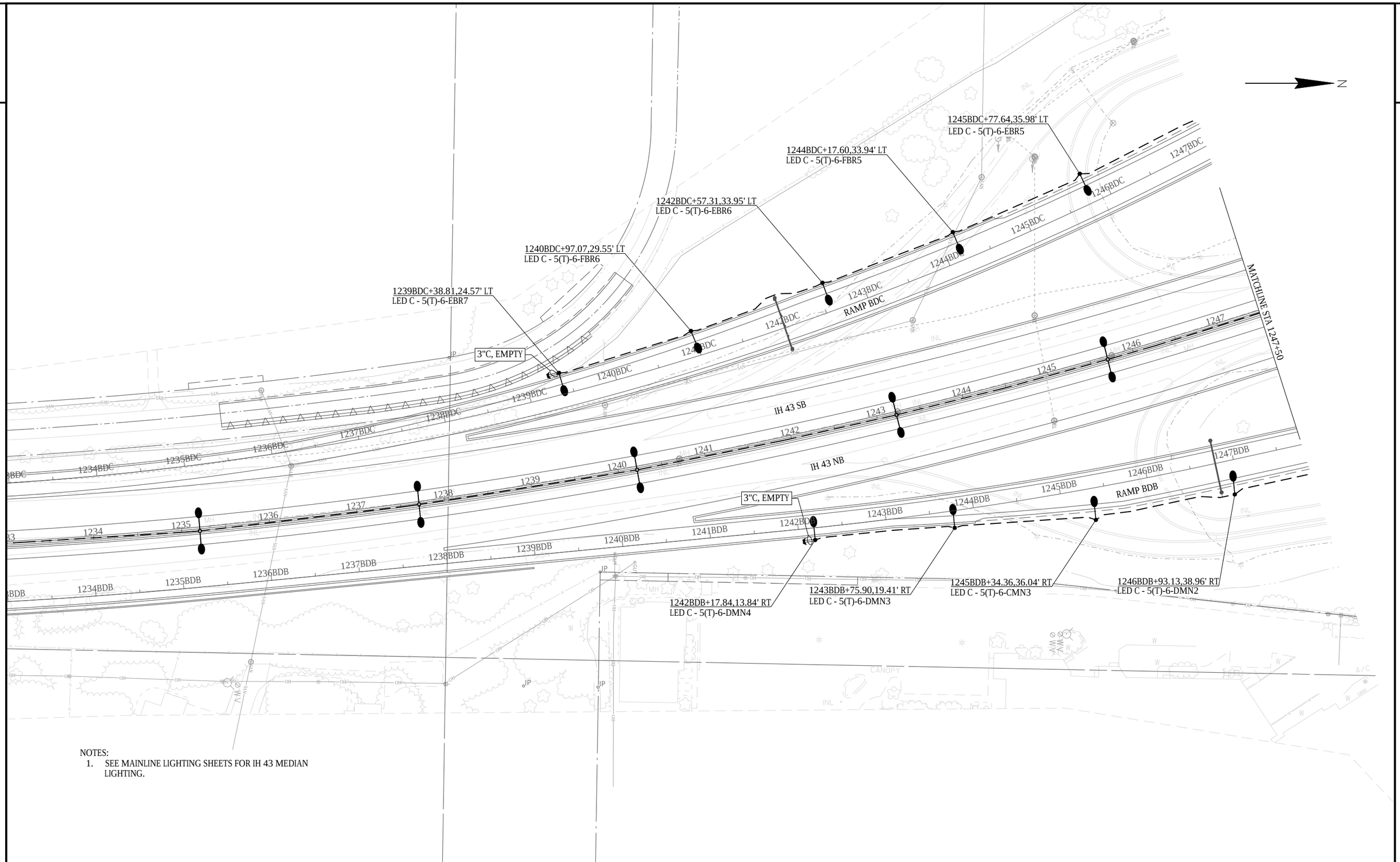


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - MAINLINE	SHEET	E

FILE NAME : W:\PROJECTS\19254\1229-04-03\04_CADD_01\CADD_SHEETS\023601-LP.DWG
LAYOUT NAME - 023614-lp

PLOT DATE : 9/29/2021 2:29 PM PLOT BY : WILLIAM NEAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



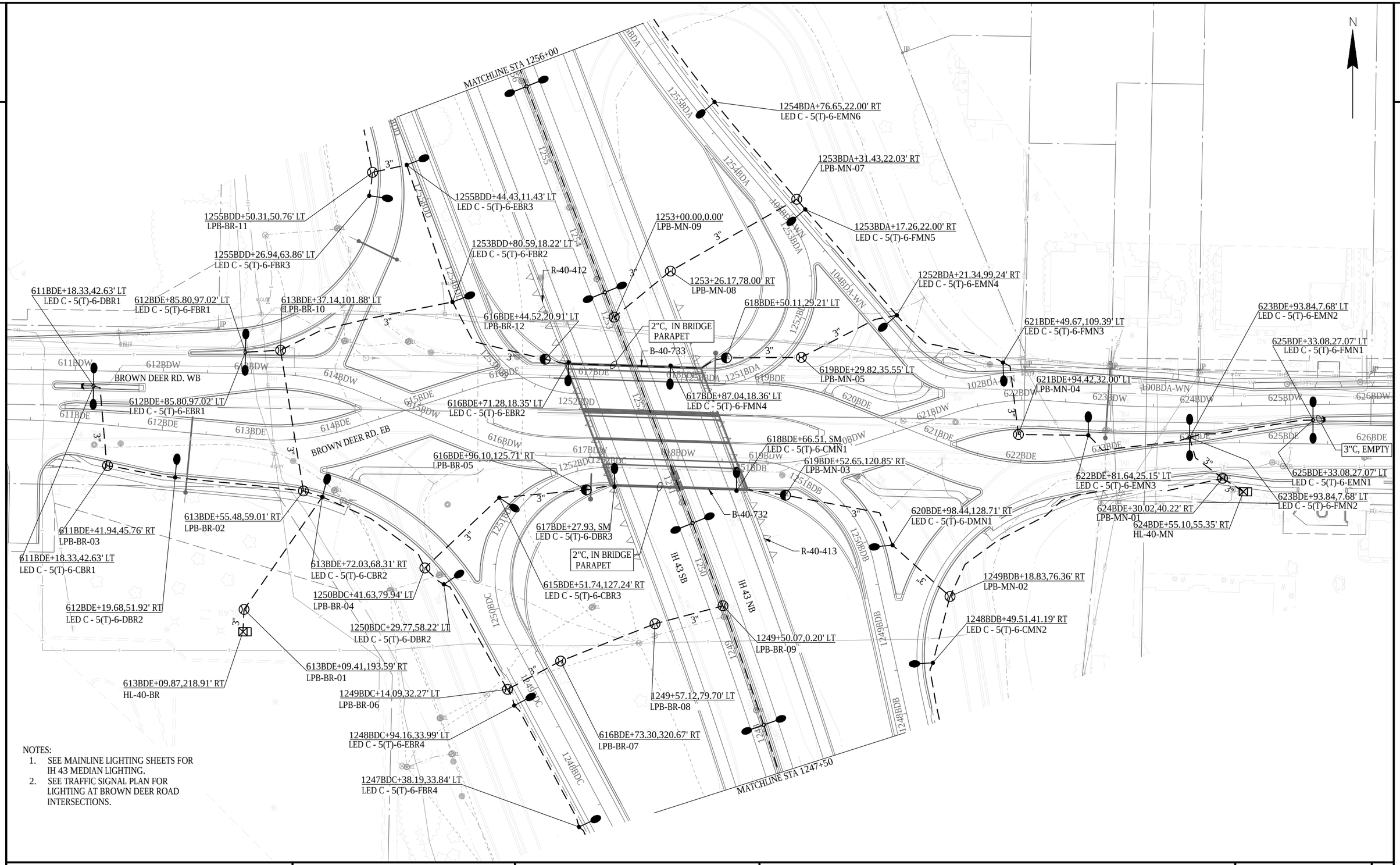
NOTES:
1. SEE MAINLINE LIGHTING SHEETS FOR IH 43 MEDIAN LIGHTING.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - BROWN DEER INTERCHANGE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-23

PLOT DATE : 9/29/2021 10:21 AM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

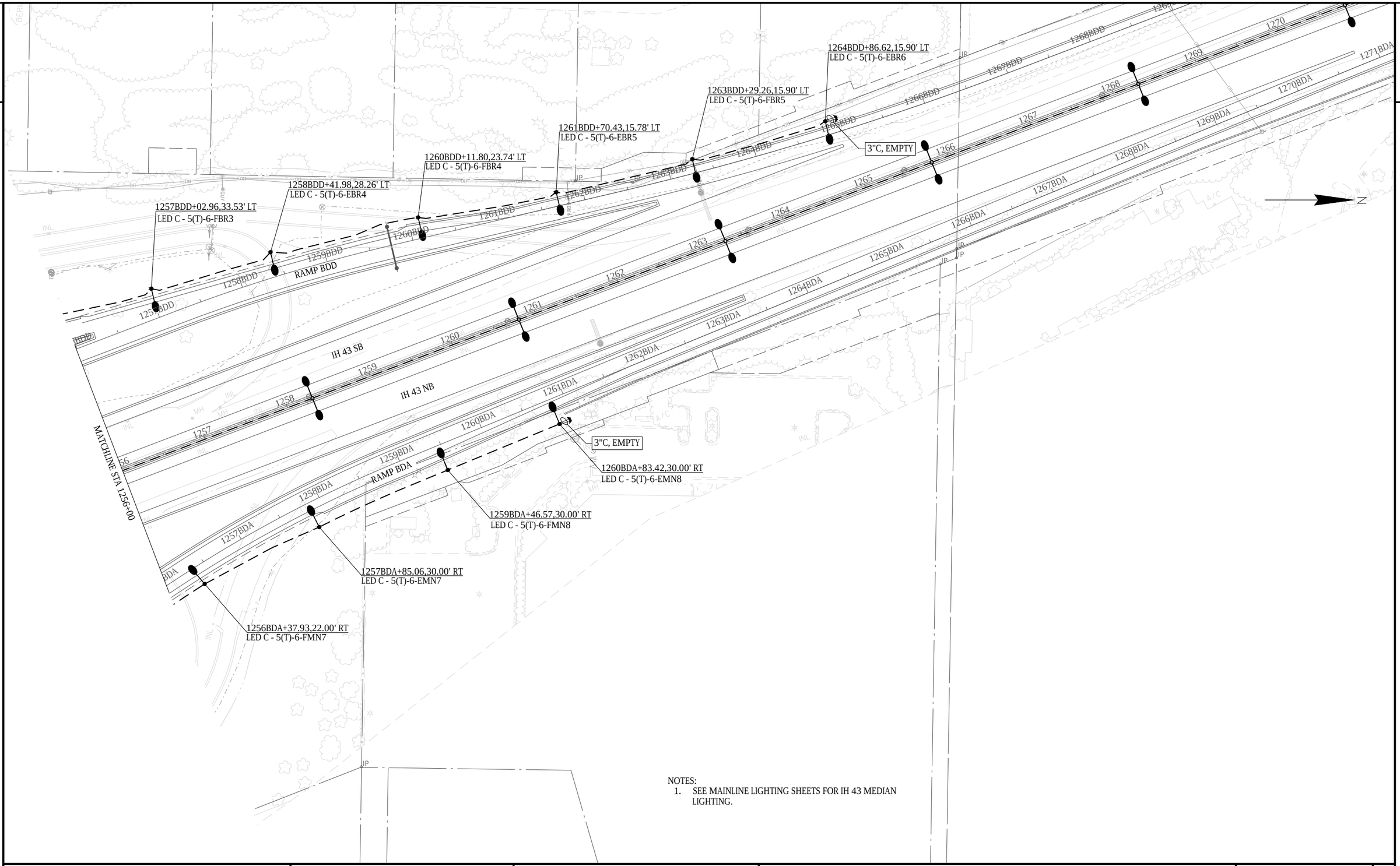


NOTES:
1. SEE MAINLINE LIGHTING SHEETS FOR IH 43 MEDIAN LIGHTING.
2. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT BROWN DEER ROAD INTERSECTIONS.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - BROWN DEER INTERCHANGE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_GH.DWG
LAYOUT NAME - 023503_LP-27
PLOT DATE : 9/29/2021 10:21 AM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



NOTES:
1. SEE MAINLINE LIGHTING SHEETS FOR IH 43 MEDIAN LIGHTING.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL - BROWN DEER INTERCHANGE	SHEET	E

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACKFEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION. THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE AND A MINIMUM OF 3 INCHES BELOW ALL PAVEMENT BASE MATERIALS. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING AT THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR SUBSEQUENT POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE RESPECTIVE CONDUCTOR(S) PAST THE LAST POLE THE PHASE WAS UTILIZED. REMOVE UNUSED CONDUCTOR(S) EXPOSED BEYOND THE CID RACEWAY IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED FOAM CONDUIT SEALANT. PROVIDE A 1/2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN THE CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	10-FT	LIGHTING CONTROL CENTERS:	10-FT
EMBEDDED JUNCTION BOXES:	3-FT	POLES:	5-FT IN AND 5-FT OUT

WIRE AND CONDUIT IS LISTED IN THE MISCELLANEOUS QUANTITIES BASED UPON THE EARLIEST STAGE SHOWN. CONTRACTOR MAY INSTALL LATER WHEN LOAD NEEDS TO BE ENERGIZED.

CONDUCTOR COLORS: 240/480V, 1 PHASE - BLACK / RED / WHITE (NEUTRAL) / BARE OR GREEN (GROUND)

STAGING NOTES

MAINTAIN LIGHTING AT ALL TIMES DURING CONSTRUCTION USING EXISTING LIGHTING, PROPOSED TEMPORARY, FINAL LIGHTING OR COMBINATIONS.

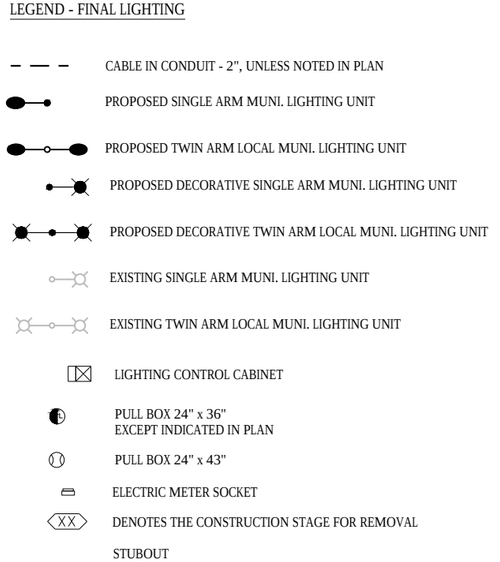
DO NOT REMOVE EXISTING LIGHTING UNTIL THE NEW OR TEMPORARY LIGHTING IS OPERATIONAL. REFER TO DRAWINGS FOR STAGING INFORMATION.

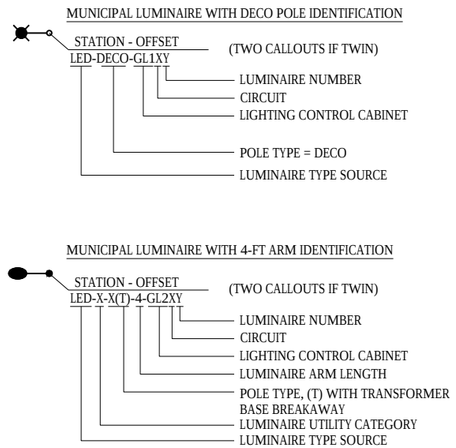
MAINTAINING SYSTEM CONTINUITY SHALL BE INCIDENTAL TO THE "REMOVE EXISTING STREET LIGHTS" BID ITEM.

DUE TO THE PHASING OF CONSTRUCTION SOME FINAL LIGHTING UNITS MAY BE ORPHANED UNTIL A LATER STAGE IS COMPLETE. IT IS AT THE DISCRETION OF THE CONTRACTOR TO SCHEDULE THESE ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE PLACEMENT OF RACEWAY THAT SPANS TWO DIFFERENT PHASES OF CONSTRUCTION. MISCELLANEOUS QUANTITIES SHOW WIRING ADDED WHEN CONDUIT IS INSTALLED. WIRING INSTALLATION MAY BE DEFERRED SUBJECT TO THE LIMITATIONS NOTED HEREIN.

TEMPORARY OR FINAL LIGHTING MUST ILLUMINATE AN AREA BEFORE EXISTING LIGHTING UNITS IN AN AREA CAN BE REMOVED. THE SCHEDULING OF REMOVAL IS AT THE DISCRETION OF THE CONTRACTOR WITH THE PROVISION THAT LIGHTING OF THE ROADWAY IS PROVIDED AT ALL TIMES. COORDINATE POLE REMOVAL WITH TRAFFIC CONTROL.

LEGEND - FINAL LIGHTING





PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - GENERAL NOTES - PORT WASHINTON RD	SHEET	E

2

N

W BENDER RD

10JN 11JN 12JN 13JN 14JN 15JN 16JN 17JN 18JN 19JN 20JN 21JN 22JN

1076 1077 1078 1079 1080 1081 IH 43 SB 1082 1083 1084 1085 1086 1087 1088 1089 1090

IH 43 NB

N PORT WASHINGTON RD

99PN 100PN 101PN 102PN 103PN 104PN 105PN 106PN 107PN 108PN 109PN 110PN 111PN 112PN

100PN+52.61,10.44' LT
EX-LP1

101PN+79.38,22.87' RT
EX-LP2

103PN+42.39,20.72' RT
EX-LP3

UPRR

UNION PACIFIC

NOTE:
ALL REMOVED LIGHT POLES, ARMS AND LUMINAIRES, BANNER AND BANNER ARM TO BE RETURNED TO CITY OF GLENDALE.

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - PORT WASHINGTON RD - REMOVAL	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_PORTWASH_REM.DWG
LAYOUT NAME - 023310_LP_REM

PLOT DATE : 9/21/2021 3:34 PM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

35JN 36JN 37JN 38JN 39JN 40JN 41JN 42JN 43JN 44JN 45JN 46JN 47JN 48JN 49JN 50JN

1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118

125PN 126PN 127PN 128PN 129PN 130PN 131PN 132PN 133PN 134PN 135PN 136PN

IH 43 SB

IH 43 NB

132PN+16.59,92.60' LT
EX-LP7

134PN+18.67,30.38' LT
EX-LP9

136PN+42.08,12.67' LT
EX-LP11

X: 605062.1517
Y: 336670.6781
EX-LP12

136PN+55.52,6.31' LT
EX-LPB01

X: 605011.9661
Y: 336426.6320
EX-LPB02

X: 605018.5757
Y: 336436.4265
EX-LP11

133PN+05.14,47.33' LT
EX-LP8

130PN+92.08,94.99' LT
EX-LP4

131PN+27.55,36.64' LT
EX-LP5

132PN+12.20,25.91' LT
EX-LP6

135PN+27.53,16.16' LT
EX-LP10

N PORT WASHINGTON RD

W APPLE TREE RD

W DAPHNE RD

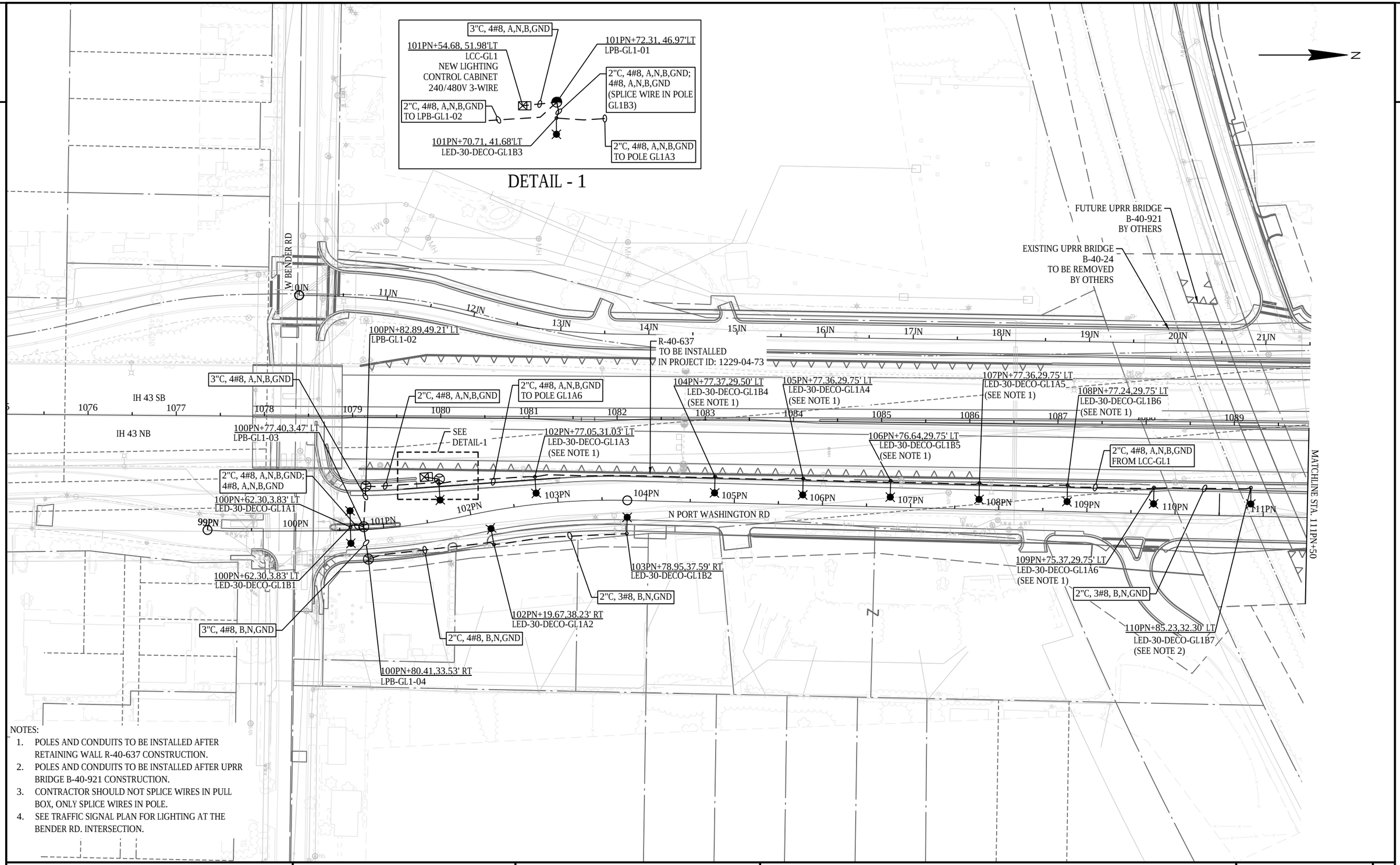
W COVENTRY CT

NOTE:
ALL REMOVED LIGHT POLES, ARMS AND LUMINAIRES, BANNER AND BANNER ARM TO BE RETURNED TO CITY OF GLENDALE.

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - PORT WASHINGTON RD - REMOVAL	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_PORTWASH_REM.DWG
LAYOUT NAME - 023311_LP_REM

PLOT DATE : 9/21/2021 3:34 PM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT



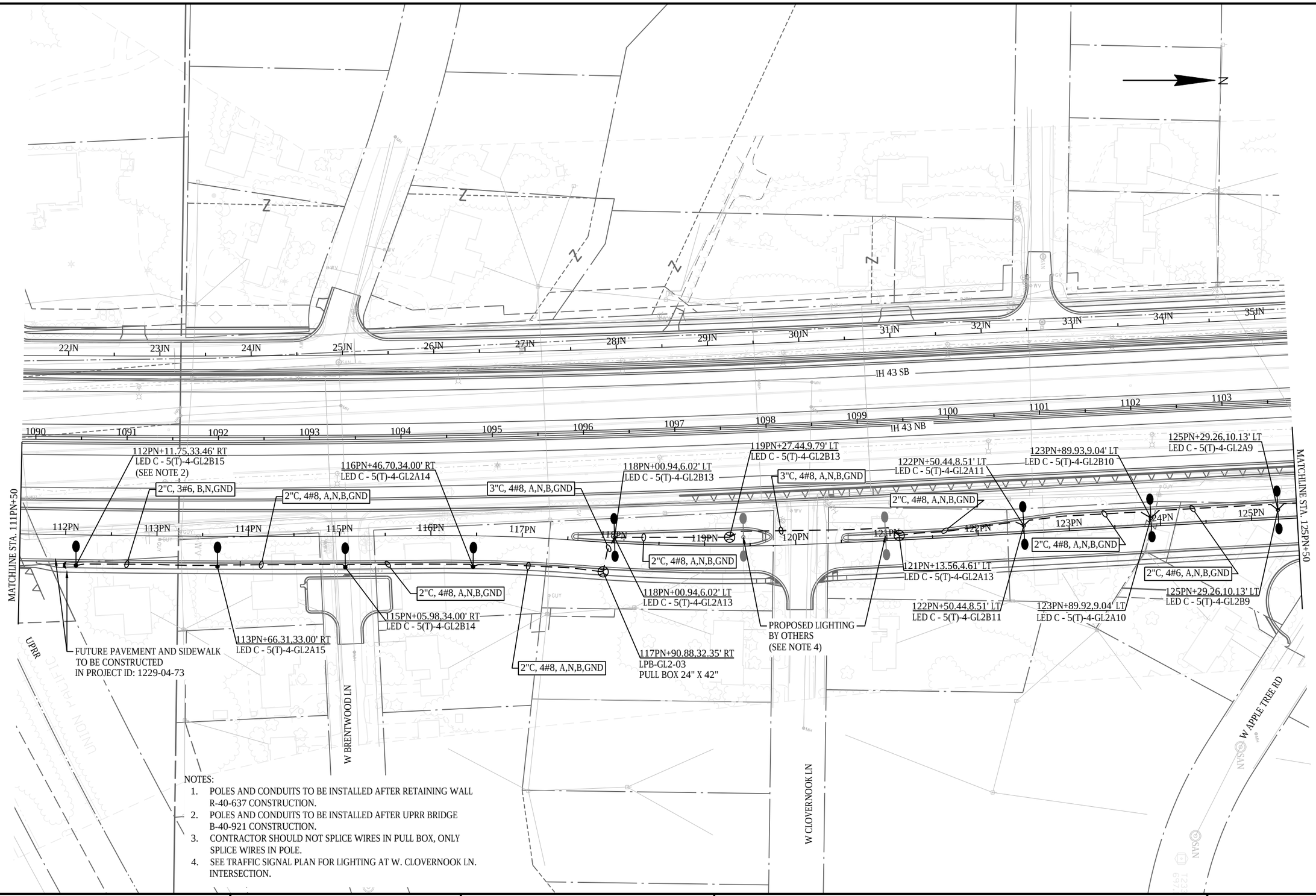
NOTES:

1. POLES AND CONDUITS TO BE INSTALLED AFTER RETAINING WALL R-40-637 CONSTRUCTION.
2. POLES AND CONDUITS TO BE INSTALLED AFTER UPRR BRIDGE B-40-921 CONSTRUCTION.
3. CONTRACTOR SHOULD NOT SPLICE WIRES IN PULL BOX, ONLY SPLICE WIRES IN POLE.
4. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE BENDER RD. INTERSECTION.

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - PORT WASHINGTON RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_PORTWASH.DWG
LAYOUT NAME - 023320-LP
PLOT DATE : 9/28/2021 2:37 PM
PLOT BY : KIAN K. CHAI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



NOTES:

1. POLES AND CONDUITS TO BE INSTALLED AFTER RETAINING WALL R-40-637 CONSTRUCTION.
2. POLES AND CONDUITS TO BE INSTALLED AFTER UPRR BRIDGE B-40-921 CONSTRUCTION.
3. CONTRACTOR SHOULD NOT SPLICE WIRES IN PULL BOX, ONLY SPLICE WIRES IN POLE.
4. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT W. CLOVERNOOK LN. INTERSECTION.

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - PORT WASHINGTON RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_PORTWASH.DWG
LAYOUT NAME - 023321-LP
PLOT DATE : 9/28/2021 2:37 PM
PLOT BY : KIAN K. CHAI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

36JN 37JN 38JN 39JN 40JN 41JN 42JN 44JN 45JN 46JN 47JN 48JN 49JN 50JN

1104 1105 1106 1107 1108 1109 1110 1111 1112 1115 1116 1117 1118

IH 43 SB

IH 43 NB

126PN 127PN 128PN 129PN 130PN 131PN 132PN 133PN 134PN 135PN 136PN 137PN 138PN 139PN 140PN

MATCHLINE STA. 111PN+50

126PN+68.54,11.29' LT
LED C - 5(T)-4-GL2A8

126PN+68.55,11.28' LT
LED C - 5(T)-4-GL2B8

128PN+08.01,10.40' LT
LED C - 5(T)-4-GL2A7

128PN+08.01,10.40' LT
LED C - 5(T)-4-GL2B7

129PN+46.74,10.75' LT
LED C - 5(T)-4-GL2B6

129PN+46.74,10.75' LT
LED C - 5(T)-4-GL2A6

130PN+78.26,10.86' LT
LED C - 5(T)-4-GL2A5

130PN+78.26,10.86' LT
LED C - 5(T)-4-GL2B5

132PN+19.60,5.08' LT
LED C - 5(T)-4-GL2B4

132PN+19.60,5.08' LT
LED C - 5(T)-4-GL2A4

133PN+66.06,9.19' LT
LED C - 5(T)-4-GL2A3

133PN+66.06,9.19' LT
LED C - 5(T)-4-GL2B3

134PN+27.35,83.91' LT
LCC-GL2
NEW LIGHTING
CONTROL CABINETS
240/480V 3-WIRE

134PN+54.24,76.86' LT
LPB-GL2-01
PULL BOX 24" X 42"

134PN+50.51,6.50' LT
LPB-GL2-02
PULL BOX 24" X 42"

135PN+03.89,10.50' LT
LED C - 5(T)-4-GL2C1

135PN+03.89,10.50' LT
LED C - 5(T)-4-GL2D2

136PN+42.08,12.67' LT
LED C - 5(T)-4-GL2C2

136PN+42.08,12.67' LT
LED C - 5(T)-4-GL2D2

137PN+89.63,10.39' LT
LED C - 5(T)-4-GL2C3

137PN+89.63,10.39' LT
LED C - 5(T)-4-GL2D3

139PN+67.95,16.49' LT
LED C - 5(T)-4-GL2D4

139PN+67.96,16.50' LT
LED C - 5(T)-4-GL2C4

2"C, 4#6, A,N,B,GND

2"C, 4#6, A,N,B,GND

2"C, 4#6, A,N,B,GND

2"C, 4#6, A,N,B,GND

2"C, 4#6, A,N,B,GND

2"C, 4#6, A,N,B,GND

3"C, 4#6, A,N,B,GND;
4#8, C,N,D,GNG
3"C, EMPTY

3"C, 4#6, A,N,B,GND;
4#6, C,N,D,GND

2"C, 4#6, C,N,D,GND

2"C, 4#8, C,N,D,GND

3"C, 4#8, C,N,D,GND

2"C, 4#8, C,N,D,GND

N PORT WASHINGTON RD

W DAPHNE RD

W COVENTRY CT

NOTES:

1. POLES AND CONDUITS TO BE INSTALLED AFTER RE-WALL R-40-637 CONSTRUCTION.
2. POLES AND CONDUITS TO BE INSTALLED AFTER UPRR BRIDGE B-40-921 CONSTRUCTION.
3. CONTRACTOR SHOULD NOT SPLICE WIRES IN PULL BOX, ONLY SPLICE WIRES IN POLE.

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	LIGHTING PLAN - PORT WASHINGTON RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KIAN.CHAI\GREATLAKES\D0228767\LP_PORTWASH.DWG
LAYOUT NAME - 022322-LP

PLOT DATE : 9/28/2021 2:38 PM PLOT BY : KIAN K. CHAI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

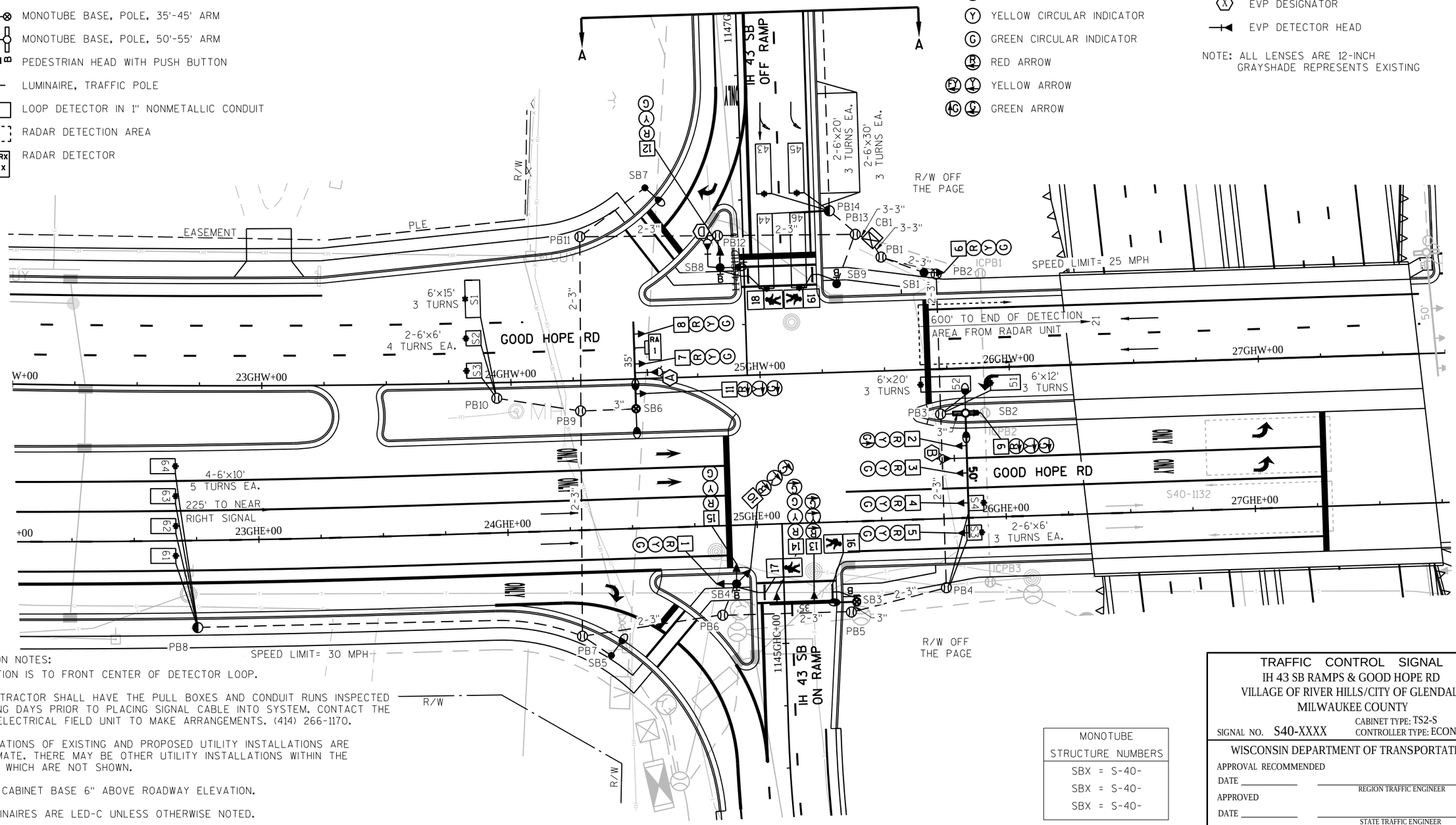
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RADAR DETECTOR

LEGEND CONTINUED

- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY
- CONFIRMATION LIGHT
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

N



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. DETECTABLE WARNING FIELDS, STORM SEWER, FTMS, AND TRAFFIC SIGNAL INTERCONNECT PLANS ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

MONOTUBE STRUCTURE NUMBERS
SBX = S-40-
SBX = S-40-
SBX = S-40-

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & GOOD HOPE RD
VILLAGE OF RIVER HILLS/CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

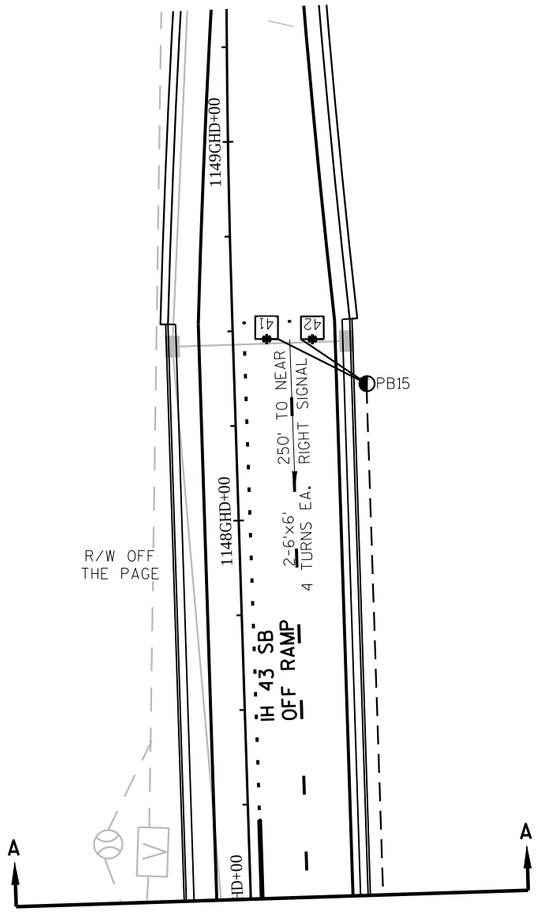
REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229144\02_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_1
PLOT DATE : 9/28/2021 7:01 PM
PLOT BY : ALICIA DOUGHERTY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & GOOD HOPE RD
VILLAGE OF RIVER HILLS/CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

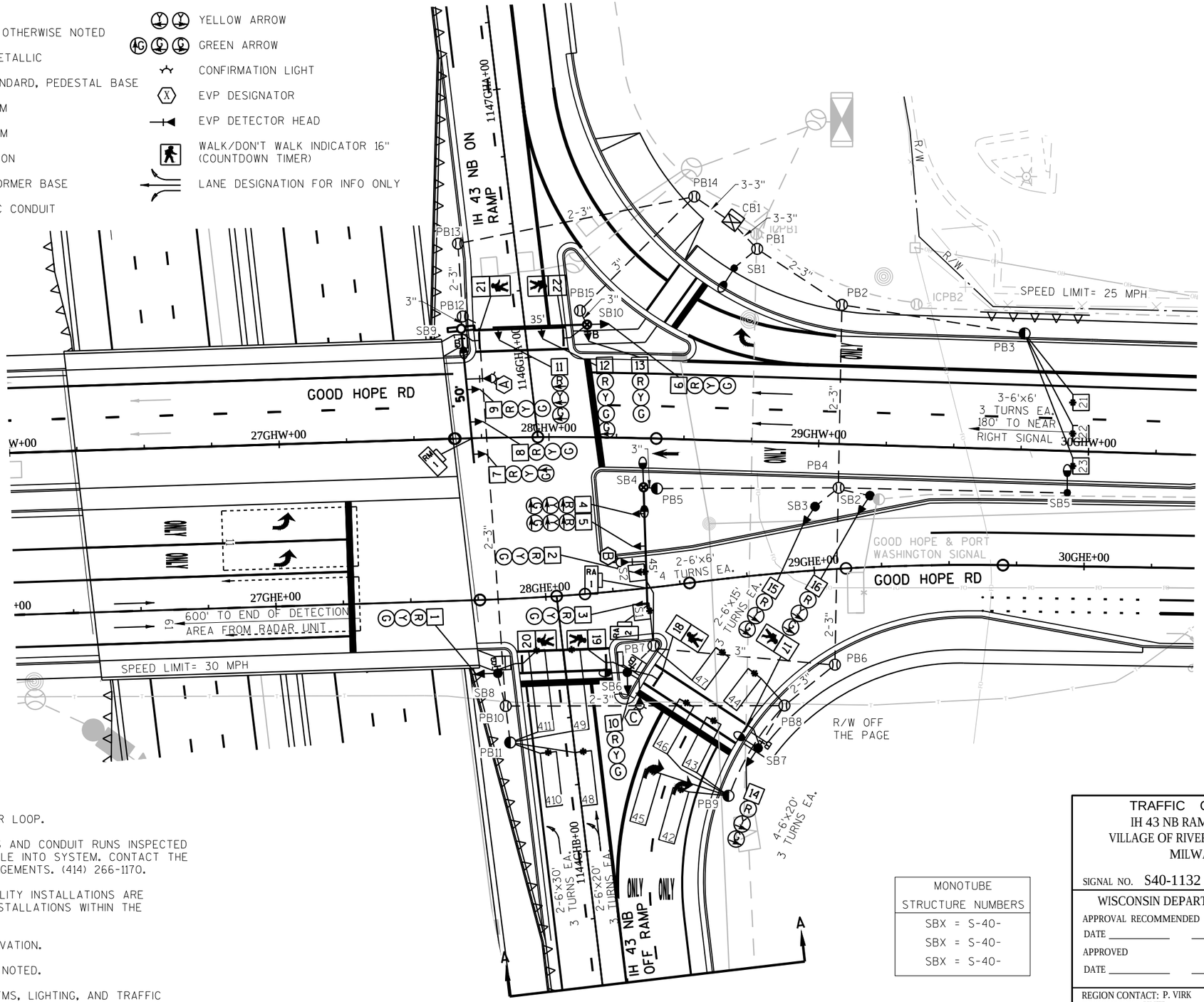
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229144\02_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_2
PLOT DATE : 9/28/2021 7:01 PM
PLOT BY : ALICIA DOUGHERTY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- CONFIRMATION LIGHT
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. DETECTABLE WARNING FIELDS, STORM SEWER, FTMS, LIGHTING, AND TRAFFIC SIGNAL INTERCONNECT PLANS ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

MONOTUBE STRUCTURE NUMBERS
SBX = S-40-
SBX = S-40-
SBX = S-40-

TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & GOOD HOPE RD
VILLAGE OF RIVER HILLS/CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1132
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

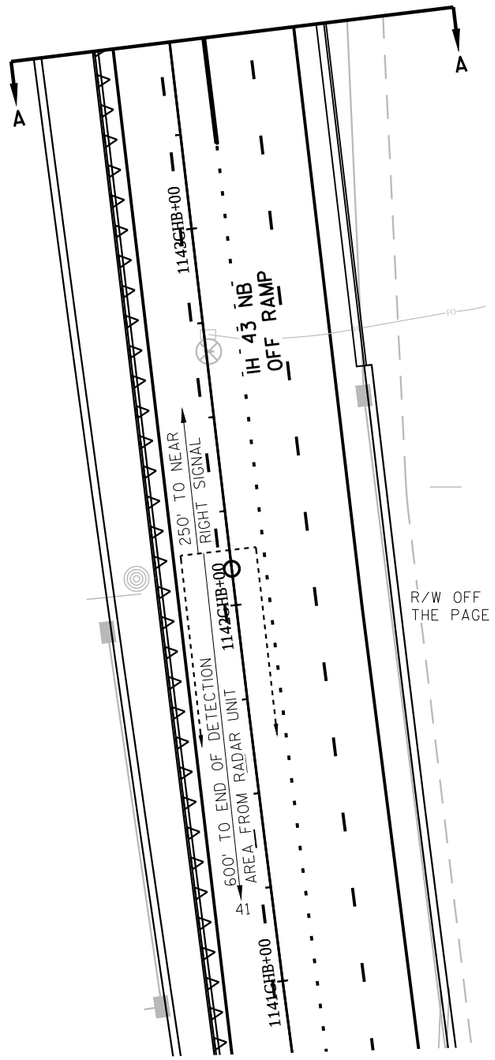
PAGE 1 OF 3

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230709\03_S40-1132.DWG
LAYOUT NAME - S40-1132_1
PLOT DATE : 9/28/2021 7:12 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N



TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & GOOD HOPE RD
VILLAGE OF RIVER HILLS/CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-1132

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230709\03_S40-1132.DWG
LAYOUT NAME - S40-1132_2

PLOT DATE : 9/28/2021 7:12 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- PEDESTRIAN HEAD WITH APS PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

LEGEND CONTINUED

- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

N

GOOD HOPE RD

PORT WASHINGTON RD

SPEED LIMIT= 35 MPH

SPEED LIMIT= 25 MPH

SPEED LIMIT= 30 MPH

R/W OFF THE PAGE

EASEMENT

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. DETECTABLE WARNING FIELDS, STORM SEWER, FTMS, LIGHTING, AND TRAFFIC SIGNAL INTERCONNECT PLANS ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
GOOD HOPE RD & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO.

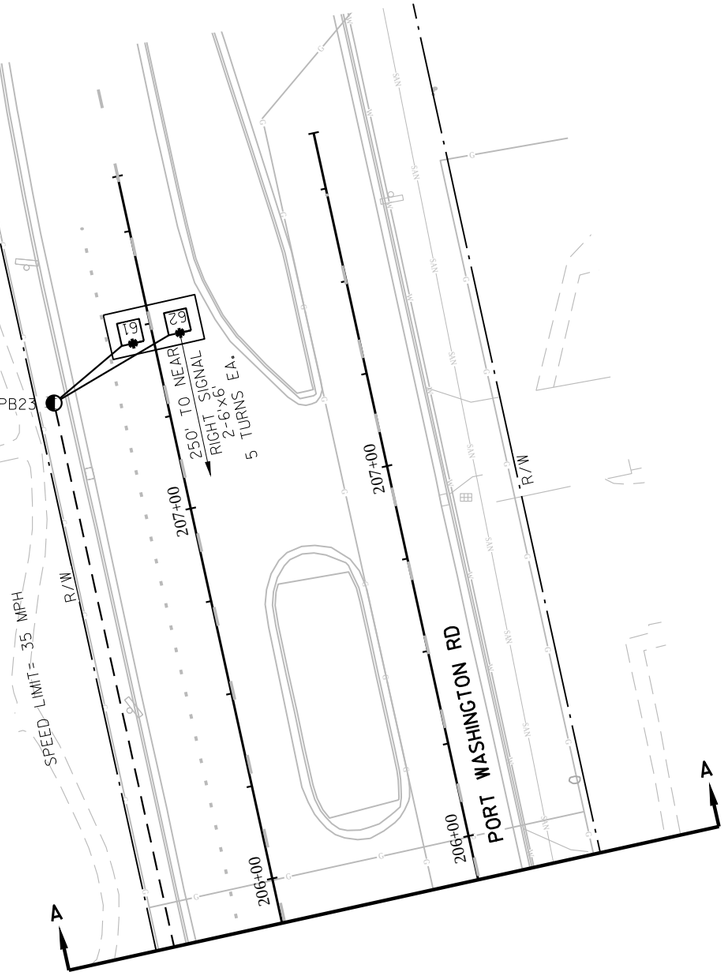
MUNICIPAL CONTACT: DAN MURPHY
DESIGNED BY: HNTB
REVISED BY:

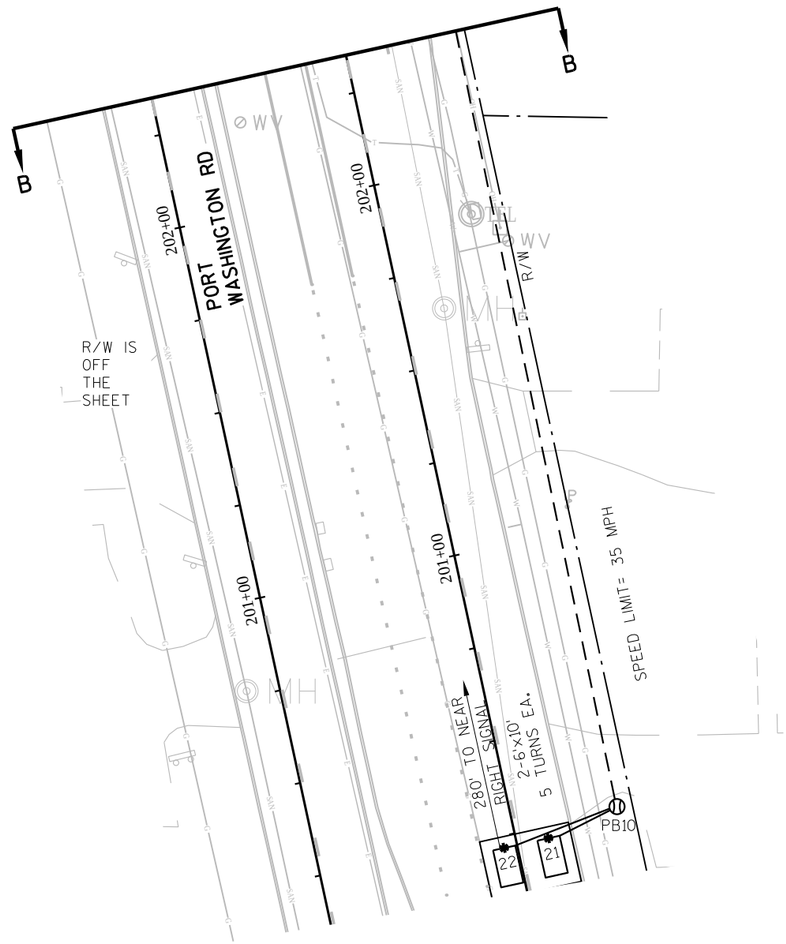
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230710\04_S40-XXXX.DWG
LAYOUT NAME - Good Hope_Port_1
PLOT DATE : 9/29/2021 9:50 AM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
GOOD HOPE RD & PORT WASHINGTON RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO.

MUNICIPAL CONTACT: DAN MURPHY
DESIGNED BY: HNTB
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

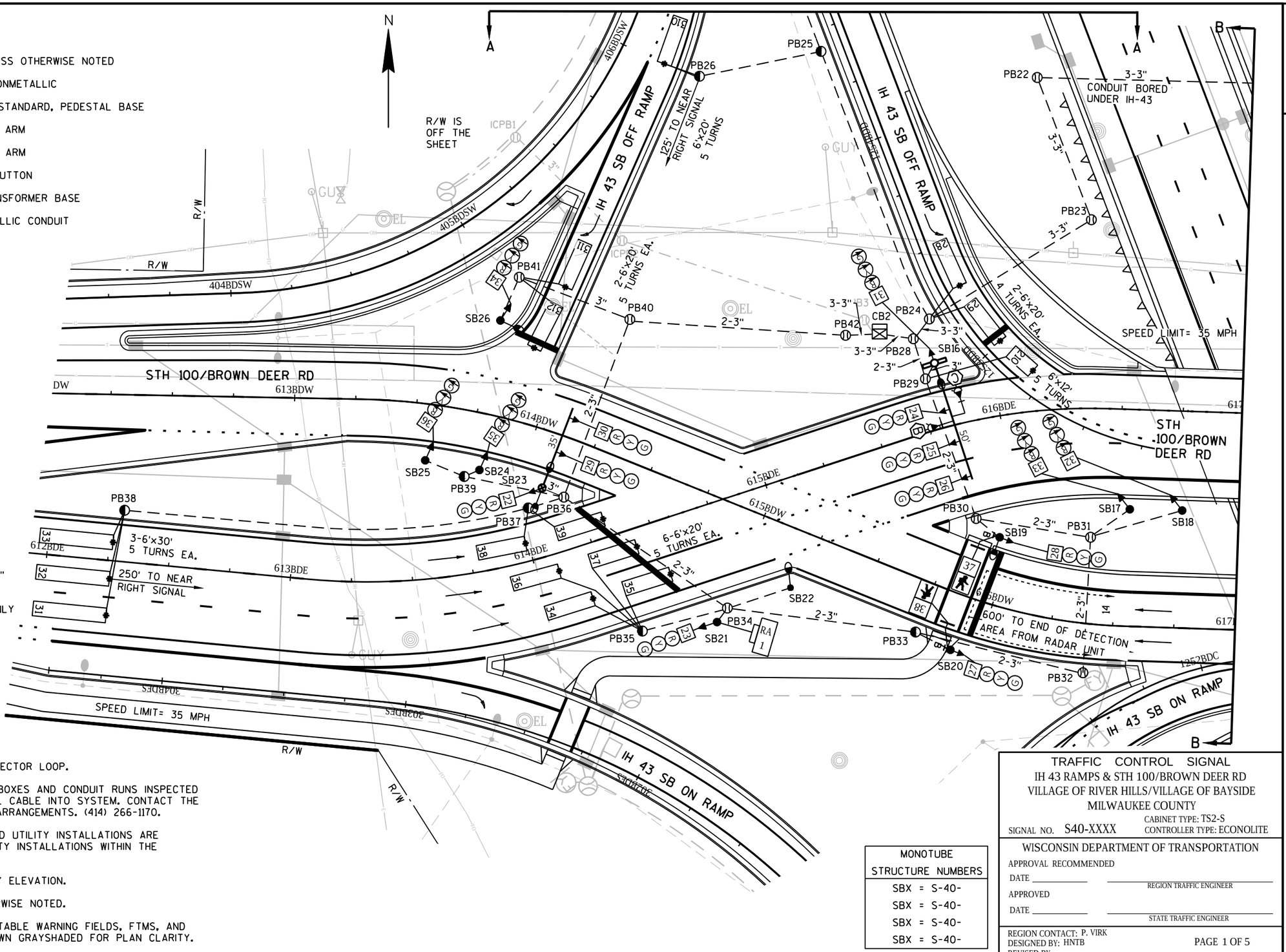
FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230710\04_S40-XXXX.DWG
LAYOUT NAME - Good Hope_Port_2

PLOT DATE : 9/28/2021 7:14 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 50'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RX / X RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- CONFIRMATION LIGHT
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS, AND TRAFFIC SIGNAL INTERCONNECT PLANS SHOWN GRAYSHADED FOR PLAN CLARITY.

MONOTUBE STRUCTURE NUMBERS
SBX = S-40-
SBX = S-40-
SBX = S-40-
SBX = S-40-

TRAFFIC CONTROL SIGNAL
IH 43 RAMPS & STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_1
PLOT DATE : 9/28/2021 10:05 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

B

C

D

3-3" CONDUIT BORED UNDER IH-43

PB21

PB20

PB19

3-3"

IH 43 NB ON RAMP

1251BDA

PB18

618BDE

619BDE

3-3"

CB1

PB17

2-3"

PB1

SB15

PB16

600' TO END OF DETECTION AREA FROM RADAR UNIT

620BDE

SB2

SB1

PB2

F0 I/C

ICPB4

ICPB5

ICPB6

1039BDW

102BDW

SPEED LIMIT= 35 MPH

622BDW

6-6'x20' 3 TURNS EA.

621BDE

SB3

PB3

PB4

SB4

PB5

SB5

622BDE

STH 100/BROWN DEER RD

618BDW

619BDW

620BDW

SB14

SB13

PB14

PB15

SB12

SB11

SB10

SB9

PB12

PB11

SB8

SB6

PB7

SB7

PB8

PB9

PB13

1251BDB

SPEED LIMIT= 35 MPH

4-6'x20' 3 TURNS EA.

6-6'x20' 3 TURNS EA.

IH 43 NB OFF RAMP

1252BDA

1252BDB

R/W IS OFF THE SHEET

TRAFFIC CONTROL SIGNAL
IH 43 RAMPS & STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

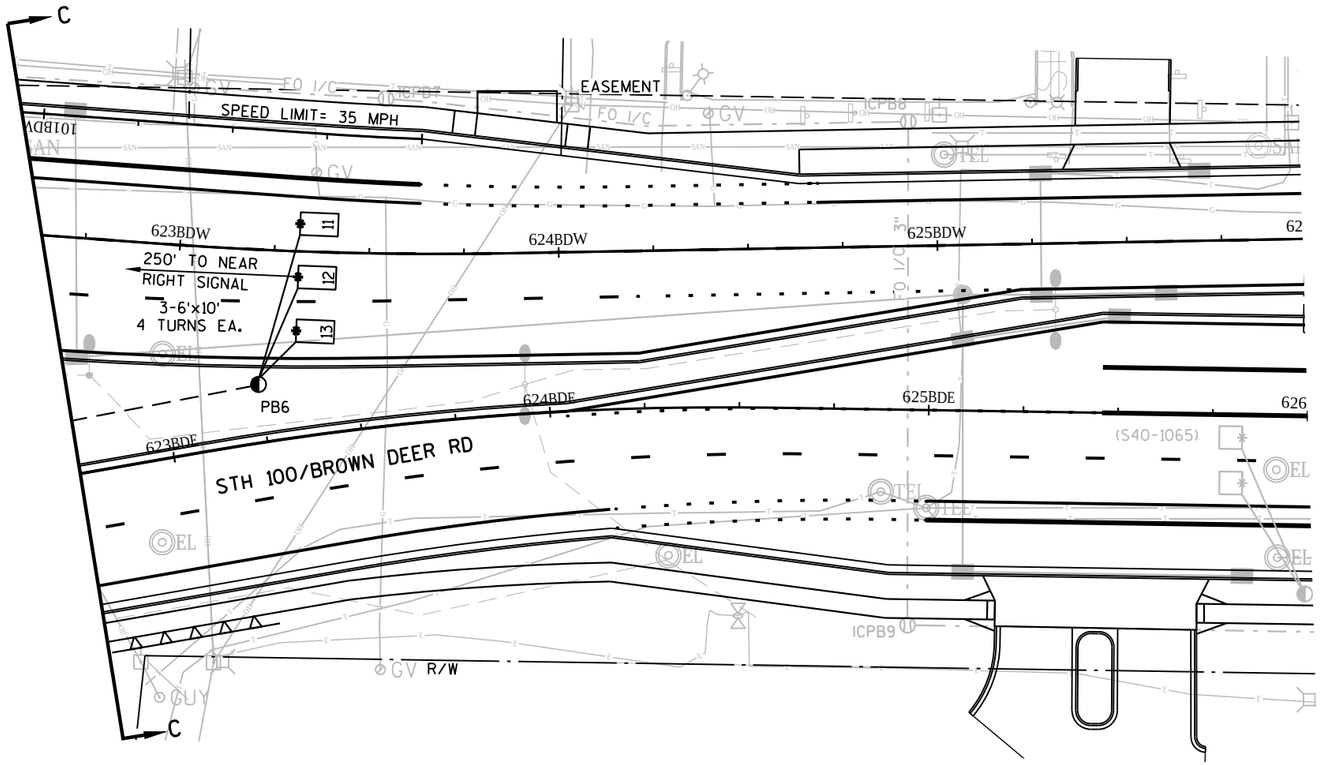
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_2

PLOT DATE : 9/28/2021 10:05 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

N



TRAFFIC CONTROL SIGNAL
IH 43 RAMPS & STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

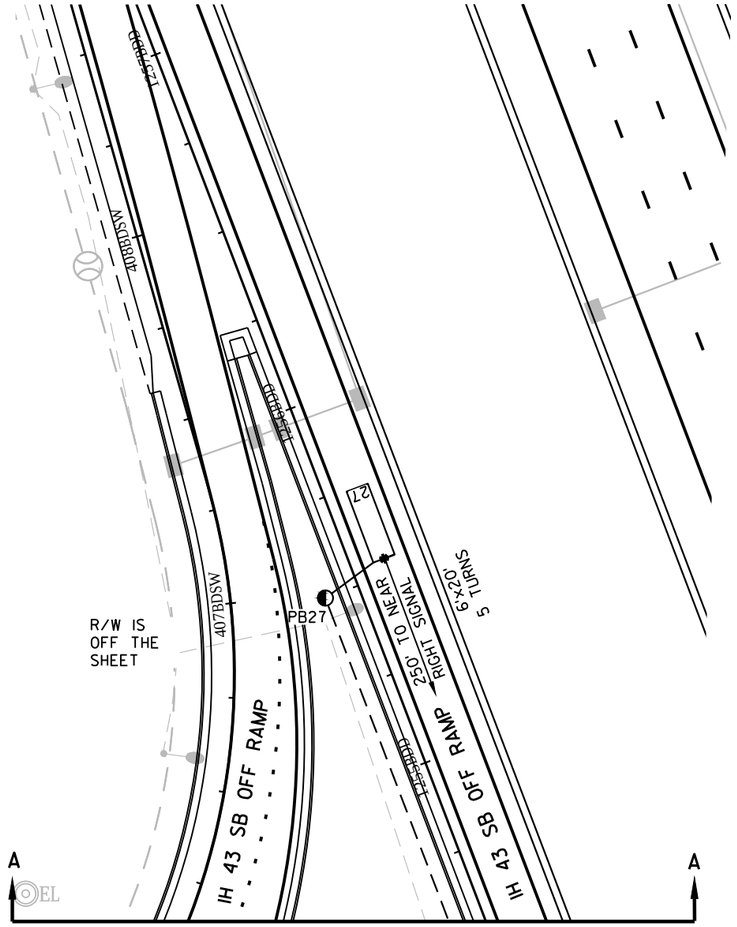
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

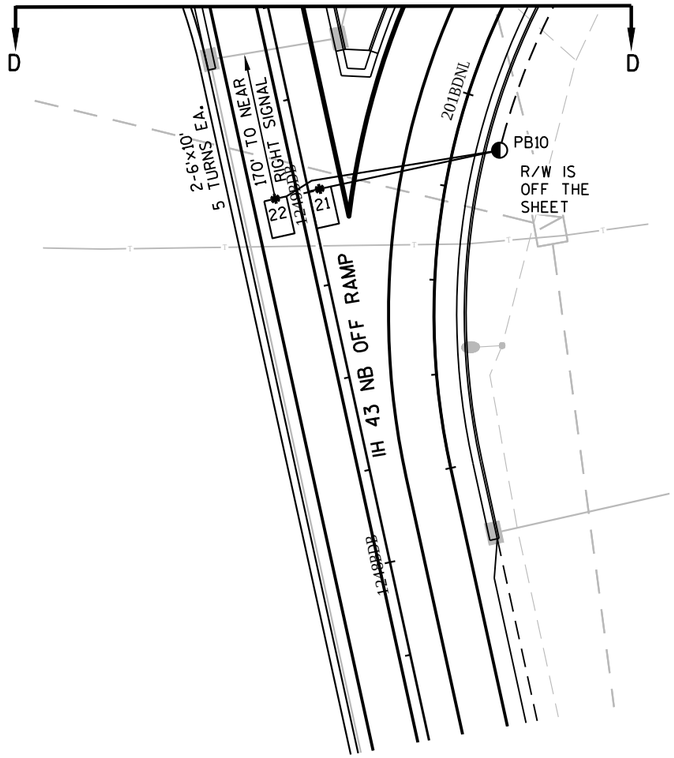
FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_3

PLOT DATE : 9/28/2021 10:05 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N





TRAFFIC CONTROL SIGNAL
IH 43 RAMPS & STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX.DWG
LAYOUT NAME - S40-XXXX_4
PLOT DATE : 9/28/2021 10:06 PM
PLOT BY : ALICIA DOUGHERTY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

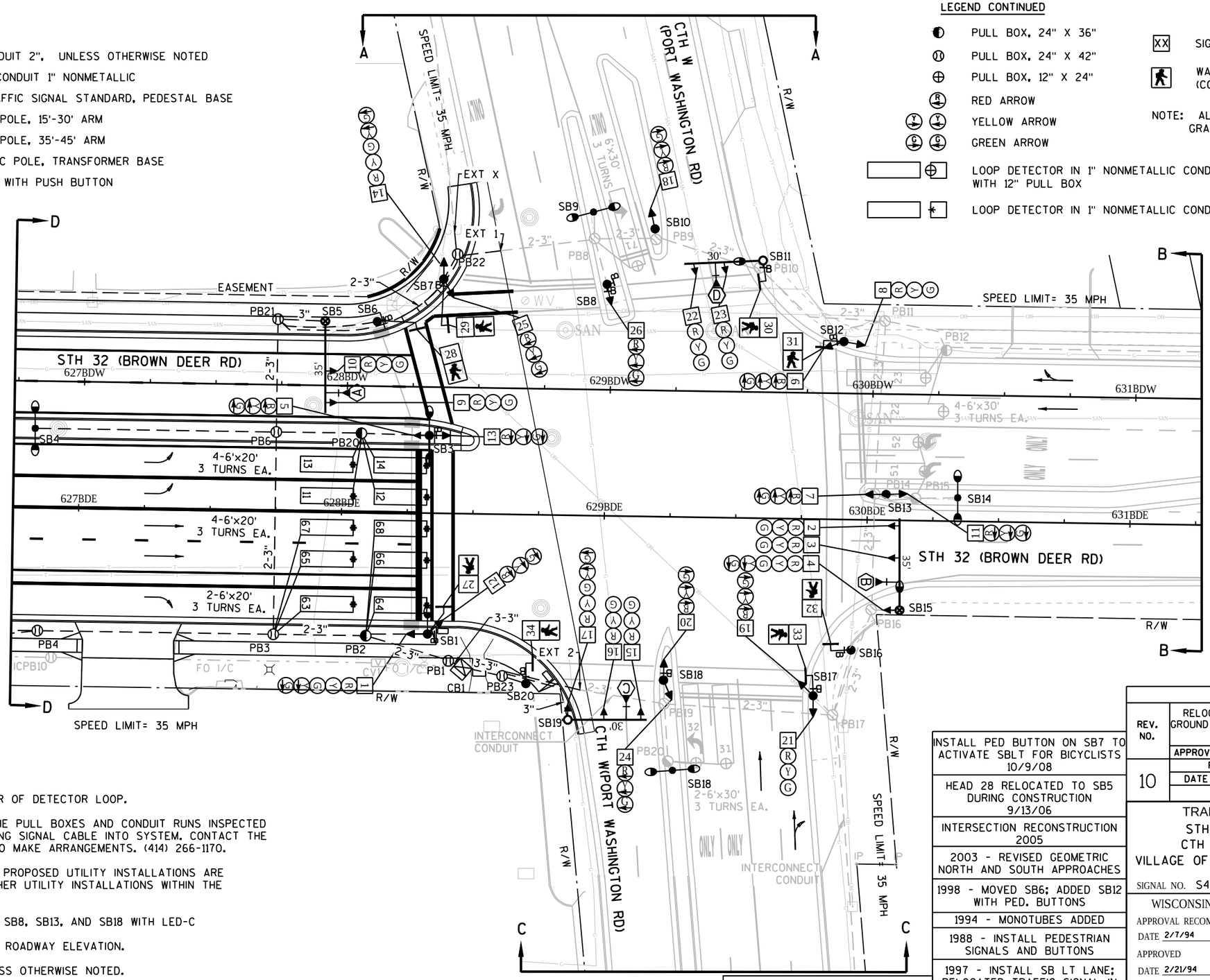
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

LEGEND CONTINUED

- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- PULL BOX, 12" X 24"
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. REPLACE 150 HPS LUMINAIRES ON SB8, SB13, AND SB18 WITH LED-C
5. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
6. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
7. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS, AND TRAFFIC SIGNAL INTERCONNECT PLANS SHOWN GRAYSHADED FOR PLAN CLARITY.

INSTALL PED BUTTON ON SB7 TO ACTIVATE SBLT FOR BICYCLISTS 10/9/08
HEAD 28 RELOCATED TO SB5 DURING CONSTRUCTION 9/13/06
INTERSECTION RECONSTRUCTION 2005
2003 - REVISED GEOMETRIC NORTH AND SOUTH APPROACHES
1998 - MOVED SB6; ADDED SB12 WITH PED. BUTTONS
1994 - MONOTUBES ADDED
1988 - INSTALL PEDESTRIAN SIGNALS AND BUTTONS
1997 - INSTALL SB LT LANE; RELOCATED TRAFFIC SIGNAL IN NW QUADRANT
1935 - INITIAL INSTALL

CHANGE CONTROLLER TO ECONOLITE; INSTALL CELL MODEM 4/20/20

REVISION

REV. NO.	RELOCATE SIGNAL CABINET, REPLACE ABOVE GROUND EQUIPMENT, ADD MONOTUBES, ADD COMM TO I-43			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
10				

TRAFFIC CONTROL SIGNAL
STH 32 (BROWN DEER RD) &
CTH W (PORT WASHINGTON RD)
VILLAGE OF BAYSIDE MILWAUKEE COUNTY
SIGNAL NO. S40-1065 CABINET TYPE: TS1 CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/7/94 EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER

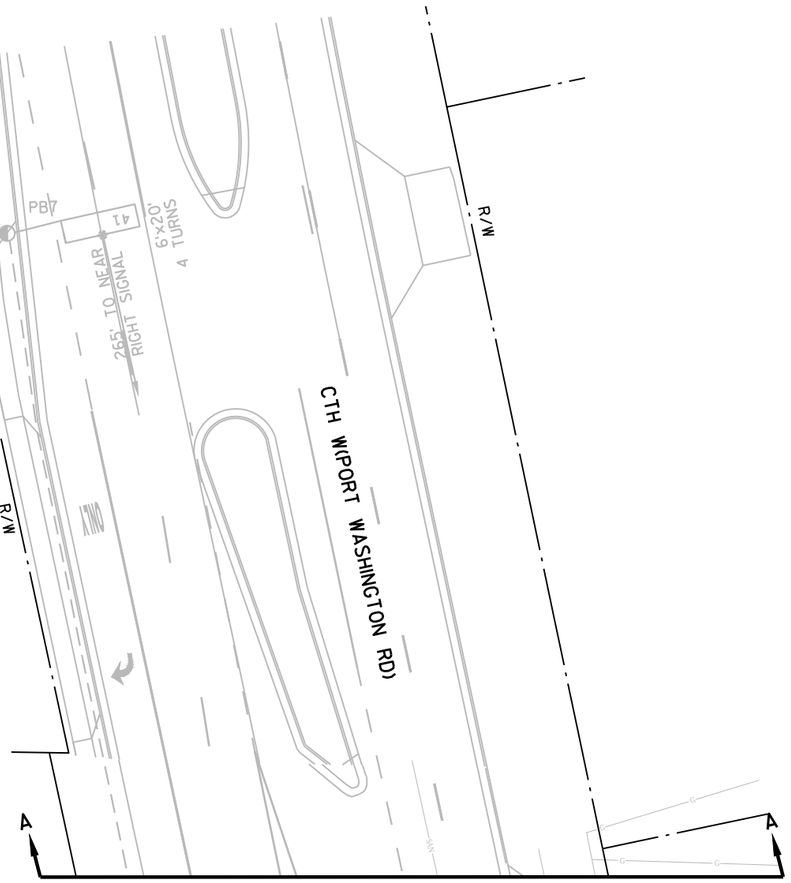
APPROVED
DATE 2/21/94 R.J. MOE, STATE TRAFFIC ENGINEER

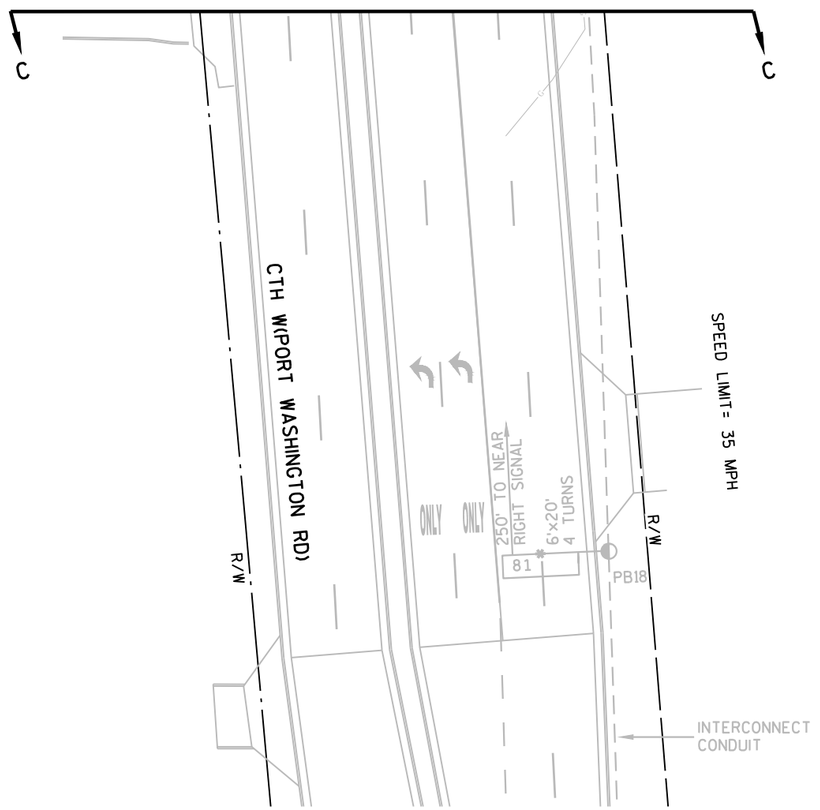
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: HNTB

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0288689\5A_S40-1065.DWG
LAYOUT NAME - S40-1065_REV_10_1
PLOT DATE : 9/28/2021 10:06 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2





TRAFFIC CONTROL SIGNAL
STH 32 (BROWN DEER RD) &
CTH W (PORT WASHINGTON RD)
VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-1065

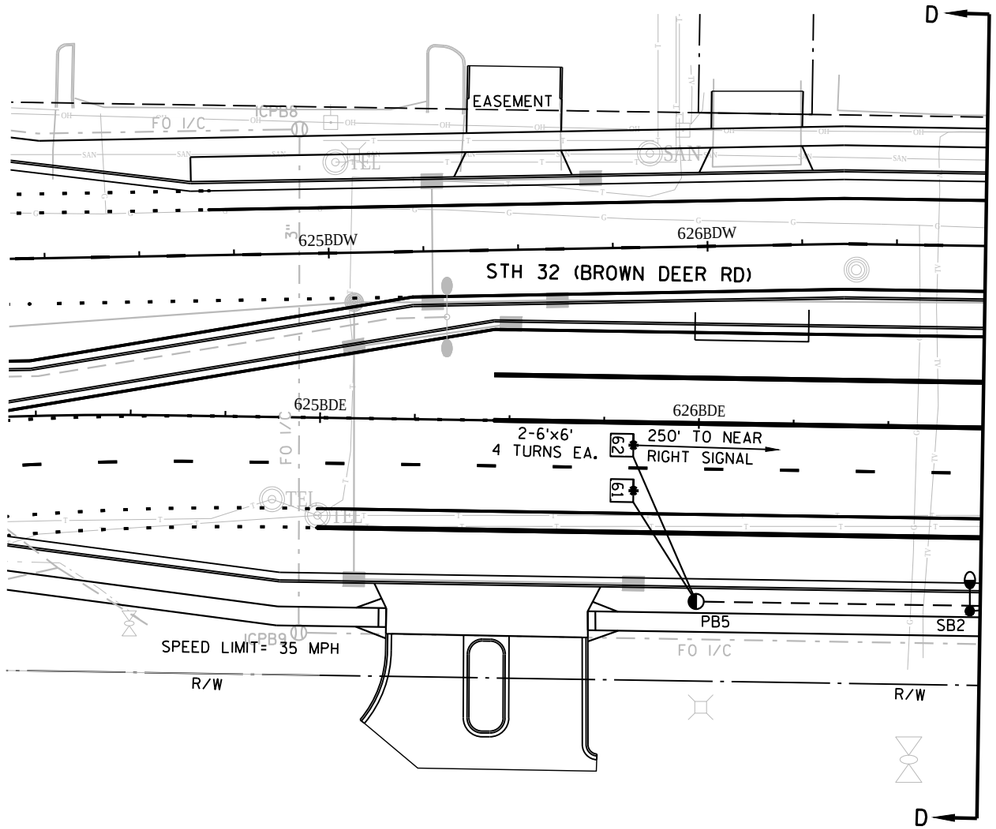
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: HNTB

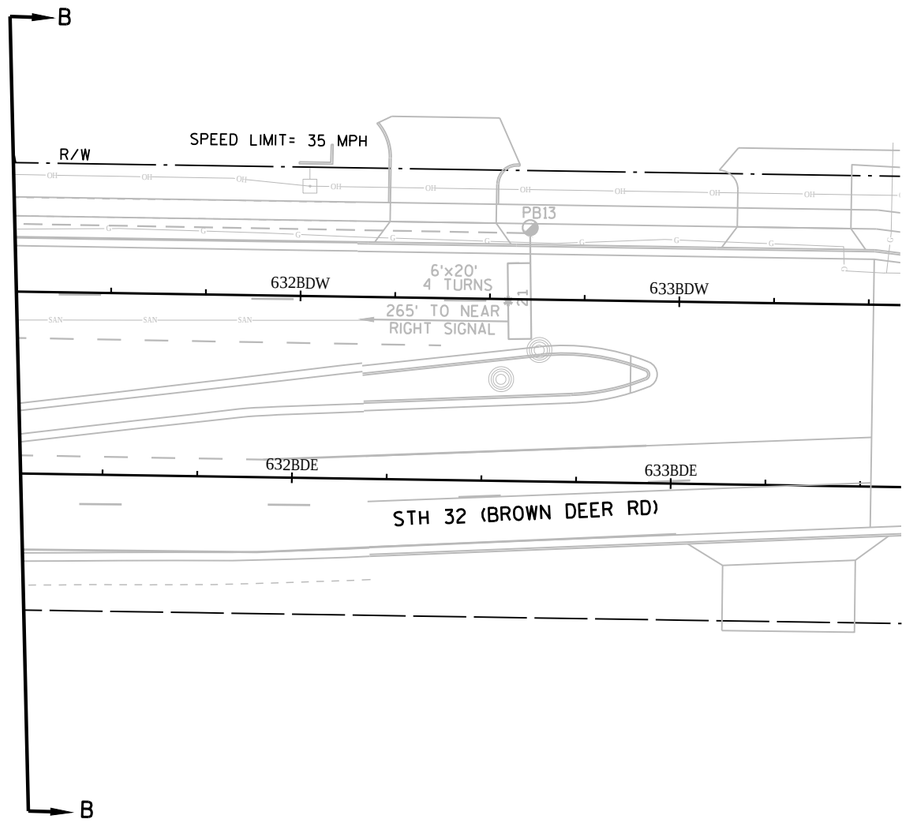
PAGE 2 OF 4

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0288689\5A_S40-1065.DWG
LAYOUT NAME - S40-1065_REV_10_2

PLOT DATE : 9/28/2021 10:06 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT





N

2

TRAFFIC CONTROL SIGNAL
STH 32 (BROWN DEER RD) &
CTH W (PORT WASHINGTON RD)
VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-1065

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: HNTB

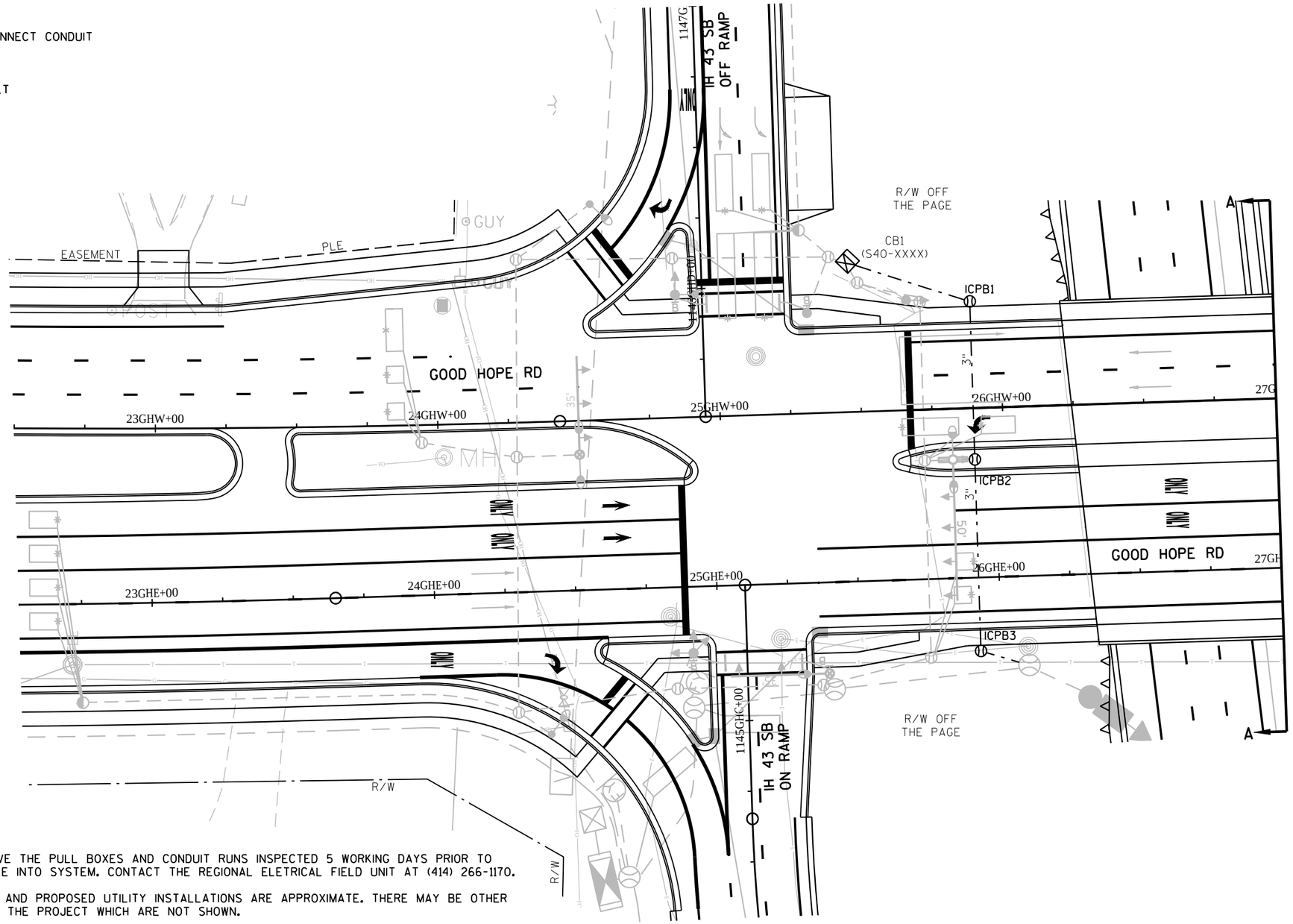
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0288689\5A_S40-1065.DWG
LAYOUT NAME - S40-1065_REV_10_3

PLOT DATE : 9/28/2021 10:06 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING INTERCONNECT CABLE INTO SYSTEM. CONTACT THE REGIONAL ELETRICAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. LEAVE 100-FEET OF FIBER OPTIC INTERCONNECT PIGTAIL COILED IN EACH COMMUNICATIONS VAULT AND 30-FEET IN EACH PULL BOX.
4. THE ENTIRE MAINLINE FIBER OPTIC CABLE SHALL NOT BE CUT AND/OR SPLICED IN THE VAULTS NEAREST THE TRAFFIC SIGNAL CABINET WHILE MAKING THE PIGTAIL CONNECTION. ONLY THE REQUIRED BUFFER TUBE SHALL BE CUT AND SPLICED WITH THE PIGTAIL CONNECTION.
5. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, TRAFFIC SIGNALS AND FTMS ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

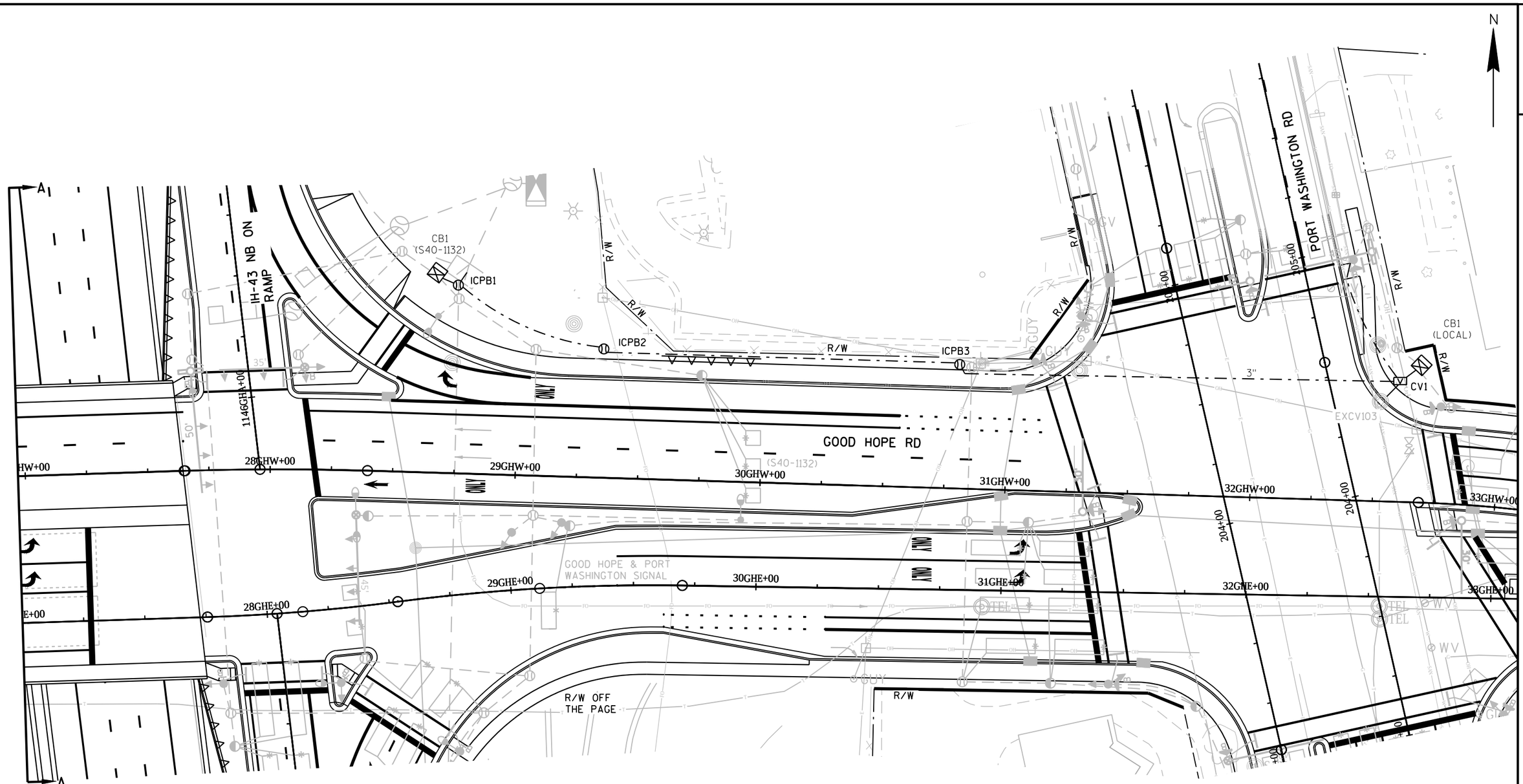
TRAFFIC CONTROL INTERCONNECT
GOOD HOPE RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX, S40-1132, LOCAL

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229144\02_S40-XXXX_IC.DWG
LAYOUT NAME - Good Hope_IC1
PLOT DATE : 9/28/2021 7:56 PM
PLOT BY : ALICIA DOUGHERTY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL INTERCONNECT
GOOD HOPE RD
CITY OF GLENDALE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX, S40-1132, LOCAL

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

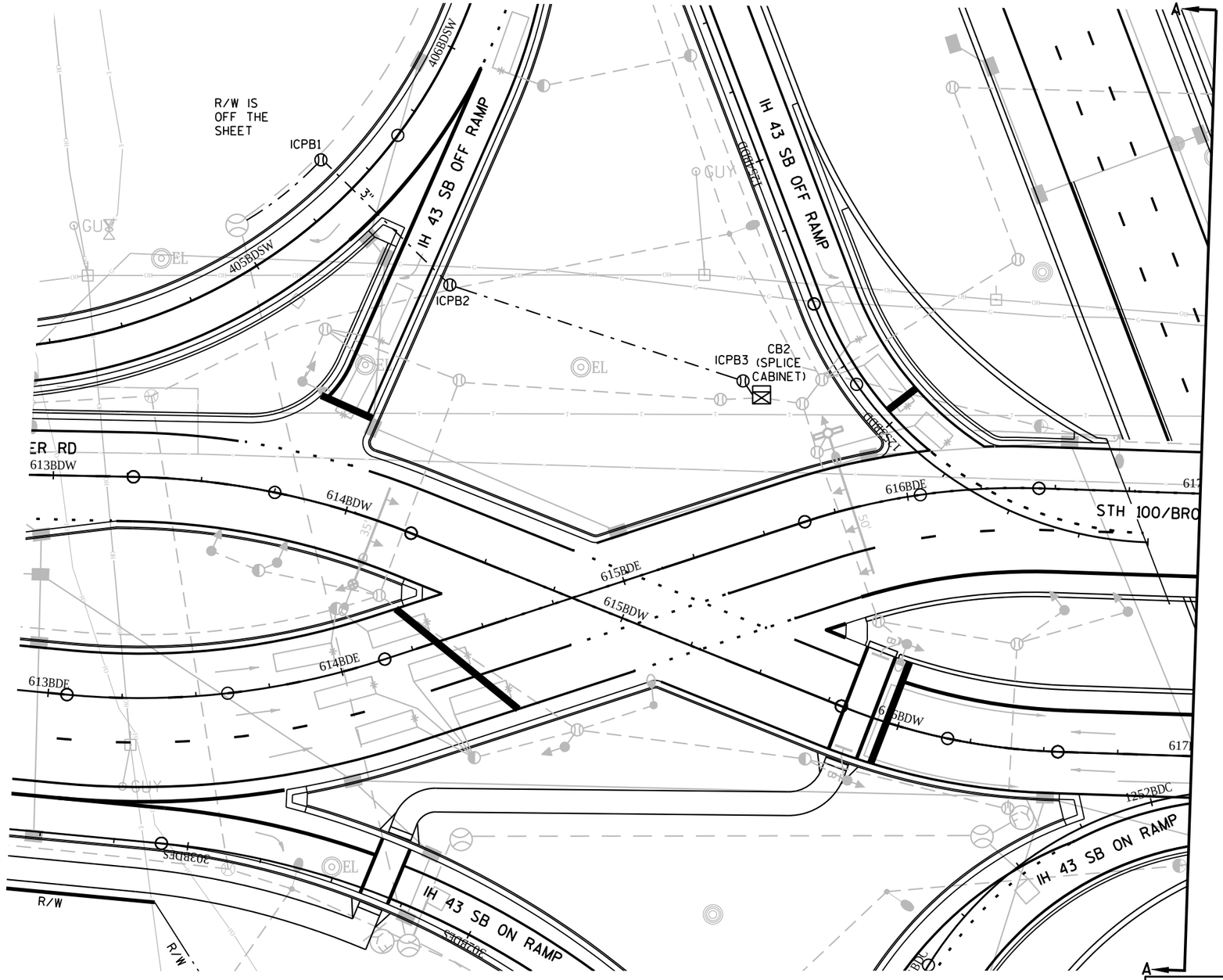
FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230710\04_S40-XXXX_IC.DWG
LAYOUT NAME - Good Hope_IC2

PLOT DATE : 9/28/2021 8:02 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING INTERCONNECT CABLE INTO SYSTEM. CONTACT THE REGIONAL ELETRICAL FIELD UNIT AT (414) 266-1170.

2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

3. LEAVE 100-FEET OF FIBER OPTIC INTERCONNECT PIGTAIL COILED IN EACH COMMUNICATIONS VAULT AND 30-FEET IN EACH PULL BOX.

4. THE ENTIRE MAINLINE FIBER OPTIC CABLE SHALL NOT BE CUT AND/OR SPLICED IN THE VAULTS NEAREST THE TRAFFIC SIGNAL CABINET WHILE MAKING THE PIGTAIL CONNECTION. ONLY THE REQUIRED BUFFER TUBE SHALL BE CUT AND SPLICED WITH THE PIGTAIL CONNECTION.

5. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, TRAFFIC SIGNALS AND FTMS ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

TRAFFIC CONTROL INTERCONNECT

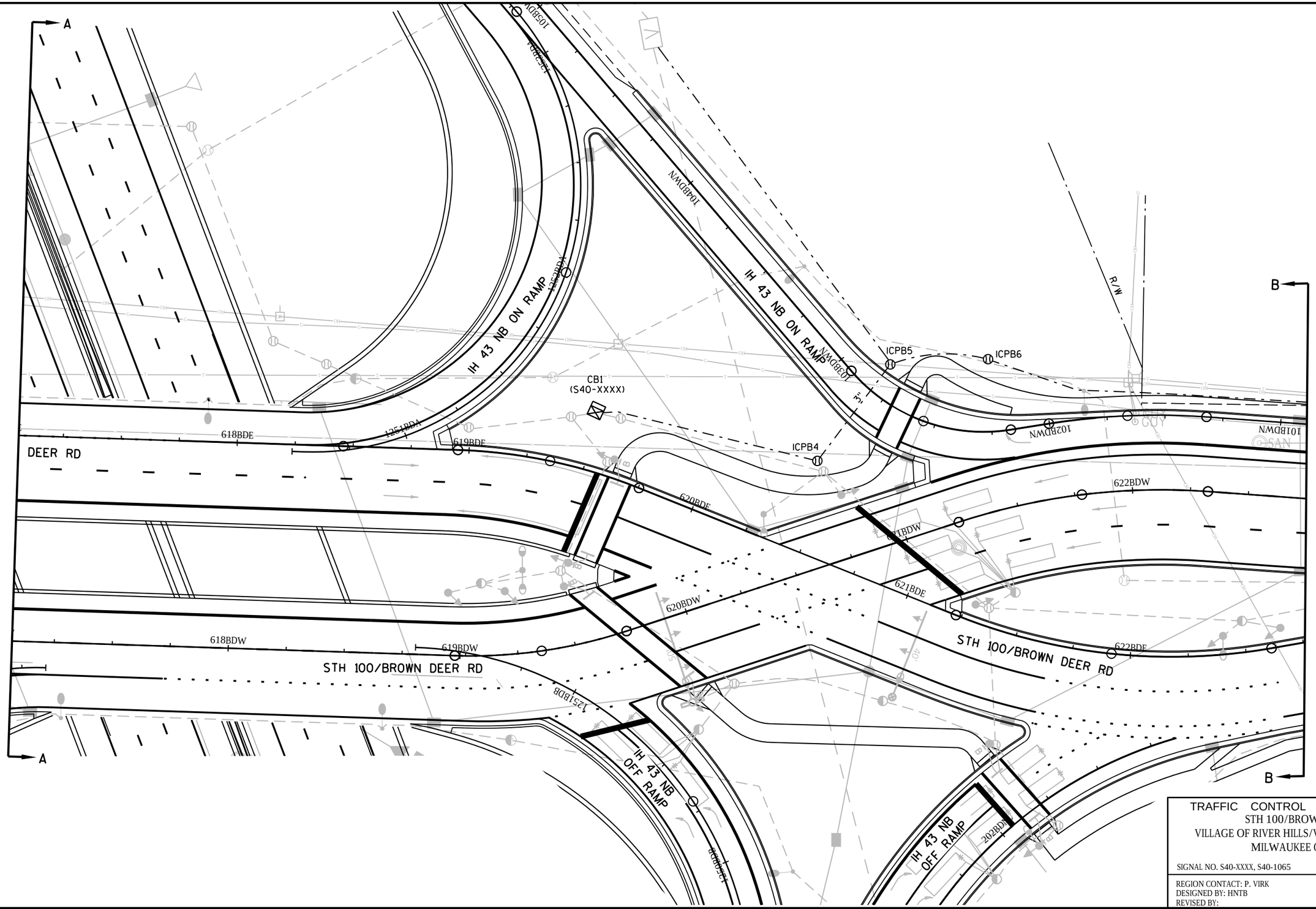
STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX, S40-1065

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\S_S40-XXXX_IC.DWG
LAYOUT NAME - S40-XXXX_IC1
PLOT DATE : 9/28/2021 10:07 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL INTERCONNECT
STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX, S40-1065

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX_IC.DWG
LAYOUT NAME - S40-XXXX_IC2

PLOT DATE : 9/28/2021 10:07 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

B

ICPB7

ICPB8

EASEMENT

EASEMENT

623BDW

624BDW

625BDW

626BDW

627BDW

628BDW

STH 32/BROWN DEER RD

623BDE

624BDE

625BDE

626BDE

627BDE

628BDE

STH 100/BROWN DEER RD

(S40-1065)

ICPB9

ICPB10

R/W

R/W

R/W

R/W

CV1

CB1
(S40-1065)

INTERCONNECT
CONDUIT

B

TRAFFIC CONTROL INTERCONNECT
STH 100/BROWN DEER RD
VILLAGE OF RIVER HILLS/VILLAGE OF BAYSIDE
MILWAUKEE COUNTY

SIGNAL NO. S40-XXXX, S40-1065

REGION CONTACT: P. VIRK
DESIGNED BY: HNTB
REVISED BY:

PAGE 3 OF 3

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

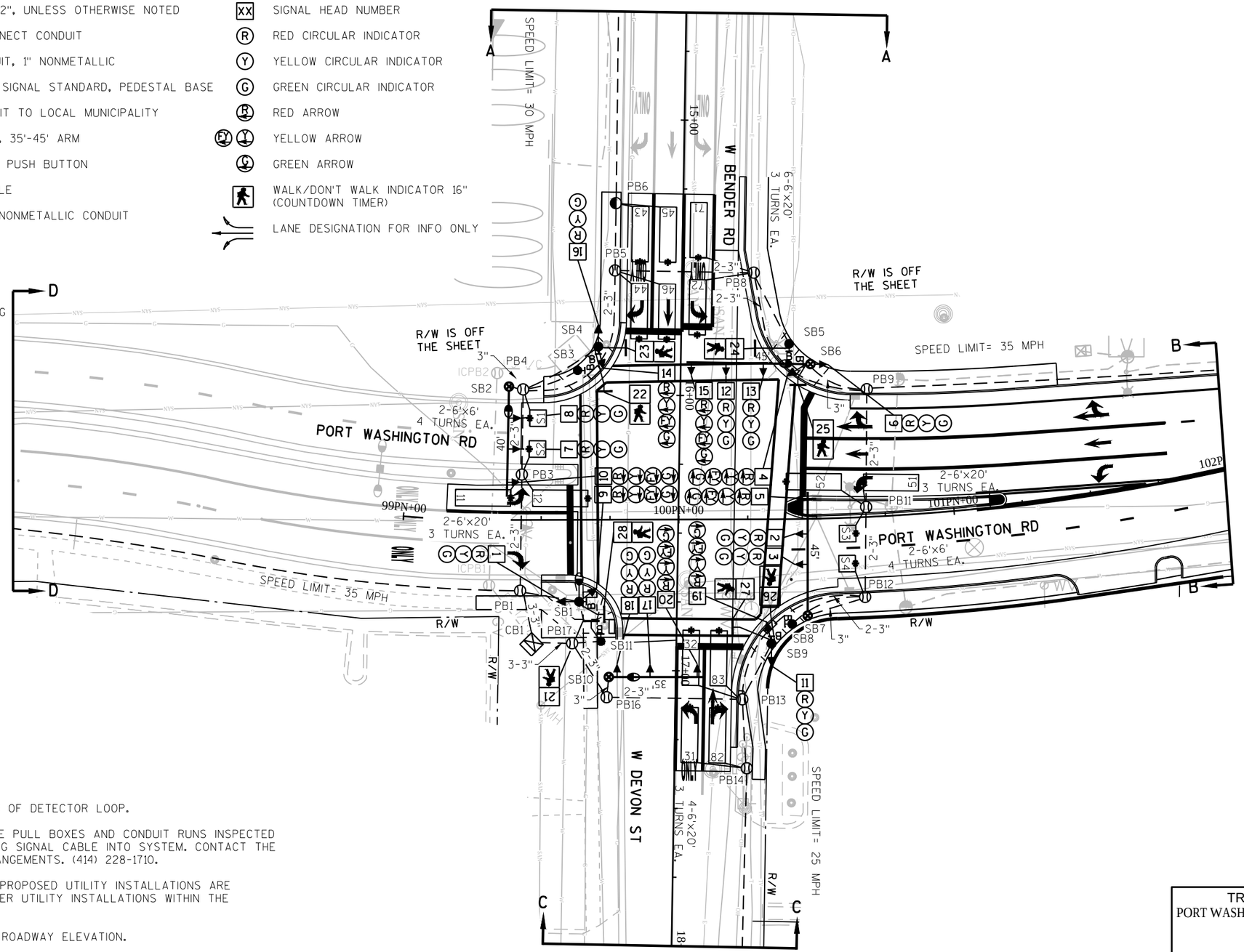
FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0230708\5_S40-XXXX_IC.DWG
LAYOUT NAME - S40-XXXX_IC3

PLOT DATE : 9/28/2021 10:07 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414) 228-1710.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
6. DETECTABLE WARNING FIELDS, STORM SEWER, FTMS, LIGHTING, AND TRAFFIC SIGNAL INTERCONNECT PLANS ARE SHOWN GRAY SHADED FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & W BENDER RD/W DEVON ST
CITY OF GLENDALE
MILWAUKEE COUNTY

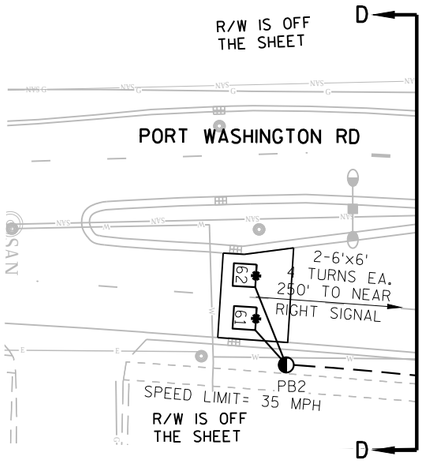
MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: HNTB
REVISED BY:

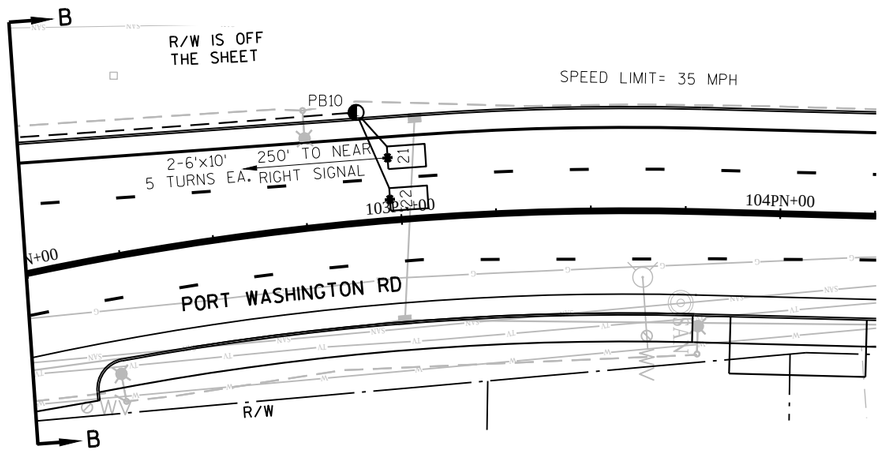
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229143\01_S40-XXXX.DWG
LAYOUT NAME - Port-Bender_1
PLOT DATE : 9/8/2021 12:19 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & W BENDER RD/W DEVON ST
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: HNTB
REVISED BY:

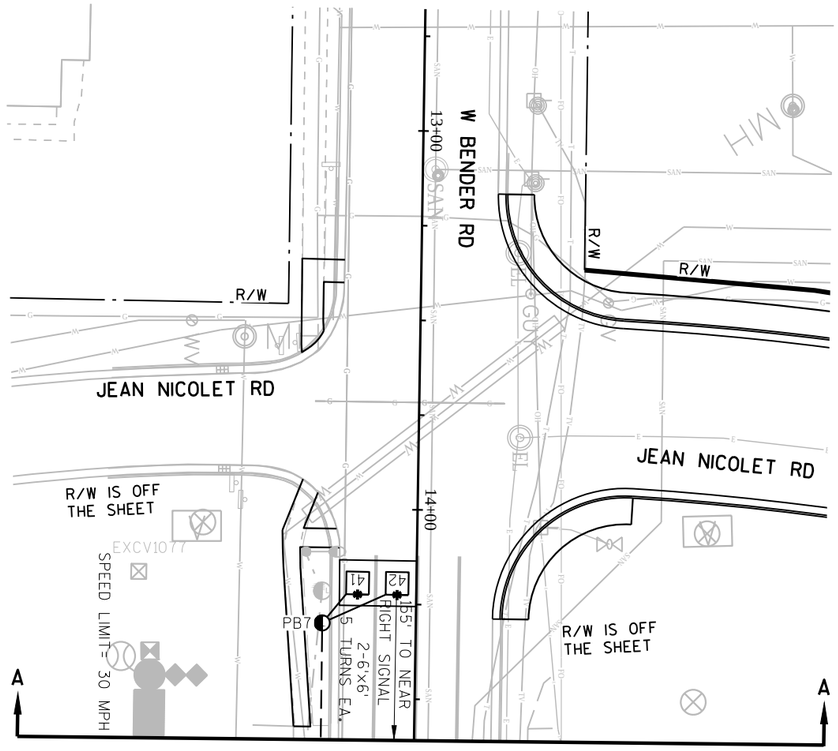
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

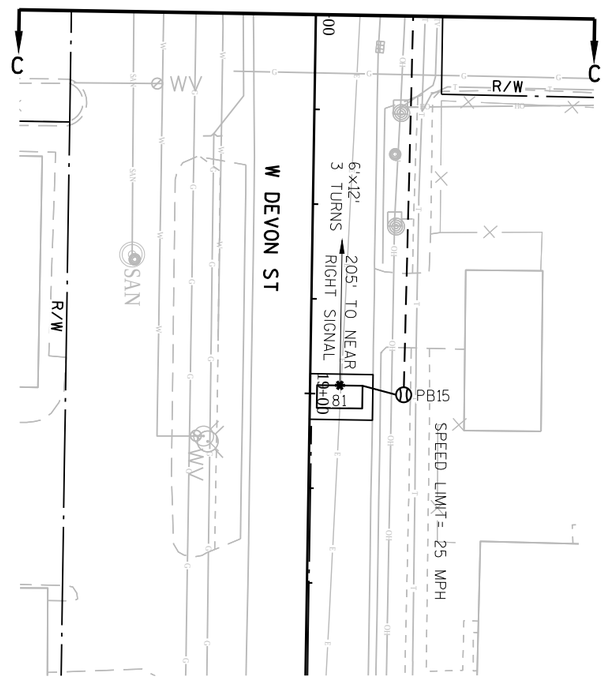
FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229143\01_S40-XXXX.DWG
LAYOUT NAME - Port-Bender_2

PLOT DATE : 9/8/2021 12:21 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N





TRAFFIC CONTROL SIGNAL

PORT WASHINGTON RD & W BENDER RD/W DEVON ST
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: HNTB
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229143\01_S40-XXXX.DWG
LAYOUT NAME - Port-Bender_3

PLOT DATE : 9/8/2021 12:22 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT

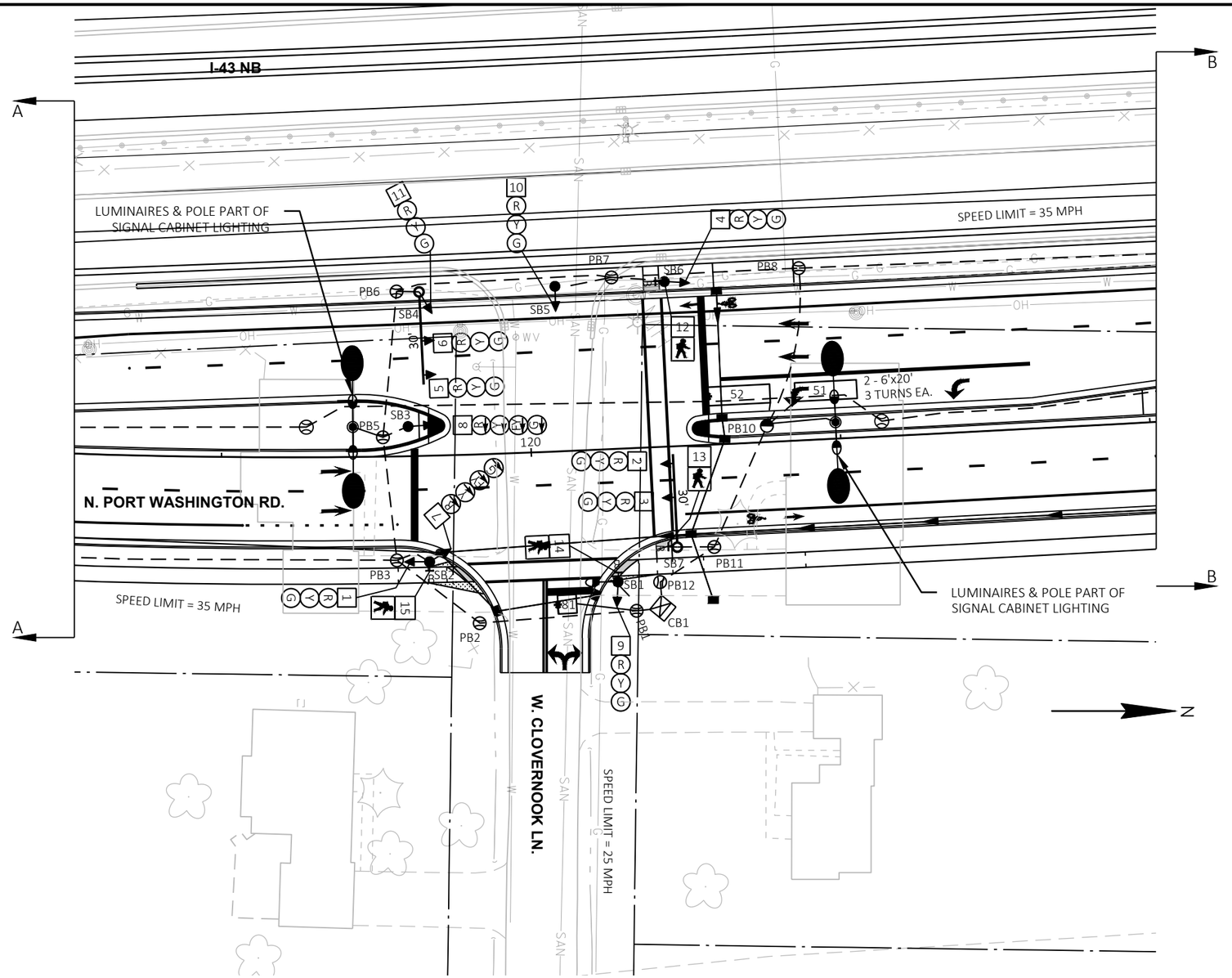
WISDOT/CADDS SHEET 42

2

LEGEND

- SERVICE POLE
- CONTROL CABINET
- NC2 — NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH



CONSTRUCTION NOTES:

1. LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. ALL CENTER OF POLE BASES ARE SET AT 2'-10" FROM B.O.C. AND 1'-10" FROM S.W. EDGE AT RAMP.
3. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE CITY OF GLENDALE TO MAKE ARRANGEMENTS. (414)228-1710.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROZIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
6. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
7. STORM SEWER, FTMS, LIGHTING AND TRAFFIC SIGNAL INTERCONNECT PLANS ARE SHOWN GRAY SHADED FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & W. CLOVERNOOK LN
CITY OF GLENDALE
MILWAUKEECOUNTY

SIGNAL NO.

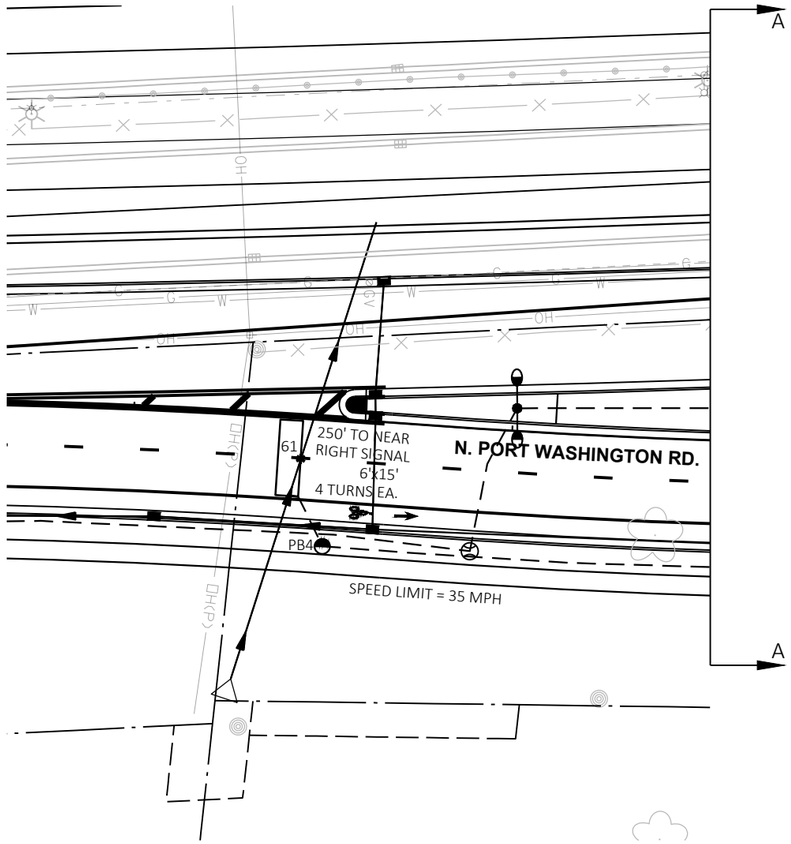
REGION CONTACT: CHARLIE IMIG
DESIGNED BY: DESIGNED BY CLARK DIETZ
REVISED BY: REVISED BY KKR

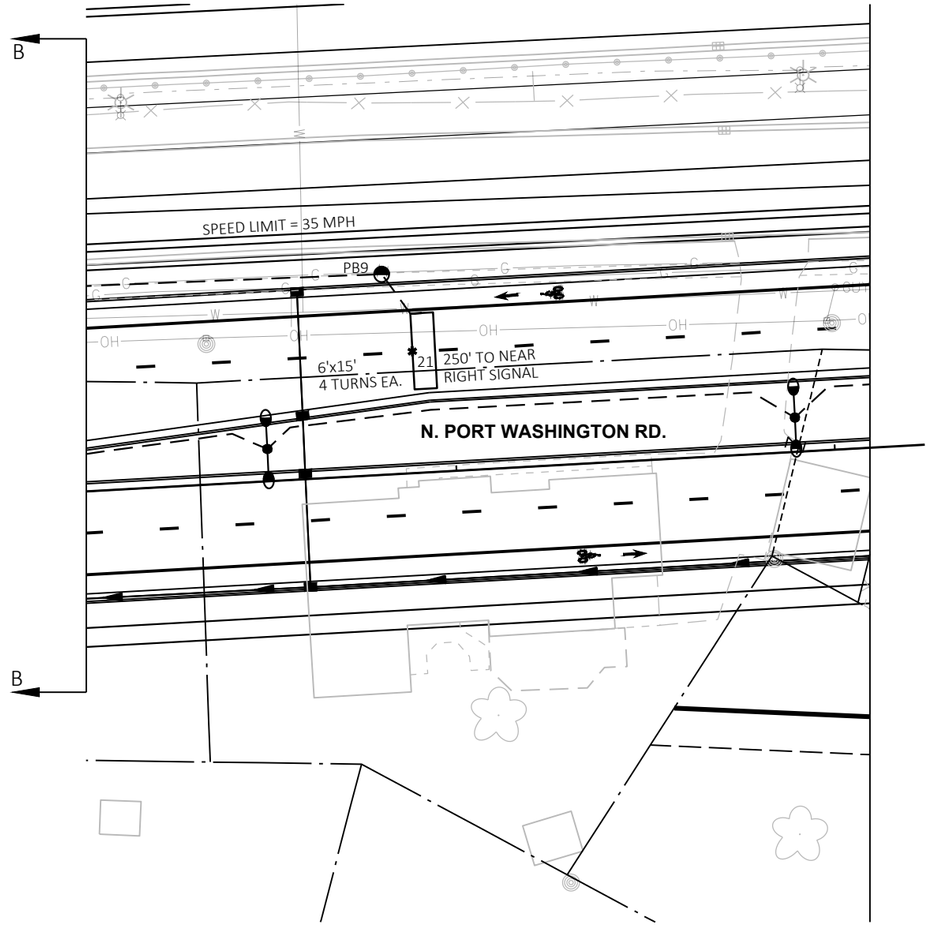
PROJECT NO: 1229-04-71	HWY: N. PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : P:\G0580410_GLENDALE - CLOVERNOOK PORT RD TRF SIG\DESIGN\CAD\SHEETS\024001-SP.DWG
LAYOUT NAME - Traffic Signal Plan
PLOT DATE : 9/28/2021 3:28 PM PLOT BY : KEVIN K. RISCH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N





TRAFFIC CONTROL SIGNAL
PORT WASHINGTON RD & W. CLOVERNOOK LN
CITY OF GLENDALE
MILWAUKEECOUNTY

SIGNAL NO.

REGION CONTACT: CHARLIE IMIG
DESIGNED BY: DESIGNED BY CLARK DIETZ
REVISED BY: REVISED BY KKR

PAGE 1 OF 3

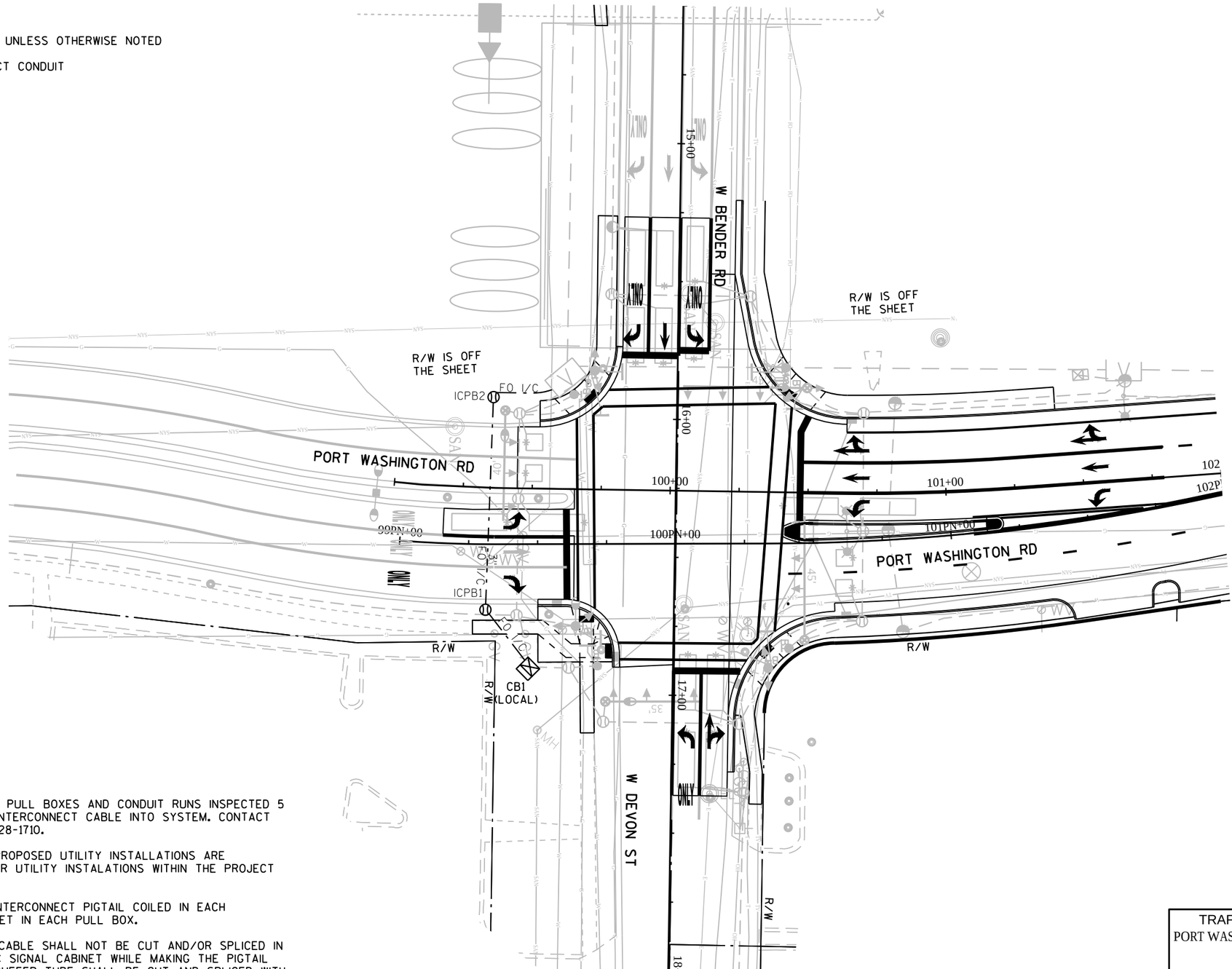
PROJECT NO: 1229-04-71	HWY: N. PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN (2)	SHEET	E

FILE NAME : P:\G0580410_GLENDALE - CLOVERNOOK PORT RD TRF SIG\DESIGN\CAD\SHEETS\024001-SP.DWG
LAYOUT NAME - Traffic Signal Plan (2)

PLOT DATE : 9/28/2021 3:30 PM PLOT BY : KEVIN K. RISCH PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING INTERCONNECT CABLE INTO SYSTEM. CONTACT THE CITY OF GLENDALE AT (414) 228-1710.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. LEAVE 100-FEET OF FIBER OPTIC INTERCONNECT PIGTAIL COILED IN EACH COMMUNICATIONS VAULT AND 30-FEET IN EACH PULL BOX.
4. THE ENTIRE MAINLINE FIBER OPTIC CABLE SHALL NOT BE CUT AND/OR SPLICED IN THE VAULTS NEAREST THE TRAFFIC SIGNAL CABINET WHILE MAKING THE PIGTAIL CONNECTION. ONLY THE REQUIRED BUFFER TUBE SHALL BE CUT AND SPLICED WITH THE PIGTAIL CONNECTION.
5. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, TRAFFIC SIGNALS AND FTMS ARE SHOWN GREYSHADED FOR PLAN CLARITY.

TRAFFIC CONTROL INTERCONNECT
PORT WASHINGTON RD & W BENDER RD/W DEVON ST
CITY OF GLENDALE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: CHARLIE IMIG
DESIGNED BY: HNTB
REVISED BY:

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADOUGHERTY\GREATLAKES\D0229143\01_S40-XXXX_IC.DWG
LAYOUT NAME - Port-Bender_IC1
PLOT DATE : 9/7/2021 1:17 PM
PLOT BY : ALICIA DOUGHERTY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

POB IH 43 ALIGNMENT
STA 1010+00.00
N=326,213.297
E=603,820.837

R/L IH 43

CURVE	1
PI	1021+47.90
N	327339.59
E	603599.15
Δ	3° 07' 26"
D	0° 19' 59"
T	469.13
L	938.04
R	17204.68
PC	1016+78.77
N	326879.28
E	603689.75
PT	1026+16.80
N	327804.14
E	603533.77
BK	N8° 00' 40"W
AH	N11° 08' 06"W
SE	

CURVE	2
PI	1033+70.41
N	328550.39
E	603428.75
Δ	29° 28' 35"
D	2° 00' 00"
T	753.61
L	1473.82
R	2864.79
PC	1026+16.80
N	327804.14
E	603533.77
PT	1040+90.62
N	329251.73
E	603704.52
BK	N21° 27' 55"E
AH	N8° 00' 40"W
SE	

1010 1012 1014 1016 1018 1020 1022 1024 1026 1028 1030 1032 1034 1036 1038 1040

N11° 08' 05.62"W

IH 43

CURVE - 1

CURVE - 2

PC: 1016+78.77

PCC: 1026+16.80

PCC: 104

Y=326096.884
X=604034.379

Y=328747.923
X=604082.102

T 08 N
R 22 E
29

T 08 N
R 22 E
32 29

1/4 LINE

1/16TH LINE

SECTION LINE

MATCHLINE STA 1040+50.00

N

CURVE	3
PI	1047+78.32
N	329891.73
E	603956.18
Δ	10° 17' 11"
D	0° 45' 00"
T	687.70
L	1371.70
R	7640.52
PC	1040+90.62
N	329251.73
E	603704.52
PT	1054+62.32
N	330476.50
E	604318.08
BK	N31° 45' 06"E
AH	N21° 27' 56"E
SE	

CURVE	4
PI	1066+29.89
N	331469.32
E	604932.49
Δ	31° 17' 30"
D	2° 30' 00"
T	641.87
L	1251.67
R	2291.84
PC	1059+88.02
N	330923.52
E	604594.72
PT	1072+39.69
N	332111.17
E	604937.65
BK	N0° 27' 36"E
AH	N31° 45' 06"E
SE	

1042 1044 1046 1048 1050 1052 1054 1056 1058 1060 1062 1064 1066 1068 1070

CURVE - 3

CURVE - 4

R/L IH 43

IH 43

N31° 45' 06.35"E

PCC: 1040+90.62

PT: 1054+62.32

PC: 1059+88.02

Y=331396.795
X=604127.171

T 08 N
R 22 E
29

MATCHLINE STA 1040+50.00

MATCHLINE STA 1071+00.00

1/4 LINE

1/16TH LINE

1/4 LINE

N

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: IH 43 MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027201_ALI_ML.DWG
LAYOUT NAME - _001
PLOT DATE : 9/28/2021 12:40 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

CURVE 4
PI 1066+29.89
N 331469.32
E 604932.49
Δ 31° 17' 30"
D 2° 30' 00"
T 641.87
L 1251.67
R 2291.84
PC 1059+88.02
N 330923.52
E 604594.72
PT 1072+39.69
N 332111.17
E 604937.65
BK N0° 27' 36"E
AH N31° 45' 06"E
SE

CURVE 5
PI 1094+64.12
N 334335.51
E 604957.83
Δ 3° 21' 56"
D 0° 24' 21"
T 414.71
L 829.17
R 14116.00
PC 1090+49.41
N 333920.83
E 604953.89
PT 1098+78.59
N 334749.72
E 604937.42
BK N2° 49' 16"W
AH N0° 32' 40"E
SE

MATCHLINE STA 1071+00.00

MATCHLINE STA 1101+50.00

R/L W BENDER RD — 12BN

R/L W FAIRFIELD CT — 14FA — W FAIRFIELD CT — 16FA

Y=334039.601
X=604179.862

T 08 N R 22 E 20 29

R/L W BRENTWOOD LN — 10BW — W BRENTWOOD LN

SECTION LINE

R/L JEAN NICOLET RD — 10JN — 14BN — 12JN N JEAN NICOLET RD

R/L IH 43

90°

1072 1074 1076 1078 1080 1082 1084 1086 1088 1090 1092 1094 1096 1098 1100

N0° 27' 36.33"E — N0° 32' 39.86"E — N2° 49' 16.15"W

IH 43

CURVE - 5

BEGIN PROJECT
STA 1078+85.76
Y=332,757.229
X=604,942.880

PT: 1072+39.69

PI: 1078+88.06

PC: 1090+49.41

PT: 1098+78.59

14JN 16JN 18JN 20JN 22JN 24JN 26JN 28JN 30JN 32JN

R/L ACACIA RD — 10AA — ACACIA RD

99PS 100PS 105PS 110PS 115PS 120PS

99PN 100PN 105PN 110PN 115PN 120PN

N PORT WASHINGTON RD

R/L N PORT WASHINGTON RD

R/L W BRENTWOOD LN — 10BE — W BRENTWOOD LN

R/L CLOVERNOOK LN — 10CK — CLOVERNOOK LN

R/L CS — 12CS — CS — 14CS

1/16TH LINE — 18BN W BENDER RD

CURVE 6
PI 1107+67.39
N 335637.44
E 604893.67
Δ 7° 28' 30"
D 0° 53' 06"
T 422.91
L 844.62
R 6474.00
PC 1103+44.48
N 335215.04
E 604914.49
PT 1111+89.10
N 336053.54
E 604818.08
BK N10° 17' 46"W
AH N2° 49' 16"W
SE 3.1%

Y=336695.539
X=604239.127

T 08 N R 22 E 20

1/4 LINE

R/L W APPLE TREE RD — 10AW — W APPLE TREE RD

R/L DAPHNE RD — 10DW — DAPHNE RD

R/L N JEAN NICOLET RD

R/L GOOD HOPE RD RAMP C

34JN 36JN 38JN 40JN 42JN 44JN 46JN 48JN 50JN 52JN 54JN 56JN 58JN 60JN 62JN

1120GHC 1122GHC 1124GHC 1126GHC 1128GHC 1130GHC

GOOD HOPE RD RAMP C

1102 1104 1106 1108 1110 1112 1114 1116 1118 1120 1122 1124 1126 1128 1130

N10° 17' 46.15"W — 101°

CURVE - 6

PC: 1103+44.48

PT: 1111+89.10

IH 43

1120GHB 1122GHB 1124GHB 1126GHB 1128GHB 1130GHB

GOOD HOPE RD RAMP B

R/L IH 43

R/L GOOD HOPE RD RAMP B

125PS 130PS 135PS 140PS

125PN 130PN 135PN 140PN

N PORT WASHINGTON RD

R/L W APPLE TREE RD — 10AE — W APPLE TREE RD

R/L DAPHNE RD — 10DE — DAPHNE RD

R/L N PORT WASHINGTON RD

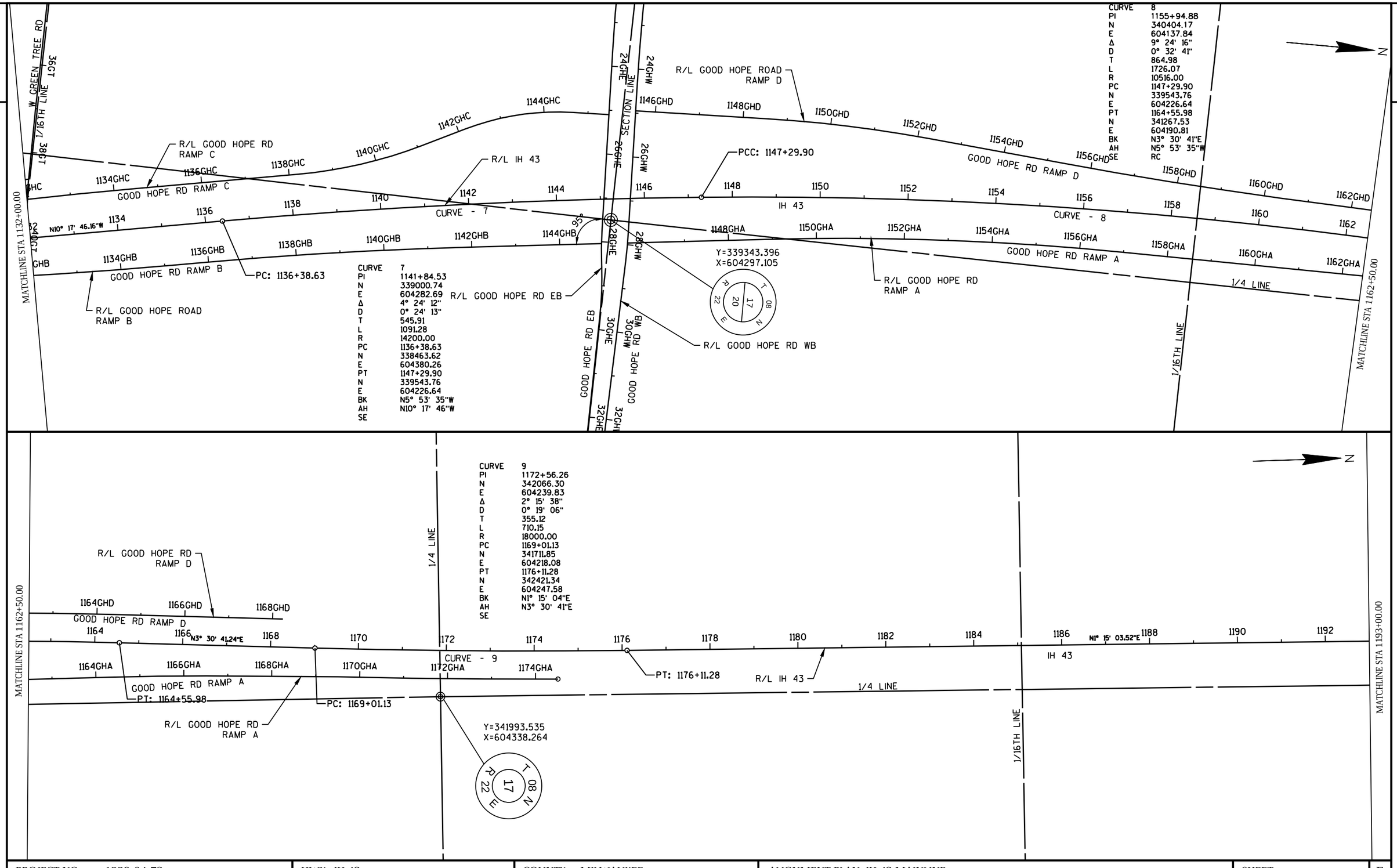
1/16TH LINE

R/L W GREEN TREE RD — 42GT — W GREEN TREE RD

MATCHLINE STA 1132+00.00

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: IH 43 MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027201_ALI_ML.DWG
LAYOUT NAME - _002
PLOT DATE : 9/28/2021 12:40 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: IH 43 MAINLINE	SHEET E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027201_ALI_ML.DWG
LAYOUT NAME - _003
PLOT DATE : 9/28/2021 12:41 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

2

MATCHLINE STA 1193+00.00

N

100PHBD-S 102PHBD-S 104PHBD-S 106PHBD-S

1222BDC

1194 N1° 15' 03.52"E 1196 1198 1200 1202 1204 1206 1208 1210 1212 N0° 58' 54.08"E 1214 1216 1218 1220 1222

IH 43

PI: 1198+31.95

R/L IH 43

MATCHLINE STA 1223+50.00

2

MATCHLINE STA 1223+50.00

CURVE	10
PI	1239+85.75
N	348794.66
E	604367.23
Δ	21° 50' 11"
D	1° 00' 03"
T	1104.35
L	2181.90
R	5725.00
PC	1228+81.40
N	347690.47
E	604348.31
PT	1250+63.30
N	349826.66
E	603974.08
BK	N20° 51' 17"W
AH	N0° 58' 54"E
SE	3.4%

N

20PHB 18PHB 16PHB 14PHB 12PHB 10PHB

N PLEASANT LN

R/L N PLEASANT LN

1224BDC 1226BDC 1228BDC 1230BDC 1232BDC 1234BDC 1236BDC 1238BDC 1240BDC 1242BDC 1244BDC 1246BDC 1248BDC 1250BDC

1224 1226 1228 1230 1232 1234 1236 1238 1240 1242 1244 1246 1248 1250

BROWN DEER RD RAMP C

CURVE - 10

IH 43

PT: 1250+63.30

113°

N20° 51' 17.25"W

1252

R/L IH 43

PC: 1228+81.40

1230BDB 1232BDB 1234BDB 1236BDB 1238BDB 1240BDB 1242BDB 1244BDB 1246BDB 1248BDB 1250BDB

BROWN DEER RD RAMP B

R/L BROWN DEER RD RAMP B

R/L BROWN DEER RD RAMP D

R/L BROWN DEER RD RAMP C EB TO SB IH 43

R/L BROWN DEER RD RAMP C

302BDES 300BDES 614BDE 614BDW 666BW 618BDE 618BDW 616BDW 616BDE 1254 1252BDD 1252BDC 1252BDA 1254 200BDNE 104BDNW 620BDW 620BDE 202BDNE 622BDE 622BDW 102BDNW

R/L BROWN DEER RD RAMP B NB IH 43 TO EB

R/L BROWN DEER RD EB

R/L BROWN DEER RD WB

BROWN DEER RD EB

BROWN DEER RD WB

R/L BROWN DEER RD RAMP A

R/L BROWN DEER RD RAMP A WB TO NB IH 43

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: IH 43 MAINLINE	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256213\027201A_ALI_ML.DWG
LAYOUT NAME - _004

PLOT DATE : 9/28/2021 1:46 PM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

MATCHLINE STA 1254+00.00

404BDSW

406BDSW

R/L BROWN DEER RD
RAMP D IH 43 SB TO WB

408BDSW

410BDSW

BDD

1256BDD

1258BDD

1260BDD

1262BDD

1264BDD

R/L BROWN DEER RD
RAMP D

1266BDD

R/L BROWN DEER RD
RAMP D

BROWN DEER RD RAMP D

1268BDD

1270BDD

1272BDD

END PROJECT
STA 1282+46.34

PHEASANT LN

54

1256

N20° 51' 17.25"W

1258

1260

1262

1264

1266

1268

1270

1272

N20° 51' 17.25"W

1274

1276

1278

1280

1282

1284

IH 43

1256BDA

1258BDA

1260BDA

1262BDA

1264BDA

1266BDA

1268BDA

1270BDA

1272BDA

1274BDA

1276BDA

1278BDA

BDA

BROWN DEER RD RAMP A

R/L IH 43

R/L BROWN DEER RD
RAMP A

MATCHLINE STA 1284+50.00

N

COUNTY LINE RD

MATCHLINE STA 1284+50.00

END CONSTRUCTION
STA 1295+00.00

PHEASANT RD

1286

1288

1290

1292

1294

1296

1298

1300

1302

1304

1306

1308

1310

1312

1314

IH 43

PC: 1297+24.50

CURVE - 11

PCC: 1308+84.37

R/L IH 43

PORT WASHINGTON RD

CURVE	11
PI	1303+07.99
N	354727.75
E	602106.97
Δ	15° 29' 27"
D	1° 20' 08"
T	583.49
L	1159.87
R	4290.00
PC	1297+24.50
N	354182.49
E	602314.69
PT	1308+84.37
N	355308.69
E	602052.42
BK	N5° 21' 50"W
AH	N20° 51' 17"W
SE	4.2%

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: IH 43 MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256213\027201A_ALI_ML.DWG
LAYOUT NAME - _005

PLOT DATE : 9/28/2021 1:46 PM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

CURVE	GHB-1	CURVE	GHC-1	CURVE	GHC-2	CURVE	GHB-2
PI	1126GHB+96.74	PI	1128GHC+02.71	PI	1131GHC+89.98	PI	1132GHB+54.07
N	337547.67	N	337627.36	N	338004.77	N	338100.15
E	604611.70	E	604457.99	E	604371.13	E	604537.77
Δ	2° 40' 26"	Δ	1° 19' 59"	Δ	2° 39' 52"	Δ	2° 40' 27"
D	0° 42' 39"	D	0° 30' 58"	D	0° 30' 58"	D	0° 30' 58"
T	188.10	T	129.14	T	258.14	T	259.08
L	376.13	L	258.26	L	516.19	L	518.06
R	8060.00	R	11100.00	R	11100.00	R	11100.00
PC	1125GHB+08.65	PC	1126GHC+73.57	PRC	1129GHC+31.84	PC	1129GHB+95.00
N	337362.61	N	337500.88	N	337753.21	N	337843.36
E	604645.32	E	604484.02	E	604429.03	E	604572.13
PT	1128GHB+84.77	PRC	1129GHC+31.84	PT	1134GHC+48.02	PT	1135GHB+13.05
N	337734.11	N	337753.21	N	338258.76	N	338355.05
E	604586.75	E	604429.03	E	604324.99	E	604491.46
BK	N7° 37' 21"W	BK	N12° 57' 38"W	BK	N10° 17' 46"W	BK	N10° 17' 47"W
AH	N10° 17' 46"W	AH	N11° 37' 39"W	AH	N12° 57' 38"W	AH	N7° 37' 21"W
SE	NC	SE	NC	SE	NC	SE	NC

CURVE	GHB-3	CURVE	GHC-3	CURVE	GHC-4
PI	1139GHB+99.51	PI	1139GHC+65.58	PI	1143GHC+42.98
N	338735.28	N	338767.98	N	339108.41
E	604422.38	E	604232.49	E	604065.29
Δ	3° 33' 37"	Δ	15° 51' 37"	Δ	24° 19' 09"
D	0° 34' 26"	D	5° 27' 24"	D	9° 47' 39"
T	310.32	T	146.26	T	126.05
L	620.43	L	290.66	L	248.30
R	9985.00	R	1050.00	R	585.00
PC	1135GHB+89.20	PC	1138GHC+19.31	PC	1142GHC+16.93
N	338429.97	N	338624.07	N	338995.27
E	604477.85	E	604258.63	E	604120.86
PT	1142GHB+09.63	PT	1141GHC+09.97	PT	1144GHC+65.24
N	339043.46	N	338899.26	N	339234.40
E	604385.98	E	604168.01	E	604061.25
BK	N6° 44' 11"W	BK	N26° 09' 23"W	BK	N1° 50' 14"W
AH	N10° 17' 47"W	AH	N10° 17' 46"W	AH	N26° 09' 23"W
SE	NC	SE	NC	SE	3.70%

Y=336695.539
X=604239.127

T 08 N R 22 E 20

POB GHC ALIGNMENT
STA 1119GHC+32.84
N = 336773.20
E = 604622.30

POB GHB ALIGNMENT
STA 1119GHB+08.65
N = 336772.27
E = 604752.57

POE GHC ALIGNMENT
STA 1145GHC+48.02
N = 339317.13
E = 604058.60

POE GHB ALIGNMENT
STA 1144GHB+95.21
N = 339327.07
E = 604352.49

JEAN NICOLET RD
R/L JEAN NICOLET RD
PI: 1123GHC+73.84
PC: 1126GHC+73.57
PRC: 1129GHC+31.84
PC: 1125GHB+08.65
PT: 1128GHB+84.77
PC: 1129GHB+95.00
CURVE GHC-1
CURVE GHB-1
CURVE GHC-2
CURVE GHB-2
CURVE GHC-3
CURVE GHB-3
CURVE GHC-4
441.00'
N10° 17' 46.16"W
299.73'
N11° 26' 32.97"W
600.00'
N10° 17' 46.16"W
N7° 37' 20.63"W
110.22'
371.29'
N10° 17' 46.16"W
N10° 17' 47.39"W
76.14'
285.58'
N6° 44' 10.83"W
N1° 50' 14.23"W
82.78'
N26° 09' 23.26"W
106.97'
90°
95°
1/4 LINE
IH 43
R/L IH 43
RAMP B
RAMP C
R/L GOOD HOPE RD RAMP B
R/L GOOD HOPE RD RAMP C
PT: 1134GHC+48.02
PC: 1138GHC+19.31
PT: 1135GHB+89.20
PT: 1135GHB+13.05
PT: 1142GHB+09.63
PT: 1141GHC+09.97
PT: 1144GHC+65.24
PC: 1142GHC+16.93
R/L GREEN TREE RD
R/L GOOD HOPE RD EB
R/L GOOD HOPE RD WB
GOOD HOPE RD
SECTION LINE
1/16TH LINE

CURVE	GHD-1	CURVE	GHD-2	CURVE	GHD-3	CURVE	GHA-1	CURVE	GHA-2	CURVE	GHA-3
PI	1150GHD+37.08	PI	1158GHD+47.64	PI	1163GHD+07.43	PI	1152GHA+93.76	PI	1165GHA+40.65	PI	1172GHA+01.16
N	339858.93	N	340666.64	N	341126.33	N	340104.39	N	341352.30	N	342012.08
E	604029.21	E	604102.48	E	604118.03	E	604260.67	E	604269.15	E	604299.78
Δ	7° 01' 15"	Δ	3° 14' 48"	Δ	1° 34' 28"	Δ	7° 07' 32"	Δ	1° 33' 46"	Δ	1° 35' 13"
D	1° 54' 01"	D	0° 30' 58"	D	0° 32' 30"	D	0° 52' 53"	D	0° 42' 31"	D	0° 19' 02"
T	184.95	T	314.57	T	145.39	T	404.70	T	110.27	T	250.19
L	369.45	L	628.98	L	290.75	L	808.36	L	220.53	L	500.35
R	3015.00	R	11100.00	R	10580.00	R	6500.00	R	8085.00	R	18064.00
PC	1148GHD+52.12	PC	1155GHD+33.07	PRC	1161GHD+62.05	PC	1148GHA+89.05	PC	1164GHA+30.38	PC	1169GHA+50.97
N	339674.07	N	340353.35	N	340981.03	N	339702.48	N	341242.03	N	341762.32
E	604035.14	E	604074.06	E	604113.12	E	604308.14	E	604268.40	E	604285.21
PT	1152GHD+21.57	PRC	1161GHD+62.05	PT	1164GHD+52.80	PT	1156GHA+97.42	PT	1166GHA+50.91	PT	1174GHA+51.32
N	340043.12	N	340981.03	N	341271.44	N	340509.08	N	341462.51	N	342262.15
E	604045.92	E	604113.12	E	604126.93	E	604263.42	E	604272.90	E	604307.43
BK	N5° 11' 01"E	BK	N1° 56' 13"E	BK	N3° 30' 41"E	BK	N0° 23' 21"E	BK	N1° 57' 07"E	BK	N1° 45' 06"E
AH	N1° 50' 14"W	AH	N5° 11' 01"E	AH	N1° 56' 13"E	AH	N6° 44' 11"W	AH	N0° 23' 21"E	AH	N3° 20' 19"E
SE	2.90%	SE	NC	SE	NC	SE	2.20%	SE	NC	SE	NC

Y=339343.396
X=604297.105

T 08 N R 22 E 17 20

POB GHD ALIGNMENT
STA 1145GHD+54.62
N = 339376.72
E = 604044.68

POB GHA ALIGNMENT
STA 1145GHA+70.34
N = 339386.06
E = 604345.52

POE GHD ALIGNMENT
STA 1168GHD+23.22
N = 341641.17
E = 604149.62

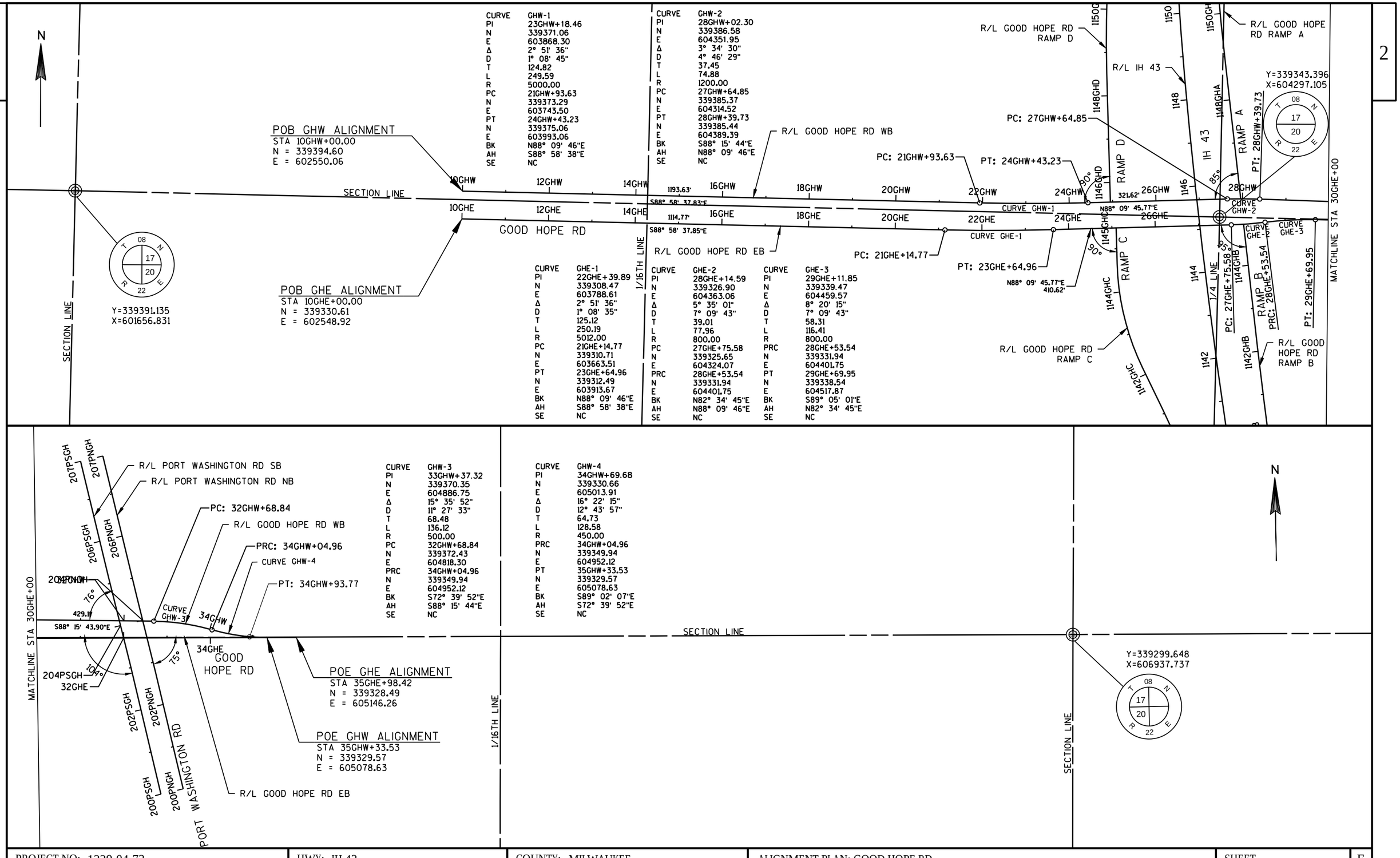
POE GHA ALIGNMENT
STA 1174GHA+51.32
N = 342262.15
E = 604307.43

Y=341993.535
X=604338.264

IH 43
RAMP A
RAMP D
R/L IH 43
R/L GOOD HOPE RD RAMP A
R/L GOOD HOPE RD RAMP D
R/L GOOD HOPE RD WB
R/L GOOD HOPE RD EB
PC: 1148GHD+52.12
PT: 1152GHD+21.57
PC: 1155GHD+33.07
PRC: 1161GHD+62.05
PT: 1164GHD+52.80
PC: 1148GHA+89.05
PT: 1156GHA+97.42
PC: 1164GHA+30.38
PT: 1166GHA+50.91
PC: 1169GHA+50.97
PT: 1174GHA+51.32
CURVE GHD-1
CURVE GHD-2
CURVE GHD-3
CURVE GHA-1
CURVE GHA-2
CURVE GHA-3
318.71'
N6° 44' 10.83"W
N1° 50' 14.23"W
297.50'
N5° 11' 00.67"E
311.50'
732.96'
N0° 23' 21.00"E
N2° 21' 03.84"E
300.05'
N3° 30' 41.24"E
370.42'
85°
90°
1/4 LINE
1/16TH LINE
GOOD HOPE RD
SECTION LINE

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: GOOD HOPE RD RAMPS	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027202_ALI_GH.DWG
PLOT DATE : 9/28/2021 12:51 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1:200_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: GOOD HOPE RD	SHEET E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027202_ALI_GH.DWG PLOT DATE : 9/28/2021 12:51 PM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : 1:200_XREF

CURVE	BDC-1	CURVE	BDC-2	CURVE	BDC-3	CURVE	BDC-4
PI	1229BDC+08.53	PI	1230BDC+88.29	PI	1240BDC+00.97	PI	1251BDC+89.77
N	347721.32	N	347901.07	N	348812.66	N	349884.20
E	604284.83	E	604283.02	E	604237.71	E	603667.53
Δ	0° 36' 08"	Δ	3° 02' 17"	Δ	25° 21' 38"	Δ	119° 54' 16"
D	1° 00' 44"	D	1° 00' 46"	D	1° 41' 25"	D	45° 50' 12"
T	29.76	T	150.00	T	762.74	T	216.09
L	59.51	L	299.94	L	1500.50	L	261.59
R	5661.00	R	5656.67	R	3390.00	R	125.00
PC	1228BDC+78.78	PCC	1229BDC+38.29	PCC	1232BDC+38.22	PC	1249BDC+73.68
N	347691.57	N	347751.08	N	348050.74	N	349693.44
E	604284.32	E	604285.03	E	604273.07	E	603769.04
PCC	1229BDC+38.29	PCC	1232BDC+38.22	PT	1247BDC+38.72	PT	1252BDC+35.28
N	347751.08	N	348050.74	N	349486.01	N	349877.09
E	604285.03	E	604273.07	E	603879.41	E	603883.50
BK	N0° 22' 46"E	BK	N3° 48' 14"W	BK	N28° 01' 04"W	BK	S88° 06' 48"E
AH	N0° 58' 54"E	AH	N0° 45' 57"W	AH	N2° 39' 26"W	AH	N28° 01' 04"W
SE	3.40%	SE	3.40%	SE	4.00%	SE	NC

POB BDC ALIGNMENT
STA 1222BDC+63.29
N = 347076.17
E = 604273.77

N0° 58' 54.08"E
615.49'

PC: 1228BDC+78.78
PCC: 1229BDC+38.29
PCC: 1232BDC+38.22
PT: 1247BDC+38.72
PC: 1249BDC+73.68
N28° 01' 04.40"W
234.96'

R/L N. PHEASANT LN
N. PHEASANT LN
R/L BROWN DEER RD RAMP C
RAMP C
R/L IH 43
IH 43
R/L BROWN DEER RD EB
R/L BROWN DEER RD EB TO SB ENTRANCE RAMP
R/L BROWN DEER RD NB EXIT RAMP TO EB
BROWN DEER RD

POE BDC ALIGNMENT
STA 1252BDC+35.28
N = 349877.09
E = 603883.50

POE BDB ALIGNMENT
STA 1251BDB+71.83
N = 349885.84
E = 604042.89

CURVE	BDB-1	CURVE	BDB-2	CURVE	BDB-3
PI	1232BDB+34.58	PI	1244BDB+37.88	PI	1250BDB+90.19
N	348046.03	N	349244.29	N	349882.01
E	604415.23	E	604299.46	E	604159.46
Δ	5° 56' 46"	Δ	6° 51' 47"	Δ	75° 43' 53"
D	0° 59' 23"	D	1° 23' 51"	D	38° 11' 50"
T	300.66	T	245.85	T	116.63
L	600.77	L	491.12	L	198.26
R	5789.00	R	4100.00	R	150.00
PC	1229BDB+33.92	PC	1241BDB+92.02	PC	1249BDB+73.57
N	347745.38	N	348999.57	N	349768.09
E	604412.99	E	604323.10	E	604184.47
PT	1235BDB+34.69	PT	1246BDB+83.14	PT	1251BDB+71.83
N	348345.29	N	349484.42	N	349885.84
E	604386.32	E	604246.74	E	604042.89
BK	N5° 31' 07"W	BK	N12° 22' 55"W	BK	N88° 06' 48"W
AH	N0° 25' 39"E	AH	N5° 31' 07"W	AH	N12° 22' 55"W
SE	3.30%	SE	3.10%	SE	NC

POB BDB ALIGNMENT
STA 1229BDB+33.92
N = 347745.38
E = 604412.99

PT: 1235BDB+34.69
N5° 31' 07.18"W
657.33'
R/L BROWN DEER RD RAMP B
PC: 1241BDB+92.02
PT: 1246BDB+83.14
RAMP B
PC: 1249BDB+73.57
N12° 22' 54.64"W
290.42'
R/L BROWN DEER RD WB

CURVE	BDD-1	CURVE	BDD-2	CURVE	BDD-3	CURVE	BDA-1	CURVE	BDA-2
PI	1252BDD+84.73	PI	1258BDD+45.12	PI	1264BDD+74.04	PI	1253BDA+16.68	PI	1256BDA+64.48
N	349963.71	N	350505.65	N	351118.19	N	349961.51	N	350420.38
E	603764.28	E	603557.82	E	603413.58	E	604256.06	E	603863.65
Δ	67° 15' 31"	Δ	7° 36' 13"	Δ	7° 36' 13"	Δ	132° 25' 22"	Δ	18° 07' 47"
D	45° 50' 12"	D	3° 00' 56"	D	1° 41' 07"	D	49° 49' 21"	D	3° 49' 11"
T	83.14	T	126.26	T	225.93	T	260.88	T	239.32
L	146.74	L	252.14	L	451.20	L	265.79	L	474.63
R	125.00	R	1900.00	R	3400.00	R	115.00	R	1500.00
PC	1252BDD+01.59	PC	1257BDD+18.86	PC	1262BDD+48.11	PC	1250BDA+55.80	PC	1254BDA+25.16
N	349960.97	N	350387.66	N	350898.27	N	349970.10	N	350238.50
E	603847.38	E	603602.77	E	603465.37	E	603995.32	E	604019.19
PT	1253BDD+48.32	PT	1259BDD+71.01	PT	1266BDD+99.31	PT	1253BDA+21.59	PT	1258BDA+99.80
N	350041.40	N	350628.54	N	351329.32	N	350159.78	N	35064l.63
E	603734.68	E	603528.88	E	603333.14	E	604086.50	E	603772.43
BK	N20° 51' 17"W	BK	N13° 15' 04"W	BK	N20° 51' 17"W	BK	N40° 32' 10"W	BK	N22° 24' 24"W
AH	N88° 06' 48"W	AH	N20° 51' 17"W	AH	N13° 15' 04"W	AH	S88° 06' 48"E	AH	N40° 32' 10"W
SE	NC	SE	4.00%	SE	3.60%	SE	NC	SE	4.00%

R/L BROWN DEER RD EB
R/L BROWN DEER RD SB EXIT RAMP TO WB
POB BDD ALIGNMENT
STA 1252BDD+01.59
N = 349960.97
E = 603847.38

PC: 1257BDD+18.86
R/L BROWN DEER RD RAMP D
PT: 1259BDD+71.01
PC: 1262BDD+48.11
RAMP D
PT: 1253BDD+48.32
N20° 51' 17.25"W
370.54'
N13° 15' 04.40"W
277.10'
PT: 1266BDD+99.31
N20° 51' 17.25"W
619.67'
R/L IH 43
IH 43
CURVE BDD-1
CURVE BDD-2
CURVE BDD-3

POE BDD ALIGNMENT
STA 1273BDD+18.98
N = 351908.39
E = 603112.54

R/L BROWN DEER RD EB
POB BDA ALIGNMENT
STA 1250BDA+50.14
N = 349970.27
E = 603990.33

PC: 1254BDA+25.16
PT: 1253BDA+21.59
S88° 06' 47.95"E
5.66'
PC: 1250BDA+55.80
R/L BROWN DEER RD WB TO NB ENTRANCE RAMP
RAMP A
PT: 1258BDA+99.80
R/L BROWN DEER RD RAMP A
PI: 1270BDA+75.33
N21° 58' 19.98"W
300.06'
PI: 1273BDA+75.38
N20° 51' 17.25"W
500.00'
POE BDA ALIGNMENT
STA 1278BDA+75.38
N = 352473.91
E = 603034.08

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: BROWN DEER RD RAMPS A, B, C, & D	SHEET	E

2

CURVE	BDES-1
PI	301BDES+83.09
N	349845.21
E	603664.49
Δ	56° 35' 38"
D	20° 27' 46"
T	150.75
L	276.57
R	280.00
PC	300BDES+32.35
N	349712.13
E	603735.30
PT	303BDES+08.92
N	349859.36
E	603514.41
BK	N84° 36' 42"W
AH	N28° 01' 04"W
SE	NC

CURVE	BDSW-1
PI	400BDSW+57.09
N	350015.04
E	603109.11
Δ	3° 16' 12"
D	2° 51' 53"
T	57.09
L	114.14
R	2000.00
PC	400BDSW+00.00
N	350016.41
E	603052.04
PT	401BDSW+14.14
N	350016.92
E	603166.17
BK	N88° 06' 32"E
AH	S88° 37' 16"E
SE	NC

CURVE	BDSW-2
PI	406BDSW+34.59
N	350034.10
E	603686.33
Δ	103° 57' 57"
D	31° 49' 52"
T	230.25
L	326.62
R	180.00
PC	404BDSW+04.35
N	350026.50
E	603456.21
PT	407BDSW+30.96
N	350255.59
E	603623.42
BK	N15° 51' 25"W
AH	N88° 06' 32"E
SE	NC

CURVE	BDNE-1
PI	201BDNE+91.89
N	349810.86
E	604196.58
Δ	90° 34' 01"
D	30° 09' 20"
T	191.89
L	300.33
R	190.00
PC	200BDNE+00.00
N	349623.43
E	604237.72
PT	203BDNE+00.33
N	349850.15
E	604384.40
BK	N78° 11' 06"E
AH	N12° 22' 55"W
SE	NC

CURVE	BDWN-1
PI	100BDWN+16.11
N	349976.80
E	604499.52
Δ	1° 54' 25"
D	5° 55' 08"
T	16.11
L	32.22
R	968.00
PC	100BDWN+00.00
N	349976.17
E	604515.62
PT	100BDWN+32.22
N	349977.96
E	604483.45
BK	N85° 52' 14"W
AH	N87° 46' 39"W
SE	NC

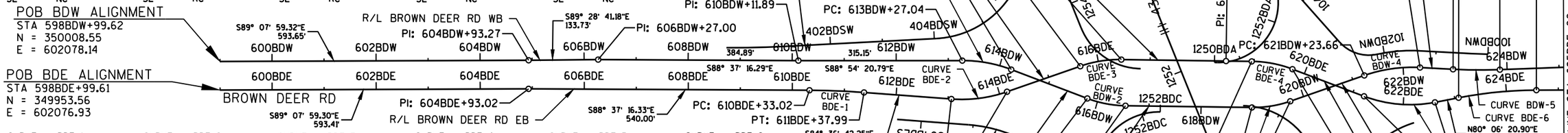
CURVE	BDWN-2
PI	102BDWN+58.85
N	349973.07
E	604258.02
Δ	58° 28' 52"
D	76° 23' 40"
T	41.99
L	76.55
R	75.00
PC	102BDWN+16.86
N	349979.65
E	604299.48
PT	102BDWN+93.41
N	350004.98
E	604230.73
BK	N40° 32' 10"W
AH	S80° 58' 58"W
SE	NC

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: BROWN DEER RD RAMPS NE, ES, WN, & SW	SHEET E

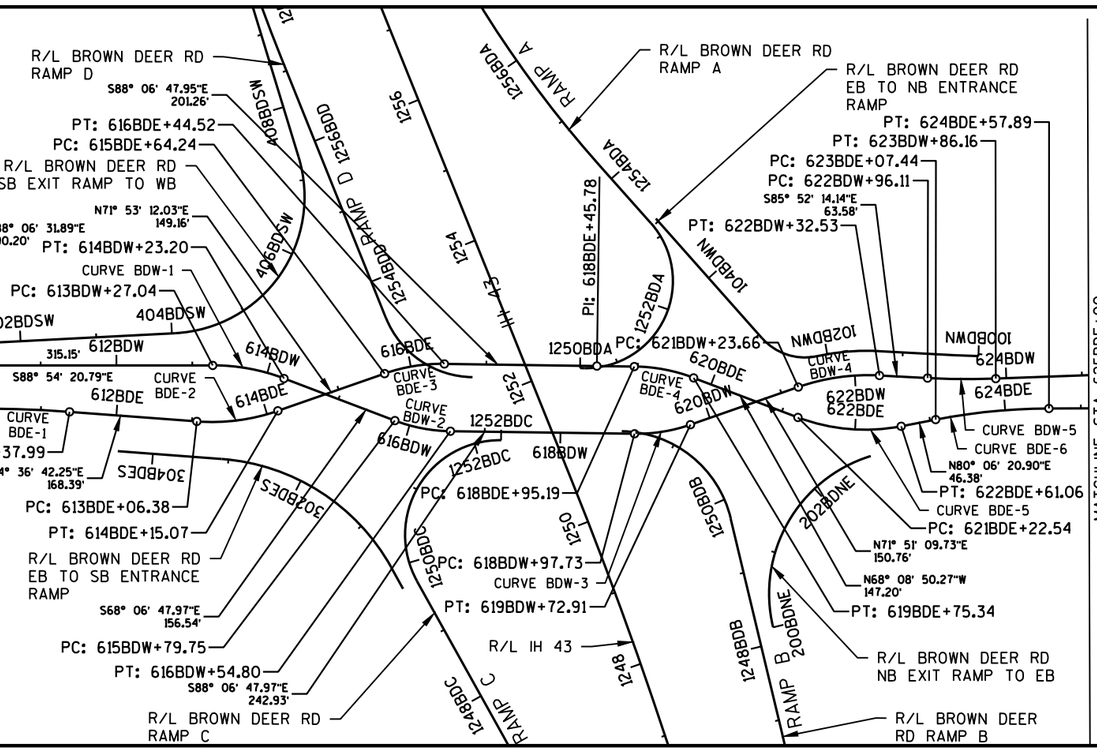
CURVE	BDW-1	CURVE	BDW-2	CURVE	BDW-3	CURVE	BDW-4	CURVE	BDW-5
PI	613BDW+75.65	PI	616BDW+17.66	PI	619BDW+35.71	PI	621BDW+78.79	PI	623BDW+41.16
N	349982.14	N	349891.53	N	349881.04	N	349956.99	N	349945.20
E	603553.54	E	603779.09	E	604097.74	E	604329.47	E	604492.81
Δ	20° 47' 33"	Δ	20° 00' 00"	Δ	20° 02' 02"	Δ	22° 16' 36"	Δ	5° 09' 33"
D	21° 37' 16"	D	26° 38' 57"	D	26° 38' 57"	D	20° 27' 46"	D	5° 43' 46"
T	48.62	T	37.91	T	37.98	T	55.13	T	45.05
L	96.17	L	75.05	L	75.18	L	108.86	L	90.05
R	265.00	R	215.00	R	215.00	R	280.00	R	1000.00
PC	613BDW+27.04	PC	615BDW+79.75	PC	618BDW+97.73	PC	621BDW+23.66	PC	622BDW+96.11
N	349983.07	N	349905.66	N	349882.29	N	349939.82	N	349948.44
E	603504.93	E	603743.92	E	604059.79	E	604277.09	E	604447.87
PT	614BDW+23.20	PT	616BDW+54.80	PT	619BDW+72.91	PT	622BDW+32.53	PT	623BDW+86.16
N	349964.02	N	349890.28	N	349892.86	N	349953.02	N	349946.01
E	603598.66	E	603816.98	E	604133.83	E	604384.46	E	604537.86
BK	S68° 06' 48"E	BK	S88° 06' 48"E	BK	N71° 51' 10"E	BK	S85° 52' 14"E	BK	N88° 58' 13"E
AH	S88° 54' 21"E	AH	S68° 06' 48"E	AH	S88° 06' 48"E	AH	N71° 51' 10"E	AH	S85° 52' 14"E
SE	NC	SE	RC	SE	RC	SE	NC	SE	NC

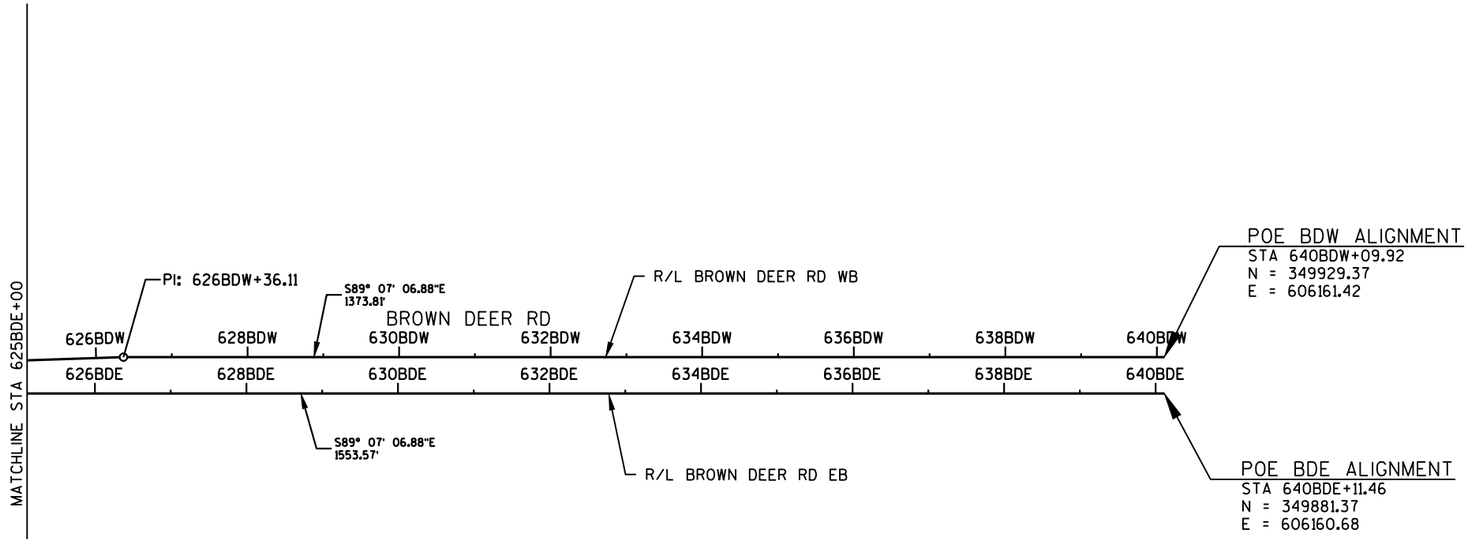
POB BDW ALIGNMENT
STA 598BDW+99.62
N = 350008.55
E = 602078.14

POB BDE ALIGNMENT
STA 598BDE+99.61
N = 349953.56
E = 602076.93



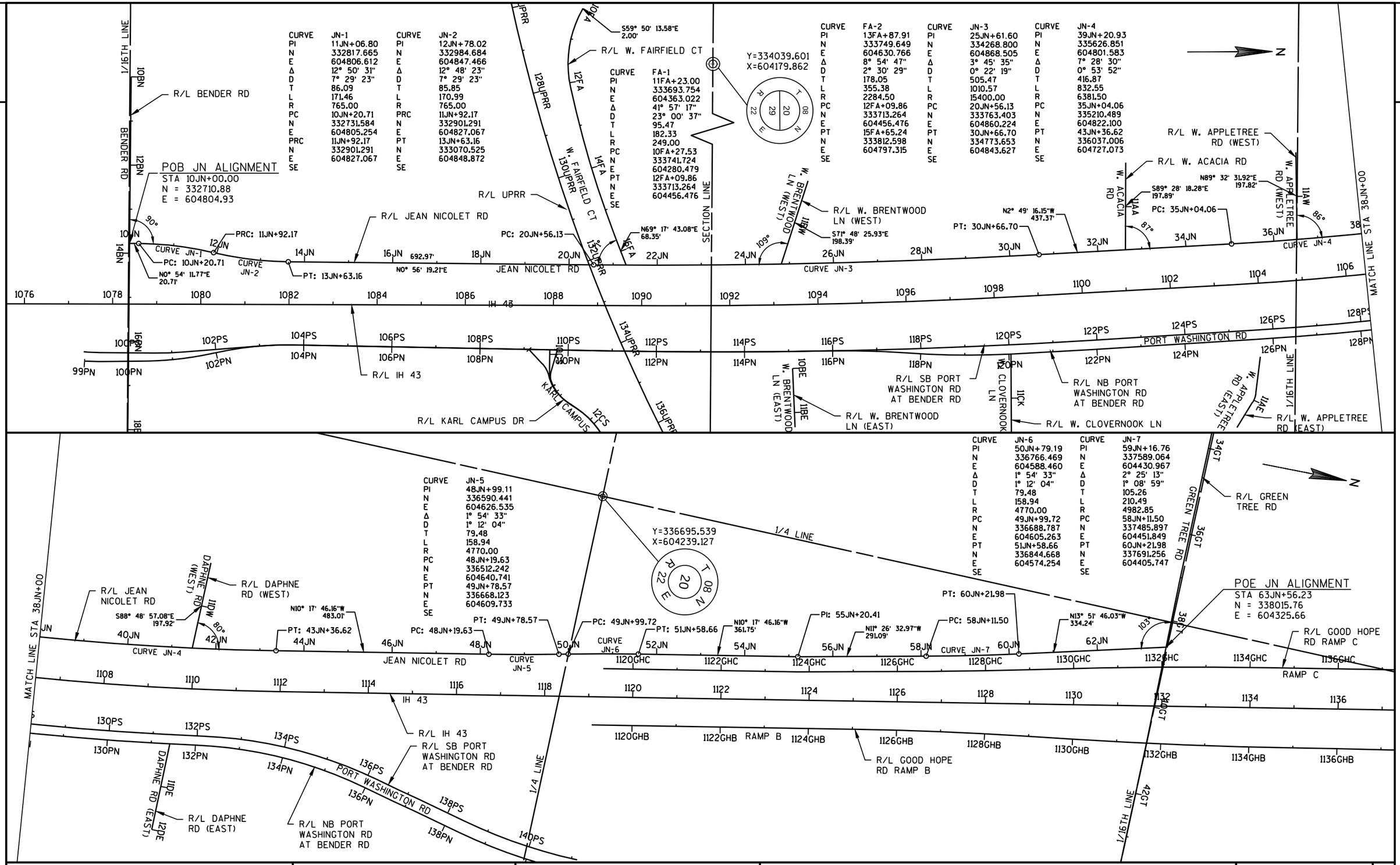
CURVE	BDE-1	CURVE	BDE-2	CURVE	BDE-3	CURVE	BDE-4	CURVE	BDE-5	CURVE	BDE-6
PI	610BDE+85.53	PI	613BDE+61.50	PI	616BDE+04.79	PI	619BDE+35.68	PI	621BDE+93.63	PI	623BDE+82.89
N	349930.32	N	349904.40	N	349980.52	N	349969.60	N	349873.28	N	349906.43
E	603262.59	E	603537.39	E	603770.10	E	604101.63	E	604341.81	E	604531.85
Δ	4° 00' 34"	Δ	23° 30' 06"	Δ	20° 00' 00"	Δ	19° 57' 58"	Δ	31° 44' 49"	Δ	10° 46' 32"
D	3° 49' 11"	D	21° 37' 16"	D	24° 54' 40"	D	24° 54' 40"	D	22° 55' 06"	D	7° 09' 43"
T	52.51	T	55.12	T	40.56	T	40.48	T	71.09	T	75.45
L	104.97	L	108.70	L	80.29	L	80.15	L	138.52	L	150.46
R	1500.00	R	265.00	R	230.00	R	230.00	R	250.00	R	800.00
PC	610BDE+33.02	PC	613BDE+06.38	PC	615BDE+64.24	PC	618BDE+95.19	PC	621BDE+22.54	PC	623BDE+07.44
N	349931.59	N	349909.58	N	349967.92	N	349970.94	N	349899.74	N	349893.47
E	603210.10	E	603482.51	E	603731.55	E	604061.16	E	604275.83	E	604457.53
PT	611BDE+37.99	PT	614BDE+15.07	PT	616BDE+44.52	PT	619BDE+75.34	PT	622BDE+61.06	PT	624BDE+57.89
N	349925.39	N	349921.54	N	349979.19	N	349954.53	N	349885.50	N	349905.27
E	603314.87	E	603589.78	E	603810.63	E	604139.20	E	604411.84	E	604607.30
BK	S84° 36' 42"E	BK	N71° 53' 12"E	BK	S88° 06' 48"E	BK	S68° 08' 50"E	BK	N80° 06' 21"E	BK	S89° 07' 07"E
AH	S88° 37' 16"E	AH	S84° 36' 42"E	AH	N71° 53' 12"E	AH	S88° 06' 48"E	AH	S68° 08' 50"E	AH	N80° 06' 21"E
SE	NC	SE	RC	SE	NC	SE	NC	SE	RC	SE	NC





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: BROWN DEER RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256213\027203_ALI_BD.DWG PLOT DATE : 9/27/2021 11:48 AM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1:200_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	ALIGNMENT PLAN: JEAN NICOLET RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\DBAUMANN\PWGREAT_LAKES\D0256213\027208_ALI_JN.DWG
LAYOUT NAME - JN
PLOT DATE : 9/30/2021 10:03 AM
PLOT BY : DAN BAUMANN
PLOT NAME :
PLOT SCALE : 1:200_XREF
WISDOT/CADDS SHEET 44

2

1/4 LINE S01°08'32"W

1/4 LINE S01°08'32"W

Y=334039.60
X=604179.86

1/4 LINE S01°08'32"W

N

T 20 20 08 N
R 29 29 22 E

SECTION LINE S89°13'25"E

1/16 LINE

S89°11'29"E

10BN

BP: 10BN+00.00

12BN

14BN

S89° 05' 48.23"E
1000.00'

PC: 100PS+59.37

N0° 51' 52.71"E
122.67'

PI: 99PS+36.71

N2° 32' 45.22"E
26.71'

PI: 99PS+10.00

N5° 46' 48.91"E
10.00'

BP: 99PS+00.00

POB PS ALIGNMENT
STA 99PS+00.00
N = 332605.02
E = 605049.89

POB PN ALIGNMENT
STA 99PN+00.00
N = 332606.92
E = 605071.17

16PN

100PN

CURVE PS-1

PT: 101PS+26.22

N4° 05' 46.53"W
178.53'

102PS

CURVE PS-2

104PS

PORT WASHINGTON RD

106PS

106PN
N1° 27' 11.32"E
704.15'

108PS

108PN

110PS

112PS

112PN

CURVE PN/PS-3

114PS

114PN

116PS

116PN

CURVE PN-4

118PS

118PN

CURVE PS-3

CURVE PS-5

120PS

120PN

99PN

CURVE PN-0

BP: 99PN+00.00

PT: 99PN+34.76

N0° 08' 56.01"W
99.70'

CURVE PN-1

102PN

CURVE PN-2

PT: 103PS+78.55

PT: 103PN+78.55

PC: 103PS+04.75

PRC: 101PN+95.85

PC: 100PN+34.46

97.5°

18BN

BENDER RD

20BN

EP: 20BN+00.00

R/L BENDER RD

1/16 LINE

1/16 LINE

1/16 LINE

BP: 10CSE+00.00
N47° 40' 22.34"E
44.45'

PC: 10CSE+44.45

PRC: 10CSE+75.49

R/L KARL CAMPUS DR

EP: 11CSE+00.94

PT: 11CSW+33.04

N34° 20' 19.18"E
26.31'

PC: 11CSW+59.35

EP: 12CSW+62.45

PC: 110PN+82.70

PC: 110PS+82.70

BP: 10CSW+00.00
S73° 30' 50.64"E
50.04'

PC: 10CSW+50.04

PCC: 10CSW+85.15

R/L NB PORT WASHINGTON RD

R/L SB PORT WASHINGTON RD

MATCH LINE STA 121+00

PRC: 115PN+91.04

PRC: 117PN+68.01

10BE

BP: 10BE+00.00

N87° 55' 51.70"E
133.31'

11BE

R/L W. BRENTWOOD LN (EAST)

EP: 11BE+33.31

W. BRENTWOOD LN (EAST)

PCC: 120PN+05.52

BP: 10CK+00.00

N89° 58' 06.03"E
196.19'

11CK

R/L W. CLOVERNOOK LN

EP: 11CK+96.19

W. CLOVERNOOK LN

Y=334003.68
X=606830.59

T 20 21 08 N
R 29 28 22 E

CURVE	PN-0
PI	99PN+17.39
N	332624.250
E	605072.540
Δ	4° 40' 36"
D	13° 27' 03"
T	17.39
L	34.77
R	425.96
PC	99PN+00.00
N	332606.911
E	605071.167
PT	99PN+34.76
N	332641.644
E	605072.495
SE	

CURVE	PN-1
PI	101PN+15.46
N	332822.341
E	605072.025
Δ	12° 08' 07"
D	7° 31' 09"
T	81.00
L	161.39
R	762.00
PC	100PN+34.46
N	332741.343
E	605072.236
PT	101PN+95.85
N	332901.485
E	605054.792
SE	

CURVE	PN-2
PI	102PN+87.64
N	332991.172
E	605035.264
Δ	13° 44' 14"
D	7° 31' 09"
T	91.79
L	182.70
R	762.00
PRC	101PN+95.85
N	332901.485
E	605054.792
PT	103PN+78.55
N	333082.931
E	605037.591
SE	N/A

CURVE	PN-3
PI	113PN+36.90
N	334040.971
E	605061.895
Δ	2° 07' 56"
D	0° 25' 10"
T	254.20
L	508.34
R	13660.00
PC	110PN+82.70
N	333786.856
E	605055.448
PRC	115PN+91.04
N	334295.151
E	605058.882
SE	N/A

CURVE	PN-4
PI	116PN+79.58
N	334383.691
E	605057.833
Δ	5° 04' 12"
D	2° 51' 53"
T	88.55
L	176.98
R	2000.00
PRC	115PN+91.04
N	334295.151
E	605058.882
PRC	117PN+68.01
N	334471.977
E	605064.612
SE	N/A

CURVE	PN-5
PI	118PN+86.91
N	334590.522
E	605073.715
Δ	6° 48' 15"
D	2° 51' 53"
T	118.89
L	237.51
R	2000.00
PRC	117PN+68.01
N	334471.977
E	605064.612
PCC	120PN+05.52
N	334709.311
E	605068.709
SE	N/A

CURVE	PS-1
PI	100PS+92.81
N	332797.744
E	605054.435
Δ	4° 57' 39"
D	7° 25' 18"
T	33.44
L	66.84
R	772.00
PC	100PS+59.37
N	332764.305
E	605053.930
PT	101PS+26.22
N	332831.101
E	605052.046
SE	N/A

CURVE	PS-2
PI	103PS+41.68
N	333046.012
E	605036.655
Δ	5° 32' 58"
D	7° 31' 09"
T	36.93
L	73.80
R	762.00
PC	103PS+04.75
N	333009.175
E	605039.293
PT	103PS+78.55
N	333082.931
E	605037.591
SE	N/A

CURVE	PS-3
PI	116PS+36.72
N	334340.698
E	605069.498
Δ	4° 38' 42"
D	0° 25' 10"
T	554.02
L	1107.43
R	13660.00
PC	110PS+82.70
N	333786.856
E	605055.448
PRC	121PS+90.14
N	334893.859
E	605038.650
SE	N/A

CURVE	CSE-1
PI	10CSE+60.31
N	333655.930
E	605095.903
Δ	28° 41' 06"
D	92° 24' 45"
T	15.85
L	31.04
R	62.00
PC	10CSE+44.45
N	333645.256
E	605084.183
PT	10CSE+75.49
N	333659.669
E	605111.309
SE	

CURVE	CSE-2
PI	10CSE+88.28
N	333662.686
E	605123.739
Δ	14° 34' 42"
D	57° 17' 45"
T	12.79
L	25.44
R	100.00
PC	10CSE+75.49
N	333659.669
E	605111.309
PT	11CSE+00.94
N	333668.734
E	605135.010
SE	

CURVE	CSW-1
PI	10CSW+68.54
N	333659.984
E	605118.705
Δ	44° 42' 22"
D	127° 19' 26"
T	18.50
L	35.11
R	45.00
PC	10CSW+50.04
N	333665.235
E	605100.961
PT	10CSW+85.15
N	333668.734
E	605135.010
SE	

CURVE	CSW-2
PI	11CSW+09.56
N	333680.280
E	605156.523
Δ	27° 26' 28"
D	57° 17' 45"
T	24.42
L	47.89
R	100.00
PC	10CSW+85.15
N	333668.734
E	605135.010
PT	11CSW+33.04
N	333700.440
E	605170.295
SE	

CURVE	CSW-3
PI	12CSW+12.09
N	333765.712
E	605214.886
Δ	29° 46' 22"
D	28° 52' 42"
T	52.74
L	103.10
R	198.40
PC	11CSW+59.35
N	333722.163
E	605185.135
PT	12CSW+62.45
N	333788.740
E	605262.334
SE	

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	ALIGNMENT PLAN: PORT WASHINGTON RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027209_ALI_PW.DWG
LAYOUT NAME - _001

PLOT DATE : 9/28/2021 1:25 PM

PLOT BY : CECELIA KASTEN

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

2

2

N

1/4 LINE S01°08'32"W

Y=336695.54
X=604239.13

T 08 N
R 22 E
20

CURVE	PN-6
PI	120PN+98.50
N	334802.201
E	605064.794
Δ	0° 46' 43"
D	0° 25' 08"
T	92.97
L	185.94
R	13681.00
PCC	120PN+05.52
N	334709.311
E	605068.709
PT	121PN+91.46
N	334895.028
E	605059.617
SE	N/A

CURVE	PN-7
PI	128PN+82.42
N	335584.909
E	605021.145
Δ	5° 34' 34"
D	0° 52' 05"
T	321.47
L	642.43
R	6601.00
PC	125PN+60.95
N	335263.942
E	605039.044
PRC	132PN+03.38
N	335902.619
E	604972.142
SE	N/A

CURVE	PN-8
PI	134PN+02.44
N	336099.356
E	604941.798
Δ	23° 14' 28"
D	5° 55' 08"
T	199.06
L	392.65
R	968.00
PRC	132PN+03.38
N	335902.619
E	604972.142
PT	135PN+96.03
N	336292.102
E	604991.549
SE	N/A

CURVE	PN-9
PI	139PN+74.16
N	336658.604
E	605084.558
Δ	13° 04' 31"
D	4° 45' 17"
T	138.10
L	275.00
R	1205.06
PC	138PN+36.06
N	336524.811
E	605050.336
PT	141PN+11.06
N	336796.669
E	605087.625
SE	

CURVE	PS-4
PI	128PS+87.33
N	335589.974
E	604999.830
Δ	5° 42' 09"
D	0° 52' 15"
T	327.71
L	654.88
R	6580.00
PC	125PS+59.62
N	335262.772
E	605018.077
PRC	132PS+14.50
N	335913.744
E	604949.162
SE	N/A

CURVE	PS-5
PI	134PS+21.29
N	336118.050
E	604917.189
Δ	23° 22' 02"
D	5° 43' 46"
T	206.79
L	407.84
R	1000.00
PRC	132PS+14.50
N	335913.744
E	604949.162
PT	136PS+22.34
N	336318.280
E	604968.872
SE	N/A

CURVE	PS-6
PI	139PS+77.46
N	336662.501
E	605056.143
Δ	13° 04' 31"
D	4° 45' 11"
T	134.83
L	268.50
R	1176.56
PC	138PS+42.62
N	336531.873
E	605022.730
PT	141PS+11.12
N	336797.302
E	605059.138
SE	

1/16 LINE S89°09'29"E

1/4 LINE N88°59'26"W

R/L SB PORT WASHINGTON RD

PRC: 132PS+14.50

CURVE PS-5

PT: 136PS+22.34

N14° 28' 22.91"E 55.19'

PI: 136PS+77.53

N13° 22' 37.78"E 51.50'

PI: 137PS+29.03

N14° 20' 52.35"E 113.60'

PC: 138PS+42.62

CURVE PS-6

PT: 141PS+11.12

POE PS ALIGNMENT
STA 141PS+13.15
N = 336799.33
E = 605059.18

N3° 11' 30.83"W 369.49'

PC: 126PS+59.62

CURVE PS-4

PT: 121PS+90.14

PORT WASHINGTON RD

CURVE PN-7

CURVE PN-8

PRC: 132PN+03.38

BP: 10DE+00.00

S89° 21' 01.75"E 200.00'

PT: 135PN+96.03

CURVE PN-9

PC: 138PN+36.06

POE PN ALIGNMENT
STA 141PN+13.09
N = 336798.70
E = 605087.67

MATCH LINE STA 121+00

CURVE PN-6

N3° 11' 30.83"W 369.49'

PC: 125PN+60.95

PT: 121PN+91.46

W. APPLETREE RD (EAST)

S82° 32' 02.33"E 83.69'

BP: 10AE+00.00

PC: 10AE+83.69

PT: 11AE+05.17

S57° 54' 47.69"E 67.61'

EP: 11AE+72.78

R/L W. APPLETREE RD (EAST)

R/L NB PORT WASHINGTON RD

82°

DAPHNE RD (EAST)

12DE

R/L DAPHNE RD (EAST)

EP: 12DE+00.00

PI: 136PN+70.90

N14° 20' 52.35"E 113.35'

PI: 137PN+22.70

N13° 22' 37.78"E 51.80'

PT: 141PN+11.06

1/16 LINE

Y=336648.97
X=606882.22

T 08 N
R 22 E
20 21

CURVE	AE-1
PI	10AE+94.60
N	335261.637
E	605172.043
Δ	24° 37' 15"
D	114° 35' 30"
T	10.91
L	21.49
R	50.00
PC	10AE+83.69
N	335263.055
E	605161.224
PT	11AE+05.17
N	335255.841
E	605181.288
SE	

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	ALIGNMENT PLAN: PORT WASHINGTON RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256213\027209_ALI_PW.DWG
LAYOUT NAME - _002
PLOT DATE : 9/28/2021 1:25 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

NOTE

REMOVE IH 43 MEDIAN BARRIER FROM 1051+00 TO 1078+00 FOR STAGING CROSSOVER OPERATIONS. BARRIER WILL BE REPLACED AFTER CROSSOVERS ARE REMOVED.

MILWAUKEE RIVER

WETLAND BOUNDARY (TYP.)

STAGE 4 SB CROSSOVER

STAGE 5 NB CROSSOVER

PORT WASHINGTON RD

IH 43 SB

IH 43 NB

MONTCLAIRE AVE

JEAN NICOLET RD

EXIST R/W

DEVON ST

S-40-3033

BEGIN PROJECT 1229-04-73
STA 1078+88

R/L IH 43

S-40-3057

STAGE 5 NB CROSSOVER

PHEASANT LN

STAGE 4 SB CROSSOVER

N-40-103

END PROJECT 1229-04-73
STA 1282+46.37

FAIRY CHASM RD

NOTE

REMOVE MEDIAN PRECAST TEMPORARY BARRIER FROM STA 1281+00 TO STA 1295+17 PLACED IN PROJECT 1229-04-74. CONCRETE BARRIER TYPE S56 WILL BE INSTALLED IN THE MEDIAN ONCE CROSSOVERS ARE REMOVED.

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL CROSSOVERS	SHEET	E

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE (P.L.)
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) (W (TYPE))
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER (25)
UTILITY NUMBER (40)
SECTION CORNER (18 / 23 24 16 15 / 9)
NOTATION FOR COMBUSTABLE FLUIDS (CAUTION)
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES (CAUTION)

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN (P)
VALVE (GAS, WATER, ETC.) (⊘ (TYPE))
SIGN (SIGN)
OFF-PREMISE SIGN (#1-25 SIGN)

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	⊠

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

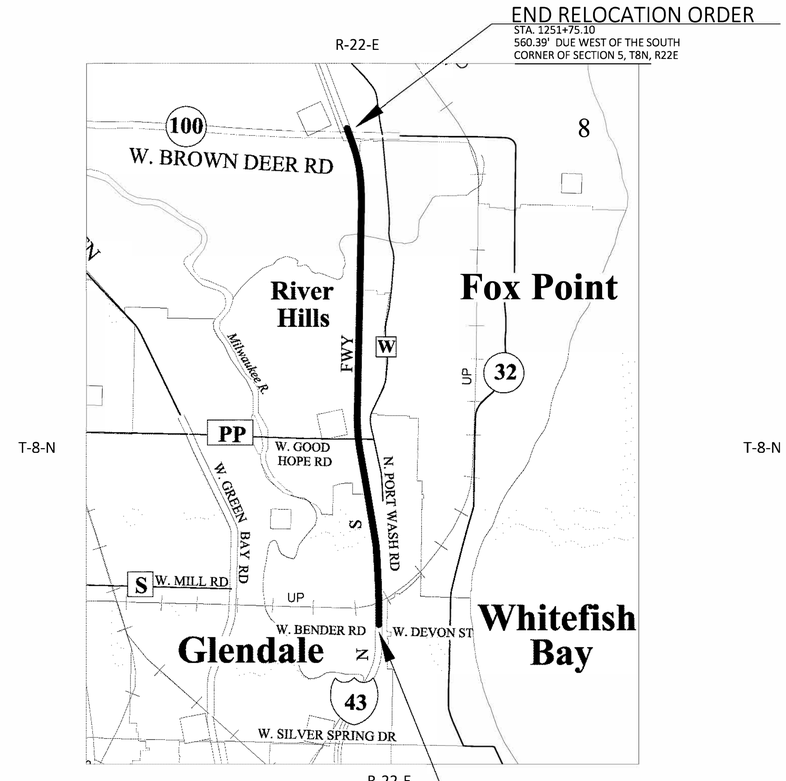
RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

INFORMATION FOR BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON DETAIL SHEETS.



THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1229-04-21,1229-04-24	4.01	--

PLAT OF RIGHT OF WAY REQUIRED FOR
IH-43 NORTH - SOUTH FREEWAY

--

IH-43 MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER --

kapur all in
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
414.751.7200
kapurinc.com

ORIGINAL PLANS PREPARED BY

WISCONSIN LAND SURVEYOR — BRIAN M. DODGE S-2848 WAUKESHA, WI

5/15/2020 (Date)

Brian M. Dodge

BRIAN M. DODGE
KAPUR & ASSOCIATES
P.L.S. NUMBER 2848

REVISION DATE
09/15/2020

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT
DATE: 06/08/20 (Signature)

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

* DENOTES AREAS COMPUTED

PROJECT FUNDING I.D.	PARCEL NUMBER	SHEET NUMBER	*OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W ACRE(S) REQUIRED			TOTAL ACRES REMAINING	P.L.E. ACRES	T.L.E. ACRES	PARCEL NUMBER
						NEW	EXISTING	TOTAL				
1229-04-21	1	4.05	6260 LLC	FEE, TLE	0.372	0.008	0.000	0.008	0.364		0.223	1
1229-04-21	2	4.05	Bobby Sanford JR & Sukari Sanford	FEE	0.500	0.500	0.000	0.500	0.000			2
1229-04-24	3	4.06	Max & Dawn Veytsman	FEE	0.361	0.361	0.000	0.361	0.000			3
1229-04-21	4	4.06	Angeline Cianciolo	FEE	0.431	0.431	0.000	0.431	0.000			4
1229-04-21	5	4.06	Gloria L. Nieskes	FEE	0.585	0.585	0.000	0.585	0.000			5
1229-04-21	6	4.06	Robert M. & Vicki L. Chiger	FEE	0.453	0.453	0.000	0.453	0.000			6
1229-04-24	7	4.06	Giles L. & Mary F. Grimes	FEE	0.393	0.393	0.000	0.393	0.000			7
1229-04-24	8	4.06	Kehri Stowers	FEE	0.510	0.510	0.000	0.510	0.000			8
1229-04-24	9	4.07	Florence M. Mahnke Estates	FEE, TLE	0.615	0.332	0.000	0.332	0.283		0.036	9
1229-04-21	10	4.07	David Bramel	FEE	0.559	0.409	0.150	0.559	0.000			10
1229-04-21	11	4.08	Juan M. Aguirre & Chantel M. Aguirre	FEE, TLE	4.961	1.499	1.430	2.929	2.032		0.077	11
1229-04-21	12	4.09	Ronald R. Rubio & Laurie J. Rubio	FEE, TLE, AR	4.654	0.198	2.560	2.758	1.896		0.075	12
1229-04-21	13	4.10	The Archway, LLC, a Wisconsin limited liability company	FEE, AR	0.697	0.049	0.135 *	0.184	0.513			13

NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED
500	4.06-4.08, 4.10	WE ENERGIES ELECTRIC	RELEASE OF RIGHTS
504	4.06-4.08, 4.10	AT&T WISCONSIN	RELEASE OF RIGHTS
512	4.09	US CELLULAR	RELEASE OF RIGHTS

4

REVISION DATE
9/15/2020

DATE: MAY 15, 2020

HWY: IH-43

COUNTY: MILWAUKEE

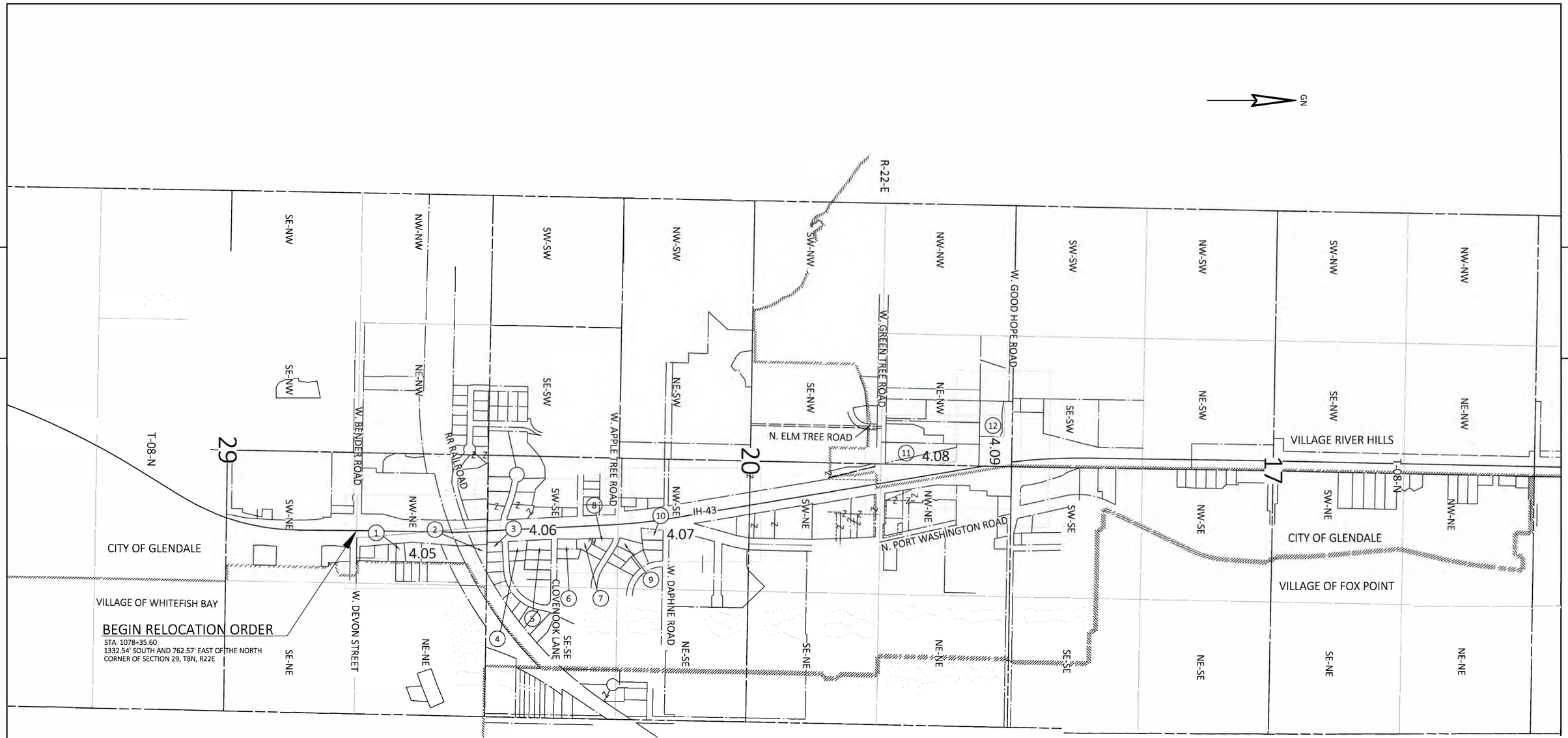
STATE R/W PROJECT NUMBER 1229-04-21 / 24

CONSTRUCTION PROJECT NUMBER --

PLAT SHEET 4.02

PS&E SHEET _____

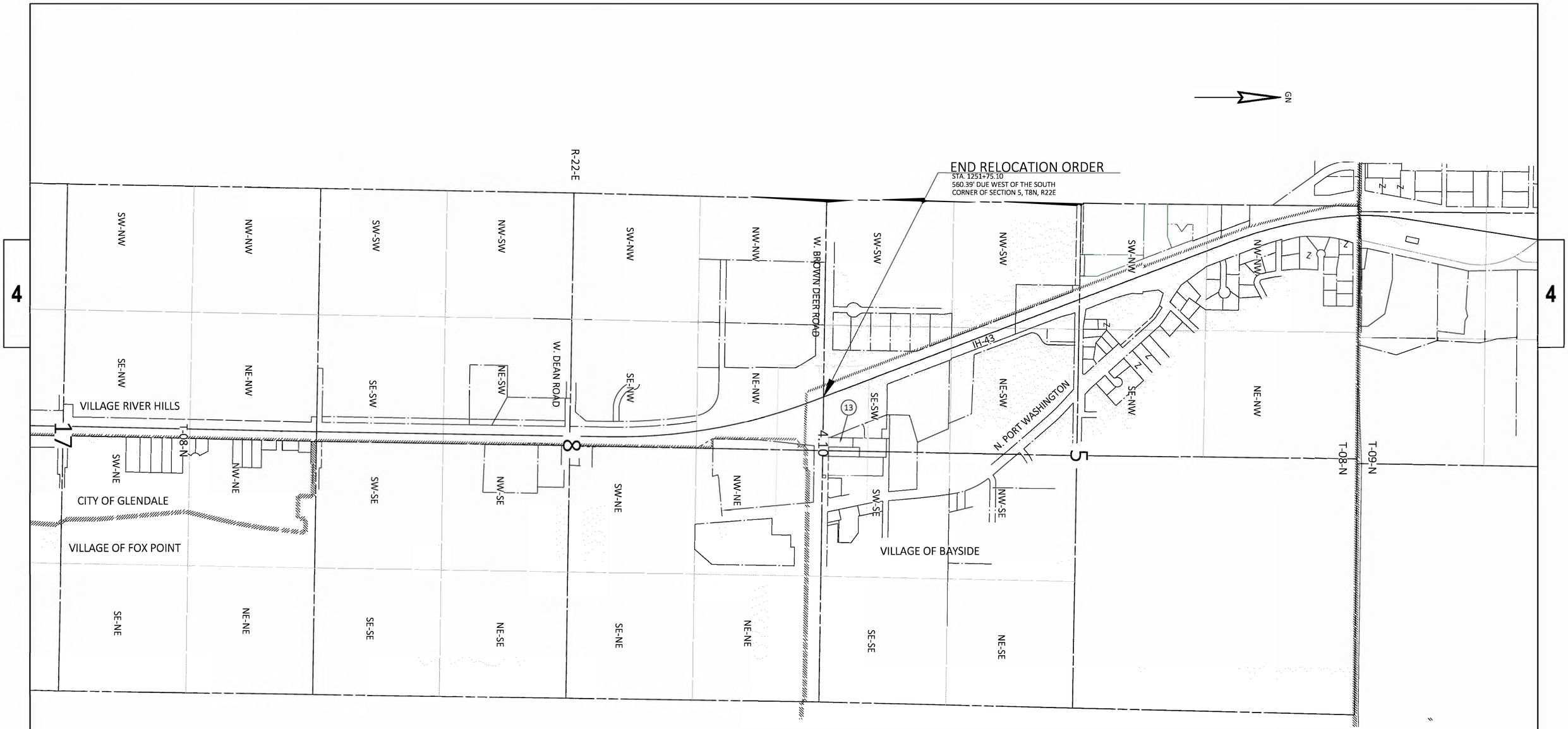
E



REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 500 1000	HWY: IH-43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.03
	GRID FACTOR N/A		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET _____ E

FILE NAME : RW_PLAT-1229-04-21_LANDSCH_LAYOUT.DWG
LAYOUT NAME - Layout 4.03

PLOT DATE : 9/15/2020 11:02 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1 IN:500 FT



REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 500 1000	HWY: IH-43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.04
	GRID FACTOR N/A		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-21_LANDSCH_LAYOUT.DWG
LAYOUT NAME - Layout 4.04

PLOT DATE : 9/15/2020 11:02 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1 IN:500 FT

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	U 5712(3)	1954	VARIES
PORT WASHINGTON ROAD	DOERING'S SUBDIVISION NO. 1	1946	90'

FOR ACCESS CONTROL

SEE DOC. 10024078 -VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.

W. BENDER ROAD

N. JEAN NICOLET ROAD

NW-NE

IH - 43

N. PORT WASHINGTON ROAD

W. DENVON STREET

W. FAIRFIELD COURT

CURVE 1
R/L IH 43
PI STA = 1088+79.09
Y = 333750.41
X = 604960.19
DELTA = 3°46'13"
D = 1°40'14"
T = 112.90'
L = 225.71'
R = 3429.95'

CONCRETE MONUMENT W/ BRASS CAP
Y=334039.60
X=604179.86

T 20 N R 22 E Sec 29 (20 08 / 29 29)

GN

PI: 1078+35.60

PC: 1087+66.20

PT: 1089+91.91

PI: 1088+79.09

N89°13'25"W 766.78'

MATCHLINE SEE SHEET 4.05 STA. 1091+58.15

1/16 LINE

N00°58'30"E 930.60'

N05°04'08"W 80.43'

S1° 27' 11"W 76.70'

N5° 04' 08"W 4.23'

N84° 55' 52"E 8.71'

N3° 17' 55"W 141.12'

1082+41.90
125.49'
N89° 07' 53"W
116.63'

1083+18.66
125.49'

N84° 55' 52"E
115.48'

PRW1000

PRW1001

S5° 23' 41"E
92.50'

1083+37.91
242.57'

1083+29.84
232.31'

TLE1030

TLE1031

S01°11'07"W
99.70'

PL

UNPLATTED LANDS

TLE FOR SLOPES AND BUILDING REMOVAL

1 6260 LLC 1630044000

DOERING'S SUBDIVISION NO. 1

5' WIDE WISCONSIN GAS (PER DOC. NO. 4647545)

5' WIDE WEPCO & WISCONSIN TELEPHONE COMPANY PER DOC NO 2664801

CITY OF GLENDALE

VILLAGE OF WHITEFISH BAY

UNION PACIFIC RAILROAD CO.

C1
L=309.36'
R=3744.72'
LC=309.27'
LCB=N63°42'05"E

2 SANFORD 1638978000 UNPLATTE LANDS

SECTION LINE S89°13'25"E 2650.97' (MON. TO MON.)

S89°13'25"E 285.41'

CONCRETE MONUMENT W/ SEWRPC BRASS CAP
Y=334003.68
X=606830.59

T 20 N R 22 E Sec 29 (21 08 / 28 28)

1/16 LINE

NE-NE

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE & OZAUKEE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.05
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.06

PLOT DATE : 9/15/2020 11:02 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE & OZAUKEE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	U 5712(3)	1954	VARIES
PORT WASHINGTON ROAD	DOERING'S SUBDIVISION NO. 1	1946	90'

FOR ACCESS CONTROL
SEE DOC. 10024078 –VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.

500 WE ENERGIES - ELECTRIC
PARCEL 3 - DOC. NO. 3064796
PARCEL 6 - DOC. NO. 2667920
PARCEL 7 - DOC. NO. 2667920
PARCEL 8 - DOC. NO. 2667920

504 AT&T WISCONSIN
PARCEL 3 - DOC. NO. 3064796
PARCEL 6 - DOC. NO. 2667920
PARCEL 7 - DOC. NO. 2667920
PARCEL 8 - DOC. NO. 2667920

GN

CONCRETE MONUMENT W/ BRASS CAP
Y=334039.60
X=604179.86

GLEN MARY SUBDIVISION
CLOVERNOOK ESTATES SUBDIVISION
SW-SE
BLOCK 1
BLOCK 3
BRENTWOOD LANE
W. ACACIA ROAD
W. APPLE TREE ROAD
N89°13'25"W 766.78'
60'
CURVE 2
R/L IH 43
PI STA = 1107+21.71
Y = 335590.91
X = 604870.32
DELTA = 6°41'24"
D = 1°00'12"
T = 333.73'
L = 666.70'
R = 5709.87'
P.C. 1103+87.98
CURVE 2
1104
N. JEAN NICOLET ROAD
IH - 43
N02°47'44"W 1396.07'
N. PORT WASHINGTON ROAD
MATCHLINE SEE SHEET 4.04 STA. 1091+58.15
MATCHLINE SEE SHEET 4.06 STA. 1104+87.67
1/16 LINE
SECTION LINE S89°13'25"E 2650.97' (MON. TO MON.)
1" IPF
VEYTSMAN 1321071000
CIANCIOLO 1321059000
NIESKES 1321070000
CHIGER 1321046000
GRIMES 1321047001
STOWERS 1321033001
ORCHARD ESTATES BLOCK 2
ORCHARD ESTATES BLOCK 1
MT. ROYAL ESTATES BLOCK 4
CITY OF GLENDALE
CLOVENOOK LANE
30' WIDE STORM WATER DRAINAGE EASEMENT AS SHOWN ON ORCHARD ESTATES (DOC. NO. 3058545)
DECLORATION OF RESTRICTION DOC. 3064796 (10/27/1951) RESERVES THE REAR 5' OF LOTS IN ORCHARD ESTATES FOR UTILITIES
WEPCO & TELEPHONE COMPANY HAS AN EASEMENT TO OPERATE AND MAINTAIN OVERHEAD ACROSS LOTS IN MT. ROYAL ESTATES BUT NO WIDTH IS CALLED OUT. PER DOC. NO. 2667920
L=87.58'
R=354.78'
LC=87.36'
LCB=N64°22'55"W
CONCRETE MONUMENT W/ SEWRPC BRASS CAP
Y=334003.68
X=606830.59

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.06
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.06
PLOT DATE : 9/15/2020 11:03 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	F077-1(11)	1953	VARIES
W. BRENTWOOD LANE	ORCHARD ESTATES	1951	60'
W. CLOVERNOOK LANE	ORCHARD ESTATES	1951	30'
N. PORT WASHINGTON ROAD	MT. ROYAL ESTATES	1946	60'

FOR ACCESS CONTROL
SEE DOC. 10024078 –VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE & OZAUKEE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

GN

CONCRETE MONUMENT W/ SEWRPC BRASS CAP
Y=336695.54
X=604239.13

T 08 N R 22 E 20

500 WE ENERGIES - ELECTRIC
PARCEL 7 - DOC. NO. 3259914
PARCEL 9 - DOC. NO. 2667920
PARCEL 10 - DOC. NO. 2667920

504 AT&T WISCONSIN
PARCEL 9 - DOC. NO. 2667920
PARCEL 10 - DOC. NO. 2667920

CURVE 2
R/L IH 43
PI STA = 1107+21.71
Y = 335590.91
X = 604870.32
DELTA = 6°41'24"
D = 1°00'12"
T = 333.73'
L = 666.70'
R = 5709.87'

1/16 LINE

UNPLATTED LANDS

NW-SE

UNPLATTED LANDS

N88°59'26"W 448.02'

N. JEAN NICOLET ROAD

IH - 43

1118+32.89
0.00'

PT: 1110+54.68

60'

N09°29'08"W 3207.85'

CITY OF GREENDALE A PERPETUAL EASEMENT FOR SIGHT ENHANCEMENT (PER DOC 5952375)

C1
L=85.00'
R=414.78'
LC=84.85'
LCB=N69°32'02"W

C2
L=226.84'
R=6682.00'
LC=226.83'
LCB=N05°06'41"W

PI: 1107+21.71

HIGHWAY EASEMENT PER WISDOT R/W F 077-1(1) (AWARD DOC. 3404816)

MATCHLINE SEE SHEET 4.05 STA. 1104+87.67

1/4 LINE

N88°59'26"W 2643.50' (MON. TO MON.)

LOT 4
CSM 9128
DOC. 10860313

1" IPF

C3
L=81.76'
R=6682.00'
LC=81.76'
LCB=N04°29'22"W

BRAMEL
1321015000
10

60'

1" IPF

N14°37'12"E 236.84'

5' WIDE WEPCO EASEMENT (PER DOC. NO. 3259914)

MAHNKE
1321032000
9

N84° 08' 31"E
16.74'

1107+11.54
232.27'

BLOCK 3

1105+72.14
232.57'

74.79'

1104+93.58
232.91'

1105+55.30
270.88'

PRW1002

TLE1013

PRW1003

TLE1012

WEPCO & TELEPHONE COMPANY HAS AN EASEMENT TO OPERATE AND MAINTAIN OVERHEAD ACROSS LOTS IN MT. ROYAL ESTATES BUT NO WIDTH IS CALLED OUT. PER DOC. NO. 2667920

S69°54'11"E 42.15'

MT. ROYAL ESTATES

S26° 20' 36"W
38.63'

TLE FOR HOUSE REMOVAL

W. APPLE TREE ROAD

W. DAPHNE ROAD

CITY OF GLENDALE

N. PORT WASHINGTON ROAD

LOT 1
CSM 4593
DOC. 5802600

CONCRETE MONUMENT W/ SEWRPC BRASS CAP
Y=336648.97
X=606882.22

T 08 N R 22 E 20 21 20 21

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.07
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.07

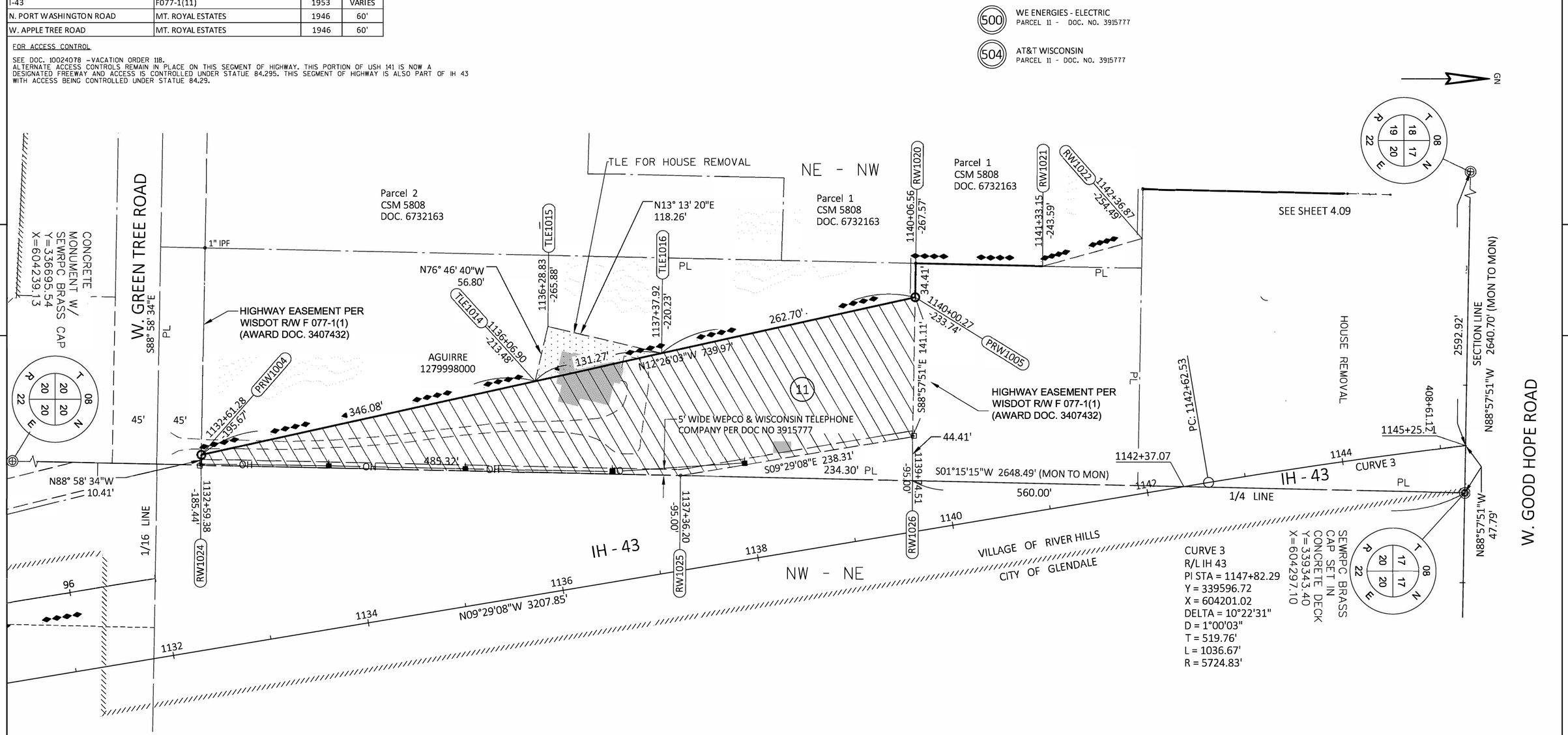
PLOT DATE : 9/15/2020 11:03 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	F077-1(11)	1953	VARIES
N. PORT WASHINGTON ROAD	MT. ROYAL ESTATES	1946	60'
W. APPLE TREE ROAD	MT. ROYAL ESTATES	1946	60'

FOR ACCESS CONTROL

SEE DOC. 10024078 -VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.



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PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.08
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.08

PLOT DATE : 9/15/2020 11:03 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	F077-1(1)	1953	VARIES
GREENTREE ROAD	F077-1(1)	1953	90'
GOOD HOPE ROAD	F077-1(1)	1953	160'

FOR ACCESS CONTROL
SEE DOC. 10024078 –VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.

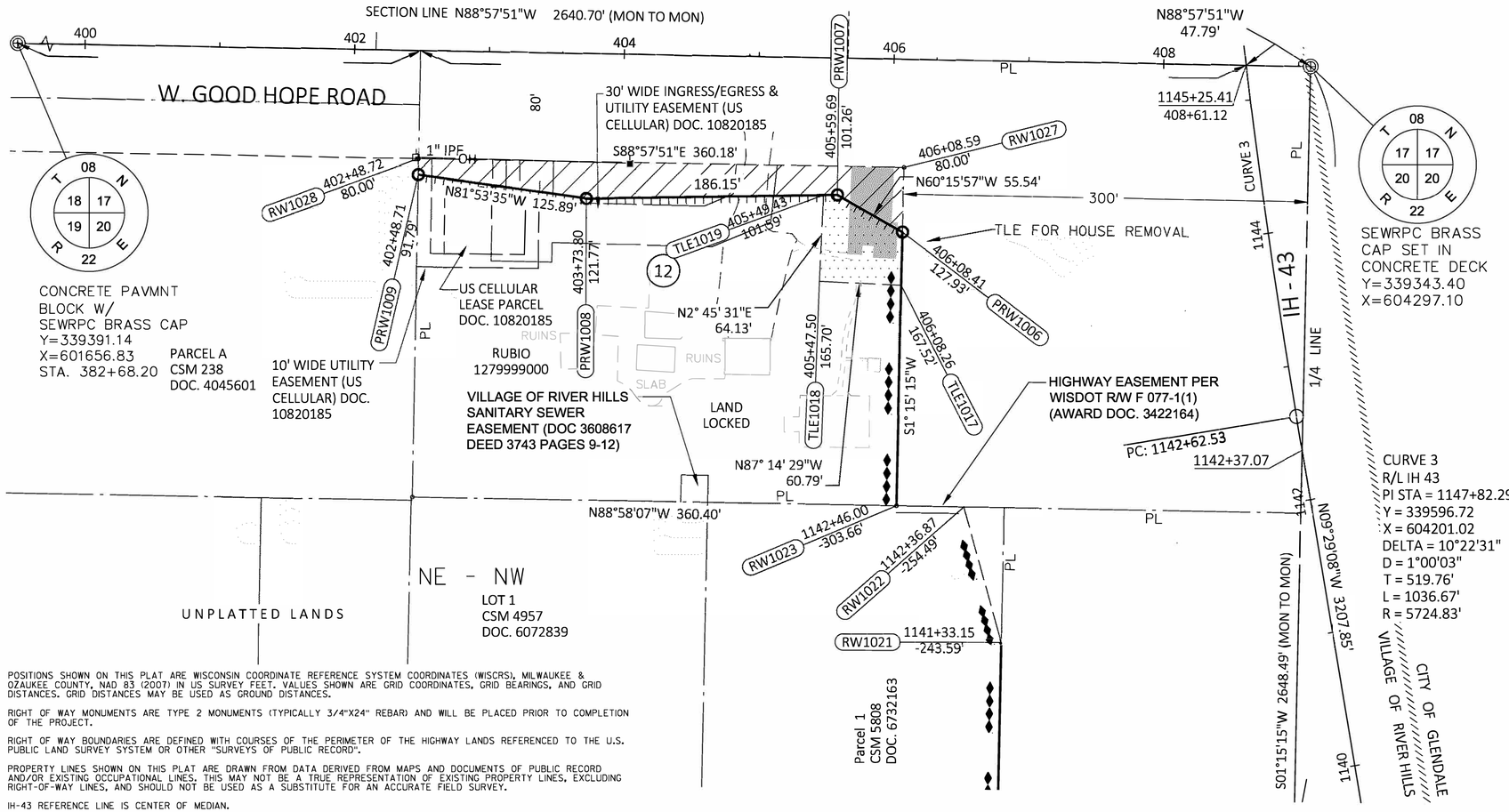
GN

(512) US CELLULAR
PARCEL 12 - DOC. NO. 10820185

(531) VILLAGE OF VILLAGE OF RIVER HILLS - SANITARY
PARCEL 12 - DOC. NO. 3608617

4

4



POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE & OZAUKEE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

SEE SHEET 4.08

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.09
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.09
PLOT DATE : 9/15/2020 11:03 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
I-43	F01-2(1)	1953	VARIES
BROWN DEER ROAD	F01-2(1)	1953	60'

FOR ACCESS CONTROL
SEE DOC. 10024078 –VACATION ORDER 118.
ALTERNATE ACCESS CONTROLS REMAIN IN PLACE ON THIS SEGMENT OF HIGHWAY. THIS PORTION OF USH 141 IS NOW A DESIGNATED FREEWAY AND ACCESS IS CONTROLLED UNDER STATUE 84.295. THIS SEGMENT OF HIGHWAY IS ALSO PART OF IH 43 WITH ACCESS BEING CONTROLLED UNDER STATUE 84.29.

GN

500 WE ENERGIES - ELECTRIC
PARCEL 13 - DOC. NO. 3436868

504 AT&T WISCONSIN
PARCEL 13 - DOC. NO. 3436868

4

4

VILLAGE OF RIVER HILLS

VILLAGE OF BAYSIDE

IH - 43

1255

1254

1253

1252

1251

1250

N20°51'17"W

CONCRETE PAVMNT
BLOCK W/
SEWRPC BRASS CAP
Y=349969.675
X=601872.261

T 08 N
R 22 E
6 5
7 8

PARCEL 3
CSM 2972

PARCEL 2
CSM 2972

SE - SW

ACCESS CONTROL PER
PROJECT F01-2(1)

CONCRETE
MONUMENT WITH
SEWRPC BRASS CAP
Y=352582.845
X=604542.208

UNPLATTED
LANDS

S01°03'20"W
2654.26' (MON TO MON)

UNPLATTED
LANDS

1/4 LINE

13
ARCHWAY
0239988000
LAND
LOCKED

S80°51'15"E 99.39'

PRW1011

PRW1010

163+57.67
-88.70'

164+56.03
-74.43'

IP FO

IP

SW - SE

UNPLATTED LANDS

CONCRETE PAVMNT
BLOCK W/
SEWRPC BRASS CAP
Y=349929.036
X=604493.310
STA. 164+95.97

T 08 N
R 22 E
5 5
8 8

16' WIDE WIS. ELEC. POWER
CO. & WIS. TELEPHONE CO.
EASEMENT (DOC 3436868)

1251+75.10
159+35.61

158
160
162
164
166

SECTION LINE N89°06'42"W 2621.36' (MON TO MON)

560.38'

98.40'

40.15'

60'

SECTION LINE

NE - NW

W. BROWN DEER ROAD

NW - NE

1/4 LINE

S01°07'31"W
2643.28' (MON TO MON)

3

2

1

PT: 1250+59.45

VILLAGE OF BAYSIDE

VILLAGE OF RIVER HILLS

BLOCK 2
DEER PORT ESTATES

VILLAGE OF FOX POINT

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE & OZAUKEE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE 9/15/2020	DATE: MAY 15, 2020	SCALE, FEET 0 20 50 100	HWY: I- 43	STATE R/W PROJECT NUMBER 1229-04-21 / 24	PLAT SHEET 4.10
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER --	PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-21_DETAIL.DWG
LAYOUT NAME - 4.10

PLOT DATE : 9/15/2020 11:03 AM PLOT BY : BRIAN DODGE, PS PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER
SECTION CORNER
NOTATION FOR COMBUSTIBLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES

UTILITY NUMBER
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ /DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

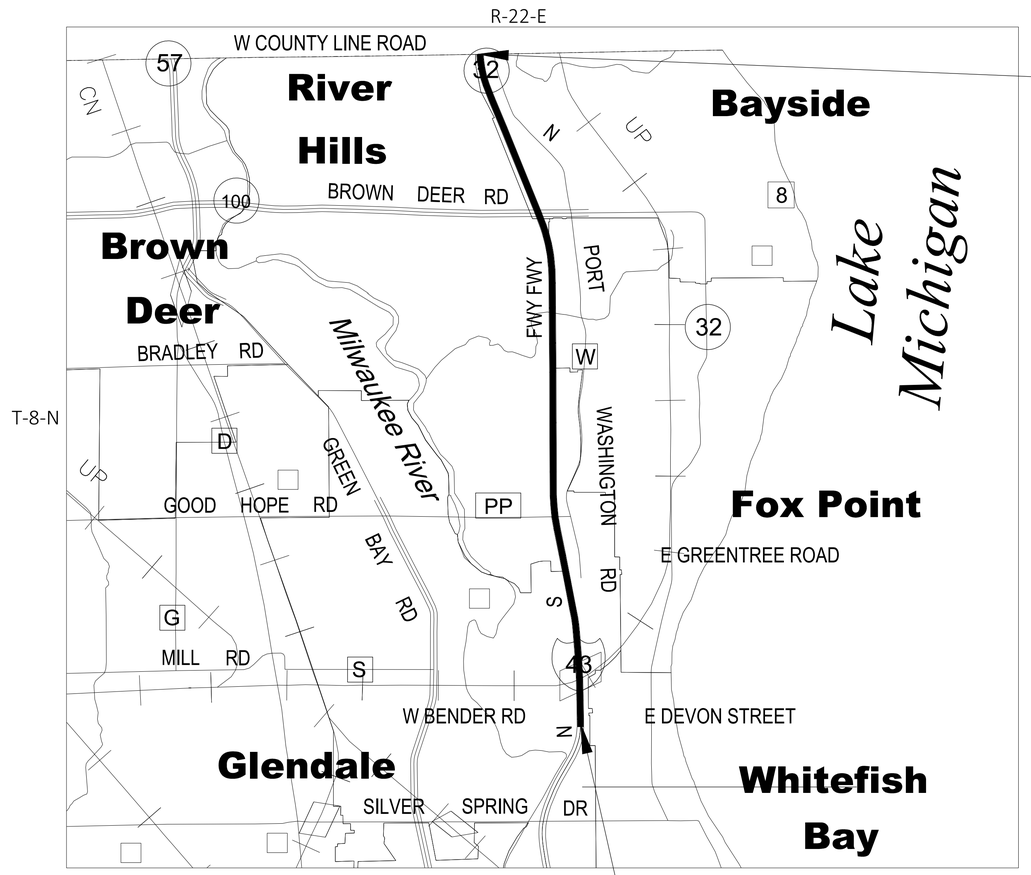
INFORMATION FOR BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON DETAIL SHEETS.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINE.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES. AS DEFINED HEREIN. INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON. THE RIGHT OF INGRESS AND EGRESS. AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES. AS DEFINED HEREIN. INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE DR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES. PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED. INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.



LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 4.41 MI.

END RELOCATION ORDER
PROJECT 1229-04-22
STA. 1311+02.02
39.88' EAST AND 0.33' SOUTH OF THE SOUTHEAST CORNER OF SECTION 32, T9N, R22E

BEGIN RELOCATION ORDER
PROJECT 1229-04-22
STA. 1078+35.60
1332.54' SOUTH AND 762.57' EAST OF THE NORTH CORNER OF SECTION 29, T8N, R22E

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

R/W PROJECT NUMBER 1229-04-22	SHEET NUMBER	TOTAL SHEETS
	4.01	--

PLAT OF RIGHT OF WAY REQUIRED FOR
IH-43 NORTH - SOUTH FREEWAY

W. BENDER RD. - W. COUNTY LINE RD

IH-43 MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER 1229-04-71

kapur all in
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
414.751.7200
kapurinc.com

ORIGINAL PLANS PREPARED BY

WISCONSIN LAND SURVEYOR
BRIAN M. DODGE
S-2848
WAUKESHA, WI

AUGUST 17, 2020 (Date)
Brian M. Dodge
BRIAN M. DODGE
KAPUR & ASSOCIATES
P.L.S. NUMBER 2848

REVISION DATE
01/21/2021
03/05/2021
08/06/2021
09/03/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT
DATE: 09/08/20
Robert A Dufford (Signature)

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	R/W ACRE(S) REQUIRED (ACRES) NEW	EXISTING	TOTAL	HE	PLE AREA	TLE AREA	PARCEL NUMBE
14(2)	4.06	Vill. of Whitefish Bay, Vill. of Fox Point and City of Glendale	FEE, TLE	0.109		0.109			0.074	14
15	4.06	Mildan, LLC, a Wisconsin limited liability company	FEE, TLE	0.038		0.038			0.178	15
16	4.06	6204 Port Washington Road LLC	FEE, TLE	0.020		0.020			0.038	16
17	4.06	6240, LLC	FEE, TLE	7 S.F.		7 S.F.			0.032	17
18	4.06	Kivley Investments, LLC	TLE						0.022	
19	4.06	Landmark Credit Union, Daniel C Stern & Casey-Gohsman Building	FEE,TLE	0.093		0.093			0.192	19
20	4.06	Village of Whitefish Bay	FEE,TLE	0.072		0.072			0.312	20
21	4.07	Timothy S. and Whitney S. Sheridan	FEE, TLE	0.052		0.052			0.048	21
22	4.07	Charles E & Allene K Faber (per GIS)	FEE	0.004		0.004				22
23	4.08	Michael Del Fava & Colleen Del Fava	TLE						0.023	23
24(3)	4.08	Martin W. Foral	PLE					0.064		24
25(3)	4.08	Michael F. McCormack	PLE					0.109		25
26(3)	4.08	Berel and Barbara E. Lutsky Trust	PLE, TLE					0.056	0.040	26
27(3)	4.08	Geri A. Wilkinson	PLE, TLE					0.057	0.056	27
28(3)	4.09	William E. and Elizabeth A. Krohn, as Trustees of the William E. and Elizabeth A. Krohn Trust	FEE, TLE	0.025		0.025			0.074	28
29(2)	4.09	Glenda G. Gaddi-Geli and Christopher Geli	TLE						0.085	29
30	4.09	JoEllyn A. Reitman, as Trustee of the JoEllyn A. Reitman Revocable Living Trust	PLE, TLE					0.005	0.007	30
31(2)	4.09	Cary C & Andrea L Burns	PLE, TLE					0.006	0.015	31
32(2)	4.09	Ulric L. Cobb	FEE, TLE	0.055		0.055			0.035	32
33(2)	4.09	Daniel Burrell Jr. and Jenice Marie Burrell	FEE, TLE	0.010		0.010			0.027	33
34	4.10	David E Matthews	FEE, TLE	0.034		0.034			0.066	34
35	4.10	Glendale Housing Partners Limited Partnership, a Wisconsin limited liability partnership	FEE, TLE	0.440		0.440			0.500	35
36(4)	4.10	Associated Bank NA	FEE, TLE	0.097		0.097			0.074	36
37	4.29	Richard F Coury, et al	TLE						0.094	37
38	4.29	Roberto D. Castro	TLE						0.021	38
39	4.29	Nancy K. Zachow	PLE, TLE					0.054	0.047	39
40	4.29	Michael J. and Kelly Z. Press	TLE						0.032	40
41	4.30	Lemuel M. and Sandra D. Eaton	TLE						0.026	41
42	4.30	Steggeman Investments, LLC	TLE						0.041	42
43	4.30	Mirza N. Beg and Elizabeth A. Beg	FEE, TLE	0.008		0.008			0.087	43
44	4.30	Daniel D. and Leah M. Leyrer	FEE	0.057		0.057				44
45	4.30	Paul H. and Jennifer K. Bailey	FEE	0.040		0.040				45
46	4.30	Dowell 2012 Joint Revocable Trust	FEE	0.102		0.102				46
47	4.30	William and Mary K. Sosnay	FEE	0.078		0.078				47
48	4.30	Tilak W. and Swarna Nagodawithana, as trustees of the Nagodawithana Living Trust dated Oct. 21,	FEE, TLE	0.101		0.101			0.053	48
49	4.30	HELEN L SHAPIRO	TLE						0.010	49
50	4.31	CARL A GAGLIANO	FEE, TLE	0.040		0.040			0.004	50
51	4.31	THE RIVER RANCH TRUST	TLE						0.004	51
52	4.06-4.08	UNION PACIFIC RAILROAD CO.	HE, TLE				0.523		9.294	52
53(2)	4.09	INESE A. CULVER ET AL	TLE						0.068	53
54(2)	4.09	JANE C. SCHLICHT REVOC. TRUST	TLE						0.030	54
55(2)	4.09	TANZEEN KHAN	TLE						0.024	55
56(2)	4.09	TIMOTHY D. GEIER AND LYNDSAY J. SMANZ	TLE						0.036	56
57(2)	4.10	MICHAEL J STRONG	TLE						0.004	57
58(2)	4.11	NICOLET HIGH SCHOOL DIST	TLE						0.209	58
59(3)	4.11	GENERAL CAPITAL/LA MACCHIA SHORES L.L.C.	PLE, TLE					0.139	0.308	59
60(3)	4.12	REMOVED								60
61(3)	4.13	ANR GLENDALE HOTEL 2, LLC	PLE, TLE					0.044	0.056	61
62(3)	4.13	ODYSSEY GLENDALE HOTEL, LLC AND MIDWAY GLENDALE ASSOCIATES	PLE, TLE					0.138	0.346	62
63(5)	4.14	WADE C. LEITNER-THOMPSON AND LEAH R. KLUCK	TLE						0.093	63
64(5)	4.14	KENNETH GRIESE, SHARON GRIESE, AND MICHAEL D. GRIESE	HE, TLE				0.009		0.081	64
65(3)	4.15, 4.16	JOMELA BOULDER LLC	FEE, TLE	0.014		0.014			0.015	65
66(2)	4.15	ROSALIE S. NEUFELD	FEE, TLE	0.073		0.073			0.046	66
67(2)	4.15	ROBERT W. ESTLUND	FEE, TLE	0.014		0.014			0.036	67
68(3)	4.15	M & R REAL EST DEVELOPMENT, LLC	FEE, TLE	0.026	0.278	0.304			0.032	68
69(2)	4.15	DON A. & JENNIFER M. SCAFFIDI	FEE, TLE	0.027		0.027			0.043	69
70(2)	4.15	LILIAN P. ALVAREZ PERDOMO & VINCENTE M. ALVAREZ MAYORGA	TLE						0.031	70
71(2)	4.16	FINLAYSON SURVIVOR'S TRUST	FEE	0.371		0.371				71
72(2)	4.16	MT ZION ASSEMBLY OF THE APOSTOLIC FAITH, INC.	FEE	0.549		0.549				72
73(4)	4.16	NORTHPORT MOVIN' OUT, INC.	FEE, PLE, TLE	0.008		0.008		0.067	0.005	73
74(2)	4.16	N H P WISCONSIN ALF, L.L.C.	PLE, TLE					0.066	0.015	74
75(2)	4.09	MARYANN MULLANEY	TLE						0.019	75
76(4)	4.11	FORCAP GLENDALE LLC	FEE, PLE, TLE	0.009		0.009		0.037	0.160	76
77(2)	4.16	SHAWN FREDRICKSON	PLE					0.064		77
78(5)	4.16	PHILIP & JENNIFER NAWROCKI	PLE					0.029		78
79(2)	4.17	JAE C. STROEDE	PLE					0.064		79
80(2)	4.17	DENNIS L WEEDALL AND NANCY WEEDALL	FEE	0.605		0.605				80

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	R/W ACRE(S) REQUIRED (ACRES) NEW	EXISTING	TOTAL	HE	PLE AREA	TLE AREA	PARCEL NUMBE
81(2)	4.17	PAUL D. SCHMIRLER & AMY A. VAN BERGEN	PLE					0.037		81
82(2)	4.17	BRENT & TERESA ALEXANDER	PLE					0.034		82
83(2)	4.17	KAREN J. CHARNITZ	PLE					0.032		83
84(2)	4.17	KEVIN P. BERKEL	PLE					0.038		84
85(2)	4.17	FEDERAL NATIONAL MORTGAGE ASSOCIATION	PLE					0.037		85
86(2)	4.17	JAMES J. & DIANE M. ZAUSCH	PLE					0.036		86
87(2)	4.17	DAVID W. & LINDA TEICHEN	PLE					0.026		87
88(2)	4.17	GREGORY C. & JULIE A. MALLOY	PLE					0.026		88
89(4)	4.17	MARC W. MOESER	PLE					0.076		89
90(2)	4.18	VILLAGE OF RIVER HILLS	FEE, TLE	0.018		0.018			0.042	90
91(2)	4.18	JEFFREY HARRY	PLE, TLE					0.051	0.023	91
92(4)	4.18	PORCHLIGHT PROPERTIES, L.L.C. & J&T HORISON TRUST	PLE					0.037		92
93(4)	4.18	JAMES W. & MOLLIE J. LAZEAR	PLE, TLE					0.035	0.022	93
94(4)	4.18	DONALD J. & CECELIA T. VOITH REVOCABLE TRUST	PLE					0.037		94
95(2)	4.18	BETTY JANE LOKE	PLE					0.029		95
96(2)	4.18	THE MONEY SOURCE, INC.	PLE					0.029		96
97(2)	4.18	RICHARD, SR. & CHRISTINE KUBCZAK	PLE, TLE					0.025	0.017	97
98(2)	4.18	EVAN CARVER	PLE, TLE					0.030	0.027	98
99(3)	4.18, 4.19	ANDREW K. GAVIN AND DIONNA L. GAVIN, HUSBAND AND WIFE	PLE					0.033		99
100(2)	4.19	SIMON BUNDY, JOHN BUNDY, AND ANNE BUNDY	TLE						0.112	100
101(2)	4.19	ERIC J VON SCHLEDORN	TLE						0.160	101
102(2)	4.19	TRAVIS HOLTGRAVE	PLE					0.033		102
103(2)	4.19	WILLIE D. & CYNTHIA A. MALONE	PLE, TLE					0.033	0.010	103
104(2)	4.19	SU YUEH HSIEH	PLE, TLE					0.033	0.034	104
105(2)	4.19	JEFFREY A. & KAREN A. QUADE REVOCABLE TRUST	PLE					0.025		105
106(2)	4.19	WILLIAM D. EHR	PLE					0.025		106
107(2)	4.19	ERIK B. MILLER	PLE					0.025		107
108(2)	4.19	MORTON M. GRODSKY AND JUDITH A. GRODSKY	PLE, TLE					0.039	0.006	108
109(2)	4.19	PEARL H. CAPELLO TRUST SEPT. 27, 2016	PLE, TLE					0.044	0.017	109
110(2)	4.19	WENDY BETH DETTMAN REVOC. TRUST	PLE					0.033		110
111(2)	4.20, 4.21	THE PORTICOS LLC	PLE, TLE					0.184	0.203	111
112(2)	4.21	RICHARD AND SUSAN MUGGLI TRUST AGREEMENT	TLE						0.150	112
113(2)	4.21	BRADLEY W. GOSE AND DAVID J. QUAM	TLE						0.057	113
114(2)	4.21	JOINT SCHOOL DIST #8	TLE						0.161	114
115(2)	4.21	JAMES E NEUMAN JR AND ANNETTE L BROMMELKAMP	TLE						0.016	115
116(2)	4.21	AKASH RASHMIKANK AMIN AND DIPIKA AKASH AMIN	TLE						0.006	116
117(2)	4.22	LEROY HARMON JR. AND ROBIN L. HARMON	TLE						0.014	117
118(2)	4.22	BRIAN J HANSEN	TLE						0.035	118
119(2)	4.22	PHOUN SAY THAO AND MAYYER THAO (PER GIS)	TLE						0.062	119
120(2)	4.22	NILANJAN LODH AND SUKANYA LODH	TLE						0.068	120
121(2)	4.22	JASON SIEBERG (PER GIS)	TLE						0.078	121
122(2)	4.22	ABIGAIL TIETJEN (PER GIS)	TLE						0.017	122
123(2)	4.28	BAYSIDE COMMONS CONDOMINIUM	PLE, TLE					0.139	0.003	123
124(2)	4.23	JEFFREY T. SCHULMAN	PLE					0.018		124
125(2)	4.23, 4.25	NORTH SHORE CENTERS PARTNERS	PLE, TLE					0.016	0.184	125
126(2)	4.23, 4.24	MILWAUKEE COUNTY	FEE, TLE	0.030		0.030			0.532	126
127(2)	4.24	JOINT SCHOOL DISTRICT NO. 8	TLE						0.206	127
128(2)	4.24	UGO A NWAGBARAOCHA & SHEILA NWAGBARAOCHA	TLE						0.179	128
129(2)	4.25	11301 NORTHPORT, LLC	TLE						0.027	129
130(2)	4.25	PARK SENIOR COMMUNITY II, LLC (70%) AND 11301 NORTHTPORT, LLC (30%)	TLE						0.067	130
131(2)	4.25	8855 N. PORT WASHINGTON, LLC	TLE						0.011	131
132(2)	4.25	FIRST WISCONSIN NATIONAL BANK OF MILWAUKEE	FEE, TLE	0.003		0.003			0.061	132
133(2)	4.26	NAIK TRUST	PLE					0.036		133
134(2)	4.26	FRANK H BRYSON, II & LASHUAN D BRYSON	TLE						0.021	134
135(2)	4.26	ANNA LIESKE & LEE A. NEWSON	FEE, TLE	0.049		0.049			0.030	135
136(2)	4.26	THOMAS B. HUIZENGA AND JENNIFER L. HUIZENGA	TLE						0.072	136
137(2)	4.27	LA MACCHIA REAL ESTATE LLC	FEE, PLE, TLE	0.295		0.295		0.122	0.225	137
138(2)	4.28	WHITE OAKS APARTMENTS LLC & BAYSIDE WOODS COMPANY	PLE					0.374		138
139(2)	4.14	PAUL C. GUELLER AND JILL M. GUELLER	FEE	0.013		0.013				139
140(4)	4.10, 4.11	FORCAP GLENDALE LLC	TLE						0.009	140
141(4)	4.11	FORCAP GLENDALE LLC	TLE						0.009	141
141(4)	4.11	FORCAP GLENDALE LLC	TLE						0.009	141
232(5)	4.09	ULRIC L. COBB	TLE						0.032	232
233(5)	4.09	DANIEL BURRELL, JR. & JENICE MARIE BURRELL	TLE						0.020	233
275(5)	4.09	MARYANN MULLANEY	TLE						0.036	275

UTILITY NUMBER	SHEET NUMBER	OWNER'S NAME	INTEREST REQUIRED	UTILITY NUMBE
500(2)	4.06-4.11, 4.14-4.15, 4.17-4.18,	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS	500
501	4.10, 4.11, 4.15	WE ENERGIES GAS	RELEASE OF RIGHTS	501
504(5)	4.06-4.10, 4.13, 4.15, 4.16, 4.18, 4.19, 4.21, 4.23-	AT & T WISCONSIN	RELEASE OF RIGHTS	504
509(5)	4.30	MIDWEST FIBER NETWORKS	RELEASE OF RIGHTS	509
521	4.06, 4.08	FOX POINT, VILLAGE OF - WATER MAIN	RELEASE OF RIGHTS	521
541	4.06	CITY OF GLENDALE - WATER	RELEASE OF RIGHTS	541
561(5)	4.24	RIVER HILLS, VILLAGE OF - SEWER	RELEASE OF RIGHTS	561
UA632(4)	4.29, 4.30	MEQUON MUNICIPAL WATER UTILITY	UTILITY AGREEMENT	UA632(4)
UA661(5)	4.30, 4.31	RIVER HILLS, VILLAGE OF - SEWER	UTILITY AGREEMENT	UA661(5)
UA671(5)	4.29	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT	UTILITY AGREEMENT	UA671(5)
UA681(5)	4.30	BAYSIDE, VILLAGE OF - SEWER	UTILITY AGREEMENT	UA681(5)

4

4

REVISION DATE
01/21/2021
03/05/2021
08/06/2021
09/03/2021

DATE: AUGUST 17, 2020

HWY: IH-43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.02

PS&E SHEET _____

E

T8N - R22E

GN

NW 1/4 | SW 1/4 | GOV LOT 2 | GOV LOT 1 | NW 1/4

NE | SE | CITY OF GLENDALE | VILLAGE OF RIVER HILLS | NE | SE

BENDER ROAD | UNION PACIFIC RAILROAD CO. | W. GREENTREE ROAD | W. GOOD HOPE ROAD

4.07 | 4.12 | 4.16 | 4.11 | 4.10 | 4.06 | 4.09 | 4.13 | 4.08

20

I - 43 NORTH-SOUTH | N. JEAN NICOLE ROAD | N. PORT WASHINGTON ROAD | W. COVENTRY COURT

1080 | 1100 | 1120 | 1140

120 | 130 | 140 | 150

NW | SW | NW | SW | NE 1/4 | SE 1/4 | NE 1/4

BEGIN PROJECT 1229-04-22
STA. 1078+35.60

NE | SE | NE | SE | NE | SE

VILLAGE OF WHITEFISH BAY | CITY OF GLENDALE | VILLAGE OF FOX POINT

REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR N/A	SCALE, FEET 0 250 500	HWY: IH-43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.03 PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_LANDSCH_LAYOUT.DWG
LAYOUT NAME - Layout 4.03

PLOT DATE : 9/2/2021 4:14 PM | PLOT BY : RAISA KHAYTINA | PLOT NAME : | PLOT SCALE : 1 IN:500 FT

T8N - R22E

SW 1/4 | NW 1/4 | SW 1/4

NE | SE | NE | SE | NE | SE

VILLAGE OF RIVER HILLS

W. CALUMET ROAD | W. BRADLEY ROAD | W. DEAN ROAD

4 | 4

16 | 4.17 | 4.18 | 4.19 | 4.20 | 4.21 | 4.2

1160 | 1180 | 1200 | 1220

I - 43 NORTH-SOUTH

N. PHEASANT LANE

W. BAYFIELD AVE | N. CHADWICK COURT

NW | SW | NW | SW | NW | SW

SE 1/4 | NE 1/4 | SE 1/4

NE | SE | NE | SE | NE | SE

VILLAGE OF FOX POINT

REVISION DATE			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020	SCALE, FEET 0 250 500	HWY: IH-43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.04	
GRID FACTOR N/A		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET ____	E

FILE NAME : RW_PLAT-1229-04-22_LANDSCH_LAYOUT.DWG
LAYOUT NAME - Layout 4.03

PLOT DATE : 8/30/2021 3:50 PM PLOT BY : RAISA KHAYTINA PLOT NAME : PLOT SCALE : 1 IN:500 FT

T8N - R22E

T9
T8

4

4

GN

SW NW SW NW SW NW NE SE NE SE NE SE NW SW NW SW NW SW

VILLAGE OF RIVER HILLS

VILLAGE OF FOX POINT

VILLAGE OF BAYSIDE

4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31

NW 1/4 SW 1/4 NW 1/4

140 160 260 280 300 420 440 810 820 1240 1260 1280 1300

W. PHEASANT LANE
W. RAVINE LANE
W. COUNTY LINE ROAD
W. FAIRY CHASM ROAD
N. PORT WASHINGTON ROAD
I - 43 NORTH-SOUTH
W. GLENCOE PLACE
W. BERGEN DRIVE
W. BROWN DEER ROAD

117 122 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 Z 123 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

END PROJECT 1229-04-22
STA. 1311+02.02

REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR N/A	SCALE, FEET 0 250 500	HWY: IH-43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.05 PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_LANDSCH_LAYOUT.DWG
LAYOUT NAME - Layout 4.03

PLOT DATE : 8/30/2021 3:50 PM PLOT BY : RAISA KHAYTINA PLOT NAME : PLOT SCALE : 1 IN:500 FT

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

Curve Table			
Curve #	Length	Radius	Delta
C33	84.78'	3894.72'	1°14'50"
C34	67.55'	3894.72'	0°59'38"
C41	65.61'	3689.22'	1°01'08"

Curve Table			
Curve #	Length	Radius	Delta
C4	31.86'	3894.72'	0°28'07"
C5	114.36'	3658.53'	1°47'28"
C6	9.57'	3894.72'	0°08'27"
C12	195.44'	3689.22'	3°02'07"
C15	32.95'	4044.72'	0°28'00"
C17	84.03'	3744.72'	1°17'08"
C20	2.96'	4044.72'	0°02'31"
C21	39.72'	25.80'	88°11'13"
C23	98.75'	808.50'	6°59'52"
C25	84.62'	284.50'	17°02'27"
C26	50.31'	4044.72'	0°42'45"
C31	68.54'	3744.72'	1°02'55"

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2537	1078+70.86	158.04
PRW2006	1078+70.91	190.74
TLE2111	1078+70.95	217.24
TLE2113	1078+75.91	190.73
TLE2112	1078+75.95	217.23
TLE2100	1078+80.05	-189.25
PRW2000	1078+80.08	-179.22
ERW2500	1078+80.10	-170.00
TLE2114	1078+88.42	175.25
PRW2007	1078+96.38	164.89
PRW2039	1079+40.98	-174.87
TLE2101	1079+42.04	-184.82
ERW2543	1079+60.12	155.33
PRW2001	1079+75.45	-170.00
PRW2008	1079+85.02	155.54
TLE2115	1079+86.62	165.41
PRW2009	1080+35.61	147.33
TLE2116	1080+36.93	157.25
TLE2102	1080+46.94	-170.00
ERW2502	1080+99.50	-170.00
TLE2117	1081+81.39	141.95
TLE2103	1082+34.95	-136.14
TLE2119	1082+37.69	125.94
TLE2118	1082+37.72	141.46
ERW2681	1082+41.90	125.49
PRW2679	1082+63.50	-129.00
ERW2501	1082+99.50	-120.00

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2105	1083+04.14	-145.00
TLE2104	1083+04.14	-135.05
PRW2010	1083+17.68	117.47
PRW2011	1083+18.60	126.13
TLE2120	1083+21.44	152.93
TLE2106	1083+30.42	-145.00
TLE2107	1083+36.70	-129.00
ERW2538	1083+97.66	109.00
TLE2121	1084+94.32	143.56
TLE2108	1086+78.41	-129.00
TLE2122	1087+02.93	159.52
TLE2123	1087+08.68	172.72
HE2232	1087+24.98	-200.00
TLE2109	1087+39.12	-159.02
PRW2225	1087+39.66	154.61
PRW2012	1087+41.16	129.66
PRW2678	1087+49.80	-129.00
TLE2124	1088+50.18	275.28
ERW2539	1088+53.23	137.76
PRW2226	1088+63.66	163.80
ERW2227	1088+73.73	139.65
HE2230	1088+78.25	200.00
TLE2125	1088+89.14	226.90
HE2233	1088+90.23	-200.00
TLE2144	1089+13.65	199.41
ERW2229	1089+17.18	-120.00
ERW2503	1089+71.92	-119.09
PRW2002	1089+72.63	-135.27

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
2003	1089+83.86	-138.80
2220	1089+84.50	-136.90
2004	1090+01.79	-123.78
2129	1090+02.90	-143.75
2228	1090+08.60	136.30
2231	1090+33.89	200.00
2005	1090+83.70	-119.11
2130	1090+84.27	-139.11
2131	#N/A	#N/A

STATION AND OFFSET TABLE
RAIL ROAD ALIGNMENT

POINT	STATION	OFFSET
TLE2221	1089+30.36	-323.14
TLE2133	1089+33.17	-259.66
TLE2127	1089+35.17	-253.21
TLE2128	1089+69.50	-253.54

COURSE TABLE

POINT NO.	BEARING	DISTANCE
2002-2003	N20°42'17"W	11.34'
2003-2220	N69°17'43"E	2.00'
2220-2004*	N34°52'53"E	21.48'
2004-2005	N00°28'02"E	82.04'

* INDICATES LC AND LCB

SEE SHEET 4.07

CITY OF GLENDALE

14

VILL. OF WHITEFISH BAY, VILL. OF FOX POINT AND CITY OF GLENDALE

W. BENDER ROAD

N. JEAN NICOLET ROAD

IH - 43

N. PORT WASHINGTON ROAD

W. DEVON STREET

UNION PACIFIC RAILROAD CO.

NW-NE

RAILROAD ALIGNMENT
PI STA = 138+71.20
Y = 333431.980
X = 605567.267
DELTA = 56°16'10"
D = 1°24'45"
T = 2169.10'
L = 3983.78'
R = 4056.44'
PC STA = 117+02.11
PT STA = 156+85.88

BEGIN RELOCATION ORDER
STA. 1078+35.60
Y = 332707.06
X = 604942.43

STA 1078+37.60 IH-43
STA 100+00.00 BENDER RD.

PI: 1078+35.60

PI: 1088+79.09

STA 1089+13.01 IH-43=
STA 133+12.82 RR

1091+58.15
S/L=R/L

SEE SHEET 4.08

SEE SHEET 4.09

MATCH LINE
SEE SHEET 4.08

STA. 130+50

STA. 136+00

TLE GRADING
0.030 Acres

TLE FOR DRIVEWAY AND GRADING
0.019 Acres

FEE AREA
0.012 Acres

FEE AREA
0.097 Acres

TLE GRADING
0.025 Acres

TLE GRADING
0.011 Acres

US SPRINT EASEMENT IN RAILROAD AT PARCEL 15

10' OVERHEAD UTILITY EASEMENT TO WEPCO, WI BELL, INC., & TIME WARNER ENTERTAINMENT CO., L.P. DOC. 8859120

LOT 1
CSM 1355
DOC #4544108

MILDAN, LLC

TLE FOR GRADING AND DRIVEWAY
0.167 Acres

5' WEPCO UTILITY EASEMENT DOC. 4805233

6' WATERMAIN EASEMENT DOC. 2651849

25' WATERMAIN EASEMENT DOC. 4053519

TLE GRADING

TLE DRIVEWAYS GRADING

SLOPE INTERCEPT

STATE R/W ACQUIRED BY 1229-04-21

R/L N. JEAN NOCOLET RD.

R/L

PL

S/L

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	U5712(3)	1956	VARIES
IH-43	1228-00-22	1990	VARIES
N PORT WASHINGTON RD	U5712(3)	1956	VARIES
N JEAN NICOLET RD	U5712(3)	1956	VARIES
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES

500
WE ENERGIES - ELECTRIC
PARCEL 15 - DOC. NO. 3856057
PARCEL 15 - DOC. NO. 4805233
PARCEL 15 - DOC. NO. 8859120

504
AT&T WISCONSIN
PARCEL 15 - DOC. NO. 3856057
PARCEL 15 - DOC. NO. 8859120
PARCEL 16 - NO RECORDED EASMENT

507
CHARTER
PARCEL 15 - DOC. NO. 8859120

513
US SPRINT
PARCEL 15 - DOC. NO. 10351439
PARCEL 52 - DOC. NO. 10351439

521
VILLAGE OF FOX POINT - WATER MAIN
PARCEL 19 - DOC. NO. 62079
PARCEL 19 - DOC. NO. 2651849
PARCEL 20 - DOC. NO. 4053519

541
VILLAGE OF GLENDALE - WATER
PARCEL 16 - DOC. NO. 4647924

16 6204 PORT WASHINGTON ROAD, LLC
17 6240, LLC
18 KIVELY INVESTMENTS, LLC
19 LANDMARK CREDIT UNION
20 VILLAGE OF WHITEFISH BAY

DOERING SUBD. NO. 1
DOERING SUBDIVISION NO 1
CITY OF GLENDALE
VILLAGE OF WHITEFISH BAY
Lot 1
Lot 2
CSM 9232

PI STA = 1088+79.09
Y = 333750.407
X = 604960.189
DELTA = 3°46'13"
D = 1°40'14"
T = 112.90'
L = 225.71'
R = 3429.95'
PC STA = 1087+66.20
PT STA = 1089+91.91

CONC. MON. W/ BRASS CAP
Y = 334039.60
X = 604179.86

CONC. MON. W/ BRASS CAP
Y = 334003.68
X = 606830.59

T 08 N R 22 E, 20, 29, 29, 20, 21, 28

REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.06 PS&E SHEET ____	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.06

PLOT DATE : 8/30/2021 4:28 PM
PLOT BY : RAISA KHAYTINA
PLOT NAME : ----
PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	U5712(3)	1956	VARIES
N. JEAN NICOLET RD	U5712(3)	1956	VARIES
W. FAIRFEILD COURT	NO RECORDED DOCUMENTS	-	VARIES

513

US SPRINT
PARCEL 21 - DOC. NO. 10351439
PARCEL 52 - DOC. NO. 10351439

STATION AND OFFSET TABLE
RAIL ROAD ALIGNMENT

POINT	STATION	OFFSET
TLE2240	115+84.85	-53.80
TLE2241	115+84.85	84.20
TLE2242	116+99.86	91.45
TLE2239	117+49.71	-56.63
TLE2238	118+64.31	-109.76
TLE2237	119+15.78	-70.17
TLE2236	122+50.19	-80.77
PRW2038	126+89.56	-158.10
TLE2243	126+89.99	59.11
PRW2037	126+92.53	-162.81
TLE2235	126+97.20	-85.34
ERW2542	127+70.01	-121.84
PRW2042	127+71.72	-127.09
ERW2510	127+96.19	-113.51
PRW2224	127+97.98	-118.73
PRW2036	128+03.05	-117.14
PRW2035	128+04.44	-121.44
TLE2222	128+07.54	-130.97
ERW2509	128+72.00	-97.90
PRW2223	128+72.58	-107.90
TLE2234	128+73.16	-117.89
PRW2033	129+71.87	-102.03
PRW2034	129+71.93	-106.53
TLE2221	130+06.32	-116.10

GN

CONC. MON.
W/ BRASS CAP
Y = 334039.60
X = 604179.86

T 08 N
R 20 20 E
29 29
22

S88°50'05"E 2628.37' S/L

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

CONC. MON.
W/ BRASS CAP
Y = 334003.68
X = 606830.59

T 08 N
R 20 21 E
29 28
22

S89°13'25"E 2650.97' S/L

Curve Table			
Curve #	Length	Radius	Delta
C7	65.07'	292.93'	12°43'41"
C8	5.17'	307.43'	0°57'51"
C11	84.62'	284.50'	17°02'27"
C16	96.73'	3684.72'	1°30'15"
C24	67.72'	302.93'	12°48'32"
C25	84.62'	284.50'	17°02'27"
C29	88.37'	350.00'	14°27'56"
C30	324.61'	3744.72'	4°58'00"

NE-NW

S01°08'32"W 2643.33'

NW-NE

CSM 1355
R.546, P.851

4

2

FABER

21
SHERIDAN

US SPRINT EASEMENT IN RAILROAD AT PARCEL 21

TLE FOR GRADING AND DRIVEWAY

PL S2°46'25"E

SEE SHEET 4.06

TLE2234 TLE2221 TLE2222 PRW2034 PRW2037 PRW2224 PRW2223 PRW2035 PRW2042 PRW2036 PRW2038 PRW2033

S02°47'26"W 10.00'
N18°04'57"E 5.50'
S86°14'42"E 26.80'
S48°01'25"E 5.5'
S16°17'55"E 4.50'
S48°01'25"E 9.12'
5.5'
10'
10'
C2
C8
C7
C24
C16
C27
C25
C11
ERW2508
ERW2509
ERW2542
ERW2510

513

W. FAIRFIELD COURT

TLE2235 C29 C30

STA. 130+50

130

150'

MATCH LINE
SEE SHEET 4.06

N79°23'10"E 437.66'

TLE2238 TLE2236 TLE2240 TLE2239 TLE2237

S53°35'09"E 64.03'
N64°04'26"E 124.18'
N83°39'05"E 328.26'
S89°50'50"E 163.54'
PI: 115+45.26
TC: 116+02.11
SC: 117+02.11

128
126
124
122
120
118
116

UNION PACIFIC RAILROAD CO.

S77°21'39"W 389.65'

TLE2243

EASEMENT FOR STREET OR HIGHWAY PURPOSES DOC. 42440864

S88°24'47"E 138.00'
N01°35'13"E

S82°05'31"W 1006.52'

N85°01'42"W 116.29'

TLE2241 TLE2242

52

UNION PACIFIC RAILROAD CO.

1/4 LINE

RAILROAD ALIGNMENT
PI STA = 138+71.20
Y = 333431.980
X = 605567.267
DELTA = 56°16'10"
D = 1°24'45"
T = 2169.10'
L = 3983.78'
R = 4056.44'
PC STA = 117+02.11
PT STA = 156+85.88

REVISION DATE				
09/03/2021				
01/21/2021				
03/05/2021				
08/06/2021				

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.07

PS&E SHEET

E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.07

PLOT DATE : 8/30/2021 4:28 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

500

WE ENERGIES - ELECTRIC

PARCEL 23 - DOC. NO. 3064793
PARCEL 24 - DOC. NO. 3064793
PARCEL 24 - DOC. NO. 3934413
PARCEL 25 - DOC. NO. 3934414
PARCEL 26 - DOC. NO. 3929100
PARCEL 27 - DOC. NO. 3934415

504

AT&T WISCONSIN

PARCEL 23 - DOC. NO. 3064793
PARCEL 24 - DOC. NO. 3064793
PARCEL 24 - DOC. NO. 3934413
PARCEL 25 - DOC. NO. 3934414
PARCEL 26 - DOC. NO. 3929100
PARCEL 26 - DOC. NO. 3934415
PARCEL 27 - DOC. NO. 3934415

STATION AND OFFSET TABLE
RAIL ROAD ALIGNMENT

POINT	STATION	OFFSET
TLE2141	136+08.30	-146.92
PLE2685	136+95.75	-91.58
PLE2686	137+00.00	-100.70
PLE2143	137+51.74	-61.81
PLE2687	138+06.85	-81.88
PLE2688	138+66.84	-82.02
TLE2244	139+26.94	66.53
PLE2689	139+40.66	-57.27
TLE2142	139+86.23	-72.48
TLE2690	139+86.31	-57.48
TLE2245	141+92.03	62.59
TLE2691	142+65.56	-74.53
PLE2145	142+70.35	-59.58
PLE2146	142+75.11	-44.63
TLE2254	143+45.69	-28.95
TLE2253	146+75.66	-27.48
TLE2252	151+50.45	-29.54
TLE2246	153+97.34	72.28
TLE2247	157+27.33	55.99
TLE2251	157+46.69	-35.23
TLE2250	158+00.00	-65.00
TLE2249	158+00.00	8.95

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

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ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
UNION PACIFIC RAILROAD CO	ORCHARD ESTATES	1951	75'
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES

Curve Table

Curve #	Length	Radius	Delta	LC	LCB
C35	115.58'	3729.72'	1°46'32"	115.57'	N57°26'38"E
C36	114.42'	3714.72'	1°45'53"	114.41'	N57°26'58"E
C37	148.03'	3744.72'	2°15'54"	148.02'	N60°12'08"E
C40	722.73'	3744.72'	11°03'29"	721.61'	N59°29'25"E
C42	164.97'	3744.72'	2°31'27"	164.96'	N57°48'28"E

CONC. MON.
W/ BRASS CAP
Y = 334039.60
X = 604179.86

SEE SHEET 4.09

WOOD LANE

CITY OF GLENDALE

ORCHARD ESTATES BLK 2

DEL FAVA

FORAL

WILKINSON

LUTSKY

MCCORMACK

UNION PACIFIC RAILROAD CO.

CITY OF GLENDALE
VILLAGE OF WHITEFISH BAY

VILLAGE OF FOX POINT

CITY OF GLENDALE
VILLAGE OF FOX POINT

VILLAGE OF WHITEFISH BAY
VILLAGE OF FOX POINT

MCCORUNION PACIFIC RAILROAD CO.MACK

SAME POINT

SLOPE INTERCEPT

TLE FOR RET. VWALL & CONSTRUCTION GRADING

TLE FOR RET. WALL & CONSTRUCTION GRADING

PLE FOR RET. WALL

PLE FOR RET. WALL & DRAINAGE

TLE FOR GRADING

5' UTILITY EASEMENT DOC. 3064796

6' WEPCO AND WI TELEPHONE CO. UTILITY EASEMENT DOC. 3934415

6' WEPCO AND WI TELEPHONE CO. EASEMENT Doc. 3929100

EXCLUDING THAT PART WITHIN SHED FOOTPRINT

6' WEPCO AND WI TELEPHONE CO. UTILITY EASEMENT DOC. 3934414

6' WEPCO AND WI TELEPHONE CO. UTILITY EASEMENT DOC. 3934413

25' WATERMAIN EASEMENT DOC. 4053519

STATE R/W ACQUIRED BY 1229-04-21/24

MATCH LINE SEE SHEET 4.06

NO ACCESS TO N. PORT WASHINGTON ROAD

STA. 136+00

138+61.29 S/L=R/L

CONC. MON.
W/ BRASS CAP
Y = 334003.68
X = 606830.59

RAIL ROAD ALIGNMENT
PI STA = 138+71.20
Y = 333431.980
X = 605567.267
DELTA = 56°16'10"
D = 1°24'45"
T = 2169.10'
L = 3983.78'
R = 4056.44'
PC STA = 117+02.11
PT STA = 156+85.88

SW-SE

SE-SE

NW-NE

NE-NE

1/16TH LINE

EP: 158+01.42

GN

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	U5712(3)	1956	VARIES
N PORT WASHINGTON RD	U5712(3)	1956	VARIES
BRENTWOOD LANE	GLEN MARY SUBD	1946	60'
W. ACACIA ROAD	CLOVERNOOK ESTATES	1937	60'
W. Apple Tree Road	CLOVERNOOK ESTATES	1937	33'
W. Apple Tree Road	MT. Royal Estates	1946	60'
Clovernook Lane	MT. Royal Estates	1946	30'
N PORT WASHINGTON RD	MT. Royal Estates	1946	60'
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2505	##########	-104.00
#N/A	#N/A	#N/A
PRW2040	##########	-114.88
ERW2504	##########	-119.07
ERW2507	##########	-113.49
PRW2041	##########	-109.08
ERW2506	##########	-104.06
TLE2212	##########	-133.00
TLE2147	##########	216.55
TLE2148	##########	226.55
ERW2518	##########	-113.48
ERW2517	##########	-104.09
ERW2519	##########	-122.54
TLE2134	##########	-140.85
TLE2150	##########	216.54
TLE2149	##########	226.54
TLE2135	##########	-122.11
TLE2136	##########	-122.16
TLE2137	##########	-112.16
PLE2152	##########	236.51
PLE2151	##########	216.51
PLE2153	##########	236.51
TLE2633	##########	220.05
PLE2154	##########	211.12
TLE2139	##########	-104.18
TLE2138	##########	-112.19
TLE2634	##########	224.43
TLE2635	##########	215.50
TLE2580	##########	-112.40
TLE2581	##########	-139.41
TLE2582	##########	-139.4

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2544	##########	-104.44
TLE2257	##########	-127.44
TLE2259	##########	-109.44
TLE2258	##########	-127.44
TLE2155	##########	229.21
PRW2013	##########	219.79
ERW2511	##########	180.93
TLE2260	##########	-109.50
ERW2545	##########	-104.50
PRW2014	##########	229.87
TLE2801	##########	296.22
TLE2156	##########	241.73
TLE2800	##########	270.06
TLE2802	##########	313.64
TLE2646	##########	250.78
TLE2647	##########	272.10
PRW2644	##########	258.23
TLE2648	##########	282.70
PRW2645	##########	278.84
ERW2649	##########	268.85
TLE2805	##########	348.47
TLE2583	##########	326.86
TLE2804	##########	367.05
TLE2584	##########	336.75
ERW2643	##########	252.16
TLE2261	##########	-104.54
TLE2262	##########	-143.43
PRW2680	##########	233.16
TLE2159	##########	262.16
TLE2803	##########	273.76
ERW2157	##########	213.58
ERW2546	##########	-98.12
TLE2160	##########	233.08
TLE2263	##########	-141.99
PRW2158	##########	232.92

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PI STA = 1107+21.71
Y = 335590.910
X = 604870.320
DELTA = 6°41'24"
D = 1°00'12"
T = 333.73'
L = 666.70'
R = 5709.87'
PC STA = 1103+87.98
PT STA = 1110+54.68

CONC. MON. W/ BRASS CAP Y = 334039.60 X = 604179.86

WE ENERGIES - ELECTRIC
PARCEL 28 - DOC. NO. 2736056
PARCEL 30 - DOC. NO. 3064796
PARCEL 31 - DOC. NO. 3064796
PARCEL 32 - DOC. NO. 3064796

AT&T WISCONSIN
PARCEL 28 - DOC. NO. 2736056
PARCEL 30 - DOC. NO. 3064796
PARCEL 31 - DOC. NO. 3064796
PARCEL 32 - DOC. NO. 3064796

SW-SE

GLEN MARY SUBDIVISION

LINE OF POLES EASEMENT WEPCO & WIS. TELEPHONE CO, NO WIDTH GIVEN DOC No. 2736056

BRENTWOOD LANE

CLOVERNOOK ESTATES SUBDIVISION

BLOCK 1

W. ACACIA ROAD

W. APPLE TREE ROAD

N. JEAN NICOLET ROAD

R/L N. JEAN NOCOLET RD.

IH - 43

N. PORT WASHINGTON ROAD

NO ACCESS TO N. PORT WASHINGTON ROAD

NO ACCESS TO N. PORT WASHINGTON ROAD (SEE MT. ROYAL ESTATES)

SEE SHEET 4.06

SEE SHEET 4.08

W BRENTWOOD LANE

CLOVENOOK LANE

MT. ROYAL ESTATES BLOCK 4

ORCHARD ESTATES BLK 1

MT. ROYAL ESTATES

CITY OF GLENDALE

28 KROHN
29 GELI
53 CULVER
54 SCHLICHT
55 KHAN
56 GEIER
30 REITMAN
31 BURNS
232 32 COBB
33 233 BURRELL
75 275 MULLANEY

TLE GRADING

5' UTILITY EASEMENT DOC. 3064796

15' DRAINAGE EASEMENT DOC. 3058545

PLE FOR DRAINAGE

SLOPE INTERCEPT

EXCLUDING THAT PART WITHIN SHED FOOTPRINT

STATE R/W ACQUIRED BY 1229-04-21/24

FEE AREA 0.052 Acres

FEE AREA 0.003 Acres

TLE GRADING 0.028 Acres

TLE GRADING 0.007 Acres

Curve Table

Curve #	Length	Radius	Delta
C9	22.95'	414.78'	3°10'10"
C10	23.05'	414.78'	3°11'01"
C13	45.47'	6682.00'	0°23'24"
C14	14.78'	6682.00'	0°07'36"
C18	19.70'	83.44'	13°31'28"
C19	9.31'	23.44'	22°45'09"

Curve Table

Curve #	Length	Radius	Delta
C49	20.00'	2929.94'	0°23'28"
C51	26.93'	2929.94'	0°31'36"
C52	26.61'	2924.93'	0°31'17"
C53	140.19'	2929.94'	2°44'29"
C54	160.19'	2924.93'	3°08'16"

CONC. MON. W/ BRASS CAP Y = 334003.68 X = 606830.59

REVISION DATE			
09/03/2021			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET 0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.09

PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.09

PLOT DATE : 9/3/2021 9:36 AM

PLOT BY : BRIAN DODGE, PS

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
PRW2015	1107+11.60	215.53
ERW2512	1107+11.71	177.62
TLE2162	1107+40.15	209.84
PRW2016	1107+46.02	194.77
PRW2017	1108+33.60	194.47
TLE2163	1108+46.34	209.54
TLE2164	1109+13.00	220.17
TLE2165	1109+14.98	207.33
TLE2264	1109+50.50	-130.55
TLE2265	1109+51.87	-138.55
TLE2166	1109+69.79	230.99
ERW2599	1109+73.34	-130.55
PRW2018	1109+73.76	206.77
TLE2266	1109+74.74	-138.55
ERW2513	1109+88.44	118.89
ERW2514	1110+75.24	141.19
TLE2167	1110+79.04	272.13
PRW2019	1111+93.78	227.85
ERW2516	1112+60.35	90.00
PRW2021	1113+11.33	113.93
TLE2204	1113+22.95	113.86
TLE2168	1114+16.20	338.82
PRW2020	1114+20.54	315.38
ERW2515	1114+22.60	304.25
PRW2023	1114+64.62	90.00
TLE2169	1114+64.62	100.00
PRW2022	1114+64.62	113.00
TLE2206	1114+99.97	202.48
TLE2205	1115+02.09	197.95
TLE2170	1116+83.78	100.00
TLE2171	1116+85.30	92.00

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
N Port Washington Road	F 077-1(1)	1953	VARIES
N Jean Nicolet Roas	F 077-1(1)	1953	VARIES
W. Dalphine Road	Mt. Royal Estates	1946	45'
W. Apple Tre Road	F 077-1(1)	1953	60'
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES
N. PORT WASHINGTON RD.	DOC. 11065447	2021	5'

Curve Table			
Curve #	Length	Radius	Delta
C48	22.31'	5591.62'	0°13'43"
C50	22.31'	5599.62'	0°13'42"

PI STA = 1107+21.71
Y = 335590.910
X = 604870.320
DELTA = 6°41'24"
D = 1°00'12"
T = 333.73'
L = 666.70'
R = 5709.87'
PC STA = 1103+87.98
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GN

NW-SE

T 08 N R 22 E 20

CONC. MON. W/ BRASS CAP Y = 336695.54 X = 6042.39.13

315.81'

S88°59'26"E 475.32'

448.02'

CITY OF GLENDALE

UNPLATTED LANDS

W. APPLE TREE ROAD

1/16TH LINE

S89°06'26"E 671.45'

60'

UNPLATTED LANDS

57 STRONG

W. DAPHNE ROAD

TLE GRADING

TLE2266

TLE2265

TLE2264

S88°57'46"E

8.11'

C48

C50

8'

12'

42'

ERW2599

SLOPE INTERCEPT

N. JEAN NICOLET ROAD

R/L N. JEAN NOCOLET RD.

1118+32.89
S/L=R/L

1118

S01°00'34"W 867.22'

1116

IH - 43

130'

1114

N9°29'08"W R/L

2195.48'

PT: 1110+54.68

1112

R/L

1110

1108

1106

PI: 1107+21.71

1104+87.67
1/16TH=R/L

NO ACCESS TO N. PORT WASHINGTON ROAD (SEE MT. ROYAL ESTATES)

WEPCO UTILITY EASEMENT DOC. 5881327

ERW2513

N04°56'46"E 91.05'

ERW2514

501

500

N88°59'39"W

18'

85'

125'

PRW2019

N. PORT WASHINGTON ROAD

N15°39'39"E 383.73'

N03°55'55"W 224.00'

S11°37'18"W 243.07'

ERW2515

PRW2020

76'

SCENIC AND LANDSCAPE EASEMENT, PER C.S.M. DOC. NO. 5802600

N10°52'02"E 120.19'

N01°42'09"E 343.69'

20' STORM SEWER EASEMENT C.S.M. DOC. 5802600

TLE2167

TLE2168

SLOPE INTERCEPT

LOT 1 CSM 4593 DOC. 5802600

35 GLENDALE HOUSING PARTNERS

LOT 1 CSM 4593

TLE GRADING

W. COVENTRY CT

N88°59'25"W

CONC. MON W/ BRASS CAP Y=336648.97 X=6068822.22

T 08 N R 22 E 20 21

NW-SE

LOT 2 CSM 4593

10' WI GAS CO. GAS MAIN EASEMENT DOC. 5765012

2.04'

188.28'

188.19'

2'

TLE2171

TLE2170

221.06'

219.16'

TLE GRADING 0.051 Acres

10'

505

ERW2516

90'

204.27'

S09°49'58"E 153.29'

PRW2023

TLE2169

PRW2022

TLE2204

PRW2021

56.31'

36 ASSOCIATED BANK

LOT 4 CSM 9128 DOC. 10860313

140 FORCAP GLENDALE LLC

LOT 3 CSM 9128

N88°54'57"W

197.90'

5'

TLE GRADING 0.023 Acres

TLE2205

TLE2206

SLOPE INTERCEPT

1/4 LINE

S/L

N88°59'26"W 2643.50'

500

WE ENERGIES - ELECTRIC
PARCEL 34 - DOC. NO. 2667920
PARCEL 35 - DOC. NO. 5881327

501

WE ENERGIES - GAS
PARCEL 35 - DOC. NO. NO RECORDED EASEMENT
PARCEL 36 - DOC. NO. 5765012

504

AT&T WISCONSIN
PARCEL 34 - DOC. NO. 2669720

STATE R/W ACQUIRED BY 1229-04-21/24

PRW2016

PRW2017

PRW2018

TLE2165

TLE2166

TLE2163

TLE2164

TLE2162

TLE2161

PRW2015

ERW2512

N01°00'21"E 126.99'

85.22'

69.99'

90.56'

N07°01'14"W 110.08'

S36°25'06"E 34.36'

34 MATTHEWS

TLE GRADING

N84°08'31"W

S84°08'31"W

N88°59'39"W

N88°59'39"W

SEE SHEET 4.09

N26°20'36"E

BLK 3

18

PL

PL

PL

PL

3

4

MT. ROYAL ESTATES

SCENIC AND LANDSCAPE EASEMENT, PER C.S.M. DOC. No. 5802600

W. DAPHNE ROAD

REVISION DATE			
09/03/2021			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.10	
GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.10

PLOT DATE : 8/30/2021 4:29 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

4

4

500
WE ENERGIES - ELECTRIC
PARCEL 59 - DOC. NO. 9135470

501
WE ENERGIES - GAS
PARCEL 76 - DOC. NO. 3964955

T 08 N R 22 E 20

CONC. MON.
W/ BRASS CAP
Y = 336695.54
X = 604239.13

SW-NE

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

GN

S01°15'15"W 2648.49'

1/4 LINE

VILLAGE OF RIVER HILLS

CITY OF GLENDALE

58
NICOLET HIGH SCHOOL DIST

45'

1/16 LINE

58+02.94
S/L=R/L

SEE SHEET 4.12

PI: 58+94.30

TLE2354
TLE2355
N76°08'14"E
31.00'

ERW2549

N89°38'46"E

S13°51'46"E

TLE GRADING
0.209 Acres

294.00'

31'

294.00'

TLE2353
TLE2352

S76°08'14"W
31.00'

N89°01'14"W

VILLAGE OF RIVER HILLS
CITY OF GLENDALE

ERW2548

ERW2547

315.81'

448.02'

SLOPE INTERCEPT

N. JEAN NICOLET ROAD

R/L N. JEAN NOCOLET RD.

IH - 43

130'

150'

100'

60

STA 1131+79.76 IH-43
STA 60+00.00
GREEN TREE RD.

1130
1128
1126
1124
1122
1120

N9°29'08"W R/L

1118+32.89
S/L=R/L

PRW2669
PRW2668
PRW2666
PRW2667
PRW2665
PRW2664
PRW2662
PRW2663

20.00'
10'
59.00'
ERW2623
ERW2622
S80°30'52"W 12.86'
20.00'
162.14'
88.15'
25.43'
20.34'
10.17'
342.70'
346.90'

500

PLE2696
S89°01'14"E
17.00'
PLE2695
S89°01'14"E
25.28'
S07°30'07"E 194.08'
189.92'
25'

TLE2591
PLE2694

TLE2590

EXISTING PLE
DOC. 10724421

S89°01'14"E R/L

1/16TH

62

SEE SHEET 4.13

10'
25'
WEPCO DISTRIBUTION
EASEMENT
UNDERGROUND
DOC. 09135470

59
GENERAL CAPITAL/LA
MACCHIA SHORES L.L.C.

TLE FOR SLOPES
& RET. WALL
CONSTRUCTION
GRADING

LOT 1
CSM 7390

501

2195.48'

90'

205.29'

205.37'

2'

75.44'

111.71'

S1°26'16"W
63.41'

10'

TLE2587

156.54'

24'

PLE2692
PLE2693
S80°30'52"W
21.00'
TLE2588
TLE2589

83.52'

20'

25'

PLE FOR
RET. WALL

TLE FOR SLOPES
& RET. WALL
CONSTRUCTION
GRADING

PLE FOR
RET. WALL & TIE BACKS

76
FORCAP GLENDALE LLC

S88°59'15"E

1/16 LINE

W. GREEN TREE ROAD

64

66

S80°30'52"W
9.98'
TLE2585
TLE2586

188.28'
188.19'

N86°24'40"W

N88°33'33"W

140
FORCAP
GLENDALE LLC

LOT 2
CSM 9128

141
FORCAP
GLENDALE LLC

LOT 1
CSM 9128

N80°59'26"W 2643.50' S/L

LOT 3
CSM 9128

CONC. MON
W/ BRASS CAP
Y=336648.97
X=606882.22

1/4 LINE

T 08 N R 22 E 20 21

SW-NE

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2585	1121+54.30	92.00
TLE2586	1121+54.30	101.98
PRW2662	1121+90.96	90.00
PRW2663	1121+90.96	100.00
PRW2665	1122+10.96	90.00
PRW2664	1122+10.96	100.00
TLE2587	1122+16.56	114.00
PLE2692	1123+73.10	90.00
PLE2693	1123+73.10	110.00
TLE2588	1123+73.10	114.00
TLE2589	1123+73.10	135.00
PRW2666	1123+85.96	90.00
PRW2667	1123+85.96	100.00
PRW2669	1124+05.96	90.00
PRW2668	1124+05.96	100.00
ERW2623	1124+63.10	100.00
ERW2622	1124+64.96	90.00
ERW2547	1126+63.48	-130.00
ERW2548	1126+65.07	-138.59
TLE2353	1126+74.60	-170.41
PLE2694	1128+03.95	110.00
TLE2591	1128+03.52	135.00
TLE2354	1129+67.74	-192.85
TLE2355	1129+70.11	-161.94
TLE2590	1129+93.32	141.57
PLE2695	1129+97.91	116.72
PLE2696	1130+01.00	100.00
ERW2549	1131+51.21	-175.81

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
IH-43	1228-16-21	2016	VARIES
IH-43	1228-16-22	2017	VARIES
GREEN TREE ROAD	F 077-1(1)	1953	60'
GREEN TREE ROAD	F 077-1(1)	1953	45'

REVISION DATE	09/03/2021				
01/21/2021					
03/05/2021					
08/06/2021					
DATE: AUGUST 17, 2020		SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.11
GRID FACTOR			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.11

PLOT DATE : 8/30/2021 4:29 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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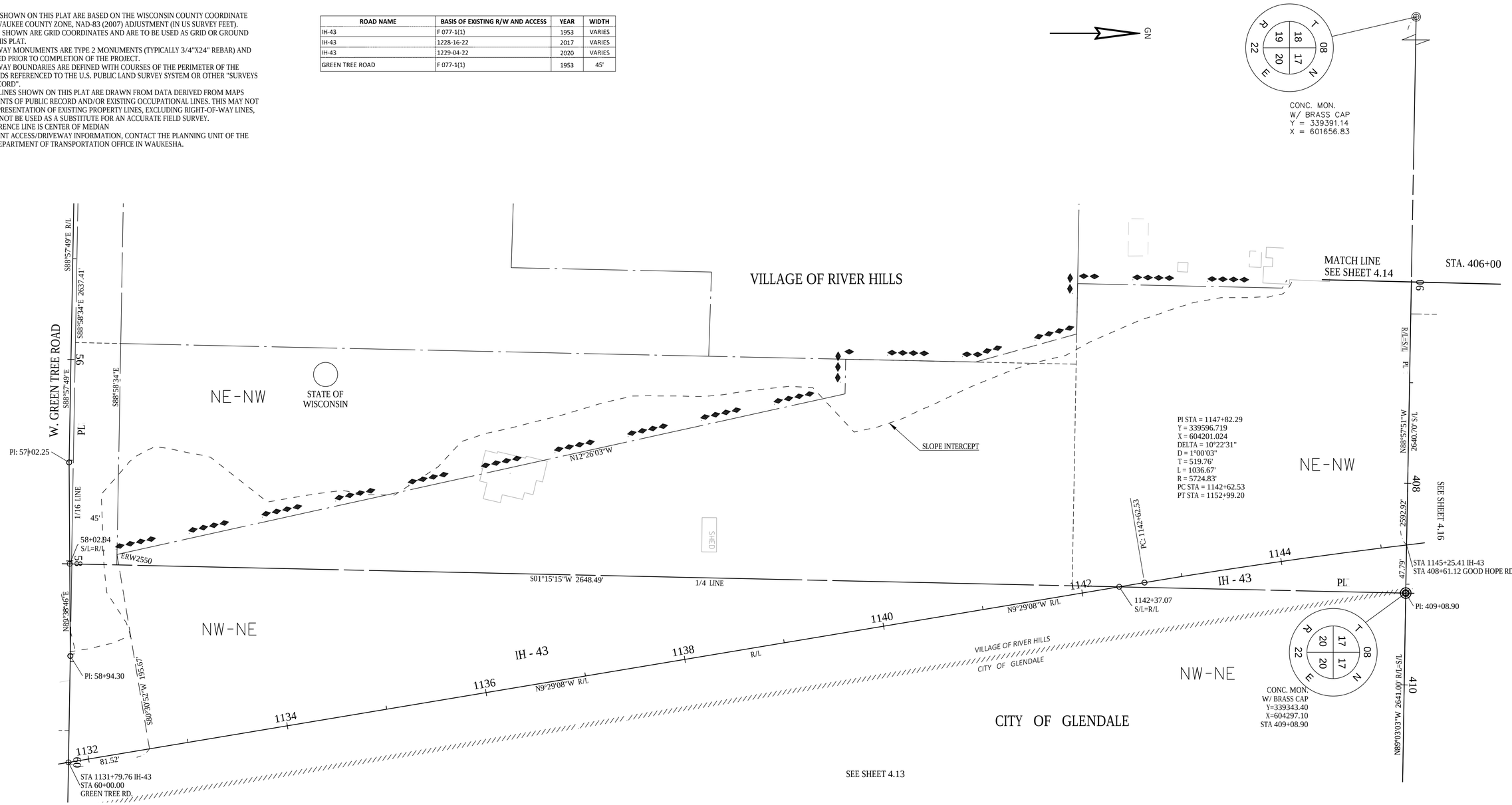
IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
IH-43	1228-16-22	2017	VARIES
IH-43	1229-04-22	2020	VARIES
GREEN TREE ROAD	F 077-1(1)	1953	45'



REVISION DATE 09/03/2021	DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.12
01/21/2021	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET E
03/05/2021					
08/06/2021					

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.12

PLOT DATE : 8/30/2021 4:29 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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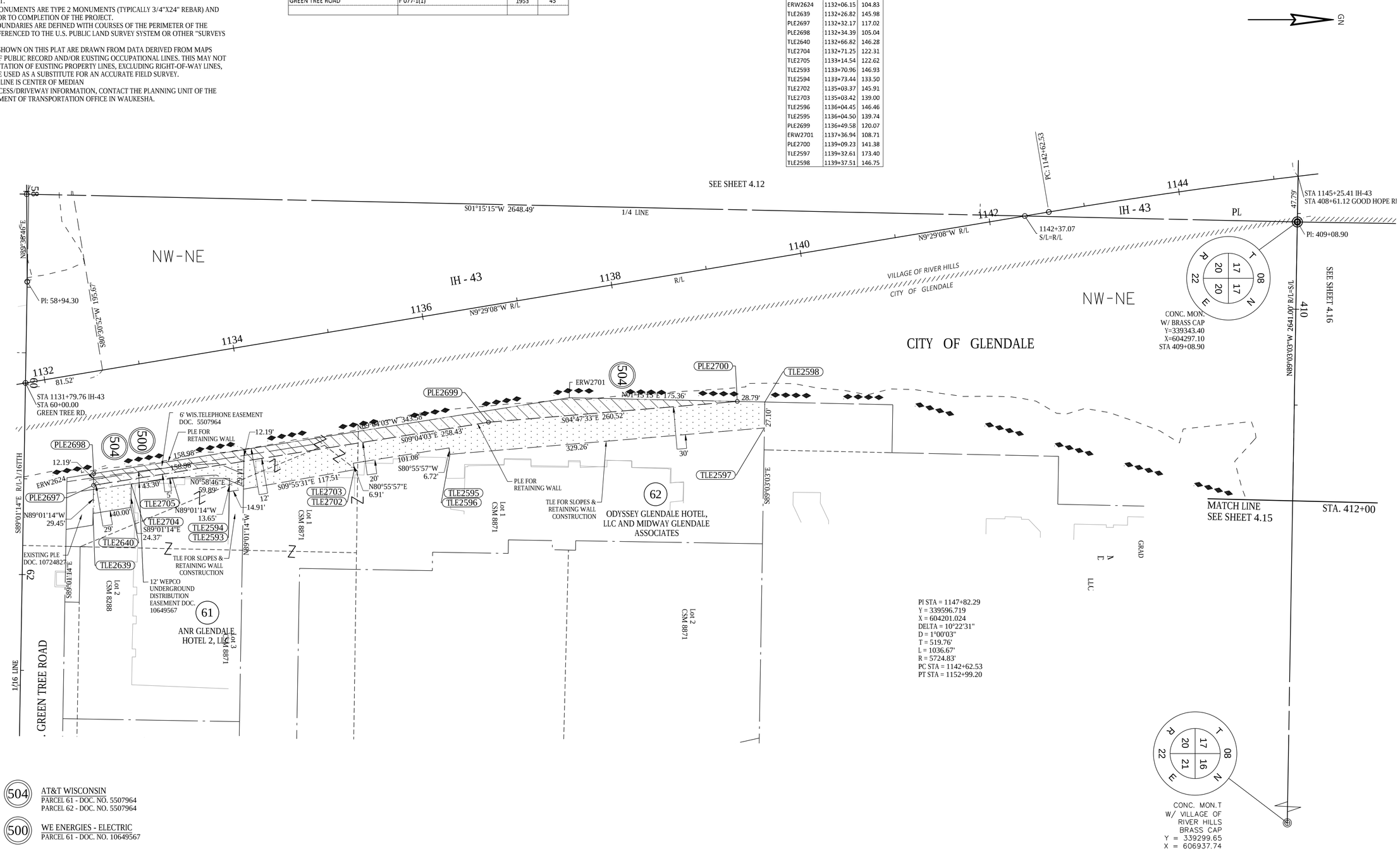
ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
GREEN TREE ROAD	F 077-1(1)	1953	45'

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2624	1132+06.15	104.83
TLE2639	1132+26.82	145.98
PLE2697	1132+32.17	117.02
PLE2698	1132+34.39	105.04
TLE2640	1132+66.82	146.28
TLE2704	1132+71.25	122.31
TLE2705	1133+14.54	122.62
TLE2593	1133+70.96	146.93
TLE2594	1133+73.44	133.50
TLE2702	1135+03.37	145.91
TLE2703	1135+03.42	139.00
TLE2596	1136+04.45	146.46
TLE2595	1136+04.50	139.74
PLE2699	1136+49.58	120.07
ERW2701	1137+36.94	108.71
PLE2700	1139+09.23	141.38
TLE2597	1139+32.61	173.40
TLE2598	1139+37.51	146.75



REVISION DATE			
09/03/2021			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET 0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.13

PS&E SHEET

E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.13

PLOT DATE : 8/30/2021 4:29 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

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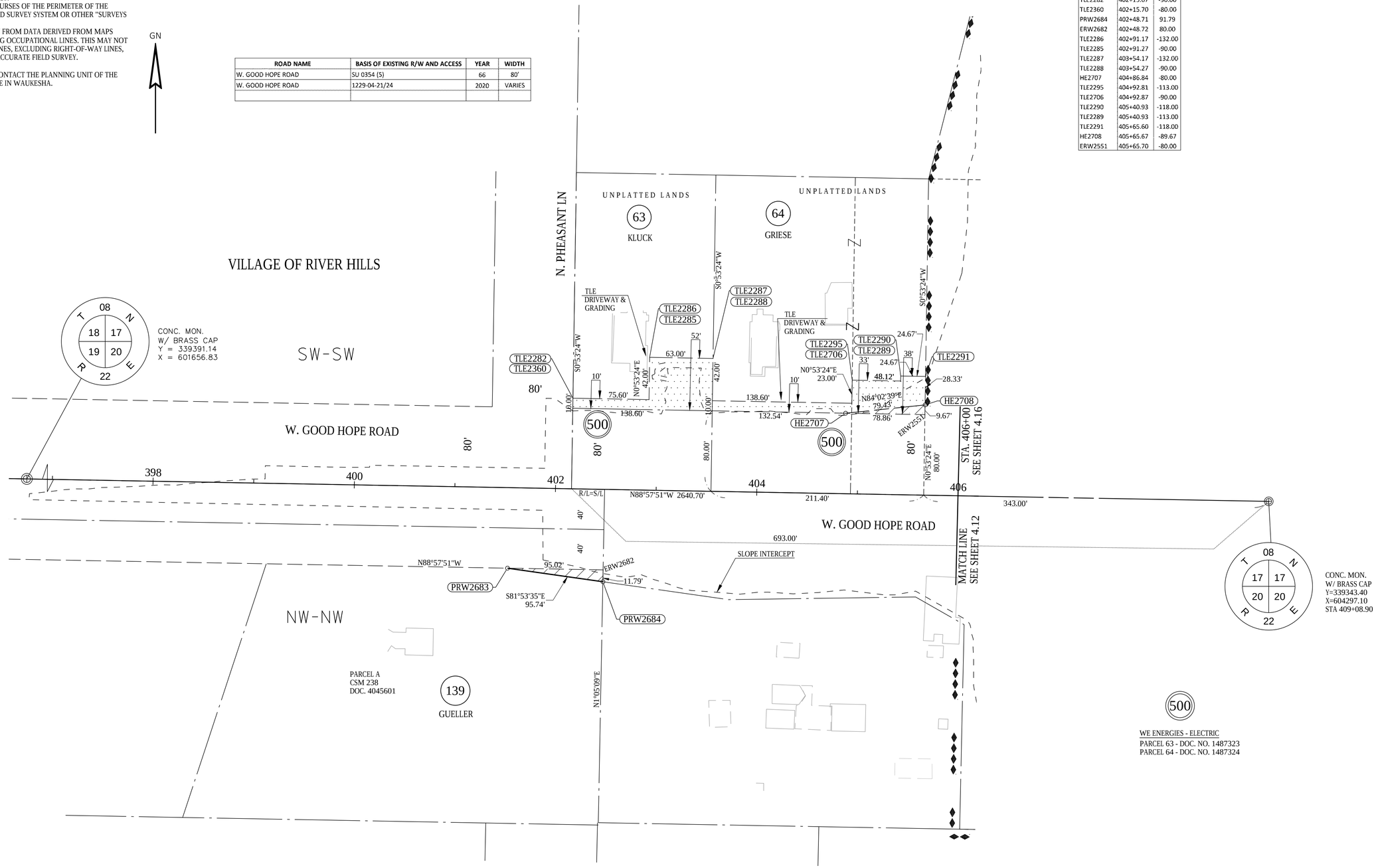
ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
W. GOOD HOPE ROAD	SU 0354 (5)	66	80'
W. GOOD HOPE ROAD	1229-04-21/24	2020	VARIES

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
PRW2683	401+53.70	80.00
TLE2282	402+15.67	-90.00
TLE2360	402+15.70	-80.00
PRW2684	402+48.71	91.79
ERW2682	402+48.72	80.00
TLE2286	402+91.17	-132.00
TLE2285	402+91.27	-90.00
TLE2287	403+54.17	-132.00
TLE2288	403+54.27	-90.00
HE2707	404+86.84	-80.00
TLE2295	404+92.81	-113.00
TLE2706	404+92.87	-90.00
TLE2290	405+40.93	-118.00
TLE2289	405+40.93	-113.00
TLE2291	405+65.60	-118.00
HE2708	405+65.67	-89.67
ERW2551	405+65.70	-80.00



REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.14 PS&E SHEET	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.14

PLOT DATE : 9/2/2021 4:10 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

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500

WE ENERGIES - ELECTRIC
PARCEL 66 - DOC. NO. 1577463
PARCEL 66 - DOC. NO. 1631308
PARCEL 66 - DOC. NO. 3280280
PARCEL 66 - DOC. NO. 4283252
PARCEL 67 - DOC. NO. 1631308
PARCEL 68 - DOC. NO. 1577461
PARCEL 68 - DOC. NO. 1577462

501

WE ENERGIES - GAS
PARCEL 66 - DOC. NO. 10743610

504

AT&T WISCONSIN
PARCEL 66 - DOC. NO. 3280280
PARCEL 66 - DOC. NO. 1577463
PARCEL 67 - DOC. NO. 3283638
PARCEL 68 - DOC. NO. 1577461
PARCEL 68 - DOC. NO. 1577462

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
W. GOOD HOPE ROAD	F 077-1(1)	1953	VARIES
W. GOOD HOPE ROAD	NICOLET MANOR	1956	33'
W. GOOD HOPE ROAD	LINK'S INDIAN VILLAGE	1951	30'
N. PORT WASHINGTON ROAD	NICOLET MANOR	1956	60'
N. PORT WASHINGTON ROAD	LINK'S INDIAN VILLAGE	1951	90'

Curve Table					
Curve #	Length	Radius	Delta	LC	LCB

CONC. MON.
W/ VILLAGE OF
RIVER HILLS
BRASS CAP
Y = 339299.65
X = 606937.74

T 08 N
17 16
20 21
R 22 E

CONC. MON.
W/ BRASS CAP
Y=339343.40
X=604297.10
STA 409+08.90

T 08 N
17 17
20 20
R 22 E

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2406	412+08.63	52.00
PRW2625	412+08.68	42.00
ERW2628	412+08.73	33.00
PRW2409	412+70.20	-93.57
PRW2411	412+93.33	-126.45
ERW2401	413+01.20	-93.38
TLE2405	413+19.63	52.00
PRW2626	413+20.68	42.00
ERW2402	413+31.60	33.00
PRW2627	413+35.01	47.61
TLE2404	413+40.48	70.97
PRW2051	414+23.15	-99.26
ERW2560	414+30.15	-69.83
PRW2050	414+34.82	-102.04
PRW2049	414+40.13	-79.74
ERW2559	414+54.84	33.00
PRW2043	414+67.37	86.55
TLE2365	414+89.44	49.00
PRW2046	414+98.84	33.00
PRW2048	415+78.68	-55.04
ERW2561	415+86.17	-33.00
PRW2047	416+48.18	-33.15
TLE2367	416+95.82	33.00
TLE2366	416+95.82	49.00
TLE2368	417+01.03	-37.74
ERW2562	417+01.18	-33.00

REVISION DATE 09/03/2021	DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.15	
01/21/2021	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET	E
03/05/2021						
08/06/2021						

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.15
PLOT DATE : 8/30/2021 4:30 PM
PLOT BY : RAISA KHAYTINA
PLOT NAME : ----
PLOT SCALE : 1:100

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
W. GOOD HOPE ROAD	F 077-1(1)	1953	VARIES

T 08 N R 22 E — 18 19 20 17

CONC. MON.
W/ BRASS CAP
Y = 339391.14
X = 601656.83

VILLAGE OF RIVER HILLS

71 FINLAYSON

72 MT ZION ASSEMBLY OF THE APOSTOLIC FAITH, INC.

GN

S88°58'32"E

S88°58'33"E

1/16 LINE

MATCH LINE
SEE SHEET 4.14

STA. 406+00

SEE SHEET 4.14

406

R/L=S/L

504 AT&T WISCONSIN
PARCEL 65 - DOC. NO. 1083838
PARCEL 65 - DOC. NO. 1833719
PARCEL 65 - DOC. NO. 1833722
PARCEL 78 - DOC. NO. 4297590

PRW2292

PRW2293
PRW2294

N00°53'24"E 343.00'

S89°06'36"E
14.00'

31.08'

PRW2296

N06°16'10"E 310.25'

43

143.05'

S14°16'59"W 384.23'

72.09'

ERW2552

S00°53'24"W 452.00'

43.00'

ERW2357

SEE SHEET 4.12

N88°57'51"W
2640.70' S/L

PI STA = 1147+82.29
Y = 339596.719
X = 604201.024
DELTA = 10°22'31"
D = 1°00'03"
T = 519.76'
L = 1036.67'
R = 5724.83'
PC STA = 1142+62.53
PT STA = 1152+99.20

N89°06'36"W 299.00'

PT: 1152+99.20

SE-SW

PI: 1147+82.29

IH - 43

SE-SW

500 WE ENERGIES - ELECTRIC
PARCEL 78 - DOC. NO. 4297590

408

1146 1148 1150 1152 1154 1156 1158

N0°53'23"E R/L

210'

2592.92'

47.79'

STA 1145+25.41 IH-43
STA 408+61.12 GOOD HOPE RD.

499.94'

VILLAGE OF RIVER HILLS
CITY OF GLENDALE

S00°53'24"W 2650.46' S/L

PI: 409+08.90

1158+54.82
1/16TH=R/L

500 504

FEE AREA
0.002 Acres

PRW2654

PRW2653
PRW2652

ERW2651

21.24'
22.71'
19.00'
9.00'

8.00'
43.47'
43.47'
43.46'

SLOPE INTERCEPT

143.45'

179.98'

S00°53'24"W 175.02'

78.25'

504

N19°44'11"W

36.37'
35.00'
5'
19'

138.78'
8'
8.00'
18'
42.00'
42.00'
16'
5'
127.00'

TLE2631
TLE2632

7.6'

16'

39.7'

10.6'

TLE2449
TLE2450

TLE2451

S4°12'45"E
18.68'

PLF2454
12.31'

TLE2452
TLE2453

TLE GRADING
0.015 Acres

PLE2412
PLE2413

PLE2415
PLE2414
TLE2630

TLE GRADING

TLE GRADING

PLE FOR NOISE WALL

S89°02'28"E

N89°02'28"W

CONC. MON.
W/ BRASS CAP
Y=339343.40
X=604297.10
STA 409+08.90

T 08 N R 22 E — 20 17 20 17

SW-SE

SW-SE

SEE SHEET 4.13

N89°03'03"W 2641.00' R/L=S/L

410

65 JOMELA BOULDER LLC

73 NORTHPORT MOVIN' OUT, INC.

74 N H P WISCONSIN ALF, L.L.C.

77 FREDRICKSON

78 NAWROCKI

PARCEL 2

CSM 6562
PARCEL 1

PARCEL 1
CSM 7377

ERW2629

CITY OF GLENDALE

MAJES HEIGHTS ADDITION

1/16 LINE

BRI

MATCH LINE
SEE SHEET 4.15

412

STA. 412+00

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2629	#########	273.44
PRW2292	#########	-205.22
TLE2449	#########	125.75
TLE2450	#########	130.48
TLE2451	#########	118.95
PRW2654	#########	107.08
TLE2452	#########	117.66
TLE2453	#########	126.14
PLE2413	#########	119.73
PLE2412	#########	107.42
ERW2651	#########	99.42
PLE2454	#########	117.51
PRW2652	#########	107.88
PRW2653	#########	99.88
PLE2415	#########	116.00
PLE2414	#########	118.00
TLE2630	#########	121.00
PRW2293	#########	-199.00
PRW2294	#########	-185.00
ERW2552	#########	-110.00
TLE2631	#########	116.00
TLE2632	#########	121.00
PRW2296	#########	-153.00
ERW2357	#########	-110.00

REVISION DATE
01/21/2021
03/05/2021
08/06/2021
09/03/2021

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.16

PS&E SHEET ____

E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.16

PLOT DATE : 9/7/2021 3:23 PM

PLOT BY : BRIAN DODGE, PS

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
ERW2358	1158+53.34	-100.00
ERW2553	1163+50.29	-100.00
PRW2297	1163+50.41	-153.00
PLE2416	1165+88.06	116.00
PLE2417	1165+88.08	111.00
PLE2419	1171+28.10	100.00
PLE2418	1171+28.08	111.00
PLE2650	1170+37.08	104.00
PLE2710	1170+37.08	111.00
PLE2448	1170+73.08	104.00
PLE2709	1170+73.08	111.00

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

CONC. MON. W/ VILL. OF RIVER HILLS BRASS CAP
Y = 342040.00
X = 601709.22

T 08 N R 22 E, 17, 18

GN

S88°58'33"E

1/16 LINE

80 WEEDALL

VILLAGE OF RIVER HILLS

W. CALUMET RD

NE-SW

PRW2297

53'

496.95'

S0°53'24"W

53.00'

ERW2358

S0°53'24"W 496.95'

SLOPE INTERCEPT

ERW2553

IH - 43

263'

N88°58'44"W

N88°59'15"W 2629.45' T/L

2529.45'

PI: 1171+78.32
R/L=S/L

1160 1162 1164 1166 1168 1170

N0°53'23"E R/L

1158+54.82
1/16TH=R/L

200'

CONC. MON. W/ BRASS CAP
Y = 341993.54
X = 604338.26

T 08 N R 22 E, 17

400.00'

VILLAGE OF RIVER HILLS
CITY OF GLENDALE

160.83' 100.00' 93.42' 88.18' 102.80' 102.00' 102.00' 102.00' 102.00' 102.00' 102.00' 322.00'

S00°53'24"W 2650.46' S/L

231.00'

88.00'

16' 60.9' 78.5' 67.1' 57.6' 37.6' 8.3' 70.8' 54.2' 16' 11' 86.9' 58.0' 3.9' 35.6' 11' 4' 10' 11' 55.00' 50'

PLE2417
PLE2416
PLE2650
PLE2710
PLE2448
PLE2709
PLE2419
PLE2418

PLE FOR NOISE WALL

BLK 1

79 STROEDE
81 SCHMIRLER & VAN BERGEN
82 ALEXANDER
83 CHARNITZ
84 BERKEL
85 FEDERAL NATIONAL MORTGAGE ASSOCIATION
86 ZAUSCH
87 TEICHEN
88 MALLOY
89 MOESER

S89°59'55"E 3.19' S2°58'58"E 3.57' S89°58'25"E 3.57' N2°58'58"W 3.57' S89°59'55"E 3.57' S89°58'58"E

CHADWICK RD.

1/16 LINE

CHADMOORE BLK 2

W. CALUMET RD
T/S .01' E663.10' 3.57' S89°58'58"E

NW-SE

500

WE ENERGIES - ELECTRIC
PARCEL 84 - DOC. NO. 2513471
PARCEL 84 - DOC. NO. 3363839
PARCEL 85 - DOC. NO. 2513471
PARCEL 85 - DOC. NO. 3363839
PARCEL 86 - DOC. NO. 2513471
PARCEL 86 - DOC. NO. 3363839
PARCEL 87 - DOC. NO. 2513471
PARCEL 87 - DOC. NO. 3363839
PARCEL 89 - DOC. NO. 1324591
PARCEL 89 - DOC. NO. 2513471
PARCEL 89 - DOC. NO. 2804338

CITY OF GLENDALE

REVISION DATE			
01/21/2021	09/03/2021		
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET 0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.17

PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.17

PLOT DATE : 8/30/2021 4:30 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	200'

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
PLE2592	1172+28.73	100.00
PLE2641	1172+28.78	111.00
TLE2299	1175+14.55	-108.00
TLE2298	1175+14.59	-100.00
PLE2420	1176+00.90	107.00
PLE2421	1176+00.90	100.00
PLE2422	1177+00.97	111.00
PLE2423	1177+03.47	100.00
PRW2305	1177+43.59	-100.00
PRW2304	1177+43.56	-108.00
PLE2425	1175+30.90	107.00
PLE2424	1175+30.90	111.00
TLE2600	1182+42.68	111.00
TLE2601	1182+42.75	121.00
TLE2307	1182+69.92	-108.00
TLE2306	1182+69.92	-100.00
TLE2603	1184+32.68	111.00
TLE2602	1184+32.75	121.00
PRW2670	1178+39.56	-108.00
PRW2362	1178+39.59	-100.00
TLE2671	1178+39.91	115.00
TLE2672	1178+20.94	124.00
TLE2673	1177+76.94	124.00
TLE2674	1177+43.68	111.00
TLE2675	1172+91.27	119.00
TLE2676	1173+41.27	119.00
TLE2677	1174+29.53	111.00
TLE2711	1178+39.89	111.00

CONC. MON. W/ VILL. OF RIVER HILLS BRASS CAP
Y = 342040.00
X = 601709.22

T 08 N R 22 E — 18 17

CONC. MON. W/ BRASS CAP
Y = 341993.54
X = 604338.26

T 08 N R 22 E — 17

500 WE ENERGIES - ELECTRIC
PARCEL 94 - DOC. NO. 3593955
PARCEL 95 - DOC. NO. 3593955
PARCEL 96 - DOC. NO. 3593955
PARCEL 97 - DOC. NO. 3593955
PARCEL 98 - DOC. NO. 3593955

504 AT&T WISCONSIN
PARCEL 94 - DOC. NO. 3593955
PARCEL 95 - DOC. NO. 3593955
PARCEL 96 - DOC. NO. 3593955
PARCEL 97 - DOC. NO. 3593955
PARCEL 98 - DOC. NO. 3593955

VILLAGE OF RIVER HILLS
CITY OF GLENDALE
SE-NW
SW-NE
IH - 43
W. CALUMET RD
W. FRANSEE LANE
MAJES HEIGHTS
BLK 2
N88°59'15"W 2629.45' S/L
S88°58'25"E 2629.10' S/L
N88°59'15"W
S88°58'25"E
N88°44'40"W
S88°44'45"E
S01°15'03"W 2646.86'
N1°15'04"E R/L
S89°09'43"E
S89°04'03"E
S75°57'17"E
S22°35'58"W 35.71'
S24°07'34"E 21.00'
S89°01'02"E
N 1/16 LINE
1/16 LINE
1/4 LINE
GN
100'
200'
2529.45'
100.00'
PI: 1171+78.32
R/L=S/L
1172
1174
1176
1178
1180
1182
1184
1185+01.72
1/16TH=R/L
SLOPE INTERCEPT
200.80'
171.37'
136.37'
138.92'
144.76'
144.79'
96.22'
44.00'
101.37'
70.00'
63.00'
88.63'
50.00'
11.00'
15'
8'
7'
4.0'
7.00'
4.00'
11'
13'
10'
36.1'
21.0'
72.00'
115.00'
100.00'
118.00'
131.10'
11.28'
N8°32'47"E
N3°55'40"W
229.00'
96.00'
8.00'
8'
90
VILLAGE OF RIVER HILLS
TLE GRADING
PLE GRADING
TLE2299
TLE2298
PRW2304
PRW2305
PRW2670
PRW2362
TLE2307
TLE2306
TLE2675
PLE2592
PLE2641
TLE2676
TLE2677
PLE2423
PLE2422
PLE2425
PLE2424
PLE2421
PLE2420
TLE2674
TLE2711
TLE2671
TLE2672
TLE2673
TLE2600
TLE2601
TLE2603
TLE2602
91 HARRY
92 PORCHLIGHT PROPERTIES, L.L.C. and J & T HORIZON TRUST
93 LAZEAR
94 VOITH
95 LOKE
96 THE MONEY SOURCE, INC.
97 KUBCZAK
98 CARVER
99 GAVIN

REVISION DATE 09/03/2021	DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.18
01/21/2021	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET ____ E
03/05/2021					
08/06/2021					

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.18
PLOT DATE : 8/30/2021 4:30 PM
PLOT BY : RAISA KHAYTINA
PLOT NAME : ----
PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	200'
BRADLEY ROAD	F 077-1(1)	1953	55'

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2604	1186+95.02	111.00
TLE2605	1186+95.08	120.00
TLE2607	1187+45.02	111.00
TLE2606	1187+45.09	120.00
TLE2608	1188+42.41	111.00
TLE2609	1188+65.94	133.00
TLE2611	1189+53.80	111.00
TLE2610	1189+53.84	117.00
TLE2612	1193+53.67	111.00
TLE2613	1193+91.73	119.00
PLE2427	1194+06.59	100.00
PLE2426	1194+06.67	111.00
TLE2614	1194+06.73	119.00
PLE2429	1194+66.59	100.00
PLE2428	1194+66.67	111.00
TLE2615	1194+66.72	118.00
TLE2617	1194+99.67	111.00
TLE2616	1194+99.72	118.00
TLE2618	1195+39.92	111.00
TLE2619	1195+39.97	118.00
TLE2621	1196+16.92	111.00
TLE2620	1196+16.97	118.00
TLE2308	1197+51.92	-108.00
TLE2309	1197+51.92	-100.00
PLE2431	1197+70.59	100.00
PLE2430	1197+70.67	111.00

VILLAGE OF RIVER HILLS

500 WE ENERGIES - ELECTRIC
PARCEL 105 - DOC. NO. 2102322
PARCEL 105 - DOC. NO. 3707843
PARCEL 105 - DOC. NO. 3707844
PARCEL 106 - DOC. NO. 2102322
PARCEL 106 - DOC. NO. 3707844
PARCEL 107 - DOC. NO. 2102322
PARCEL 107 - DOC. NO. 3707844
PARCEL 108 - DOC. NO. 2102322
PARCEL 108 - DOC. NO. 3707844
PARCEL 109 - DOC. NO. 2102322
PARCEL 110 - DOC. NO. 3466686

504 AT&T WISCONSIN
PARCEL 105 - DOC. NO. 3707843
PARCEL 105 - DOC. NO. 3707844
PARCEL 106 - DOC. NO. 3707844
PARCEL 107 - DOC. NO. 3707844
PARCEL 108 - DOC. NO. 3707844
PARCEL 110 - DOC. NO. 3466686

100 BUNDY

101 VON SCHLEDORN

CONC. MON. W/ VILL. OF RIVER HILLS BRASS CAP
Y = 344684.96
X = 601755.89

CONC. MON. W/ BRASS CAP
Y = 344639.76
X = 604396.05

T 08 N R 22 E — 7 18 / 8 17

GN

1/16 LINE S89°00'12"E

N89°01'49"W

TLE GRADING

612.23'

869.77'

8'

N01°15'03"W

55'

SLOPE INTERCEPT

IH - 43

NE-NW

TLE2308 TLE2309

S89°01'09"E 2640.55' S/L

2540.55'

200'

1186 1188 1190 1192 1194 1196 1198

N1°15'04"E R/L

PI: 1198+25.12
R/L=S/L

1185+01.72
1/16TH=R/L

100.00'

VILLAGE OF RIVER HILLS

CITY OF GLENDALE

S01°15'03"W 2646.86'

S/L

131.17' 129.39' 129.39' 100.00' 100.00' 100.00' 152.87' 173.25' 130.75'

99 GAVIN
102 HOLTGRAVE
103 MALONE
104 HSIEH
105 QUADE
106 EHR
107 MILLER
108 GRODSKY
109 CAPELLO
110 DETTMAN

TLE2604 TLE2605
TLE2607 TLE2606
TLE2608
TLE2609
TLE2611 TLE2610
TLE2612
TLE2613
PLE2427
PLE2426 TLE2614
PLE2429
PLE2428 TLE2615
TLE2618 TLE2619
TLE2617 TLE2616
TLE2621 TLE2620
PLE2431 PLE2430

N09°03'56"W 89.35'
N44°19'33"E 32.21'
S13°07'20"W 38.89'
15.00'

TLE GRADING
TLE GRADING 0.012 Acres
TLE GRADING 0.005 Acres

W. LUEBBE LN

BRADLEY RD.

N. CHADWICK CT

ST. JOHN'S CT

CSM 5848 PAR 3 PAR 4 PAR 2 PAR 1

CSM 1939 PAR 1 PAR 2

VILLAGE OF FOX POINT
CITY OF GLENDALE

NW-NE

S89°04'43"E 3634.68' S/L

N89°04'43"W 3634.68' N/L

S89°10'06"E 3634.68'

S89°09'43"E 3634.68'

S89°04'43"E 2645.55' S/L

REVISION DATE			
01/21/2021			
03/05/2021			
08/06/2021			

09/03/2021

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET 0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.19

PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.19

PLOT DATE : 8/30/2021 4:30 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

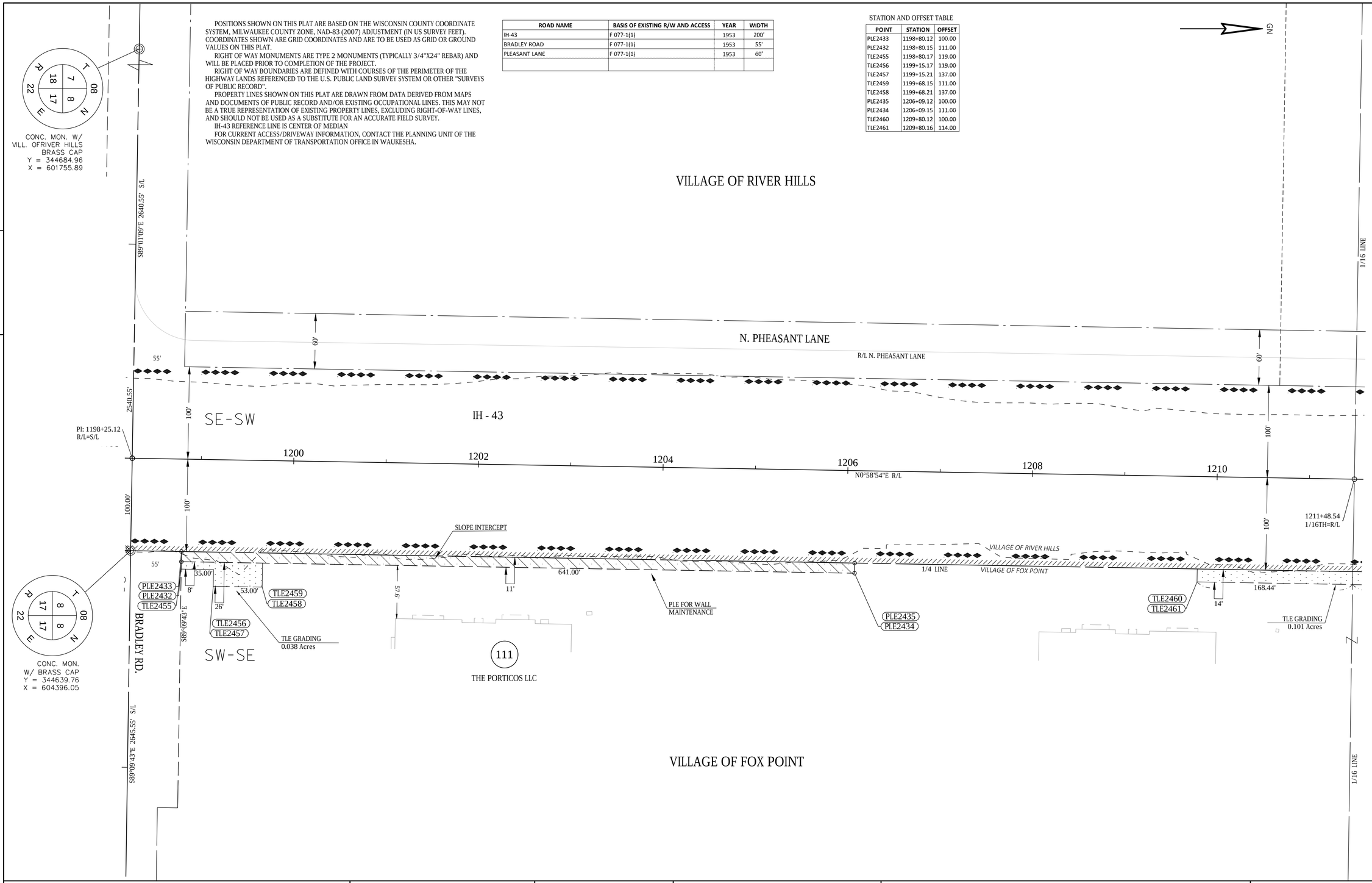
IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	200'
BRADLEY ROAD	F 077-1(1)	1953	55'
PLEASANT LANE	F 077-1(1)	1953	60'

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
PLE2433	1198+80.12	100.00
PLE2432	1198+80.15	111.00
TLE2455	1198+80.17	119.00
TLE2456	1199+15.17	119.00
TLE2457	1199+15.21	137.00
TLE2459	1199+68.15	111.00
TLE2458	1199+68.21	137.00
PLE2435	1206+09.12	100.00
PLE2434	1206+09.15	111.00
TLE2460	1209+80.12	100.00
TLE2461	1209+80.16	114.00



REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.20 PS&E SHEET _____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.20

PLOT DATE : 8/30/2021 4:30 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	200'
N. PHEASANT LANE	F 077-1(1)	1953	60'
W. DEAN ROAD	F 077-1(1)	1953	55

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2463	1212+95.12	100.00
TLE2462	1212+95.16	114.00
TLE2311	1214+34.07	-165.00
TLE2310	1214+34.07	-160.00
TLE2465	1214+45.75	120.00
TLE2464	1214+46.29	100.00
TLE2312	1214+63.07	-165.00
TLE2313	1216+11.08	-198.00
TLE2466	1217+07.84	120.00
TLE2467	1217+07.98	115.00
TLE2314	1217+11.08	-198.00
TLE2315	1217+31.07	-175.00
TLE2317	1218+22.07	-160.00
TLE2316	1218+22.07	-175.00
TLE2468	1220+10.09	115.00
TLE2469	1220+10.49	100.00
TLE2470	1222+69.62	100.00
TLE2471	1222+69.63	106.00
TLE2473	1224+32.62	100.00
TLE2472	1224+32.63	106.00

CSM 636

500
WE ENERGIES - ELECTRIC
PARCEL 115 - DOC. NO. 2348378
PARCEL 115 - DOC. NO. 4232640
PARCEL 116 - DOC. NO. 1436725
PARCEL 116 - DOC. NO. 2348378
PARCEL 116 - DOC. NO. 4232640

504
AT&T WISCONSIN
PARCEL 115 - DOC. NO. 4232640
PARCEL 116 - DOC. NO. 4232640

112
MUGGLI

VILLAGE OF RIVER HILLS

113
GOSE & QUAM

GN

T 08 N R 22 E
7 8

CONC. MON. W/
SEWRPC BRASS CAP
Y = 347330.18
X = 601803.60

W. DEAN RD.

55'

N89°02'46"W 2638.16' S/L

1/16 LINE

S89°02'46"E

TLE GRADING

TLE2311
TLE2310
TLE2312
TLE2313
TLE2314
TLE2315
TLE2316
TLE2317

5'
38'
94.23'
5.77'
15'
91.00'
15.00'
29.00'
269.09'
136.93'
43.80'
S11°35'15"E 151.64'
S67°03'31"E
S49°58'55"W
30.48'

SLOPE INTERCEPT

R/L N. PHEASANT LANE

N. PHEASANT LANE

60'

N0°58'54"E 594.82'

IH - 43

NE-SW

1212 1214 1216 1218 1220 1222 1224

N0°58'54"E R/L

1211+48.54
1/16TH=R/L

1224+71.97
S/L=R/L

2538.16'

CONC. MON W/
VILL. OF RIVER HILLS
BRASS CAP
Y = 347286.27
X = 604441.40

100.00'

SLOPE INTERCEPT

VILLAGE OF RIVER HILLS

VILLAGE OF FOX POINT

N00°58'54"E 2646.90'

1/4 LINE

146.57'
14'
139.05'
20'
123.04'
20'
302.11'
15'
116.00'
6'
47.00'

TLE2463
TLE2462
TLE2464
TLE2465
TLE2467
TLE2466
TLE2469
TLE2468
TLE2470
TLE2471
TLE2473
TLE2472

TLE GRADING
0.101 Acres

TLE GRADING
0.064 Acres

TLE GRADING

TLE GRADING

FOX CROFT COURT

N89°50'08"W

S89°50'14"E 2637.89' S/L

NW-SE

111
THE PORTICOS LLC

S87°28'34"E

114
JOINT SCHOOL
DIST #8

VILLAGE OF FOX POINT

115
NEUMAN
& BROMMELKAMP

116
AMIN

N. FOX CROFT CT.

1/16 LINE

S89°02'46"E 3471.50'

REVISION DATE			
09/03/2021			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.21	
GRID FACTOR _____		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET _____	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.21

PLOT DATE : 8/30/2021 4:31 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
N. PHEASANT LANE	F 077-1(1)	1953	60'
W. DEAN ROAD	F 077-1(1)	1953	55

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2475	1224+96.25	120.06
TLE2474	1224+96.30	100.06
TLE2476	1230+60.10	124.45
TLE2477	1230+60.77	104.46
TLE2479	1235+16.29	-167.86
TLE2478	1235+16.36	-160.86
TLE2481	1236+03.82	-161.01
TLE2480	1236+03.86	-168.00

Curve Table

Curve #	Length	Radius	Delta	LC	LCB
C59	85.00'	5509.58'	0°53'02"	85.00'	N05°56'47"W
C60	517.64'	5509.58'	5°22'59"	517.45'	N02°48'46"W

GN

T 08 N R 22 E — 7 8

CONC. MON. W/ SEWRPC BRASS CAP
Y = 347330.18
X = 601803.60

W. DEAN RD.

LOT1 CSM 614

VILLAGE OF RIVER HILLS

500
WE ENERGIES - ELECTRIC
PARCEL 118 - DOC. NO. 1436725

117
HARMON
LOT 2 CSM 614

55'
S/L
N89°02'46"W 2638.16'

TLE GRADING
TLE2479
TLE2478
TLE2480
TLE2481
S84°03'13"W 7.00'
N05°56'47"W 85.00'
C59
N84°03'13"E 7.00'
1/16 LINE
POB
60'
C60
60'
R/L N. PHEASANT LANE
N. PHEASANT LANE
N0°58'14"E
2538.16'
IH - 43
PC: 1228+77.78
NW-SE
1226
1228
1230
1232
1234
1236
1238
1237+97.41
1/16TH=R/L
1224+71.97
S/L=R/L
N0°58'54"E R/L

T 08 N R 22 E — 8
CONC. MON W/
VILL. OF RIVER HILLS
BRASS CAP
Y = 347286.27
X = 604441.40

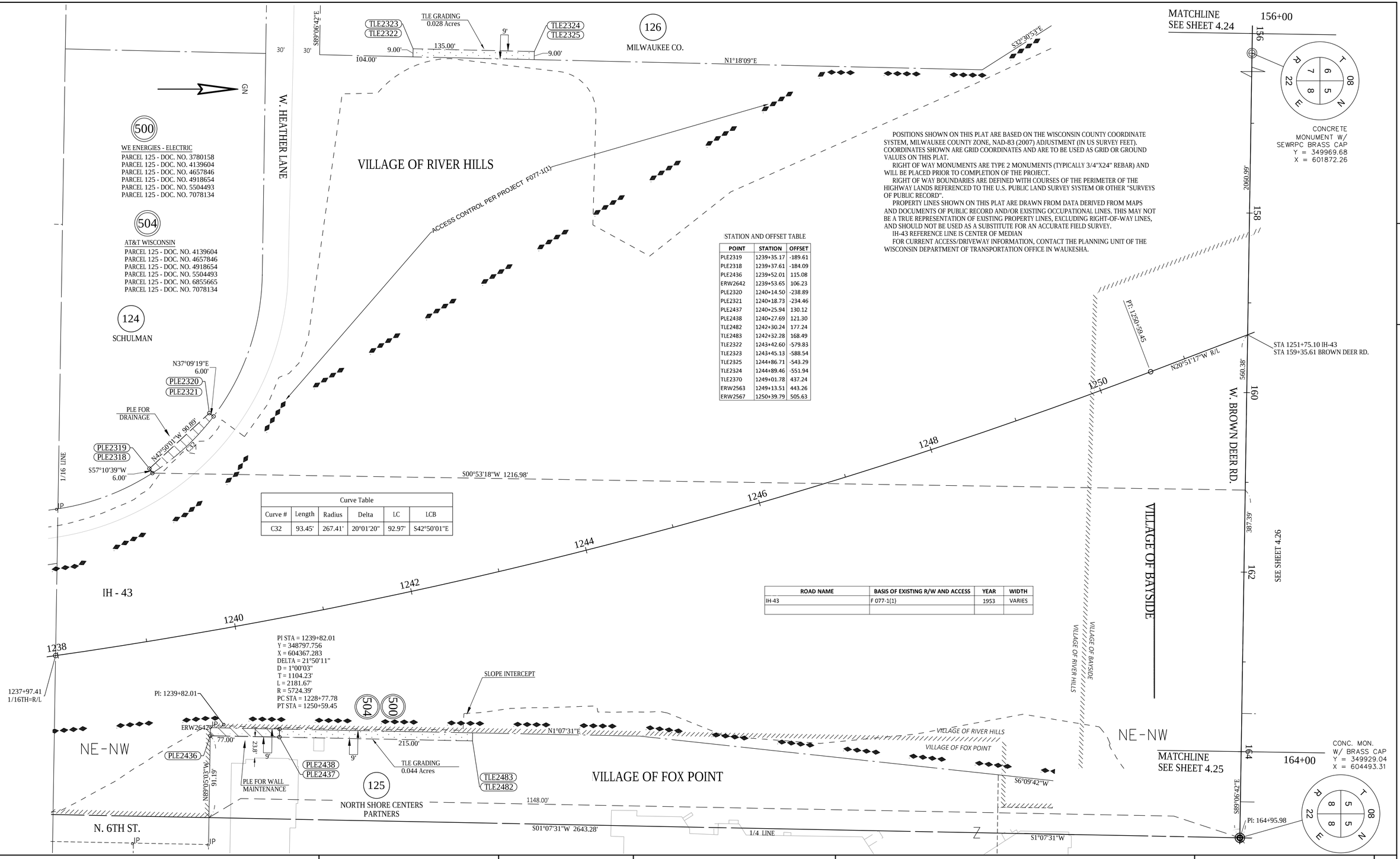
500
SLOPE INTERCEPT
100.00'
24.29'
77.00'
134.97'
148.81'
170.00'
37.00'
20'
20'
TLE2474
TLE2475
TLE2477
TLE2476
TLE GRADING
PARCEL 2 CSM 868 DOC 4401782
PARCEL 1 CSM 868 DOC 4401782
FOX CROFT HIGHLANDS CSM 868 DOC 4401782
S01°07'31"W 2643.28' S/L
VILLAGE OF RIVER HILLS
VILLAGE OF FOX POINT
SW-NE
118 HANSEN
119 THAO
120 LODH
121 SEIBERG
122 TIETJEN
5
6
7
8
9
10
11
12
W. BERGER DR.
1/16 LINE
S89°05'14"E 2637.89' S/L
VILLAGE OF FOX POINT
N. FOX CROFT CT.

REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.22 PS&E SHEET ____	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.22

PLOT DATE : 8/30/2021 4:31 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75



REVISION DATE			
09/03/2021			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.23	
GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.23

PLOT DATE : 8/30/2021 4:31 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

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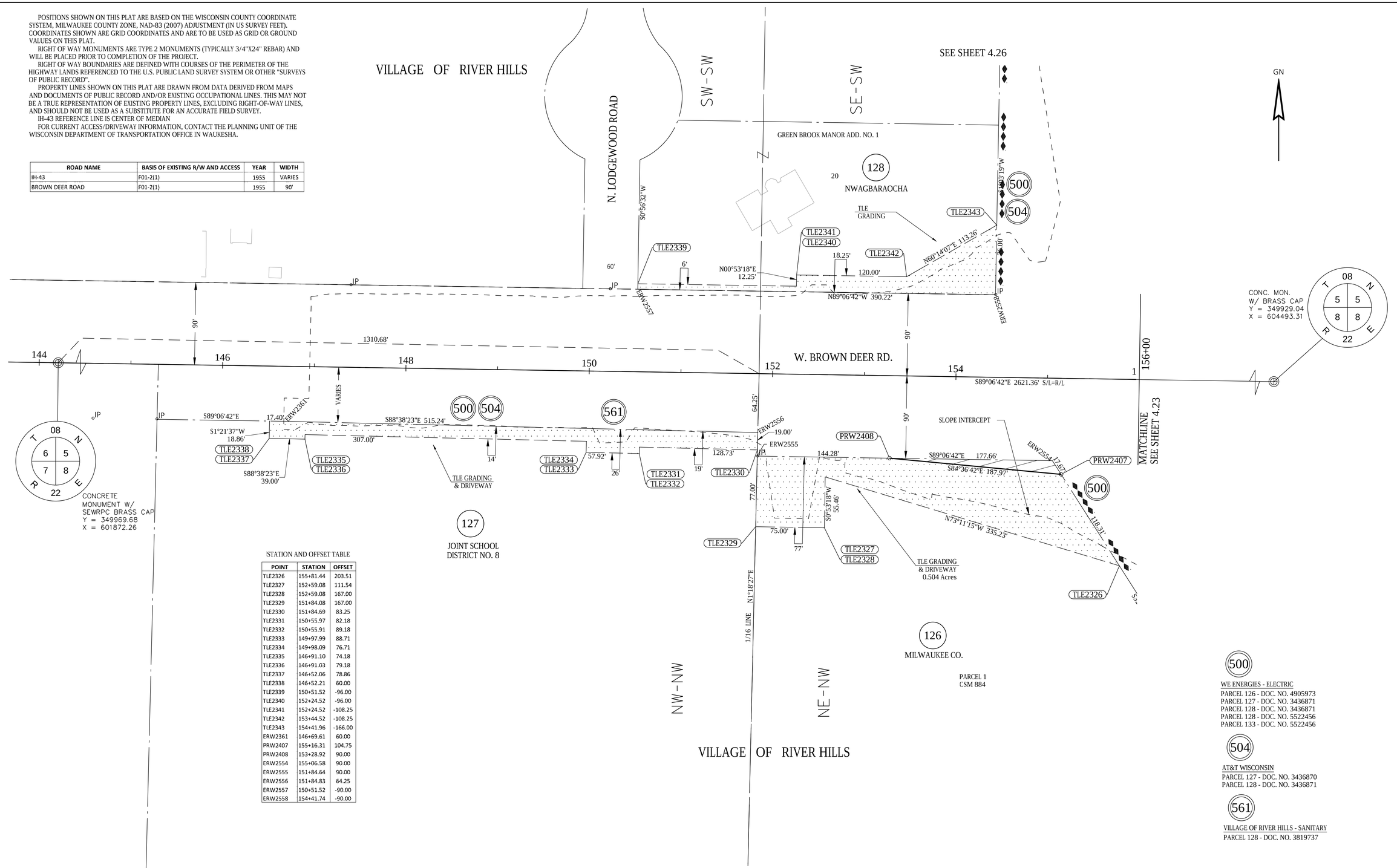
ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F01-2(1)	1955	VARIES
BROWN DEER ROAD	F01-2(1)	1955	90'



STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2326	155+81.44	203.51
TLE2327	152+59.08	111.54
TLE2328	152+59.08	167.00
TLE2329	151+84.08	167.00
TLE2330	151+84.69	83.25
TLE2331	150+55.97	82.18
TLE2332	150+55.91	89.18
TLE2333	149+97.99	88.71
TLE2334	149+98.09	76.71
TLE2335	146+91.10	74.18
TLE2336	146+91.03	79.18
TLE2337	146+52.06	78.86
TLE2338	146+52.21	60.00
TLE2339	150+51.52	-96.00
TLE2340	152+24.52	-96.00
TLE2341	152+24.52	-108.25
TLE2342	153+44.52	-108.25
TLE2343	154+41.96	-166.00
ERW2361	146+69.61	60.00
PRW2407	155+16.31	104.75
PRW2408	153+28.92	90.00
ERW2554	155+06.58	90.00
ERW2555	151+84.64	90.00
ERW2556	151+84.83	64.25
ERW2557	150+51.52	-90.00
ERW2558	154+41.74	-90.00

500
WE ENERGIES - ELECTRIC
PARCEL 126 - DOC. NO. 4905973
PARCEL 127 - DOC. NO. 3436871
PARCEL 128 - DOC. NO. 3436871
PARCEL 128 - DOC. NO. 5522456
PARCEL 133 - DOC. NO. 5522456

504
AT&T WISCONSIN
PARCEL 127 - DOC. NO. 3436870
PARCEL 128 - DOC. NO. 3436871

561
VILLAGE OF RIVER HILLS - SANITARY
PARCEL 128 - DOC. NO. 3819737

REVISION DATE			
01/21/2021			
03/05/2021			
08/06/2021			

DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER 1229-04-22	PLAT SHEET 4.24	
GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1229-04-71	PS&E SHEET	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.24

PLOT DATE : 8/30/2021 4:31 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F 077-1(1)	1953	VARIES
IH-43	F01-2(1)	1955	VARIES
BROWN DEER ROAD	F01-2(1)	1955	90'
BROWN DEER ROAD	F01-2(1)	1955	60'

500

WE ENERGIES - ELECTRIC

PARCEL 125 - DOC. NO. 3780158
PARCEL 125 - DOC. NO. 4918654
PARCEL 125 - DOC. NO. 5504493
PARCEL 125 - DOC. NO. 7078134

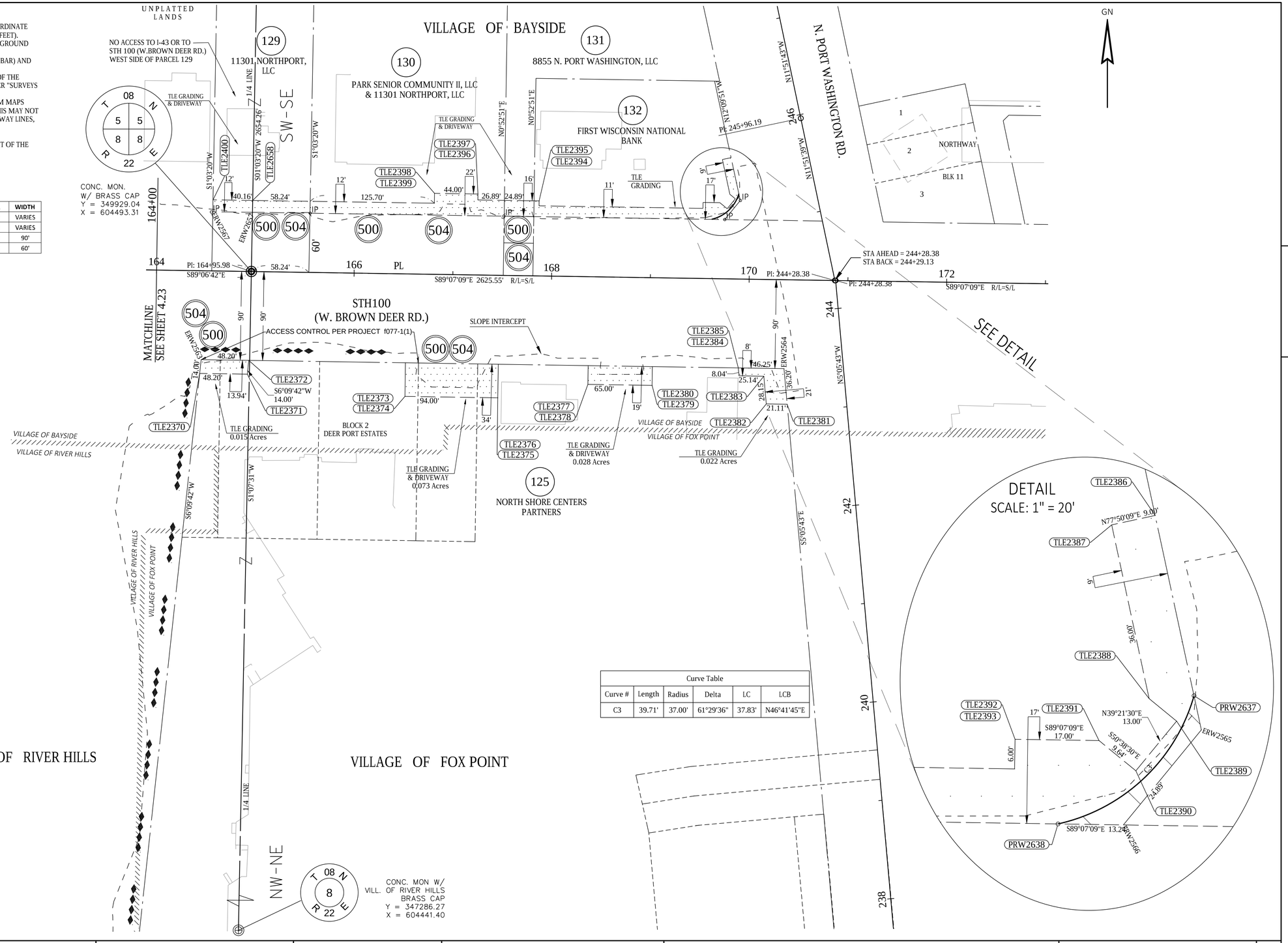
504

AT&T WISCONSIN

PARCEL 125 - DOC. NO. 3780158
PARCEL 125 - DOC. NO. 4918654
PARCEL 125 - DOC. NO. 5504493
PARCEL 125 - DOC. NO. 7078134

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2370	164+45.27	103.94
TLE2371	164+93.47	103.94
TLE2372	164+94.76	90.00
TLE2373	166+53.38	90.00
TLE2374	166+53.38	124.00
TLE2375	167+47.38	124.00
TLE2376	167+47.38	90.00
TLE2377	168+38.38	90.00
TLE2378	168+38.38	109.00
TLE2379	169+03.38	109.00
TLE2380	169+03.38	90.00
TLE2381	170+40.39	126.00
TLE2382	170+19.28	126.00
TLE2383	170+16.35	98.00
TLE2384	169+91.21	98.00
TLE2385	169+90.38	90.00
TLE2386	169+79.79	-122.75
TLE2387	169+71.03	-120.72
TLE2388	169+79.15	-85.65
TLE2389	169+84.78	-81.18
TLE2390	169+76.69	-71.00
TLE2391	169+69.14	-77.00
TLE2392	169+52.14	-77.00
TLE2393	169+52.14	-71.00
TLE2394	167+86.14	-71.00
TLE2395	167+86.14	-76.00
TLE2396	167+24.14	-76.00
TLE2397	167+24.14	-82.00
TLE2398	166+80.14	-82.00
TLE2399	166+80.14	-72.00
TLE2400	164+56.03	-72.00
ERW2563	164+46.56	90.00
ERW2564	170+36.63	90.00
ERW2565	169+89.82	-79.49
ERW2566	169+74.33	-60.00
ERW2567	164+56.00	-60.00
PRW2637	169+88.22	-86.37
PRW2638	169+61.09	-60.00
ERW2657	164+96.17	-60.00
TLE2658	164+96.17	-72.00



Curve Table					
Curve #	Length	Radius	Delta	LC	LCB
C3	39.71'	37.00'	61°29'36"	37.83'	N46°41'45"E

REVISION DATE				
01/21/2021	09/03/2021			
03/05/2021				
08/06/2021				

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET 0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

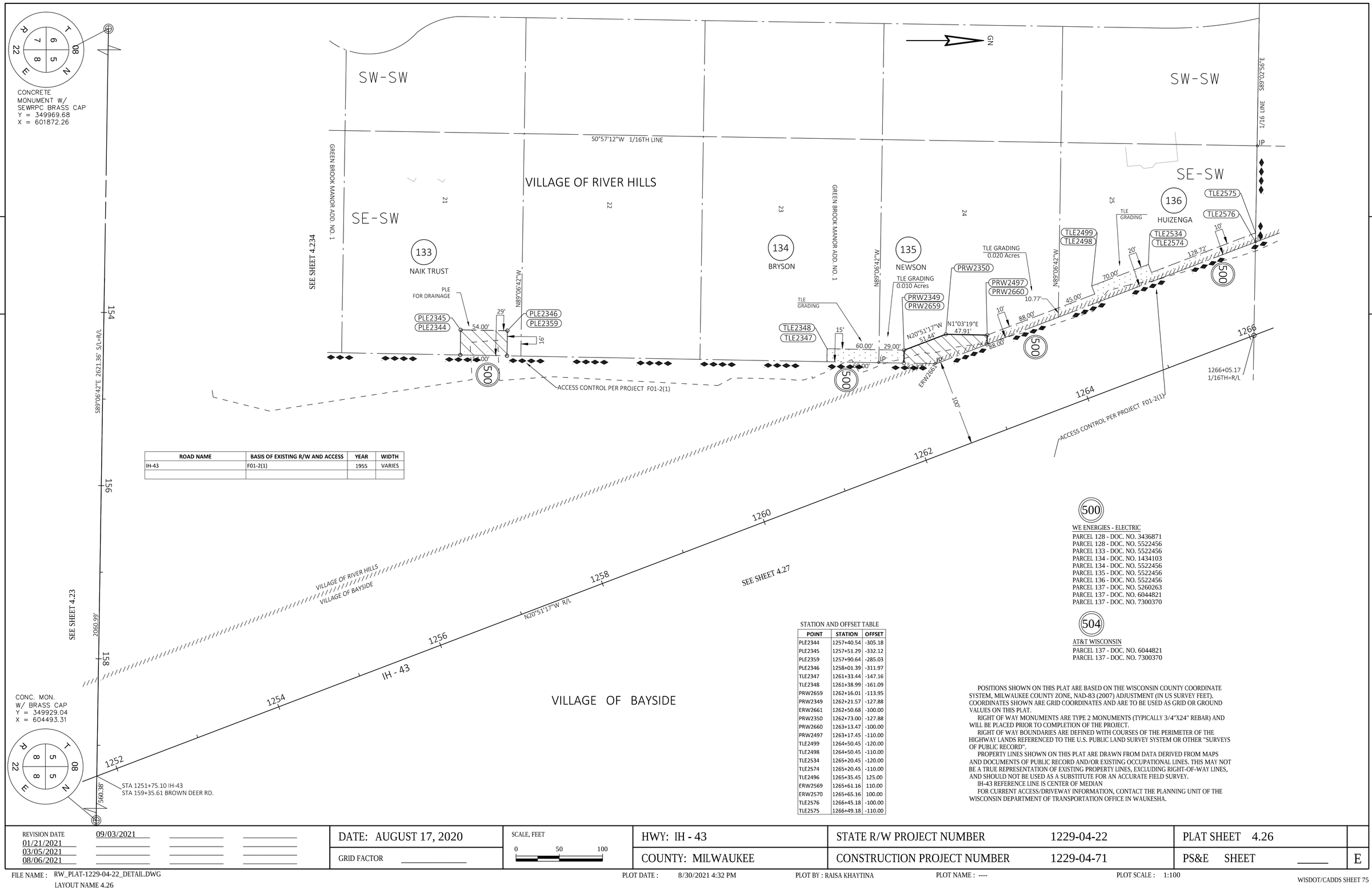
CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.25

PS&E SHEET E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.25

PLOT DATE : 8/30/2021 4:31 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100



ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F01-2(1)	1955	VARIES

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
PLE2344	1257+40.54	-305.18
PLE2345	1257+51.29	-332.12
PLE2359	1257+90.64	-285.03
PLE2346	1258+01.39	-311.97
TLE2347	1261+33.44	-147.16
TLE2348	1261+38.99	-161.09
PRW2659	1262+16.01	-113.95
PRW2349	1262+21.57	-127.88
ERW2661	1262+50.68	-100.00
PRW2350	1262+73.00	-127.88
PRW2660	1263+13.47	-100.00
PRW2497	1263+17.45	-110.00
TLE2499	1264+50.45	-120.00
TLE2498	1264+50.45	-110.00
TLE2534	1265+20.45	-120.00
TLE2574	1265+20.45	-110.00
TLE2496	1265+35.45	125.00
ERW2569	1265+61.16	110.00
ERW2570	1265+65.16	100.00
TLE2576	1266+45.18	-100.00
TLE2575	1266+49.18	-110.00

500
WE ENERGIES - ELECTRIC
PARCEL 128 - DOC. NO. 3436871
PARCEL 128 - DOC. NO. 5522456
PARCEL 133 - DOC. NO. 5522456
PARCEL 134 - DOC. NO. 1434103
PARCEL 134 - DOC. NO. 5522456
PARCEL 135 - DOC. NO. 5522456
PARCEL 136 - DOC. NO. 5522456
PARCEL 137 - DOC. NO. 5260263
PARCEL 137 - DOC. NO. 6044821
PARCEL 137 - DOC. NO. 7300370

504
AT&T WISCONSIN
PARCEL 137 - DOC. NO. 6044821
PARCEL 137 - DOC. NO. 7300370

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

REVISION DATE
01/21/2021
03/05/2021
08/06/2021
09/03/2021

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.26

PS&E SHEET

E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.26

PLOT DATE : 8/30/2021 4:32 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

4

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F01-2(1)	1955	VARIES

GN

CONCRETE MONUMENT W/ SEWRPC BRASS CAP
Y = 349969.68
X = 601872.26

T 08 N
R 22 E
6 7 8 5

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2484	1258+27.72	156.00
PRW2636	1258+31.69	146.00
ERW2568	1258+46.07	110.00
TLE2485	1259+27.72	156.00
TLE2486	1259+27.72	146.00
TLE2487	1259+44.72	146.00
TLE2488	1259+53.72	151.00
PRW2439	1259+96.71	146.00
PRW2440	1260+42.81	138.00
TLE2490	1260+49.72	145.00
TLE2489	1260+49.72	151.00
TLE2492	1261+21.72	138.00
TLE2491	1261+21.72	145.00
PRW2442	1261+77.94	132.00
PRW2441	1261+77.94	138.00
TLE2493	1262+53.94	132.00
PRW2656	1262+64.66	110.00
PRW2655	1262+64.66	132.00
TLE2494	1263+27.05	161.00
PLE2444	1264+36.34	125.00
PLE2443	1264+36.34	132.00
TLE2495	1265+21.05	161.00
TLE2496	1265+35.45	125.00
ERW2569	1265+61.16	110.00

SEE SHEET 4.26

1266
1264
1262
1260
1258
1256
1254
1252

N20°51'17"W R/L

IH - 43

1266+05.17
1/16TH=R/L

ACCESS CONTROL PER PROJECT F01-2(1)

500 504 500 16.15' ERW2569 IP IP

TLE2496

15' 99.11' 38.77'

SLOPE INTERCEPT

194.00' 36' 29'

TLE2495

S00°46'52"W 78.65'

PLE2444
PLE2443

PRW2656
PRW2655

TLE2493

TLE2494

TLE GRADING
0.173 Acres

PLE FOR WALL
MAINTENANCE

S89°03'51"E

S89°02'56"E

PRW2440

500

110'

36'

72.00'

75.5'

28'

24'

TLE2492
TLE2491

PRW2442
PRW2441

TLE GRADING
0.029 Acres

TLE2490
TLE2489

S30°42'05"E
46.78'

PRW2439

96.00'

25'

5'

TLE2488

S8°11'59"W
10.30'

TLE2487

5.4'

10'

100.03'

38.77'

ERW2568

500

10.9'

TLE2486
TLE2485

PRW2636

TLE2484

TLE GRADING
0.023 Acres

137
LA MACCHIA REAL ESTATE, LLC

VILLAGE OF BAYSIDE

N89°04'45"W

IP

PARCEL 1

PARCEL 2

PARCEL 2
CSM 6236

STA 1251+75.10 IH-43
STA 159+35.61 BROWN DEER RD.

560.38'

160

W. BROWN DEER RD.

638.39'

162

CONC. MON.
W/ BRASS CAP
Y = 349929.04
X = 604493.31

T 08 N
R 22 E
5 8 8 5

500
WE ENERGIES - ELECTRIC
PARCEL 128 - DOC. NO. 3436871
PARCEL 128 - DOC. NO. 5522456
PARCEL 133 - DOC. NO. 5522456
PARCEL 134 - DOC. NO. 1434103
PARCEL 134 - DOC. NO. 5522456
PARCEL 135 - DOC. NO. 5522456
PARCEL 136 - DOC. NO. 5522456
PARCEL 137 - DOC. NO. 5260263
PARCEL 137 - DOC. NO. 6044821
PARCEL 137 - DOC. NO. 7300370

504
AT&T WISCONSIN
PARCEL 137 - DOC. NO. 6044821
PARCEL 137 - DOC. NO. 7300370

REVISION DATE				
01/21/2021	09/03/2021			
03/05/2021				
08/06/2021				

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.27

PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.27

PLOT DATE : 8/30/2021 4:32 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

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IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

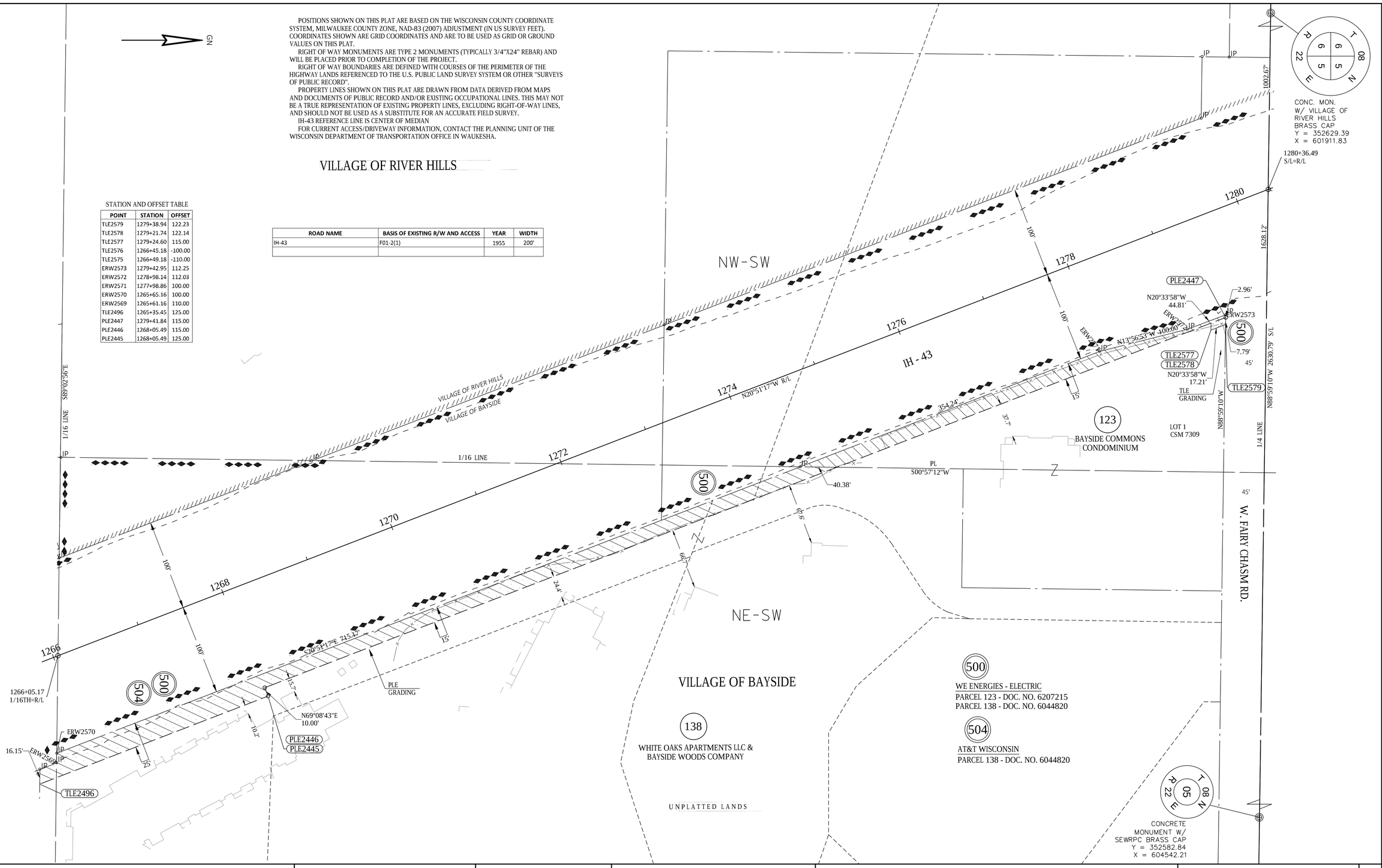
GN

VILLAGE OF RIVER HILLS

STATION AND OFFSET TABLE

POINT	STATION	OFFSET
TLE2579	1279+38.94	122.23
TLE2578	1279+21.74	122.14
TLE2577	1279+24.60	115.00
TLE2576	1266+45.18	-100.00
TLE2575	1266+49.18	-110.00
ERW2573	1279+42.95	112.25
ERW2572	1278+98.14	112.03
ERW2571	1277+98.86	100.00
ERW2570	1265+65.16	100.00
ERW2569	1265+61.16	110.00
TLE2496	1265+35.45	125.00
PLE2447	1279+41.84	115.00
PLE2446	1268+05.49	115.00
PLE2445	1268+05.49	125.00

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	F01-2(1)	1955	200'



REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.28 PS&E SHEET	E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.28

PLOT DATE : 8/30/2021 4:32 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

CONC. MON.
W/ VILLAGE OF
RIVER HILLS
BRASS CAP
Y = 352629.39
X = 601911.83

T 08 N R 22 E — 6 5

GN

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	1228-19-20	2009	VARIES
IH-43	T 01-2(14)	1963	VARIES
N. PORT WASHINGTON RD.	WIDTH BY SS 82.31(2)	-	33'
N. PORT WASHINGTON RD.	NO RECORDED DOCUMENTS	1946	90'

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VILLAGE OF RIVER HILLS

VILLAGE OF BAYSIDE

PHEASANT LANE

R/L N. PHEASANT LANE

IH - 43

N. PORT WASHINGTON RD.

W. RAVINE LANE

W. LARAMIE LANE

SW - NW

NW - NW

1/4 LINE

1/16 LINE

1/16 LINE

1002.67'

1628.12'

N88°59'10"W 2630.79' S/L

1280+36.49
S/L=R/L

1282

1284

1286

1288

1290

1292

1294

1296+00

1294+60.51
1/16TH=R/L

1290

1288

813.78'

872.21'

1284

1282

N20°51'17"W R/L

N19°45'50"W R/L

N20°52'36"W R/L

N20°51'17"W R/L

PI: 294+13.44

PT: 293+15.82

PI: 291+17.32

PC: 288+94.08

PT: 288+51.22

PC: 287+31.86

PT: 286+62.09

PC: 284+83.90

PI: 285+73.23

PI: 287+91.84

N69°08'43"E 358.91'

N69°08'43"E 285.12'

ACCESS CONTROL PER PROJECT F01-2(1)

SEE SHEET 4.30 MATCHLINE

1/16 LINE

1/16 LINE

CSM NO 5733

LOT 3

ZACHOW

37 COURY

38 CASTRO

39 ZACHOW

40 PRESS

500 WE ENERGIES - ELECTRIC

504 AT&T WISCONSIN

TLE2175
TLE2176
TLE2177
TLE2178
TLE2179
TLE2180
TLE2181
TLE2182
TLE2183
TLE2184
TLE2207
TLE2208
TLE2209
TLE2210
TLE2211
TLE2300
TLE2301
TLE2302
TLE2303
TLE2172
TLE2173
TLE2174

PLE2300
PLE2301
PLE2302
PLE2303

ERW2520
ERW2521
ERW2522
ERW2535
ERW2536

N67°20'40"W

N64°35'13"W 114.59'

S72°54'07"E 62.57'

N56°34'54"W 113.36'

S56°34'54"E 13.86'

N63°23'10"W R/L

S46°45'03"W 10.00'

N43°14'57"W R/L

S44°09'19"E 205.46'

204.39'

S35°49'52"E

S51°14'06"E 30.15'

S22°39'20"W 3.89'

S38°19'47"W 44.43'

N47°42'41"W 19.22'

N43°19'50"E

N26°51'58"W 44.95'

S20°51'17"E 116.00'

S55°25'14"E 78.93'

6' UTILITY EASEMENT TO WI ELECTRIC POWER CO. AND WI TELEPHONE CO. DOC. 4141456;

TLE GRADING 0.019 Acres

PLE FOR DRAINAGE

TLE GRADING 0.028 Acres

TLE GRADING 0.004 Acres

TLE GRADING 0.017 Acres

TLE GRADING

S35°53'59"E

S3°19'30"E 55.59'

N19°22'40"W 59.02'

61.09'

54.89'

44.49'

42.14'

61.23'

31.38'

10'

43'

60'

RAVINESIDE

PL

PI STA = 291+17.32
Y = 353640.517
X = 602646.468
DELTA = 46°28'07"
D = 11°01'06"
T = 223.24'
L = 421.74'
R = 520.00'
PC STA = 288+94.08
PT STA = 293+15.82

PI STA = 285+73.23
Y = 353384.253
X = 603123.233
DELTA = 10°08'10"
D = 5°41'18"
T = 89.33'
L = 178.19'
R = 1007.23'
PC STA = 284+83.90
PT STA = 286+62.09

PI STA = 287+91.84
Y = 353514.915
X = 602947.387
DELTA = 13°57'27"
D = 11°41'35"
T = 59.98'
L = 119.37'
R = 490.00'
PC STA = 287+31.86
PT STA = 288+51.22

Curve Table			
Curve #	Length	Radius	Delta
C38	19.66'	145.00'	7°46'10"

COURSE TABLE

POINT NO.	BEARING	DISTANCE
2303-2301	N69°08'43"E	48.37'
2300-2302	S69°08'43"W	30.99'
2303-2180	S69°08'43"W	40.11'
2184-2183	S20°51'17"E	5.60'
2183-2182	S69°08'43"W	12.70'

STATION AND OFFSET TABLE
N. PORT WASHINGTON RD.
ALIGNMENT

POINT	STATION	OFFSET
TLE2208	283+76.00	-44.30
TLE2207	283+76.00	-34.29
TLE2209	285+84.01	-35.23
ERW2535	285+84.07	-25.15
TLE2210	287+00.00	-44.47
ERW2536	287+25.34	-35.87
TLE2172	288+06.00	75.21
ERW2520	288+16.44	34.70
TLE2173	288+22.00	80.27
TLE2211	288+24.00	-59.13
TLE2174	288+30.77	36.94
TLE2175	288+74.01	45.60
TLE2176	288+74.01	49.49
TLE2177	289+04.08	57.77
TLE2178	289+05.93	51.74
TLE2179	292+32.52	71.16
PLE2300	292+93.15	93.26
PLE2302	292+94.70	62.30
PLE2301	293+56.22	95.21
TLE2180	293+56.23	86.95
PLE2303	293+56.24	46.84
ERW2521	293+99.21	35.31
TLE2181	294+21.26	42.19
TLE2182	295+37.26	42.19
TLE2183	295+37.26	54.89
TLE2184	295+42.86	54.89
ERW2522	295+44.17	35.29

CONC. MON.
W/ BRASS CAP
Y = 352582.84
X = 604542.21

T 08 N R 22 E — 05

45'

REVISION DATE				
01/21/2021	09/03/2021			
03/05/2021				
08/06/2021				

DATE: AUGUST 17, 2020

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH - 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1229-04-22

CONSTRUCTION PROJECT NUMBER 1229-04-71

PLAT SHEET 4.29

PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.29

PLOT DATE : 8/30/2021 4:32 PM

PLOT BY : RAISA KHAYTINA

PLOT NAME : ----

PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	T 01-2(14)	1963	VARIES
W. JONATHAN LANE	ORCHARD HIGHLANDS	1956	60'
N PORT WASHINGTON ROAD	FAIRY CHASM ESTATES	1946	90'
COUNTY LINE ROAD	T 01-2(14)	1963	60'
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES

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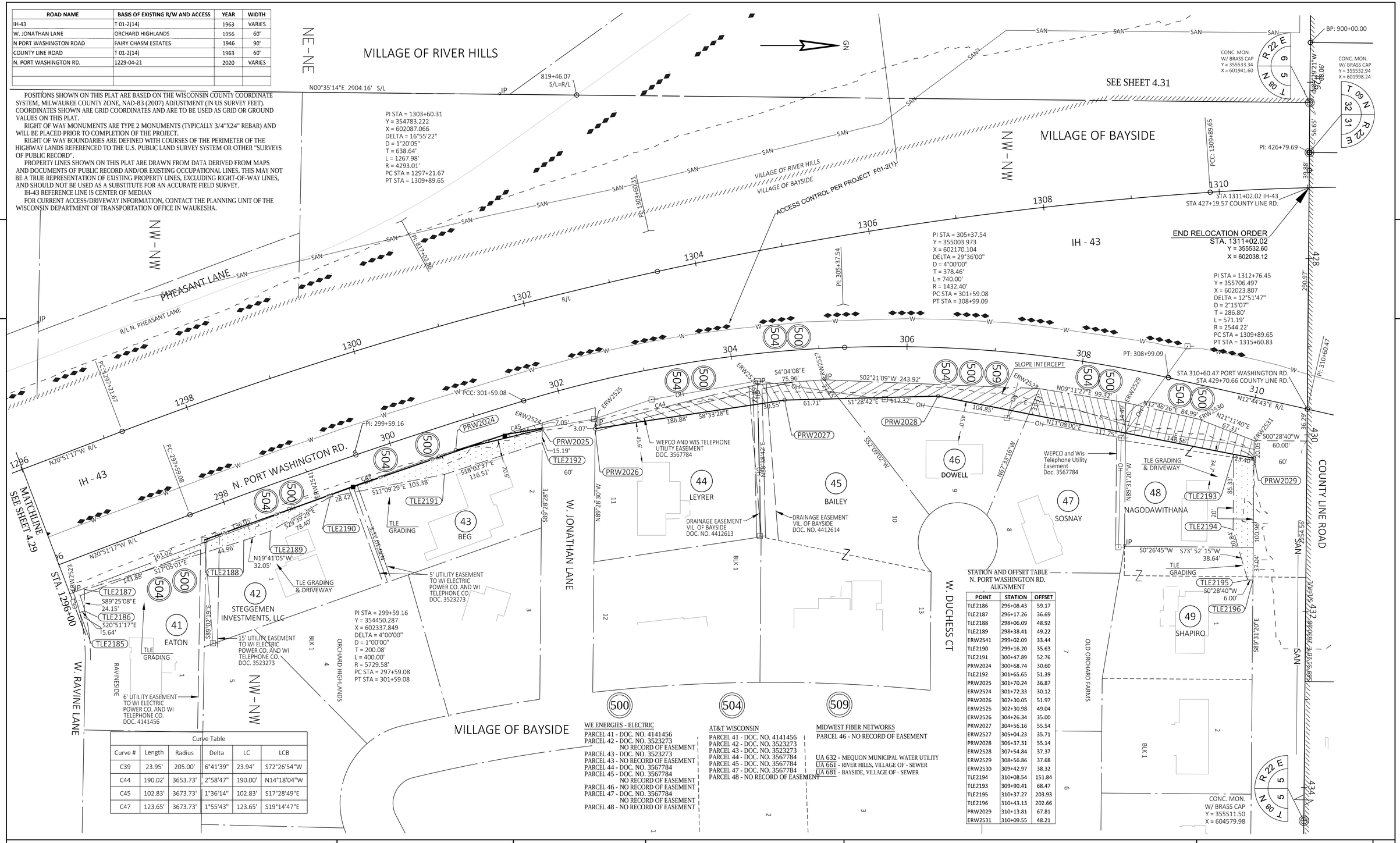
4



POINT	STATION	OFFSET
TLE2186	296+08.43	59.17
TLE2187	296+17.26	36.69
TLE2188	298+06.09	48.92
TLE2189	298+38.41	49.22
ERW2541	299+02.09	33.44
TLE2190	299+16.20	35.63
TLE2191	300+47.89	52.76
PRW2024	300+68.74	30.60
TLE2192	301+65.65	51.39
PRW2025	301+70.24	36.87
ERW2524	301+72.33	30.12
PRW2026	302+30.05	51.97
ERW2525	302+30.98	49.04
ERW2526	304+26.34	35.00
PRW2027	304+56.16	55.54
ERW2527	305+04.23	35.71
PRW2028	306+37.31	55.14
ERW2528	307+54.84	37.37
ERW2529	308+56.86	37.68
ERW2530	309+42.97	38.32
TLE2194	310+08.54	151.84
TLE2193	309+90.41	68.47
TLE2195	310+37.27	203.93
TLE2196	310+43.13	202.66
PRW2029	310+13.81	67.81
ERW2531	310+09.55	48.21

Curve Table					
Curve #	Length	Radius	Delta	LC	LCB
C39	23.95'	205.00'	6°41'39"	23.94'	S72°26'54"W
C44	190.02'	3653.73'	2°58'47"	190.00'	N14°18'04"W
C45	102.83'	3673.73'	1°36'14"	102.83'	S17°28'49"E
C47	123.65'	3673.73'	1°55'43"	123.65'	S19°14'47"E

4

REVISION DATE 09/03/2021 01/21/2021 03/05/2021 08/06/2021	DATE: AUGUST 17, 2020 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH - 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1229-04-22 CONSTRUCTION PROJECT NUMBER 1229-04-71	PLAT SHEET 4.30 PS&E SHEET ____ E

FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.30

PLOT DATE : 8/30/2021 4:32 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

IH-43 REFERENCE LINE IS CENTER OF MEDIAN

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

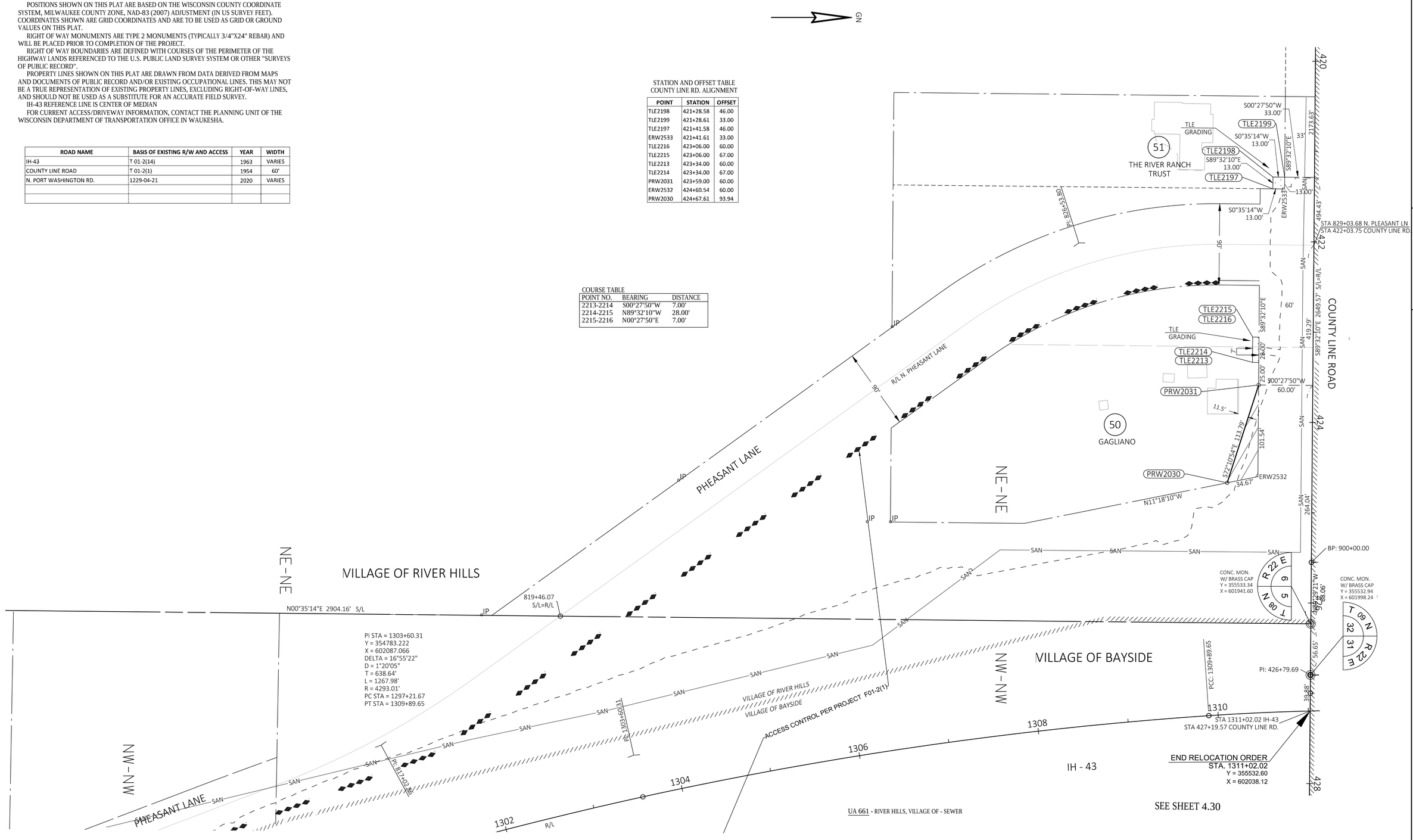
ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
IH-43	T 01-2(14)	1963	VARIES
COUNTY LINE ROAD	T 01-2(1)	1954	60'
N. PORT WASHINGTON RD.	1229-04-21	2020	VARIES

STATION AND OFFSET TABLE
COUNTY LINE RD. ALIGNMENT

POINT	STATION	OFFSET
TLE2198	421+28.58	46.00
TLE2199	421+28.61	33.00
TLE2197	421+41.58	46.00
ERW2533	421+41.61	33.00
TLE2216	423+06.00	60.00
TLE2215	423+06.00	67.00
TLE2213	423+34.00	60.00
TLE2214	423+34.00	67.00
PRW2031	423+59.00	60.00
ERW2532	424+60.54	60.00
PRW2030	424+67.61	93.94

COURSE TABLE

POINT NO.	BEARING	DISTANCE
2213-2214	S00°27'50"W	7.00'
2214-2215	N89°32'10"W	28.00'
2215-2216	N00°27'50"E	7.00'



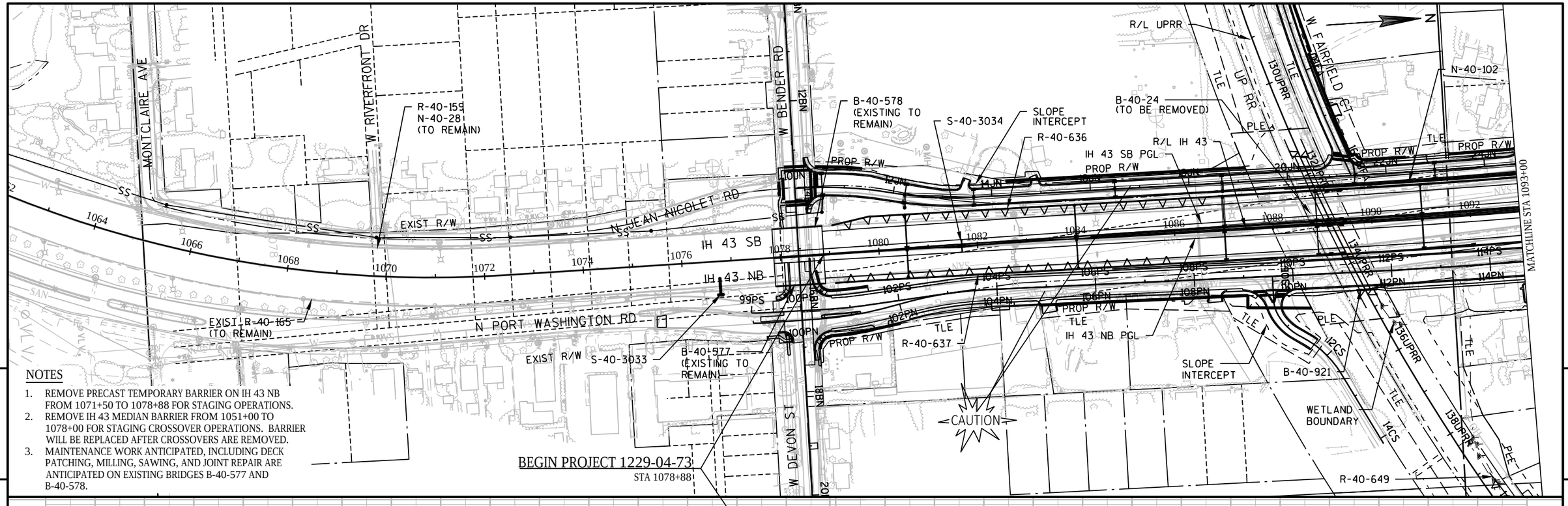
REVISION DATE				
01/21/2021	09/03/2021			
03/05/2021				
08/06/2021				

DATE: AUGUST 17, 2020	SCALE, FEET 0 50 100	HWY: IH - 43	STATE R/W PROJECT NUMBER	1229-04-22	PLAT SHEET 4.31	
GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER	1229-04-71	PS&E SHEET	E

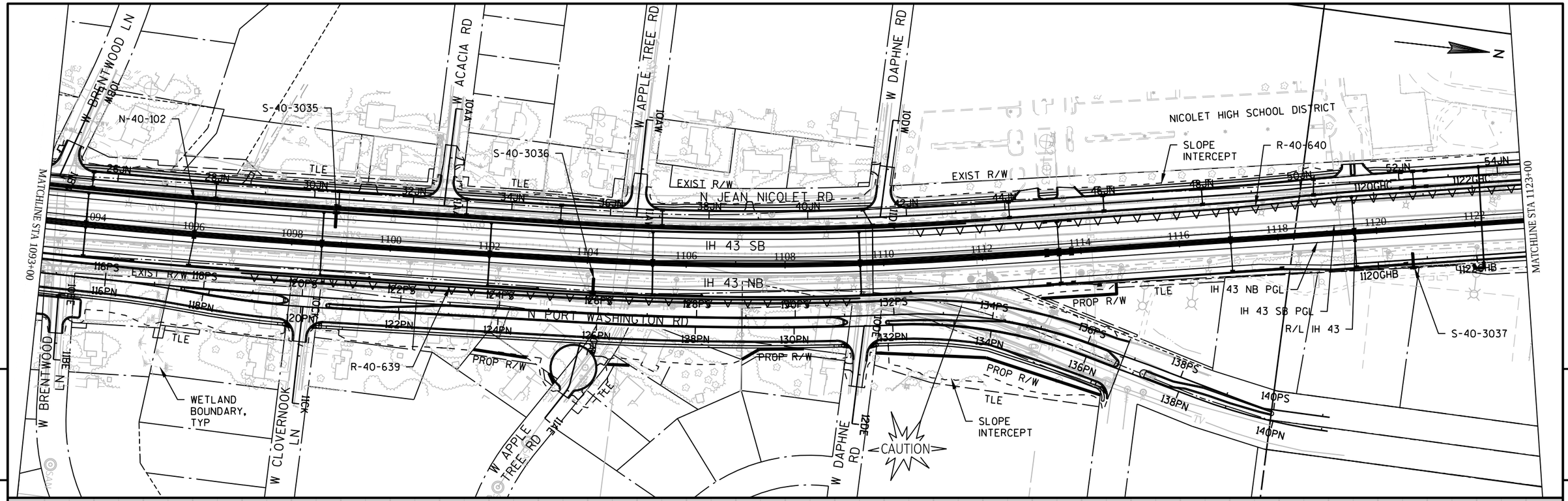
FILE NAME : RW_PLAT-1229-04-22_DETAIL.DWG
LAYOUT NAME 4.31

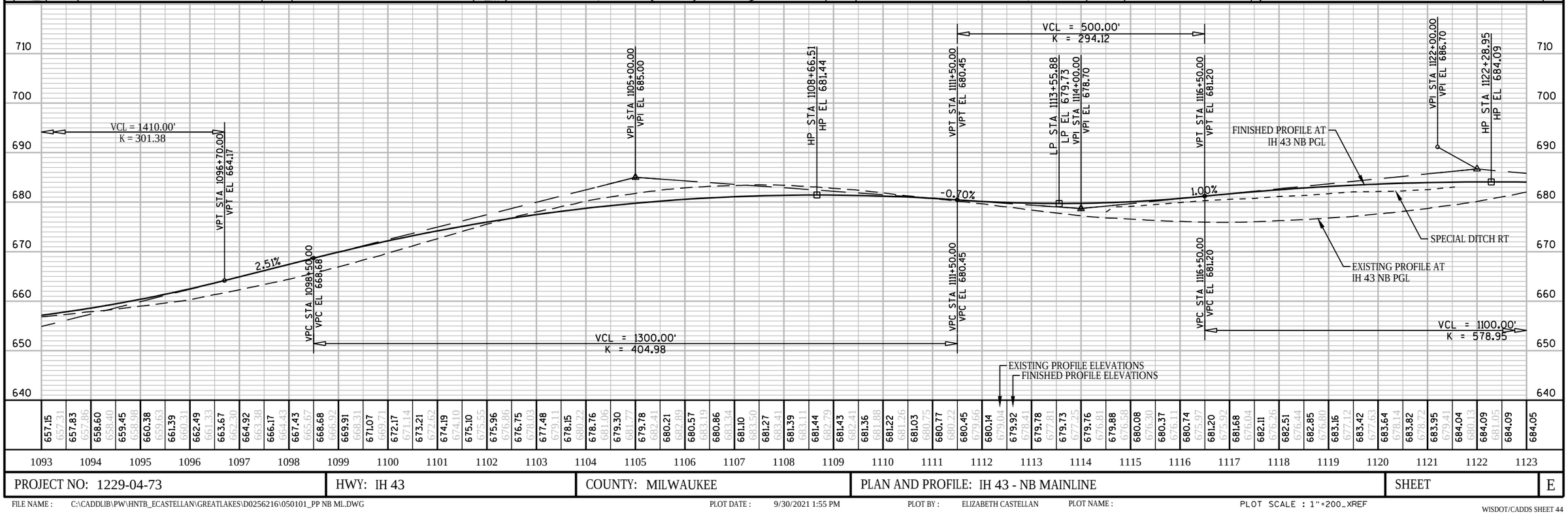
PLOT DATE : 8/30/2021 4:32 PM PLOT BY : RAISA KHAYTINA PLOT NAME : ---- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

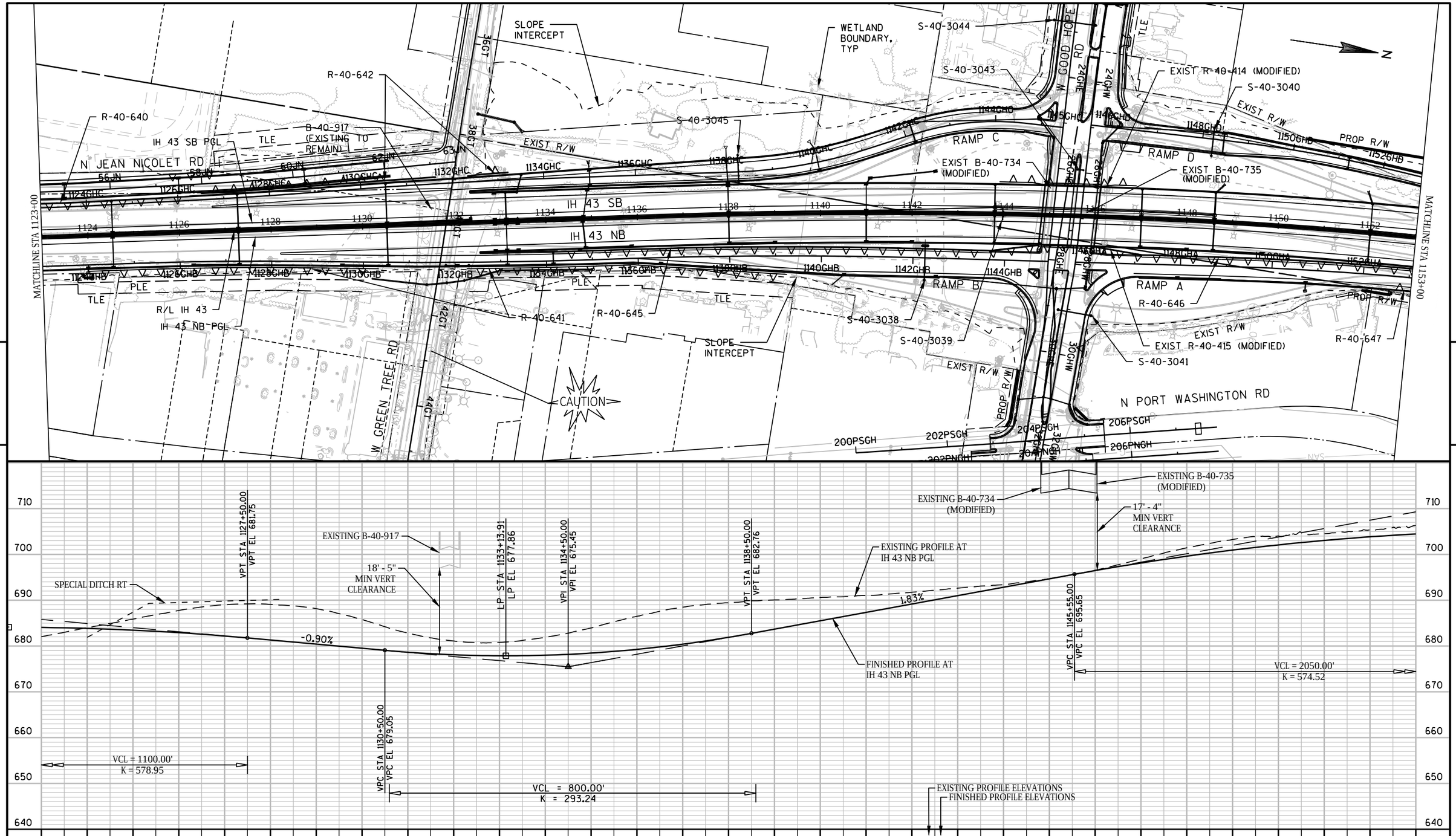


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E



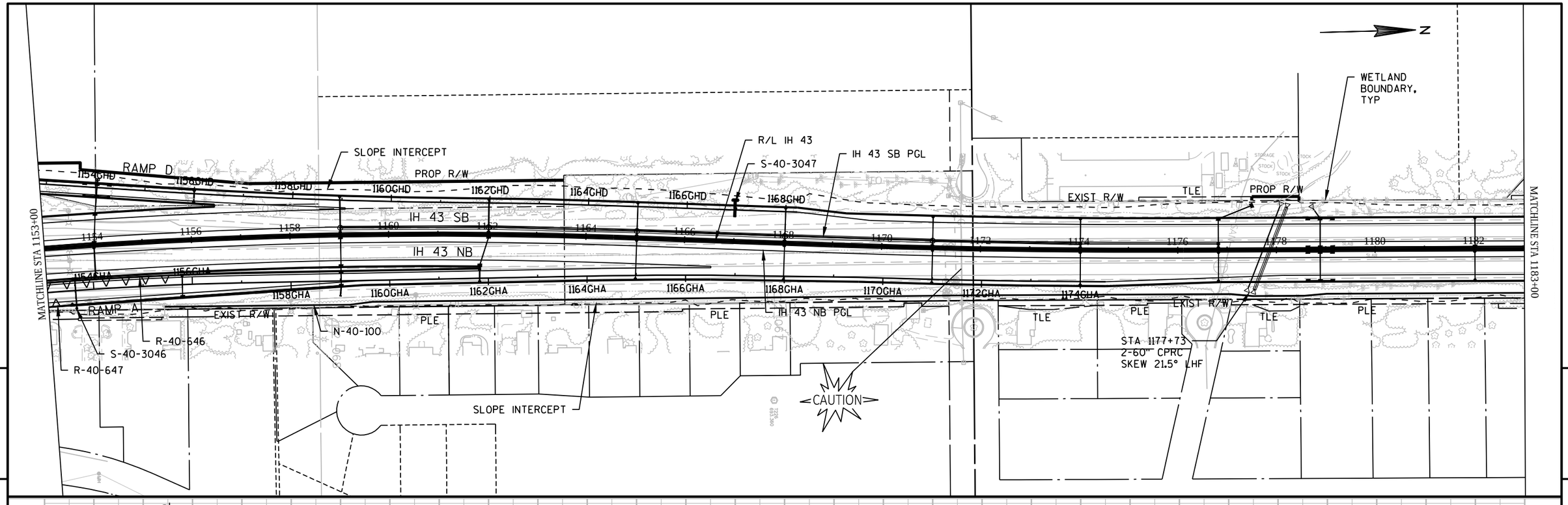


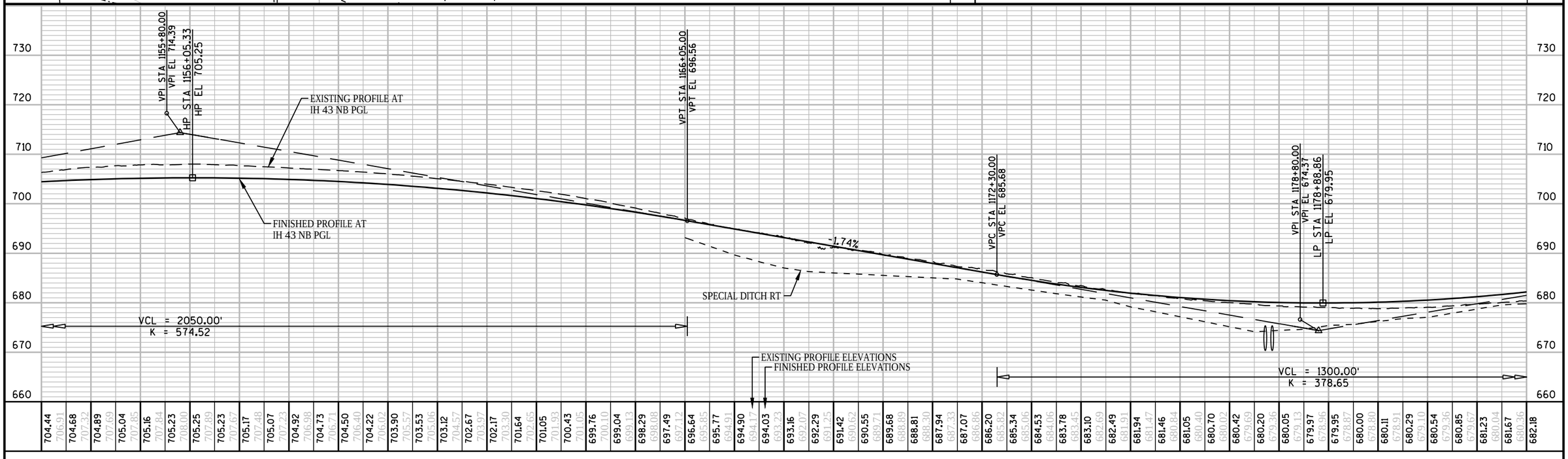
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E



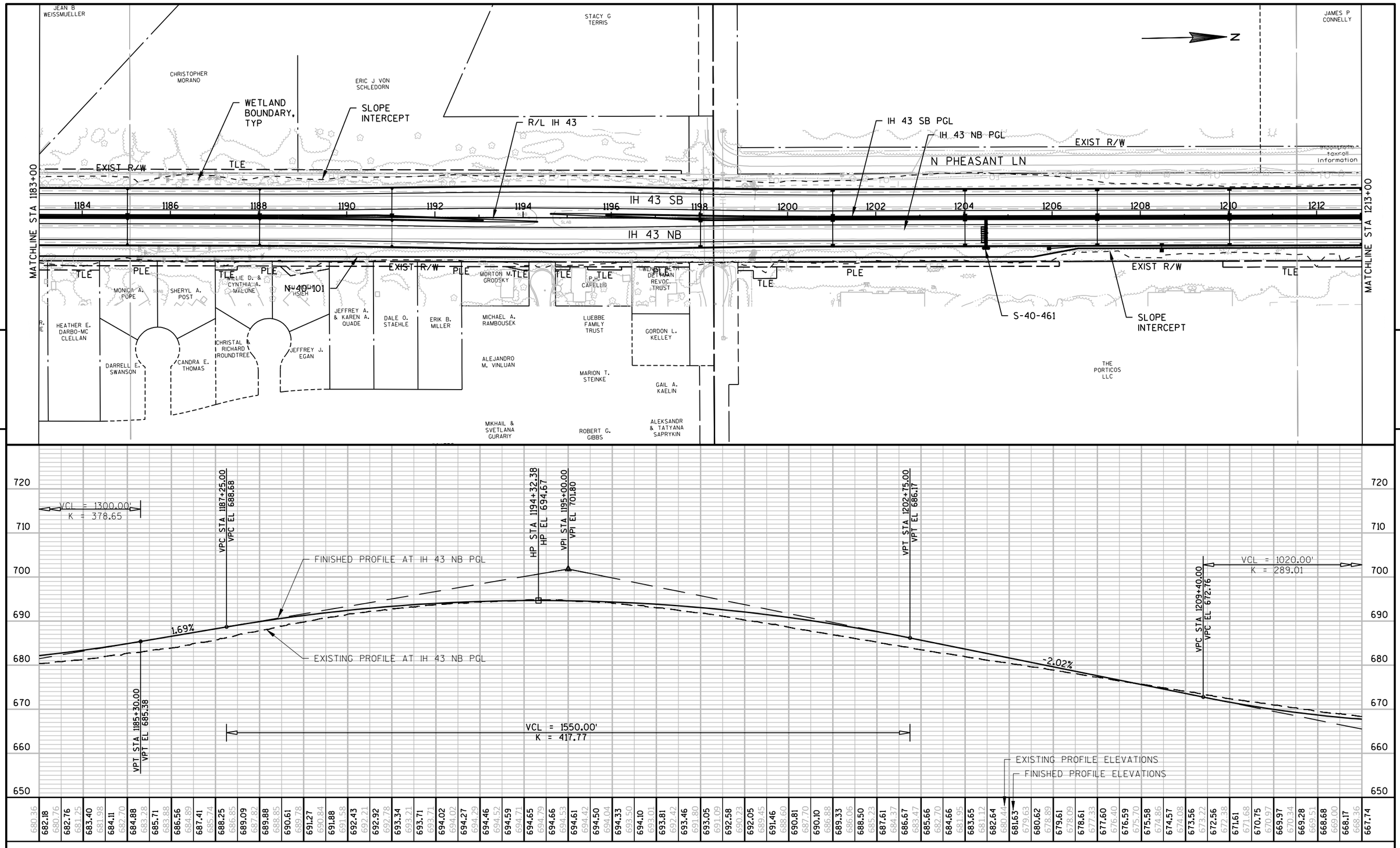
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050101_PP NB ML.DWG PLOT DATE : 9/30/2021 1:57 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1"=200_XREF



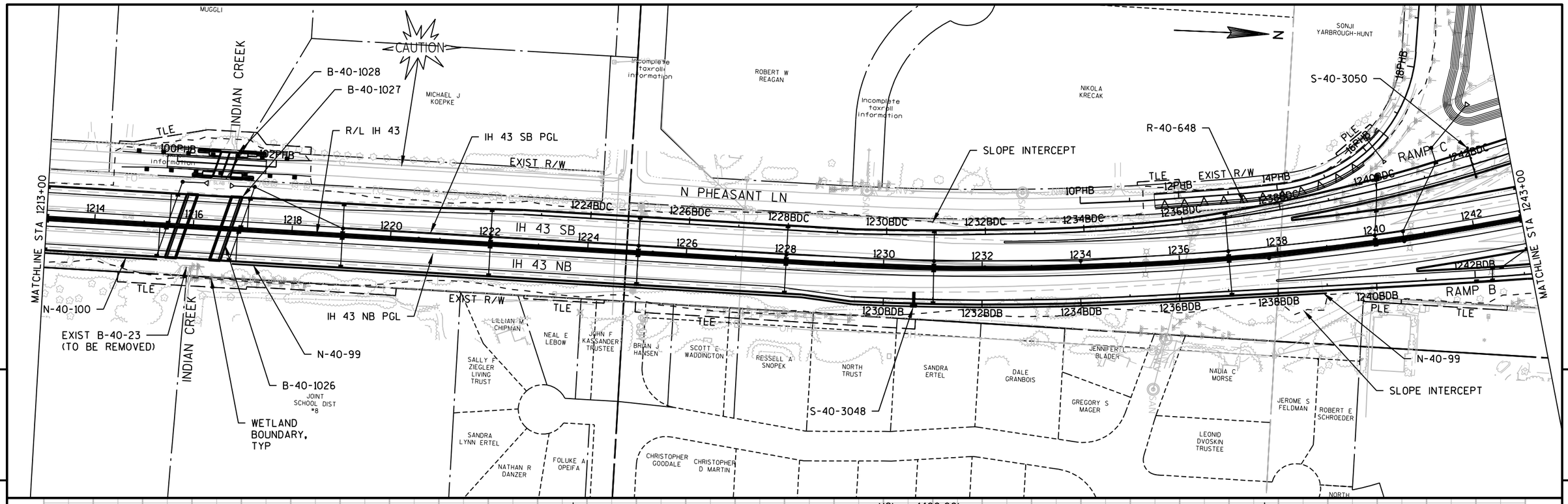


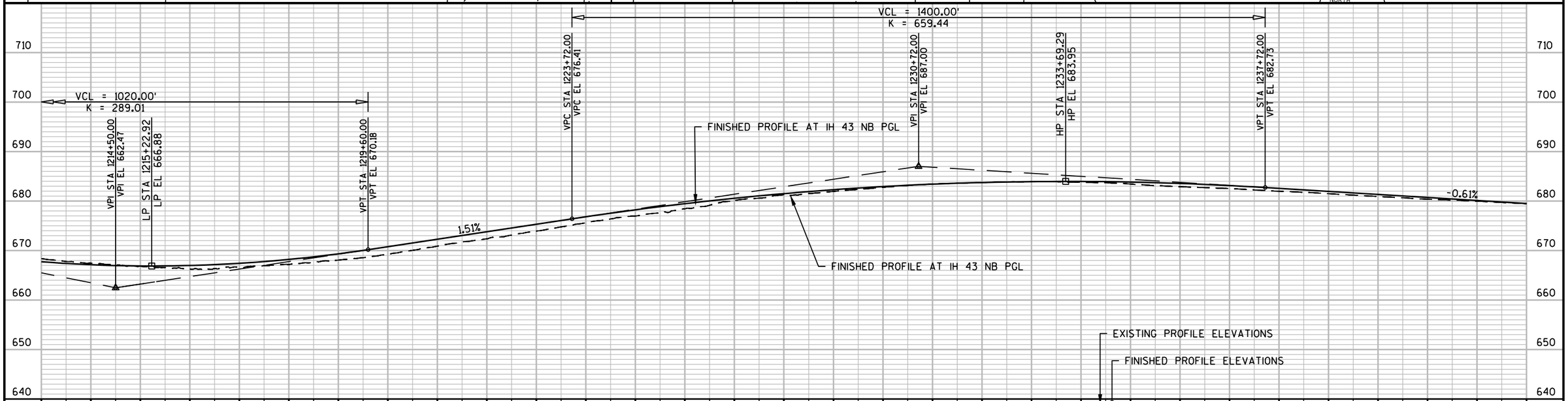
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E

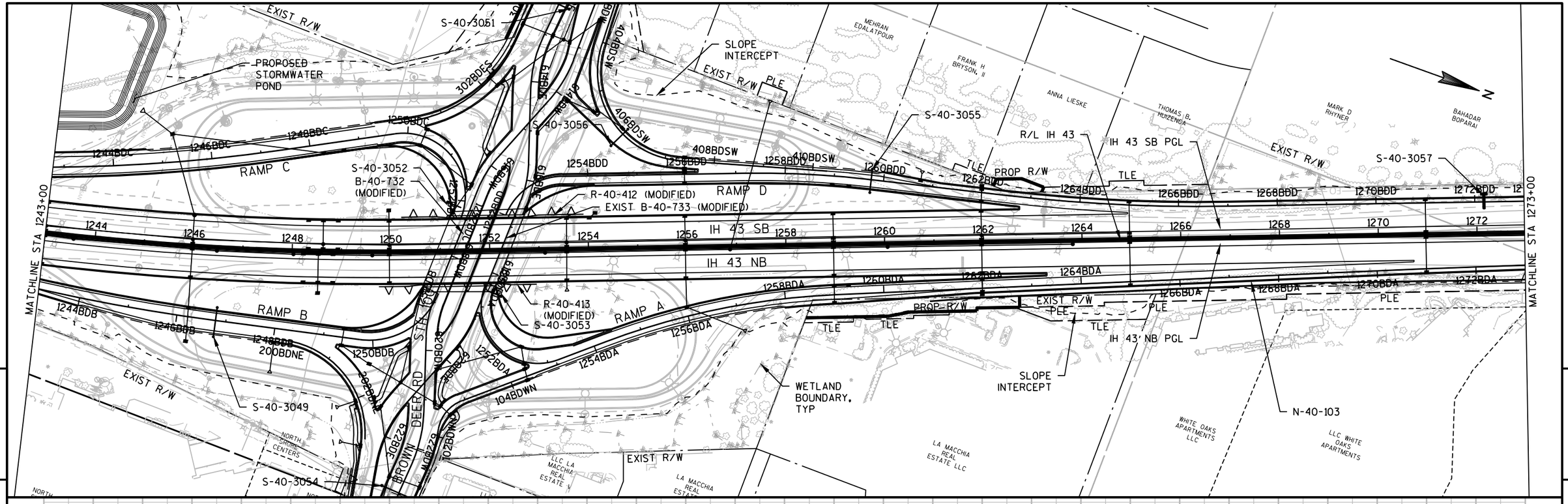
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050102_PP NB ML.DWG PLOT DATE : 9/30/2021 9:28 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1" = 200'_XREF

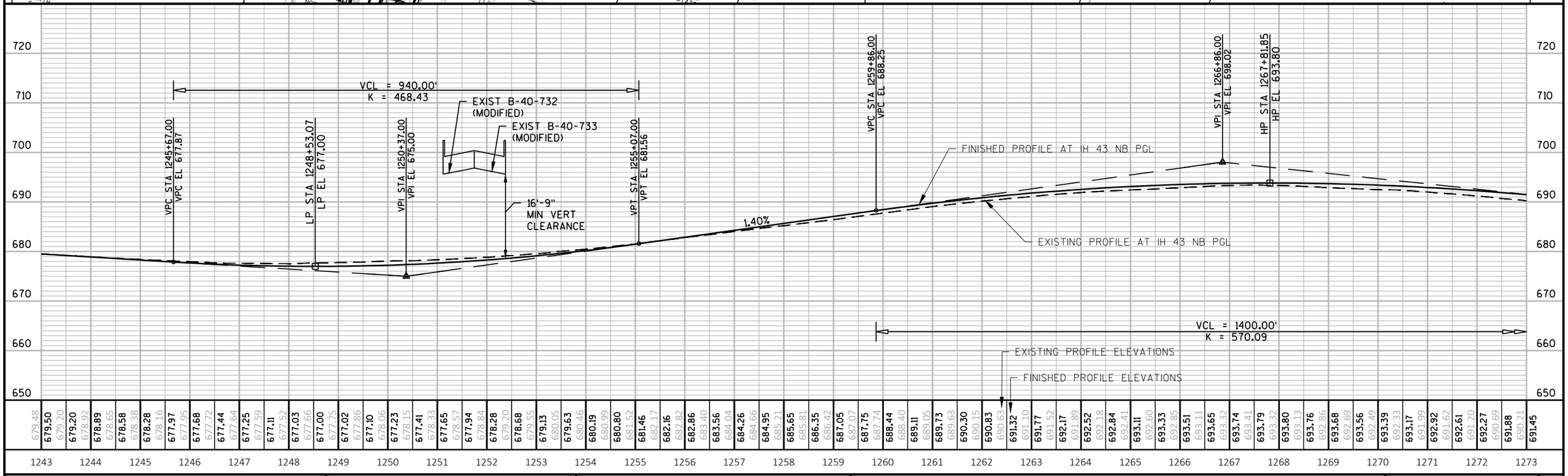




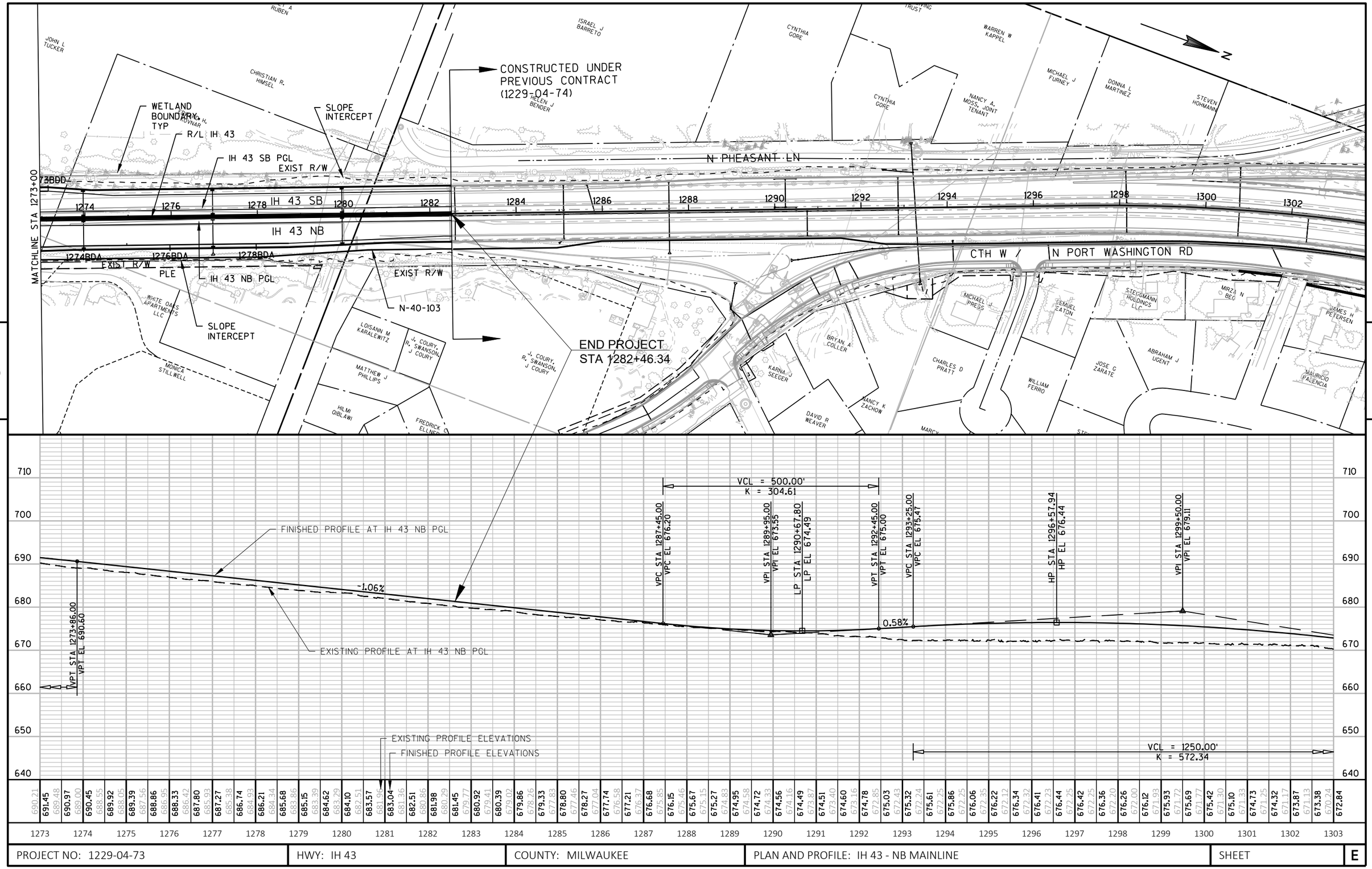
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050102_PP NB ML.DWG PLOT DATE : 9/30/2021 9:31 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1" = 200'_XREF

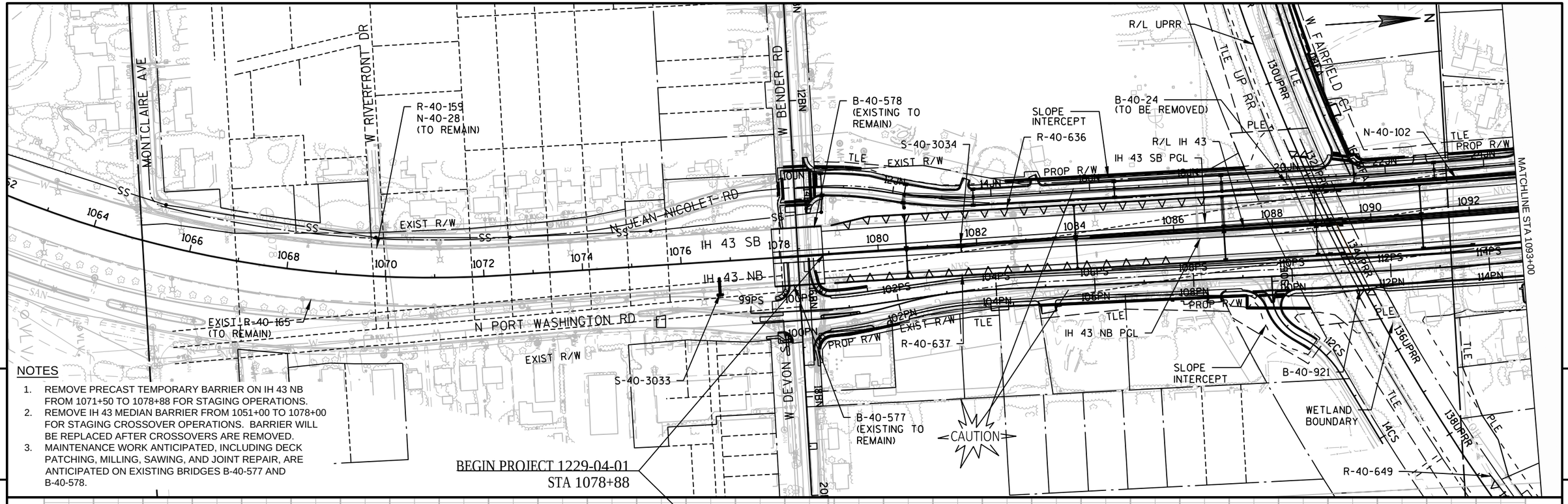

EXIST R/W
S-40-3051
PROPOSED STORMWATER POND
SLOPE INTERCEPT
EXIST R/W
PLE
S-40-3055
S-40-3056
S-40-3052
B-40-732 (MODIFIED)
RAMP C
RAMP D
R-40-412 (MODIFIED)
EXIST B-40-733 (MODIFIED)
R/L IH 43
IH 43 SB PGL
TLE
PROP R/W
EXIST R/W
S-40-3057
MATCHLINE STA 1243+00
MATCHLINE STA 1273+00
IH 43 SB
IH 43 NB
RAMP B
RAMP A
R-40-413 (MODIFIED)
S-40-3053
PROP R/W
EXIST R/W
PLE
TLE
IH 43 NB PGL
S-40-3049
WETLAND BOUNDARY, TYP
SLOPE INTERCEPT
N-40-103
DEER/BROWN RD
STH 100
EXIST R/W
S-40-3054
NORTH PRAIRIE CENTERS
LLC LA MACCHIA REAL ESTATE V
LA MACCHIA REAL ESTATE
LA MACCHIA REAL ESTATE LLC
WHITE OAKS APARTMENTS LLC
LLC WHITE OAKS APARTMENTS
MEHRAN EDALATPOUR
FRANK H BRYSON, II
ANNA LIESKE
THOMAS B. HUIZENGA
MARK D RHYNER
BAHADAR BOPARAI
N

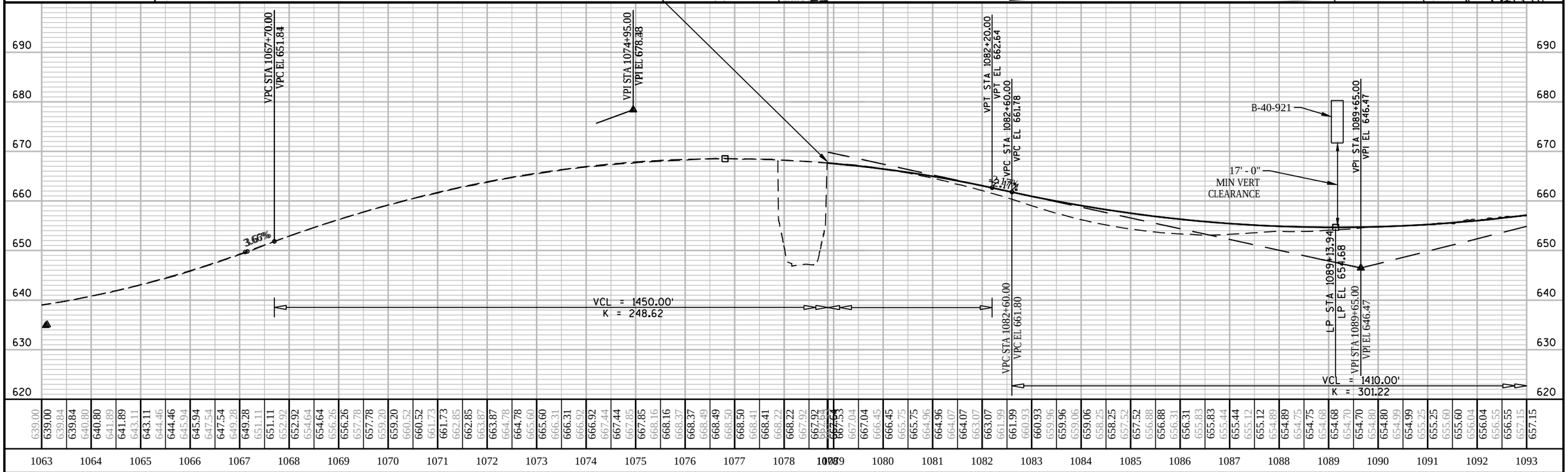

VCL = 940.00'
K = 468.43
EXIST B-40-732 (MODIFIED)
EXIST B-40-733 (MODIFIED)
VPC STA 1245+67.00
VPC EL 677.87
LP STA 1248+53.07
LP EL 677.00
VPI STA 1250+37.00
VPI EL 675.00
16'-9" MIN VERT CLEARANCE
VPT STA 1255+07.00
VPT EL 681.56
VPC STA 1259+86.00
VPC EL 688.25
1.40%
FINISHED PROFILE AT IH 43 NB PGL
VPI STA 1266+86.00
VPI EL 698.02
HP STA 1267+81.85
HP EL 693.80
EXISTING PROFILE AT IH 43 NB PGL
VCL = 1400.00'
K = 570.09
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS
720
710
700
690
680
670
660
650

| | | |

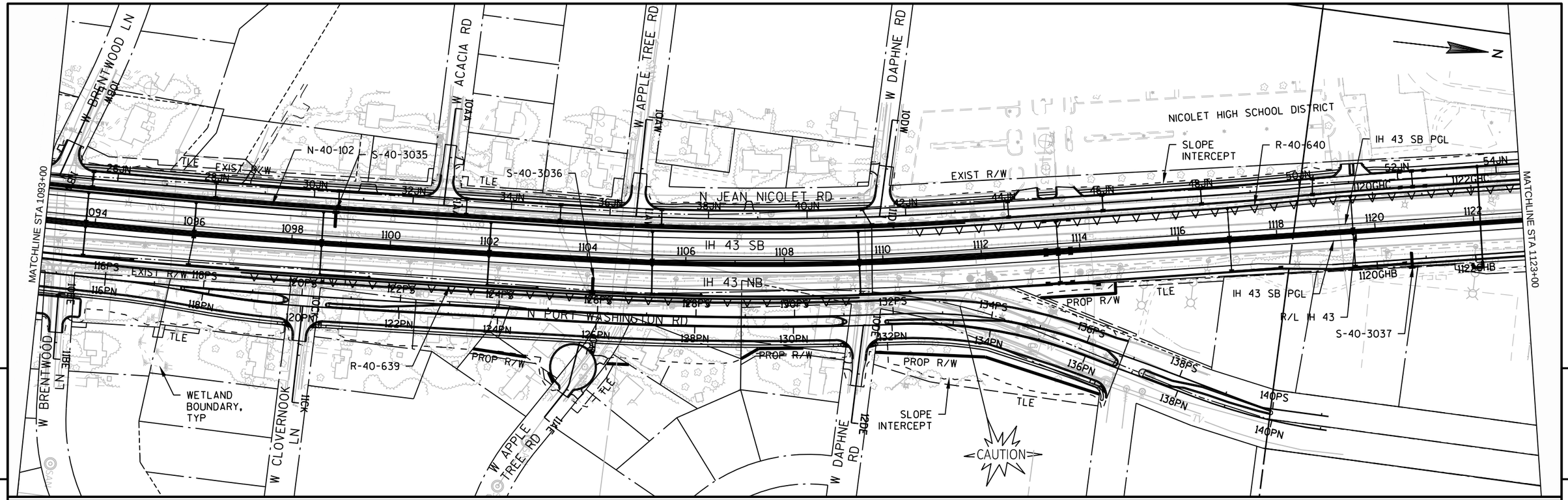


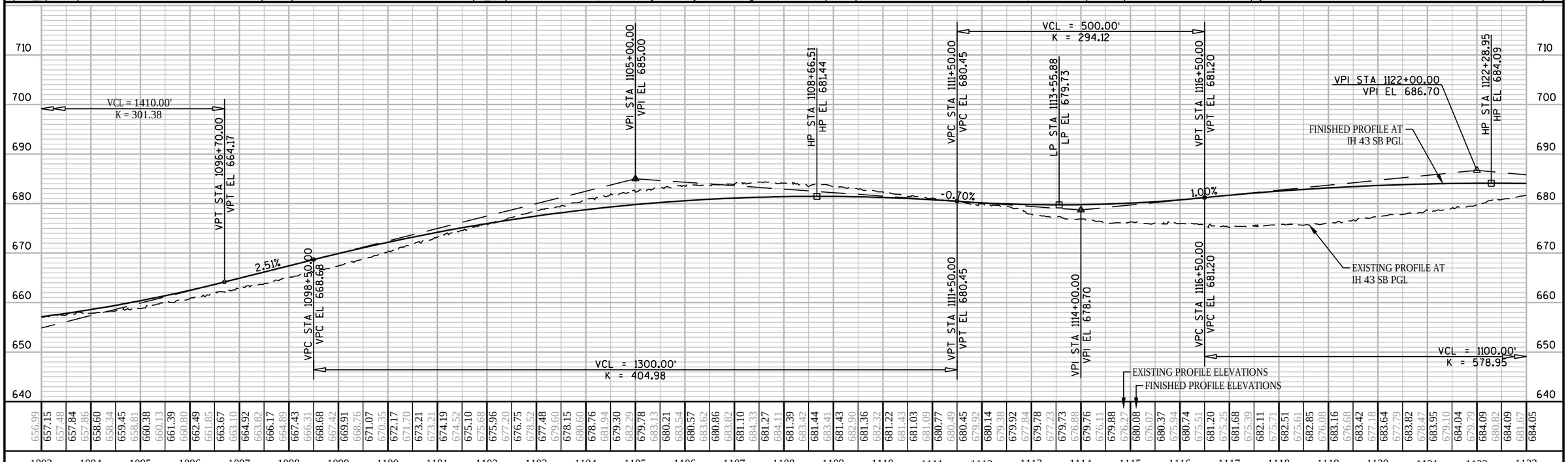
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - NB MAINLINE	SHEET	E





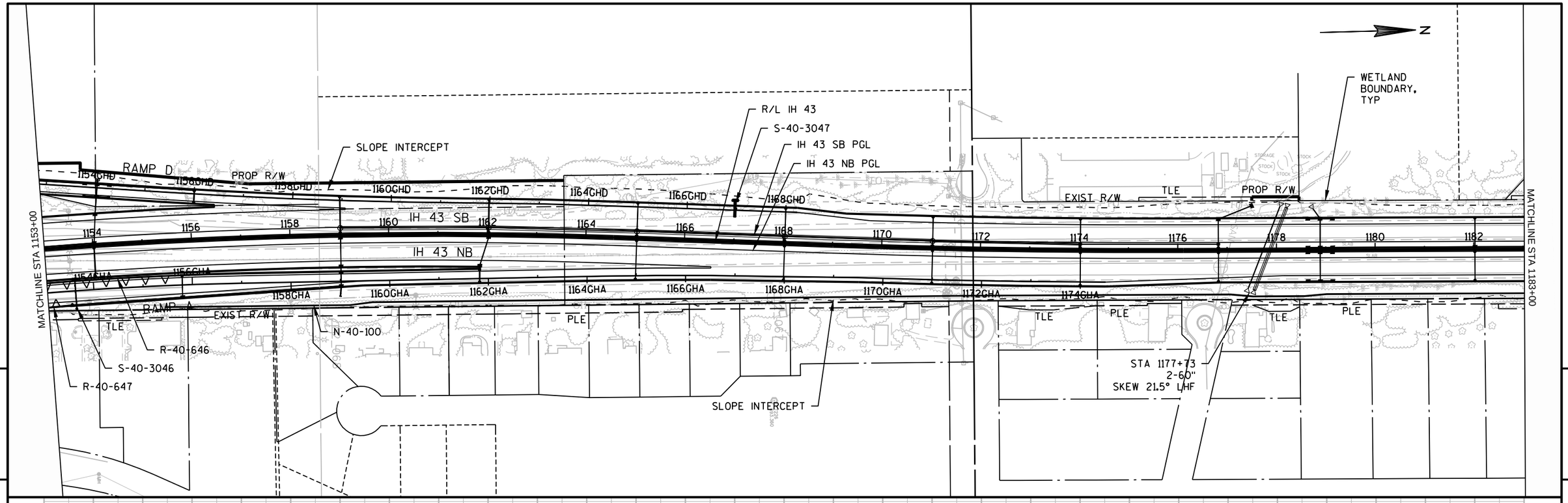
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050105_PP SB ML.DWG PLOT DATE : 9/30/2021 2:15 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1"=200_XREF

JEAN B WEISSMUELLER
CHRISTOPHER MORANO
ERIC J VON SCHLEDORN
STACY G TERRIS
JAMES P CONNELLY
WETLAND BOUNDARY, TYP
SLOPE INTERCEPT
R/L IH 43
IH 43 SB PGL
IH 43 NB PGL
EXIST R/W
TLE
N PHEASANT LN
IH 43 SB
IH 43 NB
MATCHLINE STA 1183+00
MATCHLINE STA 1213+00
1184 1186 1188 1190 1192 1194 1196 1198 1200 1202 1204 1206 1208 1210 1212
PLE
S-40-101
S-40-461
SLOPE INTERCEPT
MONICA A. POPE
SHERYL A. POST
WELIE D. & CYNTHIA A. MALONE
HEATHER E. DARBO-MC CLELLAN
DARRELL E. SWANSON
CANDRA E. THOMAS
CHRISTAL & RICHARD ROUNDTREE
JEFFREY J. EGAN
JEFFREY A. & KAREN A. QUADE
DALE O. STAEHLE
ERIK B. MILLER
MORTON M. GRODSKY
MICHAEL A. RAMBOUSEK
ALEJANDRO M. VINLUAN
MIKHAIL & SVETLANA GURARIY
P.H. CAPELLO
LUEBBE FAMILY TRUST
MARION T. STEINKE
ROBERT G. GIBBS
WENDY BETH DETMAN REVOC TRUST
GORDON L. KELLEY
GAIL A. KAELIN
ALEKSANDR & TATYANA SAPRYKIN
THE PORTICOS LLC
Incomplete taxroll information

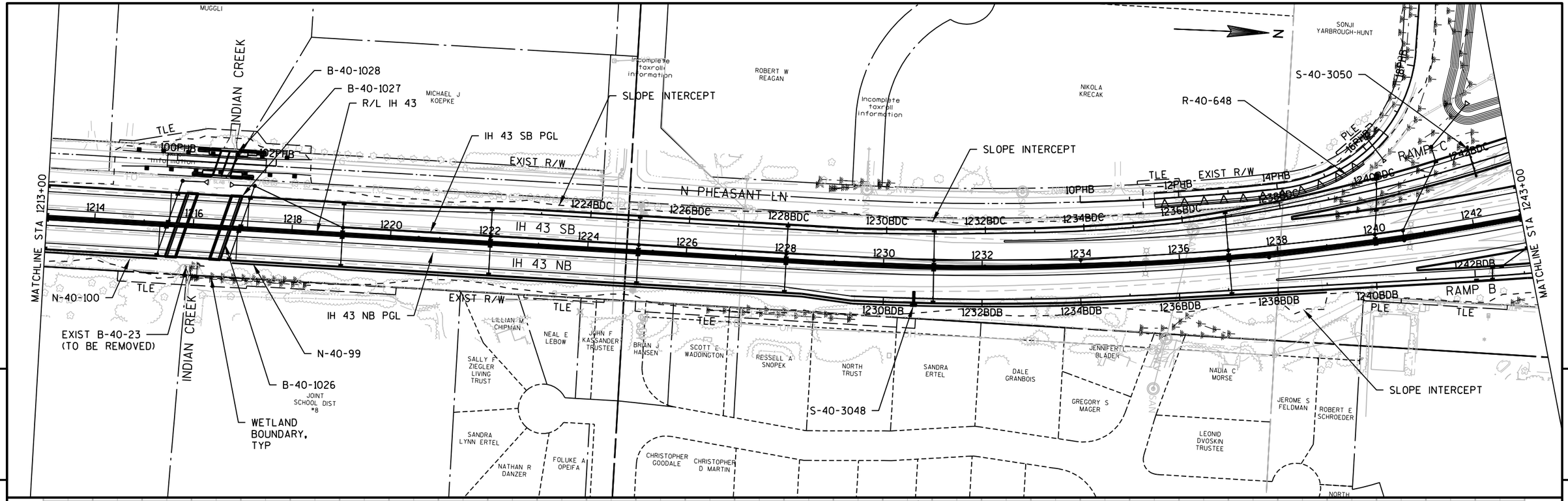
720 710 700 690 680 670 660 650

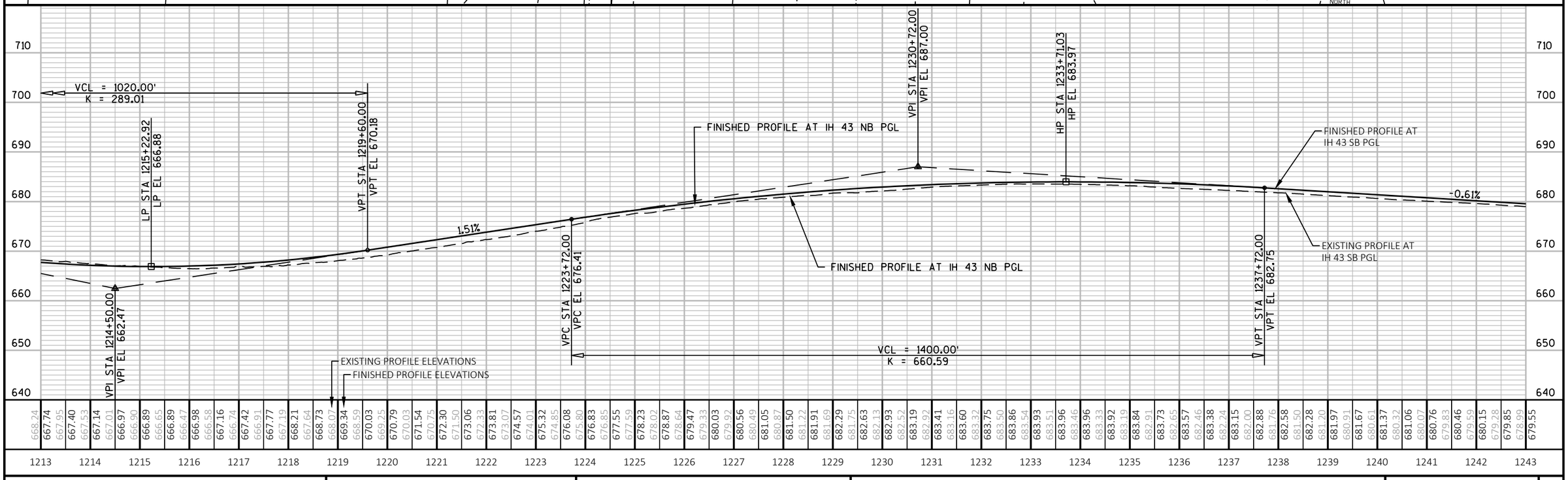
VCL = 1300.00'
K = 378.65
VPT STA 1185+30.00
VPT EL 685.38
1.69%
VPC STA 1187+25.00
VPC EL 688.68
HP STA 1194+32.38
HP EL 694.67
VPI STA 1195+00.00
VPI EL 701.80
FINISHED PROFILE AT IH 43 SB PGL
EXISTING PROFILE AT IH 43 SB PGL
VCL = 1550.00'
K = 417.77
VPT STA 1202+75.00
VPT EL 686.17
-2.02%
VPC STA 1209+40.00
VPC EL 672.76
VCL = 1020.00'
K = 289.01
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213
680.33	682.18	682.76	683.40	684.11	684.88	685.71	686.56	687.41	688.25	689.09	689.88	690.61	691.27	691.88	692.43	692.92	693.34	693.71	694.02	694.27	694.46	694.59	694.65	694.66	694.61	694.50	694.33	694.10	693.81	693.46	693.05	692.58	692.05	691.46	690.81	690.10	689.33	688.50	687.61	686.67	685.66	684.66	681.97	683.65	681.21	682.64	680.52	681.63	679.66	680.62	678.96	679.61	678.18	678.61	677.29	677.60	676.61	676.59	675.86	675.58	674.86	674.57	674.16	673.56	673.21	672.56	672.42	671.61	671.61	670.75	670.92	669.97	670.14	669.28	669.57	668.68	668.76	668.17	668.24	667.74

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

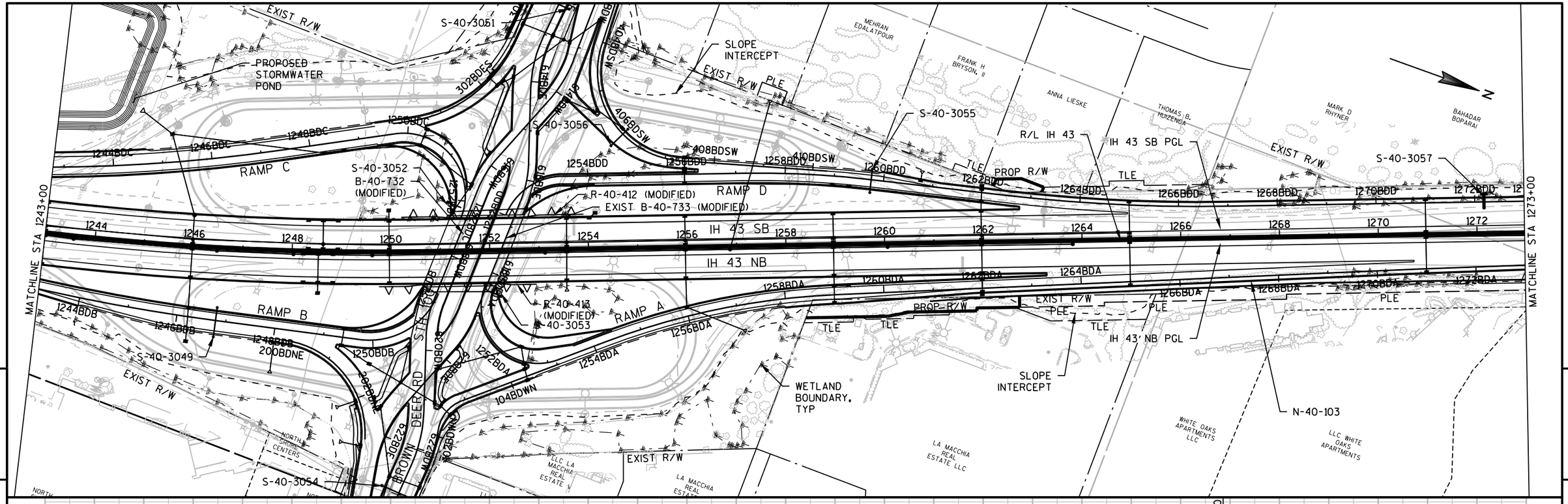
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050106_PP SB ML.DWG
PLOT DATE : 9/30/2021 9:40 AM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

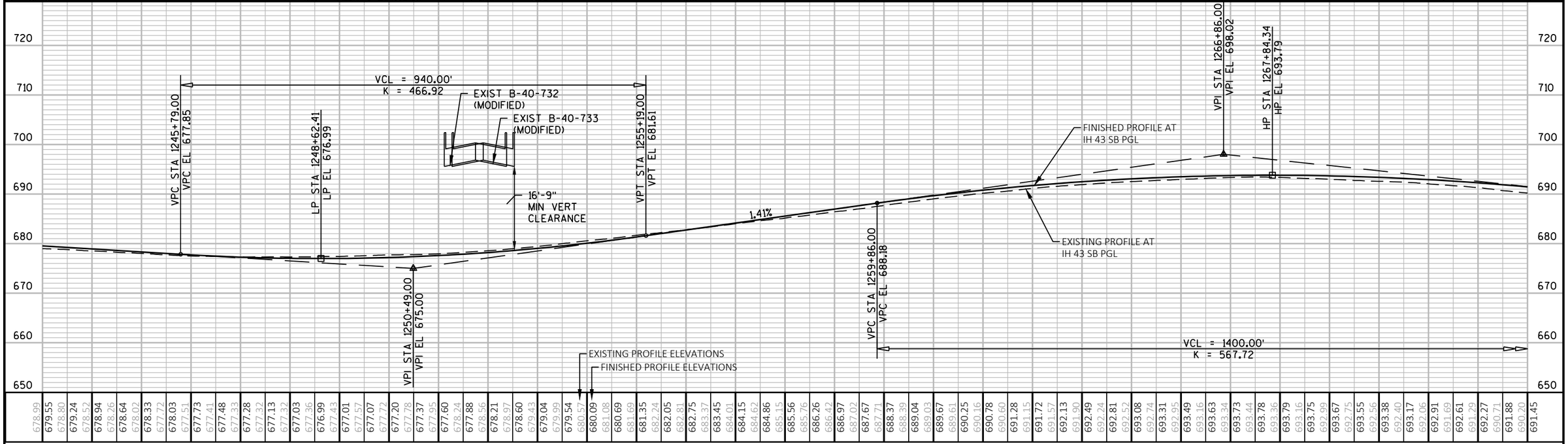




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

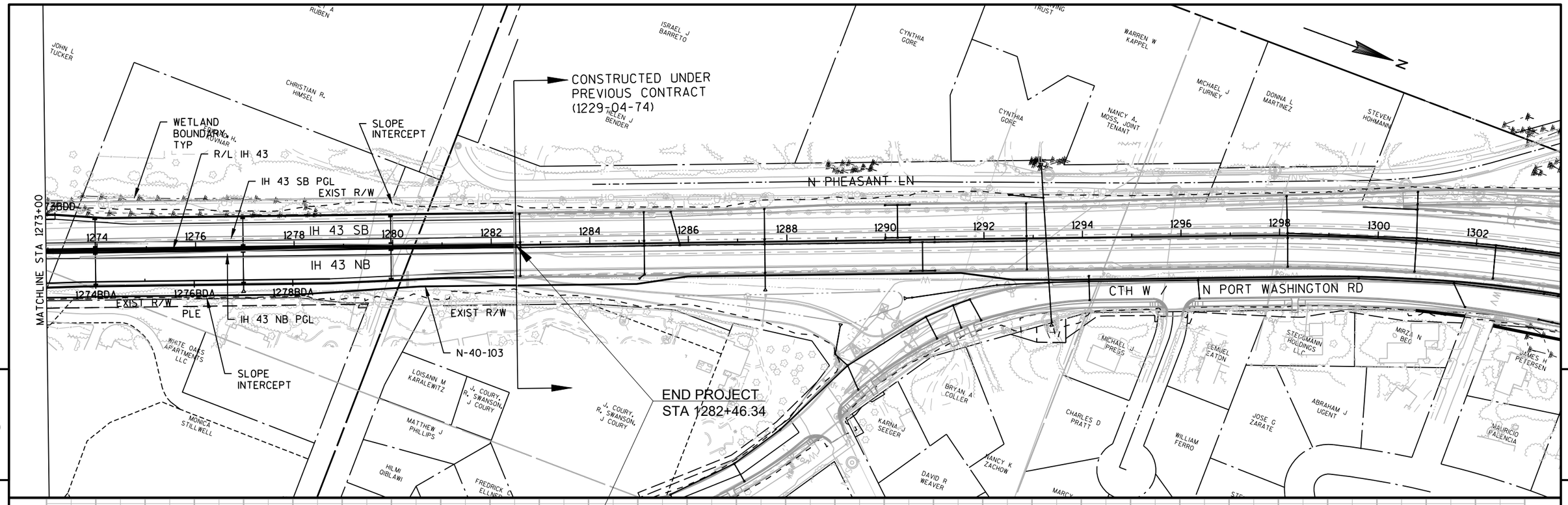
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050106_PP SB ML.DWG PLOT DATE : 9/30/2021 9:43 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT

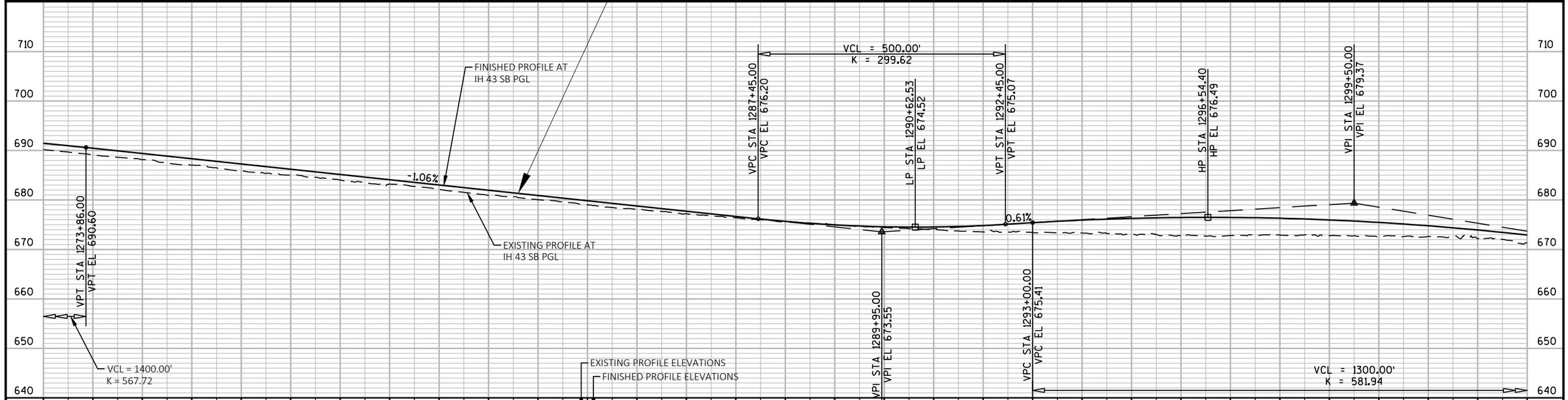




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

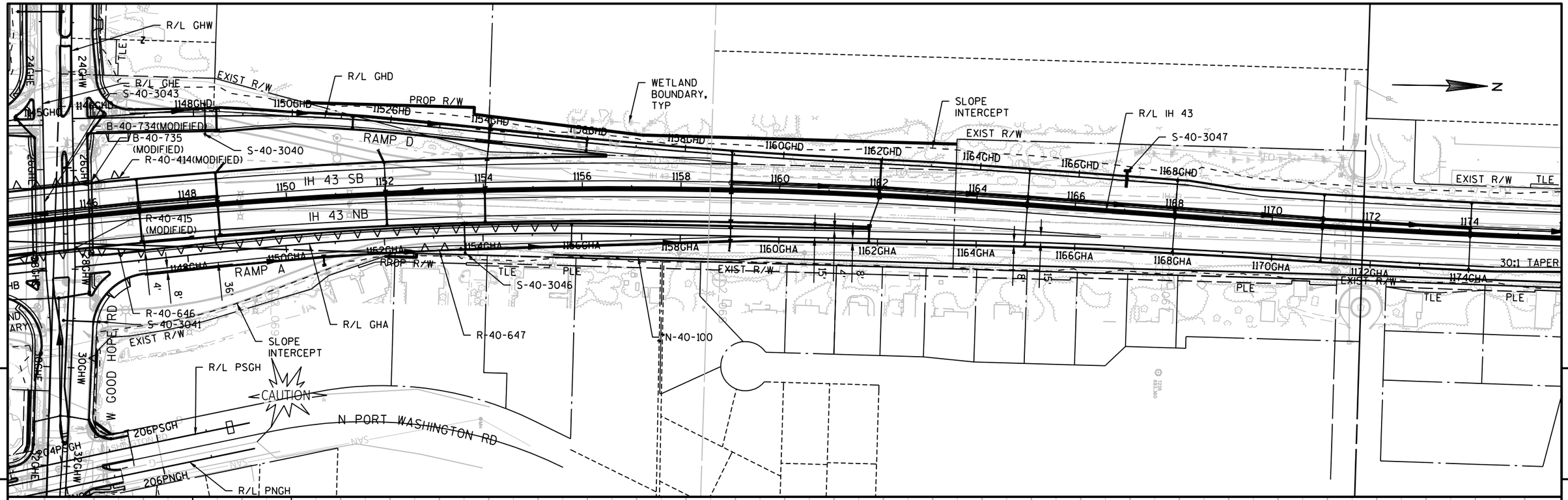
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050106_PP SB ML.DWG PLOT DATE : 9/30/2021 9:46 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT

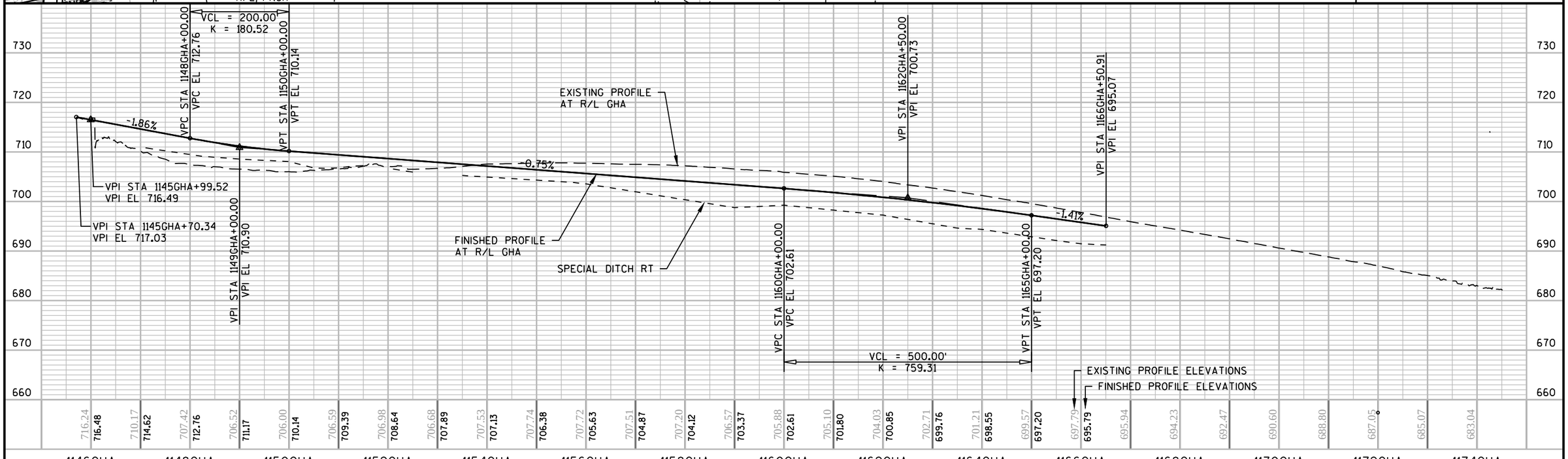




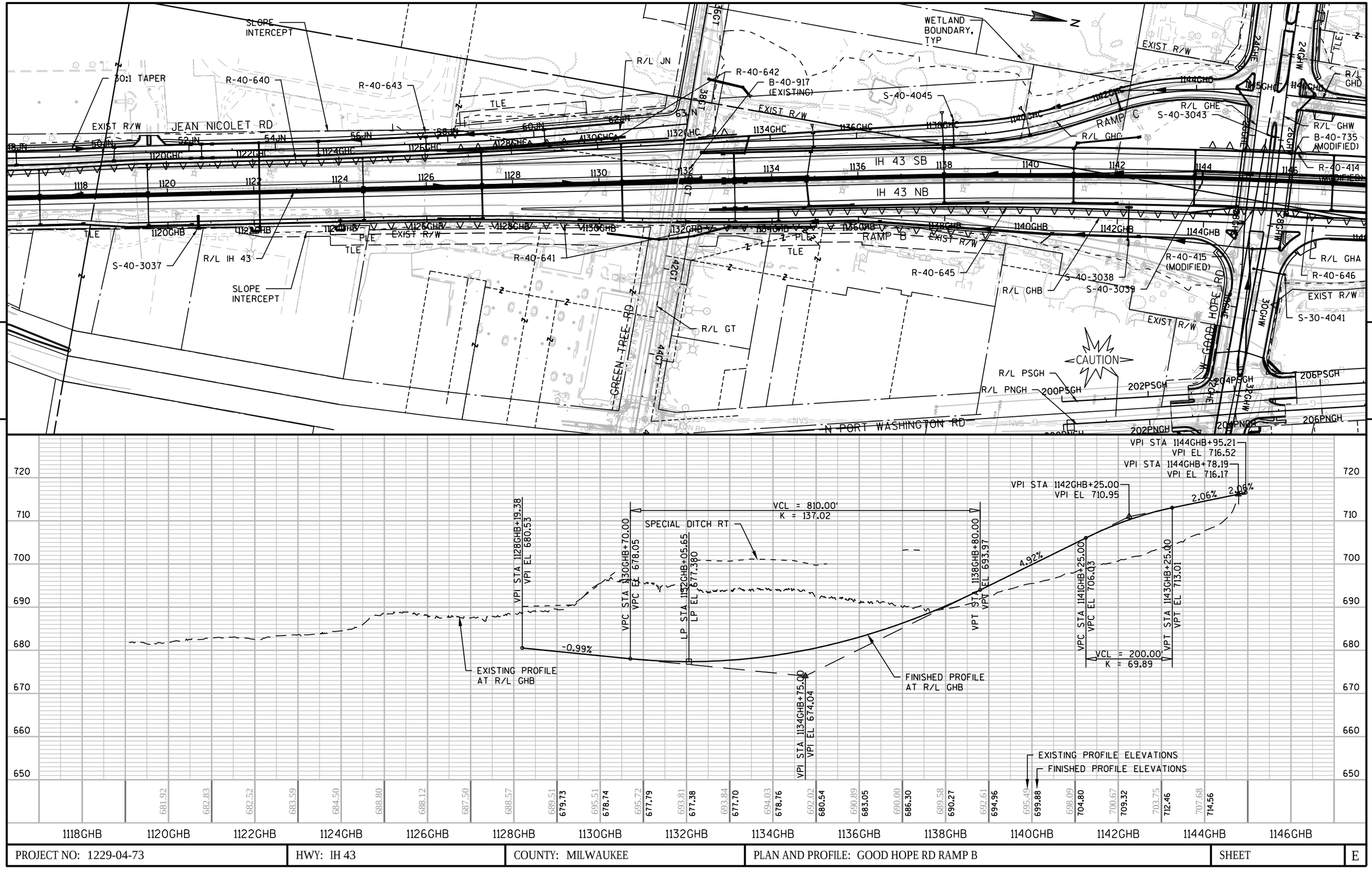
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: IH 43 - SB MAINLINE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050106_PP SB ML.DWG PLOT DATE : 9/30/2021 9:49 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT

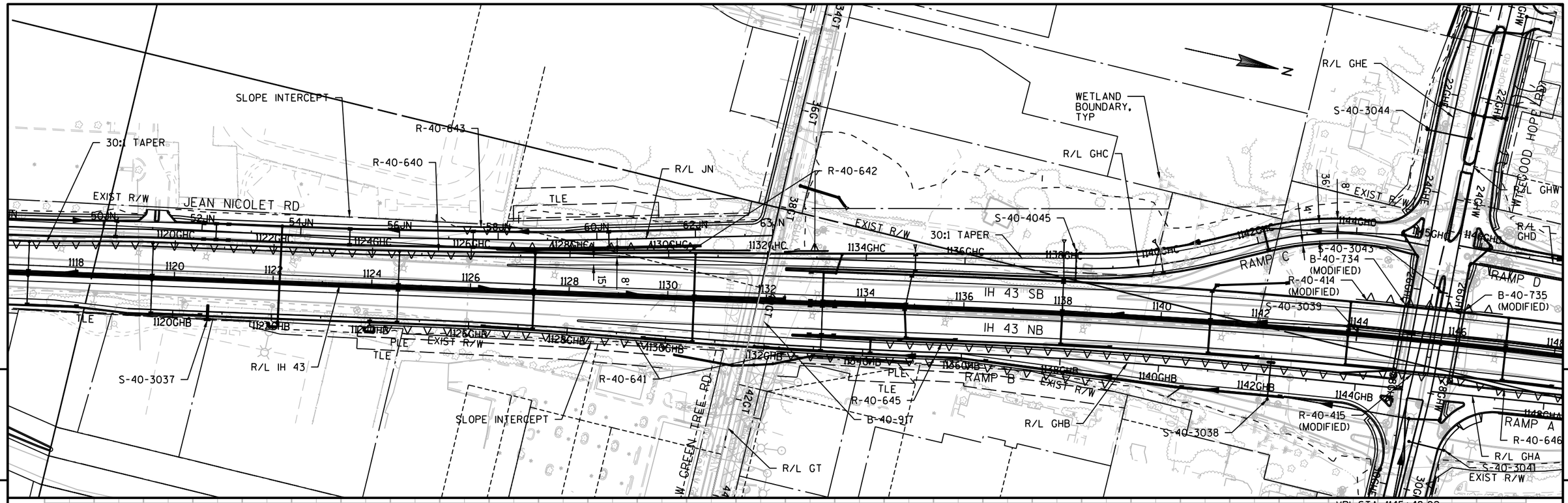




PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD RAMP A	SHEET	E

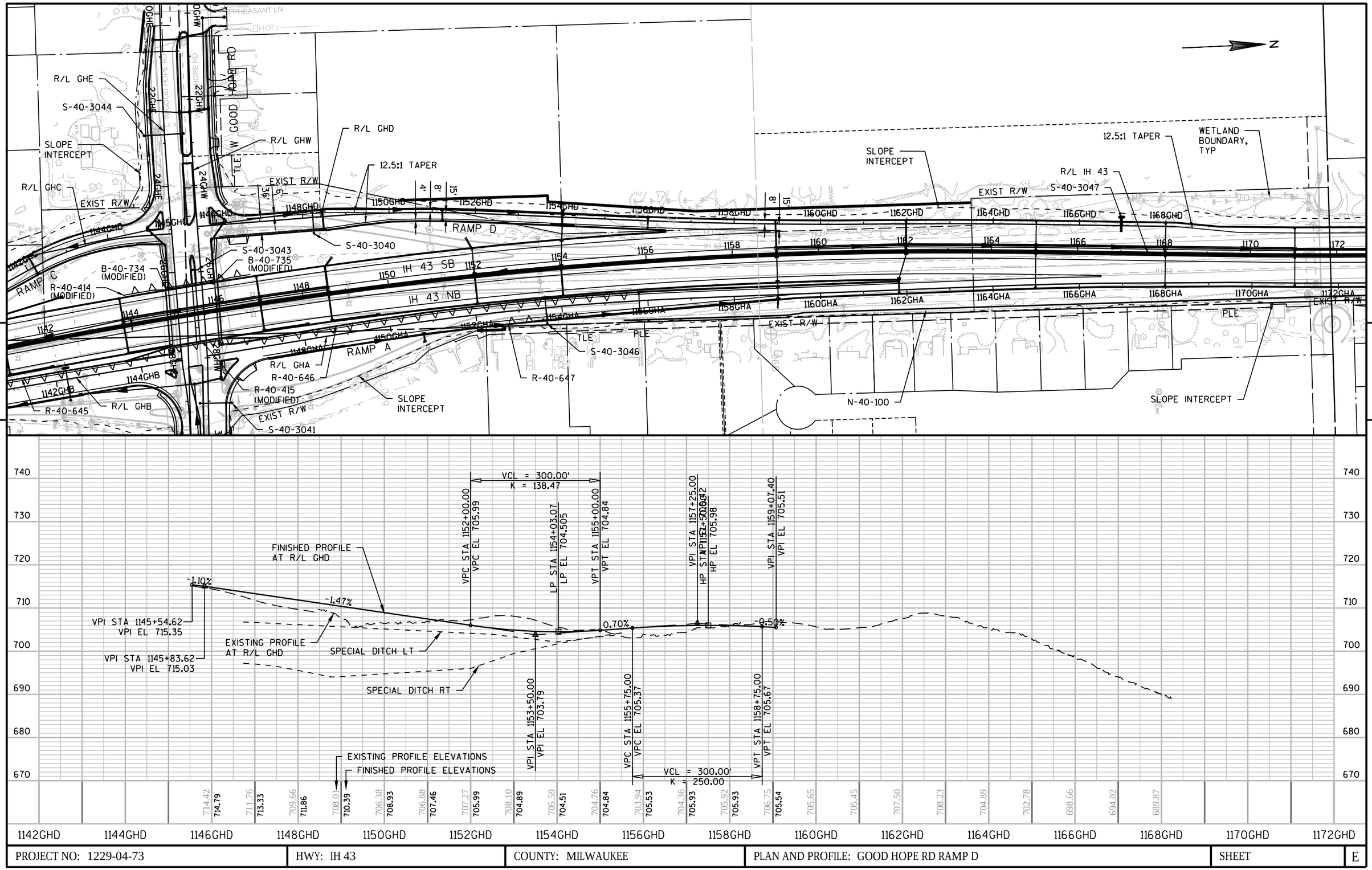


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD RAMP B	SHEET	E



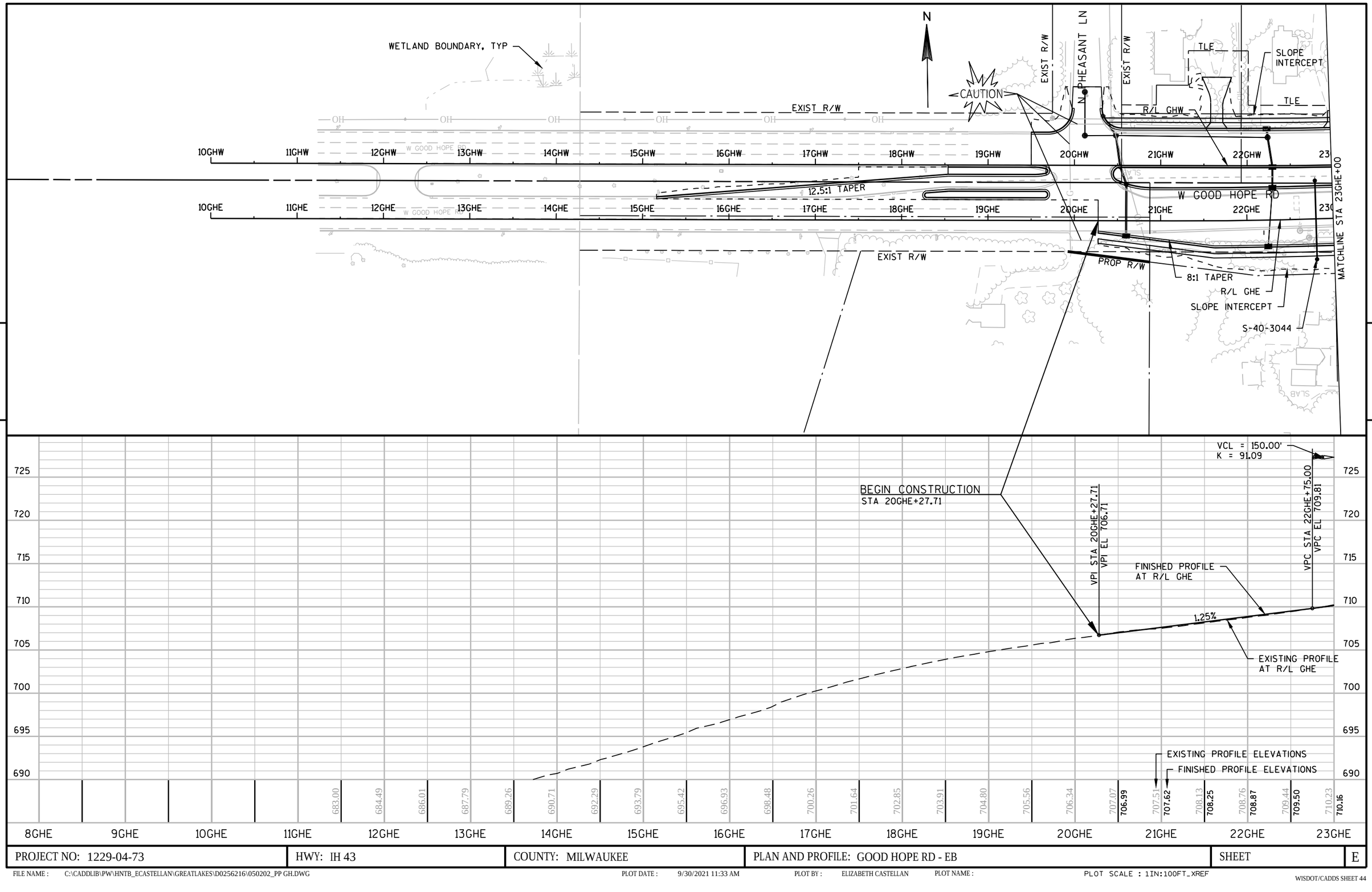
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050201_PP GHR.DWG PLOT DATE : 9/30/2021 10:39 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1"=200_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050201_PP GHR.DWG PLOT DATE : 9/30/2021 10:42 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1"=200_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD - EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050202_PP GH.DWG PLOT DATE : 9/30/2021 11:33 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF

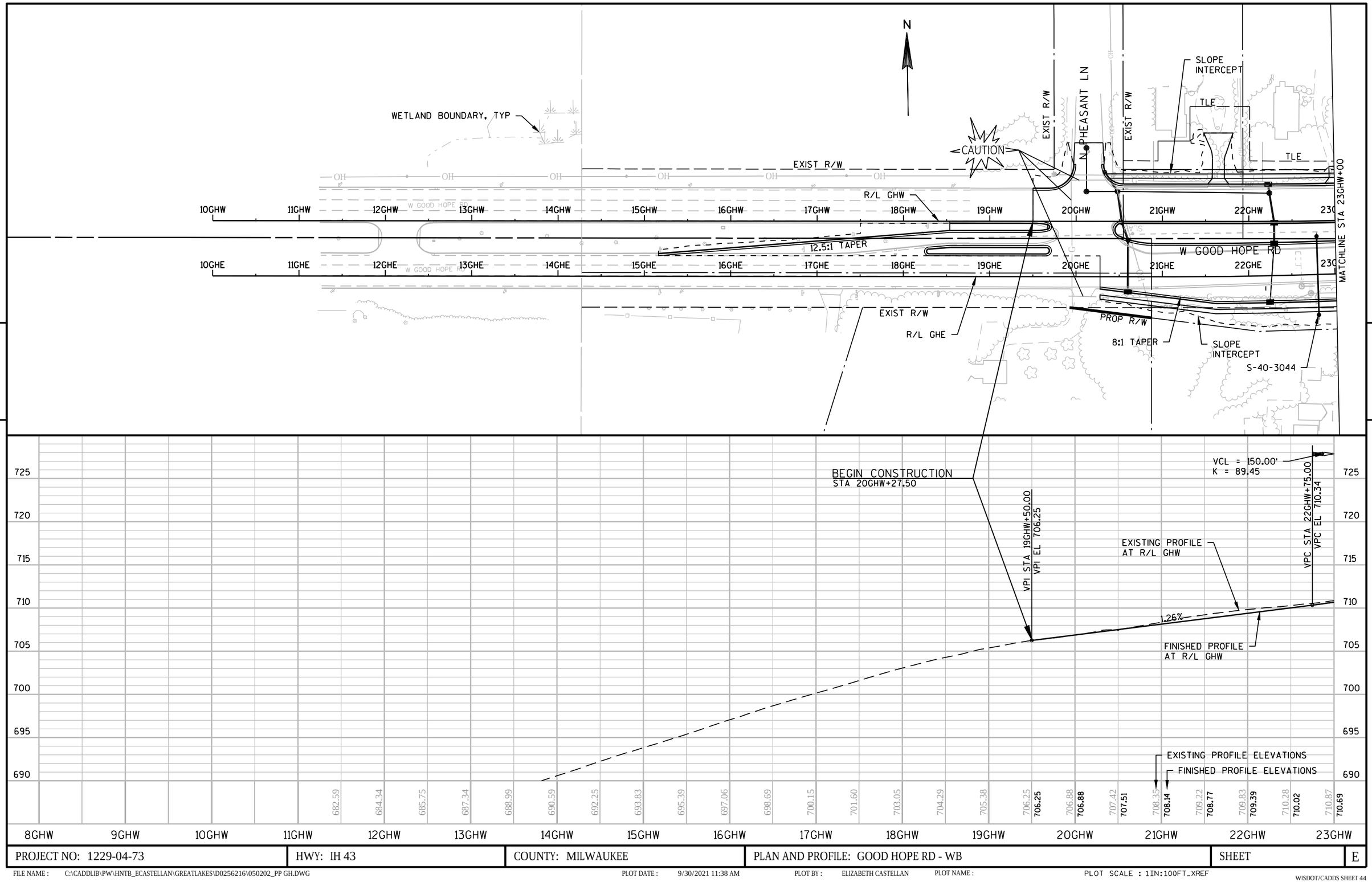
MATCHLINE STA 23GHE+00

R/L GHD
EXIST R/W
SLOPE INTERCEPT
10:1 TAPER
TLE
PLE
RAMP D
R-40-414 (MODIFIED)
S-40-3043
B-40-735 (MODIFIED)
R/L IH 43
R-40-646
R/L GHA
RAMP A
R-40-415 (MODIFIED)
S-40-3041
SLOPE INTERCEPT
EXIST R/W
R/L PSGH
206PSGH
205PSGH
204PSGH
202PSGH
206PNGH
HNGPSGH
EXIST R/W
PROP R/W
R/L PNGH
R/L GHW
TLE
IROQUOIS RD
N
EXIST R/W
W GOOD HOPE RD
EXIST R/W
24GHW 25GHW 26GHW 27GHW 28GHW 29GHW 30GHW 31GHW 32GHW 33GHW 34GHW 35GHW
8:1 TAPER
24GHE 25GHE 26GHE 27GHE 28GHE 30GHE 31GHE 32GHE 33GHE 34GHE 35GHE
PROP R/W
TLE
EXIST R/W
RAMP C
R/L GHE
B-40-734 (MODIFIED)
R/L GHC
IH 43 SB
IH 43 NB
S-40-3039
RAMP B
1144GHB
1143GHB
6:1 TAPER
R-40-645
R/L GHB
EXIST R/W
SLOPE INTERCEPT
WETLAND BOUNDARY, TYP
PROP R/W
TLE
EXIST R/W
WASHINGTON RD
PORT
HGNPSGH
HGNPNGH
CAUTION
CAUTION
SLOPE INTERCEPT
EXIST R/W
END CONSTRUCTION STA 35GHE+30.78

VCL = 150.00'
K = 91.09
VPT STA 24GHE+25.00
VPT EL 712.93
VPI STA 27GHE+01.31
VPI EL 720.94
FINISHED PROFILE AT R/L GHE
VPC STA 29GHE+57.50
VPC EL 713.14
VCL = 225.00'
K = 65.47
LP STA 31GHE+56.93
LP EL 710.099
VPT STA 31GHE+82.50
VPT EL 710.15
VPI STA 32GHE+69.74
VPI EL 710.04
VPI STA 33GHE+75.00
VPI EL 710.81
VPC STA 34GHE+35.00
VPC EL 709.91
VCL = 90.00'
K = 75.44
VPI STA 35GHE+30.78
VPI EL 709.09
2.90%
-1.05%
0.39%
0.73%
-1.49%
-0.30%
VPI STA 23GHE+50.00
VPI EL 710.75
VPC STA 24GHE+51.31
VPC EL 713.69
B-40-734 (MODIFIED)
18'-10" MIN VERT CLEARANCE
18'-10 3/8" MIN VERT CLEARANCE
VCL = 500.00'
K = 84.09
VPT STA 29GHE+51.31
VPT EL 713.32
VPI STA 30GHE+70.00
VPI EL 709.71
SEE PORT WASHINGTON RD AT GOOD HOPE RD PROFILES FOR ELEVATIONS THROUGH INTERSECTION
VPI STA 31GHE+88.38
VPI EL 710.17
EXISTING PROFILE AT R/L GHE
VPC STA 33GHE+20.00
VPC EL 710.41
VCL = 110.00'
K = 49.45
VPT STA 34GHE+30.00
VPT EL 709.99
VPI STA 34GHE+80.00
VPI EL 709.24
VPI STA 35GHE+25.00
VPI EL 709.11
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS
FINISHED PROFILE AT R/L IH 43 SB
FINISHED PROFILE AT R/L IH 43 NB

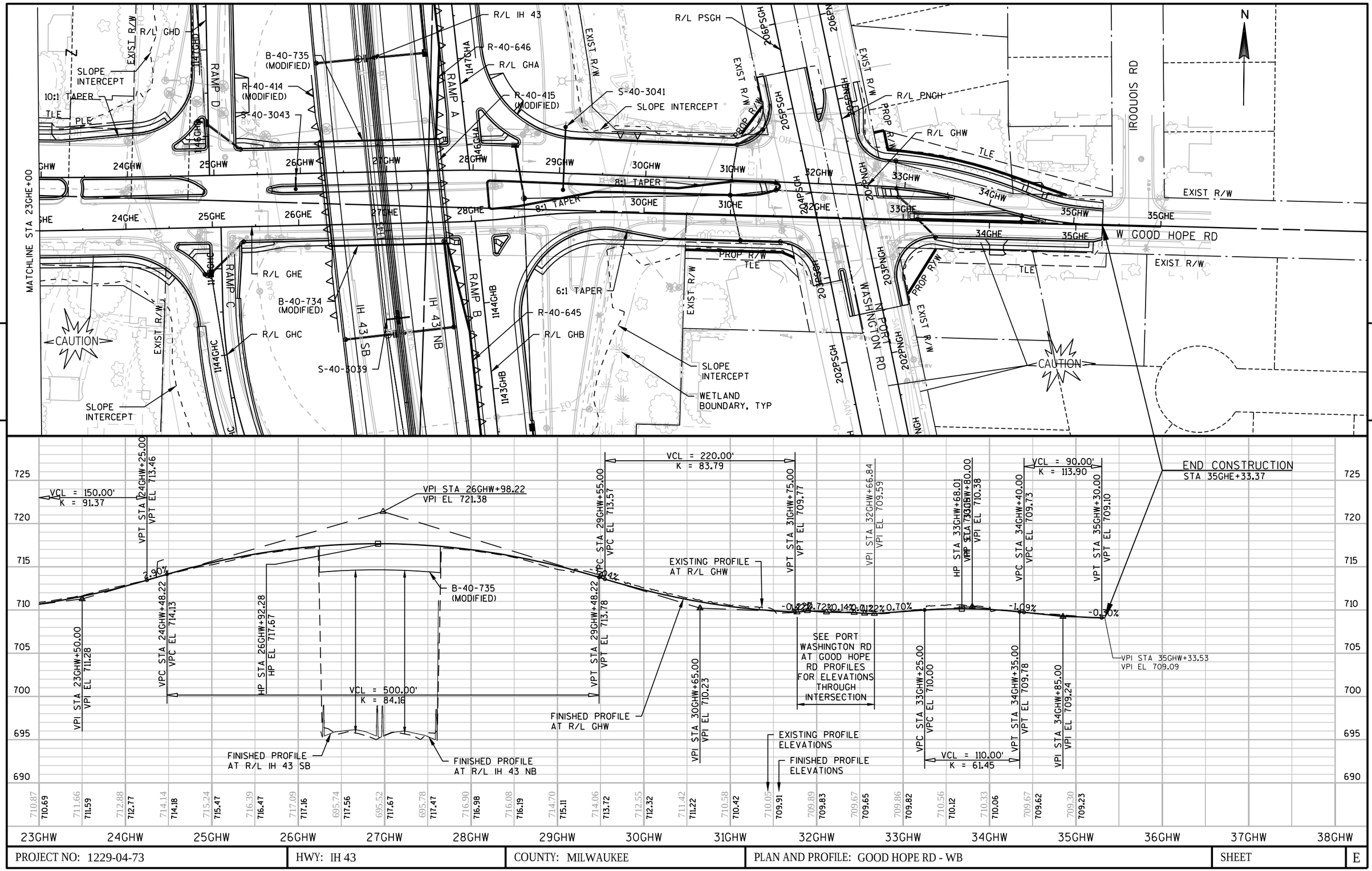
725 720 715 710 705 700 695 690

| | | |



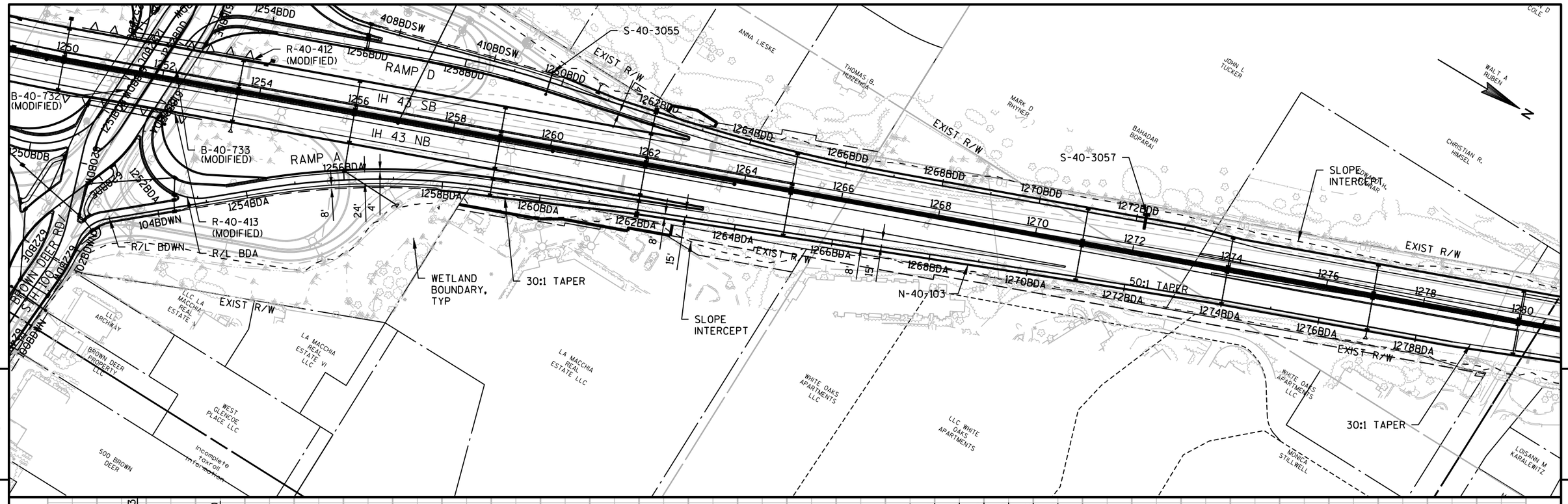
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050202_PP GH.DWG PLOT DATE : 9/30/2021 11:38 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF



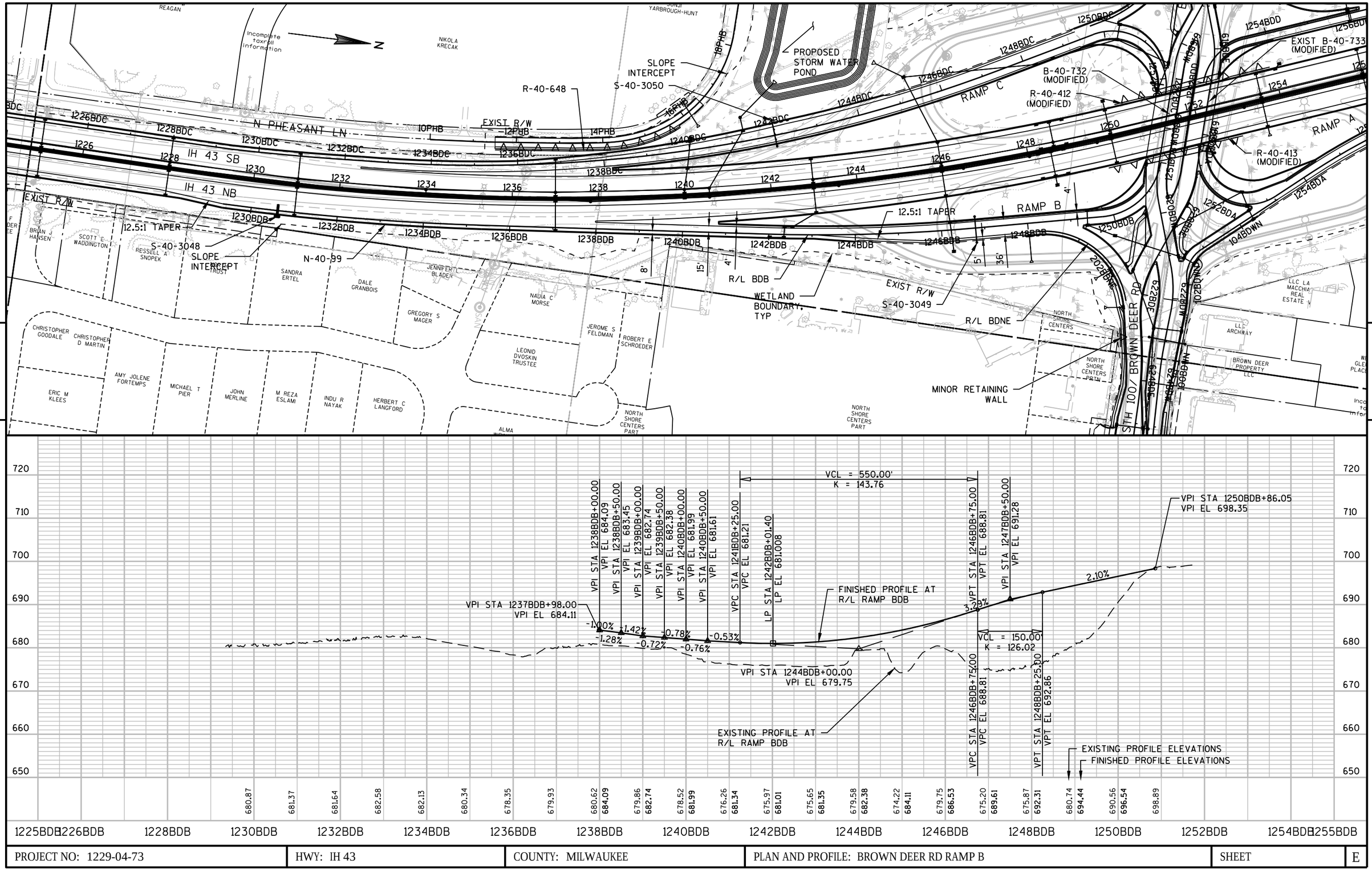
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050202_PP GH.DWG PLOT DATE : 9/30/2021 11:41 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF



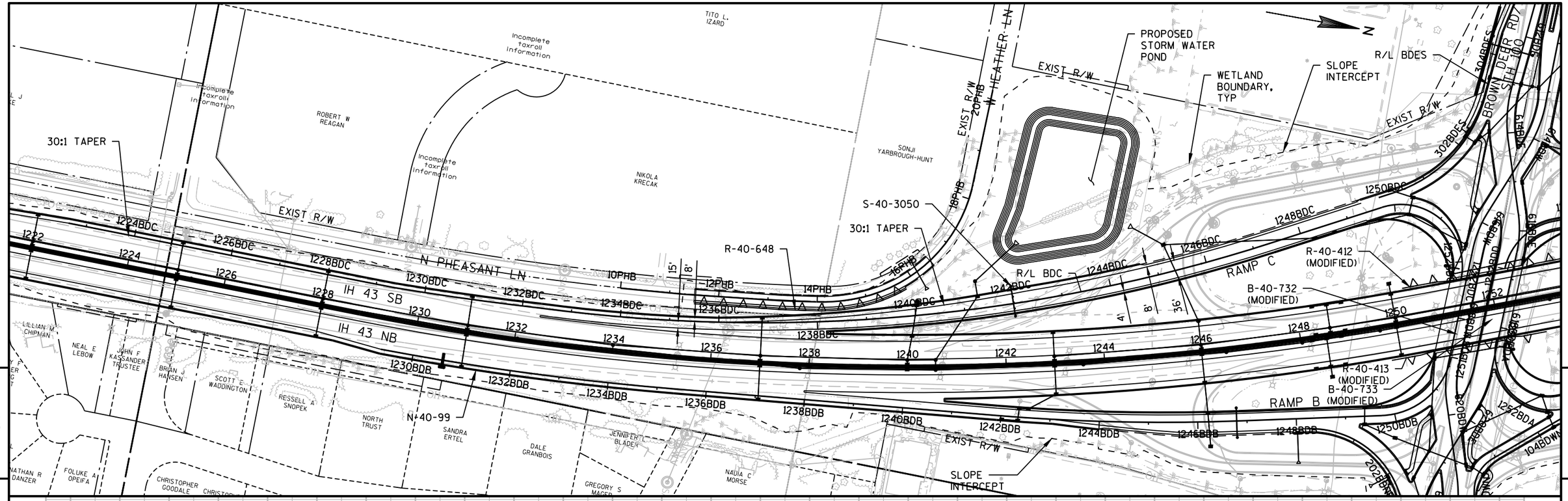
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMP A	SHEET E

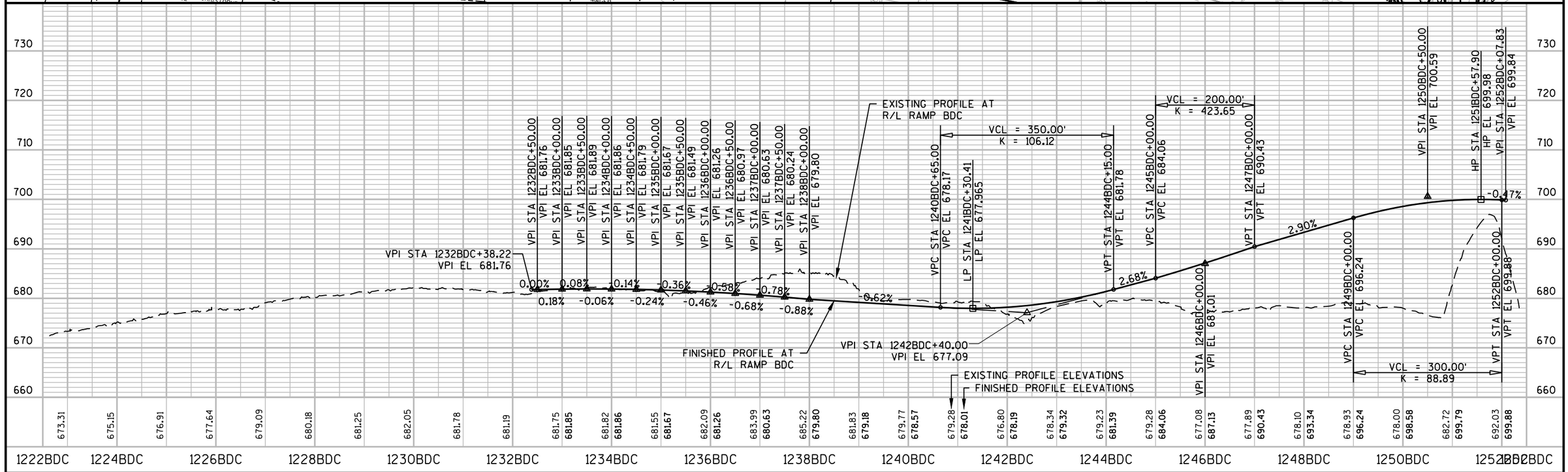
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050203_PP BDR.DWG PLOT DATE : 9/29/2021 2:55 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT



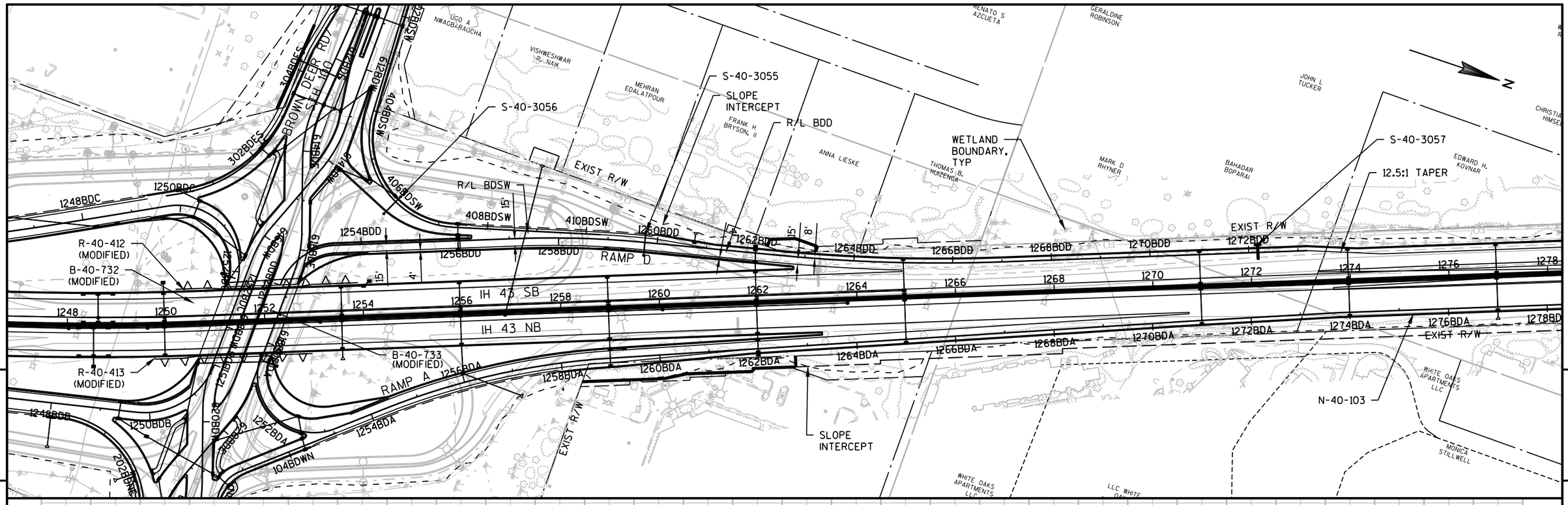
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMP B	SHEET	E

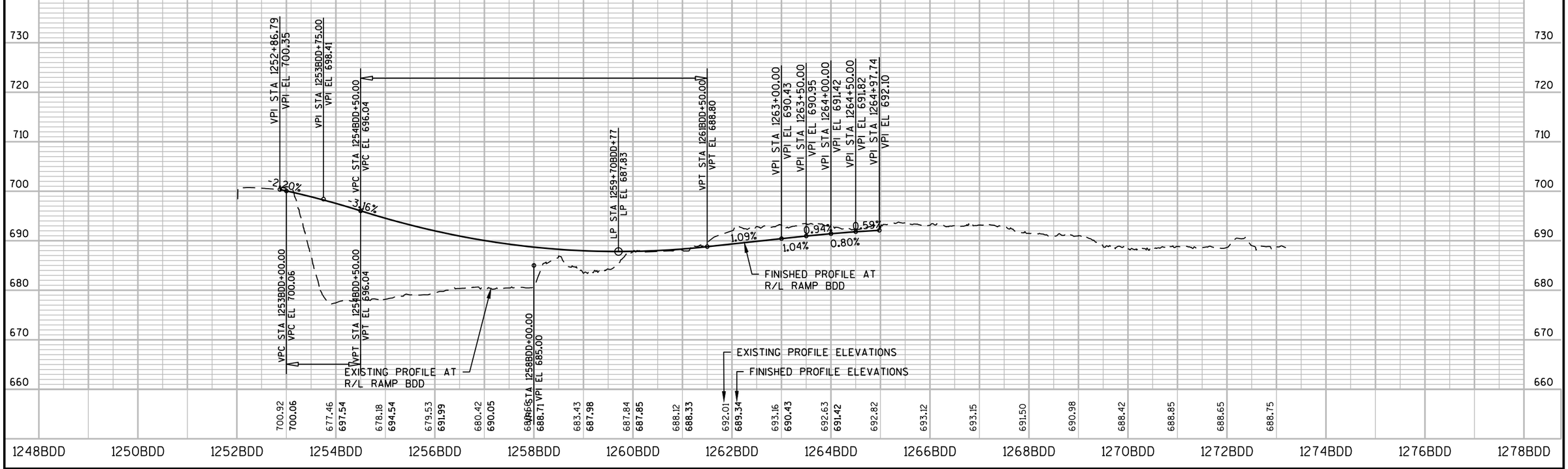
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050203_PP BDR.DWG PLOT DATE : 9/29/2021 2:56 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT





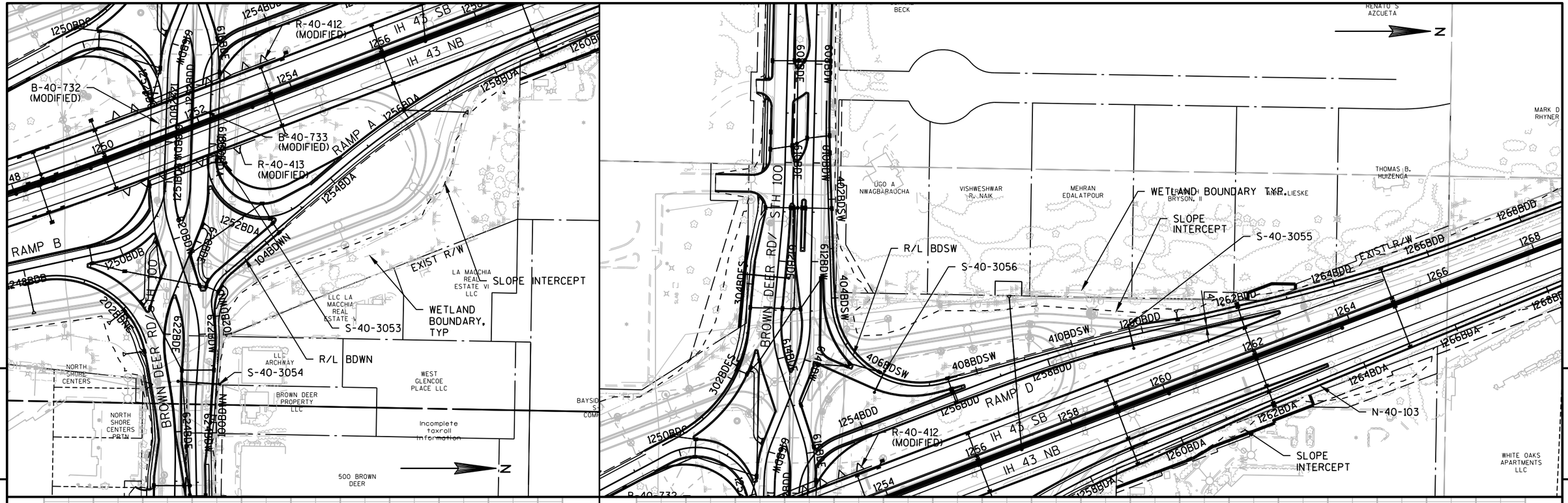
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMP C	SHEET	E

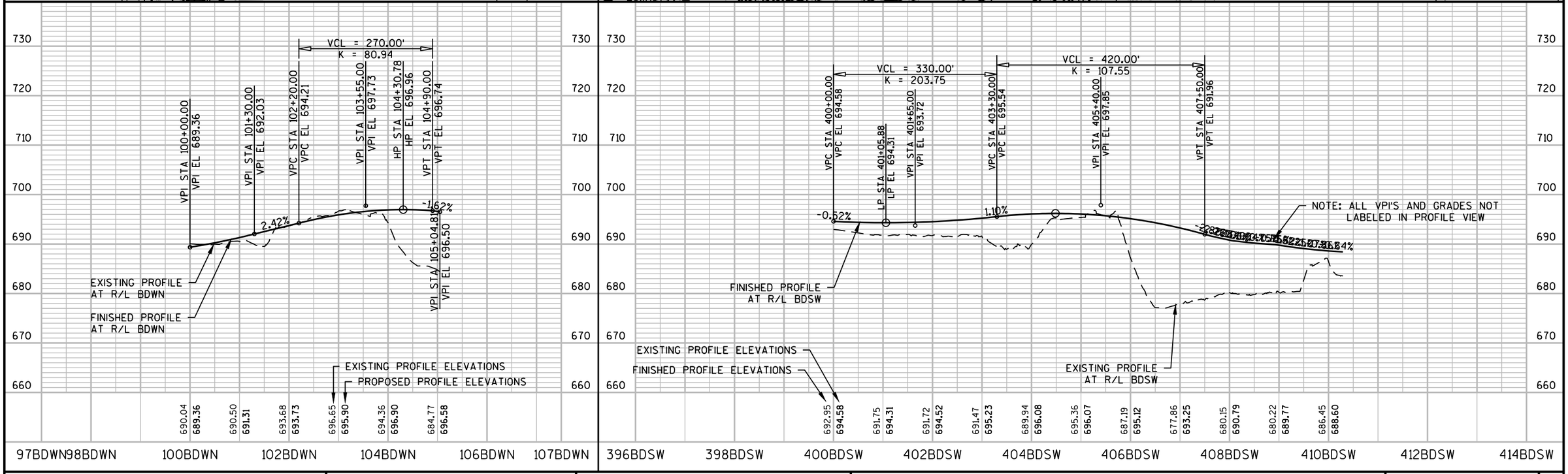




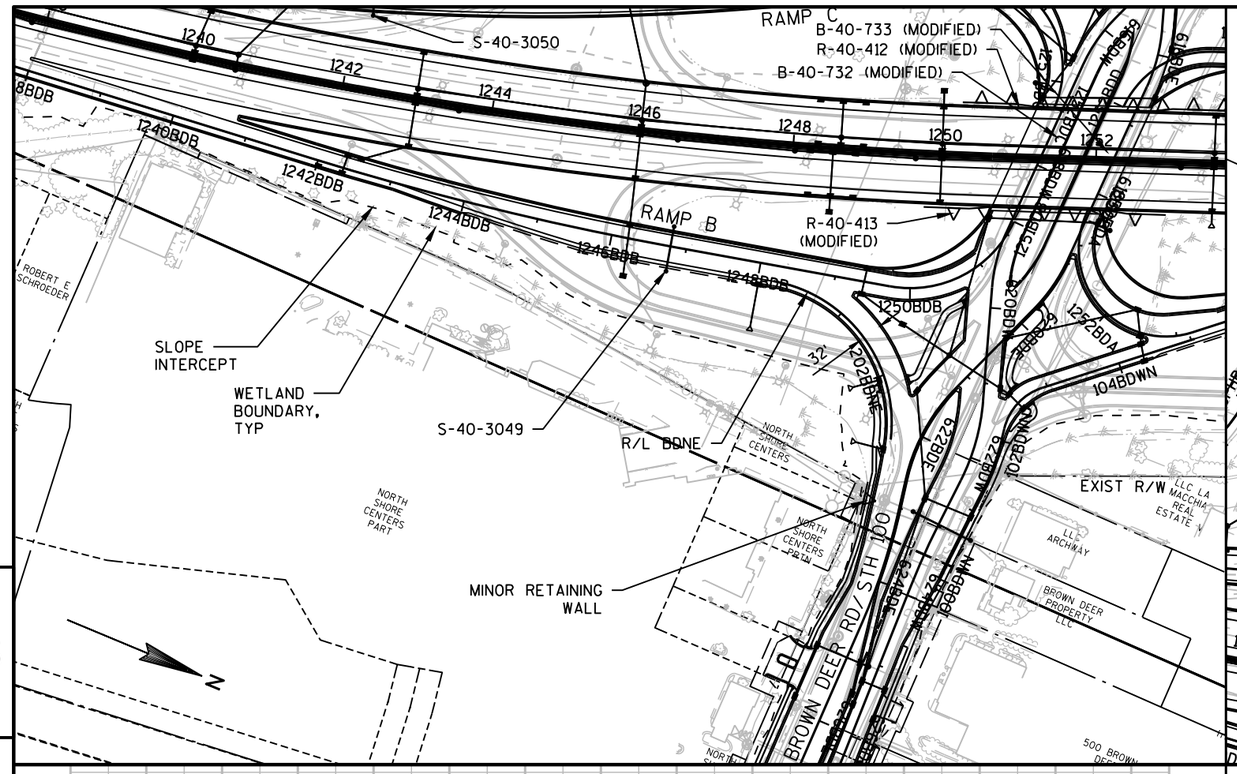
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMP D	SHEET E

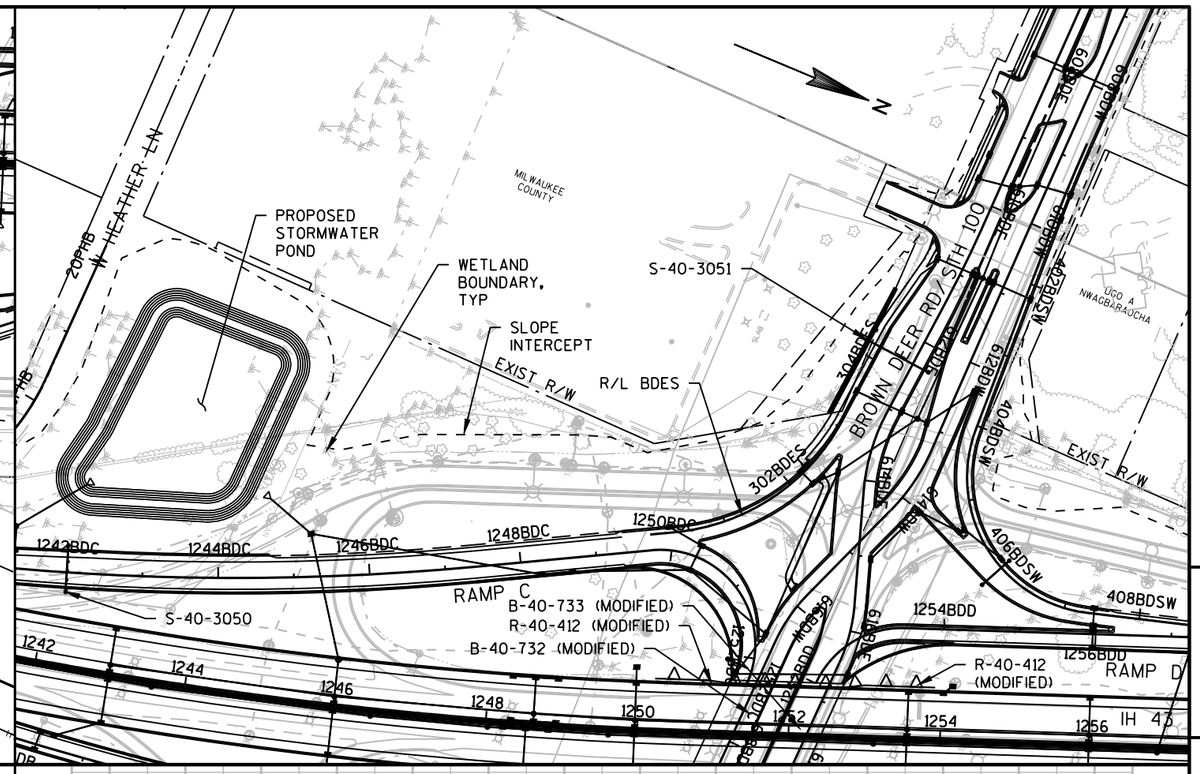
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050203_PP BDR.DWG PLOT DATE : 9/29/2021 2:59 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT

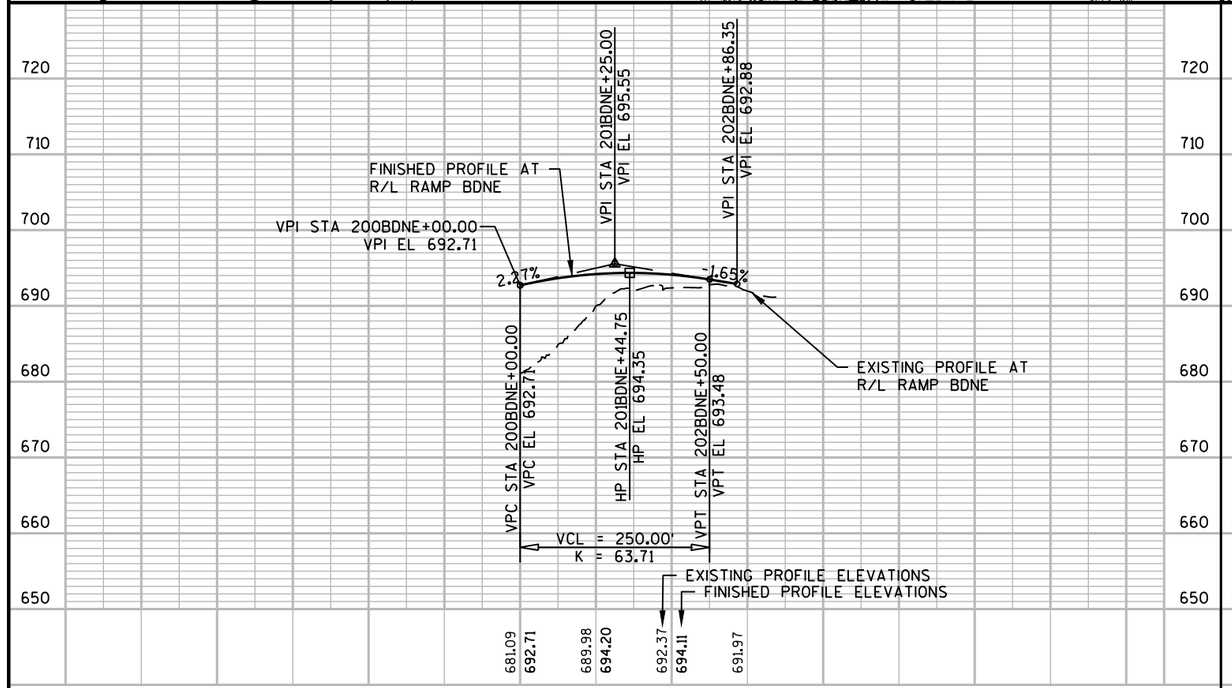


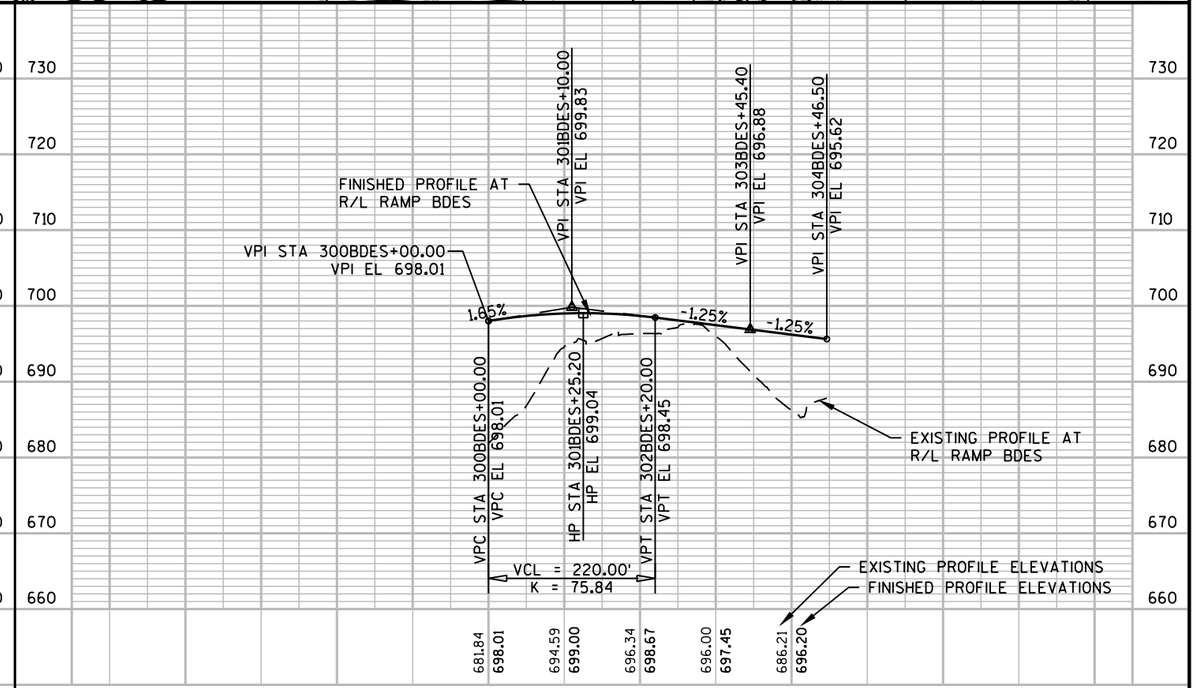


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMPS WN & SW	SHEET	E



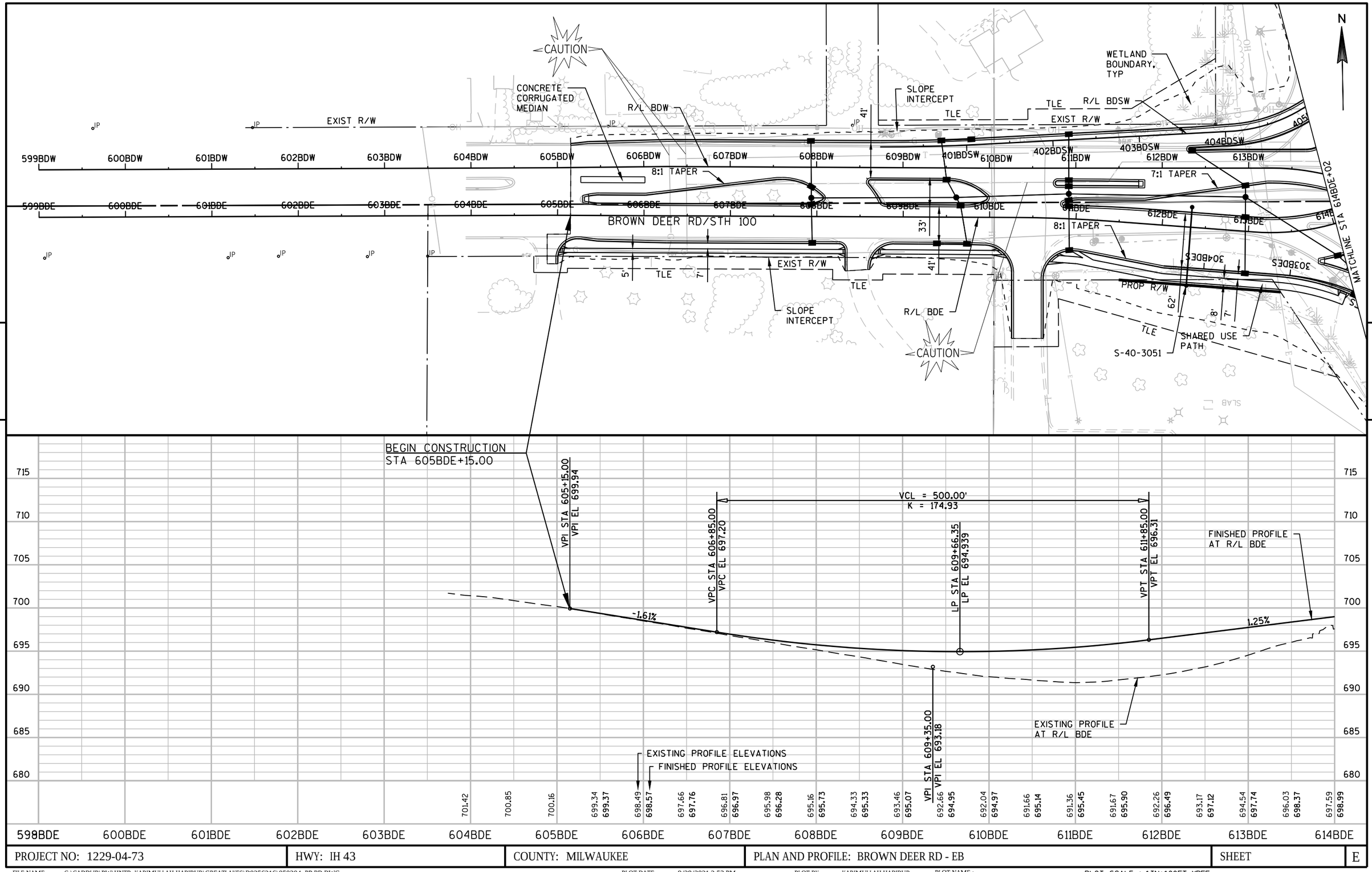






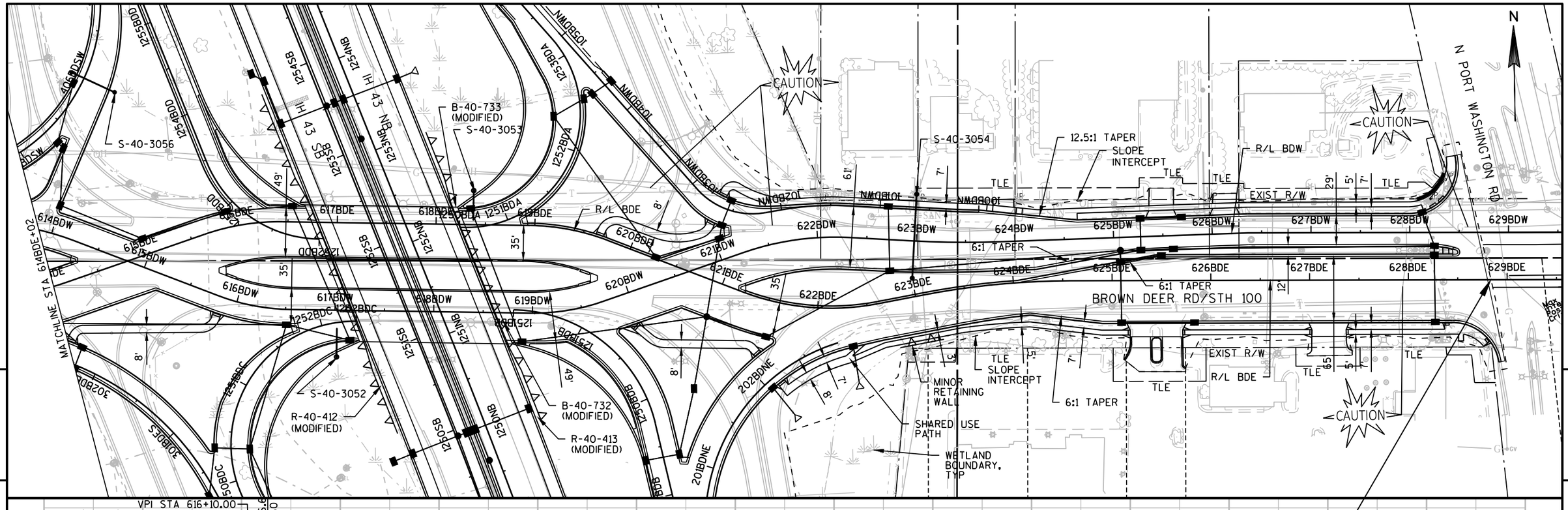
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD RAMPS NE & ES	SHEET	E

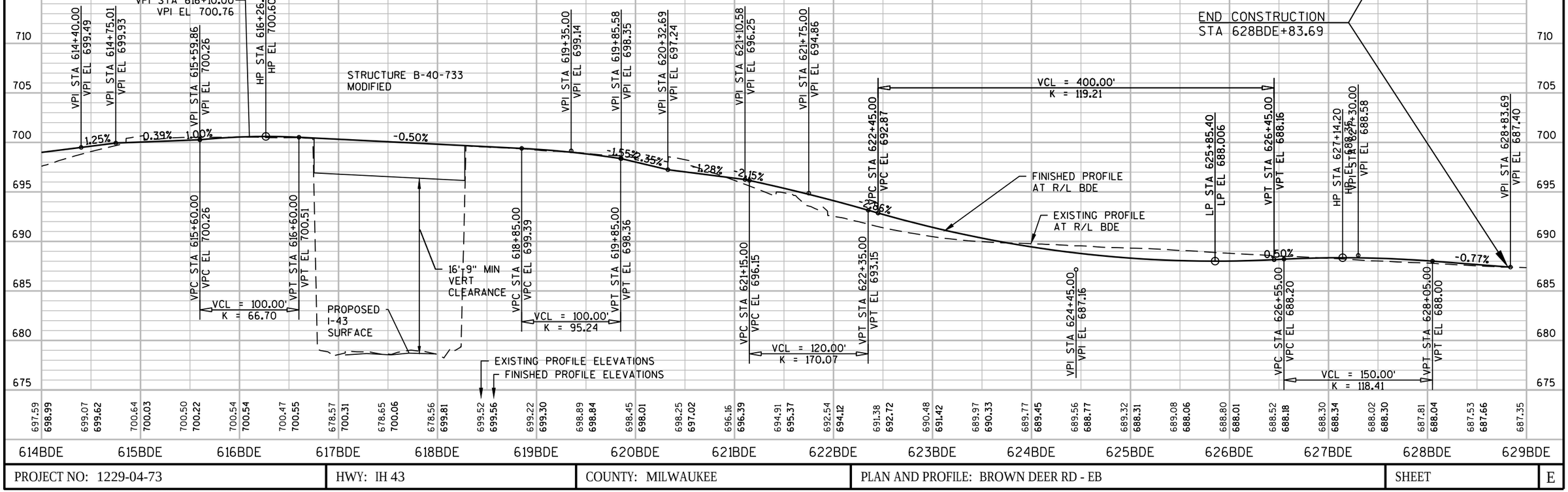
FILE NAME : C:\CADDLIB\PW\HNTB_WWOLAK\GREATLAKES\D0256216\050203_PP BDR.DWG PLOT DATE : 9/29/2021 3:02 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD - EB	SHEET	E

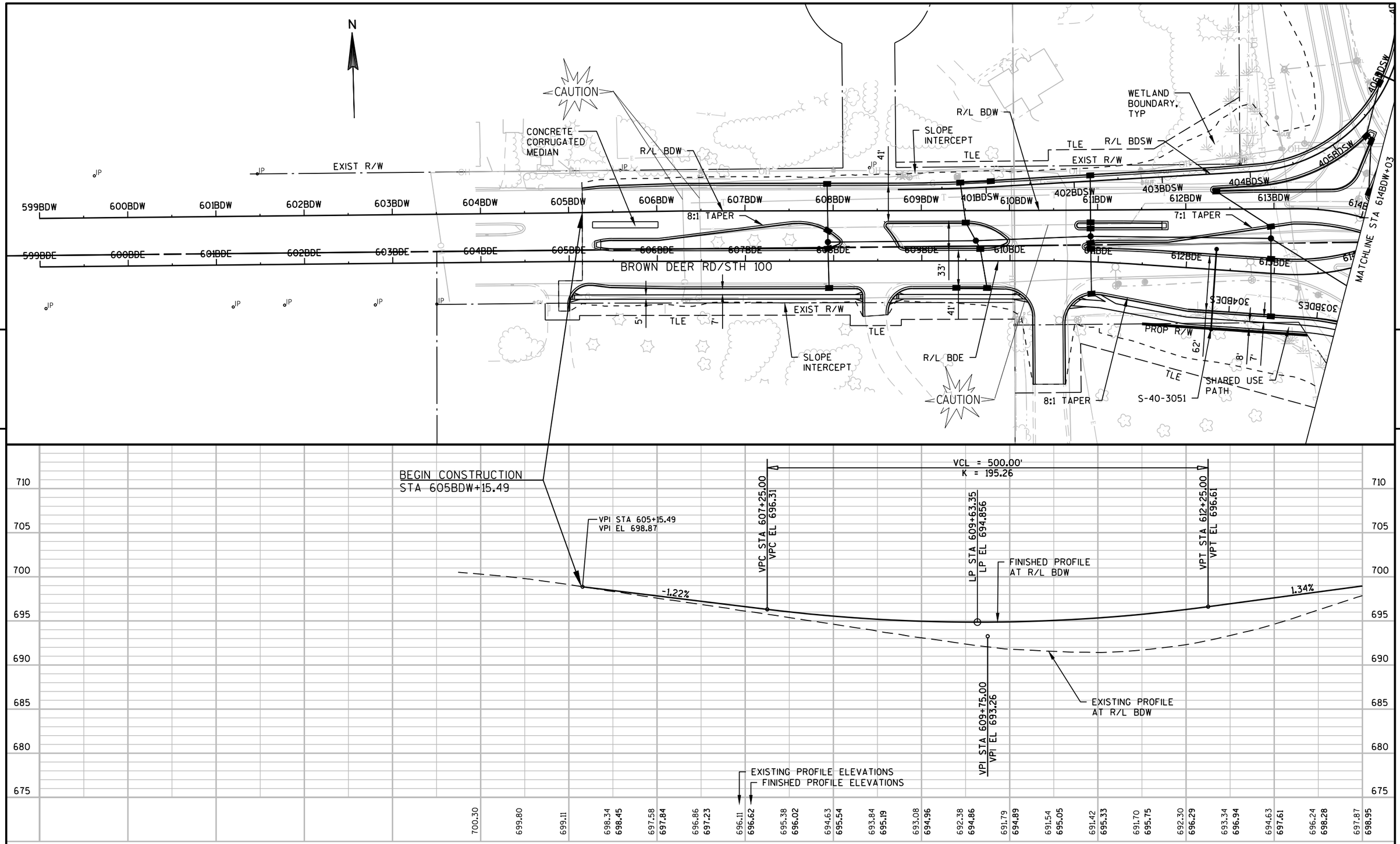
FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256216\050204_PP BD.DWG PLOT DATE : 9/28/2021 2:53 PM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1IN:100FT_XREF





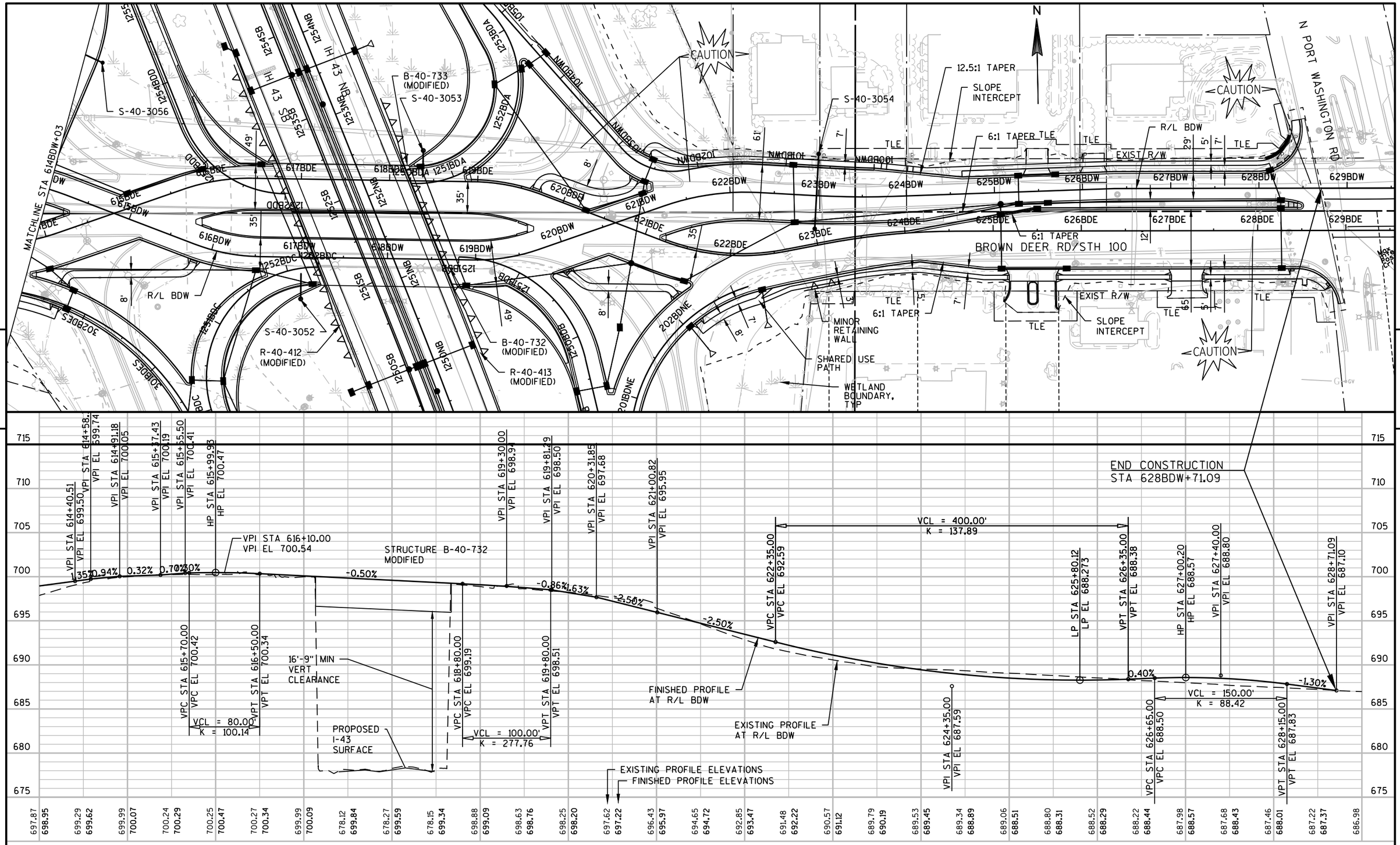
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD - EB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256216\050204_PP BD.DWG PLOT DATE : 9/28/2021 2:54 PM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1IN:100FT_XREF

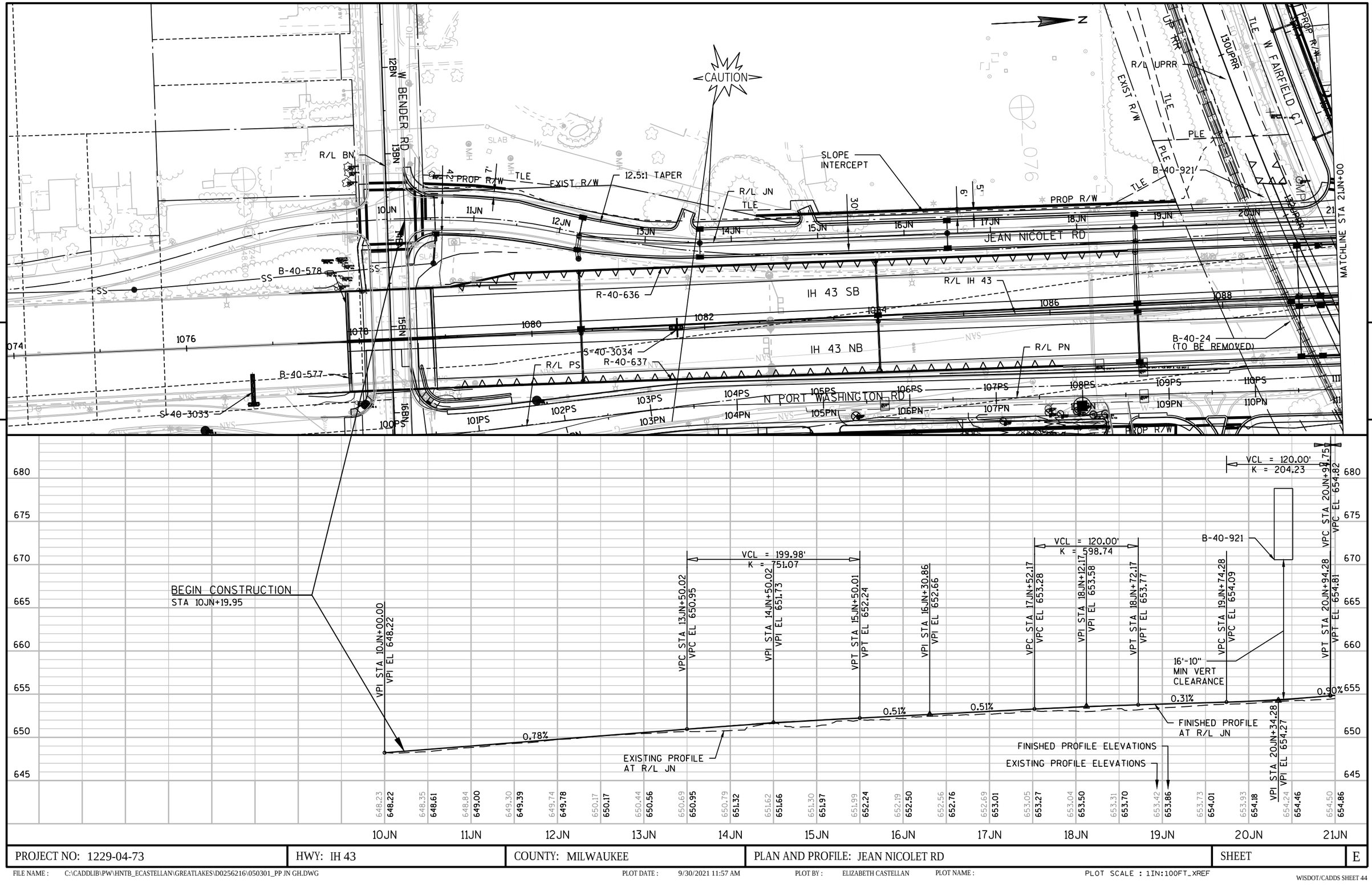


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD - WB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256216\050204_PP BD.DWG
PLOT DATE : 9/28/2021 2:55 PM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1IN:100FT_XREF

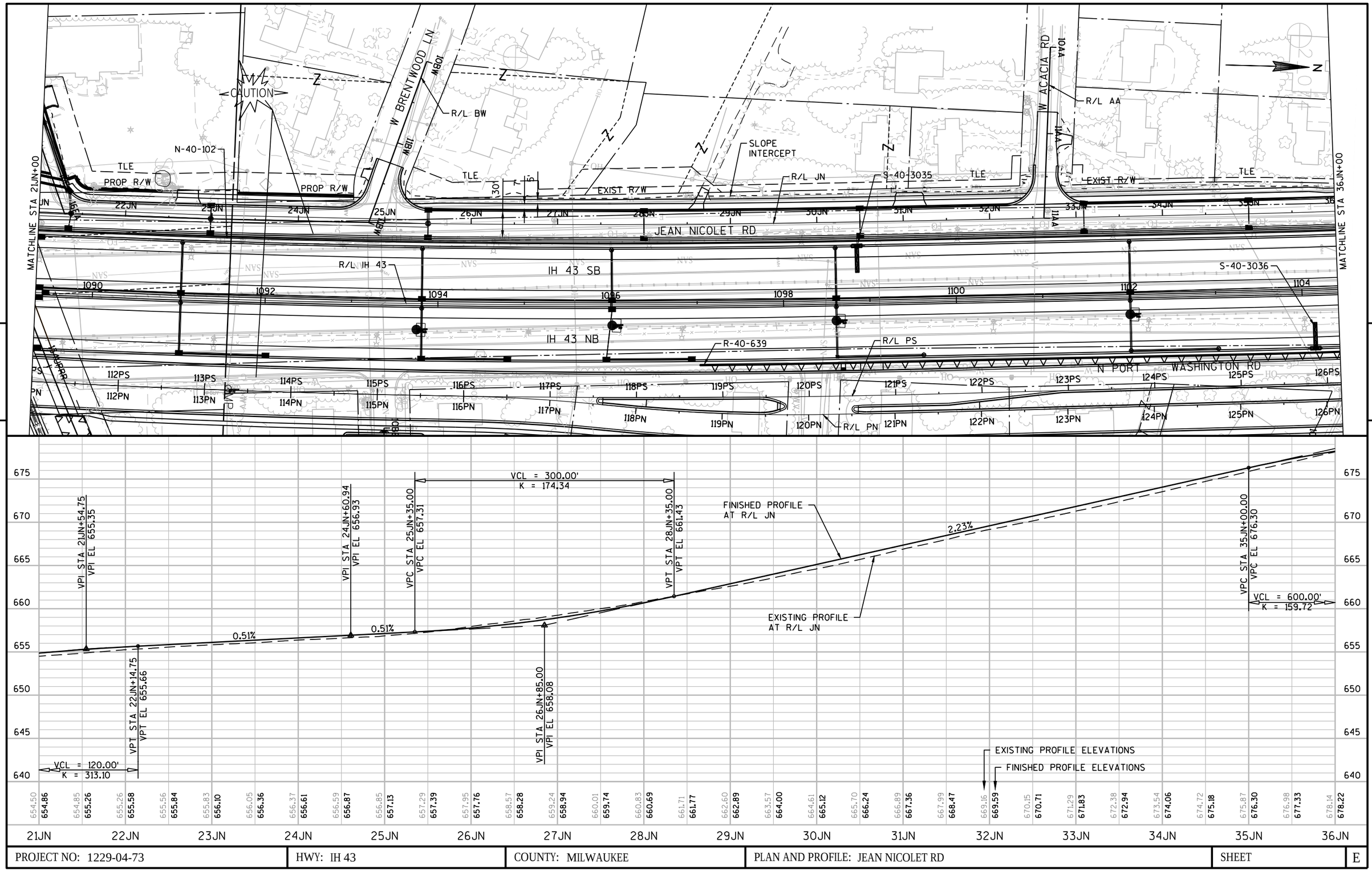


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: BROWN DEER RD - WB	SHEET	E



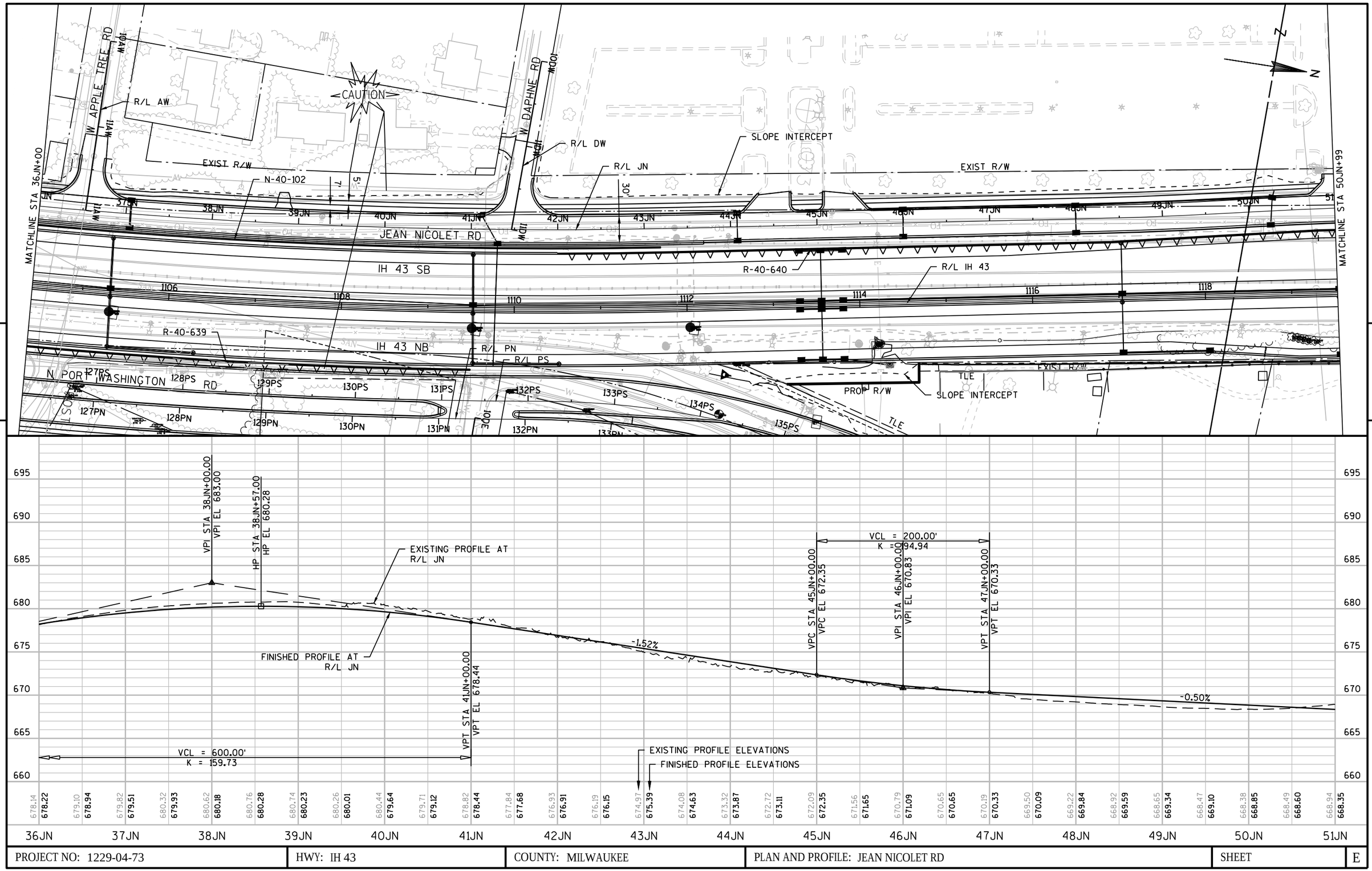
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: JEAN NICOLET RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050301_PP JN GH.DWG PLOT DATE : 9/30/2021 11:57 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: JEAN NICOLET RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050301_PP JN GH.DWG PLOT DATE : 9/30/2021 12:00 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: JEAN NICOLET RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050301_PP JN GH.DWG PLOT DATE : 9/30/2021 12:03 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF

MATCHLINE STA 50JN+99

JEAN NICOLET RD

EXIST R/W

R/L JN

52JN 53JN 54JN 55JN 56JN 57JN 58JN 59JN 60JN 61JN 62JN 63JN

62+11.68, 0.00'

1120GHC 1122GHC 1124GHC 1126GHC 1128GHC 1130GHC 1132GHC 1134GHC

R-40-640

R/L IH 43

IH 43 SB

IH 43 NB

R/L GHC

R-40-642

1120 1122 1124 1126 1128 1130 1132 1134

1124GHB 1126GHB 1128GHB 1130GHB 1132GHB 1134GHB

S-40-3037

EXIST R/W

PROP R/W

SLOPE INTERCEPT

TLE

R-40-641

R/L GHB

SLOPE INTERCEPT

TLE

R/L GREEN TREE RD (EXISTING)

EXIST R/W

W GREEN TREE RD

R-40-642

R/L GHC

RAMP C

B-40-917

R-40-641

RAMP B

CAUTION

N

END CONSTRUCTION
STA 62JN+11.68

VPI STA 60JN+55.16
VPI EL 694.17

2.17% 2.17%

VCL = 550.00'
K = 108.95

VCL = 1000.00'
K = 360.41

VPC STA 51JN+75.00
VPC EL 667.98

LP STA 52JN+28.96
LP EL 667.848

VPT STA 57JN+25.00
VPT EL 679.14

4.55%

EXISTING PROFILE AT R/L JN

FINISHED PROFILE AT R/L JN

VPC STA 59JN+55.16
VPC EL 689.62

VPT STA 61JN+55.16
VPT EL 696.34

VPI STA 62JN+11.68
VPI EL 697.83

VCL = 200.00'
K = 83.84

VPI STA 54JN+50.00
VPI EL 666.62

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

700 695 690 685 680 675 670 665

668.94 669.37 669.98 670.67 671.63 672.79 674.26 676.19 675.71 677.17 678.59 679.07 681.55 682.99 684.53 685.93 686.63 688.65 690.31 691.70 693.38 694.60 696.05 697.31 698.34 699.47 700.20

668.35 668.11 667.89 667.87 668.08 668.52 669.19 670.09 671.22 672.58 674.17 675.98 678.03 680.28 682.55 684.83 687.11 689.38 691.54 693.40 694.96 696.23 697.31

51JN 52JN 53JN 54JN 55JN 56JN 57JN 58JN 59JN 60JN 61JN 62JN 63JN 64JN 65JN 66JN

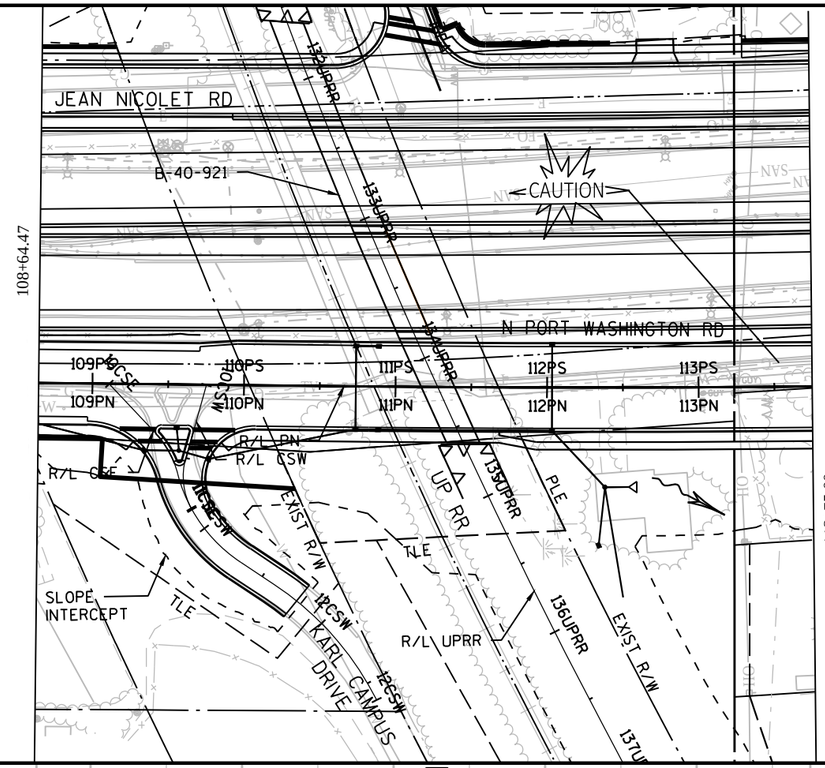
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: JEAN NICOLET RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ECASTELLAN\GREATLAKES\D0256216\050301_PP JN GH.DWG PLOT DATE : 9/30/2021 12:05 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1IN:100FT_XREF

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - NB	SHEET	E

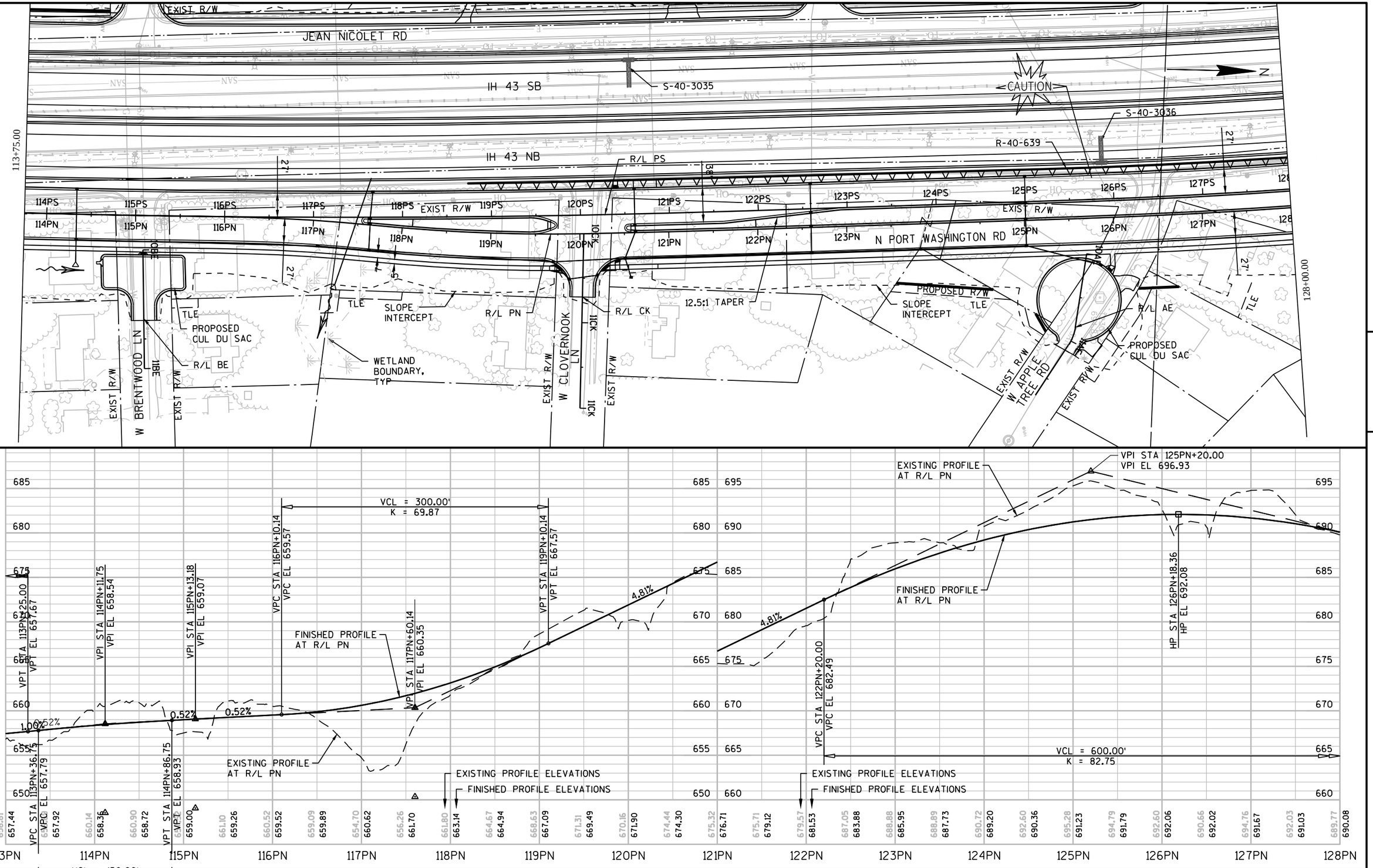
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050126

PLOT DATE : 9/30/2021 2:23 PM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



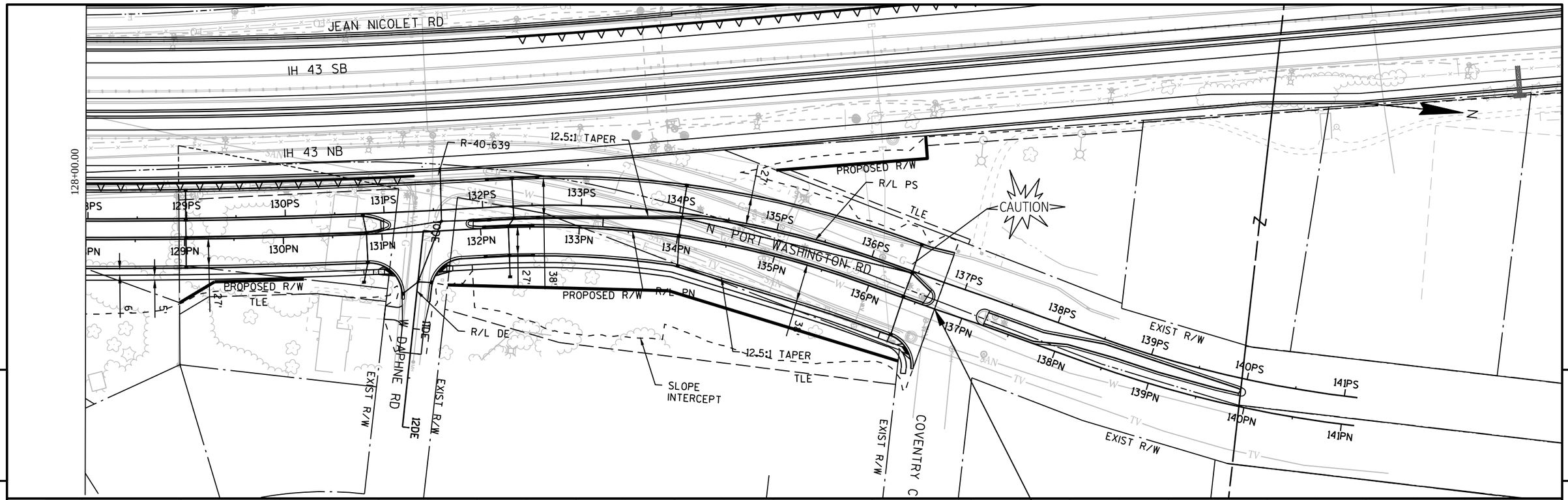
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - NB	SHEET E

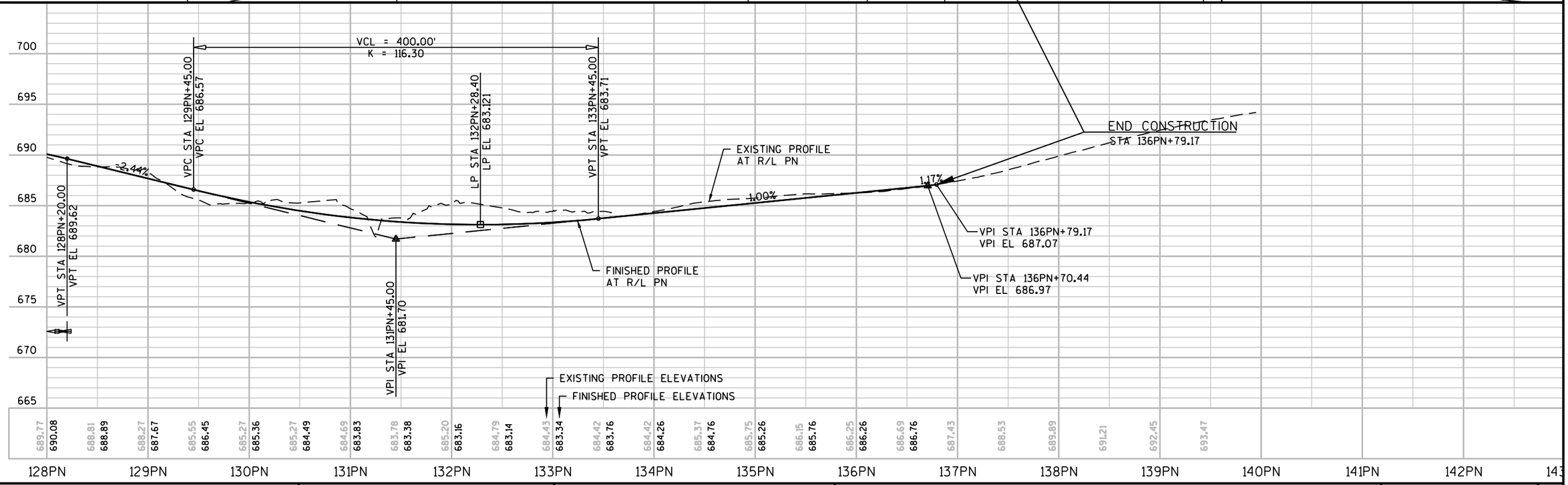
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050127
PLOT DATE : 9/30/2021 2:27 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - NB	SHEET	E

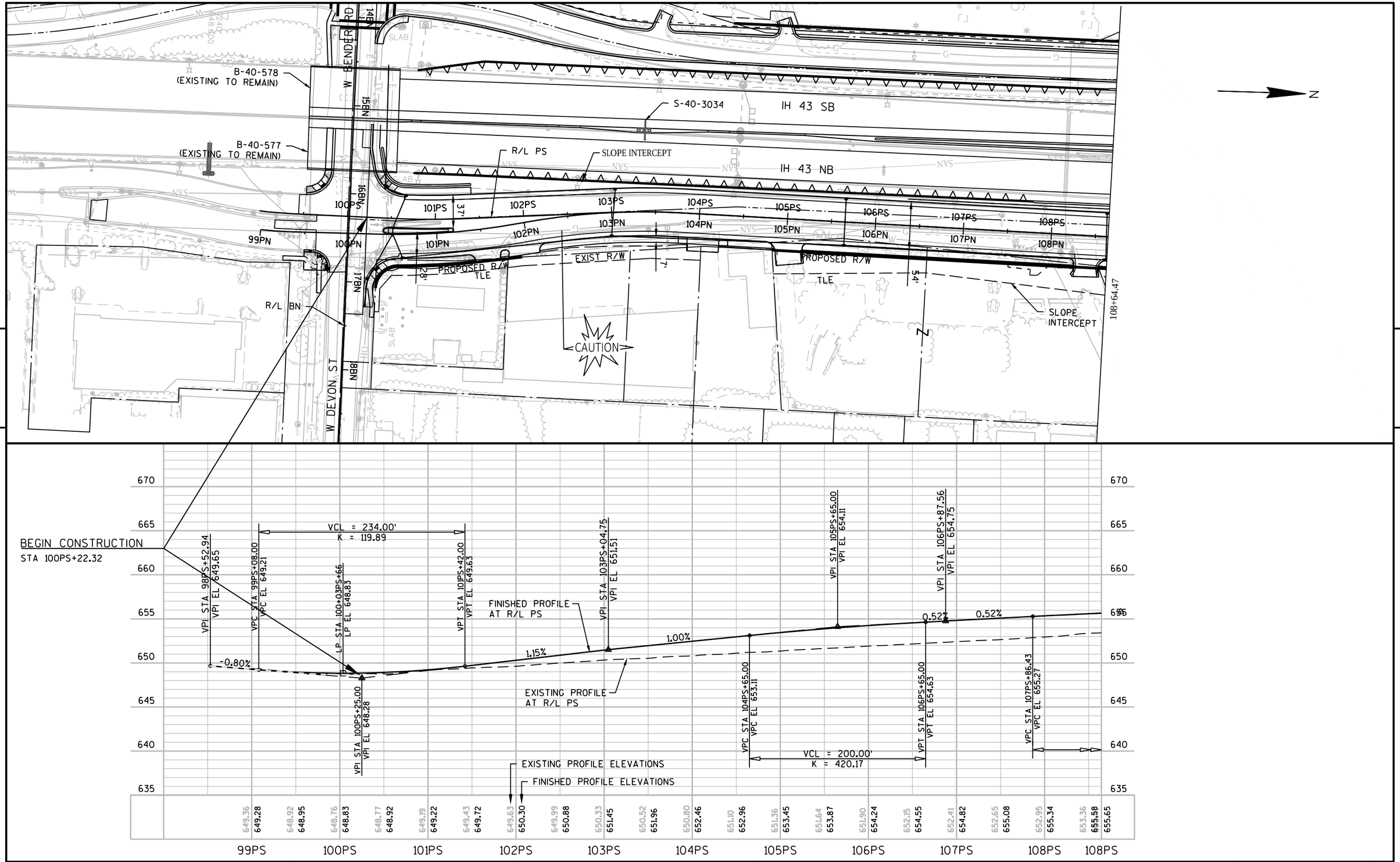
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050128
PLOT DATE : 9/30/2021 2:30 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - NB	SHEET	E

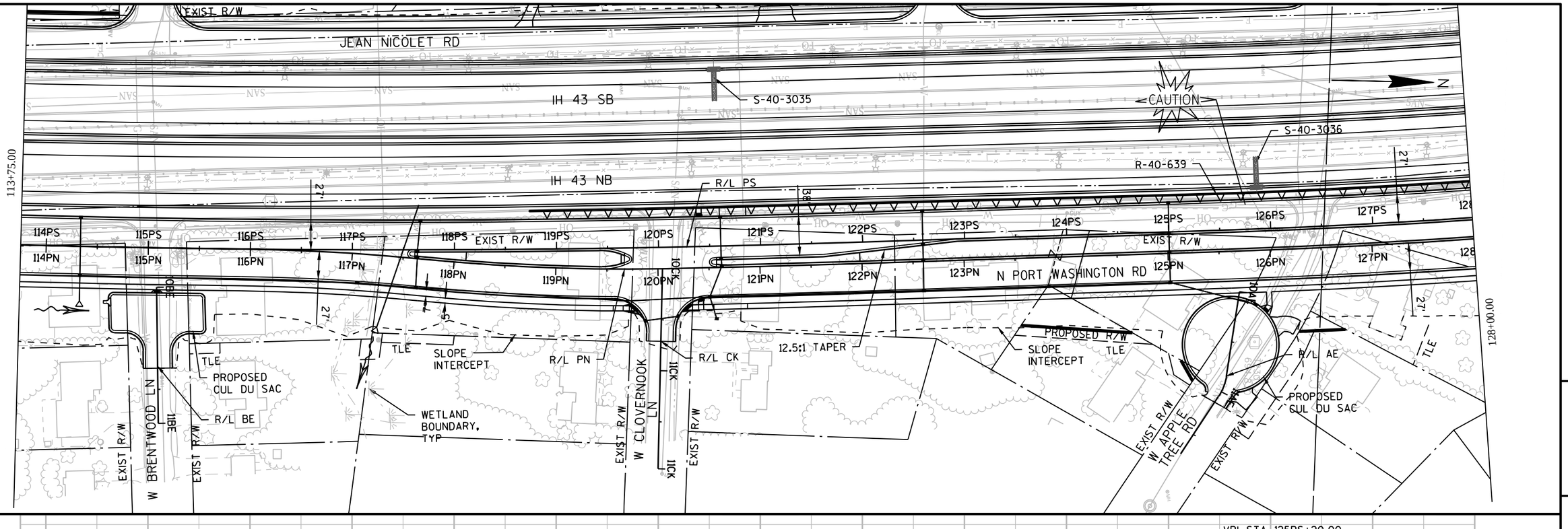
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050129
PLOT DATE : 9/30/2021 2:33 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

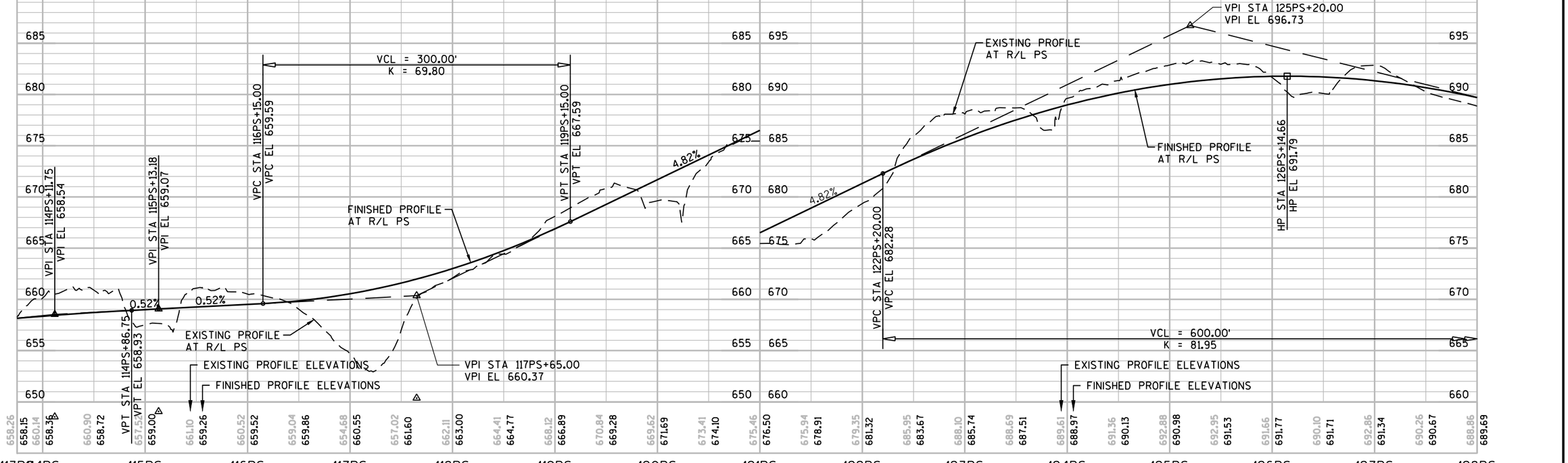


PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - SB	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050130

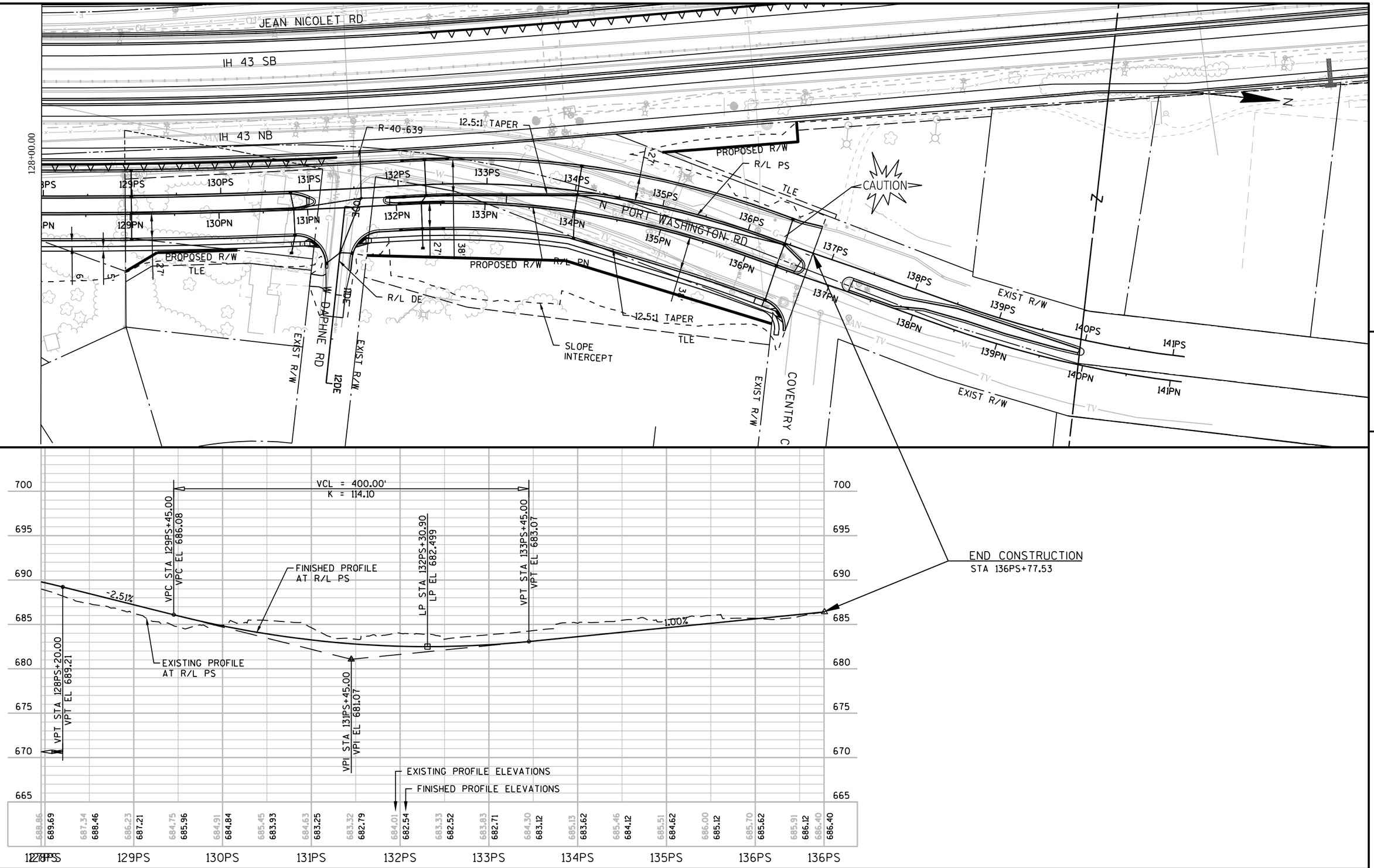
PLOT DATE : 9/30/2021 2:40 PM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : 1 IN:100 FT





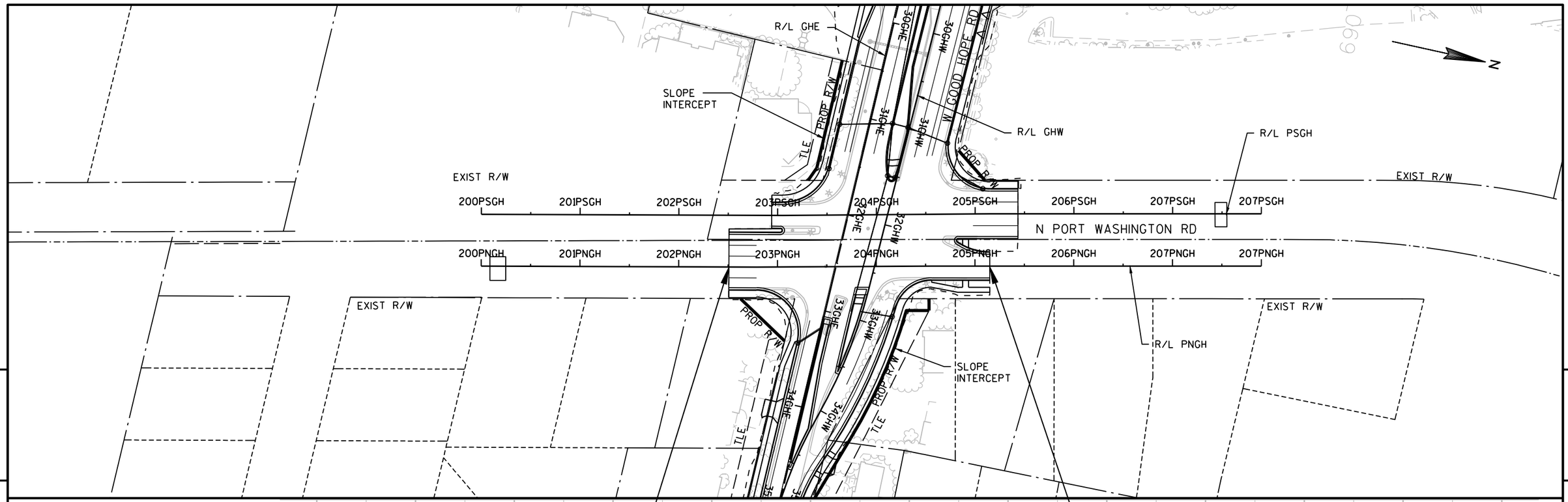
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - SB	SHEET E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050131
PLOT DATE : 9/30/2021 2:46 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



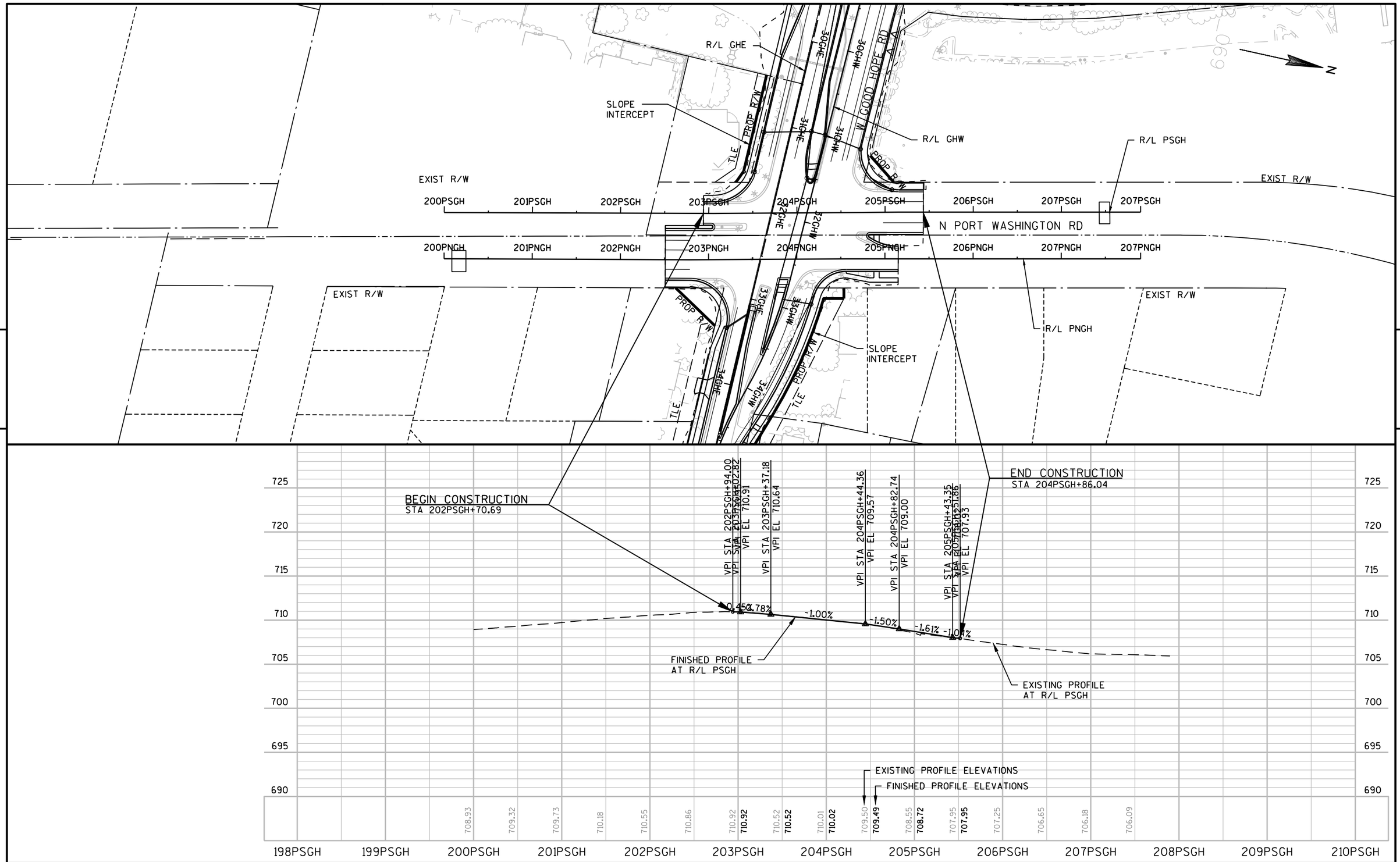
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - SB	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256192\050302_PP PN TEMP.DWG
LAYOUT NAME - 050132
PLOT DATE : 9/30/2021 2:49 PM
PLOT BY : CECELIA KASTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - NB AT GOOD HOPE RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256216\050303_PP PW GH.DWG PLOT DATE : 9/30/2021 11:05 AM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : 1 IN: 100FT_XREF



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: PORT WASHINGTON RD - SB AT GOOD HOPE RD	SHEET	E

N

BP: 100+00.00PHB

EP: 106+00.00PHB

INDIAN CREEK

B-40-1028

TLE

SLOPE INTERCEPT

R/L PHB

EXISTING R/W

N PHEASANT LN

102PHB

104PHB

SLAB

1222BDC 1223BDC 1224BDC

B-40-1027

IH 43 SB

IH 43 NB

1210 1212 1214 1216 1218 1220 1222 1224

5

5

SLOPE INTERCEPT

NOISE WALL

BEGIN CONSTRUCTION
STA 101PHB+50.00

B-40-1026

INDIAN CREEK

TLE

WETLAND
BOUNDARY
TYP

EXISTING R/W

END CONSTRUCTION
STA 103PHB+50.00

685 680 675 670 665 660 655 650

VPI STA 101PH+50.00
VPI EL 662.42

VPI STA 102PH+00.00
VPI EL 663.74

VPI STA 102PH+50.00
VPI EL 665.03

VPI STA 103PH+00.00
VPI EL 666.40

VPI STA 103PH+50.00
VPI EL 667.71

2.64% 2.58% 2.75% 2.61%

EXISTING PROFILE
AT R/L PHB

PROPOSED PROFILE
AT R/L PHB

FINISHED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

660.77 660.94 661.32 662.42 662.42 663.73 663.74 665.02 665.03 666.50 666.40 667.71 667.71 668.92 670.26 671.82 673.38 674.78

95PHB 96PHB 97PHB 98PHB 99PHB 100PHB 101PHB 102PHB 103PHB 104PHB 105PHB 106PHB 107PHB 108PHB 109PHB 110PHB

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	PLAN AND PROFILE: N PHEASANT LN AT INDIAN CREEK	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_KARIMULLAH.HABIBUR\GREATLAKES\D0256216\050306_PP PH BD.DWG PLOT DATE : 9/28/2021 8:26 AM PLOT BY : KARIMULLAH HABIBUR PLOT NAME : PLOT SCALE : 1:100_XREF

N PHEASANT LN

W HEATHER LN

EXISTING R/W

TLE

IH 43 SB

IH 43 NB

1232

1232BDB

1233BDC

1233BDB

1234BDC

1234BDB

1235BDC

1235BDB

1236BDC

1236BDB

1237BDC

1237BDB RAMP B

1238BDC

1238BDB

RAMP C

1240BDC

10PHB

11PHB

12PHB

13PHB

14PHB

15PHB

16PHB

17PHB

18PHB

19PHB

20PHB

6'

11'

11'

2'

SLOPE INTERCEPT

NOISE WALL

WETLAND BOUNDARY TYP

R-40-648

SLOPE INTERCEPT

R/L PHB

PROPOSED STORM WATER POND

END CONSTRUCTION
STA 16PHB+50.00

BEGIN CONSTRUCTION
STA 11PHB+50.00

VPI STA 11+28.26
VPI EL 687.41

FINISHED PROFILE AT R/L PHB

HP STA 13+11.61
HP EL 689.28

VPI STA 13+40.00
VPI EL 690.10

VCL = 350.00'
K = 70.76

VPC STA 15+05.00
VPC EL 686.34

LP STA 16+66.29
LP EL 684.501

VPT STA 18+55.00
VPT EL 687.02

VPI STA 20+22.80
VPI EL 691.49

1.27%

-2.28%

2.67%

VPC STA 12+40.00
VPC EL 688.83

VPT STA 14+40.00
VPT EL 687.82

VCL = 200.00'
K = 56.33

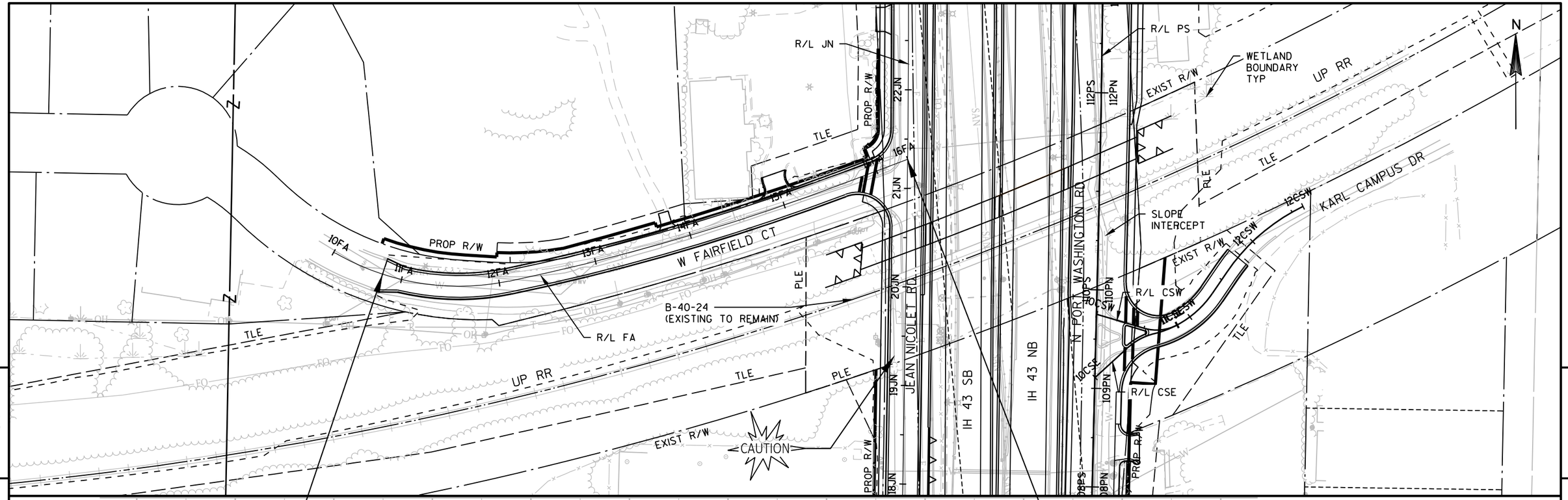
EXISTING PROFILE AT R/L PHB

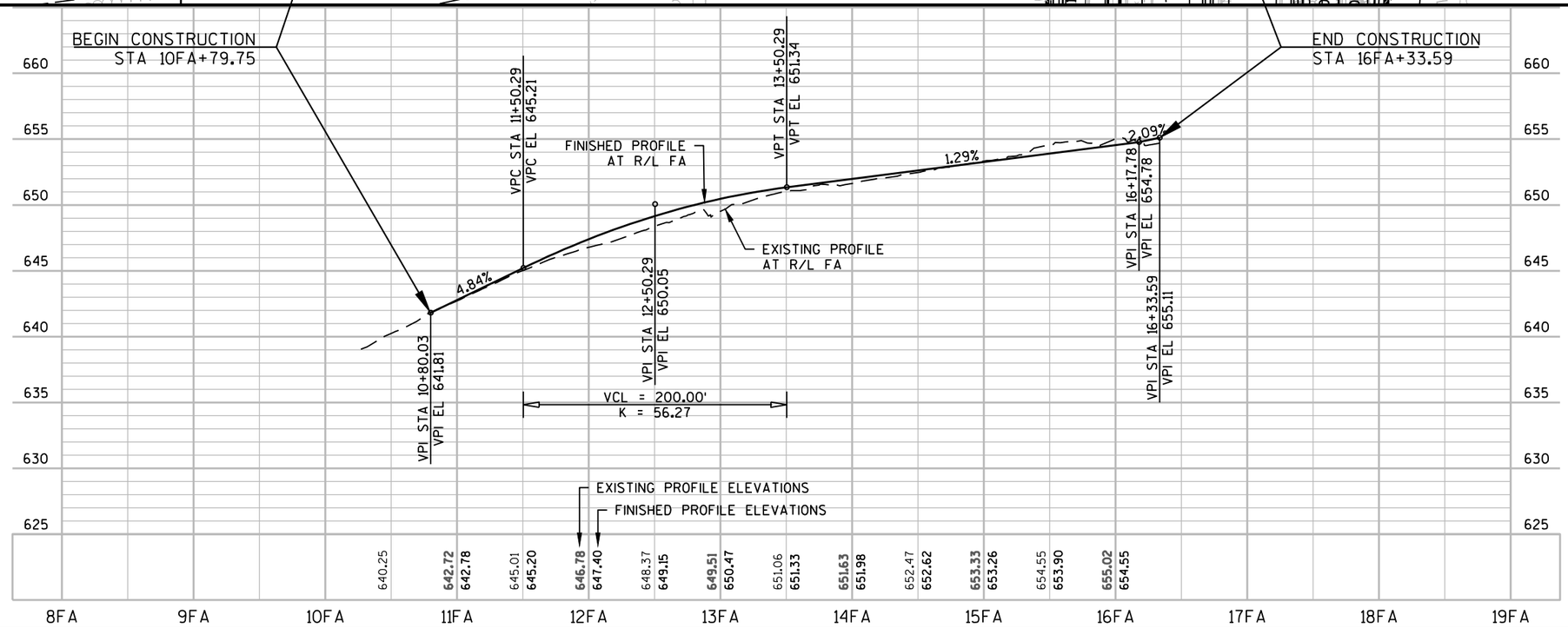
VPI STA 16+80.00
VPI EL 682.35

FINISHED PROFILE ELEVATIONS

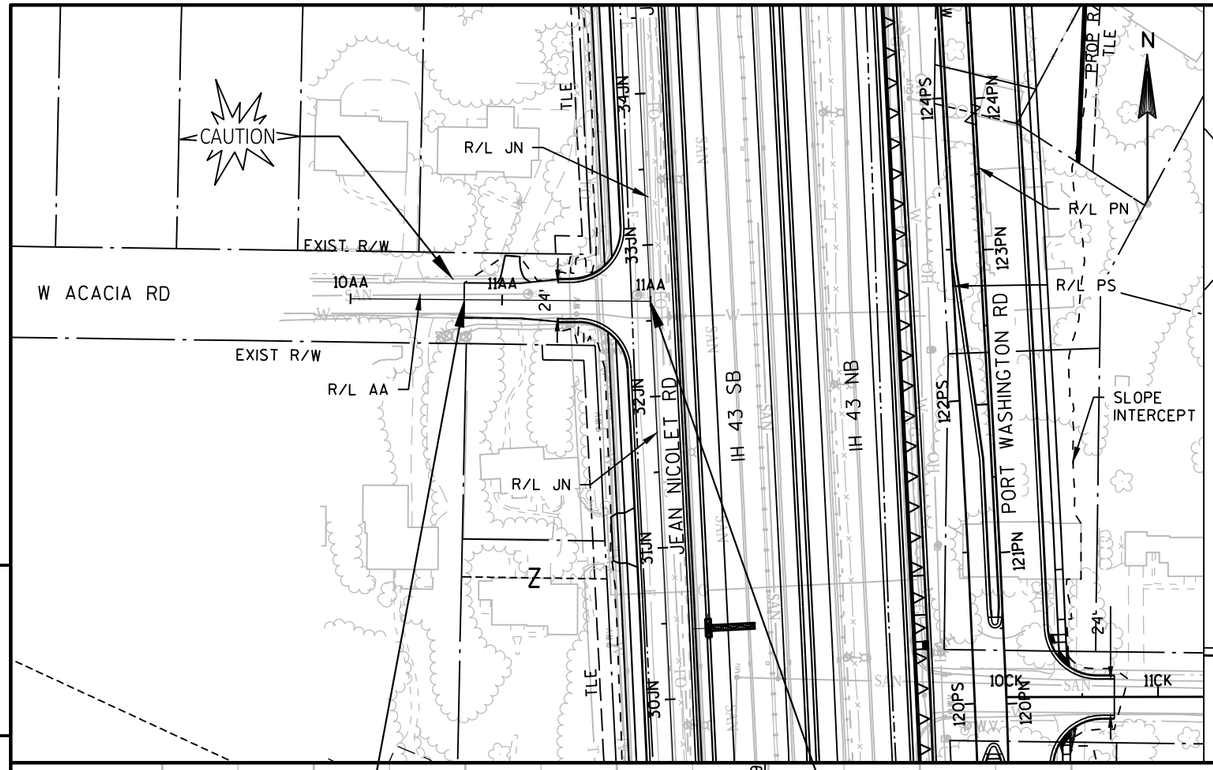
EXISTING PROFILE ELEVATIONS

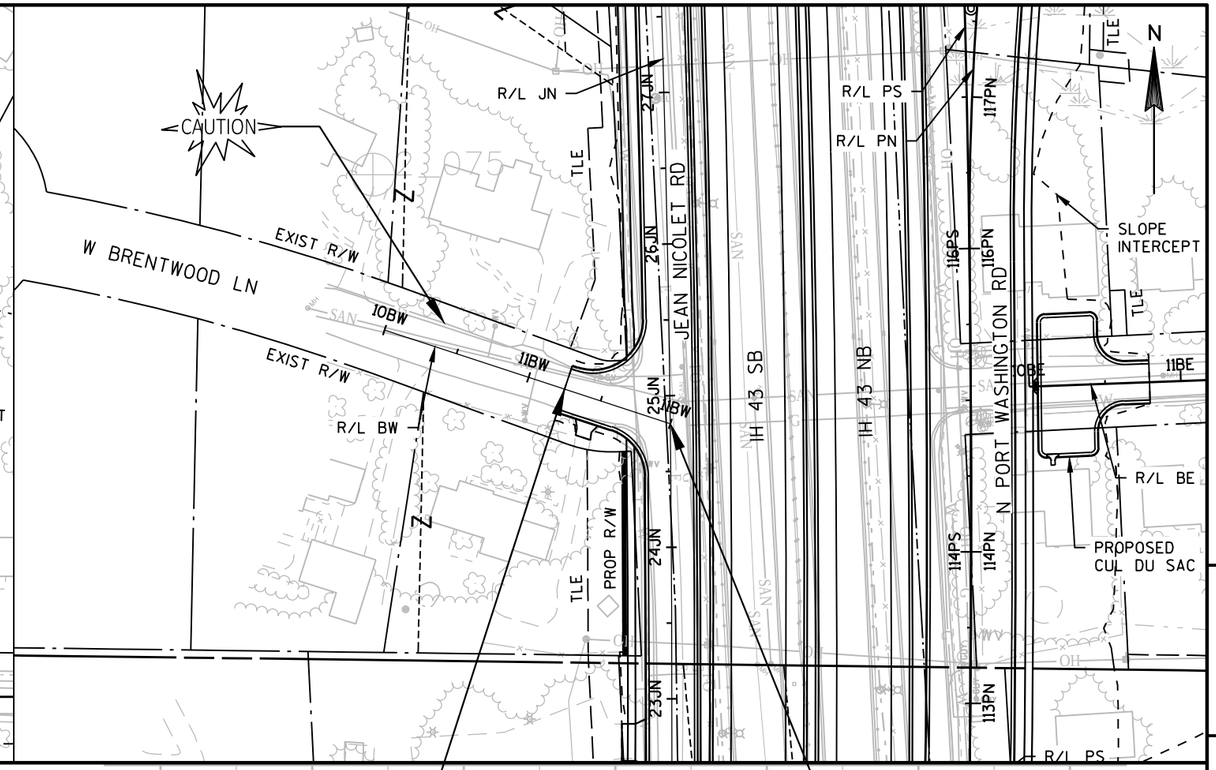
| | | |

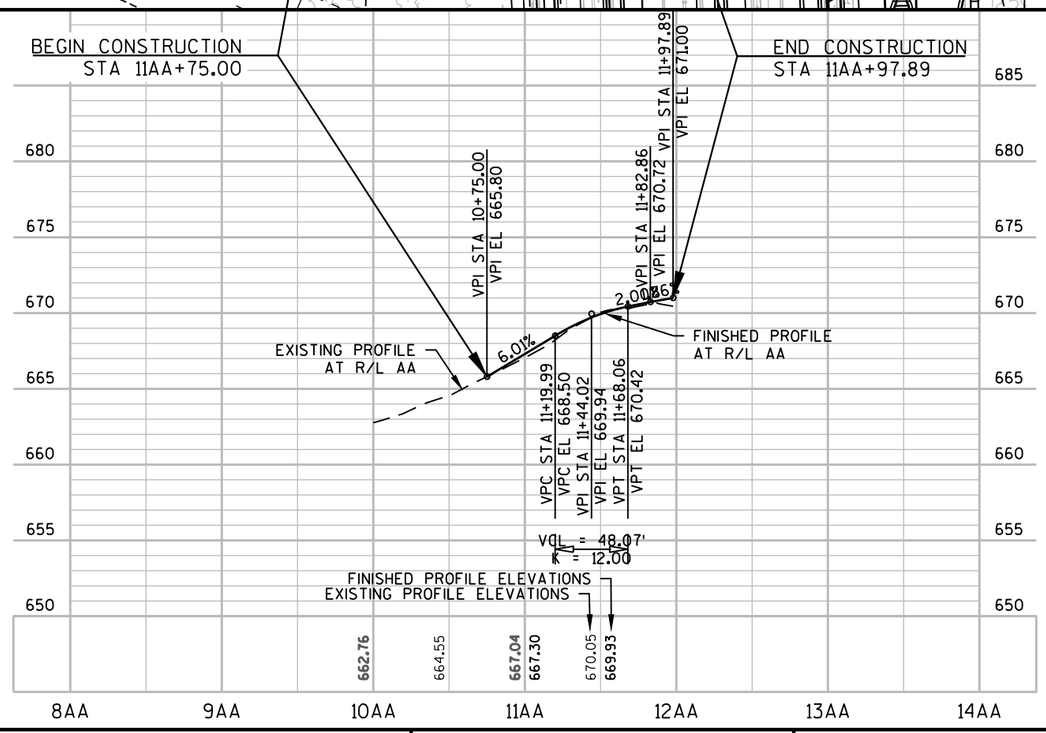


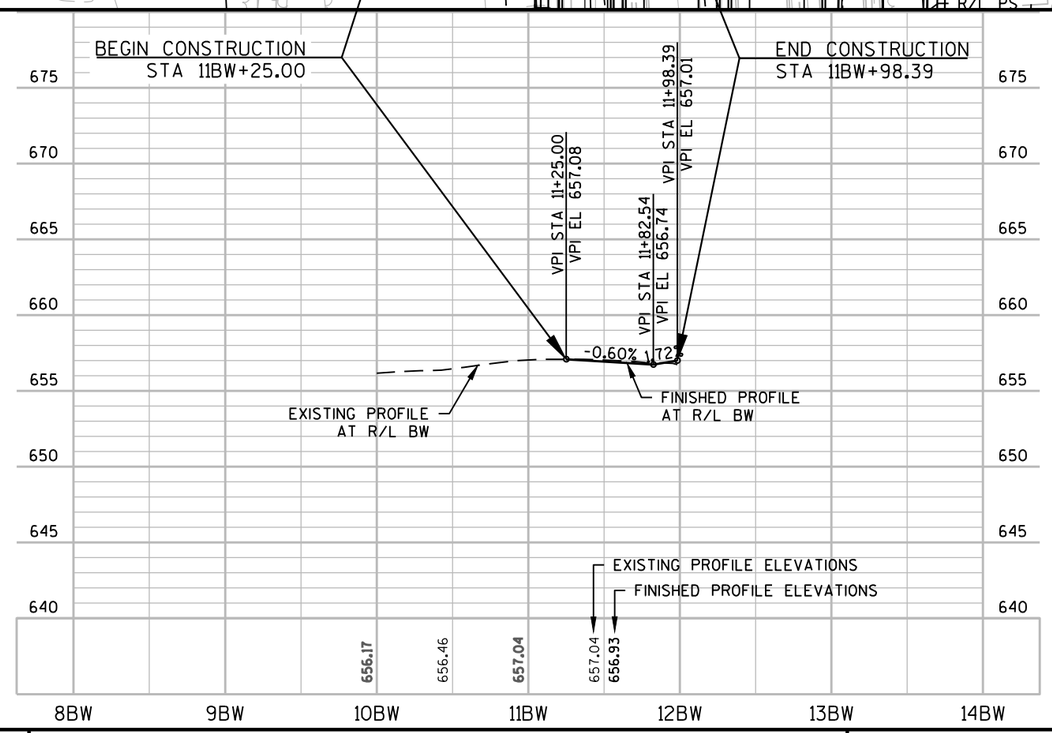


PROJECT NO: 1229-04-73	HWY: JEAN NICOLET ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: W FAIRFIELD COURT	SHEET	E

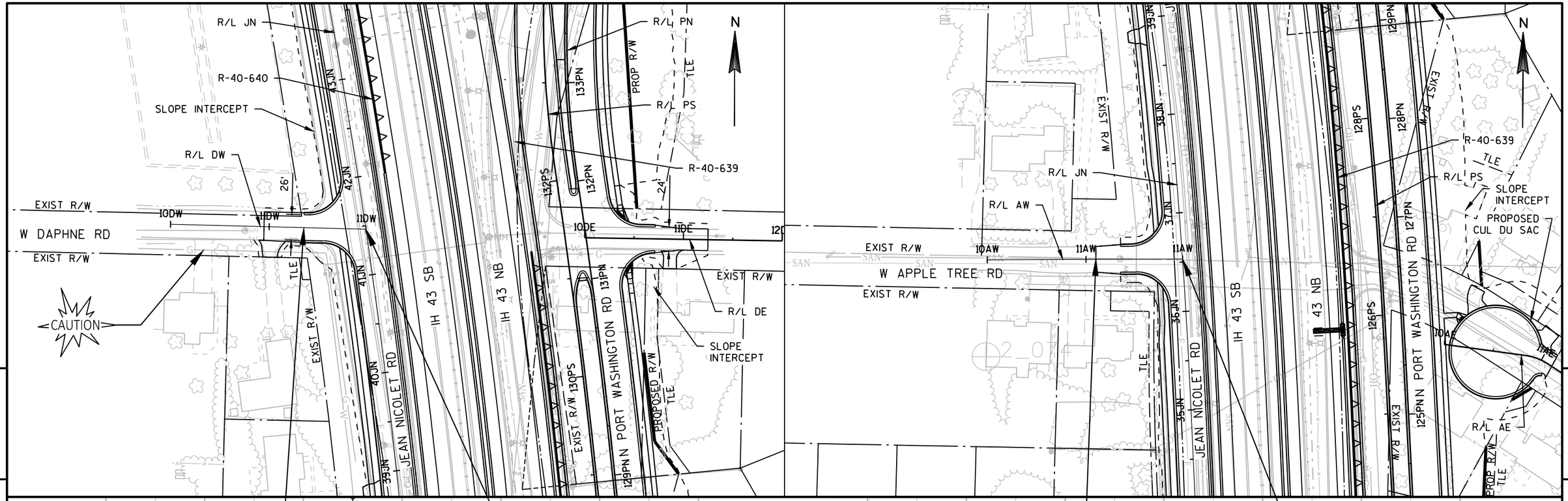


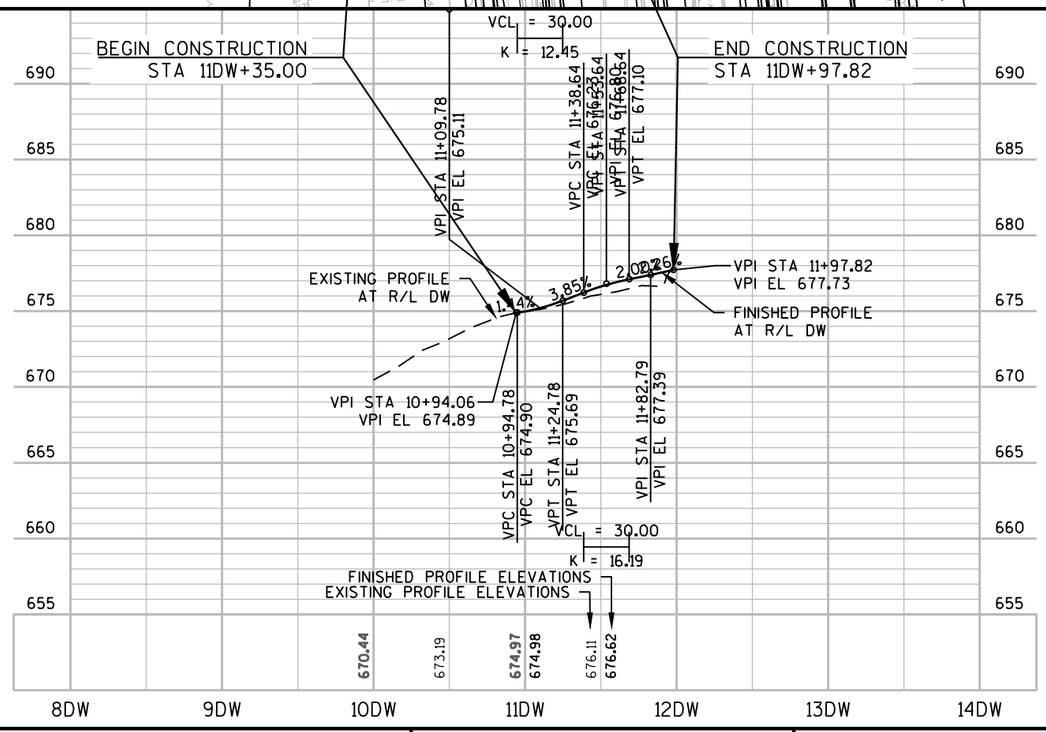


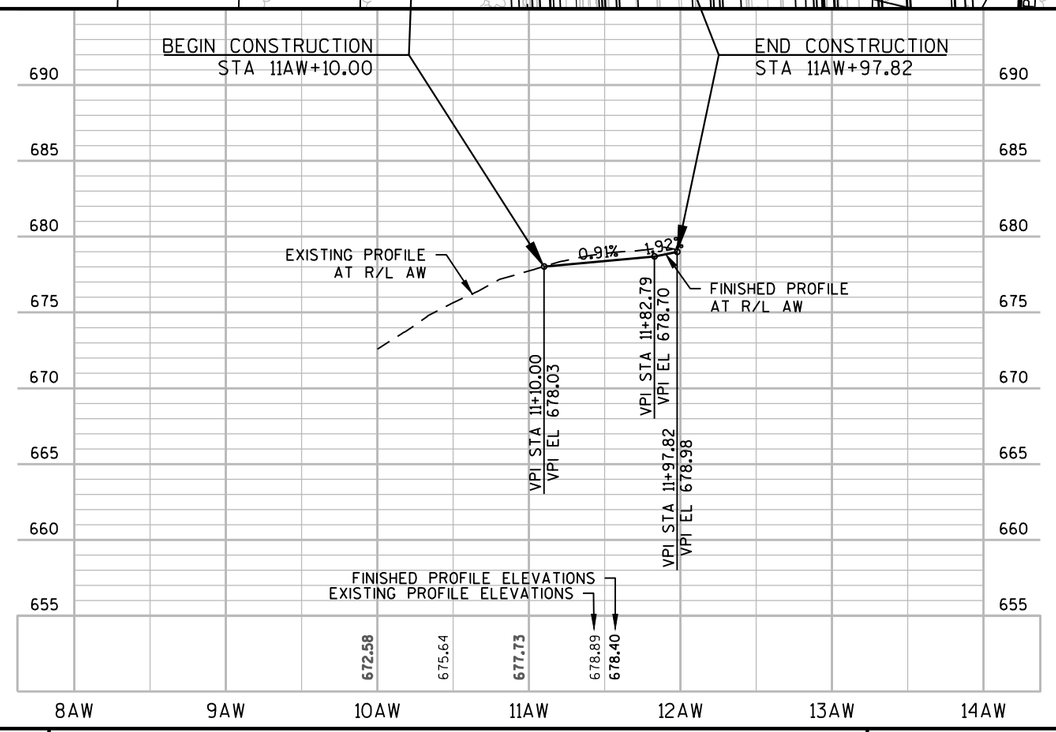




PROJECT NO: 1229-04-73	HWY: JEAN NICOLET ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: W ACACIA RD & W BRENTWOOD LN	SHEET	E

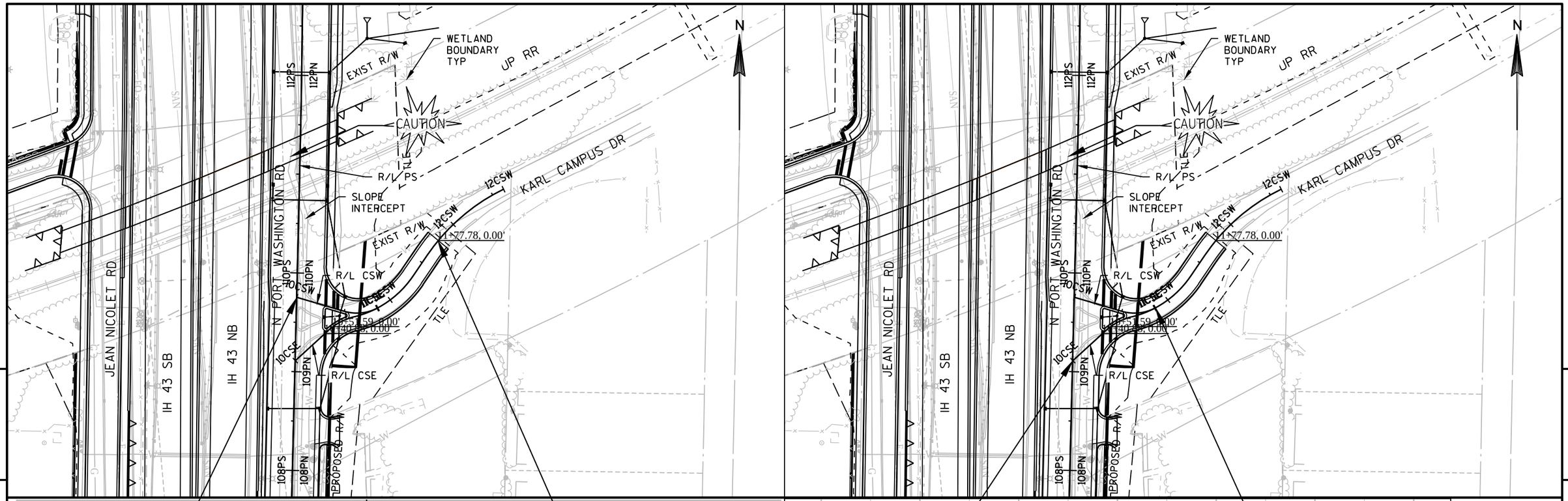


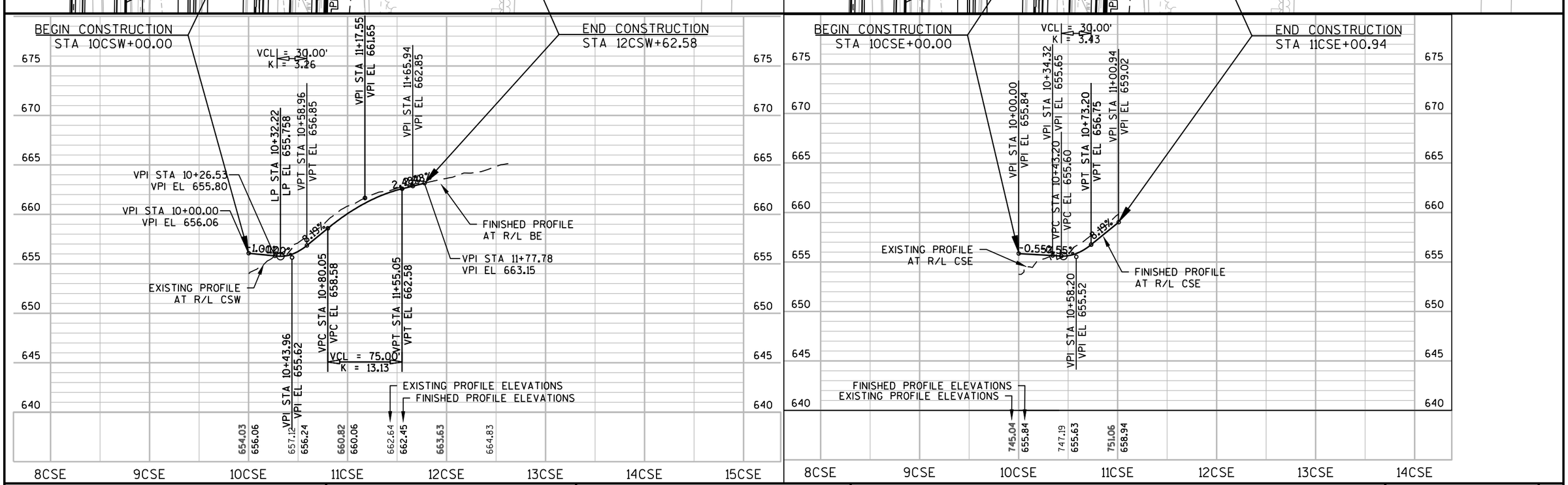




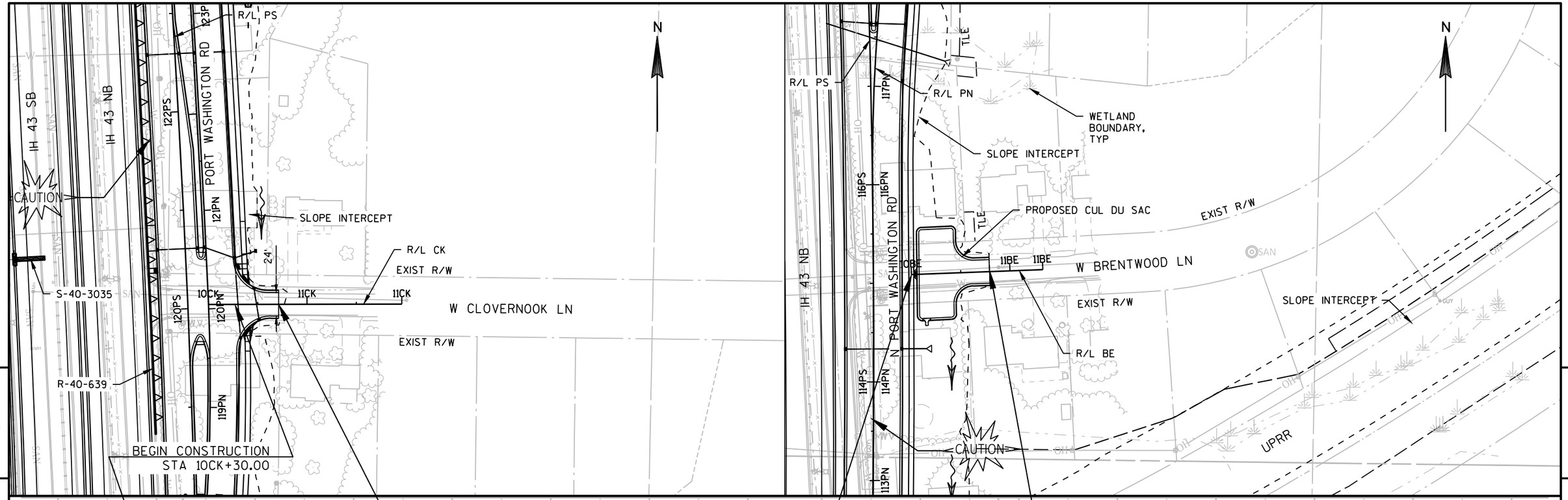
PROJECT NO: 1229-04-73	HWY: JEAN NICOLET ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: W DAPHNE RD & W APPLE TREE RD	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256216\050308_PP SIDEROADS.DWG PLOT DATE : 9/30/2021 10:24 AM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

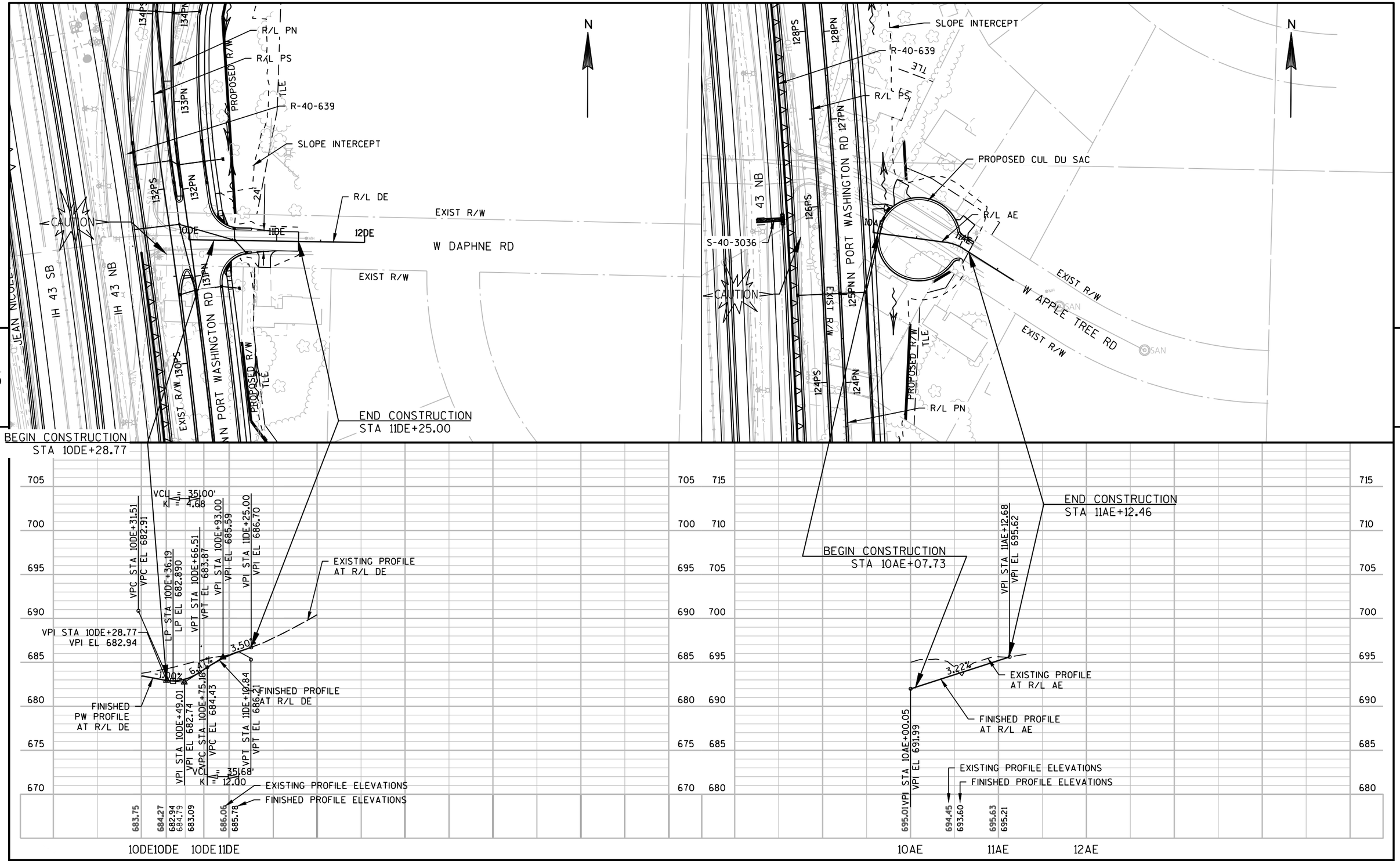




PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: KARL CAMPUS DR	SHEET	E



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: W CLOVERNOOK LN & W BRENTWOOD LN	SHEET	E



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	PLAN AND PROFILE: W DAPHNE RD & APPLE TREE RD	SHEET	E

TO WISCONA & BJ EAST
TIMETABLE SOUTH

TO BELGIUM & EDGEWATER JCT
TIMETABLE NORTH

CONSTRUCT 561 T.F.
136# ISHH CWR,
9' WOOD TIES

IH-43 MAIN 1
Delta = 56°19'45"
D = 1°23'52"
L = 4030.02'
S/L = 100.00'
25 MPH (F) - ELEV. = 0.75"

CONSTRUCT 3,209 T.F.
136# ISHH CWR,
9' WOOD TIES

PS 115+78.59

PSC 116+78.59

TRANSITION RAIL
136# NEW TO 136# WARN

EXIST MAIN TRK 136# WOOD

191'

103'

115+00

MM 103.75

120+00

191'

167'

PROP MAIN TRK

EXIST MAIN TRK

MATCHLINE STA. 125+00

TRACK CENTER VARIES

MATCH EXISTING
STA 115+45

REMOVE EXIST
MAIN TRACK 561 TF
(BY UPRR)

CONTRACTOR DISPOSE

120+00

158'

13' CLEARANCE PT.
STA 121+07

172'

REMOVE EXST
MAIN TRACK 3,180 TF

N

SCALE, FEET
0 50 100

LEGEND

EXISTING TRACK	REHAB EXIST TRACK
PROPOSED TRACK	TRACK SHIFT
FUTURE TRACK	REMOVE TRACK

Sag
L = 680'
V/L = 0.07

PVI = 115+70.93
EL = 666.52

PVC = 116+40.00
EL = 666.87

PVI = 119+80.00
EL = 668.59

PVT = 123+20.00
EL = 671.86

PROP T/R MAIN TRK

0.51%

0.51%

0.96%

EXIST T/R MAIN TRACK

PROP MAIN TRACK
MATCH EXISTING T/R

EXIST GROUND AT
PROP MAIN TRACK

685 680 675 670 665 660 655 650

665.36 665.41 665.43 665.61 665.85 666.25 666.65 666.67 667.16 667.19 667.80 667.77 668.37 668.41 668.83 669.13 669.29 669.91 669.77 670.76 670.35 671.67 671.23 672.63 672.23 673.60

110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK PLAN & PROFILE: STA 110+00 - 125+00	SHEET 12 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\050101_pp.dgn
PLOT DATE : 9/30/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

TO WISCONA & BJ EAST
TIMETABLE SOUTH

TO BELGIUM & EDGEWATER JCT
TIMETABLE NORTH

PARALLEL OHP AND FIBER UTILITY RELOCATION (TBD) (BY OTHERS)

IH-43 MAIN 1
Delta = 56°19'45"
D = 1°23'52"
L = 4030.02'
S/L = 100.00'
25 MPH (F) - ELEV. = 0.75"

MP 104.09 STA 131+55
PROP BRIDGE B-40-921
SEE STRUCTURE PLANS

UPRR PERMANENT EASEMENT (0.23 ACRE)

PROP RETAINING WALL (295 LF)
SEE STRUCTURE PLANS

EXTEND EXISTING 36" CIP
SEE X-SECTION STA 138+42

POWER POLE RELOCATION TBD

UPRR PERMANENT EASEMENT VARIES (0.27 ACRE)

MATCHLINE STA. 125+00

MATCHLINE STA. 140+00

EXIST MAIN TRK

PROP MAIN TRK

UNION PACIFIC

W FAIRFIELD CT

W FAIRFIELD DR

JEAN NICOLET RD

I43 SB

I43 NB

PORT WASHINGTON RD

KARL CAMPUS DR

104

130+00

135+00

STA 129+44

161'

76'

110'

41'

36'

75'

115'

77'

39' MAX TRACK CENTER

STA 138+42
CULVERT NO. 104.17
(1)CIP-3' x 72" (19)

SCALE, FEET
0 50 100

N

REMOVE EXIST BRIDGE B-40-24

STA 131+89 N GAS

STA 131+91 UG ELEC

STA 132+18 UG ELEC

STA 134+08 N GAS

STA 134+13 TELE COMM

LEGEND

EXISTING TRACK	REHAB EXIST TRACK
PROPOSED TRACK	TRACK SHIFT
FUTURE TRACK	REMOVE TRACK

PROP BRIDGE BACKWALL
STA 131+55
ELEV = 679.90
MP 104.09

PROP BRIDGE BACKWALL
STA 134+66
ELEV = 682.89
MP 104.14

PROP T/R MAIN TRK

0.96%

EXIST T/R MAIN TRACK

MAX 9'-2"

PROP FACE OF ABUTMENT

EXIST GROUND AT PROP MAIN TRACK

16'-10"

17'-0"

17'-7"

16'-9"

JEAN NICOL

I-43 SB

I-43 NB

PORT WASH

UG ELEC
STA=131+91
ELEV=TBD
T/R ELEV=679.75

N GAS
STA=131+89
ELEV=TBD
T/R ELEV= 679.72

UG ELEC
STA=132+18
ELEV=TBD
T/R ELEV=679.99

N GAS
STA=134+08
ELEV=TBD
T/R ELEV= 681.72

TELECOMM
STA=134+13
ELEV=TBD
T/R ELEV= 681.76

PVC = 136+00.00
EL = 684.19

PVI = 136+00.00
EL = 660.09

Crest
L = 680'
V/L = -0.11

PVI = 139+40.00
EL = 687.46

0.25%

0.00%

4.13%

3.37%

SDG LT

PROP 36" SSP
STA 138+42
ELEV = 662.28
T/RAIL = 685.36

PVI = 138+29.00
EL = 660.66

PVI = 138+49.00
EL = 660.66

PVI = 139+00.00
EL = 663.07

672.23	673.60	673.24	674.56	674.21	675.52	675.10	676.48	675.98	677.45	676.86	678.41	677.73	679.37	678.59	680.34	679.22	681.30	679.76	682.26	680.13	683.22	680.47	684.19	680.92	685.09	681.46	685.89	682.10	686.58	682.86	687.16
125+00		126+00		127+00		128+00		129+00		130+00		131+00		132+00		133+00		134+00		135+00		136+00		137+00		138+00		139+00		140+00	

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK PLAN & PROFILE STA 125+00 TO 140+00

SHEET 13 OF 73 E

TO WISCONA & BU EAST
TIMETABLE SOUTH

TO BELGIUM & EDGEWATER JCT
TIMETABLE NORTH

UPRR PERMANENT EASEMENT
VARIES (0.27 ACRE)

UPRR TEMPORARY EASEMENT
275' x 15' (0.10 ACRE)

PROP RETAINING WALL (295 LF)
SEE STRUCTURE PLANS

IH-43 MAIN 1
Delta = 56°19'45"
D = 1°23'52"
L = 4030.02'
S/L = 100.00'
25 MPH (F) - ELEV = 0.75"

CONSTRUCT 3,209 T.F. 136#
ISHH CWR, 9' WOOD TIES

CONSTRUCT 635 T.F. 136#
ISHH CWR, 9' WOOD TIES

MATCHLINE STA. 140+00

MATCHLINE STA. 155+00

140+00

145+00

150+00

15'

15'

41'

76'

112'

77'

104.25

TRACK CENTER
VARIES

145+00

150+00

180'

156'

PROP MAIN TRK

EXIST MAIN TRK

UNION PACIFIC RR

13' CLEARANCE PT.
STA 152+95

REMOVE EXIST.
MAIN TRACK 635 TF
(BY UPRR)
CONTRACTOR DISPOSE

N

SCALE, FEET
0 50 100

LEGEND

EXISTING TRACK	REHAB EXIST TRACK
PROPOSED TRACK	TRACK SHIFT
FUTURE TRACK	REMOVE TRACK

Crest
L = 680'
V/L = -0.11

Sag
L = 470'
V/L = 0.06

PVT = 142+80.00
EL = 688.22

PVC = 147+80.00
EL = 689.33

PVI = 150+15.00
EL = 689.85

PVT = 152+50.00
EL = 691.04

PROP T/R MAIN TRK

0.22%

0.50%

EXIST T/R MAIN TRACK

EXIST GROUND AT
PROP MAIN TRACK

0.37%

3.83%

SDG LT

PVI = 141+00.00
EL = 669.82

PVI = 144+00.00
EL = 681.30

PVI = 147+00.00
EL = 682.42

682.86	687.16	683.68	687.64	684.57	688.00	685.46	688.26	686.35	688.48	687.08	688.71	687.68	688.93	688.17	689.15	688.59	689.37	689.02	689.64	689.44	689.96	689.84	690.35	690.24	690.79	690.75	691.29	691.40	691.80	692.06	692.30
140+00		141+00		142+00		143+00		144+00		145+00		146+00		147+00		148+00		149+00		150+00		151+00		152+00		153+00		154+00		155+00			

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK PLAN & PROFILE STA 140+00 TO 155+00	SHEET 14 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\050103_pp.dgn
PLOT DATE : 9/30/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

TO WISCONA & BJ EAST
TIMETABLE SOUTH

TO BELGIUM & EDGEWATER JCT
TIMETABLE NORTH

IH-43 MAIN 1
Delta = 56°19'45"
D = 1°23'52"
L = 4030.02'
S/L = 100.00'
25 MPH (F) - ELEV. = 0.75"

PCS 157+08.50

PT 158+08.50

EXIST STA 159+20.77 = PROP STA 158+94.89

W. SANTA MONICA BLVD

MATCHLINE STA. 155+00

155+00

72'

74'

60'

57'

PROP MAIN TRK

TRANSITION RAIL
136# NEW TO 136# WARN

EXIST MAIN TRK 136# WOOD

VAR'

85'

MATCH EXISTING
STA 159+21

160+00

165+00

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- FUTURE TRACK
- REHAB EXIST TRACK
- TRACK SHIFT
- REMOVE TRACK

N

SCALE, FEET 0 50 100

715
710
705
700
695
690
685
680

PVI = 158+42.04
EL = 694.03

PROP T/R MAIN TRK

0.50%

0.50%

EXIST GROUND AT
PROP MAIN TRACK

PROP MAIN TRACK
MATCH EXISTING T/R

EXIST T/R MAIN TRACK

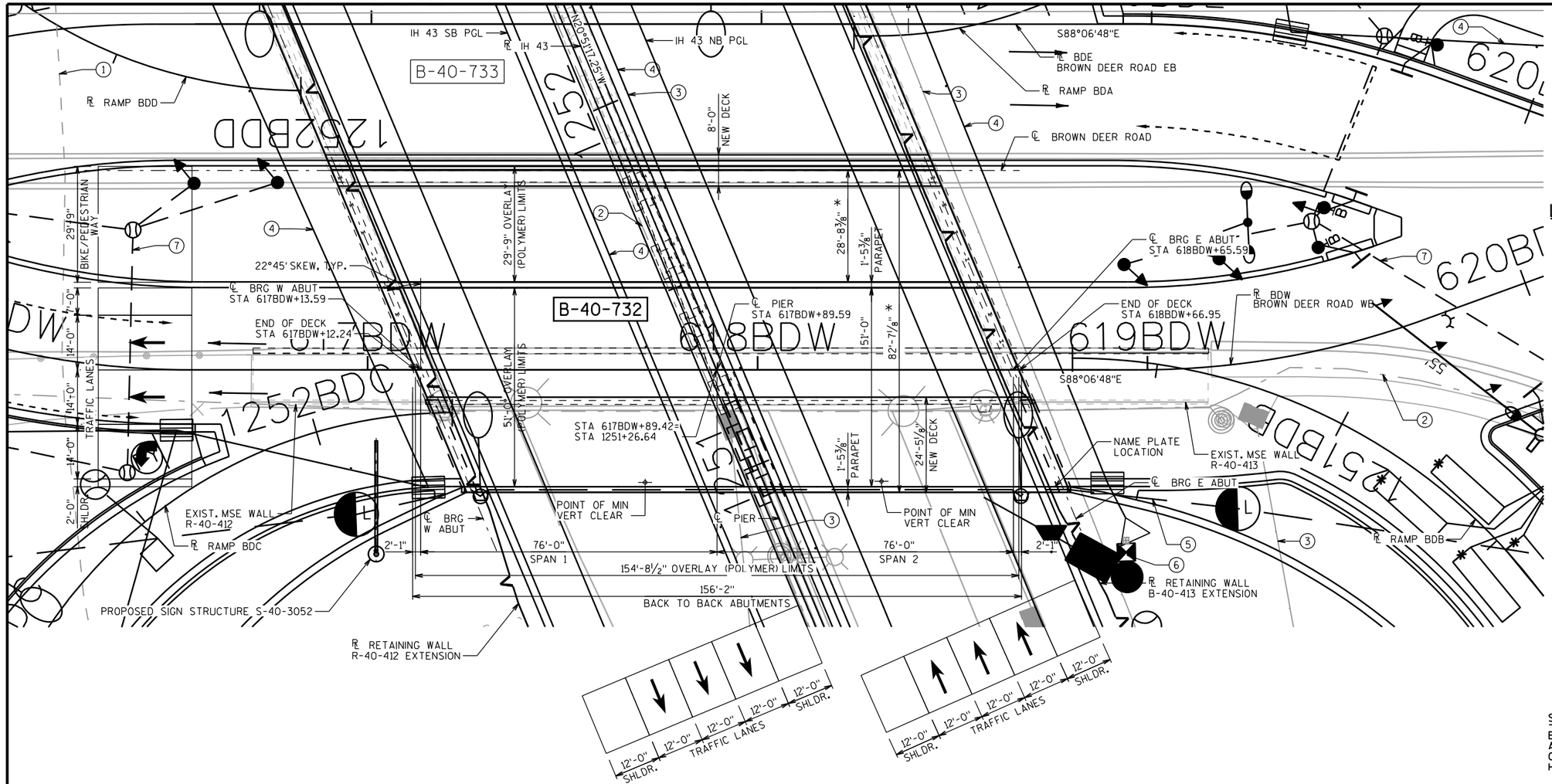
692.06 692.30 692.70 692.81 693.30 693.31 693.80 693.82 694.33 694.72 695.00 695.33 695.76 696.36 697.01 697.65 698.34 699.04 699.76 700.32

155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	TRACK PLAN & PROFILE STA 155+00 TO 170+00	SHEET 15 OF 73	E

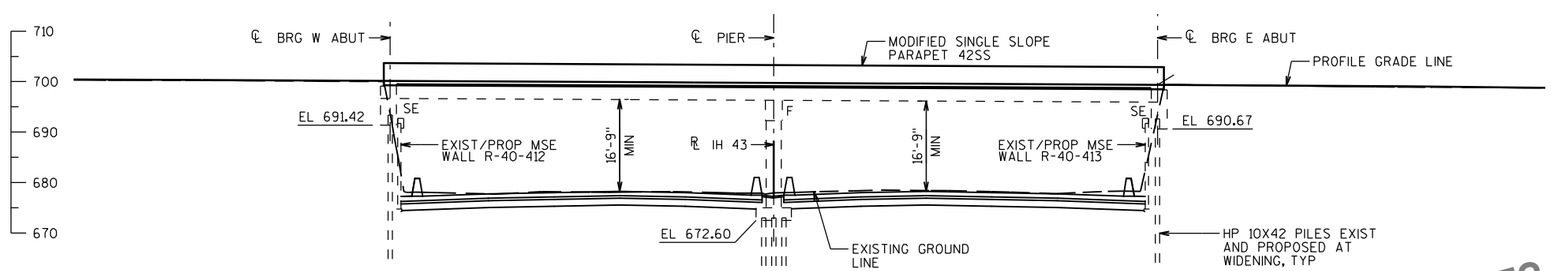
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\050104_pp.dgn PLOT DATE : 9/30/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40



PLAN

WIDENING AND POLYMER OVERLAY OF 2 SPAN STEEL GIRDERS



ELEVATION

LOOKING NORTH

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION
3. QUANTITIES, NOTES & DESIGN DATA
4. PROFILE GRADE LINES
5. SUBSURFACE EXPLORATION

LEGEND

← INDICATES DIRECTION OF TRAFFIC

* DIMENSION TO ℄ BROWN DEER RD. DECK IS CONTINUOUS WITH NO JOINT AT THIS LOCATION.

UTILITY NOTES

(1) EXISTING WISDOT FTMS
(2) EXISTING WISDOT LIGHTING
(3) EXISTING WISDOT STORM SEWER
(4) PROPOSED WISDOT STORM SEWER
(5) PROPOSED WISDOT LIGHTING
(6) PROPOSED WISDOT FTMS
(7) PROPOSED WISDOT SIGNALS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-732

BROWN DEER RD WB OVER IH 43

COUNTY	VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	HDA	DESIGN CK'D.	PJC	DRAWN BY	HDA	PLANS CK'D.	PJC

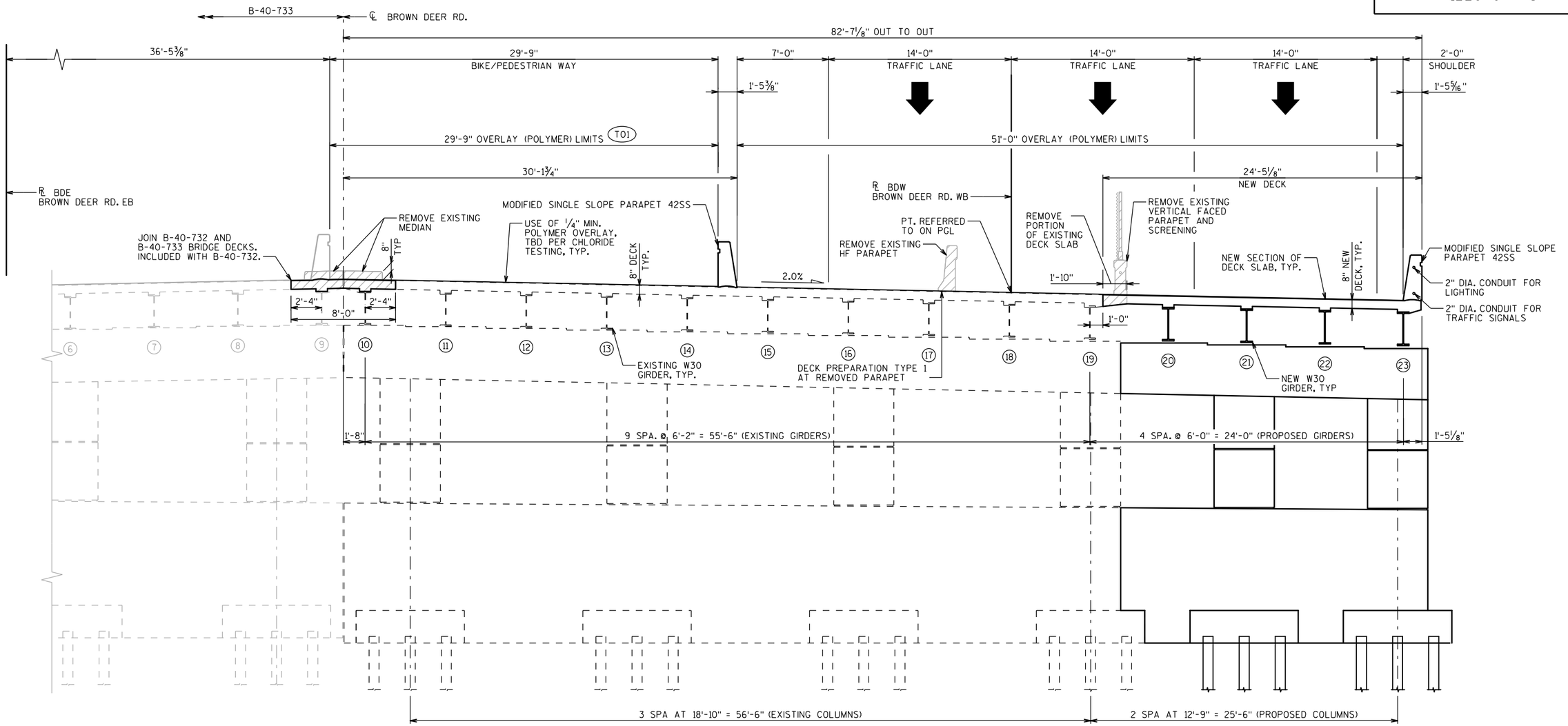
GENERAL PLAN & ELEVATION

SHEET 1 OF 5

8

8

STATE PROJECT NUMBER
1229-04-73



8

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LEGEND

(T01) 2% MAXIMUM CROSS SLOPE TO CONFORM TO ADA REQUIREMENTS TO BE CONFIRMED IN FINAL DESIGN. PLACE OVERLAY SUCH THAT THE MAXIMUM CROSS SLOPE DOES NOT EXCEED 2%.

PROPOSED TYPICAL SECTION

LOOKING EAST

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-732

DRAWN BY HDA | PLANS CK'D. PJC

TYPICAL SECTION

SHEET 2 OF 5

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	SUPER	WEST ABUT.	PIER	EAST ABUT.	TOTAL
203.0220.XX	REMOVING STRUCTURE B-40-732	EACH	X	X	X	X	1
206.1000.XX	EXCAVATION FOR STRUCTURES BRIDGES B-40-732	LS					1
210.1500	BACKFILL STRUCTURE TYPE A	TON					
502.0100	CONCRETE MASONRY BRIDGES	CY					
502.3210	PIGMENTED SURFACE SEALER	SY					
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH					
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB					
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB					
505.0905	BAR COUPLERS NO. 5	EACH					
506.0605	STRUCTURAL STEEL HS	LB					
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH					
506.3015	WELDED SHEAR STUD CONNECTORS 7/8 x 6-INCH	EACH					
506.5000.XX	BEARING ASSEMBLIES FIXED B-40-732	EACH					
509.0301	PREPARATION DECKS TYPE 1	SY					
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF					
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY					
509.5100.S	POLYMER OVERLAY	SY					
511.1200.XX	TEMPORARY SHORING B-40-732	SF					
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY					
517.0600.XX	PAINTING EPOXY SYSTEM B-40-732	LS					1
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH					
550.0500	PILE POINTS	EACH					
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF					
550.5100.S	PILING WAVE ANALYSIS STEEL HP 10-INCH X 42 LB	LF					
604.0400	SLOPE PAVING CONCRETE	SY					
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF					
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF					
653.0222	JUNCTION BOXES 18x12x6-INCH	EACH					
SPV.0060.XX	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH					
SPV.0060.XX	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH					
	NON-BID ITEMS						
	NAME PLATE	EACH					1
	FILLER	SIZE					
	SIZE 2 COARSE AGGREGATE	CY					

ALL ITEMS ARE CATEGORY XXXX

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = XXX
OPERATING RATING FACTOR: RF = XXX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 3,500 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

STRUCTURAL CARBON STEEL
(ASTM A36, A709, GR36) ..... fy = 36,000 psi

HIGH STRENGTH STRUCTURAL STEEL
GRADE 50 (ASTM A709) ..... fy = 50,000 psi

TRAFFIC DATA

BROWN DEER RD WB

ADT = 12,800 (2019)
AADT = 14,900 (2045)
RDS = 40 MPH

IH 43 NB

AADT = 36,150 (2019)
AADT = 55,080 (2045)
RDS = 70 MPH

IH 43 SB

AADT = 36,150 (2019)
AADT = 46,920 (2045)
RDS = 70 MPH

FOUNDATION DATA

USING THE PDA/CAPWAP ACCEPTANCE METHOD:

ABUTMENTS AND PIER SHALL BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING PDA/CAPWAP METHOD TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
WEST ABUTMENT ..... 70 FEET
EAST ABUTMENT ..... 65 FEET
PIER ..... 40 FEET

USING THE MODIFIED GATES ACCEPTANCE METHOD:

ABUTMENTS AND PIER SHALL BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES ACCEPTANCE METHOD.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES ACCEPTANCE METHOD TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
WEST ABUTMENT ..... 70 FEET
EAST ABUTMENT ..... 65 FEET
PIER ..... 40 FEET

PILE INSTALLATION METHOD WILL BE CONFIRMED IN THE FINAL DESIGN THROUGH ECONOMIC ANALYSIS INCLUDING CONSIDERATION OF DOWNDRAG EFFECTS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

COORDINATE THE WORK AT EXISTING STRUCTURE B-40-732 WITH THE REHABILITATION OF EXISTING BRIDGE B-40-733 AND EXISITNG RETAINING WALLS R-40-412 AND R-40-413.

"REMOVING STRUCTURE B-40-732" INCLUDES REMOVING THE PROTECTIVE SCREENING, INTERIOR AND EXTERIOR PARAPETS, SIDEWALK, AND MEDIAN AND PARTIALLY REMOVING THE DECK.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-732" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACKFACE OF THE ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE OR MSE BACKFILL SHALL BE BACKFILLED WITH "BACKFILL STRUCTURE TYPE A".

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES".

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT. EXERCISE CAUTION WHEN REMOVING OLD DECK AS TO NOT DAMAGE EXISTING GIRDERS AND SHEAR CONNECTORS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

UNDER BID ITEM "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH HEIGHT OF XX". THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

APPLY "PIGMENTED SURFACE SEALER" TO THE TOP AND INSIDE FACES OF INTERIOR AND EXTERIOR PARAPETS INCLUDING LIGHT SUPPORTS.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" JOINT FILLER WITH NON-STAINING, NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE.) COLOR TO MATCH ADJACENT SURFACES.

ALL FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER FRICTION TYPE HIGH-TENSILE STRENGTH BOLTS UNLESS SHOWN OR NOTED OTHERWISE.

NEW SUPERSTRUCTURE AND BEARING STEEL SHALL BE PAINTED BLUE, AMS STANDARD COLOR NUMBER 25240.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION AS MAY BE NECESSARY TO AVOID DAMAGE.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 2010 AND SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

<<STAGING AND TEMPORARY SHORING LIMITS TO BE DETERMINED IN FINAL DESIGN.>>

8

8

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

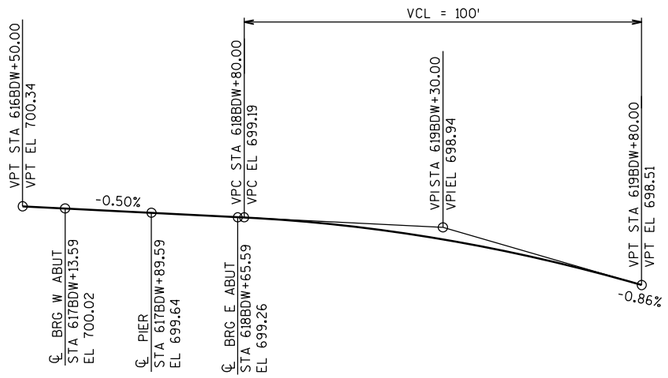
STRUCTURE B-40-732

DRAWN BY HDA | PLANS CK'D. PJC

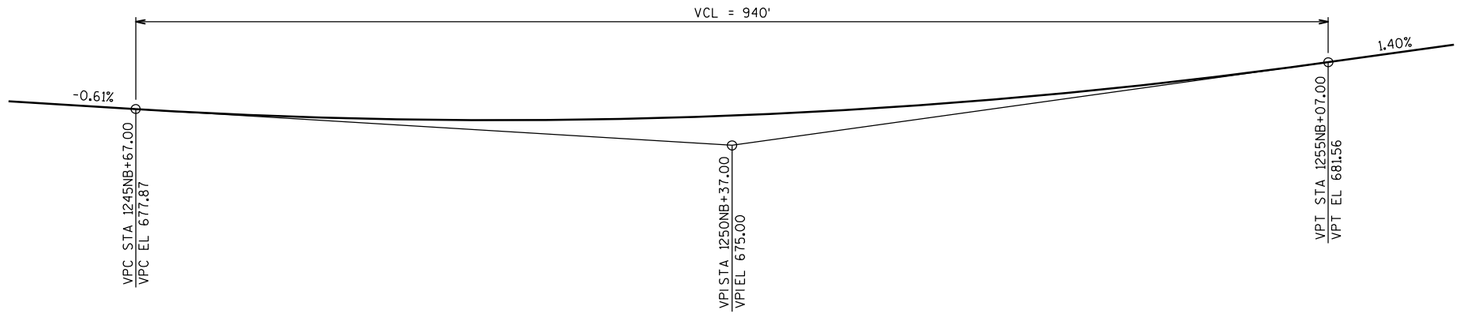
QUANTITIES, NOTES & DESIGN DATA

SHEET 3 OF 5

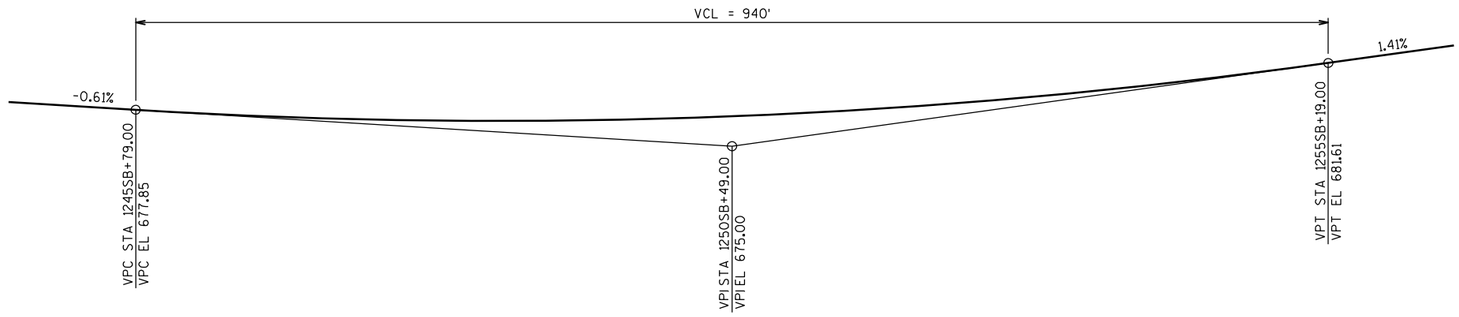
STATE PROJECT NUMBER
1229-04-73



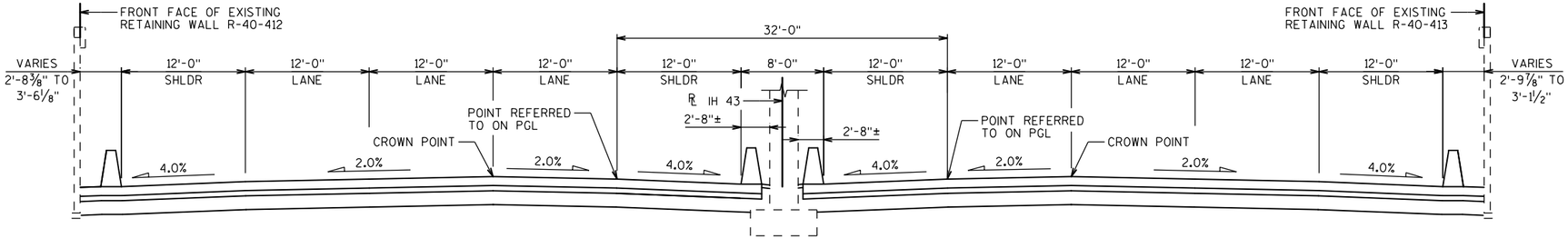
PROFILE GRADE LINE - BROWN DEER RD. WB (BDW)



PROFILE GRADE LINE - IH 43 NB (NB)



PROFILE GRADE LINE - IH 43 SB (SB)



PROPOSED IH 43 SECTION UNDER BROWN DEER RD. BRIDGES

LOOKING NORTH

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-732

DRAWN BY HDA | PLANS CK'D. PJC

PROFILE GRADE LINES

SHEET 4 OF 5

8

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-732\cds\B732_080104_pr.dgn

PLOT DATE : 9/18/2021 11:26:30 PM PLOT BY : ejelinek

PLOT SCALE : 13.3333:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BD-01	DECEMBER 14, 2014	349869	603893
BD-05	DECEMBER 15, 2014	349846	603973
BD-06	JANUARY 13, 2015	349837	604035

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

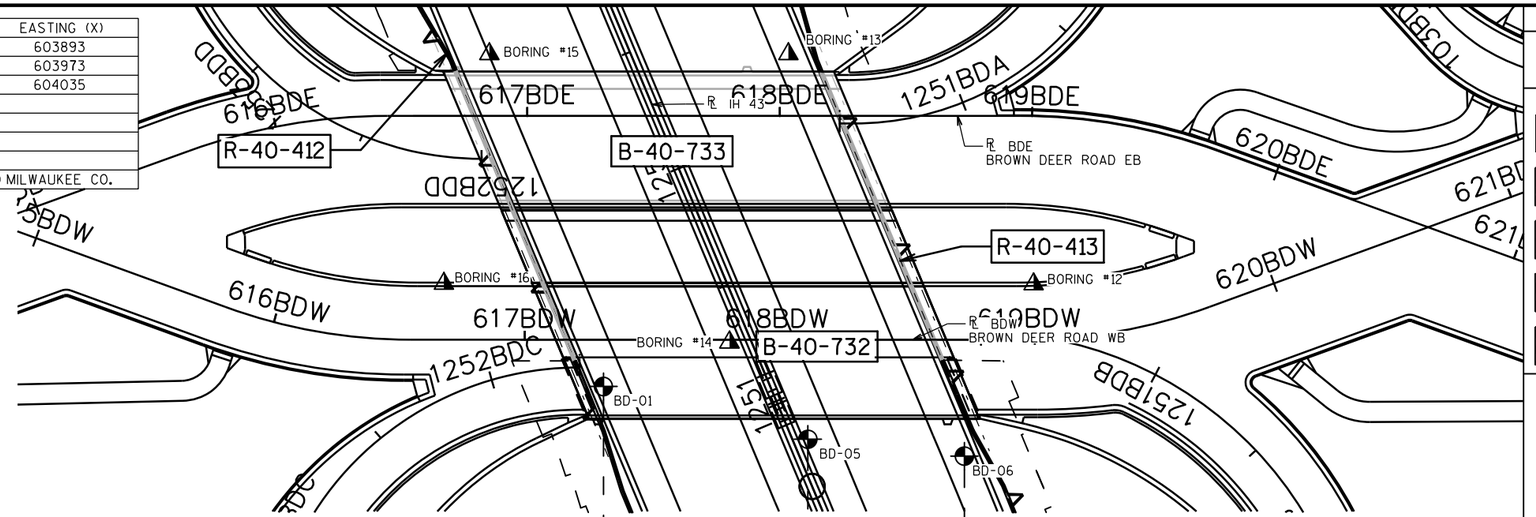
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

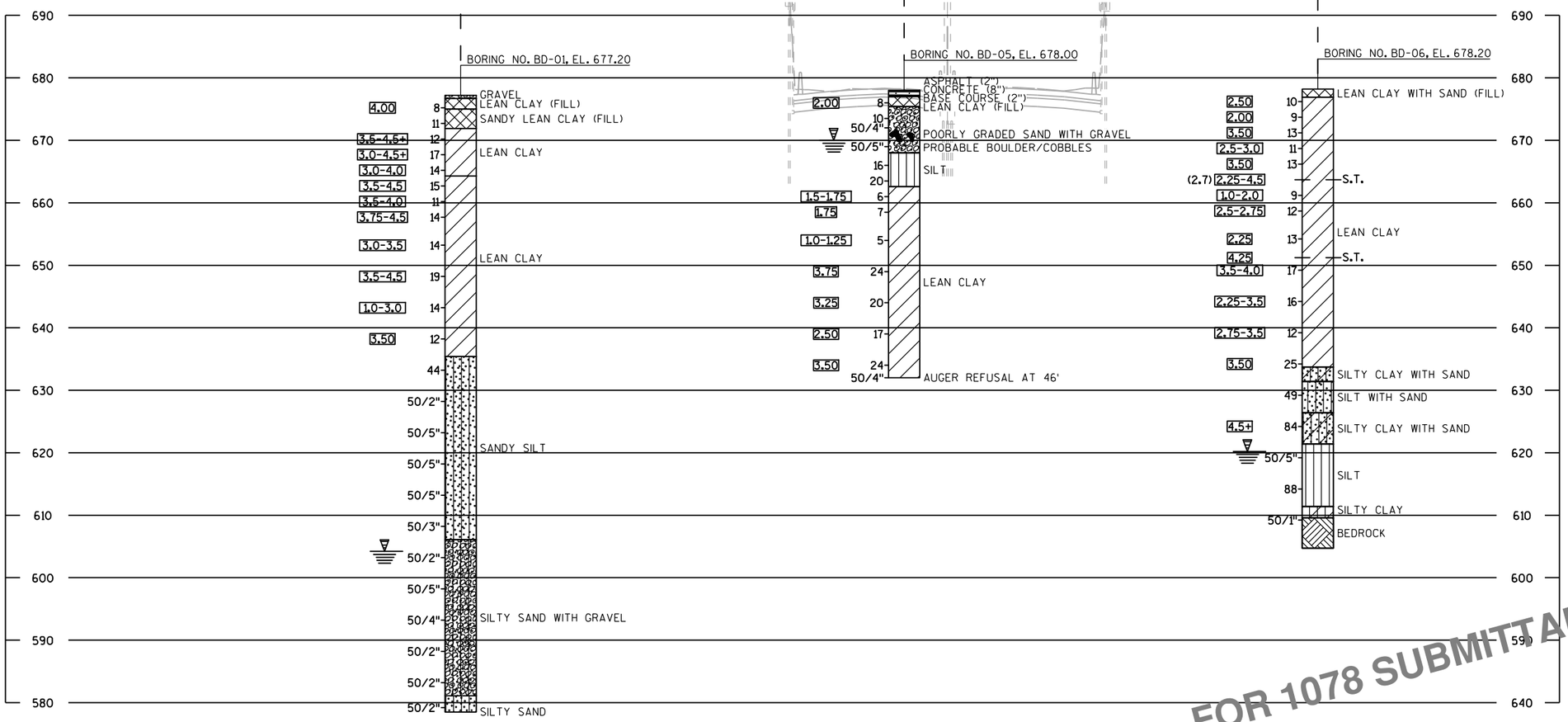
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN



FOR 1078 SUBMITTAL

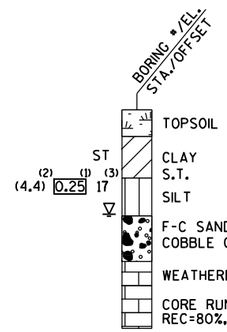
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-732

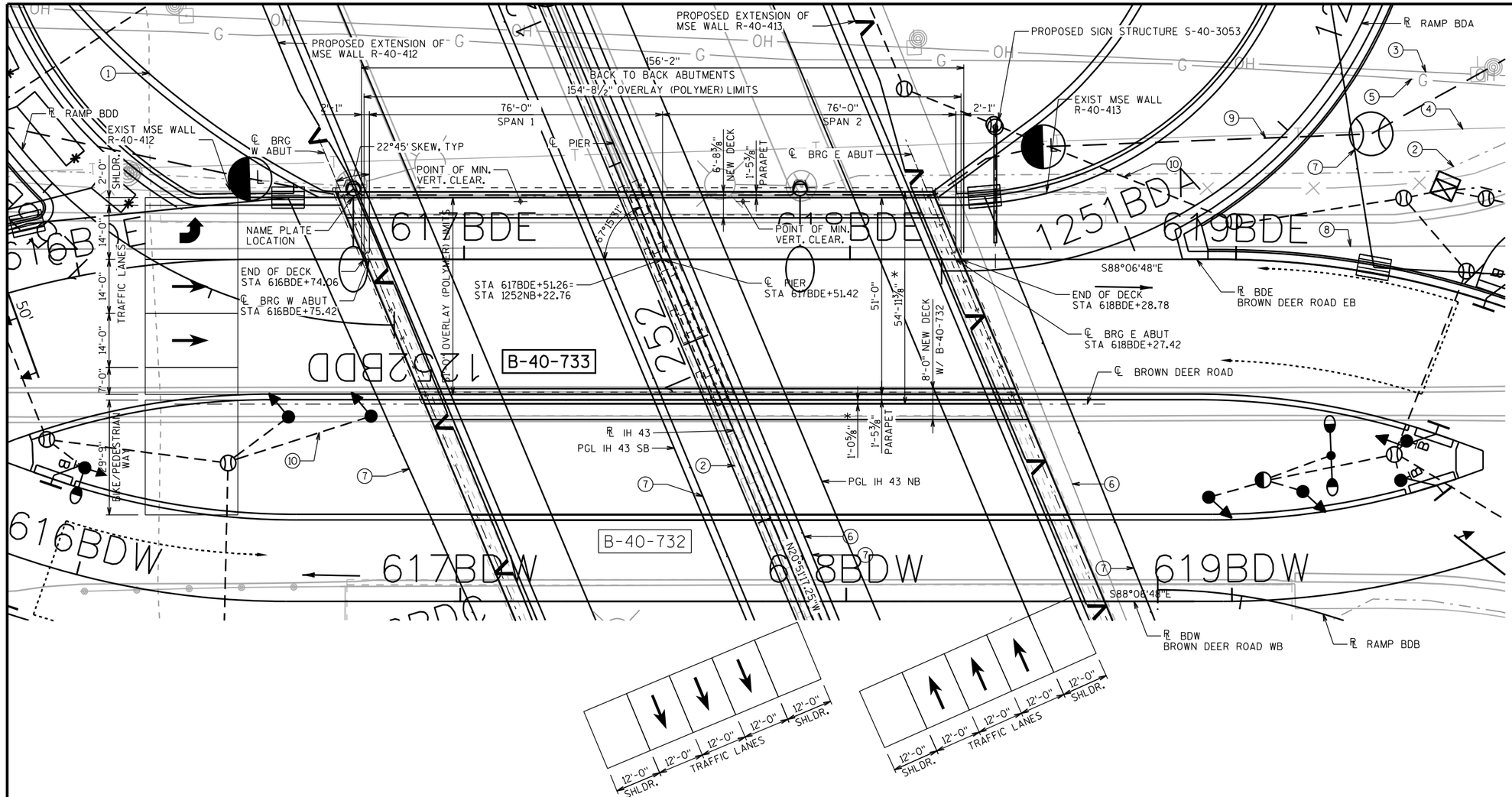
DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 5 OF 5

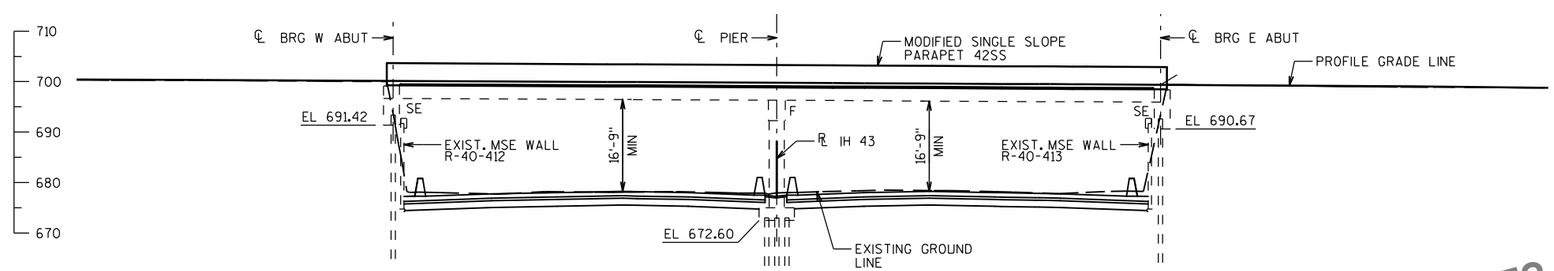
8

8



PLAN

POLYMER OVERLAY OF 2 SPAN STEEL GIRDERS



ELEVATION

LOOKING NORTH

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION
3. QUANTITIES, NOTES & DESIGN DATA
4. PROFILE GRADE LINES
5. SUBSURFACE EXPLORATION

LEGEND

← INDICATES DIRECTION OF TRAFFIC

* DIMENSION TO ℄ BROWN DEER RD. DECK IS CONTINUOUS WITH NO JOINT AT THIS LOCATION.

UTILITY NOTES

1. EXISTING WISDOT FTMS
2. EXISTING WISDOT LIGHTING
3. EXISITNG OVERHEAD ELECTRIC LINES
4. EXISTING TELEPHONE LINE
5. EXISTING GAS LINE
6. EXISTING WISDOT STORM SEWER
7. PROPOSED WISDOT STORM SEWER
8. EXISTING ABANDONED GAS LINE
9. PROPOSED WISDOT LIGHTING
10. PROPOSED WISDOT SIGNALS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 266-8489
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-733

BROWN DEER RD EB OVER IH 43

COUNTY	VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	HDA	DESIGN CK'D.	PJC	DRAWN BY	HDA	PLANS CK'D.	PJC

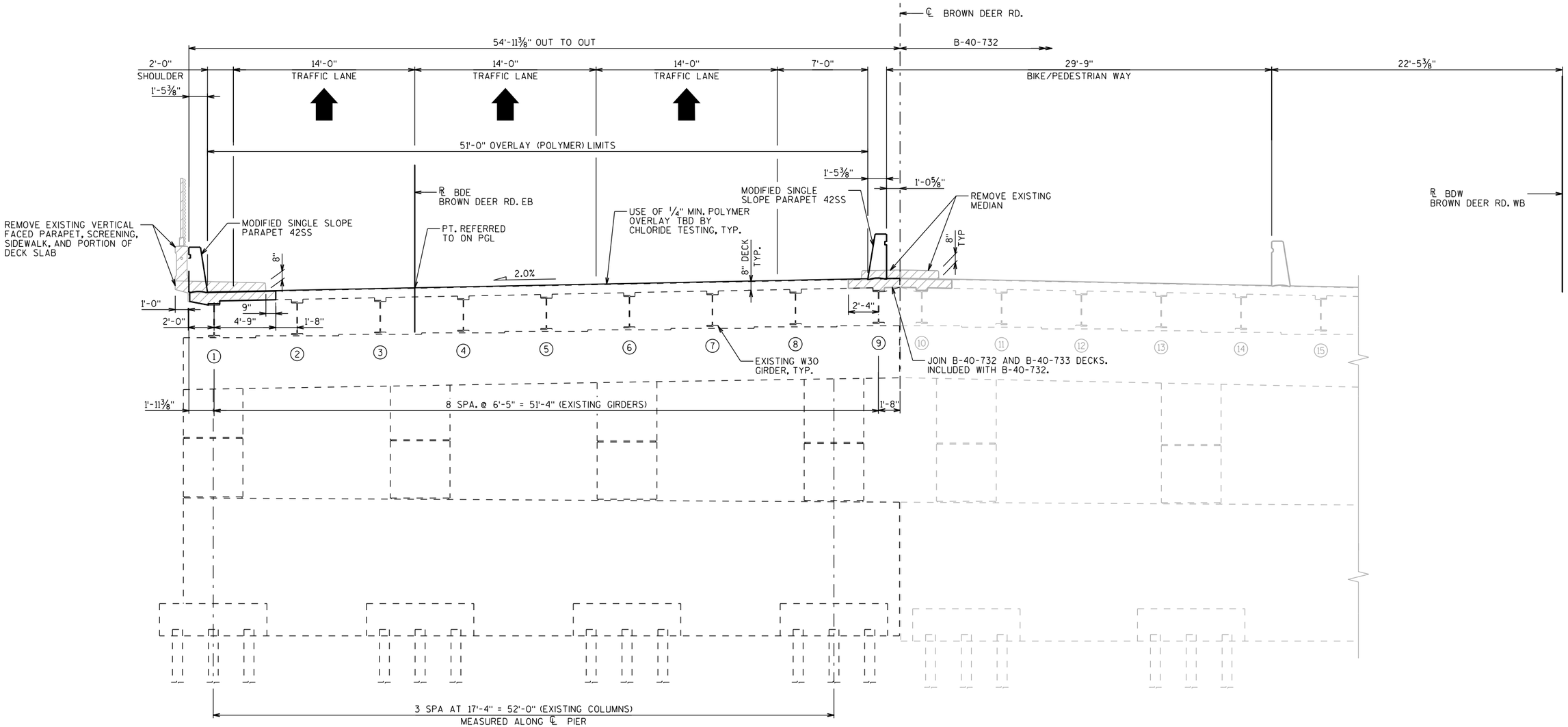
GENERAL PLAN & ELEVATION

SHEET 1 OF 5

8

8

STATE PROJECT NUMBER
1229-04-73



PROPOSED TYPICAL SECTION

LOOKING EAST

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-733

DRAWN BY HDA | PLANS CK'D. PJC

TYPICAL SECTION

SHEET 2 OF 5

8

8

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	SUPER	WEST ABUT.	PIER	EAST ABUT.	TOTAL
203.0200.XX	REMOVING STRUCTURE B-40-732	LS	X	X	X	X	1
502.0100	CONCRETE MASONRY BRIDGES	CY					
502.3210	PIGMENTED SURFACE SEALER	SY					
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH					
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB					
509.5100.S	POLYMER OVERLAY	SY					
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH					
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF					
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF					
653.0222	JUNCTION BOXES 18x12x6-INCH	EACH					
	NON-BID ITEMS						
	NAME PLATE	EACH					1
	FILLER	SIZE					

ALL ITEMS ARE CATEGORY XXXX

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = XXX
OPERATING RATING FACTOR: RF = XXX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

BROWN DEER RD EB

ADT = 12,500 (2019)
AADT = 14,400 (2045)
RDS = 40 MPH

IH 43 NB

AADT = 36,150 (2019)
AADT = 55,080 (2045)
RDS = 70 MPH

IH 43 SB

AADT = 36,150 (2019)
AADT = 46,920 (2045)
RDS = 70 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

COORDINATE THE WORK AT EXISTING STRUCTURE B-40-733 WITH THE REHABILITATION OF EXISTING BRIDGE B-40-732 AND EXISITNG RETAINING WALLS R-40-412 AND R-40-413.

"REMOVING STRUCTURE B-40-733" INCLUDES REMOVING THE PROTECTIVE SCREENING, EXTERIOR PARAPET, SIDEWALK, AND MEDIAN AND PARTIALLY REMOVING THE DECK.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT. EXERCISE CAUTION WHEN REMOVING OLD DECK AS TO NOT DAMAGE EXISTING GIRDERS AND SHEAR CONNECTORS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

UNDER BID ITEM "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH HEIGHT OF XX". THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

APPLY "PIGMENTED SURFACE SEALER" TO THE TOP AND INSIDE FACES OF INTERIOR AND EXTERIOR PARAPETS INCLUDING LIGHT SUPPORTS.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" JOINT FILLER WITH NON-STAINING, NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE.) COLOR TO MATCH ADJACENT SURFACES.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION AS MAY BE NECESSARY TO AVOID DAMAGE.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 2010 AND SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

<<STAGING TO BE DETERMINED IN FINAL DESIGN.>>

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-733

DRAWN BY HDA | PLANS CK'D. PJC

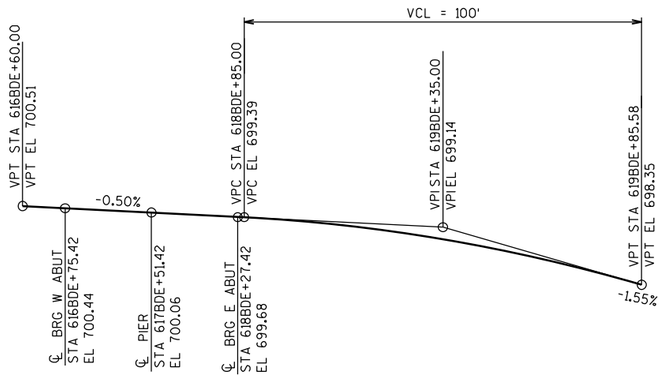
QUANTITIES, NOTES & DESIGN DATA

SHEET 3 OF 5

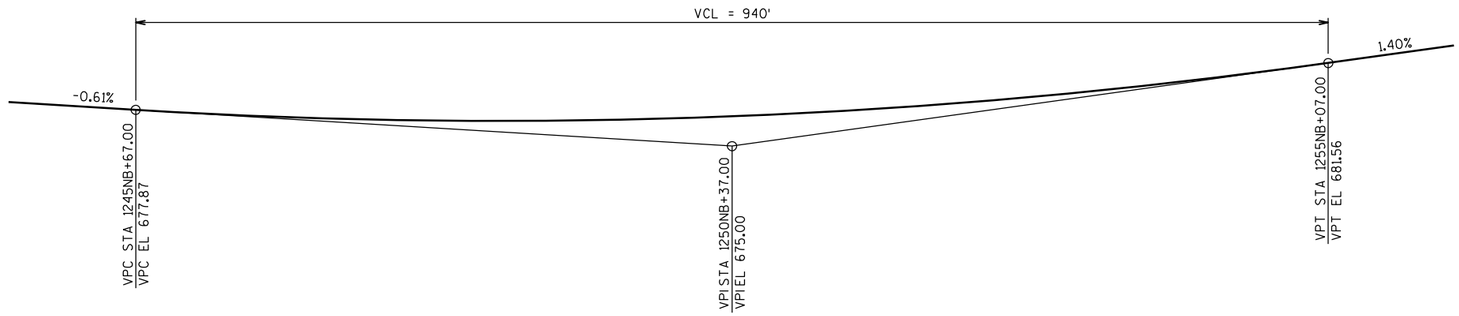
8

8

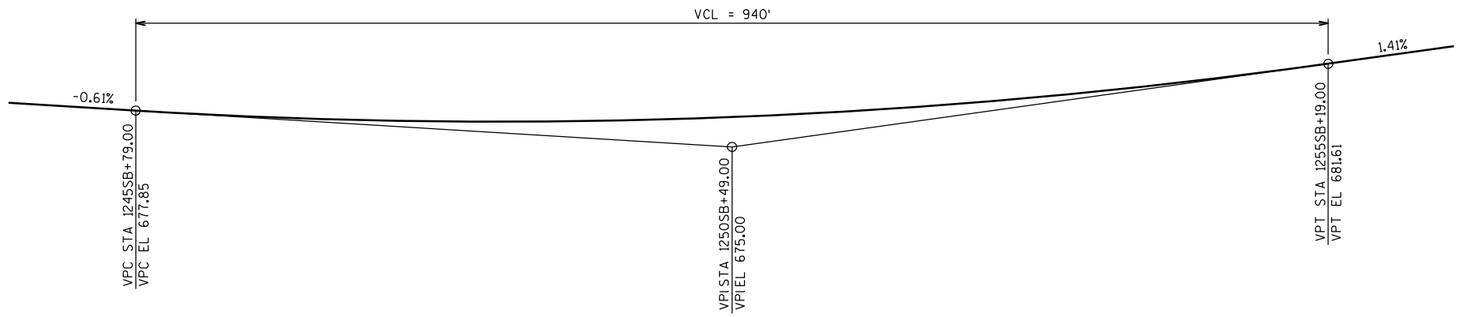
STATE PROJECT NUMBER
1229-04-73



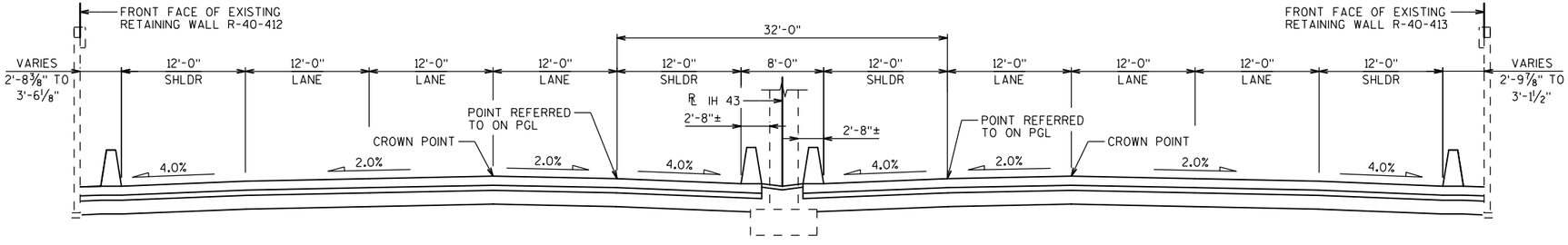
PROFILE GRADE LINE - BROWN DEER RD. EB (BDE)



PROFILE GRADE LINE - IH 43 NB (NB)



PROFILE GRADE LINE - IH 43 SB (SB)



PROPOSED IH 43 SECTION UNDER BROWN DEER RD. BRIDGES

LOOKING NORTH

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-733

DRAWN BY HDA | PLANS CK'D. PJC

PROFILE GRADE LINES

SHEET 4 OF 5

8

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BD-01	DECEMBER 14, 2014	349869	603893
BD-05	DECEMBER 15, 2014	349846	603973
BD-06	JANUARY 13, 2015	349837	604035
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

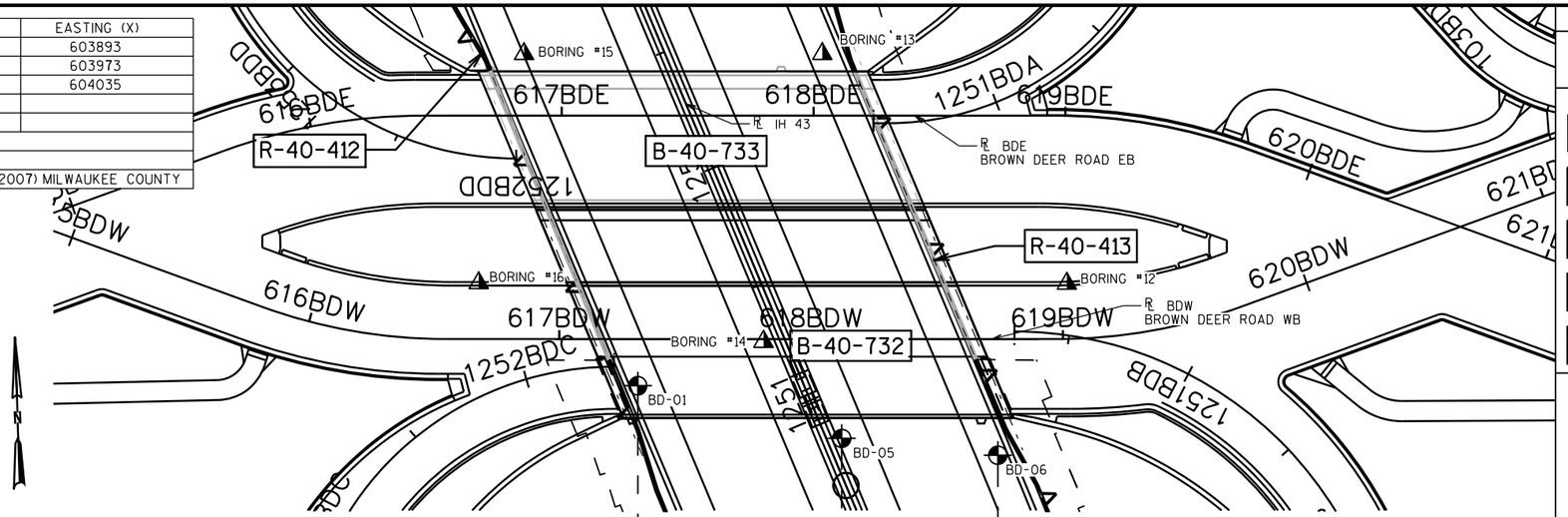
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

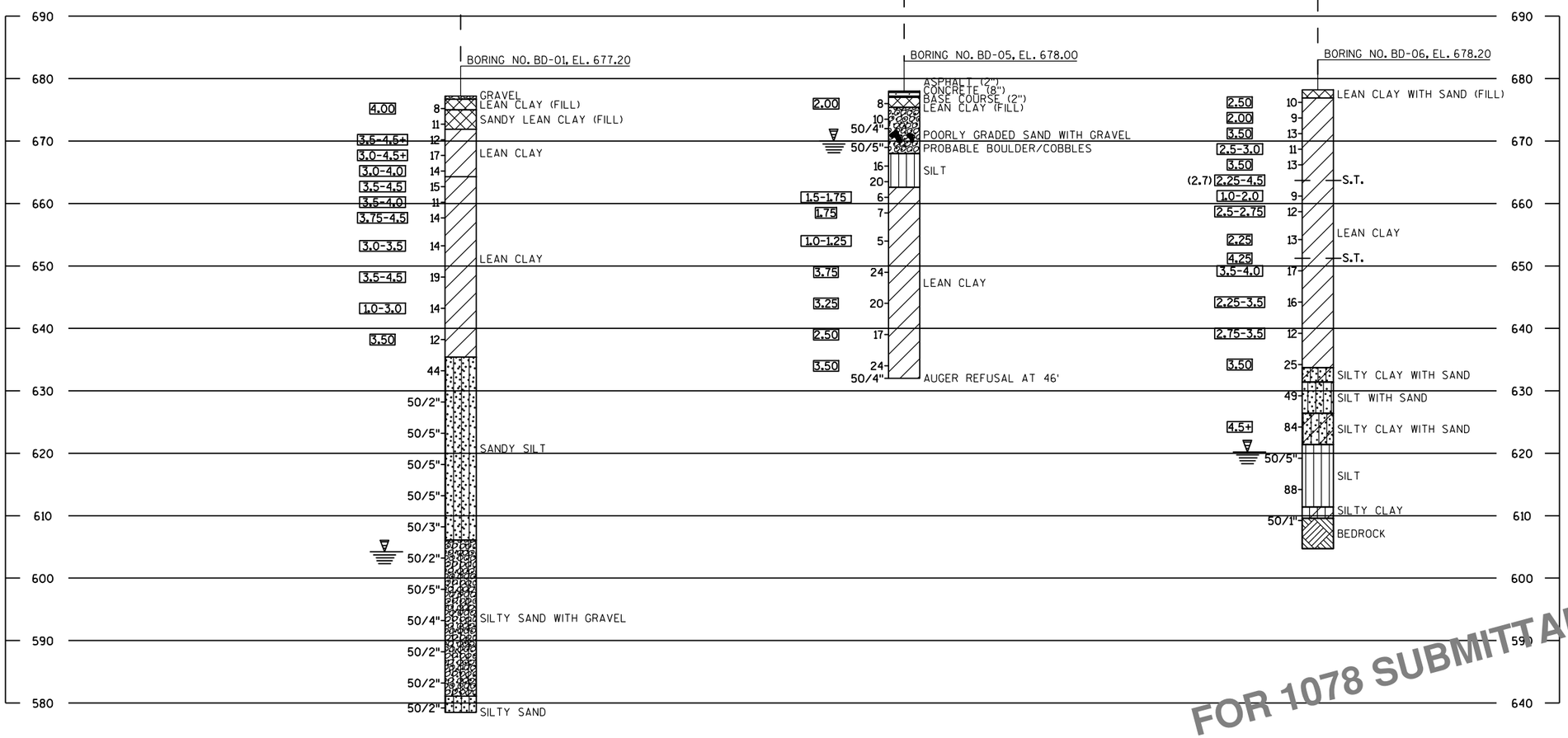
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING





FOR 1078 SUBMITTAL

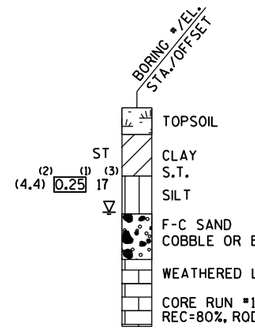
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-733

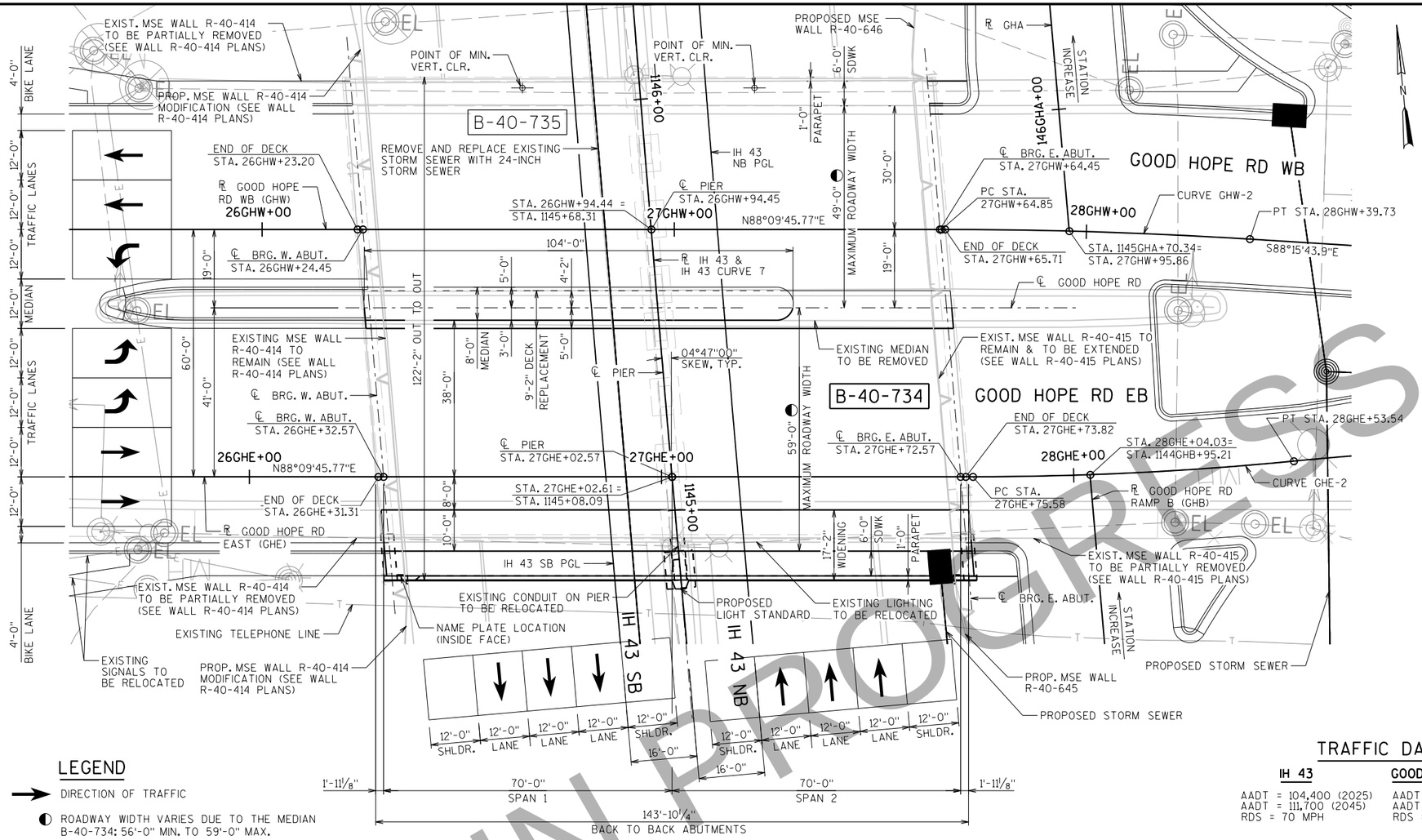
DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 5 OF 5

8

8



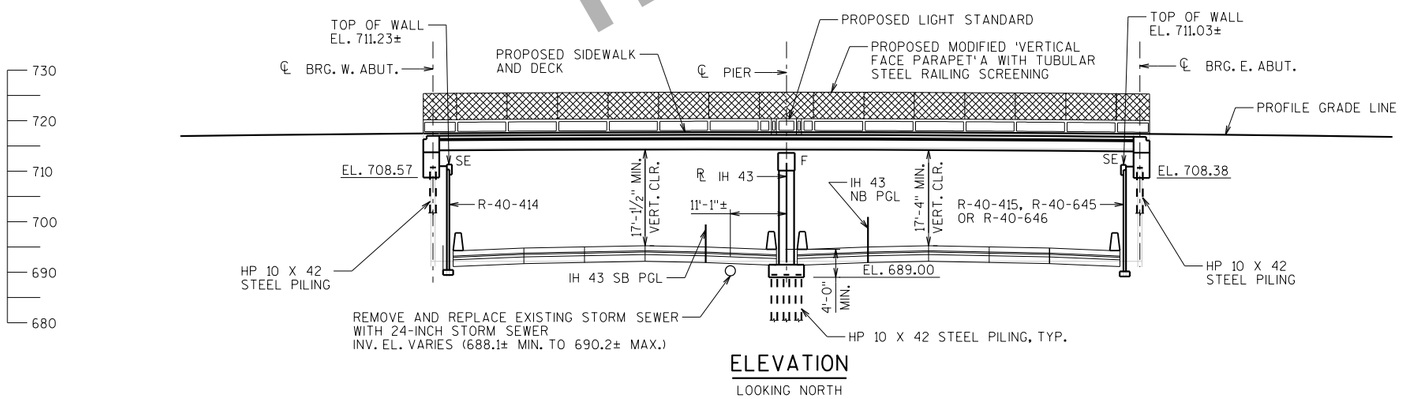
LEGEND

➔ DIRECTION OF TRAFFIC

◐ ROADWAY WIDTH VARIES DUE TO THE MEDIAN
B-40-734: 56'-0" MIN. TO 59'-0" MAX.
B-40-735: 44'-0" MIN. TO 49'-0" MAX.

PLAN

2 SPAN CONTINUOUS W24 STEEL DECK GIRDER
(STRUCTURE WIDENING & PARTIAL DECK REPLACEMENT)



ELEVATION

LOOKING NORTH

TRAFFIC DATA

IH 43	GOOD HOPE RD EB
AADT = 104,400 (2025)	AADT = 15,200 (2019)
AADT = 111,700 (2045)	AADT = 15,700 (2045)
RDS = 70 MPH	RDS = 35 MPH

STATE PROJECT NUMBER

1229-04-73

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.XX
OPERATING RATING FACTOR: RF = 1.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi
STRUCTURAL STEEL (ASTM A709) ..... Fy = 50,000 psi
STEEL PILING ..... Fy = 50,000 psi

FOUNDATION DATA

USING THE MODIFIED GATES ACCEPTANCE METHOD:

ABUTMENTS AND PIER SHALL BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
WEST ABUTMENT ..... 95 FEET
EAST ABUTMENT ..... 65 FEET
PIER ..... 85 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION
3. TYPICAL SECTION DETAILS
4. QUANTITIES
5. GENERAL NOTES
6. PROFILES GRADE LINES
7. REMOVAL DETAILS
8. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-734

GOOD HOPE RD EB OVER IH 43

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION

SHEET 1 OF 8

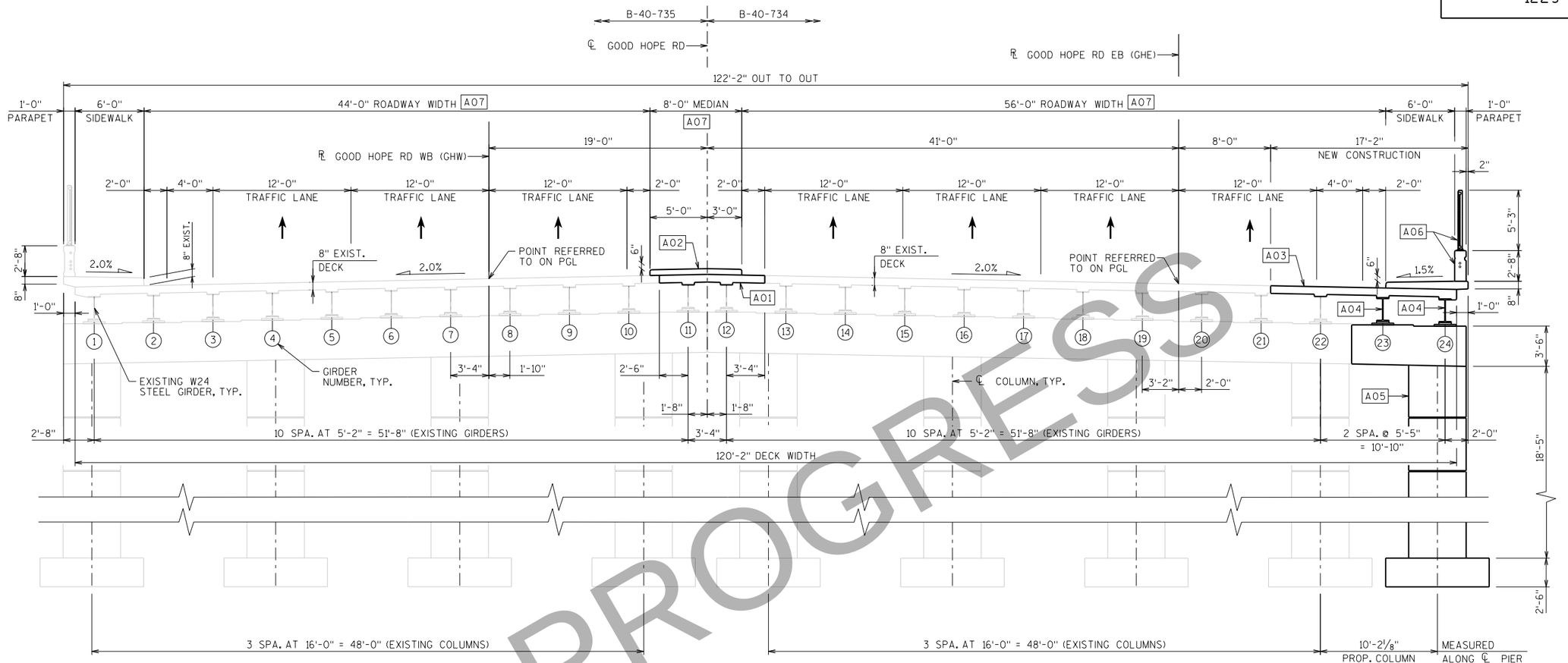
PRELIMINARY PLANS

IN PROGRESS

8

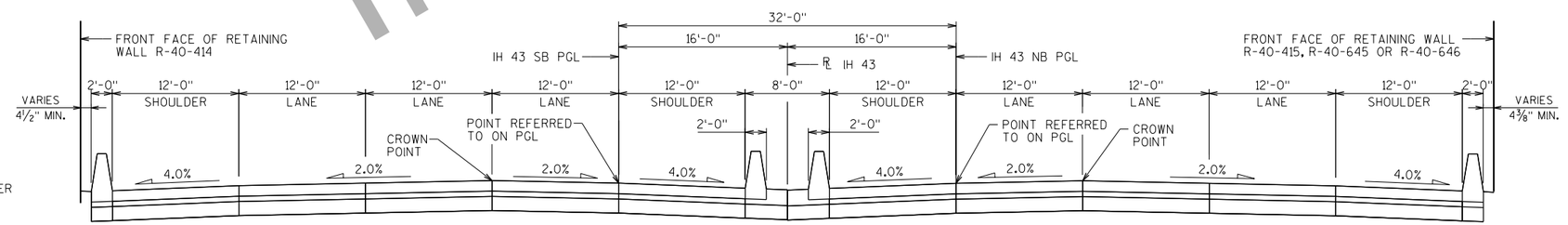
8

STATE PROJECT NUMBER
1229-04-73



PROPOSED TYPICAL SECTION

(LOOKING EAST)



PROPOSED IH 43 SECTION UNDER GOOD HOPE RD BRIDGES

(LOOKING NORTH)

LEGEND

- A01 COMBINE BRIDGE DECKS B-40-734 AND B-40-735. PROPOSED 8" THICK DECKS
- A02 PROPOSED 6" THICK UNANCHORED MEDIAN
- A03 PROPOSED 8" THICK DECK WIDENING
- A04 PROPOSED W24 STEEL GIRDER
- A05 PROPOSED PIER WIDENING
- A06 PROPOSED MODIFIED 'VERTICAL FACE PARAPET A' WITH TUBULAR STEEL RAILING SCREENING
- A07 MEDIAN DOES NOT RUN FULL LENGTH OF THE BRIDGE. WIDTH VARIES BASED ON THE LOCATION OF THE MEDIAN

NOTES

FOR TYPICAL SECTION DETAILS, SEE SHEET 3.

FOR BRIDGE REMOVAL DETAILS, SEE SHEET 7.

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY MM | PLANS CK'D. MHZ

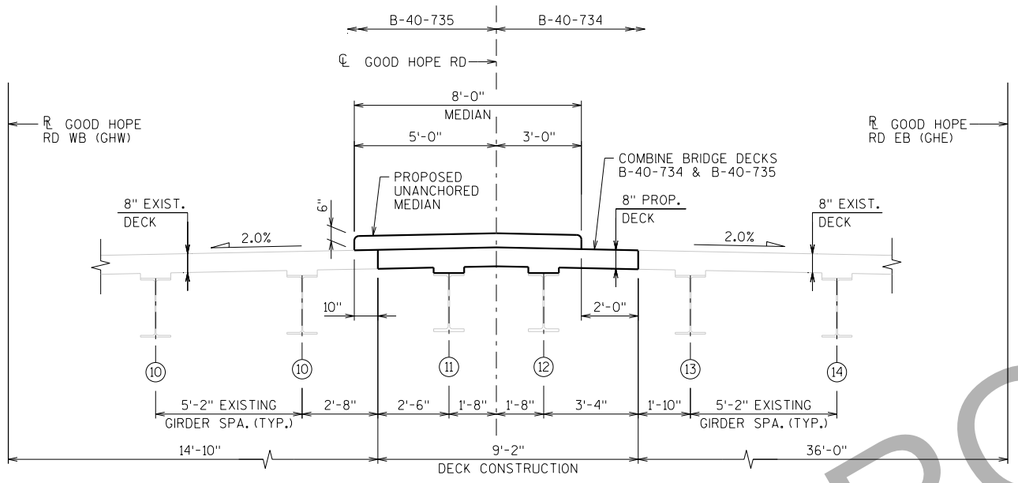
TYPICAL SECTION

SHEET 2 OF 8

8

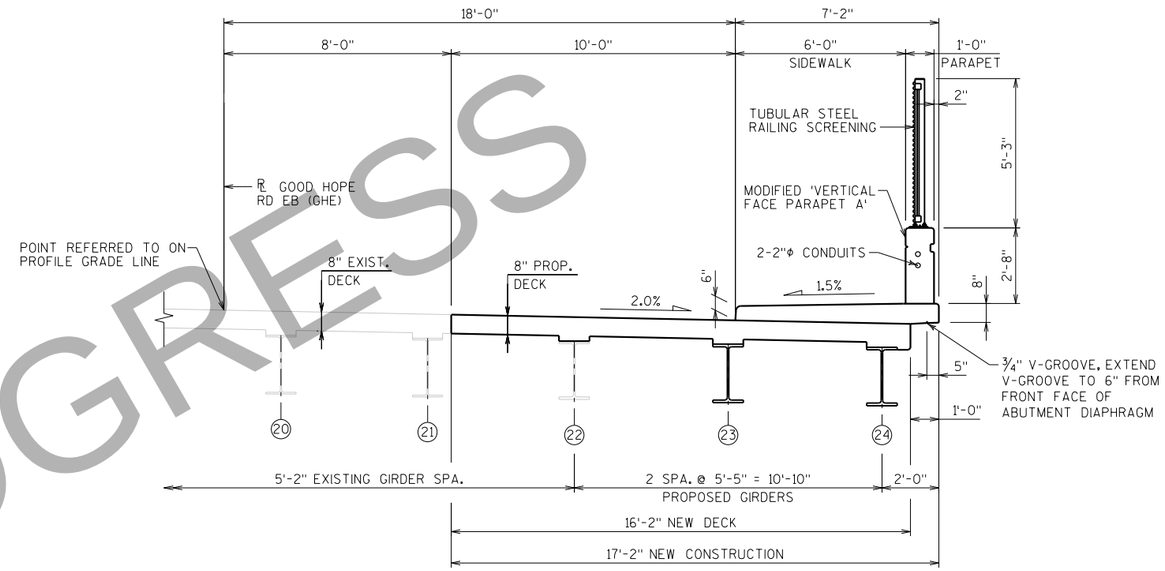
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231052\B734_080102_ts.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:10

STATE PROJECT NUMBER
1229-04-73



PROPOSED DECK & MEDIAN SECTION

(LOOKING EAST)



B-40-734 PROPOSED DECK WIDENING SECTION

(LOOKING EAST)

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION DETAILS

SHEET 3 OF 8

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	B-40-734					B-40-735					MEDIAN	TOTAL
			W. ABUT.	PIER	E. ABUT.	SUPER. 001	TOTAL	W. ABUT.	PIER	E. ABUT.	SUPER. 001	TOTAL		
203.0220.XXXX	REMOVING STRUCTURE B-40-734	EACH	-	-	-	-	-	-	-	-	-	-	-	-
203.0225.S.XXXX	DEBRIS CONTAINMENT B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-735	LS	-	-	-	-	-	-	-	-	-	-	-	-
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	-	-	-	-	-	-	-	-	-	-	-
502.0100	CONCRETE MASONRY BRIDGES	CY	-	-	-	-	-	-	-	-	-	-	-	-
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	-	-	-	-	-	-	-	-
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	-	-	-	-	-	-	-	-
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	-	-	-	-	-	-	-	-	-	-	-	-
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	-	-	-	-	-	-	-	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	-	-	-	-	-	-	-	-
506.0605	STRUCTURAL STEEL HS	LB	-	-	-	-	-	-	-	-	-	-	-	-
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	-	-	-	-	-	-	-	-
506.3015	WELDED STUD SHEAR CONNECTORS 7/8 X 6-INCH	EACH	-	-	-	-	-	-	-	-	-	-	-	-
506.5000.XXXX	BEARING ASSEMBLIES FIXED B-40-734	EACH	-	-	-	-	-	-	-	-	-	-	-	-
513.4091	RAILING TUBULAR SCREENING	LF	-	-	-	-	-	-	-	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-	-	-	-	-	-	-	-
517.0600.XXXX	PAINTING EPOXY SYSTEM B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	-	-	-	-	-	-	-	-	-	-	-	-
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	-	-	-	-	-	-	-	-	-	-	-	-
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	-	-	-	-	-	-	-	-	-	-
	NON-BID ITEMS													
	NAME PLATE	EACH					-					-	-	-
	PREFORMED JOINT FILLER	SIZE					-					-	-	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

8

8

LEGEND

001 SUPERSTRUCTURE QUANTITIES DO NOT INCLUDE THE MEDIAN

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY MM | PLANS CK'D. MHZ

QUANTITIES

SHEET 4 OF 8

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2007).

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE FIRST OR FIRST TWO DIGITS OF BAR MARK SIGNIFY THE BAR SIZE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER FRICTION TYPE HIGH-TENSILE STRENGTH BOLTS UNLESS SHOWN OR NOTED OTHERWISE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-734" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURES, B-40-734 & B-40-735 ARE 2-SPAN CONTINUOUS STEEL DECK GIRDER BRIDGE WITH AN OVERALL OUT TO OUT WIDTH OF 112'-0" AND AN OVERALL LENGTH OF 143'-10¼". THE EXISTING MEDIAN IS TO BE REMOVED. PARTIALLY REMOVE AND CONSTRUCT CONCRETE DECK AND MEDIAN AT BOTH BRIDGES. PARTIALLY REMOVE THE EXISTING DECK BELOW THE SIDEWALK AT BRIDGE B-40-734. THE SIDEWALK, PARAPET AND FENCE AT BRIDGE B-40-734 IS TO BE REMOVED. EXTEND THE ABUTMENTS, PIER AND SUPERSTRUCTURE AT THE SOUTH END OF BRIDGE B-40-734.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 2010.

ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 UNLESS NOTED OTHERWISE.

CONCRETE INSERTS TO BE FURNISHED BY THE UTILITY COMPANY AND PLACED BY THE CONTRACTOR. COST OF PLACING INSERTS SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MASONRY.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF BRIDGE B-40-734 ABUTMENTS WITH CONSTRUCTION OF RETAINING WALLS R-40-414, R-40-415 AND R-40-645.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALLS R-40-414 AND R-40-646 WITH BRIDGE B-40-735. CLOSURE WALL PANELS SHALL BE PLACED AT THE ABUTMENTS AND TO BE PAID FOR AS A RETAINING WALL ITEM.

MSE BACKFILL OR SIZE 2 COARSE AGGREGATE PLACED BETWEEN THE MSE RETAINING WALL & ABUTMENT SHALL BE INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

"REMOVING STRUCTURE B-40-734" SHALL INCLUDE THE REMOVAL AT BRIDGES B-40-734 & B-40-735. THE EXISTING MEDIAN, PARAPET, FENCE, SIDEWALK, PARTIAL DECK AND ABUTMENT DIAPHRAGM SHALL BE REMOVED. SEE THE REMOVAL DETAILS SHEET FOR MORE DETAILS.

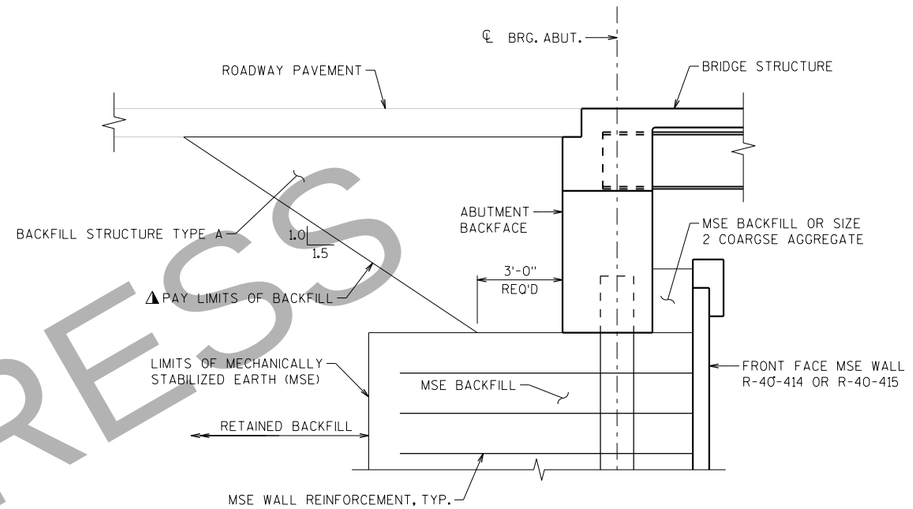
DEBRIS CONTAINMENT FOR BRIDGE B-40-735 SHALL BE INCLUDED IN BID ITEM "DEBRIS CONTAINMENT B-40-734".

PROPOSED STEEL SUPERSTRUCTURE SHALL BE PAINTED XXXX (AMS STANDARD COLOR NO. XXXX).

APPLY PROTECTIVE SURFACE TREATMENT TO THE PROPOSED DECK, SIDEWALK AND MEDIAN.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

PROPOSED PIER COLUMN FOOTING TO BE CONSTRUCTED PRIOR TO THE INSTALLATION OF THE 24" PROPOSED STORM SEWER.



BACKFILL LIMITS

DIMENSIONS ARE MEASURED NORMAL TO ABUTMENT

LEGEND

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES

SHEET 5 OF 8

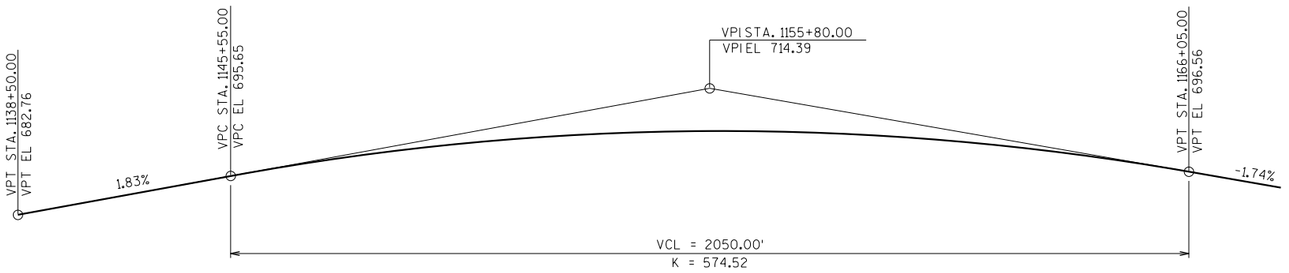
PRELIMINARY PLANS

IN PROGRESS

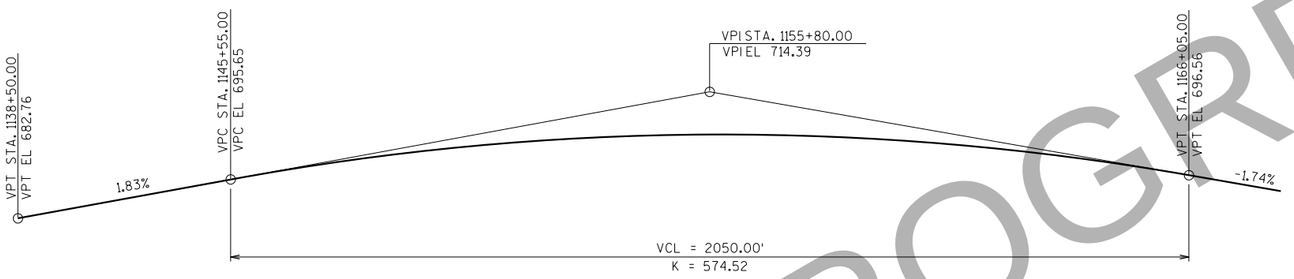
8

8

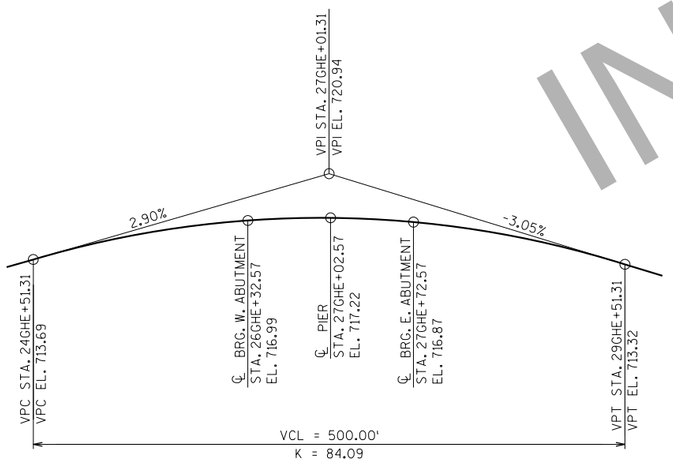
STATE PROJECT NUMBER
1229-04-73



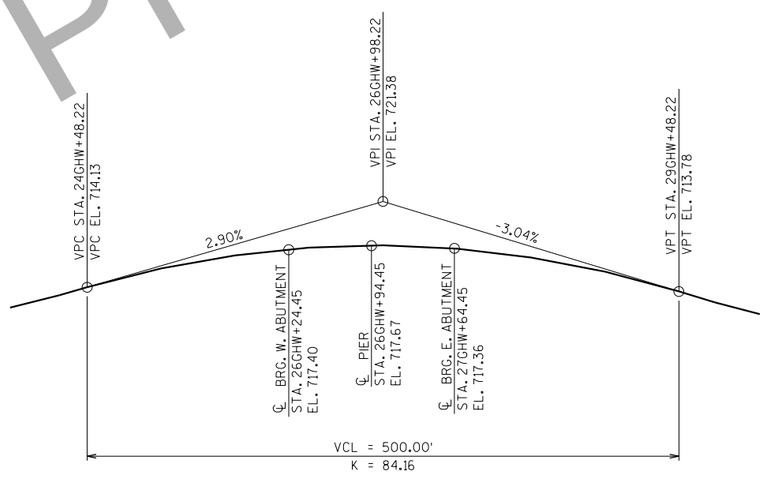
PROFILE GRADE LINE - IH 43 NB



PROFILE GRADE LINE - IH 43 SB



PROFILE GRADE LINE - GOOD HOPE RD EB



PROFILE GRADE LINE - GOOD HOPE RD WB

HORIZONTAL CURVE DATA

IH 43 CURVE 7

PI STA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 4°24'12"
D = 0°24'13"
T = 545.91'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64

CURVE GHW-2

PI STA. = 28GHW+02.30
Y = 339386.58
X = 604351.95
DELTA = 3°34'30"
D = 4°46'29"
T = 37.45'
L = 74.88'
R = 1200.00'
PC STA. = 27GHW+64.85
Y = 339385.37
X = 604314.52
PT STA. = 28GHW+39.73
Y = 339385.44
X = 604389.39

CURVE GHE-2

PI STA. = 28GHE+14.59
Y = 339326.90
X = 604363.06
DELTA = 5°35'01"
D = 7°09'43"
T = 39.01
L = 77.96'
R = 800.00'
PC STA. = 27GHE+75.58
Y = 339325.65
X = 604324.07
PT STA. = 28GHE+53.54
Y = 339331.94
X = 604401.75

BENCH MARK DATA

NO.	NORTHING	EASTING	DESCRIPTION	ELEV.
BM7100	339,362	605,145	CUT "X" ON SOUTH SIDE OF FLANGE BOLT ON HYDRANT IN THE NORTHEAST QUADRANT OF IROQUOIS AVE AND GOOD HOPE RD.	710.32
BM71099	339,307	604,115	NORTH BOLT ON TRAFFIC LIGHT POLE AT THE SOUTHWEST CORNER OF GOOD HOPE RD. BRIDGE OVER I-43.	717.49
CP1099	339,212.46	604,120.27	BERNTSEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED WISDOT/AYRES, 65'EAST OF CENTERLINE I-43 SB ON RAMP FROM GOOD HOPE RD. 30'EAST OF LIGHT POLE "HGH86"	708.44
CP1100	339,294.39	605410.16	BERNTSEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED WISDOT/AYRES, 30'SOUTH OF CENTERLINE GOOD HOPE RD. AND 20'WEST OF CENTERLINE OF MOHAWK AVE.	705.71

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

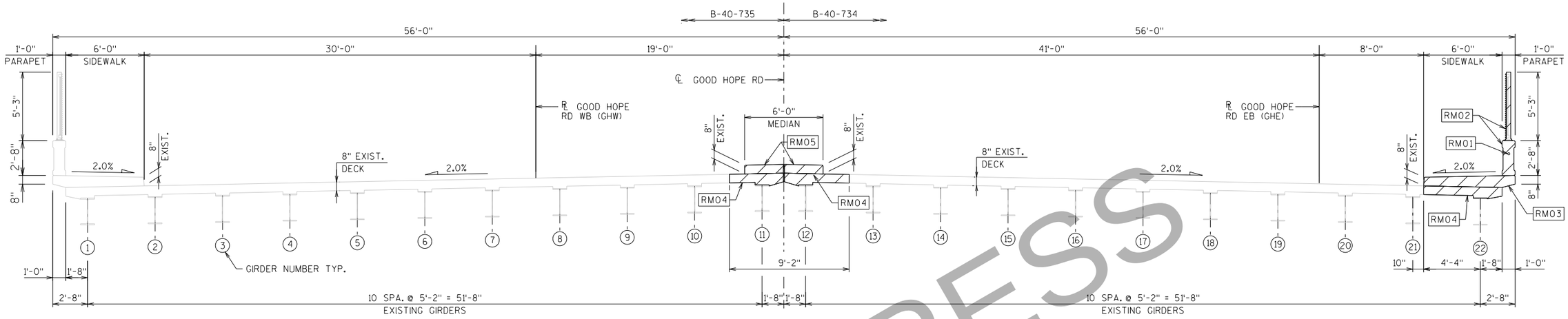
DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES

SHEET 6 OF 8

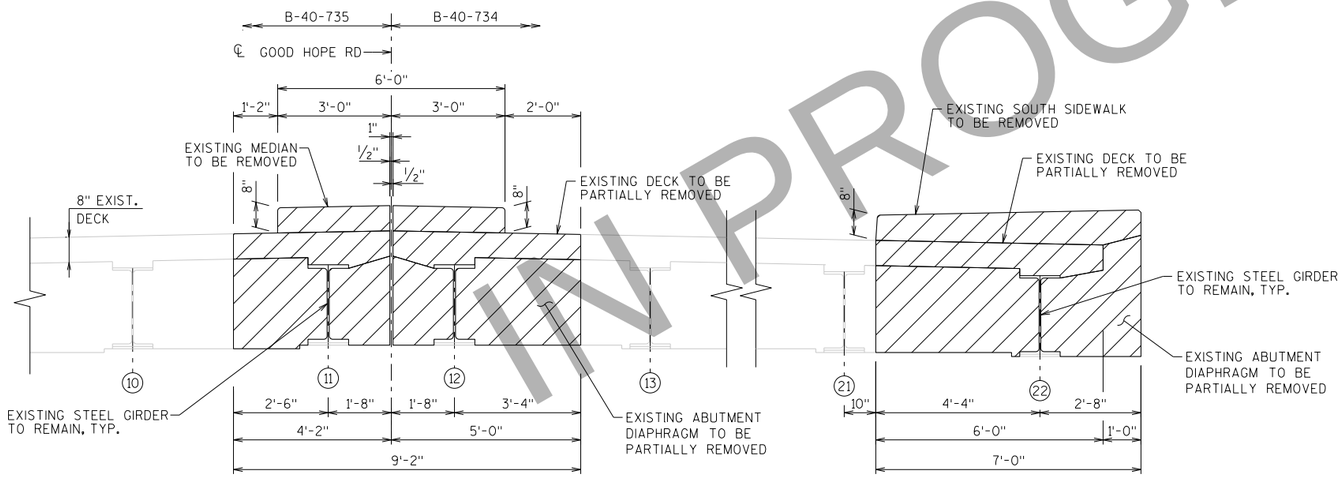
PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73



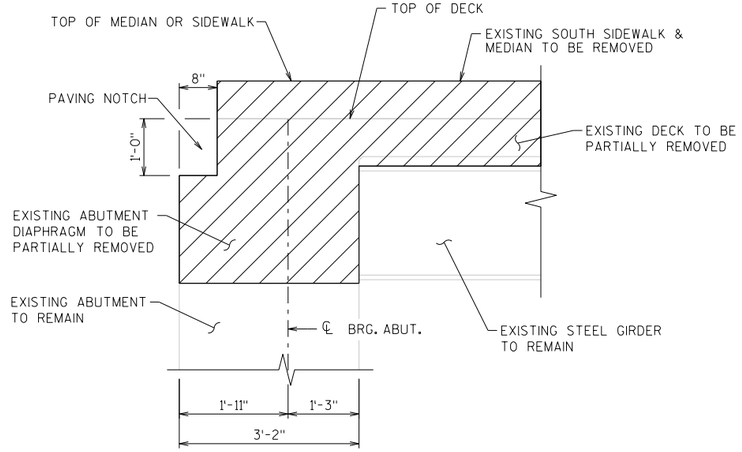
EXISTING TYPICAL SECTION

(LOOKING EAST)



ABUTMENT DIAPHRAGM ELEVATION

(LOOKING EAST AT EAST ABUTMENT)
(WEST ABUTMENT SIMILAR)



EXISTING ABUTMENT DIAPHRAGM SECTION

LEGEND

- RM01 EXISTING 2"Φ LIGHTING CONDUIT TO BE REMOVED
- RM02 EXISTING VERTICAL FACE PARAPET & FENCE TO BE REMOVED
- RM03 EXISTING SIDEWALK TO BE REMOVED
- RM04 EXISTING DECK TO BE PARTIALLY REMOVED
- RM05 EXISTING MEDIAN TO BE REMOVED

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY MM | PLANS CK'D. MHZ

REMOVAL DETAILS

SHEET 7 OF 8

PRELIMINARY PLANS

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231052\B734_080107_rm.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GH-01	JANUARY 28, 2015	339279.62	604201.26
GH-02	MAY 6, 2015	339293	604268
GH-03	JANUARY 16, 2015	339285	604312
GHB-09	APRIL 22, 2014	339224	604354
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

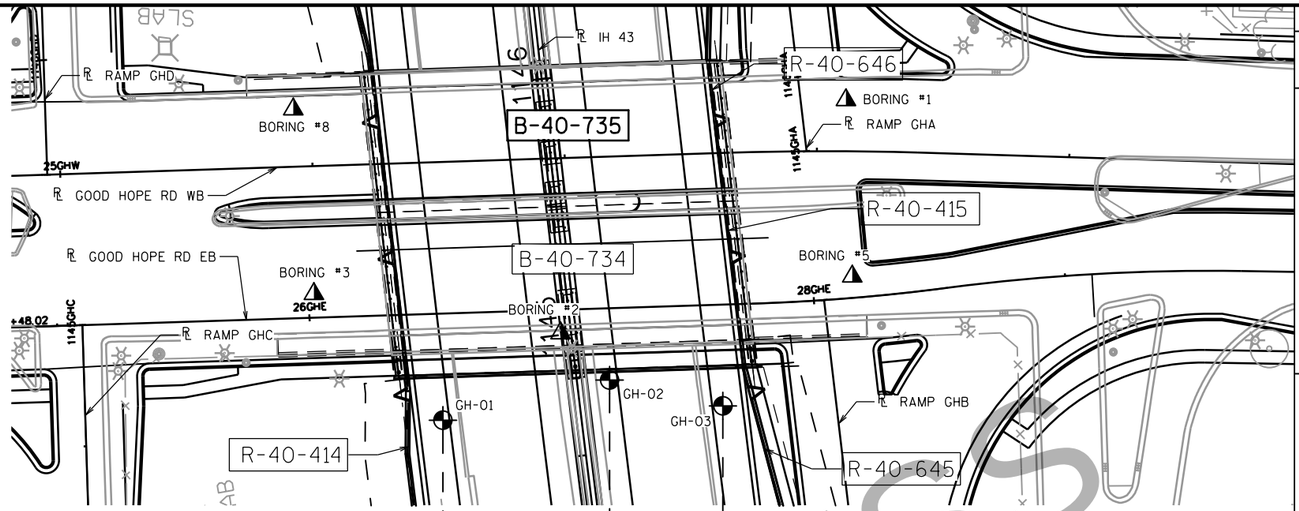
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DENOTES SOIL BORING LOCATION

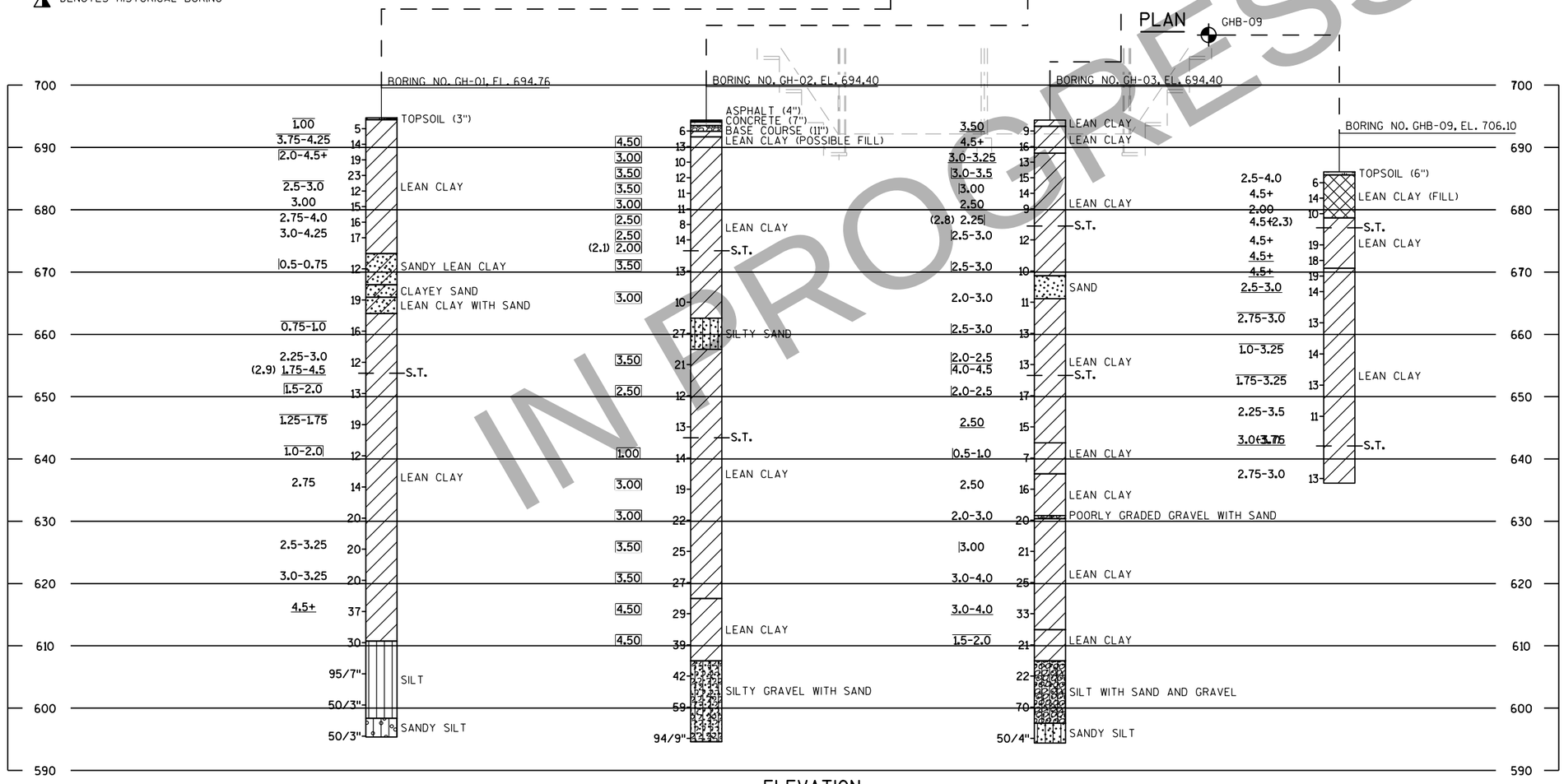
DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN

GHB-09



ELEVATION

LOOKING NORTH

PRELIMINARY

IN PROGRESS

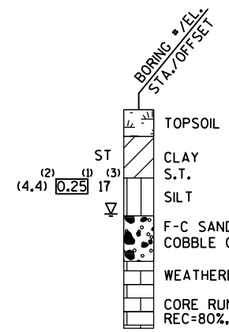
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-734

DRAWN BY NNM | PLANS CK'D. EAJ

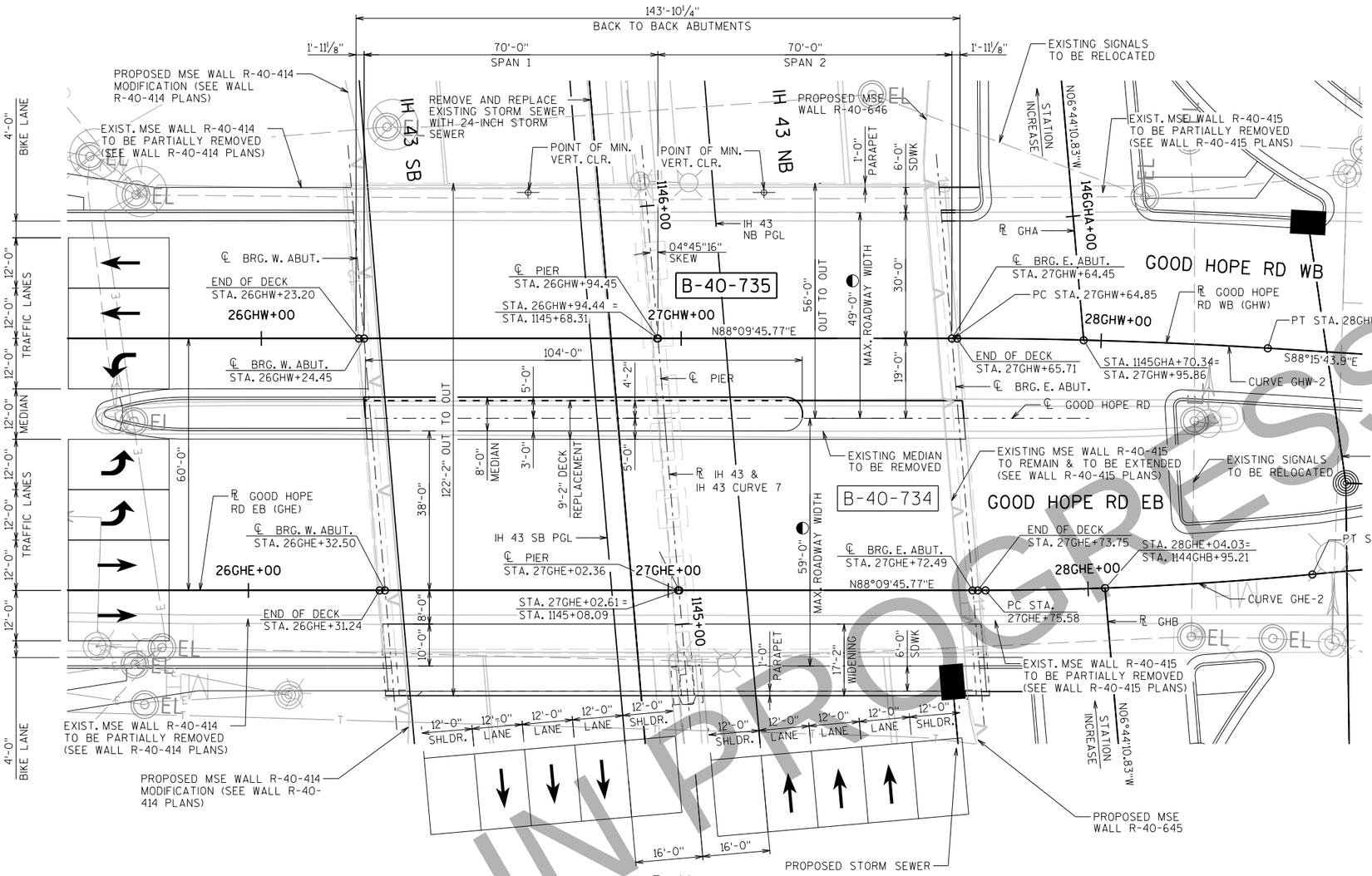
SUBSURFACE EXPLORATION

SHEET 8 OF 8

8

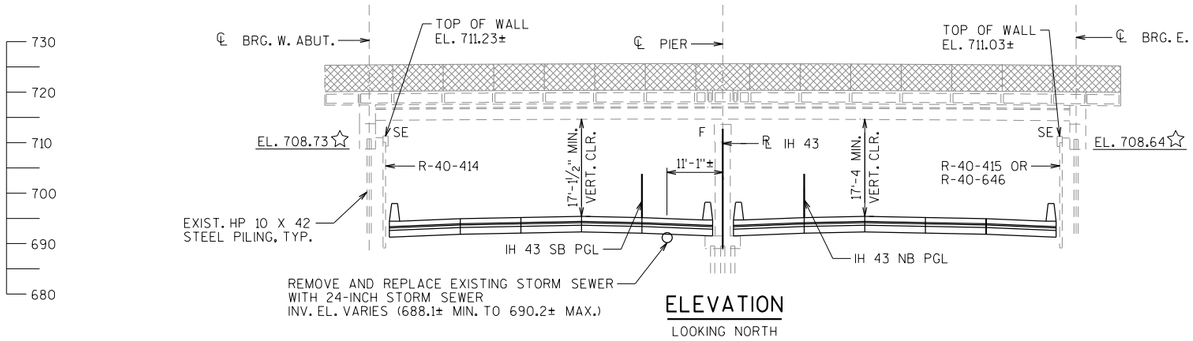
8

STATE PROJECT NUMBER
1229-04-73



PLAN

2 SPAN CONTINUOUS W24 STEEL DECK GIRDER
(PARTIAL DECK & MEDIAN REPLACEMENT)



ELEVATION

LOOKING NORTH

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.XX
OPERATING RATING FACTOR: RF = 1.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION
3. TYPICAL SECTION DETAILS
4. QUANTITIES
5. GENERAL NOTES
6. PROFILE GRADE LINES
7. REMOVAL DETAILS

TRAFFIC DATA

IH 43	GOOD HOPE RD WB
AADT = 104,400 (2025)	AADT = 15,400 (2019)
AADT = 111,700 (2045)	AADT = 16,000 (2045)
RDS = 70 MPH	RDS = 35 MPH

LEGEND

→ DIRECTION OF TRAFFIC

☆ ELEVATIONS TAKEN FROM THE ORIGINAL STRUCTURE PLANS

◐ ROADWAY WIDTH VARIES DUE TO THE MEDIAN (44'-0" MIN. TO 49'-0" MAX.)

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-735

GOOD HOPE RD WB OVER IH 43

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

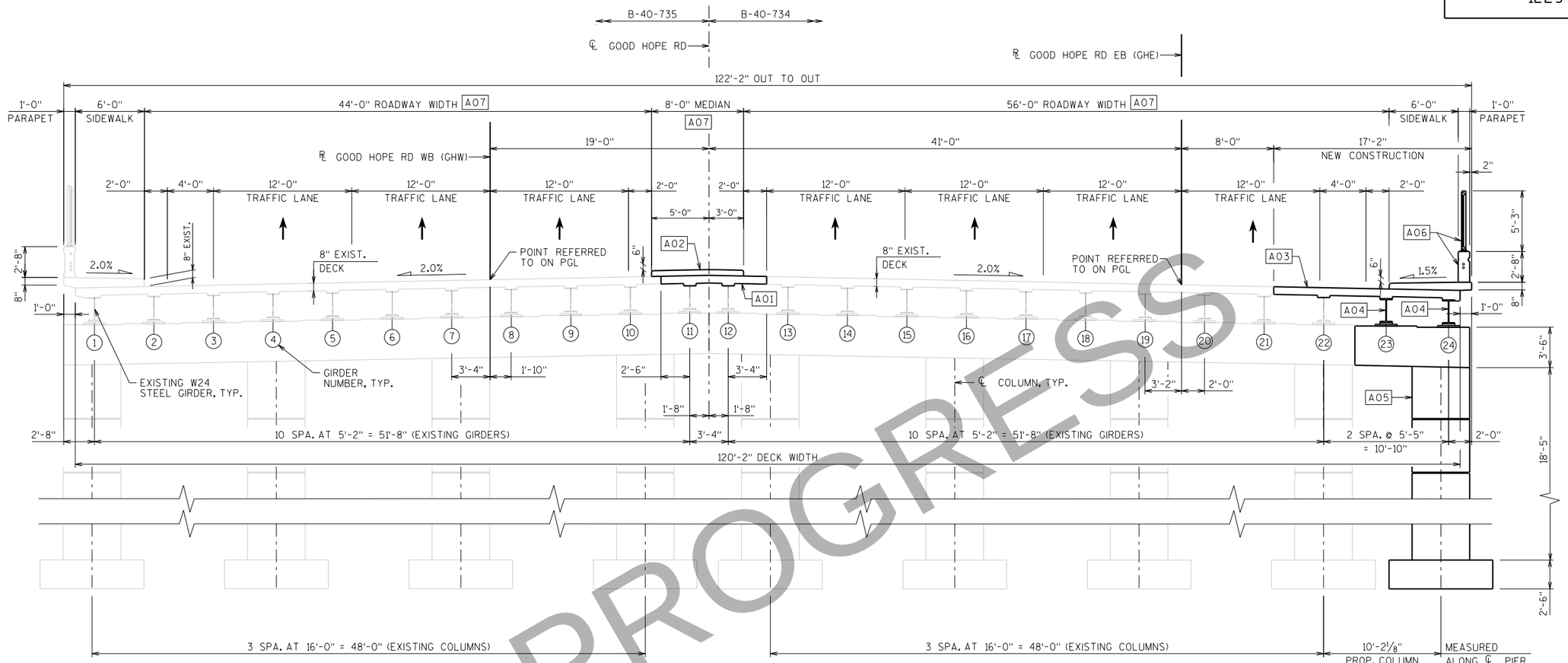
GENERAL PLAN & ELEVATION

SHEET 1 OF 7

IN PROGRESS

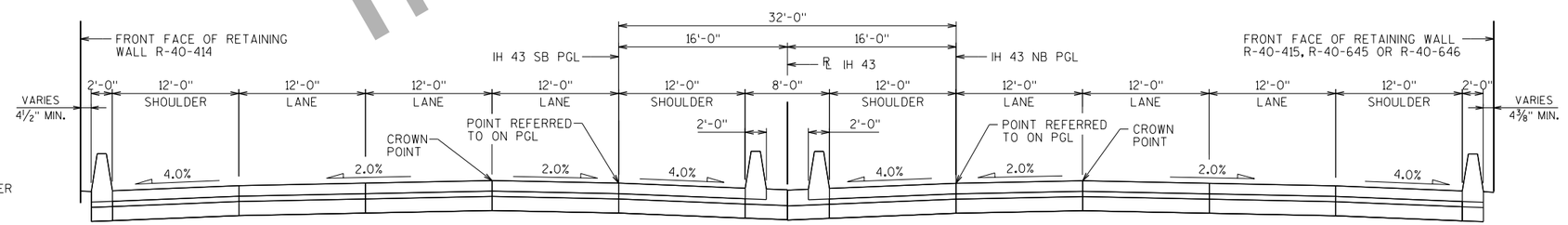
PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73



PROPOSED TYPICAL SECTION

(LOOKING EAST)



PROPOSED IH 43 SECTION UNDER GOOD HOPE RD BRIDGES

(LOOKING NORTH)

LEGEND

- A01 COMBINE BRIDGE DECKS B-40-734 AND B-40-735. PROPOSED 8" THICK DECKS
- A02 PROPOSED 6" THICK UNANCHORED MEDIAN
- A03 PROPOSED 8" THICK DECK WIDENING
- A04 PROPOSED W24 STEEL GIRDER
- A05 PROPOSED PIER WIDENING
- A06 PROPOSED MODIFIED 'VERTICAL FACE PARAPET A' WITH TUBULAR STEEL RAILING SCREENING
- A07 MEDIAN DOES NOT RUN FULL LENGTH OF THE BRIDGE. WIDTH VARIES BASED ON THE LOCATION OF THE MEDIAN

NOTES

FOR TYPICAL SECTION DETAILS, SEE SHEET 3.

FOR BRIDGE REMOVAL DETAILS, SEE SHEET 7.

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

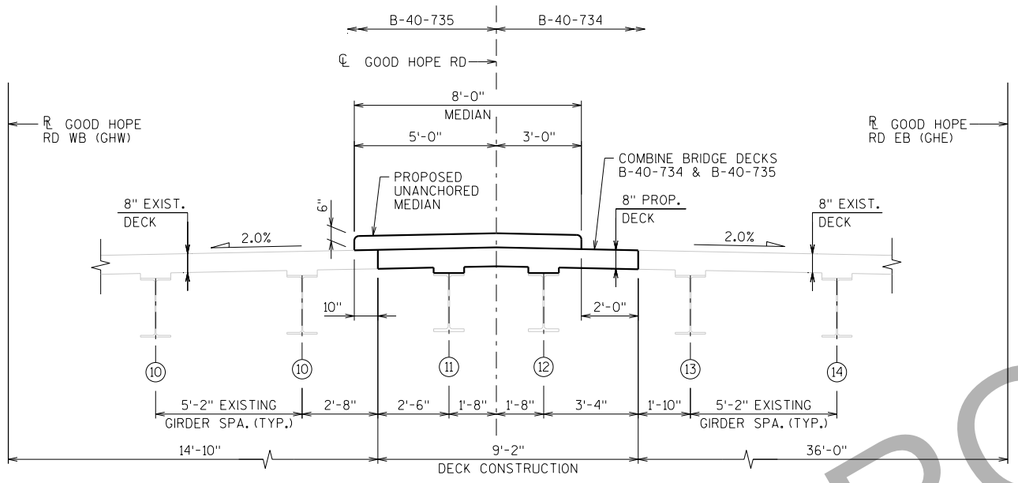
TYPICAL SECTION

SHEET 2 OF 7

8

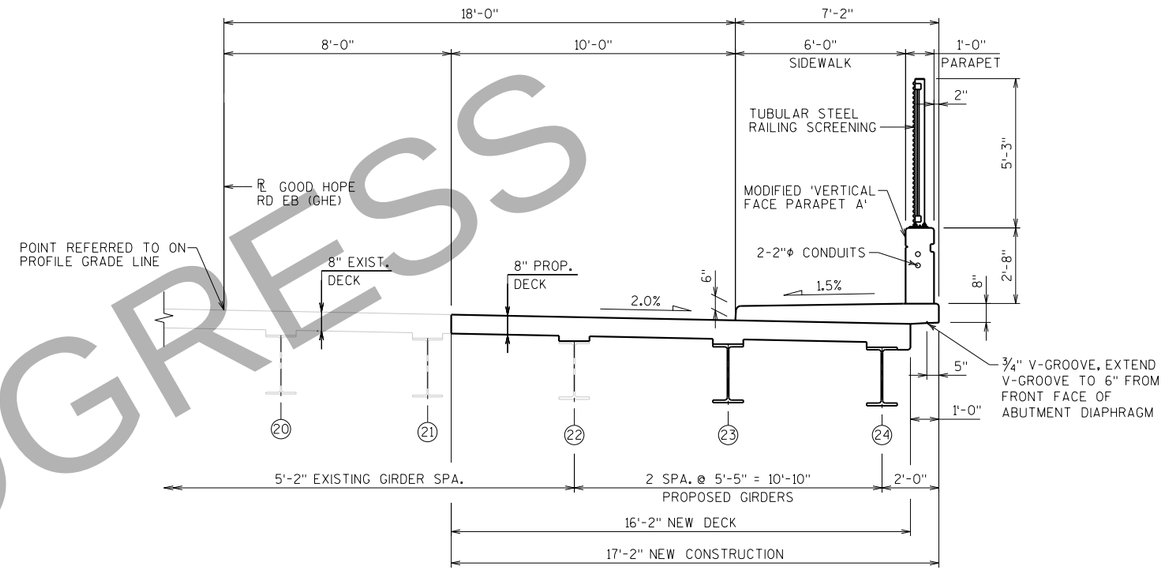
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231057\B735_080102_ts.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:10

STATE PROJECT NUMBER
1229-04-73



PROPOSED DECK & MEDIAN SECTION

(LOOKING EAST)



B-40-734 PROPOSED DECK WIDENING SECTION

(LOOKING EAST)

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION DETAILS

SHEET 3 OF 7

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	B-40-734					B-40-735					MEDIAN	TOTAL
			W. ABUT.	PIER	E. ABUT.	SUPER. 001	TOTAL	W. ABUT.	PIER	E. ABUT.	SUPER. 001	TOTAL		
203.0220.XXXX	REMOVING STRUCTURE B-40-734	EACH	-	-	-	-	-	-	-	-	-	-	-	-
203.0225.S.XXXX	DEBRIS CONTAINMENT B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-735	LS	-	-	-	-	-	-	-	-	-	-	-	-
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	-	-	-	-	-	-	-	-	-	-	-
502.0100	CONCRETE MASONRY BRIDGES	CY	-	-	-	-	-	-	-	-	-	-	-	-
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	-	-	-	-	-	-	-	-
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	-	-	-	-	-	-	-	-
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	-	-	-	-	-	-	-	-	-	-	-	-
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	-	-	-	-	-	-	-	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	-	-	-	-	-	-	-	-
506.0605	STRUCTURAL STEEL HS	LB	-	-	-	-	-	-	-	-	-	-	-	-
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	-	-	-	-	-	-	-	-
506.3015	WELDED STUD SHEAR CONNECTORS 7/8 X 6-INCH	EACH	-	-	-	-	-	-	-	-	-	-	-	-
506.5000.XXXX	BEARING ASSEMBLIES FIXED B-40-734	EACH	-	-	-	-	-	-	-	-	-	-	-	-
513.4091	RAILING TUBULAR SCREENING	LF	-	-	-	-	-	-	-	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-	-	-	-	-	-	-	-
517.0600.XXXX	PAINTING EPOXY SYSTEM B-40-734	LS	-	-	-	-	-	-	-	-	-	-	-	-
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	-	-	-	-	-	-	-	-	-	-	-	-
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	-	-	-	-	-	-	-	-	-	-	-	-
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	-	-	-	-	-	-	-	-	-	-
	NON-BID ITEMS													
	NAME PLATE	EACH					-					-	-	-
	PREFORMED JOINT FILLER	SIZE					-					-	-	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

8

8

LEGEND

001 SUPERSTRUCTURE QUANTITIES DO NOT INCLUDE THE MEDIAN

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

QUANTITIES

SHEET 4 OF 7

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1INCH DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2007).

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE FIRST OR FIRST TWO DIGITS OF BAR MARK SIGNIFY THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-735" SHALL BE THE EXISTING GROUND LINE.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEED PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURES, B-40-734 & B-40-735 ARE 2-SPAN CONTINUOUS STEEL DECK GIRDER BRIDGE WITH AN OVERALL OUT TO OUT WIDTH OF 112'-0" AND AN OVERALL LENGTH OF 143'-10¼". THE EXISTING MEDIAN IS TO BE REMOVED. PARTIALLY REMOVE AND CONSTRUCT CONCRETE DECK AND MEDIAN AT BOTH BRIDGES. PARTIALLY REMOVE THE EXISTING DECK BELOW THE SIDEWALK AT BRIDGE B-40-734. THE SIDEWALK, PARAPET AND FENCE AT BRIDGE B-40-734 IS TO BE REMOVED. EXTEND THE ABUTMENTS, PIER AND SUPERSTRUCTURE AT THE SOUTH END OF BRIDGE B-40-734.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF BRIDGE B-40-734 ABUTMENTS WITH CONSTRUCTION OF RETAINING WALLS R-40-414, R-40-415 AND R-40-645.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALLS R-40-414 AND R-40-646 WITH BRIDGE B-40-735. CLOSURE WALL PANELS SHALL BE PLACED AT THE ABUTMENTS AND TO BE PAID FOR AS A RETAINING WALL ITEM.

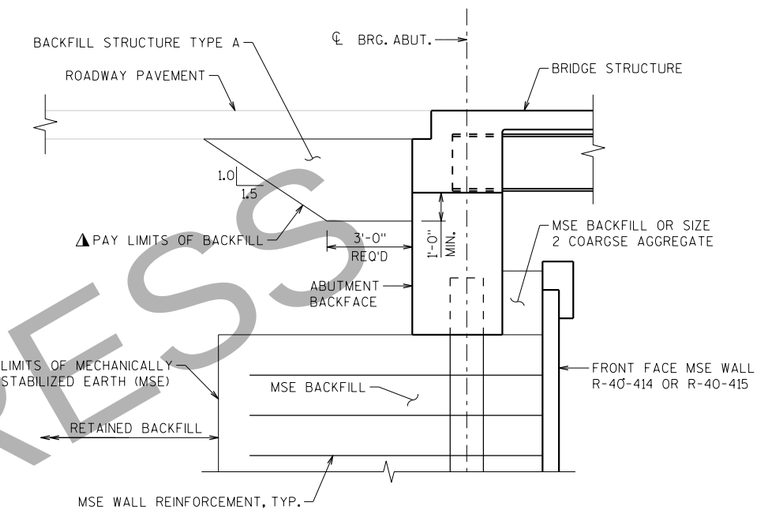
MSE BACKFILL OR SIZE 2 COARSE AGGREGATE PLACED BETWEEN THE MSE RETAINING WALL & ABUTMENT SHALL BE INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

"REMOVING STRUCTURE B-40-734" SHALL INCLUDE THE REMOVAL AT BRIDGES B-40-734 & B-40-735. THE EXISTING MEDIAN, PARAPET, FENCE, SIDEWALK, PARTIAL DECK AND ABUTMENT DIAPHRAGM SHALL BE REMOVED. SEE THE REMOVAL DETAILS SHEET FOR MORE DETAILS.

DEBRIS CONTAINMENT FOR BRIDGE B-40-735 SHALL BE INCLUDED IN BID ITEM "DEBRIS CONTAINMENT B-40-734".

PRIOR TO THE MEDIAN CONSTRUCTION, DIAMOND GRIND THE DECK SURFACE WITH THE LIMITS OF THE PROPOSED MEDIAN.

APPLY PROTECTIVE SURFACE TREATMENT TO THE PROPOSED DECK AND MEDIAN.



BACKFILL LIMITS

DIMENSIONS ARE MEASURED NORMAL TO ABUTMENT

LEGEND

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES

SHEET 5 OF 7

PRELIMINARY PLANS

IN PROGRESS

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STATE PROJECT NUMBER
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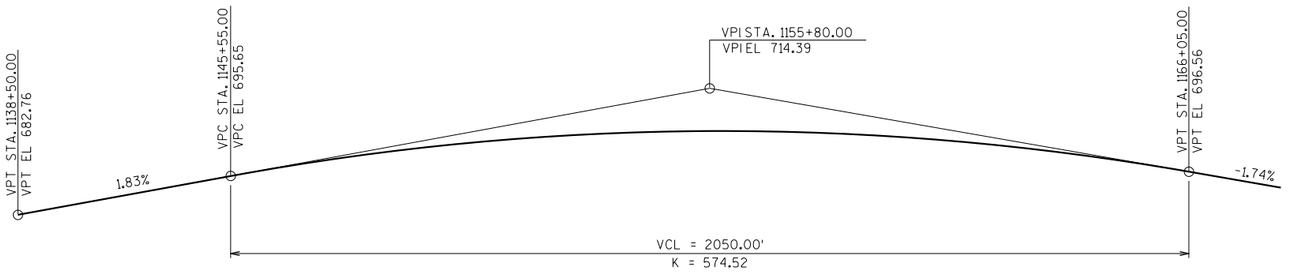
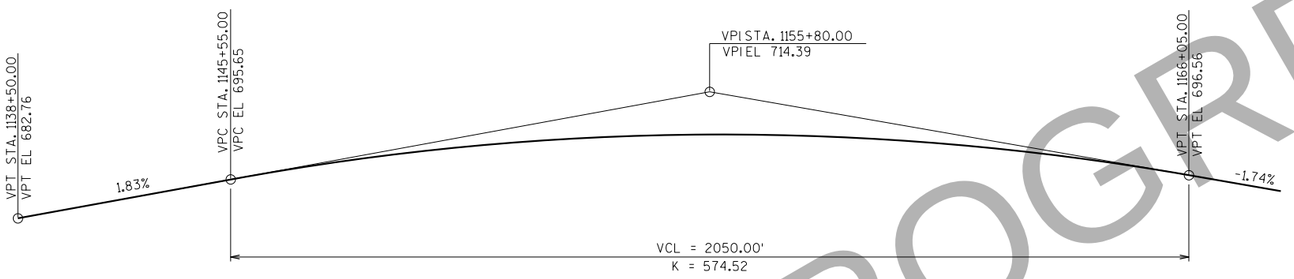
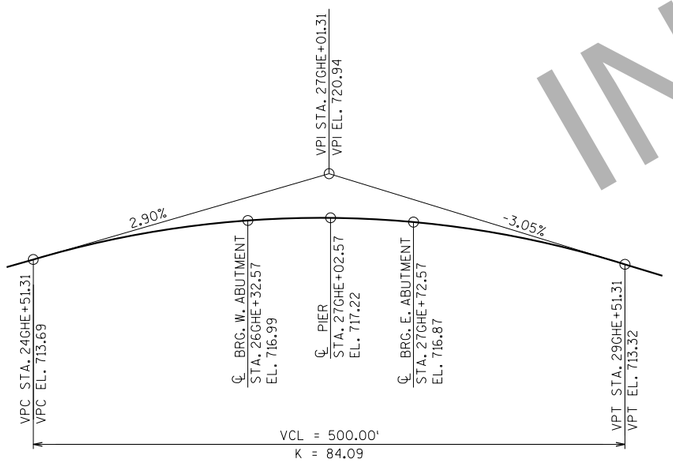


PROFILE GRADE LINE - IH 43 NB

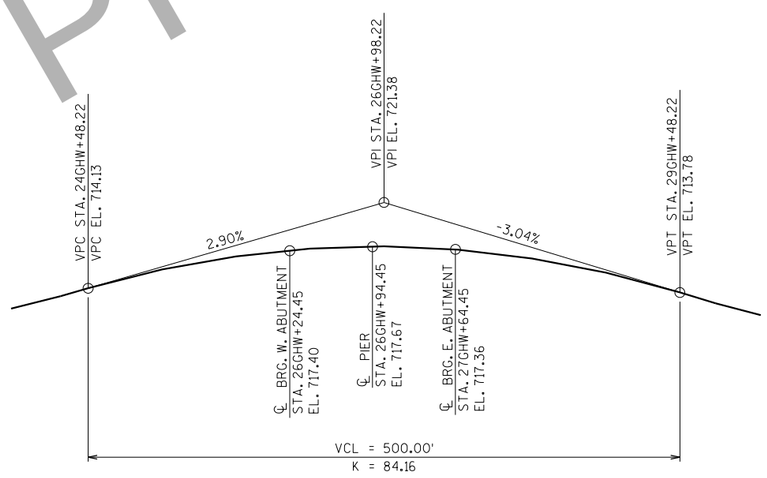


PROFILE GRADE LINE - IH 43 SB



PROFILE GRADE LINE - GOOD HOPE RD EB

(FOR BRIDGE B-40-734)



PROFILE GRADE LINE - GOOD HOPE RD WB

(FOR BRIDGE B-40-735)

HORIZONTAL CURVE DATA

IH 43 CURVE 7

PI STA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 4°24'12"
D = 0°24'13"
T = 545.91'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64

CURVE GHW-2

PI STA. = 28GHW+02.30
Y = 339386.58
X = 604351.95
DELTA = 3°34'30"
D = 4°46'29"
T = 37.45'
L = 74.88'
R = 1200.00'
PC STA. = 27GHW+64.85
Y = 339385.37
X = 604314.52
PT STA. = 28GHW+39.73
Y = 339385.44
X = 604389.39

CURVE GHE-2

PI STA. = 28GHE+14.59
Y = 339326.90
X = 604363.06
DELTA = 5°35'01"
D = 7°09'43"
T = 39.01
L = 77.96'
R = 800.00'
PC STA. = 27GHE+75.58
Y = 339325.65
X = 604324.07
PT STA. = 28GHE+53.54
Y = 339331.94
X = 604401.75

BENCH MARK DATA

NO.	NORTHING	EASTING	DESCRIPTION	ELEV.
BM7100	339,362	605,145	CUT "X" ON SOUTH SIDE OF FLANGE BOLT ON HYDRANT IN THE NORTHEAST QUADRANT OF IROQUOIS AVE AND GOOD HOPE RD.	710.32
BM71099	339,307	604,115	NORTH BOLT ON TRAFFIC LIGHT POLE AT THE SOUTHWEST CORNER OF GOOD HOPE RD. BRIDGE OVER I-43.	717.49
CP1099	339,212.46	604,120.27	BERNTSEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED WISDOT/AYRES, 65'EAST OF CENTERLINE I-43 SB ON RAMP FROM GOOD HOPE RD. 30'EAST OF LIGHT POLE "HGH86"	708.44
CP1100	339,294.39	605410.16	BERNTSEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED WISDOT/AYRES, 30'SOUTH OF CENTERLINE GOOD HOPE RD. AND 20'WEST OF CENTERLINE OF MOHAWK AVE.	705.71

IN PROGRESS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES

SHEET 6 OF 7

PRELIMINARY PLANS

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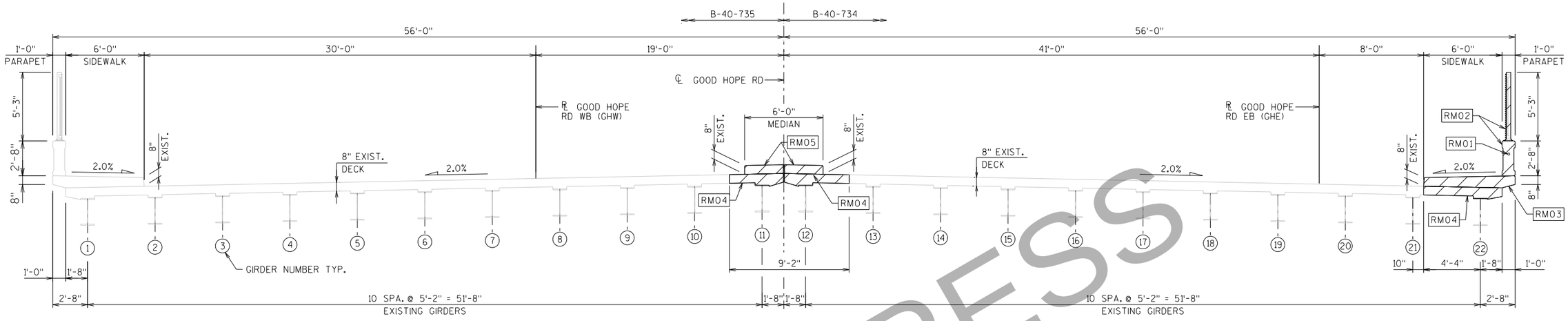
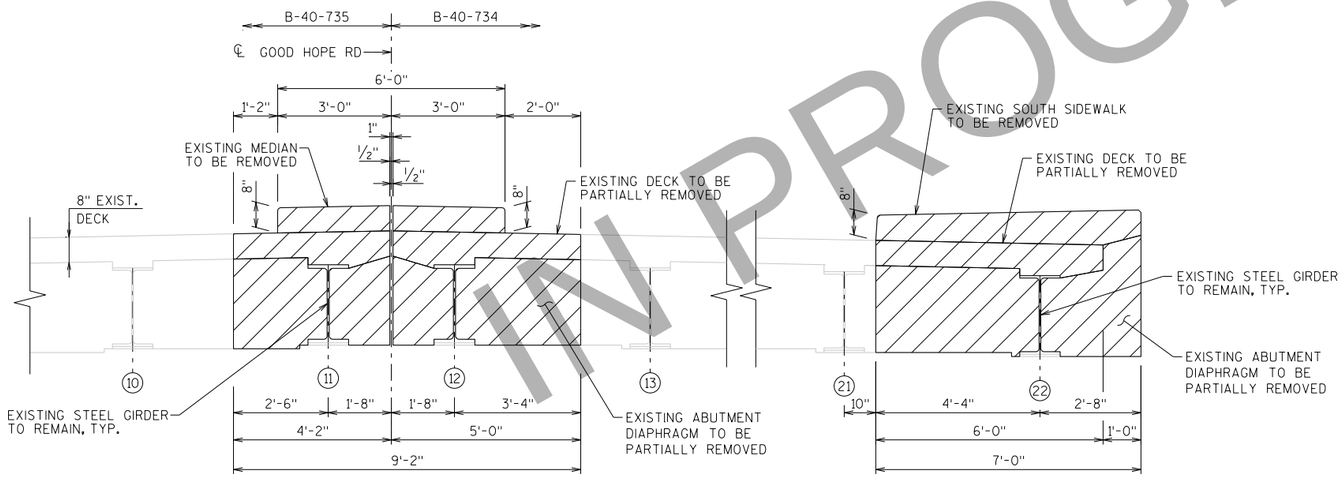


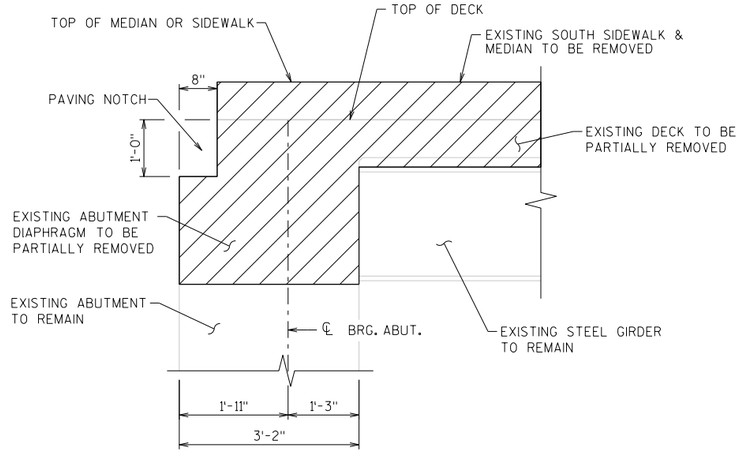
EXISTING TYPICAL SECTION

(LOOKING EAST)



ABUTMENT DIAPHRAGM ELEVATION

(LOOKING EAST AT EAST ABUTMENT)
(WEST ABUTMENT SIMILAR)



EXISTING ABUTMENT DIAPHRAGM SECTION

LEGEND

- RM01 EXISTING 2"Φ LIGHTING CONDUIT TO BE REMOVED
- RM02 EXISTING VERTICAL FACE PARAPET & FENCE TO BE REMOVED
- RM03 EXISTING SIDEWALK TO BE REMOVED
- RM04 EXISTING DECK TO BE PARTIALLY REMOVED
- RM05 EXISTING MEDIAN TO BE REMOVED

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY MM | PLANS CK'D. MHZ

REMOVAL DETAILS

SHEET 7 OF 7

PRELIMINARY PLANS

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GH-01	JANUARY 28, 2015	339279.62	604201.26
GH-02	MAY 6, 2015	339293	604268
GH-03	JANUARY 16, 2015	339285	604312
GHB-09	APRIL 22, 2014	339224	604354
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

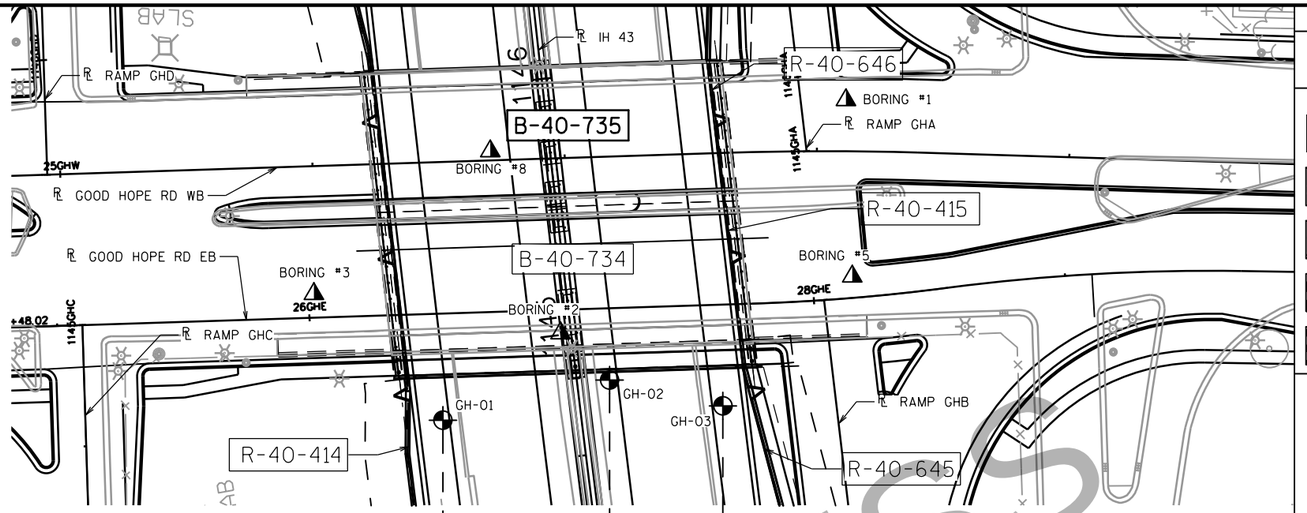
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

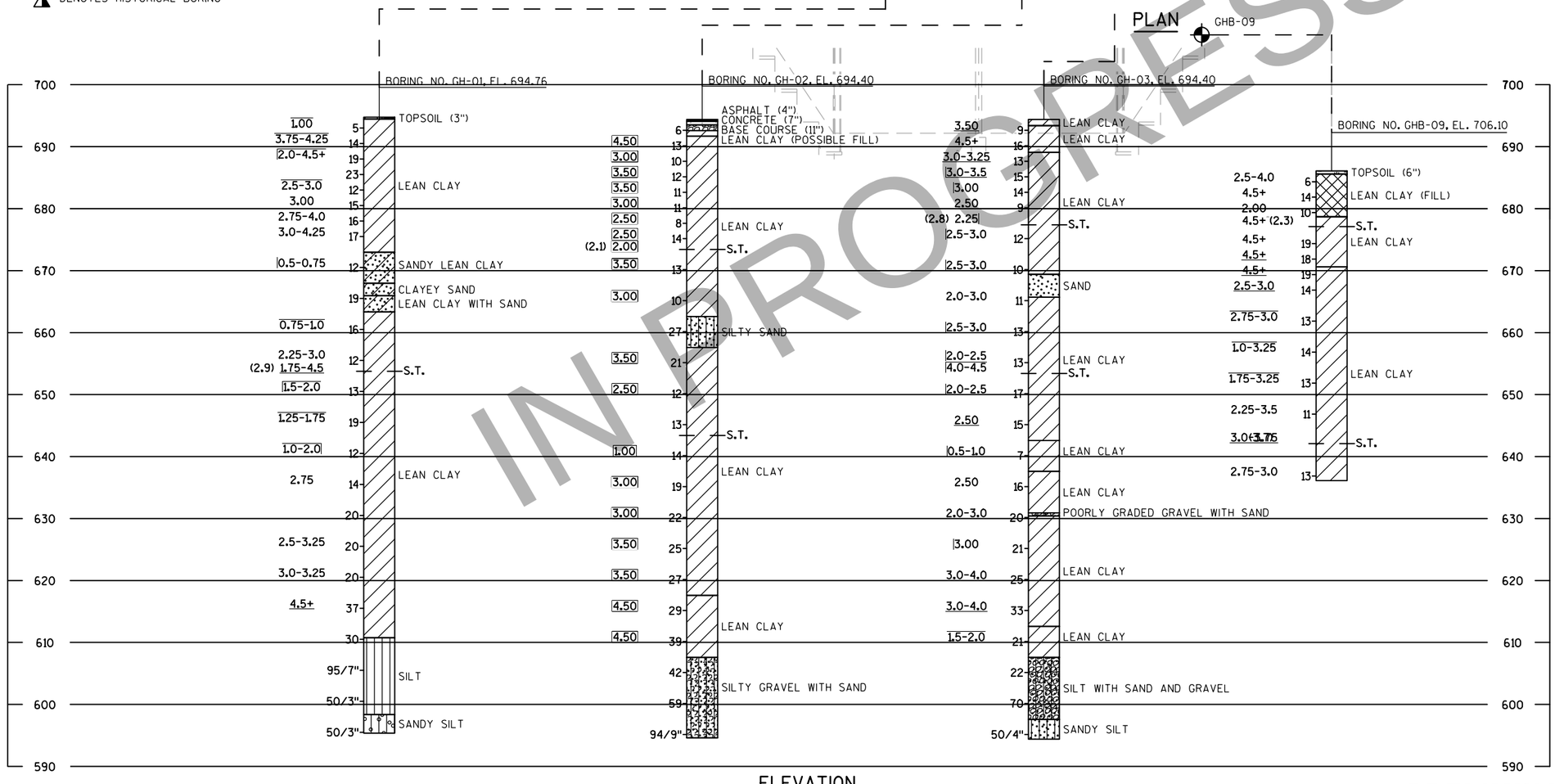
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

LOOKING NORTH

PRELIMINARY

IN PROGRESS

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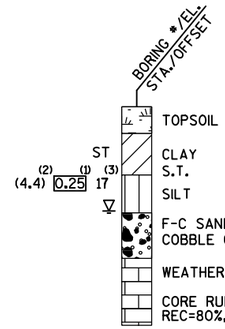
MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-735

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 8 OF 8

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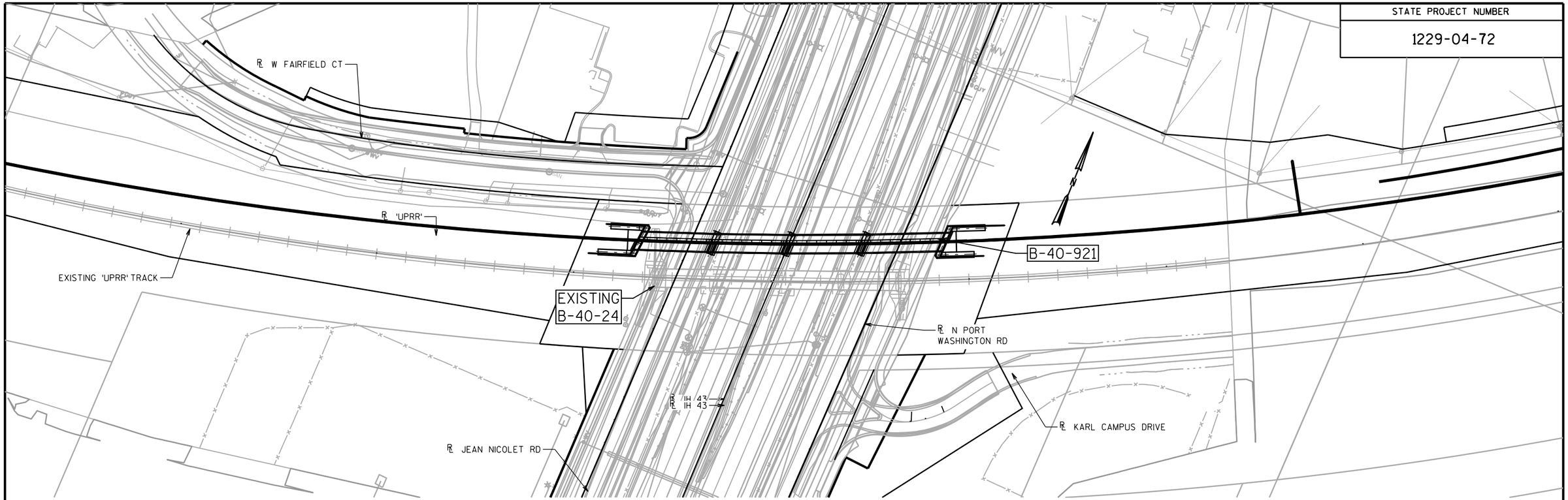
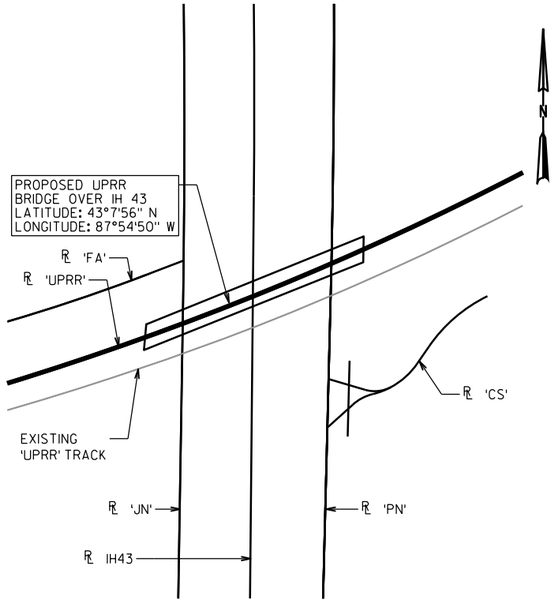
STATE PROJECT NUMBER
1229-04-72



PLAN

4 SPAN - STEEL PLATE GIRDERS



LOCATION MAP

LIST OF DRAWINGS

1. KEY PLAN
2. GENERAL PLAN & ELEVATION
3. ROADWAY CROSS SECTION
4. TYPICAL SECTION
5. QUANTITIES & DESIGN DATA
6. GENERAL NOTES (1 OF 2)
7. GENERAL NOTES (2 OF 2)
8. CONSTRUCTION PHASING (1 OF 3)
9. CONSTRUCTION PHASING (2 OF 3)
10. CONSTRUCTION PHASING (3 OF 3)
11. SUBSURFACE EXPLORATION (1 OF 7)
12. SUBSURFACE EXPLORATION (2 OF 7)
13. SUBSURFACE EXPLORATION (3 OF 7)
14. SUBSURFACE EXPLORATION (4 OF 7)
15. SUBSURFACE EXPLORATION (5 OF 7)
16. SUBSURFACE EXPLORATION (6 OF 7)
17. SUBSURFACE EXPLORATION (7 OF 7)

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 359-2300

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-921

UPRR OVER IH 43, SHORELINE SUB M.P. 104.04

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CVH	XXX	XXX	XXX

KEY PLAN

SHEET 1 OF X

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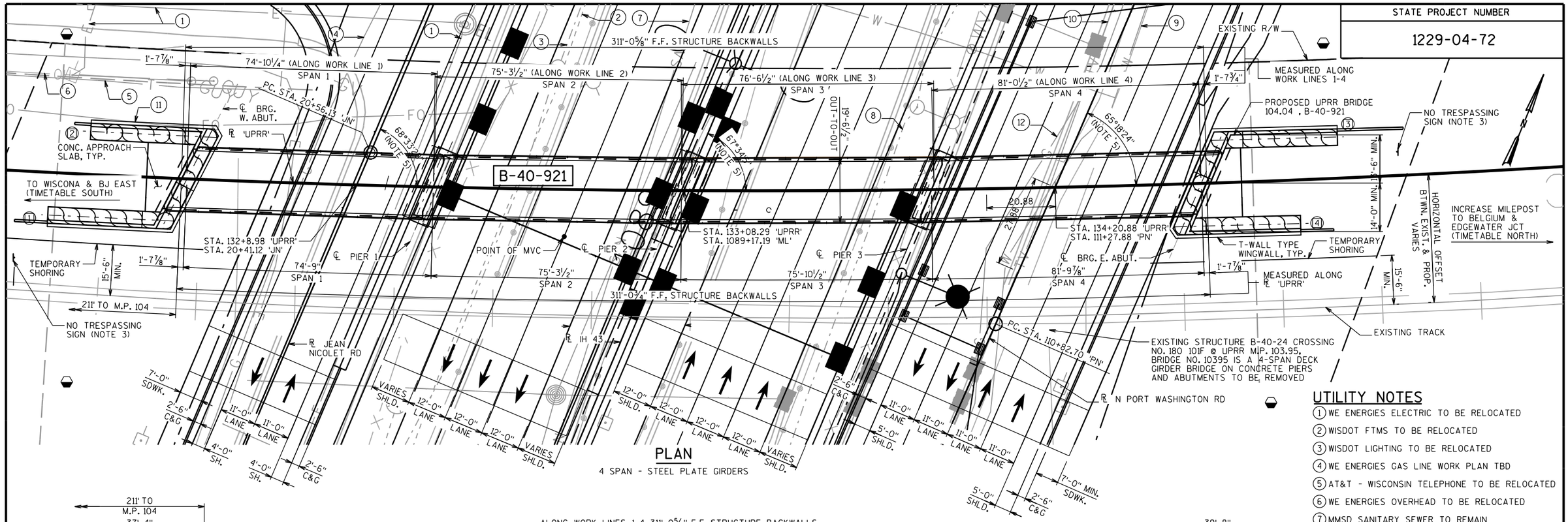
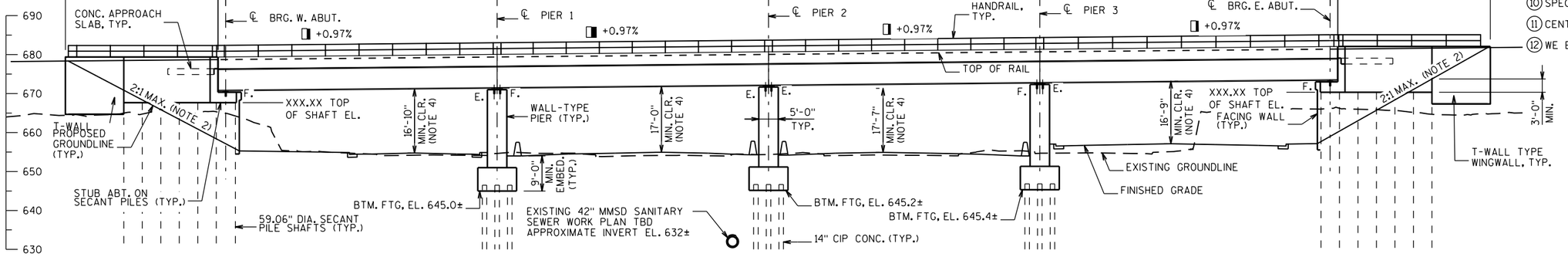


PLAN

4 SPAN - STEEL PLATE GIRDERS



ELEVATION

NORMAL TO IH 43
LOOKING NORTH

UTILITY NOTES

1. WE ENERGIES ELECTRIC TO BE RELOCATED
2. WISDOT FTMS TO BE RELOCATED
3. WISDOT LIGHTING TO BE RELOCATED
4. WE ENERGIES GAS LINE WORK PLAN TBD
5. AT&T - WISCONSIN TELEPHONE TO BE RELOCATED
6. WE ENERGIES OVERHEAD TO BE RELOCATED
7. MMSD SANITARY SEWER TO REMAIN
8. WISDOT LIGHTING TO BE RELOCATED
9. CITY OF GLENDALE WATER LINE TO BE RELOCATED
10. SPECTRUM WORK PLAN TBD
11. CENTURYLINK WORK PLAN TBD
12. WE ENERGIES GAS TO BE RELOCATED

LEGEND

- (X) INDICATES WING NUMBER
- INDICATES DIRECTION OF TRAFFIC
- FOR SLOPE INTERCEPT AND ADDITIONAL RIGHT-OF-WAY INFORMATION, REFER TO TRACK PLANS
- BRIDGE PROFILE GRADE (& TRACK PROFILE GRADE)
- ★ INTERIM VERT. CLR.
  JEAN NICOLET RD. = 17'-0"±
  I.H. 43 SB = 17'-8"±
  I.H. 43 NB = 18'-1"±
  PORT WASHINGTON RD. = 18'-0"±

  HORIZONTAL CLEARANCE BETWEEN EXISTING AND PROPOSED BRIDGES VARIES. MIN. HORIZ. CLEAR. = 12'-11"± (@ ℄ EXIST. W. ABUT.)

NOTES

1. SEE "QUANTITIES & DESIGN DATA" SHEET AND TRACK PLANS FOR ADDITIONAL HORIZONTAL CURVE DATA INFORMATION.
2. SEE CONSTRUCTION PHASING SHEETS FOR EXISTING, TEMPORARY & PROPOSED CONTOURS.
3. REFER TO "GENERAL NOTES (1 OF 2)" SHEET FOR DETAILS.
4. CLEARANCES INCLUDE ESTIMATE OF LIVE LOAD DEFLECTION AND FOUNDATION SETTLEMENT.
5. MEASURED BETWEEN ℞ OF RDWY BELOW AND TANGENT TO ℞ UPRR AT INTERSECTION POINT.
6. SEE "GENERAL NOTES (2 OF 2)" SHEET FOR A LIST OF ABBREVIATIONS.
7. FOR ℄ PIER STATIONS AND ANGLES RELATIVE TO ℞ UPRR, SEE "TABLE OF PIER STATIONS AND ANGLES"

TABLE OF PIER STATIONS AND ANGLES

LOCATION	TRACK STA.	SKEW ANGLE
F.F OF B.W. W. ABUT.	131UPRR+55.82	65°10'26"
℄ BRG. W. ABUT.	131UPRR+57.47	65°09'02"
℄ PIER 1	132UPRR+32.21	68°21'46"
℄ PIER 2	133UPRR+07.50	67°18'38"
℄ PIER 3	133UPRR+83.38	66°15'00"
℄ BRG. E. ABUT.	134UPRR+65.20	65°06'25"
F.F. OF B.W. E. ABUT.	134UPRR+66.86	65°04'59"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

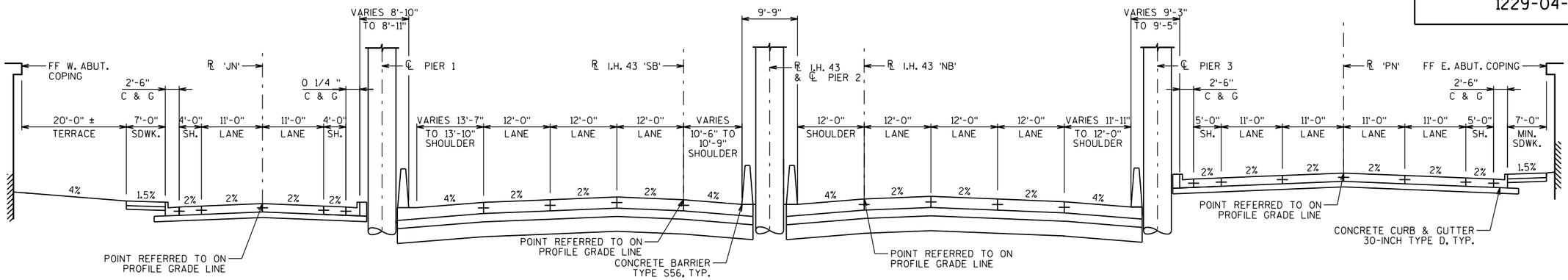
GENERAL PLAN & ELEVATION

SHEET OF

8

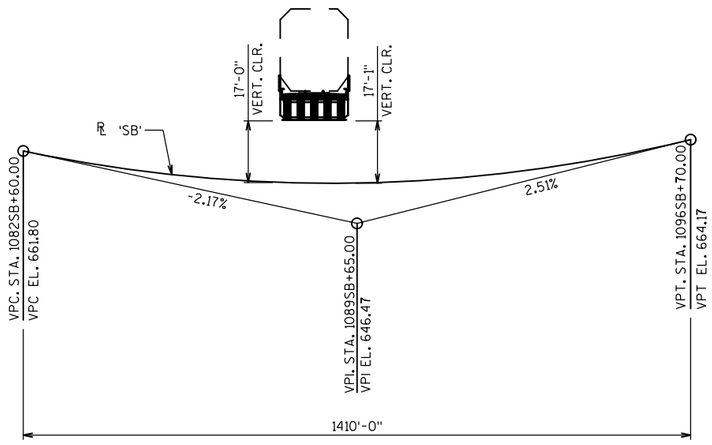
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_080102_gp
PLOT DATE : 9/28/2021 10:05:27 AM PLOT BY : cvhayden
PLOT SCALE : 8.33333:1

STATE PROJECT NUMBER
1229-04-72

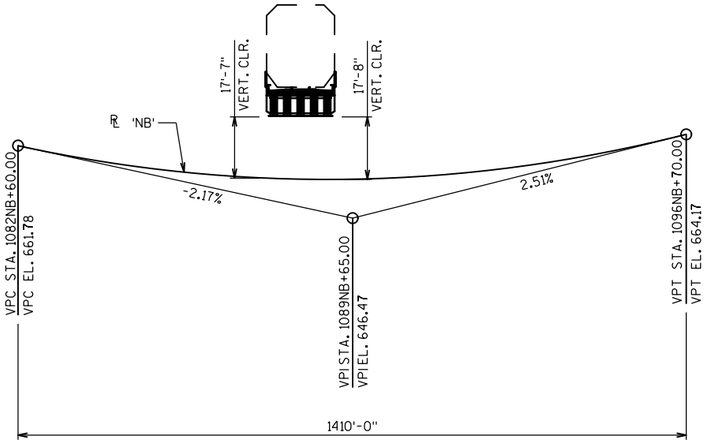


TYPICAL FINISHED SECTION

(UNDER BRIDGE)



PROFILE GRADE LINE - IH43 SB



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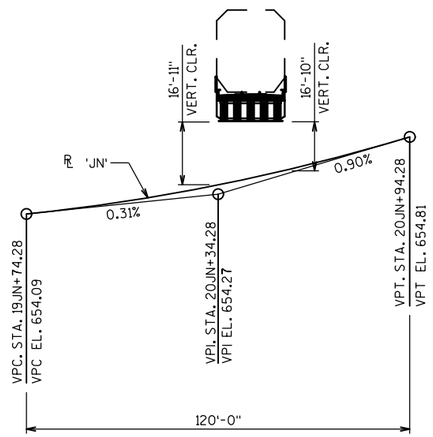
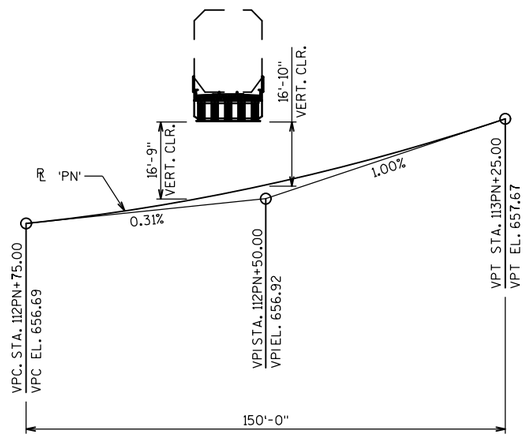


PROFILE GRADE LINE - JEAN NICOLET RD.



PROFILE GRADE LINE - PORT WASHINGTON RD. NB

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

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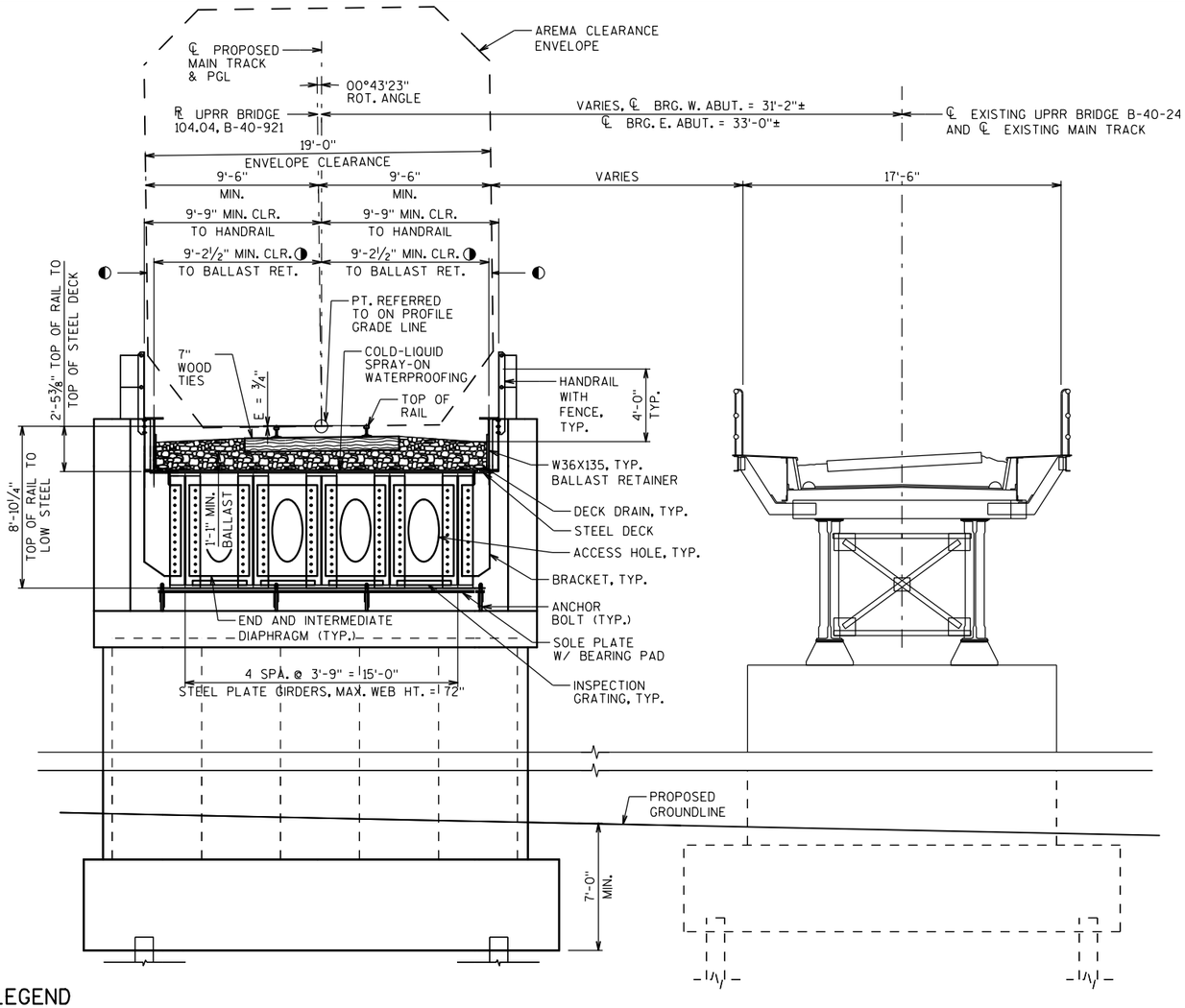
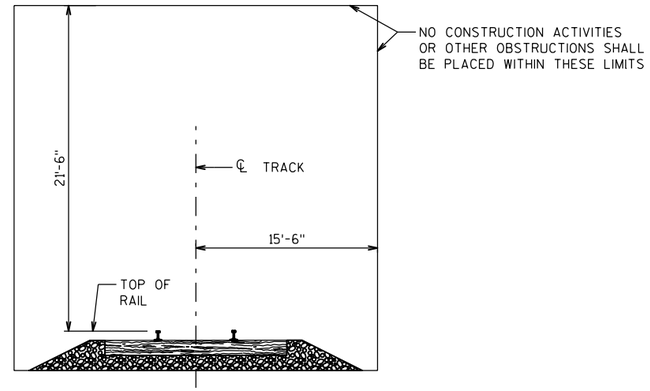
ROADWAY CROSS SECTION

SHEET OF

STATE PROJECT NUMBER
1229-04-72





MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(CURVED TRACK, NORMAL TO RAILROAD)

SPAN	START COORDINATES	END COORDINATES	LENGTH
SPAN 1	604811.68, 333734.87	604881.88, 333760.85	74.86
SPAN 2	604881.88, 333760.85	604952.01, 333788.26	75.30
SPAN 3	604952.01, 333788.26	605022.77, 333817.45	76.55
SPAN 4	605022.77, 333817.45	605097.08, 333849.78	81.03

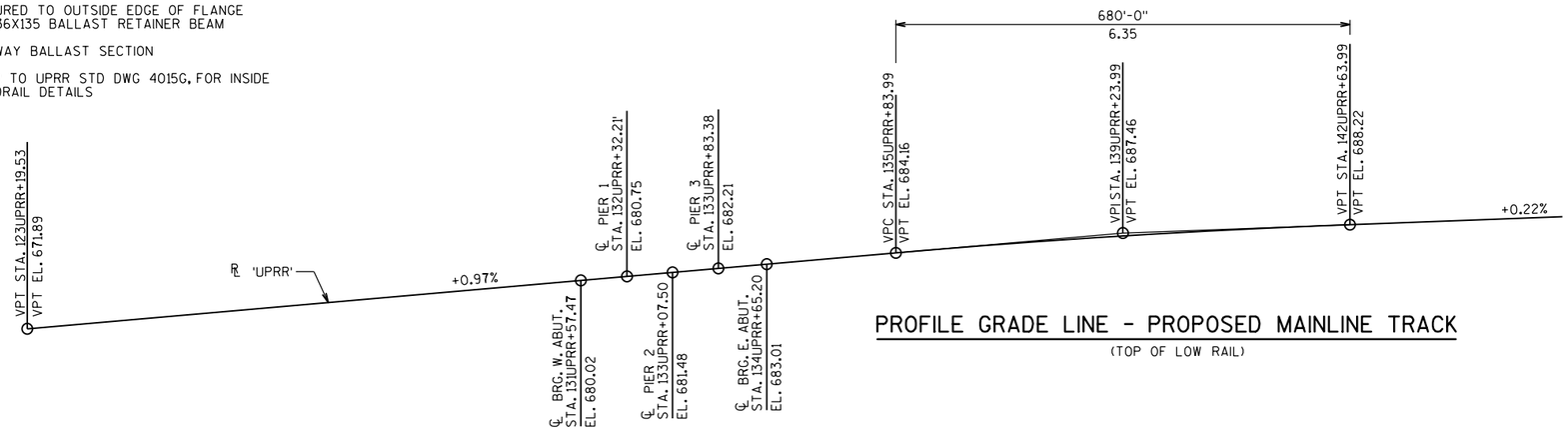
WORK LINE LAYOUT

LEGEND

◐ MEASURED TO OUTSIDE EDGE OF FLANGE ON W36X135 BALLAST RETAINER BEAM

◑ WALKWAY BALLAST SECTION

⚠ REFER TO UPRR STD DWG 4015G, FOR INSIDE GUARDRAIL DETAILS



PROFILE GRADE LINE - PROPOSED MAINLINE TRACK

(TOP OF LOW RAIL)

NO.	DATE	REVISION	BY

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STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

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TYPICAL SECTION

SHEET OF

8

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STATE PROJECT NUMBER
1229-04-72

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SUPER	W. APPR. SLAB	W. ABUT.	PIER 1	PIER 2	PIER 3	E. ABUT.	E. APPR. SLAB	TOTAL
203.0200.XXXX	REMOVING OLD STRUCTURE STA. 133UPRR+07	LS									
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-921	LS									
210.1100	BACKFILL STRUCTURE TYPE A	CY									
502.0100	CONCRETE MASONRY BRIDGES	CY									
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH									
502.4207	ADHESIVE ANCHORS NO. 7 BAR	EACH									
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB									
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB									
505.0911	BAR COUPLERS NO. 11	EACH									
506.0105	STRUCTURAL STEEL CARBON	LB									
506.0605	STRUCTURAL STEEL HS	LB									
506.3004	WELDED STUD SHEAR CONNECTORS 3/4X4-INCH	EACH									
511.1200.XXXX	TEMPORARY SHORING B-40-921	SF									
514.1000	RAILROAD DECK DRAIN SYSTEM B-40-921	LS									
514.2625	DOWNSPOUT 6-INCH	LF									
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY									
517.0600	PAINTING EPOXY SYSTEM B-40-921	LS									
612.0106	PIPE UNDERDRAIN 6-INCH	LF									
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF									
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY									
645.0140	GEOTEXTILE FABRIC TYPE SAS	SY									
SPV.0060.XXX1	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH									
SPV.0060.XXX2	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH									
SPV.0060.XXX3	CASE PILE WAVE ANALYSIS PROGRAM (CAPWAP) EVALUATION	EACH									
SPV.0060.XXX4	BEARING ASSEMBLIES FIXED UPRR B-40-921	EACH									
SPV.0060.XXX5	BEARING ASSEMBLIES EXPANSION UPRR B-40-921	EACH									
SPV.0060.XXX6	CROSSHOLE SONIC LOG (CSL) TESTING, WALL SECANT PILE 59.06 INCH	EACH									
SPV.0060.XXX7	THERMAL INTEGRITY PROFILER (TIP) TESTING, WALL SECANT PILE 59.06-INCH	EACH									
SPV.0075.XXX1	OBSTRUCTIONS WALL SECANT PILE	HRS									
SPV.0090.XXX1	PILING STEEL HP 14-INCH X 89 LB	LF									
SPV.0090.XXX2	WALL SECANT PILE 59.06-INCH	LF									
SPV.0090.XXX3	HANDRAIL B-40-921	LF									
SPV.0105.XXX1	TRIAL WALL PANEL SECANT PILE 59.06-INCH	LS									
SPV.0105.XXX2	TRACK, SHORING AND EXISTING STRUCTURE MONITORING UPRR	LS									
SPV.0165.XXX1	TEMPORARY SHORING RAILROAD	SF									
SPV.0165.XXX3	PRECAST CONCRETE MODULAR WINGWALL	SF									
SPV.0165.XXX4	GEOCOMPOSITE WALL DRAIN	SF									
SPV.0180.XXX1	MEMBRANE WATERPROOFING	SY									
SPV.0180.XXX2	ASPHALTIC PANELS	SY									
SPV.0195.XXX1	BASE AGGREGATE OPEN GRADED SPECIAL	TON									
SPV.0195.XXX2	EXCAVATION, HAULING, AND DISPOSAL OF SOLID WASTE SOIL	TON									
	NON-BID ITEMS										
	NAME PLATE	EACH									
	BRIDGE SEAT PROTECTION	LS									
	PREFORMED JOINT FILLER	SIZE									
	EXPANDED POLYSTYRENE	SIZE									
	NON-BITUMINOUS JOINT SEALER	SIZE									

ALL ITEMS ARE CATEGORY XXXX

HORIZONTAL CURVE DATA

℄ 'UPRR'		℄ 'JN'		℄ 'PN'		TANGENT ℄ 'IH43'
P.I. =	138UPRR+73.28	P.I. =	25JN+61.60	P.I. =	113PN+36.90	N 0°32'40" E
△ =	56°19'45" LT.	△ =	3°45'35"	△ =	2°07'56"	
D =	1°23'52"	D =	0°22'19"	D =	0°25'10"	
T =	2194.70'	T =	505.47'	T =	254.20'	
L =	4030.02'	L =	1010.57'	L =	508.34'	
R =	4088.16'	R =	15400.00'	R =	13660.00'	
S.C. =	116UPRR+78.59	P.C. =	20JN+56.13	P.C. =	110PN+82.70	
C.S. =	157UPPR+08.50	P.T. =	30JN+66.70	P.T. =	115PN+91.04	

TRAFFIC VOLUME

IH 43	JEAN NICOLET RD.	PORT WASHINGTON RD.
A.D.T. = 111,700 (2045)	A.D.T. = 1,500 (2019)	A.D.T. = 15,700 (2045)
R.D.S. = 70 M.P.H.	R.D.S. = 40 M.P.H.	R.D.S. = 40 M.P.H.

DESIGN DATA

DESIGN SPECIFICATIONS:
- UPRR-BNSF GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS ("UPRR GUIDELINES")
- 2021 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING
  - CHAPTER 8 CONCRETE STRUCTURES AND FOUNDATIONS
  - CHAPTER 9 SEISMIC DESIGN FOR RAILWAY STRUCTURES
  - CHAPTER 15 STEEL STRUCTURES

DEAD LOADS:
- 2'-6" MAX. DEPTH OF BALLAST (FROM TOP OF WOOD TIE TO TOP OF STEEL DECK)
- (THESE PLANS WERE PREPARED ASSUMING 13" MIN. BALLAST UNDER WOOD TIES.)

LIVE LOADS:
- COOPER E-80 (OR ALTERNATE LIVE LOAD) PER AREMA
- ℄ TRACK LOCATED ON ℄ BRIDGE
- FULL DIESEL IMPACT (ROLLING EQUIPMENT WITHOUT HAMMER BLOW)
- PLUS ROCKING EFFECT PER AREMA

WIND LOADS ON UNLOADED AND LOADED BRIDGE:
- PER AREMA

LONGITUDINAL FORCES:
- PER AREMA

MATERIAL PROPERTIES, (SUBSTRUCTURE):

CONCRETE MASONRY:	f'c = 4,000 PSI
DRILLED SHAFTS: ABUTMENTS (SECANT)	f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, ASTM A615 GRADE 60	fy = 60,000 PSI
STRUCTURAL CARBON STEEL (ASTM A709 GR. 36)	fy = 36,000 PSI
STRUCTURAL CARBON STEEL (ASTM A53 GRADE B)	fy = 35,000 PSI
HIGH STRENGTH STRUCTURAL STEEL (ASTM A709 GR 50)	fy = 50,000 PSI
HIGH STRENGTH STRUCTURAL STEEL (ASTM A588, ≤4" THK.)	fy = 50,000 PSI
HIGH STRENGTH STRUCTURAL STEEL (ASTM A588, >4" THK.)	fy = 46,000 PSI

SUPERSTRUCTURE STEEL

MATERIAL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

PLATE GIRDER BOTTOM FLANGES AND WEBS	ASTM A709 GR. 50W F2
PLATE GIRDER TOP FLANGES, STIFFENERS,	ASTM A709 GR. 50W
DECK PLATE	ASTM A709 GR. 50W T2
BEARING MATERIAL	ASTM A588
ALL REMAINING STEEL	ASTM A588
BOLTS UNLESS NOTED OTHERWISE	ASTM F3125 GR. A325 TYPE 3
BOLTS FOR DECK AND CURB PLATES	ASTM F3125 GR. F1852 TYPE 3
THREADED STUDS	ASTM A108
ANCHOR RODS/BOLTS	ASTM F1554 GR. 105
DRAIN PIPE	ASTM A53 GRADE B
CURB, WALKWAY & ABUT. EMBED PLATES, WATERPROOFING FLASHING & HANDRAIL ANGLES	ASTM A709 GR. 36
PILING STEEL	ASTM A572 GR. 50

NON-WEATHERING STEEL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.

ANCHOR RODS/BOLTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153.

FOUNDATION DATA

ABUTMENTS AND WINGWALLS TO BE SUPPORTED ON 59.06" DIA. SECANT PILES.

CSL TUBES SHALL CONFORM TO THE FOLLOWING MATERIAL REQUIREMENTS:
- STEEL ASTM A53, GR. B

PIERS TO BE SUPPORTED ON 14" CIP CONCRETE PILING WITH AN ULTIMATE BEARING CAPACITY OF 348 TONS/PILE**. ESTIMATED LENGTH OF PILES IS 75 FEET AT PIERS 1, 2 AND 3. USE THE PDA/CAPWAP METHOD TO DETERMINE DRIVEN PILE CAPACITY.

**THE ALLOWABLE BEARING CAPACITY OF PILES IN COMPRESSION USED FOR DESIGN IS THE ULTIMATE BEARING CAPACITY DIVIDED BY A FACTOR OF SAFETY OF 2.0 USING THE PDA/CAPWAP METHOD TO DETERMINE DRIVEN PILE CAPACITY.

NO.	DATE	REVISION	BY

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STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
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DRAWN BY CVH | PLANS CK'D. JWCII

QUANTITIES & DESIGN DATA

SHEET OF

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STATE PROJECT NUMBER
1229-04-72

GENERAL NOTES

GENERAL

1. DRAWINGS SHALL NOT BE SCALED.
2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
3. COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).
4. THE EXISTING BRIDGE (B-40-24) IS A 4-SPAN DECK PLATE TWO-GIRDER RAILROAD BRIDGE SUPPORTED ON CONCRETE PIERS AND ABUTMENTS. THE ENTIRETY OF THE STRUCTURE WILL BE REMOVED AND PAID FOR UNDER "REMOVING OLD STRUCTURE STA. 133UPRR+07".
5. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES". FABRICATE IN ACCORDANCE TO S.D.D.12A3-10. TWO NO TRESPASSING SIGNS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES". REFER TO SPECIAL PROVISIONS TO FABRICATE IN ACCORDANCE TO UPRR STD DWG 0538F.

UNION PACIFIC RAILROAD COMPANY (UPRR) NOTES

1. SEE "GENERAL" SPECIAL PROVISIONS FOR A LIST OF UNIQUE GOVERNING CONSTRUCTION SPECIFICATIONS FOR ALL UPRR-RELATED WORK, AND STEPS TO TAKE IN CASE OF CONFLICTS BETWEEN SPECIFICATIONS.
2. SEE "UNION PACIFIC RAILROAD COMPANY REQUIREMENTS" SPECIAL PROVISIONS FOR A LIST OF REQUIRED SUBMITTALS AND SUBMITTAL REQUIREMENTS.
3. THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.
4. THE CONTRACTOR SHALL DEVELOP A DETAILED CONSTRUCTION PROCEDURE AND STAGING PLAN TO BE SUBMITTED TO THE UPRR FOR APPROVAL PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM ALL WORK NOT PERFORMED BY THE RAILROAD.
5. THE CONTRACTOR SHALL CONTACT THE UPRR "CALL BEFORE YOU DIG" (CBYD) NUMBER, 1-800-336-9193, TWO WEEKS BEFORE DIGGING TO CONFIRM THAT ALL NECESSARY RELOCATIONS HAVE BEEN COMPLETED.
6. THE CONTRACTOR MUST NOTIFY THE UPRR'S DESIGNATED REPRESENTATIVE FOUR WEEKS PRIOR TO STARTING WORK. UPRR WILL LOCATE AND MARK ALL UPRR UTILITIES.
7. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT UPRR GUIDELINES FOR TEMPORARY SHORING.
8. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH UPRR'S DEMOLITION GUIDELINES.
9. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL TO THE ENGINEER AND HAVE THE METHOD APPROVED BY THE RAILROAD.
10. THE CONTRACTOR MUST NOT INTERFERE WITH OR PERFORM ANY CONSTRUCTION ON OR NEAR OPERATING TRACKS WITHOUT THE UPRR'S PERMISSION. A UNION PACIFIC RAILROAD FLAGMAN IS REQUIRED WHEN WORKING WITHIN 25 FEET OF THE RAILROAD TRACKS. THE CONTRACTOR SHALL INCLUDE THE COST OF THE FLAGMAN, AND THE COST OF OTHER RAILROAD REQUIREMENTS AS INDICATED ON THE PLANS AND SPECIAL PROVISIONS, IN THE BID PRICE.
11. APPROXIMATELY 2 TRAINS OPERATE ON THE EXISTING ALIGNMENT PER DAY (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION). EXISTING TRACK SPEED IS 25 MPH. DESIGN TRACK SPEED FOR THE PROPOSED OFFSET TRACK ALIGNMENT IS 25 MPH.
12. MONITOR TRACK, AND EXISTING AND PROPOSED STRUCTURES IN CONFORMANCE WITH "TRACK, SHORING AND EXISTING STRUCTURE MONITORING UPRR." COORDINATE MONITORING RESULTS WITH THE ENGINEER AND THE UPRR ENGINEER IN ACCORDANCE WITH THIS SPECIAL PROVISION.
13. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
14. SUBMIT ALL CONSTRUCTION AND PROJECT CLOSING SUBMITTALS AS DESCRIBED IN "UNION PACIFIC RAILROAD COMPANY REQUIREMENTS" IN THE SPECIAL PROVISIONS.

CONCRETE

1. USE 2" CLEAR CONCRETE COVER FOR ALL REINFORCEMENT UNLESS OTHERWISE SHOWN. MEET AREMA REQUIREMENTS FOR CONCRETE COVER NOT OTHERWISE SHOWN.
2. BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE. CONSTRUCT ALL FORMWORK IN ACCORDANCE WITH ACI 347 SPECIFICATIONS. FORM EXPOSED SURFACES IN A MANNER PRODUCING A SMOOTH FINISH AND UNIFORM APPEARANCE WITHOUT RUBBING OR PLASTERING. FINISH TOP SURFACES FREE OF ALL FLOAT OR TROWEL MARKS.
3. PREFORMED FILLER SHALL CONFORM TO THE REQUIREMENTS OF ASTM D994 OR ASTM D1751.
4. ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.
5. ALL REINFORCING BARS IN THE PROPOSED PIERS AND ABUTMENT WALLS ABOVE THE GROUND LINE SHALL BE EPOXY COATED.
6. PROVIDE BAR COUPLERS CONFORMING TO THE STANDARD SPECIFICATIONS AND AREMA 8-2.22.2c. ALL BAR COUPLERS CONNECTING EPOXY COATED REINFORCEMENT SHALL BE EPOXY COATED.
7. ALL DIMENSIONS RELATIVE TO SETTING REINFORCING STEEL SHALL BE TO BAR CENTERLINE, UNLESS NOTED OTHERWISE. ALL CLEARANCE DIMENSIONS AND BENDING DIAGRAMS ARE TO THE OUTER EDGES OF THE BARS.
8. USE GRADE A CONCRETE MIX WITH TYPE I OR II PORTLAND CEMENT AND AIR ENTRAINMENT PER THE CONTRACT SPECIFICATIONS. USE A MAXIMUM WATER CEMENTITIOUS RATIO OF 0.49, (0.44 WHEN DEPOSITED BY TREMIE UNDERWATER), PER AREMA TABLE 8-1-9. A MINIMUM OF 565 POUNDS CEMENTITIOUS MATERIAL PER CUBIC YARD OF CONCRETE AND A MAXIMUM OF 15% FLY ASH COMPOSITE TOTAL CEMENTITIOUS MATERIAL.
9. USE SIZE NO. 1 COARSE AGGREGATE (NO. 67 STONE) PER STANDARD SPEC 501.2.5.4.5 AND NATURAL SAND FOR FINE AGGREGATE.
10. DO NOT USE ANY ADMIXTURES OTHER THAN AIR ENTRAINMENT WITHOUT APPROVAL BY THE ENGINEER AND THE UPRR ENGINEER.
11. APPLY MEMBRANE CURING COMPOUND CONFORMING TO ASTM C309 TYPE 2. SEE STANDARD SPECIFICATIONS.
12. APPLY AN EPOXY ADHESIVE THAT ADHERES TO FRESH CONCRETE, AS APPROVED BY THE ENGINEER AND THE UPRR ENGINEER, BEFORE PLACING NEW CONCRETE AGAINST HARDENED SURFACES.
13. USE THE FOLLOWING CORROSION PROTECTION ADMIXTURES, AS APPROVED BY THE ENGINEER AND THE UPRR ENGINEER, FOR ALL EXPOSED CONCRETE . USE A CALCIUM NITRITE SOLUTION CONTAINING 30% SOLIDS PROVIDING 15 LBS PER CUBIC YARD CHLORIDE PROTECTION AT A MINIMUM CONCENTRATION OF 5 GALLONS PER CUBIC YARD. ALSO INCLUDE A MINIMUM 7% BY WEIGHT OF CEMENT, A FORCE 10,000 MICROSILICA SLURRY. SUBMIT ANY ADMIXTURES WITH ALTERNATE REQUIREMENTS TO THE ENGINEER AND THE UPRR ENGINEER FOR APPROVAL PROVIDING THE FOLLOWING DOCUMENTATION: CORROSION PROTECTION MECHANISM, TEST DATA INDICATING LEVEL OF PROTECTION, DOCUMENTATION THAT A SERVICE LIFE OF 100 YEARS IS ACHIEVED USING FICK'S SECOND LAW OF PHYSICS AND MODELS USING A REFERENCE DIFFUSION COEFFICIENT OF 2.81.

DRILLED SHAFTS (SECANT WALL)

1. CONSTRUCT DRILLED SHAFTS IN ACCORDANCE WITH THE VARIOUS SECANT WALL SPECIAL PROVISIONS AND UPRR STD PLAN 550000 SHEETS D1 & D2. IF THERE IS A DISCREPANCY OR CONFLICT BETWEEN THE SPECIAL PROVISIONS AND UPRR STD PLAN SHEETS, THE STRICTER REQUIREMENT BETWEEN THE TWO SPECIFICATIONS GOVERNS.
2. USE FULL-DEPTH TEMPORARY CASING INSTALLED WITH AN OSCILLATOR IN ACCORDANCE WITH THE SPECIAL PROVISIONS. SUBMIT TO THE ENGINEER AND THE UPRR ENGINEER DOCUMENTATION THAT THE CASING CAN WITHSTAND SURCHARGE LOADS PRODUCED FROM RAILROAD LIVE LOADS INDICATED ON THE "QUANTITIES & DESIGN DATA" SHEET.
3. TEST EVERY DRILLED SHAFT USING BOTH CSL TESTING AND TIP TESTING, CONFORMING TO SPECIAL PROVISIONS "CROSSHOLE SONIC LOG (CSL) TESTING, WALL SECANT PILE 59.06 INCH" AND "THERMAL INTEGRITY PROFILER (TIP) TESTING, WALL SECANT PILE 59.06 INCH", RESPECTIVELY.

REINFORCING STEEL

1. USE DEFORMED REINFORCING BARS CONFORMING TO ASTM A615. FOR REINFORCING BARS REQUIRING FIELD WELDING OR BENDING, CONFORM TO ASTM A706.
2. FABRICATION OF REINFORCING STEEL SHALL BE PER CHAPTER 7 OF THE CRSI MANUAL OF STANDARD PRACTICE. DIMENSIONS OF BENDING DETAILS SHALL BE OUT TO OUT OF BARS, WITH NO BAR BENDS DEDUCTED.
3. BLOCK REINFORCING BARS TO THE PROPER LOCATION AND SECURELY WIRE AGAINST DISPLACEMENT. TACK WELDING OF REINFORCING IS PROHIBITED. MINIMUM CONCRETE COVER NOT OTHERWISE NOTED SHALL MEET CURRENT AREMA REQUIREMENTS.

BACKFILL

1. AT THE BACKFACE OF THE ABUTMENTS, ALL VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH "BASE AGGREGATE OPEN GRADED SPECIAL".
2. SEE "BASE AGGREGATE OPEN GRADED SPECIAL" OF THE SPECIAL PROVISIONS FOR COMPACTION AND TESTING REQUIREMENTS FOR OPEN GRADED BASE AGGREGATE.
3. PROVIDE OPEN GRADED BASE AGGREGATE IN CONFORMANCE TO THE FOLLOWING REQUIREMENTS:
   ANGLE OF INTERNAL FRICTION - 38 DEG. (MIN.)
   UNIT WEIGHT - 110 PCF. (MAX.)
4. ALL BACKFILL OTHERWISE NOT CALLED OUT ON THE PLANS SHALL BE PAID FOR UNDER BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-921".
5. ENSURE THE FINISHED GRADING AND PREPARATORY GRADING AT THE PROPOSED ABUTMENTS BEFORE CONSTRUCTING THE CAST-IN-PLACE CONCRETE CAP, PROVIDE POSITIVE DRAINAGE AWAY FROM ALL SUBSTRUCTURE ELEMENTS.
6. PLACE ALL TRACK EMBANKMENT UNDER BALLAST AND SUBBALLAST THAT IS OUTSIDE THE LIMITS OF STRUCTURE BACKFILL DESCRIBED ABOVE AS "BACKFILL GRANULAR GRADE 1" IN THE TRACK PLANS. COMPACT EMBANKMENT AS DESCRIBED IN "EMBANKMENT AT UNION PACIFIC ROAD" IN THE SPECIAL PROVISIONS.

EXCAVATION

1. THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.
2. ANY EXCAVATION REQUIRED FOR FINAL GRADING AROUND PROPOSED STRUCTURES SHALL BE INCLUDED IN THE ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-921".

STRUCTURAL STEEL

1. MATERIALS, FABRICATION AND SHOP ASSEMBLY SHALL BE IN ACCORDANCE WITH CHAPTER 15: STEEL STRUCTURES OF THE 2018 AREMA MANUAL FOR RAILWAY ENGINEERING.
2. FABRICATION OF STRUCTURAL STEEL SHALL BE PERFORMED BE A FABRICATOR CERTIFIED UNDER AISC QUALITY CERTIFICATION PROGRAM FOR MAJOR STEEL BRIDGES (SBR) WITH A FRACTURE CRITICAL ENDORSEMENT.
3. STEEL DESIGNATED AS FRACTURE CRITICAL (FCM) SHALL COMPLY WITH THE REQUIREMENTS OF AREMA CHAPTER 15, SECTION 1.14. TESTING SHALL BE PERFORMED FOR A MINIMUM SERVICE TEMPERATURE CORRESPONDING TO ZONE 2. KILLED FINE GRAIN PRACTICE SHALL BE USED IN THE MANUFACTURE OF FCM STEEL. SUPPLEMENTARY REQUIREMENTS S84 AND S93 OF ASTM A709 SHALL BE MANDATORY.
4. MAIN LOAD CARRYING MEMBERS OR COMPONENTS SUBJECT TO TENSILE STRESS, OTHER THAN FRACTURE CRITICAL MEMBERS SHALL CONFORM WITH THE IMPACT TEST REQUIREMENTS FOR CHARPY V-NOTCH TOUGHNESS FOR A MINIMUM SERVICE TEMPERATURE CORRESPONDING TO ZONE 2 (T2), AS SPECIFIED IN THE AREMA MANUAL FOR RAILWAY ENGINEERING.
5. ALL SHOP AND FIELD BOLTED CONNECTIONS SHALL USE HIGH STRENGTH BOLTS FRICTION-TYPE WITH NUT AND HARDENED STEEL WASHER. HIGH STRENGTH BOLTS SHALL CONFORM TO 7/8" DIA. ASTM F3125 GRADE A325, TYPE 3, UNLESS NOTED OTHERWISE. NUTS SHALL CONFORM TO ASTM A563 DH, LUBRICATED. WASHERS SHALL CONFORM TO ASTM F436, TYPE 3, AND SHALL BE PLACED UNDER THE ELEMENT TO BE TURNED WHEN STANDARD SIZED HOLES ARE USED. WHEN OVERSIZED HOLES ARE SPECIFIED, HARDENED WASHERS SHALL BE INSTALLED UNDER THE BOLT HEAD AND NUT. STANDARD BOLT HOLES, 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER, SHALL BE UNLESS NOTES OTHERWISE. ALLOWABLE STRESSES OF 17 KSI FOR SLIP-CRITICAL CONNECTIONS USING A SLIP COEFFICIENT OF 0.33 HAVE BEEN RETAINED PER UPRR GUIDELINES.
6. HIGH STRENGTH STEEL BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'TURN OF THE NUT METHOD'. THE PROCEDURE FOR INSTALLATION IS AS SPECIFIED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS OF THE ENGINEERING FOUNDATION. ALTERNATIVE BOLT INSTALLATION METHODS ARE SUBJECT TO APPROVAL BY THE UPRR OFFICE OF AVP ENGINEERING DESIGN WITH VERIFICATION PERFORMED IN ACCORDANCE WITH AREMA CHAPTER 15, ARTICLES 3.2.2.H AND 3.2.2.K.
7. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEADS ARE ON THE OUTSIDE (EXPOSED) SURFACE OF THE MEMBER UNLESS SHOWN OTHERWISE ON THE DRAWINGS. THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANE IN ALL CONNECTIONS.
8. ANY MACHINE BOLTS REQUIRED FOR SHIPMENT SHALL BE ASTM A307.
9. ALL WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE, AWS D1.5. WELDING OF FRACTURE CRITICAL MEMBERS SHALL ALSO CONFORM TO THE APPLICABLE PROVISIONS OF AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 15: STEEL STRUCTURES. WELDING TO BE ALLOWED ONLY AS SHOWN ON THE DRAWINGS AND APPROVED SHOP DRAWINGS.
10. WELDED JOINTS ARE TO BE AWS PREQUALIFIED. ALTERNATE JOINT DETAILS ARE SUBJECT TO APPROVAL BY THE DEPARTMENT AND THE UPRR OFFICE OF AVP ENGINEERING DESIGN. ALL WELDING SHALL BE DONE TO MINIMIZE DISTORTION. THE WELDING SEQUENCE AND PROCEDURES TO BE USED SHALL BE SUBMITTED FOR APPROVAL TO BOTH THE DEPARTMENT AND THE UPRR OFFICE OF AVP ENGINEERING DESIGN.
11. FULLY AUTOMATIC SUBMERGED ARC WELDING SHALL BE REQUIRED FOR THIS PROJECT. MANUAL SHIELDED ARC WELDING OR SEMI-AUTOMATIC SUBMERGED ARC WELDING SHALL BE ALLOWED ONLY IF FULLY AUTOMATIC SUBMERGED ARC WELDING IS NOT PRACTICAL. THE REQUIREMENTS OF FULLY AUTOMATIC SUBMERGED ARC WELDING MAY BE WAIVED FOR FIELD WELDING THE DECK PLATES TO THE GIRDERS. ALTERNATE WELDING METHODS ARE SUBJECT TO APPROVAL BY THE DEPARTMENT AND THE UPRR OFFICE OF AVP ENGINEERING DESIGN.
12. WHEN WELDING ASTM A709 GRADE 50W OR ASTM A588 STEEL, WELD METAL SHALL BE EQUIVALENT TO ASTM A709, GRADE 50W OR ASTM A588 STEEL IN STRENGTH, CORROSION RESISTANCE AND WEATHERED APPEARANCE.
13. THE FABRICATOR SHALL SUBMIT COPIES OF WELDERS' CERTIFICATES FOR ALL WELDING PROCESSES FOR DEPARTMENT & UPRR REVIEW AND APPROVAL. ALL WELDERS SHALL POSSESS VALID QUALIFICATIONS.
14. PERMISSIBLE SHOP SPLICE - STEEL FABRICATOR MAY PROVIDE COMPLETE PENETRATION GROOVE WELDED, SHOP FLANGE AND/OR WEB SPLICE WHERE REQUIRED IN ACCORDANCE WITH THE FOLLOWING:
    A. SPLICES SHALL BE LOCATED 1'-0" MIN. CLEAR FROM ALL BOLTED AND/OR WELDED ATTACHMENTS TO THE GIRDERS.
    B. SPLICES SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE GIRDER SPAN.
    C. TOP AND BOTTOM FLANGE SPLICES SHALL BE LOCATED AT OPPOSITE ENDS OF THE GIRDERS.
    D. ALL SHOP SPLICE WELDS SHALL BE GROUND SMOOTH IN THE DIRECTION OF STRESS.
    E. PLATES SHALL BE PROVIDED IN MAXIMUM LENGTHS AS PRACTICAL TO MINIMIZE THE NUMBER OF SPLICES REQUIRED.
    F. FINAL LOCATIONS OF SHOP SPLICES IN FLANGES TO BE APPROVED BY THE UPRR OFFICE OF AVP ENGINEERING DESIGN.
    G. ELECTROSLAG AND ELECTROGAS WELDING PROCESS SHALL NOT BE USED.
15. INDEPENDENT CERTIFIED NONDESTRUCTIVE TESTING OF WELDS SHALL BE PERFORMED IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING CHAPTER 15: STEEL SUPERSTRUCTURES, THE BRIDGE WELDING CODE, AWS D1.5, SECTION 3.5 AND AS FOLLOWS:
    A. 100% RT AND UT INSPECTION OF TRANSVERSE TENSION FULL PENETRATION WELDS IN FRACTURE CRITICAL MEMBERS.
    B. 100% RT INSPECTION OF TRANSVERSE FULL PENETRATION WELDS IN NON-FRACTURE CRITICAL MEMBERS.
    C. ALL FLANGE TO WEB WELDS SHALL BE TESTED ON BOTH SIDES AS FOLLOWS:
        I. 100% UT INSPECTION OF ALL BOTTOM FLANGE TO WEB FULL PENETRATION WELDS.
        II. 100% UT INSPECTION OF TOP FLANGE TO WEB FULL PENETRATION WELDS FOR 10% OF THE LENGTH FOR EACH END AND 10% OF THE REMAINING LENGTH.
        III. 100% MP INSPECTION OF ALL FLANGE TO WEB FILLET WELDS, WHEN ALLOWED.
    D. 100% MP INSPECTION OF FILLET WELDS ON BEARING STIFFENERS.
    E. 25% RT OR MP INSPECTION OF ALL OTHER WELDS. IF ANY DEFECTS ARE FOUND, THEN 100% RT OR MP INSPECTION SHALL BE REQUIRED.

    TEST RESULTS SHALL BE FURNISHED TO THE UPRR OFFICE OF AVP ENGINEERING DESIGN.
16. ALL BEARING STIFFENERS SHALL BE VERTICAL UNDER FINAL DEAD LOADS. ALL INTERMEDIATE STIFFENERS SHALL BE PLACED NORMAL TO THE GIRDER BOTTOM FLANGE. ALL STIFFENERS AND GIRDER END PLATES SHALL BE PLACED PEPENDICULAR TO THE WEB.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
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GENERAL NOTES
(1 OF 2)

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STATE PROJECT NUMBER
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GENERAL NOTES

STRUCTURAL STEEL, CONTINUED

17. FLAME CUTTING OF GIRDER WEBS AND FLANGES SHALL BE PERFORMED IN ACCORDANCE WITH THE AREMA MANUAL FOR RAILWAY ENGINEERING CHAPTER 15, ARTICLE 3.1.6: THERMAL CUTTING, COPES AND ACCESS HOLES. ADDITIONALLY, PREHEATING IS REQUIRED WHEN CUTTING WELD ACCESS HOLES OR COPES. PREHEATING SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

THICKNESS	MINIMUM PREHEAT TEMPERATURE
UP TO 1"	50°F
OVER 1" TO 2"	100°F
OVER 2"	200°F

THE PIECE SHALL BE PREHEATED IN SUCH A MANNER THAT IT IS HEATED THROUGH ITS THICKNESS AND THAT BOTH SURFACES ARE ABOVE THE MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING CUT, BUT NOT LESS THAN 3", BOTH LATERALLY AND IN ADVANCE OF THE CUT. THE FABRICATOR SHALL FURNISH A CALIBRATED ELECTRICAL CONTACT PYROMETER TO VERIFY COMPLIANCE WITH THE PREHEAT REQUIREMENTS DURING FABRICATION.

18. FOR WELDS DESIGNATED TO BE GROUND FLUSH, GRINDING SHALL BE IN THE DIRECTION OF APPLIED STRESS.

19. ALL JOINTS AND EDGE PREPARATION, REMOVAL OF UNACCEPTABLE WELD OR BASE METAL, AND BACKGOUGING SHALL BE COMPLETED BY MACHINING. ROUGH REMOVALS MAY BE COMPLETED BY NON-MECHANICAL MEANS.

20. THE FABRICATOR SHALL SUBMIT THREE COPIES OF DETAILED SHOP DRAWINGS PRIOR TO BEGINNING FABRICATION. FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS ARE APPROVED.

21. ALL FABRICATOR QUESTIONS AND CORRESPONDENCE SHALL BE ADDRESSED TO XXXXXX:

    UNION PACIFIC RAILROAD
    1400 DOUGLAS ST., STOP 0910
    OMAHA, NE 68179
    (XXX) XXX-XXXX
    XXXXXX XXXXX

22. PHOTOGRAPHS OF FABRICATOR'S PROGRESS SHALL BE SUBMITTED TO THE UPRR.

23. THE FABRICATOR SHALL SHOP ASSEMBLE THE SPAN(S) COMPLETE PRIOR TO SHIPPING. DURING ASSEMBLY AND REAMING, ALL BOLTS SHALL BE PLACED IN HOLES AS WORK PROGRESSES TO ASSURE A PROPER FIT.

24. SHOP ASSEMBLED SPAN(S) SHALL BE MADE AVAILABLE FOR INSPECTION BY UPRR AT THE FABRICATOR'S PLANT BEFORE THE STEEL IS DISASSEMBLED AND SHIPPED TO THE ERECTION SITE AT UPRR'S DISCRETION. PIECES SHALL BE MATCH-MARKED AS REQUIRED.

25. REAMING OF HOLES DURING FIELD ERECTION IS NOT ALLOWED, UNLESS APPROVED BY BOTH THE DEPARTMENT AND UPRR.

26. ALL STRUCTURAL STEEL SHALL BE BLAST CLEANED PRIOR TO SHIPMENT AS FOLLOWS, UNLESS NOTED OTHERWISE. ALL ASTM A709 STEEL, OTHER SURFACES VISABLE FROM SIDES AND ALL FAYING SURFACES REGARDLESS OF LOCATION: MINIMUM SSPC-SP6, COMMERCIAL BLAST CLEANING. ALL REMAINING STEEL SURFACES: SSPC-SP1, SOLVENT CLEANING. ALL STEEL MEMBERS SHALL BE CLEARLY MARKED AFTER BLAST CLEANING HAS BEEN COMPLETED.

27. ALL STEEL COMPONENTS SHALL BE INSPECTED BEFORE SHIPMENT.

28. ALL MATERIAL CERTIFICATIONS AND QUALITY CONTROL TEST RESULTS SHALL BE SUBMITTED TO UNION PACIFIC RAILROAD AT PROJECT COMPLETION.

29. GALVANIZED ELEMENTS SHALL BE ISOLATED FROM UNCOATED WEATHERING STEEL WITH EPOXY PAINT IN ORDER TO MITIGATE THE POTENTIAL GALVANIC CORROSION BETWEEN THE UNCOATED WEATHERING STEEL AND THE GALVANIZED ELEMENT.

30. THE DECK PLATE AND CURB PLATES SHALL BE SUB-DRILLED AND SUBSEQUENTLY SHOP REAMED FULL-SIZE TO MATCH THE BEAMS.

31. BEARING PADS SHALL BE SHIPPED FLAT.

32. BEARING PADS SHALL MEET THE REQUIREMENTS OF TABLE 15-5-5 OF THE AREMA MANUAL FOR RAILWAY ENGINEERING.

33. ALL HOLES THROUGH MAIN STRUCTURAL MEMBERS ARE TO BE DRILLED FULL SIZE OR SUBDRILLED 1/4" LESS AND REAMED TO FULL SIZE. REAMING OF HOLES DURING FIELD ERECTION IS NOT ALLOWED UNLESS APPROVED BY THE RAILROAD.

34. MINIMUM EDGE DISTANCE TO CENTER OF BOLT SHALL BE 2" UNLESS NOTED OTHERWISE.

35. SHOP DRAWINGS SHALL INDICATE WHICH CONNECTIONS ARE TO BE MADE IN THE SHOP AND WHICH CONNECTIONS ARE TO BE MADE IN THE FIELD.

36. FIELD WELDING ON THE BOTTOM FLANGES AND WEBS IS NOT ALLOWED.

37. GRINDING SHALL BE IN THE LONGITUDINAL DIRECTION.

38. ALL CORNER CLIPS 1 1/2" X 1 1/2" UNLESS SHOWN OTHERWISE.

39. 3/4" MIN. BEND RADIUS FOR BENT PLATES (1/2" THICK MAX.)

CLEANING AND PAINTING

1. ALL SURFACES, ESPECIALLY FAYING SURFACES, SHALL BE COMMERCIALLY BLAST CLEANED TO REMOVE ALL LOOSE MILL SCALE, OIL, AND OTHER COATINGS AND TO PROVIDE A UNIFORM APPEARANCE IN CONFORMANCE WITH SSPC-SP6.

2. SURFACES TO RECEIVE GALVANIZING SHALL BE PICKLED ACCORDING TO SSPC-SP8.

3. PAINT ALL STRUCTURAL STEEL WITH AN EPOXY SYSTEM, UNLESS NOTED OTHERWISE. FINISH COAT SHALL HAVE A COLOR TO MATCH SHERWIN WILLIAMS COLOR "SW6523 - DENIM BLUE" USING A HIGH GLOSS FINISH. OBTAIN APPROVAL OF THE COLOR MATCH FROM THE ENGINEER BEFORE ORDERING.

4. EMBEDDED STEEL OR STEEL IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH A 1 MIL "MIST-COATING" OF ZINC-RICH PRIMER UNLESS NOTED OTHERWISE.

STEEL DECK WATERPROOFING

1. SUMBIT A COLD-LIQUID SPRAY-ON ON TYPE WATERPROOFING SYSTEM FOR REVIEW AND APPROVAL TO THE ENGINEER AND THE UPRR ENGINEER PRIOR TO CONSTRUCTION, FULFILLINF THE REQUIREMENTS AS DESCRIBED IN "MEMBRANE WATERPROOFING" IN THE SPECIAL PROVISIONS. THE SYSTEM SHALL INCLUDE A MINIMUM SINGLE 3/4" LAYER OF PROTECTIVE ASPHALTIC PANELS, OR ALTERNATE PROTECTIVE SYSTEM, AS INDICATED IN THESE PLANS AND AS DESCRIBED IN "ASPHALTIC PANELS" IN THE SPECIAL PROVISIONS.

2. PLACE 6" THICK BALLAST LAYER OVER PROTECTIVE ASPHALT PANELS IMMEDIATELY UPON ACCEPTANCE BY THE ENGINEER AND THE UPRR ENGINEER. DO NOT ALLOW CONSTRUCTION TRAFFIC ON THE WATERPROOFING UNTIL THE BALLAST COVERING IS IN PLACE.

CAMBER

1. ROLLED STRUCTURAL SHAPES SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. THE WELDED DECK PLATE GIRDERS SHALL BE CAMBERED AS SHOWN ON THE PLANS.

SHIMS

1. WHEREVER SHIMS ARE CALLED FOR ON THE PLANS, THE NOMINAL OR THEORETICAL THICKNESS "T" IS INDICATED. THE ACTUAL SHIM PACK FURNISHED SHALL HAVE A THICKNESS EQUAL TO 2 TIMES THE NOMINAL THICKNESS INDICATED, UNLESS NOTED OTHERWISE ON THE PLANS, AND SHALL BE COMPOSED OF THE FOLLOWING MATERIAL THICKNESSES: T, T/2, T/4, T/8, ETC. SHIMS THINNER THAN 1/4" SHALL BE FABRICATED FROM ASTM A167 TYPE 304 STAINLESS STEEL.

TEMPORARY SHORING RAILROAD

1. BEFORE FABRICATING, MOBILIZING AND INSTALLING TEMPORARY SHORING SUPPORTING RAILROAD LIVE LOADS, SUBMIT CALCULATIONS AND A SHOP DRAWING DETAILING TEMPORARY SHORING TO BE USED THAT CONFORMS TO THE SPECIAL PROVISION "TEMPORARY SHORING RAILROAD" AND THE UPRR CRITERIA AND REFERENCES DESCRIBED THEREIN. TEMPORARY SHORING SUPPORTING RAILROAD LIVE LOADS MUST BE MONITORED THROUGHOUT ITS USE AS DESCRIBED IN THE SPECIAL PROVISION "TRACK, SHORING AND EXISTING STRUCTURE MONITORING UPRR". FABRICATION, MOBILIZATION AND INSTALLATION WITHOUT APPROVAL OF THE CALCULATIONS AND SHOP DRAWING BY THE ENGINEER AND THE UPRR ENGINEER IS AT THE CONTRACTOR'S OWN RISK.

2. THE FOLLOWING GEOTECHNICAL PARAMETERS HAVE BEEN APPROVED BY UPRR FOR DESIGN OF TEMPORARY SHORING CARRYING RAILROAD LIVE LOADS:

    ϕ =
    γ =
    γ_{sat} =

ABBREVIATIONS

ABT.	ABUTMENT	F.F.	FRONT FACE
B.F.	BACK FACE	GALV.	GALVANIZED
BCLS	BACKFILL CONTROLLED LOW STRENGTH	HORIZ.	HORIZONTAL
		MAX.	MAXIMUM
BRG.	BEARING	MIN.	MINIMUM
B/	BOTTOM OF	MVC	MINIMUM VERTICAL CLEARANCE
℄	CENTERLINE	N.I.C.	NOT IN CONTRACT
C.F.	CUT FROM	PCMW	PRECAST MODULAR WINGWALL
CLR.	CLEAR	PL	PLATE
CONC.	CONCRETE	R.F.	REAR FACE
DIA. OR ϕ	DIAMETER	ℝ	REFERENCE LINE
E.F.	EACH FACE	SPA.	SPACE, SPACES, OR SPACING
EL.	ELEVATION	STD.	STANDARD
EMBED.	EMBEDMENT	T/	TOP OF
EST.	ESTIMATED	TYP.	TYPICAL
FCM	FRACTURE CRITICAL MEMBER	UPRR	UNION PACIFIC RAILROAD COMPANY
		U.N.O.	UNLESS NOTED OTHERWISE
		W/	WITH

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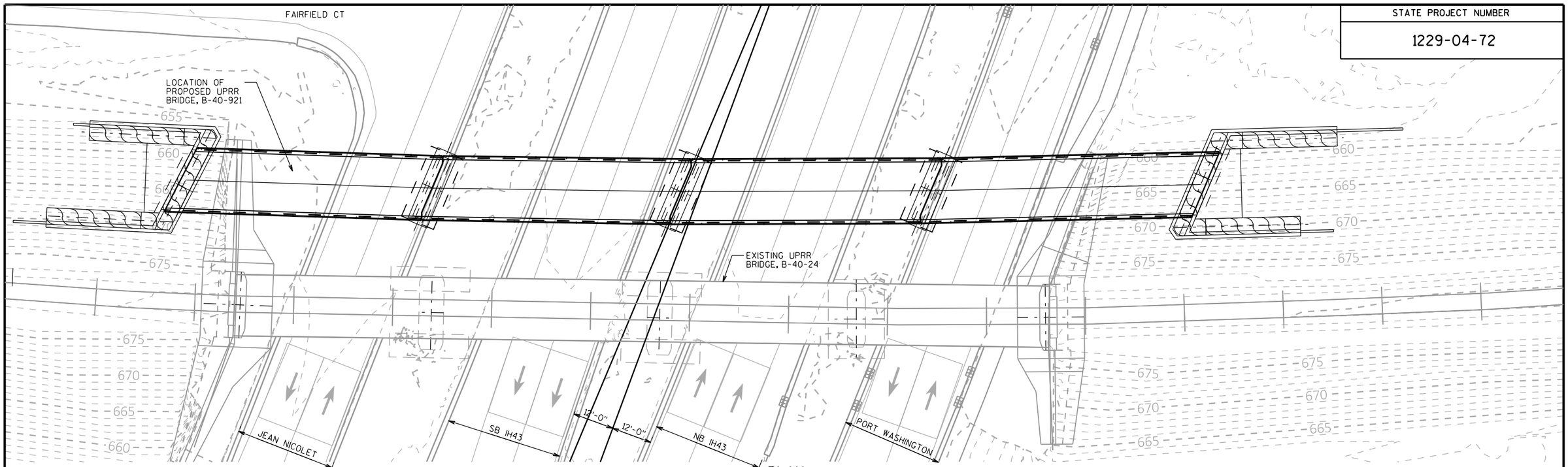
GENERAL NOTES
(2 OF 2)

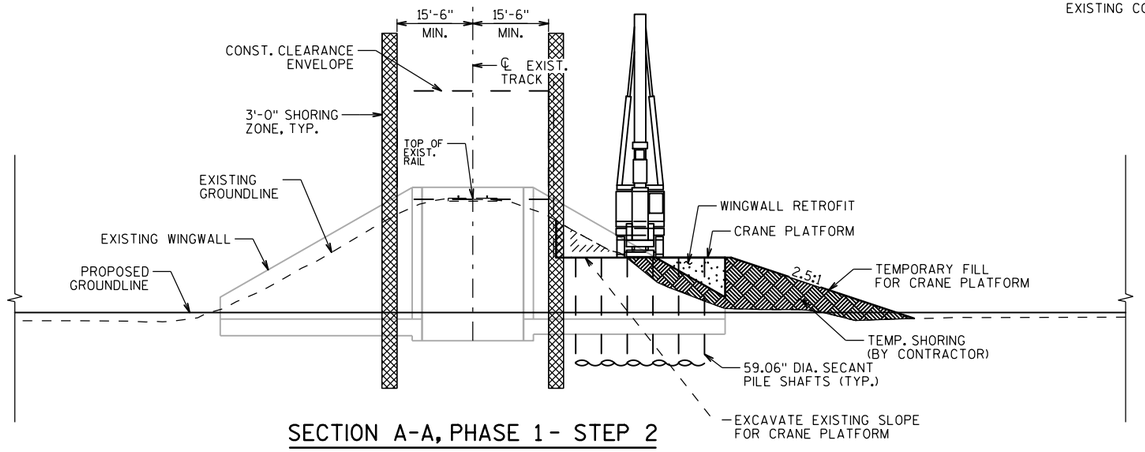
SHEET OF

STATE PROJECT NUMBER
1229-04-72



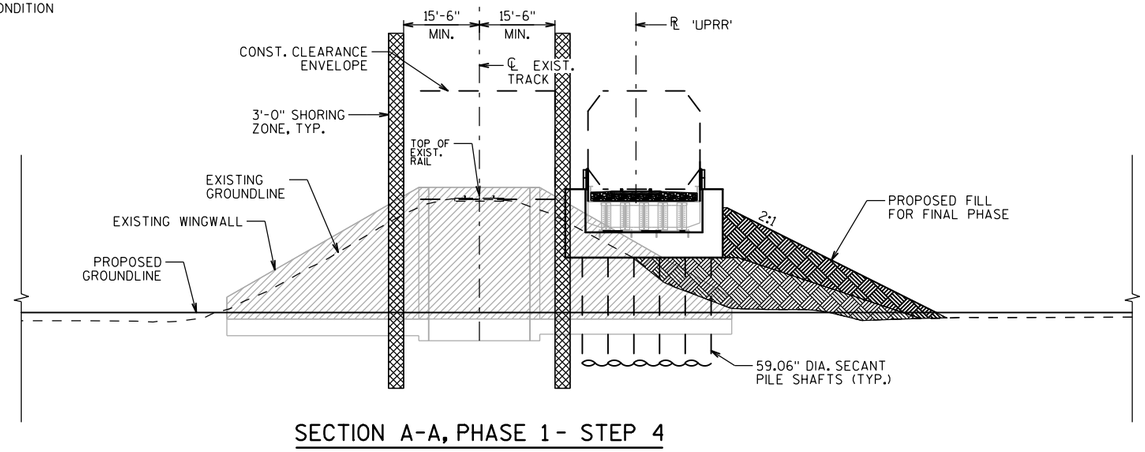
PLAN

EXISTING CONDITION



SECTION A-A, PHASE 1 - STEP 2

AT WEST ABUT. (EAST ABUT. SIMILAR)



SECTION A-A, PHASE 1 - STEP 4

AT WEST ABUT. (EAST ABUT. SIMILAR)

CONSTRUCTION PHASING NOTES

PHASE 1 - CONTRACTOR ACTIVITIES: BUILD PROPOSED BRIDGE AND TRACK

STEP 1: EXISTING BRIDGE REMAINS IN SERVICE. ALL EXISTING ROADWAYS WITH EXCEPTION OF FAIRFIELD COURT REMAIN IN SERVICE. (FAIRFIELD COURT IS CLOSED.) CONSTRUCT TEMPORARY WIDENINGS FOR JEAN NICOLET TO SHIFT TRAFFIC WEST AND FOR PORT WASHINGTON TO SHIFT TRAFFIC EAST. DRIVE TEMPORARY SHORING AND CONSTRUCT PIERS 1& 3.

STEP 2: RETROFIT THE EXISTING NW WINGWALL END TO SUPPORT FILL FOR THE CRANE PLATFORM. INSTALL "TEMPORARY SHORING RAILROAD" PARALLEL TO EXISTING TRACK AT EACH EXISTING ABUTMENT. ("TEMPORARY SHORING RAILROAD" IS CONTRACTOR-DESIGNED AND UPRR-APPROVED BEFORE INSTALLATION MAY PROCEED.) EXCAVATE AND CONSTRUCT CRANE PLATFORMS (AT TOP OF SHAFT ELEVATION) BEHIND BOTH EXISTING NW AND NE WINGWALLS, ADDING ROWS OF ANCHORS TO BRACE TEMPORARY RAILROAD SHORING AS THE DEPTH OF EXCAVATION INCREASES. (ALL ELEMENTS OF TEMPORARY SHORING RAILROAD, INCLUDING ANCHORS, SHALL BE INSTALLED SUCH THAT THEY ARE REMOVED AFTER THE PROPOSED UPRR BRIDGE HAS BEEN CONSTRUCTED. SEE "SECTION A-A, PHASE 1 STEP 2" FOR SUGGESTED SHORING SCHEME.) BEGIN EXISTING TRACK AND SHORING MONITORING UPON EXCAVATION IN FRONT OF TEMPORARY SHORING RAILROAD.

STEP 3: DRILL AND INSTALL SECANT SHAFTS. BUILD EAST AND WEST ABUTMENTS. CONSTRUCT EMBANKMENT BEHIND ABUTMENTS TO TOP OF SUBBALLAST.

STEP 4: PARTIALLY REMOVE NORTH WINGS OF BOTH EXISTING ABUTMENTS. SHIFT IH 43 TRAFFIC TO OUTSIDE. CONSTRUCT PIER 2. INSTALL SUPERSTRUCTURE SPANS 1 THRU 4. INSTALL BALLASTED TRACK SECTION.

PHASE 2 - UPRR ACTIVITIES (<1 DAY): CONSTRUCT TIE-INS TO SHIFT RAILROAD TRAFFIC ON BOTH ENDS OF PROJECT. SEE TRACK PLANS FOR TRACK CONSTRUCTION PHASING.

PHASE 3 - CONTRACTOR ACTIVITIES: REMOVE EXISTING BRIDGE AND TRACK

STEP 1: REMOVE TEMPORARY SHORING RAILROAD & TEMPORARY SHORING BY CONTRACTOR. REMOVE EXISTING BALLASTED TRACK SECTION. REMOVE EXISTING SPANS 2 & 3. REMOVE EXISTING PIER 2 TO FOOTING. (EXISTING PIER 2 FOOTING WILL BE REMOVED WITH ROADWAY CONSTRUCTION.) USE TEMPORARY SHORING AS NECESSARY.

STEP 2: SHIFT IH43 TRAFFIC TO INSIDE (THE ORIGINAL LOCATION). REMOVE SPANS 1& 4. REMOVE PIERS 1 & 3, USING TEMPORARY SHORING AS NECESSARY.

STEP 3: SHIFT JEAN NICOLET & PORT WASHINGTON BACK TO ORIGINAL LOCATIONS. REMOVE WEST AND EAST ABUTMENTS, USING TEMPORARY SHORING AS NECESSARY. GRADE IN FRONT OF NEW ABUTMENTS, CONSTRUCT CIP FACING.

PLAN NOTES

EXISTING CONTOURS ARE SHOWN ON THIS SHEET.

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CONSTRUCTION PHASING (1 OF 3)

SHEET OF

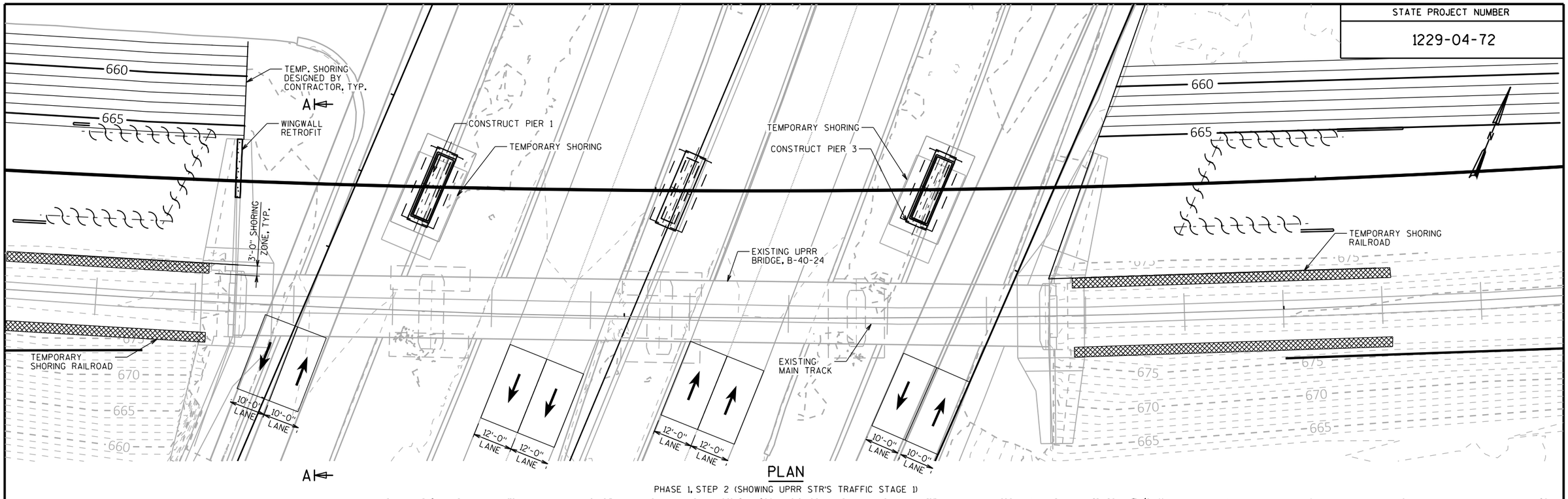
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_080108_cs

PLOT DATE : 9/28/2021 10:06:26 AM PLOT BY : cvhayden

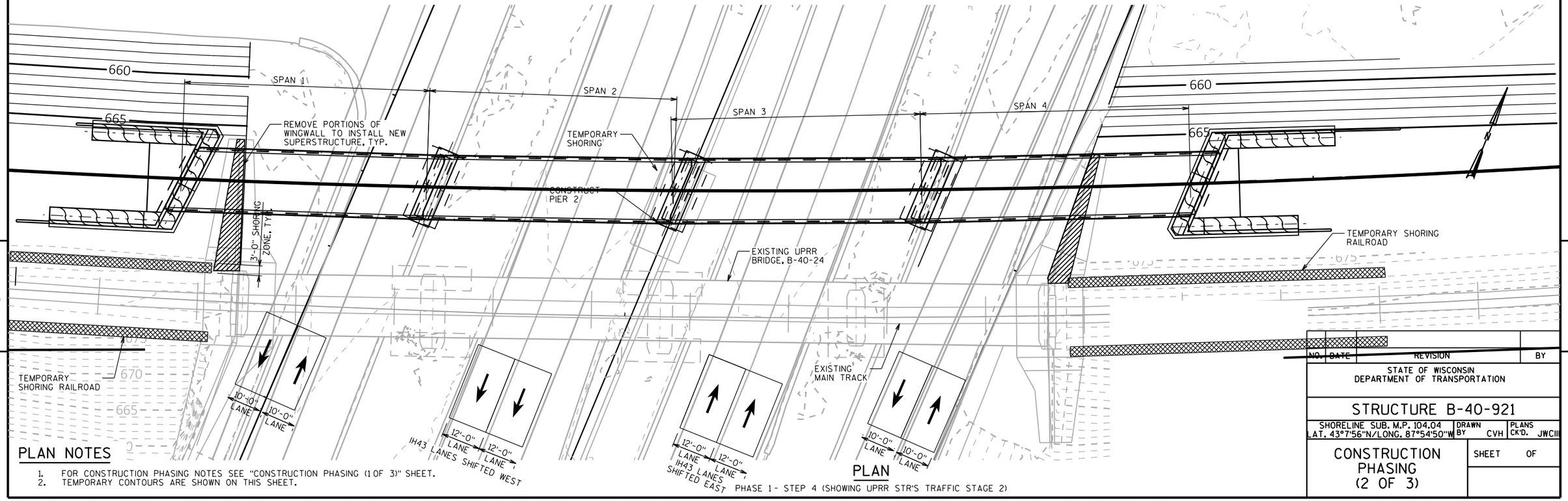
PLOT SCALE : 0.166667:1

STATE PROJECT NUMBER
1229-04-72



PLAN

PHASE 1, STEP 2 (SHOWING UPRR STR'S TRAFFIC STAGE 1)



PLAN

PHASE 1- STEP 4 (SHOWING UPRR STR'S TRAFFIC STAGE 2)

PLAN NOTES

1. FOR CONSTRUCTION PHASING NOTES SEE "CONSTRUCTION PHASING (1 OF 3)" SHEET.
2. TEMPORARY CONTOURS ARE SHOWN ON THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

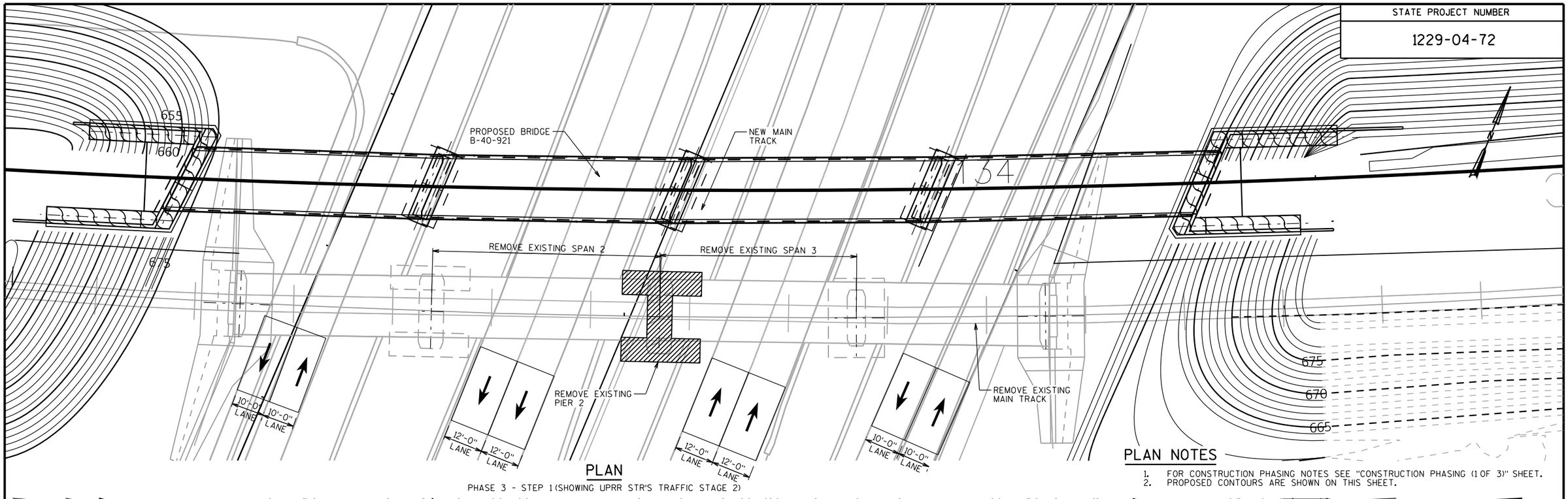
SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

CONSTRUCTION PHASING (2 OF 3)

SHEET OF

STATE PROJECT NUMBER
1229-04-72

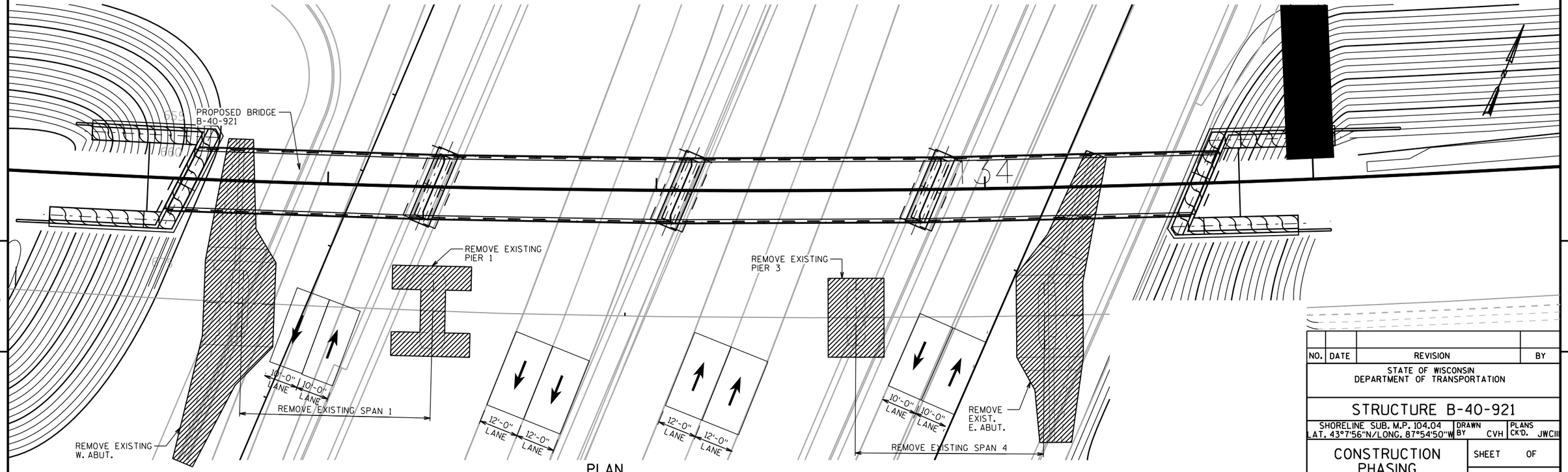


PLAN

PHASE 3 - STEP 1 (SHOWING UPRR STR'S TRAFFIC STAGE 2)

PLAN NOTES

1. FOR CONSTRUCTION PHASING NOTES SEE "CONSTRUCTION PHASING (1 OF 3)" SHEET.
2. PROPOSED CONTOURS ARE SHOWN ON THIS SHEET.



PLAN

PHASE 3 - STEP 2 (SHOWING UPRR STR'S TRAFFIC STAGE 3)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

CONSTRUCTION PHASING (3 OF 3)

SHEET OF

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_080108_cs

PLOT DATE : 9/28/2021 10:07:01 AM PLOT BY : cvhayden

PLOT SCALE : 0.166667:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-06	MARCH 6, 2014	333612	604035
UP-10	JUNE 20, 2014	333599	603823
UP-15	DECEMBER 16, 2014	333582	603921
UP-16	DECEMBER 17, 2014	333631	604133
UP-18	DECEMBER 18, 2014	333647	604260
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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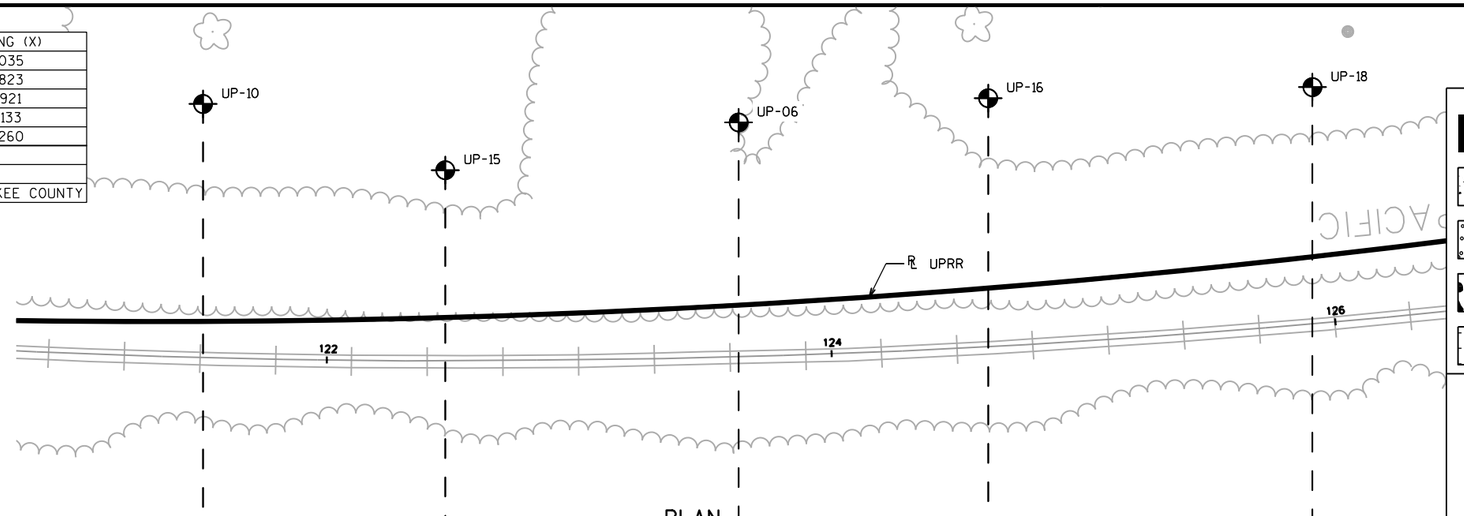
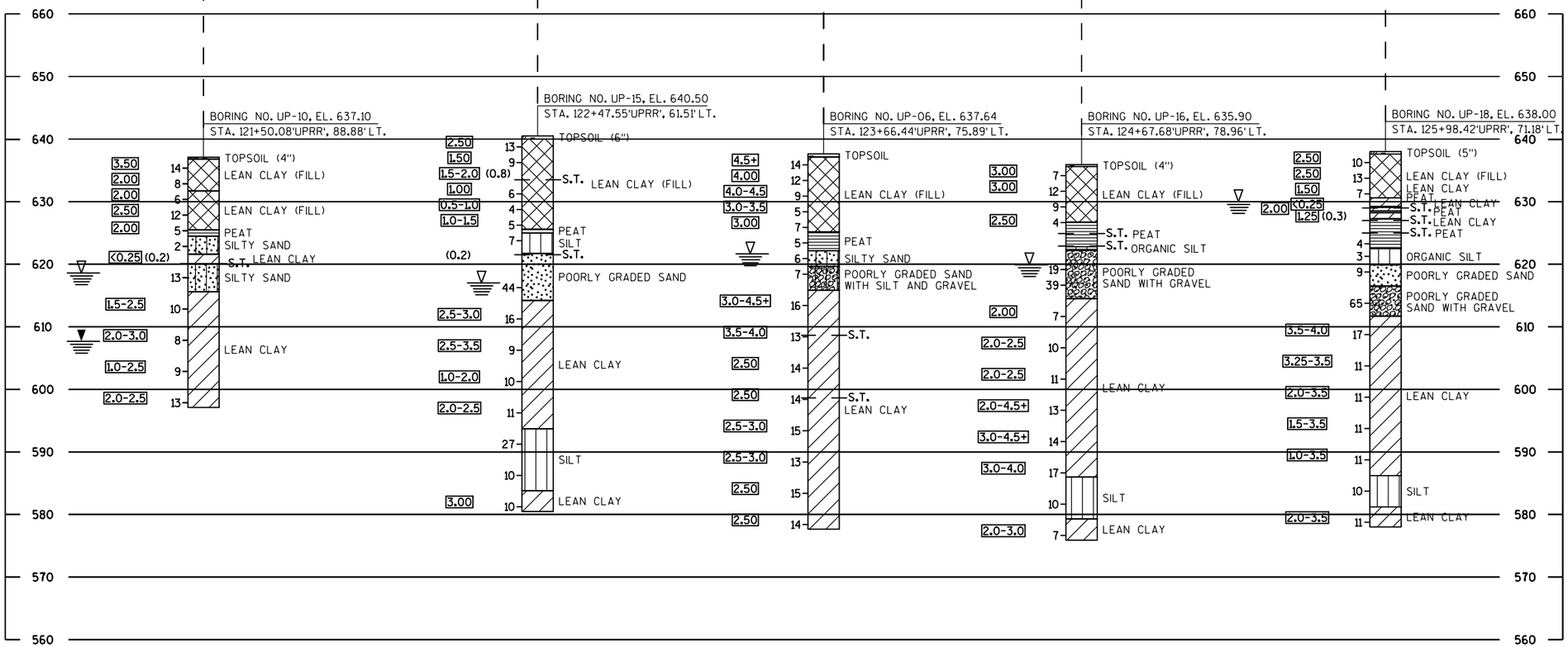
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



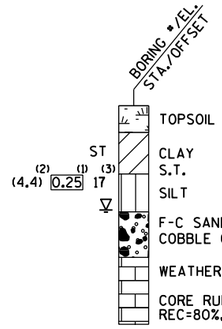
ELEVATION

STATE PROJECT NUMBER
1229-04-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

SUBSURFACE EXPLORATION (1 OF 7)

SHEET OF

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-23	SEPT. 23, 2015	333559	604233
UP-23A	SEPT. 24, 2015	333542	604198
UP-25	AUGUST 26, 2015	333369	604206
UP-26	AUGUST 26, 2015	333390	604202
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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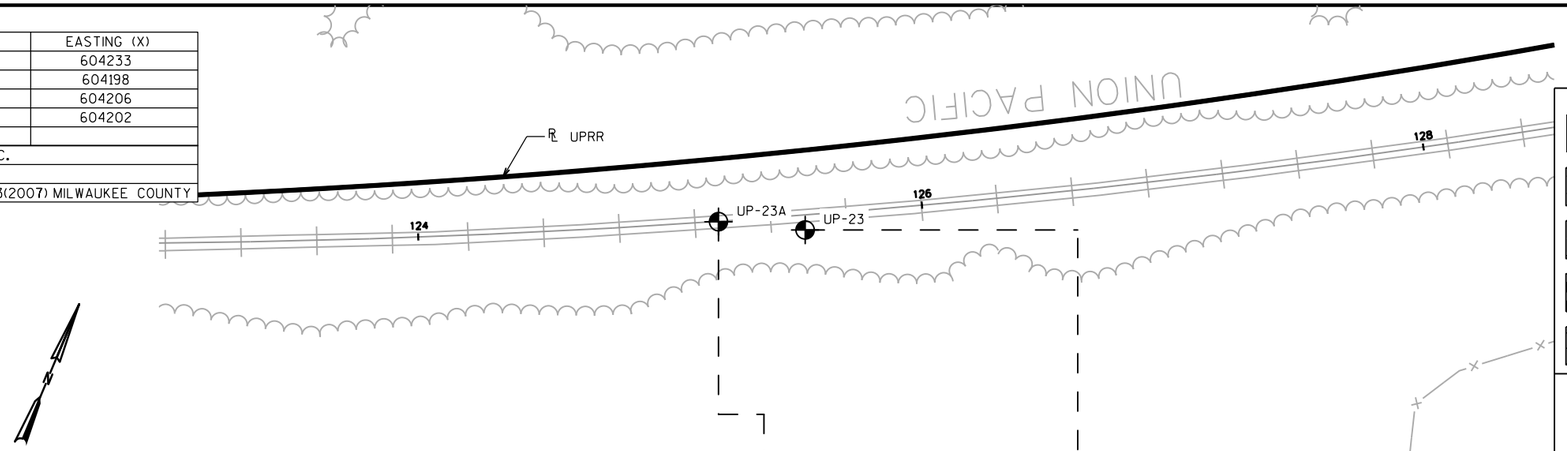
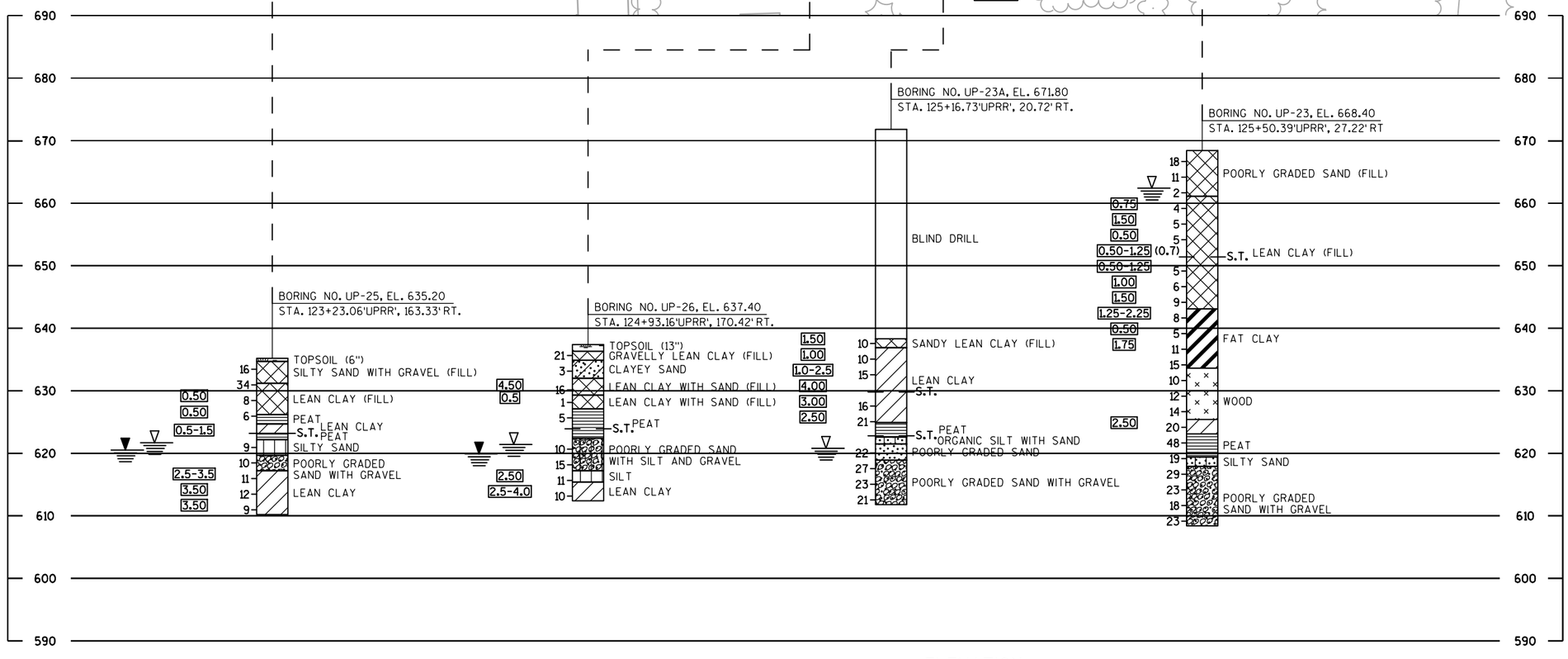
⊕ DENOTES SOIL BORING LOCATION



PLAN

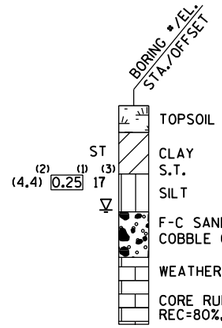


ELEVATION

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	WOOD

LEGEND OF BORING



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GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER

1229-04-72

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

SUBSURFACE EXPLORATION (2 OF 7)

SHEET OF

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_080202_se

PLOT DATE : 9/28/2021 10:07:50 AM PLOT BY : cvhayden

PLOT SCALE : 0.166667:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-07	FEBUARY 26, 2014	333681	604447
UP-11	JUNE 27, 2014	333711	604604
UP-21	AUGUST 11, 2015	333680	604389
UP-22A	AUGUST 11, 2015	333656	604324

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

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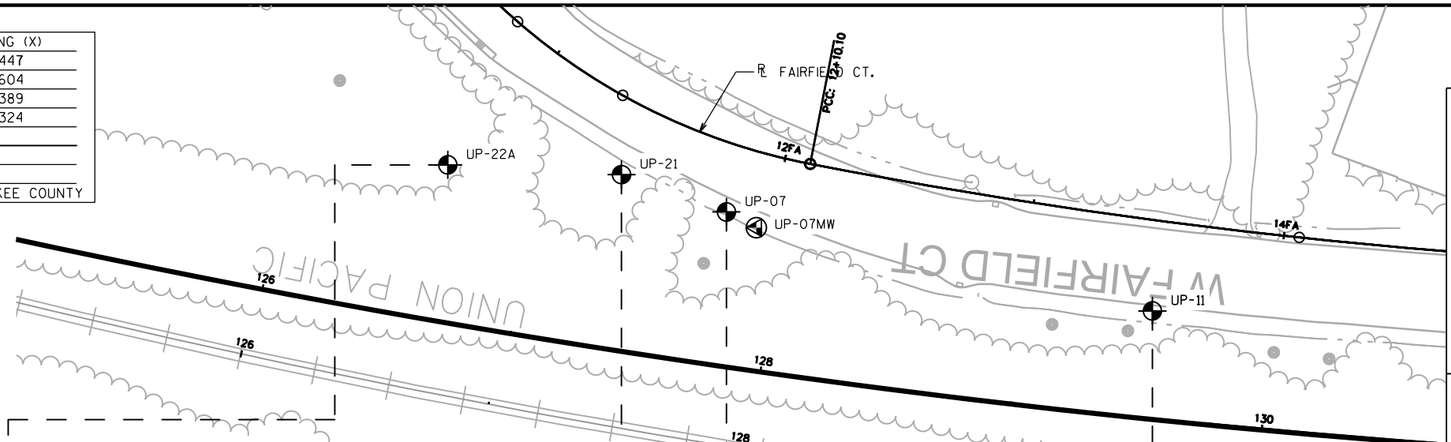
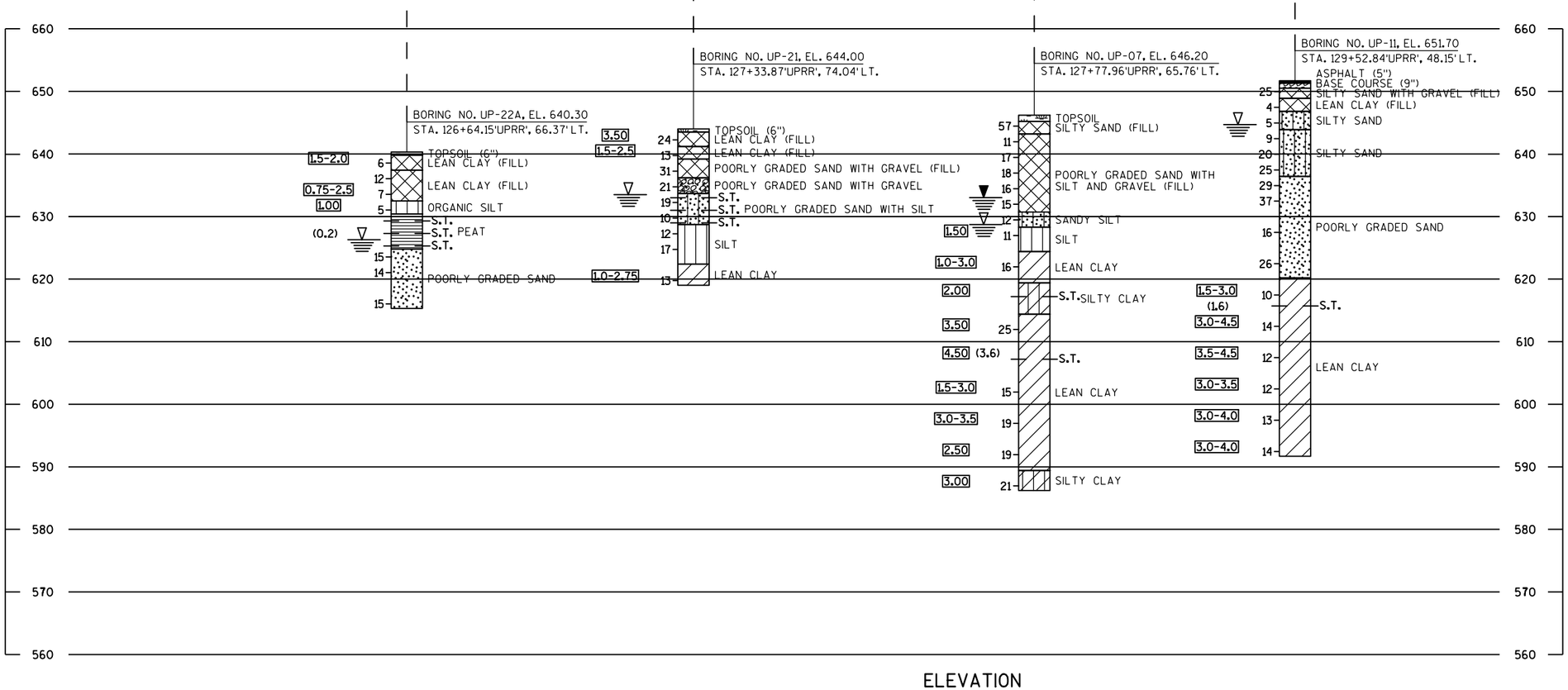
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION



PLAN



ELEVATION

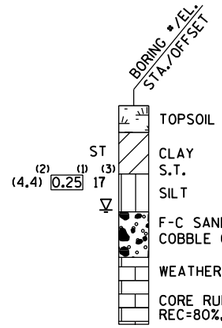
STATE PROJECT NUMBER

1229-04-72

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY CVH | PLANS CK'D. JWCII

SUBSURFACE EXPLORATION (3 OF 7)

SHEET OF

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-01	MARCH 5, 2014	333778	604808
UP-02	SEPT. 6, 2014	333770	604888
UP-03	APRIL 6, 2014	333799	604952
UP-04	APRIL 7, 2014	333827	605021
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

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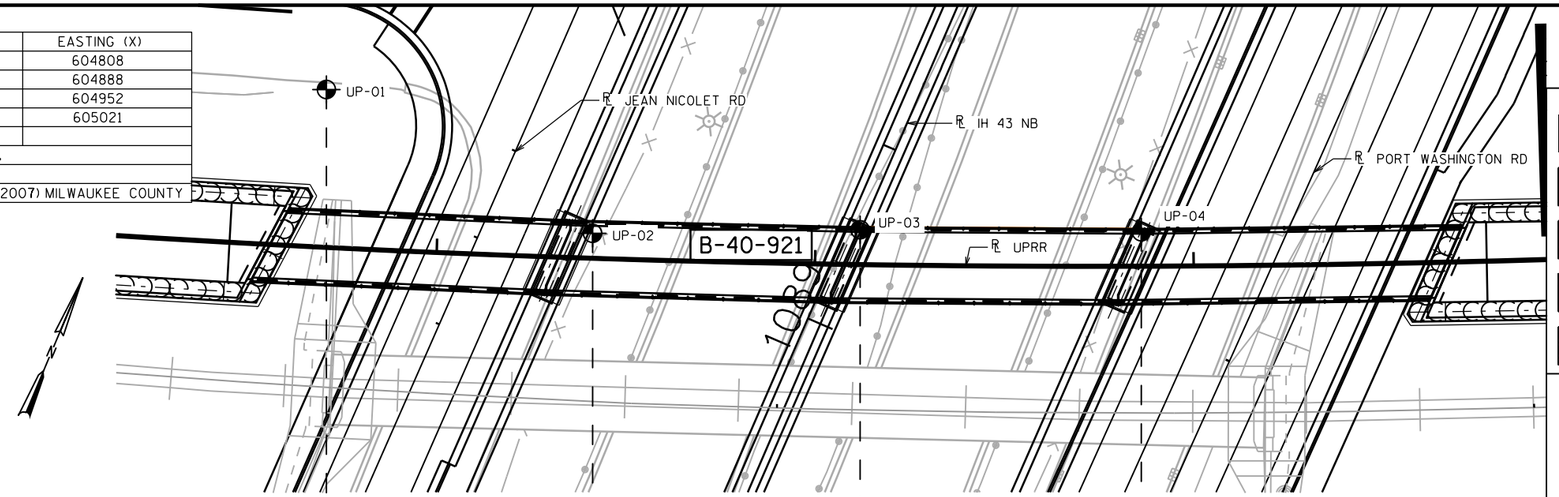
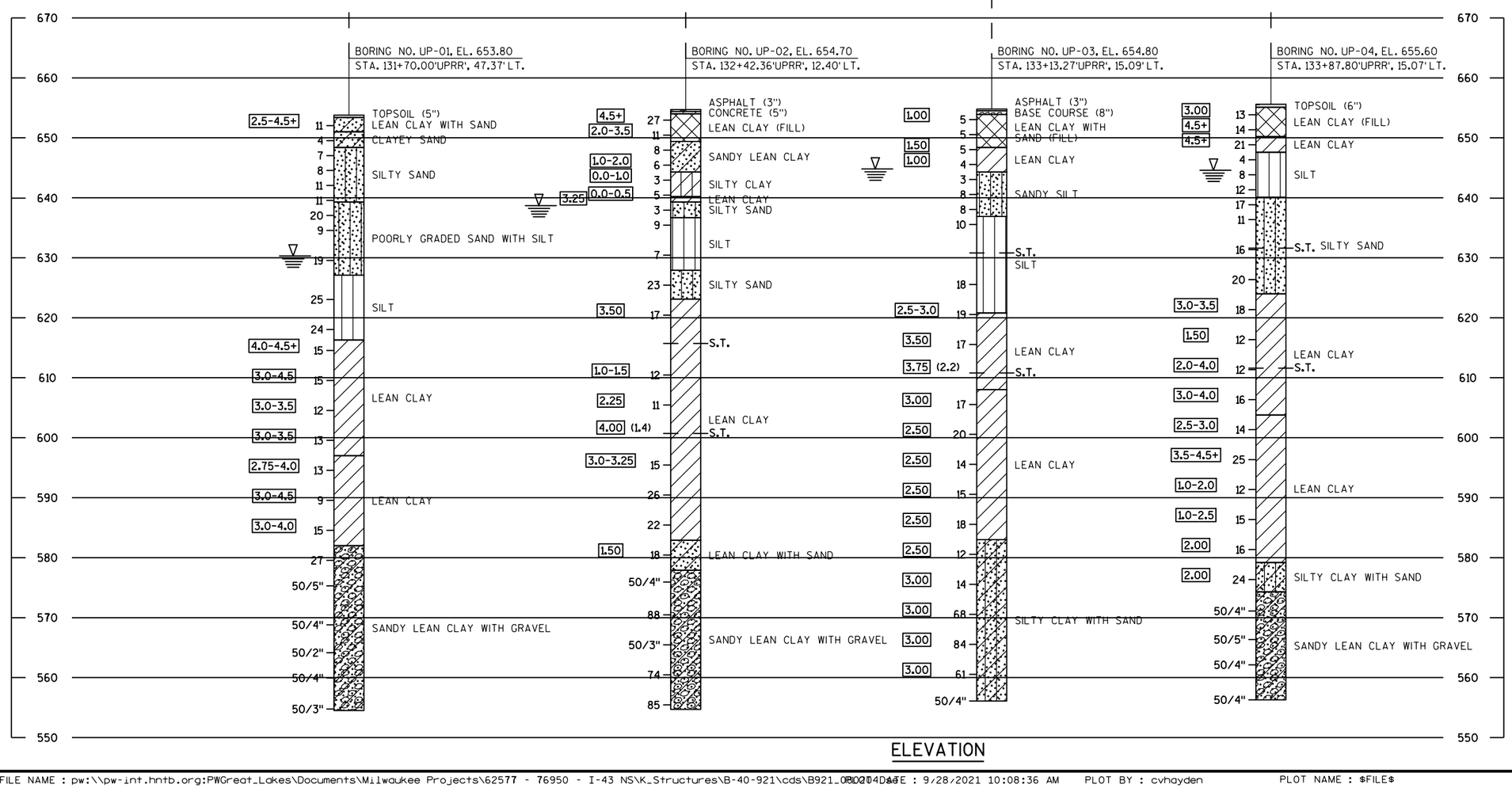


PLAN



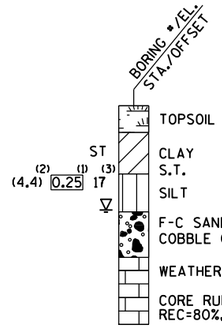
ELEVATION

STATE PROJECT NUMBER
1229-04-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (4 OF 7)

SHEET 14 OF 17

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-05	MARCH 11, 2014	333862	605101
UP-24	SEPTEMBER 23, 2015	333695	604788
UP-27	SEPTEMBER 21, 2015	333819	605121

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

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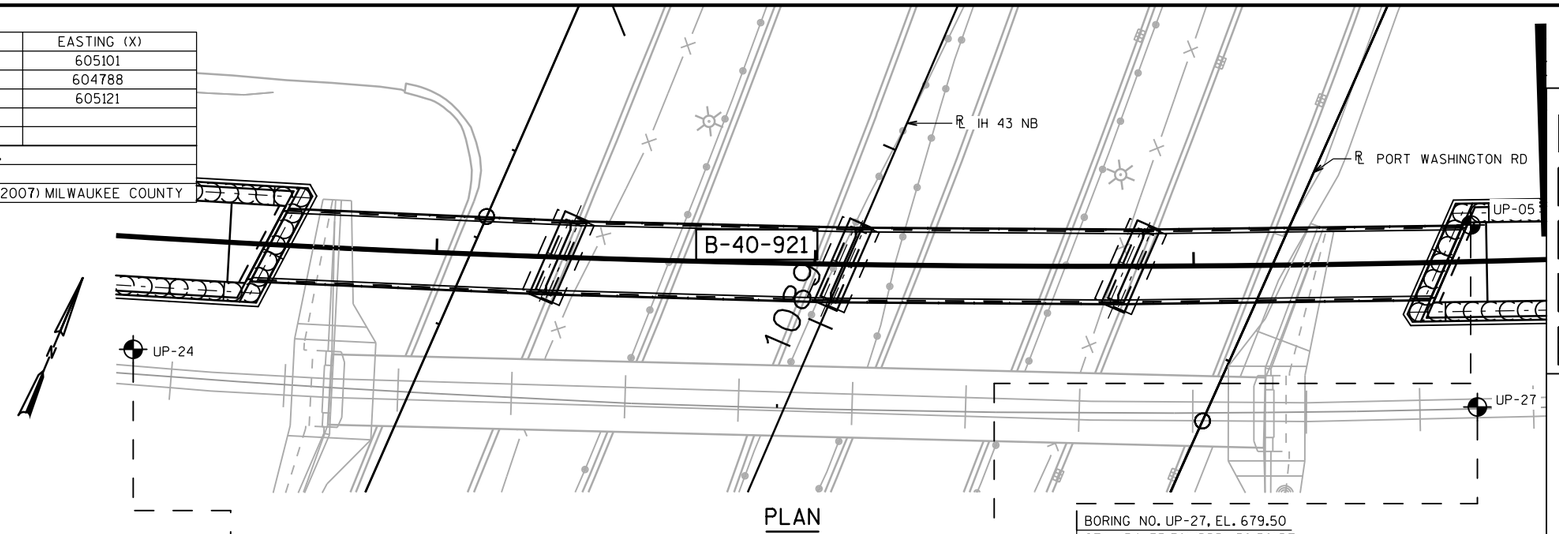
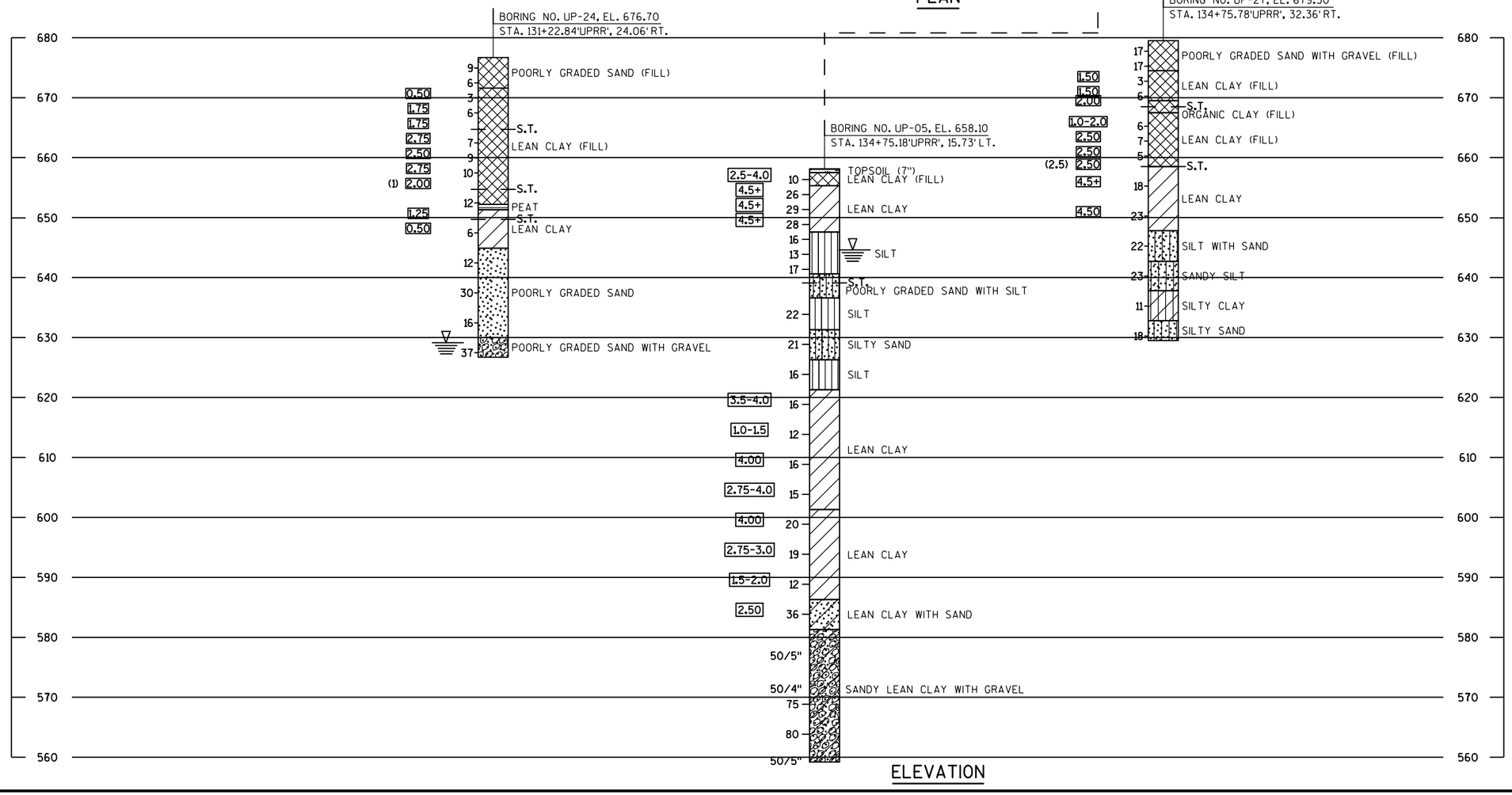
DENOTES SOIL BORING LOCATION



PLAN



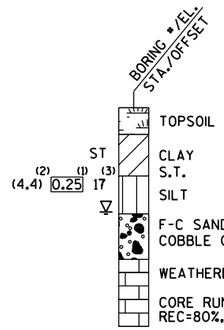
ELEVATION

STATE PROJECT NUMBER
1229-04-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

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ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (5 OF 7)

SHEET 15 OF 17

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_0005.dgn
PLOT DATE : 9/28/2021 10:08:48 AM
PLOT BY : cvhayden
PLOT NAME : $FILE$
PLOT SCALE : 39.9993:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-01	MARCH 5, 2014	333778	604808
UP-08	MARCH 10, 2014	333983	605345
UP-14	DECEMBER 20, 2014	333909	605196

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

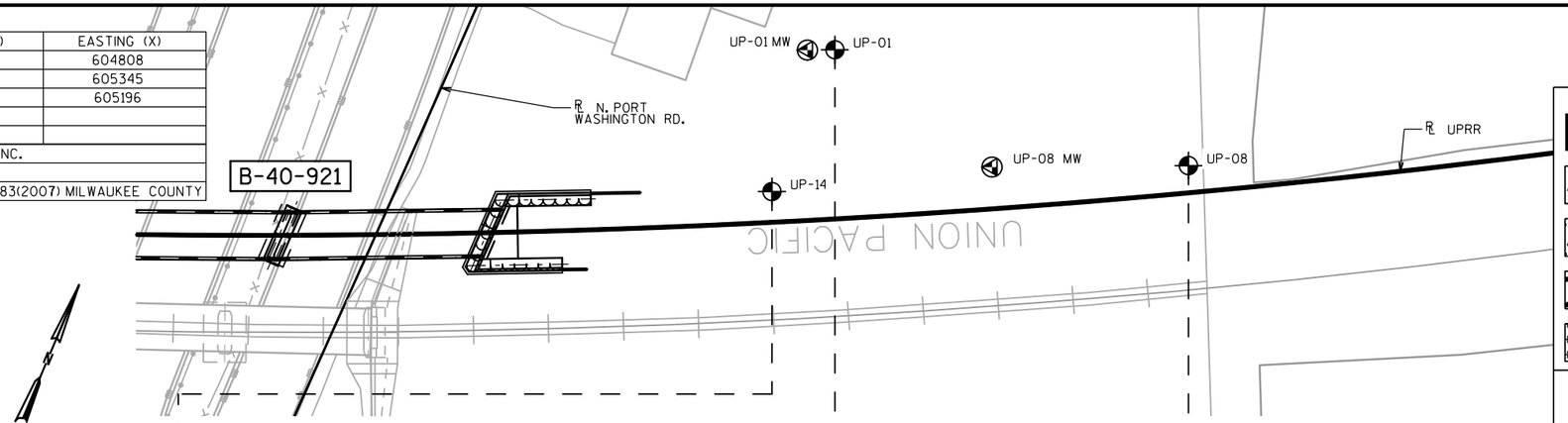
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

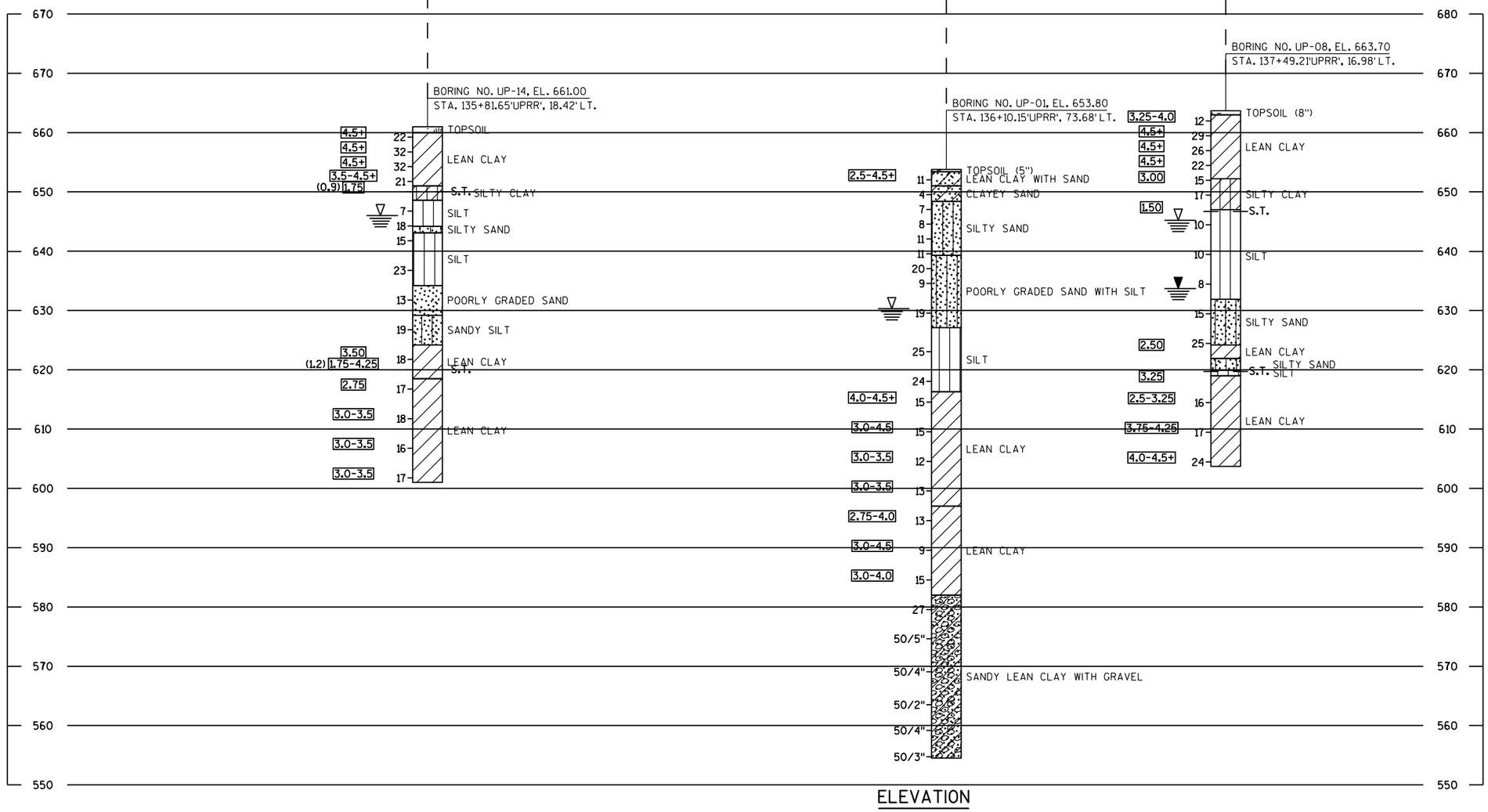
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

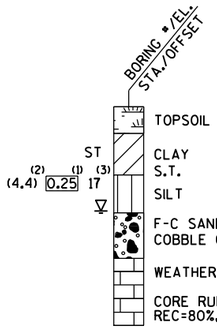


PLAN



ELEVATION

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

STATE PROJECT NUMBER

1229-04-72

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (6 OF 7)

SHEET 16 OF 17

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_0R02.dgn

PLOT DATE : 9/28/2021 10:08:56 AM PLOT BY : cvhayden PLOT NAME : $FILE$ PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-09	APRIL 8, 2014	334242	605735
UP-24	SPET. 21, 2015	334032	605530

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

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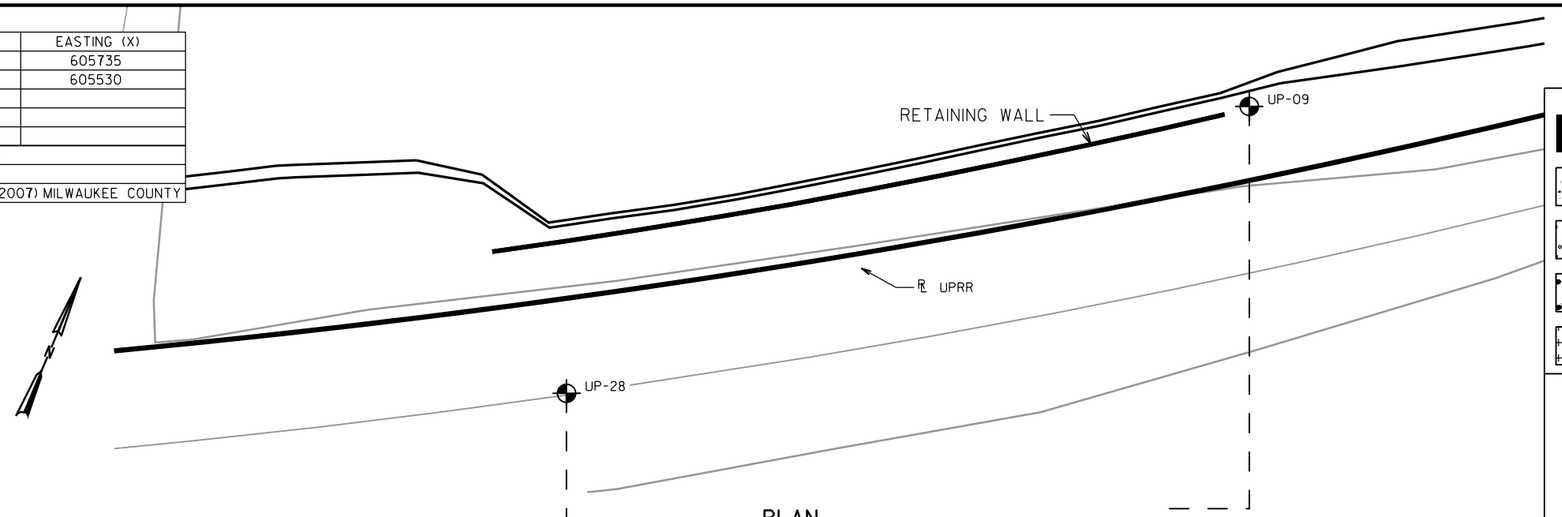
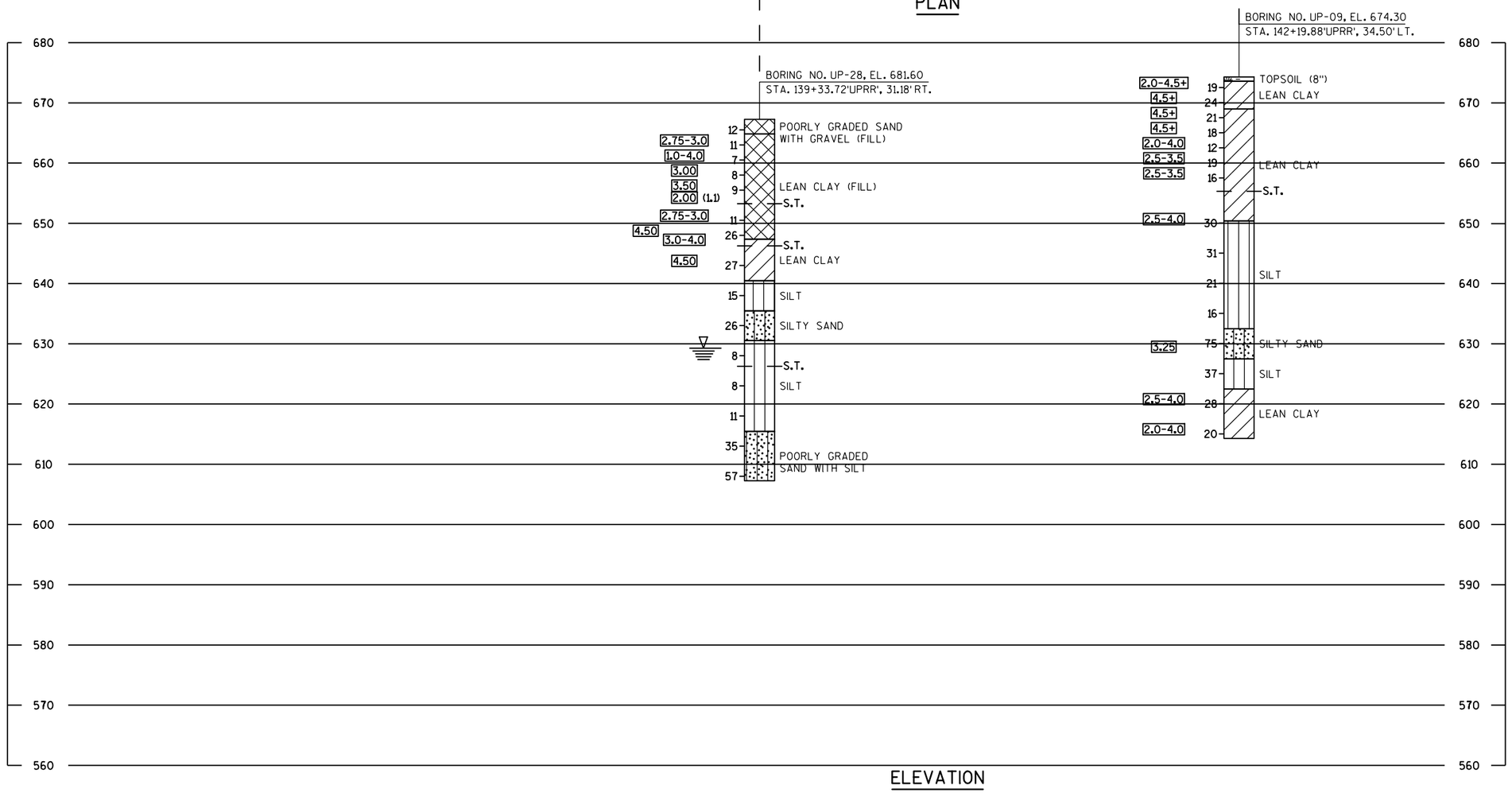


PLAN

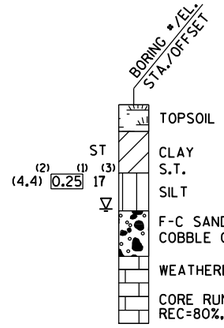


ELEVATION

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER

1229-04-72

STRUCTURE B-40-921

SHORELINE SUB. M.P. 104.04
LAT. 43°7'56"N/LONG. 87°54'50"W

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (7 OF 7)

SHEET 17 OF 17

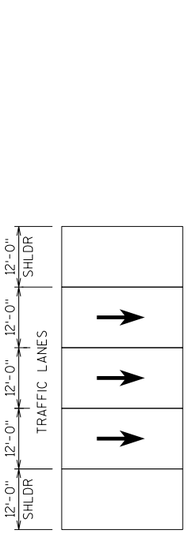
8

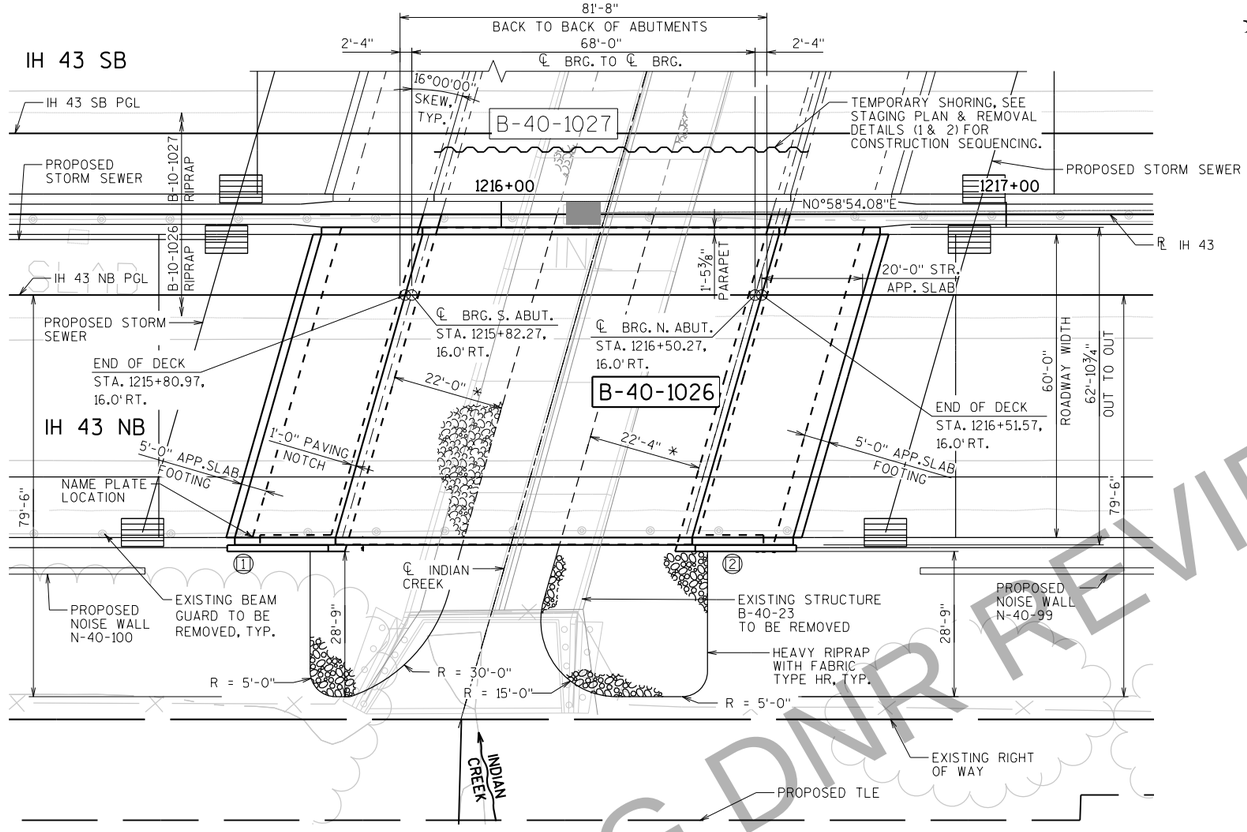
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-921\cds\B921_GEO2017.dgn

PLOT DATE : 9/28/2021 10:09:01 AM PLOT BY : cvhayden PLOT NAME : $FILE$ PLOT SCALE : 60:1

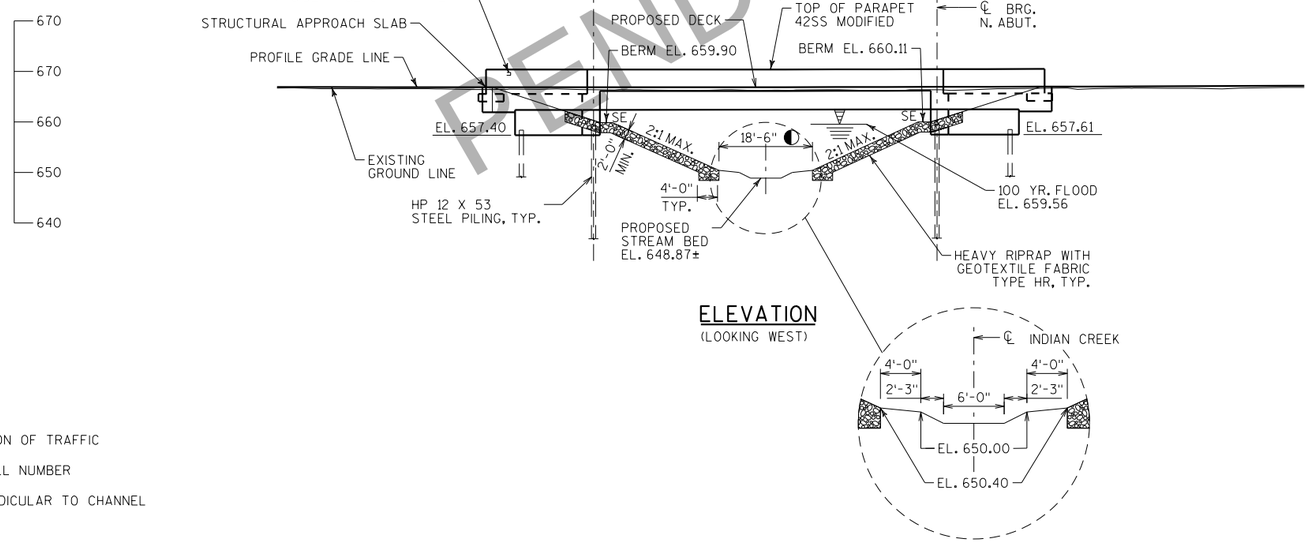
STATE PROJECT NUMBER
1229-04-73





PLAN

SINGLE SPAN 36W" PRESTRESSED GIRDER BRIDGE



ELEVATION

(LOOKING WEST)

LEGEND

- DIRECTION OF TRAFFIC
- (X) WINGWALL NUMBER
- ◐ PERPENDICULAR TO CHANNEL

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.XX
OPERATING RATING FACTOR: RF = 1.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:	
SUPERSTRUCTURE (HPC)	f'c = 4,000 psi
SUBSTRUCTURE	f'c = 4,000 psi
STRUCTURAL APPROACH SLAB AND FOOTING	f'c = 4,000 psi
36W-INCH PRESTRESSED CONCRETE GIRDERS	f'c = 8,000 psi
BAR STEEL REINFORCEMENT	fy = 60,000 psi
STAINLESS STEEL BAR REINFORCEMENT	fy = 60,000 psi
STEEL PILING	Fy = 50,000 psi

0.6" DIA. PRESTRESSING STRANDS...ULTIMATE TENSILE STRENGTH = 270,000 psi
STRUCTURAL APPROACH SLAB ALLOWABLE SOIL BEARING PRESSURE = 2,000 psf

FOUNDATION DATA

USING THE MODIFIED GATES ACCEPTANCE METHOD:

ABUTMENTS SHALL BE SUPPORTED ON HP 12 x 53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 190 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
NORTH ABUTMENT..... 27 FEET
SOUTH ABUTMENT..... 26 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION & PROFILE GRADE LINE
3. GENERAL NOTES & QUANTITIES
4. STAGING PLAN & REMOVAL DETAILS (1 OF 2)
5. STAGING PLAN & REMOVAL DETAILS (2 OF 2)
6. SUBSURFACE EXPLORATION

TRAFFIC DATA

IH 43 NB

ADT = 43,500 (2019)
ADT = 51,600 (2045)
RDS = 70 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY	
DRAINAGE AREA	1.7 SQ. MI.
VELOCITY	4.4 F.P.S.
WATERWAY AREA	541 SQ. FT.
Q (100)	1,490 C.F.S.
HIGH WATER (100) ELEVATION	659.56 FT.
2 YEAR FREQUENCY	
Q (2)	398 C.F.S.
VELOCITY (2)	2.8 F.P.S.
HIGH WATER (2) ELEVATION	655.06 FT.

ROADWAY OVERTOPPING NOT APPLICABLE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-1026

IH 43 NB OVER INDIAN CREEK

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	MHZ	MM	MHZ

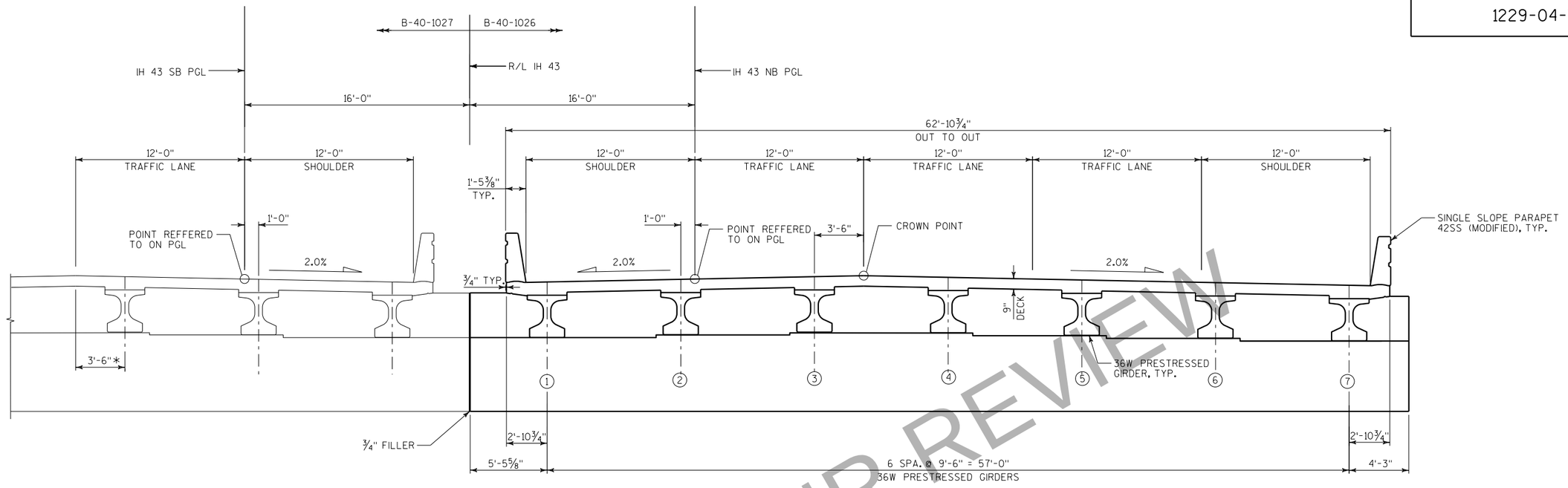
GENERAL PLAN & ELEVATION

SHEET 1 OF 6

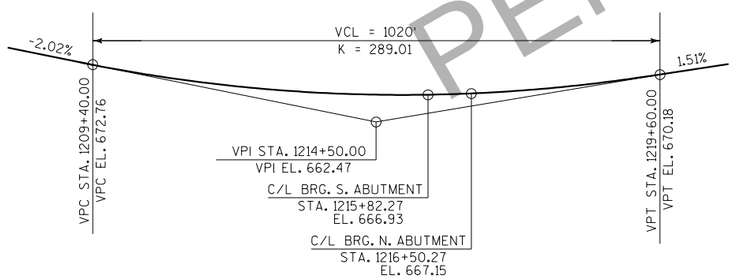
PRELIMINARY PLANS

PENDING DNR REVIEW

STATE PROJECT NUMBER
1229-04-73



TYPICAL SECTION B-40-1026
(LOOKING NORTH)



PROFILE GRADE LINE - IH 43 NB

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1026

DRAWN BY SMC | PLANS CK'D. MHZ

TYPICAL SECTION & PROFILE GRADE LINE

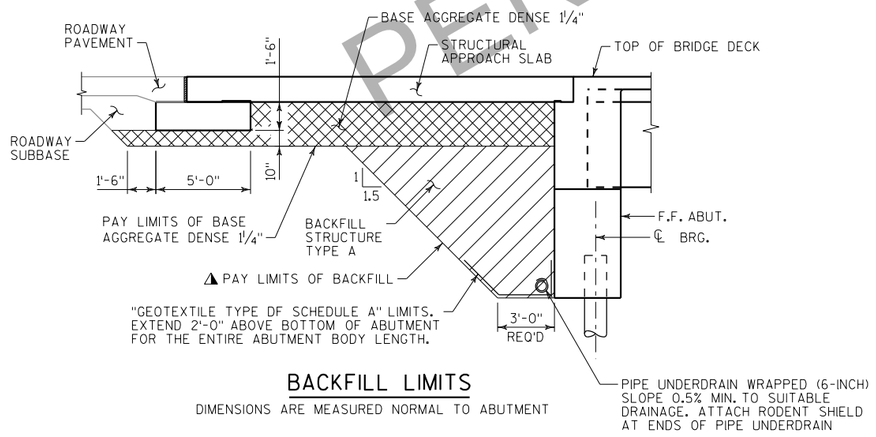
SHEET 2 OF 6

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SOUTH APPROACH SLAB	SOUTH ABUTMENT	NORTH ABUTMENT	NORTH APPROACH SLAB	SUPER.	TOTAL
203.0220.XXXX	REMOVING STRUCTURE B-40-23	EACH	-	-	-	-	-	-
206.1000.XXXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-1026	LS	-	-	-	-	-	-
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	-	-	-	-	-
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	-	-	-	-	-	-
501.1000.S	ICE HOT WEATHER CONCRETING	LB	-	-	-	-	-	-
502.0100	CONCRETE MASONRY BRIDGES	CY	-	-	-	-	-	-
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	-	-
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	-	-
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-	-	-	-	-	-
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	-	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	-	-
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	-	-	-	-	-	-
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	-	-
506.4000.XXXX	STEEL DIAPHRAGMS B-40-1026	EACH	-	-	-	-	-	-
511.1200.XXXX	TEMPORARY SHORING B-40-1026	SF	-	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-	-
550.0500	PILE POINTS	EACH	-	-	-	-	-	-
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	-	-	-	-	-	-
606.0300	RIPRAP HEAVY	TON	-	-	-	-	-	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	-	-	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	-	-	-
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	-	-	-	-
645.0120	GEOTEXTILE TYPE HR	SY	-	-	-	-	-	-
SPV.0035.4000	HPC MASONARY STRUCTURES	CY	-	-	-	-	-	-
SPV.0060.XXXX	TEMPORARY WATER DIVERSION B-40-1026	EACH	-	-	-	-	-	-
SPV.0165.4000	LONGITUDINAL GROOVING BRIDGE DECK	SF	-	-	-	-	-	-
	NON-BID ITEMS							
	PREFORMED JOINT FILLER	SIZE						-
	NON-BITUMINOUS JOINT FILLER	SIZE						-
	CORK FILLER	SIZE						-
	NAME PLATE	EACH						-

ALL ITEMS ARE CATEGORY XXXX



BACKFILL LIMITS

DIMENSIONS ARE MEASURED NORMAL TO ABUTMENT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT WILL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP TO THE EXTENT SHOWN ON SHEET 1 AND IN THE RIRAP DETAILS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2007).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-1026" SHALL BE THE EXISTING GROUNDLINE OR THE EXISTING STREAM BED.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

⚠ BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAIL SHEET.

THE EXISTING STRUCTURE B-40-23 IS A TWO CELL 15'x15' CONCRETE BOX CULVERT STRUCTURE WITH AN APPROXIMATE LENGTH OF 245 FEET. THE STRUCTURE WILL BE REMOVED IN ACCORDANCE WITH PROJECT CONSTRUCTION STAGING PLANS. SEE SHEETS "STAGING PLAN & REMOVAL DETAILS".

THE CONTRACTOR SHALL COORDINATE THE REMOVAL OF BOX CULVERT B-40-23 WITH ROADWAY STAGING PLANS, CONSTRUCTION OF B-40-1026, B-40-1027, AND B-40-1028.

APPLY PIGMENTED SURFACE SEALER TO THE TOP & INSIDE FACE OF PARAPETS ON THE BRIDGE & APPROACH SLABS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE BRIDGE DECK, PAVING NOTCH AND APPROACH SLAB.

PENDING DNR REVIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1026

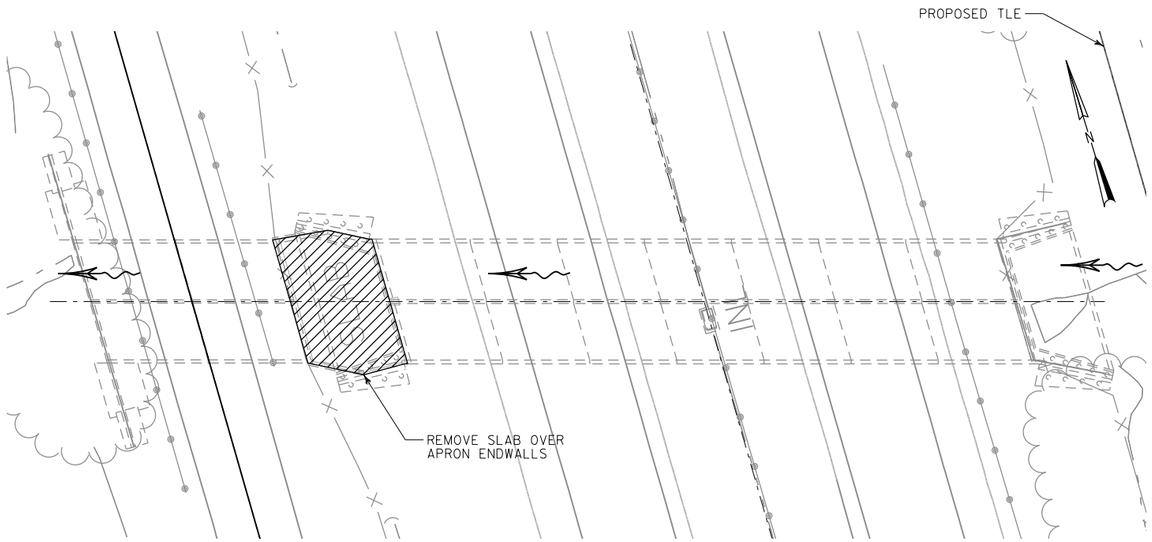
DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

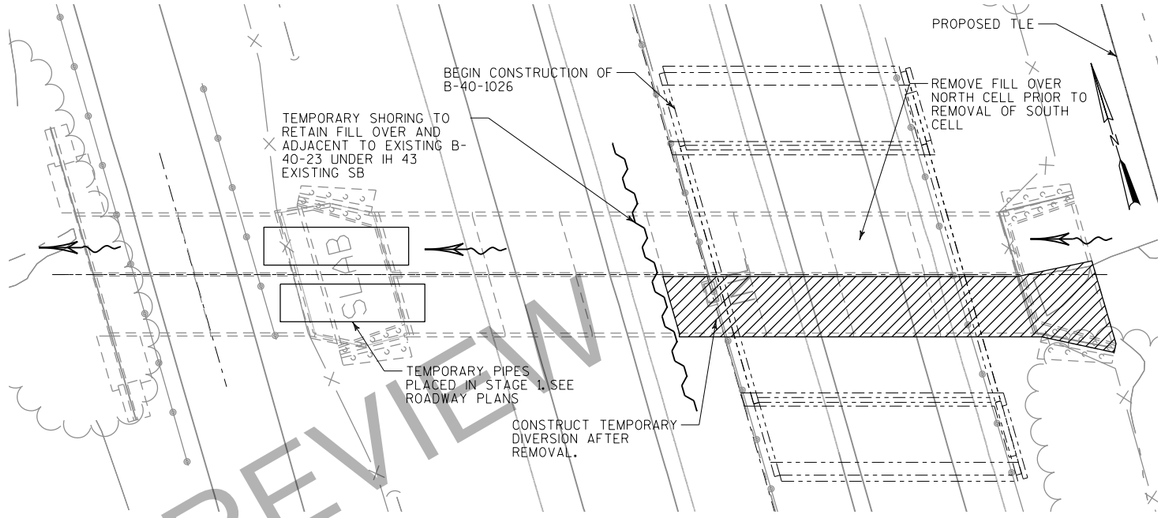
SHEET 3 OF 6

PRELIMINARY PLANS

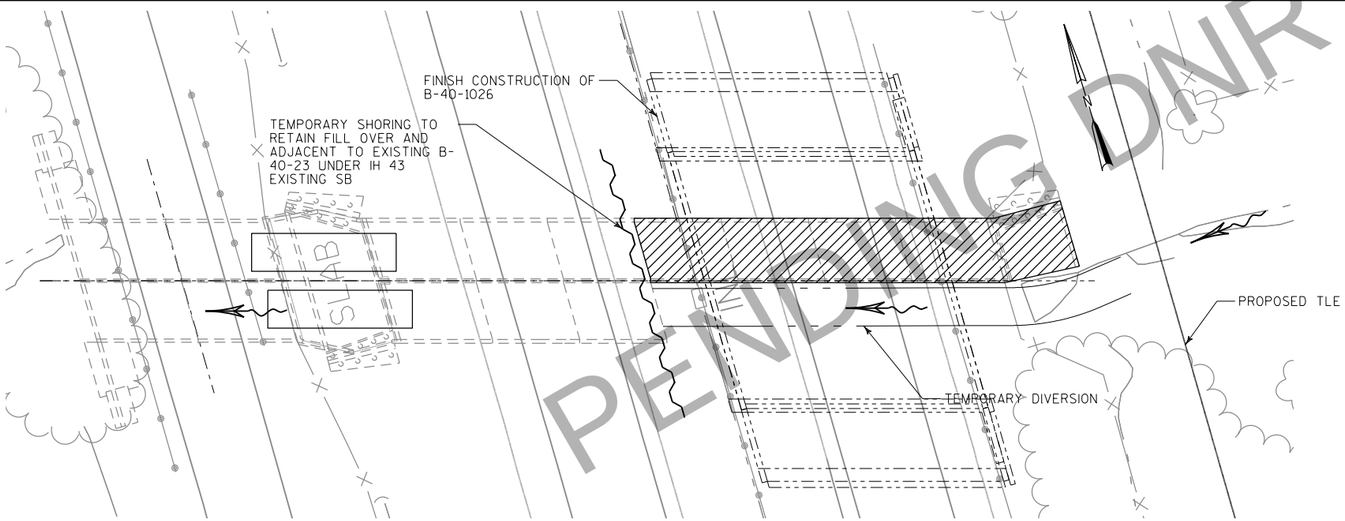
STATE PROJECT NUMBER
1229-04-73



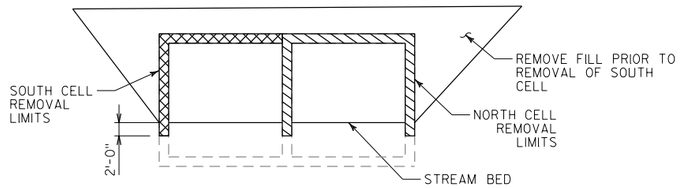
STAGE 1



STAGE 2A



STAGE 2B



STAGED REMOVAL SECTION

(LOOKING WEST)

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

B-40-1026 TO BE CONSTRUCTED IN STAGES 2A AND 2B.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1026

DRAWN BY SMC | PLANS CK'D. MHZ

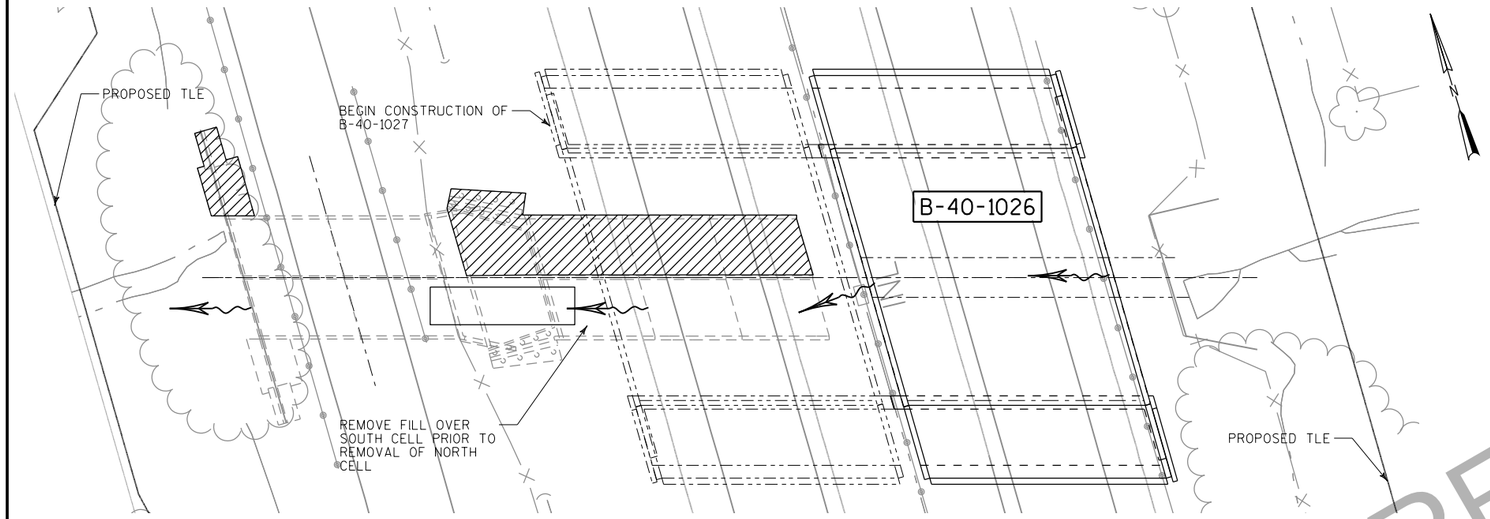
STAGING PLAN & REMOVAL DETAILS (2 OF 2)

SHEET 4 OF 6

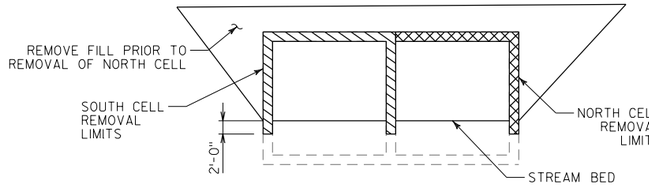
8

8

STATE PROJECT NUMBER
1229-04-73

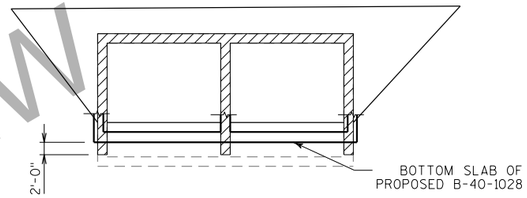


STAGE 3A



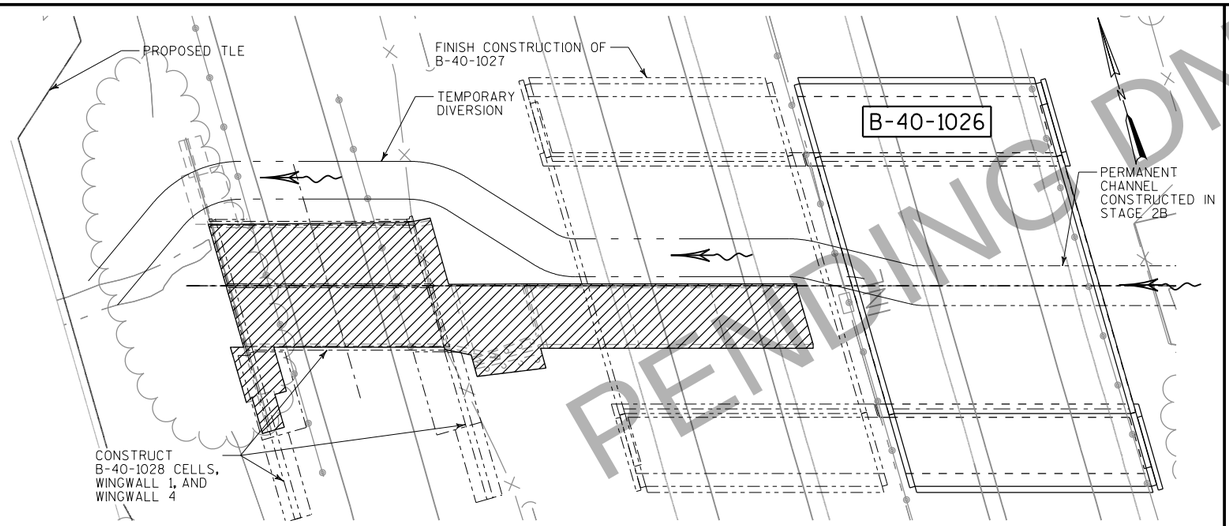
STAGED REMOVAL SECTION

(LOOKING WEST)

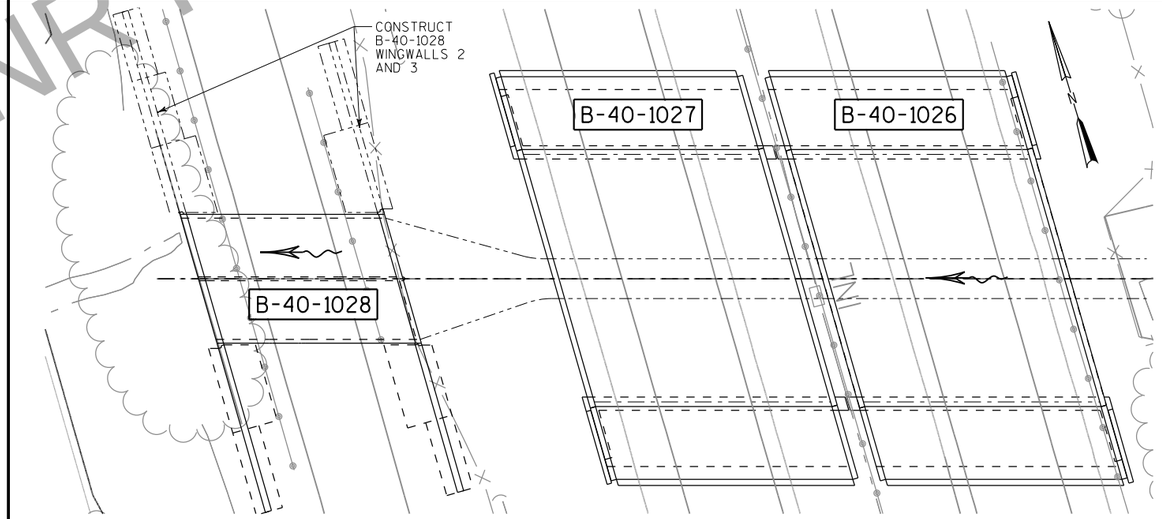


FULL WIDTH REMOVAL SECTION

(LOOKING WEST)



STAGE 3B



STAGE 3C

PENDING DNR REVIEW

8

8

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

CONSTRUCT B-40-1027 IN STAGES 3A THROUGH 3B.

CONSTRUCT B-40-1028 CELLS, WINGWALLS 1 AND 4 IN STAGE 3B.

CONSTRUCT B-40-1028 WINGWALLS 2 AND 3 IN STAGE 3C.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" MIN. BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1026

DRAWN BY SMC | PLANS CK'D. MHZ

STAGING PLAN & REMOVAL DETAILS (2 OF 2)

SHEET 5 OF 6

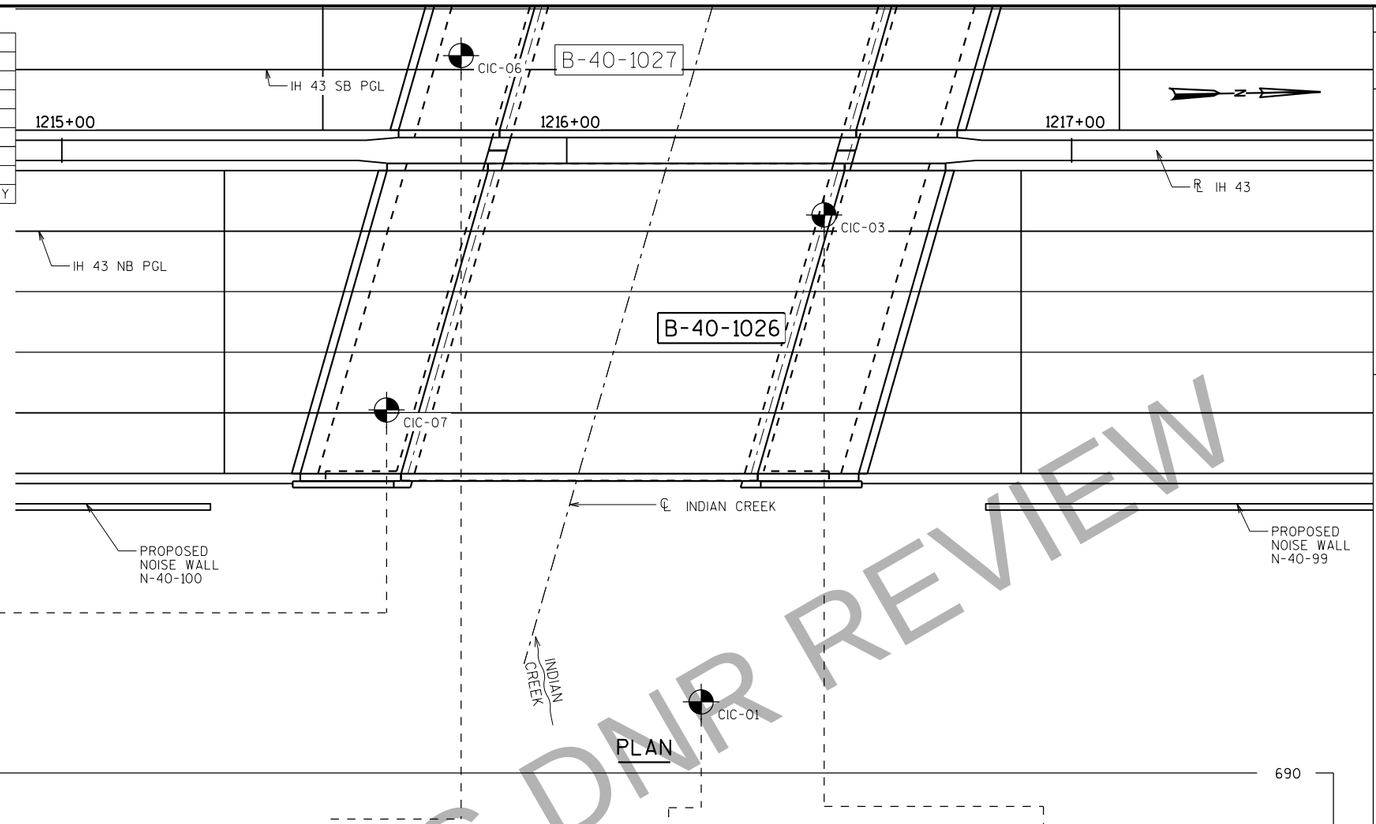
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249169\B1026_080105_rm.dgn PLOT DATE : 9/14/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:40

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
CIC-01	JULY 29, 2014	346434	604436
CIC-03	SEPTEMBER 10, 2014	346460	604340
CIC-06	SEPTEMBER 8, 2020	346389	604307
CIC-07	SEPTEMBER 9, 2020	346373	604377
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: JACOBS ENGINEERING GROUP			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

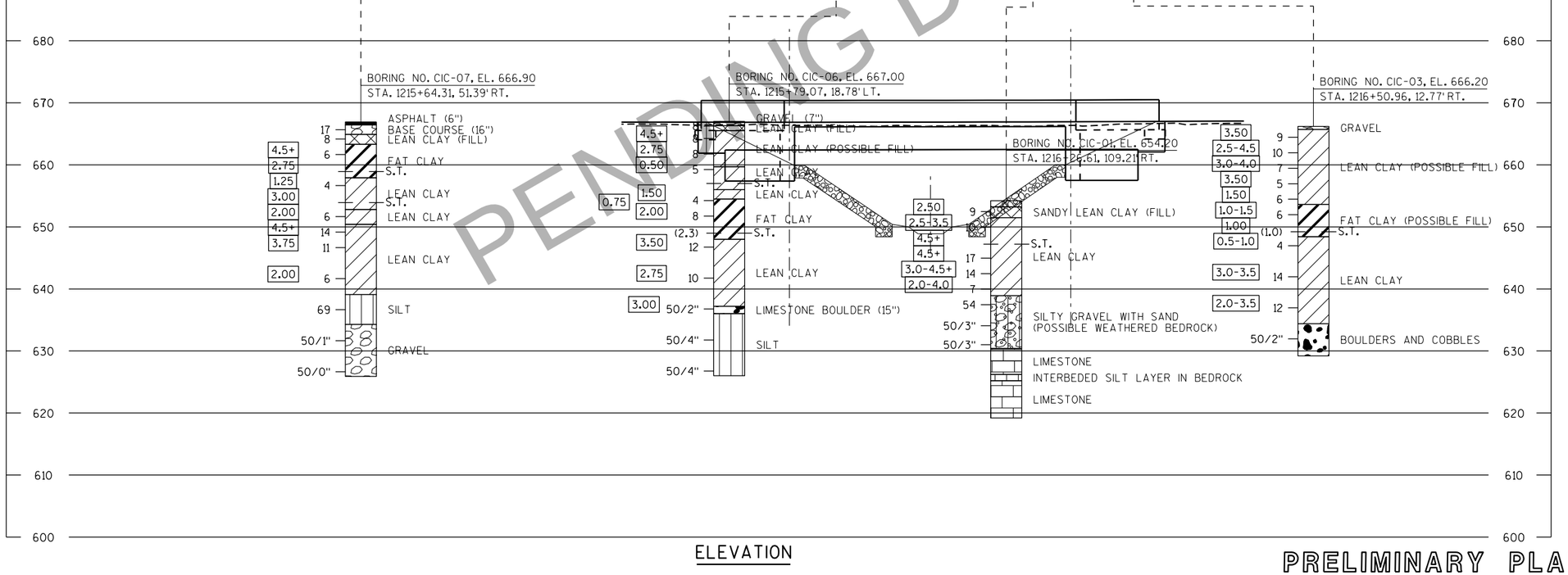
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

⊕ DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

PRELIMINARY PLANS

PENDING DNR REVIEW

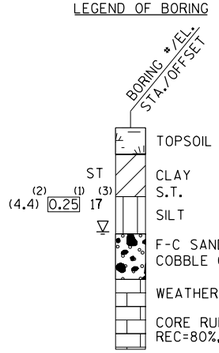
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1026

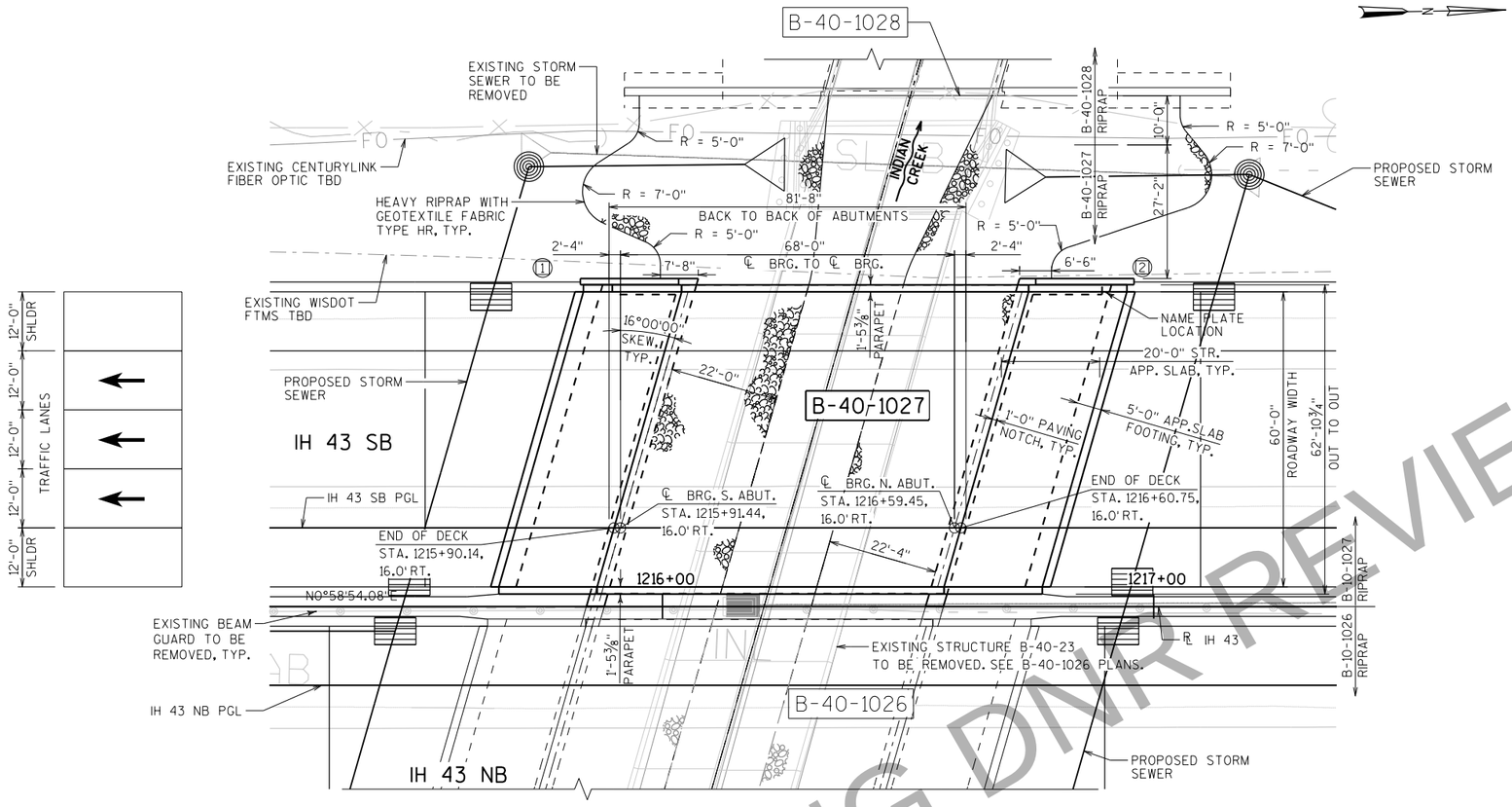
DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 6 OF 6

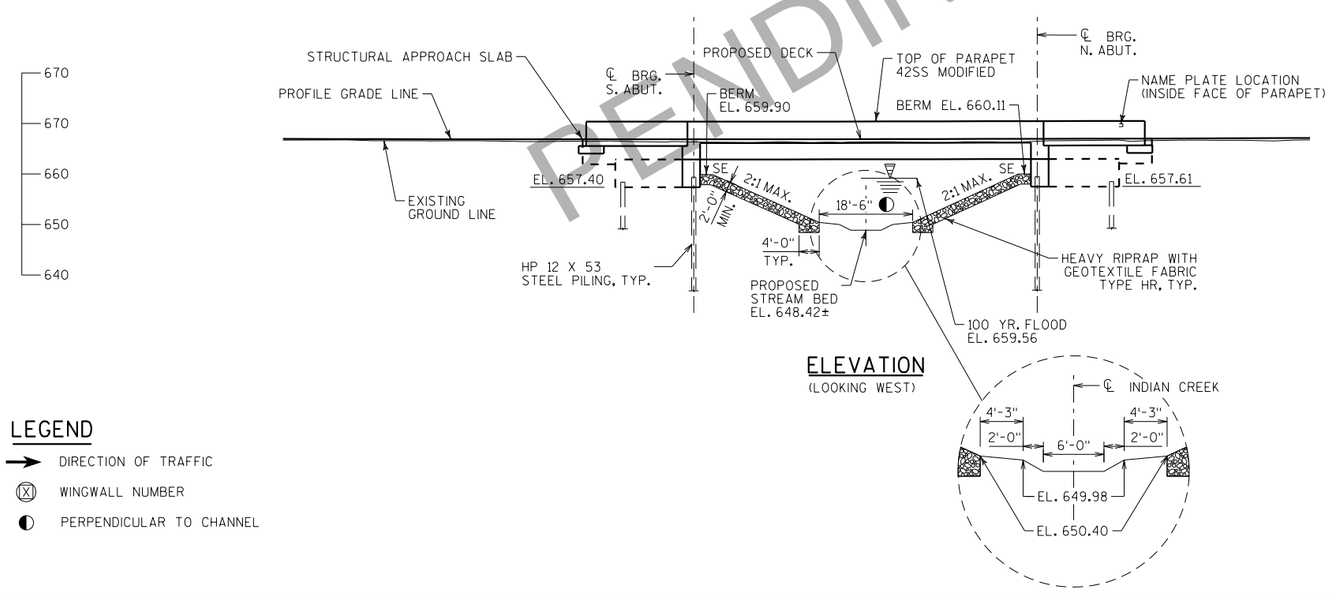
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249169\B1026_080201_se.dgn

PLOT DATE : 9/14/2021 PLOT BY : sconnolly PLOT SCALE : 1:30



PLAN

SINGLE SPAN 36W" PRESTRESSED GIRDER BRIDGE



ELEVATION

(LOOKING WEST)

LEGEND

- DIRECTION OF TRAFFIC
- (X) WINGWALL NUMBER
- ◐ PERPENDICULAR TO CHANNEL

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.XX
OPERATING RATING FACTOR: RF = 1.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE (HPC) ..... f'c = 4,000 psi
- SUBSTRUCTURE ..... f'c = 4,000 psi
- STRUCTURAL APPROACH SLAB AND FOOTING ..... f'c = 4,000 psi
- 36W-INCH PRESTRESSED CONCRETE GIRDERS ..... f'c = 8,000 psi

BAR STEEL REINFORCEMENT ..... fy = 60,000 psi
STAINLESS STEEL BAR REINFORCEMENT ..... fy = 60,000 psi
STEEL PILING ..... Fy = 50,000 psi
0.6" DIA. PRESTRESSING STRANDS...ULTIMATE TENSILE STRENGTH = 270,000 psi
STRUCTURAL APPROACH SLAB ALLOWABLE SOIL BEARING PRESSURE = 2,000 psf

FOUNDATION DATA

USING THE MODIFIED GATES ACCEPTANCE METHOD:

ABUTMENTS SHALL BE SUPPORTED ON HP 12 x 53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 190 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
- NORTH ABUTMENT..... 27 FEET
- SOUTH ABUTMENT..... 26 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION & PROFILE GRADE LINE
3. GENERAL NOTES & QUANTITIES

TRAFFIC DATA

IH 43 NB

ADT = 42,400 (2019)
ADT = 50,300 (2045)
RDS = 70 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY
- DRAINAGE AREA ..... 1.7 SQ. MI.
- VELOCITY ..... 4.4 F.P.S.
- WATERWAY AREA ..... 541 SQ. FT.
- Q (100) ..... 1,490 C.F.S.
- HIGH WATER (100) ELEVATION ..... 659.56 FT.

2 YEAR FREQUENCY
- Q (2) ..... 398 C.F.S.
- VELOCITY (2) ..... 2.8 F.P.S.
- HIGH WATER (2) ELEVATION ..... 655.06 FT.

ROADWAY OVERTOPPING NOT APPLICABLE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-1027

IH 43 SB OVER INDIAN CREEK

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	MHZ	MM	MHZ

GENERAL PLAN & ELEVATION

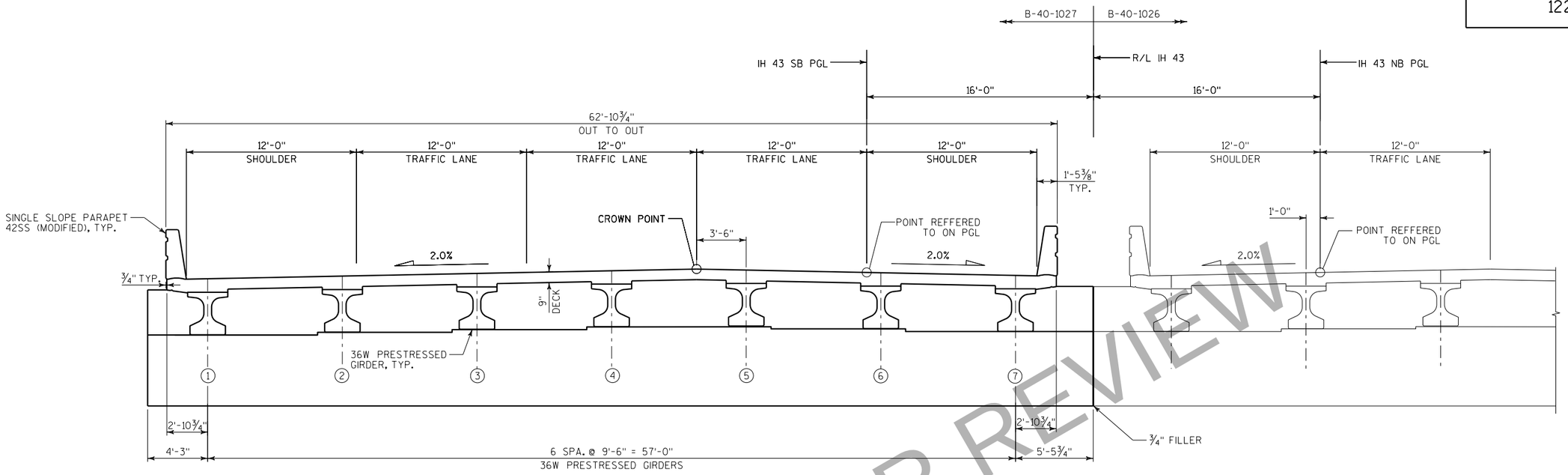
SHEET 1 OF 6

STATE PROJECT NUMBER
1229-04-73

PRELIMINARY PLANS

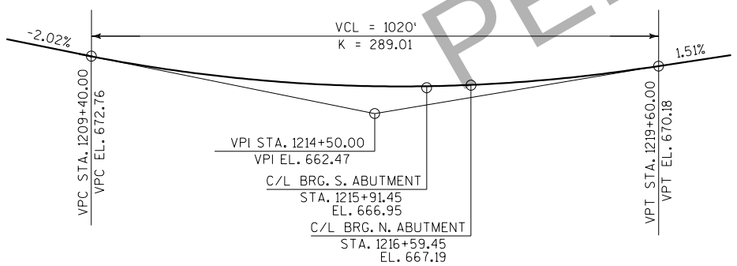
PENDING DNR REVIEW

STATE PROJECT NUMBER
1229-04-73



TYPICAL SECTION B-40-1027

(LOOKING NORTH)



PROFILE GRADE LINE - IH 43 SB

PENDING DNR REVIEW

STAGING NOTES

B-40-1027 STRUCTURE WORK BEGINS IN CONSTRUCTION STAGE 3.

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS AND B-40-1026 PLANS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1027

DRAWN BY SMC | PLANS CK'D. MHZ

TYPICAL SECTION & PROFILE GRADE LINE

SHEET 2 OF 6

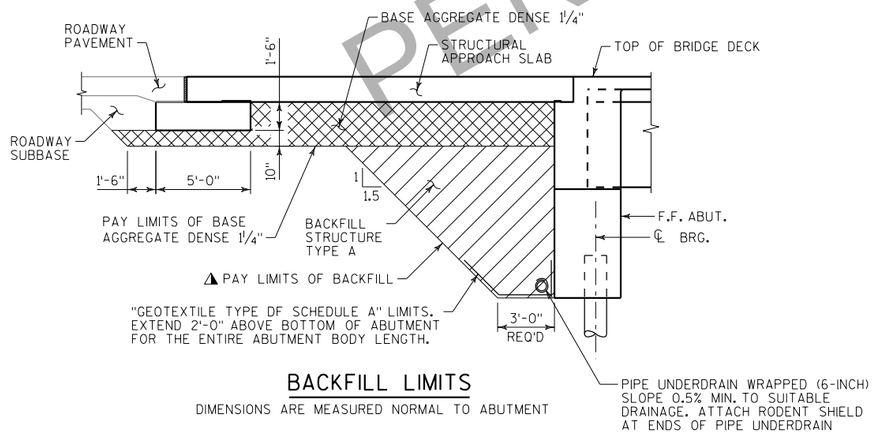
PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SOUTH APPROACH SLAB	SOUTH ABUTMENT	NORTH ABUTMENT	NORTH APPROACH SLAB	SUPER.	TOTAL
206.1000.XXX	EXCAVATION FOR STRUCTURES BRIDGES B-40-1027	LS	-	-	-	-	-	-
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	-	-	-	-	-
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	-	-	-	-	-	-
501.1000.S	ICE HOT WEATHER CONCRETING	LB	-	-	-	-	-	-
502.0100	CONCRETE MASONRY BRIDGES	CY	-	-	-	-	-	-
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	-	-
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	-	-
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-	-	-	-	-	-
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	-	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	-	-
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	-	-	-	-	-	-
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	-	-
506.4000.XXX	STEEL DIAPHRAGMS B-40-1027	EACH	-	-	-	-	-	-
511.1200.XXX	TEMPORARY SHORING B-40-1027	SF	-	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-	-
550.0500	PILE POINTS	EACH	-	-	-	-	-	-
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	-	-	-	-	-	-
606.0300	RIPRAP HEAVY	TON	-	-	-	-	-	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	-	-	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	-	-	-
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	-	-	-	-
645.0120	GEOTEXTILE TYPE HR	SY	-	-	-	-	-	-
SPV.0035.4000	HPC MASONARY STRUCTURES	CY	-	-	-	-	-	-
SPV.0060.XXXX	TEMPORARY WATER DIVERSION B-40-1027 AND B-40-1028	EACH	-	-	-	-	-	-
SPV.0165.XXXX	LONGITUDINAL GROOVING BRIDGE DECK	SF	-	-	-	-	-	-
	NON-BID ITEMS							
	PREFORMED JOINT FILLER	SIZE						-
	NON-BITUMINOUS JOINT FILLER	SIZE						-
	CORK FILLER	SIZE						-
	NAME PLATE	EACH						-

ALL ITEMS ARE CATEGORY XXXX



BACKFILL LIMITS

DIMENSIONS ARE MEASURED NORMAL TO ABUTMENT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT WILL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP TO THE EXTENT SHOWN ON SHEET 1 AND IN THE RIRAP DETAILS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2007).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-1027" SHALL BE THE EXISTING GROUNDLINE OR THE EXISTING STREAM BED.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

⚠ BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAIL SHEET.

THE EXISTING STRUCTURE B-40-23 IS A TWO CELL 15'x15' CONCRETE BOX CULVERT STRUCTURE WITH AN APPROXIMATE LENGTH OF 245 FEET. THE STRUCTURE WILL BE REMOVED IN ACCORDANCE WITH PROJECT CONSTRUCTION STAGING PLANS. REMOVAL PAID FOR UNDER STRUCTURE B-40-1026. SEE SHEETS "STAGING PLAN & REMOVAL DETAILS".

APPLY PIGMENTED SURFACE SEALER TO THE TOP & INSIDE FACE OF PARAPETS ON THE BRIDGE & APPROACH SLABS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE BRIDGE DECK, PAVING NOTCH AND APPROACH SLAB.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES". FABRICATE IN ACCORDANCE TO SDD 12 A 3-10.

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

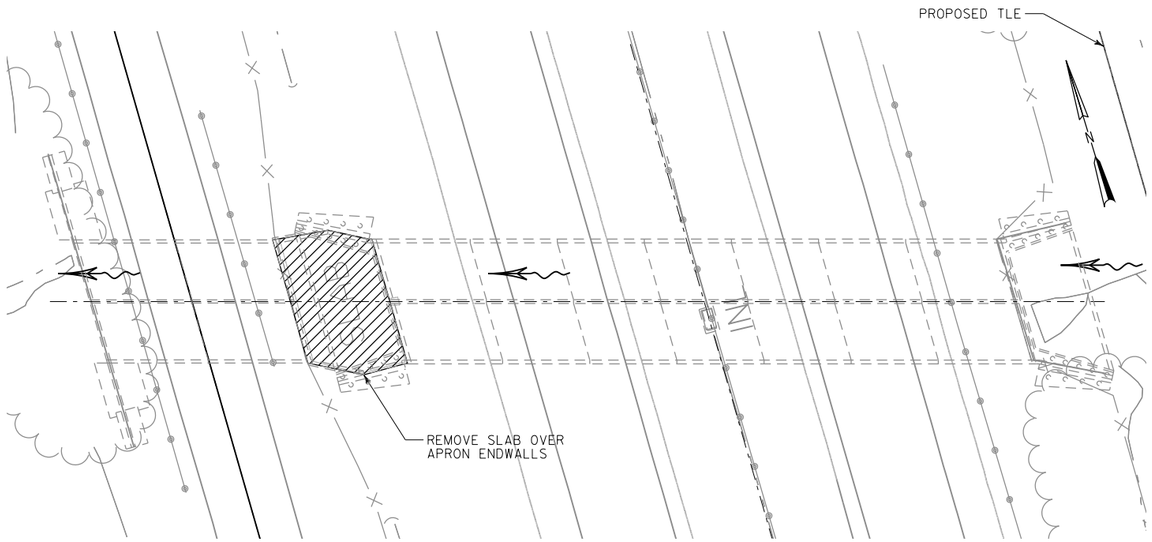
STRUCTURE B-40-1027

DRAWN BY	SMC	PLANS CK'D.	XXX

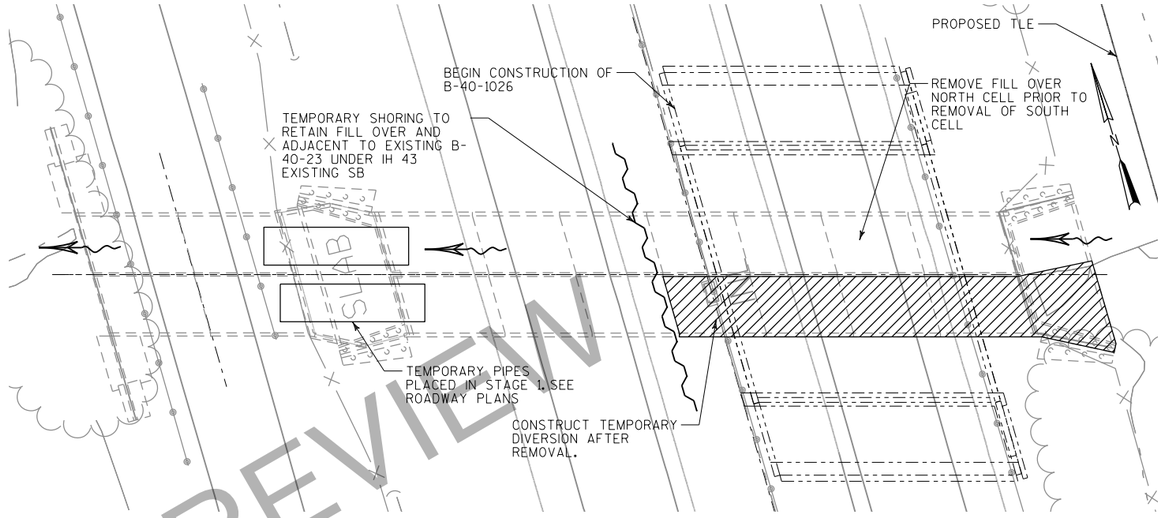
GENERAL NOTES & QUANTITIES

SHEET 3 OF 6

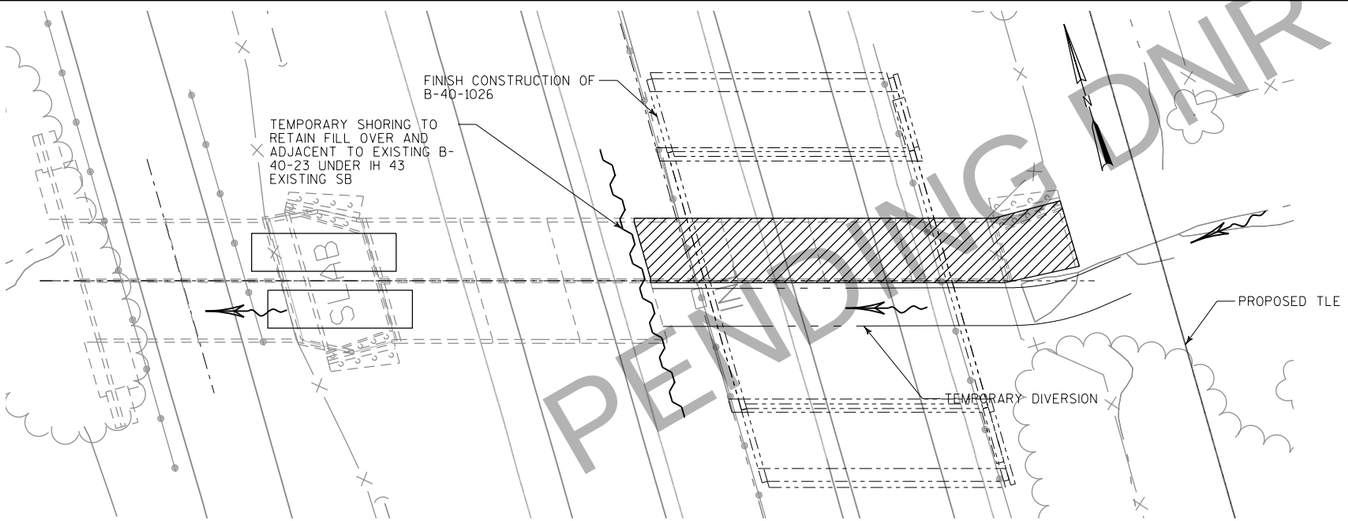
STATE PROJECT NUMBER
1229-04-73



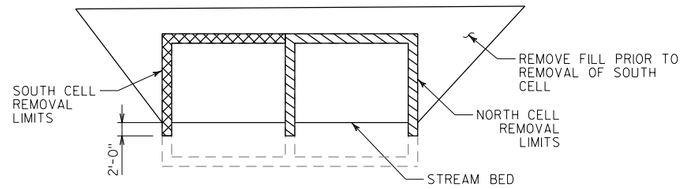
STAGE 1



STAGE 2A



STAGE 2B



STAGED REMOVAL SECTION

(LOOKING WEST)

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

B-40-1026 TO BE CONSTRUCTED IN STAGES 2A AND 2B.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1027

DRAWN BY SMC | PLANS CK'D. MHZ

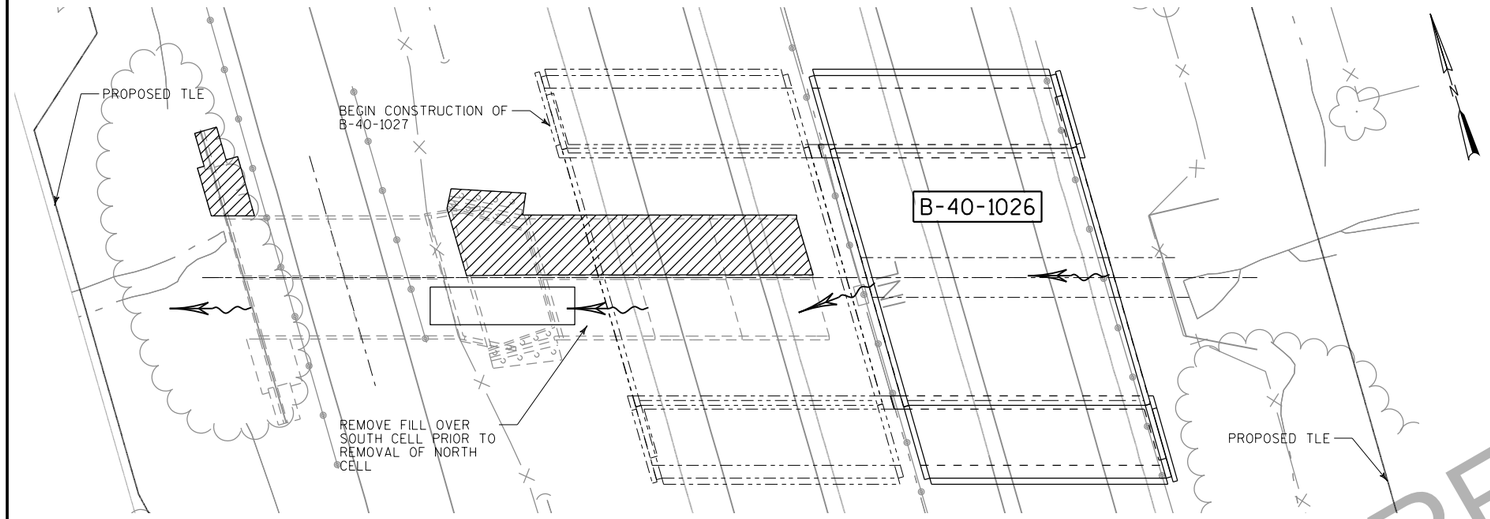
STAGING PLAN & REMOVAL DETAILS (1 OF 2)

SHEET 4 OF 6

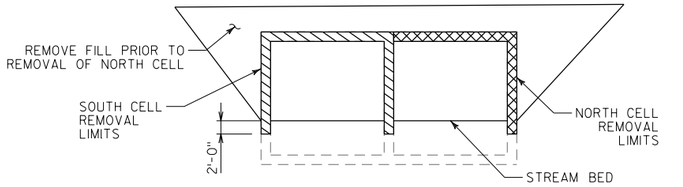
8

8

STATE PROJECT NUMBER
1229-04-73

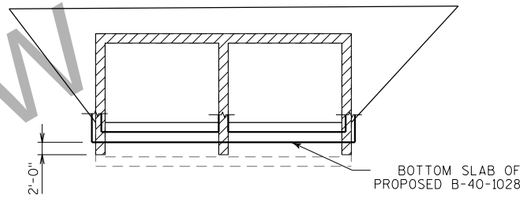


STAGE 3A



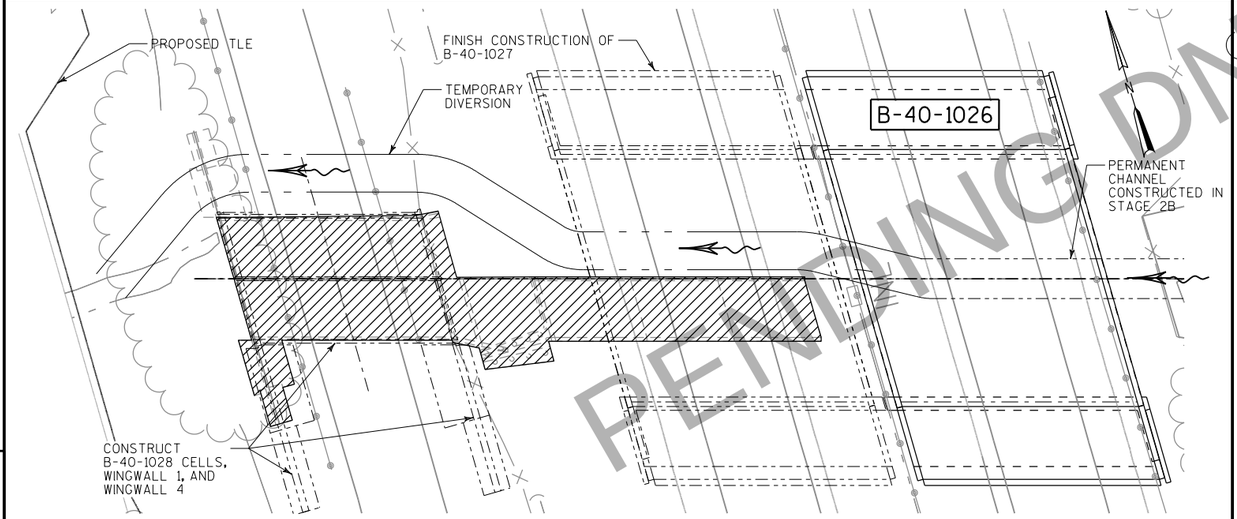
STAGED REMOVAL SECTION

(LOOKING WEST)

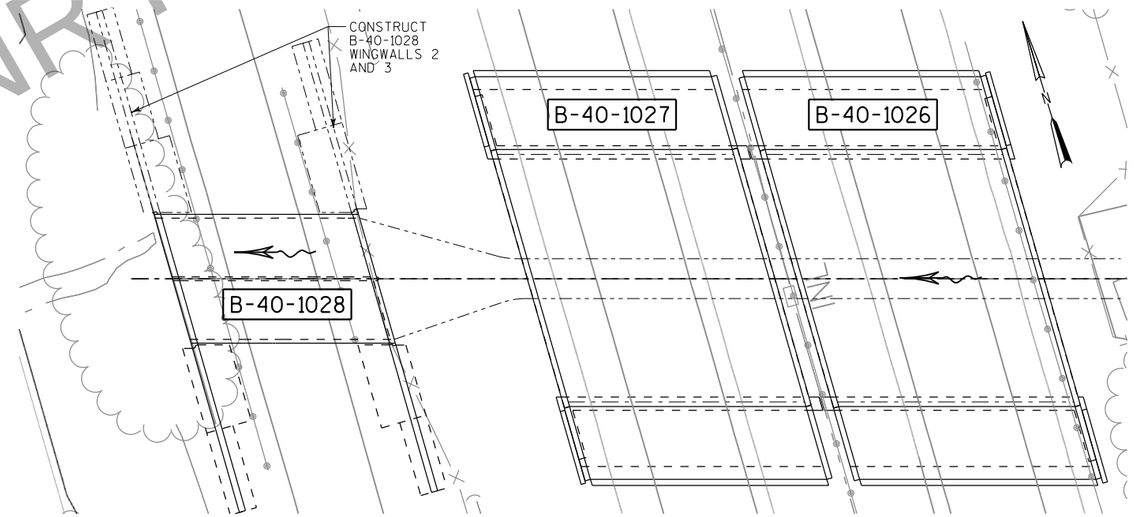


FULL WIDTH REMOVAL SECTION

(LOOKING WEST)



STAGE 3B



STAGE 3C

PENDING DNR REVIEW

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

CONSTRUCT B-40-1027 IN STAGES 3A THROUGH 3B.

CONSTRUCT B-40-1028 CELLS, WINGWALLS 1 AND 4 IN STAGE 3B.

CONSTRUCT B-40-1028 WINGWALLS 2 AND 3 IN STAGE 3C.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" MIN. BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1027

DRAWN BY SMC | PLANS CK'D. MHZ

STAGING PLAN & REMOVAL DETAILS (2 OF 2)

SHEET 5 OF 6

8

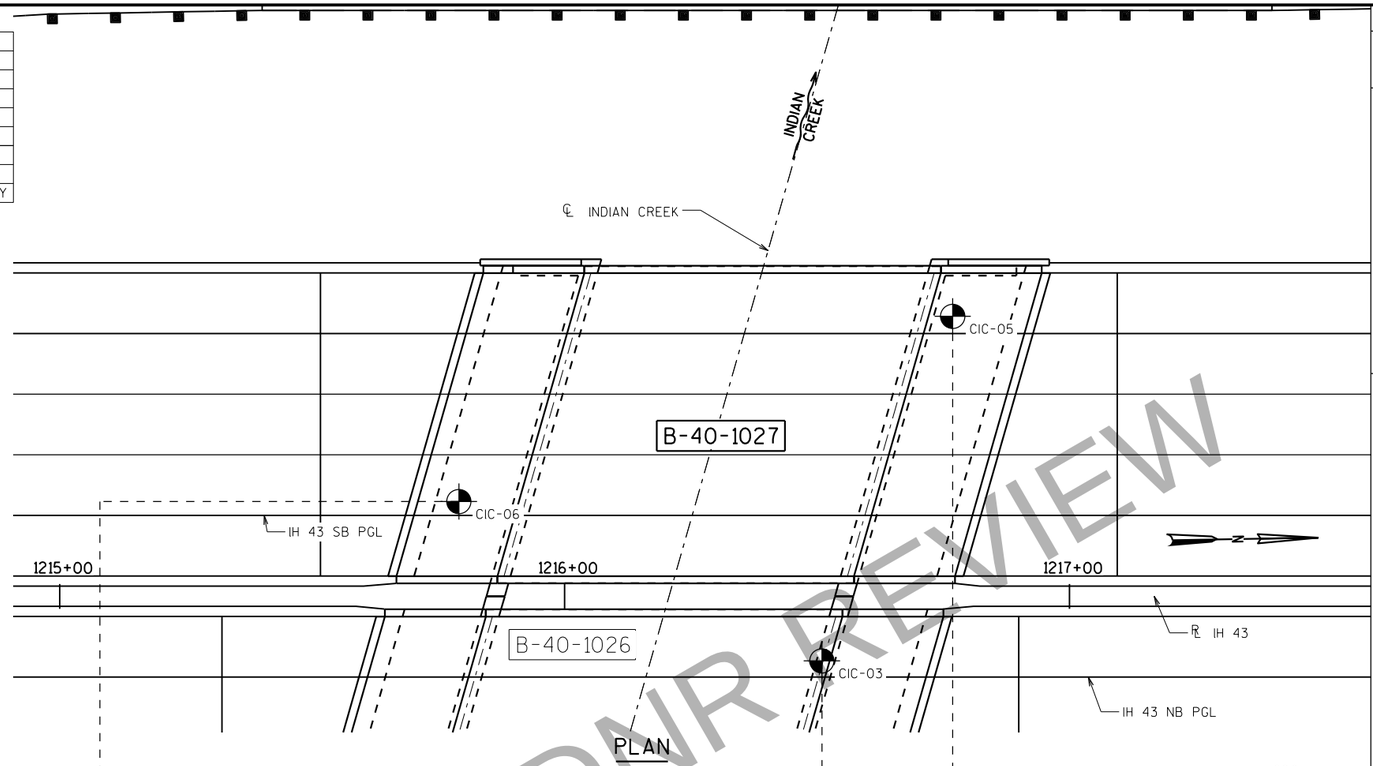
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249182\B1027_080105_rm.dgn
PLOT DATE : 9/14/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:40

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
CIC-03	SEPTEMBER 10, 2014	346460	604340
CIC-05	SEPTEMBER 9, 2020	346487	604272
CIC-06	SEPTEMBER 8, 2020	346389	604307
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: JACOBS ENGINEERING GROUP			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

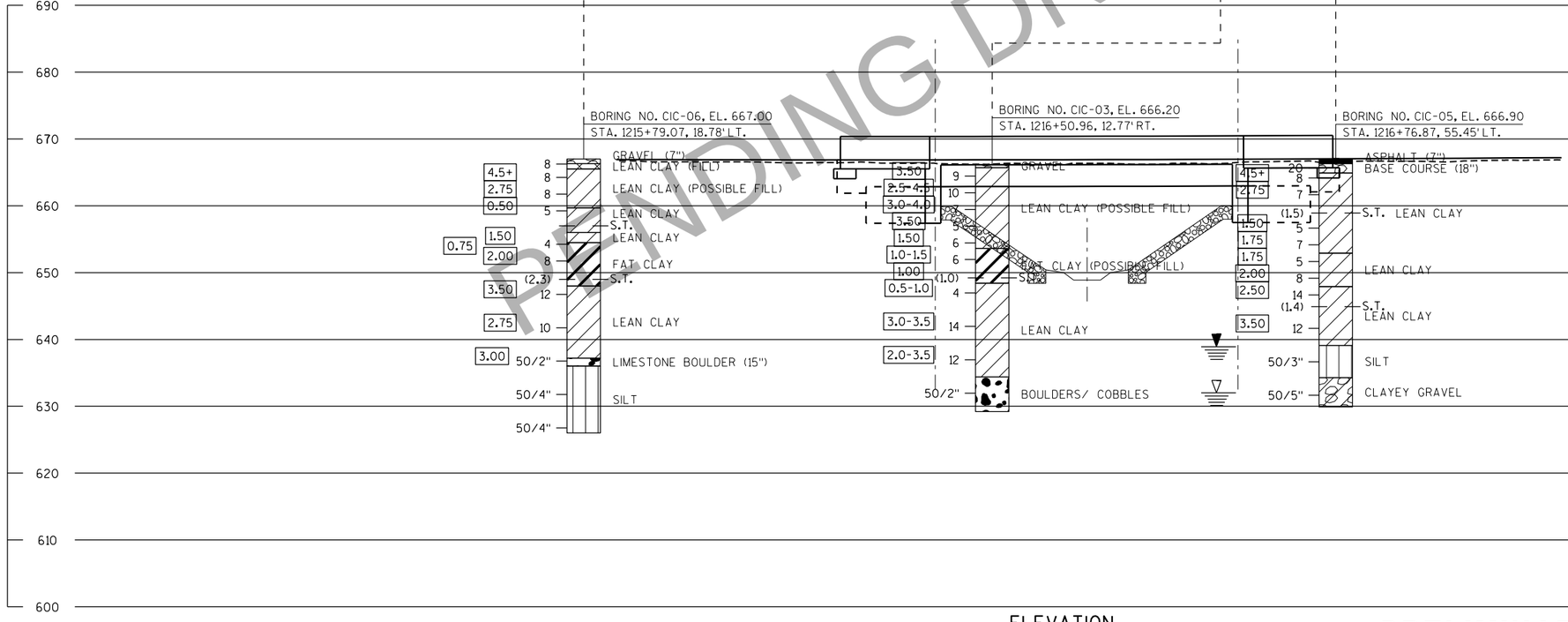
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

⊕ DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

PRELIMINARY PLANS

PENDING DNR REVIEW

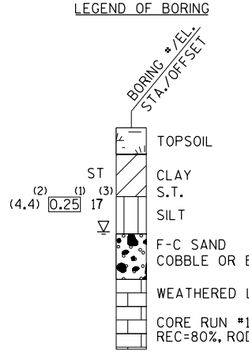
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1027

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 6 OF 6

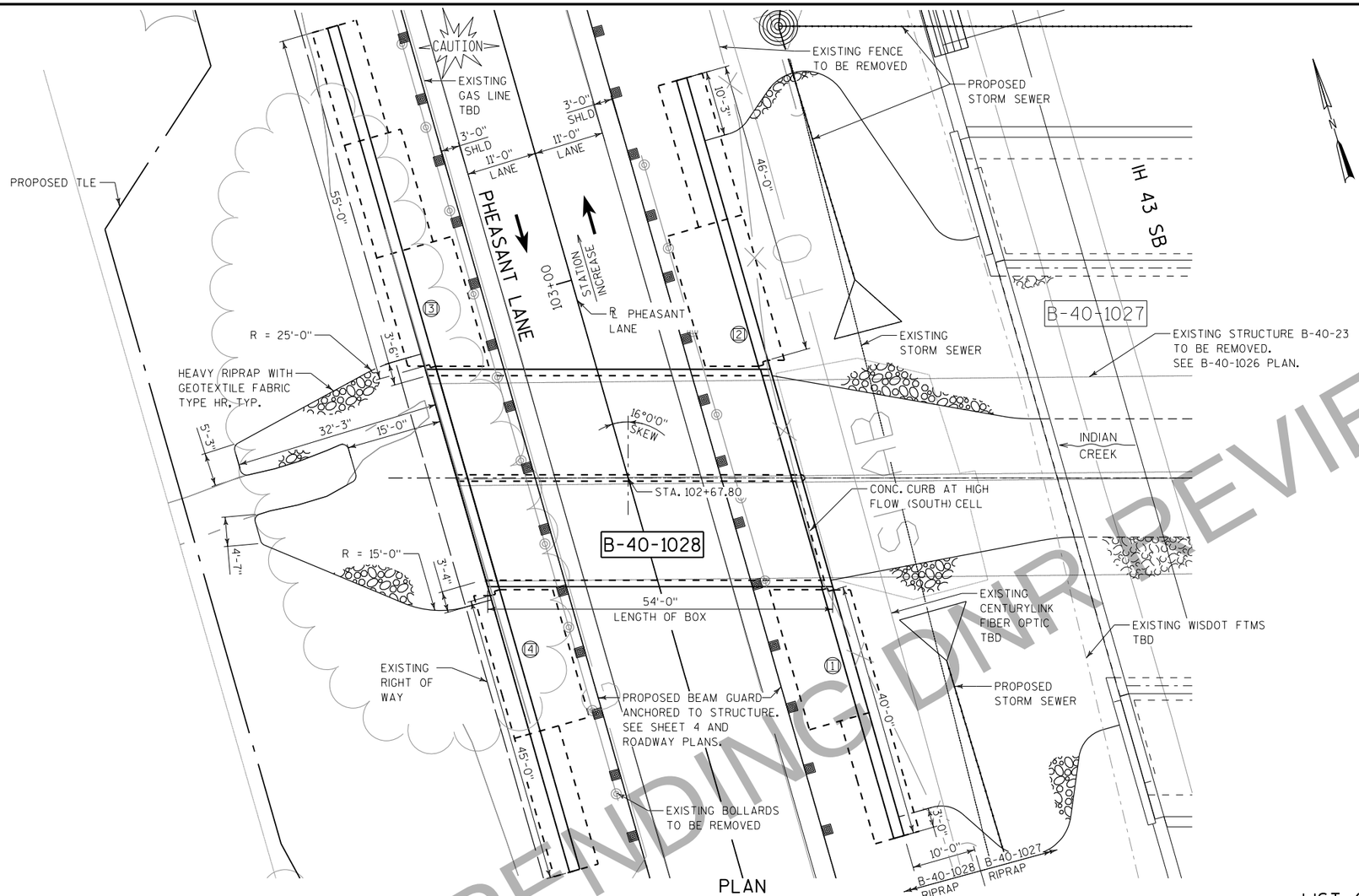
8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249182\B1027_080201_se.dgn

PLOT DATE : 9/14/2021 PLOT BY : sconnolly PLOT SCALE : 1:30

STATE PROJECT NUMBER
1229-04-73



PENDING DNR REVIEW

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = XXX
OPERATING RATING FACTOR: RF = XXX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): XXX KIPS

EARTH LOAD:

DESIGNED FOR FILL HEIGHT RANGE OF 2.5 TO 4 FEET

MATERIAL PROPERTIES:

CONCRETE MASONRY	f'c = 4,000 psi
BAR STEEL REINFORCEMENT	fy = 60,000 psi

HYDRAULIC DATA:

100 YEAR FREQUENCY

DRAINAGE AREA	1.7 SQ. MI.
VELOCITY	4.4 F.P.S.
WATERWAY AREA	343 SQ. FT.
Q (100)	1490 C.F.S.
HIGH WATER (100) ELEVATION	659.10 FT.
ROADWAY OVERTOPPING	N/A
SCOUR CODE	8

2 YEAR FREQUENCY

Q (2)	398 C.F.S.
HIGH WATER (2) ELEVATION	654.86 FT.
VELOCITY	1.9 F.P.S.

LEGEND

- DIRECTION OF TRAFFIC
- (X) WINGWALL NUMBER
- ◐ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB

TRAFFIC DATA

PHEASANT LANE

AADT = XX,XXX (20XX)
AADT = XX,XXX (20XX)
RDS = 35 MPH

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. QUANTITIES, GENERAL NOTES & PROFILES
3. GUARDRAIL POST ANCHORAGE DETAILS
4. STAGING PLAN & REMOVAL DETAILS (1 OF 2)
5. STAGING PLAN & REMOVAL DETAILS (2 OF 2)
6. SUBSURFACE EXPLORATION

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-1028

PHEASANT LANE OVER INDIAN CREEK

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	MHZ	SSK	MHZ

PRELIMINARY PLANS

GENERAL PLAN & ELEVATION

SHEET 1 OF 6

8

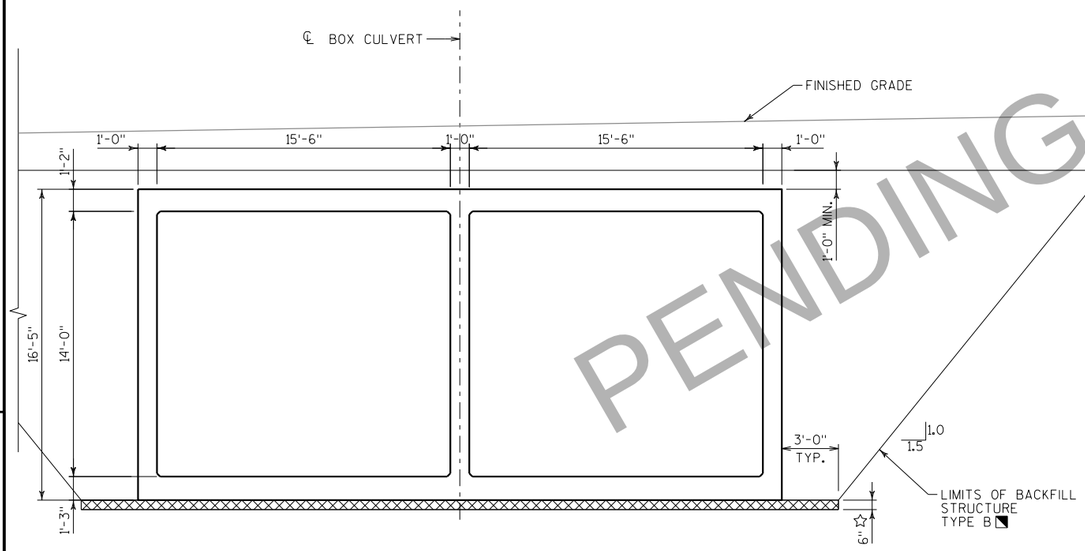
8

STATE PROJECT NUMBER
1229-04-73

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	CULVERT BOX	EAST WING	TOTAL
206.2000.XXX	EXCAVATION FOR STRUCTURES CULVERTS B-40-1028	LS	-	-	-
210.2500	BACKFILL STRUCTURE TYPE B	TON	-	-	-
504.0100	CONCRETE MASONRY CULVERTS	CY	-	-	-
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-
511.1100.XXX	TEMPORARY SHORING (B-40-1028)	SF	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-
606.0300	RIPRAP HEAVY	CY	-	-	-
645.0120	GEOTEXTILE TYPE HR	SY	-	-	-
	NON-BID ITEMS				
	PREFORMED JOINT FILLER	SIZE			-
	NON-BITUMINOUS JOINT FILLER	SIZE			-
	CORK FILLER	SIZE			-
	NAME PLATE	EACH			-

ALL ITEMS ARE CATEGORY XXXX



PROPOSED TYPICAL SECTION

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. ALL BAR STEEL REINFORCEMENT ARE ENGLISH DESIGNATION.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIUE OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY CULVERTS". REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS.

SEE B-40-1026 PLANS FOR TEMPORARY WATER WAY DURING CONSTRUCTION.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE OR BREAKER RUN SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE B TO THE ELEVATION SHOWN IN THE SECTION THRU BOX CULVERT. FILL ABOVE THE BACKFILL IS INCLUDED IN THE EARTHWORK QUANTITIES IN THE ROAD PLANS.

⚠ BACKFILL PAY LIMITS. BACKFILL A MINIMUM OF 1 FOOT ABOVE TOP OF BOX CULVERT. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

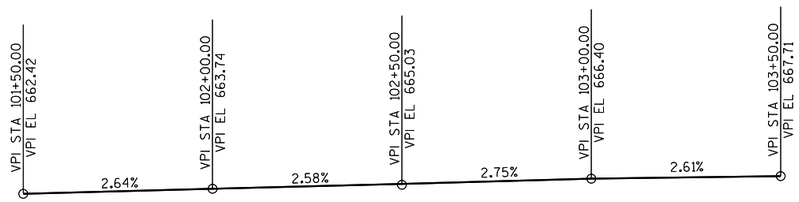
UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS (B-40-1028)" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

☆ UNDERCUT 0'-6". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "STRUCTURE BACKFILL TYPE B".

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL AND ITS CORRESPONDING STANDARDS. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

THE SLOPE OF THE FILL AT THE WINGWALLS SHALL BE COVERED WITH MEDIUM RIPRAP AND GEOTEXTILE TYPE 'HR' TO THE EXTENTS SHOWN ON SHEET 1.

THE EXISTING STRUCTURE B-40-23 IS A TWO CELL 15'X15' CONCRETE BOX CULVERT STRUCTURE WITH AN APPROXIMATE LENGTH OF 245 FEET. EXISTING STRUCTURE REMOVAL PAID UNDER STRUCTURE B-40-1026 PLAN QUANTITIES.



PROFILE GRADE LINE
PHEASANT LANE

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1028

DRAWN BY SSK | PLANS CK'D. XXX

GENERAL NOTES & QUANTITIES

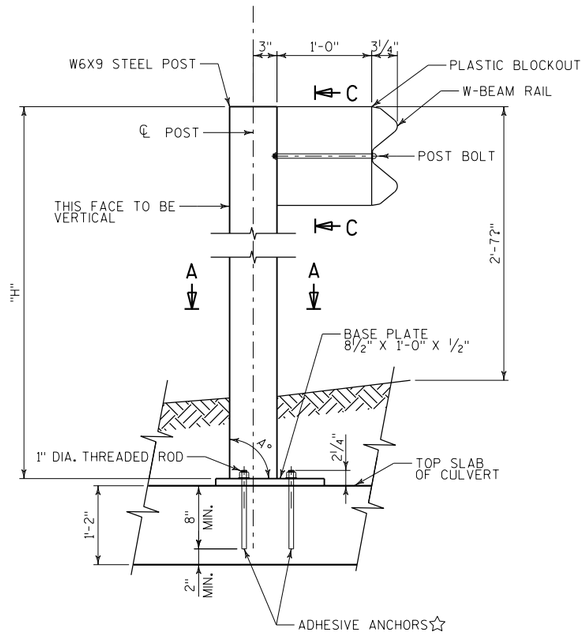
SHEET 2 OF 6

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249192\B1028_080102_qu.dgn PLOT DATE : 9/1/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:8

STATE PROJECT NUMBER
1229-04-73



ELEVATION
GUARDRAIL POST ANCHORS TYPE 1

GUARDRAIL POST ANCHORAGE SYSTEM

POST NUMBER	A°	"H"
P1	X	X
P2	X	X
P3	X	X
P4	X	X
P5	X	X
P6	X	X
P7	X	X
P8	X	X
P9	X	X
P10	X	X
P11	X	X
P12	X	X
P13	X	X
P14	X	X
P15	X	X
P16	X	X
P17	X	X
P18	X	X
P19	X	X
P20	X	X
P21	X	X
P22	X	X
P23	X	X
P24	X	X

NOTES

DETAILS SHOWN FOR POSTS, PLATES, ANCHORAGE SYSTEM AND INSTALLATION, BLOCKS, AND GUARD RAIL ARE NOT PART OF THE STRUCTURE CONTRACT, BUT ARE BID PER THE ROADWAY DESIGN PLANS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE FLAME CUTS.

CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF THE CULVERT. ALONG THE ROADWAY THE POST WILL BE NORMAL TO GRADE LINE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

POST, BASE PLATE, AND SHIMS SHALL BE GALVANIZED AFTER FABRICATION.

PRIOR TO GALVANIZING, ALL STEEL POSTS AND PLATES SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY SSPC SPECS.

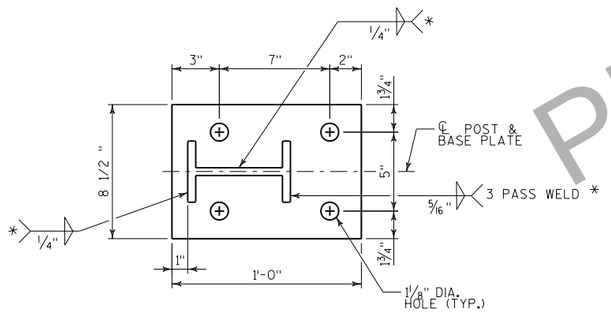
ALL MATERIAL USED IN POSTS AND PLATES SHALL BE MADE FROM MATERIAL CONFORMING TO ASTM DESIGNATION A709 GRADE 50 OR 50S.

HEX BOLTS, THREADED RODS, HEXNUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36, AND SHALL BE GALVANIZED. RODS ARE TO BE FULLY THREADED AND BOLTS TO BE THREADED 3". CHAMFER TOP OF BOLTS AND RODS BEFORE THREADING.

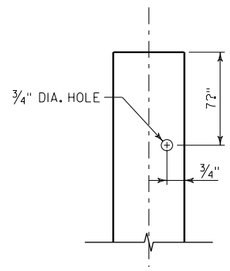
☆ ADHESIVE ANCHORS 1-INCH, EMBED IN CONCRETE AS DETAILED. CHARACTERISTIC BOND STRENGTH SHALL MEET OR EXCEED 1305 PSI FOR UNCRACKED CONCRETE.

STEEL SHIMS MAY BE USED BETWEEN PLATES AND SLAB WHERE REQUIRED FOR ALIGNMENT.

PENDING DNR REVIEW



SECTION A-A
POST & BASE PLATE



SECTION C-C
HOLE IN POST FLANGE ON APPROACHING TRAFFIC SIDE

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

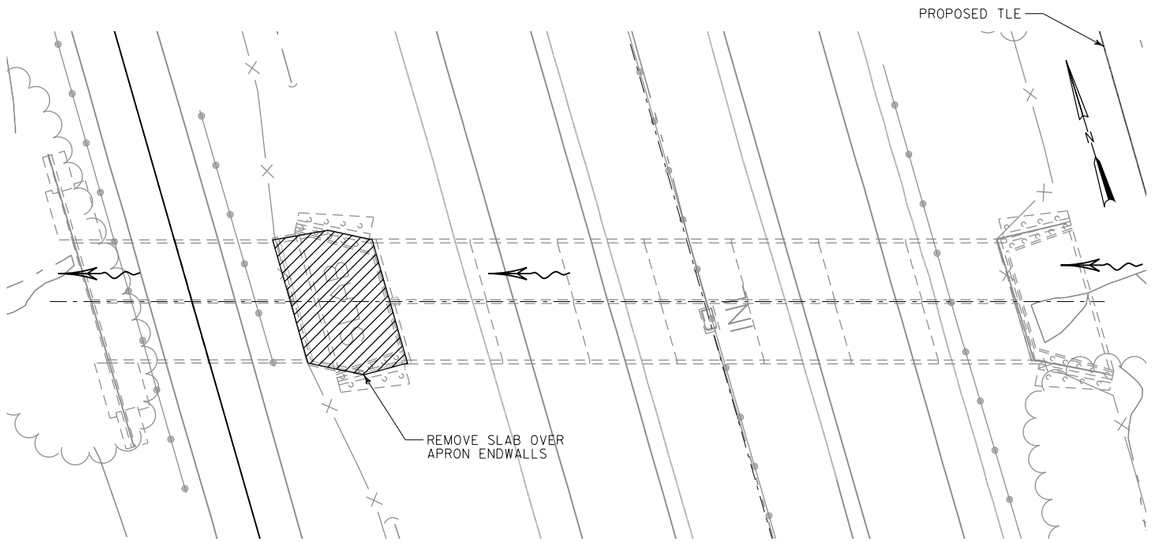
STRUCTURE B-40-1028

DRAWN BY SSK | PLANS CK'D. SMC

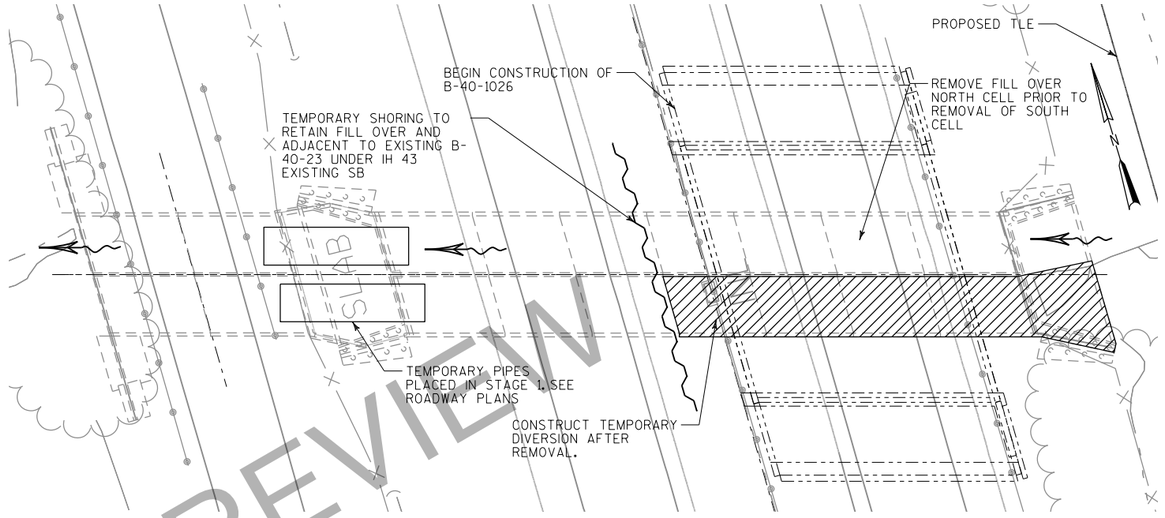
GUARDRAIL POST ANCHORAGE DETAILS

SHEET 3 OF 6

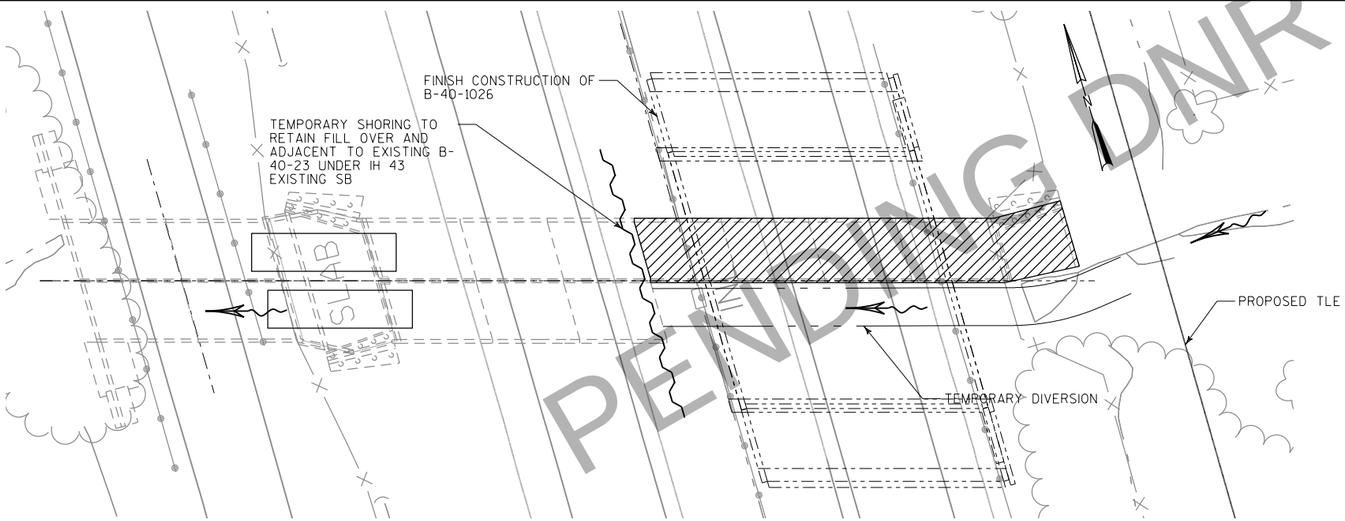
STATE PROJECT NUMBER
1229-04-73



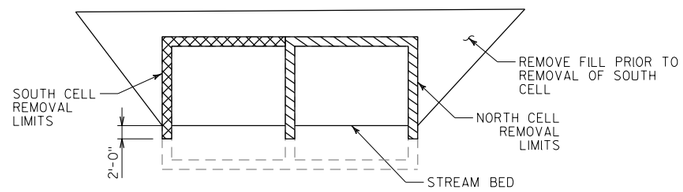
STAGE 1



STAGE 2A



STAGE 2B



STAGED REMOVAL SECTION

(LOOKING WEST)

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

B-40-1026 TO BE CONSTRUCTED IN STAGES 2A AND 2B.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PENDING DNR REVIEW

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1028

DRAWN BY SMC | PLANS CK'D. MHZ

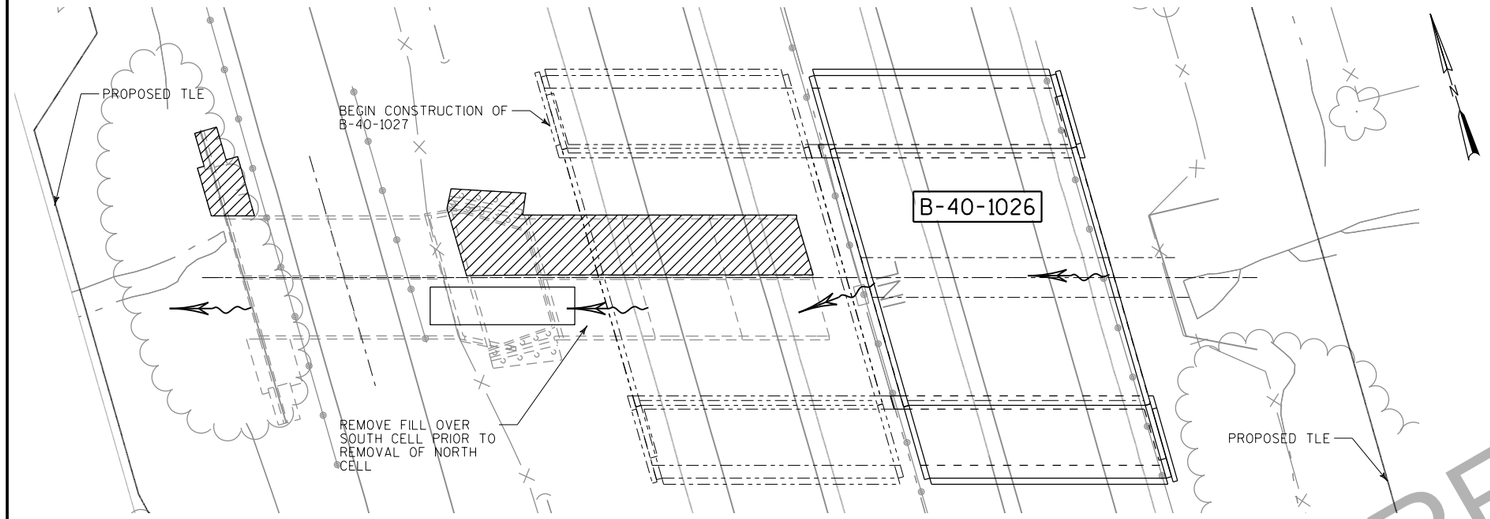
STAGING PLAN & REMOVAL DETAILS (1 OF 2)

SHEET 4 OF 6

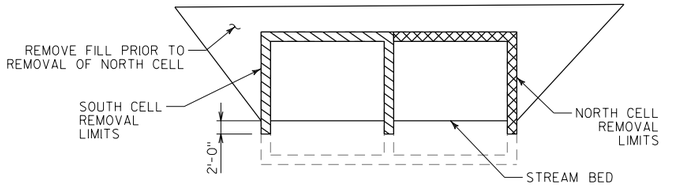
8

8

STATE PROJECT NUMBER
1229-04-73

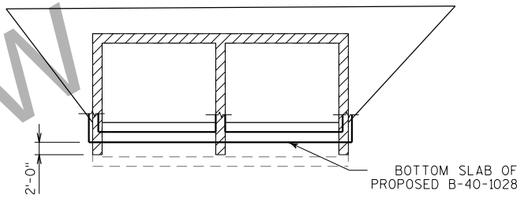


STAGE 3A



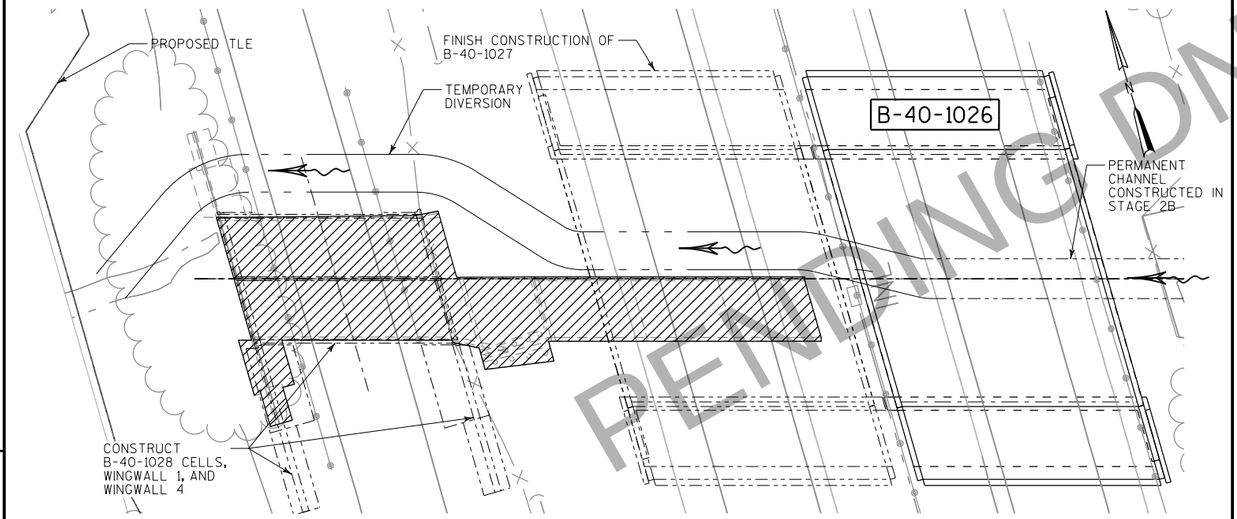
STAGED REMOVAL SECTION

(LOOKING WEST)

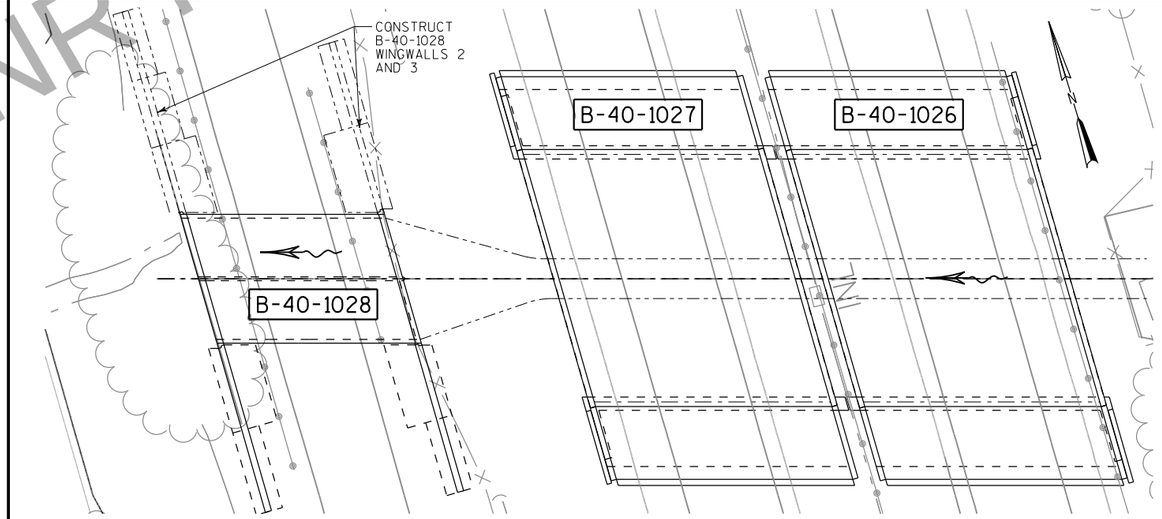


FULL WIDTH REMOVAL SECTION

(LOOKING WEST)



STAGE 3B



STAGE 3C

PENDING DNR REVIEW

NOTES

FOR COMPLETE CONSTRUCTION STAGING DESCRIPTION, SEE ROADWAY PLANS.

CONSTRUCT B-40-1027 IN STAGES 3A THROUGH 3B.

CONSTRUCT B-40-1028 CELLS, WINGWALLS 1 AND 4 IN STAGE 3B.

CONSTRUCT B-40-1028 WINGWALLS 2 AND 3 IN STAGE 3C.

REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" BELOW PROPOSED STREAM BED UNDER PROPOSED STRUCTURES B-40-1026 AND B-40-1027. REMOVE EXISTING STRUCTURE B-40-23 TO A DEPTH OF 2'-0" MIN. BELOW PROPOSED STRUCTURE B-40-1028.

ESTIMATED FLOW RATES:
Q2 = 398 CFS
Q10 = 694 CFS

LEGEND

FLOW DIRECTION

REMOVAL LIMITS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1028

DRAWN BY SMC | PLANS CK'D. MHZ

STAGING PLAN & REMOVAL DETAILS (2 OF 2)

SHEET 5 OF 6

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0249192\B1028_080105_rm.dgn
PLOT DATE : 9/14/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:40

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
CIC-02	JULY 23, 2014	346436	604203
CIC-04	AUGUST 21, 2020	346513	604189

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

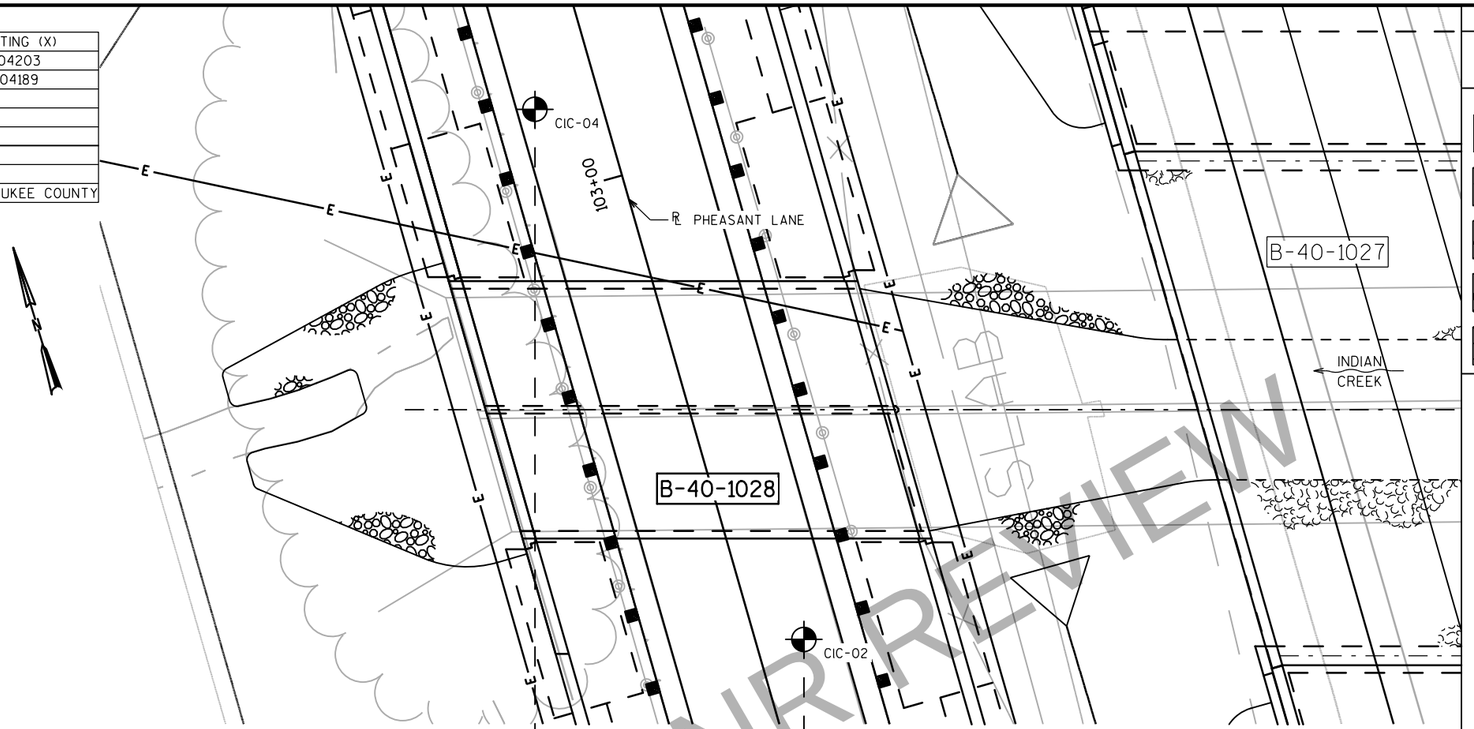
REPORT COMPLETED BY: JACOBS ENGINEERING GROUP

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

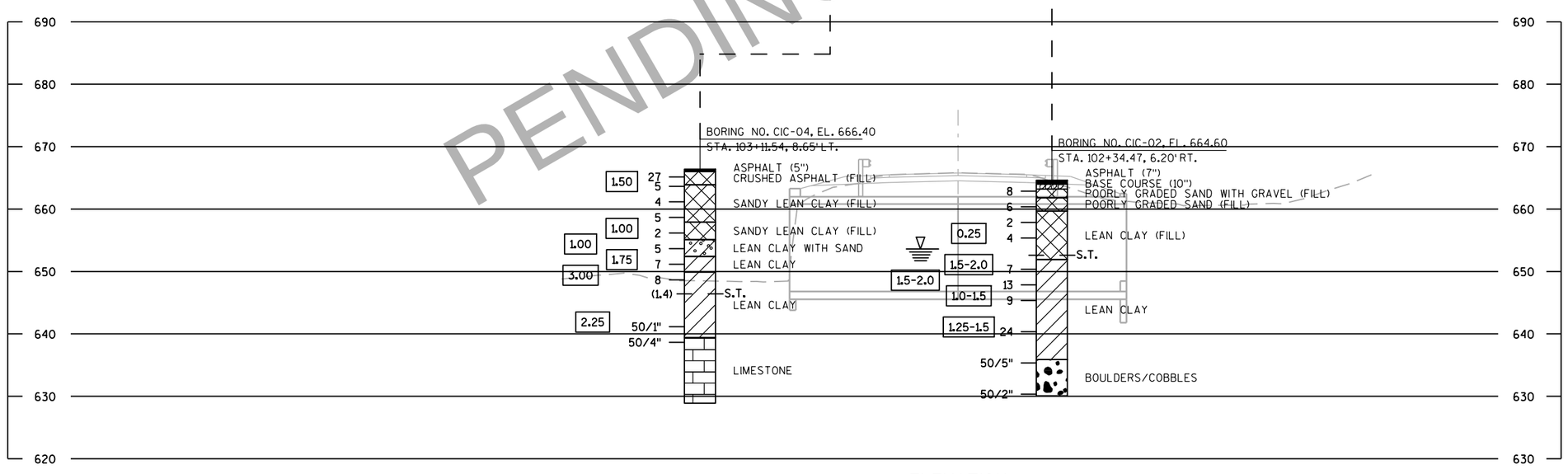
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

PRELIMINARY PLANS

PENDING DNR REVIEW

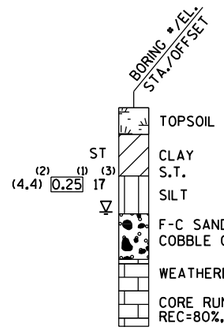
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1028

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 6 OF 6

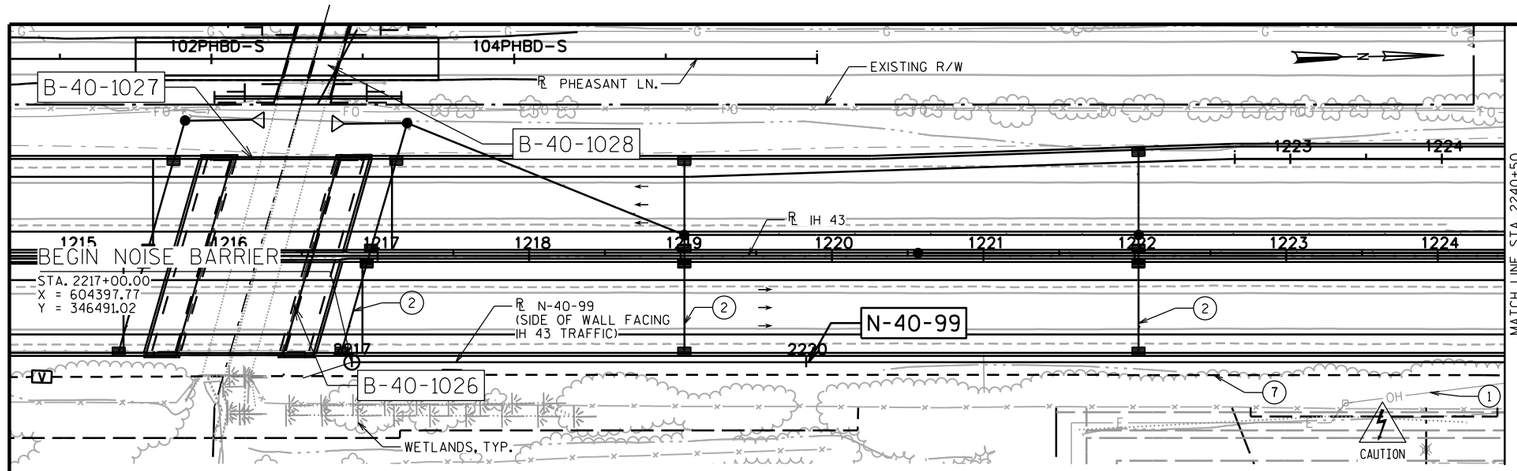
8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\B-40-1028\cds\B1028_080301_se.dgn

PLOT DATE : 9/27/2021 1:43:52 PM PLOT BY : ejelinek

PLOT SCALE : 20:1



LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 3)
2. GENERAL PLAN & ELEVATION (2 OF 3)
3. GENERAL PLAN & ELEVATION (3 OF 3)
4. ALIGNMENT PLAN
5. QUANTITIES, NOTES & CONSTRUCTION DETAILS
6. AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE
7. AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE
8. SUBSURFACE EXPLORATION (1 OF 3)
9. SUBSURFACE EXPLORATION (2 OF 3)
10. SUBSURFACE EXPLORATION (3 OF 3)

UTILITY & STORM SEWER LEGEND

(1) EXISTING OVERHEAD ELECTRIC TO BE RELOCATED

(2) PROPOSED WISDOT STORM SEWER

(7) PROPOSED WISDOT FTMS

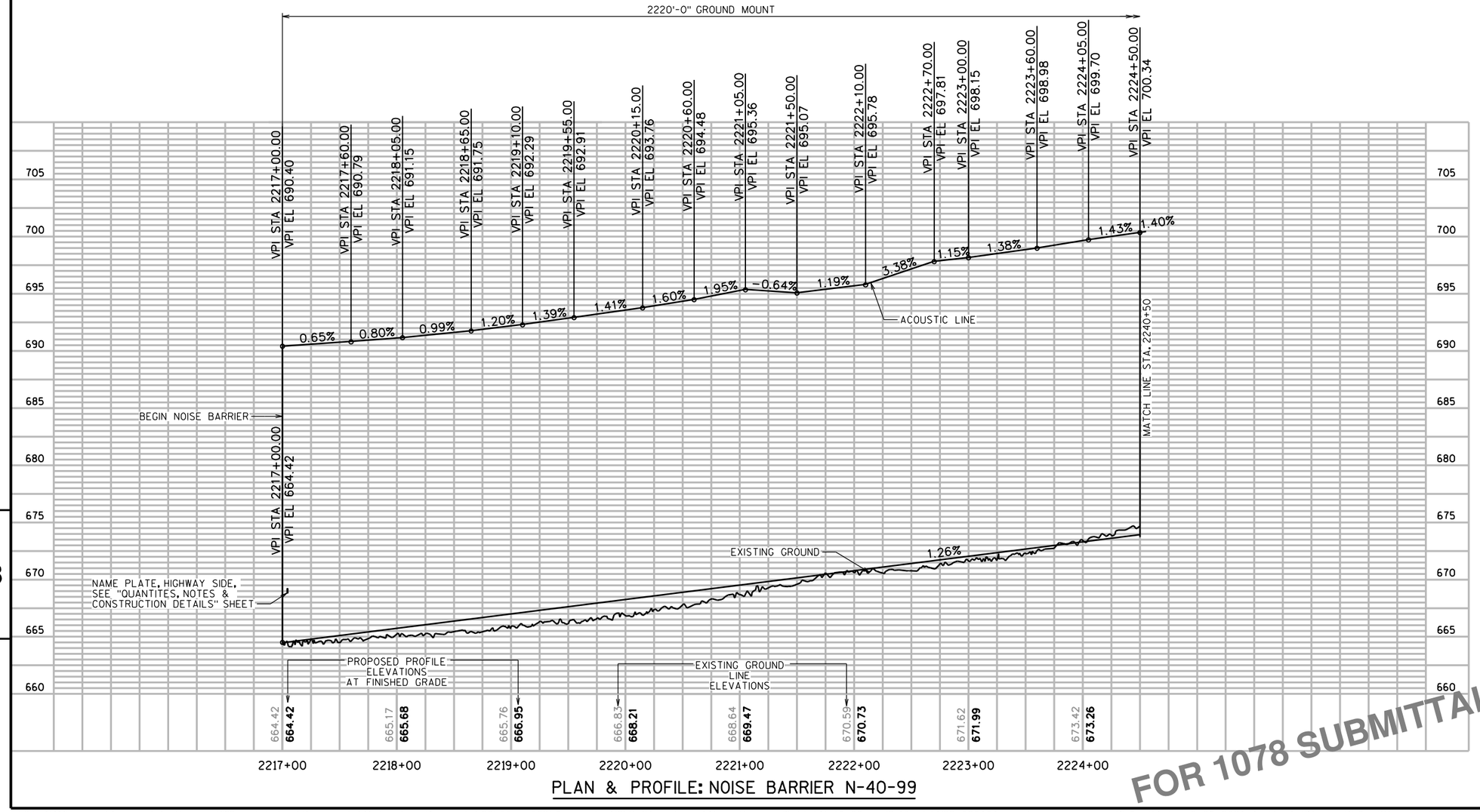
NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-99

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

1229-04-73

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB

250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE N-40-99

NOISE BARRIER ALONG IH 43 NORTH OF INDIAN CREEK

COUNTY	~~TOWN/CITY~~/VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

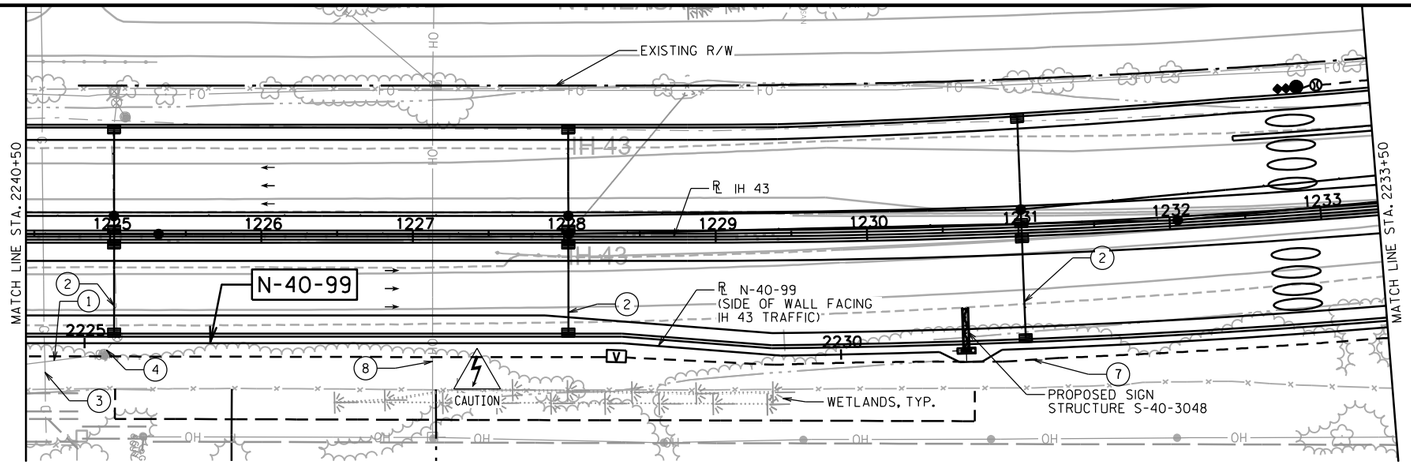
DESIGNED BY	XXX	DESIGN CK'D.	XXX	DRAWN BY	NNM	PLANS CK'D.	EAJ

GENERAL PLAN & ELEVATION (1 OF 3)

SHEET 1 OF 10

8

8



UTILITY & STORM SEWER LEGEND

1. EXISTING OVERHEAD ELECTRIC TO BE RELOCATED
2. PROPOSED WISDOT STORM SEWER
3. EXISTING BURIED GAS LINE TBD
4. EXISTING FTMS CONDUIT TO BE RELOCATED
7. PROPOSED WISDOT FTMS
8. EXISTING OVERHEAD ELECTRIC TBD

STATE PROJECT NUMBER
1229-04-73

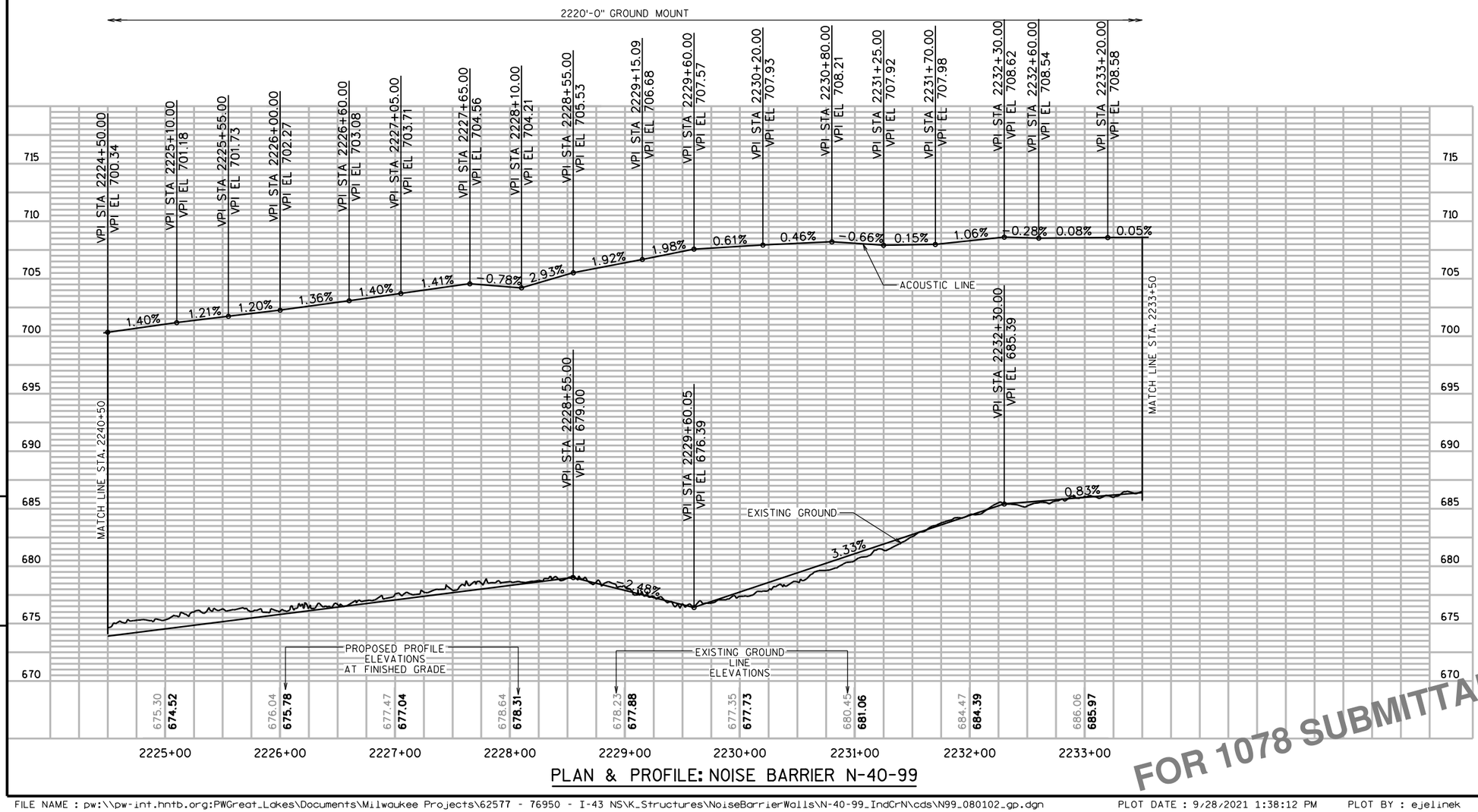
NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-99

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

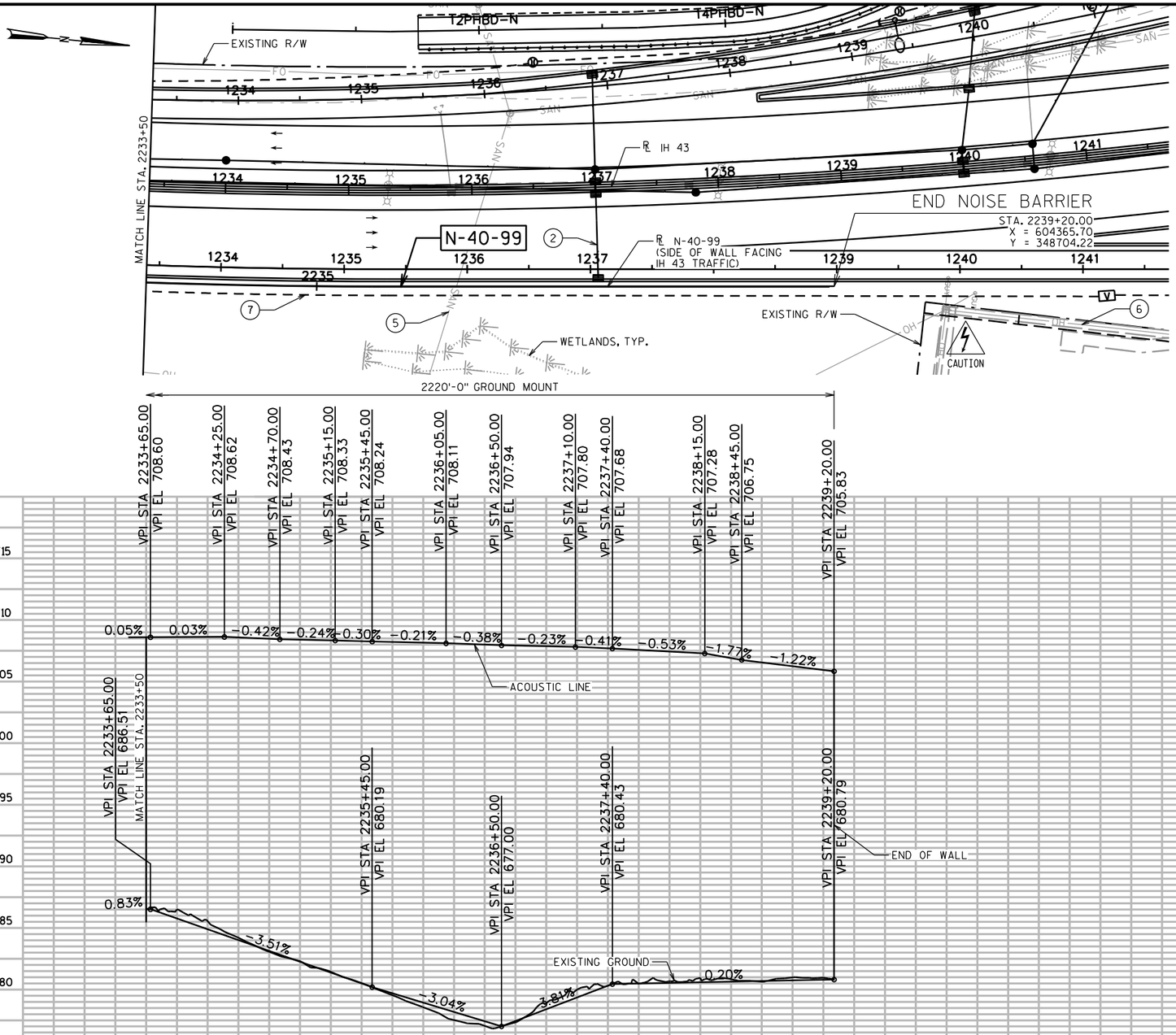
STRUCTURE N-40-99

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 3)

SHEET 2 OF 10

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080102_gp.dgn PLOT DATE : 9/28/2021 1:38:12 PM PLOT BY : ejelinek PLOT SCALE : 100:1



PLAN & PROFILE: NOISE BARRIER N-40-99

UTILITY & STORM SEWER LEGEND

(2) PROPOSED WISDOT STORM SEWER
(5) EXISTING UNDERGROUND SANITARY LINE TO REMAIN
(6) EXISTING OVERHEAD ELECTRIC TO REMAIN
(7) PROPOSED WISDOT FTMS

STATE PROJECT NUMBER

1229-04-73

NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY NNM | PLANS CK'D. EAJ

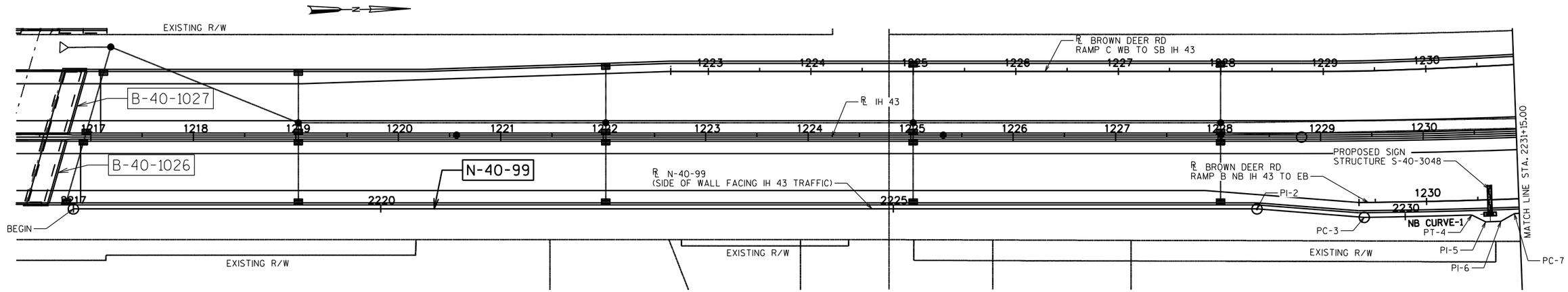
GENERAL PLAN & ELEVATION (3 OF 3)

SHEET 3 OF 10

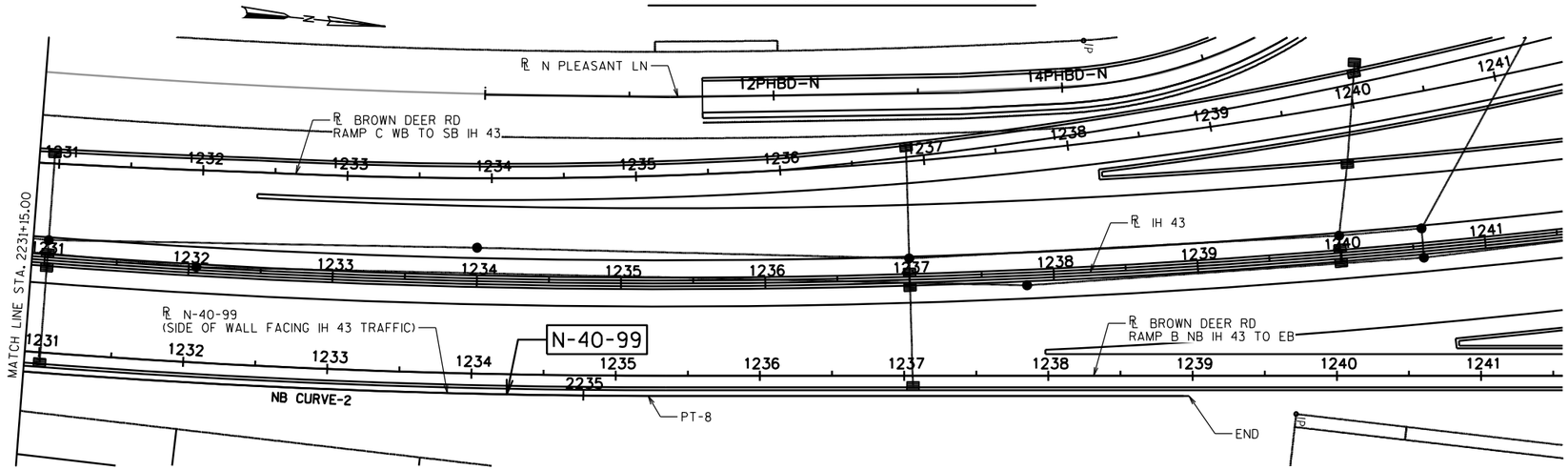
FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080103_gp.dgn PLOT DATE : 9/28/2021 1:40:41 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



ALIGNMENT: NOISE BARRIER N-40-99



ALIGNMENT: NOISE BARRIER N-40-99

ALIGNMENT DATA				
LABEL	STATION	X	Y	BEARING
BEGIN	2217+00.00	604397.77	346491.02	N0°58'54.12"E
PI-2	2228+55.00	604417.56	347645.85	N5°26'47.40"E
PC-3	2229+60.00	604427.52	347750.37	----
PT-4	2230+65.00	604427.03	347855.37	N27°22'05.16""E
PI-5	2230+80.00	604433.92	347868.69	N0°50'08.88"W
PI-6	2230+95.00	604433.71	347883.69	N8°52'048"W
PC-7	2231+10.00	604426.33	347896.75	----
PT-8	2235+48.62	604401.41	348334.56	N5°31'00.48"E
END	2239+20.00	604365.70	348704.22	----

HORIZONTAL CURVE DATA

NB CURVE-1

P.I. = 22230+12.5
X = 604427.74
Y = 347802.87
Δ = 1° 00' 14" LT.
D = 0° 57' 22.29"
T = 52.5"
L = 105'
R = 5992.08'
P.C. = 2229+60.00
X = 604427.52
Y = 347750.37
P.T.. = 2230+65.00
X = 604427.03
Y = 347855.37

NB CURVE-2

P.I. = 2233+29.41
X = 604421.87
Y = 348116.11
Δ = 4° 11' 10" LT.
D = 0° 57' 15.78"
T = 219.41'
L = 438.62'
R = 6003.43'
P.C. = 2231+10.00
X = 604426.33
Y = 347896.75
P.T. = 2235+48.62
X = 604401.41
Y = 348334.56

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY NNM | PLANS CK'D. EAJ

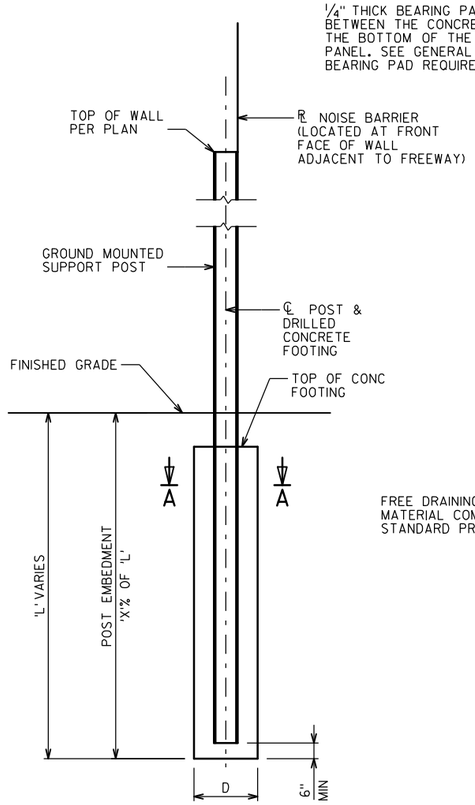
ALIGNMENT PLAN

SHEET 4 OF 10

8

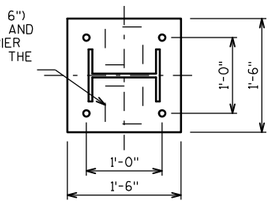
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080104_ali.dgn PLOT DATE : 9/28/2021 1:42:47 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73

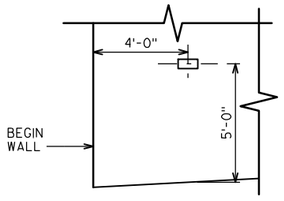


SECTION THRU GROUND MOUNTED POST & DRILLED CONC FOOTING

TYPICAL AT EACH POST LOCATION
(NOT TO SCALE)
('D', 'L' AND 'X' TO BE DETERMINED BY SUPPLIER)

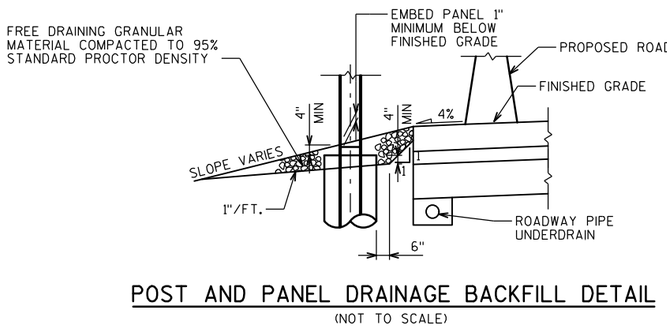


BASE PLATE DETAILS



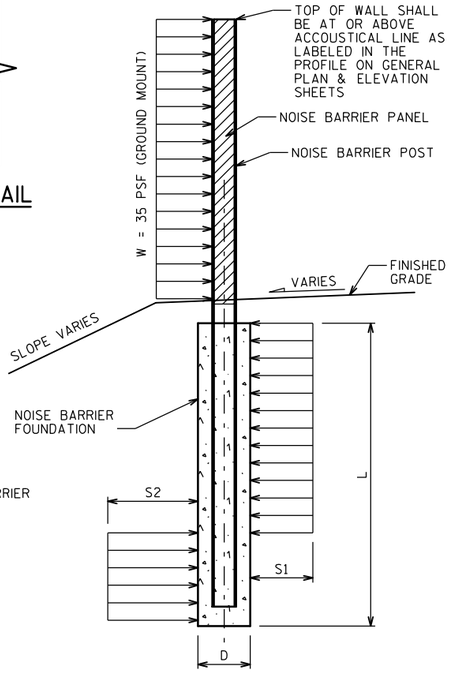
NAME PLATE DETAIL

(NOT TO SCALE)



POST AND PANEL DRAINAGE BACKFILL DETAIL

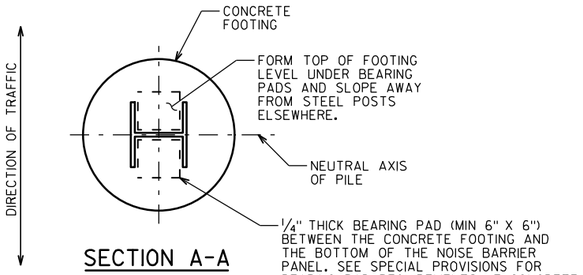
(NOT TO SCALE)



W = DESIGN WIND LOAD
L = NOISE BARRIER FOUNDATION DEPTH BELOW EXISTING GROUND
D = NOISE BARRIER FOUNDATION DIAMETER
S = ALLOWABLE SOIL PRESSURE

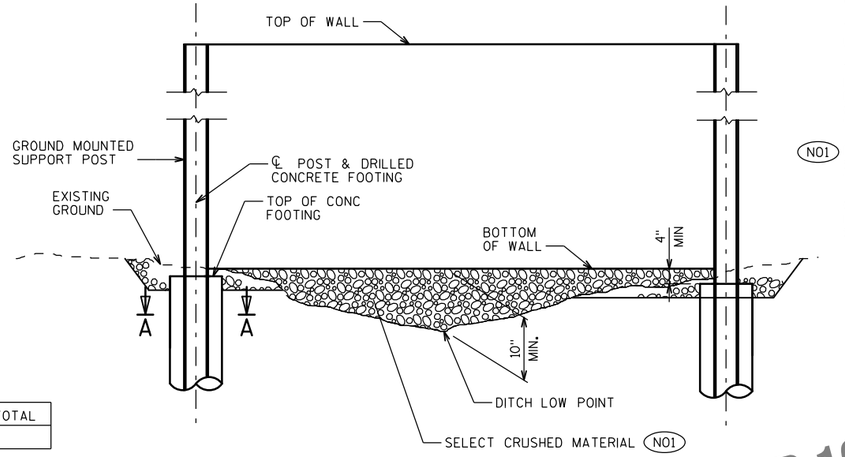
NOISE BARRIER LOADING DIAGRAM

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)



PARTIAL WALL ELEVATION OVER DITCH

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
541.0300.S.XXXX	NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-99	SF	

ALL ITEMS ARE CATEGORY XXXX

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE FINISHED GRADE LINE AND THE ACOUSTICAL LINE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEETS.

THE ACOUSTICAL LINE IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99". NOISE BARRIER PLACED ABOVE THE ACOUSTICAL LINE WILL NOT BE MEASURED FOR PAYMENT.

THE FINISHED GRADE LINE IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99". NOISE BARRIER PLACED BELOW THE FINISHED GRADE LINE WILL NOT BE MEASURED FOR PAYMENT.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT "GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS", PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:
35 P.S.F. FOR GROUND MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1-INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM OF NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

A COMPRESSIBLE BEARING PAD OF 1"#4" THICKNESS SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-99".

PRECAST CONCRETE PEDESTALS PLACED BETWEEN THE FOUNDATION AND BOTTOM PANELS SHALL BE REINFORCED IF OVER 1'-0" HIGH.

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, AND COATING OF STEEL POSTS AND CONNECTIONS UNDER THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99".

LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE GENERAL PLAN & ELEVATION SHEETS. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-99".

INSTALL FREE DRAINING GRANULAR MATERIAL ALONG THE ENTIRE LENGTH OF WALL AT THE BOTTOM OF NOISE BARRIERS AS SHOWN IN THE NOISE BARRIER PLANS AND AS REQUIRED TO FILL GAPS UNDER THE NOISE BARRIER PANEL. FREE DRAINING GRANULAR MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99".

THE SUBSURFACE INFORMATION PRESENTED IN THESE PLANS IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

ALL CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IS SUBJECT TO THE QMP REQUIREMENTS FOR CLASS II ANCILLARY CONCRETE. PERFORM QMP TESTING OF CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IN ACCORDANCE WITH SECTION 716 OF THE STANDARD SPECIFICATIONS FOR CLASS II ANCILLARY CONCRETE. QMP TESTING IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99".

HOTLINE ALL UTILITIES. IN AREAS WHERE EXISTING UTILITIES ARE WITHIN 3 FEET OF THE PROPOSED WALL, EXPOSE EXISTING UTILITIES PRIOR TO EXCAVATION.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY TEMPORARY GRADING DOES NOT IMPACT UTILITIES OR TO COORDINATE WITH AFFECTED UTILITIES TO ACCOMMODATE TEMPORARY GRADING.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99".

(N01) PLACE SELECT CRUSHED MATERIAL IN DRAINAGE DITCH WHERE NOISE BARRIER CROSSES FLOW LINE. SELECT CRUSHED MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-99".

COORDINATE THE DRILLING OF CONCRETE FOOTING WITH CONSTRUCTION OF PROPOSED ROADWAY, ROADWAY BARRIER, INSTALLATION OF ROADWAY PIPE UNDERDRAIN, INSTALLATION OF PROPOSED STORM SEWER AND INSTALLATION OF PROPOSED SIGN STRUCTURE S-40-3048.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY NNM | PLANS CK'D. EAJ

QUANTITIES, NOTES & CONSTRUCTION DETAILS

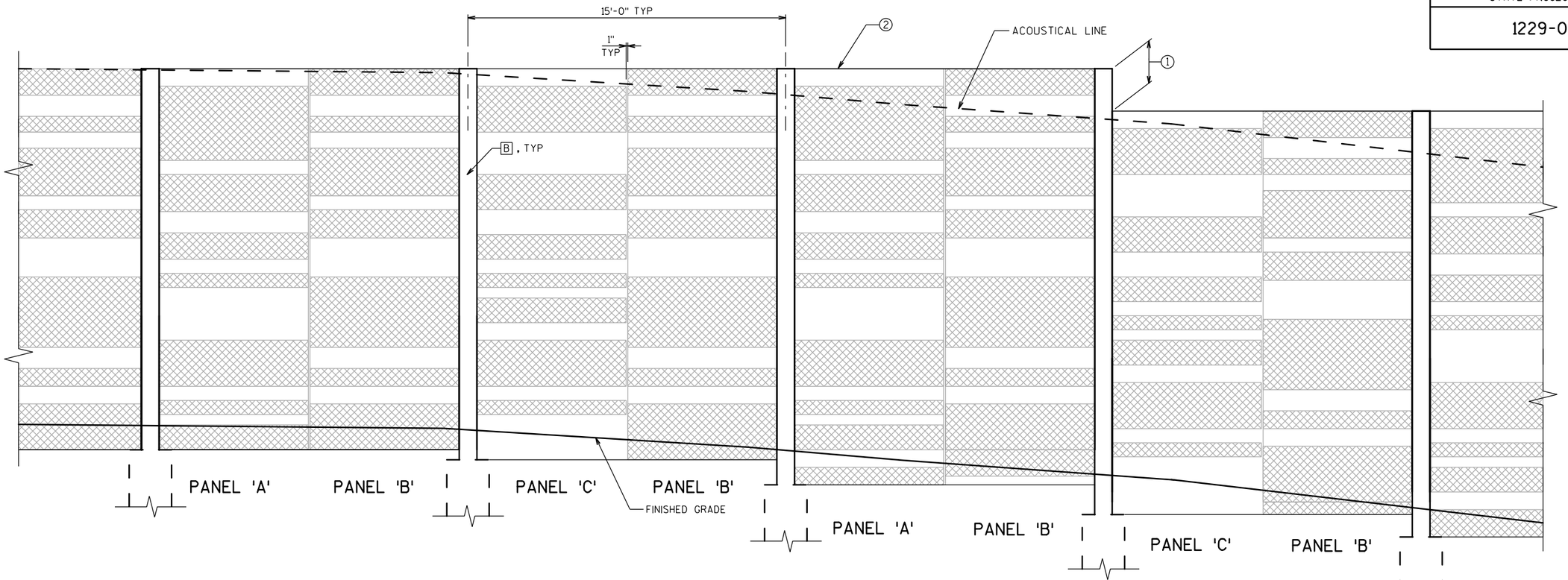
SHEET 5 OF 10

FOR 1078 SUBMITTAL

8

8

STATE PROJECT NUMBER
1229-04-73



LEGEND

B POST PAINT COLOR

(1) STEP PANELS IN INCREMENTS OF 2'-0"'. STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

(2) ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

(3) 0.5 X (POST SPA - POST FLANGE WIDTH - 1")

PANEL THICKNESS + 0"

PANEL THICKNESS - ¾" MIN, 1" MAX

STAIN COLORS

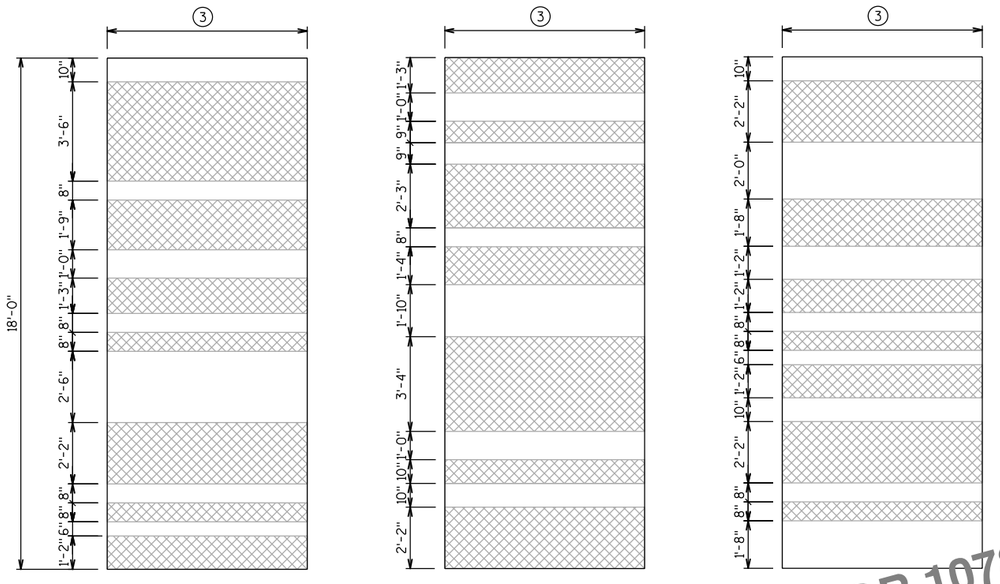
THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

NOTES

ALTERNATE PANEL PATTERNS AS SHOWN. DO NOT PLACE SAME PATTERN HORIZONTALLY ADJACENT TO EACH OTHER.

THE PATTERNS SHALL REPEAT VERTICALLY STARTING FROM THE TOP OF WALL AND WORKING DOWNWARD IF WALL HEIGHT GREATER 18'-0" IS REQUIRED.

ELEVATION VIEW - FREEWAY SIDE



PANEL 'A' PATTERN

PANEL 'B' PATTERN

PANEL 'C' PATTERN

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY NNM | PLANS CK'D. EAJ

AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE

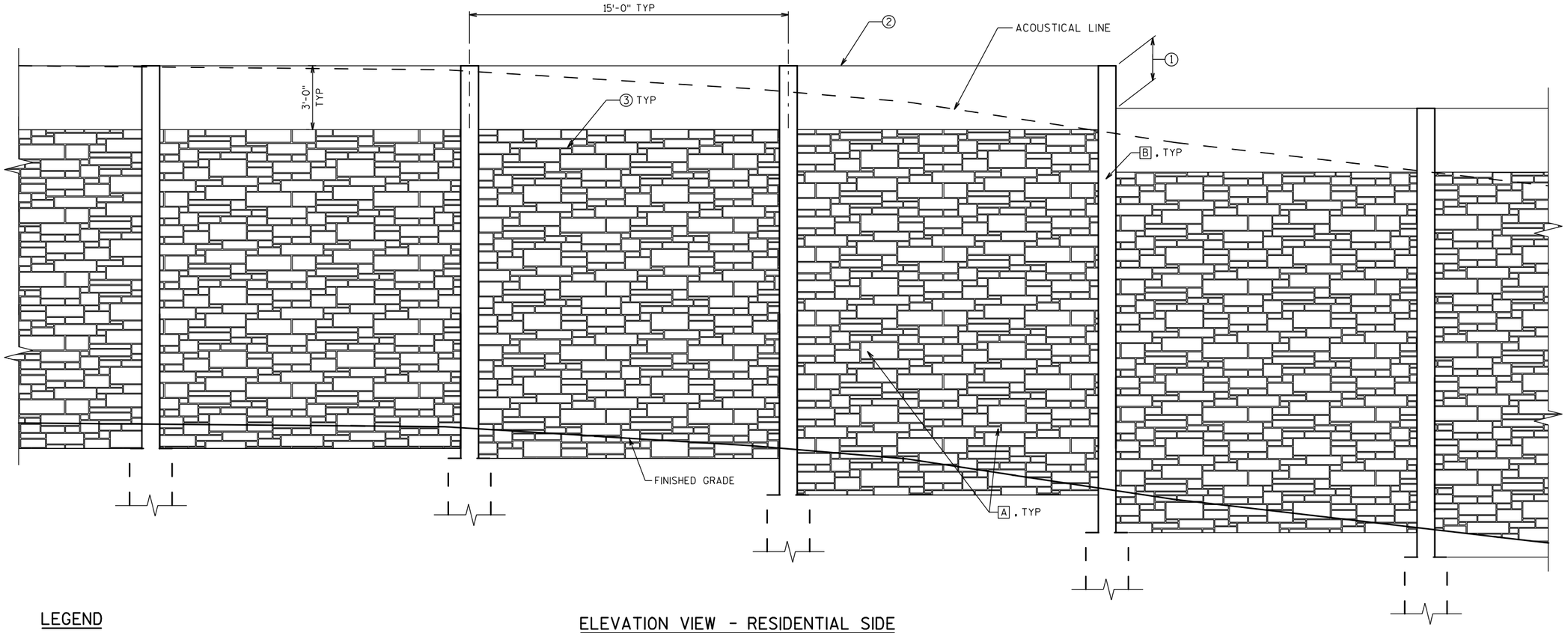
SHEET 6 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080106_ae.dgn PLOT DATE : 9/28/2021 12:58:07 PM PLOT BY : ejelinek PLOT SCALE : 5.33333:1

STATE PROJECT NUMBER
1229-04-73



ELEVATION VIEW - RESIDENTIAL SIDE

LEGEND

B POST PAINT COLOR

① STEP PANELS IN INCREMENTS OF 2'-0"'. STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

② ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

③ THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A "RANDOM SPLIT EDGE ASHLAR" PATTERN. THE PATTERN SHALL CONSIST OF RANDOM SIZED PIECES RANGING FROM A MINIMUM OF 1½" HIGH BY 4" LONG TO A MAXIMUM OF 10" HIGH BY 31" LONG WITH A MAXIMUM RELIEF 1½".

STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY EAJ | PLANS CK'D. NNM

AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE

SHEET 7 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080107_ae.dgn PLOT DATE : 9/28/2021 12:58:14 PM PLOT BY : ejelinek PLOT SCALE : 5.33333:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-21	10/28/20	346786	604394
NIC-22	10/28/20	347102	604399

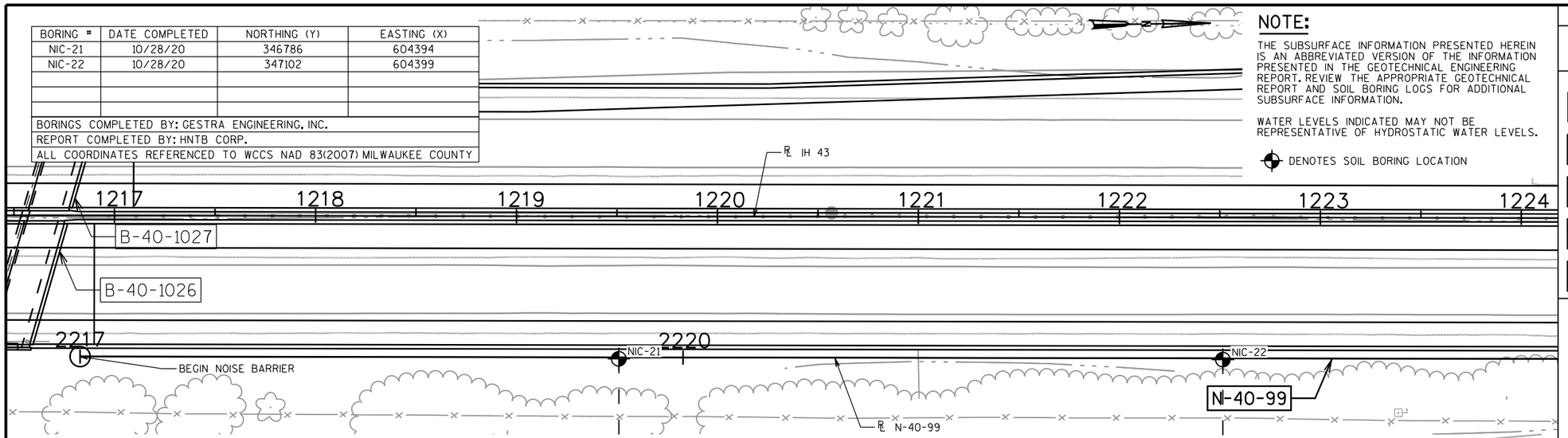
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

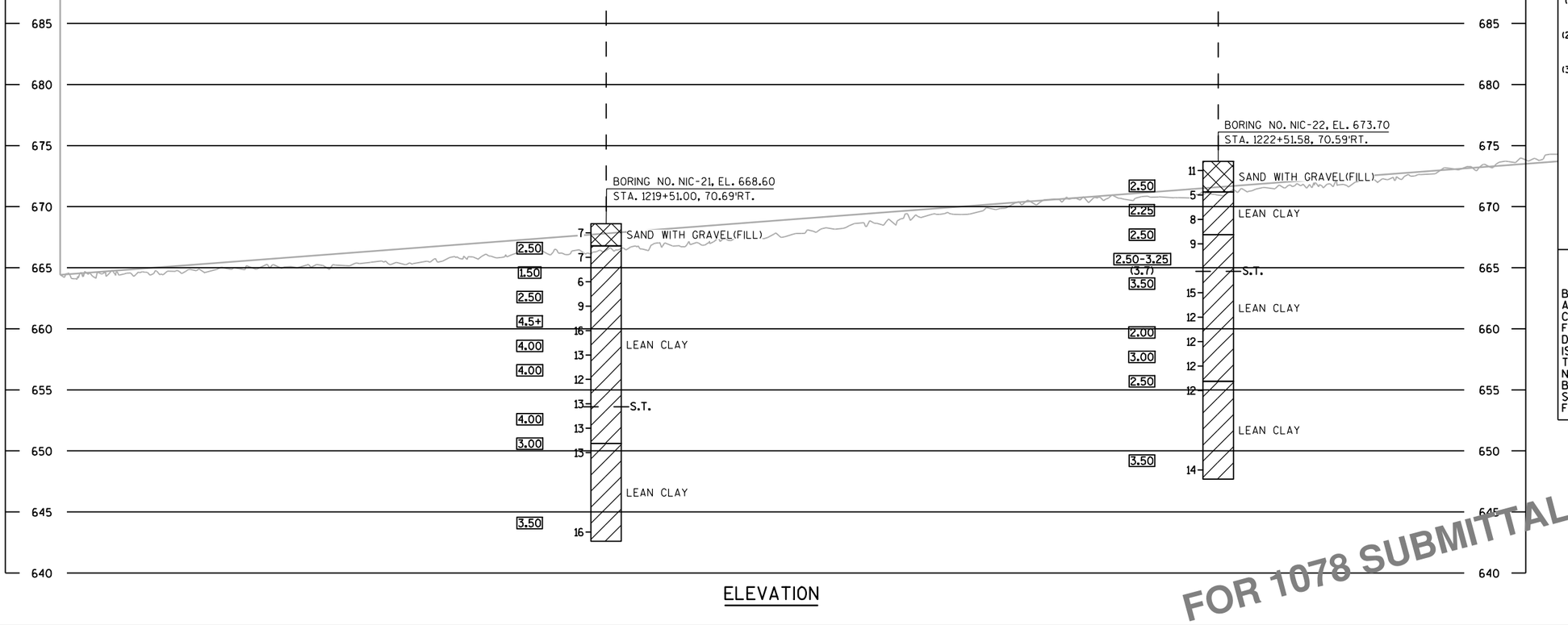
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

FOR 1078 SUBMITTAL

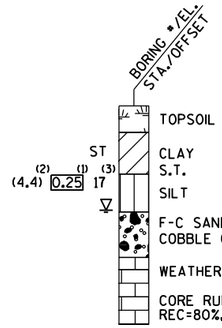
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (1 OF 3)

SHEET 8 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080201_se.dgn PLOT DATE : 9/28/2021 12:59:21 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-23	10/28/20	347420	604405
NIC-24	10/28/20	347739	604405
NIC-25	1/25/21	348040	604406

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

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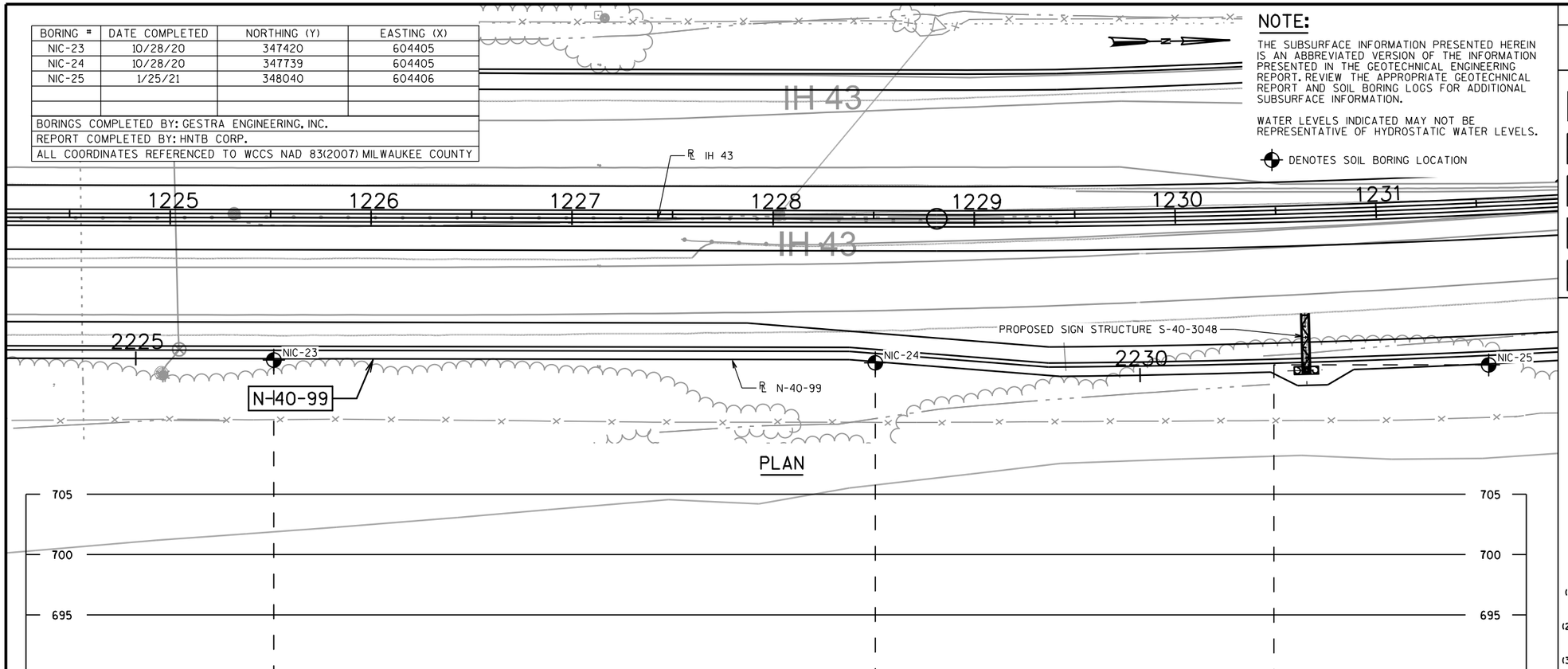
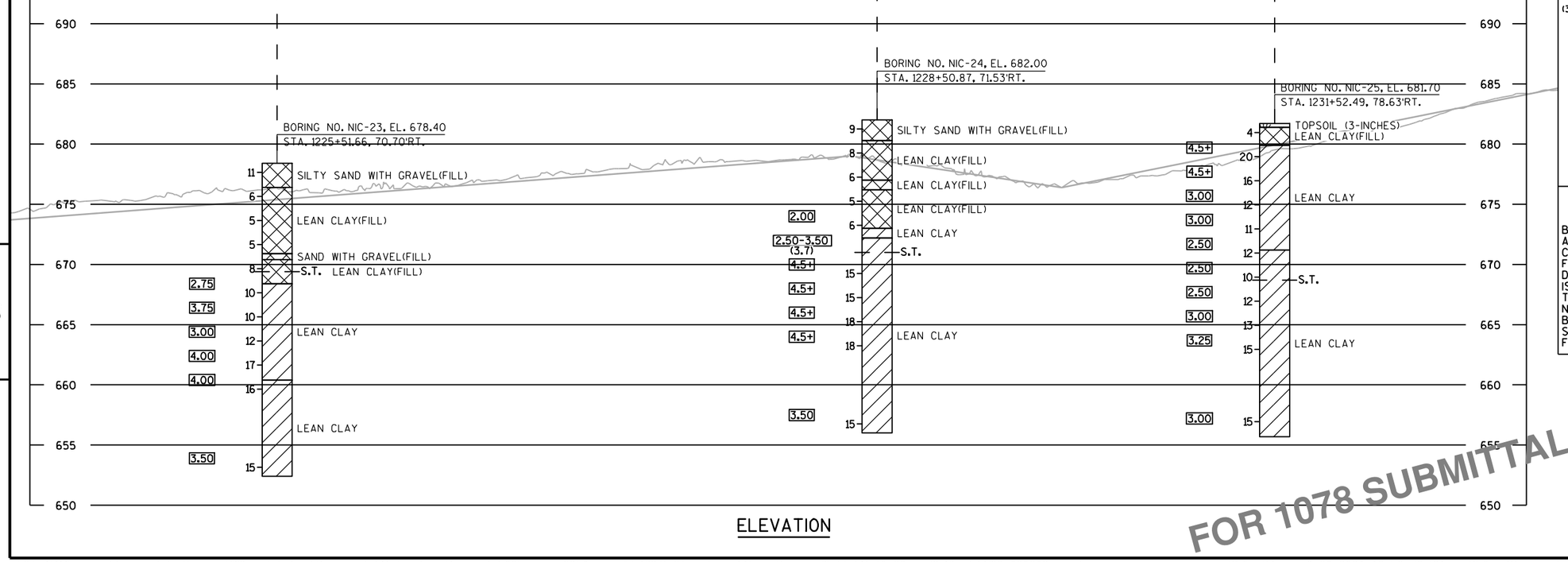


PLAN



ELEVATION

FOR 1078 SUBMITTAL

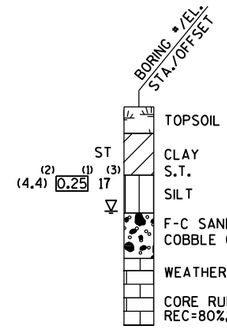
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
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ABBREVIATIONS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (2 OF 3)

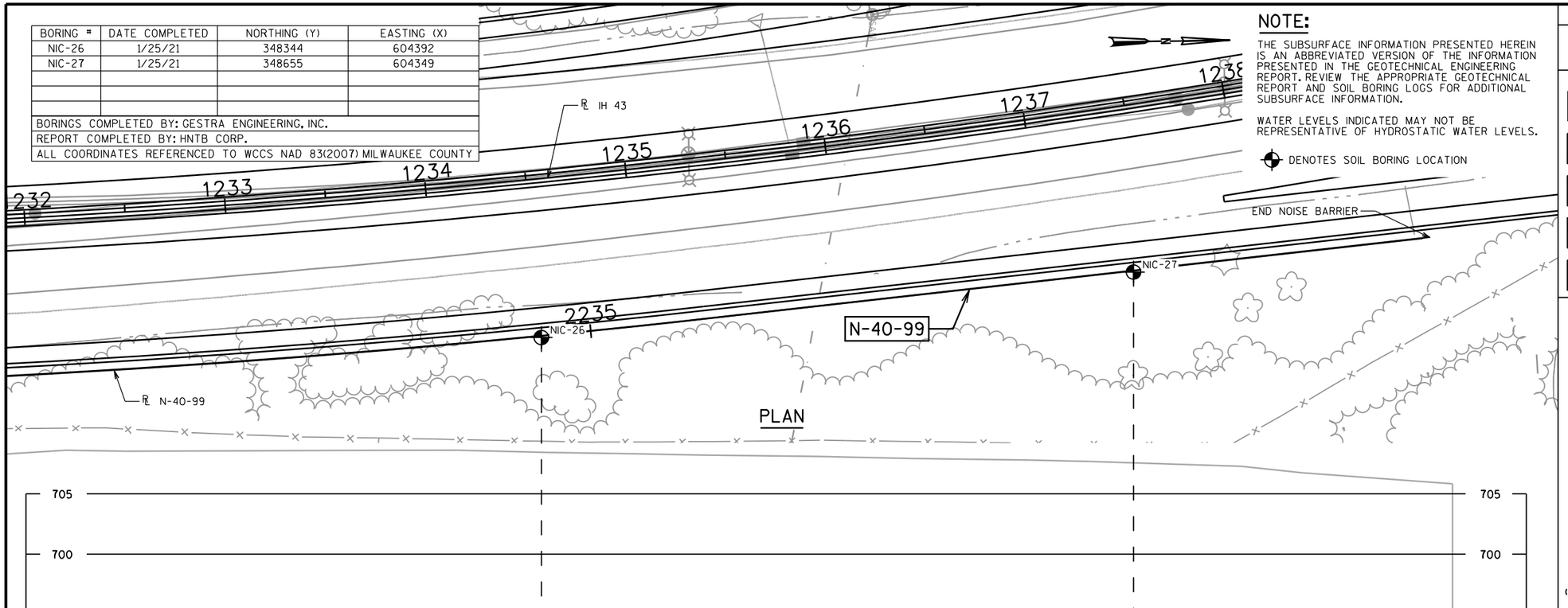
SHEET 9 OF 10

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-26	1/25/21	348344	604392
NIC-27	1/25/21	348655	604349

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY



PLAN

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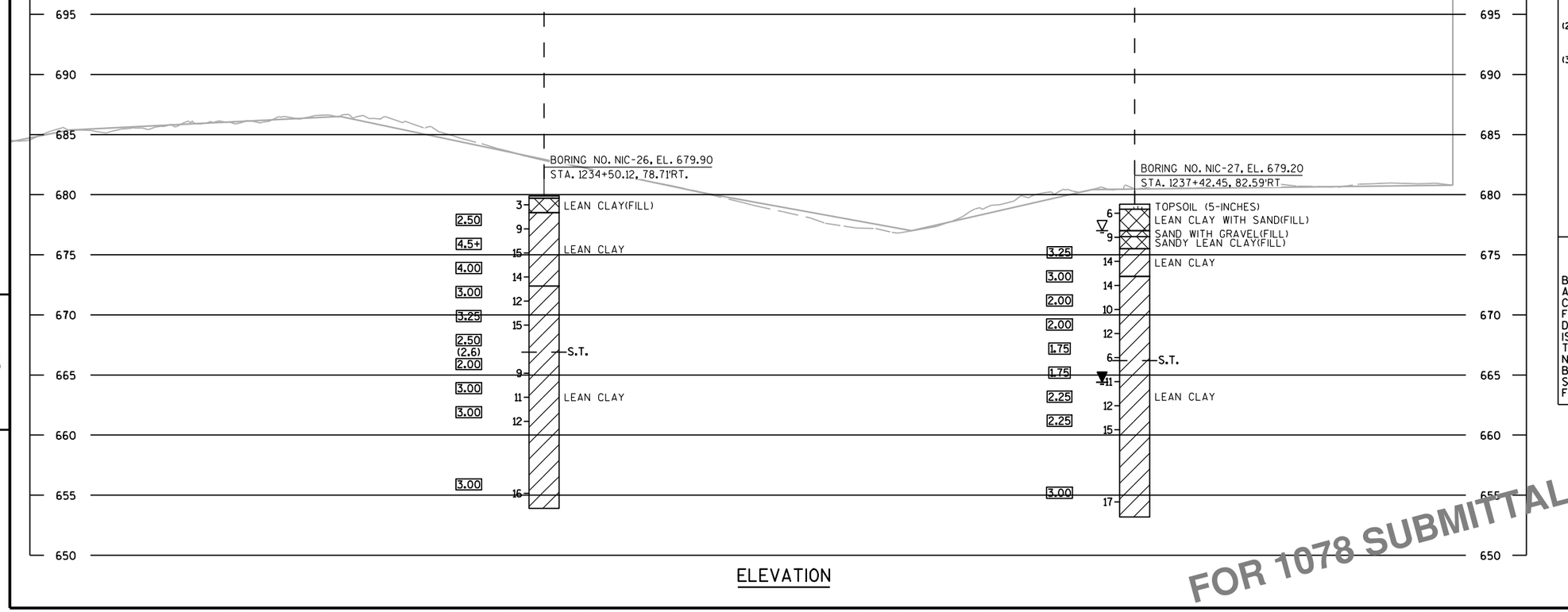

ELEVATION

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

1229-04-73

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CONCRETE	FILL	GRAVEL
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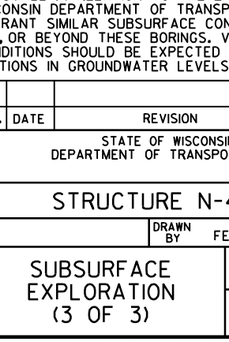
LEGEND OF BORING



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-99

DRAWN BY	FEG	PLANS CK'D.	EAJ

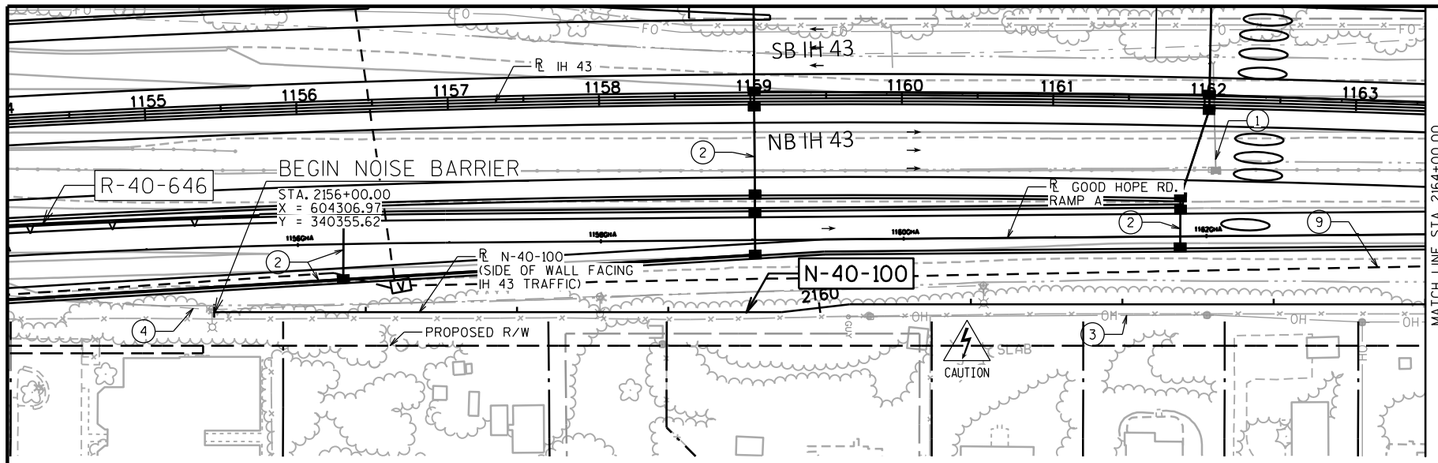
SUBSURFACE EXPLORATION (3 OF 3)

SHEET 10 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-99_IndCrN\cds\N99_080203_se.dgn PLOT DATE : 9/28/2021 1:45:10 PM PLOT BY : ejelinek PLOT SCALE : 60:1



LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 6)
2. GENERAL PLAN & ELEVATION (2 OF 6)
3. GENERAL PLAN & ELEVATION (3 OF 6)
4. GENERAL PLAN & ELEVATION (4 OF 6)
5. GENERAL PLAN & ELEVATION (5 OF 6)
6. GENERAL PLAN & ELEVATION (6 OF 6)
7. ALIGNMENT PLAN (1 OF 2)
8. ALIGNMENT PLAN (2 OF 2)
9. QUANTITIES, NOTES & CONSTRUCTION DETAILS
10. AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE
11. AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE
12. SUBSURFACE EXPLORATION (1 OF 8)
13. SUBSURFACE EXPLORATION (2 OF 8)
14. SUBSURFACE EXPLORATION (3 OF 8)
15. SUBSURFACE EXPLORATION (4 OF 8)
16. SUBSURFACE EXPLORATION (5 OF 8)
17. SUBSURFACE EXPLORATION (6 OF 8)
18. SUBSURFACE EXPLORATION (7 OF 8)
19. SUBSURFACE EXPLORATION (8 OF 8)

UTILITY & STORM SEWER LEGEND

(1) EXISTING DRAINAGE STRUCTURE TO BE REMOVED
(2) PROPOSED WISDOT STROM SEWER
(3) EXISTING OVERHEAD ELECTRIC TO REMAIN
(4) EXISTING LIGHTING CONDUIT TO BE RELOCATED
(9) PROPOSED WISDOT FTMS

STATE PROJECT NUMBER
1229-04-73

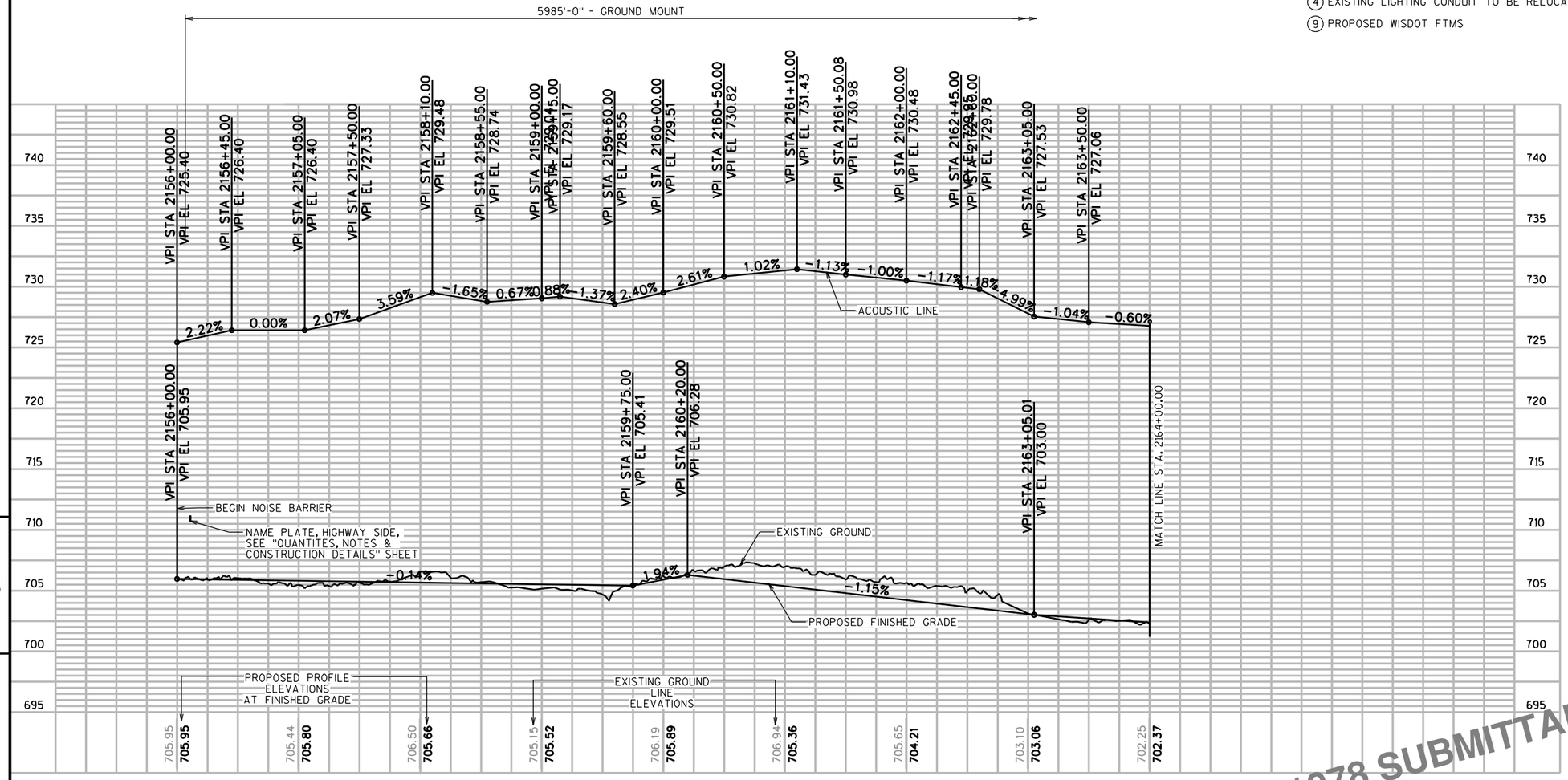
NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-100

FOR 1078 SUBMITTAL

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE N-40-100

NOISE BARRIER ALONG IH 43 SOUTH OF INDIAN CREEK

COUNTY MILWAUKEE | ~~TOWN~~/CITY/~~VILLAGE~~ GLENDALE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
XXX	XXX	NNM	EAJ

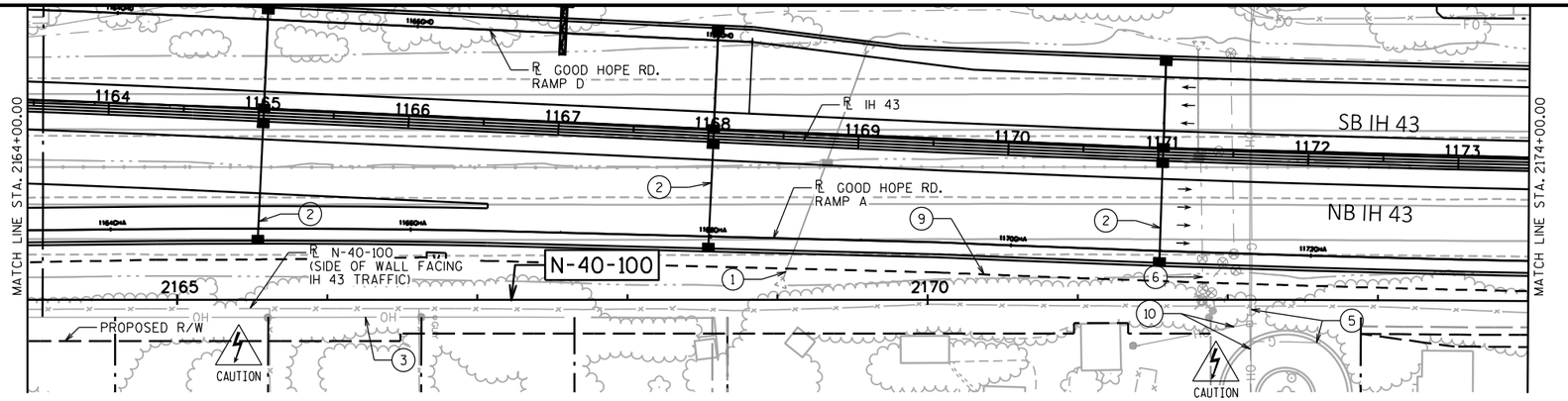
GENERAL PLAN & ELEVATION (1 OF 6)

SHEET 1 OF 19

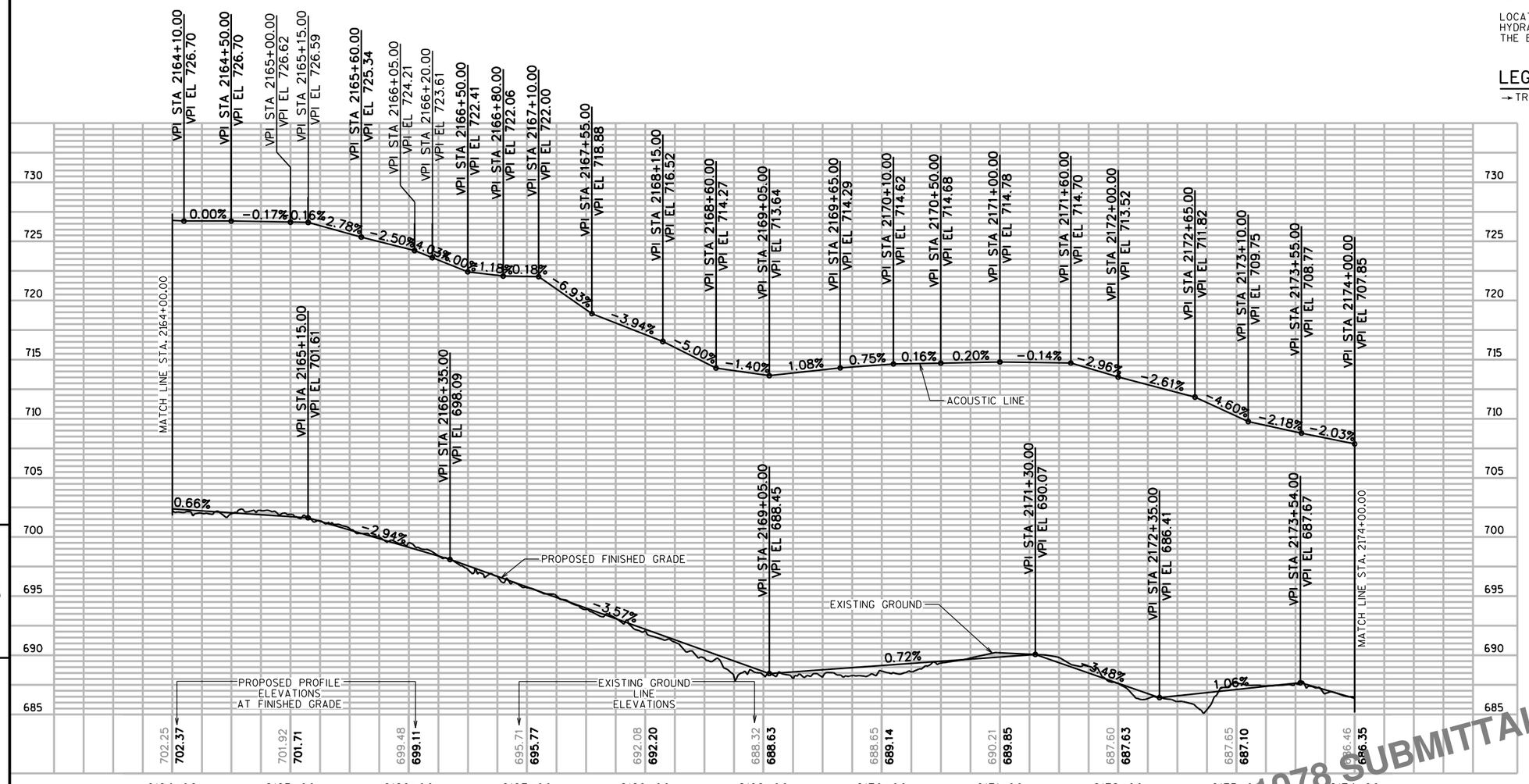
8

8

STATE PROJECT NUMBER
1229-04-73



5985'-0" - GROUND MOUNT



PLAN & PROFILE: NOISE BARRIER N-40-100

UTILITY & STORM SEWER LEGEND

1. EXISTING DRAINAGE STRUCTURE TO BE REMOVED
2. PROPOSED WISDOT STORM SEWER
3. EXISTING OVERHEAD ELECTRIC TO REMAIN
5. EXISTING UNDERGROUND GAS LINE TBD
6. EXISTING FTMS CONDUIT TO BE RELOCATED
9. PROPOSED WISDOT FTMS
10. EXISTING OVERHEAD ELECTRIC TBD

NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

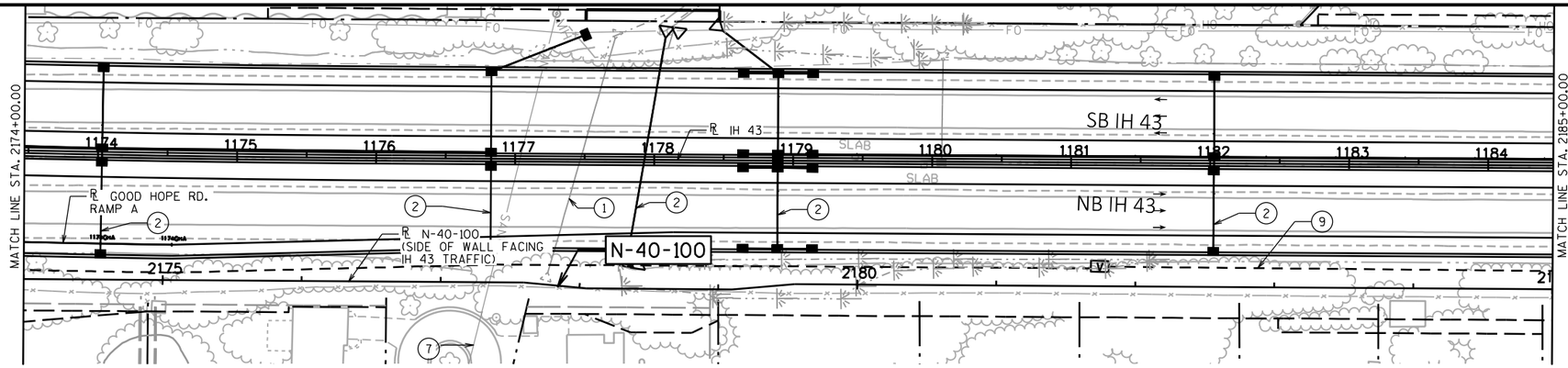
DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 6)

SHEET 2 OF 19

FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080102_gp.dgn PLOT DATE : 9/28/2021 1:03:21 PM PLOT BY : ejelinek PLOT SCALE : 100:1



UTILITY & STORM SEWER LEGEND

(1) EXISTING DRAINAGE STRUCTURE TO BE REMOVED
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(7) EXISTING UNDERGROUND SANITARY TO REMAIN
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LEGEND

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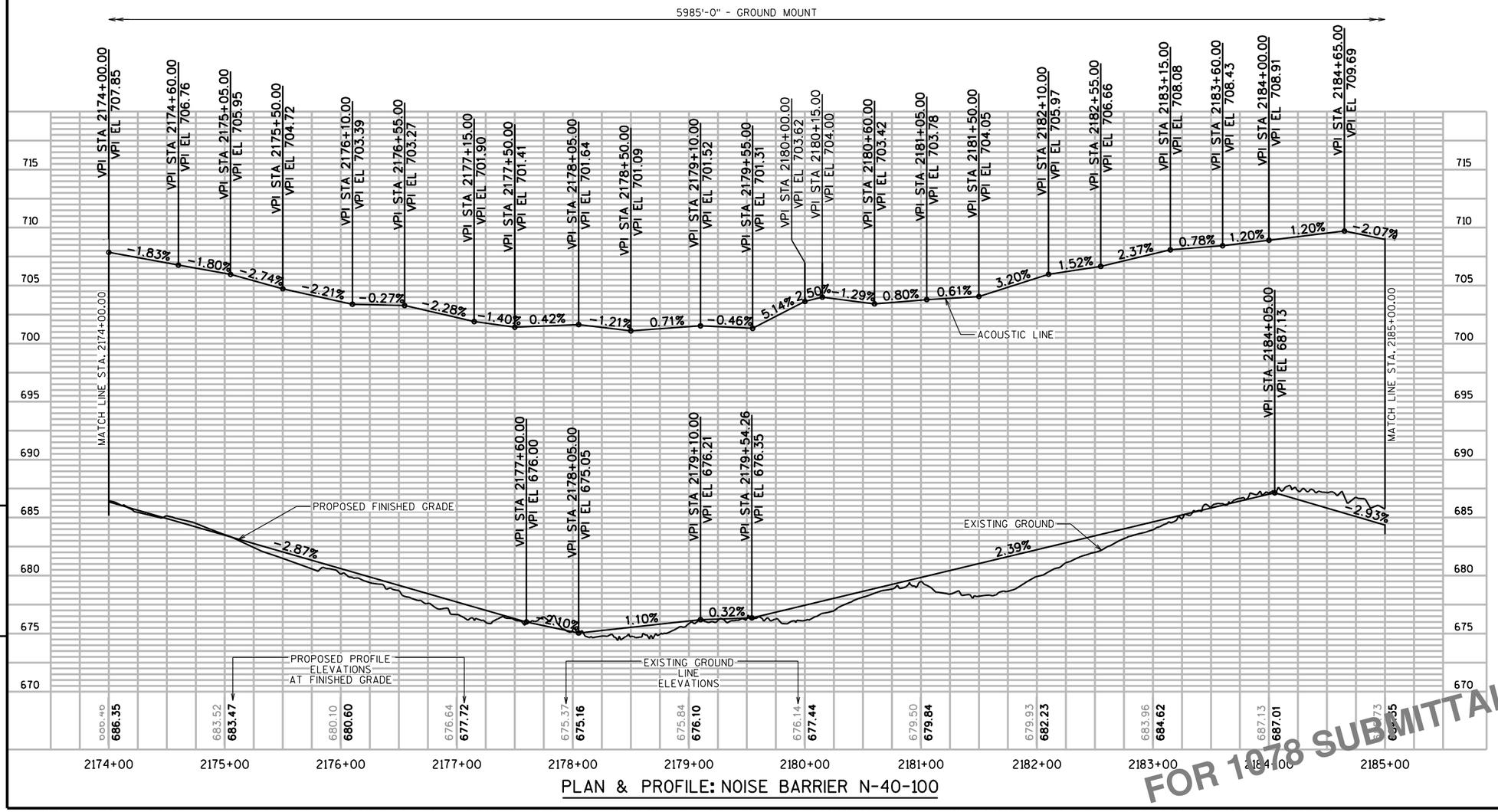

PLAN & PROFILE: NOISE BARRIER N-40-100

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

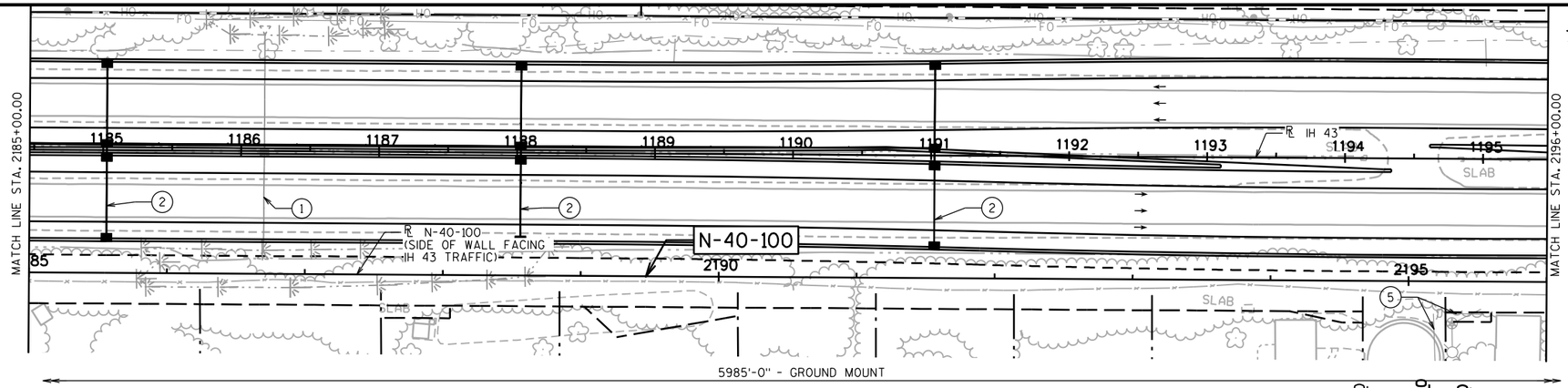
DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (3 OF 6)

SHEET 3 OF 19

8

STATE PROJECT NUMBER
1229-04-73



UTILITY & STORM SEWER LEGEND

(1) EXISTING DRAINAGE STRUCTURE TO BE REMOVED
(2) PROPOSED WISDOT STORM SEWER
(5) EXISTING UNDERGROUND GAS LINE TBD
(9) PROPOSED WISDOT FTMS

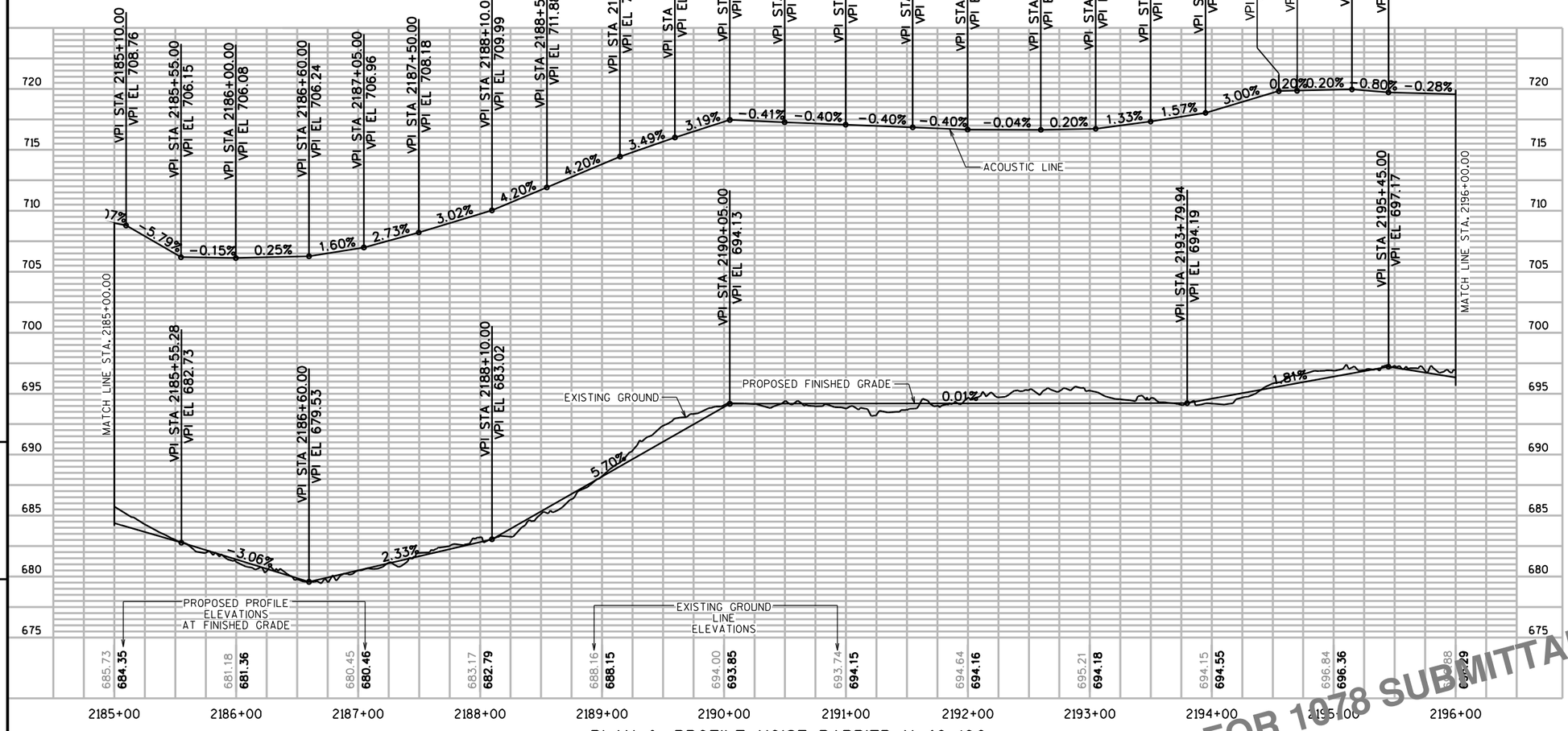
NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-100

FOR 10% SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (4 OF 6)

SHEET 4 OF 19

8

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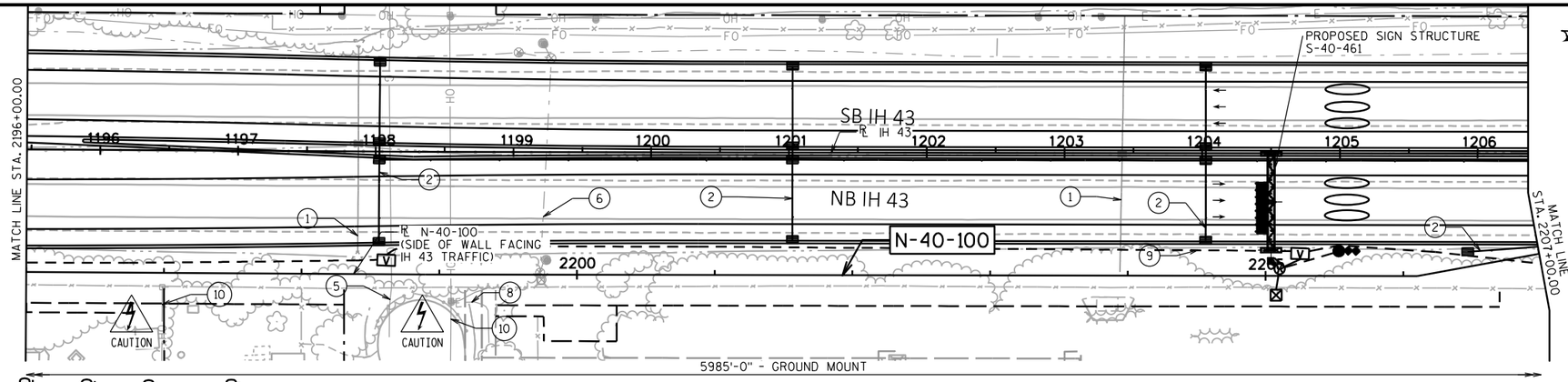
STATE PROJECT NUMBER
1229-04-73



UTILITY & STORM SEWER LEGEND

1. EXISTING DRAINAGE STRUCTURE TO BE REMOVED
2. PROPOSED WISDOT STORM SEWER
5. EXISTING UNDERGROUND GAS LINE TBD
6. EXISTING FTMS CONDUIT TO BE RELOCATED
8. EXISTING UNDERGROUND ELECTRIC TBD
9. PROPOSED WISDOT FTMS
10. EXISTING OVERHEAD ELECTRIC TBD

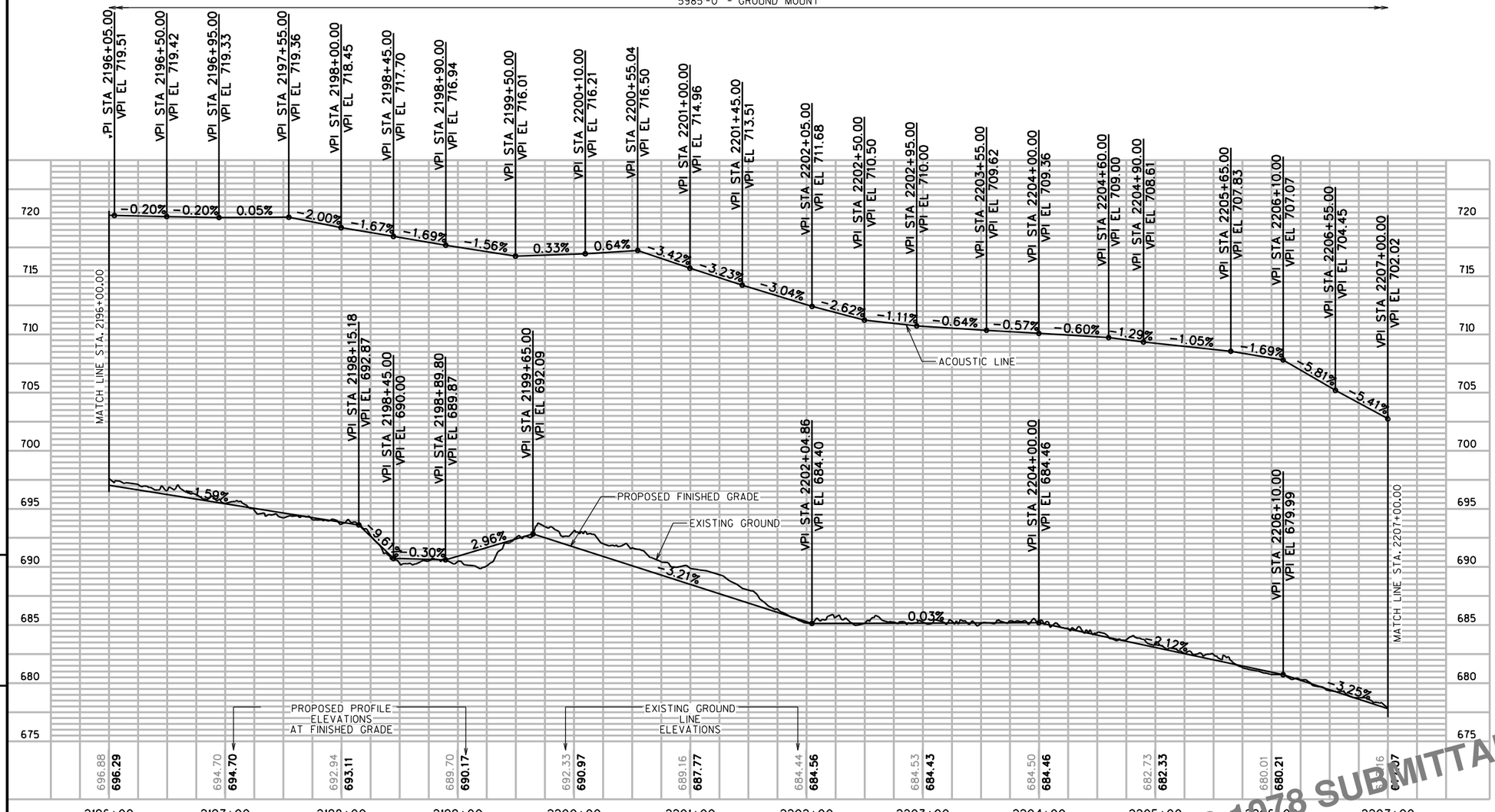
NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-100

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

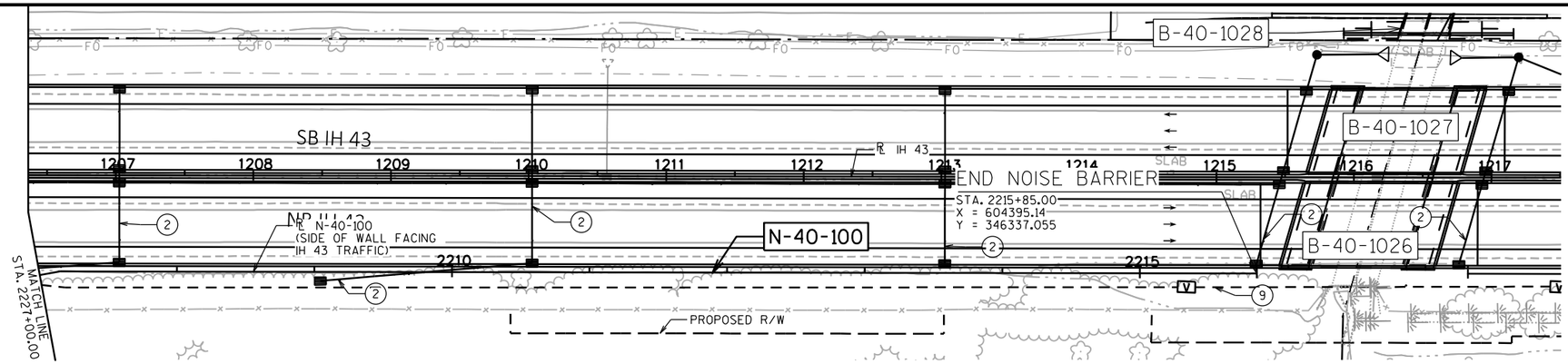
STRUCTURE N-40-100

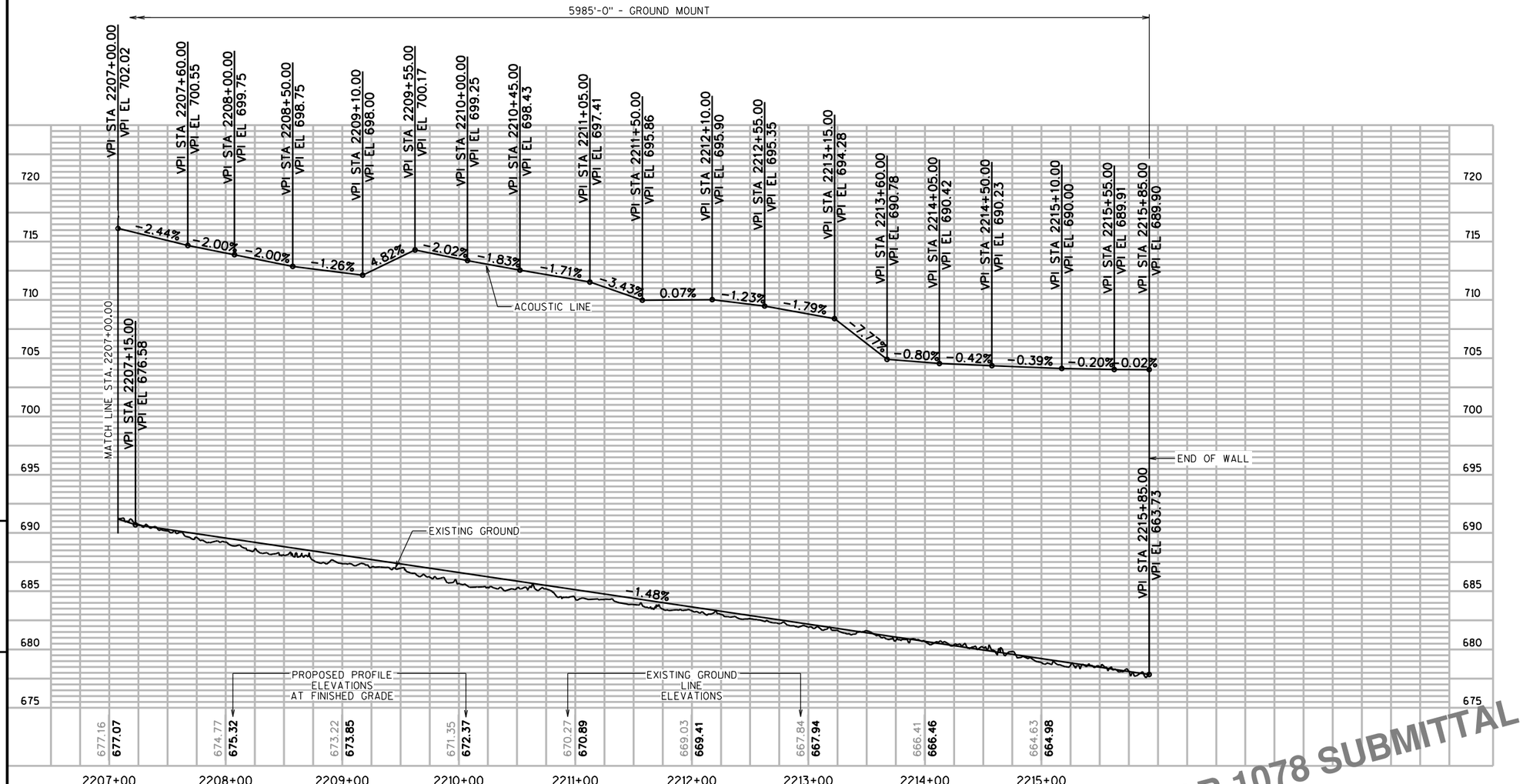
DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (5 OF 6)

SHEET 5 OF 19

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080105_gp.dgn PLOT DATE : 9/28/2021 1:04:41 PM PLOT BY : ejelinek PLOT SCALE : 100:1





PLAN & PROFILE: NOISE BARRIER N-40-100

STATE PROJECT NUMBER
1229-04-73

UTILITY & STORM SEWER LEGEND

(2) PROPOSED WISDOT STORM SEWER

(9) PROPOSED WISDOT FTMS

NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY NNM | PLANS CK'D. EAJ

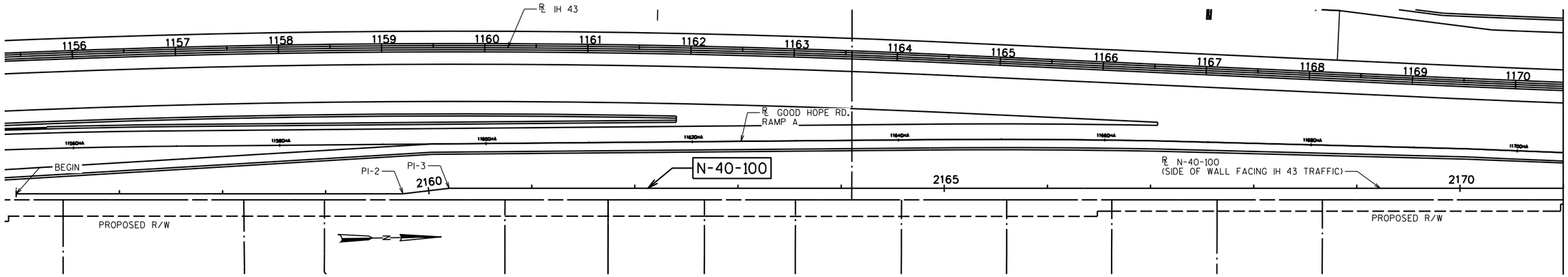
GENERAL PLAN & ELEVATION (6 OF 6)

SHEET 6 OF 19

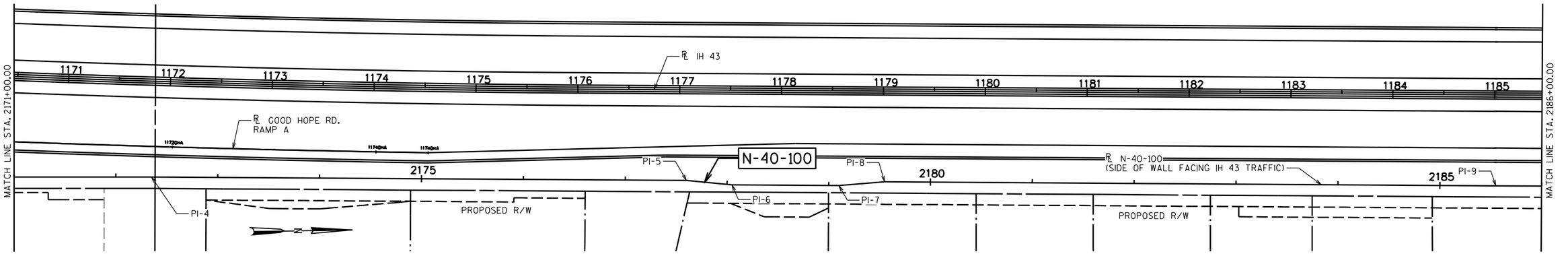
FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080106_gp.dgn PLOT DATE : 9/28/2021 1:05:03 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



ALIGNMENT: NOISE BARRIER N-40-100



ALIGNMENT: NOISE BARRIER N-40-100

ALIGNMENT DATA				
LABEL	STATION	X	Y	BEARING
BEGIN	2156+00.00	604306.9654	340355.6245	N0°53'9.6"E
PI-2	2159+75.00	604312.7643	340730.5796	N5°48'44.32"W
PI-3	2160+20.00	604308.2060	340775.3482	N0°53'9.6"E
PI-4	2172+35.00	604326.9942	341990.2029	N1°15'27.36"E
PI-5	2177+60.00	604338.5164	342515.0765	N6°21'36"E
PI-6	2178+05.00	604343.5012	342559.7994	N1°15'36"E
PI-7	2179+10.00	604345.8101	342664.7741	N3°50'22.92"W
PI-8	2179+55.00	604342.7966	342709.6731	N1°15'36."E
PI-9	2185+55.00	604355.9899	343309.5279	N1°15'01.8"E

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

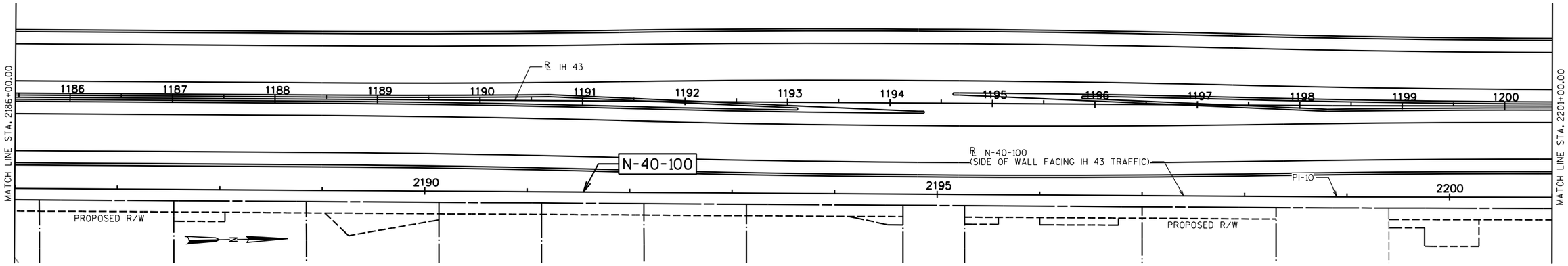
DRAWN BY NNM | PLANS CK'D. EAJ

ALIGNMENT PLAN
(1 OF 2)

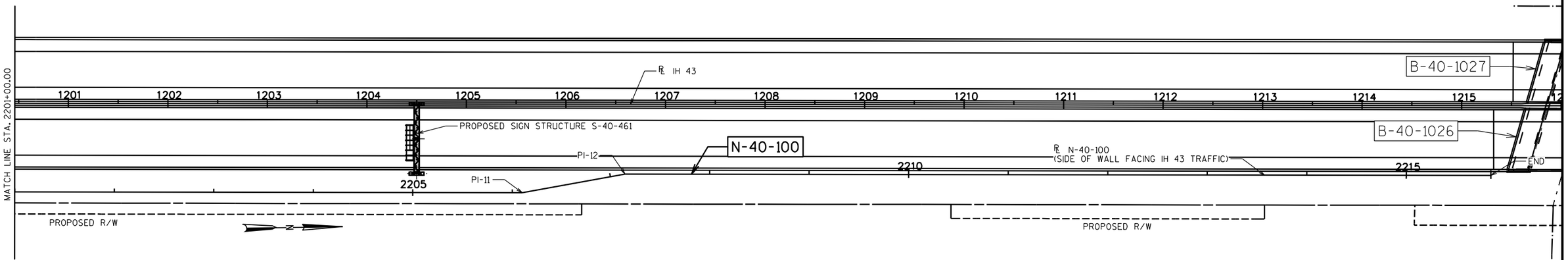
SHEET 7 OF 19

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080107_ali.dgnPLOT DATE : 9/28/2021 1:05:33 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



ALIGNMENT: NOISE BARRIER N-40-100



ALIGNMENT: NOISE BARRIER N-40-100

ALIGNMENT DATA				
LABEL	STATION	X	Y	BEARING
PI-10	2198+90.00	604385.1236	344644.2101	N0°58'54.12"E
PI-11	2206+10.00	604397.4593	345364.1044	N9°26'36.6"W
PI-12	2207+15.00	604380.2313	345467.6814	N0°58'54.12"E
END	2215+85.00	604395.1370	346337.5537	----

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY NNM | PLANS CK'D. EAJ

ALIGNMENT PLAN
(2 OF 2)

SHEET 8 OF 19

FOR 1078 SUBMITTAL

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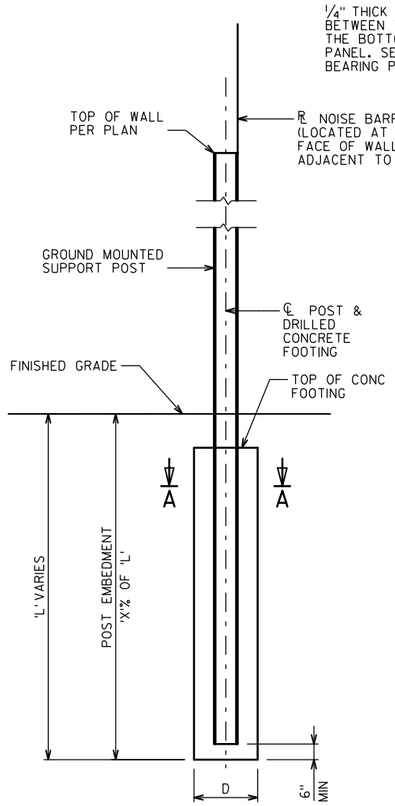
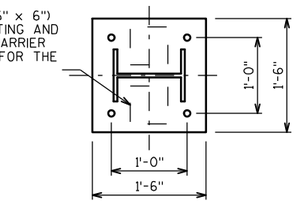
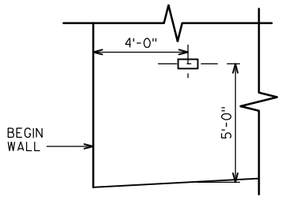


SECTION THRU GROUND MOUNTED POST & DRILLED CONC FOOTING

TYPICAL AT EACH POST LOCATION
(NOT TO SCALE)
('D', 'L' AND 'X' TO BE DETERMINED BY SUPPLIER)

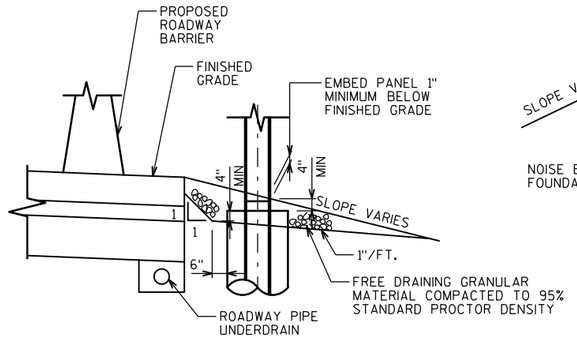


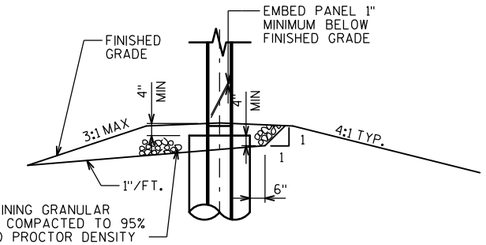
BASE PLATE DETAILS



NAME PLATE DETAIL

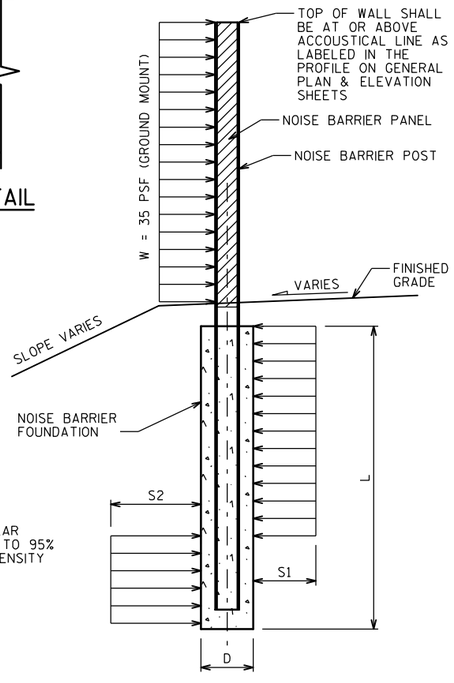
(NOT TO SCALE)





POST AND PANEL DRAINAGE BACKFILL DETAIL

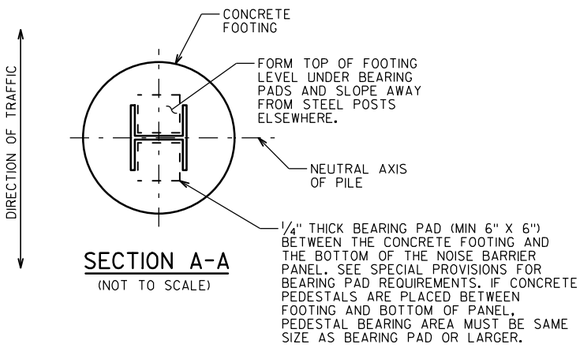
(NOT TO SCALE)



W = DESIGN WIND LOAD
L = NOISE BARRIER FOUNDATION DEPTH BELOW EXISTING GROUND
D = NOISE BARRIER FOUNDATION DIAMETER
S = ALLOWABLE SOIL PRESSURE

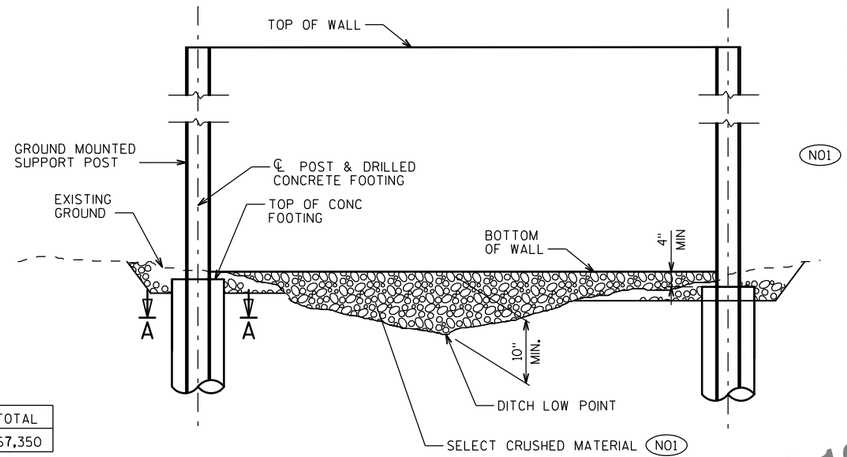
NOISE BARRIER LOADING DIAGRAM

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)



PARTIAL WALL ELEVATION OVER DITCH

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
541.0300.S.XXXX	NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-100	SF	67,350

ALL ITEMS ARE CATEGORY XXXX

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE FINISHED GRADE LINE AND THE ACOUSTICAL LINE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEETS.

THE ACOUSTICAL LINE IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100". NOISE BARRIER PLACED ABOVE THE ACOUSTICAL LINE WILL NOT BE MEASURED FOR PAYMENT.

THE FINISHED GRADE LINE IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100". NOISE BARRIER PLACED BELOW THE FINISHED GRADE LINE WILL NOT BE MEASURED FOR PAYMENT.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT "GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS", PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:
35 P.S.F. FOR GROUND MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1-INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM OF NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

A COMPRESSIBLE BEARING PAD OF 1/4" THICKNESS SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-100".

PRECAST CONCRETE PEDESTALS PLACED BETWEEN THE FOUNDATION AND BOTTOM PANELS SHALL BE REINFORCED IF OVER 1'-0" HIGH.

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, AND COATING OF STEEL POSTS AND CONNECTIONS UNDER THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100".

LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE GENERAL PLAN & ELEVATION SHEETS. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-101".

INSTALL FREE DRAINING GRANULAR MATERIAL ALONG THE ENTIRE LENGTH OF WALL AT THE BOTTOM OF NOISE BARRIERS AS SHOWN IN THE NOISE BARRIER PLANS AND AS REQUIRED TO FILL GAPS UNDER THE NOISE BARRIER PANEL. FREE DRAINING GRANULAR MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100".

THE SUBSURFACE INFORMATION PRESENTED IN THESE PLANS IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

ALL CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IS SUBJECT TO THE QMP REQUIREMENTS FOR CLASS II ANCILLARY CONCRETE. PERFORM QMP TESTING OF CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IN ACCORDANCE WITH SECTION 716 OF THE STANDARD SPECIFICATIONS FOR CLASS II ANCILLARY CONCRETE. QMP TESTING IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100".

HOTLINE ALL UTILITIES. IN AREAS WHERE EXISTING UTILITIES ARE WITHIN 3 FEET OF THE PROPOSED WALL, EXPOSE EXISTING UTILITIES PRIOR TO EXCAVATION.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY TEMPORARY GRADING DOES NOT IMPACT UTILITIES OR TO COORDINATE WITH AFFECTED UTILITIES TO ACCOMMODATE TEMPORARY GRADING.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100".

(NO1) PLACE SELECT CRUSHED MATERIAL IN DRAINAGE DITCH WHERE NOISE BARRIER CROSSES FLOW LINE. SELECT CRUSHED MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-100".

COORDINATE THE DRILLING OF CONCRETE FOOTING WITH CONSTRUCTION OF PROPOSED ROADWAY, ROADWAY BARRIER, INSTALLATION OF ROADWAY PIPE UNDERDRAIN AND INSTALLATION OF PROPOSED STORM SEWER.

STATE PROJECT NUMBER
1229-04-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY NNM | PLANS CK'D. EAJ

QUANTITIES, NOTES & CONSTRUCTION DETAILS

SHEET 9 OF 19

FOR 1078 SUBMITTAL

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STATE PROJECT NUMBER
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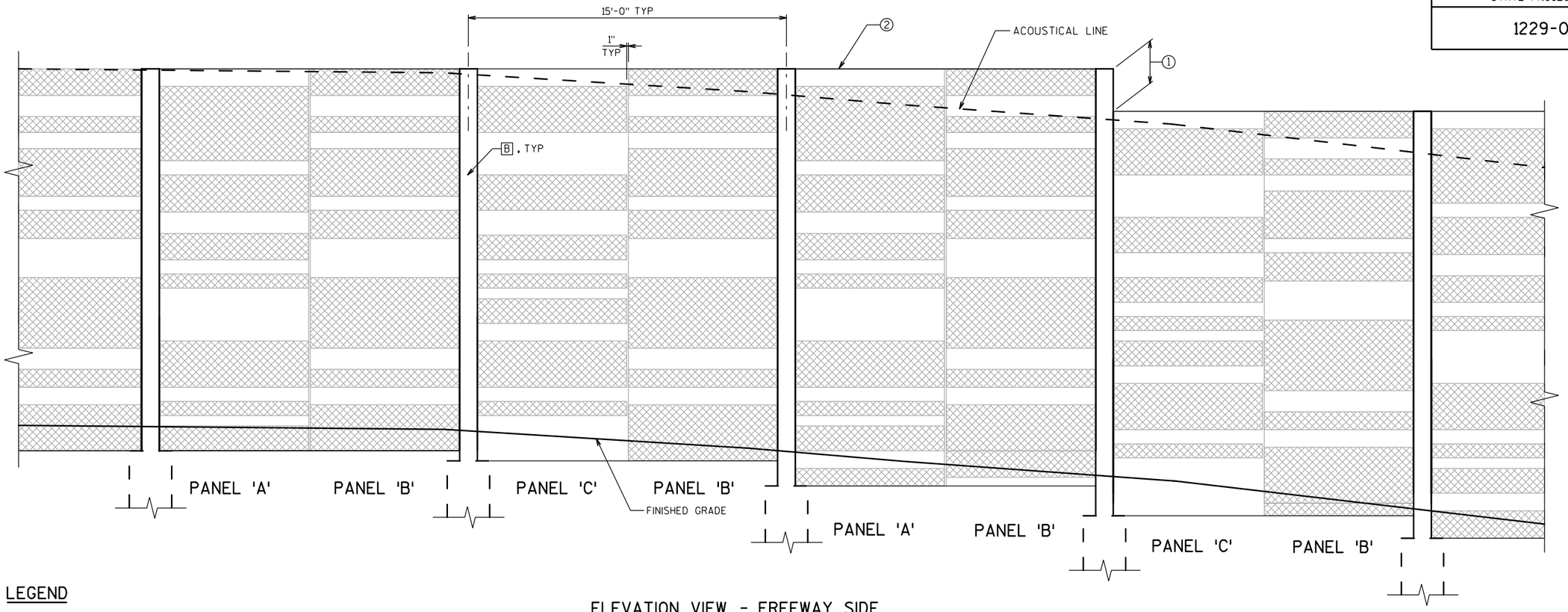


LEGEND

B POST PAINT COLOR

(1) STEP PANELS IN INCREMENTS OF 2'-0"'. STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

(2) ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

(3) 0.5 X (POST SPA - POST FLANGE WIDTH - 1")

PANEL THICKNESS + 0"

PANEL THICKNESS - ¾" MIN, 1" MAX

STAIN COLORS

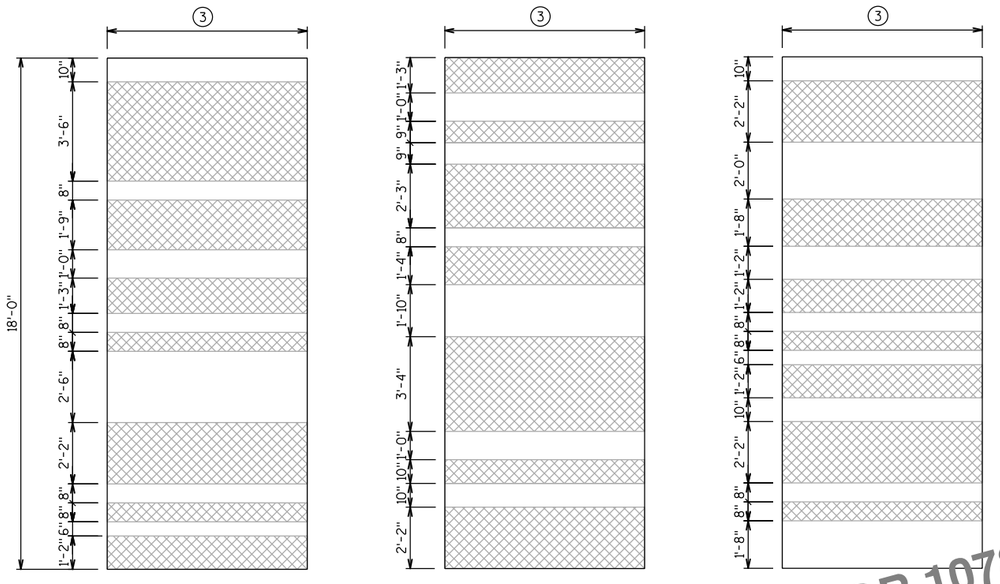
THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

NOTES

ALTERNATE PANEL PATTERNS AS SHOWN. DO NOT PLACE SAME PATTERN HORIZONTALLY ADJACENT TO EACH OTHER.

THE PATTERNS SHALL REPEAT VERTICALLY STARTING FROM THE TOP OF WALL AND WORKING DOWNWARD IF WALL HEIGHT GREATER 18'-0" IS REQUIRED.

ELEVATION VIEW - FREEWAY SIDE



PANEL 'A' PATTERN

PANEL 'B' PATTERN

PANEL 'C' PATTERN

FOR 1078 SUBMITTAL

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STATE OF WISCONSIN
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STRUCTURE N-40-100

DRAWN BY NNM | PLANS CK'D. EAJ

AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE

SHEET 10 OF 19

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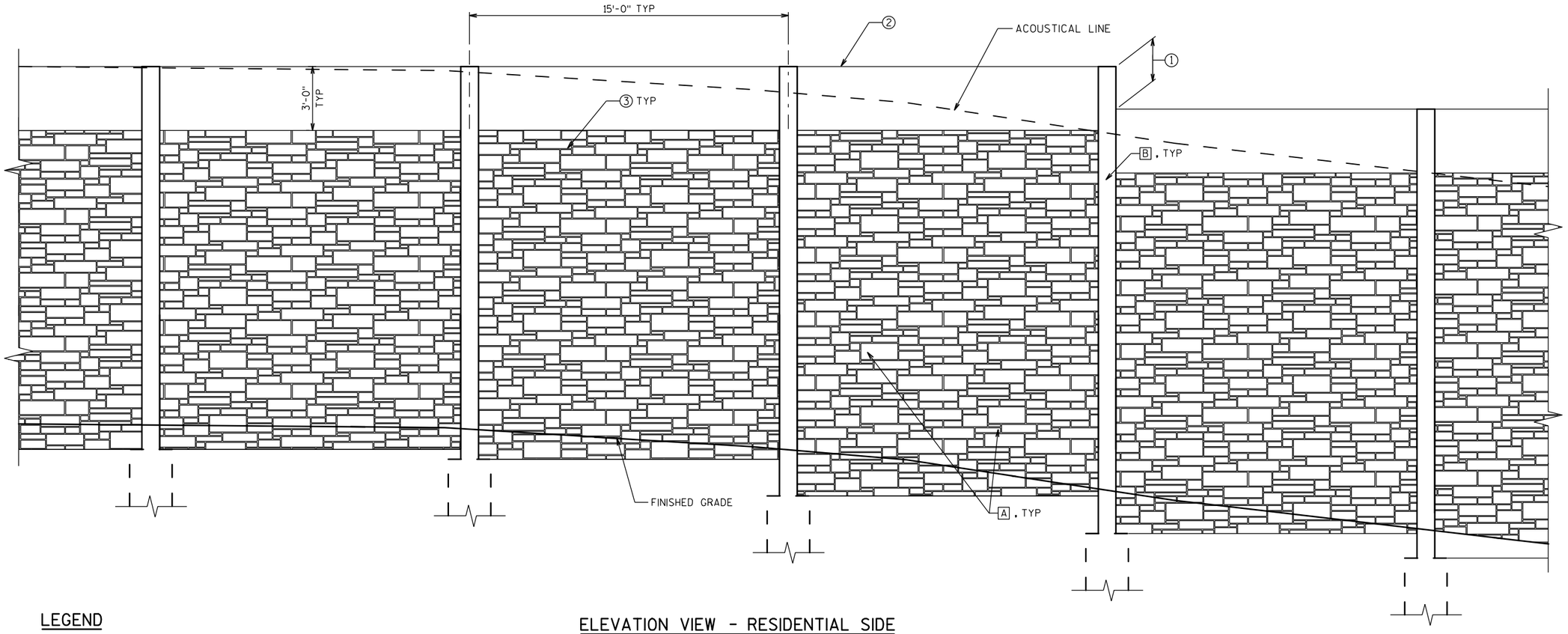
STATE PROJECT NUMBER
1229-04-73



ELEVATION VIEW - RESIDENTIAL SIDE

LEGEND

B POST PAINT COLOR

① STEP PANELS IN INCREMENTS OF 2'-0". STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

② ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

③ THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A "RANDOM SPLIT EDGE ASHLAR" PATTERN. THE PATTERN SHALL CONSIST OF RANDOM SIZED PIECES RANGING FROM A MINIMUM OF 1½" HIGH BY 4" LONG TO A MAXIMUM OF 10" HIGH BY 31" LONG WITH A MAXIMUM RELIEF 1½".

STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

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STRUCTURE N-40-100

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AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-01	10/19/20	340420	604302
NIC-02	10/19/20	340730	604306
NIC-03	10/19/20	341039	604307

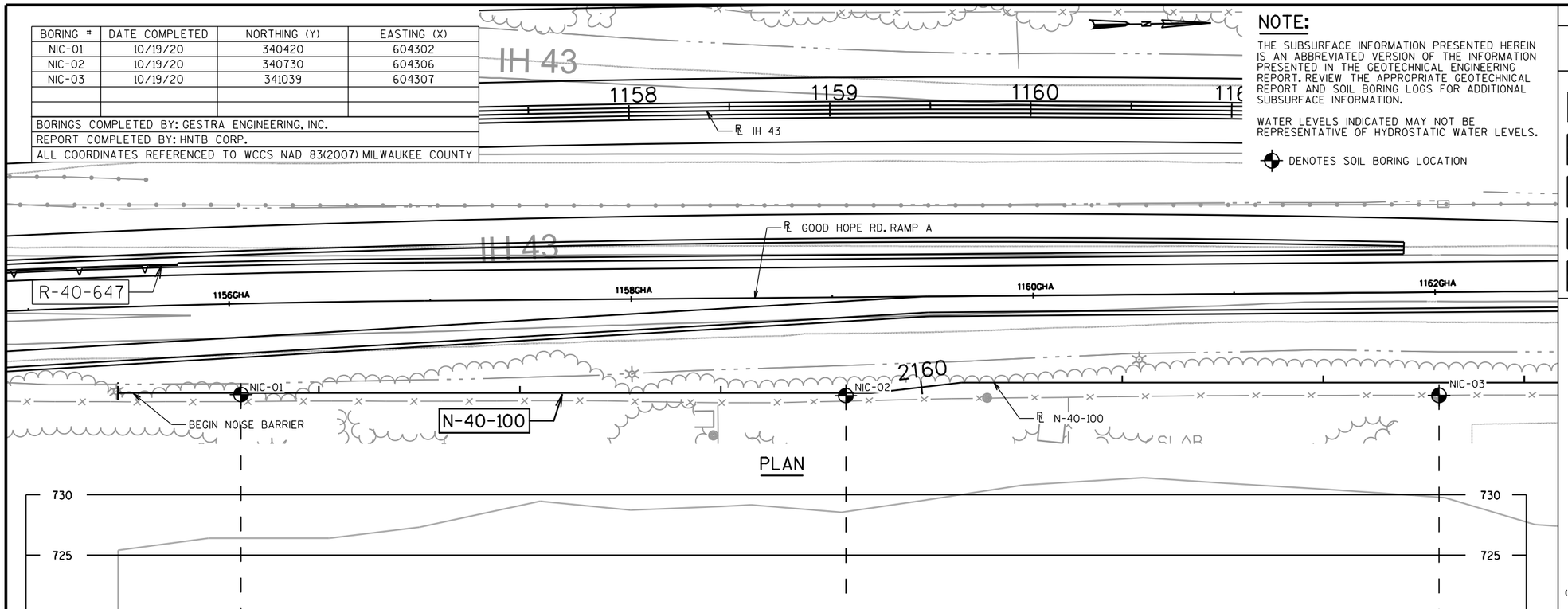
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

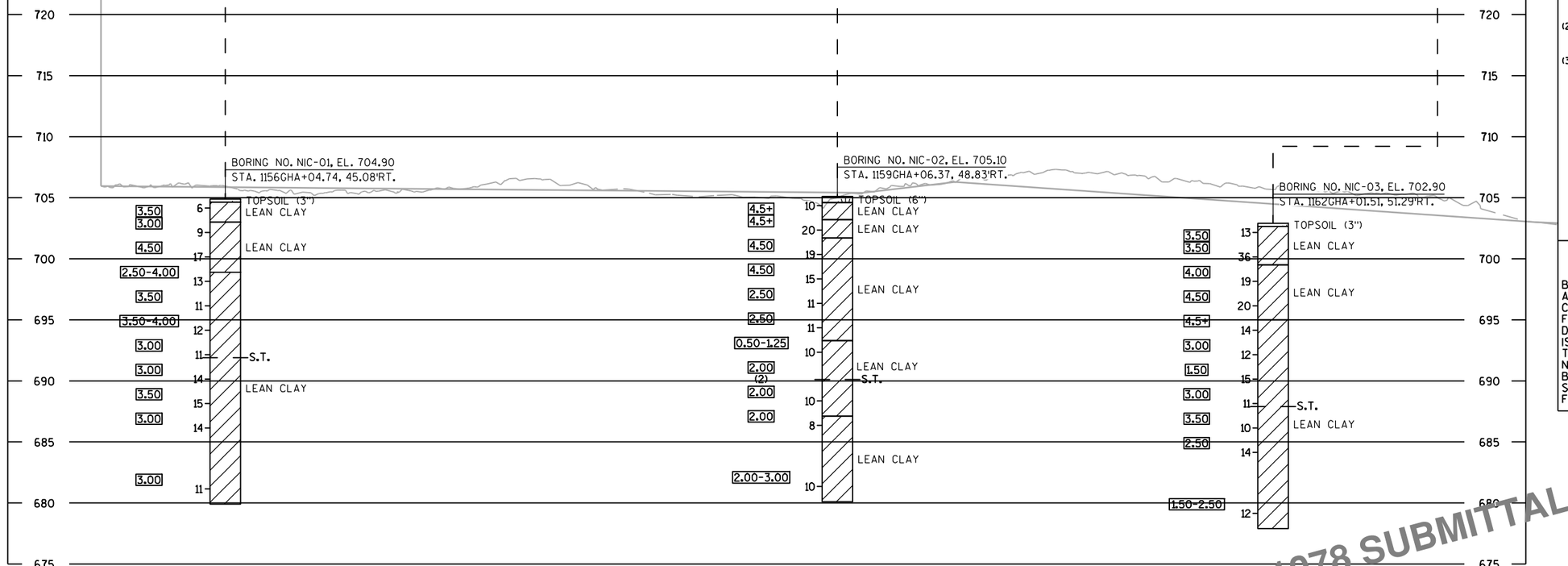
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

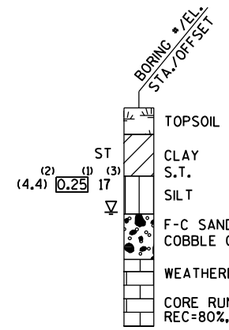
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (1 OF 8)

SHEET 12 OF 19

FOR 1078 SUBMITTAL

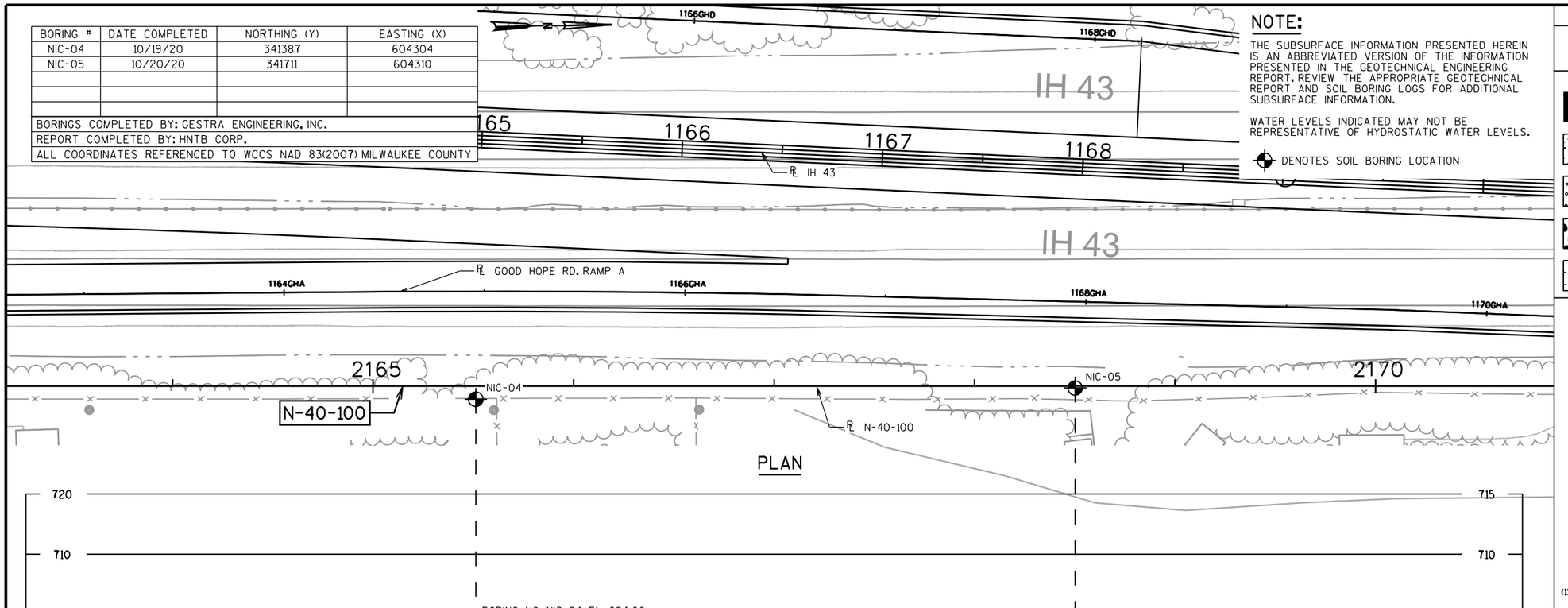
8

8

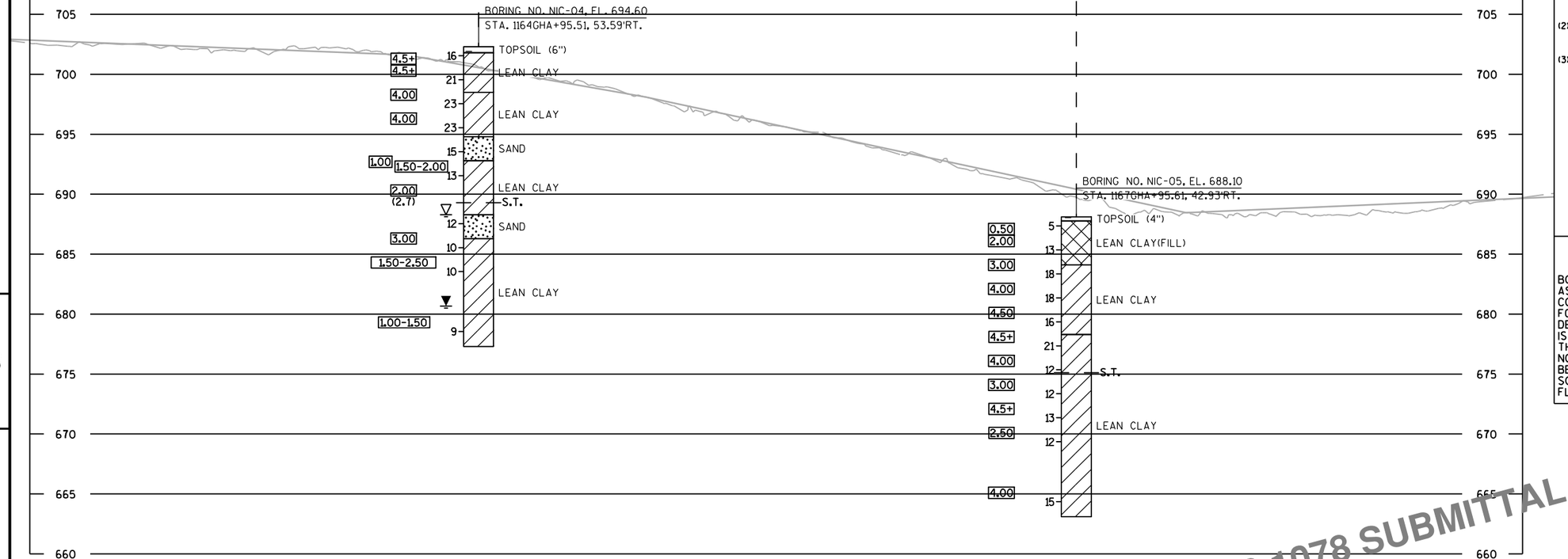
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080201_se.dgn PLOT DATE : 9/28/2021 1:07:00 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-04	10/19/20	341387	604304
NIC-05	10/20/20	341711	604310

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY



PLAN



ELEVATION

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WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

⊕ DENOTES SOIL BORING LOCATION

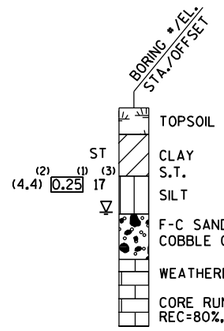
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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ABBREVIATIONS

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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (2 OF 8)

SHEET 13 OF 19

FOR 1078 SUBMITTAL

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080202_se.dgn PLOT DATE : 9/28/2021 1:07:13 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-06	10/20/20	341999	604323
NIC-07	10/21/20	342263	604330
NIC-08	10/21/20	342597	604330

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

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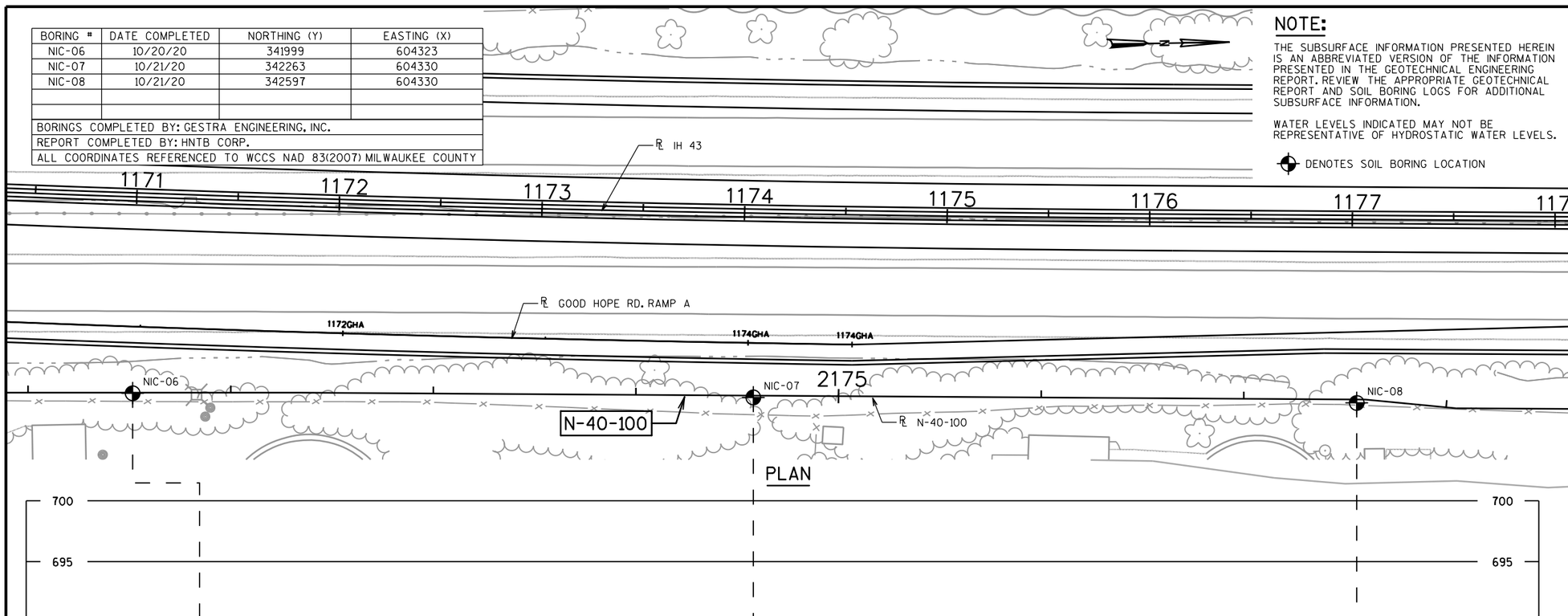
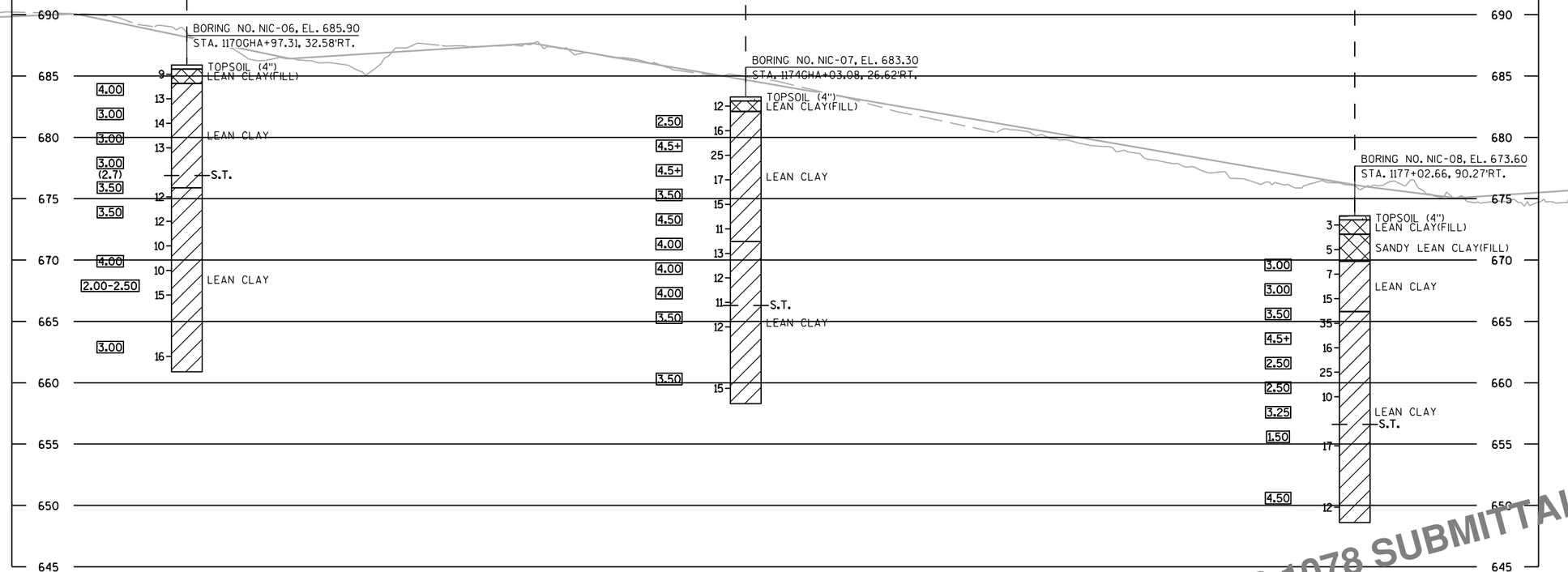
DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

FOR 1078 SUBMITTAL

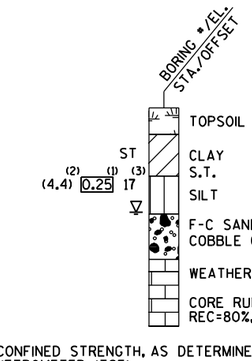
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (3 OF 8)

SHEET 14 OF 19

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-09	10/21/20	342880	604331
NIC-10	10/21/20	343183	604334

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

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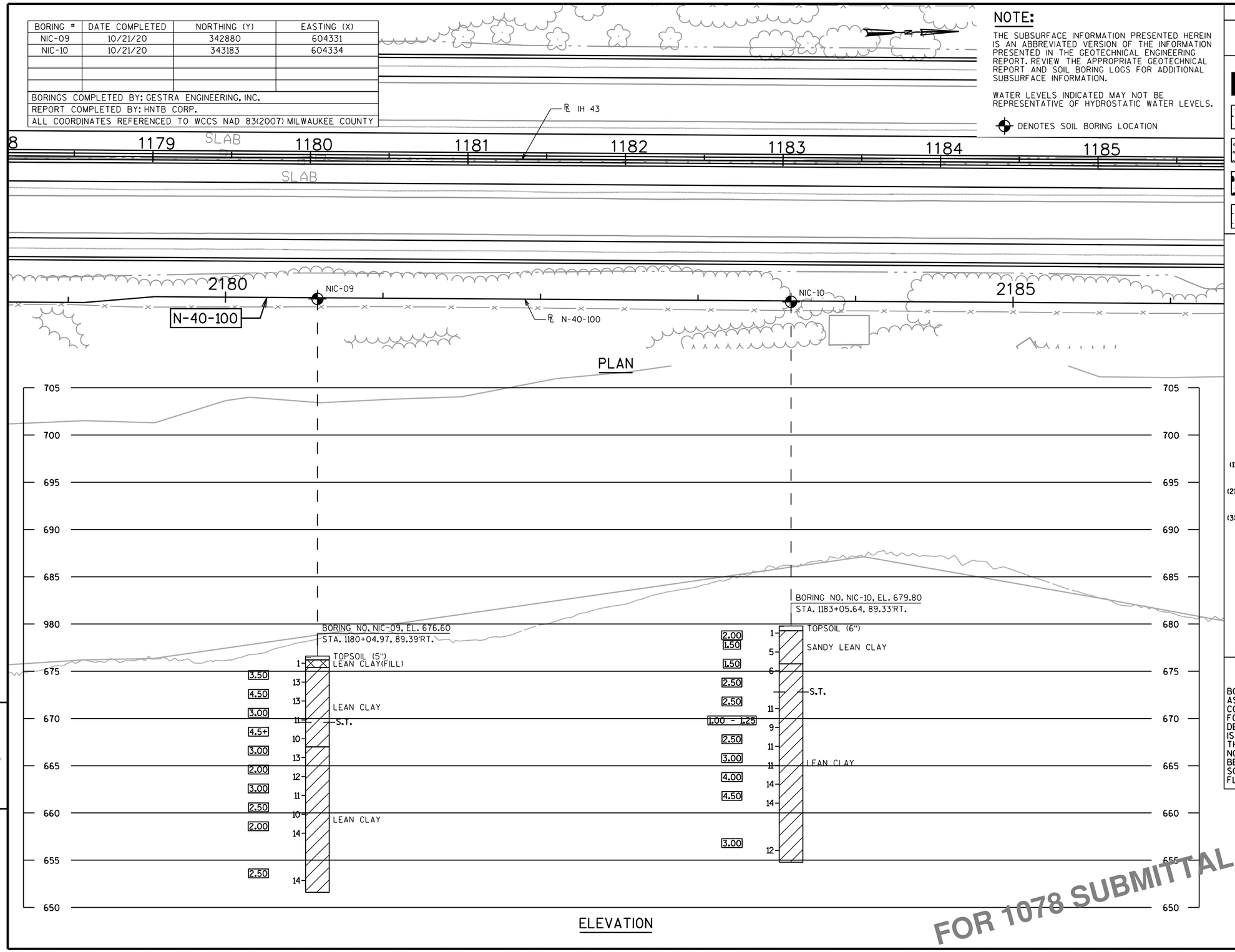


FOR 1078 SUBMITTAL

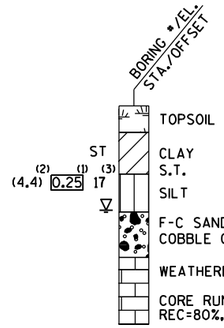
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (4 OF 8)

SHEET 15 OF 19

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080204_se.dgn PLOT DATE : 9/28/2021 1:07:58 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-11	10/21/20	343491	604347
NIC-12	10/26/20	343815	604364
NIC-13	10/26/20	344126	604356

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
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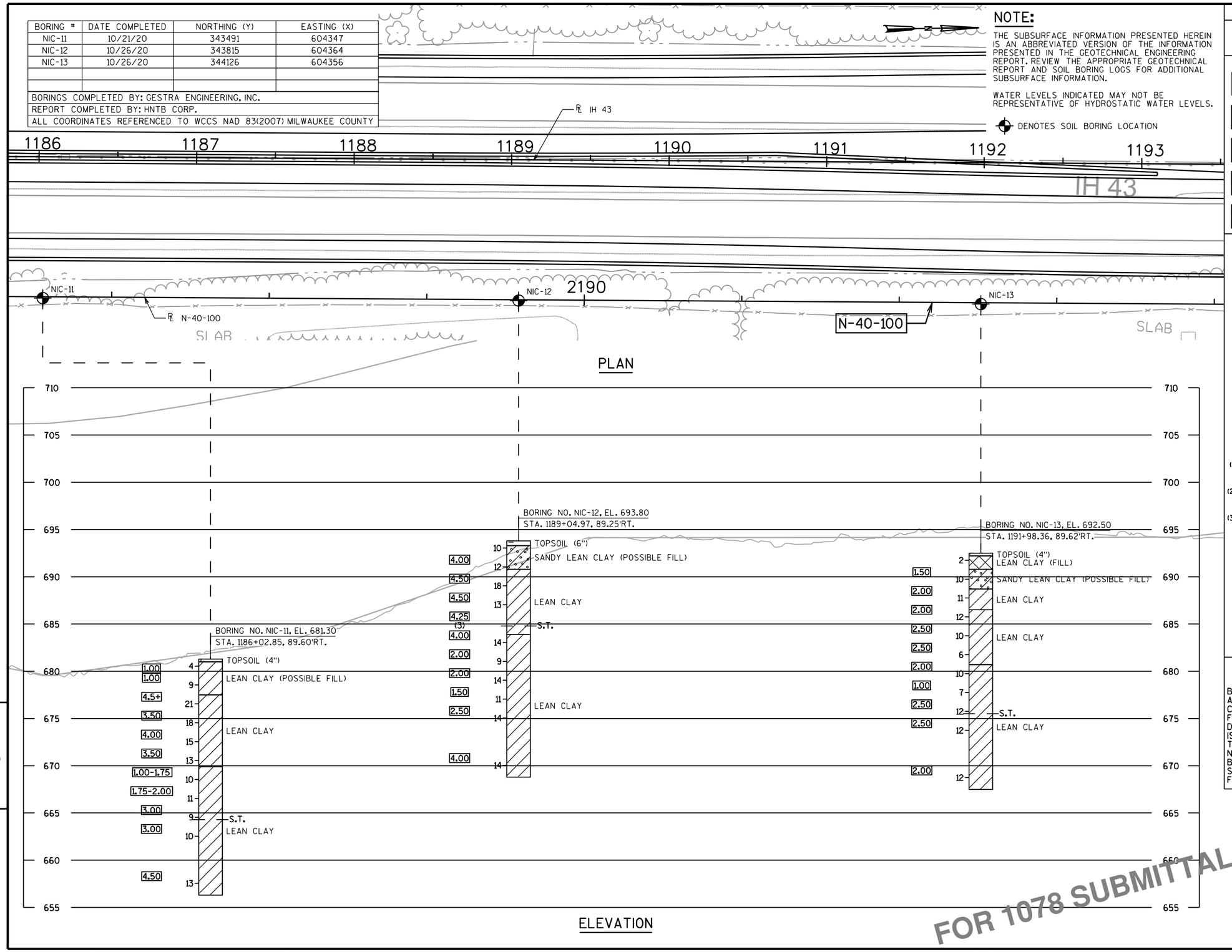

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
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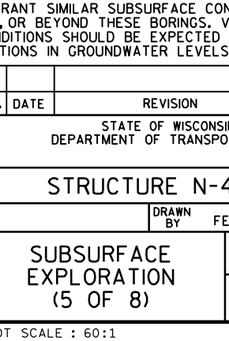
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (5 OF 8)

SHEET 16 OF 19

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-14	10/26/20	344560	604371
NIC-15	10/27/20	344860	604372
NIC-16	10/27/20	345134	604390

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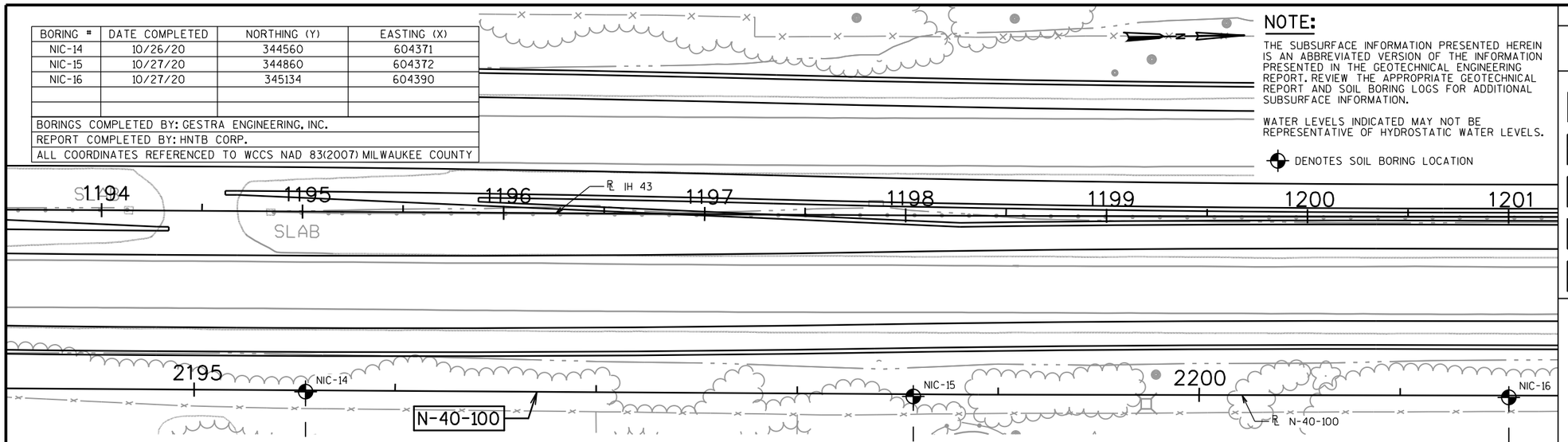
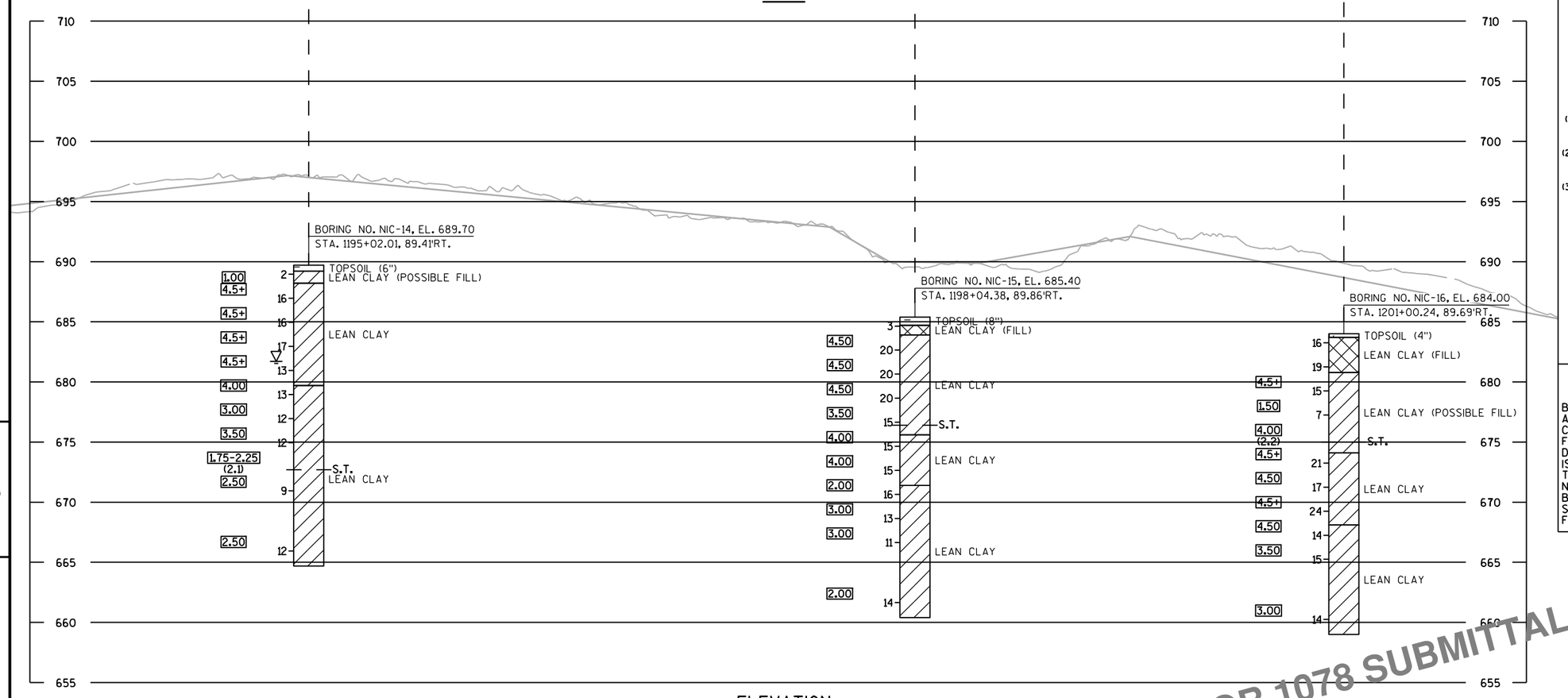


PLAN



ELEVATION

FOR 1078 SUBMITTAL

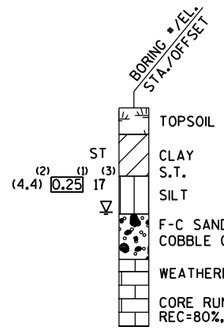
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (6 OF 8)

SHEET 17 OF 19

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080206_se.dgn PLOT DATE : 9/28/2021 1:08:22 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-17	10/27/20	345382	604389
NIC-18	10/27/20	345680	604383

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

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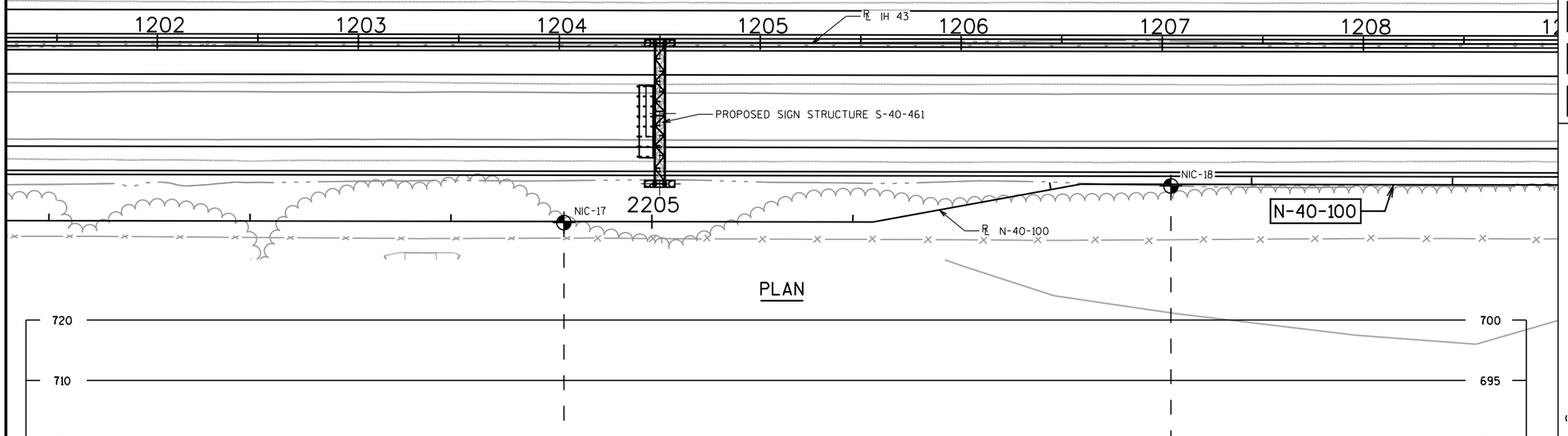
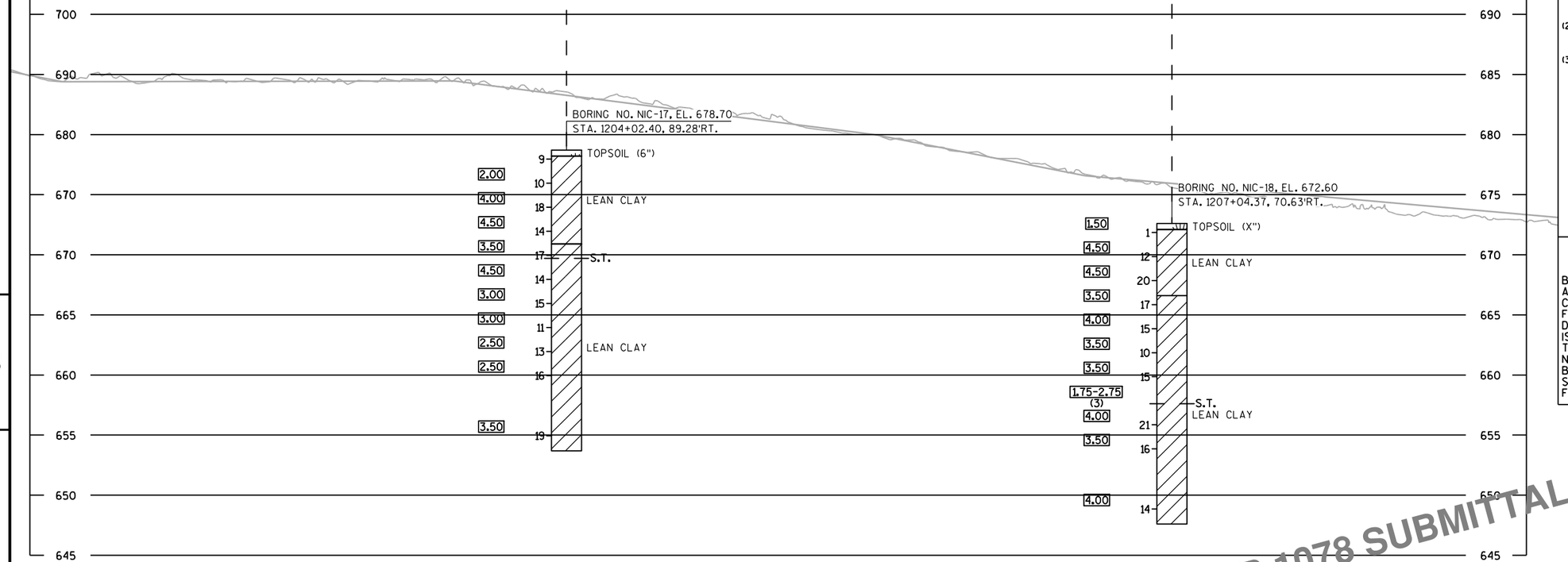


PLAN



ELEVATION

STATE PROJECT NUMBER
1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
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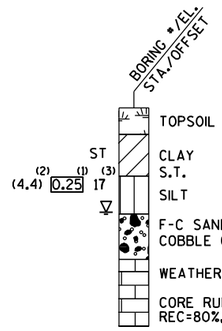

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(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY	FEG	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION (7 OF 8)

SHEET 18 OF 19

FOR 1078 SUBMITTAL

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080207_se.dgn PLOT DATE : 9/28/2021 1:08:32 PM PLOT BY : ejelinek PLOT SCALE : 60:1

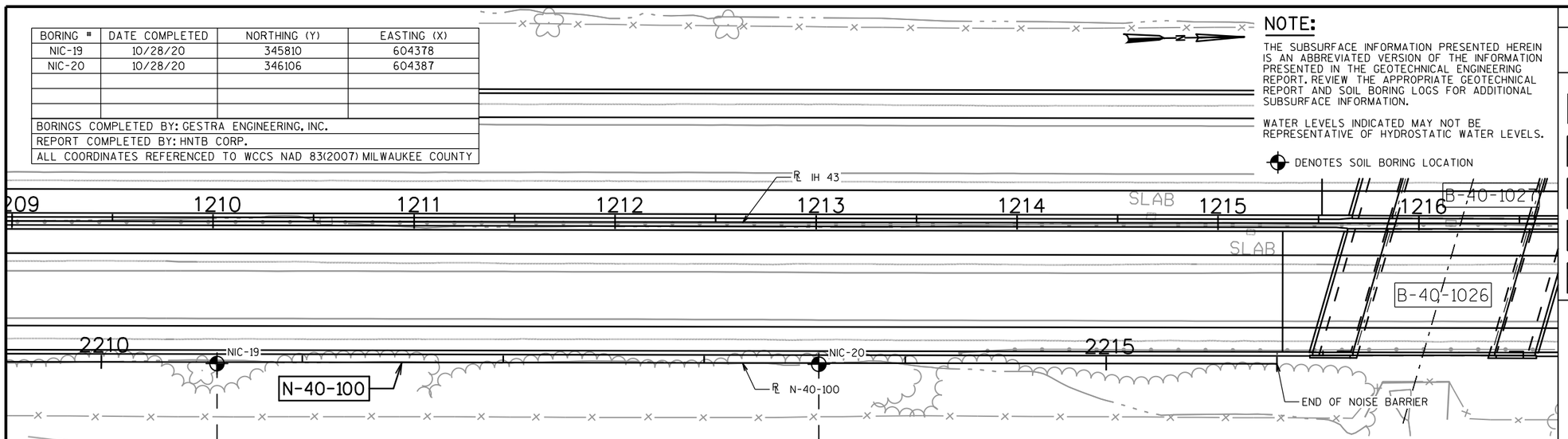
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NIC-19	10/28/20	345810	604378
NIC-20	10/28/20	346106	604387
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

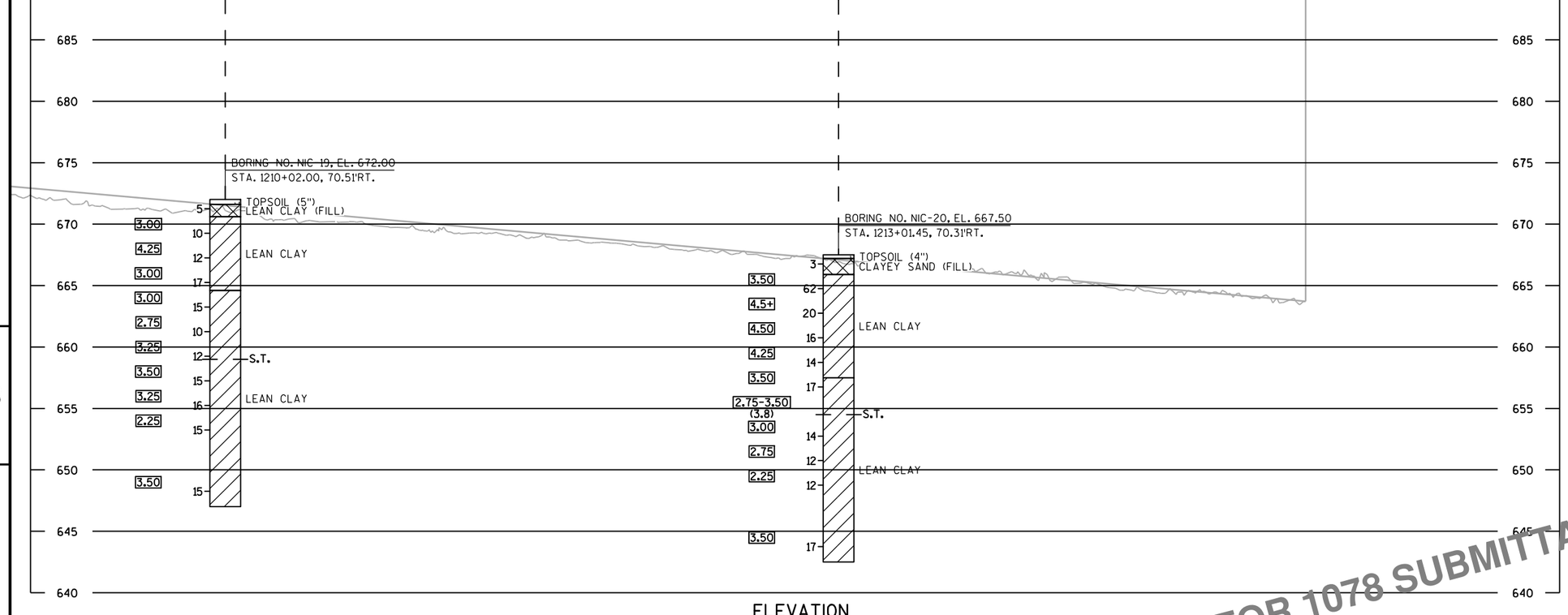
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

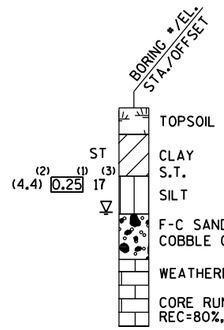
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-100

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (8 OF 8)

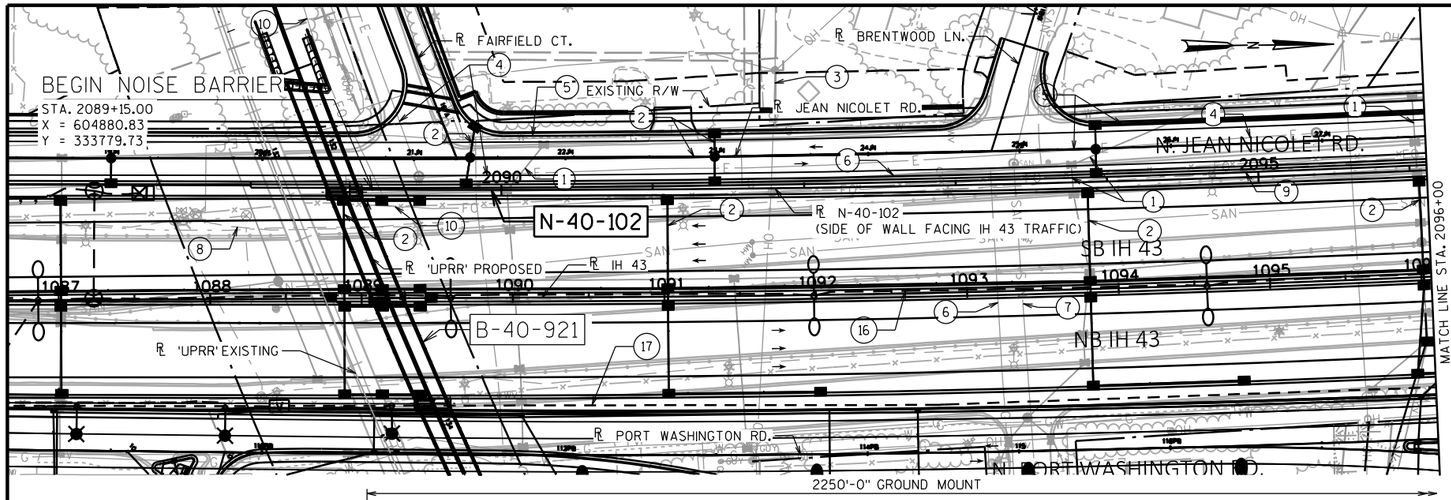
SHEET 19 OF 19

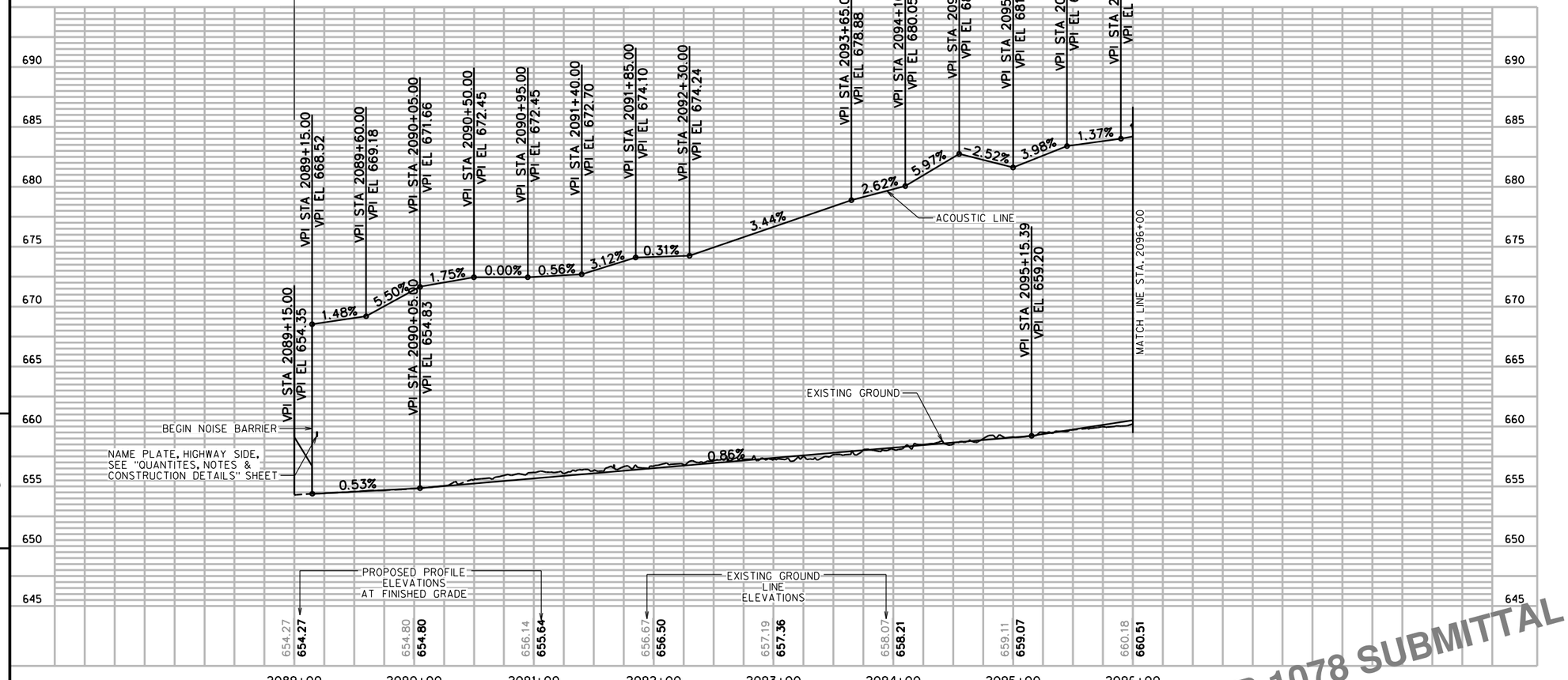
FOR 1078 SUBMITTAL

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-100_IndCrS\cds\N100_080208_se.dgn PLOT DATE : 9/28/2021 1:48:58 PM PLOT BY : ejelinek PLOT SCALE : 60:1





PLAN & PROFILE: NOISE BARRIER N-40-102

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 3)
2. GENERAL PLAN & ELEVATION (2 OF 3)
3. GENERAL PLAN & ELEVATION (3 OF 3)
4. ALIGNMENT PLAN
5. QUANTITIES, NOTES & CONSTRUCTION DETAILS
6. AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE
7. AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE
8. SUBSURFACE EXPLORATION (1 OF 3)
9. SUBSURFACE EXPLORATION (2 OF 3)
10. SUBSURFACE EXPLORATION (3 OF 3)

UTILITY & STORM SEWER LEGEND

(1) EXISTING DRAINAGE STRUCTURE TO BE REMOVED
(2) PROPOSED WISDOT STORM SEWER
(3) EXISTING OVERHEAD ELECTRIC TO BE RELOCATED
(4) EXISTING UNDERGROUND ELECTRIC TBD
(5) EXISTING UNDERGROUND WATER TO BE RELOCATED
(6) EXISIITING UNDERGROUND GAS DISCONTINUED
(7) EXISTING UNDERGROUND SANITARY LINE TBD
(8) EXISTING LIGHTING CONDUIT TO BE RELOCATED
(9) EXISTING FTMS CONDUIT TO BE RELOCATED
(10) EXISTING CENTURYLINK FIBER OPTIC TBD
(16) PROPOSED WISDOT FTMS
(17) PROPOSED WISDOT LIGHTING

STATE PROJECT NUMBER

1229-04-73

NOTES

SEE "ALIGNMENT PLAN" SHEET FOR GEOMETRY INFORMATION.

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE N-40-102

NOISE BARRIER ALONG IH 43 AT CLOVERNOOK

COUNTY MILWAUKEE | ~~TOWN~~/CITY/~~VILLAGE~~ GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY XXX	DESIGN CK'D. XXX	DRAWN BY NNM	PLANS CK'D. EAJ

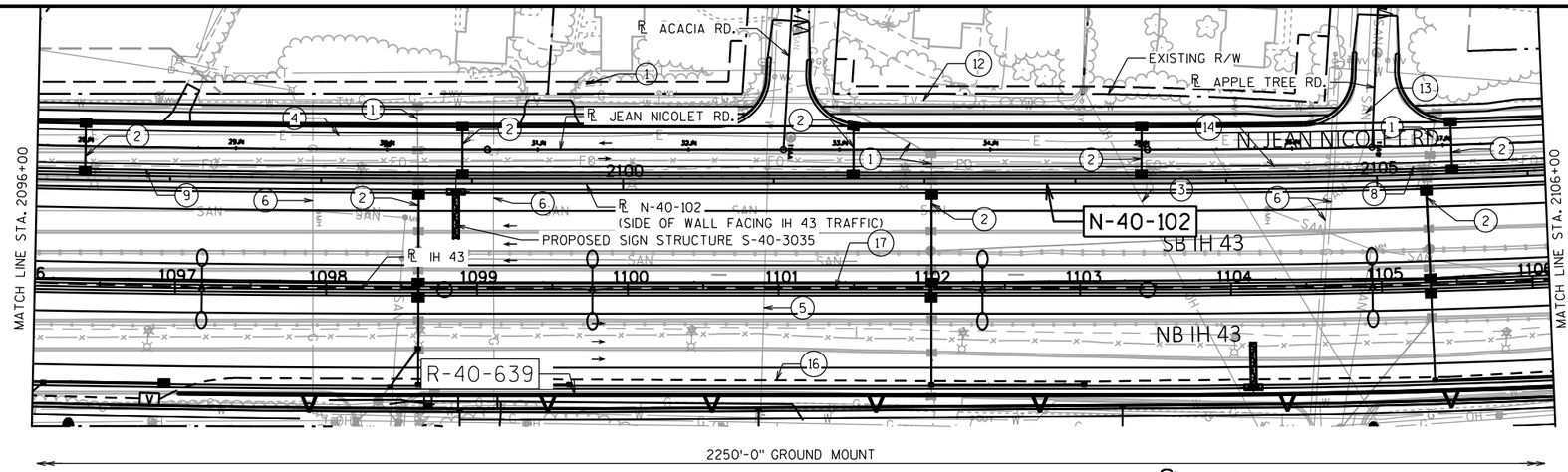
GENERAL PLAN & ELEVATION (1 OF 3)

SHEET 1 OF 10

FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080101_gp.dgn PLOT DATE : 9/28/2021 1:59:20 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



UTILITY & STORM SEWER LEGEND

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2. PROPOSED WISDOT STORM SEWER
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6. EXISTING UNDERGROUND GAS DISCONTINUED
8. EXISTING LIGHTING CONDUIT TO BE RELOCATED
9. EXISTING FTMS CONDUIT TO BE RELOCATED
11. EXISITING UNDERGROUND GAS TO BE RELOCATED
12. EXISTING UNDERGROUND TELEPHONE
13. EXISTING UNDERGROUND SANITARY MMSD TO REMAIN
14. EXISTING CENTURYLINK FIBER OPTIC TBD
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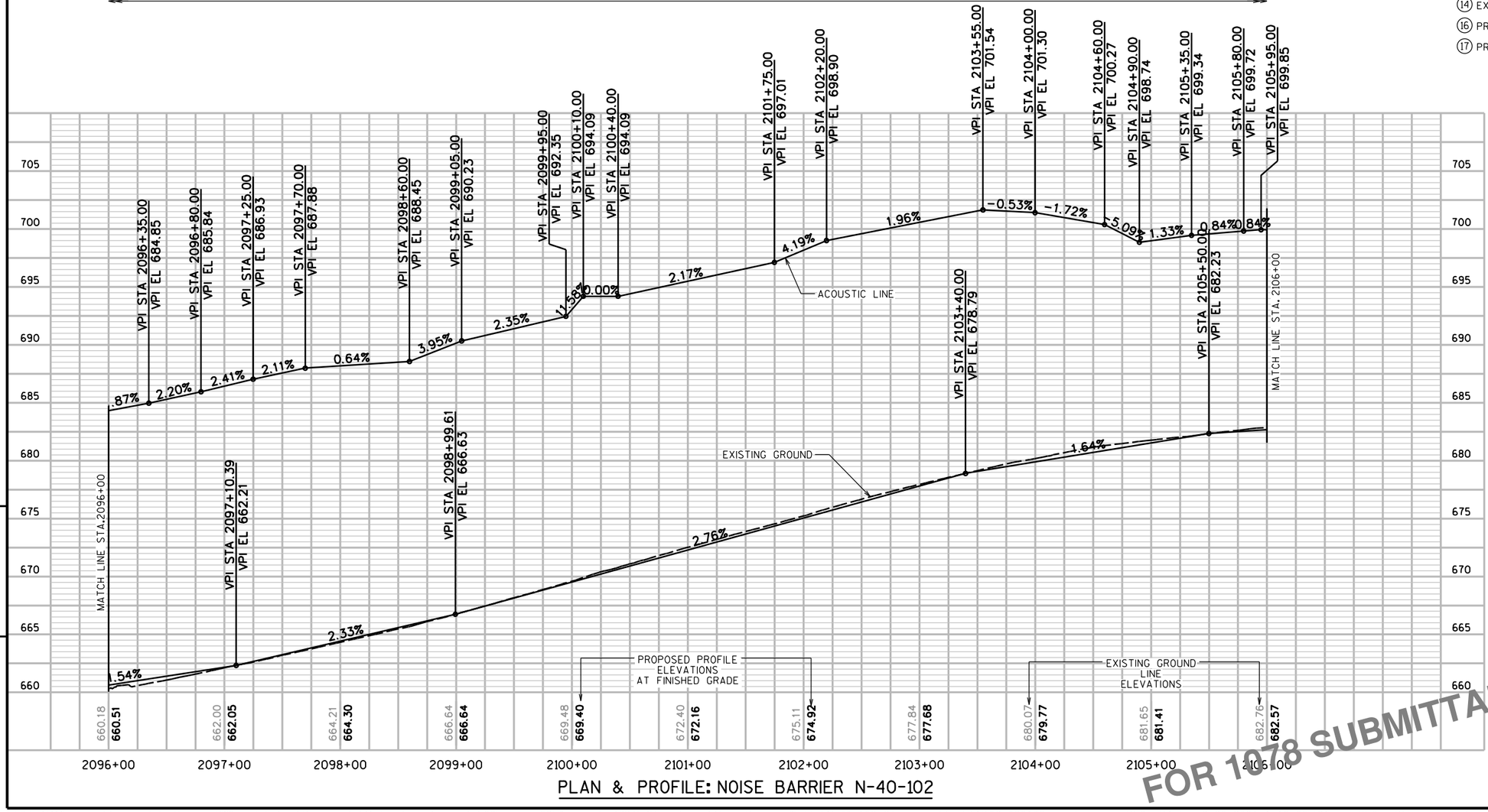
LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-102

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

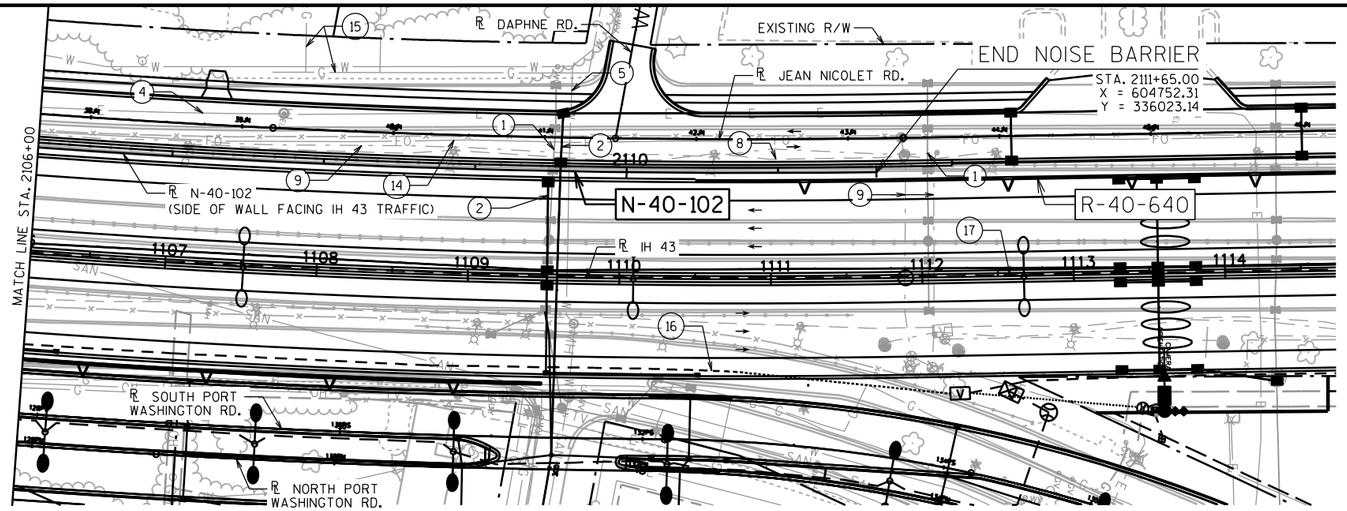
DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 3)

SHEET 2 OF 10

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080102_gp.dgn PLOT DATE : 9/28/2021 1:12:06 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



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NOTES

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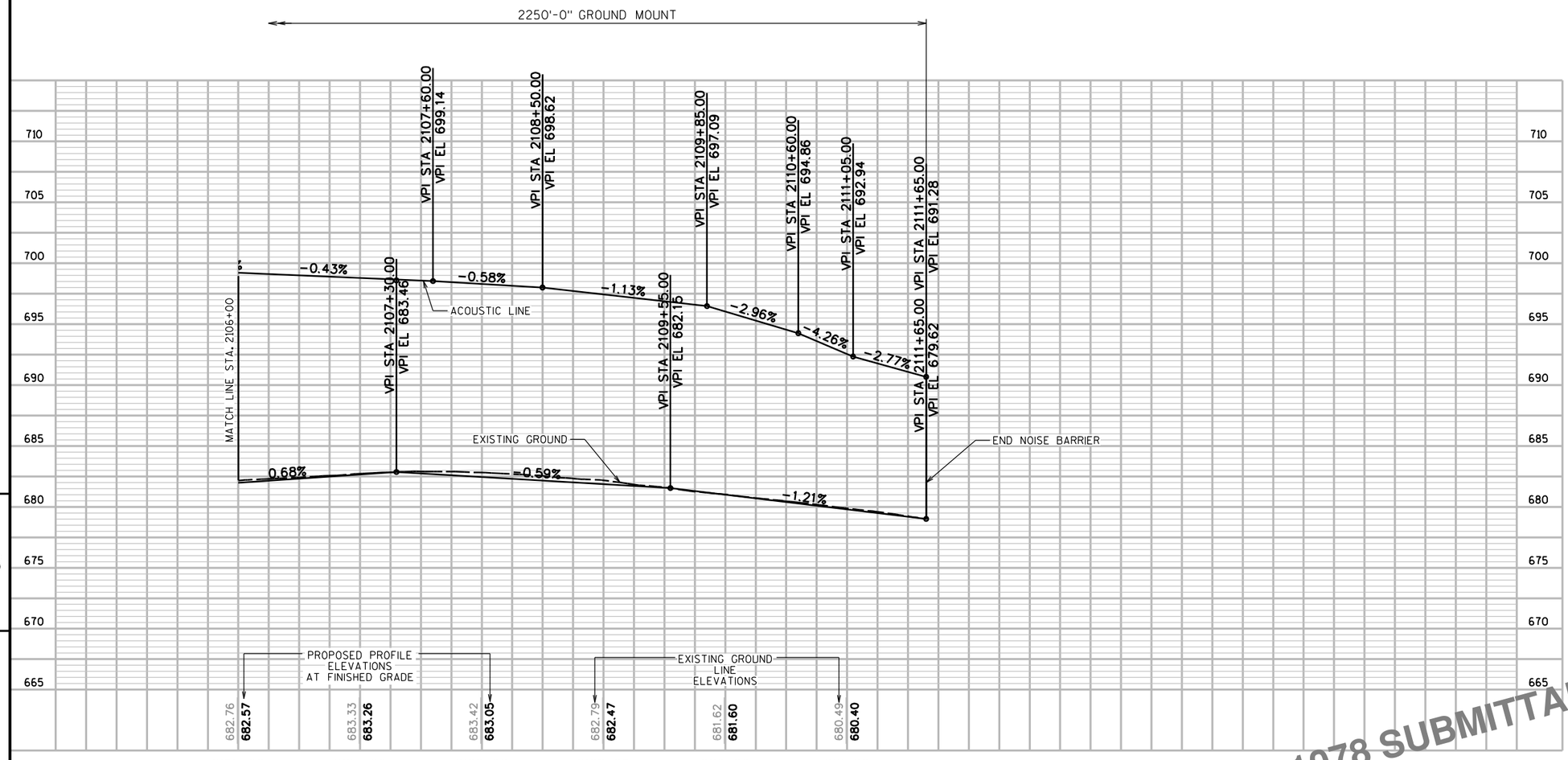
LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

LEGEND

→ TRAFFIC DIRECTION



PLAN & PROFILE: NOISE BARRIER N-40-102

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (3 OF 3)

SHEET 3 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080103_gp.dgn PLOT DATE : 9/28/2021 1:12:26 PM PLOT BY : ejelinek PLOT SCALE : 100:1

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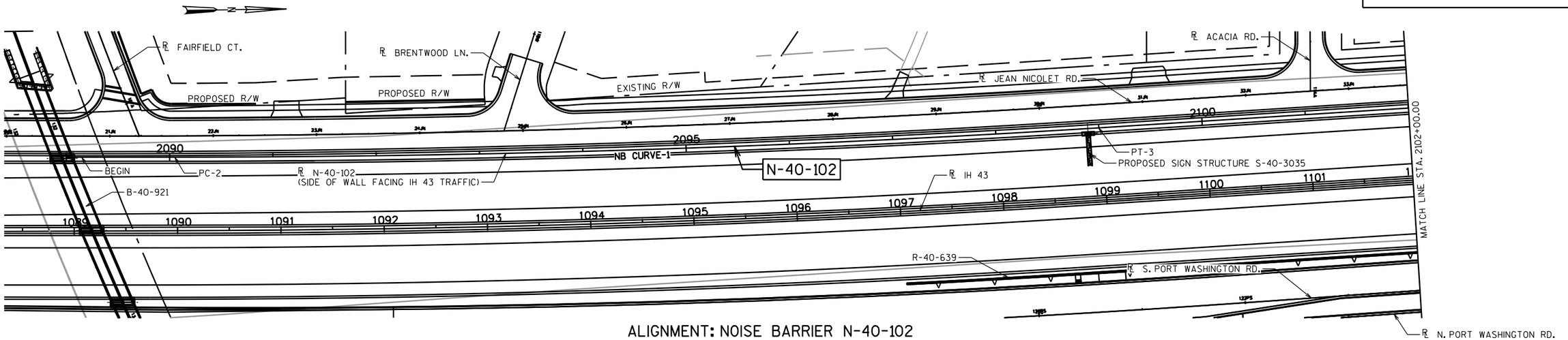
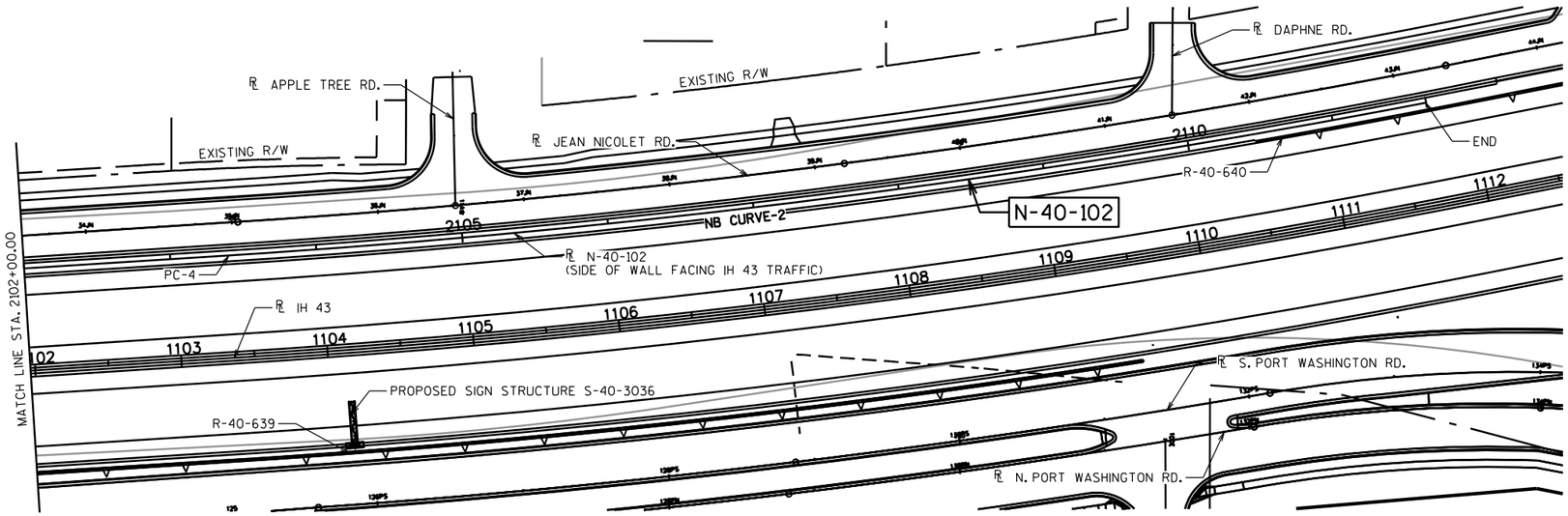


ALIGNMENT: NOISE BARRIER N-40-102



ALIGNMENT: NOISE BARRIER N-40-102

8

8

ALIGNMENT DATA

LABEL	STATION	X	Y	BEARING
BEGIN	2089+15.00	604880.83	333779.73	NO°49'35.4"E
PC-2	2090+05.00	604882.13	333869.72	----
PT-3	2098+99.61	604866.56	334764.04	----
PC-4	2103+40.00	604844.88	335203.90	N2°49'16.32"W
END	2111+65.00	604752.31	336023.14	----

HORIZONTAL CURVE DATA

NB CURVE-1

P.I. = 2094+52.46
X = 604888.58
Y = 334317.13
Δ = 3° 38' 51.72" LT.
D = 0° 24' 27.87"
T = 447.46'
L = 894.61'
R = 2,320.83'
P.C. = 2090+05.00
X = 604882.13
Y = 333869.72
P.T. = 2098+99.61
X = 604866.56
Y = 334764.0

NB CURVE-2

P.I. = 2107+53.05
X = 604824.55
Y = 335616.45
Δ = 7° 15' 08.28" LT.
D = 0° 00' 03.16"
T = 413.05'
L = 825.00'
R = 6,517.83'
P.C. = 2103+40.00
X = 604844.88
Y = 335203.90
P.T. = 2111+65.00
X = 604752.31
Y = 336023.14

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

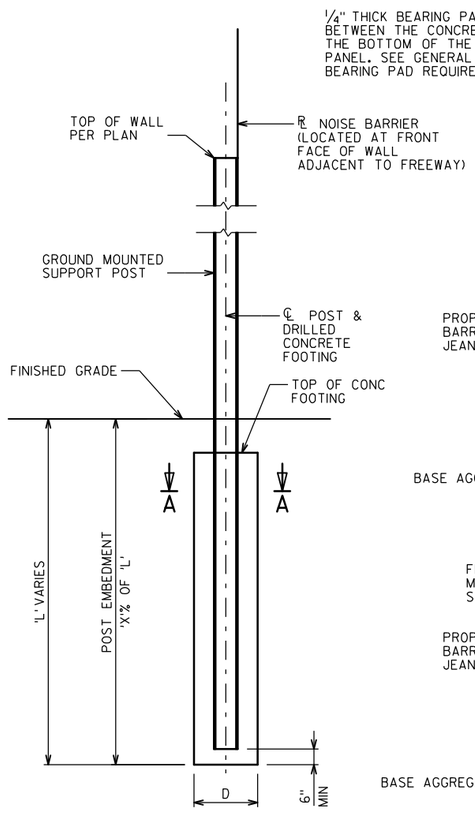
STRUCTURE N-40-102

DRAWN BY NNM | PLANS CK'D. EAJ

ALIGNMENT PLAN

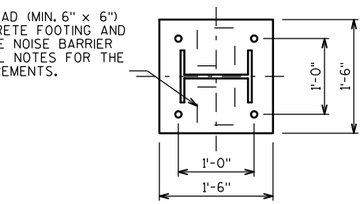
SHEET 4 OF 10

STATE PROJECT NUMBER
1229-04-73

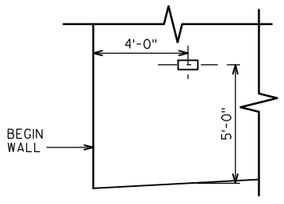


SECTION THRU GROUND MOUNTED POST & DRILLED CONC FOOTING

TYPICAL AT EACH POST LOCATION
(NOT TO SCALE)
('D', 'L' AND 'X' TO BE DETERMINED BY SUPPLIER)

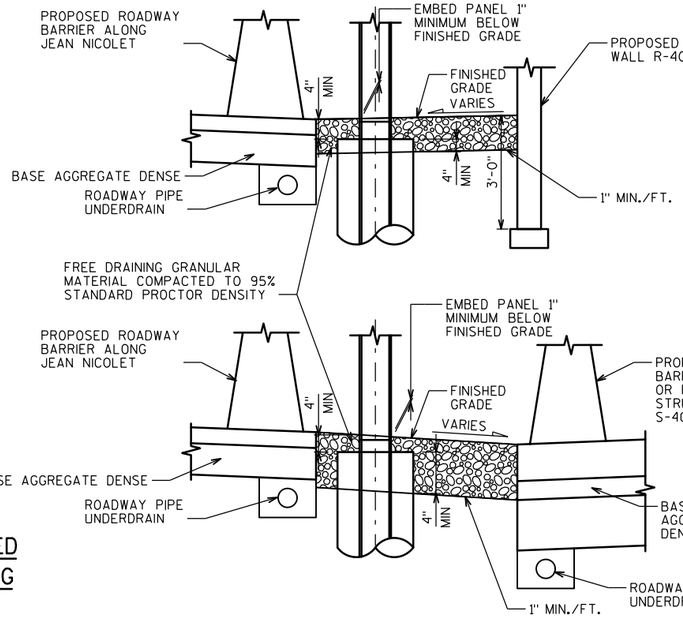


BASE PLATE DETAILS



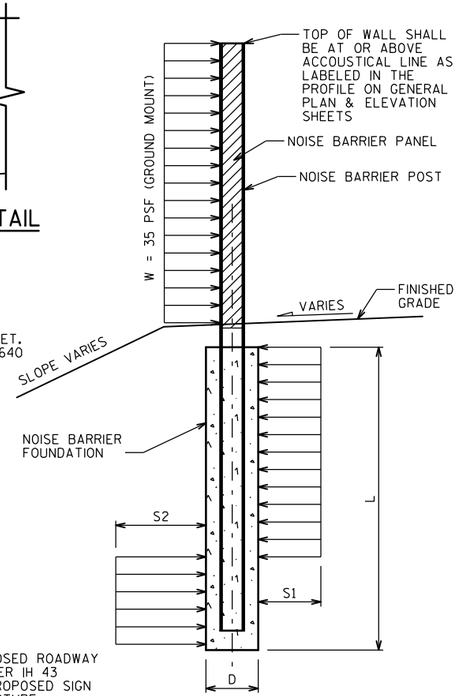
NAME PLATE DETAIL

(NOT TO SCALE)



POST AND PANEL DRAINAGE BACKFILL DETAILS

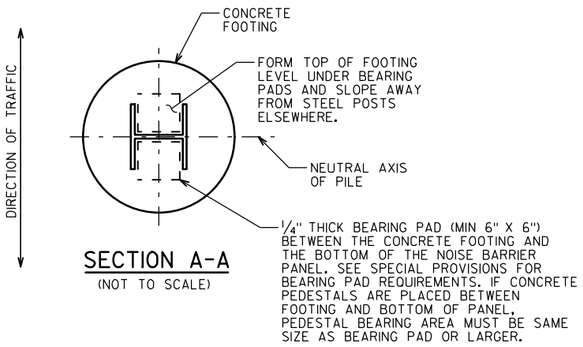
(NOT TO SCALE)



W = DESIGN WIND LOAD
L = NOISE BARRIER FOUNDATION DEPTH BELOW EXISTING GROUND
D = NOISE BARRIER FOUNDATION DIAMETER
S = ALLOWABLE SOIL PRESSURE

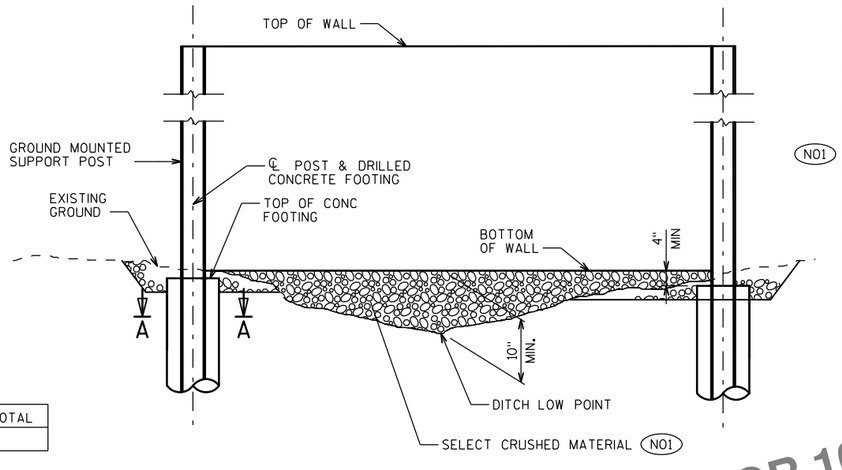
NOISE BARRIER LOADING DIAGRAM

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)



PARTIAL WALL ELEVATION OVER DITCH

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
541.0300.S.XXX	NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-102	SF	

ALL ITEMS ARE CATEGORY XXXX

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE FINISHED GRADE LINE AND THE ACOUSTICAL LINE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEETS.

THE ACOUSTICAL LINE IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102". NOISE BARRIER PLACED ABOVE THE ACOUSTICAL LINE WILL NOT BE MEASURED FOR PAYMENT.

THE FINISHED GRADE LINE IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102". NOISE BARRIER PLACED BELOW THE FINISHED GRADE LINE WILL NOT BE MEASURED FOR PAYMENT.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT "GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS", PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:
35 P.S.F. FOR GROUND MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1-INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM OF NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

A COMPRESSIBLE BEARING PAD OF 1/4" THICKNESS SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-102".

PRECAST CONCRETE PEDESTALS PLACED BETWEEN THE FOUNDATION AND BOTTOM PANELS SHALL BE REINFORCED IF OVER 1'-0" HIGH.

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, AND COATING OF STEEL POSTS AND CONNECTIONS UNDER THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102".

LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE GENERAL PLAN & ELEVATION SHEETS. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-102".

INSTALL FREE DRAINING GRANULAR MATERIAL ALONG THE ENTIRE LENGTH OF WALL AT THE BOTTOM OF NOISE BARRIERS AS SHOWN IN THE NOISE BARRIER PLANS AND AS REQUIRED TO FILL GAPS UNDER THE NOISE BARRIER PANEL. FREE DRAINING GRANULAR MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102".

THE SUBSURFACE INFORMATION PRESENTED IN THESE PLANS IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

ALL CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IS SUBJECT TO THE QMP REQUIREMENTS FOR CLASS II ANCILLARY CONCRETE. PERFORM QMP TESTING OF CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IN ACCORDANCE WITH SECTION 716 OF THE STANDARD SPECIFICATIONS FOR CLASS II ANCILLARY CONCRETE. QMP TESTING IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102".

HOTLINE ALL UTILITIES. IN AREAS WHERE EXISTING UTILITIES ARE WITHIN 3 FEET OF THE PROPOSED WALL, EXPOSE EXISTING UTILITIES PRIOR TO EXCAVATION.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY TEMPORARY GRADING DOES NOT IMPACT UTILITIES OR TO COORDINATE WITH AFFECTED UTILITIES TO ACCOMMODATE TEMPORARY GRADING.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102".

(N01) PLACE SELECT CRUSHED MATERIAL IN DRAINAGE DITCH WHERE NOISE BARRIER CROSSES FLOW LINE. SELECT CRUSHED MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-102".

COORDINATE THE DRILLING OF CONCRETE FOOTING WITH CONSTRUCTION OF PROPOSED ROADWAY, ROADWAY BARRIER, INSTALLATION OF ROADWAY PIPE UNDERDRAIN, INSTALLATION OF PROPOSED STORM SEWER ND INSTALLATION OF PROPOSED SIGN STRUCTURE S-40-3035.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY NNM | PLANS CK'D. EAJ

QUANTITIES, NOTES & CONSTRUCTION DETAILS

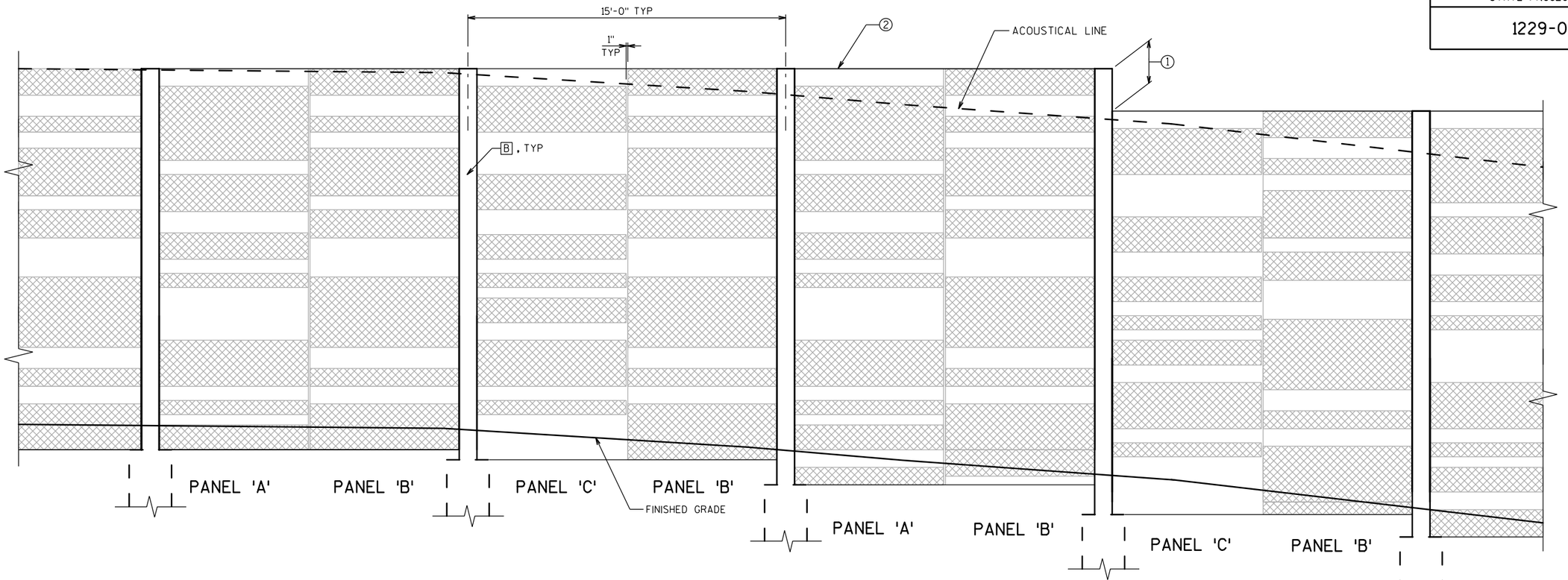
SHEET 5 OF 10

FOR 1078 SUBMITTAL

8

8

STATE PROJECT NUMBER
1229-04-73



LEGEND

B POST PAINT COLOR

(1) STEP PANELS IN INCREMENTS OF 2'-0"'. STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

(2) ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

(3) 0.5 X (POST SPA - POST FLANGE WIDTH - 1")

PANEL THICKNESS + 0"

PANEL THICKNESS - ¾" MIN, 1" MAX

STAIN COLORS

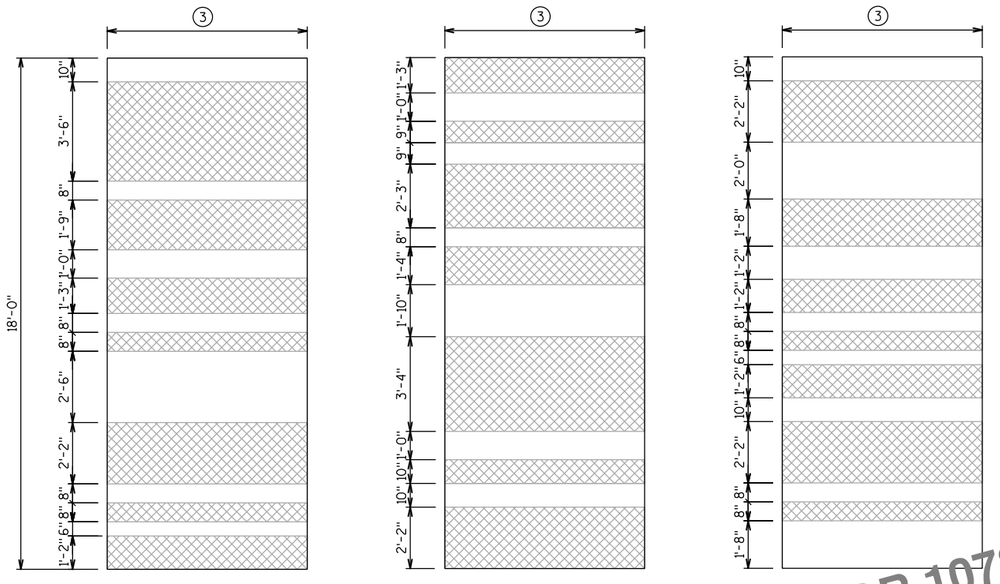
THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

NOTES

ALTERNATE PANEL PATTERNS AS SHOWN. DO NOT PLACE SAME PATTERN HORIZONTALLY ADJACENT TO EACH OTHER.

THE PATTERNS SHALL REPEAT VERTICALLY STARTING FROM THE TOP OF WALL AND WORKING DOWNWARD IF WALL HEIGHT GREATER 18'-0" IS REQUIRED.

ELEVATION VIEW - FREEWAY SIDE



PANEL 'A' PATTERN

PANEL 'B' PATTERN

PANEL 'C' PATTERN

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY NNM | PLANS CK'D. EAJ

AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE

SHEET 6 OF 10

8

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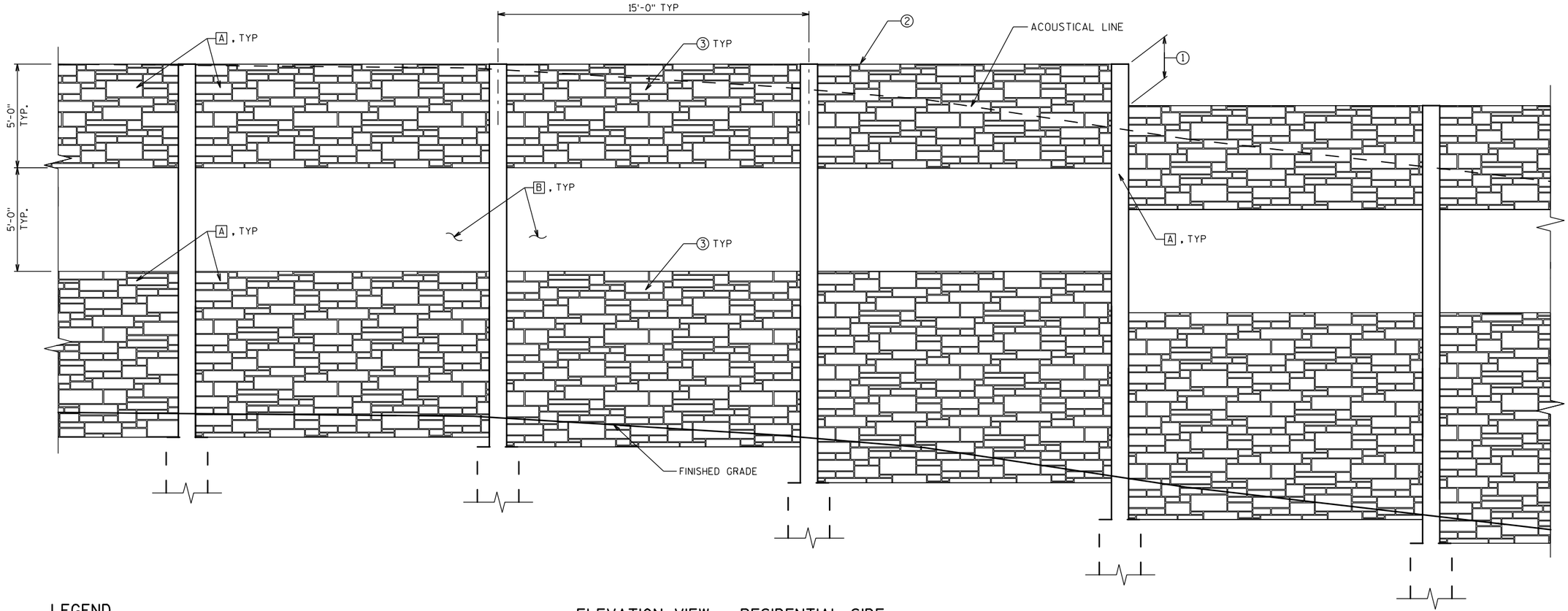
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080106_ae.dgn PLOT DATE : 9/28/2021 1:12:59 PM PLOT BY : ejelinek PLOT SCALE : 5.33333:1

STATE PROJECT NUMBER
1229-04-73



ELEVATION VIEW - RESIDENTIAL SIDE

LEGEND

A BASE COLOR

B ACCENT COLOR NO. 1

1. STEP PANELS IN INCREMENTS OF 2'-0". STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.
2. ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.
3. THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A "RANDOM SPLIT EDGE ASHLAR" PATTERN. THE PATTERN SHALL CONSIST OF RANDOM SIZED PIECES RANGING FROM A MINIMUM OF 1½" HIGH BY 4" LONG TO A MAXIMUM OF 10" HIGH BY 31" LONG WITH A MAXIMUM RELIEF 1½".

STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
BASE COLOR - FEDERAL COLOR NO. 33564
ACCENT COLOR NO. 1 - FEDERAL COLOR NO. 33448

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY NNM | PLANS CK'D. EAJ

AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE

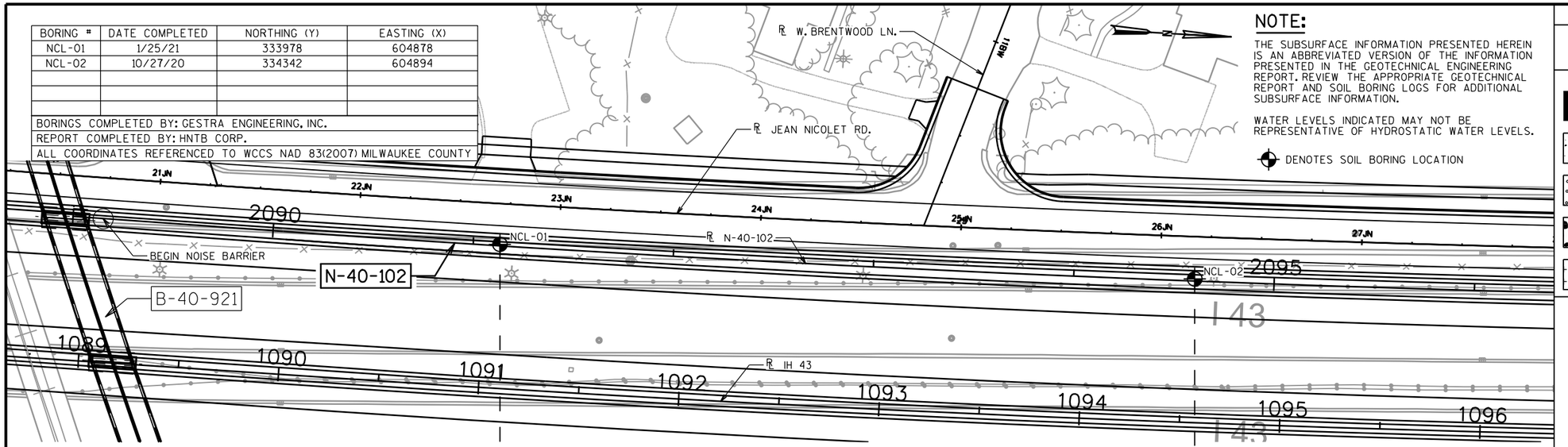
SHEET 7 OF 10

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCL-01	1/25/21	333978	604878
NCL-02	10/27/20	334342	604894

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY



PLAN

NOTE:

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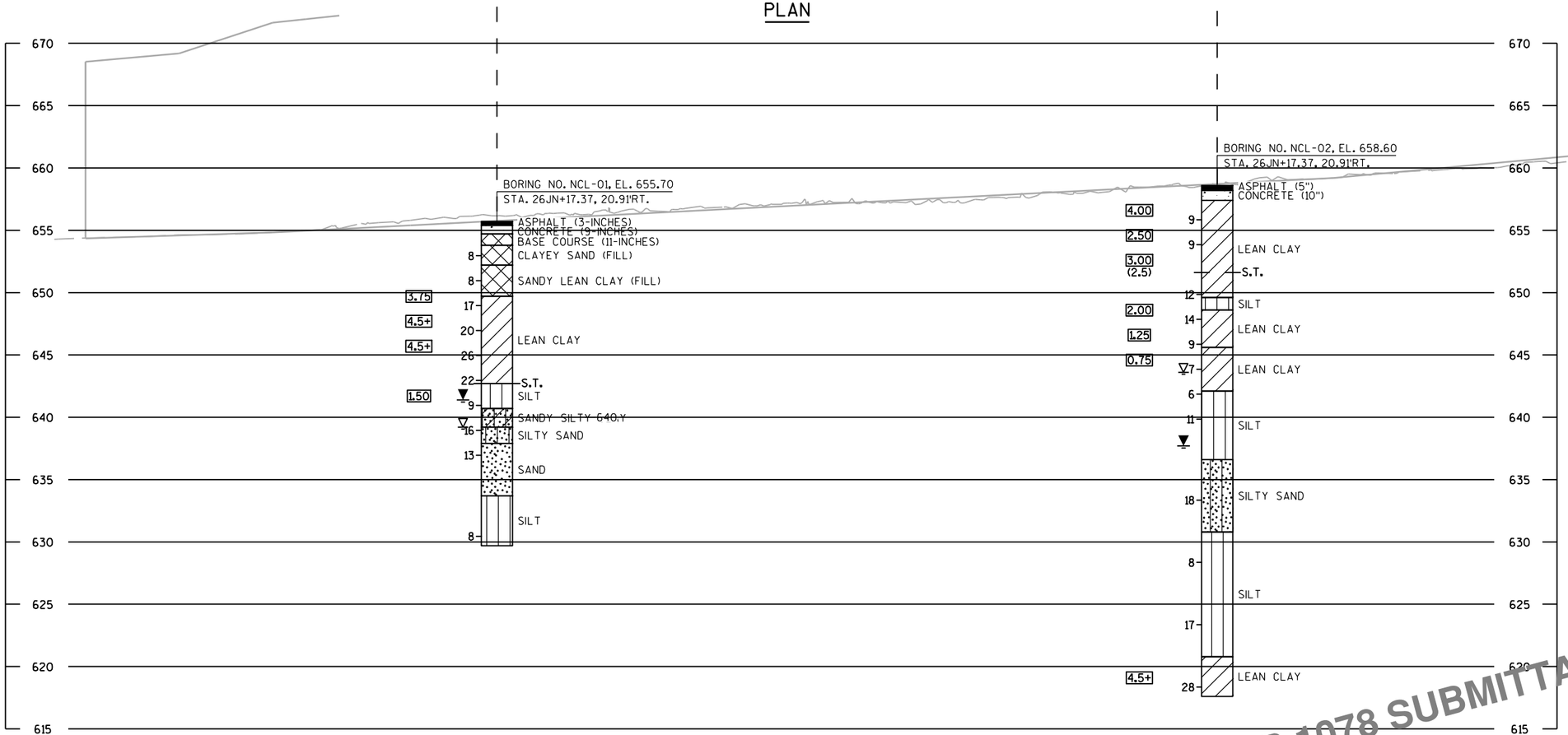
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



ELEVATION

FOR 1078 SUBMITTAL

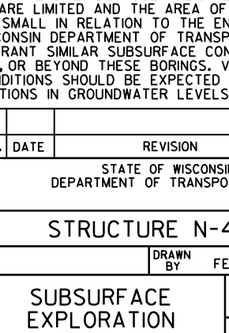
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY	FEG	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION (1 OF 3)

SHEET 8 OF 10

8

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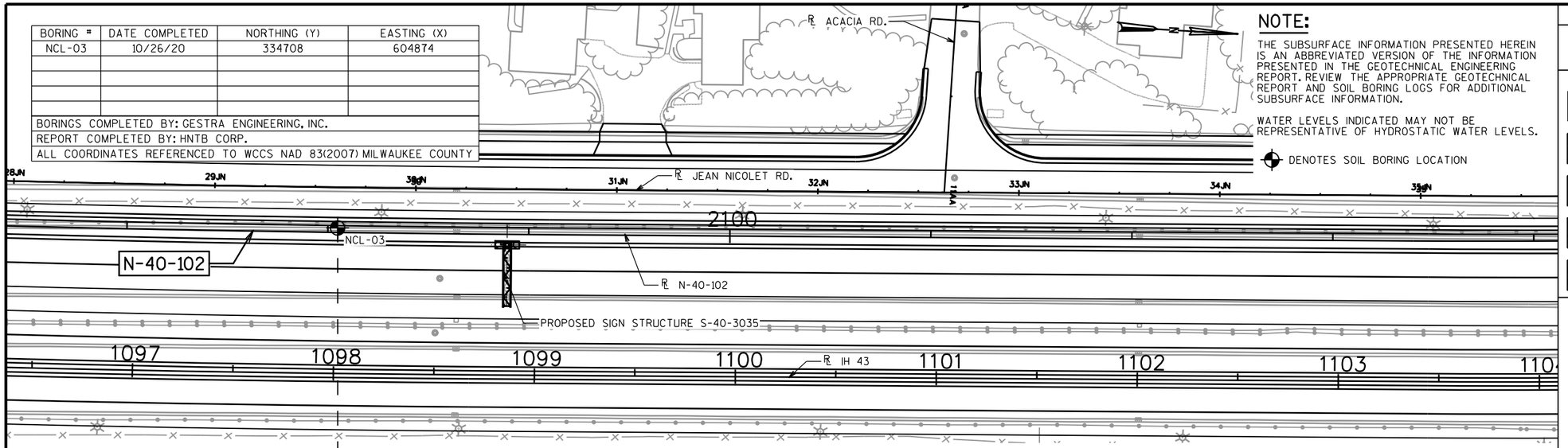
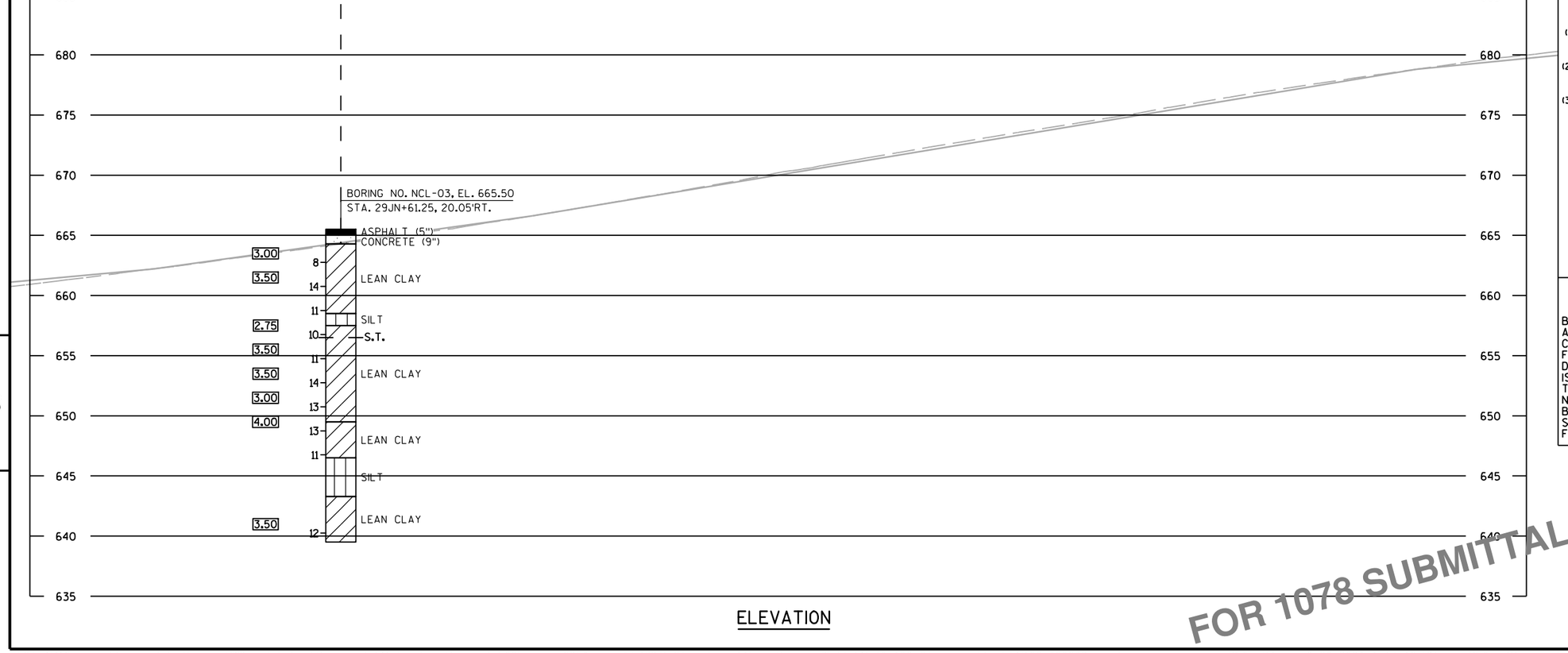
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080201_se.dgn PLOT DATE : 9/28/2021 2:04:48 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCL-03	10/26/20	334708	604874

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY



PLAN



ELEVATION

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DENOTES SOIL BORING LOCATION

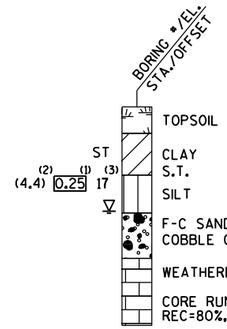
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY	FEG	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION (2 OF 3)

SHEET 9 OF 10

FOR 1078 SUBMITTAL

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-102_Clovernook\cds\N102_080202_se.dgn PLOT DATE : 9/28/2021 1:14:12 PM PLOT BY : ejelinek PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCL-04	10/26/20	335857	604783
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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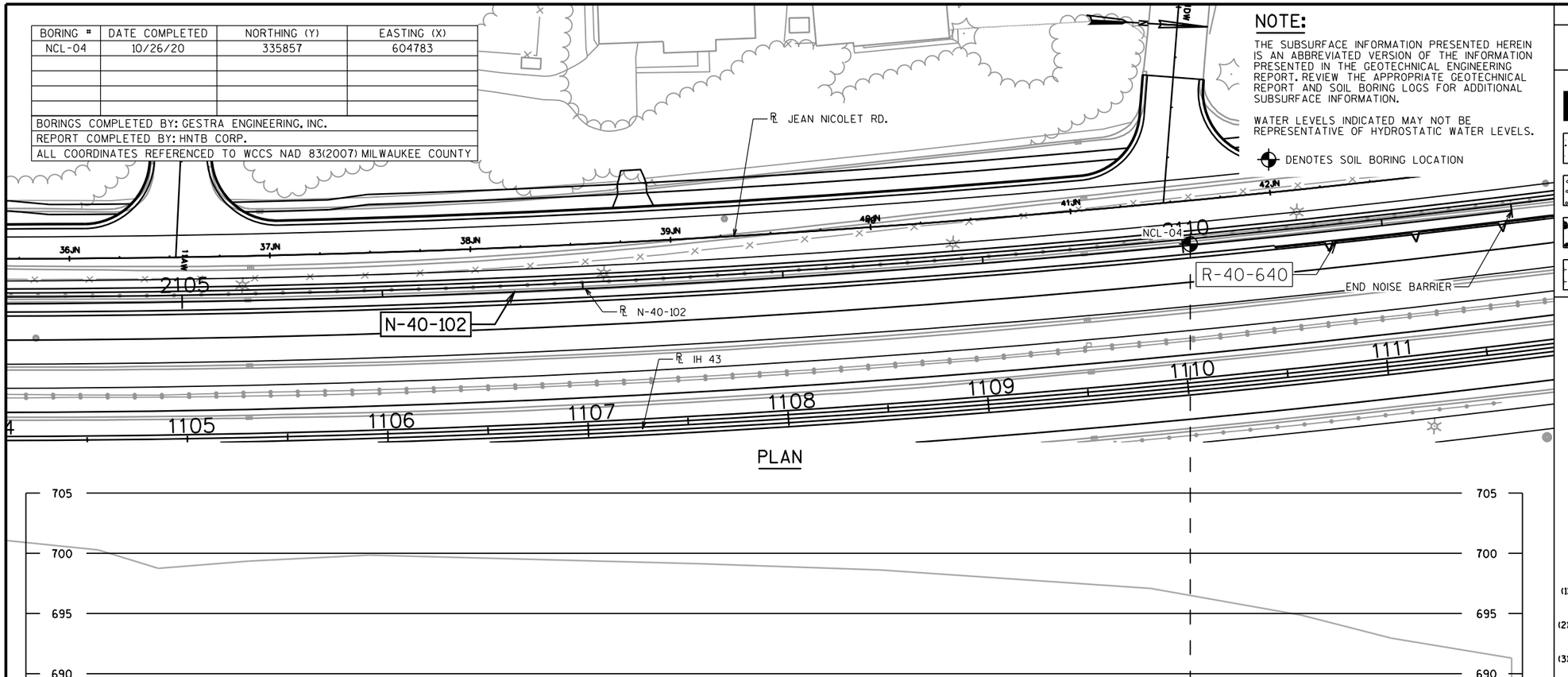
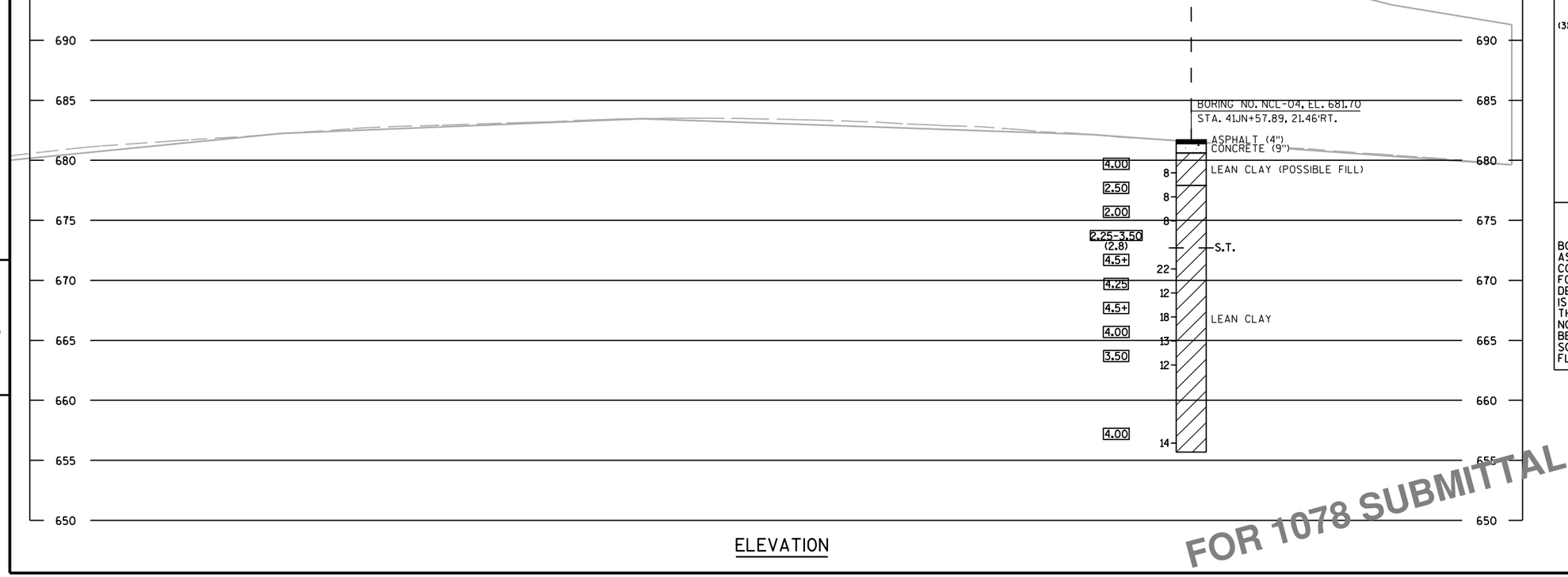


PLAN



ELEVATION

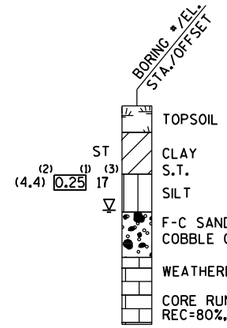
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-102

DRAWN BY	FEG	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION (3 OF 3)

SHEET 10 OF 10

8

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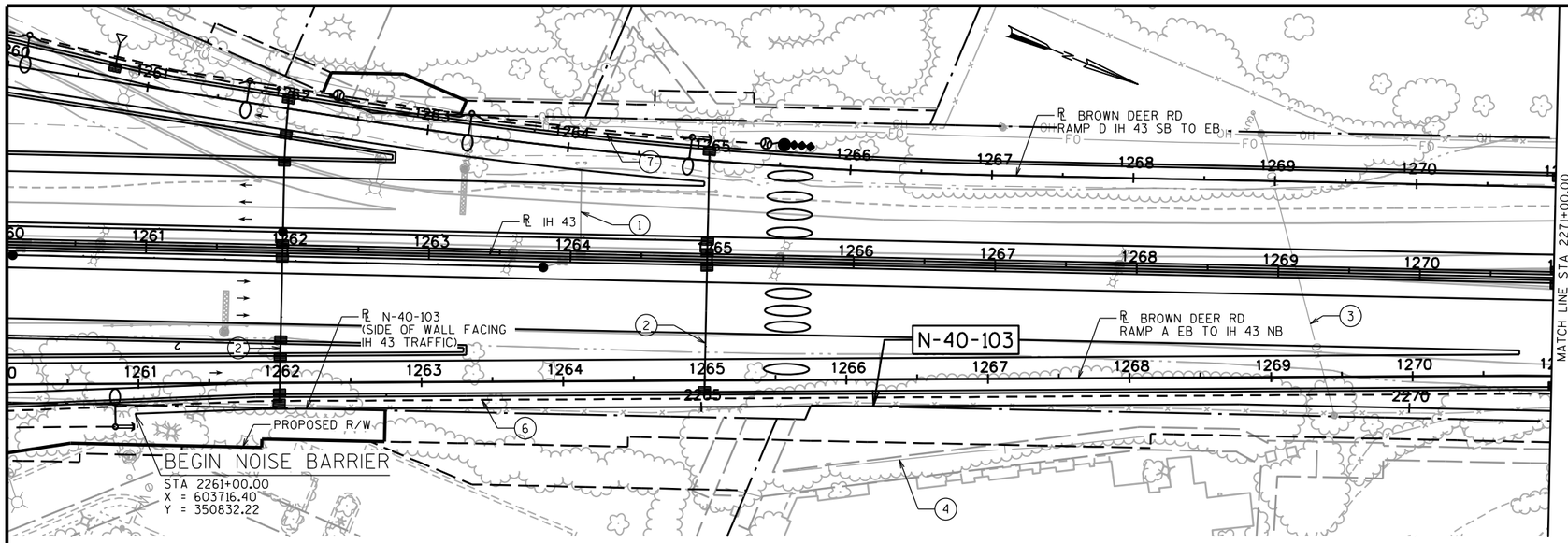
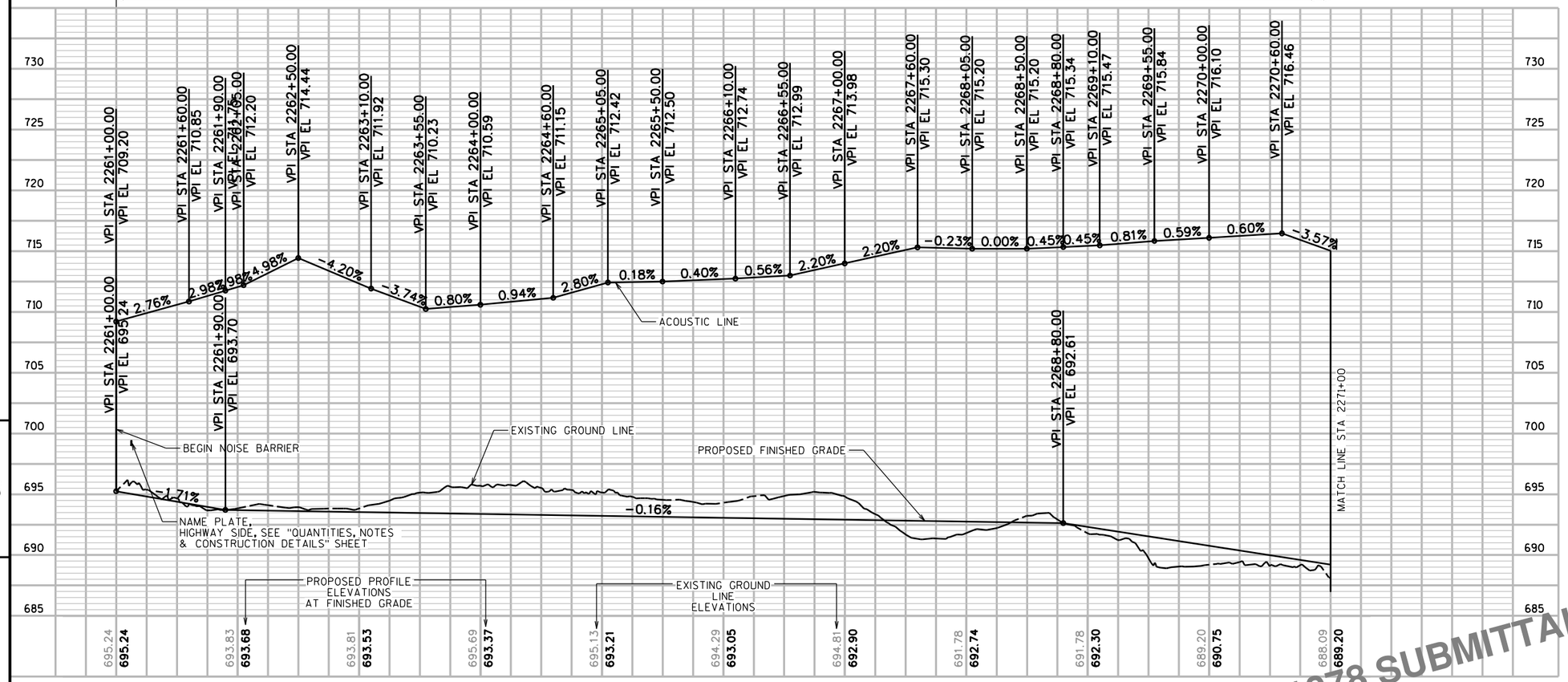


2160'-0" - GROUND MOUNT



PLAN & PROFILE: NOISE BARRIER N-40-103

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. ALIGNMENT PLAN
4. QUANTITES, NOTES & CONSTRUCTION DETAILS
5. AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE
6. AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE
7. SUBSURFACE EXPLORATION (1 OF 3)
8. SUBSURFACE EXPLORATION (2 OF 3)
9. SUBSURFACE EXPLORATION (3 OF 3)

NOTES

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

UTILITY & STORM SEWER LEGEND

(1) EXISTING DRAINAGE STRUCTURE TO BE REMOVED
(2) PROPOSED WISDOT STORM SEWER
(3) EXISTING OVERHEAD ELECTRIC TBD
(4) EXISTING UNDERGROUND TELEPHONE TO REMAIN
(6) PROPOSED WISDOT FTMS
(7) PROPOSED WISDOT LIGHTING

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE N-40-103

NOISE BARRIER ALONG IH 43 N. OF BROWN DEER

COUNTY	~~TOWN/CITY~~/VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

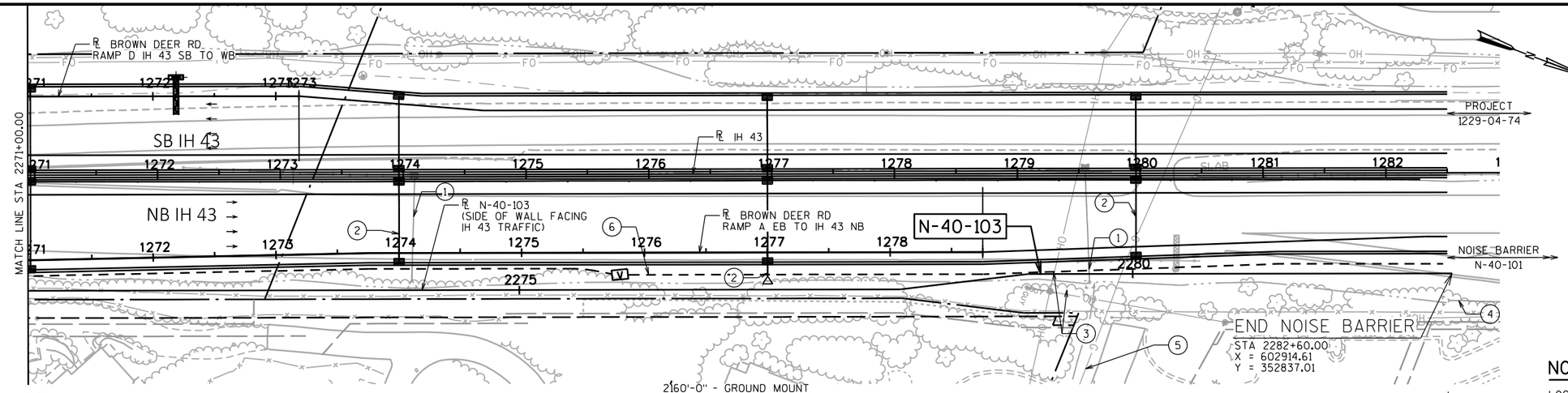
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
XXX	XXX	NNM	EAJ

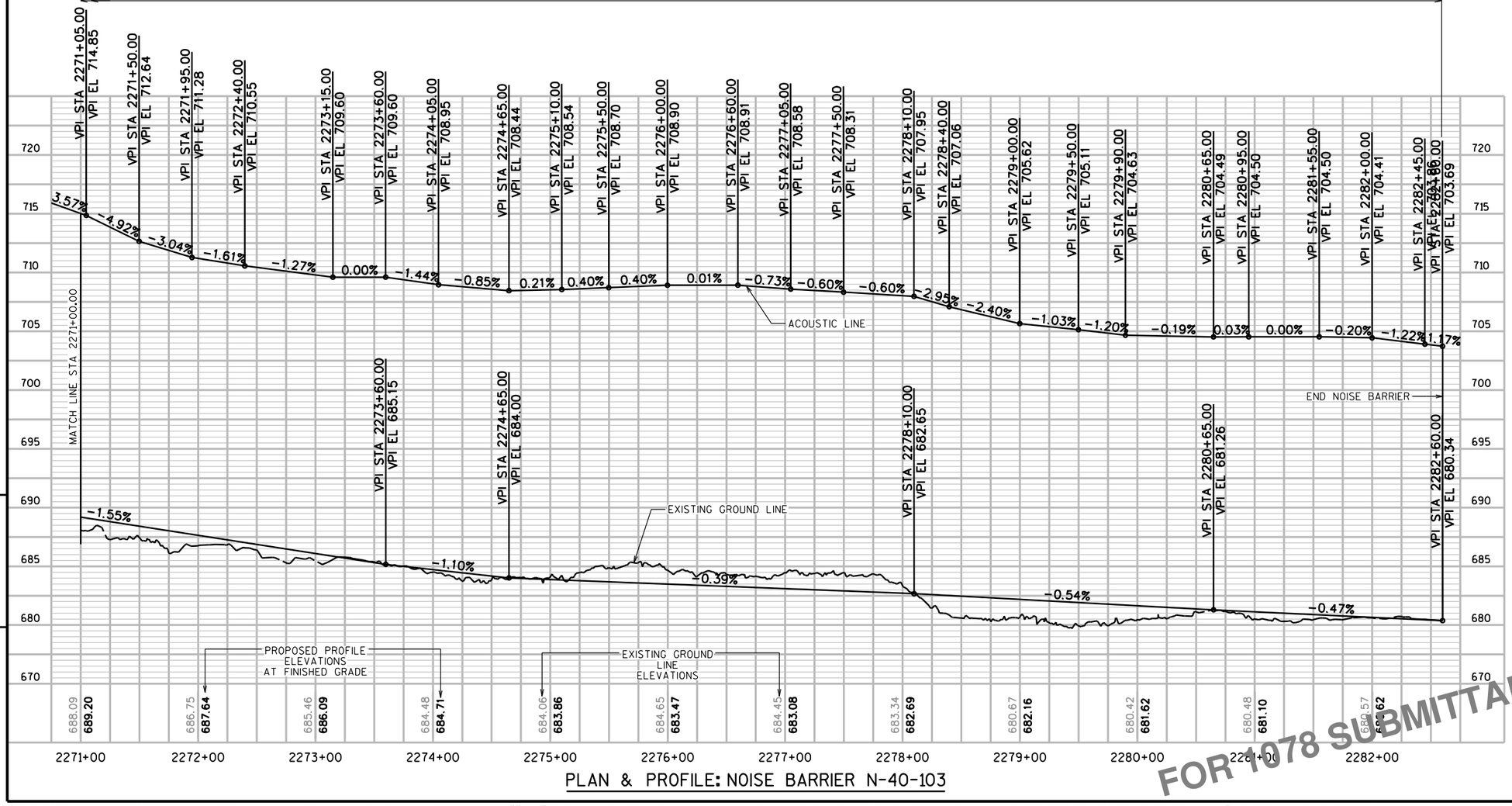
GENERAL PLAN & ELEVATION (1 OF 2)

SHEET 1 OF 9

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-103_N_of_BrownDeer\cds\N103_080101_gp.dgn PLOT DATE : 9/28/2021 1:17:23 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73





PLAN & PROFILE: NOISE BARRIER N-40-103

NOTES

LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF THE NOISE BARRIER.

UTILITY & STORM SEWER LEGEND

1. EXISTING DRAINAGE STRUCTURE TO BE REMOVED
2. PROPOSED WISDOT STORM SEWER
3. EXISTING OVERHEAD ELECTRIC TBD
5. EXISTING UNDERGROUND GAS TBD
6. PROPOSED WISDOT FTMS

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 9

8

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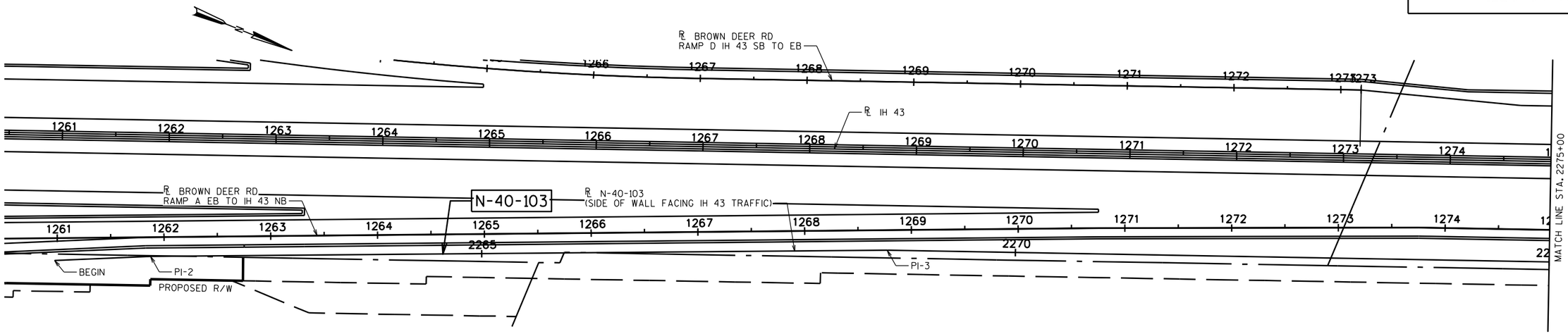
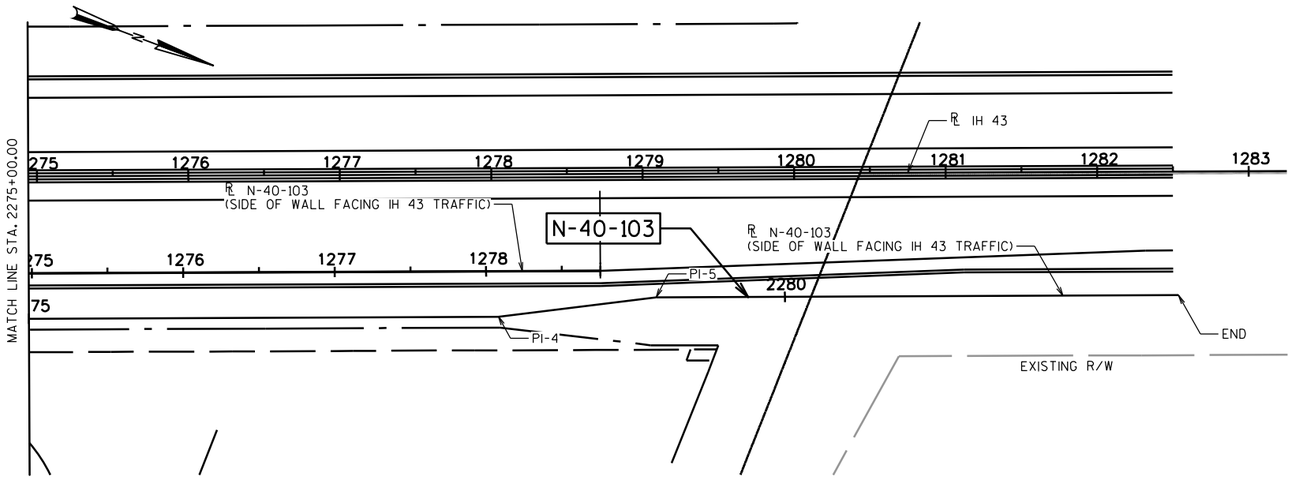
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-103_N_of_BrownDeer\cds\N103_080[illegible] PLOT DATE : 9/28/2021 1:17:42 PM PLOT BY : ejelinek PLOT SCALE : 100:1

STATE PROJECT NUMBER
1229-04-73



ALIGNMENT: NOISE BARRIER N-40-103



ALIGNMENT: NOISE BARRIER N-40-103

ALIGNMENT DATA				
LABEL	STATION	X	Y	BEARING
BEGIN	2261+00.00	603716.40	350832.22	N24°12'55.08"W
PI-2	2261+90.00	603679.48	350914.30	N22°20'29.76"W
PI-3	2268+80.00	603417.20	351552.51	N20°51'17.28"W
PI-4	2278+10.00	603086.12	352421.58	N27°37'17.04"W
PI-5	2279+15.00	603037.43	352514.61	N20°51'19.08"W
END	2282+60.00	602914.61	352837.01	----

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

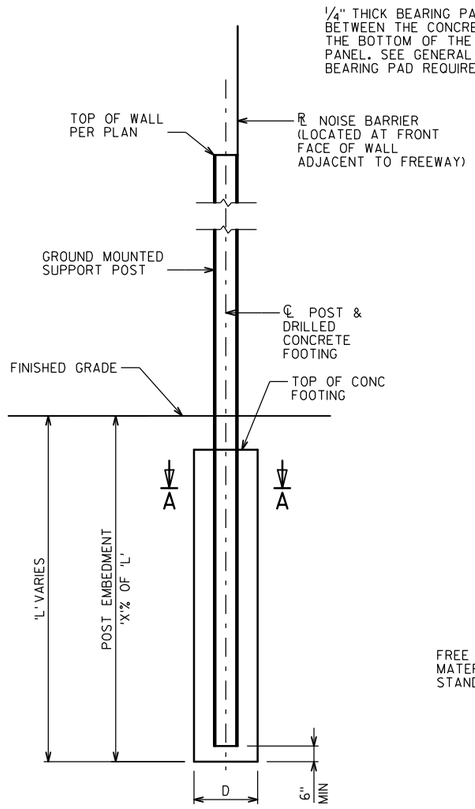
DRAWN BY NNM | PLANS CK'D. EAJ

ALIGNMENT PLAN

SHEET 3 OF 9

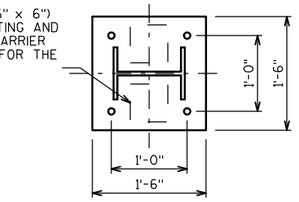
FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-103_N_of_BrownDeer\cds\N103_080103_Plot.dgn PLOT DATE : 9/28/2021 2:09:18 PM PLOT BY : ejelinek PLOT SCALE : 100:1

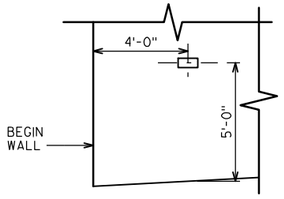


SECTION THRU GROUND MOUNTED POST & DRILLED CONC FOOTING

TYPICAL AT EACH POST LOCATION
(NOT TO SCALE)
('D', 'L' AND 'X' TO BE DETERMINED BY SUPPLIER)

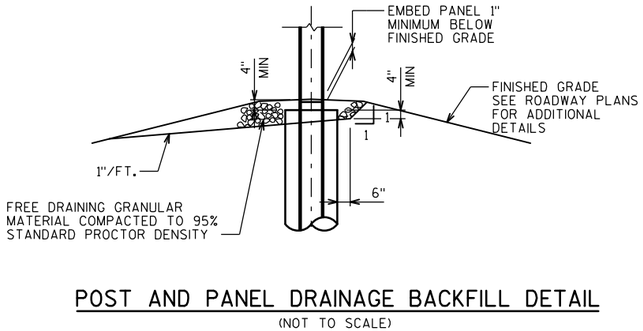


BASE PLATE DETAILS



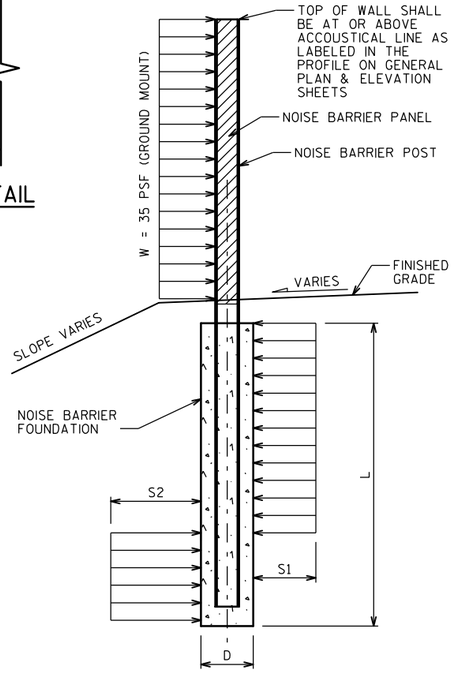
NAME PLATE DETAIL

(NOT TO SCALE)



POST AND PANEL DRAINAGE BACKFILL DETAIL

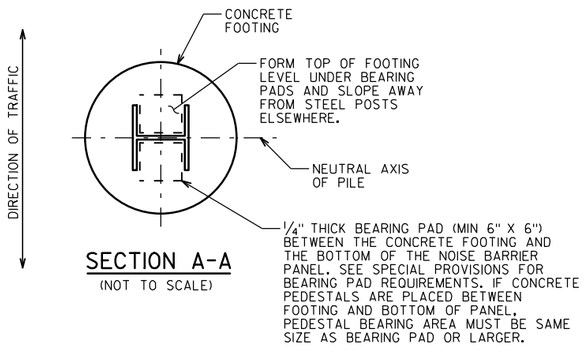
(NOT TO SCALE)



W = DESIGN WIND LOAD
L = NOISE BARRIER FOUNDATION DEPTH BELOW EXISTING GROUND
D = NOISE BARRIER FOUNDATION DIAMETER
S = ALLOWABLE SOIL PRESSURE

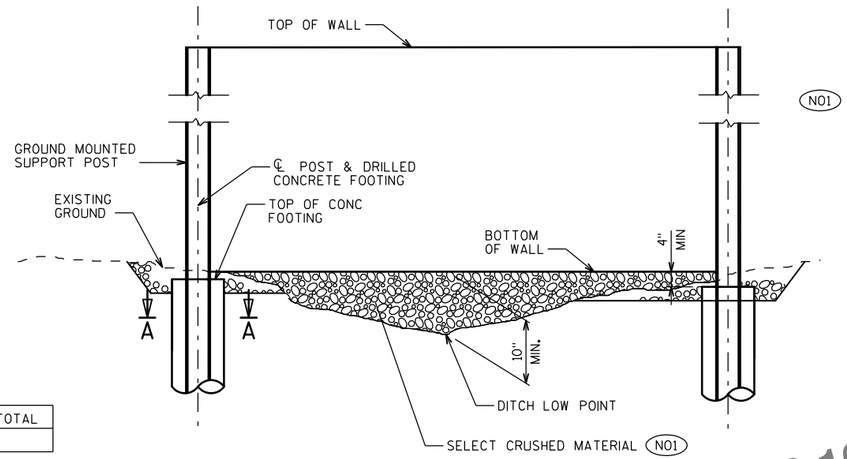
NOISE BARRIER LOADING DIAGRAM

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)



PARTIAL WALL ELEVATION OVER DITCH

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
541.0300.S.XXXX	NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-103	SF	

ALL ITEMS ARE CATEGORY XXXX

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE FINISHED GRADE LINE AND THE ACOUSTICAL LINE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEETS.

THE ACOUSTICAL LINE IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103". NOISE BARRIER PLACED ABOVE THE ACOUSTICAL LINE WILL NOT BE MEASURED FOR PAYMENT.

THE FINISHED GRADE LINE IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103". NOISE BARRIER PLACED BELOW THE FINISHED GRADE LINE WILL NOT BE MEASURED FOR PAYMENT.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT "GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS", PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:
35 P.S.F. FOR GROUND MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1-INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM OF NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

A COMPRESSIBLE BEARING PAD OF 1/4" THICKNESS SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-103".

PRECAST CONCRETE PEDESTALS PLACED BETWEEN THE FOUNDATION AND BOTTOM PANELS SHALL BE REINFORCED IF OVER 1'-0" HIGH.

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, AND COATING OF STEEL POSTS AND CONNECTIONS UNDER THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103".

LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE GENERAL PLAN & ELEVATION SHEETS. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE SIDED SOUND ABSORPTIVE N-40-101".

INSTALL FREE DRAINING GRANULAR MATERIAL ALONG THE ENTIRE LENGTH OF WALL AT THE BOTTOM OF NOISE BARRIERS AS SHOWN IN THE NOISE BARRIER PLANS AND AS REQUIRED TO FILL GAPS UNDER THE NOISE BARRIER PANEL. FREE DRAINING GRANULAR MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103".

THE SUBSURFACE INFORMATION PRESENTED IN THESE PLANS IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

ALL CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IS SUBJECT TO THE QMP REQUIREMENTS FOR CLASS II ANCILLARY CONCRETE. PERFORM QMP TESTING OF CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IN ACCORDANCE WITH SECTION 716 OF THE STANDARD SPECIFICATIONS FOR CLASS II ANCILLARY CONCRETE. QMP TESTING IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103".

HOTLINE ALL UTILITIES. IN AREAS WHERE EXISTING UTILITIES ARE WITHIN 3 FEET OF THE PROPOSED WALL, EXPOSE EXISTING UTILITIES PRIOR TO EXCAVATION.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY TEMPORARY GRADING DOES NOT IMPACT UTILITIES OR TO COORDINATE WITH AFFECTED UTILITIES TO ACCOMMODATE TEMPORARY GRADING.

(N01) THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103".

PLACE SELECT CRUSHED MATERIAL IN DRAINAGE DITCH WHERE NOISE BARRIER CROSSES FLOW LINE. SELECT CRUSHED MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-103".

COORDINATE THE DRILLING OF CONCRETE FOOTING WITH CONSTRUCTION OF PROPOSED ROADWAY, ROADWAY BARRIER, INSTALLATION OF ROADWAY PIPE UNDERDRAIN AND INSTALLATION OF PROPOSED STORM SEWER.

STATE PROJECT NUMBER

1229-04-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

DRAWN BY NNM | PLANS CK'D. EAJ

QUANTITIES, NOTES & CONSTRUCTION DETAILS

SHEET 4 OF 9

FOR 1078 SUBMITTAL

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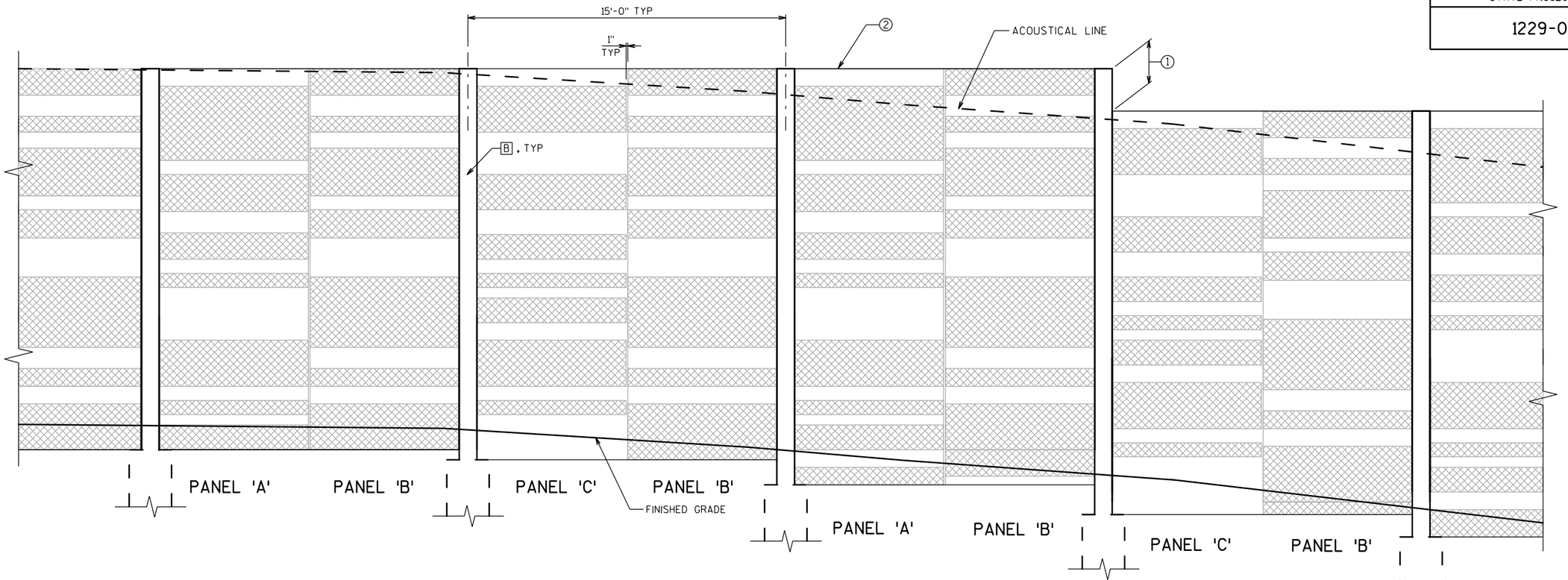
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-103_N_of_BrownDeer\cds\N103_080104.dgn DATE : 9/28/2021 1:18:09 PM PLOT BY : ejelinek PLOT SCALE : 1:1

STATE PROJECT NUMBER
1229-04-73



LEGEND

B POST PAINT COLOR

(1) STEP PANELS IN INCREMENTS OF 2'-0"'. STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

(2) ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.

(3) 0.5 X (POST SPA - POST FLANGE WIDTH - 1")

PANEL THICKNESS + 0"

PANEL THICKNESS - ¾" MIN, 1" MAX

STAIN COLORS

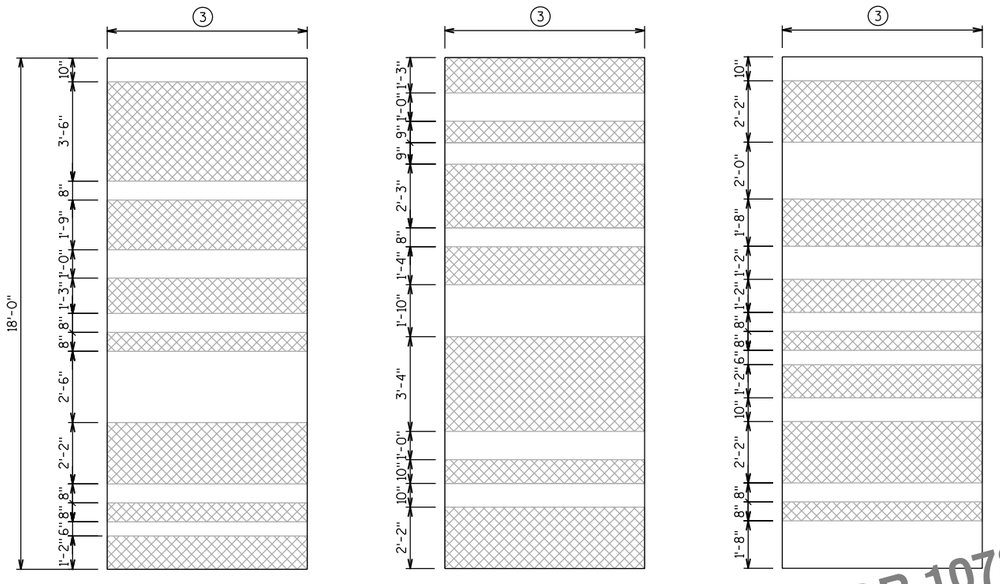
THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

NOTES

ALTERNATE PANEL PATTERNS AS SHOWN. DO NOT PLACE SAME PATTERN HORIZONTALLY ADJACENT TO EACH OTHER.

THE PATTERNS SHALL REPEAT VERTICALLY STARTING FROM THE TOP OF WALL AND WORKING DOWNWARD IF WALL HEIGHT GREATER 18'-0" IS REQUIRED.

ELEVATION VIEW - FREEWAY SIDE



FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

DRAWN BY NNM | PLANS CK'D. EAJ

AESTHETIC WALL TREATMENT DETAILS FREEWAY SIDE

SHEET 5 OF 9

8

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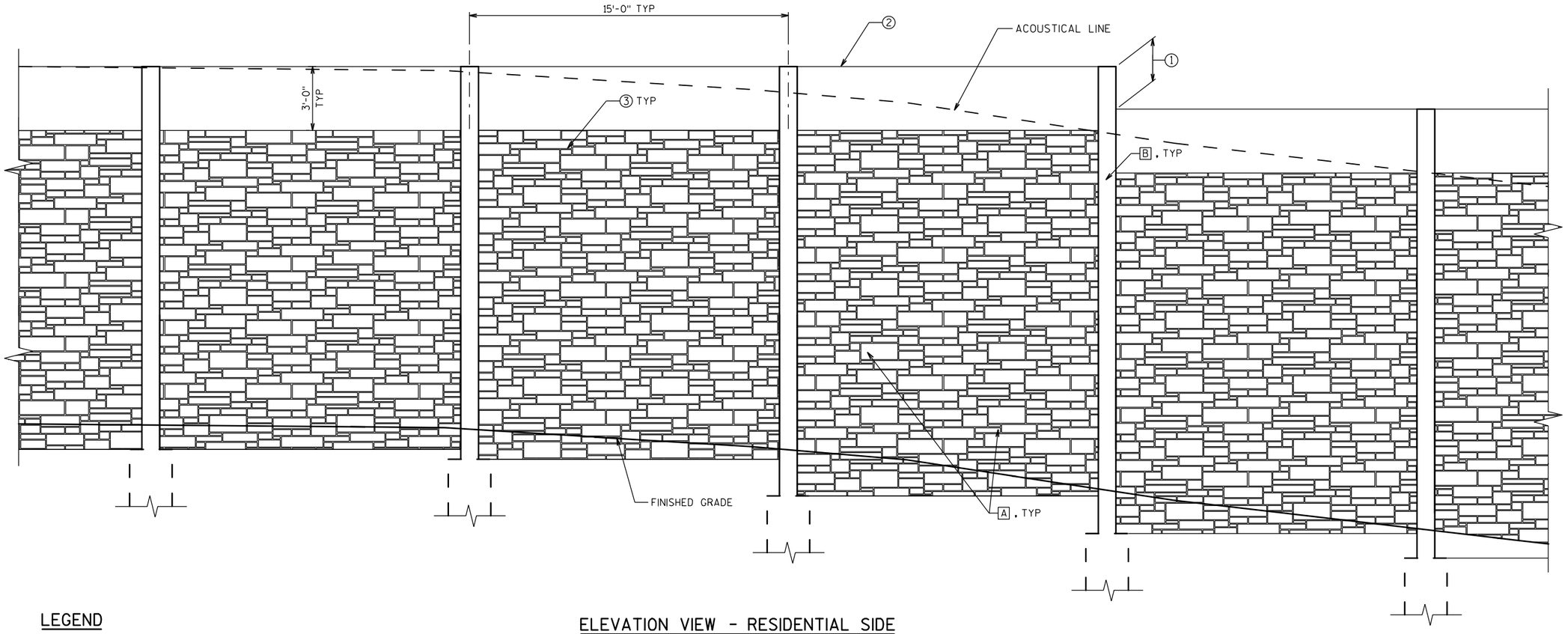
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N-40-103_N_of_BrownDeer\cds\N103_080105.dgn PLOT DATE : 9/28/2021 1:18:13 PM PLOT BY : ejelinek PLOT SCALE : 5.33333:1

STATE PROJECT NUMBER
1229-04-73



ELEVATION VIEW - RESIDENTIAL SIDE

LEGEND

B POST PAINT COLOR

1. STEP PANELS IN INCREMENTS OF 2'-0'". STEP INCREMENTS LESS THAN 2'-0" SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.
2. ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.
3. THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A "RANDOM SPLIT EDGE ASHLAR" PATTERN. THE PATTERN SHALL CONSIST OF RANDOM SIZED PIECES RANGING FROM A MINIMUM OF 1½" HIGH BY 4" LONG TO A MAXIMUM OF 10" HIGH BY 31" LONG WITH A MAXIMUM RELIEF 1½".

STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:
POST COLOR - FEDERAL COLOR NO. 26293, GRAY

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

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AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE

SHEET 6 OF 9

8

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCN-01	11/06/20	351031	603623
NCN-02	11/06/20	351306	603499

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

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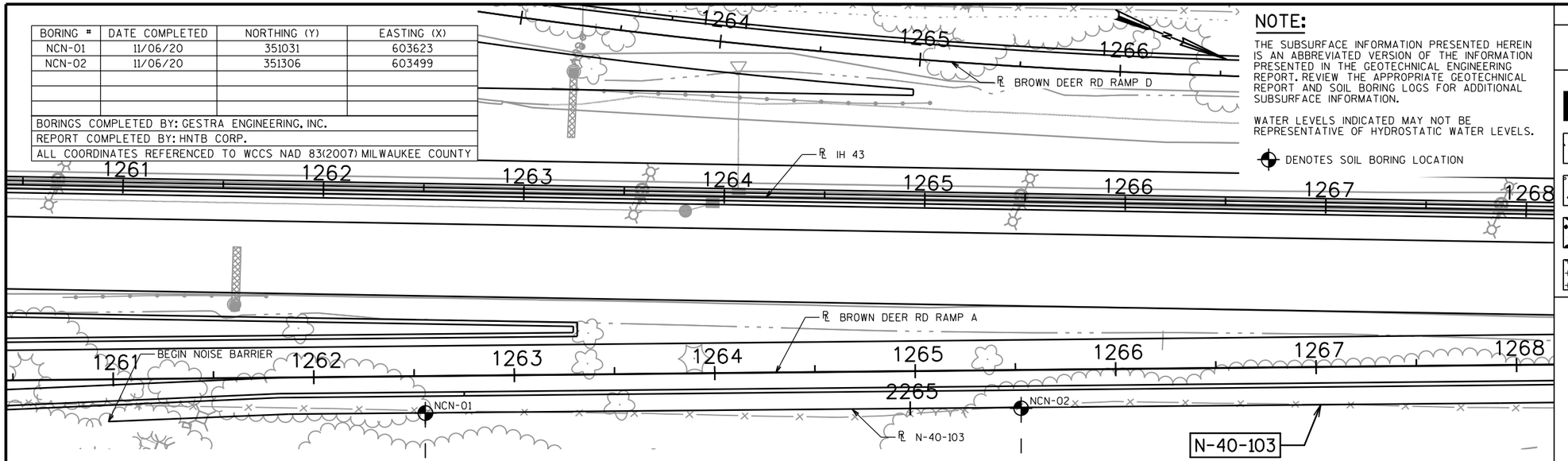
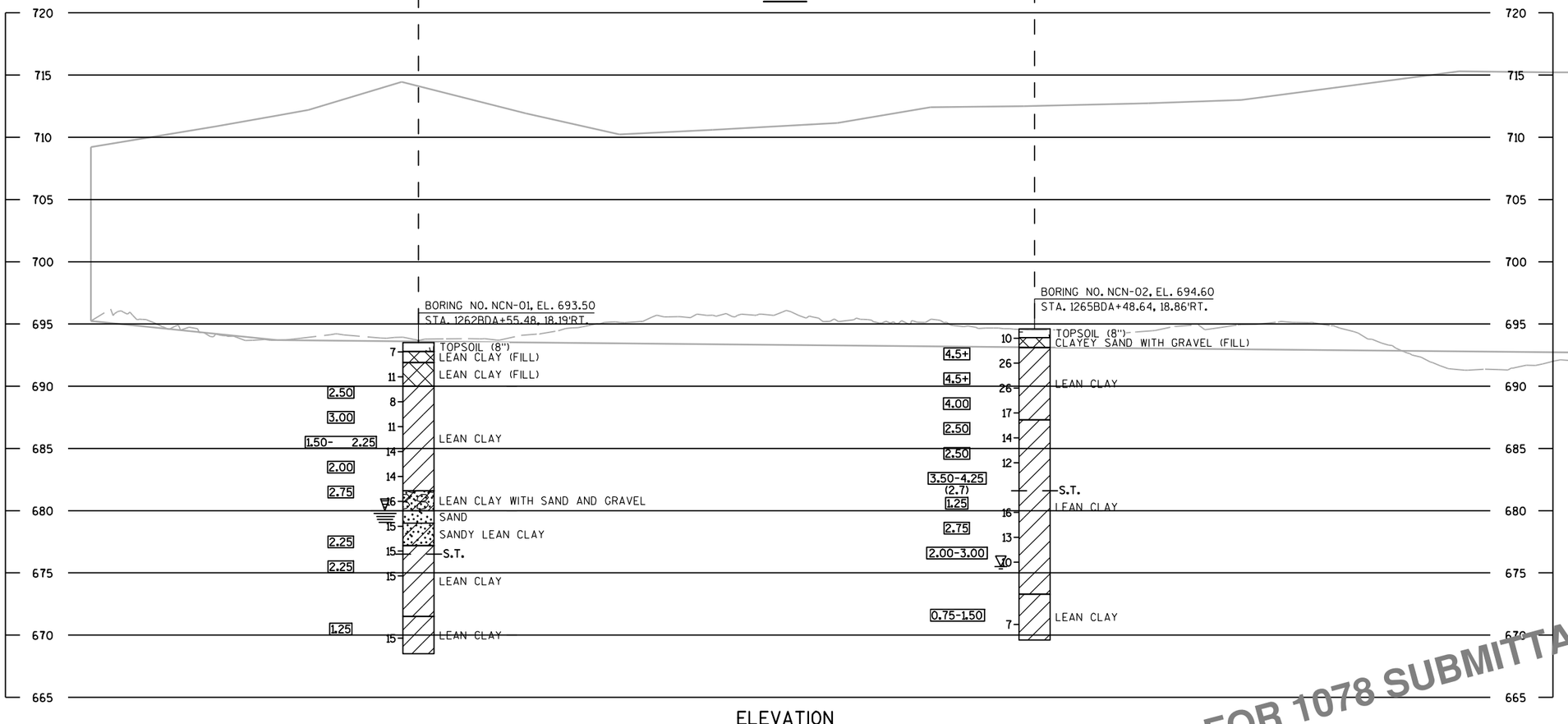
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

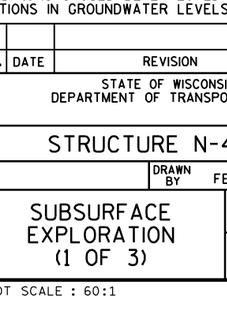
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

DRAWN BY	FEG	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION (1 OF 3)

SHEET 7 OF 9

FOR 1078 SUBMITTAL

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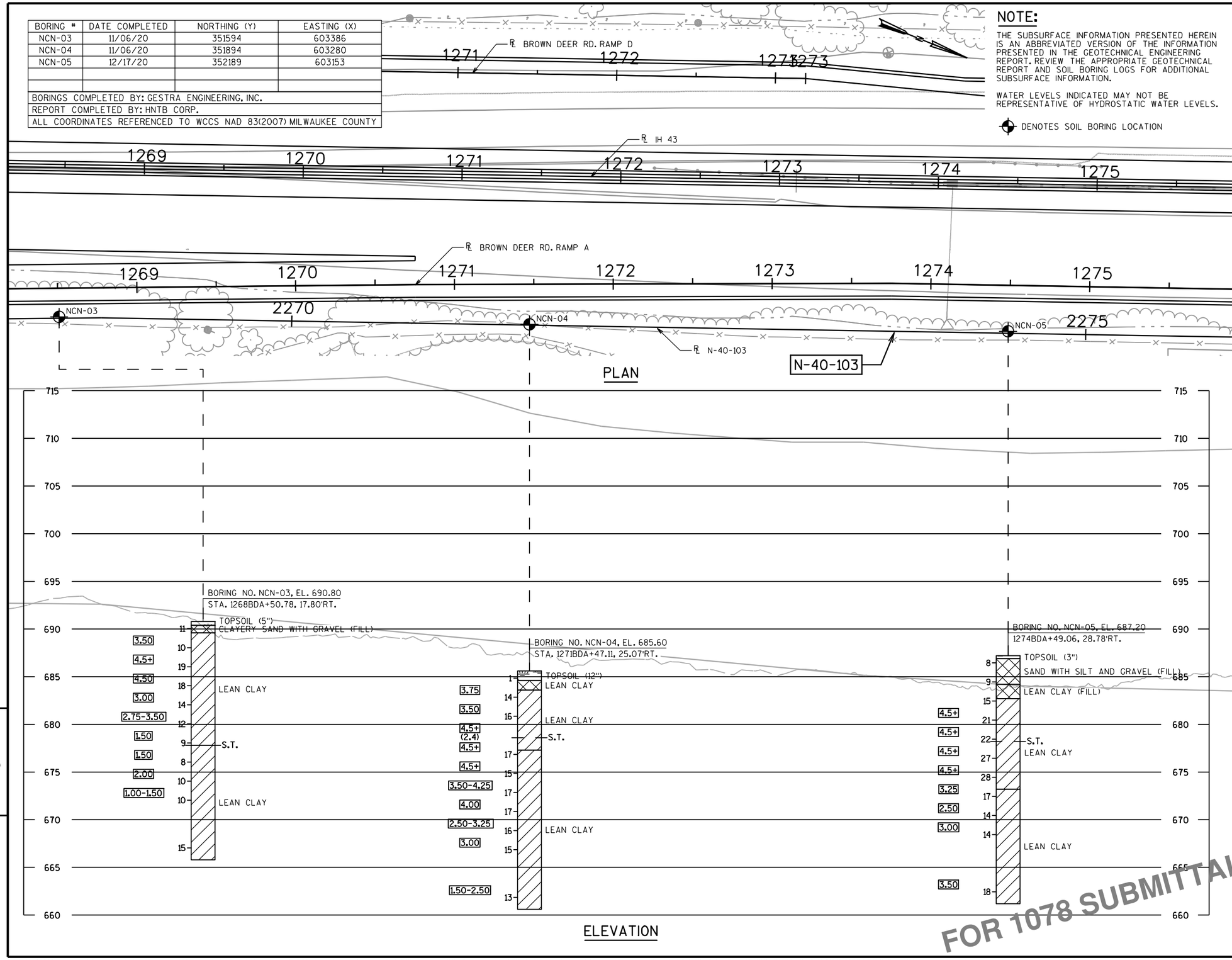
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N40103_SE_01_SUBSURFACE EXPLORATION.dgn
PLOT DATE : 8/28/2021 8:09:03 AM
USER NAME : ejelinek
PLOT NAME : $FILE$
PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCN-03	11/06/20	351594	603386
NCN-04	11/06/20	351894	603280
NCN-05	12/17/20	352189	603153

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY



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WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

⊕ DENOTES SOIL BORING LOCATION

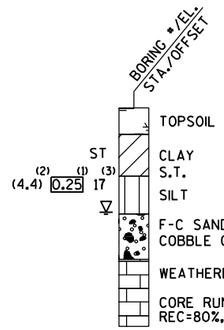
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
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ABBREVIATIONS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

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SUBSURFACE EXPLORATION (2 OF 3)

SHEET 8 OF 9

FOR 1078 SUBMITTAL

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\N40103\N40103_SubsurfaceExplorations_N40103_20201228.dgn
PLOT DATE : 28 DEC 2021 2:03 PM
USER NAME : ejelinek
PLOT NAME : $FILE$
PLOT SCALE : 60:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NCN-06	12/17/20	352483	603068
NCN-07	12/17/20	352798	602943

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.
REPORT COMPLETED BY: HNTB CORP.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

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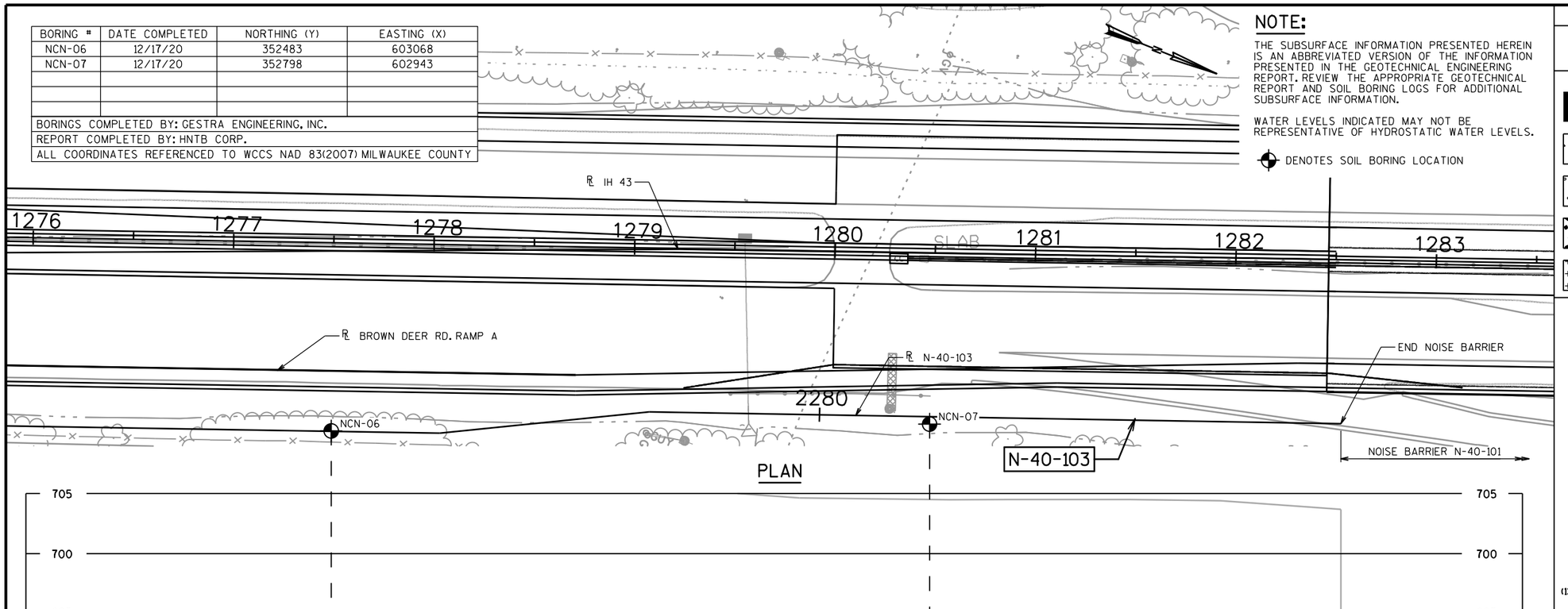
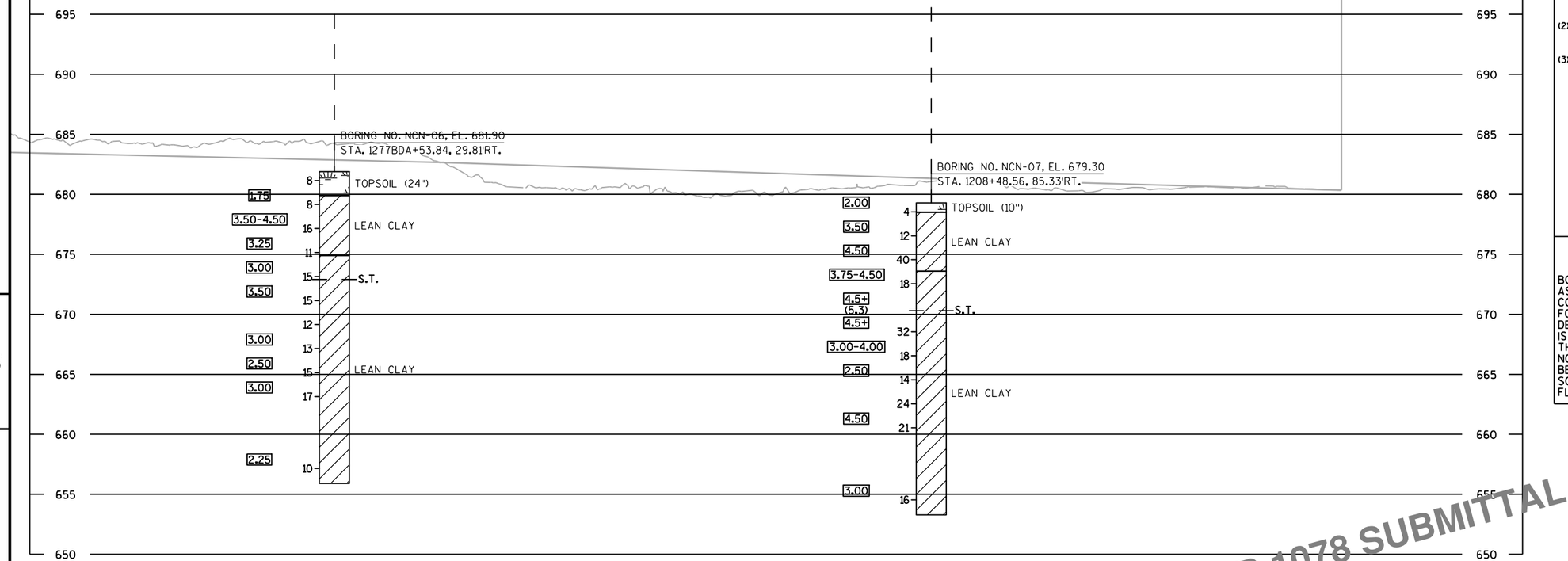
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION



PLAN

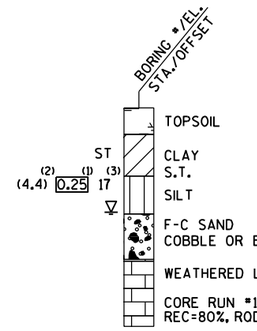


ELEVATION

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

STATE PROJECT NUMBER

1229-04-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE N-40-103

DRAWN BY FEG | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (3 OF 3)

SHEET 9 OF 9

FOR 1078 SUBMITTAL

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\NoiseBarrierWalls\PLOT10JUL_structure_N40103_080203_Sheet.dgn
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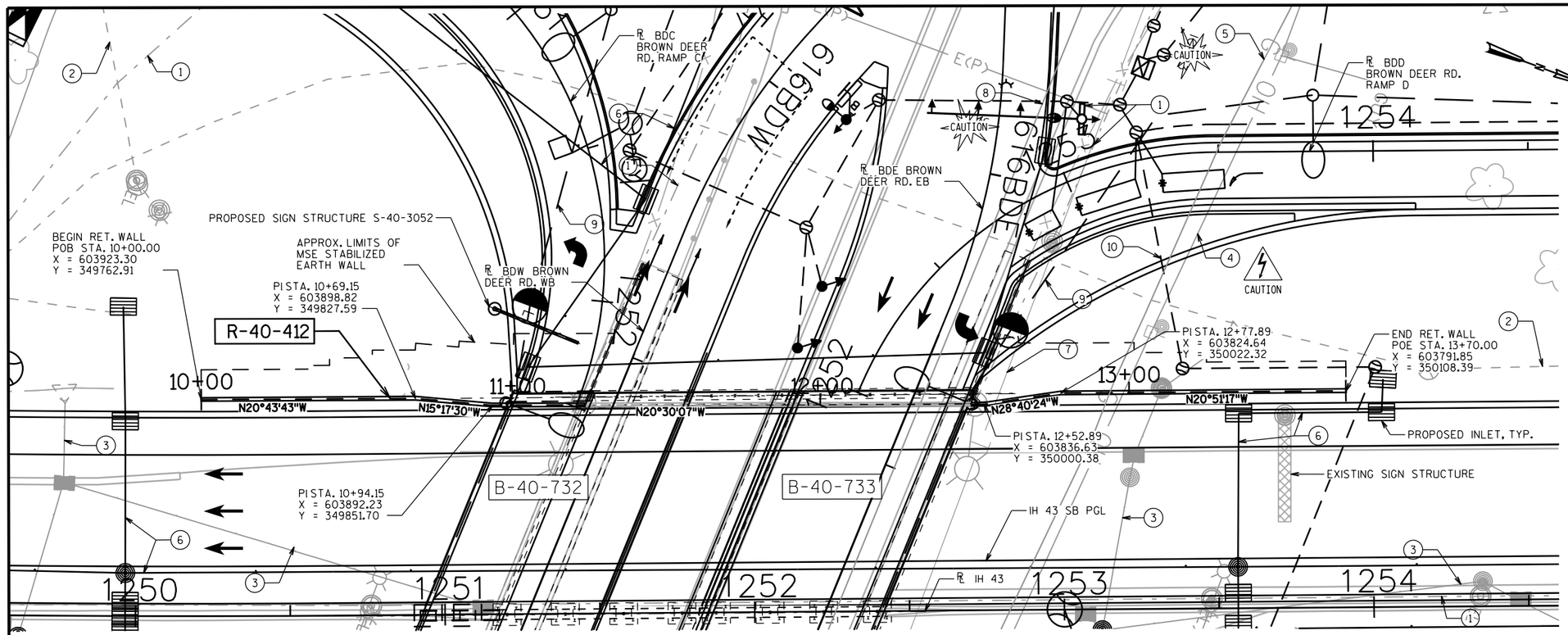
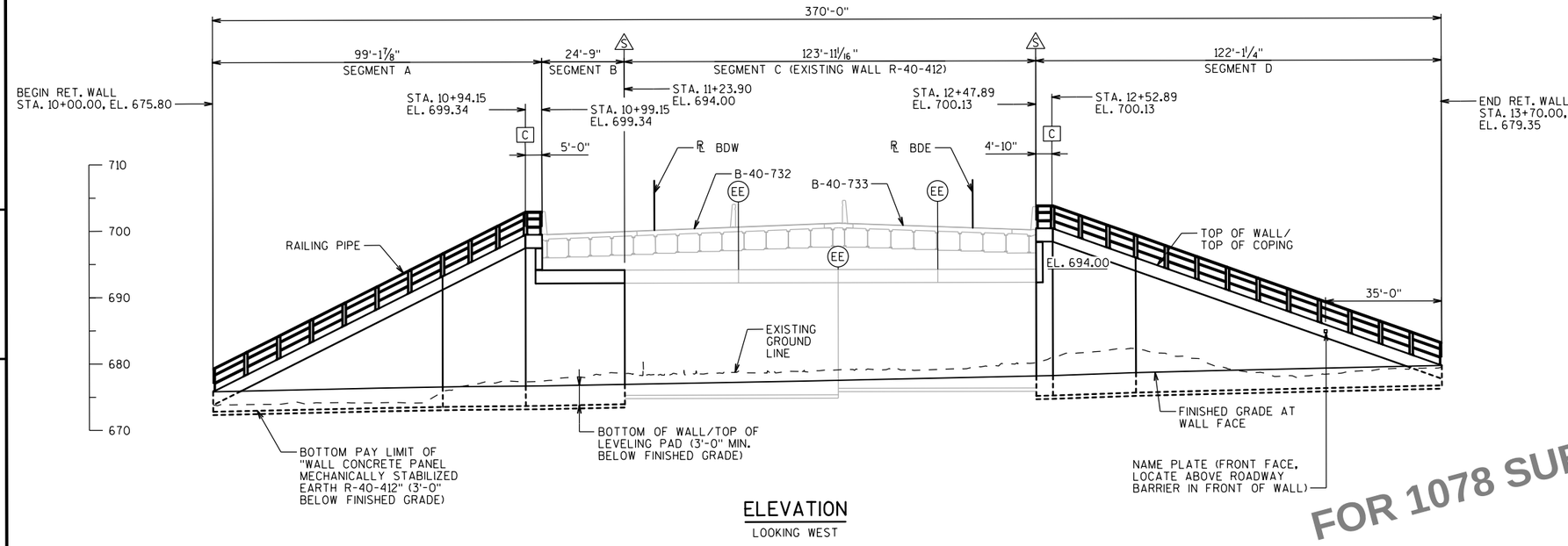
USER NAME : ejelinek
PLOT NAME : $FILE$
PLOT SCALE : 60:1



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL NOTES & QUANTITES
3. DESIGN DATA & PROFILE GRADE LINE
4. PROPOSED TYPICAL SECTIONS
5. EXISTING TYPICAL SECTIONS
6. COPING DETAILS (1 OF 2)
7. COPING DETAILS (2 OF 2)
8. PIPE RAILING DETAILS
9. SUBSURFACE EXPLORATION

LEGEND

- TRAFFIC DIRECTION
- [C] CONTRACTION JOINT
- (S) SLIP JOINT
- (EE) EXISTING EXPANSION JOINT

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING WISDOT FTMS
3. EXISTING WISDOT STORM SEWER
4. EXISTING OVERHEAD ELECTRIC LINE
5. EXISTING GAS LINE
6. PROPOSED WISDOT STORM SEWER
7. EXISTING TELEPHONE LINE
8. EXISTING ABANDONED GAS LINE
9. PROPOSED WISDOT LIGHTING
10. PROPOSED WISDOT SIGNALS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-412

BROWN DEER RD. W. ABUT. RETAINING WALL

COUNTY	~~TOWN/CITY~~/VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	HDA	NNM	EAJ

GENERAL PLAN & ELEVATION

SHEET 1 OF 9

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8

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE COPING ARE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWERS AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 3'-0" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

COORDINATE THE CONSTRUCTION OF WALL R-40-412 WITH THE REMOVAL OF PORTIONS OF EXISTING WALL R-40-412 AND THE CONSTRUCTION OF THE NEW PORTION OF WEST ABUTMENT ON BRIDGE B-40-732.

THE PORTION OF THE EXISTING WALL R-40-412, UNDERNEATH THE BRIDGE STRUCTURE IS TO REMAIN. REMOVAL OF THE EXISTING FENCE, PARAPET, MOMENT SLAB AND THE TOP ROW OF PANELS IS PROPOSED FOR THE PORTIONS OF THE EXISTING WALL WHICH RUN PERPENDICULA R TO THE WEST ABUTMENT AND WILL BE PAID FOR UNDER BID ITEM "REMOVING OLD STRUCTURE STA. 617BDW+00.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE TO MATCH THE PANELS OF THE EXISTING PORTION OF R-40-412 TO REMAIN. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

SUITABLE DRAINAGE IS REQUIRED BEHIND BOTH THE EXISTING PORTIONS OF THE WALL AND THE NEW PORTIONS OF THE WALL. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING BOTH THE DAYLIGHTING LOCATION OF THE EXISTING PIPE UNDERDRAIN WRAPPED 6-INCH AND THE MOST APPROPRIATE METHOD OF PROVIDING FUTURE PROPER DRAINAGE.

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE AS SHOWN ON THE "TYPICAL SECTIONS" SHEET.

DESIGN RETAINING WALL USING A LIVE LOAD SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE TO MATCH THE PANELS OF THE EXISTING PORTION OF R-40-412 TO REMAIN. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

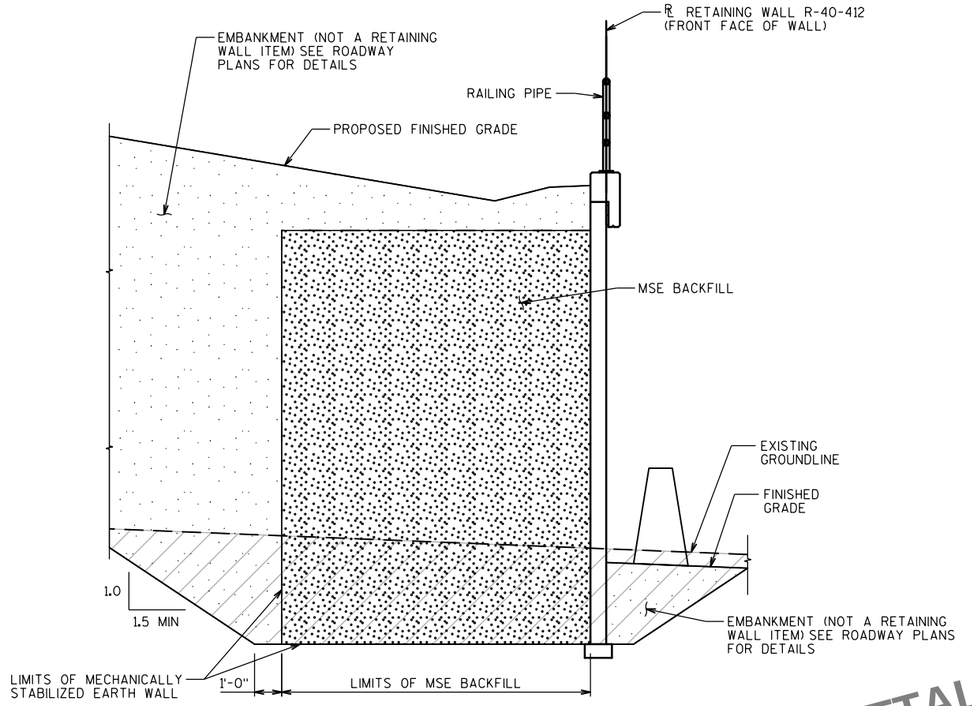
DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SEG. A	SEG. B	SEG. C	SEG. D	TOTAL
203.0220.XX	REMOVING STRUCTURE R-40-412	EACH	-	-	-	-	-
513.2001	RAILING PIPE	LF	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	-	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	-	-
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	-	-	-	-	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412	SF	-	-	-	-	-
	NON BID ITEMS						
	NAME PLATE	EACH					1
	NON-BITUMINOUS JOINT SEALER	SIZE					1"
	EXPANDED POLYSTYRENE	SIZE					1"
	RODENT SHIELD	EACH					-

ALL ITEMS ARE CATEGORY XXXX



WALL EXCAVATION LIMITS DIAGRAM

LOOKING NORTH

LEGEND

WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

MATERIAL PROPERTIES

CONCRETE MASONRY
MSE WALL COPING _____ f'c = 3,500 P.S.I.
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 _____ Fy = 60,000 P.S.I.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL NOTES & QUANTITIES

SHEET 2 OF 9

8

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STATE PROJECT NUMBER
1229-04-73

MSE WALL SOIL PARAMETERS

	SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
			FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐	MSE WALL REINFORCED ZONE	120	30	N/A	30	0
	RETAINED SOIL - GRANULAR	120	30	N/A	30	0
	RETAINED SOIL - CLAY	120	0	1,500	28	0
BORING BD-01	GRAVEL (6") EL. 677.2 - EL. 676.7	--	--	--	--	--
BORING BD-01	FILL - LEAN CLAY (DARK BR.) EL. 676.7 - EL. 675.0	125	0	4,000	30	0
BORING BD-01	FILL - SANDY/LEAN CLAY (GR.) TR. GRAVEL EL. 675.0 - EL. 671.9	125	0	4,000	30	0
BORING BD-01	LEAN CLAY (BR.-GR.) EL. 671.9 - EL. 664.3	132	0	4,000	32	0
BORING BD-01	LEAN CLAY (GR.) EL. 664.3 - EL. 635.4	132	0	3,500	32	0
BORING BD-01	SANDY SILT (GR.) EL. 635.4 - EL. 606.1	132	40	--	40	0
BORING BD-01	SILTY SAND WITH GRAVEL (GR.) EL. 606.1 - EL. 581.1	132	40	--	40	0
BORING BD-01	SILTY SAND (GR.) EL. 581.1 - EL. 578.5	132	40	--	40	0
BORING BD-02	TOPSOIL (6") EL. 678.9 - EL. 678.4	--	--	--	--	--
BORING BD-02	LEAN CLAY (BR.-GR.) TR. GRAVEL EL. 678.4 - EL. 661.5	132	0	3,750	32	0
BORING BD-02	LEAN CLAY (BR.-GR.) TR. GRAVEL EL. 661.5 - EL. 648.9	130	0	2,000	30	0

◐ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS			
WALL HEIGHT (FEET)		25.75	15
EXPOSED WALL HEIGHT (FEET)		14.3	12
◥ MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)		18	10.5
REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO		1.05	0.70
WALL STATION		11+25	13+10
LIVE LOAD SURCHARGE (PSF)		240	100
BORING USED		BD-01	BD-02
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING		1.60	1.46
ECCENTRICITY		1.77	1.32
BEARING RESISTANCE		1.19	2.20
FACTORED BEARING RESISTANCE (PSF)		6,650	10,000
GLOBAL STABILITY	END OF CONSTRUCTION	1.76	3.18
	LONG-TERM	1.07	1.09

◥ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

WALL ELEVATIONS SEGMENT A ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
10+00.00	675.79	675.79	673.83
10+25.00	682.04	676.04	674.23
10+50.00	688.30	676.29	674.05
10+69.15	693.09	676.44	675.74
10+75.00	694.55	676.48	676.55
10+94.15	699.34	676.54	677.19
10+99.15	699.34	676.57	677.23

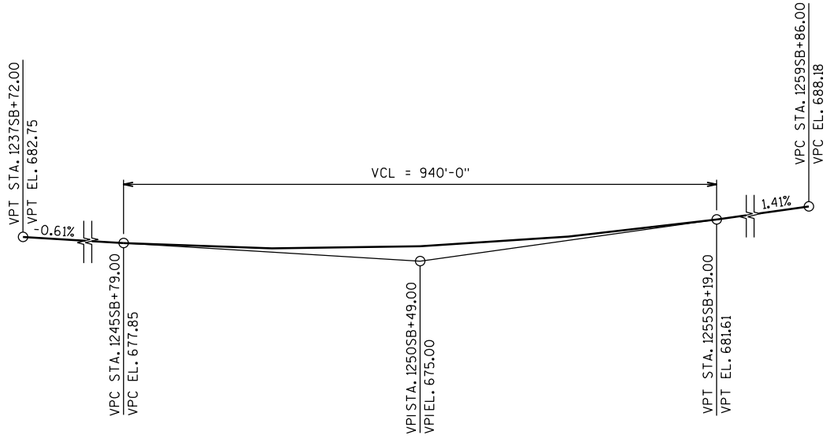
WALL ELEVATIONS SEGMENT B ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
10+99.15	694.00	676.57	677.23
11+00.00	694.00	676.58	677.34
11+23.90	694.00	676.77	678.44

WALL ELEVATIONS SEGMENT D ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
12+47.89	694.00	677.90	679.93
12+47.89	700.13	677.90	679.93
12+50.00	700.13	677.92	680.20
12+52.89	700.13	677.95	680.68
12+75.00	696.21	678.31	681.94
12+77.89	695.70	678.36	681.98
13+00.00	691.77	678.61	679.66
13+25.00	687.34	678.87	677.84
13+50.00	682.90	679.14	678.70
13+70.00	679.35	679.35	679.10

⧓ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.



PROFILE GRADE LINE IH 43 SB
PGL 'SB'

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

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DESIGN DATA & PROFILE GRADE LINE

SHEET 3 OF 9

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-412\cds\R412_080103_pgl.dgn

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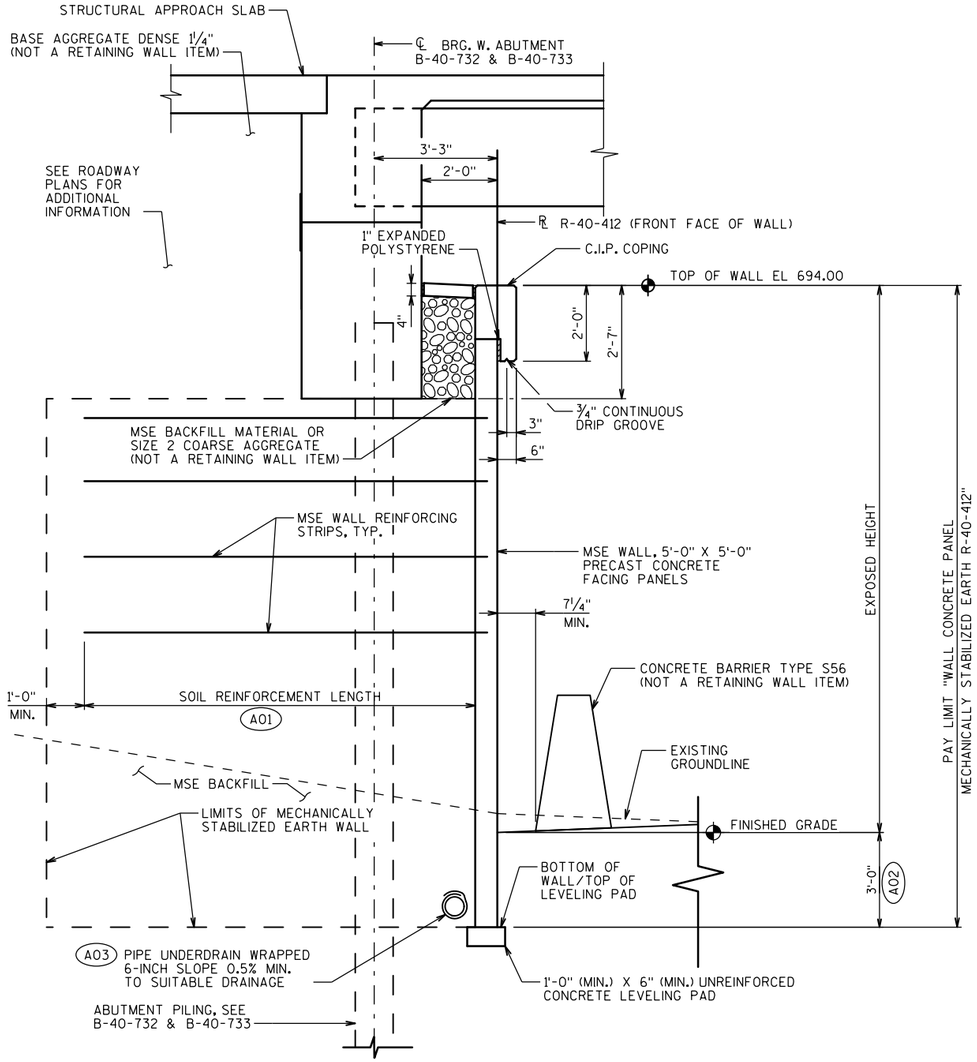
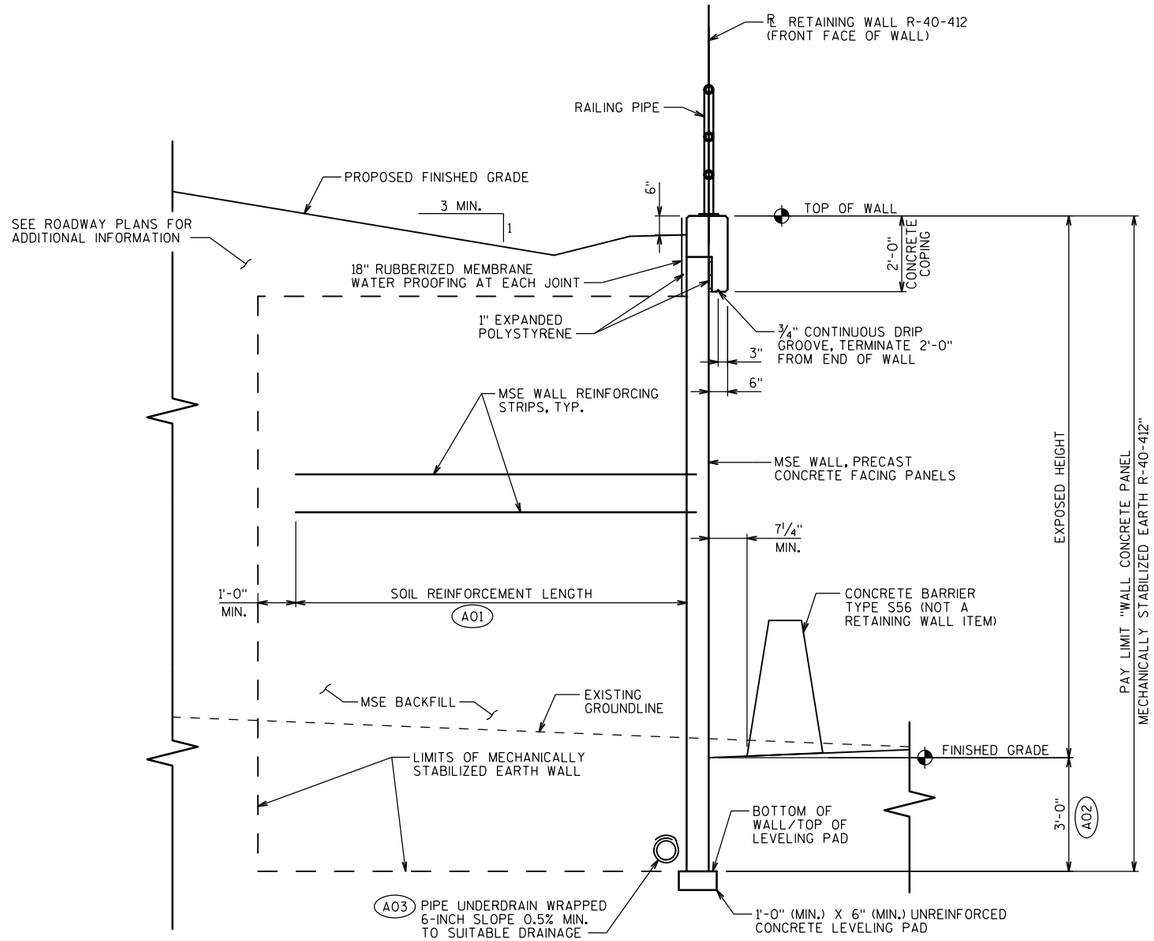
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1229-04-73



PROPOSED TYPICAL SECTION AT ABUTMENT - SEGMENT B

LOOKING NORTH
STA. 10+99.15 TO STA. 11+23.90



PROPOSED TYPICAL SECTION - SEGMENTS A & D

LOOKING NORTH
STA. 10+00.00 TO STA. 10+99.15
STA. 12+47.89 TO STA. 13+70.00

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINE" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) CONNECT NEW PIPE UNDERDRAIN TO UNDERDRAIN AT EXISTING WALL. CONNECT PIPE UNDERDRAIN TO INLET "XXXXXX. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

DRAWN BY	NNM	PLANS CK'D.	EAJ

PROPOSED TYPICAL SECTIONS

SHEET 4 OF 9

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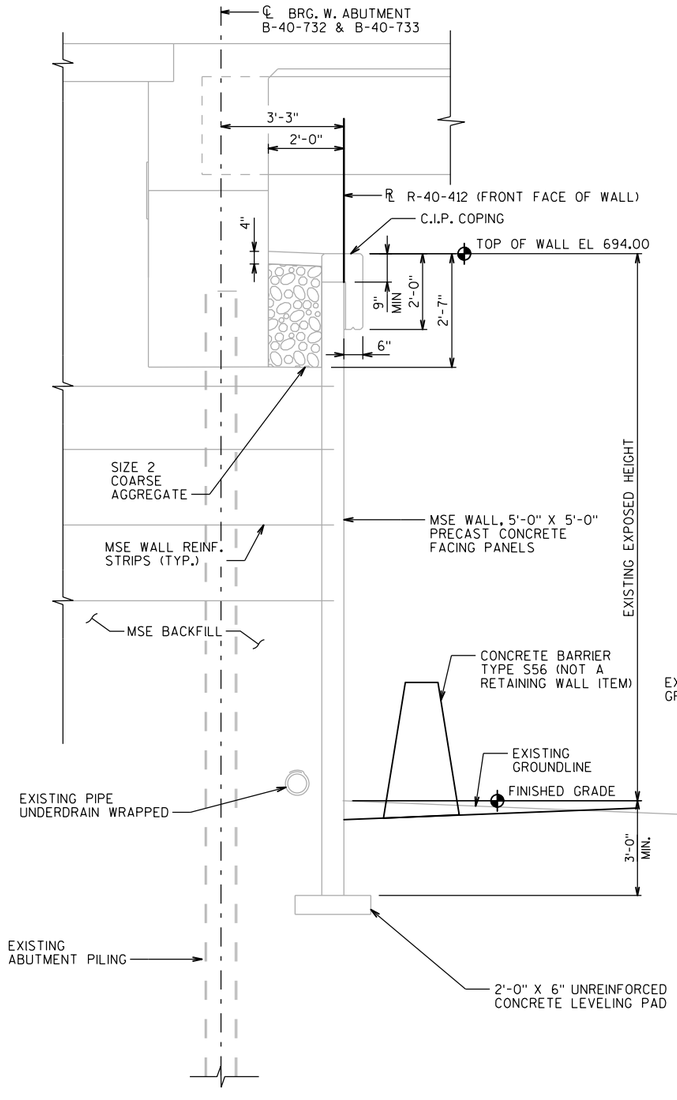
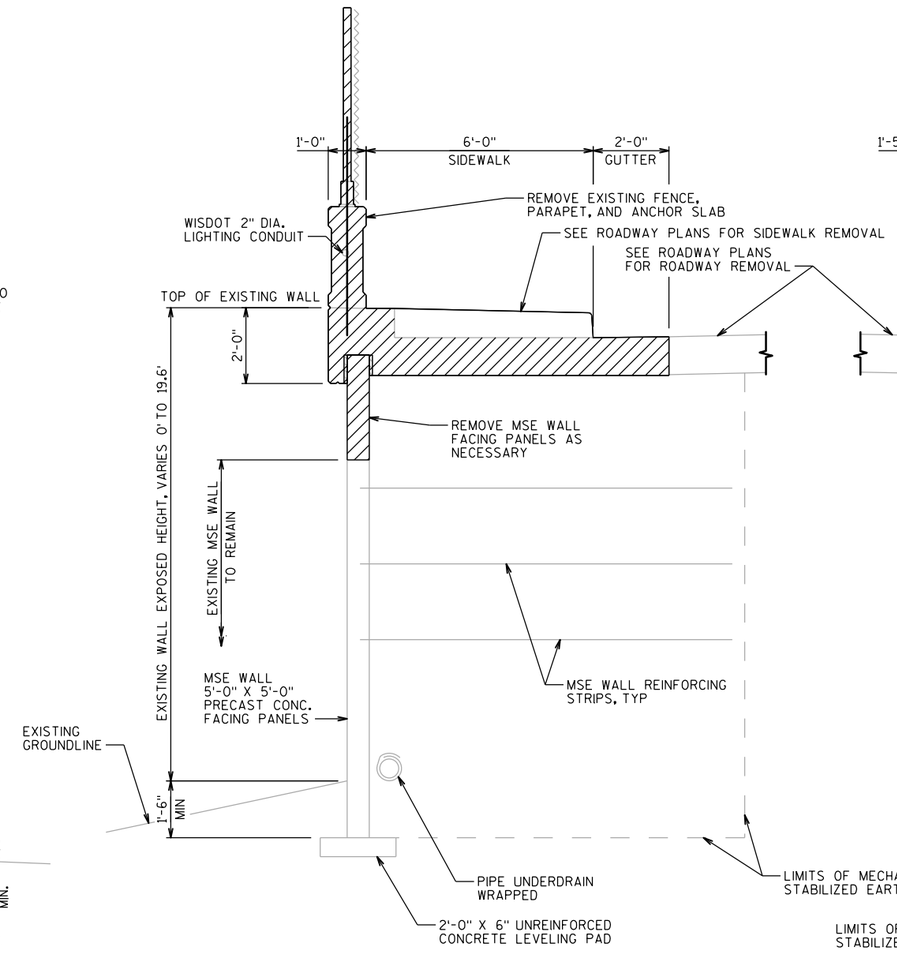
STATE PROJECT NUMBER
1229-04-73



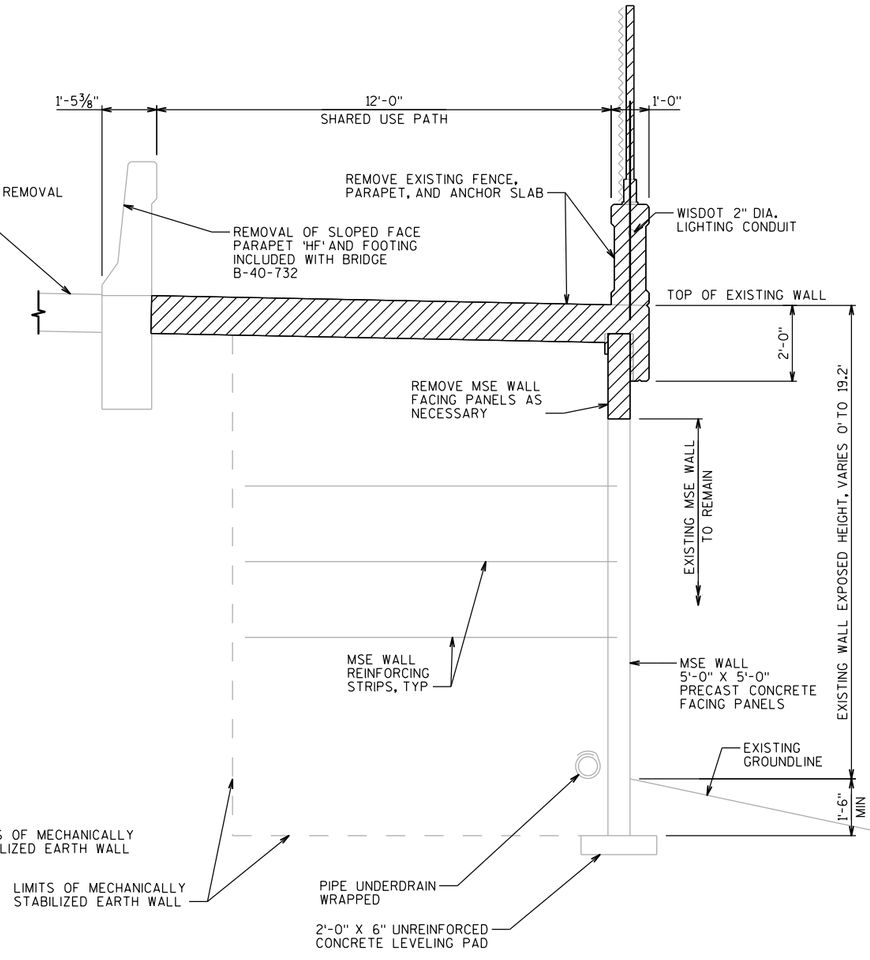
EXISTING WALL SECTION AT ABUTMENT - SEGMENT C

LOOKING NORTH (TO REMAIN)
STA. 11+23.90 TO STA. 12+47.89



REMOVALS AT EXISTING NW WING WALL SECTION

LOOKING EAST



REMOVALS AT EXISTING SW WING WALL SECTION

LOOKING EAST

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

DRAWN BY JTE | PLANS CK'D. HDA

EXISTING TYPICAL SECTIONS

SHEET 5 OF 9

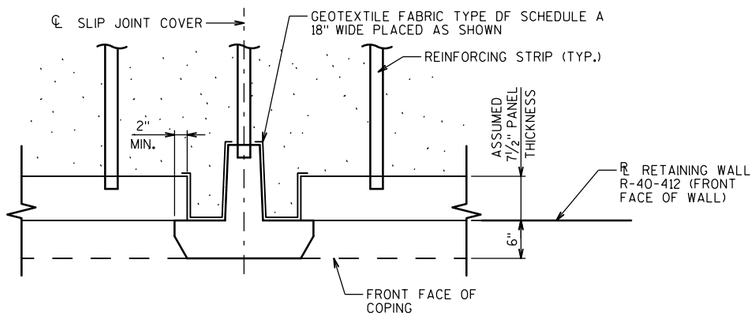
FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-412\cds\R412_080105_ts.dgn
PLOT DATE : 9/16/2021 5:50:45 PM PLOT BY : ejelinek
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1229-04-73

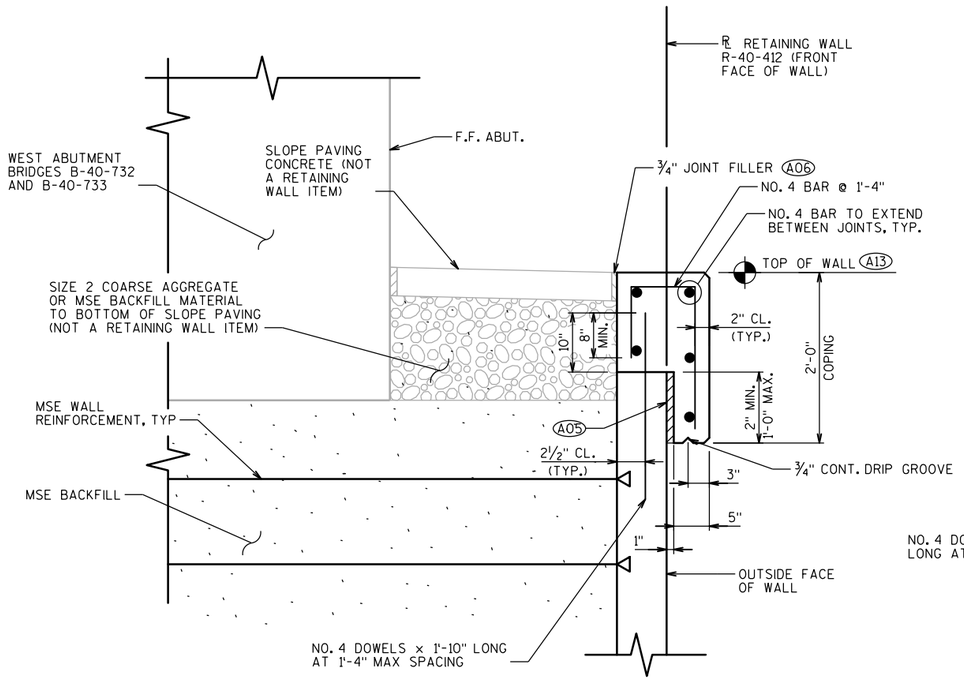
LEGEND

- (A04) 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FULL HEIGHT OF CLOSURE WALL. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412"
- (A05) 1" EXPANDED POLYSTYRENE
- (A06) SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)
- (A13) SEE "DESIGN DATA" SHEET FOR ELEVATION INFORMATION.
- (A15) MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANEL. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".
- F.F. FRONT FACE
- B.F. BACK FACE



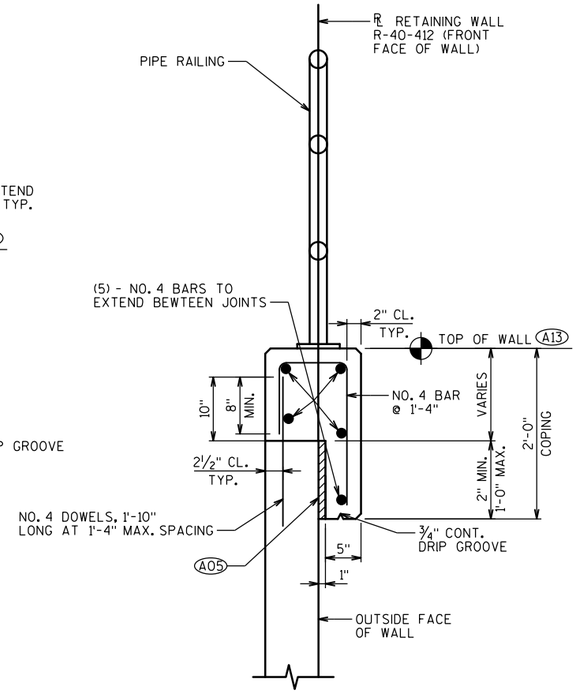
SLIP JOINT COVER DETAIL

SLIP JOINT COVER AND GEOTEXTILE FABRIC TYPE DF SCHEDULE A INCIDENTAL TO "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412"



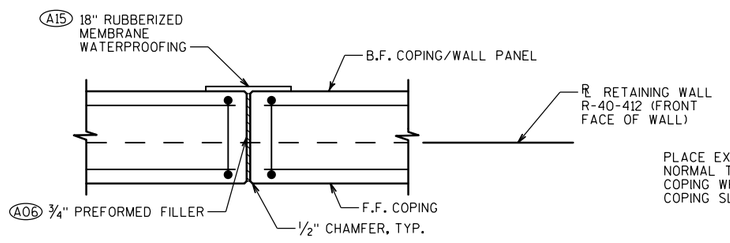
CROSS SECTION THRU ABUTMENT AT MSE WALL & COPING DETAIL AT SEGMENT B

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412"



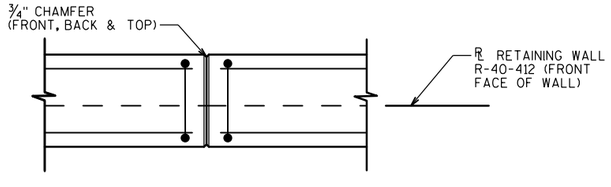
CAST-IN-PLACE CONCRETE COPING DETAIL AT SEGMENTS A & D

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412"



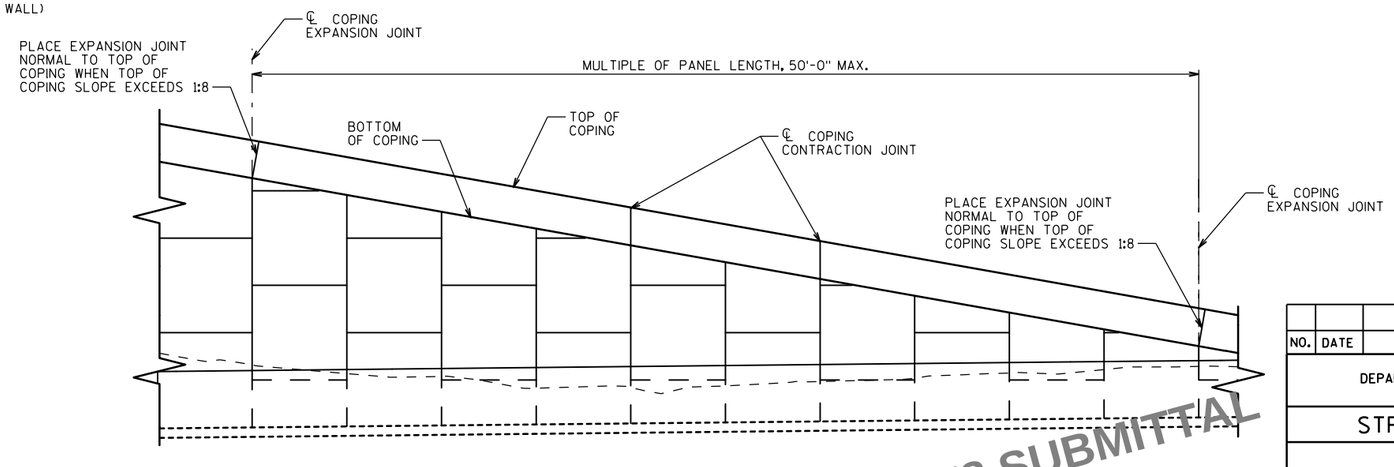
COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



PARTIAL ELEVATION

NOTE: ALL JOINTS SHALL BE LOCATED AS SHOWN AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

DRAWN BY NNM | PLANS CK'D. EAJ

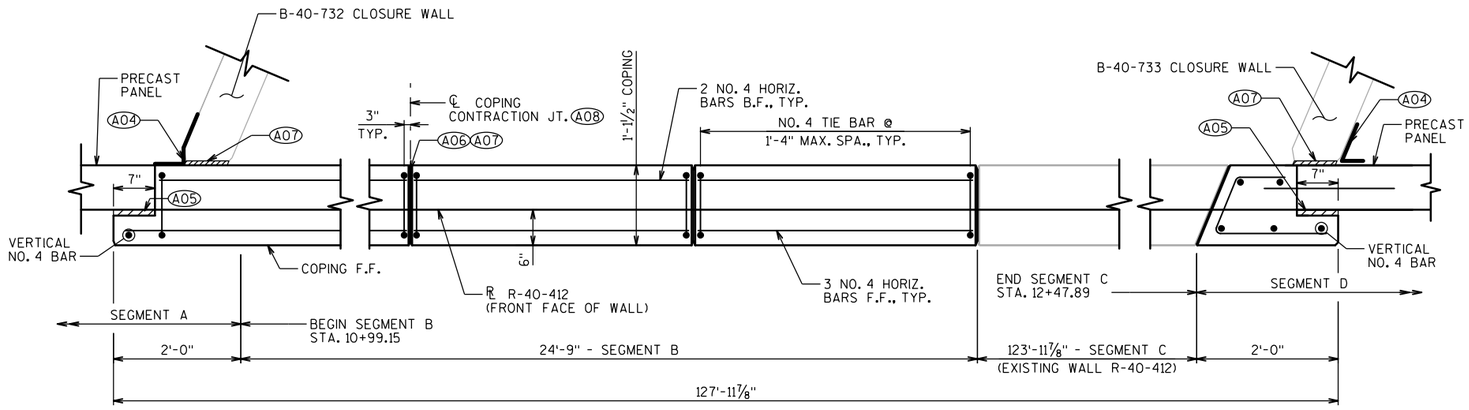
COPING DETAILS (1 OF 2)

SHEET 6 OF 9

8

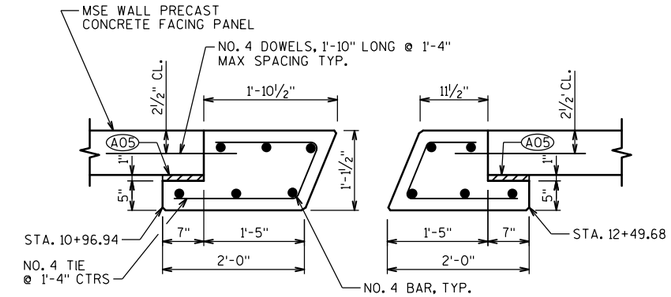
8

STATE PROJECT NUMBER
1229-04-73



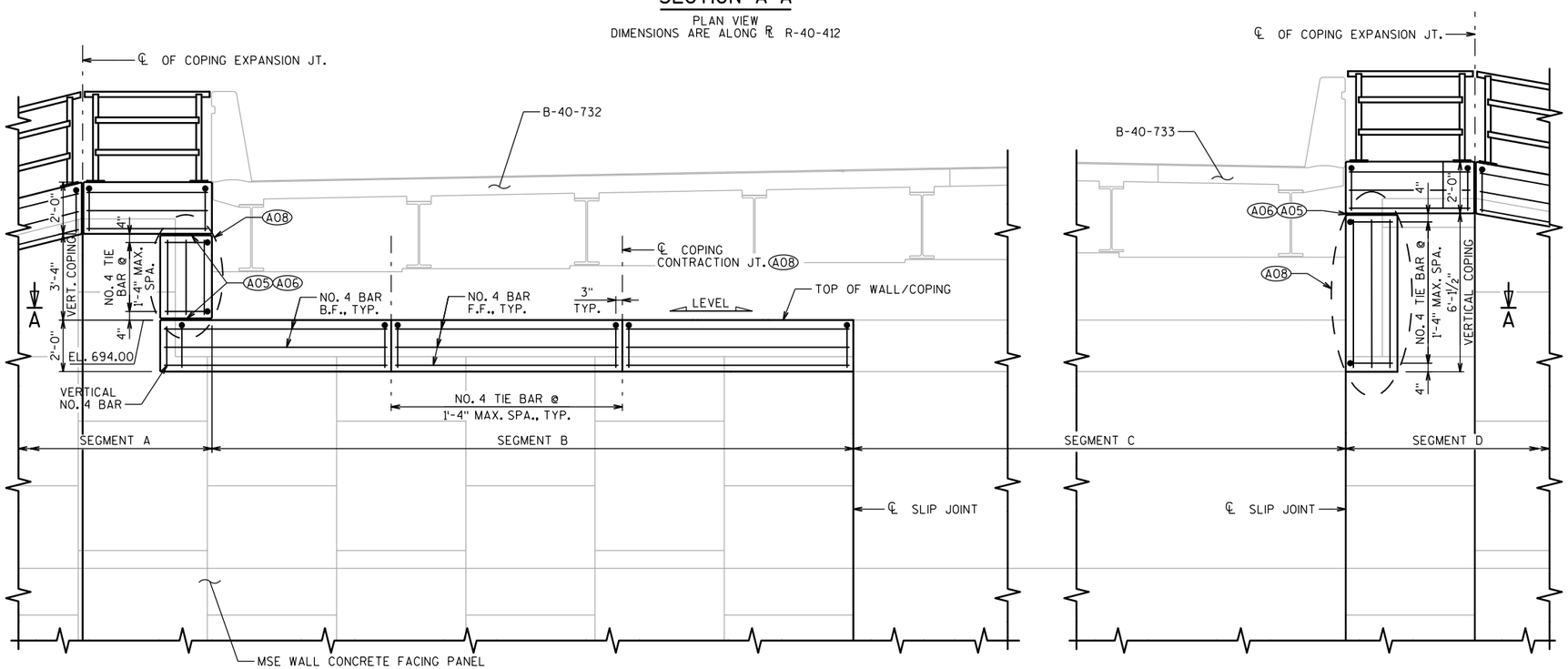
SECTION A-A

PLAN VIEW
DIMENSIONS ARE ALONG ℄ R-40-412



VERTICAL COPING DETAIL

(VERTICAL COPING SEGMENTS A & D)



ELEVATION

LOOKING AT FRONT FACE OF WALL
DIMENSIONS ARE ALONG ℄ R-40-412

LEGEND

- A04 — 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FULL HEIGHT OF CLOSURE WALL. INCLUDED IN BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-412".
- A05 — 1" PREFORMED JOINT FILLER.
- A06 — SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)
- A07 — ¾" PREFORMED JOINT FILLER
- A08 — REFER TO "COPING DETAILS (1 OF 2)" FOR ADDITIONAL DETAILS
- F.F. — FRONT FACE
- B.F. — BACK FACE

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

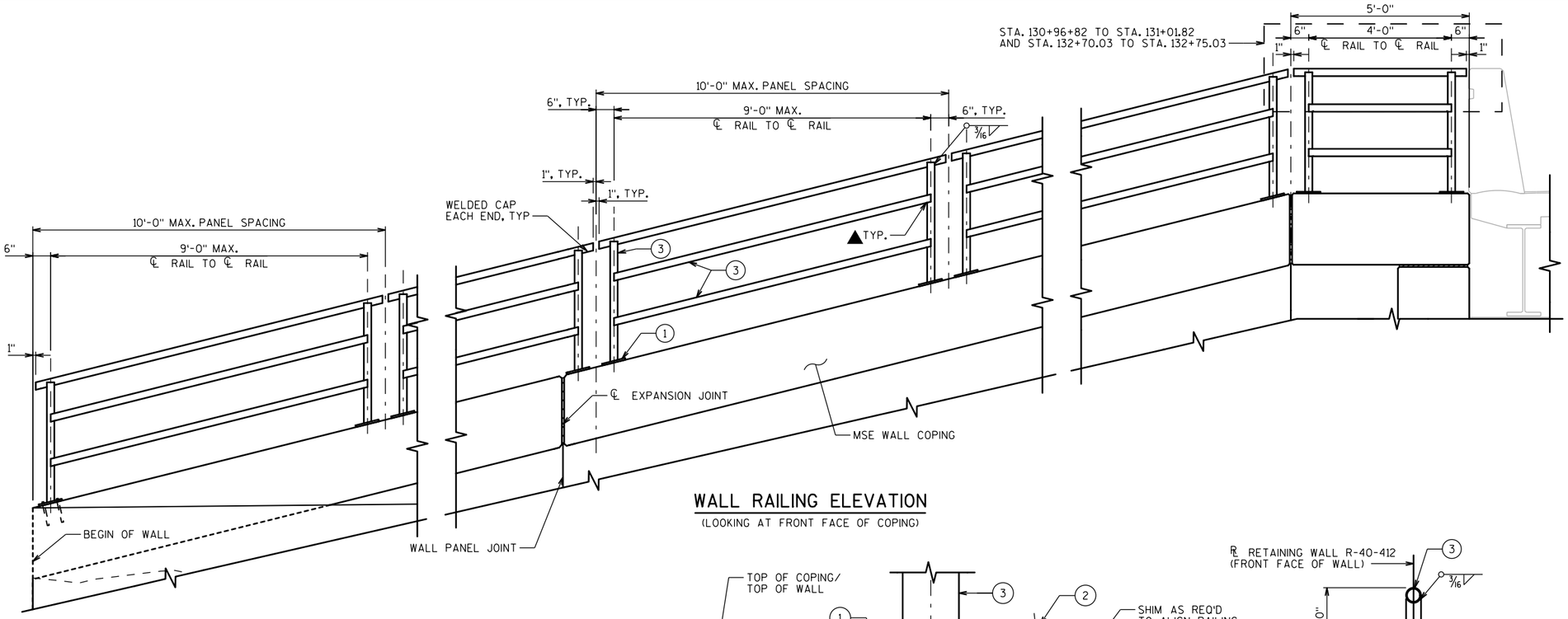
DRAWN BY NNM | PLANS CK'D. EAJ

COPING DETAILS (2 OF 2)

SHEET 7 OF 9

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



WALL RAILING ELEVATION

(LOOKING AT FRONT FACE OF COPING)

LEGEND

1. PLATE 5/8" × 6" × 8" WITH 3/4" × 1 1/2" SLOTTED HOLES.
2. STAINLESS STEEL CONCRETE ADHESIVE ANCHORS, 5/8" DIA. × 8 3/4" LONG WITH NUT AND WASHER. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.
3. 2 1/2" DIA STANDARD PIPE RAIL (2.875" O.D.). PLACE POSTS VERTICAL. WELD TO NO.(1). PLACE RAILS PARALLEL TO TOP OF COPING/ TOP OF WALL. WELD TO NO.(3).

▲ 1/2" DIA. DRAIN HOLE AT BOTTOM OF EACH RAIL END.

NOTES

BID ITEM "RAILING PIPE" INCLUDES ALL STEEL ITEMS SHOWN, CONCRETE ADHESIVE ANCHORS, GALVANIZING, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.(1) SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO.(3)).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE. ☆

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED AND USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.(1) AND CAULK AROUND PERIMETER OF PLATE NO.(1) WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

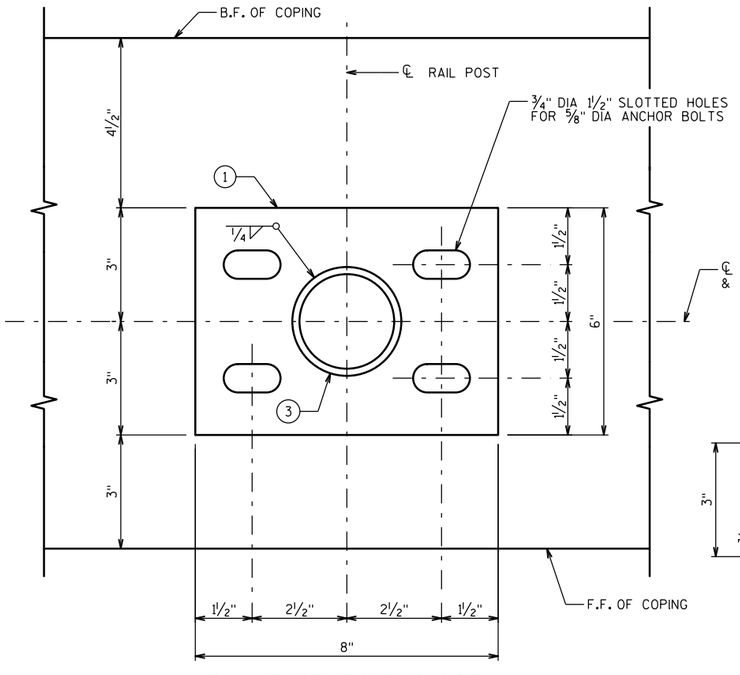
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE STANDARD SPECIFICATIONS. SHIMS SHALL BE GALVANIZED PER ASTM 123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

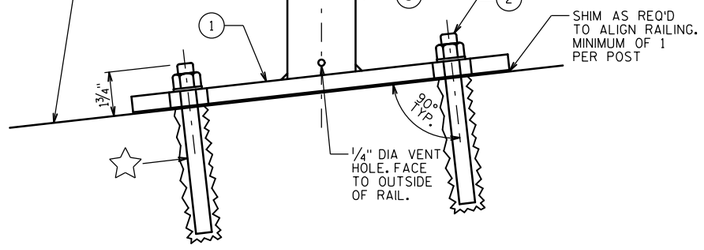
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

COORDINATE COPING EXPANSION JOINT PLACEMENT AND RAILING PANEL SPACING. COPING EXPANSION JOINT, WALL PANEL JOINT AND EDGE OF PANEL JOINT TO ALIGN AS SHOWN IN WALL RAILING ELEVATION DETAIL.



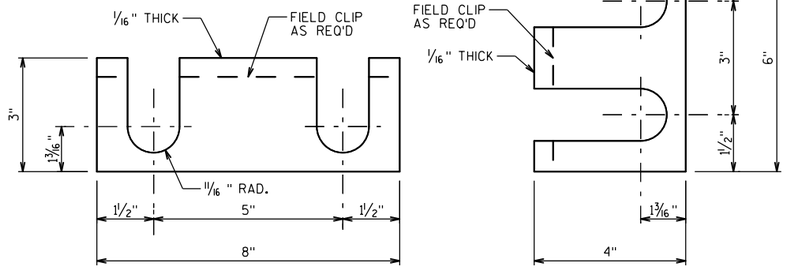
RAIL POST BASE PLATE



ANCHOR BOLTS FOR RAIL POST

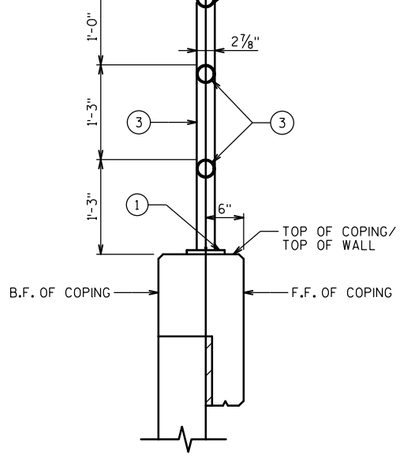
(BETWEEN EXPANSION JOINTS)

☆ DRILL HOLES NORMAL TO TOP OF COPING EXCEPT AT EXPANSION JOINTS. AT EXPANSION JOINTS, DRILL HOLES VERTICALLY. BEVELED WASHERS WILL BE REQUIRED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)



WALL RAILING SECTION

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

DRAWN BY NNM | PLANS CK'D. EAJ

PIPE RAILING DETAILS

SHEET 8 OF 9

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BD-01	DECEMBER 22, 2014	349869	603893
BD-02	JANUARY 14, 2015	350082	603811

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.

NOTE:

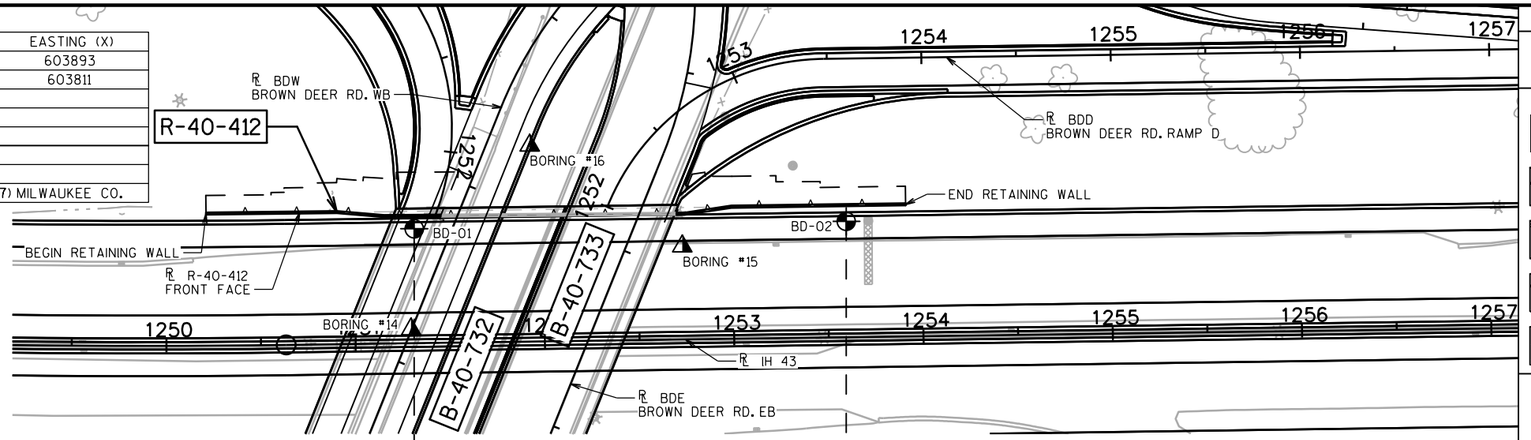
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

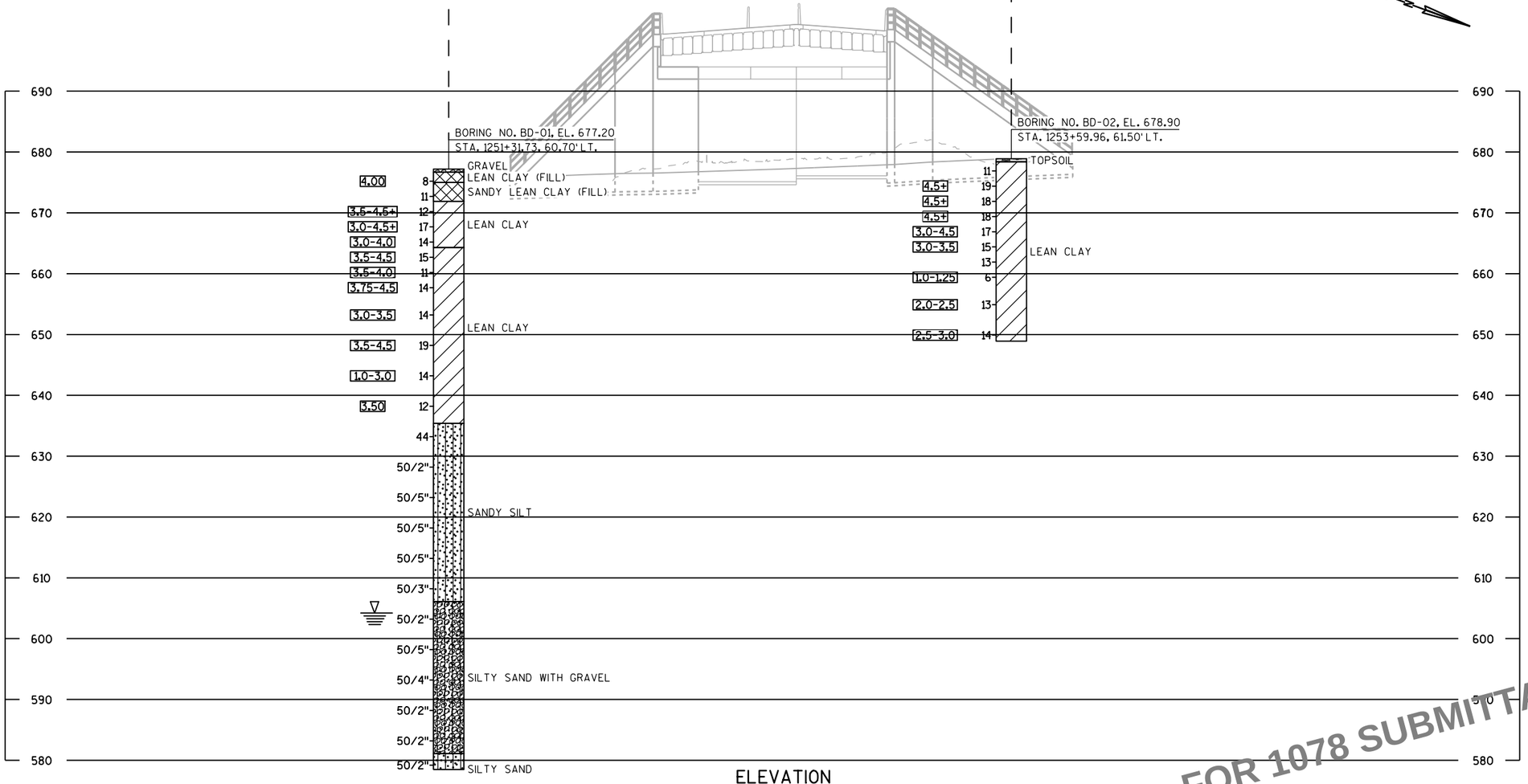
DENOTES SOIL BORING LOCATION

DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

FOR 1078 SUBMITTAL

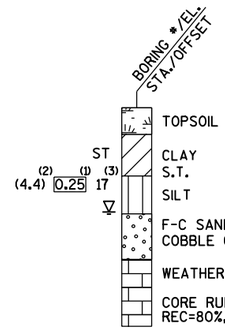
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-412

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SUBSURFACE EXPLORATION

SHEET 9 OF 9

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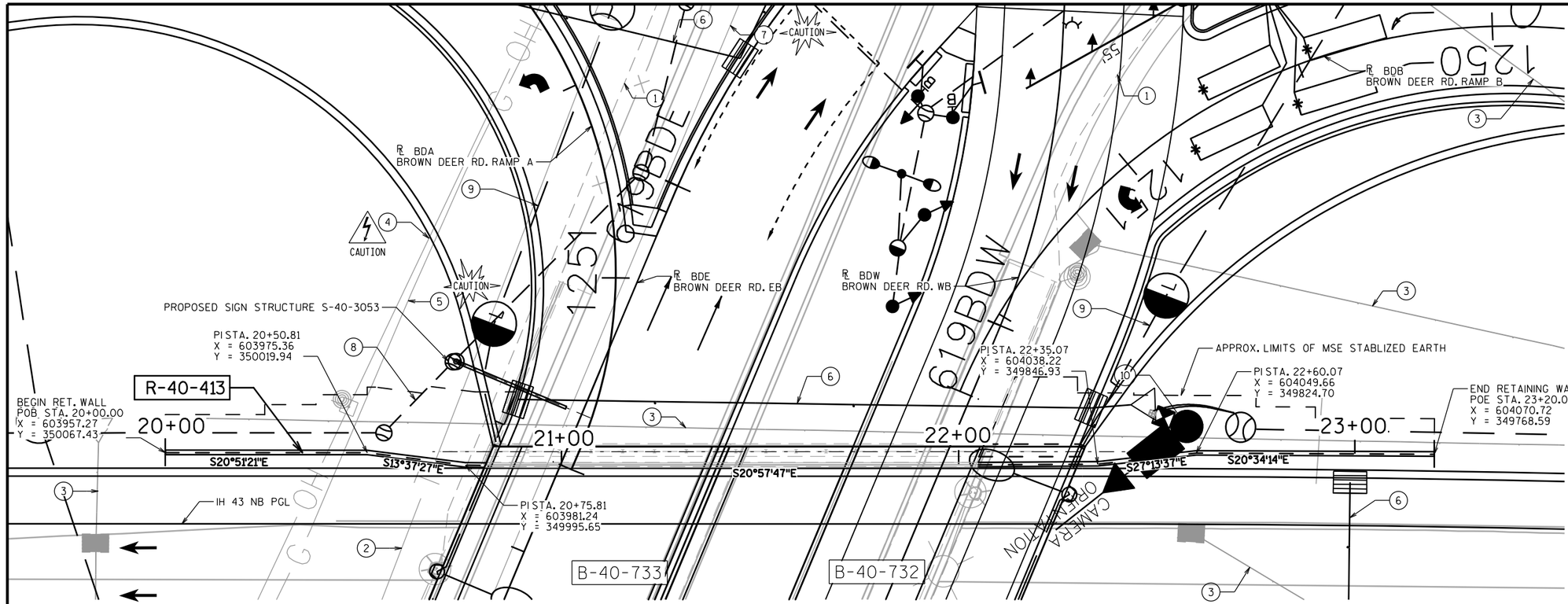
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-412\cds\R412_080301_se.dgn

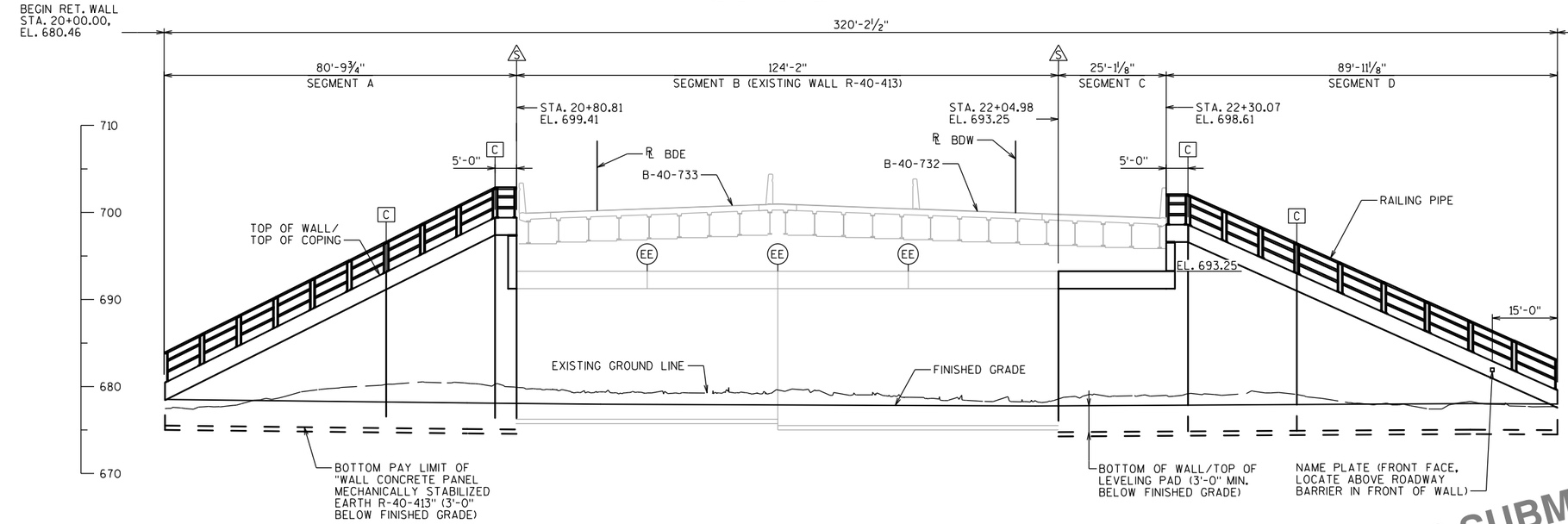
PLOT DATE : 9/28/2021 2:53:13 PM PLOT BY : ejelinek

PLOT SCALE : 80:1



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL NOTES & QUANTITIES
3. DESIGN DATA & PROFILE GRADE LINE
4. PROPOSED TYPICAL SECTIONS
5. EXISTING TYPICAL SECTIONS
6. COPING DETAILS (1 OF 2)
7. COPING DETAILS (2 OF 2)
8. PIPE RAILING DETAILS
9. SUBSURFACE EXPLORATION

LEGEND

- TRAFFIC DIRECTION
- C — CONTRACTION JOINT
- S — SLIP JOINT
- EE — EXISTING EXPANSION JOINT

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING TELEPHONE LINE
3. EXISTING WISDOT STORM SEWER
4. EXISTING OVERHEAD ELECTRIC LINE
5. EXISTING GAS LINE
6. PROPOSED WISDOT STORM SEWER
7. EXISITNG ABANDONED GAS LINE
8. PROPOSED WISDOT SIGNALS
9. PROPOSED WISDOT LIGHTING
10. PROPOSED WISDOT FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-413

BROWN DEER RD. E. ABUT. RETAINING WALL

COUNTY	~~TOWN/CITY~~/VILLAGE
MILWAUKEE	BAYSIDE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	EAJ	DESIGN CK'D.	HDA	DRAWN BY	NNM	PLANS CK'D.	EAJ

GENERAL PLAN & ELEVATION

SHEET 1 OF 9

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STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE COPING ARE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWERS AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 3'-0" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

COORDINATE THE CONSTRUCTION OF WALL R-40-413 WITH THE REMOVAL OF PORTIONS OF EXISTING WALL R-40-413 AND THE CONSTRUCTION OF THE NEW PORTION OF WEST ABUTMENT ON BRIDGE B-40-732.

THE PORTION OF THE EXISTING WALL R-40-413, UNDERNEATH THE BRIDGE STRUCTURE IS TO REMAIN. REMOVAL OF THE EXISTING FENCE, PARAPET, MOMENT SLAB AND THE TOP ROW OF PANELS IS PROPOSED FOR THE PORTIONS OF THE EXISTING WALL WHICH RUN PERPENDICULA R TO THE WEST ABUTMENT AND WILL BE PAID FOR UNDER BID ITEM "REMOVING OLD STRUCTURE STA. 618BDW+50.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE TO MATCH THE PANELS OF THE EXISTING PORTION OF R-40-413 TO REMAIN. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

SUITABLE DRAINAGE IS REQUIRED BEHIND BOTH THE EXISTING PORTIONS OF THE WALL AND THE NEW PORTIONS OF THE WALL. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING BOTH THE DAYLIGHTING LOCATION OF THE EXISTING PIPE UNDERDRAIN WRAPPED 6-INCH AND THE MOST APPROPRIATE METHOD OF PROVIDING FUTURE PROPER DRAINAGE.

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE AS SHOWN ON THE "TYPICAL SECTIONS" SHEET.

DESIGN RETAINING WALL USING A LIVE LOAD SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE TO MATCH THE PANELS OF THE EXISTING PORTION OF R-40-413 TO REMAIN. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

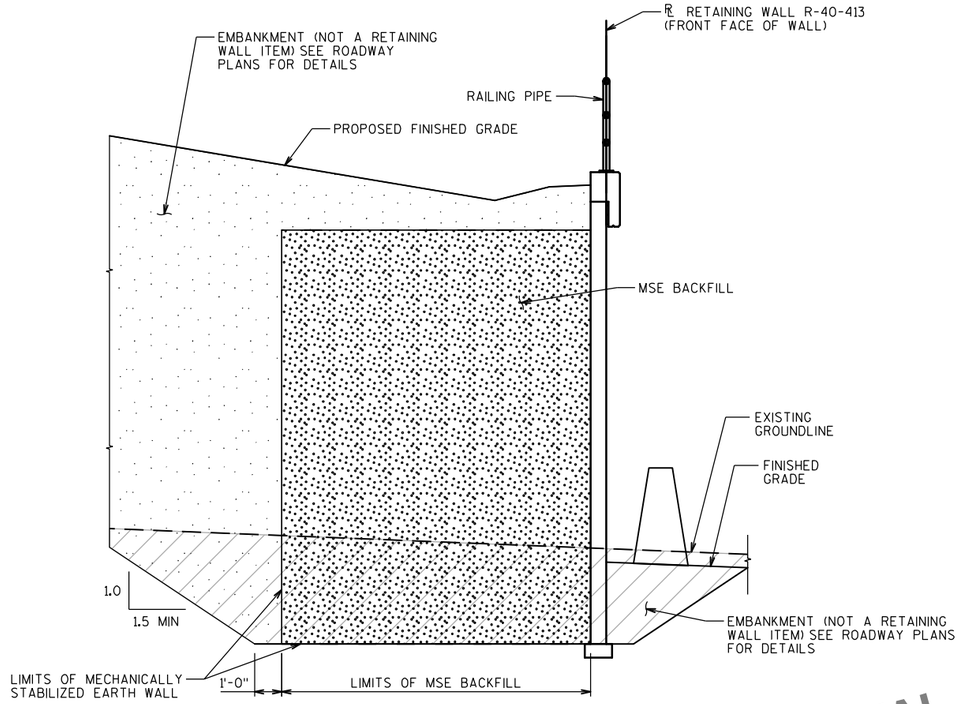
DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SEG. A	SEG. B	SEG. C	SEG. D	TOTAL
203.0220.XX	REMOVING STRUCTURE R-40-413	EACH	-	-	-	-	-
513.2001	RAILING PIPE	LF	-	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	-	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	-	-
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	-	-	-	-	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413	SF	-	-	-	-	-
	NON BID ITEMS						
	NAME PLATE	EACH					1
	NON-BITUMINOUS JOINT SEALER	SIZE					1"
	EXPANDED POLYSTYRENE	SIZE					1"
	RODENT SHIELD	EACH					-

ALL ITEMS ARE CATEGORY XXXX



WALL EXCAVATION LIMITS DIAGRAM

LOOKING SOUTH

LEGEND

WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

MATERIAL PROPERTIES

CONCRETE MASONRY
MSE WALL COPING _____ f'c = 3,500 P.S.I.
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 _____ Fy = 60,000 P.S.I.

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GENERAL NOTES & QUANTITIES

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MSE WALL SOIL PARAMETERS

SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐ GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0	30	0
LEAN CLAY (RETAININED SOIL)	125	0	2000	30	0
LEAN CLAY (FOUNDATION SOIL)	130	0	3000	30	0

◐ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS			
WALL HEIGHT (FEET)		24.8	15
EXPOSED WALL HEIGHT (FEET)		12.4	12
◥ MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)		17.4	10.5
REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO		1.13	0.70
WALL STATION		20+68	22+63
LIVE LOAD SURCHAGE (PSF)		240	100
BORING USED		B-13	BD-06
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING		1.67	1.46
ECCENTRICITY		1.96	1.32
BEARING RESISTANCE		1.90	2.20
FACTORED BEARING RESISTANCE (PSF)		10,000	7,700
GLOBAL STABILITY	END OF CONSTRUCTION	1.96	2.94
	LONG-TERM	1.05	1.07

◥ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

WALL ELEVATIONS SEGMENT A ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
20+00.00	680.46	678.53	677.46
20+25.00	686.71	678.38	678.56
20+50.00	692.58	678.23	680.18
20+50.81	693.16	678.23	680.25
20+75.00	699.21	678.09	680.06
20+75.81	699.41	678.09	680.25
20+80.81	699.41	678.07	679.41

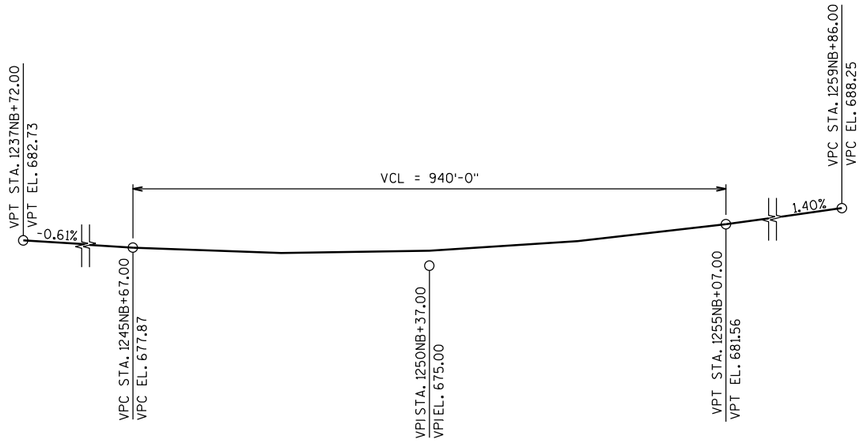
WALL ELEVATIONS SEGMENT C ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
22+04.98	693.25	677.77	678.52
22+25.00	693.25	677.83	679.03
22+30.07	693.25	677.84	678.99

WALL ELEVATIONS SEGMENT D ⧓

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
22+30.07	698.61	677.84	678.99
22+35.07	698.61	677.86	679.18
22+50.00	695.26	677.90	679.48
22+60.07	693.01	677.93	679.08
22+75.00	689.66	677.97	678.05
23+00.00	684.06	678.04	678.29
23+20.00	679.58	677.99	677.69

⧓ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.



PROFILE GRADE LINE IH 43 NB

℄ 'NB'

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DESIGN DATA & PROFILE GRADE LINE

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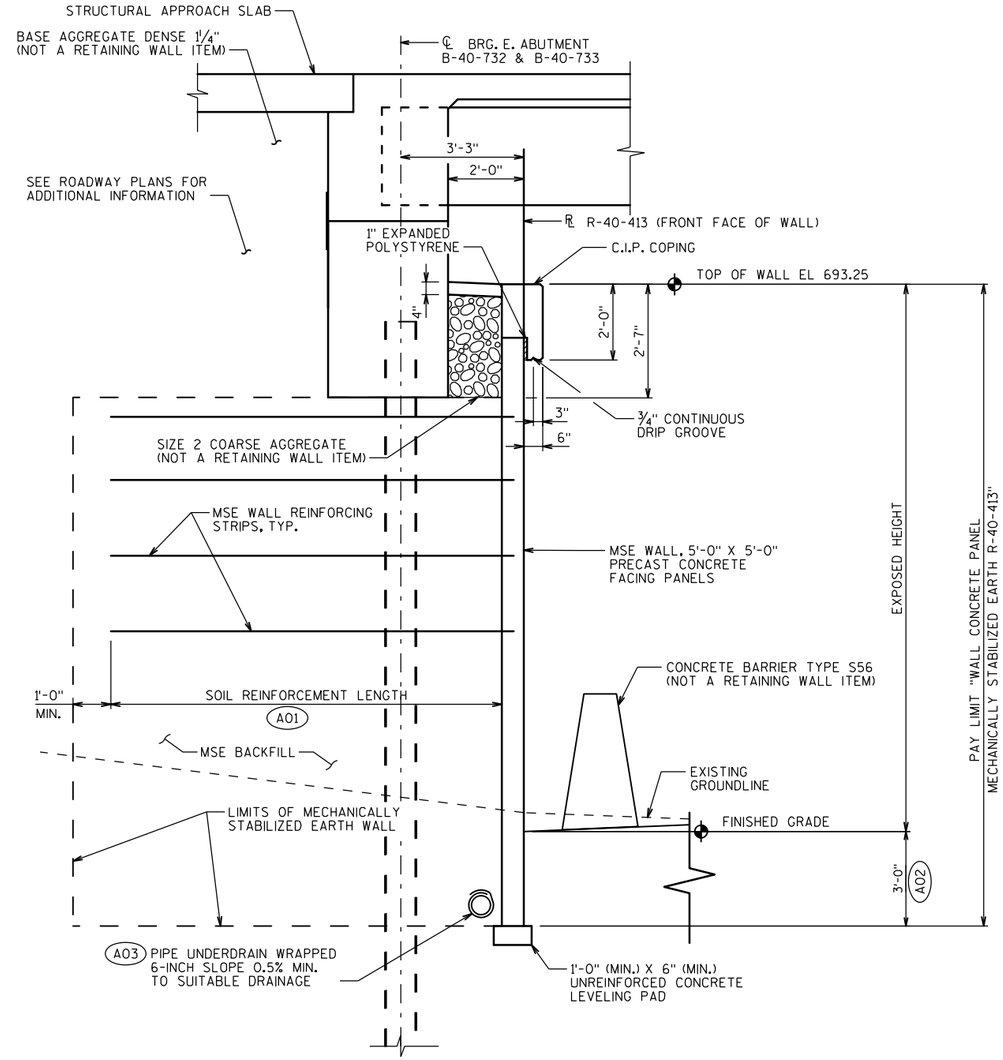
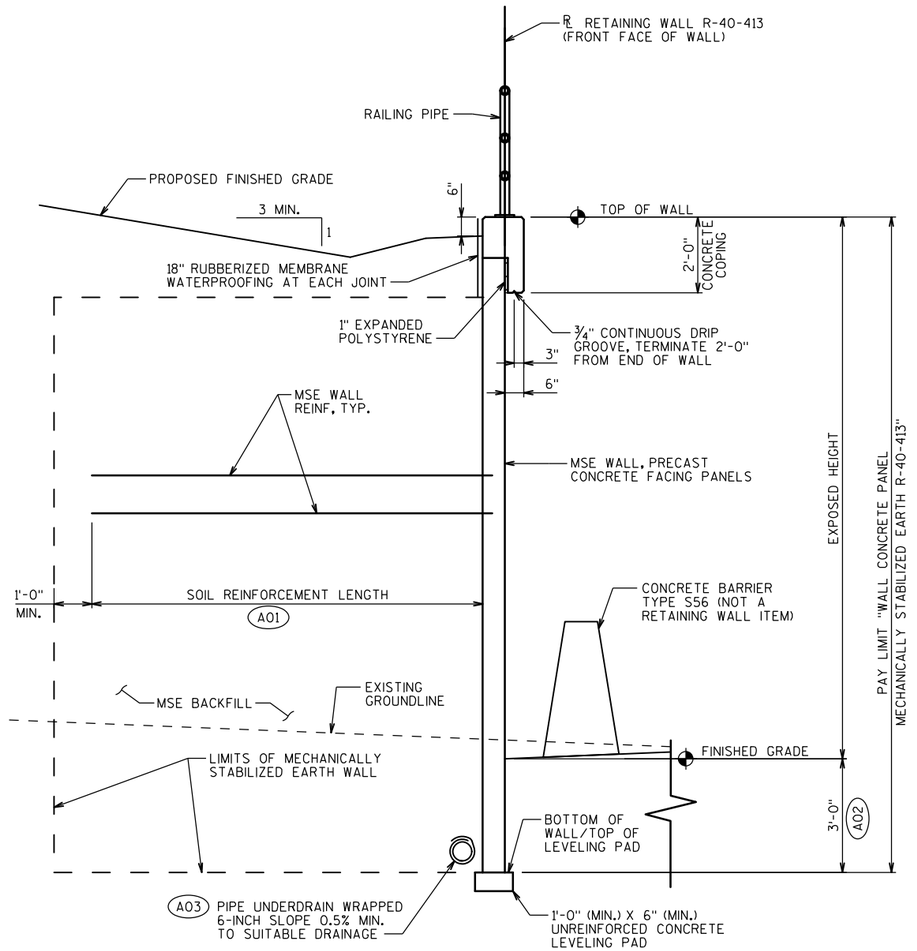


PROPOSED TYPICAL SECTION AT ABUTMENT - SEGMENT C

LOOKING SOUTH
STA. 22+04.98 TO STA. 22+30.07



PROPOSED TYPICAL SECTION - SEGMENTS A & D

LOOKING SOUTH
STA. 20+00.00 TO STA. 20+80.81
STA. 22+30.07 TO STA. 23+20.00

LEGEND

A01 SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINE SHEET" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A02 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A03 CONNECT NEW PIPE UNDERDRAIN TO UNDERDRAIN AT EXISTING WALL. CONNECT PIPE UNDERDRAIN TO INLET *XXXXXX. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

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PROPOSED TYPICAL SECTIONS

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-413\cds\R413_GEN04DAT.dgn 9/16/2021 10:32:26 PM PLOT BY : ejelinek PLOT NAME : $FILE$ PLOT SCALE : 4:1

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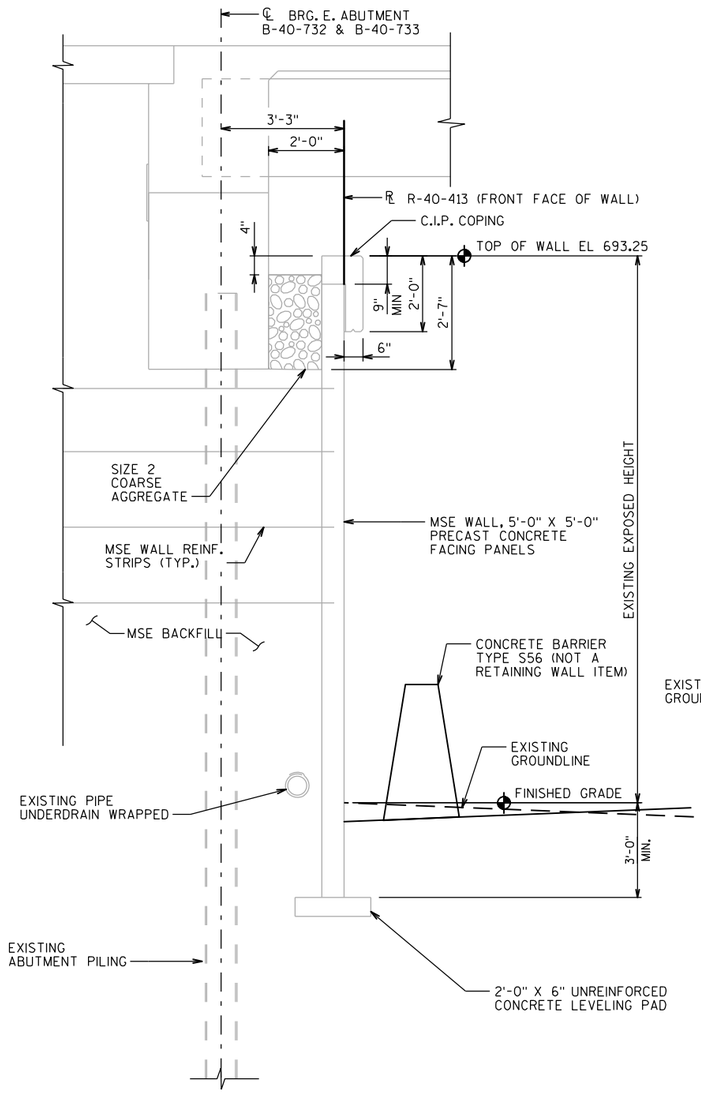
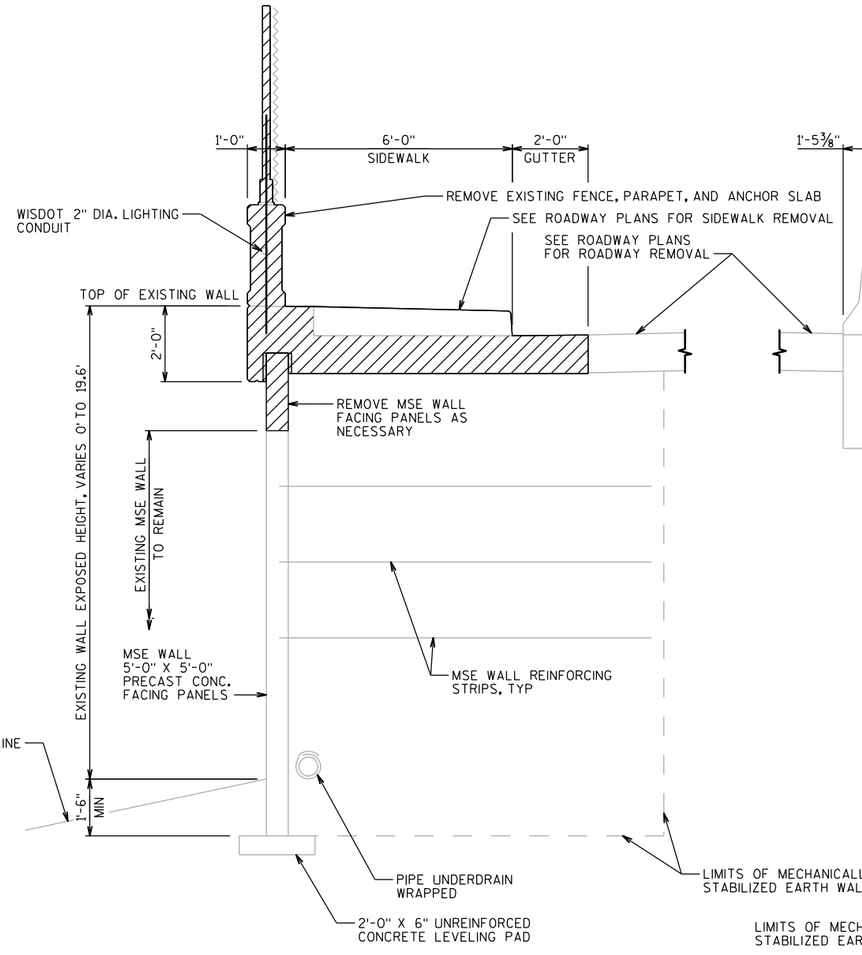


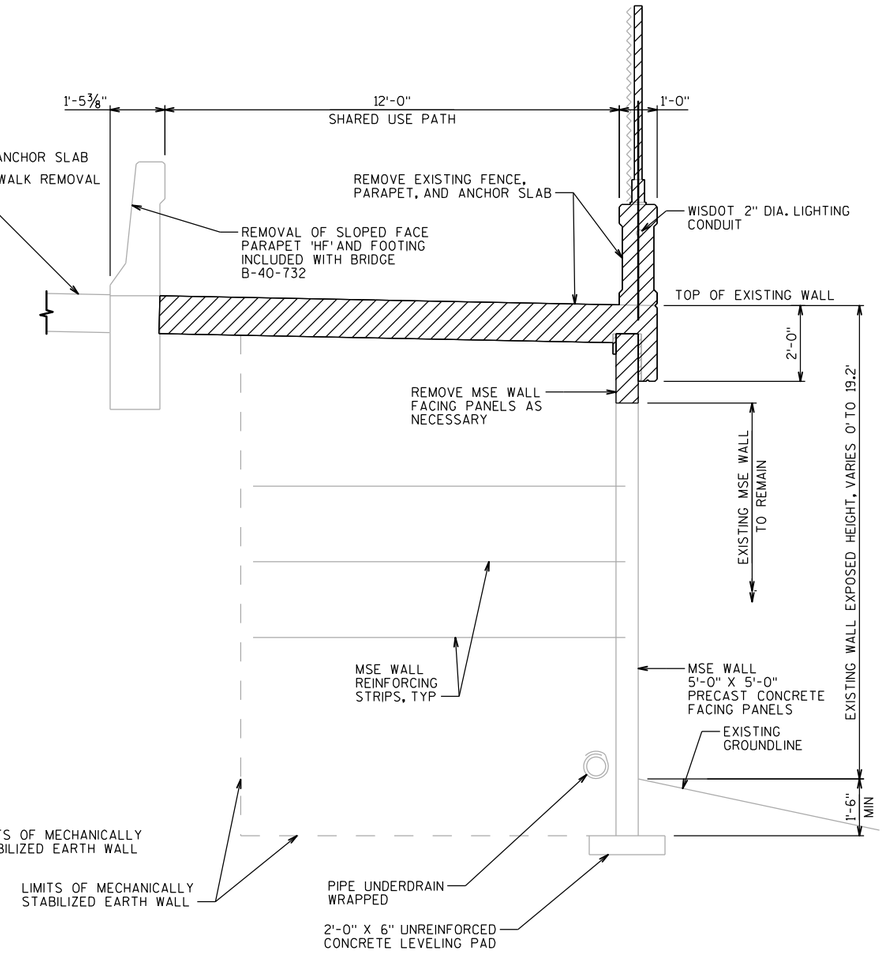
EXISTING WALL SECTION AT ABUTMENT - SEGMENT B

LOOKING SOUTH (TO REMAIN)



REMOVALS AT EXISTING NE WING WALL SECTION

LOOKING EAST



REMOVALS AT EXISTING SE WING WALL SECTION

LOOKING EAST

8

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EXISTING TYPICAL SECTIONS

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LEGEND

(A04) 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FULL HEIGHT OF CLOSURE WALL. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413"

(A05) 1" EXPANDED POLYSTYRENE

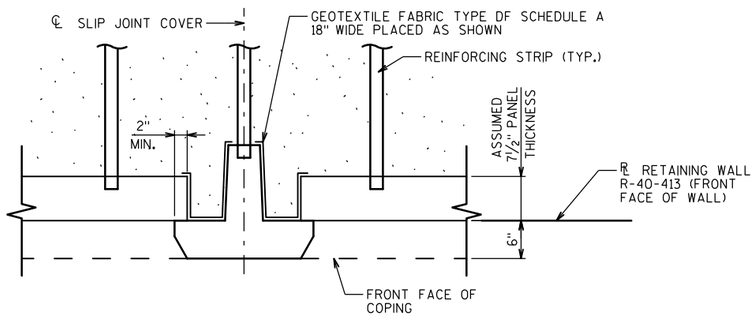
(A06) SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

(A13) SEE "DESIGN DATA" SHEET FOR ELEVATION INFORMATION.

(A15) MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANEL. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".

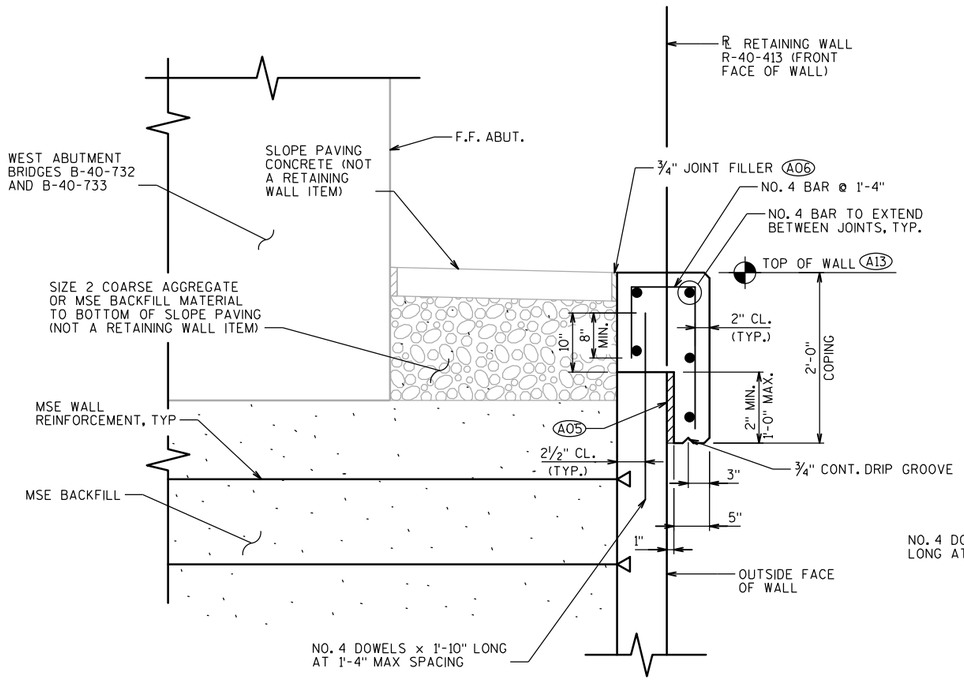
F.F. FRONT FACE

B.F. BACK FACE



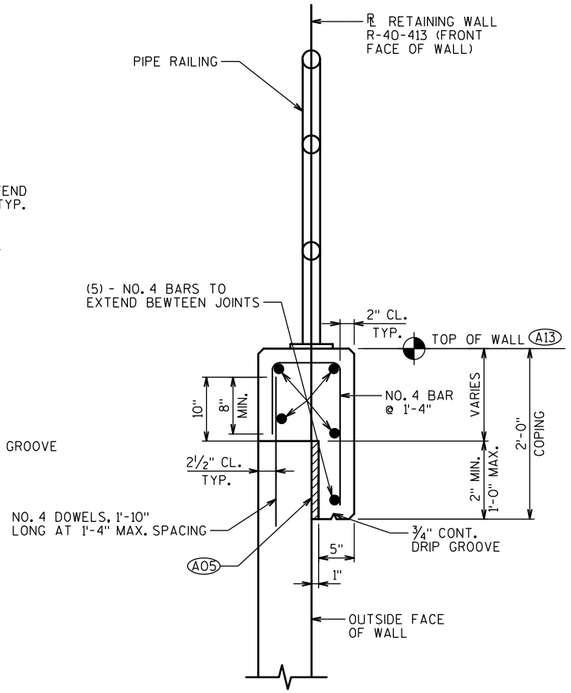
SLIP JOINT COVER DETAIL

SLIP JOINT COVER AND GEOTEXTILE FABRIC TYPE DF SCHEDULE A INCIDENTAL TO "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413"



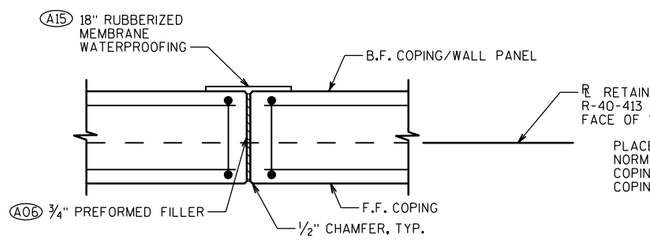
CROSS SECTION THRU ABUTMENT AT MSE WALL & COPING DETAIL AT SEGMENT B

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413"



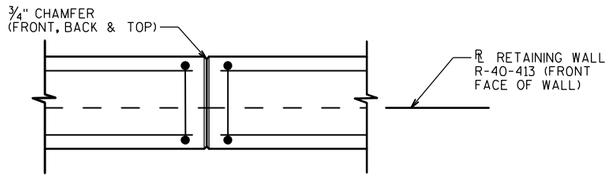
CAST-IN-PLACE CONCRETE COPING DETAIL AT SEGMENTS A & D

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413"



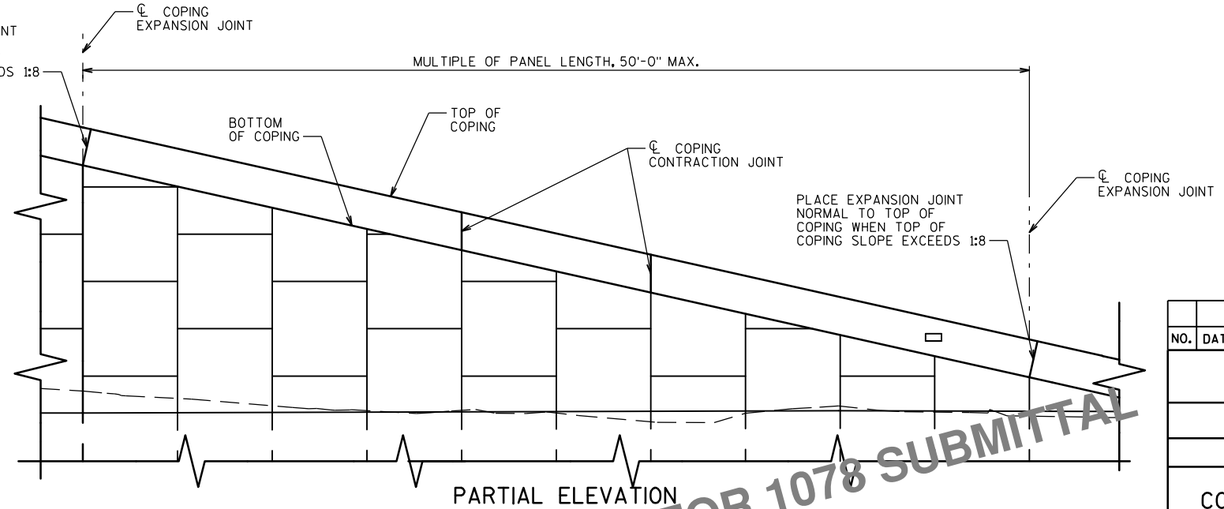
COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



PARTIAL ELEVATION

NOTE: ALL JOINTS SHALL BE LOCATED AS SHOWN AND MOST COINCIDE WITH PANEL JOINT ON FRONT FACE.

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COPING DETAILS (1 OF 2)

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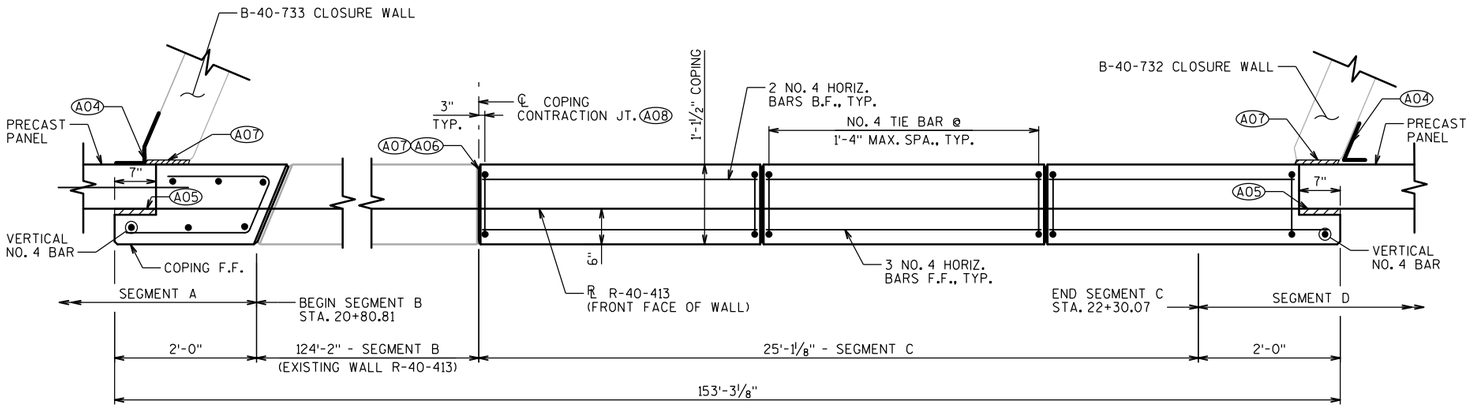
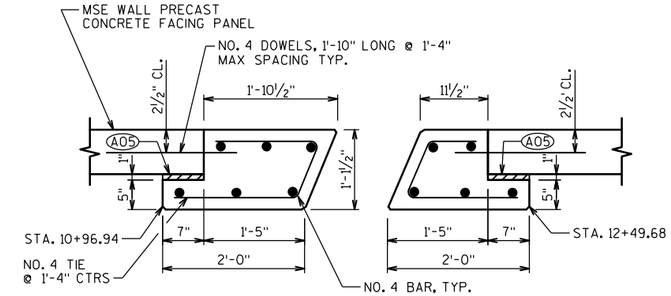


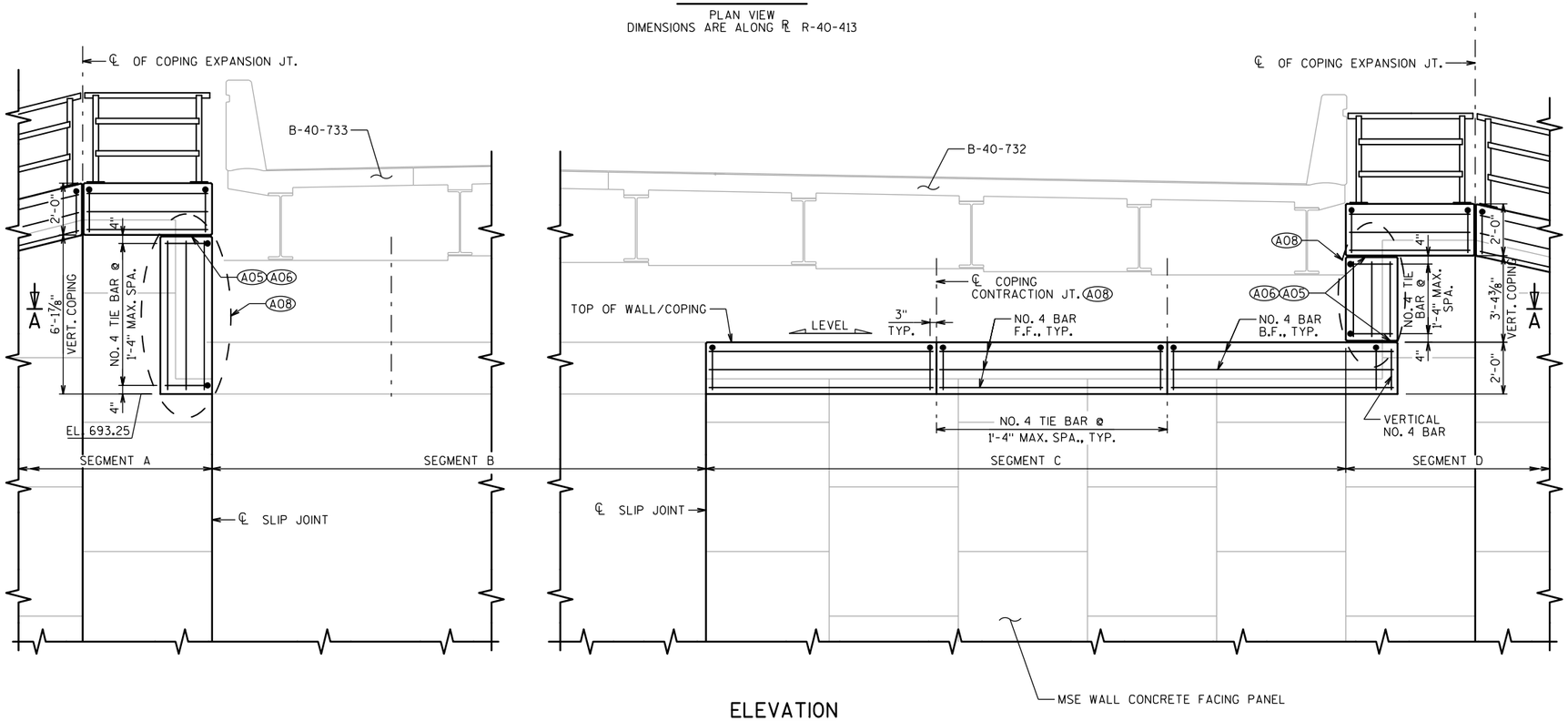
SECTION A-A

PLAN VIEW
DIMENSIONS ARE ALONG ℞ R-40-413



VERTICAL COPING DETAIL

(VERTICAL COPING SEGMENTS A & D)



ELEVATION

LOOKING AT FRONT FACE OF WALL
DIMENSIONS ARE ALONG ℞ R-40-413

LEGEND

- A04 — 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FULL HEIGHT OF CLOSURE WALL. INCLUDED IN BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-413".
- A05 — 1" PREFORMED JOINT FILLER.
- A06 — SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)
- A07 — ¾" PREFORMED JOINT FILLER
- A08 — REFER TO "COPING DETAILS (1 OF 2)" FOR ADDITIONAL DETAILS
- F.F. — FRONT FACE
- B.F. — BACK FACE

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COPING DETAILS (2 OF 2)

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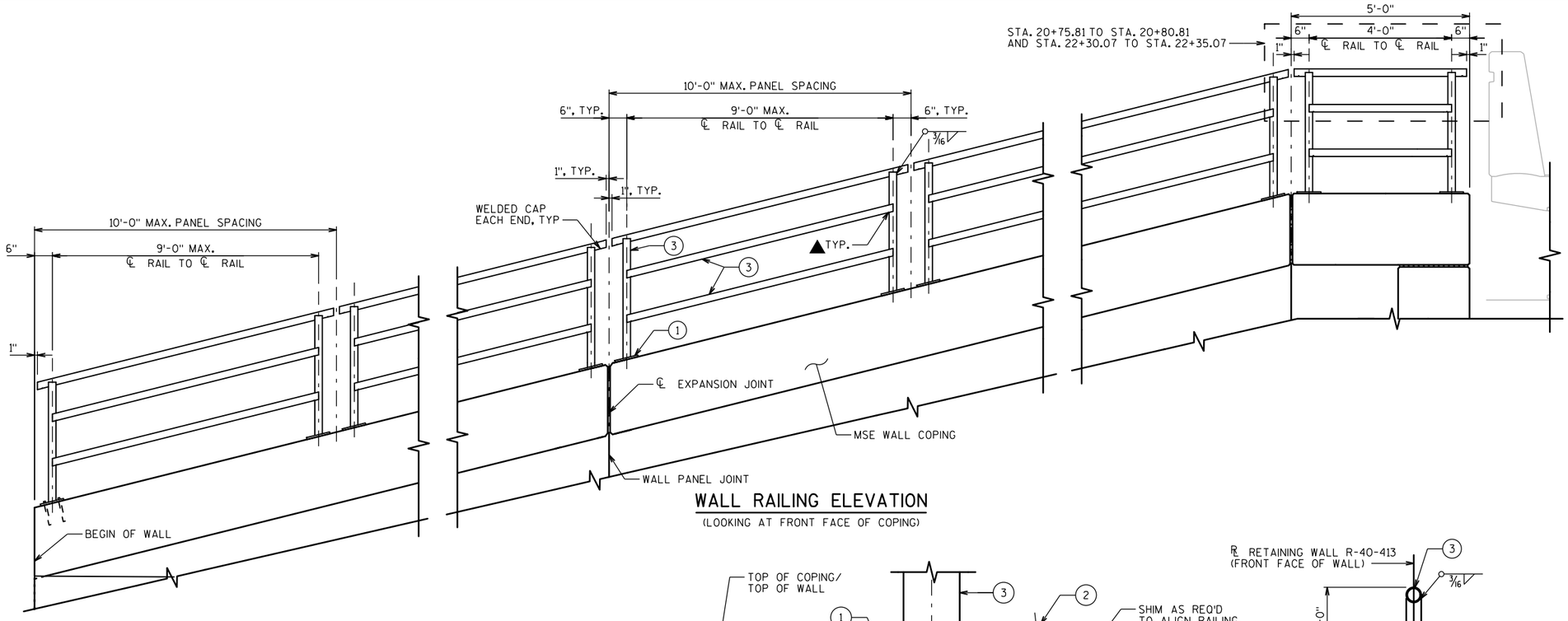


WALL RAILING ELEVATION

(LOOKING AT FRONT FACE OF COPING)

LEGEND

(1) PLATE 5/8" × 6" × 8" WITH 3/4" × 1 1/2" SLOTTED HOLES.

(2) STAINLESS STEEL CONCRETE ADHESIVE ANCHORS. 5/8" DIA. × 8 3/4" LONG WITH NUT AND WASHER. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

(3) 2 1/2" DIA STANDARD PIPE RAIL (2.875" O.D.). PLACE POSTS VERTICAL. WELD TO NO.(1). PLACE RAILS PARALLEL TO TOP OF COPING/ TOP OF WALL. WELD TO NO.(3).

▲ 1/2" DIA. DRAIN HOLE AT BOTTOM OF EACH RAIL END.

NOTES

BID ITEM "RAILING PIPE" INCLUDES ALL STEEL ITEMS SHOWN, CONCRETE ADHESIVE ANCHORS, GALVANIZING, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.(1) SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO.(3)).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE. ☆

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED AND USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.(1) AND CAULK AROUND PERIMETER OF PLATE NO.(1) WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

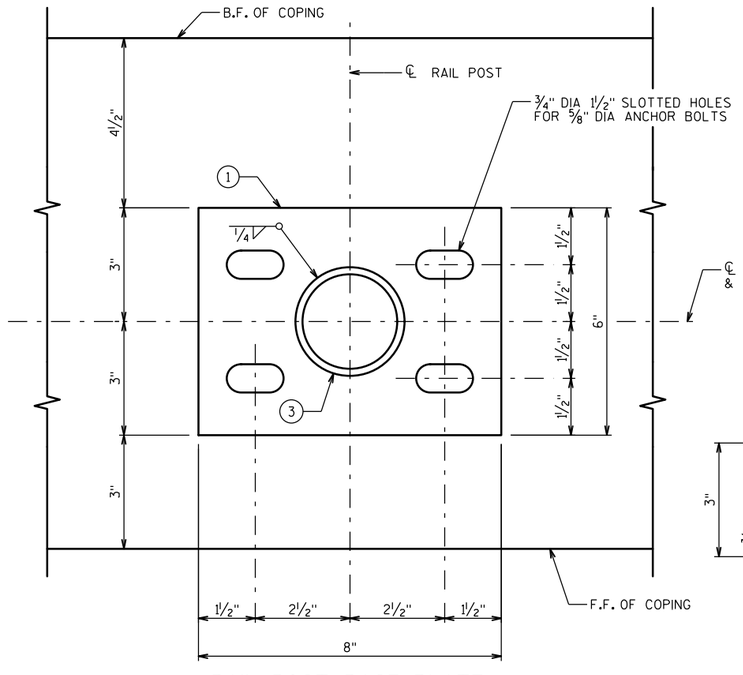
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE STANDARD SPECIFICATIONS. SHIMS SHALL BE GALVANIZED PER ASTM 123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

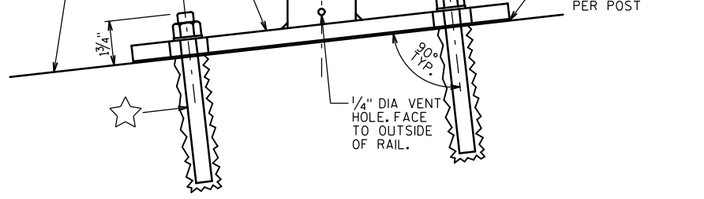
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

COORDINATE COPING EXPANSION JOINT PLACEMENT AND RAILING PANEL SPACING. COPING EXPANSION JOINT, WALL PANEL JOINT AND EDGE OF PANEL JOINT TO ALIGN AS SHOWN IN WALL RAILING ELEVATION DETAIL.



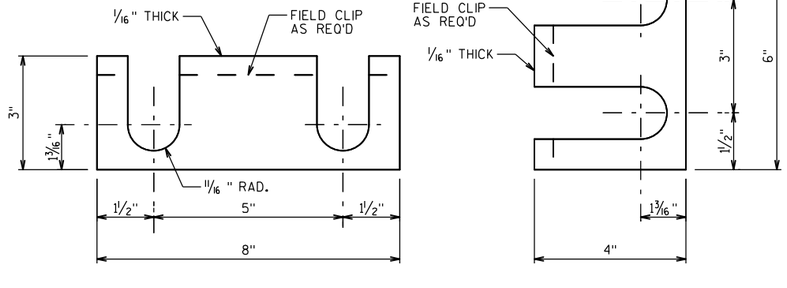
RAIL POST BASE PLATE



ANCHOR BOLTS FOR RAIL POST

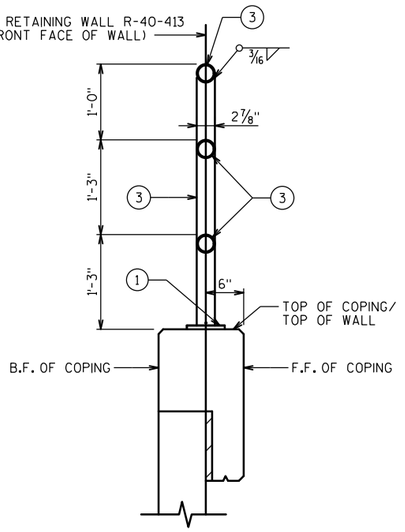
(BETWEEN EXPANSION JOINTS)

☆ DRILL HOLES NORMAL TO TOP OF COPING EXCEPT AT EXPANSION JOINTS. AT EXPANSION JOINTS, DRILL HOLES VERTICALLY. BEVELED WASHERS WILL BE REQUIRED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)



WALL RAILING SECTION

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-413

DRAWN BY NNM | PLANS CK'D. EAJ

PIPE RAILING DETAILS

SHEET 8 OF 9

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BD-04	JANUARY 14, 2015	350055	603951
BD-06	JANUARY 13, 2015	349837	604035

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.

NOTE:

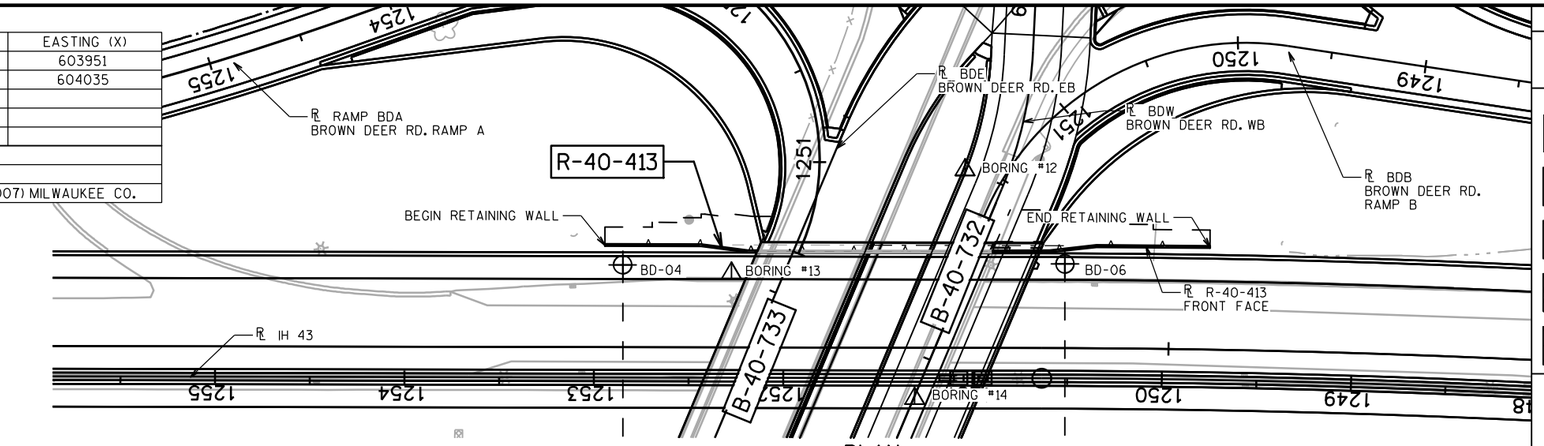
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

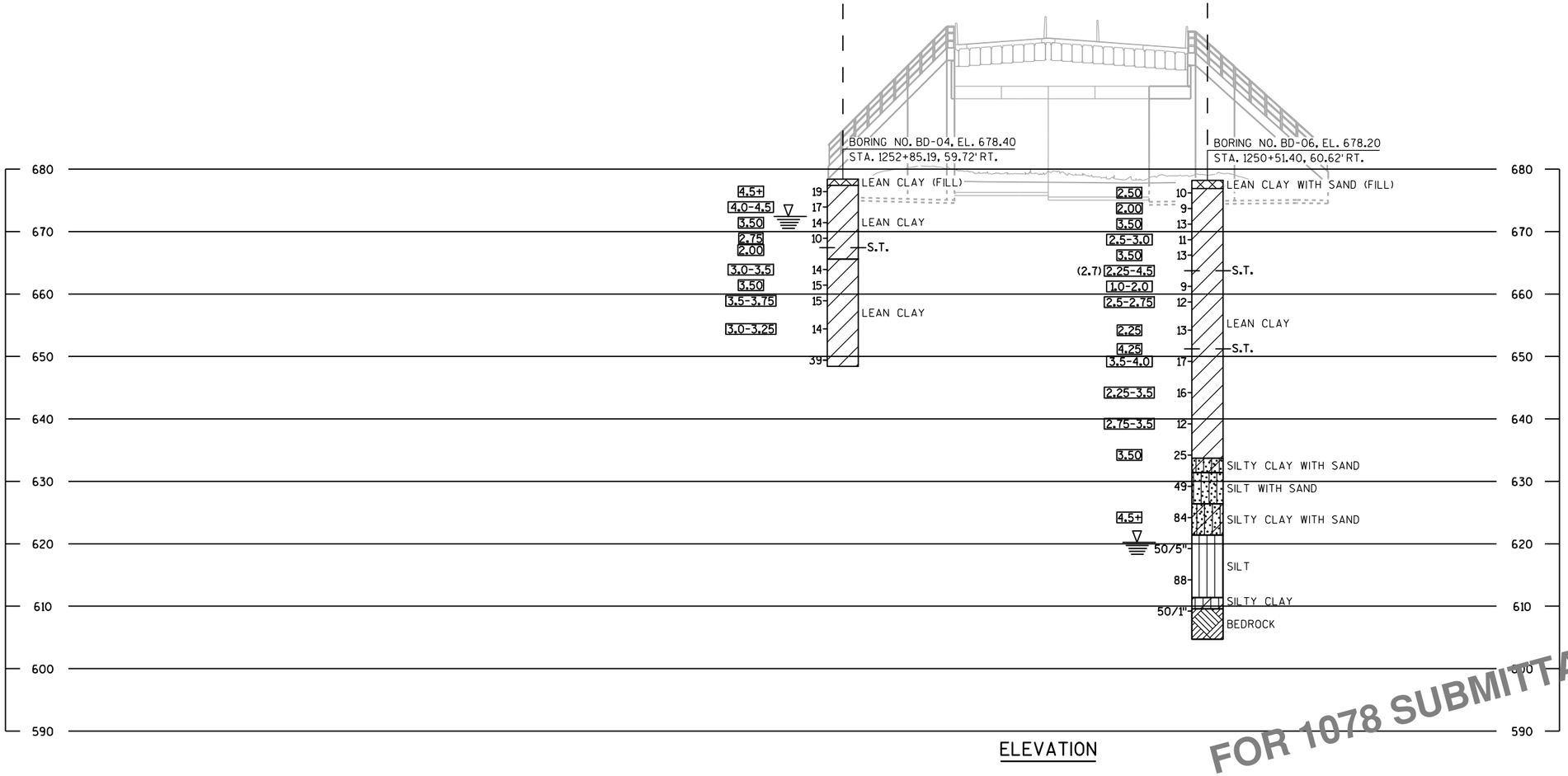
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

⊕ DENOTES SOIL BORING LOCATION

△ DENOTES HISTORICAL BORING



PLAN



ELEVATION

FOR 1078 SUBMITTAL

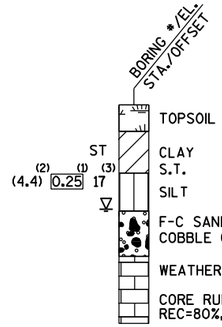
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-413

DRAWN BY	NNM	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION

SHEET 9 OF 9

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-413\cds\R413_080301_se.dgn

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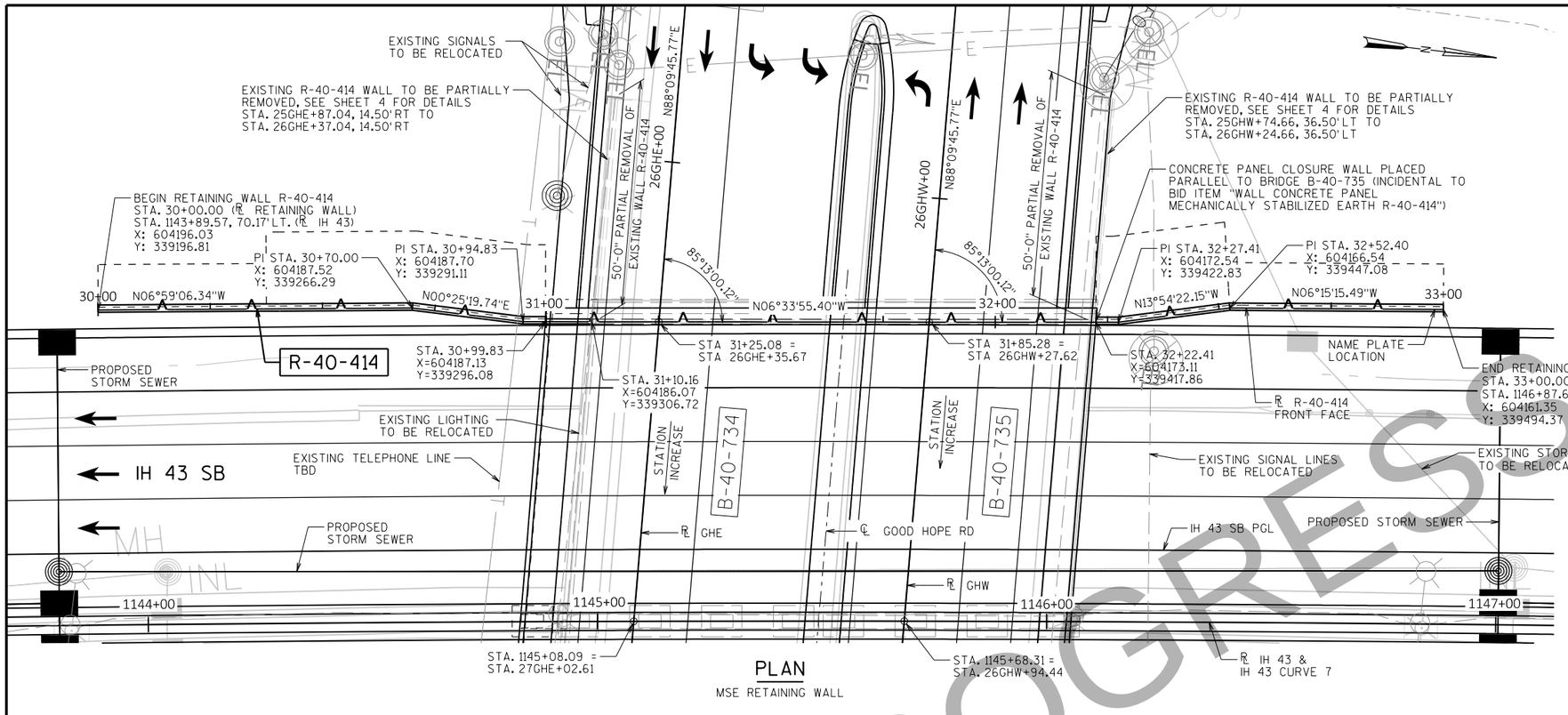
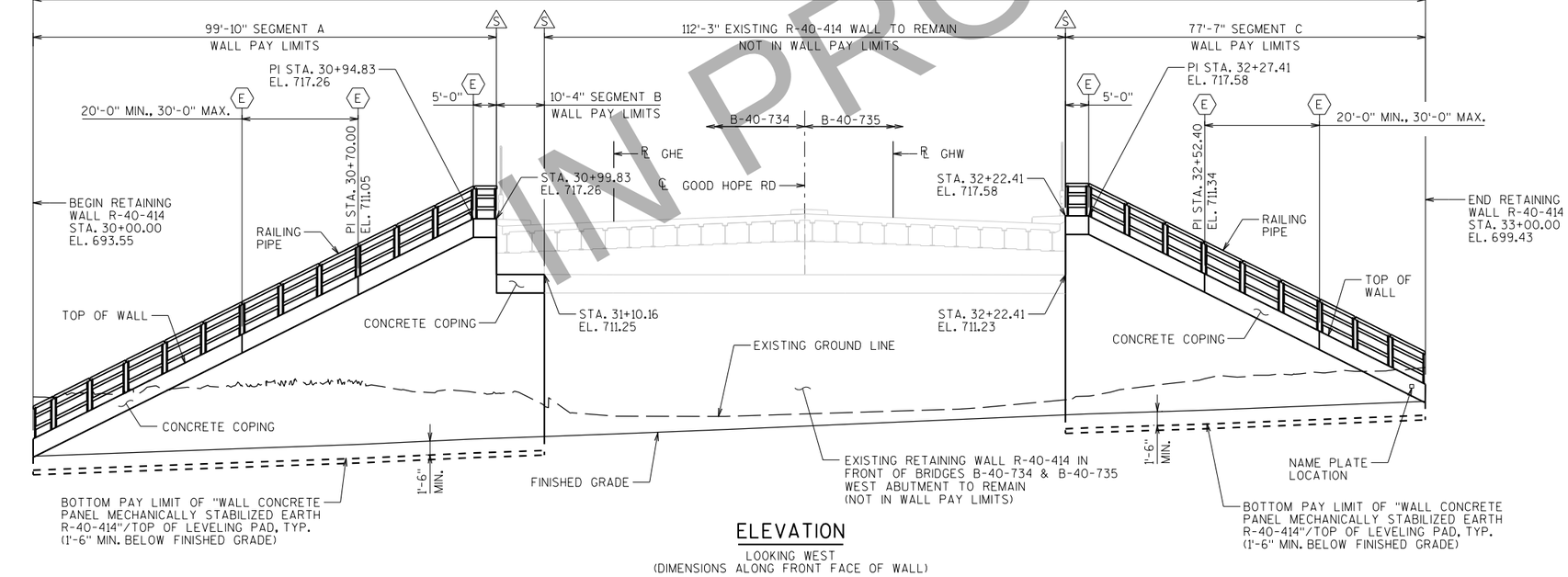
PLOT SCALE : 80:1

STATE PROJECT NUMBER
1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST
(DIMENSIONS ALONG FRONT FACE OF WALL)

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL.

DESIGN THE MSE WALL TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

LEGEND

- DIRECTION OF TRAFFIC
- (E) EXPANSION JOINT
- (S) VERTICAL SLIP JOINT

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTIONS
3. GENERAL NOTES & QUANTITIES
4. PROFILE GRADE LINES & DESIGN DATA
5. REMOVAL DETAILS

IN PROGRESS

PRELIMINARY PLANS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-414

GOOD HOPE RD WEST ABUTMENT RETAINING WALL

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

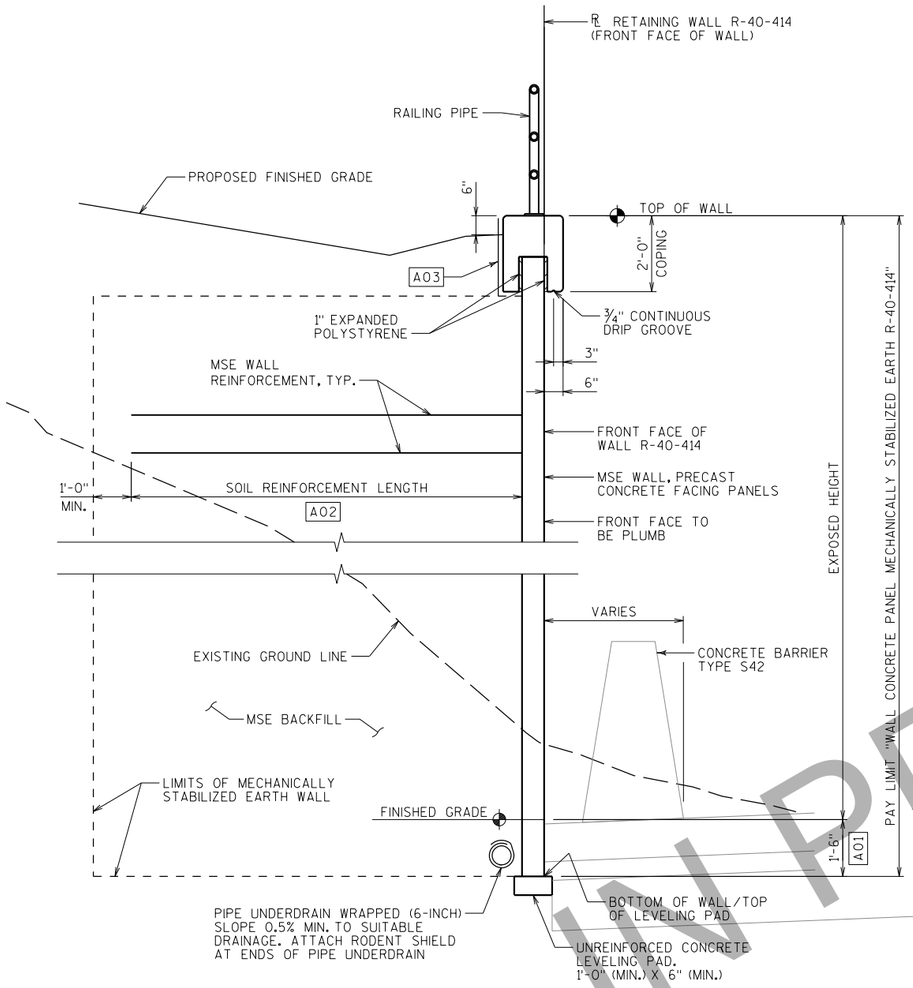
DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION

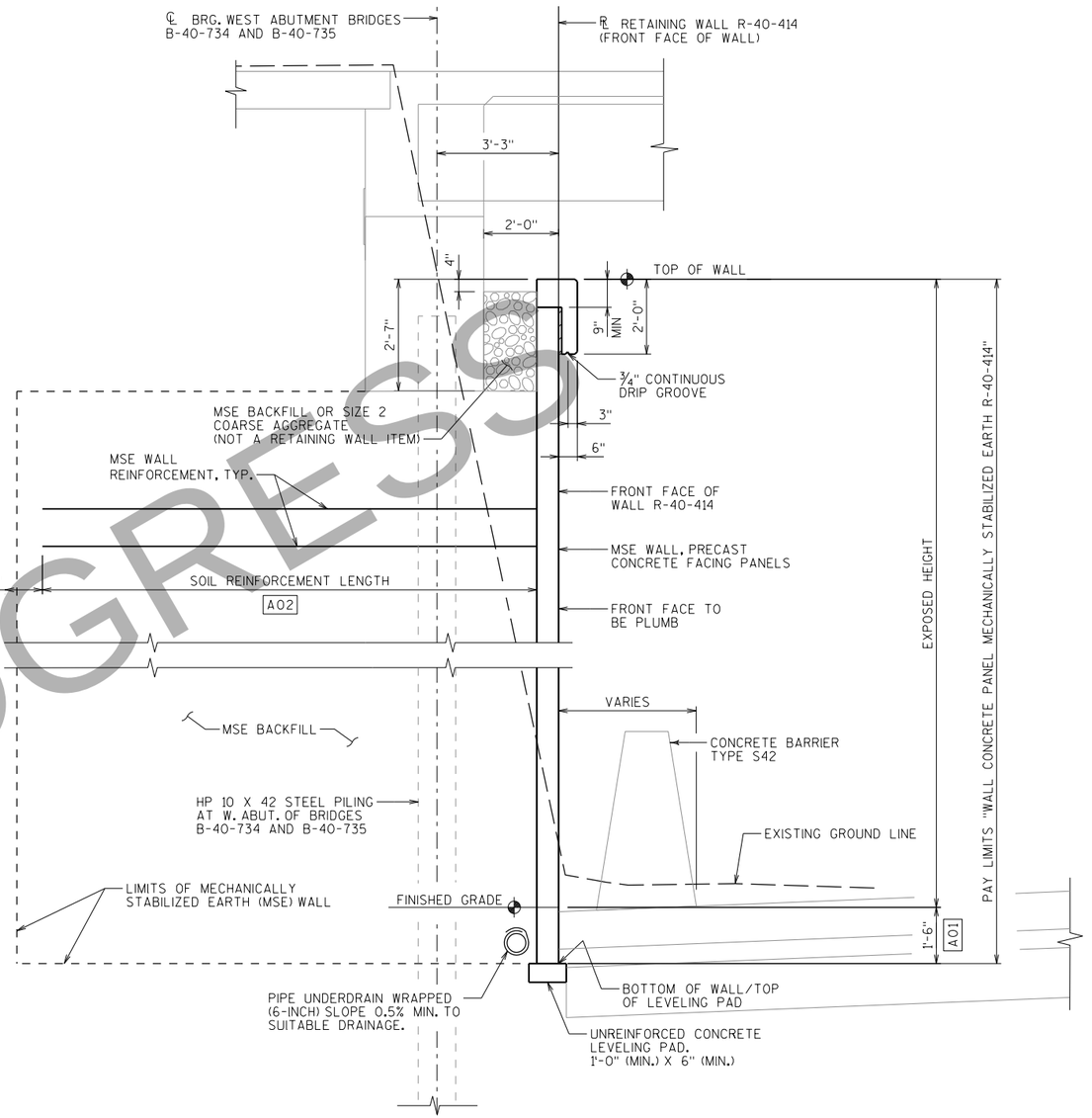
SHEET 1 OF 5

STATE PROJECT NUMBER
1229-04-73



TYPICAL WALL SECTION - SEGMENTS A & C

LOOKING NORTH
(SEGMENT A - STA. 30+00.00 TO STA. 30+99.83)
(SEGMENT C - STA. 32+22.41 TO STA. 33+00.00)



TYPICAL WALL SECTION - SEGMENT B

LOOKING NORTH
(STA. 30+99.83 TO STA. 31+10.16)

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-414

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTIONS

SHEET 2 OF 5

PRELIMINARY PLANS

8

8

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-414 WITH THE WEST ABUTMENT OF BRIDGES B-40-734 & B-40-735.

WALL CONCRETE PANELS TO BE PLACED AS CLOSURE WALLS AT THE WEST ABUTMENT OF BRIDGE B-40-735 ARE TO BE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE COPING ARE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 1'-6" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE COPING.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

PRECAST PANELS ARE TO BE 5'-0" X 5'-0" TO MATCH THE EXISTING PANELS.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	SEGMENT C	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-
513.2001	RAILING PIPE	LF	-	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-414	SF	-	-	-	-
	NON-BID ITEMS					
	NAME PLATE	EACH	-	-	-	-
	PREFORMED JOINT FILLER	SIZE	-	-	-	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-	-	-	-
	CORK FILLER	SIZE	-	-	-	-
	EXPANDED POLYSTYRENE	SIZE	-	-	-	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-414

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 3 OF 5

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

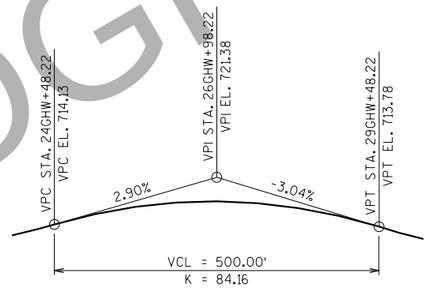
WALL ELEVATIONS ◪

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1143+89.57, 70.17' LT	30+00.00	693.55	691.66
1144+14.45, 70.07' LT	30+25.00	699.80	692.12
1144+39.33, 70.01' LT	30+50.00	706.05	692.58
1144+59.23, 70.00' LT	30+70.00	711.05	692.94
1144+64.16, 69.36' LT	30+75.00	712.30	693.06
1144+83.73, 66.82' LT	30+94.83	711.25	693.52
1144+88.71, 66.79' LT	30+99.83	711.25	693.61
1144+88.71, 66.79' LT	30+99.83	711.25	693.61
1144+88.88, 66.79' LT	31+00.00	711.25	693.61
1144+98.99, 66.74' LT	31+10.16	711.25	693.80
1145+13.76, 66.68' LT	31+25.00	711.25	694.07
1145+38.65, 66.62' LT	31+50.00	711.24	694.56
1145+63.53, 66.60' LT	31+75.00	711.24	695.12
1145+88.41, 66.62' LT	32+00.00	711.23	695.66
1146+10.72, 66.68' LT	32+22.41	711.23	696.14
1146+10.72, 66.68' LT	32+22.41	717.58	696.14
1146+13.30, 66.69' LT	32+25.00	717.58	696.19
1146+15.70, 66.69' LT	32+27.41	717.58	696.24
1146+37.98, 69.68' LT	32+50.00	711.93	696.59
1146+40.35, 70.00' LT	32+52.40	711.34	696.63
1146+62.84, 70.02' LT	32+75.00	705.69	697.09
1146+87.69, 70.08' LT	33+00.00	699.43	697.59

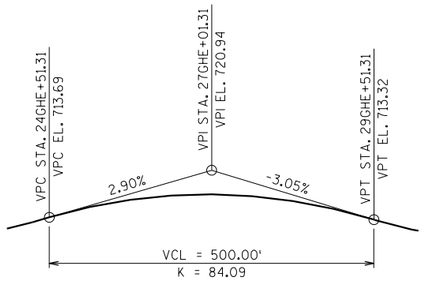
HORIZONTAL CURVE DATA

IH 43 CURVE 7

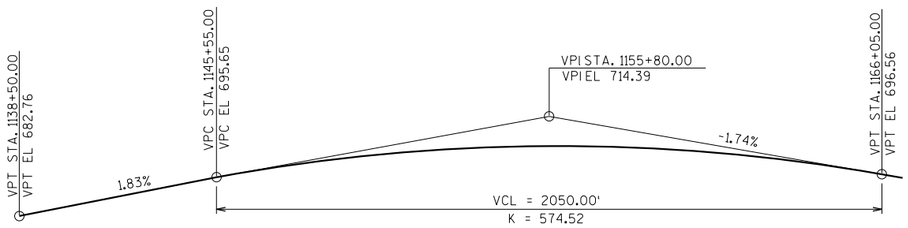
PI STA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 4°24'12"
D = 0°24'13"
T = 545.91'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64



PROFILE GRADE LINE
GOOD HOPE RD WB



PROFILE GRADE LINE
GOOD HOPE RD EB



PROFILE GRADE LINE
MAINLINE IH 43 SB

IN PROGRESS

PRELIMINARY PLANS

LEGEND

◪ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-414

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 4 OF 5

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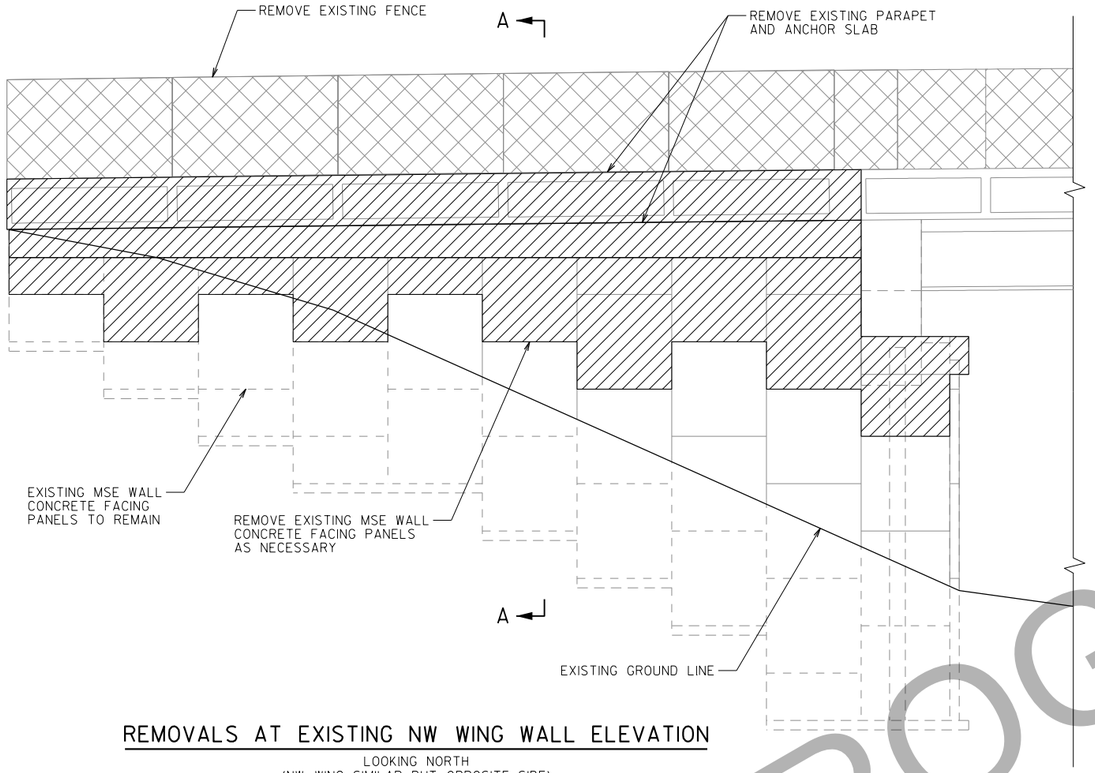
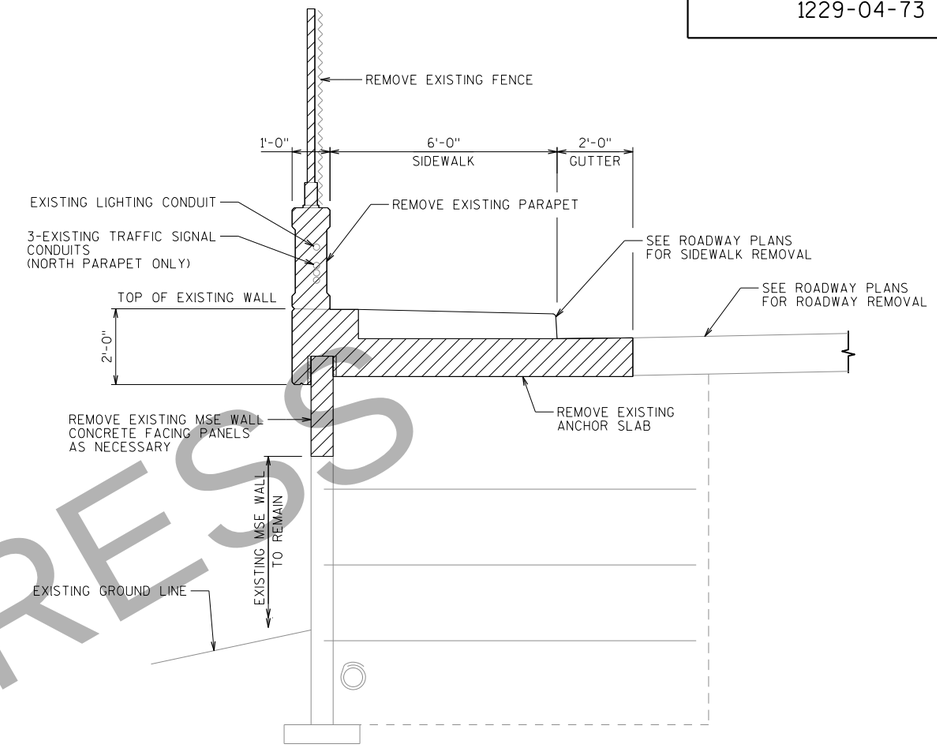
STATE PROJECT NUMBER
1229-04-73

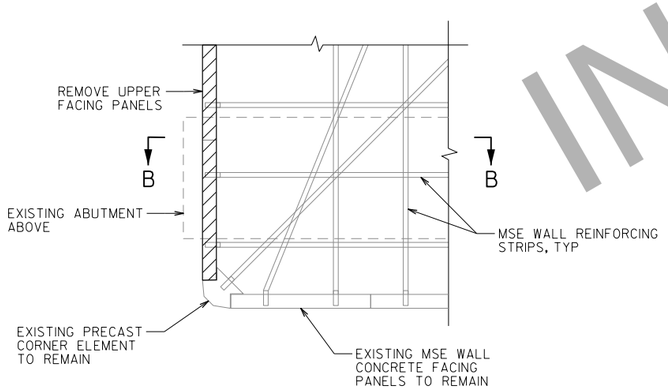


REMOVALS AT EXISTING NW WING WALL ELEVATION

LOOKING NORTH
(NW WING SIMILAR BUT OPPOSITE SIDE)

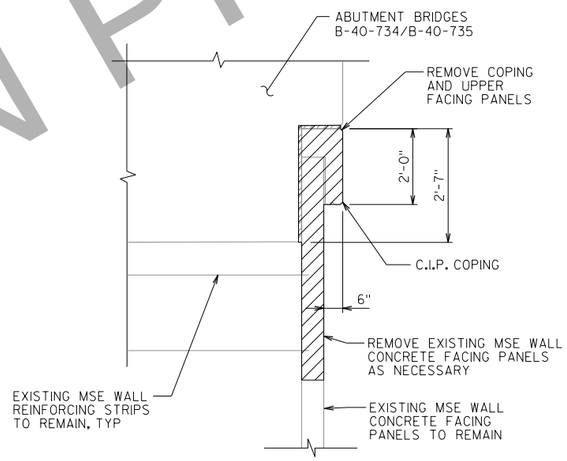


SECTION A-A



REMOVAL PLAN AT ABUTMENT CORNER

(CONCRETE COPING NOT SHOWN FOR CLARITY)



SECTION B-B

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-414

DRAWN BY MM | PLANS CK'D. MHZ

REMOVAL DETAILS

SHEET 5 OF 5

PRELIMINARY PLANS

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231134\R414_080105_rm.dgn PLOT DATE : 9/13/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:4

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GH-01	JANUARY 28, 2015	339280	604201
GH-05	JANUARY 14, 2015	339458	604174

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

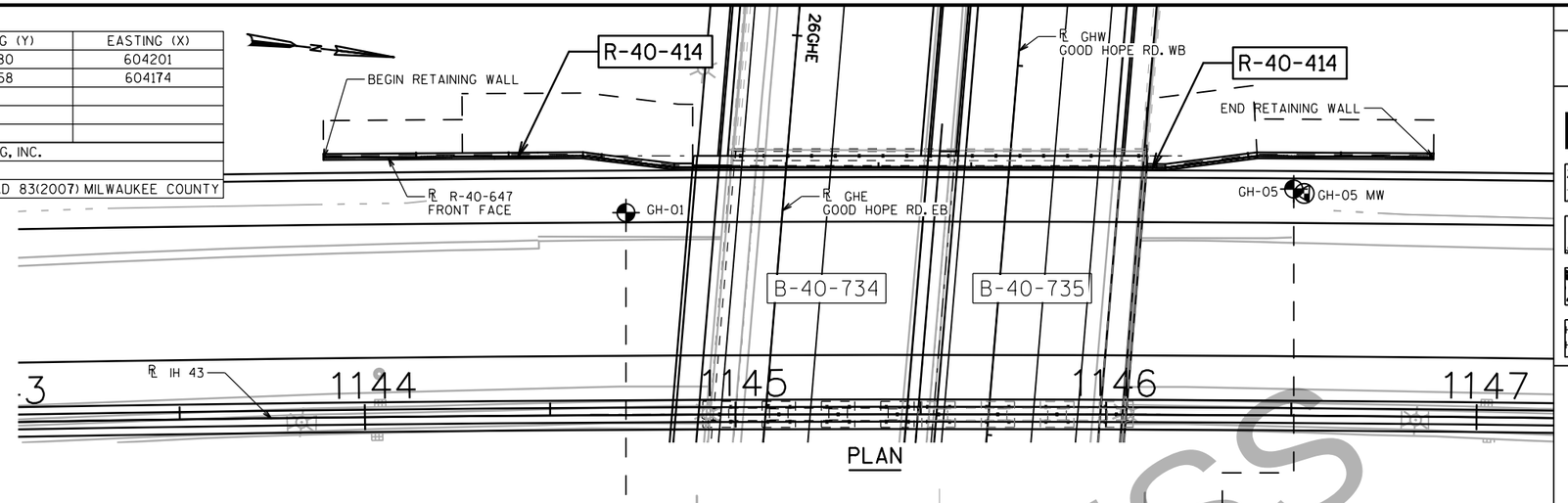
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

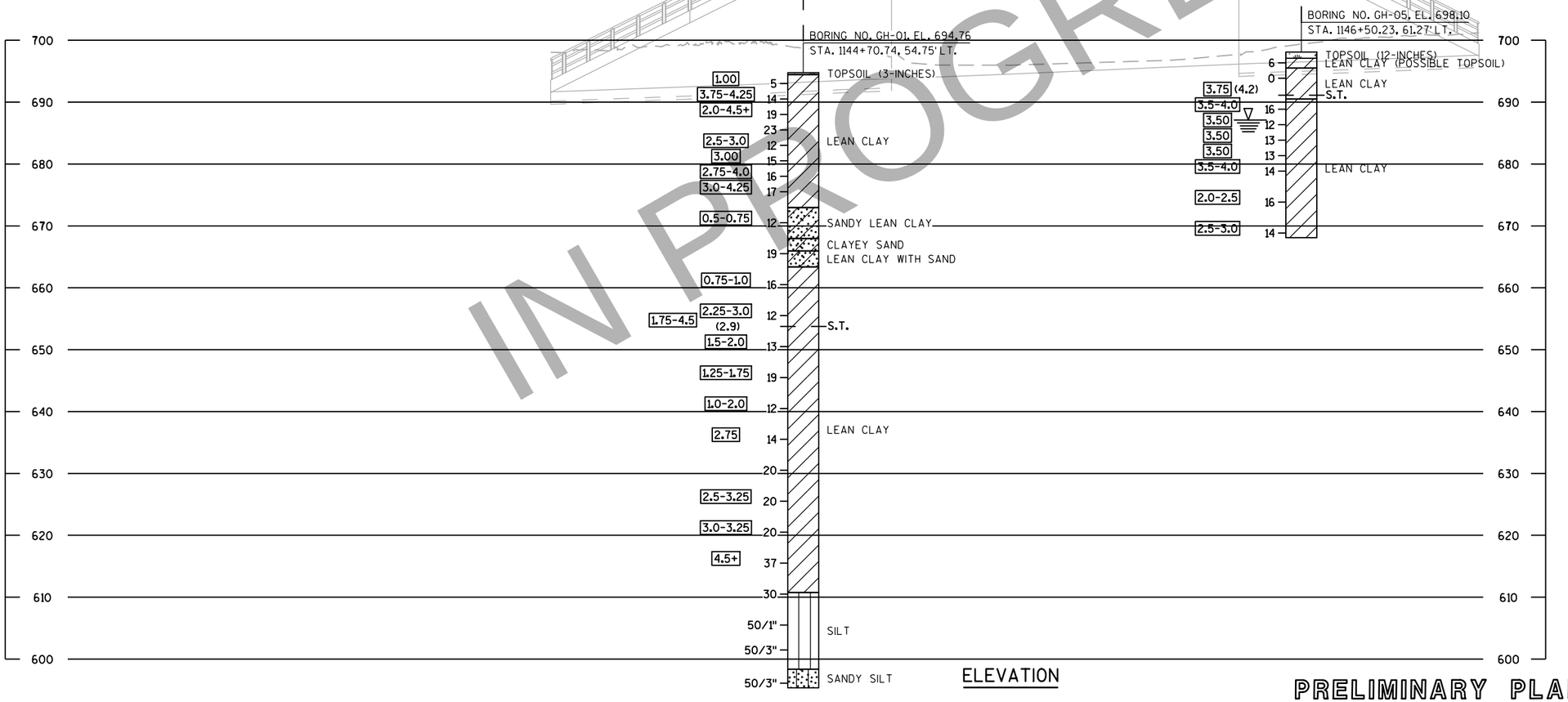
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN



ELEVATION

PRELIMINARY PLANS

IN PROGRESS

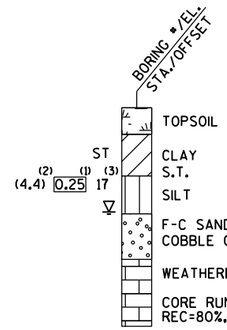
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-414

DRAWN BY EAJ | PLANS CK'D. NNM

SUBSURFACE EXPLORATION

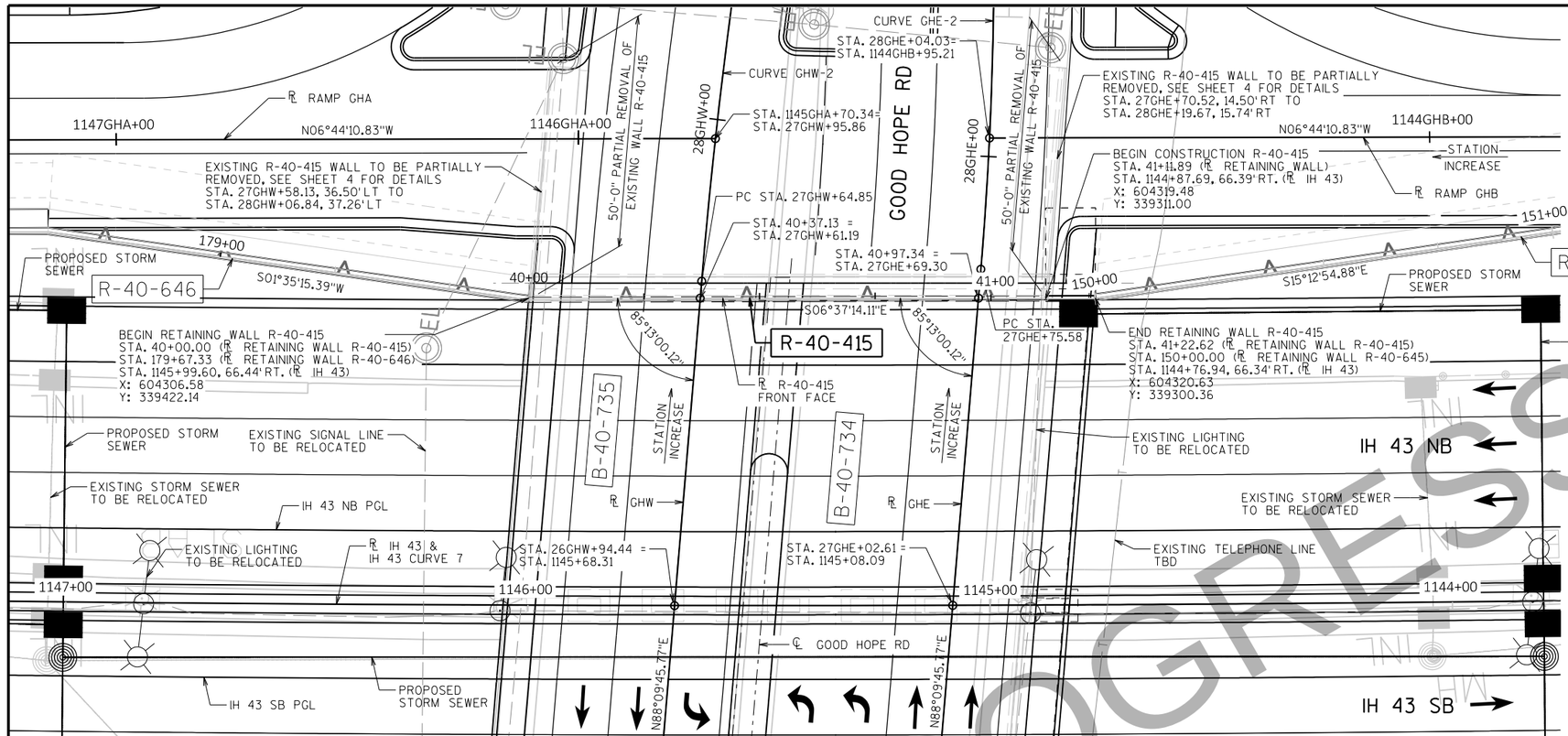
SHEET 6 OF 6

8

8

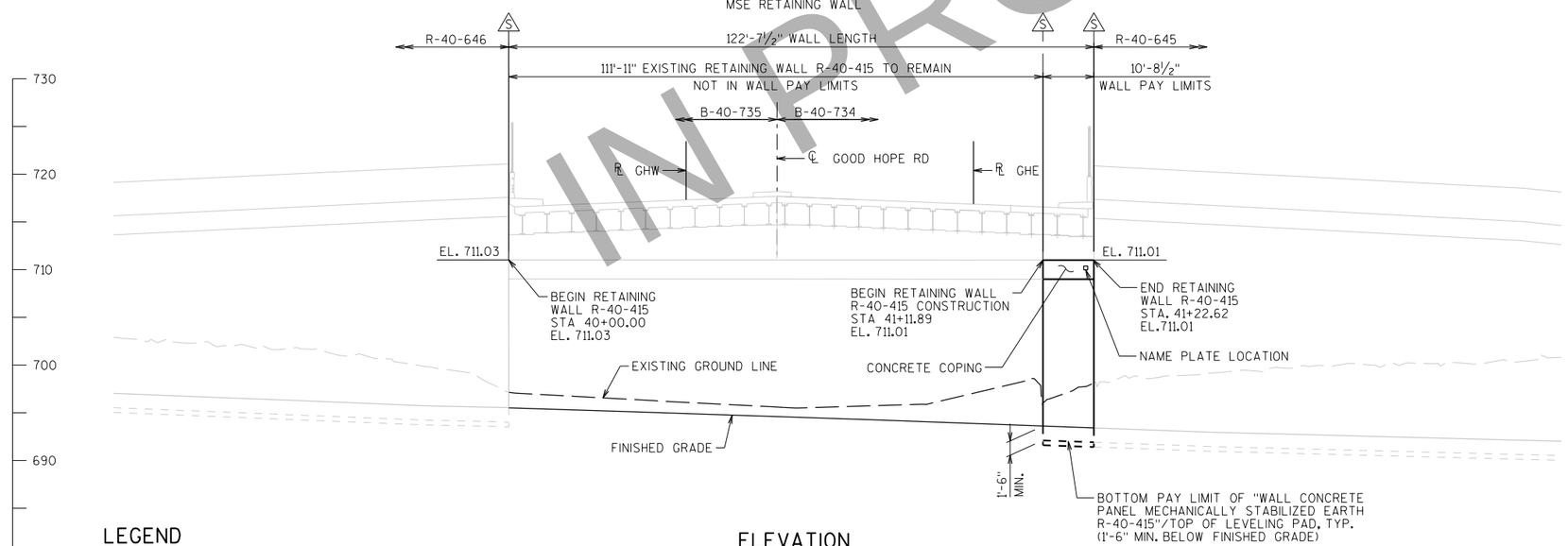
STATE PROJECT NUMBER

1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS GIVEN ALONG FRONT FACE OF WALL)

LEGEND

→ DIRECTION OF TRAFFIC

Ⓢ VERTICAL SLIP JOINT

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL.

DESIGN THE MSE WALL TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION
3. GENERAL NOTES, QUANTITIES & PROFILES
4. REMOVAL DETAILS
5. SUBSURFACE EXPLORATION

HORIZONTAL CURVE DATA

IH 43 CURVE 7	CURVE GHW-2	CURVE GHE-2
PI STA. = 1141+84.53	PI STA. = 28GHW+02.30	PI STA. = 28GHE+14.59
Y = 339000.74	Y = 339386.58	Y = 339326.90
X = 604282.69	X = 604351.95	X = 604363.06
DELTA = 4°24'12"	DELTA = 3°34'30"	DELTA = 5°35'01"
D = 0°24'13"	D = 4°46'29"	D = 7°09'43"
T = 545.91'	T = 37.45'	T = 39.01'
L = 1091.28'	L = 74.88'	L = 77.96'
R = 14200.00'	R = 1200.00'	R = 800.00'
PC STA. = 1136+38.63	PC STA. = 27GHW+64.85	PC STA. = 27GHE+75.58
Y = 338463.62	Y = 339385.37	Y = 339325.65
X = 604380.26	X = 604314.52	X = 604324.07
PT STA. = 1147+29.90	PT STA. = 28GHW+39.73	PRC STA. = 28GHE+53.54
Y = 339543.76	Y = 339385.44	Y = 339331.94
X = 604226.64	X = 604389.39	X = 604401.75

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-415

GOOD HOPE RD EAST ABUTMENT RETAINING WALL

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION

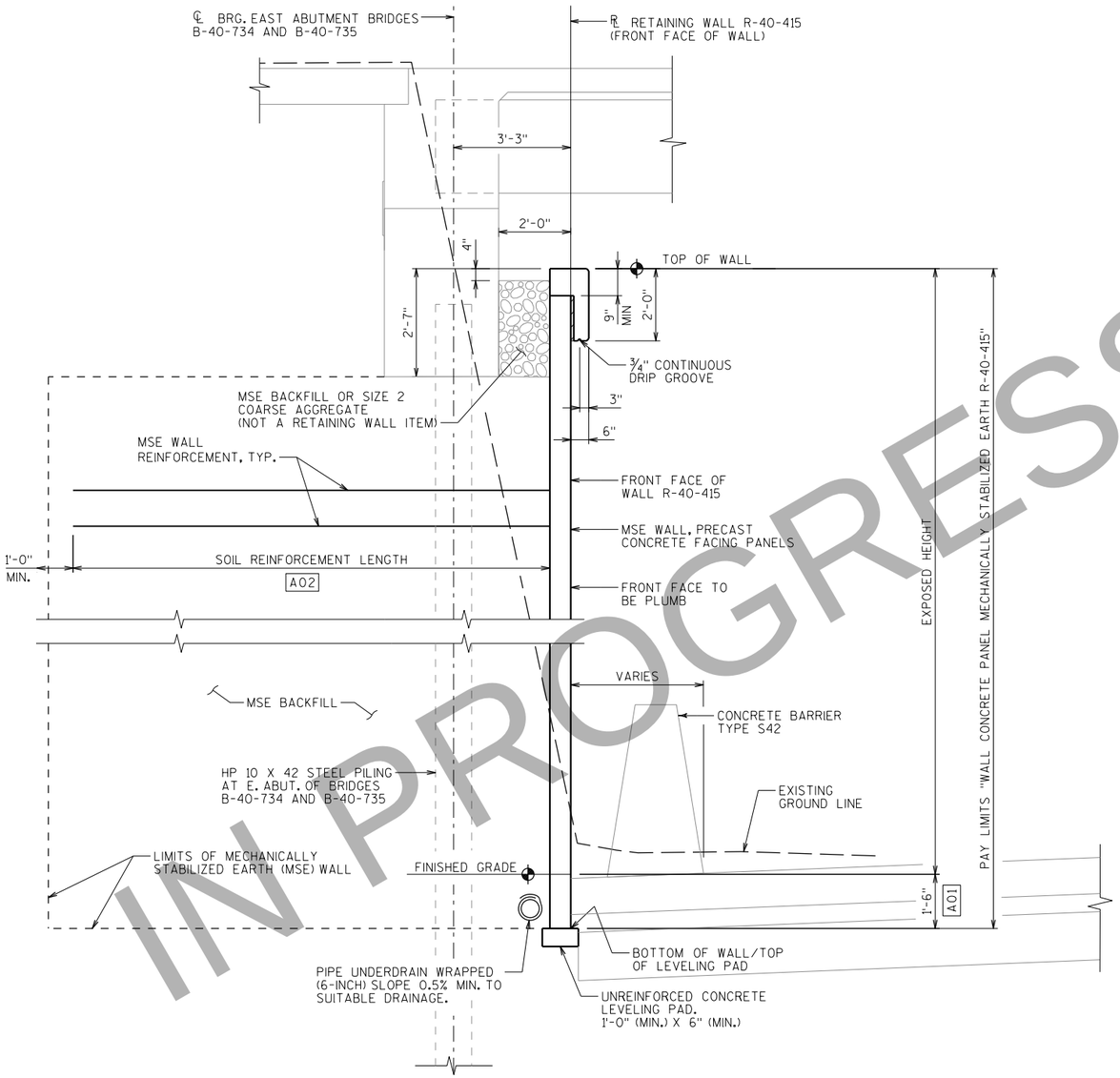
SHEET 1 OF 5

PRELIMINARY PLANS

IN PROGRESS

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231141\R415_080101_gp.dgn PLOT DATE : 9/28/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:30

STATE PROJECT NUMBER
1229-04-73



TYPICAL WALL SECTION

LOOKING SOUTH

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "GENERAL NOTES, QUANTITIES & PROFILES" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-415

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION

SHEET 2 OF 5

PRELIMINARY PLANS

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231141\R415_080102_ts.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:4

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415".

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-415 WITH THE EAST ABUTMENT OF BRIDGE B-40-734.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 1'-6" BELOW FINISHED GRADE.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE COPING ARE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE COPING.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

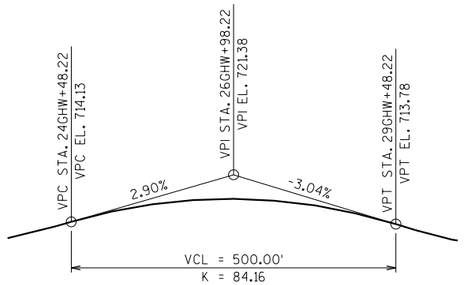
PRECAST PANELS ARE TO BE 5'-0" X 5'-0" TO MATCH THE EXISTING PANELS.

REFER TO THE GEOTECHNICAL REPORT FOR RETAINING WALL R-40-645 FOR THE PROPOSED MODIFICATIONS TO RETAINING WALL R-40-415.

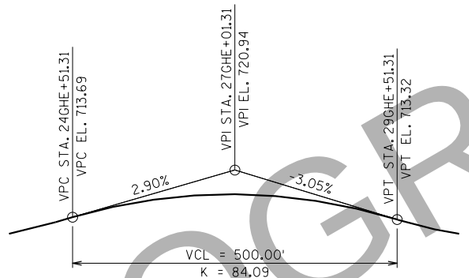
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES



PROFILE GRADE LINE
GOOD HOPE RD WB

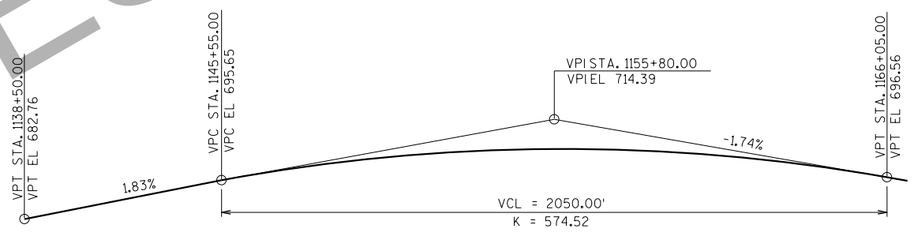


PROFILE GRADE LINE
GOOD HOPE RD EB

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-415	SF	-
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-
	NAME PLATE	EACH	-

ALL ITEMS ARE CATEGORY XXXX



PROFILE GRADE LINE
MAINLINE IH 43 NB

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

WALL ELEVATIONS ◥

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1146+00.11, 66.44' RT	40+00.00	711.03	695.52
1145+74.99, 66.50' RT	40+25.00	711.03	695.12
1145+49.87, 66.53' RT	40+50.00	711.02	694.71
1145+24.75, 66.51' RT	40+75.00	711.02	694.29
1144+99.64, 66.44' RT	41+00.00	711.01	693.83
1144+87.69, 66.39' RT	41+11.89	711.01	693.61
1144+77.11, 66.34' RT	41+22.62	711.01	693.41

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-415

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES, QUANTITIES & PROFILES

SHEET 3 OF 5

PRELIMINARY PLANS

IN PROGRESS

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231141\R415_080103_gn.dgn PLOT DATE : 9/13/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:4

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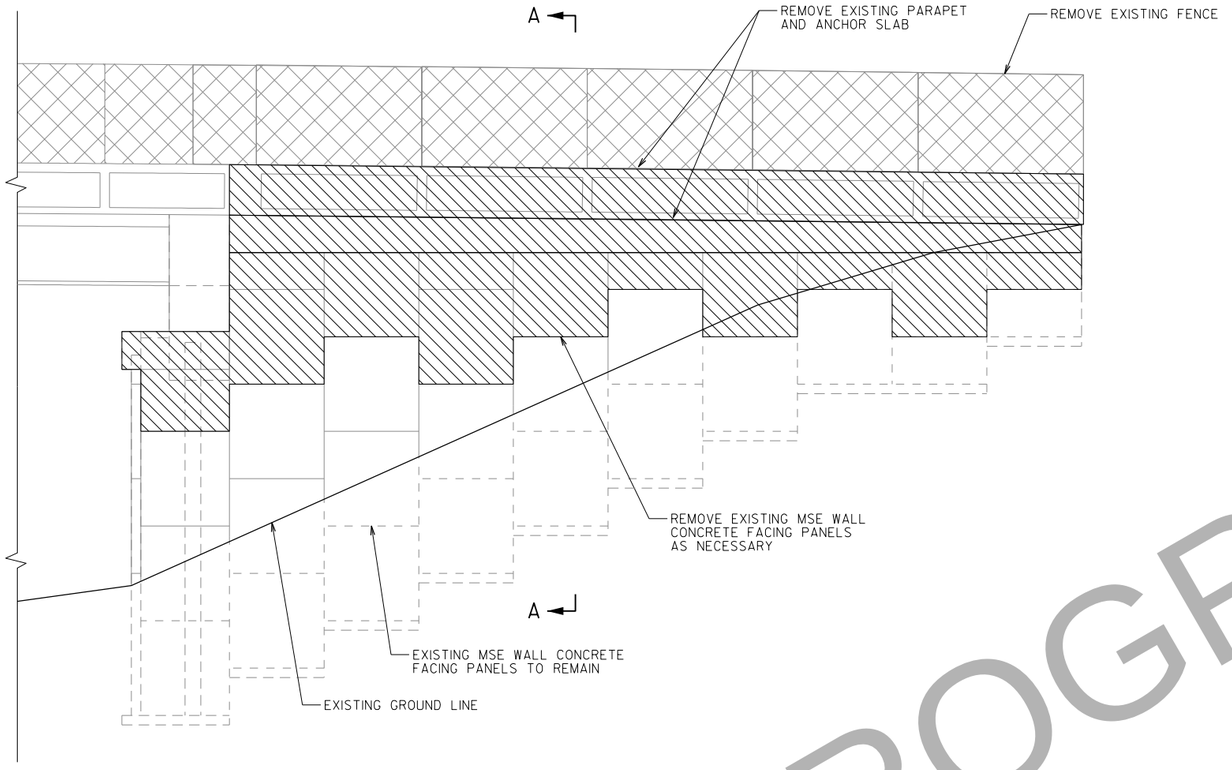
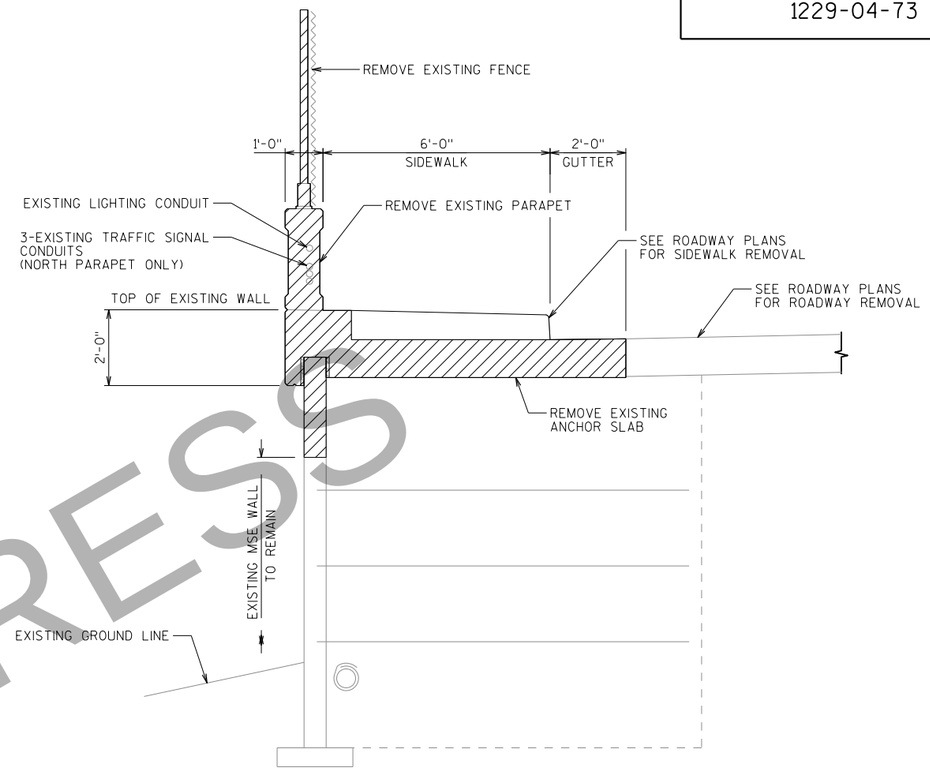
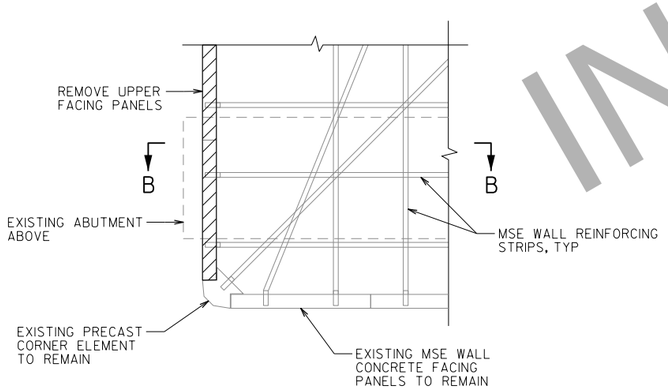


REMOVALS AT EXISTING SE WING WALL ELEVATION

LOOKING NORTH
(NE WING SIMILAR BUT OPPOSITE SIDE)

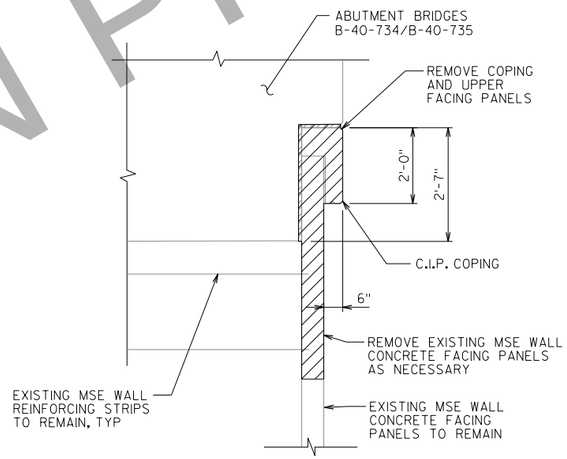


SECTION A-A



REMOVAL PLAN AT ABUTMENT CORNER

(CONCRETE COPING NOT SHOWN FOR CLARITY)



SECTION B-B

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-415

DRAWN BY MM | PLANS CK'D. MHZ

REMOVAL DETAILS

SHEET 4 OF 5

PRELIMINARY PLANS

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231141\R415_080104_rm.dgn

PLOT DATE : 9/13/2021

PLOT BY : sconnolly

PLOT NAME : $FILE$

PLOT SCALE : 1:4

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GH-03	JANUARY 16, 2015	339285	604312

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

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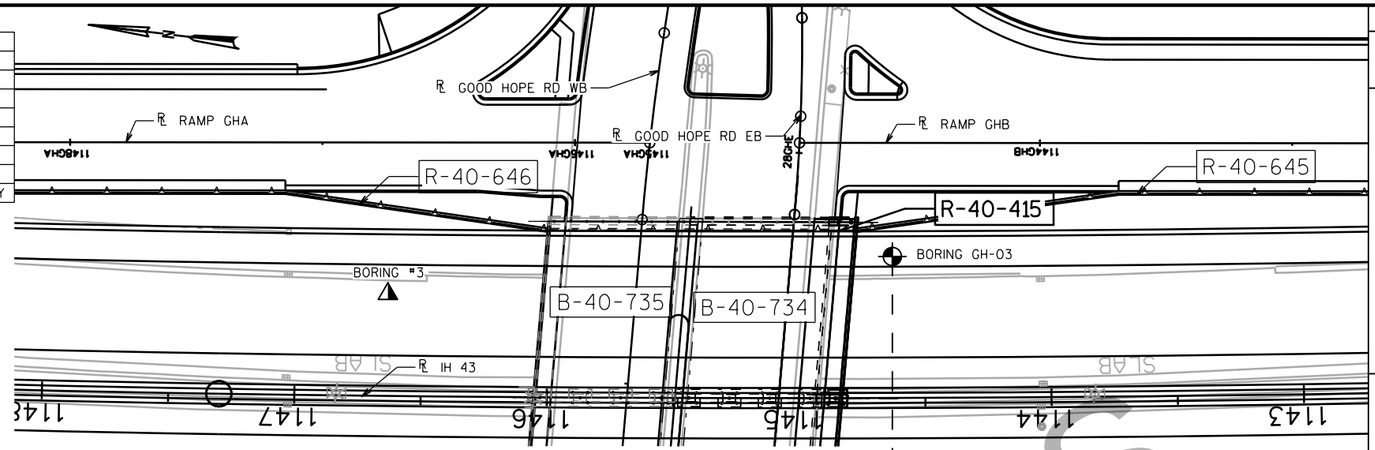
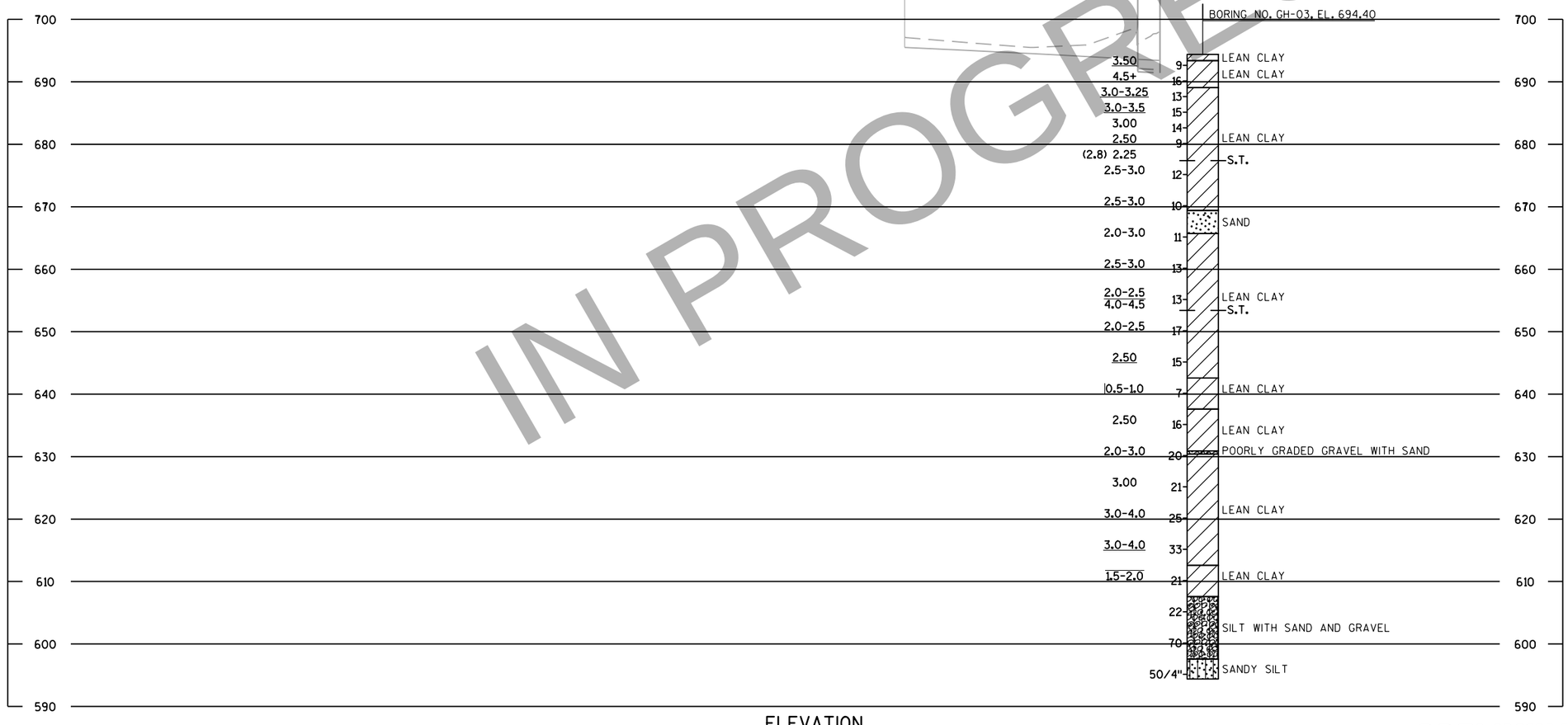
⊕ DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

IN PROGRESS

PRELIMINARY

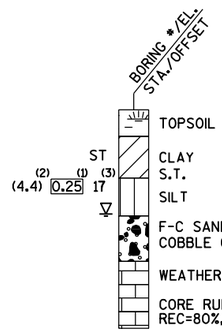
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-415

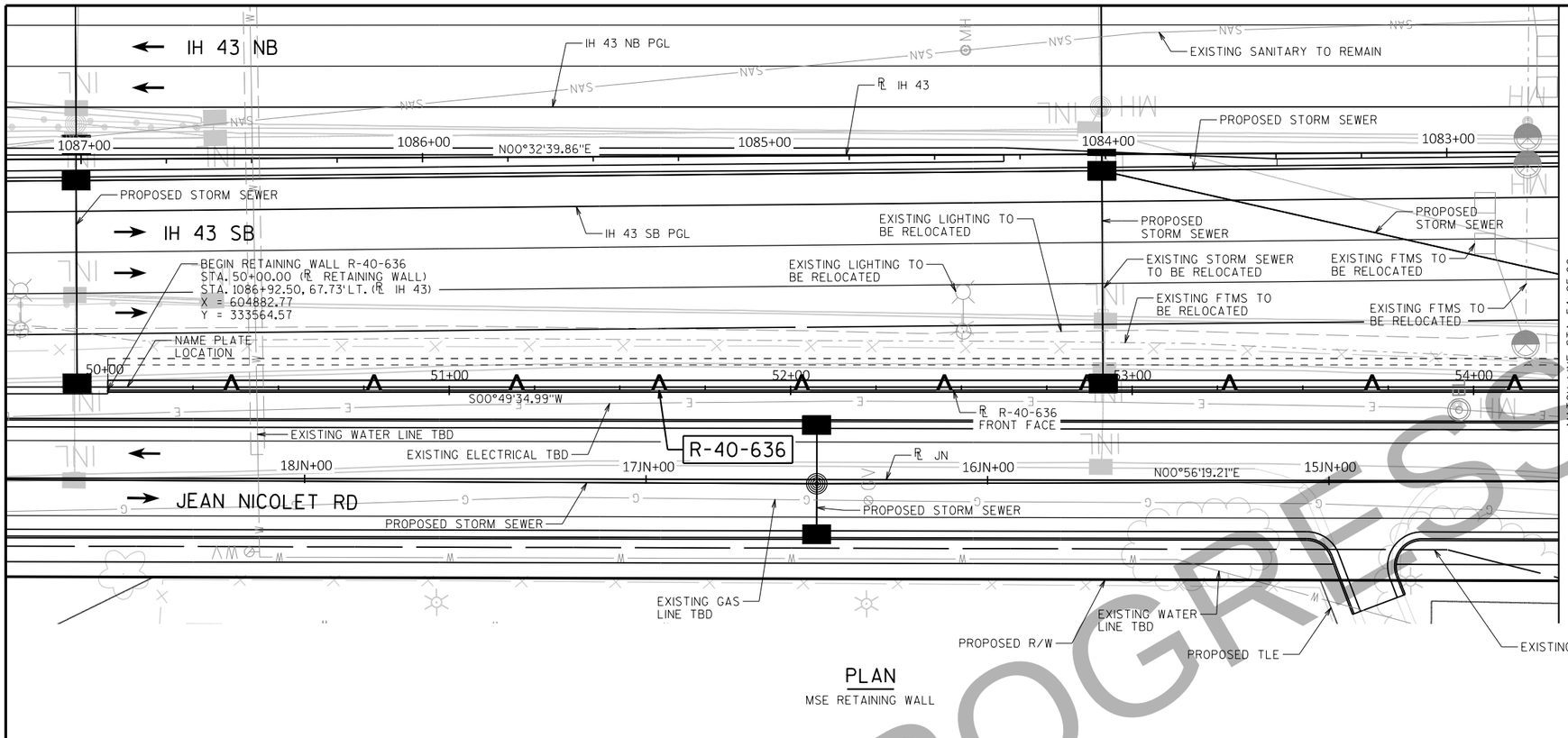
DRAWN BY	NNM	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION

SHEET 5 OF 5

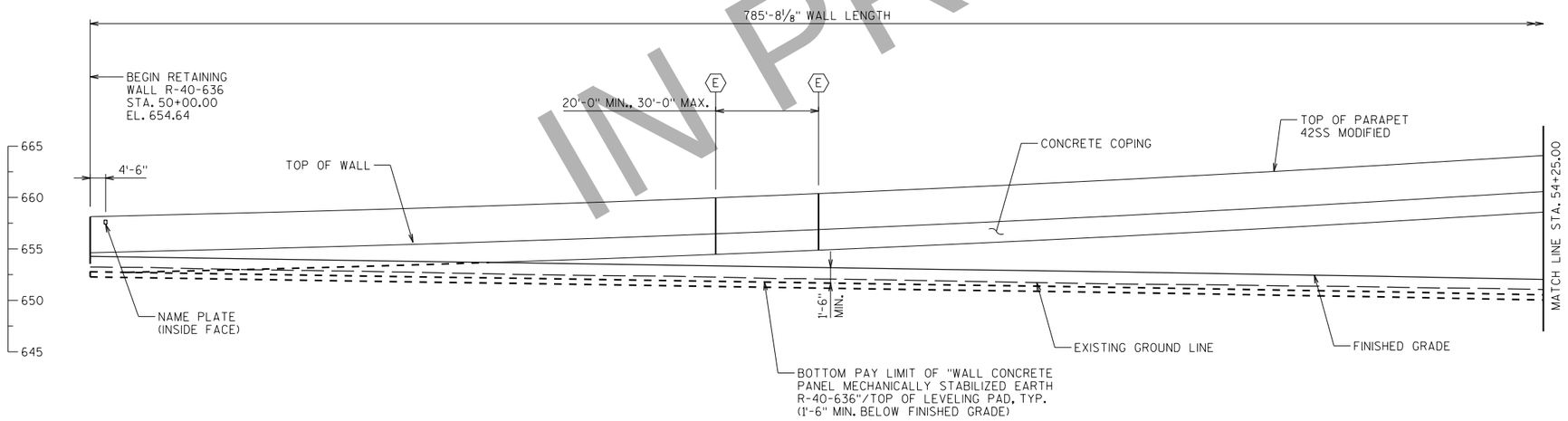
8

8



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

STATE PROJECT NUMBER
1229-04-73

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL.....f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS.....f'c = 4,000 psi
BAR STEEL REINFORCEMENT.....fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL FINIHSED GRADE BEHIND THE WALL, AND A LIVE LOAD SURCHARGE OF 240 PSF, UNLESS NOTED OTHERWISE

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. TYPICAL SECTION
4. GENERAL NOTES & QUANTITIES
5. PROFILE GRADE LINES & DESIGN DATA
6. SUBSURFACE EXPLORATION
7. SUBSURFACE EXPLORATION

LEGEND

→ DIRECTION OF TRAFFIC

(E) EXPANSION JOINT

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-636

RETAINING WALL WEST OF IH 43 AT BENDER RD

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION (1 OF 2)

SHEET 1 OF 7

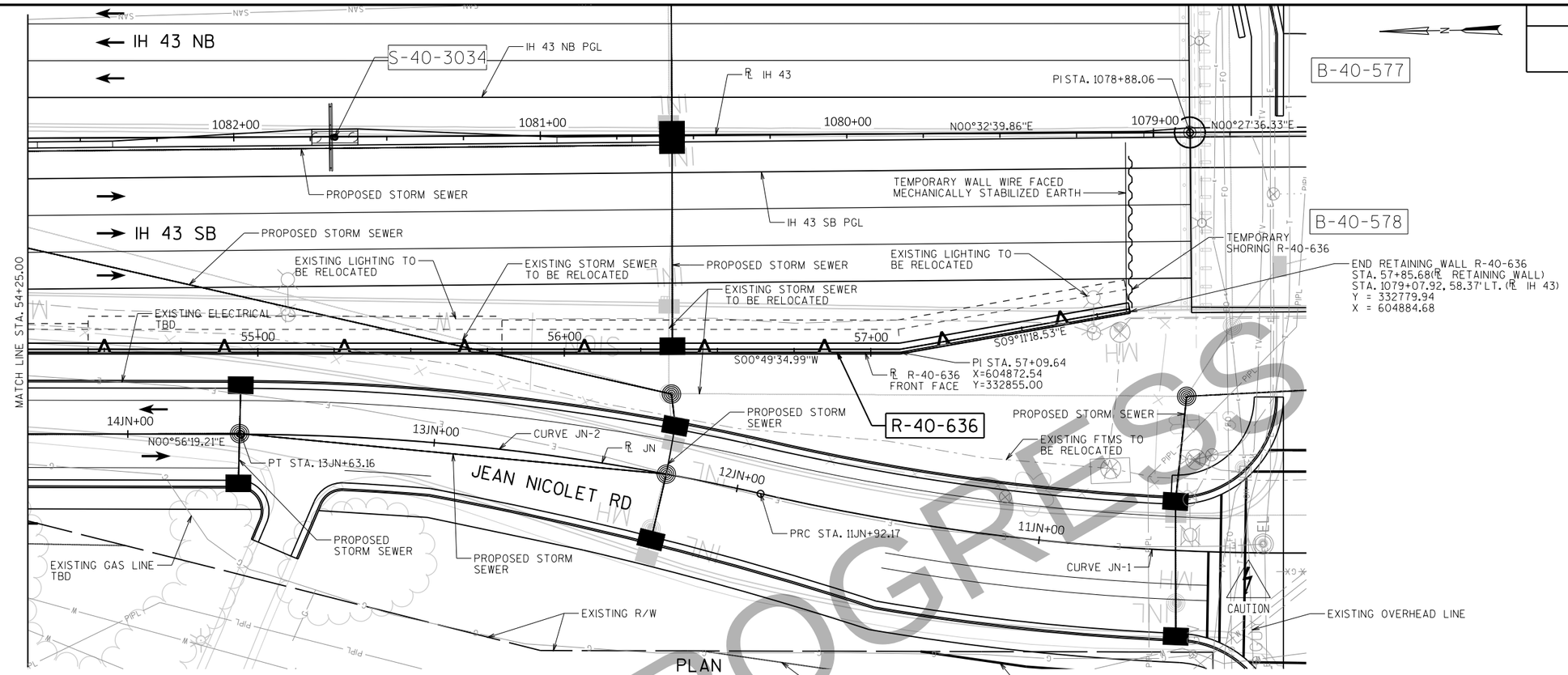
PRELIMINARY PLANS

8

8

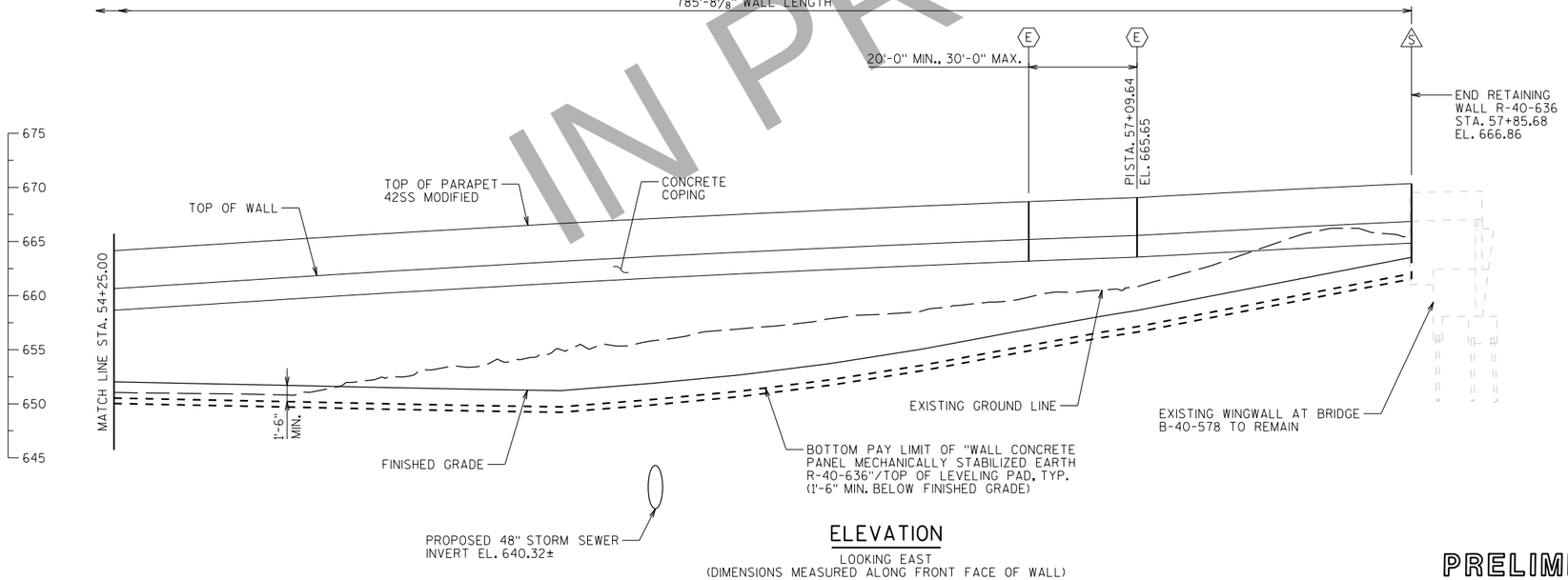
STATE PROJECT NUMBER

1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST

(DIMENSIONS MEASURED ALONG FRONT FACE OF WALL)

IN PROGRESS

LEGEND

→ DIRECTION OF TRAFFIC

(E) EXPANSION JOINT

(S) VERTICAL SLIP JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 7

PRELIMINARY PLANS

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231148\R636_080102_gp2.dgn

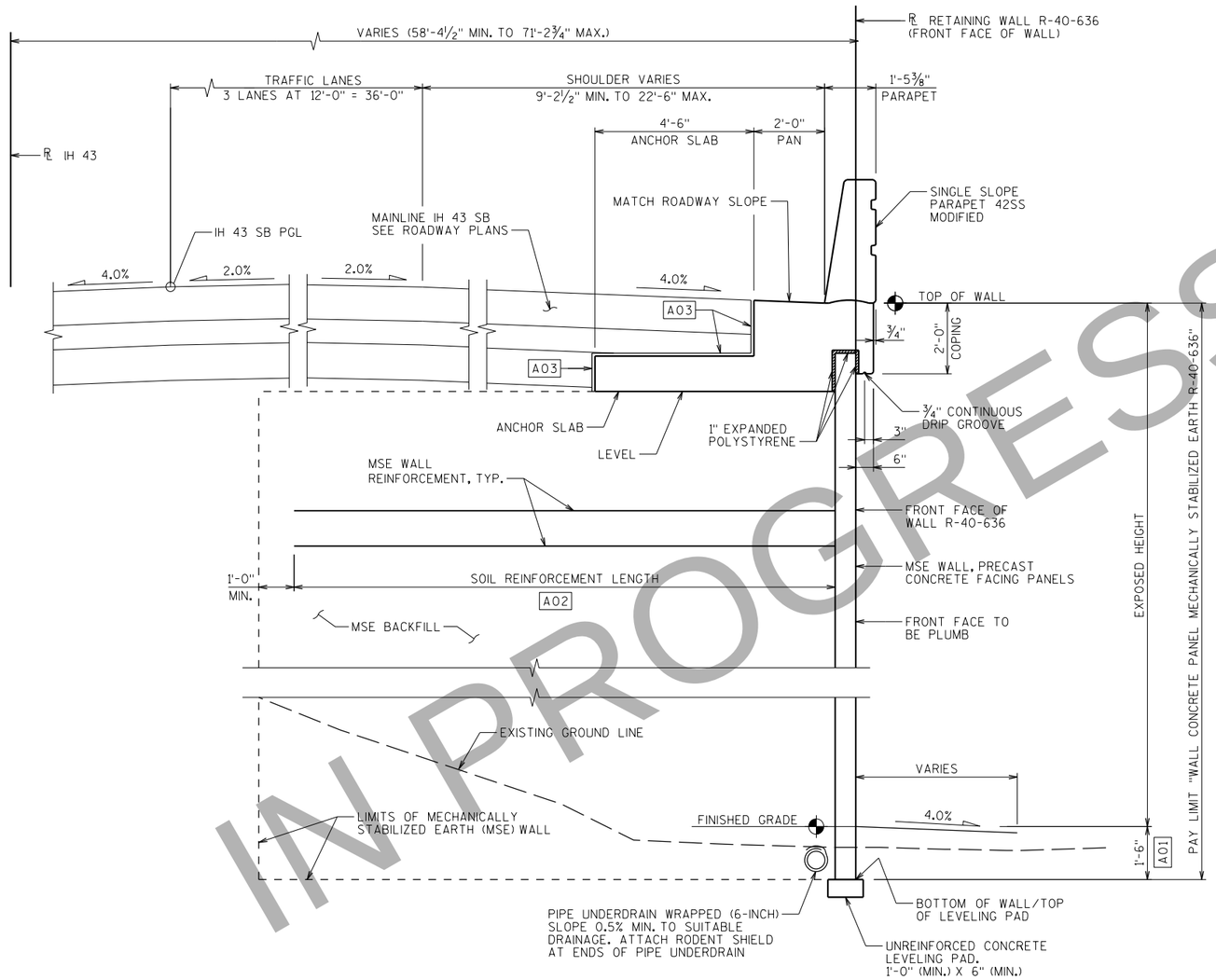
PLOT DATE : 9/28/2021

PLOT BY : sconnolly

PLOT NAME : $FILE$

PLOT SCALE : 1:40

STATE PROJECT NUMBER
1229-04-73



TYPICAL WALL SECTION

LOOKING SOUTH

IN PROGRESS

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION | SHEET 3 OF 7

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-636".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-636".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-636".

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" & "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-636" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 1'-6" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

MSE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
511.1200.XXXX	TEMPORARY SHORING R-40-636	SF	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH	SF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-636	SF	-
	NON-BID ITEMS		
	NAME PLATE	EACH	-
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 4 OF 7

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

HORIZONTAL CURVE DATA

CURVE JN-1

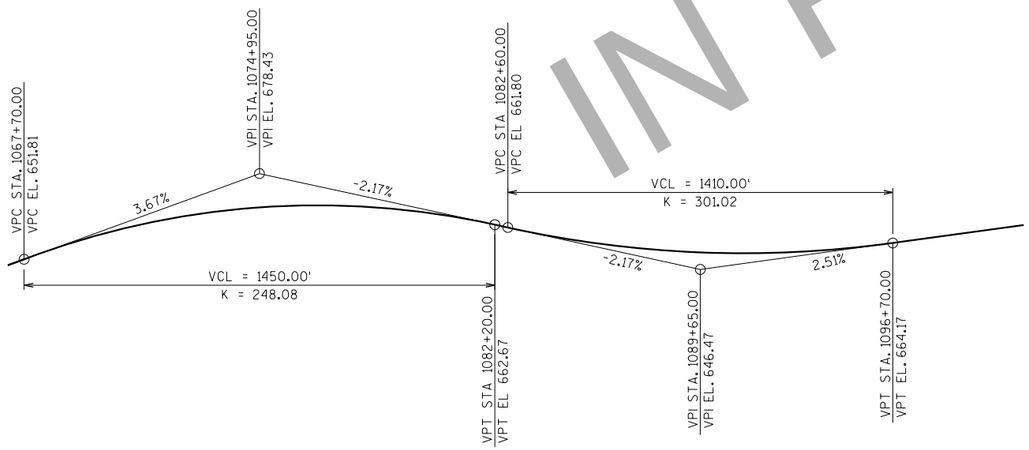
PI STA. = 11JN+06.80
Y = 332817.67
X = 604806.61
DELTA = 12°50'31"
D = 7°29'23"
T = 86.09'
L = 171.46'
R = 765.00'
PC STA. = 10JN+20.71
Y = 332731.58
X = 604805.25
PRC STA. = 11JN+92.17
Y = 332901.29
X = 604827.07

CURVE JN-2

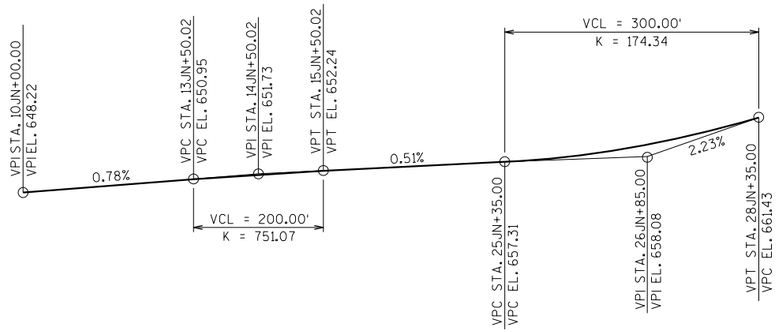
PI STA. = 12JN+78.02
Y = 332984.68
X = 604847.47
DELTA = 12°48'23"
D = 7°29'23"
T = 85.85'
L = 170.99'
R = 765.00'
PRC STA. = 11JN+92.17
Y = 332901.29
X = 604827.07
PT STA. = 13JN+63.16
Y = 333070.53
X = 604848.87

WALL ELEVATIONS ◥

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1086+92.50, 67.73' LT	50+00.00	654.64	654.28
1086+67.50, 67.85' LT	50+25.00	654.83	654.15
1086+42.50, 67.97' LT	50+50.00	655.04	654.03
1086+17.50, 68.10' LT	50+75.00	655.27	653.90
1085+92.50, 68.22' LT	51+00.00	655.51	653.77
1085+67.50, 68.34' LT	51+25.00	655.78	653.65
1085+42.50, 68.47' LT	51+50.00	656.07	653.52
1085+17.50, 68.59' LT	51+75.00	656.38	653.39
1084+92.50, 68.71' LT	52+00.00	656.71	653.27
1084+67.50, 68.84' LT	52+25.00	657.06	653.14
1084+42.50, 68.96' LT	52+50.00	657.43	653.01
1084+17.50, 69.08' LT	52+75.00	657.82	652.89
1083+92.50, 69.20' LT	53+00.00	658.23	652.76
1083+67.50, 69.33' LT	53+25.00	658.67	652.63
1083+42.50, 69.45' LT	53+50.00	659.12	652.49
1083+17.50, 69.57' LT	53+75.00	659.60	652.35
1082+92.50, 69.70' LT	54+00.00	660.10	652.20
1082+67.51, 69.82' LT	54+25.00	660.61	652.03
1082+42.51, 69.94' LT	54+50.00	661.14	651.86
1082+17.51, 70.07' LT	54+75.00	661.68	651.69
1081+92.51, 70.19' LT	55+00.00	662.19	651.50
1081+67.51, 70.31' LT	55+25.00	662.69	651.34
1081+42.51, 70.44' LT	55+50.00	663.16	651.21
1081+17.51, 70.56' LT	55+75.00	663.60	651.89
1080+92.51, 70.68' LT	56+00.00	664.02	652.68
1080+67.51, 70.80' LT	56+25.00	664.41	653.74
1080+42.51, 70.93' LT	56+50.00	664.78	655.05
1080+17.51, 71.05' LT	56+75.00	665.12	656.60
1079+92.51, 71.17' LT	57+00.00	665.44	658.11
1079+82.87, 71.22' LT	57+09.64	665.55	658.63
1079+67.73, 68.62' LT	57+25.00	665.83	659.62
1079+43.09, 64.40' LT	57+50.00	666.27	661.23
1079+18.45, 60.17' LT	57+75.00	666.69	662.85
1079+07.92, 58.37' LT	57+85.68	666.86	663.54



PROFILE GRADE LINE
MAINLINE IH 43 SB



PROFILE GRADE LINE
JEAN NICOLET RD

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 5 OF 7

PRELIMINARY PLANS

IN PROGRESS

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB108-02	JULY 16, 2014	333276	604895
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

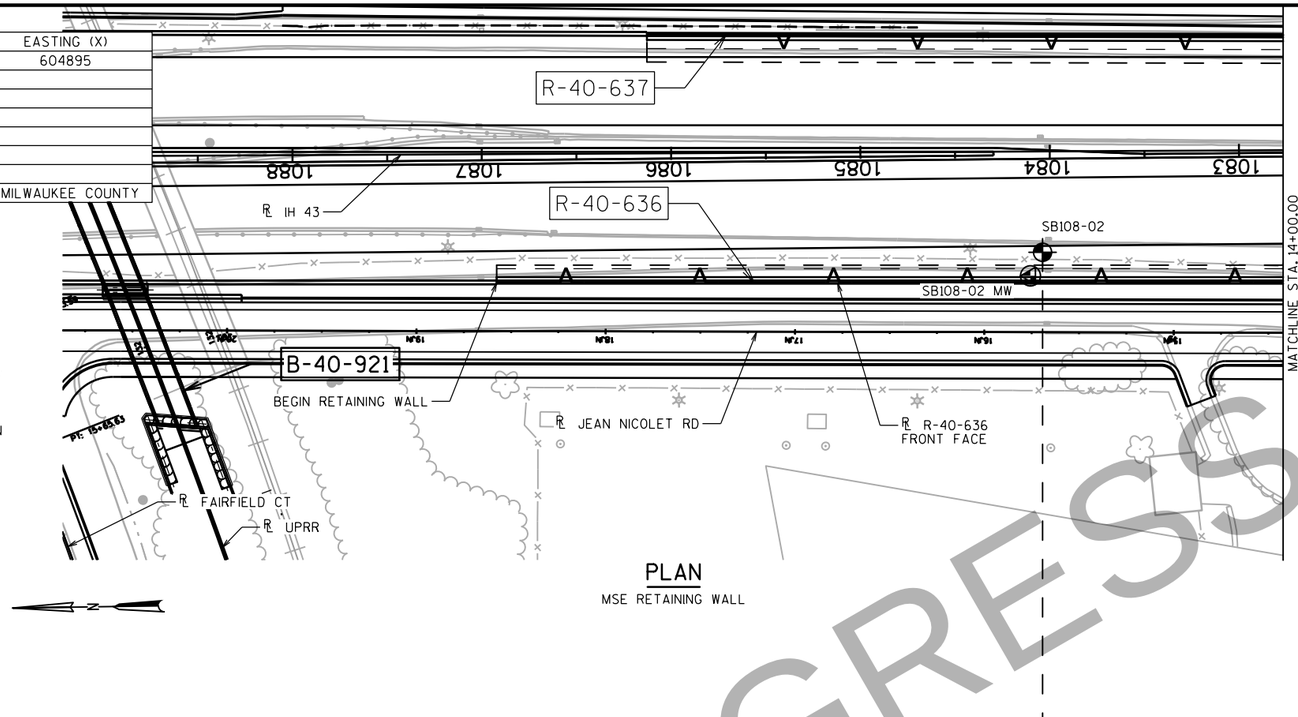
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

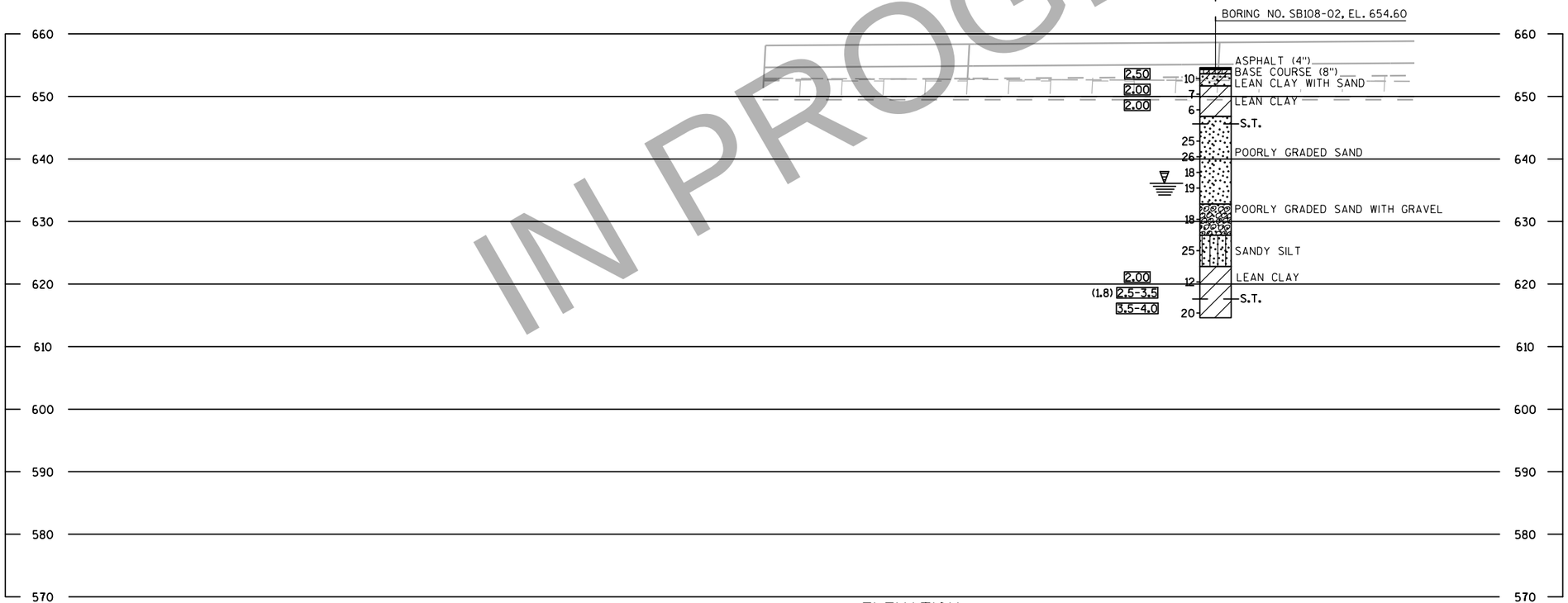
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

PRELIMINARY

IN PROGRESS

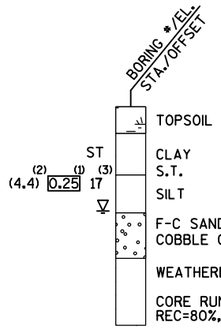
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

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BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 6 OF 7

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-636\cds\R636_GEO01.dgn
User:eJelinek
Date/Time:9/28/2021 8:59:36 AM
PLOT BY : ejelinek
PLOT NAME : $FILE$
PLOT SCALE : 80:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB107-01	JULY 23, 2014	332818	604892
SB108-01	APRIL 9, 2014	333063	604901
SB108-03	DECEMBER 10, 2014	332911	604849
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

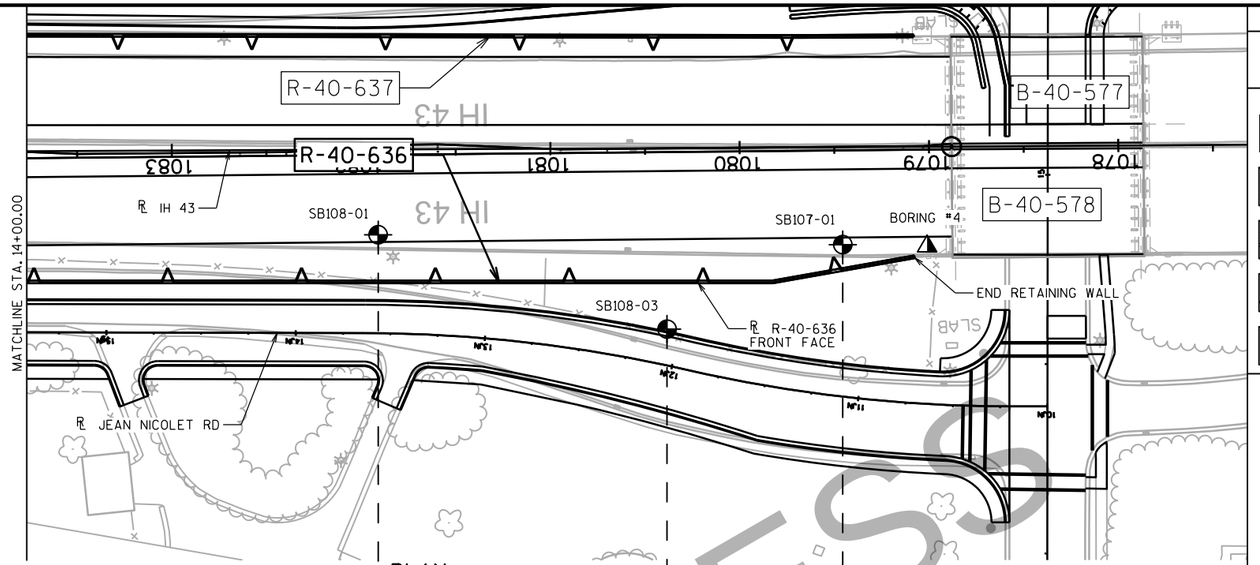
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

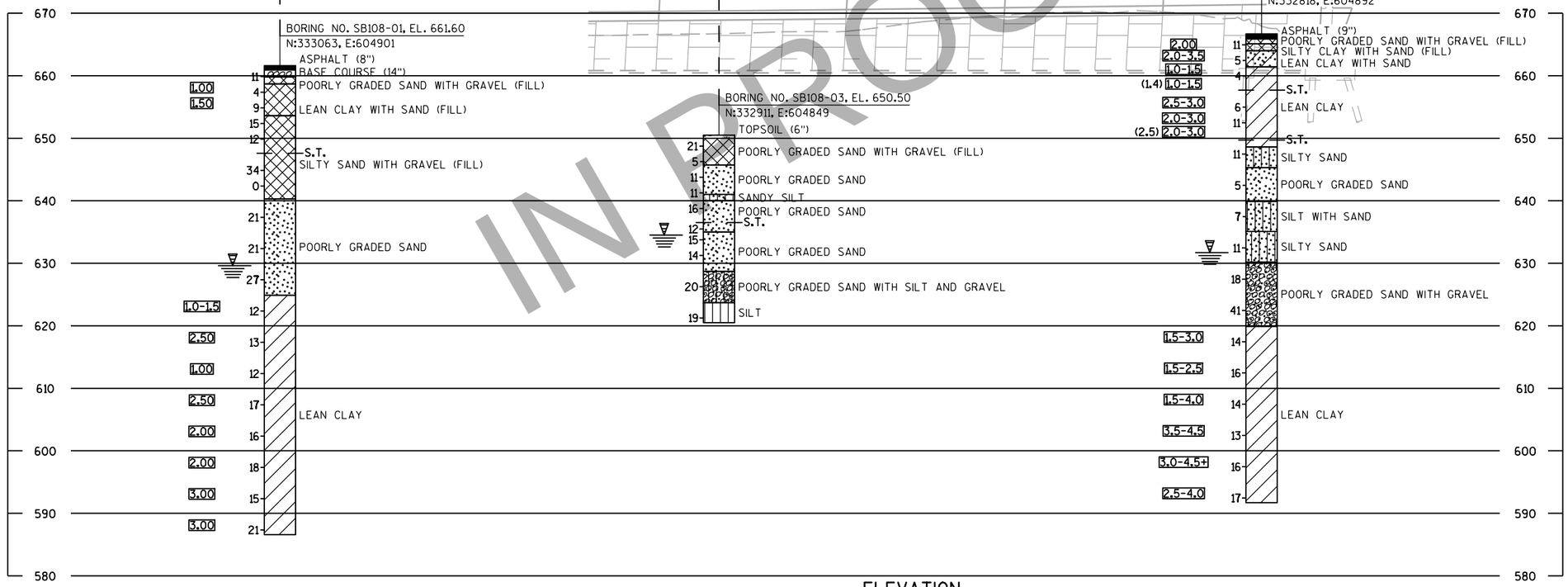
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

PRELIMINARY

IN PROGRESS

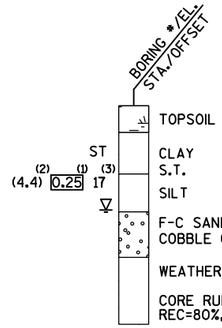
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-636

DRAWN BY NNM | PLANS CK'D. EAJ

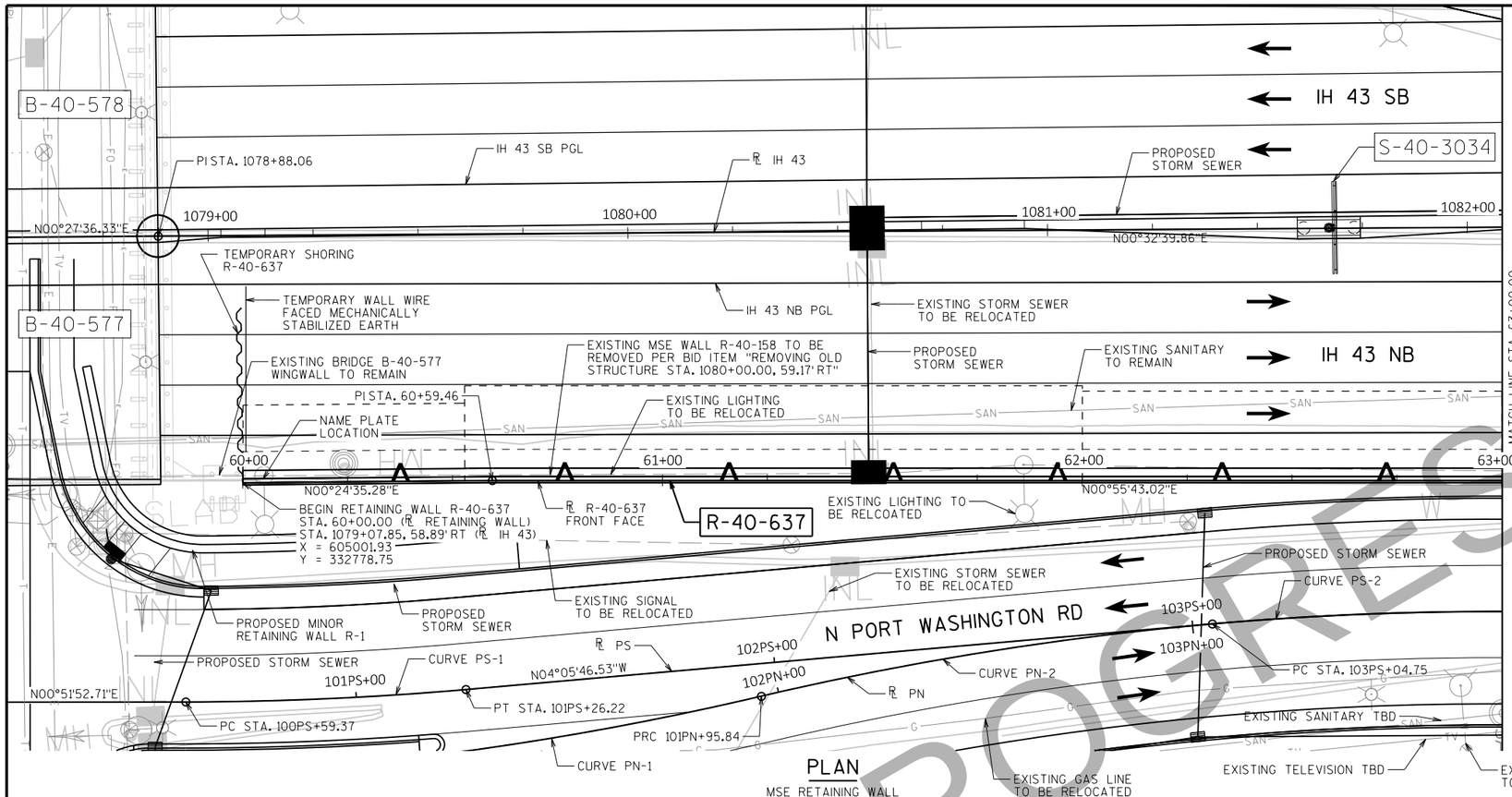
SUBSURFACE EXPLORATION

SHEET 7 OF 7

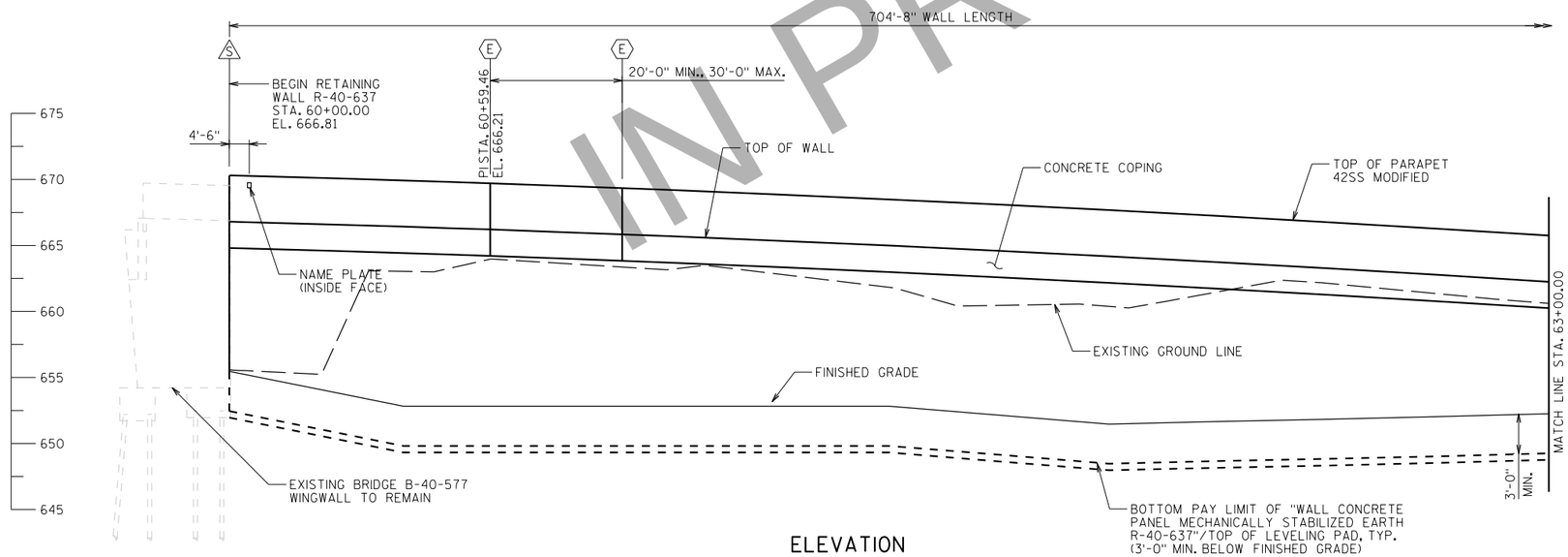
8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-636\cds\R636_GEO02.dgn PLOT DATE : 9/28/2021 8:55:45 AM PLOT BY : ejelinek PLOT NAME : $FILE$ PLOT SCALE : 80:1



PLAN
MSE RETAINING WALL



ELEVATION
LOOKING WEST
(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

STATE PROJECT NUMBER
1229-04-73

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL FINIHSED GRADE BEHIND THE WALL, AND A LIVE LOAD SURCHARGE OF 240 PSF, UNLESS NOTED OTHERWISE

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. TYPICAL SECTION
4. GENERAL NOTES & QUANTITIES
5. PROFILE GRADE LINES & DESIGN DATA
6. SUBSURFACE EXPLORATION

LEGEND

- DIRECTION OF TRAFFIC
- (E) EXPANSION JOINT
- (S) VERTICAL SLIP JOINT

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-637

RETAINING WALL EAST OF IH 43 AT BENDER RD

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION (1 OF 2)

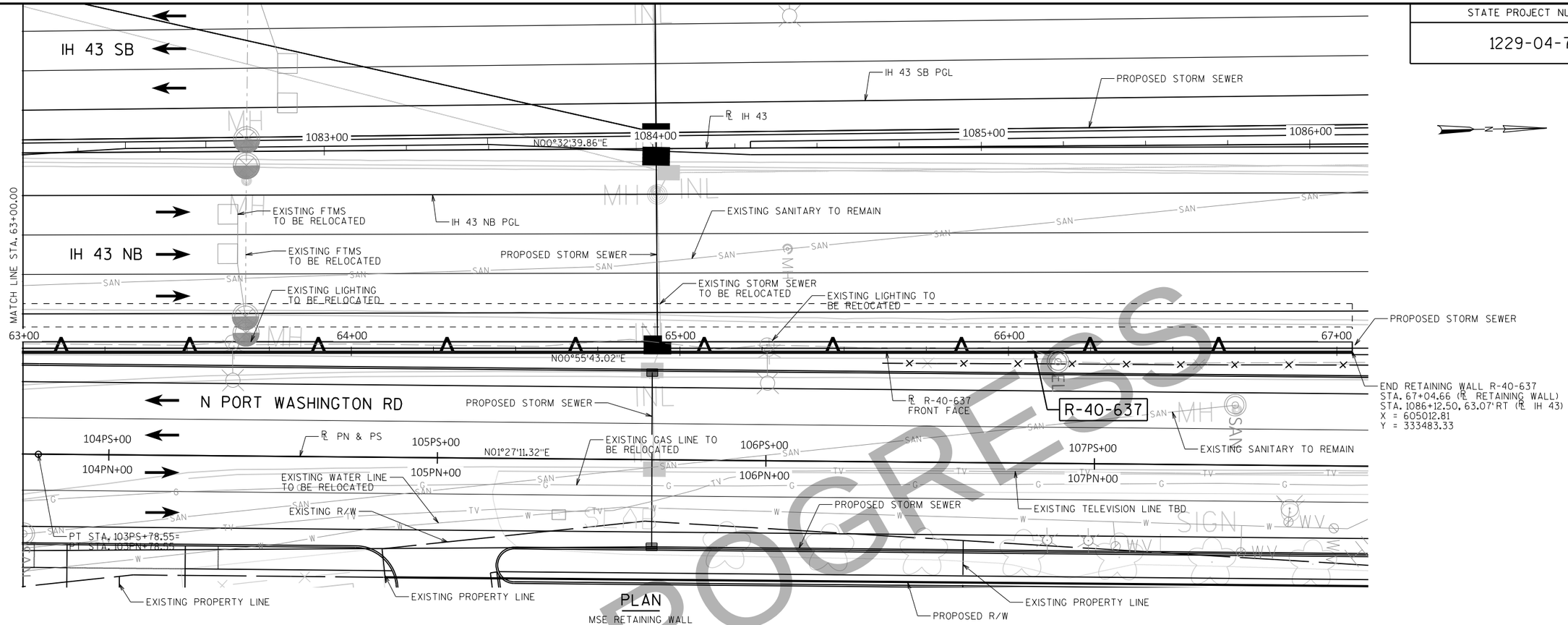
SHEET 1 OF 6

PRELIMINARY PLANS

8

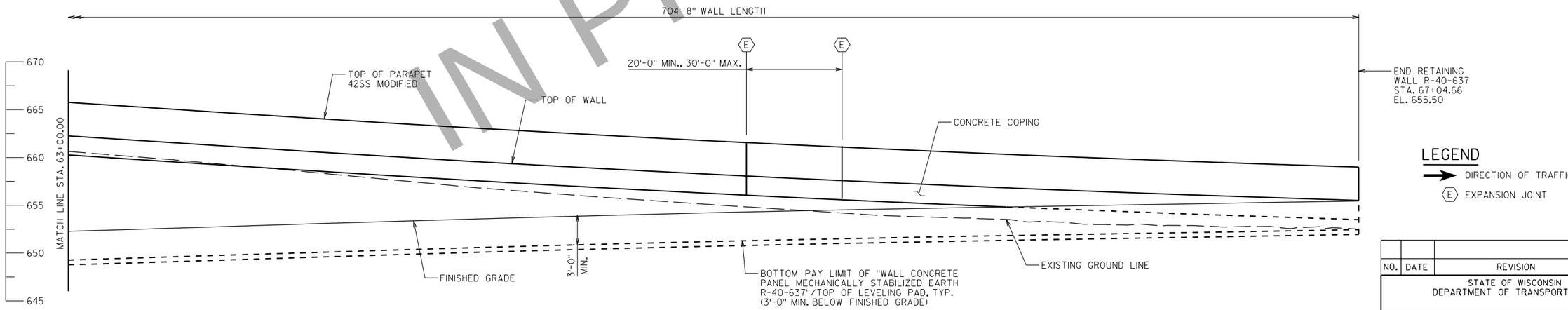
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231155\R637_080101_gp.dgn
PLOT DATE : 9/28/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:33.3333

STATE PROJECT NUMBER
1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST

(DIMENSIONS ALONG FRONT FACE OF WALL)

LEGEND

DIRECTION OF TRAFFIC

(E) EXPANSION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-637

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 6

PRELIMINARY PLANS

IN PROGRESS

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231155\R637_080102_gp2.dgn

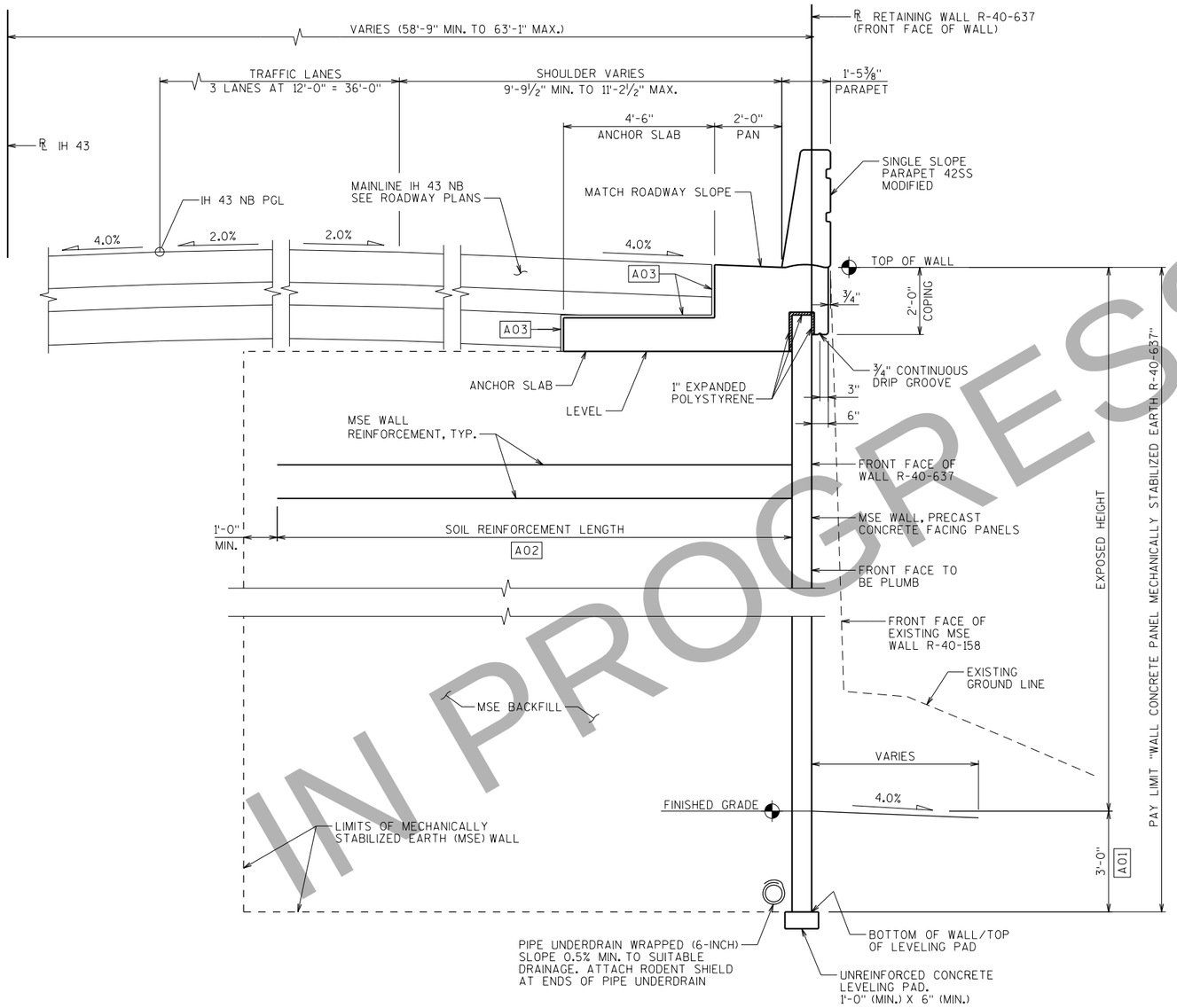
PLOT DATE : 9/28/2021

PLOT BY : sconnolly

PLOT NAME : $FILE$

PLOT SCALE : 1:33.3333

STATE PROJECT NUMBER
1229-04-73



IN PROGRESS

TYPICAL WALL SECTION

LOOKING NORTH

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-637

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION

SHEET 3 OF 6

PRELIMINARY PLANS

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231155\R637_080103_ts.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:4

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637".

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" & "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 3'-0" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

MSE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

THE EXISTING WALL R-40-158 IS AN EXISTING MECHANICALLY STABILIZED EARTH (MSE) WALL. THE ENTIRE STRUCTURE INCLUDING PARAPET, ANCHOR SLAB, COPING, FENCING AND REINFORCED ZONE IS TO BE REMOVED UNDER THE BID ITEM "REMOVING OLD STRUCTURE STA. 1080+00.00, 59.17' RT".

LEGEND

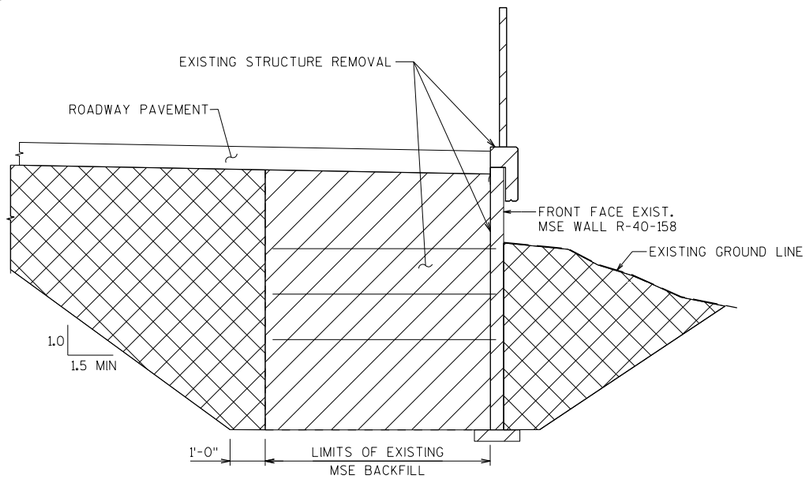
WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637"

REMOVING EXISTING STRUCTURE - INCLUDED IN THE BID ITEM "REMOVING OLD STRUCTURE STA. 1080+00.00, 59.17' RT"

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
203.0200.XXXX	REMOVING OLD STRUCTURE STA. 1080+00.00, 59.17' RT	LS	-
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
511.1200.XXXX	TEMPORARY SHORING R-40-637	SF	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH	SF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-637	SF	-
	NON-BID ITEMS		
	NAME PLATE	EACH	-
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-

ALL ITEMS ARE CATEGORY XXXX



EXISTING WALL REMOVALS

(LOOKING NORTH)

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-637

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 4 OF 6

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231155\R637_080104_gn.dgn PLOT DATE : 9/13/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:4

STATE PROJECT NUMBER
1229-04-73

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ■	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

HORIZONTAL CURVE DATA

CURVE PS-1
PI STA. = 100PS+92.81
Y = 332797.74
X = 605054.44
DELTA = 4°57'39"
D = 7°25'18"
T = 33.44'
L = 66.84'
R = 772.00'
PC STA. = 100PS+59.37
Y = 332764.31
X = 605053.93
PT STA. = 101PS+26.22
Y = 332831.10
X = 605052.05

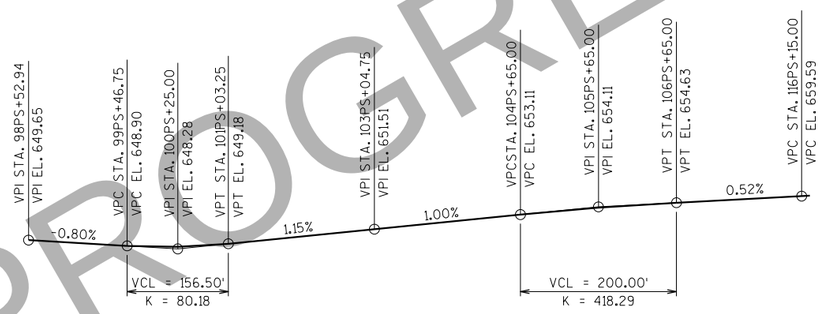
CURVE PS-2
PI STA. = 103PS+41.68
Y = 333046.01
X = 605036.66
DELTA = 5°32'58"
D = 7°31'09"
T = 36.93'
L = 73.80'
R = 762.00'
PC STA. = 103PS+04.75
Y = 333009.18
X = 605039.29
PT STA. = 103PS+78.55
Y = 333082.93
X = 605037.59

CURVE PN-1
PI STA. = 101PN+17.67
Y = 332824.55
X = 605071.55
DELTA = 11°47'48"
D = 7°31'09"
T = 78.70'
L = 156.89'
R = 762.00'
PRC STA. = 100PN+38.95
Y = 332745.83
X = 605072.22
PT STA. = 101PN+95.84
Y = 332901.47
X = 605037.59

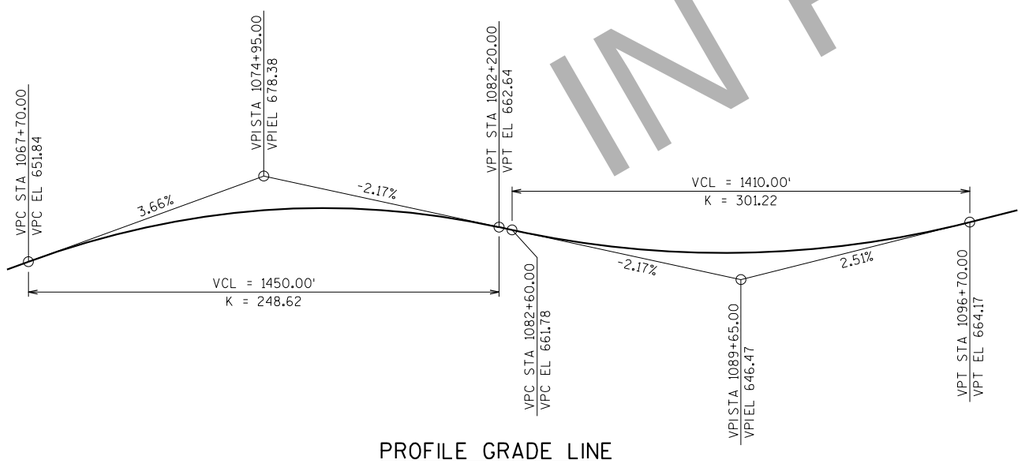
CURVE PN-2
PI STA. = 102PN+87.63
Y = 332991.16
X = 605035.26
DELTA = 13°44'18"
D = 7°31'09"
T = 91.80'
L = 182.71'
R = 762.00'
PRC STA. = 101PN+95.84
Y = 332901.47
X = 605054.80
PT STA. = 103PN+78.55
Y = 333082.93
X = 605037.59

WALL ELEVATIONS ◥

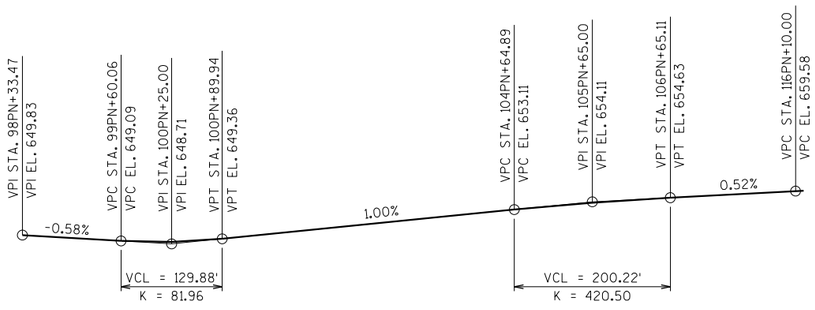
STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1079+07.85, 58.89' RT	60+00.00	666.81	655.46
1079+32.85, 58.83' RT	60+25.00	666.57	653.80
1079+57.85, 58.77' RT	60+50.00	666.31	652.83
1079+67.31, 58.75' RT	60+59.46	666.21	652.83
1079+82.85, 58.85' RT	60+75.00	666.02	652.83
1080+07.85, 59.02' RT	61+00.00	665.70	652.83
1080+32.85, 59.19' RT	61+25.00	665.36	652.83
1080+57.85, 59.35' RT	61+50.00	664.99	652.83
1080+82.85, 59.52' RT	61+75.00	664.60	652.15
1081+07.85, 59.69' RT	62+00.00	664.18	651.48
1081+32.85, 59.86' RT	62+25.00	663.73	651.68
1081+57.85, 60.02' RT	62+50.00	663.26	651.85
1081+82.84, 60.19' RT	62+75.00	662.77	652.04
1082+07.84, 60.36' RT	63+00.00	662.25	652.27
1082+32.84, 60.53' RT	63+25.00	661.71	652.52
1082+57.84, 60.69' RT	63+50.00	661.16	652.78
1082+82.84, 60.86' RT	63+75.00	660.63	653.04
1083+07.84, 61.03' RT	64+00.00	660.11	653.30
1083+32.84, 61.20' RT	64+25.00	659.61	653.55
1083+57.84, 61.36' RT	64+50.00	659.14	653.78
1083+82.84, 61.53' RT	64+75.00	658.69	654.00
1084+07.84, 61.70' RT	65+00.00	658.26	654.20
1084+32.84, 61.87' RT	65+25.00	657.85	654.38
1084+57.84, 62.04' RT	65+50.00	657.46	654.56
1084+82.84, 62.20' RT	65+75.00	657.09	654.71
1085+07.84, 62.37' RT	66+00.00	656.74	654.86
1085+32.84, 62.54' RT	66+25.00	656.41	655.00
1085+57.84, 62.71' RT	66+50.00	656.10	655.14
1085+82.84, 62.87' RT	66+75.00	655.82	655.28
1086+07.84, 63.04' RT	67+00.00	655.55	655.42
1086+12.50, 63.07' RT	67+04.67	655.50	655.44



PROFILE GRADE LINE
N PORT WASHINGTON RD SB



PROFILE GRADE LINE
MAINLINE IH 43 NB



PROFILE GRADE LINE
N PORT WASHINGTON RD NB

LEGEND
◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-637

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 5 OF 6

PRELIMINARY PLANS

IN PROGRESS

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NB107-01	APRIL 7, 2014	332805	604985
NB108-01	JULY 24, 2014	333073	604988
NB108-02	JULY 18, 2014	333276	605022
NB108-03	DECEMBER 13, 2014	332948	605026
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

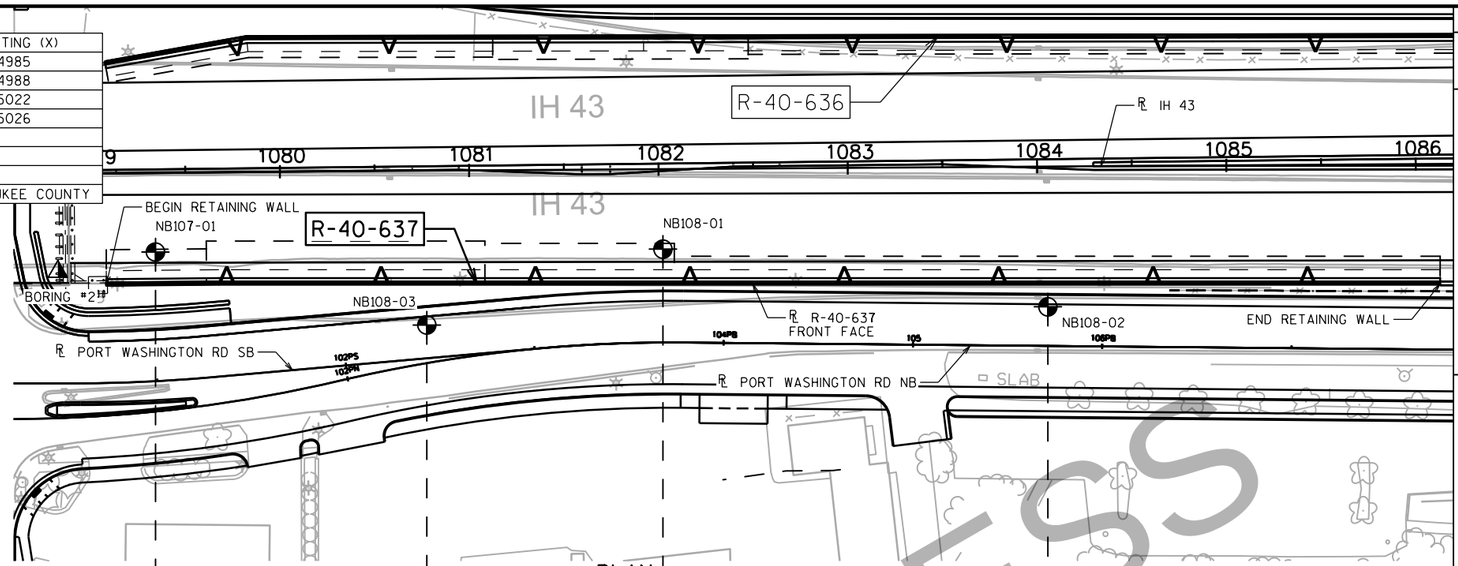
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

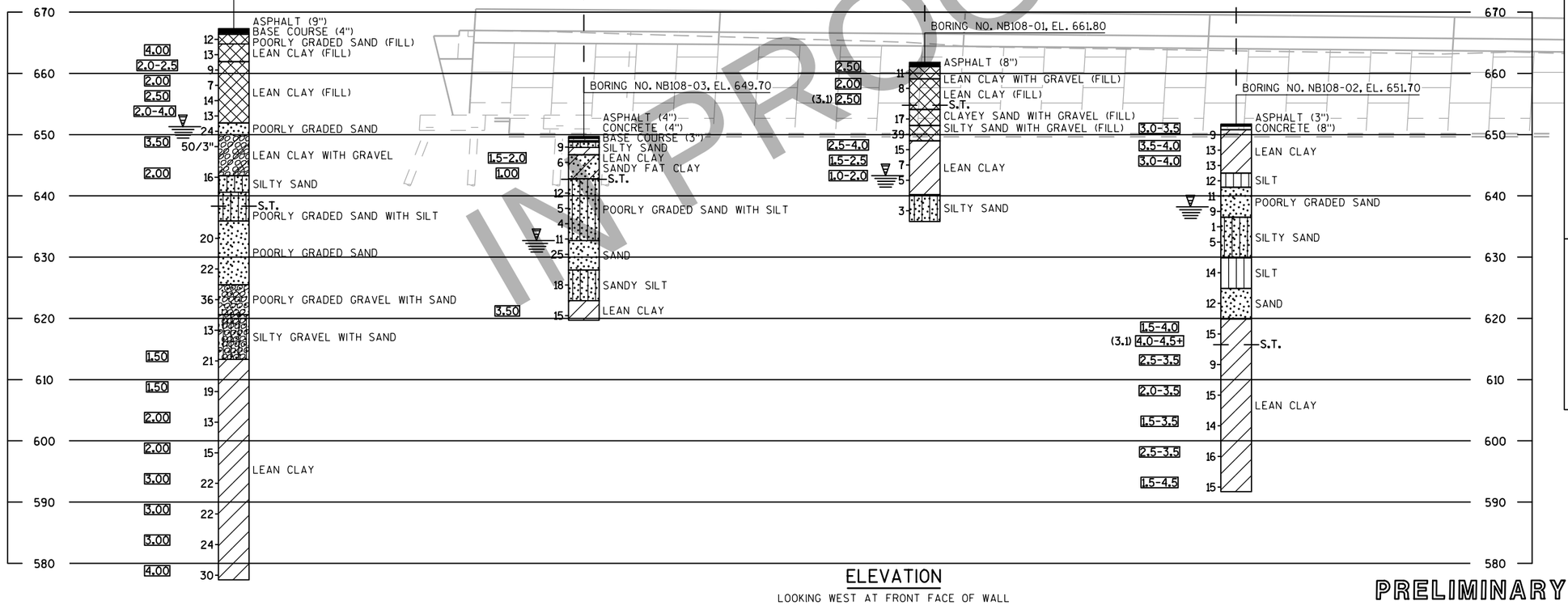
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

PRELIMINARY

IN PROGRESS

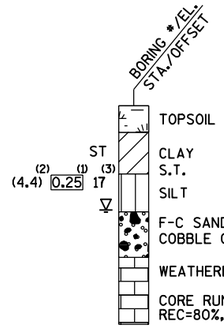
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-637

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

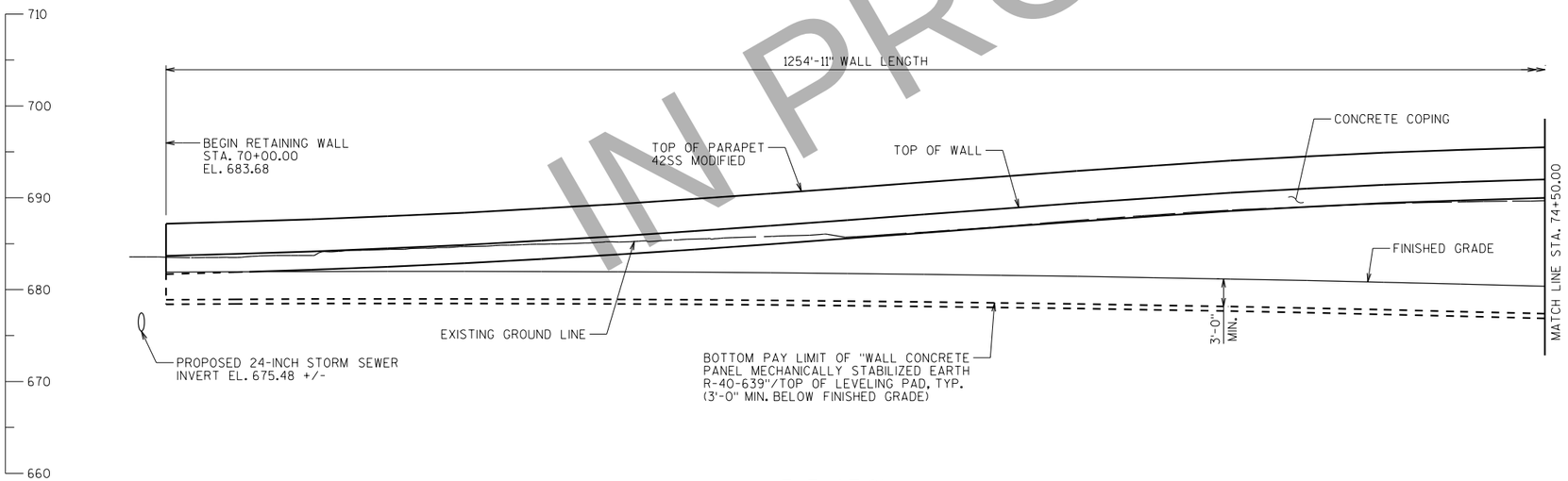
SHEET 6 OF 6

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-637\cds\R637_0001.dgn PLOT BY : ejelinek PLOT NAME : $FILE$ PLOT SCALE : 80:1
Adobe InDesign 9/28/2021 9:08:59 AM

PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

NOTE

R-40-639 AND PORT WASHINGTON ROAD TO BE CONSTRUCTED UNDER THIS CONTRACT. IH 43 TO BE CONSTRUCTED LATER UNDER CONTRACT 1229-04-73.

STATE PROJECT NUMBER
1229-04-71

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL ..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL FINISHED GRADE BEHIND THE WALL, AND A LIVE LOAD SURCHARGE OF 240 PSF, UNLESS NOTED OTHERWISE

LEGEND

→ DIRECTION OF TRAFFIC

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 3)
2. GENERAL PLAN & ELEVATION (2 OF 3)
3. GENERAL PLAN & ELEVATION (3 OF 3)
4. TYPICAL SECTION
5. GENERAL NOTES & QUANTITIES
6. PROFILE GRADE LINES & DESIGN DATA
7. SUBSURFACE EXPLORATION
8. SUBSURFACE EXPLORATION

IN PROGRESS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-639

RETAINING WALL BTWN. IH 43 NB & N. PORT WASH. RD

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

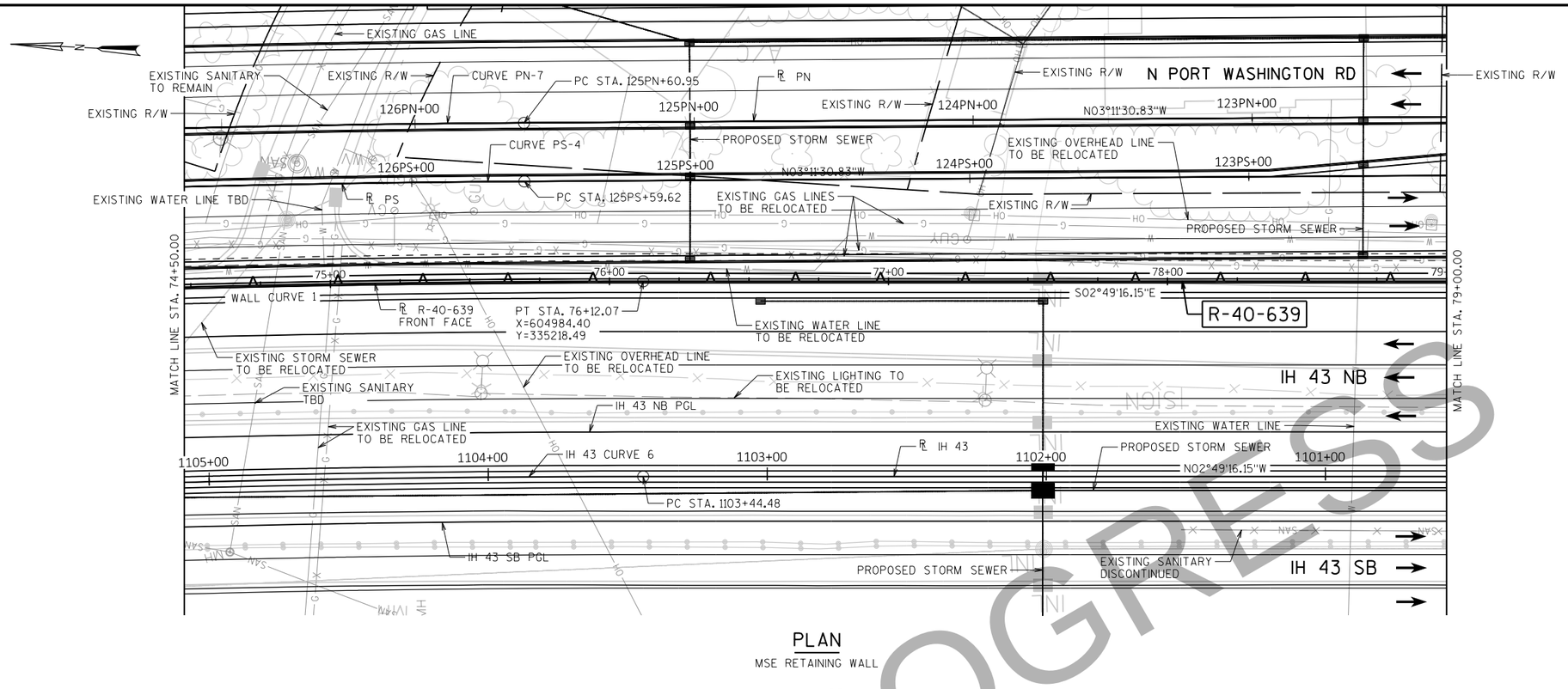
GENERAL PLAN & ELEVATION (1 OF 3)

SHEET 1 OF 8

8

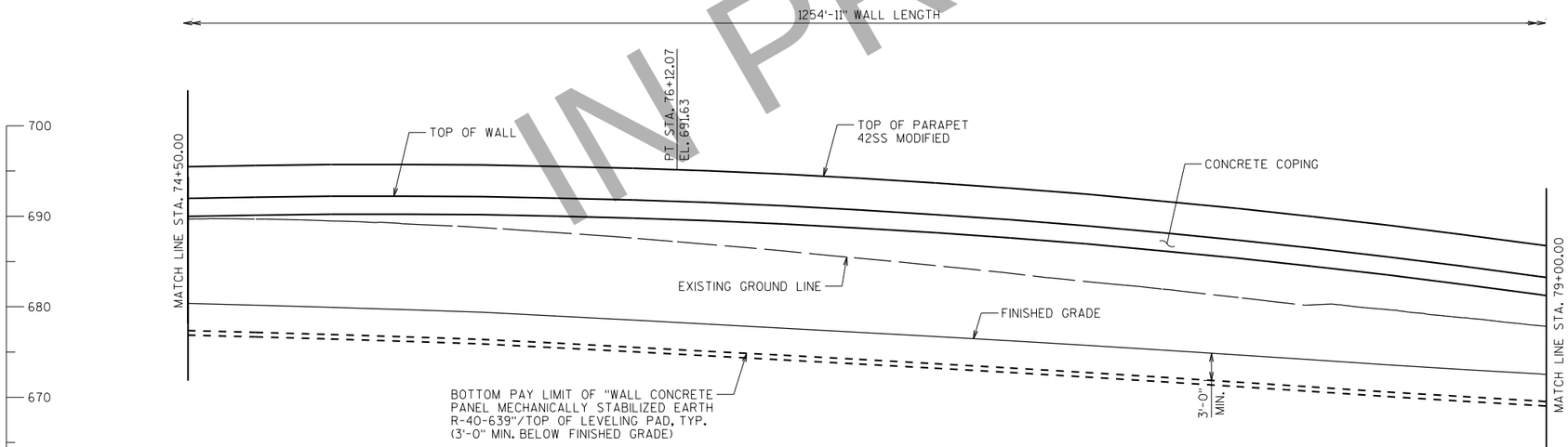
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231162\R639_080101_gp.dgn
PLOT DATE : 9/28/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:46.6667

STATE PROJECT NUMBER
1229-04-71



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

NOTE

R-40-639 AND PORT WASHINGTON ROAD TO BE CONSTRUCTED UNDER THIS CONTRACT. IH 43 TO BE CONSTRUCTED LATER UNDER CONTRACT 1229-04-73.

LEGEND

→ DIRECTION OF TRAFFIC

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL PLAN & ELEVATION (2 OF 3)

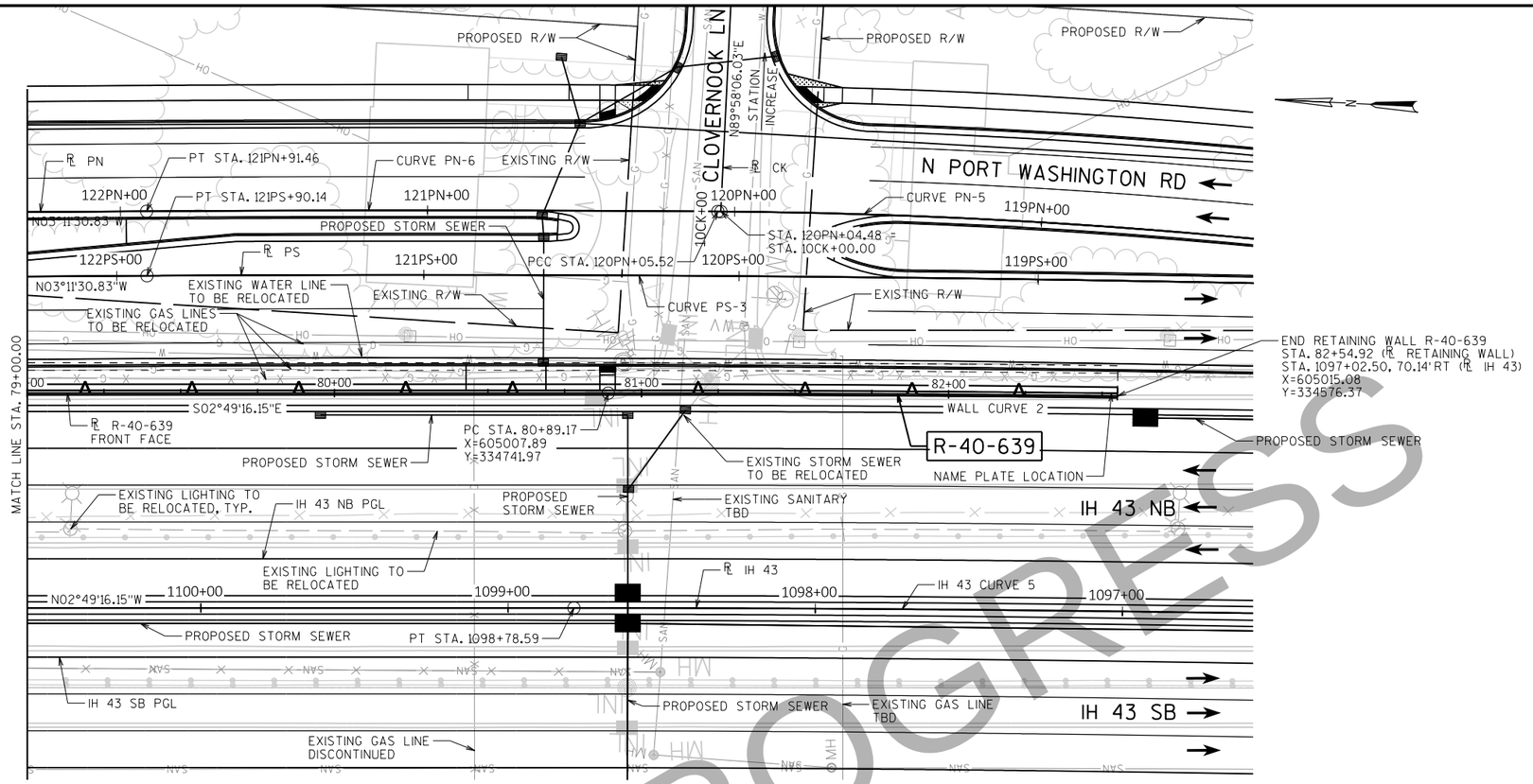
SHEET 2 OF 8

8

8

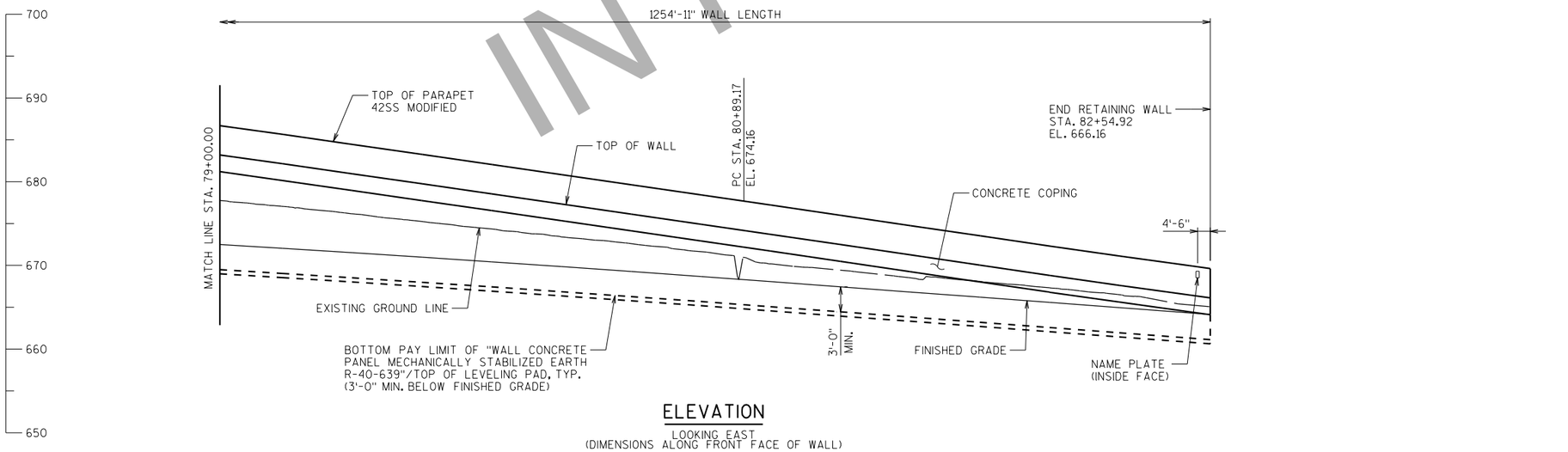
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231162\R639_080102_gp2.dgn PLOT DATE : 9/28/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:46.6667

STATE PROJECT NUMBER
1229-04-71



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

NOTE

R-40-639 AND PORT WASHINGTON ROAD TO BE CONSTRUCTED UNDER THIS CONTRACT. IH 43 TO BE CONSTRUCTED LATER UNDER CONTRACT 1229-04-73.

LEGEND

→ DIRECTION OF TRAFFIC

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY MM | PLANS CK'D. MHZ

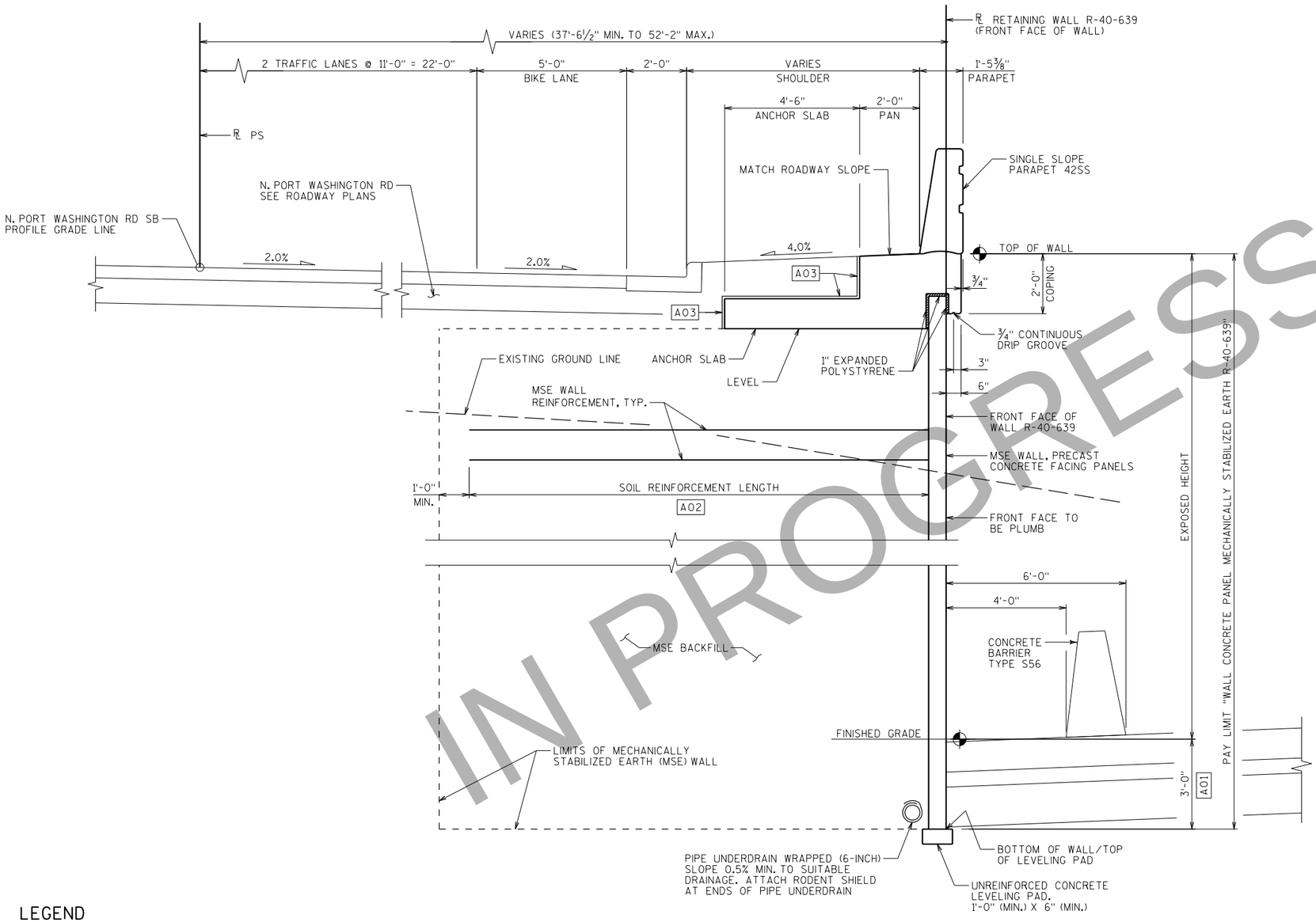
GENERAL PLAN & ELEVATION (3 OF 3)

SHEET 3 OF 8

8

8

STATE PROJECT NUMBER
1229-04-71



IN PROGRESS

TYPICAL WALL SECTION

(LOOKING SOUTH)

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTION

SHEET 4 OF 8

8

FILE NAME : c:\caddlib\pw\hntb_samruddhi.kolhe\greatlakes\d0231162\R639_080104_ts.dgn
PLOT DATE : 8/31/2021
PLOT BY : skolhe
PLOT NAME : $FILE$
PLOT SCALE : 1:4

STATE PROJECT NUMBER
1229-04-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-639".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-639".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-639".

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" & "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-639" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 3'-0" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

MSE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

THE MINIMUM 3'-0" BOTTOM OF WALL EMBEDMENT SHALL BE MAINTAINED DURING CONSTRUCTION OF IH 43.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-639	SF	-
	NON-BID ITEMS		
	NAME PLATE	EACH	-
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 5 OF 8

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-71

WALL ELEVATIONS ◥

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1109+50.00, 70.00' RT	70+00.00	683.68	681.91
1109+25.27, 70.00' RT	70+25.00	683.93	681.95
1109+00.54, 70.00' RT	70+50.00	684.19	681.98
1108+75.80, 70.00' RT	70+75.00	684.53	681.99
1108+51.07, 70.00' RT	71+00.00	684.92	681.99
1108+26.34, 70.00' RT	71+25.00	685.39	681.97
1108+01.61, 70.00' RT	71+50.00	685.88	681.94
1107+76.87, 70.00' RT	71+75.00	686.43	681.90
1107+52.14, 70.00' RT	72+00.00	687.02	681.83
1107+27.41, 70.00' RT	72+25.00	687.64	681.75
1107+02.68, 70.00' RT	72+50.00	688.25	681.66
1106+77.94, 70.00' RT	72+75.00	688.87	681.55
1106+53.21, 70.00' RT	73+00.00	689.48	681.43
1106+28.48, 70.00' RT	73+25.00	690.05	681.29
1106+03.75, 70.00' RT	73+50.00	690.60	681.14
1105+79.01, 70.00' RT	73+75.00	691.05	680.97
1105+54.28, 70.00' RT	74+00.00	691.45	680.79
1105+29.55, 70.00' RT	74+25.00	691.74	680.59
1105+04.82, 70.00' RT	74+50.00	691.99	680.38
1104+80.08, 70.00' RT	74+75.00	692.13	680.15
1104+55.35, 70.00' RT	75+00.00	692.22	679.91
1104+30.62, 70.00' RT	75+25.00	692.22	679.65
1104+05.89, 70.00' RT	75+50.00	692.16	679.36
1103+81.15, 70.00' RT	75+75.00	691.99	678.93
1103+56.49, 70.00' RT	76+00.00	691.77	678.48
1103+44.48, 70.00' RT	76+12.07	691.63	678.26

WALL ELEVATIONS CONTINUED ◥

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1103+31.55, 70.00' RT	76+25.00	691.48	678.03
1103+06.55, 70.00' RT	76+50.00	691.11	677.59
1102+81.55, 70.00' RT	76+75.00	690.65	677.13
1102+56.62, 70.00' RT	77+00.00	690.14	676.67
1102+31.55, 70.00' RT	77+25.00	689.55	676.19
1102+06.55, 70.00' RT	77+50.00	688.87	675.69
1101+81.55, 70.00' RT	77+75.00	688.11	675.17
1101+56.62, 70.00' RT	78+00.00	687.29	674.64
1101+31.55, 70.00' RT	78+25.00	686.38	674.09
1101+06.55, 70.00' RT	78+50.00	685.42	673.54
1100+81.55, 70.00' RT	78+75.00	684.36	673.03
1100+56.62, 70.00' RT	79+00.00	683.24	672.54
1100+31.55, 70.00' RT	79+25.00	682.07	672.03
1100+06.55, 70.00' RT	79+50.00	680.88	671.51
1099+81.55, 70.00' RT	79+75.00	679.67	670.97
1099+56.55, 70.00' RT	80+00.00	678.47	670.41
1099+31.55, 70.00' RT	80+25.00	677.26	669.84
1099+06.55, 70.00' RT	80+50.00	676.05	669.26
1098+81.55, 70.00' RT	80+75.00	674.84	668.66
1098+67.44, 70.00' RT	80+89.17	674.16	668.31
1098+56.66, 70.01' RT	81+00.00	673.63	668.05
1098+31.78, 70.03' RT	81+25.00	672.41	667.43
1098+06.91, 70.05' RT	81+50.00	671.18	666.80
1097+82.03, 70.07' RT	81+75.00	669.95	666.18
1097+57.21, 70.09' RT	82+00.00	668.72	665.55
1097+32.28, 70.11' RT	82+25.00	667.54	664.93
1097+07.40, 70.13' RT	82+50.00	666.39	664.31
1097+02.50, 70.14' RT	82+54.92	666.16	664.18

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

HORIZONTAL CURVE DATA

WALL CURVE 1
PI = STA. 73+06.26
Y = 335524.38
X = 604969.33
DELTA = 05°21'32"
D = 00°52'32"
T = 306.26'
L = 612.07'
R = 6544.00'
PC = STA. 70+00.00
Y = 335827.52
X = 604925.75
PT = STA. 76+12.07
Y = 335218.49
X = 604984.40

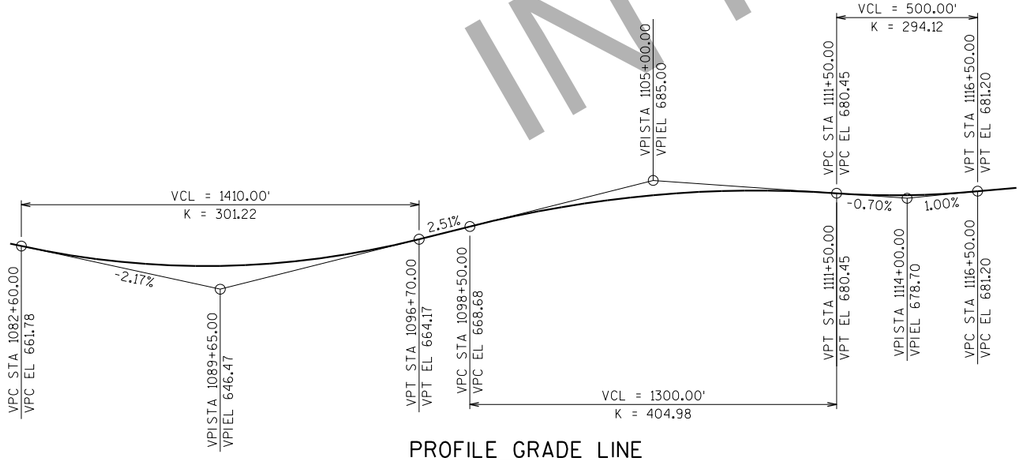
WALL CURVE 2
PI = STA. 81+72.05
Y = 334659.19
X = 605011.96
DELTA = 00°40'10"
D = 00°24'14"
T = 82.88'
L = 165.76'
R = 14186.00'
PC = STA. 80+89.17
Y = 334741.97
X = 605007.89
PT = STA. 82+54.92
Y = 334576.37
X = 605015.08

IH 43 CURVE 5
PI = STA. 1094+64.12
Y = 334335.51
X = 604957.83
DELTA = 03°21'56"
D = 00°24'21"
T = 414.71'
L = 829.17'
R = 14116.00'
PC = STA. 1090+49.41
Y = 333920.83
X = 604953.89
PT = STA. 1098+78.59
Y = 334749.72
X = 604937.42

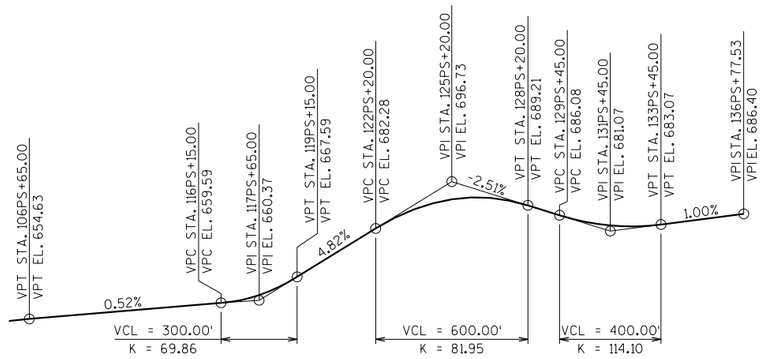
IH 43 CURVE 6
PI = STA. 1107+67.39
Y = 335637.44
X = 604893.67
DELTA = 07°28'30"
D = 00°53'06"
T = 422.91'
L = 844.62'
R = 6474.00'
PC = STA. 1103+44.48
Y = 335215.04
X = 604914.49
PT = STA. 1111+89.10
Y = 336053.54
X = 604818.08

CURVE PS-3
PI = STA. 116PS+36.72
Y = 334340.70
X = 605069.50
DELTA = 04°38'42"
D = 00°25'10"
T = 554.02'
L = 1107.43'
R = 13660.00'
PC = STA. 110PS+82.70
Y = 333786.86
X = 605055.45
PRC = STA. 121PS+90.14
Y = 334893.86
X = 605038.65

CURVE PS-4
PI = STA. 128PS+87.33
Y = 335589.97
X = 604999.83
DELTA = 05°42'09"
D = 05°52'15"
T = 327.71'
L = 654.88'
R = 6580.00'
PC = STA. 125PS+59.62
Y = 335262.77
X = 605018.08
PRC = STA. 132PS+14.50
Y = 335913.74
X = 604949.16



PROFILE GRADE LINE
MAINLINE IH 43 NB



PROFILE GRADE LINE
N PORT WASHINGTON RD SB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 6 OF 8

IN PROGRESS

8

FILE NAME : c:\caddlib\pw\hntb_samruddhi.kolhe\greatlakes\d0231162\R639_080106_pr.dgn
PLOT DATE : 8/31/2021
PLOT BY : skolhe
PLOT NAME : $FILE$
PLOT SCALE : 1:4

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NB110-04	APRIL 22, 2014	335474	604993
NB110-05	JULY 10, 2014	335675	604946
NB111-01	JULY 14, 2014	335869	604947
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

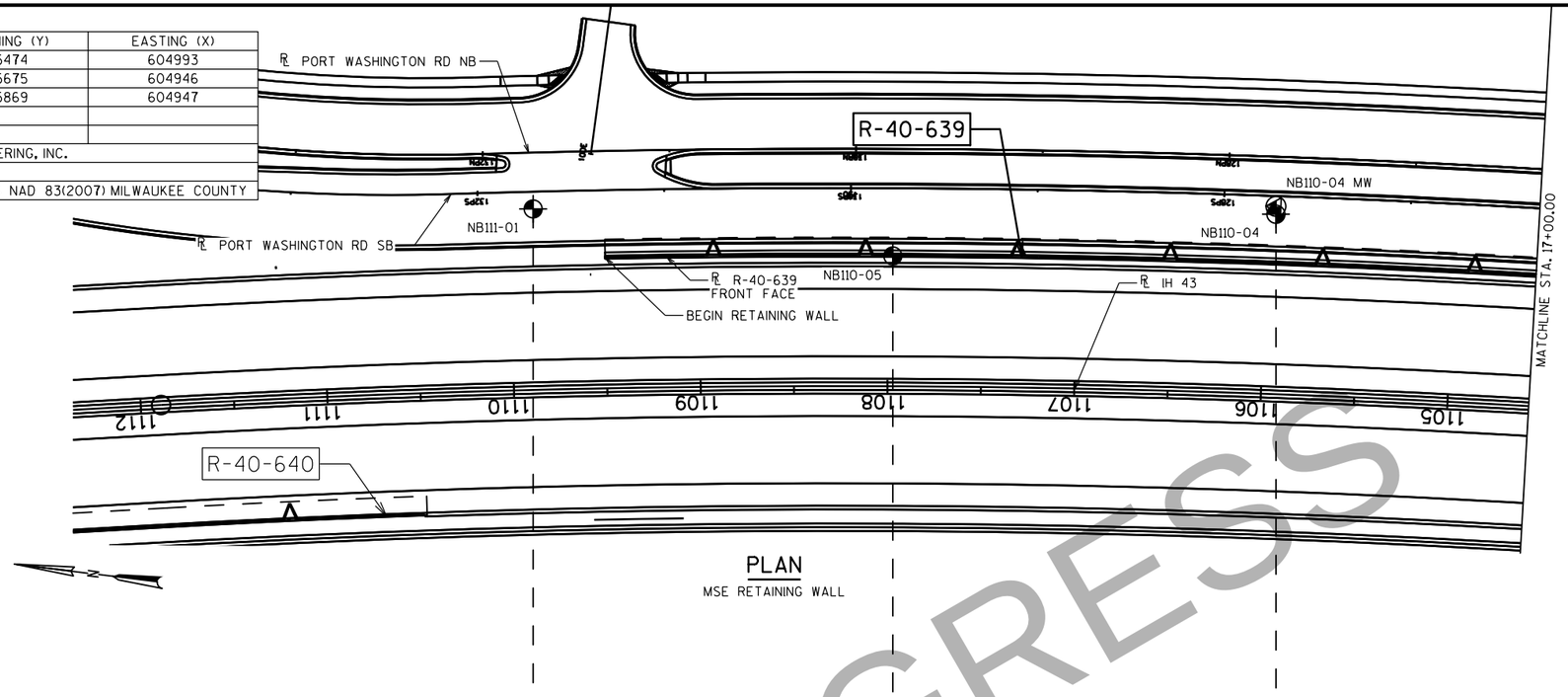
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

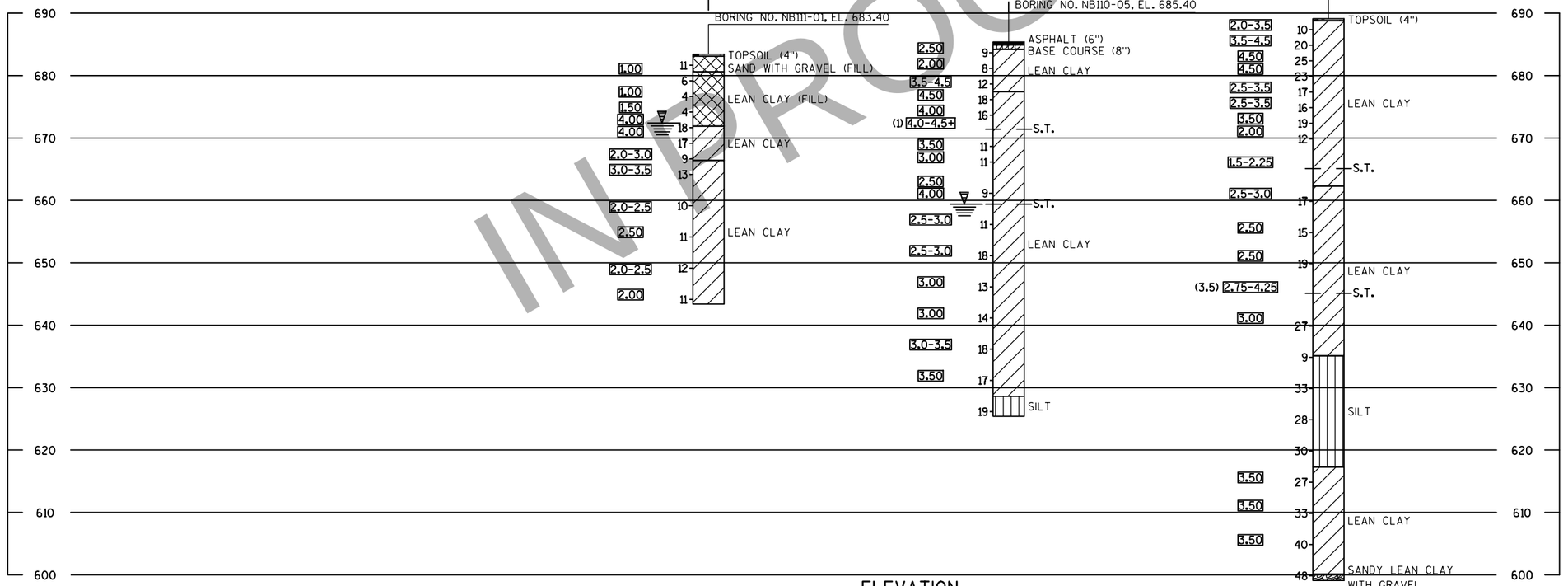
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

IN PROGRESS

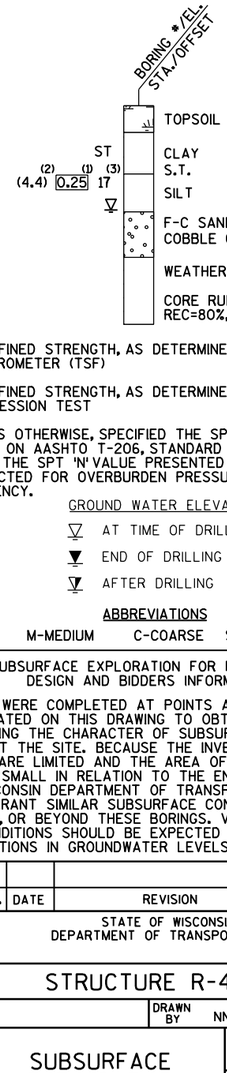
STATE PROJECT NUMBER

1229-04-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 7 OF 8

PRELIMINARY

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NB109-01	JUNE 11, 2014	334693	605035
NB110-01	JULY 8, 2014	334876	605003
NB110-02	MAY 1, 2014	335063	604996
NB110-03	JULY 9, 2014	335324	605019
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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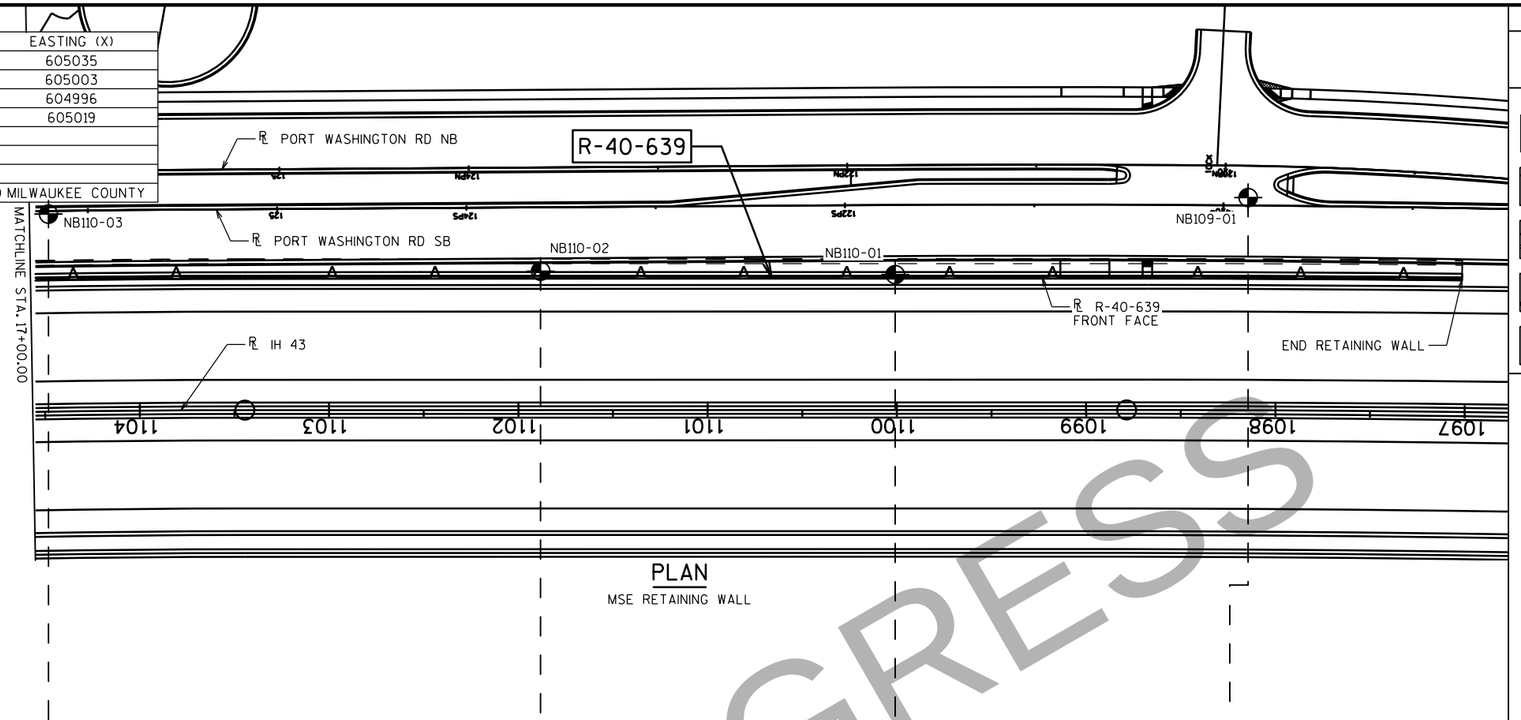
DENOTES SOIL BORING LOCATION

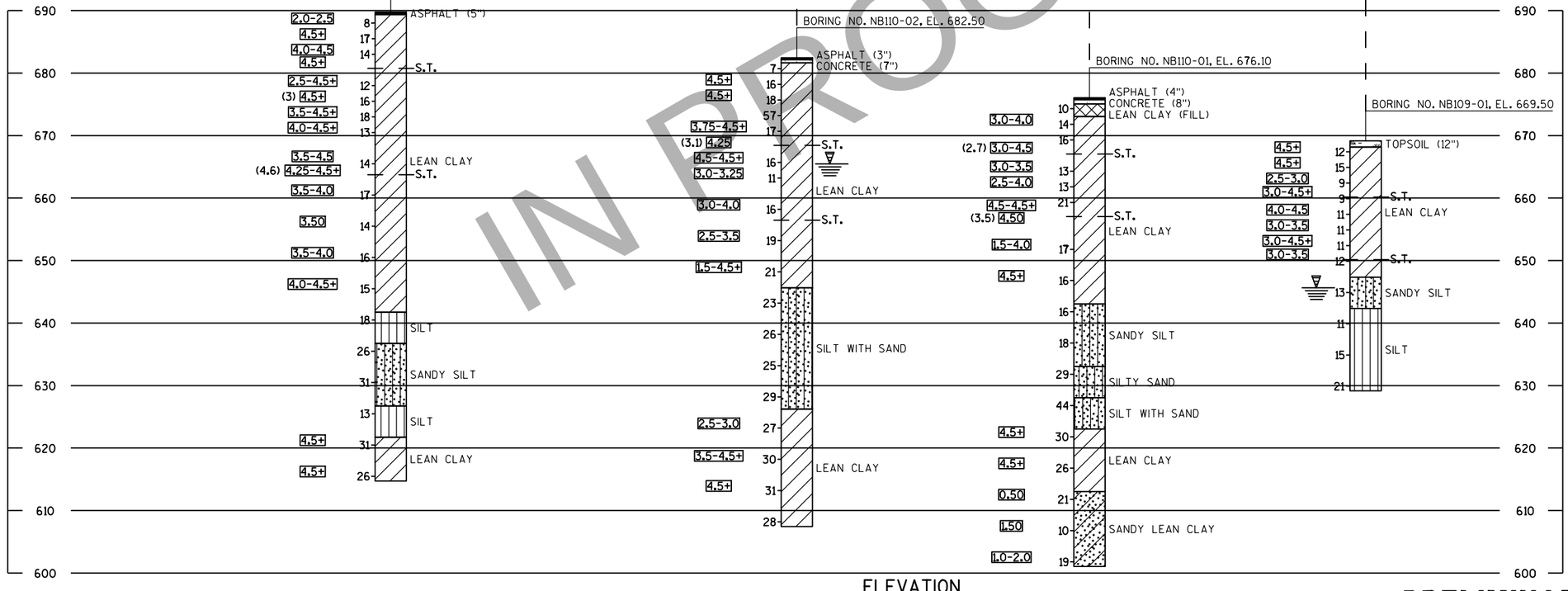
DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

PRELIMINARY

IN PROGRESS

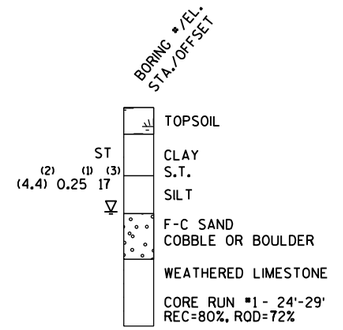
STATE PROJECT NUMBER

1229-04-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-639

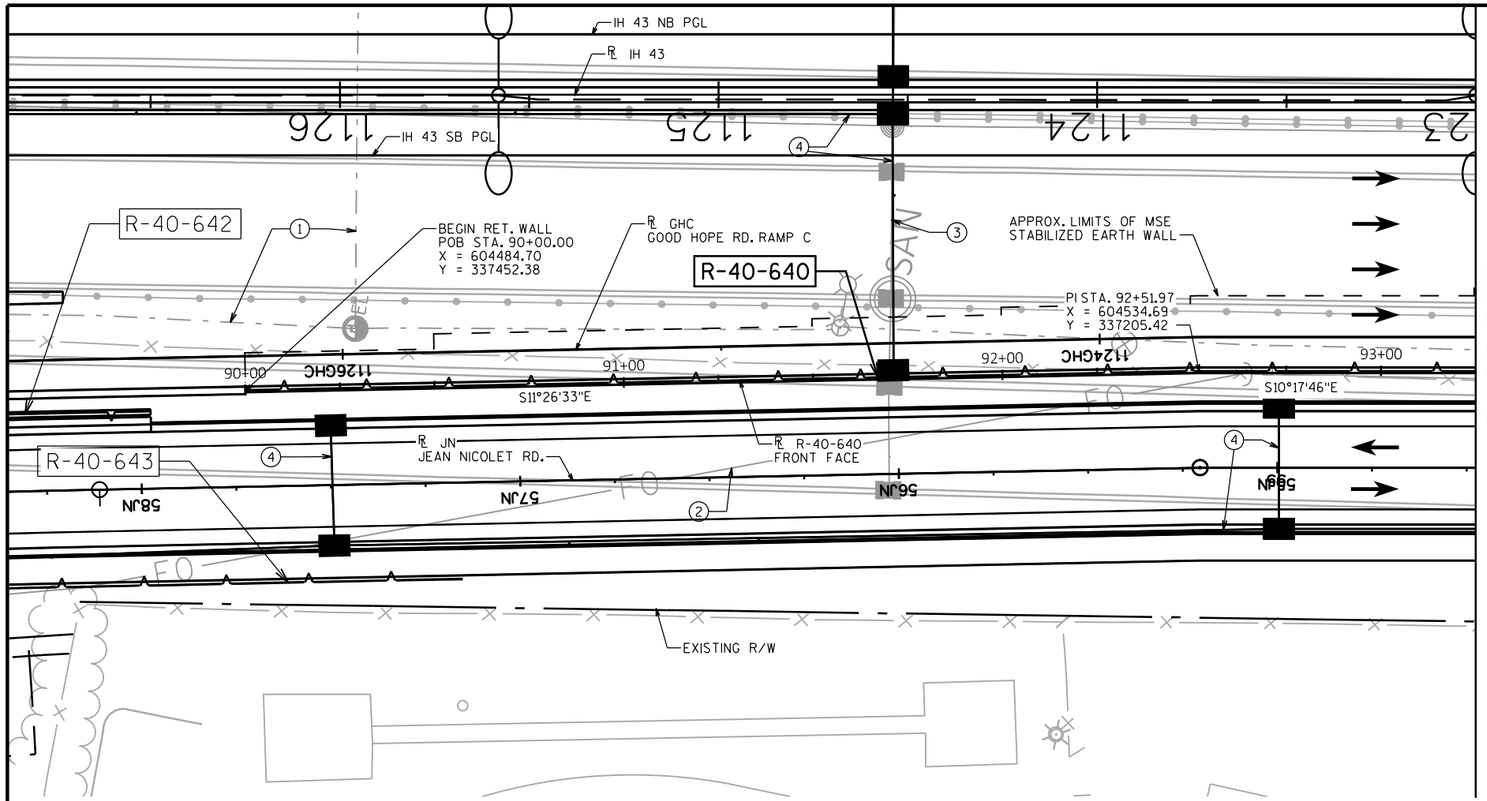
DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 8 OF 8

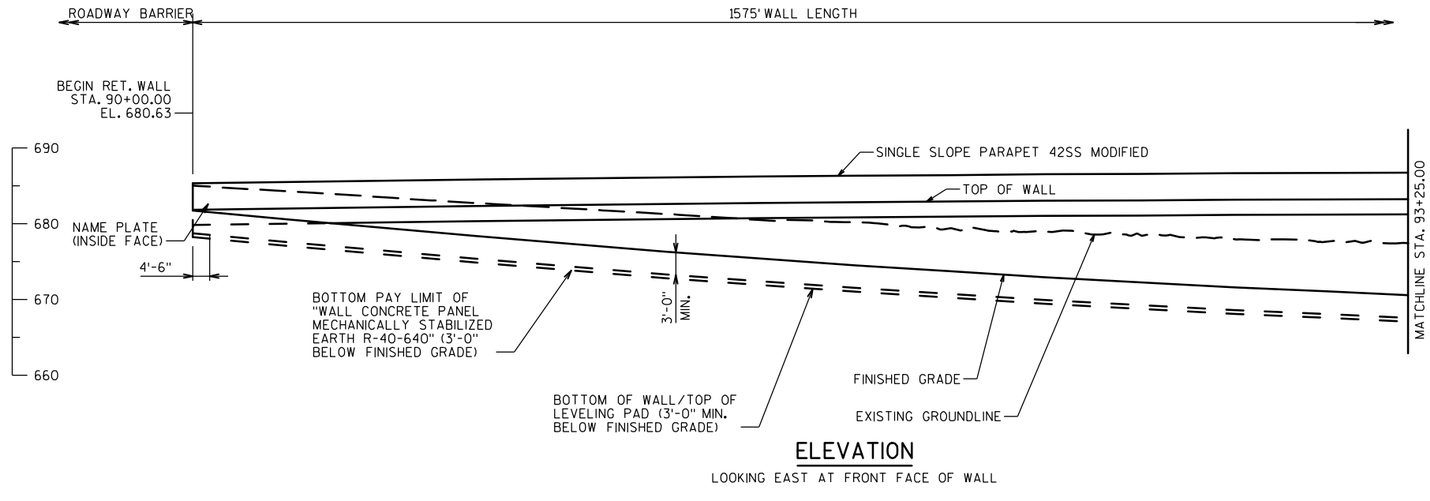
8

8



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

STATE PROJECT NUMBER

1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 4)
2. GENERAL PLAN & ELEVATION (2 OF 4)
3. GENERAL PLAN & ELEVATION (3 OF 4)
4. GENERAL PLAN & ELEVATION (4 OF 4)
5. GENERAL NOTES & QUANTITIES
6. DESIGN DATA & PROFILE GRADE LINES
7. TYPICAL SECTION
8. SUBSURFACE EXPLORATION (1 OF 3)
9. SUBSURFACE EXPLORATION (2 OF 3)
10. SUBSURFACE EXPLORATION (3 OF 3)

LEGEND

← TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-640

RETAINING WALL W. OF IH 43

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	HDA	BTH/AKR	HDA

GENERAL PLAN & ELEVATION (1 OF 4)

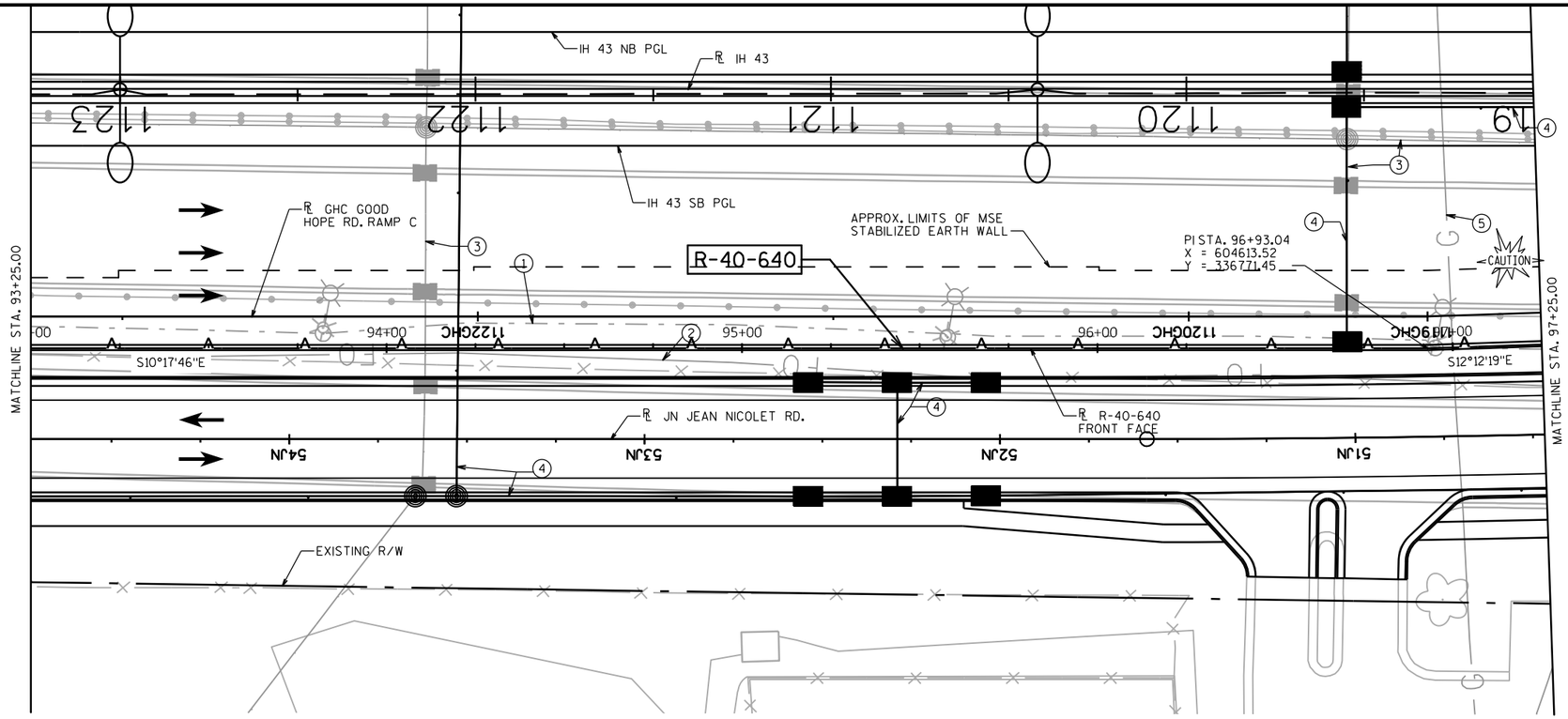
SHEET 1 OF 10

FOR 1078 SUBMITTAL

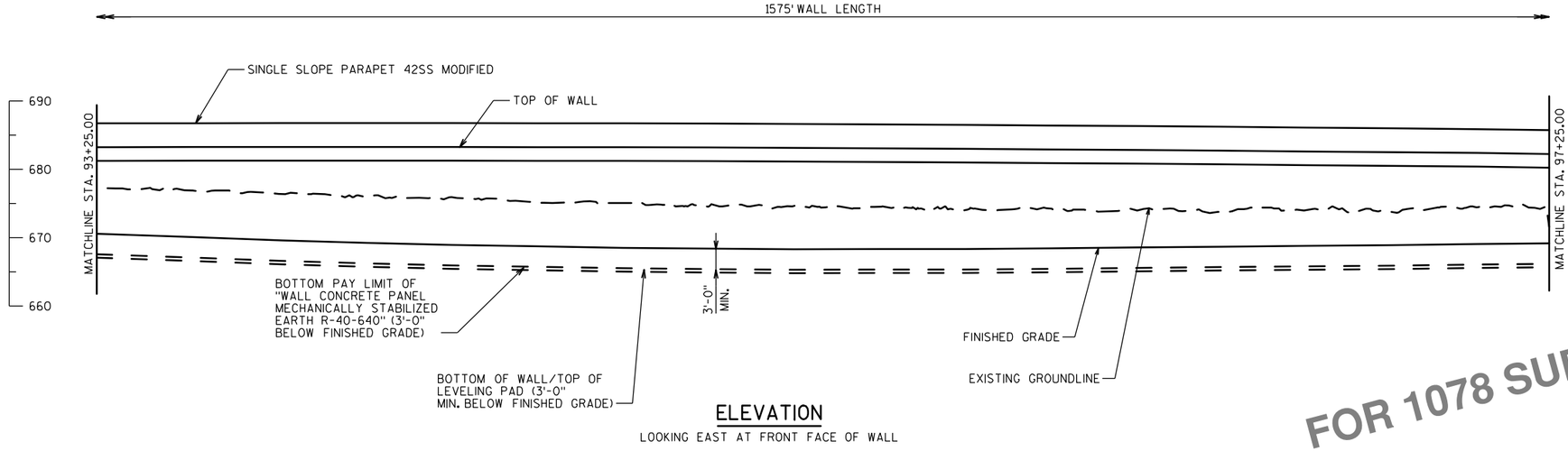
8

8

STATE PROJECT NUMBER
1229-04-73



PLAN
MSE RETAINING WALL



ELEVATION
LOOKING EAST AT FRONT FACE OF WALL

LEGEND
TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**
1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER
5. EXISTING GAS LINE

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY: BTH/AKR | PLANS CK'D.: HDA

GENERAL PLAN & ELEVATION (2 OF 4)

SHEET 2 OF 10

FOR 1078 SUBMITTAL

8

8

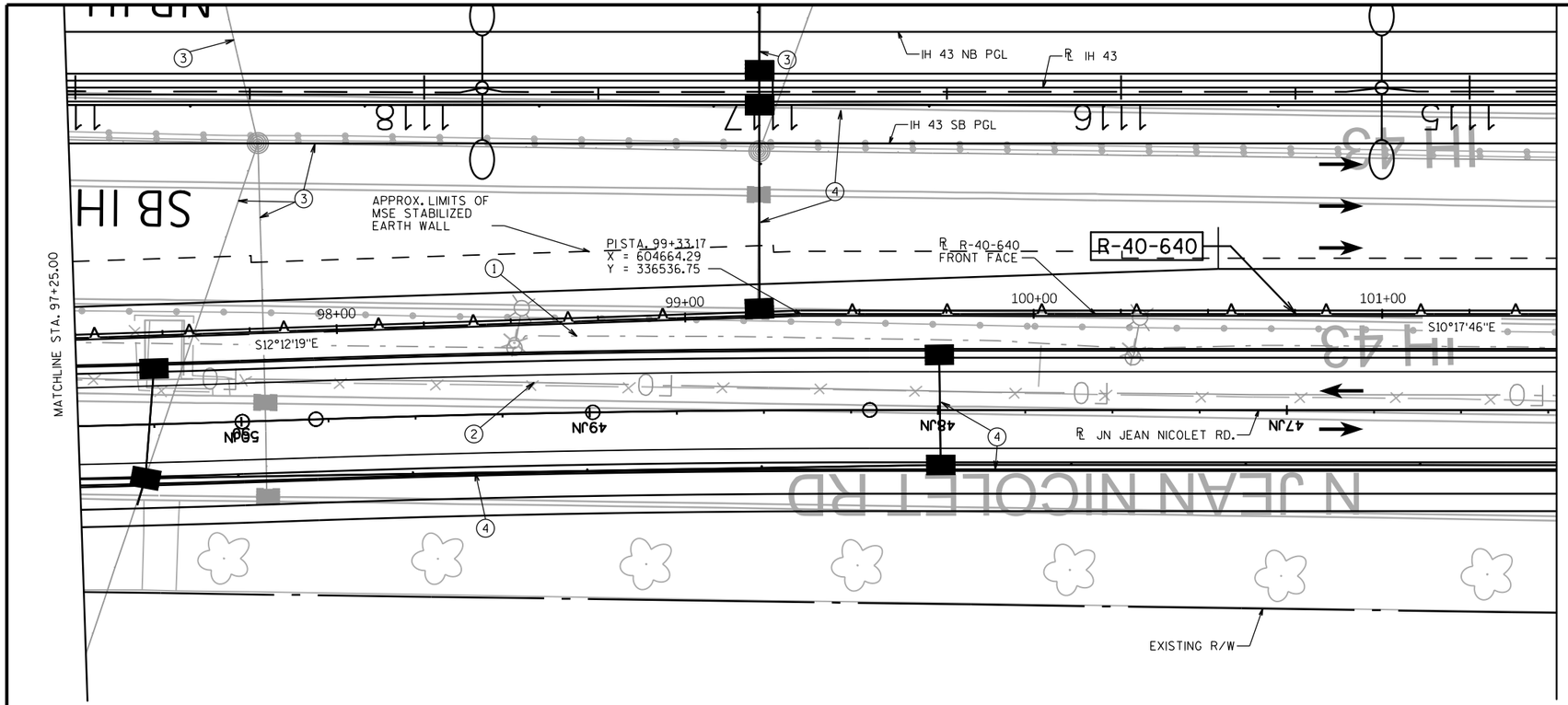
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-640\cds\R640_080102_gp.dgn

PLOT DATE : 9/28/2021 3:22:37 PM

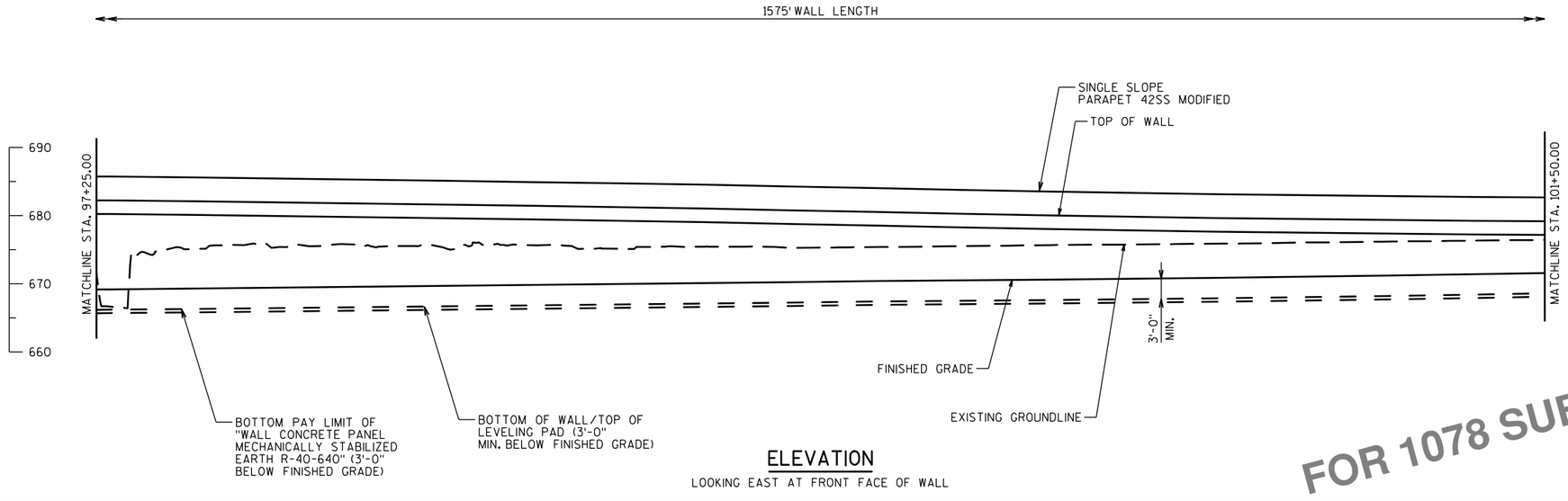
PLOT BY : ejelinek

PLOT SCALE : 40:1

STATE PROJECT NUMBER
1229-04-73



PLAN
MSE RETAINING WALL



ELEVATION
LOOKING EAST AT FRONT FACE OF WALL

LEGEND
TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY BTH/AKR | PLANS CK'D. HDA

GENERAL PLAN & ELEVATION (3 OF 4)

SHEET 3 OF 10

FOR 1078 SUBMITTAL

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-640\cds\R640_080103_gp.dgn

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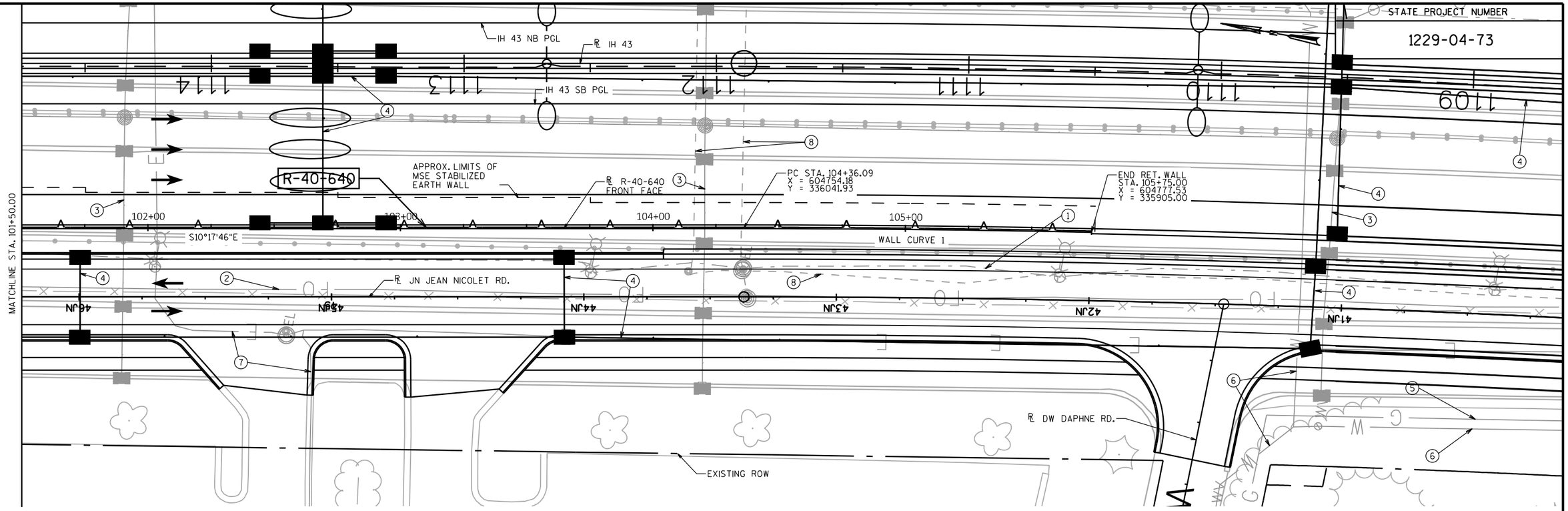
PLOT SCALE : 40:1

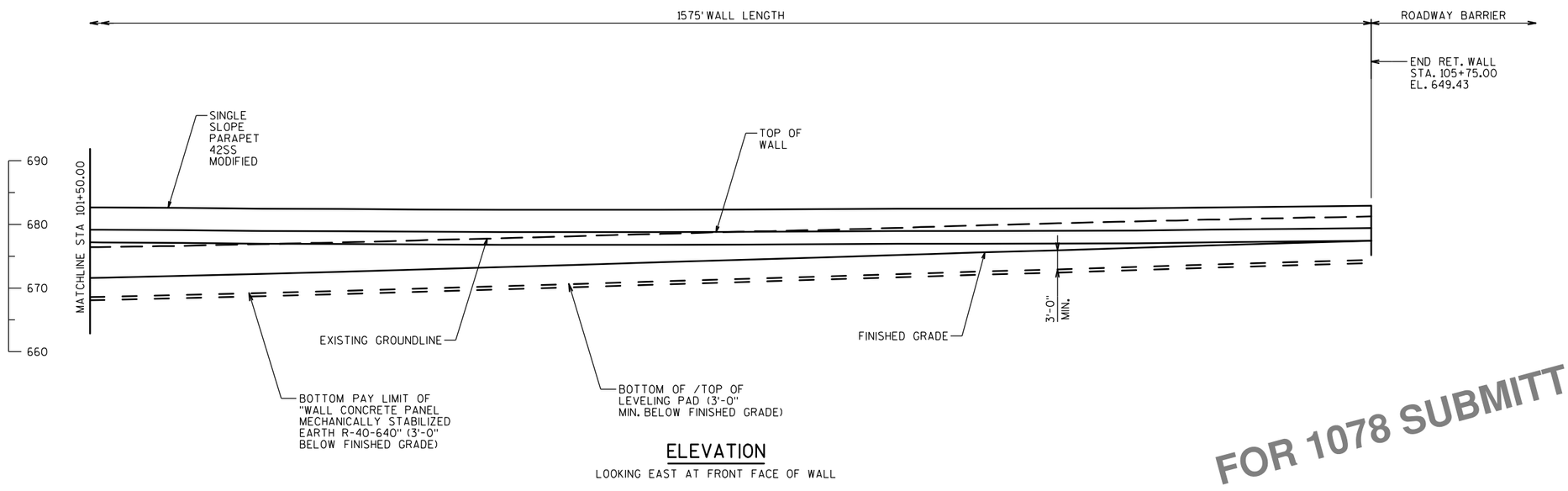
STATE PROJECT NUMBER

1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

LEGEND

TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER
5. EXISTING GAS LINE
6. EXISTING WATER MAIN
7. EXISTING ELECTRICAL
8. EXISTING WISDOT FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY: BTH/AKR | PLANS CK'D.: HDA

GENERAL PLAN & ELEVATION (4 OF 4)

SHEET 4 OF 10

FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-640\cds\R640_080104_gp.dgn

PLOT DATE : 9/28/2021 3:30:30 PM PLOT BY : ejelinek

PLOT SCALE : 40:1

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWERS AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7 ½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 3'-0" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE ANCHOR SLAB, COPING AND PARAPET ARE PAID FOR UNDER ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACES OF THE PARAPET.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640".

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN THE MSE WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

MSE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST RESULTS.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	-
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-
653.0220	JUNCTION BOXES 18x6x6-INCH	EACH	-
653.0222	JUNCTION BOXES 18x12x6-INCH	EACH	-
SPV.0060.XX	ANCHOR SLAB INLET COVER SPECIAL	EACH	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640	SF	-
	NON BID ITEMS		
	NAME PLATE	EACH	1
	CORK FILLER	SIZE	1"
	NON-BITUMINOUS JOINT SEALER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"
	RODENT SHIELD	EACH	-

ALL ITEMS ARE CATEGORY XXXX

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

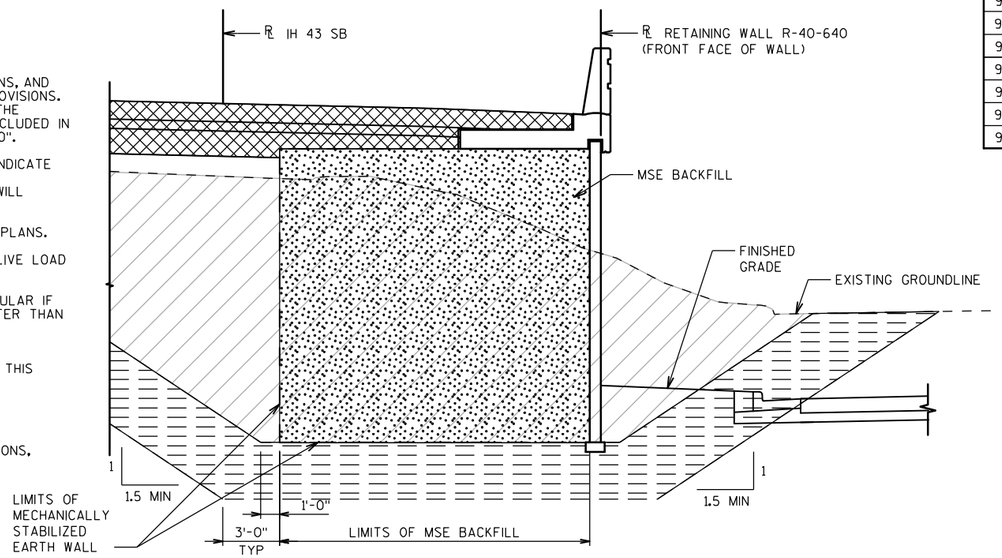
WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640".

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-640".

OVER-EXCAVATION - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

ROADWAY ITEM - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.



TYPICAL WALL EXCAVATION LIMITS DIAGRAM
LOOKING SOUTH

WALL ELEVATIONS ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
90+00.00	681.84	681.73	685.04
90+25.00	682.02	680.59	684.29
90+50.00	682.17	679.47	683.52
90+75.00	682.33	678.35	682.74
91+00.00	682.47	677.34	682.01
91+25.00	682.61	676.32	681.28
91+50.00	682.73	675.42	680.49
91+75.00	682.84	674.51	680.19
92+00.00	682.94	673.73	679.38
92+25.00	683.03	672.94	678.97
92+50.00	683.10	672.27	678.58
92+75.00	683.17	671.61	677.96
93+00.00	683.21	671.05	677.67
93+25.00	683.25	670.49	677.20
93+50.00	683.27	670.04	676.84
93+75.00	683.29	669.60	676.39
94+00.00	683.29	669.24	676.03
94+25.00	683.29	668.94	675.92
94+50.00	683.26	668.72	675.14
94+75.00	683.24	668.51	675.08
95+00.00	683.20	668.41	674.53
95+25.00	683.15	668.31	674.63
95+50.00	683.09	668.32	674.52
95+75.00	683.02	668.34	674.02
96+00.00	682.93	668.45	674.25
96+25.00	682.84	668.56	674.04
96+50.00	682.73	668.68	673.81
96+75.00	682.62	668.79	674.03
97+00.00	682.50	668.91	673.78
97+25.00	682.38	669.05	674.47
97+50.00	682.25	669.18	666.64
97+75.00	682.11	669.31	675.13
98+00.00	681.95	669.43	675.41
98+25.00	681.80	669.56	675.58

WALL ELEVATIONS ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
98+50.00	681.62	669.69	675.00
98+75.00	681.44	669.83	675.63
99+00.00	681.24	669.97	675.12
99+25.00	681.04	670.12	675.48
99+50.00	680.79	670.25	675.27
99+75.00	680.53	670.37	675.38
100+00.00	680.29	670.50	675.51
100+25.00	680.04	670.62	675.67
100+50.00	679.83	670.74	675.77
100+75.00	679.65	670.87	675.88
101+00.00	679.50	671.01	676.04
101+25.00	679.36	671.19	676.18
101+50.00	679.25	671.39	676.33
101+75.00	679.16	671.63	676.46
102+00.00	679.08	671.90	676.63
102+25.00	678.98	672.21	676.91
102+50.00	678.90	672.54	677.17
102+75.00	678.84	672.91	677.51
103+00.00	678.81	673.29	677.83
103+25.00	678.80	673.67	678.16
103+50.00	678.80	674.05	678.50
103+75.00	678.83	674.43	678.85
104+00.00	678.88	674.81	679.11
104+25.00	678.96	675.19	679.45
104+36.09	678.98	675.36	679.63
104+50.00	678.98	675.57	679.84
104+75.00	678.99	675.95	680.17
105+00.00	679.02	676.33	680.47
105+04.94			
105+25.00	679.18	676.71	680.77
105+50.00	679.31	677.08	681.02
105+75.00	679.43	677.45	681.24

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY JTE | PLANS CK'D. HDA

GENERAL NOTES & QUANTITIES

SHEET 5 OF 10

8

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STATE PROJECT NUMBER
1229-04-73

MSE WALL SOIL PARAMETERS

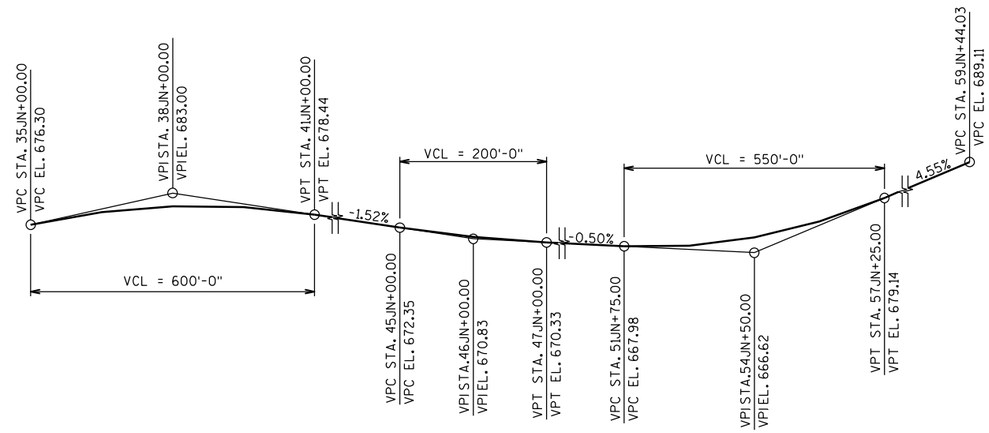
	SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
			FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐	GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)					
	LEAN CLAY (RETAININED SOIL)					
	LEAN CLAY (FOUNDATION SOIL)					

◐ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL STABILITY EVALUATION

	DIMENSIONS			
	WALL HEIGHT (FEET)	17.5	18.2	14.0
	EXPOSED WALL HEIGHT (FEET)	14.5	15.2	11.0
◥	MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)	20.7	22.5	15.0
	REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO	1.2	1.2	1.1
	WALL STATION	94+25	98+25	102+25
	BORING USED	SB112-02	NHSX-01	SB111-01
	CAPACITY TO DEMAND RATIO (CDR)			
	SLIDING	2.1	2.1	1.8
	ECCENTRICITY	2.9	3.2	2.2
	BEARING RESISTANCE	2.3	2.2	1.8
	FACTORED BEARING RESISTANCE (PSF)	8,300	8,000	5,600
	GLOBAL STABILITY – END OF CONSTRUCTION	3.1	2.9	1.9
	GLOBAL STABILITY – LONG-TERM	1.0	1.0	1.0

◥ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.



PROFILE GRADE LINE JEAN NICOLET RD.

℄ 'JN'

HORIZONTAL CURVE DATA

WALL CURVE 1

P.I. = 105+04.94
X = 604766.49
Y = 335974.19
Δ = 1° 13' 52"
D = 0° 53' 38"
T = 68.85'
L = 137.70'
R = 6409.05'
P.C. = 104+36.09
X = 604754.18
Y = 336041.93
P.T. = 105+73.79
X = 604777.34
Y = 335906.19

DESIGN DATA

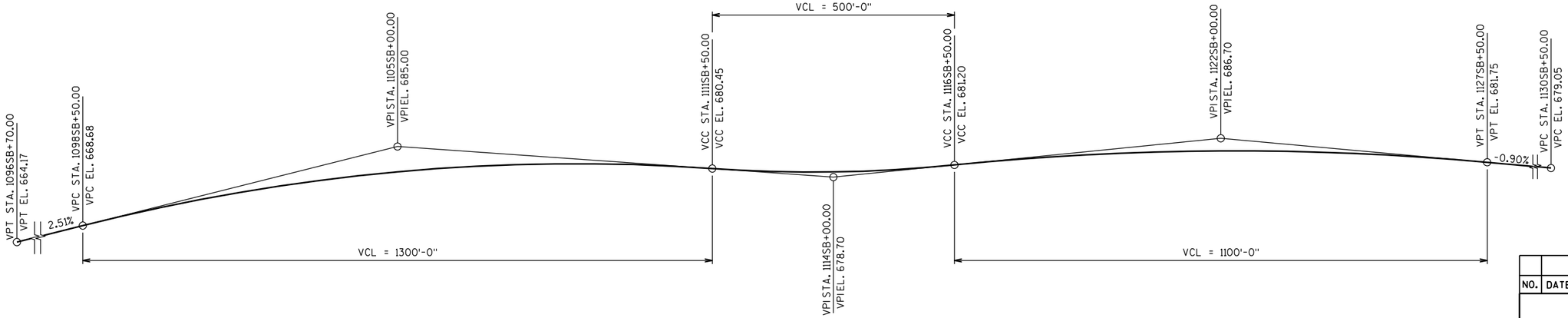
DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED.

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) _____ 240 PSF

DESIGN THE MSE WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL _____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT _____ Fy = 60,000 PSI



PROFILE GRADE LINE IH 43 SB

℄ 'SB'

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY JTE | PLANS CK'D. HDA

DESIGN DATA & PROFILE GRADE LINES

SHEET 6 OF 10

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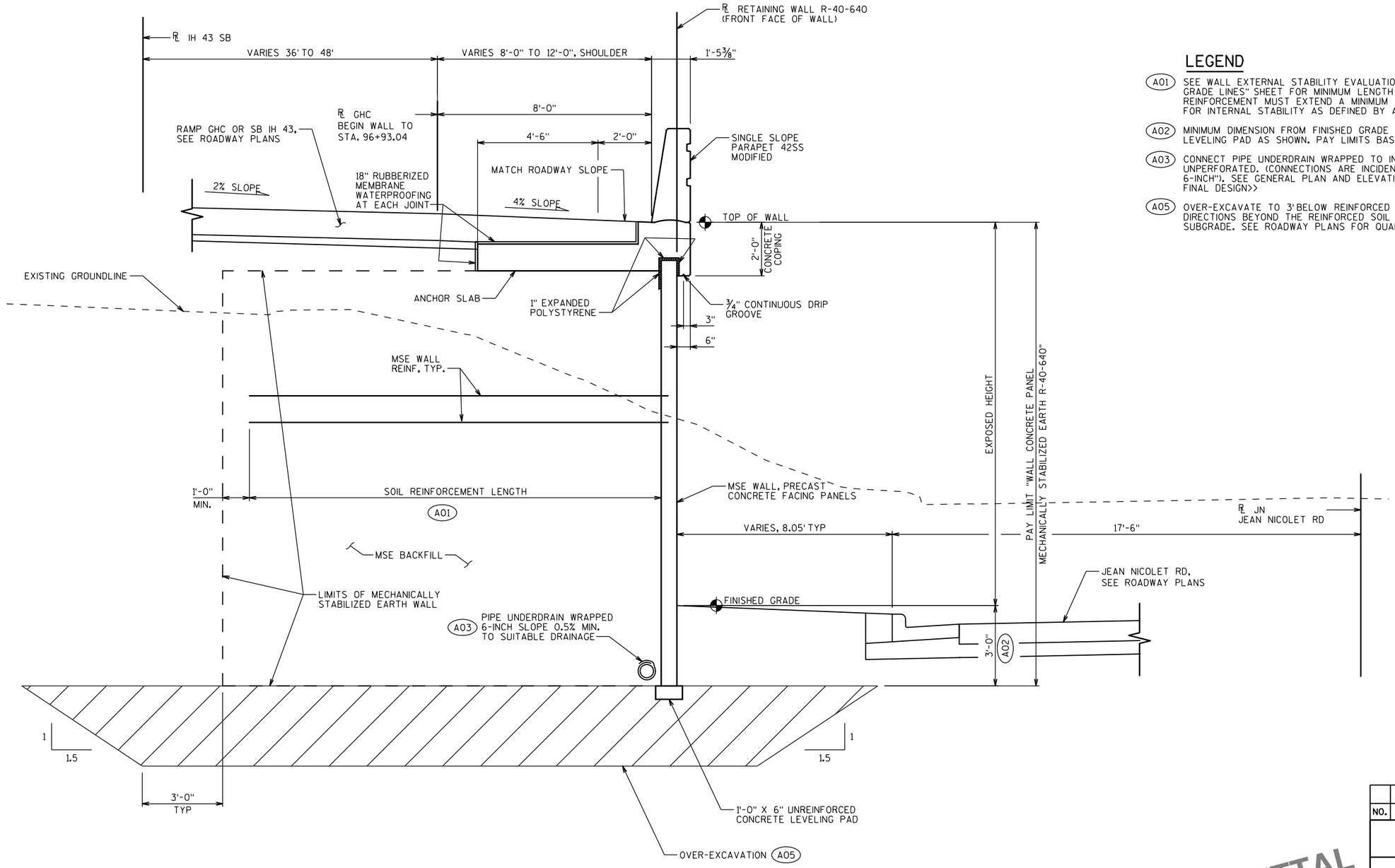
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-640\cds\R640_080106_pgl.dgn
PLOT DATE : 9/17/2021 12:40:06 PM PLOT BY : ejelinek
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1229-04-73



TYPICAL SECTION

LOOKING SOUTH

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINES" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) CONNECT PIPE UNDERDRAIN WRAPPED TO INLET #XXXXX USING PIPE UNDERDRAIN UNPERFORATED. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

(A05) OVER-EXCAVATE TO 3' BELOW REINFORCED SOIL ZONE. EXTEND 3' LATERALLY IN ALL DIRECTIONS BEYOND THE REINFORCED SOIL ZONE. INCLUDED WITH EXCAVATION BELOW SUBGRADE. SEE ROADWAY PLANS FOR QUANTITY. (NOT A RETAINING WALL BID ITEM.)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY JTE | PLANS CK'D. HDA

TYPICAL SECTION

SHEET 7 OF 10

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHC-01	JULY 3, 2014	337424	604492
SB112-01	JULY 23, 2014	336842	604616
SB112-02	APRIL 15, 2014	337039	604554
SB112-03	JULY 22, 2014	337235	604548
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.			

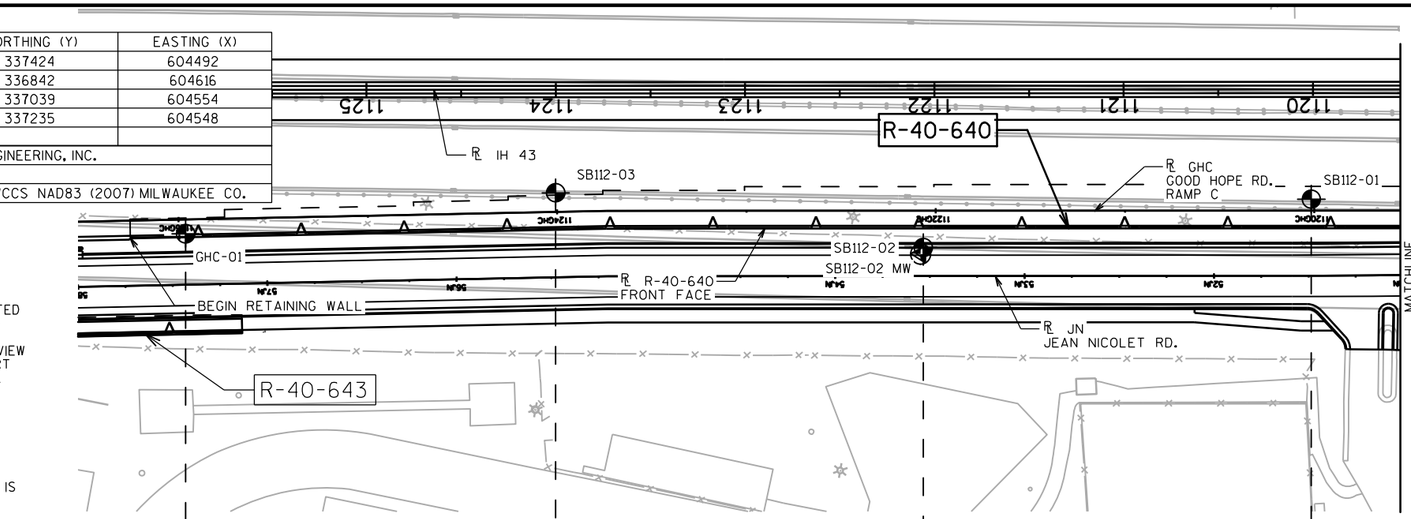
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

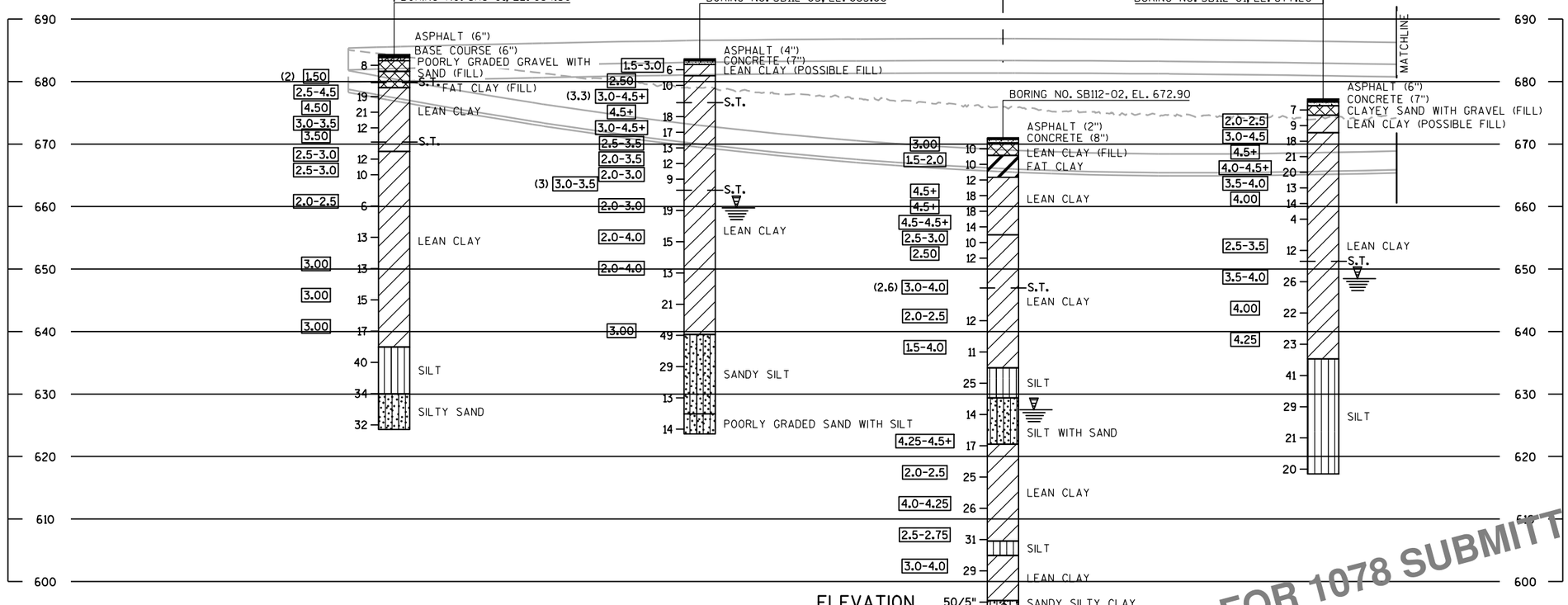
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN



ELEVATION

FOR 1078 SUBMITTAL

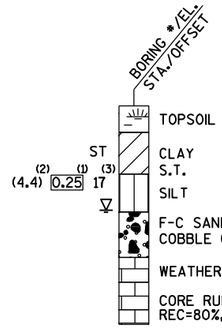
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (1 OF 3)

SHEET 8 OF 10

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
NHSX-01	JULY 21, 2014	336653	604614
SB111-01	JUNE 30, 2014	336344	604670
SB111-02	APRIL 8, 2014	336545	604666
SB111-04	DECEMBER 16, 2014	336154	604731
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.			

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE EOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE EOTECHNICAL REPORT ND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

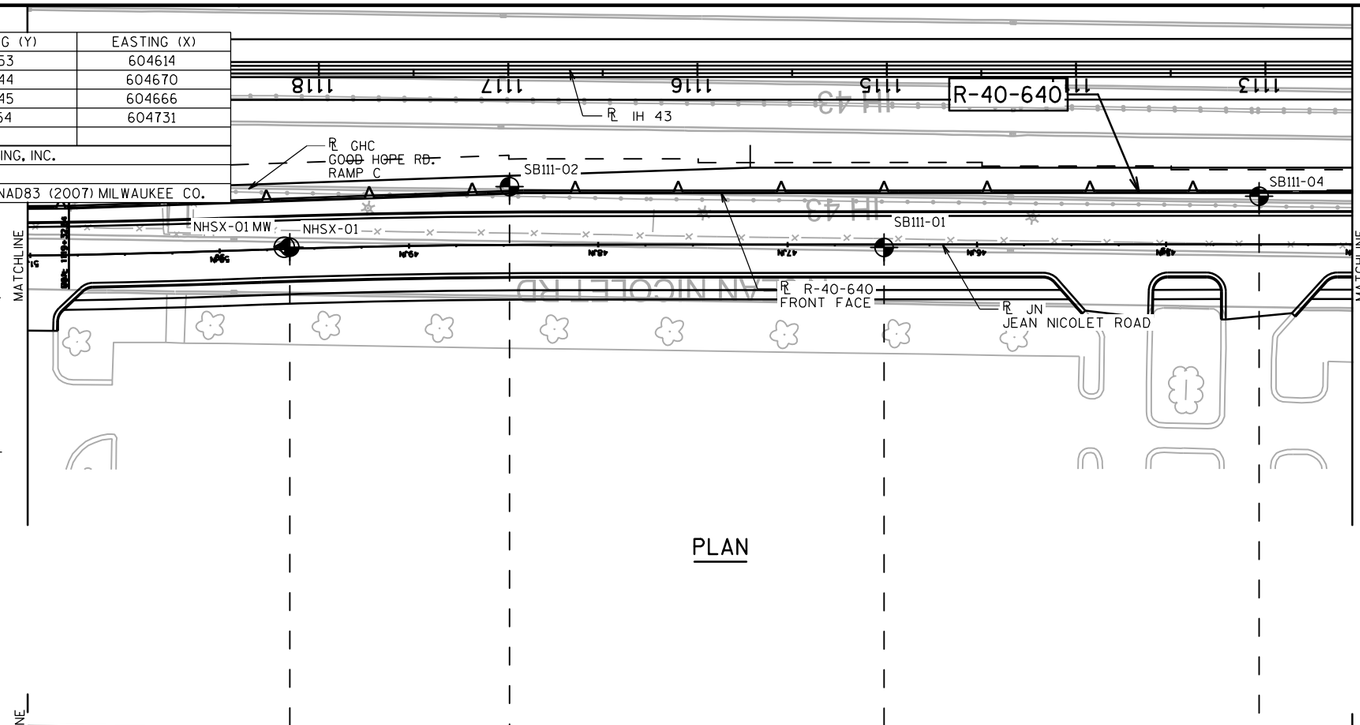
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

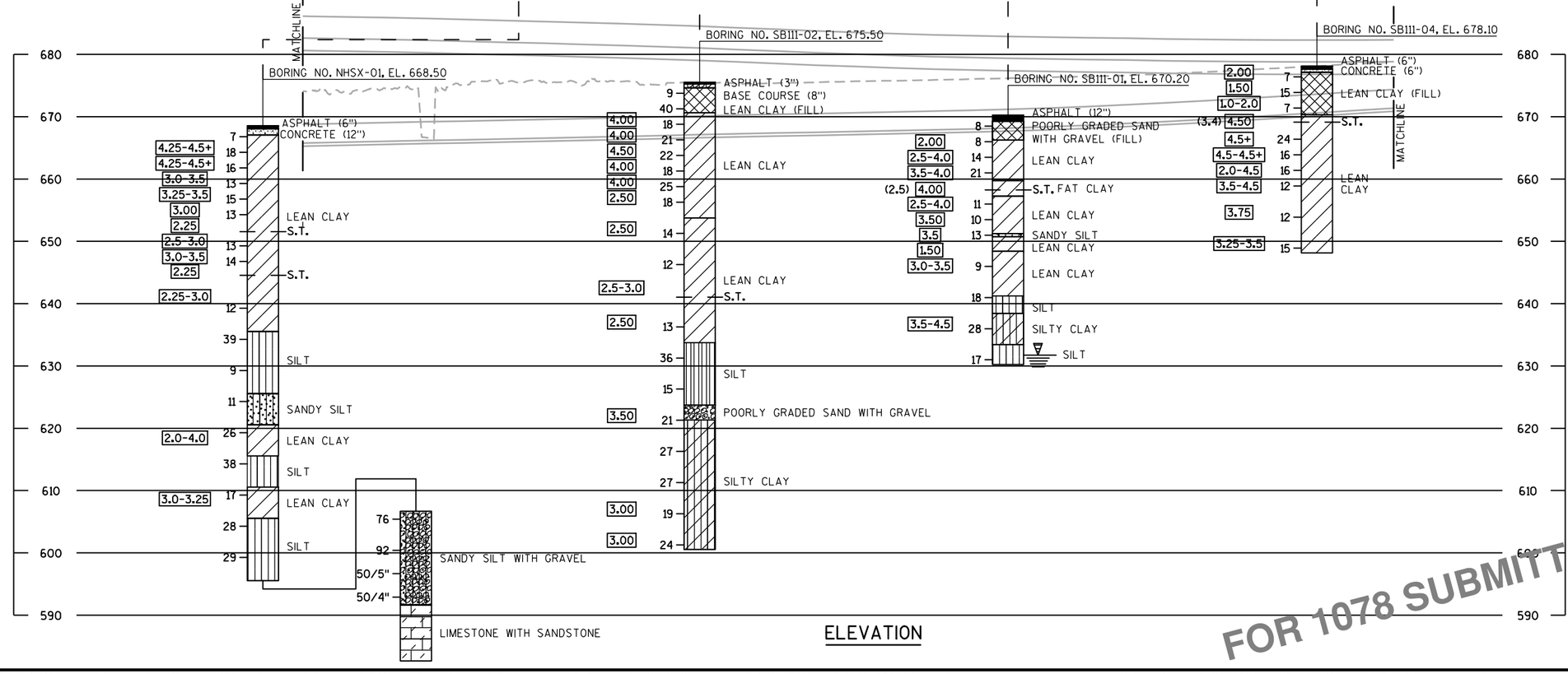
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

FOR 1078 SUBMITTAL

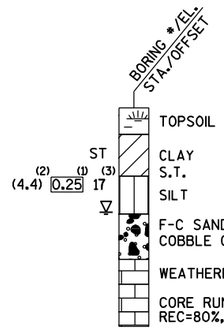
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (2 OF 3)

SHEET 9 OF 10

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-640\cds\R640_080202_se.dgn

PLOT DATE : 9/28/2021 3:38:22 PM PLOT BY : ejelinek

PLOT SCALE : 80:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB111-03	DECEMBER 16, 2014	335963	604764

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

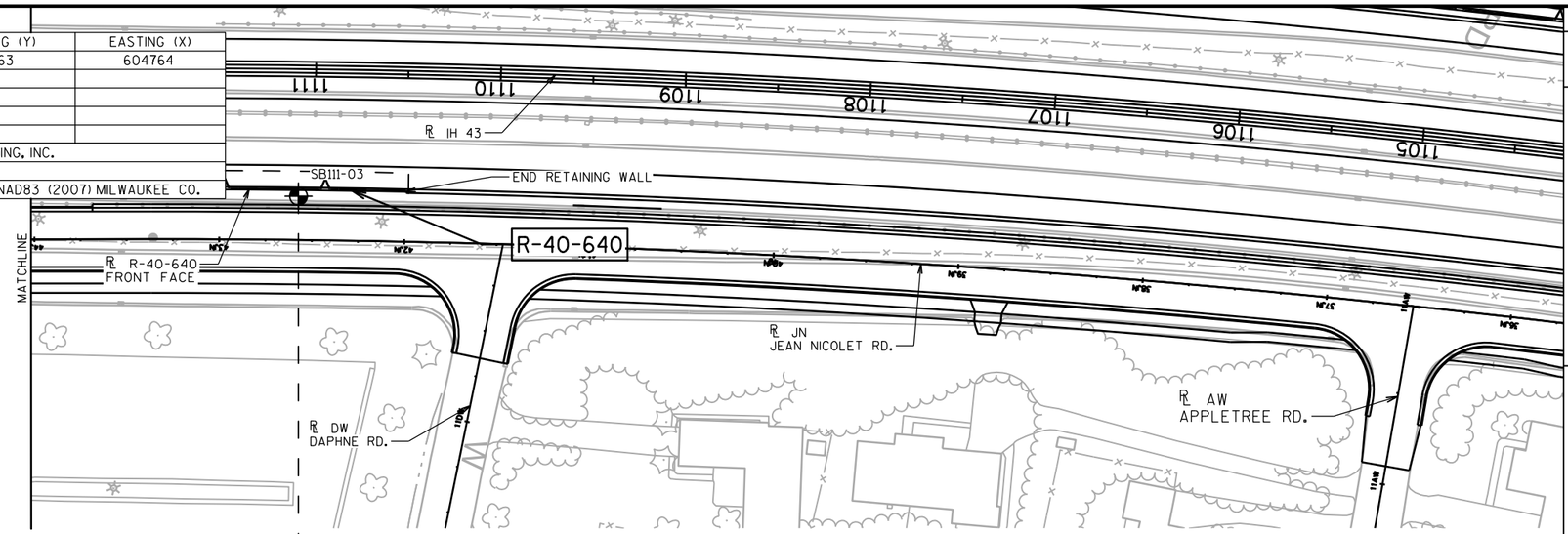
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

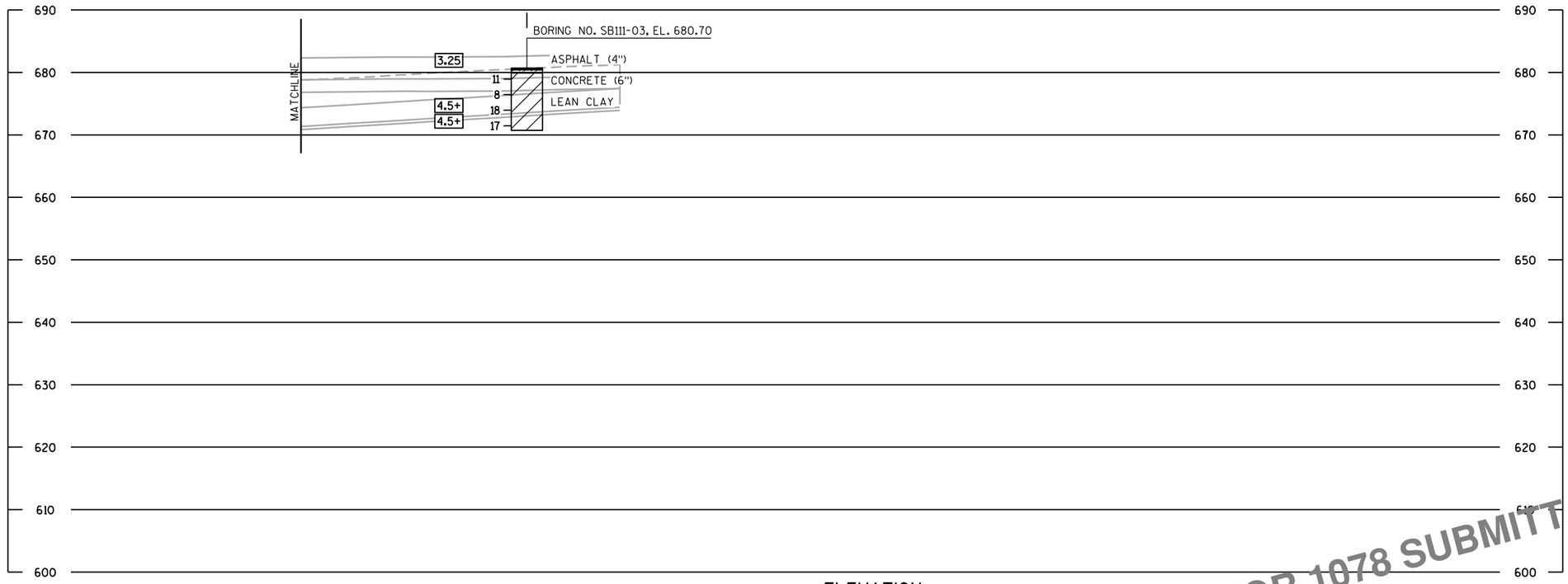
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

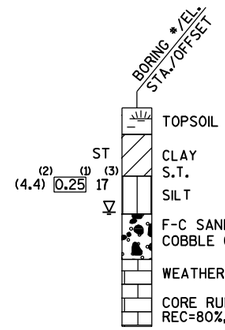
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-640

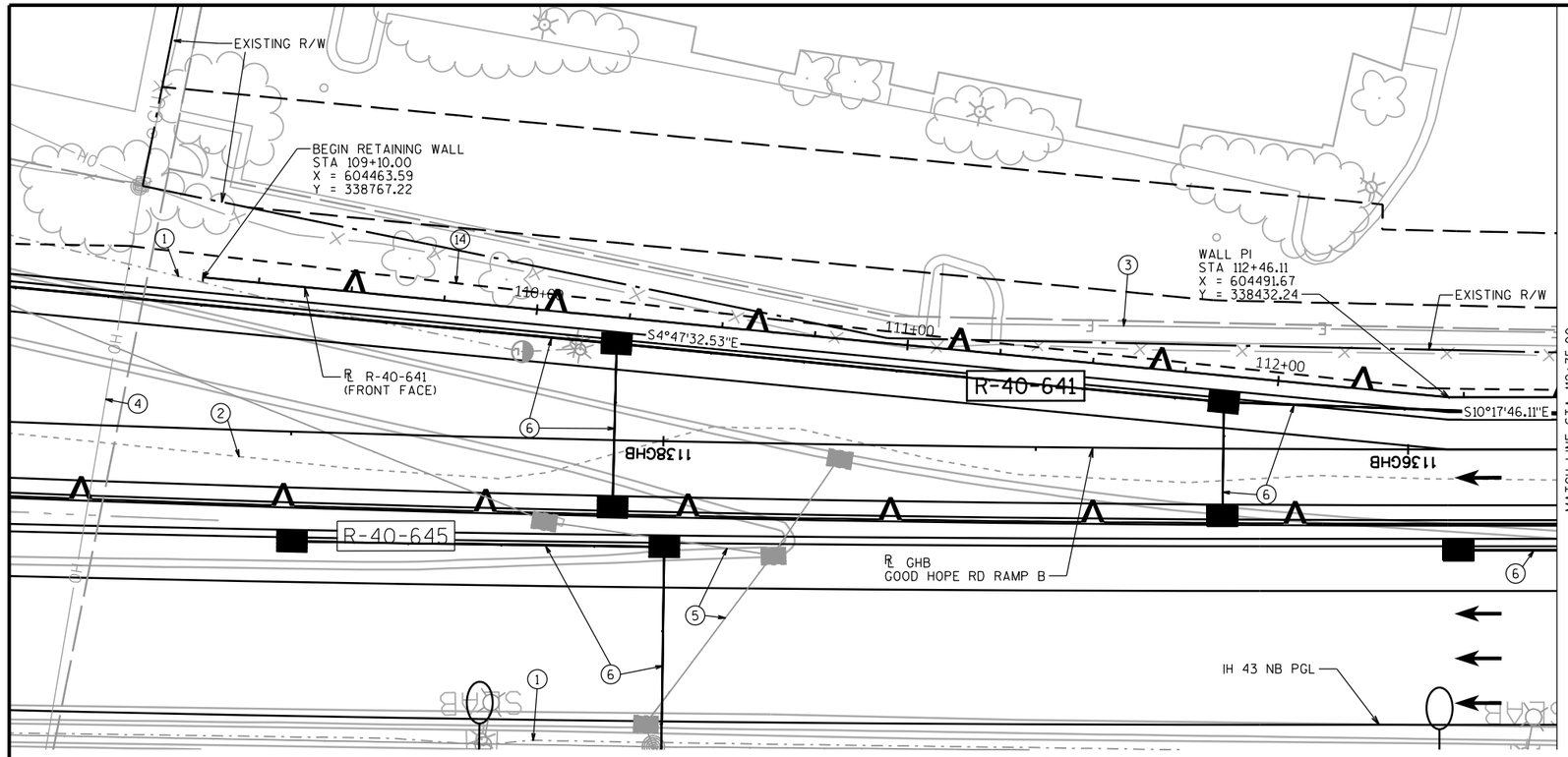
DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (3 OF 3)

SHEET 10 OF 10

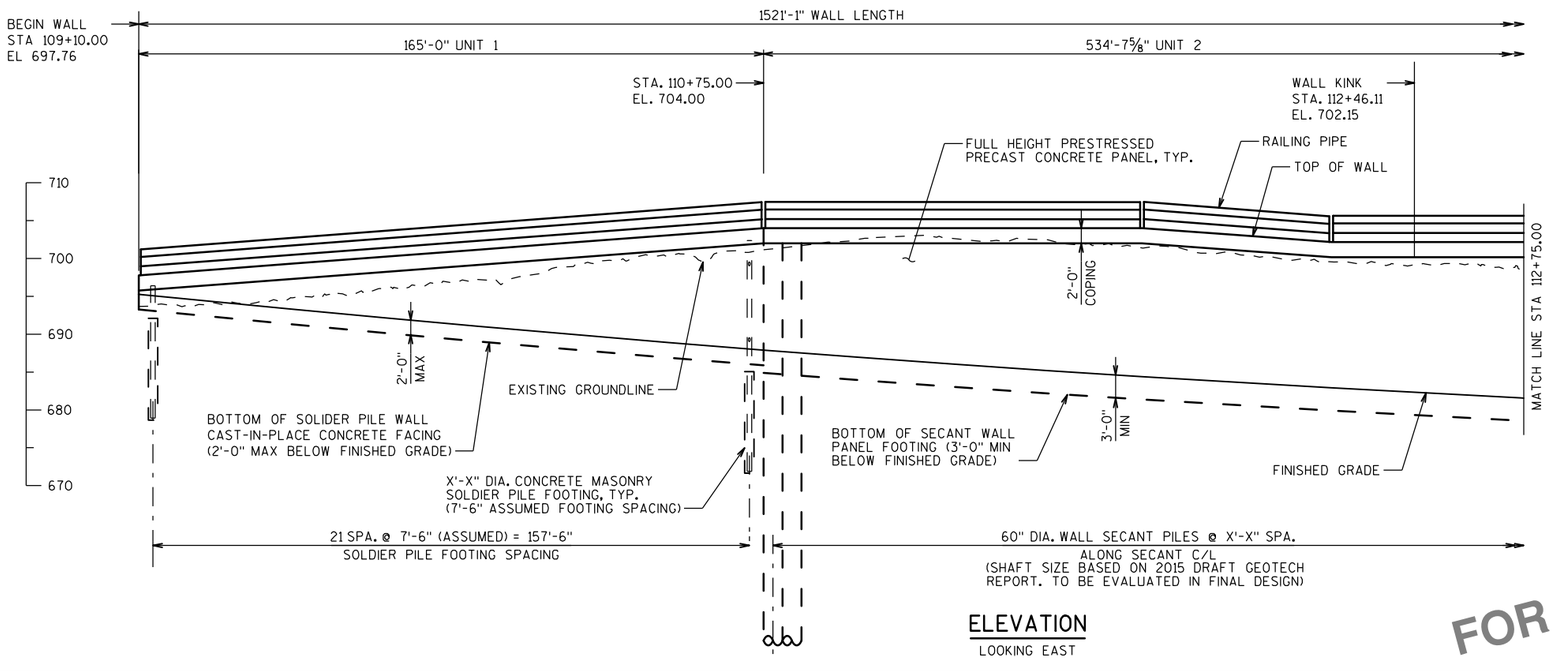
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



PLAN

SOLDIER PILE, SECANT PILE, AND SHEET PILE RETAINING WALL



ELEVATION

LOOKING EAST

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 4)
2. GENERAL PLAN & ELEVATION (2 OF 4)
3. GENERAL PLAN & ELEVATION (3 OF 4)
4. GENERAL PLAN & ELEVATION (4 OF 4)
5. QUANTITIES & NOTES
6. DESIGN DATA
7. TYPICAL SECTIONS (1 OF 2)
8. TYPICAL SECTIONS (2 OF 2)
9. SUBSURFACE EXPLORATION (1 OF 3)
10. SUBSURFACE EXPLORATION (2 OF 3)
11. SUBSURFACE EXPLORATION (3 OF 3)

UTILITY & STORM SEWER NOTES**

(1) EXISTING WISDOT LIGHTING
(2) EXISTING WISDOT FTMS
(3) EXISTING UNDERGROUND ELECTRIC LINE
(4) EXISTING OVERHEAD ELECTRIC LINE
(5) EXISTING WISDOT STORM SEWER
(6) PROPOSED WISDOT STORM SEWER
(14) PROPOSED WISDOT FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

LEGEND

TRAFFIC DIRECTION
[C] WALL FACING CONTRACTION JOINT
⟨E⟩ WALL FACING EXPANSION JOINT
(JOINT LOCATIONS TO BE ADDED FOR FINAL DESIGN)

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-641

RETAINING WALL E. OF IH 43 UNDER GREEN TREE RD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	HDA	DESIGN CK'D.		DRAWN BY	HDA	PLANS CK'D.	EAJ

GENERAL PLAN & ELEVATION (1 OF 4)

SHEET 1 OF 11

FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-641\cds\R641_080101_gp.dgn

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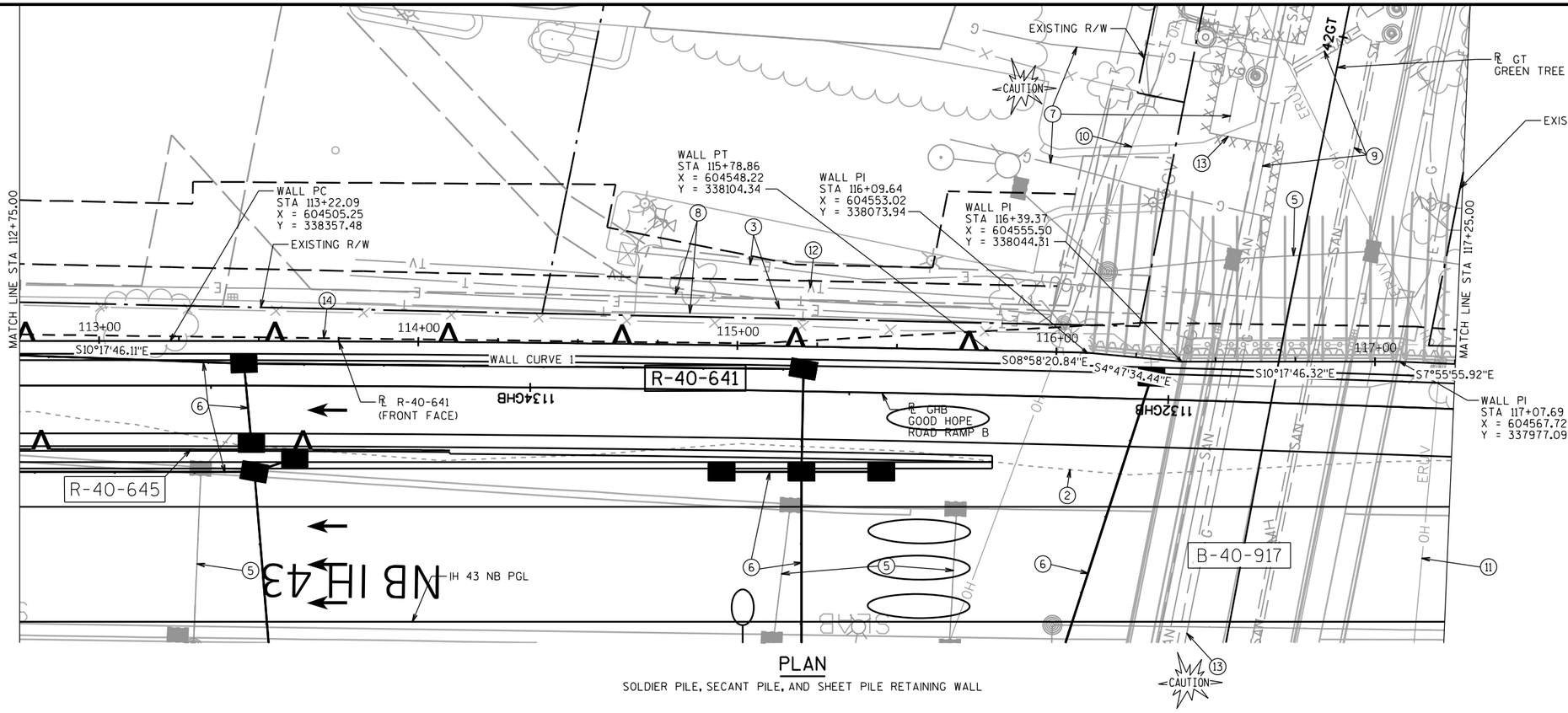
STATE PROJECT NUMBER
1229-04-73



PLAN

SOLDIER PILE, SECANT PILE, AND SHEET PILE RETAINING WALL

UTILITY & STORM SEWER NOTES**

(2) EXISTING WISDOT FTMS
(3) EXISTING ELECTRIC LINE
(5) EXISTING WISDOT STORM SEWER
(6) PROPOSED WISDOT STORM SEWER
(7) EXISTING GAS LINE
(8) EXISTING TELEPHONE LINE
(9) EXISTING MMSD SANITARY SEWER
(10) EXISTING OVERHEAD UTILITY LINE
(11) EXISTING OVERHEAD ERUV
(12) EXISTING CABLE TV LINE
(13) EXISTING ABANDONED GAS LINE
(14) PROPOSED WISDOT FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

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TRAFFIC DIRECTION
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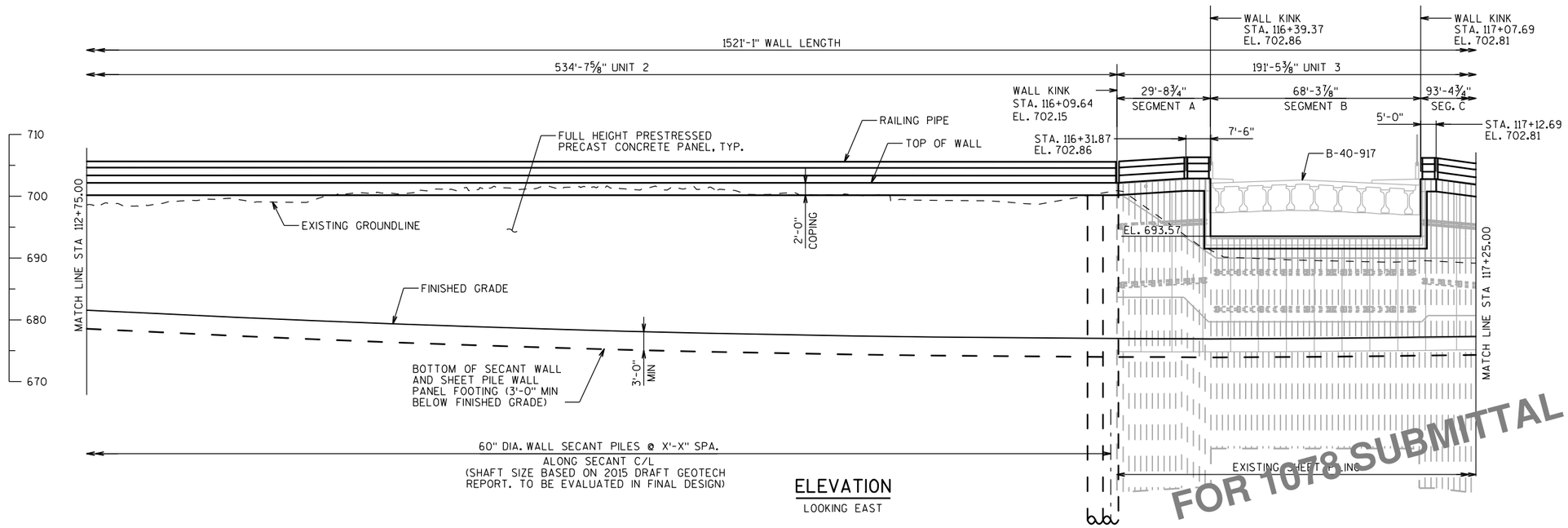

ELEVATION

LOOKING EAST

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 4)

SHEET 2 OF 11

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-641\cds\R641_080102_gp.dgn

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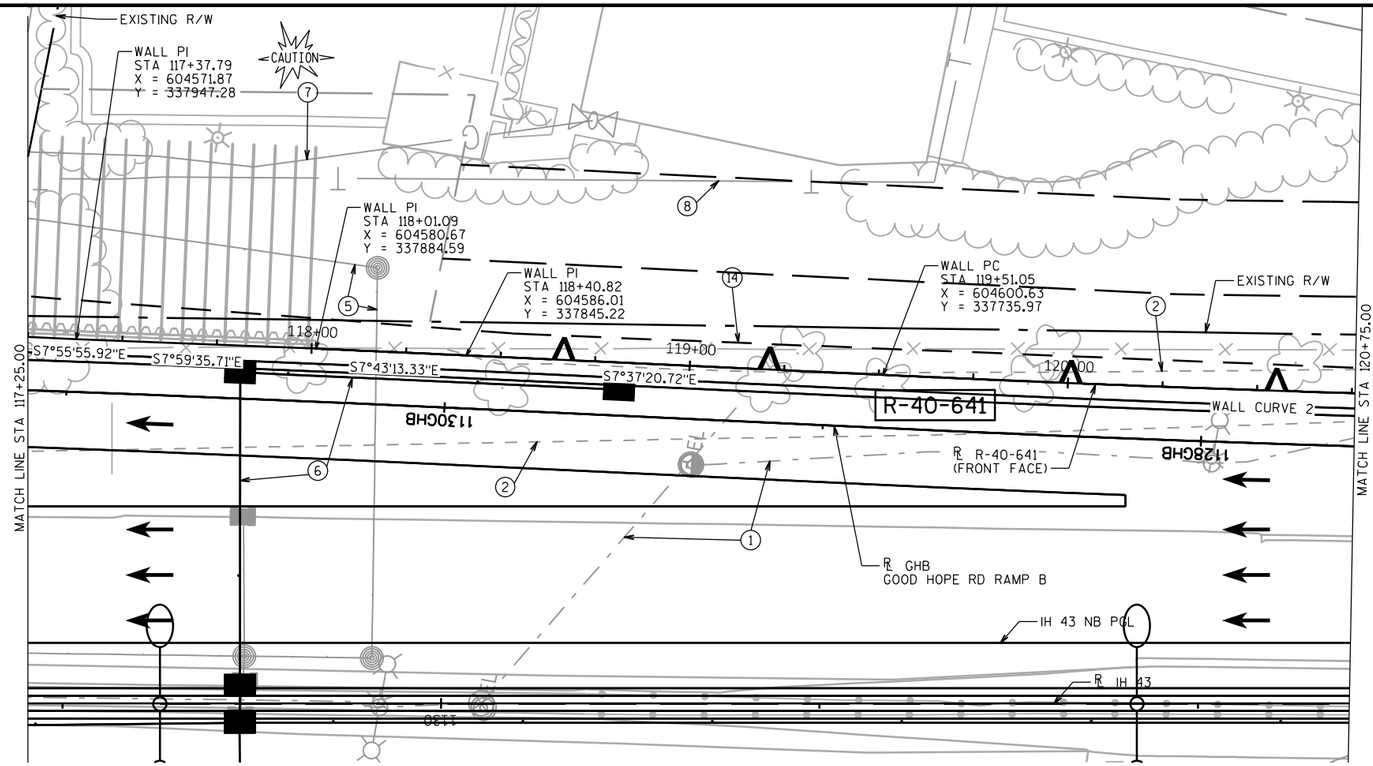

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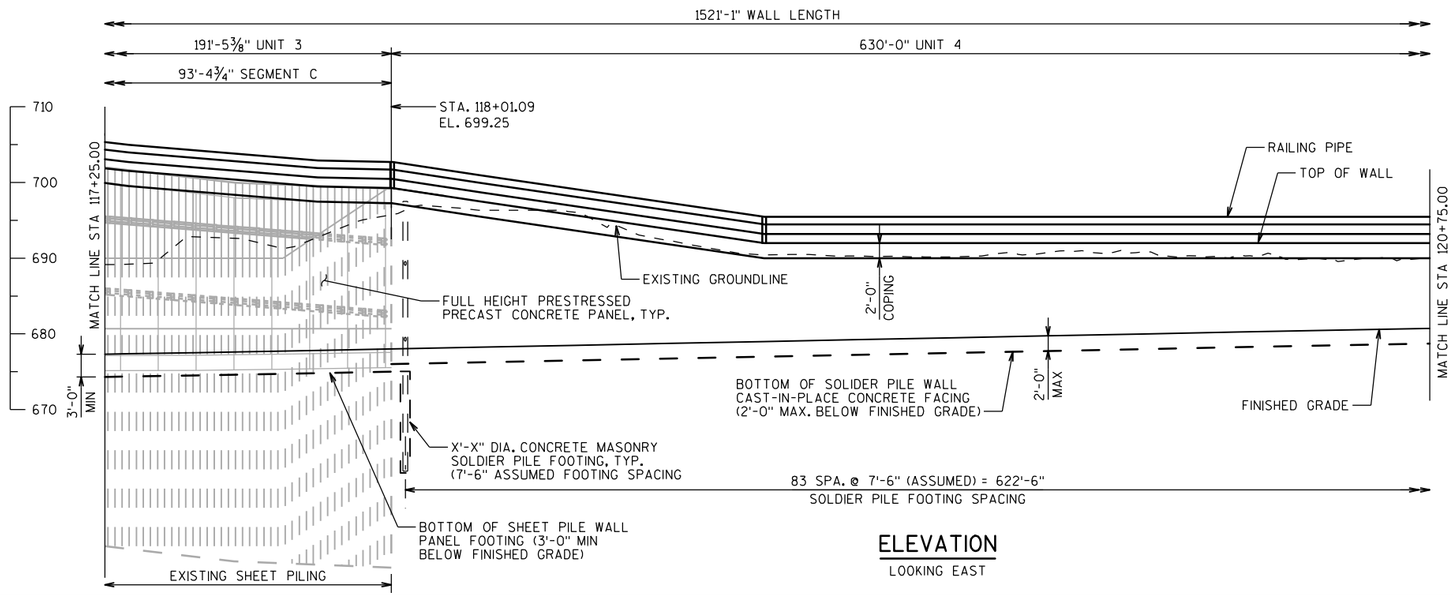

ELEVATION

LOOKING EAST

UTILITY & STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING WISDOT FTMS
5. EXISTING WISDOT STORM SEWER
6. PROPOSED WISDOT STORM SEWER
7. EXISTING GAS LINE
8. EXISTING TELEPHONE LINE
14. PROPOSED FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

LEGEND

- TRAFFIC DIRECTION
- [C] WALL FACING CONTRACTION JOINT
- ⟨E⟩ WALL FACING EXPANSION JOINT

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FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

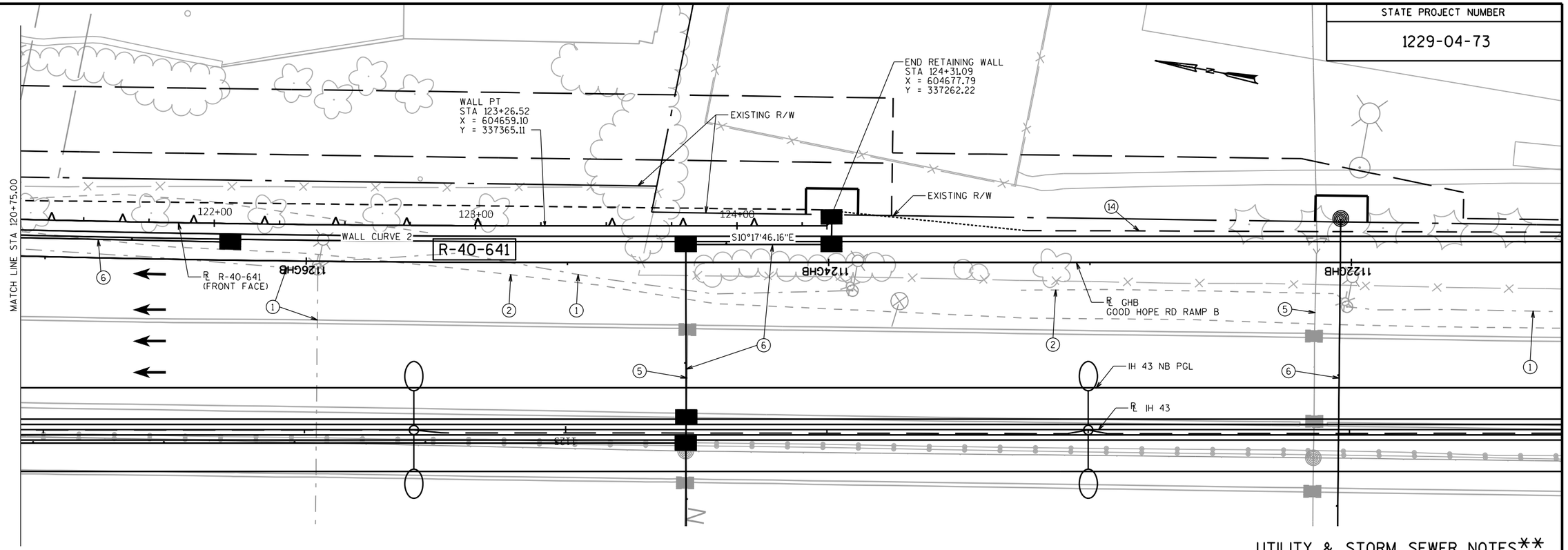
GENERAL PLAN & ELEVATION (3 OF 4)

SHEET 3 OF 11

8

8

STATE PROJECT NUMBER
1229-04-73



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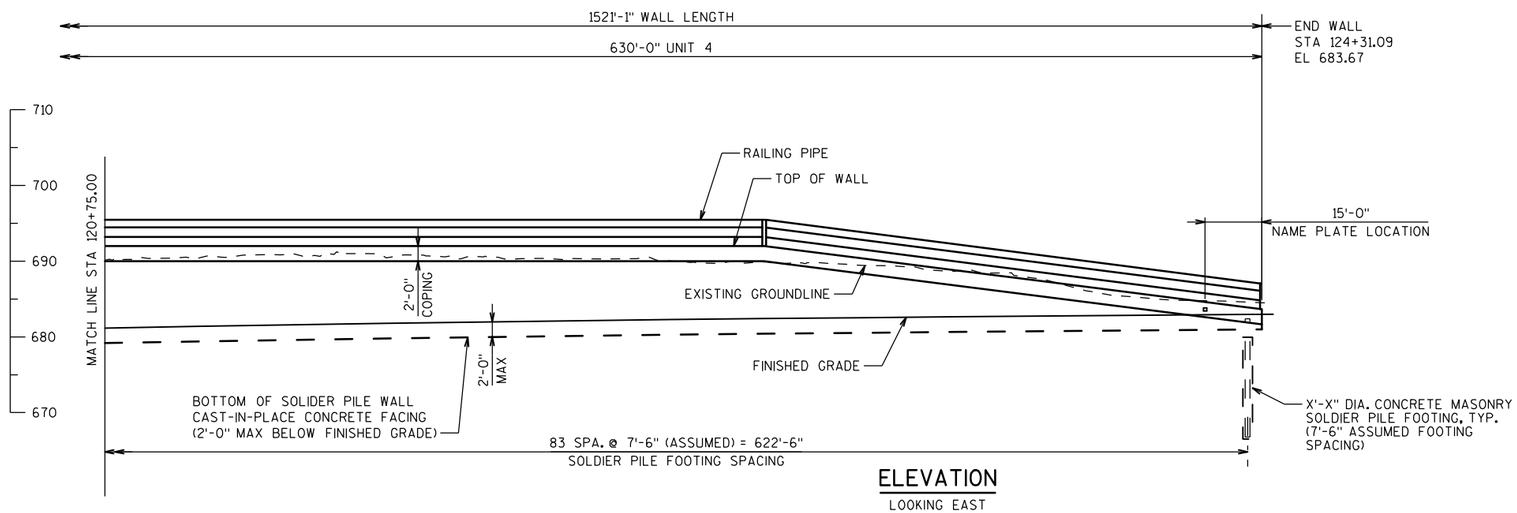

ELEVATION

LOOKING EAST

UTILITY & STORM SEWER NOTES**

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (4 OF 4)

SHEET 4 OF 11

8

8

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

GENERAL

DRAWINGS SHALL NOT BE SCALED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

THESE PLANS ARE FOR A SOLDIER PILE RETAINING WALL (UNITS 1 AND 4) WITH CAST-IN-PLACE FACING, A SECANT PILE RETAINING WALL WITH FULL HEIGHT PRESTRESSED PRECAST CONCRETE FACING PANELS (UNIT 2), AND A SHEET PILE RETAINING WALL WITH FULL HEIGHT PRESTRESSED PRECAST CONCRETE FACING PANELS (UNIT 3).

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-641".

THE GEOTECHNICAL DATA PROVIDED FOR THIS STRUCTURE IN THE GEOTECHNICAL DATA REPORT GOVERNS OVER ANY DISCREPANCY WITH THE SUBSURFACE EXPLORATION AND GEOTECHNICAL DATA SHOWN IN THE PLANS.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

WALL ANCHOR SLAB AND COPING EXPANSION JOINTS TO MATCH ALL WALL FACING EXPANSION AND CONTRACTION JOINTS.

UNITS 1 AND 4

THE QUANTITY OF CAST-IN-PLACE CONCRETE MASONRY FOR THE SOLDIER PILE WALL COPING AND CAST-IN-PLACE CONCRETE FACING IS PAID FOR UNDER ITEM "CONCRETE MASONRY RETAINING WALLS".

SURFACE PREP AND PAINT SOLDIER PILES FROM TOP OF PILE TO 1'-0" BELOW TOP OF FOOTING WITH ONE COAT OF ZINC RICH PRIMER AS SPECIFIED IN SECTION 517 OF THE STANDARD SPECIFICATIONS. WELDED STUD SHEAR CONNECTORS ARE NOT REQUIRED TO BE PAINTED. PAINTING OF PILES IS MEASURED AND PAID FOR AS ITEM NUMBER 517.6000, "PAINTING EPOXY SYSTEM R-40-641".

FILL TO TOP OF WALL FACING ELEVATION WHERE NEEDED TO PROVIDE WORKING SURFACE. FILL INCIDENTAL TO ITEM "CONCRETE MASONRY SOLDIER PILE FOOTINGS".

THE VOLUME OF EARTHWORK REQUIRED TO INSTALL THE SOLDIER PILES, FOOTINGS, AND TIEBACK ANCHORS IS INCLUDED IN THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-641". AFTER WALL SOLDIER PILE CONSTRUCTION HAS BEEN COMPLETED, ALL EARTHWORK IN FRONT OF THE RETAINING WALL IS PAID FOR UNDER THE ROADWAY ITEM "COMMON EXCAVATION". SEE ROADWAY PLANS FOR EXCAVATION LIMITS.

FLOWABLE BACKFILL AND CLSM ARE INCLUDED IN THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-641". SEE SPECIAL PROVISIONS FOR FLOWABLE BACKFILL AND CLSM REQUIREMENTS.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE FACING AND COPING SHALL BE EPOXY COATED.

UNIT 3

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR UNIT 3-SEGMENTS A AND C CAST-IN-PLACE COPING ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE UNIT 3-SEGMENT B CAST-IN-PLACE COPING ARE INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANELS".

THE COST OF FURNISHING AND PLACING THE REINFORCED CONCRETE WALL PANEL FOOTING UNDER THE PRESTRESSED PRECAST CONCRETE WALL PANELS IS INCLUDED IN THE ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

DO NOT ALLOW CONCRETE OR FILL TO DROP INTO OR ACCUMULATE IN THE WALL PANEL CAVITY.

UNIT 2

ALL BAR STEEL REINFORCEMENT WITHIN THE CAST-IN-PLACE CONCRETE COPING SHALL BE EPOXY COATED. ALL BAR STEEL REINFORCEMENT WITHIN THE WALL SECANT PILE, WALL SECANT PILE CLOSURE WALLS, AND WALL PANEL FOOTING SHALL NOT BE EPOXY COATED.

FILL TO TOP OF SHAFT ELEVATION WHERE NEEDED TO PROVIDE WORKING SURFACE. FILL INCIDENTAL TO BID ITEM "WALL SECANT PILE 60-INCH".

THE VOLUME OF EARTHWORK REQUIRED TO INSTALL THE SECANT PILE CAP AND COPING IS PAID FOR UNDER THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-641". AFTER WALL SECANT PILE AND SECANT PILE CAP INSTALLATION HAS BEEN COMPLETED, ALL EARTHWORK IN FRONT OF THE RETAINING WALL IS PAID FOR UNDER THE ROADWAY ITEM "COMMON EXCAVATION". SEE ROADWAY PLANS FOR EXCAVATION LIMITS.

COMMON EXCAVATION IN FRONT OF UNIT 2 MAY NOT BEGIN UNTIL THE WALL SECANT PILE CONCRETE HAS REACHED DESIGN STRENGTH.

THE TRIAL SECANT PILE TRIAL WALL PANEL 60-INCH MUST BE SUCCESSFULLY CONSTRUCTED PRIOR TO BEGINNING CONSTRUCTION OF ANY PRODUCTION DRILLED SHAFTS FOR WALL SECANT PILES. SEE SPECIAL PROVISIONS FOR TRIAL WALL REQUIREMENTS.

TEMPLATES AND GUIDE WALLS ARE REQUIRED FOR INSTALLATION OF ALL WALL SECANT PILES. TEMPLATES AND GUIDE WALLS ARE INCIDENTAL TO ITEM "WALL SECANT PILE 60-INCH".

THE QUANTITY OF CAST-IN-PLACE CONCRETE MASONRY FOR THE SECANT PILE CAP AND COPING IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS".

THE COST OF FURNISHING AND PLACING THE REINFORCED CONCRETE WALL PANEL FOOTING UNDER THE PRESTRESSED PRECAST CONCRETE WALL PANELS IS INCLUDED IN THE ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

DO NOT ALLOW CONCRETE OR FILL TO DROP INTO OR ACCUMULATE IN THE WALL PANEL CAVITY.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	UNIT 1	UNIT 2	UNIT 3			UNIT 4	TOTAL
					SEG. A	SEG. B	SEG. C		
206.3000.XXXX	EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-641	LS							
502.4104	ADHESIVE ANCHORS 1/2-INCH	EACH							
502.4206	ADHESIVE ANCHORS NO. 6 BARS	EACH							
504.0500	CONCRETE MASONRY RETAINING WALLS	CY							
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB							
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB							
506.0605	STRUCTURAL STEEL HS	LB							
506.3010	WELDED STUD SHEAR CONNECTORS 7/8 X 5-INCH	EACH							
513.2001	RAILING PIPE	LF							
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY							
517.0600.XXXX	PAINTING EPOXY SYSTEM R-40-641	LS							
636.0050.S	FOUNDATION DRILLING 36-INCH <<SIZE TBD>>	LF							
SPV.0035.XXXX	CONCRETE MASONRY SOLDIER PILE FOOTINGS	CY							
SPV.0060.XXXX	TIEBACK ANCHORS	EACH							
SPV.0060.XXXX	TIEBACK ANCHORS PERFORMANCE TESTS	EACH							
SPV.0060.XXXX	THERMAL INTEGRITY PROFILER (TIP) TESTING WALL SECANT PILE 60-INCH	EACH							
SPV.0075.XXXX	OBSTRUCTIONS WALL SECANT PILE	HRS							
SPV.0075.XXXX	OBSTRUCTIONS FOUNDATION DRILLING	HRS							
SPV.0090.XXXX	WALL SECANT PILE 60-INCH	LF							
SPV.0105.XXXX	SECANT PILE TRIAL WALL PANEL	LS							
SPV.0105.XXXX	GALVANIZED STEEL GRATING	LS							
SPV.0110.XXXX	TIMBER LAGGING	MBM							
SPV.0165.XXXX	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF							
SPV.0165.XXXX	GEOCOMPOSITE DRAIN BOARD	SF							
	NON-BID ITEMS								
	NAME PLATE	EACH							
	PREFORMED JOINT FILLER	SIZE							
	CORK FILLER	SIZE							
	NON-BITUMINOUS JOINT SEALER	SIZE							
	EXPANDED POLYSTYRENE	SIZE							

ALL ITEMS ARE CATEGORY XXXX

DESIGN DATA

DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020
WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED

LIVE LOAD

LIVE LOAD SURCHARGE (ROADWAY)	240 PSF
LIVE LOAD SURCHARGE (NON-ROADWAY)	100 PSF
LIVE LOAD SURCHARGE (CONSTRUCTION)	100 PSF

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL	f'c = 4,000 PSI
WALL SECANT PILE CONCRETE	f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS	f'c = 5,000 PSI
BAR STEEL REINFORCEMENT	Fy = 60,000 PSI
STRUCTURAL STEEL HS	Fy = 50,000 PSI
TIEBACK TENDONS	ULTIMATE STRENGTH = 270,000 PSI
CONCRETE MASONRY SOLDIER PILE FOOTINGS	fbo = 3,500 PSI
*TIMBER LAGGING	E = 1,000 PSI
	= 1,700,000 PSI

*MATERIAL VALUES BASED ON DOUGLAS FIR-LARCH NO. 1, >2" WIDE, REFERENCE AASHTO LRFD SPECIFICATION TABLE 8.4.1.1.4-1

FOUNDATION DATA

MINIMUM SOIL BEARING CAPACITY	
PRECAST WALL PANEL FOOTING	3,000 PSF

8

8

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

QUANTITIES & NOTES

SHEET 5 OF 11

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-641\cds\R641_080105_gn.dgn

PLOT DATE : 9/16/2021 9:53:19 AM PLOT BY : ejelinek

PLOT SCALE : 4:1

STATE PROJECT NUMBER
1229-04-73

WALL ELEVATIONS UNIT 1 ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
109+10.00	697.76	695.26	693.65
109+25.00	698.33	694.53	693.89
109+50.00	699.27	693.33	694.40
109+75.00	700.22	692.16	695.85
110+00.00	701.16	691.02	697.22
110+25.00	702.11	689.93	698.60
110+50.00	703.05	688.89	700.19
110+75.00	704.00	687.89	701.83

WALL ELEVATIONS UNIT 2 ◥

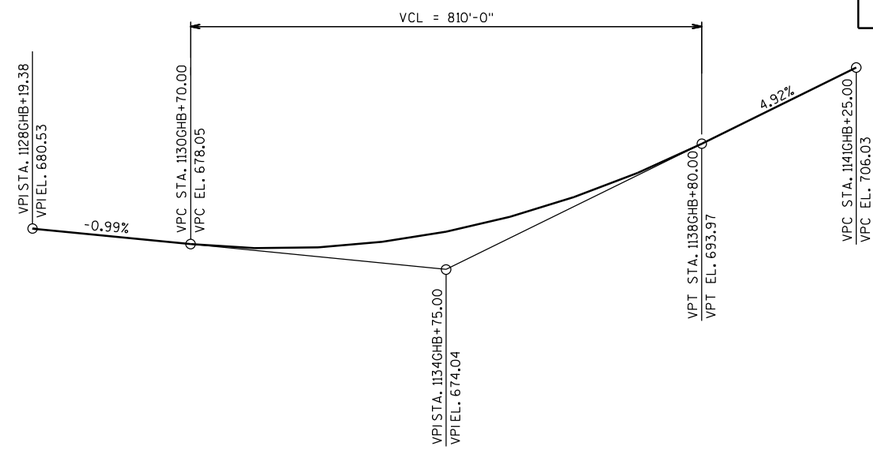
STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
110+75.00	704.00	687.89	701.83
111+00.00	704.00	686.94	702.58
111+25.00	704.00	686.04	702.93
111+50.00	704.00	685.19	702.23
111+75.00	704.00	684.38	701.56
112+00.00	703.08	683.62	700.68
112+25.00	702.15	682.91	699.54
112+46.11	702.15	682.34	699.09
112+50.00	702.15	682.24	699.22
112+75.00	702.15	681.57	698.55
113+00.00	702.15	680.95	698.81
113+25.00	702.15	680.36	699.43
113+50.00	702.15	679.84	699.49
113+75.00	702.15	679.35	700.44
114+00.00	702.15	678.91	700.88
114+25.00	702.15	678.51	701.63
114+50.00	702.15	678.16	701.20
114+75.00	702.15	677.86	699.47
115+00.00	702.15	677.60	699.37
115+25.00	702.15	677.39	699.57
115+50.00	702.15	677.22	699.33
115+75.00	702.15	677.09	699.00
116+00.00	702.15	677.02	700.08
116+09.64	702.15	677.00	700.87

WALL ELEVATIONS UNIT 3 ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
SEGMENT A			
116+09.64	702.15	677.00	700.87
116+25.00	702.64	676.94	696.01
116+31.87	702.86	676.92	693.56
116+39.37	702.86	676.90	691.29
SEGMENT B			
116+39.37	693.57	676.90	691.29
116+50.00	693.57	676.93	690.04
116+75.00	693.57	677.02	689.55
117+00.00	693.57	677.16	689.34
117+07.69	693.57	677.21	689.55
SEGMENT C			
117+07.69	702.81	677.21	689.58
117+12.69	702.59	677.24	689.48
117+25.00	701.91	677.32	689.18
117+37.79	701.28	677.41	689.32
117+50.00	700.78	677.51	692.81
117+75.00	699.74	677.74	691.41
117+81.66	699.47	677.81	692.67
118+01.09	699.25	678.01	695.74

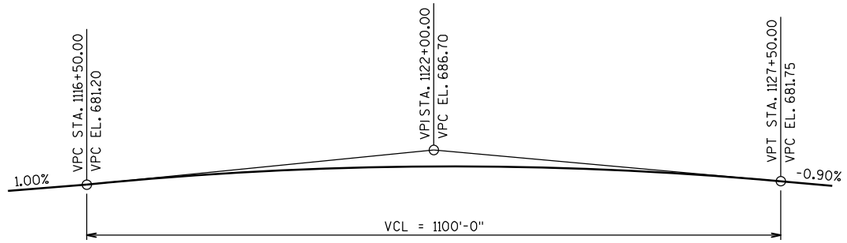
WALL ELEVATIONS UNIT 4 ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
118+01.09	699.25	678.01	695.74
118+25.00	697.50	678.24	696.29
118+40.82	696.34	678.39	696.29
118+50.00	695.67	678.49	696.07
118+75.00	693.83	678.73	692.29
118+99.62	692.03	678.98	690.42
119+00.00	692.00	678.98	690.42
119+25.00	692.00	679.23	690.28
119+50.00	692.00	679.48	690.16
119+75.00	692.00	679.72	690.74
120+00.00	692.00	679.97	690.79
120+25.00	692.00	680.22	690.26
120+50.00	692.00	680.46	689.74
120+75.00	692.00	680.71	690.02
121+00.00	692.00	680.94	689.79
121+25.00	692.00	681.17	690.03
121+50.00	692.00	681.38	690.28
121+75.00	692.00	681.58	690.94
122+00.00	692.00	681.77	690.47
122+25.00	692.00	681.95	690.57
122+50.00	692.00	682.11	690.33
122+75.00	692.00	682.26	690.02
122+99.62	692.00	682.40	689.90
123+00.00	692.00	682.40	689.90
123+25.00	690.41	682.53	689.44
123+50.00	688.83	682.65	688.67
123+75.00	687.24	682.75	687.42
124+00.00	685.65	682.85	685.16
124+25.00	684.06	682.93	684.64
124+31.09	683.67	682.96	684.52



PROFILE GRADE LINE GOOD HOPE RD. RAMP B

℄ 'GHB'



PROFILE GRADE LINE IH 43 NB

WALL SOIL PARAMETERS

SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
XXXXXX	XXX	XX	XX	XX	XX
XXXXXX	XXX	XX	XX	XX	XX
XXXXXX	XX	XX	XX	XX	XX

HORIZONTAL CURVE DATA

CURVE 1	CURVE 2
P.I. = 114+50.48	P.I. = 121+38.82
X = 604528.20	X = 604625.54
Y = 338231.16	Y = 337549.86
Δ = 1°19'25.32"	Δ = 2°40'25.53"
D = 0°30'55.90"	D = 0°42'43.57"
T = 128.39'	T = 187.77'
L = 256.77'	L = 375.47'
R = 1114.00'	R = 8046.00'
P.C. = 113+22.09	P.C. = 119+51.05
X = 604505.25	X = 604600.63
Y = 338357.48	Y = 337735.97
P.T. = 115+78.86	P.T. = 123+26.52
X = 604548.22	X = 604659.10
Y = 338104.34	Y = 337365.11

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

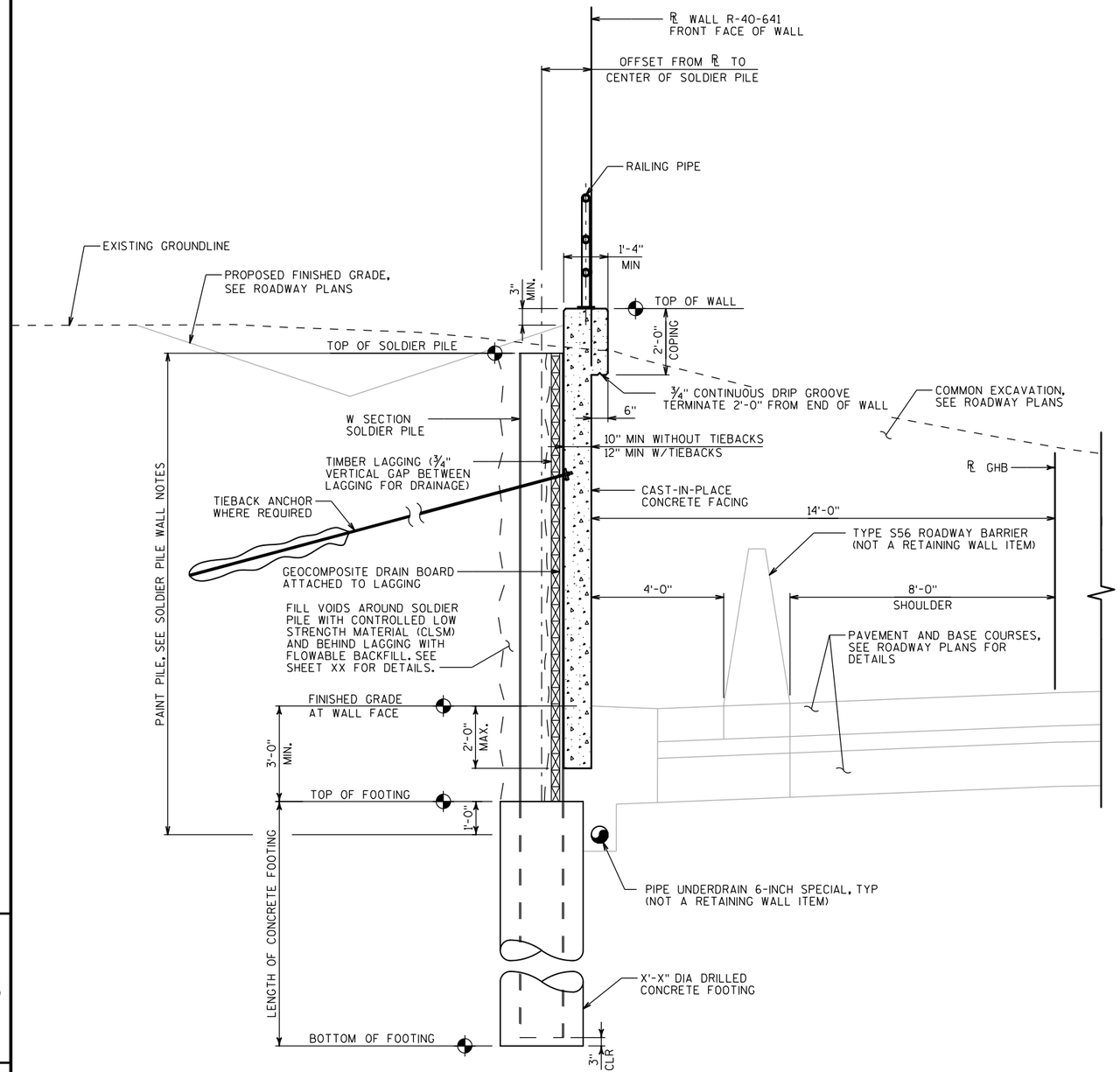
DESIGN DATA

SHEET 6 OF 11

8

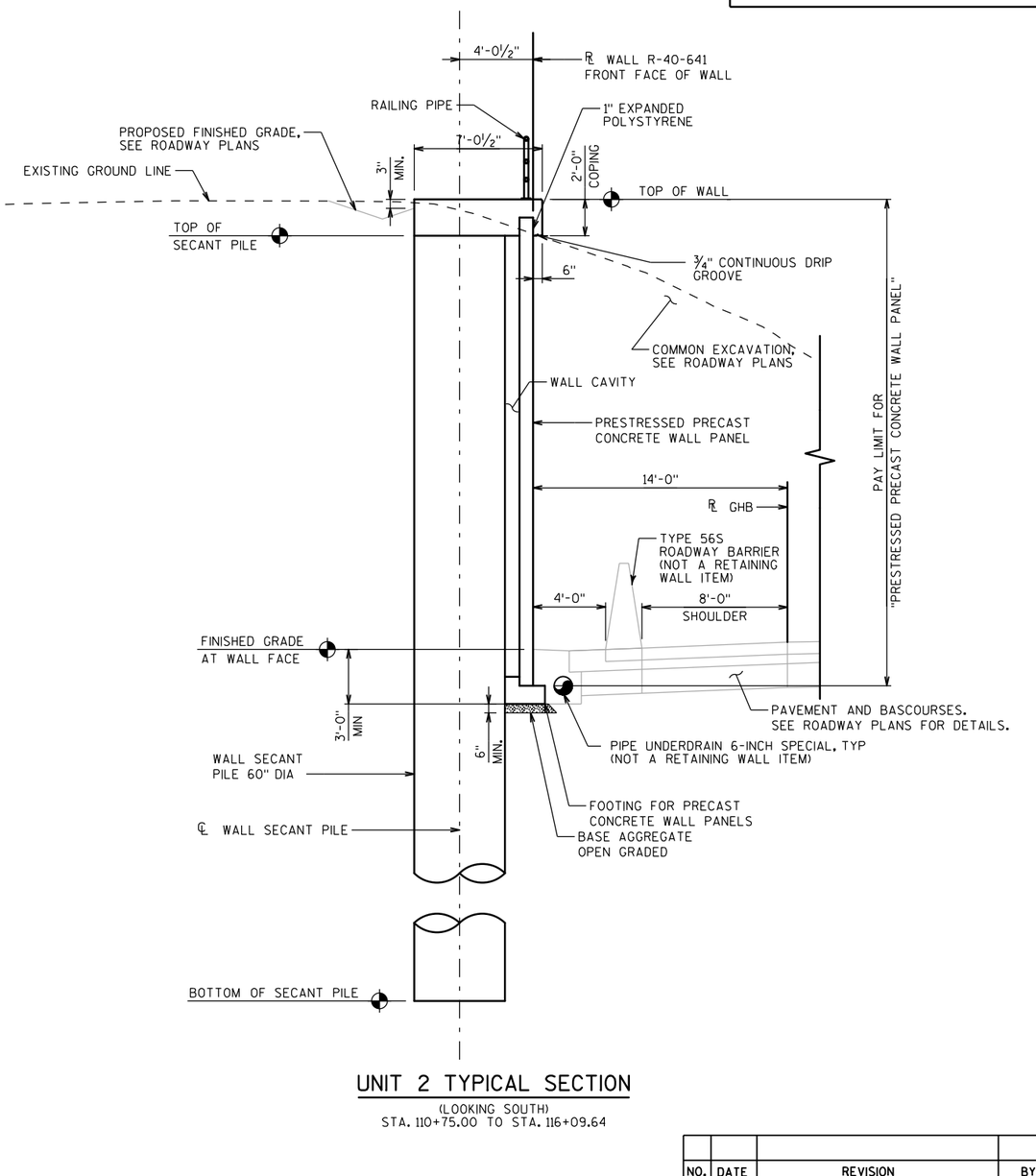
8

STATE PROJECT NUMBER
1229-04-73



UNITS 1 AND 4 TYPICAL SECTION

(LOOKING SOUTH)
UNIT 1 STA 109+10.00 TO STA 110+75.00
UNIT 4 STA 118+01.09 TO STA 124+31.09



UNIT 2 TYPICAL SECTION

(LOOKING SOUTH)
STA. 110+75.00 TO STA. 116+09.64

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

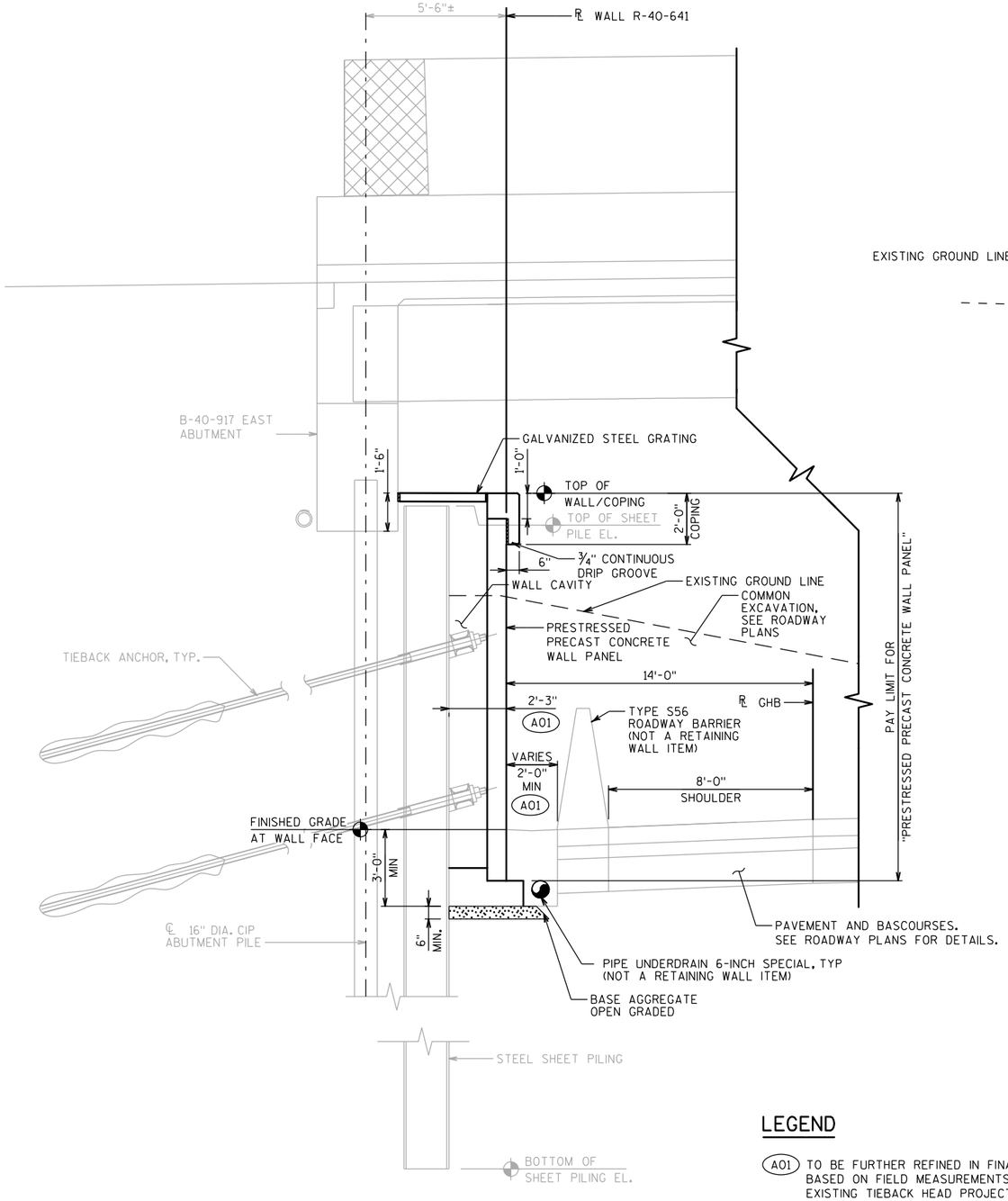
DRAWN BY HDA | PLANS CK'D. EAJ

TYPICAL SECTIONS
(1 OF 2)

SHEET 7 OF 11

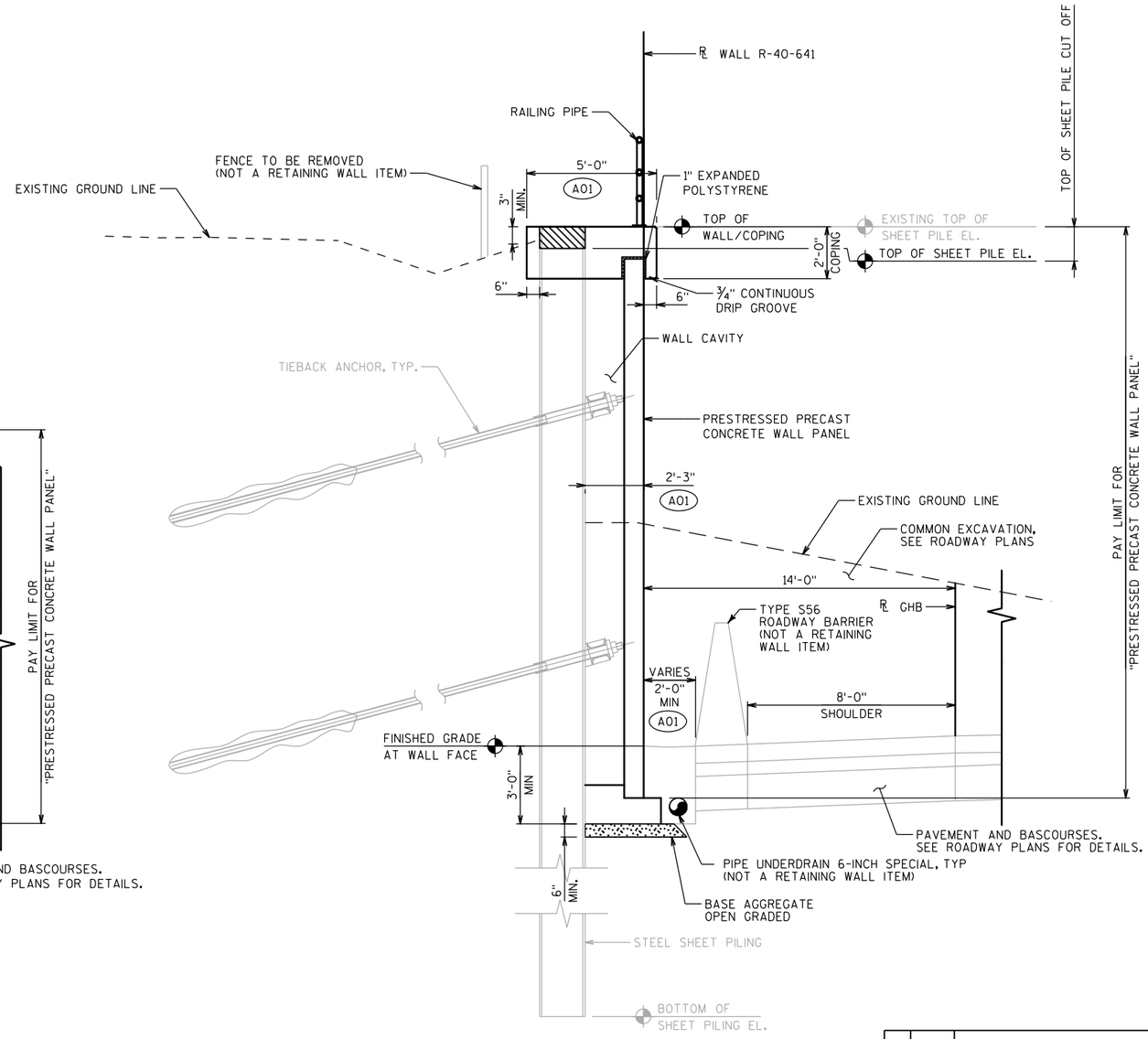
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



UNIT 3 - SEGMENT B TYPICAL SECTION

(LOOKING SOUTH)
STA. 116+39.37 TO STA. 117+07.69



UNIT 3 - SEGMENTS A AND C TYPICAL SECTION

(LOOKING SOUTH)
SEGMENT A STA. 116+09.64 TO STA. 116+39.37
SEGMENT C STA. 117+07.69 TO STA. 118+01.09

LEGEND

(A01) TO BE FURTHER REFINED IN FINAL DESIGN BASED ON FIELD MEASUREMENTS OF EXISTING TIEBACK HEAD PROJECTION

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY HDA | PLANS CK'D. EAJ

TYPICAL SECTIONS (2 OF 2)

SHEET 8 OF 11

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-641\cds\R641_080108_ts.dgn

PLOT DATE : 9/16/2021 10:22:31 AM PLOT BY : ejelinek

PLOT SCALE : 8:1

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHB-04	APRIL 16, 2014	338249	604538
GHB-05	JUNE 12, 2014	338445	604507
GHB-06	JUNE 24, 2014	338660	604424
GHB-10	DECEMBER 17, 2014	338437	604460
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

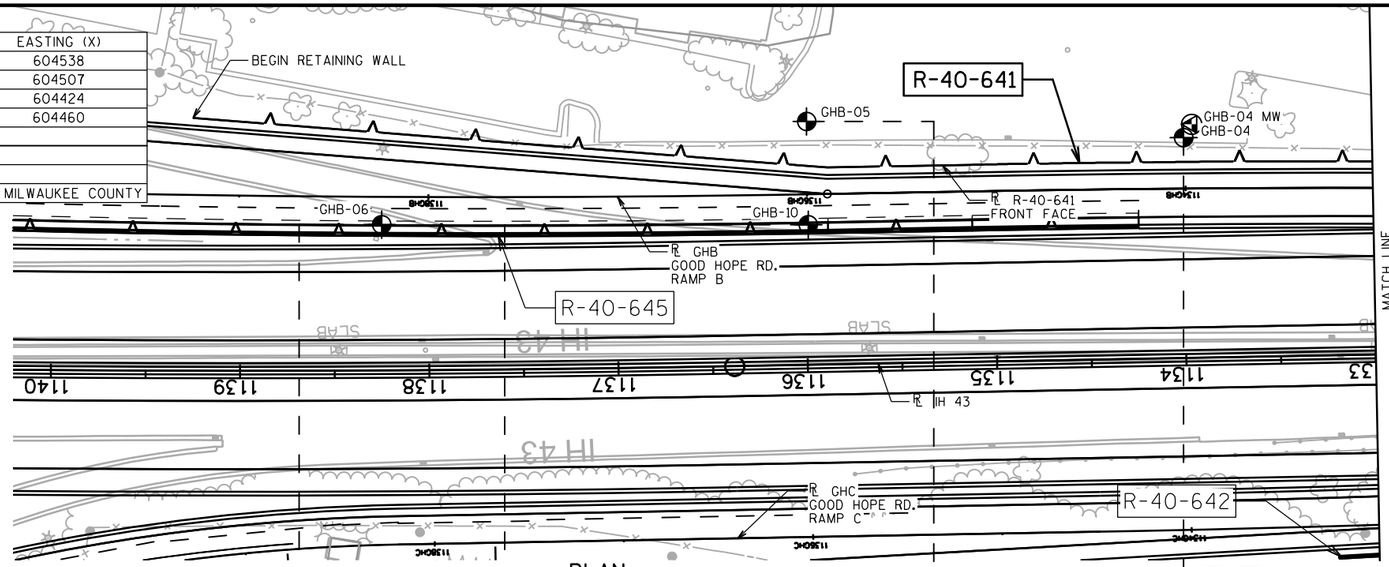
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

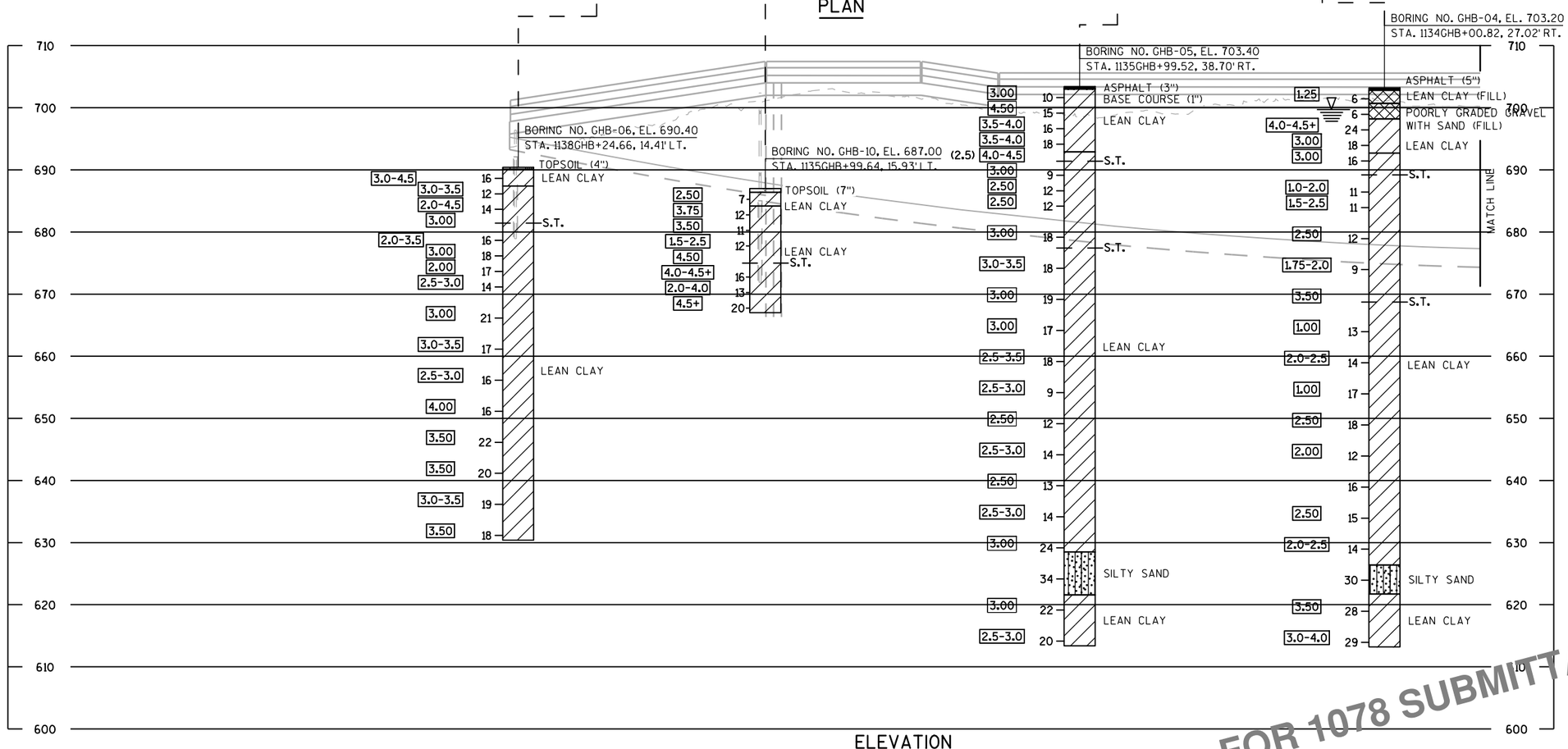
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION



PLAN



ELEVATION

FOR 1078 SUBMITTAL

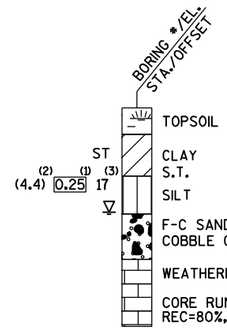
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (1 OF 3)

SHEET 9 OF 11

8

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHB-02	JUNE 23, 2014	337657	604661
GHB-03	MAY 22, 2014	337850	604566
GT-03	JUNE 23, 2014	337973	604600
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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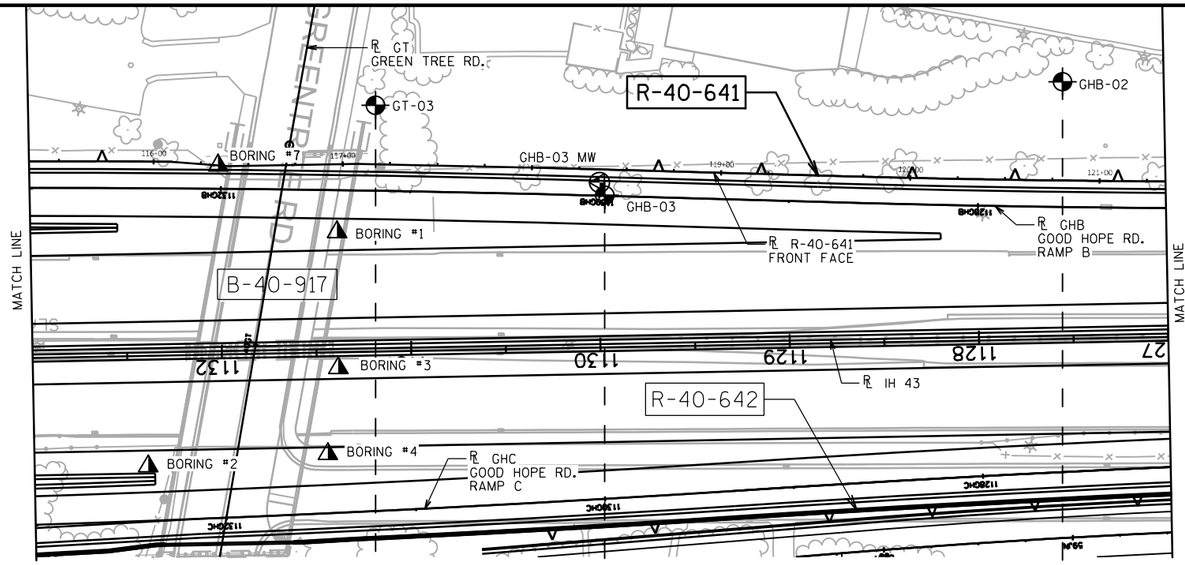
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

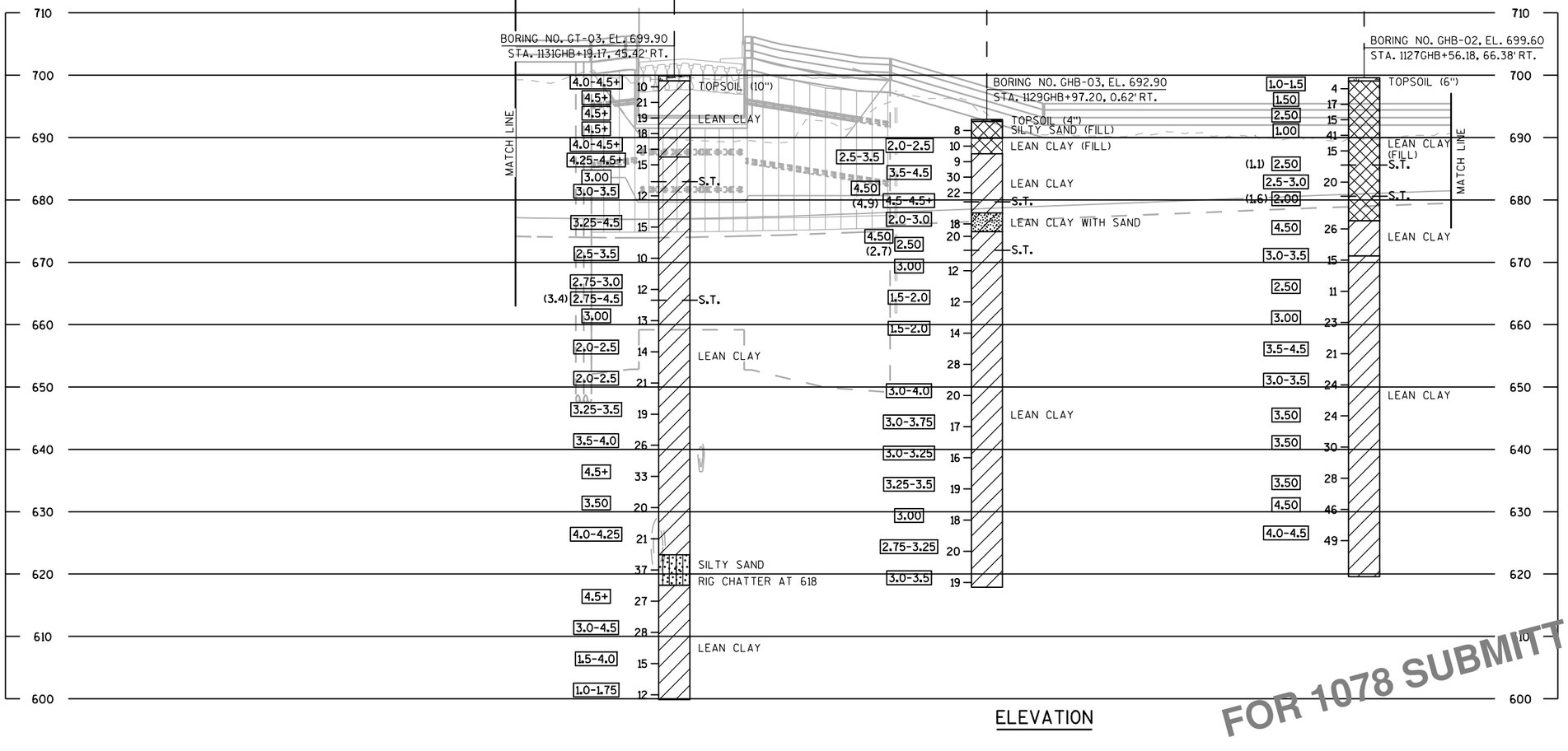
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

FOR 1078 SUBMITTAL

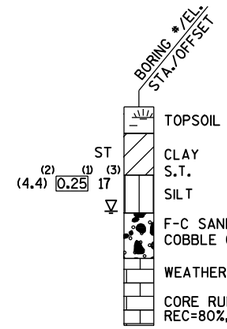
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-641

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (2 OF 3)

SHEET 10 OF 11

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHB-01	JUNE 21, 2014	337452	604647
GHB-11	DECEMBER 10, 2014	337256	604676
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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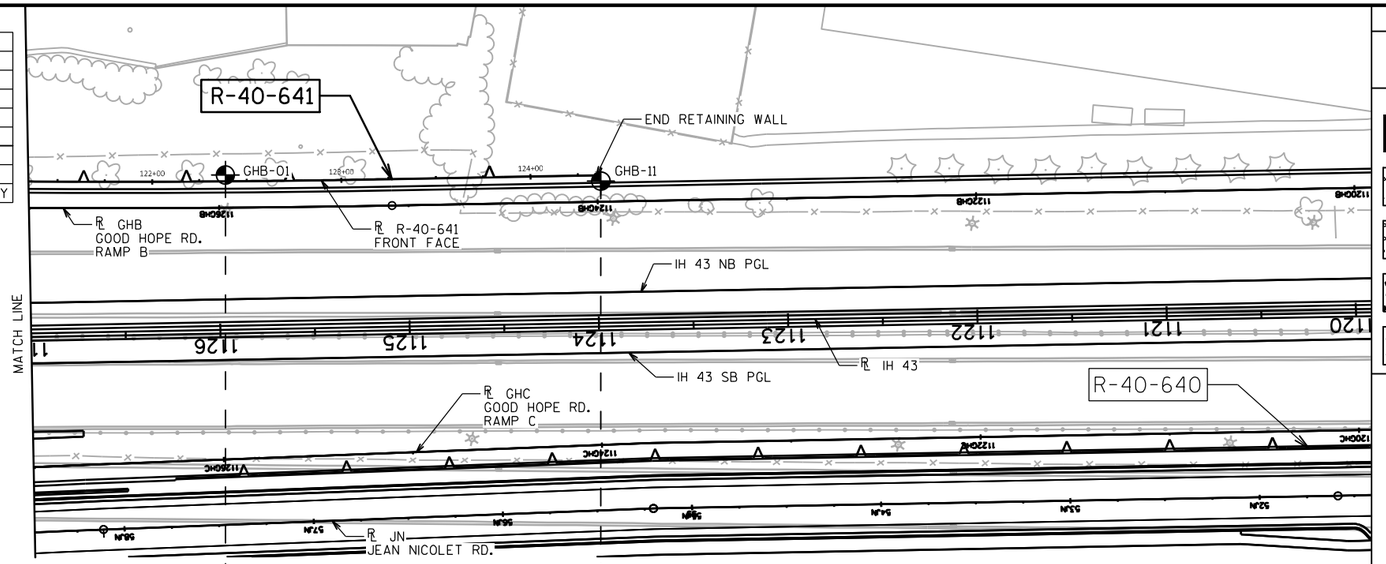
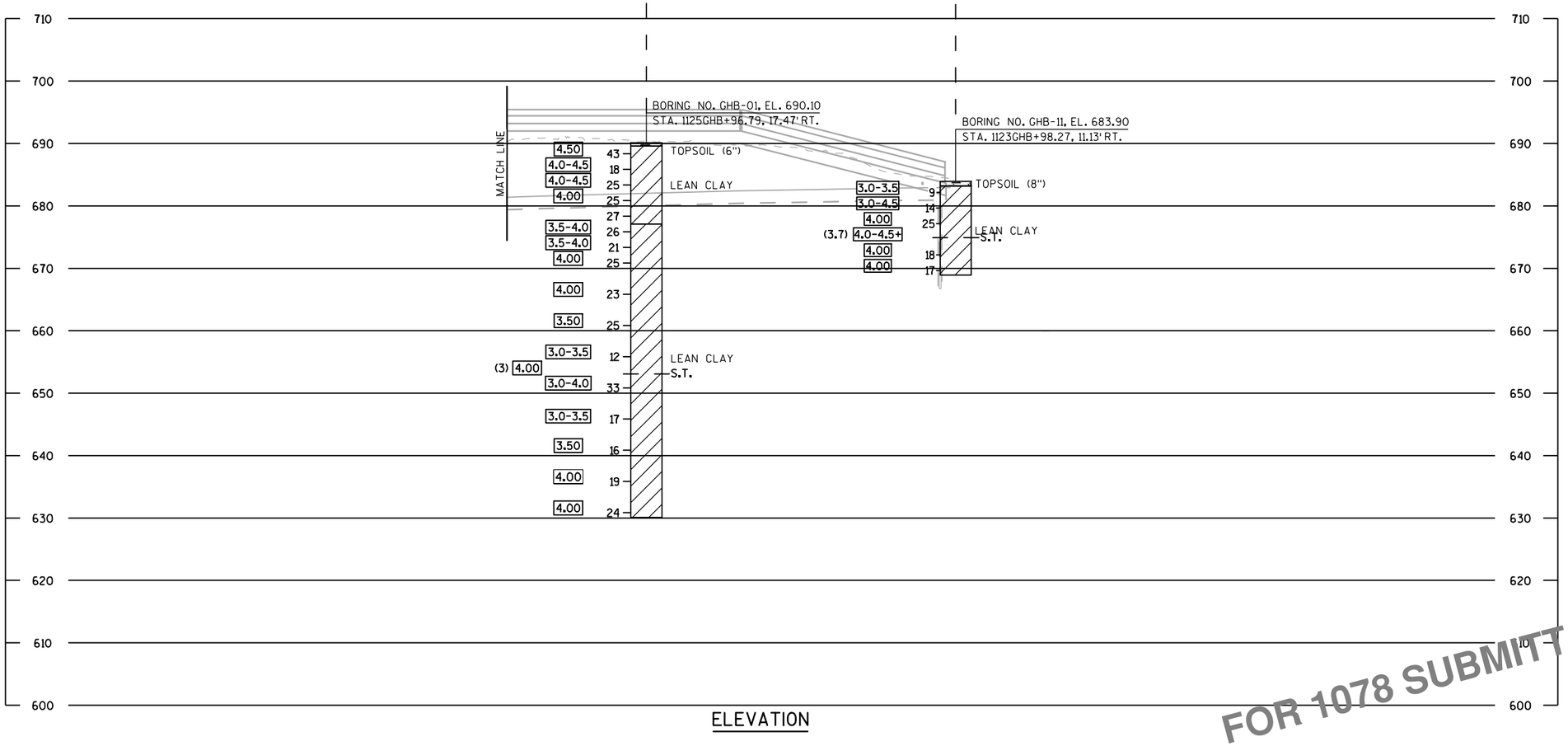
DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

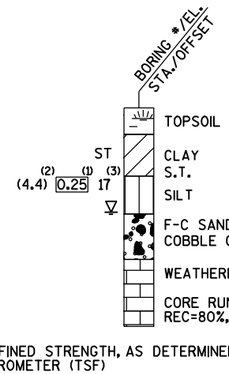
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
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ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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STRUCTURE R-40-641

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION (3 OF 3)

SHEET 11 OF 11

FOR 1078 SUBMITTAL

8

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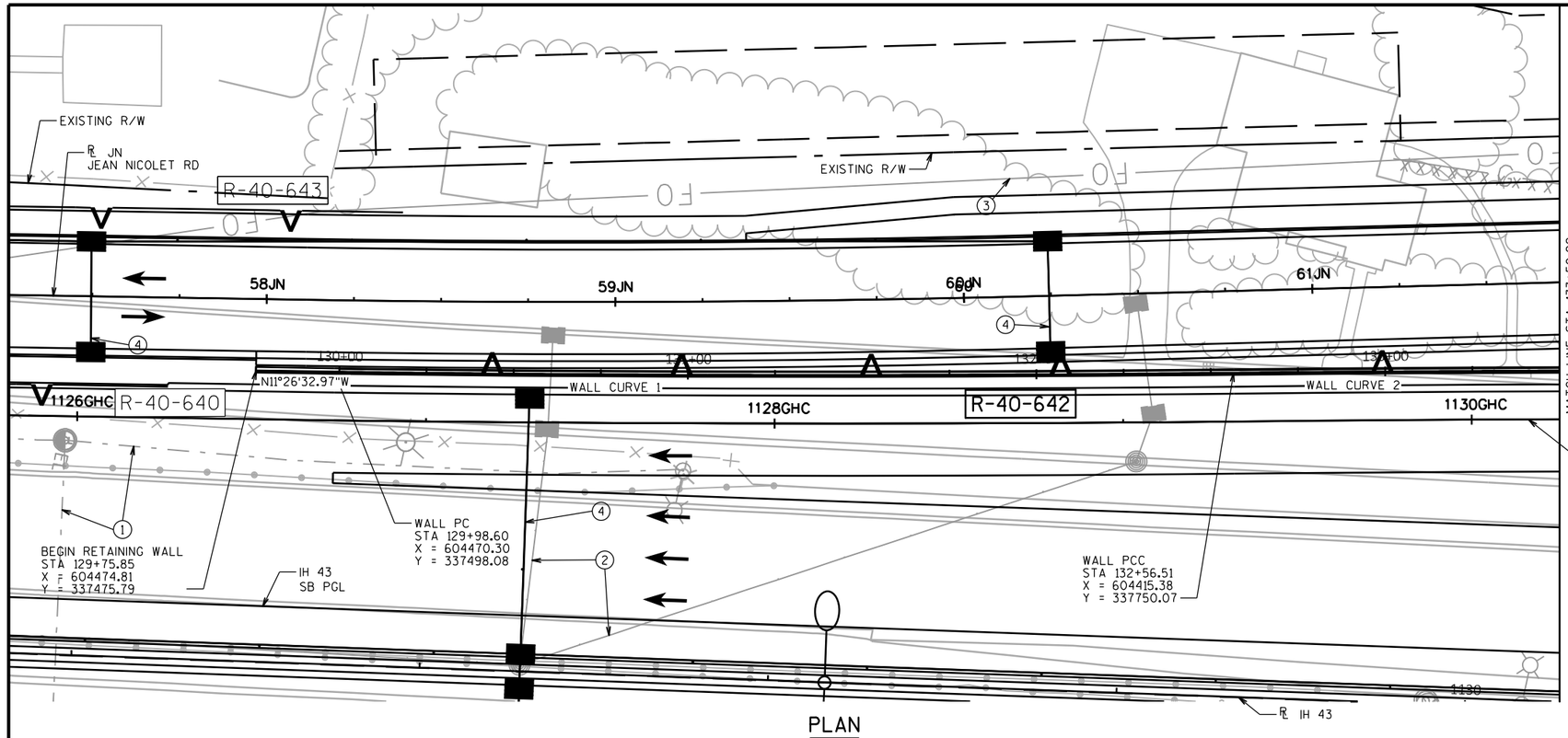
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-641\cds\R641_080203_se.dgn

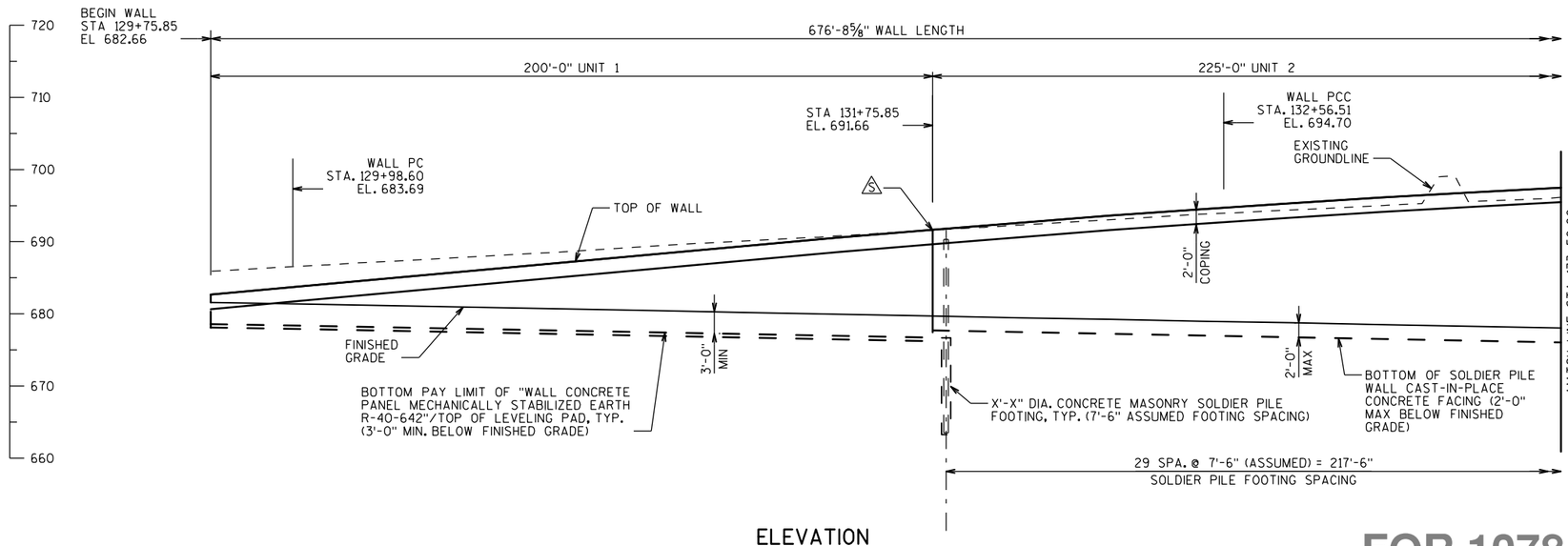
PLOT DATE : 9/16/2021 10:37:13 AM PLOT BY : ejelinek

PLOT SCALE : 80:1

STATE PROJECT NUMBER
1229-04-73



PLAN
RETAINING WALL



ELEVATION
LOOKING WEST

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. GENERAL NOTES & QUANTITIES
4. DESIGN DATA
5. WALL ELEVATIONS & PROFILE GRADE LINES
6. TYPICAL SECTIONS (1 OF 4)
7. TYPICAL SECTIONS (2 OF 4)
8. TYPICAL SECTIONS (3 OF 4)
9. TYPICAL SECTIONS (4 OF 4)
10. SUBSURFACE EXPLORATION

UTILITY & STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING WISDOT STORM SEWER
3. EXISTING CENTURYLINK FIBER OPTIC
4. PROPOSED WISDOT STORM SEWER

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

LEGEND

- TRAFFIC DIRECTION
- C — WALL FACING CONTRACTION JOINT
- E — WALL FACING EXPANSION JOINT
- S — SLIP JOINT

JOINT LOCATIONS TO BE ADDED FOR FINAL DESIGN

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-642

RETAINING WALL W. OF IH 43 UNDER GREEN TREE RD.

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

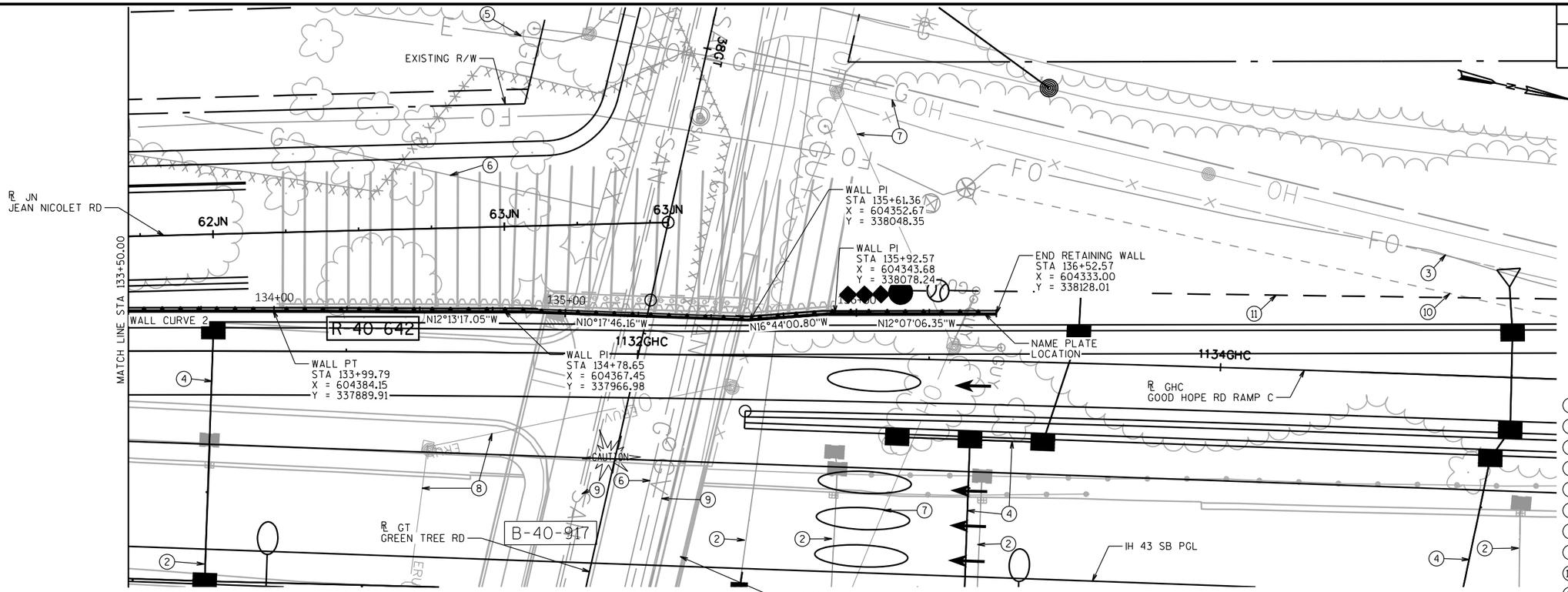
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
HDA	EAJ	HDA	EAJ

GENERAL PLAN & ELEVATION (1 OF 2)

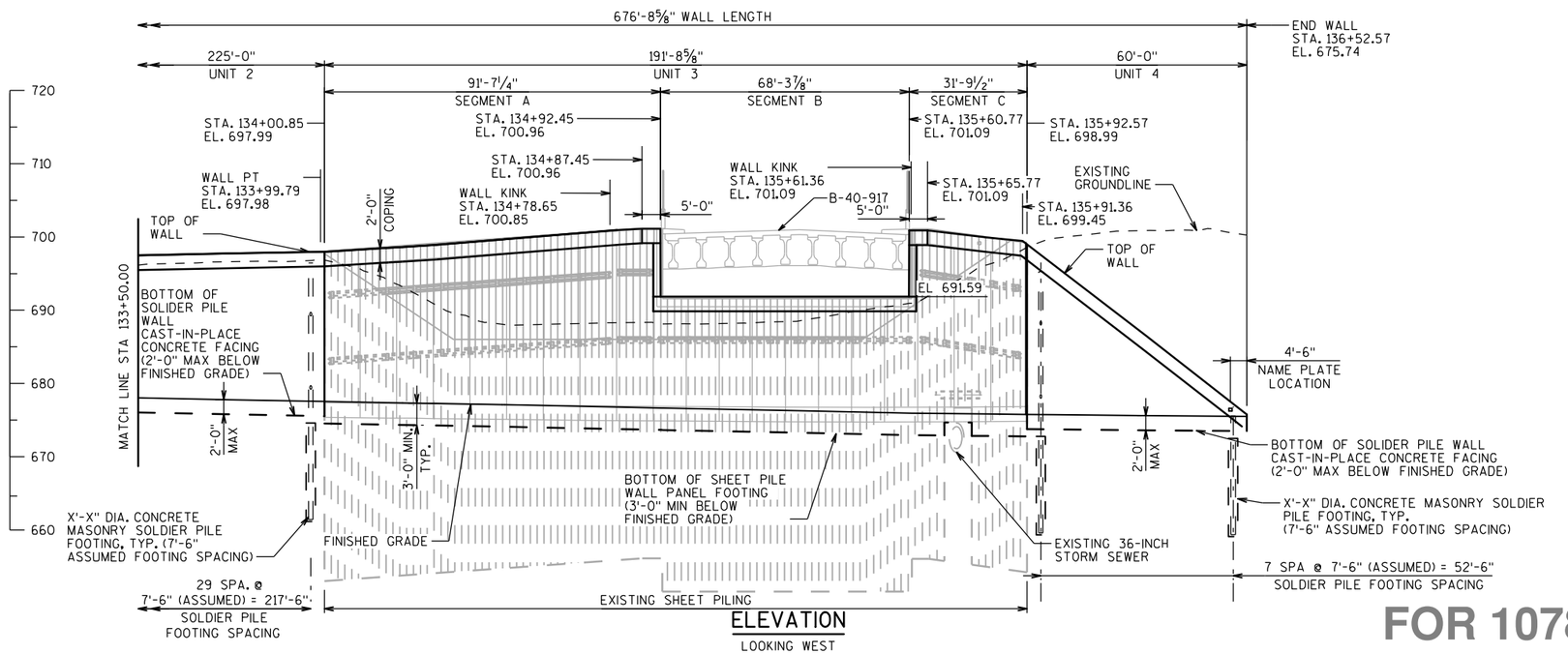
SHEET 1 OF 10

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



PLAN
RETAINING WALL



ELEVATION
LOOKING WEST

UTILITY AND STORM SEWER NOTES**

(2) EXISTING WISDOT STORM SEWER
(3) EXISTING CENTURYLINK FIBER OPTIC
(4) PROPOSED WISDOT STORM SEWER
(5) EXISTING UNDERGROUND ELECTRIC
(6) ABANDONED GAS LINE
(7) EXISTING OVERHEAD UTILITY LINE
(8) EXISTING OVERHEAD ERUV
(9) EXISTING MMSD SANITARY SEWER
(10) EXISTING WISDOT FTMS
(11) PROPOSED WISDOT FTMS

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

LEGEND

TRAFFIC DIRECTION
[C] WALL FACING CONTRACTION JOINT
(E) WALL FACING EXPANSION JOINT
JOINT LOCATIONS TO BE ADDED FOR FINAL DESIGN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

DRAWN BY HDA | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 10

FOR 1078 SUBMITTAL

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-642\cds\R642_080102_gp.dgn

PLOT DATE : 9/28/2021 10:41:37 PM PLOT BY : ejelinek

PLOT SCALE : 40:1

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

GENERAL

DRAWINGS SHALL NOT BE SCALED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

THESE PLANS ARE FOR AN MSE RETAINING WALL (UNIT 1), A SOLDIER PILE RETAINING WALL (UNITS 2 AND 4), AND A SHEET PILE RETAINING WALL WITH FULL HEIGHT PRESTRESSED PRECAST CONCRETE WALL FACING PANELS (UNIT 3).

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-642".

THE GEOTECHNICAL DATA PROVIDED FOR THIS STRUCTURE IN THE GEOTECHNICAL DATA REPORT GOVERNS OVER ANY DISCREPANCY WITH THE SUBSURFACE EXPLORATION AND GEOTECHNICAL DATA SHOWN IN THE PLANS.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

WALL ANCHOR SLAB AND COPING EXPANSION JOINTS TO MATCH ALL WALL FACING EXPANSION AND CONTRACTION JOINTS.

UNITS 2 AND 4

THE QUANTITY OF CAST-IN-PLACE CONCRETE MASONRY FOR THE SOLDIER PILE WALL COPING AND CAST-IN-PLACE CONCRETE FACING IS PAID FOR UNDER ITEM "CONCRETE MASONRY RETAINING WALLS".

SURFACE PREP AND PAINT SOLDIER PILES FROM TOP OF PILE TO 1'-0" BELOW TOP OF FOOTING WITH ONE COAT OF ZINC RICH PRIMER AS SPECIFIED IN SECTION 517 OF THE STANDARD SPECIFICATIONS. WELDED STUD SHEAR CONNECTORS ARE NOT REQUIRED TO BE PAINTED. PAINTING OF PILES IS MEASURED AND PAID FOR AS ITEM NUMBER 517.6000, "PAINTING EPOXY SYSTEM R-40-642".

FILL TO TOP OF WALL FACING ELEVATION WHERE NEEDED TO PROVIDE WORKING SURFACE. FILL INCIDENTAL TO ITEM "CONCRETE MASONRY SOLDIER PILE FOOTINGS".

THE VOLUME OF EARTHWORK REQUIRED TO INSTALL THE SOLDIER PILES, FOOTINGS, AND TIEBACK ANCHORS IS INCLUDED IN THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-642". AFTER WALL SOLDIER PILE CONSTRUCTION HAS BEEN COMPLETED, ALL EARTHWORK IN FRONT OF THE RETAINING WALL IS PAID FOR UNDER THE ROADWAY ITEM "COMMON EXCAVATION". SEE ROADWAY PLANS FOR EXCAVATION LIMITS.

FLOWABLE BACKFILL AND CLSM ARE INCLUDED IN THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-642". SEE SPECIAL PROVISIONS FOR FLOWABLE BACKFILL AND CLSM REQUIREMENTS.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE FACING AND COPING SHALL BE EPOXY COATED.

UNIT 1

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642".

PLANS ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE AS SHOWN FOR UNIT 1 ON THE "TYPICAL SECTIONS" SHEETS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEM BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE SYSTEMS THAT USE STRIP SOIL TYPE REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

GENERAL NOTES

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR UNIT 1 CAST-IN-PLACE COPING PARAPET ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642".

PLAN DIMENSIONS, QUANTITIES, AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½". FOR PANEL THICKNESSES OTHER THAN 7½", THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE PLAN QUANTITY FOR THE ITEM 'WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 3'-0" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642".

UNIT 3

REMOVAL OF TOP PORTION OF EXISTING SHEET PILING PAID FOR UNDER "REMOVING OLD STRUCTURE STA. 135+00".

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR UNIT 3-SEGMENTS A AND C CAST-IN-PLACE COPING ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE UNIT 3-SEGMENT B CAST-IN-PLACE COPING ARE INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANELS".

THE COST OF FURNISHING AND PLACING THE REINFORCED CONCRETE WALL PANEL FOOTING UNDER THE PRESTRESSED PRECAST CONCRETE WALL PANELS IS INCLUDED IN THE ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

DO NOT ALLOW CONCRETE OR FILL TO DROP INTO OR ACCUMULATE IN THE WALL PANEL CAVITY.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	UNIT 1	UNIT 2	UNIT 3			UNIT 4	TOTAL
					SEG. A	SEG. B	SEG. C		
203.2000.XXXX	REMOVING OLD STRUCTURE STA. 135+00	LS							
206.3000.XXXX	EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-642	LS							
502.4104	ADHESIVE ANCHORS 1/2-INCH	EACH							
502.4206	ADHESIVE ANCHORS NO. 6 BARS	EACH							
504.0500	CONCRETE MASONRY RETAINING WALLS	CY							
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB							
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB							
506.0605	STRUCTURAL STEEL HS	LB							
506.3010	WELDED STUD SHEAR CONNECTORS 7/8 X 5-INCH	EACH							
511.1200.XXXX	TEMPORARY SHORING R-40-642	SF							
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY							
517.0600.XXXX	PAINTING EPOXY SYSTEM R-40-642	LS							
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF							
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF							
636.0050.S	FOUNDATION DRILLING 36-INCH <<SIZE TBD>>	LF							
SPV.0035.XXXX	CONCRETE MASONRY SOLDIER PILE FOOTINGS	CY							
SPV.0060.XXXX	TIEBACK ANCHORS	EACH							
SPV.0060.XXXX	TIEBACK ANCHORS PERFORMANCE TESTS	EACH							
SPV.0075.XXXX	OBSTRUCTIONS FOUNDATION DRILLING	HRS							
SPV.0110.XXXX	TIMBER LAGGING	MBM							
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642	SF							
SPV.0165.XXXX	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF							
SPV.0165.XXXX	GEOCOMPOSITE DRAIN BOARD	SF							
	NON BID ITEMS								
	NAME PLATE	EACH							
	PREFORMED JOINT FILLER	SIZE							
	NON-BITUMINOUS JOINT SEALER	SIZE							
	EXPANDED POLYSTYRENE	SIZE							
	CORK FILLER	SIZE							

ALL ITEMS ARE CATEGORY XXXX

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

DRAWN BY HDA | PLANS CK'D. EAJ

GENERAL NOTES & QUANTITIES

SHEET 3 OF 10

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

WALL SOIL PARAMETERS

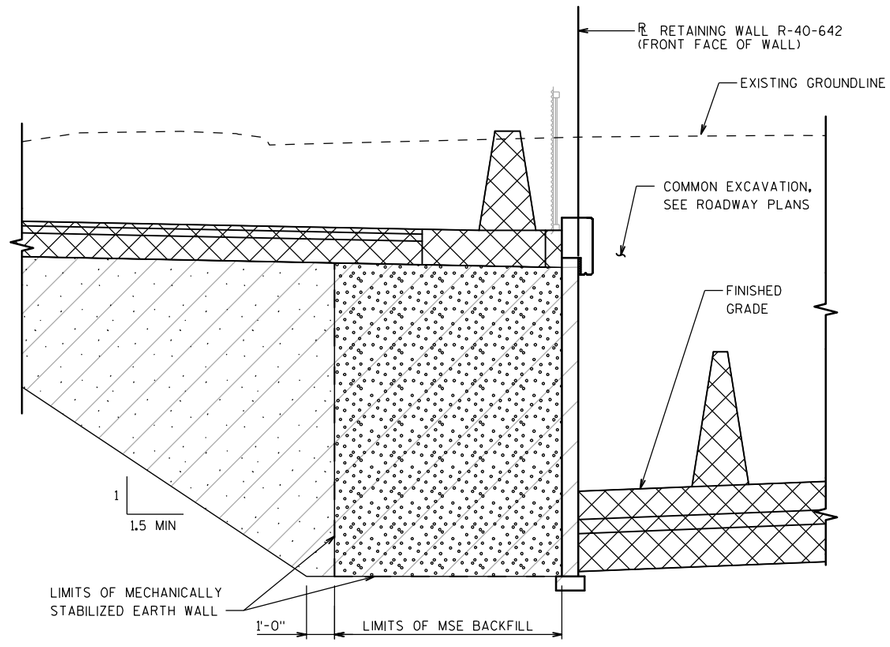
	SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
			FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐	GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)					
	LEAN CLAY (RETAINED SOIL)					
	LEAN CLAY (FOUNDATION SOIL)					

◐ DESIGN MSE WALL FOR THESE VALUES

MSE WALL EXTERNAL STABILITY EVALUATION

	DIMENSIONS			
	WALL HEIGHT (FEET)			
	EXPOSED WALL HEIGHT (FEET)			
T01	MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)			
	REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO			
	WALL STATION			
	BORING USED			
	CAPACITY TO DEMAND RATIO (CDR)			
	SLIDING			
	ECCENTRICITY			
	BEARING RESISTANCE			
	FACTORED BEARING RESISTANCE (PSF)			
	GLOBAL STABILITY — END OF CONSTRUCTION			
	GLOBAL STABILITY — LONG-TERM			

T01 THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.



TYPICAL MSE WALL EXCAVATION LIMITS DIAGRAM

LOOKING NORTH

DESIGN DATA

DESIGN SPECIFICATIONS
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020
WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED

LIVE LOAD
- LIVE LOAD SURCHARGE (ROADWAY) 240 PSF
- LIVE LOAD SURCHARGE (NON-ROADWAY) 100 PSF
- LIVE LOAD SURCHARGE (CONSTRUCTION) 100 PSF

MATERIAL PROPERTIES
- CONCRETE MASONRY
  - ANCHOR SLAB & PARAPET f'c = 4,000 PSI
  - MSE WALL COPING f'c = 3,500 PSI
  - CIP WALL FACING f'c = 3,500 PSI
- PRECAST CONCRETE WALL PANELS f'c = 5,000 PSI
- BAR STEEL REINFORCEMENT Fy = 60,000 PSI
- STRUCTURAL STEEL HS Fy = 50,000 PSI
- TIEBACK TENDONS ULTIMATE STRENGTH = 270,000 PSI
- CONCRETE MASONRY SOLDIER PILE FOOTINGS f'c = 3,500 PSI
- ✳ TIMBER LAGGING fbo = 1,000 PSI
  E = 1,700,000 PSI

✳ MATERIAL VALUES BASED ON DOUGLAS FIR-LARCH NO. 1, >2" WIDE, REFERENCE AASHTO LRFD SPECIFICATION TABLE 8.4.1.1.4-1

FOUNDATION DATA

MINIMUM SOIL BEARING CAPACITY
PRECAST WALL PANEL FOOTING 3,000 PSF

LEGEND

- WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642".
- MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-642".
- ROADWAY ITEM - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.
- EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

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DESIGN DATA

SHEET 4 OF 10

FOR 1078 SUBMITTAL

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STATE PROJECT NUMBER
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WALL ELEVATIONS UNIT 1

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
129+75.85	682.66	681.57	685.90
129+98.60	683.69	681.39	686.53
130+00.00	683.76	681.38	686.57
130+25.00	684.89	681.14	687.26
130+50.00	686.03	680.90	687.95
130+75.00	687.17	680.66	688.65
131+00.00	688.31	680.42	689.44
131+25.00	689.45	680.18	690.13
131+50.00	690.57	679.94	690.81
131+75.00	691.63	679.70	691.55
131+75.85	691.66	679.69	691.57

WALL ELEVATIONS UNIT 2

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
131+75.85	691.66	679.69	691.57
132+00.00	692.63	679.46	692.30
132+25.00	693.59	679.22	693.04
132+50.00	694.48	678.98	693.78
132+56.51	694.70	678.92	693.93
132+75.00	695.32	678.74	694.38
133+00.00	696.10	678.50	695.00
133+25.00	696.83	678.27	695.56
133+50.00	697.50	678.03	696.16
133+75.00	697.74	677.79	696.61
133+99.79	697.99	677.55	666.92
134+00.00	697.99	677.55	696.92
134+00.85	697.99	677.54	696.83

WALL ELEVATIONS UNIT 3

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
SEGMENT A			
134+00.85	697.99	677.54	696.83
134+01.52	698.00	677.53	696.76
134+25.00	698.72	677.31	692.42
134+31.30	698.91	677.25	690.70
134+50.00	699.68	677.07	688.02
134+75.00	700.70	676.83	688.24
134+78.65	700.78	676.80	688.30
134+81.29	700.96	676.78	688.31
134+87.45	700.96	676.71	688.34
134+92.45	700.96	676.66	688.13
SEGMENT B			
134+92.45	691.59	676.65	688.13
135+00.00	691.59	676.58	688.14
135+25.00	691.59	676.32	688.42
135+50.00	691.59	676.05	690.19
135+60.77	691.59	675.93	690.94
SEGMENT C			
135+60.77	701.09	675.93	690.94
135+61.36	701.09	675.93	690.95
135+65.77	701.09	675.91	691.93
135+70.07	700.61	675.88	693.08
135+75.00	700.32	675.86	694.43
135+77.57	700.16	675.85	695.21
135+81.72	699.92	675.83	696.19
135+91.36	699.45	675.79	698.24
135+92.57	698.99	675.78	698.56

WALL ELEVATIONS UNIT 4

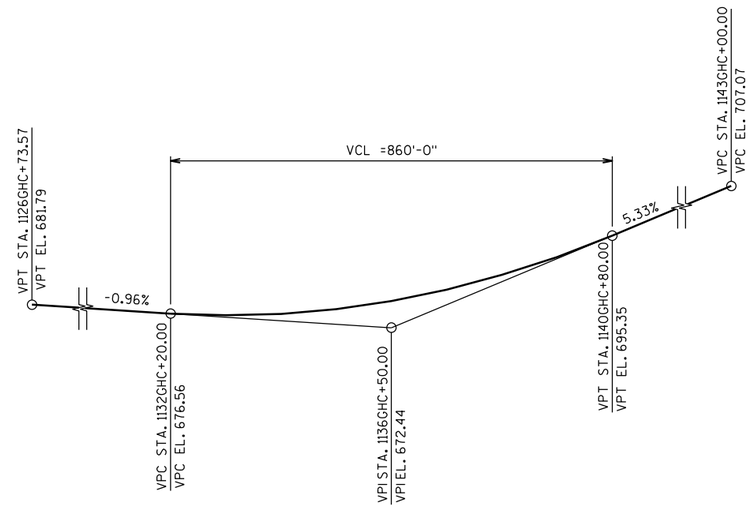
STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
135+92.57	698.99	675.78	698.56
136+00.00	696.13	675.73	699.84
136+25.00	686.53	675.60	700.87
136+52.57	675.74	675.50	700.25

LEGEND

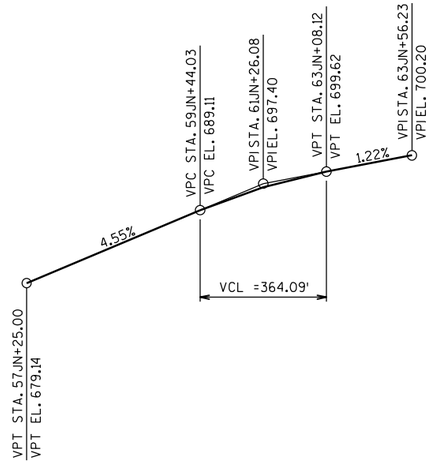
◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS

HORIZONTAL CURVE DATA

WALL CURVE 1		WALL CURVE 2	
P.I. =	131+27.56	P.I. =	133+28.15
X =	604444.31	X =	604399.31
Y =	337624.39	Y =	337819.89
Δ =	1° 19' 58.70"	Δ =	0° 44' 19.21"
D =	0° 31' 00.59"	D =	0° 30' 55.90"
T =	128.96'	T =	71.64'
L =	257.91'	L =	143.28'
R =	11,086'	R =	11,114'
P.C. =	129+98.60	P.C. =	132+56.51
X =	604470.30	X =	604415.38
Y =	337498.08	Y =	337750.07
P.C.C. =	132+56.51	P.C.C. =	133+99.79
X =	604415.38	X =	604384.15
Y =	337750.07	Y =	337889.91



PROFILE GRADE LINE GOOD HOPE RD. RAMP C
℄ 'GHC'



PROFILE GRADE LINE JEAN NICOLET RD.
℄ 'JN'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

DRAWN BY HDA | PLANS CK'D. EAJ

WALL ELEVATIONS & PROFILE GRADE LINES

SHEET 5 OF 10

FOR 1078 SUBMITTAL

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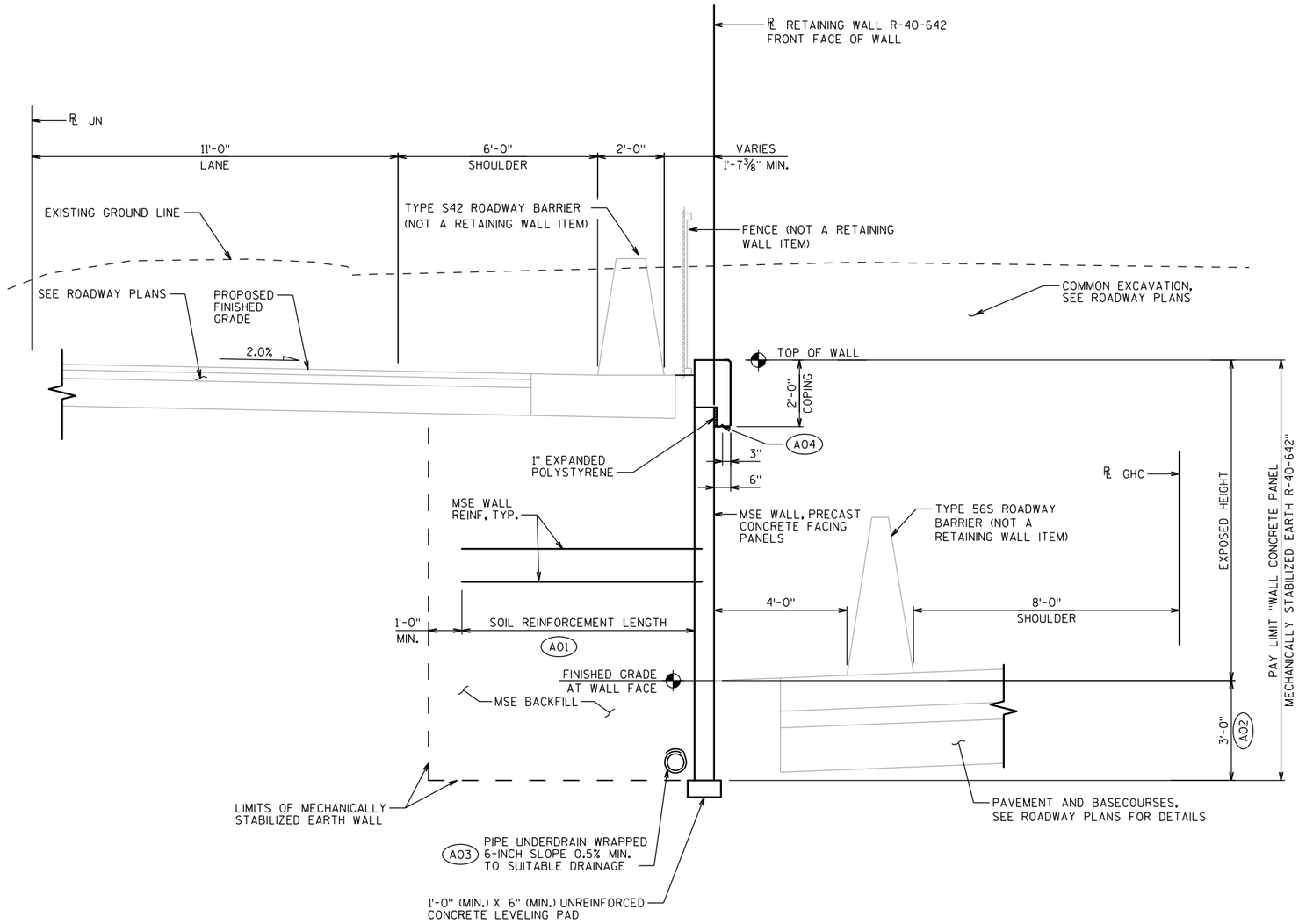
STATE PROJECT NUMBER
1229-04-73



UNIT 1 TYPICAL SECTION

(LOOKING NORTH)
STA. 129+75.85 TO 131+75.85

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) CONNECT PIPE UNDERDRAIN WRAPPED TO INLET *XXXXX USING PIPE UNDERDRAIN UNPERFORATED. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

(A04) ¾" CONTINUOUS DRIP GROOVE, TERMINATE 2'-0" FROM END OF WALL

NOTES

SEE "DESIGN DATA" SHEET FOR TYPICAL MSE WALL EXCAVATION LIMITS DIAGRAM

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

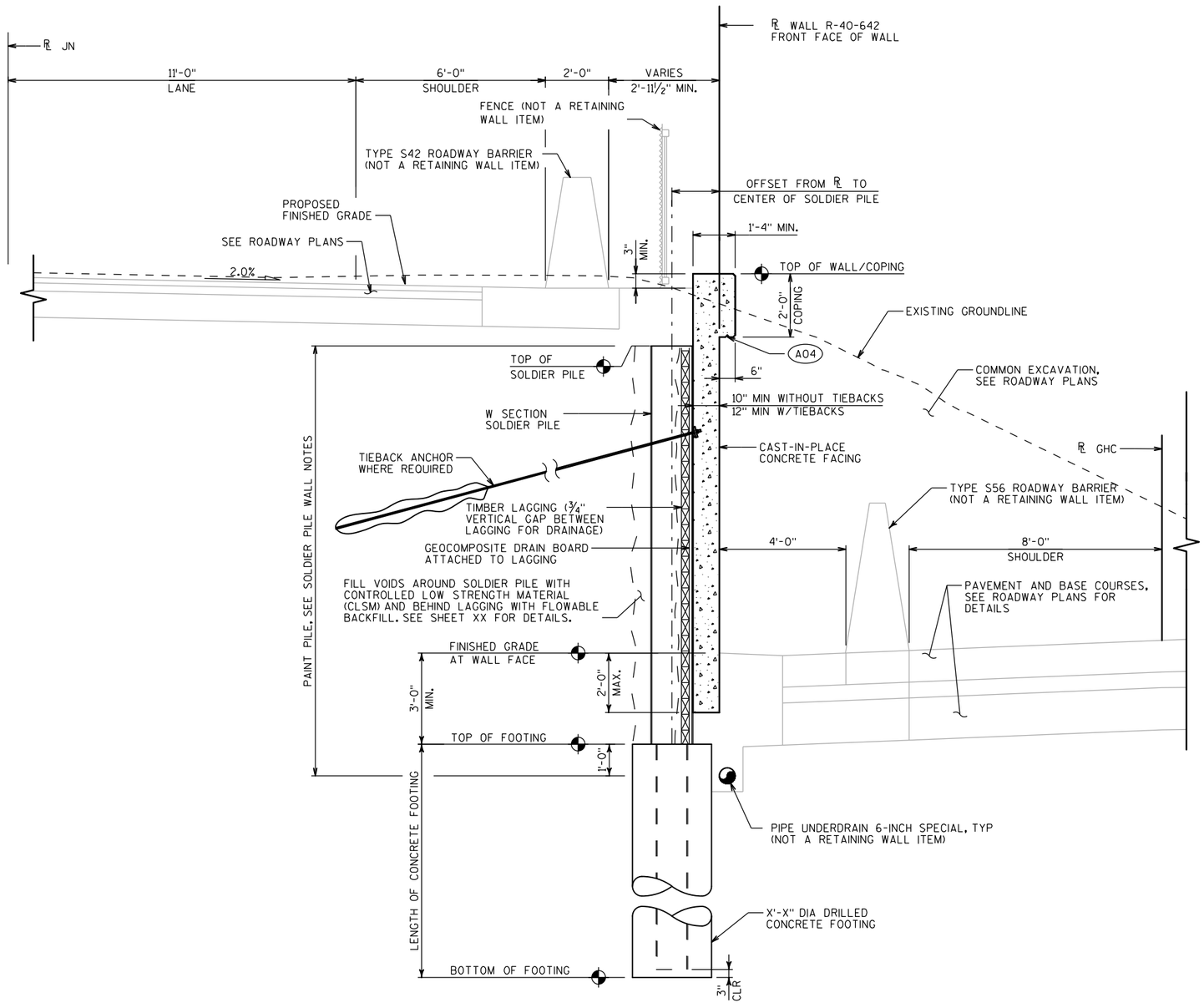
DRAWN BY HDA | PLANS CK'D. EAJ

TYPICAL SECTIONS
(1 OF 4)

SHEET 6 OF 10

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



UNIT 2 TYPICAL SECTION

(LOOKING NORTH)
STA 131+75.85 TO STA 134+00.85

LEGEND

(A04) ¾" CONTINUOUS DRIP GROOVE, TERMINATE 2'-0" FROM END OF WALL

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

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TYPICAL SECTIONS (2 OF 4)

SHEET 7 OF 10

8

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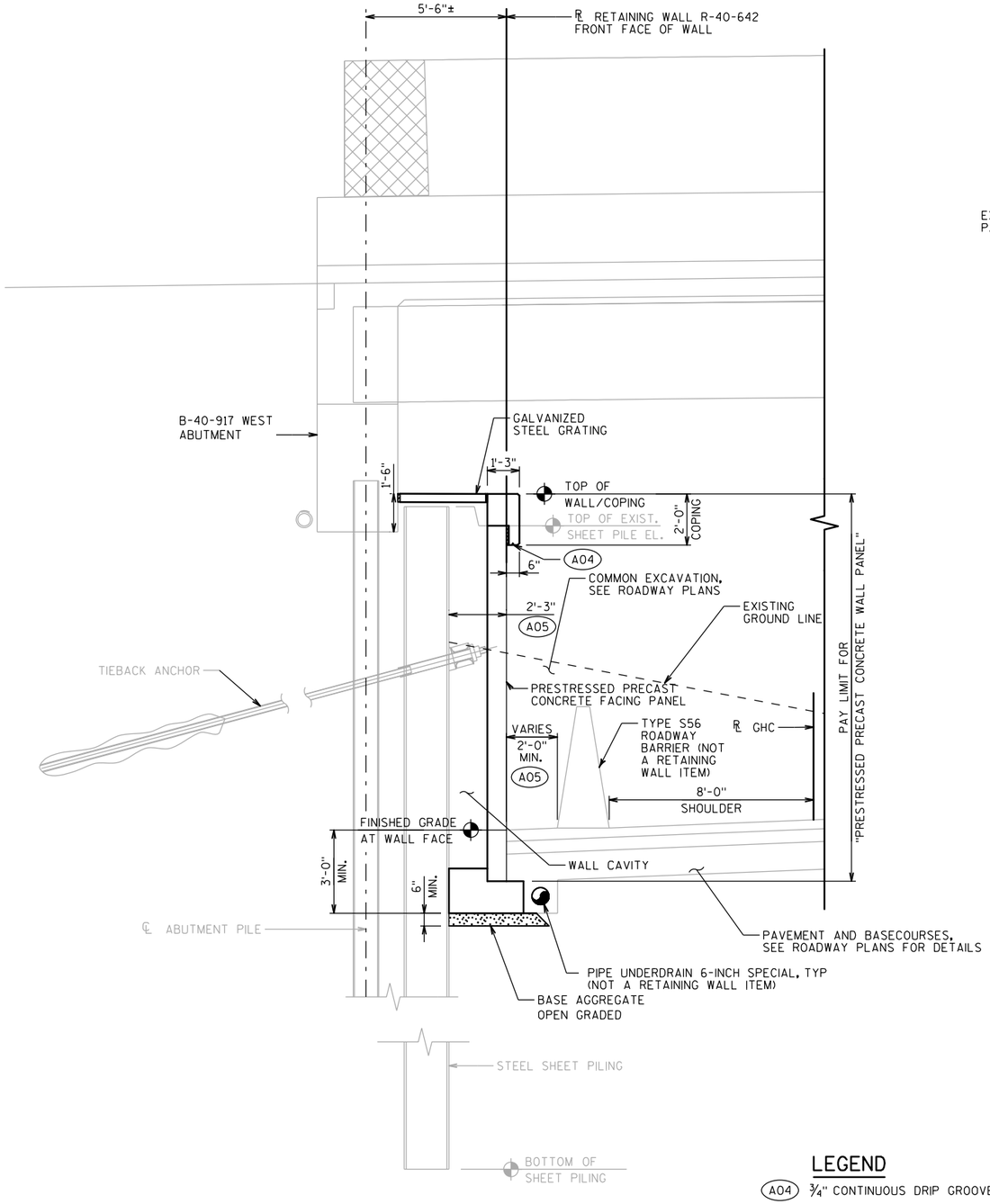
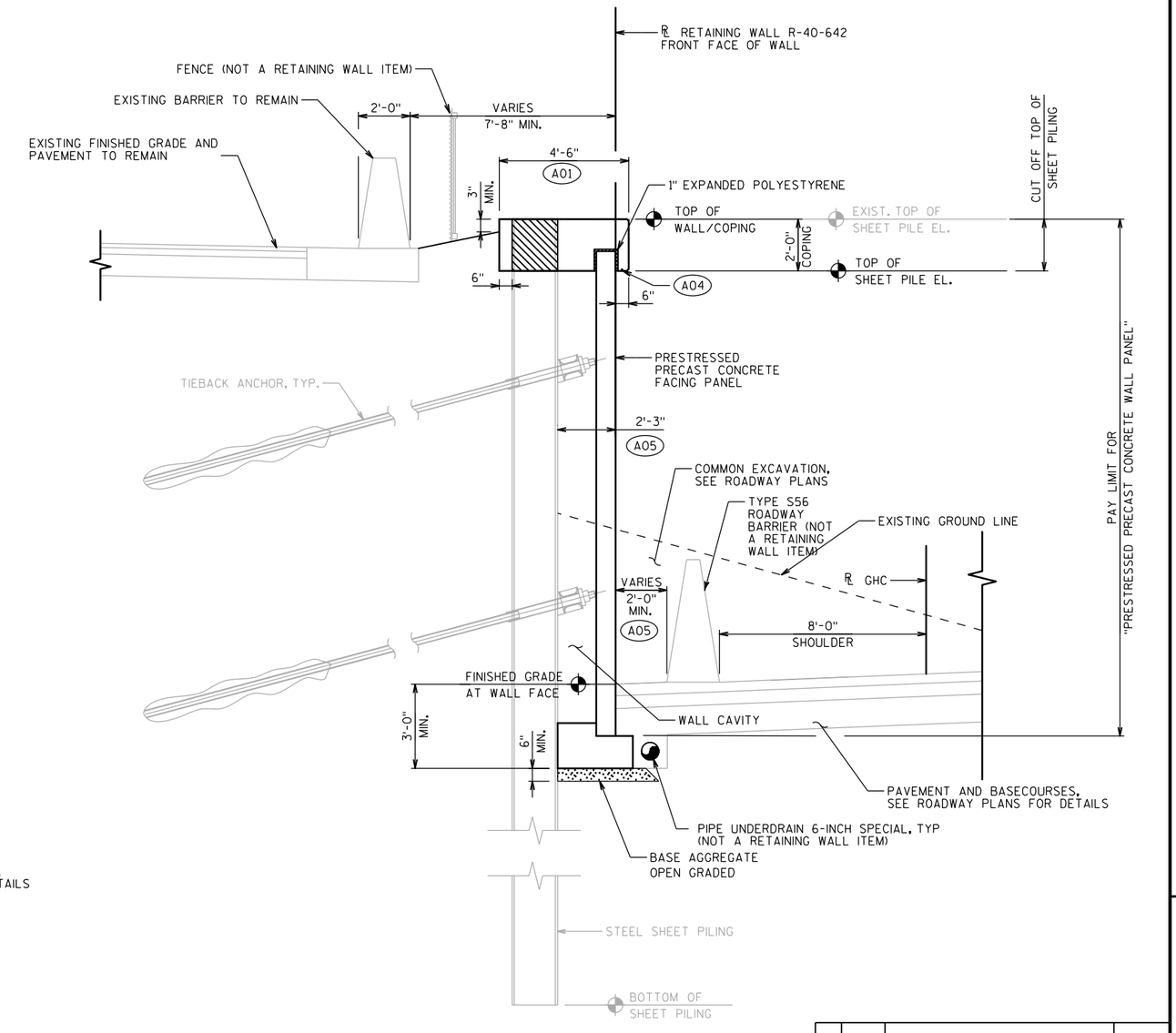
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-642\cds\R642_080107_ts.dgn PLOT DATE : 9/16/2021 1:03:02 PM PLOT BY : ejelinek PLOT SCALE : 4:1

STATE PROJECT NUMBER
1229-04-73



UNIT 3 - SEGMENT B TYPICAL SECTION

(LOOKING NORTH)
STA. 134+92.45 TO STA. 135+60.77



UNIT 3 - SEGMENT A TYPICAL SECTION

(LOOKING NORTH)
STA. 134+00.85 TO STA. 134+92.45

LEGEND

(A04) 3/4" CONTINUOUS DRIP GROOVEOF WALL

(A05) TO BE FURTHER REFINED IN FINAL DESIGN BASED ON FIELD MEASURMENTS OF EXISTING TIEBACK HEAD PROJECTION

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

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TYPICAL SECTIONS
(3 OF 4)

SHEET 8 OF 10

8

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STATE PROJECT NUMBER
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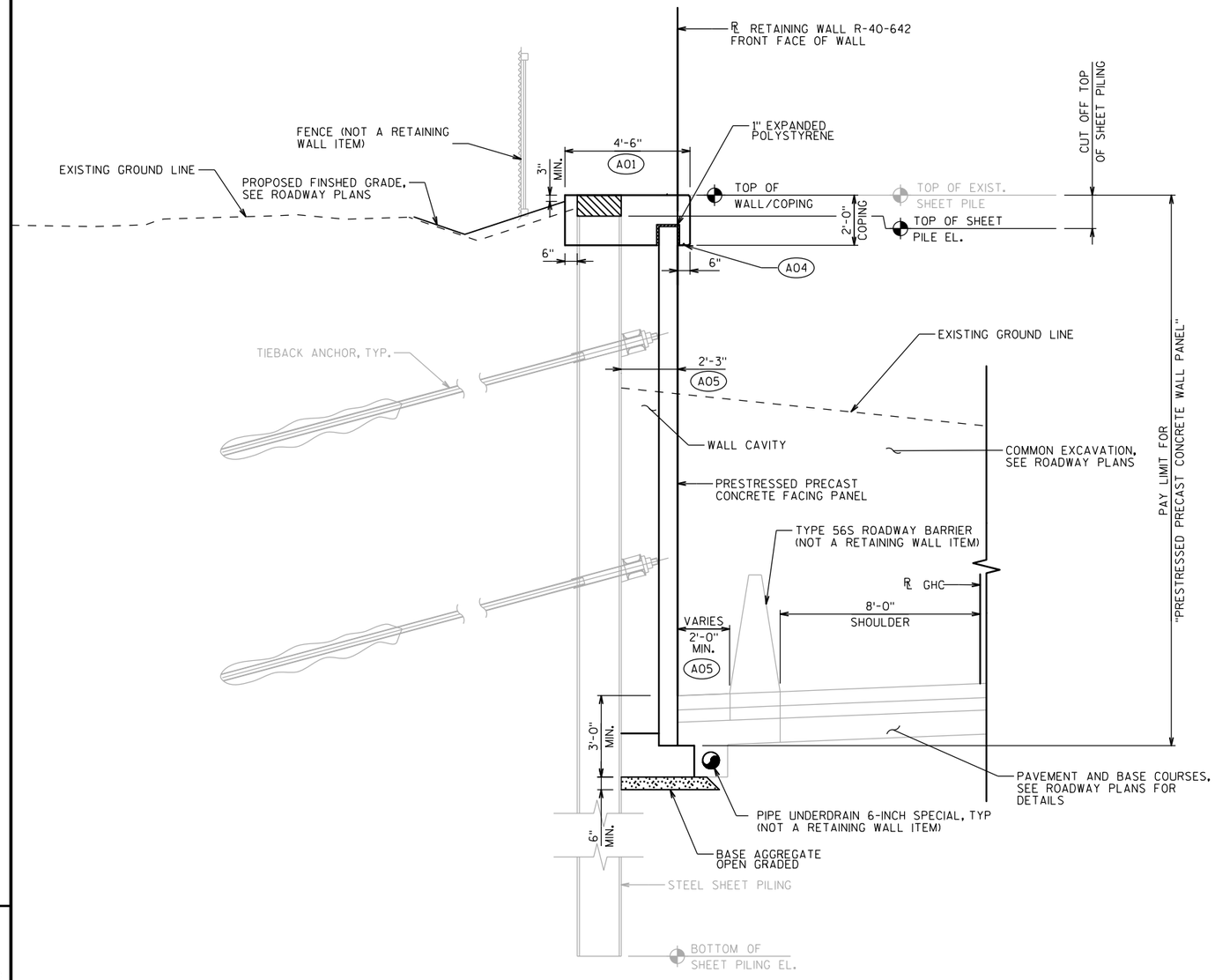
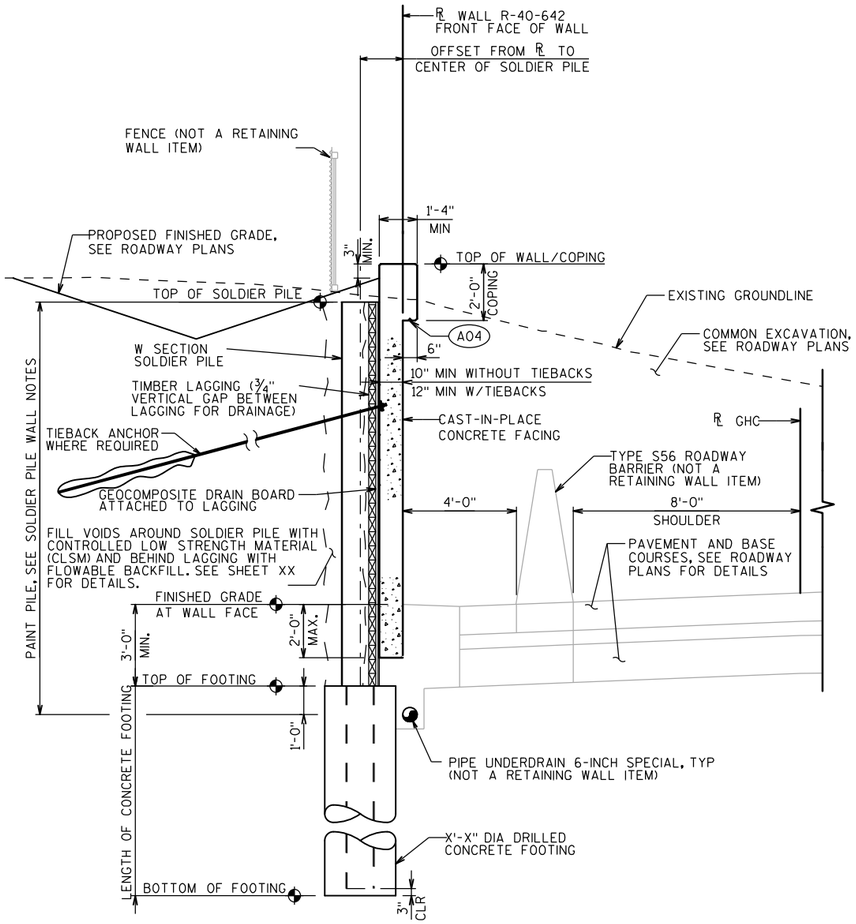


UNIT 3 - SEGMENT C TYPICAL SECTION

(LOOKING NORTH)
STA. 135+60.77 TO STA. 135+92.57



UNIT 4 TYPICAL SECTION

(LOOKING NORTH)
STA. 135+92.57 TO STA. 136+52.57

LEGEND

(A04) ¾" CONTINUOUS DRIP GROOVE, TERMINATE 2'-0" FROM END OF WALL

(A05) TO BE FURTHER REFINED IN FINAL DESIGN BASED ON FIELD MEASUREMENTS OF EXISTING TIEBACK HEAD PROJECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

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TYPICAL SECTIONS (4 OF 4)

SHEET 9 OF 10

FOR 1078 SUBMITTAL

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHC-01	JULY 3, 2014	337424	604492
GHC-02	JULY 2, 2014	337629	604430
GHC-03	APRIL 9, 2014	337813	604407
GT-01	APRIL 25, 2014	338043	604346
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

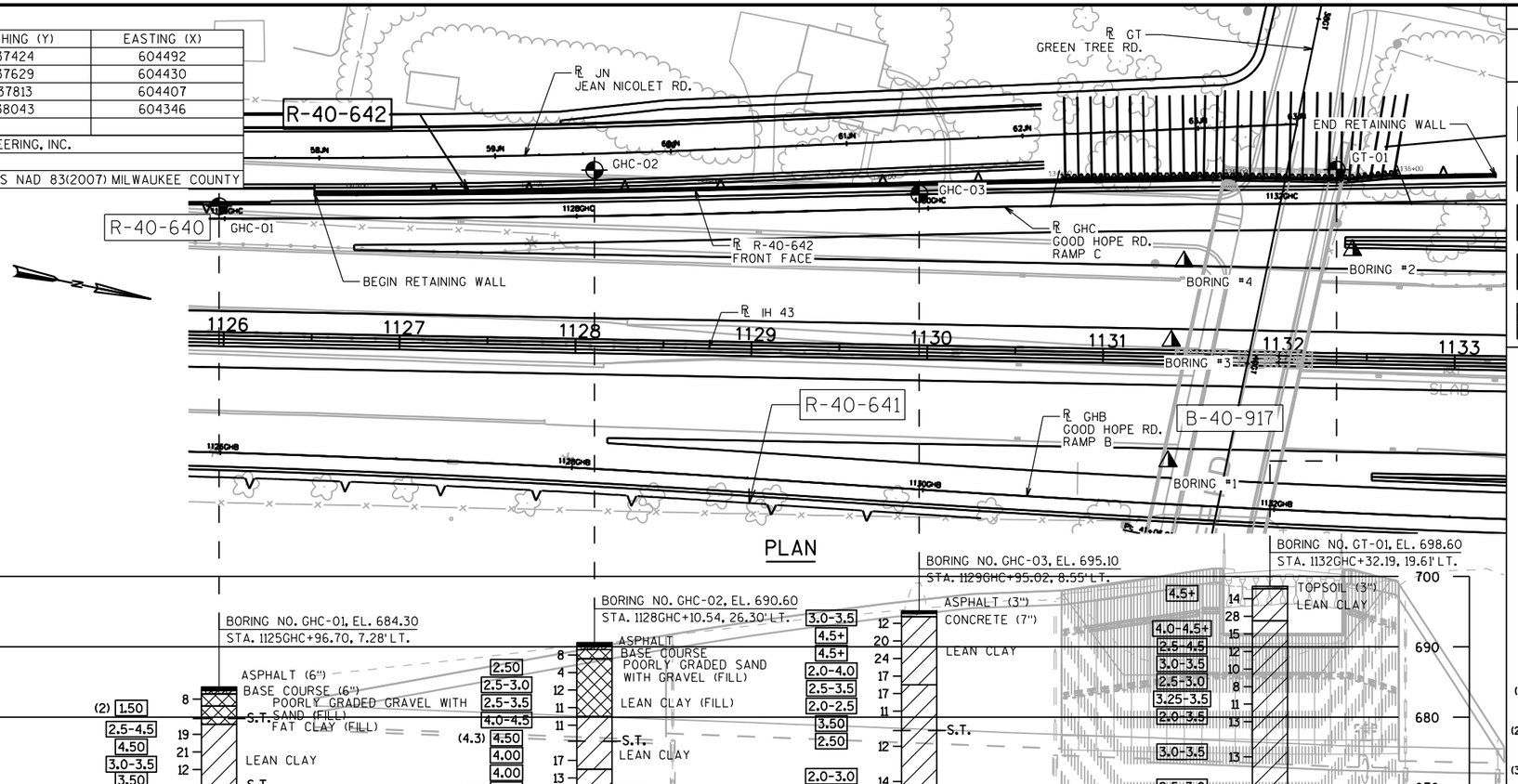
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

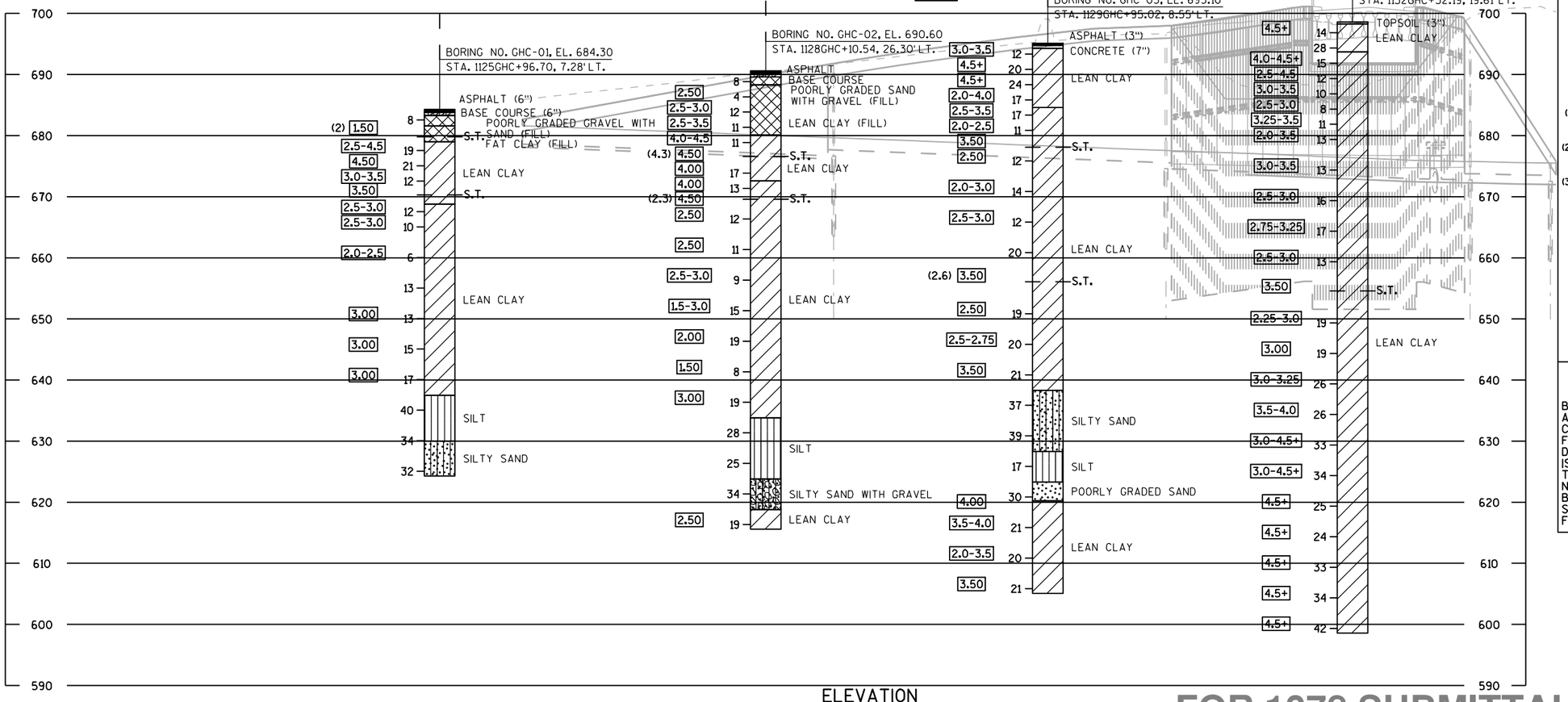
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DENOTES SOIL BORING LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

FOR 1078 SUBMITTAL

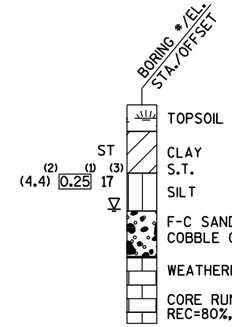
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-642

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SUBSURFACE EXPLORATION

SHEET 10 OF 10

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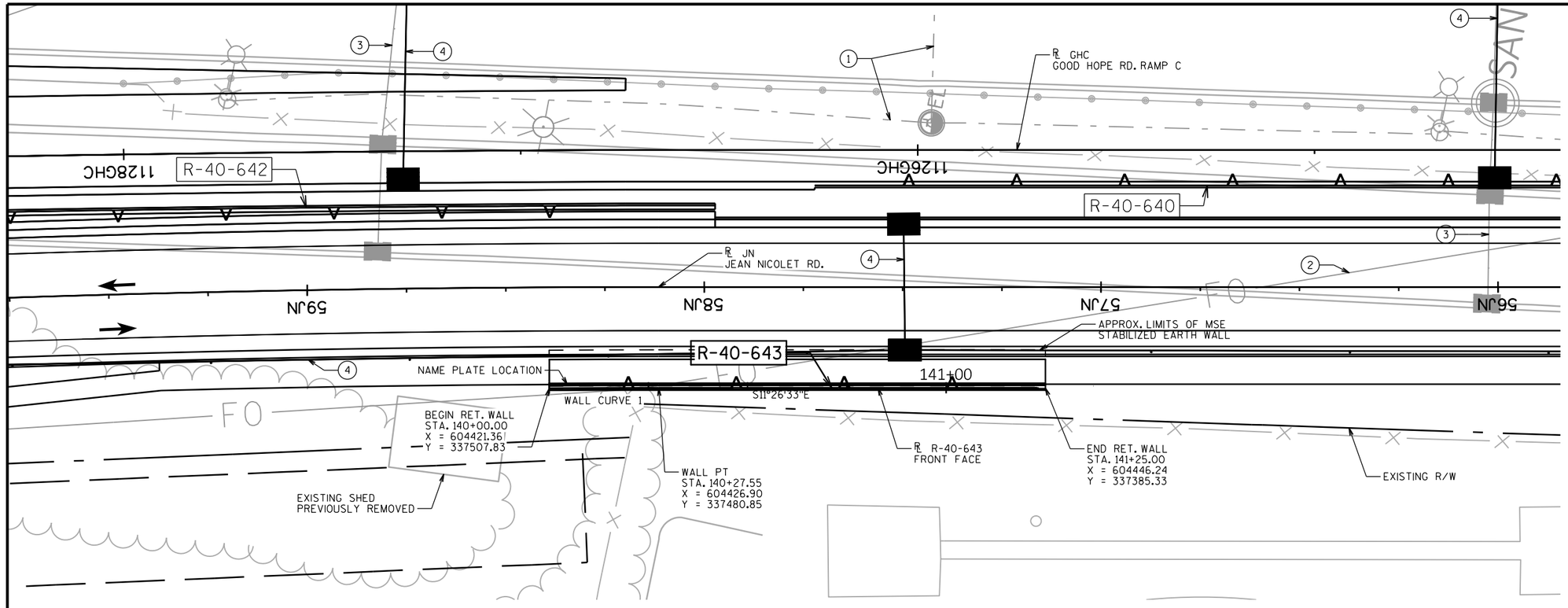
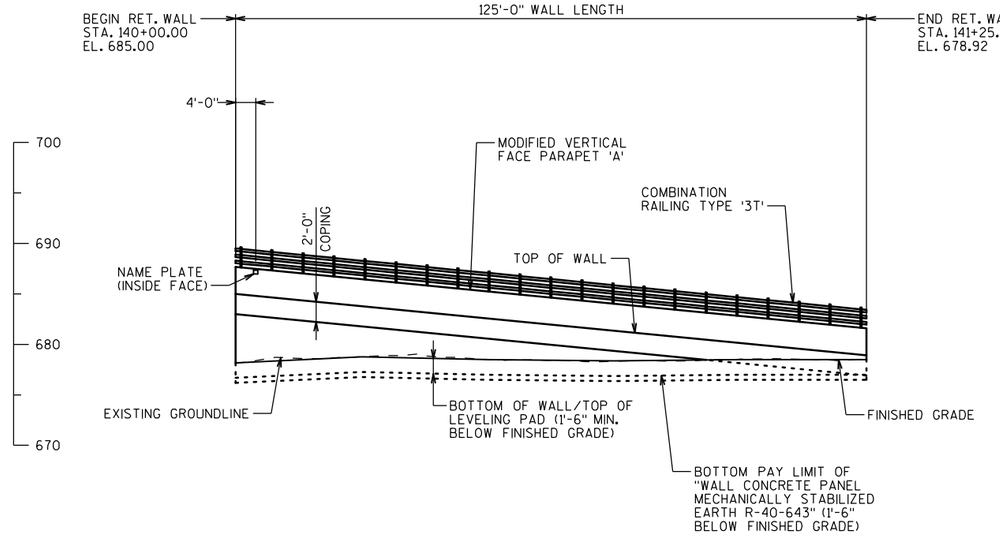


PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL NOTES & QUANTITIES
3. DESIGN DATA & PROFILE GRADE LINE
4. TYPICAL SECTION
5. PARAPET & ANCHOR SLAB DETAILS (1 OF 4)
6. PARAPET & ANCHOR SLAB DETAILS (2 OF 4)
7. PARAPET & ANCHOR SLAB DETAILS (3 OF 4)
8. PARAPET & ANCHOR SLAB DETAILS (4 OF 4)
9. COMBINATION RAILING TYPE '3T'
11. SUBSURFACE EXPLORATION

LEGEND

TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-643

WALL ALONG W. SIDE OF JEAN NICOLET RD.

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	HDA	NNM	EAJ

GENERAL PLAN & ELEVATION

SHEET 1 OF 11

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
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DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN THE MSE WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

MSE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST RESULTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES AND STORM SEWERS LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7 ½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 1'-6" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE ANCHOR SLAB, COPING AND PARAPET ARE PAID FOR UNDER ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACES OF THE PARAPET.

NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS". FABRICATE IN ACCORDANCE TO S.D.D. 12 A 3-10.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643".

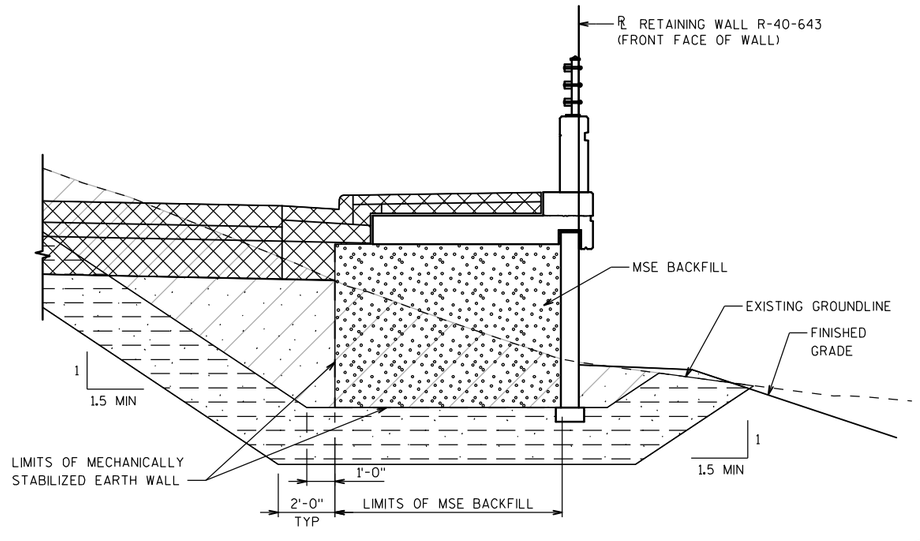
TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
513.4051	RAILING TUBULAR TYPE F	LF	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643	SF	-
	NON BID ITEMS		
	NAME PLATE	EACH	1
	CORK FILLER	SIZE	1"
	NON-BITUMINOUS JOINT SEALER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"
	RODENT SHIELD	EACH	-

ALL ITEMS ARE CATEGORY XXXX

WALL ELEVATIONS ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
140+00.00	685.00	678.17	678.17
140+25.00	683.78	678.77	678.78
140+27.55	683.66	678.74	678.84
140+50.00	682.57	678.50	678.51
140+75.00	681.35	678.36	678.34
141+00.00	680.13	678.50	678.53
141+25.00	678.91	678.50	678.50



TYPICAL WALL EXCAVATION LIMITS DIAGRAM
LOOKING SOUTH

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643".

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643".

ROADWAY ITEM - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

OVER-EXCAVATION - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-643

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GENERAL NOTES & QUANTITIES

SHEET 2 OF 11

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STATE PROJECT NUMBER
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MSE WALL SOIL PARAMETERS

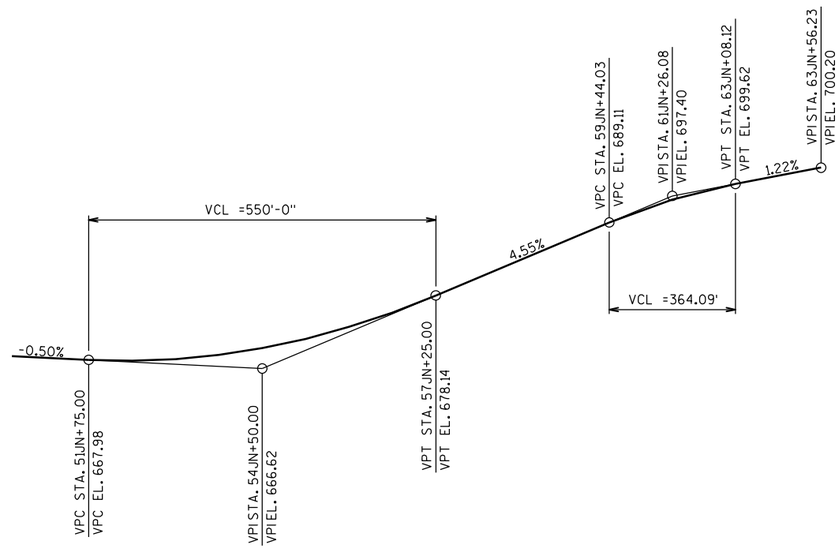
SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐ MSE WALL REINFORCED ZONE	120	30	--	30	0
RETAINED SOIL - GRANULAR	120	30	--	30	0
RETAINED SOIL - CLAY	130	0	1,500	30	0
FILL - POORLY GRADED SAND W GR	128	30	--	30	0
FILL - LEAN CLAY	128	0	2,500	28	0
LEAN CLAY	130	0	4,000	32	0
LEAN CLAY	130	0	2,500	32	0
SILT	135	36	--	36	0
SILTY SAND WITH GRAVEL	135	36	--	36	0
LEAN CLAY	130	0	2,500	32	0

◐ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET)		7.5
EXPOSED WALL HEIGHT (FEET)		6
◥ MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)		8
REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO		0.77
WALL STATION		141+50
BORING USED		GHC-02
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING		1.5
ECCENTRICITY		1.7
BEARING RESISTANCE		3.4
FACTORED BEARING RESISTANCE (PSF)		6,500
GLOBAL STABILITY	END OF CONSTRUCTION	8.8
	LONG-TERM	1.2

◥ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.



PROFILE GRADE LINE JEAN NICOLET RD.
℄ 'JN'

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL _____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT _____ Fy = 60,000 PSI

HORIZONTAL CURVE DATA

WALL CURVE 1

P.I. = 140+13.77
X = 604424.17
Y = 337494.35
Δ = 0° 19' 06.12"
D = 1° 09' 20.75"
T = 13.77'
L = 27.55'
R = 4957.40'
P.C. = 140+00.00
X = 604421.37
Y = 337507.83
P.T. = 140+27.55
X = 604426.90
Y = 337480.85

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-643

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DESIGN DATA & PROFILE GRADE LINE

SHEET 3 OF 11

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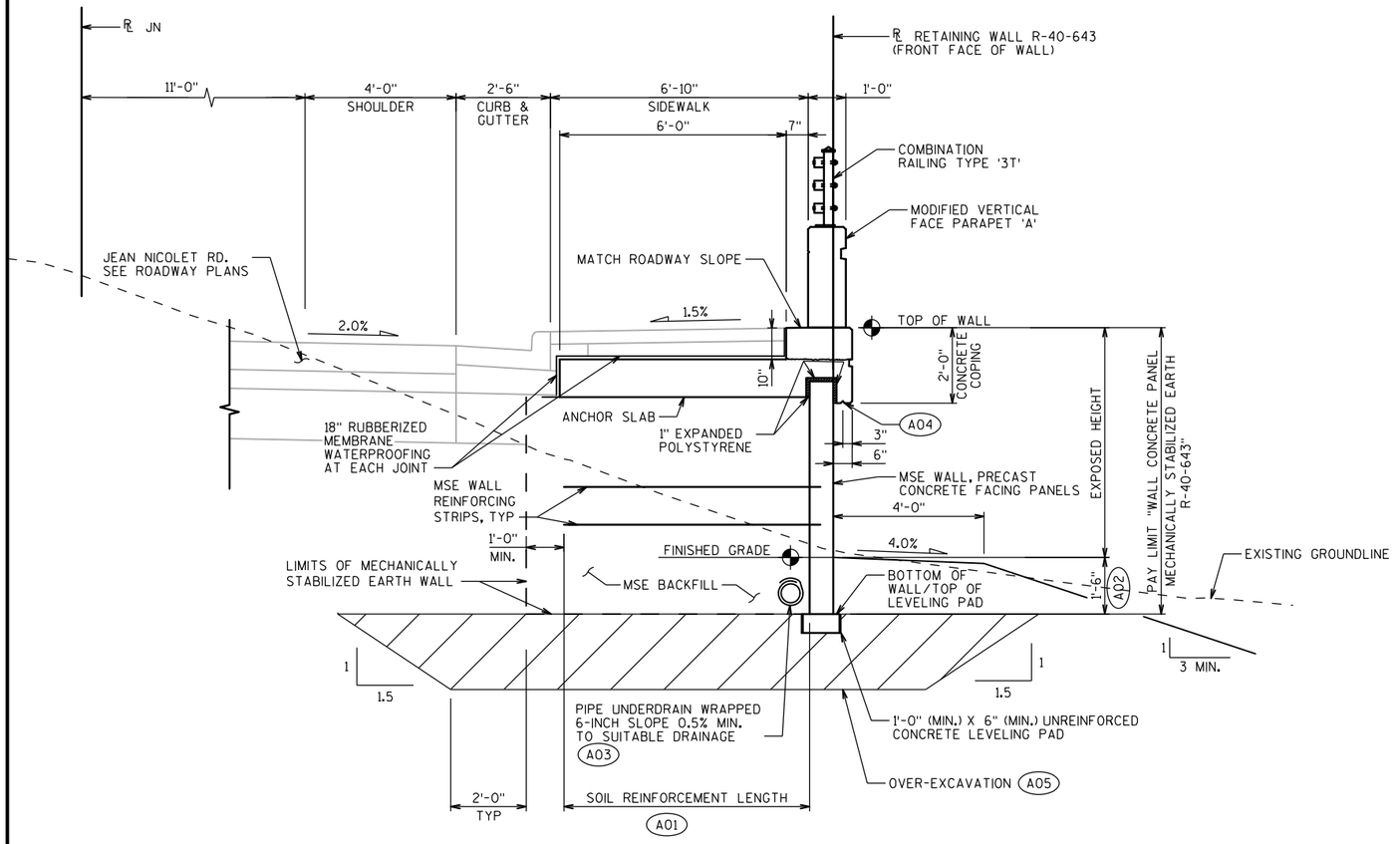

TYPICAL SECTION

LOOKING SOUTH
(ROADWAY AS SHOWN - STA 140+00.00 TO STA. 141+25.00)

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINE" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) CONNECT PIPE UNDERDRAIN WRAPPED TO INLET #XXXXX USING PIPE UNDERDRAIN UNPERFORATED. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

(A04) $\frac{3}{4}$" CONTINUOUS DRIP GROOVE, TERMINATE 2'-0" FROM END OF WALL

(A05) OVER-EXCAVATE TO 2' BELOW REINFORCED SOIL ZONE. EXTEND 2' LATERALLY IN ALL DIRECTIONS BEYOND THE REINFORCED SOIL ZONE. INCLUDED WITH EXCAVATION BELOW SUBGRADE. SEE ROADWAY PLANS FOR QUANTITY. (NOT A RETAINING WALL BID ITEM.)

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STRUCTURE R-40-643

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TYPICAL SECTION

SHEET 4 OF 11

8

8

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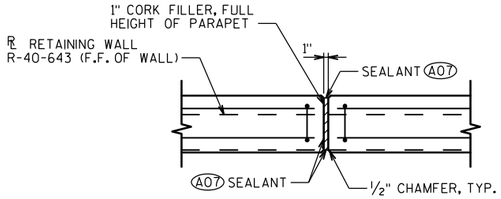
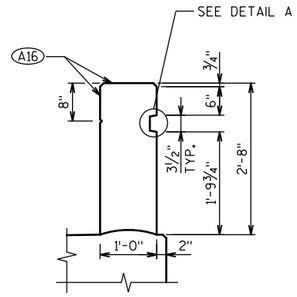
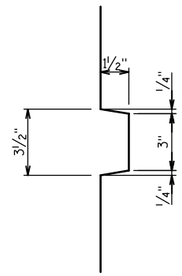


(A12) PARAPET EXPANSION JOINT



MODIFIED VERTICAL FACE PARAPET 'A' DIMENSIONS



DETAIL A

LEGEND

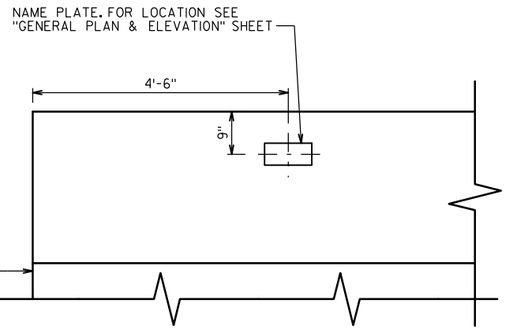
(A07) SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

(A12) EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20'-0" AND A MAXIMUM OF 30'-0". LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

(A16) APPLY PIGMENTED SURFACE SEALER.

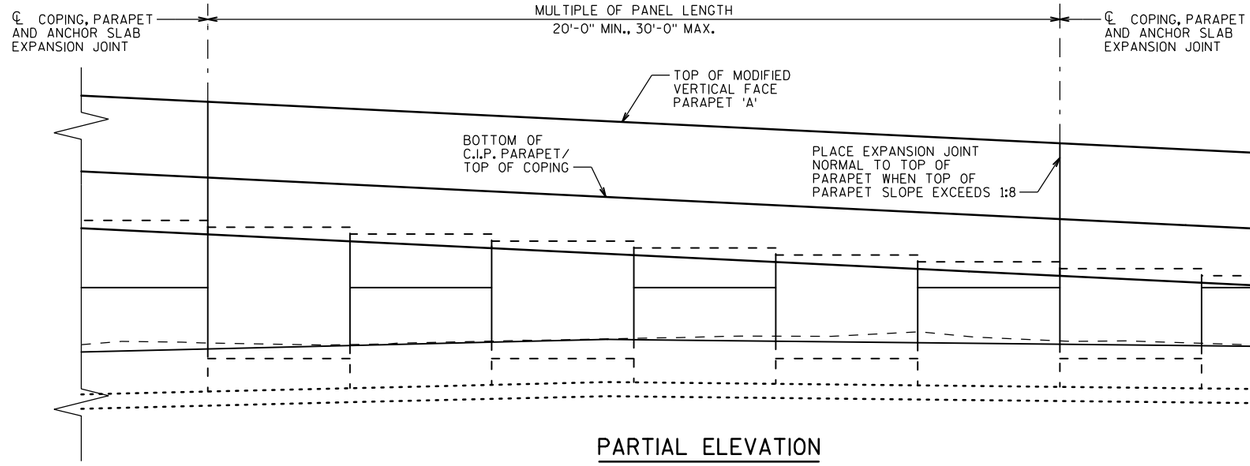
F.F. FRONT FACE

C.I.P. CAST-IN-PLACE



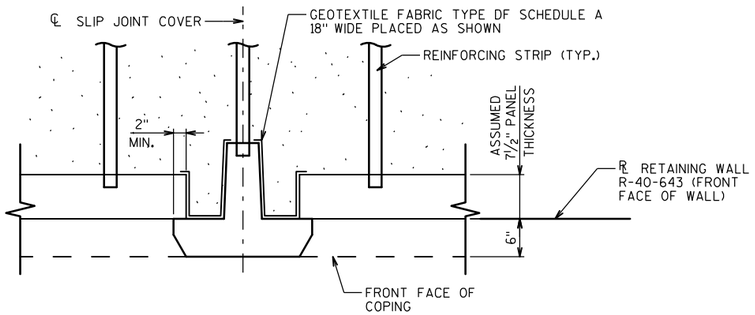
NAME PLATE LOCATION

INSIDE ELEVATION



PARTIAL ELEVATION

NOTE: ALL JOINTS SHALL BE LOCATED AS SHOWN AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE. (RAILING NOT SHOWN)



SLIP JOINT COVER DETAIL

SLIP JOINT COVER AND GEOTEXTILE FABRIC TYPE DF SCHEDULE A INCIDENTAL TO "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-643"

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PARAPET & ANCHOR SLAB DETAILS (1 OF 4)

SHEET 5 OF 11

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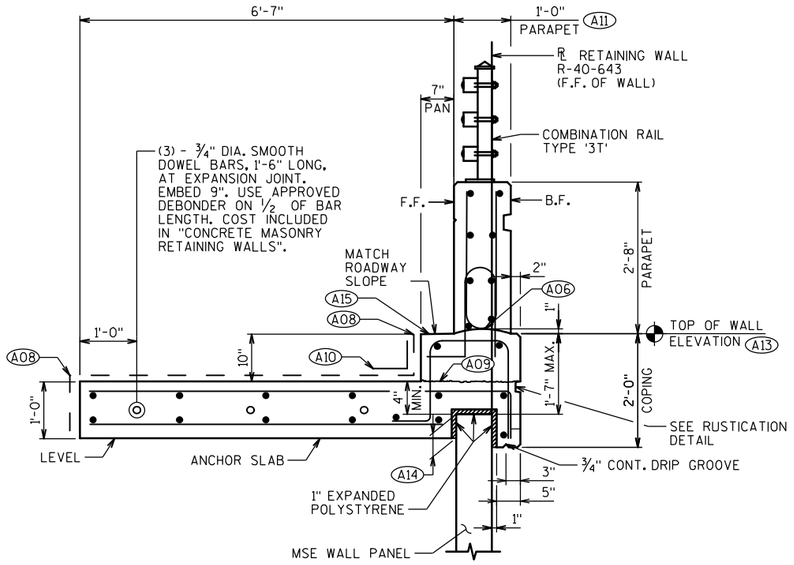
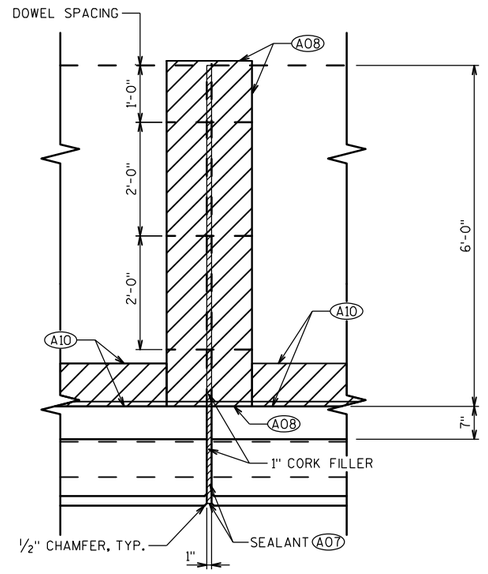


C.I.P. MODIFIED VERTICAL FACE PARAPET 'A'/ ANCHOR SLAB DETAIL FOR 7" PAN FOR PRECAST WALL PANELS

- OPTIONAL CONSTRUCTION JOINTS IN THE PARAPET AND ANCHOR SLAB BETWEEN EXPANSION JOINTS MAY BE USED.
- RUN BAR REINFORCEMENT THROUGH THE JOINT.
- MINIMUM LAP LENGTH OF PARAPET BARS = 1'-9".
- MINIMUM LAP LENGTH OF ANCHOR SLAB LONGITUDINAL #4 BARS = 1'-0".
- DEFINE CONSTRUCTION JOINT WITH ¾" "V" GROOVE.
- CONCRETE QUANTITY BASED ON 3" PANEL EMBEDMENT.



A12 ANCHOR SLAB EXPANSION JOINT DETAILS

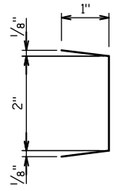
PLAN VIEW

LEGEND

- A06 CONSTRUCTION JOINT - STRIKE OFF AS SHOWN.
- A07 SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)
- A08 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- A09 OPTIONAL CONSTRUCTION JOINT. LEAVE SURFACE ROUGHENED.
- A10 IF THE OPT. CONST. JOINT IS USED, PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONSTRUCTION JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.
- A11 SEE MODIFIED MODIFIED VERTICAL FACE PARAPET 'A' DIMENSIONS DETAIL ON "PARAPET & ANCHOR SLAB DETAILS (1 OF 4)" SHEET.
- A12 EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20'-0" AND A MAXIMUM OF 30'-0". LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.
- A13 SEE "GENERAL NOTES & QUANTITIES" SHEET FOR ELEVATION INFORMATION.
- A14 3" MIN., 6" MAX.
- A15 APPLY PROTECTIVE SURFACE TREATMENT TO HORIZONTAL EXPOSED SURFACE.
- E.F. EACH FACE
- F.F. FRONT FACE
- B.F. BACK FACE
- C.I.P. CAST-IN-PLACE

NOTE

FOR REINFORCEMENT DETAILS AND BILL OF BARS SEE "PARAPET & ANCHOR SLAB DETAILS (3 OF 4)" AND "PARAPET & ANCHOR SLAB DETAILS (4 OF 4)" SHEETS.



RUSTICATION DETAIL

PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED.

8

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PARAPET & ANCHOR SLAB DETAILS (2 OF 4)

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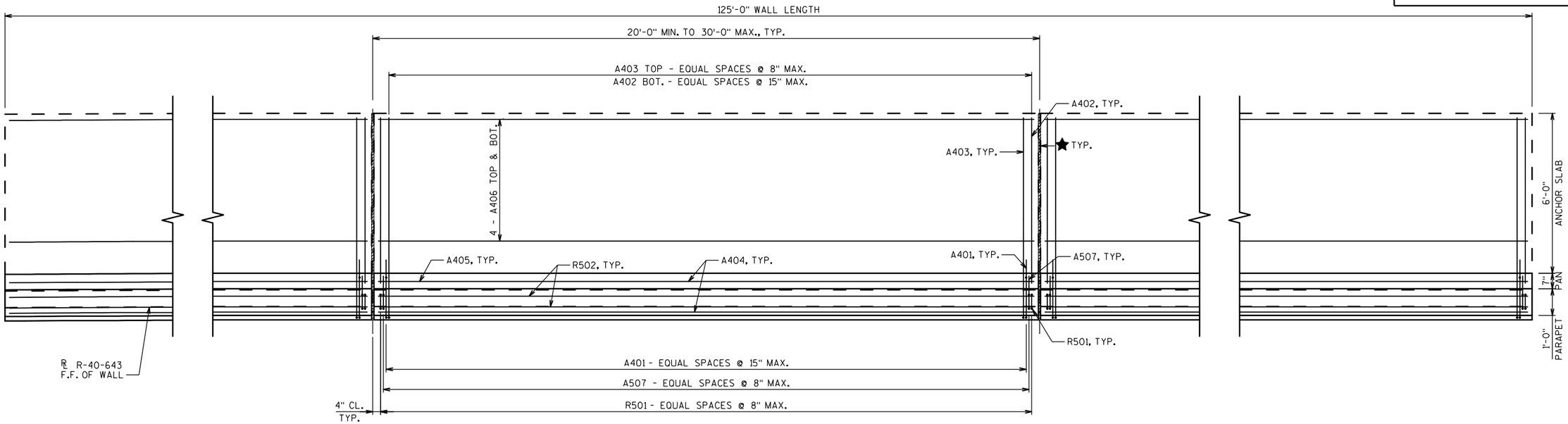
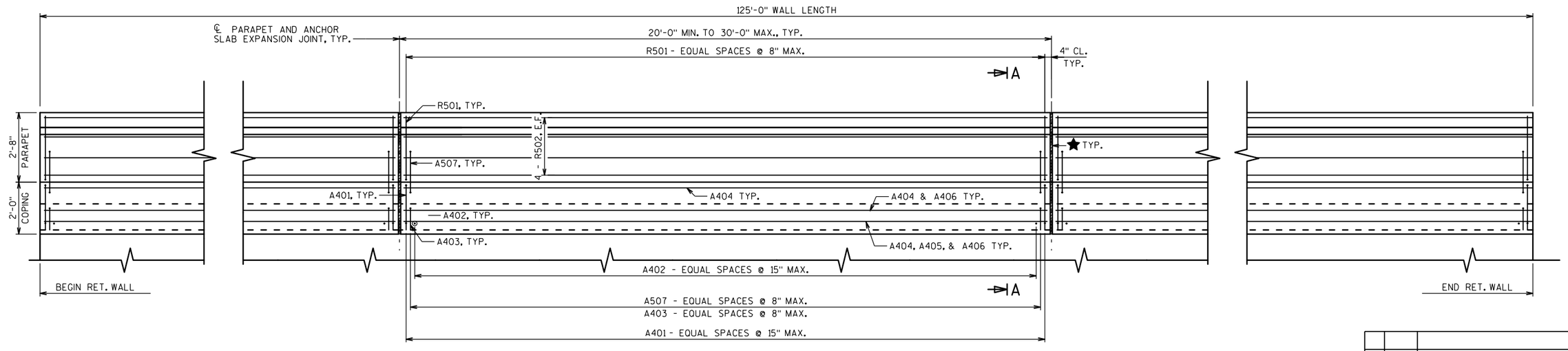


PLAN

DIMENSIONS ALONG ℄ R-40-643



ELEVATION

DIMENSIONS ALONG ℄ R-40-643 - LOOKING AT FRONT FACE OF WALL

LEGEND

★ 1" CORK FILLER

E.F. EACH FACE

NOTES

FOR BILL OF BARS AND SECTION A-A SEE "PARAPET & ANCHOR SLAB DETAILS (4 OF 4)" SHEET.

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PARAPET & ANCHOR SLAB DETAILS (3 OF 4)

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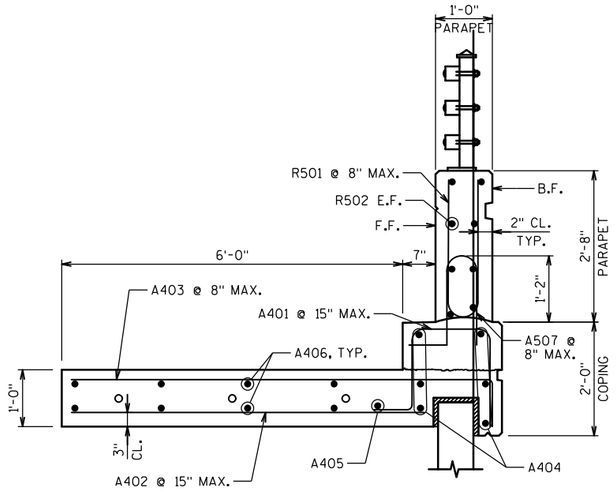
BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	SERIES	NOTE	LOCATION
A401	X	100	4'-9"	X	⚠		COPING - VERT. TIE
A402	X	100	6'-4"		⚠		ANCHOR SLAB - TRANS. BOT.
A403	X	188	8'-2"	X			ANCHOR SLAB - TRANS. TOP
A404	X	6	124'-7"			④	ANCHOR SLAB & COPING - HORIZ.
A405	X	1	124'-8"			④	ANCHOR SLAB & COPING - HORIZ.
A406	X	8	125'-0"		⚠	④	ANCHOR SLAB & COPING - HORIZ.
A507	X	188	4'-4"	X	⚠		PARAPET/COPING - VERT. TIE
R501	X	188	4'-9"	X			PARAPET - VERT. TIE
R502	X	8	124'-7"			④	PARAPET - HORIZ.

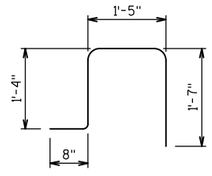
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NOTE

④ LENGTH SHOWN FOR BAR IS OVERALL LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. THE NUMBER REQUIRED IS THE BARS IN THE CROSS SECTION AND BARS SHALL BE CUT OR PROVIDED AS NEEDED FOR EXPANSION JOINTS.



SECTION A-A



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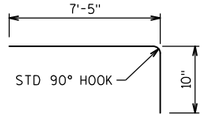
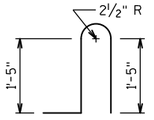


A403



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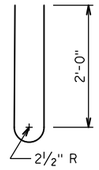

R501

LEGEND

F.F. FRONT FACE

B.F. BACK FACE

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PARAPET & ANCHOR SLAB DETAILS (4 OF 4)

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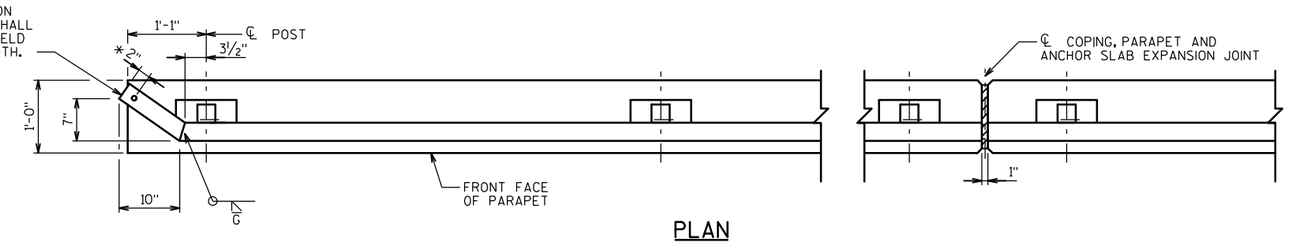
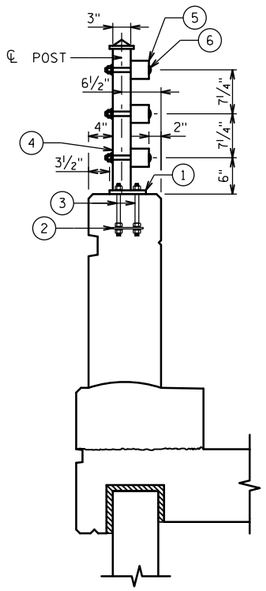
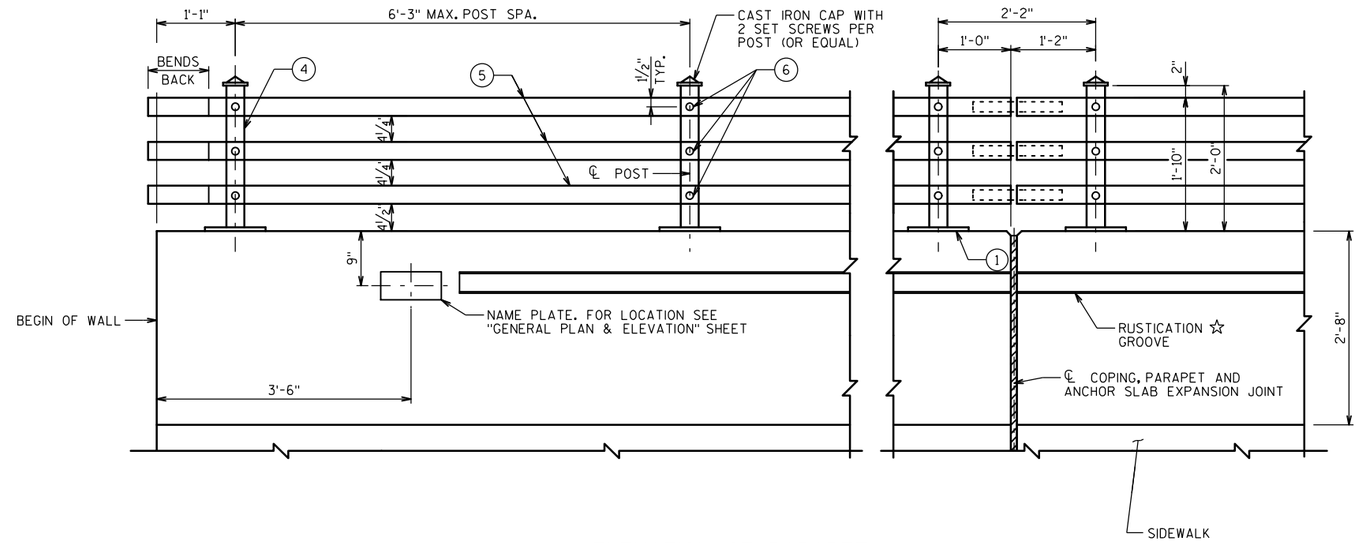
CLOSURE ENDS ON STEEL RAILING SHALL BE 3/16" PLATE. WELD AND GRIND SMOOTH.



PLAN

* ¾" DIA. DRAIN HOLE IN BOTTOM OF ALL TUBES.





ELEVATION OF PARAPET

☆END RUSTICATION GROOVE 3" FROM NAME PLATE. OTHERWISE RUN TO END OF PARAPET.

END VIEW

* ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING AND BEAM GUARD.

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☑ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

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COMBINATION RAILING TYPE "3T"

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHC-01	JULY 3, 2014	337424	604492
GHC-02	JULY 2, 2014	337629	604430
GHC-03	APRIL 9, 2014	337813	604407

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.

NOTE:

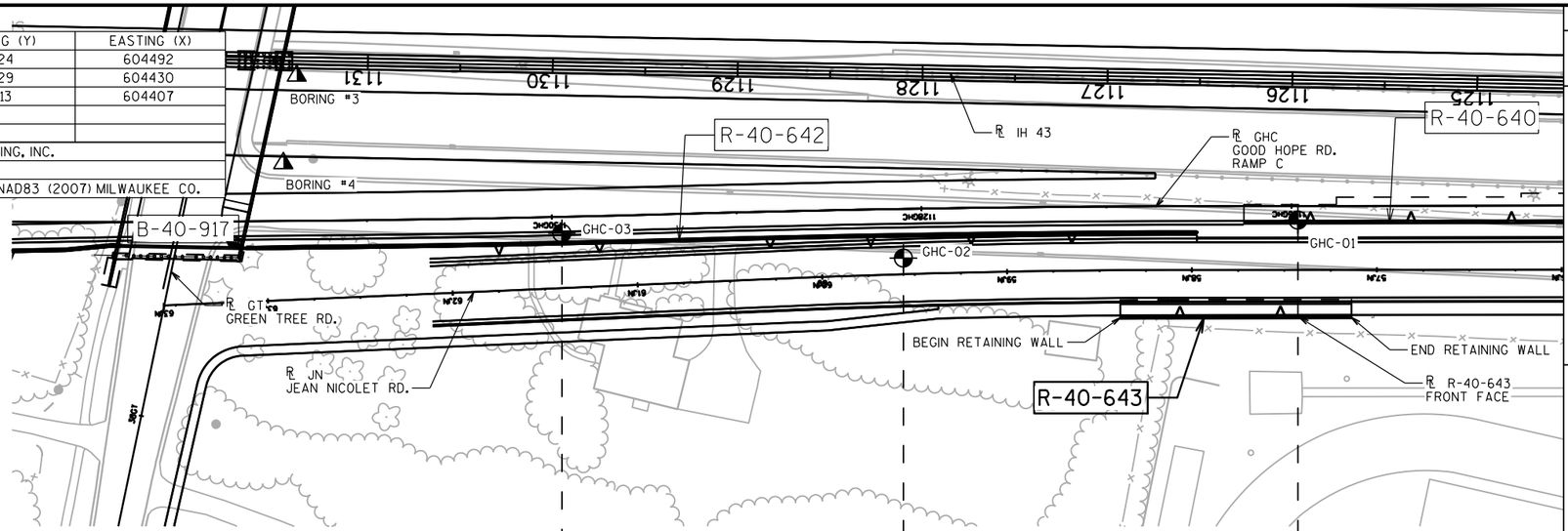
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

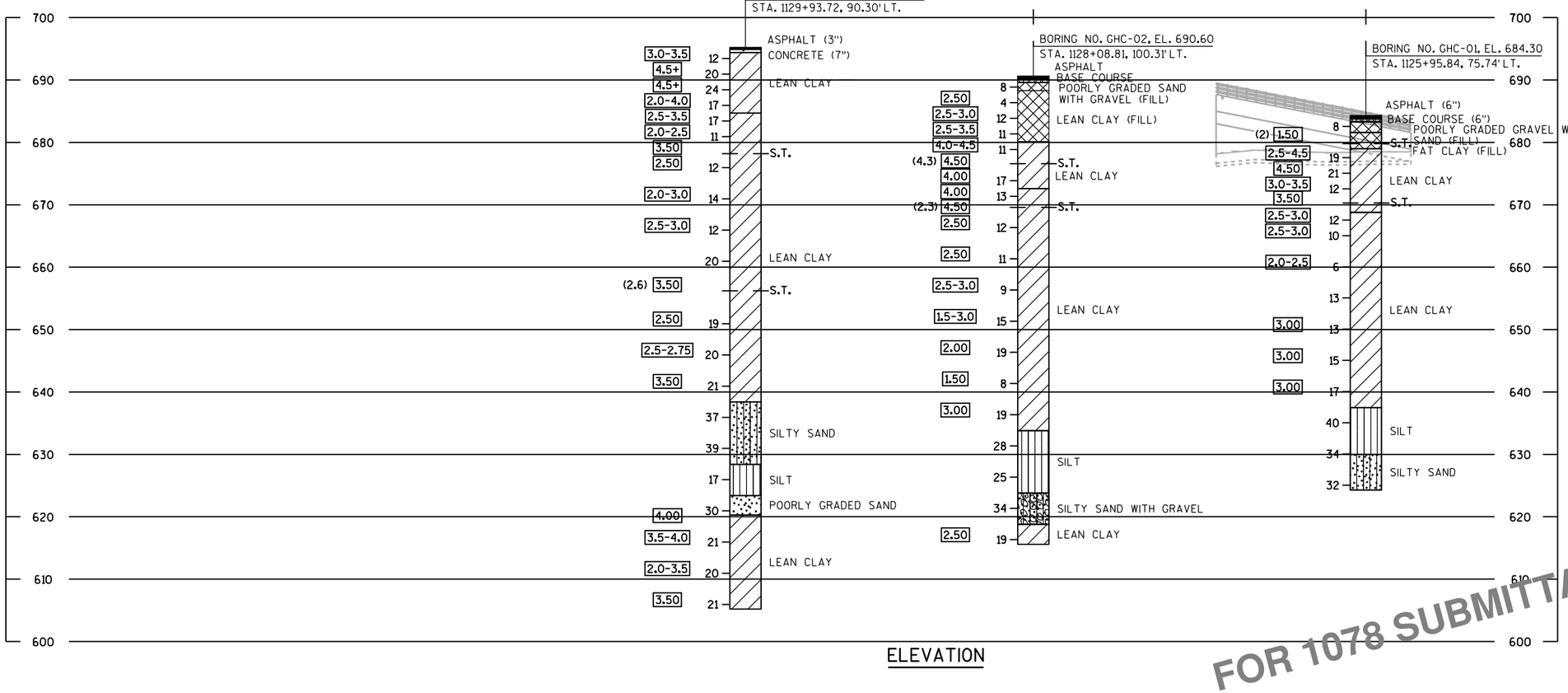
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DENOTES SOIL BORING LOCATION

DENOTES HISTORICAL BORING



PLAN



ELEVATION

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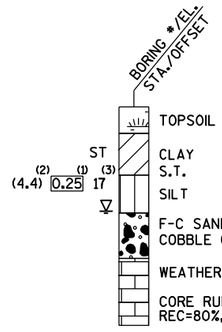
MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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SUBSURFACE EXPLORATION

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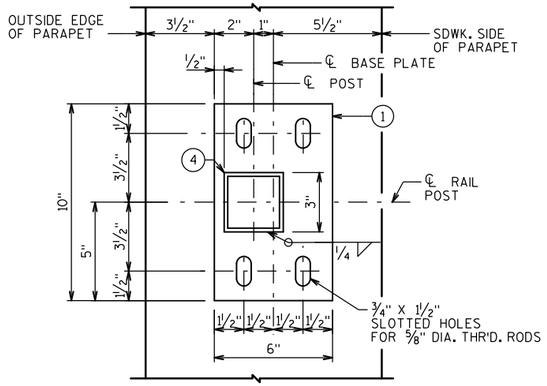
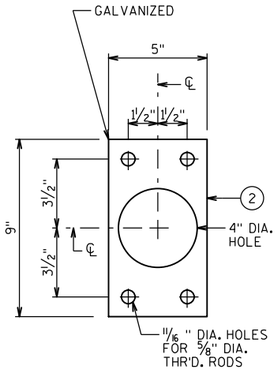
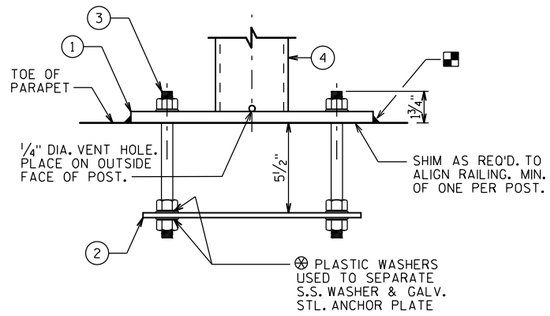


TYPICAL RAIL POST BASE PLATE

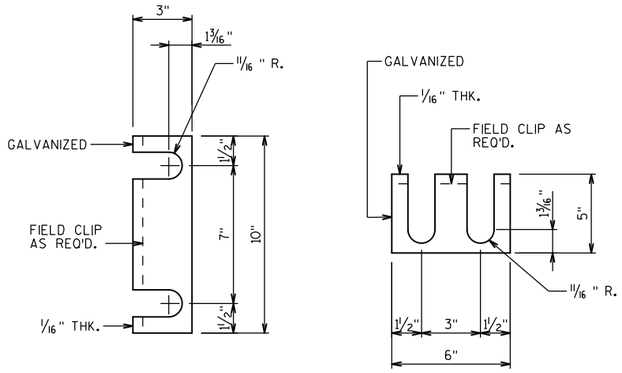


ANCHOR PLATE



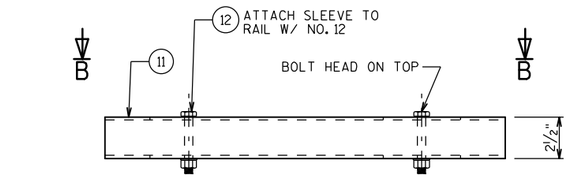
ANCHORAGE FOR RAIL POSTS

☆NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



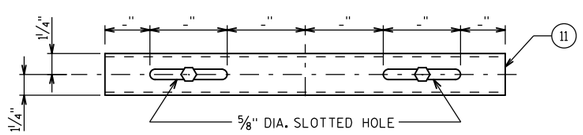
RAIL POST SHIM DETAIL

(2 SETS PER POST)



ELEVATION

(USE FOR EACH RAIL MEMBER)

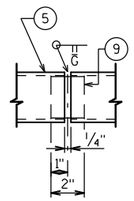


SECTION B-B

SLEEVE DETAIL

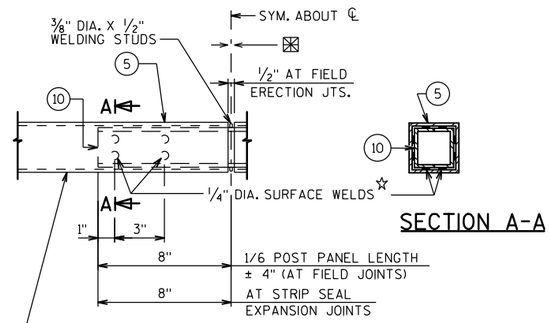
(AT MODULAR EXP. JT.)

NOTE: CONSTRUCT BOTTOM RAIL AND SLEEVE CONNECTION FIRST, THEN MIDDLE RAIL, AND THEN TOP RAIL, TO ALLOW EASE IN PLACEMENT OF BOLT NO. 12.



SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

⊠ RDWY OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT AND ½" OPENING FOR A1 ABUTMENTS

LEGEND

(1) BASE PLATE ⅝" X 6" X 10" WITH ¾" X 1½" SLOTTED HOLES FOR THR'D RODS NO. 3. WELD TO NO. 4 AS SHOWN. SLOTS PARALLEL TO LONG SIDE OF PLATE.

(2) ¼" X 5" X 9" ANCHOR PLATE (GALVANIZED) WITH 11/16 " DIA. HOLES FOR THR'D. RODS NO. 3.

(3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ☆

(4) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS, PLACE VERTICAL. WELD TO NO. 1, AND USE 1" DIA. HOLES (FRONT AND BACK) FOR BOLT NO. 6.

(5) STRUCTURAL TUBING 3" X 3" X 3/16" RAILS, WITH 11/16 " DIA. HOLES (FRONT AND BACK) FOR BOLT NO. 6. BOLT TO NO. 4.

(6) ⅝" DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT, 3/16" X 1½" X 1½" WASHER, AND LOCK WASHER.

(9) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(10) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)

(11) SLEEVE FABRICATED FROM STRUCTURAL TUBING 2½" X 2½" X 3/16" X '- " LONG. SLOTTED HOLES IN TOP AND BOTTOM.

(12) ½" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.

☆ ALTERNATIVE ANCHORAGE: 4 EQUIVALENT STAINLESS STEEL CONCRETE ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE 3T", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ENDS OF STRUCTURAL TUBING SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATE NO. 1, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

▪ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

PAINT OVER GALVANIZING (EXCEPT NO. 2) WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. ▭, ▭ (FILL IN COLOR NAME).

INSIDE OF TUBES TO BE PAINTED AT ALL FIELD ERECTION AND EXPANSION JOINTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-643

DRAWN BY NNM | PLANS CK'D. EAJ

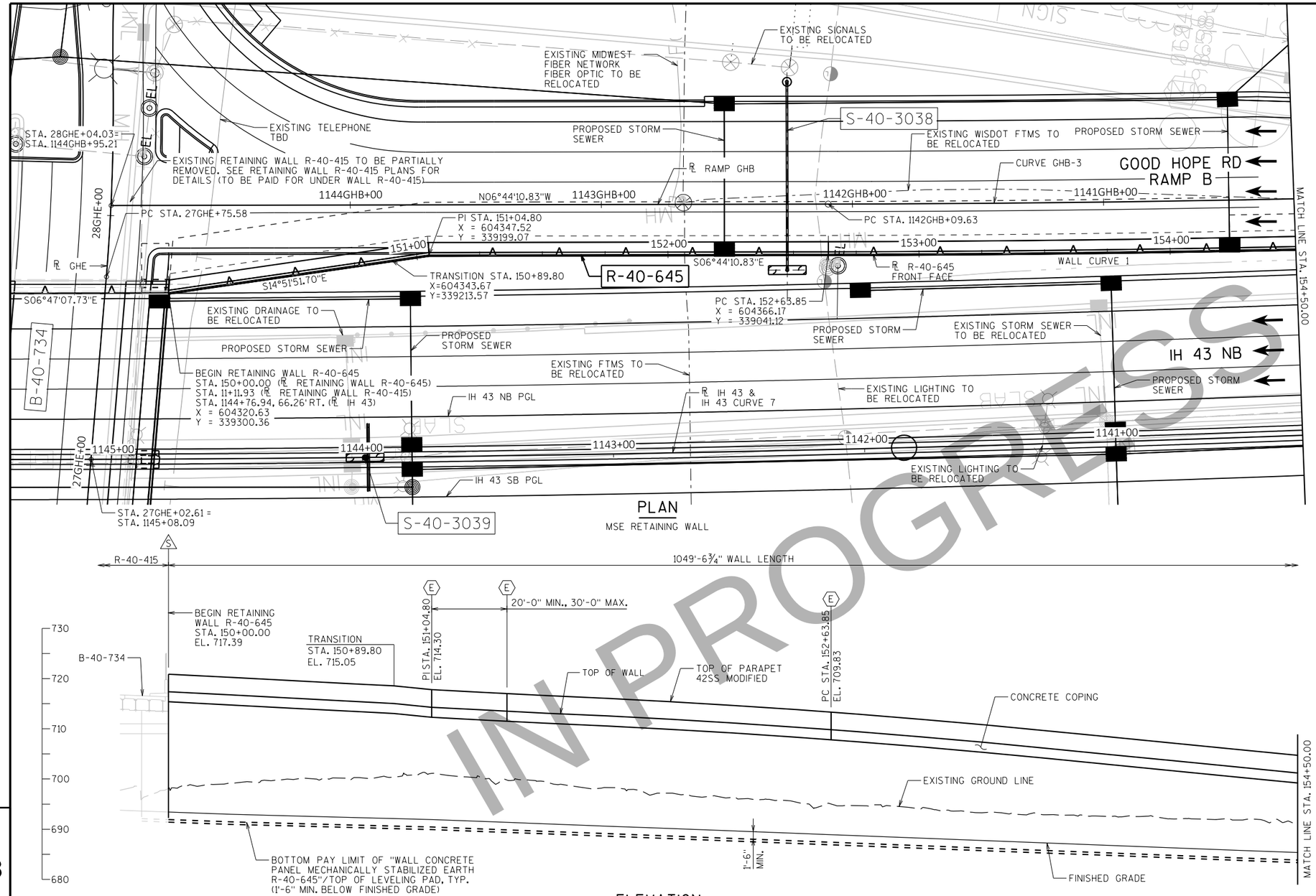
COMBINATION RAILING TYPE "3T" DETAILS

SHEET 10 OF 11

FOR 1078 SUBMITTAL

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-643\cds\R643_080206_rp.dgn
PLOT DATE : 8/13/2021 8:26:06 AM PLOT BY : nmeisner
PLOT SCALE : 2.08333:1



PLAN

MSE RETAINING WALL

ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

STATE PROJECT NUMBER

1229-04-73

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

LEGEND

- DIRECTION OF TRAFFIC
- (E) EXPANSION JOINT
- (S) VERTICAL SLIP JOINT

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. TYPICAL SECTIONS
4. GENERAL NOTES & QUANTITIES
5. PROFILE GRADE LINES & DESIGN DATA
6. SUBSURFACE EXPLORATION
7. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-645

RETAINING WALL EAST OF IH 43 AT GOOD HOPE RD

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION (1 OF 2)

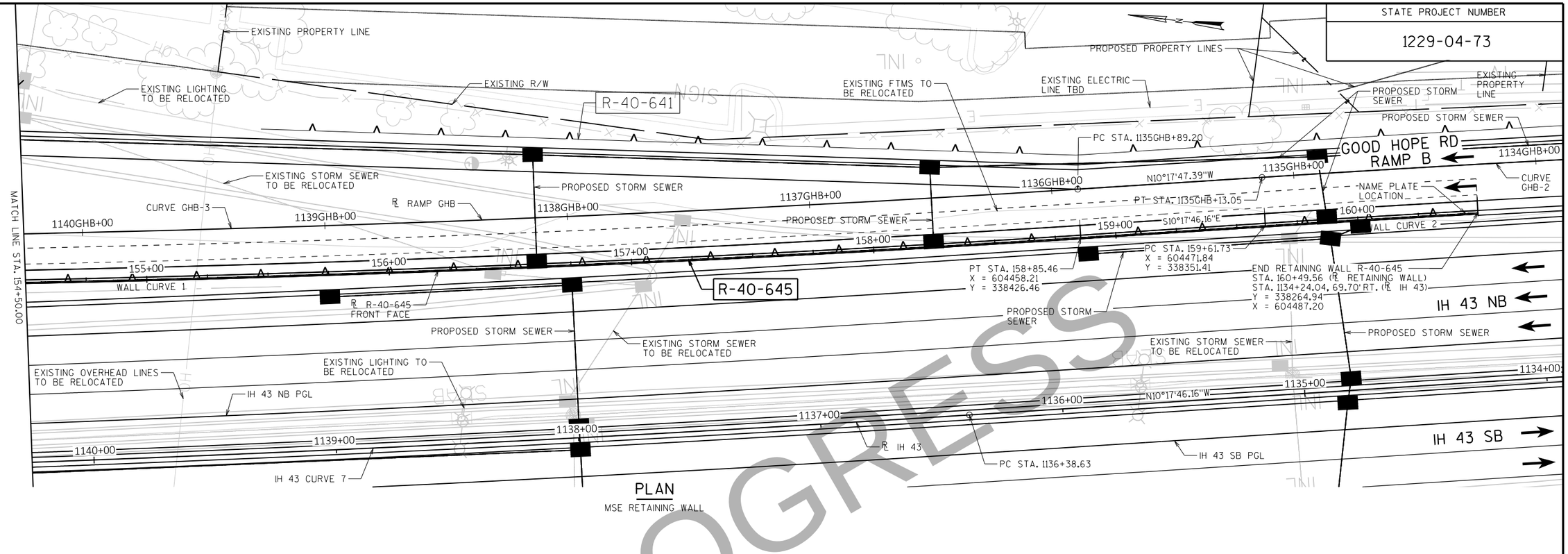
SHEET 1 OF 7

PRELIMINARY PLANS

IN PROGRESS

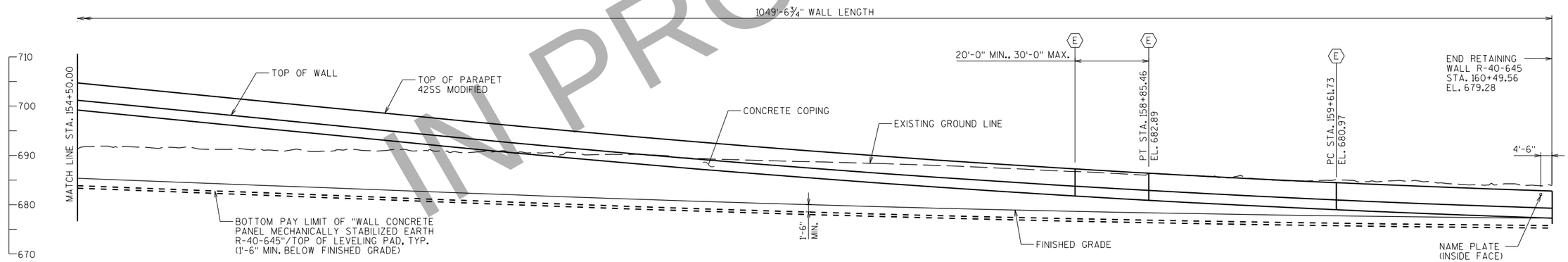
STATE PROJECT NUMBER

1229-04-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST

(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

LEGEND

→ DIRECTION OF TRAFFIC

(E) EXPANSION JOINT

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 7

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231169\R645_080102_gp2.dgn

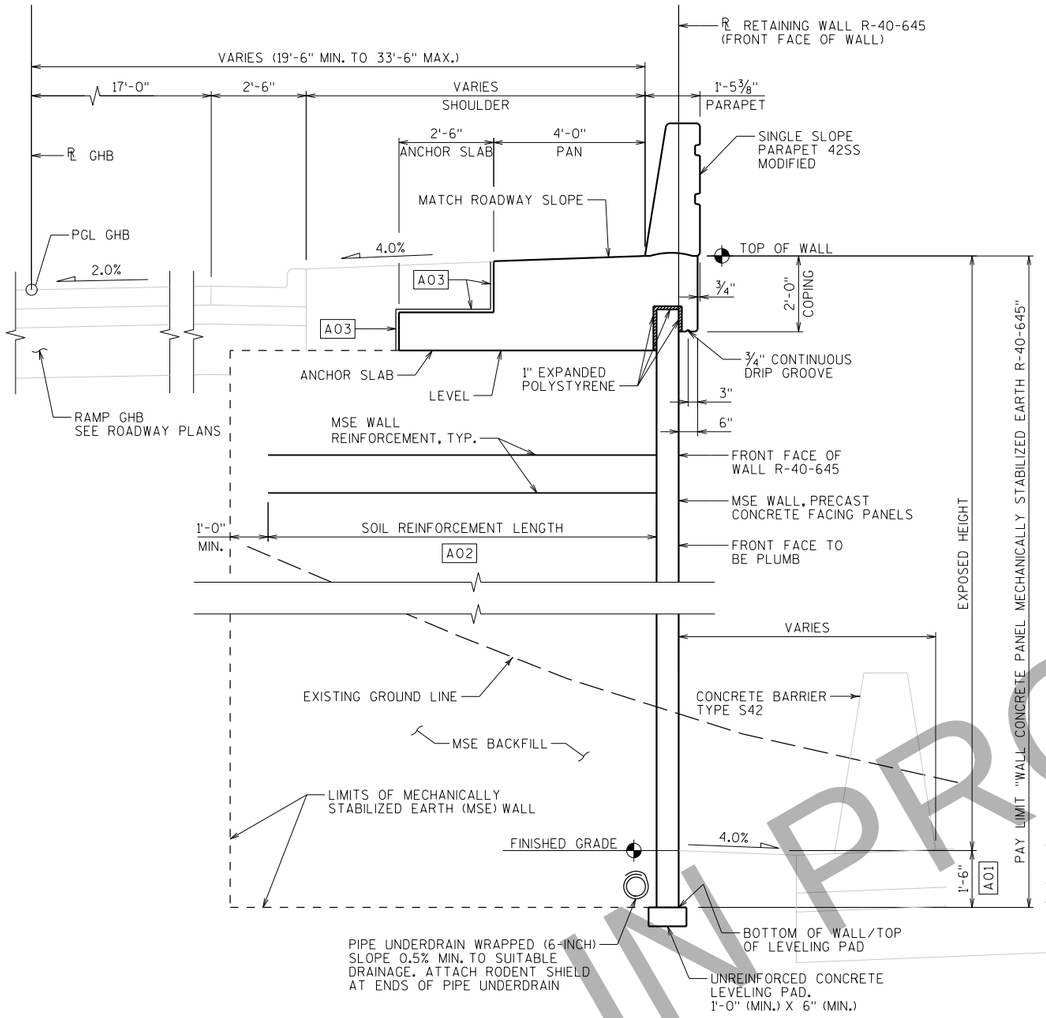
PLOT DATE : 9/28/2021

PLOT BY : sconnolly

PLOT NAME : $FILE$

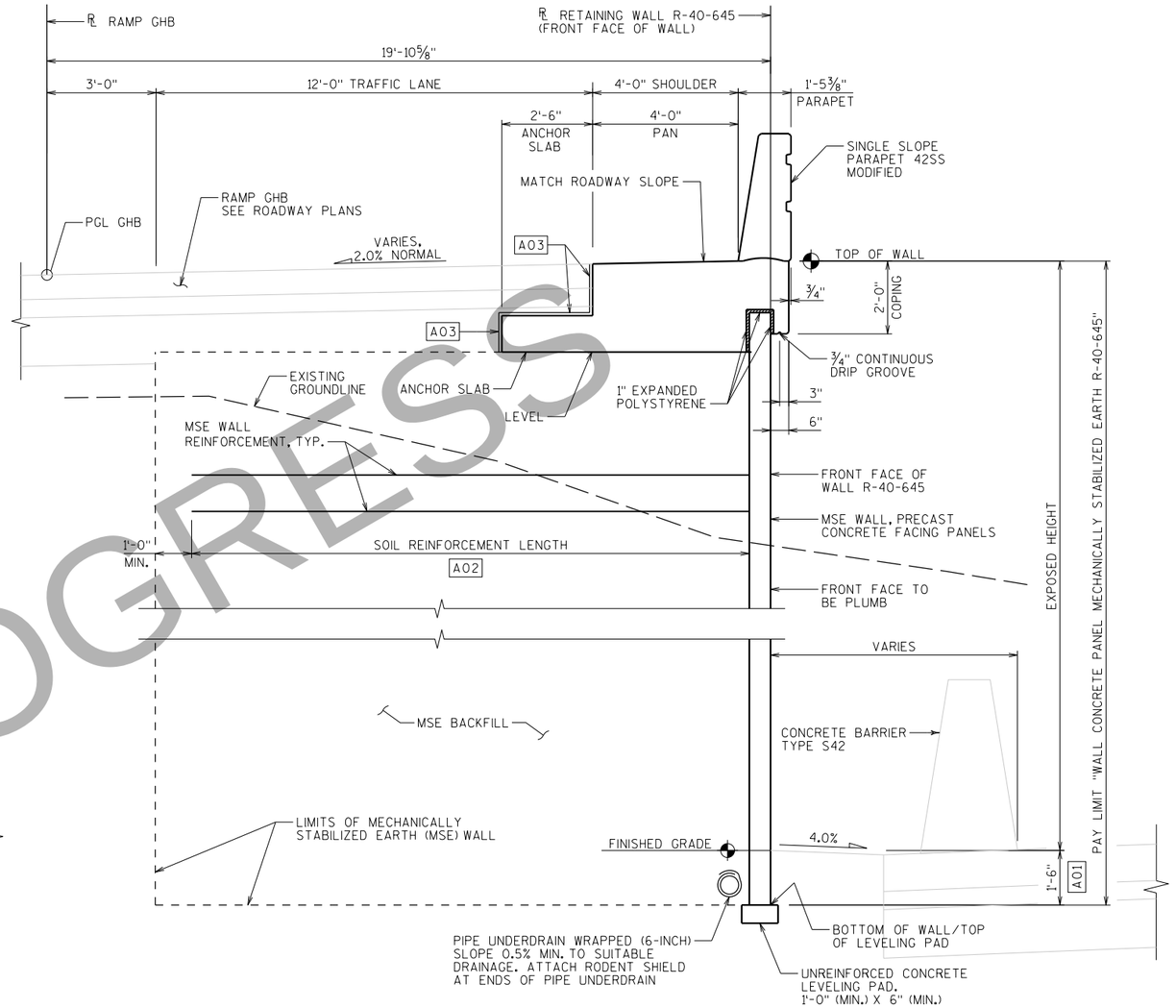
PLOT SCALE : 1:43.3333

STATE PROJECT NUMBER
1229-04-73



TYPICAL WALL SECTION

LOOKING SOUTH
WALL STA. 150+00.00 TO WALL STA. 151+04.80



TYPICAL WALL SECTION

LOOKING SOUTH
WALL STA. 151+04.80 TO WALL STA. 160+49.56

IN PROGRESS

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTIONS

SHEET 3 OF 7

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-645".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-645".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-645".

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-645 WITH THE EAST ABUTMENT OF BRIDGE B-40-734 AND THE PROPOSED MSE RETAINING WALL EXTENSION OF R-40-415.

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" & "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-645" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 1'-6" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

PRECAST PANELS ARE TO BE 5'-0" X 5'-0" TO MATCH EXISTING WALL R-40-415.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-645	SF	-
	NON-BID ITEMS		
	NAME PLATE	EACH	-
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 4 OF 7

8

8

STATE PROJECT NUMBER
1229-04-73

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

HORIZONTAL CURVE DATA

WALL CURVE 1
PI = STA. 155+74.75
Y = 338732.36
X = 604402.64
DELTA = 03°33'35"
D = 00°34'22"
T = 310.91'
L = 621.61'
R = 10004.95'
PC = STA. 152+63.85
Y = 339041.12
X = 604366.17
PT = STA. 158+85.46
Y = 338426.46
X = 604458.21

WALL CURVE 2
PI = STA. 160+05.65
Y = 338308.21
X = 604479.69
DELTA = 00°27'15"
D = 00°31'02"
T = 43.91'
L = 87.83'
R = 11080.05'
PC = STA. 159+61.73
Y = 338351.41
X = 604471.84
PT = STA. 160+49.56
Y = 338264.94
X = 604487.20

IH 43 CURVE 7
PI STA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 04°24'12"
D = 00°24'13"
T = 545.91'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64

CURVE GHB-2
PI = STA. 1132GHB+54.07
Y = 338100.15
X = 604537.77
DELTA = 02°40'27"
D = 00°30'58"
T = 259.08'
L = 518.06'
R = 11100.00'
PC = STA. 1129GHB+95.00
Y = 337843.36
X = 604572.13
PT = STA. 1135GHB+13.05
Y = 338355.05
X = 604491.46

CURVE GHB-3
PI = STA. 1139GHB+99.51
Y = 338735.28
X = 604422.38
DELTA = 03°33'37"
D = 00°34'26"
T = 310.32'
L = 620.43'
R = 9985.00'
PC = STA. 1135GHB+89.20
Y = 338429.97
X = 604477.85
PT = STA. 1142GHB+09.63
Y = 339043.46
X = 604385.98

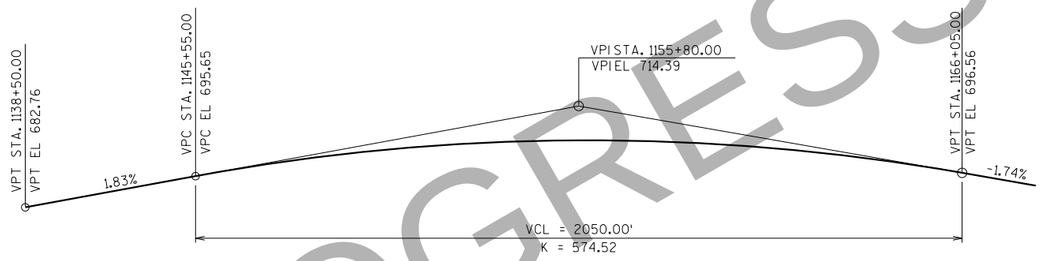
WALL ELEVATIONS ◥

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1144+76.94, 66.26' RT	150+00.00	717.39	693.41
1144+52.06, 69.70' RT	150+25.00	716.74	692.96
1144+27.17, 73.09' RT	150+50.00	716.09	692.64
1144+02.26, 76.44' RT	150+75.00	715.43	692.32
1143+87.51, 78.40' RT	150+89.80	715.05	692.13
1143+77.35, 79.74' RT	151+00.00	714.54	691.99
1143+72.56, 80.37' RT	151+04.80	714.30	691.93
1143+52.25, 80.15' RT	151+25.00	713.77	691.55
1143+27.11, 79.83' RT	151+50.00	713.12	691.08
1143+01.97, 79.47' RT	151+75.00	712.56	690.60
1142+76.83, 79.06' RT	152+00.00	711.90	690.13
1142+51.70, 78.61' RT	152+25.00	711.16	689.65
1142+26.56, 78.11' RT	152+50.00	710.32	689.17
1142+12.64, 77.82' RT	152+63.85	709.83	688.90
1142+01.43, 77.58' RT	152+75.00	709.40	688.69
1141+76.30, 77.05' RT	153+00.00	708.39	688.21
1141+51.17, 76.55' RT	153+25.00	707.29	687.73
1141+26.04, 76.06' RT	153+50.00	706.11	687.25
1141+00.91, 75.59' RT	153+75.00	704.88	686.77
1140+75.78, 75.13' RT	154+00.00	703.65	686.30
1140+50.65, 74.70' RT	154+25.00	702.42	685.82
1140+25.52, 74.28' RT	154+50.00	701.19	685.34
1140+00.39, 73.88' RT	154+75.00	699.97	684.87
1139+75.27, 73.51' RT	155+00.00	698.74	684.39
1139+50.14 73.14' RT	155+25.00	697.51	683.92
1139+25.01, 72.80' RT	155+50.00	696.28	683.45
1138+99.89, 72.48' RT	155+75.00	695.05	682.97
1138+74.76, 72.17' RT	156+00.00	693.83	682.50
1138+49.63, 71.88' RT	156+25.00	692.63	682.03
1138+24.51, 71.61' RT	156+50.00	691.48	681.57
1137+99.38, 71.36' RT	156+75.00	690.38	681.14
1137+74.26, 71.12' RT	157+00.00	689.32	680.72
1137+49.13, 70.91' RT	157+25.00	688.31	680.33
1137+24.01, 70.71' RT	157+50.00	687.34	679.96
1136+98.88, 70.53' RT	157+75.00	686.42	679.61
1136+73.76, 70.37' RT	158+00.00	685.54	679.29
1136+48.64, 70.23' RT	158+25.00	684.71	678.98
1136+23.59, 70.11' RT	158+50.00	683.93	678.70
1135+98.59, 70.06' RT	158+75.00	683.19	678.45
1135+88.13, 70.05' RT	158+85.46	682.90	678.35
1135+73.59, 70.05' RT	159+00.00	682.49	678.22
1135+48.59, 70.05' RT	159+25.00	681.84	678.00
1135+23.59, 70.05' RT	159+50.00	681.24	677.81
1135+11.86, 70.05' RT	159+61.73	680.97	677.72
1134+98.59, 70.04' RT	159+75.00	680.68	677.65
1134+73.59, 69.98' RT	160+00.00	680.16	677.50
1134+48.59, 69.87' RT	160+25.00	679.69	677.37
1134+24.03, 69.70' RT	160+49.56	679.28	677.26

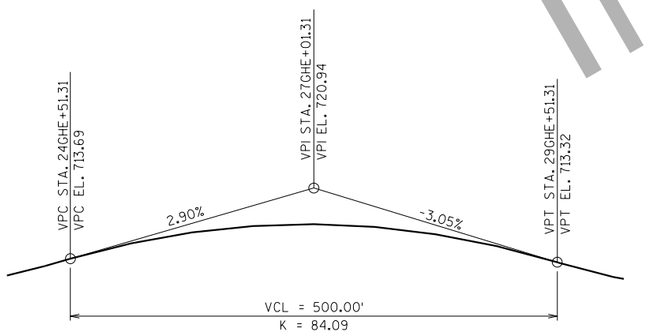
WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

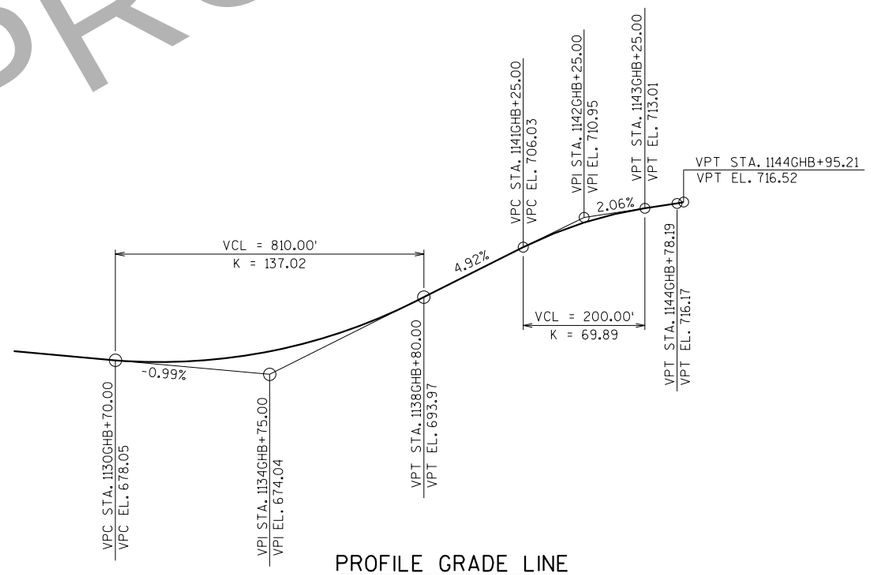
◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGNED LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.



PROFILE GRADE LINE
MAINLINE IH 43 NB



PROFILE GRADE LINE
GOOD HOPE RD EB



PROFILE GRADE LINE
GOOD HOPE RD RAMP B

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 5 OF 7

IN PROGRESS

PRELIMINARY PLANS

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHB-04	APRIL 16, 2014	338249	604538
GHB-05	JUNE 12, 2014	338445	604507
GHB-06	JUNE 24, 2014	338660	604424
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

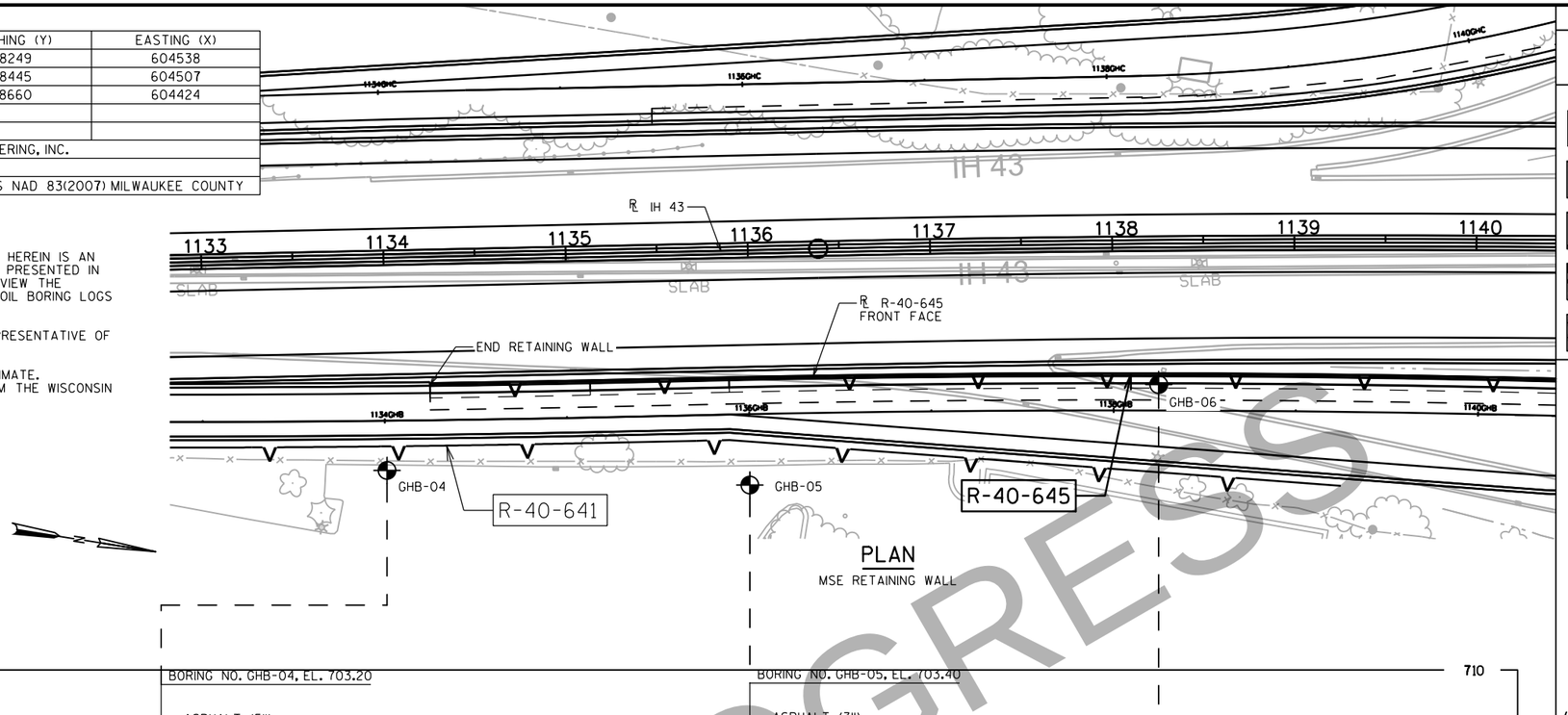
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

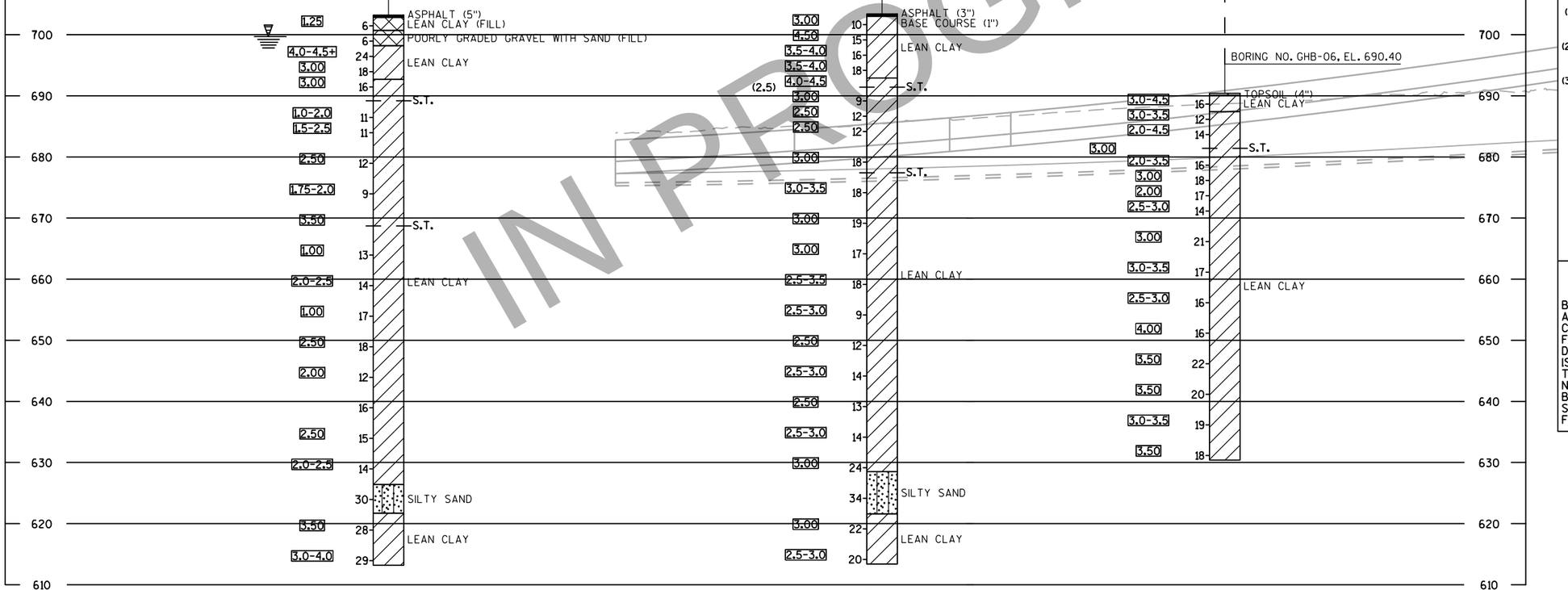
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT BACK FACE OF WALL

PRELIMINARY

IN PROGRESS

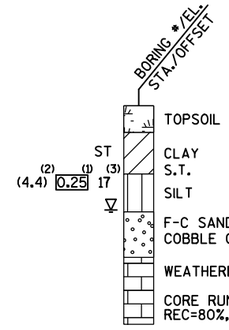
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY	NNM	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION

SHEET 6 OF 7

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHB-07	APRIL 21, 2014	338828	604401
GHB-08	JUNE 25, 2014	339032	604416
GHB-09	APRIL 22, 2014	339224	604354
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

NOTE:

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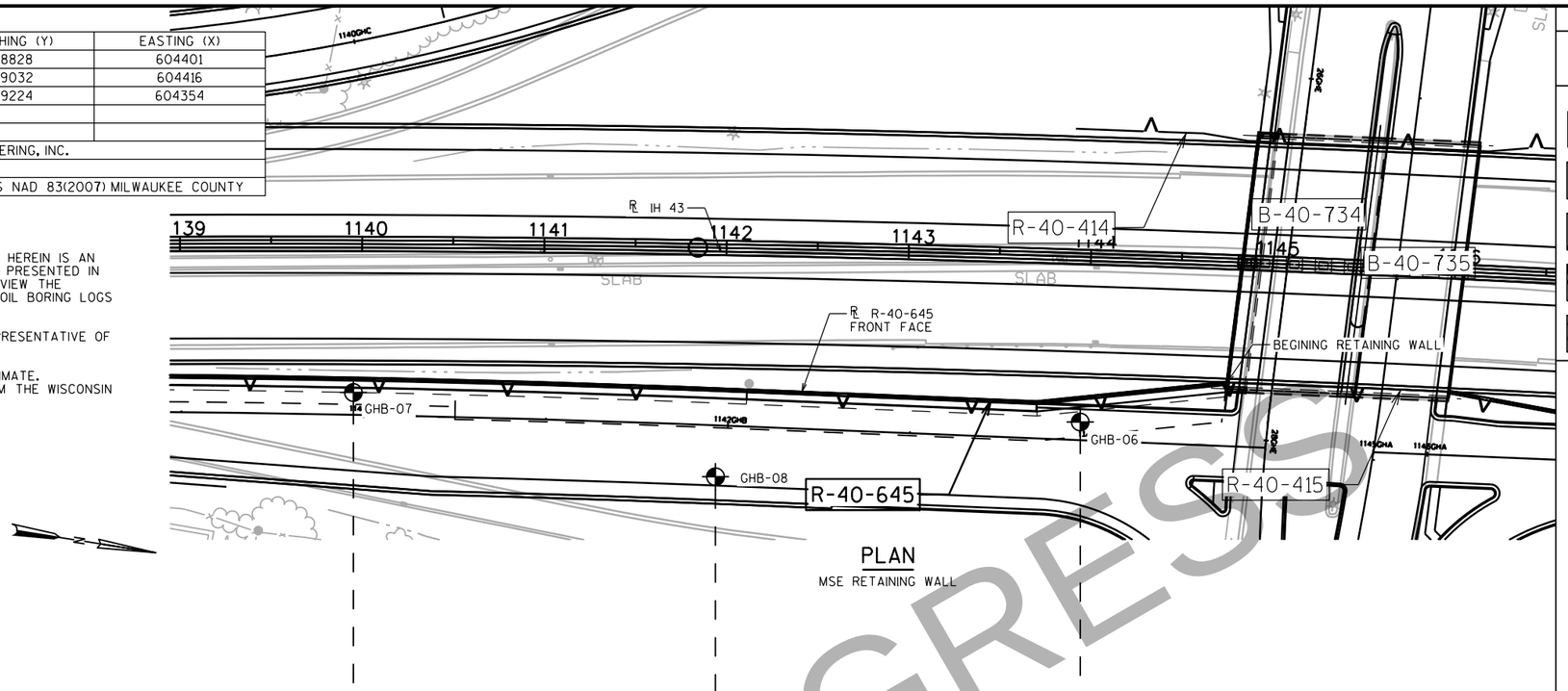
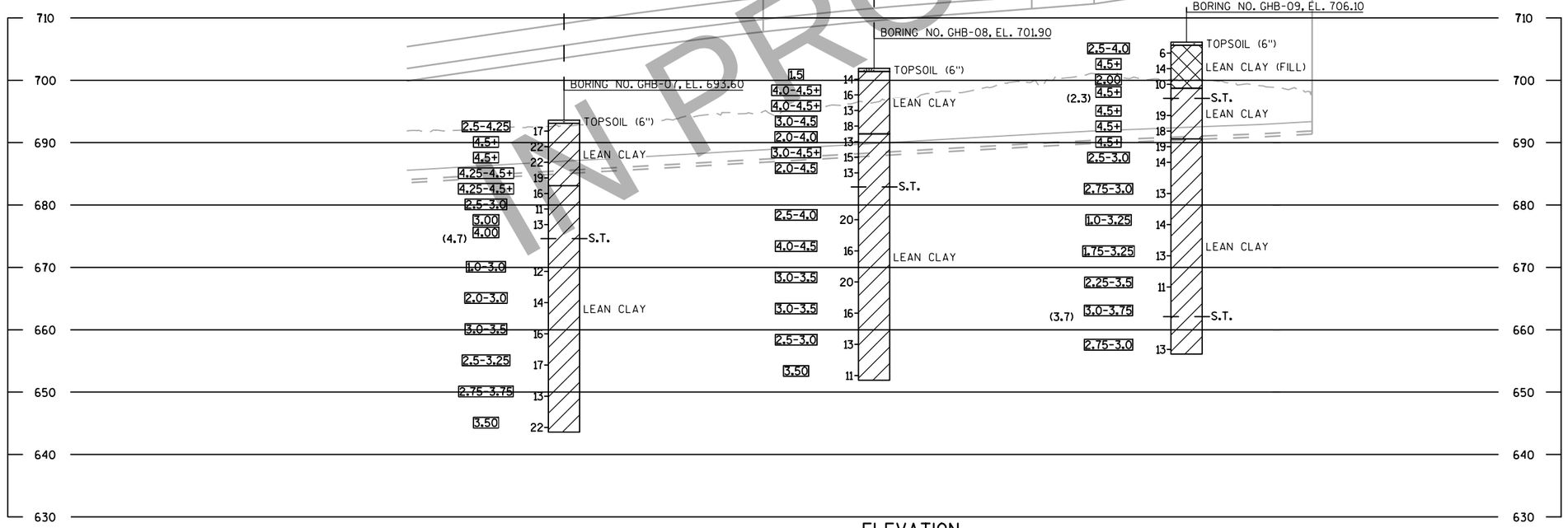


PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT BACK FACE OF WALL

PRELIMINARY

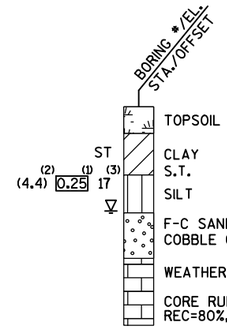
IN PROGRESS

STATE PROJECT NUMBER
1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-645

DRAWN BY	NNM	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION

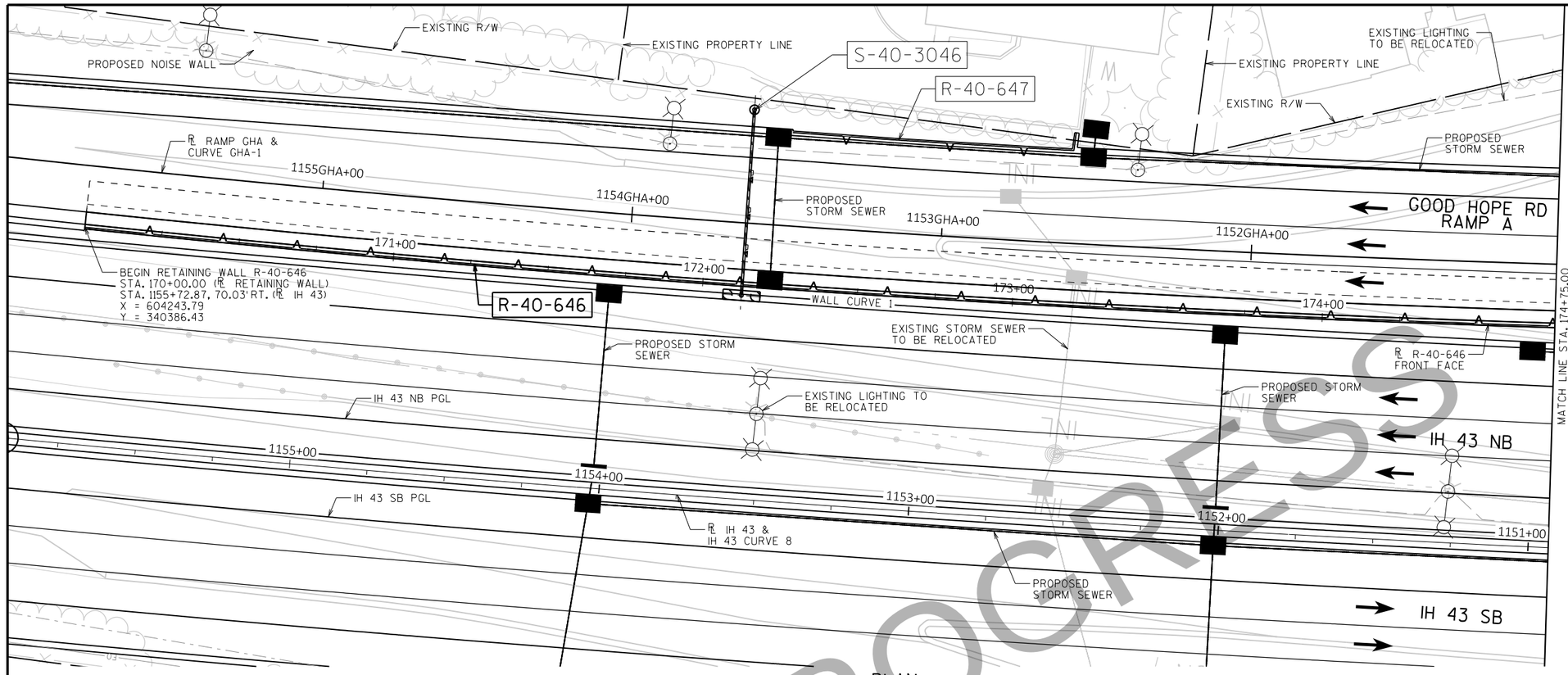
SHEET 7 OF 7

8

8

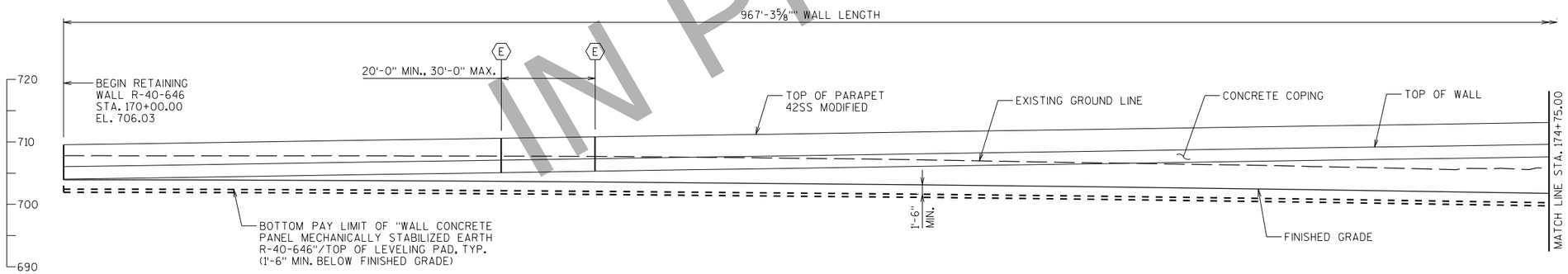
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-645\cds\R645_GBOD2D.dgn

AcEdgn 9/28/2021 10:24:39 AM PLOT BY : ejelinek PLOT NAME : $FILE$ PLOT SCALE : 80:1



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST
(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

PRELIMINARY PLANS

STATE PROJECT NUMBER
1229-04-73

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE (ROADWAY): 240 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY RETAINING WALL ..... f'c = 4,000 psi
PRECAST CONCRETE WALL PANELS ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

DESIGN THE RETAINING WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

LEGEND

→ DIRECTION OF TRAFFIC

(E) EXPANSION JOINT

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. TYPICAL SECTIONS
4. GENERAL NOTES & QUANTITIES
5. PROFILE GRADE LINES & DESIGN DATA
6. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-646

RETAINING WALL EAST OF IH 43 AT GOOD HOPE RD

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	MHZ	MM	MHZ/AJA

GENERAL PLAN & ELEVATION (1 OF 2)

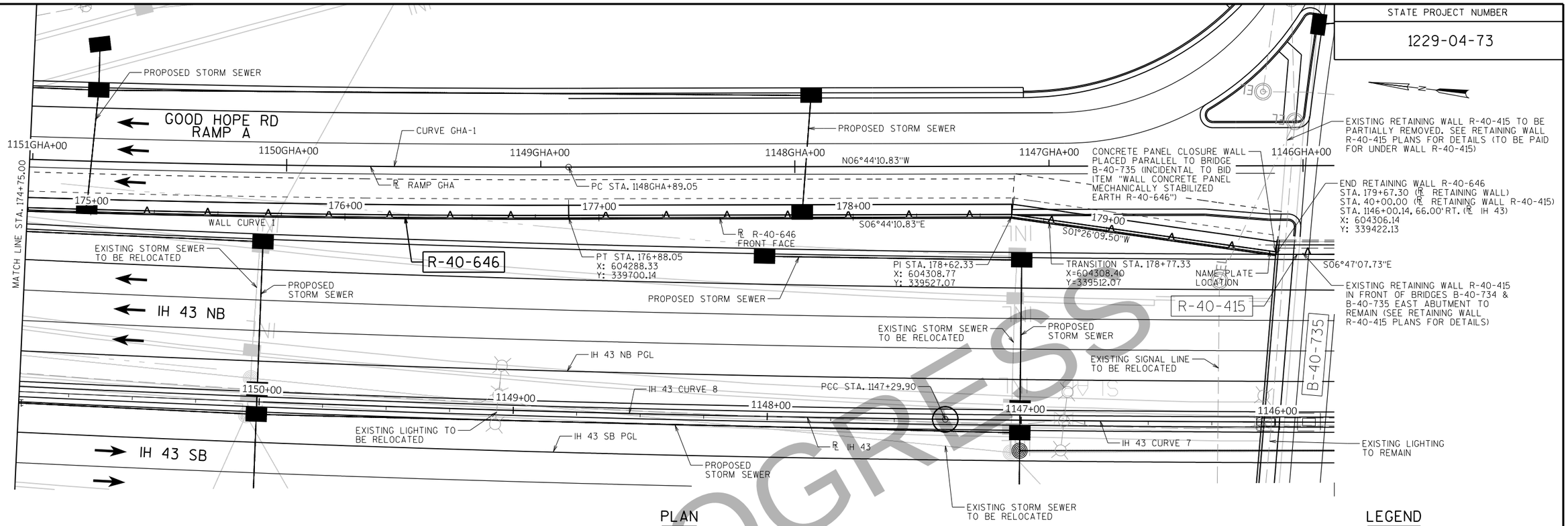
SHEET 1 OF 6

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231178\R646_080101_gp.dgn
PLOT DATE : 9/28/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:40

STATE PROJECT NUMBER

1229-04-73

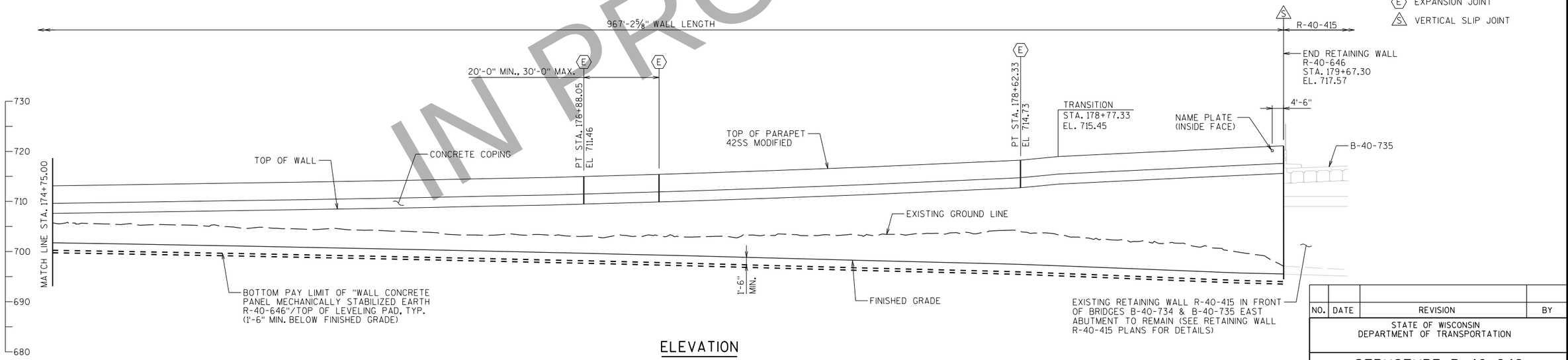


PLAN

MSE RETAINING WALL

LEGEND

- DIRECTION OF TRAFFIC
- (E) EXPANSION JOINT
- (S) VERTICAL SLIP JOINT



ELEVATION

LOOKING EAST

(DIMENSIONS ALONG FRONT FACE OF WALL)

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-646

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 6

PRELIMINARY PLANS

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231178\R646_080102_gp2.dgn

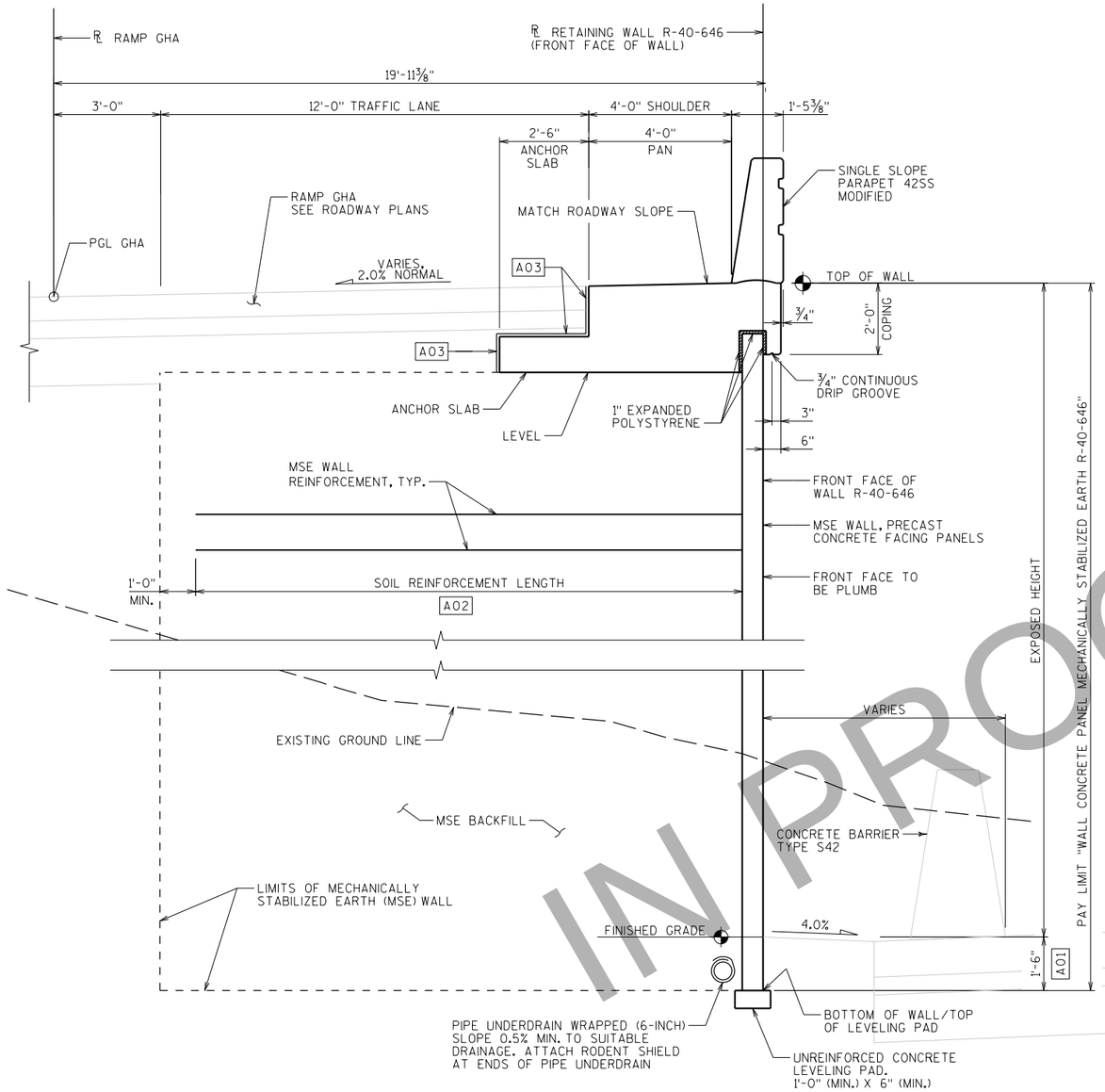
PLOT DATE : 9/10/2021

PLOT BY : sconnolly

PLOT NAME : $FILE$

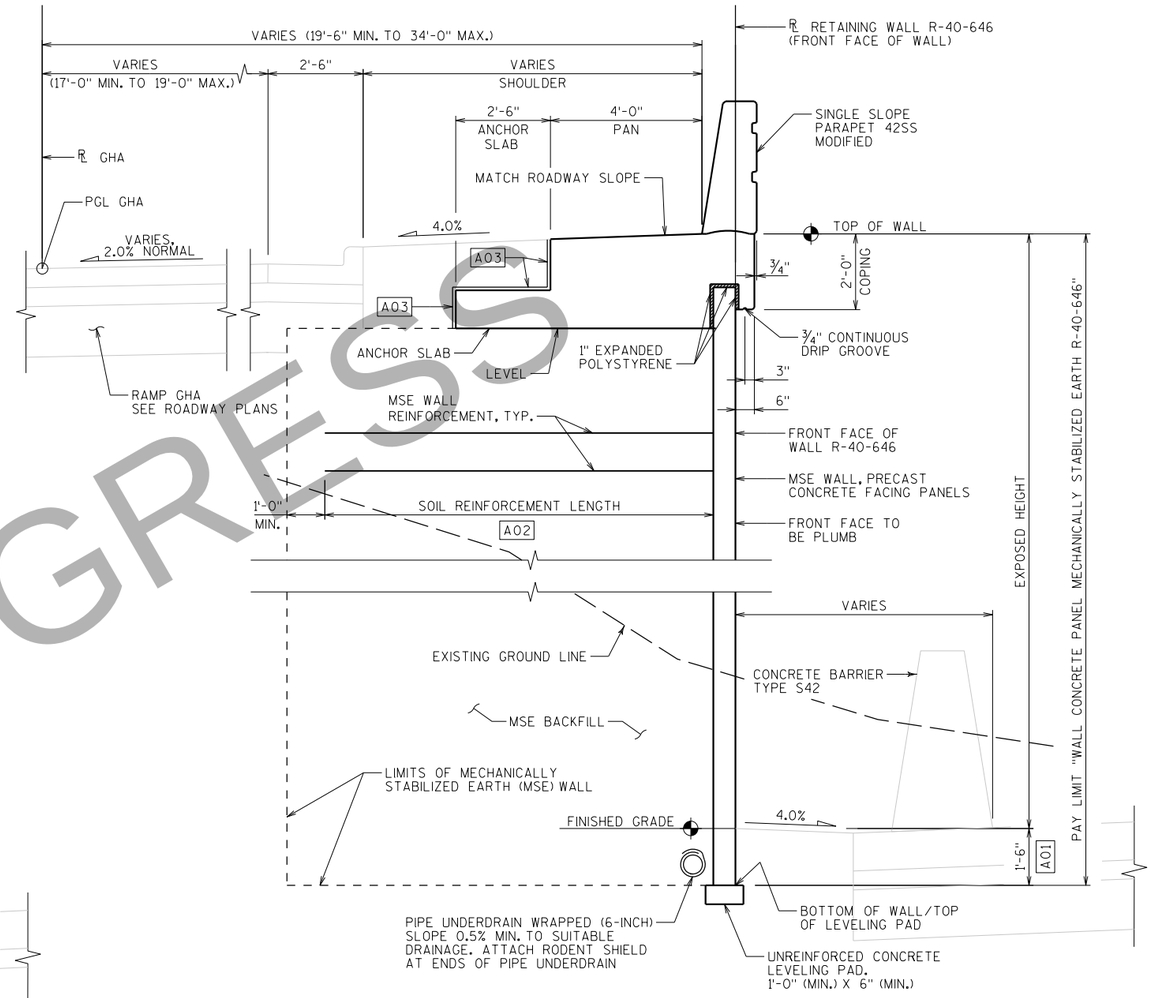
PLOT SCALE : 1:40

STATE PROJECT NUMBER
1229-04-73



TYPICAL WALL SECTION

LOOKING SOUTH
(WALL STA. 170+00.00 TO WALL STA. 178+62.33)



TYPICAL WALL SECTION

LOOKING SOUTH
WALL STA. 178+62.33 TO WALL STA. 179+67.30

LEGEND

A01 MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

A02 SEE EXTERNAL STABILITY EVALUATION TABLE ON THE "PROFILE GRADE LINES & DESIGN DATA" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

A03 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-646

DRAWN BY MM | PLANS CK'D. MHZ

TYPICAL SECTIONS

SHEET 3 OF 6

PRELIMINARY PLANS

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0231178\R646_080103_ts.dgn
PLOT DATE : 9/13/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:4

STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (2007).

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646".

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½ INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-646 WITH THE EAST ABUTMENT OF BRIDGE B-40-735 AND EXISTING MSE RETAINING WALL R-40-415.

WALL CONCRETE PANELS PLACED AS CLOSURE WALLS AT THE EAST ABUTMENT OF BRIDGE B-40-735 ARE TO BE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646".

THE QUANTITIES OF CONCRETE MASONRY & BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" & "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE AT LEAST 1'-6" BELOW FINISHED GRADE.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

REFER TO S.D.D. "NAME PLATE (STRUCTURES)" FOR NAME PLATE DETAILS. NAME PLATE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF OF THE STORM SEWER COMPONENTS, INCLUDING INLETS, LATERALS AND STRUCTURES WITH THE CONSTRUCTION OF THE MSE WALL.

PRECAST PANELS ARE TO BE 5'-0" X 5'-0" TO MATCH EXISTING WALL R-40-415.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XXXX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-646	SF	-
	NON-BID ITEMS		
	NAME PLATE	EACH	-
	PREFORMED JOINT FILLER	SIZE	-
	NON-BITUMINOUS JOINT SEALER	SIZE	-
	CORK FILLER	SIZE	-
	EXPANDED POLYSTYRENE	SIZE	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-646

DRAWN BY MM | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 4 OF 6

8

8

STATE PROJECT NUMBER
1229-04-73

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	SHORT-TERM (UNDRAINED)		LONG-TERM (DRAINED)	
		FRICTION ANGLE (DEGREES)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	-	-	-	-	-
(INSERT SOIL TYPE) RETAINED SOIL *	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-
(INSERT SOIL TYPE) FILL EL. XXX.XX - EL. XXX.XX	-	-	-	-	-

* DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	-	-	-
EXPOSED WALL HEIGHT (FEET)	-	-	-
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	-	-	-
WALL STATION	-	-	-
BORING USED	-	-	-
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	-	-	-
ECCENTRICITY (CDR>1.0)	-	-	-
OVERALL STABILITY (CDR>1.0)	-	-	-
BEARING RESISTANCE (CDR>1.0)	-	-	-
FACTORED BEARING RESISTANCE (PSF)	-	-	-

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

HORIZONTAL CURVE DATA

WALL CURVE 1

PI = STA. 173+44.35
Y = 340042.11
X = 604247.94
DELTA = 06°02'47"
D = 00°52'44"
T = 344.35'
L = 688.05'
R = 6519.95'
PC = STA. 170+00.00
Y = 340386.43
X = 604243.79
PT = STA. 176+88.05
Y = 339700.14
X = 604288.33

CURVE GHA-1

PI = STA. 1152GHA+93.76
Y = 340104.39
X = 604260.67
DELTA = 07°07'32"
D = 00°52'53"
T = 404.70'
L = 808.36'
R = 6500.00'
PC = STA. 1148GHA+89.05
Y = 339702.48
X = 604308.14
PT = STA. 1156GHA+97.42
Y = 340509.08
X = 604263.42

IH 43 CURVE 7

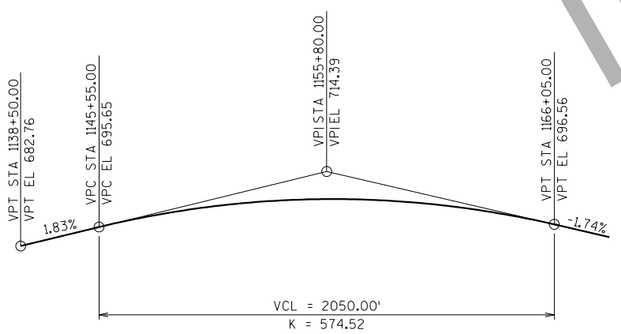
PISTA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 4°24'12"
D = 0°24'13"
T = 545.90'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64

IH 43 CURVE 8

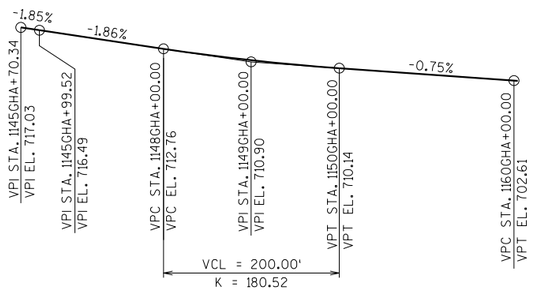
PI = STA. 1155+94.88
Y = 340404.17
X = 604137.84
DELTA = 09°24'16"
D = 00°32'41"
T = 864.98'
L = 1726.07'
R = 10516.00'
PC = STA. 1147+29.90
Y = 339543.76
X = 604226.64
PT = STA. 1164+55.98
Y = 341267.53
X = 604190.81

WALL ELEVATIONS ◪

STATION & OFFSET	WALL STATION	TOP OF WALL ELEVATION	FINISHED GRADE ELEVATION
1155+72.87, 70.03' RT	170+00.00	706.03	703.94
1155+47.70, 69.79' RT	170+25.00	706.22	703.93
1155+22.53, 69.57' RT	170+50.00	706.41	703.90
1154+97.37, 69.40' RT	170+75.00	706.59	703.85
1154+72.20, 69.26' RT	171+00.00	706.78	703.79
1154+47.04, 69.15' RT	171+25.00	706.97	703.72
1154+21.87, 69.09' RT	171+50.00	707.16	703.64
1153+96.71, 69.05' RT	171+75.00	707.34	703.56
1153+71.54, 69.06' RT	172+00.00	707.53	703.46
1153+46.38, 69.10' RT	172+25.00	707.72	703.35
1153+21.21, 69.17' RT	172+50.00	707.91	703.24
1152+96.05, 69.29' RT	172+75.00	708.10	703.11
1152+70.88, 69.43' RT	173+00.00	708.28	702.98
1152+45.71, 69.62' RT	173+25.00	708.47	702.83
1152+20.55, 69.84' RT	173+50.00	708.66	702.68
1151+95.38, 70.09' RT	173+75.00	708.85	702.51
1151+70.22, 70.39' RT	174+00.00	709.03	702.34
1151+45.05, 70.71' RT	174+25.00	709.22	702.16
1151+19.88, 71.08' RT	174+50.00	709.41	701.96
1150+94.71, 71.48' RT	174+75.00	709.60	701.76
1150+69.55, 71.92' RT	175+00.00	709.78	701.55
1150+44.38, 72.39' RT	175+25.00	709.97	701.33
1150+19.21, 72.90' RT	175+50.00	710.16	701.10
1149+94.04, 73.44' RT	175+75.00	710.35	700.86
1149+68.87, 74.02' RT	176+00.00	710.55	700.61
1149+43.70, 74.64' RT	176+25.00	710.79	700.35
1149+18.53, 75.29' RT	176+50.00	711.06	700.08
1148+93.36, 75.98' RT	176+75.00	711.29	699.80
1148+80.22, 76.35' RT	176+88.05	711.46	699.65
1148+68.19, 76.69' RT	177+00.00	711.63	699.51
1148+43.01, 77.36' RT	177+25.00	712.01	699.21
1148+17.83, 77.97' RT	177+50.00	712.42	698.89
1147+92.65, 78.51' RT	177+75.00	712.86	698.56
1147+67.47, 79.00' RT	178+00.00	713.33	698.23
1147+42.28, 79.43' RT	178+25.00	713.88	697.92
1147+17.12, 79.80' RT	178+50.00	714.45	697.60
1147+04.72, 79.96' RT	178+62.33	714.73	697.44
1146+92.09, 78.32' RT	178+75.00	715.34	697.20
1146+89.76, 78.01' RT	178+77.33	715.45	697.16
1146+67.17, 75.04' RT	179+00.00	716.00	696.72
1146+42.26, 71.72' RT	179+25.00	716.60	696.22
1146+17.36, 68.36' RT	179+50.00	717.18	695.71
1146+00.14, 66.00' RT	179+67.30	717.57	695.52



PROFILE GRADE LINE
MAINLINE I-43 NB



PROFILE GRADE LINE
GOOD HOPE RD RAMP A

LEGEND

◪ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-646

DRAWN BY MM | PLANS CK'D. MHZ

PROFILE GRADE LINES & DESIGN DATA

SHEET 5 OF 6

PRELIMINARY PLANS

IN PROGRESS

8

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHA-01	JUNE 19, 2014	339434	604333
GHA-02	APRIL 24, 2014	339625	604309
GHA-03	JUNE 20, 2014	339820	604287
GHA-04	APRIL 24, 2014	340063	604292
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

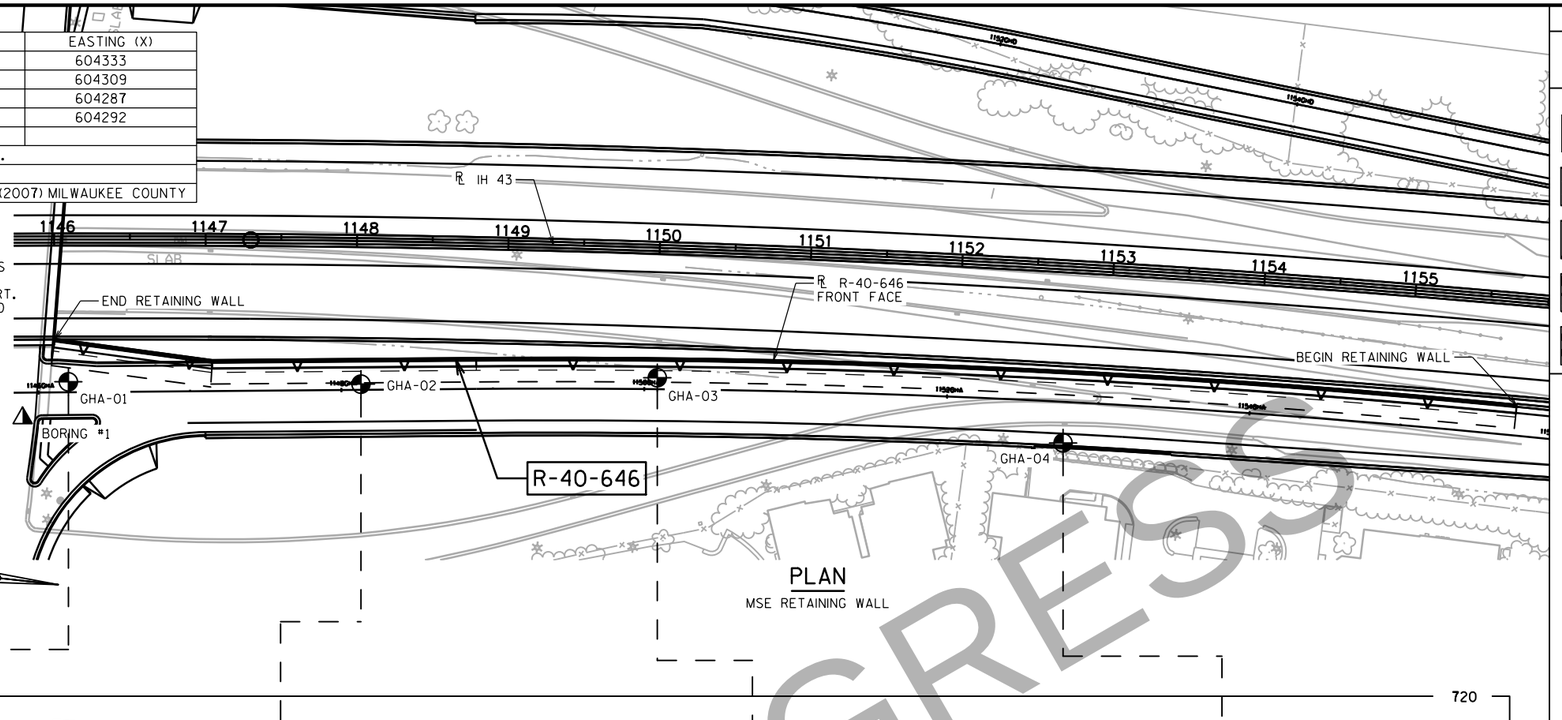
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

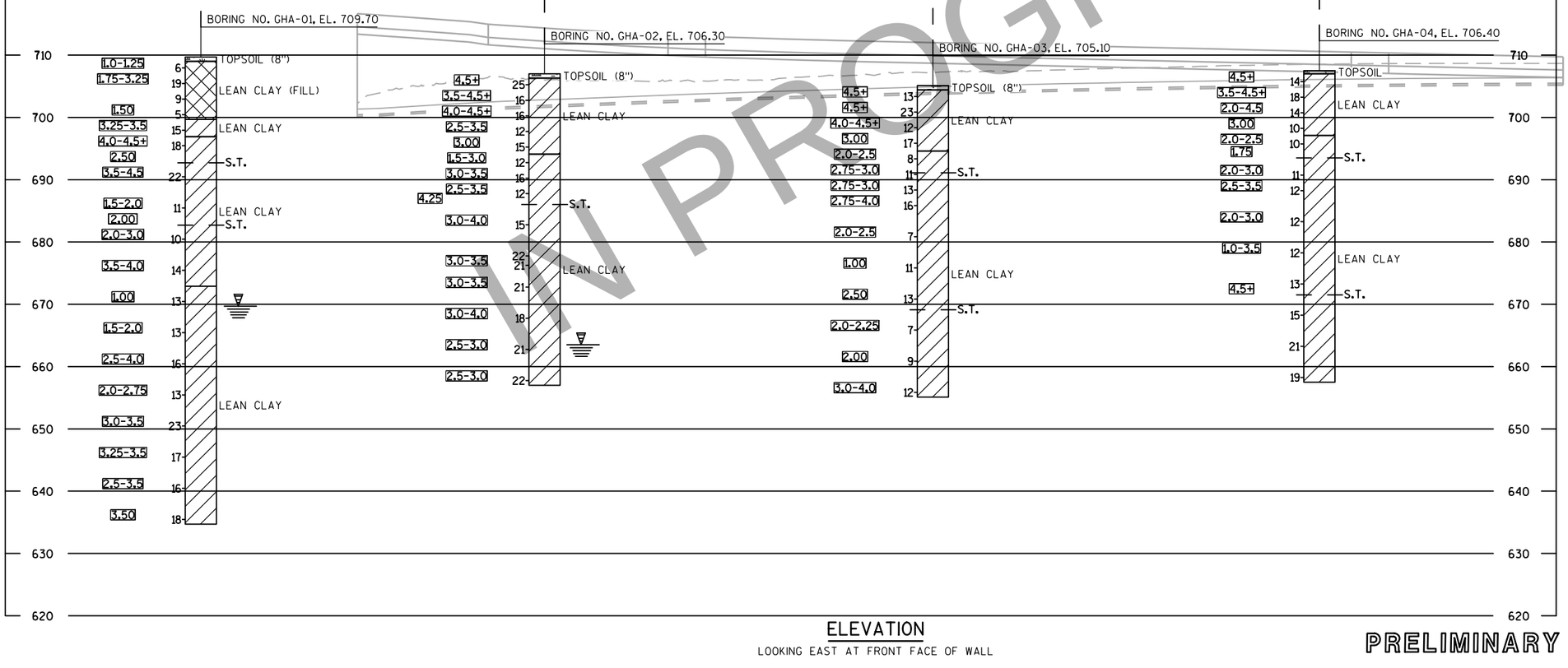
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

- DENOTES SOIL BORING LOCATION
- DENOTES MONITORING WELL LOCATION
- DENOTES HISTORICAL BORING



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING EAST AT FRONT FACE OF WALL

PRELIMINARY

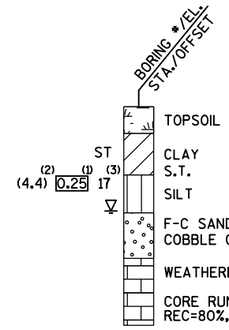
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-646

DRAWN BY NNM | PLANS CK'D. EAJ

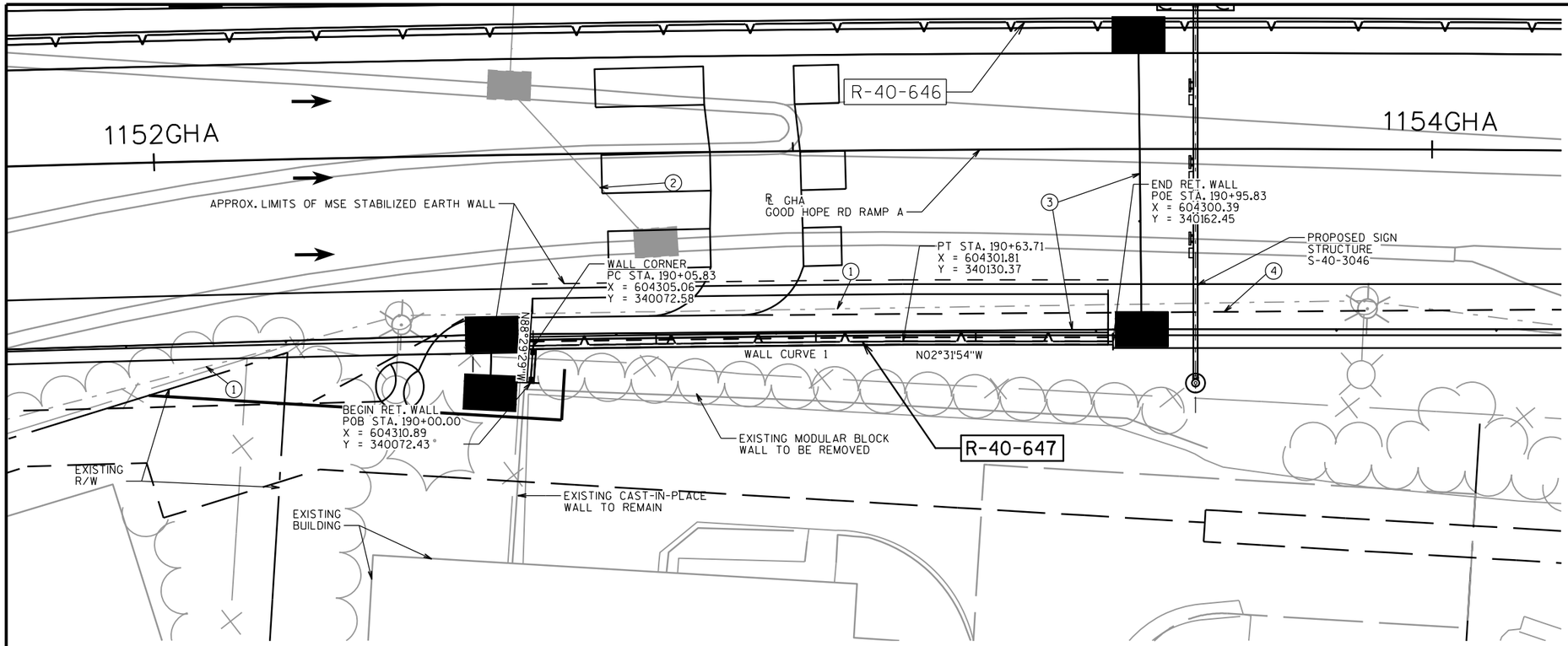
SUBSURFACE EXPLORATION

SHEET 6 OF 6

IN PROGRESS

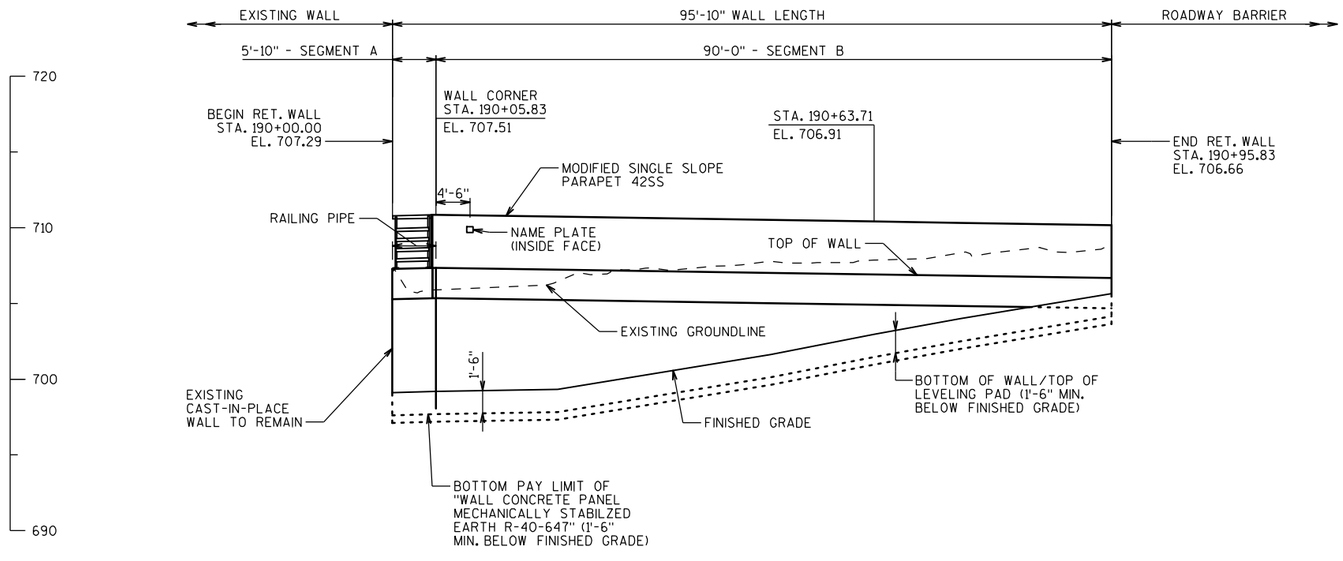
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-646\cds\R646_08201DetEdgr PLOT BY : ejelinek 9/28/2021 10:31:16 AM PLOT NAME : $FILE$ PLOT SCALE : 100:1



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

STATE PROJECT NUMBER
1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL NOTES & QUANTITIES
3. DESIGN DATA & PROFILE GRADE LINE
4. TYPICAL SECTIONS
5. COPING DETAILS
6. PARAPET & ANCHOR SLAB DETAILS (1 OF 3)
7. PARAPET & ANCHOR SLAB DETAILS (2 OF 3)
8. PARAPET & ANCHOR SLAB DETAILS (3 OF 3)
9. PIPE RAILING DETAILS
10. SUBSURFACE EXPLORATION

LEGEND

← TRAFFIC DIRECTION

UTILITY AND STORM SEWER NOTES**

(1) EXISTING WISDOT LIGHTING

(2) EXISTING WISDOT STORM SEWER

(3) WISDOT PROPOSED STORM SEWER

(4) PROPOSED WISDOT FTMS

PROPOSED DRAINAGE PIPE TO BE RELOCATED OUTSIDE OF MSE ZONE DURING FINAL DESIGN

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB

250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-647

WALL ALONG E. SIDE OF RAMP GHA

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	EAJ	DESIGN CK'D.	NNM	DRAWN BY	EAJ	PLANS CK'D.	NNM

GENERAL PLAN & ELEVATION

SHEET 1 OF 10

FOR 1078 SUBMITTAL

8

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STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWERS AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 1'-6" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR SEGMENT B CAST-IN-PLACE ANCHOR SLAB, COPING AND PARAPET ARE PAID FOR UNDER ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR SEGMENT A CAST-IN-PLACE COPING ARE PAID FOR UNDER ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647".

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED TOP SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACES OF THE PARAPET.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647".

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN THE MSE WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15°FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15°REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP SOIL TYPE REINFROCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

MASE WALL PANEL SHAPES SHALL BE SQUARE OR RECTANGULAR.

DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30°WITHOUT CERTIFIED TEST RESULTS.

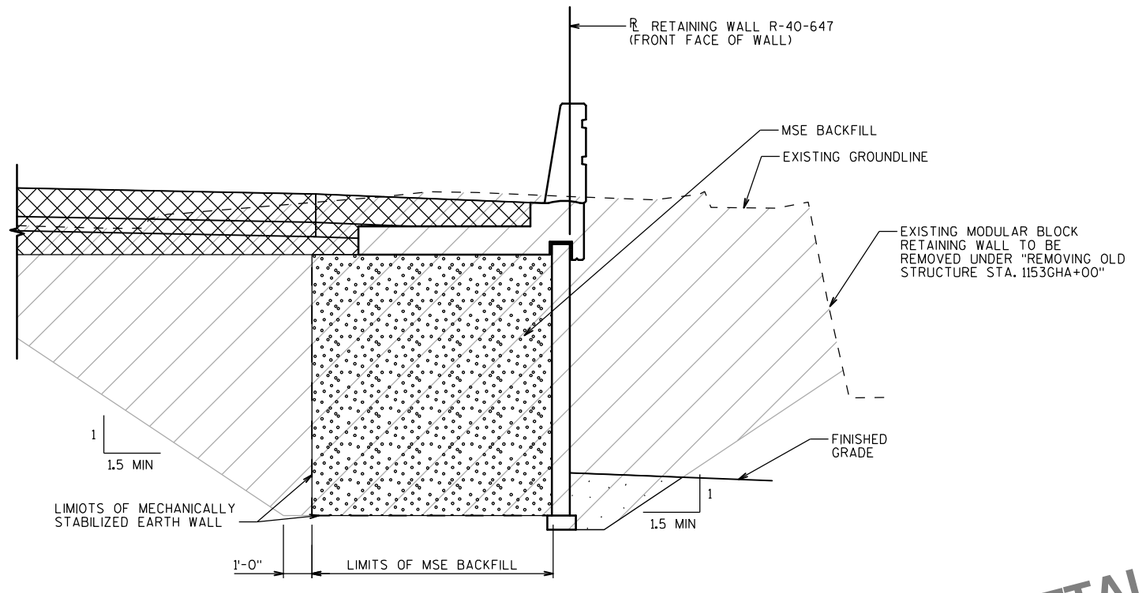
TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	TOTAL
203.0200.XX	REMOVING STRUCTURE R-40-647	EACH	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-	-	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-
513.2001	RAILING PIPE	LF	-	-	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	-	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647	SF	-	-	-
	NON BID ITEMS				
	NAME PLATE	EACH			1
	CORK FILLER	SIZE			1"
	NON-BITUMINOUS JOINT SEALER	SIZE			1"
	EXPANDED POLYSTYRENE	SIZE			1"
	PREFORMED JOINT FILLER	SIZE			3/4"

ALL ITEMS ARE CATEGORY XXXX

WALL ELEVATIONS ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
190+00.00	707.29	699.11	707.29
190+05.76	707.51	699.202	705.91
190+21.83	707.23	699.33	706.45
190+25.00	707.21	699.59	707.00
190+34.71	707.13	700.38	707.30
190+50.00	707.016	701.634	707.76
190+63.65	706.913	702.97	707.87
190+75.00	706.825	703.996	708.34
190+95.76	706.66	705.775	708.69



TYPICAL WALL EXCAVATION LIMITS DIAGRAM

LOOKING NORTH

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647".

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647".

ROADWAY ITEM - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-647

DRAWN BY EAJ | PLANS CK'D. NNM

GENERAL NOTES & QUANTITIES

SHEET 2 OF 10

8

8

STATE PROJECT NUMBER
1229-04-73

MSE WALL SOIL PARAMETERS

	SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
			FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
(NO2)	MSE WALL REINFORCED ZONE	120	30	N/A	30	0
	RETAINED SOIL - GRANULAR	120	30	N/A	30	0
	RETAINED SOIL - CLAY	120	0	1,500	28	0
BORING GHA-04	TOP SOIL (ASSUMED 6") EL. 706.4 - EL. 705.9	--	--	--	--	--
BORING GHA-04	CL (br) EL. 705.9 - EL. 696.0	130	0	3,750	31	50
BORING GHA-04	CL (gr) EL. 696.0 - EL. 656.4	130	0	2,000	30	25
BORING GHA-05	TOPSOIL (ASSUMED 6") EL. 707.4 - EL. 706.6	--	--	--	--	--
BORING GHA-05	CL T. ORGANICS & GRAVEL (br) EL. 706.6 - EL. 704.7	135	0	4,250	32	100
BORING GHA-05	CL T. GRAVEL (br) EL. 704.7 - EL. 697.3	135	0	4,500	32	100
BORING GHA-05	CL-ML W/ SAND (br) EL. 697.3 - EL. 691.9	130	0	3,750	31	50
BORING GHA-05	CL (gr) EL. 691.9 - EL. 685.6	125	0	2,750	30	50
BORING GHA-05	CL (gr) EL. 685.6 - EL. 667.4	125	0	2,000	30	25

(NO2) DESIGN WALL FOR THESE VALUES

WALL EXTERNAL STABILITY EVALUATION

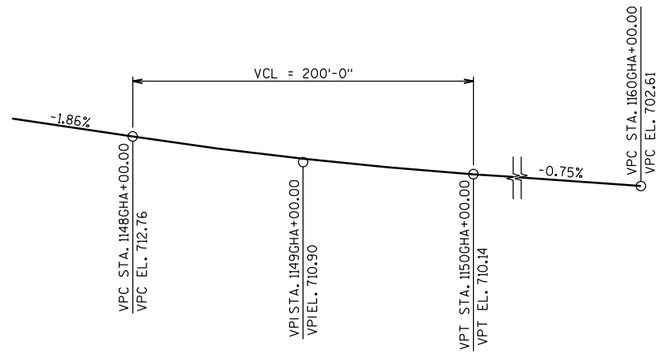
DIMENSIONS		
WALL HEIGHT (FEET)		10.0
EXPOSED WALL HEIGHT (FEET)		9.5
(NO1) MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)		8.0
REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO		0.80
WALL STATION		190+5.76
BORING USED		GHA-04
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING		1.24
ECCENTRICITY		1.57
BEARING RESISTANCE		1.11
FACTORED BEARING RESISTANCE (PSF)		3,500
GLOBAL STABILITY	END OF CONSTRUCTION	5.2
GLOBAL STABILITY	LONG-TERM	1.2

(NO1) THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

MATERIAL PROPERTIES

CONCRETE MASONRY
- ANCHOR SLAB & PARAPET _____ f'c = 4,000 P.S.I.
- MSE WALL COPING _____ f'c = 3,500 P.S.I.

PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 P.S.I.



PROFILE GRADE LINE GOOD HOPE RD. RAMP A

℞ 'GHA'

HORIZONTAL CURVE DATA

P.I. = 190+34.71
X = 604303.37
Y = 340101.47
Δ = 0°30'45.39"
D = 0°53'07.99"
T = 28.94'
L = 57.89'
R = 6470.05'
P.C. = 190+05.76
X = 604305.13
Y = 340072.58
P.T. = 190+63.65
X = 604301.88
Y = 340130.38

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DESIGN DATA & PROFILE GRADE LINE

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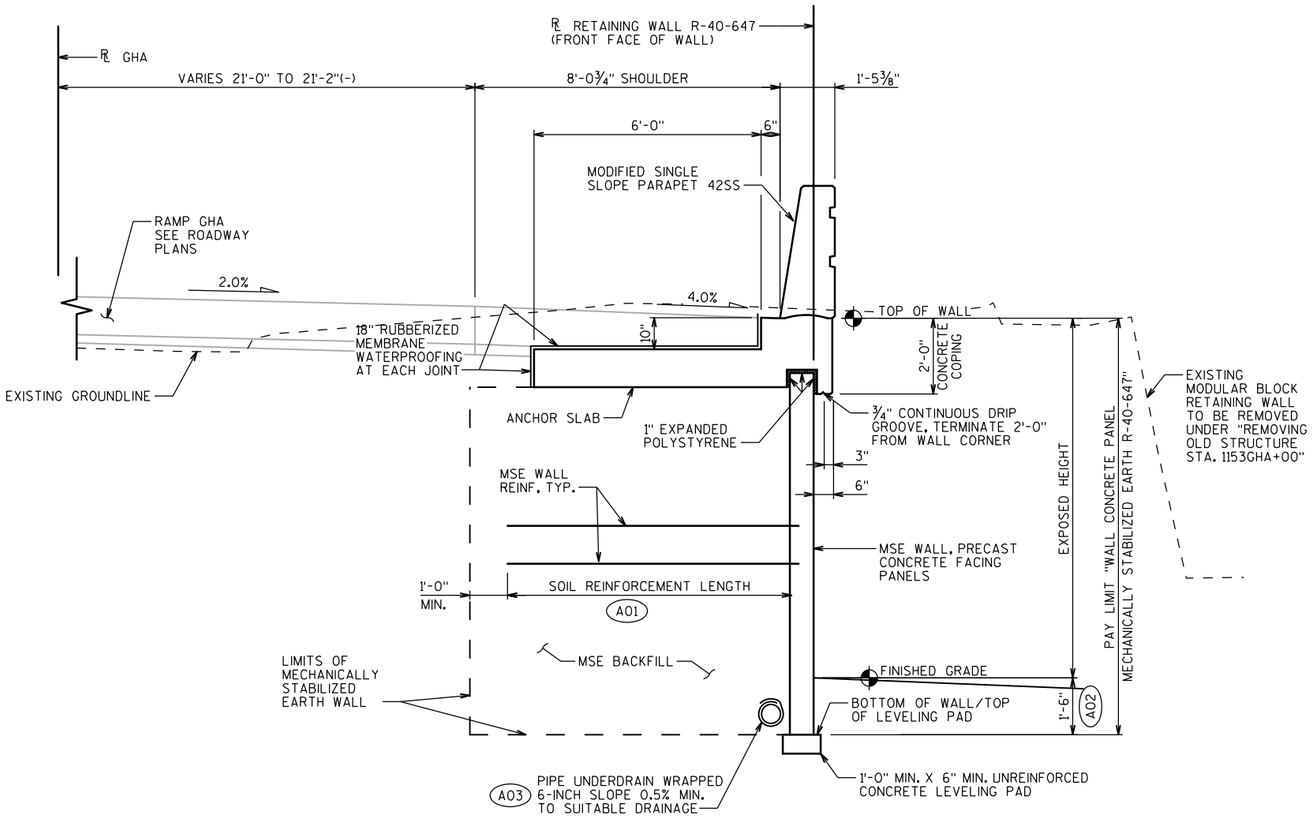
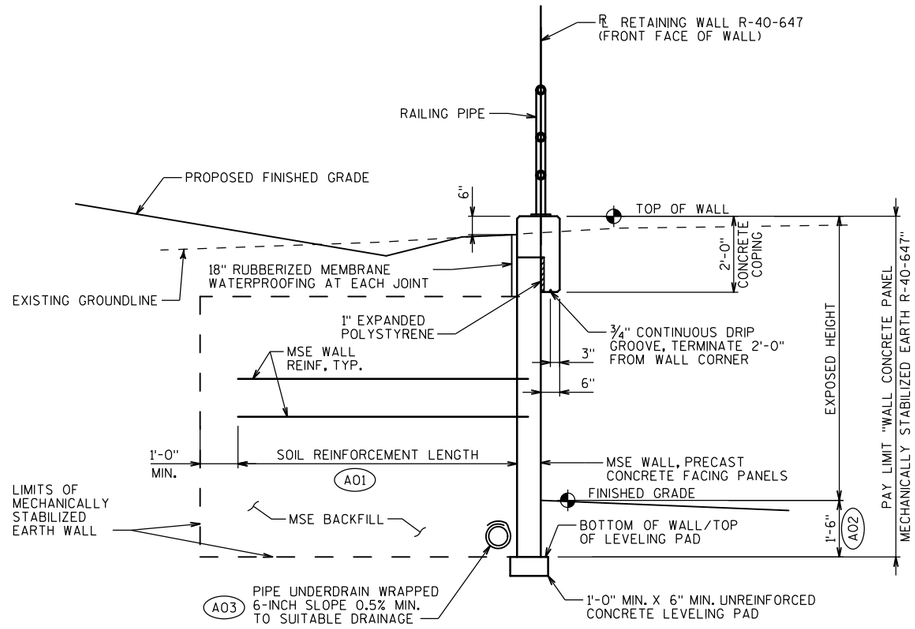


TYPICAL SECTION - SEGMENT B

LOOKING NORTH - STA. 190+05.76 TO STA. 190+95.76



PROPOSED TYPICAL SECTION - SEGMENT A

LOOKING WEST - STA. 190+00.00 TO STA. 190+05.76

8

8

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINE" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) CONNECT PIPE UNDERDRAIN WRAPPED TO SUITABLE DRAINAGE OR DAYLIGHT AND ATTACH RODENT SHIELD TO END. <<TO BE DETERMINED IN FINAL DESIGN>>

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TYPICAL SECTIONS

SHEET 4 OF 10

LEGEND

(A04) 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FULL HEIGHT OF JOINT. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647"

(A05) 1" EXPANDED POLYSTYRENE

(A06) SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

(A07) SEE "DESIGN DATA" SHEET FOR ELEVATION INFORMATION.

(A08) MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANEL. INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-45-28"

F.F. FRONT FACE

B.F. BACK FACE

C.I.P. CAST-IN-PLACE

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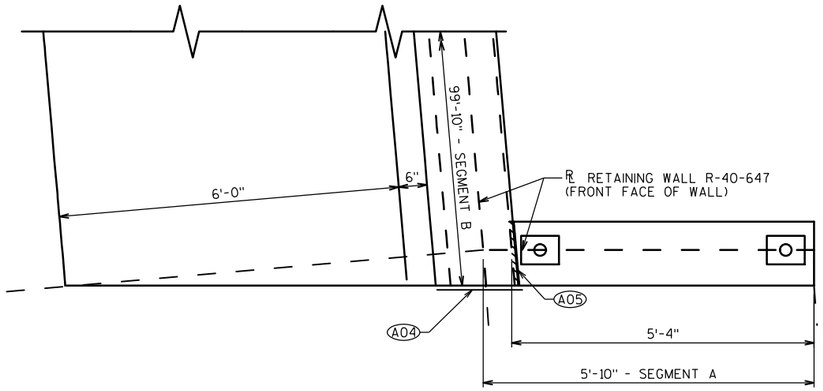
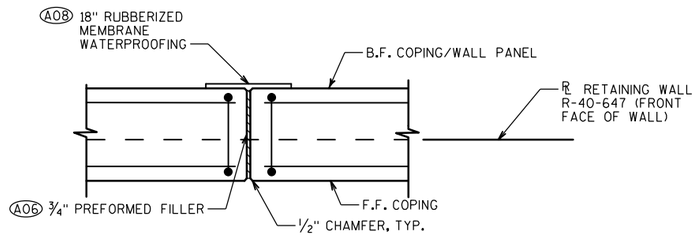
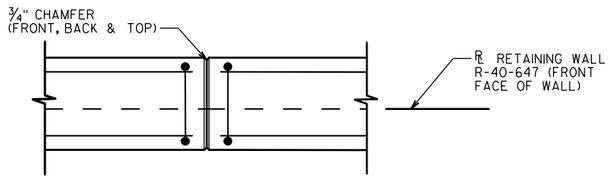


PLAN AT WALL CORNER



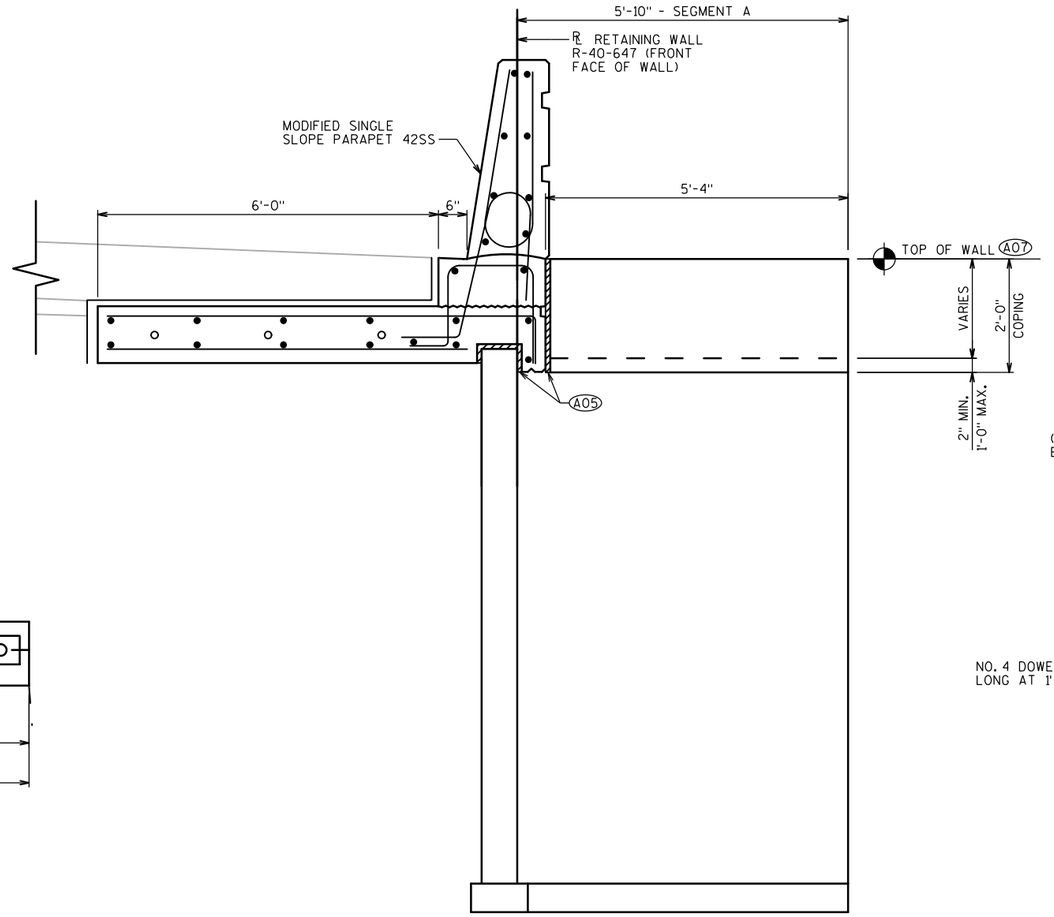
COPING EXPANSION JOINT SEGMENT A

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



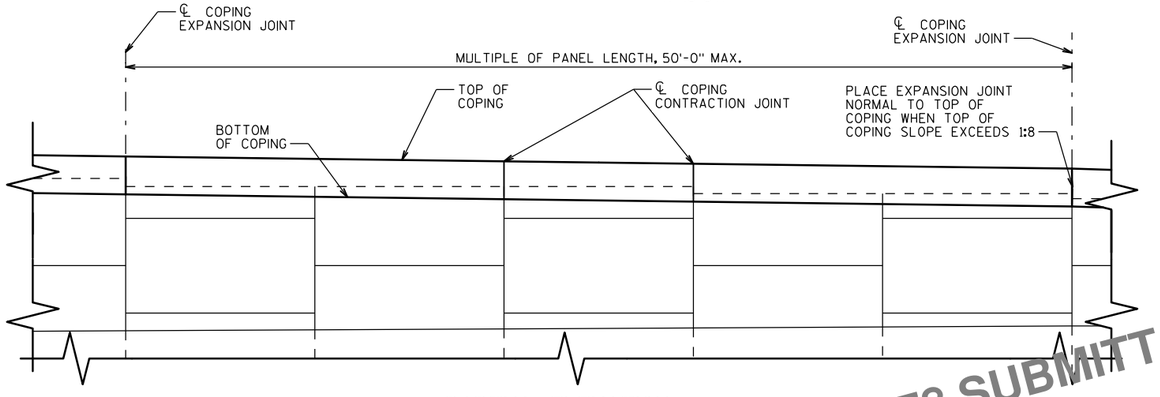
COPING CONTRACTION JOINT SEGMENT A

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'
MUST COINCIDE WITH PANEL JOINT ON FRONT FACE



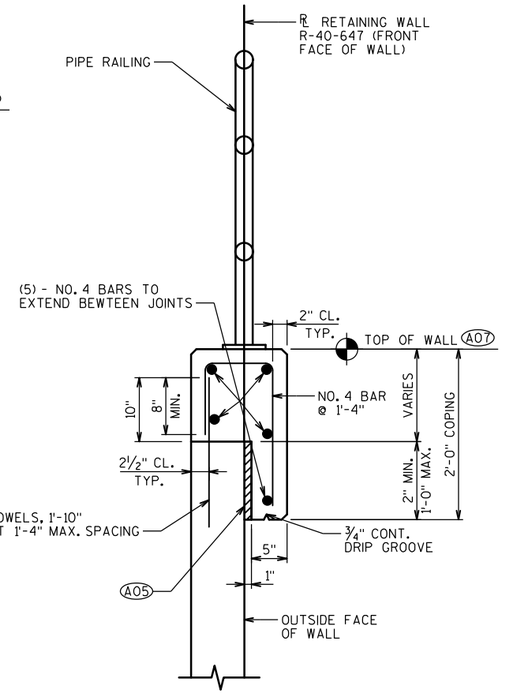
CROSS SECTION THRU SEGMENT B AT WALL CORNER

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647"



PARTIAL ELEVATION

NOTE: ALL JOINTS SHALL BE LOCATED AS SHOWN AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



CAST-IN-PLACE CONCRETE COPING DETAIL AT SEGMENT A

REINFORCEMENT AND CONCRETE SHOWN IN COPING DETAIL ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-647"

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COPING DETAILS

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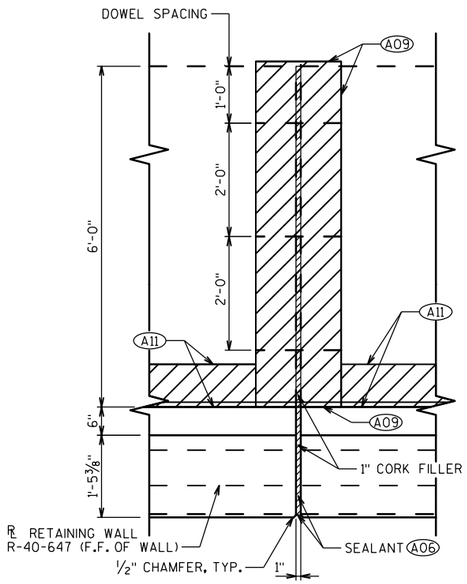
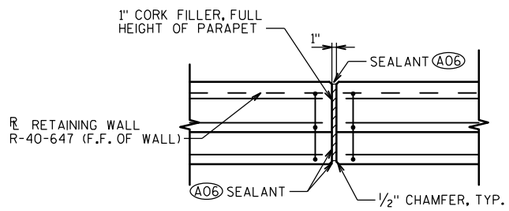


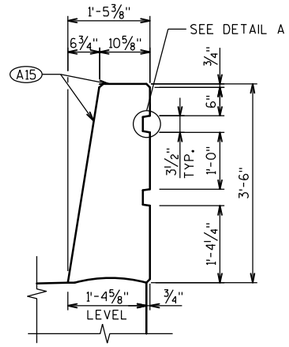
A13 ANCHOR SLAB EXPANSION JOINT DETAIL

PLAN VIEW

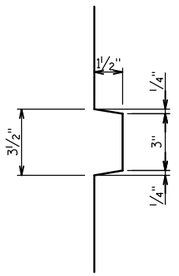


A13 PARAPET EXPANSION JOINT

DO NOT RUN BARS THRU JOINT



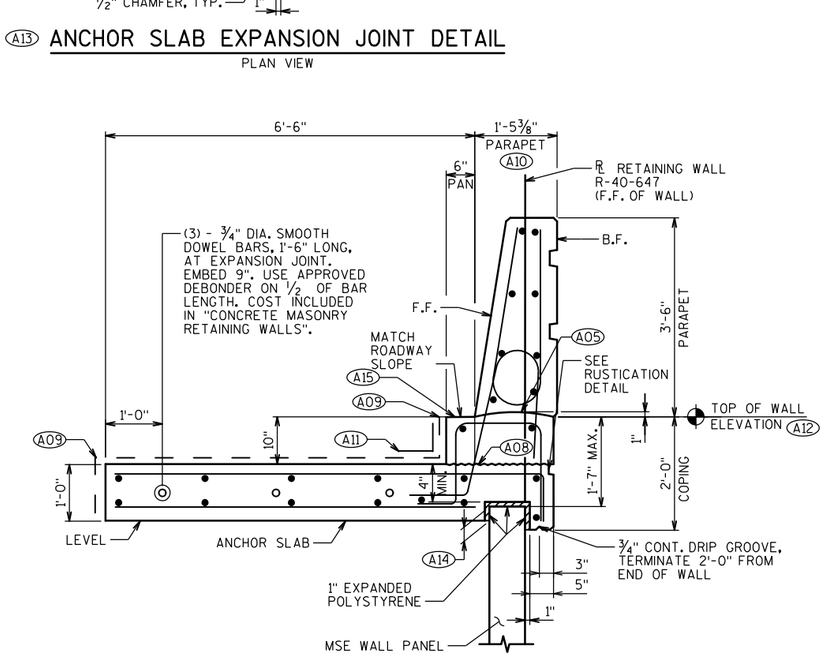
MODIFIED SINGLE SLOPE PARAPET 42SS DIMENSIONS



DETAIL A

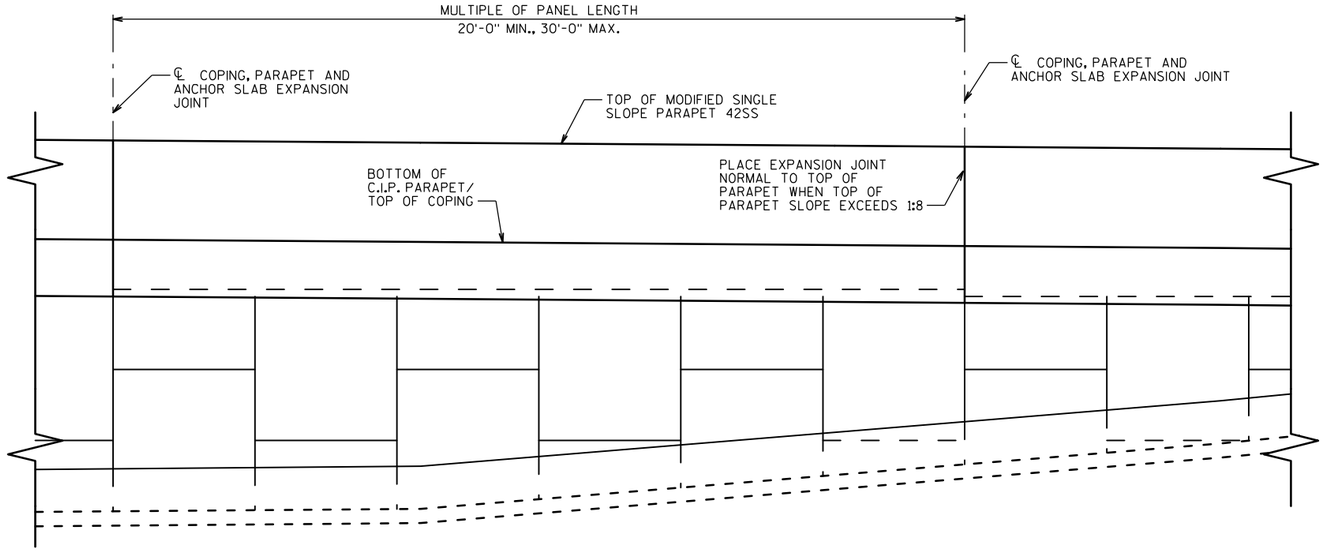
LEGEND

- A06 SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1"ø8" BELOW SURFACE OF CONC.)
- A07 SEE "DESIGN DATA" SHEET FOR ELEVATION INFORMATION.
- A08 CONSTRUCTION JOINT - STRIKE OFF AS SHOWN.
- A09 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- A10 OPTIONAL CONSTRUCTION JOINT. LEAVE SURFACE ROUGHENED.
- A11 IF THE OPT. CONST. JOINT IS USED, PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONSTRUCTION JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.
- A12 SEE SINGLE SLOPE PARAPET 42SS DIMENSIONS DETAIL.
- A13 EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20'-0" AND A MAXIMUM OF 30'-0". LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.
- A14 3" MIN., 6" MAX.
- A15 APPLY PIGMENTED SURFACE SEALER.
- E.F. EACH FACE
- F.F. FRONT FACE
- B.F. BACK FACE
- C.I.P. CAST-IN-PLACE



C.I.P. MODIFIED SINGLE SLOPE PARAPET 422SS/ ANCHOR SLAB DETAIL FOR 6" PAN FOR PRECAST WALL PANELS

- OPTIONAL CONSTRUCTION JOINTS IN THE PARAPET AND ANCHOR SLAB BETWEEN EXPANSION JOINTS MAY BE USED.
- RUN BAR REINFORCEMENT THROUGH THE JOINT.
- MINIMUM LAP LENGTH OF PARAPET BARS = 1'-9".
- MINIMUM LAP LENGTH OF ANCHOR SLAB LONGITUDINAL #4 BARS = 1'-0".
- DEFINE CONSTRUCTION JOINT WITH ¾" "V" GROOVE.
- CONCRETE QUANTITY BASED ON 3" PANEL EMBEDMENT.



PARTIAL ELEVATION

NOTE: ALL JOINTS SHALL BE LOCATED AS SHOWN AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

NOTE

FOR REINFORCEMENT DETAILS AND BILL OF BARS SEE "PARAPET & ANCHOR SLAB DETAILS (2 OF 3)" AND "PARAPET & ANCHOR SLAB DETAILS (3 OF 3)" SHEETS

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PARAPET & ANCHOR SLAB DETAILS (1 OF 3)

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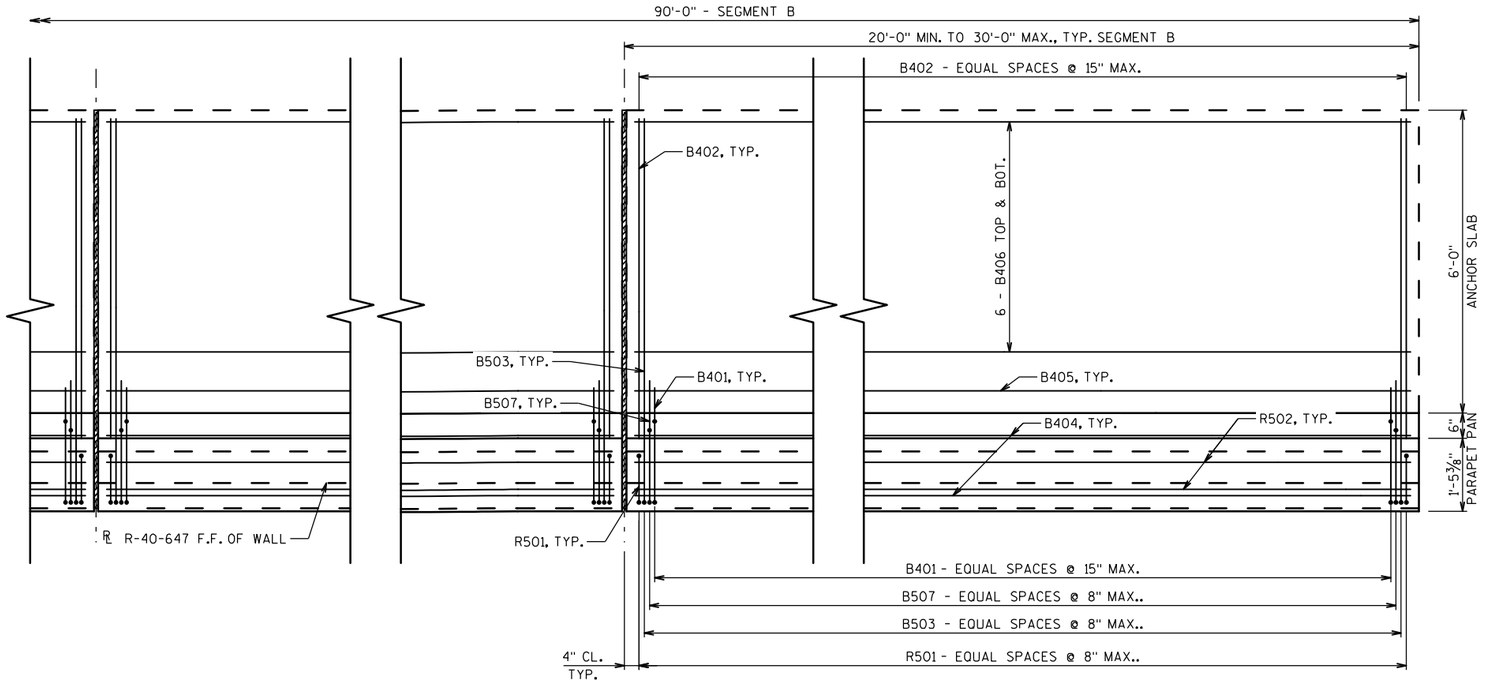
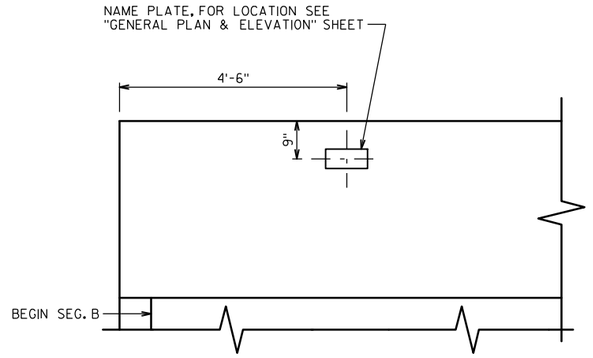


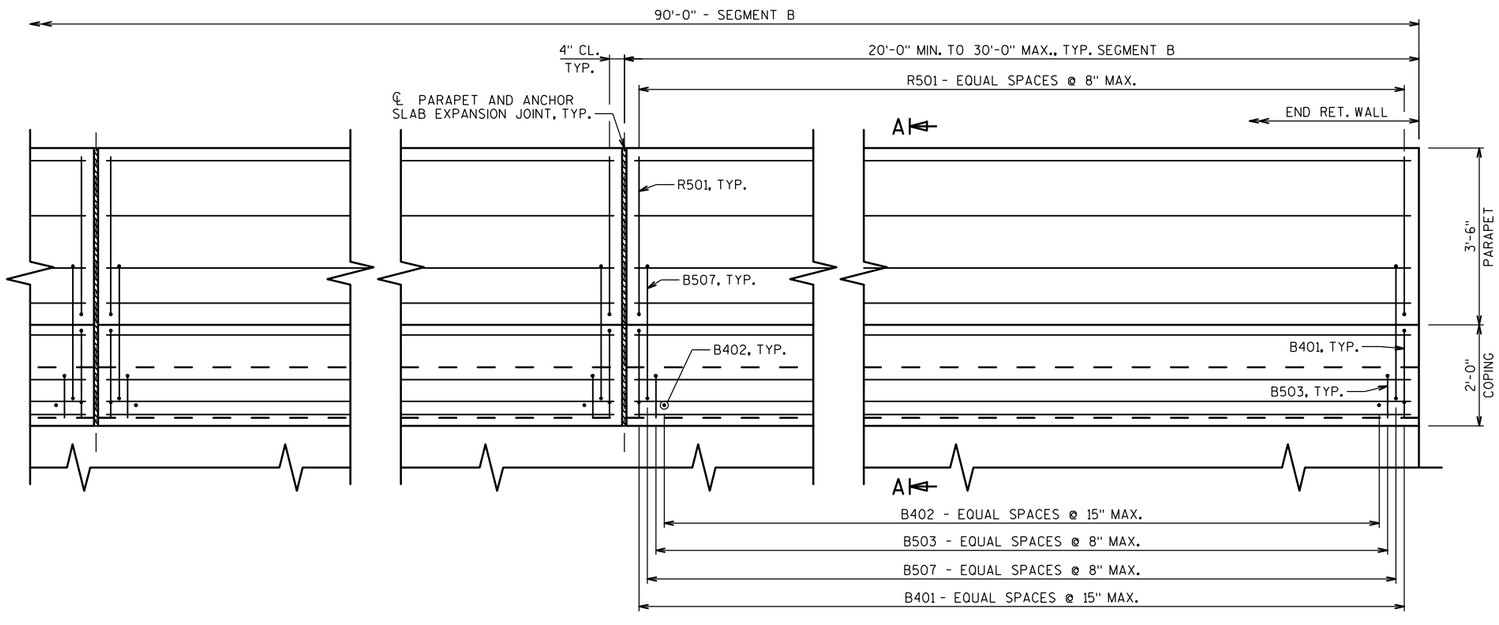
PLAN

DIMENSIONS ALONG ℄ R-40-647



NAME PLATE LOCATION

INSIDE ELEVATION



ELEVATION

DIMENSIONS ALONG ℄ R-40-647 - LOOKING AT FRONT FACE OF WALL

LEGEND

(A14) A514 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A514 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

(A15) A513 AND A515 BARS TO BE TIED TO ANCHOR SLAB STEEL BEFORE ANCHOR SLAB IS POURED.

E.F. EACH FACE

F.F. FRONT FACE

B.F. BACK FACE

C.I.P. CAST IN PLACE

NOTES

FOR BILL OF BARS AND SECTIONS SEE "PARAPET & ANCHOR SLAB DETAILS (3 OF 3)" SHEET.

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PARAPET & ANCHOR SLAB DETAILS (2 OF 3)

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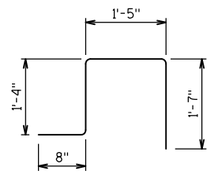
BILL OF BARS

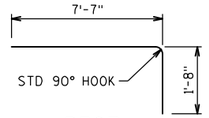
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	SERIES	NOTE	LOCATION
B401	X	1	4'-9"				COPING VERT. TIE
B402	X	1	6'-4"	X			ANCHOR SLAB - TRANS. BOT.
B503	X	1	8'-2"	X			ANCHOR SLAB - TRANS. TOP
B404	X	1	95'-5"	X			ANCHOR SLAB & COPING - HORIZ.
B405	X	1	95'-5"	X			ANCHOR SLAB & COPING - HORIZ.
B406	X	1	95'-5"			(1)	ANCHOR SLAB & COPING - HORIZ.
B507	X	1	5'-10"	X			PARAPET/COPING - VERT. TIE
R501	X	1	6'-8"	X		(1)	PARAPET - VERT. TIE

NOTE

(1) LENGTH SHOWN FOR BAR IS OVERALL LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. THE NUMBER REQUIRED IS THE BARS IN THE CROSS SECTION AND BARS SHALL BE CUT AS NEEDED FOR EXPANSION JOINTS.



B401



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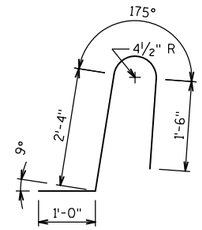
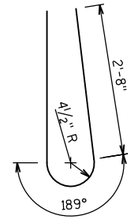
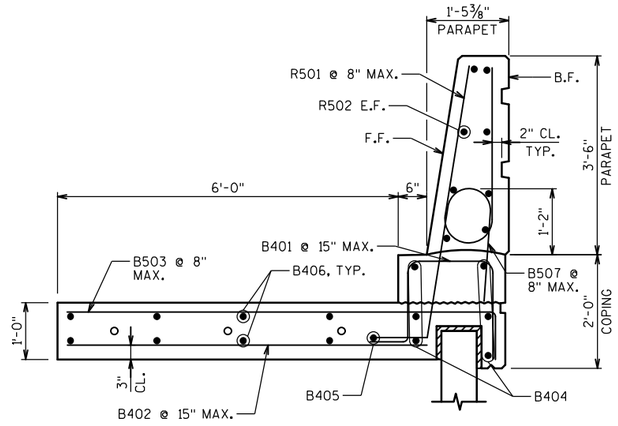


B507



R501



SECTION A-A

LEGEND

F.F. FRONT FACE

B.F. BACK FACE

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PARAPET & ANCHOR SLAB DETAILS (3 OF 3)

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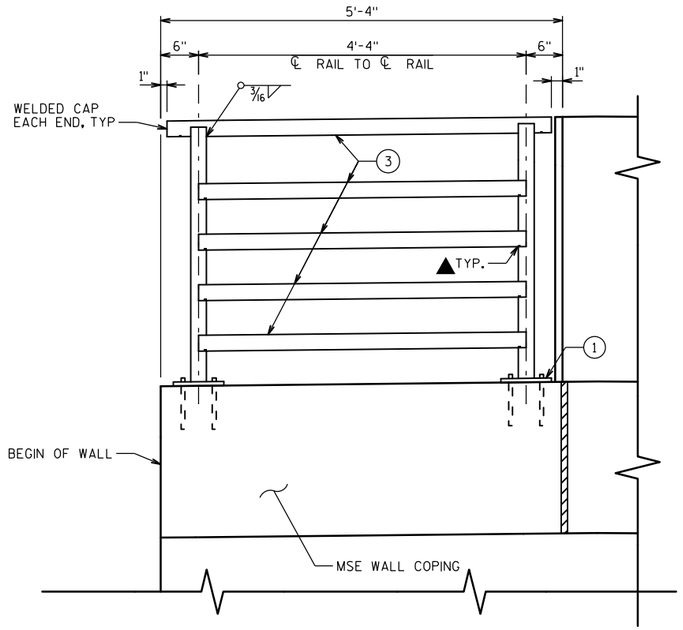
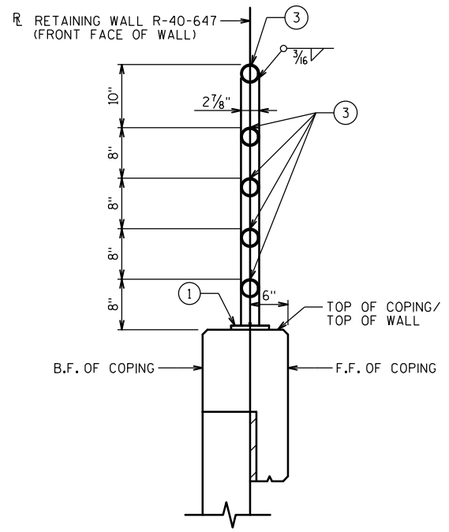


WALL RAILING ELEVATION

(LOOKING AT FRONT FACE OF COPING)



WALL RAILING SECTION

LEGEND

(1) PLATE 5/8" × 6" × 8" WITH 3/4" × 1 1/2" SLOTTED HOLES.

(2) STAINLESS STEEL CONCRETE ADHESIVE ANCHORS, 5/8" DIA. × 8 3/4" LONG WITH NUT AND WASHER. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

(3) 2 1/2" DIA STANDARD PIPE RAIL (2.875" O.D.). PLACE POSTS VERTICAL. WELD TO NO.(1). PLACE RAILS PARALLEL TO TOP OF COPING/ TOP OF WALL. WELD TO NO.(3).

▲ 1/2" DIA. DRAIN HOLE AT BOTTOM OF EACH RAIL END.

NOTES

BID ITEM "RAILING PIPE" INCLUDES ALL STEEL ITEMS SHOWN, CONCRETE ADHESIVE ANCHORS, GALVANIZING, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.(1) SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO.(3)).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE. ☆

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED AND USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.(1) AND CAULK AROUND PERIMETER OF PLATE NO.(1) WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

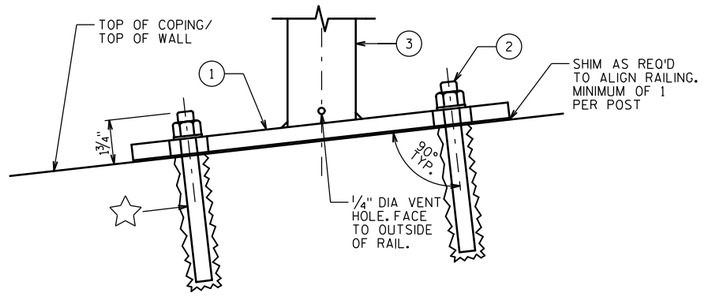
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE STANDARD SPECIFICATIONS. SHIMS SHALL BE GALVANIZED PER ASTM 123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

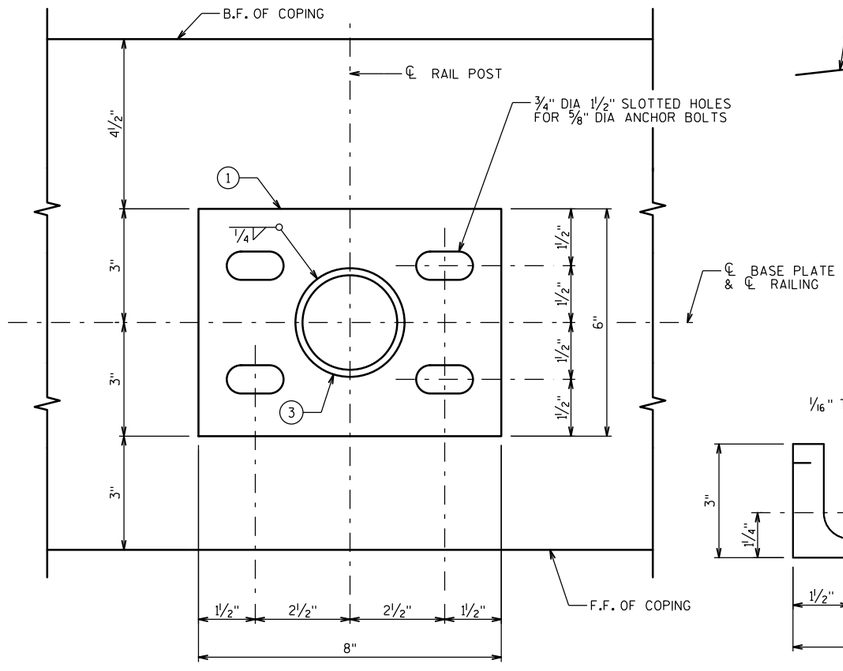
COORDINATE COPING EXPANSION JOINT PLACEMENT AND RAILING PANEL SPACING. COPING EXPANSION JOINT, WALL PANEL JOINT AND EDGE OF PANEL JOINT TO ALIGN AS SHOWN IN WALL RAILING ELEVATION DETAIL.



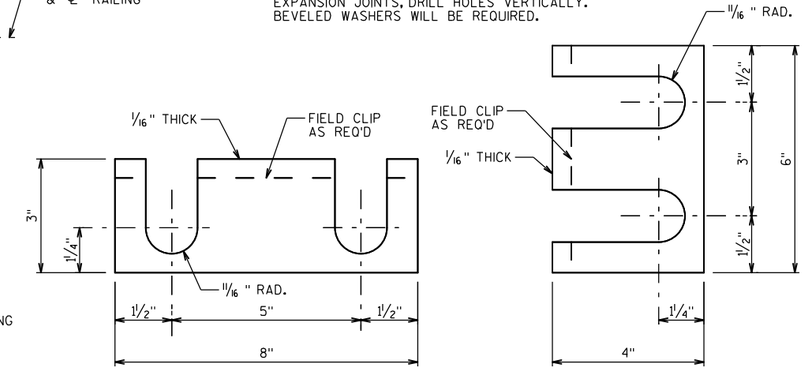
ANCHOR BOLTS FOR RAIL POST

(BETWEEN EXPANSION JOINTS)

☆ DRILL HOLES NORMAL TO TOP OF COPING EXCEPT AT EXPANSION JOINTS. AT EXPANSION JOINTS, DRILL HOLES VERTICALLY. BEVELED WASHERS WILL BE REQUIRED.



RAIL POST BASE PLATE



RAIL POST SHIM DETAIL

(2 SETS PER POST)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-647

DRAWN BY NNM | PLANS CK'D. EAJ

PIPE RAILING DETAILS

SHEET 9 OF 10

8

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
GHA-04	APRIL 24, 2014	340091	604301
GHA-05	JANUARY 12, 2015	340134	604301
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY			

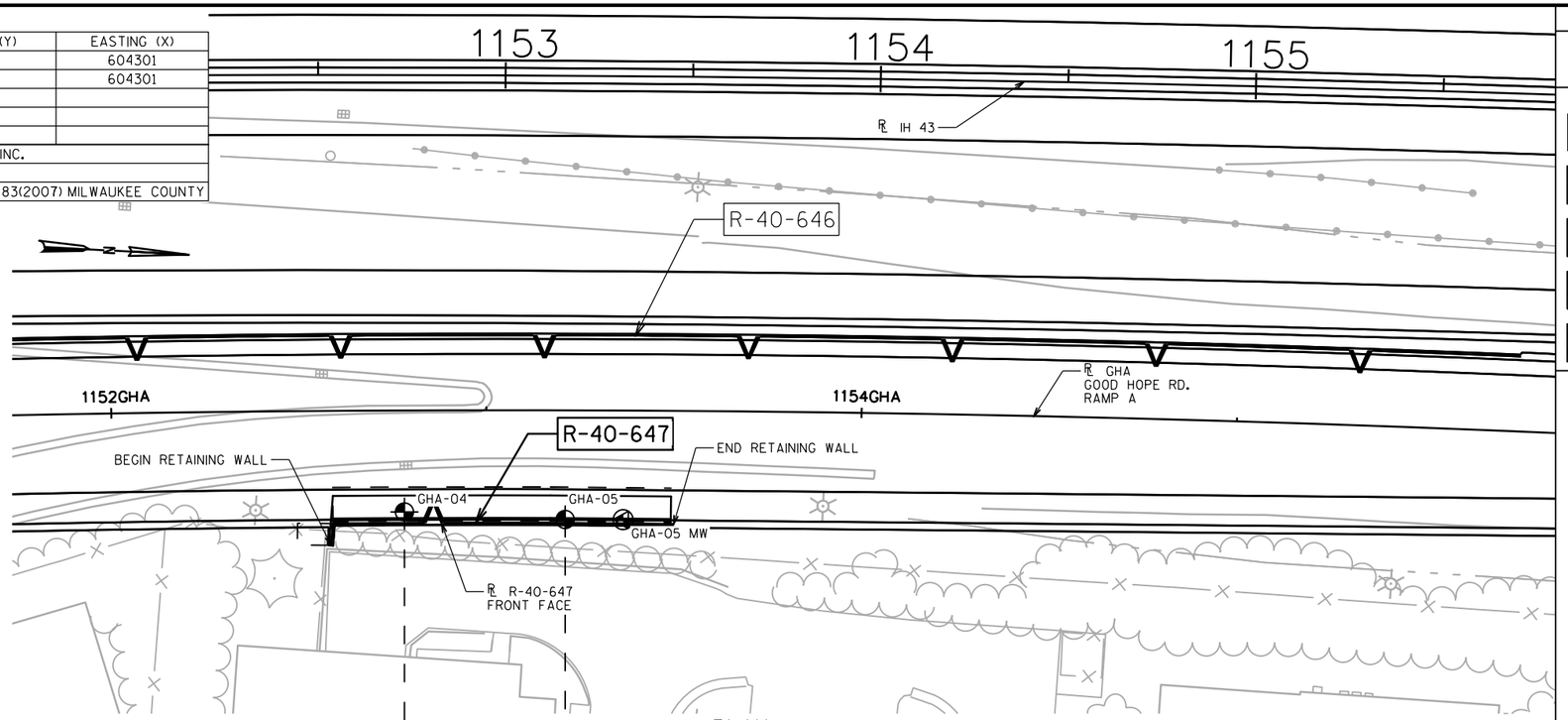
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

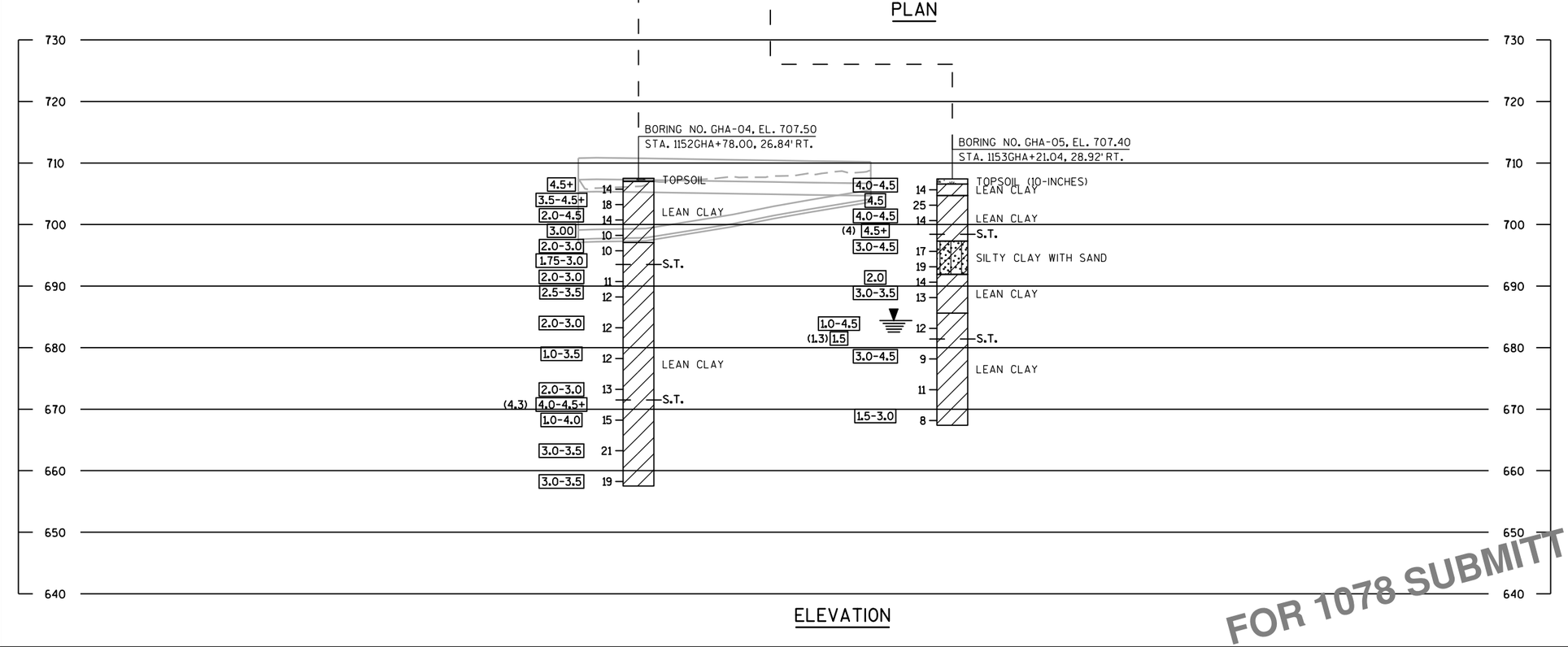
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION



PLAN



ELEVATION

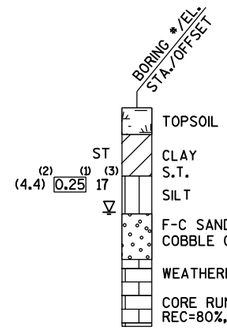
STATE PROJECT NUMBER

1229-04-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-647

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 10 OF 10

FOR 1078 SUBMITTAL

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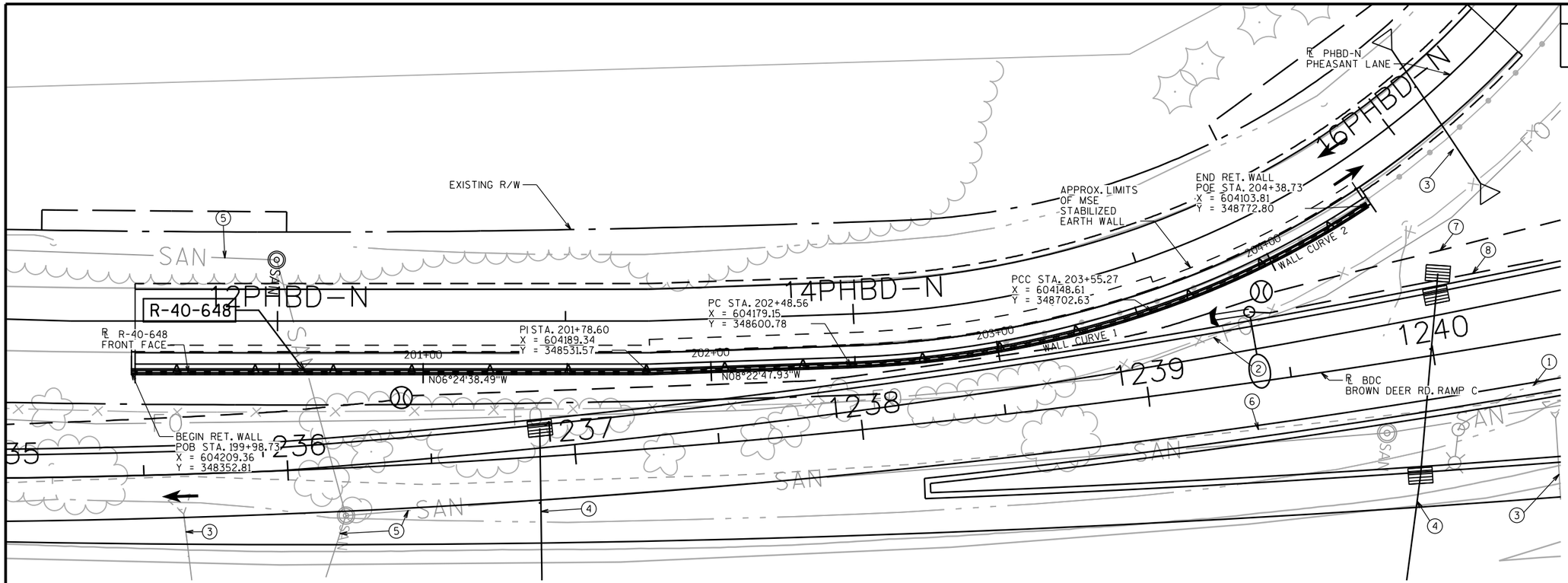
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\R-40-647\cds\R647_080401_se.dgn

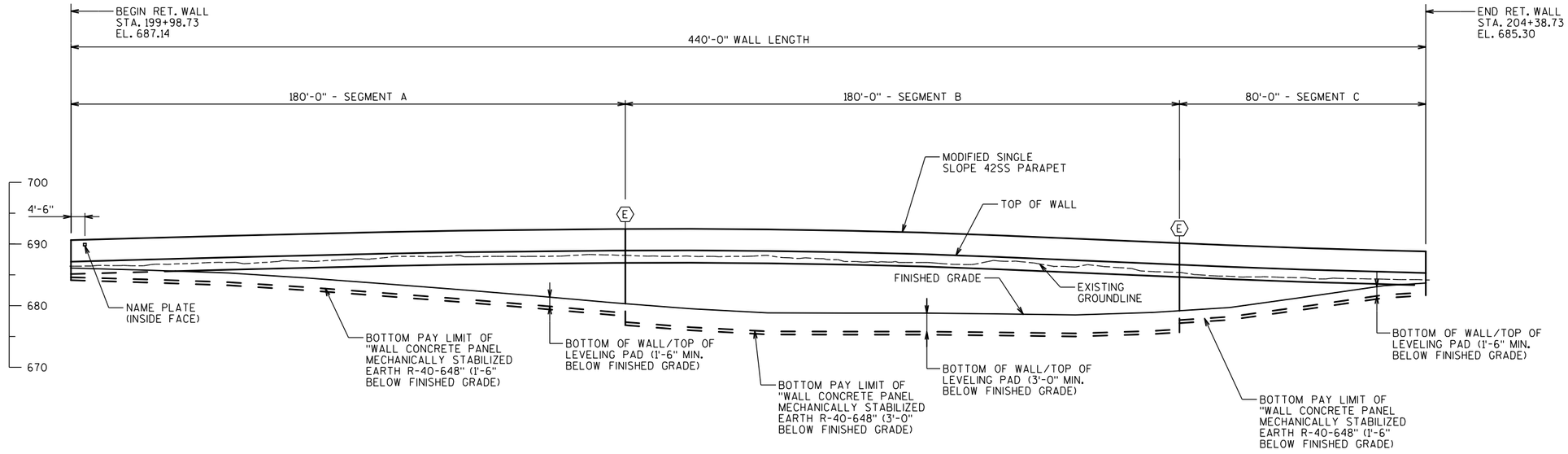
PLOT DATE : 9/28/2021 11:33:02 PM PLOT BY : ejelinek

PLOT SCALE : 40:1



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

1229-04-73

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL NOTES & QUANTITIES
3. DESIGN DATA & PROFILE GRADE LINES
4. TYPICAL SECTION
5. SUBSURFACE EXPLORATION

LEGEND

TRAFFIC DIRECTION

(E) EXPANSION JOINT

UTILITY AND STORM SEWER NOTES**

1. EXISTING WISDOT LIGHTING
2. EXISTING CENTURYLINK FIBER OPTIC
3. EXISTING WISDOT STORM SEWER
4. PROPOSED WISDOT STORM SEWER
5. EXISTING RIVER HILLS SANITARY SEWER
6. EXISTING WISDOT FTMS
7. PROPOSED WISDOT FTMS
8. PROPOSED WISDOT LIGHTING

**THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-40-648

RETAINING WALL ALONG N PHEASANT LANE

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	HDA	BTH/AKR	HDA

GENERAL PLAN & ELEVATION

SHEET 1 OF 5

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STATE PROJECT NUMBER
1229-04-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL STATIONS AND DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

ALL BAR STEEL REINFORCEMENT WITHIN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

PLAN DIMENSIONS, QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½" INCHES. FOR PANEL THICKNESSES OTHER THAN 7½" INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS TAKEN AS A CONSTANT 1'-6" BELOW FINISHED GRADE FOR MEASUREMENT PURPOSES. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE ANCHOR SLAB, COPING AND PARAPET ARE PAID FOR UNDER ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES", RESPECTIVELY.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP EXPOSED SURFACE OF THE ANCHOR SLAB.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACES OF THE PARAPET.

THE COST OF FURNISHING AND PLACING THE MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648".

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN THE MSE WALL FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

SOIL REINFORCEMENT MAY BE PLACED UP TO A MAXIMUM OF 15° FROM PERPENDICULAR IF NECESSARY TO AVOID INTERFERENCE WITH ITEMS BEHIND THE WALL. ANGLES GREATER THAN 15° REQUIRE APPROVAL FROM THE BUREAU OF STRUCTURES DESIGN SECTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

WALL ON CURVED ALIGNMENT LIMITS PANEL WIDTH TO 5'-0".

MSE WALL PANEL SHAPES SHALL BE SQUARE.

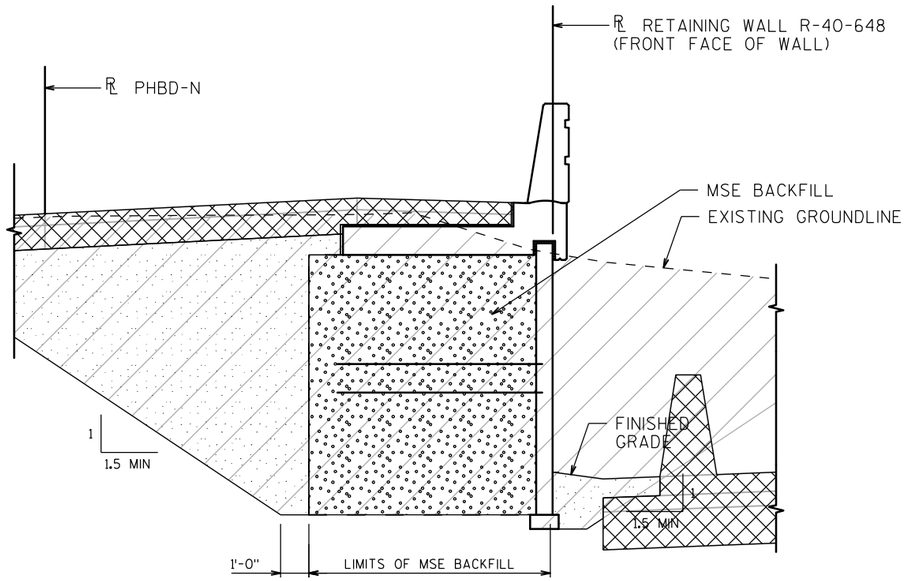
DESIGN SPECIFICATION:
AASHTO LRFD DESIGN SPECIFICATIONS, 9TH EDITION, 2020 WITH INTERIM REVISIONS, UNLESS OTHERWISE NOTED.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST RESULTS.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-
502.3210	PIGMENTED SURFACE SEALER	SY	-
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	-
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-
SPV.0165.XX	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648	SF	-
	NON BID ITEMS		
	NAME PLATE	EACH	1
	CORK FILLER	SIZE	1"
	NON-BITUMINOUS JOINT SEALER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"
	RODENT SHIELD	EACH	-

ALL ITEMS ARE CATEGORY XXXX



TYPICAL WALL EXCAVATION LIMITS DIAGRAM

LOOKING NORTH

WALL ELEVATIONS ◥

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
199+98.73			
200+00.00	687.16	686.11	686.41
200+25.00	687.51	685.74	686.70
200+50.00	687.83	685.30	687.00
200+75.00	688.15	684.53	687.26
201+00.00	688.45	683.58	687.76
201+25.00	688.67	682.60	688.16
201+50.00	688.81	681.57	688.02
201+75.00	688.94	680.47	688.25
201+78.60	688.95	680.33	688.21
202+00.00	688.97	679.50	688.04
202+25.00	688.88	678.83	688.16
202+48.56	688.70	678.81	687.38
202+50.00	688.69	678.81	687.20
202+75.00	688.40	678.79	687.00
203+00.00	687.92	678.66	687.25
203+25.00	687.38	678.49	686.27
203+50.00	686.84	678.91	685.55
203+55.27	686.73	679.08	685.46
203+75.00	686.31	679.71	684.79
204+00.00	685.86	681.43	684.52
204+25.00	685.49	683.24	684.31
204+38.73			

LEGEND

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648".

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-648".

ROADWAY ITEM - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

EMBANKMENT - NOT A RETAINING WALL ITEM. SEE ROADWAY PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-648

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GENERAL NOTES & QUANTITIES

SHEET 2 OF 5

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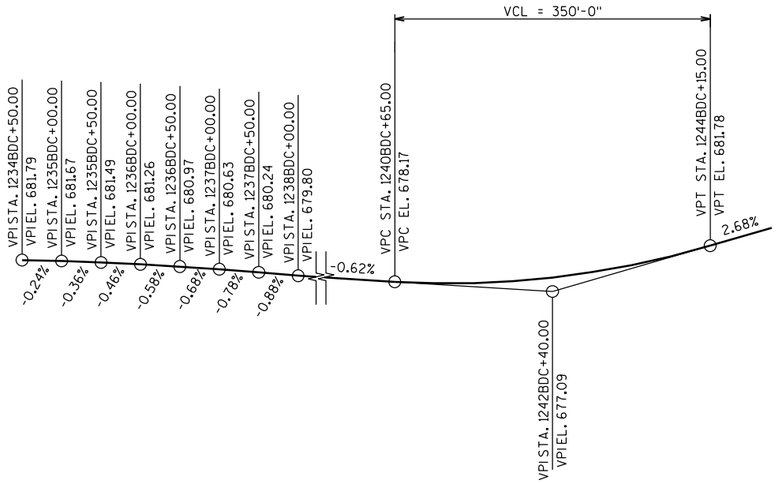
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

MSE WALL SOIL PARAMETERS

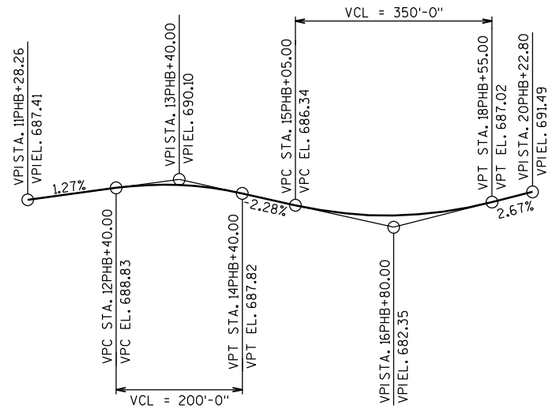
	SOIL DESCRIPTION	TOTAL UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
			FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
◐	MSE WALL REINFORCED ZONE	120	30	N/A	34	0
BORING BDC-01	FILL - LEAN CLAY EL. 688.2 - EL. 685.4	128	--	2,000	30	0
	FILL - LEAN CLAY EL. 685.4 - EL. 680.5	128	--	4,500	30	0
	LEAN CLAY EL. 680.5 - EL. 677.7	130	--	3,000	31	0
	LEAN CLAY EL. 677.7 - EL. 641.2	130	--	2,500	31	0
	POORLY GRADED GRAVEL W SAND EL. 641.2 - EL. 632.0	135	38	--	38	0
	POORLY GRADED SAND W GRAVEL EL. 632.0 - EL. 629.4	130	34	--	34	0

◐ DESIGN WALL FOR THESE VALUES



PROFILE GRADE LINE BROWN DEER RD. RAMP C

℄ 'BDC'



PROFILE GRADE LINE N. PHEASANT LANE

℄ 'PHBB-N'

HORIZONTAL CURVE DATA

WALL CURVE 1	WALL CURVE 2
P.I. = 203+02.29	P.I. = 203+97.89
X = 604171.32	X = 604130.61
Y = 348653.94	Y = 348741.26
Δ = 16° 36' 56"	Δ = 15° 16' 10"
D = 16° 41' 15.98"	D = 32° 37' 49.17"
T = 53.73'	T = 42.62'
L = 106.70'	L = 84.74'
R = 367.95'	R = 317.95'
P.C. = 202+48.56	P.C. = 203+55.27
X = 604179.15	X = 604148.61
Y = 348600.78	Y = 348702.63
P.T. = 203+55.27	P.T. = 240+40.00
X = 604148.61	X = 604103.06
Y = 348702.63	Y = 348773.78

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL _____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT _____ Fy = 60,000 PSI

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET)		13.05
EXPOSED WALL HEIGHT (FEET)		10.05
◥ MINIMUM LENGTH OF REINFORCEMENT/WALL WIDTH (FEET)		8
REINFORCEMENT LENGTH/RETAINED HEIGHT RATIO		0.77
WALL STATION		201+50
BORING USED		BDC-01
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING		1.28
ECCENTRICITY		1.19
BEARING RESISTANCE		1.36
FACTORED BEARING RESISTANCE (PSF)		3,750
GLOBAL STABILITY	END OF CONSTRUCTION	7.72
	LONG-TERM	1.37

◥ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND GLOBAL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-648

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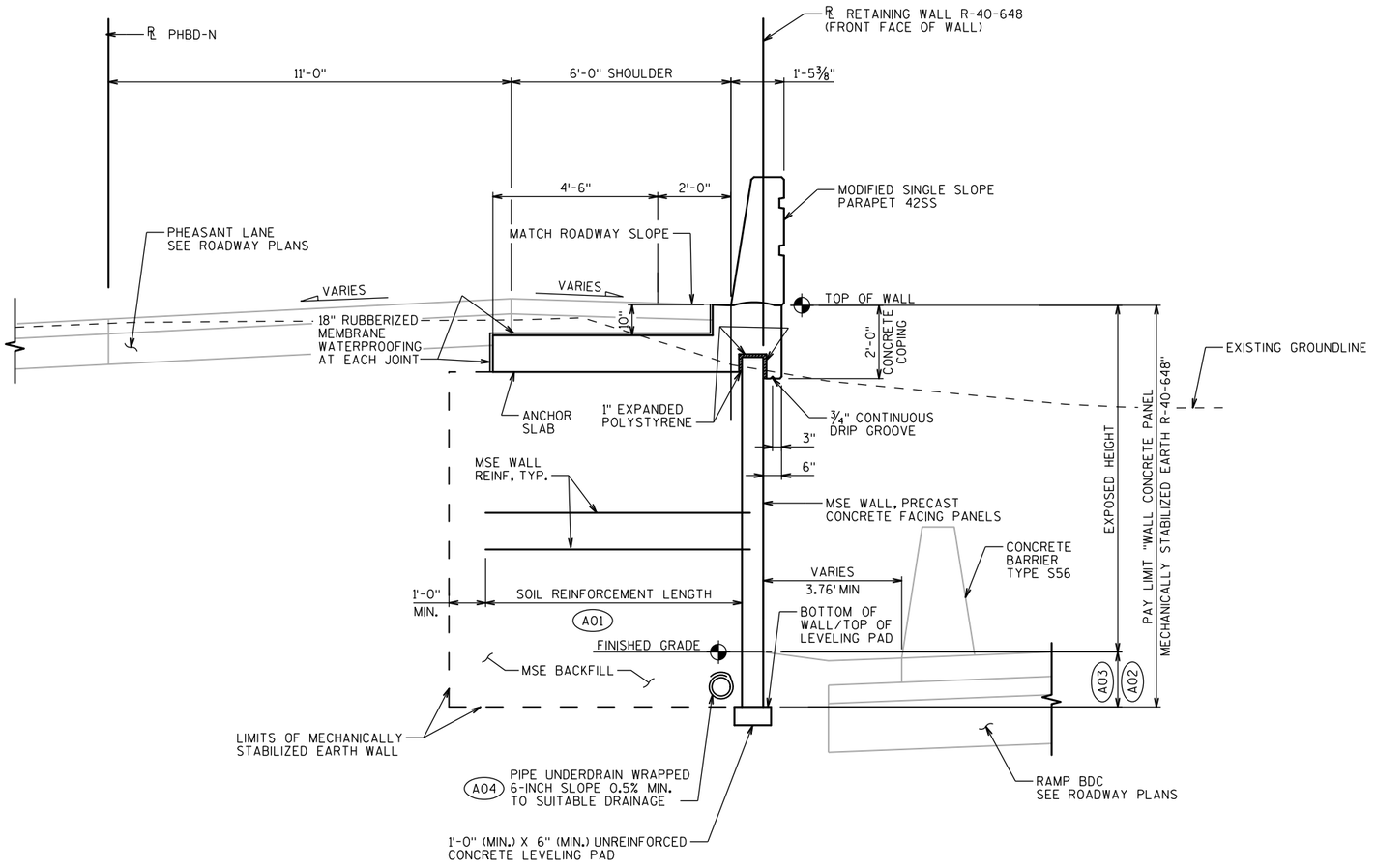
DESIGN DATA & PROFILE GRADE LINES

SHEET 3 OF 5

FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73



TYPICAL SECTION

LOOKING NORTH
SEGMENT A - STATION 199+98.73 TO STA. 201+78.73
SEGMENT B - STATION 201+78.73 TO STA. 203+58.73
SEGMENT C - STATION 203+58.73 TO STATION 204+38.73

LEGEND

(A01) SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON "DESIGN DATA & PROFILE GRADE LINES" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

(A02) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO TOP OF LEVELING PAD AS SHOWN. PAY LIMITS BASED ON MINIMUM DIMENSION.

(A03) SEGMENTS A AND C DIMENSION = 1'-6"
SEGMENT B DIMENSION = 3'-0"

(A04) CONNECT PIPE UNDERDRAIN WRAPPED TO INLET #XXXXX USING PIPE UNDERDRAIN UNPERFORATED. (CONNECTIONS ARE INCIDENTAL TO "PIPE UNDERDRAIN UNPERFORATED 6-INCH"). SEE GENERAL PLAN AND ELEVATION SHEETS. <<OUTLET CONNECTION TBD IN FINAL DESIGN>>

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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-648

DRAWN BY NNM | PLANS CK'D. EAJ

TYPICAL SECTION

SHEET 4 OF 5

FOR 1078 SUBMITTAL

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BDC-01	APRIL 23, 2014	348648	604164
BDC-02	DECEMBER 26, 2014	348462	604196
BDC-03	DECEMBER 26, 2014	348797	604133
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (2007) MILWAUKEE CO.			

NOTE:

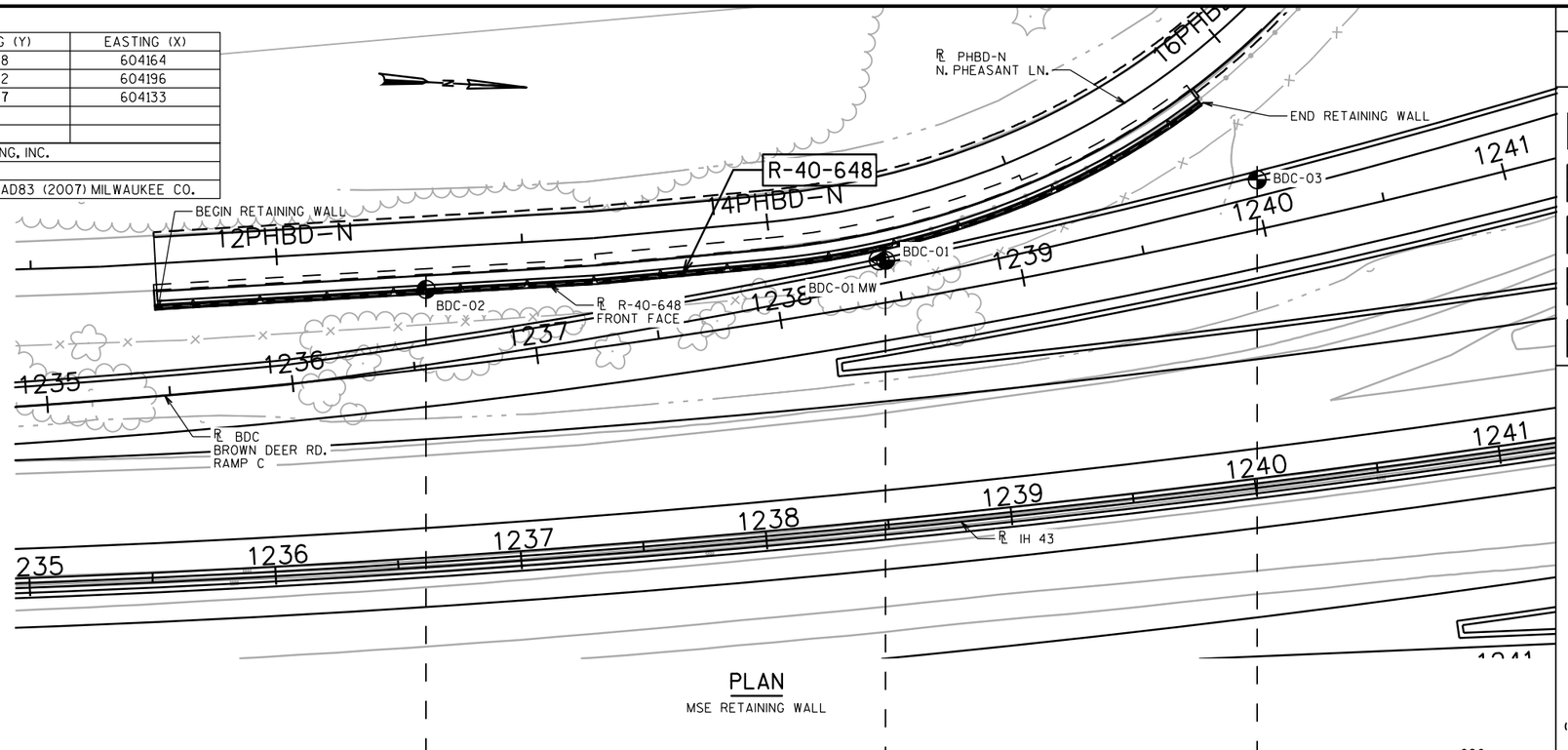
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

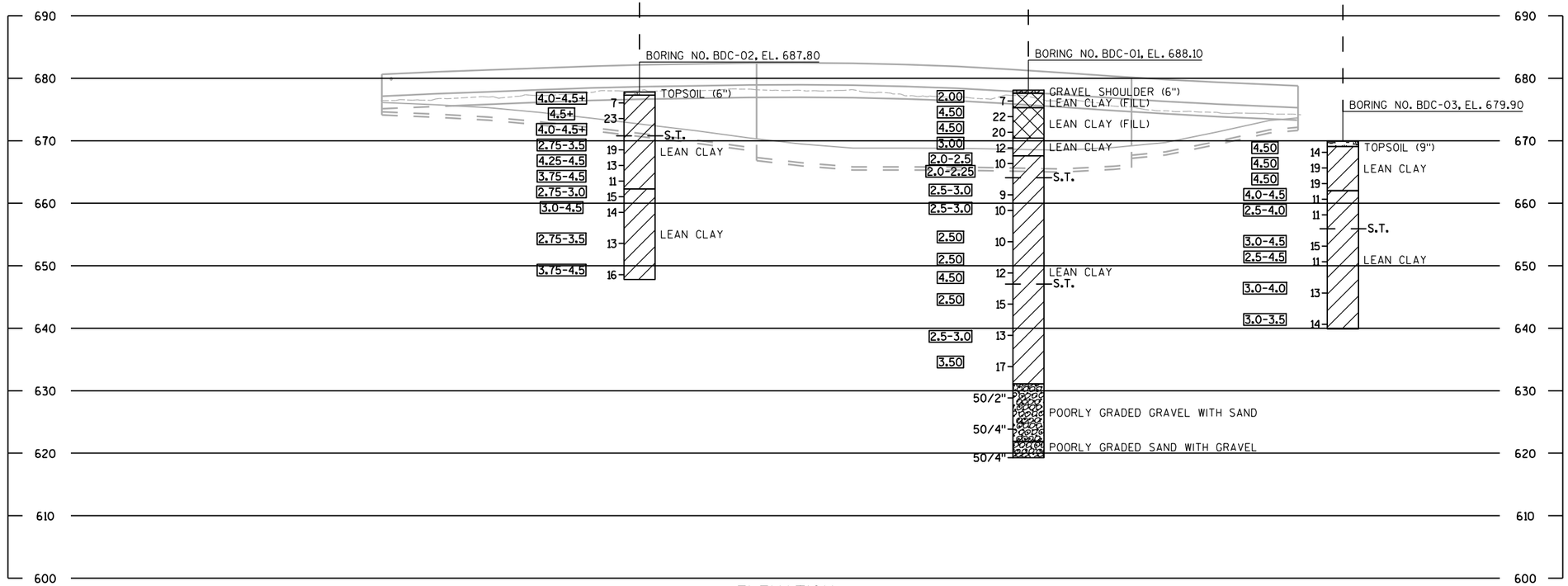
DENOTES SOIL BORING LOCATION

DENOTES MONITORING WELL LOCATION



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

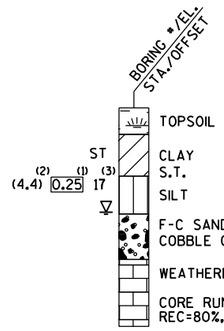
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER
1229-04-73

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-648

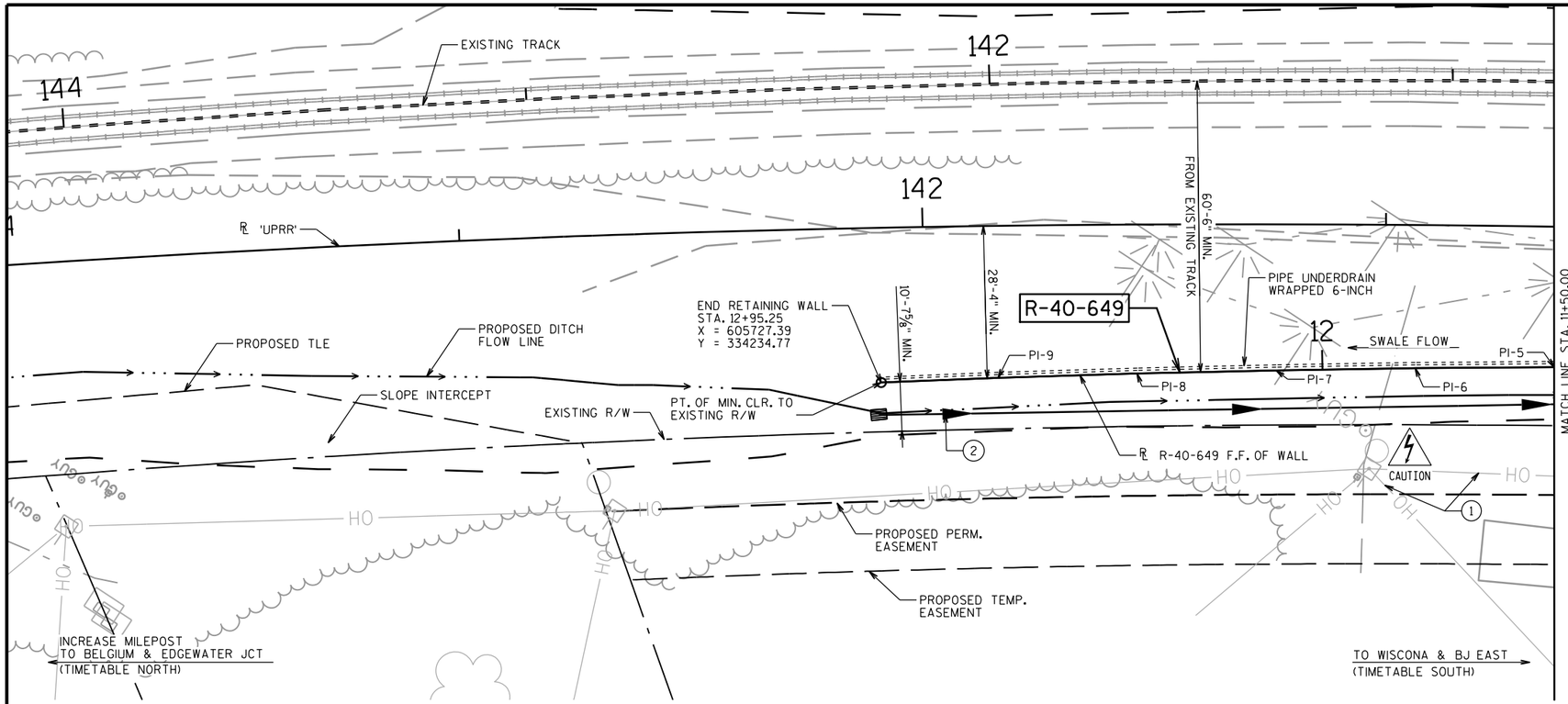
DRAWN BY	NNM	PLANS CK'D.	EAJ

SUBSURFACE EXPLORATION

SHEET 5 OF 5

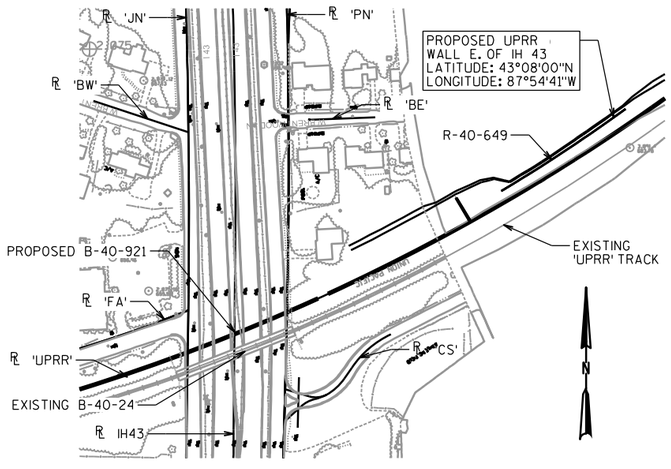
8

8

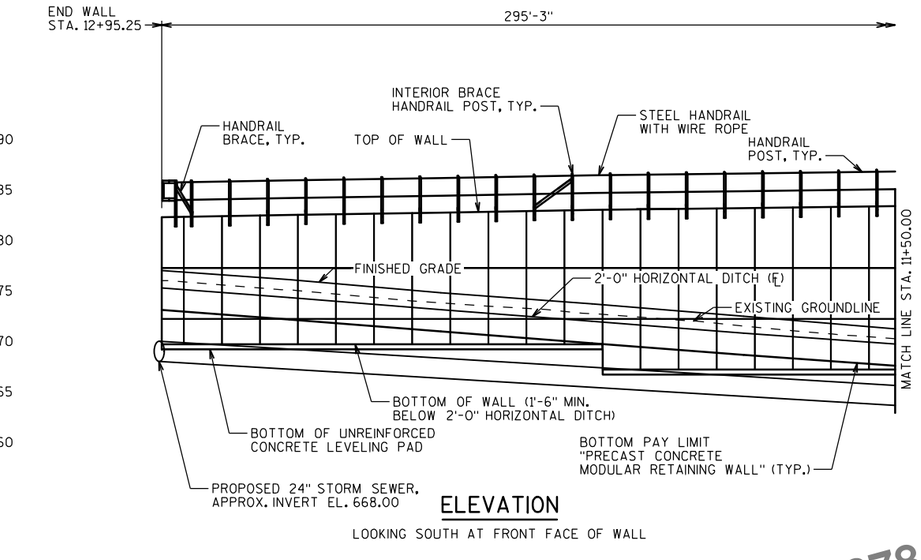


PLAN

PRECAST CONCRETE MODULAR RETAINING WALL



LOCATION MAP



ELEVATION

LOOKING SOUTH AT FRONT FACE OF WALL

STATE PROJECT NUMBER
1229-04-72

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. GENERAL NOTES & QUANTITIES
4. GEOMETRY DATA & WALL ELEVATIONS
5. TYPICAL SECTIONS
6. HANDRAIL DETAILS
7. SUBSURFACE EXPLORATION

UTILITY NOTES**

(1) EXISTING WE ENERGIES OVERHEAD ELECTRIC TO REMAIN

(2) PROPOSED 24" DIAMETER WISDOT STORM SEWER

** THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

NOTES:

1. HORIZONTAL PANEL JOINTS SHOWN IN CONCEPT ONLY. VERTICAL PANEL JOINTS AND PROPOSED WALL LENGTH ARE BASED UPON 7'-6" WIDE UNITS SPACED WITH A ½" GAP BETWEEN EACH UNIT. DIMENSIONS AND LAYOUT TO BE PROVIDED BY THE PRECAST CONCRETE MODULAR RETAINING WALL MANUFACTURER.
2. COORDINATE INSTALLATION OF PROPOSED STORM SEWER AND INLETS IN FRONT OF RETAINING WALL. STORM SEWER TO BE INSTALLED PRIOR TO RETAINING WALL.
3. FOR TABLE OF WALL ELEVATIONS, SEE "GEOMETRY DATA & WALL ELEVATIONS" SHEET.
4. FOR EXISTING & PROPOSED CONTOURS, SEE SOIL EXPLORATION SHEETS.
5. FOR ALIGNMENT INFORMATION, SEE "GEOMETRY DATA & WALL ELEVATIONS" SHEET.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB

250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-649

RET. WALL EAST IH 43, MILWAUKEE SUB M.P. 104.19

COUNTY: MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~: GLENDALE
DESIGN SPEC.: AREMA 2021	LATITUDE: 43°08'00"N LONGITUDE: 87°54'41"W
DESIGNED BY: EAJ / DESIGN CK'D.: JWC	DRAWN BY: NNM / PLANS CK'D.: EAJ

GENERAL PLAN & ELEVATION (1 OF 2)

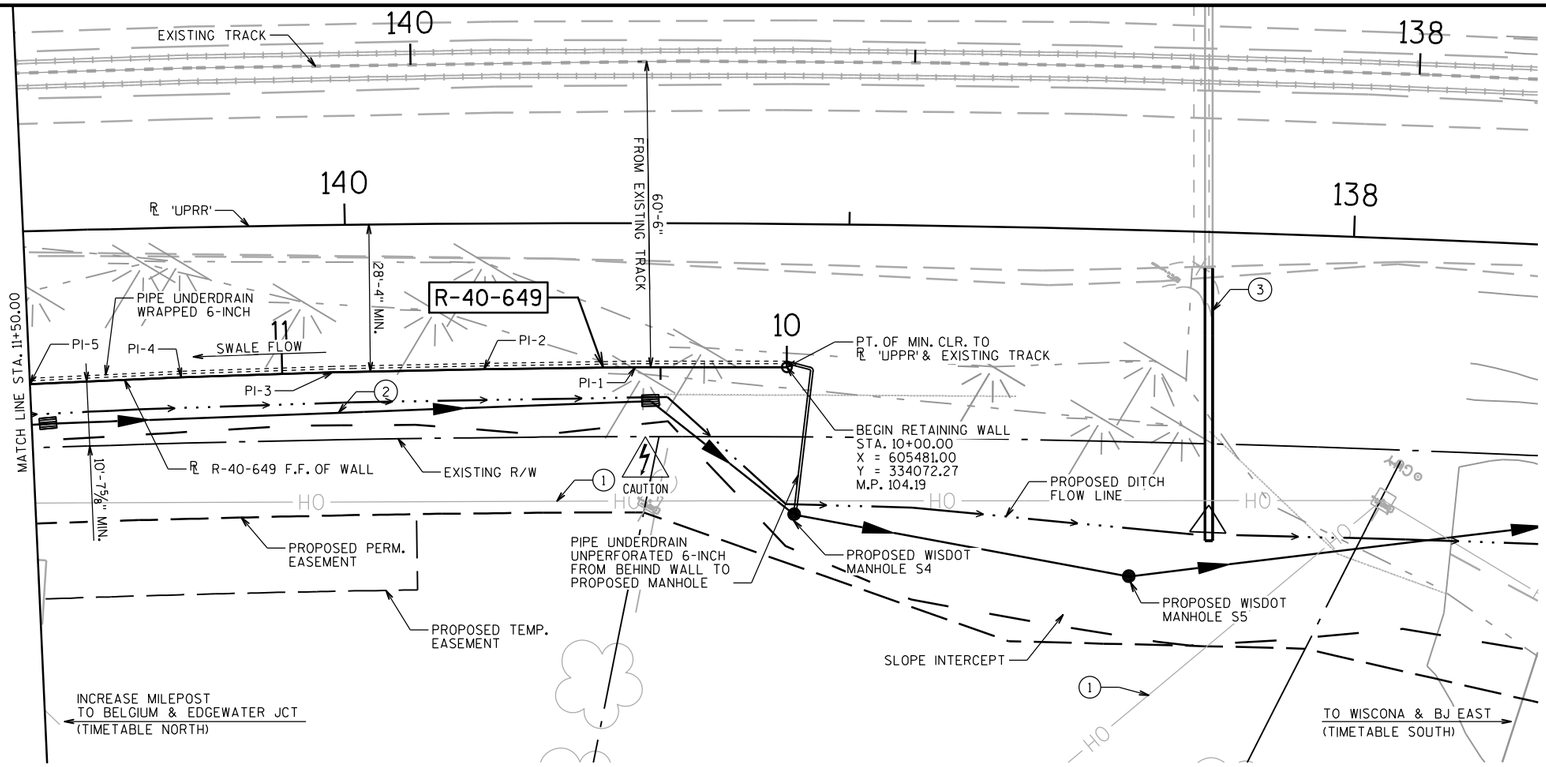
SHEET 1 OF 7

FOR 1078 SUBMITTAL

8

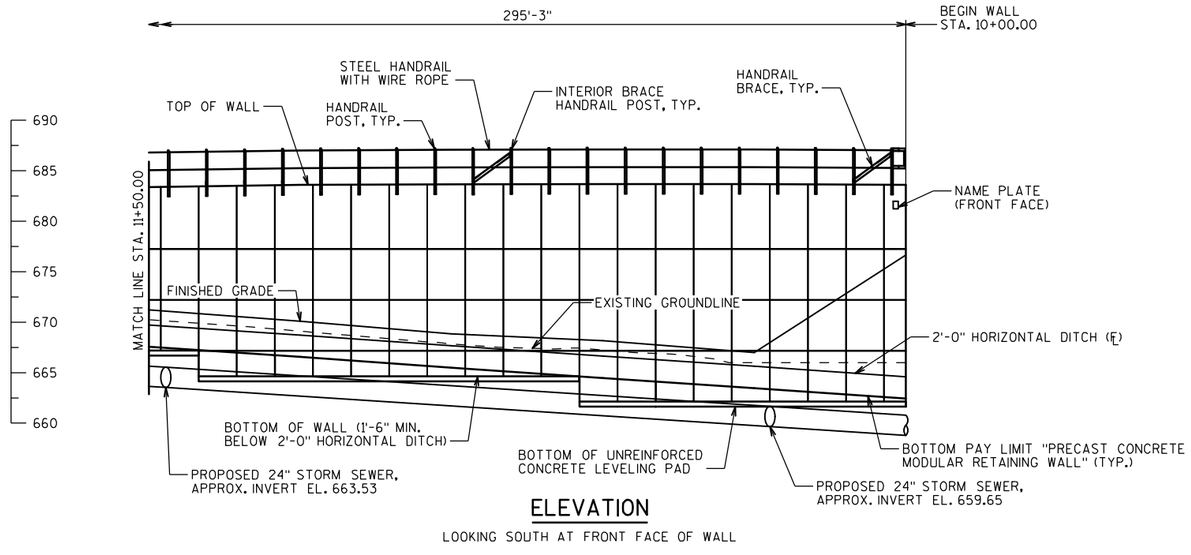
8

STATE PROJECT NUMBER
1229-04-72



PLAN

PRECAST CONCRETE MODULAR RETAINING WALL



ELEVATION

LOOKING SOUTH AT FRONT FACE OF WALL

UTILITY NOTES**

(1) EXISTING WE ENERGIES OVERHEAD ELECTRIC

(2) PROPOSED 24" DIAMETER WISDOT STORM SEWER

(3) PROPOSED CULVERT

** THE FOLLOWING ITEMS TBD (IF APPLICABLE) - DISPOSITION, OWNERSHIP & SIZE

NOTES:

1. HORIZONTAL PANEL JOINTS SHOWN IN CONCEPT ONLY. VERTICAL PANEL JOINTS AND PROPOSED WALL LENGTH ARE BASED UPON 7'-6" WIDE UNITS SPACED WITH A ½" GAP BETWEEN EACH UNIT. DIMENSIONS AND LAYOUT TO BE PROVIDED BY THE PRECAST CONCRETE MODULAR RETAINING WALL MANUFACTURER.
2. COORDINATE INSTALLATION OF PROPOSED STORM SEWER AND INLETS IN FRONT OF RETAINING WALL. STORM SEWER TO BE INSTALLED PRIOR TO RETAINING WALL.
3. FOR TABLE OF WALL ELEVATIONS, SEE "GEOMETRY DATA & WALL ELEVATIONS" SHEET.
4. FOR EXISTING & PROPOSED CONTOURS, SEE SOIL EXPLORATION SHEETS.
5. FOR ALIGNMENT INFORMATION, SEE "GEOMETRY DATA & WALL ELEVATIONS" SHEET.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 7

8

8

STATE PROJECT NUMBER
1229-04-72

GENERAL NOTES

G.1. DRAWINGS SHALL NOT BE SCALED.

G.2. BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

G.3. COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

G.4. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE.

G.5. ALL STATIONS AND DIMENSIONS ALONG THE ℞ FOR R-40-649 ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

G.6. THESE PLANS ARE FOR A PRECAST CONCRETE MODULAR RETAINING WALL SYSTEM.

G.7. THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "PRECAST CONCRETE MODULAR RETAINING WALL".

G.8. THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE PRECAST CONCRETE MODULAR RETAINING WALL SYSTEM IS INCLUDED IN THE BID ITEM FOR "PRECAST CONCRETE MODULAR RETAINING WALL".

G.9. THE PLAN QUANTITY FOR THE ITEM "PRECAST CONCRETE MODULAR RETAINING WALL" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO THE MINIMUM EMBEDMENT BELOW THE LOW POINT OF DITCH IN FRONT OF WALL, AS SHOWN ON THE "TYPICAL SECTIONS & DETAILS" SHEET. WALL AREA CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

G.10. PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

G.11. THE UTILITY AND STORM SEWER INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

G.12. PROPERTY OWNER: UNION PACIFIC RAILROAD (UPRR)
RAIL OPERATOR: UNION PACIFIC RAILROAD (UPRR)
UPRR CONTACT INFO: CHRIS KECKEISEN
TELEPHONE: 402-544-5131
E-MAIL: ctkeckei@up.com

G.13. APPROXIMATELY 2 TRAINS OPERATE ON THE EXISTING ALIGNMENT PER DAY (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION). EXISTING TRACK SPEED IS 25 MPH. DESIGN TRACK SPEED FOR THE PROPOSED OFFSET TRACK ALIGNMENT IS 25 MPH.

G.14. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE TO THE ENGINEER AND UPRR ENGINEER FOR APPROVAL PRIOR TO START OF WORK.

G.15. SEE ROADWAY PLANS FOR CLEARING AND GRUBBING WORK AND PAYMENT.

FOUNDATION DATA

F.1. RETAINING WALL TO BE SUPPORTED ON SUBGRADE WITH AN ALLOWABLE BEARING PRESSURE OF 3,000 PSF.

F.2. MINIMUM STEM LENGTH SHOWN ON "TYPICAL SECTIONS & DETAILS" SHEET SATISFIES BOTH GLOBAL AND INTERNAL STABILITY ANALYSES INDICATED IN THE GEOTECHNICAL REPORT.

DESIGN DATA

DESIGN SPECIFICATIONS

2021 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING CHAPTER 8 CONCRETE STRUCTURES AND FOUNDATIONS

APPLIED LIVE LOAD

COOPER E-80 AT BASE OF 9'-0" WOOD TIE

MATERIAL PROPERTIES

CONCRETE MASONRY LEVELING PAD ———— f'c = 3,500 PSI
PRECAST CONCRETE MODULAR RETAINING WALL—— f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, EPOXY COATED ——— fy = 60,000 PSI

PRECAST CONCRETE MODULAR RETAINING WALL GENERAL NOTES

M.1. BACKFILL BETWEEN STEMS, (PAID FOR AS "BACKFILL MODULAR RETAINING WALL", SEE SPECIAL PROVISIONS):

EITHER		OR	
	BASE AGGREGATE DENSE 1¼-INCH SPECIAL		BASE AGGREGATE OPEN GRADED SPECIAL
	ANGLE OF INTERNAL FRICTION - 34 DEG. (MINIMUM)		ANGLE OF INTERNAL FRICTION - 34 DEG. (MINIMUM)
	DENSITY - 120 PCF (MINIMUM)		DENSITY - 110 PCF (MINIMUM)
	15% PASSING #200 SIEVE (MAXIMUM)		5% PASSING #200 SIEVE (MAXIMUM)
	100% PASSING 3" SIEVE		100% PASSING 1" SIEVE
	95% MODIFIED COMPACTION (ASTM D-1557)		COMPACT AS INDICATED IN THE CONTRACT SPECIAL PROVISIONS

M.2. UNCLASSIFIED BACKFILL BEHIND STEMS, (TRACK ITEM - SEE TRACK PLANS FOR DETAILS):
ANGLE OF INTERNAL FRICTION - 38 DEG. (MINIMUM)
DENSITY - 110 PCF (MINIMUM)
95% MODIFIED COMPACTION (ASTM D-1557) AND WATER CONTENT FROM 0% TO +6% OF OPTIMUM WATER CONTENT, SEE SPECIAL PROVISIONS

M.3. HORIZONTAL JOINT:
A. FOR 2'-6" X 5'-0" AND 5'-0½" X 5'-0" UNITS: ½-INCH SPACE
ASPHALT EXPANSION JOINT MATERIAL PER ASTM D994.
ASPHALT IMPREGNATED FIBER BOARD SHALL NOT BE PERMITTED.
12-INCH WIDE FILTER CLOTH BACKING CENTERED AT JOINT, UNLESS NOTED OTHERWISE.

B. FOR 5'-0" X 7'-6" UNITS: ½-INCH SPACE
12-INCH WIDE FILTER CLOTH BACKING CENTERED AT JOINT, UNLESS NOTED OTHERWISE.
NEOPRENE BEARING PADS AS REQUIRED BY DESIGN.

M.4. VERTICAL JOINT:
A. FOR 2'-6" X 5'-0" AND 5'-0½" X 5'-0" UNITS: ⅜-INCH SPACE

B. FOR 5'-0" X 7'-6" UNITS: ½-INCH SPACE

IN BOTH CASES, USE 12-INCH WIDE FILTER CLOTH BACKING CENTERED AT JOINT, UNLESS NOTED OTHERWISE.

M.5. TOLERANCES OF THE WALL: VERTICAL AND HORIZONTAL PLANE - ¾-INCH IN 10-FEET

M.6. FOUNDATION: PRIOR TO WALL CONSTRUCTION, PROOF ROLL THE ENTIRE WALL SUBGRADE. ANY SOFT OR UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH "BACKFILL MODULAR RETAINING WALL".

M.7. CONCRETE LEVELING PAD: NO REINFORCEMENT. GRADE TOLERANCE ¼-INCH IN 10-FEET.
6-INCHES MINIMUM X 12-INCHES (FOR 2'-6" X 5'-0" AND 5'-0½" X 5'-0" UNITS)
6-INCHES MINIMUM X 15-INCHES (FOR 5'-0" X 7'-6" UNITS)

M.8. SHEAR KEYS: NO REINFORCEMENT. WALL SHALL INCLUDE SPECIFIC NUMBER OF SHEAR KEYS AS RECOMMENDED BY THE DESIGNER.

M.9. DESIGN AND CONSTRUCTION: TO BE IN ACCORDANCE WITH THE MANUFACTURER'S PRECAST CONCRETE MODULAR RETAINING WALL CONSTRUCTION MANUAL AND TYPICAL PRECAST CONCRETE MODULAR RETAINING WALL NOMENCLATURE.

M.10. PRECAST CONCRETE MODULAR RETAINING WALL SHALL BE COMPOSED OF PRECAST CONCRETE MODULAR PANELS ATTACHED TO CONCRETE STEMS EMBEDDED INTO THE RETAINED SOIL. THE LONGEST STEM SHALL BE LOCATED AT THE BOTTOM OF THE WALL. MSE WALLS AND CONCRETE MODULAR BLOCK WALLS ARE NOT ALLOWED. WALL DESIGN MUST RECEIVE CONCEPTUAL REVIEW AND APPROVAL BY UPRR BEFORE FINAL SHOP DRAWINGS AND CALCULATIONS ARE PERFORMED.

M.11. BACKFILL MODULAR RETAINING WALL AND UNCLASSIFIED BACKFILL GRADATION, COMPACTION, AND ANGLE OF INTERNAL FRICTION: BACKFILL MODULAR RETAINING WALL GRADATION, COMPACTION, AND ANGLE OF INTERNAL FRICTION BETWEEN STEMS AND AROUND PIPES ARE IMPORTANT TO THE WALL STABILITY. UNCLASSIFIED BACKFILL GRADATION, COMPACTION AND ANGLE OF INTERNAL FRICTION IS IMPORTANT TO TRACK EMBANKMENT SLOPE STABILITY. THE CONTRACTOR SHALL PROVIDE AN INDEPENDANT, THIRD PARTY GEOTECHNICAL ENGINEER TO PROVIDE TESTING TO INSURE COMPLIANCE WITH THE APPROPRIATE BACKFILL GRADATION, COMPACTION, AND ANGLE OF INTERNAL FRICTION SPECIFICATIONS NOTED ON THIS SHEET, INCIDENTAL TO THE BACKFILL, AGGREGATE AND EMBANKMENT BID ITEMS.

M.12. BACKFILL FOR PAYMENT: ALL UNCLASSIFIED BACKFILL ABOVE AND BEHIND THE RETAINING WALL STEMS SHALL BE PAID FOR IN THE TRACK PLANS. ALL BACKFILL BETWEEN AND BELOW THE RETAINING WALL STEMS SHALL BE PAID FOR UNDER "BACKFILL MODULAR RETAINING WALL".

EXCAVATION NOTES

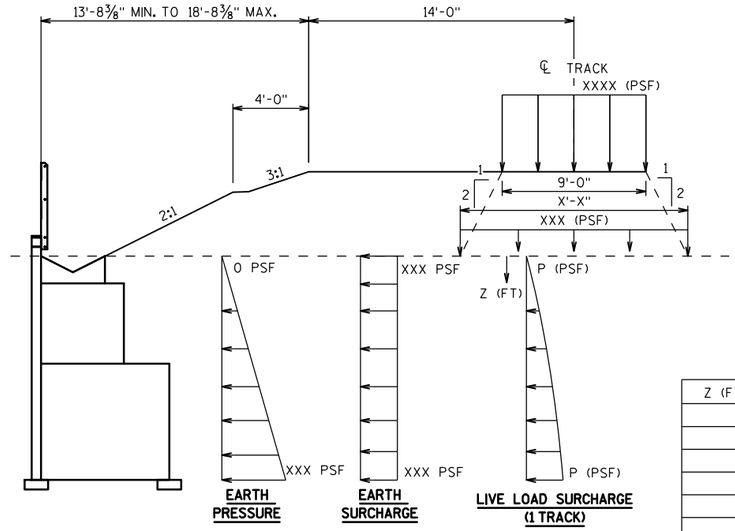
E.1. ALL EXCAVATION FOR THE SUBJECT STRUCTURE SHALL BE FIELD SCREENED BY THE ENVIRONMENTAL CONSULTANT AS INDICATED IN THE CONTRACT SPECIFICATIONS FOR THE ITEM "EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL". FOR BIDDING PURPOSES, ANY EXCAVATION, AS DEFINED IN THE SPECIAL PROVISIONS, ANTICIPATED TO BE CONTAMINATED, AND IF FIELD VERIFIED TO BE CONTAMINATED AND DESIGNATED FOR DISPOSAL IN A LANDFILL FACILITY, WILL BE PAID FOR UNDER THE ITEM "EXCAVATION, HAULING, AND RE-USE OF LOW-LEVEL CONTAMINATED SOIL". ANY OTHER EXCAVATION IS NOT ANTICIPATED TO BE CONTAMINATED AND SHOULD BE PAID FOR UNDER THE ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-649".

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
205.0501.S.XXXX	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	
206.3000.XXXX	EXCAVATION FOR STRUCTURES RETAINING WALLS R-40-649	LS	
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	
645.0140	GEOTEXTILE TYPE SAS	SY	
SPV.0035.XXXX	EXCAVATION, HAULING, AND REUSE OF LOW-LEVEL CONTAMINATED SOIL	CY	
SPV.0090.XXXX	HANDRAIL R-40-649	LF	
SPV.0165.XXXX	PRECAST CONCRETE MODULAR RETAINING WALL	SF	
SPV.0195.XXXX	BACKFILL MODULAR RETAINING WALL	TON	
	NON-BID ITEM		
	NAME PLATE	EACH	1

ALL ITEMS ARE CATEGORY XXXX

WALL LOADING DIAGRAM



Z (FT)	P (PSF)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

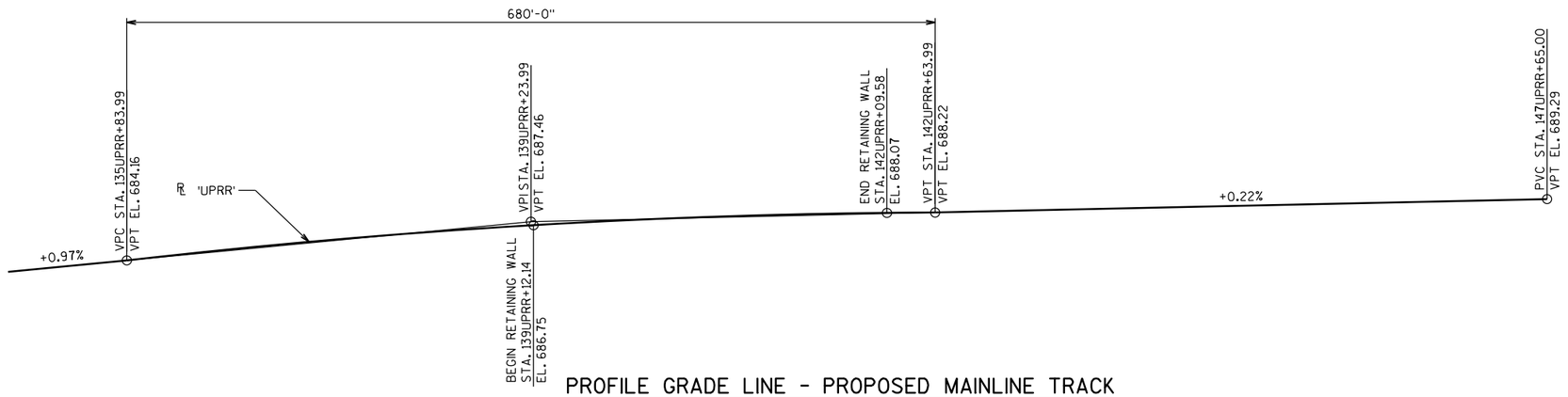
GENERAL NOTES & QUANTITIES

SHEET 3 OF 7

8

8

STATE PROJECT NUMBER
1229-04-72



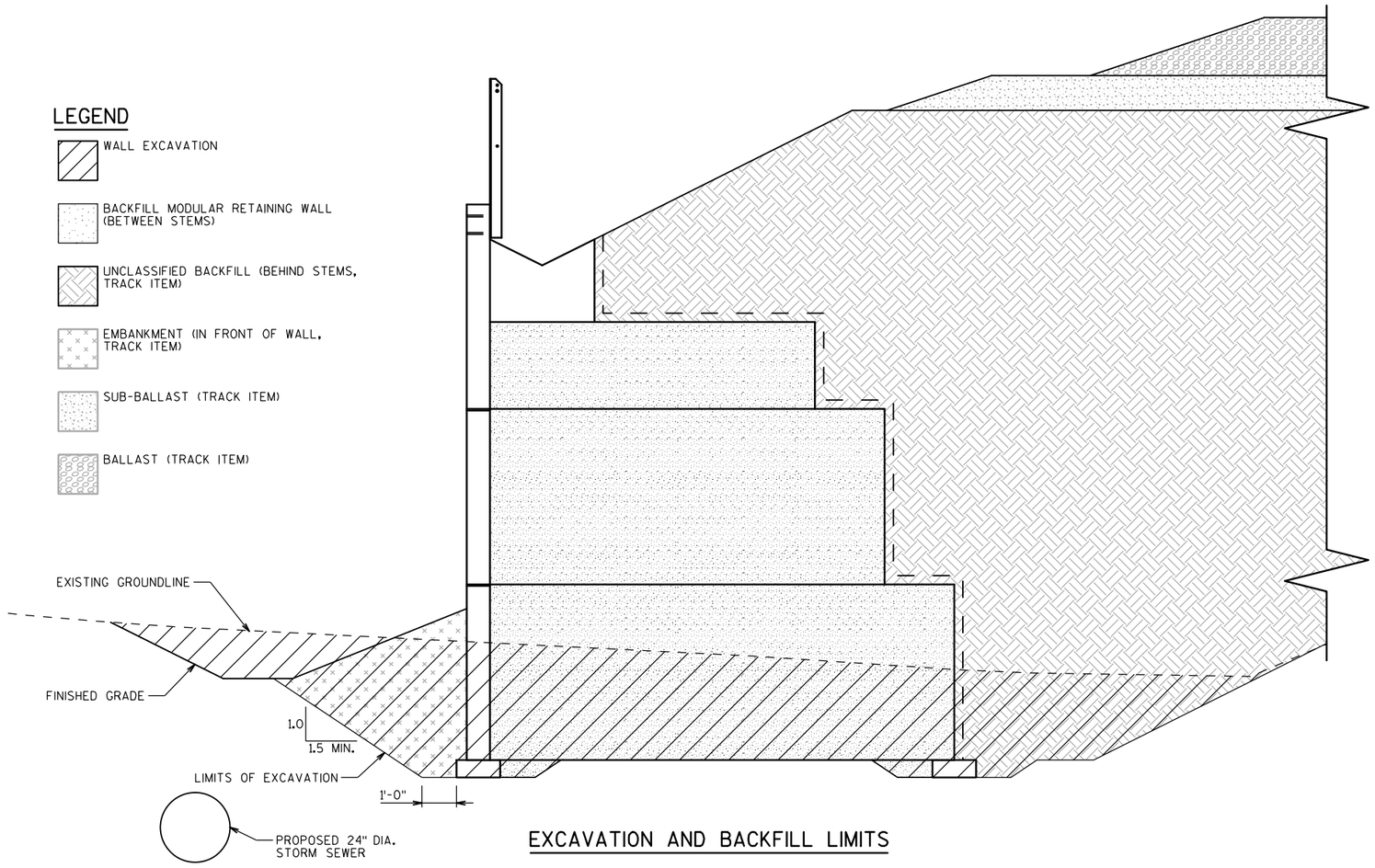
PROFILE GRADE LINE - PROPOSED MAINLINE TRACK

ABBREVIATIONS

ABUT.	ABUTMENT	GALV.	GALVANIZED
BCLS	BACKFILL CONTROLLED LOW STRENGTH	HORIZ.	HORIZONTAL
		MAX.	MAXIMUM
B.F.	BACK FACE	MIN.	MINIMUM
BRG.	BEARING	N.I.C.	NOT IN CONTRACT
℄	CENTERLINE	PCMW	PRECAST MODULAR WINGWALL
CLR.	CLEAR	PL	PLATE
CONC.	CONCRETE	℄R	REFERENCE LINE (ALIGNMENT)
DIA. OR Φ	DIAMETER	RCA	REINFORCED CONCRETE ARCH
E.F.	EACH FACE	RCP	REINFORCED CONCRETE PIPE
EL.	ELEVATION	R/W	RIGHT OF WAY
EMBED.	EMBEDMENT	SPA.	SPACE, SPACES, OR SPACING
FCM	FRACTURE CRITICAL MEMBER	STD.	STANDARD
		TYP.	TYPICAL
F.F.	FRONT FACE	U.N.O.	UNLESS NOTED OTHERWISE
℄L	FLOW LINE	W/	WITH

LEGEND

- WALL EXCAVATION
- BACKFILL MODULAR RETAINING WALL (BETWEEN STEMS)
- UNCLASSIFIED BACKFILL (BEHIND STEMS, TRACK ITEM)
- EMBANKMENT (IN FRONT OF WALL, TRACK ITEM)
- SUB-BALLAST (TRACK ITEM)
- BALLAST (TRACK ITEM)



EXCAVATION AND BACKFILL LIMITS

HORIZONTAL CURVE DATA

℄R 'UPRR'

P.I. = 138UPRR+73.28
TS = 115UPRR+78.59
SC = 116UPRR+78.59
CS = 157UPRR+08.50
ST = 158UPRR+08.50
Dc = 1°23'52"
Δ = 56°19'45"
S/L = 100'
E = 0.75"
Ds = 25 M.P.H.

ALIGNMENT DATA

LABEL	STATION	X	Y	BEARING
BEGIN	10+00.00	605481.00	334072.27	N59°09'16.20"E
PI-1	10+30.00	605506.75	334087.65	N58°22'32.52"E
PI-2	10+60.00	605532.30	334103.38	N57°55'38.28"E
PI-3	10+90.00	605557.72	334119.31	N57°19'46.92"E
PI-4	11+20.00	605582.97	334135.50	N56°33'05.04"E
PI-5	11+50.00	605608.00	334152.04	N56°09'39.96"E
PI-6	11+80.00	605632.92	334168.74	N55°42'06.84"E
PI-7	12+10.00	605657.71	334185.65	N55°15'07.56"E
PI-8	12+40.00	605682.36	334202.75	N54°49'06.60"E
PI-9	12+70.00	605706.88	334220.03	N54°18'06.48"E
END	12+95.25	605727.39	334234.77	--

WALL ELEVATIONS

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	BOTTOM OF DITCH EL.	EXISTING GROUND EL.
10+00.00	683.59	676.65	663.92	666.00
10+30.00	683.68	667.00	664.97	666.00
10+60.00	683.67	668.17	665.98	667.24
10+90.00	683.64	668.82	667.00	667.85
11+20.00	683.58	670.07	668.05	669.11
11+50.00	683.38	671.20	669.06	670.24
11+80.00	683.18	672.48	670.13	671.51
12+10.00	683.00	673.68	671.28	672.71
12+40.00	682.74	674.80	672.46	673.80
12+70.00	682.51	676.11	673.64	675.08
12+95.25	682.27	677.00	674.61	676.00

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

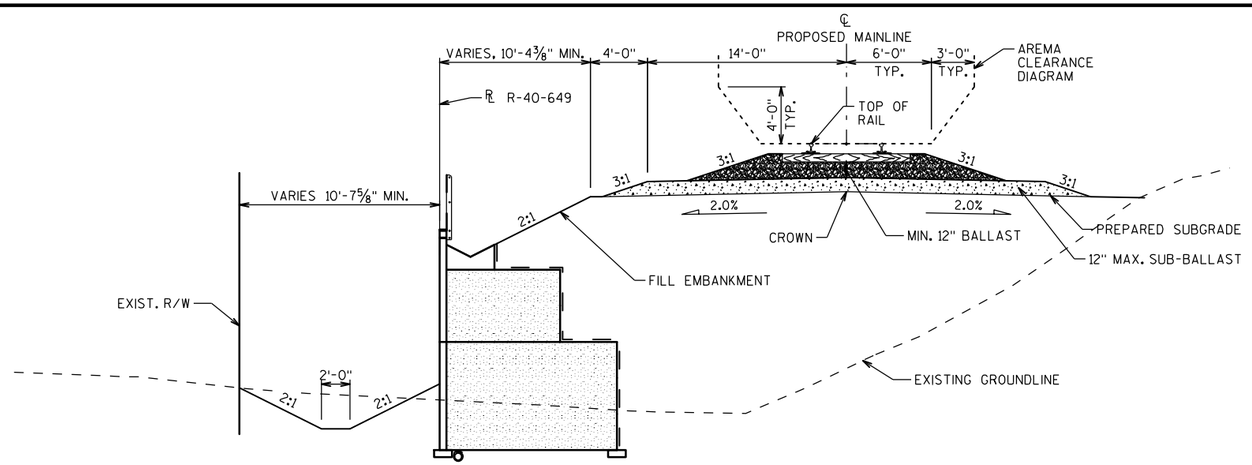
MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

GEOMETRY DATA & WALL ELEVATIONS

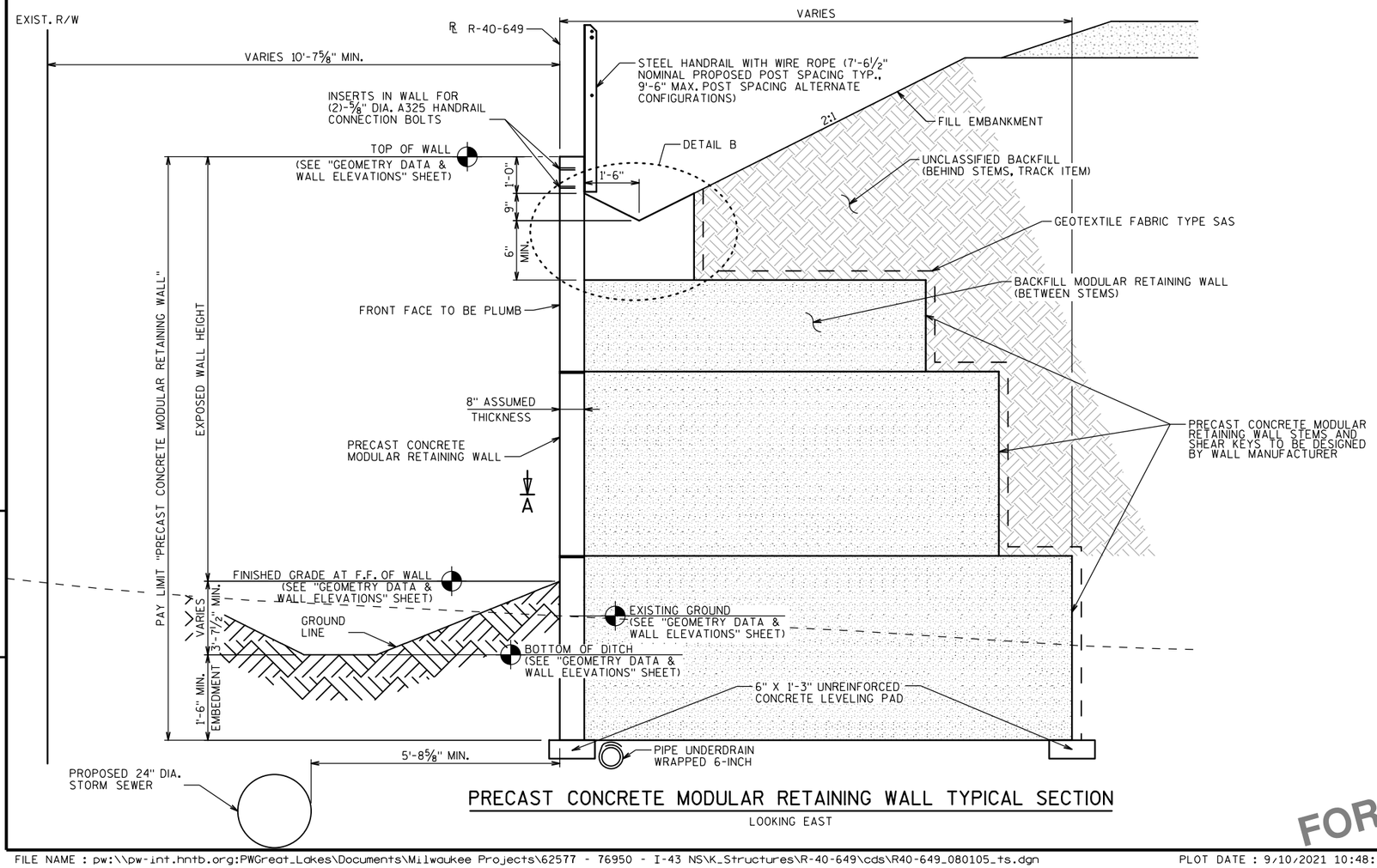
SHEET 4 OF 7

FOR 1078 SUBMITTAL



TYPICAL SECTION - RETAINING WALL AND PROPOSED MAINLINE RAILROAD TRACK

LOOKING EAST
FINAL CONDITION OF TRACKS SHOWN



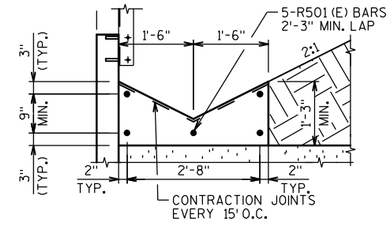
PRECAST CONCRETE MODULAR RETAINING WALL TYPICAL SECTION

LOOKING EAST

STATE PROJECT NUMBER
1229-04-72

NOTES:

(1) THE COST OF ALL WORK RELATED TO THE DRAINAGE SWALE IS INCIDENTAL TO THE ITEM "PRECAST CONCRETE MODULAR RETAINING WALL".

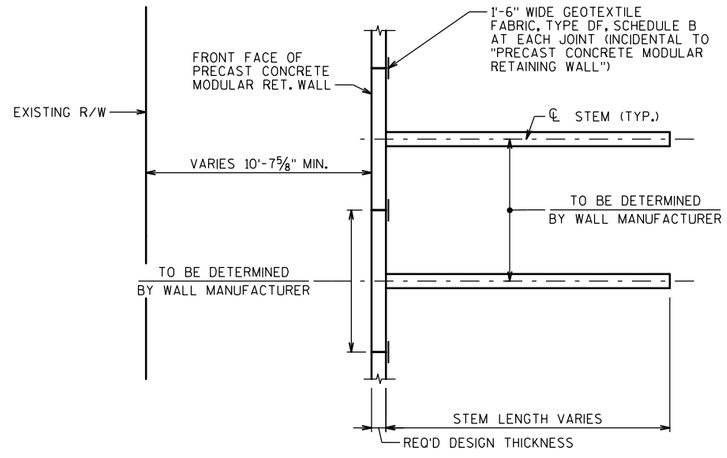


DETAIL B

SHOWING PAVED (1) DRAINAGE SWALE

BILL OF BARS SWALE

(1) BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	30	52'-0"			LONG. T & B



SECTION A-A

SHOWING MODULAR CONCRETE STEM AND PANEL FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

TYPICAL SECTIONS & DETAILS

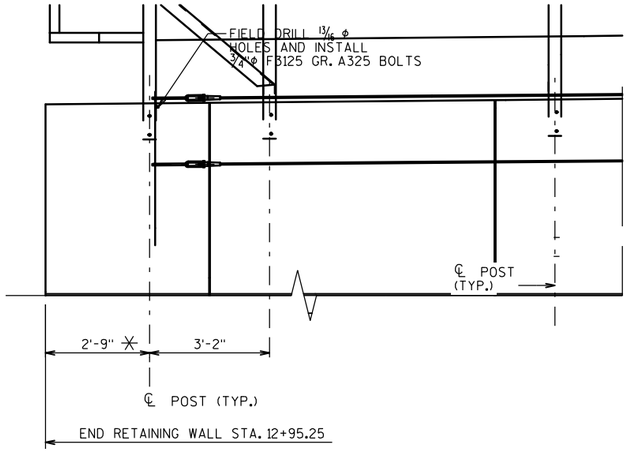
SHEET 5 OF 7

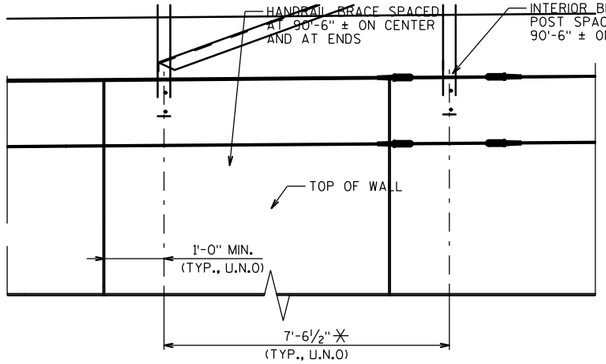
FOR 1078 SUBMITTAL

8

8

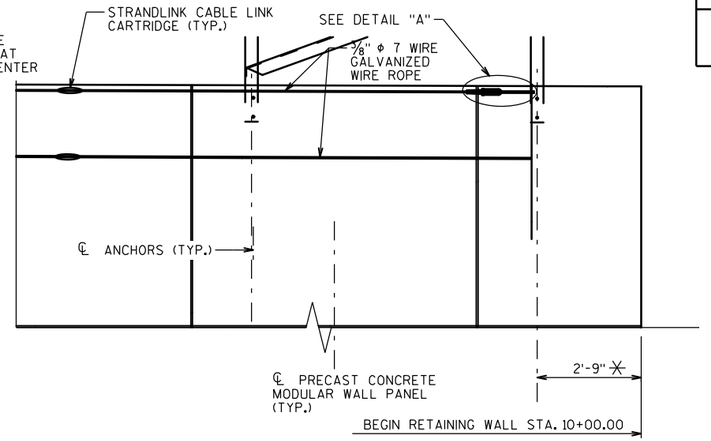
STATE PROJECT NUMBER
1229-04-72

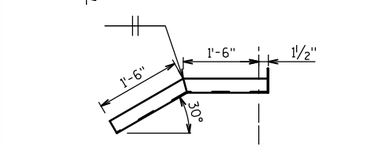


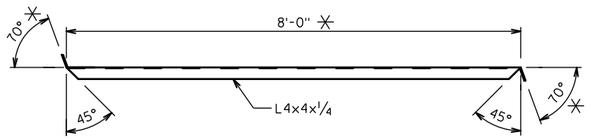


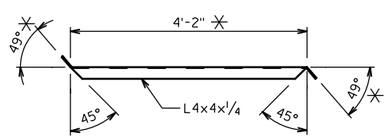
HANDRAIL ELEVATION

OUTSIDE FACE OF WALL

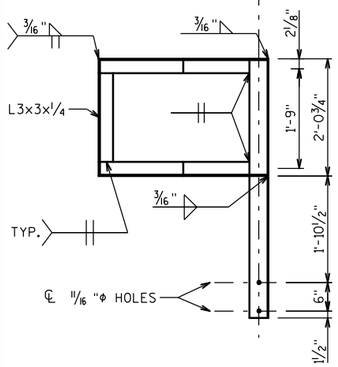




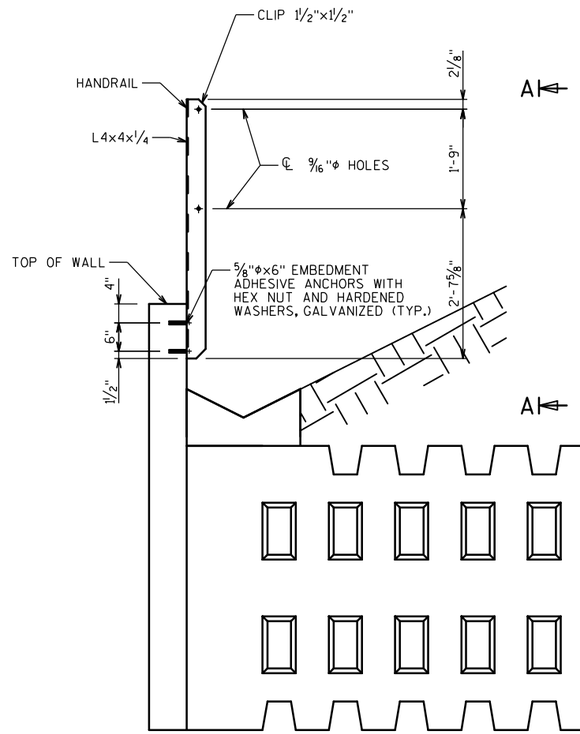


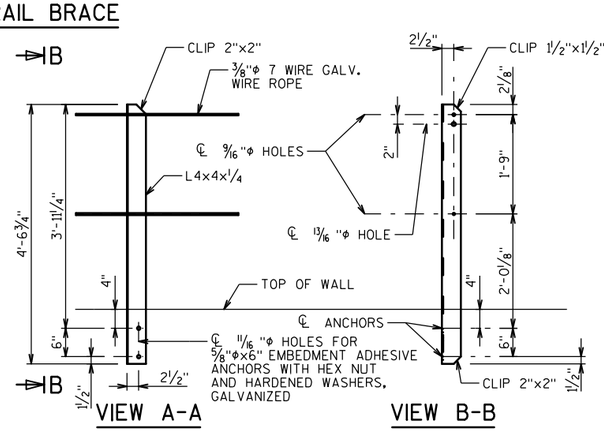


HANDRAIL BRACE

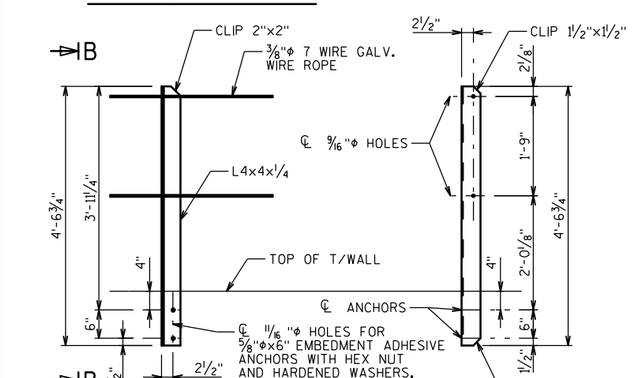


HANDRAIL END POST

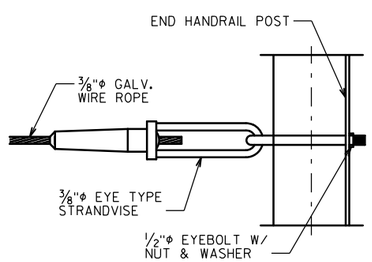




INTERIOR BRACE POSTS



TYPICAL HANDRAIL POST



DETAIL A

SECTION THRU WALL SHOWING HANDRAIL DETAIL

NOTES

1. FOR GENERAL NOTES AND ESTIMATED QUANTITIES, SEE "GENERAL NOTES & QUANTITIES" SHEET.
2. FOR PLAN AND ELEVATION OF WALL, SEE GENERAL PLAN & ELEVATION SHEETS.
3. INSTALL HANDRAIL POST BRACES AT 90'-6"± CENTERS AND AT ENDS.
4. FIELD DRILL HOLE FOR POST BOLT.
5. SUBMIT SHOP DRAWINGS FOR APPROVAL.
6. ANGLES SHALL BE ASTM A36 STEEL, GALVANIZED PER ASTM A123.

✳ POST SPACING AND BRACING DIMENSIONS MAY BE REVISED AND SUBMITTED TO ENGINEER FOR APPROVAL, CONFORMING TO THE FOLLOWING GUIDELINES:

- ℄ TO ℄ POST SPACING 9'-6" MAX.
- INTERIOR BRACE POST AND HANDRAIL BRACES SPACED AT 90'-0"±
- 9" MIN. BETWEEN ℄ LAST POST AND EDGE OF LAST PANEL

WIRE ROPE INSTALLATION INSTRUCTIONS

1. THREAD WIRE ROPE THROUGH ALL HOLES AND TIGHTEN EYEBOLTS ON ONE END OF HANDRAIL POST.
2. AFTER INSTALLING BRACES, STRETCH WIRE ROPE, HANG A MINIMUM OF 10 LB. ON CABLE BETWEEN TWO POSTS, AND TENSION TO REDUCE SAG TO 2" MAXIMUM AT WEIGHT LOCATIONS.
3. TIGHTEN CLIPS & EYEBOLTS AT REMAINING END HANDRAIL POST.
4. REMOVE WEIGHTS.
5. TIGHTEN CLIPS AT INTERMEDIATE POSTS.
6. CUT AND REMOVE EXCESS WIRE ROPE. COVER END OF WIRE WITH TAPE OR FIELD WELD AND PAINT.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

HANDRAIL DETAILS

SHEET 6 OF 7

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
UP-08	MARCH 10, 2014	333983	605345
UP-09	APRIL 8, 2014	334242	605735
UP-24	SEPT. 23, 2015	333695	604788

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: HNTB CORP.

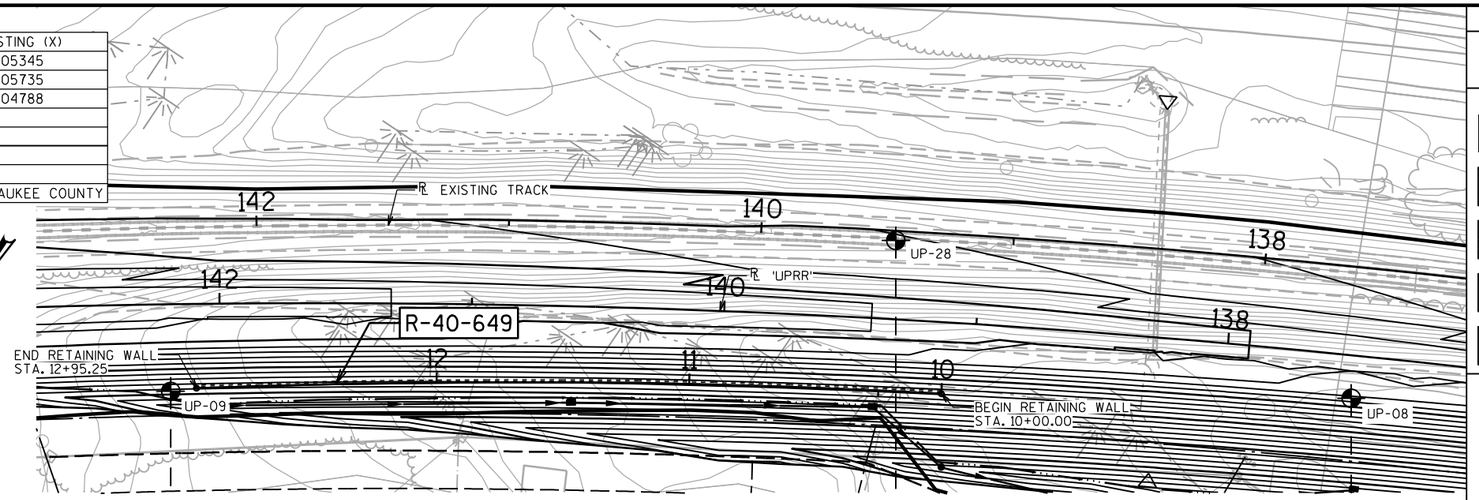
ALL COORDINATES REFERENCED TO WCCS NAD 83(2007) MILWAUKEE COUNTY

NOTE:

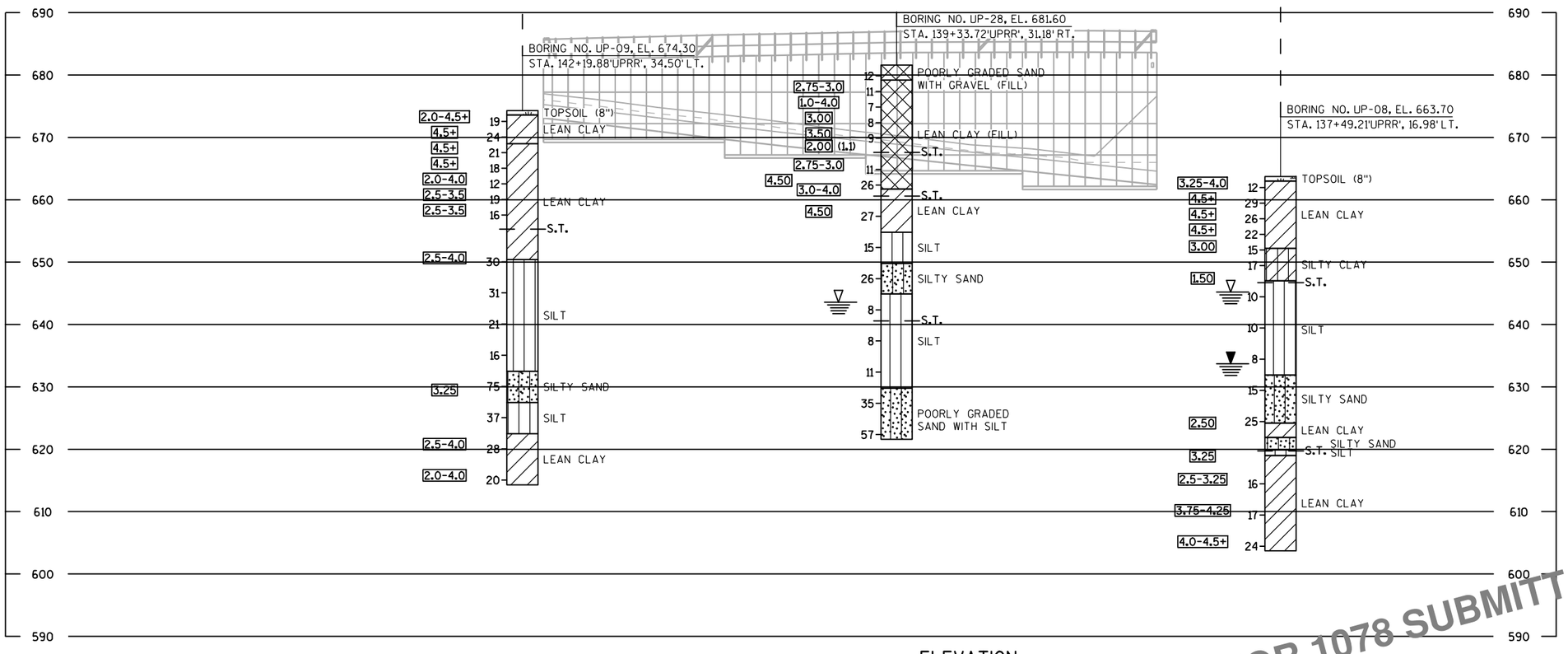
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

⊕ DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

FOR 1078 SUBMITTAL

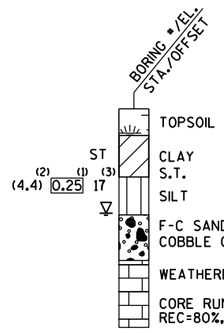
STATE PROJECT NUMBER

1229-04-72

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNCONFINED STRENGTH, AS DETERMINED BY UNCONFINED COMPRESSION TEST

(3) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE S.T.-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-649

MILWAUKEE SUB. M.P. 104.19
LAT. 43°08'00"N/LONG. 87°54'41"W

DRAWN BY NNM | PLANS CK'D. EAJ

SUBSURFACE EXPLORATION

SHEET 7 OF 7

8

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STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN HEIGHT	DMS WEIGHT*	STANDARD DESIGN TRUSS
S-40-461	234 SF	9'-0"	3,300 LBS	STD. TYPE II

*WEIGHT OF MOUNTING BEAMS NOT INCLUDED IN DMS WEIGHT.
DMS MAX. WEIGHT (INCLUDING BEAMS) = 4,500 LBS

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36 ---------- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C -- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ---------- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS FULL SPAN 4-CHORD TYPE II S-40-461" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

CATWALKS ARE USED ON 4-CHORD STRUCTURES CARRYING DMS SIGNS. CATWALKS SHALL BE INCIDENTAL TO THE BID ITEM "TRUSS FULL SPAN 4-CHORD TYPE II S-40-461" FOR EACH DMS SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE BRIDGE SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 36-INCH".

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT THE SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-40-461
531.2036	DRILLING SHAFT 36-INCH	LF	88
531.6120.XX	FOUNDATION TWO-SHAFT TYPE FF-II S-40-461	EACH	2
532.6120.XX	TRUSS FULL SPAN 4-CHORD TYPE II S-40-461	EACH	1

STRUCTURE	CATEGORY
S-40-461	XXX

LIST OF DRAWINGS

1. GENERAL NOTES, DESIGN DATA & QUANTITIES
2. GENERAL LAYOUT S-40-461

LIST OF STANDARD DESIGN DRAWINGS

3. I. 4-CHORD TRUSS FULL SPAN TRUSS DETAILS
4. II. 4-CHORD TRUSS FULL SPAN COLUMN DETAILS
5. III. 4-CHORD TRUSS FULL SPAN CONNECTIONS 1
6. IV. 4-CHORD TRUSS FULL SPAN CONNECTIONS 2
7. V. 4-CHORD TRUSS FULL SPAN CATWALK DETAILS
8. VI. 4-CHORD FULL SPAN ELECTRICAL DETAILS
9. VII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 1
10. VIII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 2

TRAFFIC VOLUME

A.D.T. (2045) = 102,000
R.D.S. = 70 MPH

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER
1229-04-73

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS FULL SPAN PLANS

IH 43 NB SOUTH OF BROWN DEER RD. AND NORTH OF GOOD HOPE RD., FULL SPAN DMS SIGN STRUCTURE

COUNTY: MILWAUKEE
VILLAGE: RIVER HILLS
DESIGN SPEC.: AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	EAJ	XXX

GENERAL NOTES, DESIGN DATA & QUANTITIES

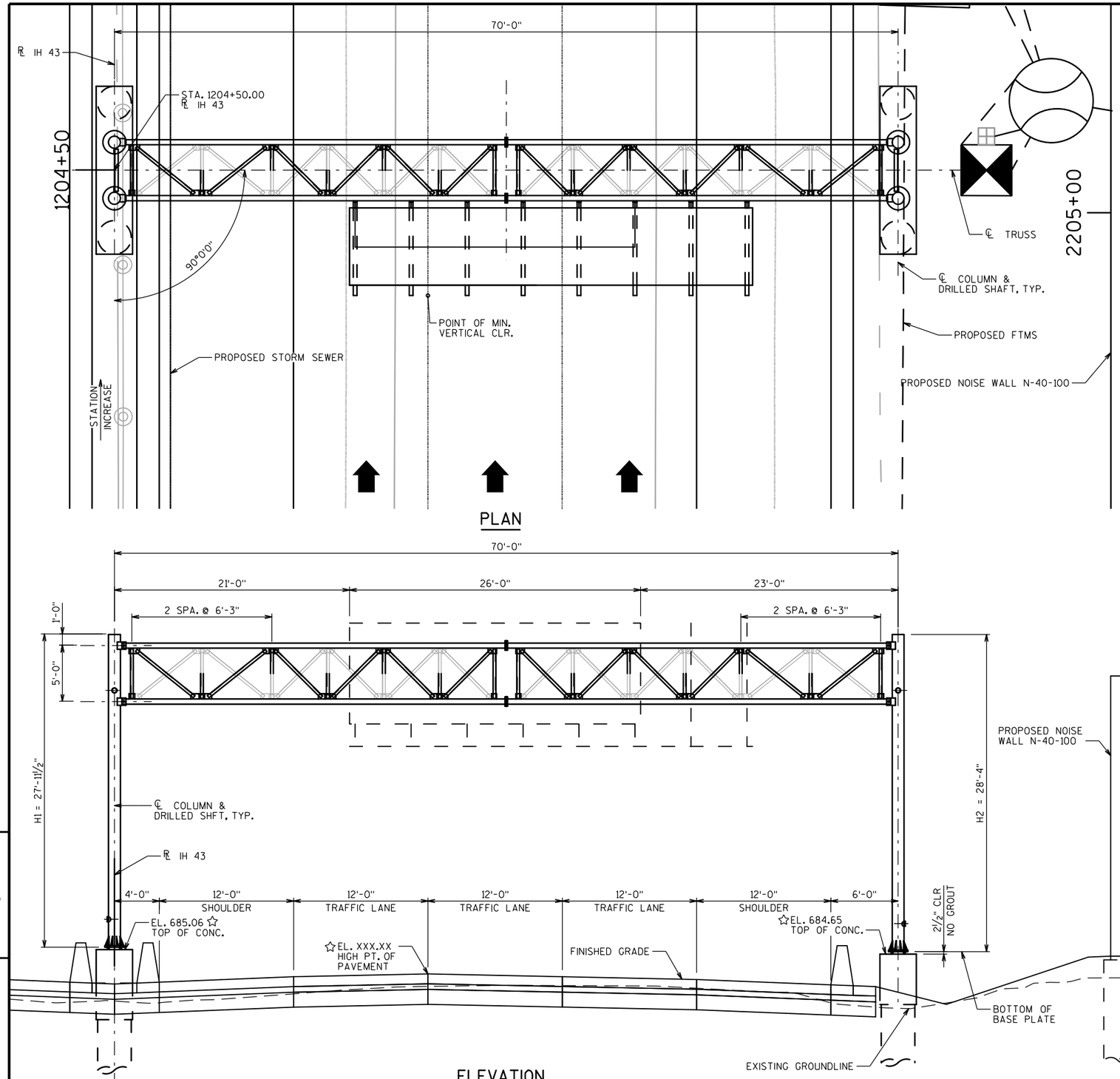
SHEET 1 OF 10

FOR 1078 SUBMITTAL

8

8

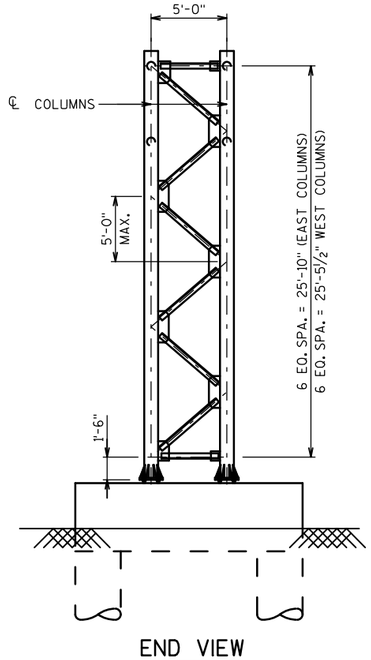
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Full Span w DMS (1)\cds\S461_080101_gn.dgn
PLOT DATE : 9/15/2021 3:55:43 PM PLOT BY : ejelinek
PLOT SCALE : 1:1



PLAN

ELEVATION

STA. 1204+50.00
(LOOKING UPSTATION AT FRONT OF SIGN)



END VIEW

LOOKING WEST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ OF TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

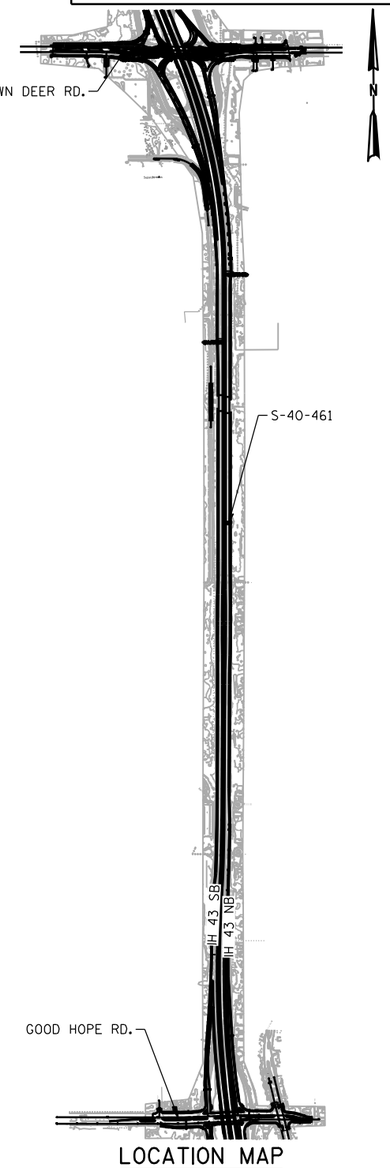
POINT OF MIN. VERTICAL CLEARANCE
STA. 1204+41.31, 28.00' RT.
EL. 683.05

TRAFFIC VOLUME

A.D.T. (2045) = 102,000
R.D.S. = 70 MPH

STATE PROJECT NUMBER

1229-04-73



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-461

DRAWN BY EAJ | PLANS CK'D. XXX

GENERAL LAYOUT
S-40-461

SHEET 2 OF 10

FOR 1078 SUBMITTAL

8

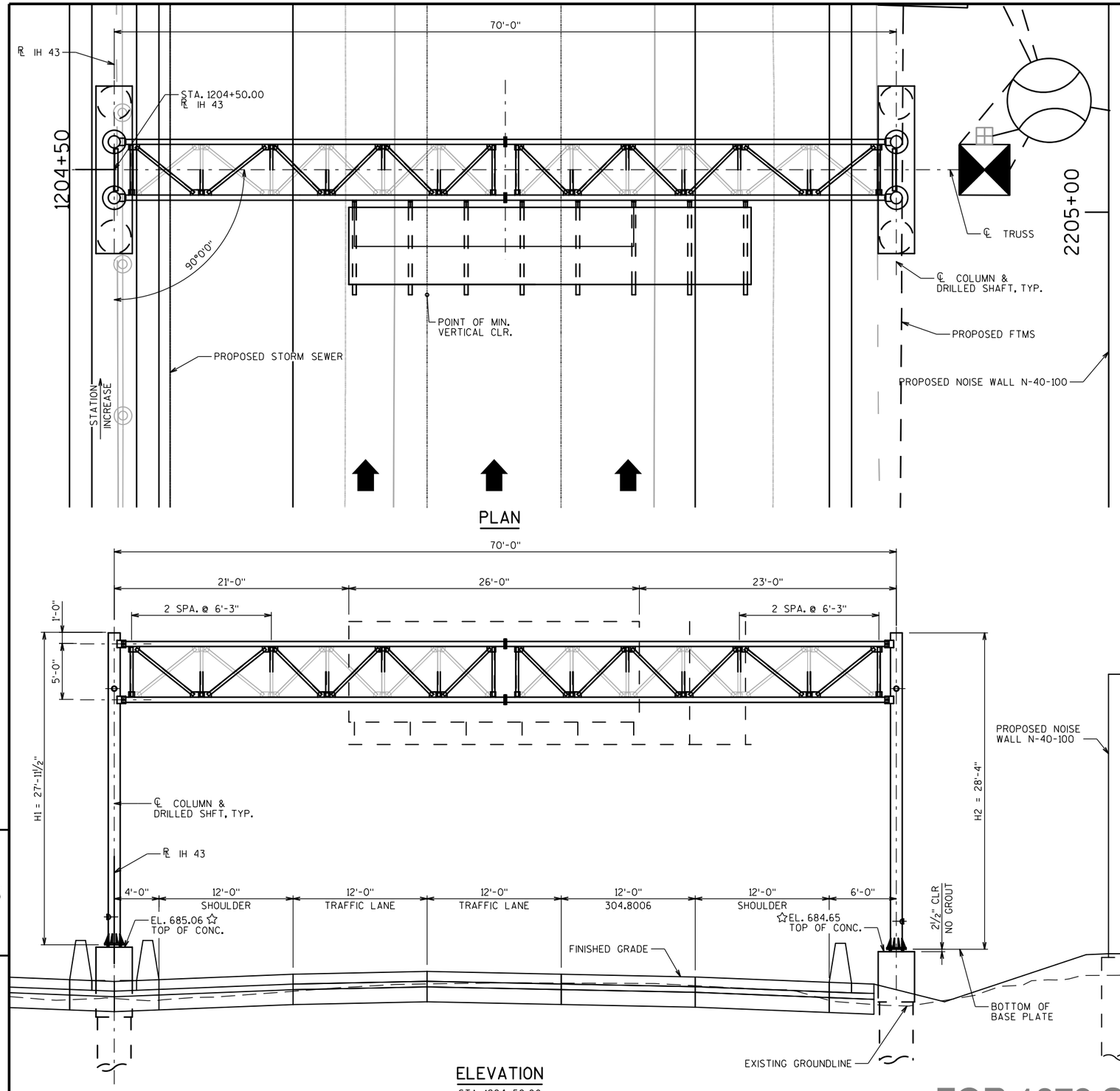
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Full Span w DMS (1)\cds\S461_080102_gp.dgn
PLOT DATE : 9/29/2021 12:42:38 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER

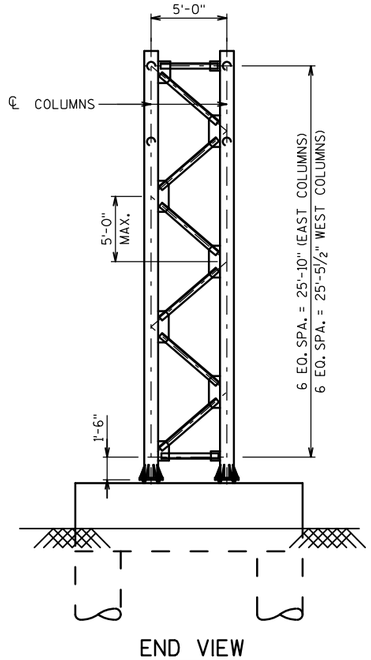
1229-04-73



PLAN

ELEVATION

STA. 1204+50.00
(LOOKING UPSTATION AT FRONT OF SIGN)



END VIEW

LOOKING WEST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ OF TRUSS

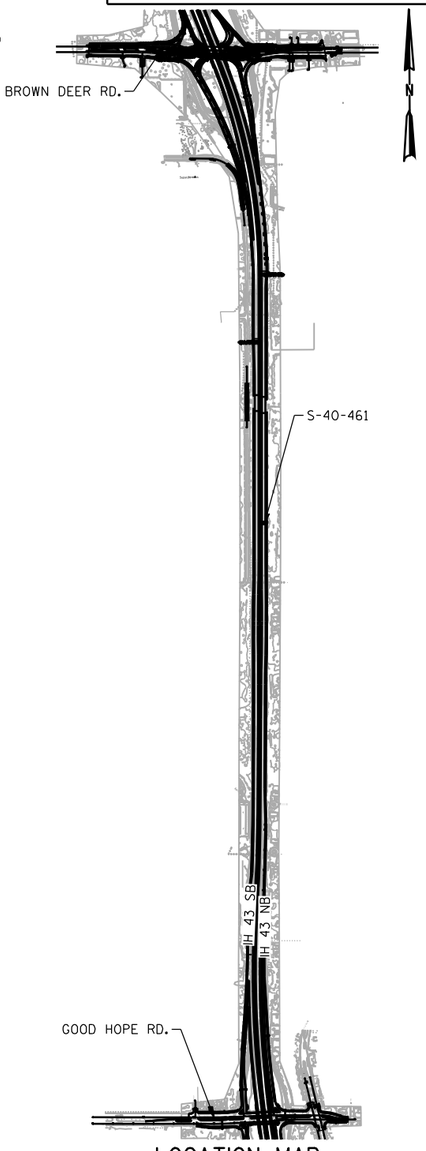
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1204+41.31, 28.00' RT.
EL. 683.05

TRAFFIC VOLUME

A.D.T. (2045) = 102,000
R.D.S. = 70 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-461

DRAWN BY EAJ | PLANS CK'D. XXX

GENERAL LAYOUT
S-40-461

SHEET 2 OF 10

FOR 1078 SUBMITTAL

8

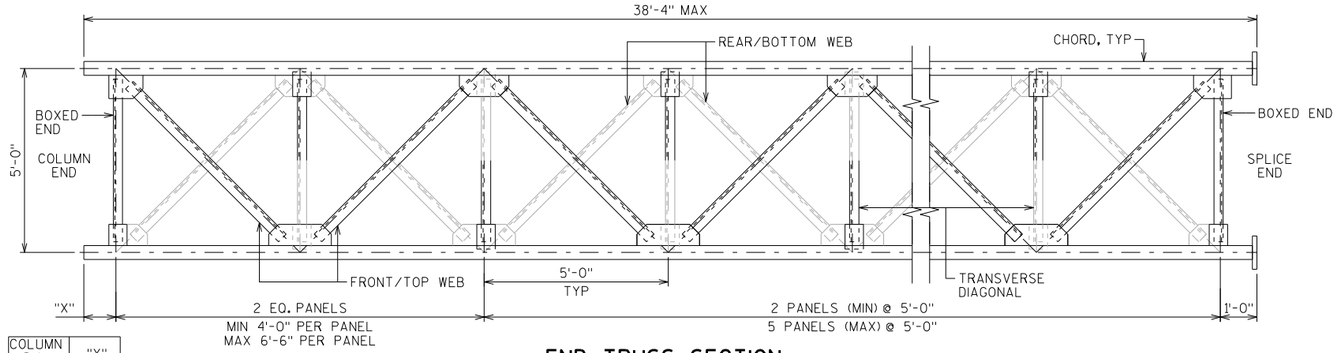
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Full Span w DMS (1)\cds\S461_080102_gp.dgn
PLOT DATE : 9/29/2021 12:32:59 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER

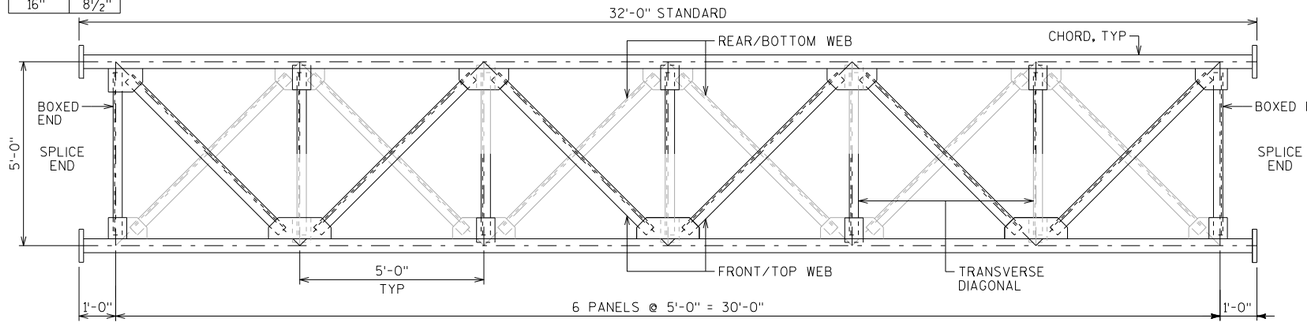
STANDARD



COLUMN DIA.	"X"
12¾"	10⅛"
14"	9½"
16"	8½"

END TRUSS SECTION

LOOKING AT F.F./TOP OF TRUSS

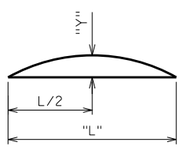


CENTER TRUSS SECTION

LOOKING AT F.F./TOP OF TRUSS

INTERPOLATE FOR VALUES NOT SHOWN

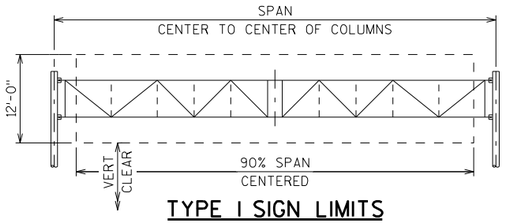
CAMBER VALUES		
SPAN "L"	"Y"	
	TYPE I	DMS
60'-0"	1"	1¼"
82'-0"	1½"	1⅞"
102'-0"	2⅛"	2⅝"
114'-0"	2⅝"	3¼"
130'-0"	3¼"	4"



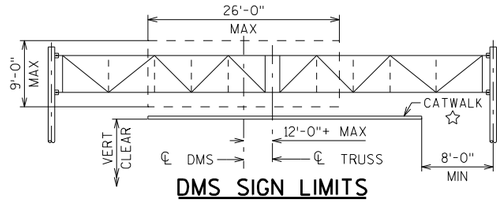
INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.

CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.

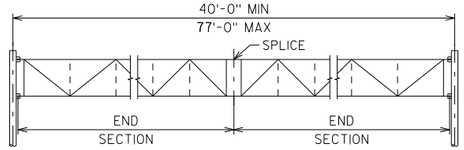


TYPE I SIGN LIMITS

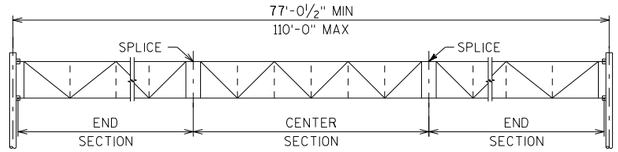


DMS SIGN LIMITS

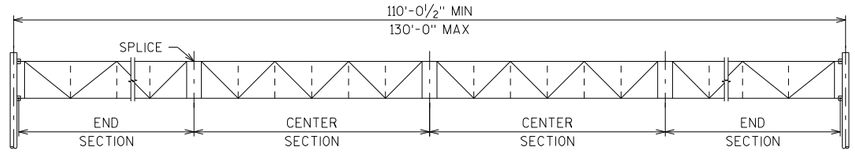
4,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS



2 SECTION TRUSS



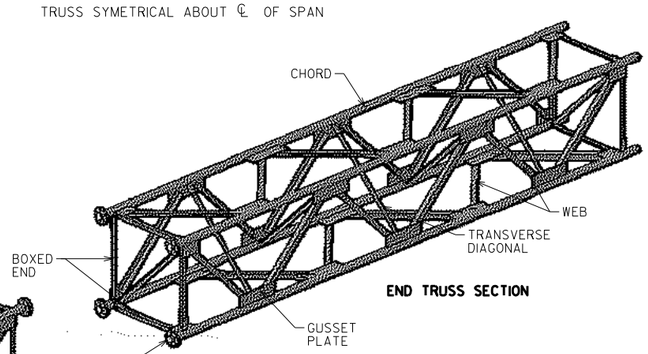
3 SECTION TRUSS



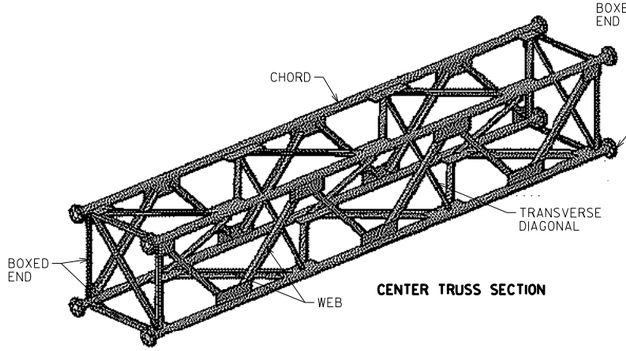
4 SECTION TRUSS

TRUSS CONFIGURATIONS

TRUSS SYMETRICAL ABOUT ℄ OF SPAN



END TRUSS SECTION



CENTER TRUSS SECTION

TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

FULL SPAN 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT^2)	DMS AREA (FT^2)	MAXIMUM SPAN RANGE	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK	SPLICE PLATE OUTER DIA. X THK	CHORD SPLICE NO. ¾" BOLTS
I	648	234	60'-0"	5.563" X 0.258"	L3½X3½X5⁄16	L3X3X¼	L3X3X¼	11" X 1½"	8
II	885	234	82'-0"	5.563" X 0.375"	L3½X3½X⅜	L3X3X¼	L3X3X¼	11⅝" X 1½"	8
III	1102	234	102'-0"	5.563" X 0.500"	L4X4X⅜	L3X3X¼	L3X3X¼	11⅝" X 1½"	8
IV	1232	234	114'-0"	6.625" X 0.375"	L4X4X7⁄16	L3X3X¼	L3X3X¼	1'-0⅝" X 1½"	8
V	1404	234	130'-0"	6.625" X 0.500"	L4X4X½	L3X3X¼	L3X3X¼	1'-0⅝" X 1½"	8

LEGEND

☆FOR OSS WITH DMS ONLY, SEE "CATWALK DETAILS" SHEET

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN TRUSS DETAILS

SHEET 1 OF VIII

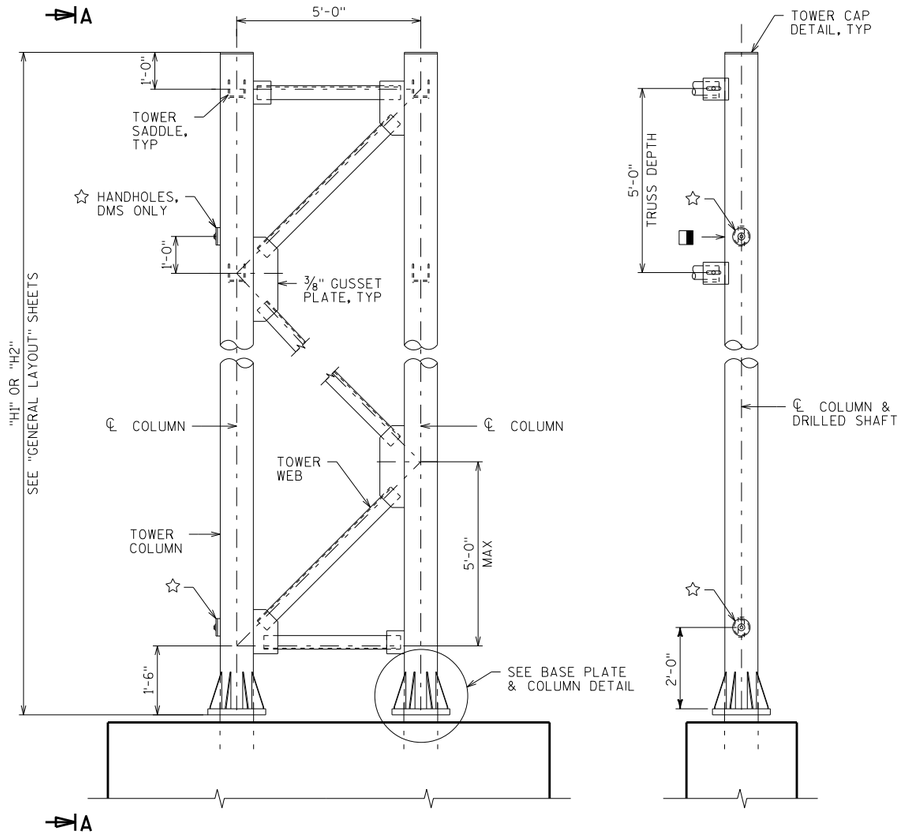
SCALE = 2.00

8

8

STATE PROJECT NUMBER

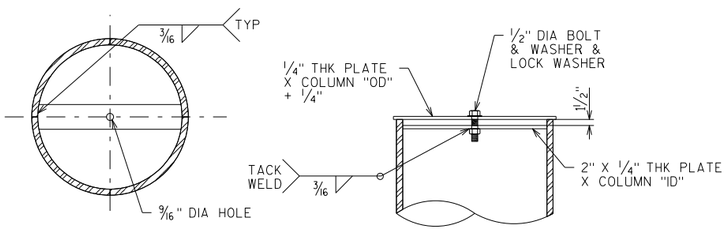
STANDARD



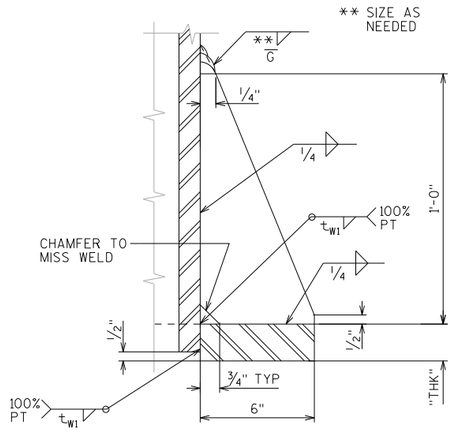
END VIEW COLUMN TRUSS

SECTION A-A

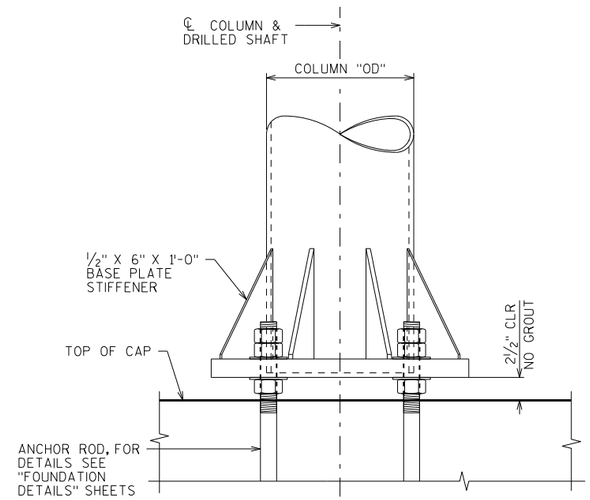
LOOKING AT F.F. OF STRUCTURE
OTHER COLUMN TRUSS SIMILAR



TOWER CAP DETAIL

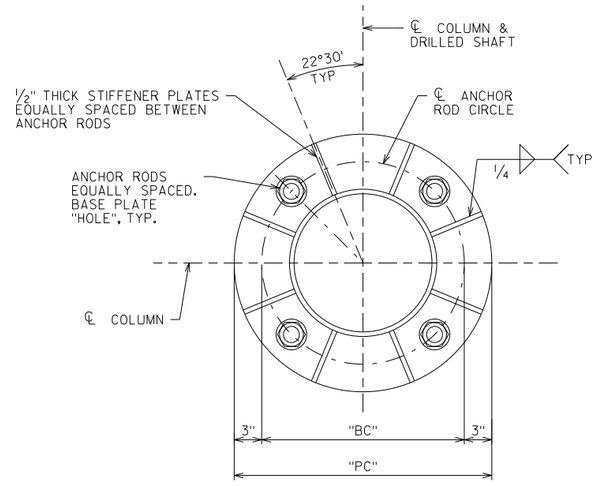


BASE PLATE STIFFENER DETAIL



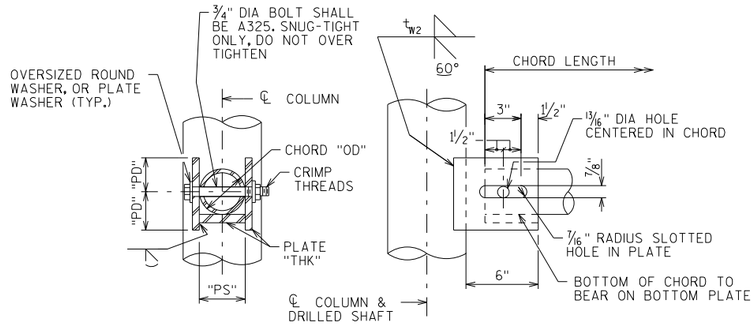
BASE PLATE & COLUMN DETAIL

LOOKING AT FRONT FACE OF STRUCTURE



BASE PLATE

PLAN



TOWER SADDLE CONNECTION DETAILS

BOLT AND HOLE DIMENSIONS SHOWN ARE MINIMUM

FULL SPAN 4-CHORD COLUMN MEMBER TABLE

STANDARD DESIGN TYPE	MAXIMUM COLUMN HEIGHT	COLUMN OUTER DIA x THK	WEB W x D x THK	STIFFENER W x D x THK	BASE PLATE					TOWER SADDLE CONNECTION			
					"t_{w1}"	"HOLE"	"THK"	"BC"	"PC"	"t_{w2}"	"THK"	"PS"	"PD"
I	31'-0"	12.75" x 0.250"	L3 1/2 x 3 1/2 x 3/8	6" x 12" x 1/2"	5/16"	1 13/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	3/8"	5 3/16"	3 1/4"
II	31'-0"	12.75" x 0.375"	L4x4x3/8	6" x 12" x 1/2"	5/16"	1 13/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	3/8"	5 3/4"	3 9/16"
III	31'-0"	12.75" x 0.500"	L4x4x1/2	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	7/16"	5 3/4"	3 9/16"
IV	31'-0"	14.00" x 0.500"	L5x5x7/16	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-8"	2'-2"	1/4"	7/16"	6 13/16"	4 1/16"
V	31'-0"	16.00" x 0.500"	L5x5x1/2	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-10"	2'-4"	1/4"	1/2"	6 13/16"	4 1/16"

FOR 1078 SUBMITTAL

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AT COLUMN ADJACENT TO DMS. SEE "ELECTRICAL DETAILS" SHEET

◨ FOR OSS WITH DMS ONLY, DRILL HOLE AND TAP FOR (2) 2" STD. PIPE THREADS. LOCATE BOTTOM HOLE 6" UP FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN COLUMN DETAILS

SHEET II OF VIII

SCALE = 2.00

8

8

STATE PROJECT NUMBER

STANDARD

NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

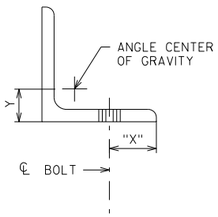
MEMBER CONNECTION DATA

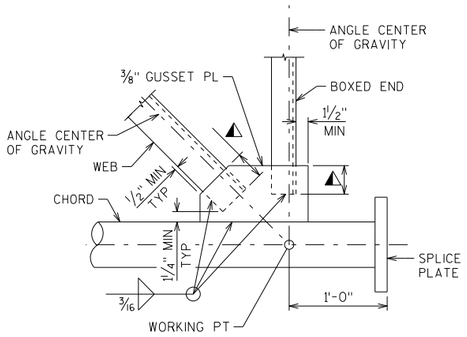
STANDARD DESIGN TYPE	WELD LEG LENGTH		NO. OF BOLTS	
	◭	◐	◪	☆
I	3" MIN	4" MIN	3	3
II	3½" MIN	6" MIN	3	3
III	3½" MIN	6" MIN	5	3
IV	4" MIN	6¼" MIN	5	4
V	4½" MIN	7¼" MIN	5	4

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2½"

ANGLE DATA

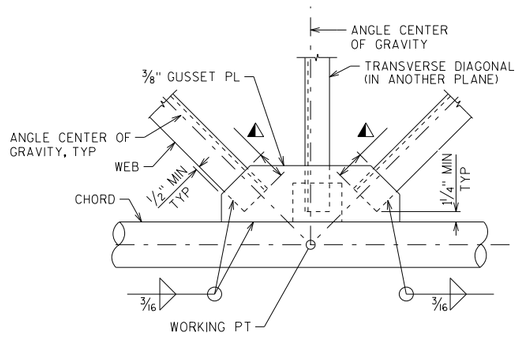
ANGLE SIZE	$\bar{y}$	"X"
L3X3X¼	0.836"	1¼"
L3½X3½X5/16	0.979"	1½"
L3½X3½X⅜	1.00"	1½"
L4X4X⅜	1.13"	1½"
L4X4X7/16	1.15"	1½"
L4X4X½	1.18	1½"
L5X5X7/16	1.40"	2"
L5X5X½	1.42"	2"



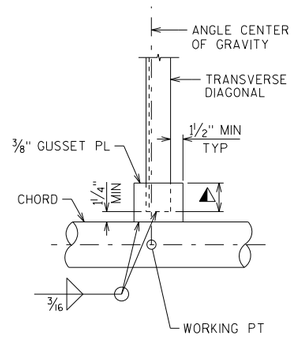


WELDED BOXED END CONNECTION

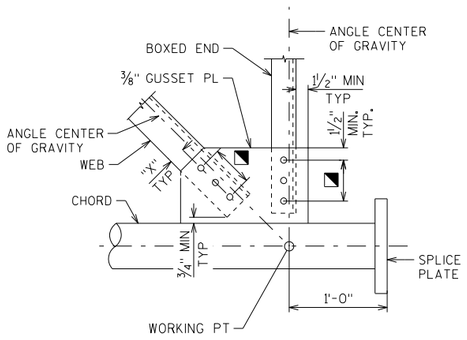
CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



WELDED PANEL CONNECTION

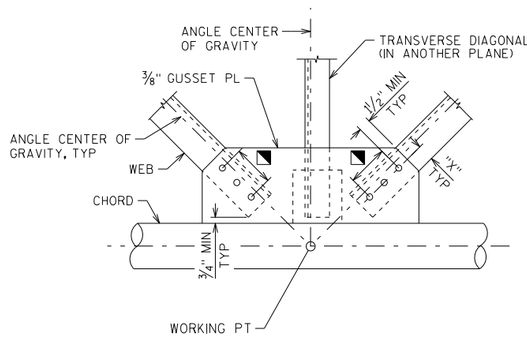


WELDED TRANSVERSE DIAGONAL CONNECTION

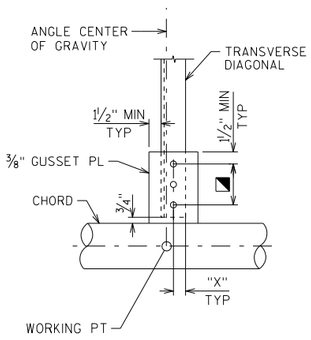


BOLTED BOXED END CONNECTION

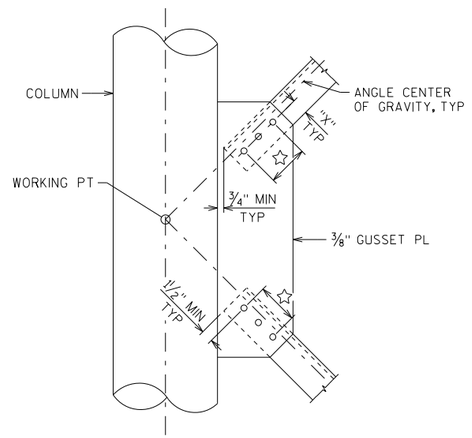
CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



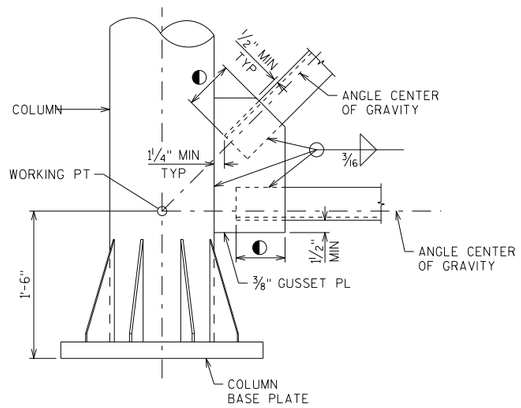
BOLTED PANEL CONNECTION



BOLTED TRANSVERSE DIAGONAL CONNECTION

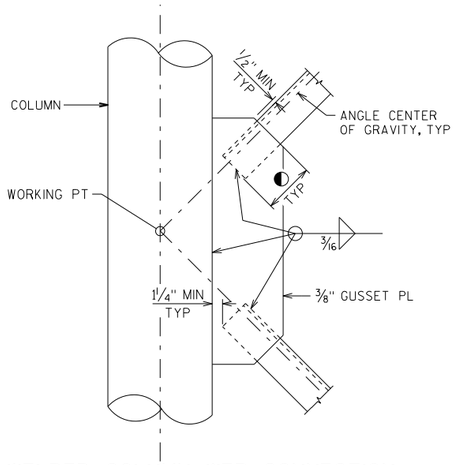


BOLTED COLUMN WEB CONNECTION

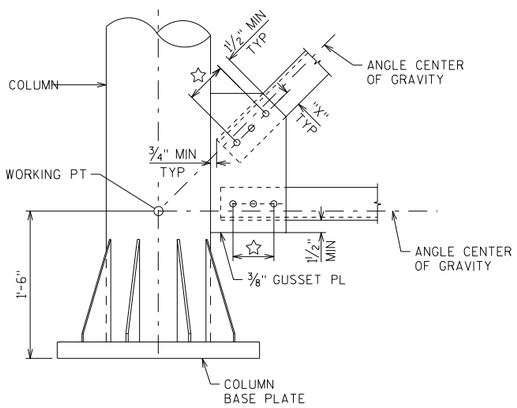


WELDED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR



WELDED COLUMN WEB CONNECTION



BOLTED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN CONNECTIONS 1

SHEET III OF VIII

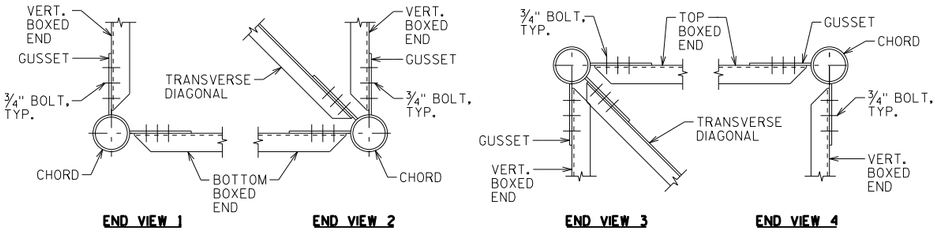
SCALE = 1.50

8

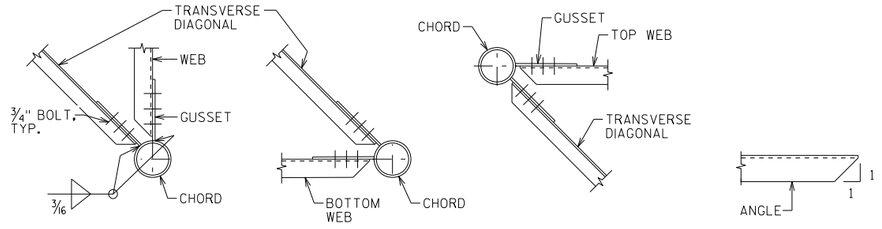
8

STATE PROJECT NUMBER

STANDARD



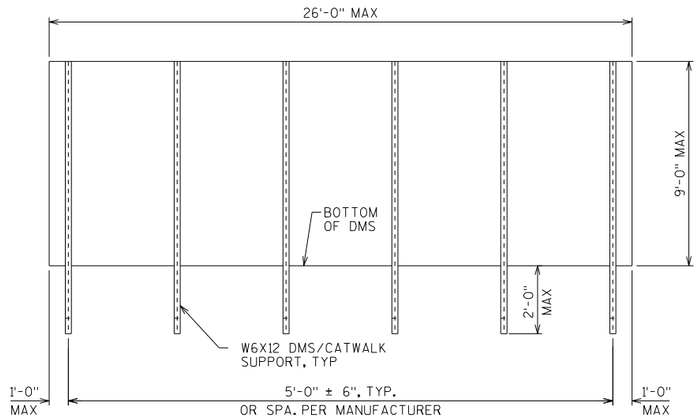
END VIEW 1 | END VIEW 2 | END VIEW 3 | END VIEW 4



END VIEW 1 | END VIEW 2 | END VIEW 3 | CLIP DETAIL

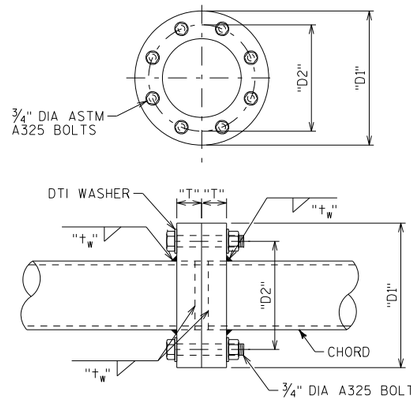
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR

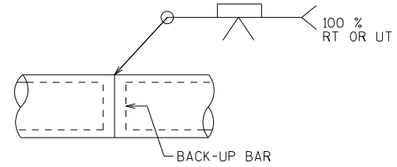


DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



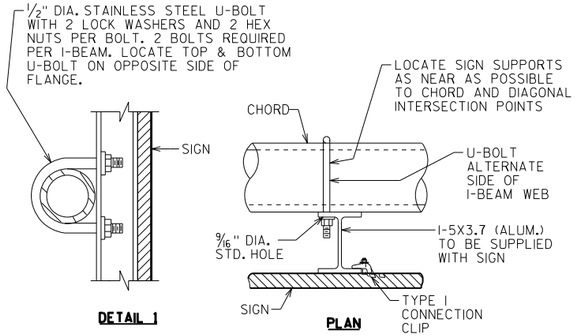
CHORD SPLICE PLATE DETAIL



CHORD SPLICE

CHORD SPLICE CONNECTION DATA

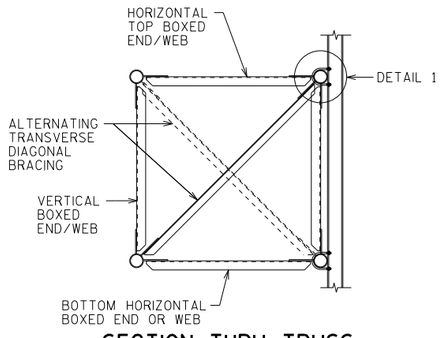
STANDARD DESIGN TRUSS	"D1"	"D2"	"T"	"+w"	# OF BOLTS
I	11"	8"	1½"	5/16"	8
II	11⅝"	8⅝"	1½"	5/16"	8
III	11⅝"	8⅝"	1½"	⅜"	8
IV	1'-0⅝"	9⅝"	1½"	⅜"	8
V	1'-0⅝"	9⅝"	1½"	⅜"	8



DETAIL 1 | PLAN

TYPICAL SIGN CONNECTION

USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS

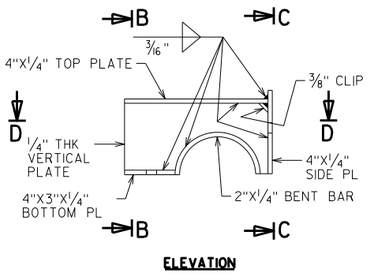


SECTION THRU TRUSS

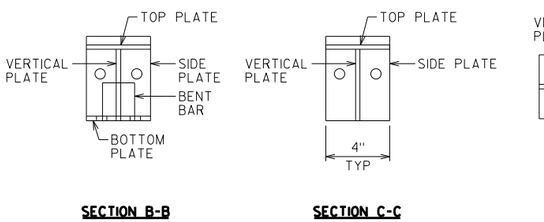
FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

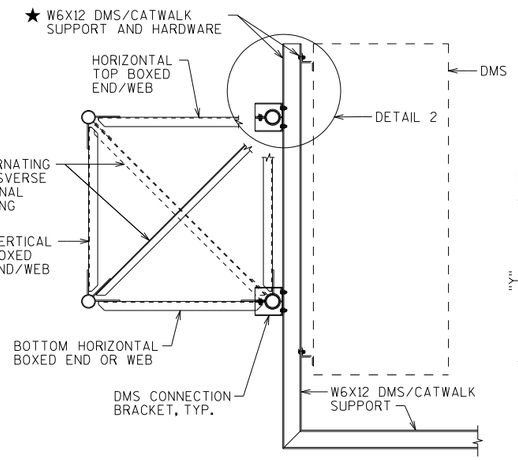
HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



ELEVATION



SECTION B-B | SECTION C-C | SECTION D-D



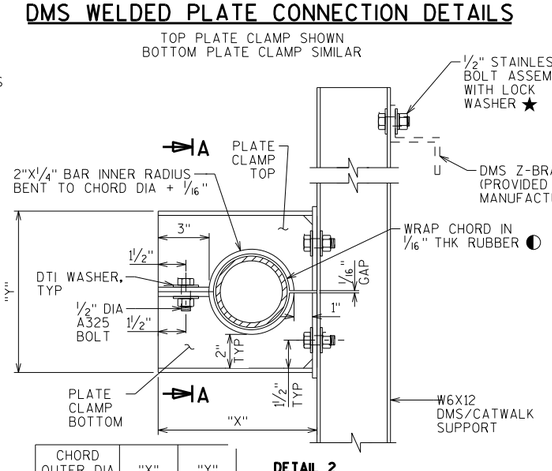
SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.

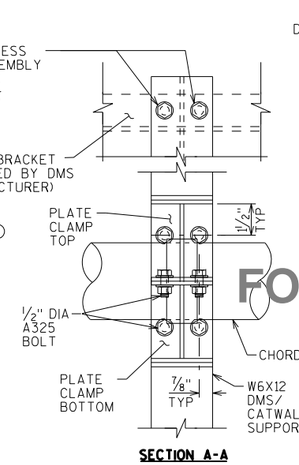
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



CHORD OUTER DIA	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10⅜"	10⅝"
6.625"	11 1/16"	11 1/16"

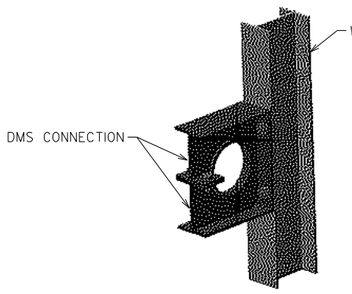
DETAIL 2



SECTION A-A

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN CONNECTIONS 2

SHEET IV OF VIII

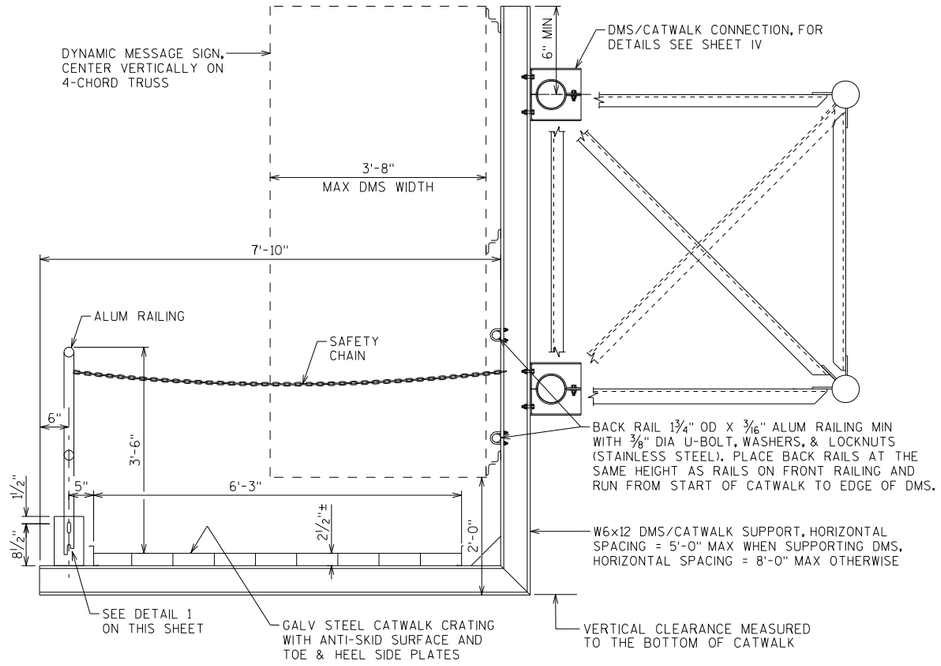
SCALE = 2.00

8

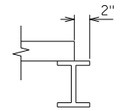
8

STATE PROJECT NUMBER

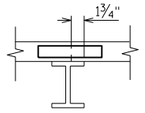
STANDARD



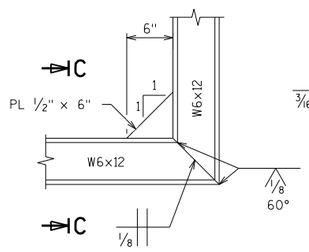
SECTION THRU WALKWAY



CATWALK TERMINATION DETAIL

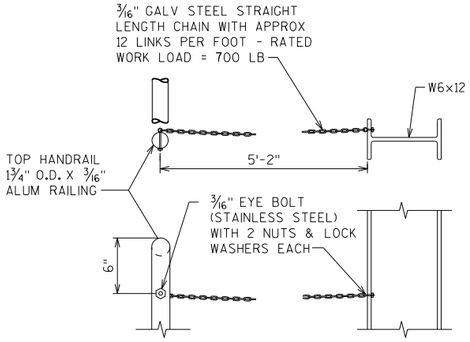


CATWALK SPLICE LOCATION DETAIL



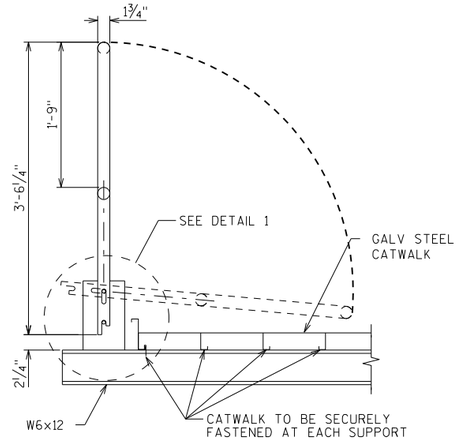
BRACKET DETAIL

SECTION C-C

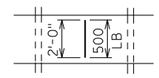


SAFETY CHAIN DETAIL

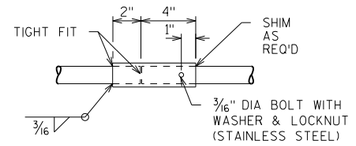
(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)



RAIL POST DETAIL

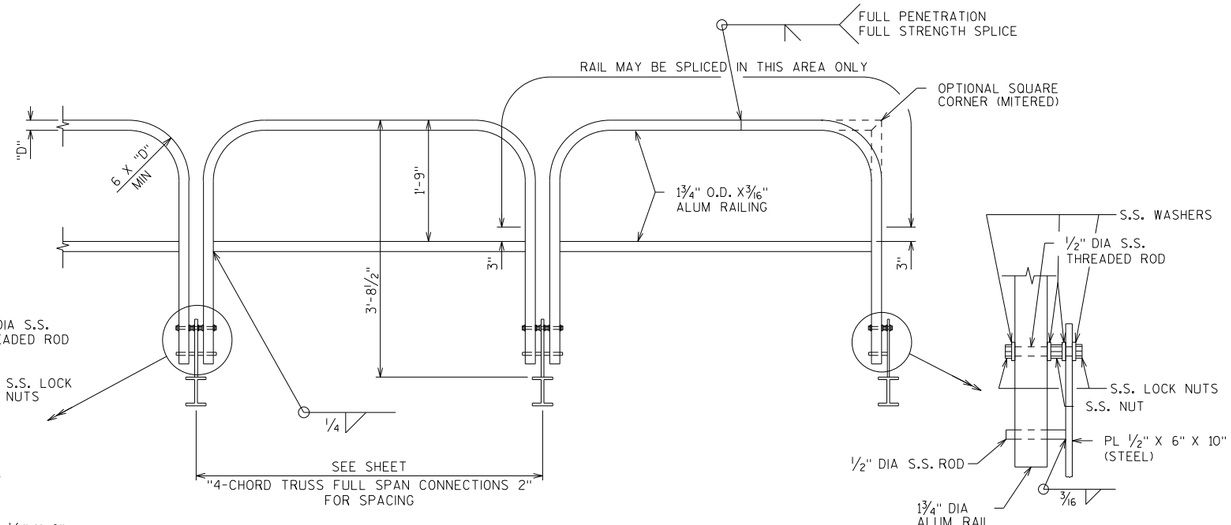


NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

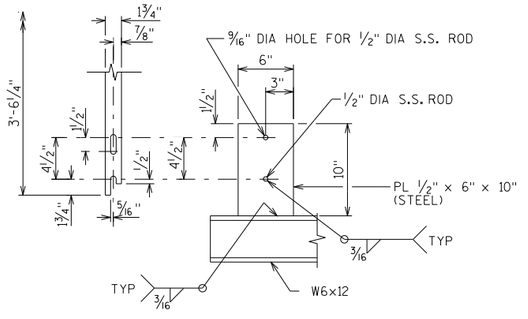


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



TYPICAL FRONT RAILING DETAILS



DETAIL 1

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN CATWALK DETAILS

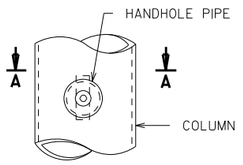
SHEET V OF VIII

SCALE = 1.25

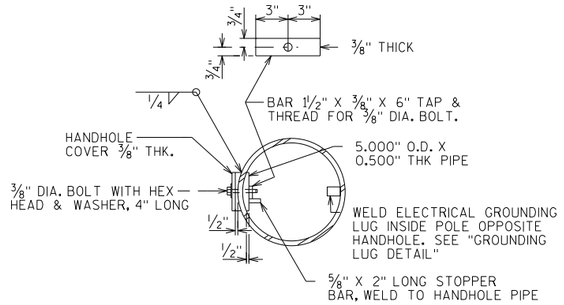
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

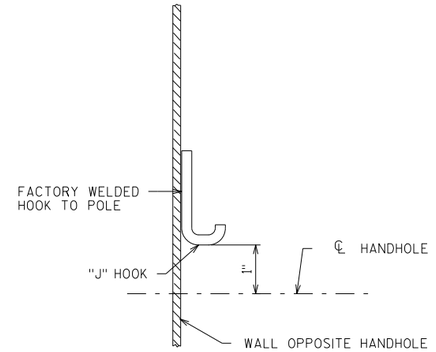


SECTION A-A

HANDHOLE NOTES

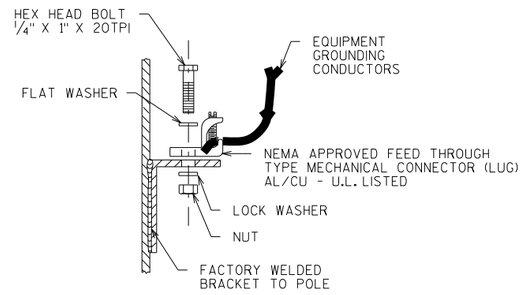
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



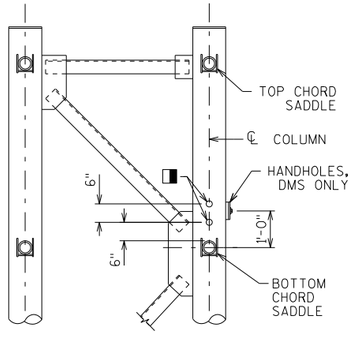
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



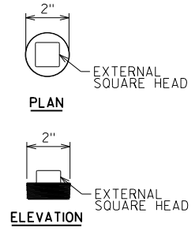
GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

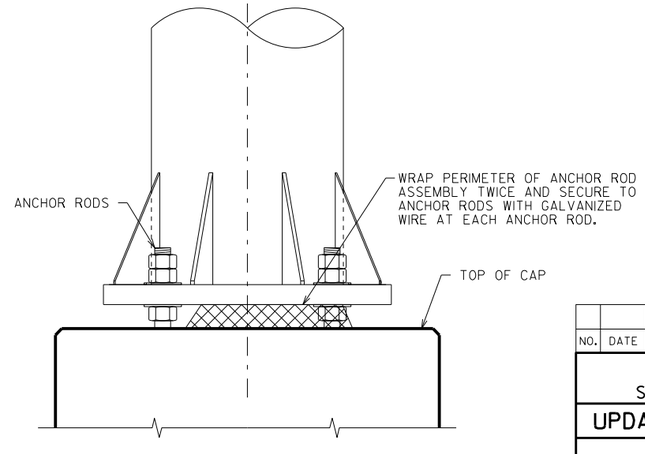


CONDUIT HOLE LOCATIONS

◧ 2" THREADED HOLE USE THREADED CONDUIT PLUG FOR UNUSED HOLES



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS

SHEET VI OF VIII

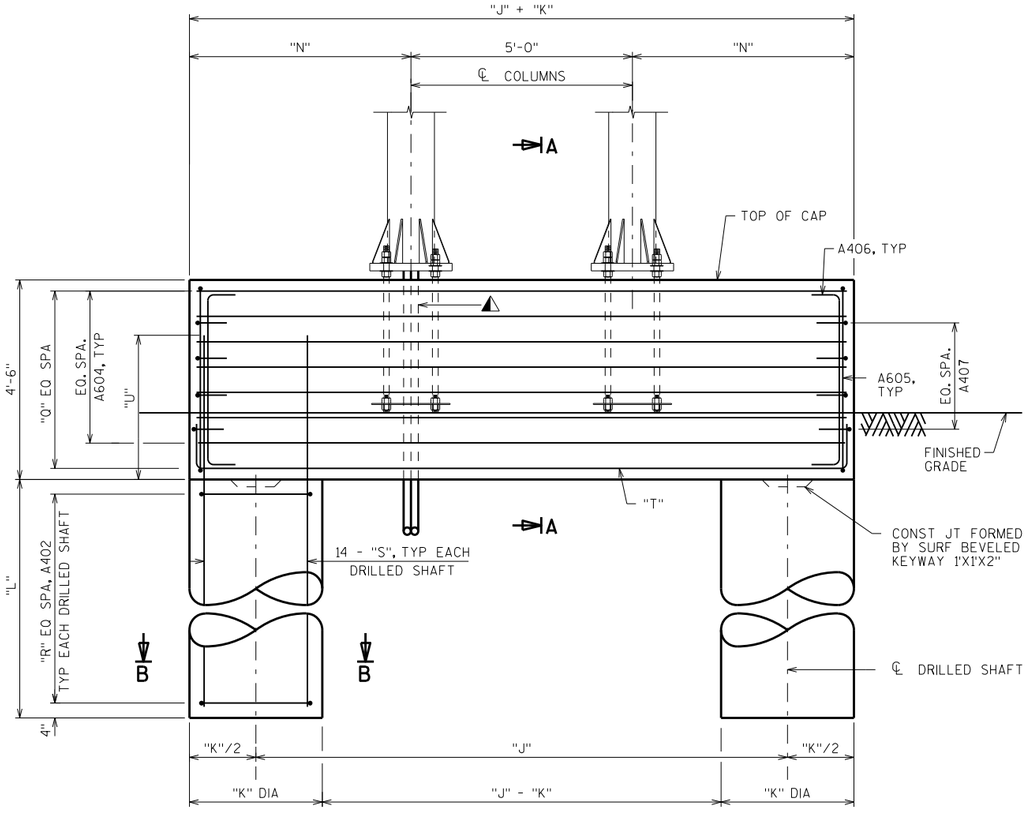
SCALE = 1.00

8

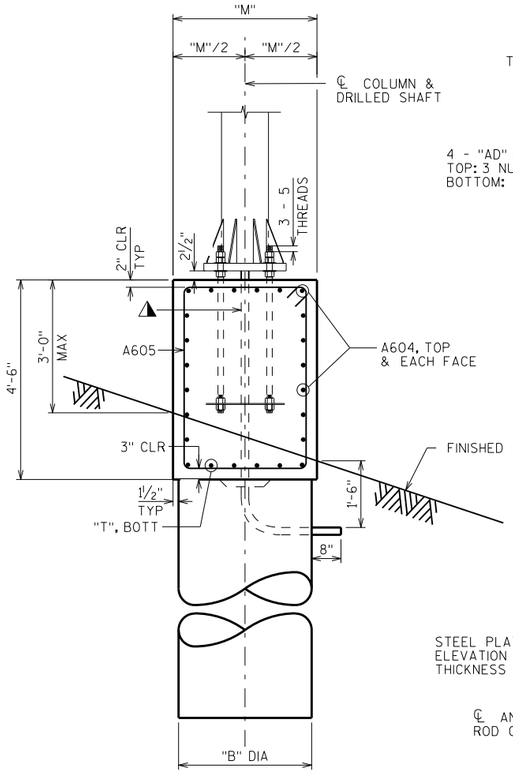
8

STATE PROJECT NUMBER

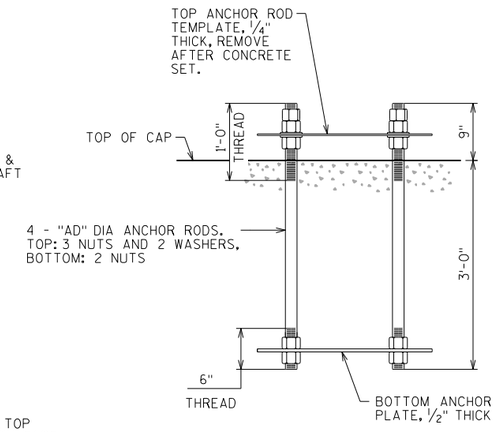
STANDARD



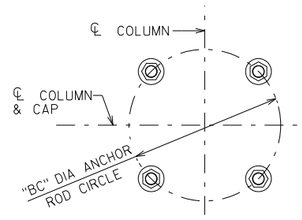
ELEVATION



SECTION A-A



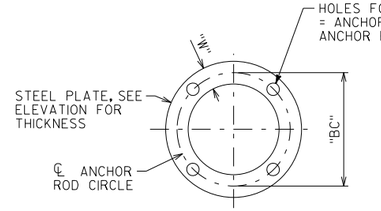
ELEVATION



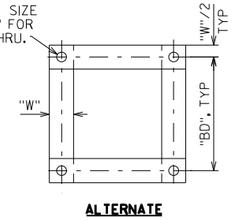
PLAN

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
4 ANCHOR RODS REQ'D PER ASSEMBLY



ANCHOR PLATE/TOP TEMPLATE
PLAN

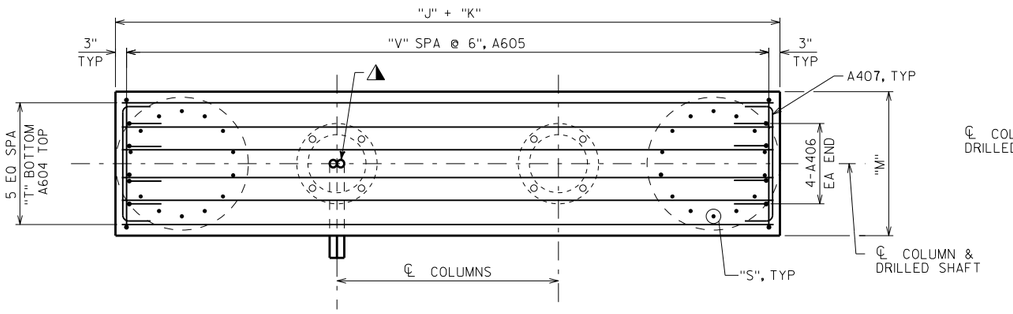


ALTERNATE

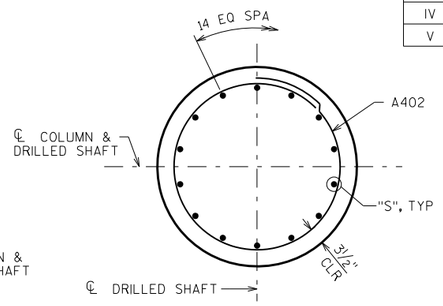
ANCHOR PLATE/TOP TEMPLATE
PLAN

FOUNDATION, REINFORCING & ANCHOR PLATE DATA

STD DESIGN TRUSS	FOUNDATION DIMENSIONS											ANCHOR PLATE DIMENSIONS			
	"J"	"K"	"L"	"M"	"N"	"Q"	"R"	"S"	"T"	"U"	"V"	"AD"	"BC"	"BD"	"W"
I	9'-0"	3'-0"	19'-0"	3'-3"	3'-6"	7	19	A801	A603	2'-2"	17	1½"	1'-6¾"	1'-1¼"	3"
II	12'-0"	3'-0"	22'-0"	3'-3"	5'-0"	7	22	A801	A603	2'-2"	23	1½"	1'-6¾"	1'-1¼"	3"
III	12'-0"	3'-6"	23'-0"	3'-9"	5'-3"	7	23	A901	A703	2'-9"	23	1¾"	1'-6¾"	1'-1¼"	3½"
IV	15'-0"	3'-6"	23'-0"	3'-9"	6'-9"	7	29	A901	A703	2'-9"	29	1¾"	1'-8"	1'-2⅛"	3½"
V	15'-0"	4'-0"	23'-0"	4'-3"	7'-0"	8	23	A1001	A703	3'-5"	29	1¾"	1'-10"	1'-3⅝"	3½"



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

LEGEND

⚠ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN FOUNDATIONS 1

SHEET VII OF VIII

SCALE = 1.66

8

8

STATE PROJECT NUMBER

STANDARD

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD DESIGN TYPE I

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-2"			DRILLED SHAFT - VERTICAL
A402		80	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	13'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	48	14'-10"	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE II

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-2"			DRILLED SHAFT - VERTICAL
A402		92	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	16'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	14'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	60	14'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE III

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-6"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	17'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	15'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	62	15'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

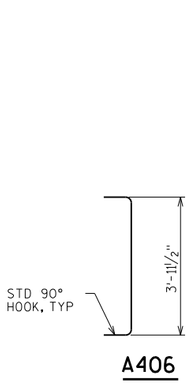
BILL OF BARS - STANDARD DESIGN TYPE IV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		120	10'-6"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	74	15'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

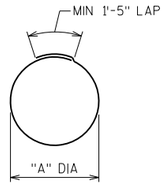
BILL OF BARS - STANDARD DESIGN TYPE V

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		56	26'-5"			DRILLED SHAFT - VERTICAL
A402		96	12'-1"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	76	16'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	4'-5"	X		CAP - HORIZONTAL - EACH END

BAR BENDING DIAGRAMS

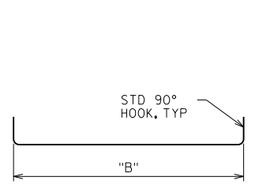


A406



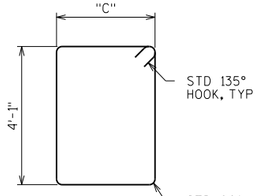
A402

DESIGN TYPE	"A"
I	2'-5"
II	2'-5"
III	2'-11"
IV	2'-11"
V	3'-5"



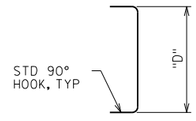
A603, A703

DESIGN TYPE	BAR MARK	"B"
I	A603	11'-7"
II	A603	14'-7"
III	A703	15'-1"
IV	A703	18'-1"
V	A703	18'-7"



A605

DESIGN TYPE	"C"
I	2'-11"
II	2'-11"
III	3'-5"
IV	3'-5"
V	3'-11"



A407

DESIGN TYPE	"D"
I	2'-9½"
II	2'-9½"
III	3'-3½"
IV	3'-3½"
V	3'-9½"

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TRUSS	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 1½-INCH (EACH)	ANCHOR ASSEMBLY 1¾-INCH (EACH)	FOUNDATION DRILLNG (LF)		
						36" DIA.	42" DIA.	48" DIA.
I	33	4,100	2,030	4	----	76	----	----
II	40	4,170	2,520	4	----	88	----	----
III	53	5,580	2,810	----	4	----	92	----
IV	56	5,750	3,340	----	4	----	92	----
V	70	7,140	3,540	----	4	----	----	92

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS**

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN FOUNDATIONS 2

SHEET VIII OF VIII

SCALE = 0.50

8

8

DESIGN DATA:

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES:

CONCRETE MASONRY .....f'c = 3,500 P.S.I.

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 .....fy = 60,000 P.S.I.

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36 .....fy = 36,000 P.S.I.

CHORDS - ASTM A500 GRADE C .....fy = 46,000 P.S.I.

COLUMN PIPE
DESIGN TRUSS TYPE I - ASTM A500 GRADE C .....fy = 46,000 P.S.I.
DESIGN TRUSS TYPE II - API5L PSL2 GRADE 46 .....fy = 46,000 P.S.I.

HIGH STRENGTH BOLTS - A325 .....fy = 92,000 P.S.I.

ANCHOR RODS - ASTM F1554 GRADE 55 .....fy = 55,000 P.S.I.

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA:

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS CANTILEVER 4-CHORD TYPE NS" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 36-INCH".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD DESIGN TRUSS
S-40-3033	175.5 SF	9'-0"	NS

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-40-3033

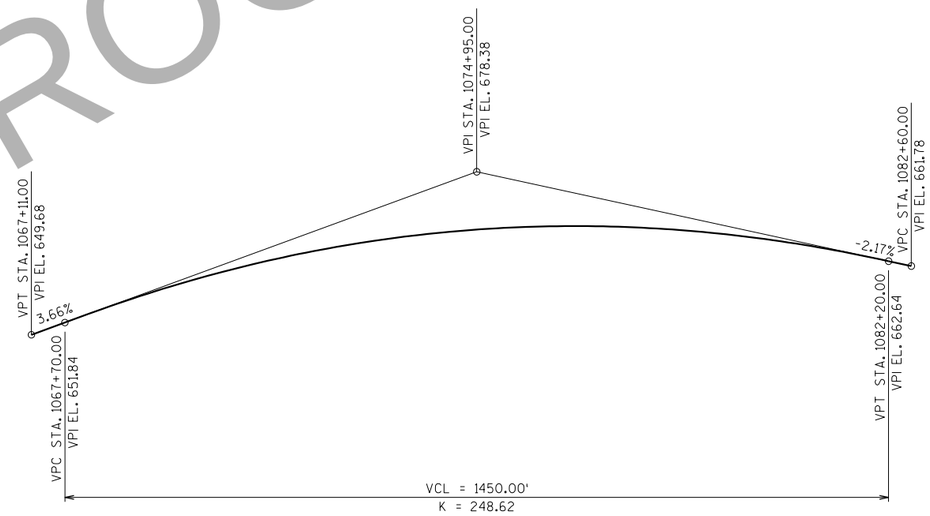
STATE PROJECT NUMBER

1229-04-73

TRAFFIC DATA

IH 43

ADT = 111,700 (2045)
RDS = 70 MPH



PROFILE GRADE LINE - IH 43 NB

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S-40-3033
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	-
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	-
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	-
531.2036	DRILLING SHAFT 36-INCH	LF	-
532.6000	TRUSS CANTILEVER 4-CHORD TYPE NS	EA	-

ALL ITEMS ARE CATEGORY XXXX

IN PROGRESS

PRELIMINARY PLANS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

NS 4-CHORD TRUSS CANTILEVER PLANS

IH 43 N/S

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	AJA	SMC	MHZ

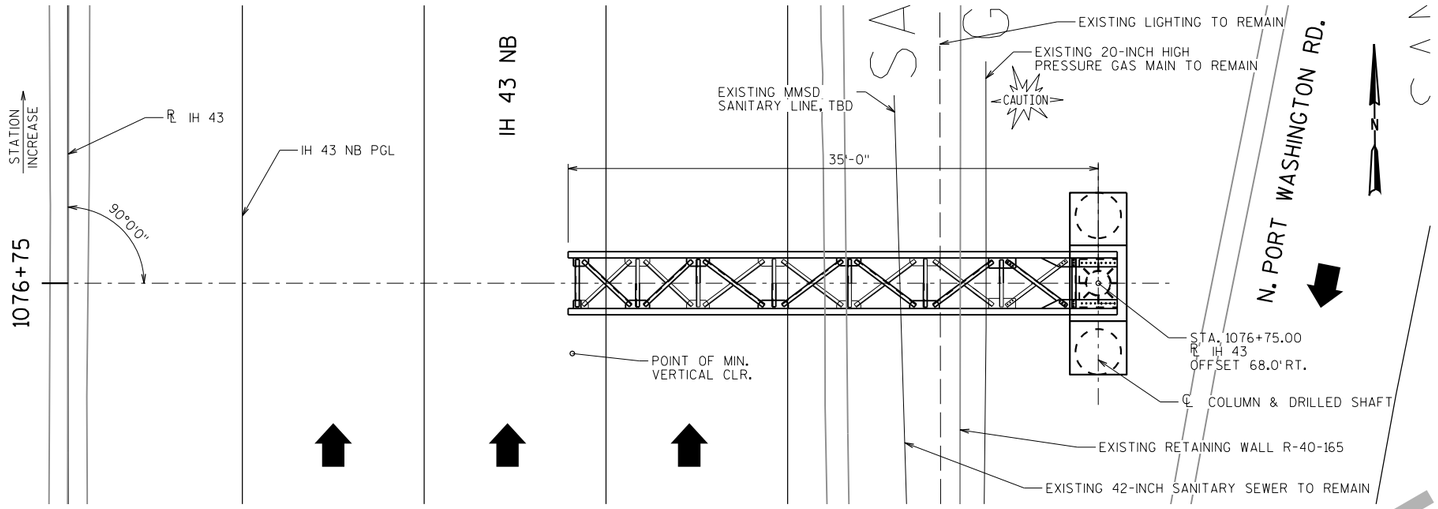
GENERAL NOTES & DESIGN DATA

SHEET 1 OF 2

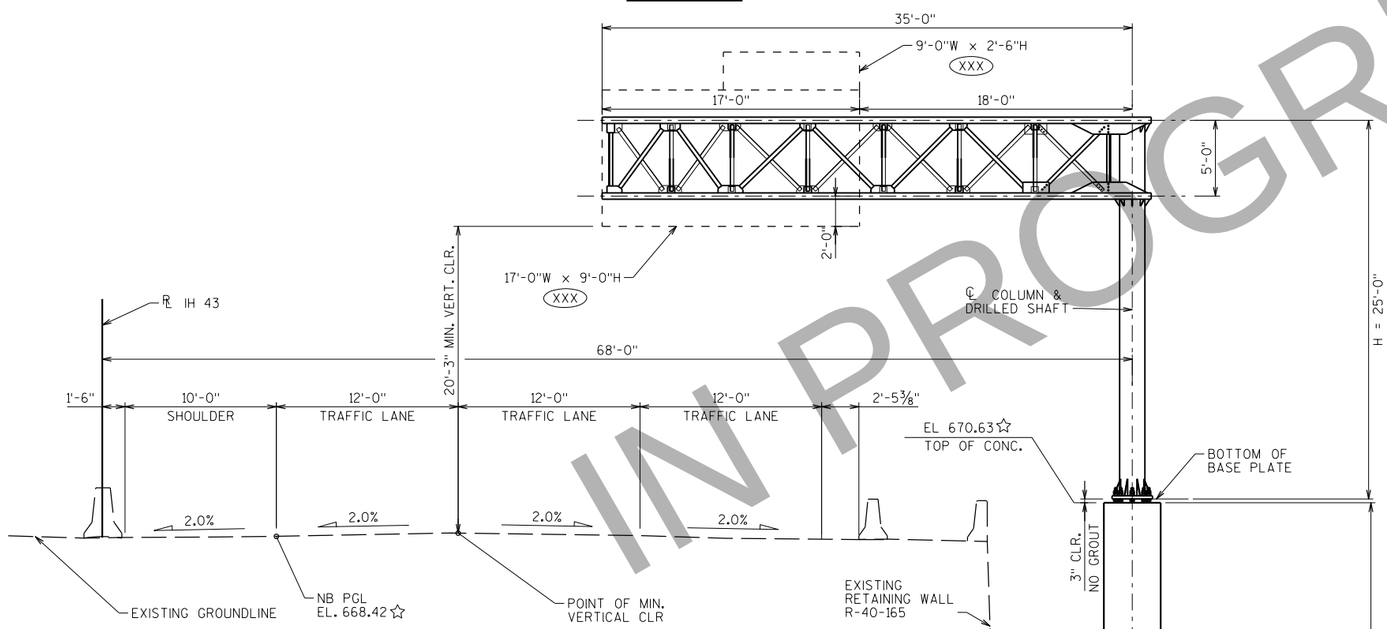
8

8

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 1076+75
(LOOKING UPSTATION AT FRONT OF SIGN)

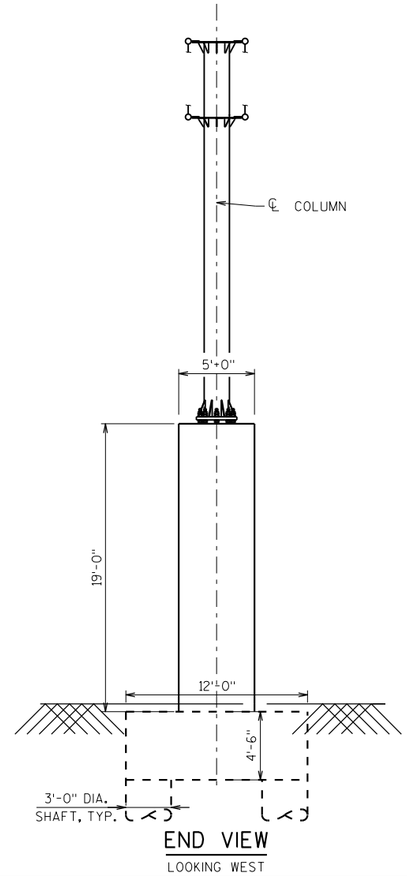
LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

XXX SIGN NUMBERS (PERMANENT SIGNING PLAN)

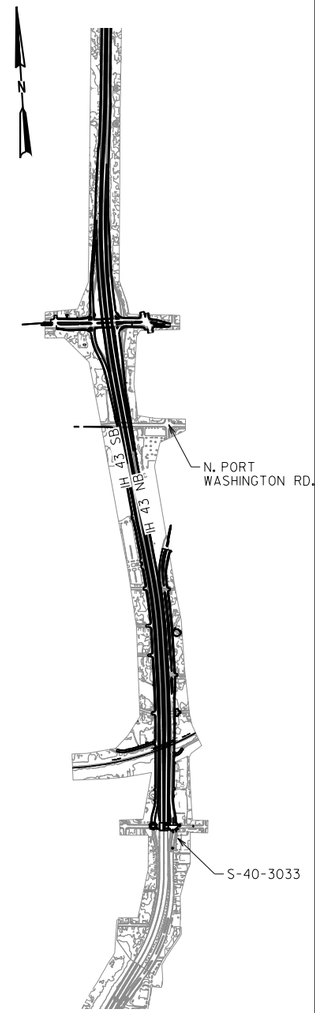
NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1076+72.50, 23.5' RT.
EL. 668.63



END VIEW

LOOKING WEST



LOCATION MAP

IN PROGRESS

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3033

DRAWN BY	SMC	PLANS CK'D.	MHZ

GENERAL LAYOUT
S-40-3033

SHEET 2 OF 2

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0260099\S3033_080102_gp.dgn
PLOT DATE : 9/27/2021
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:10

DESIGN DATA:

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES:

CONCRETE MASONRY .....f'c = 3,500 P.S.I.

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 .....fy = 60,000 P.S.I.

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36 .....fy = 36,000 P.S.I.

CHORDS - ASTM A500 GRADE C .....fy = 46,000 P.S.I.

COLUMN PIPE
DESIGN TRUSS TYPE I - ASTM A500 GRADE C .....fy = 46,000 P.S.I.
DESIGN TRUSS TYPE II - API5L PSL2 GRADE 46 .....fy = 46,000 P.S.I.

HIGH STRENGTH BOLTS - A325 .....fy = 92,000 P.S.I.

ANCHOR RODS - ASTM F1554 GRADE 55 .....fy = 55,000 P.S.I.

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA:

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES:

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ALTERNATE DESIGNS ARE NOT ALLOWED.

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SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "BUTTERFLY 2-CHORD NS" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 36-INCH".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH
S-40-3034	165 SF	7'-6"
S-40-3039	216 SF	8'-0"

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-40-3034
3. GENERAL LAYOUT S-40-3039

STATE PROJECT NUMBER

1229-04-73

TRAFFIC DATA

IH 43 - BENDER TO GOOD HOPE RAMPS

ADT = 111,700 (2045)
RDS = 70 MPH

IH 43 - GOOD HOPE OVERPASS

ADT = 88,800 (2045)
RDS = 70 MPH

HORIZONTAL CURVE DATA

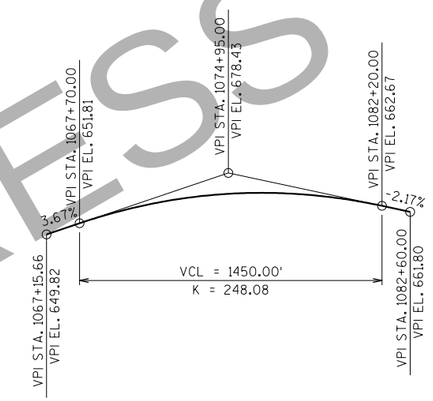
IH 43 CURVE 7

PI STA. = 1141+84.53
Y = 339000.74
X = 604282.69
DELTA = 4°24'12"
D = 0°24'13"
T = 545.91'
L = 1091.28'
R = 14200.00'
PC STA. = 1136+38.63
Y = 338463.62
X = 604380.26
PT STA. = 1147+29.90
Y = 339543.76
X = 604226.64

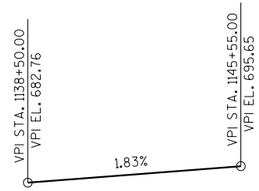
TOTAL ESTIMATED QUANTITIES

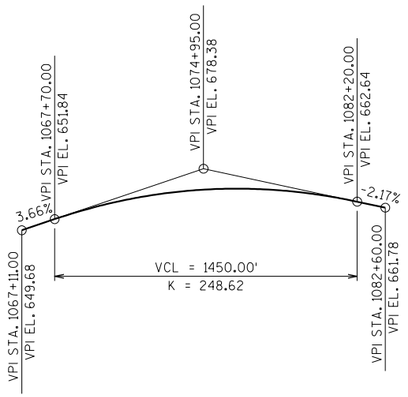
ITEM NO.	BID ITEMS	UNIT	S-40-3034	S-40-3039	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	-	-	-
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	-	-	-
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	-	-	-
531.2036	DRILLING SHAFT 36-INCH	LF	-	-	-
532.5020.XXX	BUTTERFLY 2-CHORD NS S-40-3034	EA	-	-	-
532.5020.XXX	BUTTERFLY 2-CHORD NS S-40-3039	EA	-	-	-

ALL ITEMS ARE CATEGORY XXXX



PROFILE GRADE LINES - IH 43 SB





PROFILE GRADE LINES - IH 43 NB

PRELIMINARY PLANS

IN PROGRESS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

BUTTERFLY 2-CHORD NS PLANS

IH 43 N/S

COUNTY MILWAUKEE | CITY GLENDALE

DESIGN SPEC. AASHTO LRFDLTS-1 W/INTERIMS

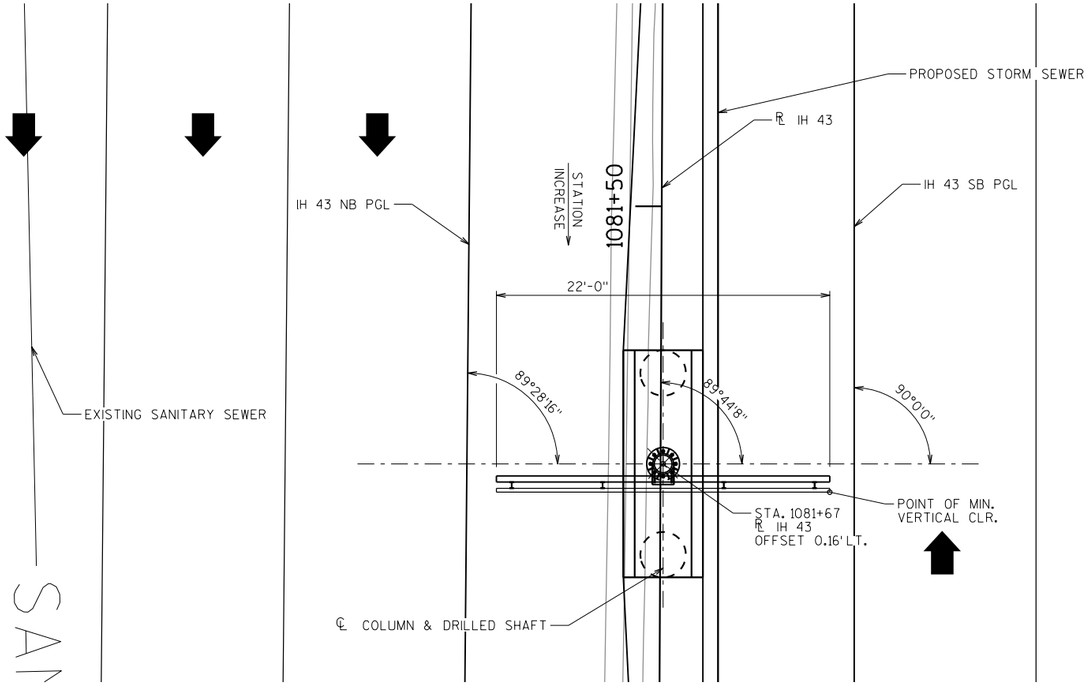
DESIGNED BY	SMC	DESIGN CK'D.	AJA	DRAWN BY	SMC	PLANS CK'D.	MHZ

GENERAL NOTES & DESIGN DATA

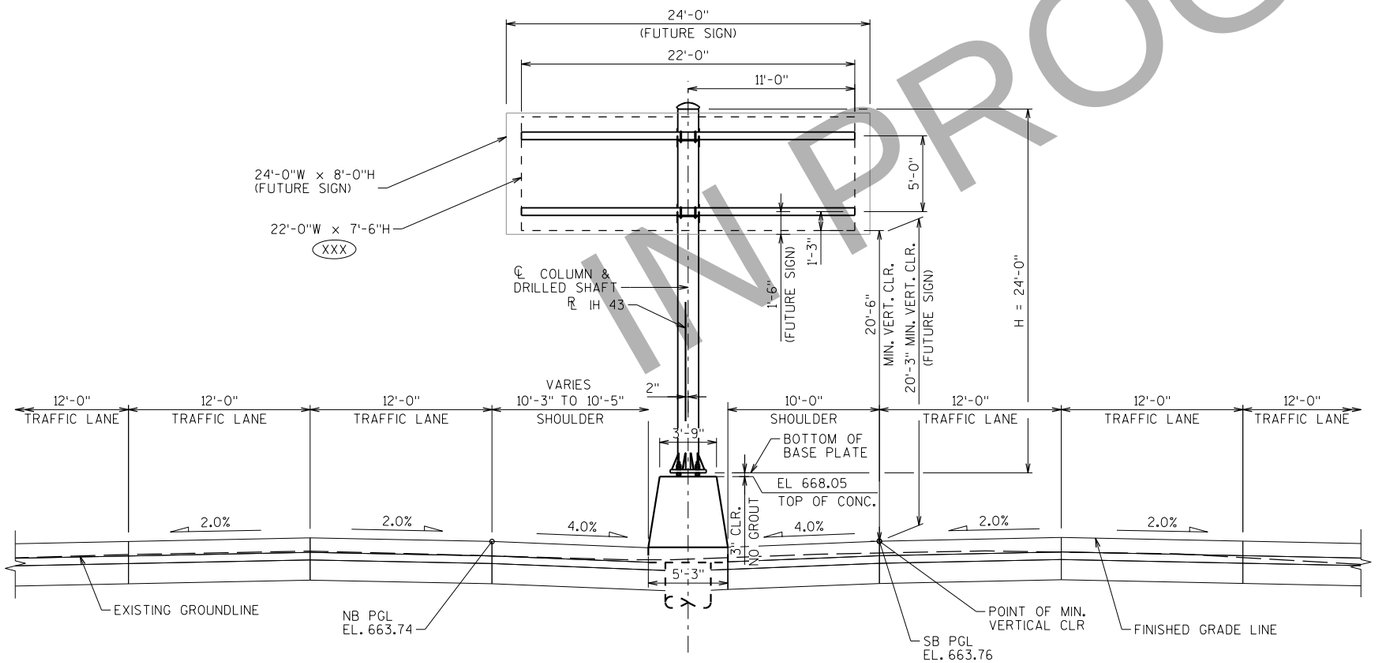
SHEET 1 OF 3

8

8

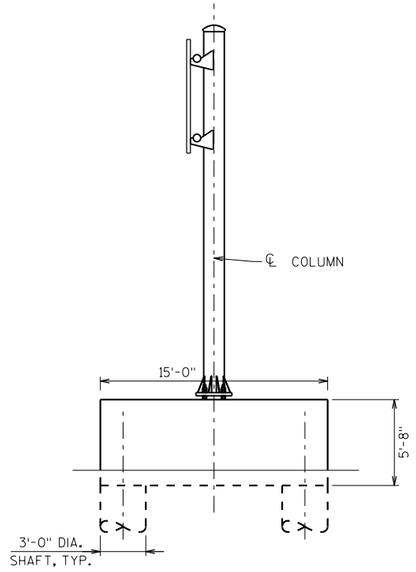


PLAN VIEW



ELEVATION VIEW

STA. 1081+67
(LOOKING DOWNSTATION AT FRONT OF SIGN)



END VIEW

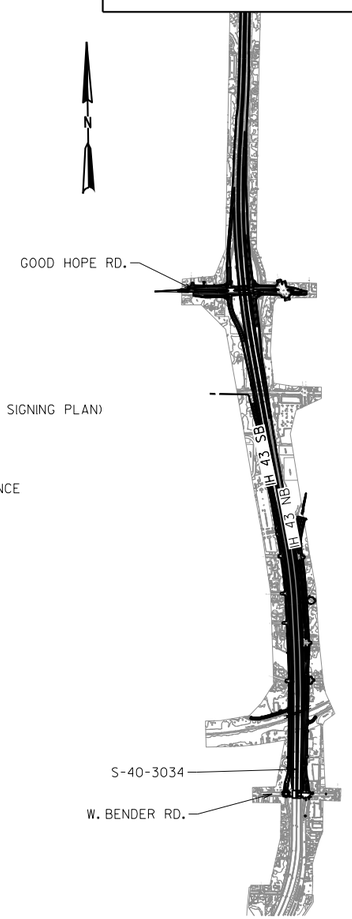
LOOKING EAST

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1081+68.87, 12.79'LT
EL. 663.74



LOCATION MAP

STATE PROJECT NUMBER

1229-04-73

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3034

DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL LAYOUT
S-40-3034

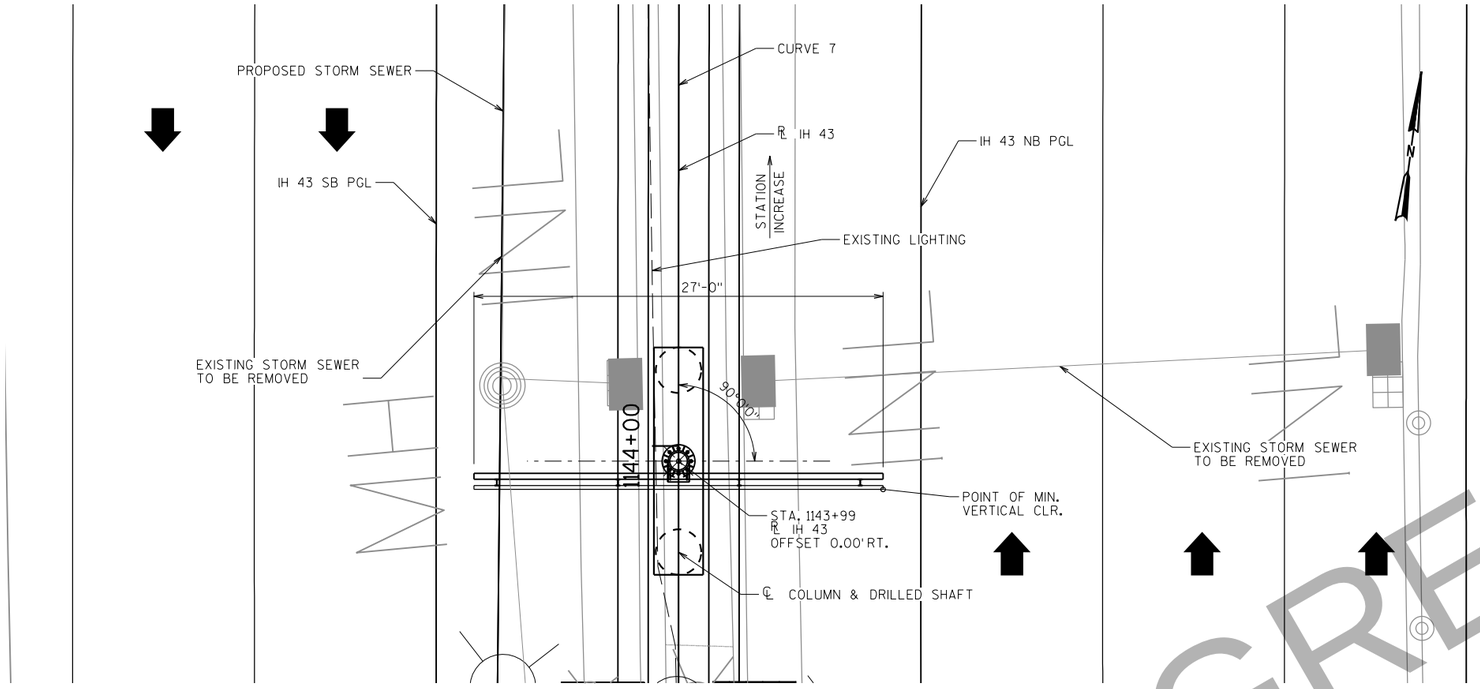
SHEET 2 OF 3

IN PROGRESS

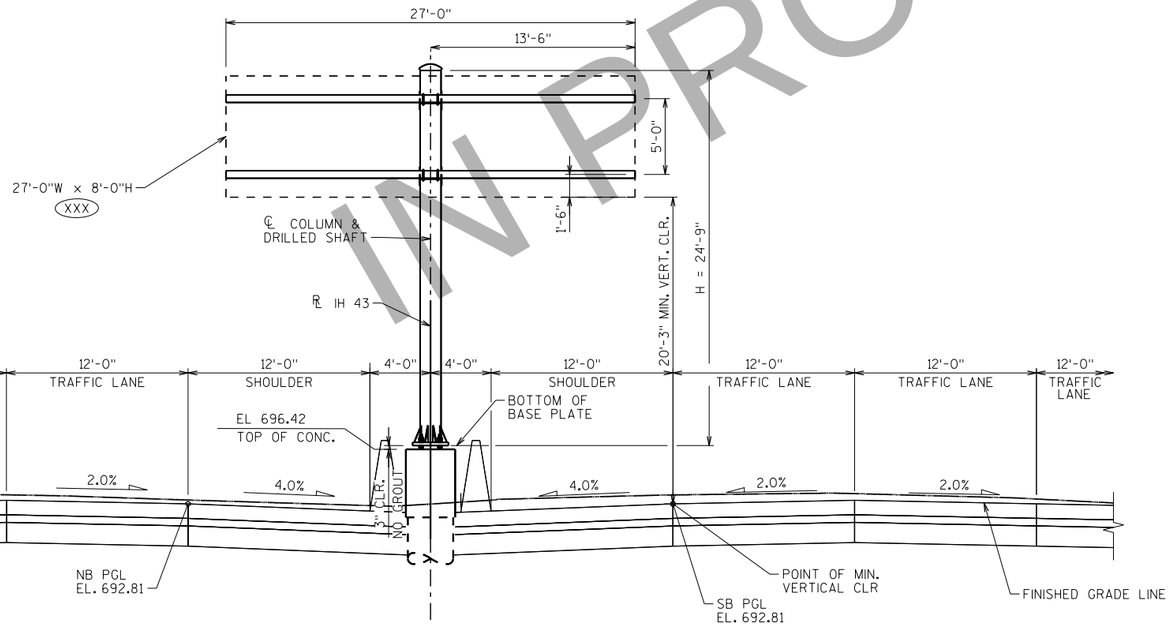
8

8

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

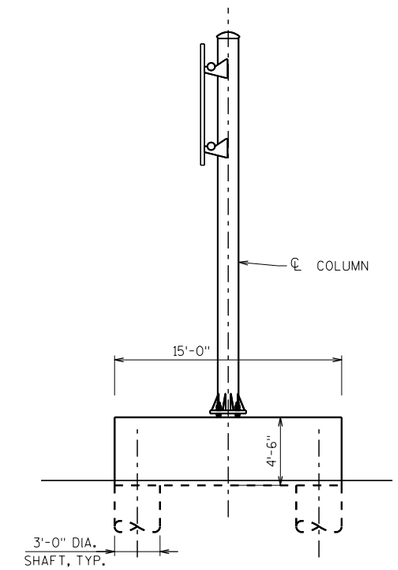
STA. 1143+99
(LOOKING UPSTATION AT FRONT OF SIGN)

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

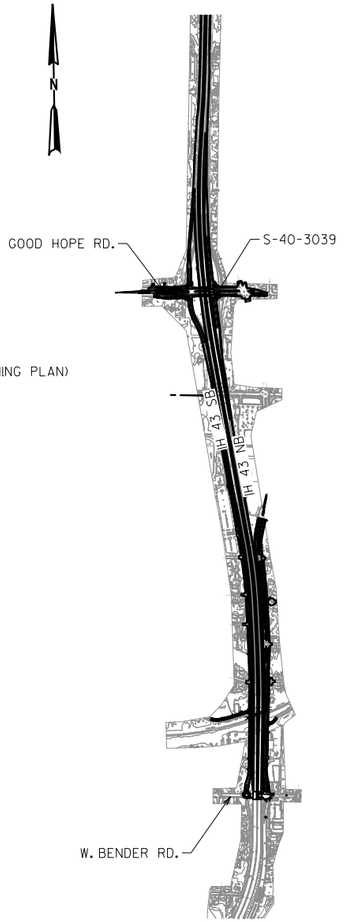
NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1143+97.10, 16.0'RT.
EL. 692.77



END VIEW

LOOKING EAST



LOCATION MAP

PRELIMINARY PLANS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3039

DRAWN BY	SMC	PLANS CK'D.	MHZ

GENERAL LAYOUT
S-40-3039

SHEET 3 OF 3

IN PROGRESS

8

8

STATE PROJECT NUMBER
1229-04-73

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3035	130 SF	12'-0"	STD. TYPE II
S-40-3036	240 SF	8'-0"	STD. TYPE I

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY	f'c = 3,500 psi
HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60	fy = 60,000 psi
STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36	fy = 36,000 psi
CHORDS - ASTM A500 GRADE C	fy = 46,000 psi
COLUMN PIPE DESIGN TRUSS TYPE I - ASTM A500 GRADE C DESIGN TRUSS TYPE II - API 5L PSL2 GRADE 46	fy = 46,000 psi fy = 46,000 psi
HIGH STRENGTH BOLTS - A325	fy = 92,000 psi
ANCHOR RODS - ASTM F1554 GRADE 55	fy = 55,000 psi
HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A	
WASHERS FOR ANCHOR RODS - ASTM F436	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEMS "DRILLING SHAFT 36-INCH".

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES, DESIGN DATA & QUANTITIES
2. GENERAL LAYOUT S-40-3035
3. GENERAL LAYOUT S-40-3036

LIST OF OSS STANDARD DESIGN DRAWINGS

4. I. 4-CHORD TRUSS CANTILEVER
5. II. 4-CHORD TRUSS CANT. CONNECTION DETAILS 1
6. III. 4-CHORD TRUSS CANT. CONNECTION DETAILS 2
7. IV. 4-CHORD TRUSS CANT. CONNECTION DETAILS 3

LIST OF DRAWINGS (CON'T)

8. I. 4-CHORD TRUSS CANT. NON-STANDARD FDN. DETAILS 1
9. II. 4-CHORD TRUSS CANT. NON-STANDARD FDN. DETAILS 2

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-40-3035	S-40-3036
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	--	--
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	--	--
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	--	--
531.2036	DRILLING SHAFT 36-INCH	LF	32	32
531.6010.XX	TRUSS CANTILEVER 4-CHORD TYPE II S-40-3035	EA	1	--
531.6020.XX	TRUSS CANTILEVER 4-CHORD TYPE I S-40-3036	EA	--	1

STRUCTURE	CATEGORY
S-40-3035	OXXO
S-40-3036	OXXO

THE FOUNDATIONS ARE BASED ON THE STANDARDS WITH CAP BEAMS MODIFIED TO SERVE AS ROADWAY BARRIERS CONFORMING TO ROADWAY GEOMETRY.

THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS CANTILEVER PLANS

CANTILEVER SPAN SIGN STRUCTRES W/ NON-STD FOUNDATIONS IH 43 NB & SB

COUNTY	CITY
MILWAUKEE	GLENDALE

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	RAB	NNM

GENERAL NOTES, DESIGN DATA & QUANTITIES

SHEET 1 OF 9

FOR 1078 SUBMITTAL

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FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever4-Chord w Integral Foundation (2)\cds\S-40_cant_4chord_101_gn.dgn
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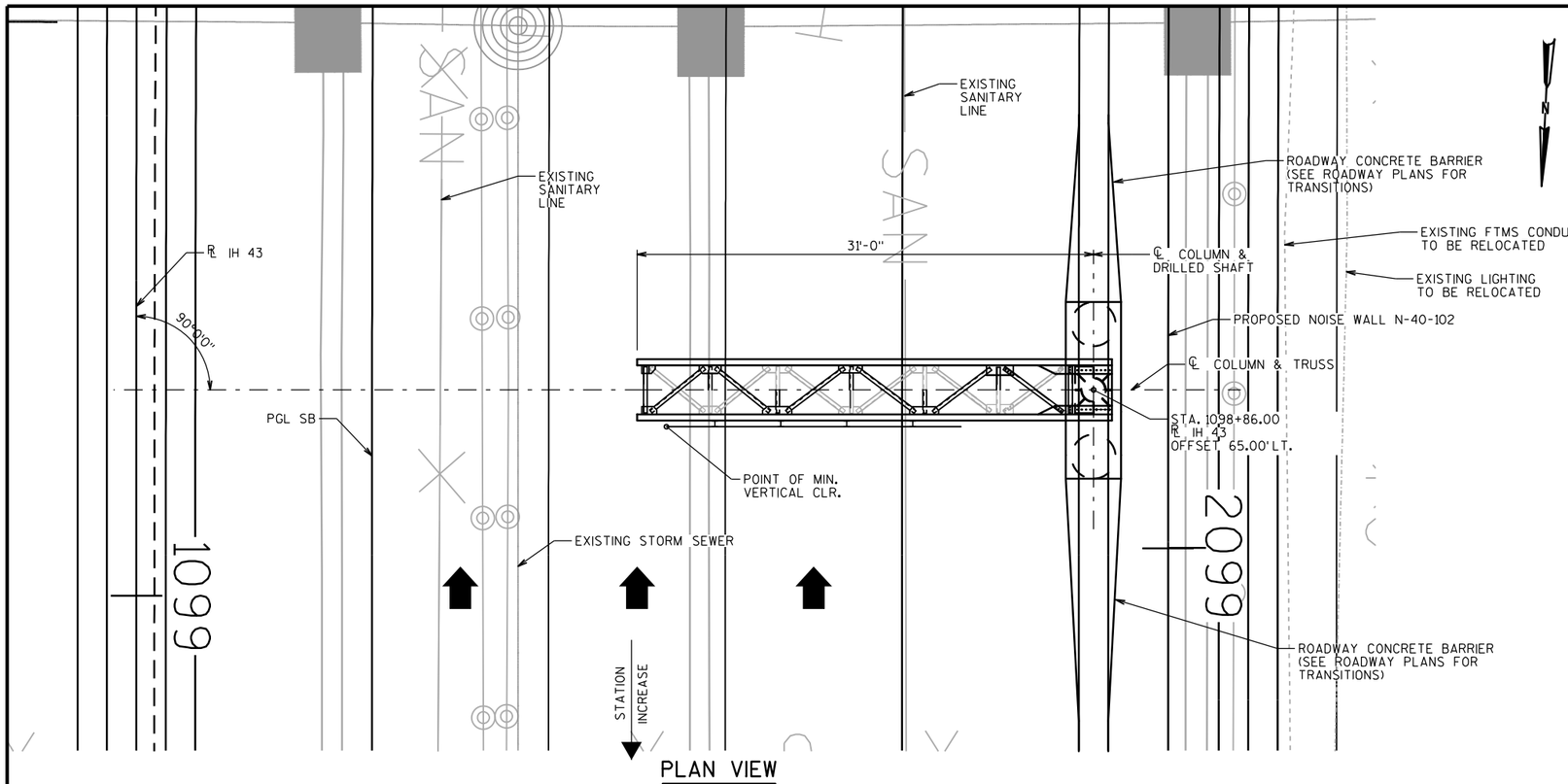
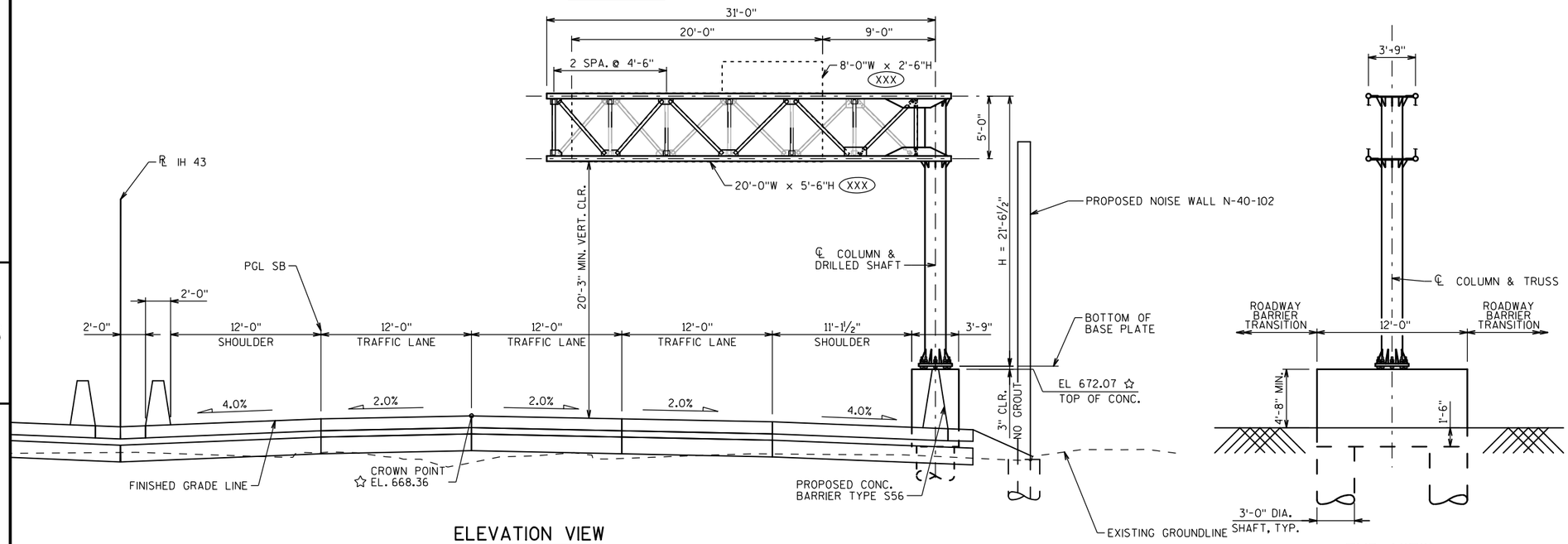
PLOT SCALE : 1:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 1098+86.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)

END VIEW

LOOKING EAST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

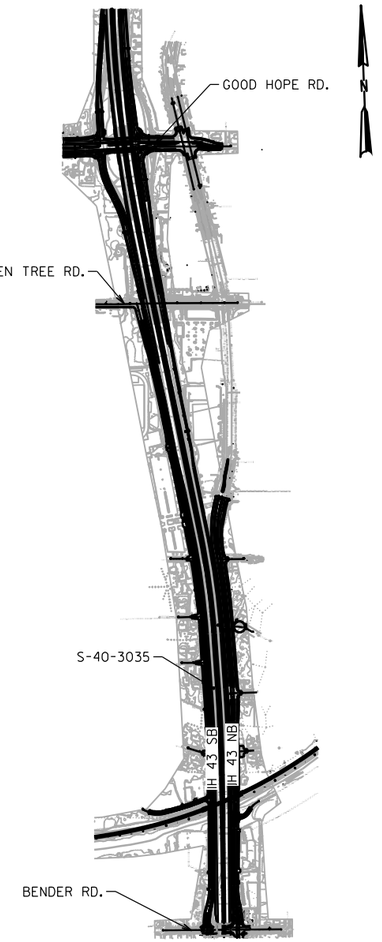
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1098+88.50, 34.00' LT.
EL. 668.20

TRAFFIC VOLUME

A.D.T. (2045) = 119,935
R.D.S. = 70 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3035

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3035

SHEET 2 OF 9

8

8

FOR 1078 SUBMITTAL

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever4-Chord w Integral Foundation (2)\cds\S-40-3035_102_gp.dgn
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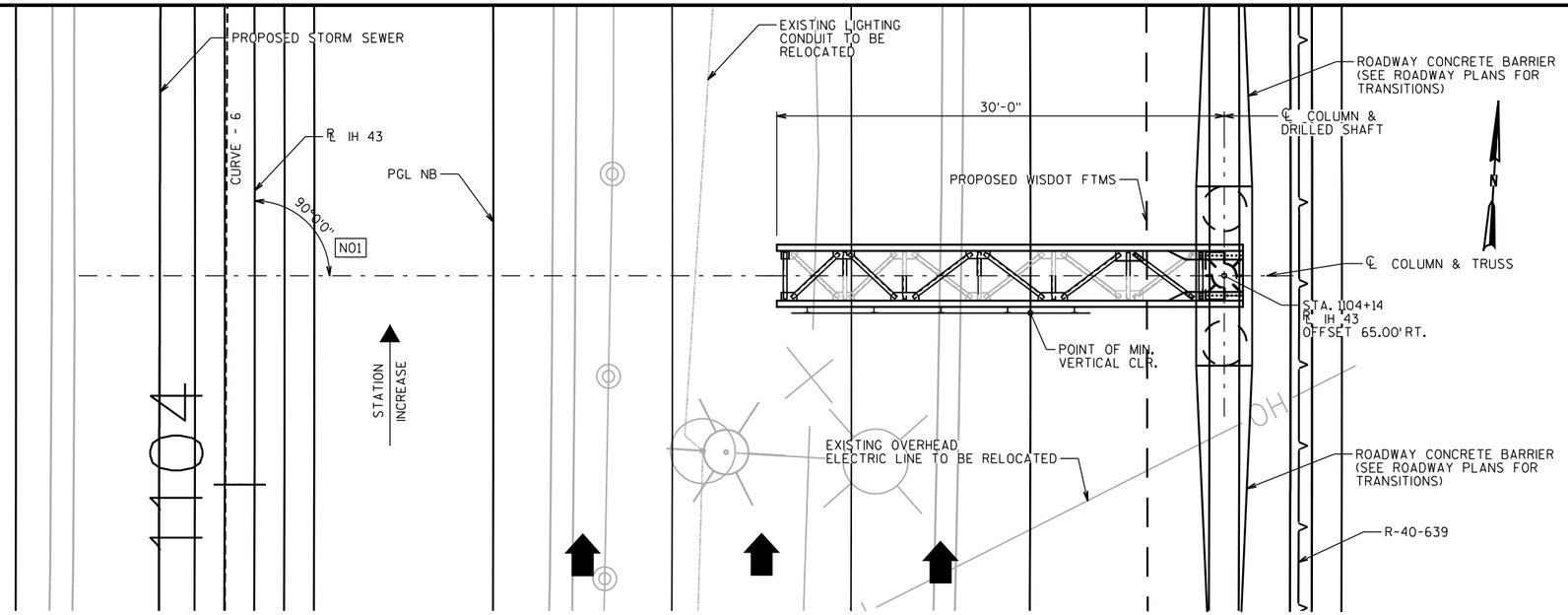
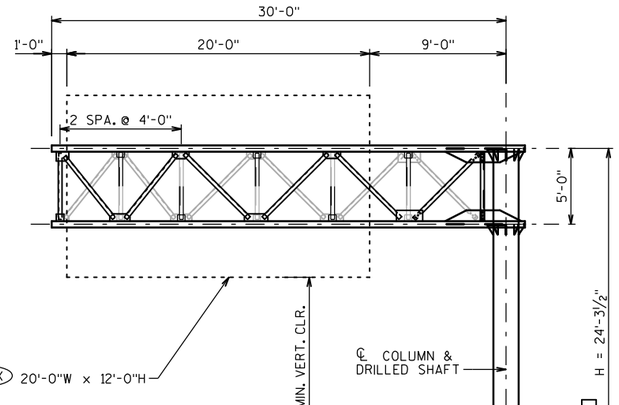
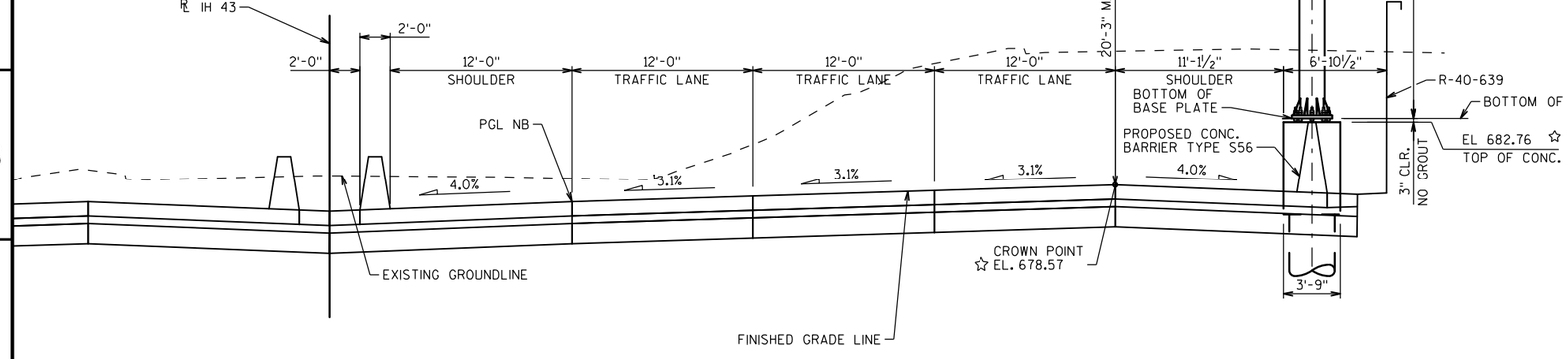
PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



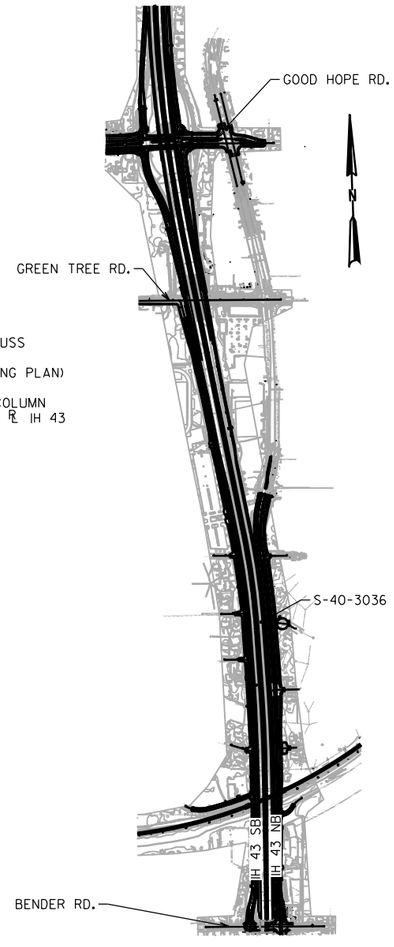
PLAN





ELEVATION

STA. 1104+14
(LOOKING UPSTATION AT FRONT OF SIGN)



LOCATION MAP

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

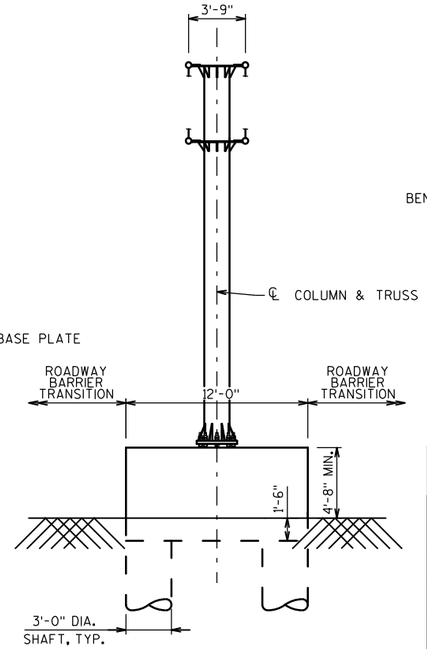
N01 ANGLE MEASURED BETWEEN ℄ COLUMN & TRUSS AND LINE TANGENT TO ℄ IH 43 AT STA. 1104+14.00

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1104+11.50, 52.00' RT.
EL. 678.57

TRAFFIC VOLUME

A.D.T. (2045) = 119,935
R.D.S. = 70 MPH



END VIEW

LOOKING WEST

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3036

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3036

SHEET 3 OF 9

8

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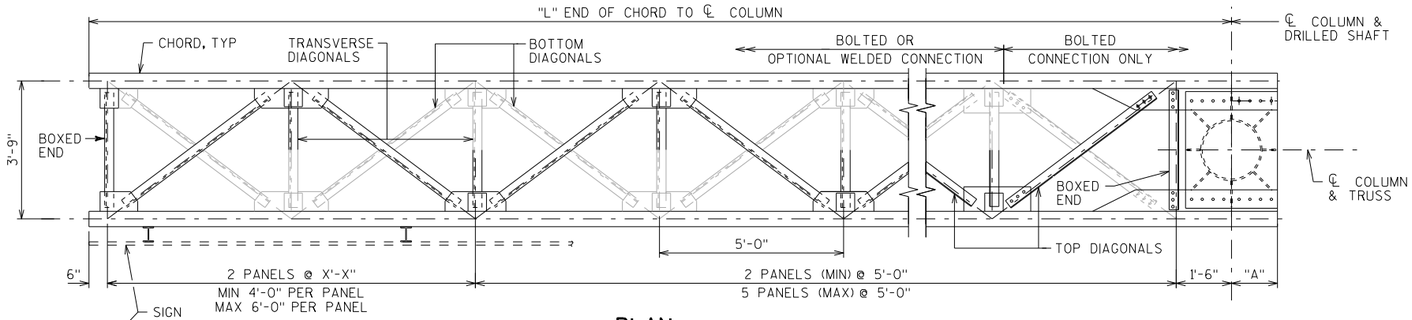
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever4-Chord w Integral Foundation (2)\cds\S-40-3036_103_gp.dgn
PLOT DATE : 9/29/2021 1:09:56 AM PLOT BY : ejelinek

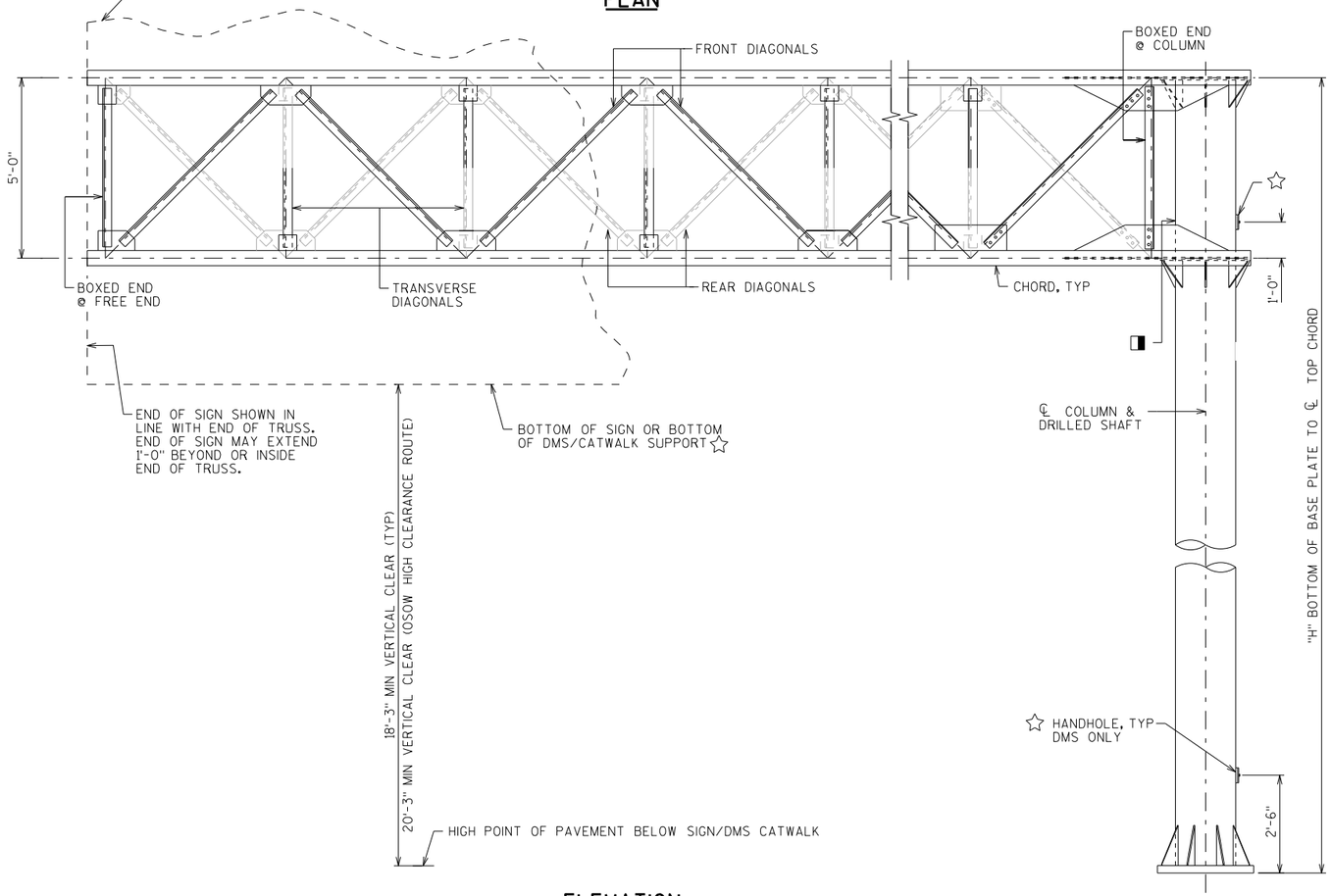
PLOT SCALE : 10:1

STATE PROJECT NUMBER

STANDARD

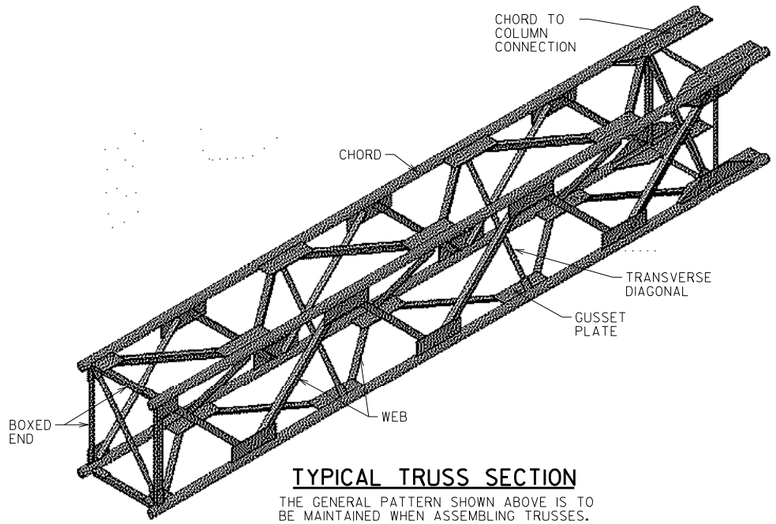


PLAN



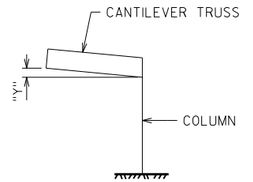
ELEVATION

LOOKING AT F.F. OF TRUSS



TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES.



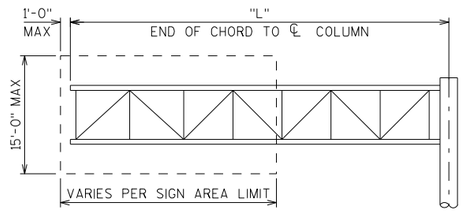
CAMBER DIAGRAM

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS AS SHOWN. DO NOT RAKE VERTICAL COLUMN BY ADJUSTMENT OF LEVELING NUTS.

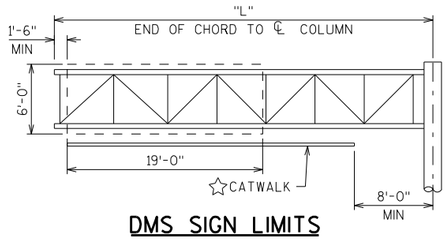
CAMBER VALUES

DIM "L" / "H"	"Y" (IN) 30' TYPE I	30' DMS	38' TYPE I	38' DMS
22'	2 1/4"	3 1/2"	2 5/8"	4 1/8"
24'	2 3/8"	3 7/8"	2 7/8"	4 1/2"
26'	2 1/2"	4 1/8"	3 1/8"	4 7/8"
28'	2 3/4"	4 1/2"	3 1/4"	5 1/4"
30'	2 7/8"	4 3/4"	3 1/2"	5 5/8"

INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.



TYPE 1 SIGN LIMITS



DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT^2)	DMS AREA (FT^2)	MAXIMUM SPAN "L"	MAXIMUM COL HEIGHT "H"	DIM "A"	COLUMN OUTER DIA. X THK	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375"	L3X3X1/4	L3X3X1/4	L3X3X1/4
II	240	114	38'-0"	30'-0"	1'-4 1/2"	24.00" X 0.500"	5.563" X 0.375"	L3X3X5/16	L3X3X1/4	L3X3X1/4

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.

◨ FOR OSS WITH DMS ONLY, DRILL HOLE AND TAP FOR (2) 2" STD. PIPE THREADS. LOCATE BOTTOM HOLE 6" UP FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANTILEVER

SHEET I OF VIII

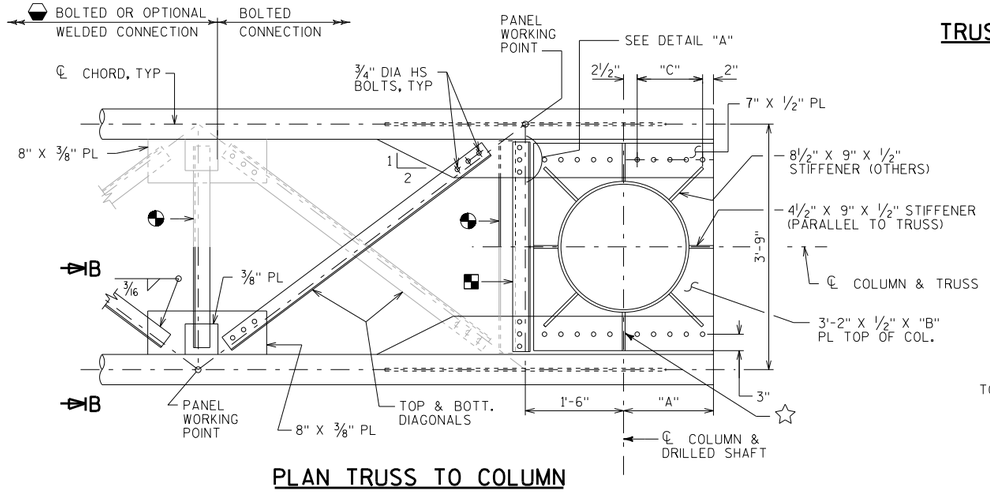
8

8

SCALE = 2.00

STATE PROJECT NUMBER

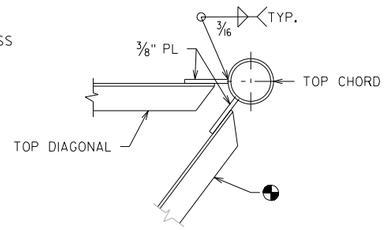
STANDARD



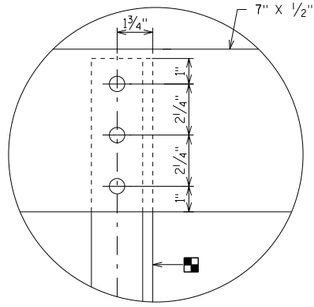
PLAN TRUSS TO COLUMN

TRUSS TO COLUMN CONNECTION DATA

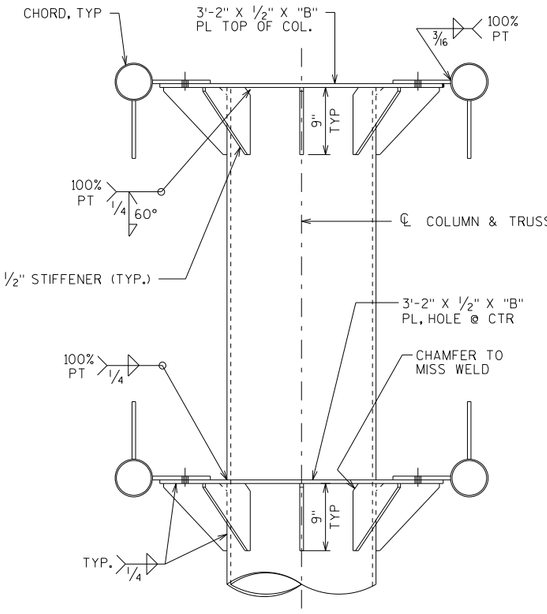
STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA @ 3½"
II	1'-4½"	2'-9"	4 SPA @ 3"



SECTION B-B

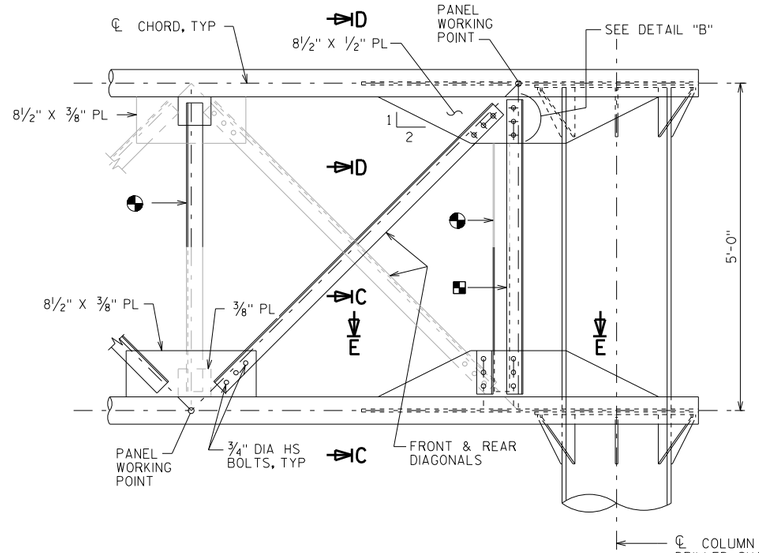


DETAIL "A"

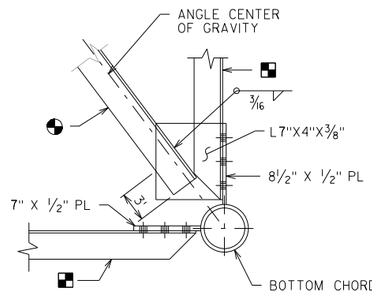


END VIEW TRUSS TO COLUMN

(WEB MEMBERS NOT SHOWN)

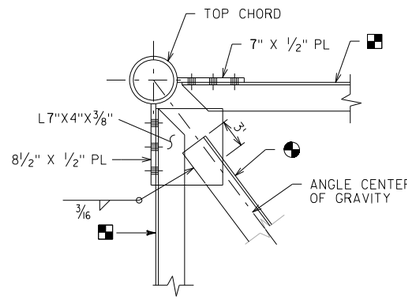


ELEVATION TRUSS TO COLUMN



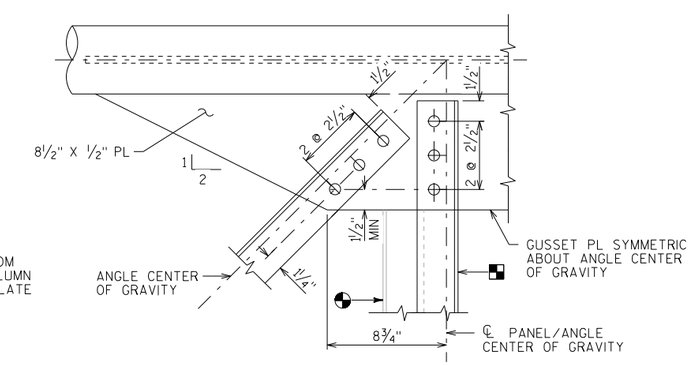
SECTION C-C

(FRONT CHORD)

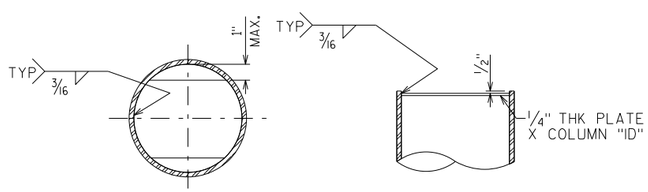


SECTION D-D

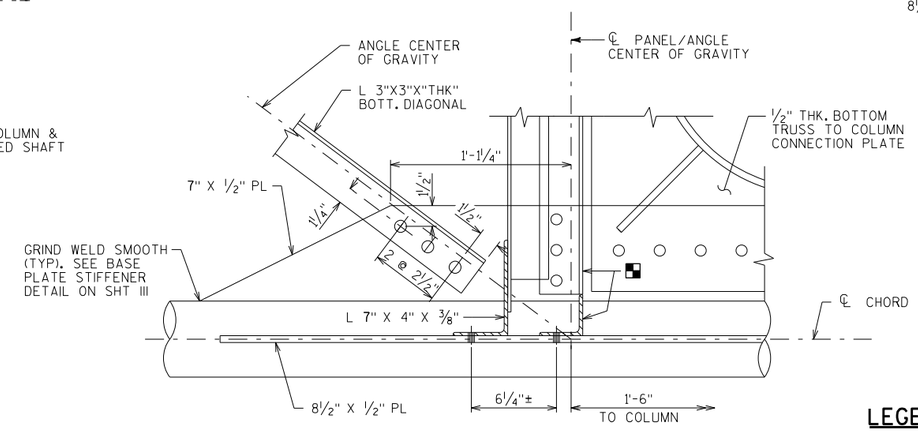
(BACK CHORD)



DETAIL "B"



CHORD CAP DETAIL



SECTION E-E

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)

LEGEND

- TRANSVERSE DIAGONAL
- BOXED END @ SUPPORT
- WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE.
- 7" X 9" X ½" STIFFENER STD DESIGN TYPE 2 ONLY, TYP OPPOSITE SIDE

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 1

SHEET II OF VIII

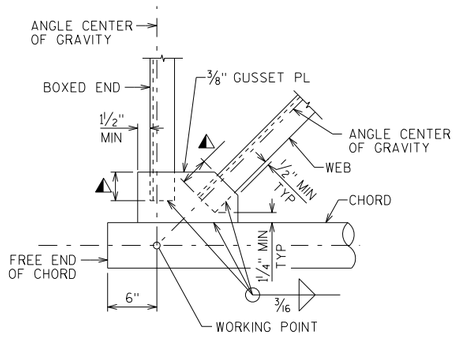
SCALE = 2.25

8

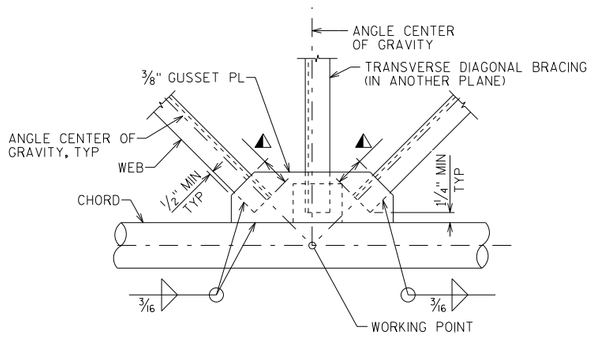
8

STATE PROJECT NUMBER

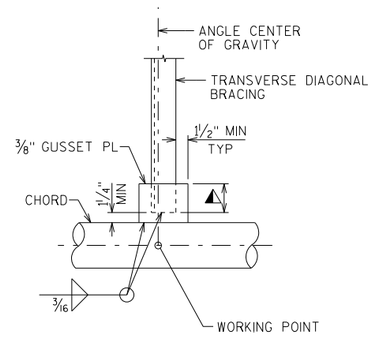
STANDARD



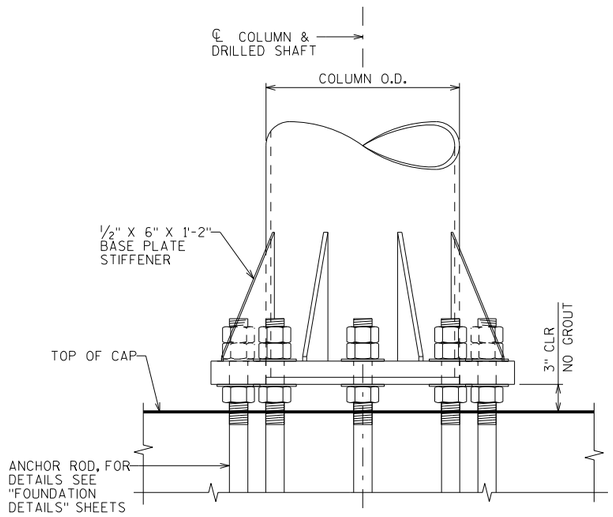
WELDED BOXED END CONNECTION



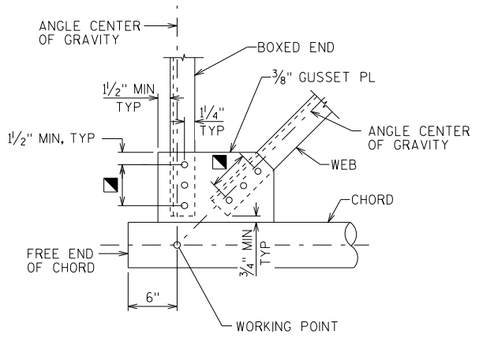
WELDED PANEL CONNECTION



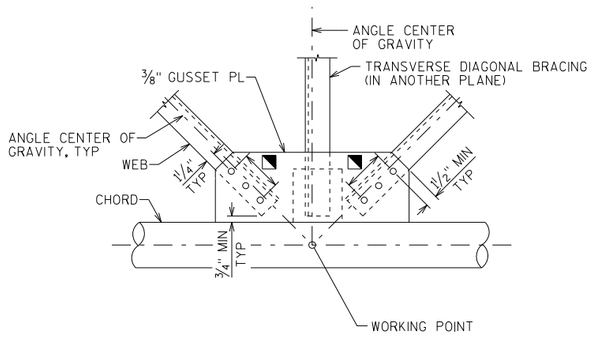
WELDED INTERIOR DIAGONAL CONNECTION



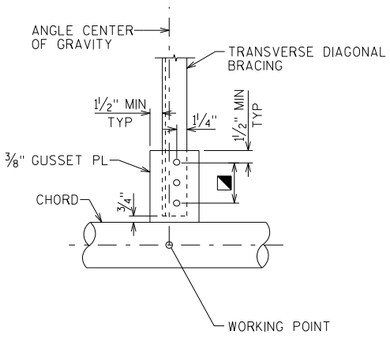
BASE PLATE & COLUMN DETAIL



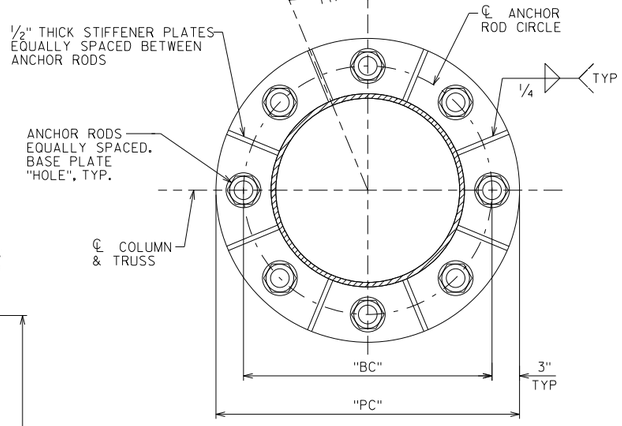
BOLTED BOXED END CONNECTION



BOLTED PANEL CONNECTION

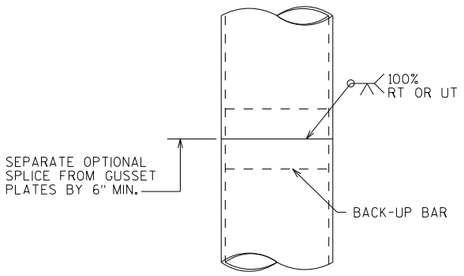


BOLTED INTERIOR DIAGONAL CONNECTION



BASE PLATE

PLAN



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

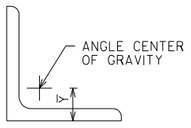
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG LENGTH ◭	NO. OF BOLTS ◥
I	3" MIN	3
II	3" MIN	3

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2 1/2"

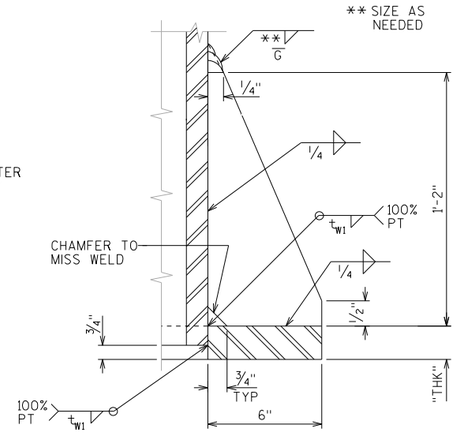
ANGLE DATA

ANGLE SIZE	$\bar{Y}$
L3x3x1/4	0.836"
L3x3x5/16	0.860"



CANTILEVER 4-CHORD COLUMN DATA TABLE

STANDARD DESIGN TYPE	COLUMN OUTER DIA X THK	BASE PLATE				
		"T_{W1}"	"HOLE"	"THK"	"BC"	"PC"
I	20.00" X 0.500"	5/16"	2 1/4"	2"	2'-2"	2'-8"
II	24.00" X 0.500"	5/16"	2 1/4"	2 1/2"	2'-6"	3'-0"



BASE PLATE STIFFENER DETAIL

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 2

SHEET III OF VIII

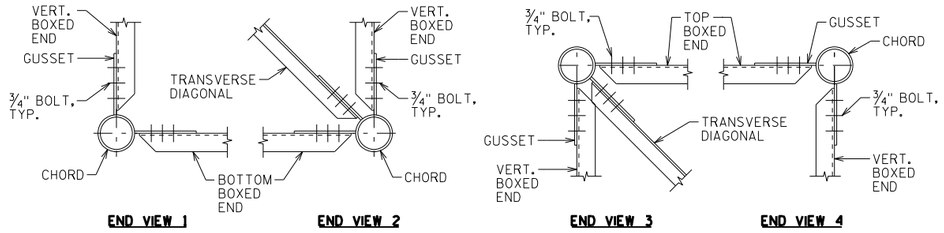
SCALE = 1.50

8

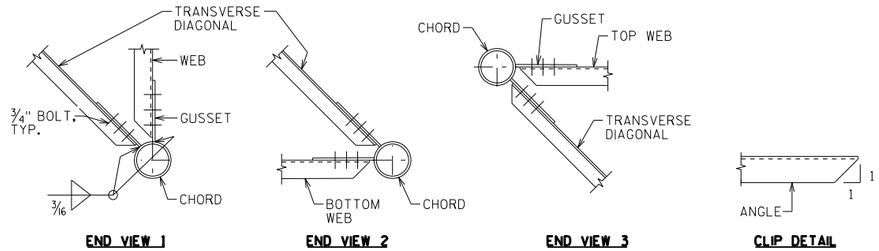
8

STATE PROJECT NUMBER

STANDARD



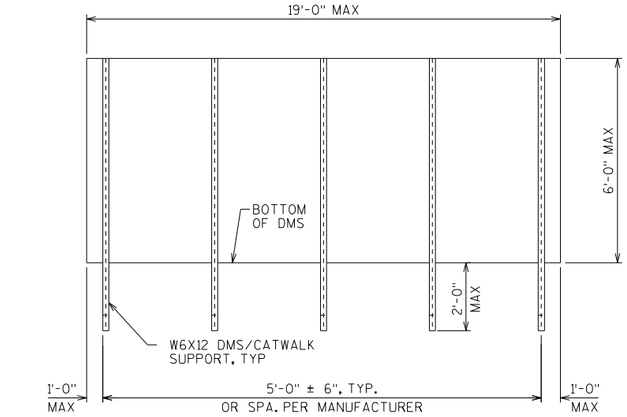
END VIEW 1 | END VIEW 2 | END VIEW 3 | END VIEW 4



END VIEW 1 | END VIEW 2 | END VIEW 3 | CLIP DETAIL

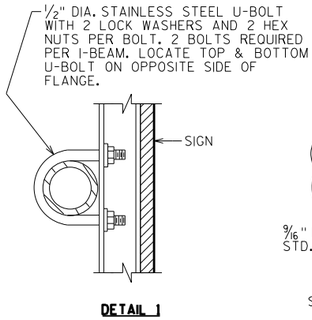
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR

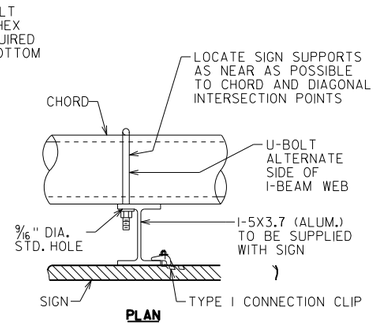


DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



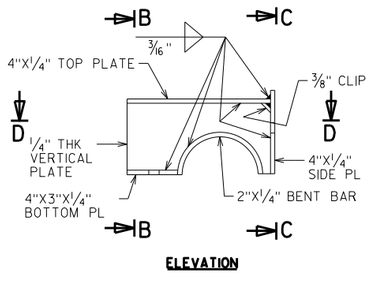
DETAIL 1



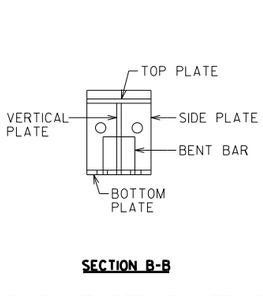
PLAN

TYPICAL SIGN CONNECTION

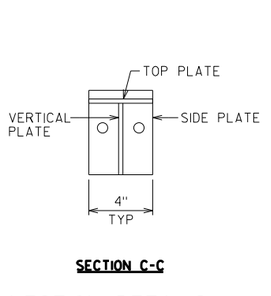
USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS



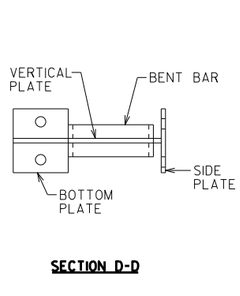
ELEVATION



SECTION B-B



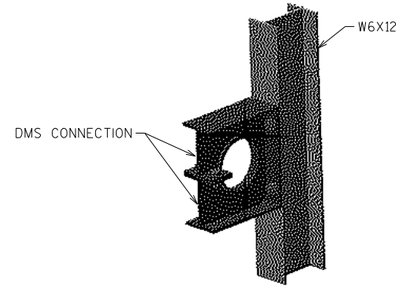
SECTION C-C



SECTION D-D

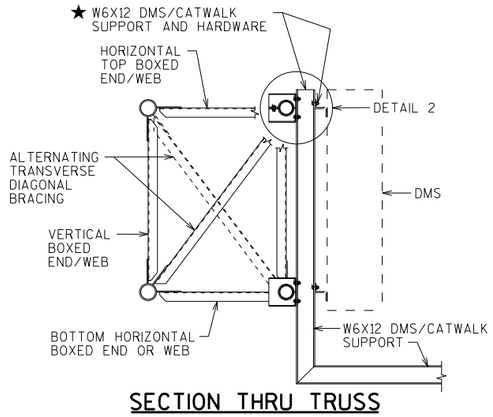
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



3-D VIEW DMS CONNECTION

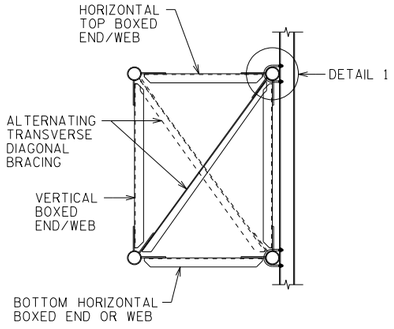
CHORD NOT SHOWN FOR CLARITY



SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.

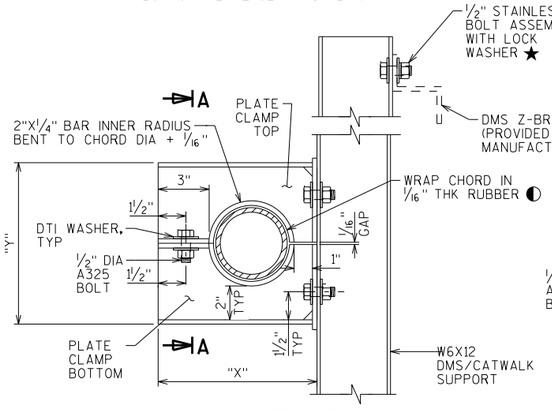


SECTION THRU TRUSS

FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



DETAIL 2 | SECTION A-A

CHORD OUTER DIA	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 5/8"

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 3

SHEET IV OF VIII

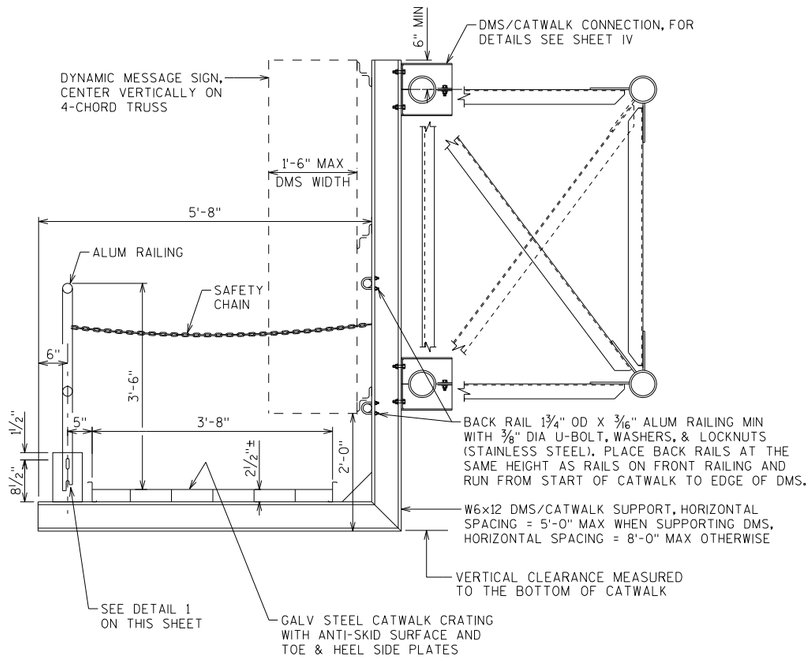
SCALE = 2.00

8

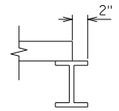
8

STATE PROJECT NUMBER

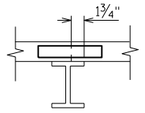
STANDARD



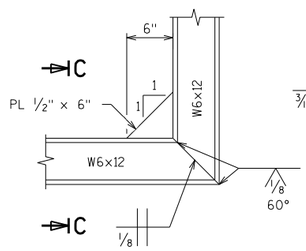
SECTION THRU WALKWAY



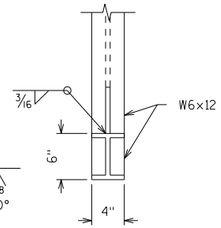
CATWALK TERMINATION DETAIL



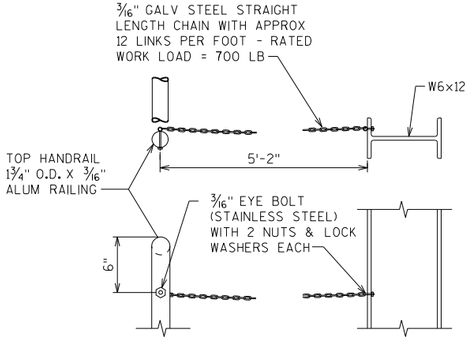
CATWALK SPLICE LOCATION DETAIL



BRACKET DETAIL

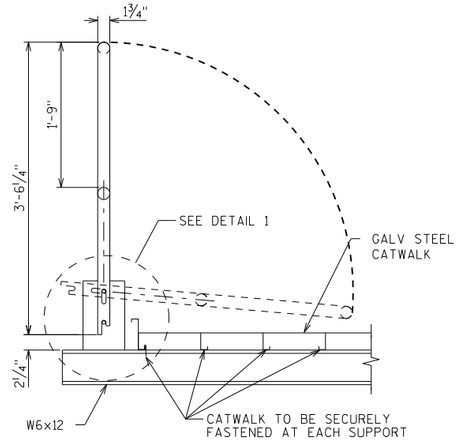


SECTION C-C

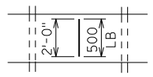


SAFETY CHAIN DETAIL

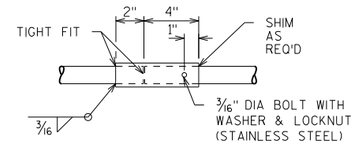
(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)



RAIL POST DETAIL

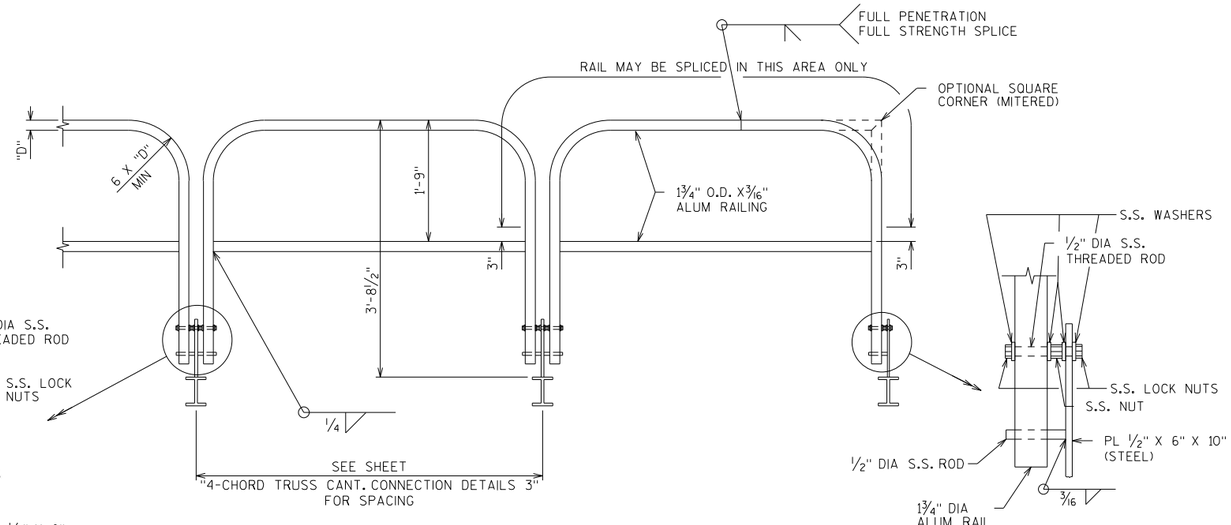


NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

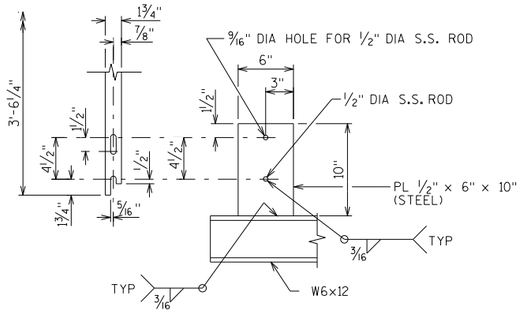


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



TYPICAL FRONT RAILING DETAILS



DETAIL 1

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CATWALK DETAILS

SHEET V OF VIII

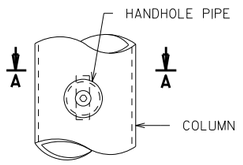
SCALE = 1.25

8

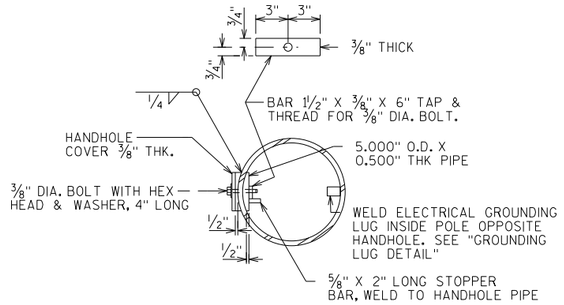
8

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

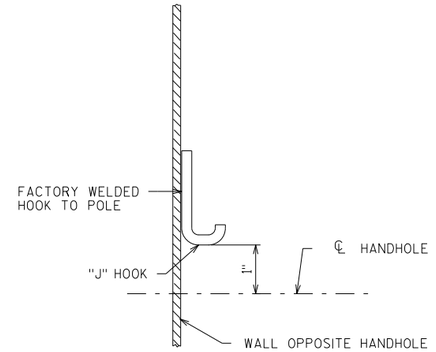


SECTION A-A

HANDHOLE NOTES

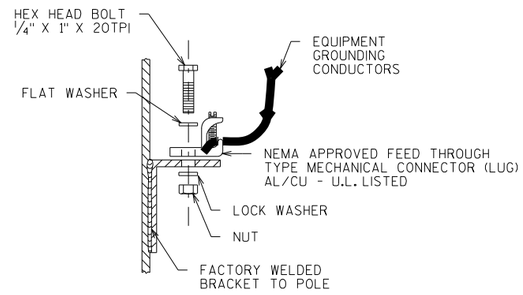
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



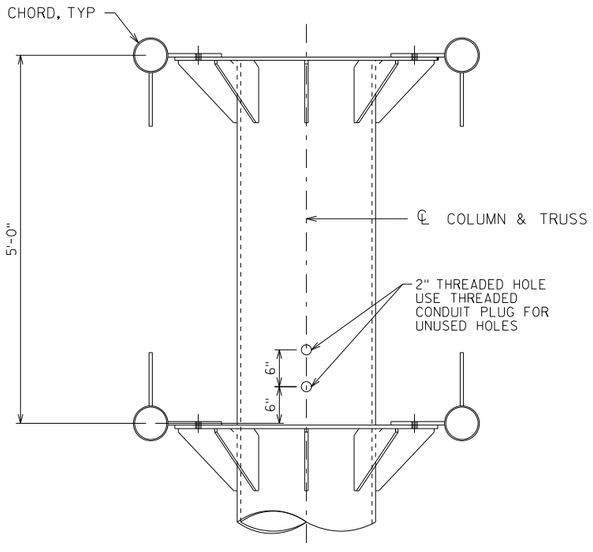
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

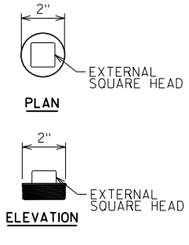


GROUNDING LUG DETAIL

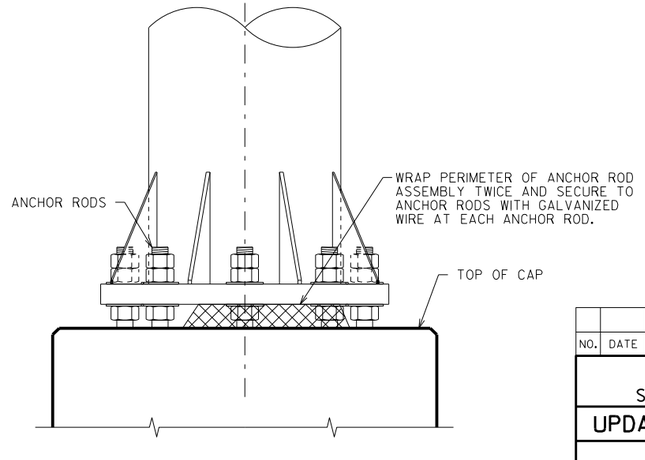
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



CONDUIT HOLE LOCATIONS



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. ELECTRICAL DETAILS

SHEET VI OF VIII

SCALE = 1.00

8

8

STATE PROJECT NUMBER
1229-04-73

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3037	201 SF	10'-6"	STD. TYPE I
S-40-3047	201 SF	10'-6"	STD. TYPE I
S-40-3048	220.5 SF	11'-0"	STD. TYPE I
S-40-3057	220.5 SF	11'-0"	STD. TYPE I

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY	f'c = 3,500 psi
HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60	fy = 60,000 psi
STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36	fy = 36,000 psi
CHORDS - ASTM A500 GRADE C	fy = 46,000 psi
COLUMN PIPE DESIGN TRUSS TYPE I - ASTM A500 GRADE C DESIGN TRUSS TYPE II - API 5L PSL2 GRADE 46	fy = 46,000 psi fy = 46,000 psi
HIGH STRENGTH BOLTS - A325	fy = 92,000 psi
ANCHOR RODS - ASTM F1554 GRADE 55	fy = 55,000 psi
HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A	
WASHERS FOR ANCHOR RODS - ASTM F436	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS CANTILEVER 4-CHORD TYPE I (STRUCTURE NUMBER)" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEMS "DRILLING SHAFT 36-INCH".

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES, DESIGN DATA & QUANTITIES
2. GENERAL LAYOUT S-40-3037
3. GENERAL LAYOUT S-40-3047
4. GENERAL LAYOUT S-40-3048
5. GENERAL LAYOUT S-40-3057

LIST OF OSS STANDARD DESIGN DRAWINGS

6. I. 4-CHORD TRUSS CANTILEVER
7. II. 4-CHORD TRUSS CANT. CONNECTION DETAILS 1
8. III. 4-CHORD TRUSS CANT. CONNECTION DETAILS 2
9. IV. 4-CHORD TRUSS CANT. CONNECTION DETAILS 3
10. VII. 4-CHORD TRUSS CANT. FOUNDATION DETAILS
11. VIII. 4-CHORD TRUSS CANT. FOUNDATION DETAILS 2

STRUCTURE	CATEGORY
S-40-3037	OXXO
S-40-3047	OXXO
S-40-3048	OXXO
S-40-3057	OXXO

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-40-3037	S-40-3047	S-40-3048	S-40-3057
531.2036	DRILLING SHAFT 36-INCH	LF	32	32	32	32
531.6010.XX	FOUNDATION TWO-SHAFT TYPE FC-I S-40-3037	EA	1	-	-	-
531.6010.XX	FOUNDATION TWO-SHAFT TYPE FC-I S-40-3047	EA	-	1	-	-
531.6010.XX	FOUNDATION TWO-SHAFT TYPE FC-I S-40-3048	EA	-	-	1	-
531.6010.XX	FOUNDATION TWO-SHAFT TYPE FC-I S-40-3057	EA	-	-	-	1
532.6110.XX	TRUSS CANTILEVER 4-CHORD TYPE I S-40-3037	EA	1	-	-	-
532.6110.XX	TRUSS CANTILEVER 4-CHORD TYPE I S-40-3047	EA	-	1	-	-
532.6110.XX	TRUSS CANTILEVER 4-CHORD TYPE I S-40-3048	EA	-	-	1	-
532.6110.XX	TRUSS CANTILEVER 4-CHORD TYPE I S-40-3057	EA	-	-	-	1

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB 250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS CANTILEVER PLANS

FULL SPAN SIGN STRUCTRE
IH 43

COUNTY	CITY GLENDALE, VILLAGE OF RIVER HILLS/BAYSIDE
MILWAUKEE	

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	RAB	NNM

GENERAL NOTES, DESIGN DATA & QUANTITIES

SHEET 1 OF 11

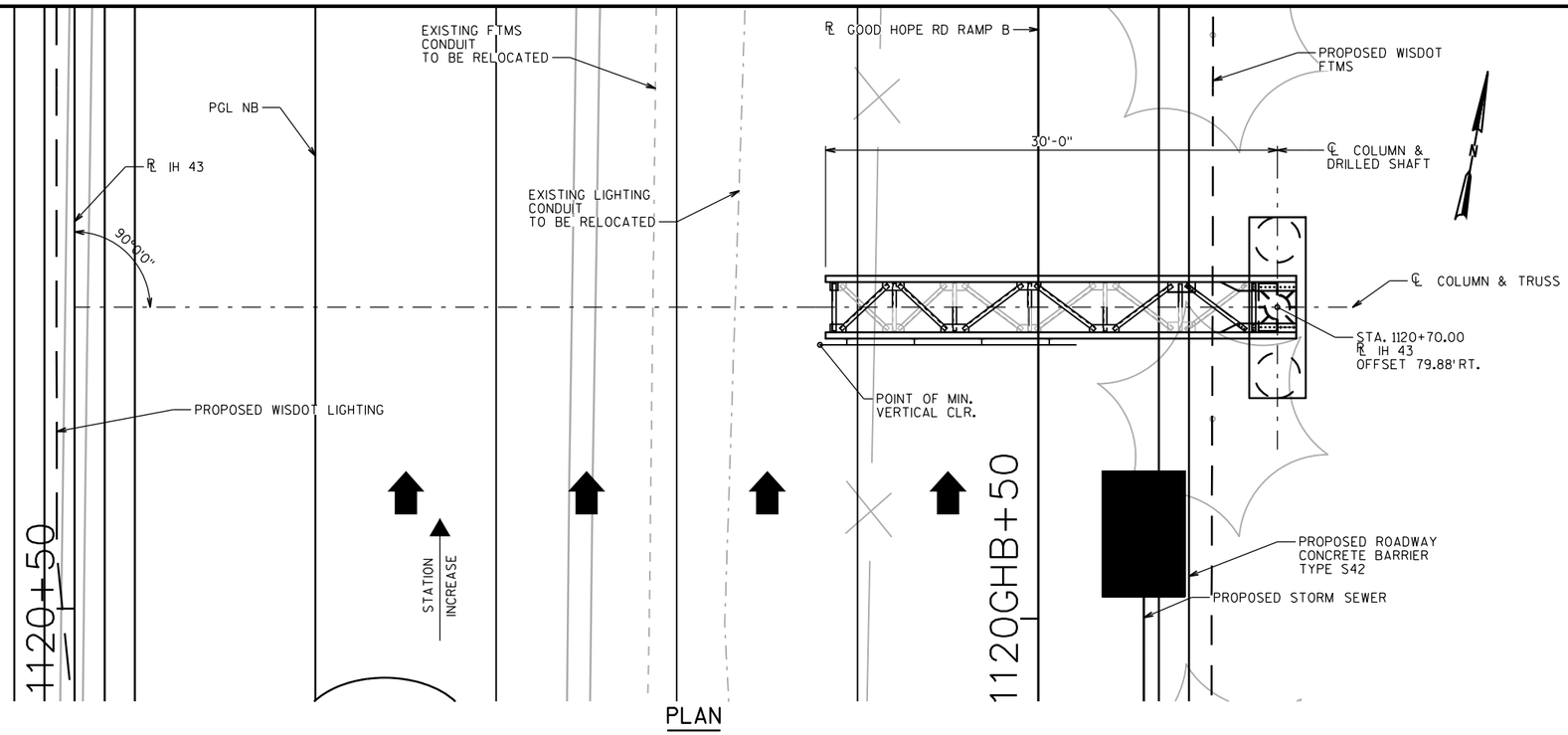
FOR 1078 SUBMITTAL

8

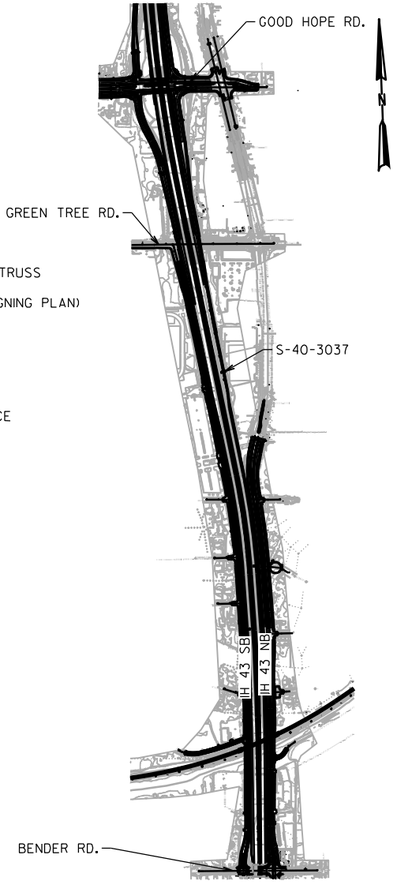
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever 4-Chord (4)\cds\S-40_cant_4chord_101_gn.dgn
PLOT DATE : 9/15/2021 9:40:09 AM PLOT BY : ejelinek
PLOT SCALE : 1:1

STATE PROJECT NUMBER
1129-04-73



PLAN



LOCATION MAP

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

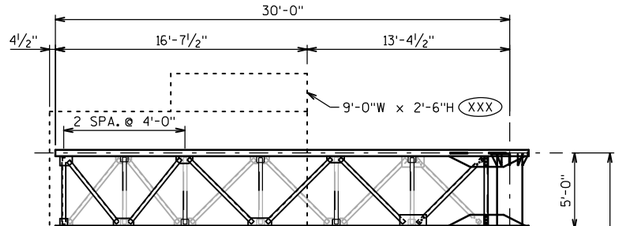
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

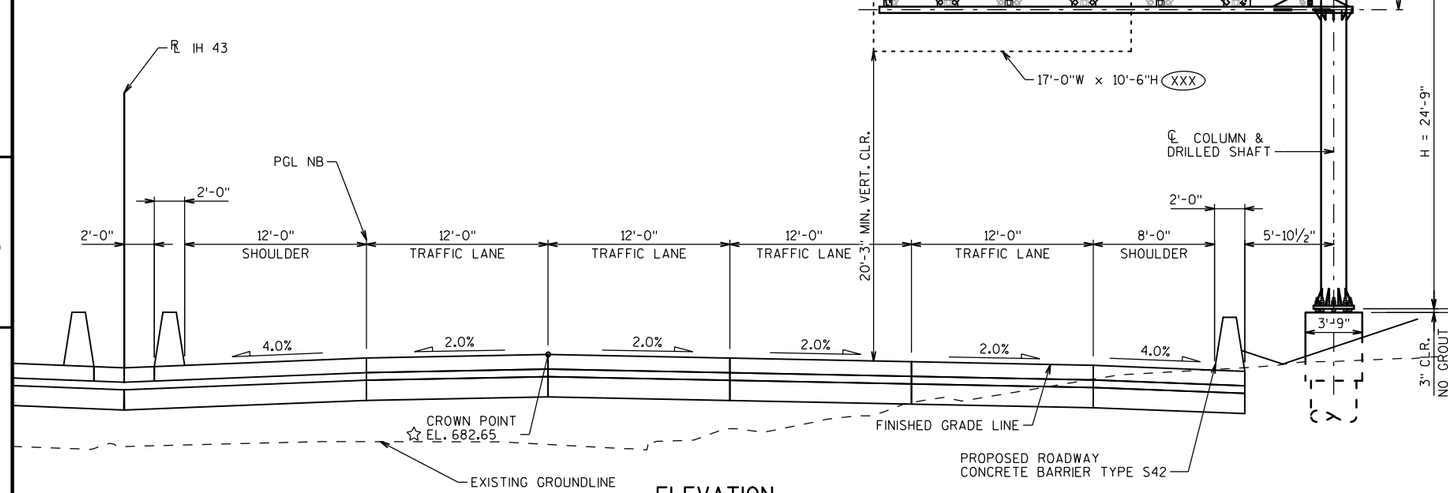
NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1120+67.50, 49.50' RT.
EL. 682.22

TRAFFIC VOLUME

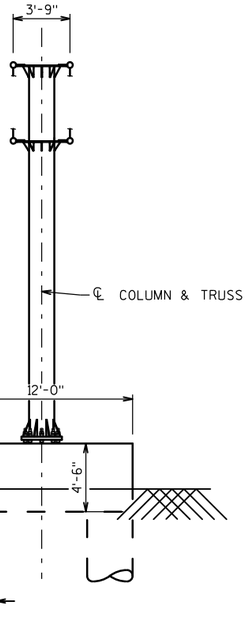
A.D.T. (2045) = 119,935
R.D.S. = 70 MPH





ELEVATION

STA. 1120+70
(LOOKING UPSTATION AT FRONT OF SIGN)



END VIEW

LOOKING WEST

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3037

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3037

SHEET 2 OF 11

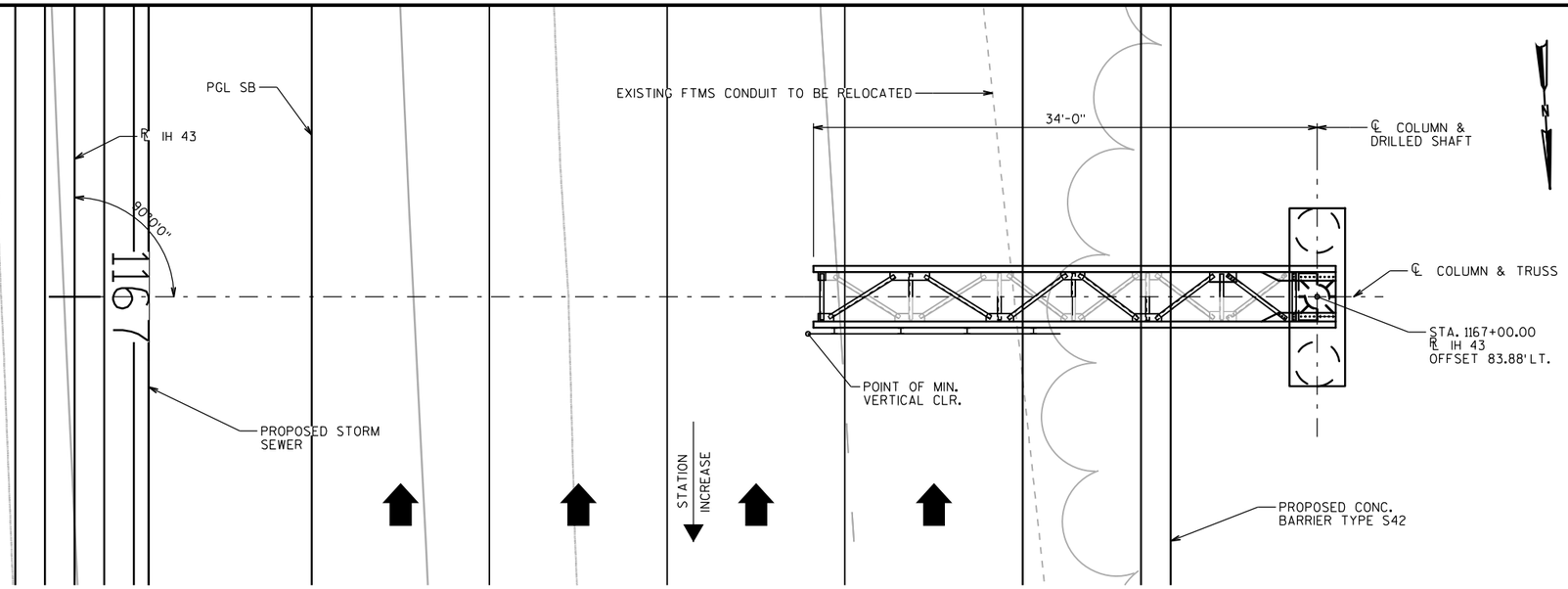
8

8

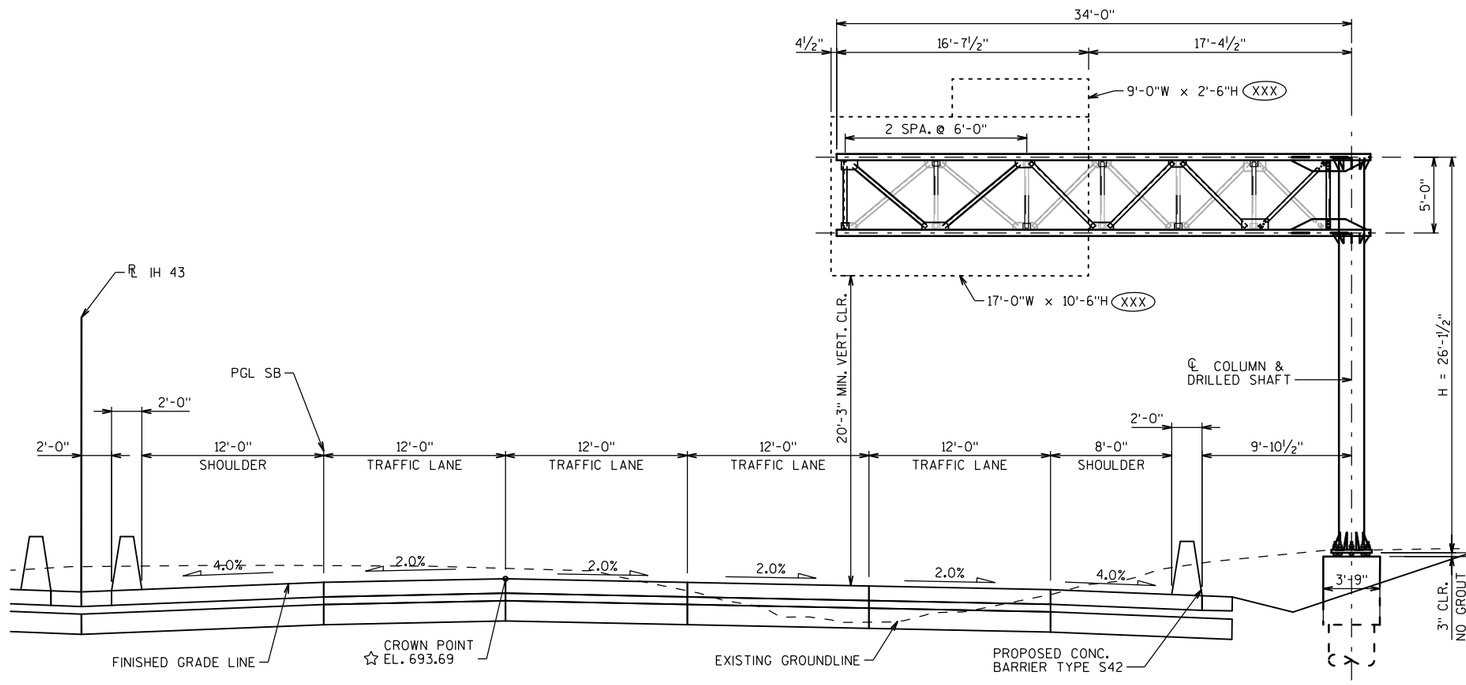
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever 4-Chord (4)\cds\S-40-3037_102_gp.dgn
PLOT DATE : 9/29/2021 1:18:04 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73

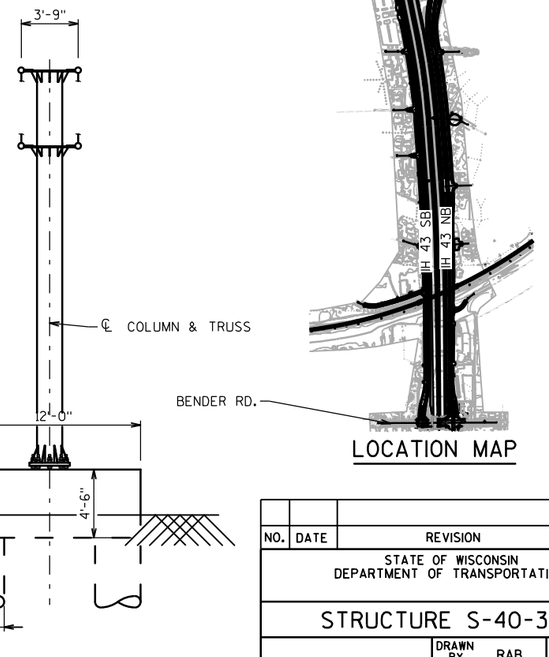


PLAN VIEW



ELEVATION VIEW

STA. 1167+00
(LOOKING DOWNSTATION AT FRONT OF SIGN)



END VIEW

LOOKING EAST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

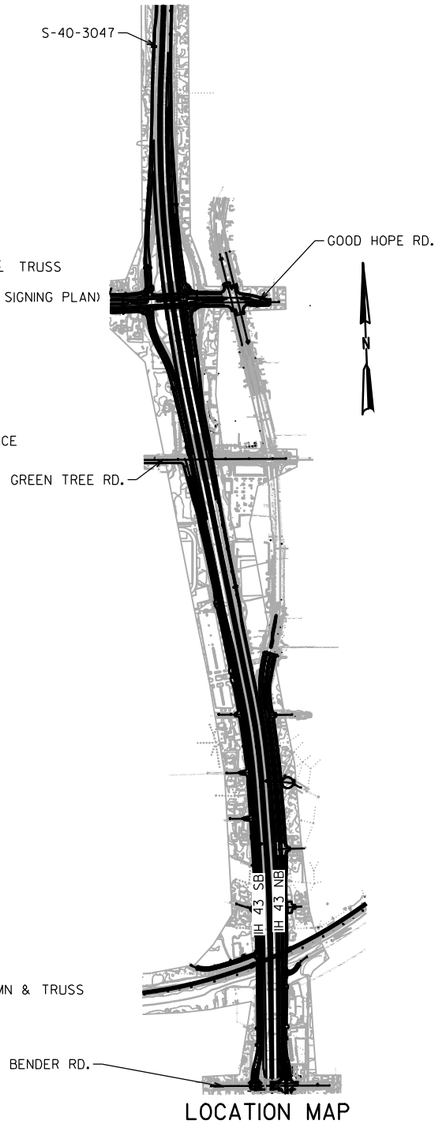
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1167+02.50, 49.50'LT.
EL. 693.26

TRAFFIC VOLUME

A.D.T. (2045) = 101,969
R.D.S. = 70 MPH



LOCATION MAP

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3047

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3047

SHEET 3 OF 11

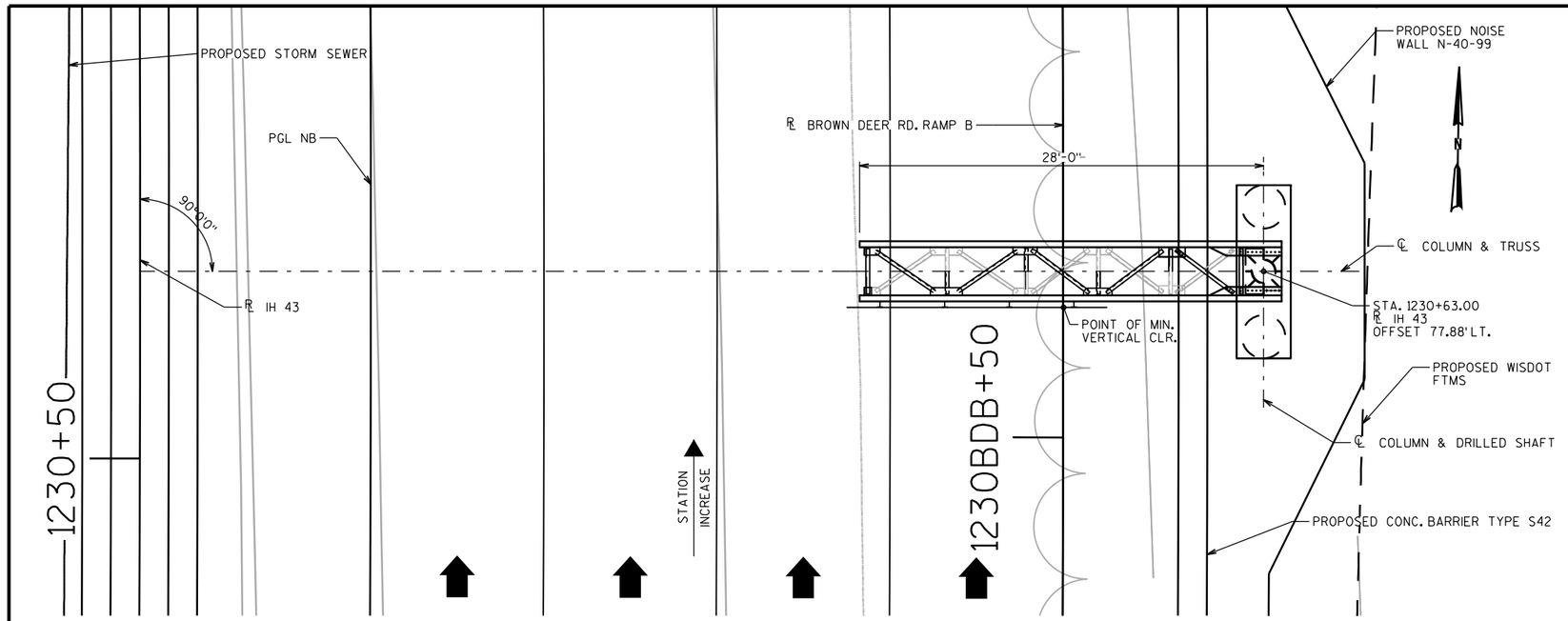
8

8

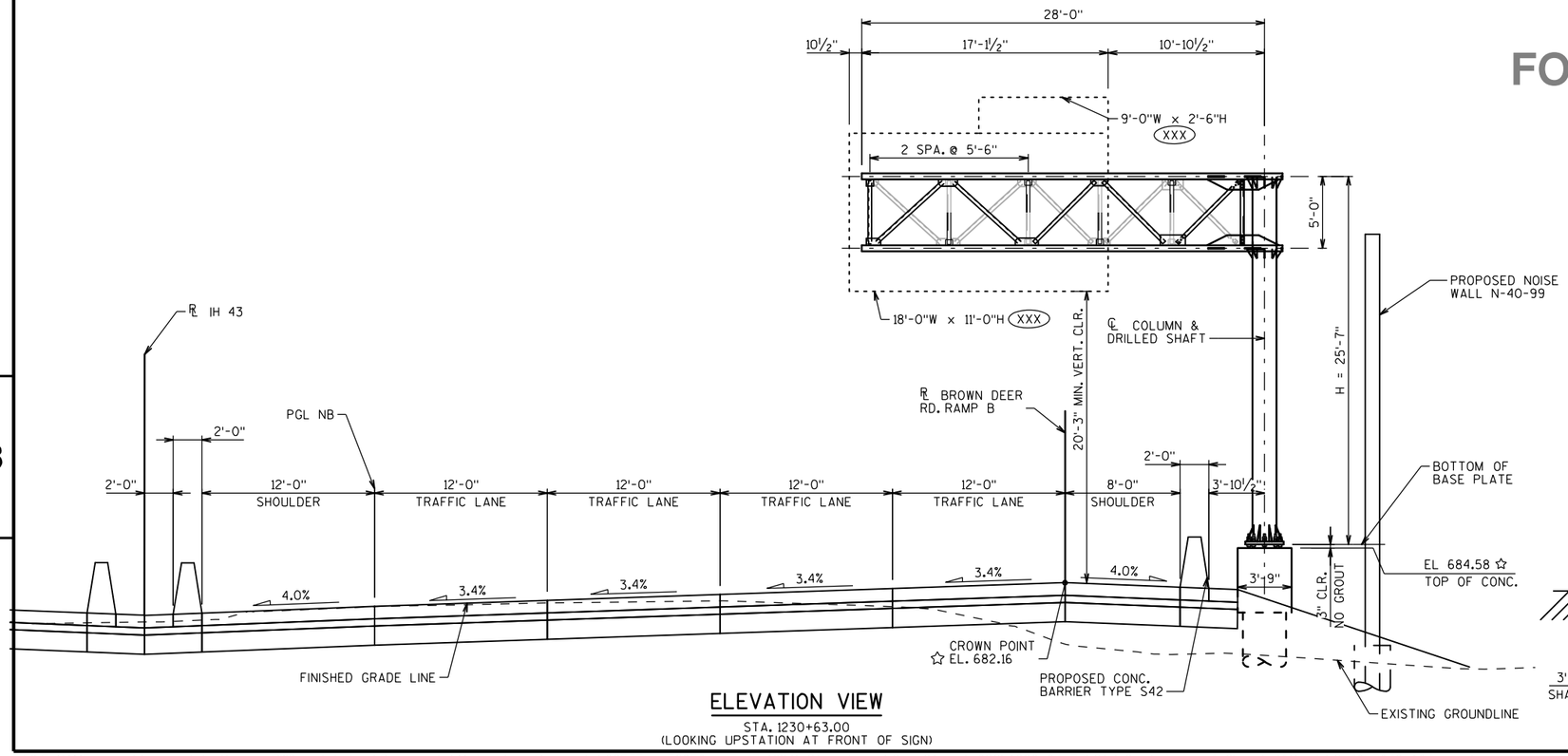
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever 4-Chord (4)\cds\S-40-3047_103_gp.dgn
PLOT DATE : 9/29/2021 1:23:19 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73

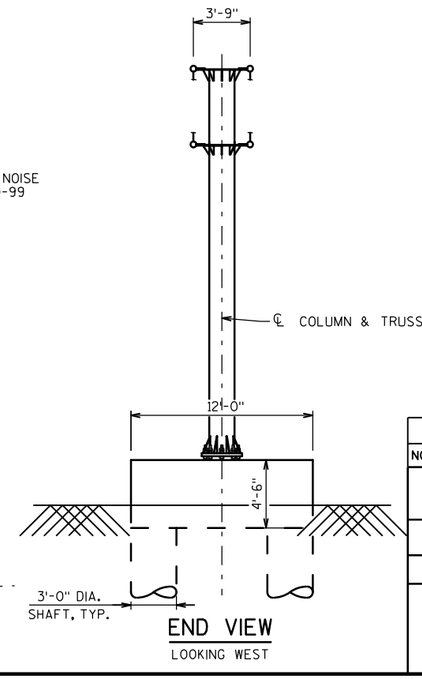


PLAN VIEW



ELEVATION VIEW

STA. 1230+63.00
(LOOKING UPSTATION AT FRONT OF SIGN)



END VIEW

LOOKING WEST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

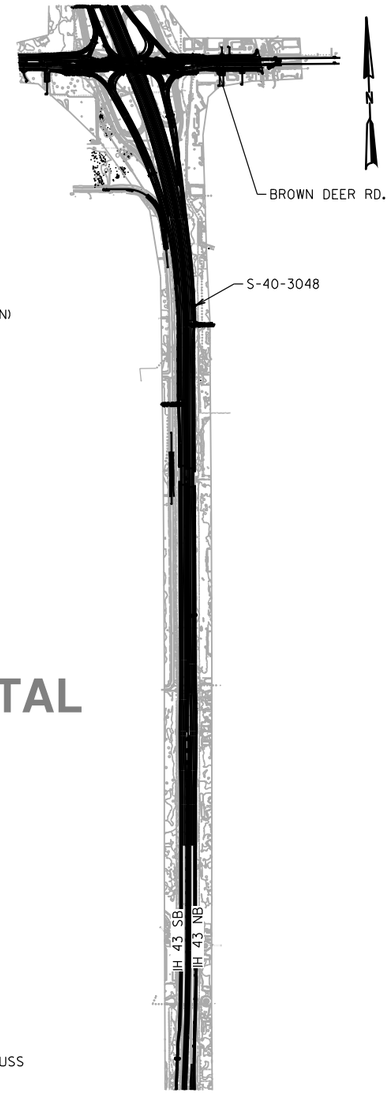
NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1230+60.50, 64.00' RT.
EL. 682.16

TRAFFIC VOLUME

A.D.T. (2045) = 101,969
R.D.S. = 70 MPH

FOR 1078 SUBMITTAL



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3048

DRAWN BY RAB | PLANS CK'D. NNM

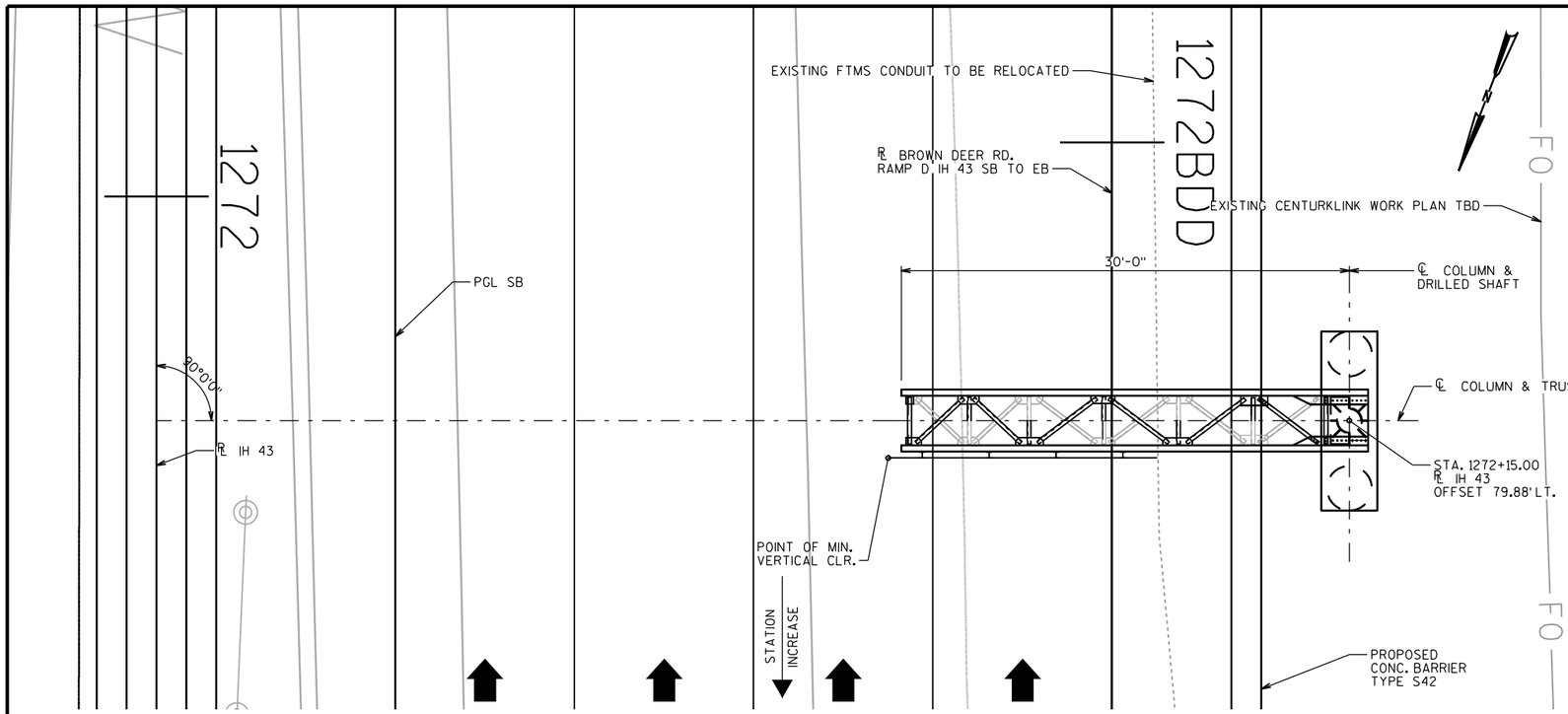
GENERAL LAYOUT
S-40-3048

SHEET 4 OF 11

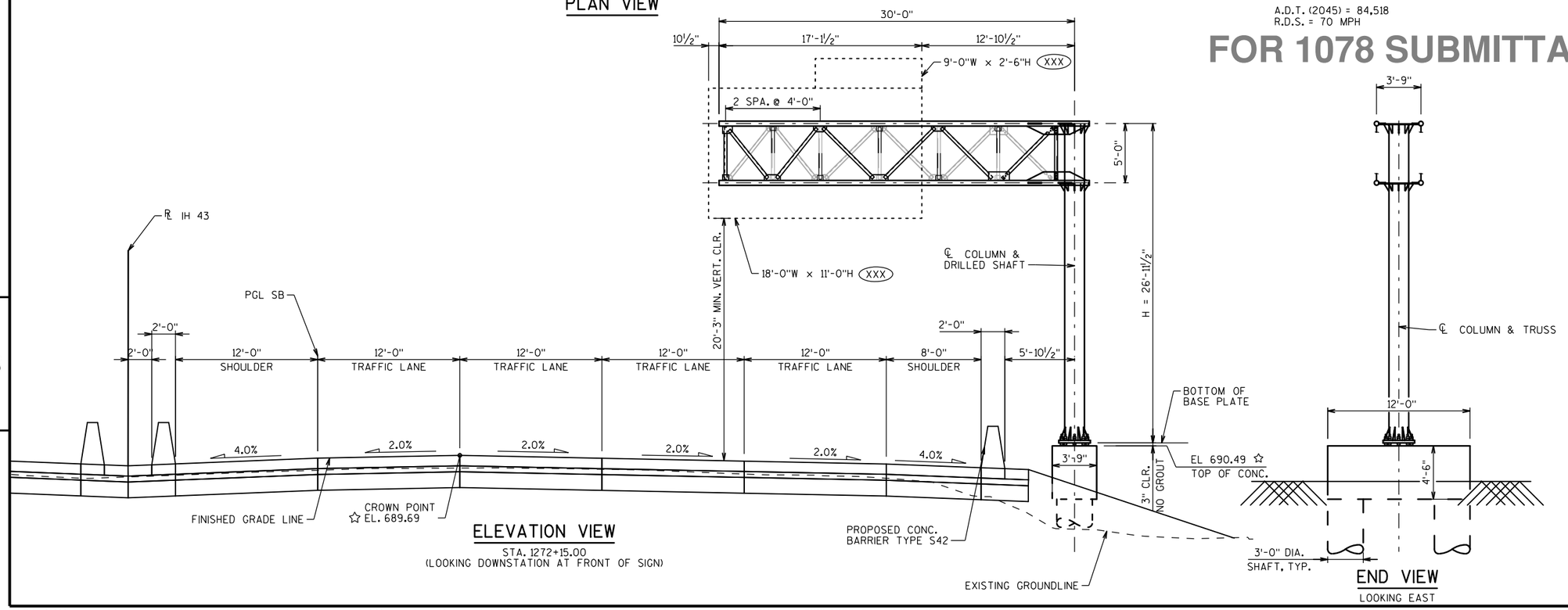
8

8

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 1272+15.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)

END VIEW

LOOKING EAST

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

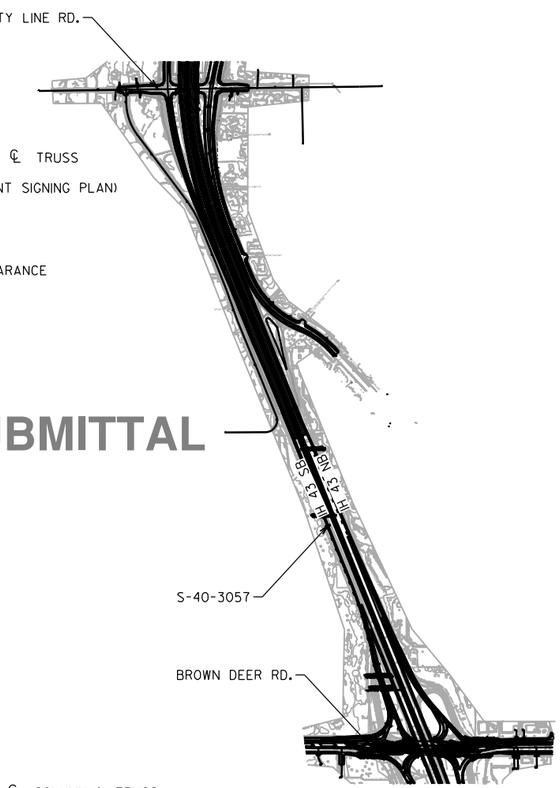
NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1272+17.50, 49.00'LT.
EL. 689.27

TRAFFIC VOLUME

A.D.T. (2045) = 84,518
R.D.S. = 70 MPH

FOR 1078 SUBMITTAL



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3057

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3057

SHEET 5 OF 11

8

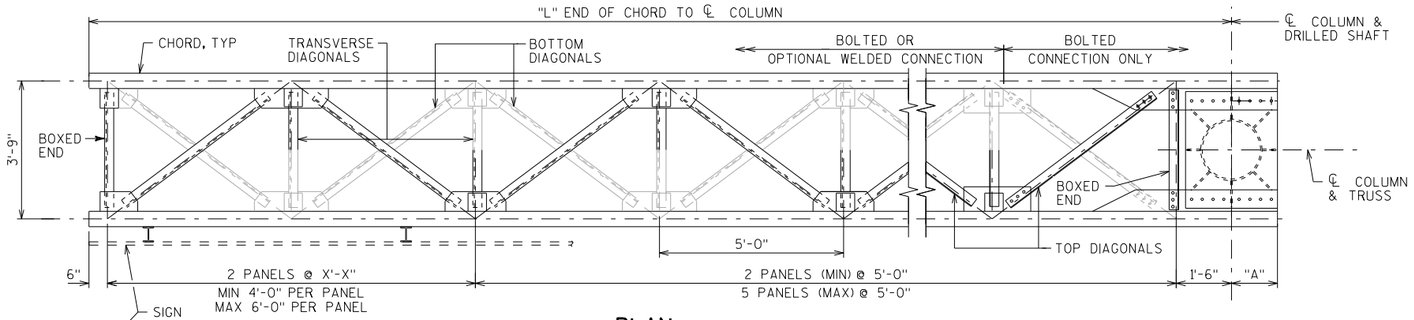
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Cantilever 4-Chord (4)\cds\S-40-3057_105_gp.dgn
PLOT DATE : 9/29/2021 1:49:06 AM PLOT BY : ejelinek

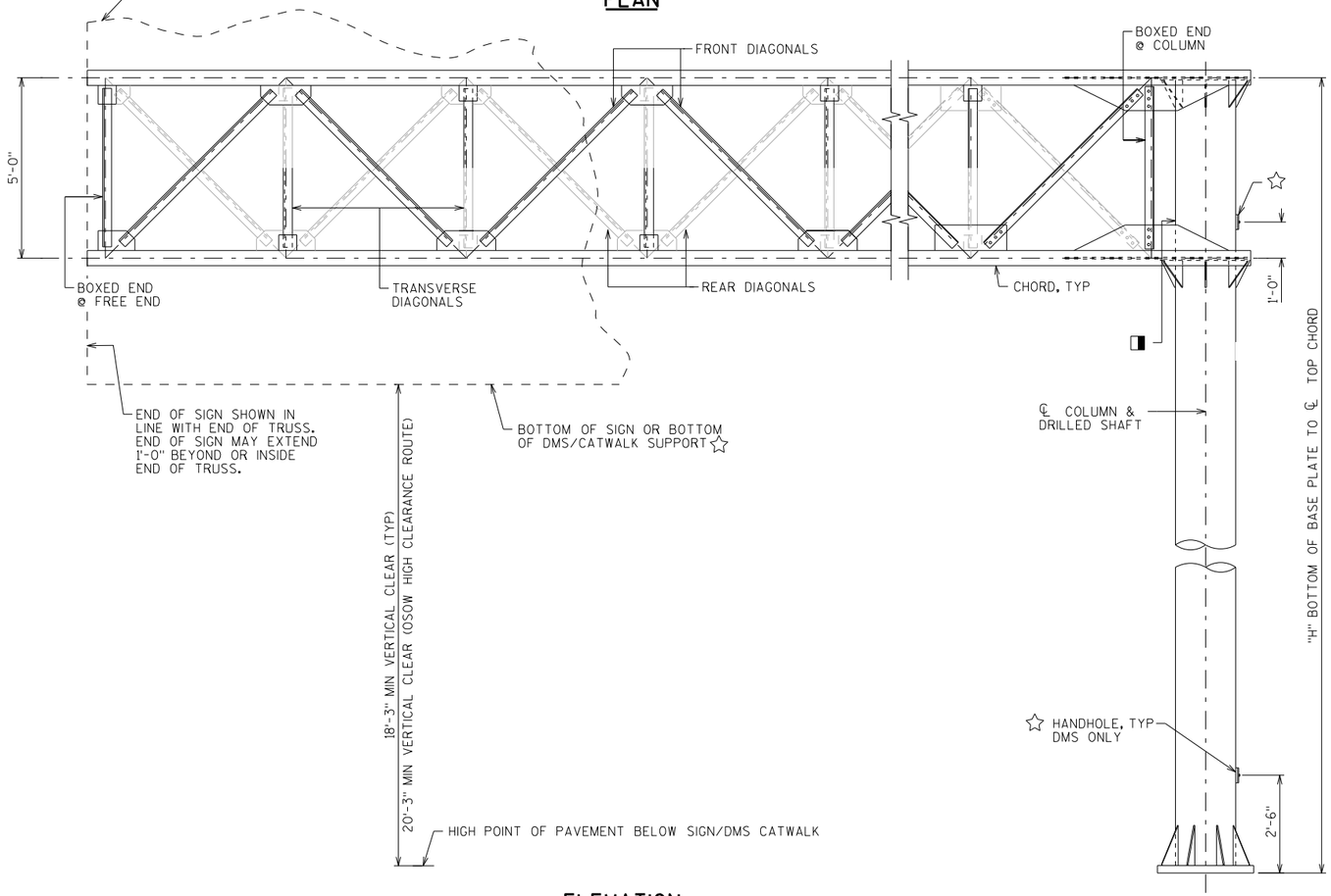
PLOT SCALE : 10:1

STATE PROJECT NUMBER

STANDARD

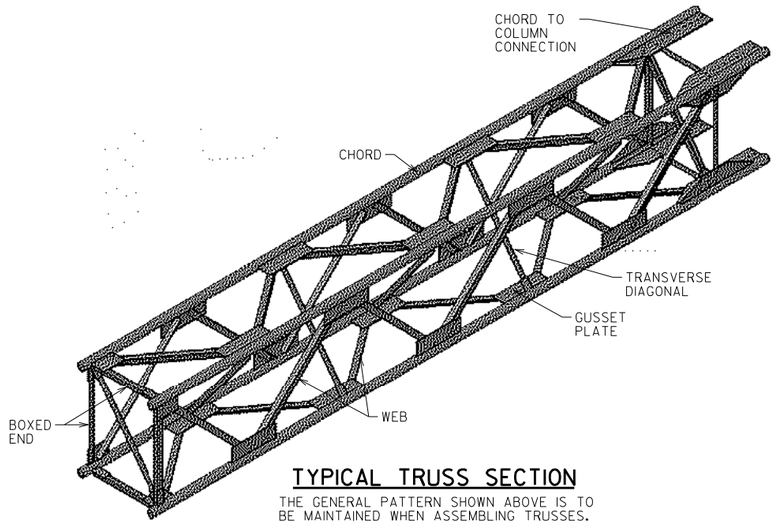


PLAN



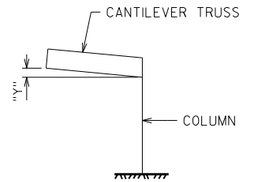
ELEVATION

LOOKING AT F.F. OF TRUSS



TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES.



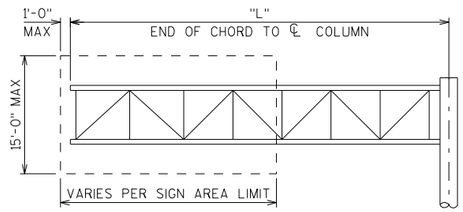
CAMBER DIAGRAM

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS AS SHOWN. DO NOT RAKE VERTICAL COLUMN BY ADJUSTMENT OF LEVELING NUTS.

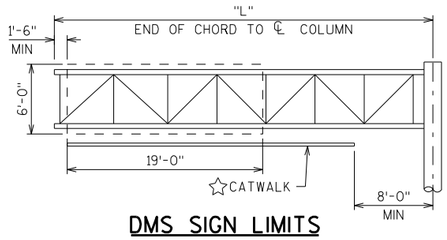
CAMBER VALUES

DIM "L" / "H"	"Y" (IN) 30' TYPE I	30' DMS	38' TYPE I	38' DMS
22'	2 1/4"	3 1/2"	2 5/8"	4 1/8"
24'	2 3/8"	3 7/8"	2 7/8"	4 1/2"
26'	2 1/2"	4 1/8"	3 1/8"	4 7/8"
28'	2 3/4"	4 1/2"	3 1/4"	5 1/4"
30'	2 7/8"	4 3/4"	3 1/2"	5 5/8"

INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.



TYPE 1 SIGN LIMITS



DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT^2)	DMS AREA (FT^2)	MAXIMUM SPAN "L"	MAXIMUM COL HEIGHT "H"	DIM "A"	COLUMN OUTER DIA. X THK	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375"	L3X3X1/4	L3X3X1/4	L3X3X1/4
II	240	114	38'-0"	30'-0"	1'-4 1/2"	24.00" X 0.500"	5.563" X 0.375"	L3X3X5/16	L3X3X1/4	L3X3X1/4

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.

◨ FOR OSS WITH DMS ONLY, DRILL HOLE AND TAP FOR (2) 2" STD. PIPE THREADS. LOCATE BOTTOM HOLE 6" UP FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANTILEVER

SHEET I OF VIII

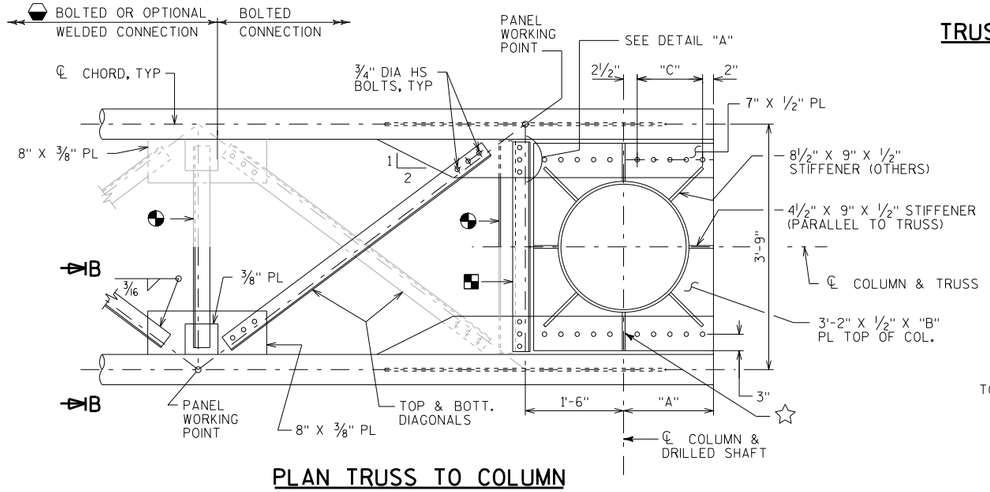
8

8

SCALE = 2.00

STATE PROJECT NUMBER

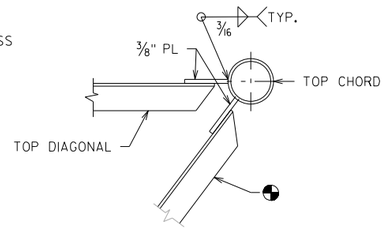
STANDARD



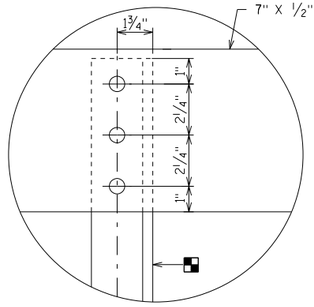
PLAN TRUSS TO COLUMN

TRUSS TO COLUMN CONNECTION DATA

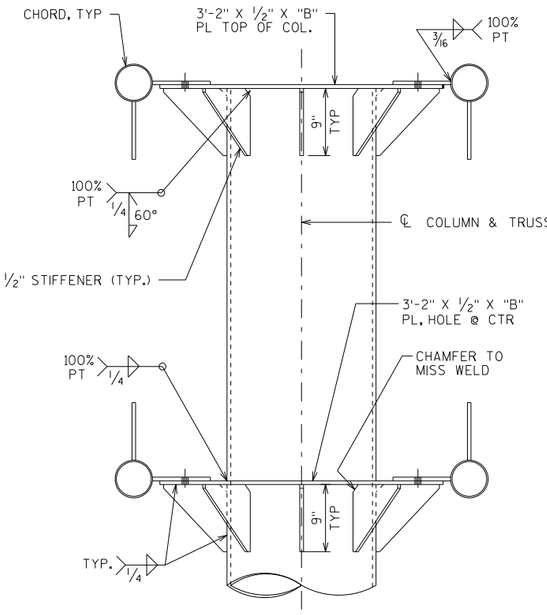
STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA @ 3½"
II	1'-4½"	2'-9"	4 SPA @ 3"



SECTION B-B

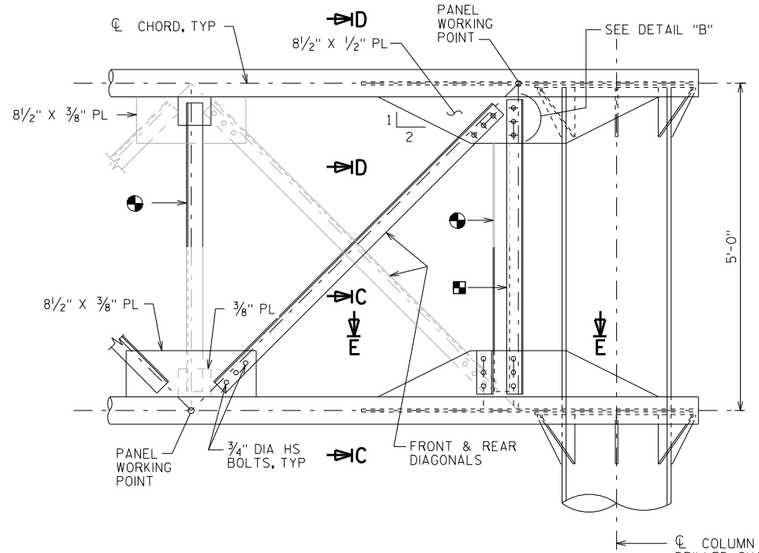


DETAIL "A"

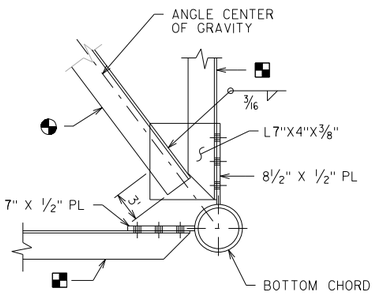


END VIEW TRUSS TO COLUMN

(WEB MEMBERS NOT SHOWN)

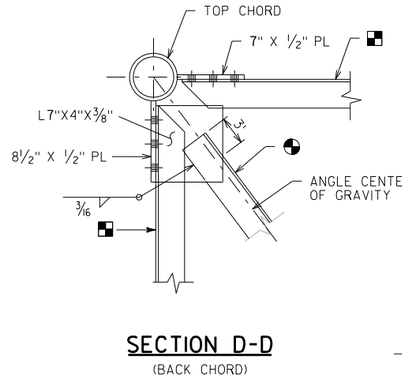


ELEVATION TRUSS TO COLUMN



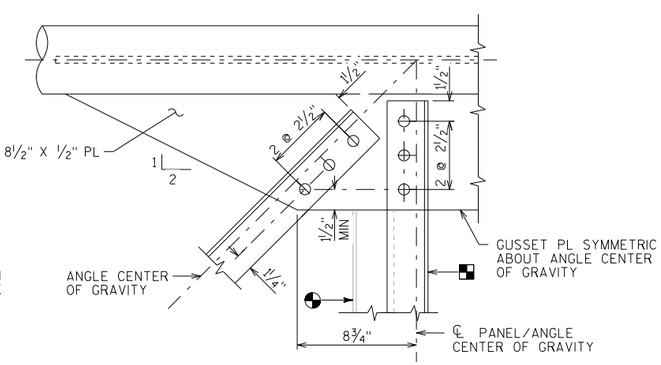
SECTION C-C

(FRONT CHORD)

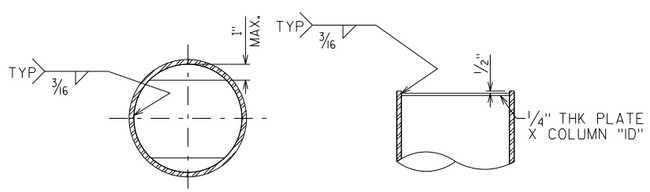


SECTION D-D

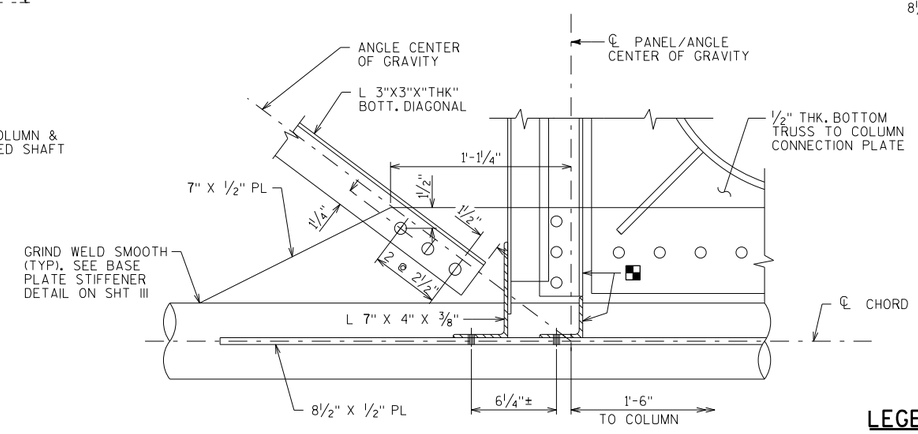
(BACK CHORD)



DETAIL "B"



CHORD CAP DETAIL



SECTION E-E

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)

FOR 1078 SUBMITTAL

LEGEND

- TRANSVERSE DIAGONAL
- BOXED END @ SUPPORT
- WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE.
- 7" X 9" X ½" STIFFENER STD DESIGN TYPE 2 ONLY, TYP OPPOSITE SIDE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 1

SHEET II OF VIII

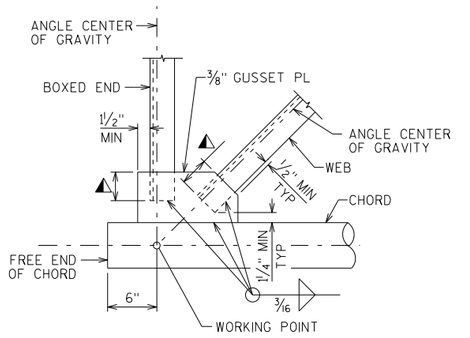
SCALE = 2.25

8

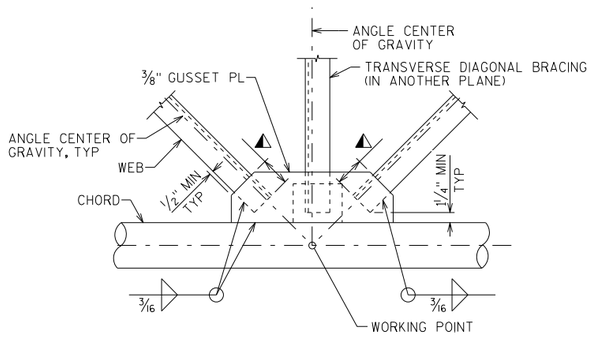
8

STATE PROJECT NUMBER

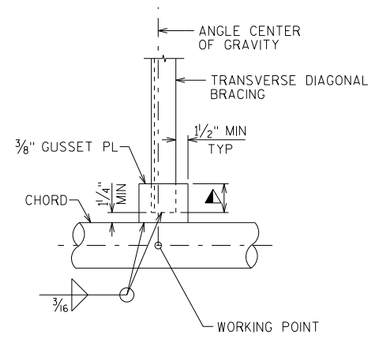
STANDARD



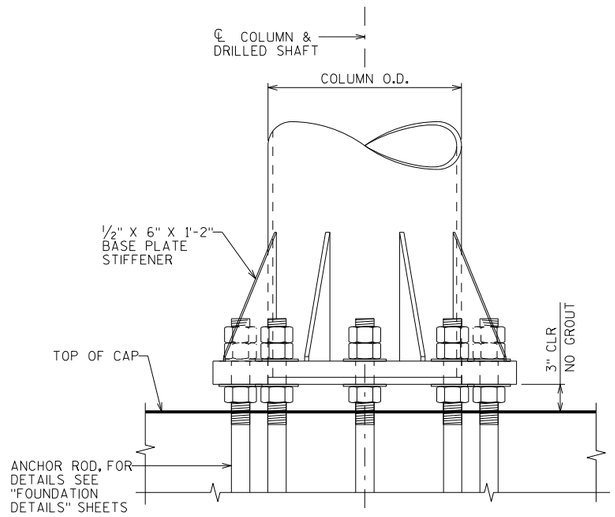
WELDED BOXED END CONNECTION



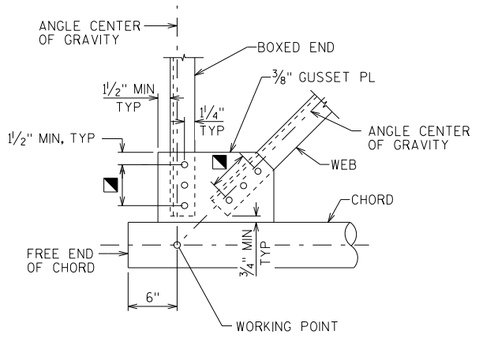
WELDED PANEL CONNECTION



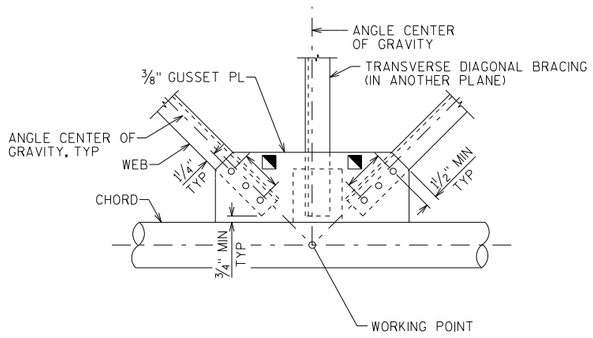
WELDED INTERIOR DIAGONAL CONNECTION



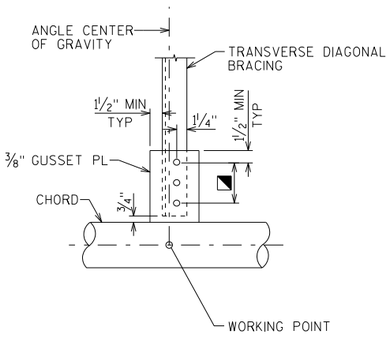
BASE PLATE & COLUMN DETAIL



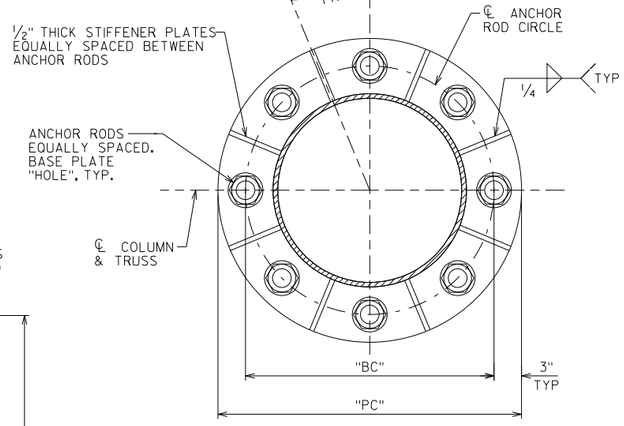
BOLTED BOXED END CONNECTION



BOLTED PANEL CONNECTION

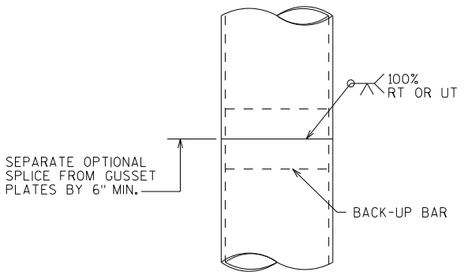


BOLTED INTERIOR DIAGONAL CONNECTION



BASE PLATE

PLAN



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

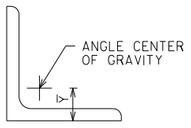
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG LENGTH ◭	NO. OF BOLTS ◹
I	3" MIN	3
II	3" MIN	3

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2 1/2"

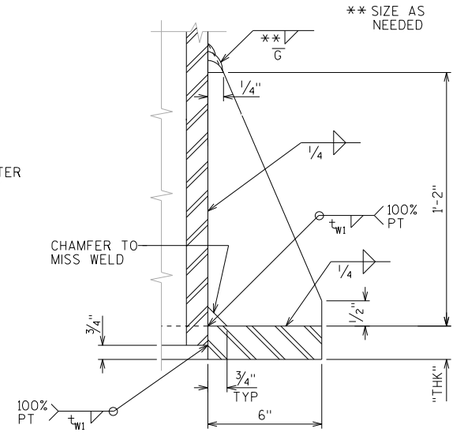
ANGLE DATA

ANGLE SIZE	$\bar{Y}$
L3x3x1/4	0.836"
L3x3x5/16	0.860"



CANTILEVER 4-CHORD COLUMN DATA TABLE

STANDARD DESIGN TYPE	COLUMN OUTER DIA X THK	BASE PLATE				
		"T_{W1}"	"HOLE"	"THK"	"BC"	"PC"
I	20.00" X 0.500"	5/16"	2 1/4"	2"	2'-2"	2'-8"
II	24.00" X 0.500"	5/16"	2 1/4"	2 1/2"	2'-6"	3'-0"



BASE PLATE STIFFENER DETAIL

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 2

SHEET III OF VIII

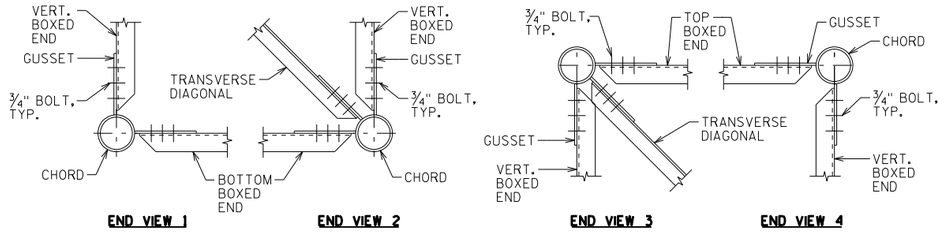
SCALE = 1.50

8

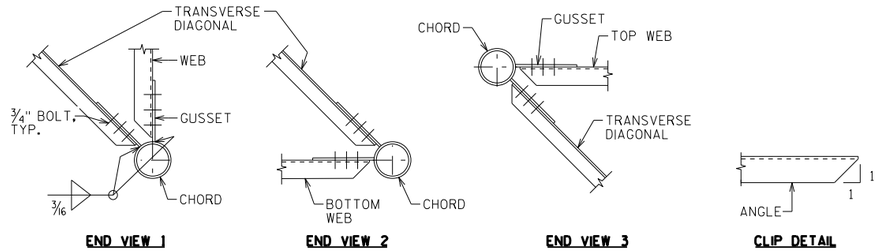
8

STATE PROJECT NUMBER

STANDARD



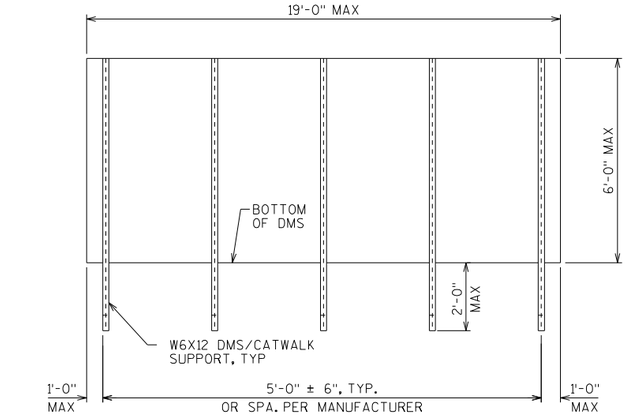
END VIEW 1 | END VIEW 2 | END VIEW 3 | END VIEW 4



END VIEW 1 | END VIEW 2 | END VIEW 3 | CLIP DETAIL

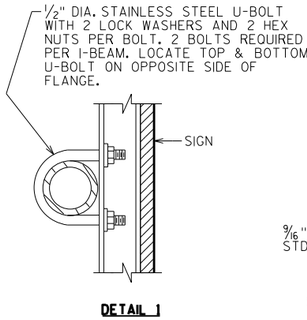
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR

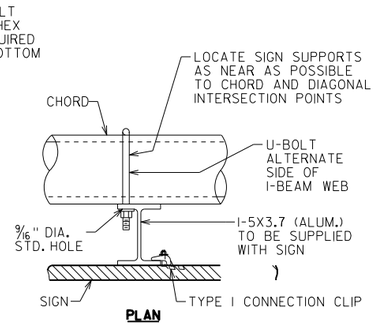


DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



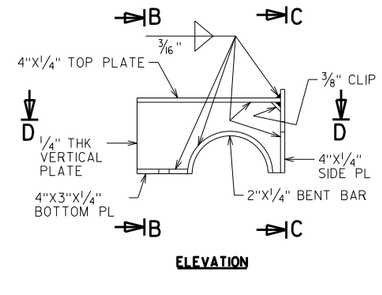
DETAIL 1



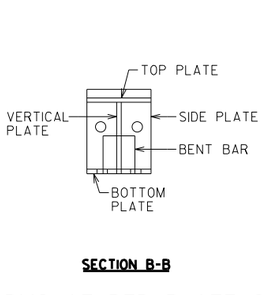
PLAN

TYPICAL SIGN CONNECTION

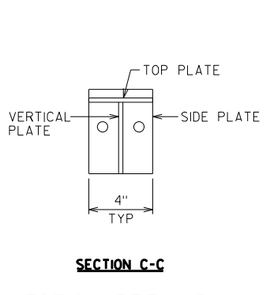
USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS



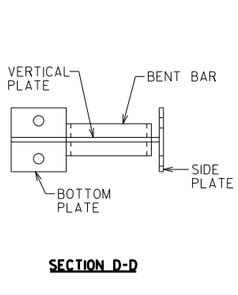
ELEVATION



SECTION B-B



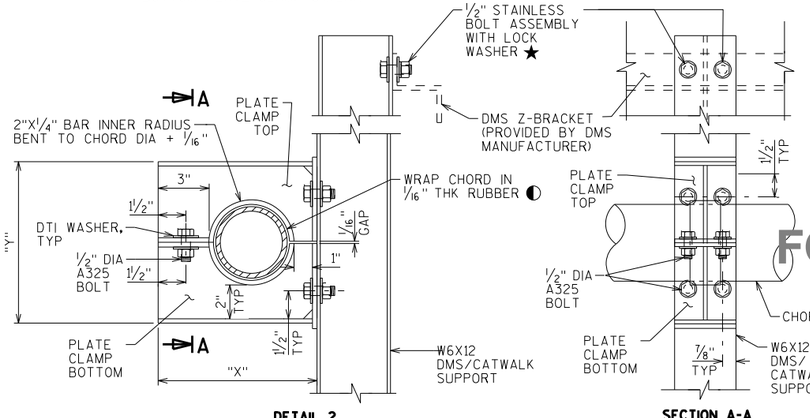
SECTION C-C



SECTION D-D

DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR

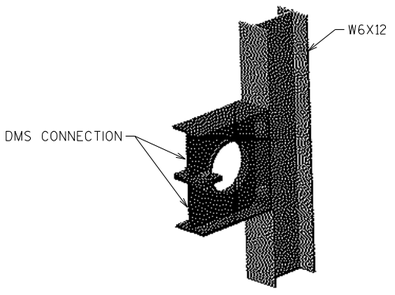


DETAIL 2 | SECTION A-A

CHORD OUTER DIA	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 5/8"

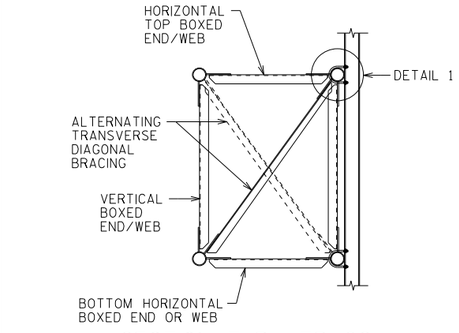
TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

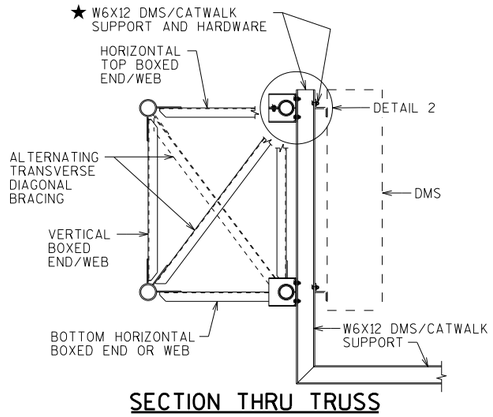


SECTION THRU TRUSS

FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.

8

8

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

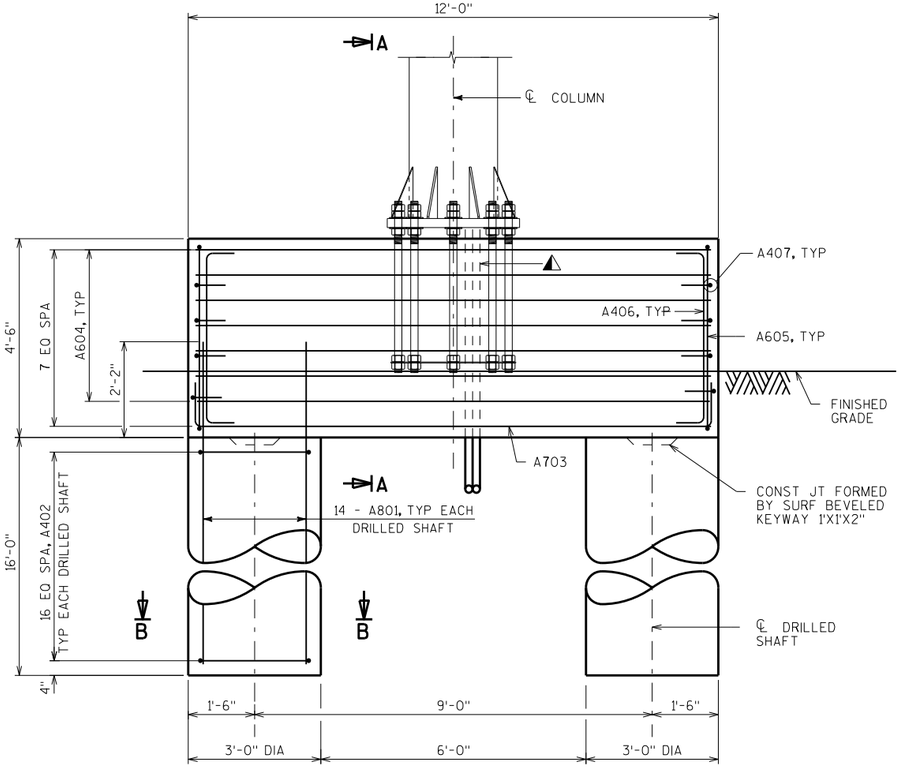
4-CHORD TRUSS CANT. CONNECTION DETAILS 3

SHEET IV OF VIII

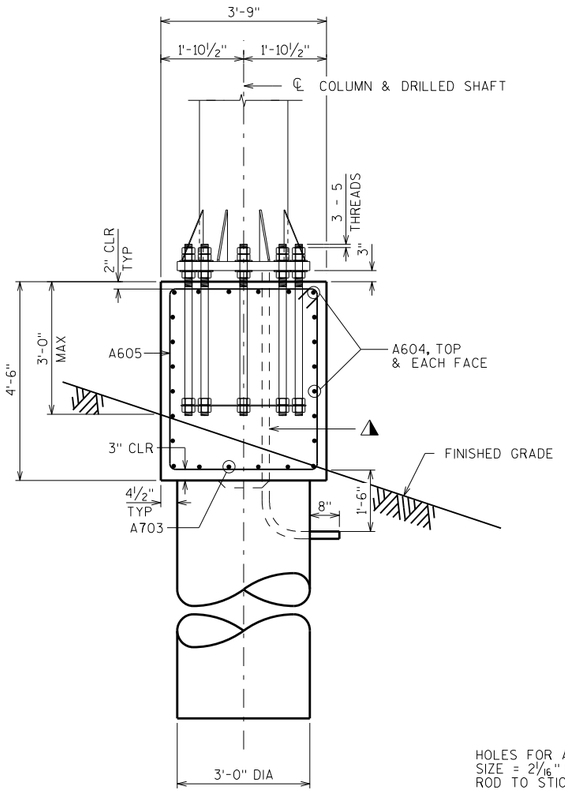
SCALE = 2.00

STATE PROJECT NUMBER

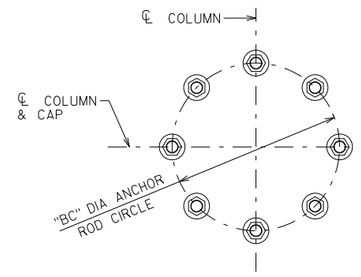
STANDARD



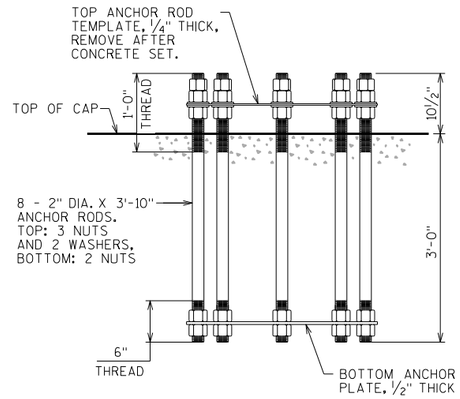
ELEVATION



SECTION A-A



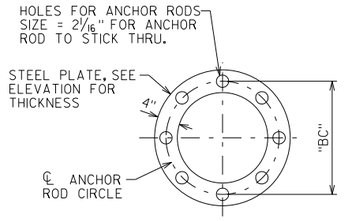
PLAN



ELEVATION

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
8 ANCHOR RODS REQ'D PER ASSEMBLY

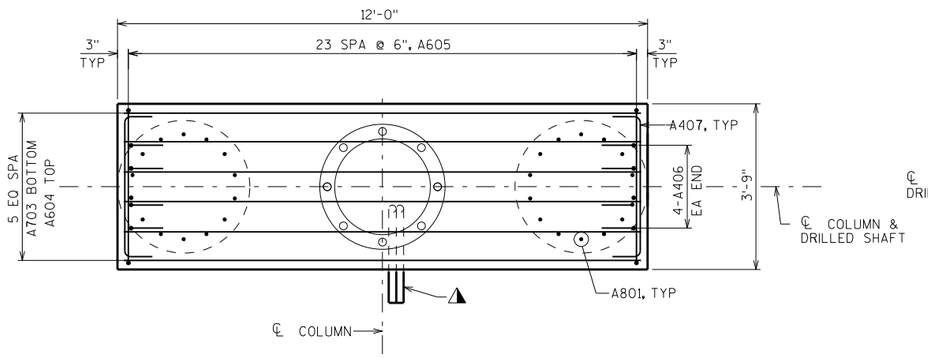


ANCHOR PLATE/TOP TEMPLATE

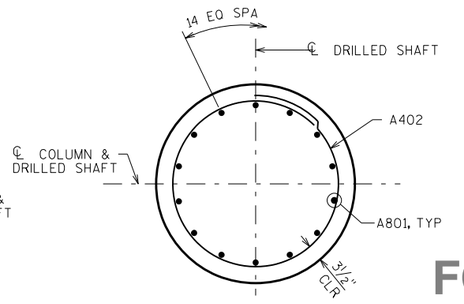
PLAN

ANCHOR PLATE DATA

STD DESIGN TRUSS	DIMENSIONS "BC"
I	2'-2"
II	2'-6"



PLAN



SECTION B-B

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

FOR 1078 SUBMITTAL

LEGEND

⚠ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. FOUNDATION DETAILS 1

SHEET VII OF VIII

SCALE = 1.67

8

8

STATE PROJECT NUMBER

STANDARD

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

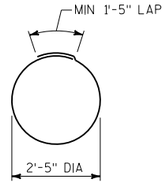
BILL OF BARS - STANDARD DESIGN TYPE I OR II

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		28	18'-2"			DRILLED SHAFT - VERTICAL
A402		34	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A703	X	6	13'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X		CAP - STIRRUP
A406	X	8	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X		CAP - HORIZONTAL - EACH END

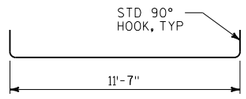
ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 2-INCH (EACH)	FOUNDATION DRILLING 36" DIA. (LF)
I/II	16	1,570	1,100	1	32

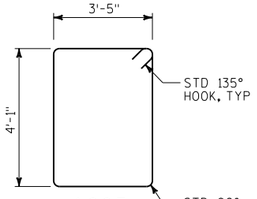
** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS



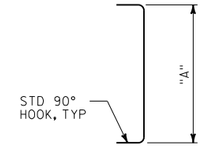
A402



A703



A605



A406, A407

BAR MARK	"A"
A406	3'-11½"
A407	3'-3½"

BAR BENDING DIAGRAMS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. FOUNDATION DETAILS 2

SHEET VIII OF VIII

FOR 1078 SUBMITTAL

SCALE = 0.50

STATE PROJECT NUMBER
1229-04-73

DESIGN DATA:

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES:

CONCRETE MASONRY .....f'c = 3,500 P.S.I.

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 .....fy = 60,000 P.S.I.

HIGH STRENGTH BOLTS - A325 .....fy = 92,000 P.S.I.

ANCHOR RODS - ASTM F1554 GRADE 55 .....fy = 55,000 P.S.I.

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS OR MONOTUBE BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3038	280 SF	9'-0"	NS
S-40-3046	30.75 SF	2'-6"	NS

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-40-3038
3. GENERAL LAYOUT S-40-3046
4. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
5. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
6. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
7. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS
8. NON-STANDARD FOUNDATION S-40-3038
9. NON-STANDARD FOUNDATION S-40-3046

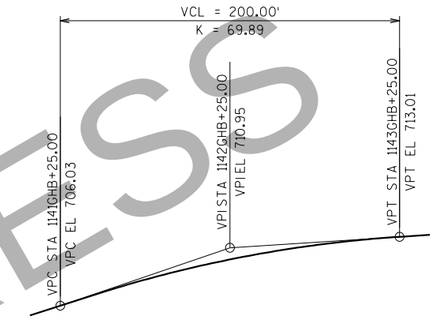
TRAFFIC DATA

RAMP GHA

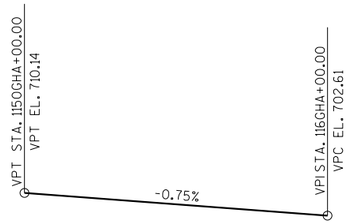
ADT = 7,300 (2045)
RDS = 45/50 MPH

RAMP GHB

ADT = 11,400 (2045)
RDS = 40/50 MPH



PROFILE GRADE LINE - RAMP GHB



PROFILE GRADE LINE - RAMP GHA

FOUNDATION DATA:

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S-40-3038	S-40-3046	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	-	-	-
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	-	-	-
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	-	-	-
531.2030	DRILLING SHAFT 30-INCH	LF	-	-	-
531.2042	DRILLING SHAFT 42-INCH	LF	-	-	-
531.5200.XXXX	FOUNDATION SINGLE-SHAFT TYPE MF-II S-40-3046	EACH	-	-	-
531.5220.XXXX	FOUNDATION SINGLE-SHAFT TYPE TF-II S-40-3038	EACH	-	-	-
532.5200.XXXX	MONOTUBE FULL SPAN TYPE NS S-40-3046	EACH			
532.5400.XXXX	TRUSS FULL SPAN 2-CHORD TYPE NS S-40-3038	EACH			

STRUCTURE	CATEGORY
S-40-3038	50XX
S-40-3046	50XX

HORIZONTAL CURVE DATA

CURVE GHA-1

PI STA. = 1152GHA+93.76
Y = 340104.39
X = 604260.67
DELTA = 7°07'32"
D = 0°52'53"
T = 404.70'
L = 808.36'
R = 6500.00'
PC STA. = 1148GHA+97.42
Y = 340509.08
X = 604263.42
PT STA. = 1156GHA+97.42
Y = 340509.08
X = 604263.42

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE AND 2-CHORD TRUSS PLANS (NS FOUNDATIONS)

IH 43 N/S

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	XXX	SMC	MHZ

GENERAL NOTES & DESIGN DATA

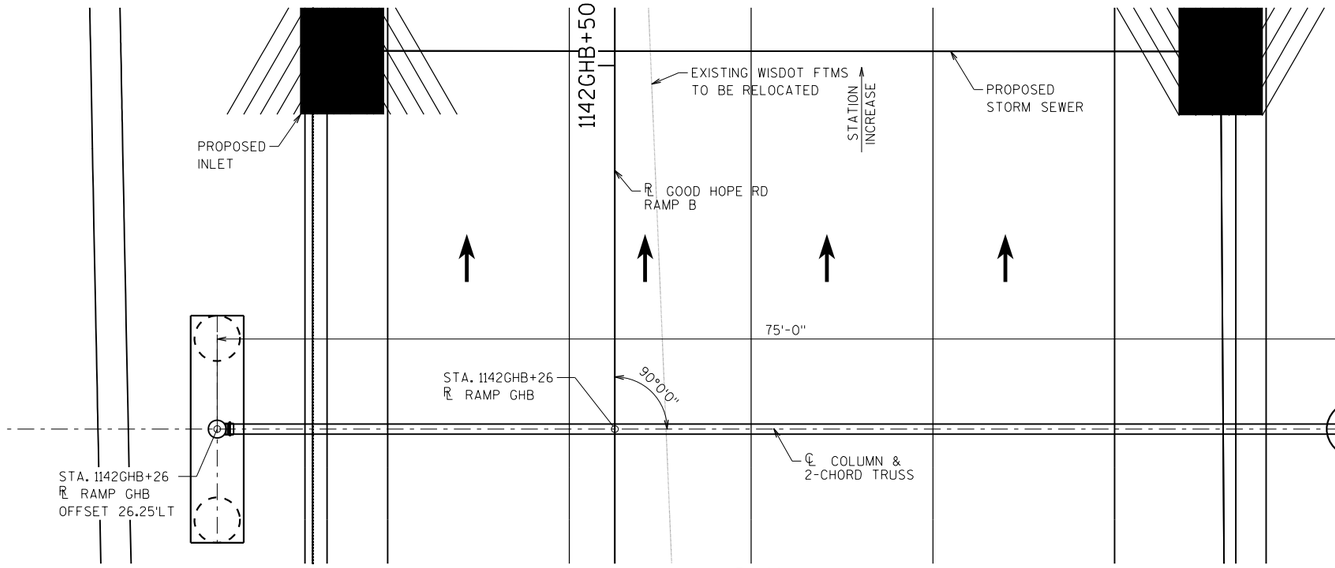
SHEET 1 OF X

IN PROGRESS

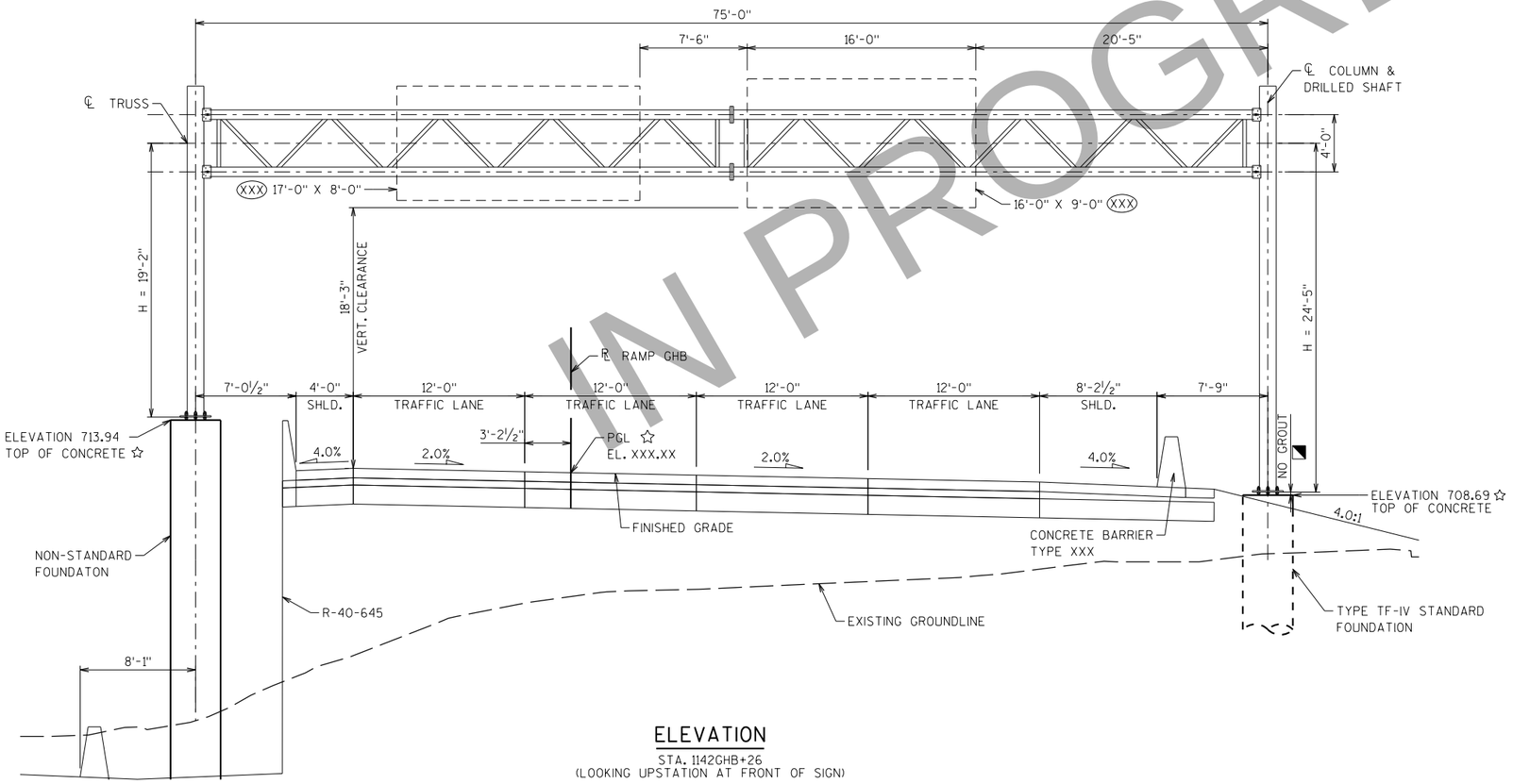
8

8

STATE PROJECT NUMBER
1229-04-73



PLAN



ELEVATION

STA. 1142GHB+26
(LOOKING UPSTATION AT FRONT OF SIGN)

LEGEND

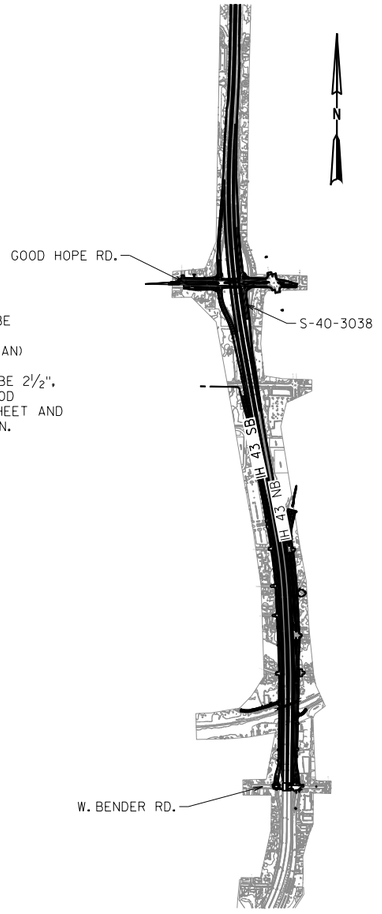
☆ ELEVATIONS GIVEN ALONG ℄ MONOTUBE

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1142GHB+26, 15.00'LT.
EL. XXX.XX



LOCATION MAP

IN PROGRESS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3038

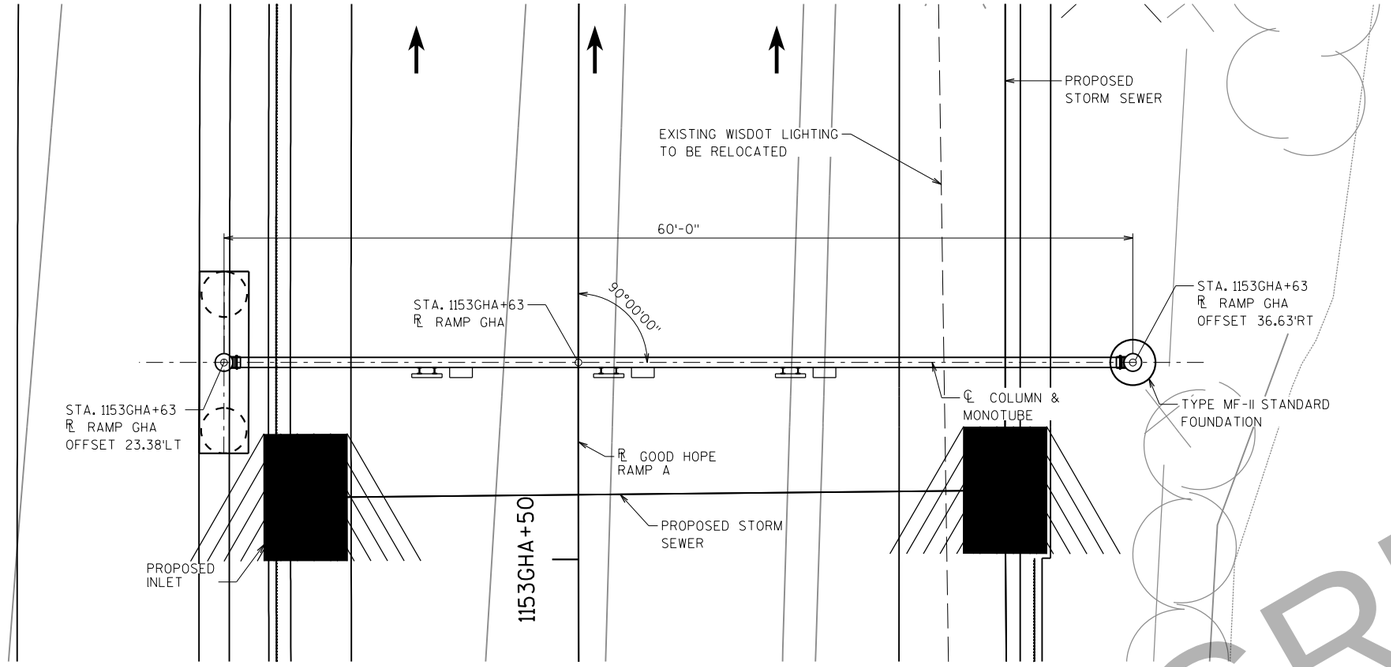
DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL LAYOUT
S-40-3038

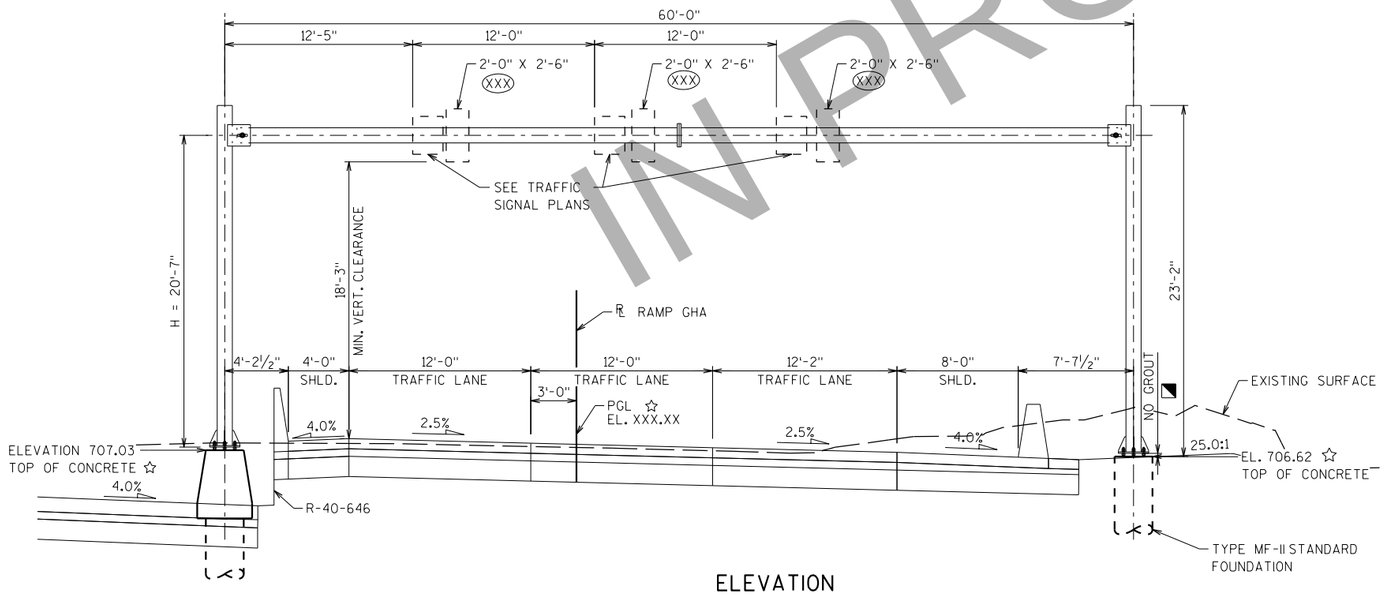
SHEET 2 OF X

8

8



PLAN



ELEVATION

STA. 1153+63.00
(LOOKING UPSTATION AT FRONT OF SIGN)

IN PROGRESS

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ MONOTUBE

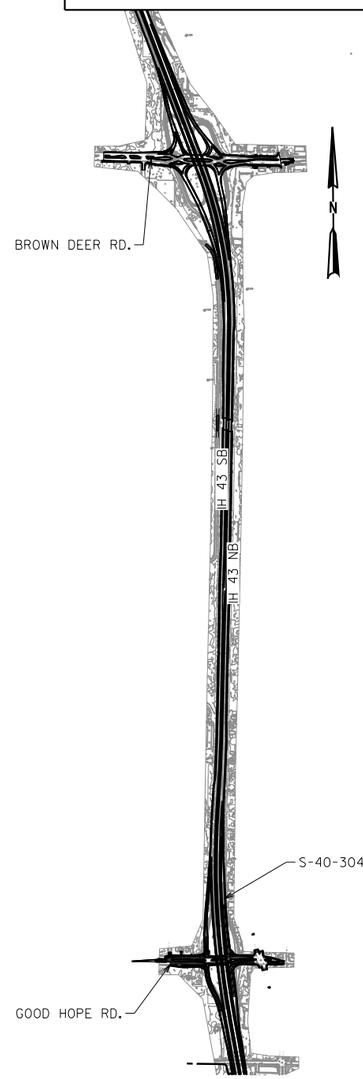
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

◥ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA.1153+62.00, 15.00'LT.
EL. 707.80

STATE PROJECT NUMBER
1229-04-73



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3046

DRAWN BY	SMC	PLANS CK'D.	MHZ

GENERAL LAYOUT
S-40-3046

SHEET 2 OF X

8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0260302\S3046_080103_gp.dgn PLOT DATE : 9/28/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:10

STATE PROJECT NUMBER
1229-04-73

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3040	253.5 SF	9'-0"	TYPE TFII
S-40-3041	146.5 SF	6'-6"	TYPE TFIII
S-40-3044	199 SF	8'-6"	TYPE TFIV
S-40-3049	219 SF	8'-0"	TYPE TFII
S-40-3051	205 SF	8'-6"	TYPE TFIV
S-40-3054	205 SF	8'-6"	TYPE TFIV
S-40-3055	192 SF	8'-0"	TYPE TFII
S-40-3056	176 SF	8'-0"	TYPE TFII

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

STANDARD FOUNDATIONS DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ---------- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEMS "DRILLING SHAFT 36-INCH" AND "DRILLING SHAFT 42-INCH".

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES, DESIGN DATA & QUANTITIES
2. GENERAL LAYOUT S-40-3040
3. GENERAL LAYOUT S-40-3041
4. GENERAL LAYOUT S-40-3044
5. GENERAL LAYOUT S-40-3049
6. GENERAL LAYOUT S-40-3051
7. GENERAL LAYOUT S-40-3054
8. GENERAL LAYOUT S-40-3055
9. GENERAL LAYOUT S-40-3056

LIST OF OSS STANDARD DESIGN DRAWINGS

10. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
11. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
12. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATION DETAILS

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-40-3040	S-40-3041	S-40-3044	S-40-3049	S-40-3051	S-40-3054	S-40-3055	S-40-3056
531.2036	DRILLING SHAFT 36-INCH	LF	20	-	-	20	-	-	20	20
531.2042	DRILLING SHAFT 42-INCH	LF	-	18	23	-	23	23	-	-
531.5420.XX	FOUNDATION SINGLE-SHAFT TYPE TF-II	S-40-3040	EACH	1	-	-	-	-	-	-	-
531.5430.XX	FOUNDATION SINGLE-SHAFT TYPE TF-III	S-40-3041	EACH	-	1	-	-	-	-	-	-
531.5440.XX	FOUNDATION SINGLE-SHAFT TYPE TF-IV	S-40-3044	EACH	-	-	1	-	-	-	-	-
531.5420.XX	FOUNDATION SINGLE-SHAFT TYPE TF-II	S-40-3049	EACH	-	-	-	1	-	-	-	-
531.5440.XX	FOUNDATION SINGLE-SHAFT TYPE TF-IV	S-40-3051	EACH	-	-	-	-	1	-	-	-
531.5440.XX	FOUNDATION SINGLE-SHAFT TYPE TF-IV	S-40-3054	EACH	-	-	-	-	-	1	-	-
531.5420.XX	FOUNDATION SINGLE-SHAFT TYPE TF-II	S-40-3055	EACH	-	-	-	-	-	-	1	-
531.5420.XX	FOUNDATION SINGLE-SHAFT TYPE TF-II	S-40-3056	EACH	-	-	-	-	-	-	-	1
532.5420.XX	TRUSS FULL SPAN 2-CHORD TYPE II	S-40-3040	EACH	1	-	-	-	-	-	-	-
532.5430.XX	TRUSS FULL SPAN 2-CHORD TYPE III	S-40-3041	EACH	-	1	-	-	-	-	-	-
532.5440.XX	TRUSS FULL SPAN 2-CHORD TYPE IV	S-40-3044	EACH	-	-	1	-	-	-	-	-
532.5420.XX	TRUSS FULL SPAN 2-CHORD TYPE II	S-40-3049	EACH	-	-	-	1	-	-	-	-
532.5440.XX	TRUSS FULL SPAN 2-CHORD TYPE IV	S-40-3051	EACH	-	-	-	-	1	-	-	-
532.5440.XX	TRUSS FULL SPAN 2-CHORD TYPE IV	S-40-3054	EACH	-	-	-	-	-	1	-	-
532.5420.XX	TRUSS FULL SPAN 2-CHORD TYPE II	S-40-3055	EACH	-	-	-	-	-	-	1	-
534.5420.XX	TRUSS FULL SPAN 2-CHORD TYPE II	S-40-3056	EACH	-	-	-	-	-	-	-	1

STRUCTURE	CATEGORY
S-40-3040	OXXO
S-40-3041	OXXO
S-40-3044	OXXO
S-40-3049	OXXO
S-40-3051	OXXO
S-40-3054	OXXO
S-40-3055	OXXO
S-40-3056	OXXO

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261

CONSULTANT:
HEATHER ANDERS (414) 359-2300

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

2-CHORD TRUSS FULL SPAN PLANS

FULL SPAN SIGN STRUCTRE
IH 43

COUNTY	
MILWAUKEE	VILLAGE OF RIVER HILLS, CITY OF GLENDALE OR VILLAGE OF BAYSIDE

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	RAB	NNM

GENERAL NOTES, DESIGN DATA & QUANTITIES

SHEET 1 OF 12

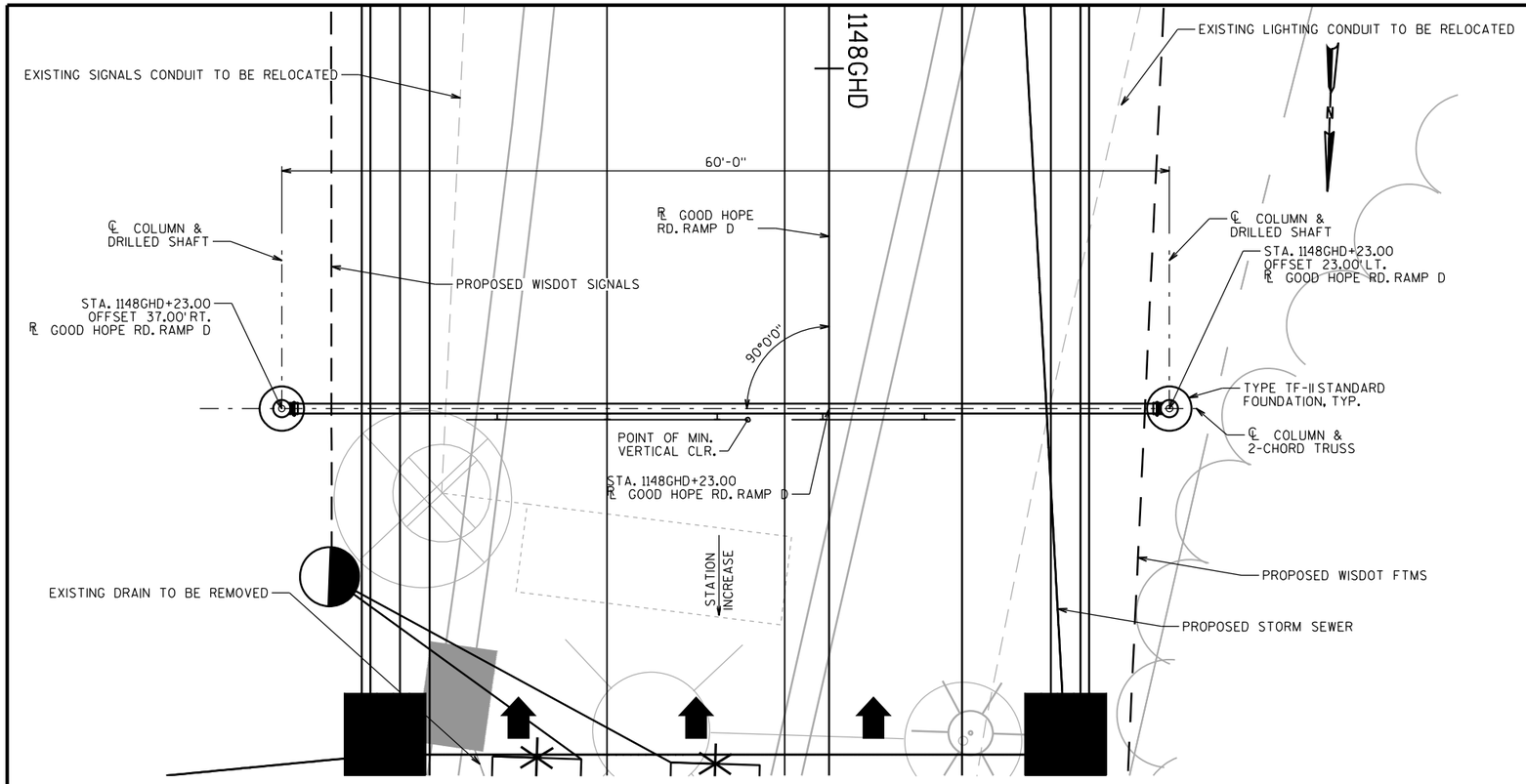
FOR 1078 SUBMITTAL

8

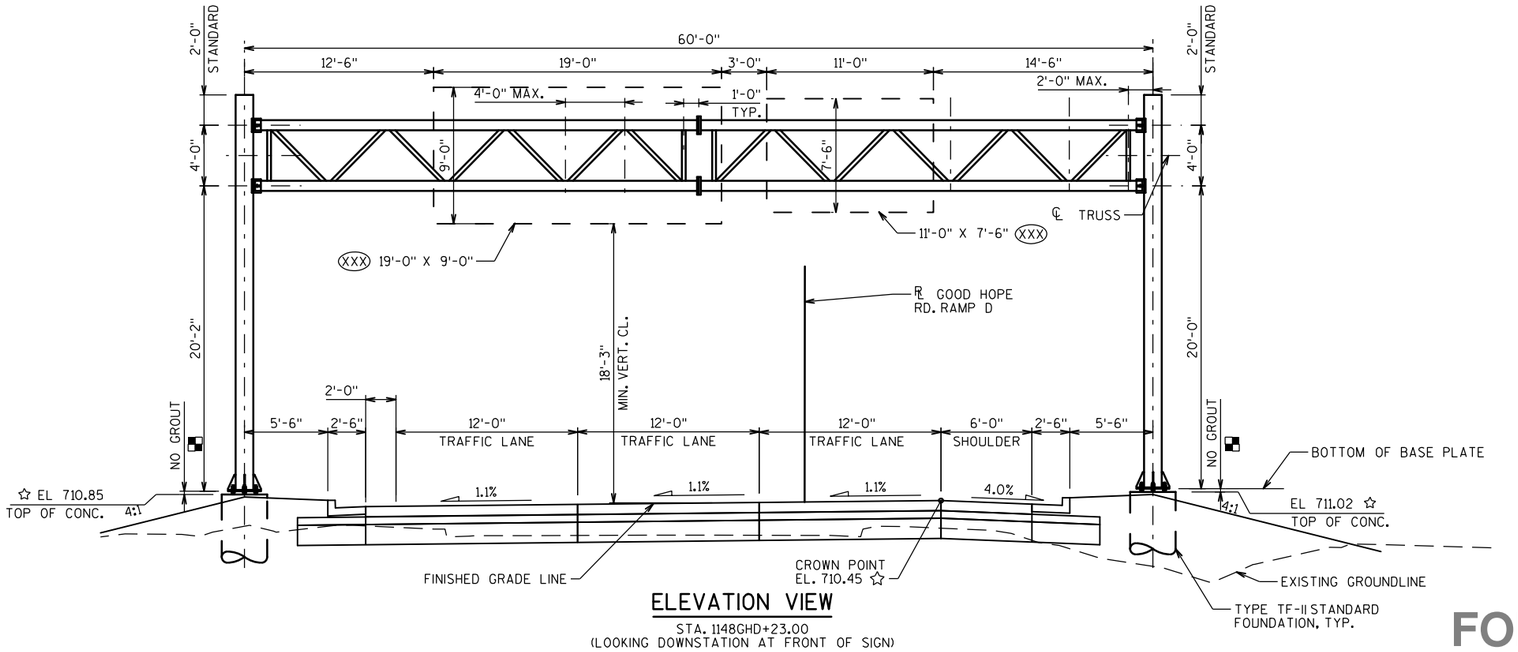
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S-40_fullspan_2chord_101_gn.dgn
PLOT DATE : 9/16/2021 1:55:34 AM PLOT BY : ejelinek
PLOT SCALE : 1:1

STATE PROJECT NUMBER
1229-04-73

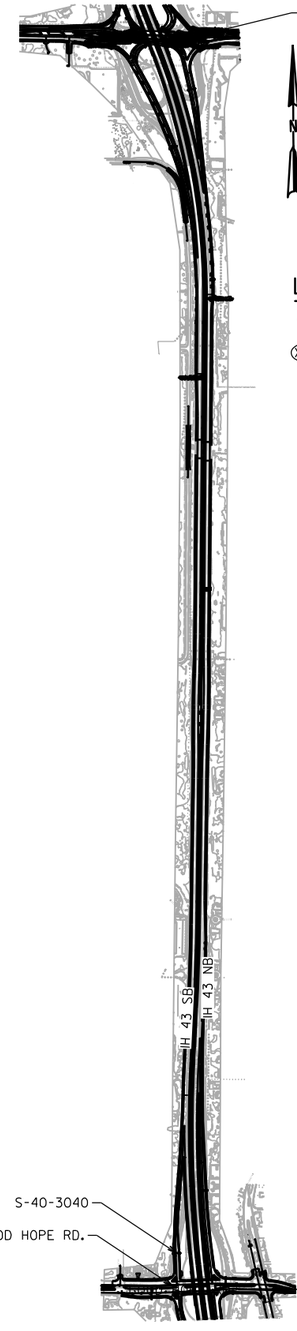


PLAN VIEW



ELEVATION VIEW

STA. 1148GHD+23.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)



LOCATION MAP

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1148GHD+24.00, 5.50' RT.
EL. 710.29
(1'-0" ASSUMED OFFSET FROM
CL OF CHORD TO SIGN PLATE)

TRAFFIC VOLUME

A.D.T. (2045) = 6,033
R.D.S. = 40 MPH

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3040

DRAWN BY	RAB	PLANS CK'D.	EAJ

GENERAL LAYOUT
S-40-3040

SHEET 2 OF 12

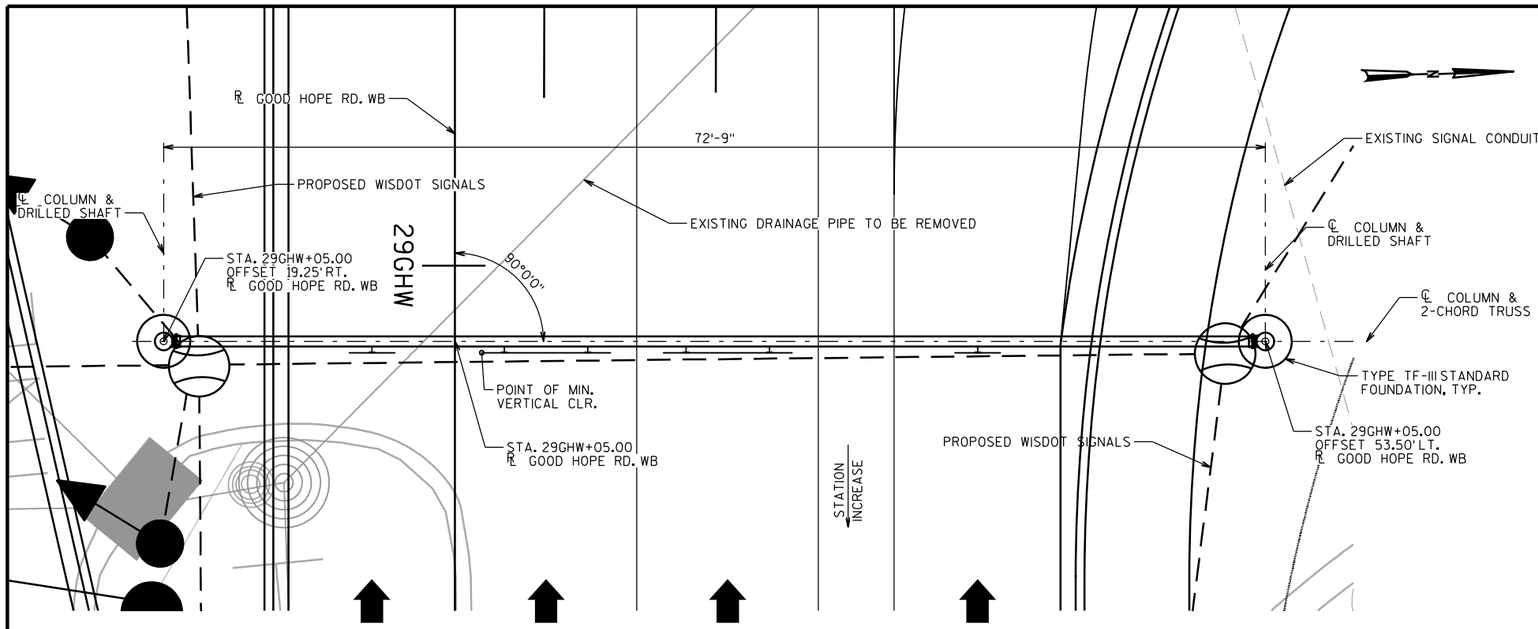
8

8

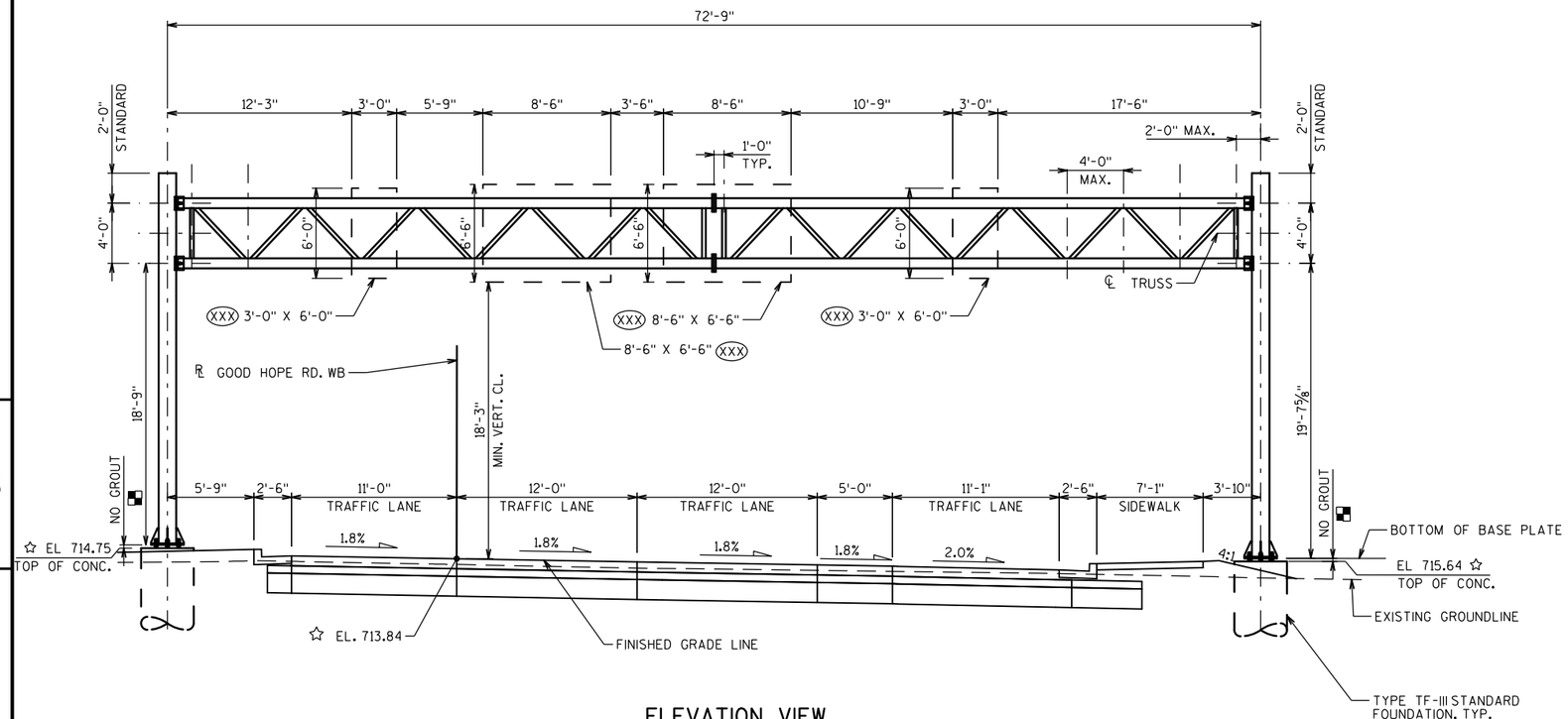
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3040_080102_gp.dgn
PLOT DATE : 9/29/2021 2:09:16 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73

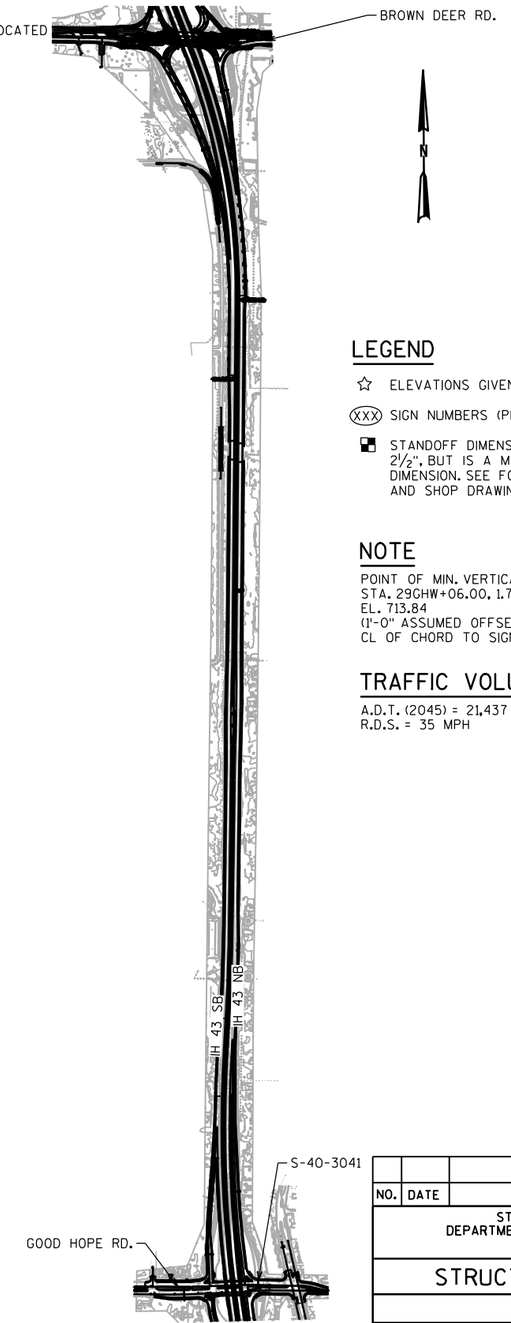


PLAN VIEW



ELEVATION VIEW

STA. 29GHW+05.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)



LOCATION MAP

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

XXX SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 29GHW+06.00, 1.75' LT.
EL. 713.84
(1'-0" ASSUMED OFFSET FROM CL OF CHORD TO SIGN PLATE)

TRAFFIC VOLUME

A.D.T. (2045) = 21,437
R.D.S. = 35 MPH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3041

DRAWN BY RAB | PLANS CK'D. EAJ

GENERAL LAYOUT
S-40-3041

SHEET 3 OF 12

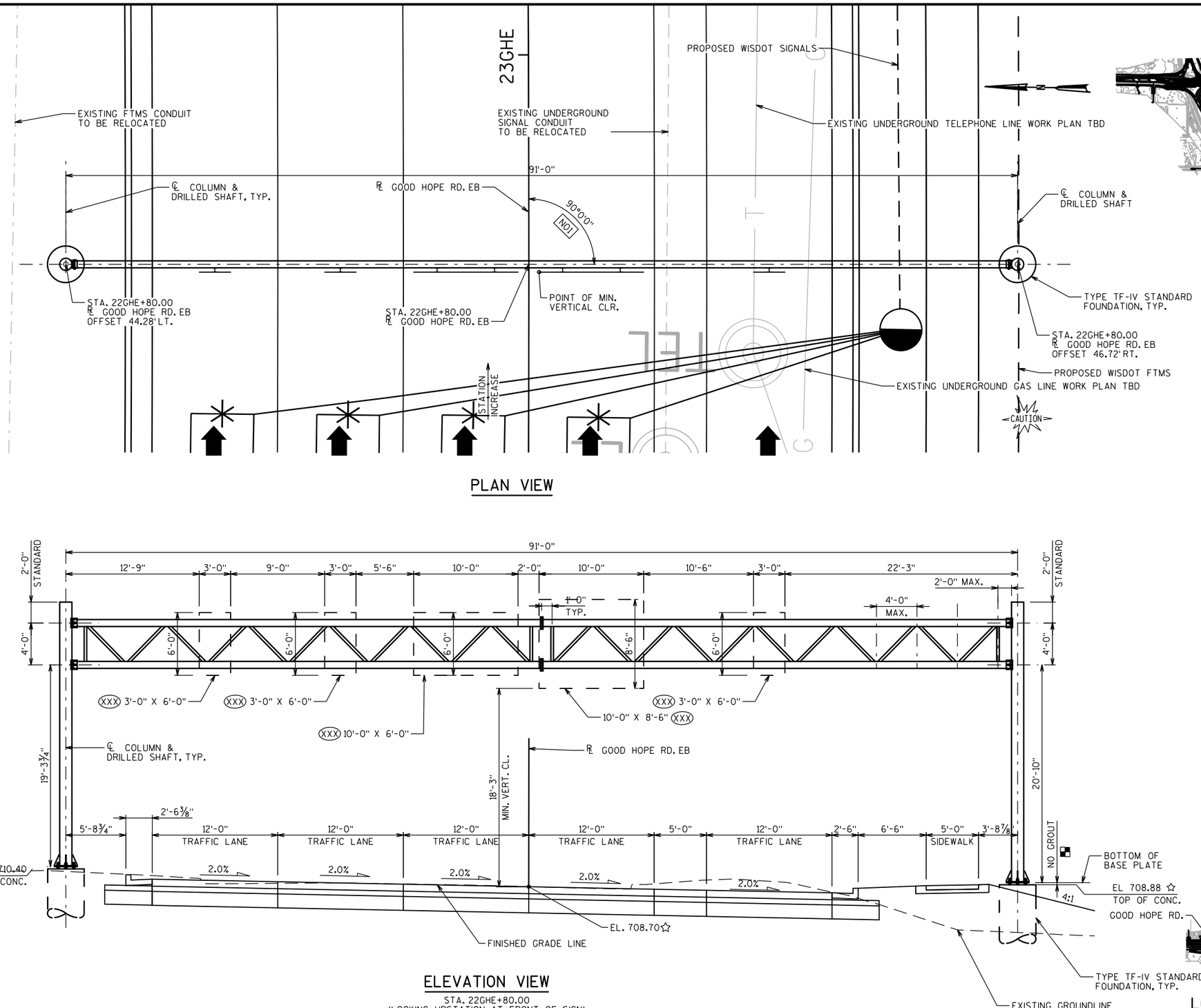
FOR 1078 SUBMITTAL

8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3041_080103_gp.dgn
PLOT DATE : 9/29/2021 2:19:25 AM PLOT BY : ejelinek
PLOT SCALE : 10:1

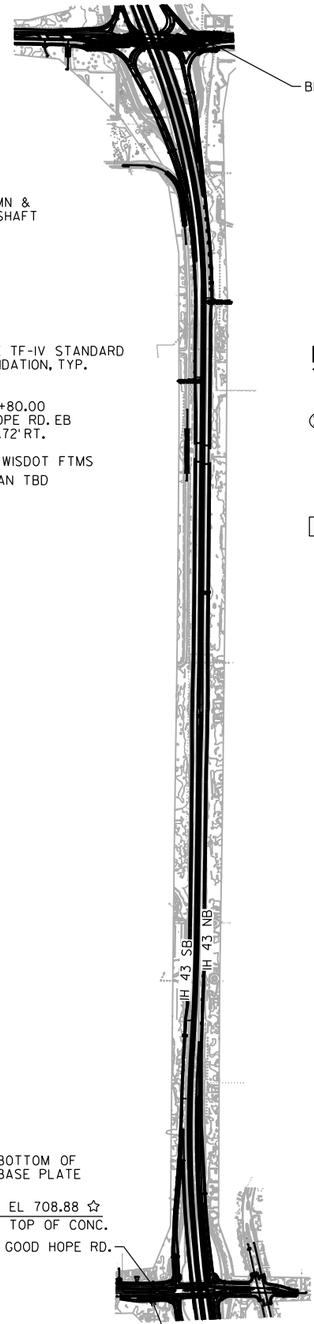
STATE PROJECT NUMBER
1229-04-73



PLAN VIEW

ELEVATION VIEW

STA. 22GHE+80.00
(LOOKING UPSTATION AT FRONT OF SIGN)



LOCATION MAP

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO1 ANGLE MEASURED BETWEEN ℄ COLUMN & TRUSS AND LINE TANGENT TO ℞ GOOD HOPE RD. EB AT STA. 22GHE+80.00

TRAFFIC VOLUME

A.D.T. (2045) = 31,735
R.D.S. = 35 MPH

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 22GHE+79.00, 0.98' RT.
EL. 708.67
(1'-0" ASSUMED OFFSET FROM
CL OF CHORD TO SIGN PLATE)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3044

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3044

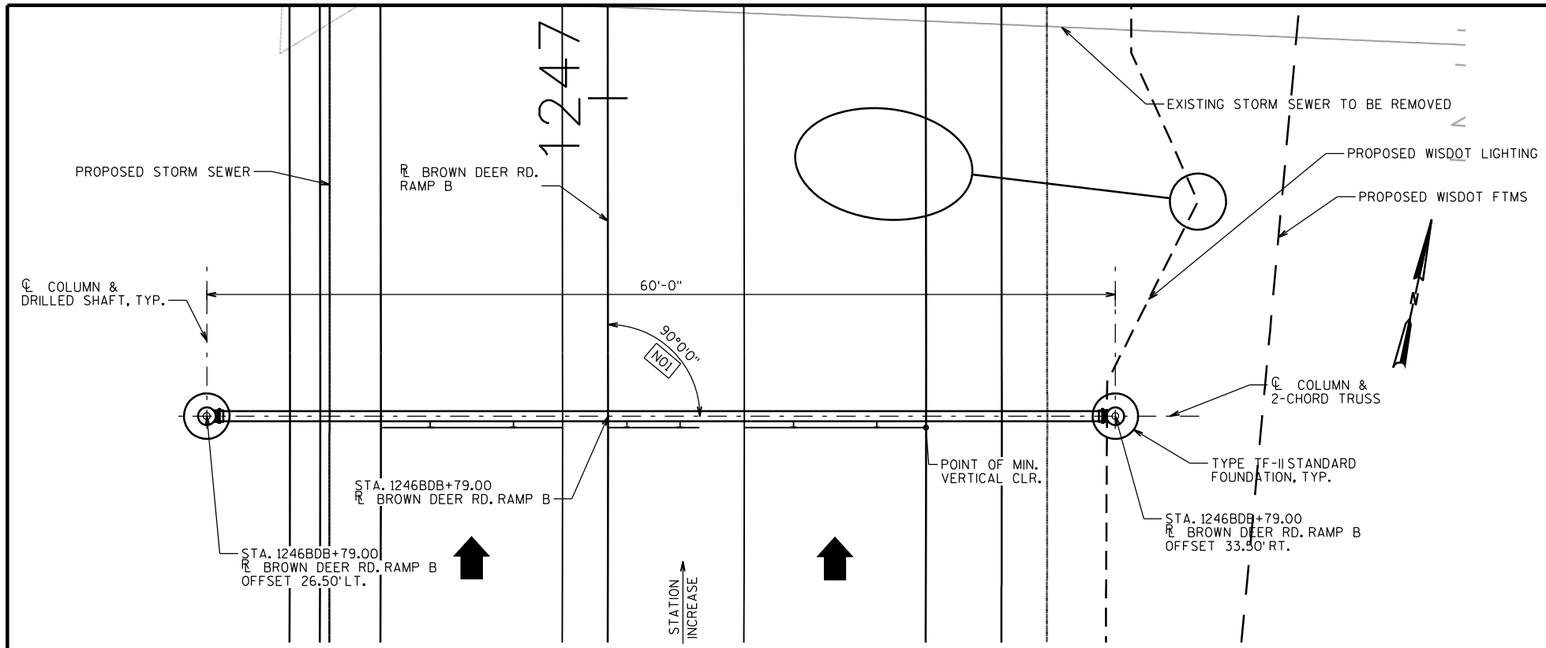
SHEET 4 OF 12

8

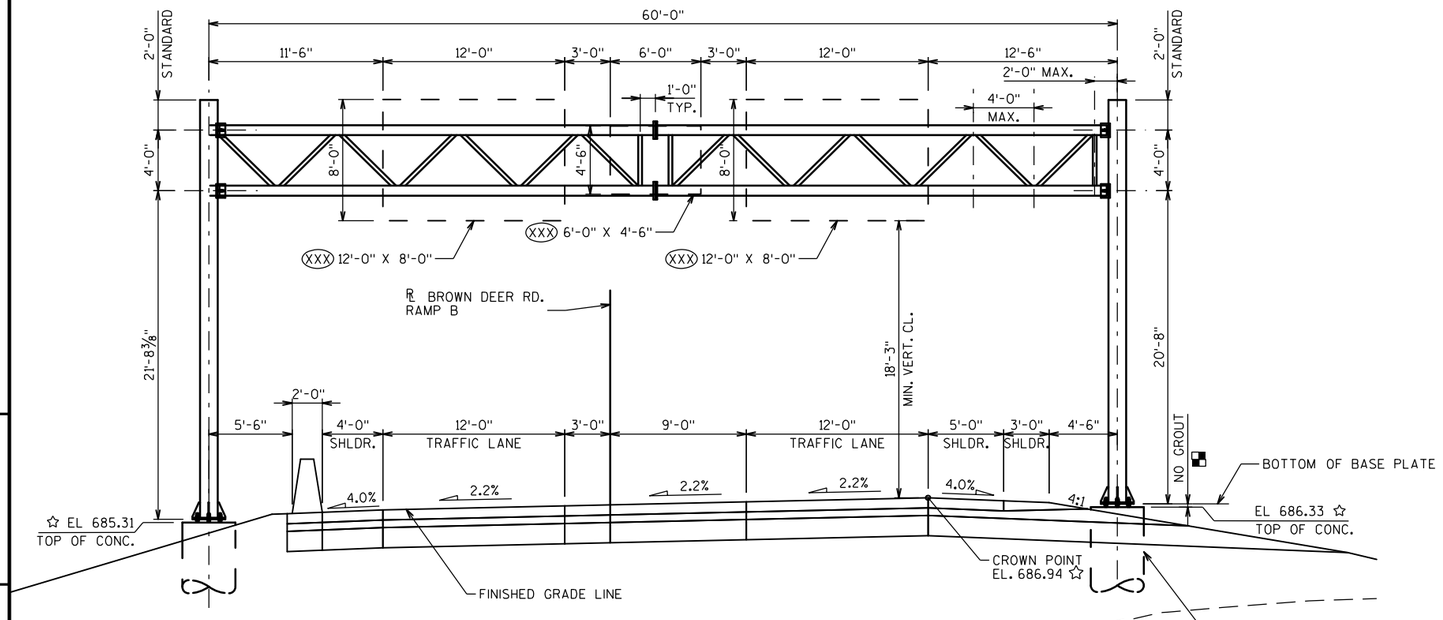
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3044_080104_gp.dgn
PLOT DATE : 9/29/2021 2:36:21 AM PLOT BY : ejelinek
PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 1246BDB+79.00
(LOOKING UPSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1246BDB+78.00, 21.00' RT.
EL. 686.94
(1'-0" ASSUMED OFFSET FROM
CL OF CHORD TO SIGN PLATE)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

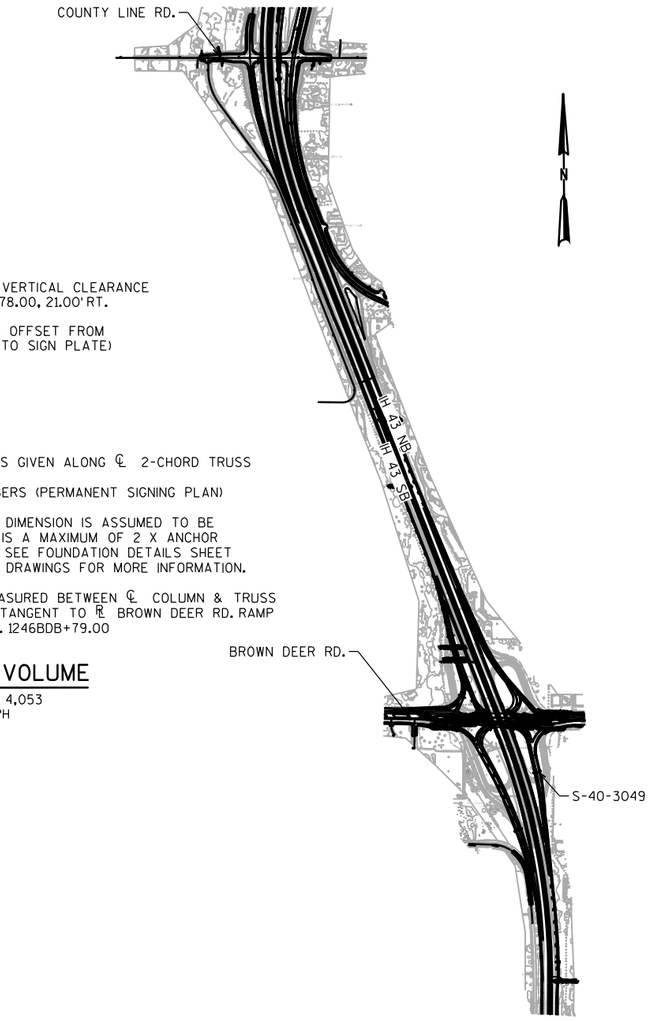
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

N01 ANGLE MEASURED BETWEEN ℄ COLUMN & TRUSS AND LINE TANGENT TO ℞ BROWN DEER RD. RAMP B AT STA. 1246BDB+79.00

TRAFFIC VOLUME

A.D.T. (2045) = 4,053
R.D.S. = 40 MPH



LOCATION MAP

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3049

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3049

SHEET 5 OF 12

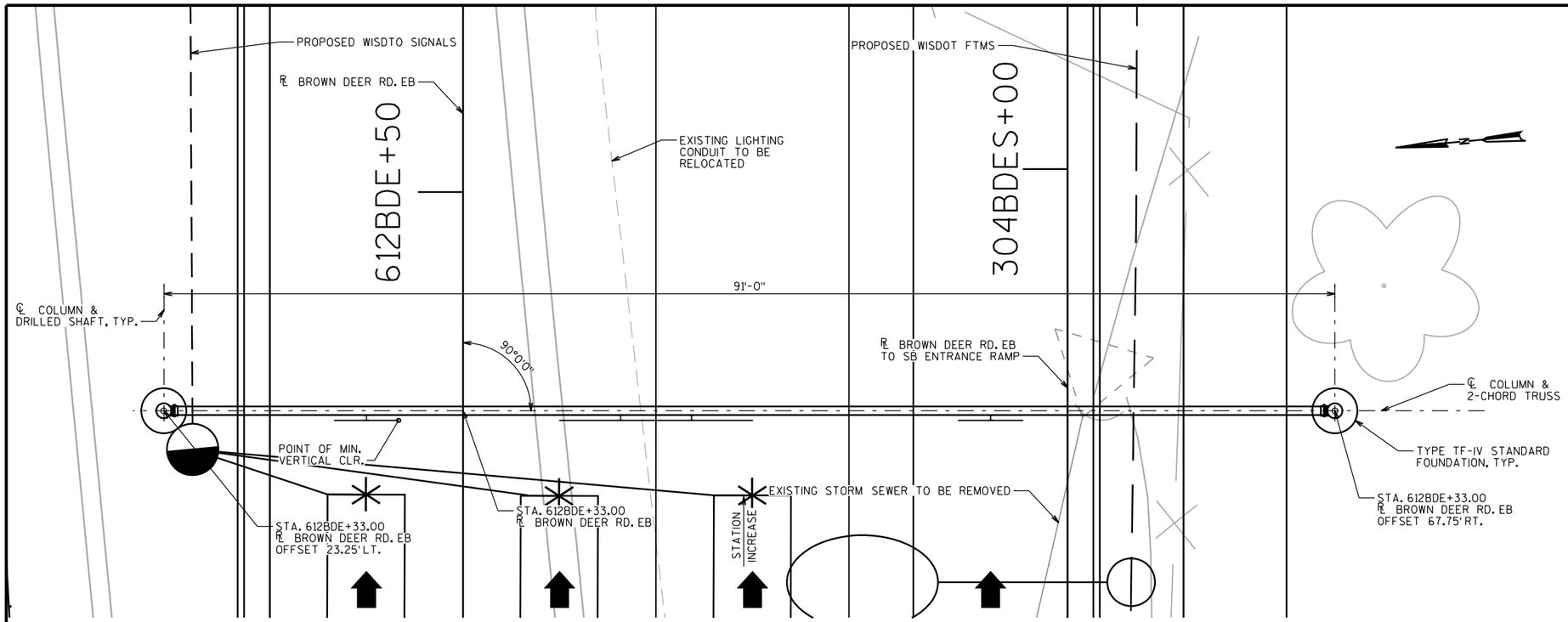
8

8

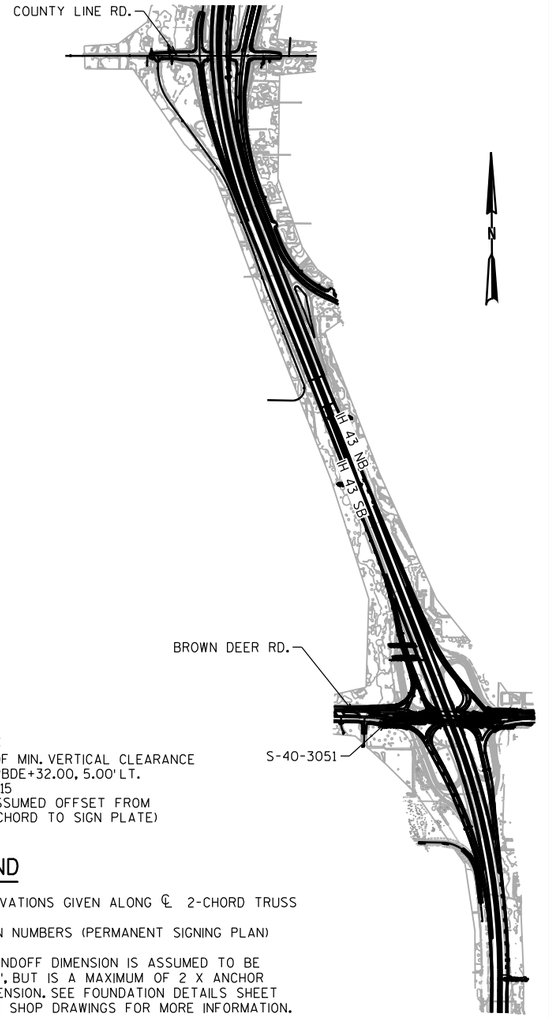
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3049_080105_gp.dgn
PLOT DATE : 9/29/2021 2:49:29 AM PLOT BY : ejelinek

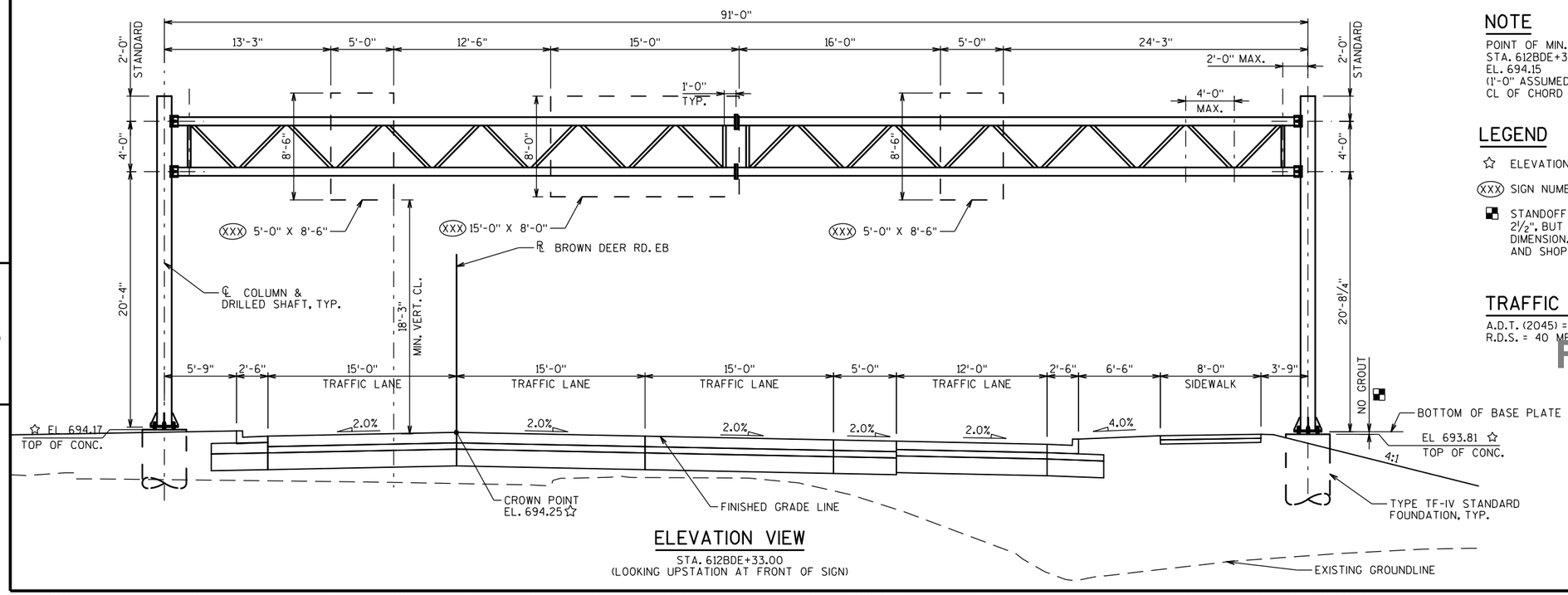
PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW





ELEVATION VIEW

STA. 612BDE+33.00
(LOOKING UPSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 612BDE+32.00, 5.00' LT.
EL. 694.15
(1'-0" ASSUMED OFFSET FROM CL OF CHORD TO SIGN PLATE)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

TRAFFIC VOLUME

A.D.T. (2045) = 29,270
R.D.S. = 40 MPH

LOCATION MAP

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3051

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3051

SHEET 6 OF 12

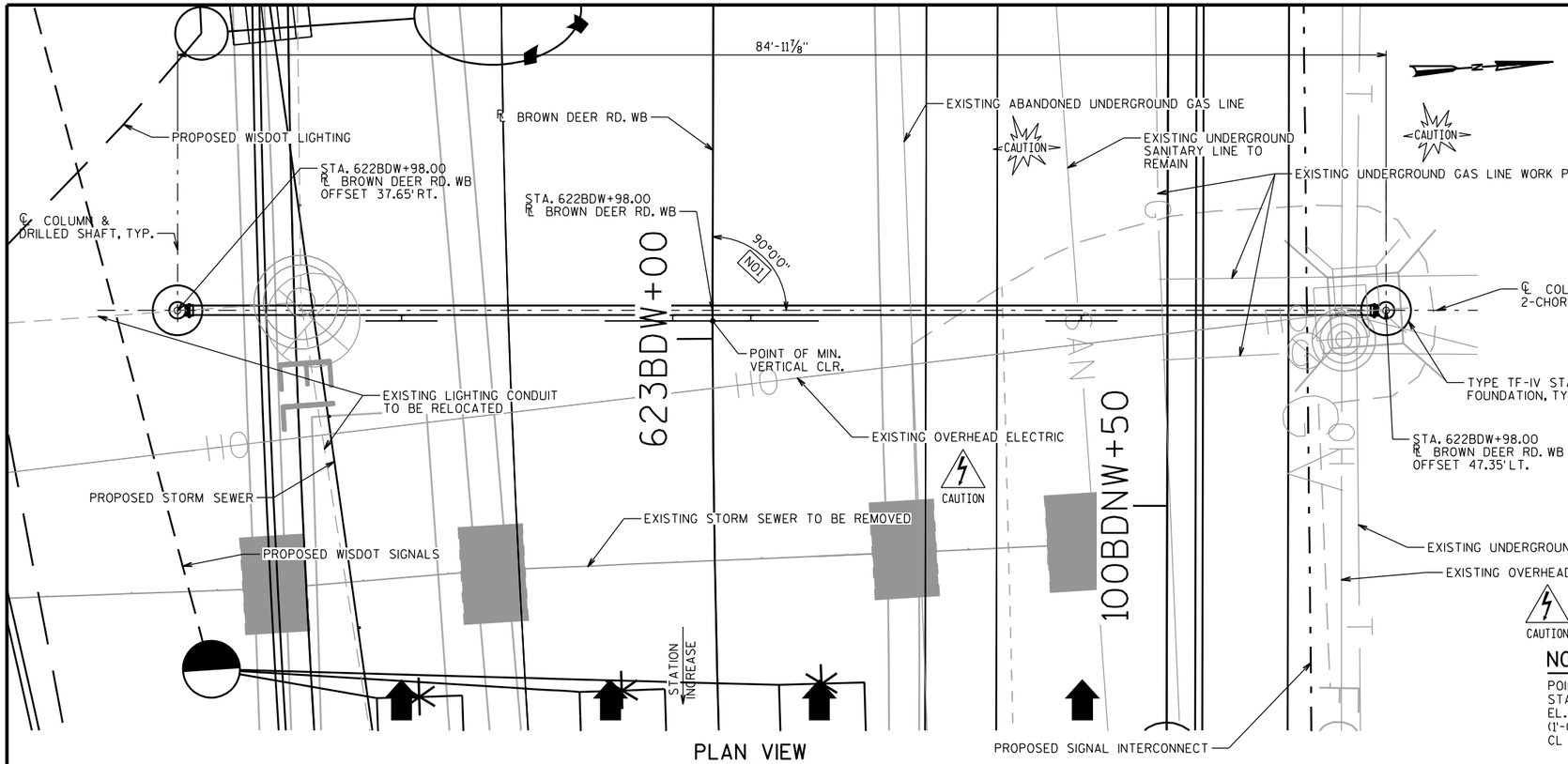
8

8

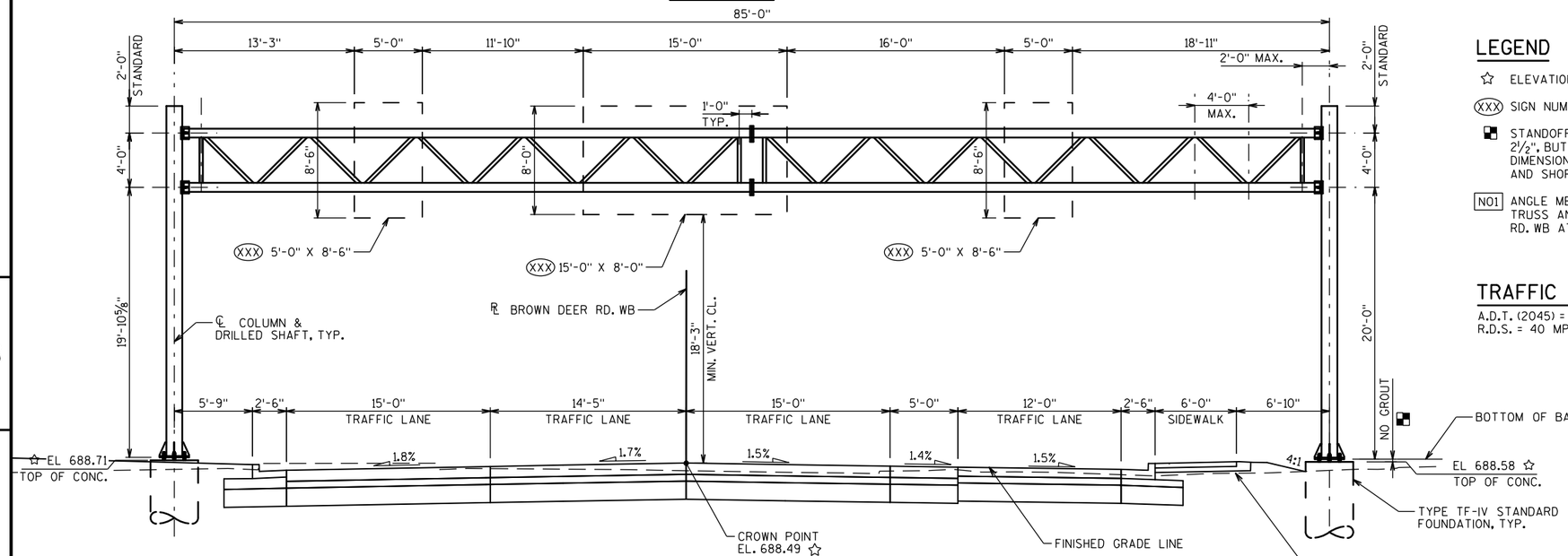
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3051_080106_gp.dgn
PLOT DATE : 9/29/2021 3:04:24 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 622BDW+98.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 622BDW+99.00, 0.00'RT.
EL. 688.49
(1'-0" ASSUMED OFFSET FROM
CL OF CHORD TO SIGN PLATE)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

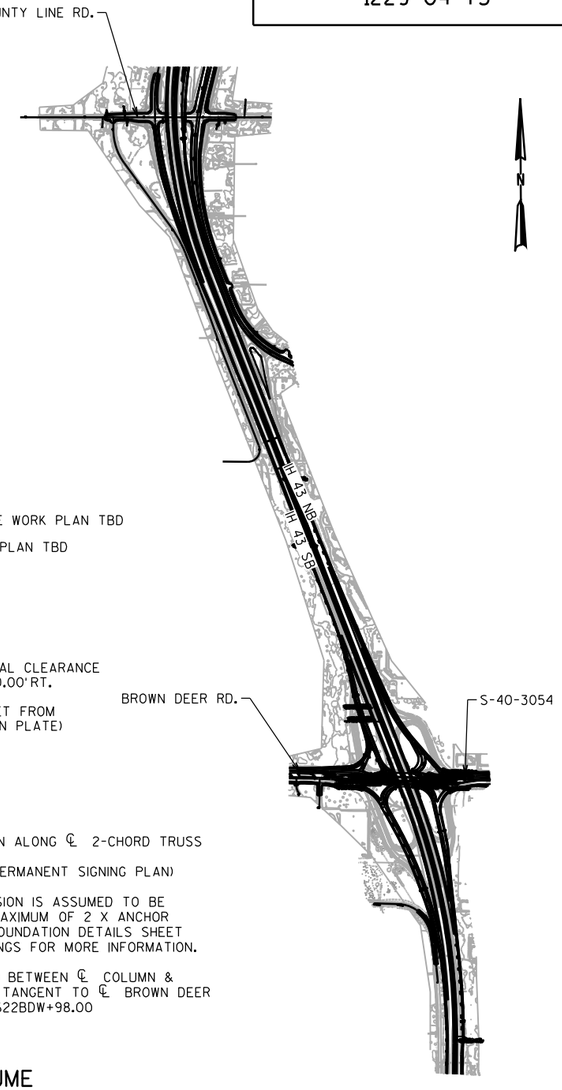
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO1 ANGLE MEASURED BETWEEN ℄ COLUMN & TRUSS AND LINE TANGENT TO ℄ BROWN DEER RD. WB AT STA. 622BDW+98.00

TRAFFIC VOLUME

A.D.T. (2045) = 21,064
R.D.S. = 40 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3054

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3054

SHEET 7 OF 12

FOR 1078 SUBMITTAL

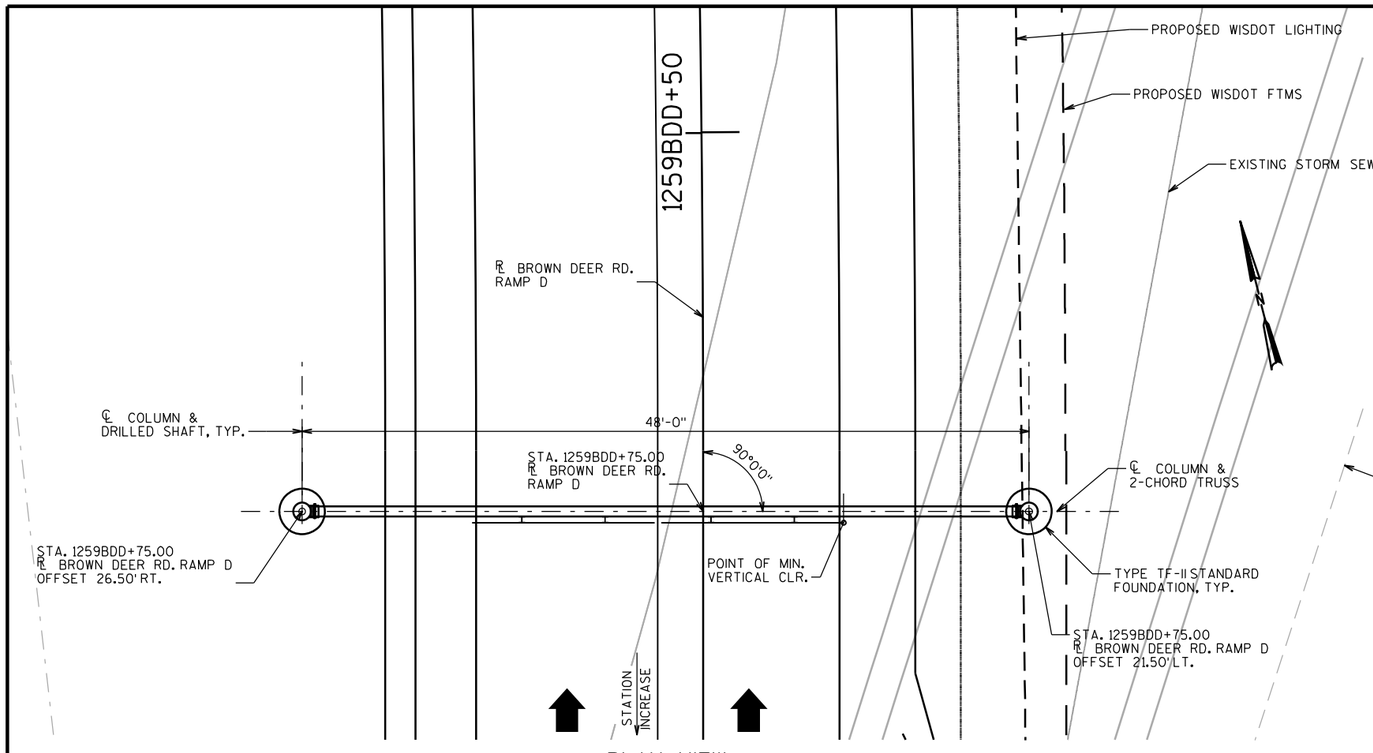
8

8

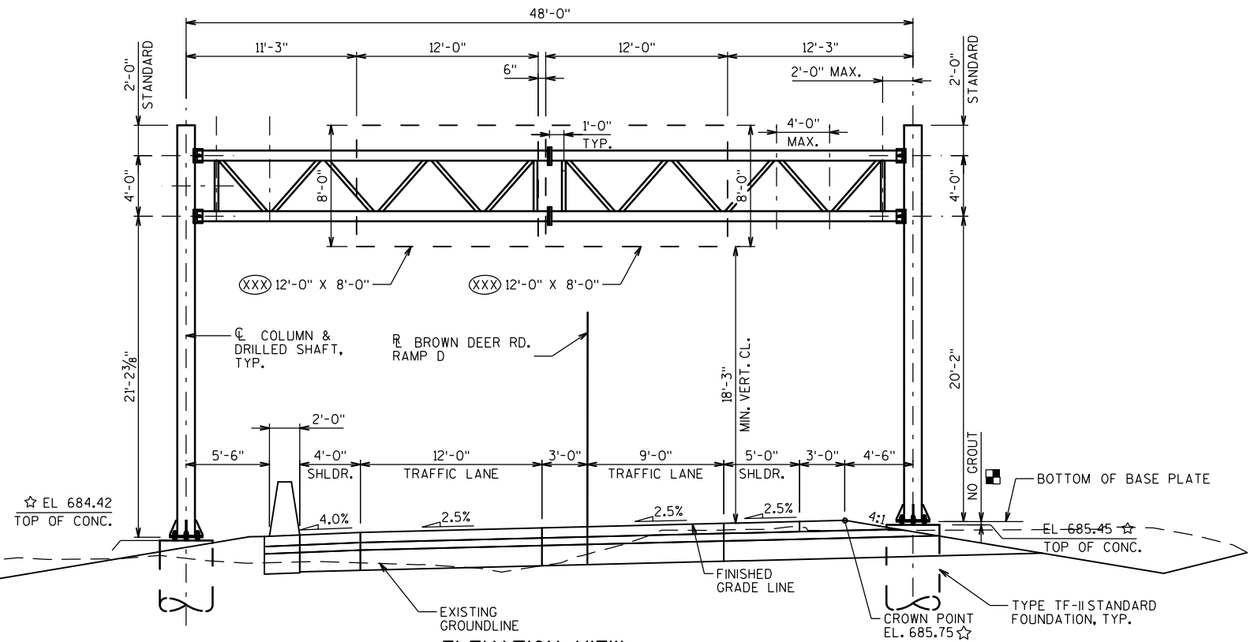
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3054_080107_gp.dgn
PLOT DATE : 9/29/2021 3:21:31 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 1259BDD+75.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1259BDD+76.00, 9.51' LT.
EL. 685.56
(1'-0" ASSUMED OFFSET FROM CL OF CHORD TO SIGN PLATE)

LEGEND

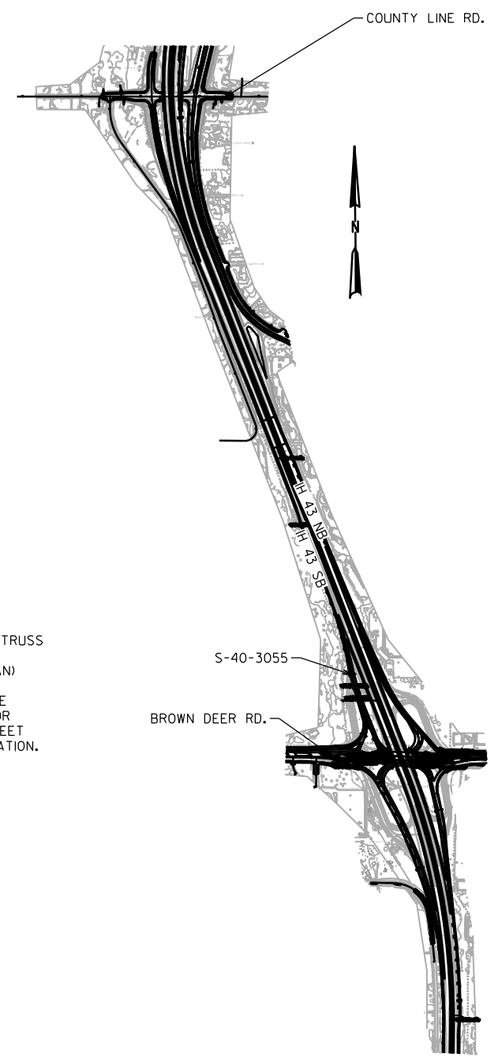
☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

TRAFFIC VOLUME

A.D.T. (2045) = 5,004
R.D.S. = 40 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3055

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3055

SHEET 8 OF 12

FOR 1078 SUBMITTAL

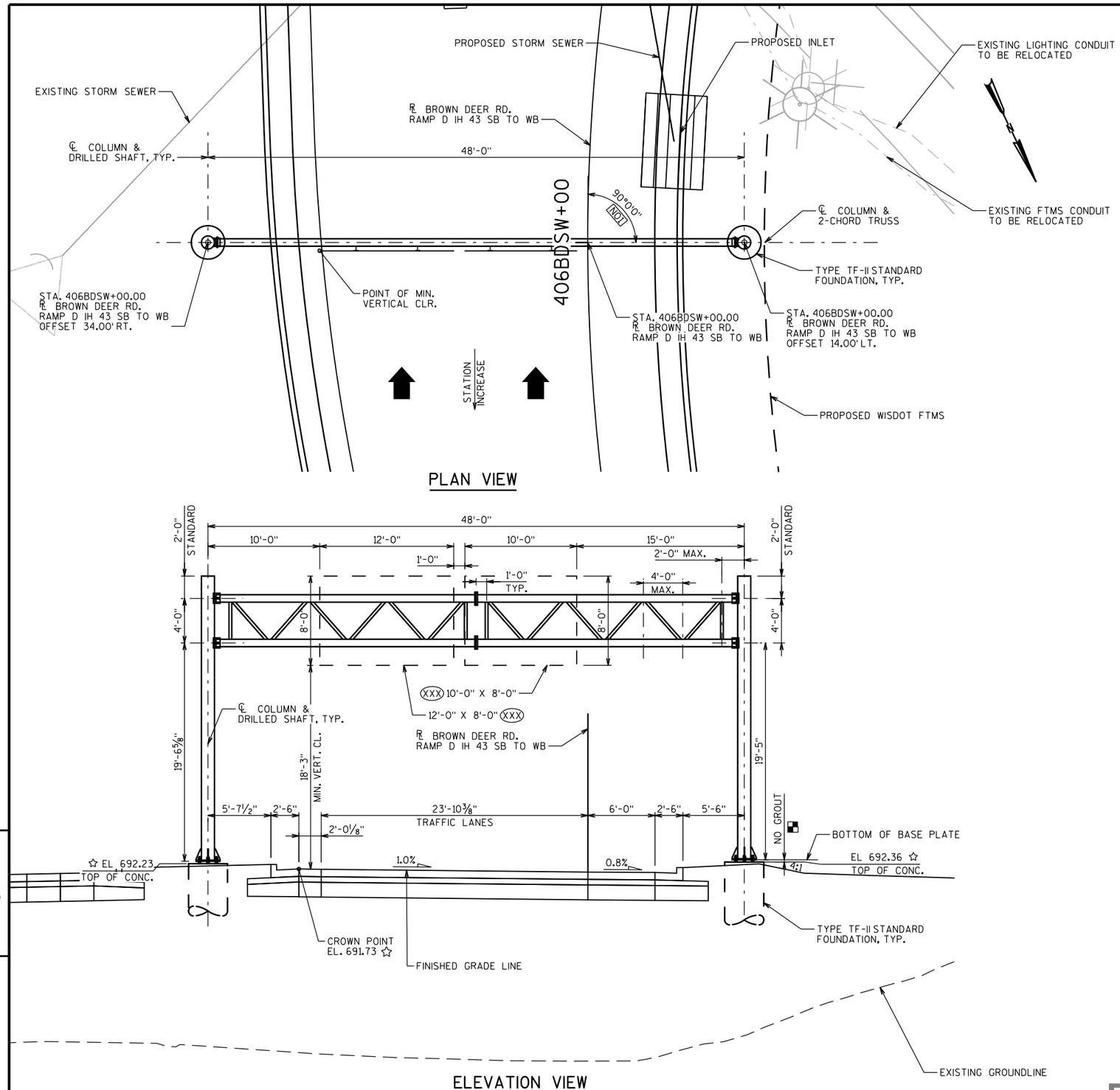
8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3055_080108_gp.dgn
PLOT DATE : 9/29/2021 3:31:08 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW

ELEVATION VIEW

STA. 406BDSW+00.00
(LOOKING DOWNSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 406+01.00, 24.00' RT.
EL. 691.34
(1'-0" ASSUMED OFFSET FROM
CL OF CHORD TO SIGN PLATE)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

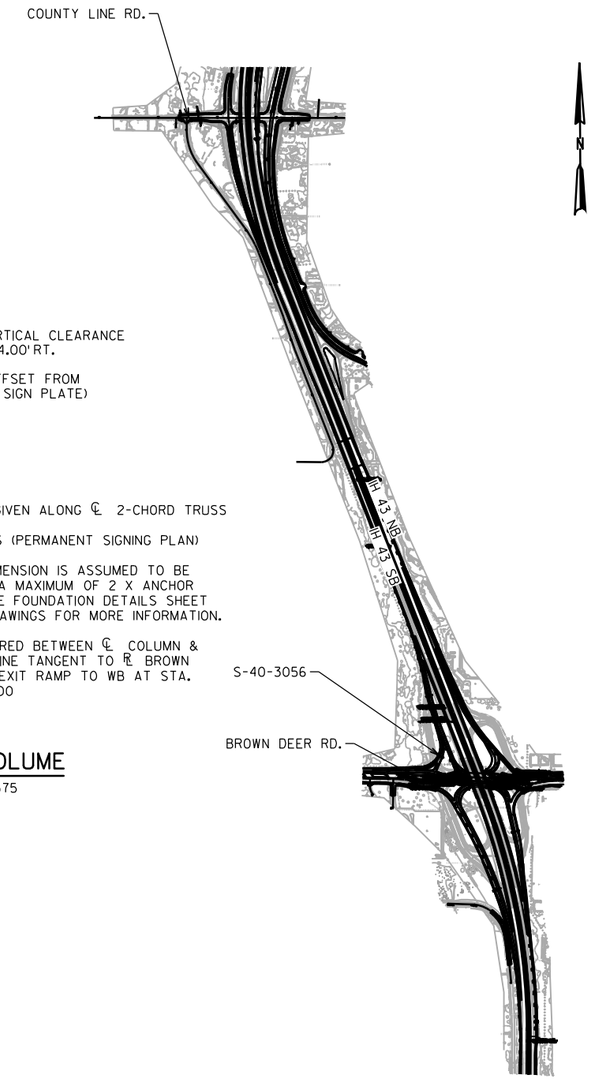
XXX SIGN NUMBERS (PERMANENT SIGNING PLAN)

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

N01 ANGLE MEASURED BETWEEN ℄ COLUMN & TRUSS AND LINE TANGENT TO ℞ BROWN DEER RD. SB EXIT RAMP TO WB AT STA. 406BDSW+00.00

TRAFFIC VOLUME

A.D.T. (2045) = 3,575
R.D.S. = 35 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3056

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3056

SHEET 9 OF 12

FOR 1078 SUBMITTAL

8

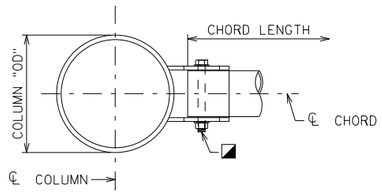
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Full Span 2-Chord (8)\cds\S3056_080109_gp.dgn
PLOT DATE : 9/29/2021 3:38:38 AM PLOT BY : ejelinek

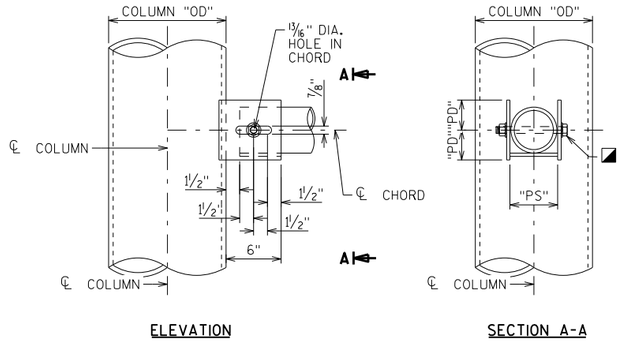
PLOT SCALE : 10:1

STATE PROJECT NUMBER

STANDARD



PLAN



ELEVATION SECTION A-A

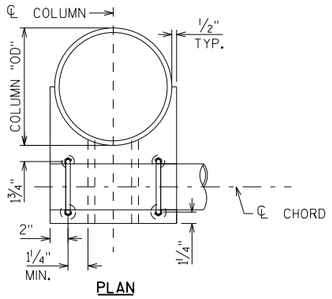
FULL SPAN SADDLE CONNECTION

PREFERRED

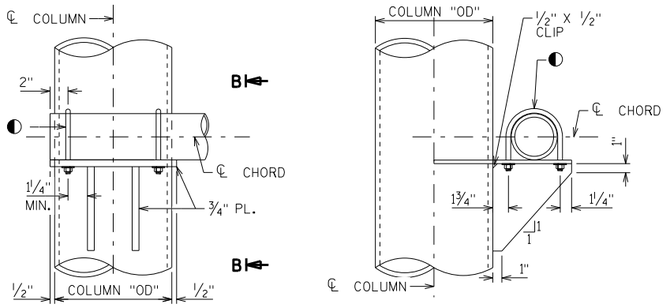
¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT, WASHER

"PD" = (CHORD "OD")/2 + ¾"

"PS" = CHORD "OD" + 3/16"



PLAN

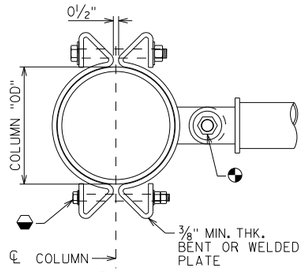


ELEVATION SECTION B-B

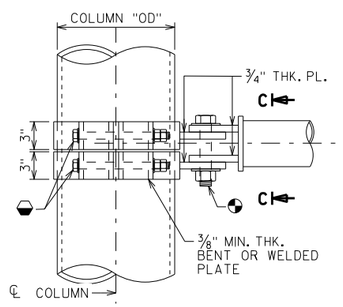
FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

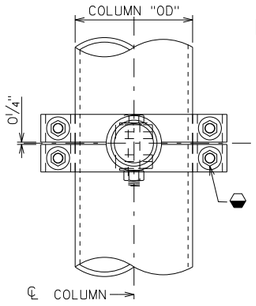
◐ (2) - ½" MIN. GALVANIZED U-BOLT, NUT, WASHER AND LOCK WASHER



PLAN



ELEVATION



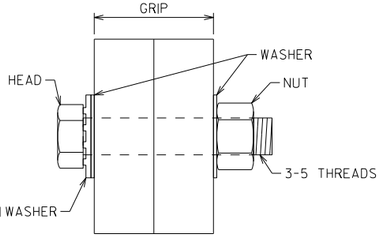
SECTION C-C

FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

◓ 1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

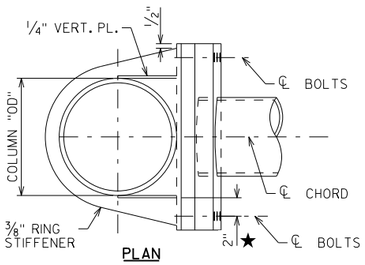
⬣ 1" GALVANIZED A449 HEAVY HEX BOLT, NUT AND WASHER



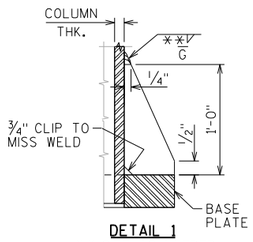
RECOMMENDED BOLT DETAIL WITH DTI

NUT IS THE TURNED ELEMENT

FOR 1078 SUBMITTAL

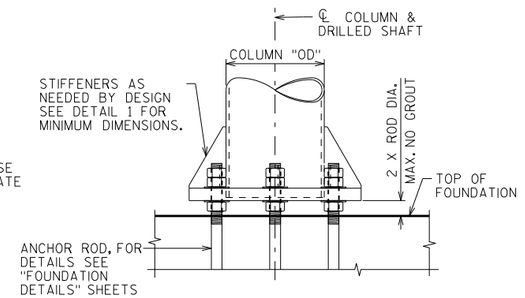


PLAN



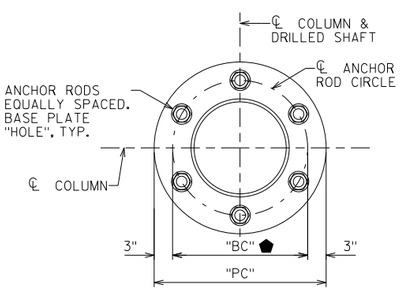
DETAIL 1

** SIZE AS NEEDED



BASE PLATE & COLUMN DETAIL

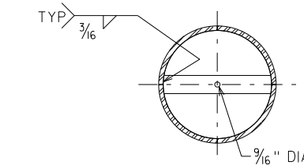
LOOKING AT FRONT FACE OF STRUCTURE

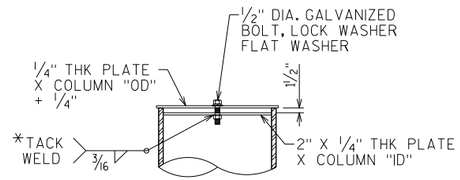


BASE PLATE

PLAN

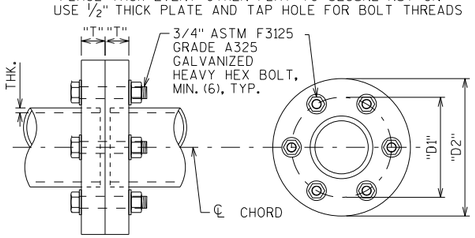
⬟ "BC" = POLE OD + 6"





COLUMN/CHORD CAP DETAIL

* PLACE TACK EVERY OTHER FLAT TO SECURE NUT OR USE ½" THICK PLATE AND TAP HOLE FOR BOLT THREADS

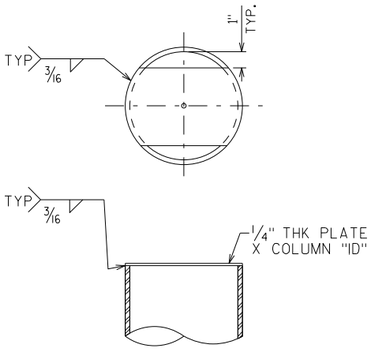


CHORD SPLICE DETAIL

"D1" = CHORD "OD" + 3"

"D2" = CHORD "OD" + 6"

"T" = BY DESIGN

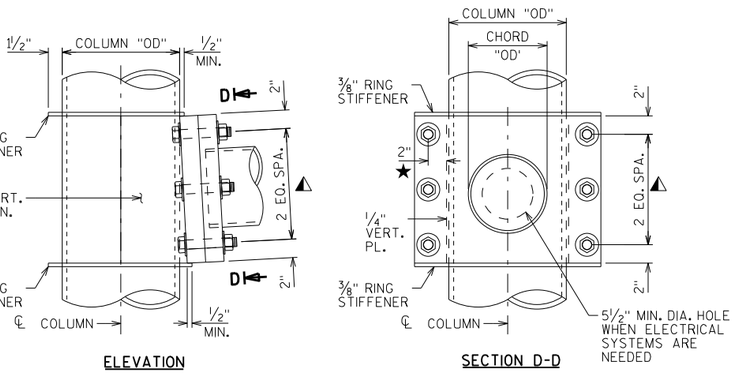


CHORD CAP DETAIL

NOTES:

MINIMUM VALUES SHOWN

ALL CONNETIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURE LOADS.



ELEVATION SECTION D-D

CANTILEVER POST TO CHORD CONNECTION

◭ MIN. CONNECTION = (6) - 1" GALVANIZED F3125 GRADE A325 BOLTS, NUT, WASHER AND DTI

★ MIN. DIMENSION MEASURED FROM EXT. FACE OF VERT. PLATE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 1

SHEET 1 OF IV

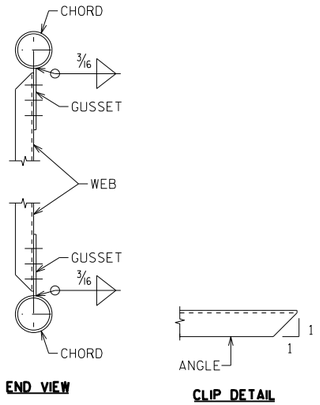
SCALE = 1.00

8

8

STATE PROJECT NUMBER

STANDARD

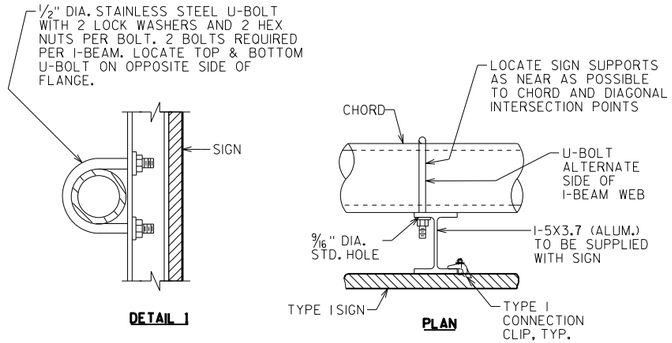


END VIEW

CLIP DETAIL

TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR



DETAIL 1

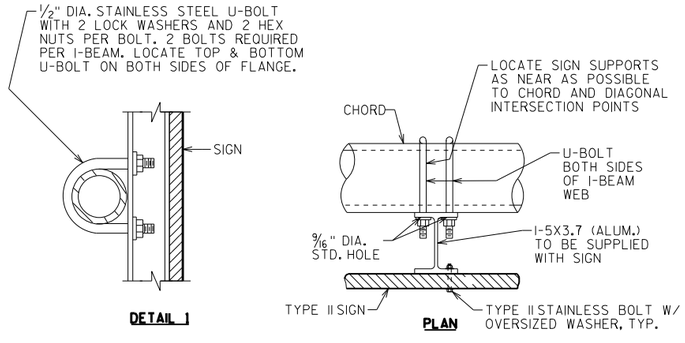
PLAN

2-CHORD TRUSS SIGN CONNECTION

SEE SIGN PLATE MANUAL A4-7A FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



DETAIL 1

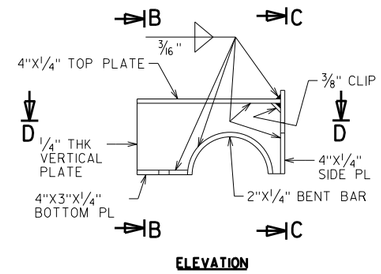
PLAN

MONOTUBE SIGN CONNECTION

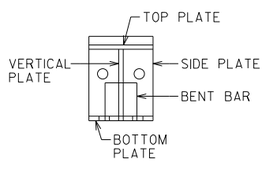
SEE SIGN PLATE MANUAL A4-7B FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

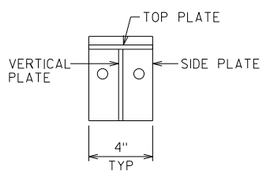
HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



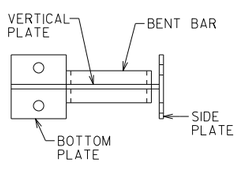
ELEVATION



SECTION B-B



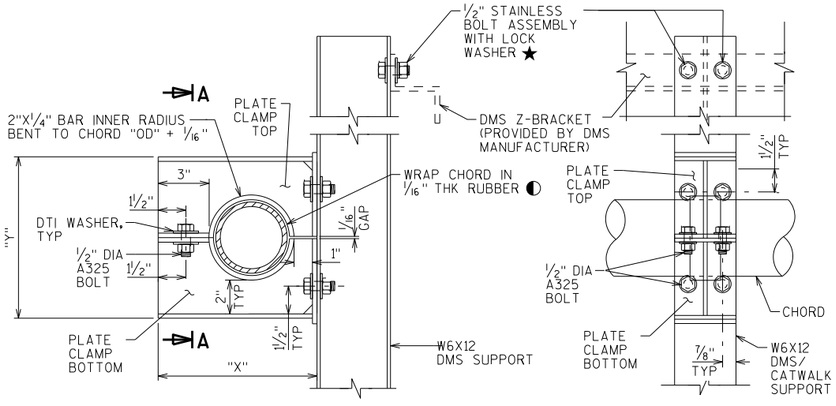
SECTION C-C



SECTION D-D

DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



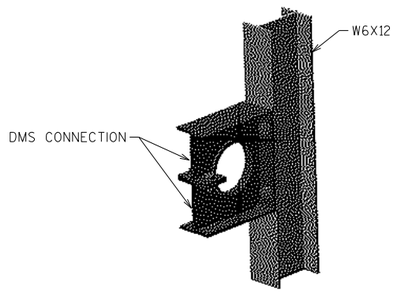
DETAIL 2

SECTION A-A

CHORD OUTER DIA	"X"	"Y"
"OD"	"OD"+4 13/16"	"OD"+5 1/16"

TYPICAL DMS CONNECTION

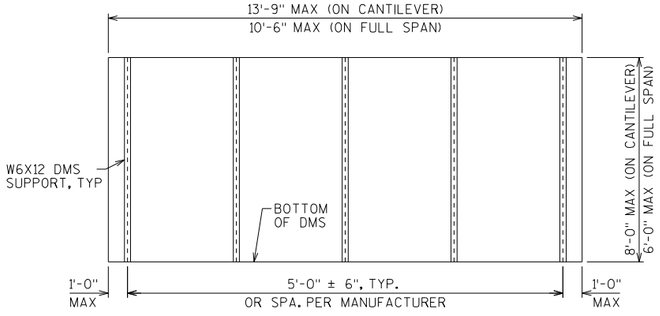
◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

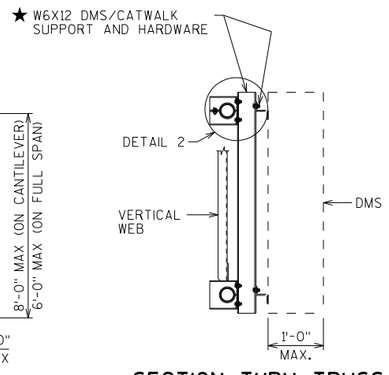
CHORD NOT SHOWN FOR CLARITY

FOR 1078 SUBMITTAL



DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 2

SHEET 11 OF IV

SCALE = 2.00

8

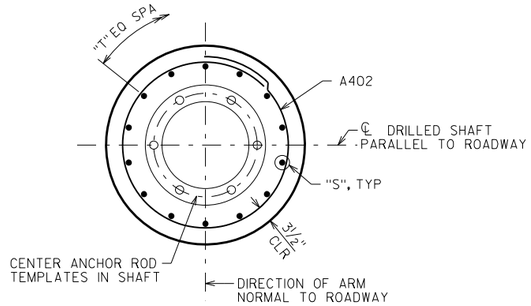
8

STATE PROJECT NUMBER

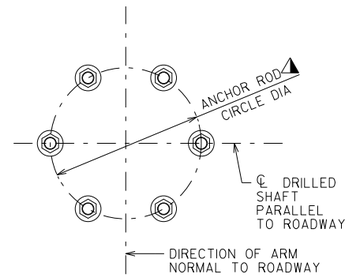
STANDARD

FOUNDATION & REINFORCING DATA

STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
MFI	2'-0"	12'-0"	12	A801	6	12"
MFII	2'-6"	13'-0"	13	A801	10	17"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	17"
TCI	3'-0"	18'-0"	18	A801	14	22"
TFII	3'-0"	20'-0"	20	A801	14	22"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	28"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	28"
TCIII	4'-0"	23'-0"	23	A1001	14	34"
TCIV	4'-0"	28'-0"	28	A1001	14	34"



PLAN



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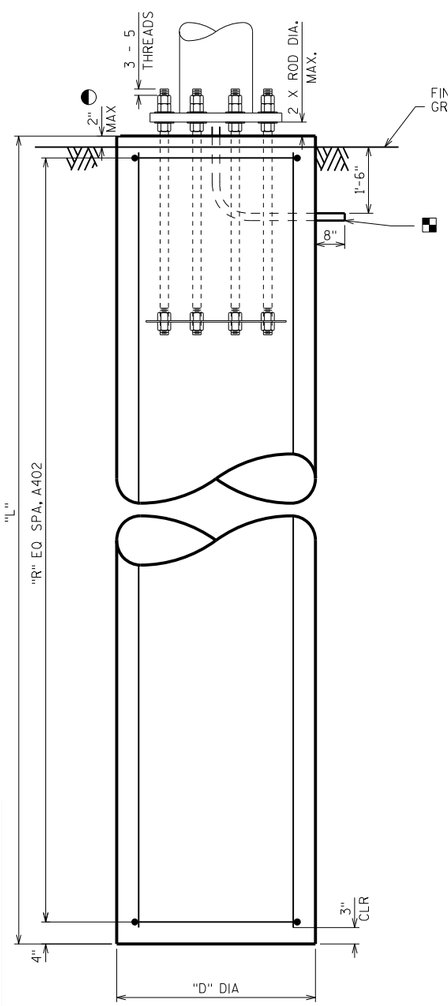
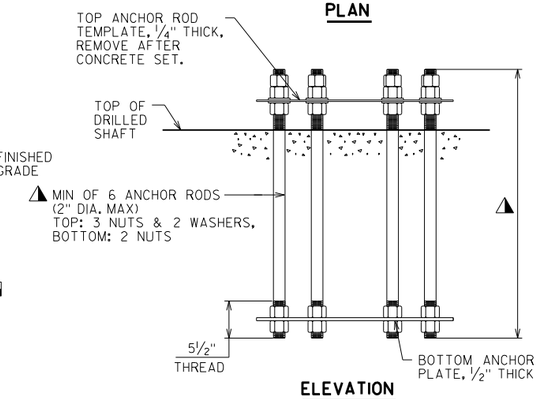


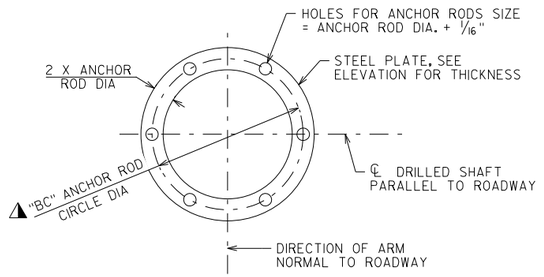
ELEVATION



ELEVATION

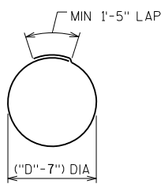
ANCHOR ROD ASSEMBLY DETAILS

⚠ ANCHOR ROD NUMBER, DIAMETER, LENGTH & ORIENTATION AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN



A402

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD FOUNDATIONS

STANDARD FOUNDATION MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-7"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-7"			DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-7"			DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-7"			DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-7"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)				
			24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
MFI	2	240	12				
MFII	3	410		13			
MCI/MCII/TFI	4	540		17			
TCI	5	780			18		
TFII	6	860			20		
MCIII/TCII/TFIII	7	970				18	
MCIV/TFIV	9	1,250				23	
TCIII	11	1,560					23
TCIV	13	1,900					28

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

◐ FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

◪ 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV OF IV

SCALE = 1.67

8

8

FOR 1078 SUBMITTAL

DESIGN DATA:

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES:

CONCRETE MASONRY .....f'c = 3,500 P.S.I.

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 .....fy = 60,000 P.S.I.

HIGH STRENGTH BOLTS - A325 .....fy = 92,000 P.S.I.

ANCHOR RODS - ASTM F1554 GRADE 55 .....fy = 55,000 P.S.I.

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA:

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S-40-3043	S-40-3045	S-40-3050	TOTAL
531.2030	DRILLING SHAFT 36-INCH	LF	-	-	-	-
531.2036	DRILLING SHAFT 30-INCH	LF	-	-	-	-
531.5220.XXXX	FOUNDATION SINGLE-SHAFT TYPE MF-II S-40-3045	EACH	-	-	-	-
531.5220.XXXX	FOUNDATION SINGLE-SHAFT TYPE MF-II S-40-3050	EACH	-	-	-	-
531.5320.XXXX	FOUNDATION SINGLE-SHAFT TYPE TC-II S-40-3043	EACH	-	-	-	-
532.5220.XXXX	MONOTUBE FULL SPAN TYPE-II S-40-3045	EACH	-	-	-	-
532.5220.XXXX	MONOTUBE FULL SPAN TYPE-II S-40-3050	EACH	-	-	-	-
532.5310.XXXX	TRUSS CANTILEVER 2-CHORD TYPE I S-40-3043	EACH	-	-	-	-

STRUCTURE	CATEGORY
S-40-3043	XXXX
S-40-3045	XXXX
S-40-3050	XXXX

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS OR MONOTUBE BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

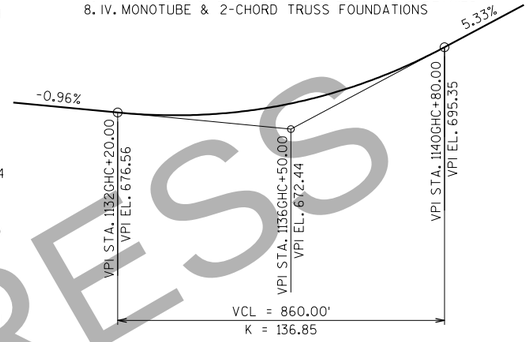
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

STRUCTURE DATA

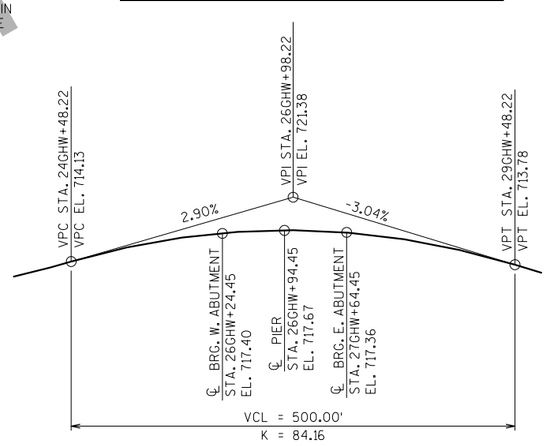
SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3043	18.00 SF	6'-0"	TC-II
S-40-3045	30.75 SF	2'-6"	MF-II
S-40-3050	30.75 SF	2'-6"	MF-II

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-40-3043
3. GENERAL LAYOUT S-40-3045
4. GENERAL LAYOUT S-40-3050
5. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
6. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
7. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
8. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS



PROFILE GRADE LINE - RAMP GHC



PROFILE GRADE LINE - GOOD HOPE RD WB

HORIZONTAL CURVE DATA

CURVE GHC-3	CURVE BDC-3
PI STA. = 1139GHC+65.58	PI STA. = 1240BDC+00.97
Y = 338767.98	Y = 348812.66
X = 604232.49	X = 604237.71
DELTA = 15°51'37"	DELTA = 25°21'38"
D = 5°27'24"	D = 1°41'25"
T = 146.26'	T = 762.74'
L = 290.66'	L = 1500.50'
R = 1050.00'	R = 3390.00'
PC STA. = 1138GHC+19.31	PCC STA. = 1232BDC+38.22
Y = 338624.07	Y = 348050.74
X = 604258.63	X = 604273.07
PT STA. = 1141GHC+09.97	PT STA. = 1247BDC+38.72
Y = 338899.26	Y = 349486.01
X = 604168.01	X = 603879.41

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER

1229-04-73

TRAFFIC DATA

GOOD HOPE RD WB

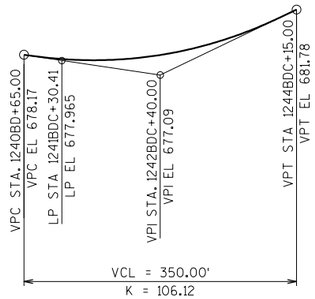
ADT = 31,700 (2045)
RDS = 35 MPH

RAMP GHC

ADT = 11,500 (2045)
RDS = 40/50 MPH

RAMP BDC

ADT = 11,000 (2045)
RDS = 40/50 MPH



PROFILE GRADE LINE - RAMP BDC

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE AND 2-CHORD TRUSS PLANS

IH 43 N/S

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	SMC	MHZ

GENERAL NOTES & DESIGN DATA

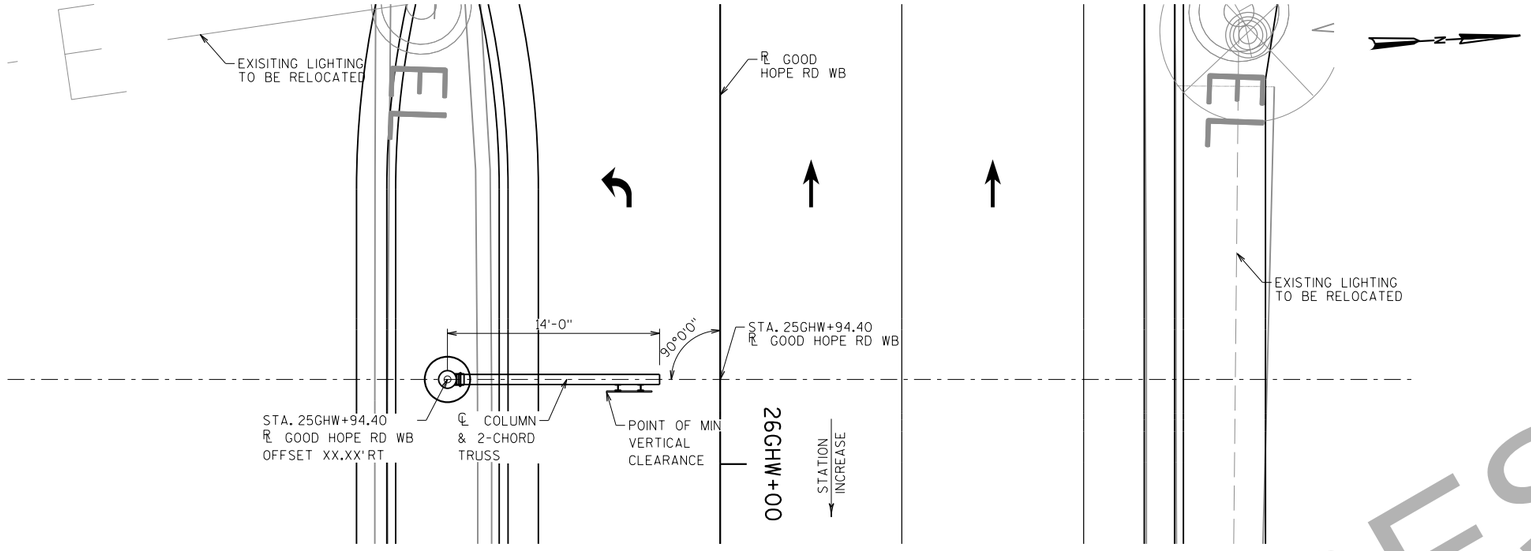
SHEET 1 OF 4

IN PROGRESS

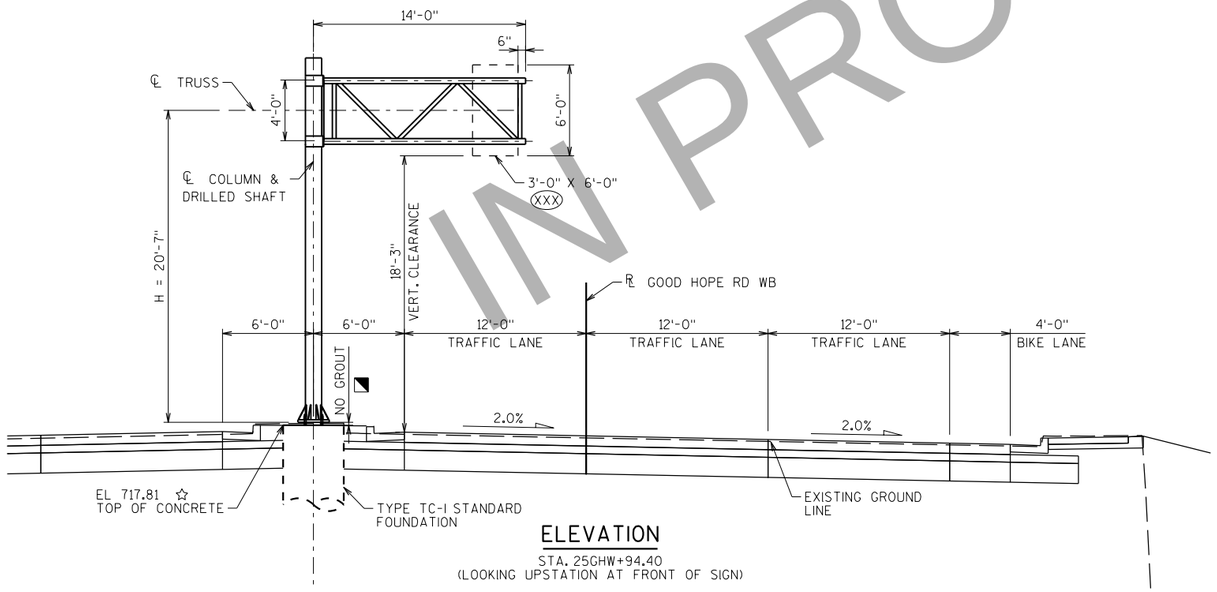
8

8

FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0259983\S3045_080101_gn.dgn PLOT DATE : 9/13/2021 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:10



PLAN



ELEVATION

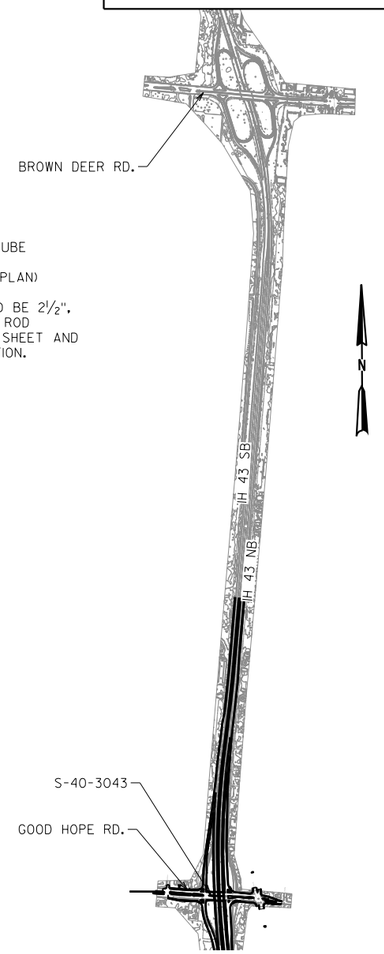
STA. 25GHW+94.40
(LOOKING UPSTATION AT FRONT OF SIGN)

LEGEND

- ☆ ELEVATIONS GIVEN ALONG ℄ MONOTUBE
- (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
- ◥ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.
- ← DIRECTION OF TRAFFIC

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 25GHW+95.07, 12.00' RT.
EL. 717.35



LOCATION MAP

STATE PROJECT NUMBER
1229-04-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3043

DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL LAYOUT
S-40-3043

SHEET 2 OF 4

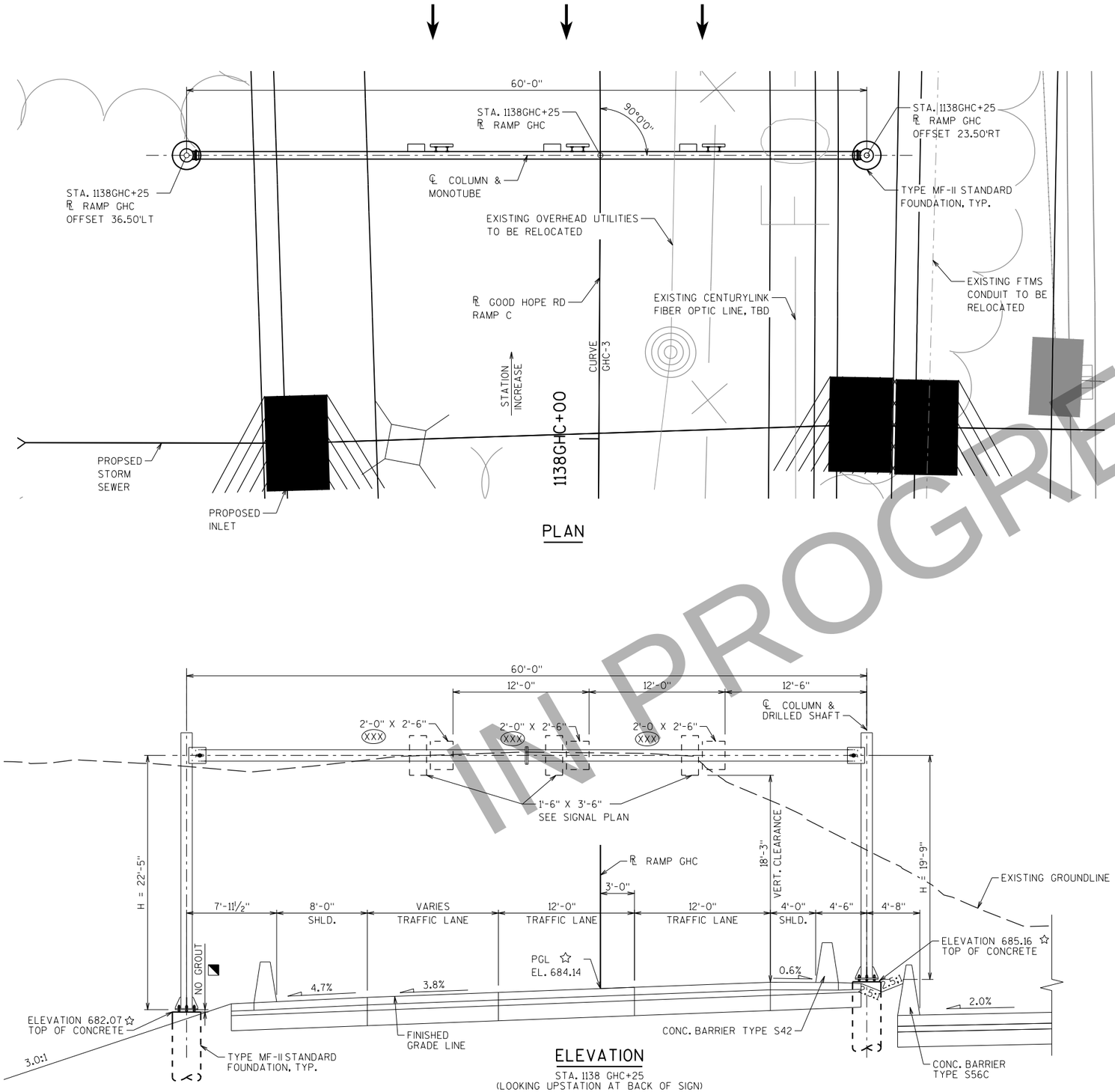
IN PROGRESS

8

8

STATE PROJECT NUMBER

1229-04-73



PLAN

ELEVATION

STA. 1138 GHC+25
(LOOKING UPSTATION AT BACK OF SIGN)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ MONOTUBE

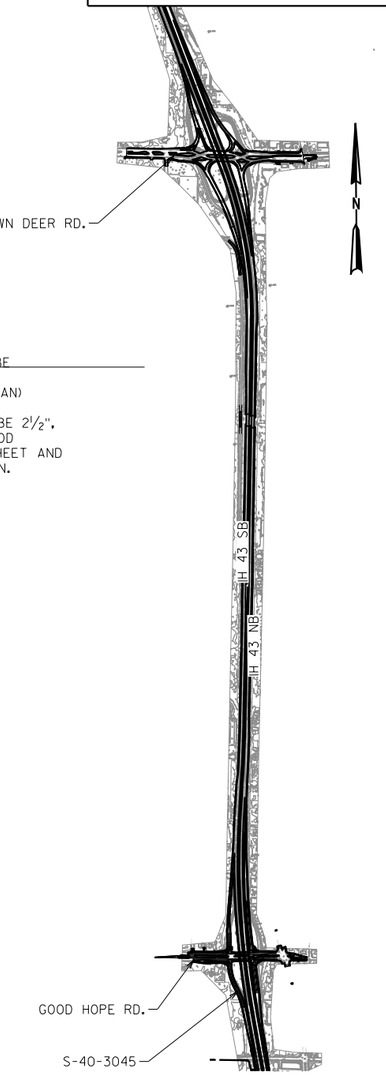
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

◥ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

← DIRECTION OF TRAFFIC

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1138+25.00, 15.00' RT.
EL. 684.70



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3045

DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL LAYOUT
S-40-3045

SHEET 3 OF 4

IN PROGRESS

8

8

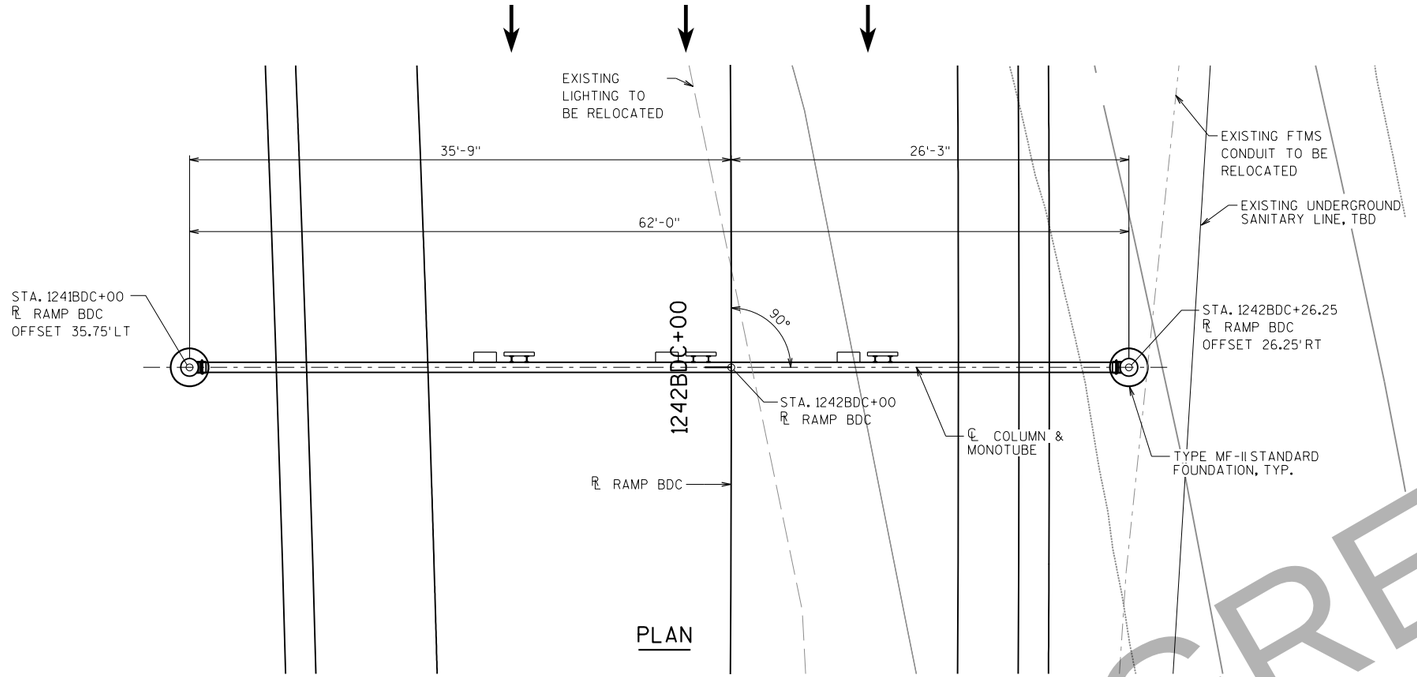
FILE NAME : c:\caddlib\pw\sconnolly\greatlakes\d0259983\S3045_080102_gp.dgn

PLOT DATE : 9/28/2021

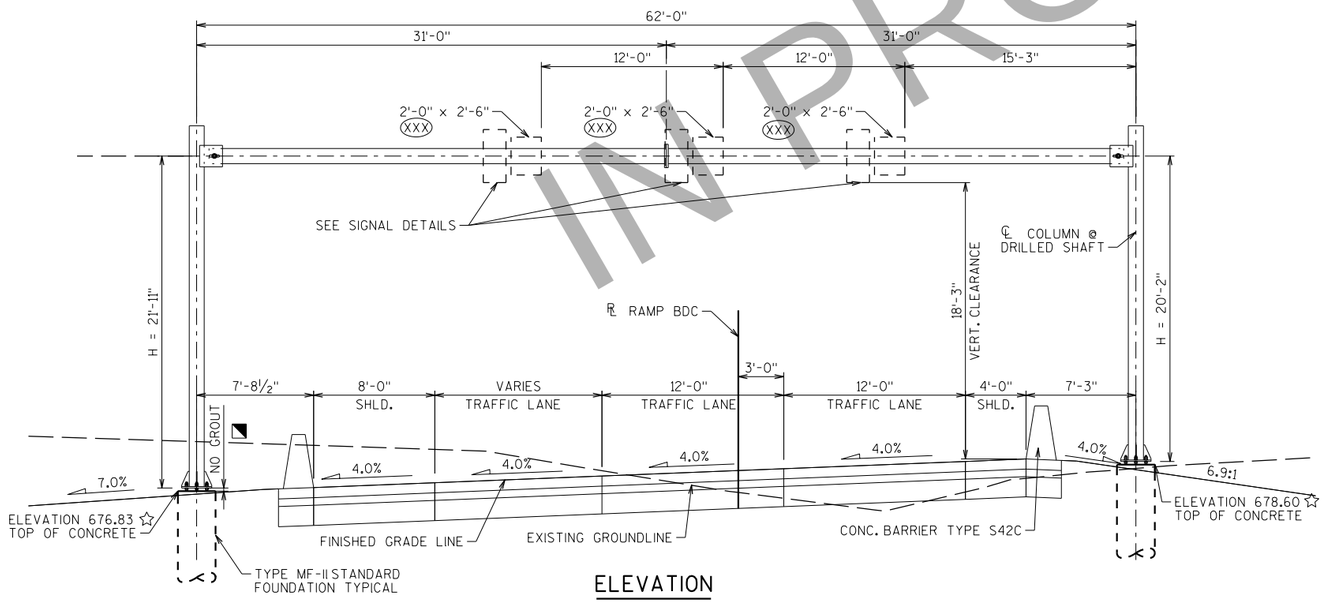
PLOT BY : sconnolly

PLOT NAME : $FILE$

PLOT SCALE : 1:10



PLAN



ELEVATION

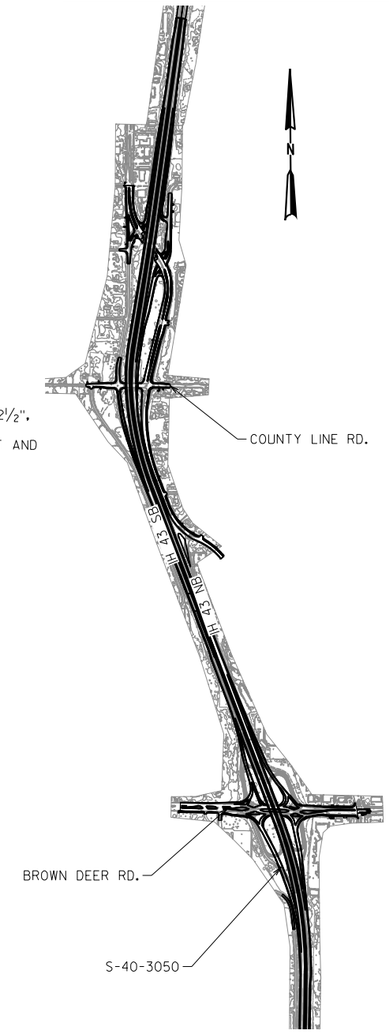
STA. 1242BDC+00
(LOOKING UPSTATION AT BACK OF SIGNS)

LEGEND

- ☆ ELEVATIONS GIVEN ALONG ℄ MONOTUBE
- (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
- ◥ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.
- ← DIRECTION OF TRAFFIC

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 1138+25.00, XX.XX'RT.
EL. XXX.XX



LOCATION MAP

STATE PROJECT NUMBER
1229-04-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3050

DRAWN BY	SMC	PLANS CK'D.	MHZ

GENERAL LAYOUT
S-40-3050

SHEET 4 OF 4

IN PROGRESS

8

STATE PROJECT NUMBER
1229-04-73

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3052	18 SF	6'-0"	TYPE III
S-40-3053	18 SF	6'-0"	TYPE III

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

STANDARD FOUNDATIONS DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)
	1.0 GVW (GALLOPING -CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ---------- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 48-INCH".

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES, DESIGN DATA & QUANTITIES
2. GENERAL LAYOUT S-40-3052
3. GENERAL LAYOUT S-40-3053

LIST OF OSS STANDARD DESIGN DRAWINGS

4. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
5. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
6. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATION DETAILS

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
HEATHER ANDERS (414) 410-6899

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-40-3052	S-40-3053
531.2048	DRILLING SHAFT 48-INCH	LF	23	23
531.5330	FOUNDATION SINGLE-SHAFT TYPE TC-III S-40-3052	EACH	1	--
531.5330	FOUNDATION SINGLE-SHAFT TYPE TC-III S-40-3053	EACH	--	1
532.5330	TRUSS CANTILEVER 2-CHORD TYPE III S-40-3052	EACH	1	--
532.5330	TRUSS CANTILEVER 2-CHORD TYPE III S-40-3053	EACH	--	1

STRUCTURE	CATEGORY
S-40-3052	OXXO
S-40-3053	OXXO

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E. WISCONSIN AVE. #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

2-CHORD TRUSS CANTILEVER PLANS

CANTILEVER SPAN SIGN STRUCTRES
BROWN DEER RD.

COUNTY	VILLAGE
MILWAUKEE	RIVER HILLS OR BAYSIDE

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	RAB	NNM

GENERAL NOTES, DESIGN DATA & QUANTITIES

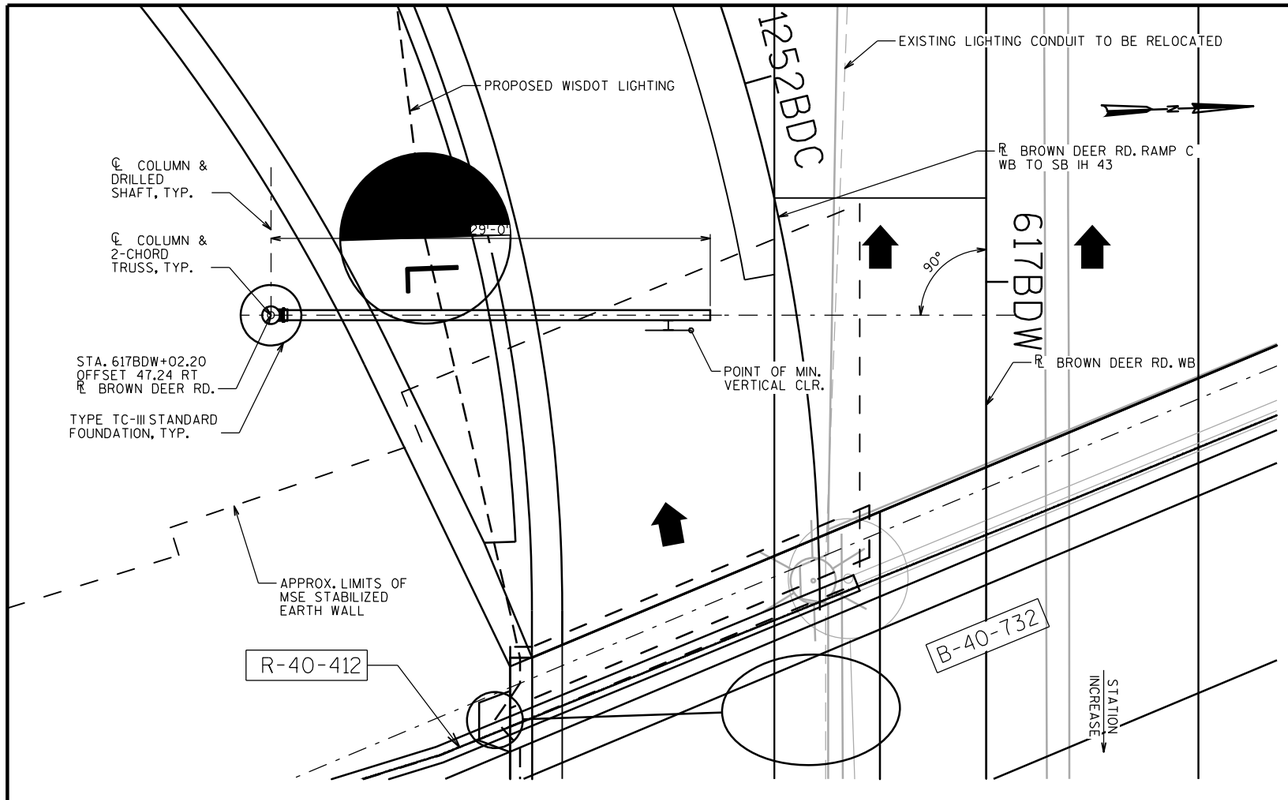
SHEET 1 OF 6

8

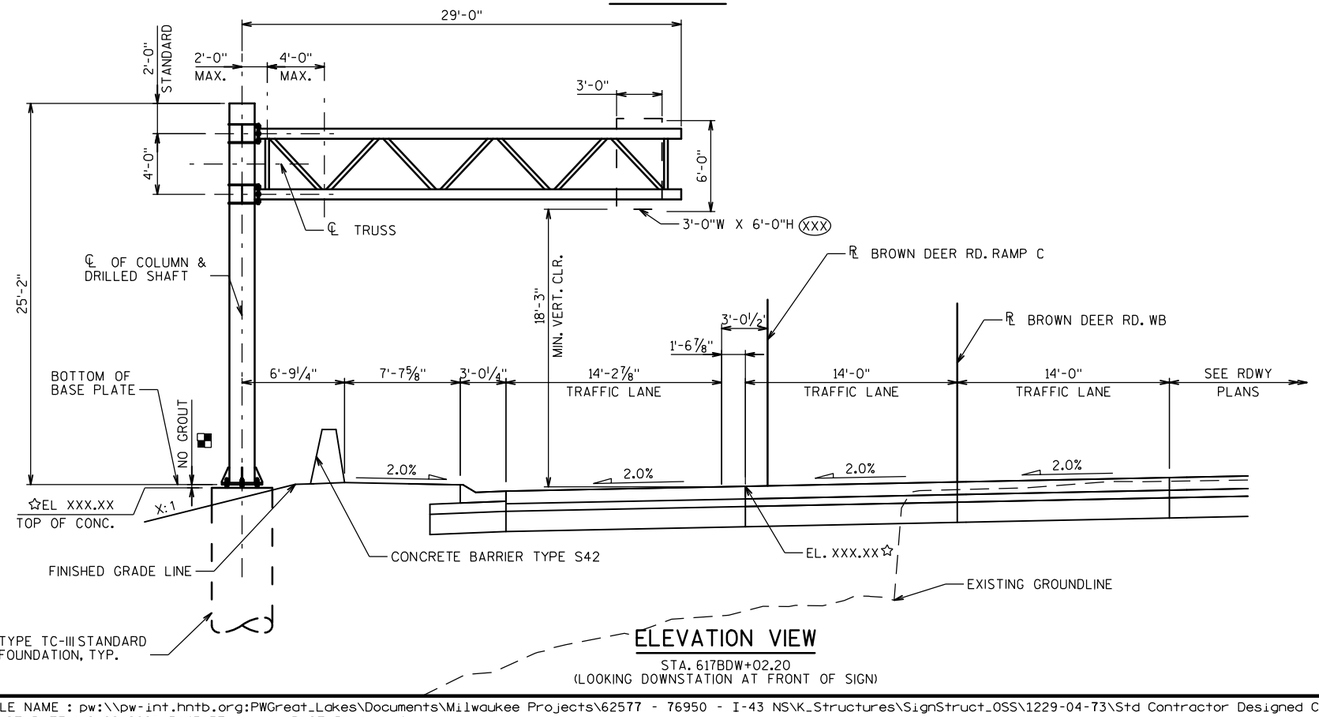
8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Cantilever 2-Chord (2)\cds\S-40-3052_53_101_gn.dgn
PLOT DATE : 9/16/2021 11:04:40 PM PLOT BY : ejelinek
PLOT SCALE : 1:1

STATE PROJECT NUMBER
1229-04-73



PLAN VIEW



ELEVATION VIEW

STA. 617BDW+02.20
(LOOKING DOWNSTATION AT FRONT OF SIGN)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 617BDW+03.20, 19.50' RT.
EL. XXX.XX
(1'-0" ASSUMED OFFSET FROM ℄ OF CHORD TO SIGN PLATE)

TRAFFIC VOLUME

A.D.T. (2045) = 29,270
R.D.S. = 40 MPH

LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3052

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3052

SHEET 2 OF 6

FOR 1078 SUBMITTAL

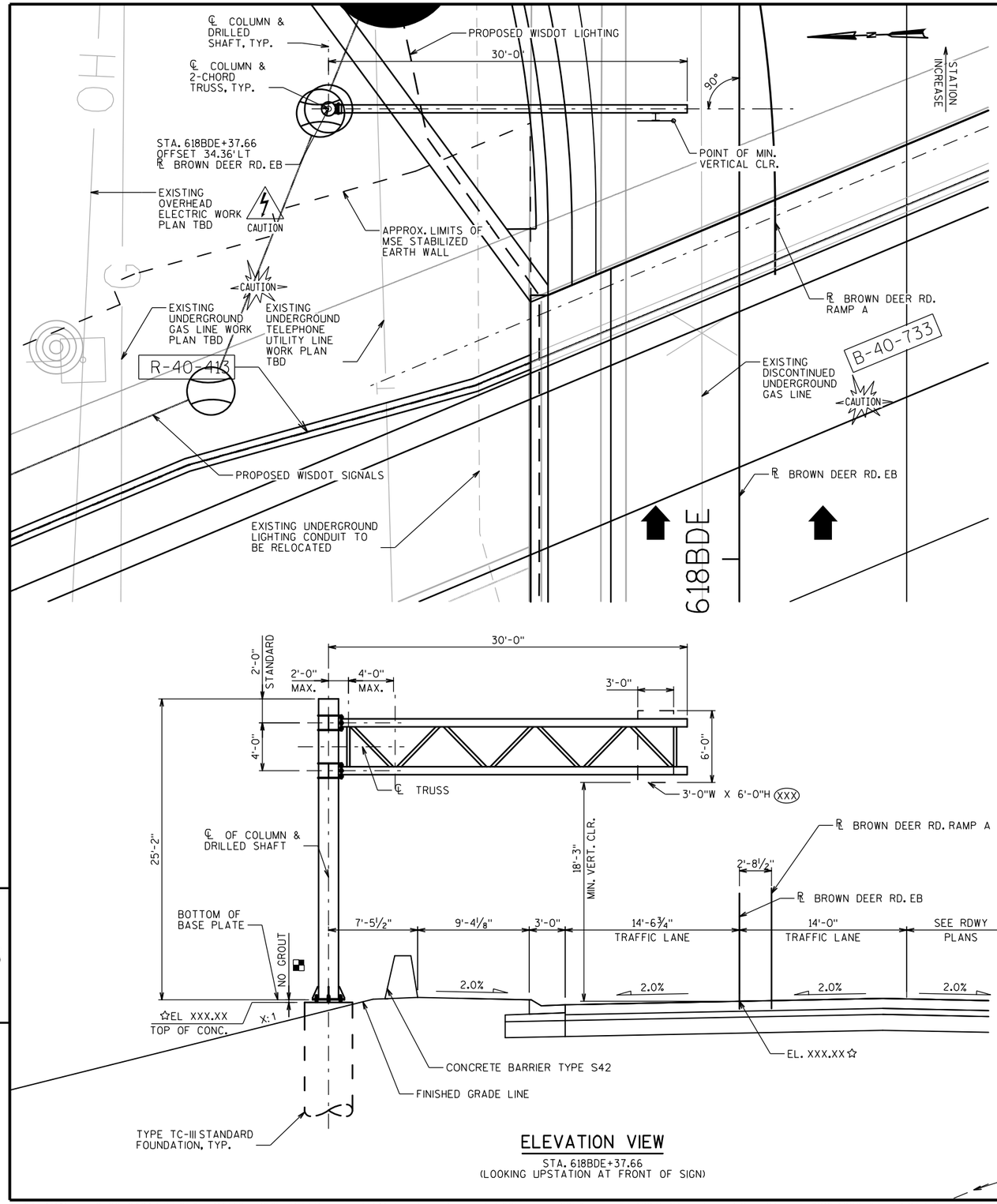
8

8

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Cantilever 2-Chord (2)\cds\S-40-3052_102_gp.dgn
PLOT DATE : 9/29/2021 3:45:37 AM PLOT BY : ejelinek

PLOT SCALE : 10:1

STATE PROJECT NUMBER
1229-04-73



ELEVATION VIEW

STA. 618BDE+37.66
(LOOKING UPSTATION AT FRONT OF SIGN)

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

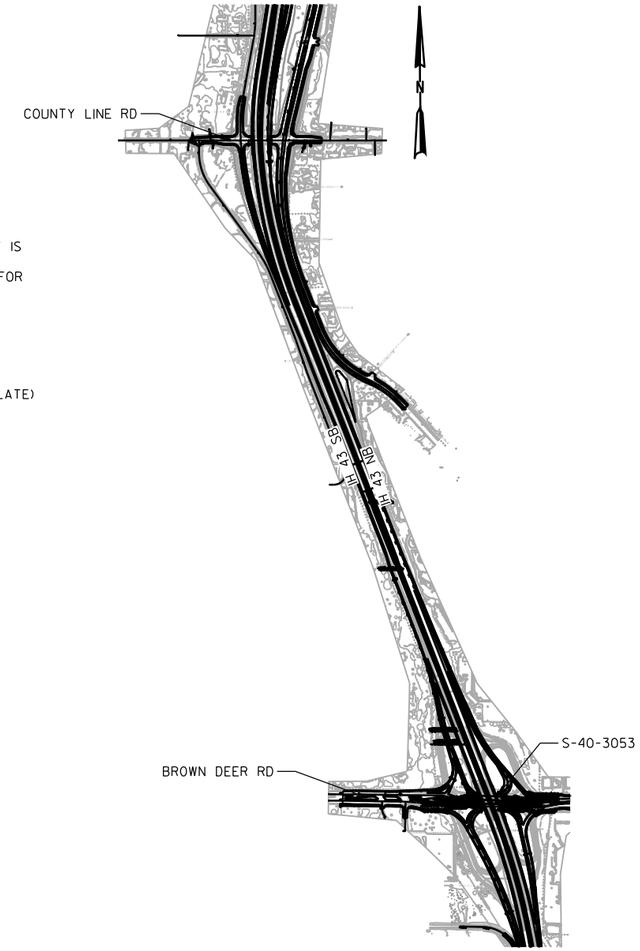
■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 618BDE+36.66, 5.50'LT.
EL. XXX.XX
(1'-0" ASSUMED OFFSET FROM ℄ OF CHORD TO SIGN PLATE)

TRAFFIC VOLUME

A.D.T. (2045) = 21,064
R.D.S. = 40 MPH



LOCATION MAP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3053

DRAWN BY RAB | PLANS CK'D. NNM

GENERAL LAYOUT
S-40-3053

SHEET 3 OF 6

FOR 1078 SUBMITTAL

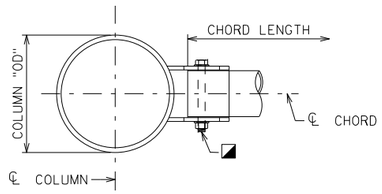
8

8

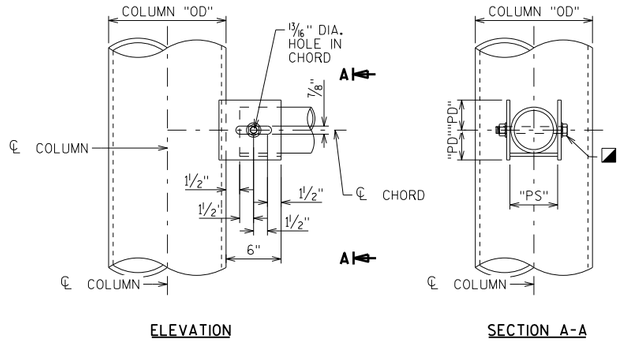
PLOT NAME : p:\29\2021\356505\PWCreditOffice\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\K_Structures\SignStruct_OSS\1229-04-73\Std Contractor Designed Cantilever 2-Chord (2)\cds\S-40-3053_103_gp.dgn
PLOT DATE : 9/29/2021 3:56:05 AM PLOT BY : ejelinek
PLOT SCALE : 10:1

STATE PROJECT NUMBER

STANDARD



PLAN



ELEVATION SECTION A-A

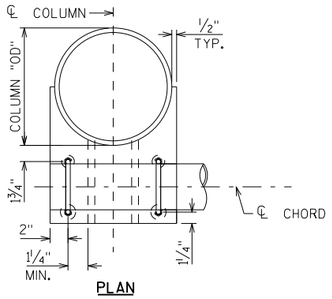
FULL SPAN SADDLE CONNECTION

PREFERRED

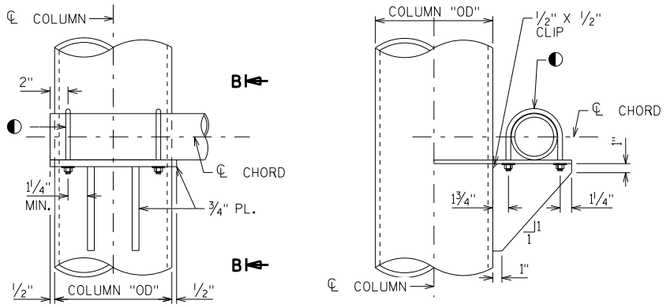
¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT, WASHER

"PD" = (CHORD "OD")/2 + ¾"

"PS" = CHORD "OD" + 3/16"



PLAN

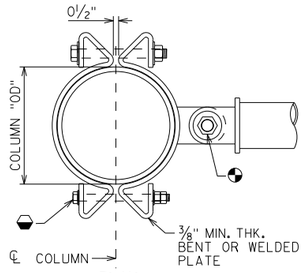


ELEVATION SECTION B-B

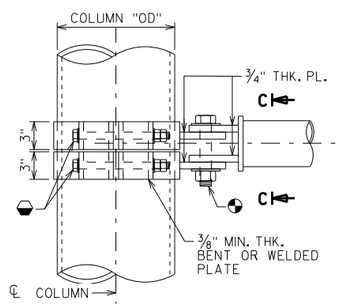
FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

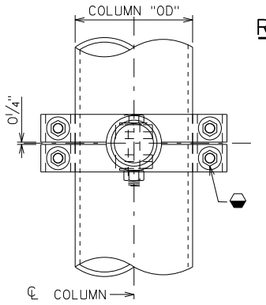
◐ (2) - ½" MIN. GALVANIZED U-BOLT, NUT, WASHER AND LOCK WASHER



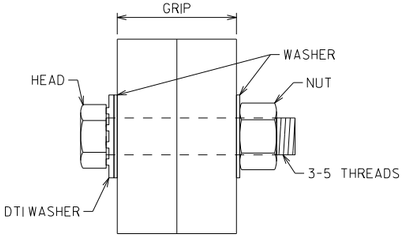
PLAN



ELEVATION



SECTION C-C



RECOMMENDED BOLT DETAIL WITH DTI

NUT IS THE TURNED ELEMENT

FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

◓ 1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

⬣ 1" GALVANIZED A449 HEAVY HEX BOLT, NUT AND WASHER

COLUMN/CHORD CAP DETAIL

* PLACE TACK EVERY OTHER FLAT TO SECURE NUT OR USE ½" THICK PLATE AND TAP HOLE FOR BOLT THREADS

CHORD SPLICE DETAIL

"D1" = CHORD "OD" + 3"

"D2" = CHORD "OD" + 6"

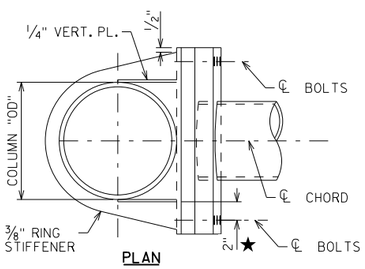
"T" = BY DESIGN

CHORD CAP DETAIL

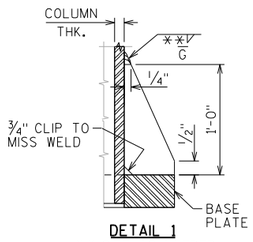
NOTES:

MINIMUM VALUES SHOWN

ALL CONNETIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURE LOADS.

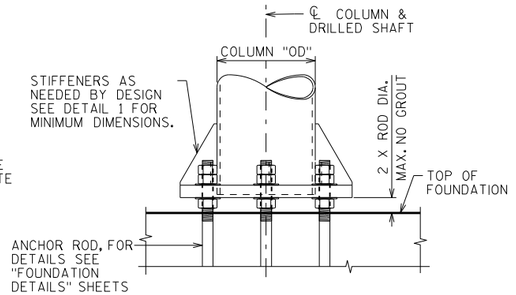


PLAN



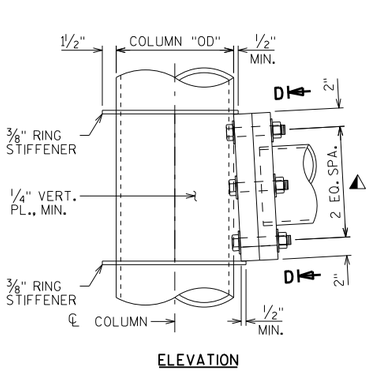
DETAIL 1

** SIZE AS NEEDED

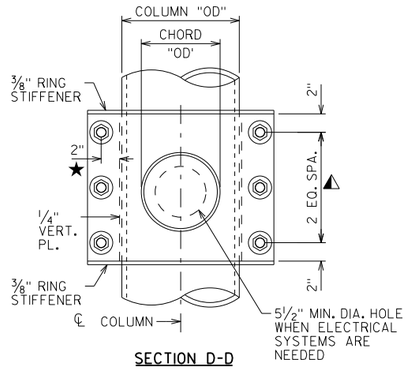


BASE PLATE & COLUMN DETAIL

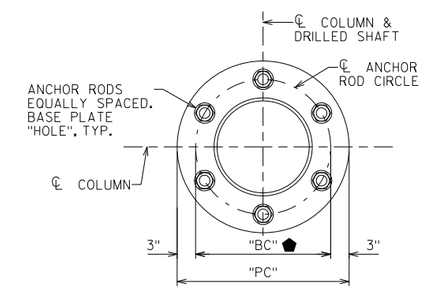
LOOKING AT FRONT FACE OF STRUCTURE



ELEVATION



SECTION D-D



BASE PLATE

PLAN

⬟ "BC" = POLE OD + 6"

CANTILEVER POST TO CHORD CONNECTION

◭ MIN. CONNECTION = (6) - 1" GALVANIZED F3125 GRADE A325 BOLTS, NUT, WASHER AND DTI

★ MIN. DIMENSION MEASURED FROM EXT. FACE OF VERT. PLATE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY: BOS | PLANS CK'D.: BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 1

SHEET 1 OF IV

SCALE = 1.00

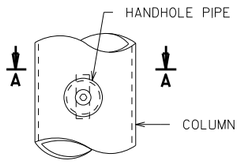
8

8

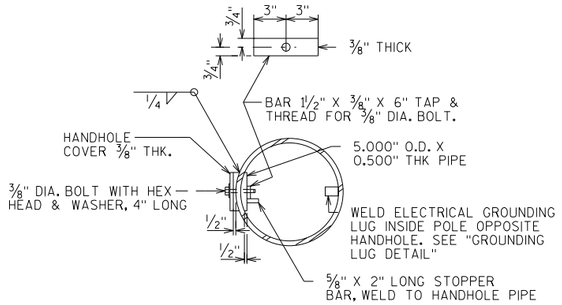
FOR 1078 SUBMITTAL

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

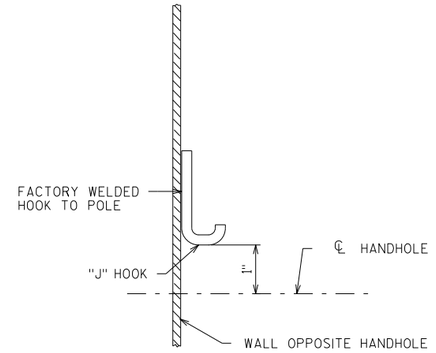


SECTION A-A

HANDHOLE NOTES

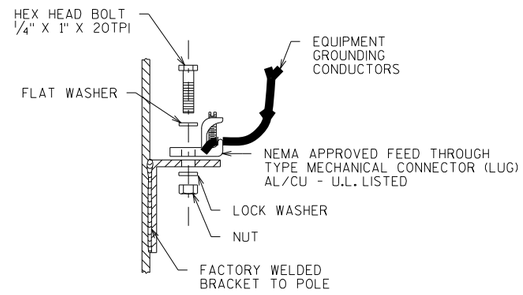
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



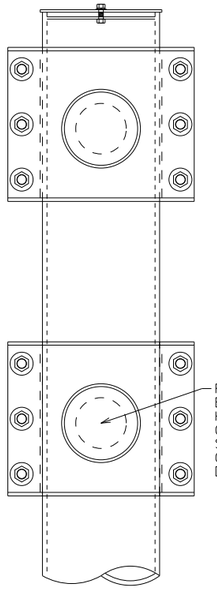
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

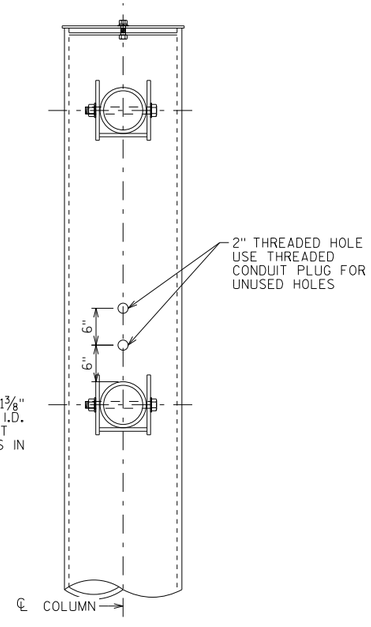


GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



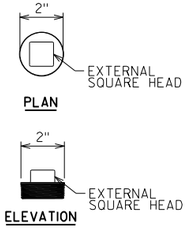
2-CHORD CANTILEVER



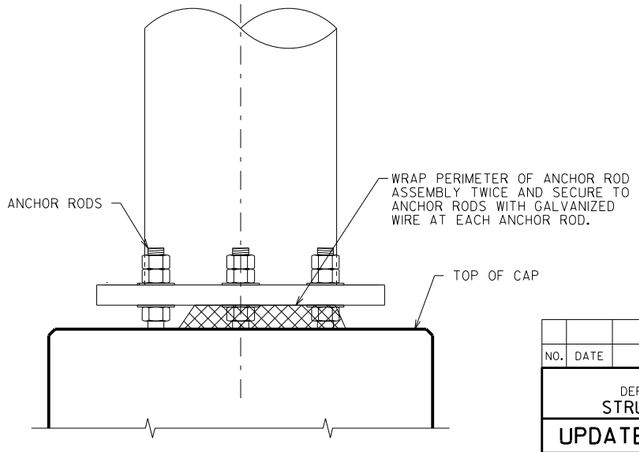
2-CHORD FULL SPAN

SADDLE CONNECTIONS SHOWN, BEARING AND CLAMP CONNECTIONS SIMILAR

CONDUIT HOLE LOCATIONS



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III OF IV

SCALE = 1.00

8

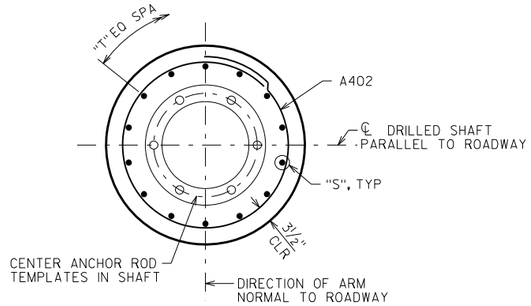
8

STATE PROJECT NUMBER

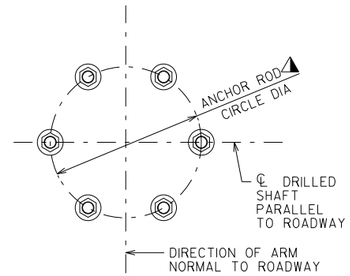
STANDARD

FOUNDATION & REINFORCING DATA

STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
MFI	2'-0"	12'-0"	12	A801	6	12"
MFII	2'-6"	13'-0"	13	A801	10	17"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	17"
TCI	3'-0"	18'-0"	18	A801	14	22"
TFII	3'-0"	20'-0"	20	A801	14	22"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	28"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	28"
TCIII	4'-0"	23'-0"	23	A1001	14	34"
TCIV	4'-0"	28'-0"	28	A1001	14	34"



PLAN



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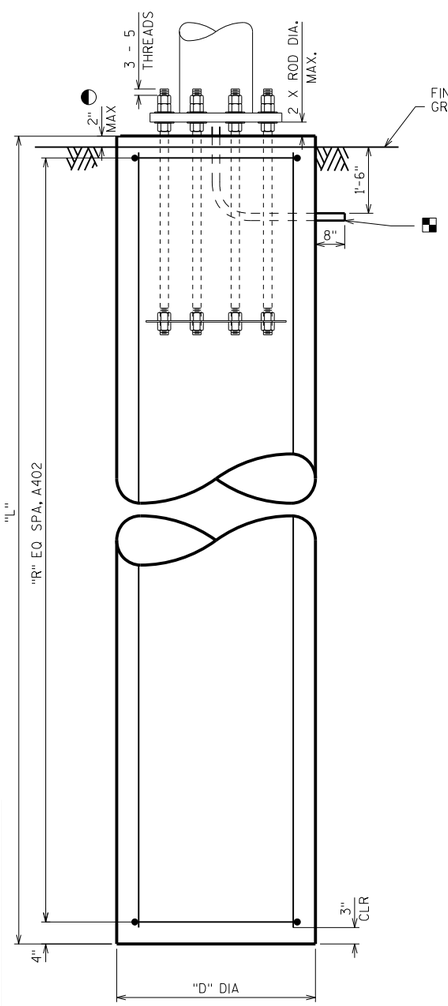
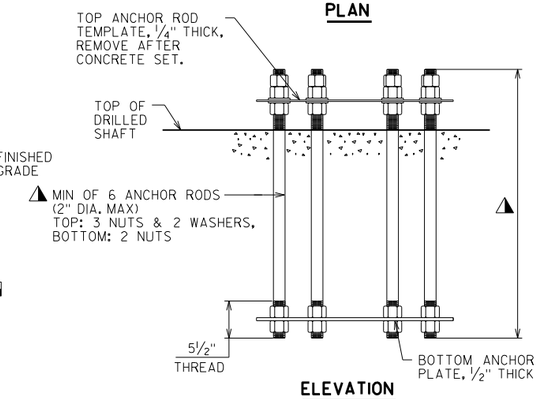


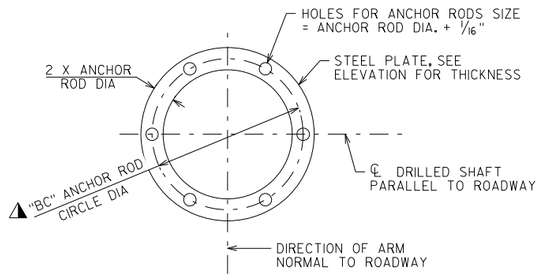
ELEVATION



ELEVATION

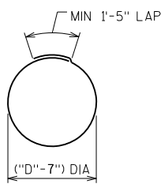
ANCHOR ROD ASSEMBLY DETAILS

⚠ ANCHOR ROD NUMBER, DIAMETER, LENGTH & ORIENTATION AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN



A402

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD FOUNDATIONS

STANDARD FOUNDATION MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-7"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-7"			DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-7"			DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-7"			DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-7"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)				
			24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
MFI	2	240	12				
MFII	3	410		13			
MCI/MCII/TFI	4	540		17			
TCI	5	780			18		
TFII	6	860			20		
MCIII/TCII/TFIII	7	970				18	
MCIV/TFIV	9	1,250				23	
TCIII	11	1,560					23
TCIV	13	1,900					28

✳✳ QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

◐ FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

◪ 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

FOR 1078 SUBMITTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV OF IV

SCALE = 1.67

8

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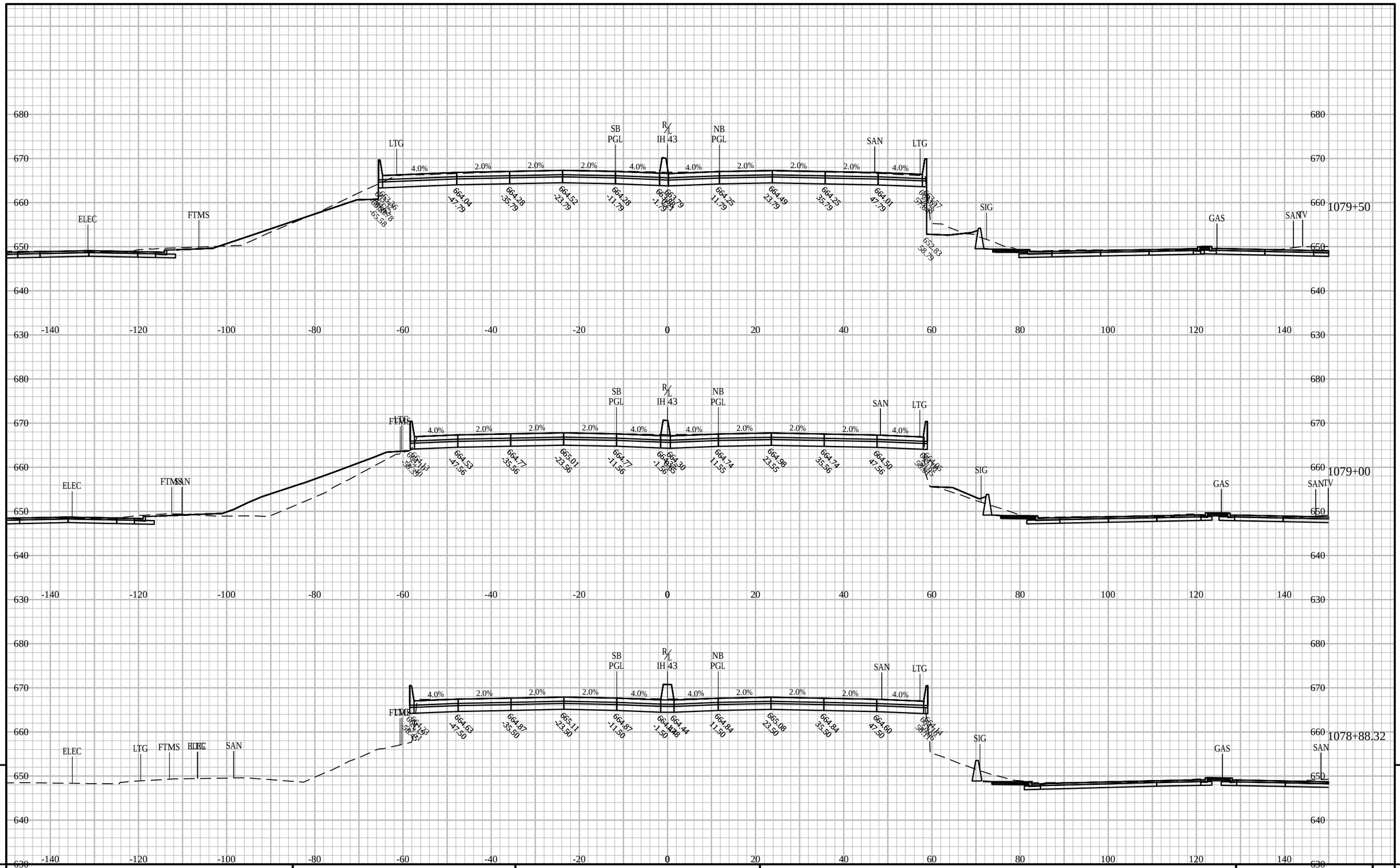

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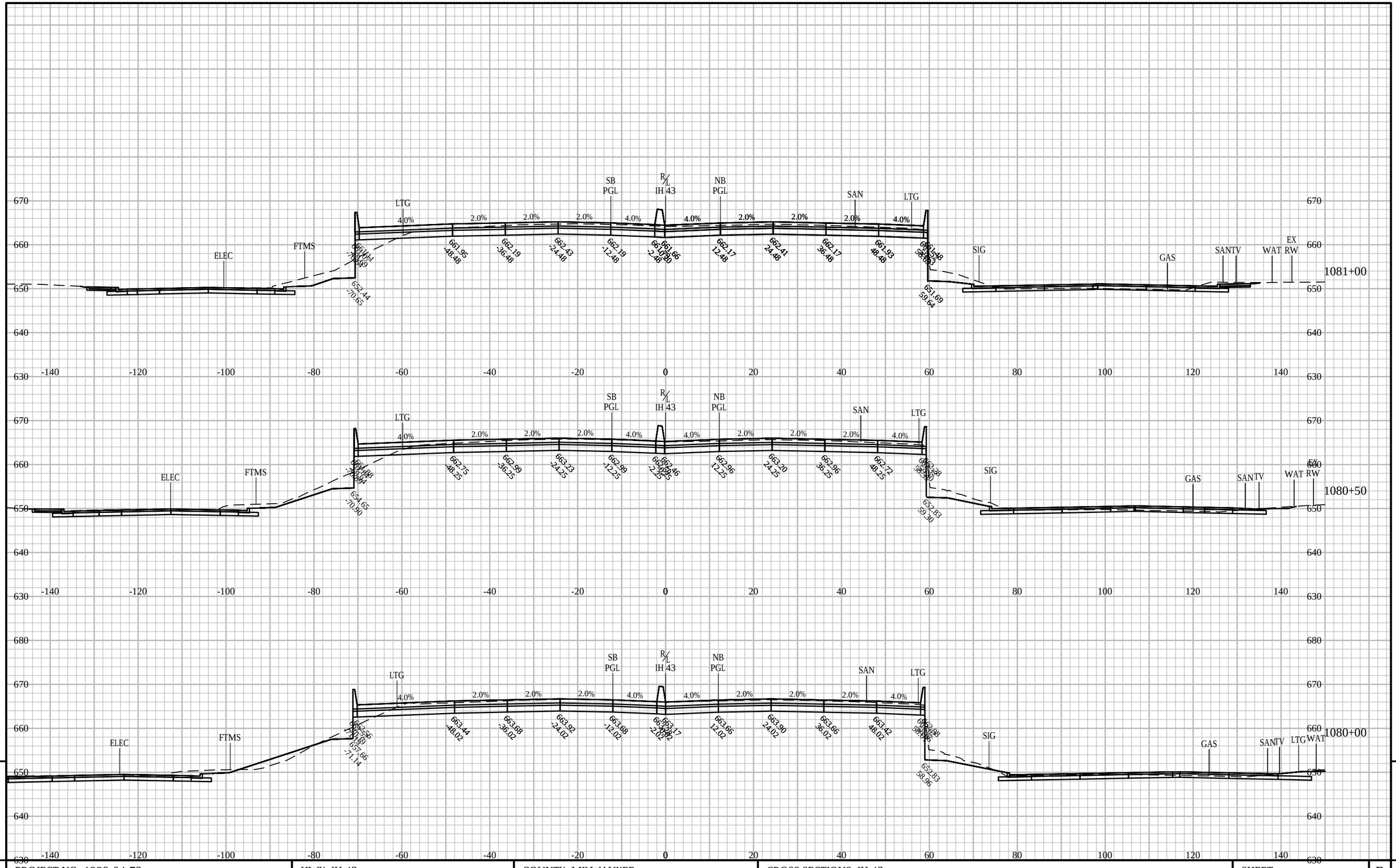
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:38 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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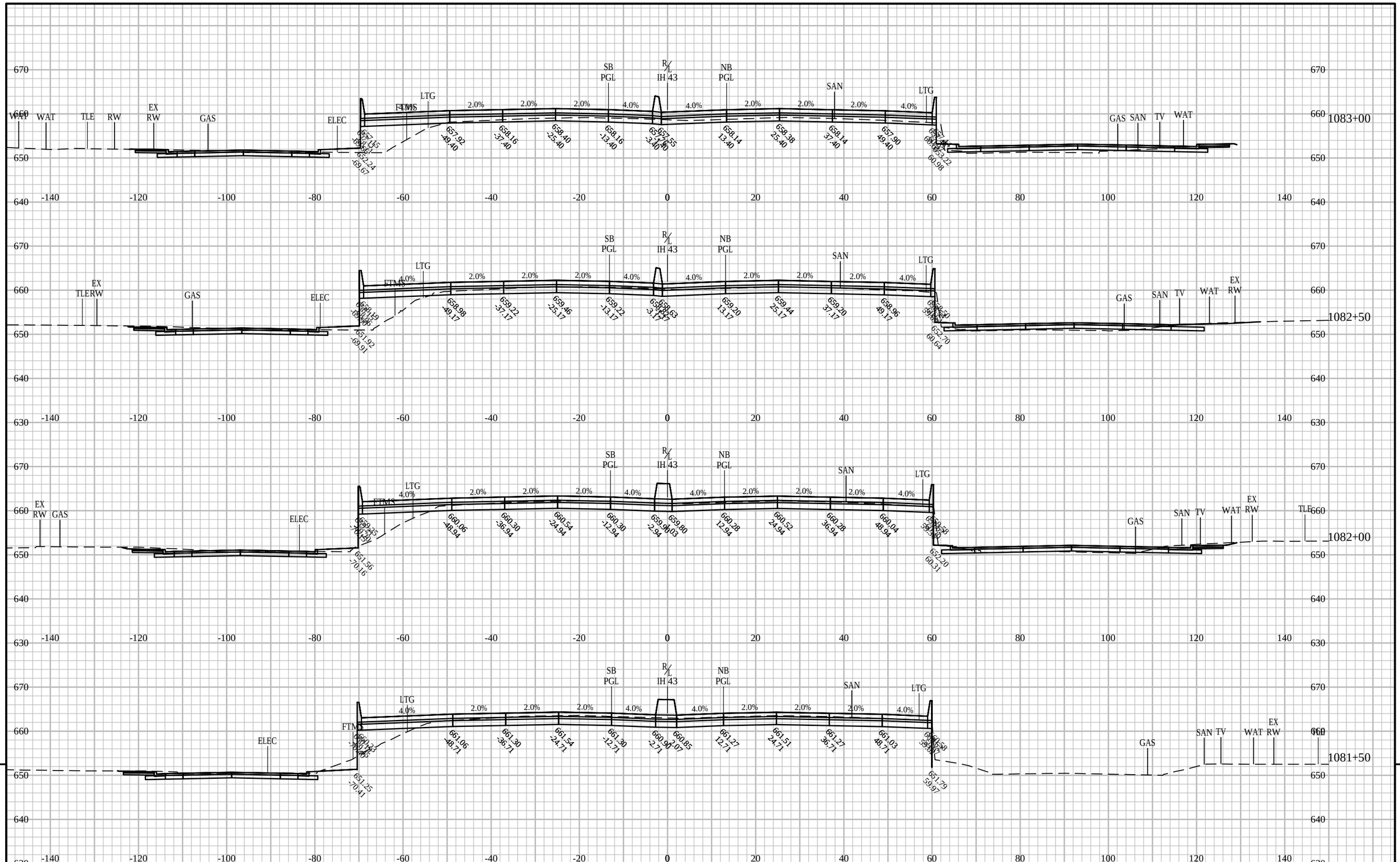

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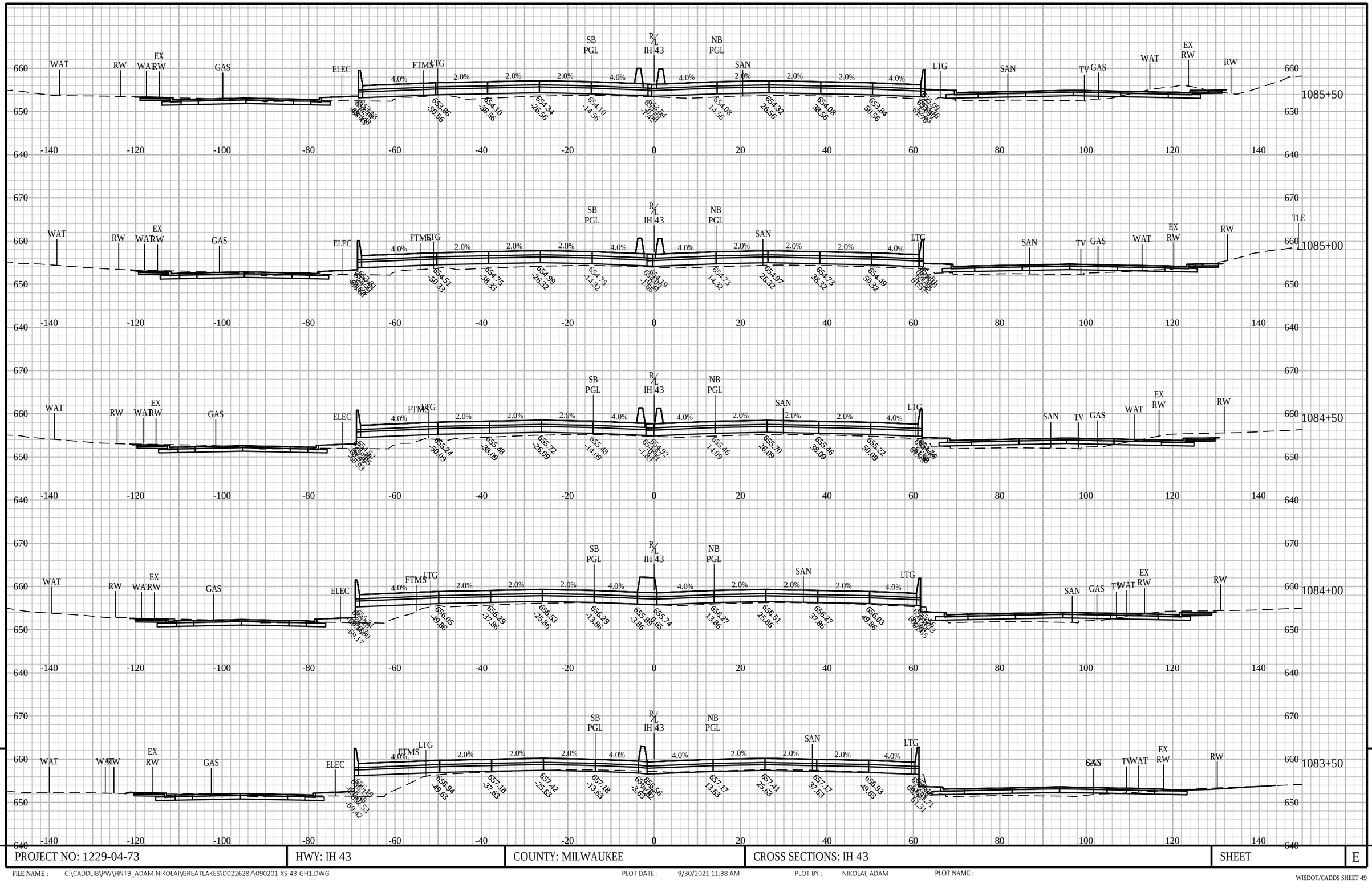

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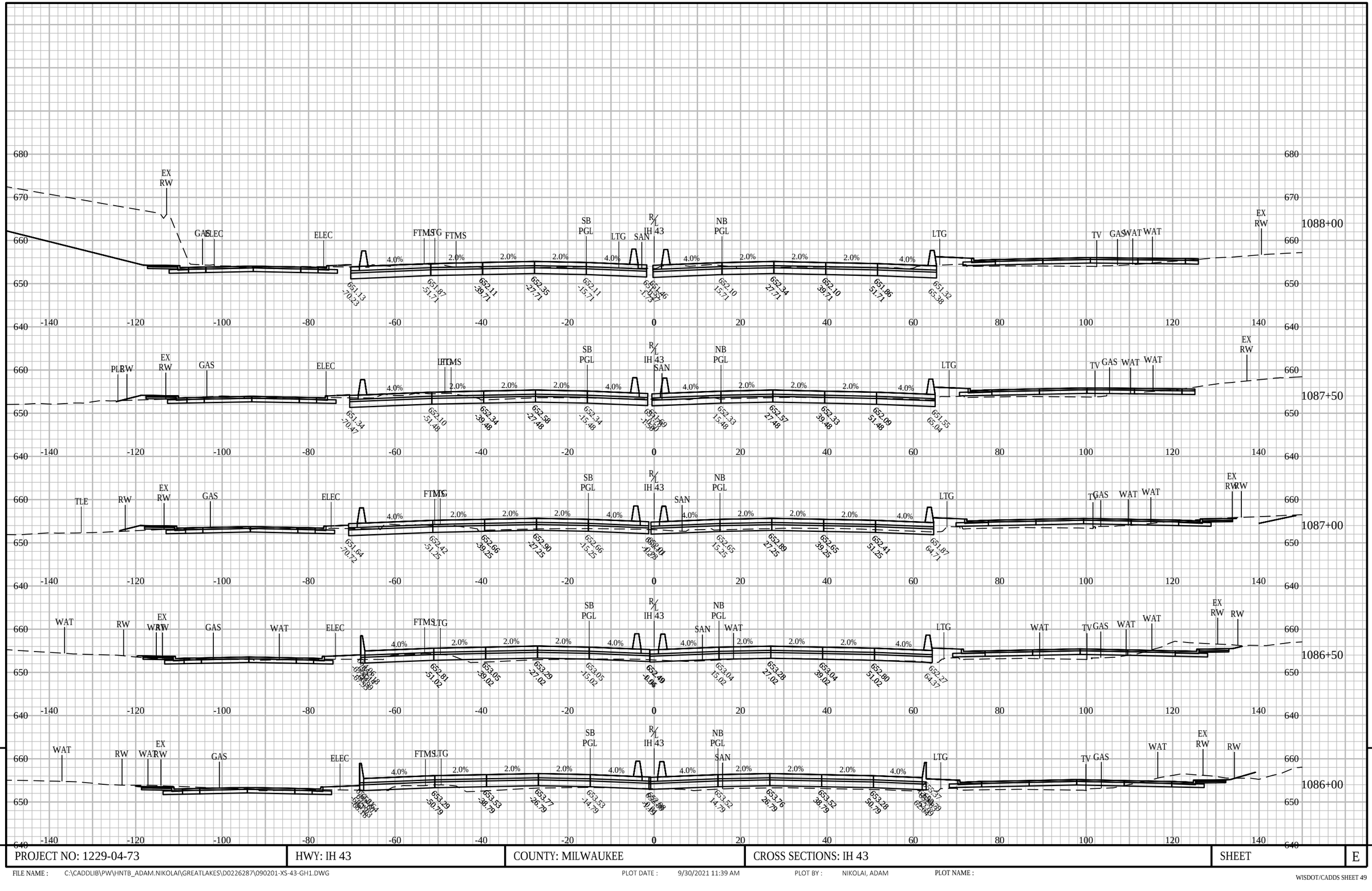

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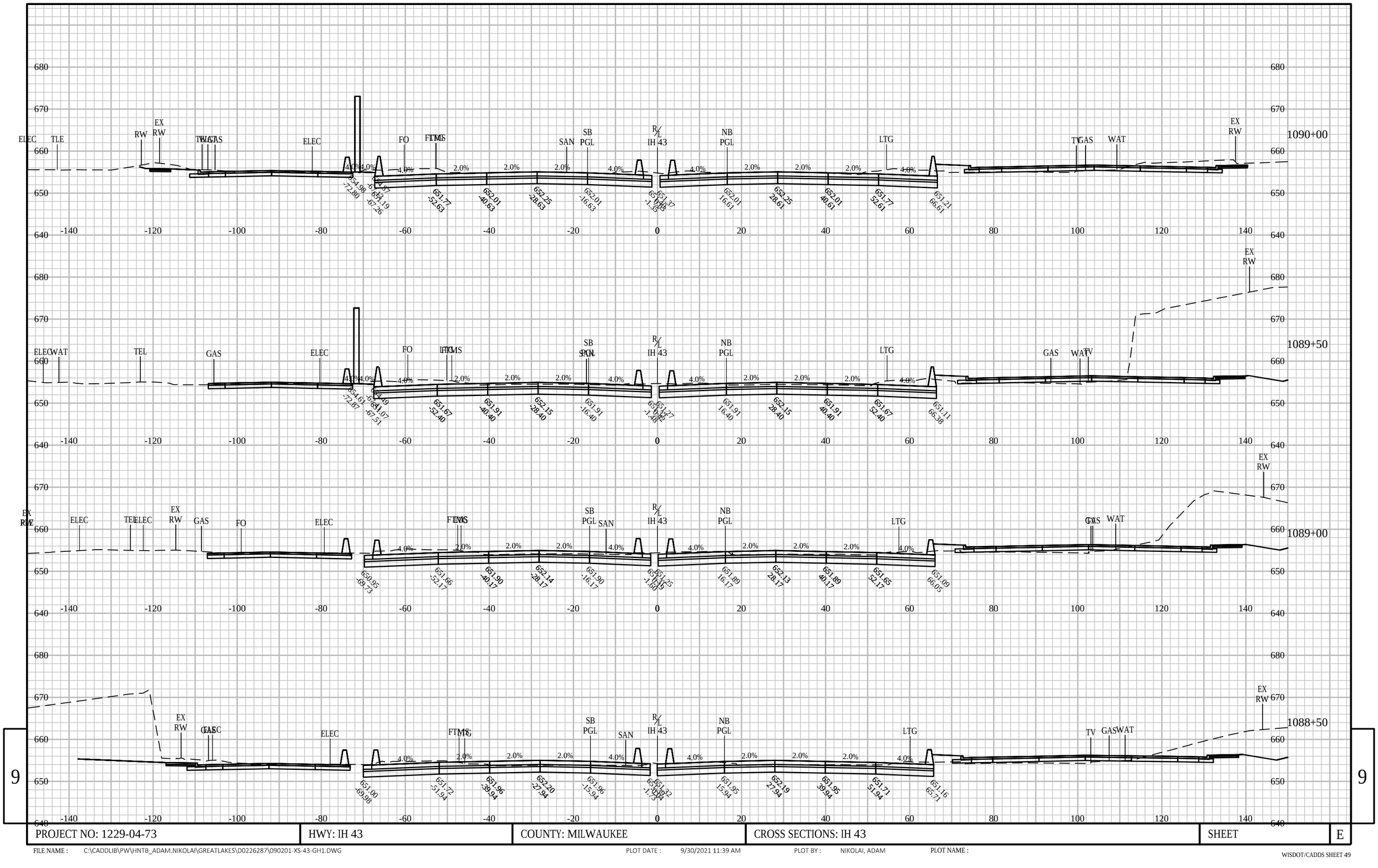

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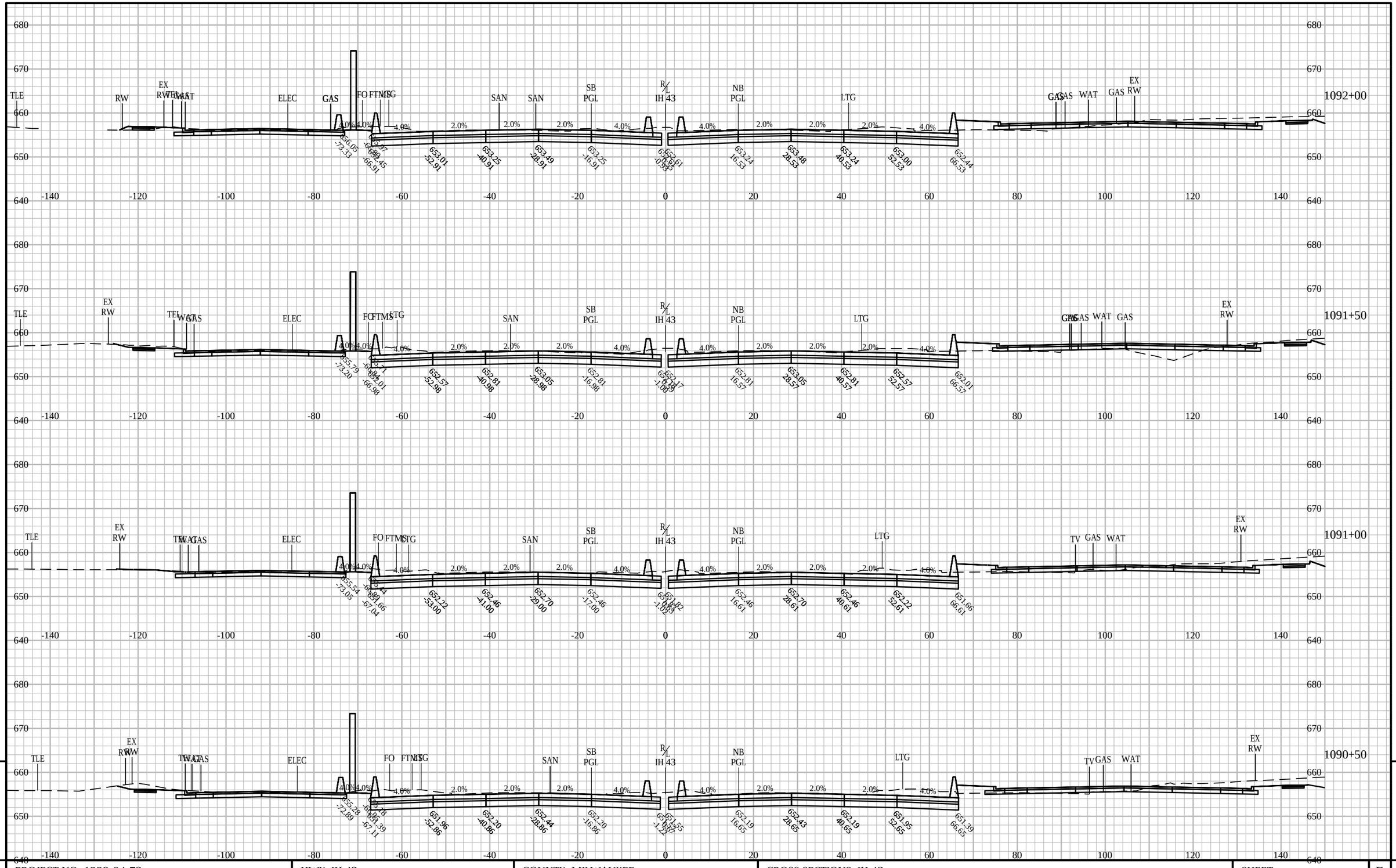

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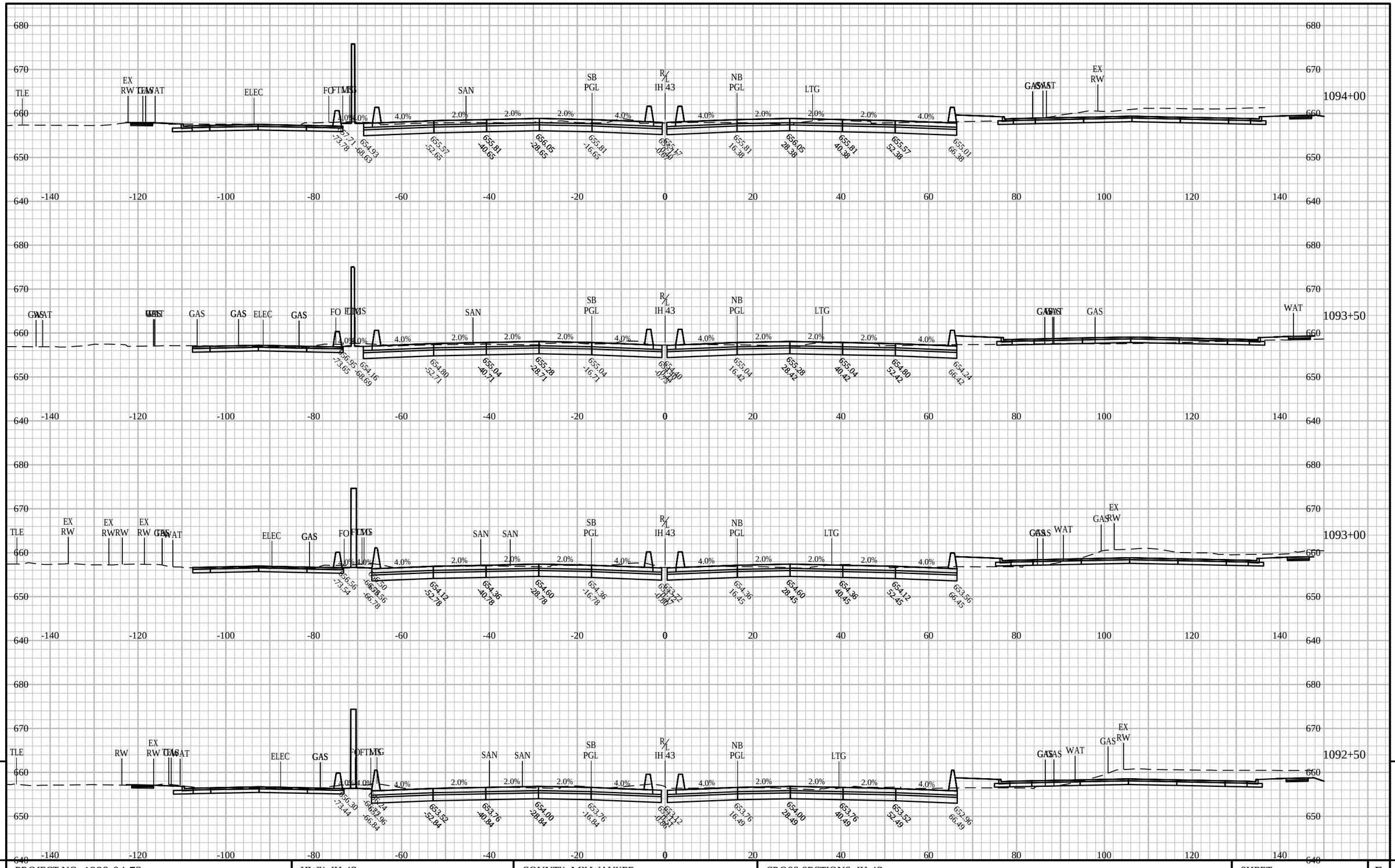

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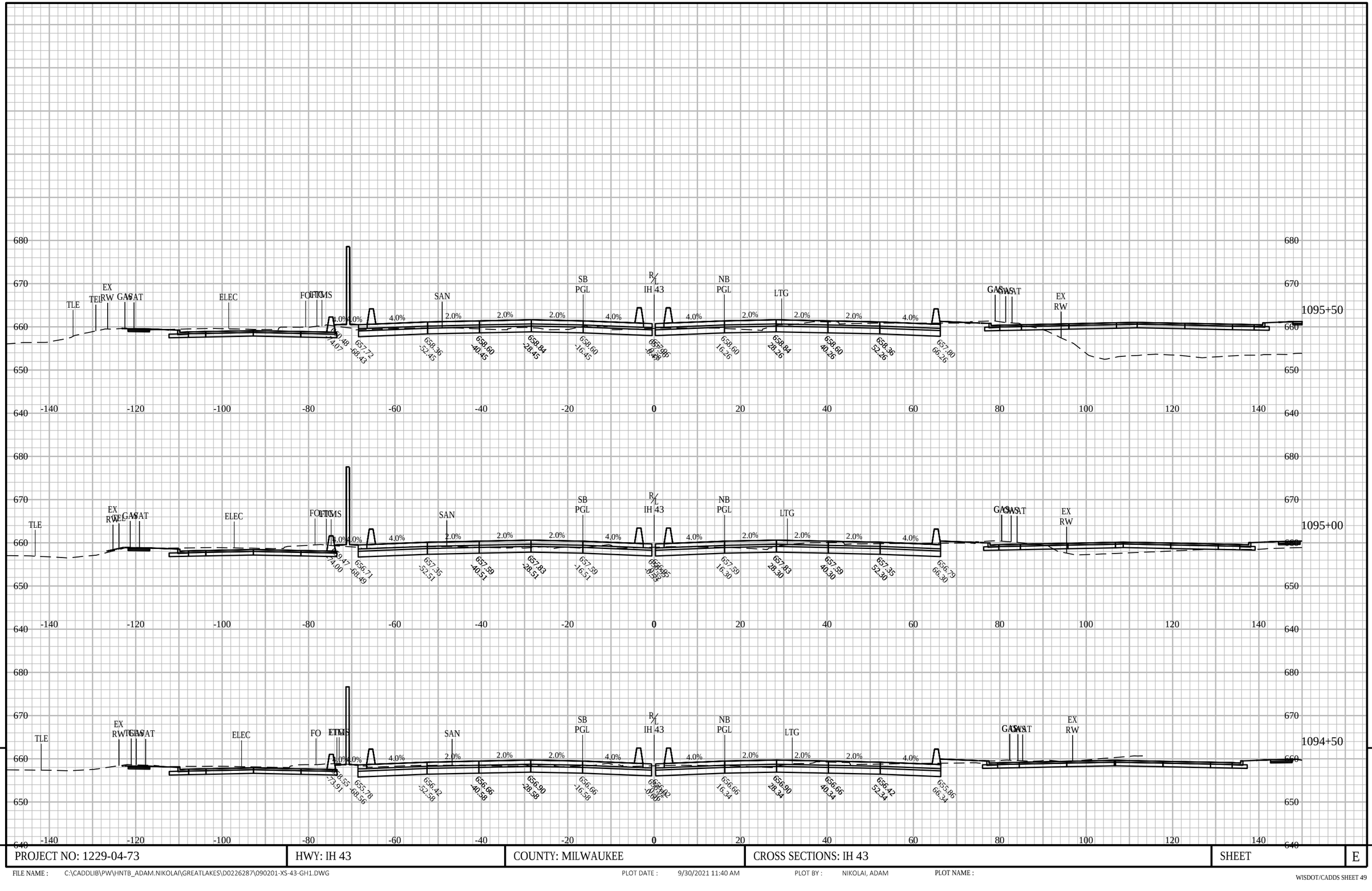

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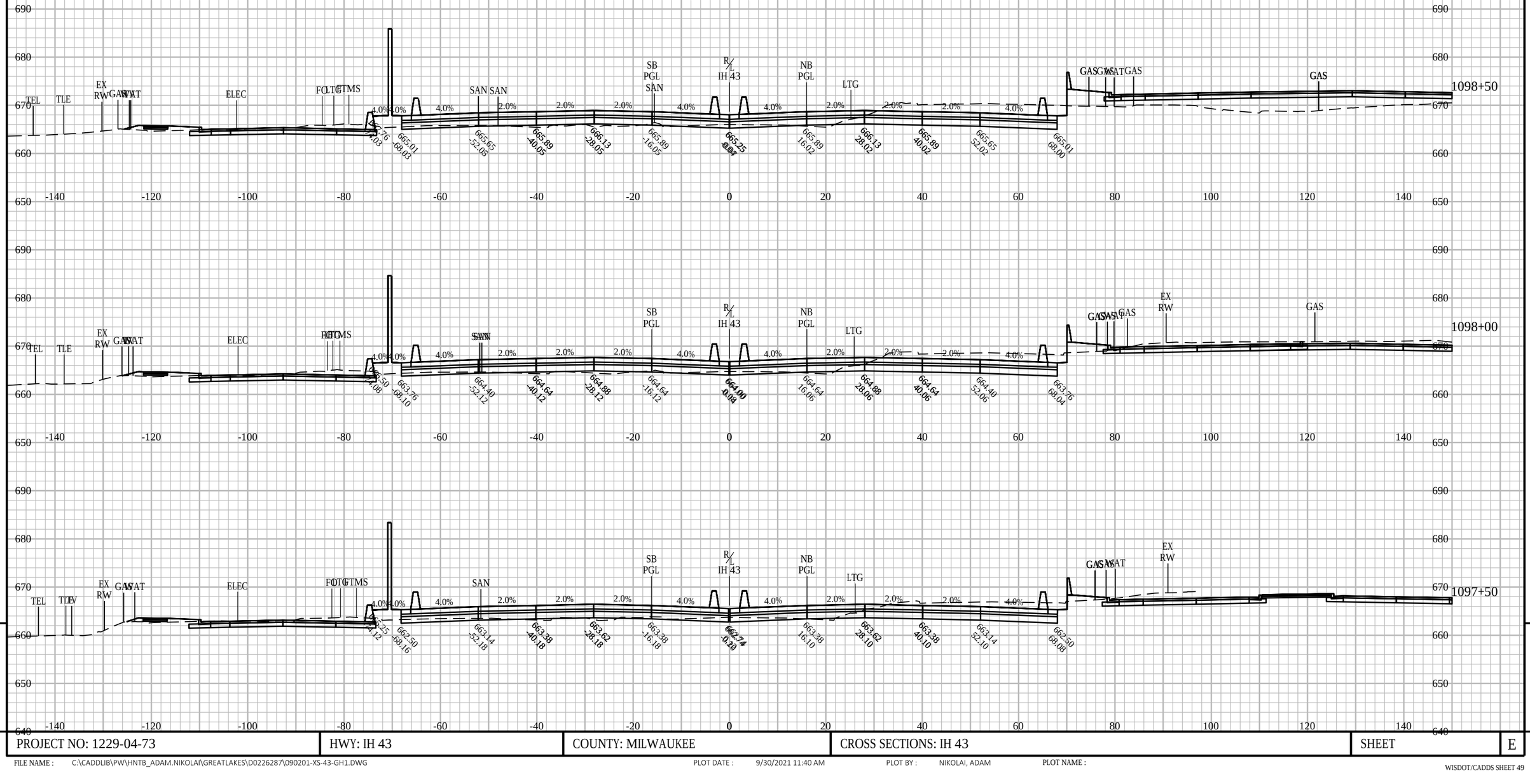

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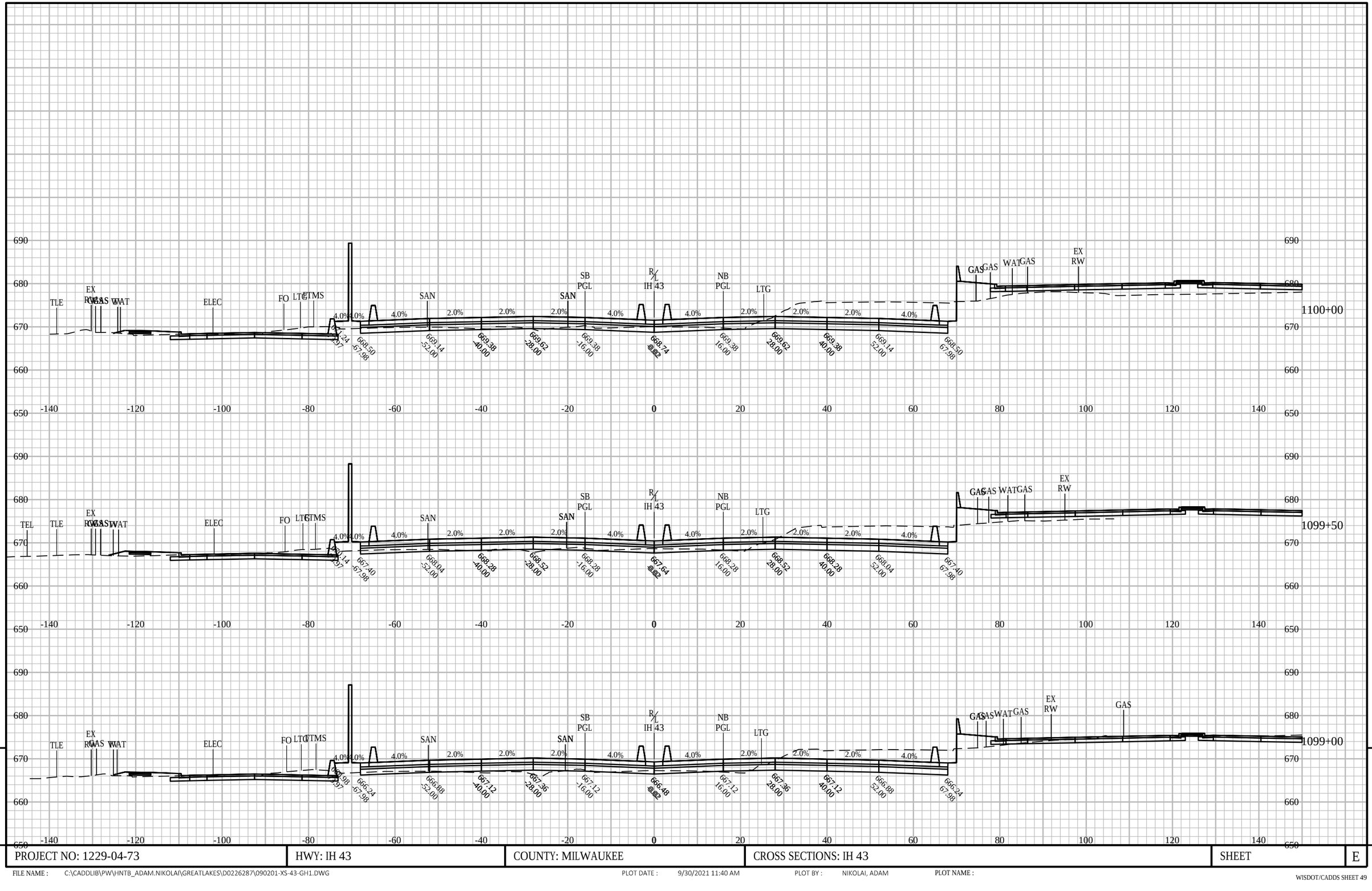

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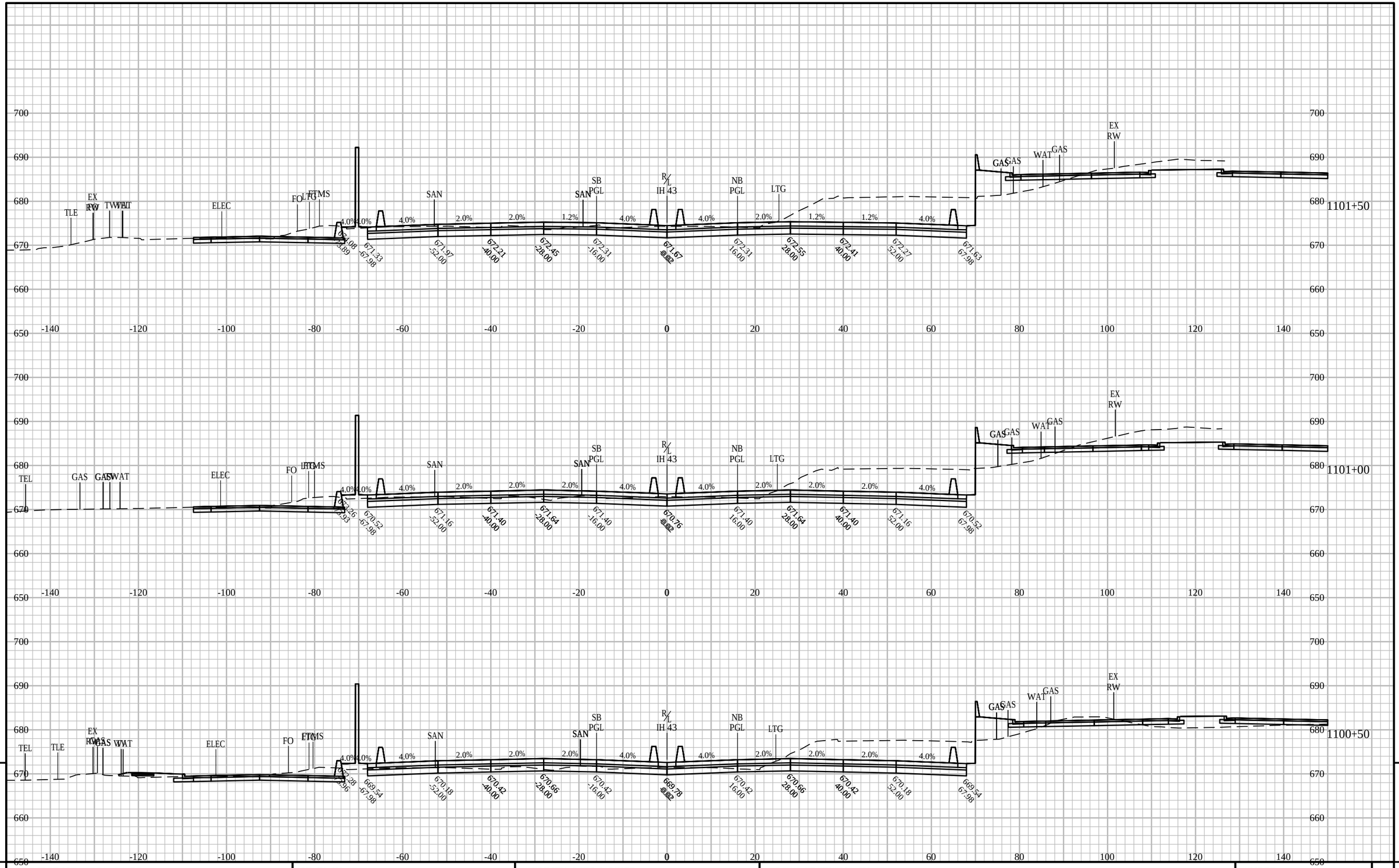

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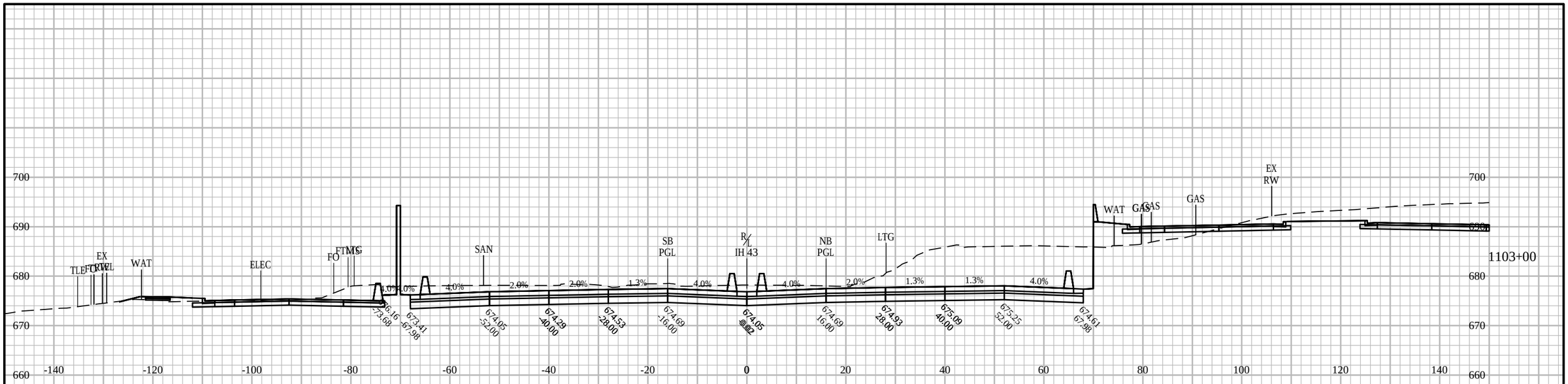

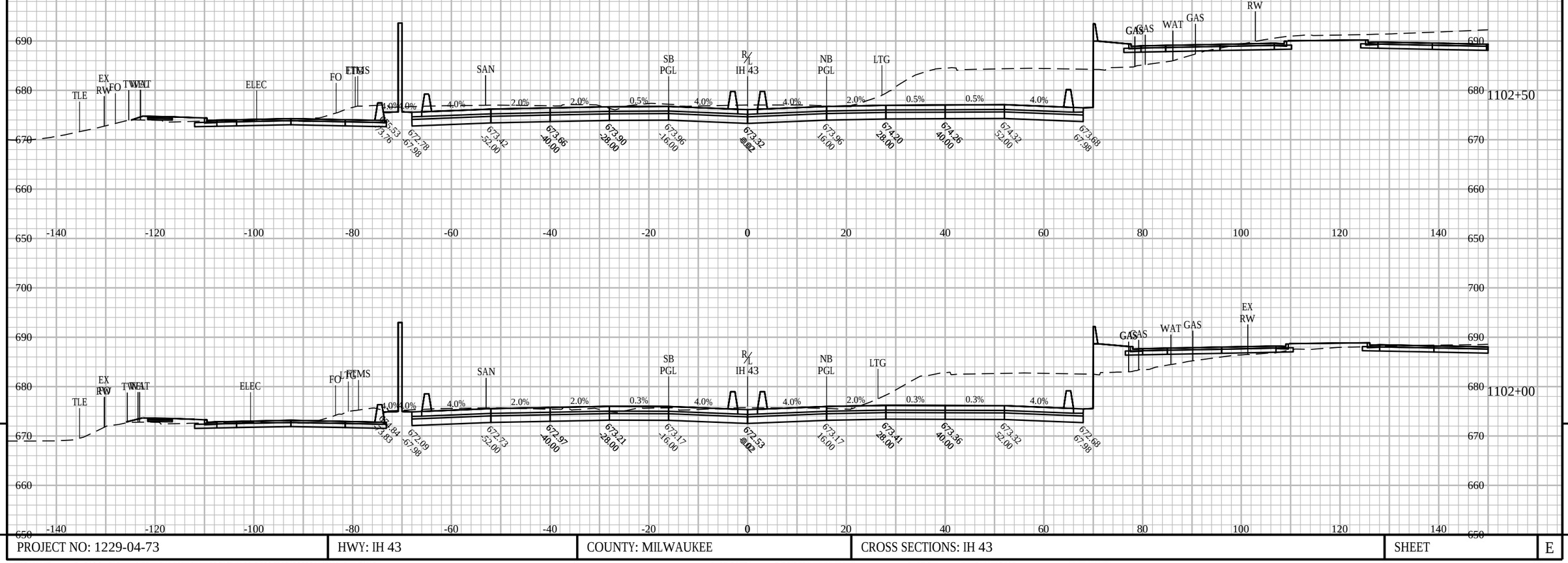

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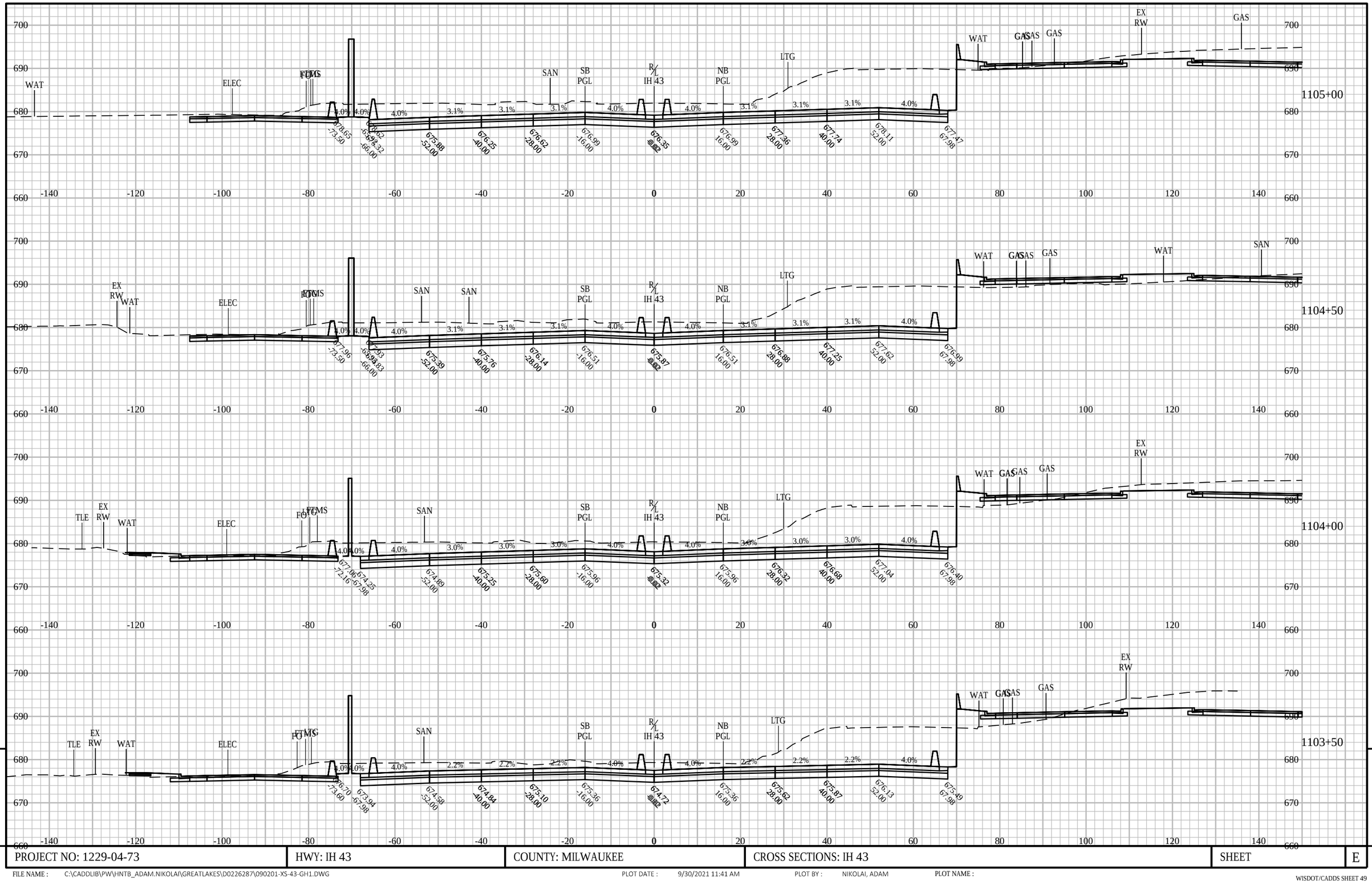

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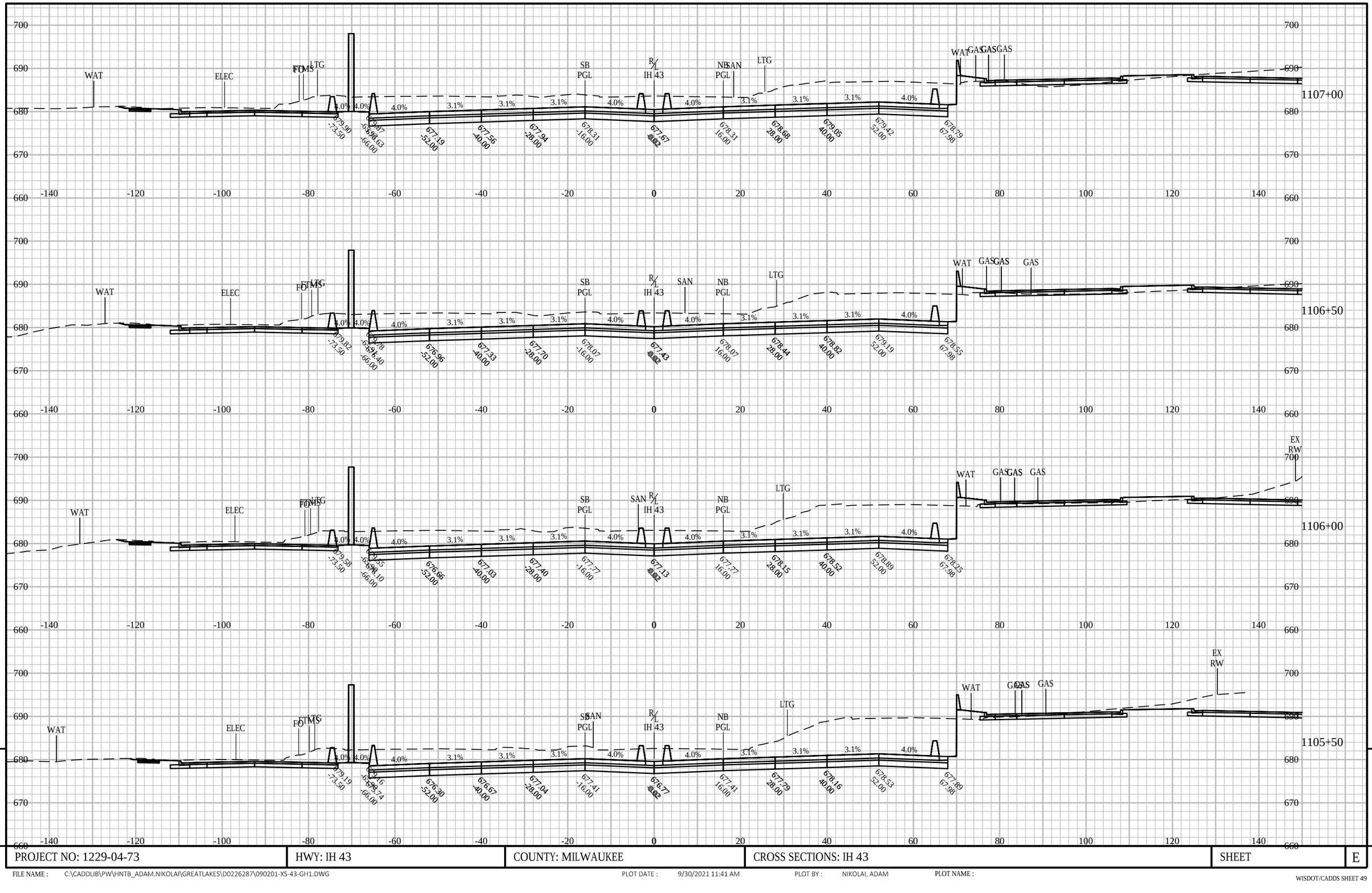

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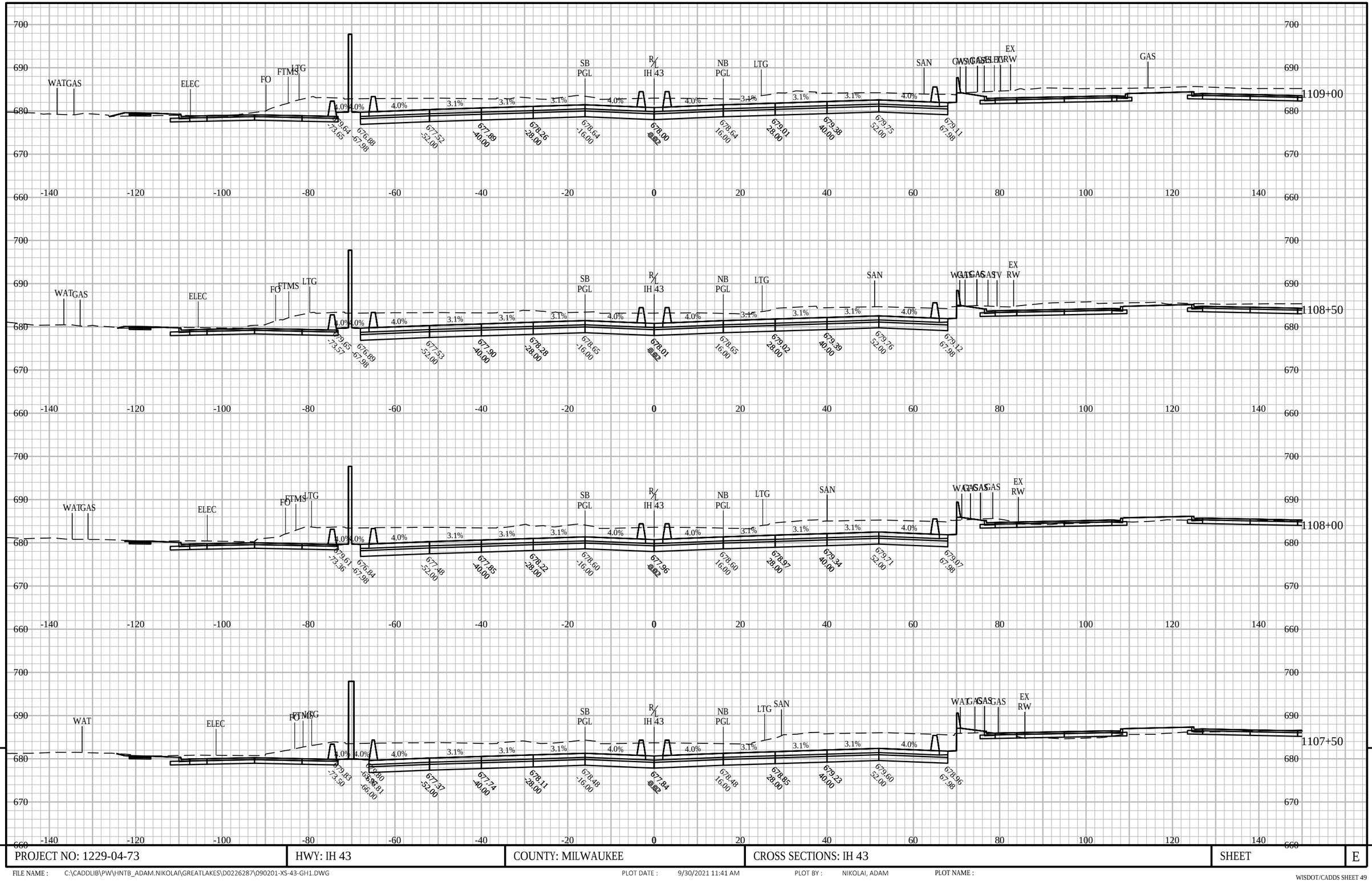

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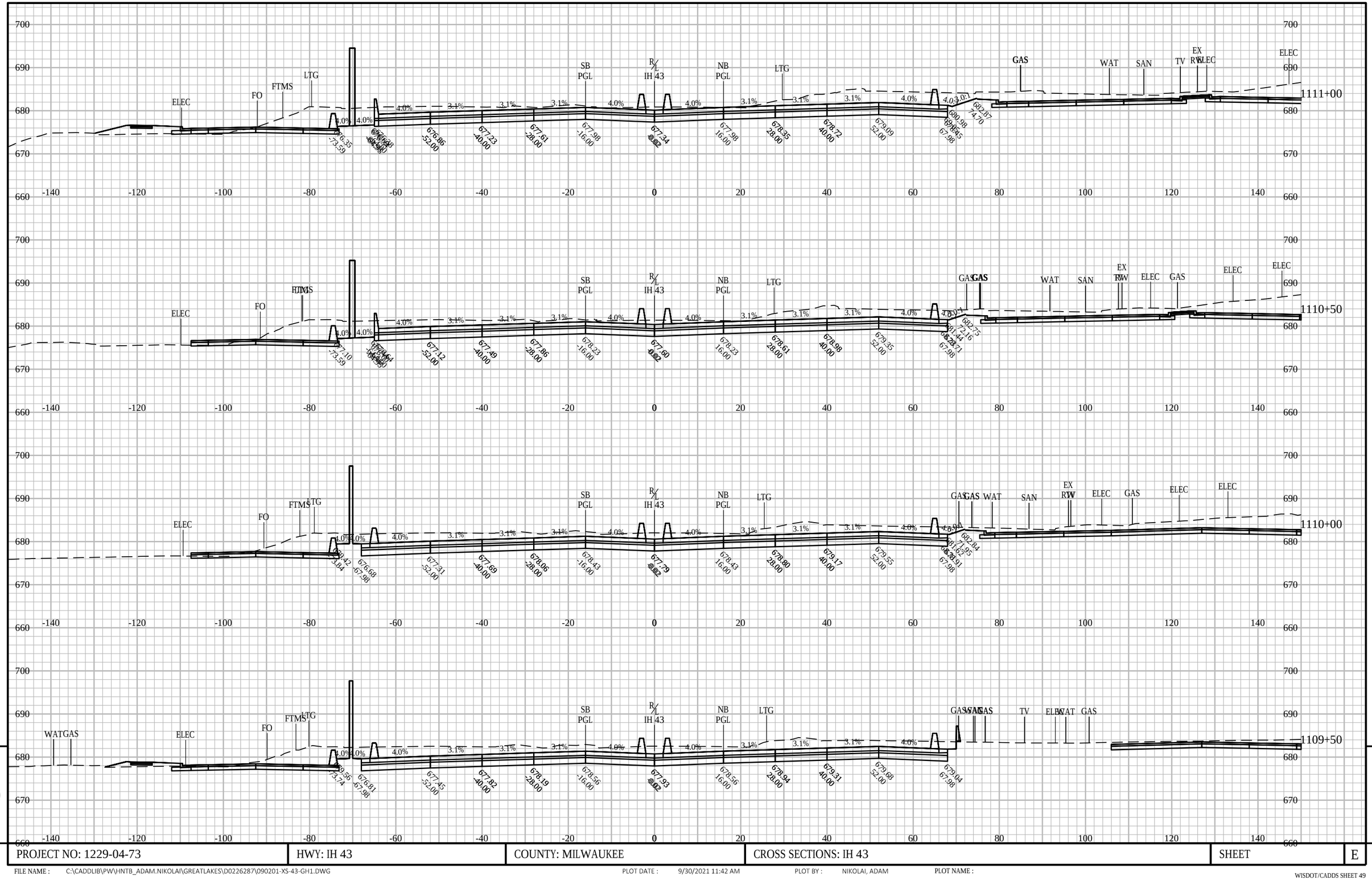

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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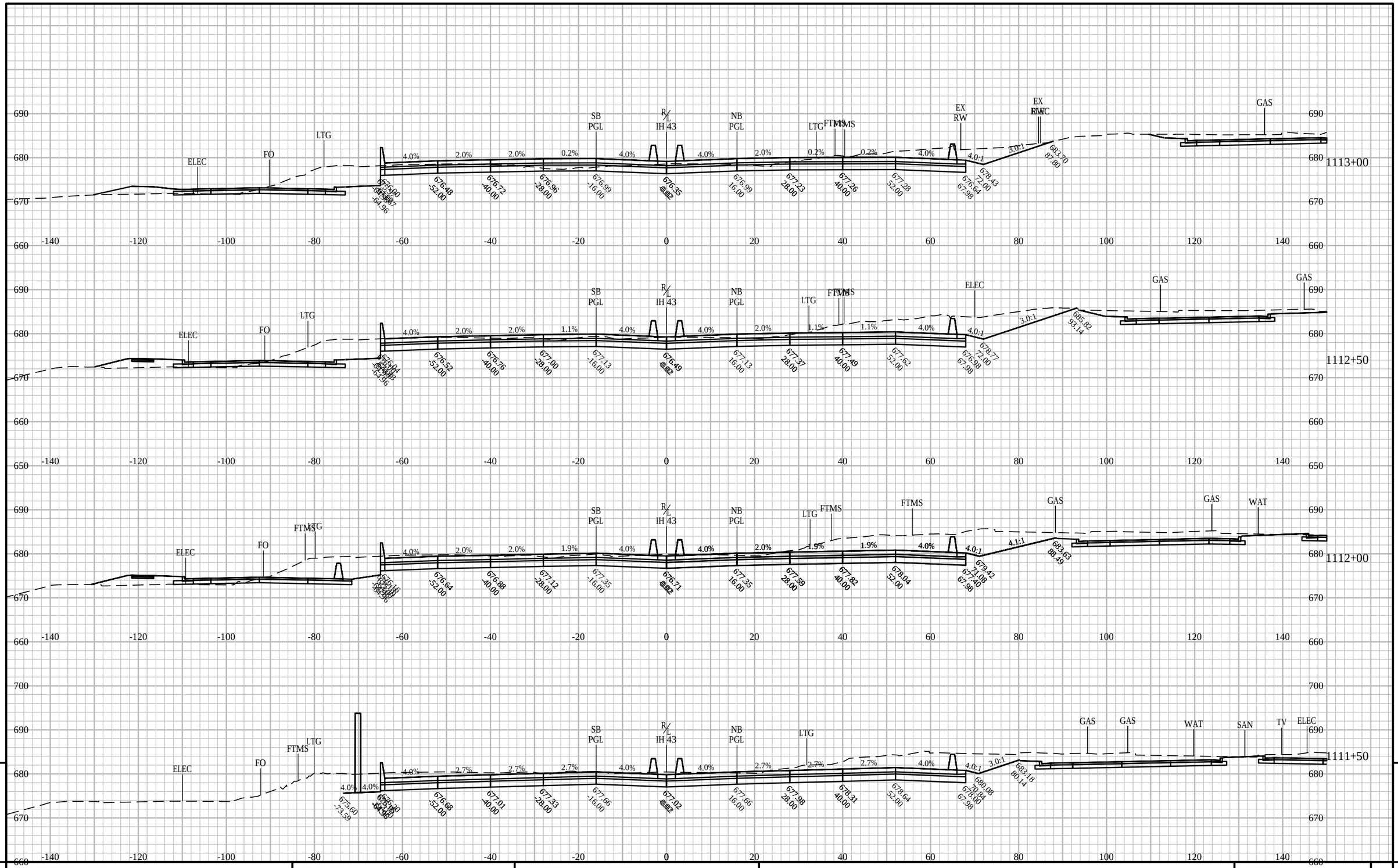

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

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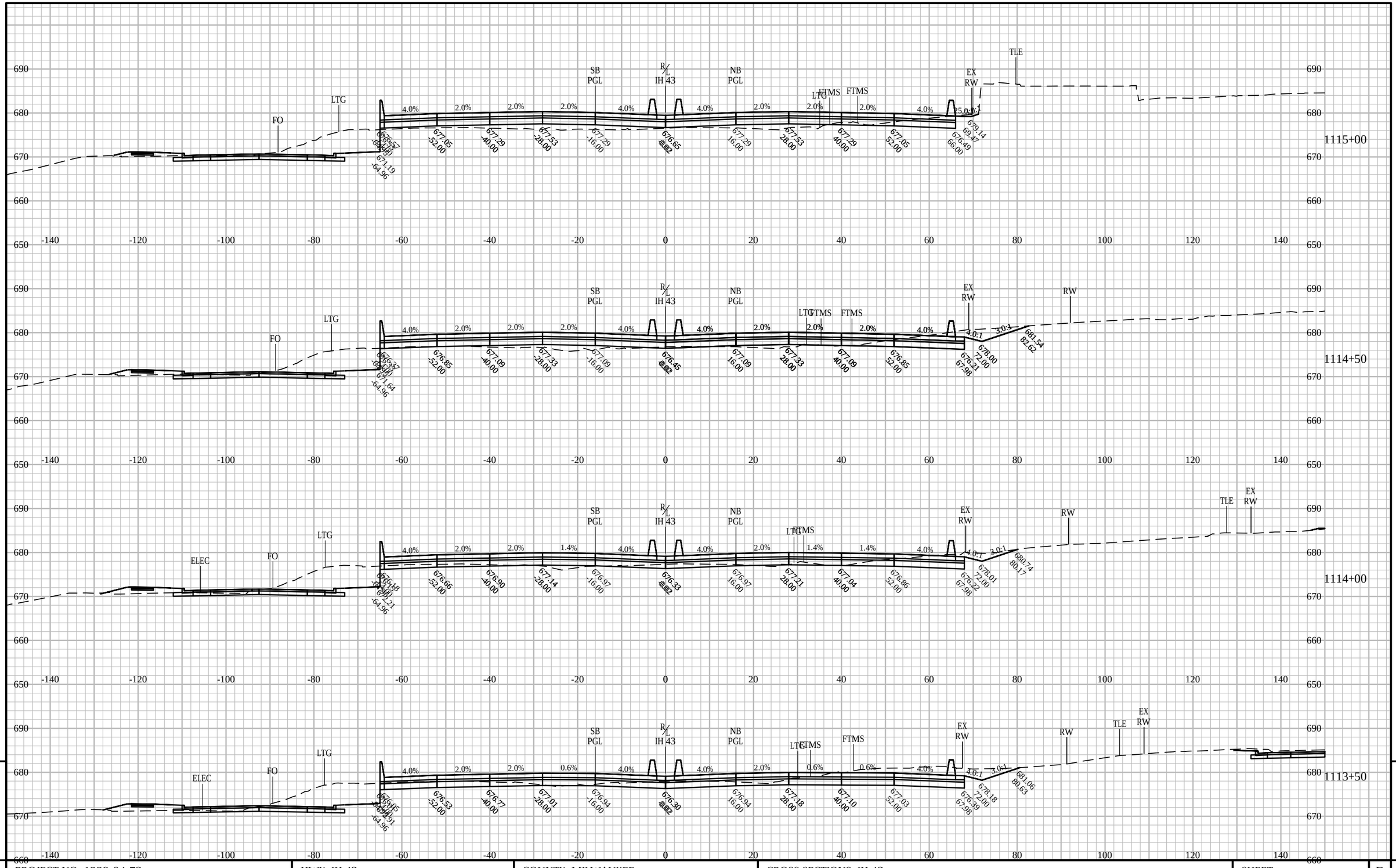
1115+00
SB PGL
R/L IH 43
NB PGL
LTG
FTMS
EX RW
TLE
FO
4.0%
2.0%
1.4%
0.6%
1114+50
RW
1114+00
ELEC
1113+50
PROJECT NO: 1229-04-73
HWY: IH 43
COUNTY: MILWAUKEE
CROSS SECTIONS: IH 43
SHEET
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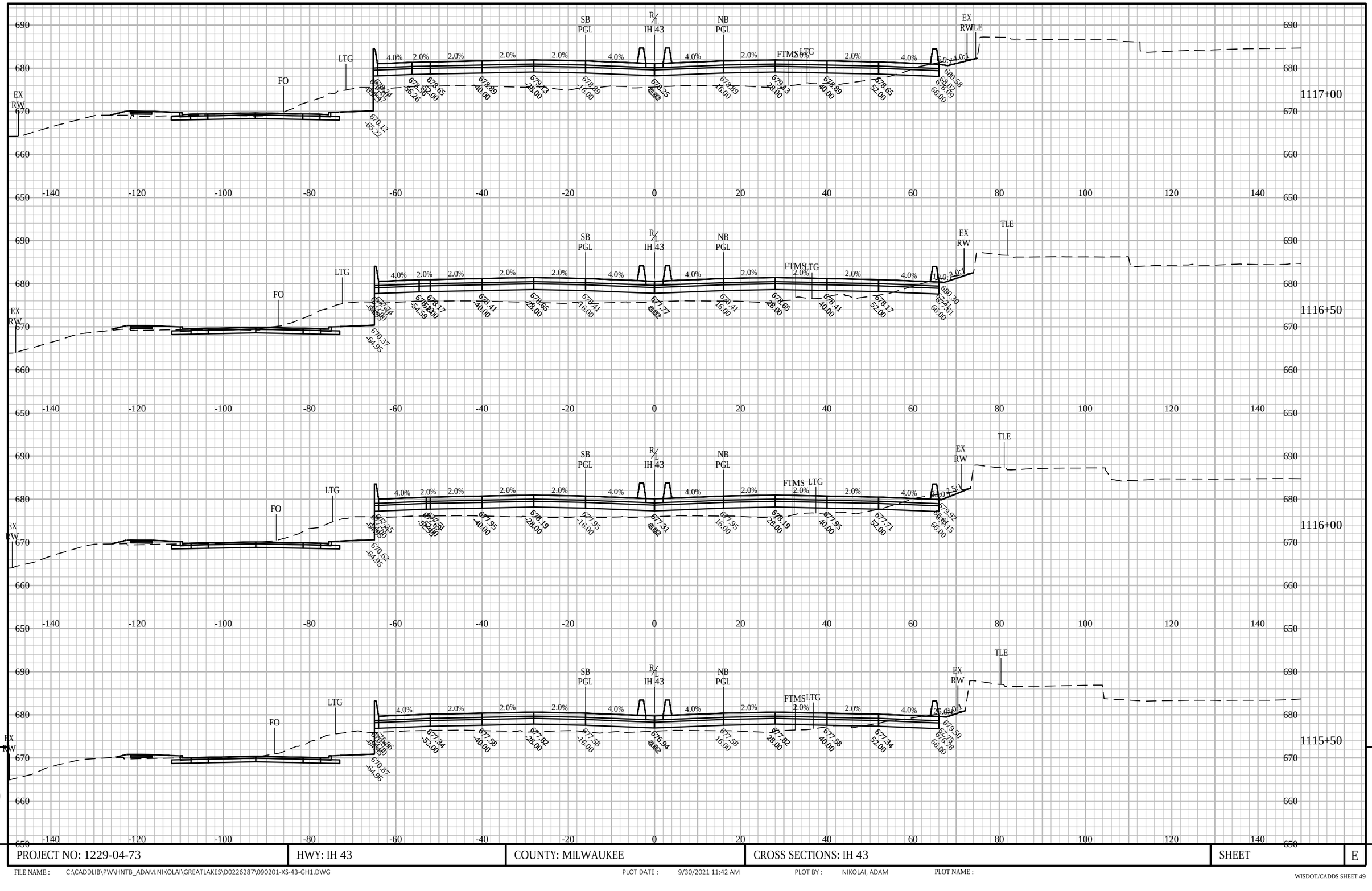
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG
PLOT DATE : 9/30/2021 11:42 AM
PLOT BY : NIKOLAI, ADAM
PLOT NAME :
WISDOT/CADDS SHEET 49



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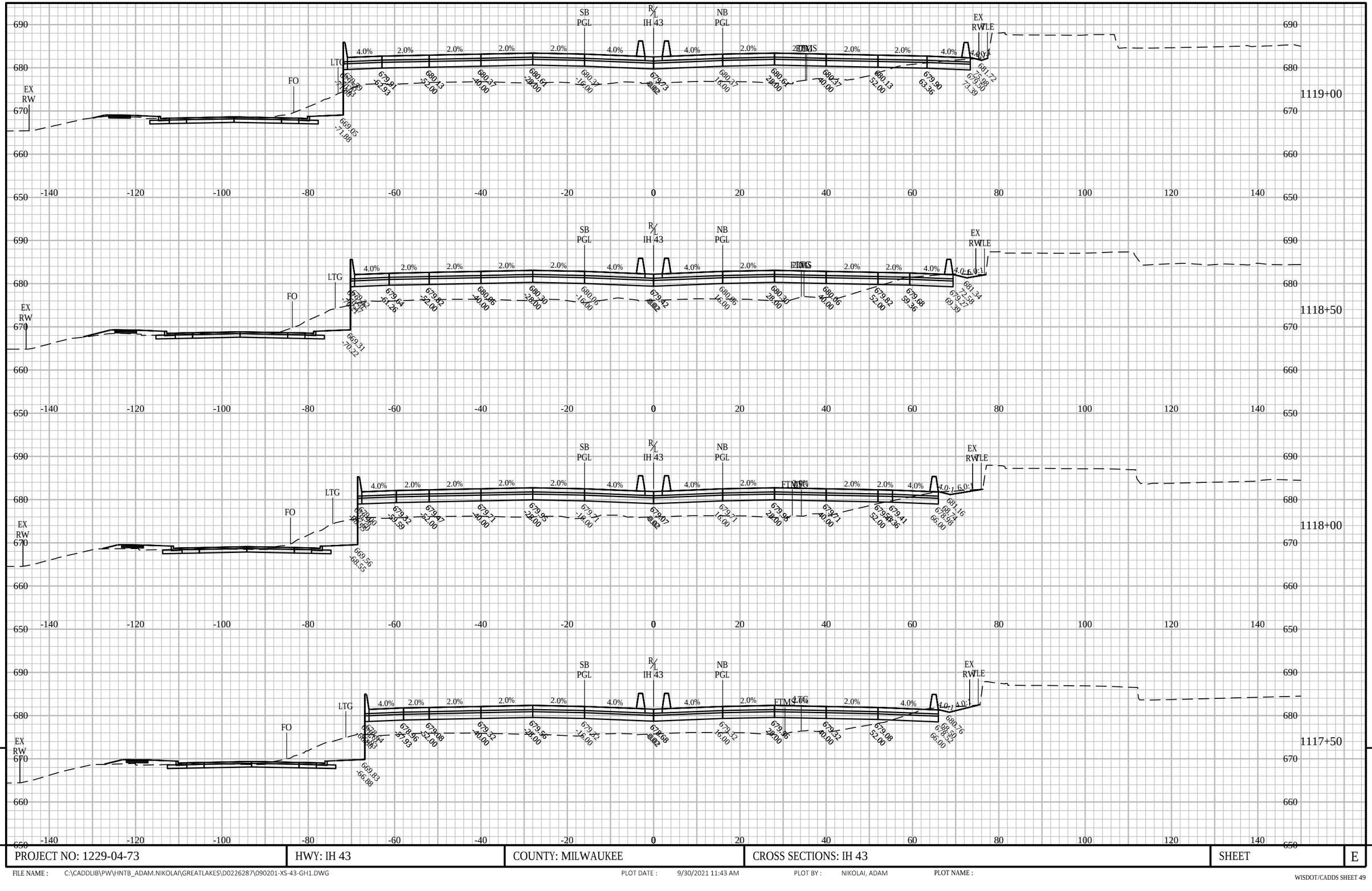
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:42 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:43 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

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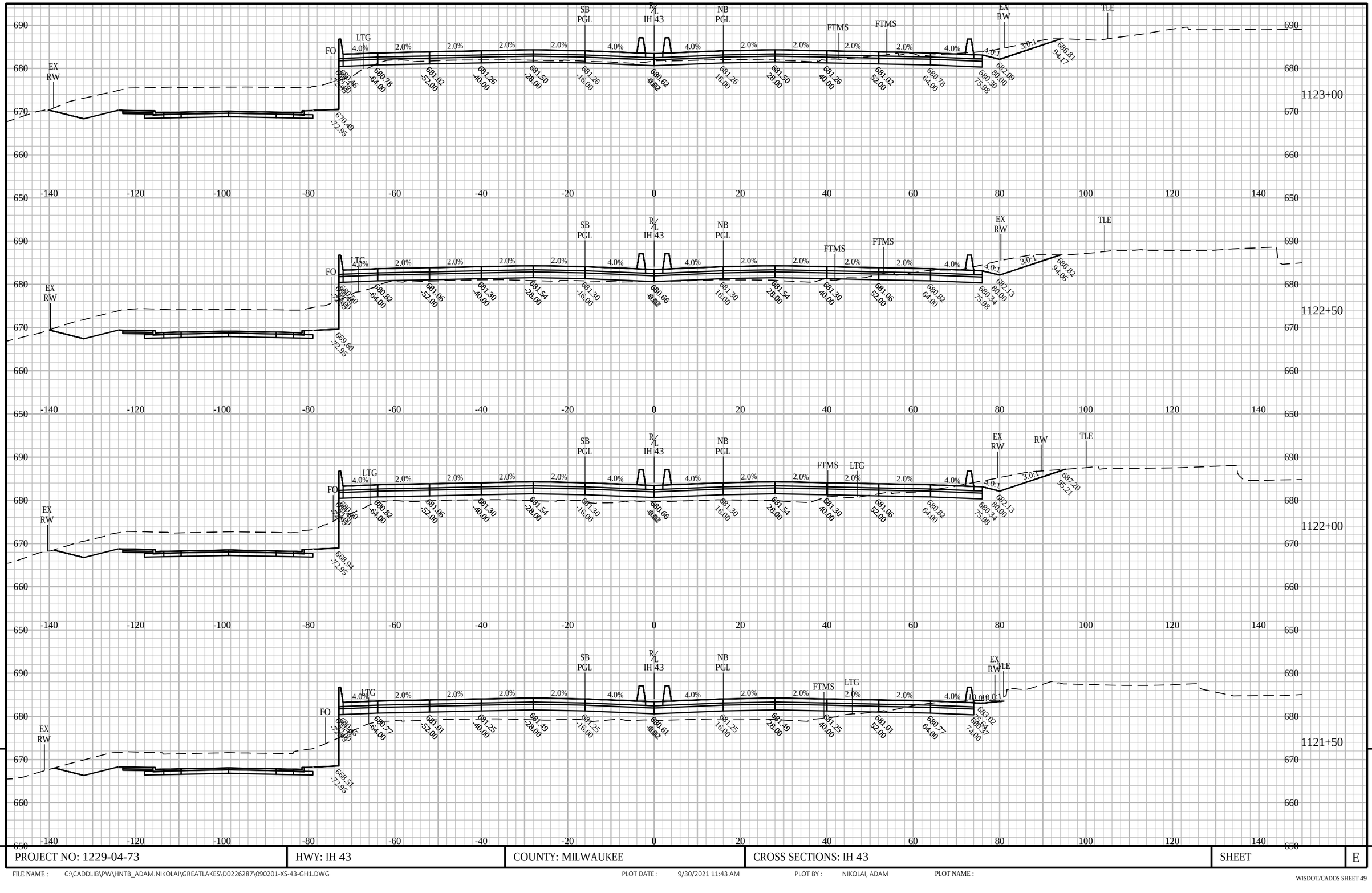
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:43 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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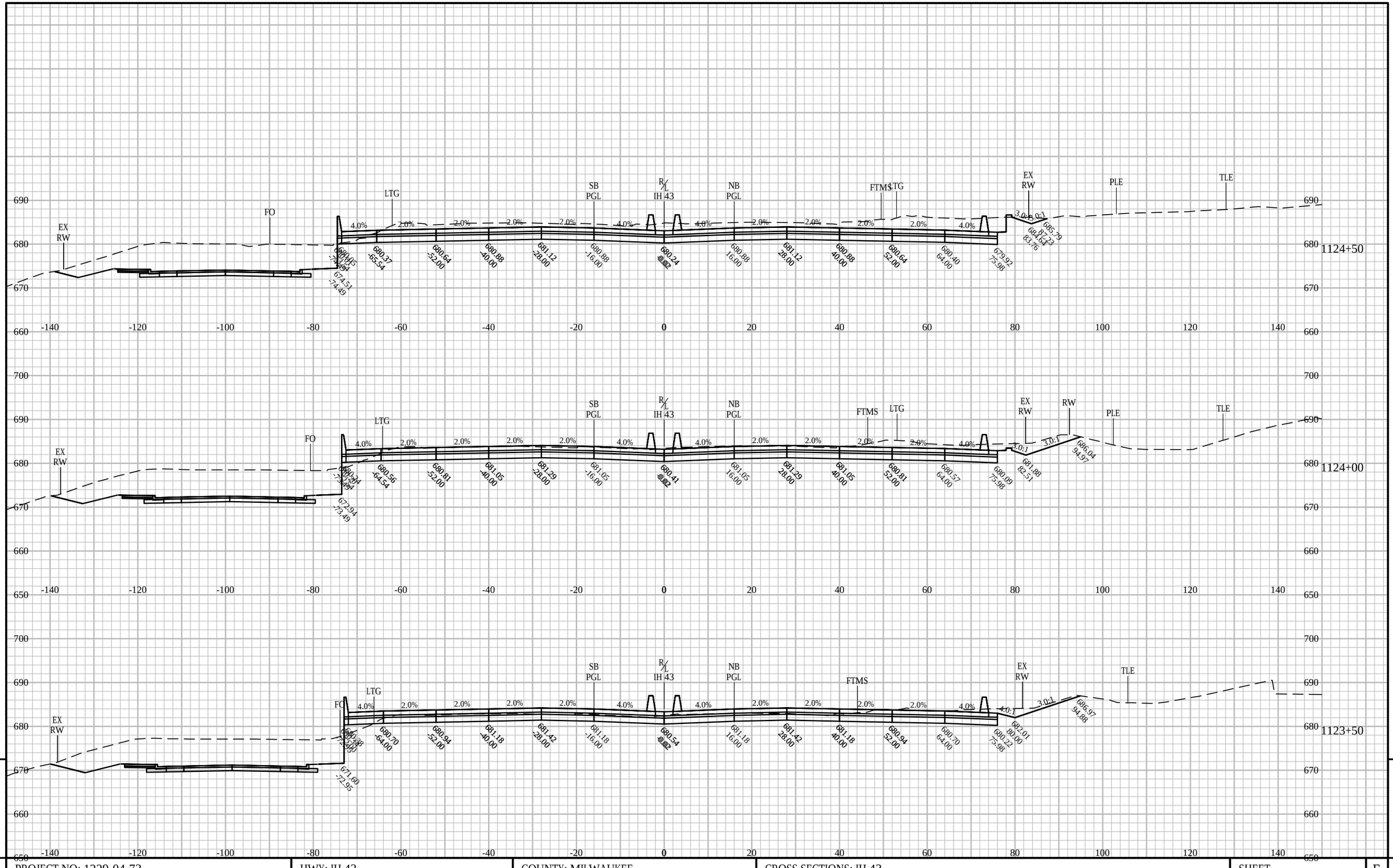

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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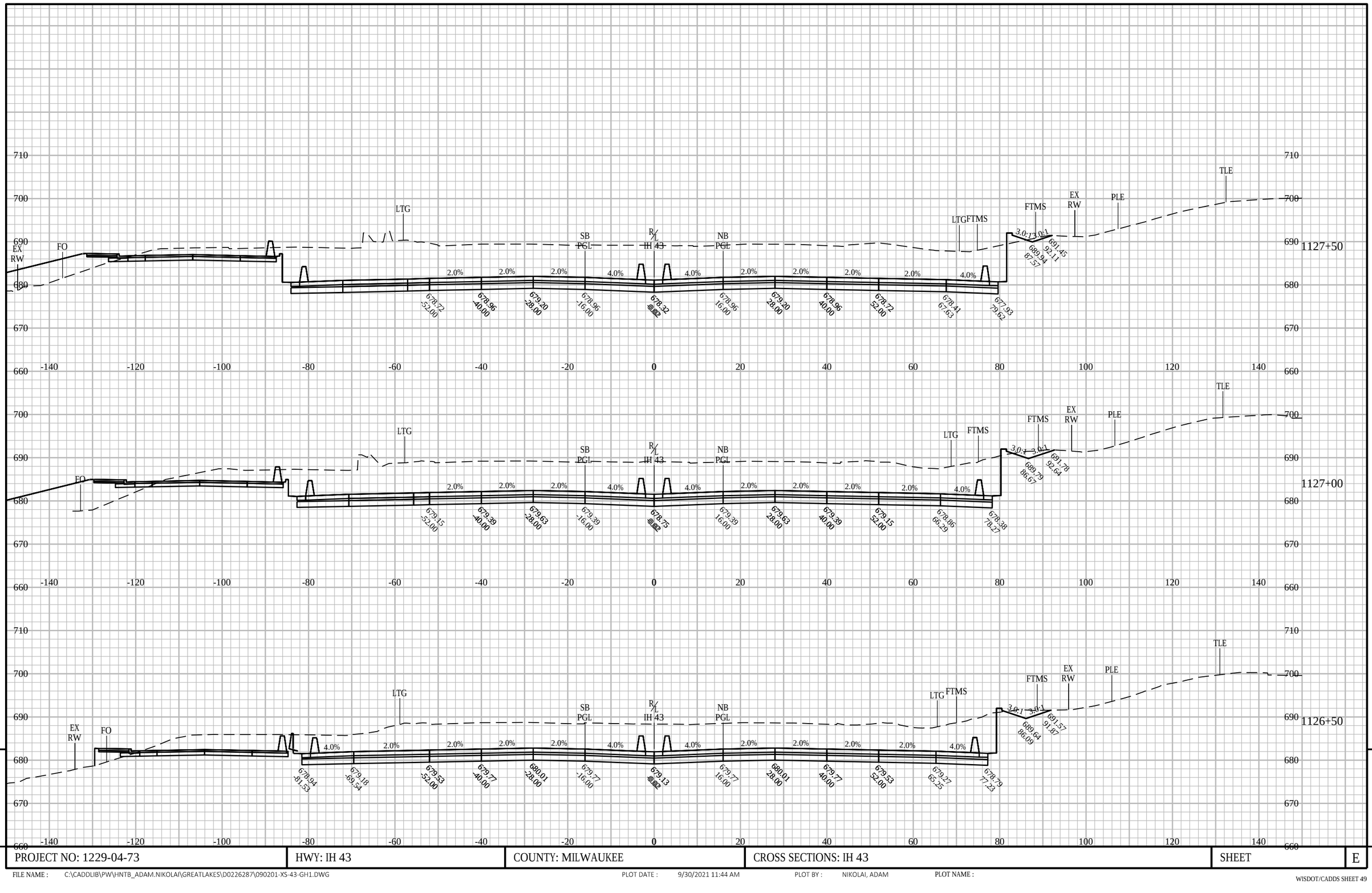

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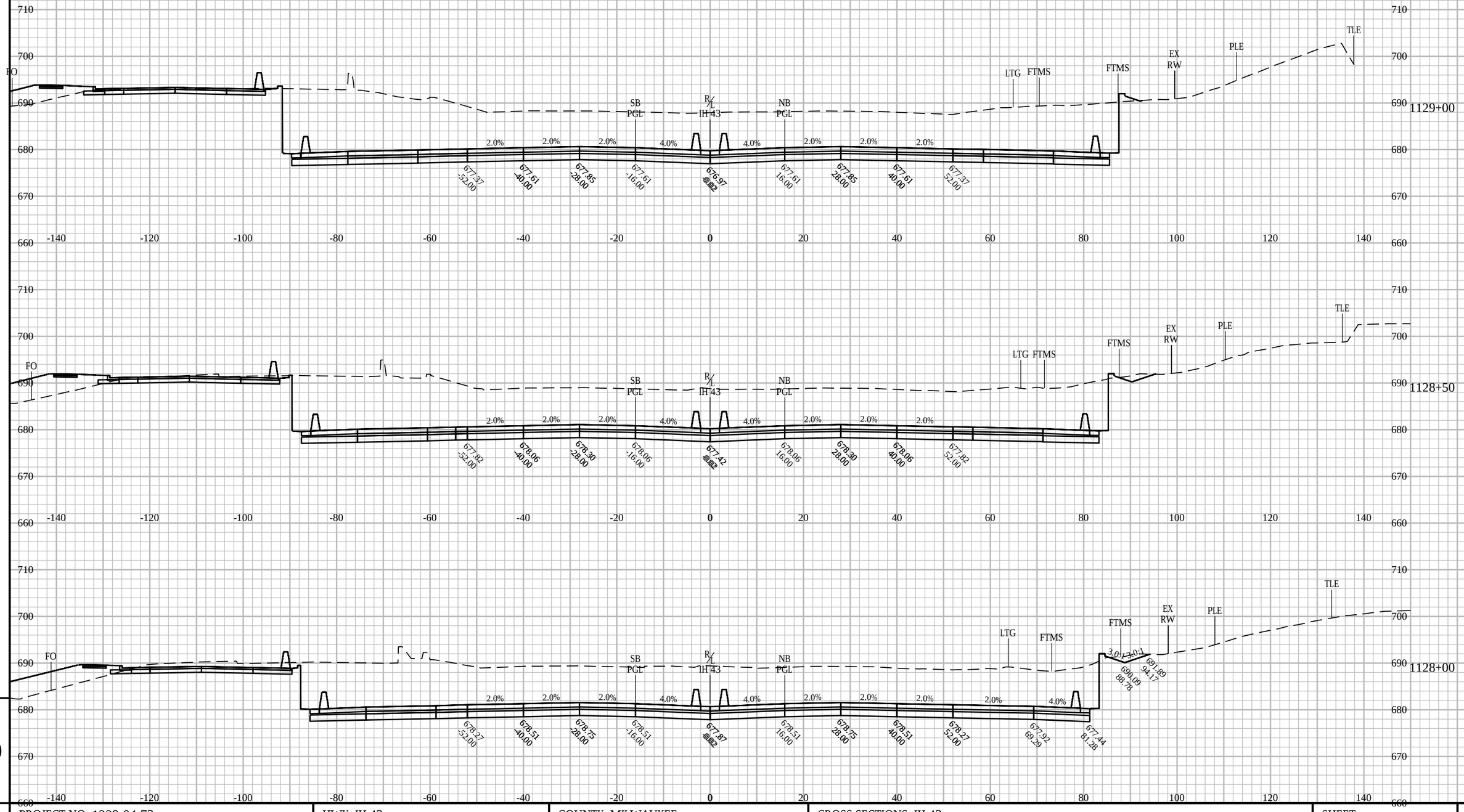
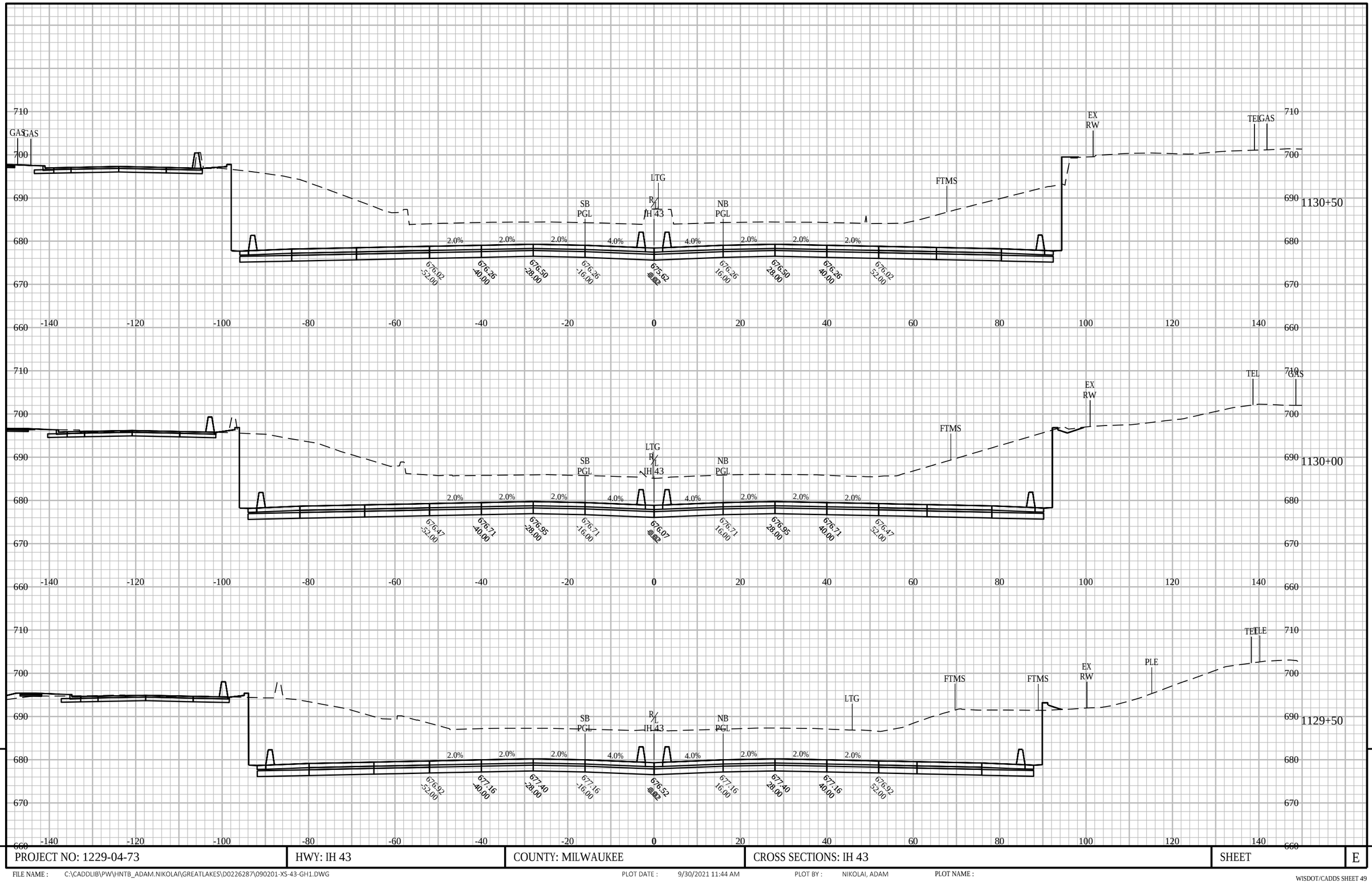
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:44 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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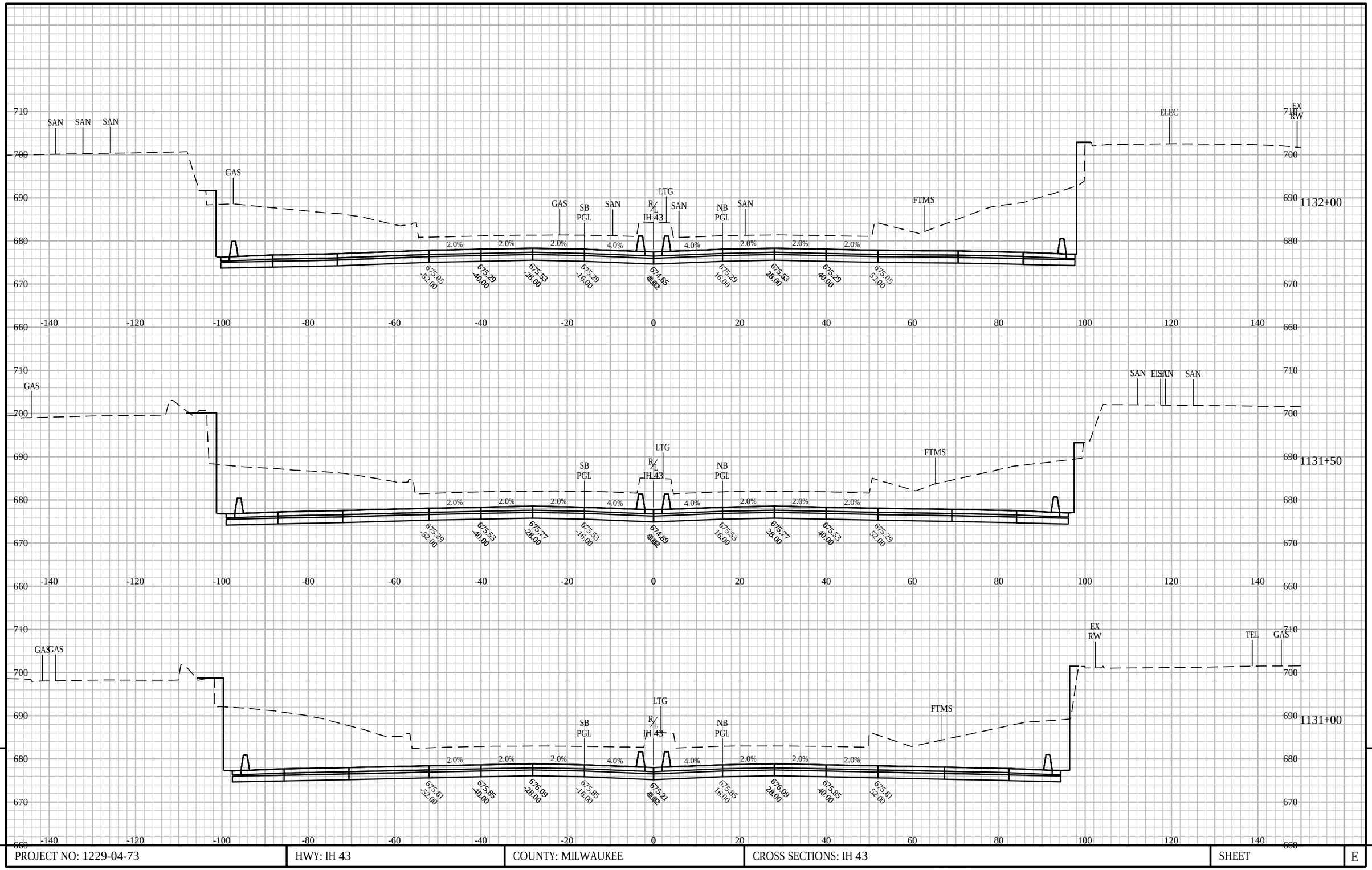
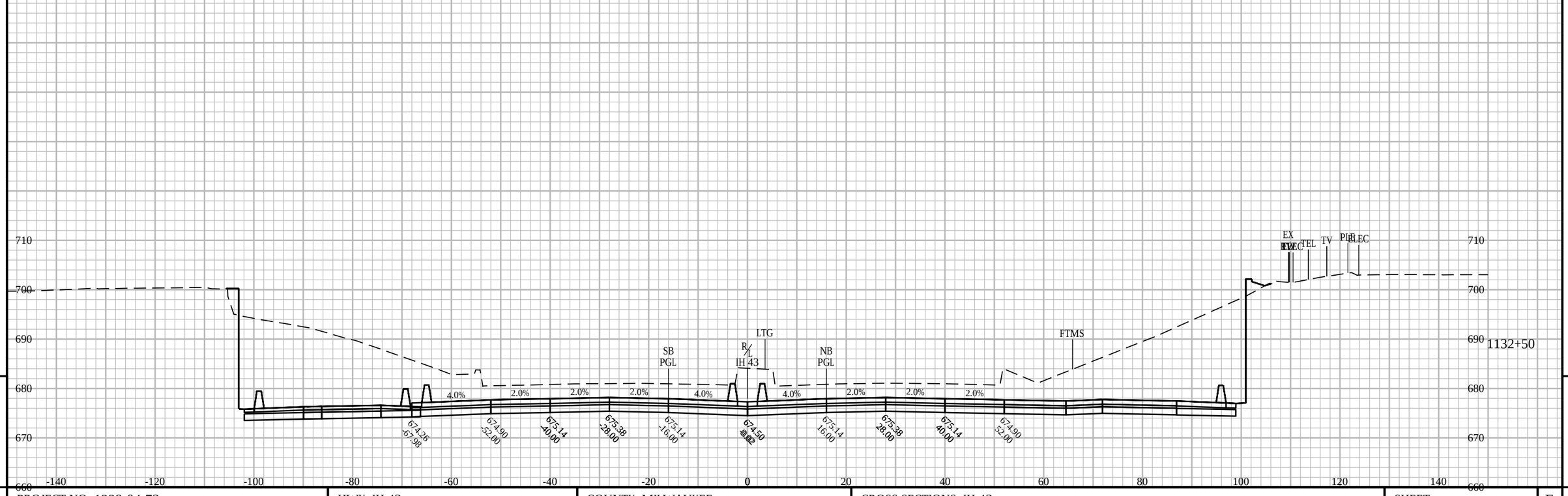
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090201-XS-43-GH1.DWG PLOT DATE : 9/30/2021 11:44 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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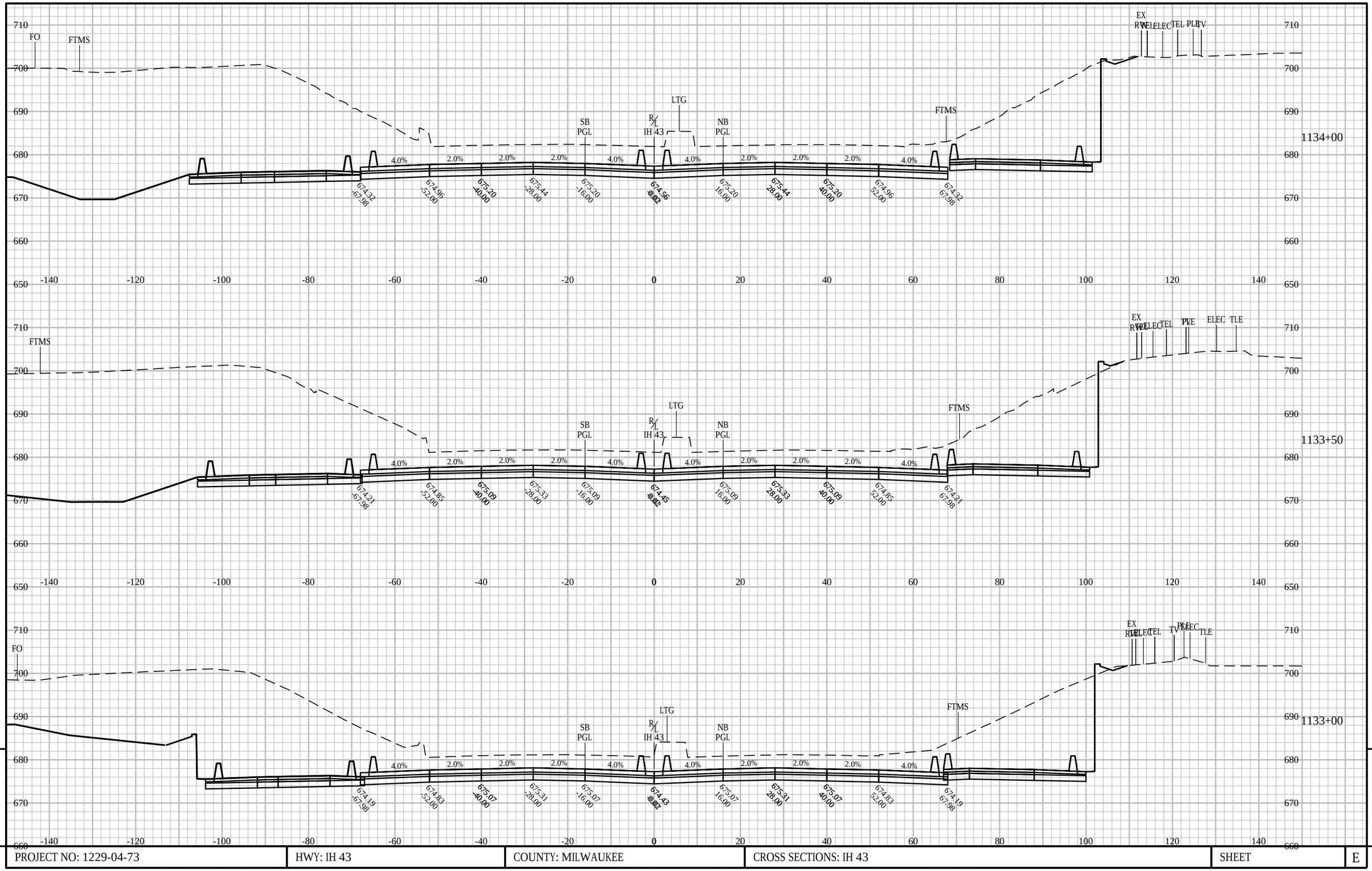

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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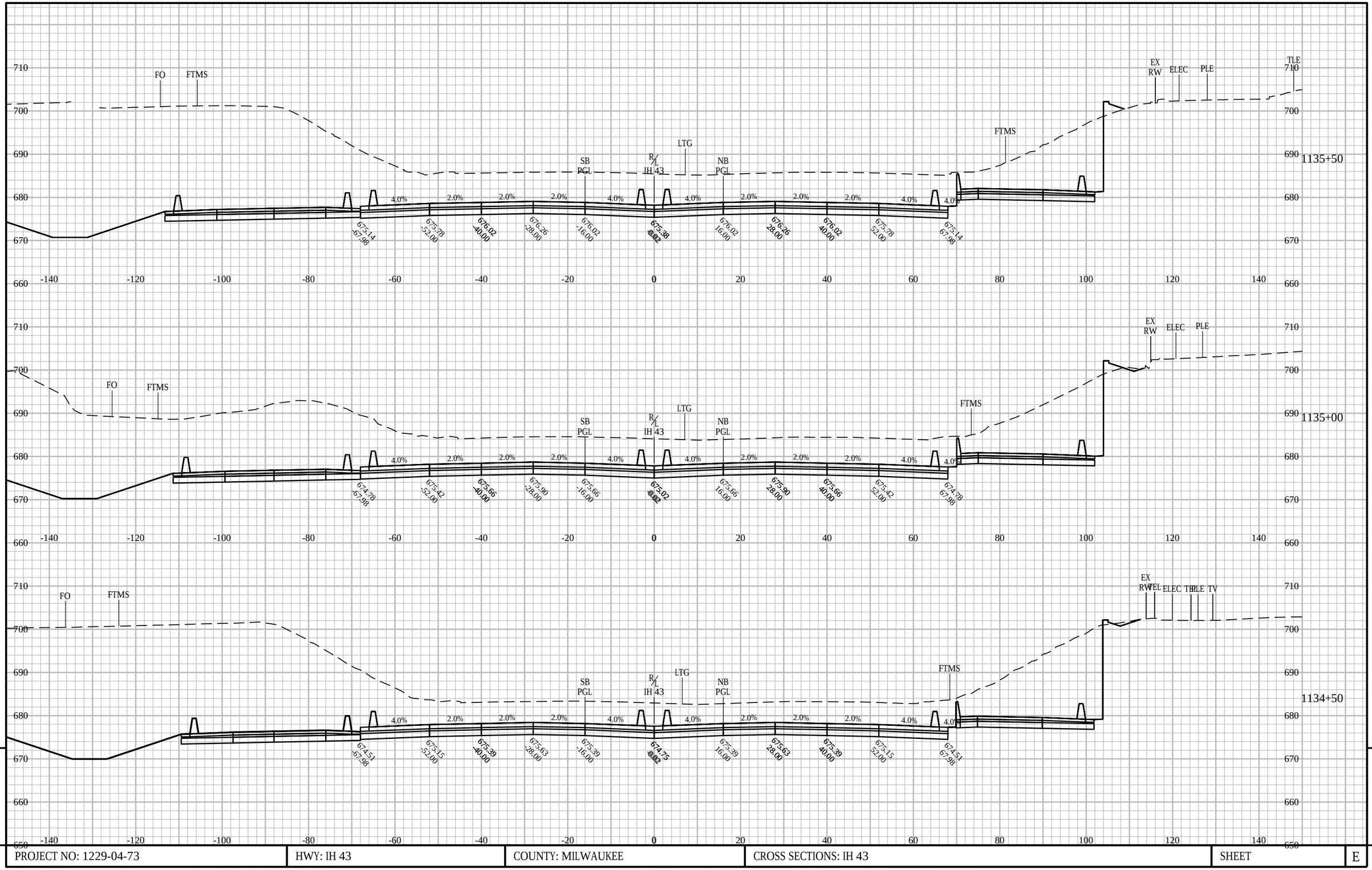

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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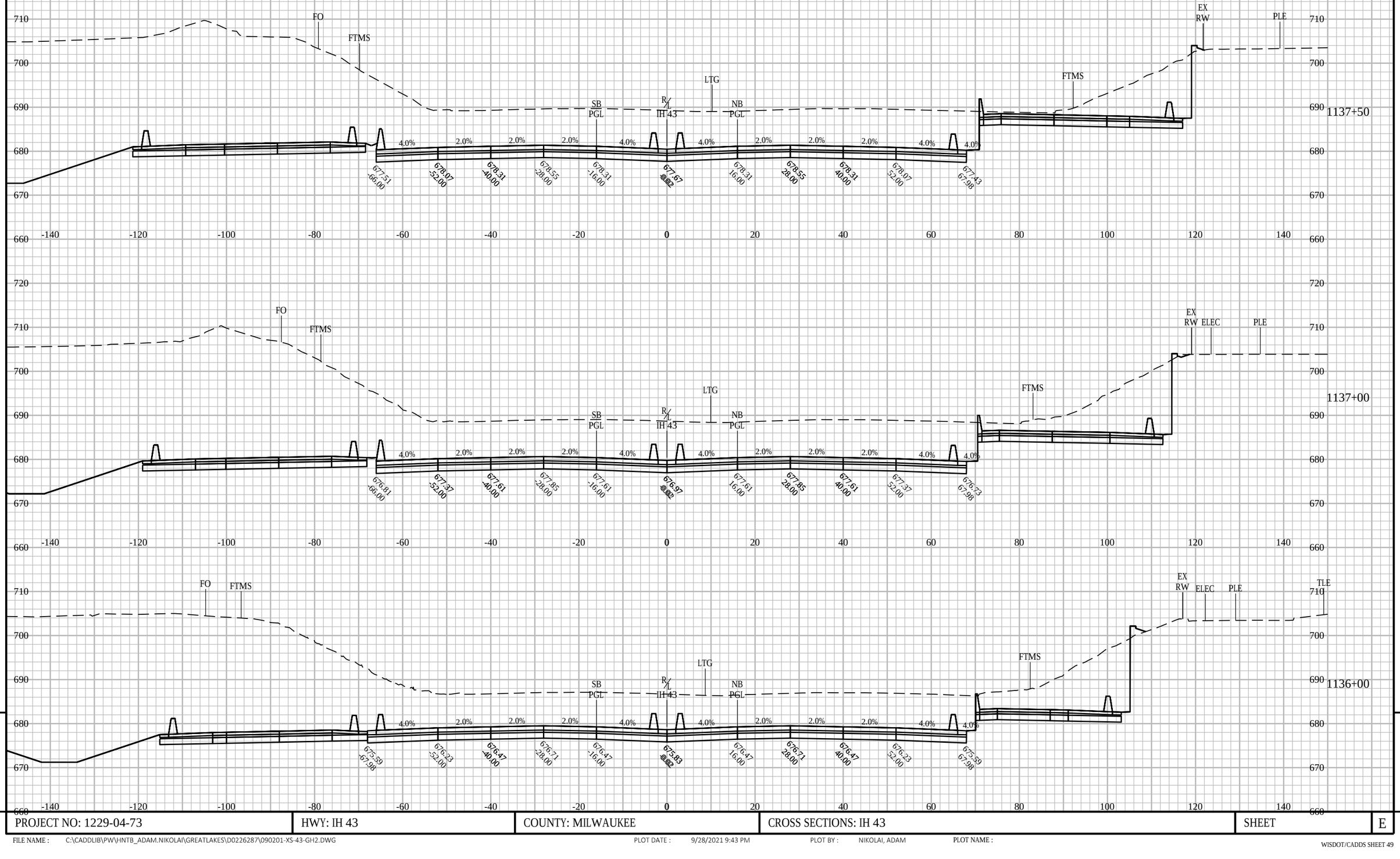

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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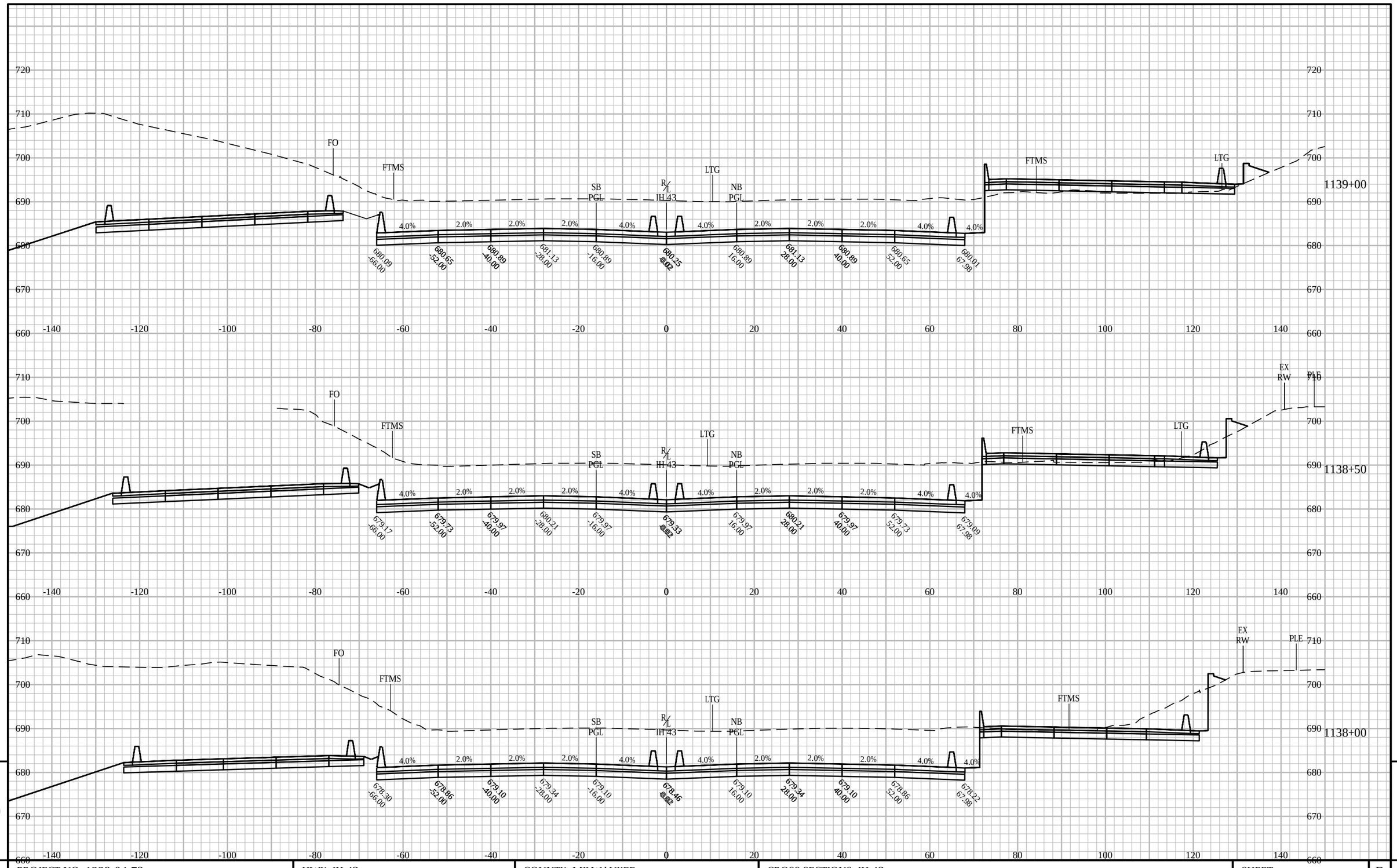

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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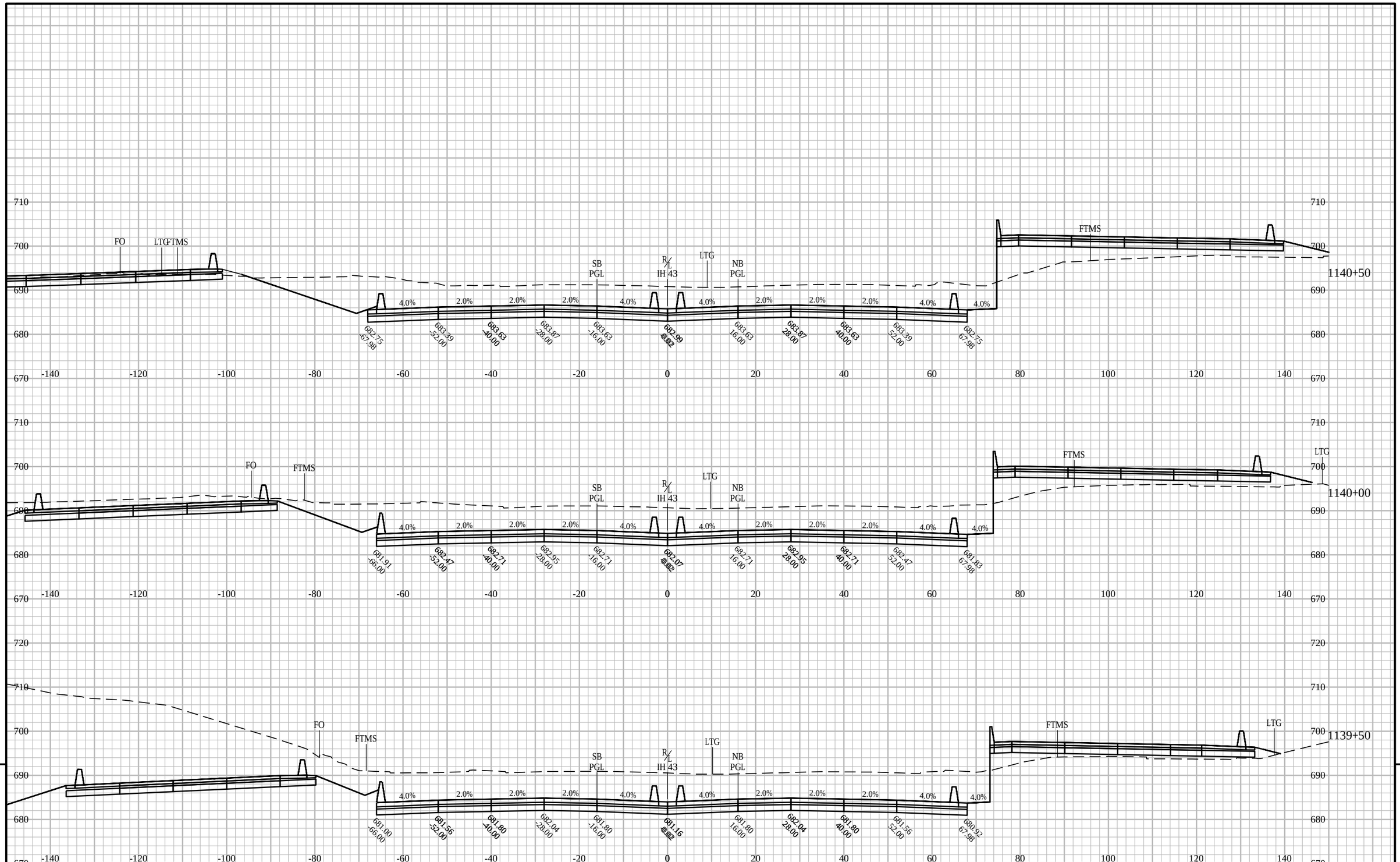

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

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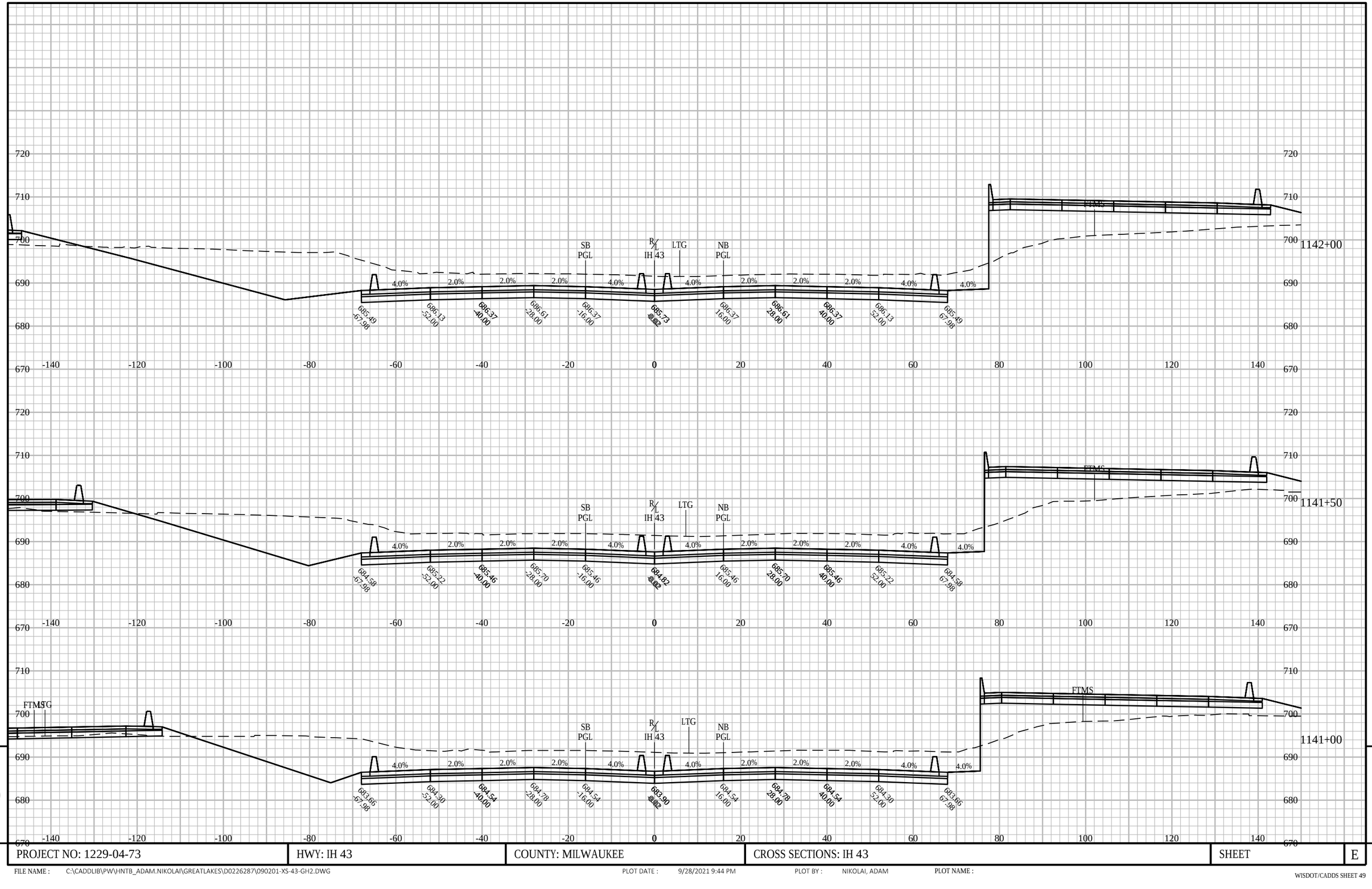

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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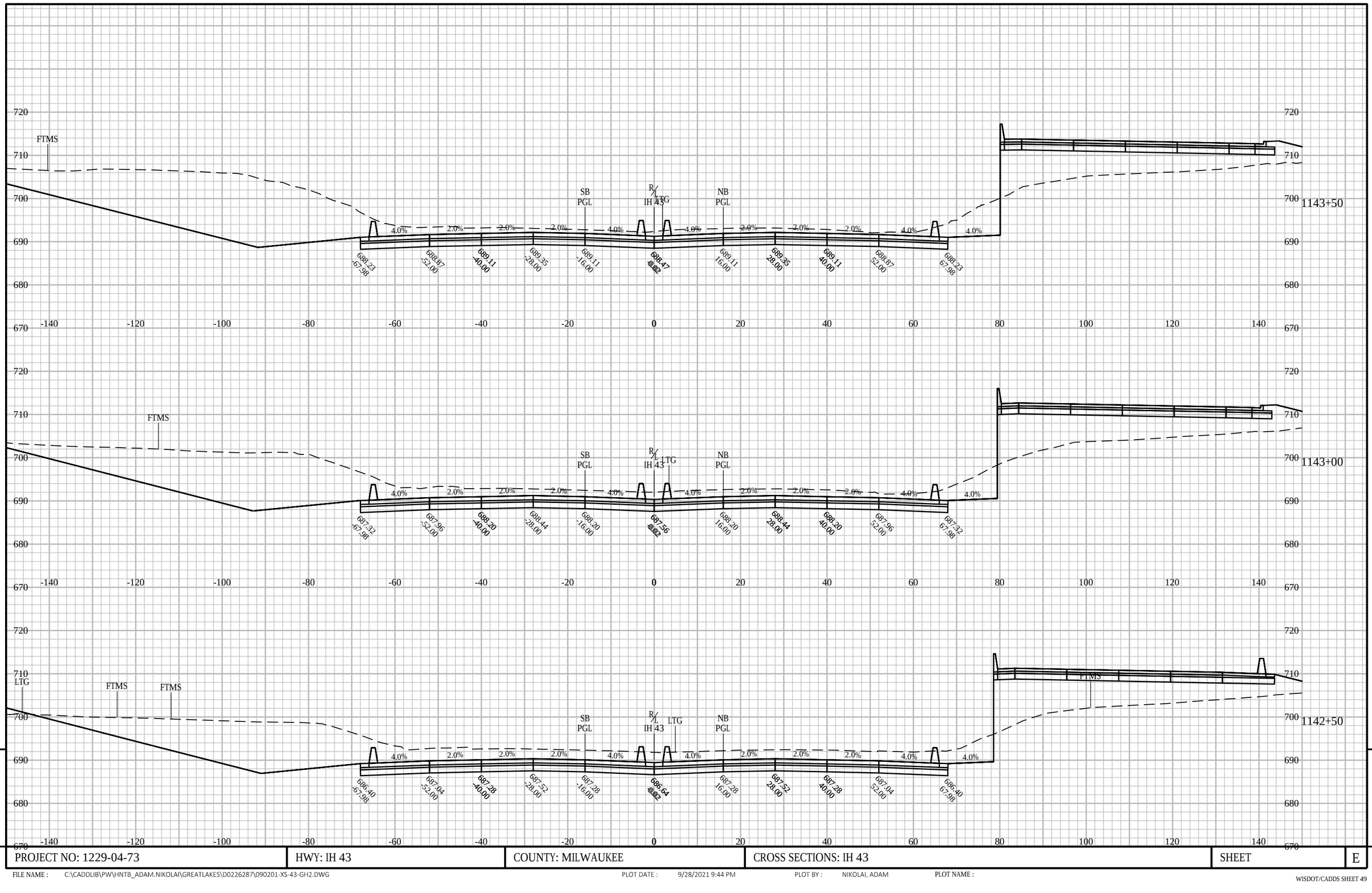

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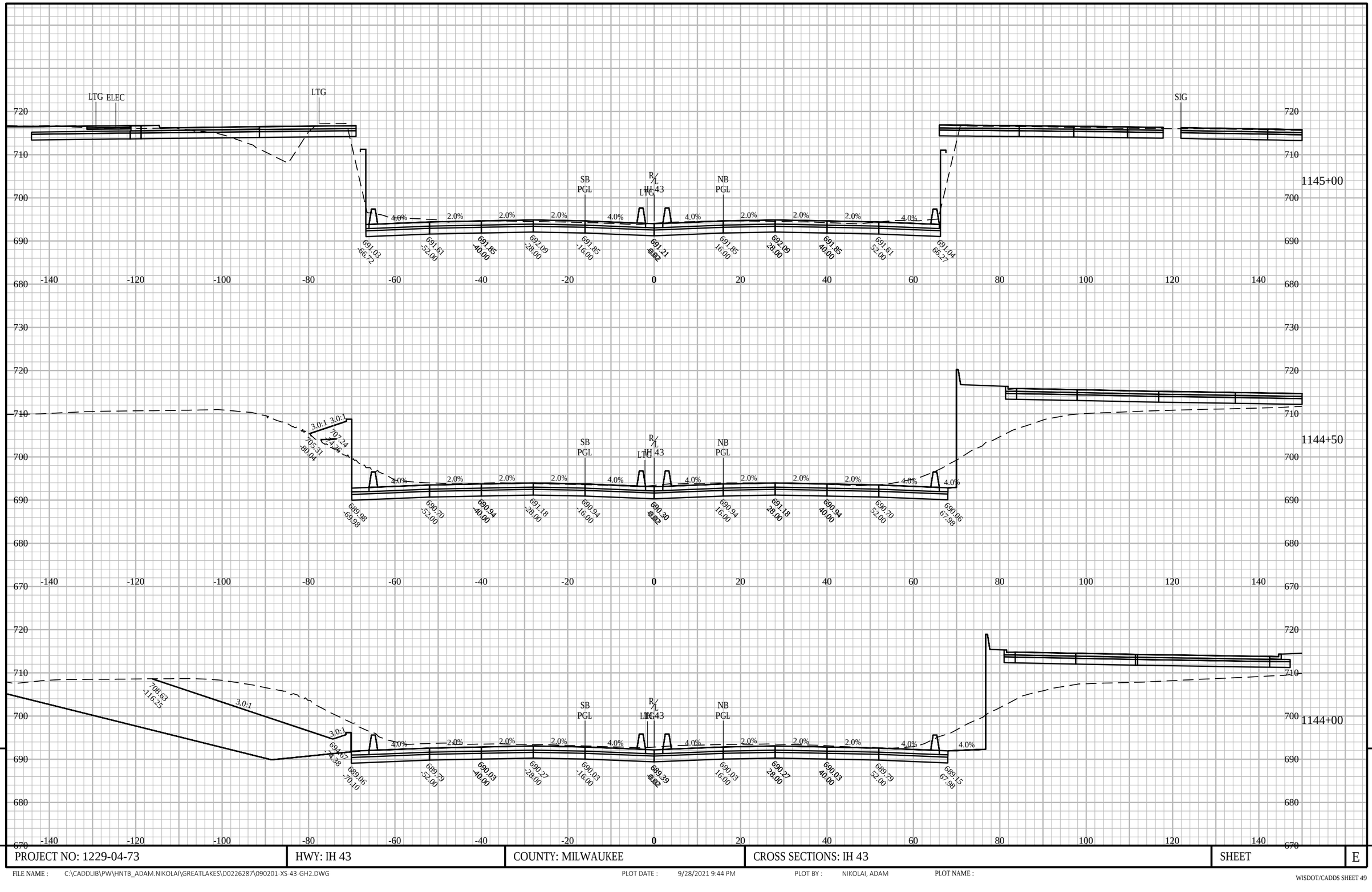

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

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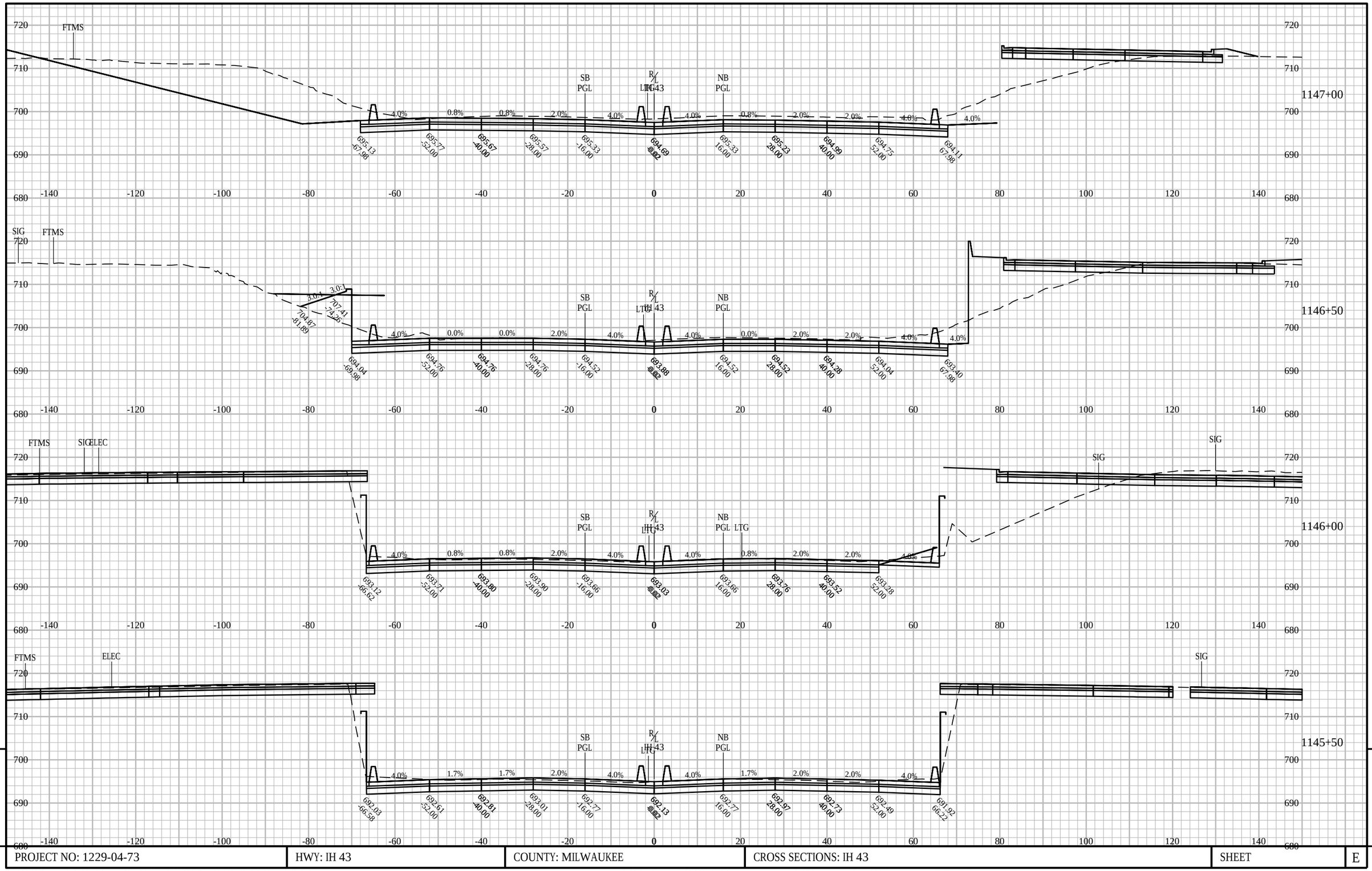

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

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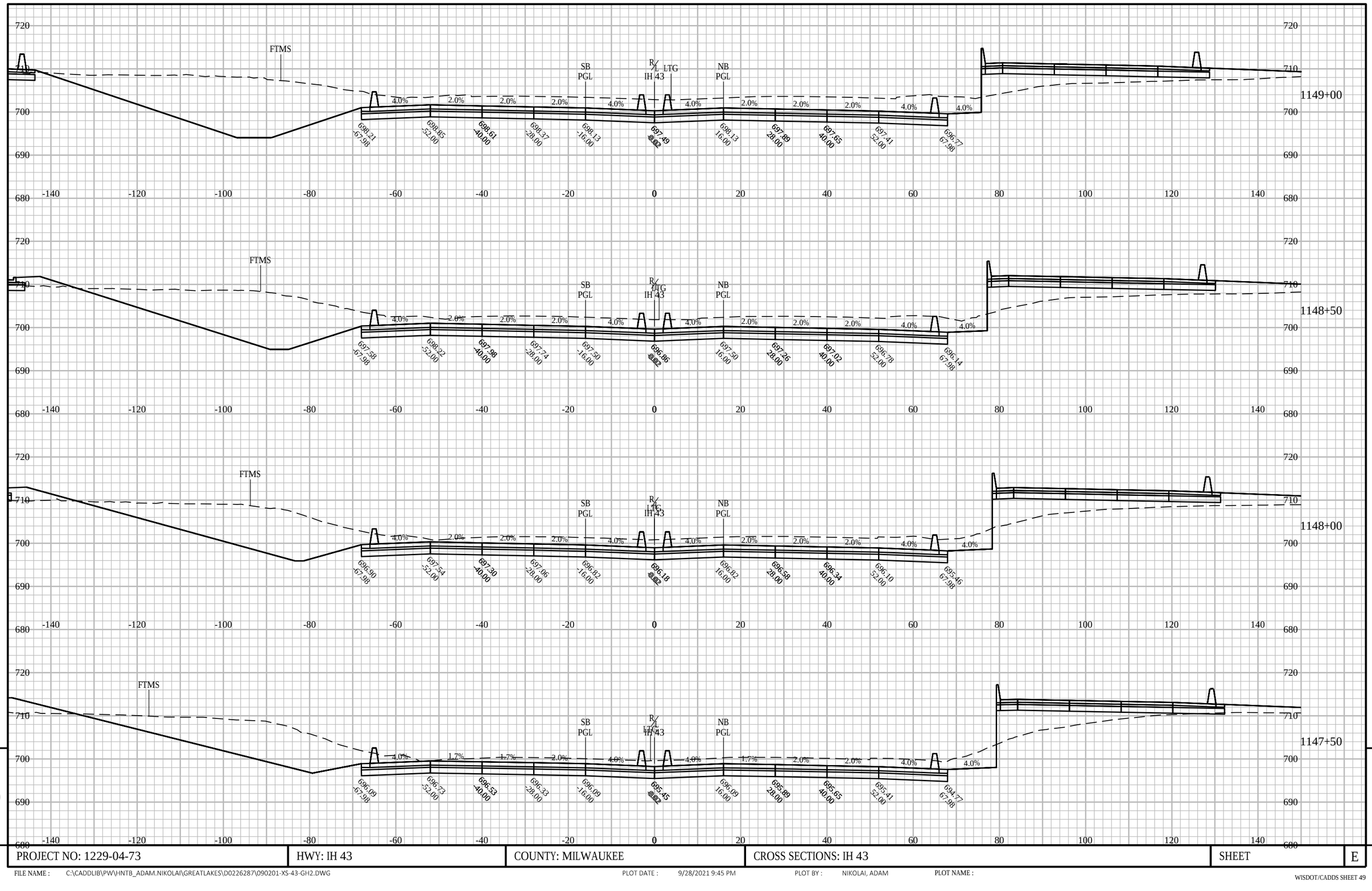

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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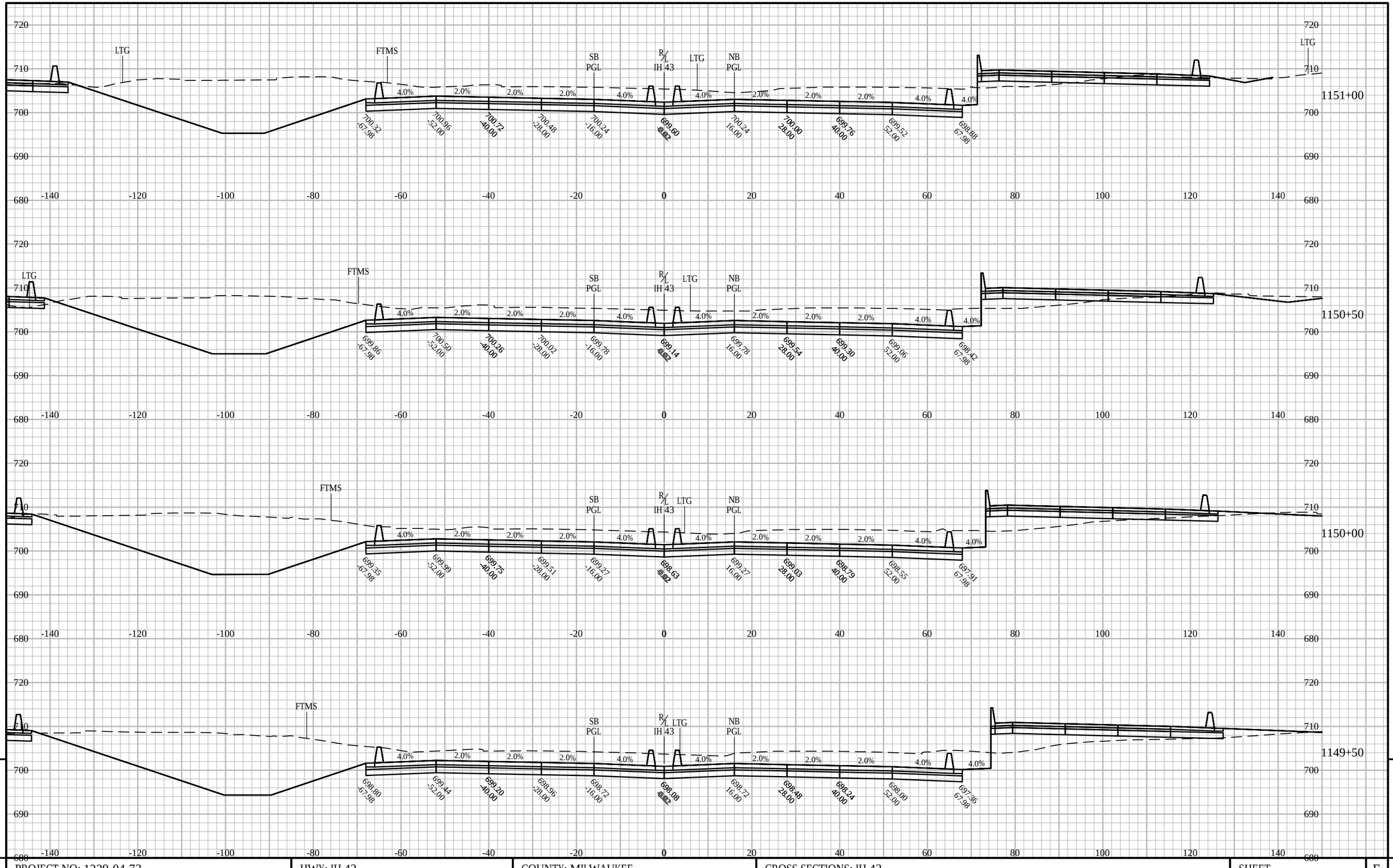

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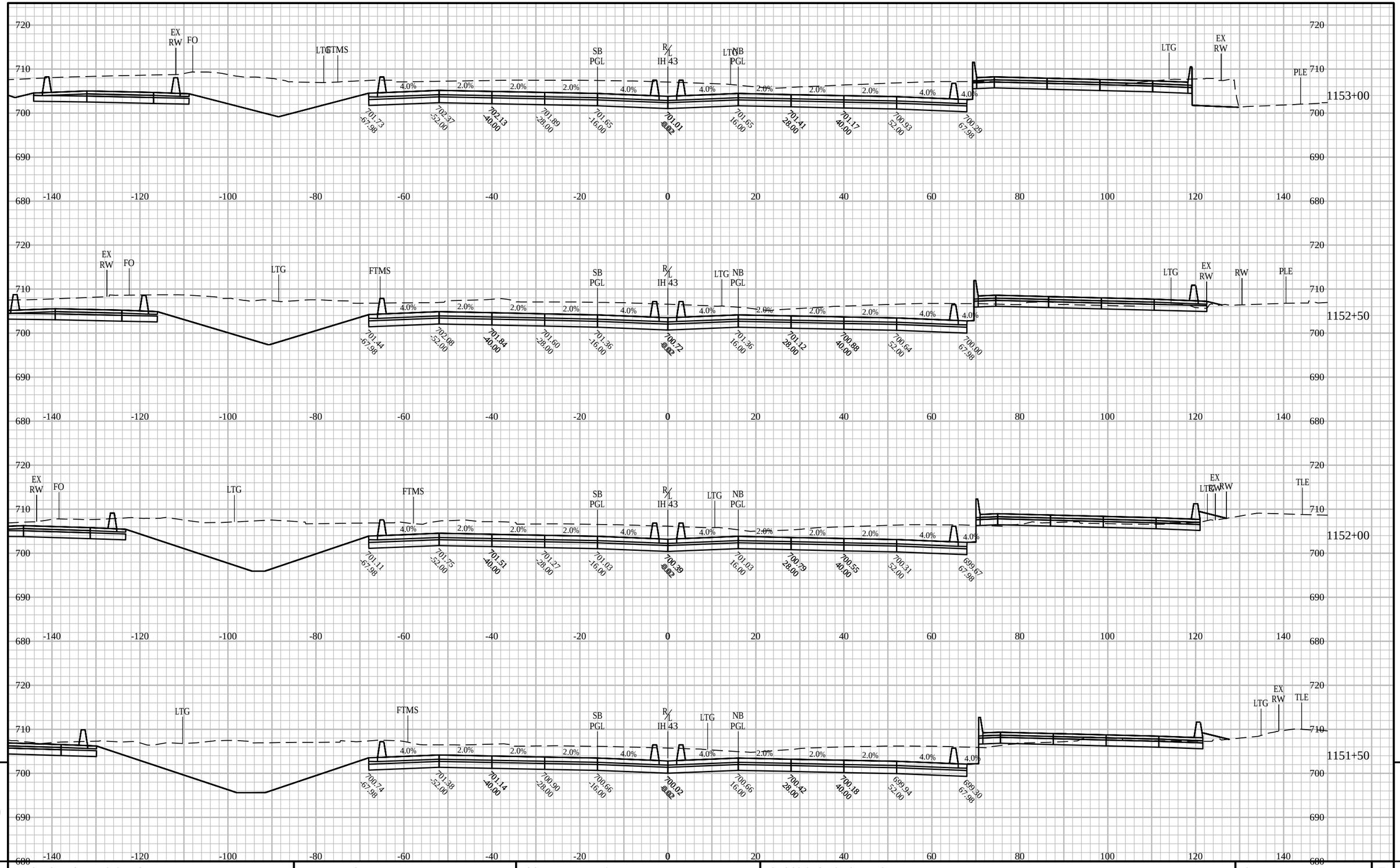

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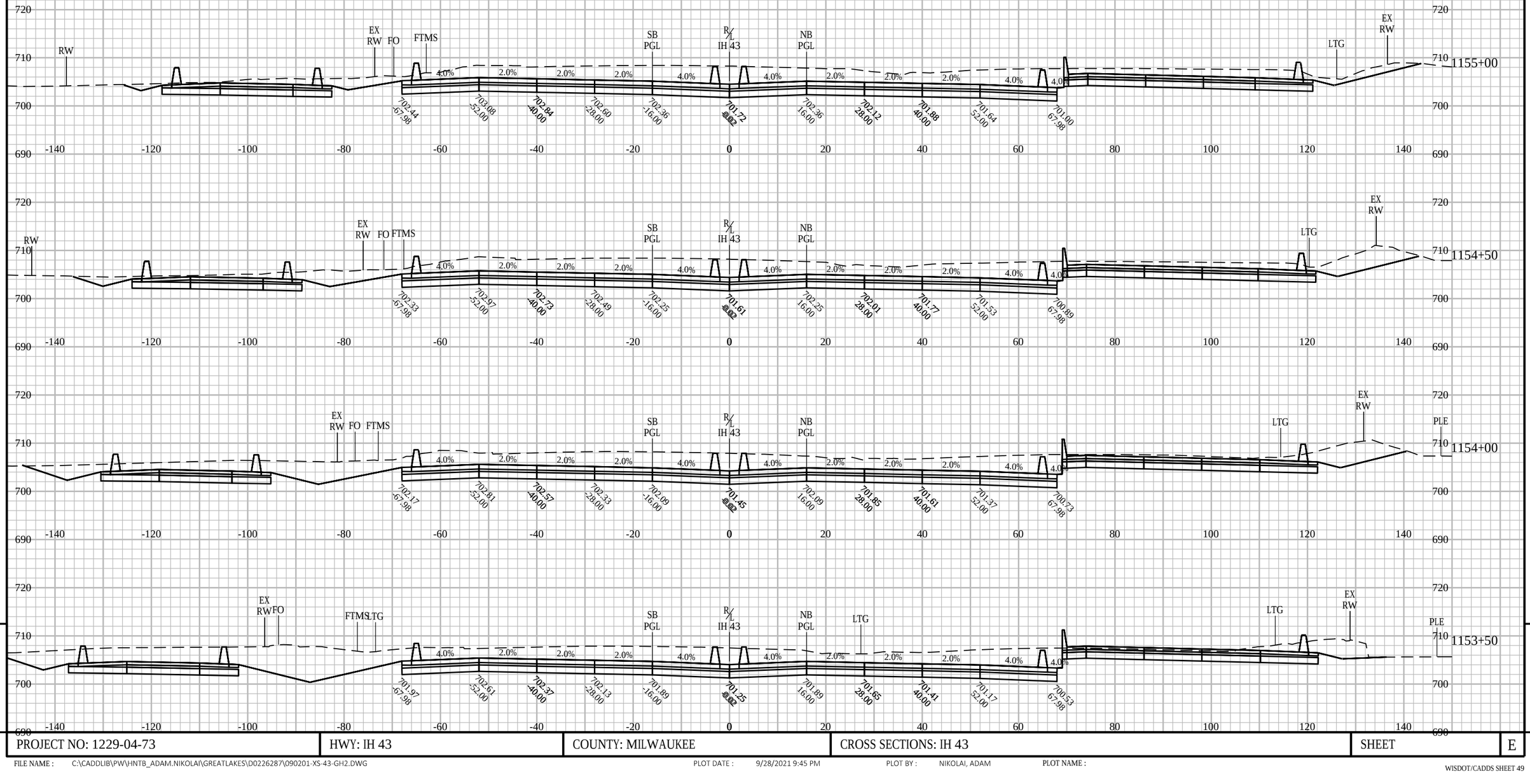

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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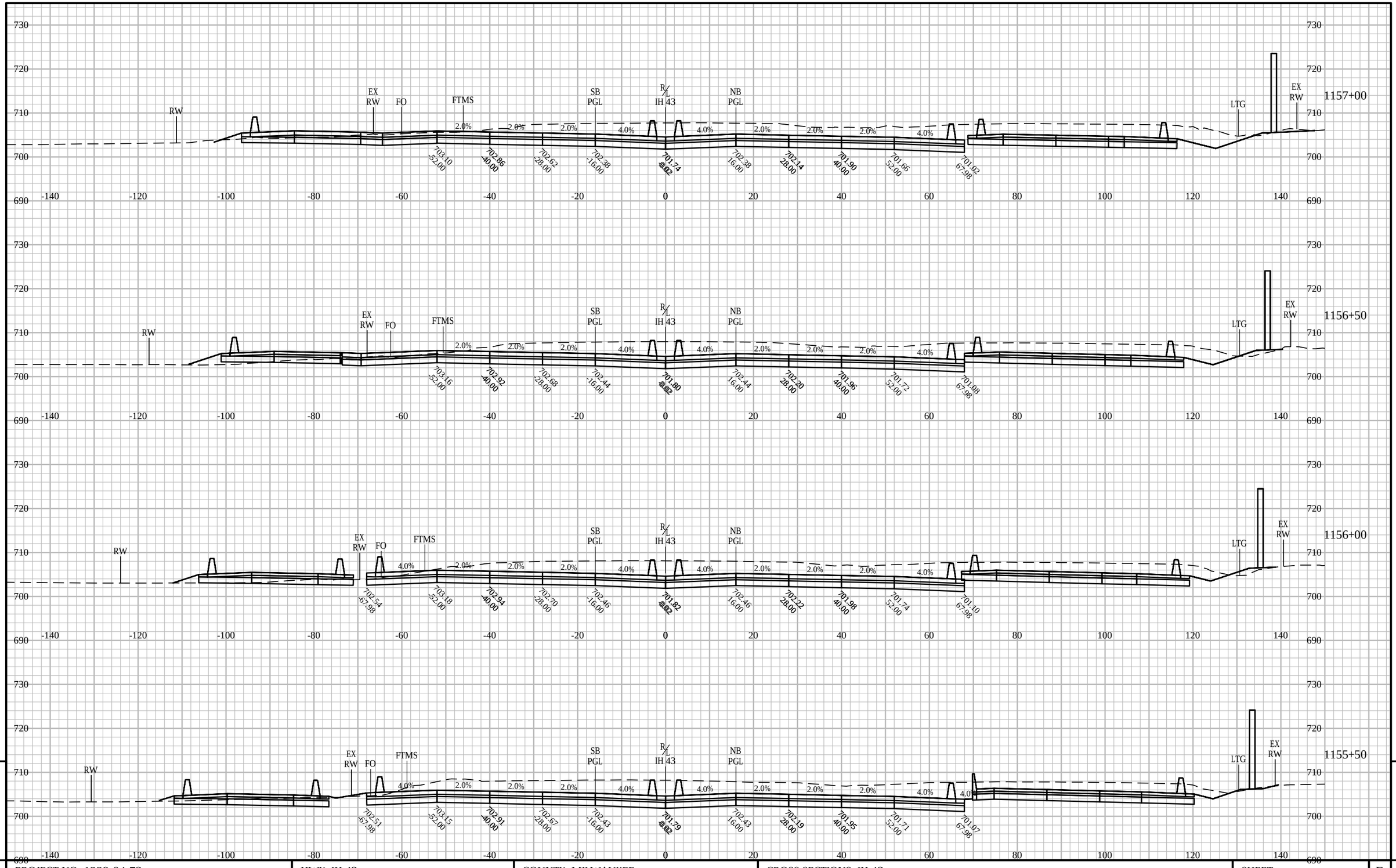

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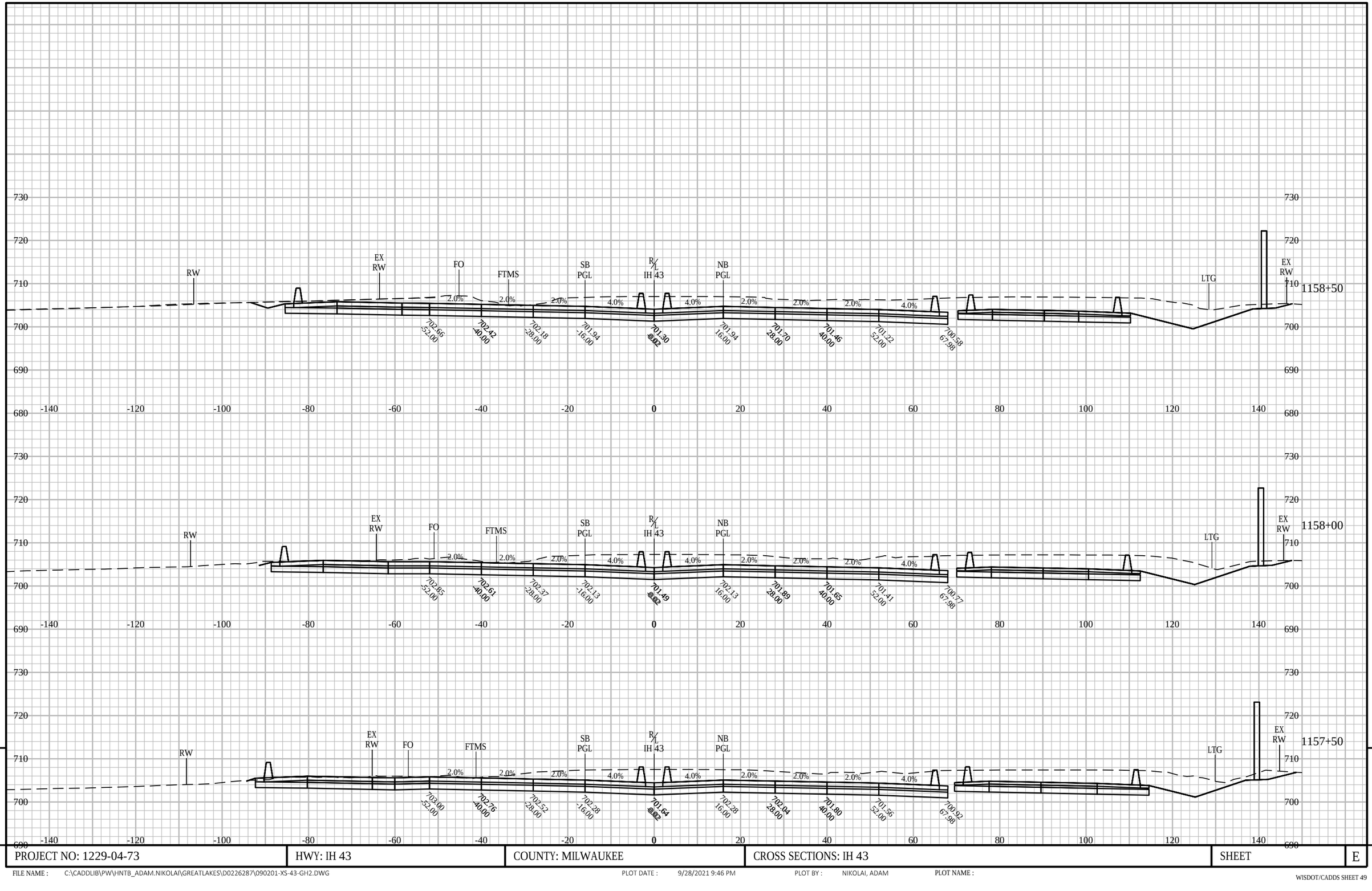

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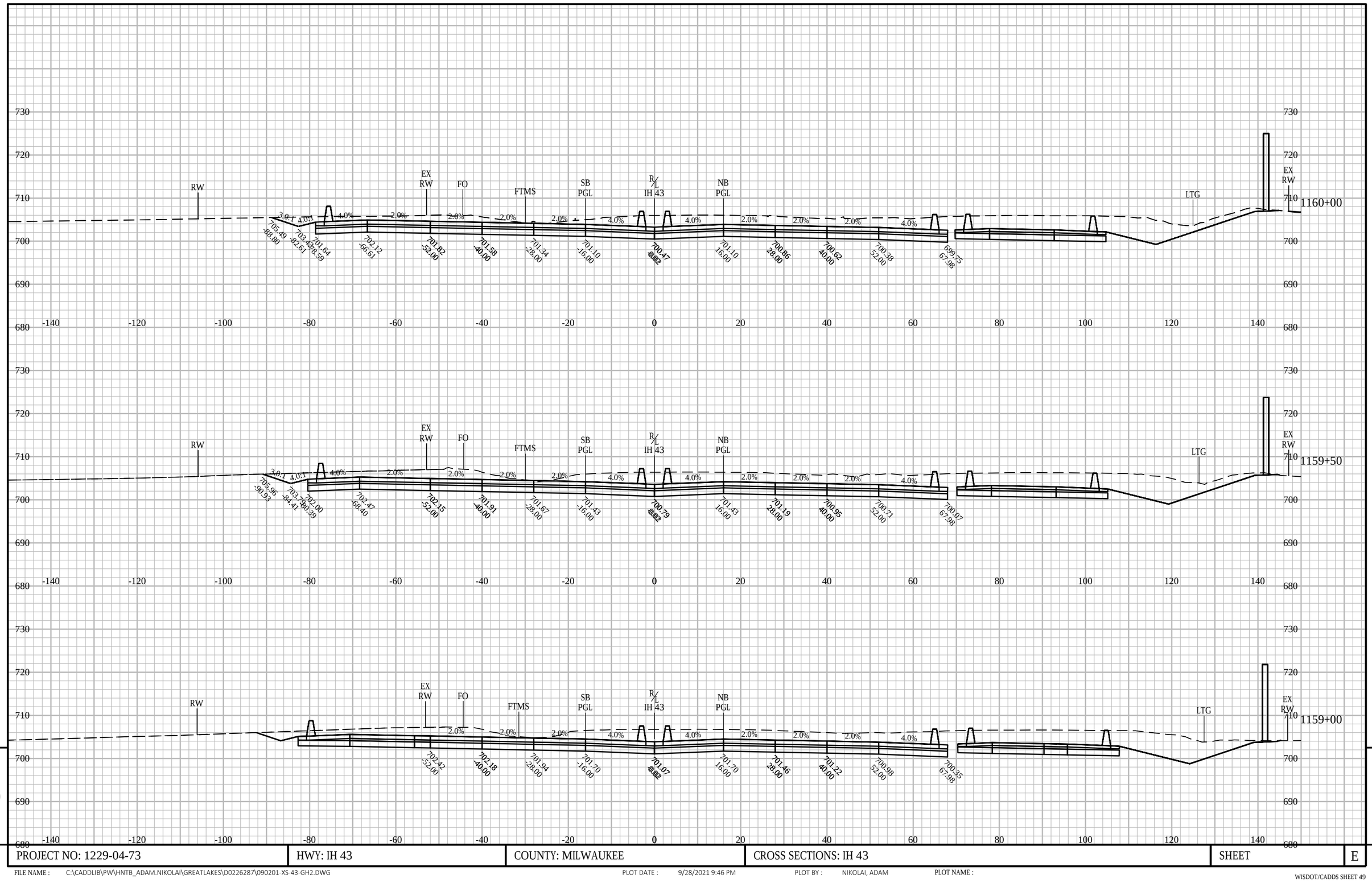

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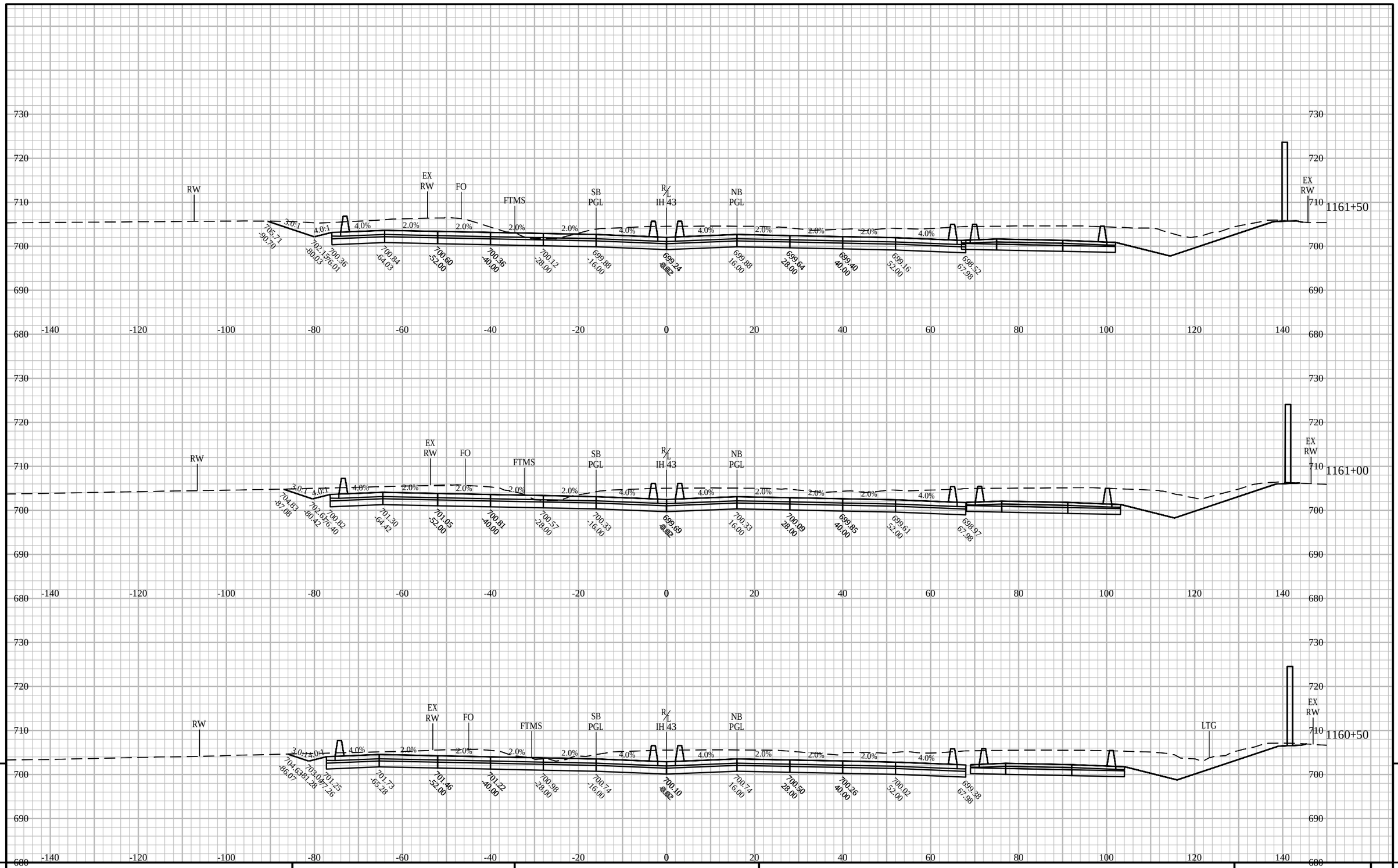

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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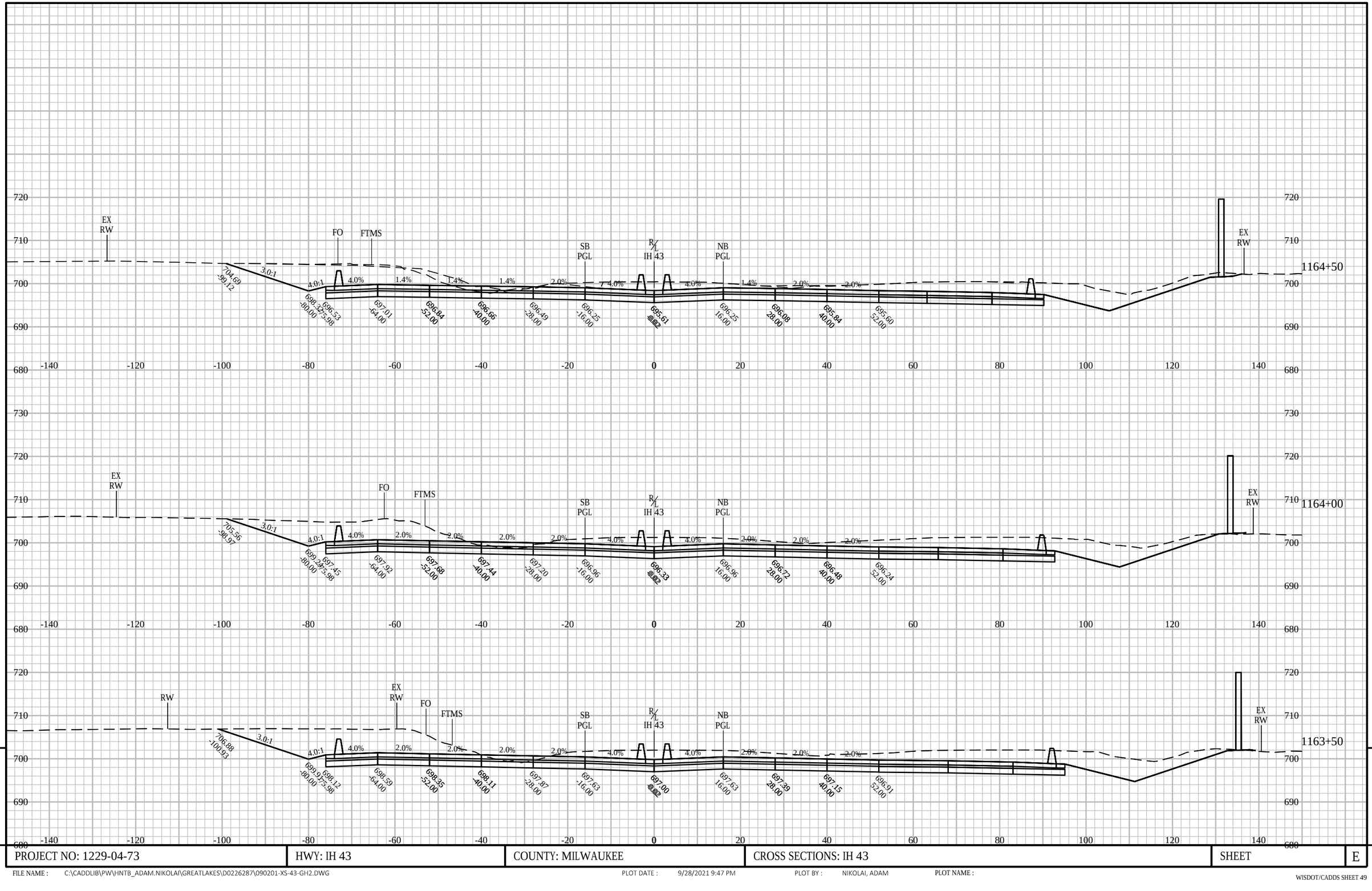

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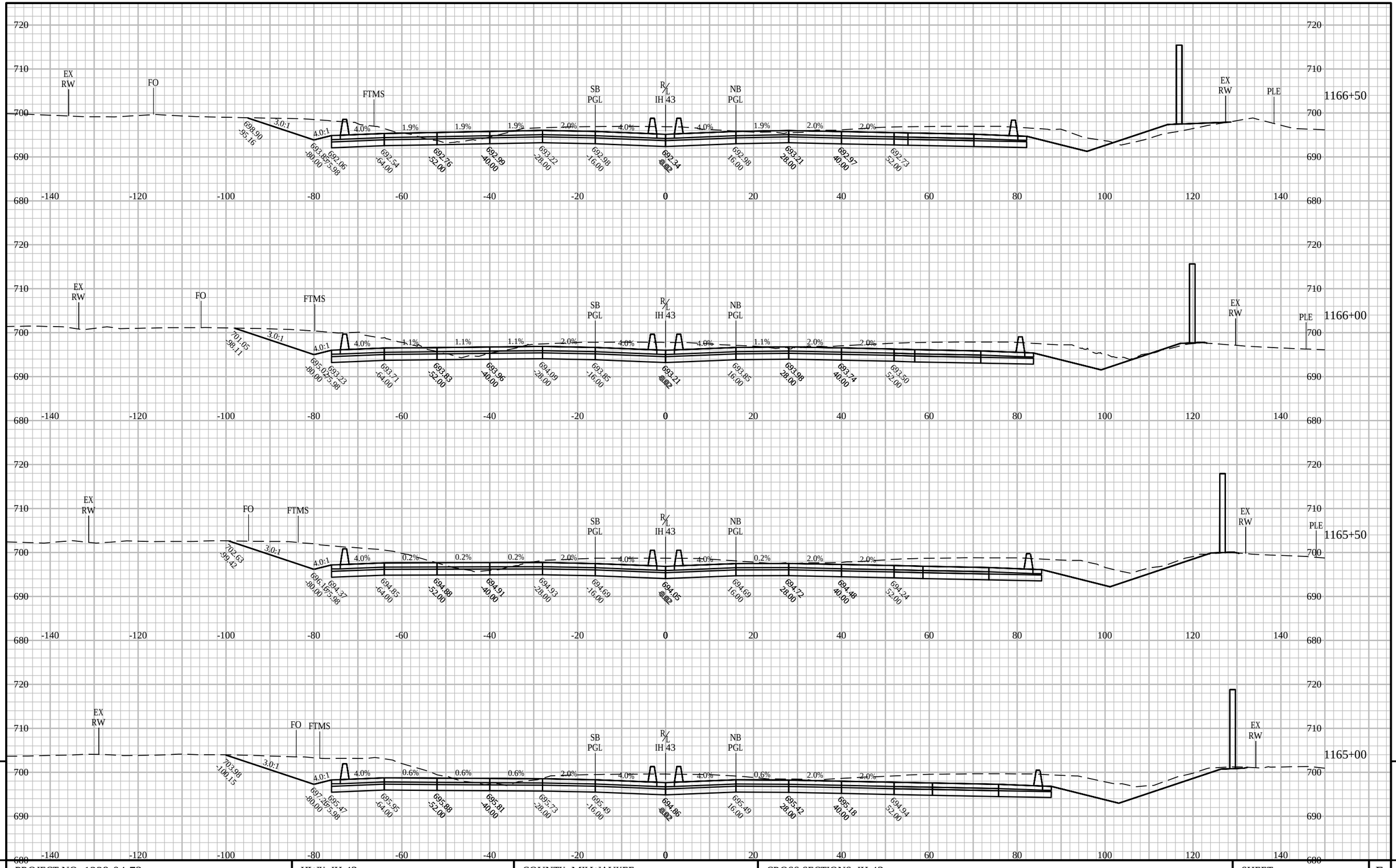

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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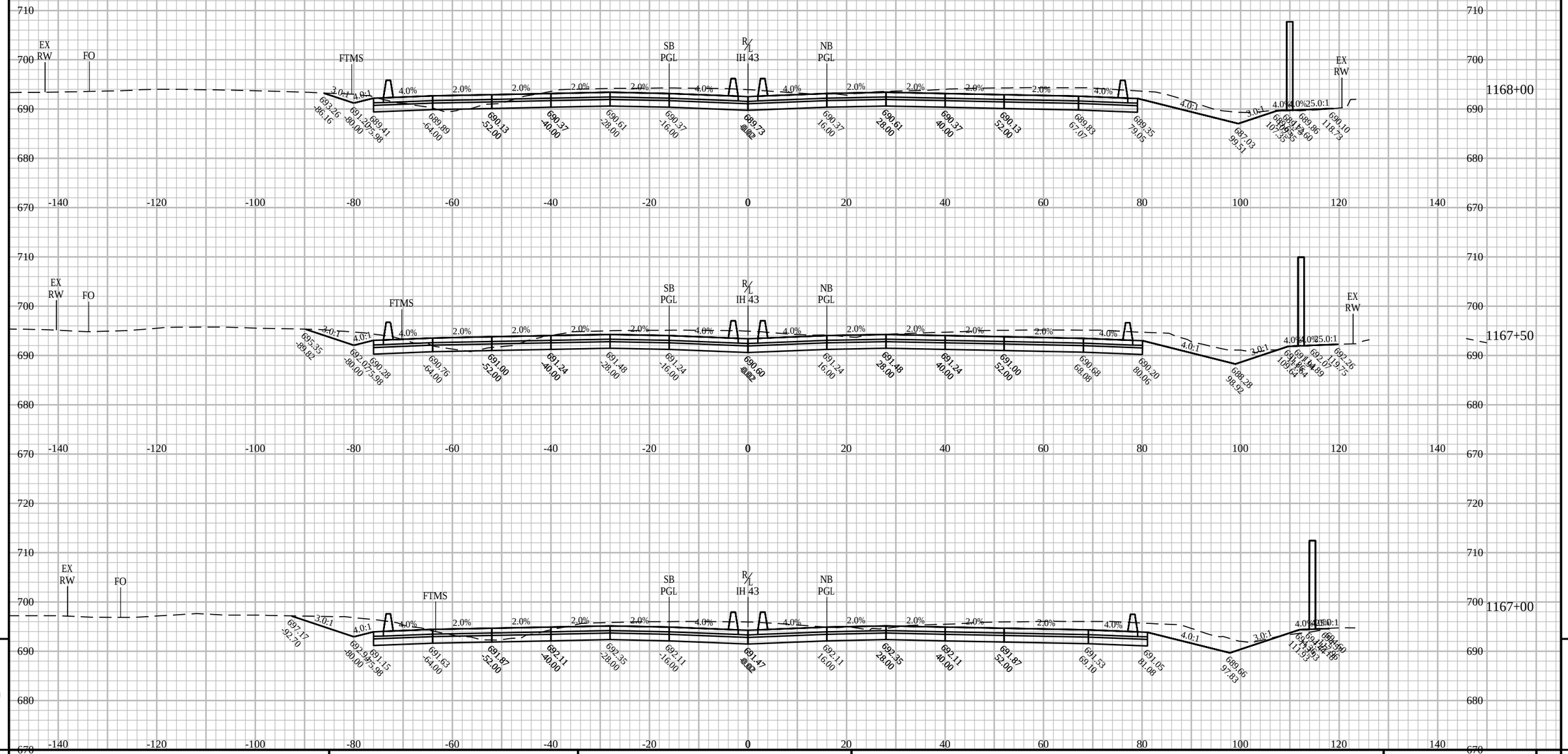

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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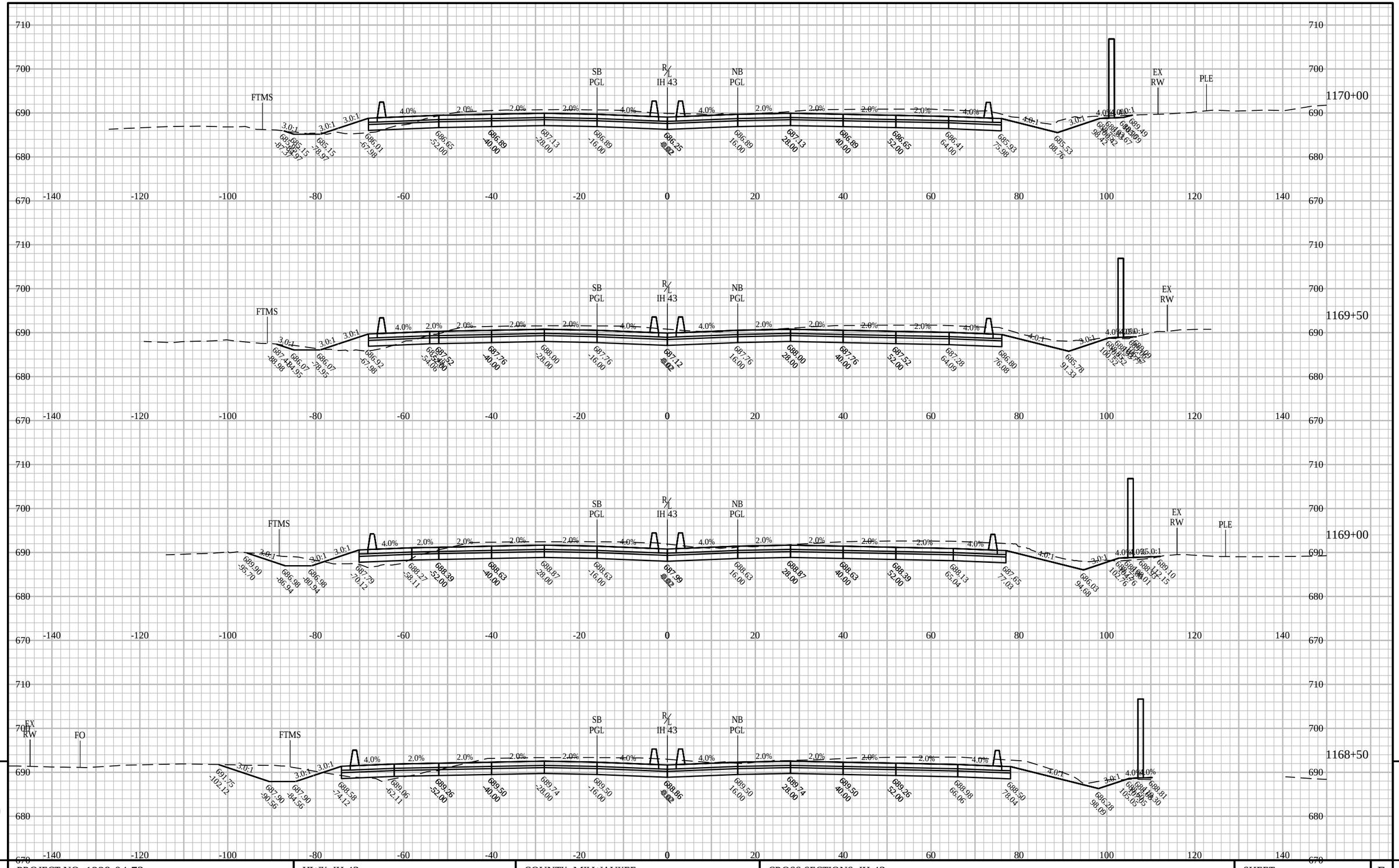

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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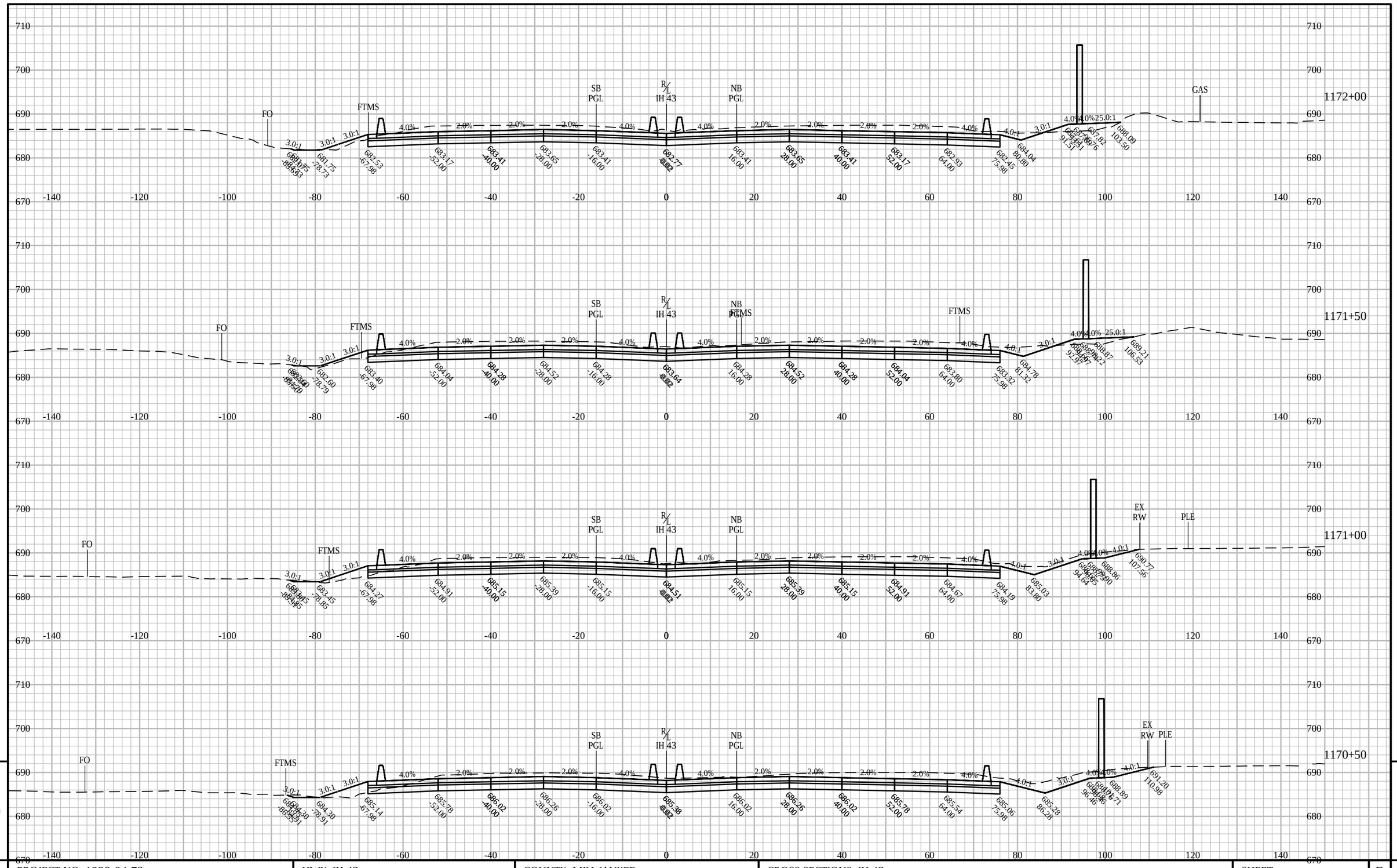

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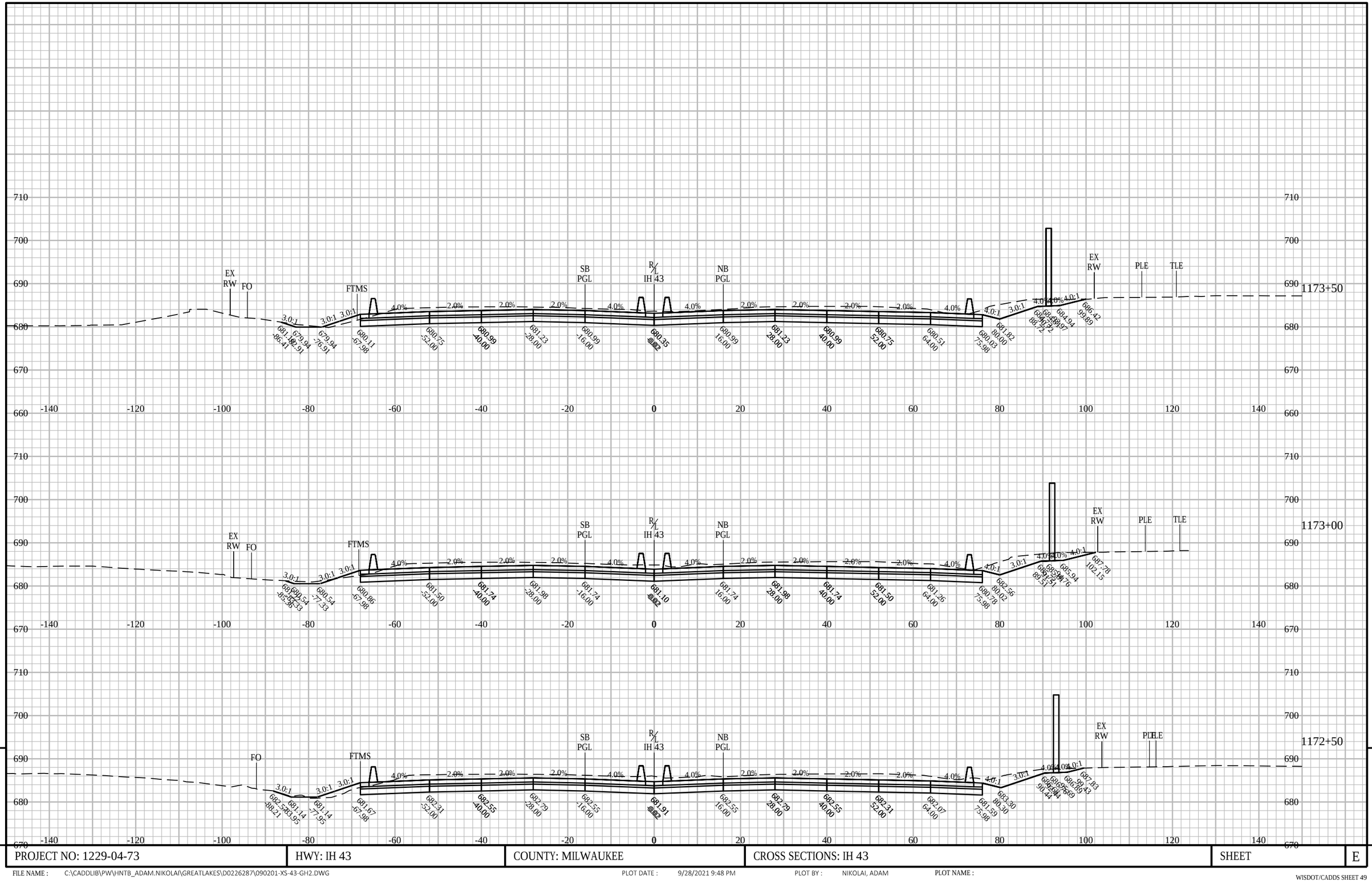
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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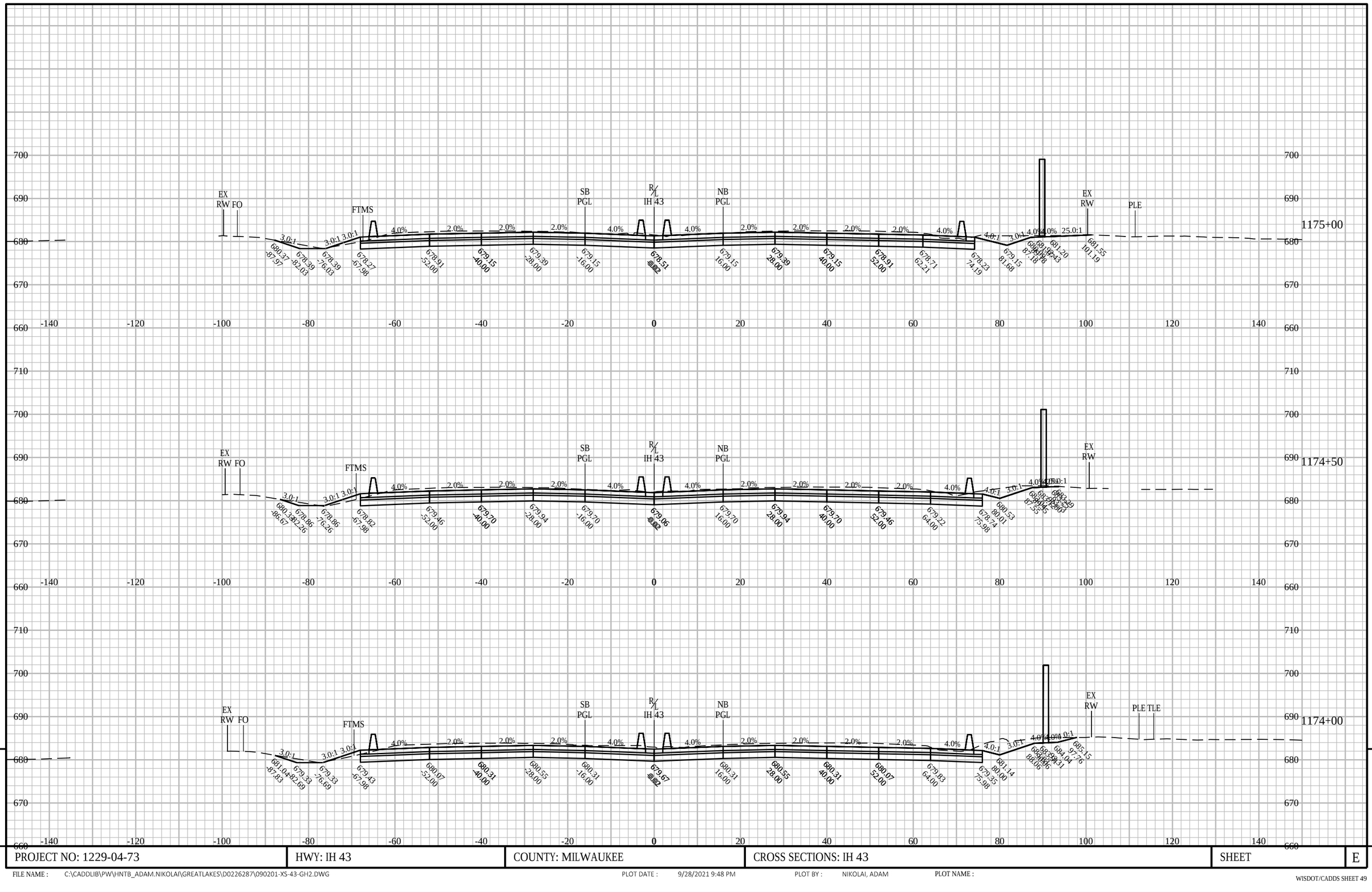

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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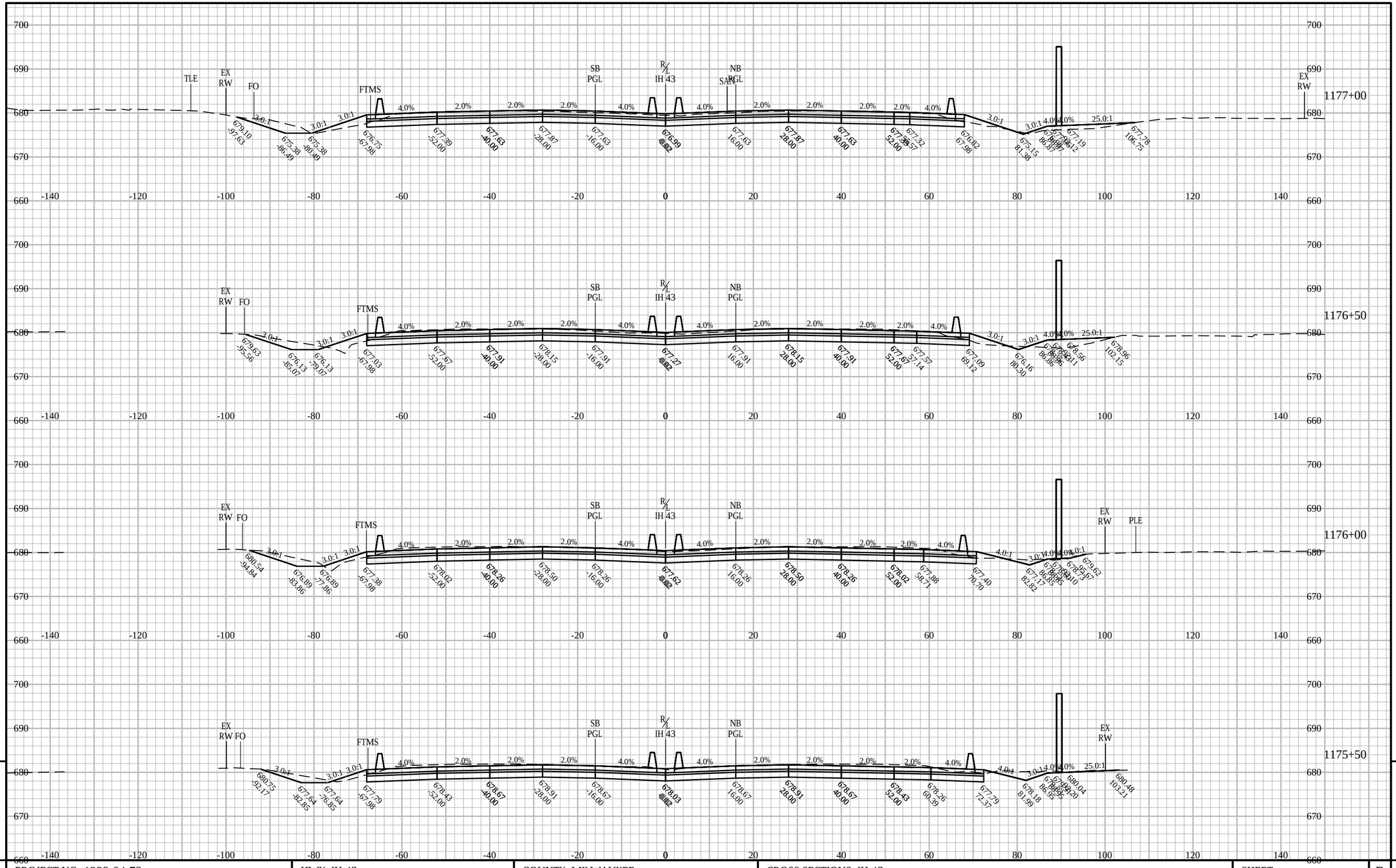

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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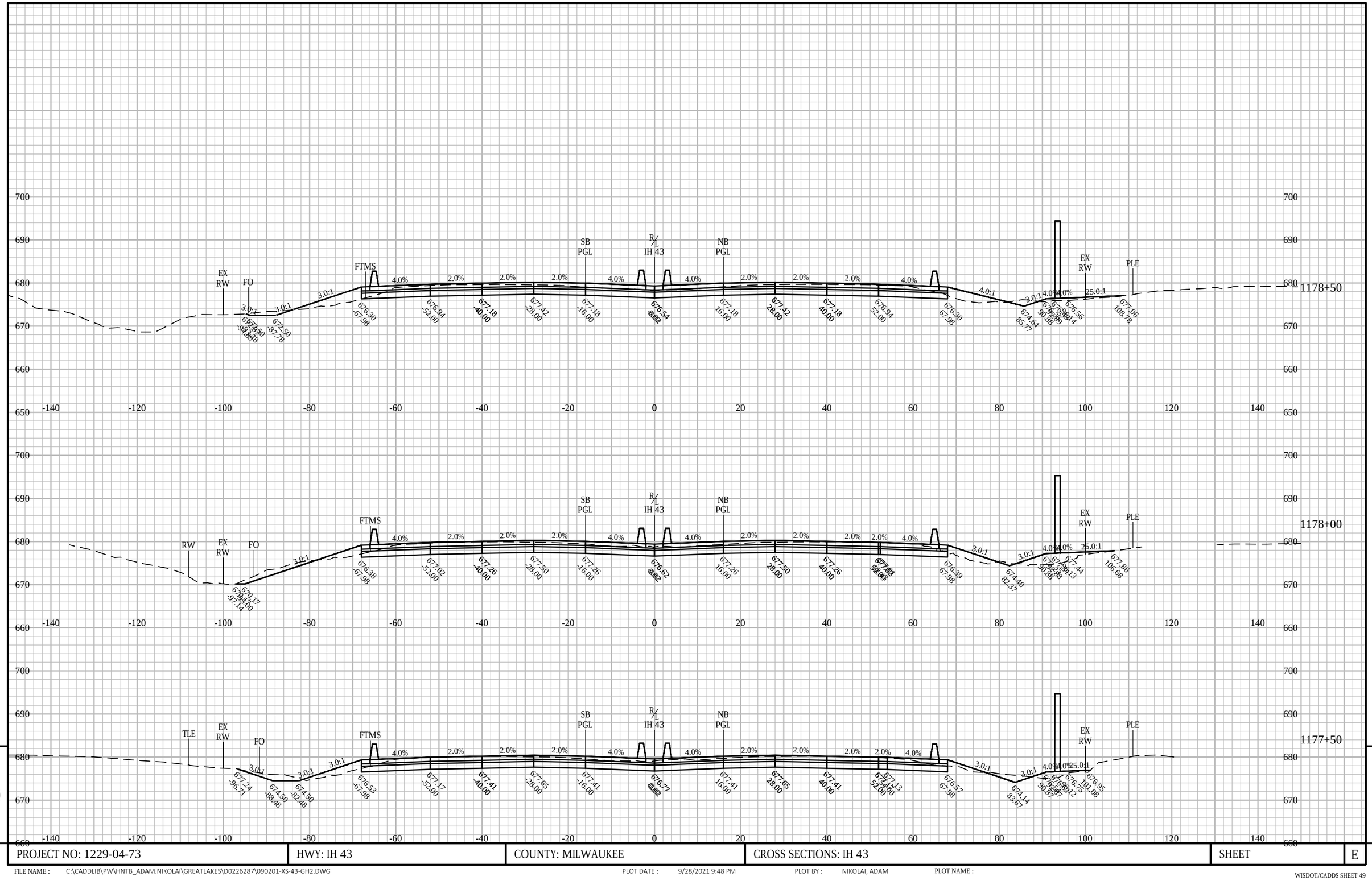

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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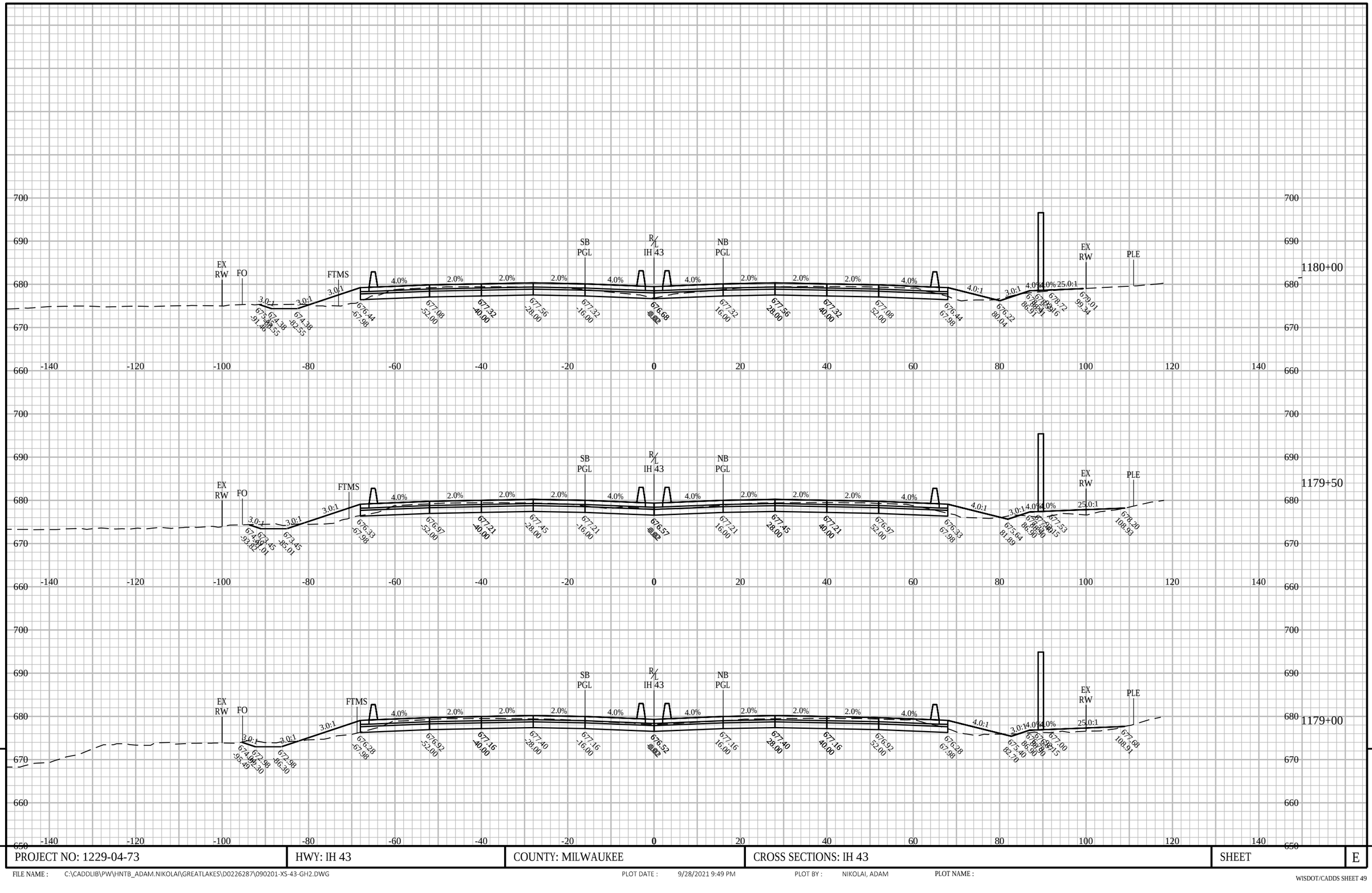

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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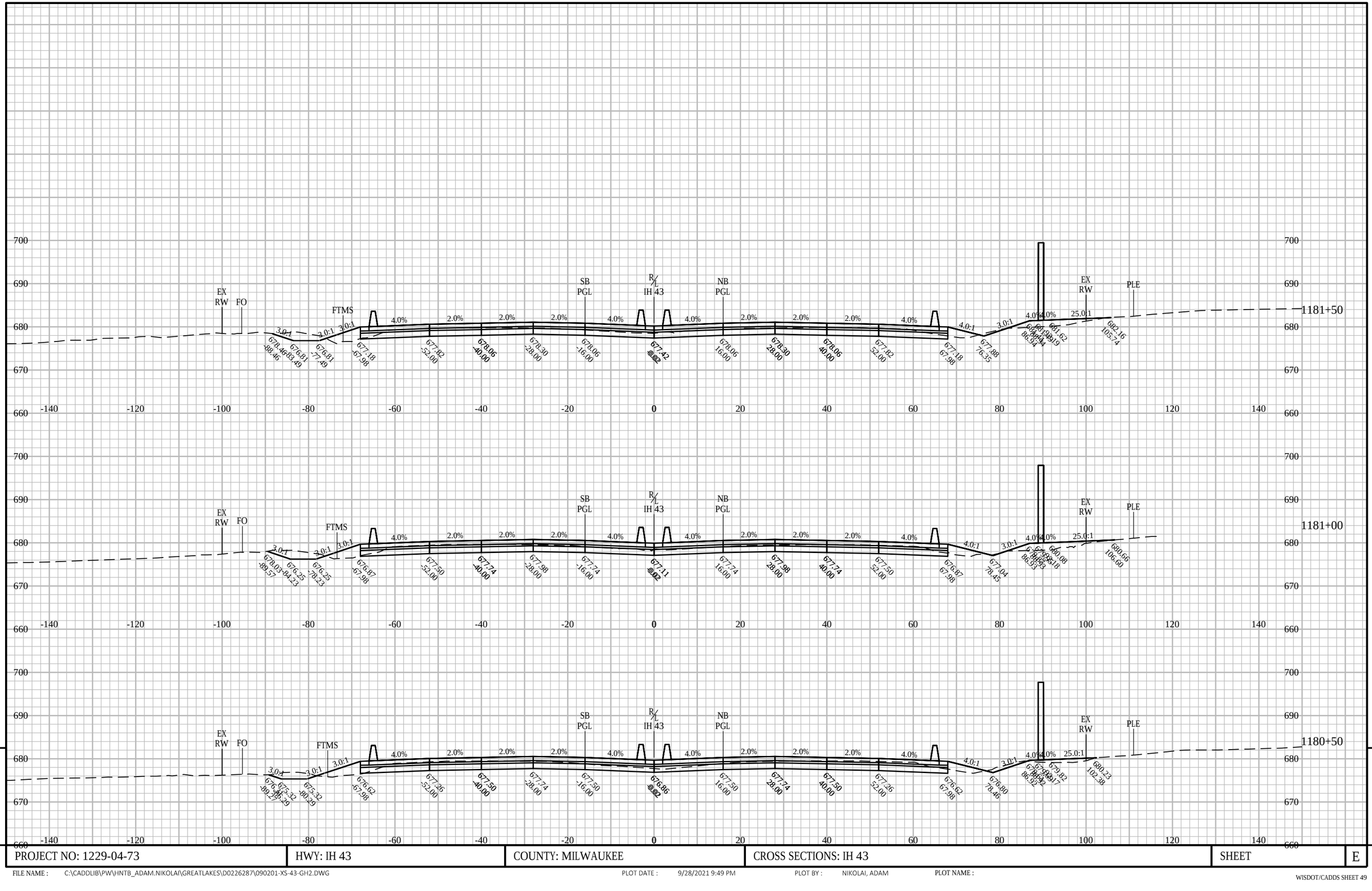

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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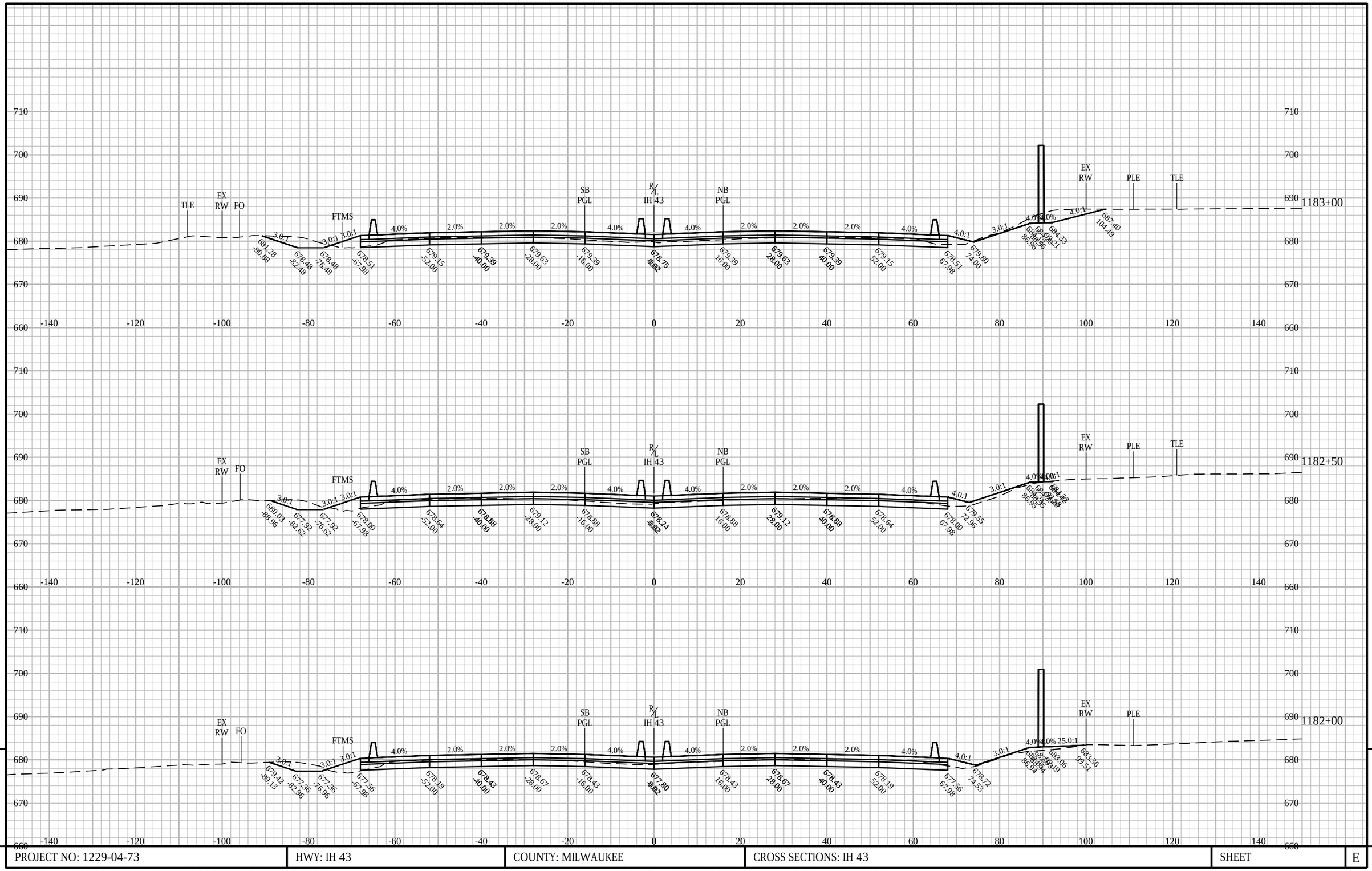

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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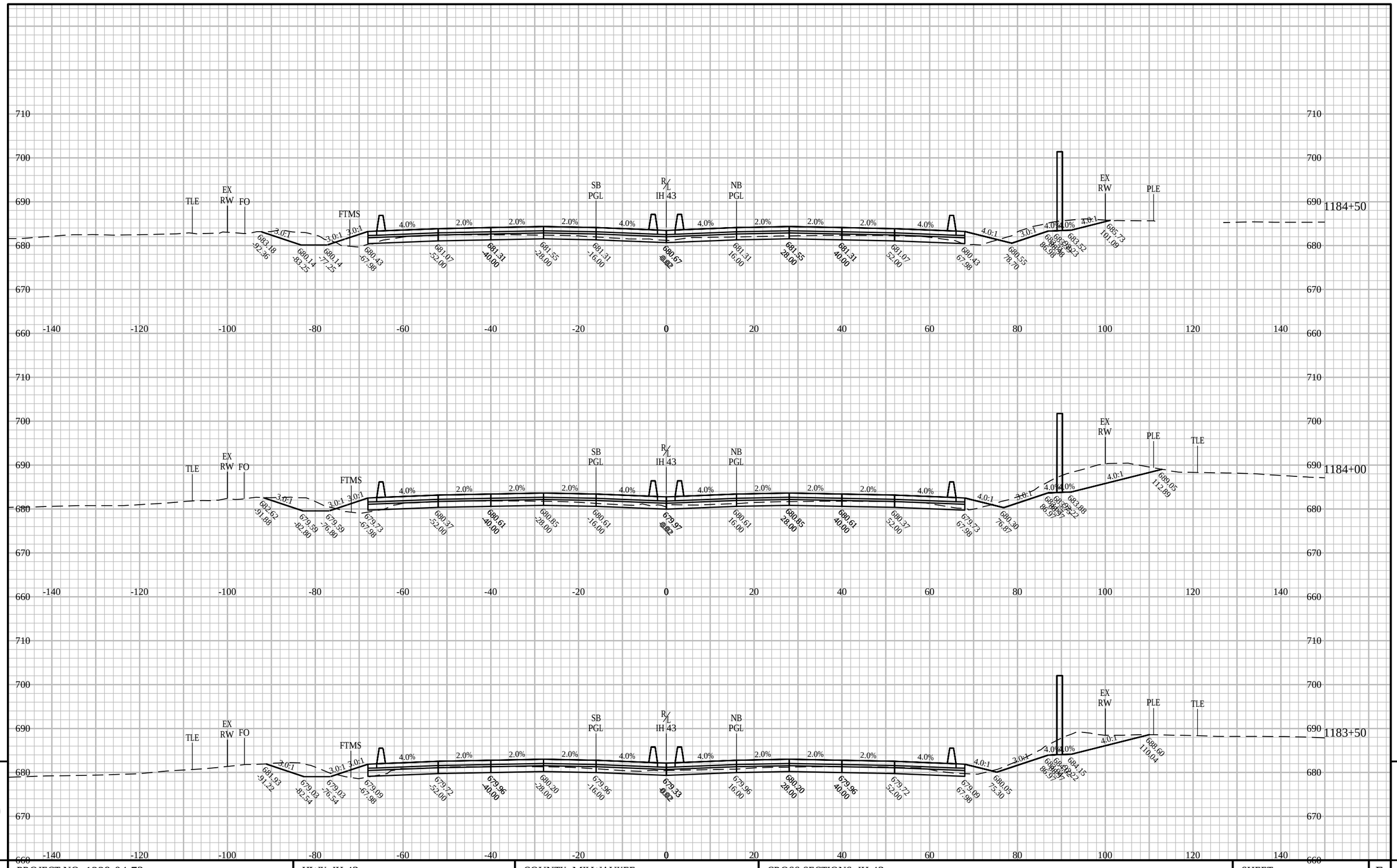

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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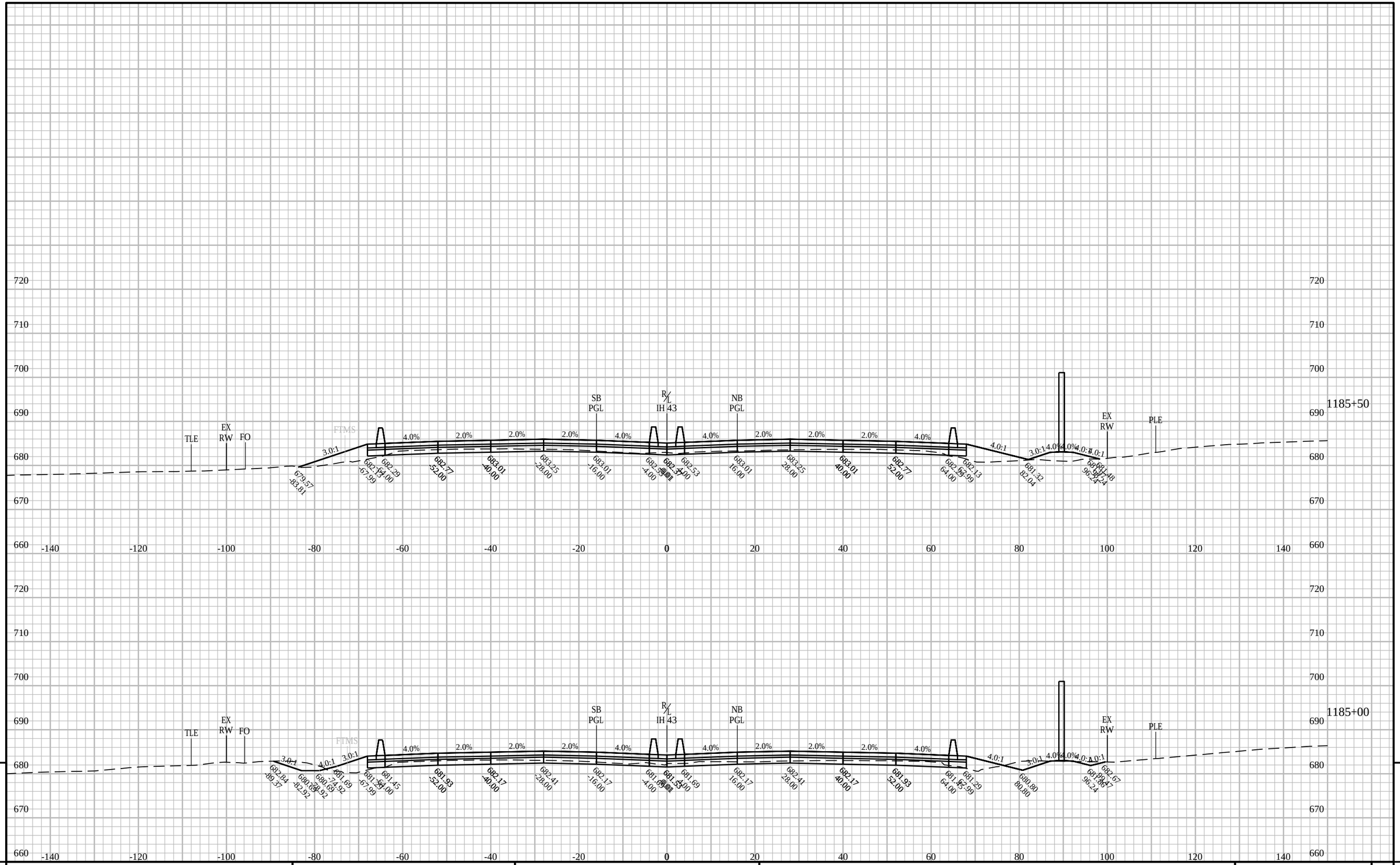

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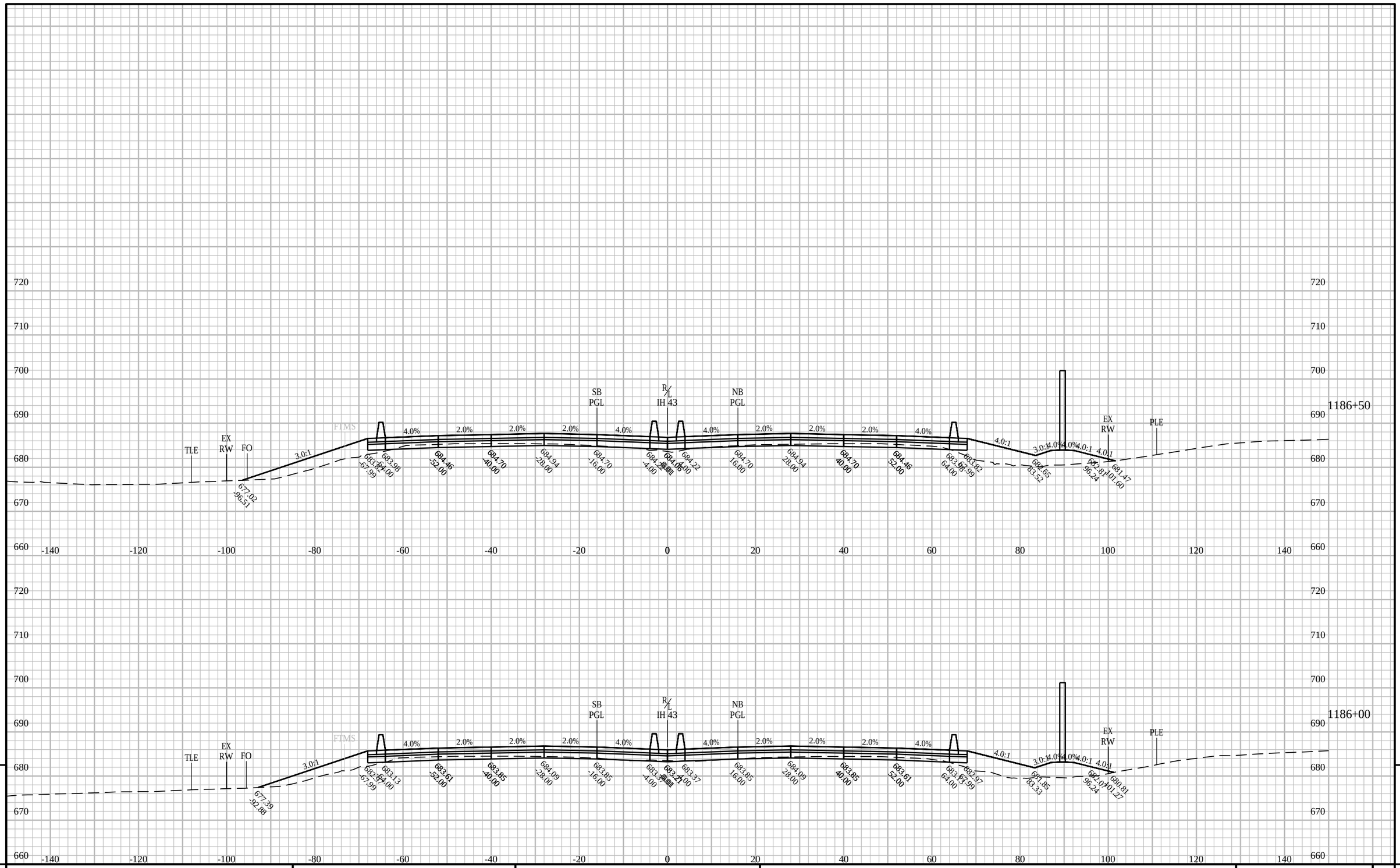
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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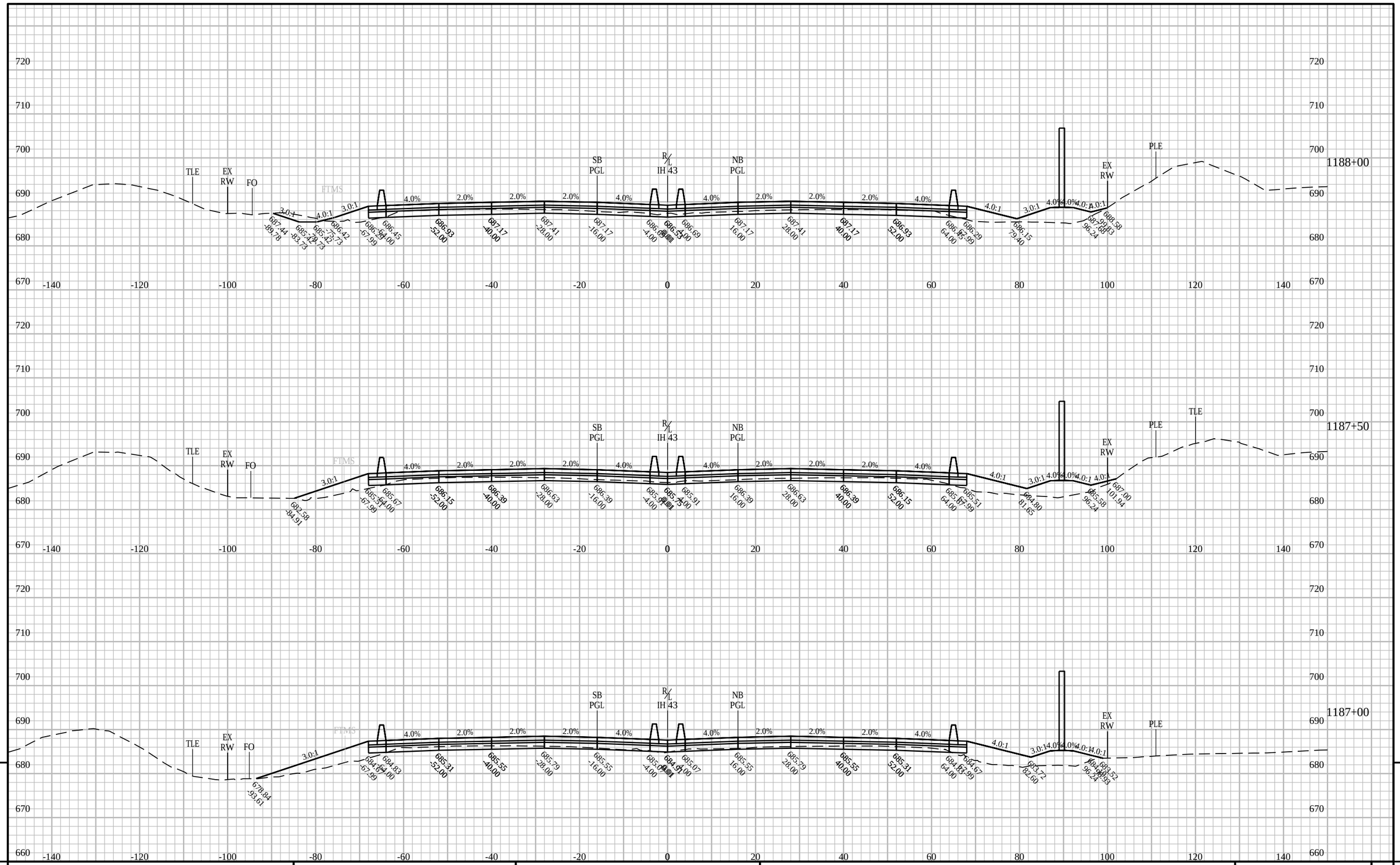

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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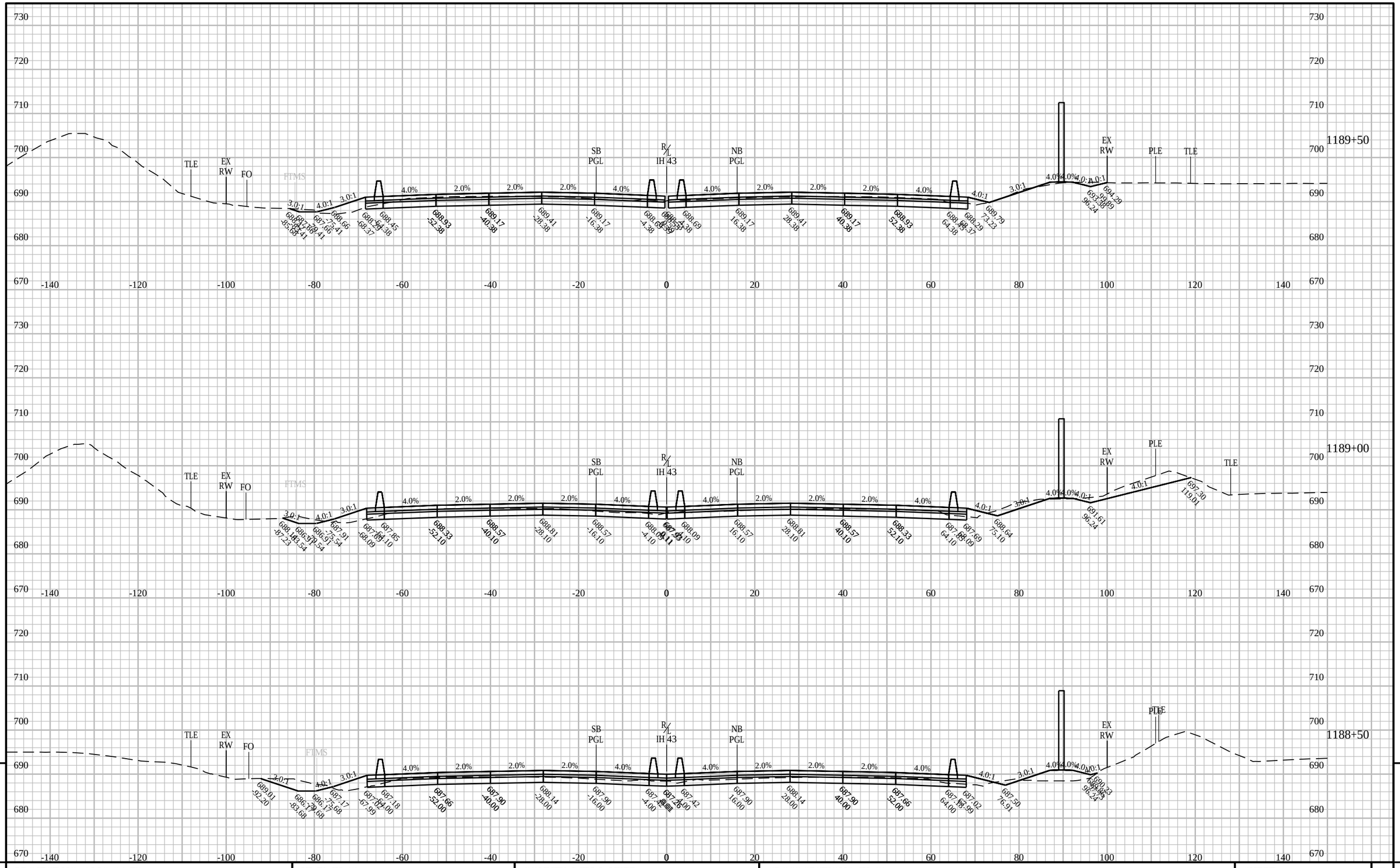

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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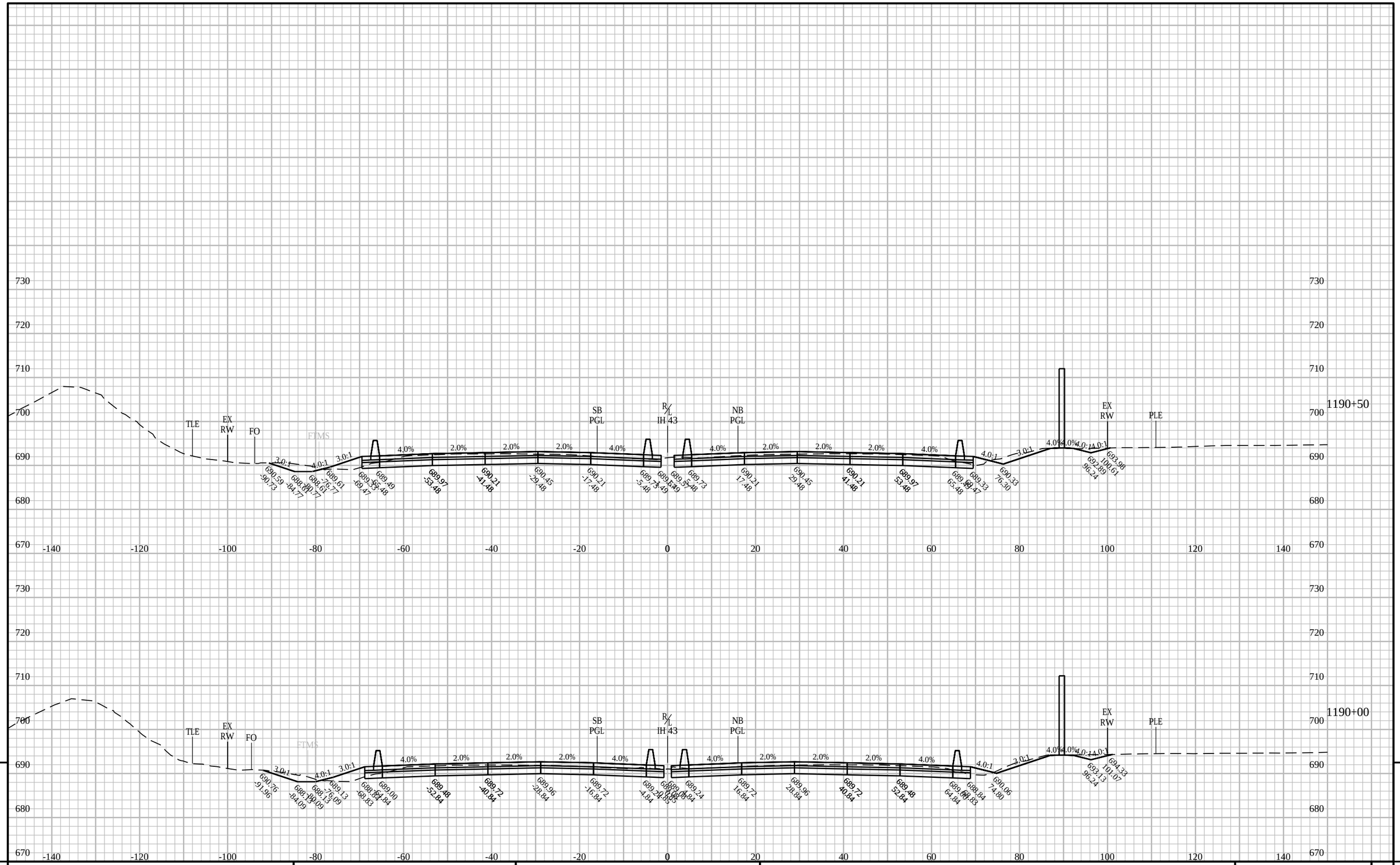

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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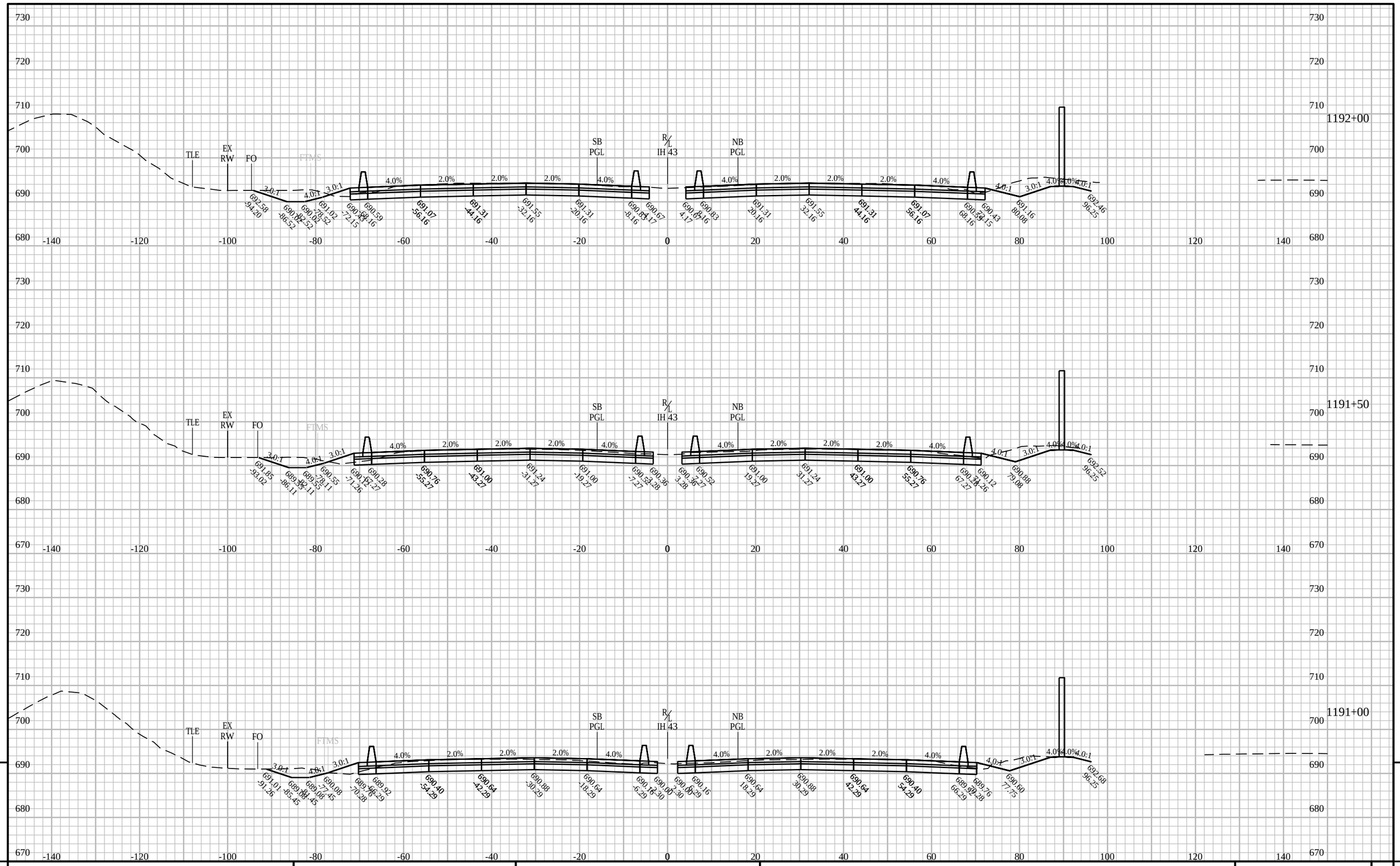

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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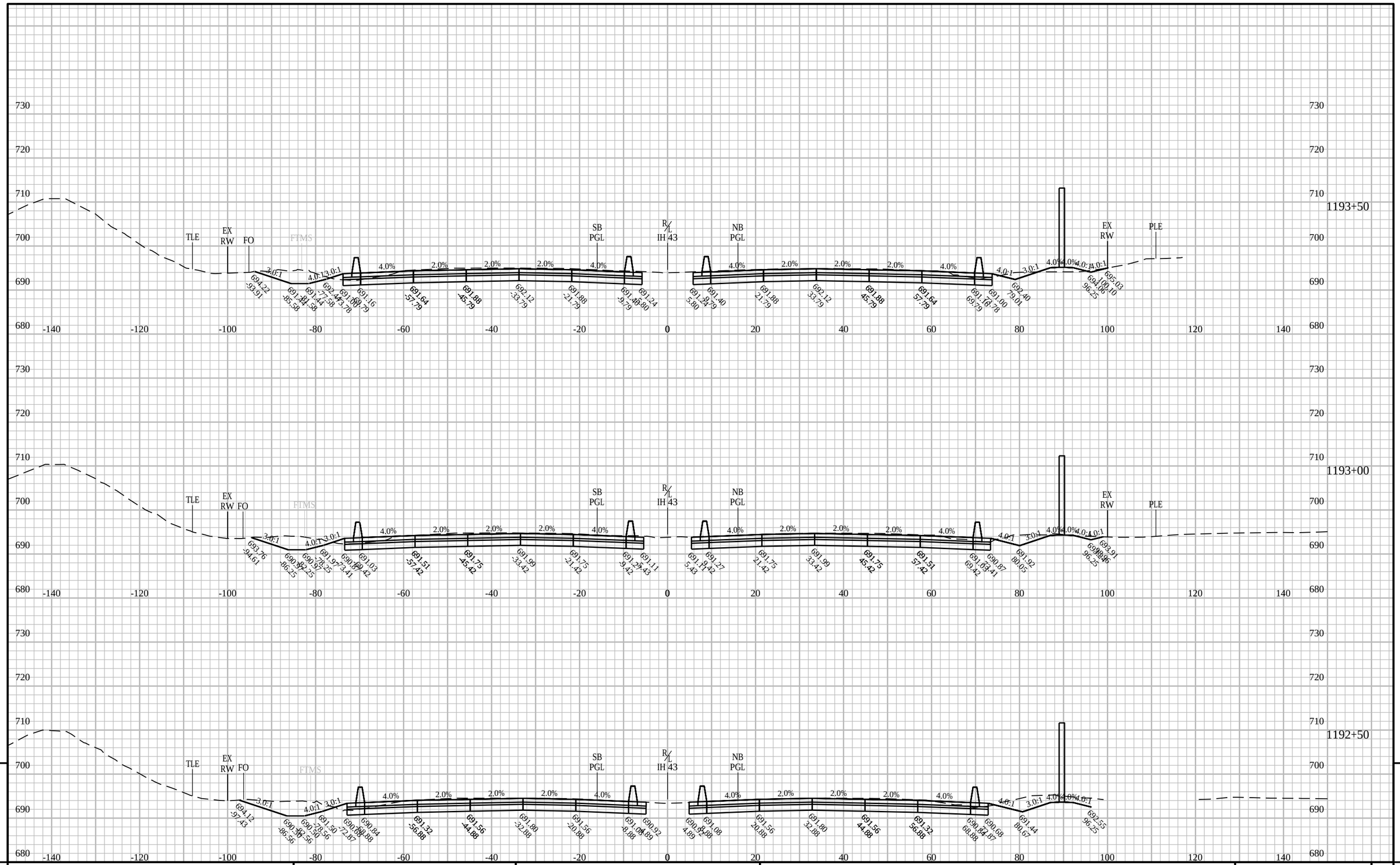

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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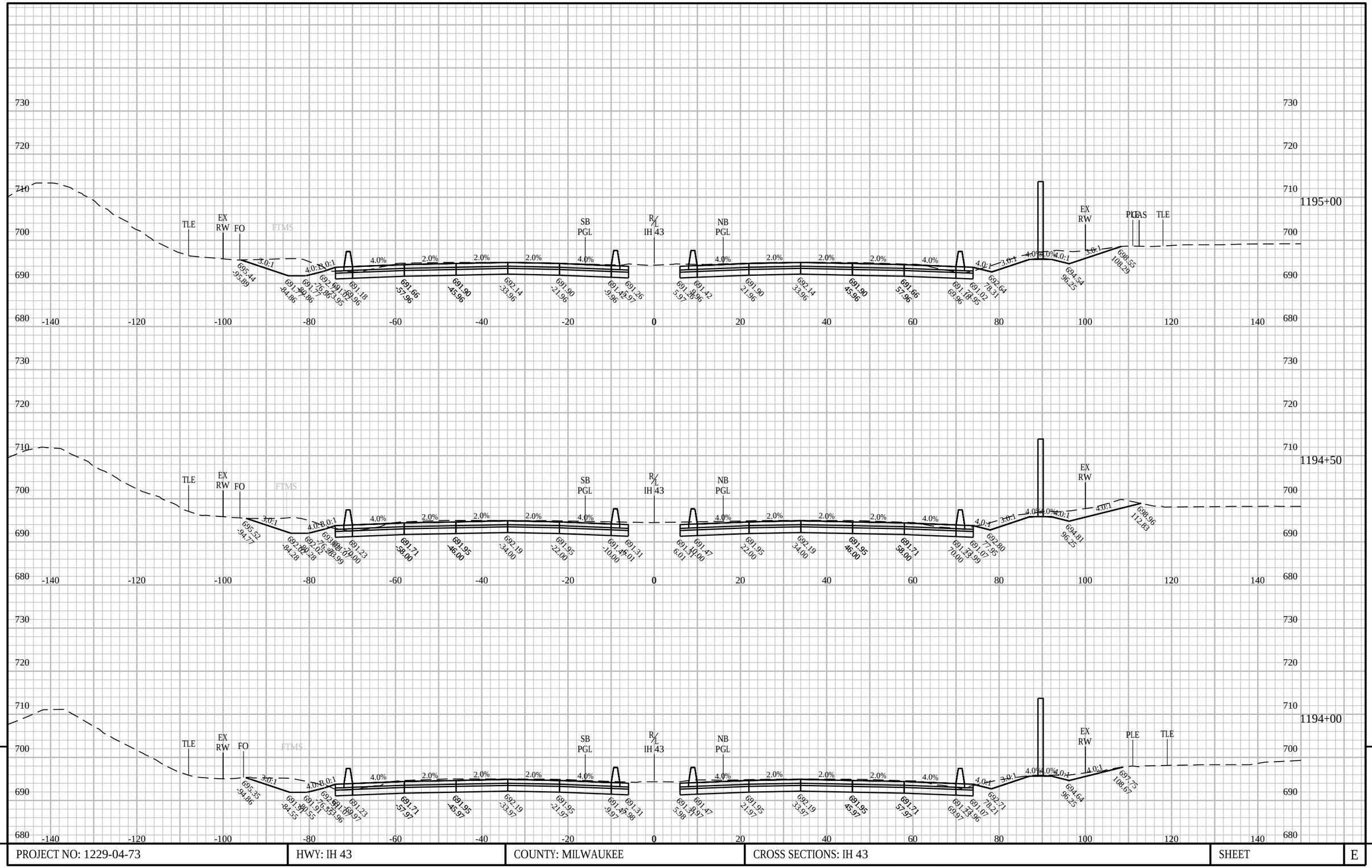

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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WISDOT/CADDS SHEET 49

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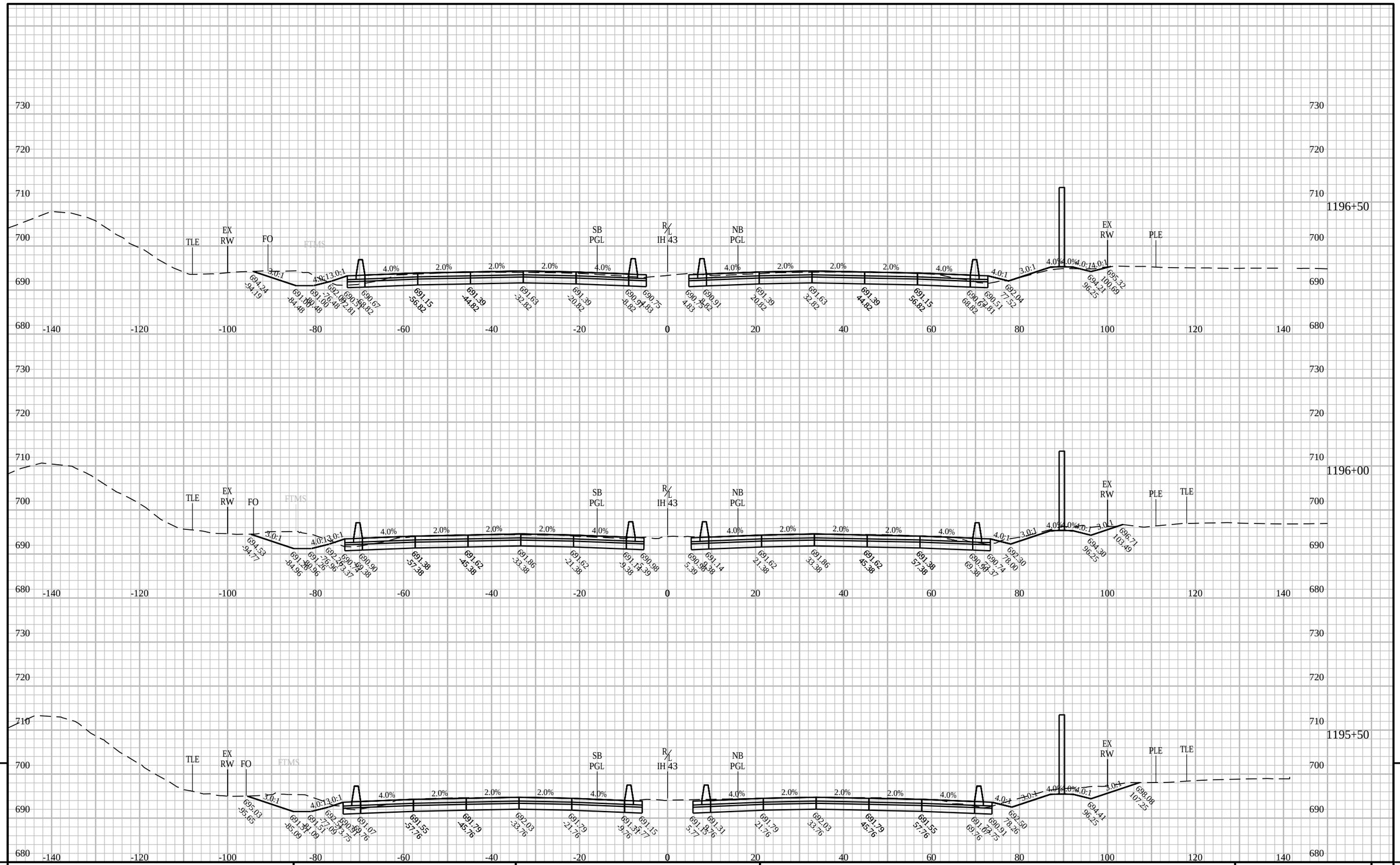

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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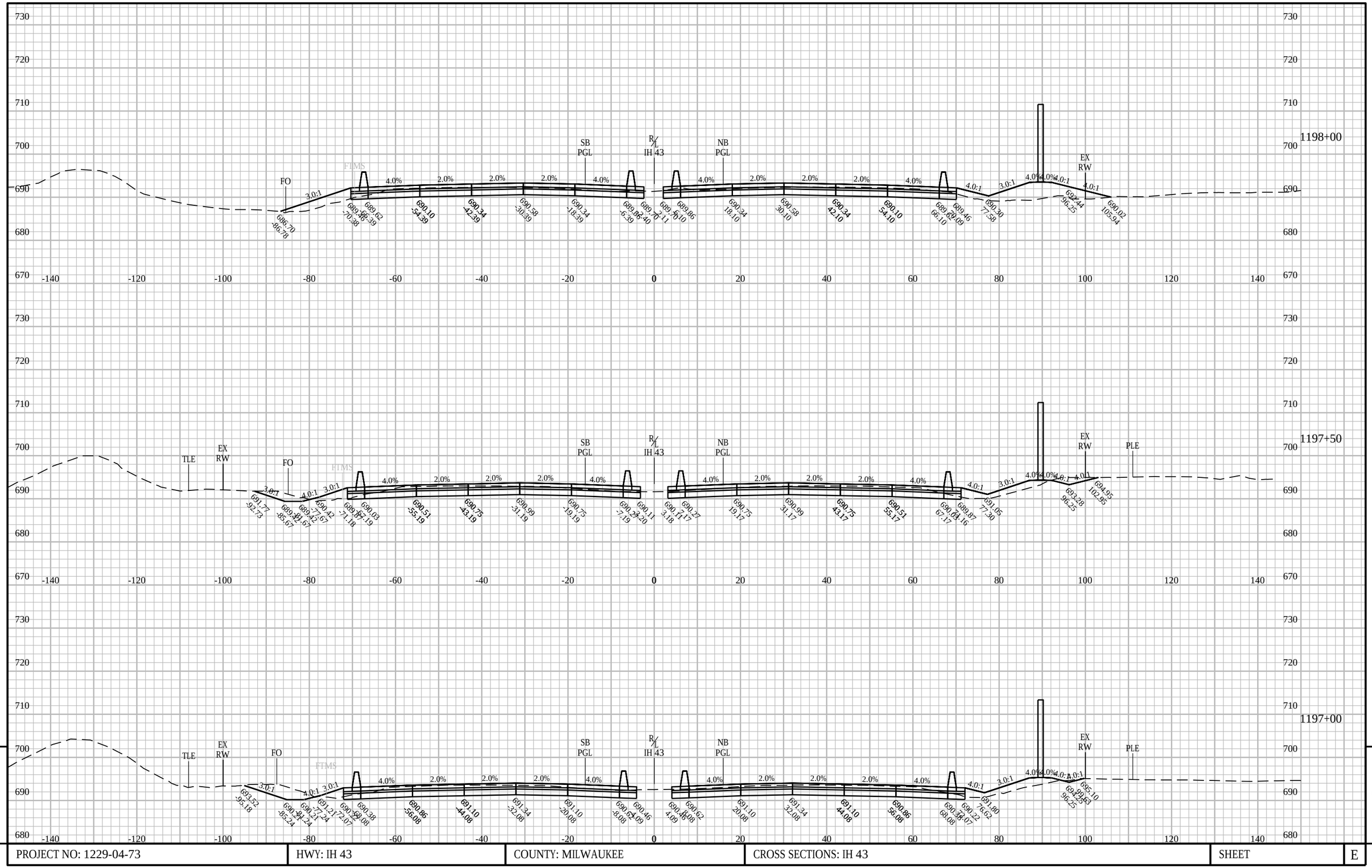

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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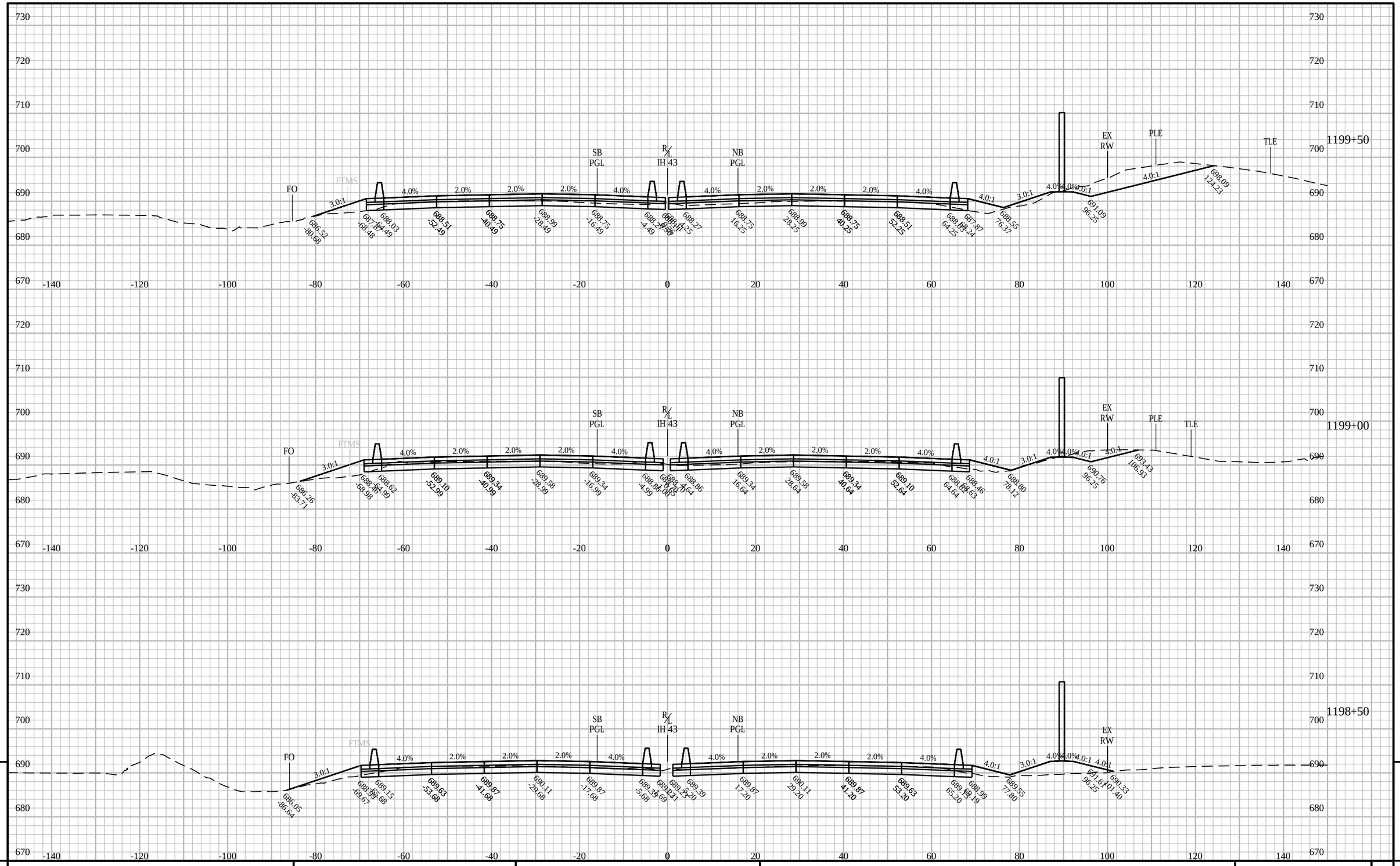

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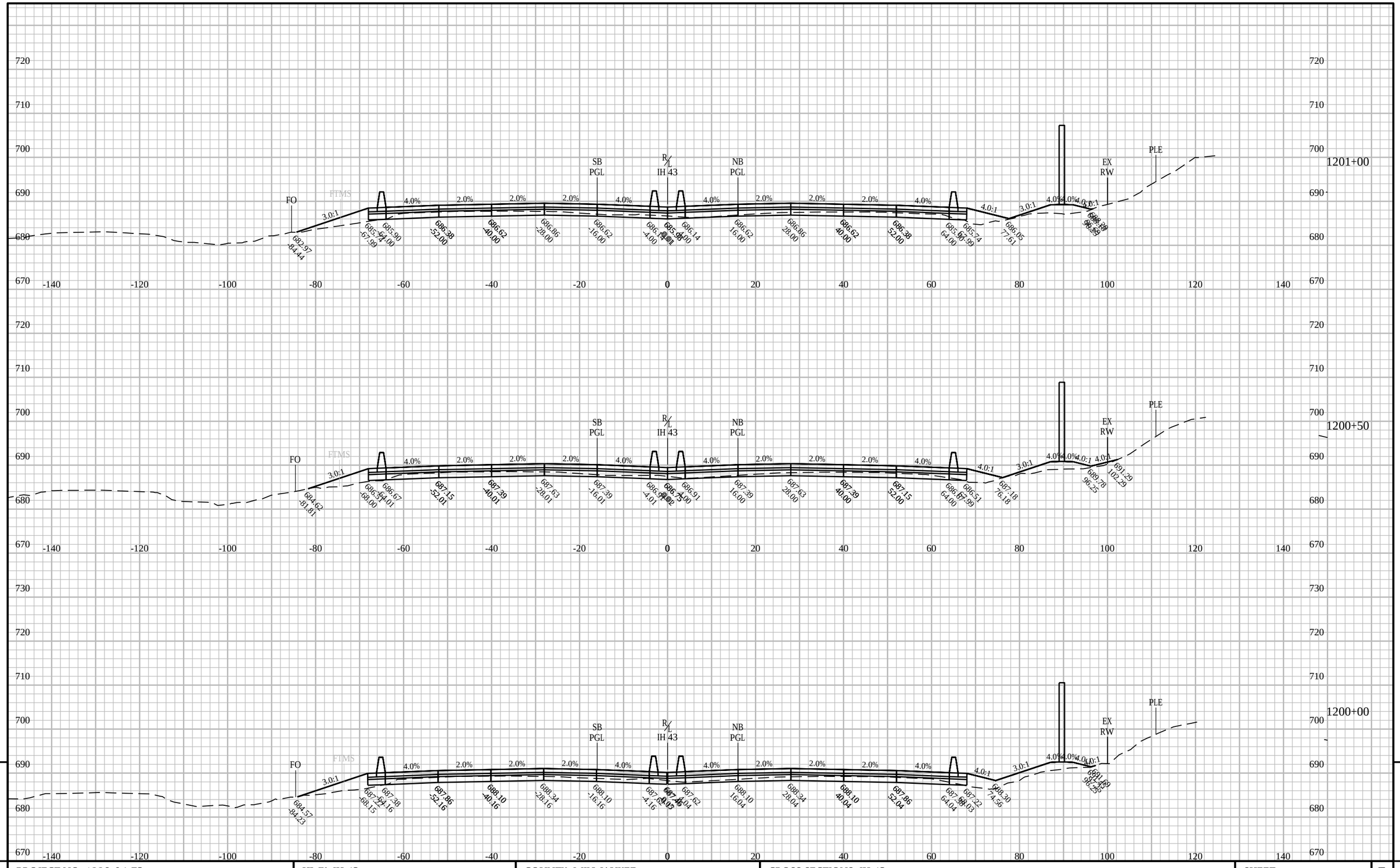

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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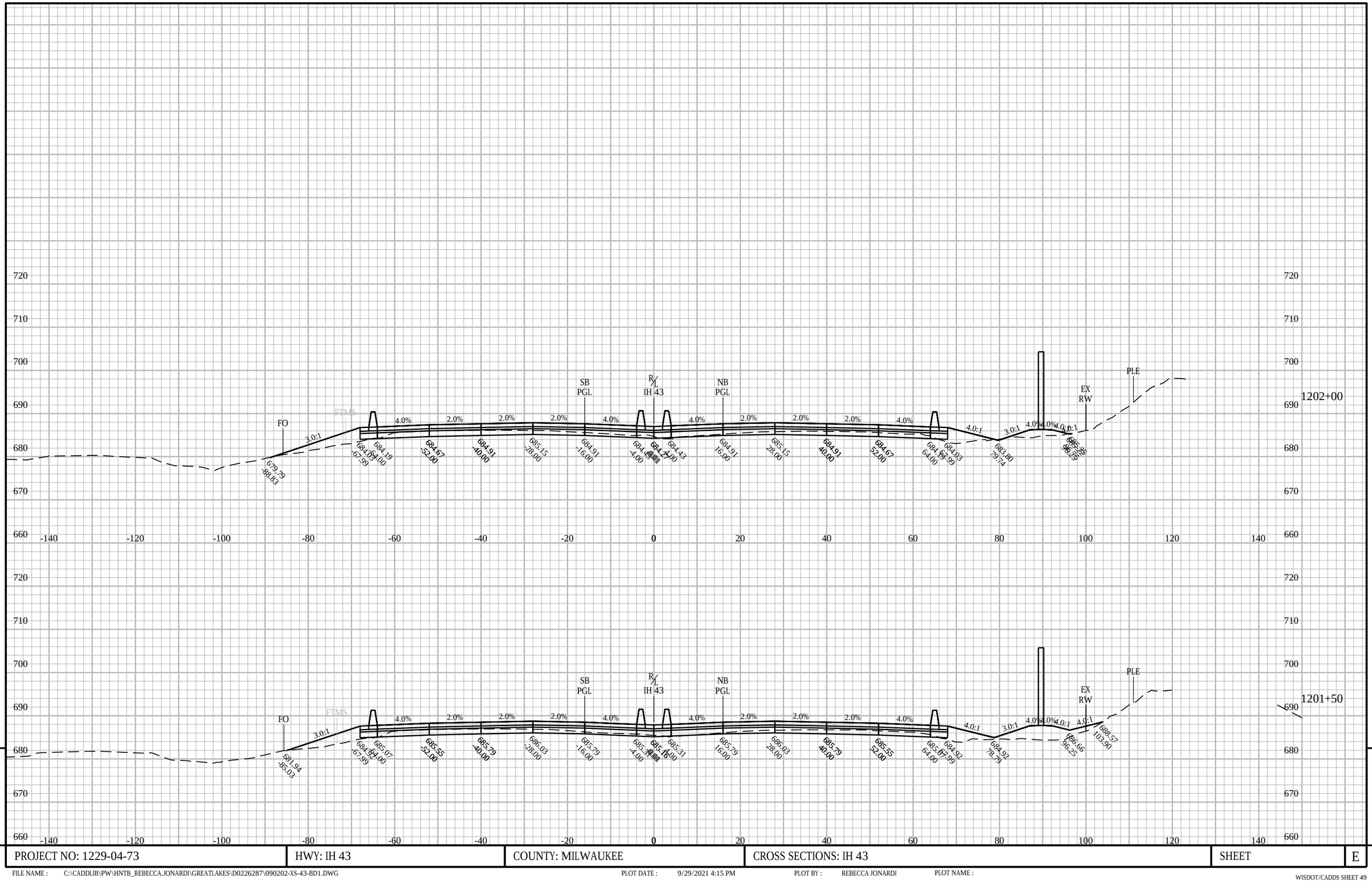

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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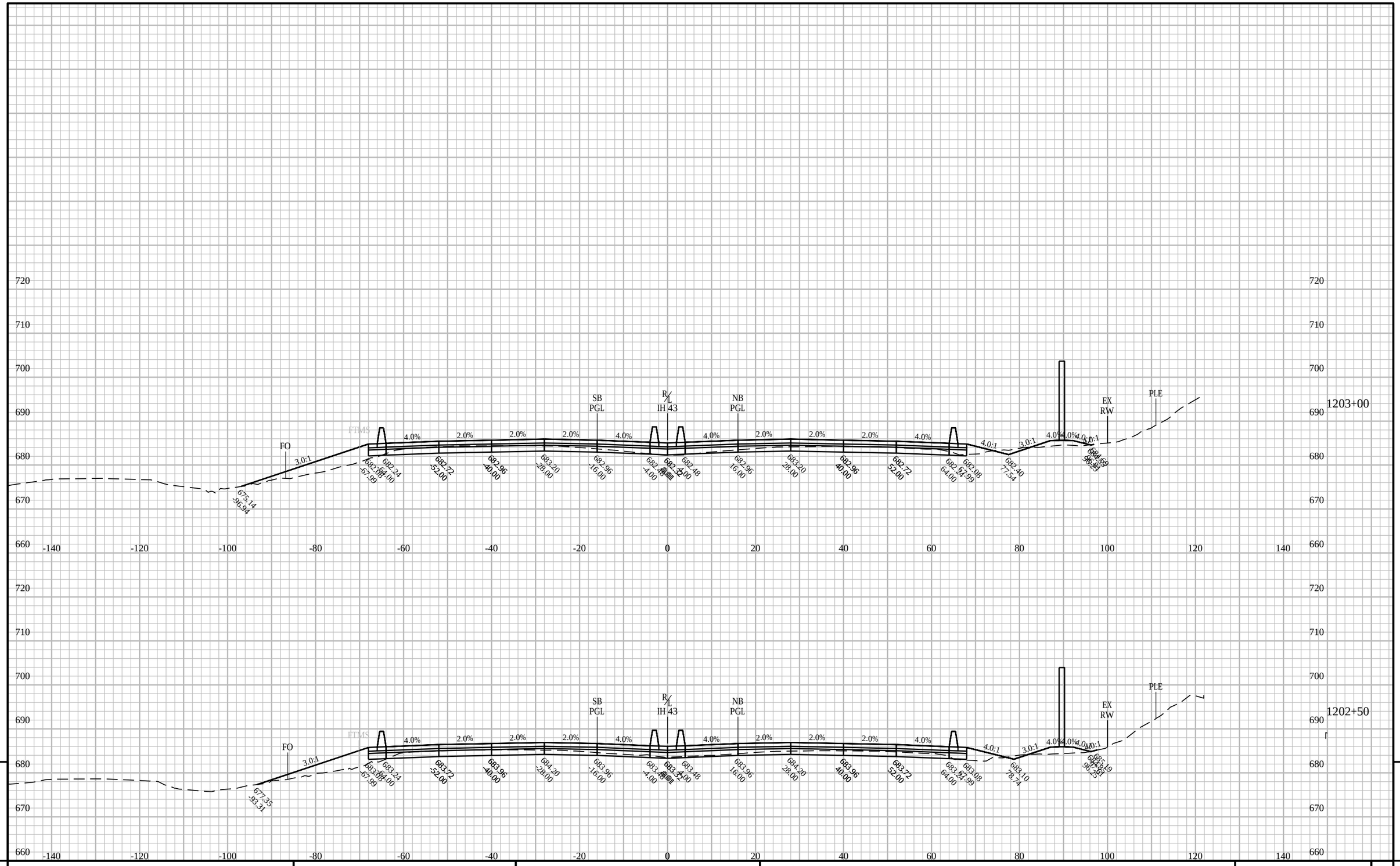

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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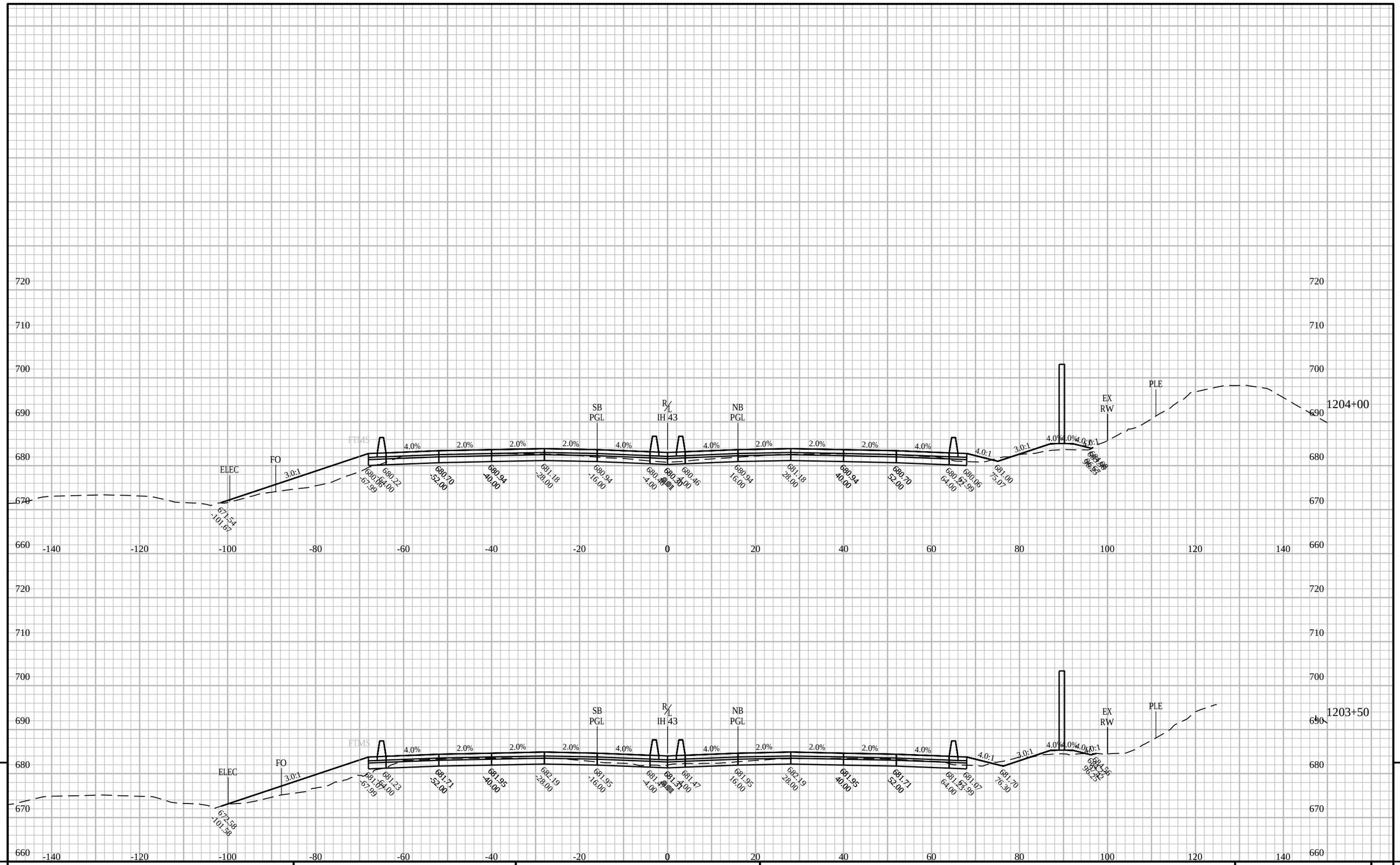

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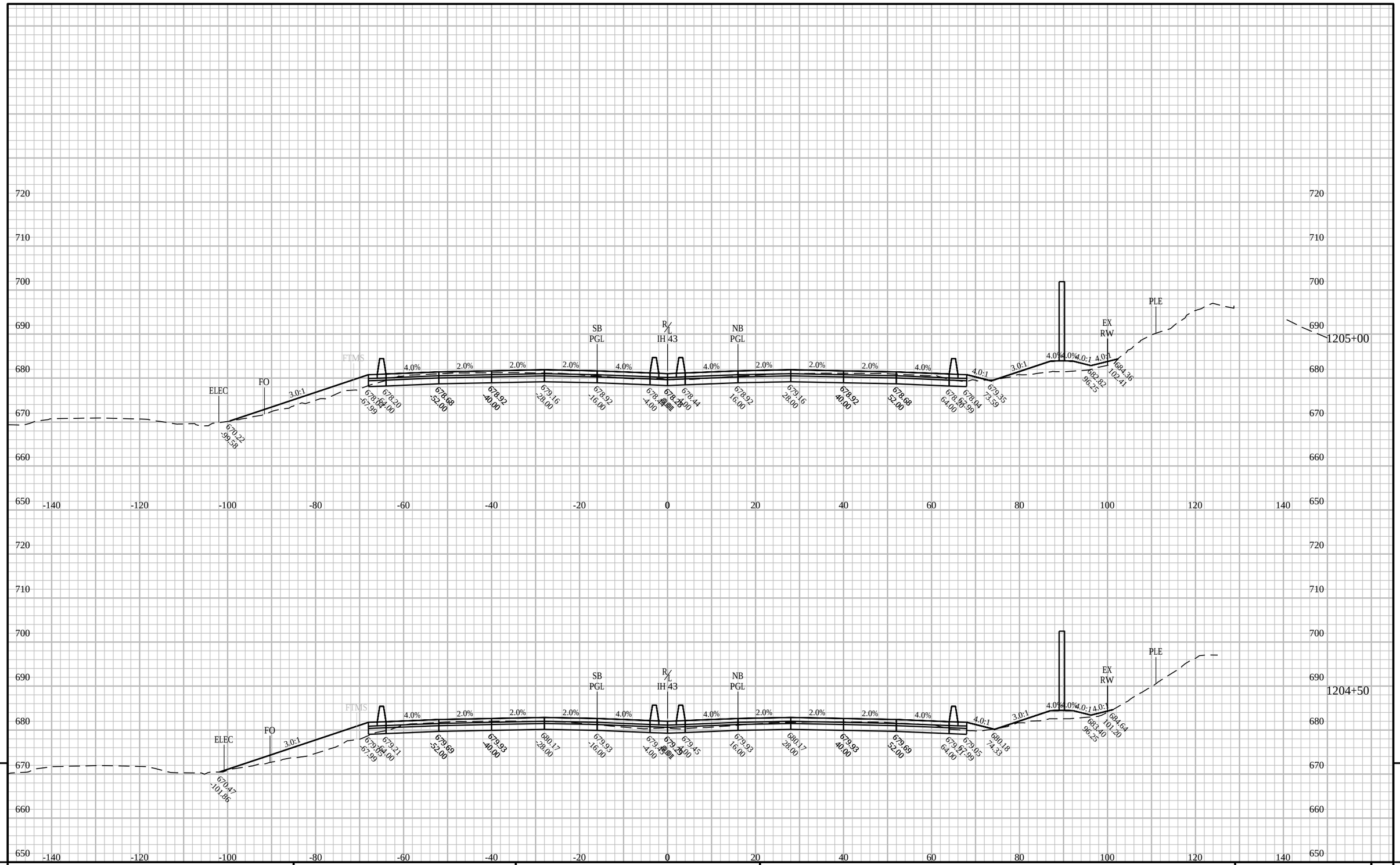

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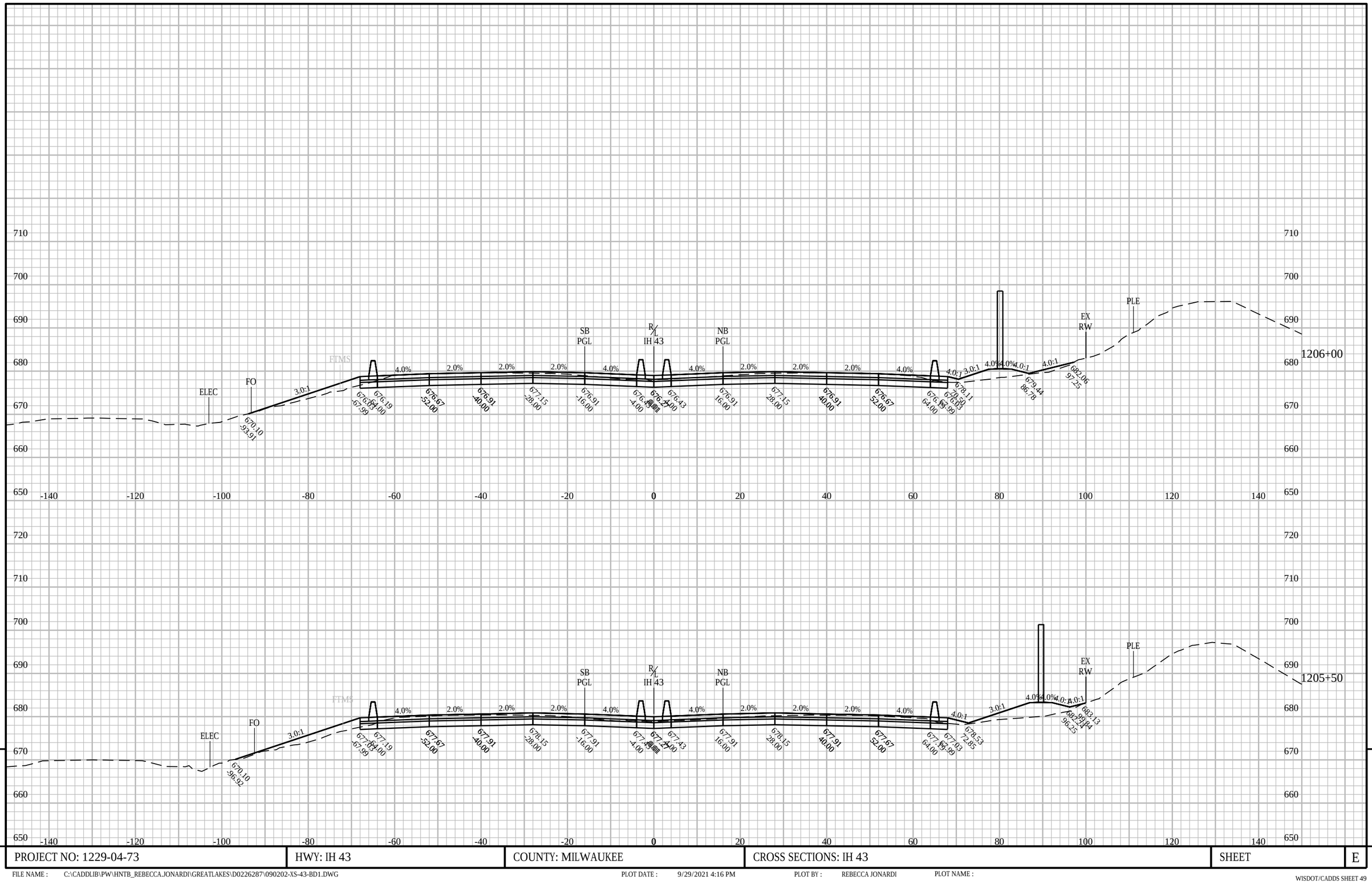

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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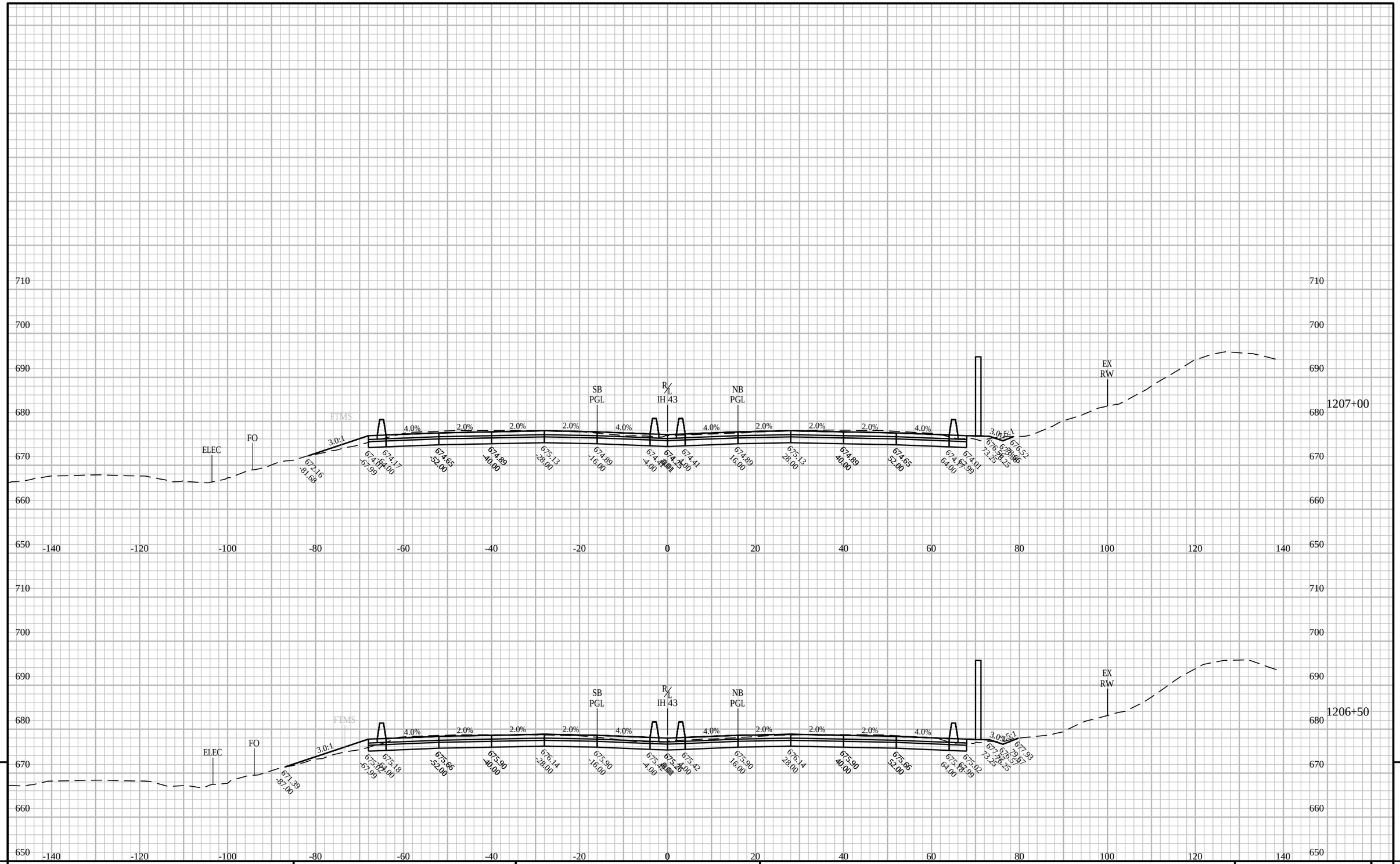

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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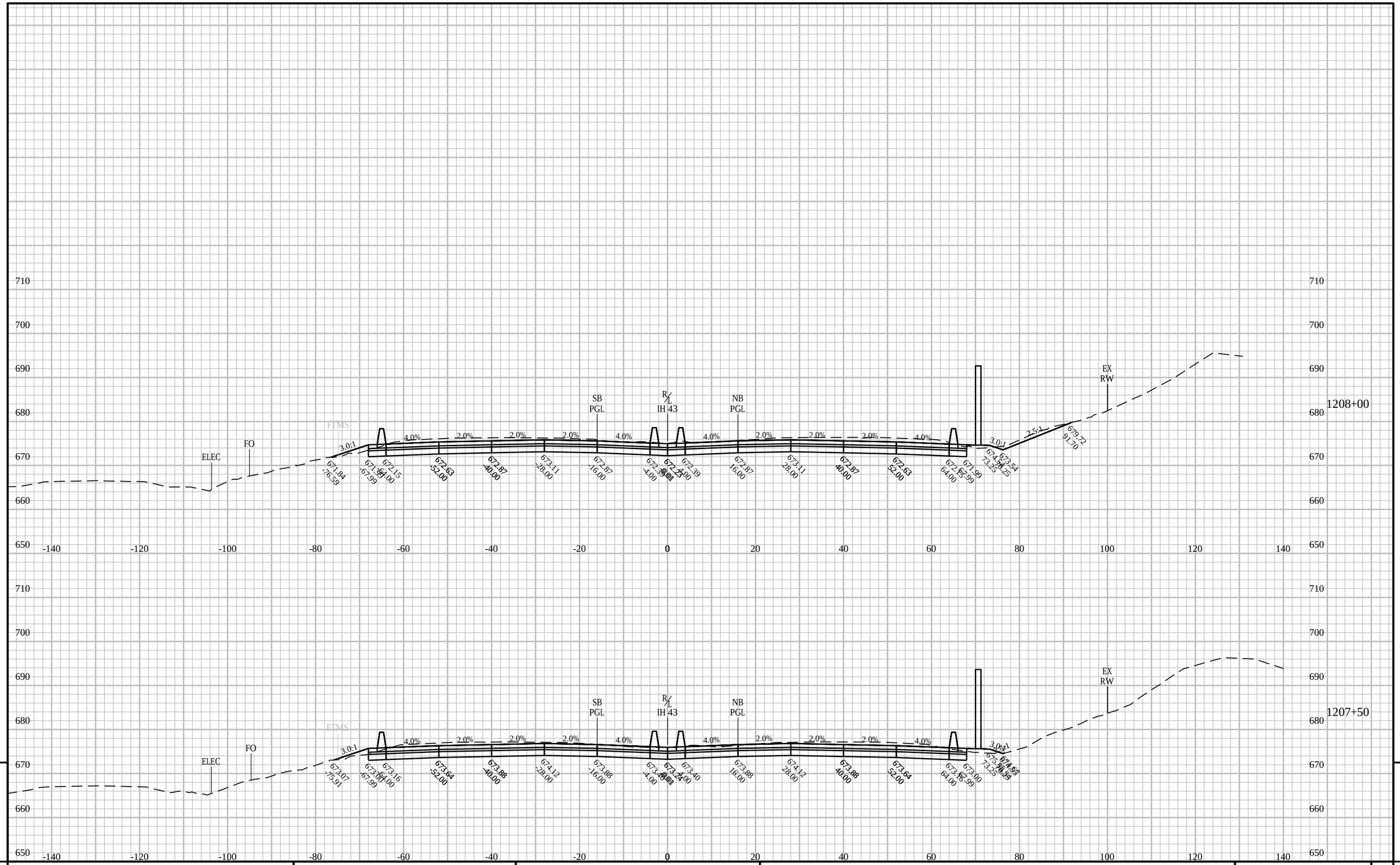

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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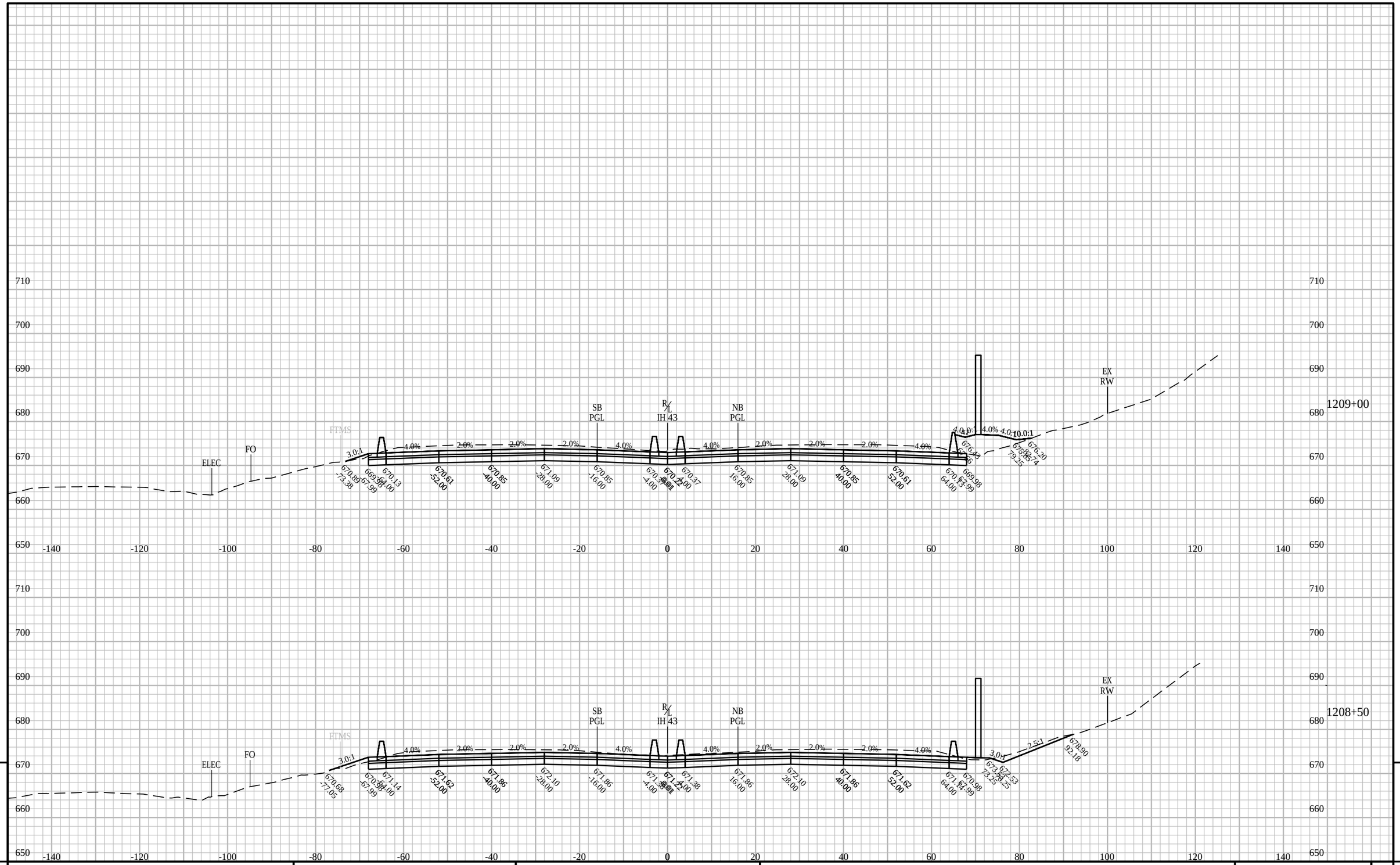

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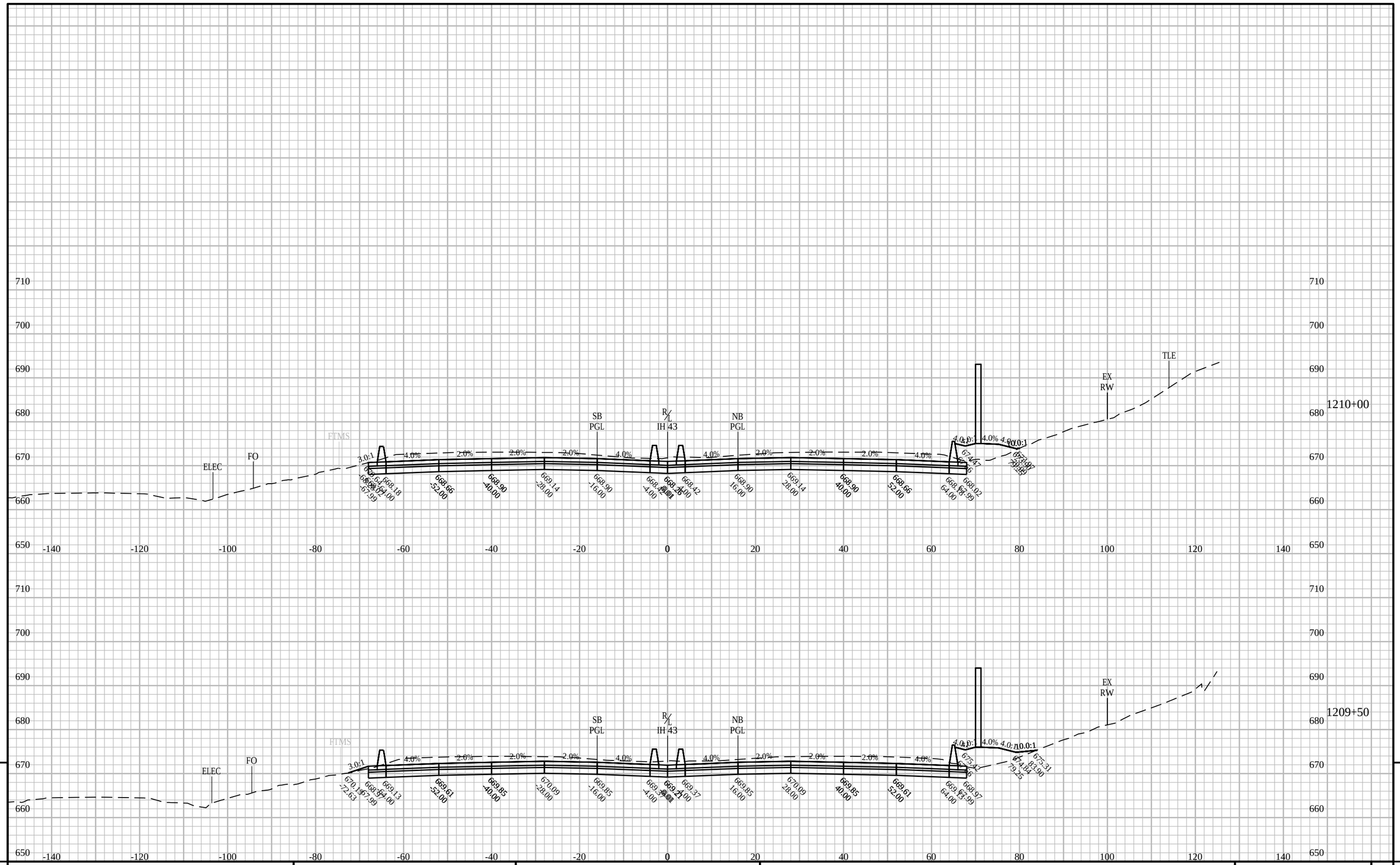
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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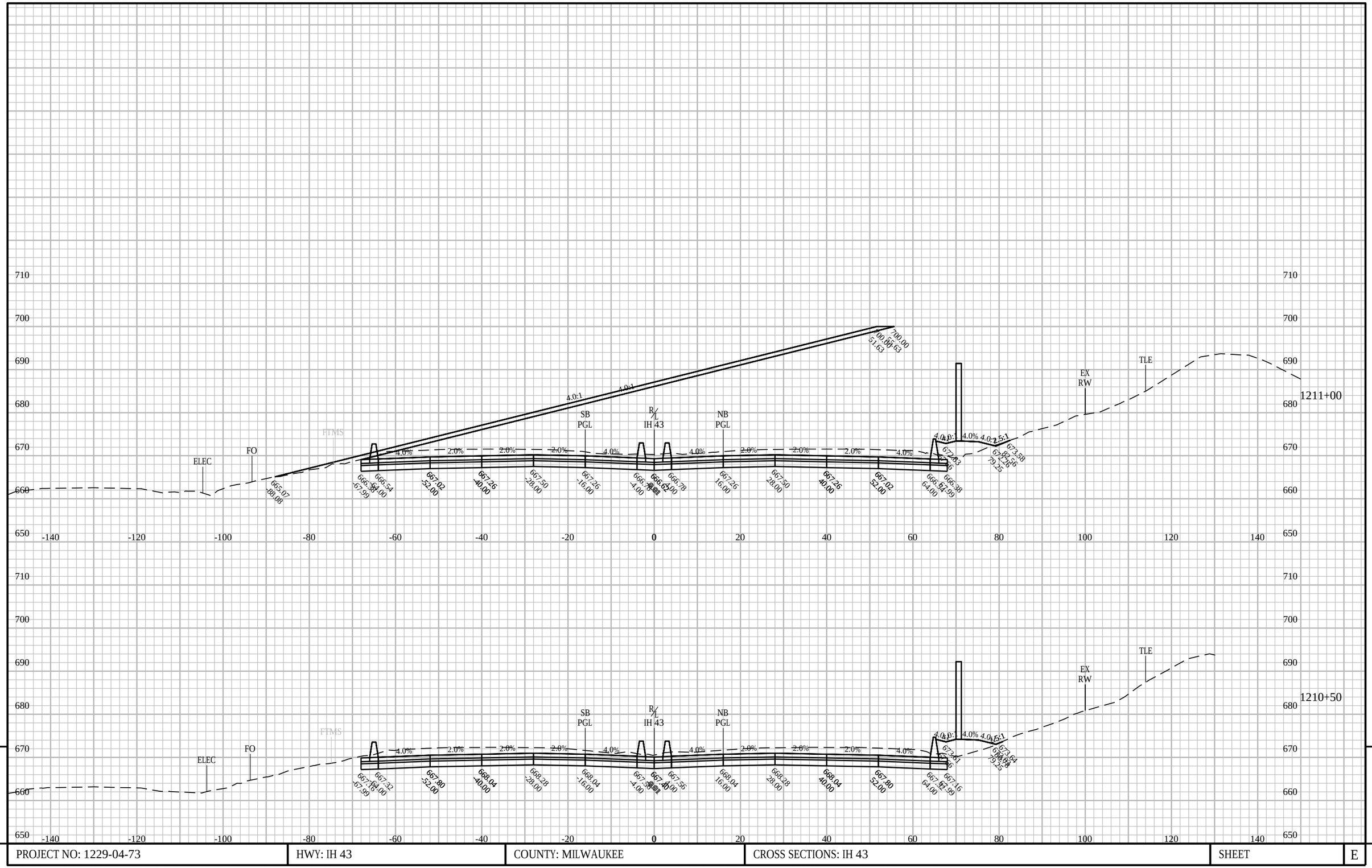

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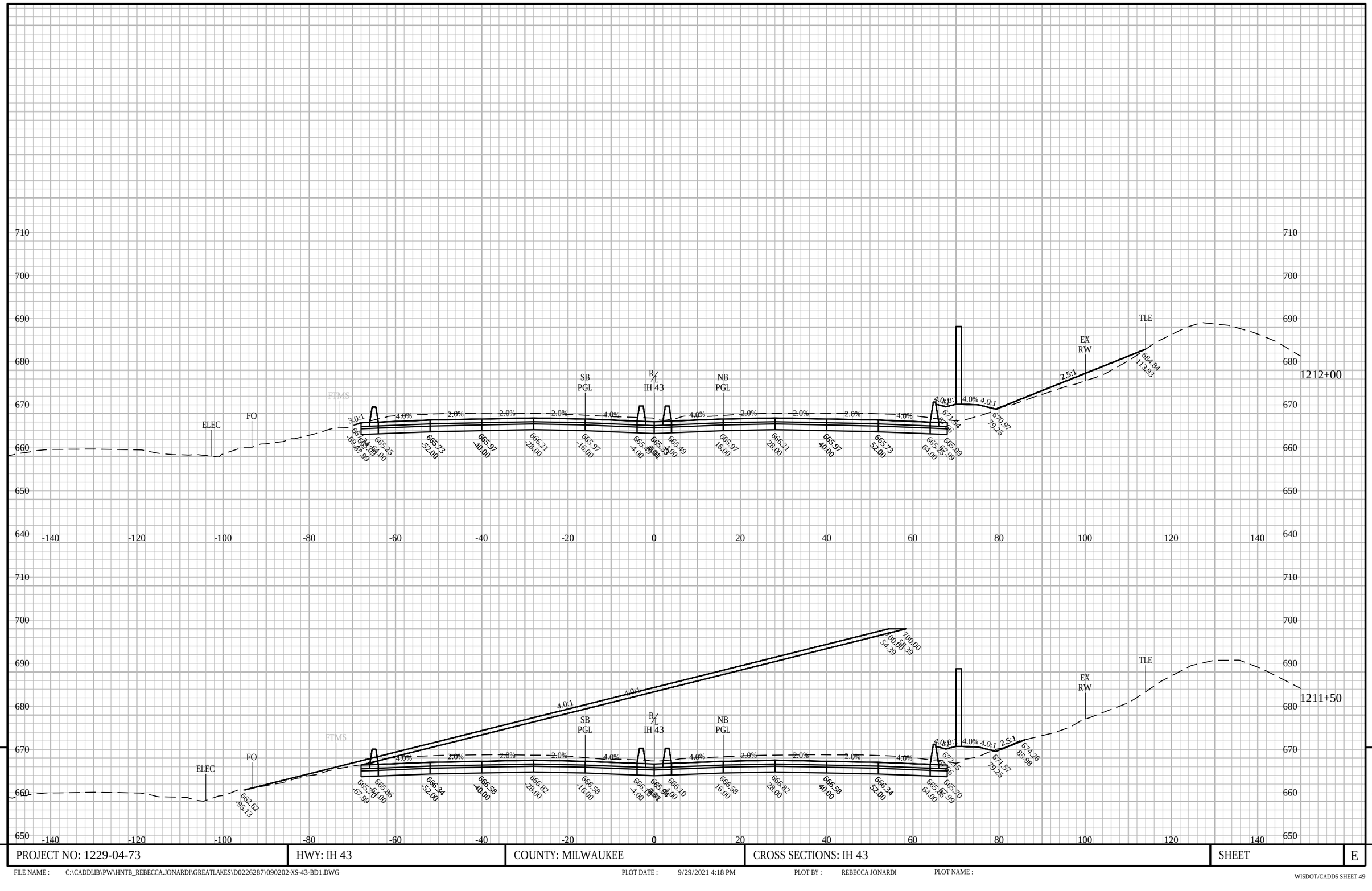
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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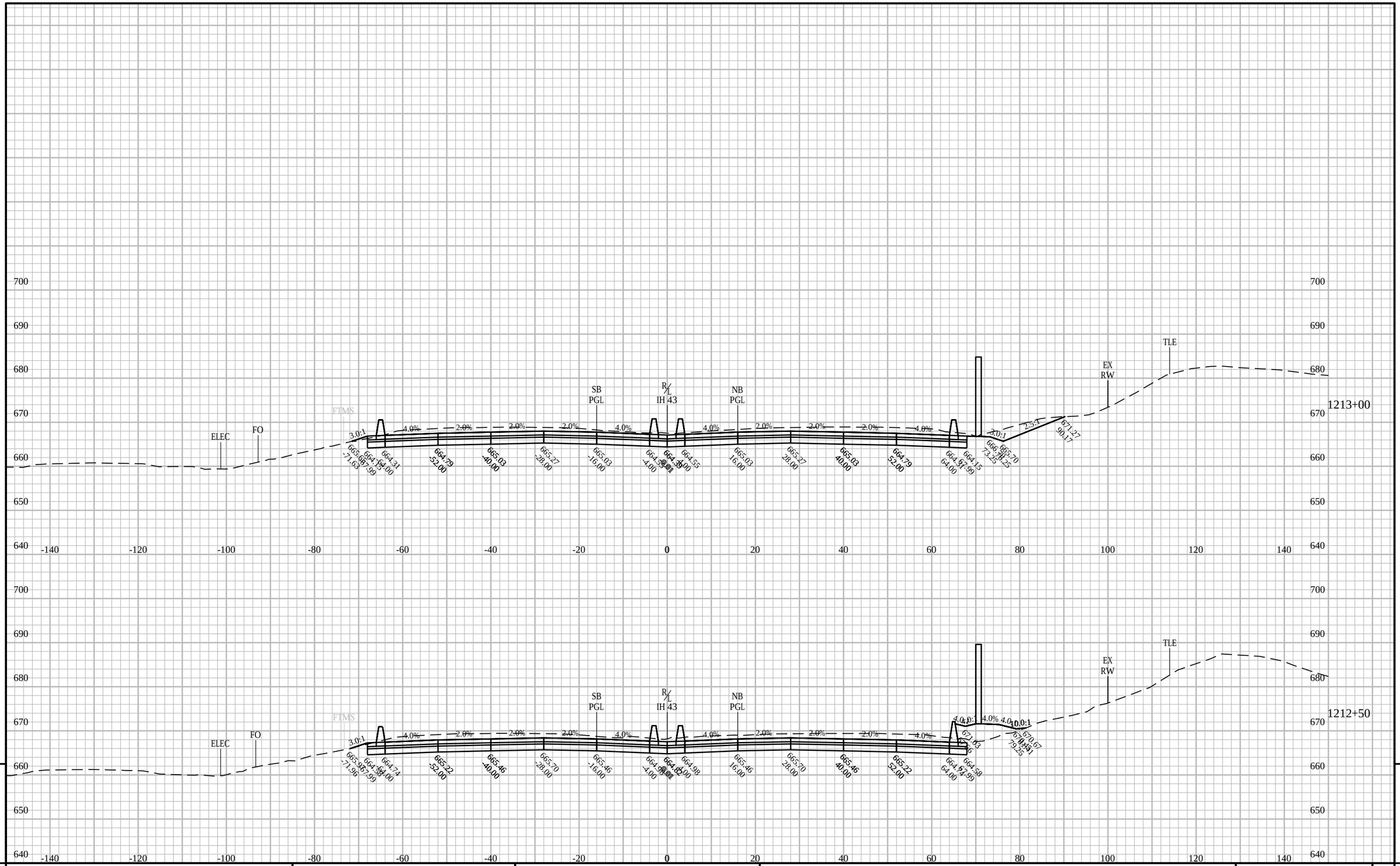
WISDOT/CADDS SHEET 49



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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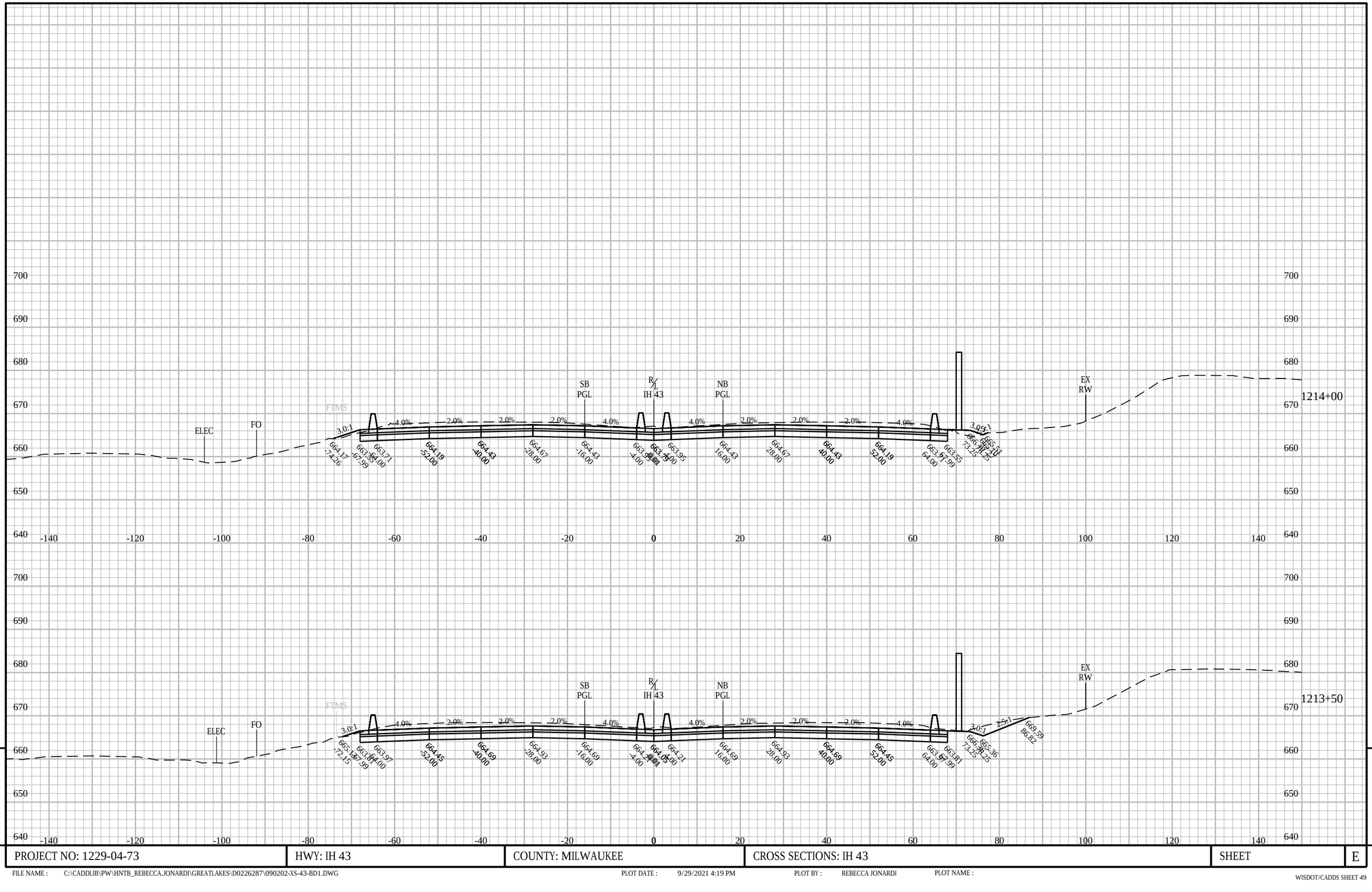

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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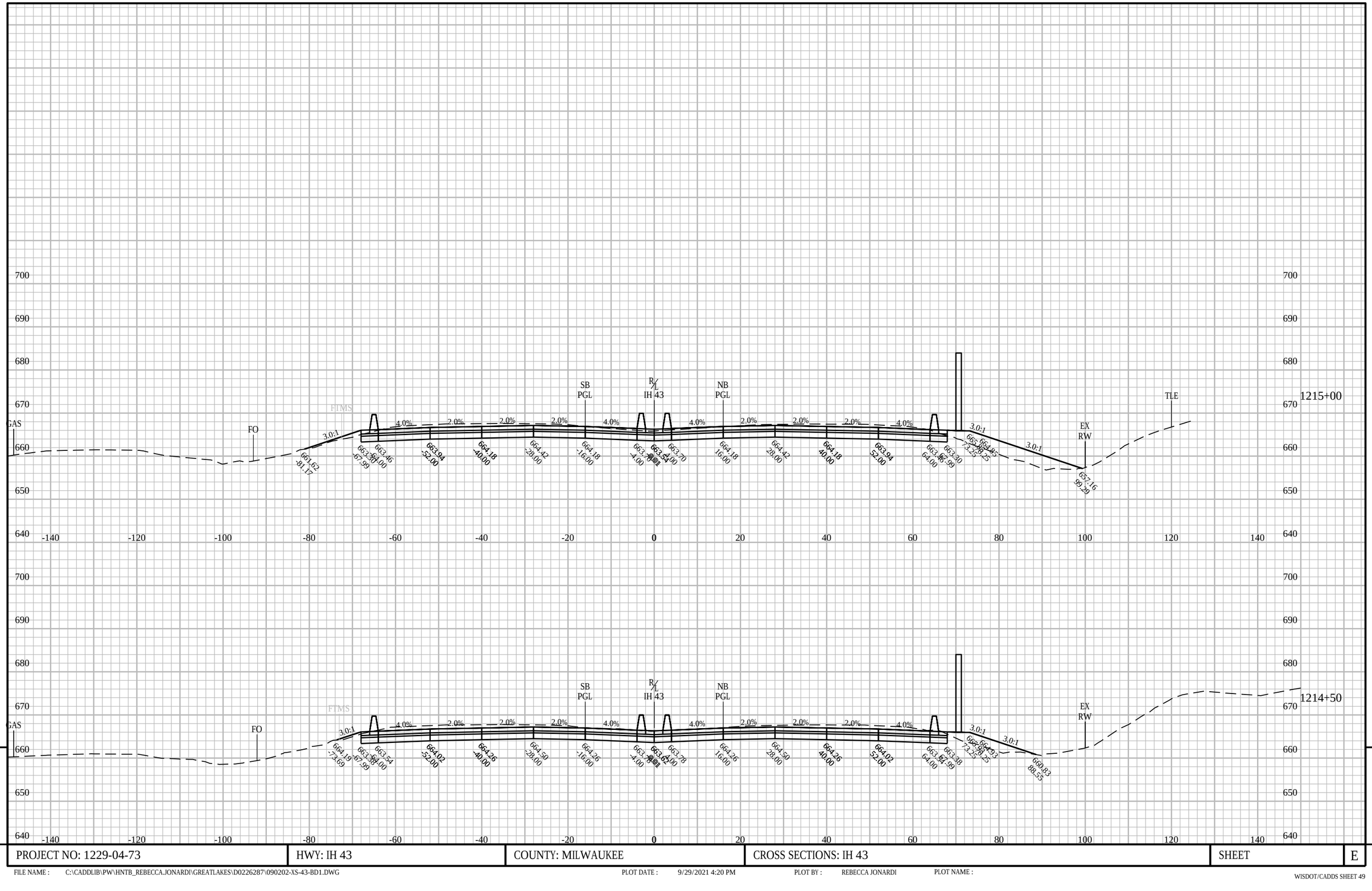

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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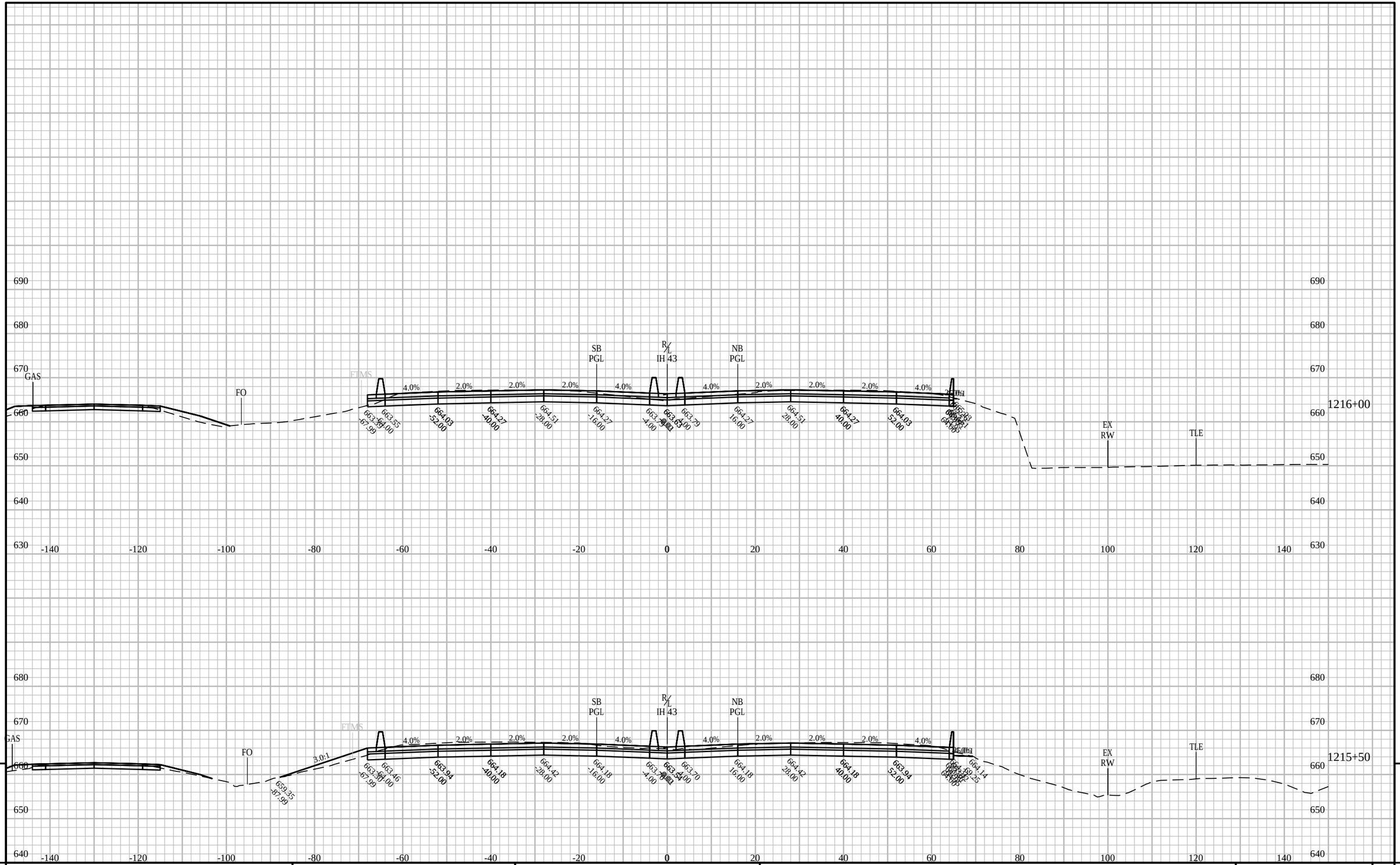

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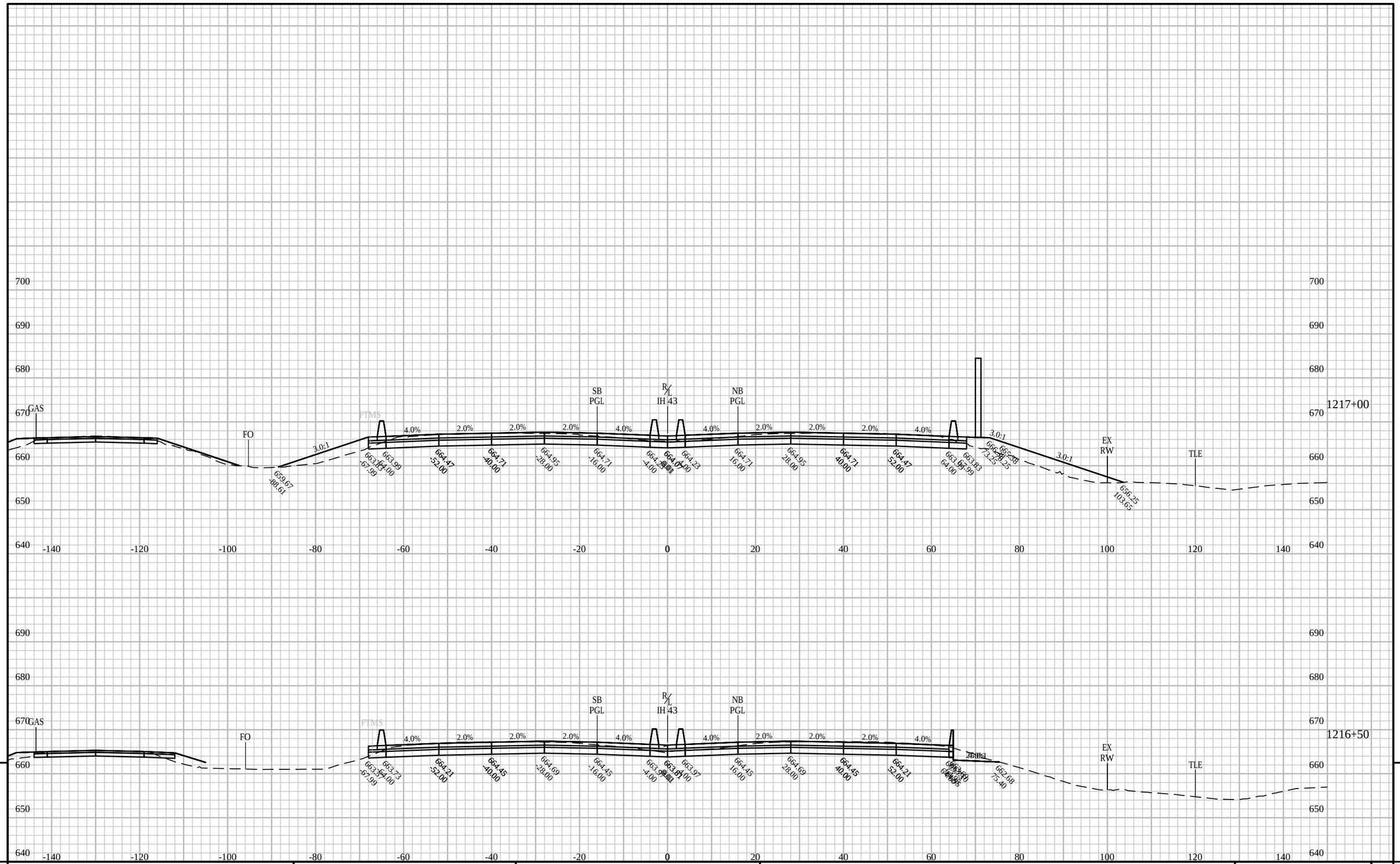

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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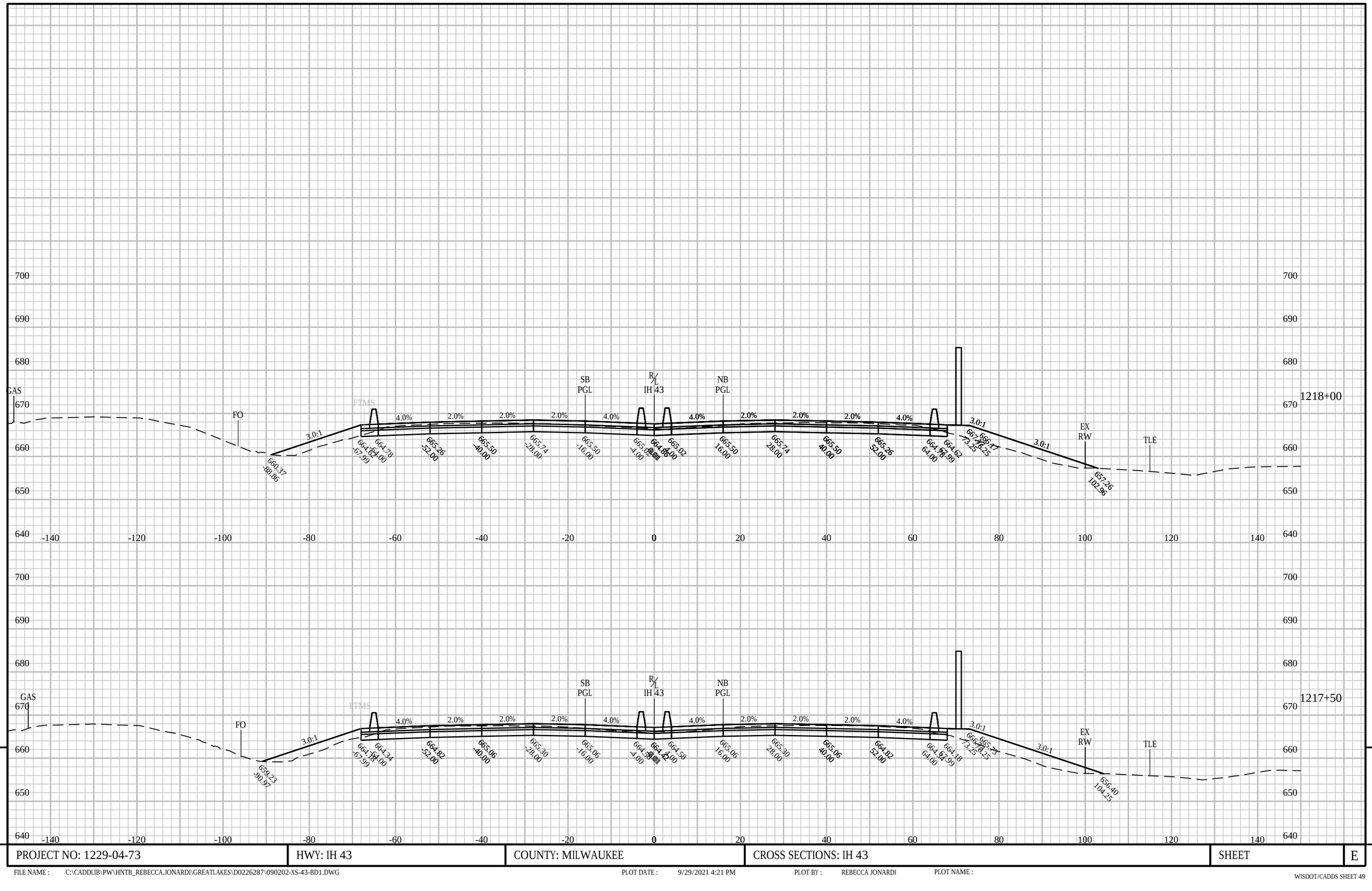
WISDOT/CADDS SHEET 49



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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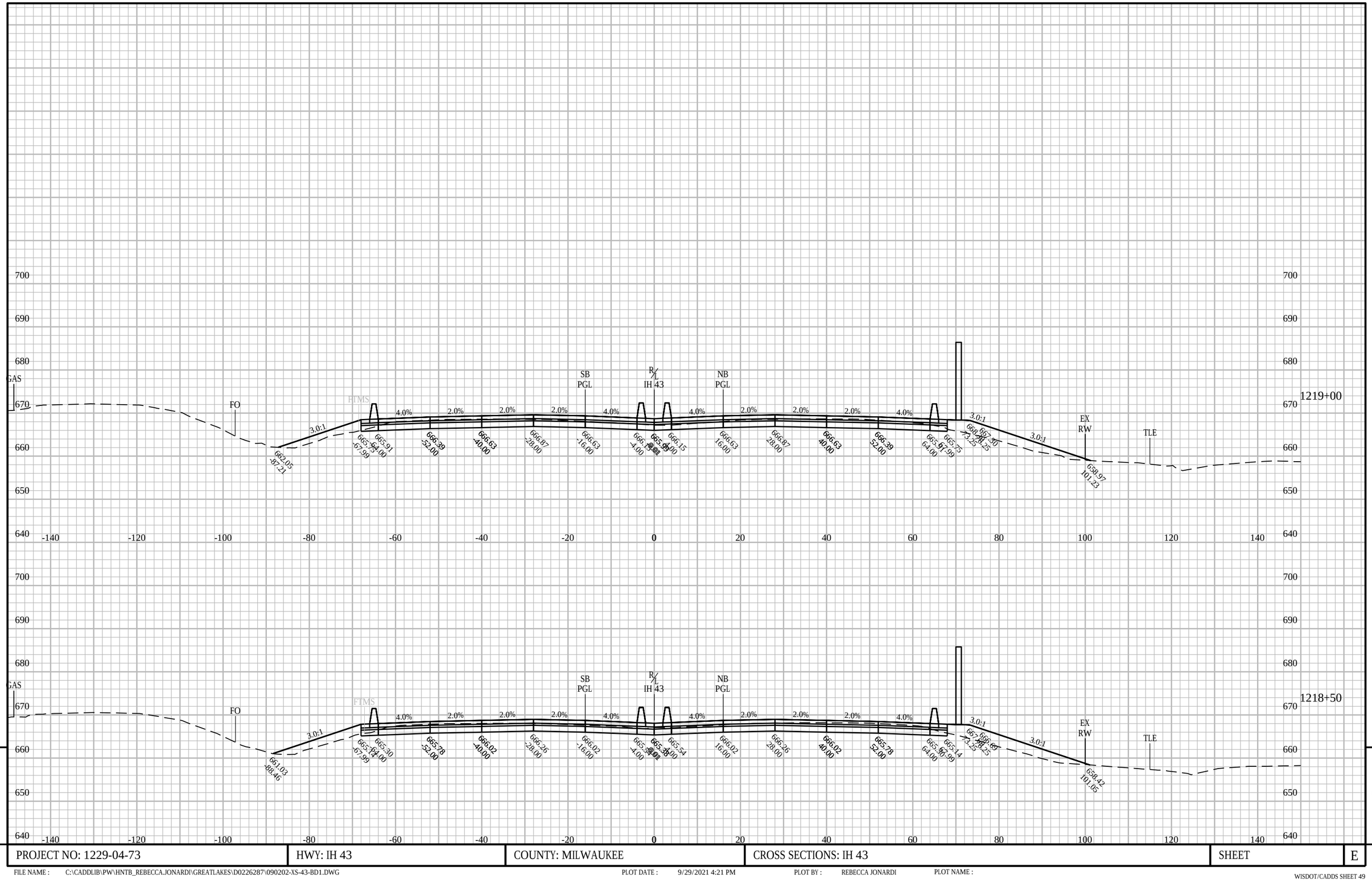

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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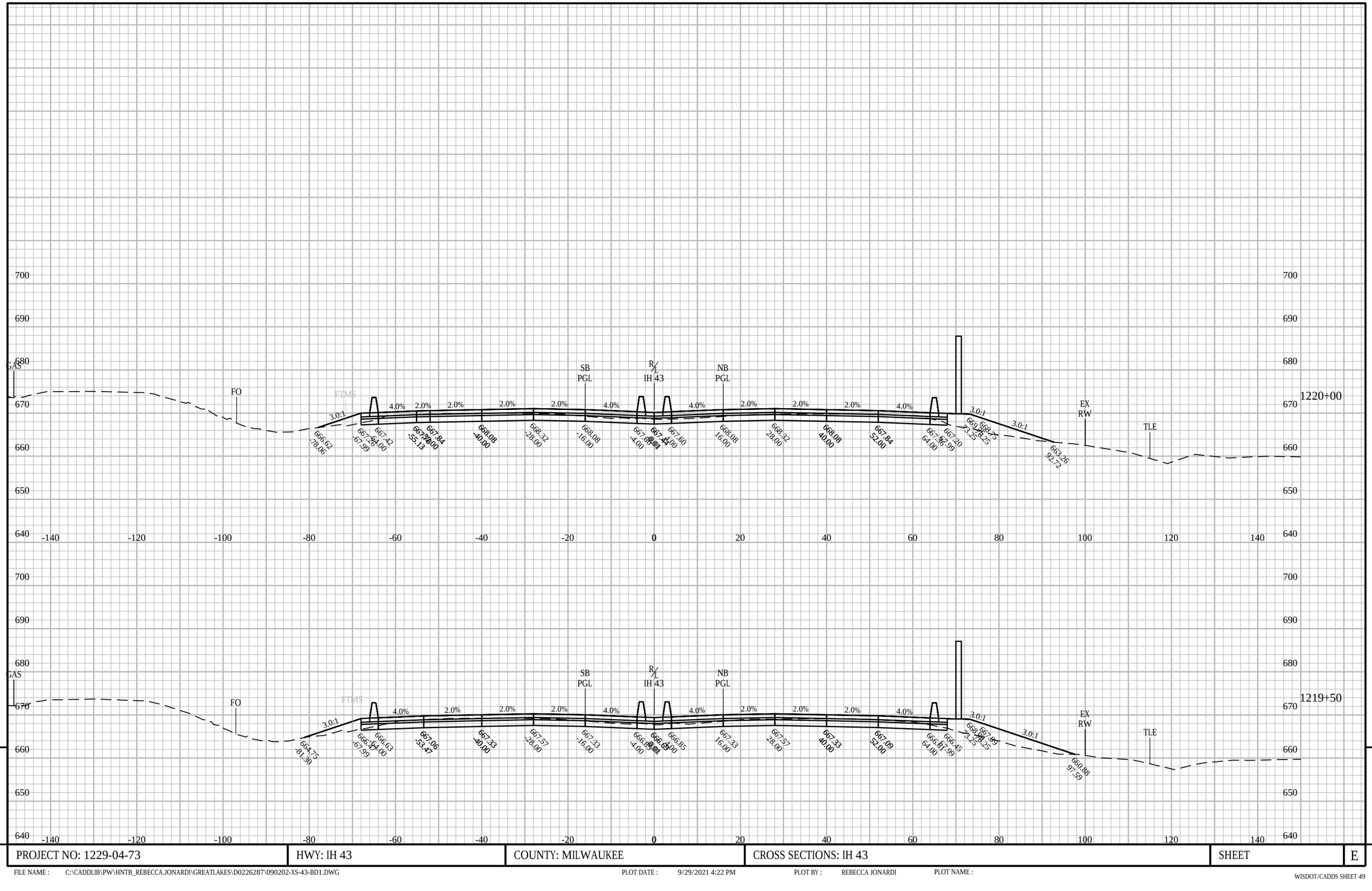

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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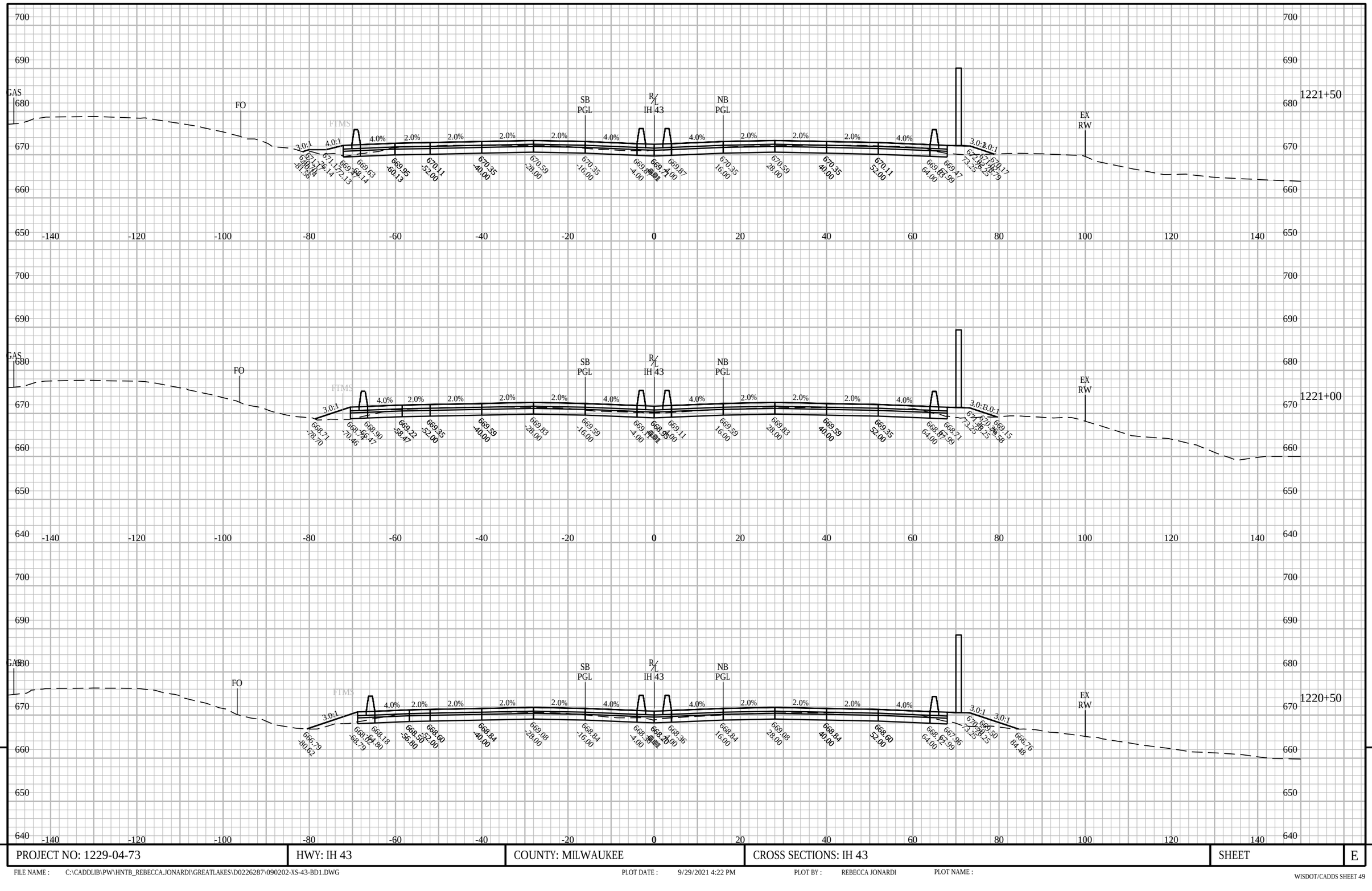

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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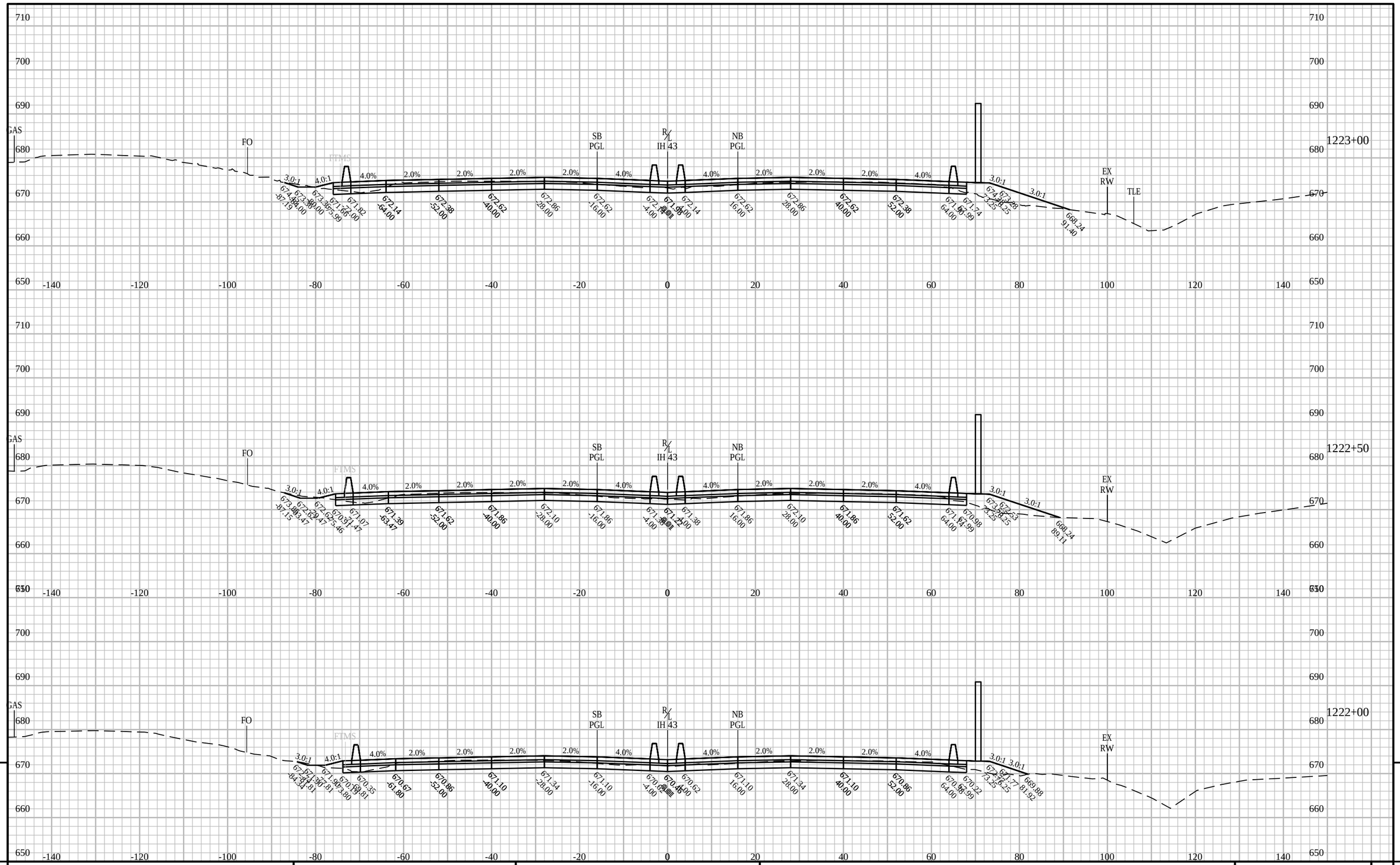

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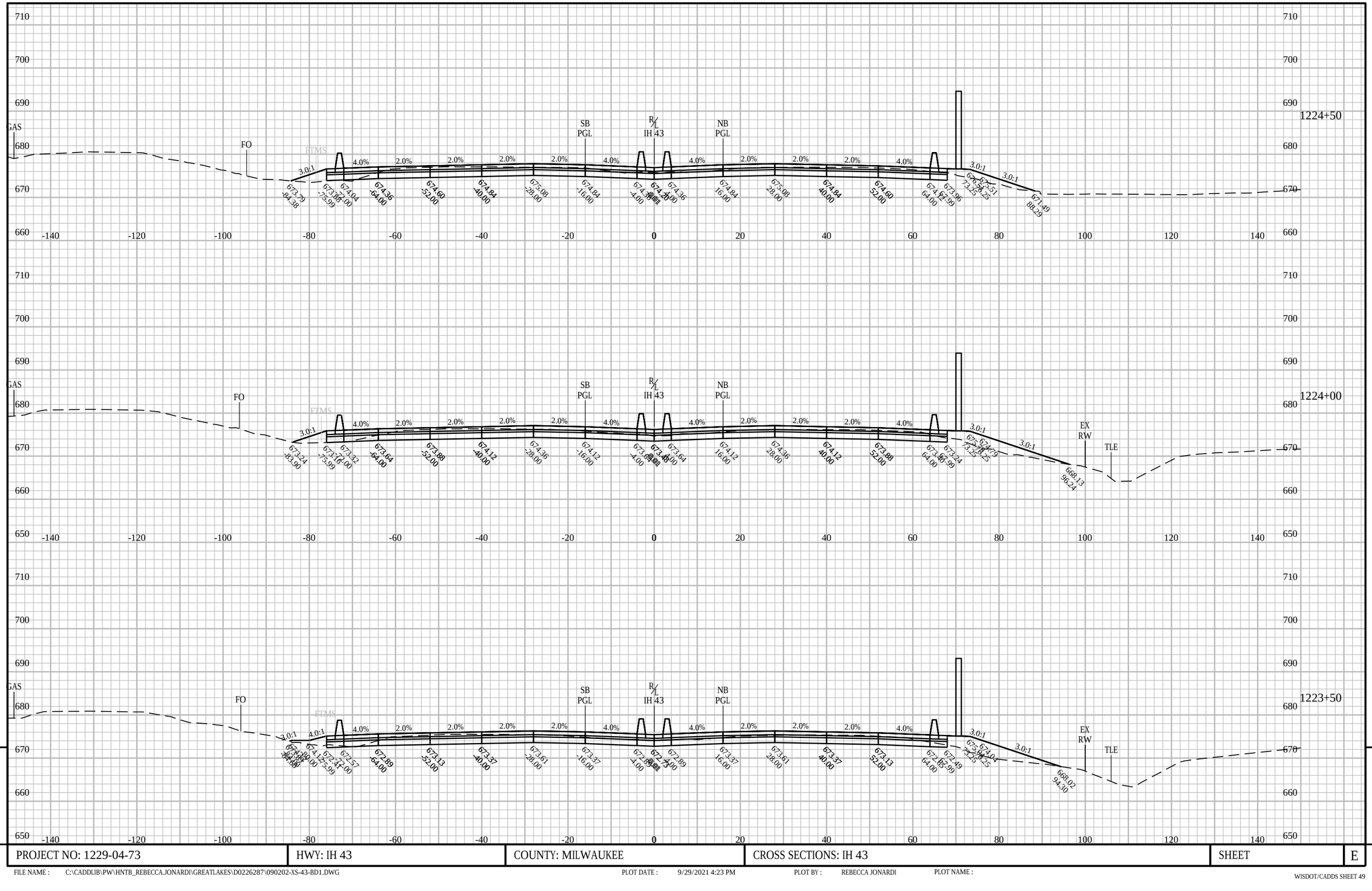

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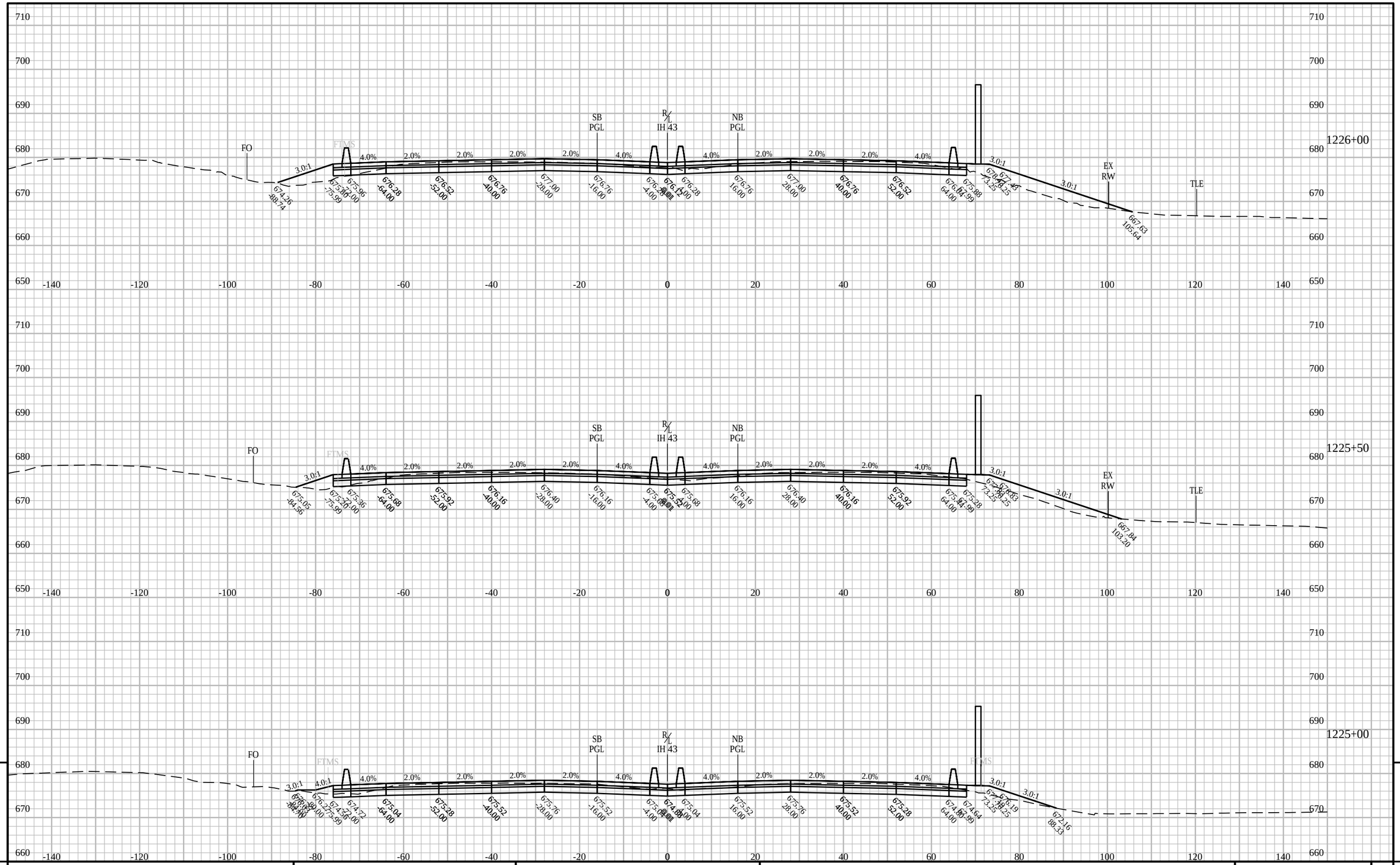

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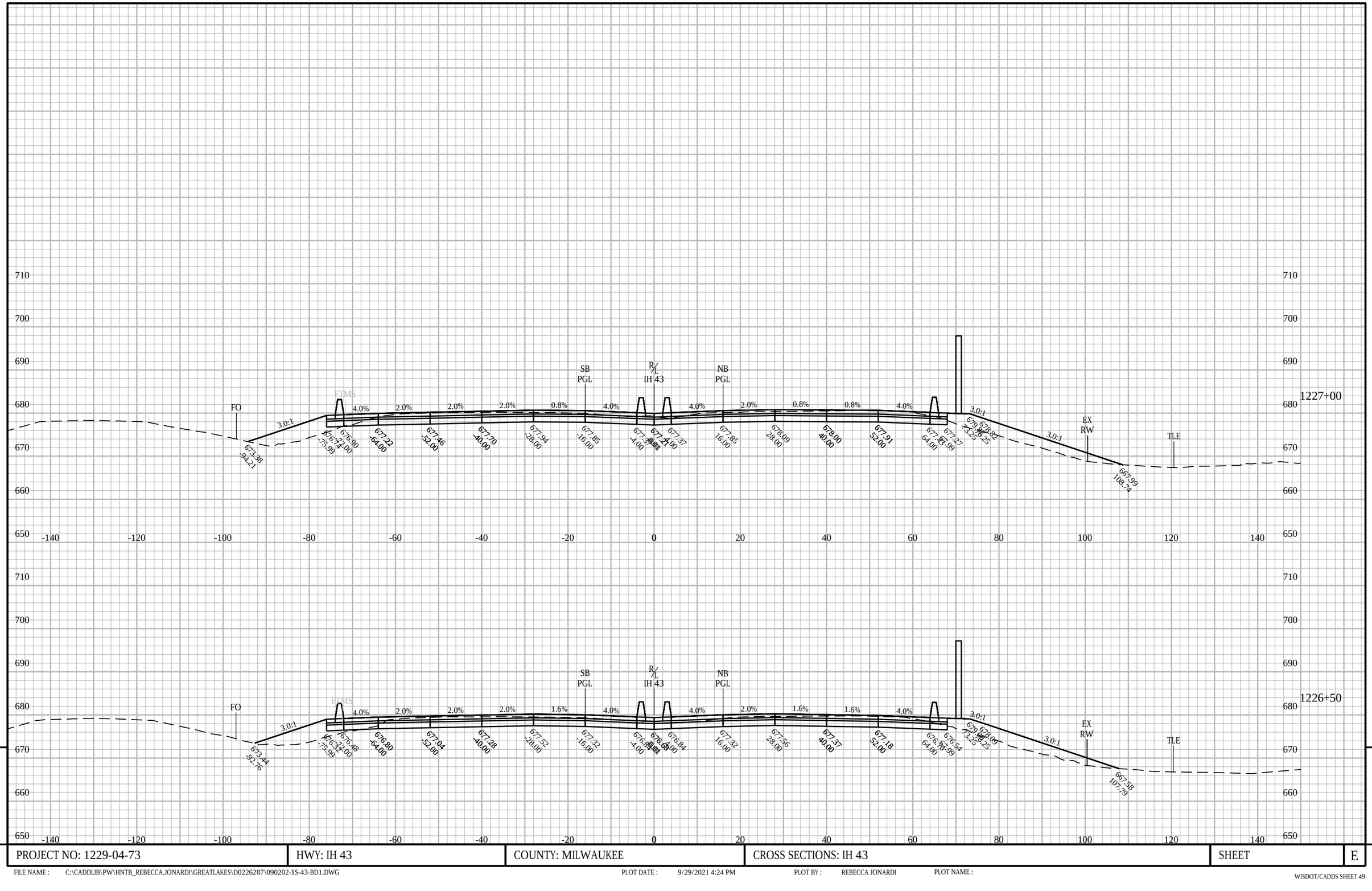
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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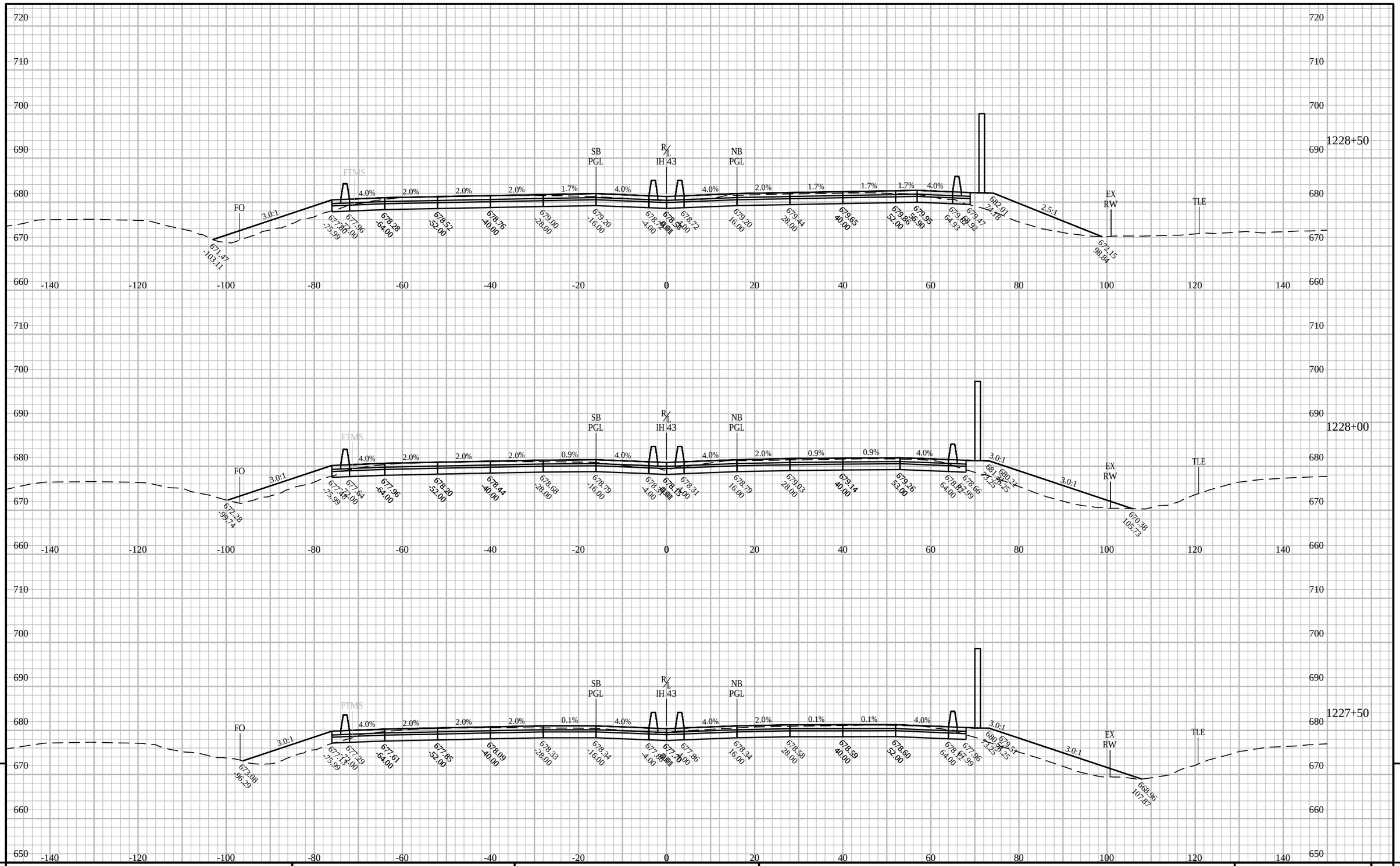

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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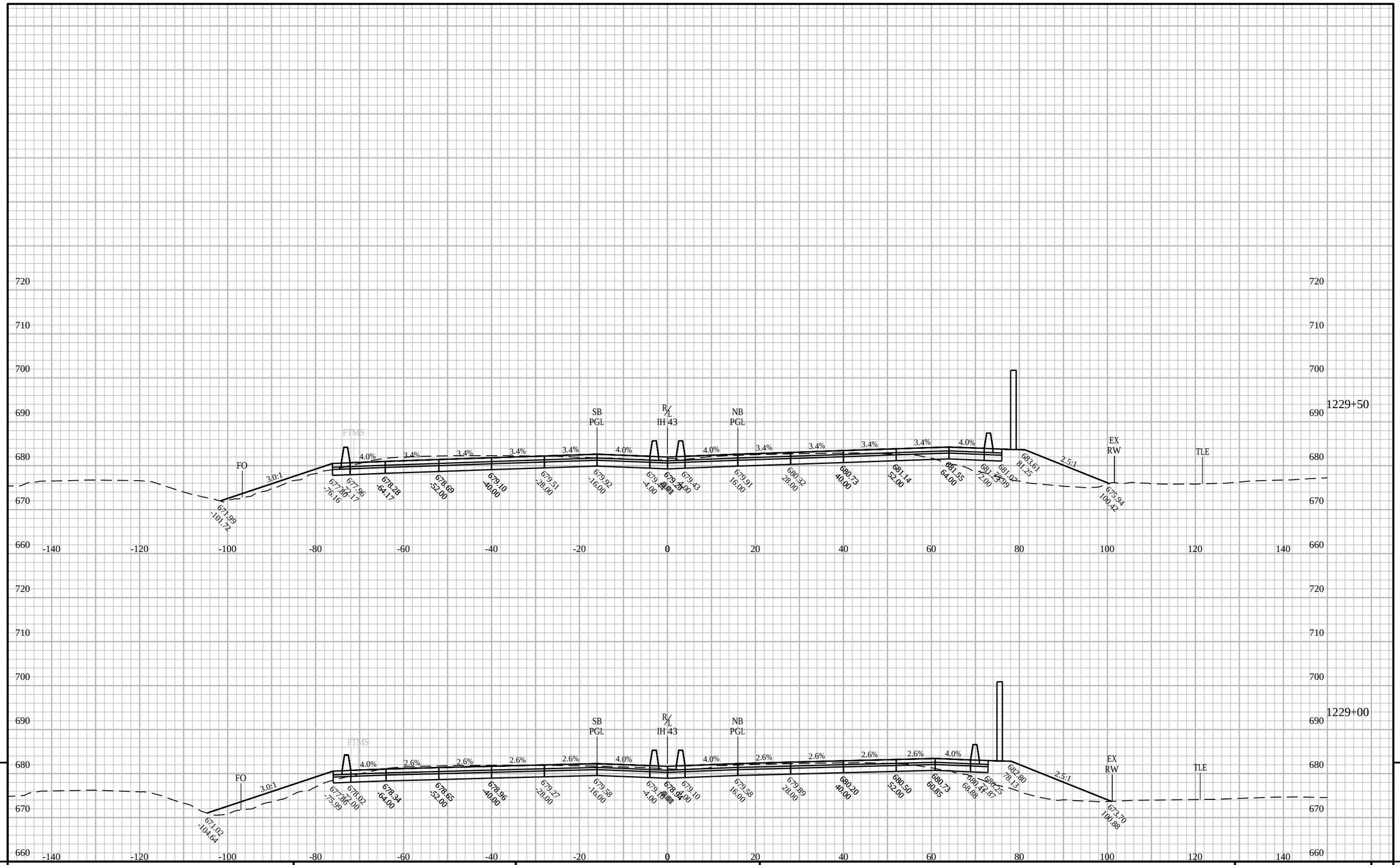

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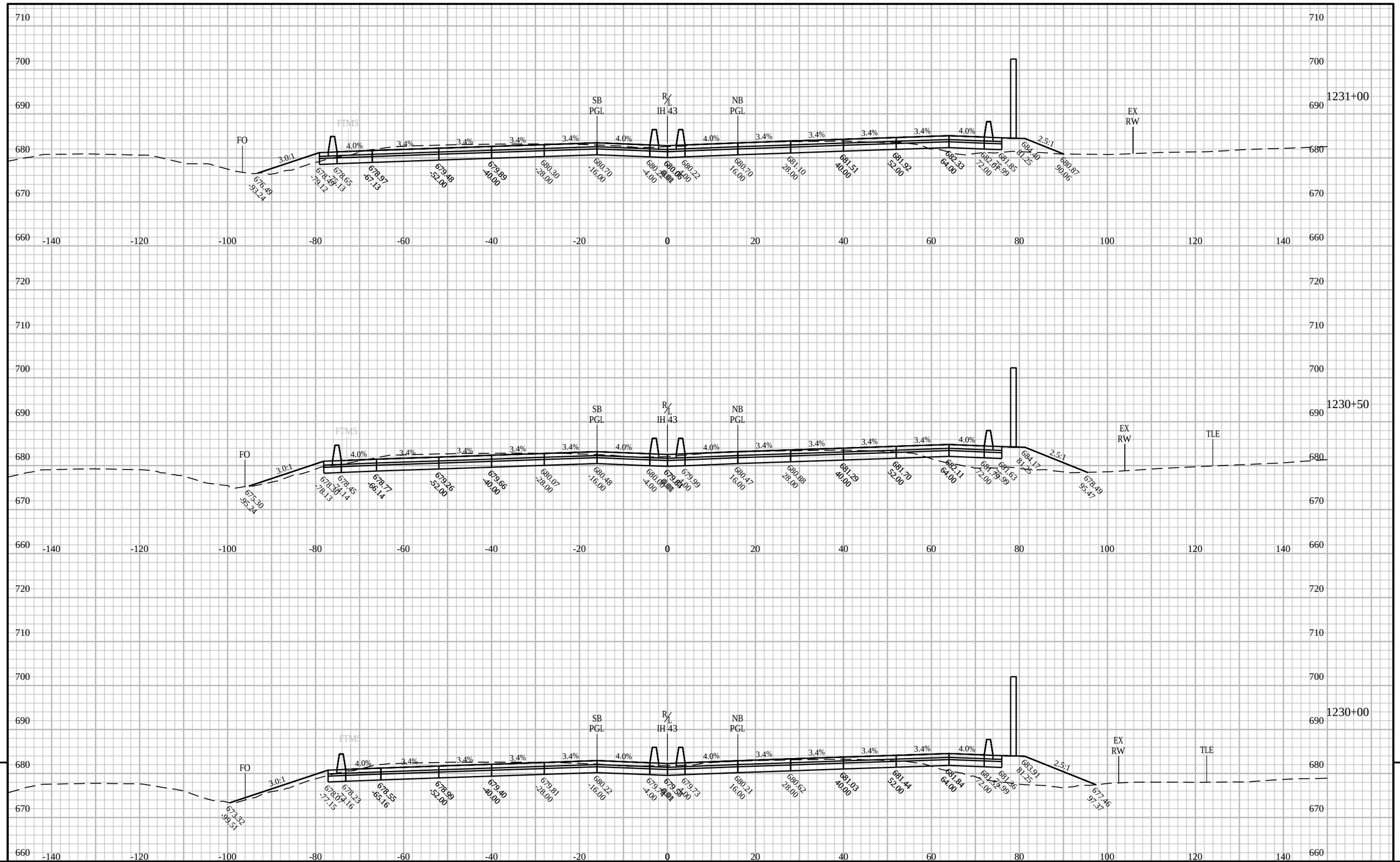

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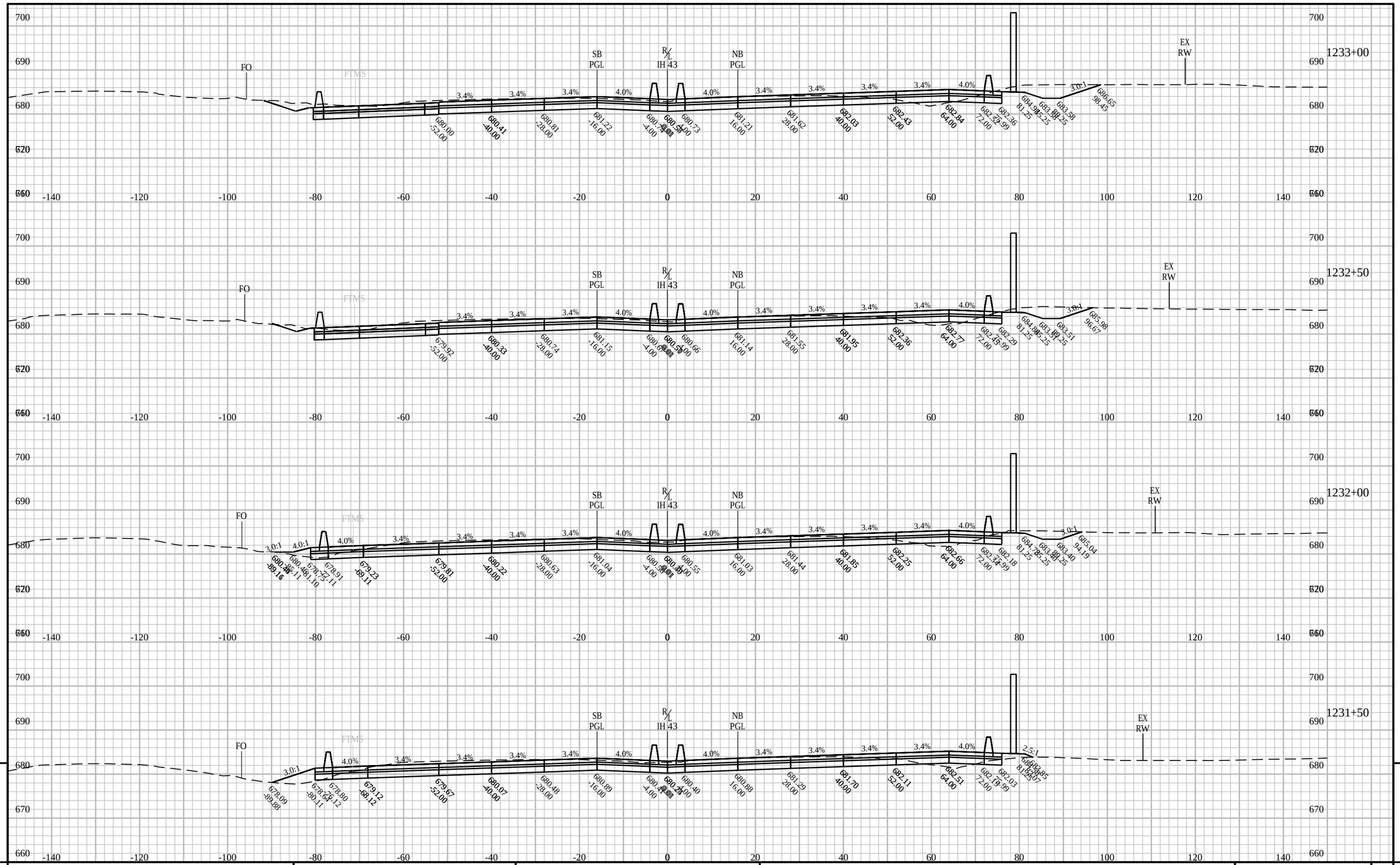

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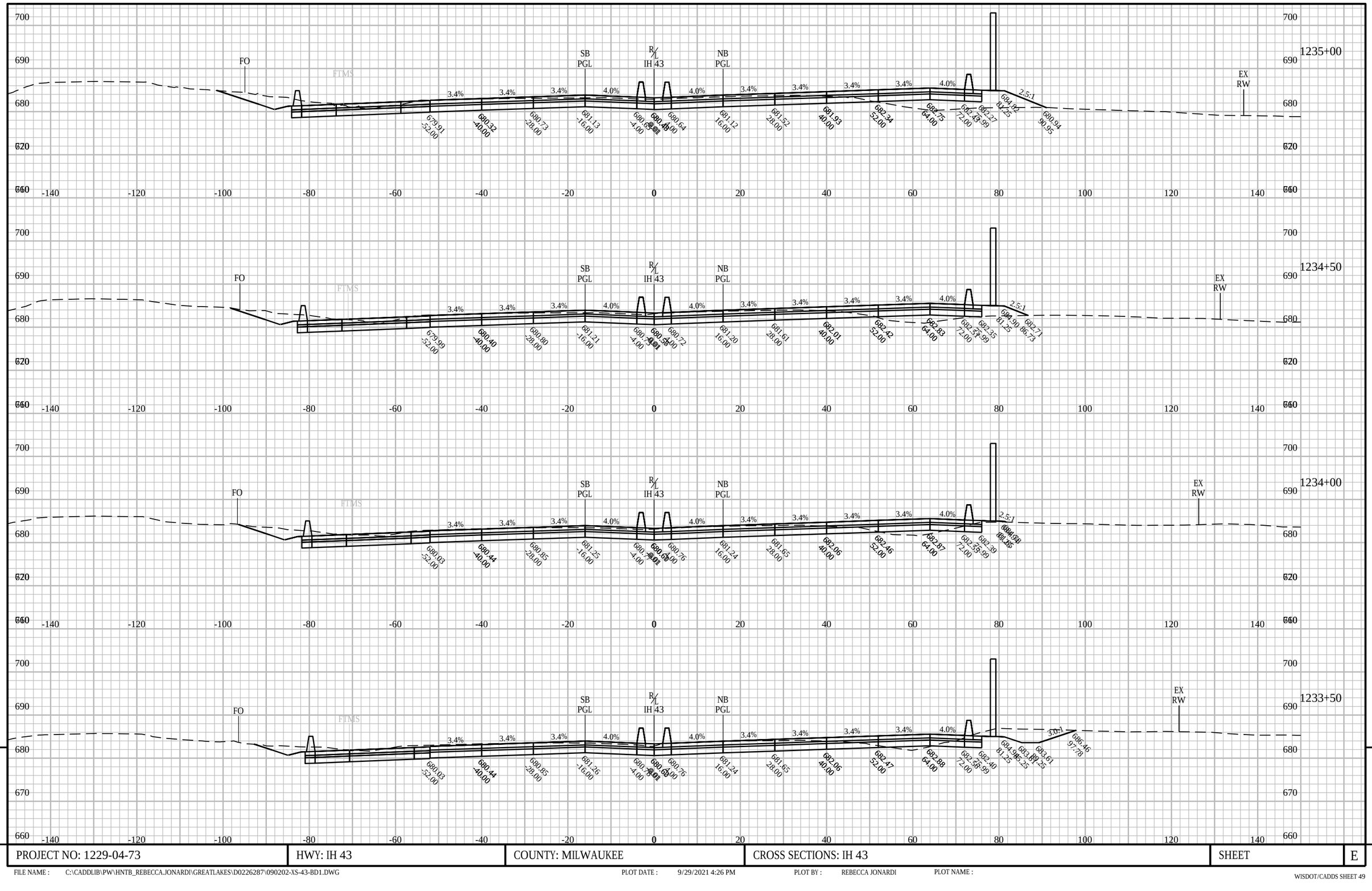

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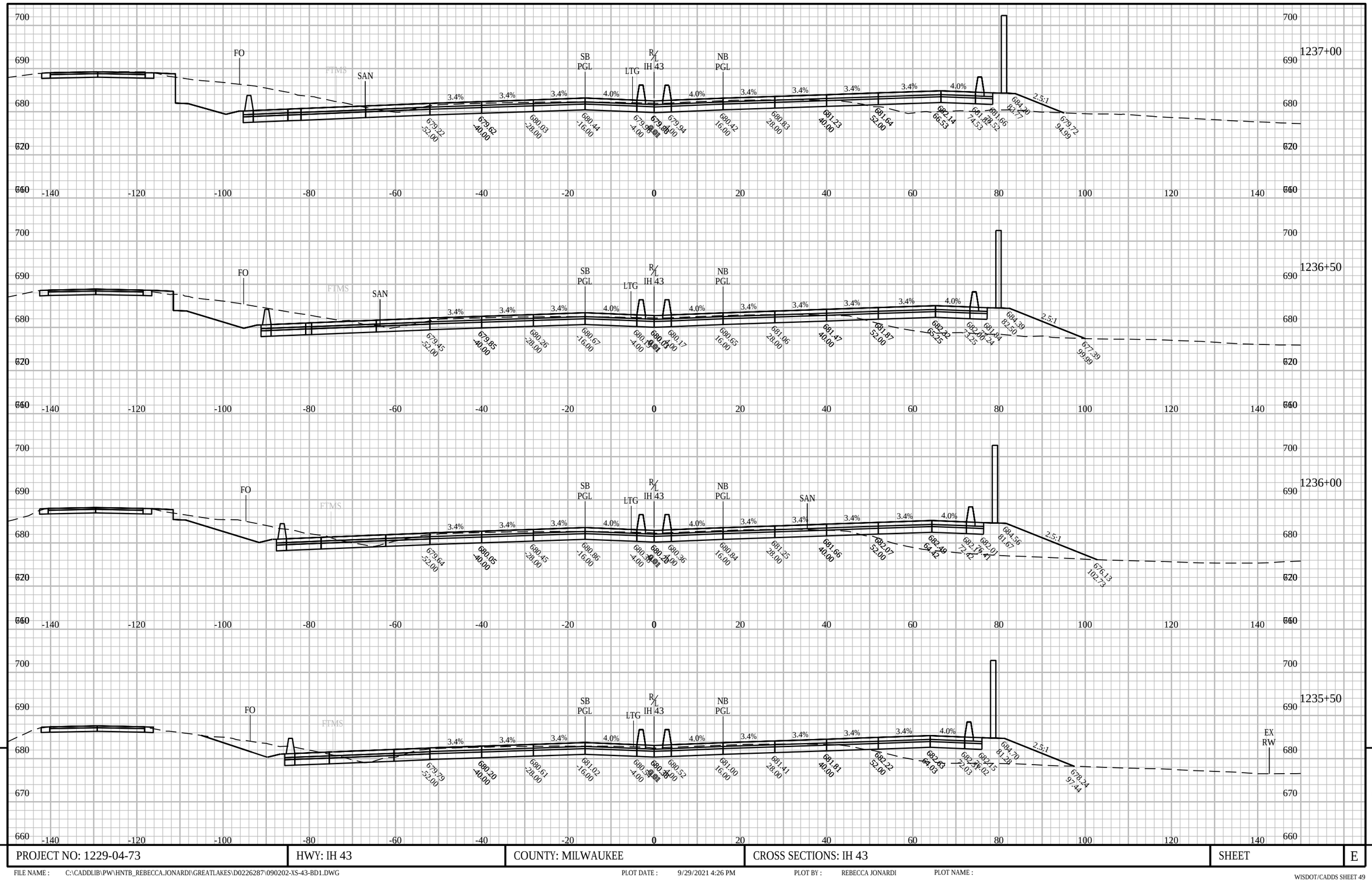

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

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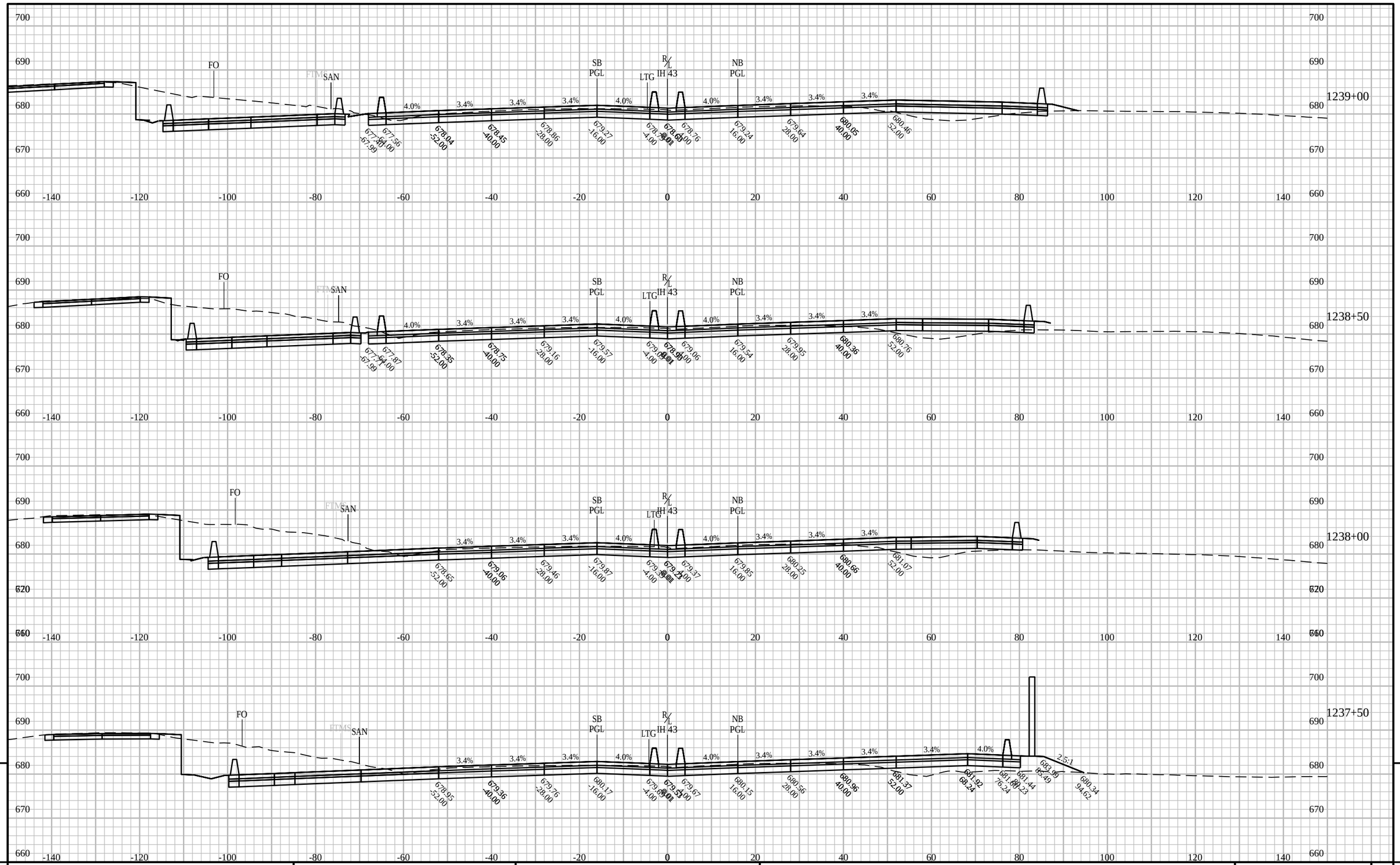

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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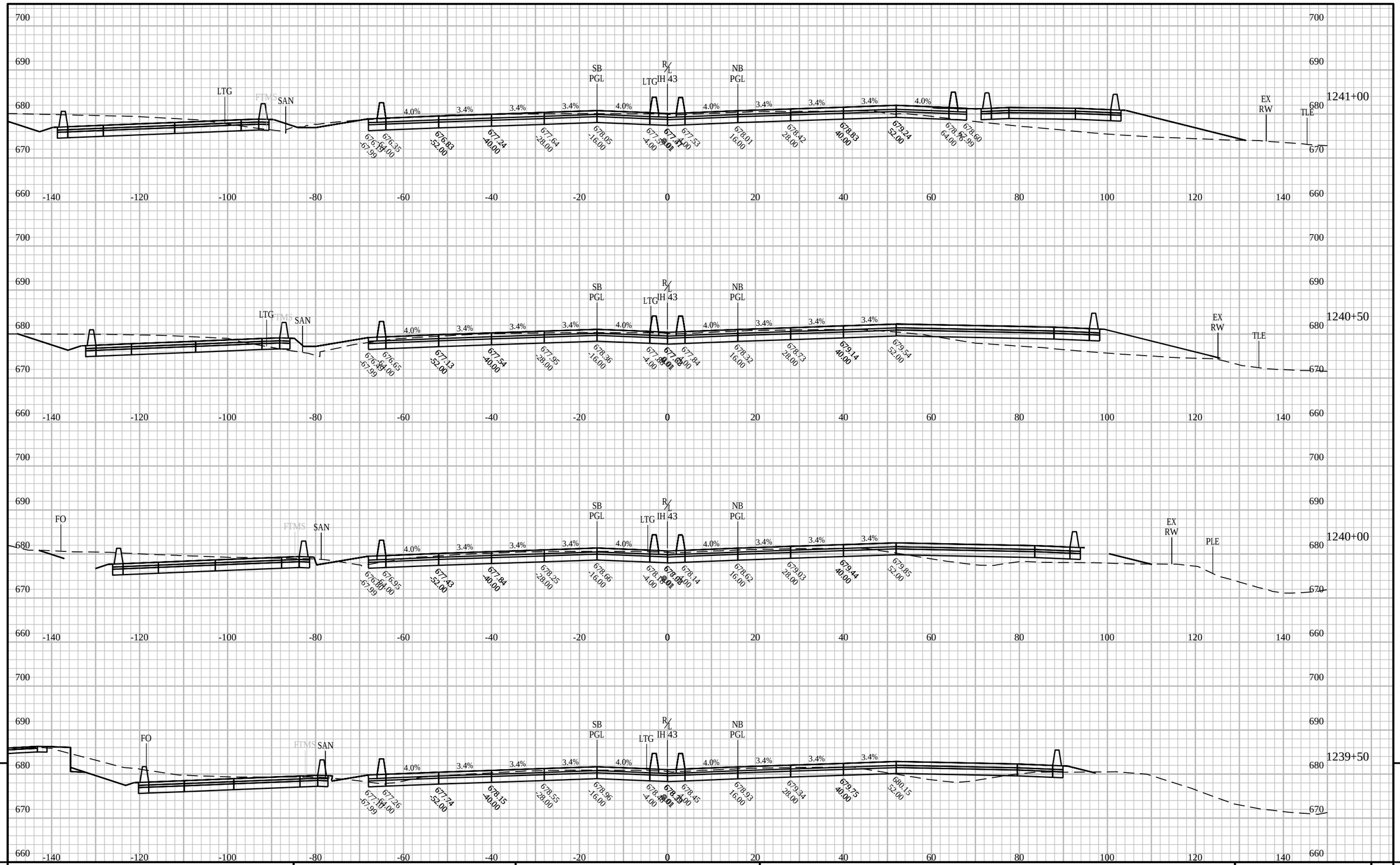

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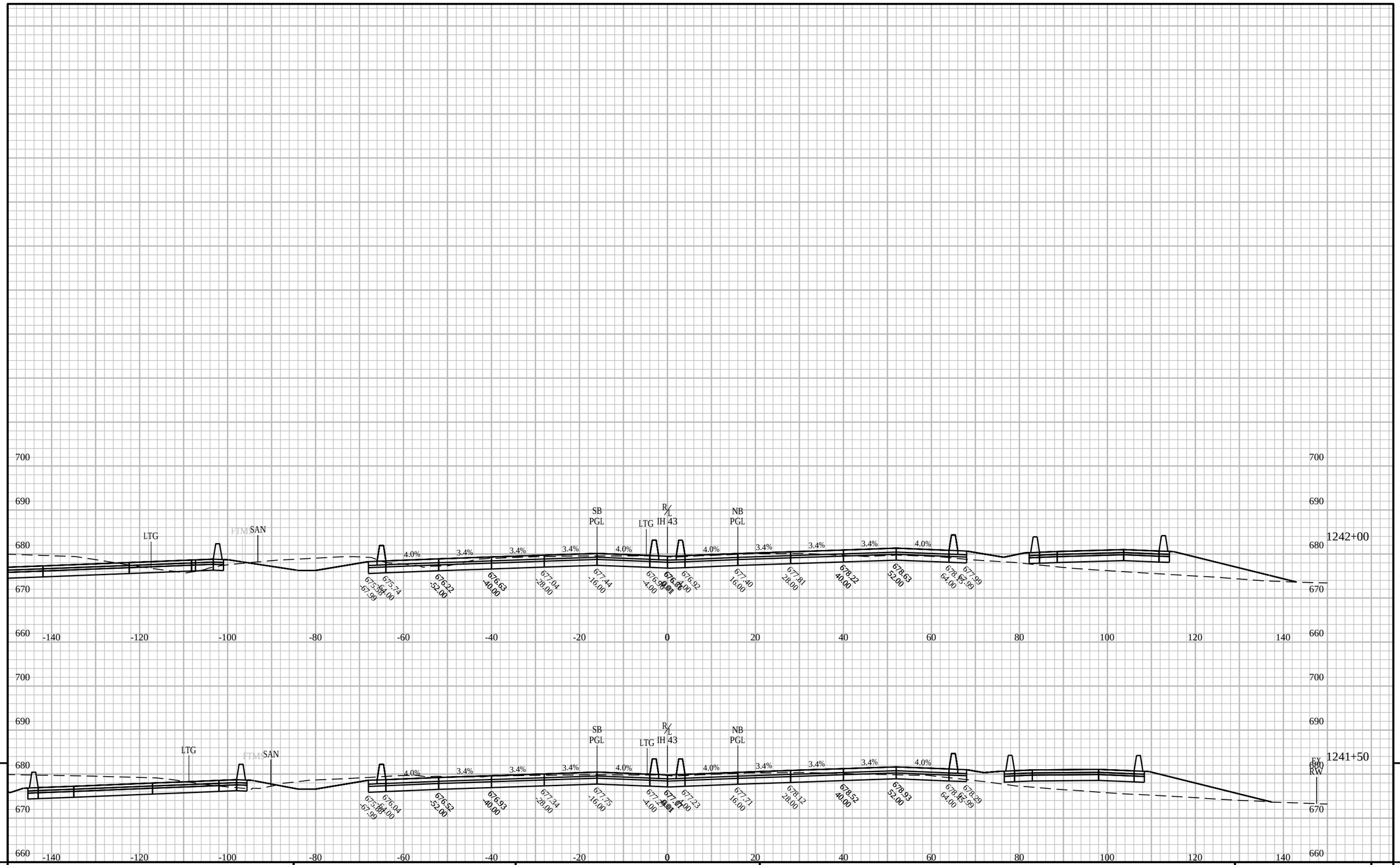

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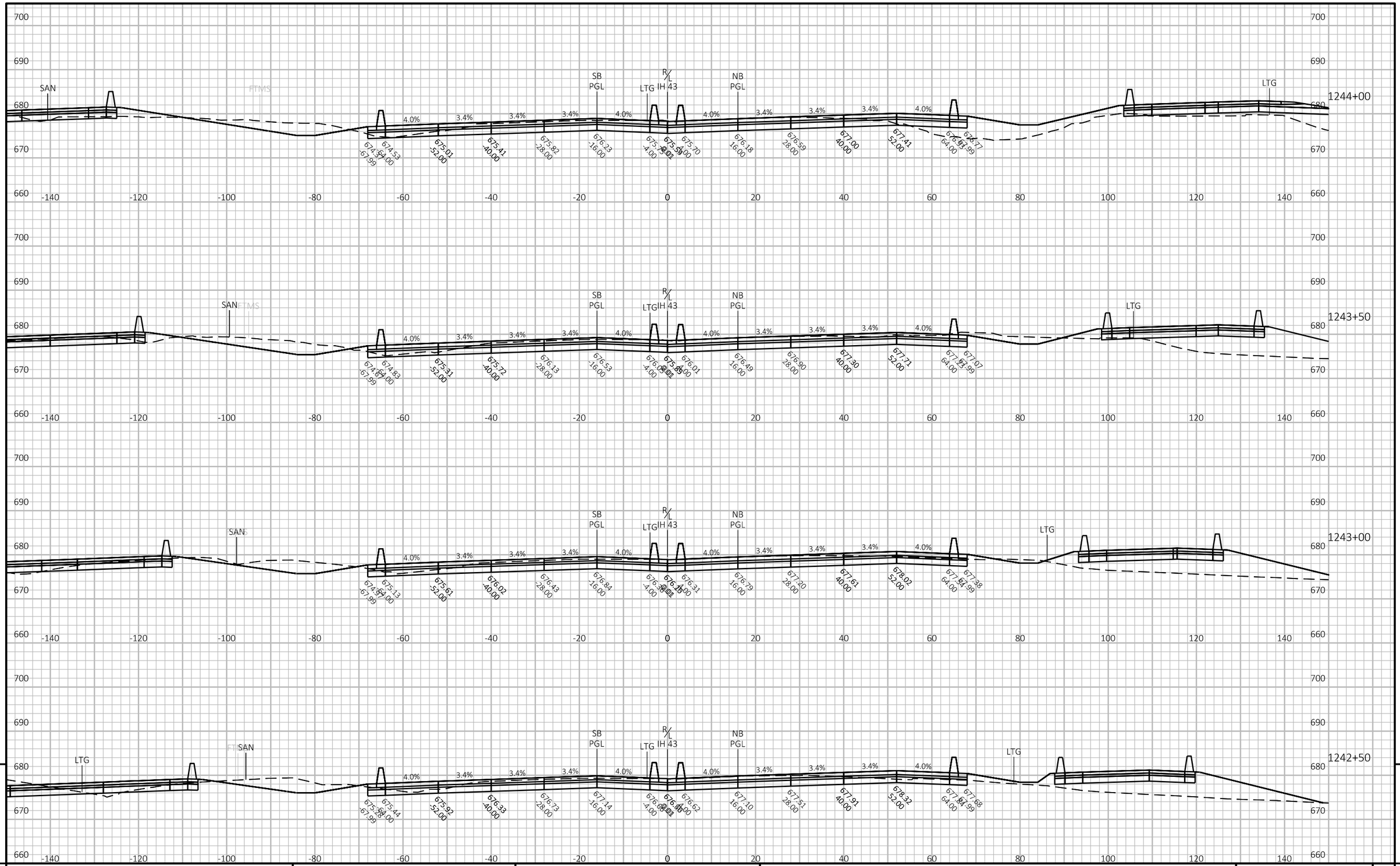

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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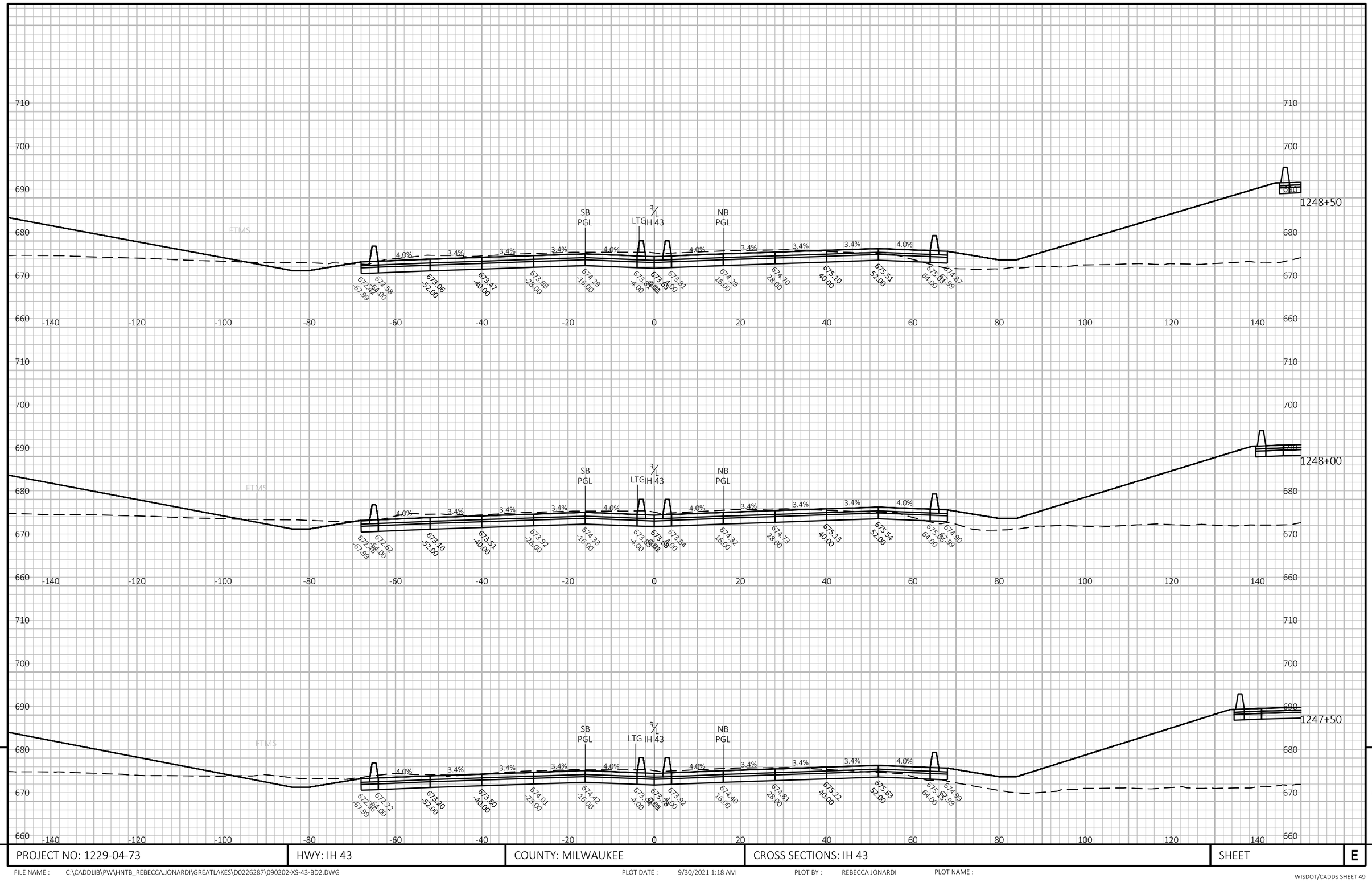

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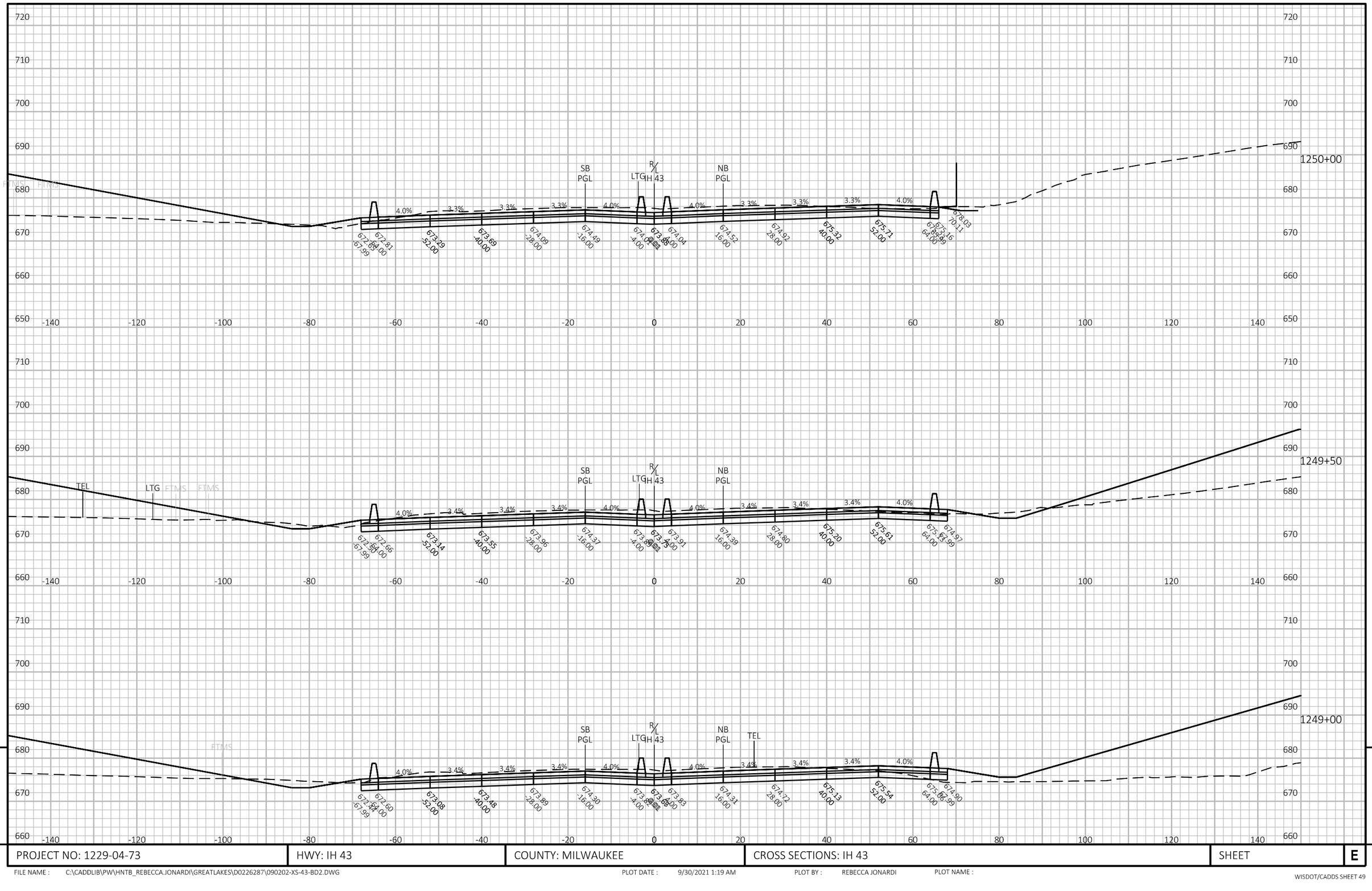

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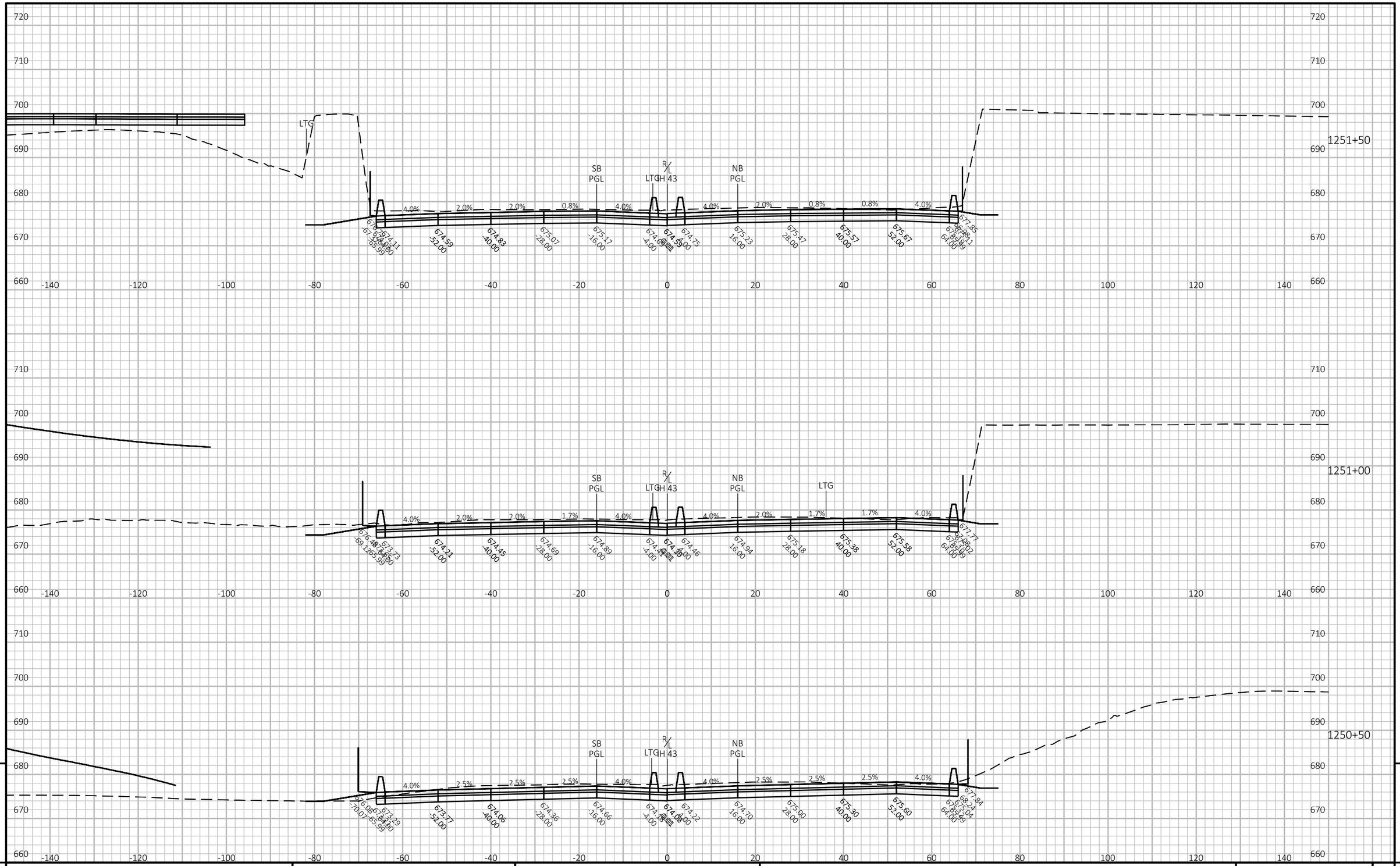

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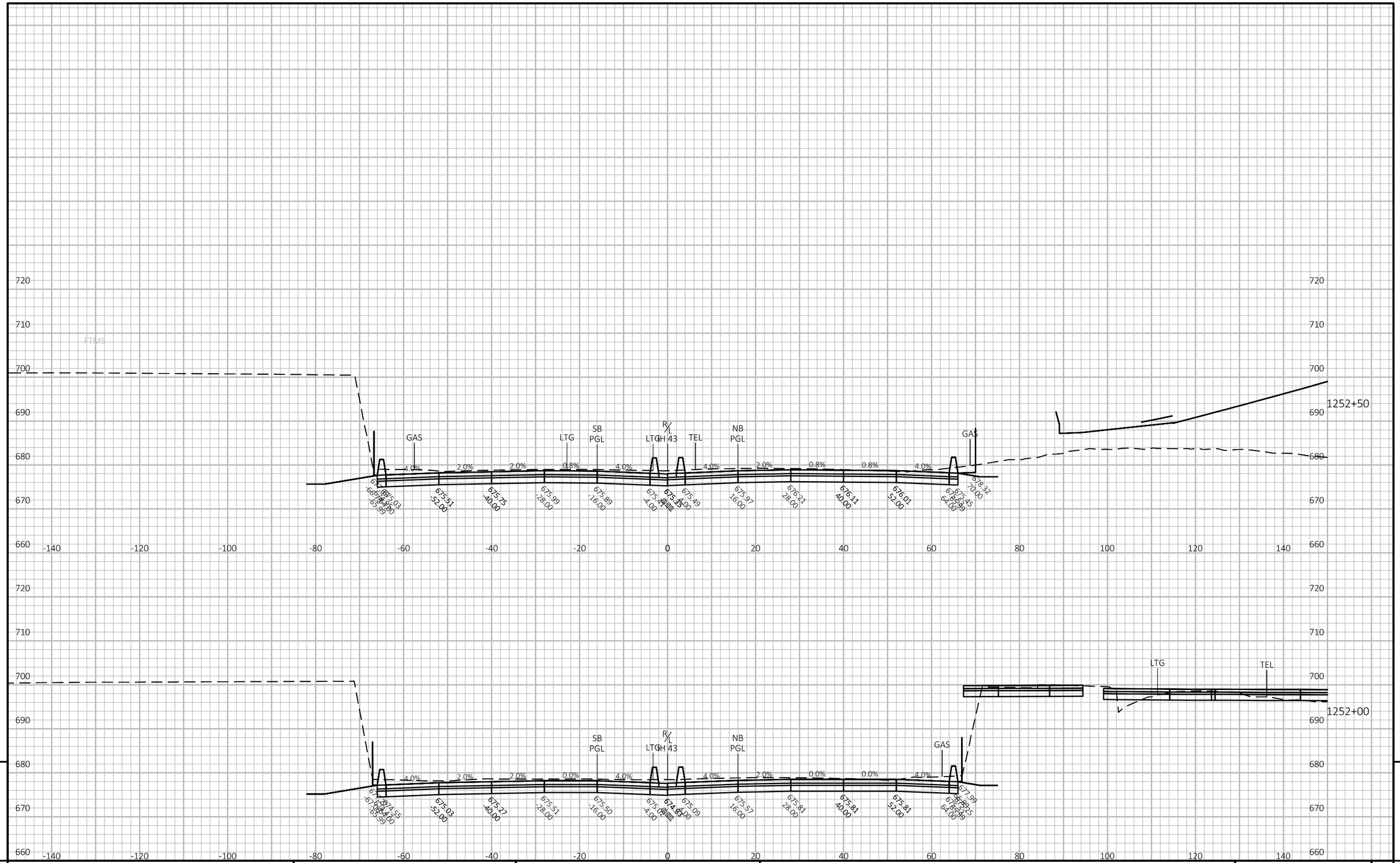

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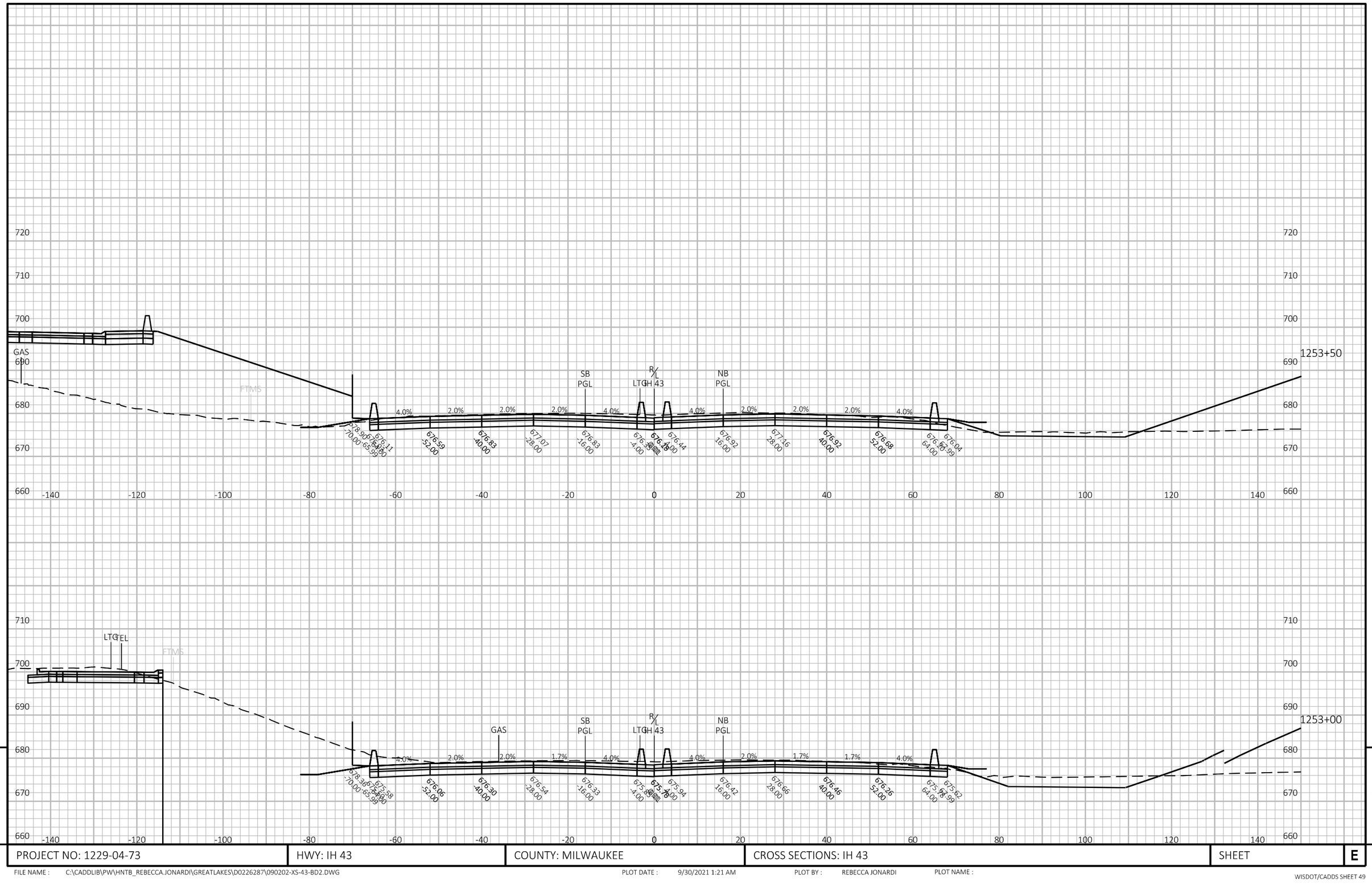

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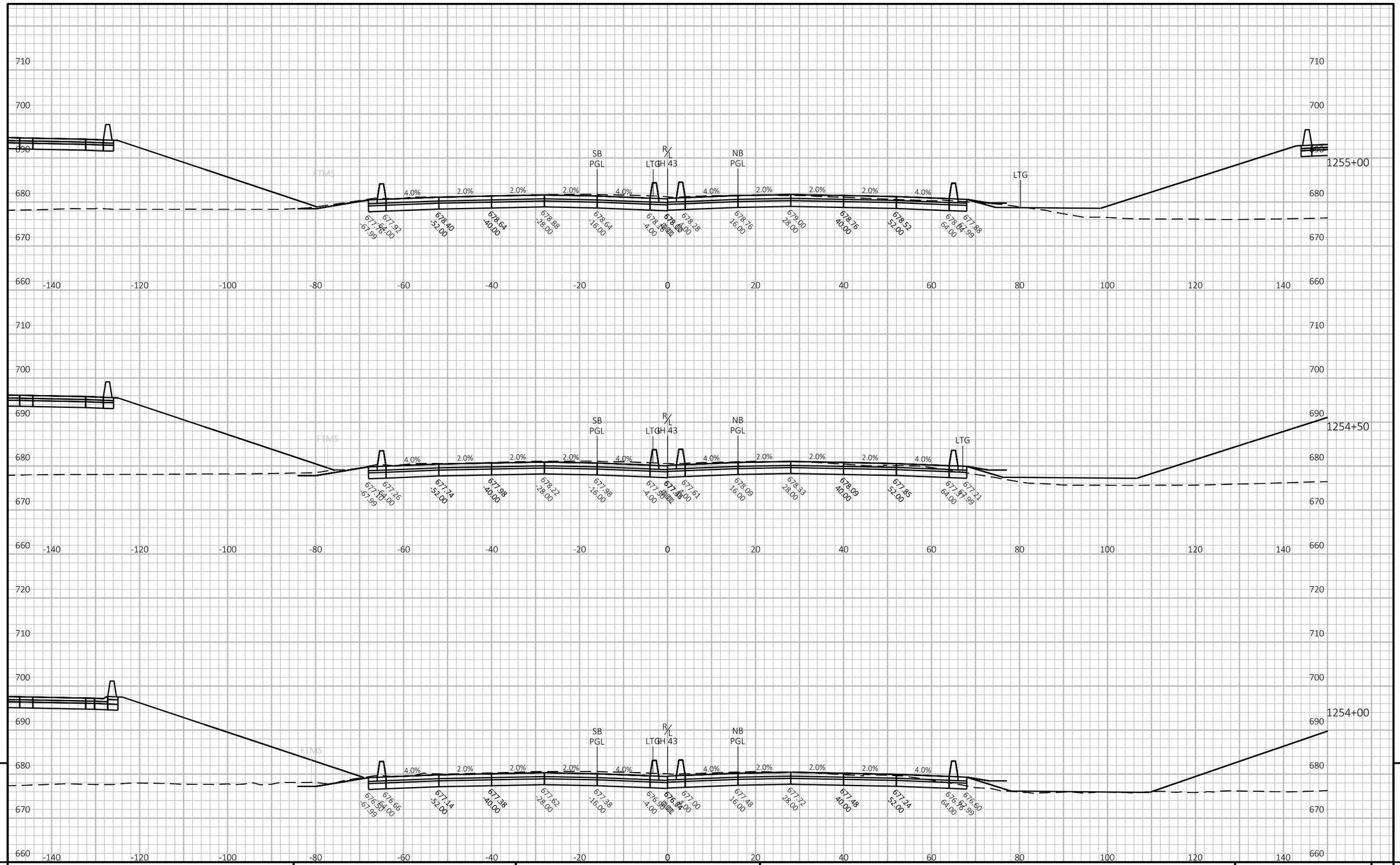

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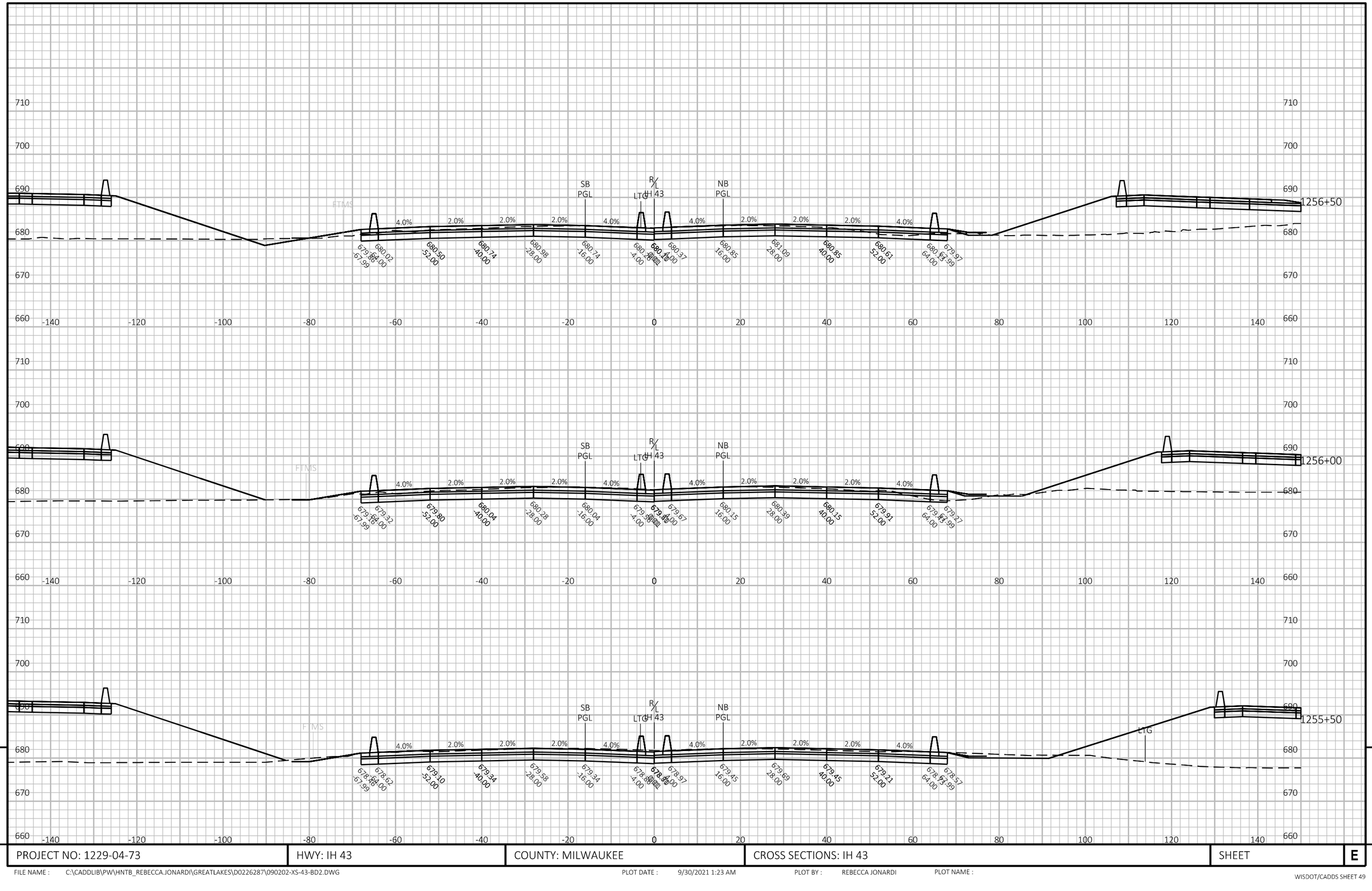
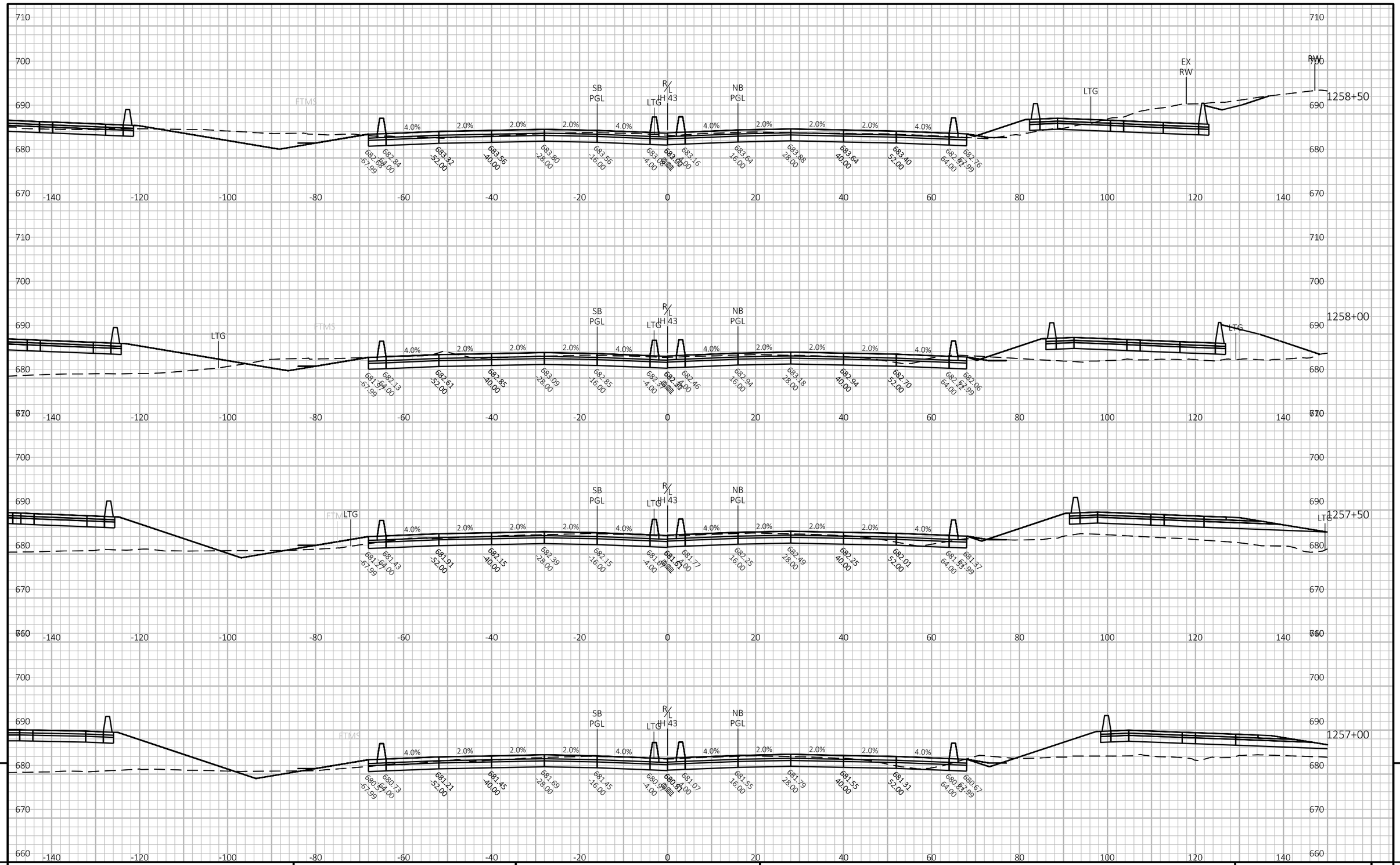
WISDOT/CADDS SHEET 49



9	PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E	9

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:23 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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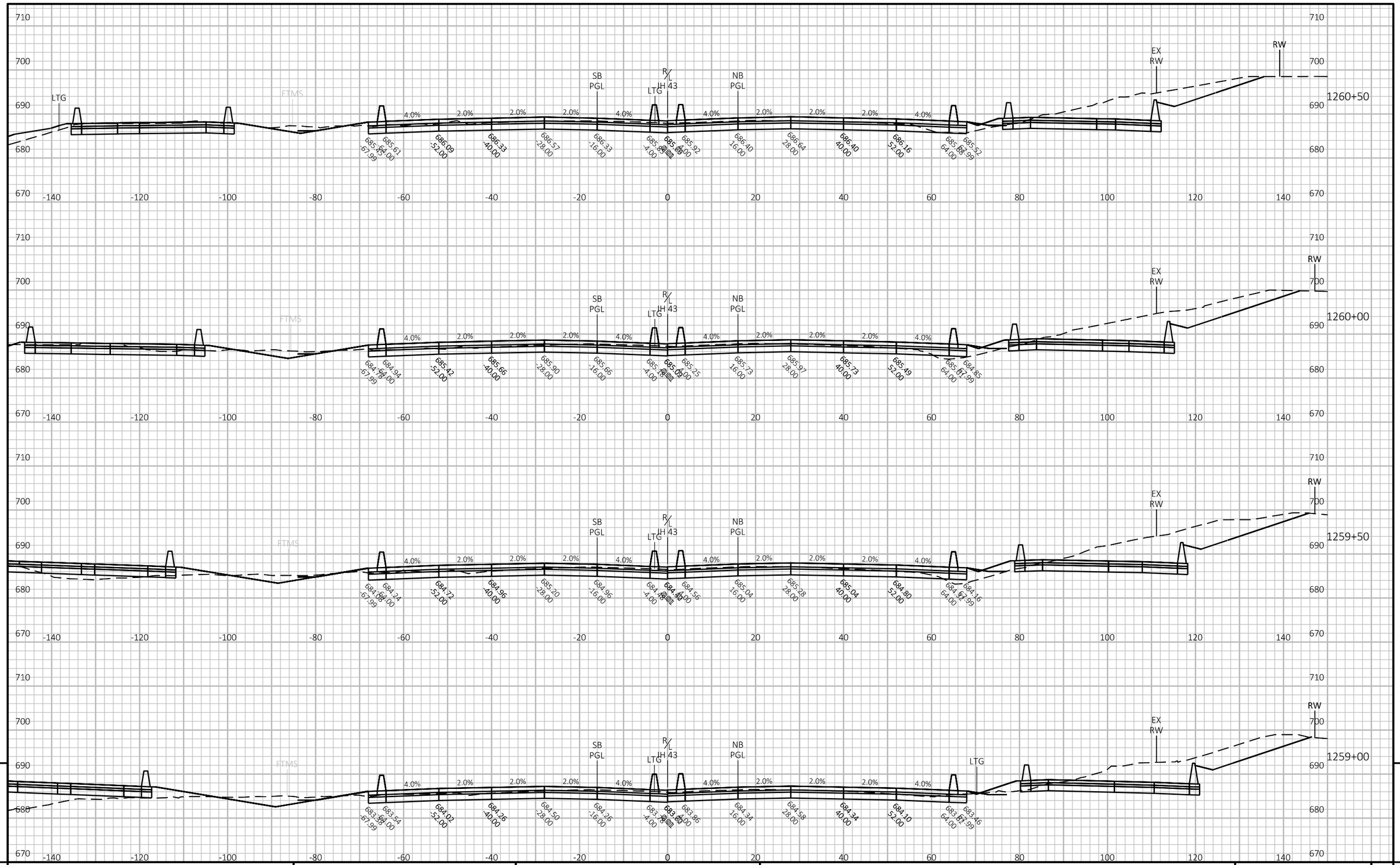
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:23 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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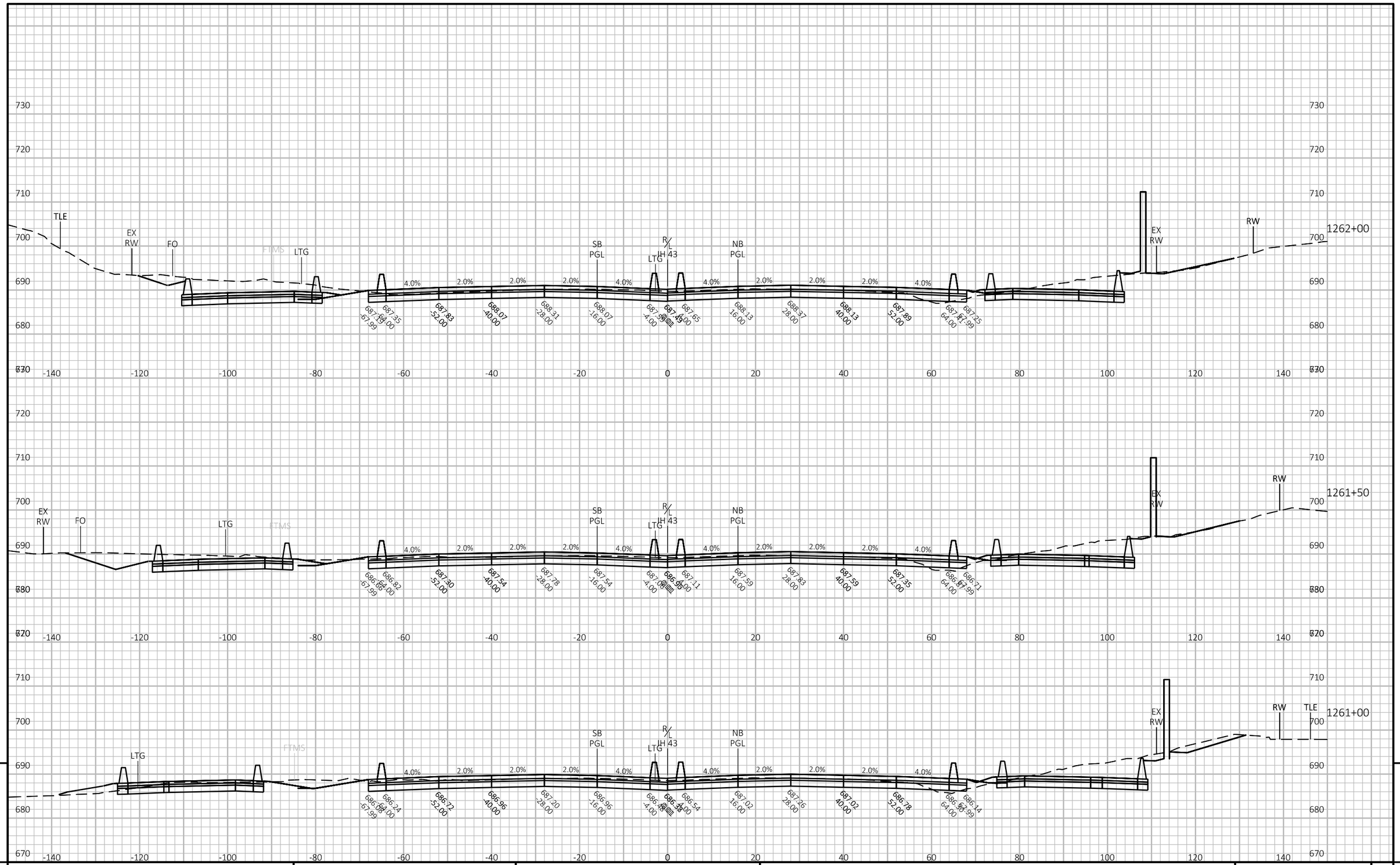
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:24 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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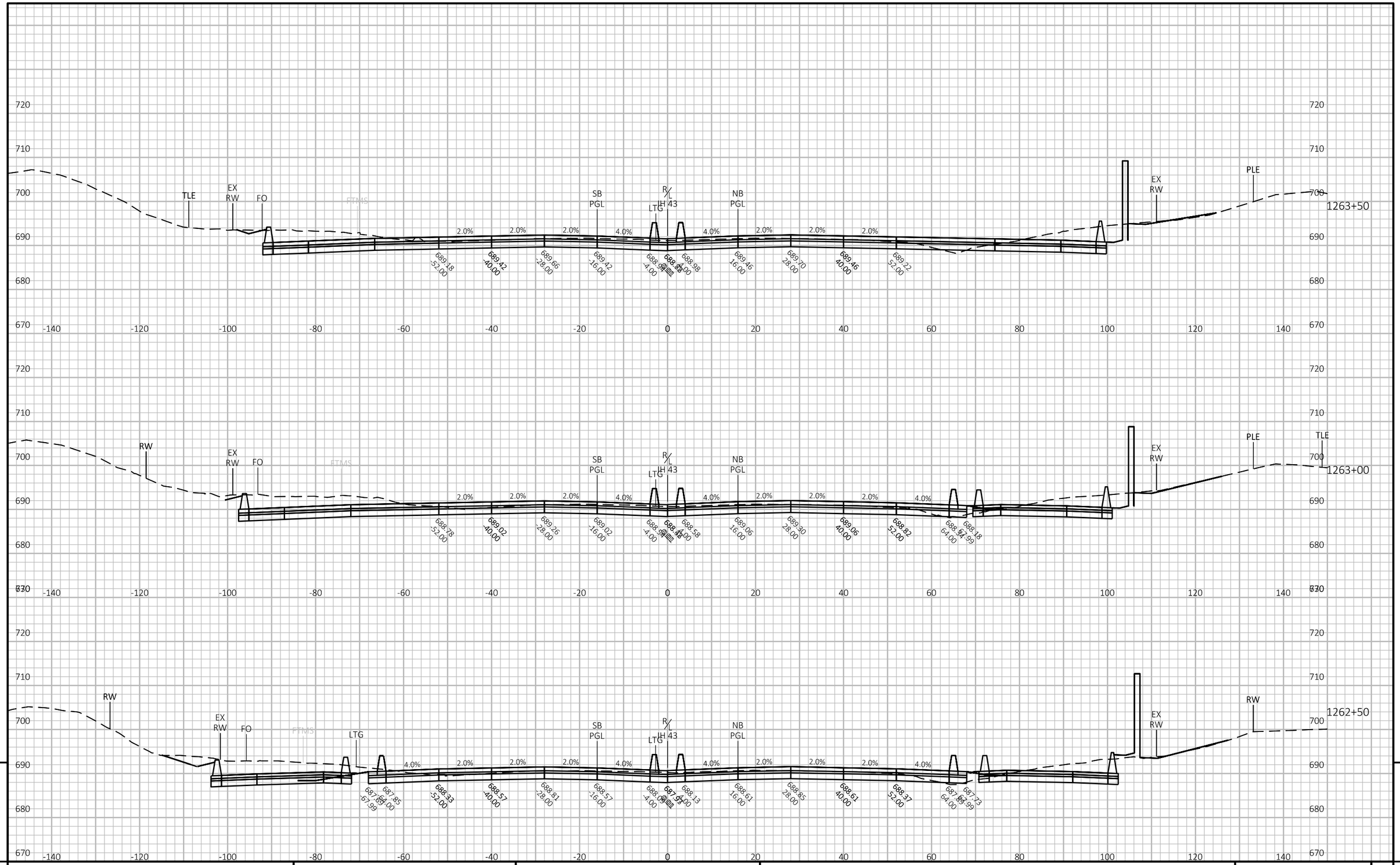

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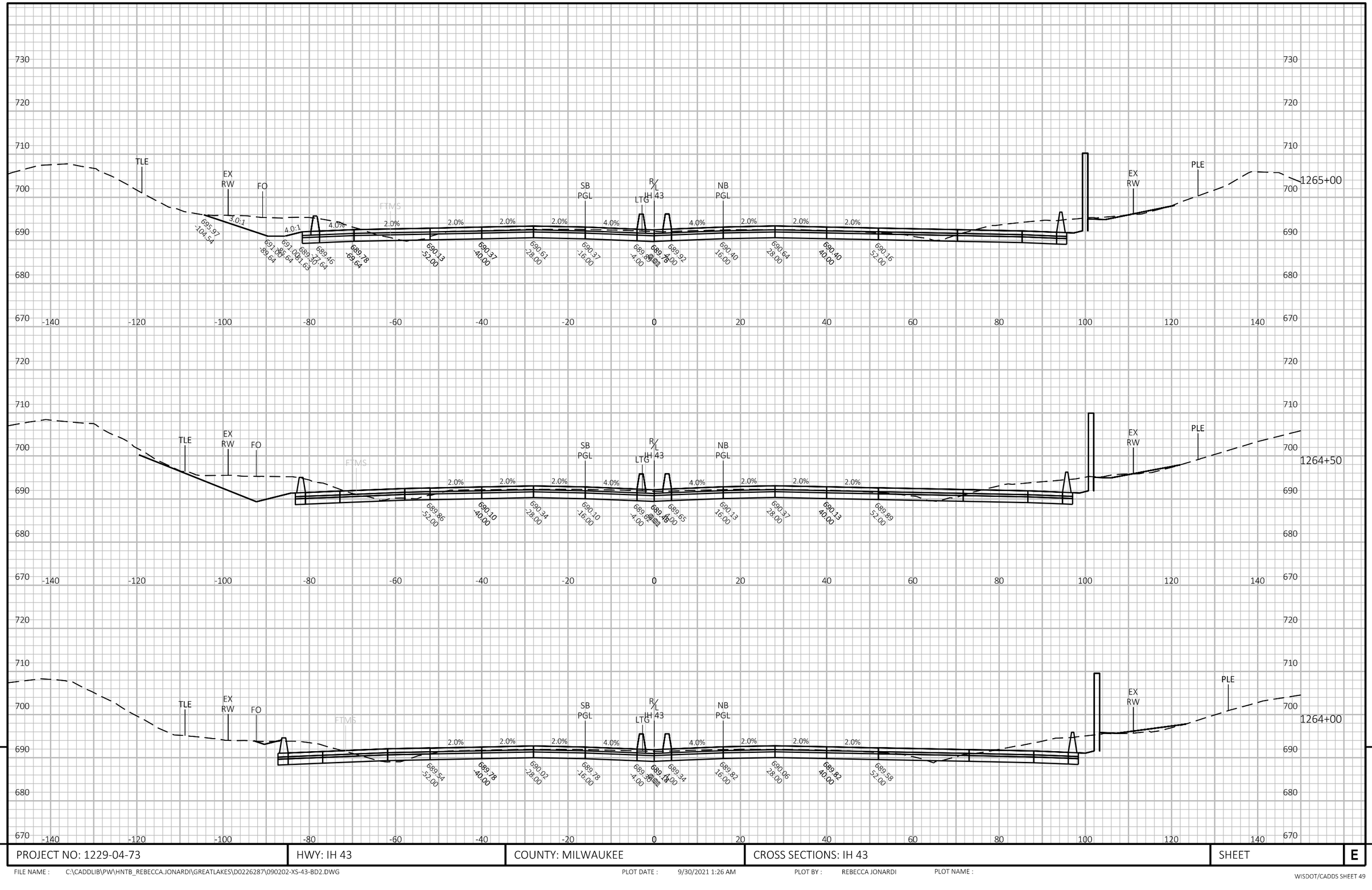
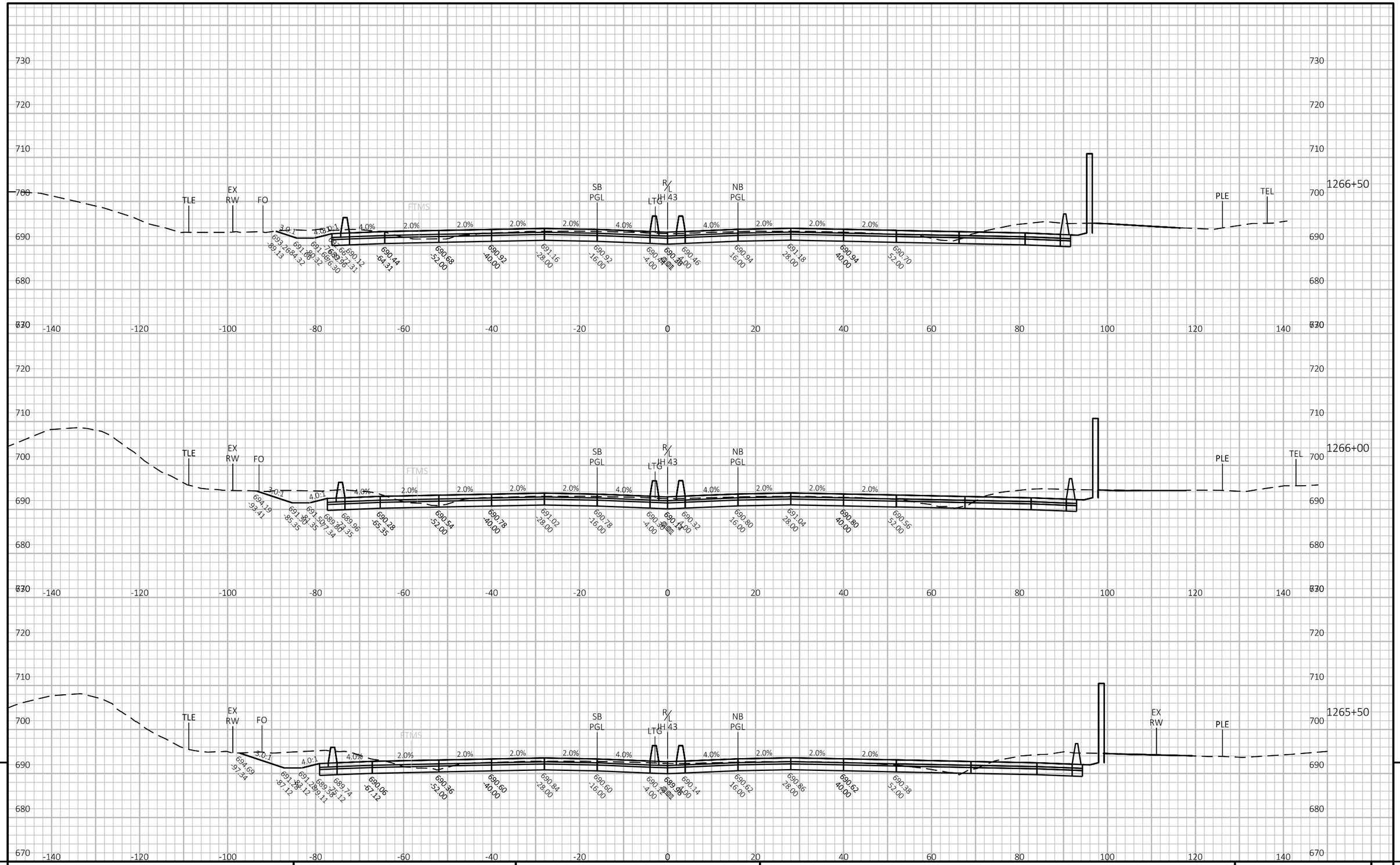
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

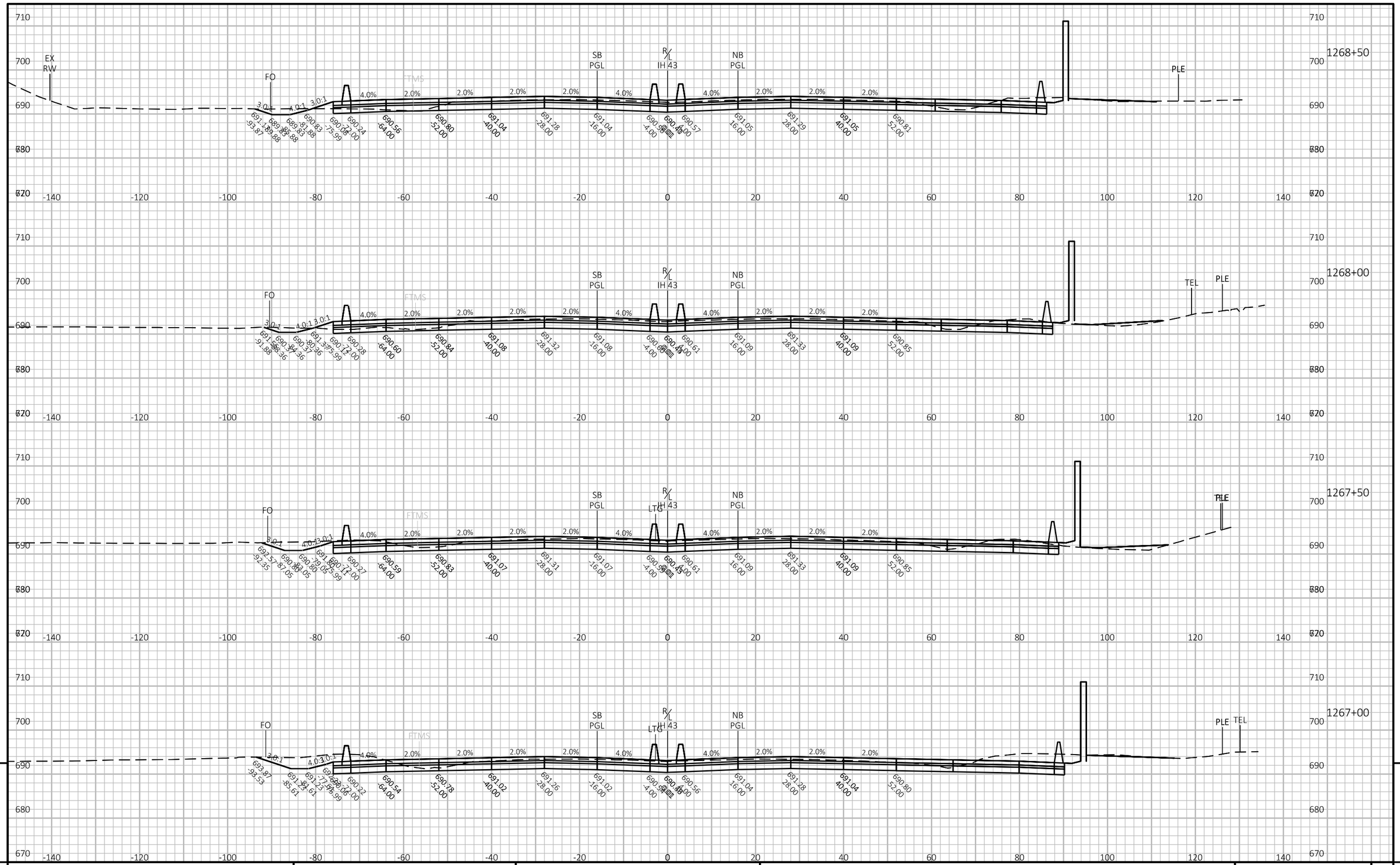
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:25 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

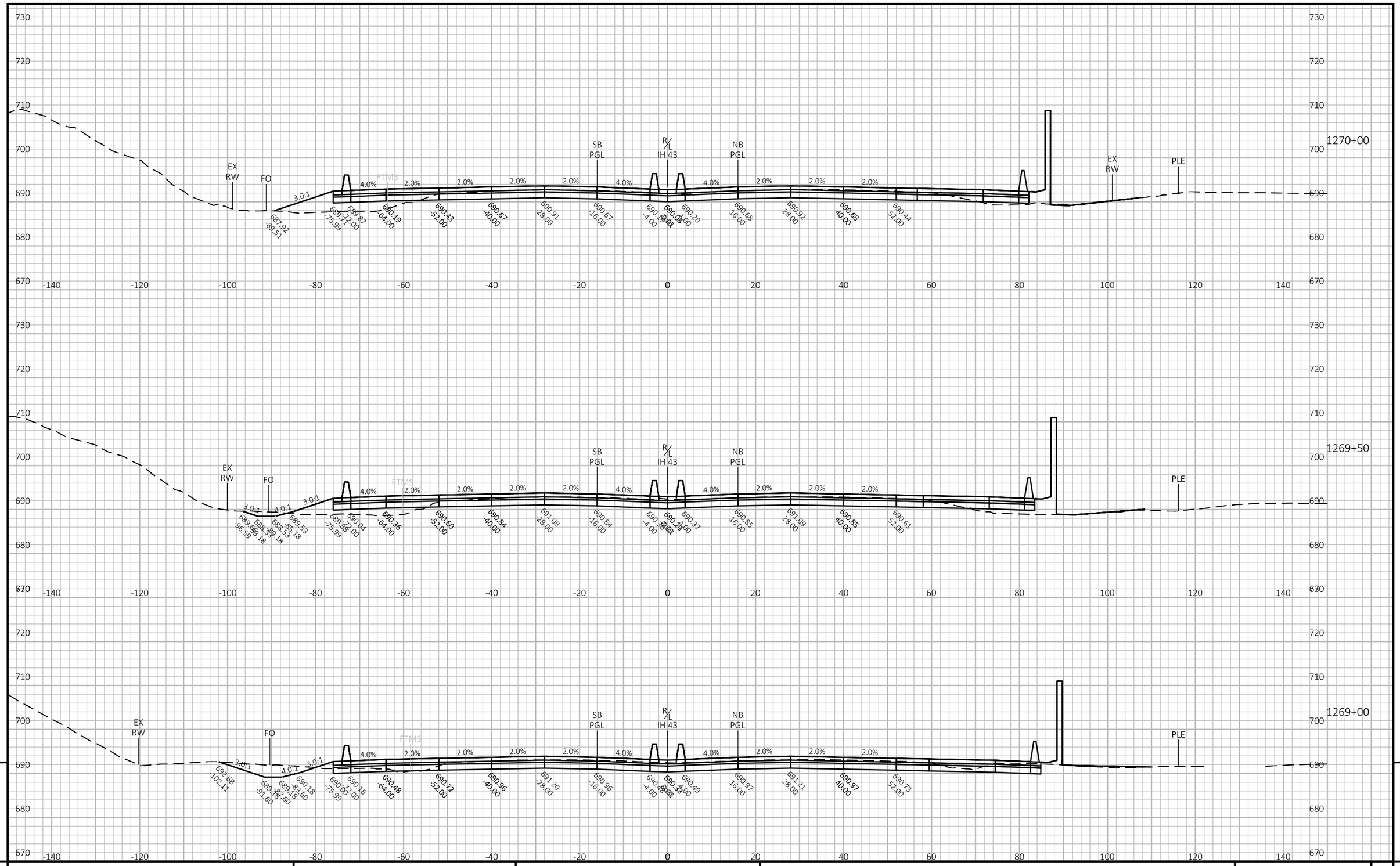
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:26 AM PLOT BY : REBECCA JONARDI PLOT NAME :


1266+50
TLE
EX RW
FO
SB PGL
R/L IH 43
LTG
NB PGL
PLE
TEL
FITMS
1266+00
1265+50
EX RW
PROJECT NO: 1229-04-73
HWY: IH 43
COUNTY: MILWAUKEE
CROSS SECTIONS: IH 43
SHEET
E
9
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG
PLOT DATE : 9/30/2021 1:27 AM
PLOT BY : REBECCA JONARDI
PLOT NAME :
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:28 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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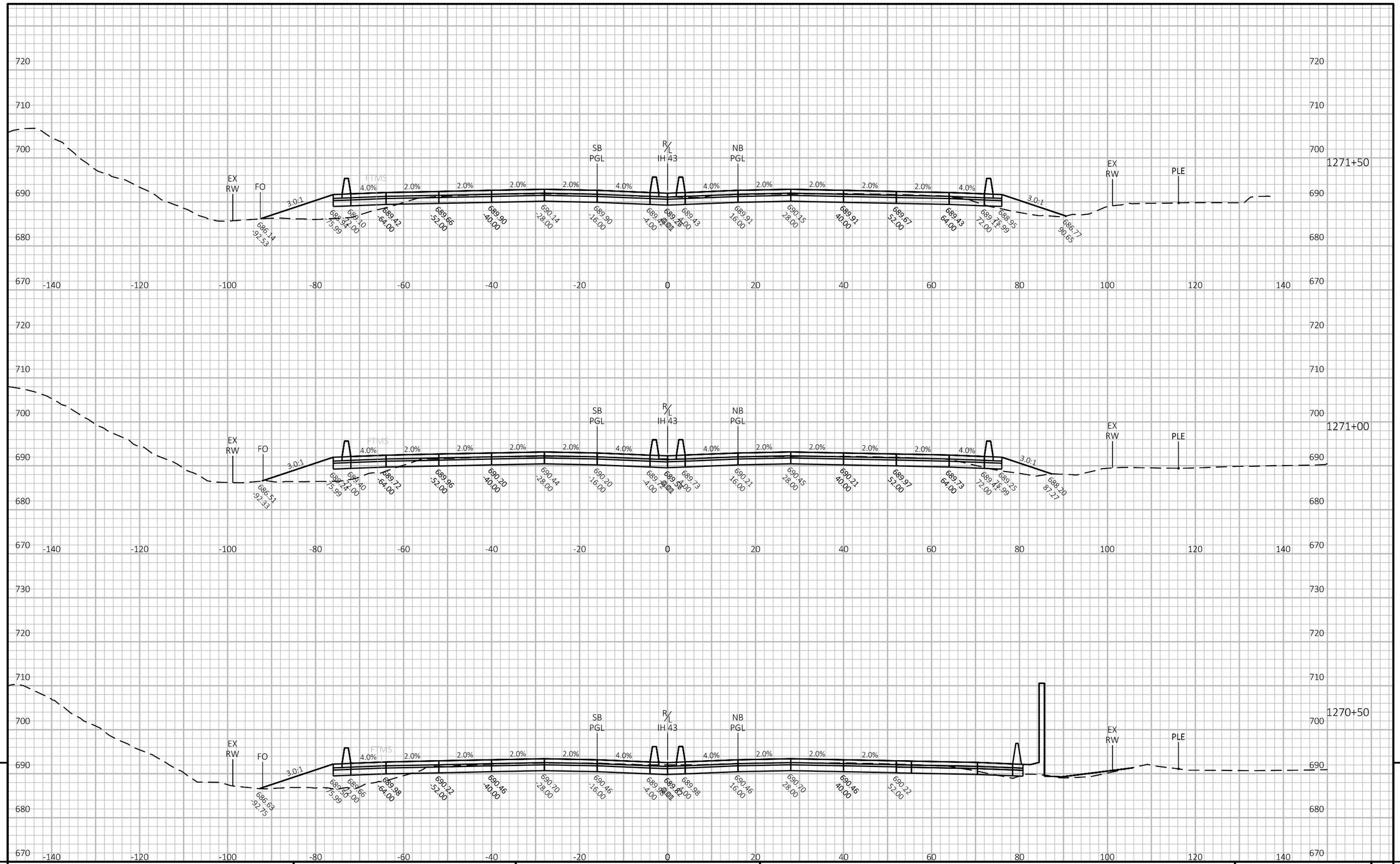
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:28 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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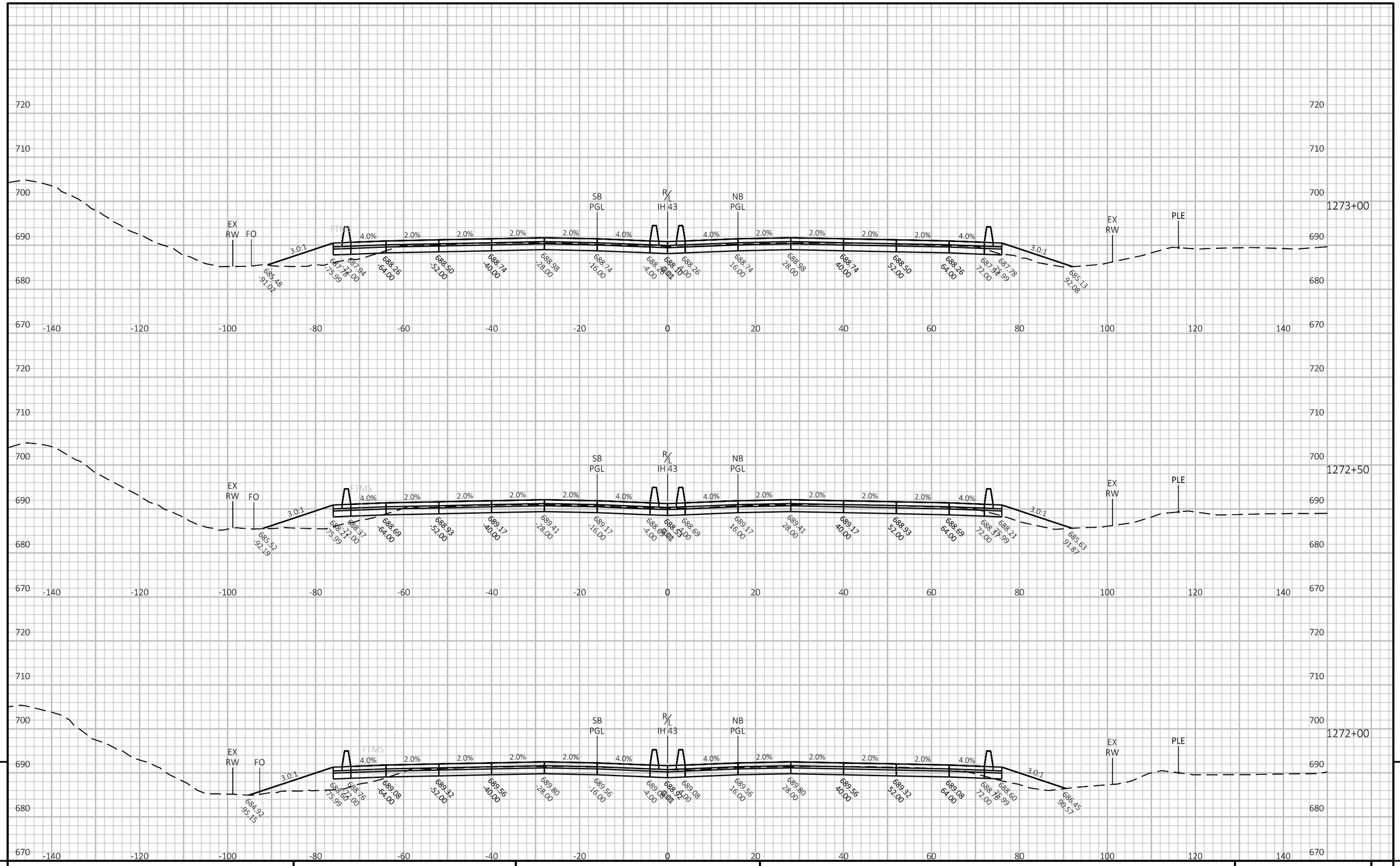
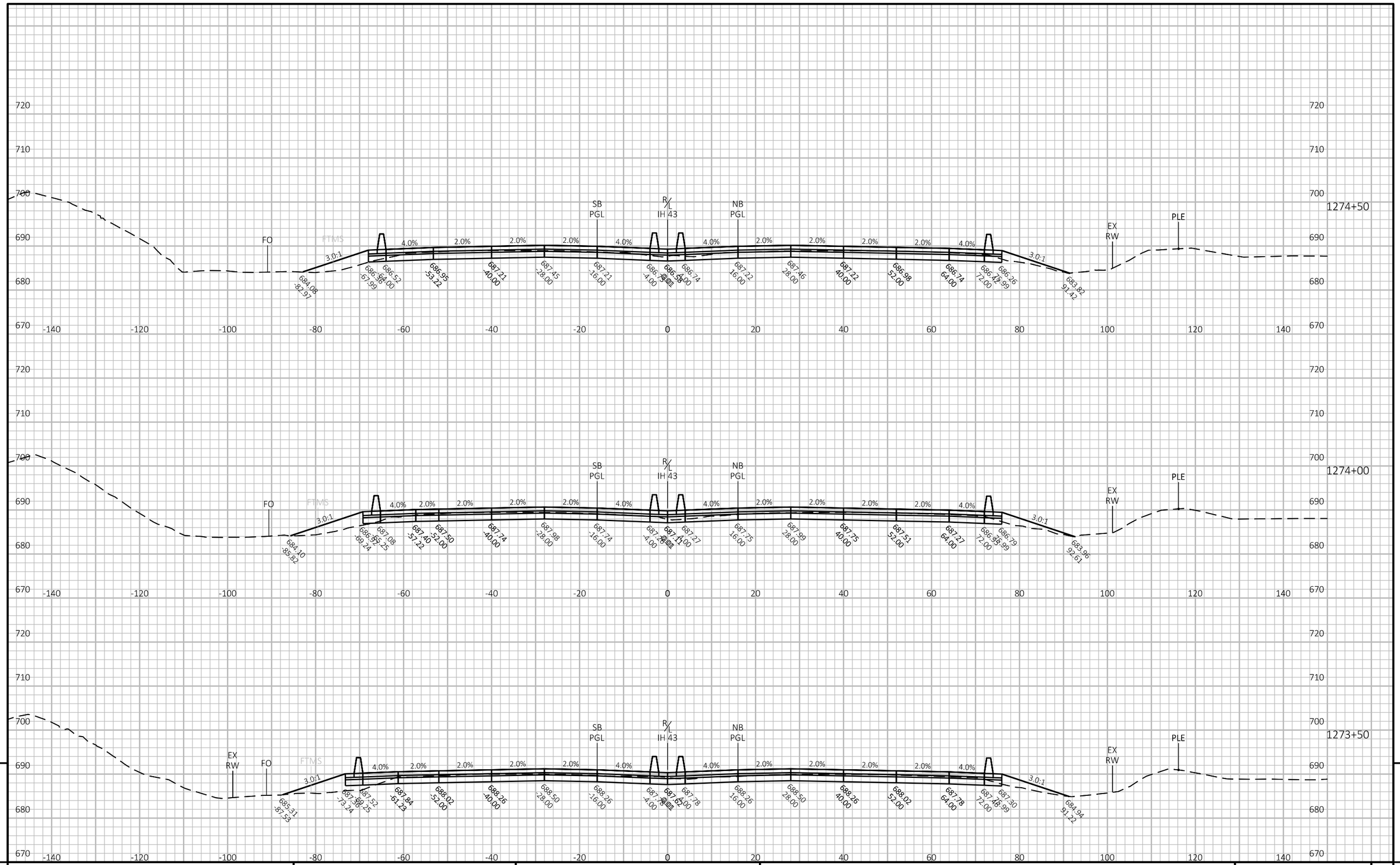


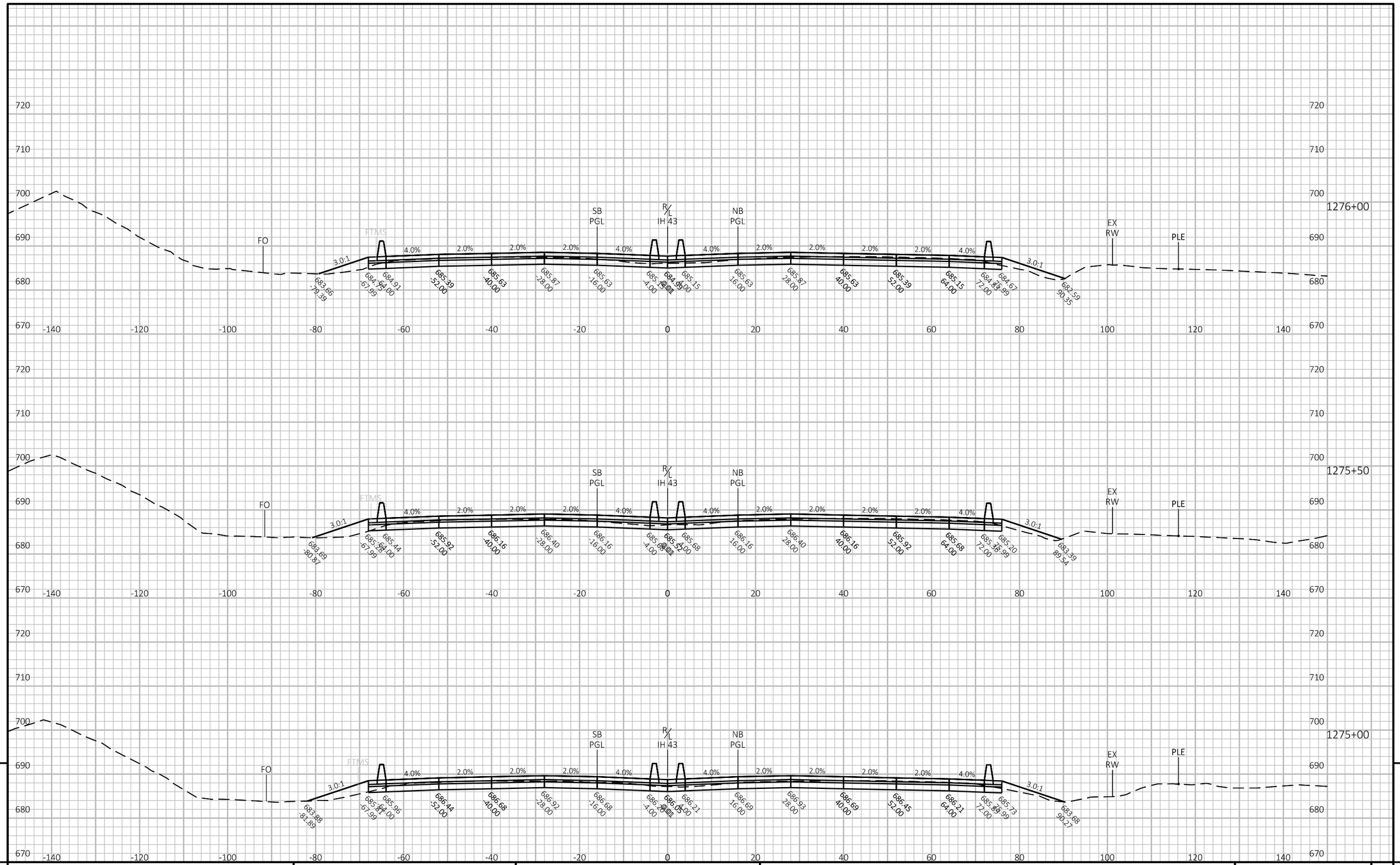
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:30 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:30 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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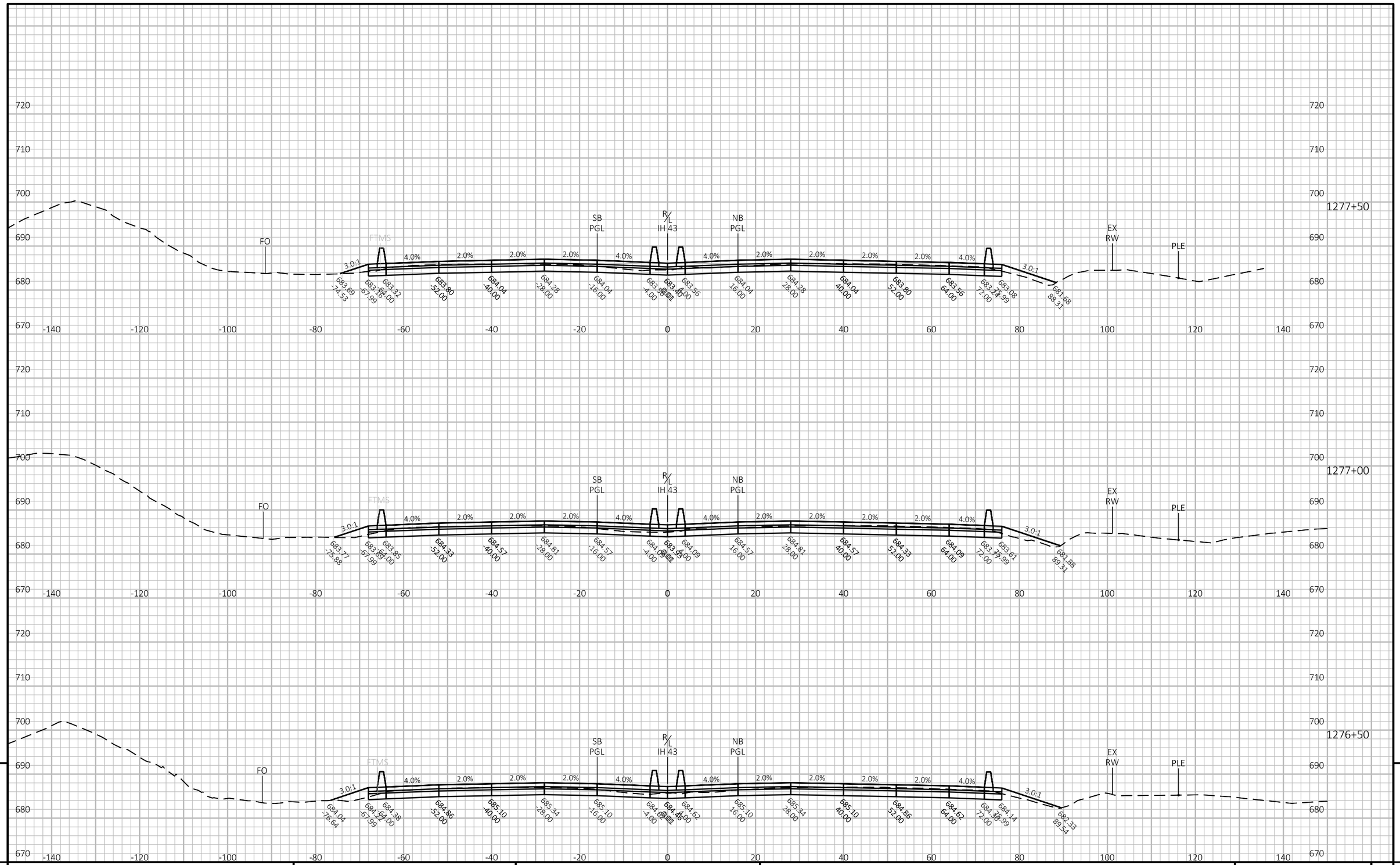

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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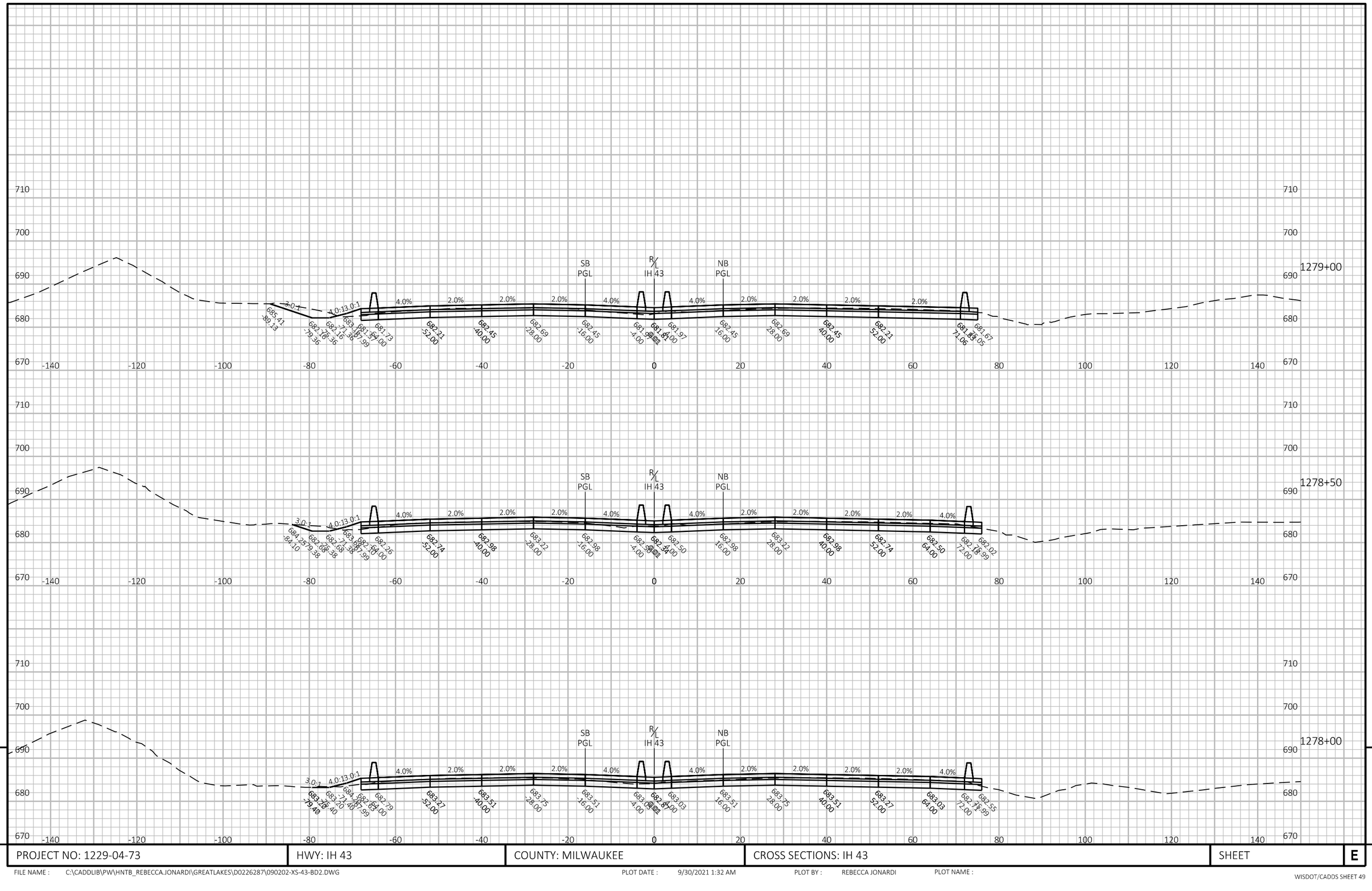

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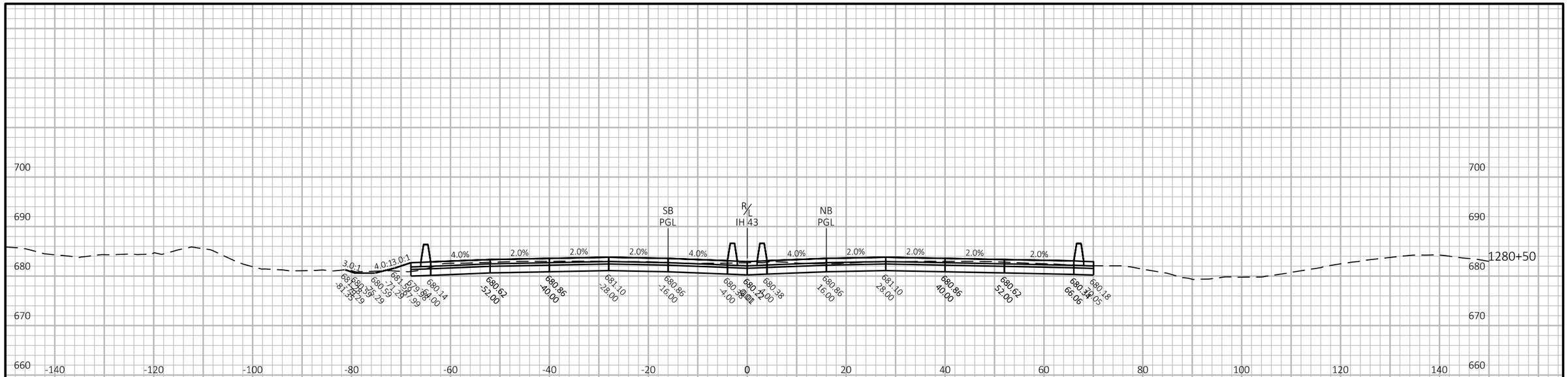
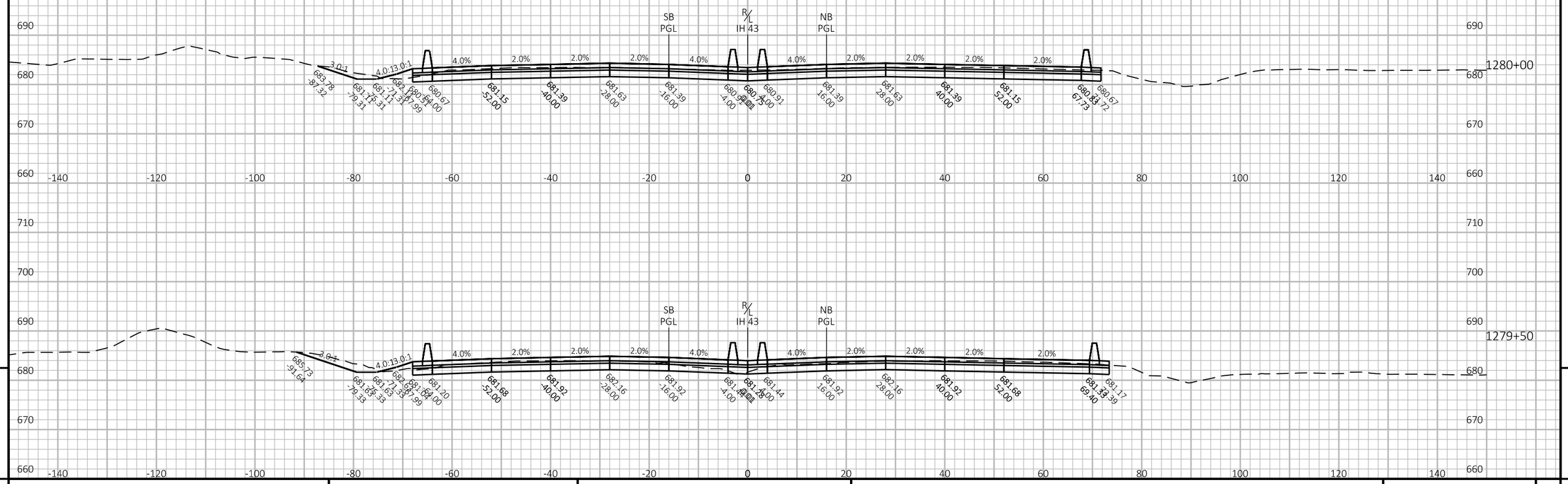
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:32 AM PLOT BY : REBECCA JONARDI PLOT NAME :





PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

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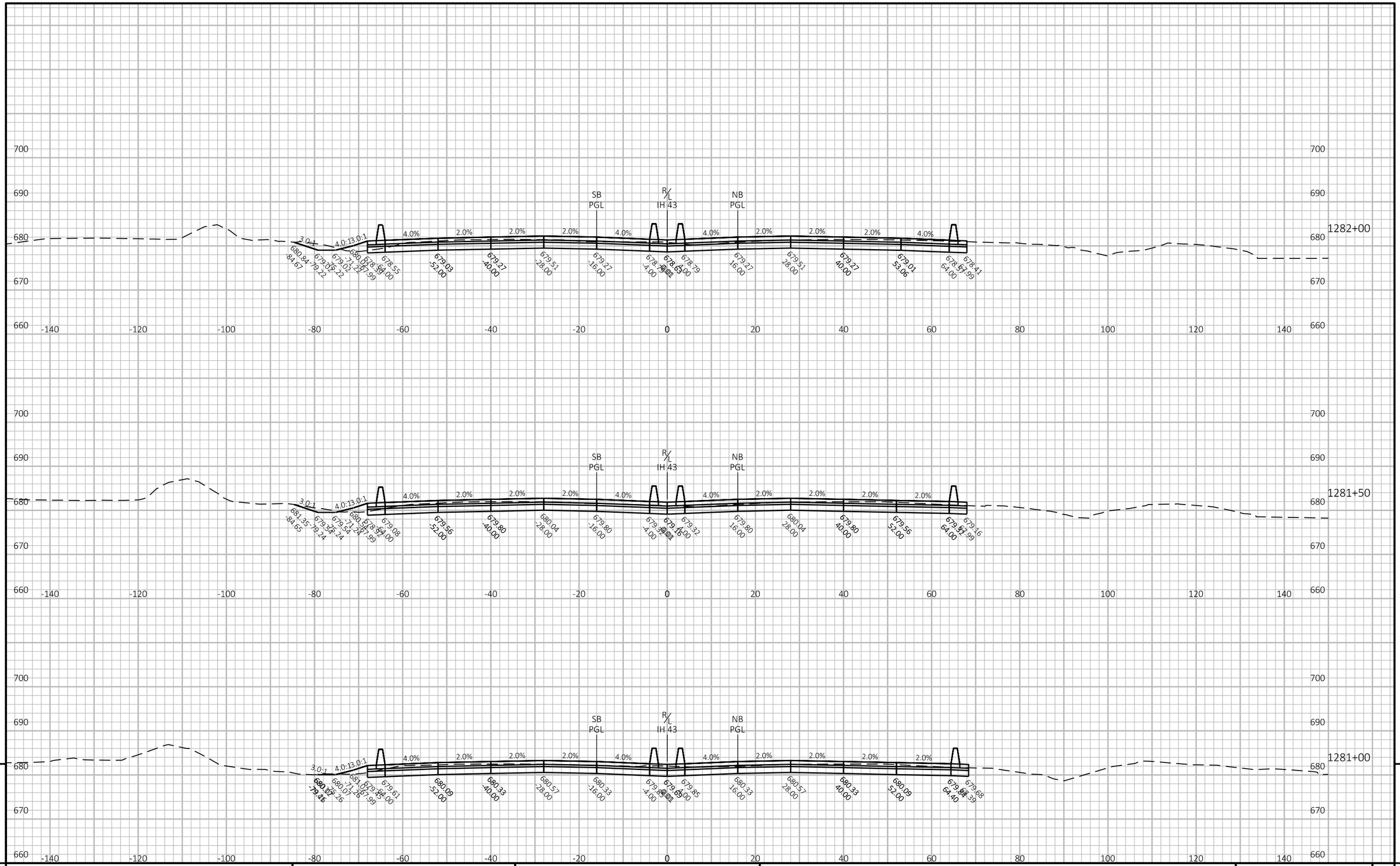

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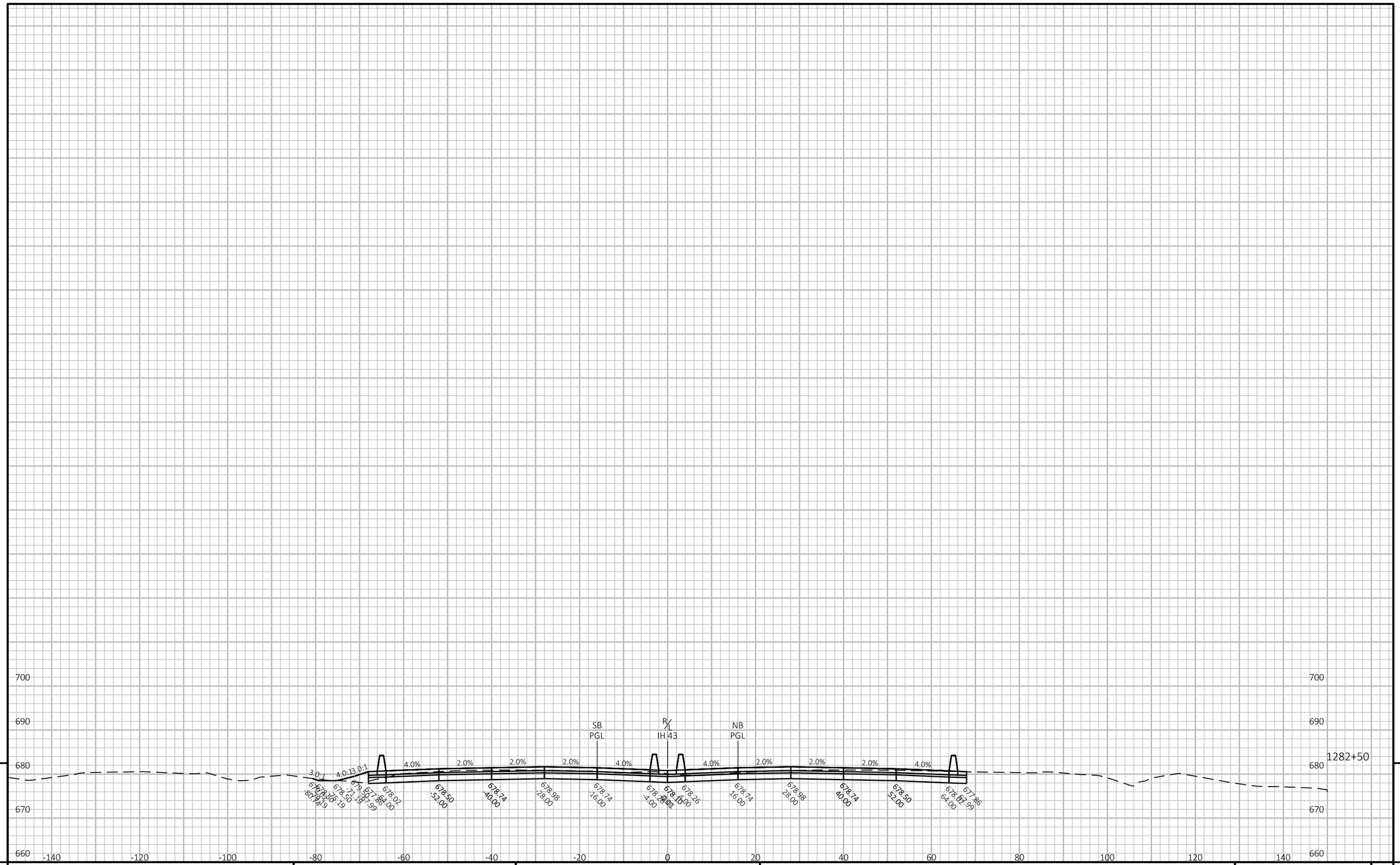
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:34 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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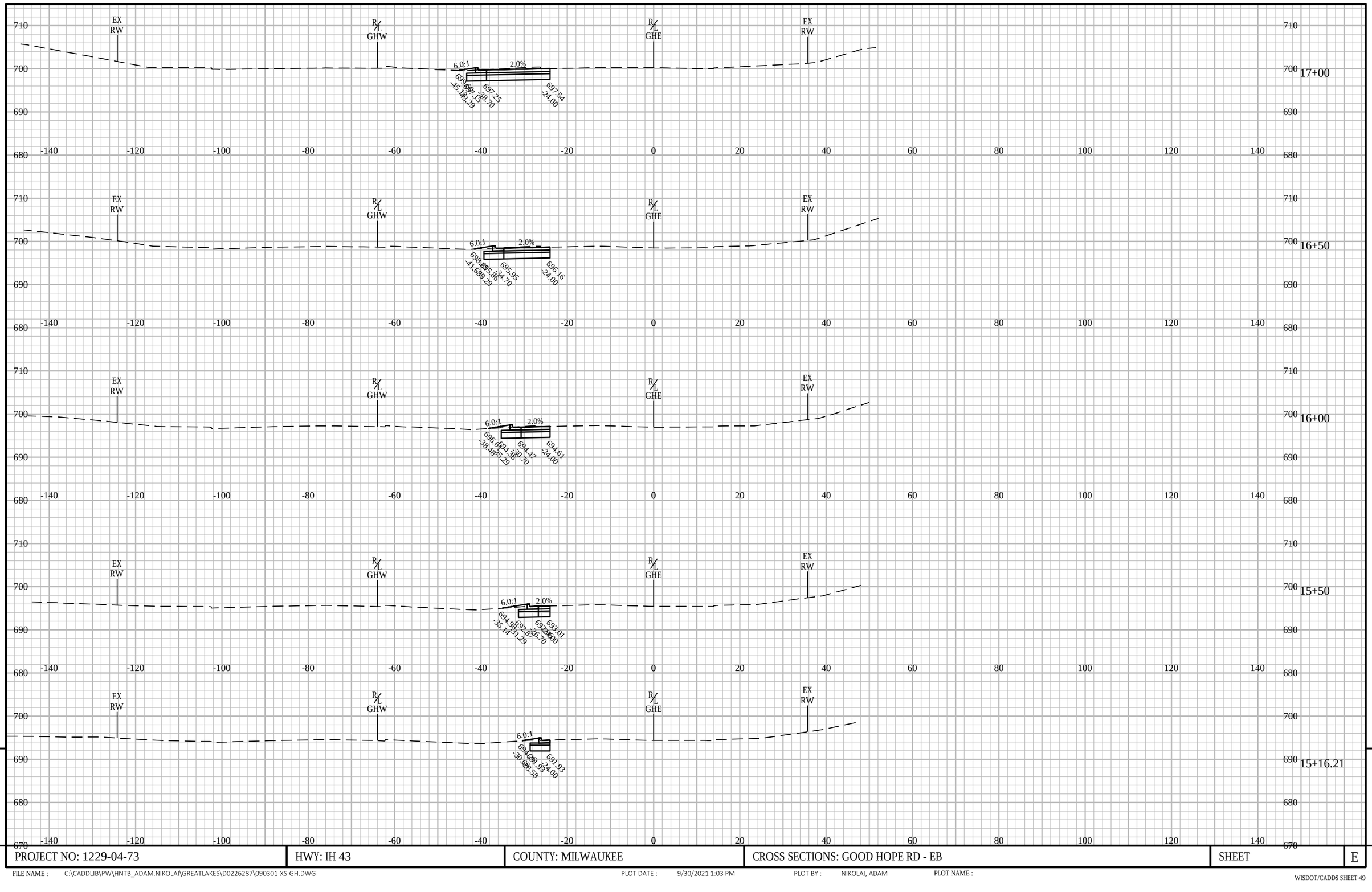
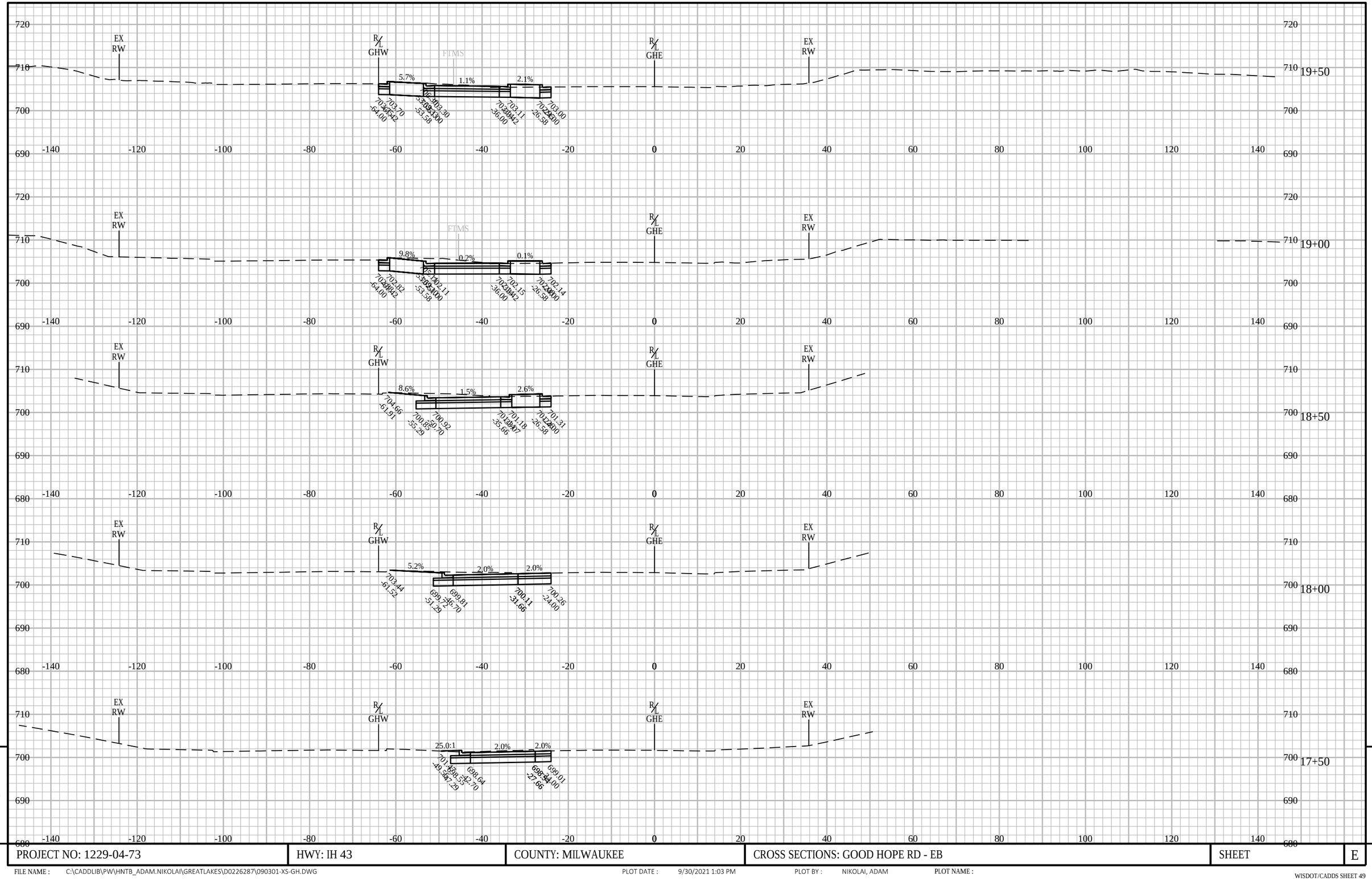
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 43	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090202-XS-43-BD2.DWG PLOT DATE : 9/30/2021 1:34 AM PLOT BY : REBECCA JONARDI PLOT NAME :



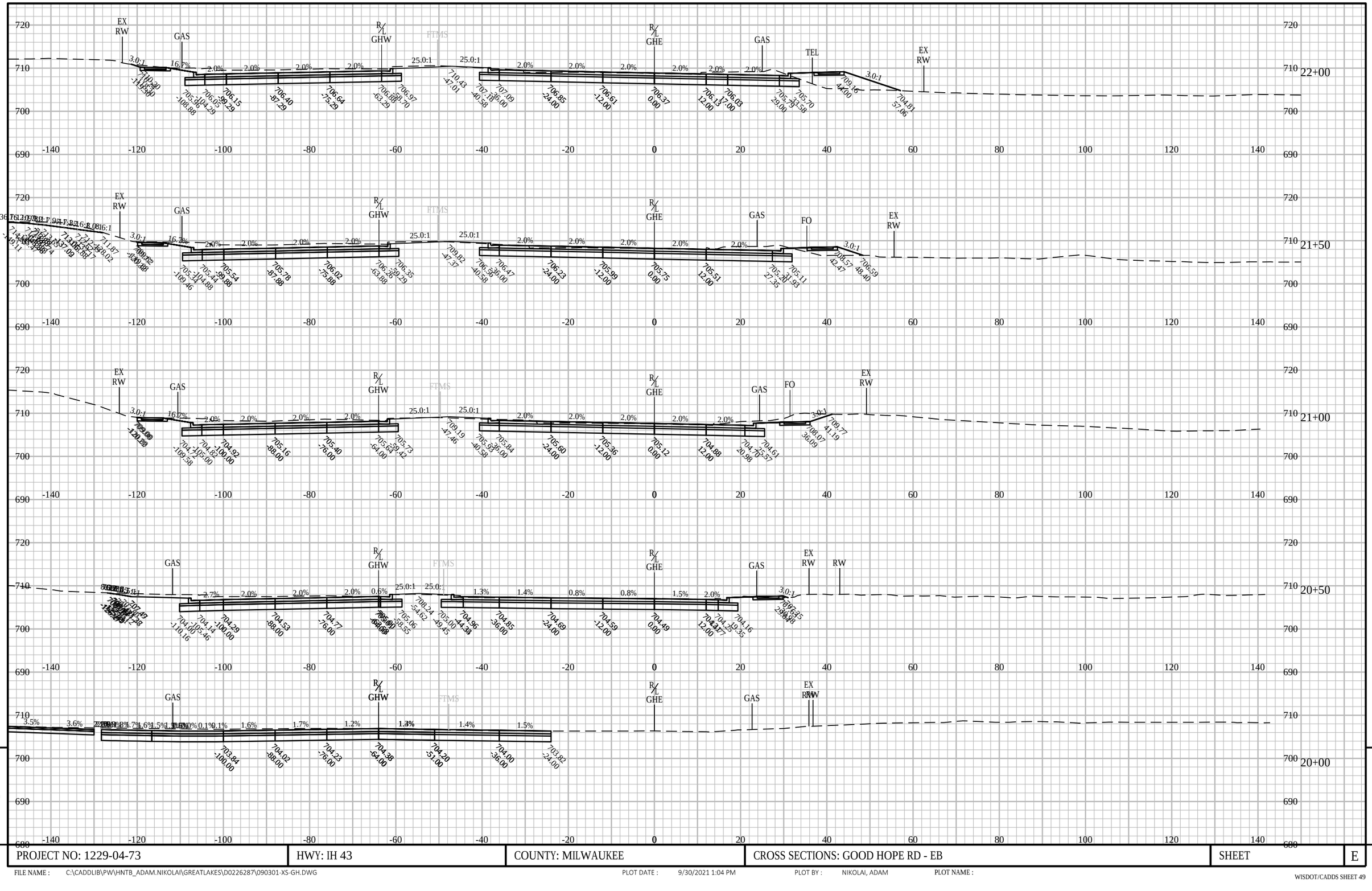
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:03 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



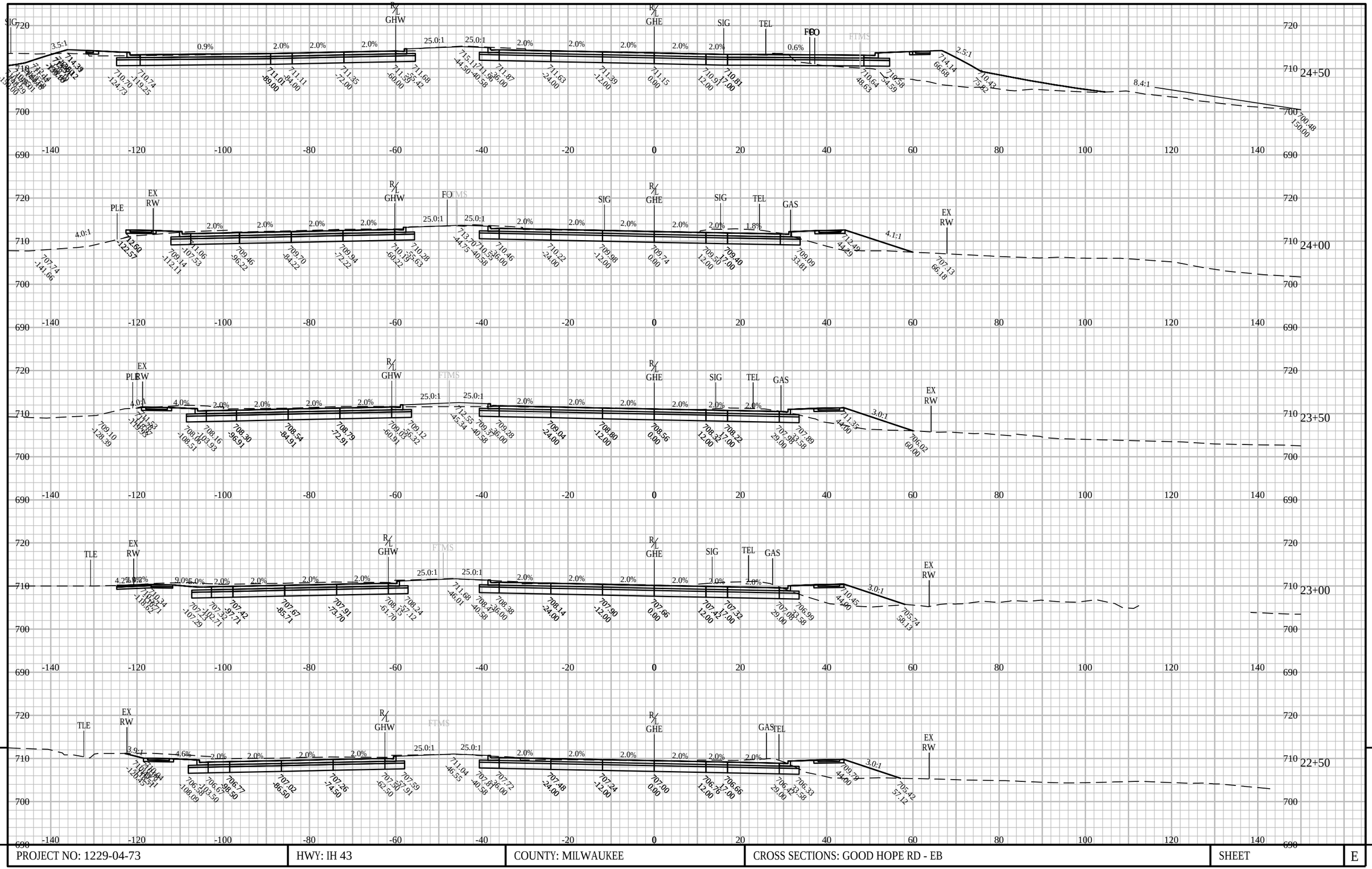
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:03 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



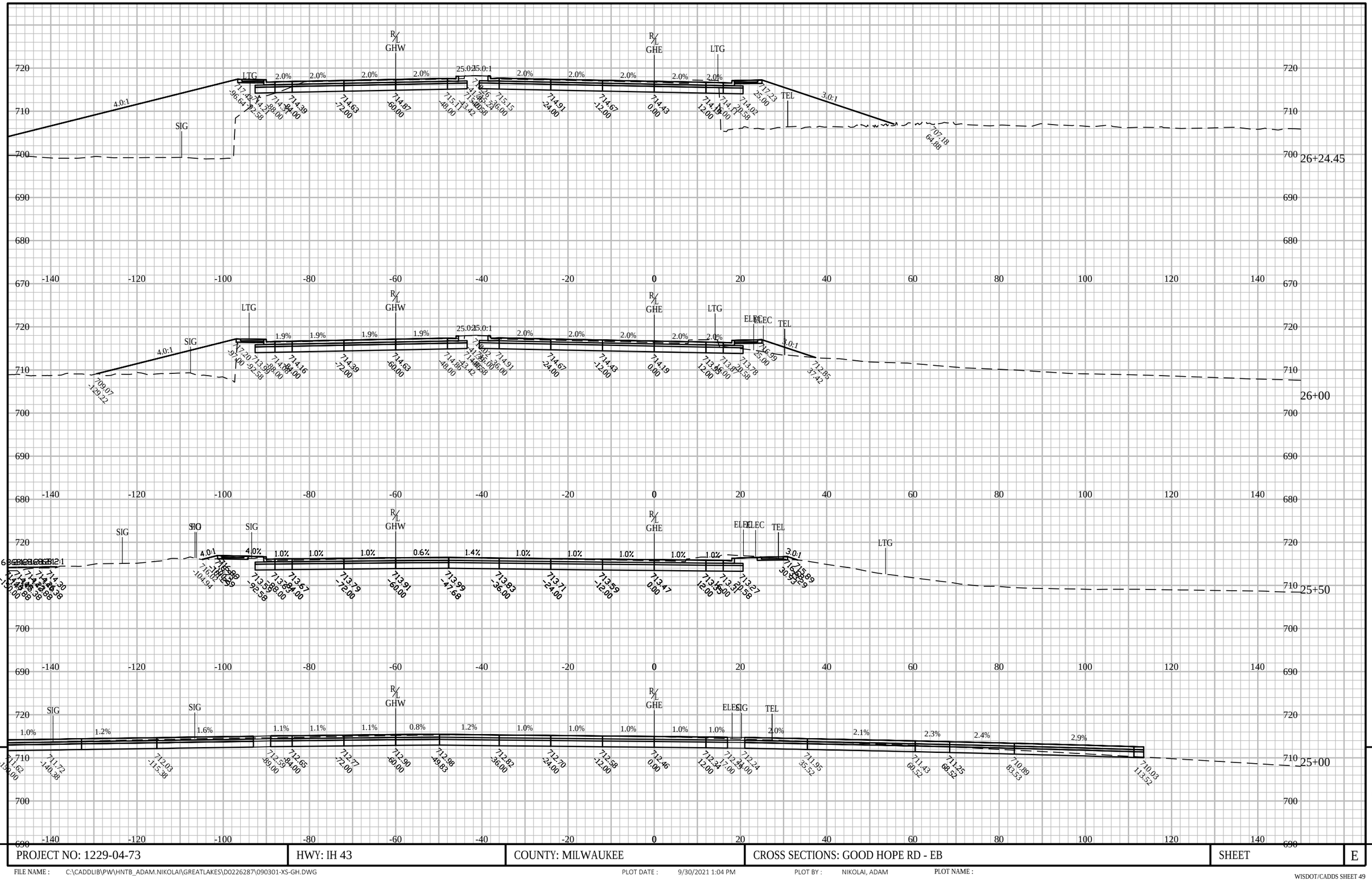
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:04 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



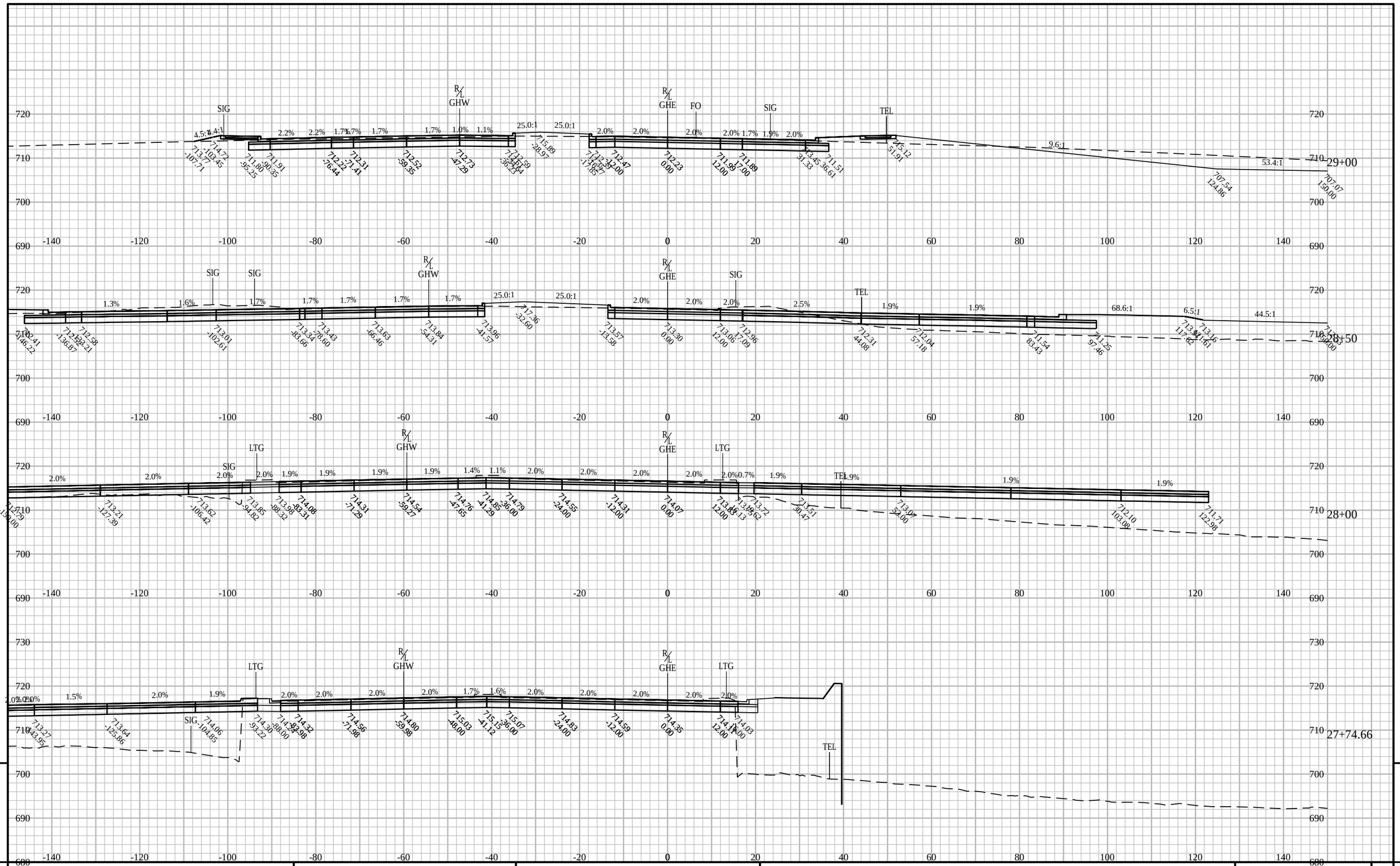
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:04 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET E

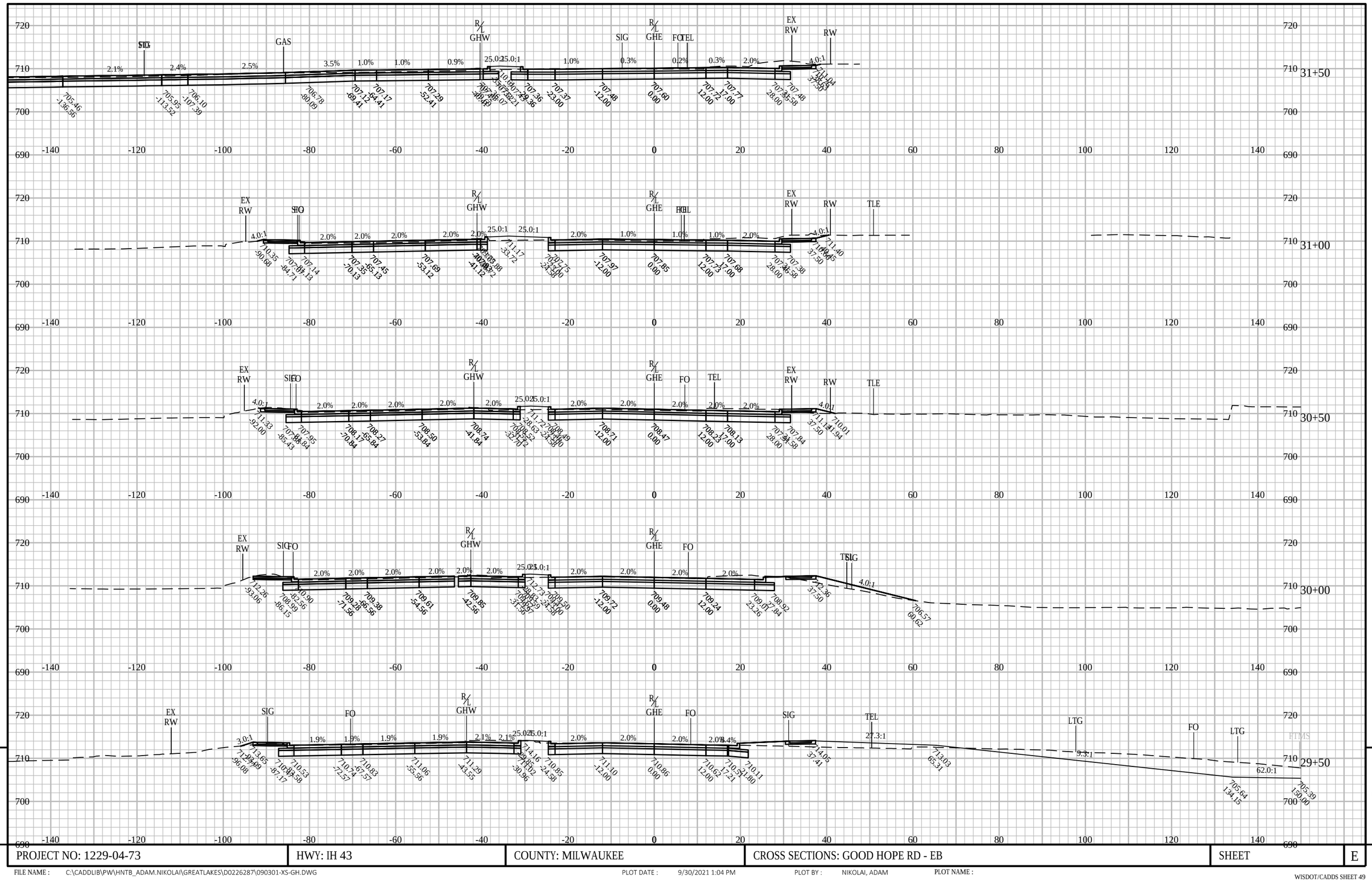
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:04 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:04 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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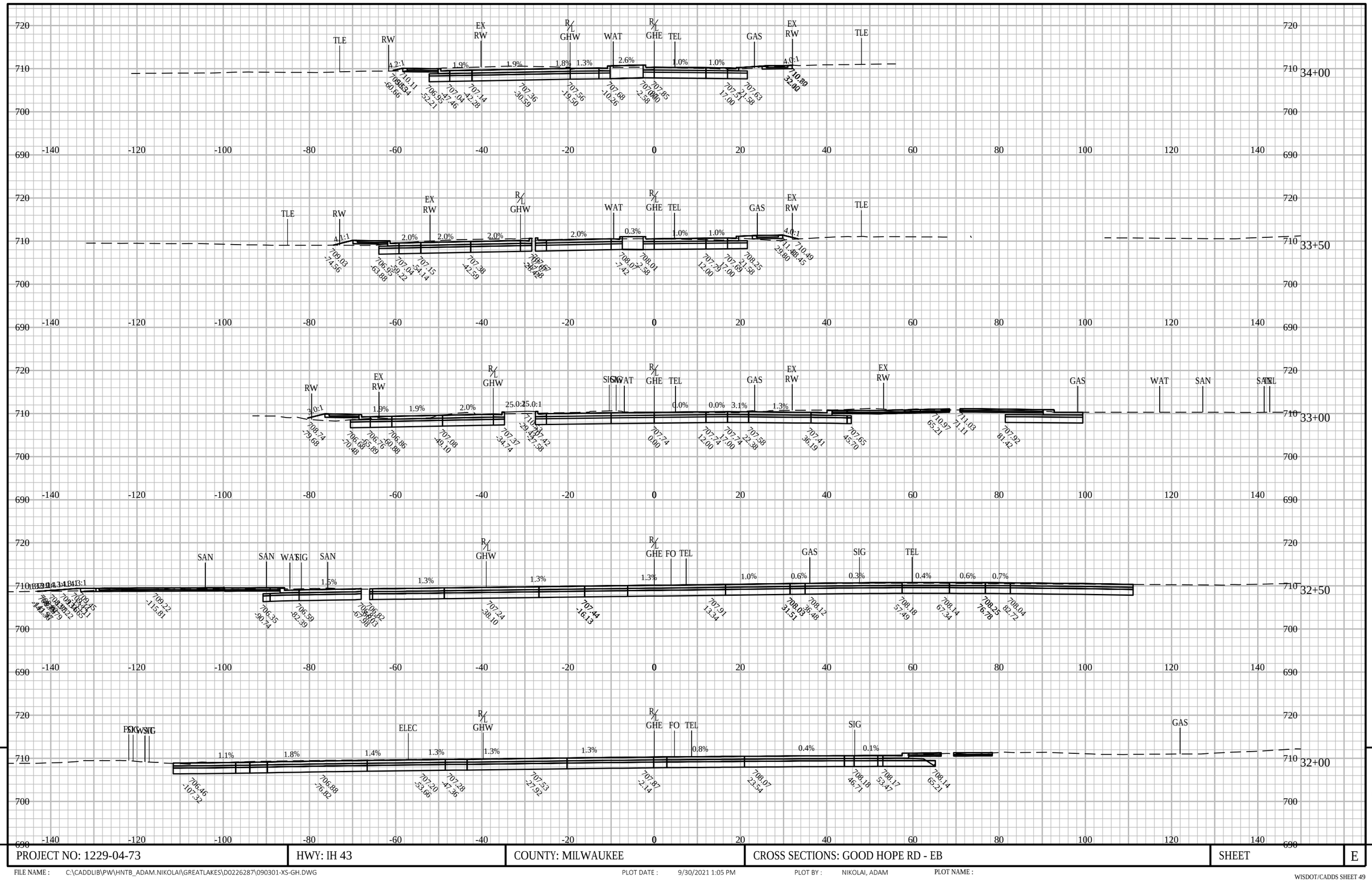
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:04 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

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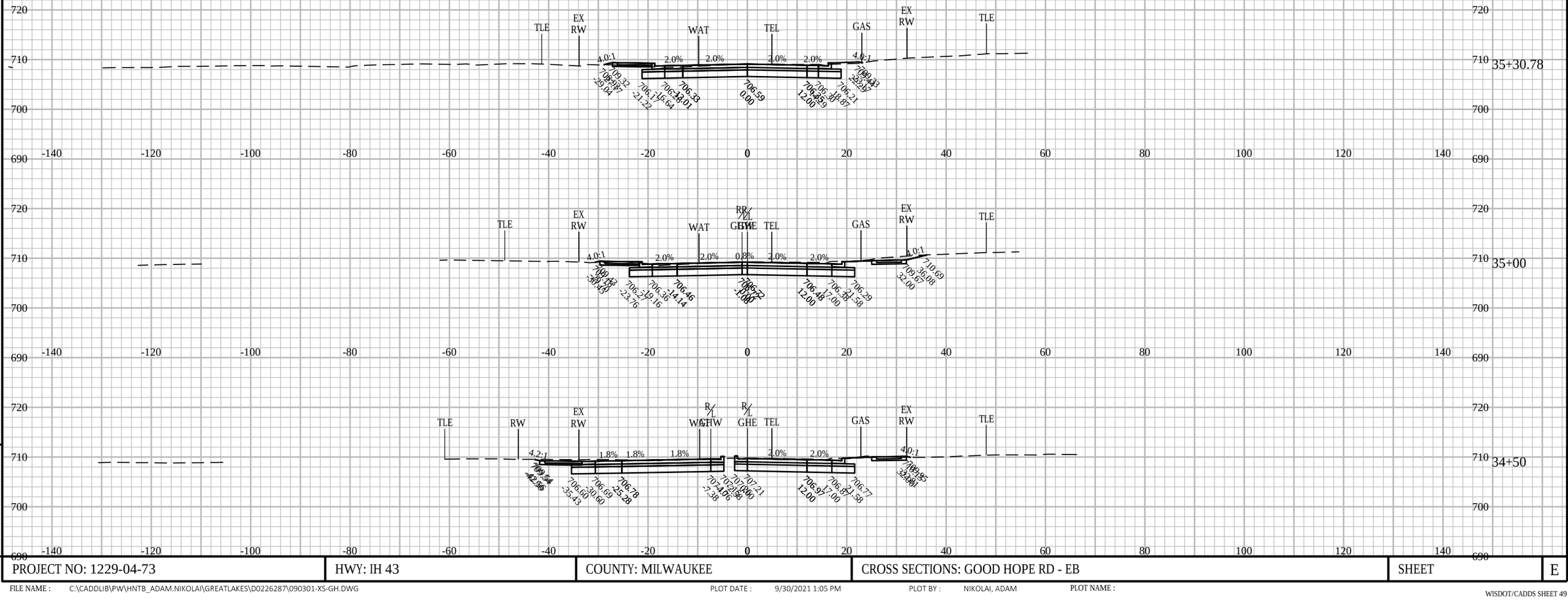

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - EB	SHEET	E

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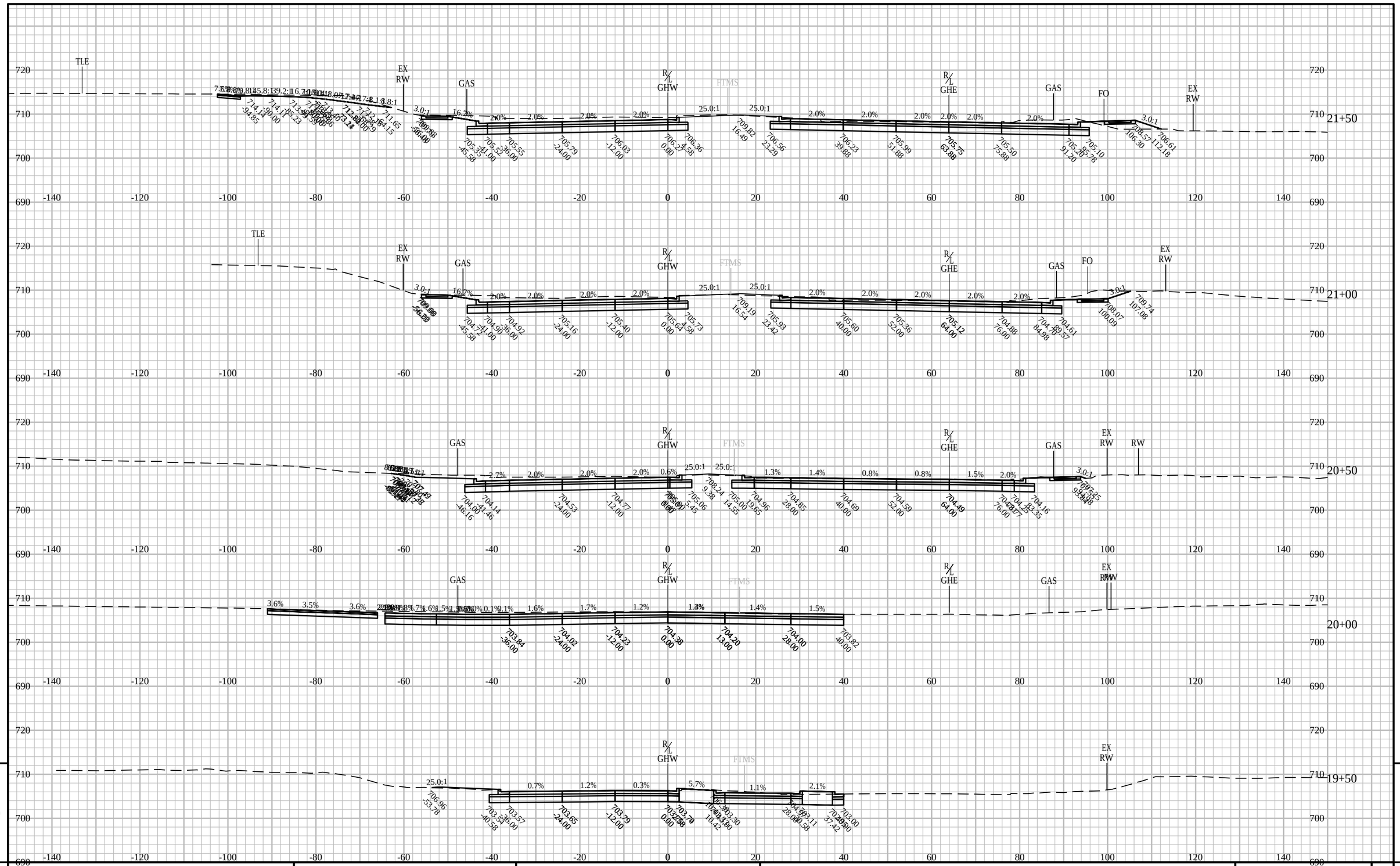

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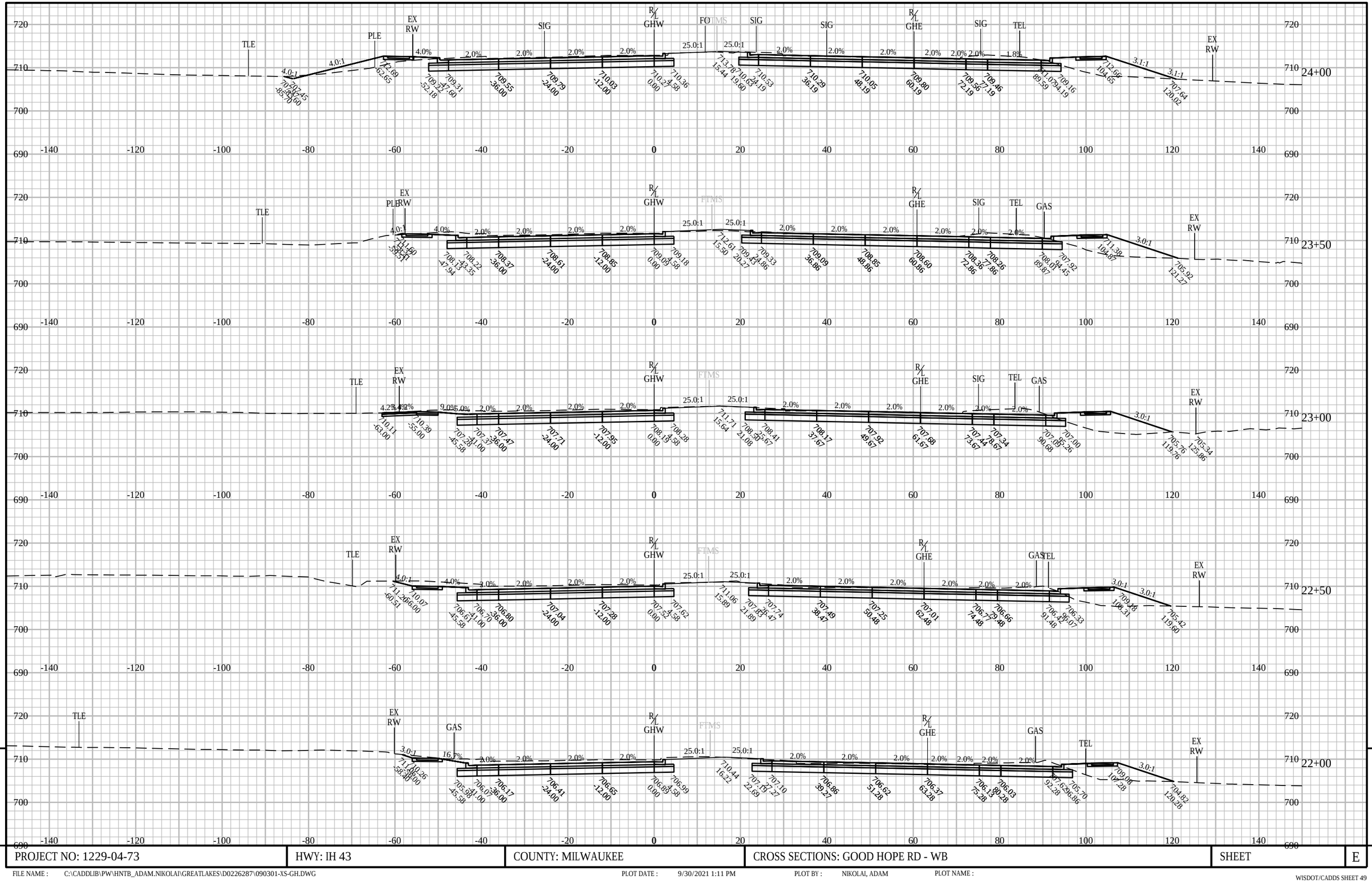
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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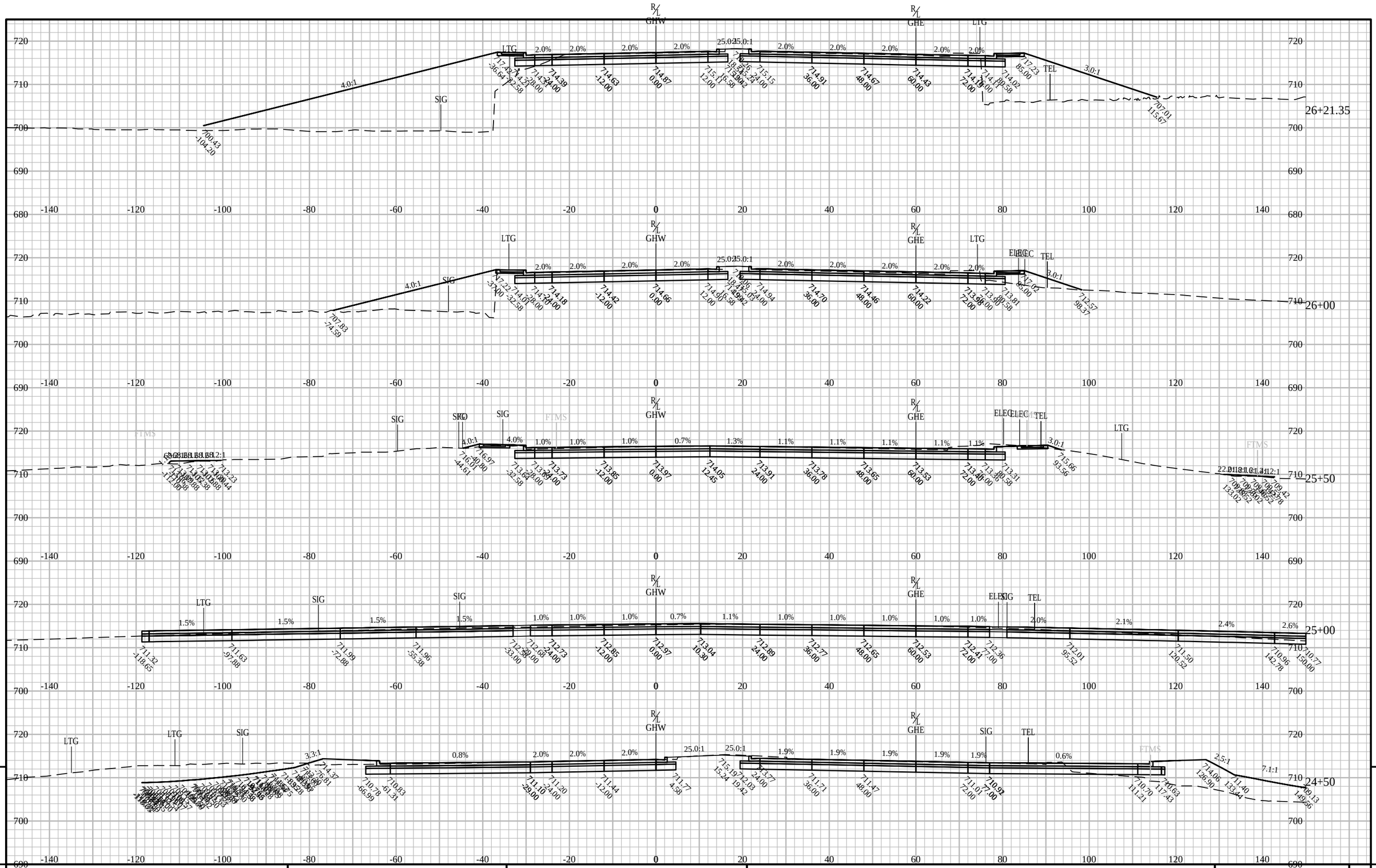
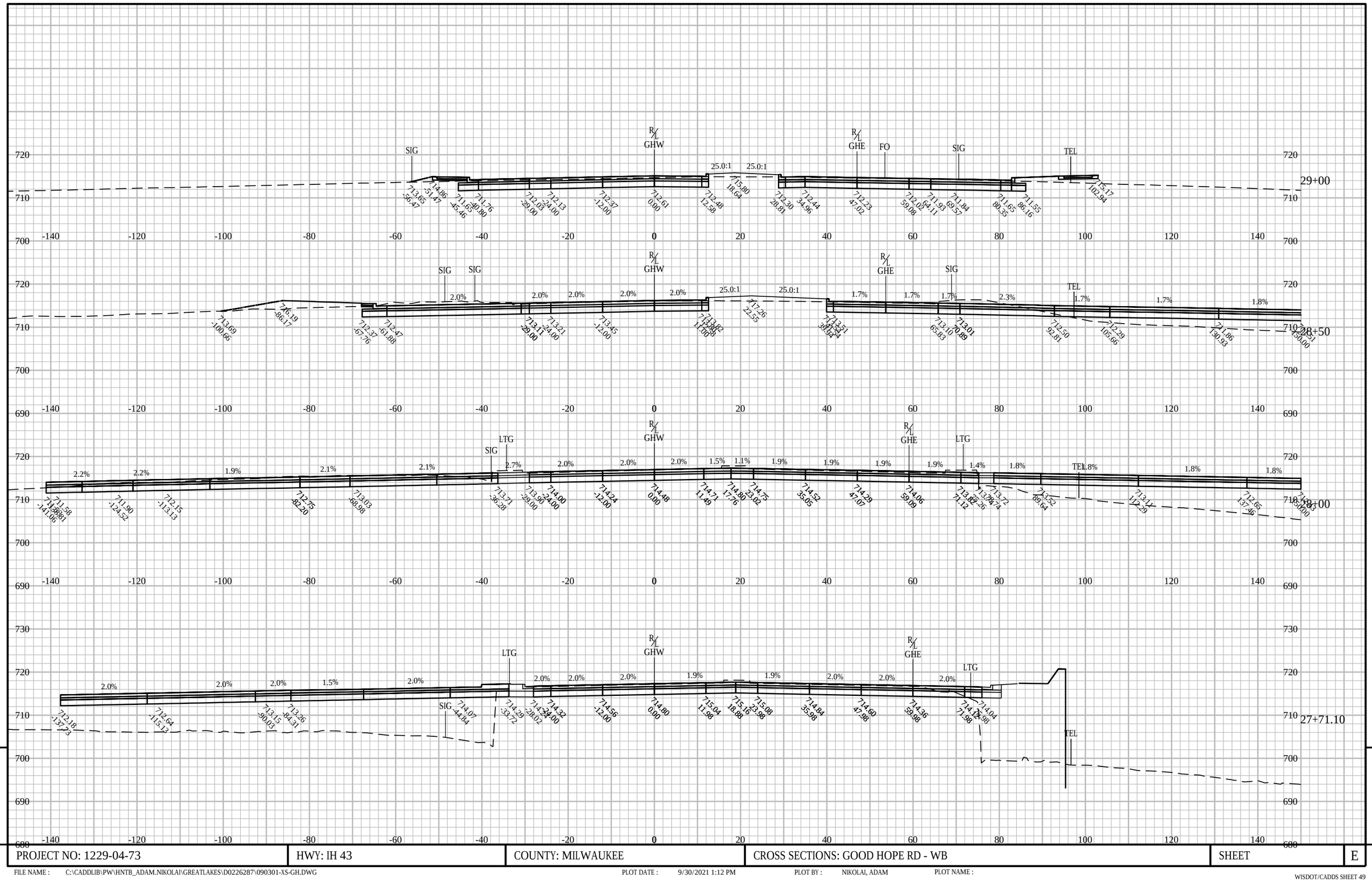
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

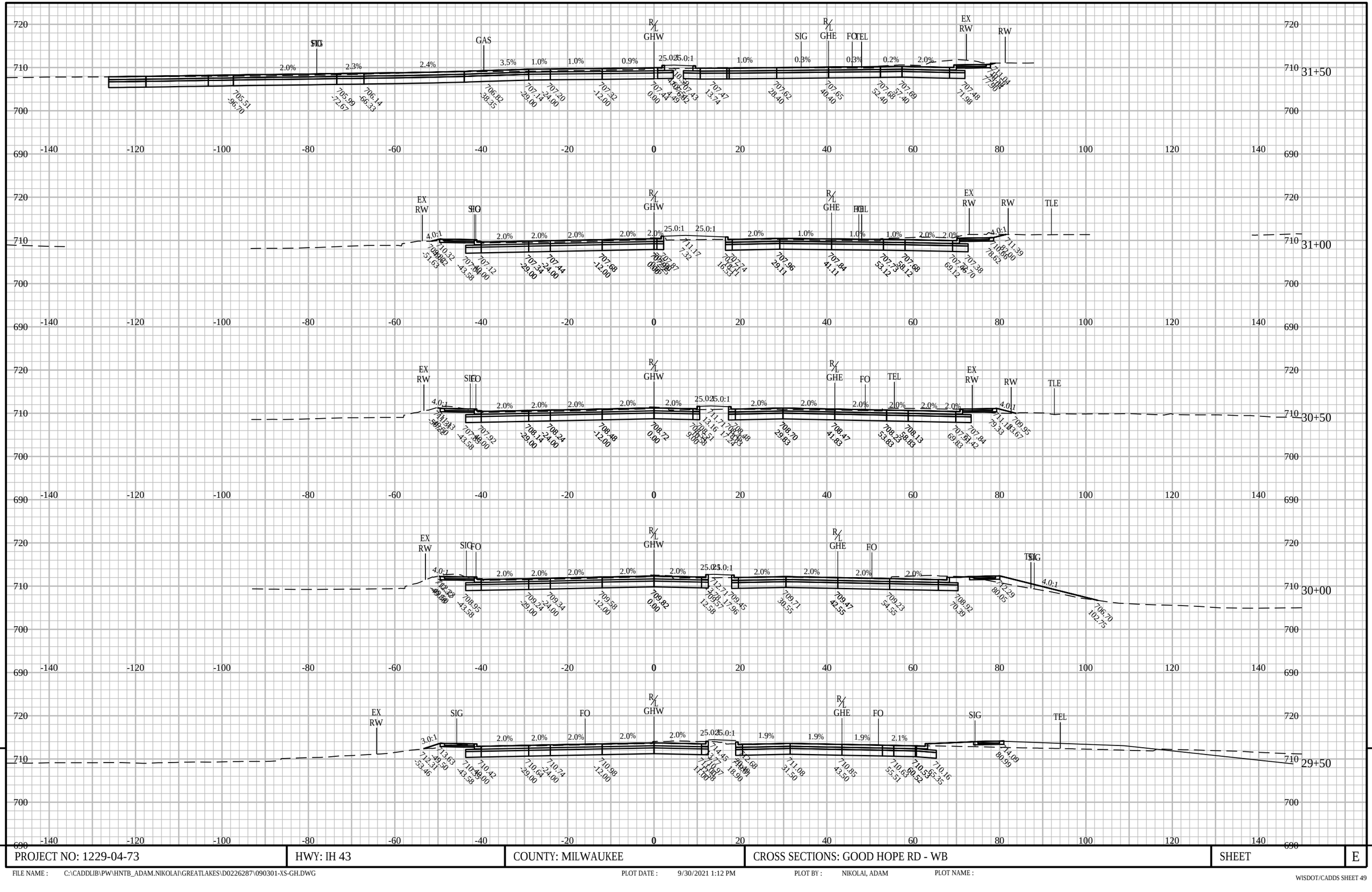


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

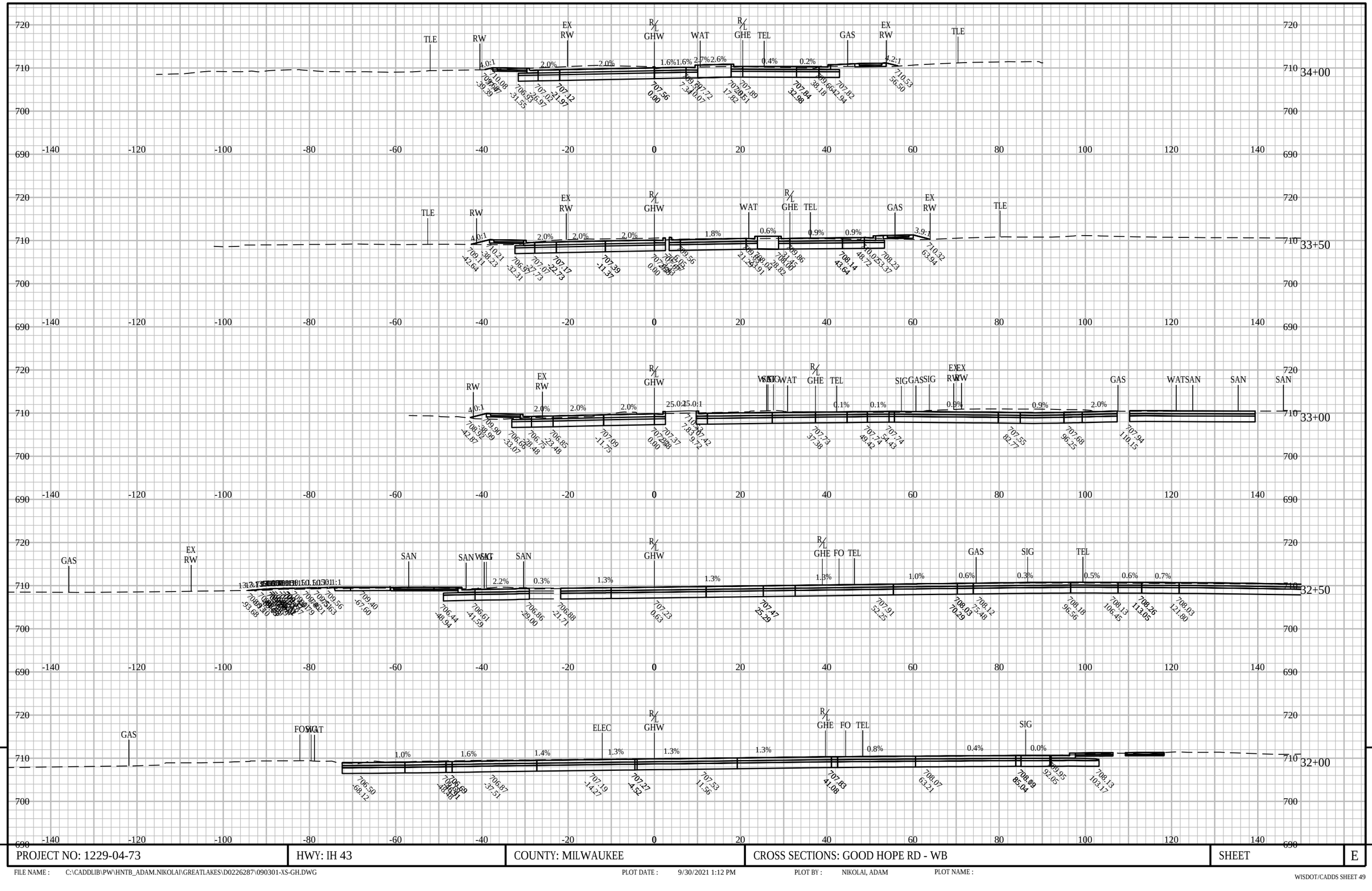


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET E



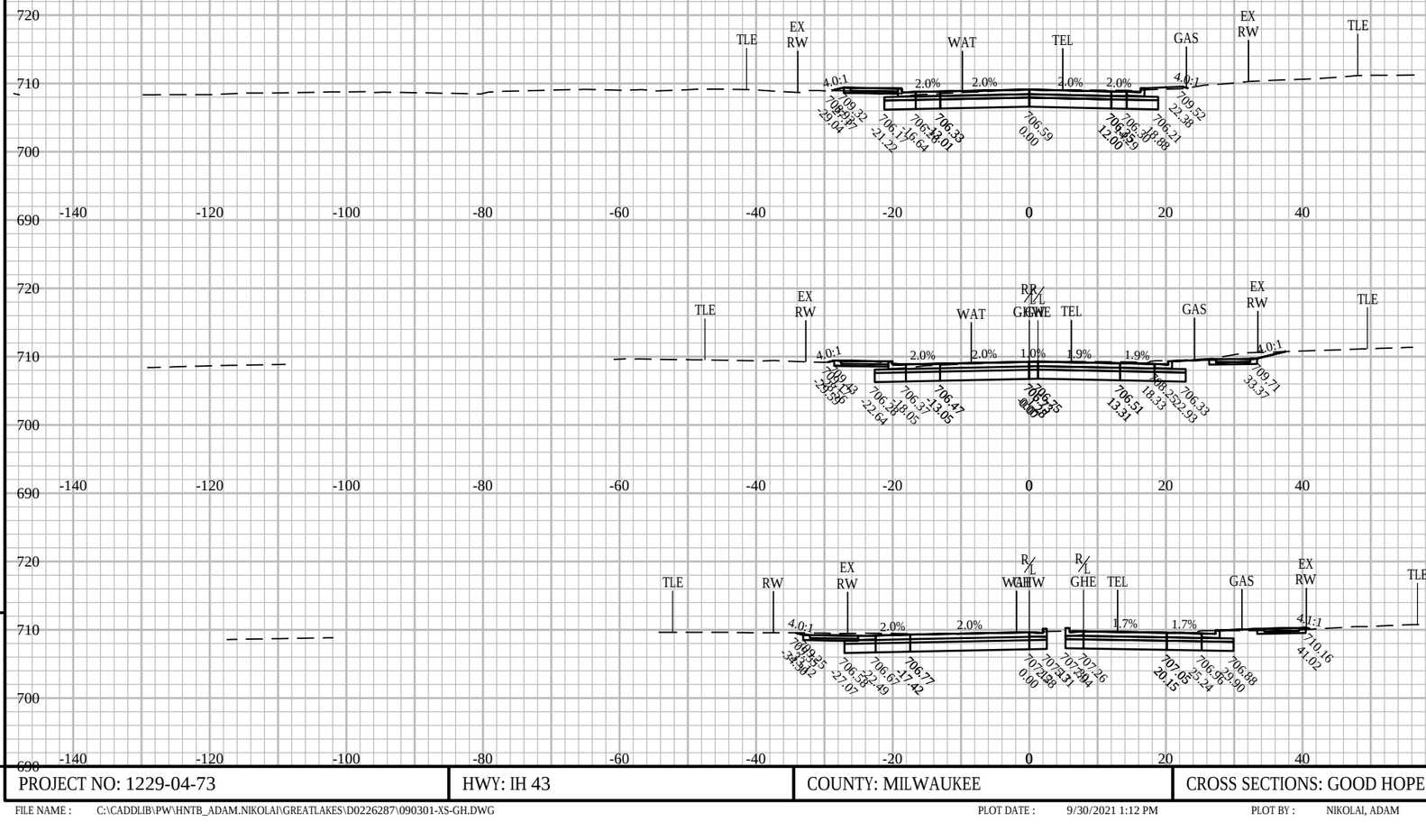
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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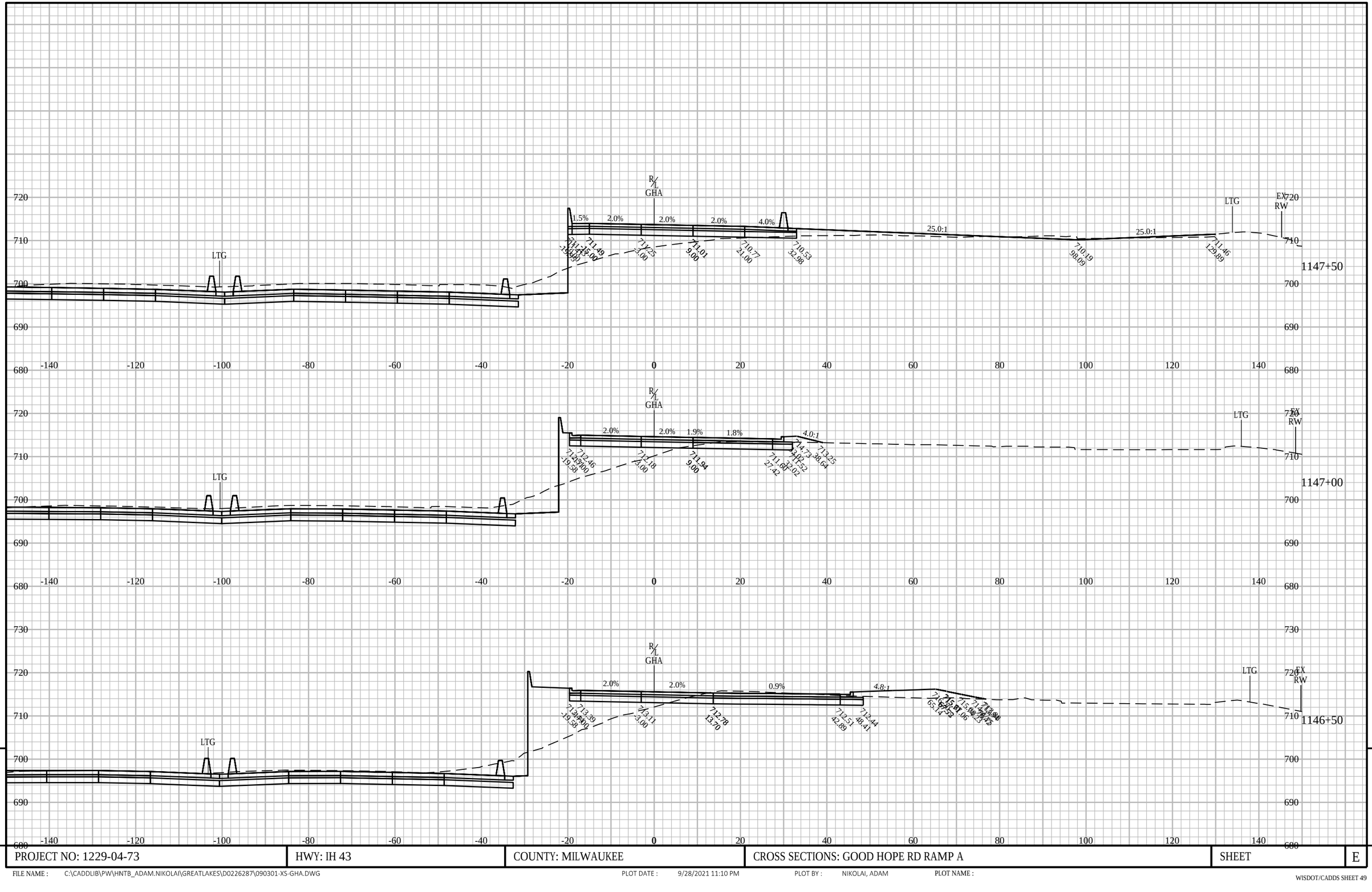
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD - WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GH.DWG PLOT DATE : 9/30/2021 1:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

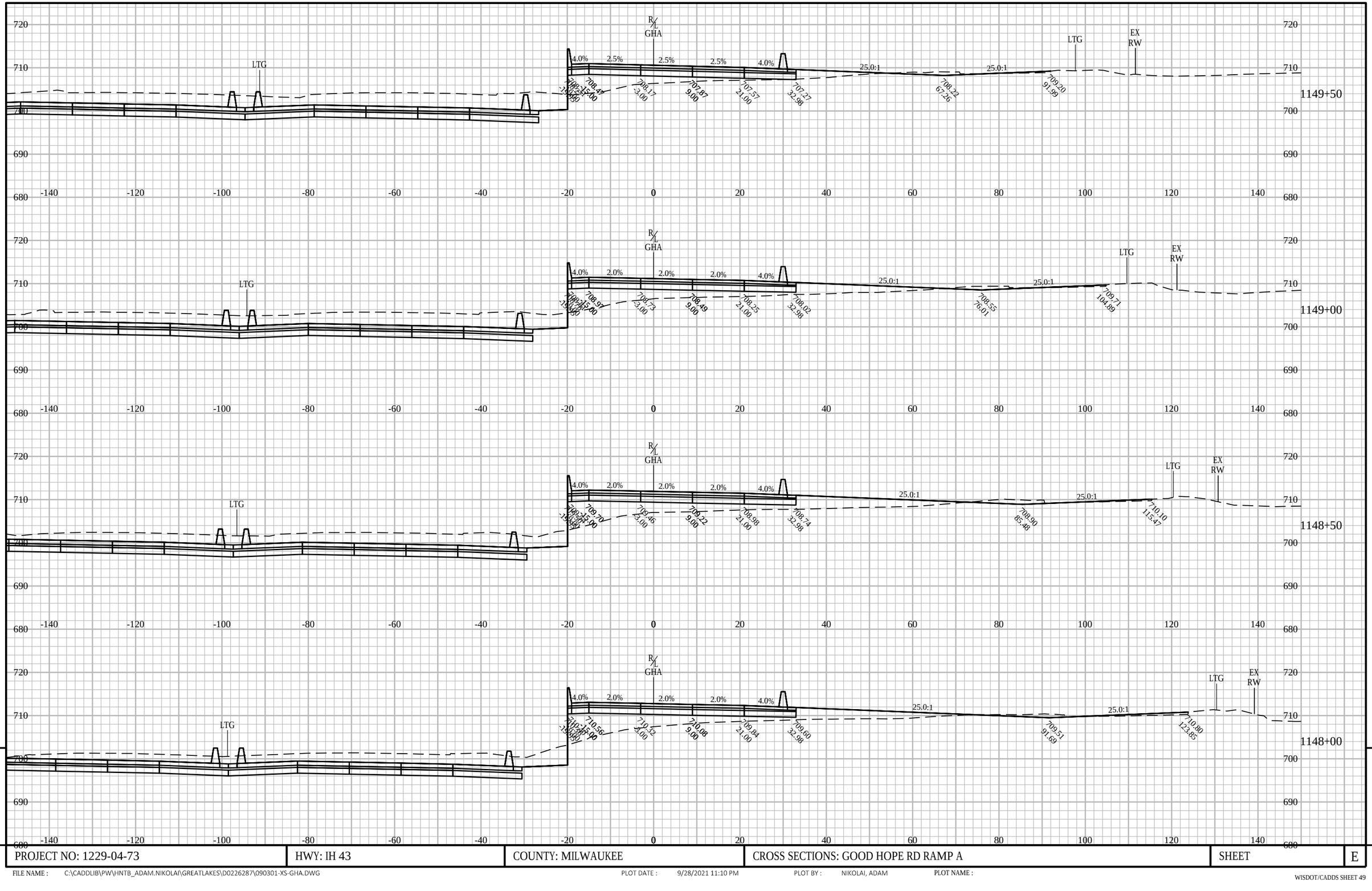
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:10 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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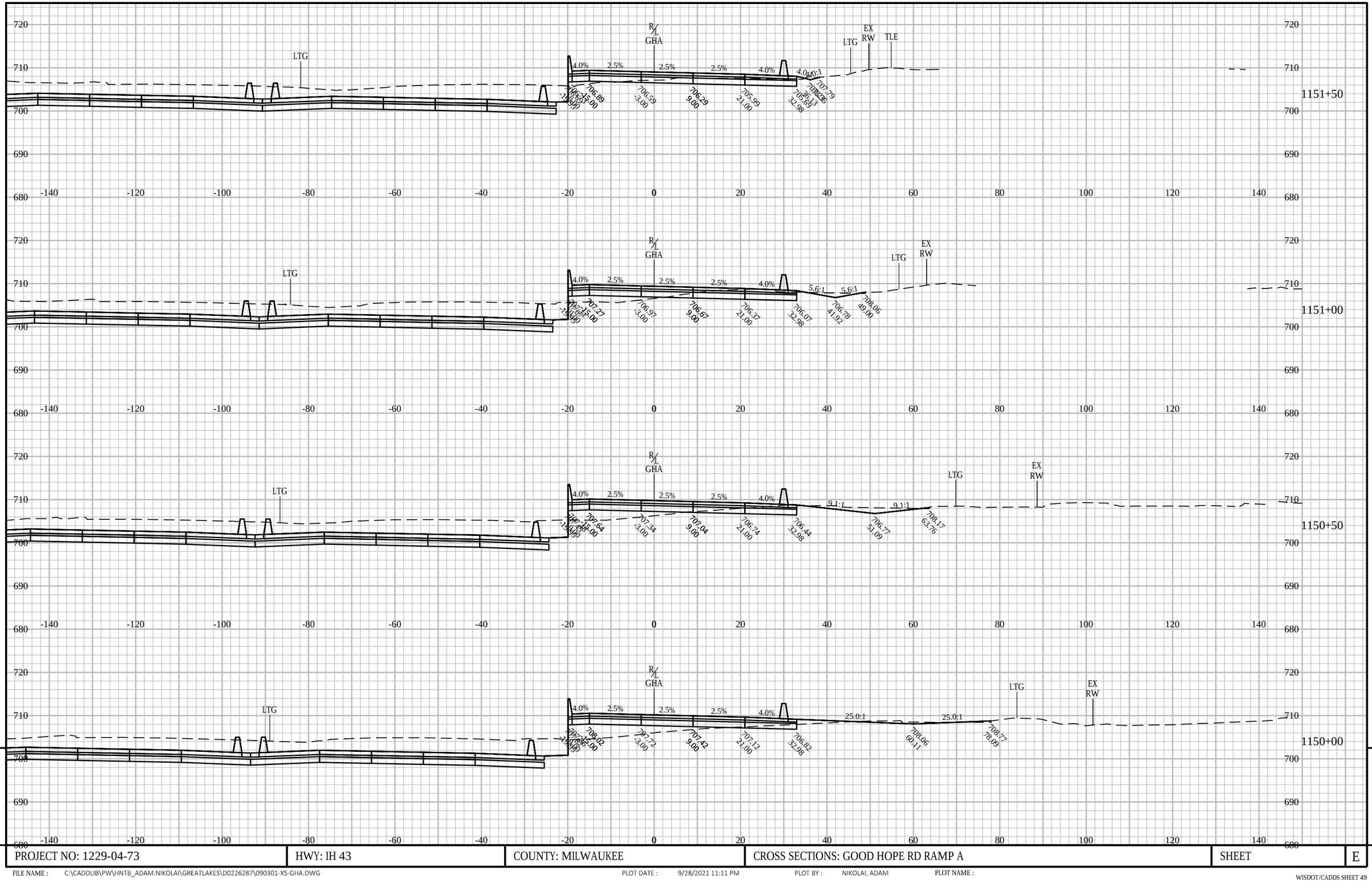
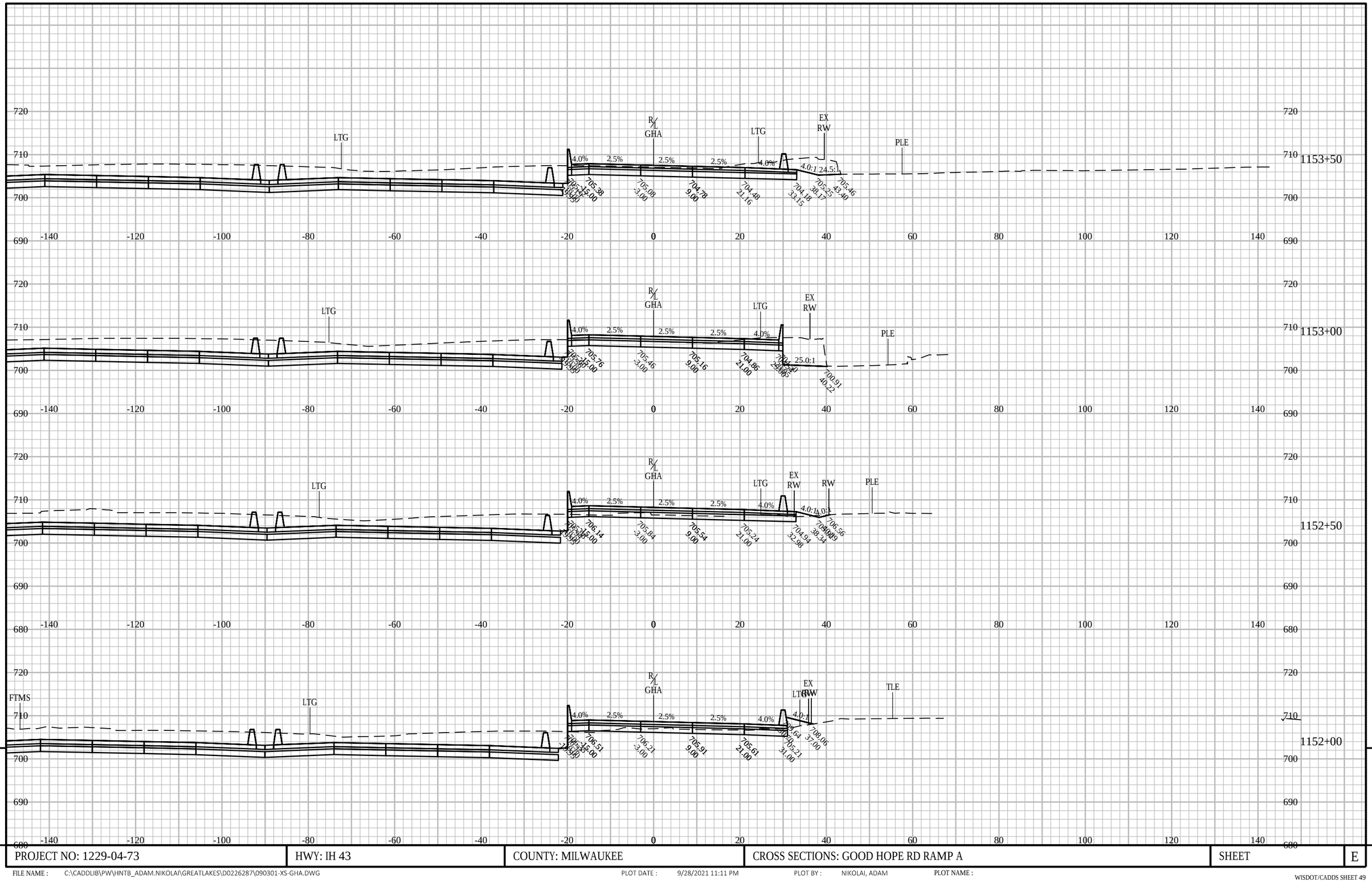
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:10 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



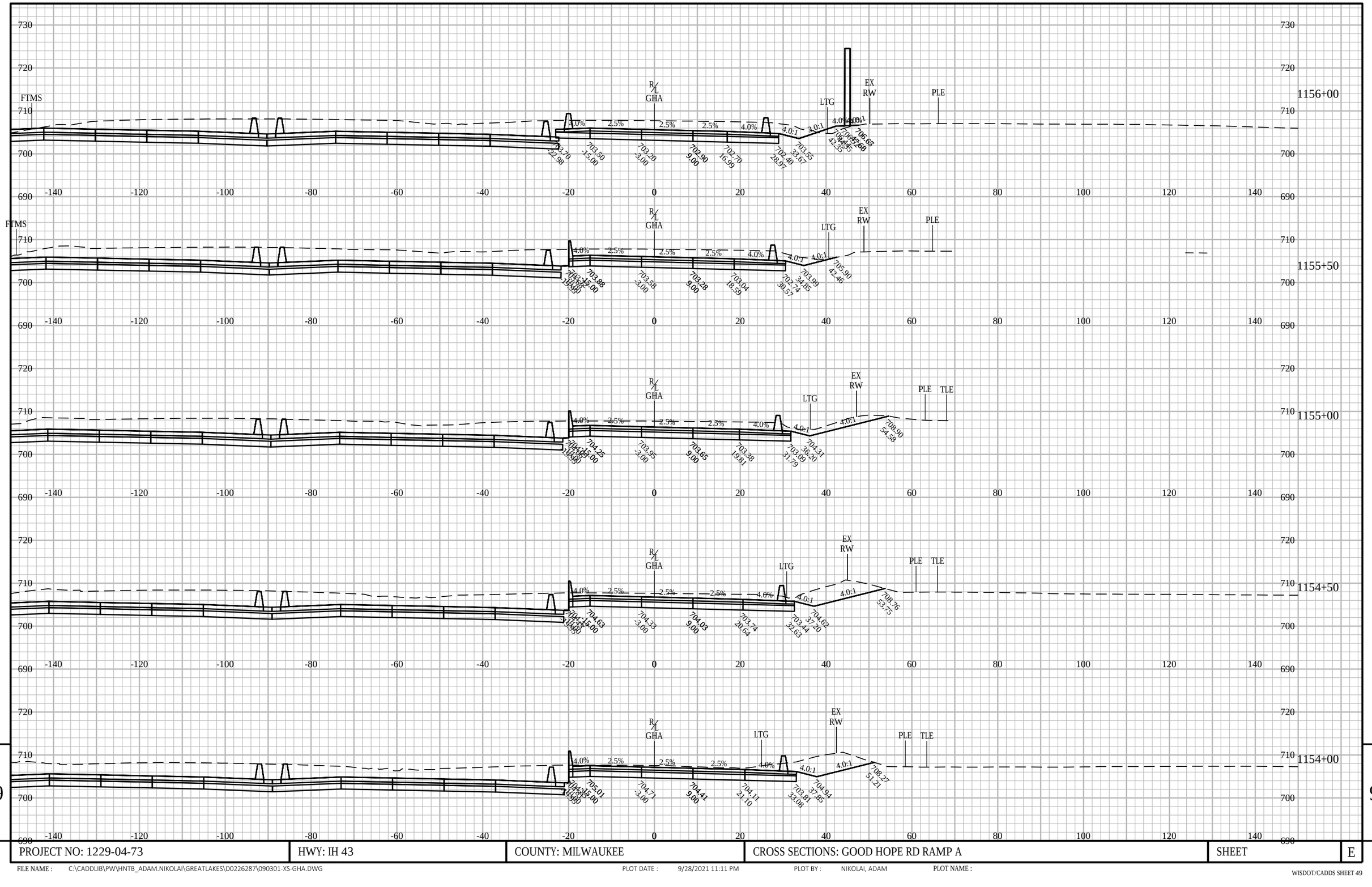
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



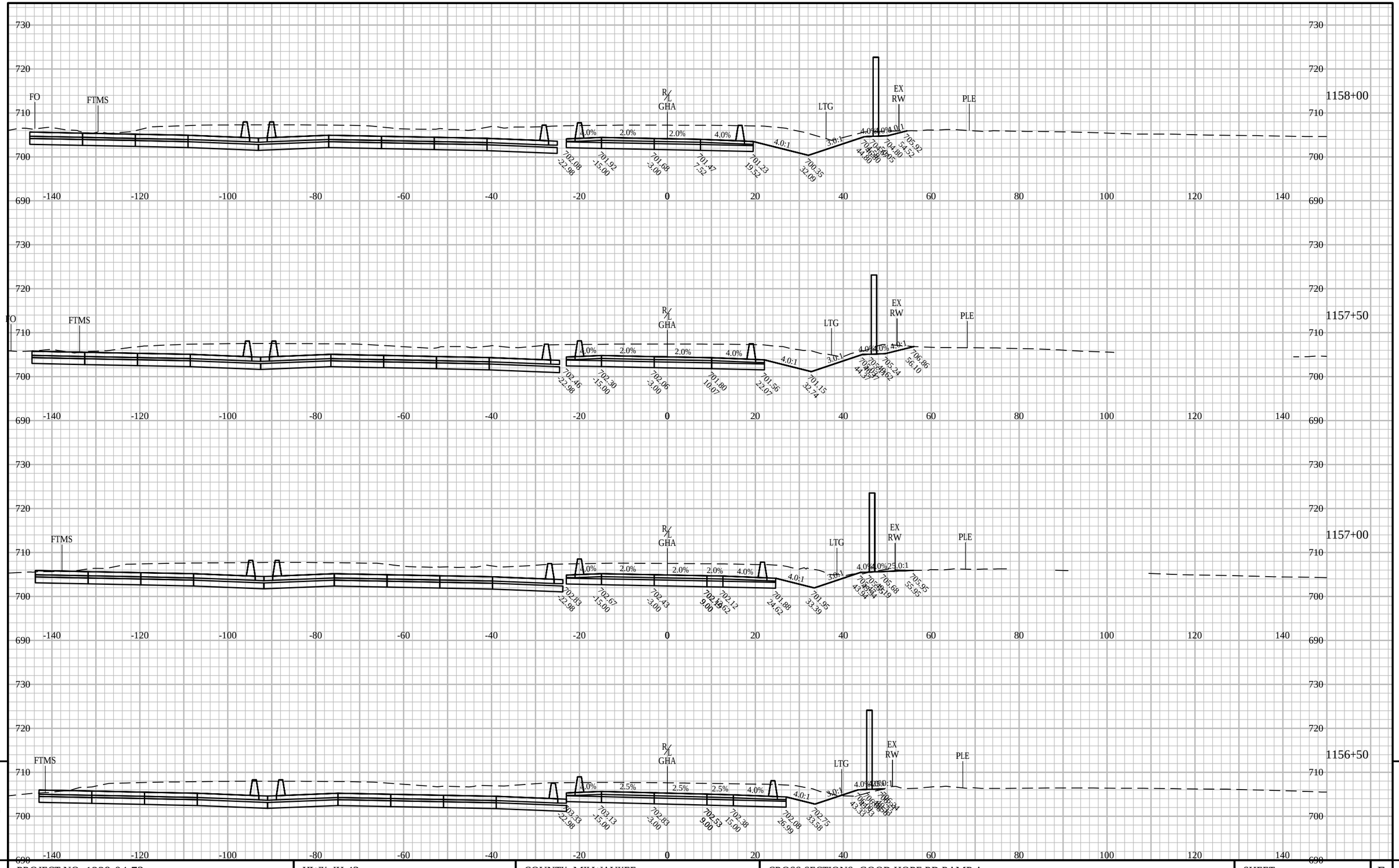
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

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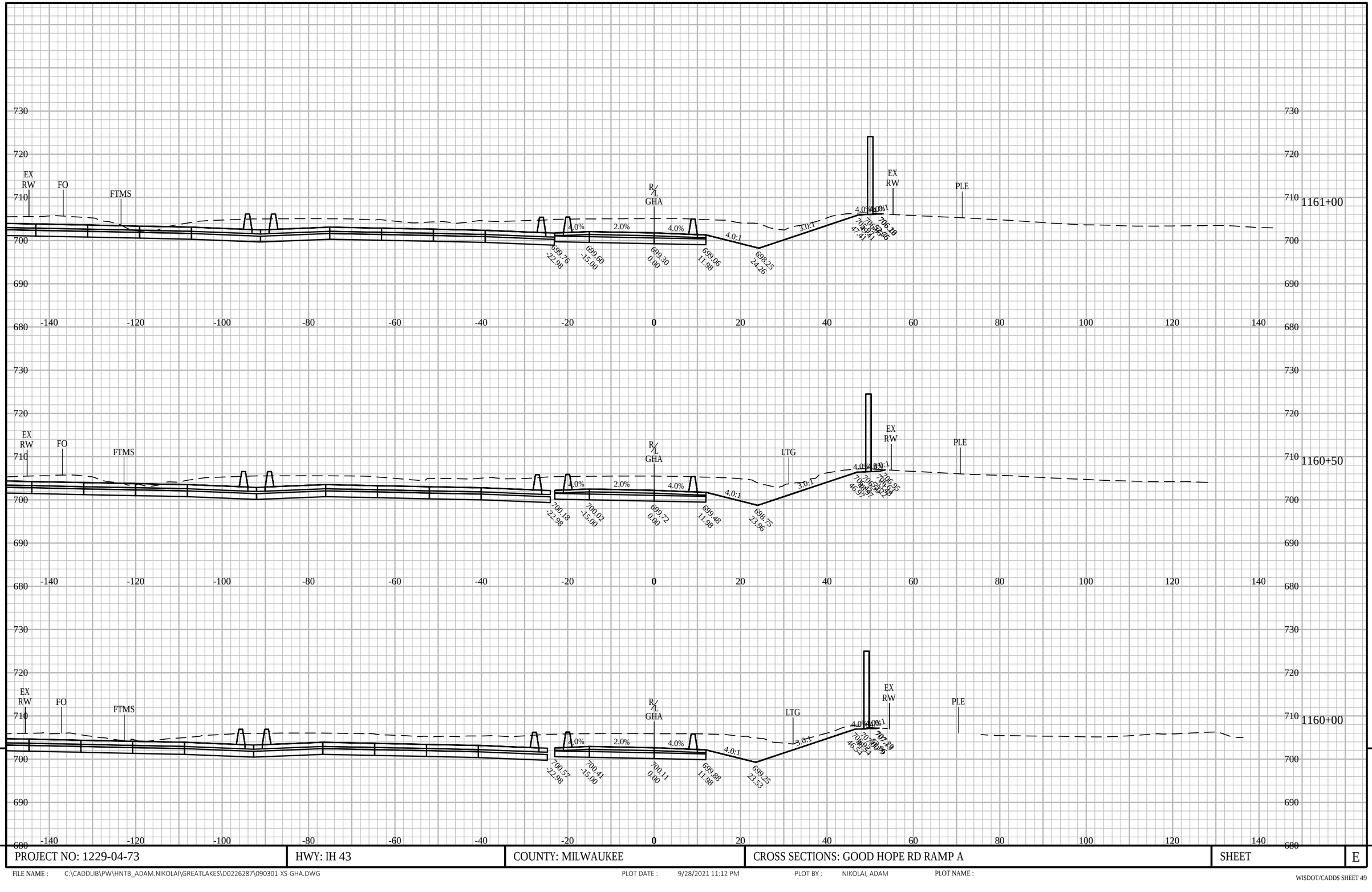

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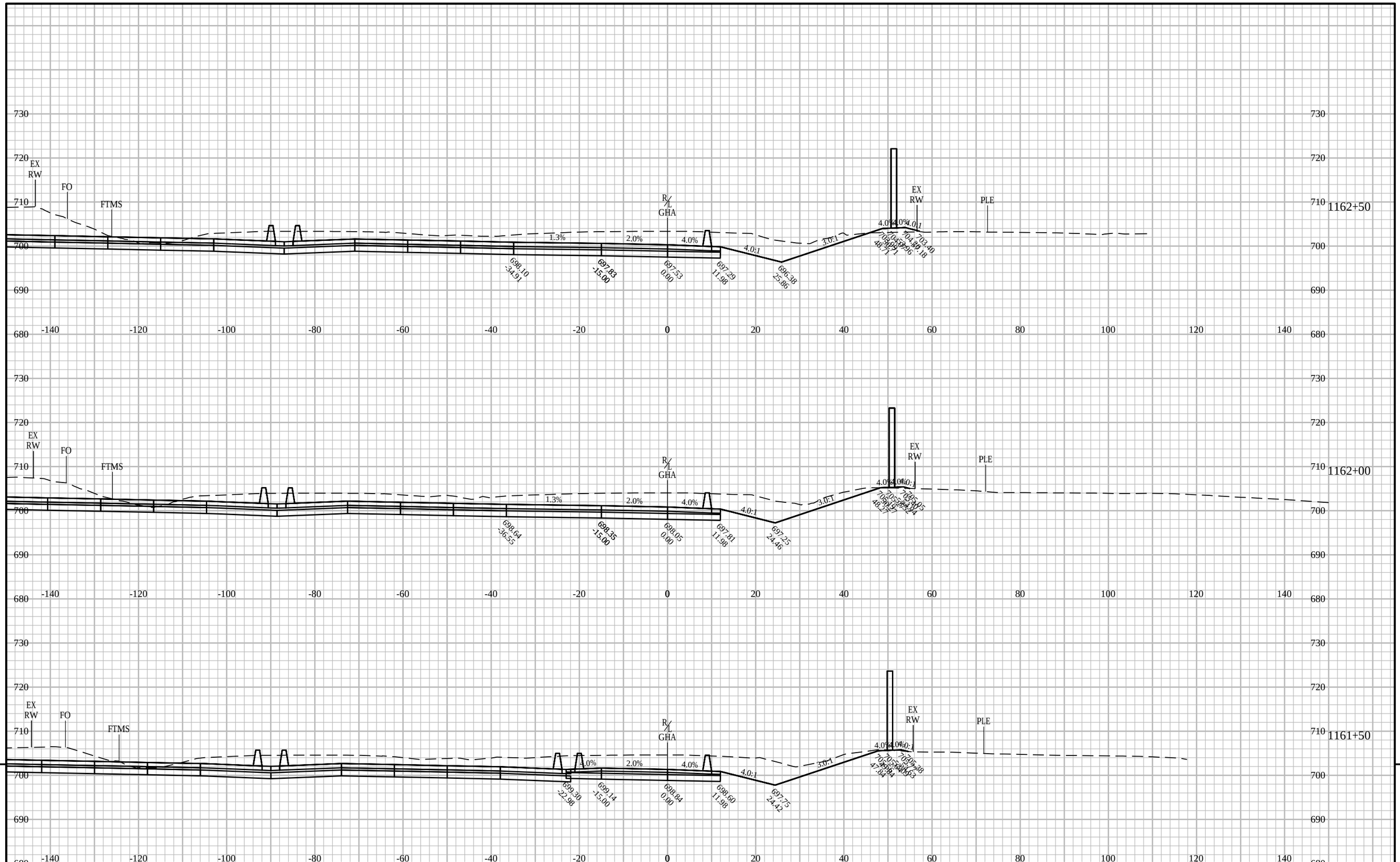
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

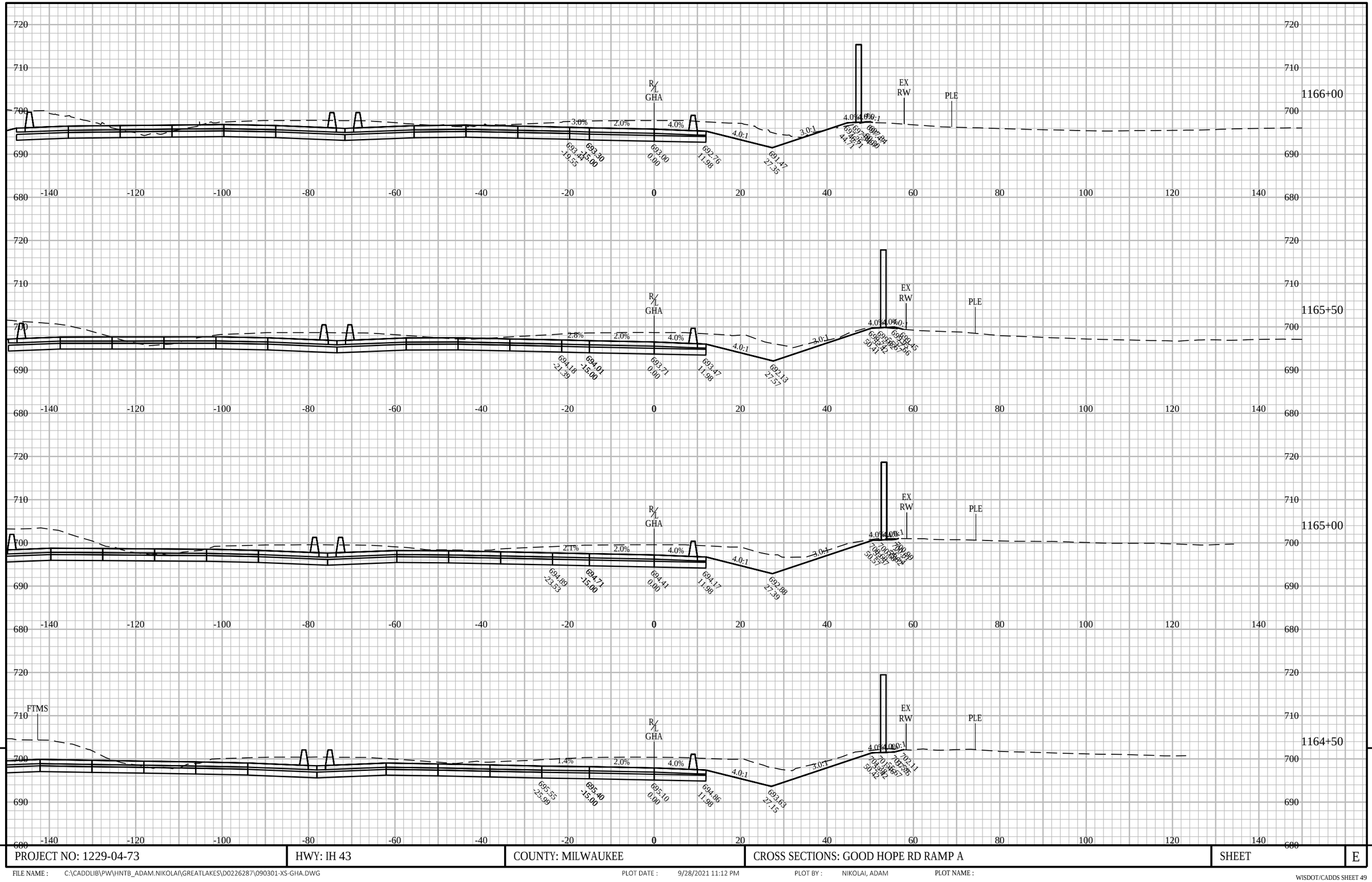


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

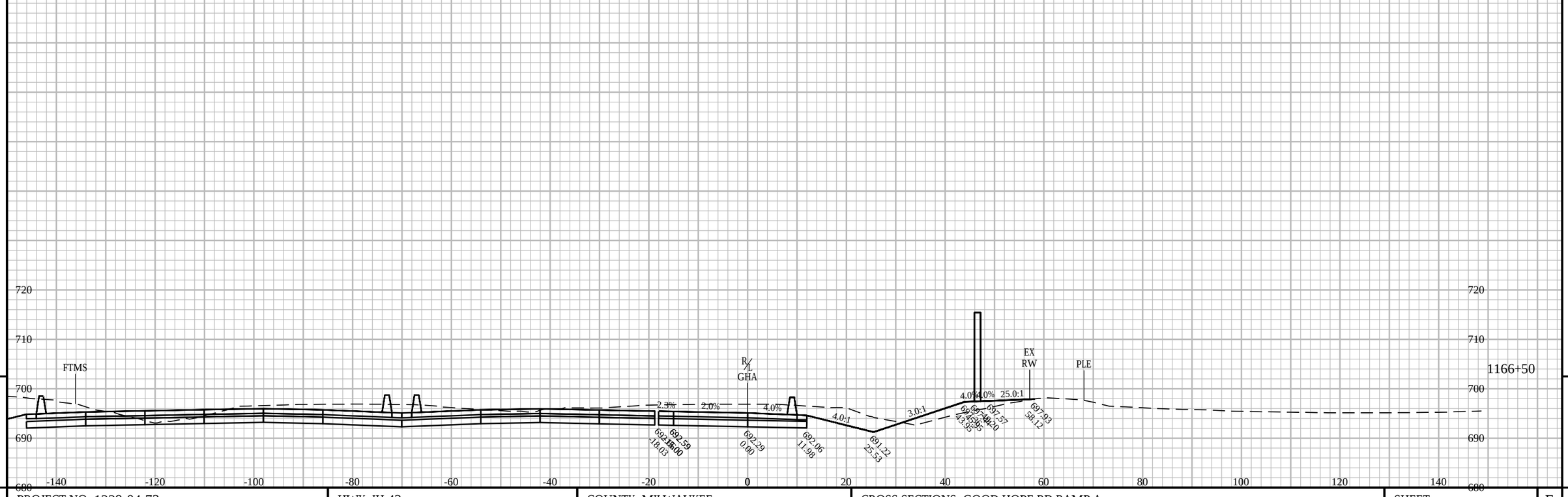
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



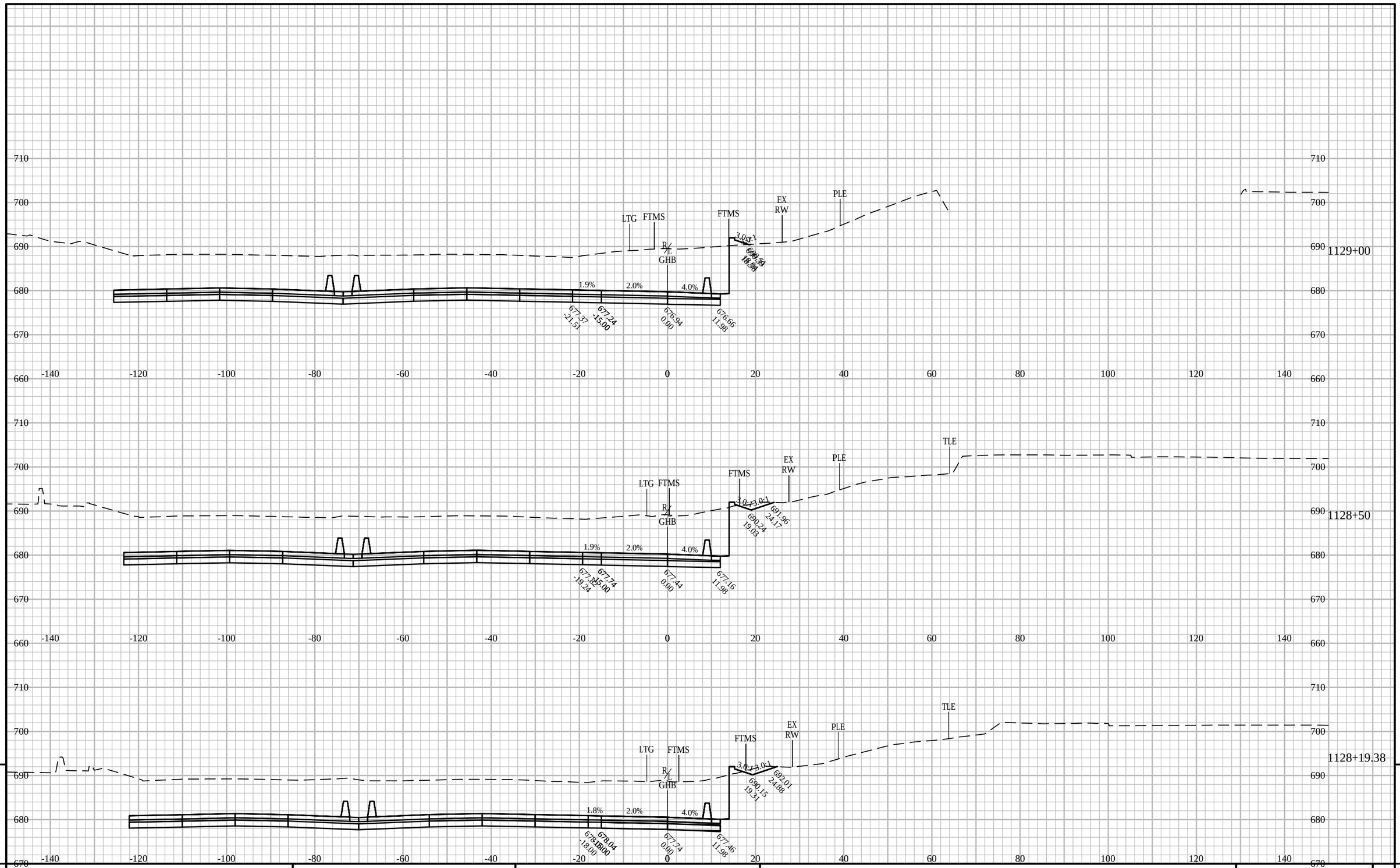
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



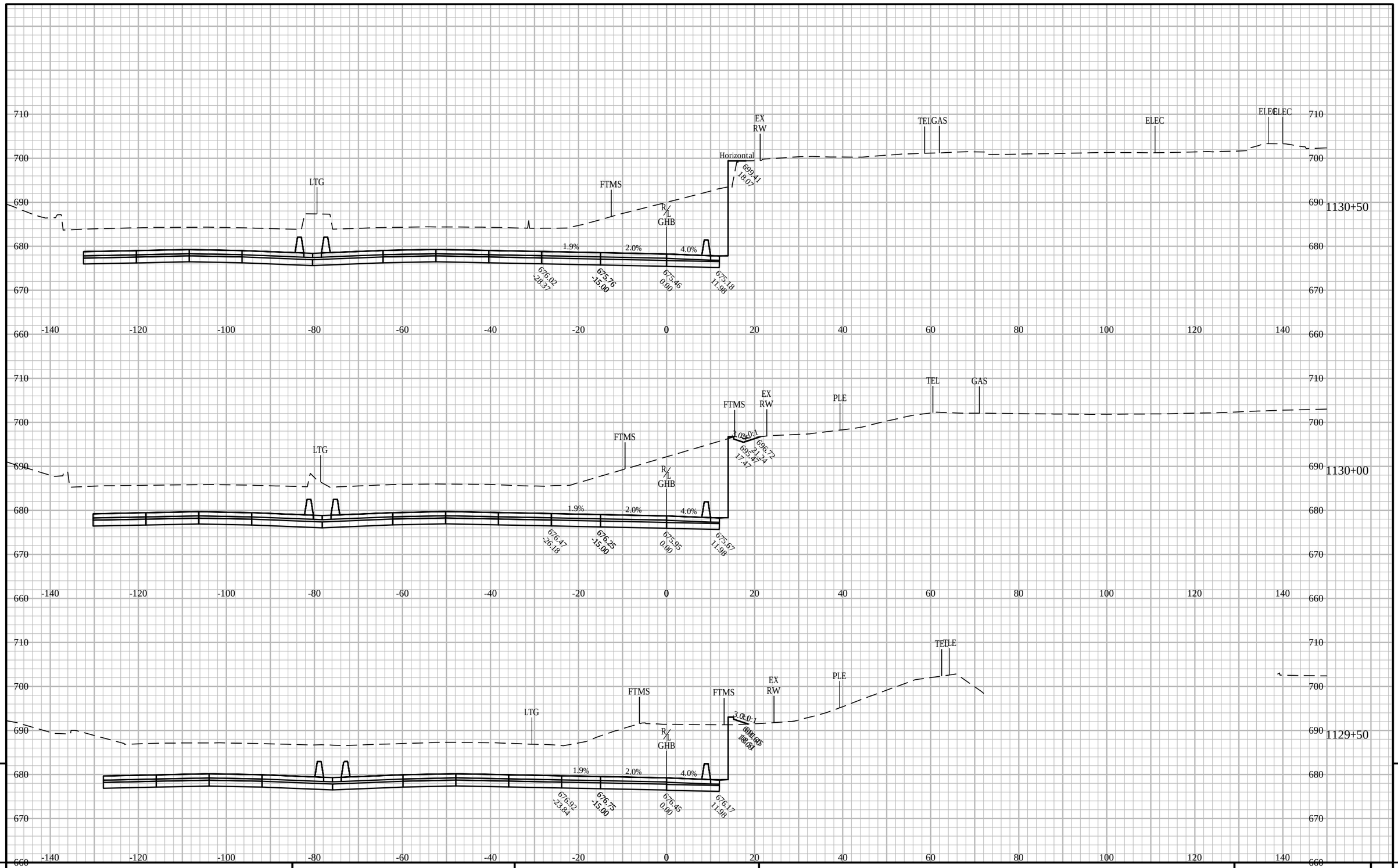
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHA.DWG PLOT DATE : 9/28/2021 11:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:40 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

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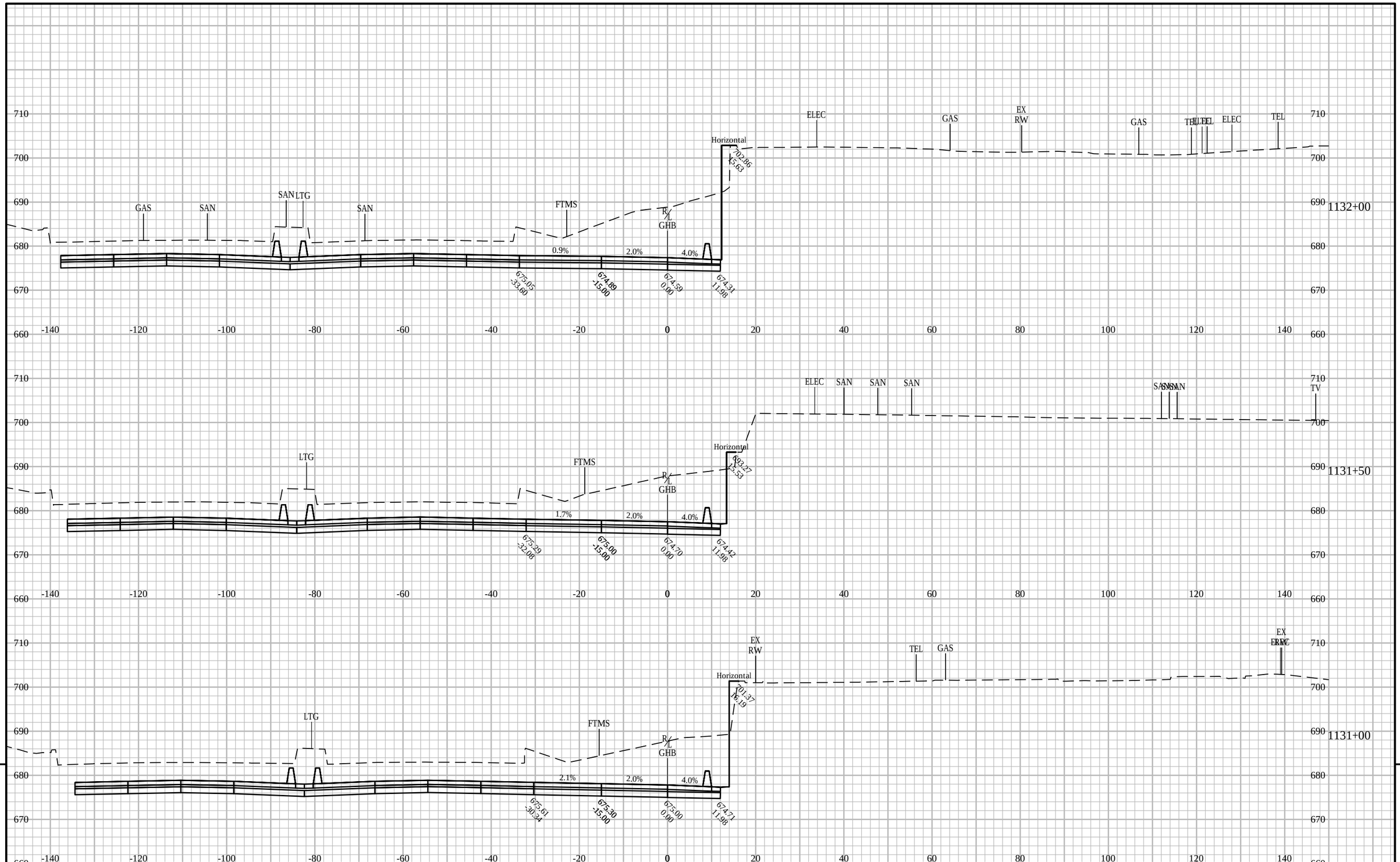
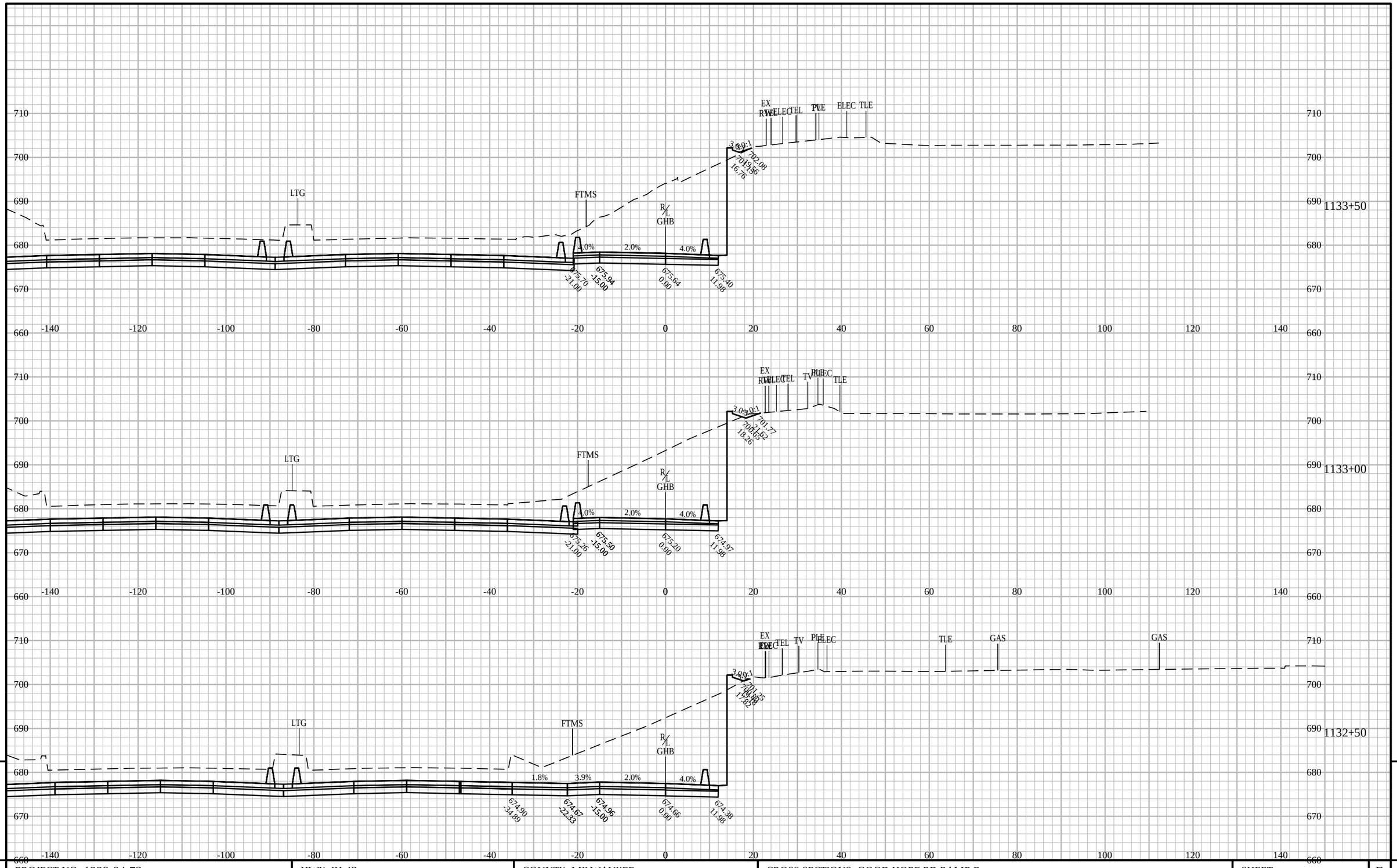


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET E

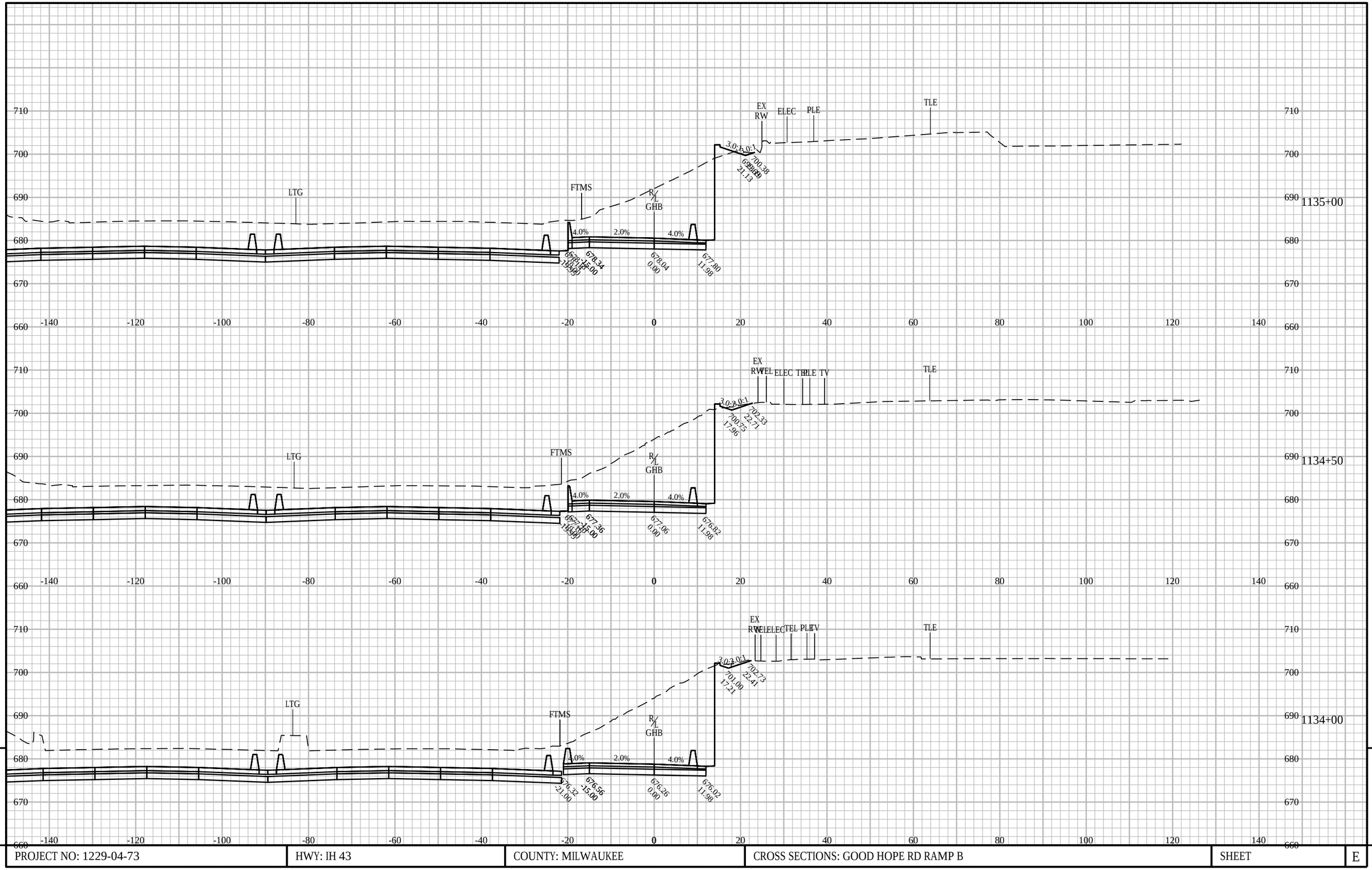
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:40 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:40 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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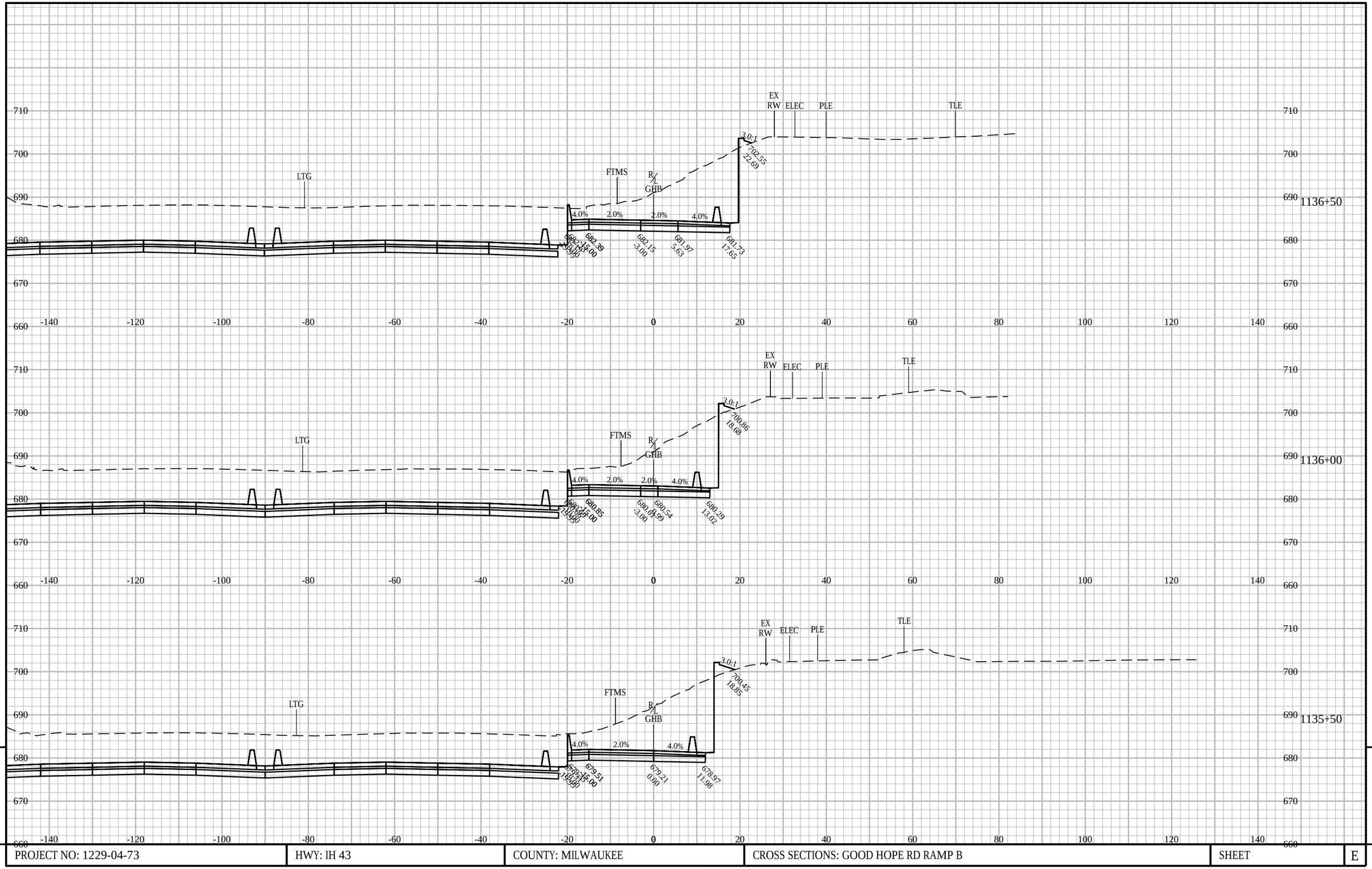
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:41 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET E

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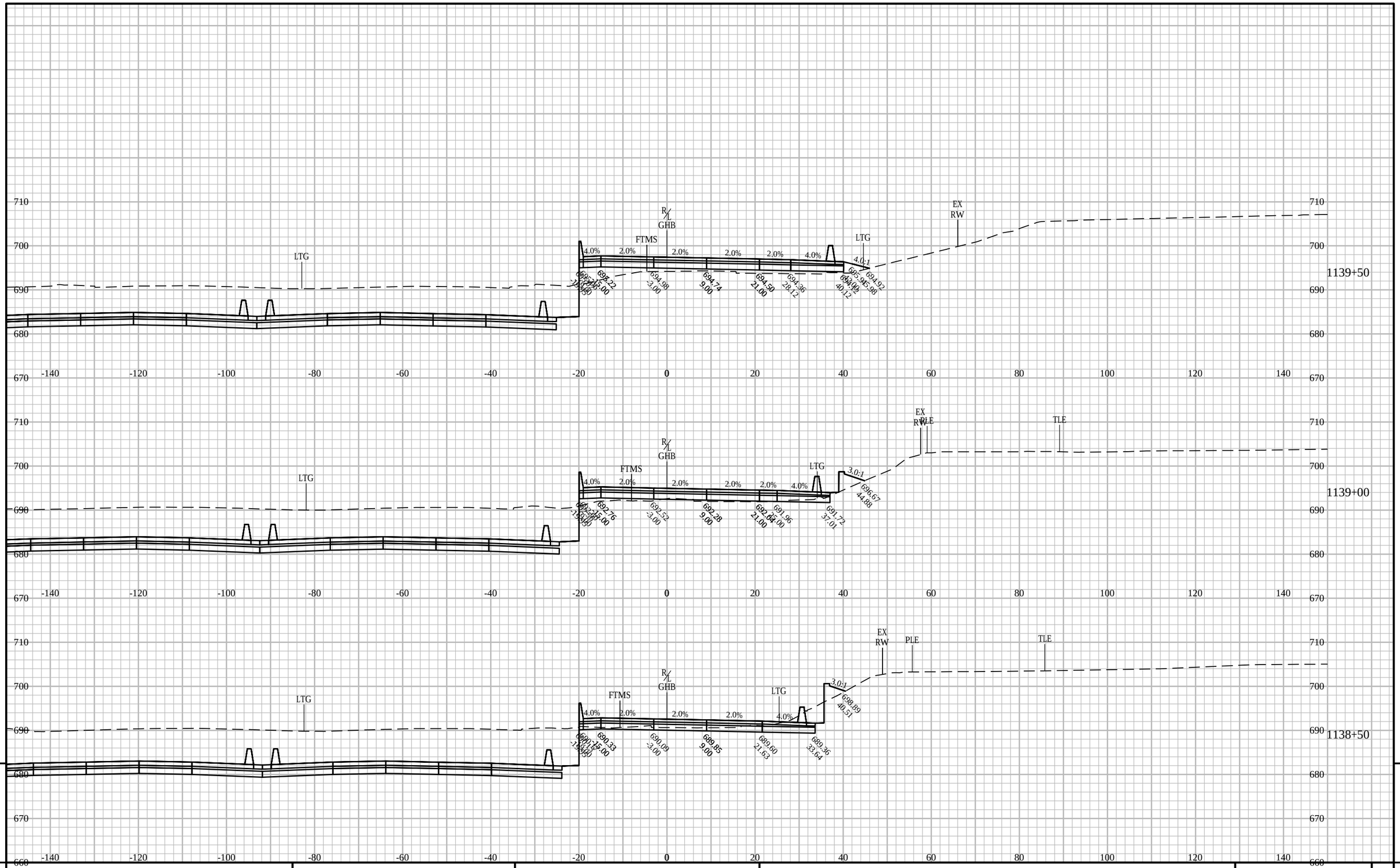
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:41 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

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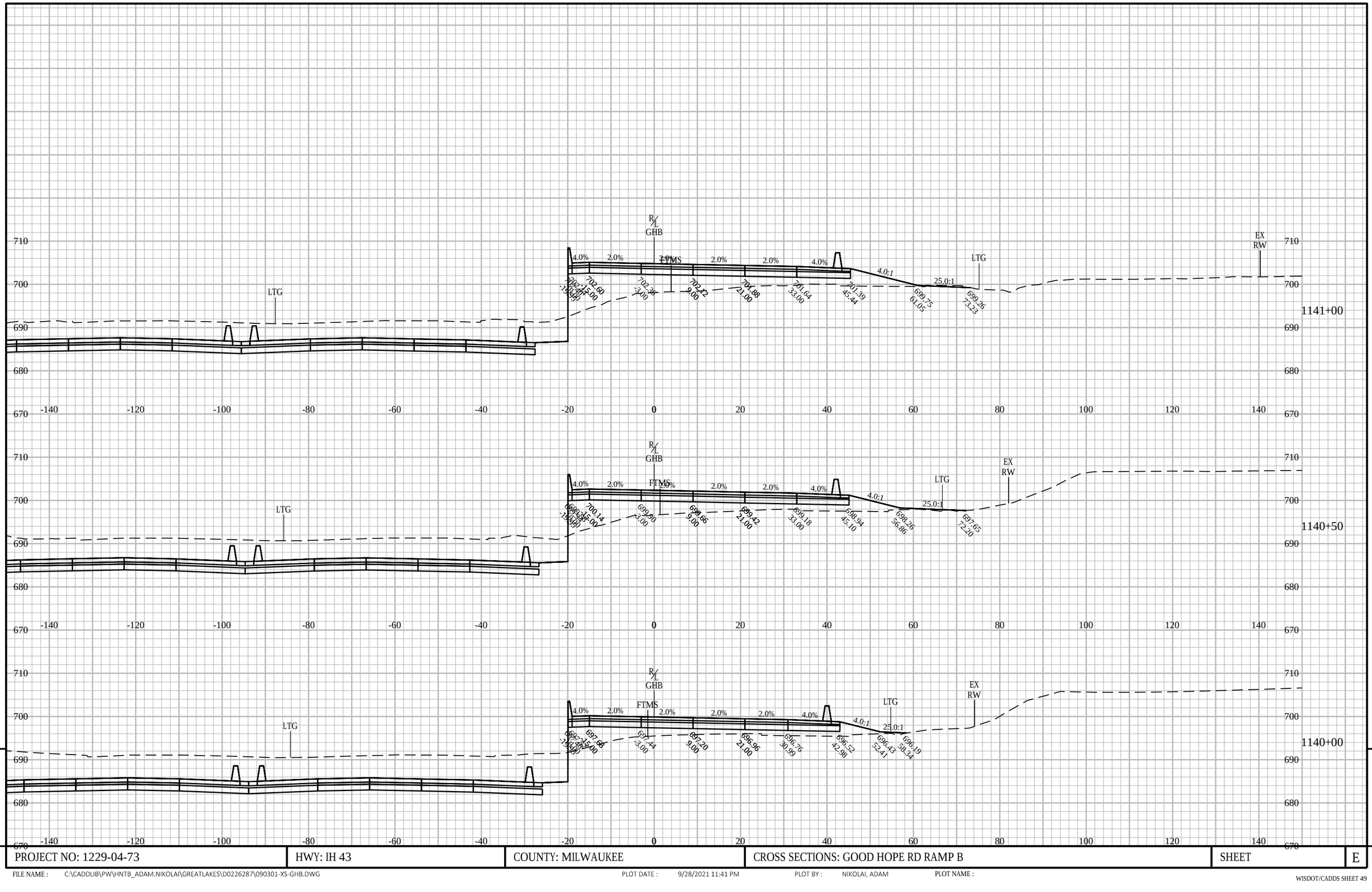

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:41 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

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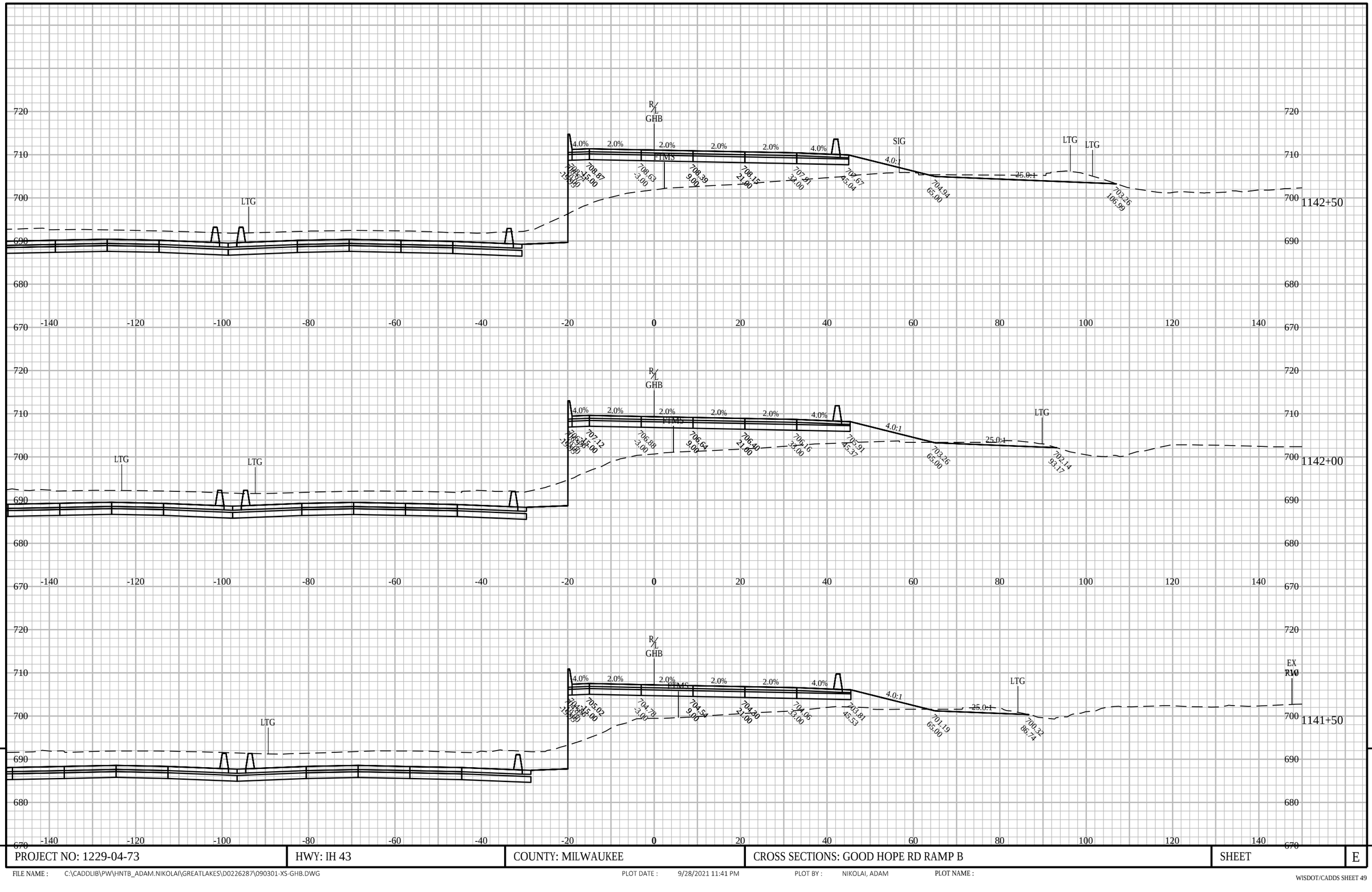

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

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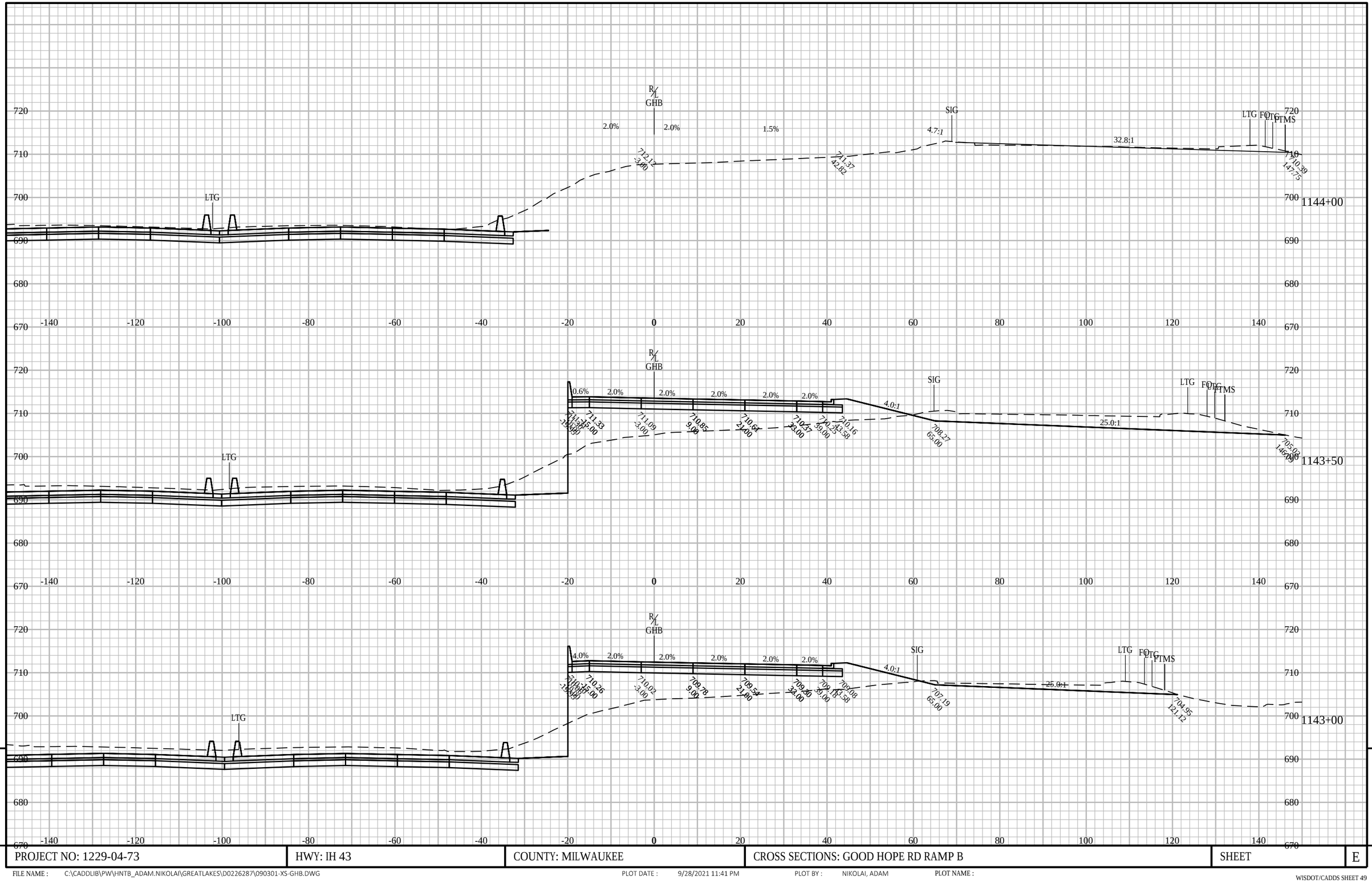
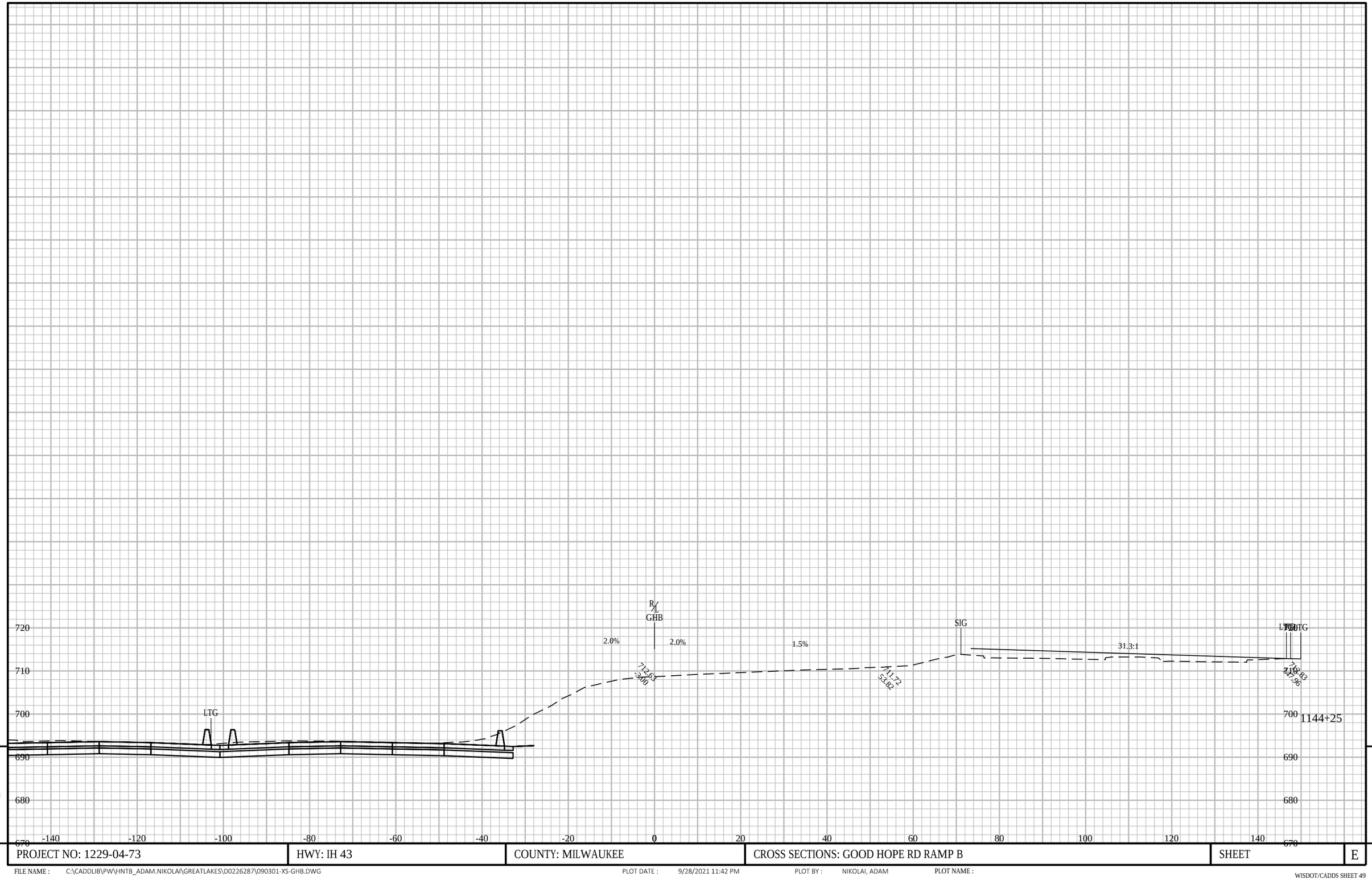


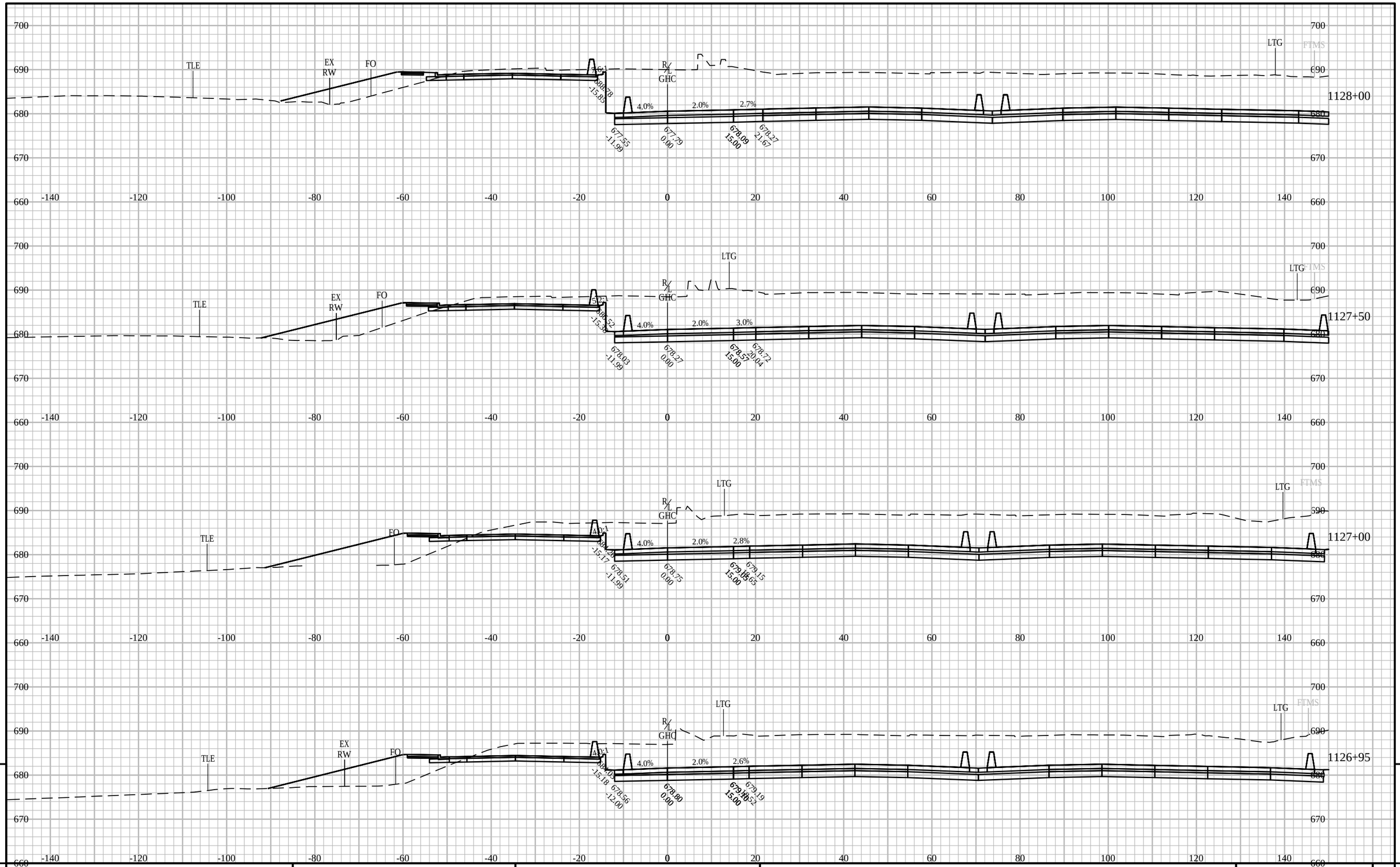
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:41 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



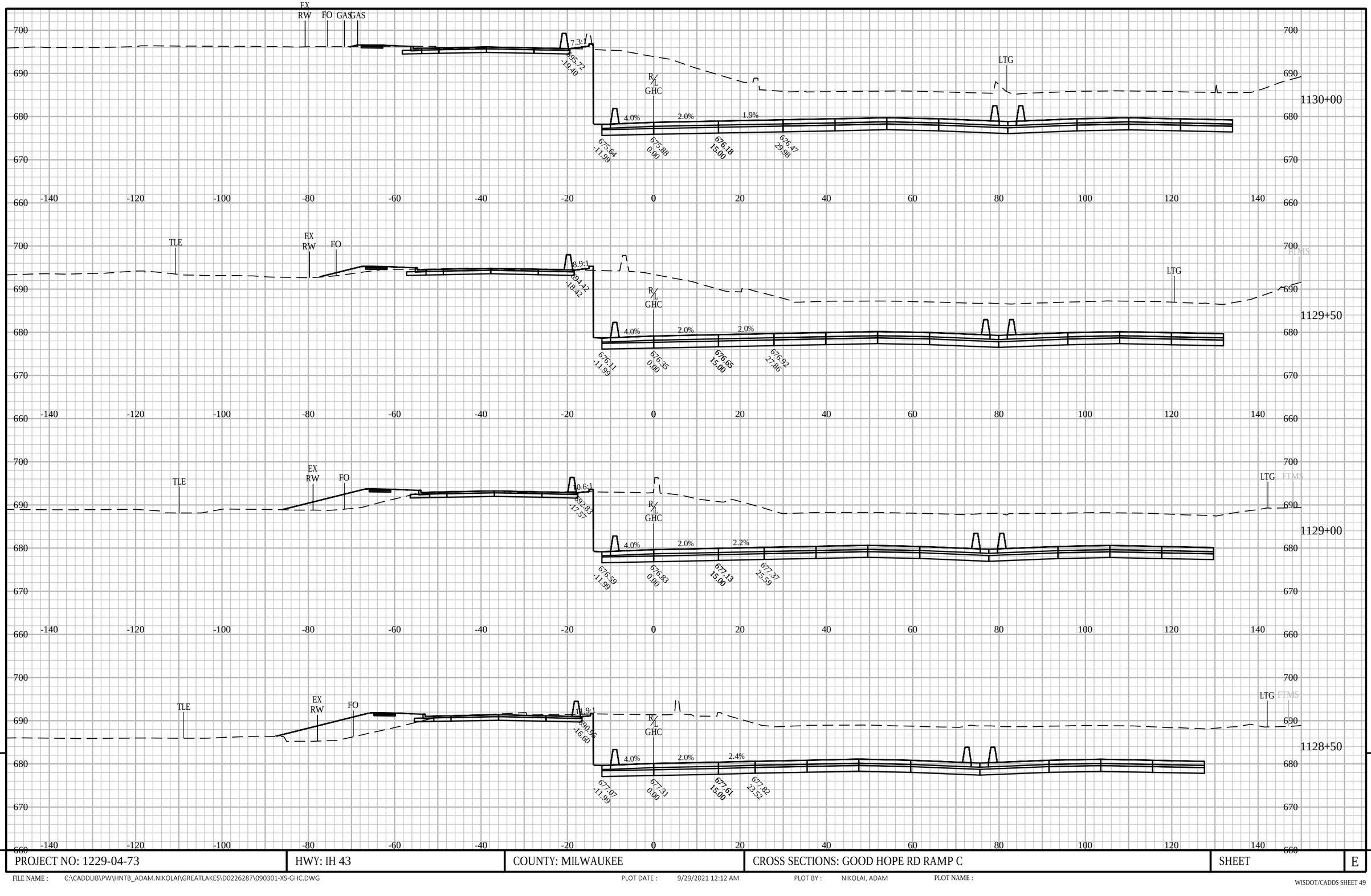
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHB.DWG PLOT DATE : 9/28/2021 11:42 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:12 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:12 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

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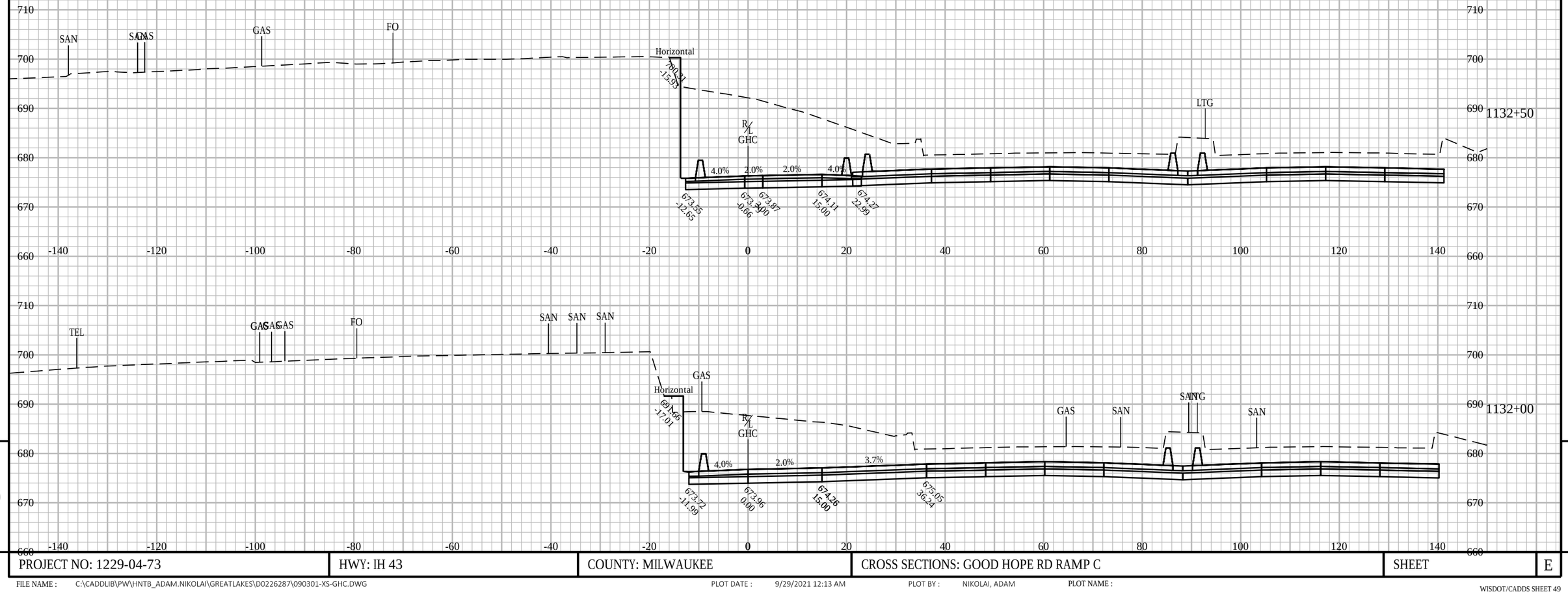
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:12 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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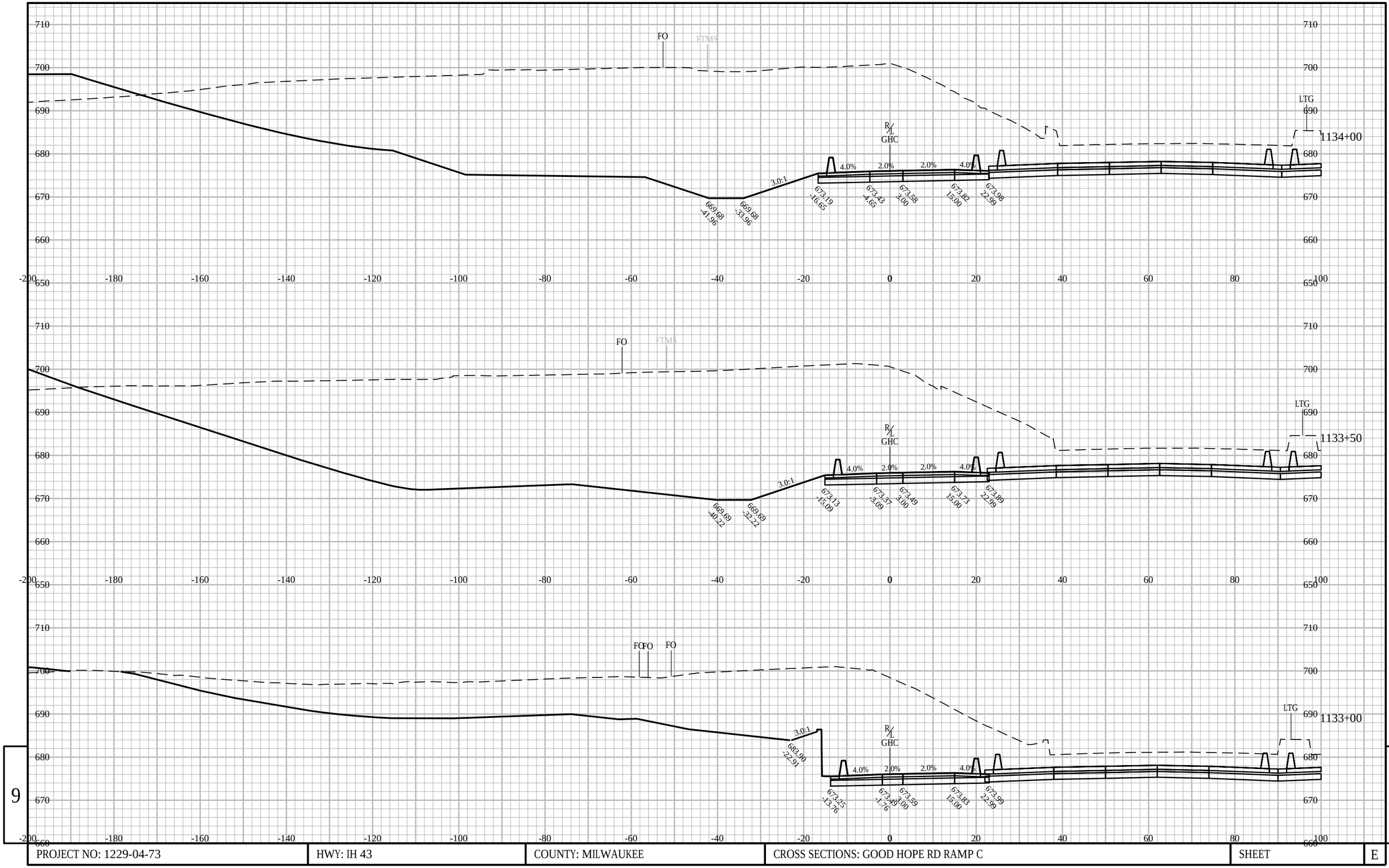
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:13 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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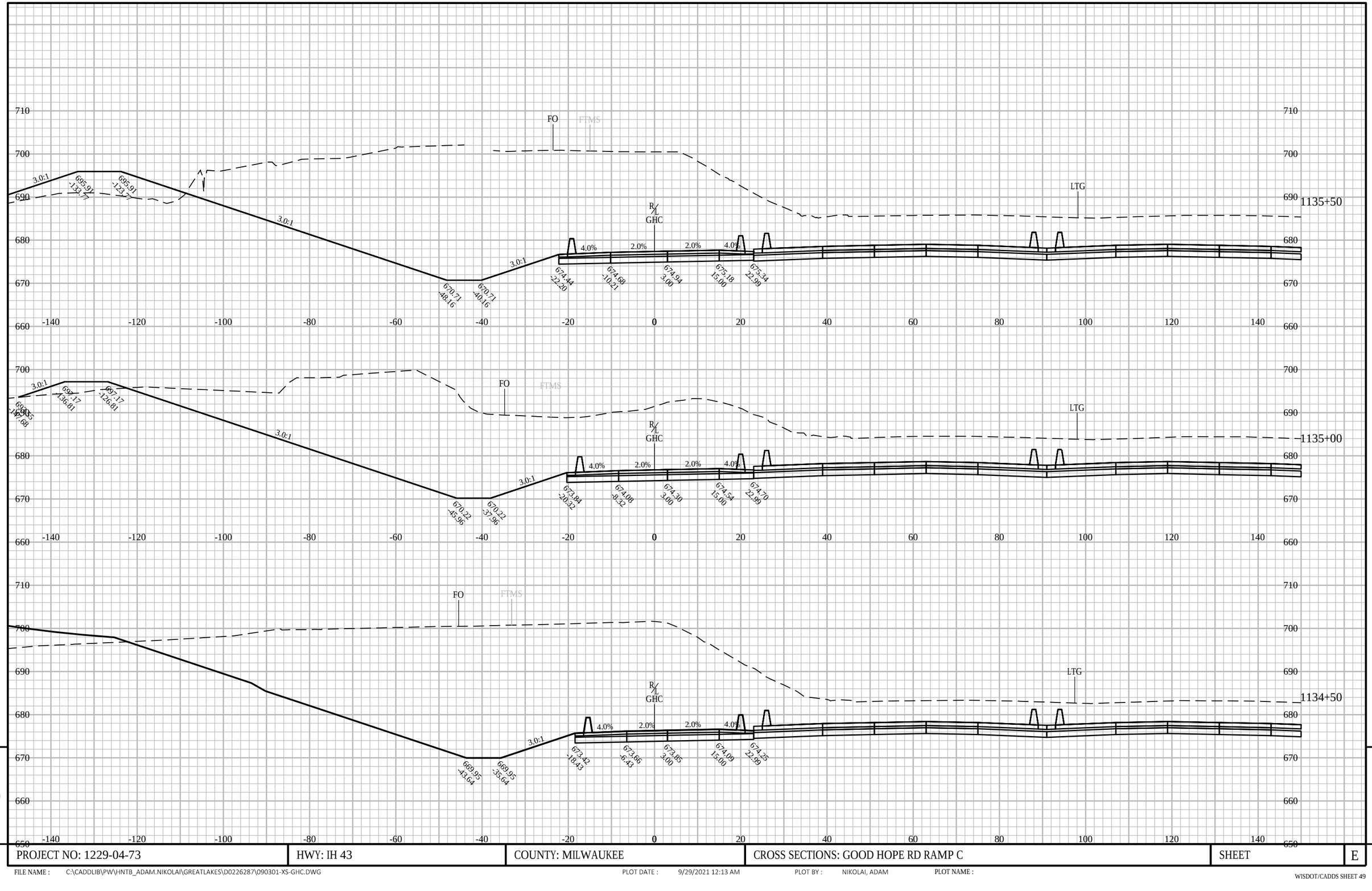
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:13 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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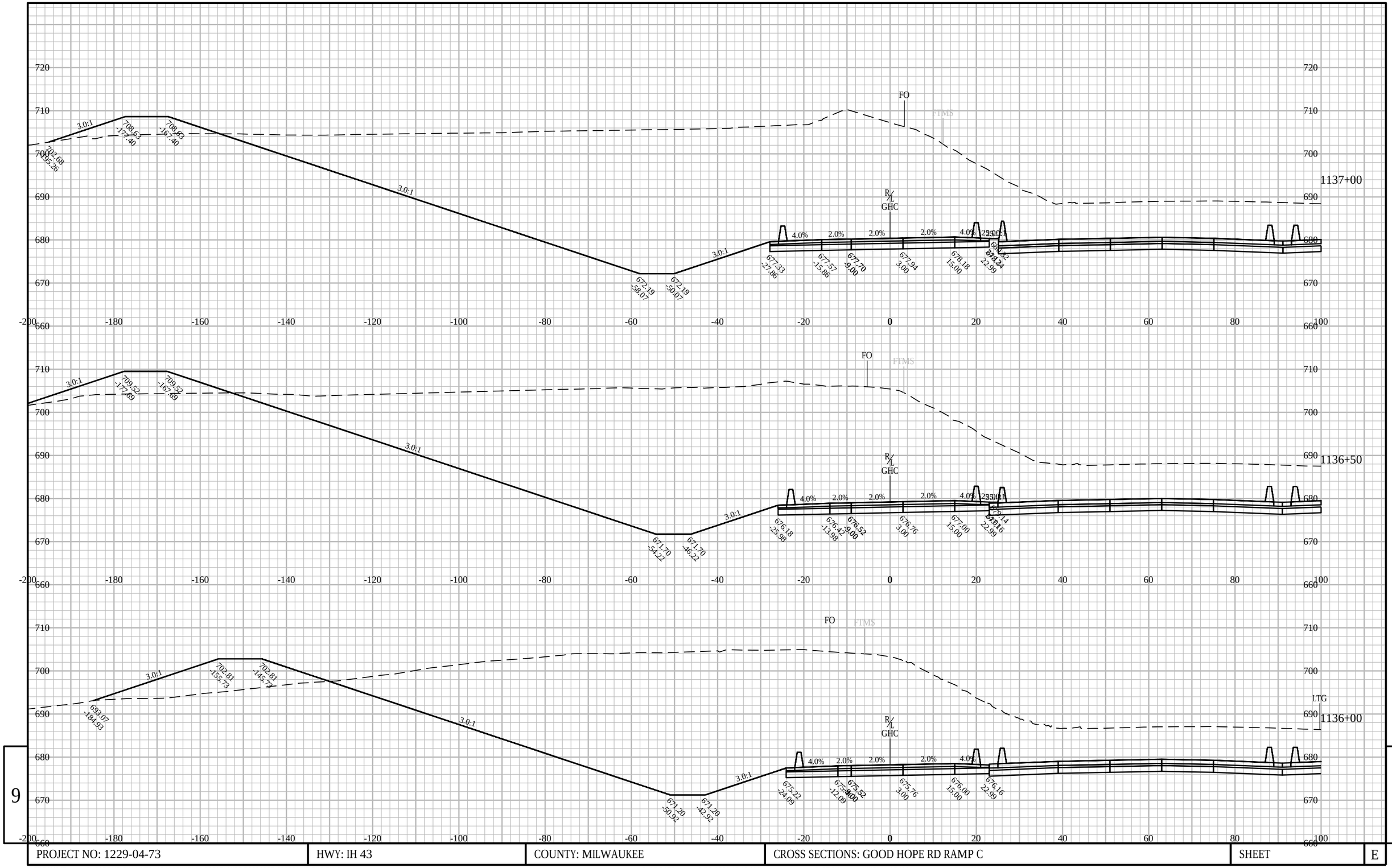
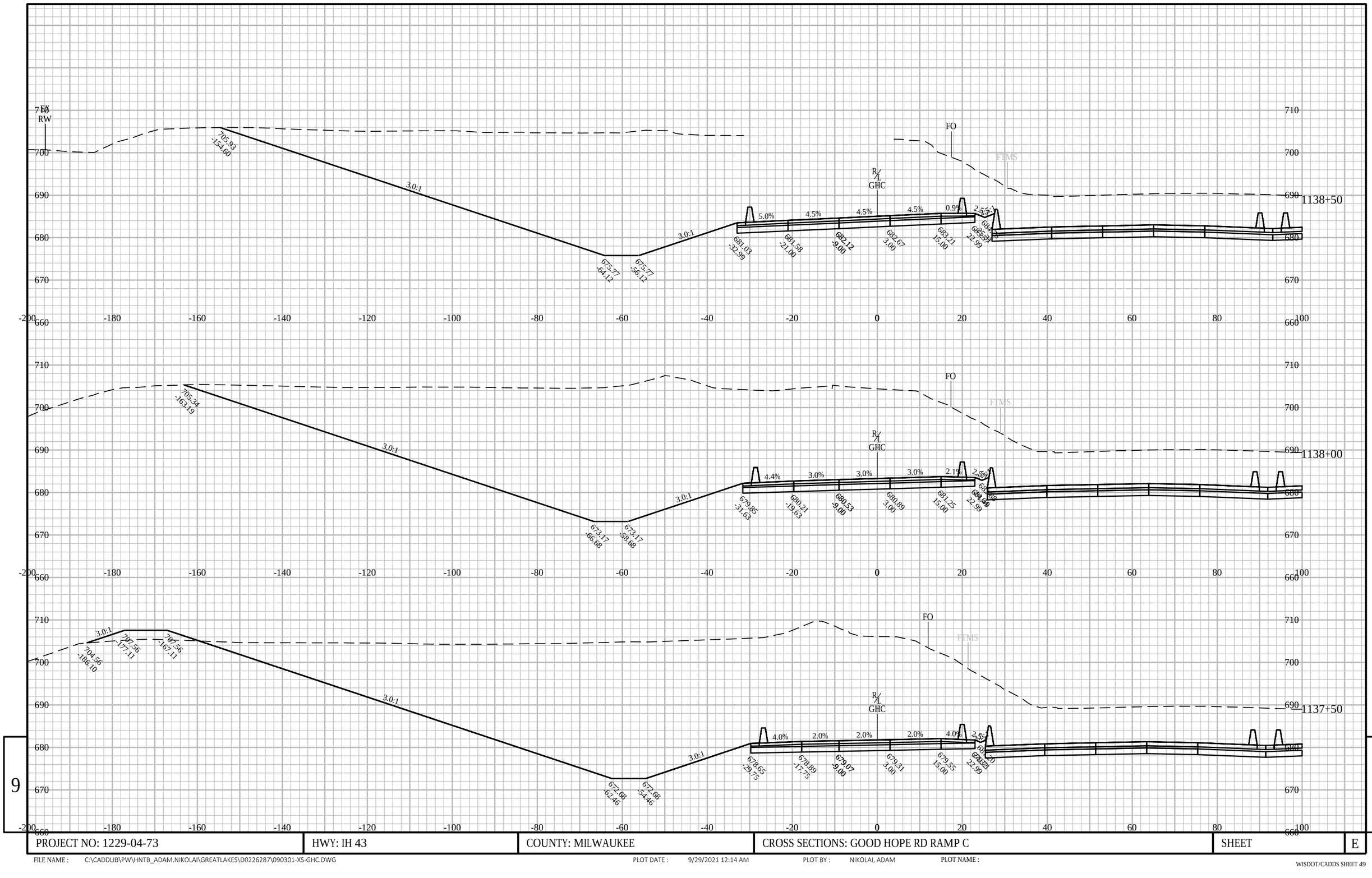
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:13 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:13 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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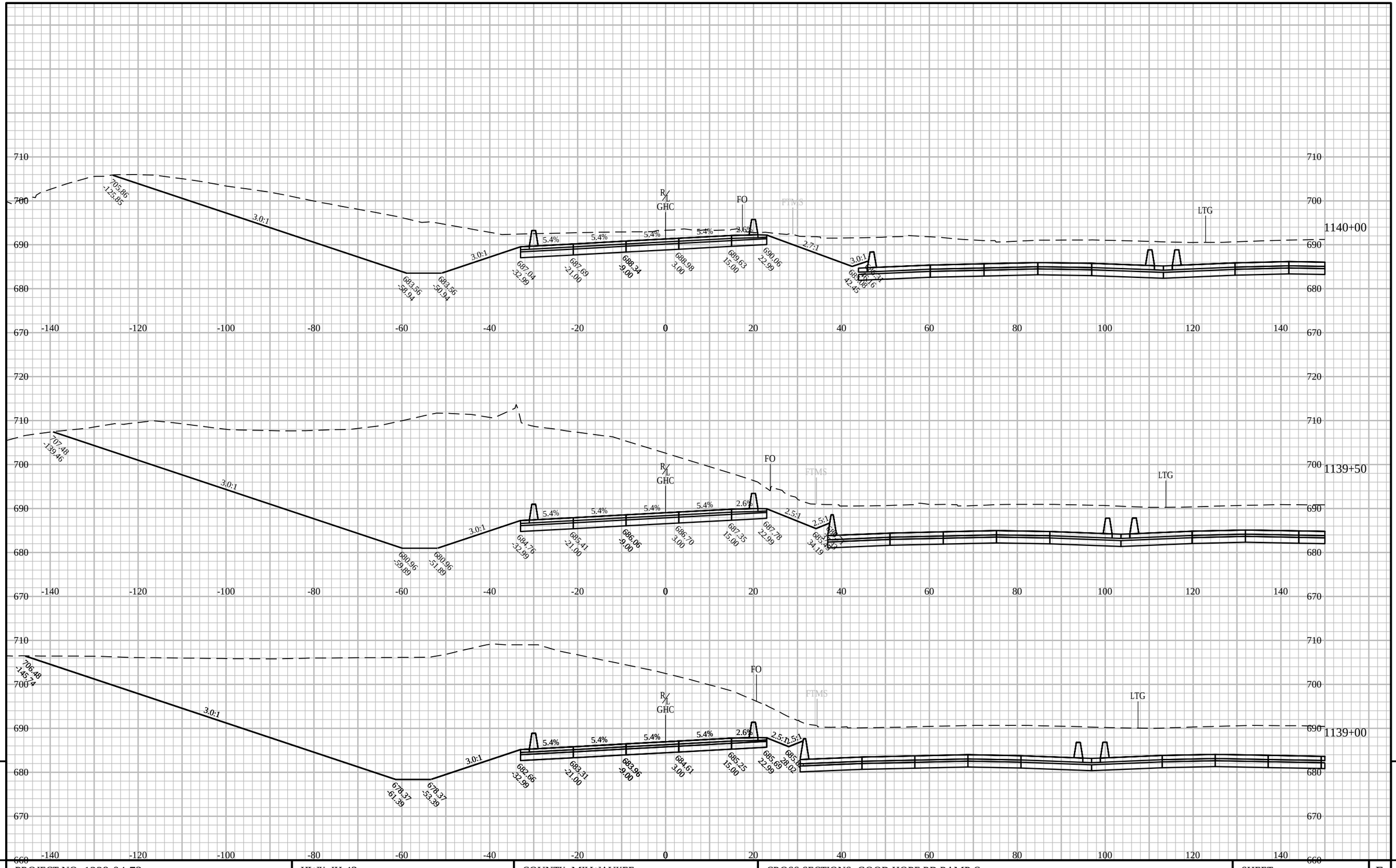
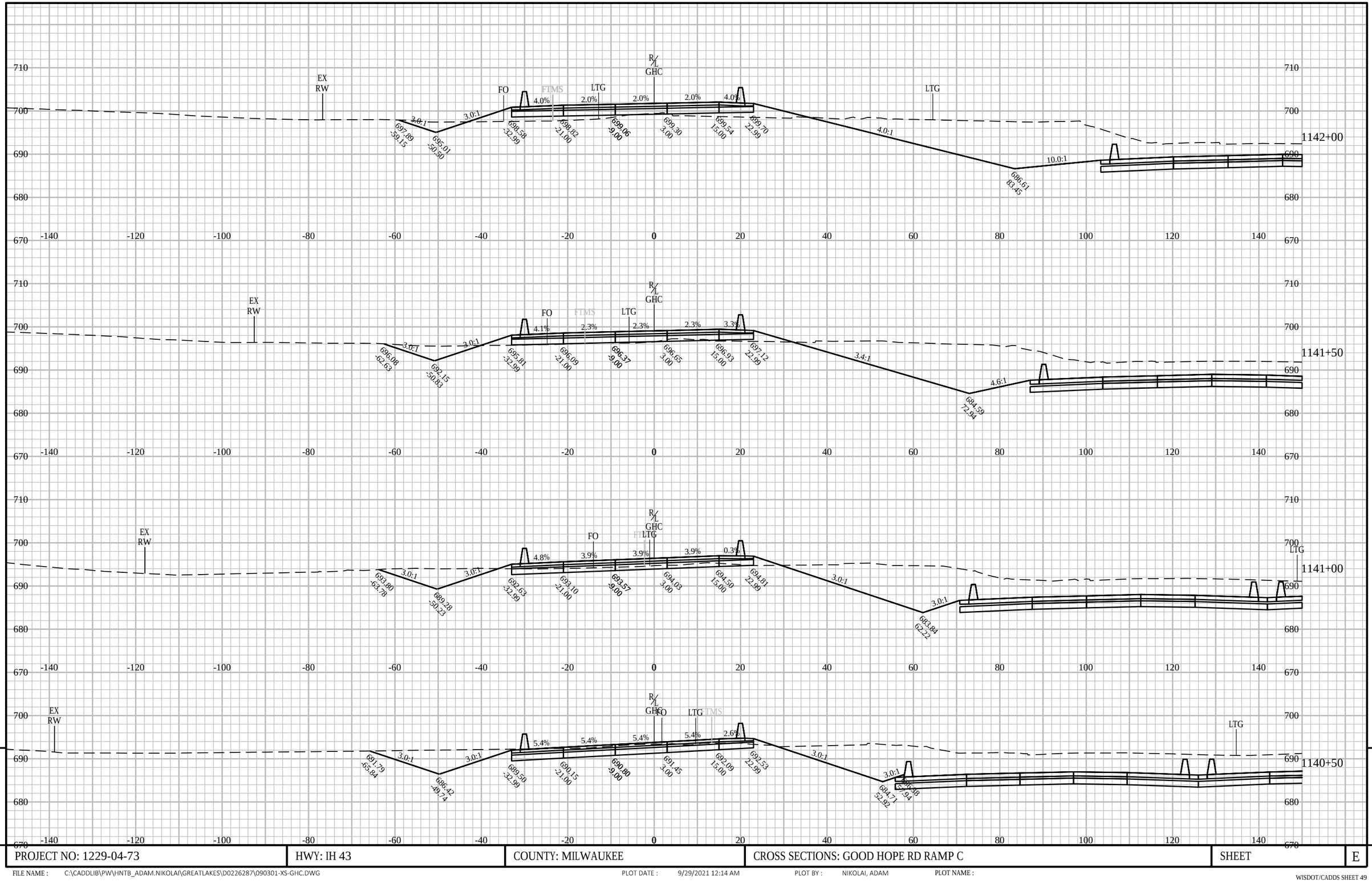
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:14 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:14 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



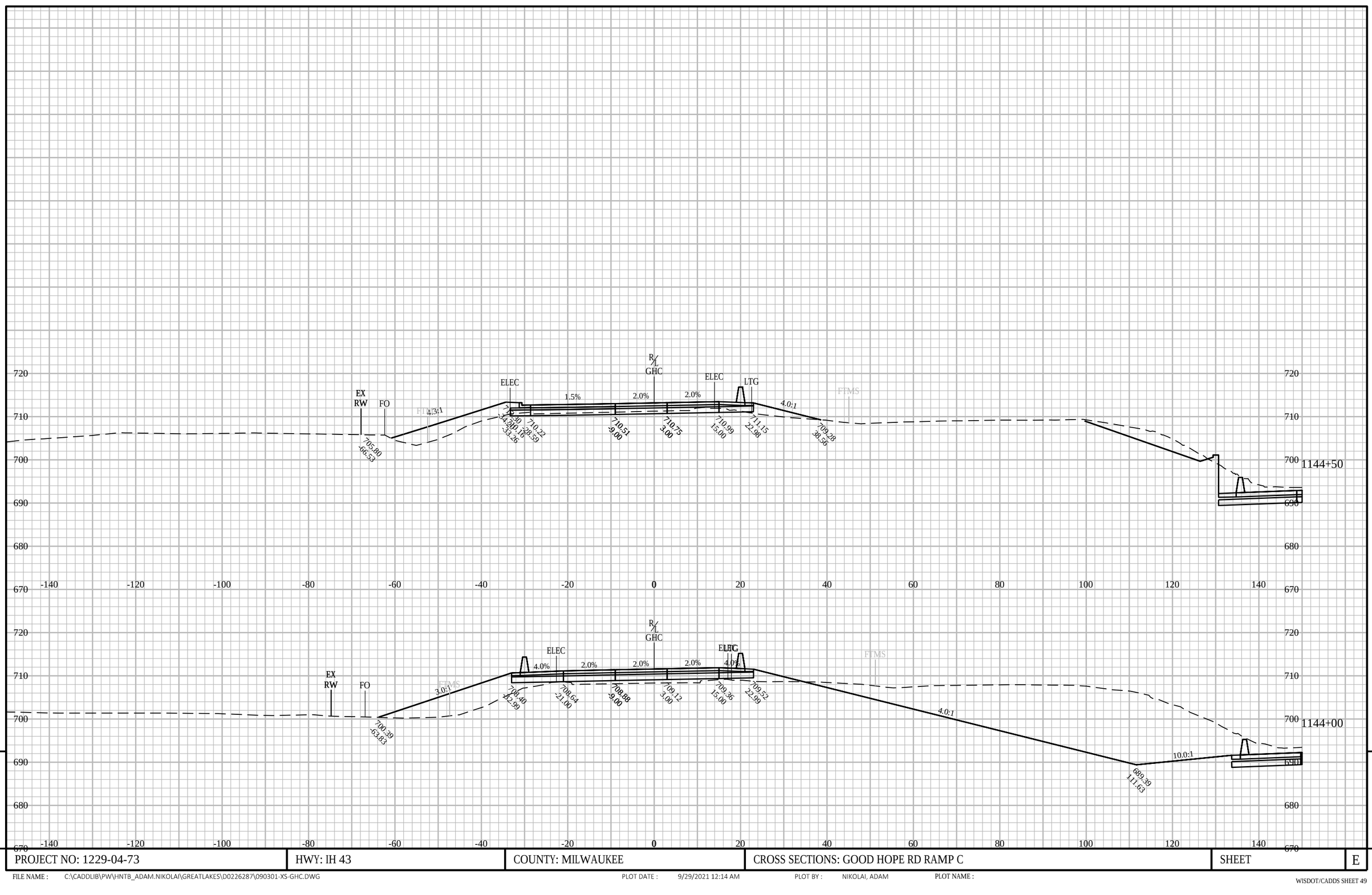
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:14 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:14 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHC.DWG PLOT DATE : 9/29/2021 12:14 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

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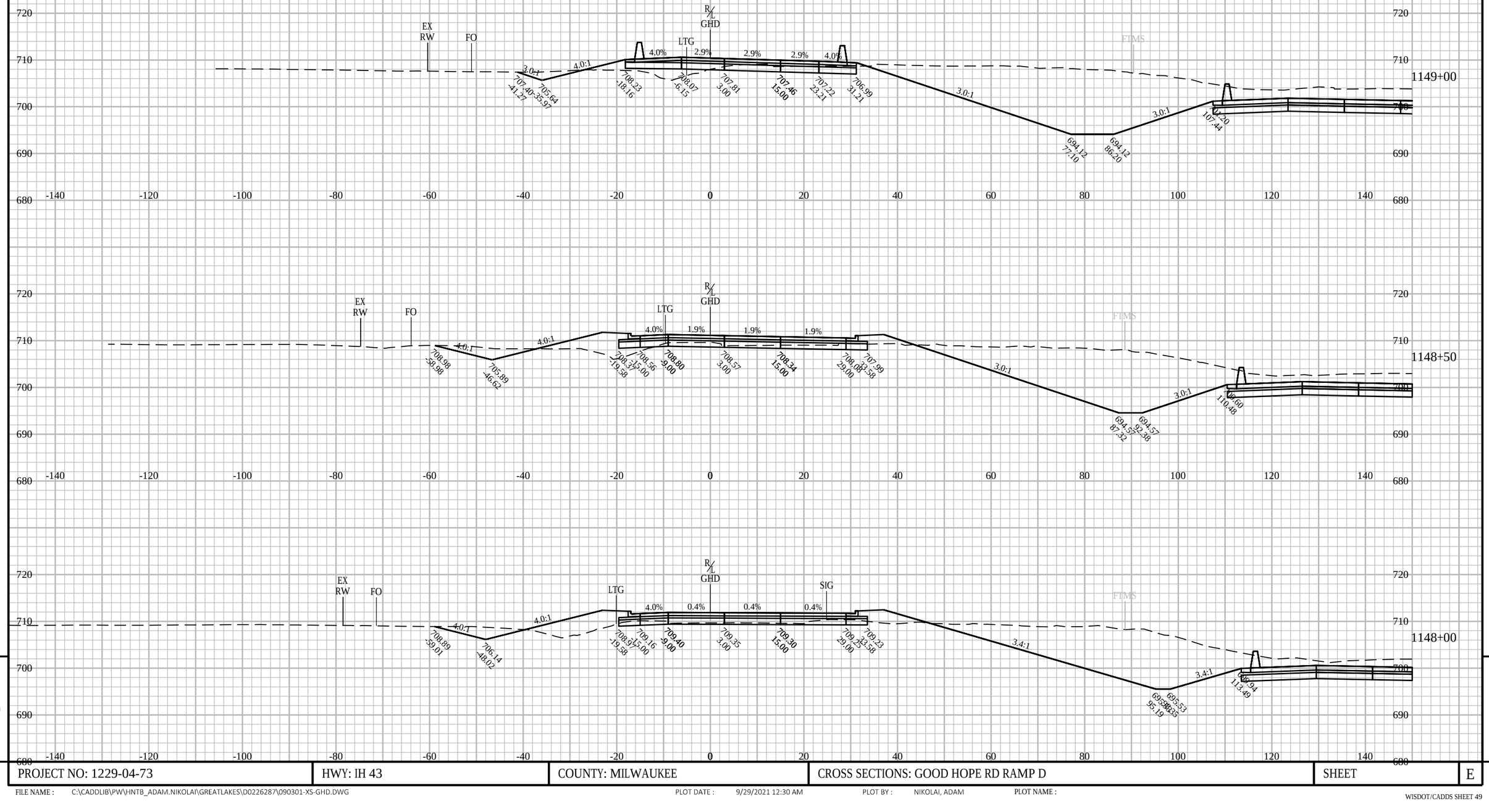
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:30 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

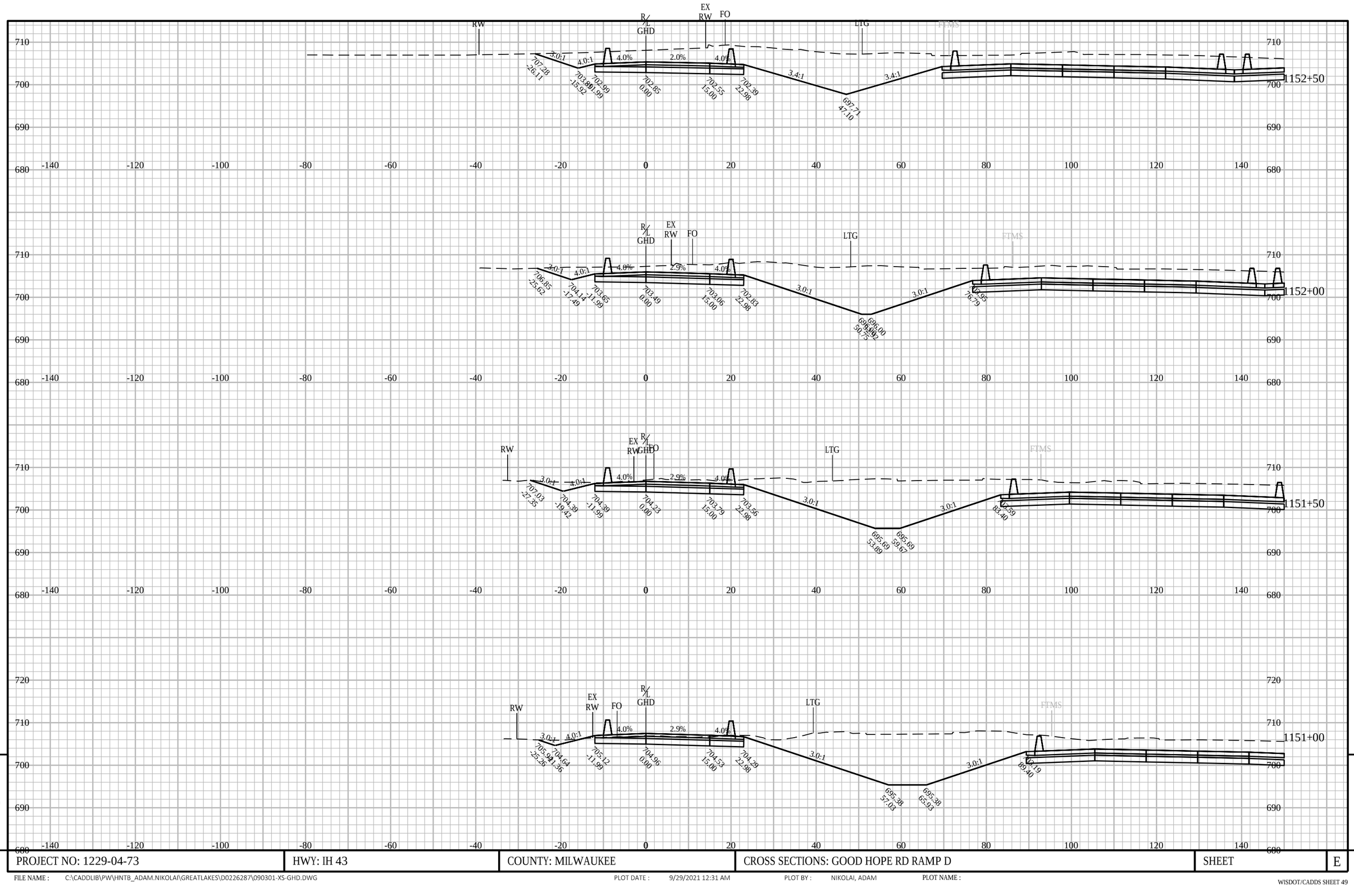


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:30 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:30 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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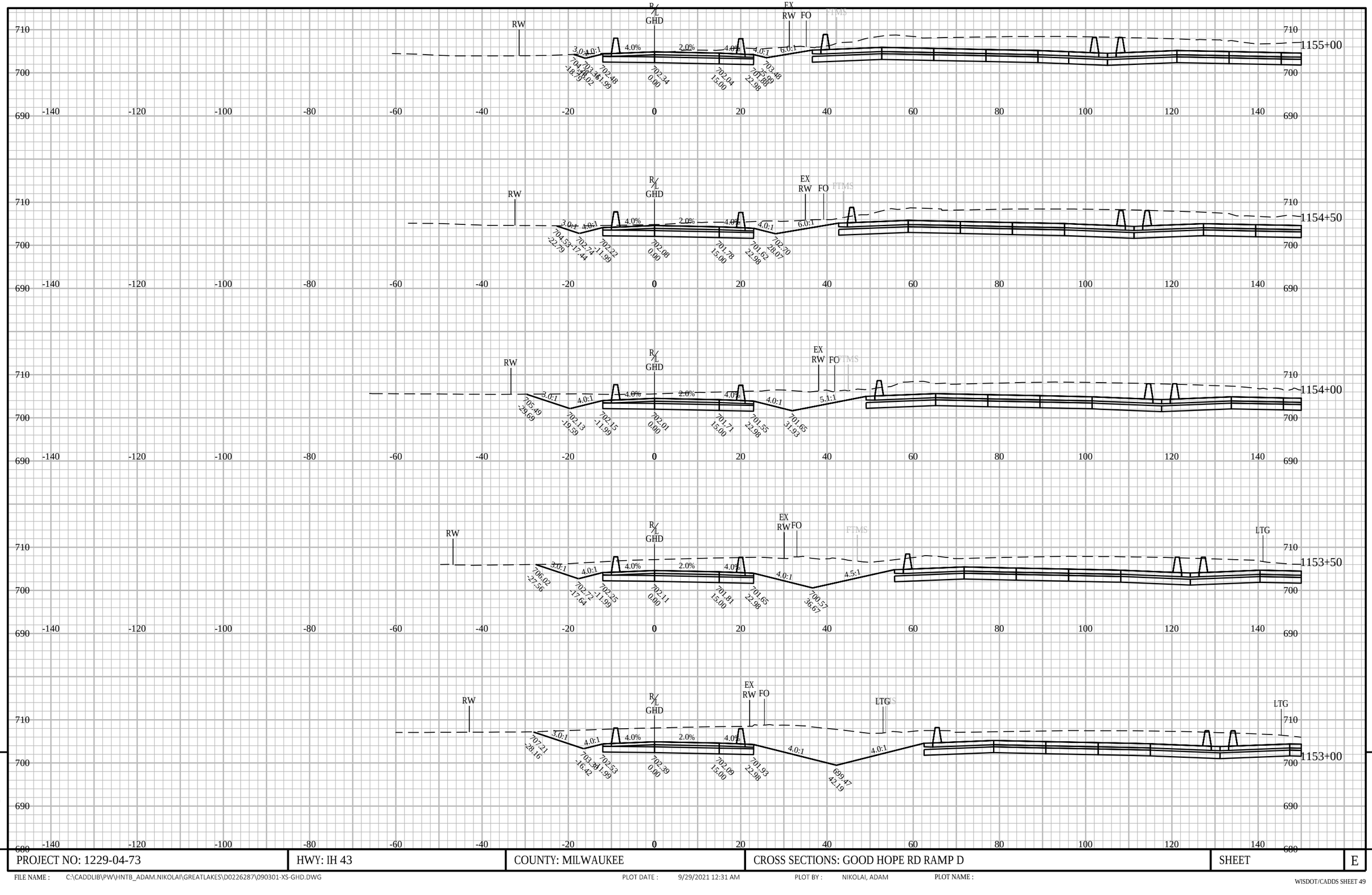
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:31 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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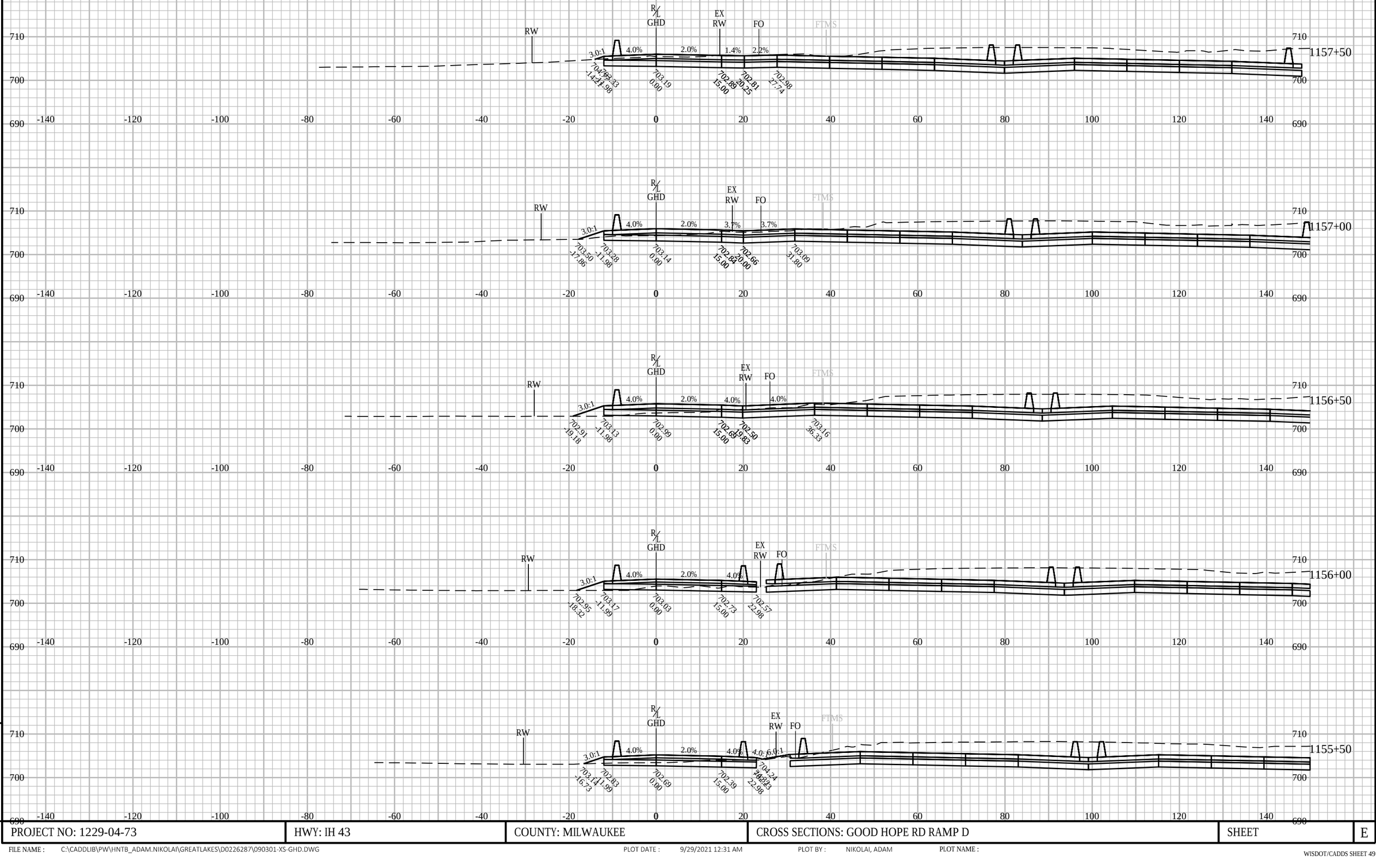
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:31 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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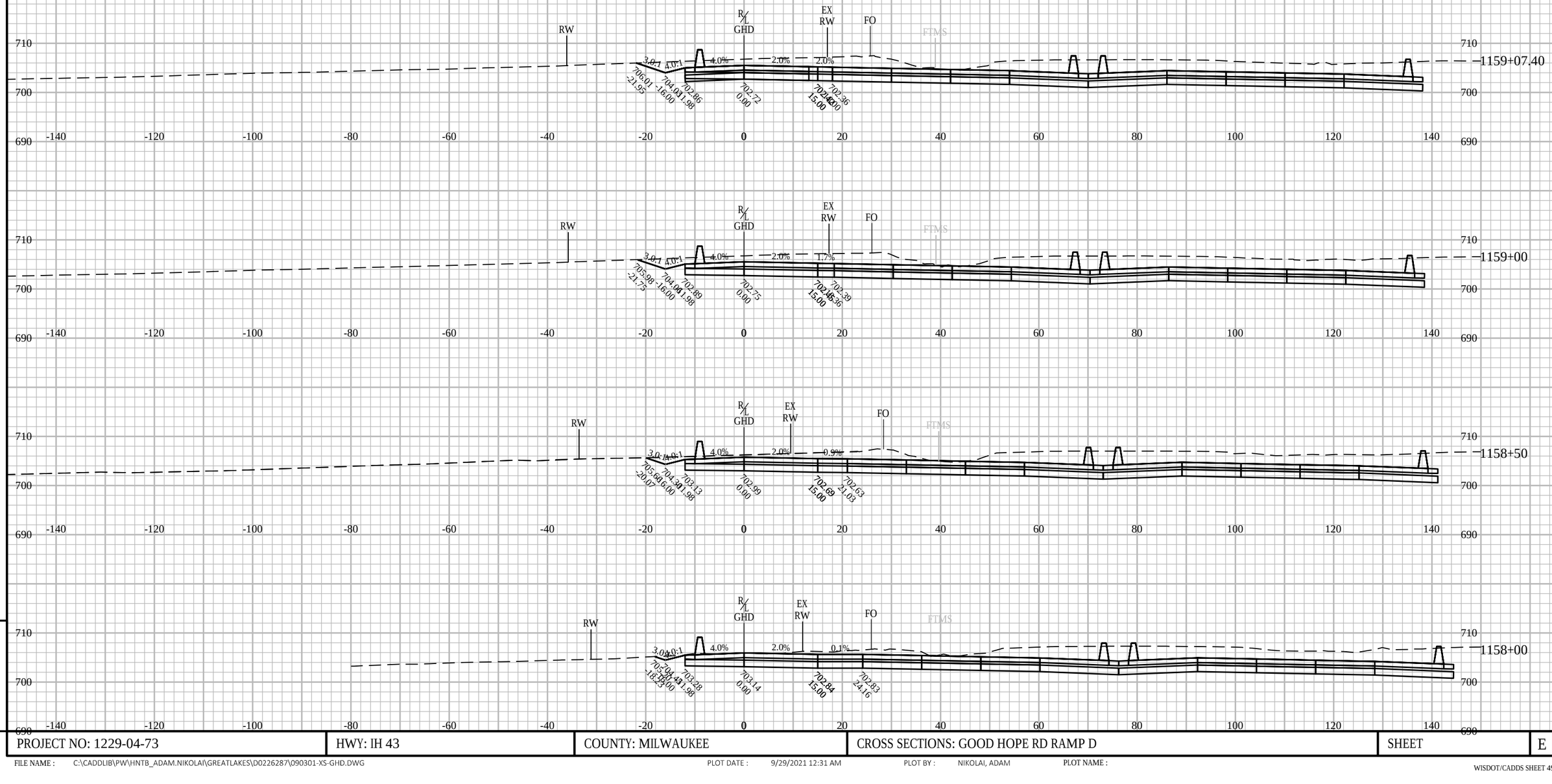
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E



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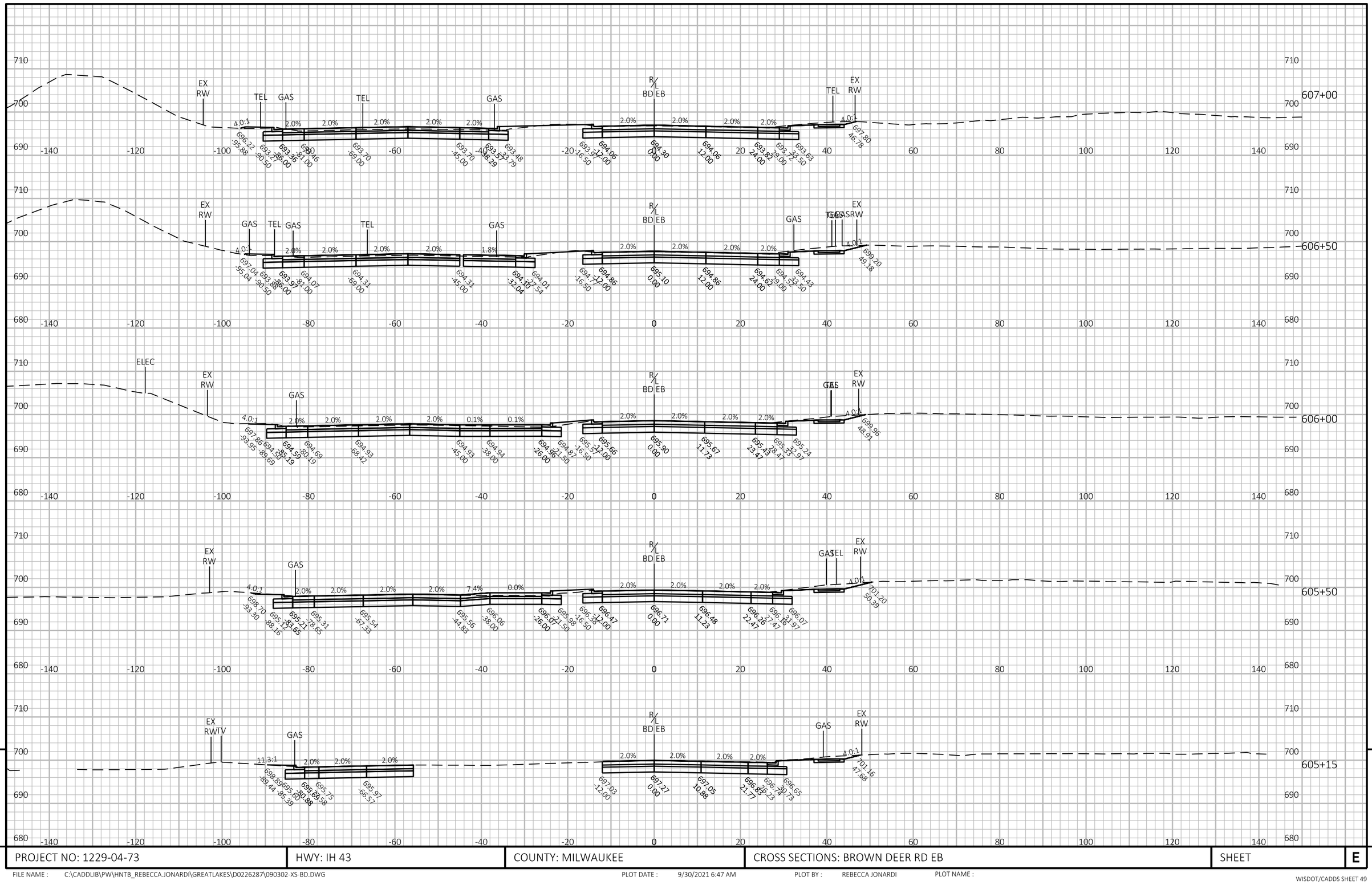
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: GOOD HOPE RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0226287\090301-XS-GHD.DWG PLOT DATE : 9/29/2021 12:31 AM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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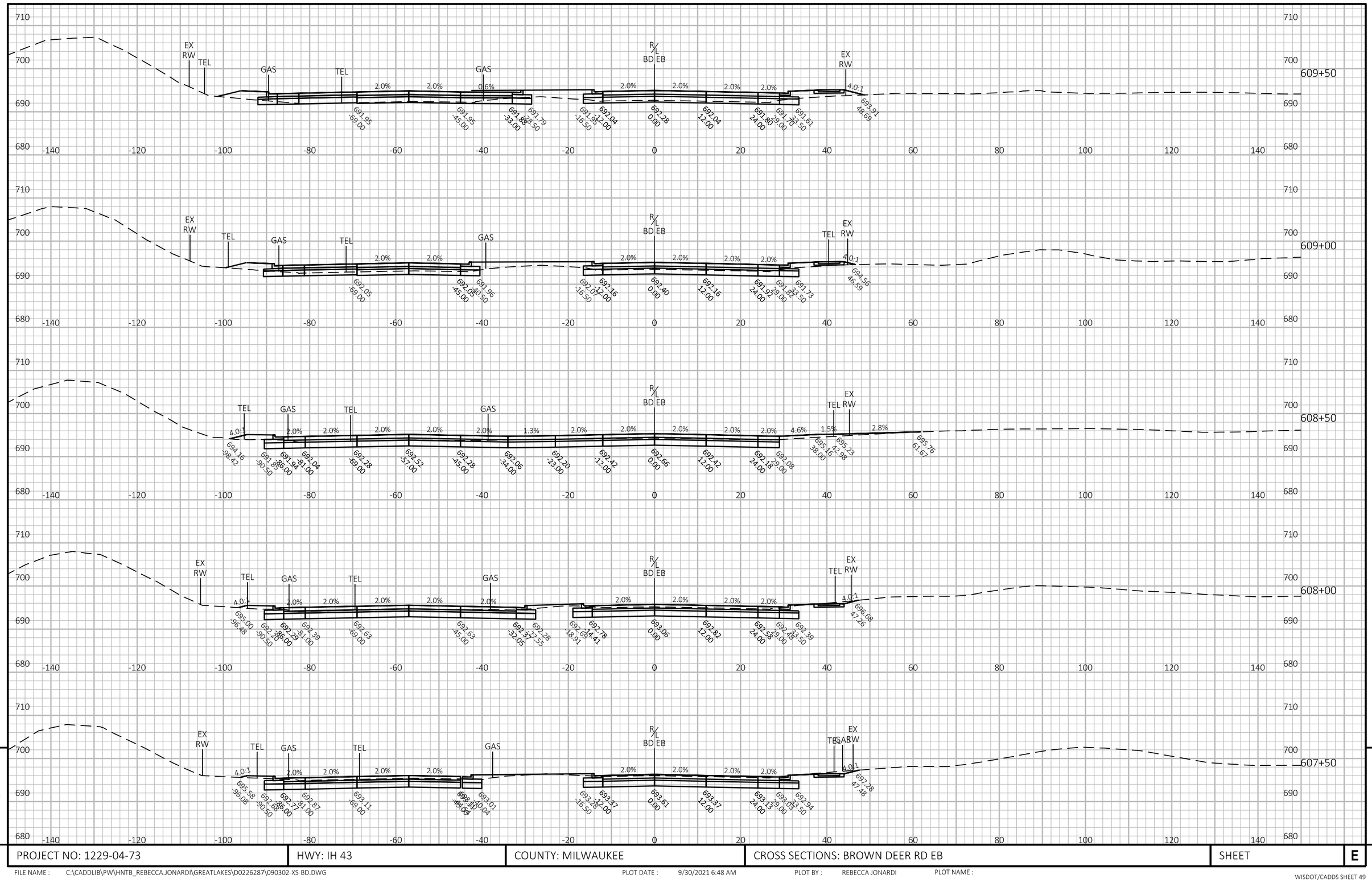
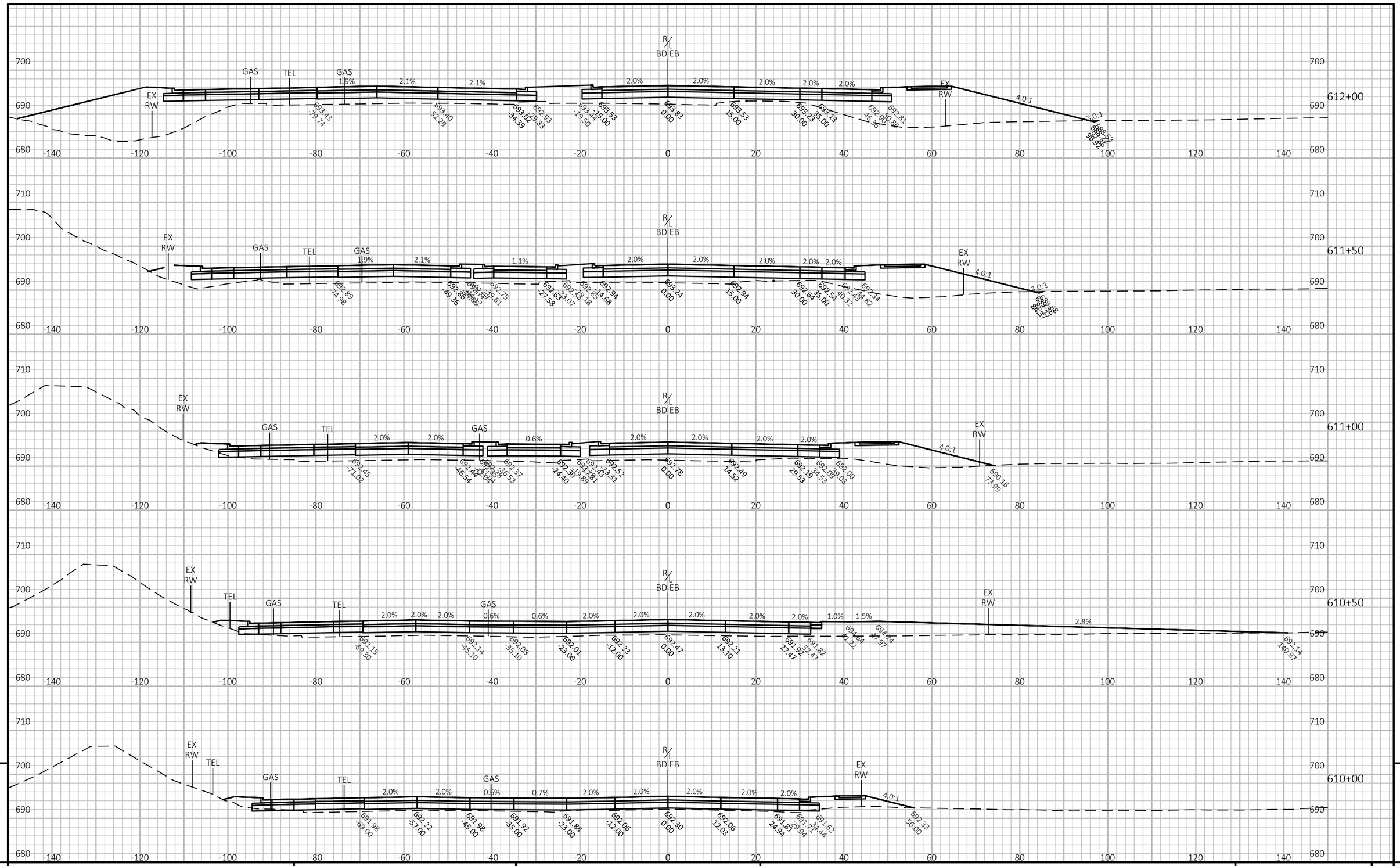
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:47 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:48 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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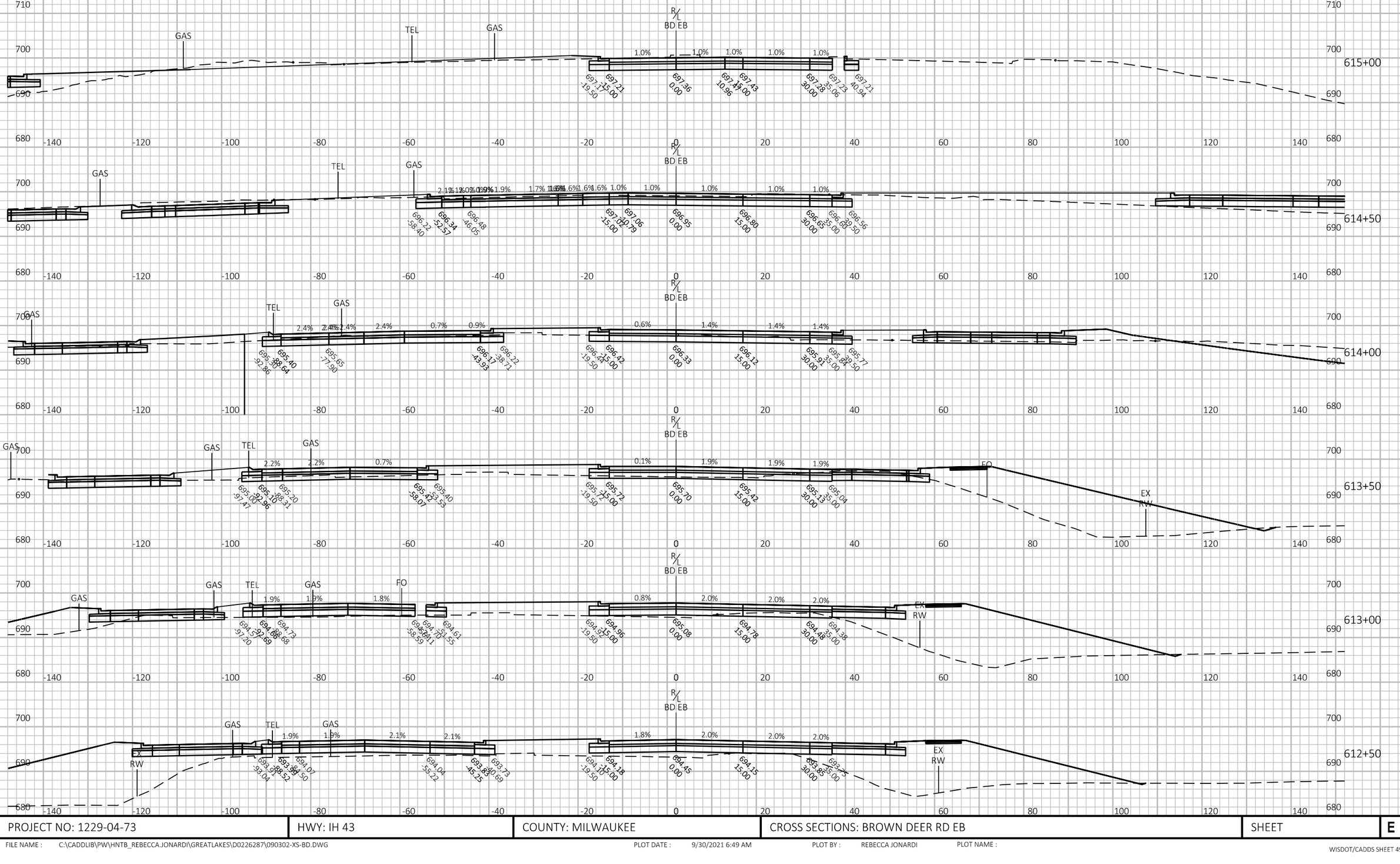
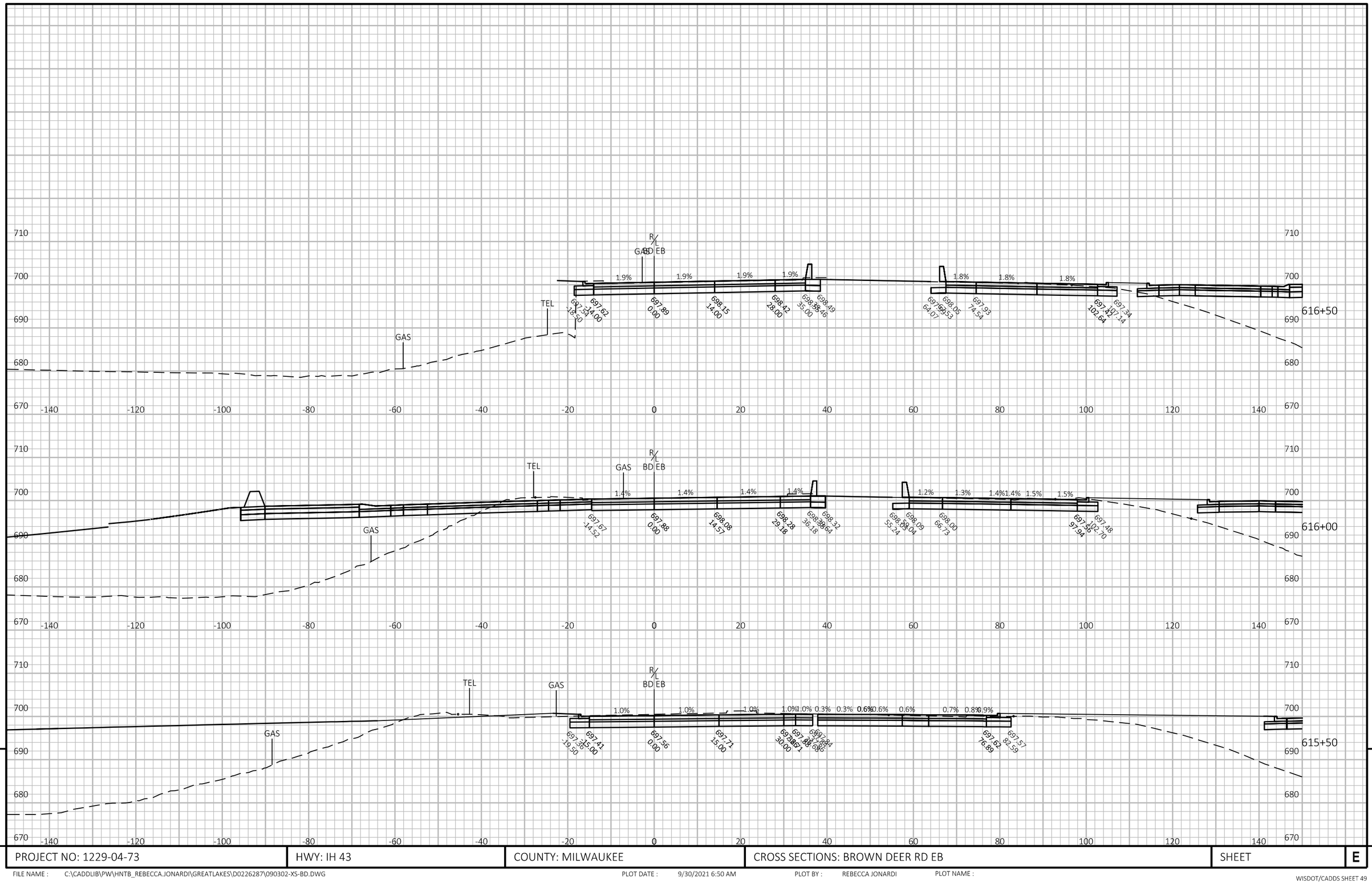
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:49 AM PLOT BY : REBECCA JONARDI PLOT NAME :

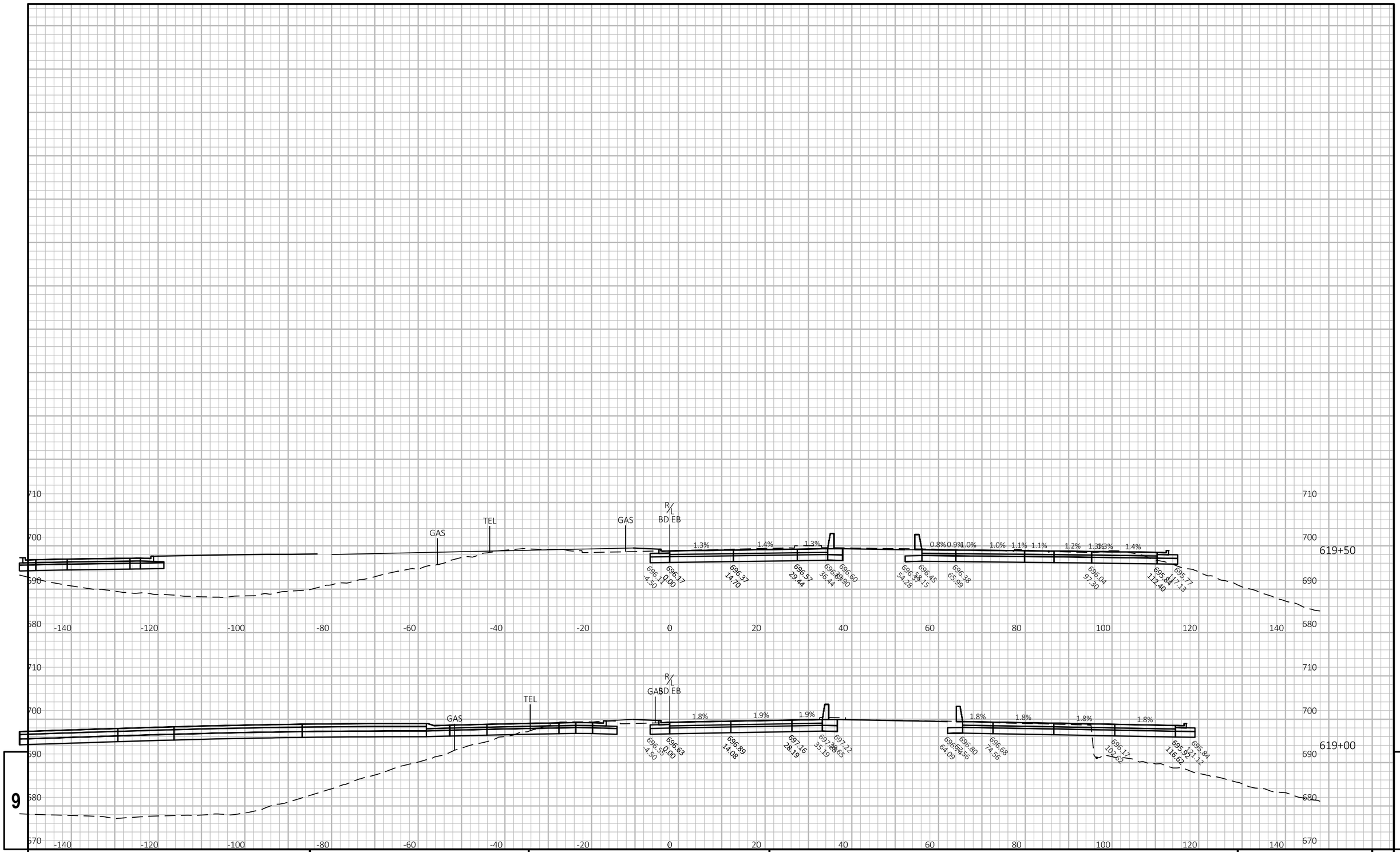


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:50 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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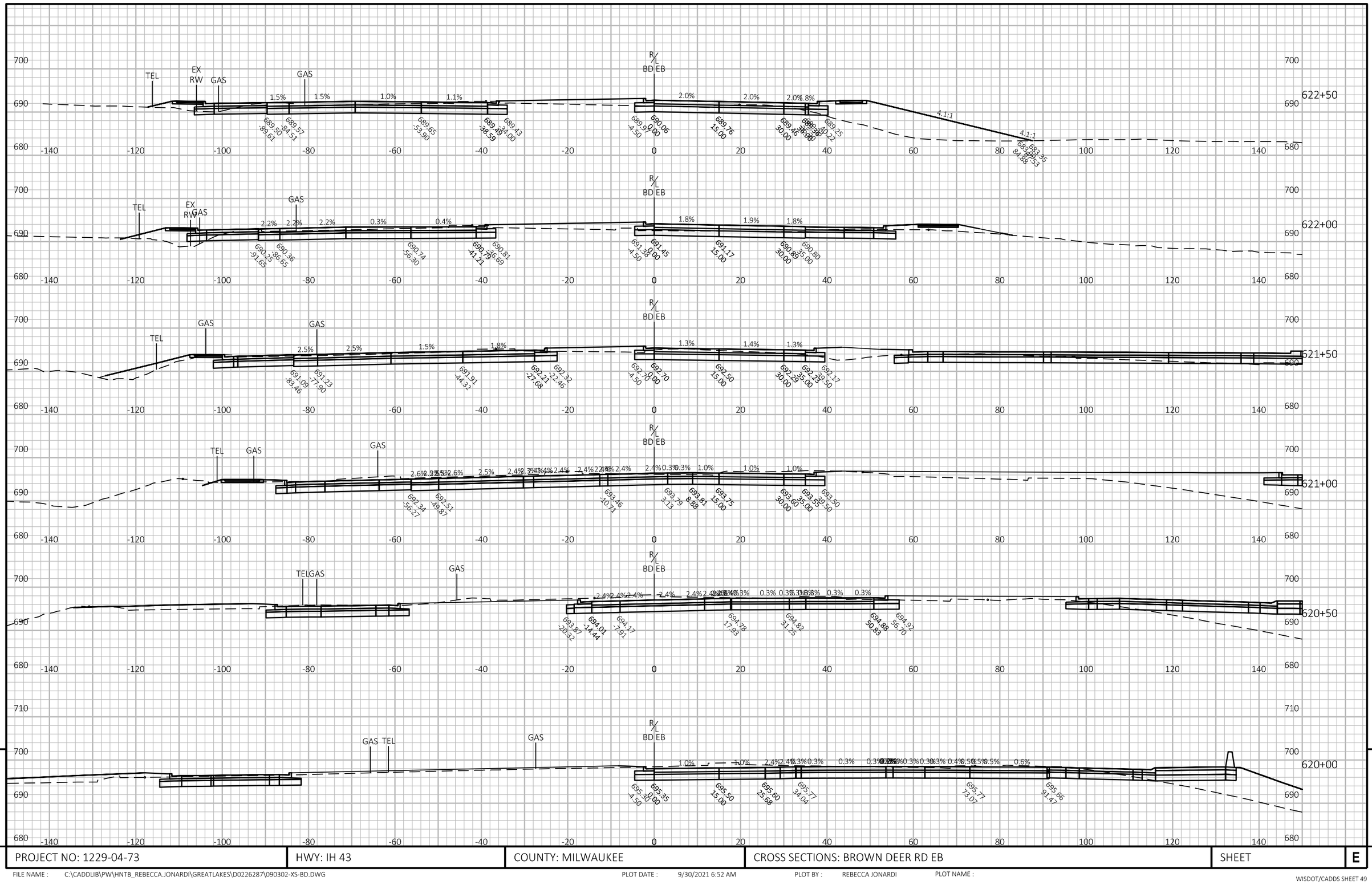
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:51 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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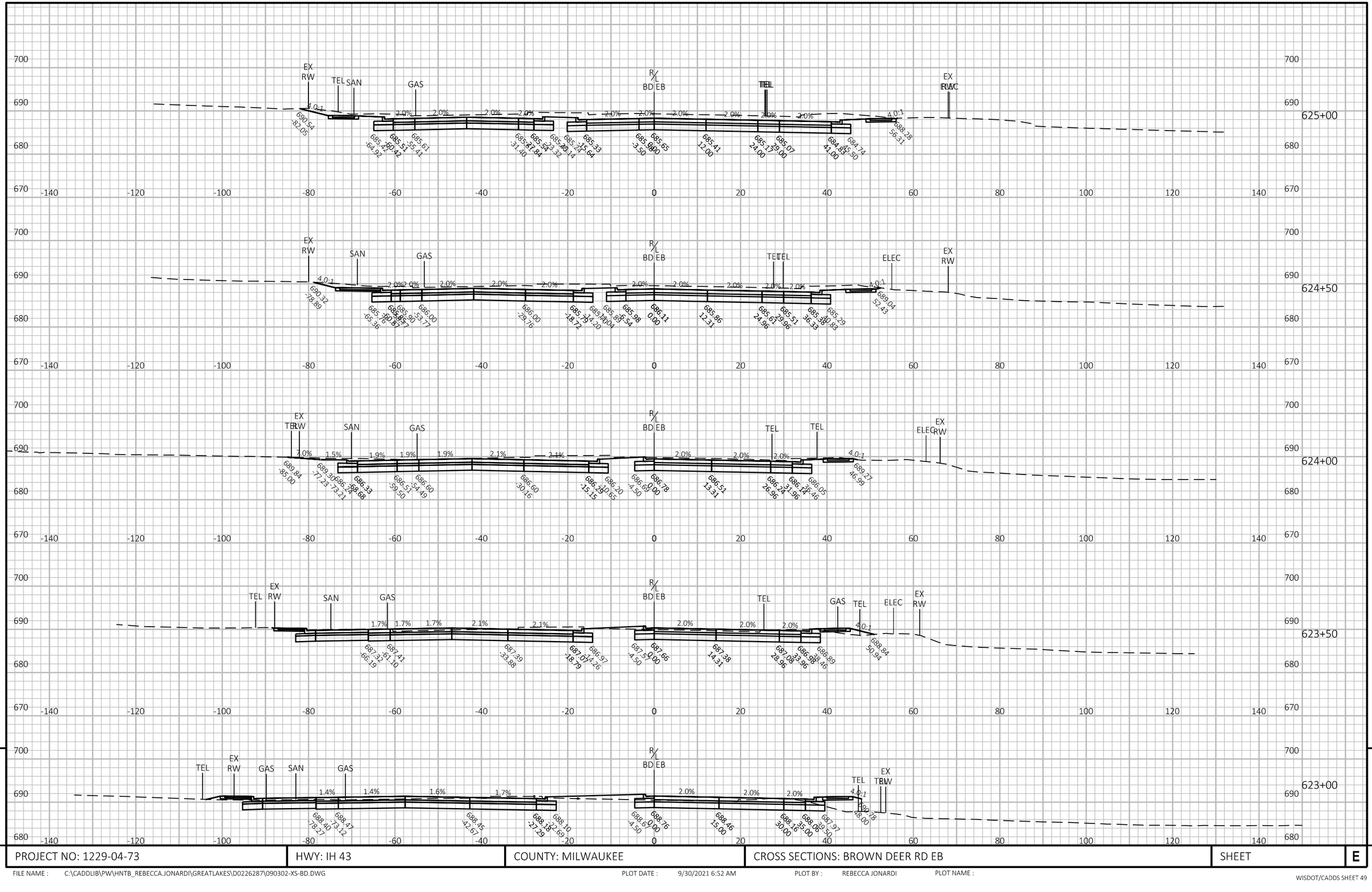
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:52 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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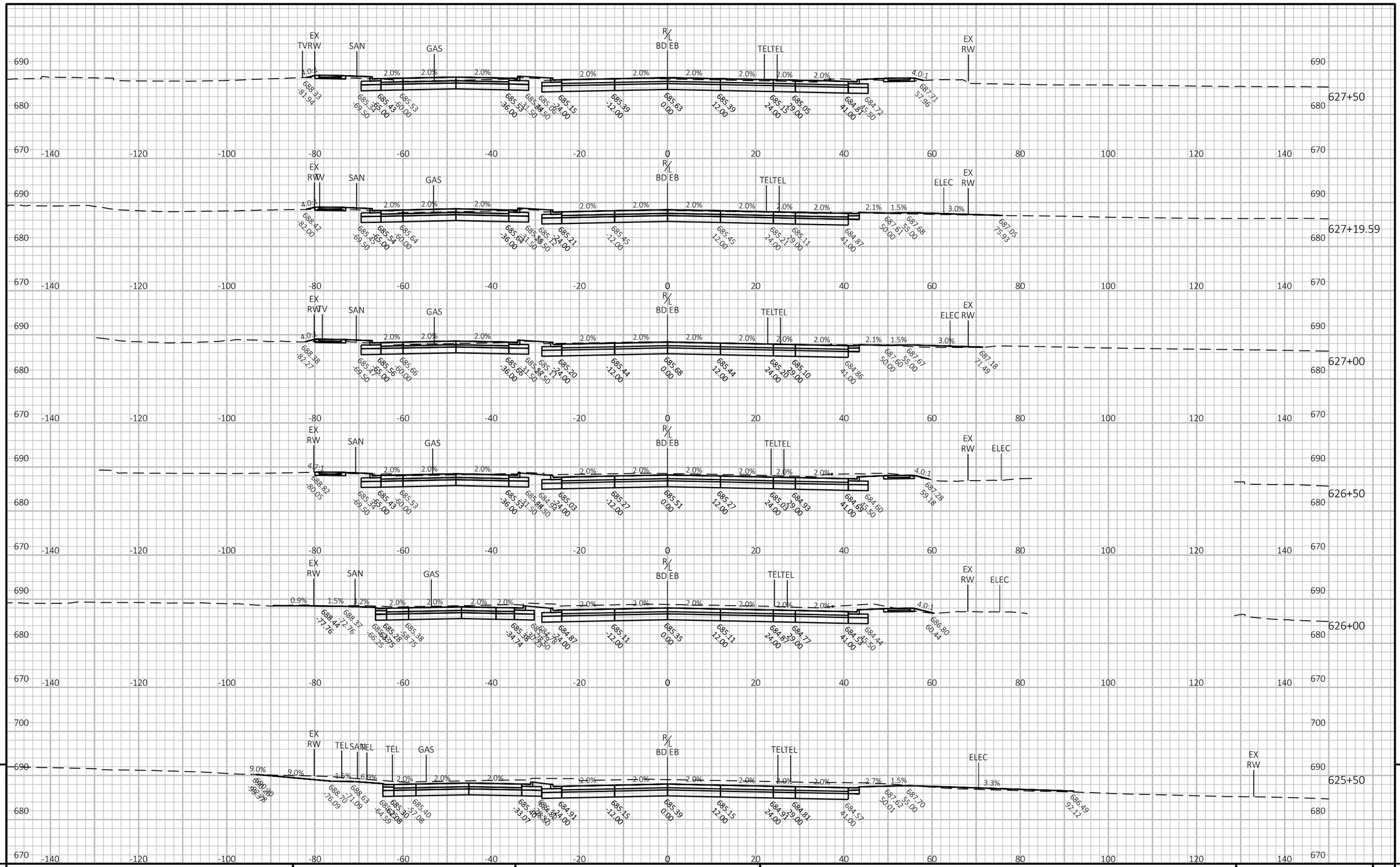
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:52 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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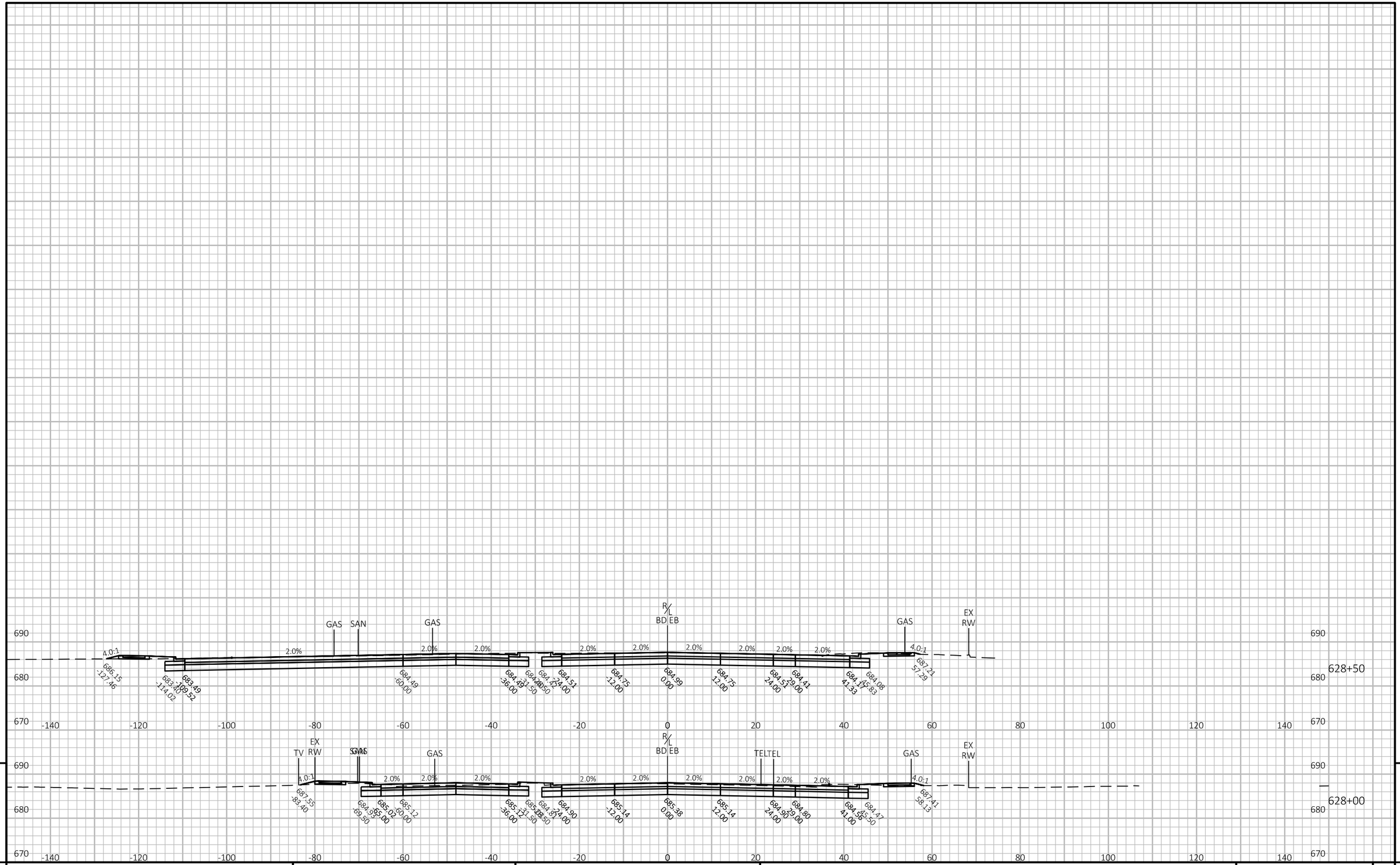
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

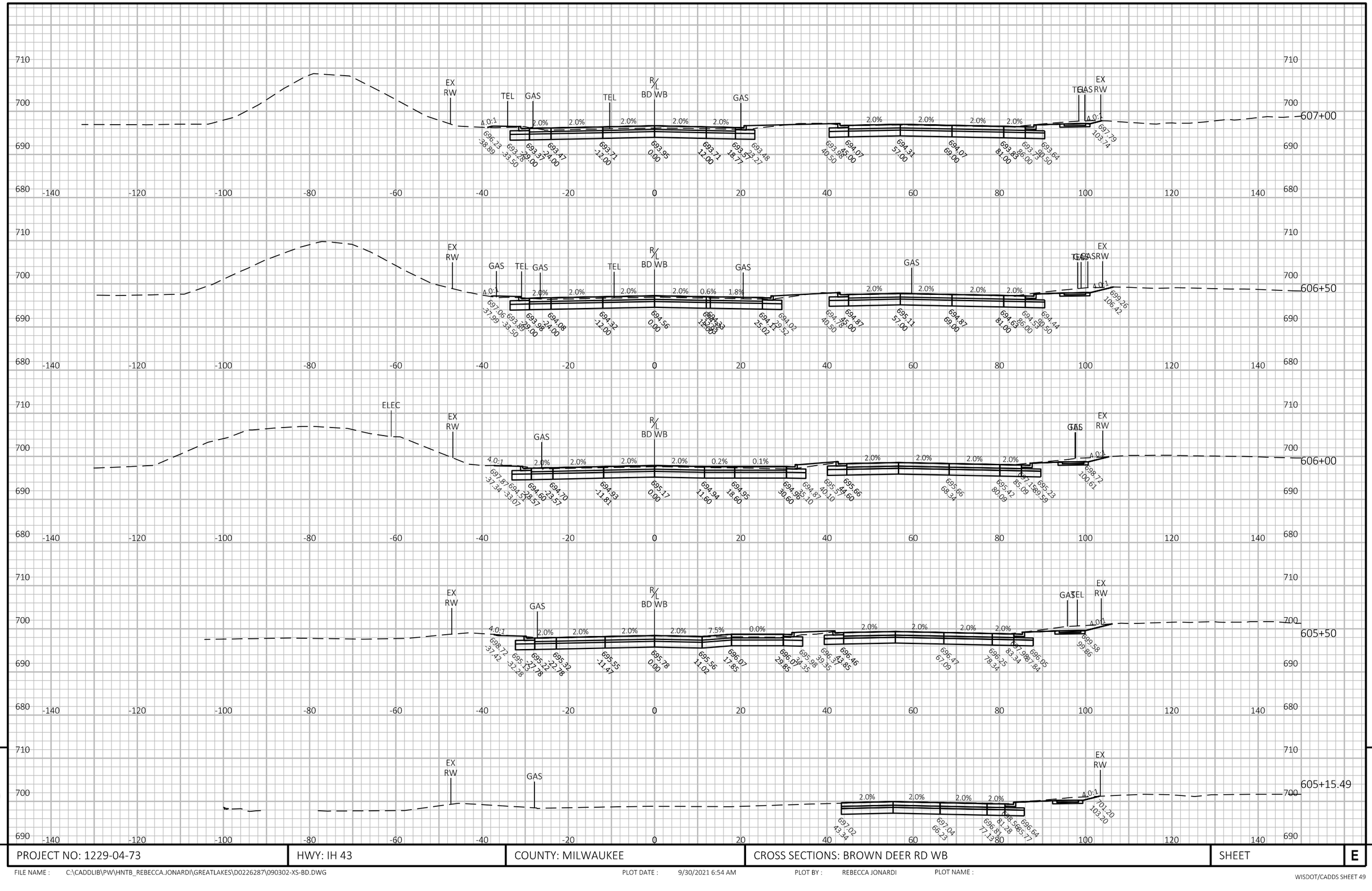
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:53 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD EB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:54 AM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



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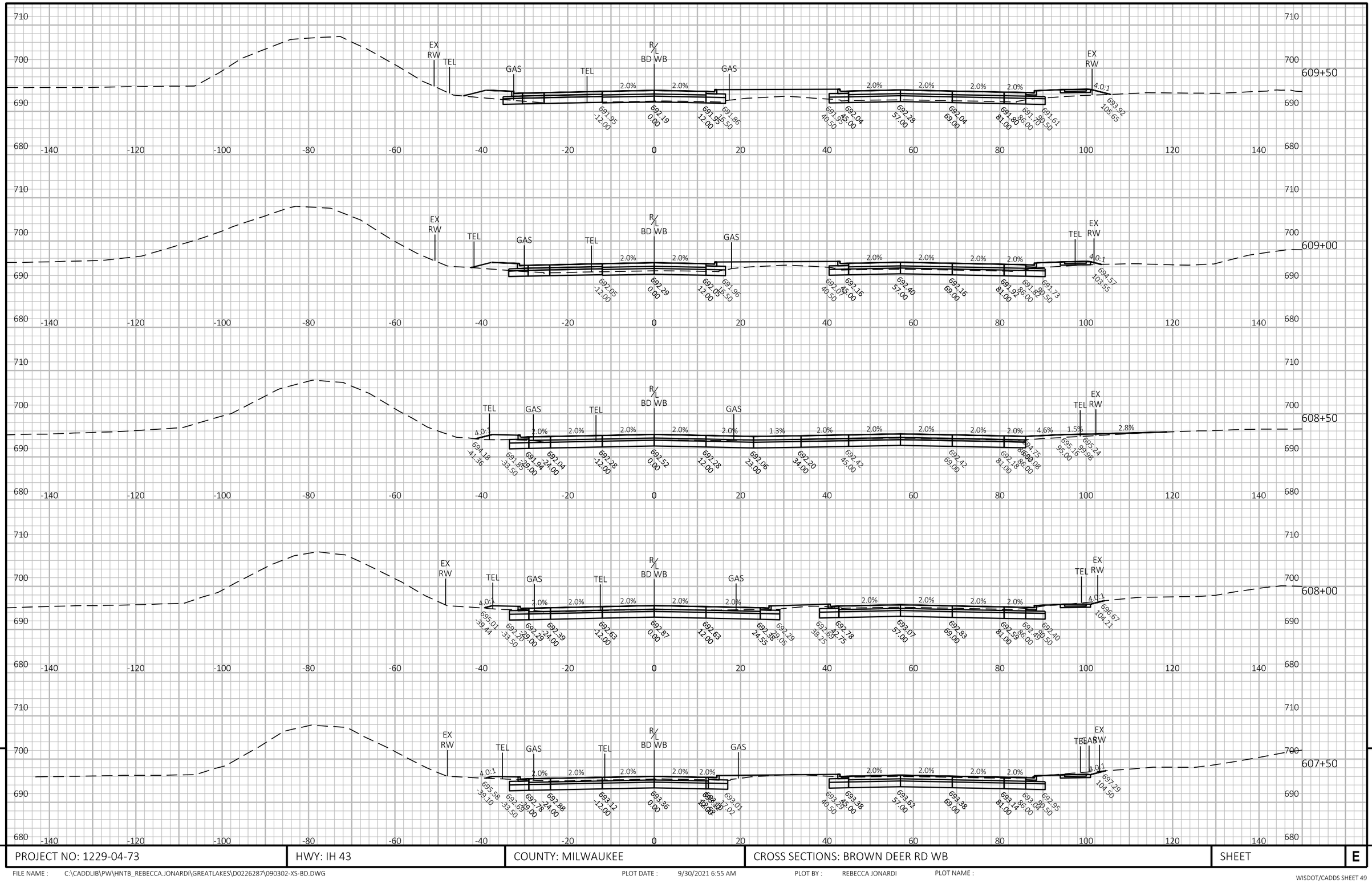
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

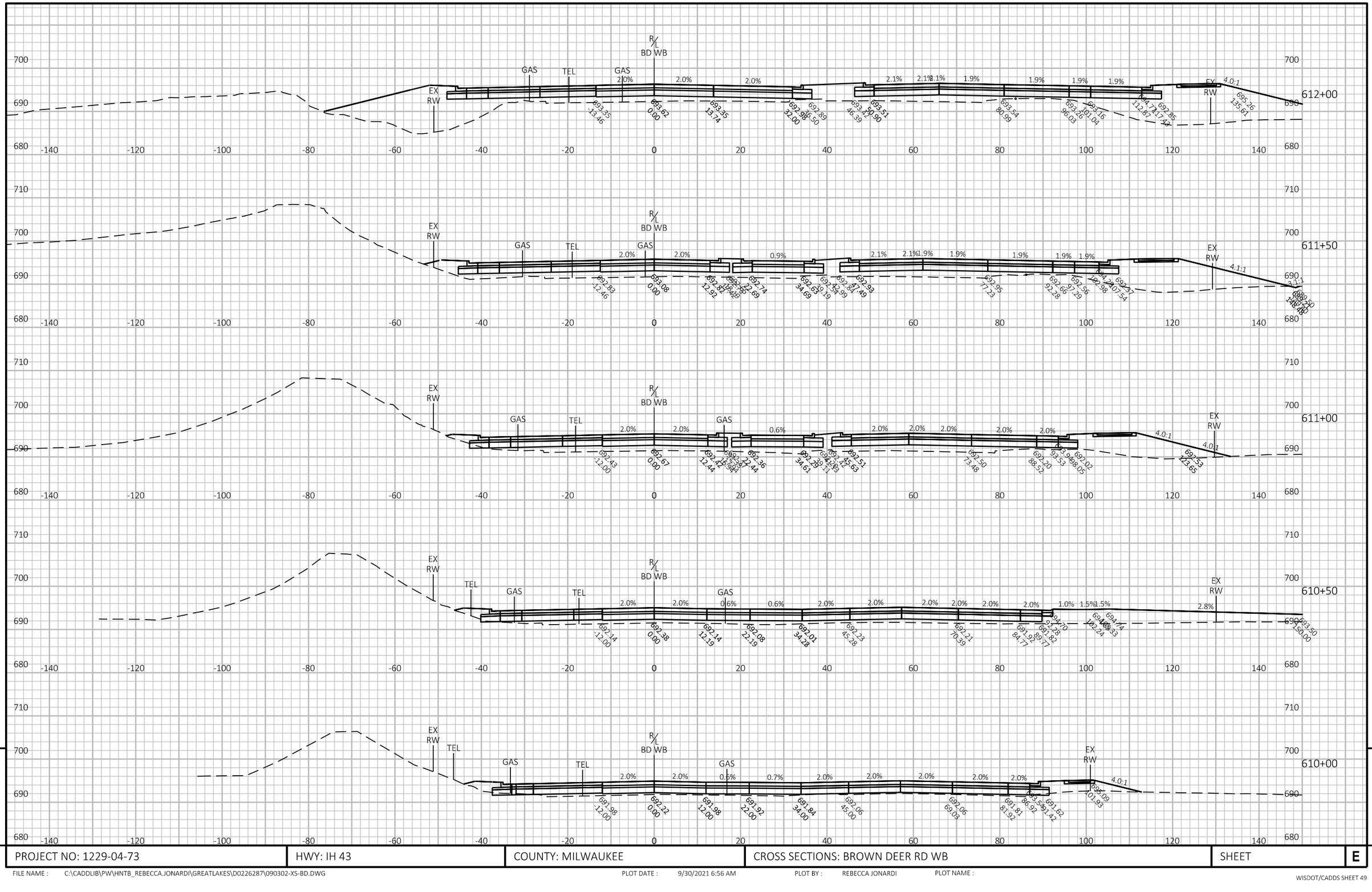
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:54 AM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:55 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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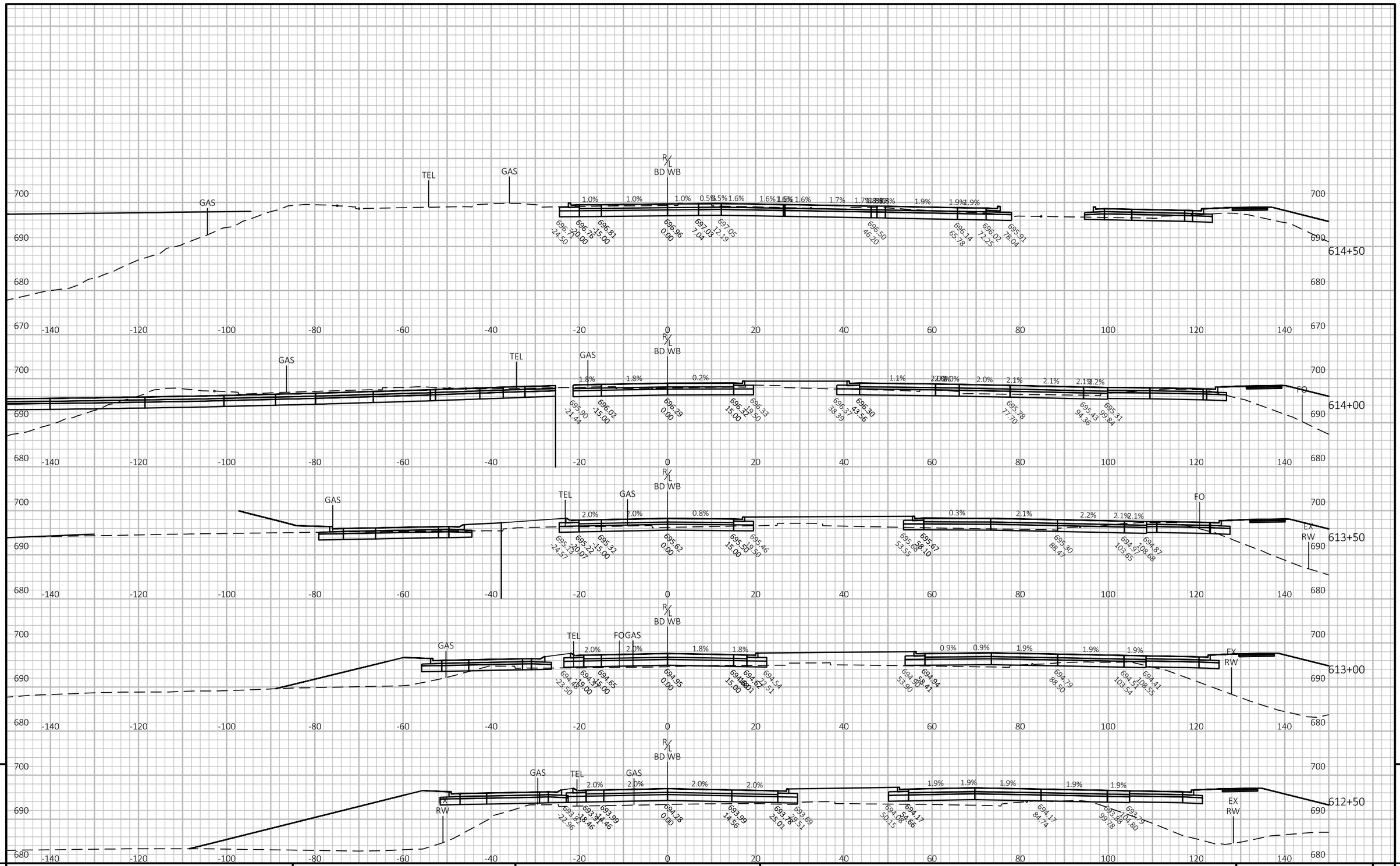
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

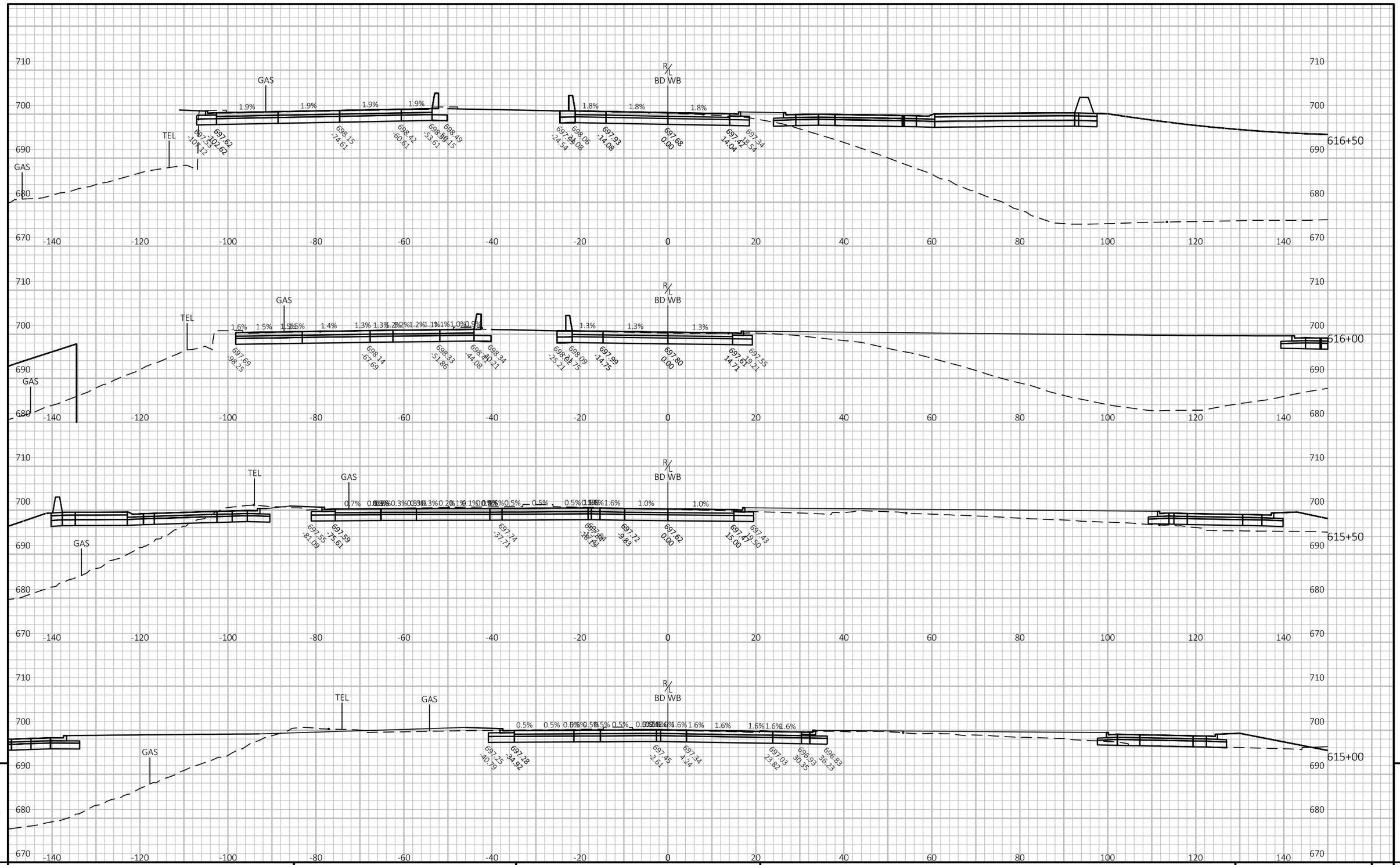
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:56 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:56 AM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



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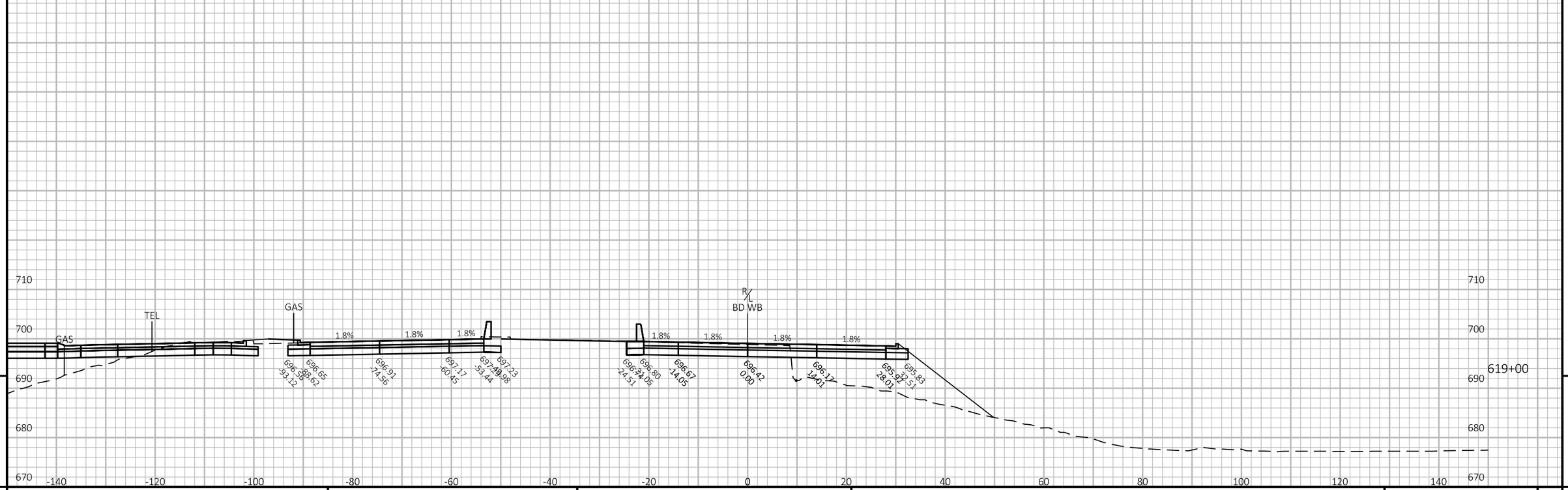
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:57 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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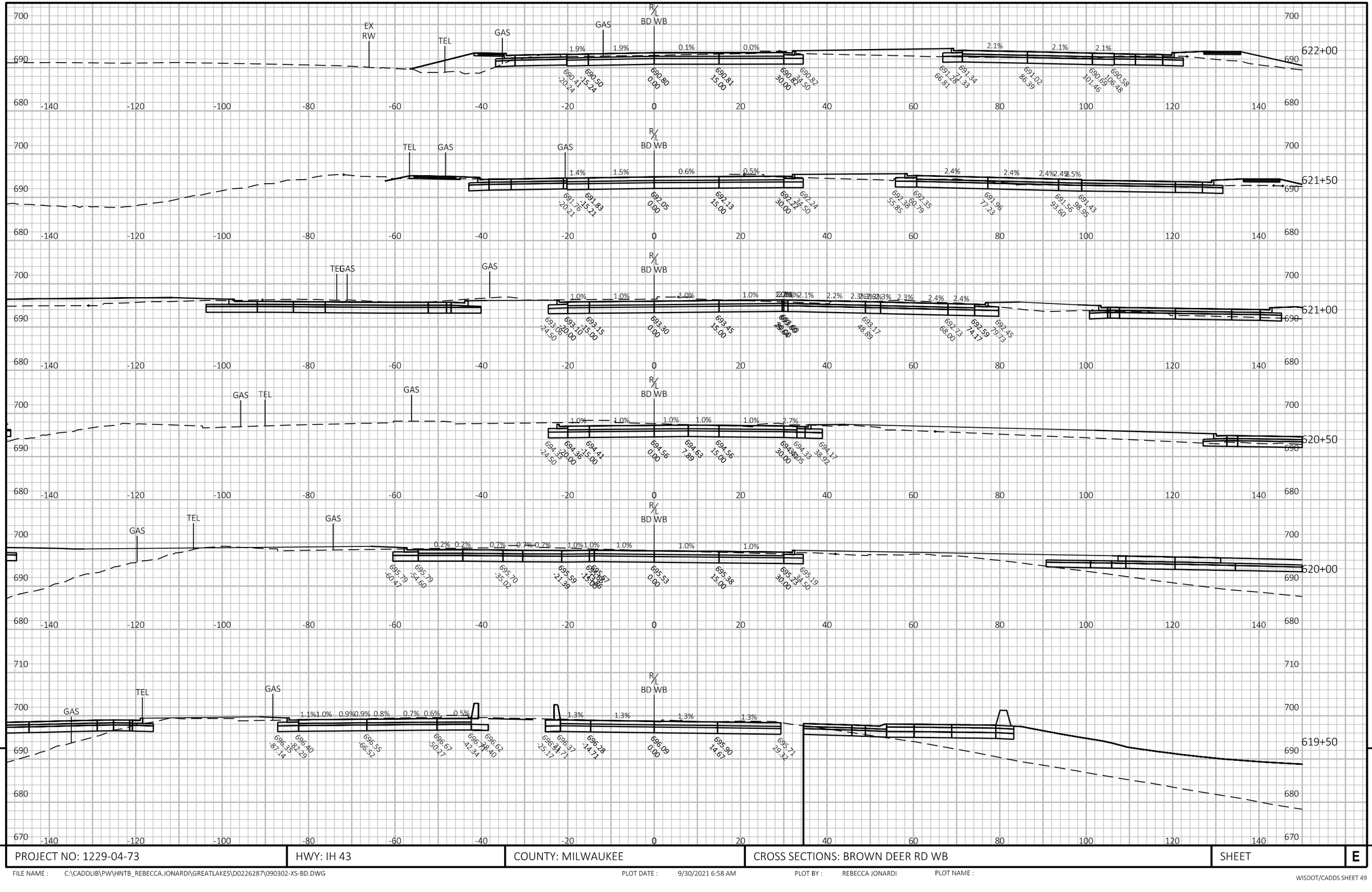
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

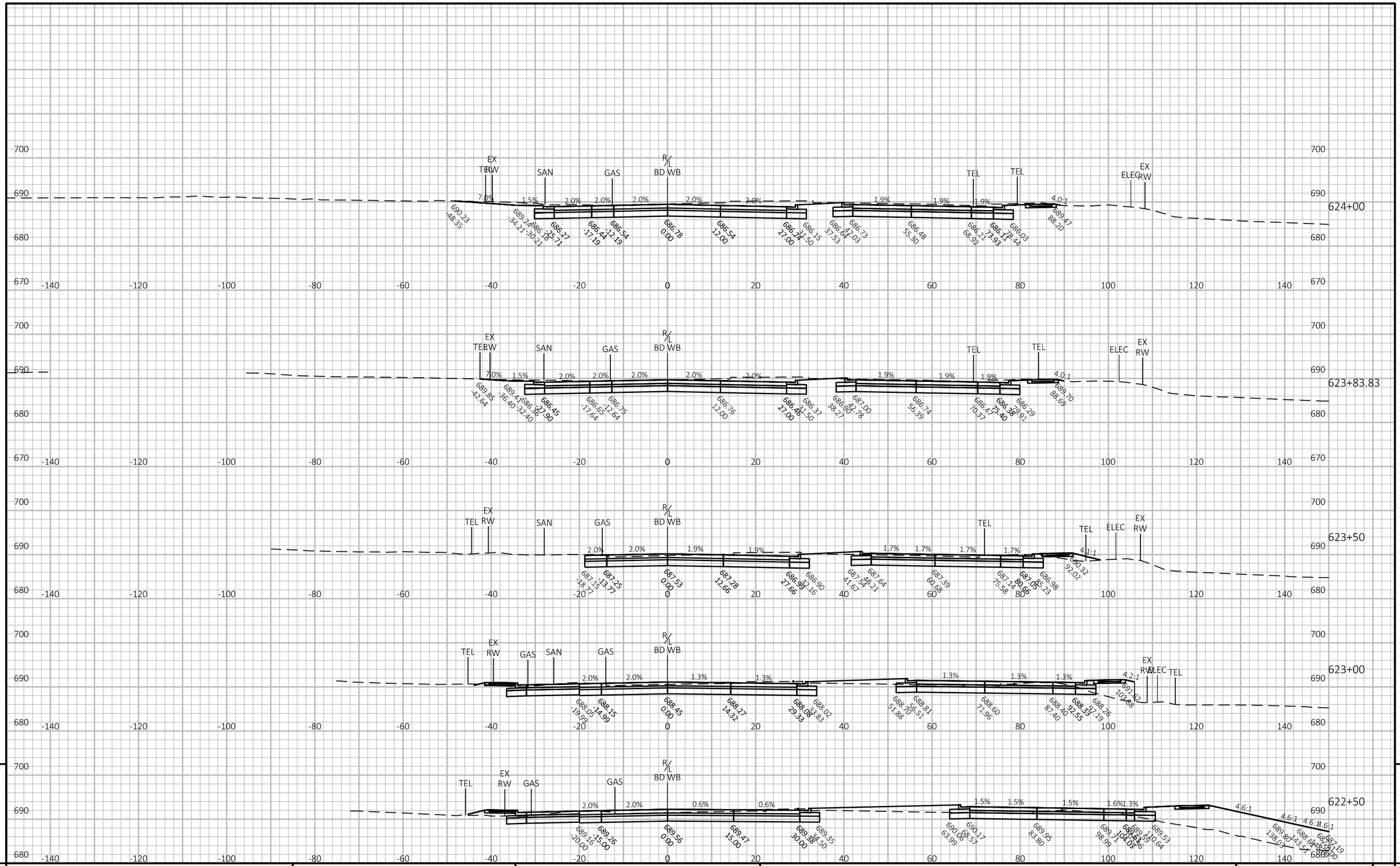
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:58 AM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET E

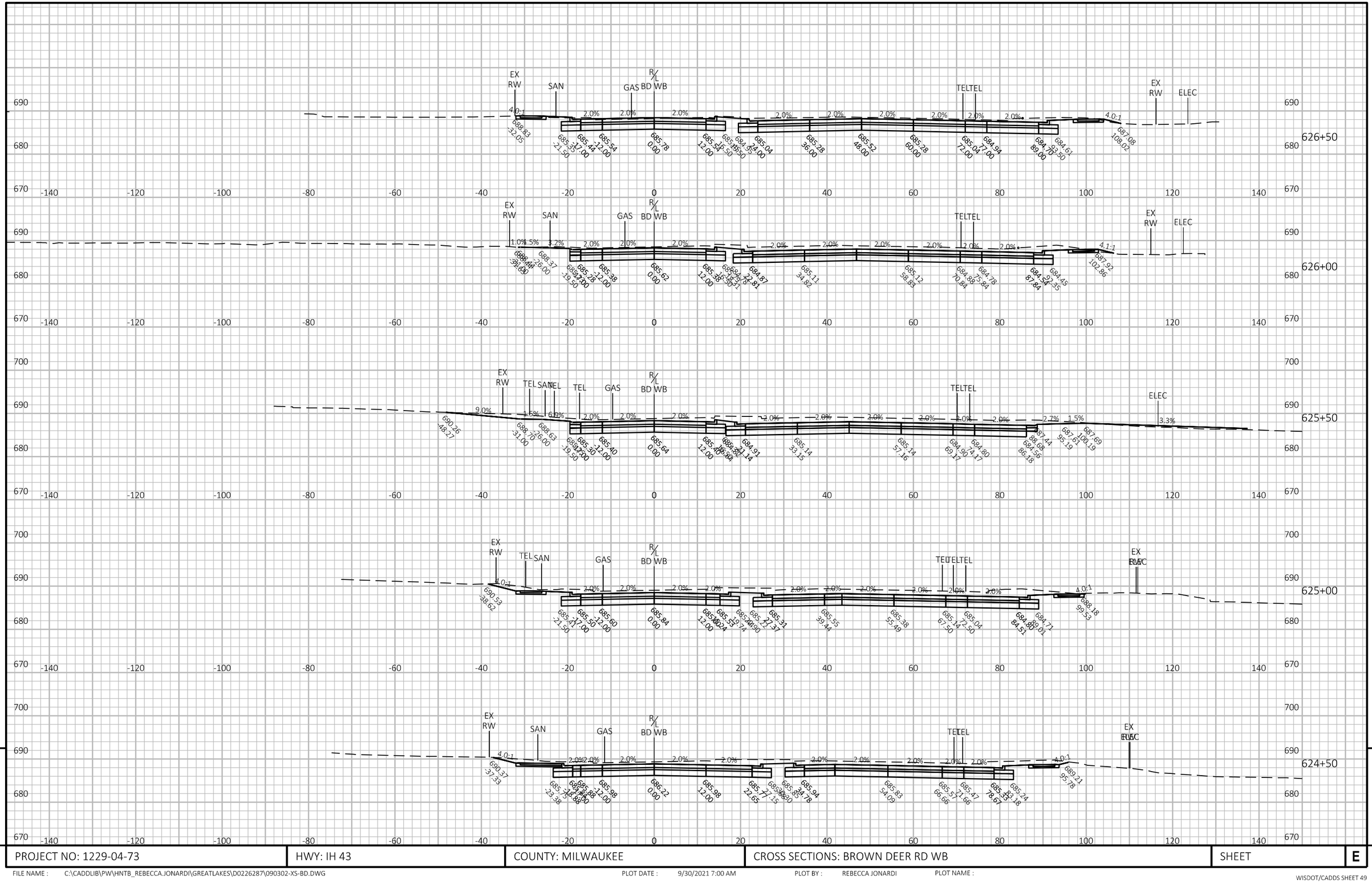
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:58 AM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 6:59 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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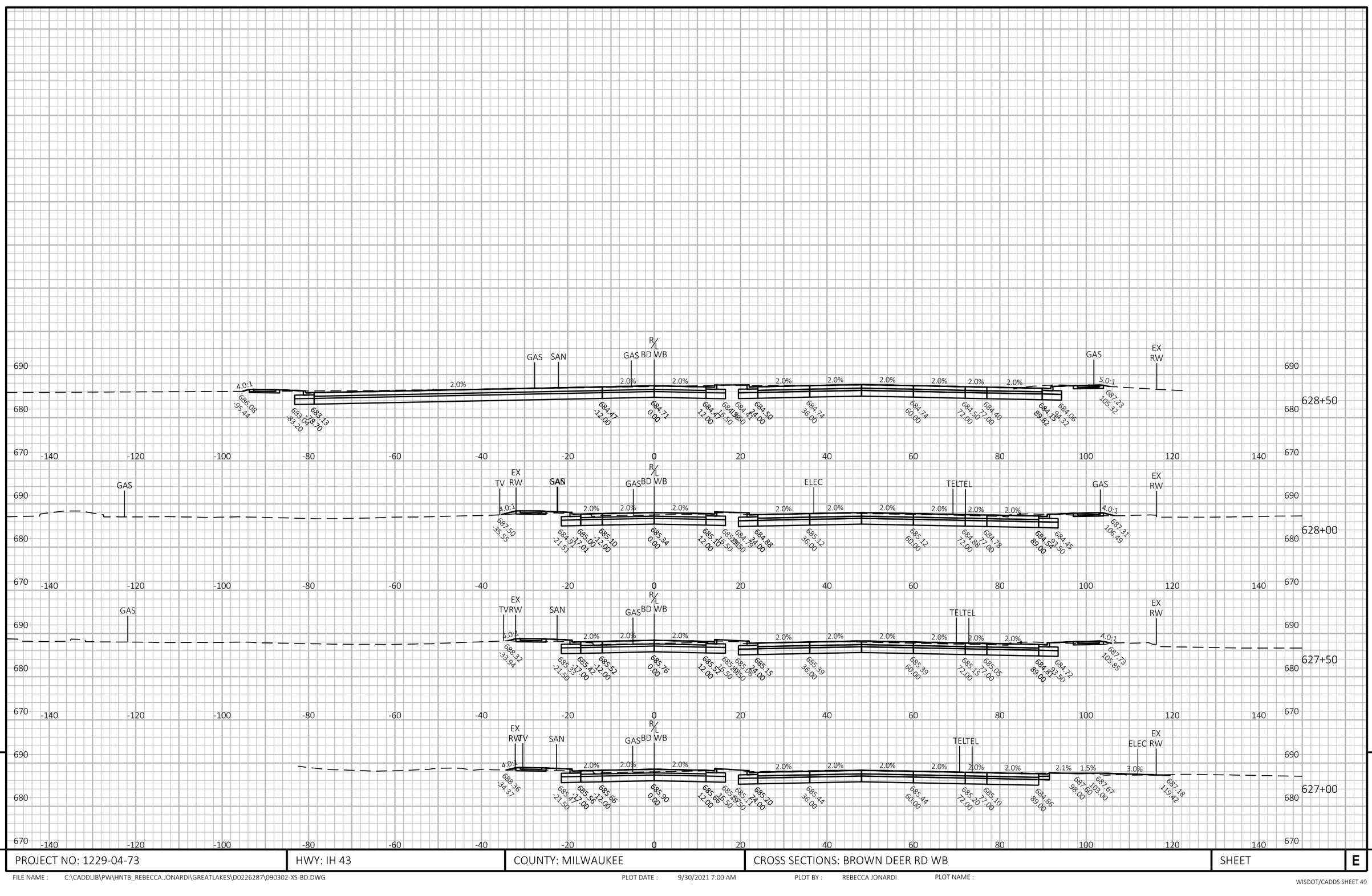
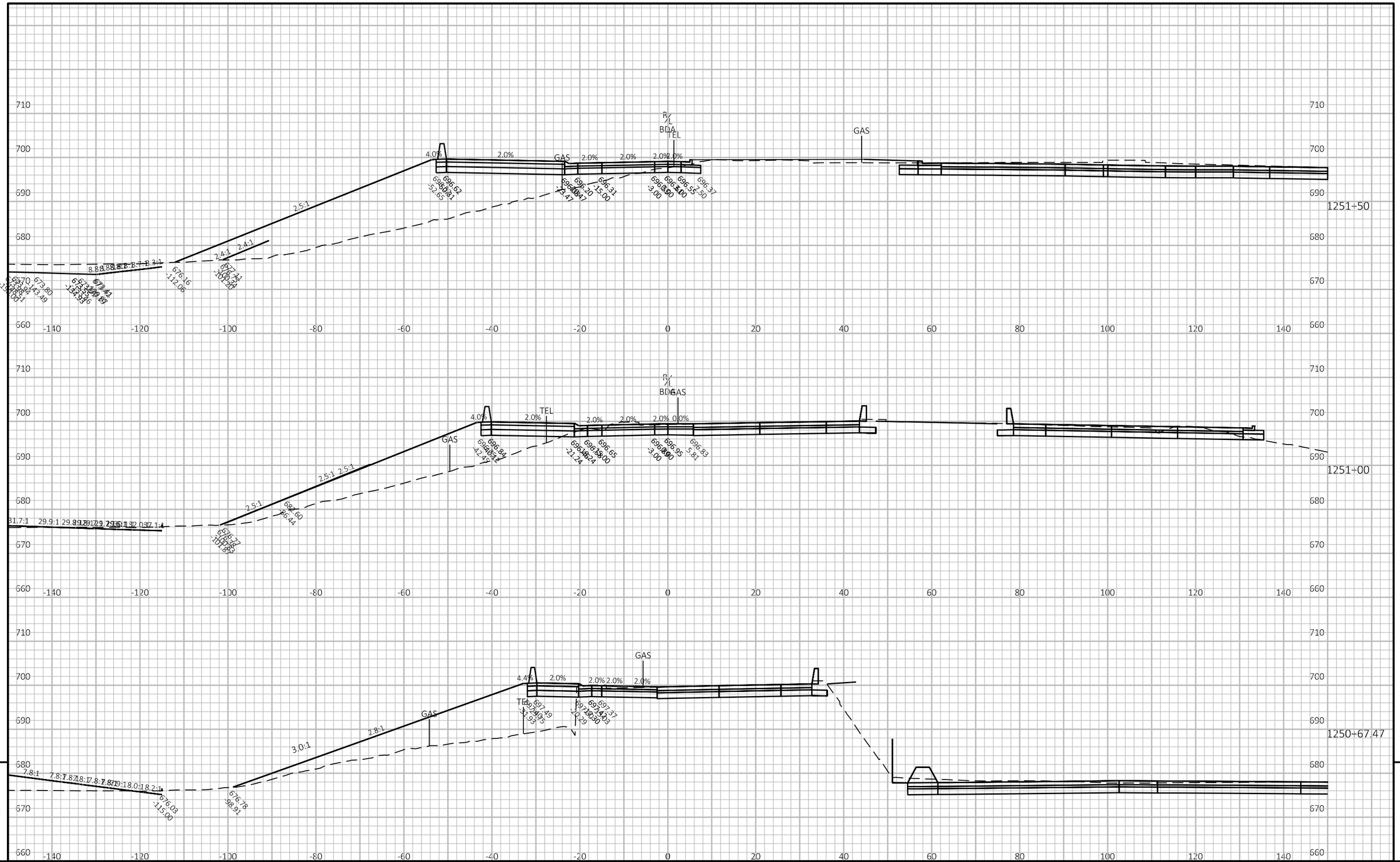
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BD.DWG PLOT DATE : 9/30/2021 7:00 AM PLOT BY : REBECCA JONARDI PLOT NAME :



9	PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD WB	SHEET E



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET E

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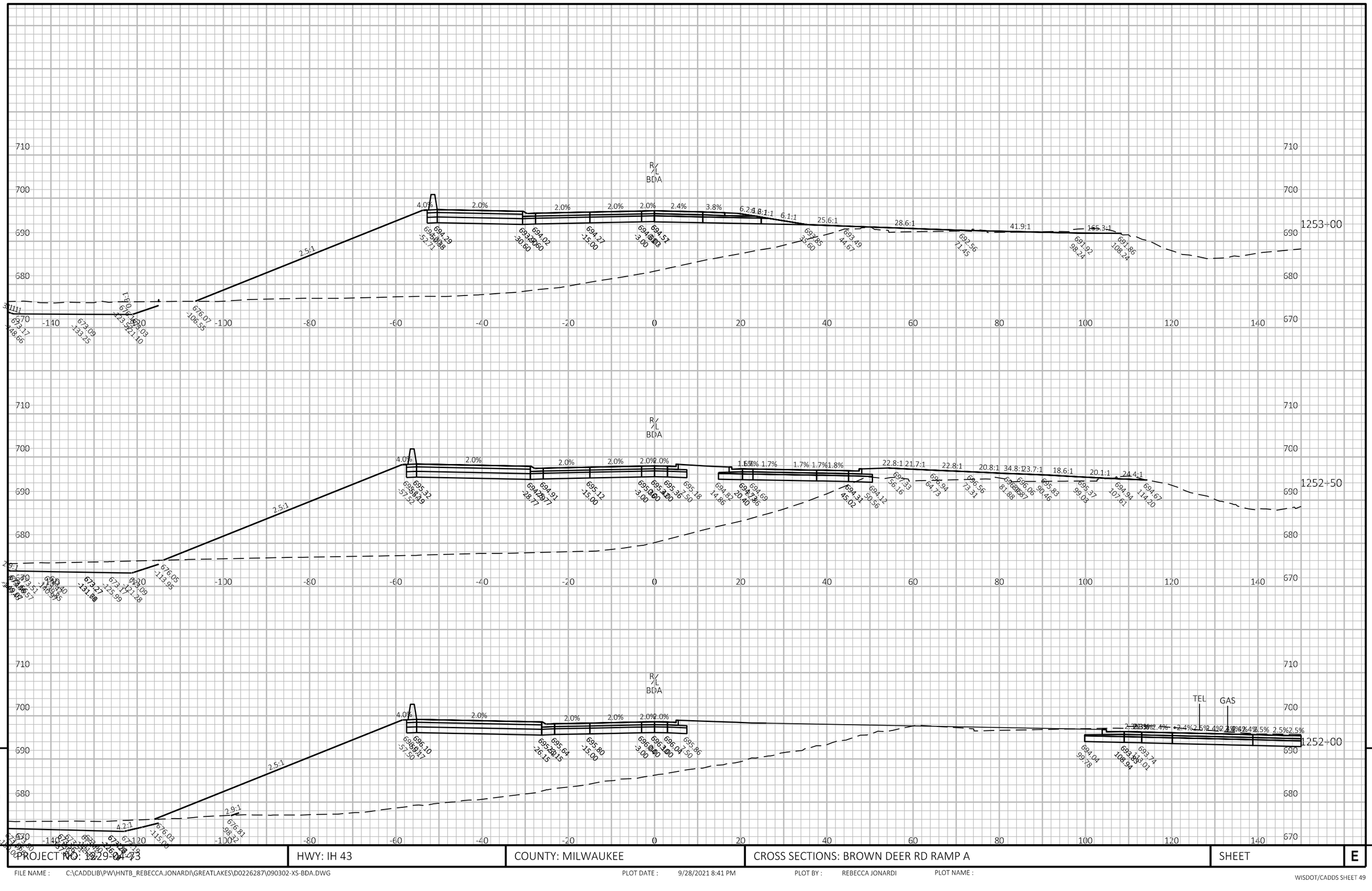

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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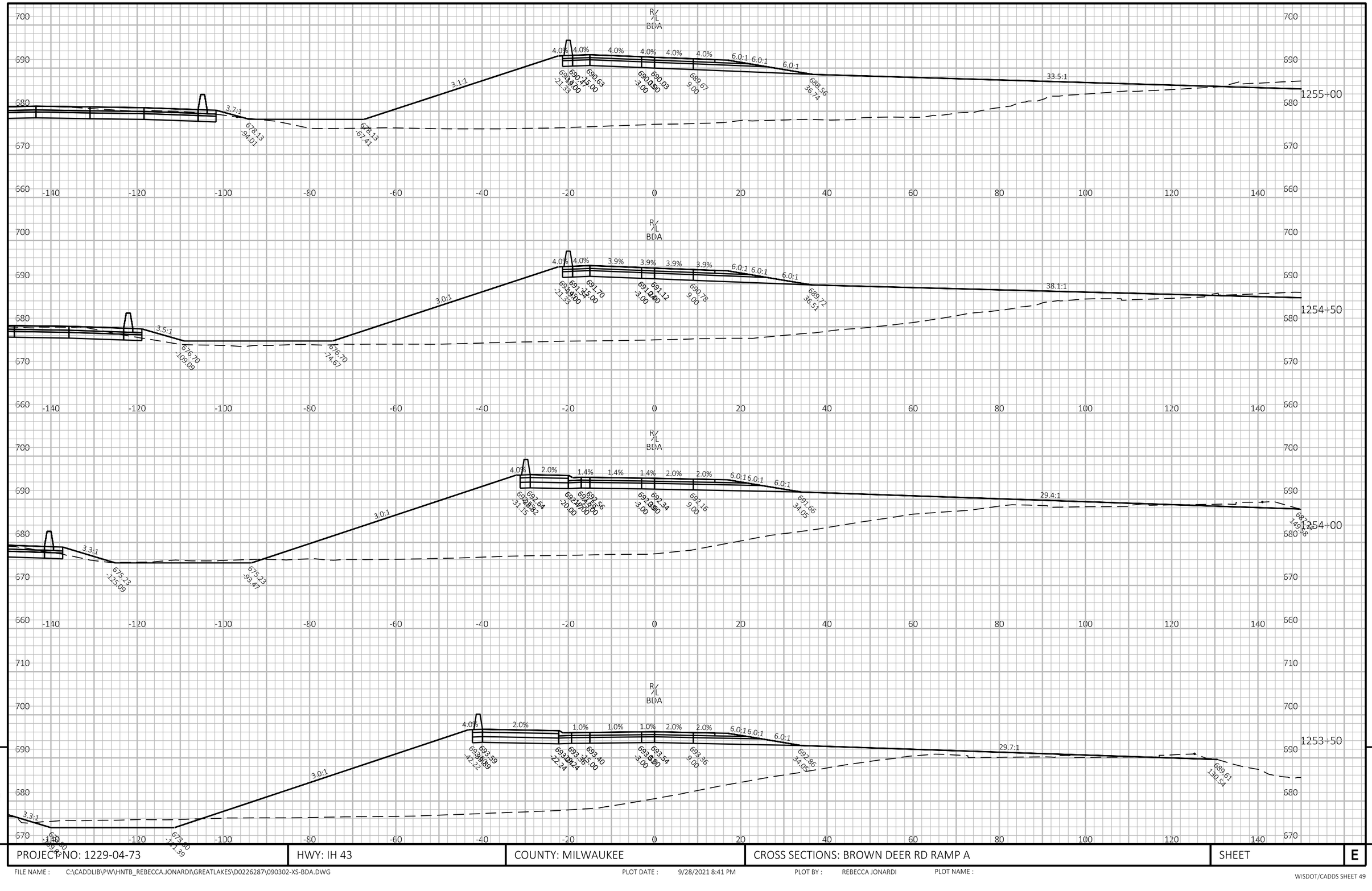
WISDOT/CADDS SHEET 49



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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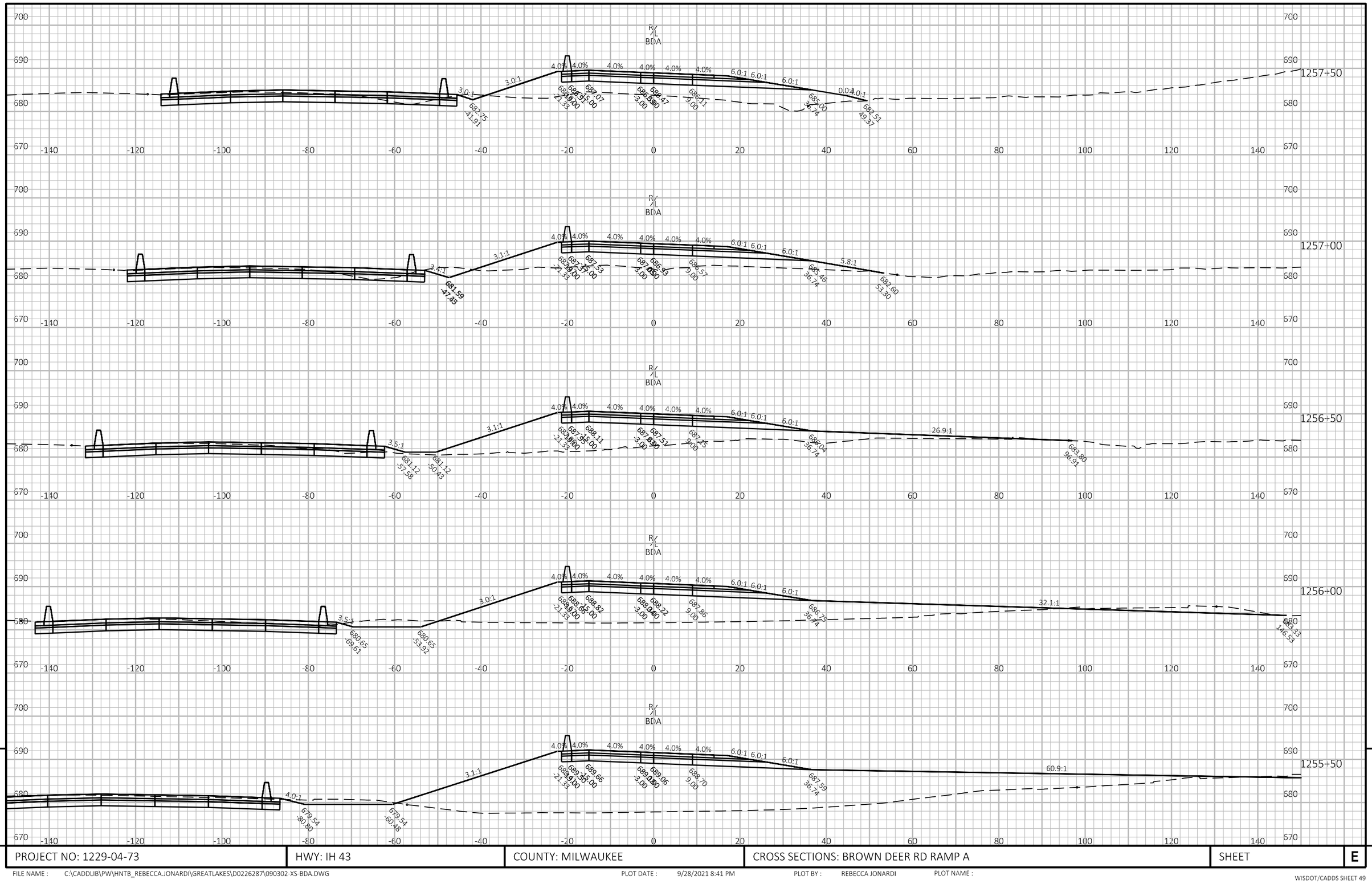
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDA.DWG PLOT DATE : 9/28/2021 8:41 PM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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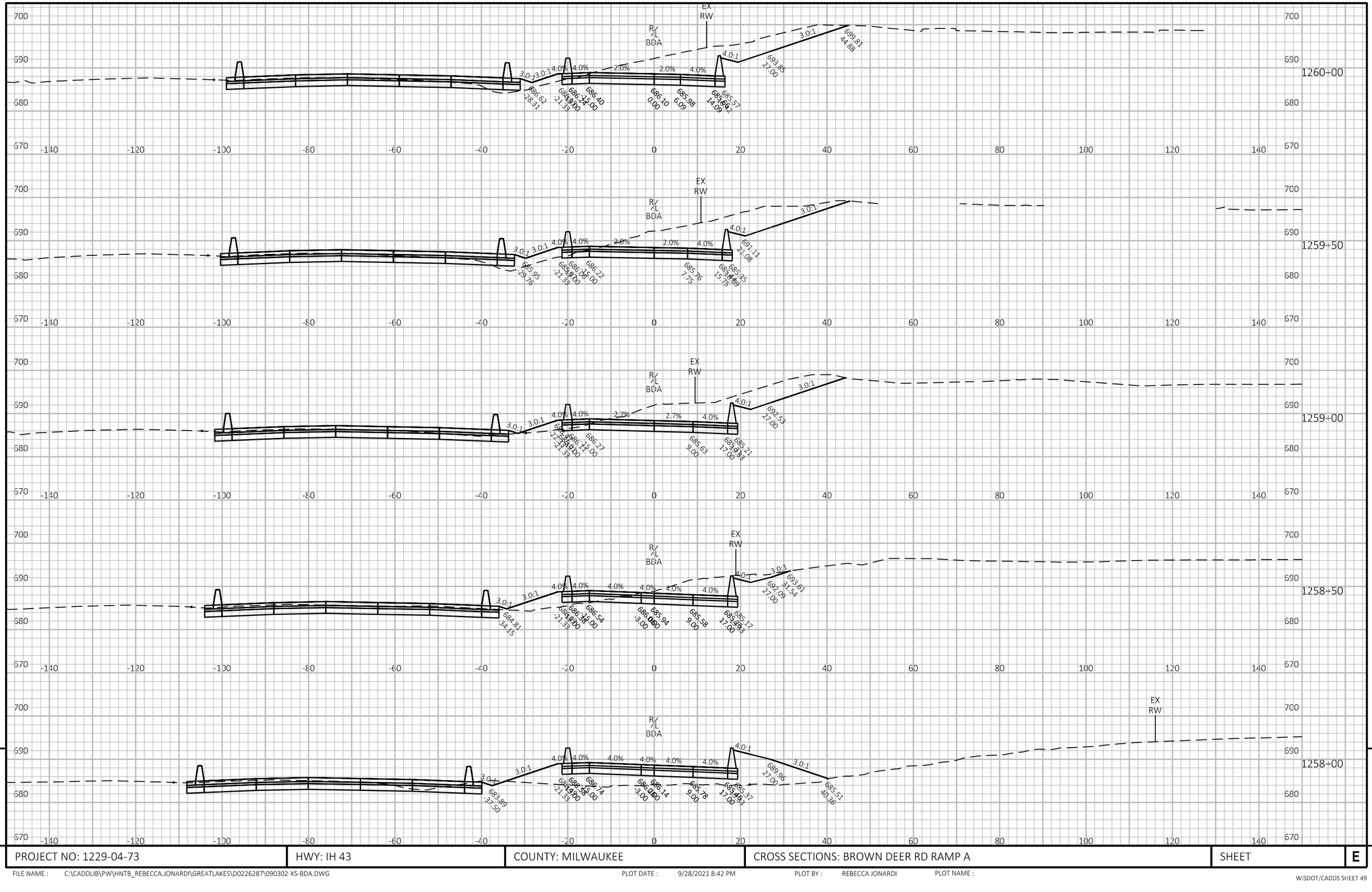

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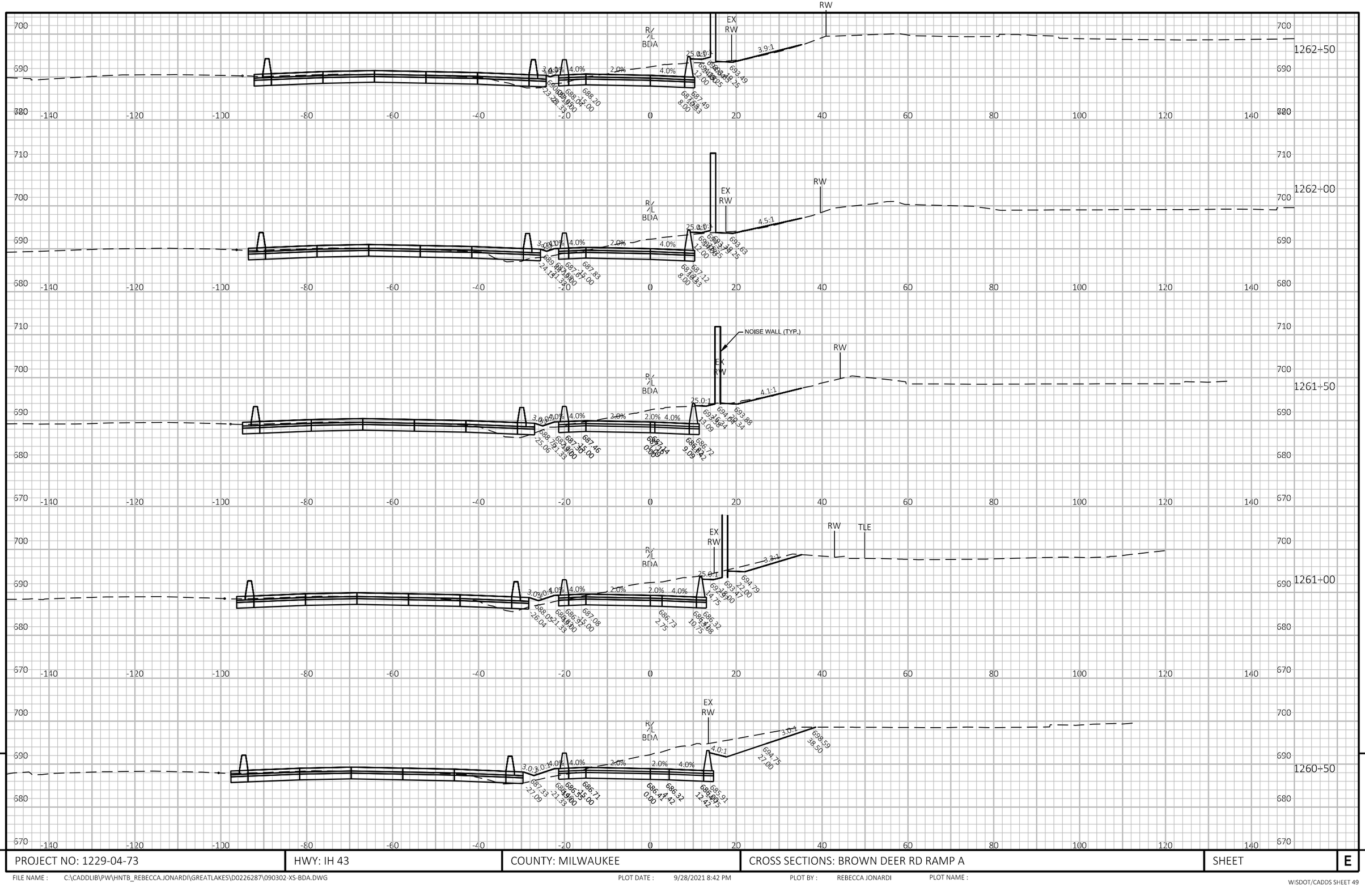
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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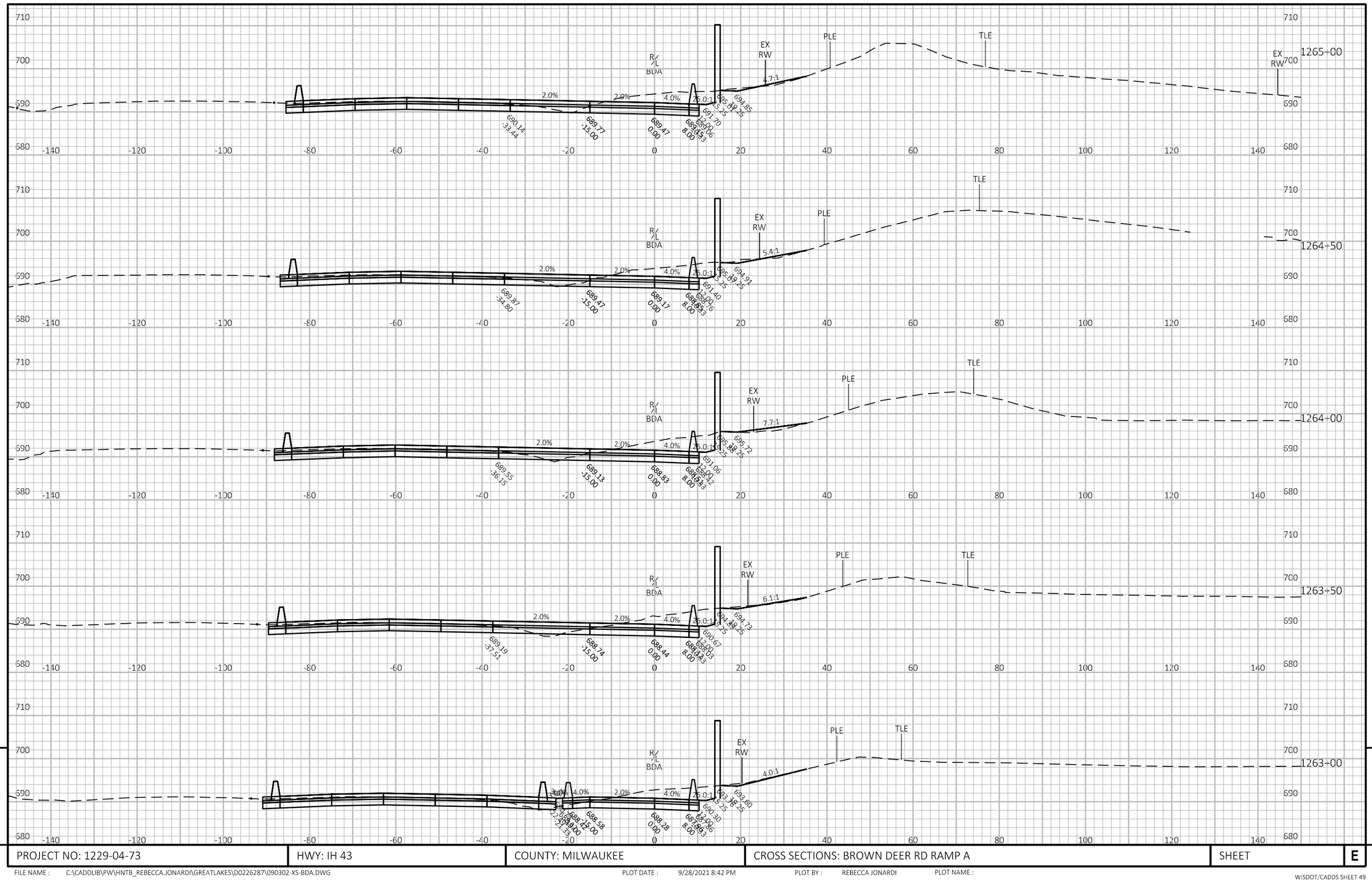

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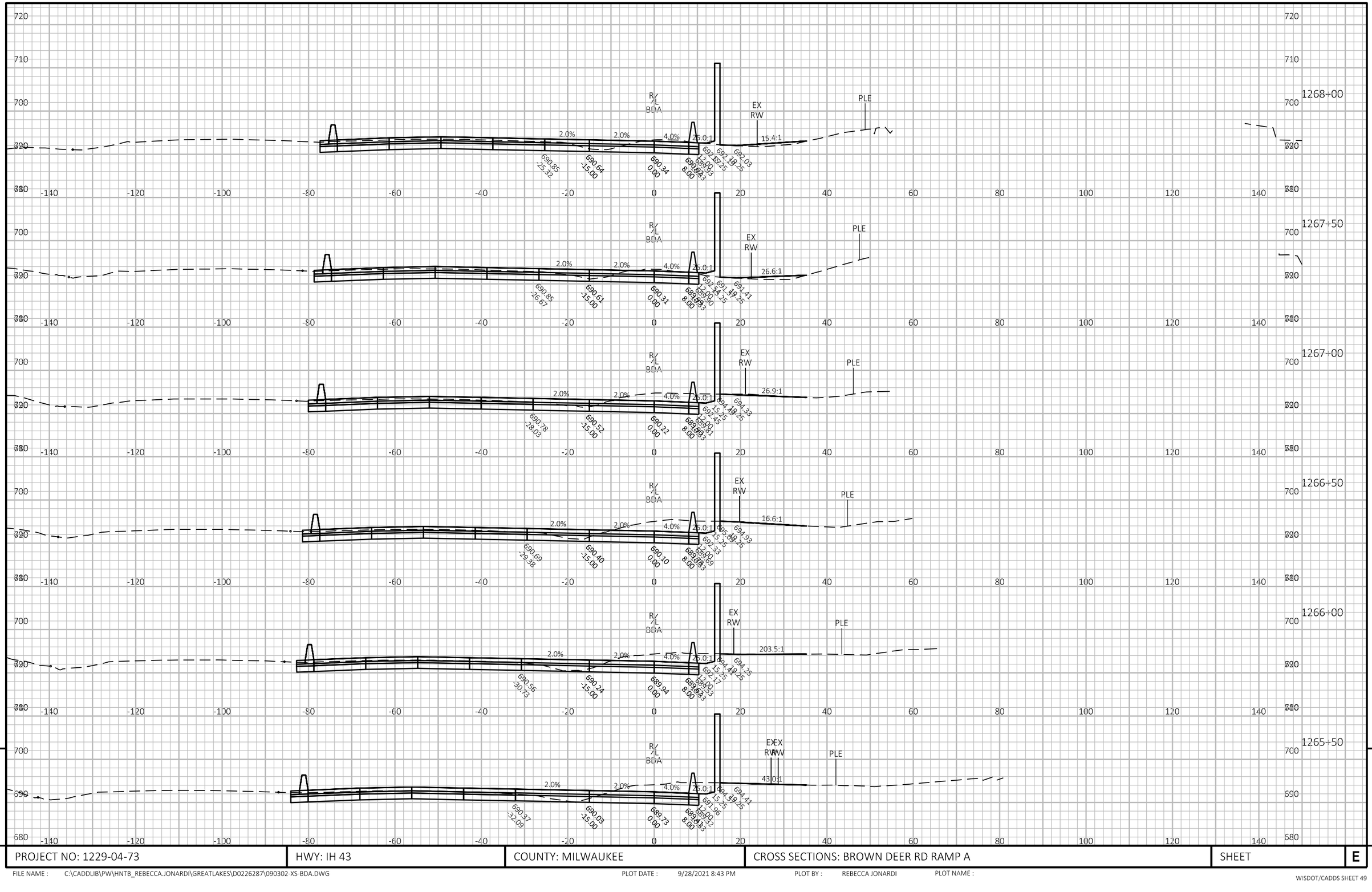
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDA.DWG PLOT DATE : 9/28/2021 8:42 PM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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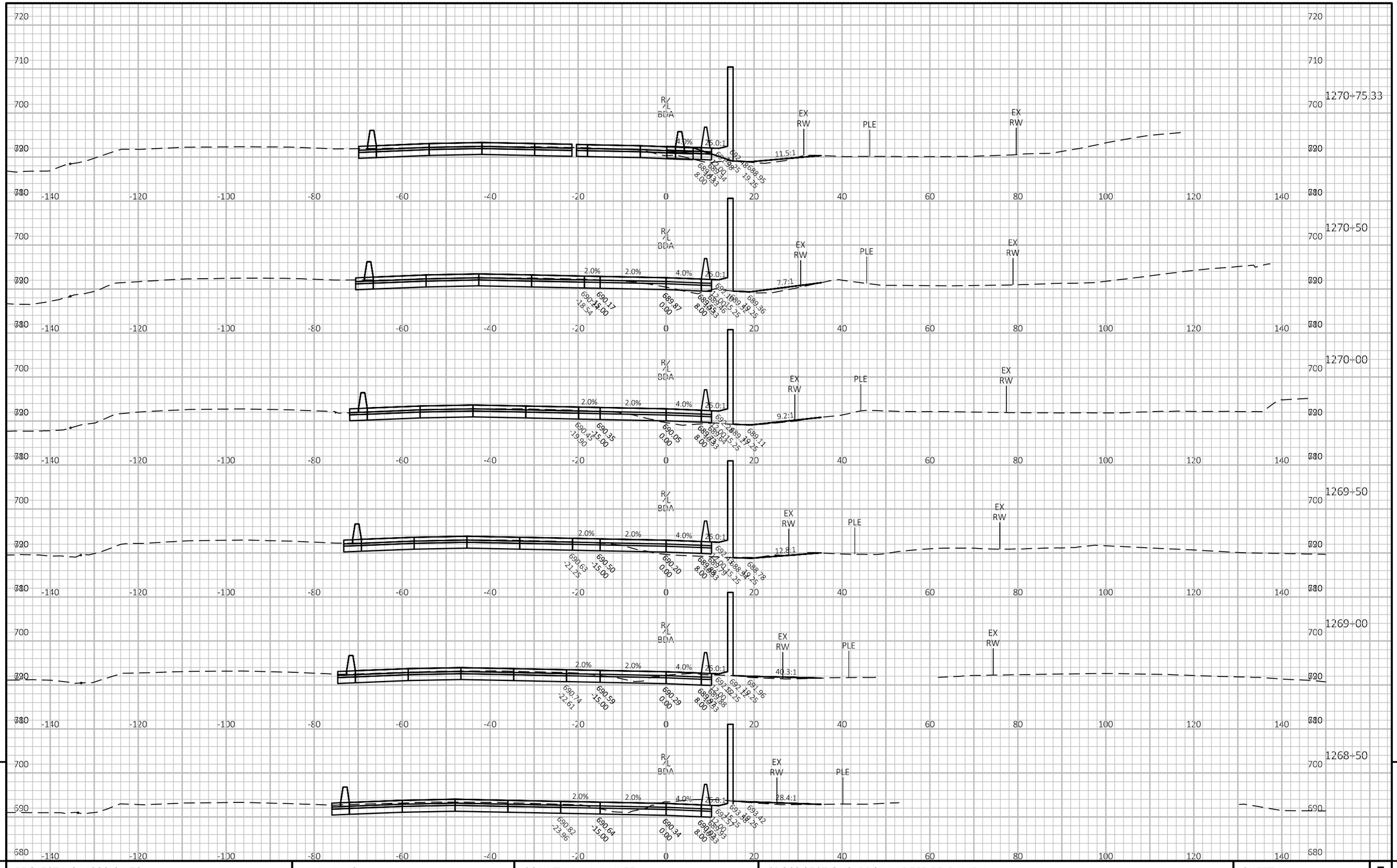
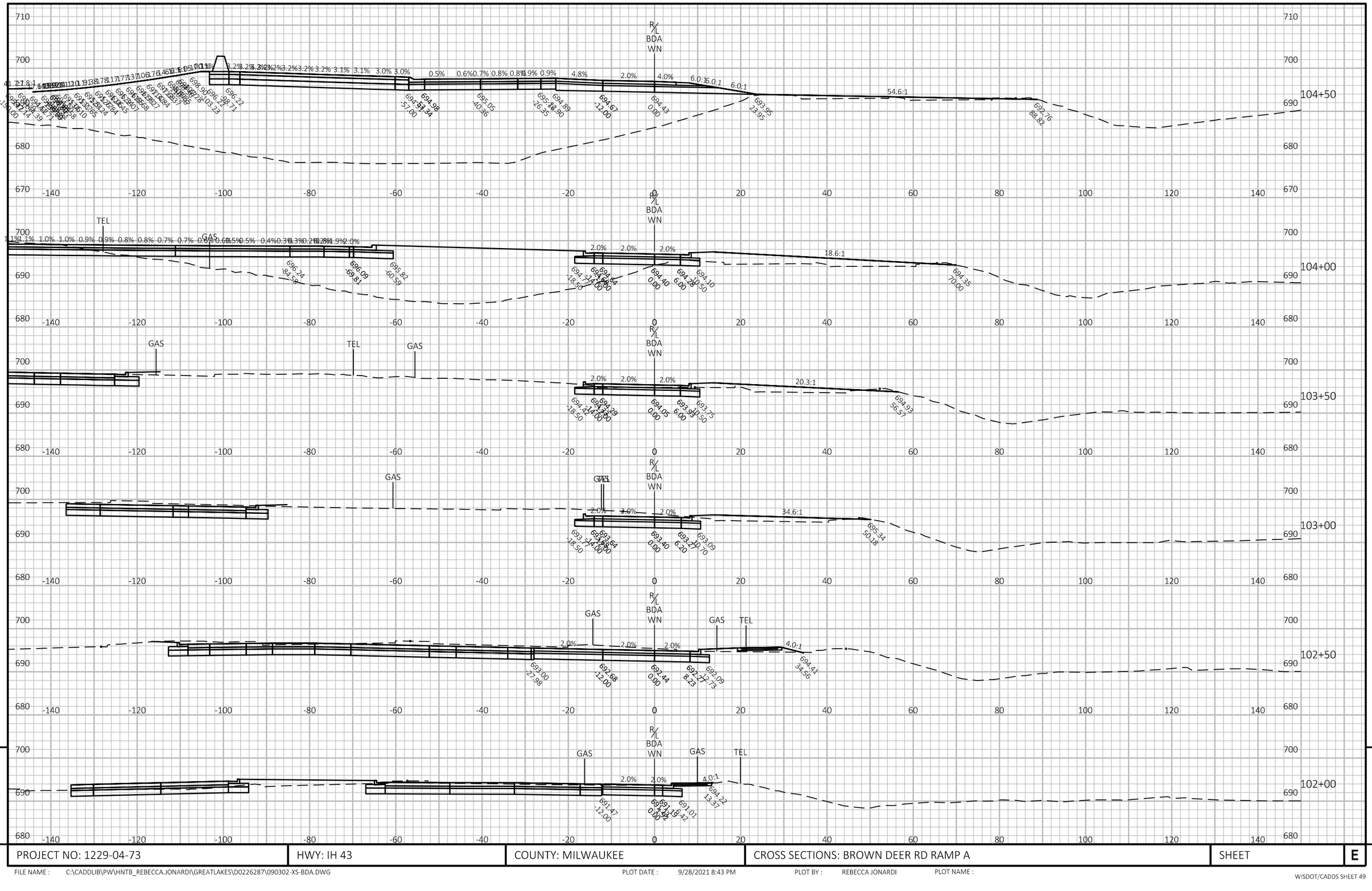


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDA.DWG PLOT DATE : 9/28/2021 8:43 PM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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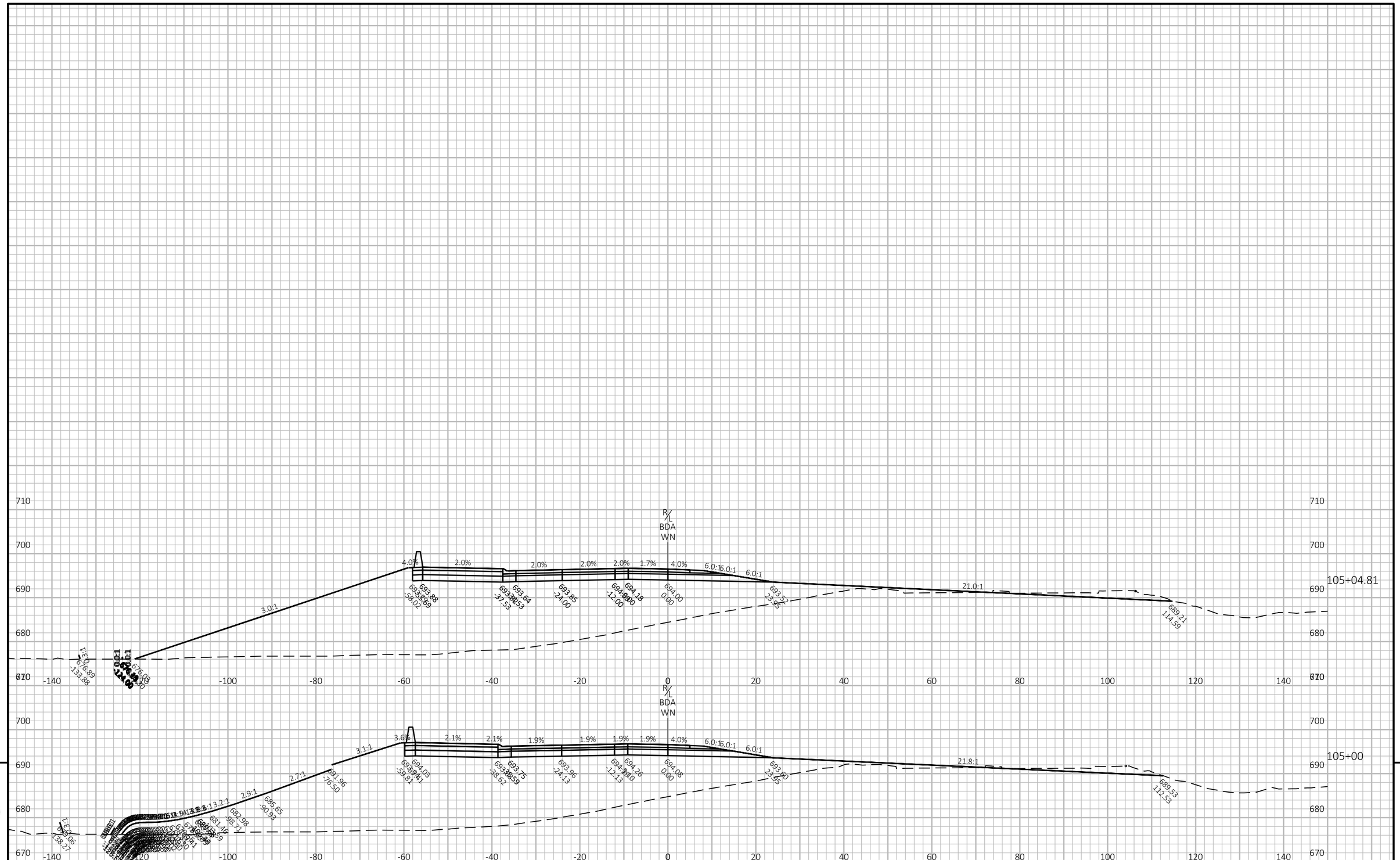

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP A	SHEET	E

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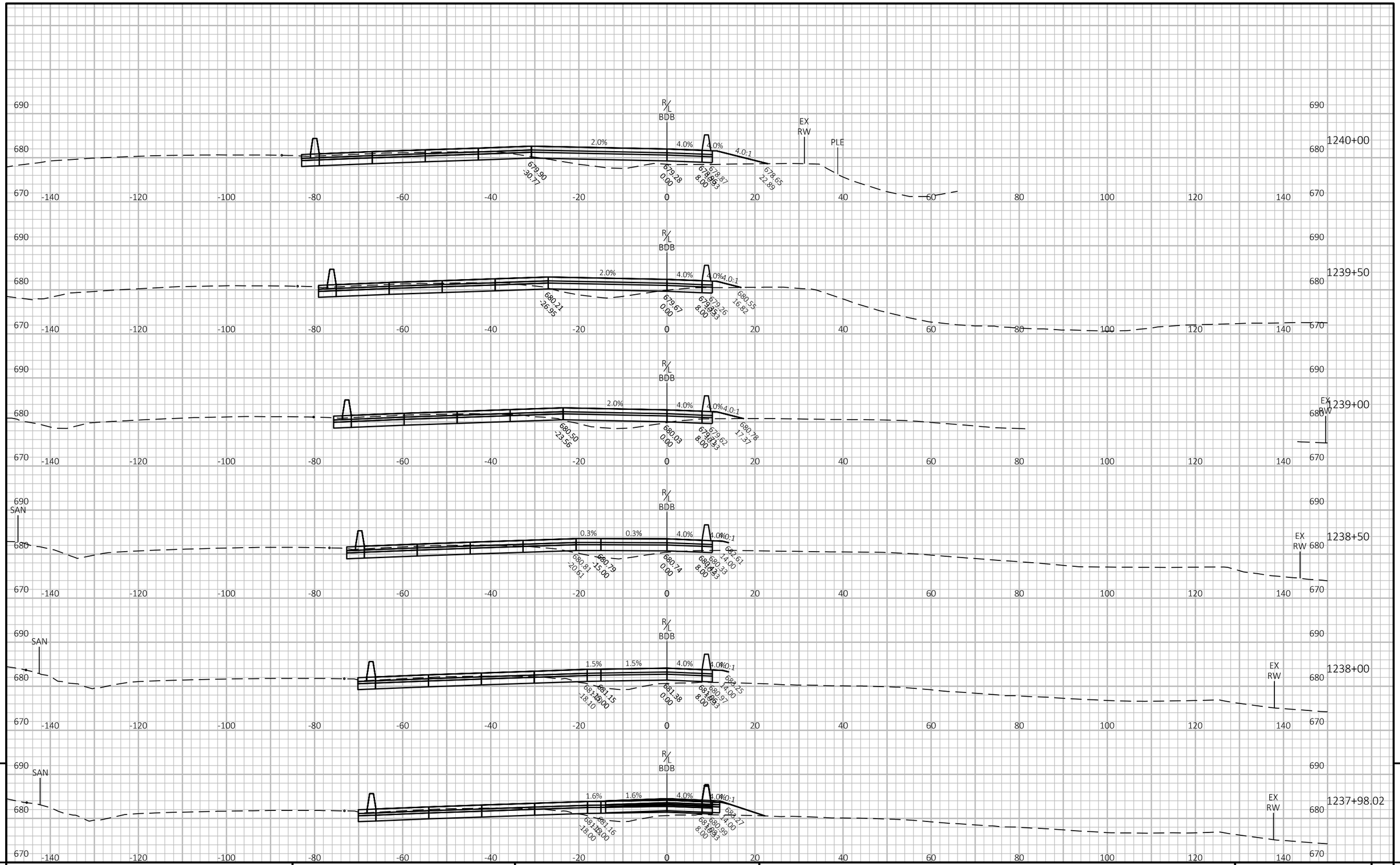

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET	E

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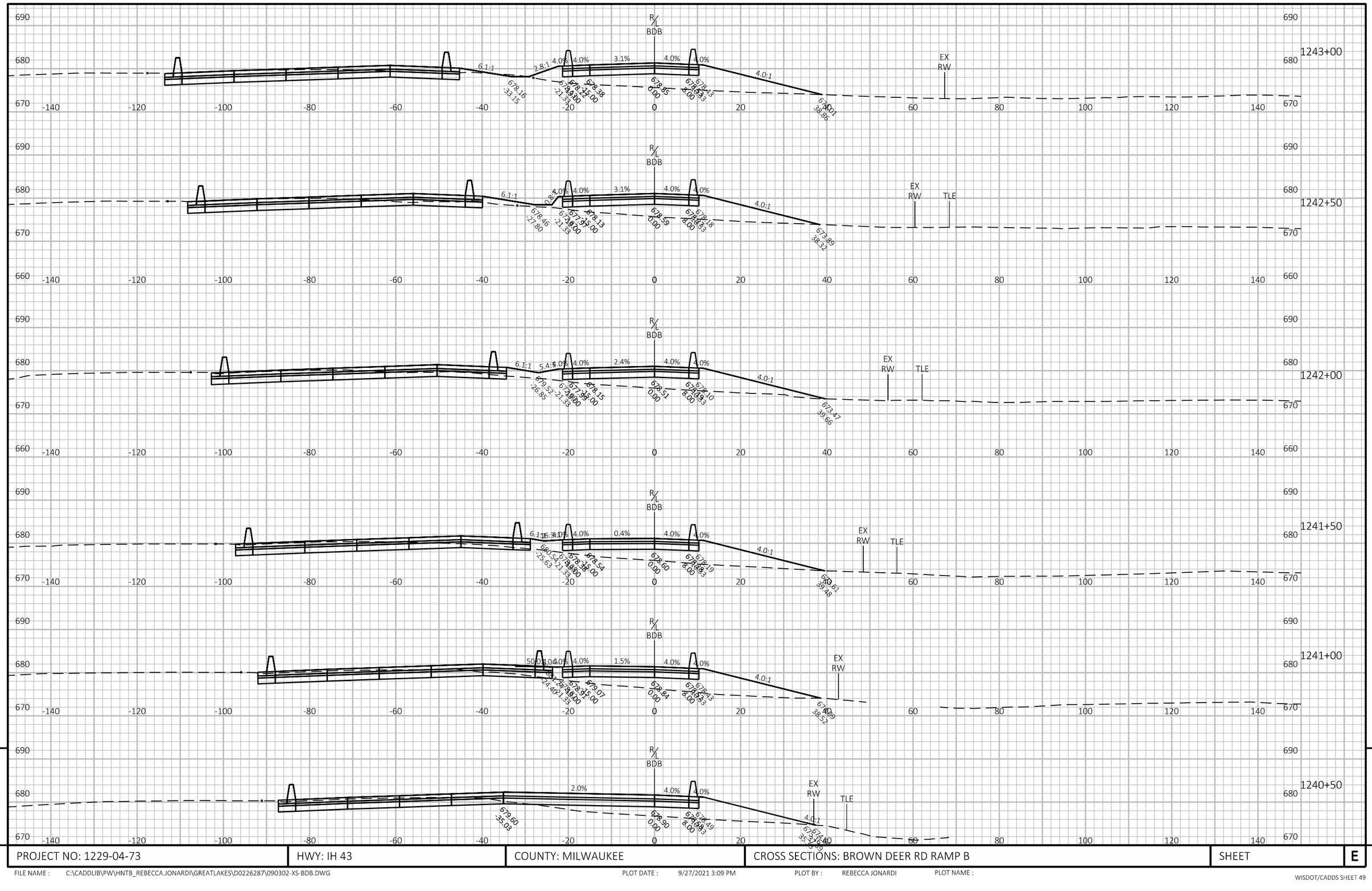

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET	E

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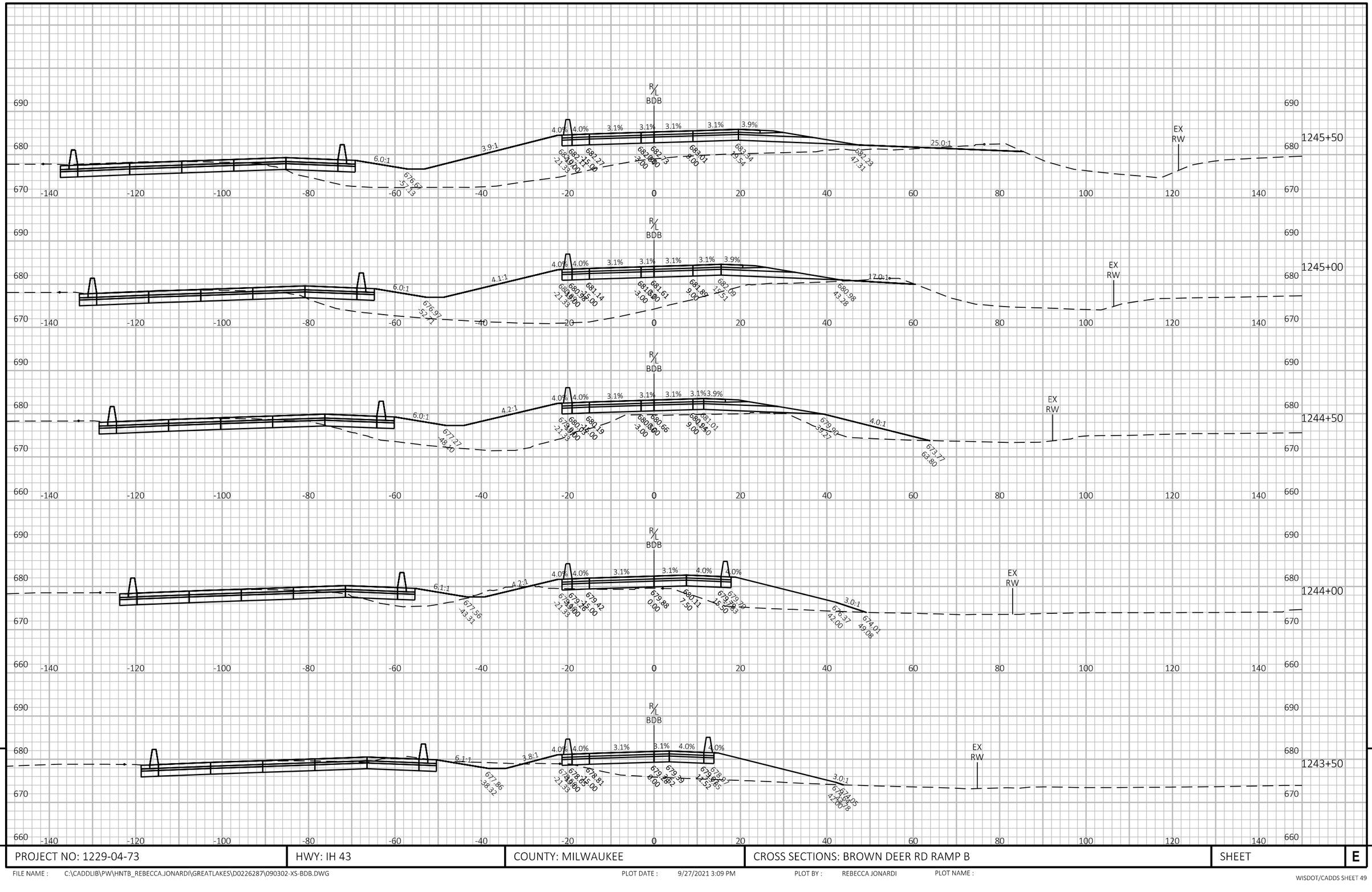
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1244+50
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4.2:1
3.8:1
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3.0:1
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17.0:1
4.0%
3.1%
3.9%
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51.13
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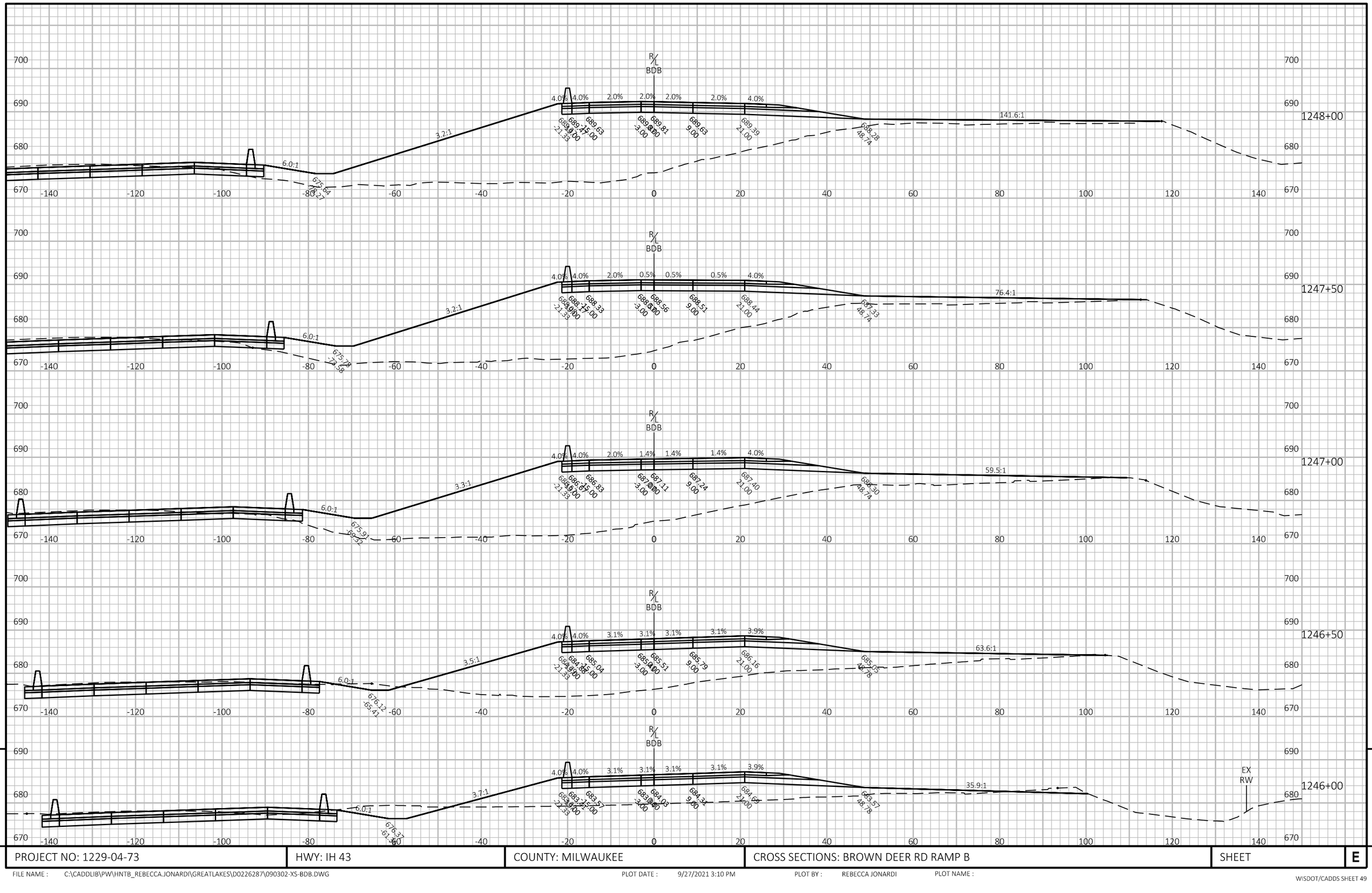

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET E

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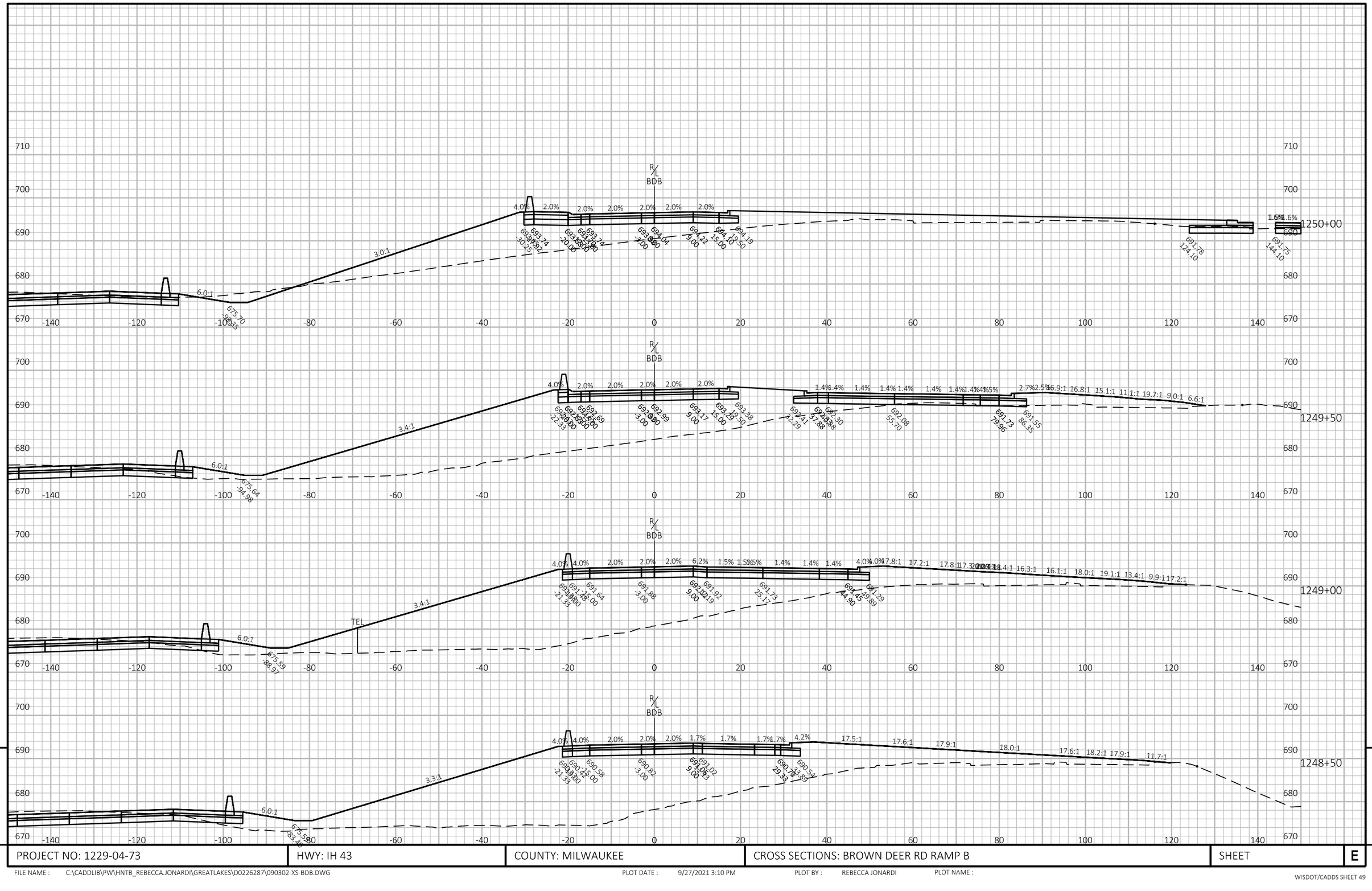

9	PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET E	9

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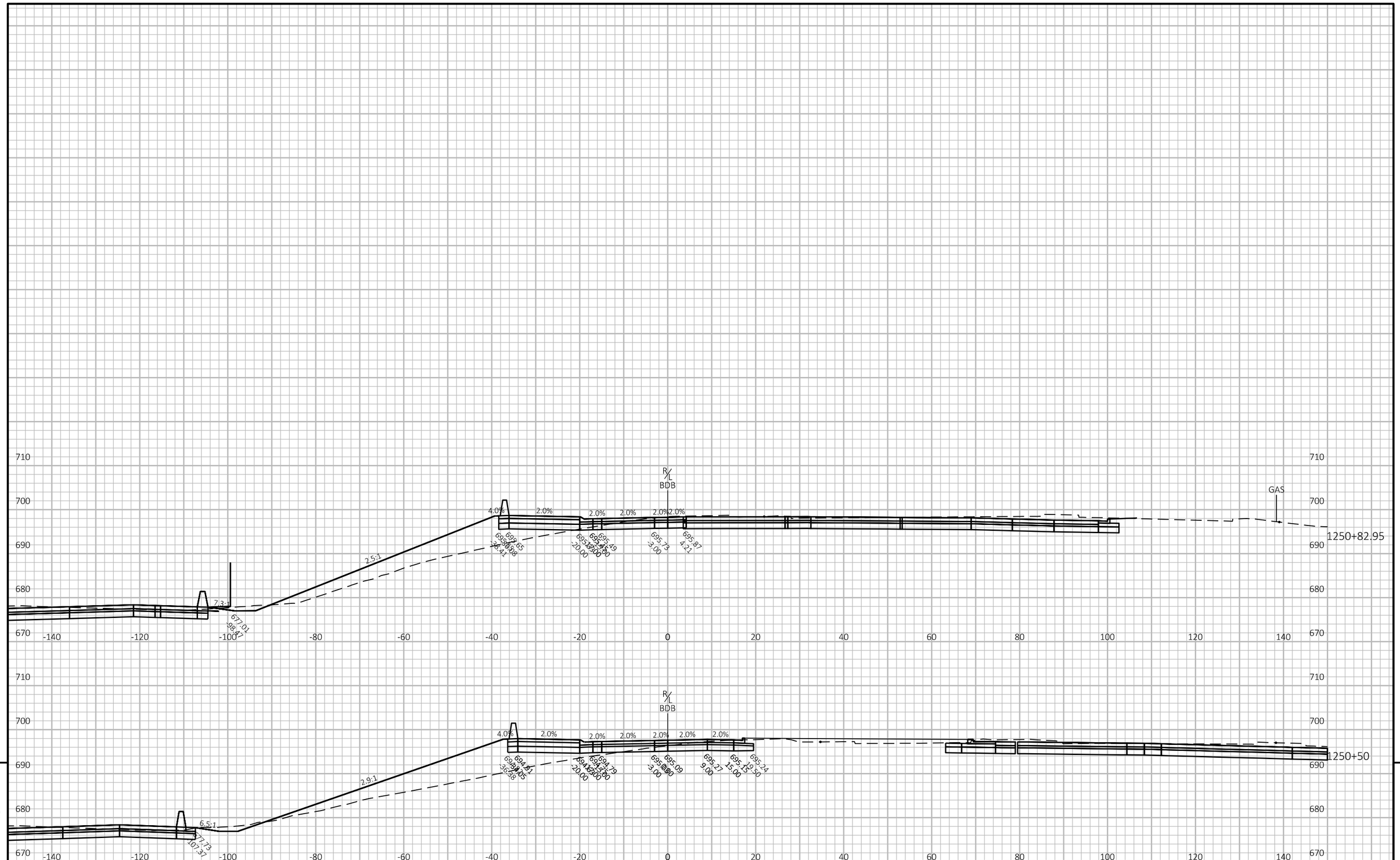

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET	E

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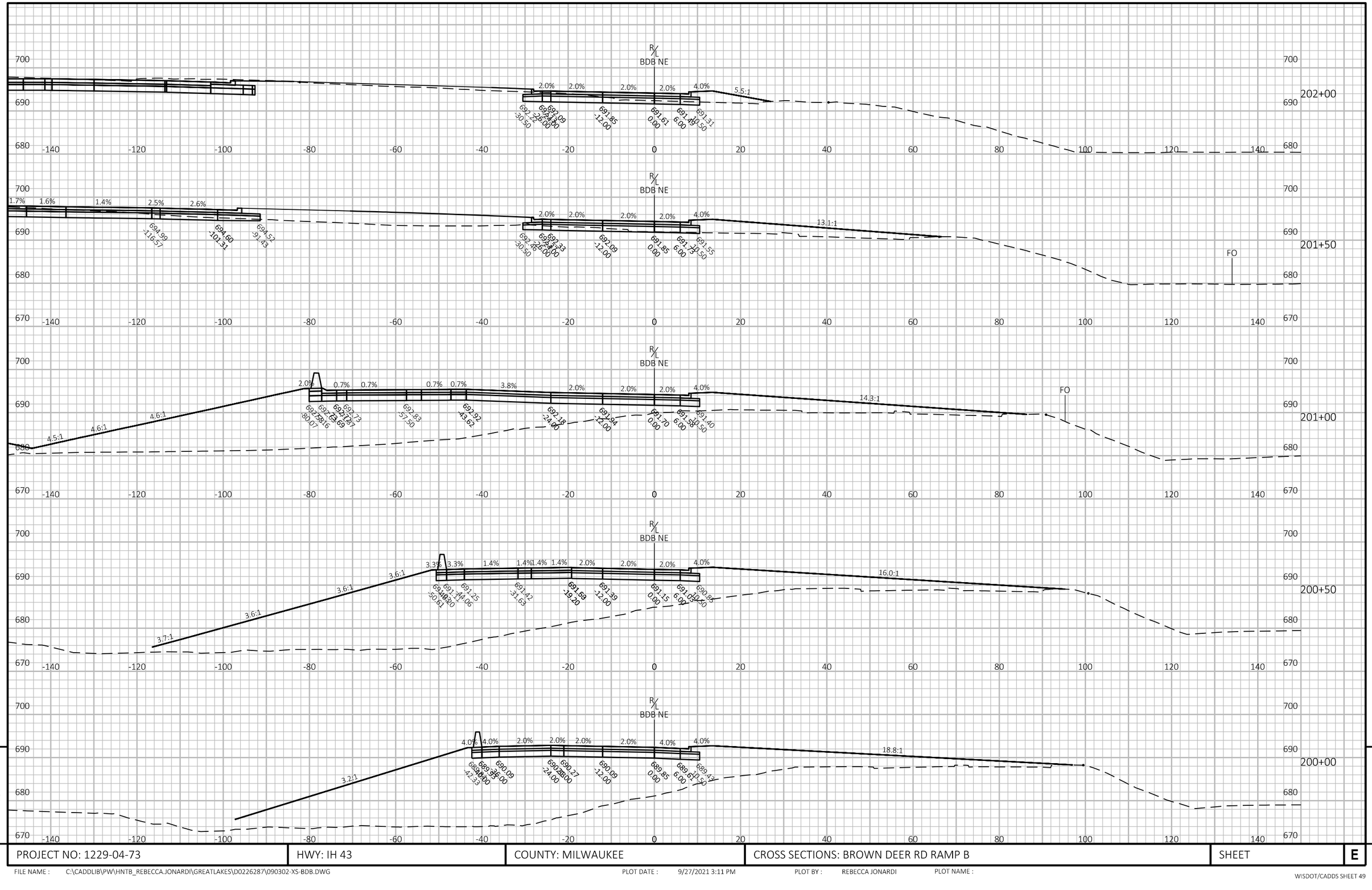
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201+50
201+00
200+50
200+00
FO
FO
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1.4%
2.5%
2.6%
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-116.57
694.60
-101.31
694.52
-91.43
2.0%
0.7%
3.8%
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4.5:1
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3.7:1
3.6:1
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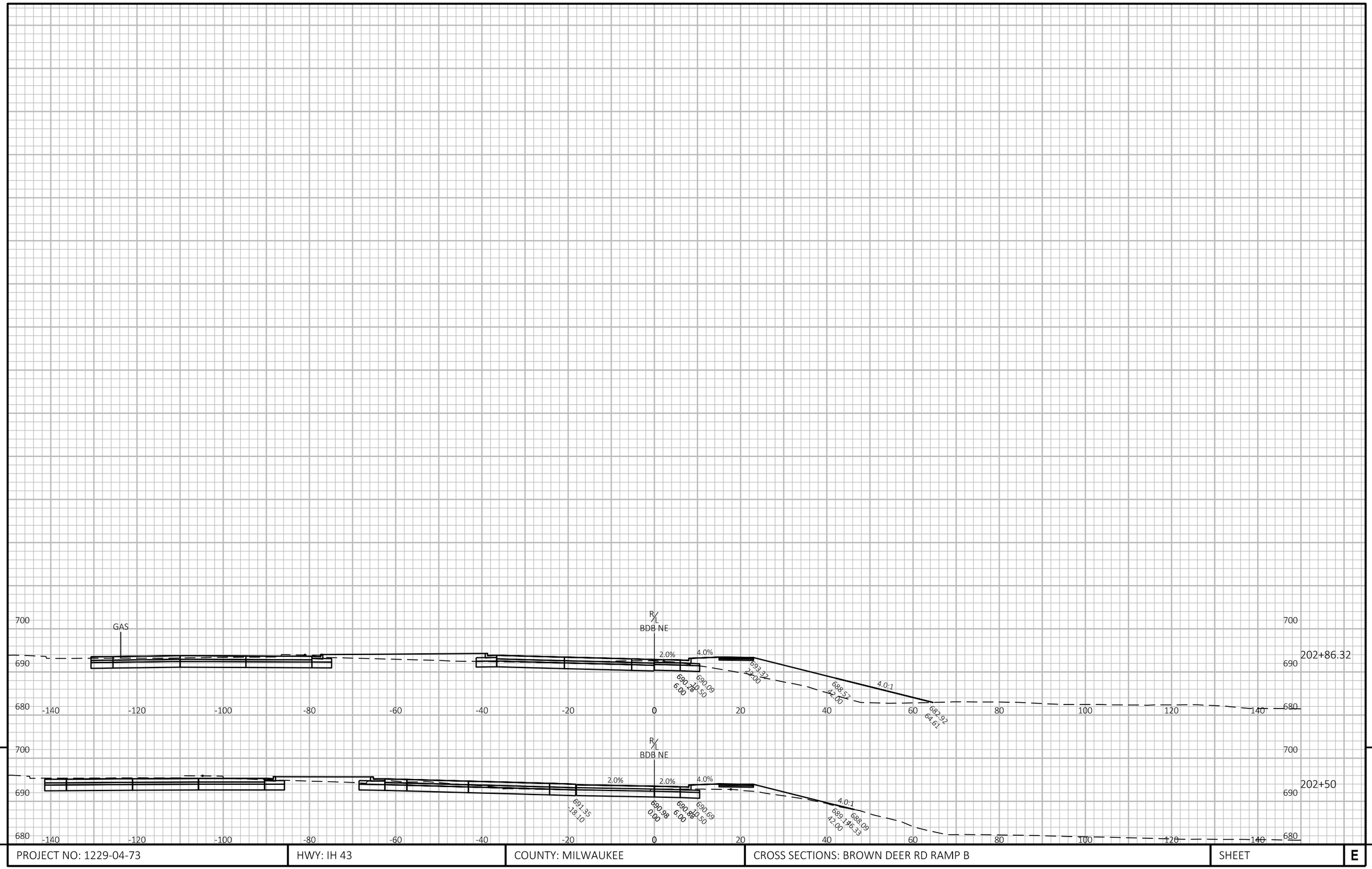

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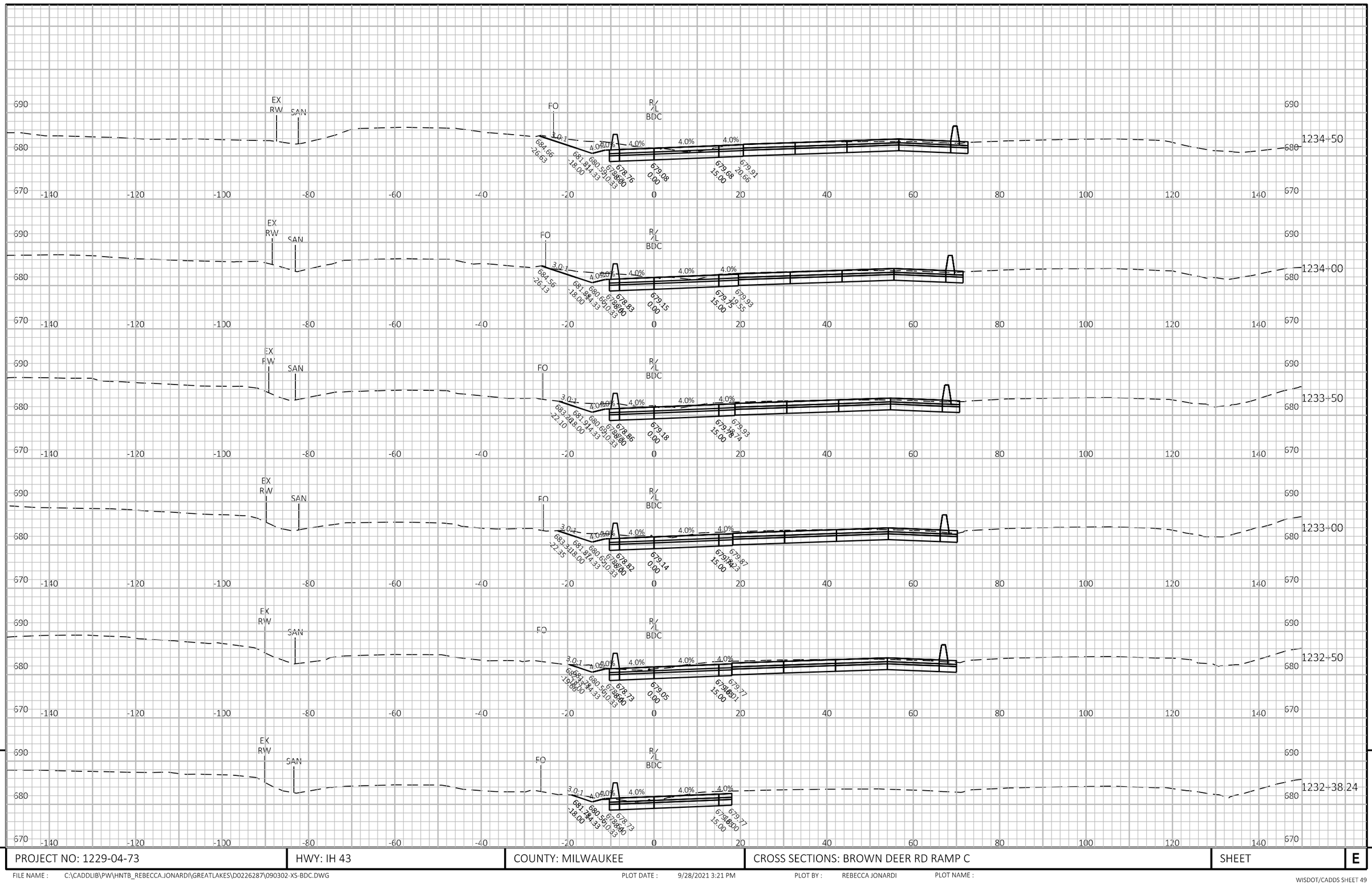
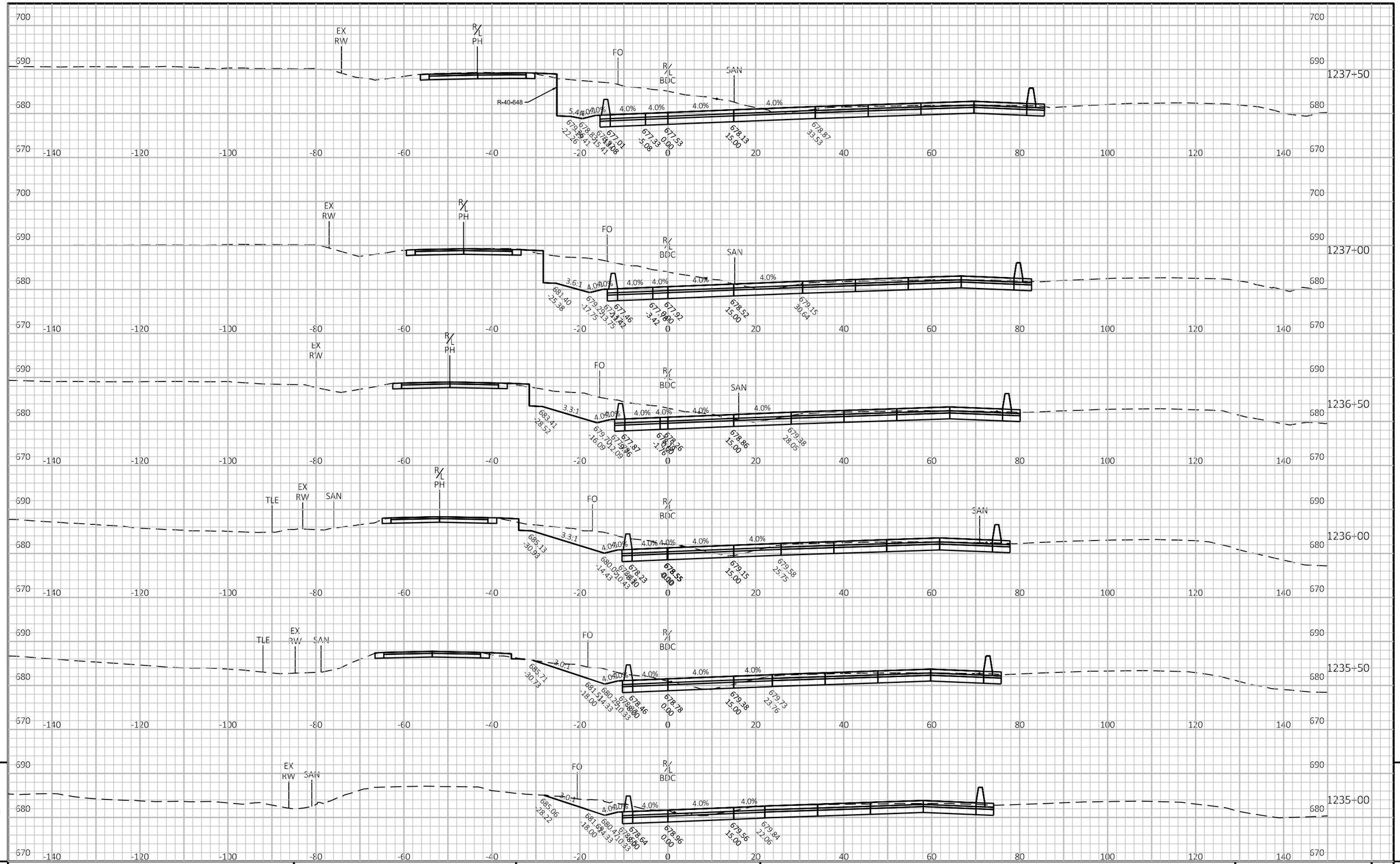
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP B	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDB.DWG PLOT DATE : 9/27/2021 3:11 PM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:21 PM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

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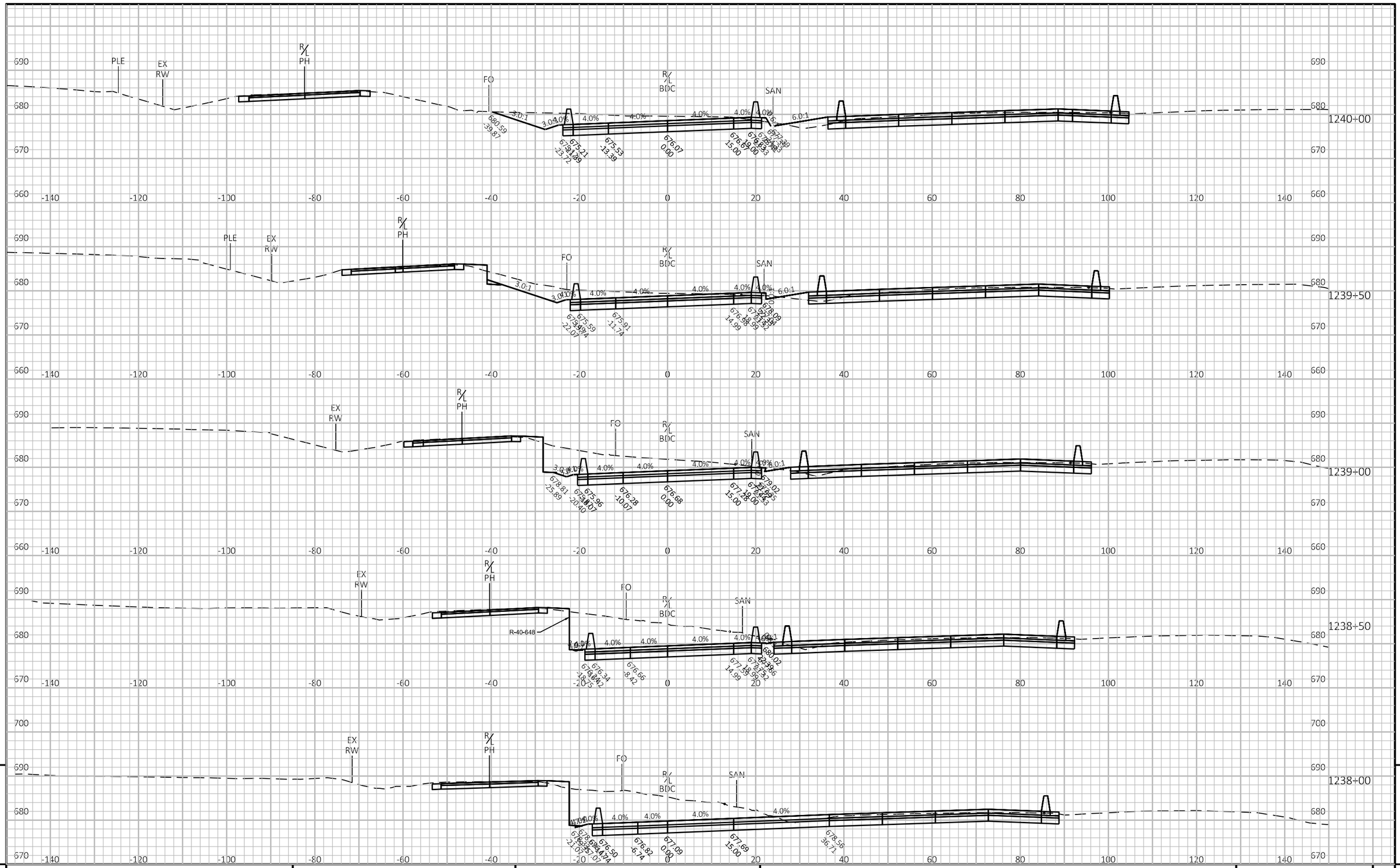

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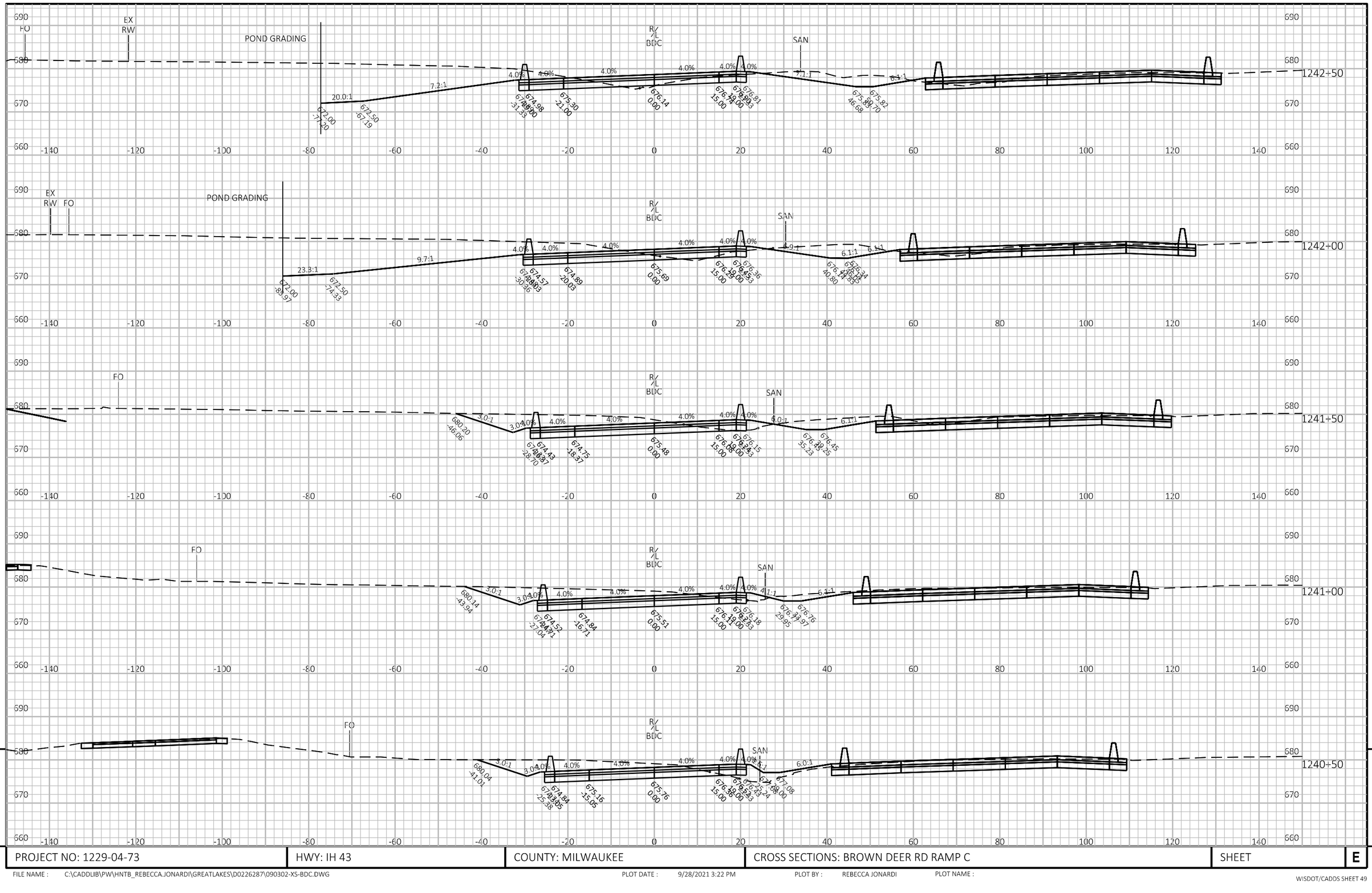
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

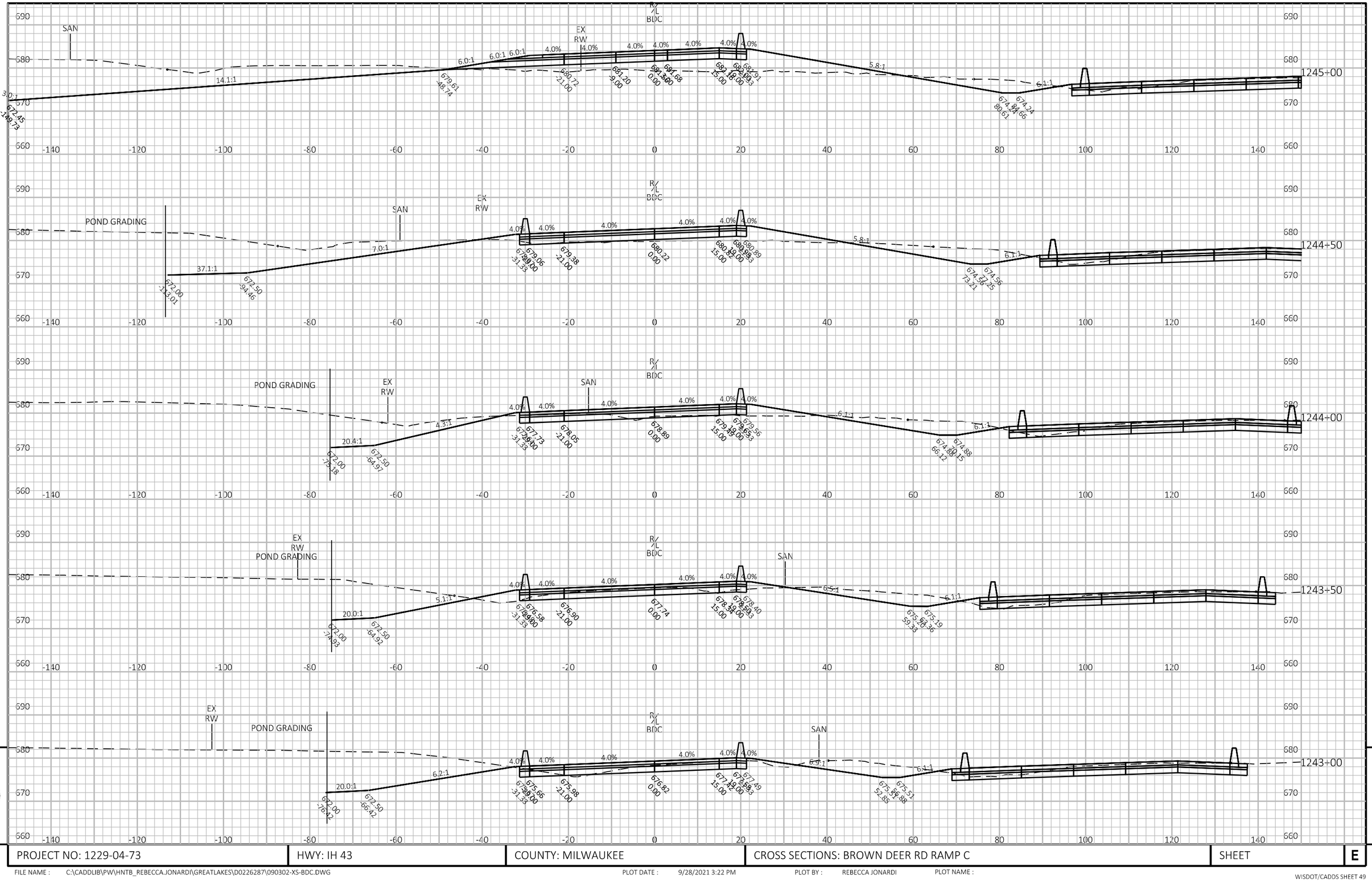
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:22 PM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:22 PM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

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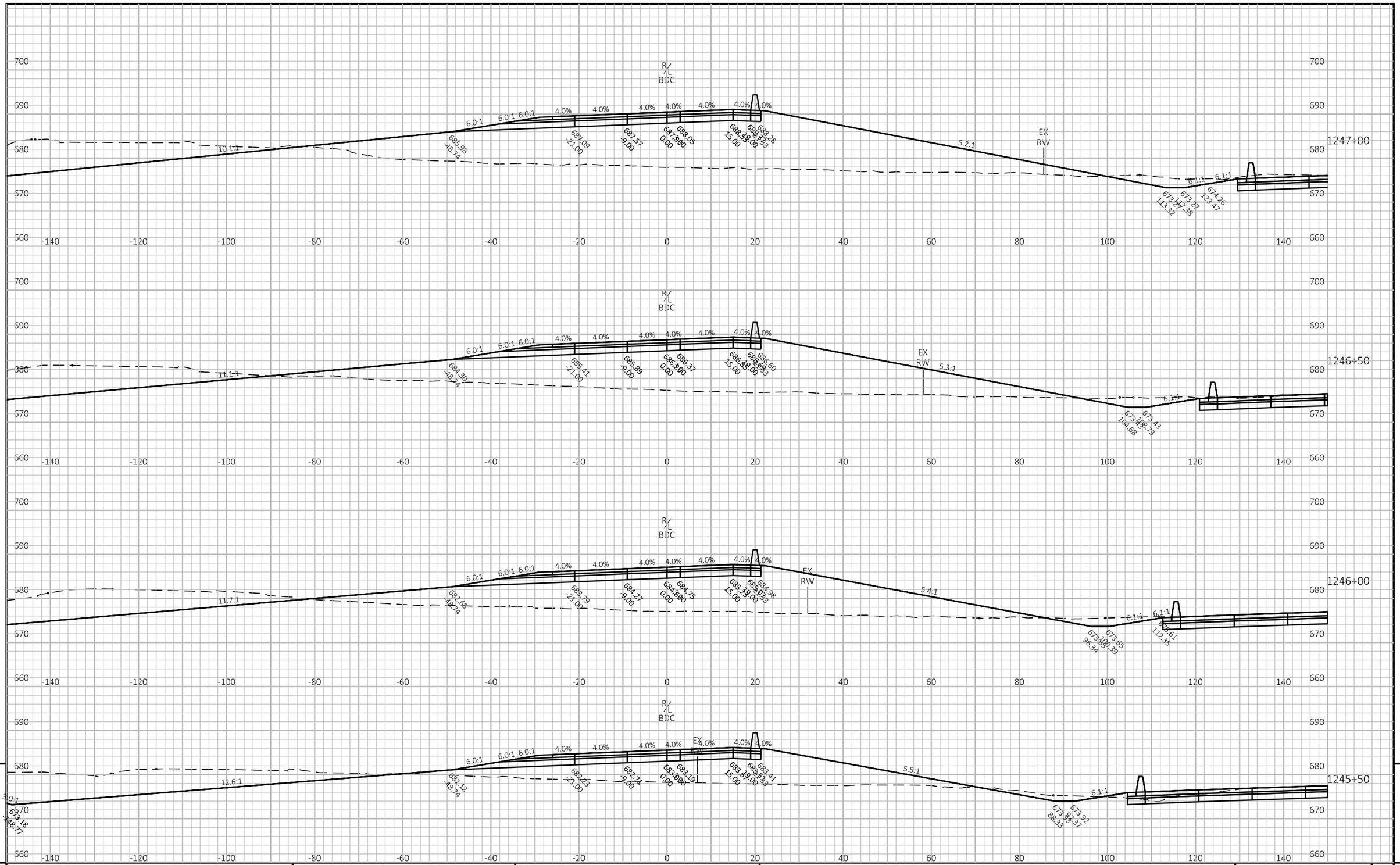
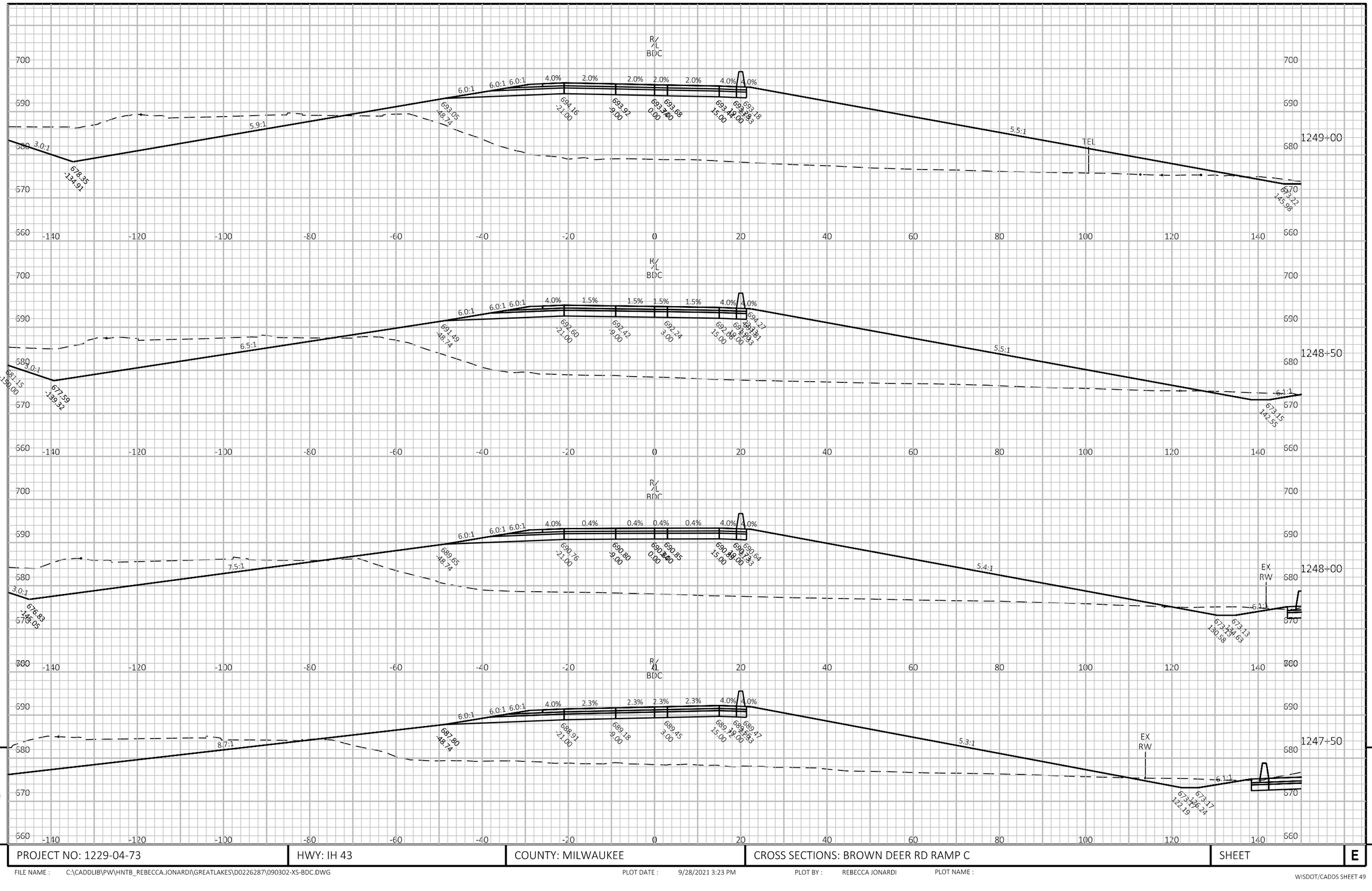


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:23 PM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

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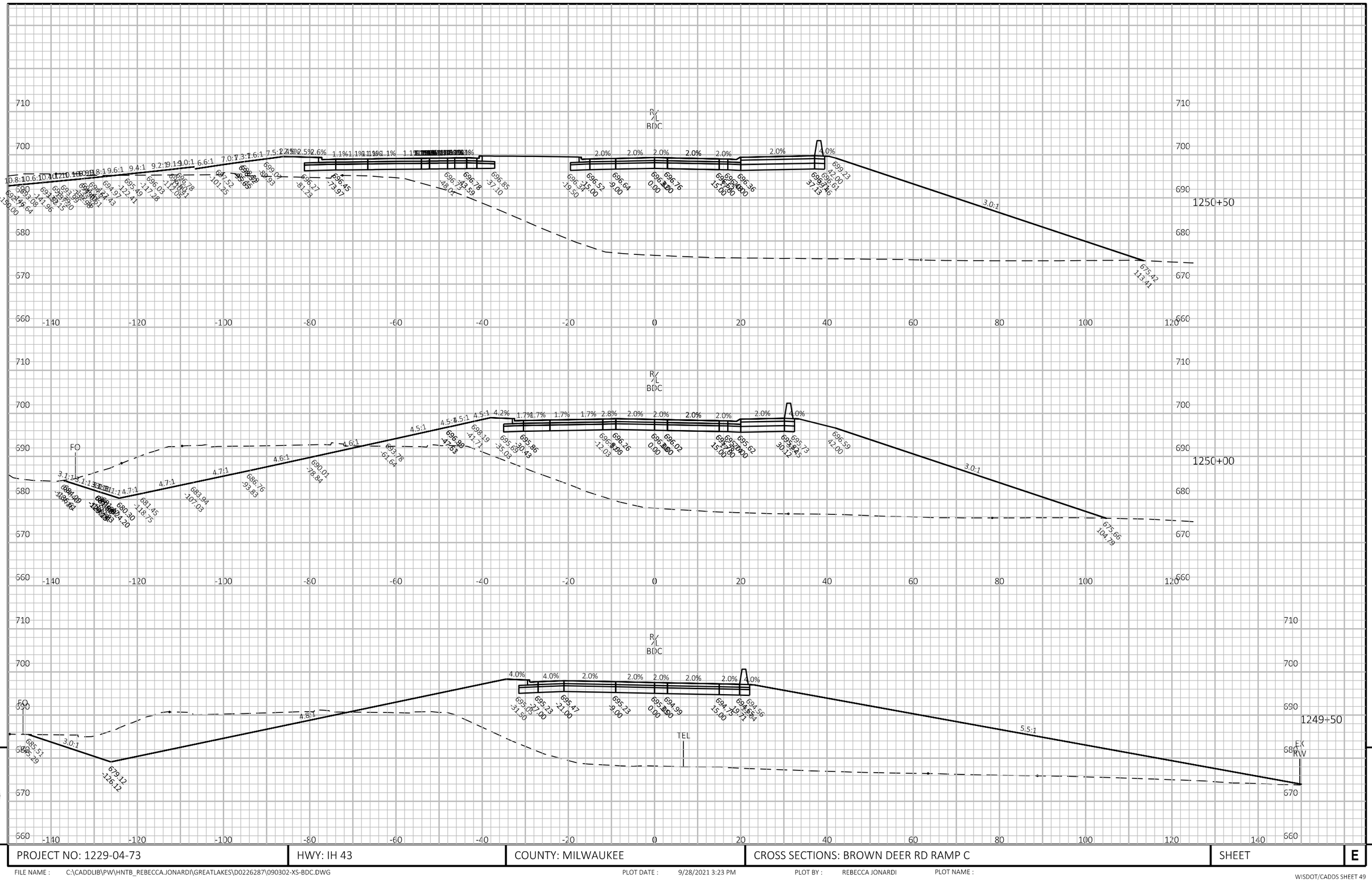

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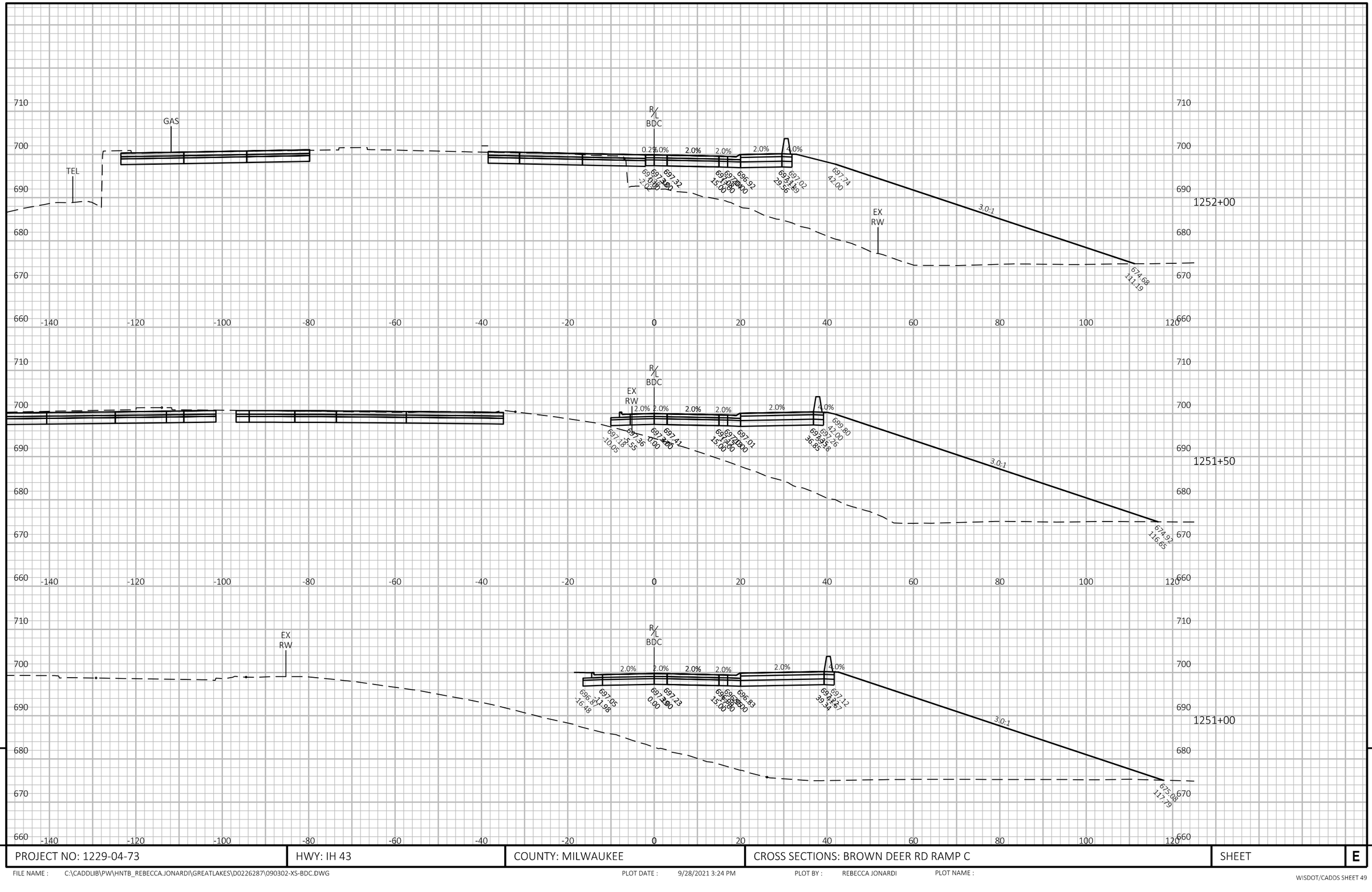
9

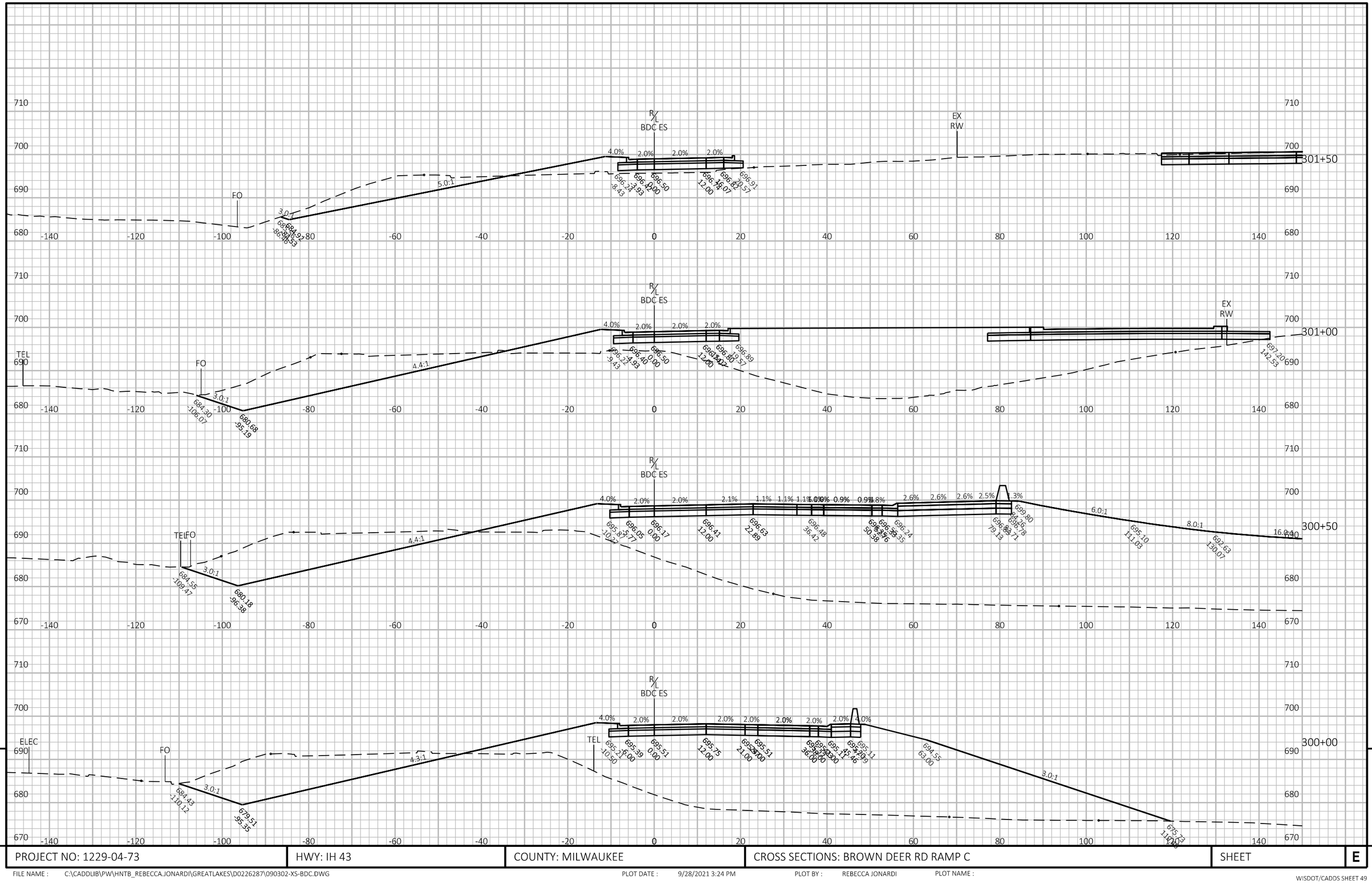
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:23 PM PLOT BY : REBECCA JONARDI PLOT NAME :



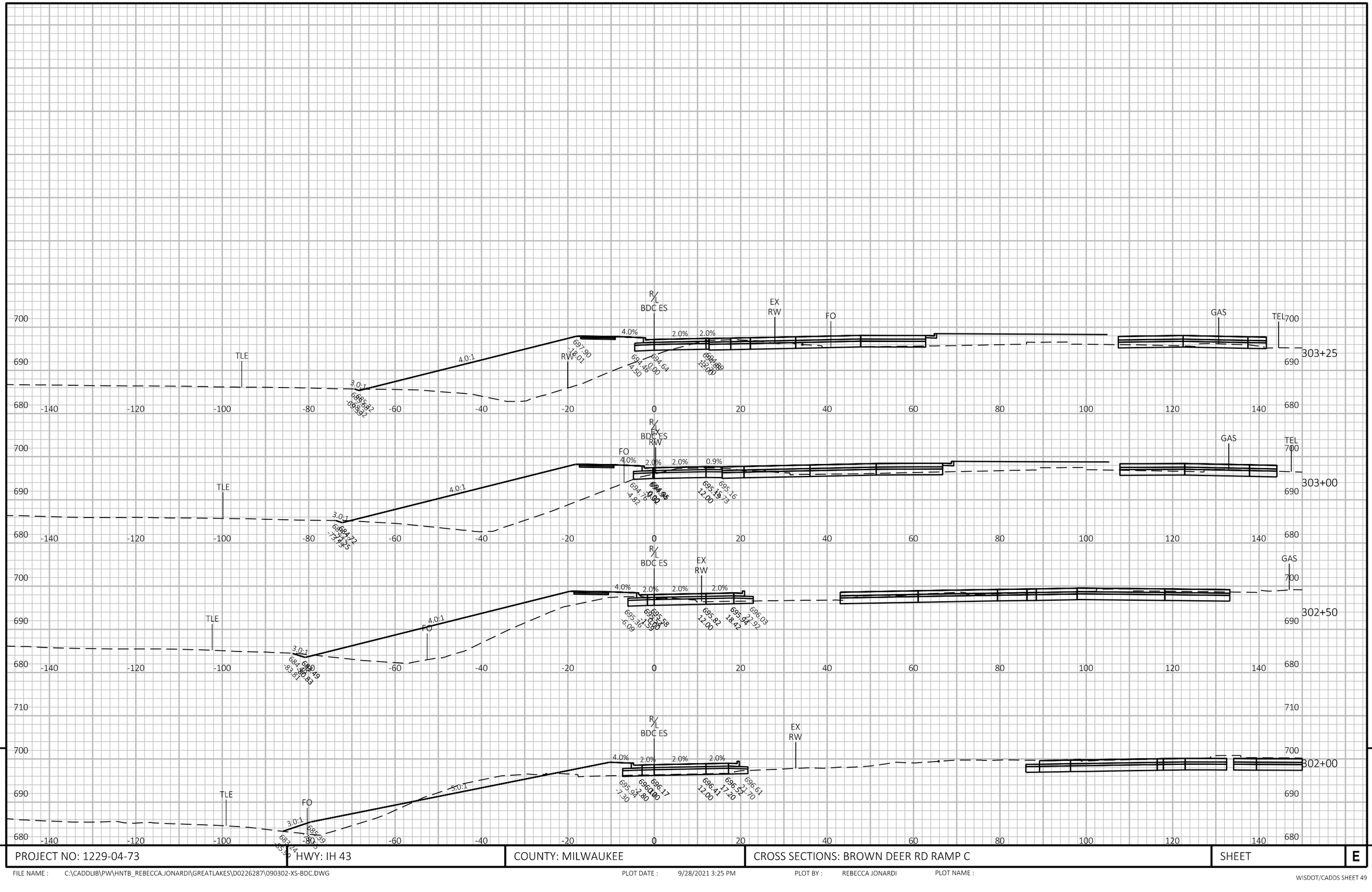
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:24 PM PLOT BY : REBECCA JONARDI PLOT NAME :



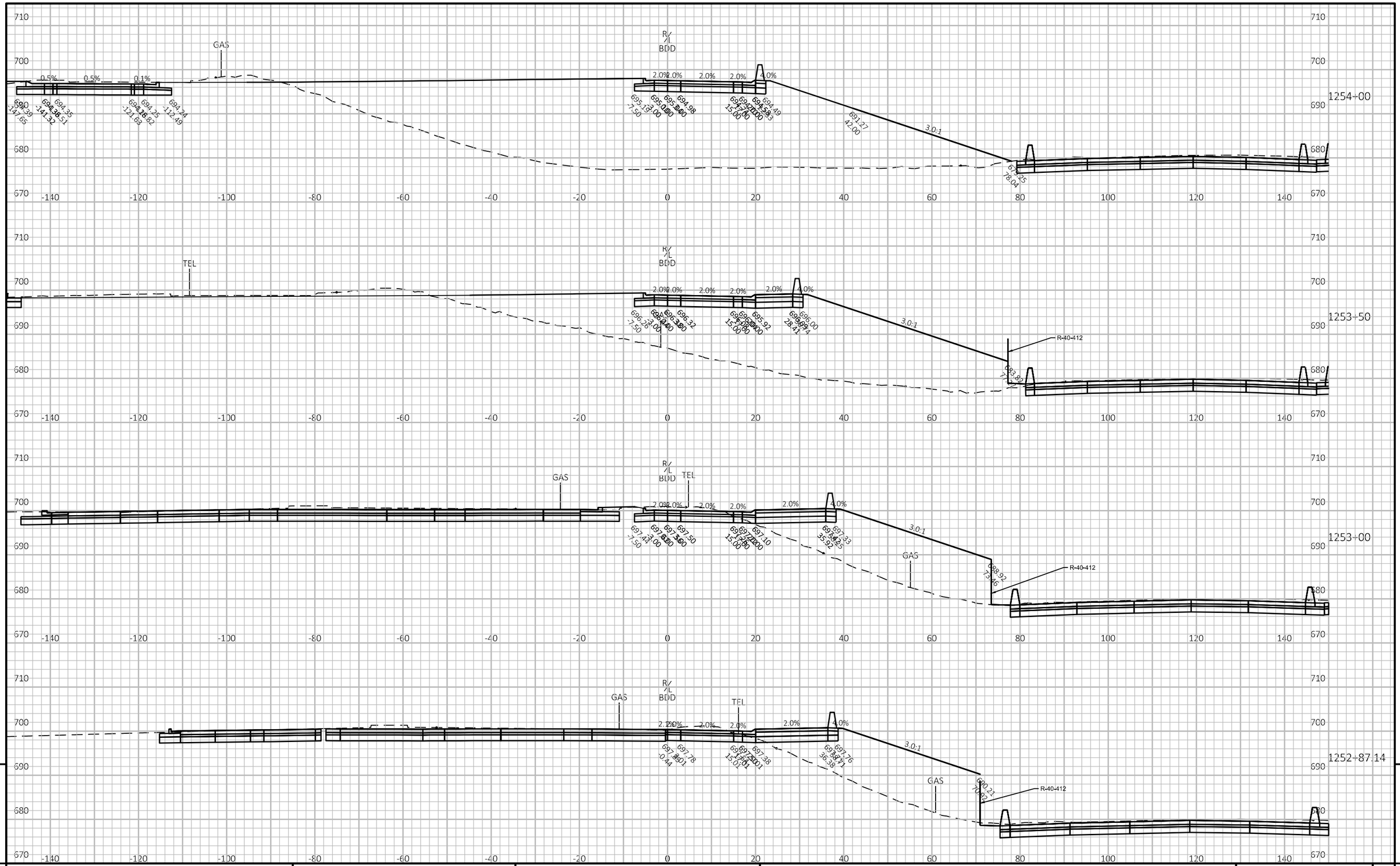
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:24 PM PLOT BY : REBECCA JONARDI PLOT NAME :



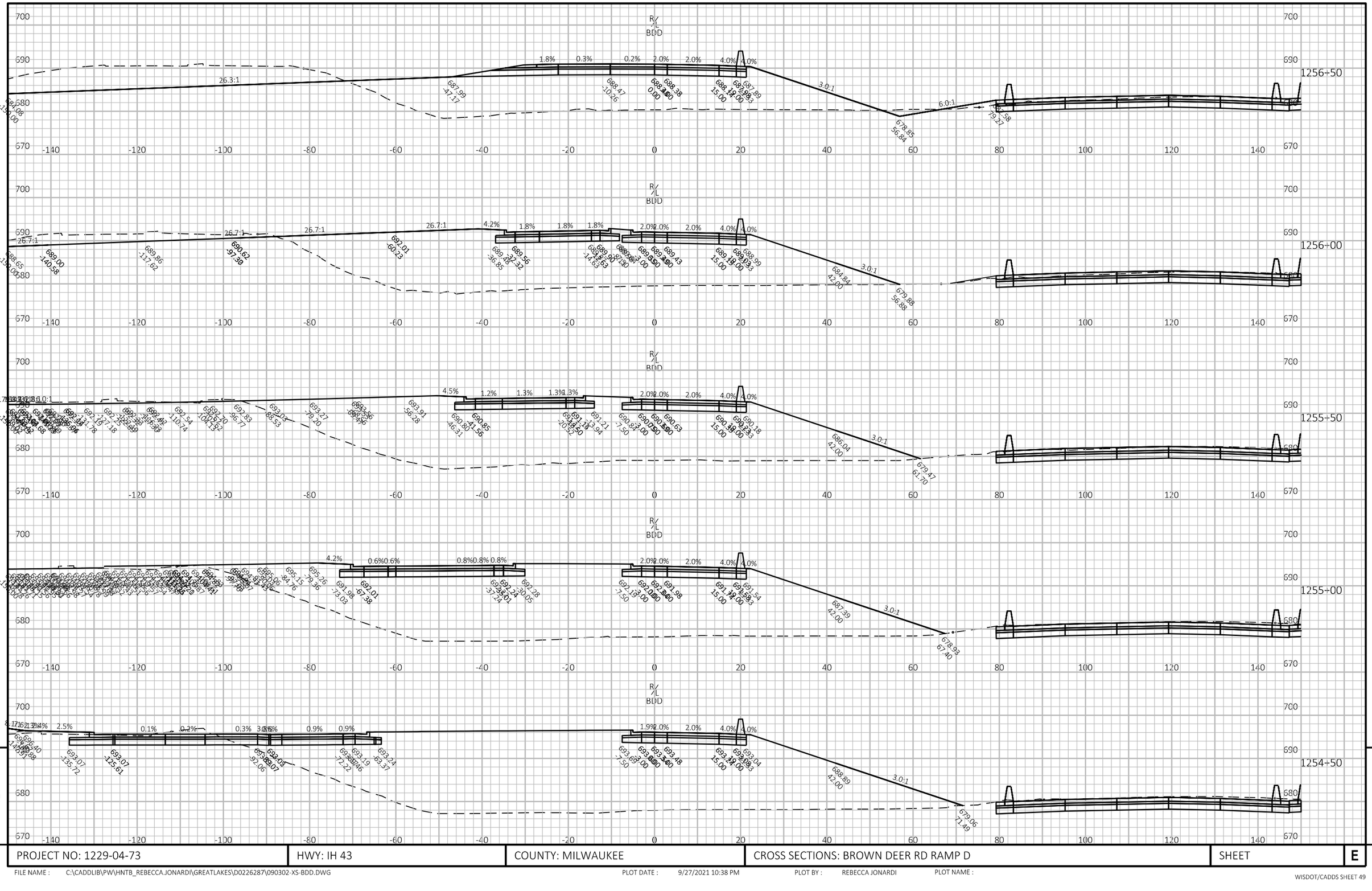
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP C	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDC.DWG PLOT DATE : 9/28/2021 3:25 PM PLOT BY : REBECCA JONARDI PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDD.DWG PLOT DATE : 9/27/2021 10:38 PM PLOT BY : REBECCA JONARDI PLOT NAME :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1255+00
1254+50
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690
680
670
-140
-120
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-60.23
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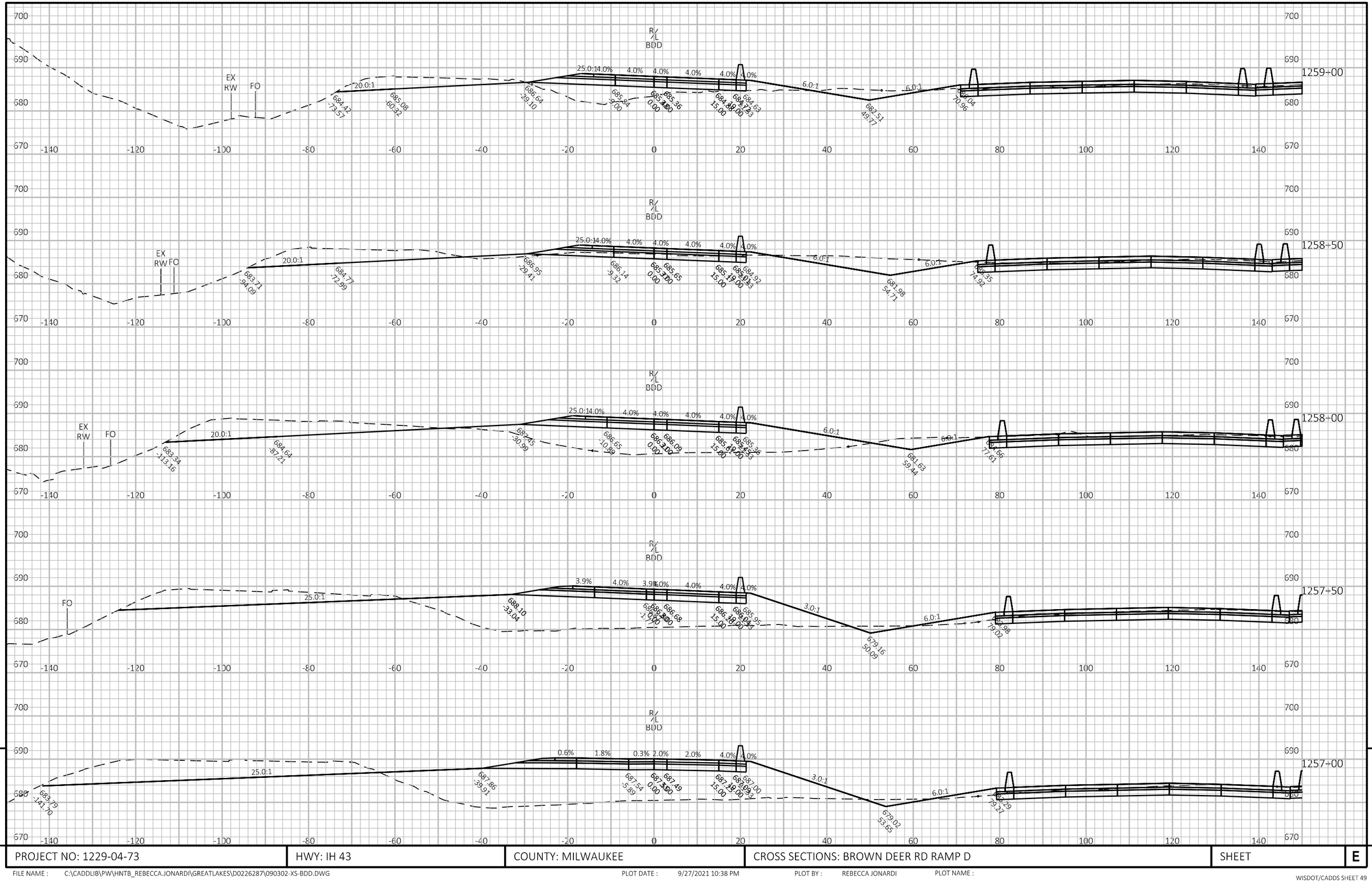
9
PROJECT NO: 1229-04-73
HWY: IH 43
COUNTY: MILWAUKEE
CROSS SECTIONS: BROWN DEER RD RAMP D
SHEET
E
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDD.DWG
PLOT DATE : 9/27/2021 10:38 PM
PLOT BY : REBECCA JONARDI
PLOT NAME :
WISDOT/CADDS SHEET 49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685.08 -60.32
686.64 -29.10
685.84 -9.00
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684.89 15.00
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682.51 49.77
684.04 70.96
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684.77 -72.99
686.95 -29.41
686.14 -9.32
685.65 0.00
685.17 15.00
684.92 30.00
681.98 54.71
684.35 74.92
1258+00
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FO
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684.64 -87.21
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685.36 30.00
681.63 59.44
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687.49 0.00
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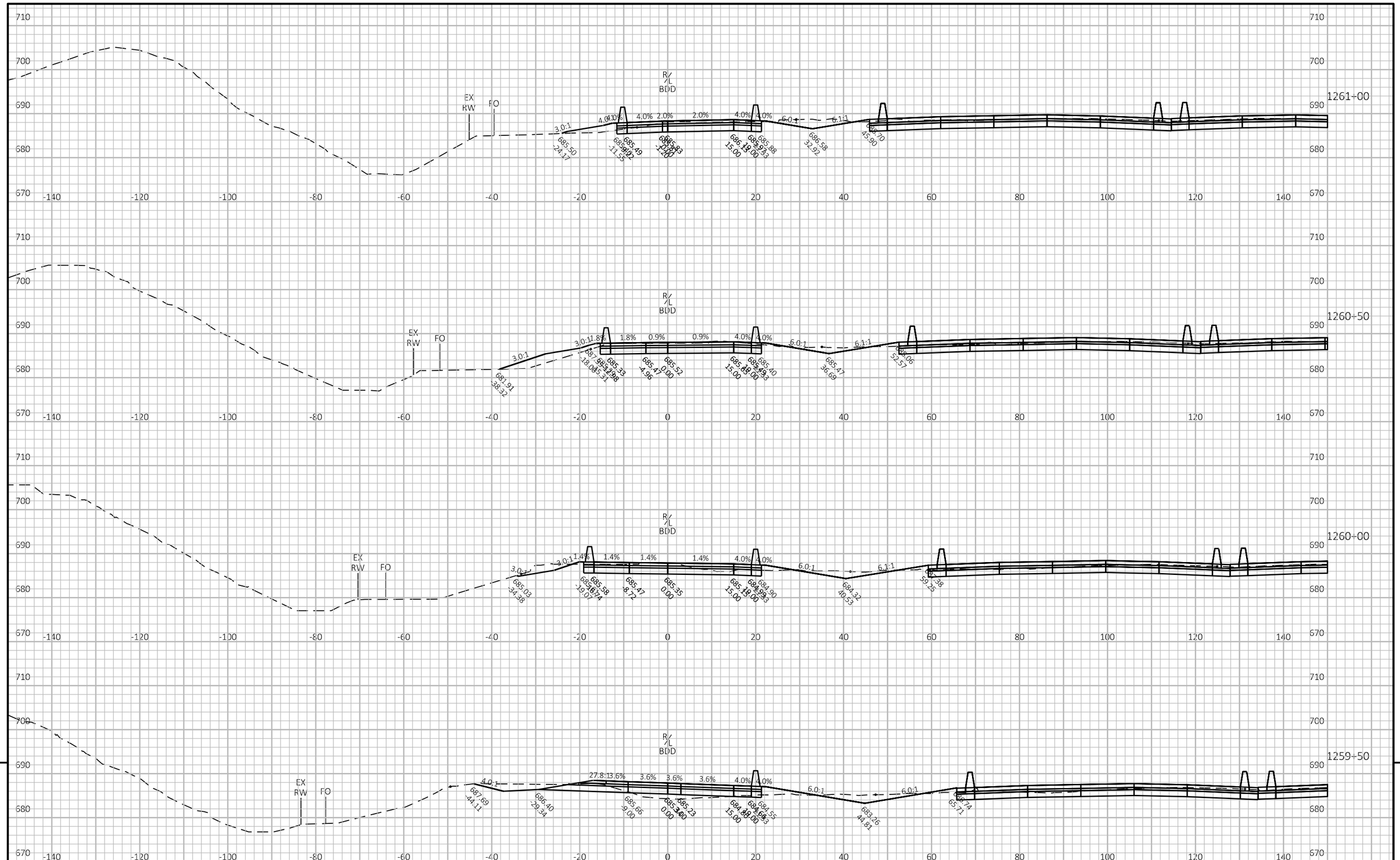
PROJECT NO: 1229-04-73
HWY: IH 43
COUNTY: MILWAUKEE
CROSS SECTIONS: BROWN DEER RD RAMP D
SHEET
E
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDD.DWG
PLOT DATE : 9/27/2021 10:38 PM
PLOT BY : REBECCA JONARDI
PLOT NAME :
WISDOT/CADDS SHEET 49



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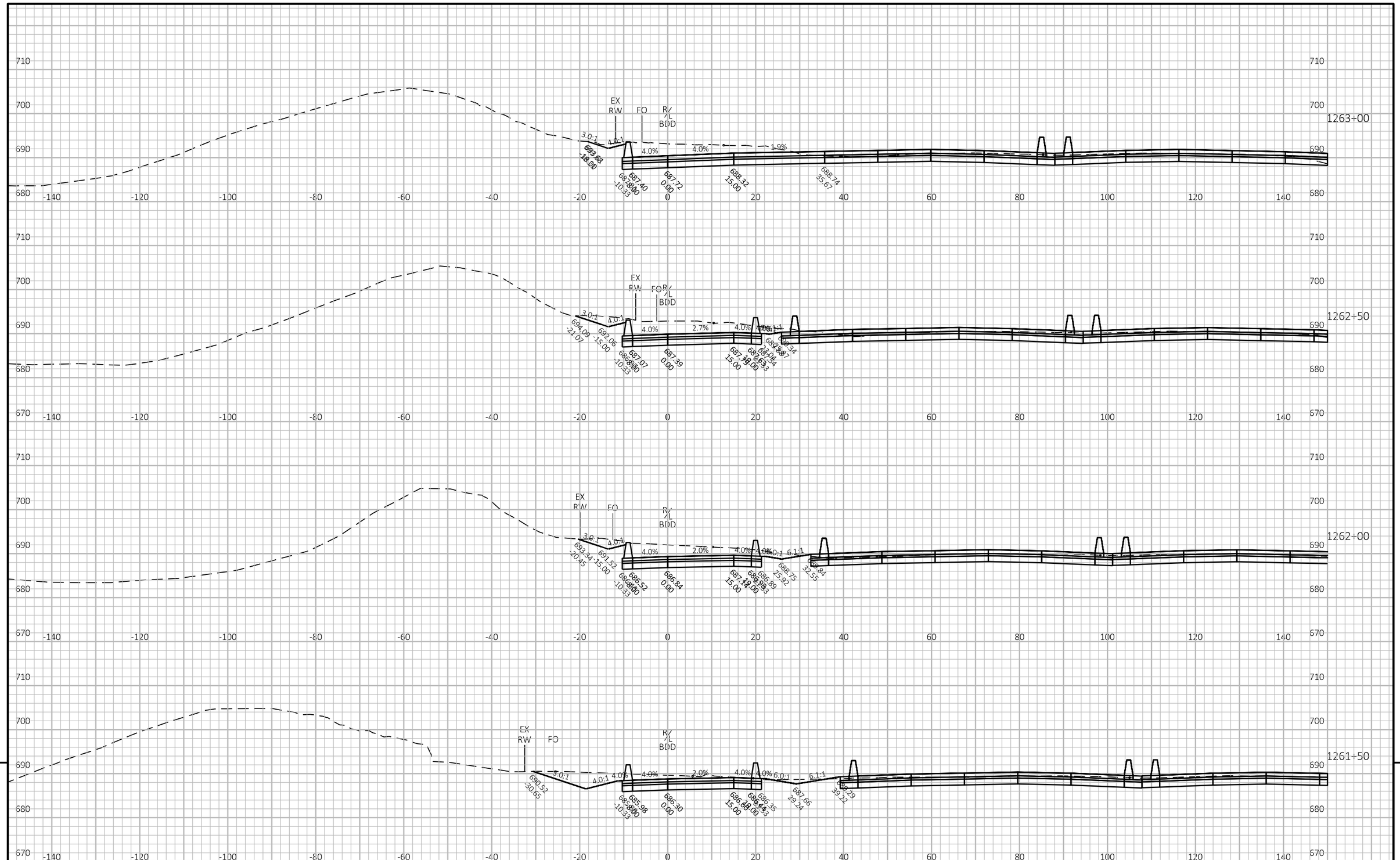
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP D	SHEET	E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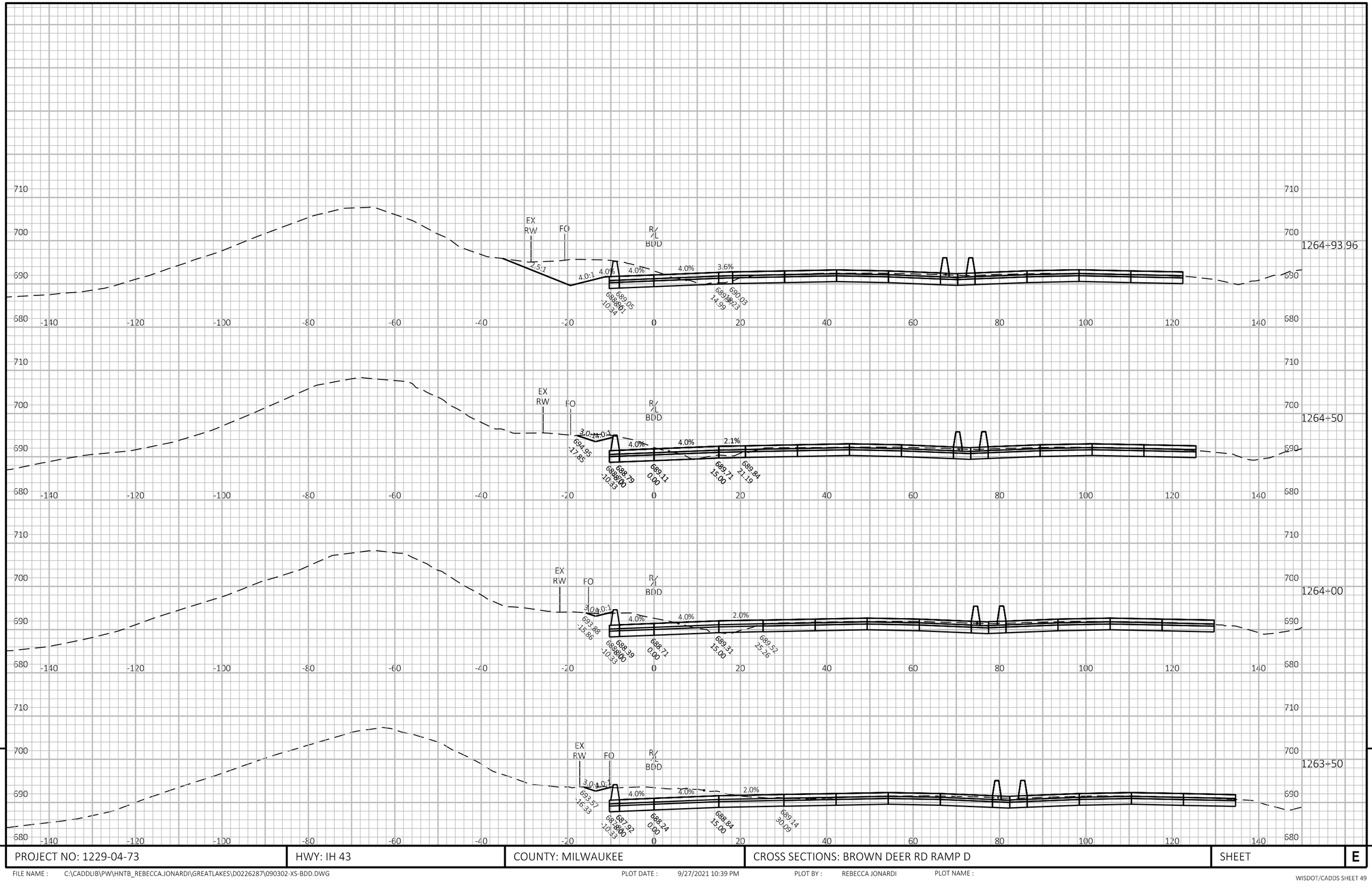

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP D	SHEET	E

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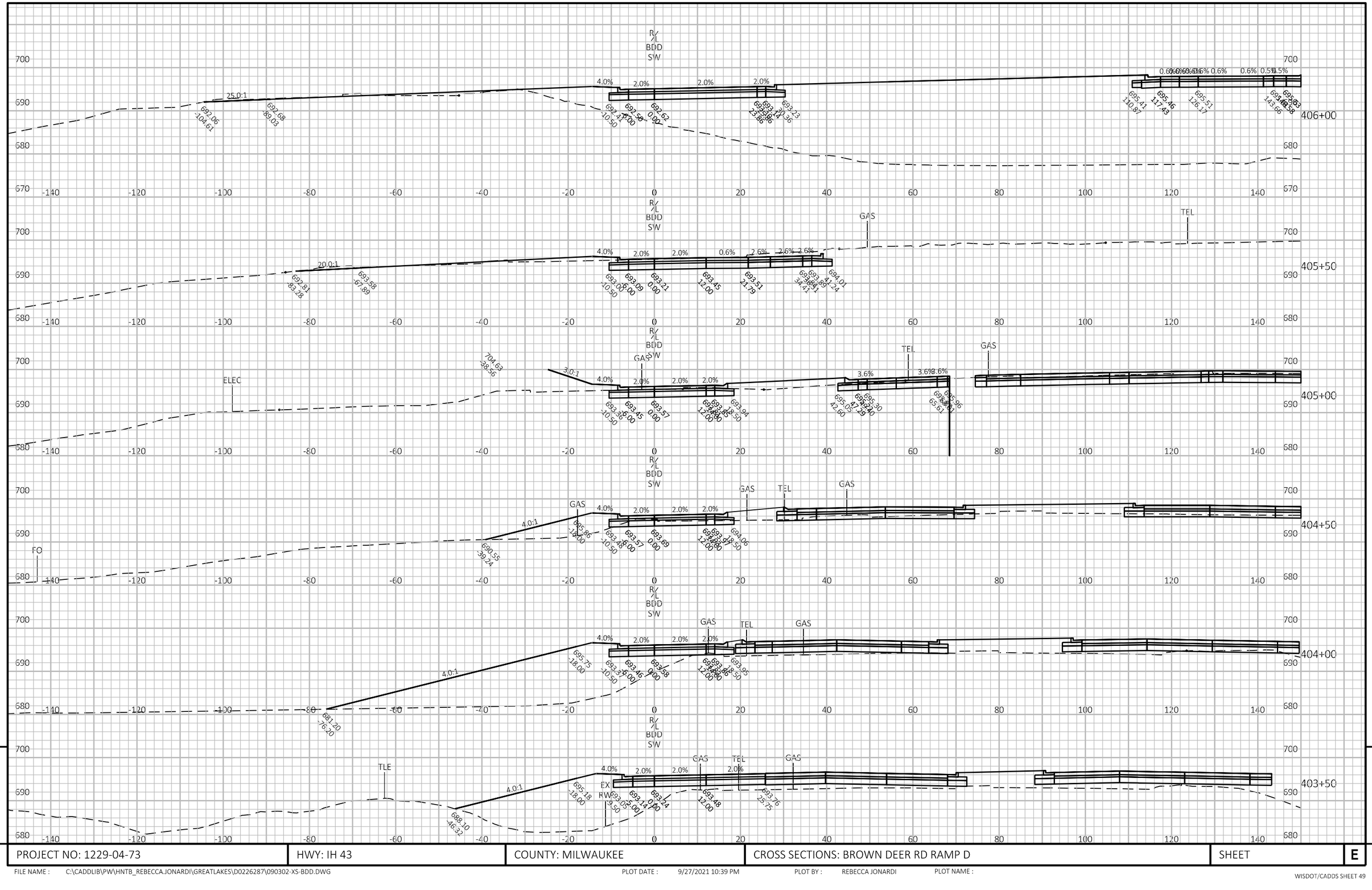

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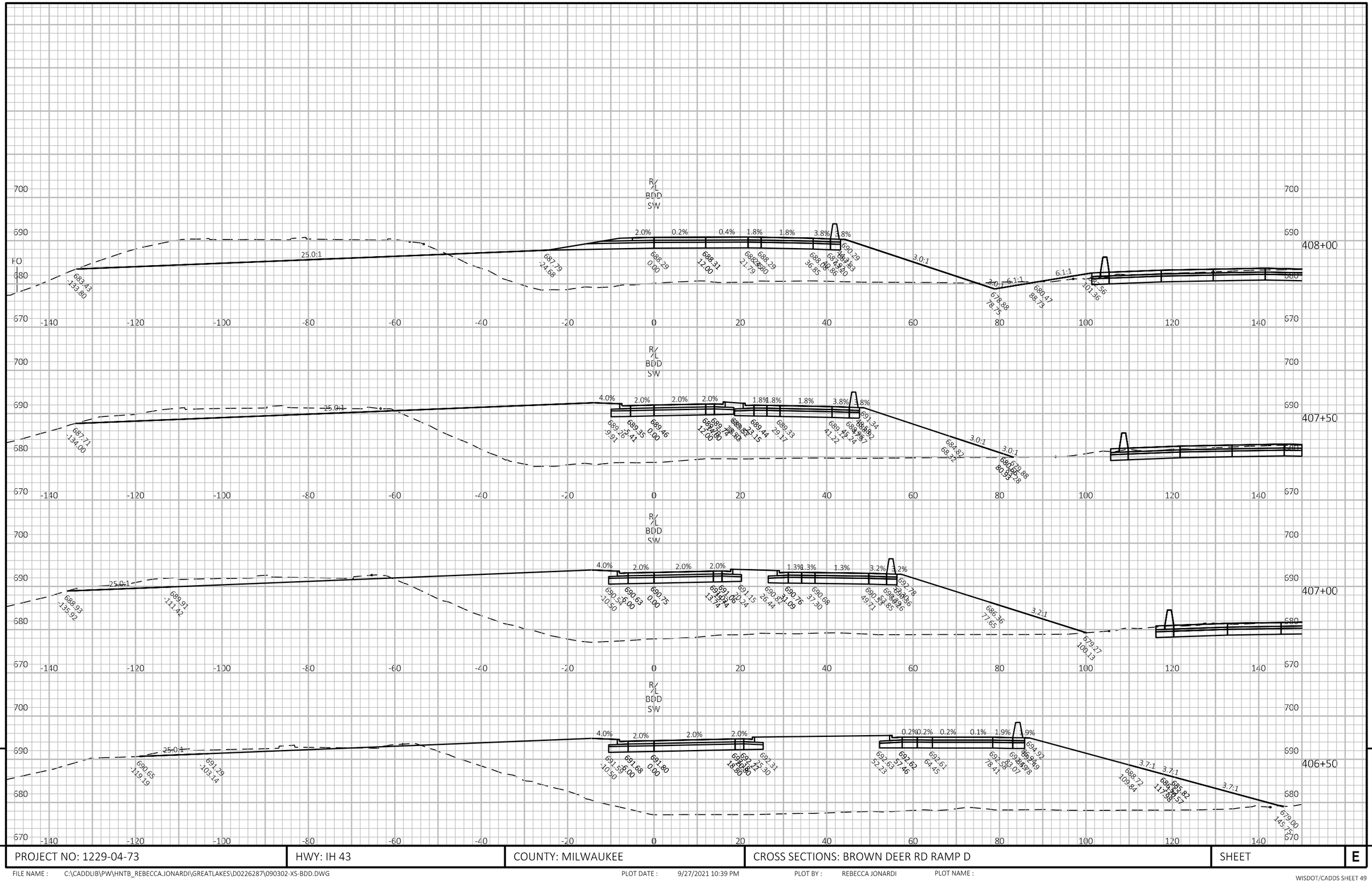
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP D	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090302-XS-BDD.DWG PLOT DATE : 9/27/2021 10:39 PM PLOT BY : REBECCA JONARDI PLOT NAME :



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BROWN DEER RD RAMP D	SHEET	E

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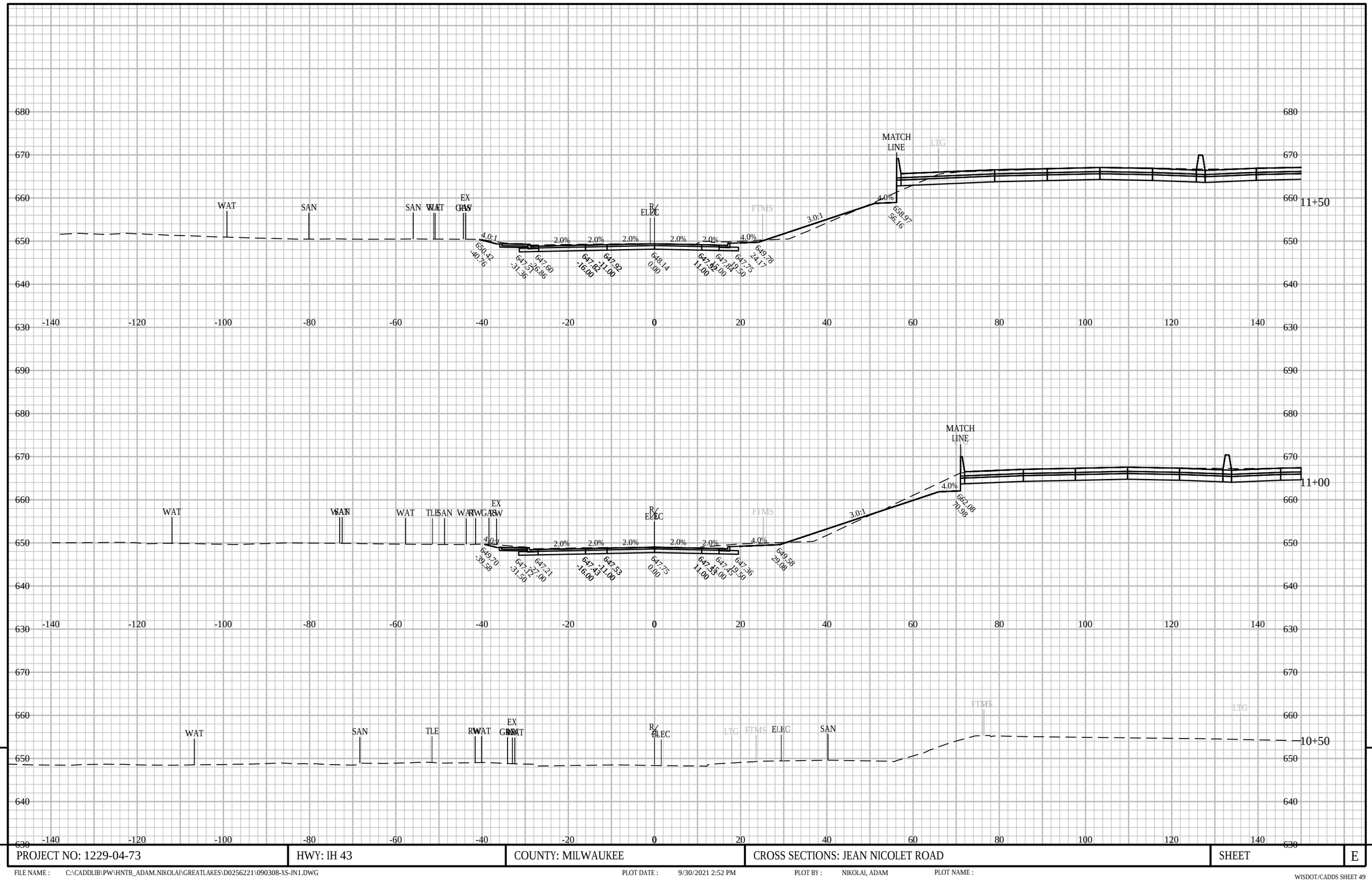
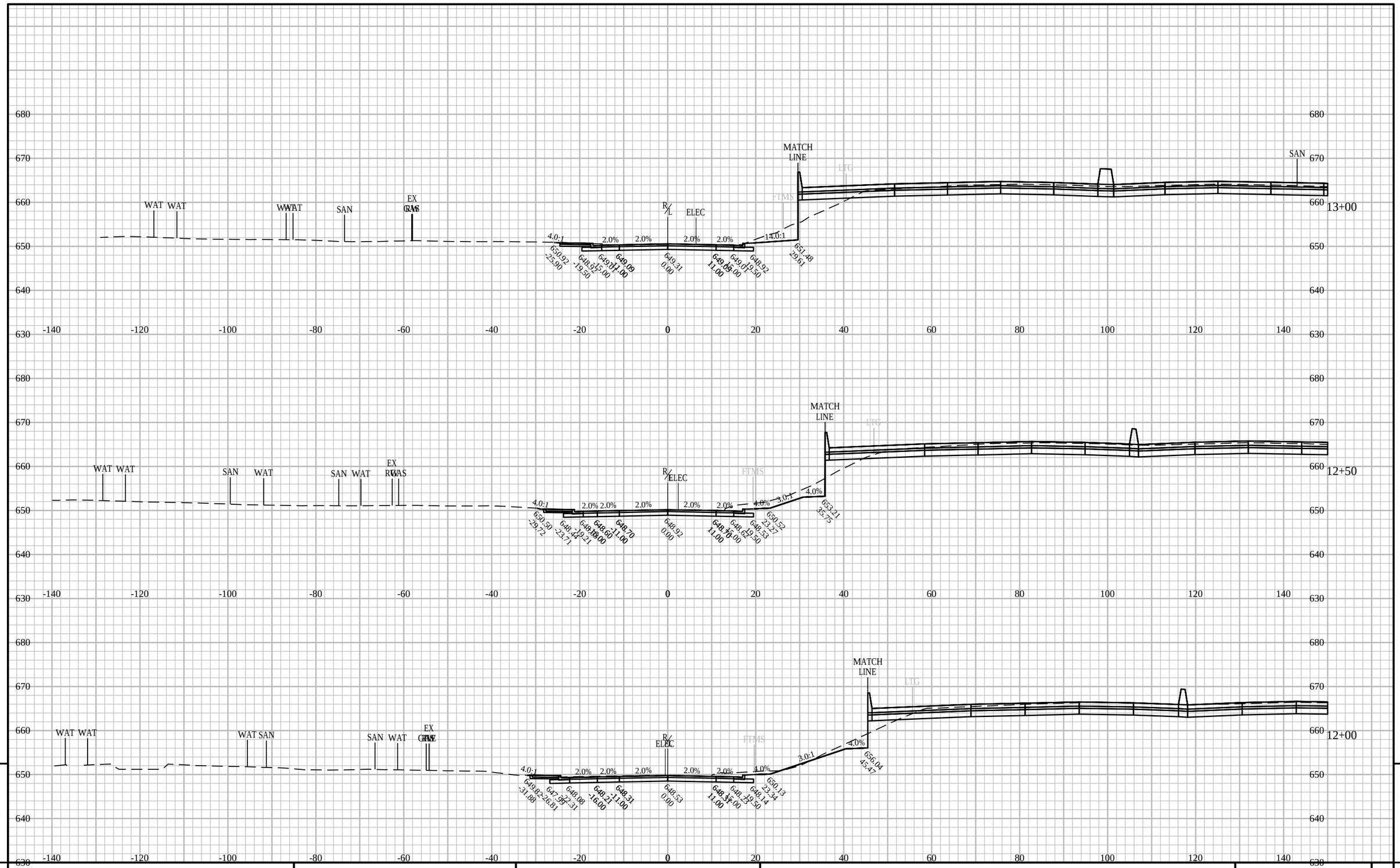


PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:52 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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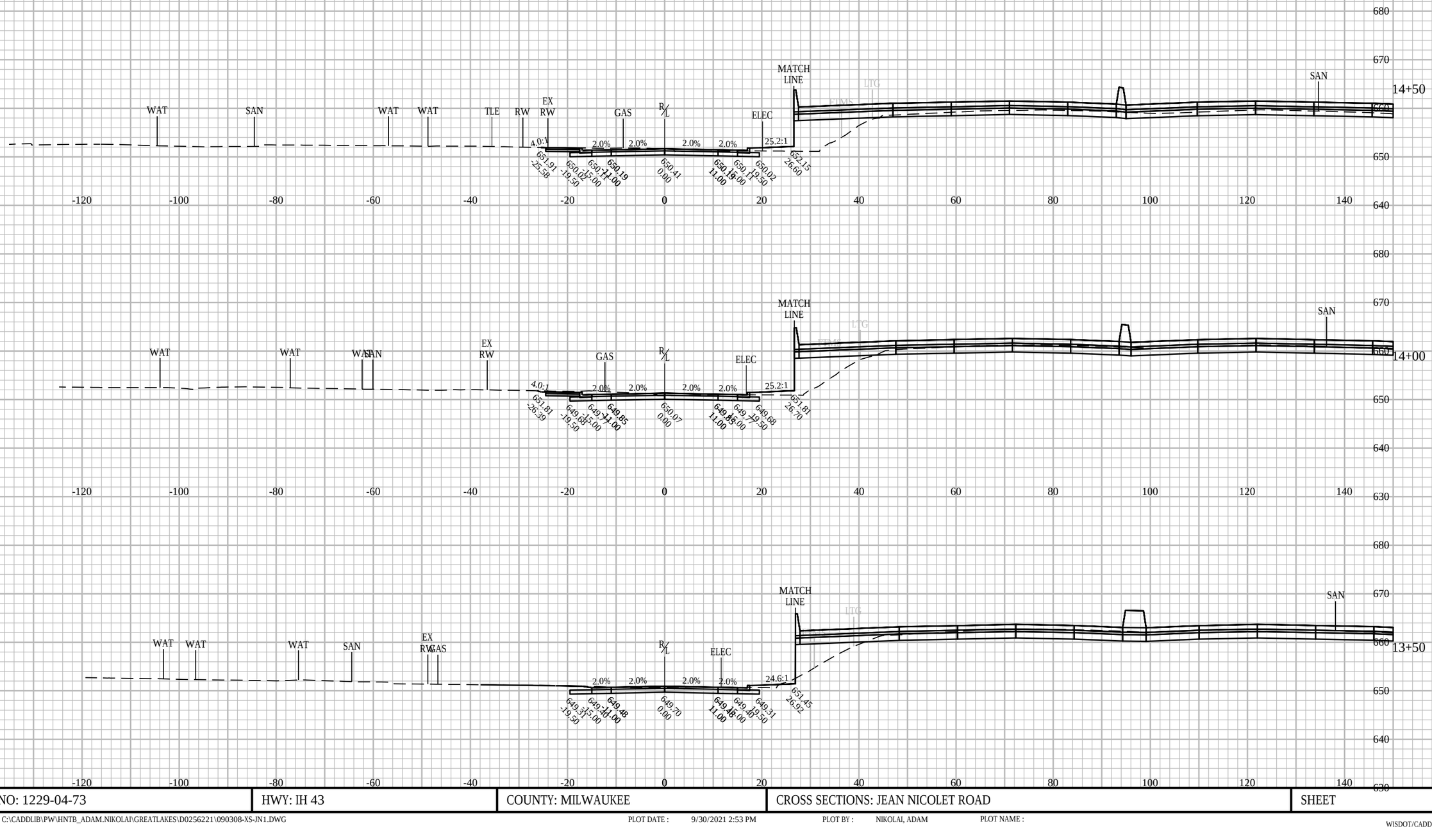
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

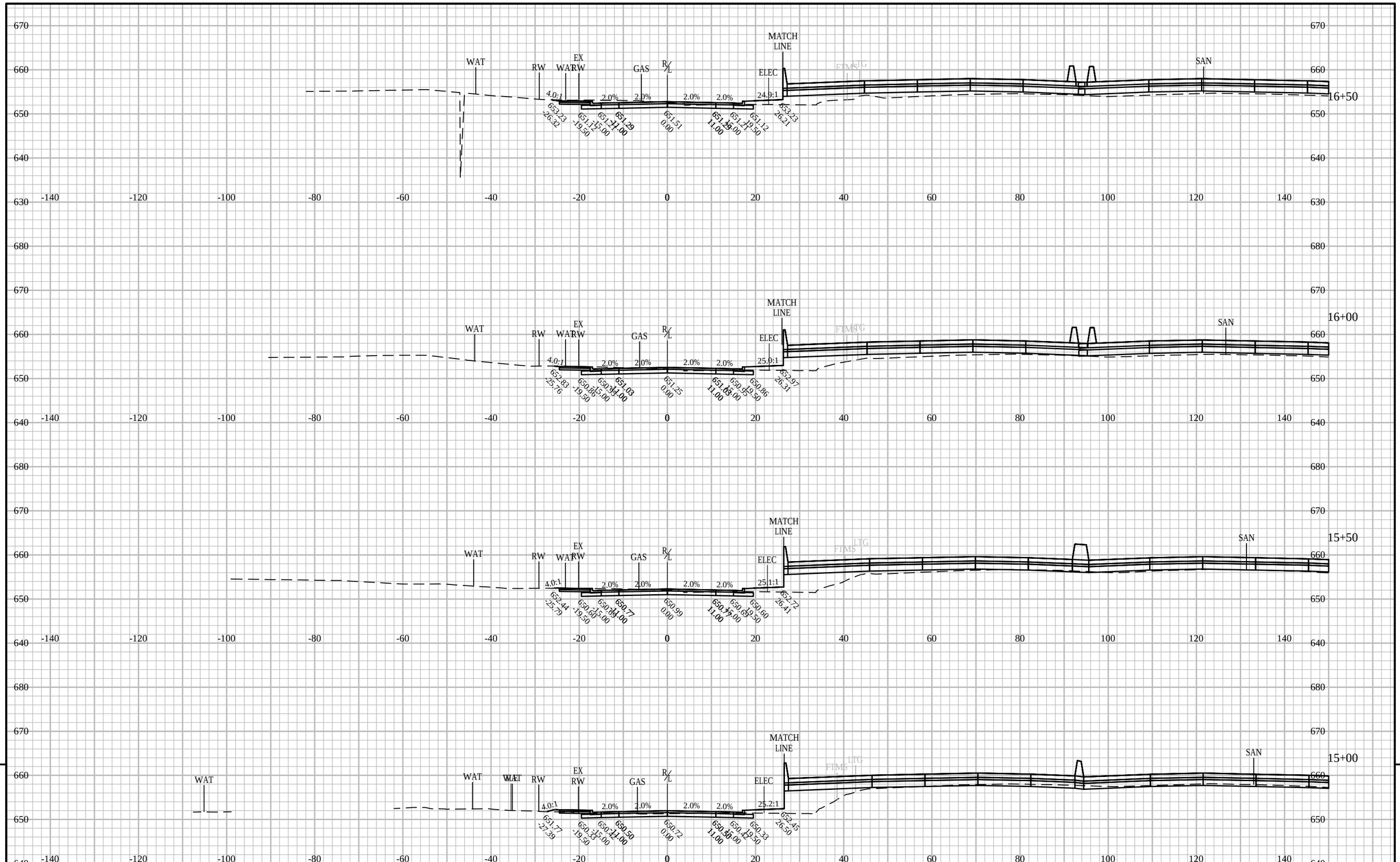
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:53 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:53 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

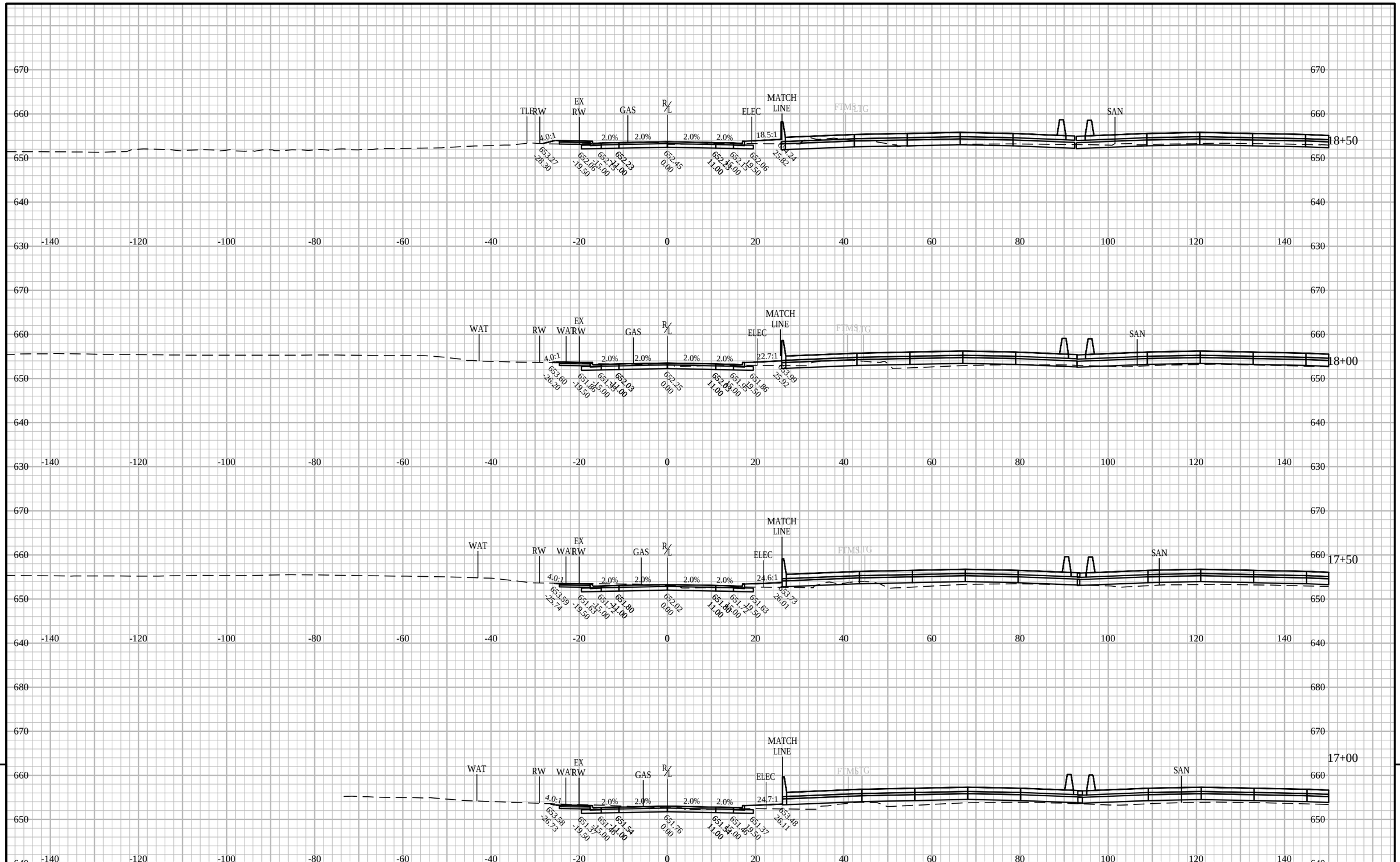
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:53 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

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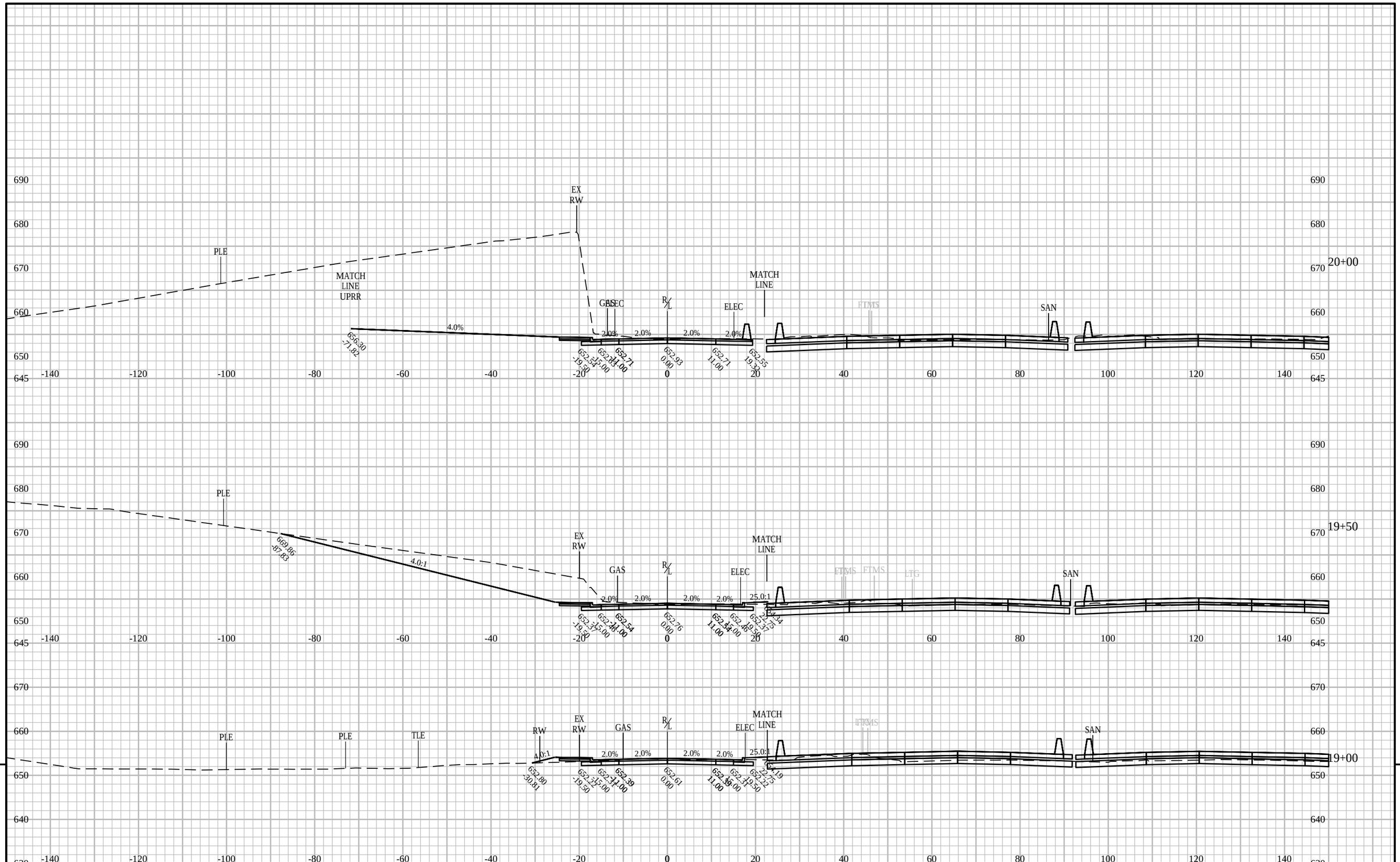
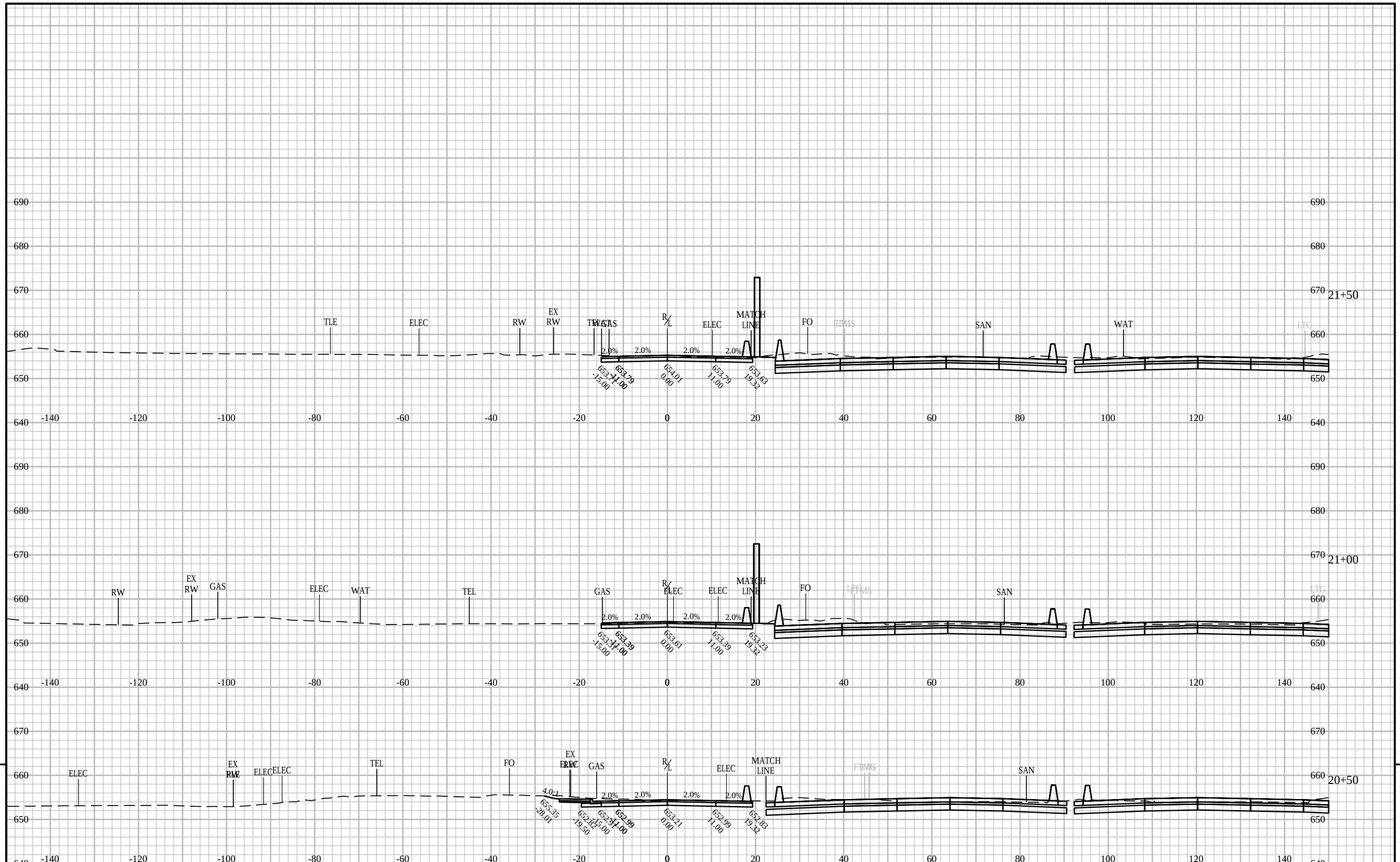
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:53 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



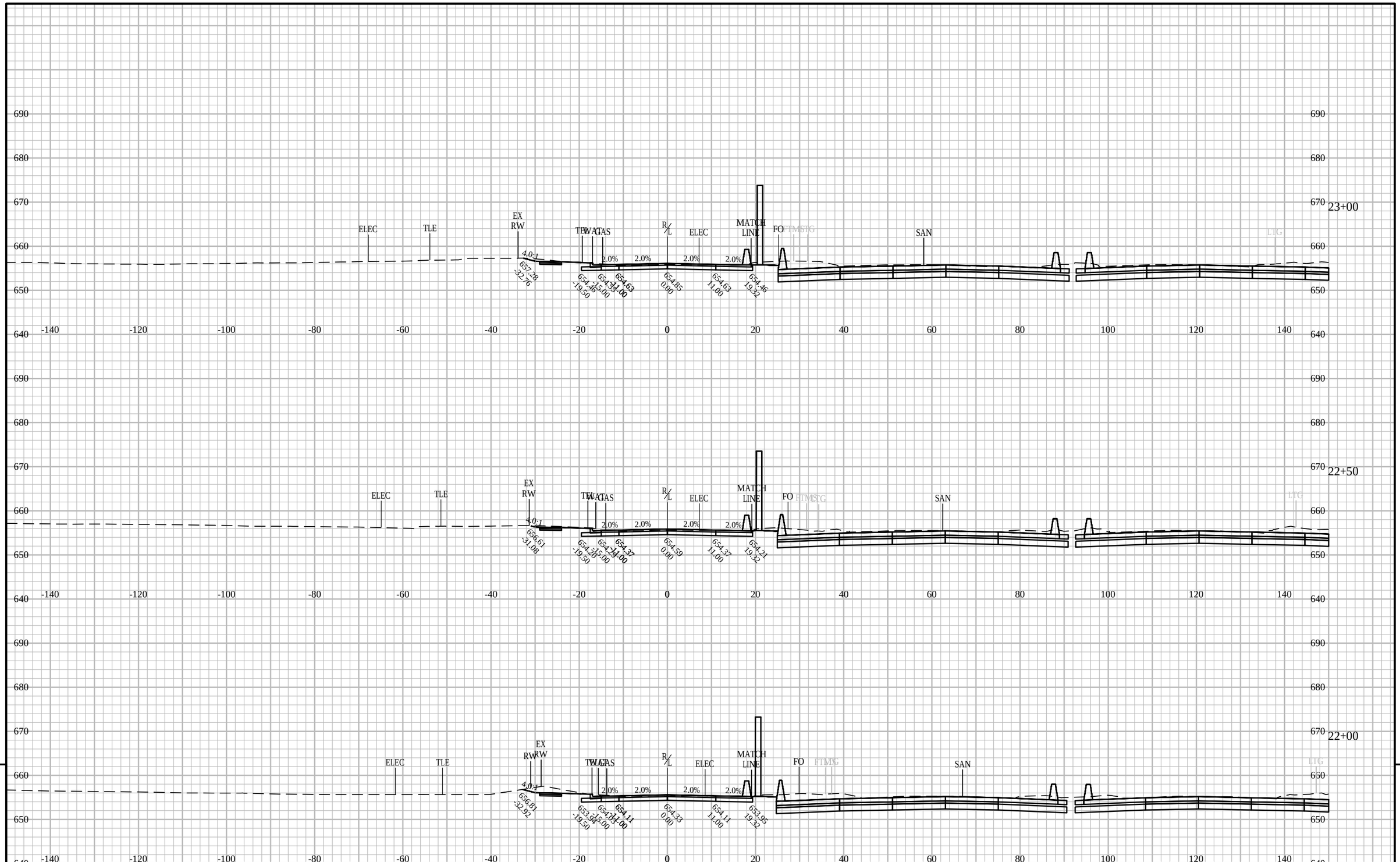
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:54 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



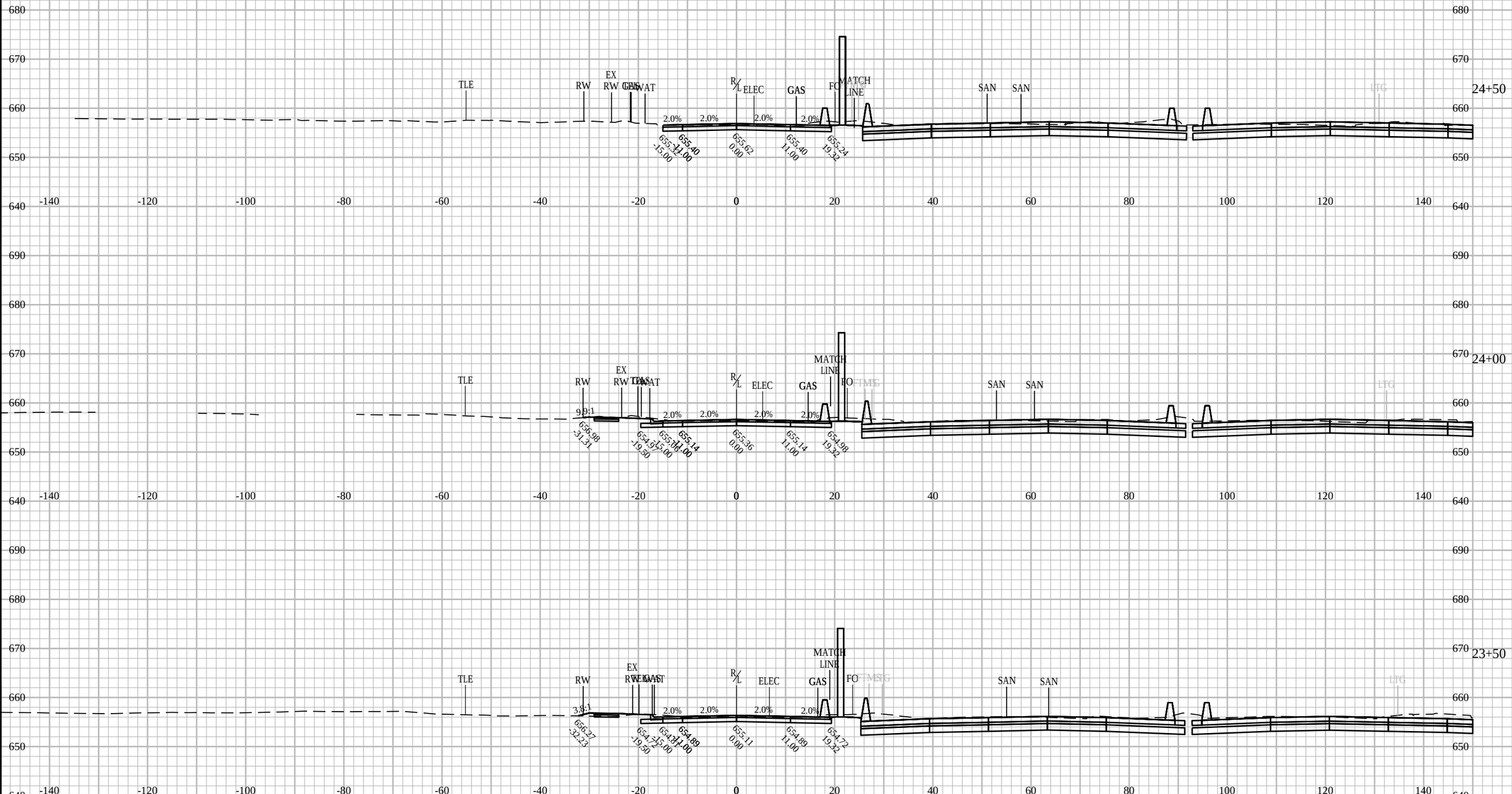
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:54 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



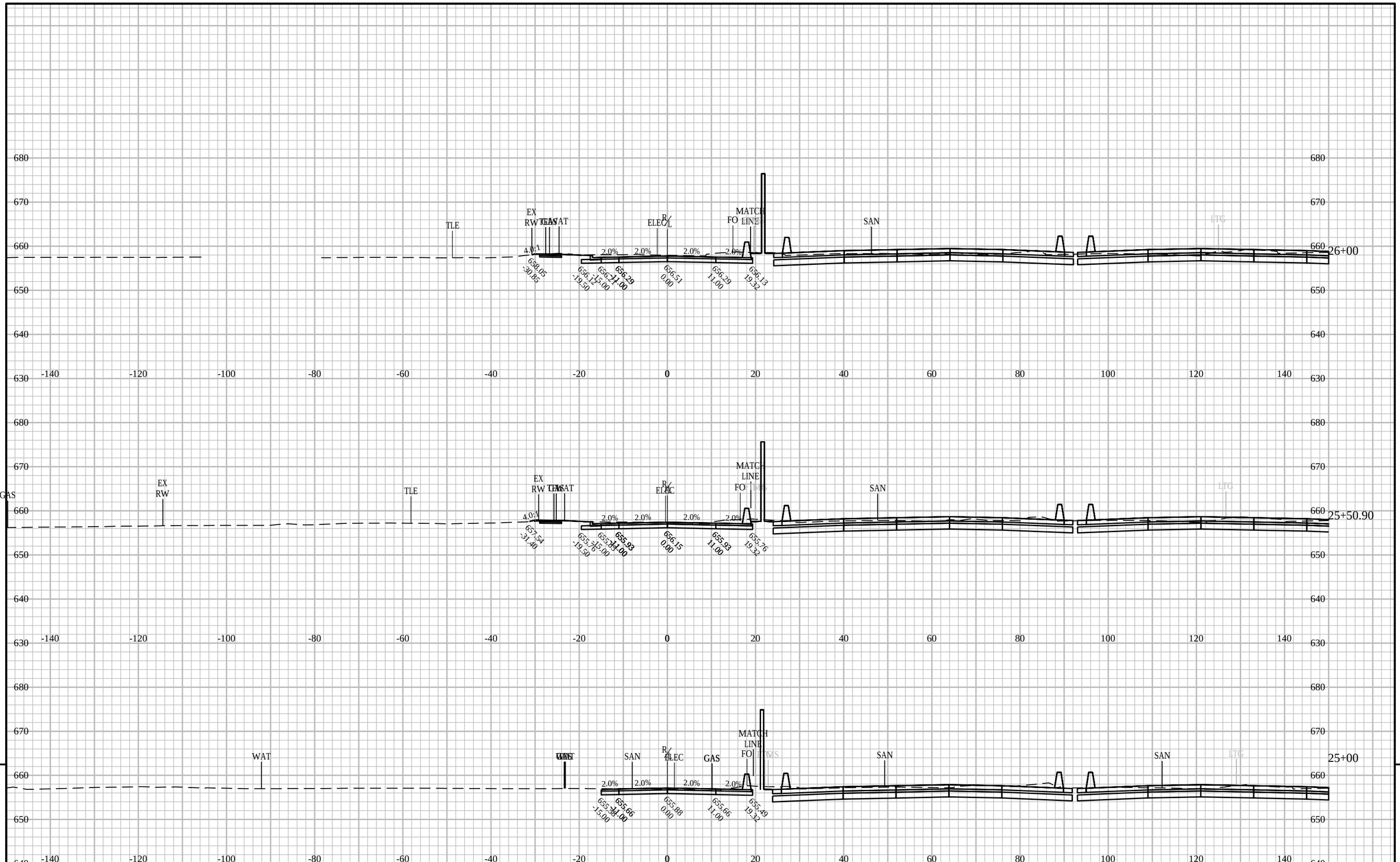
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:54 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:55 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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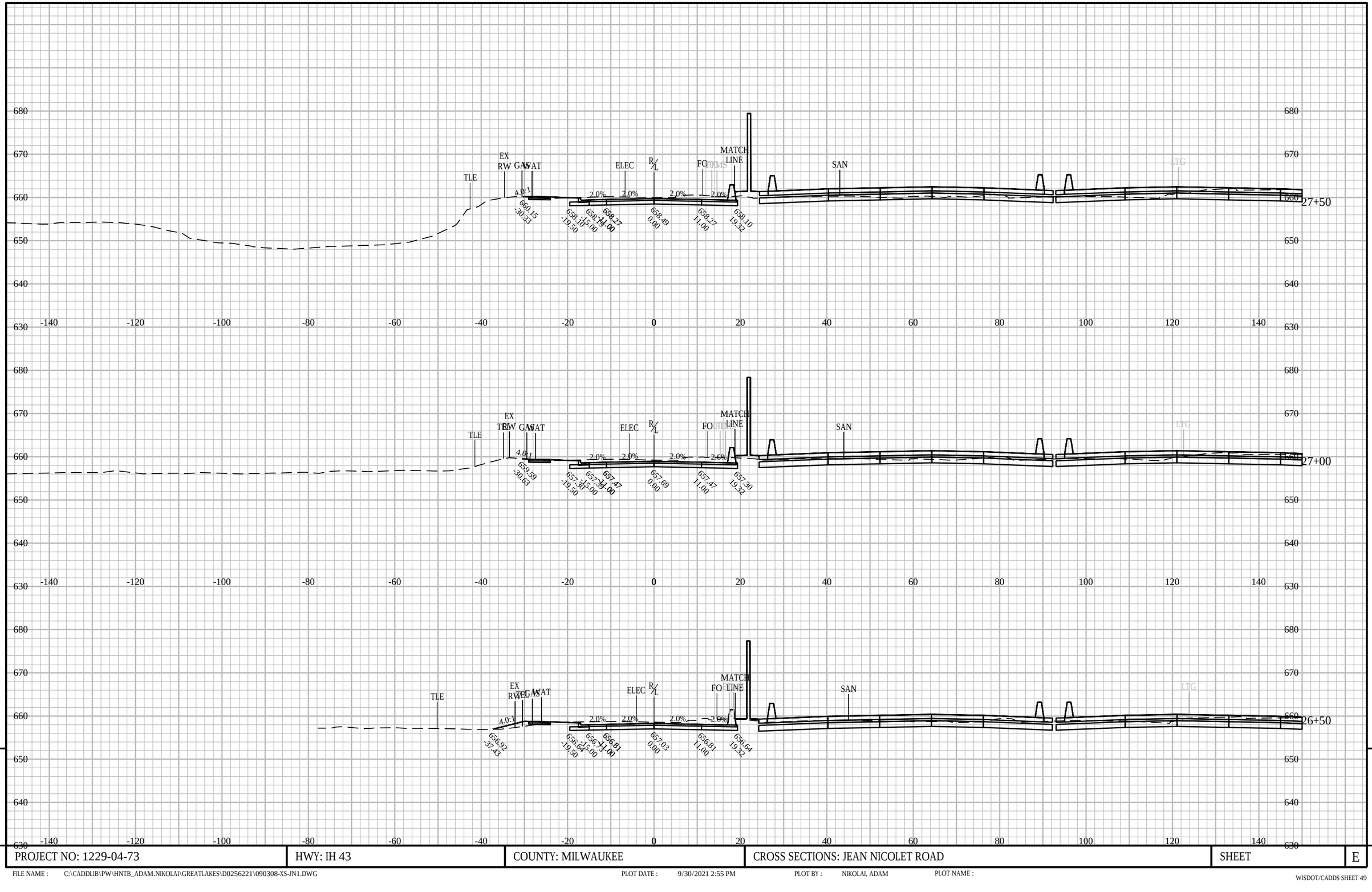
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:55 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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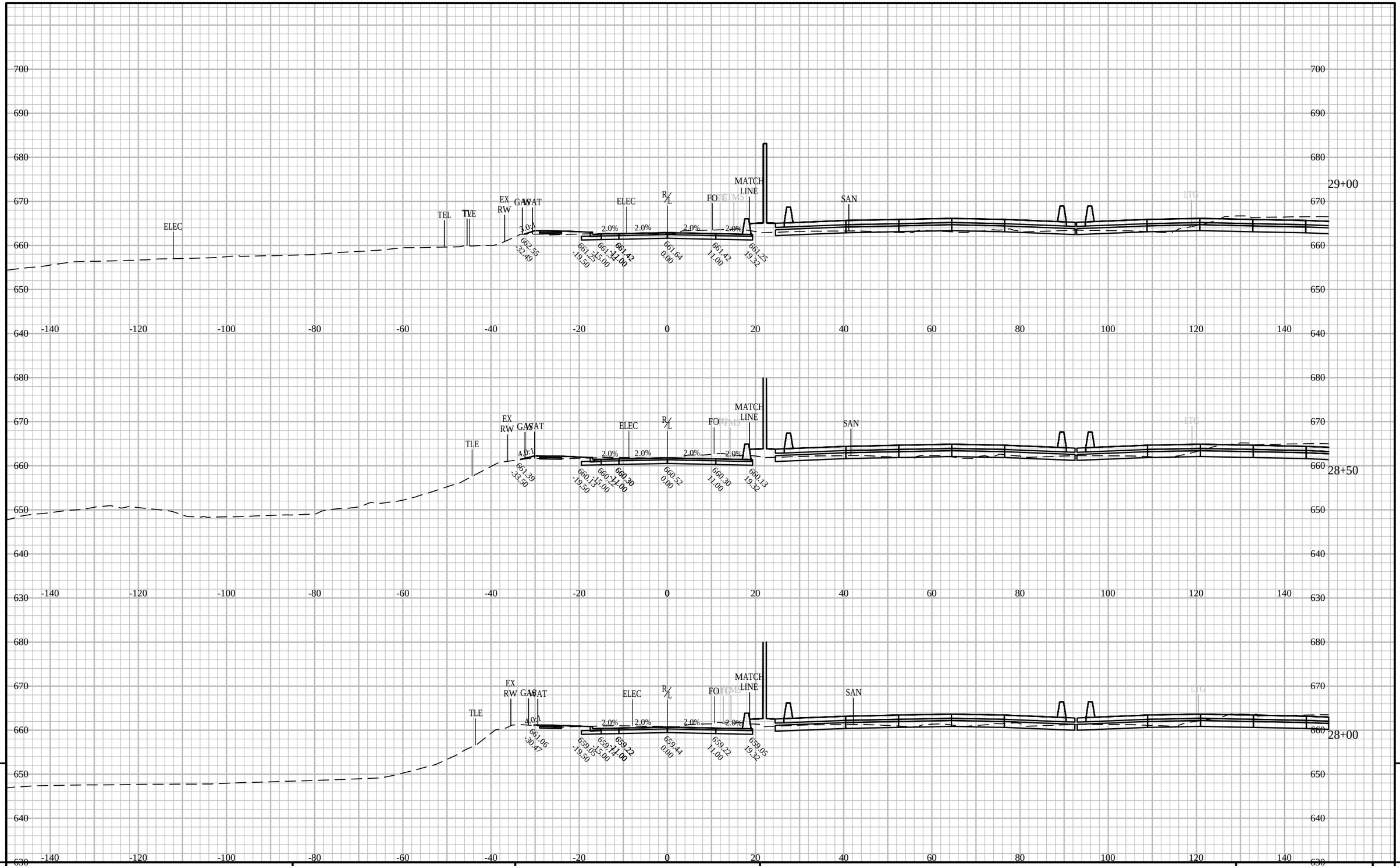
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:55 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

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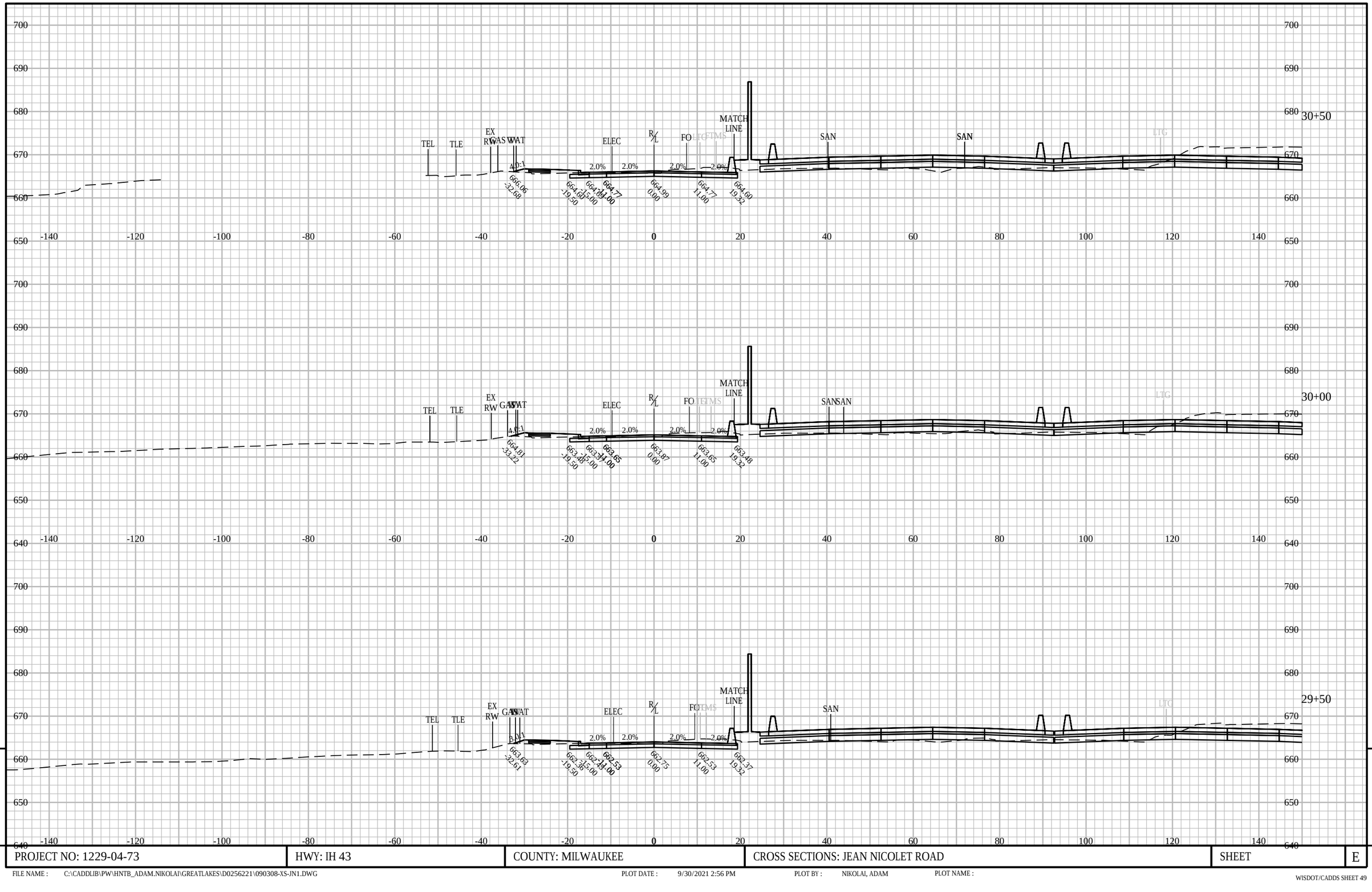

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PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

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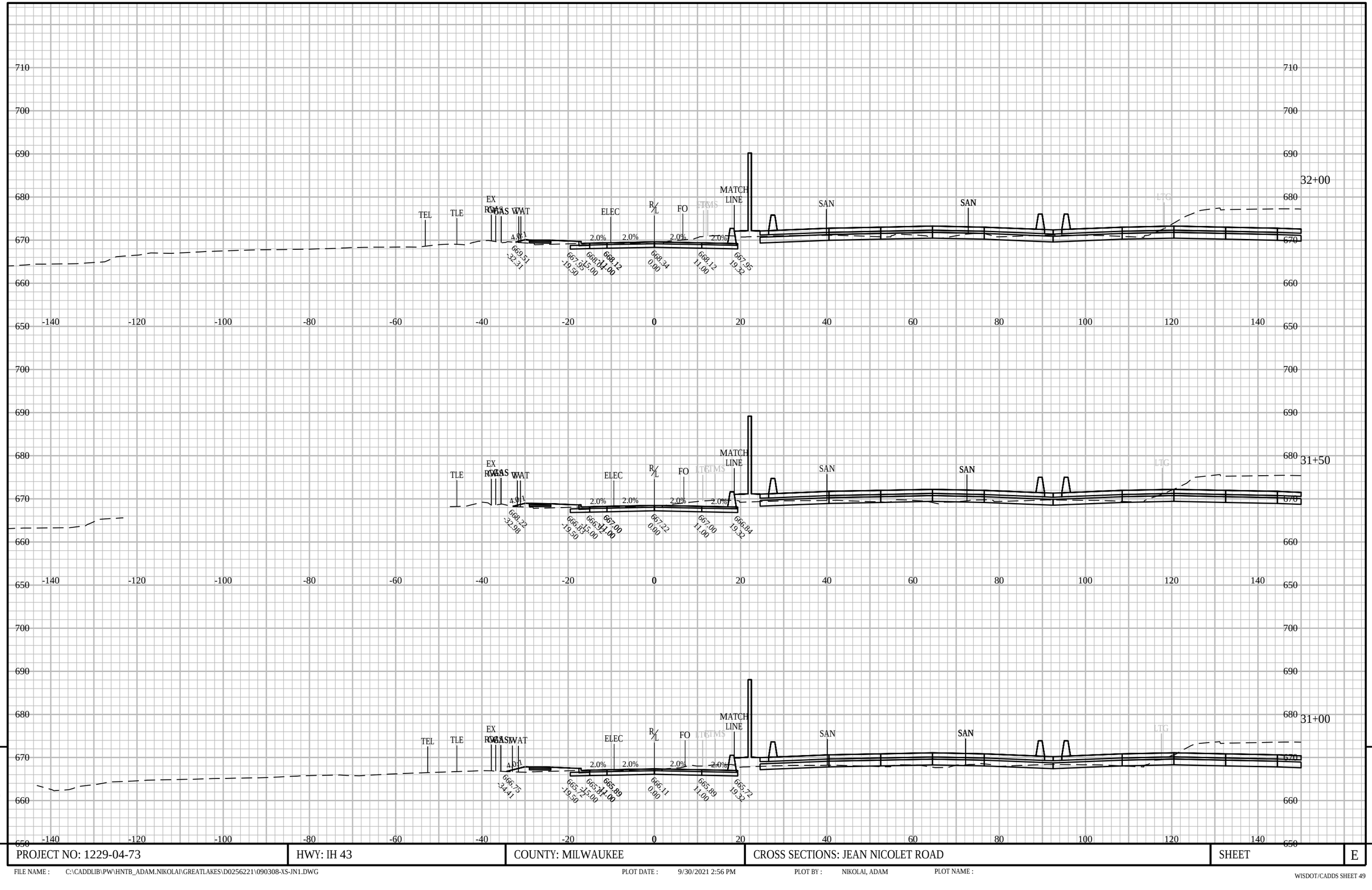
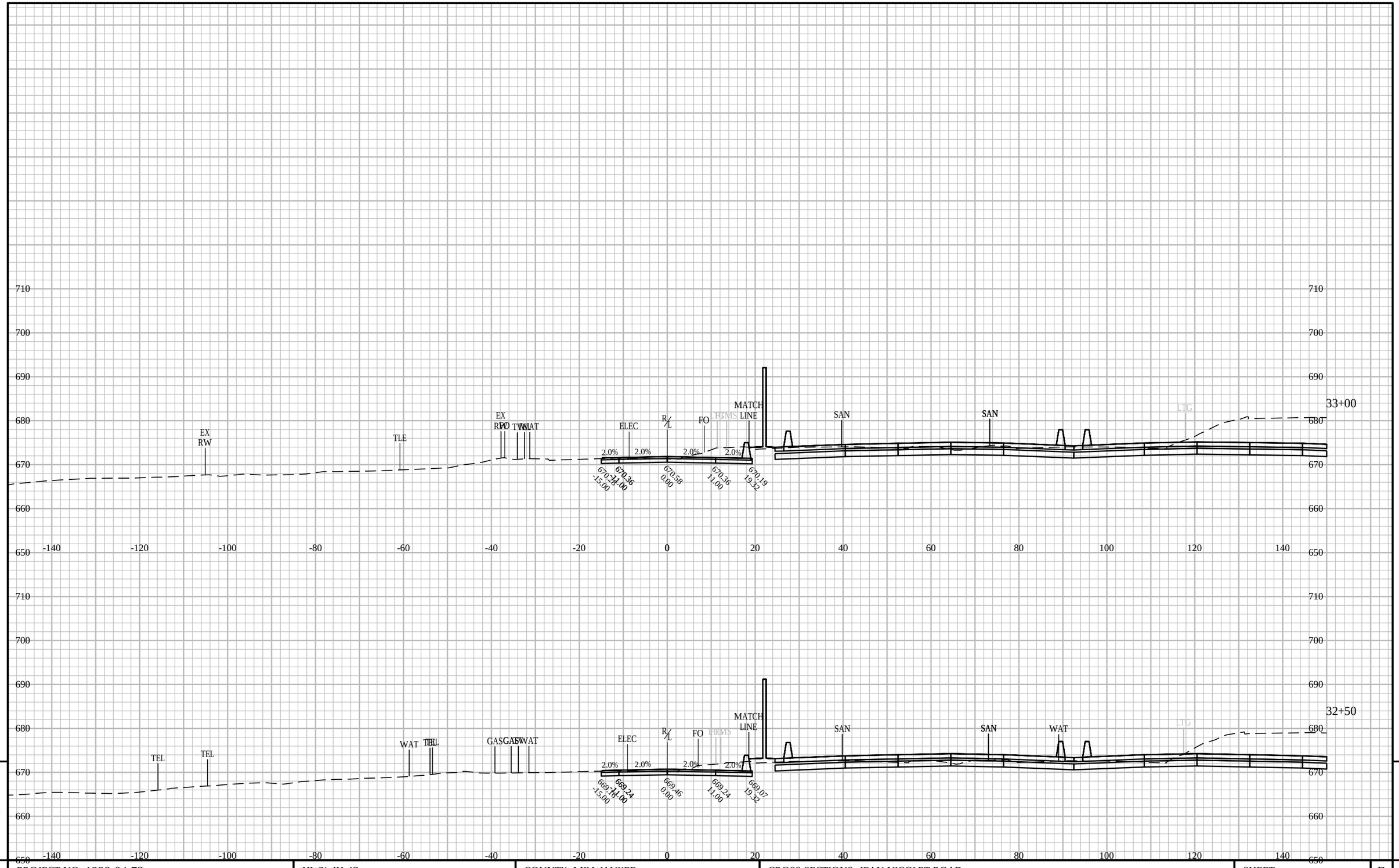


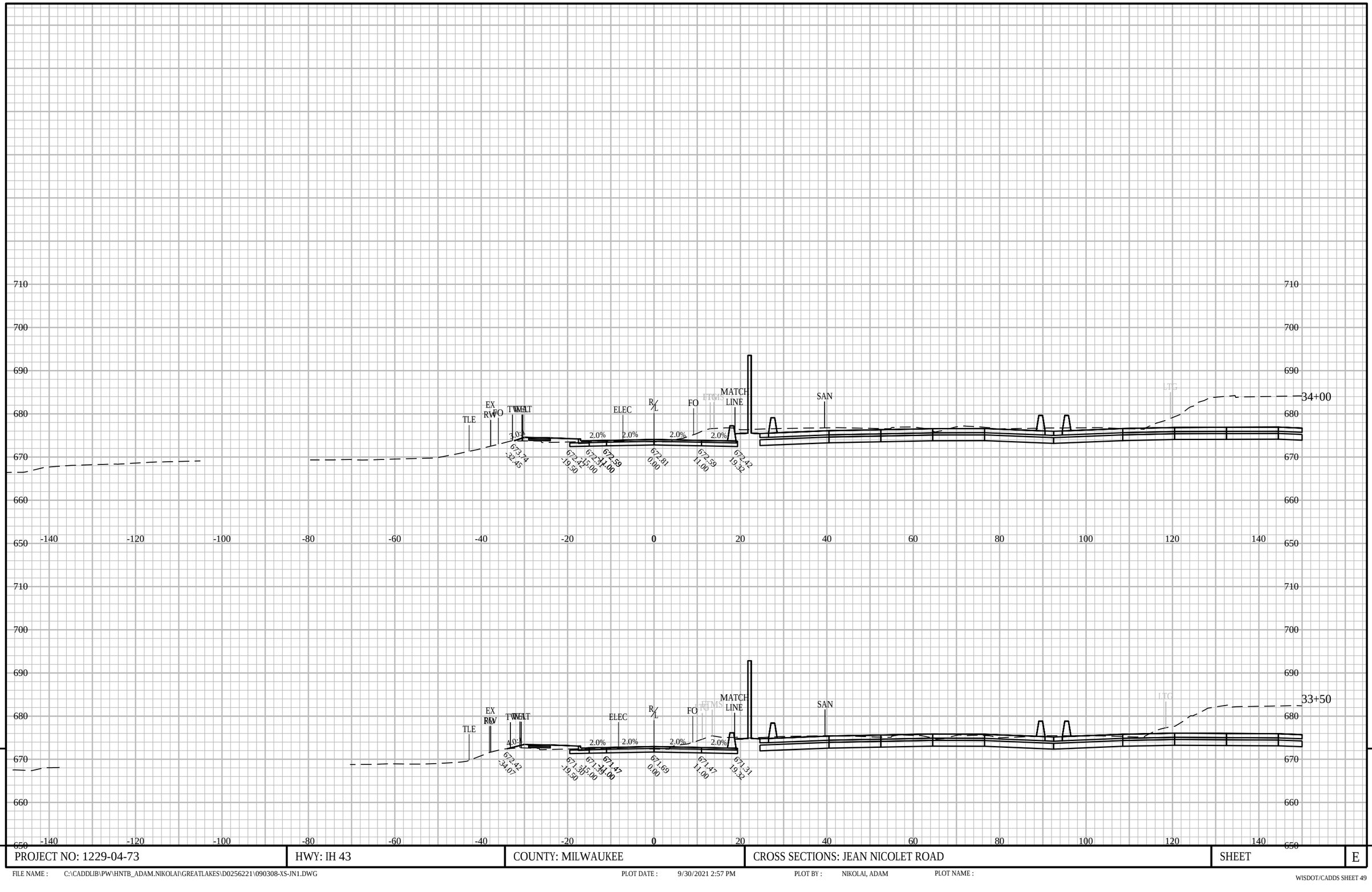
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:56 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



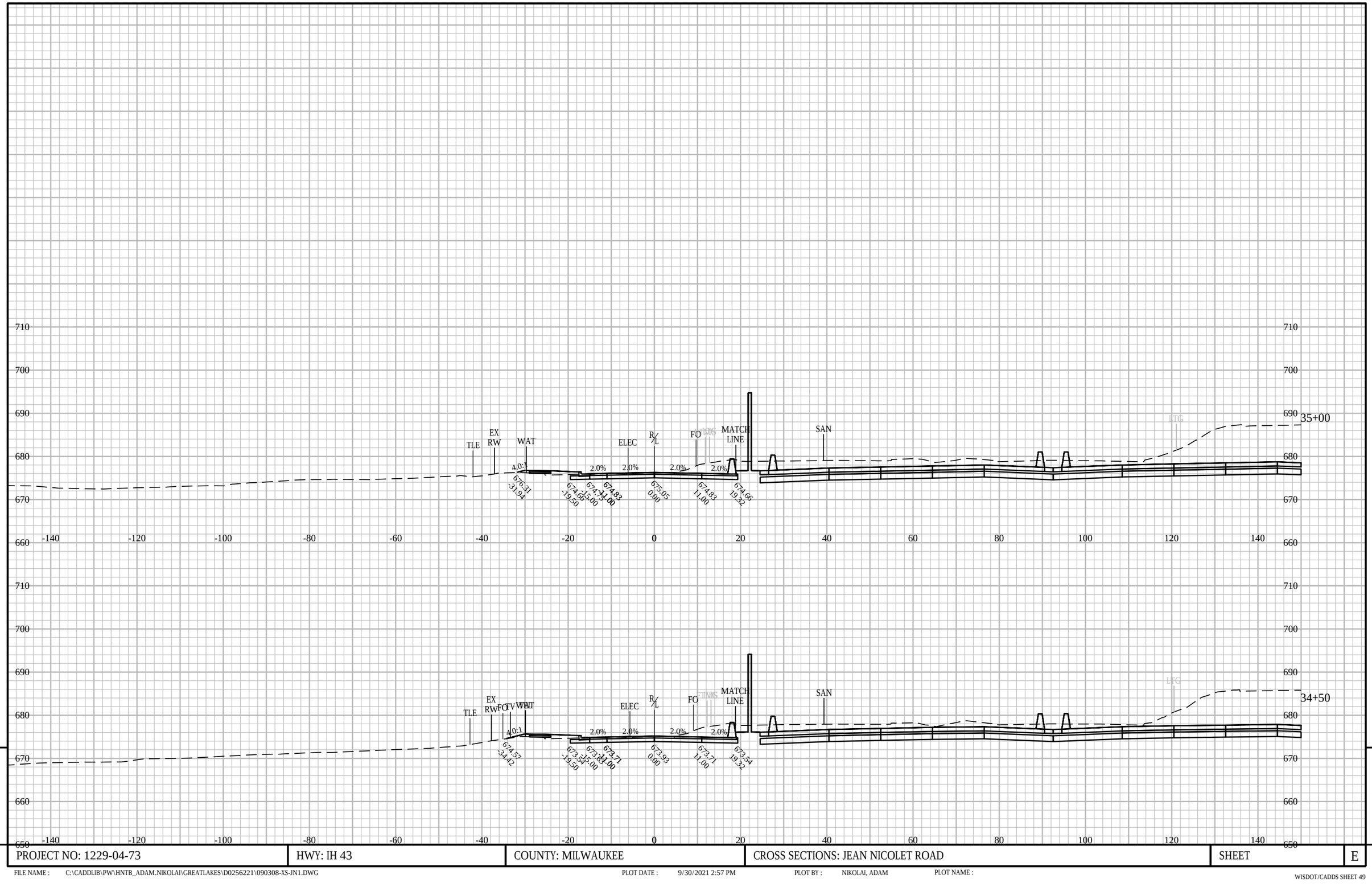
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:56 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



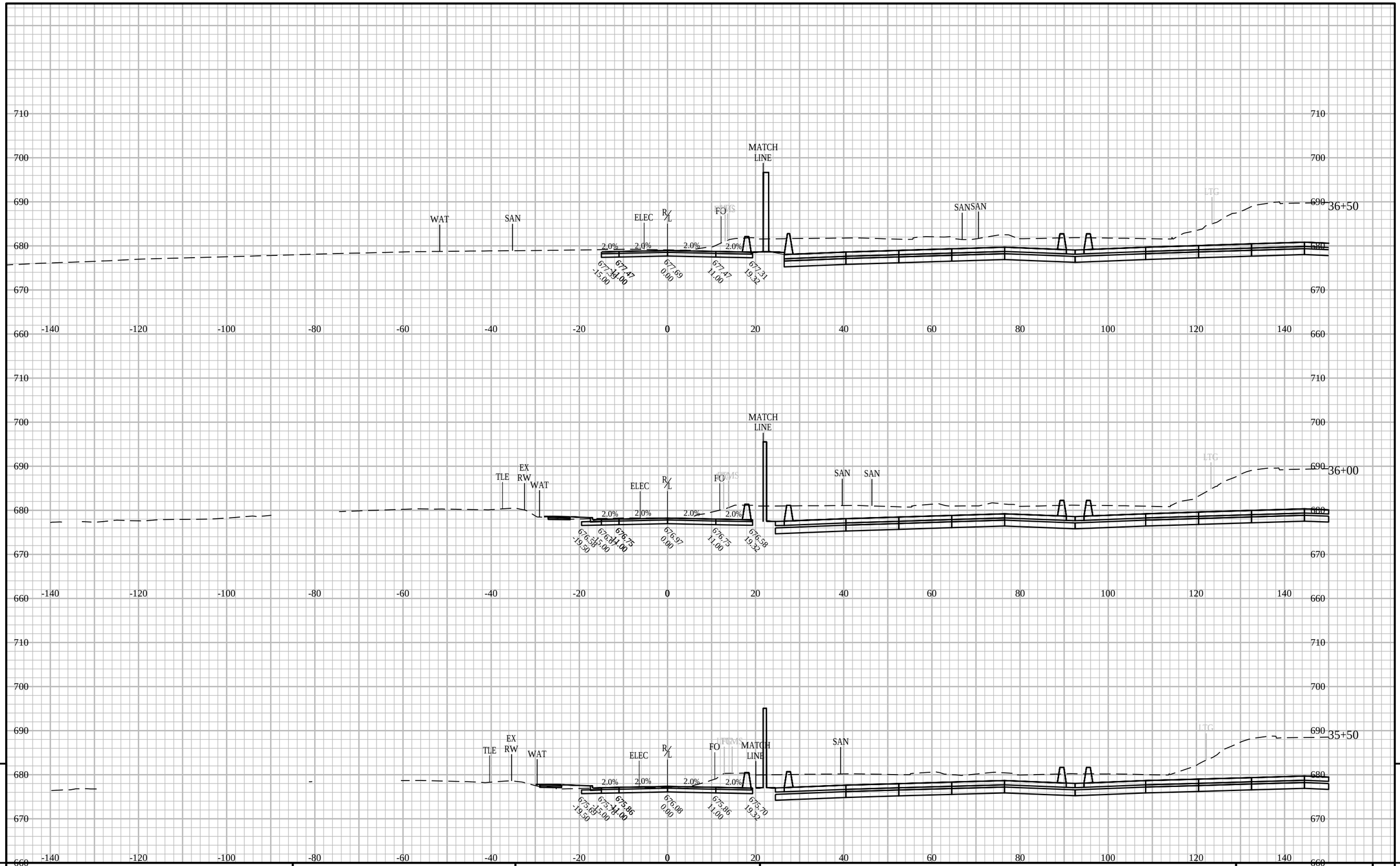
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:57 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



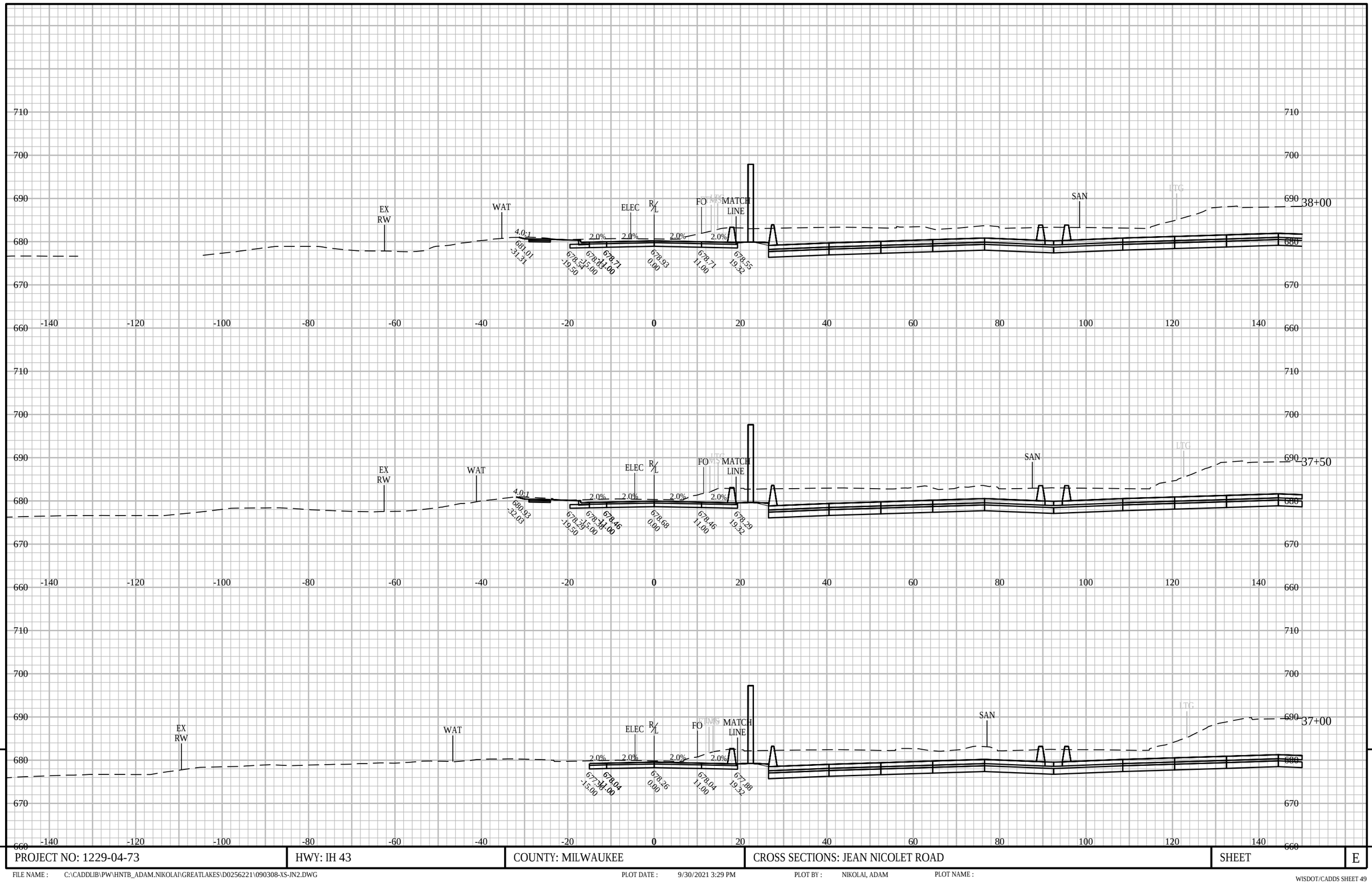
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN1.DWG PLOT DATE : 9/30/2021 2:57 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



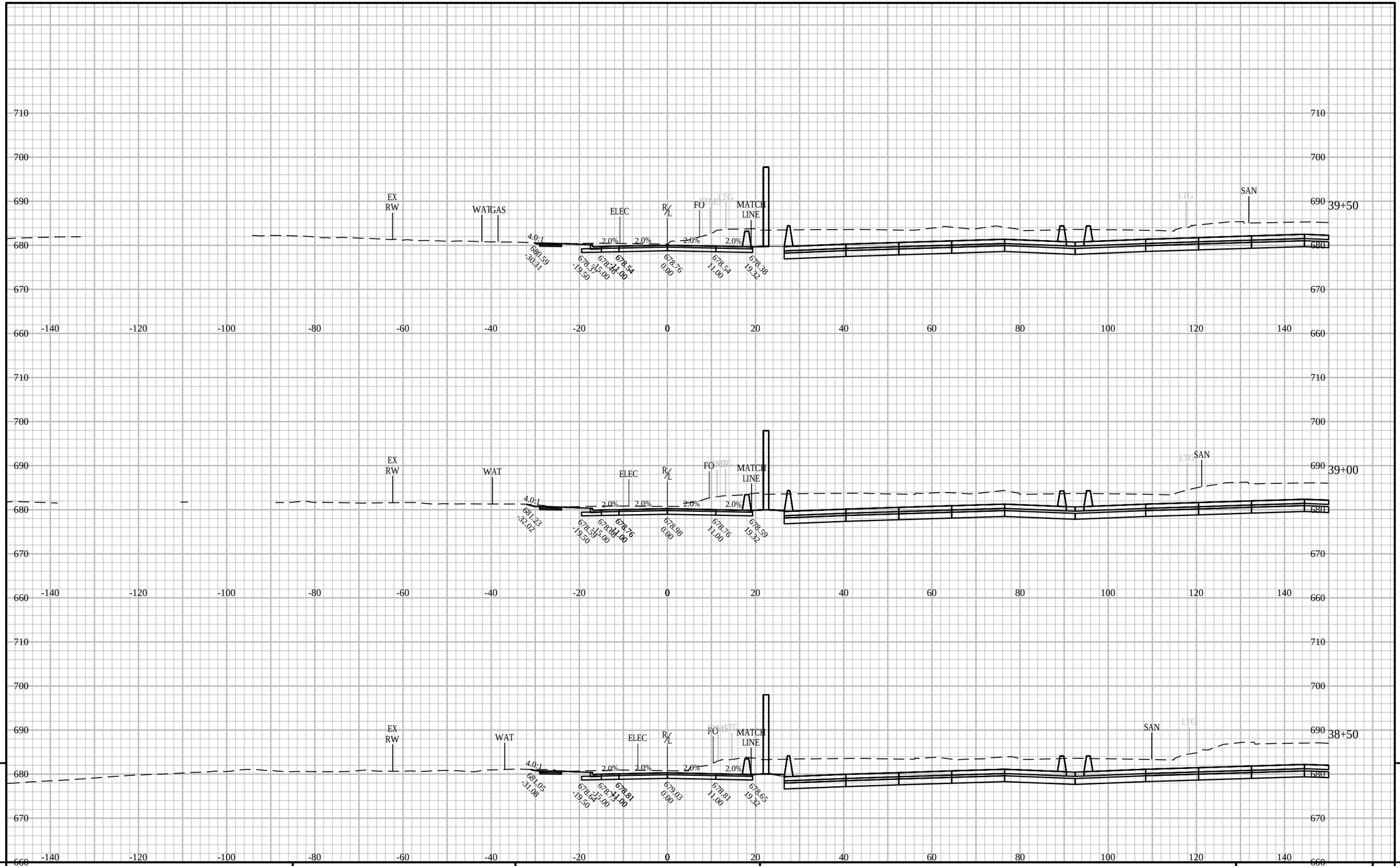
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

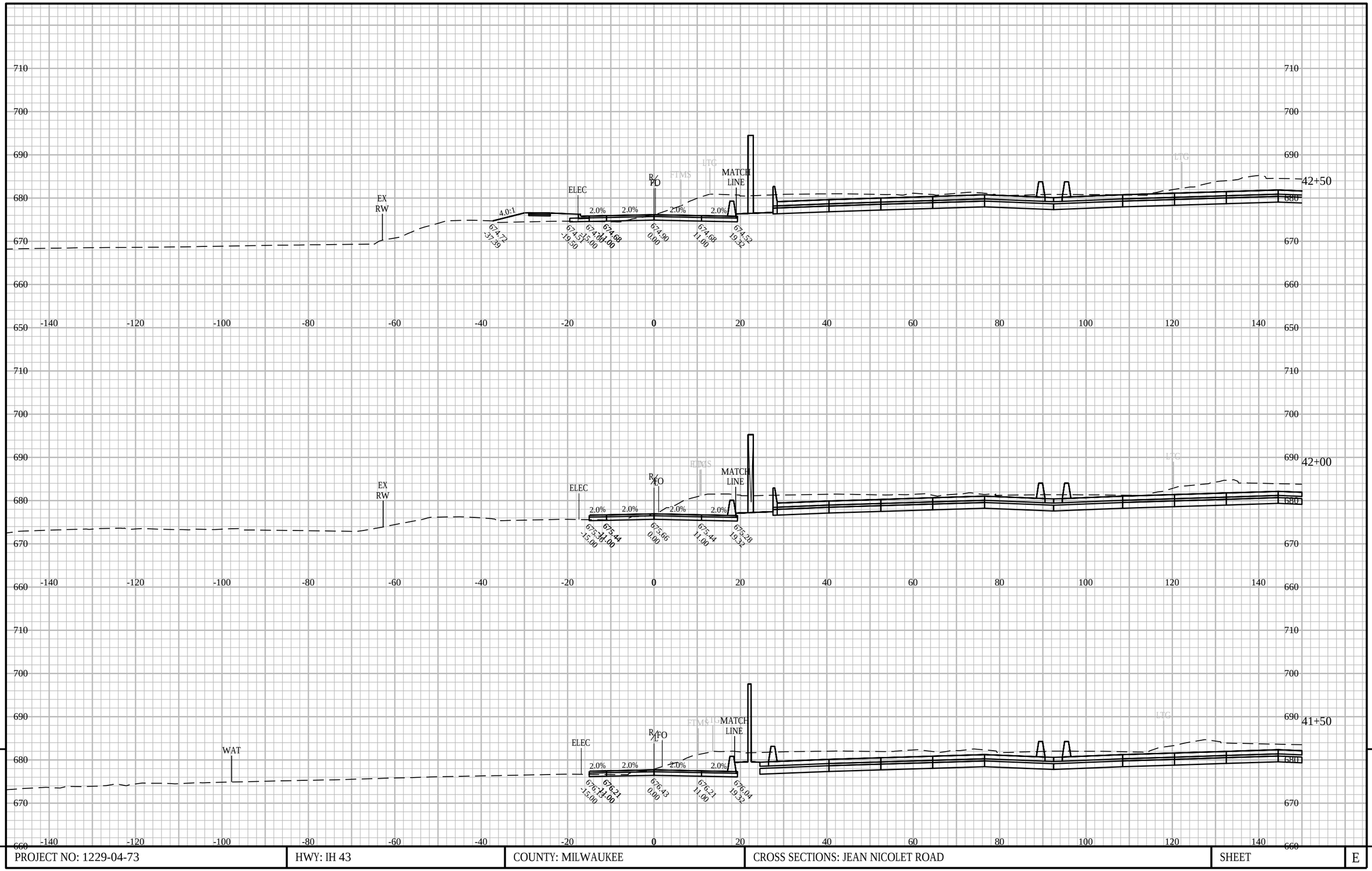
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

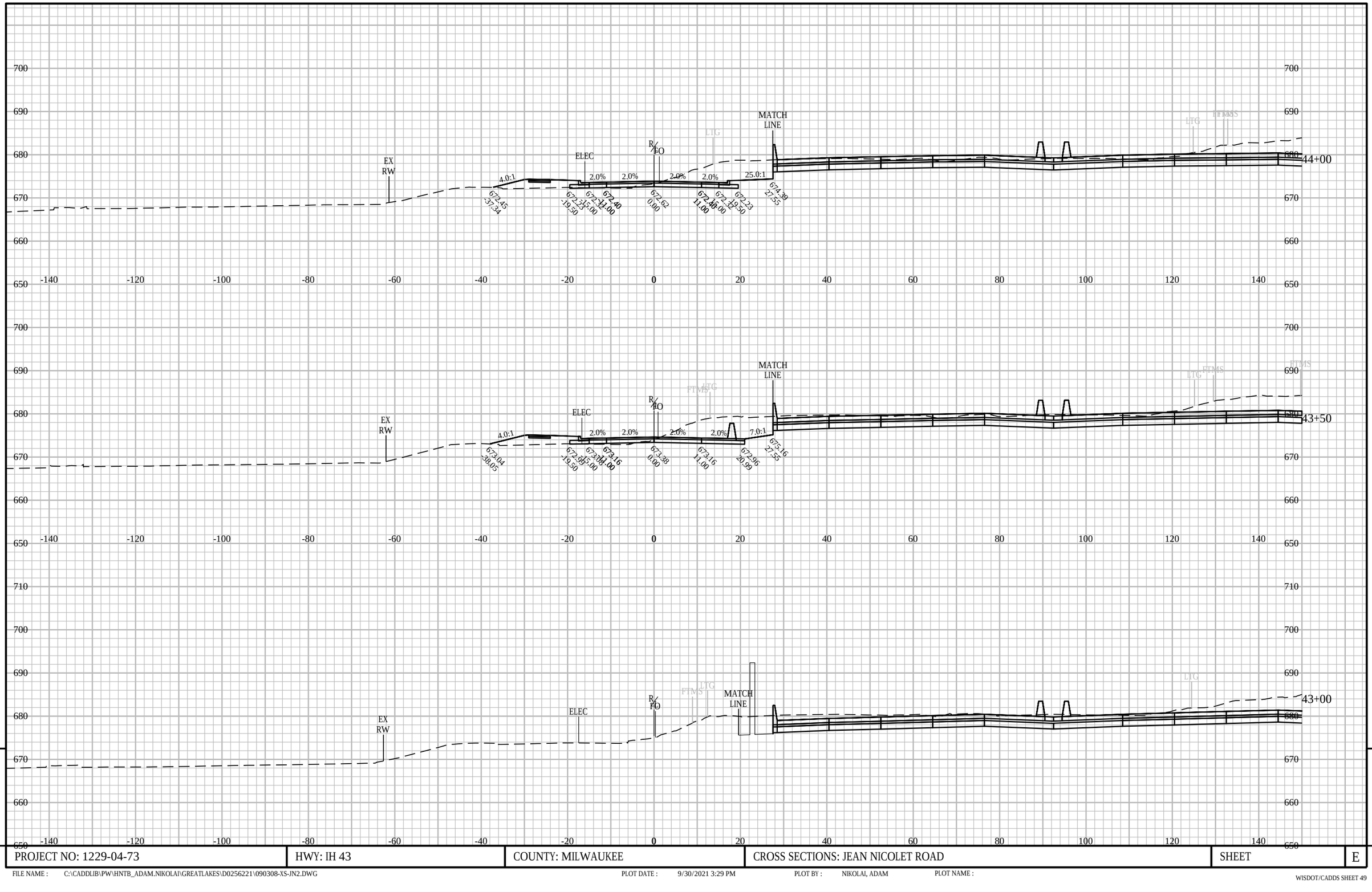
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:29 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

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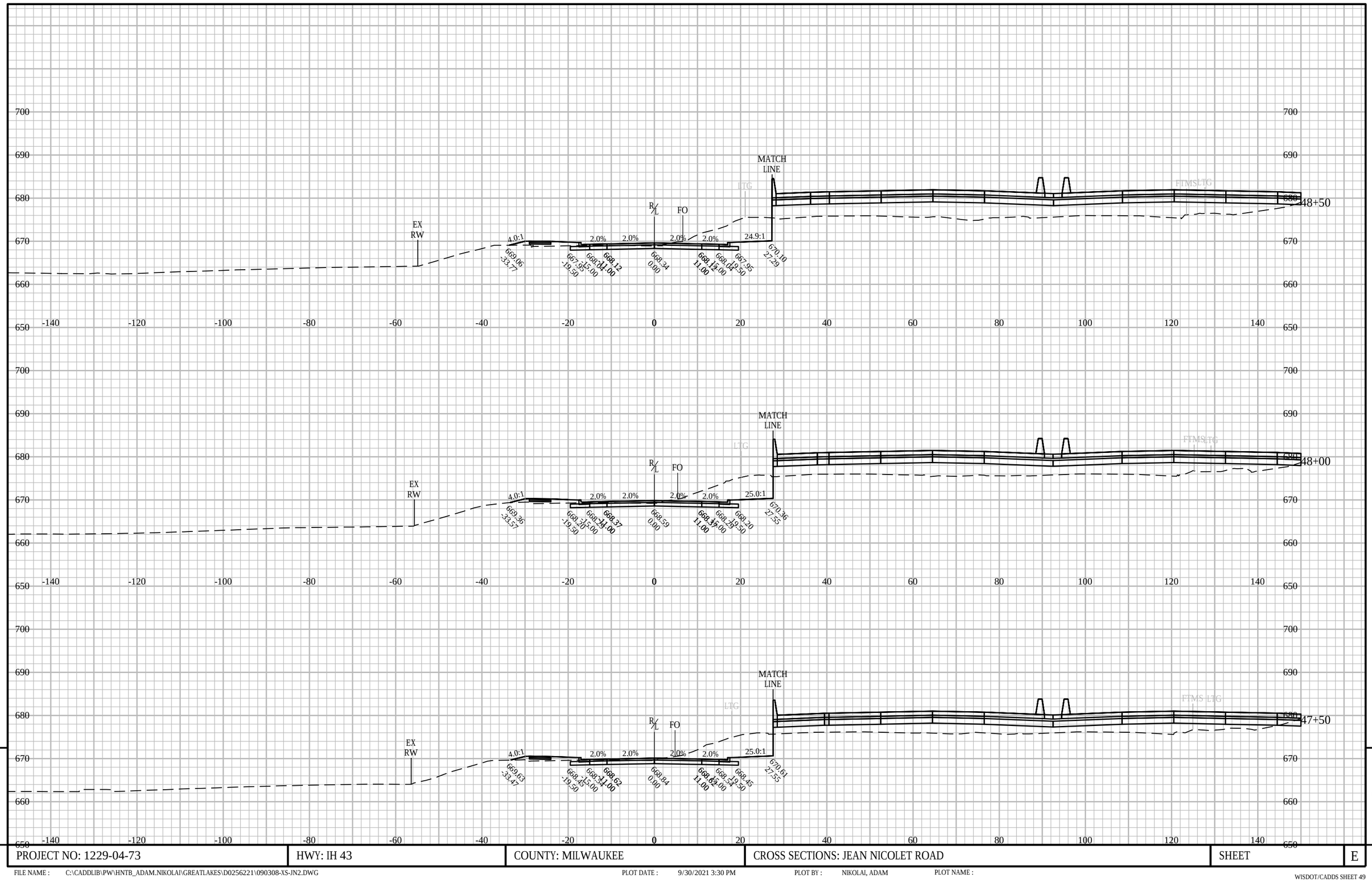
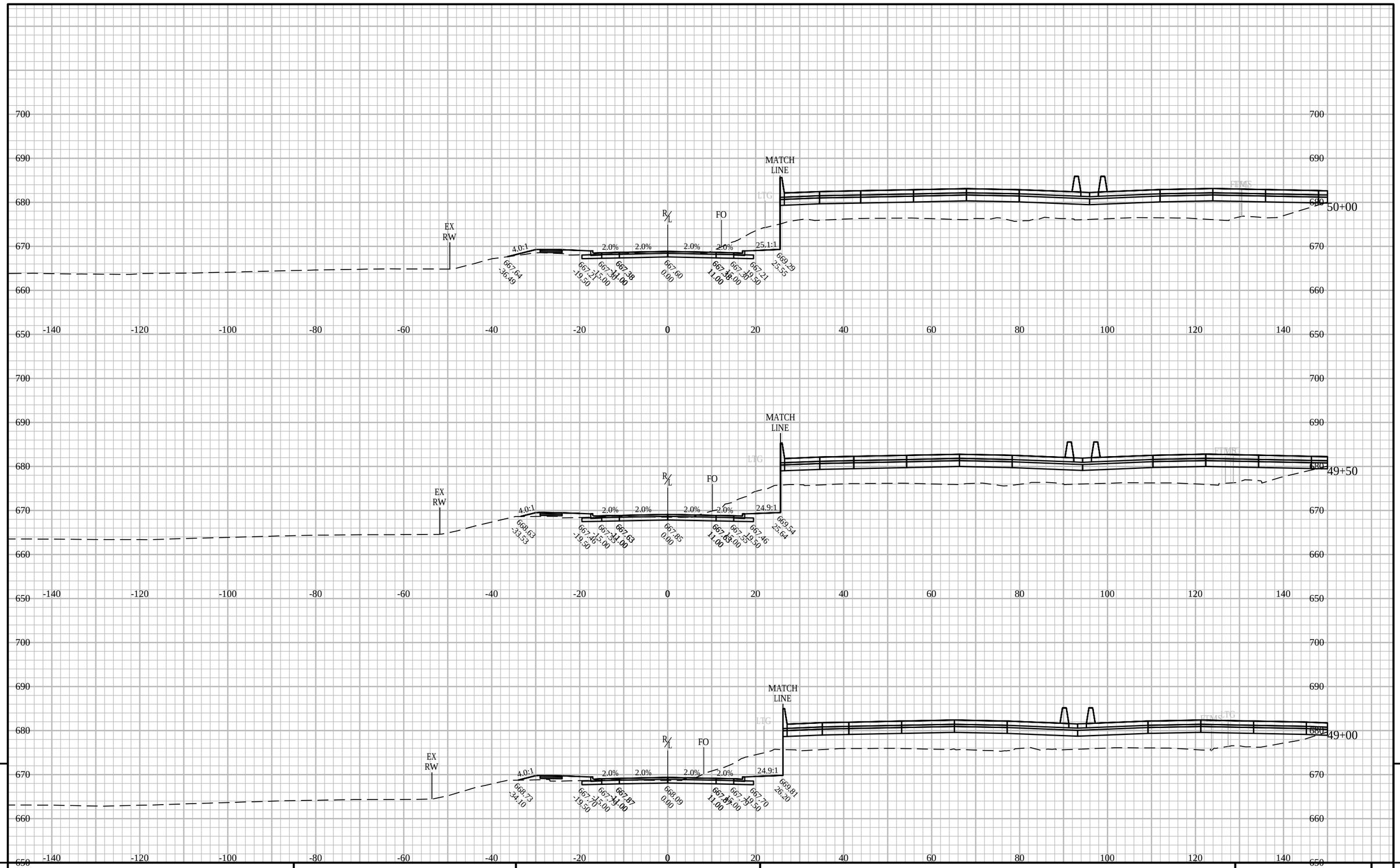
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:30 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

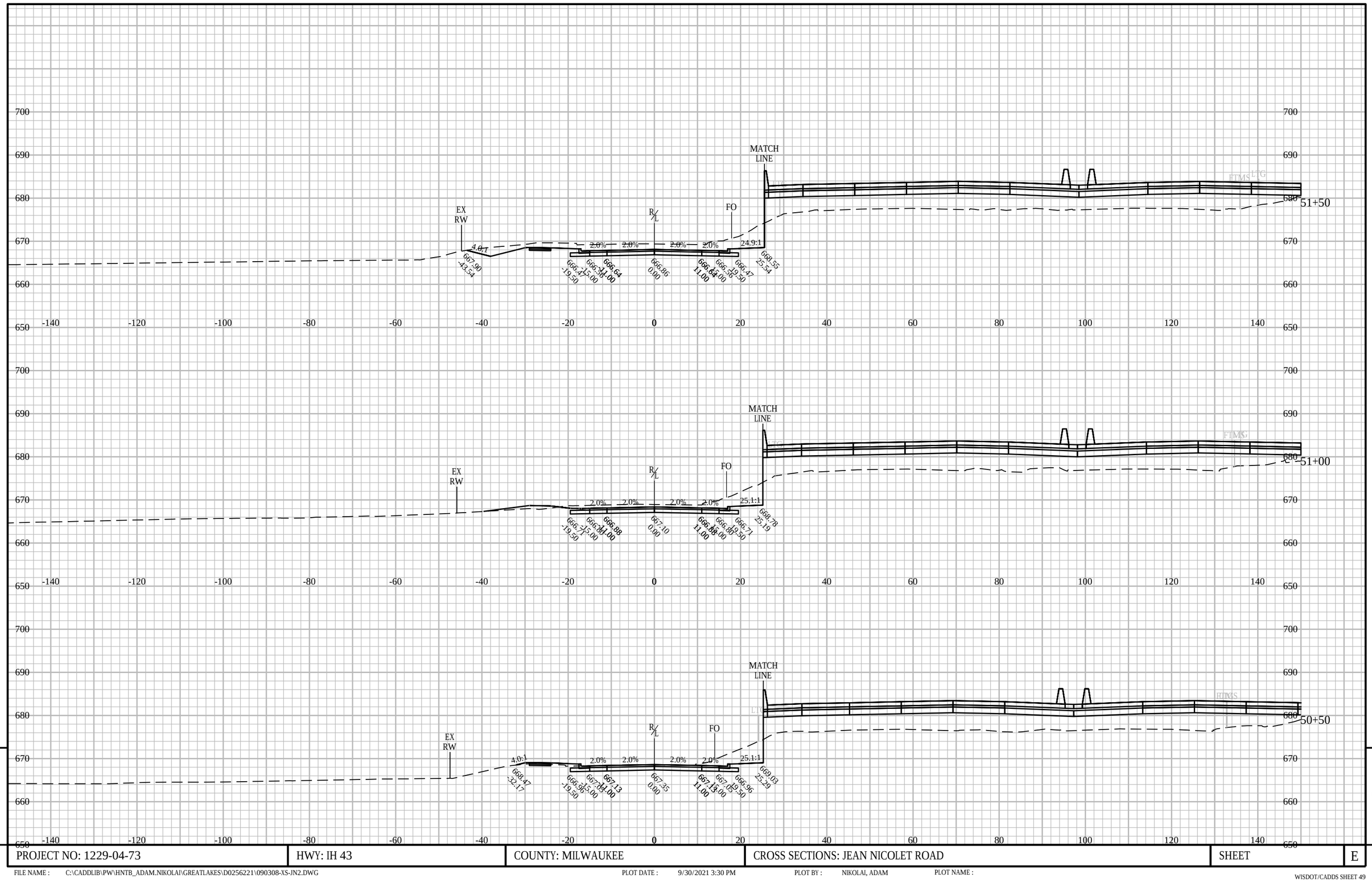
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:30 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:30 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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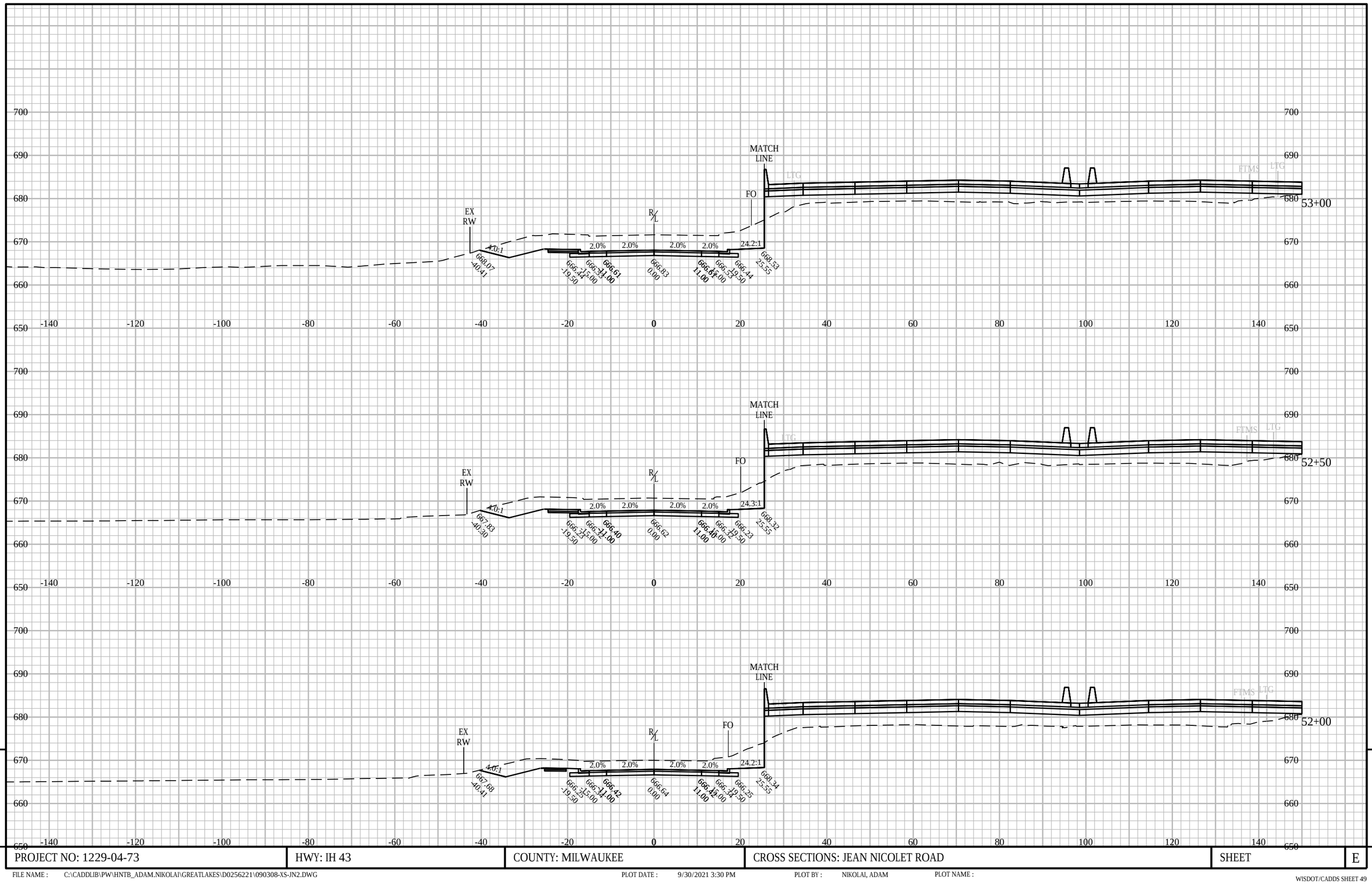
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:30 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:30 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

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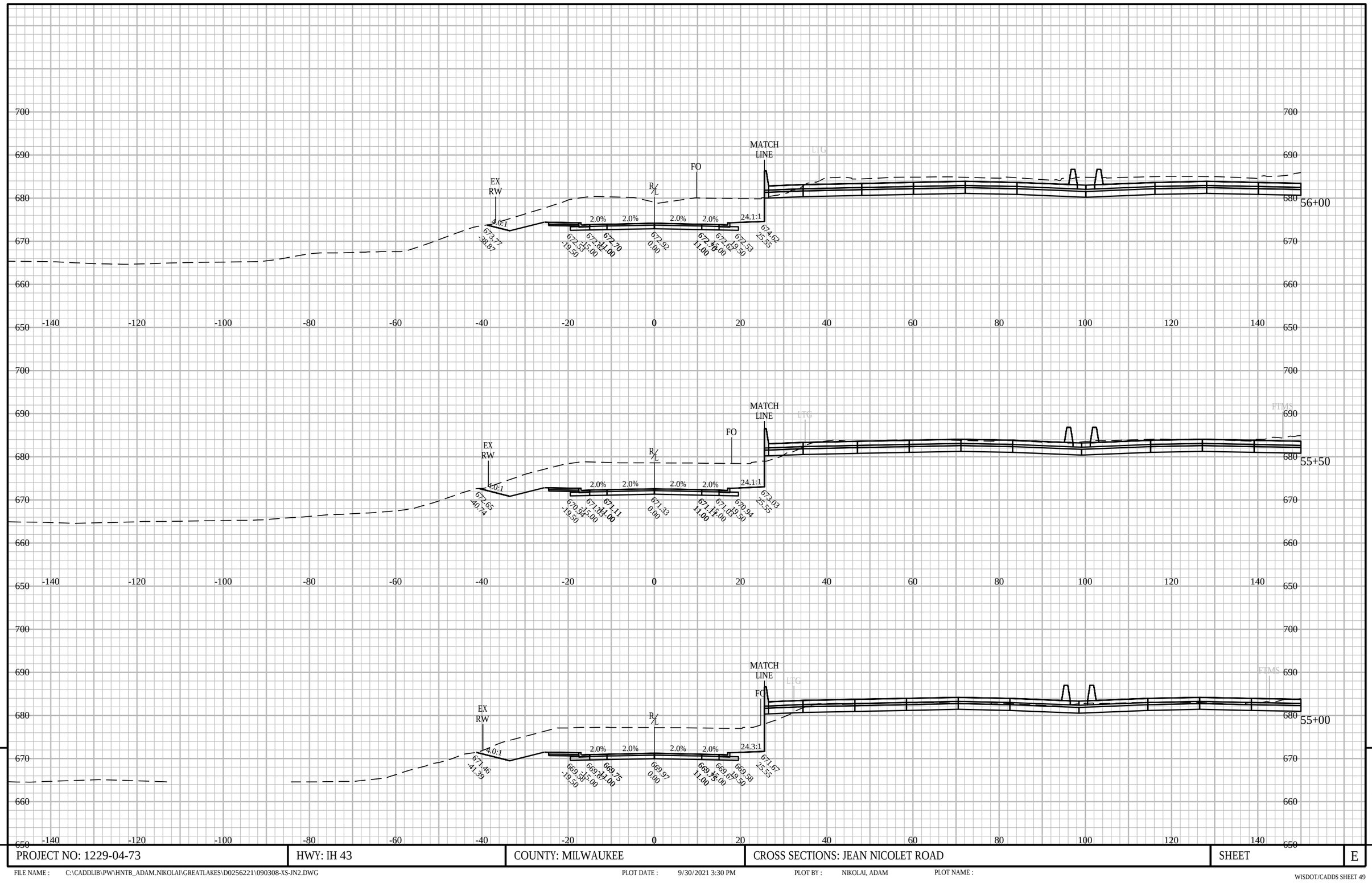
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

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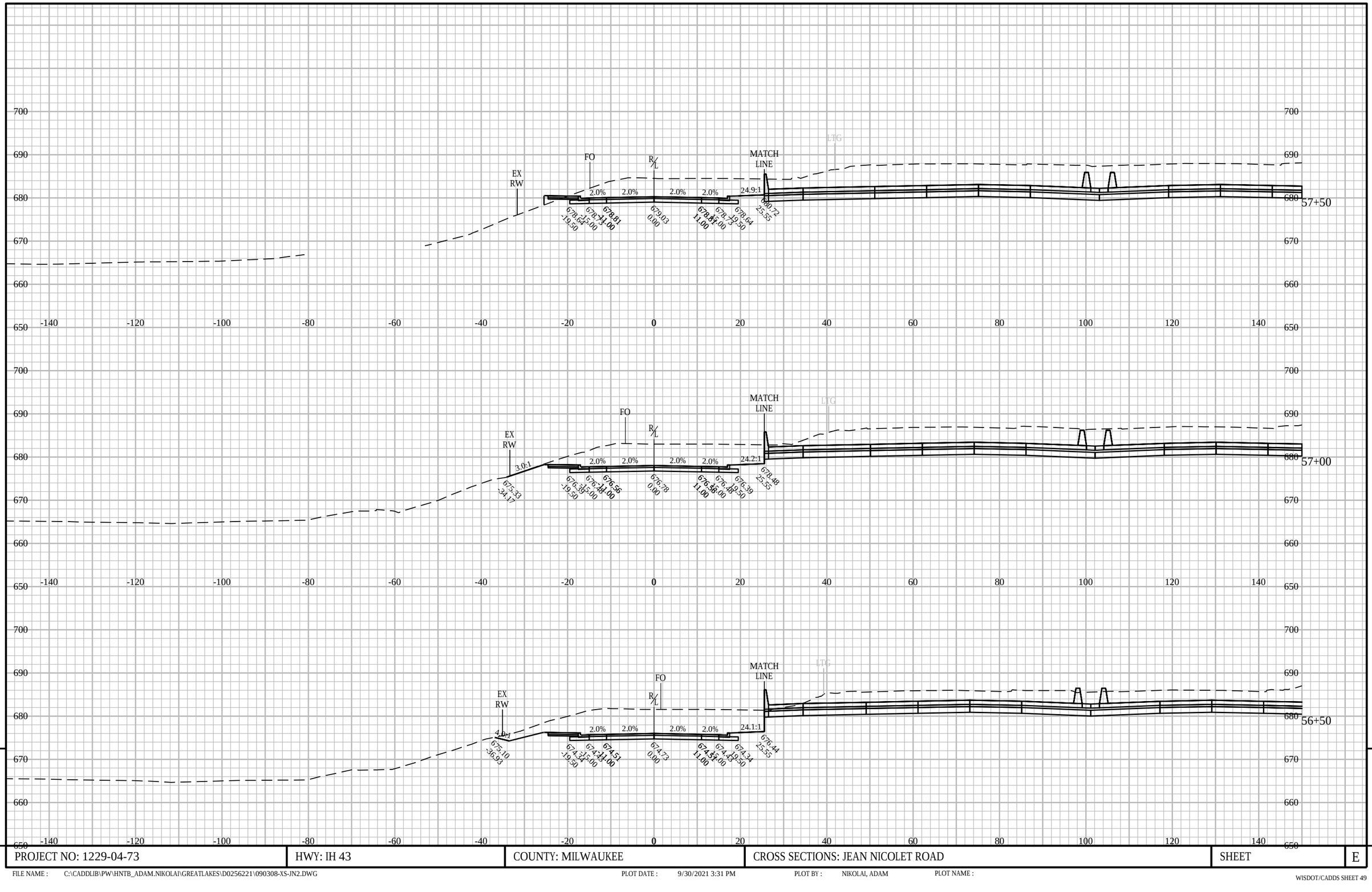
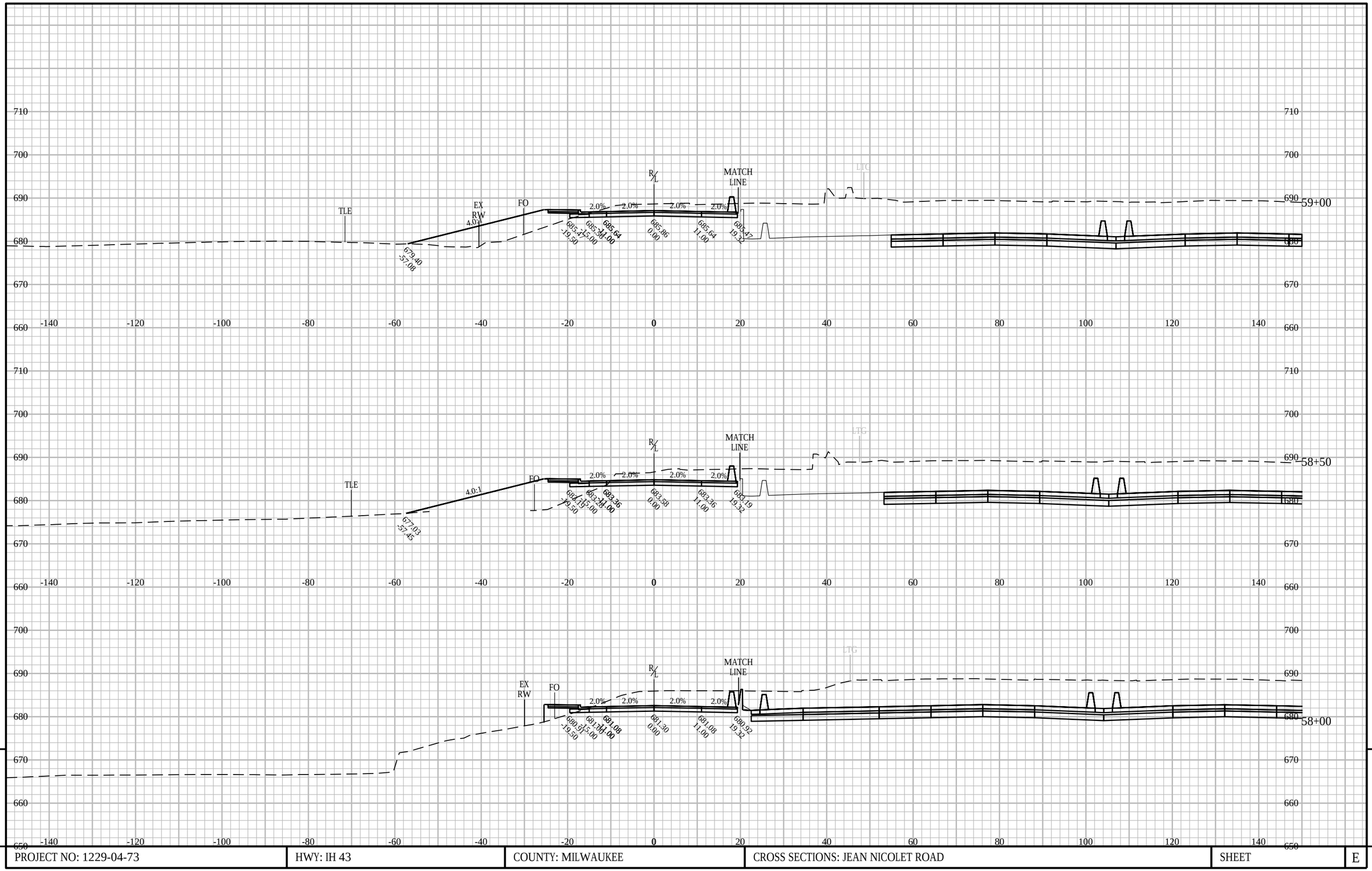
WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:31 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:31 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49

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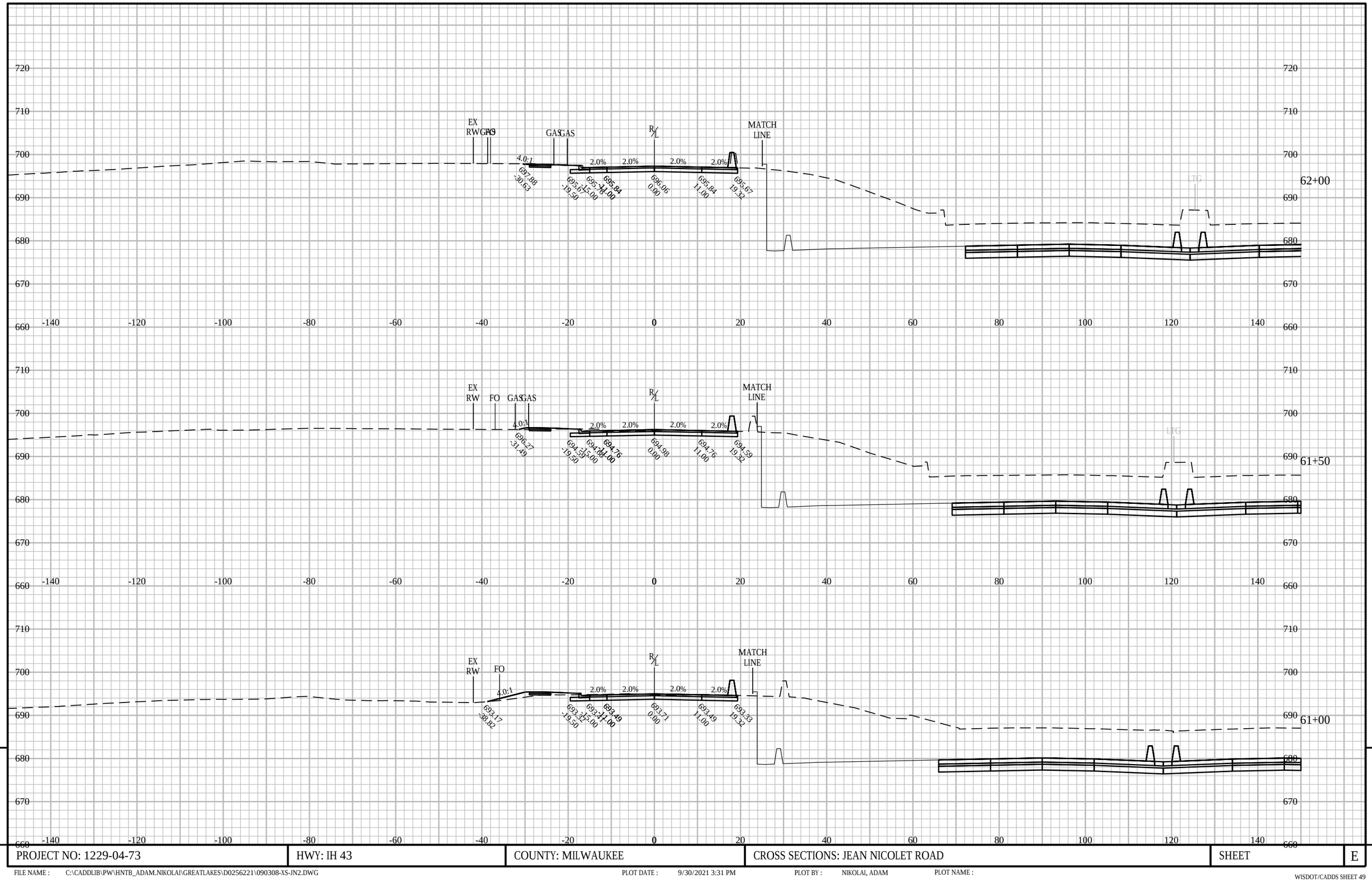
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:31 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:31 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49

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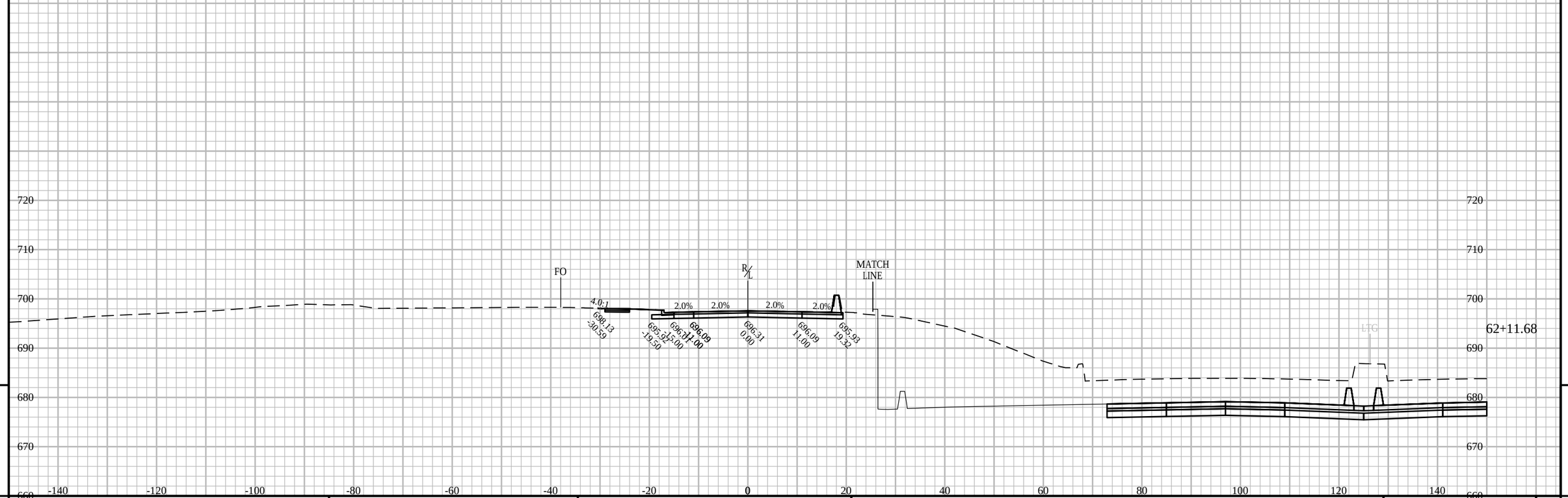

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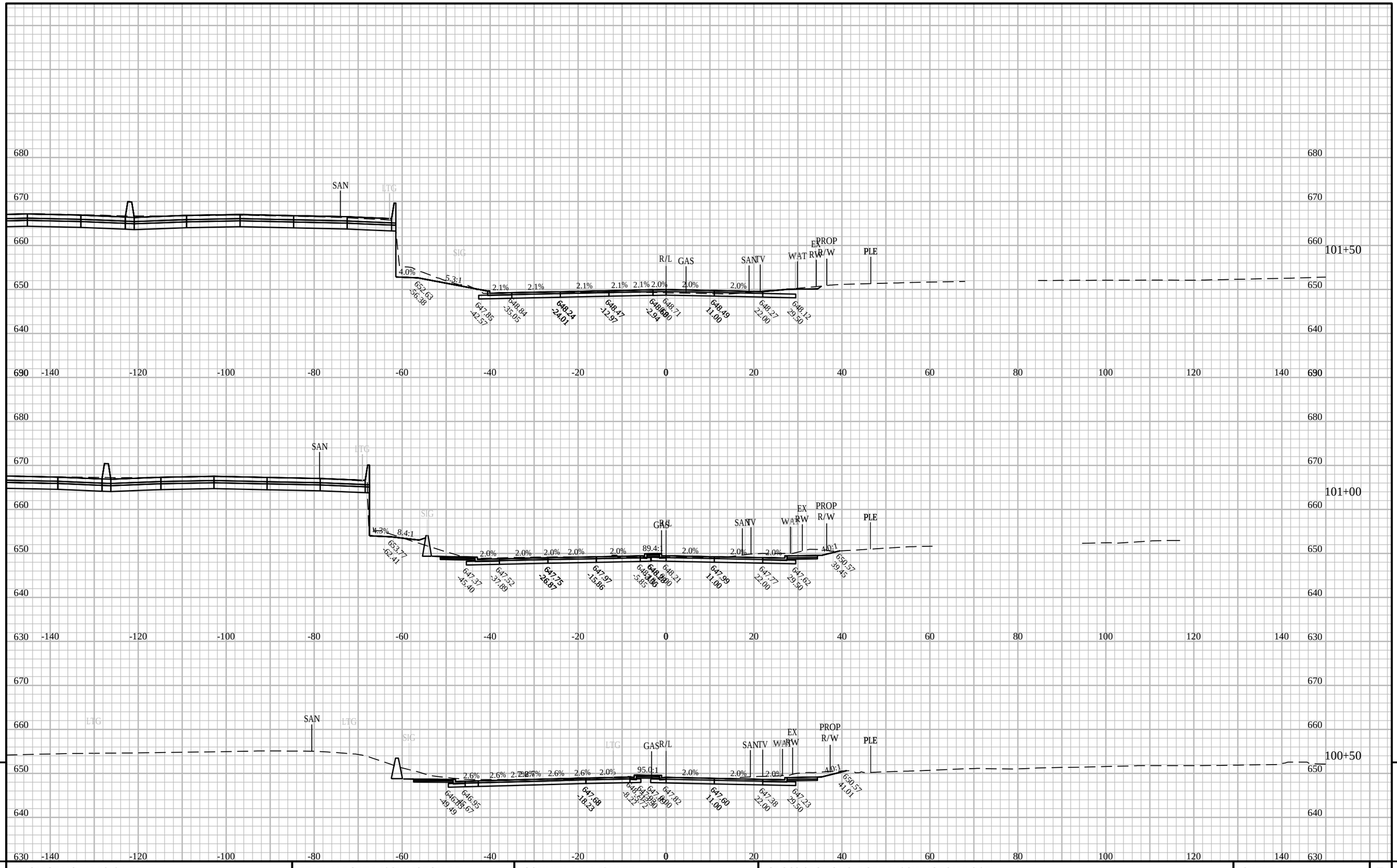
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: JEAN NICOLET ROAD	SHEET	E

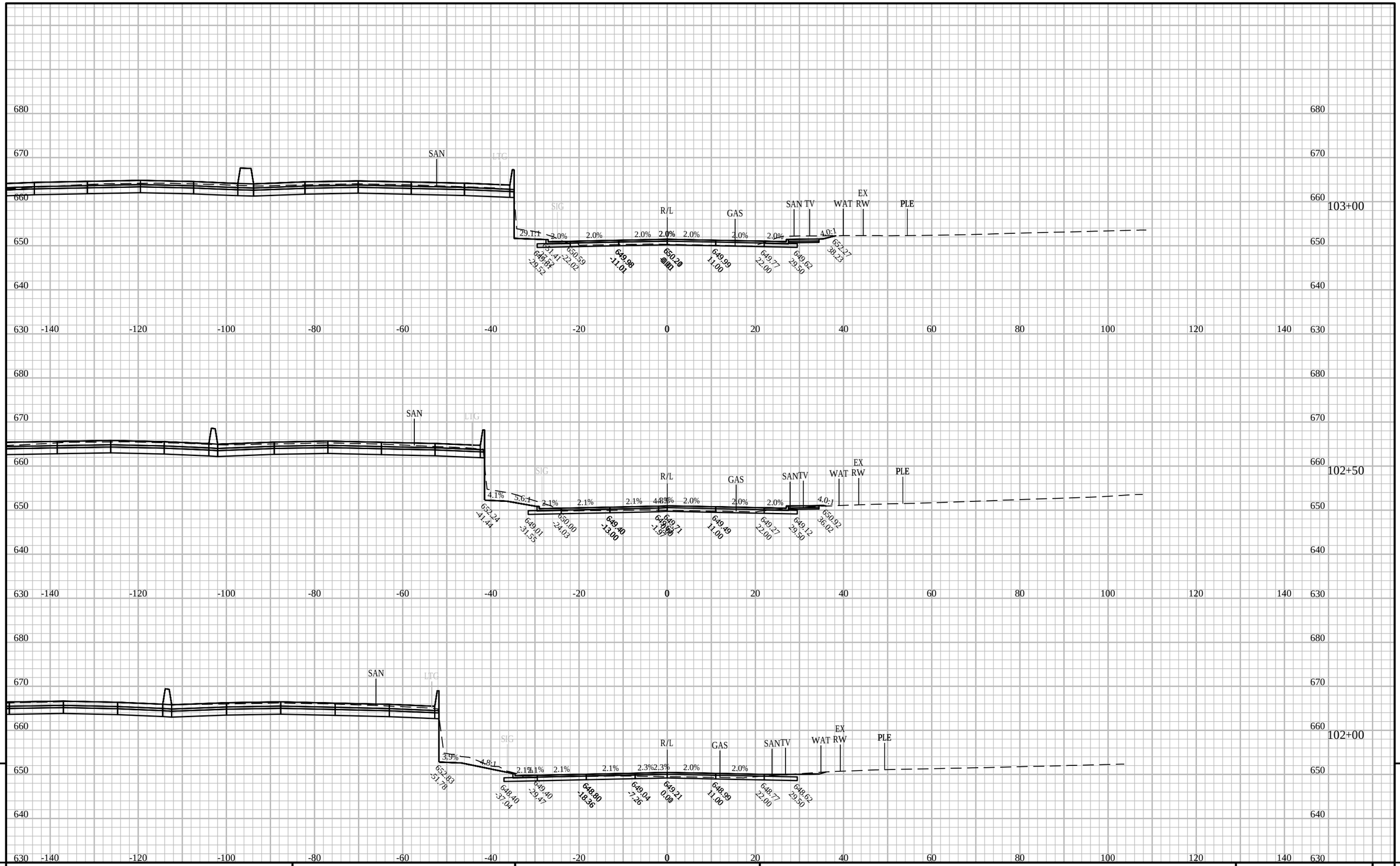
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0256221\090308-XS-JN2.DWG PLOT DATE : 9/30/2021 3:31 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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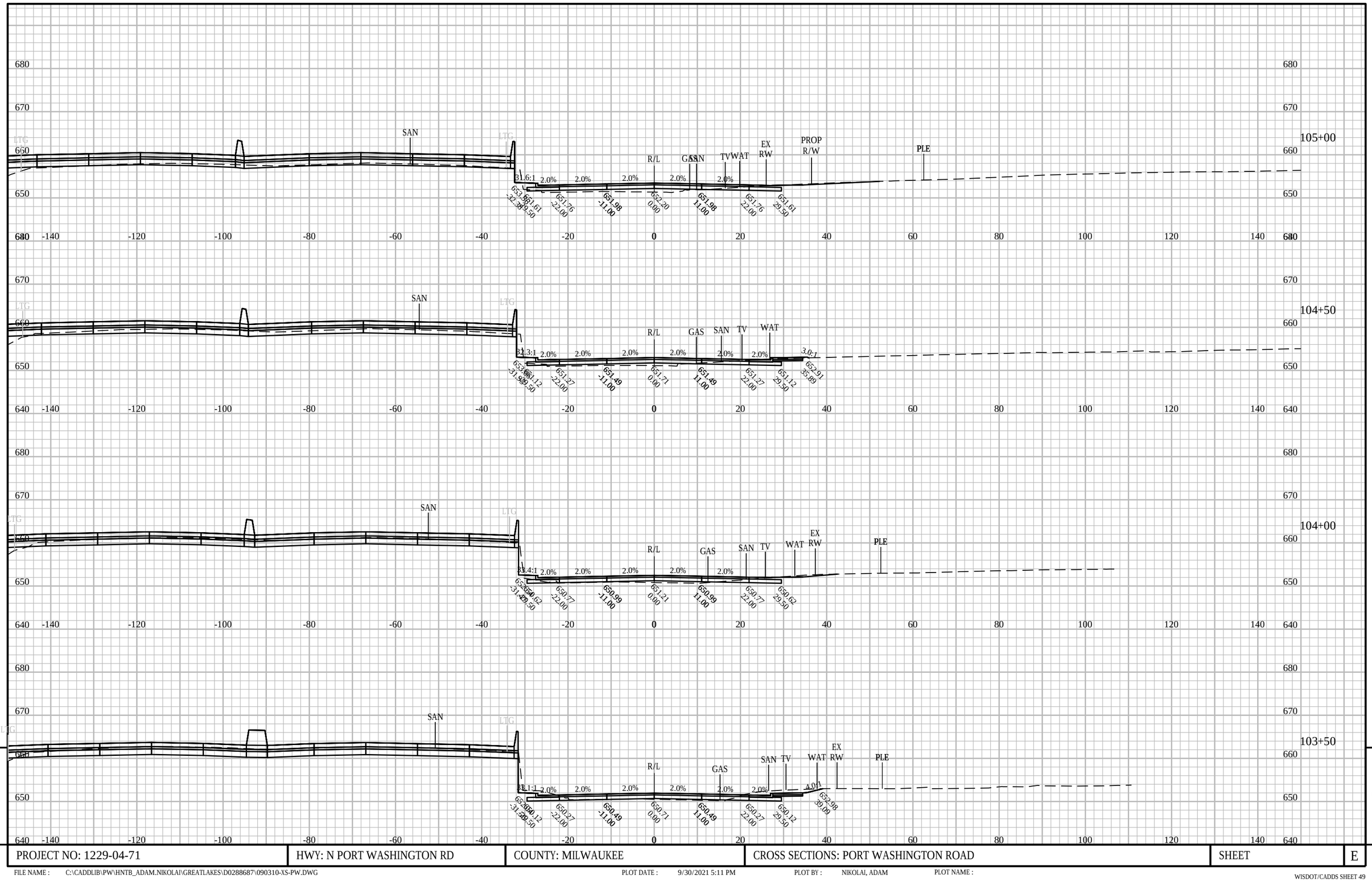
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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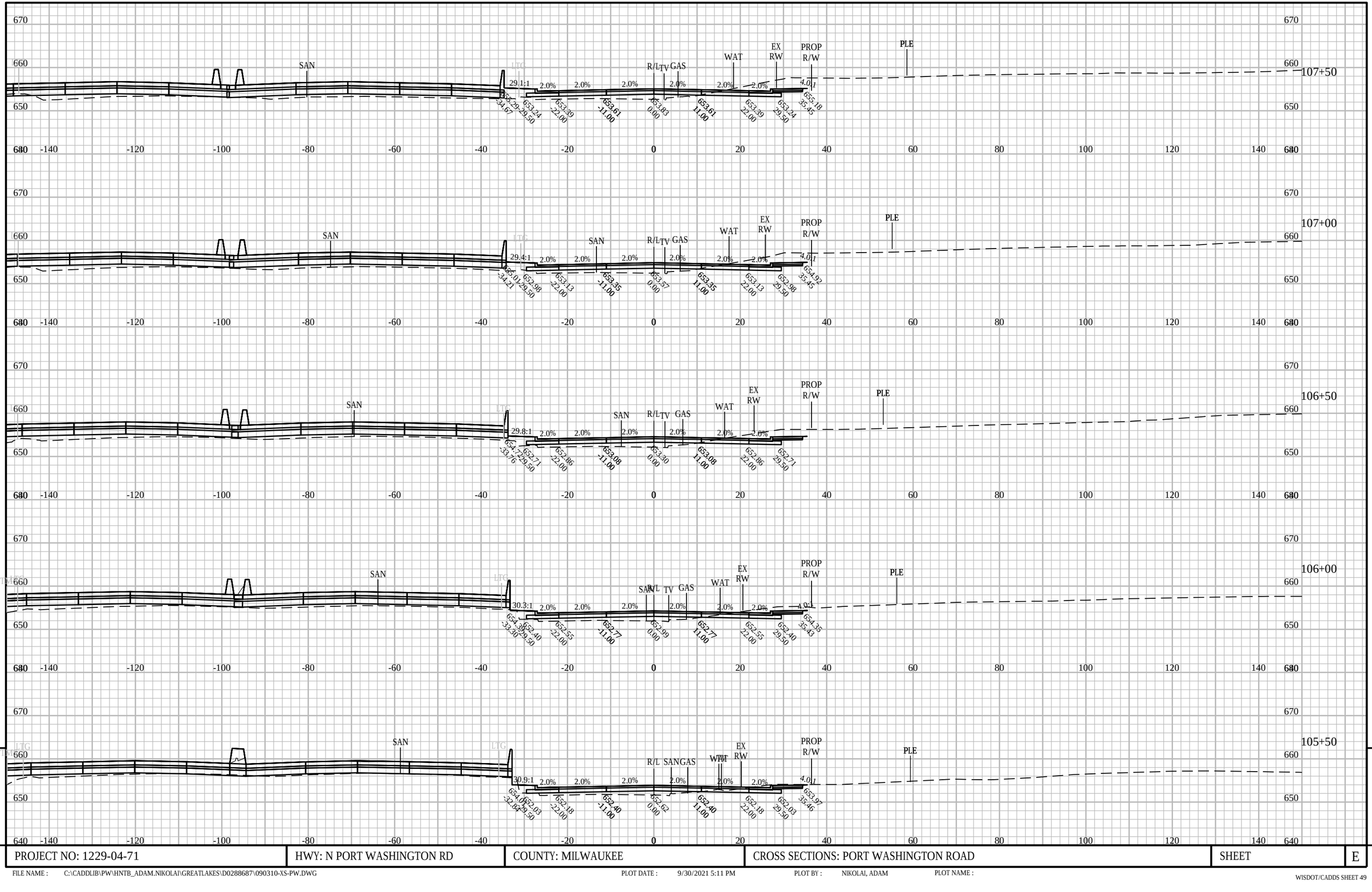
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

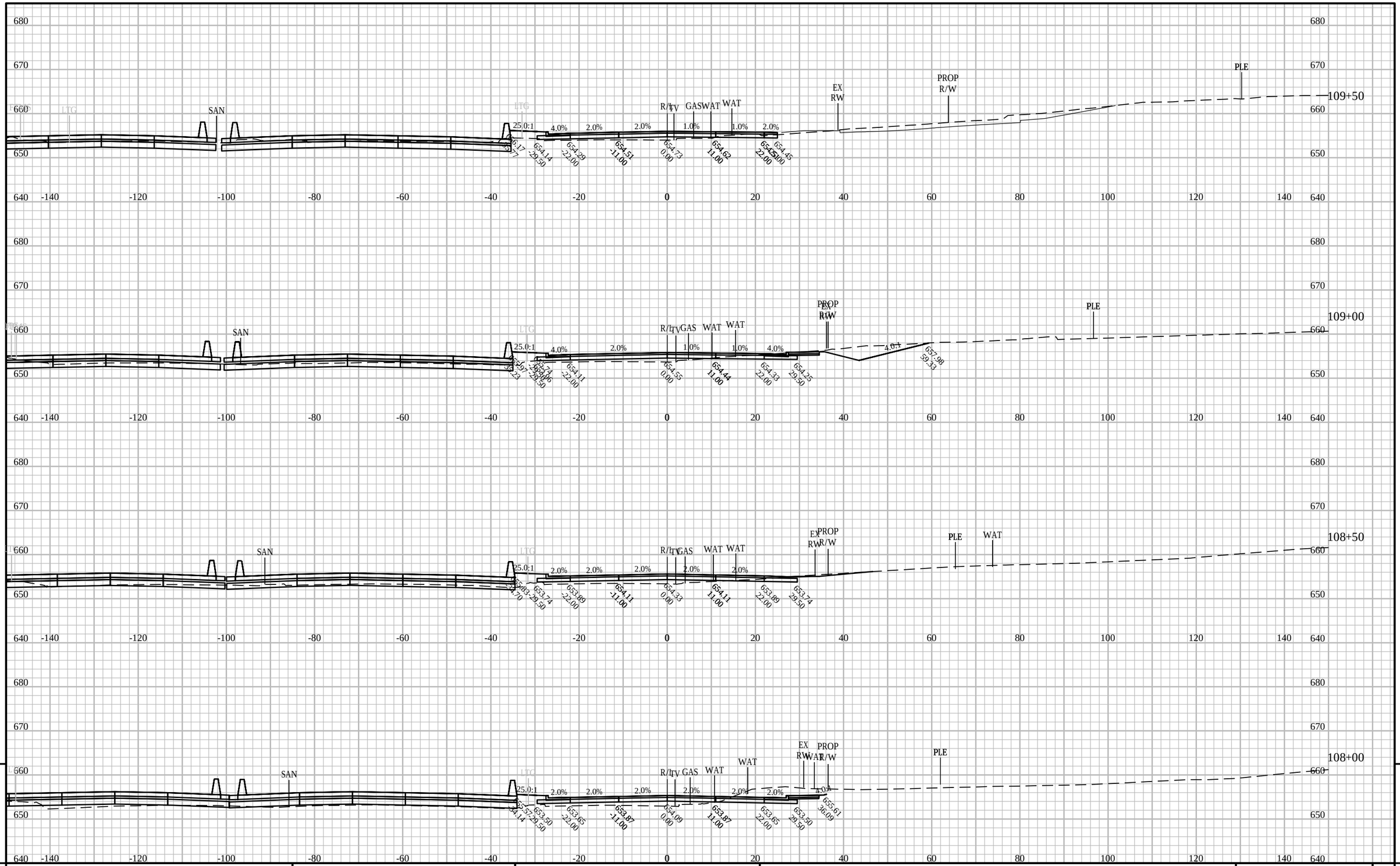
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



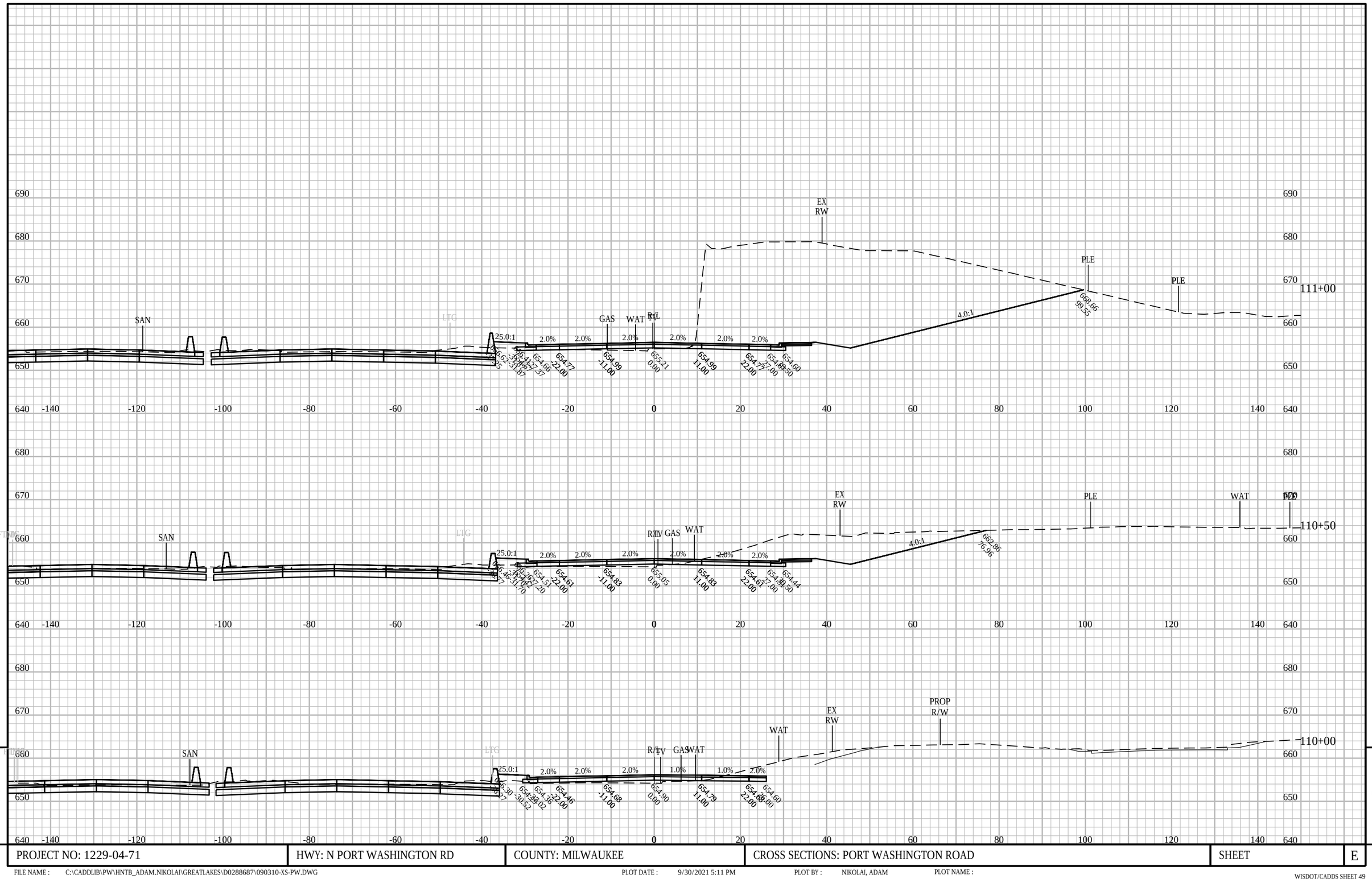
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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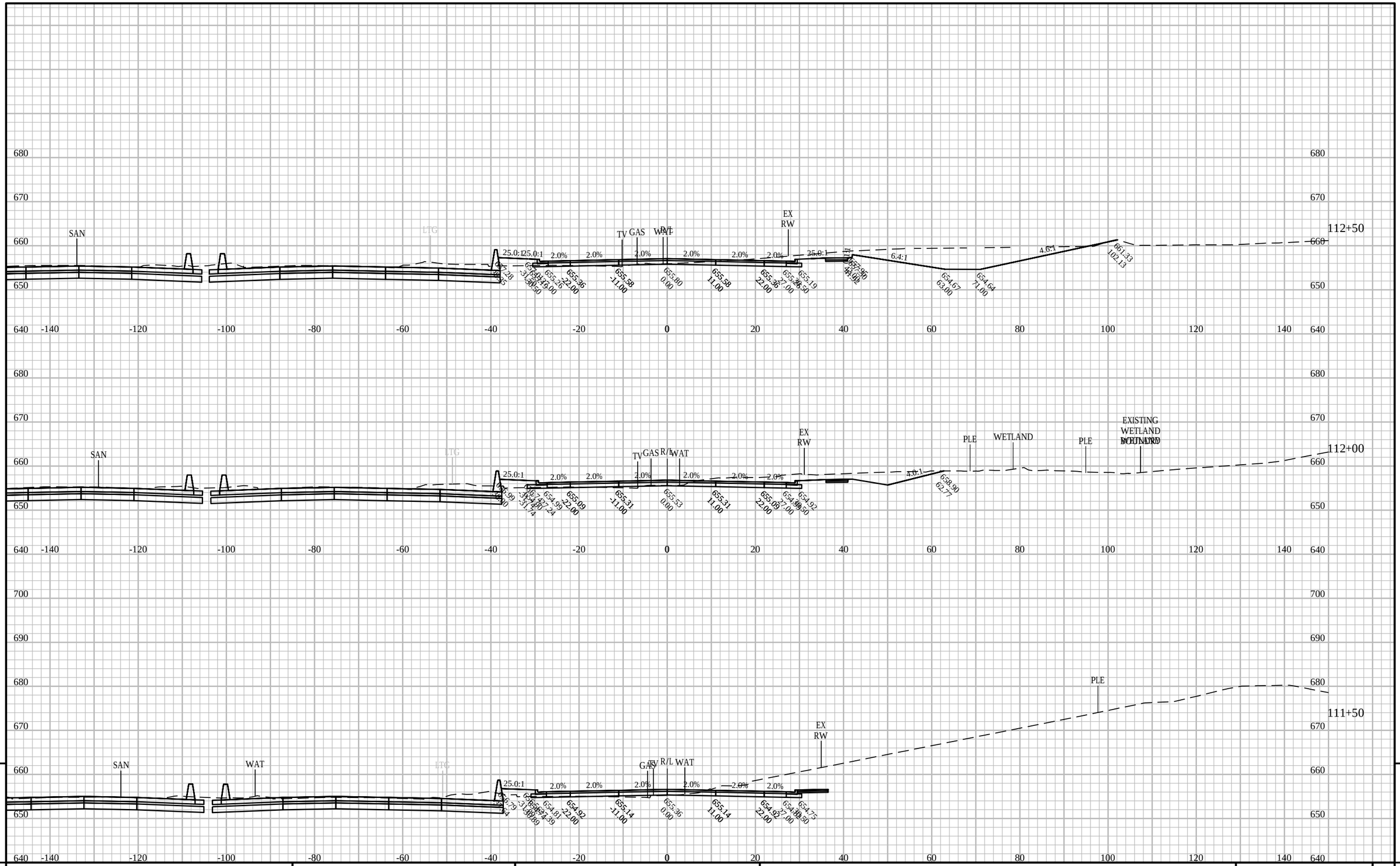
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:11 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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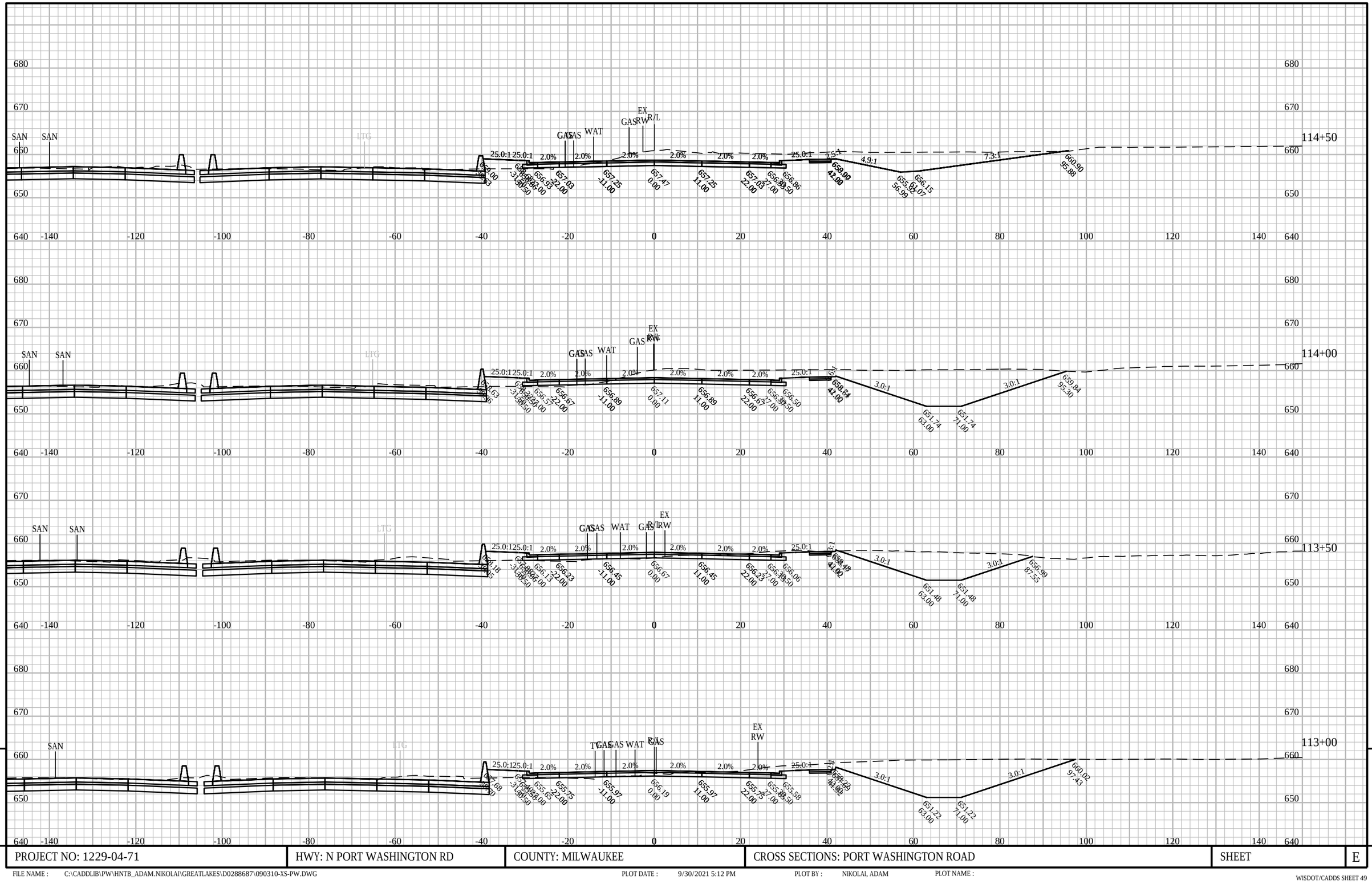
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\0903l0-XS-PW.DWG PLOT DATE : 9/30/2021 5:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

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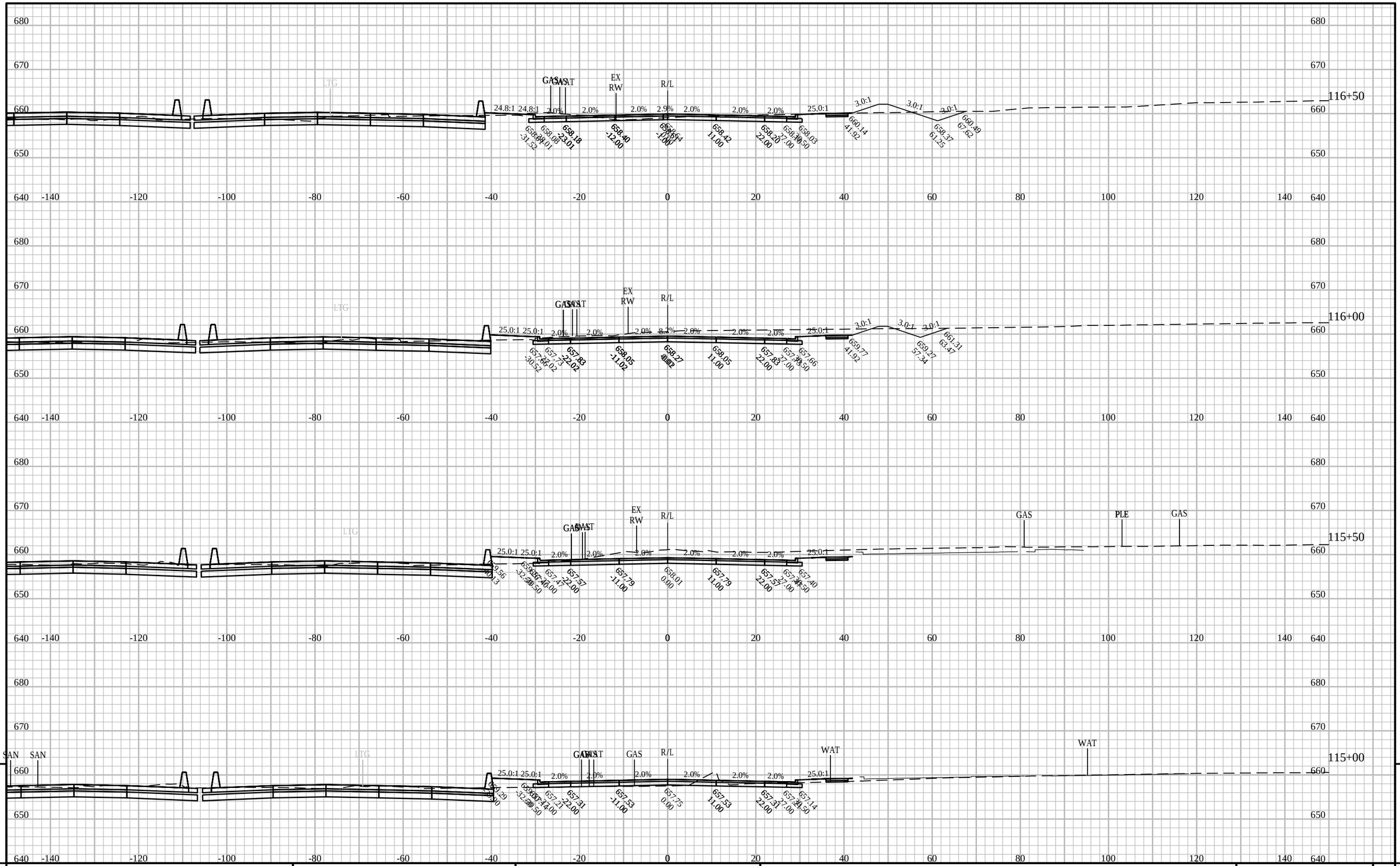

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

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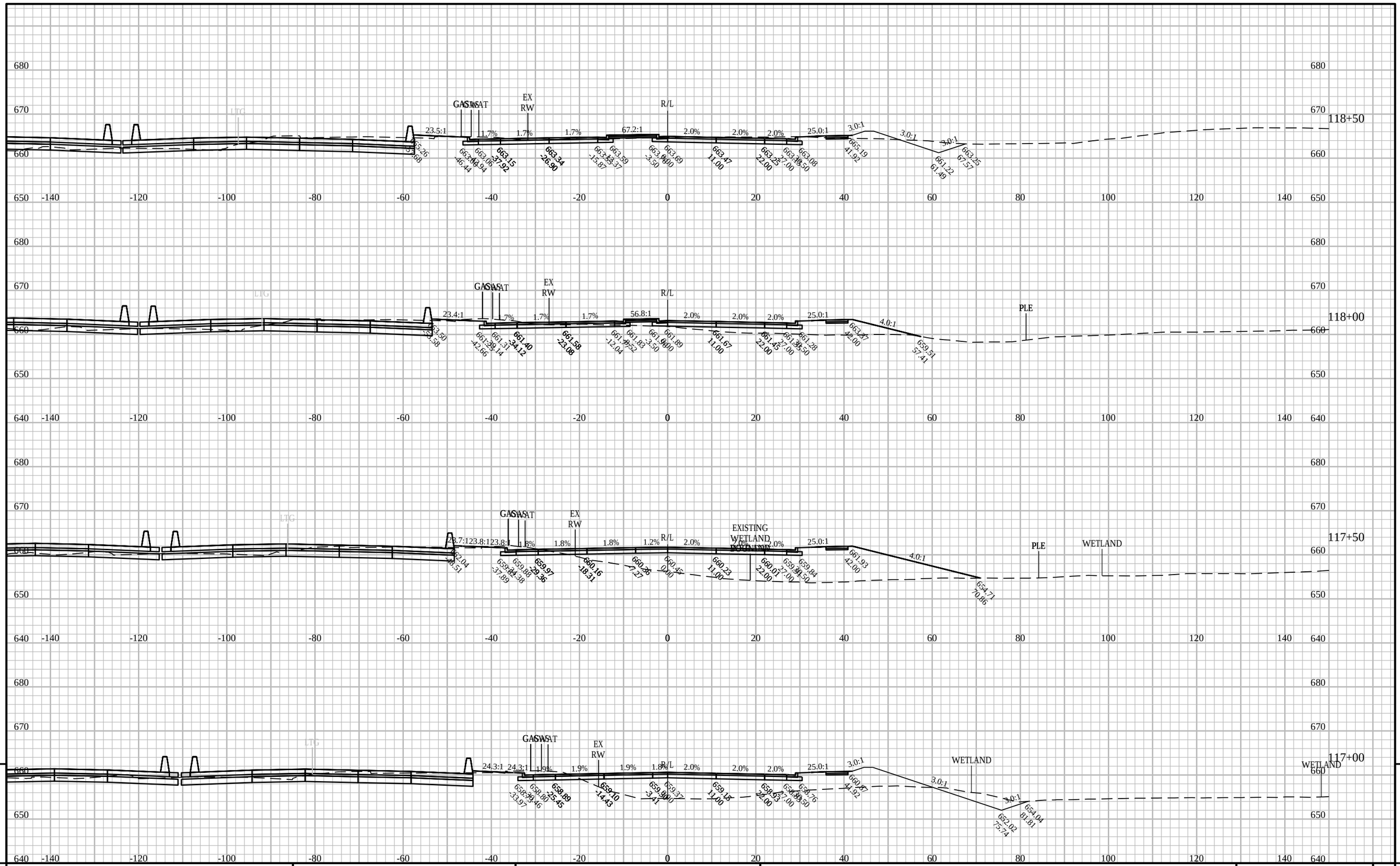

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

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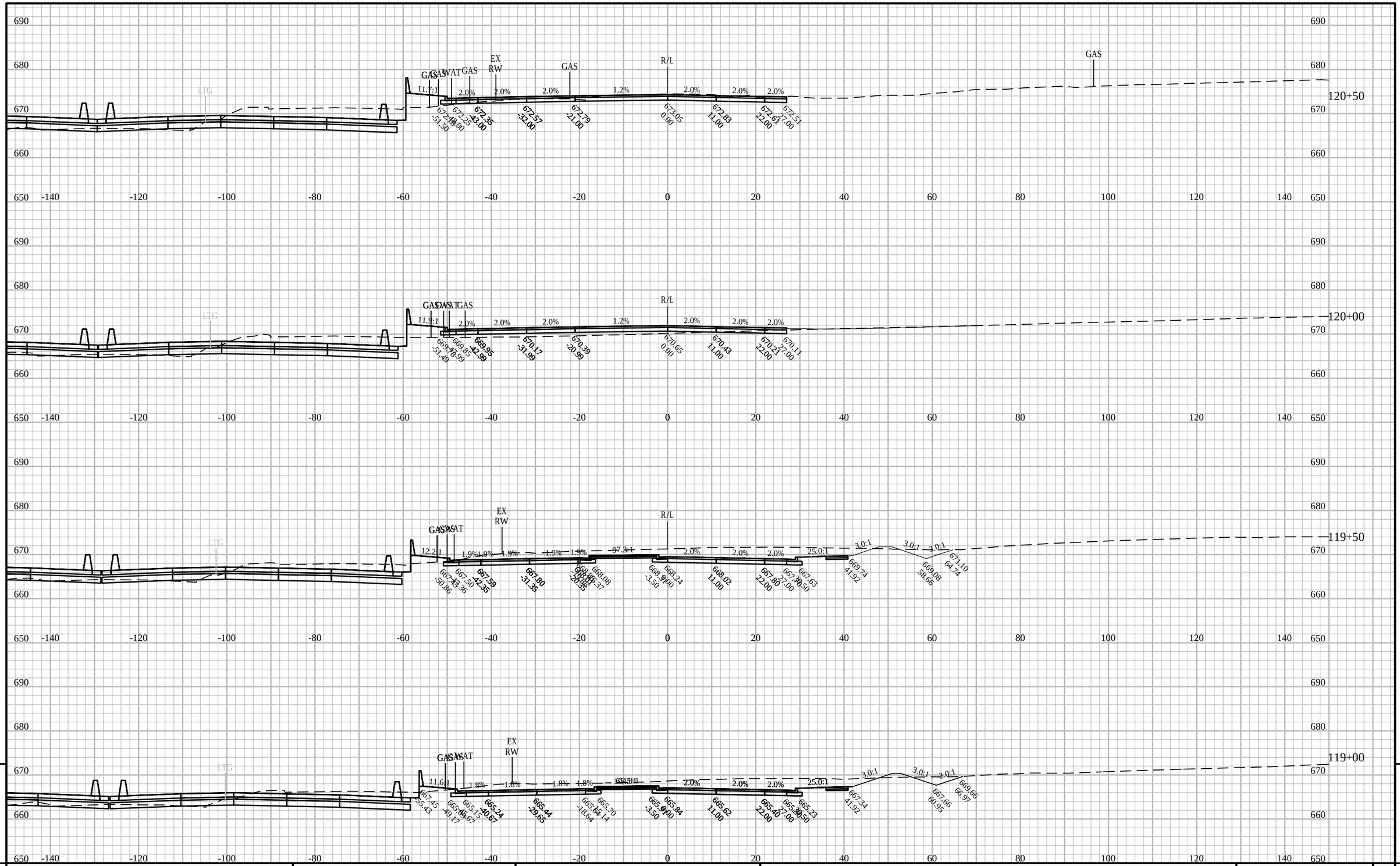

PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

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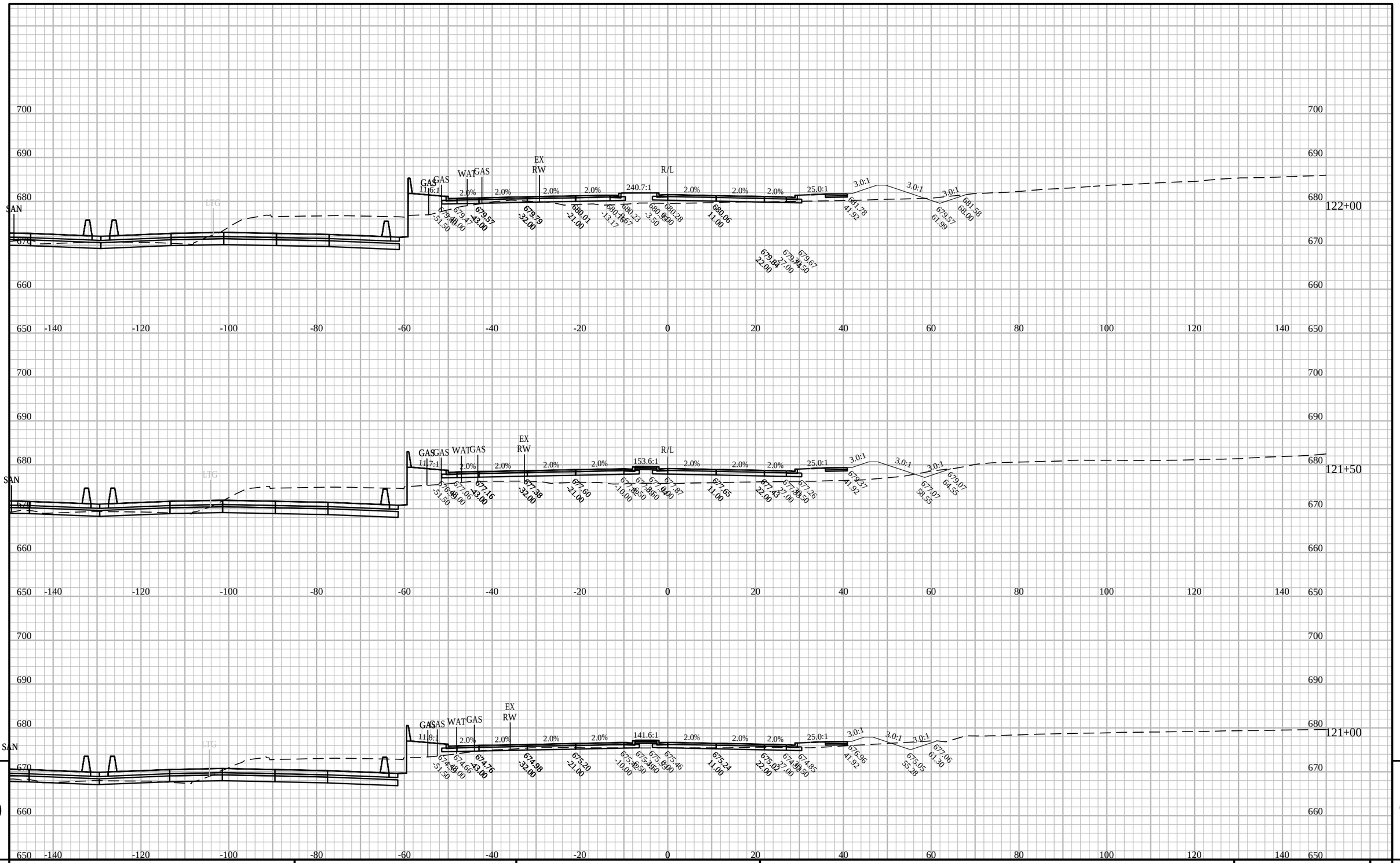
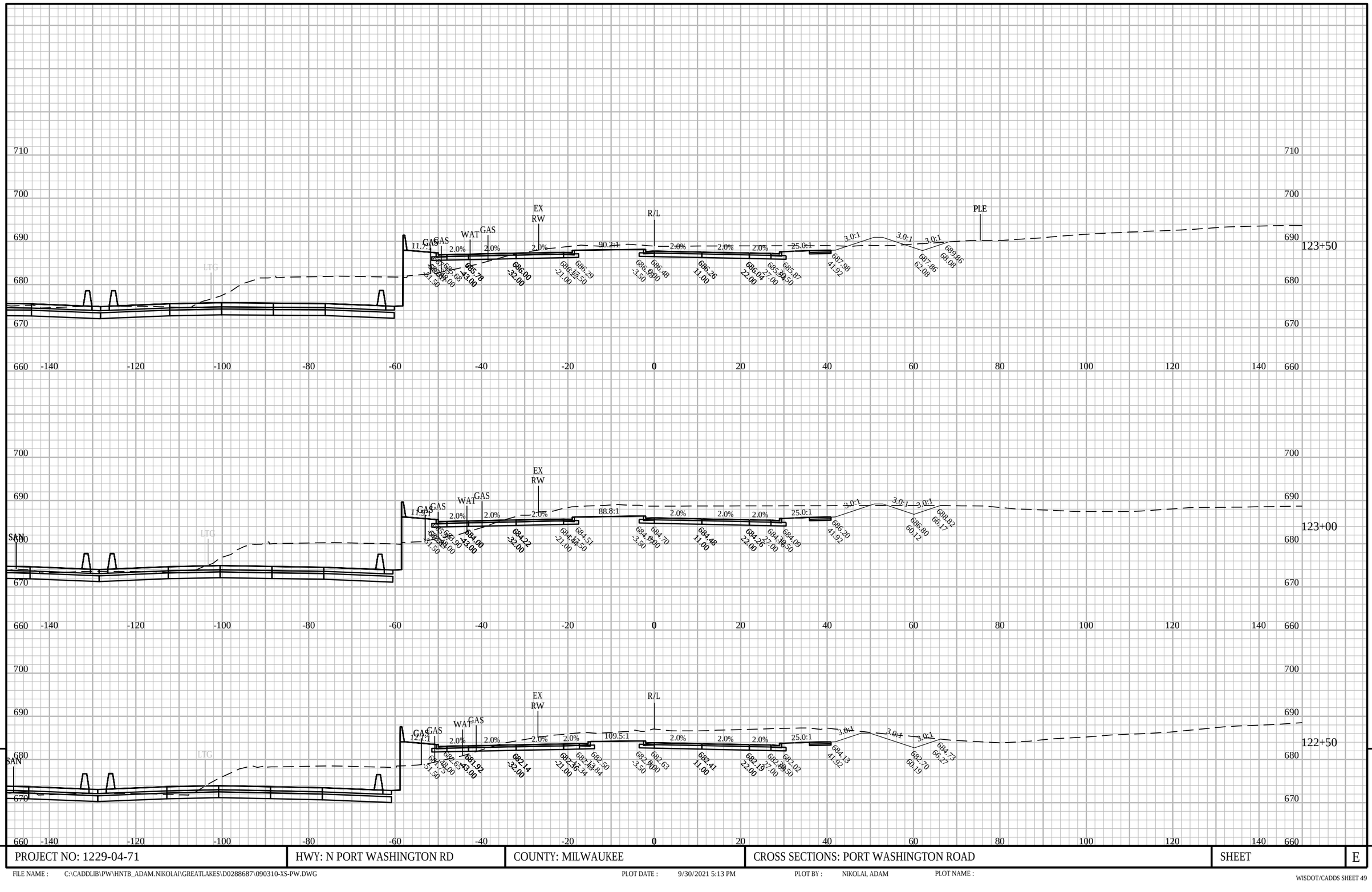


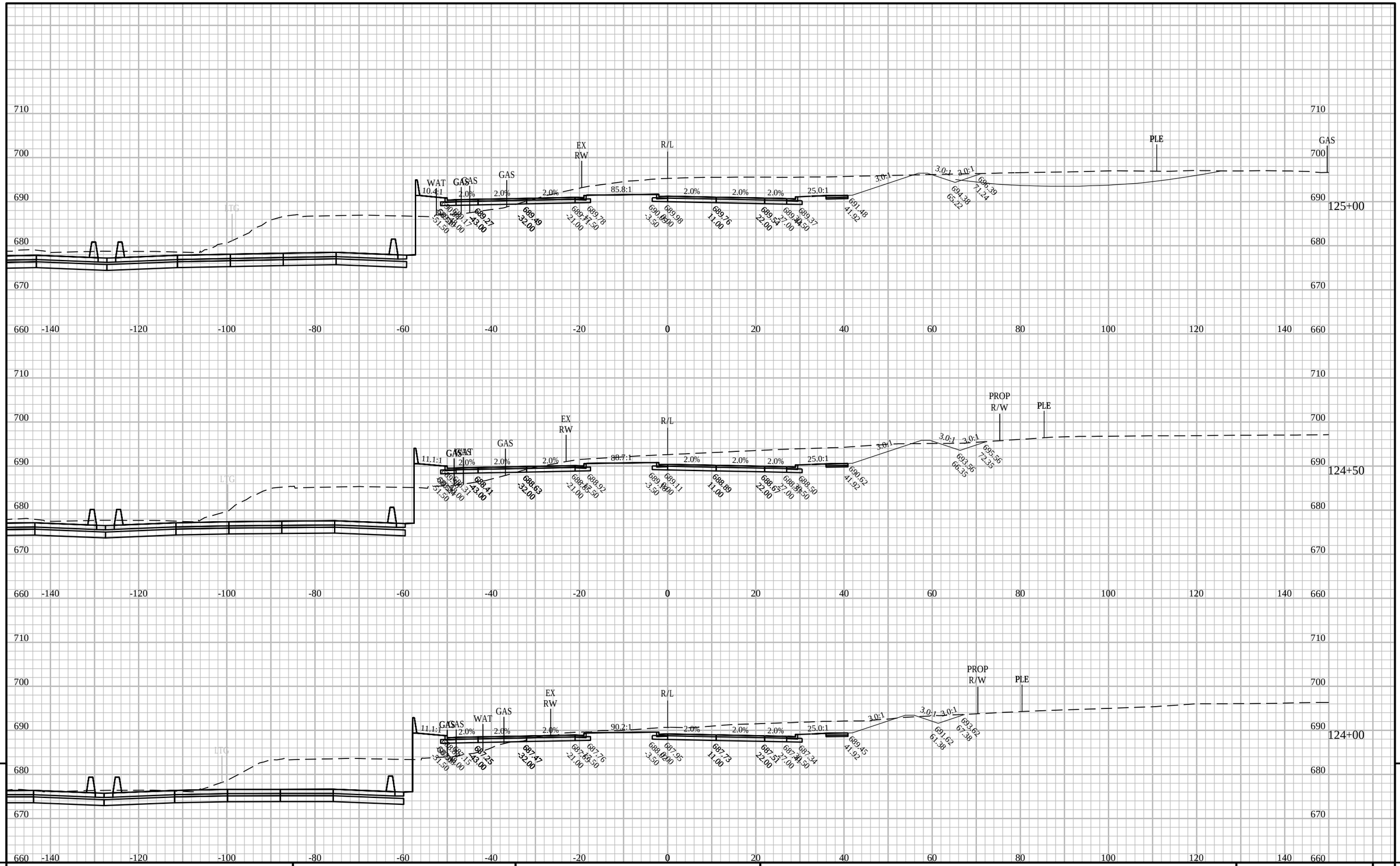
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:12 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

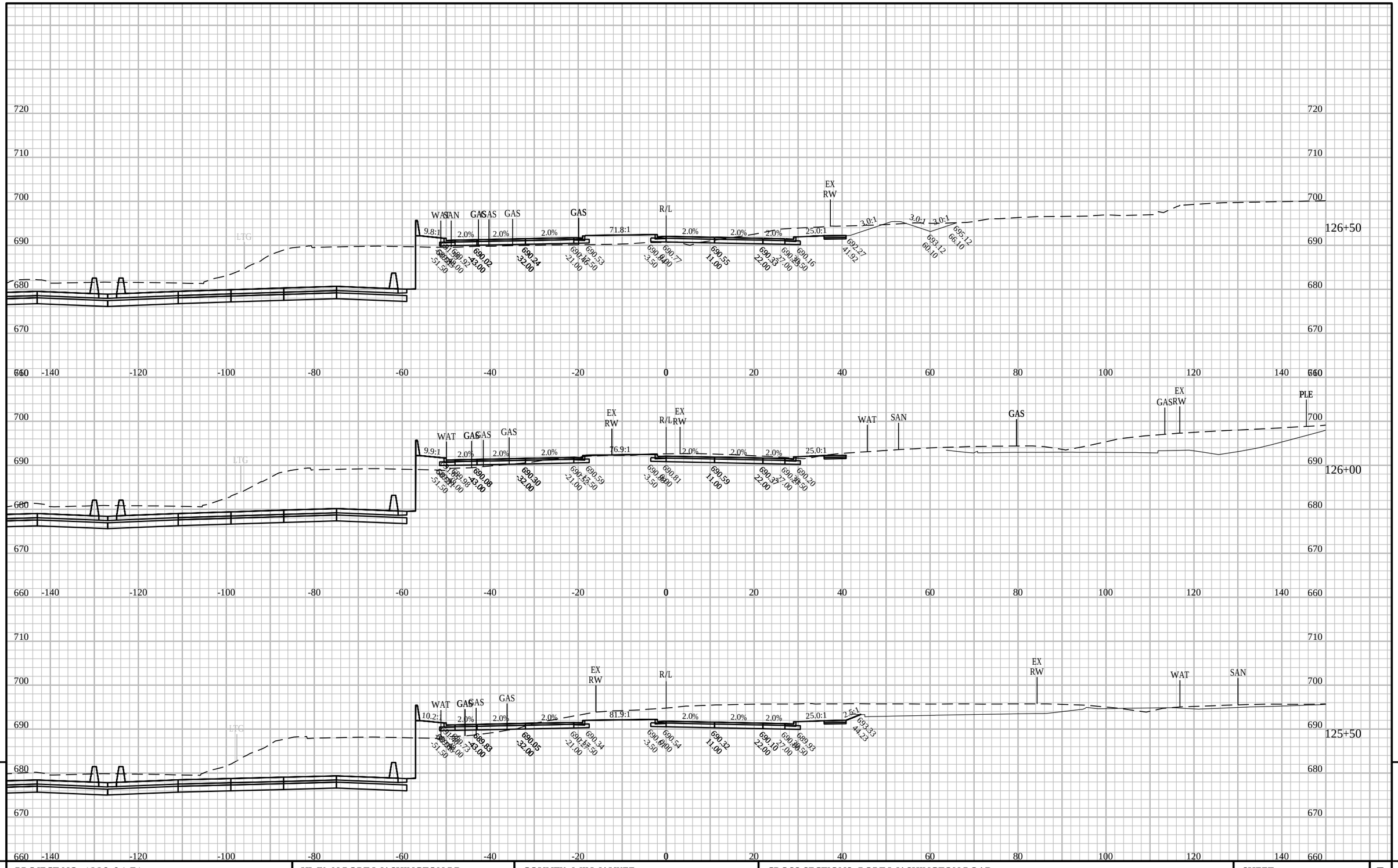
FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

WISDOT/CADDS SHEET 49



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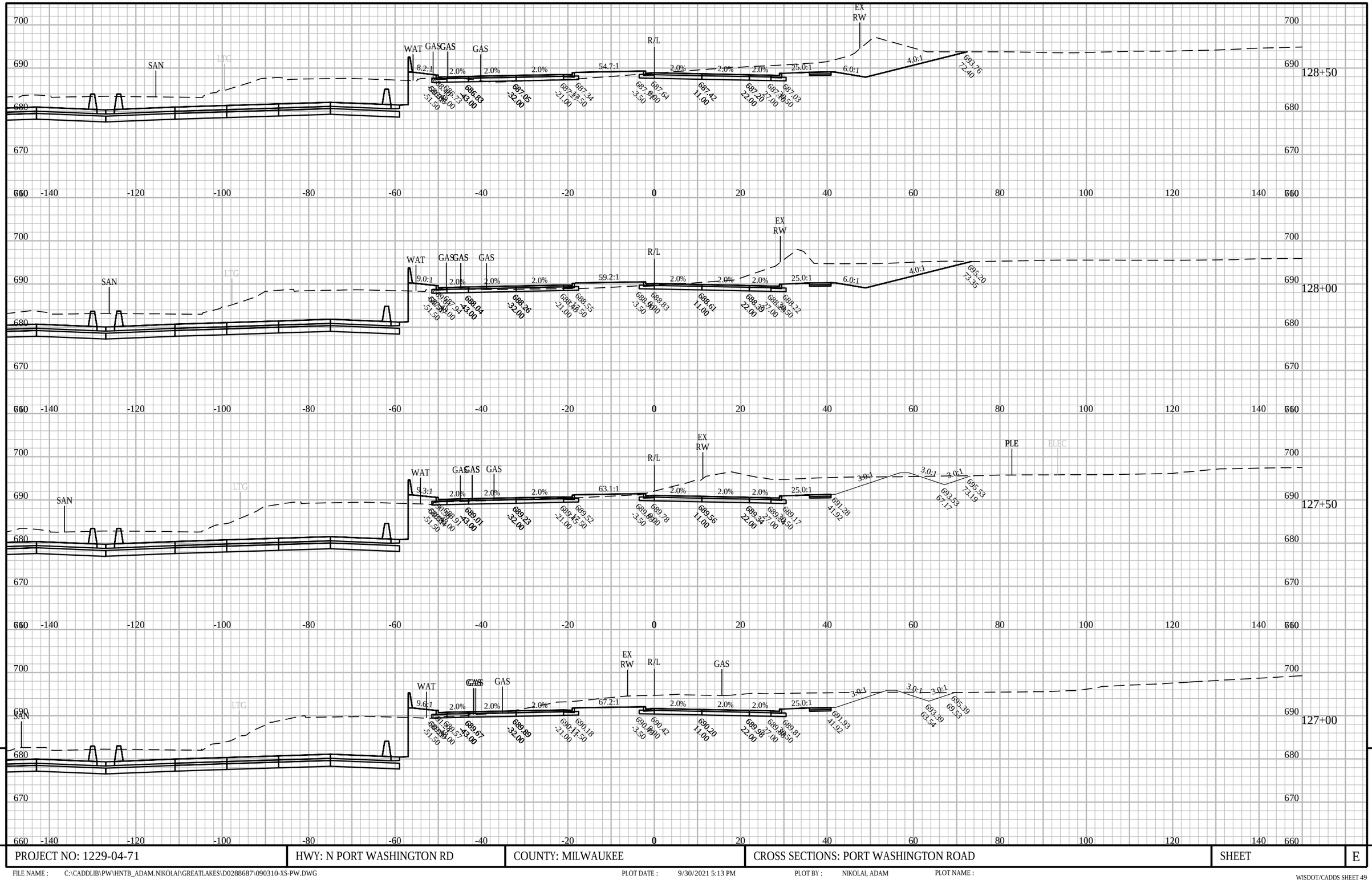
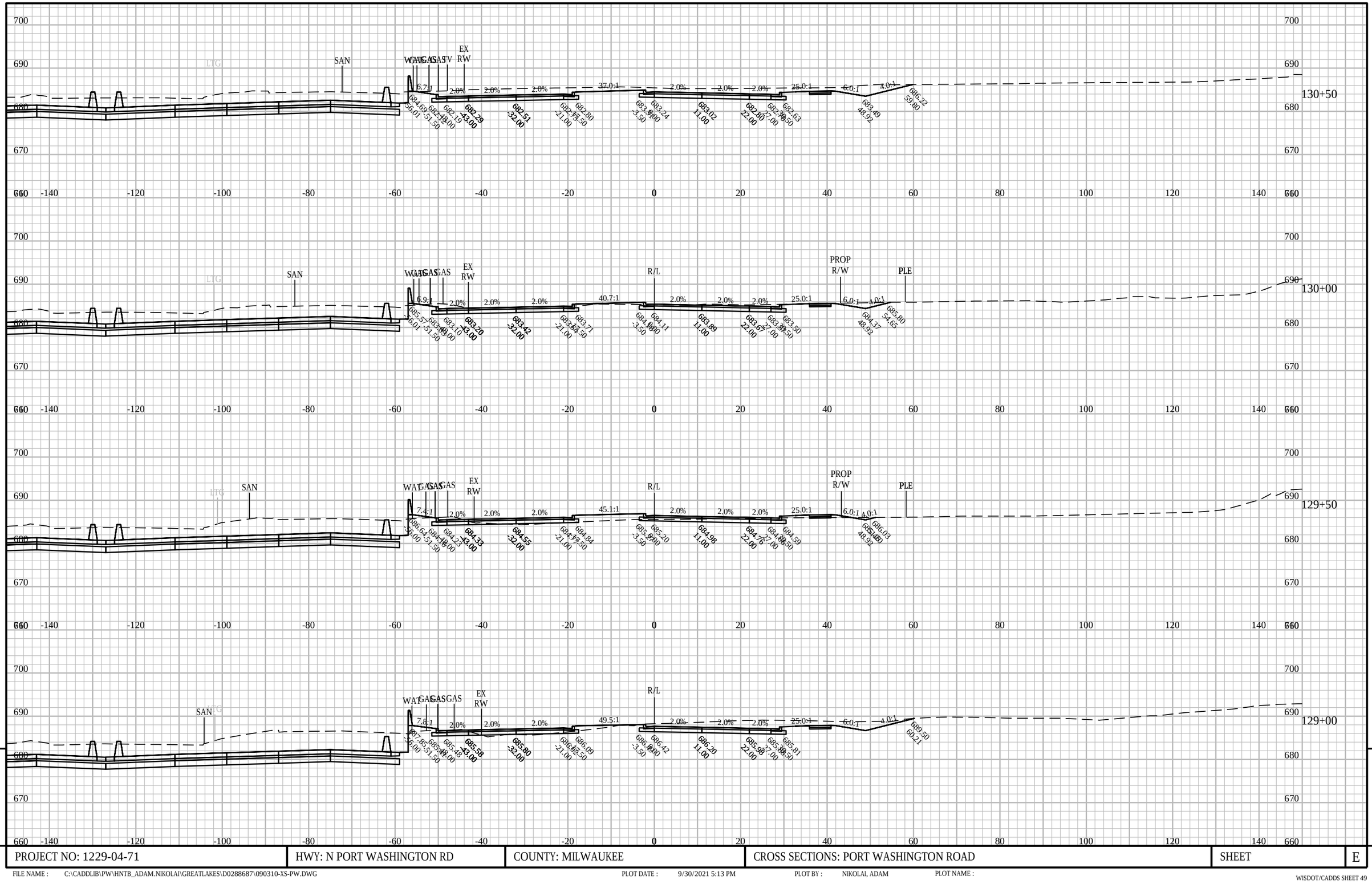
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :

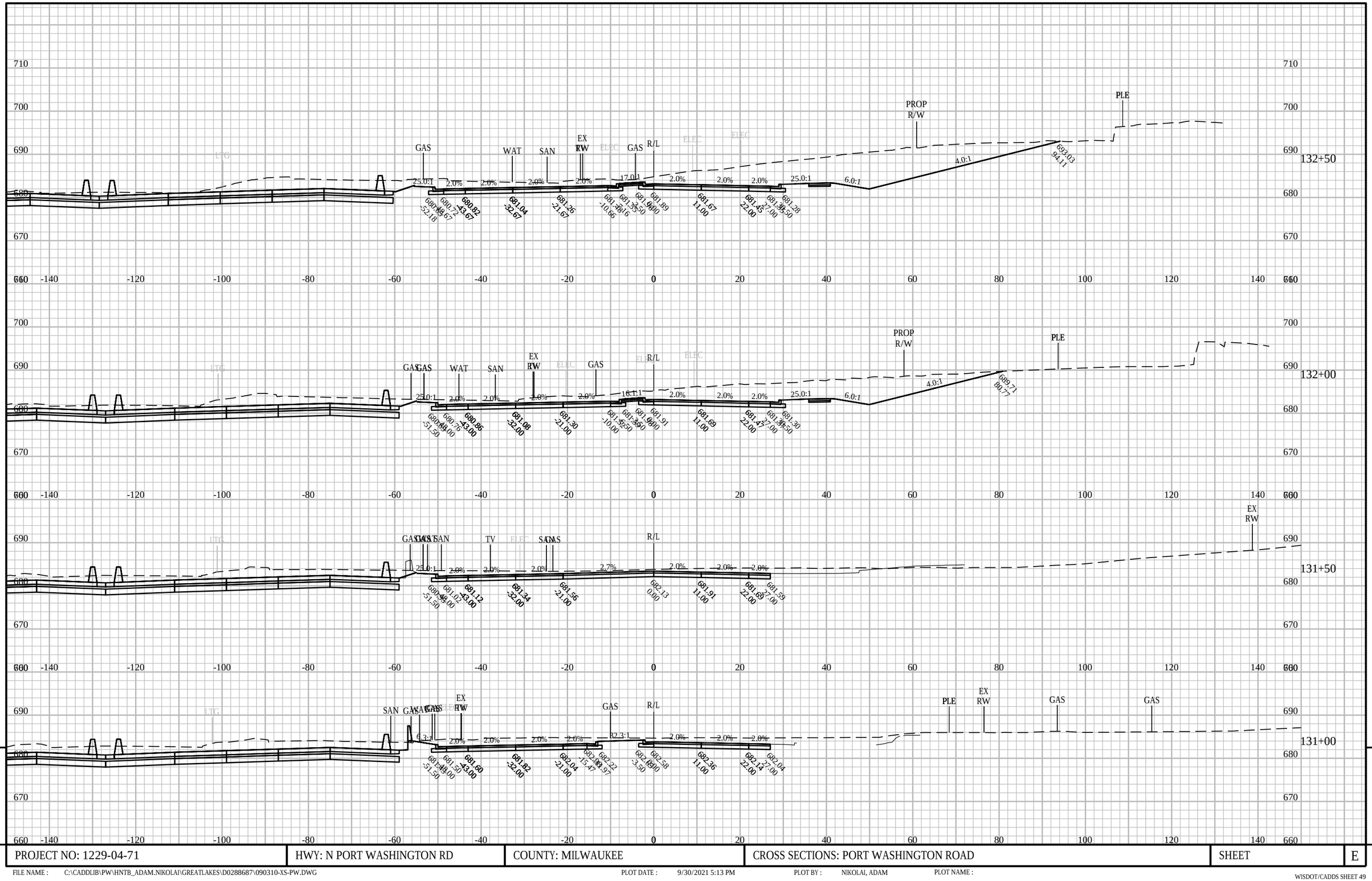


PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E



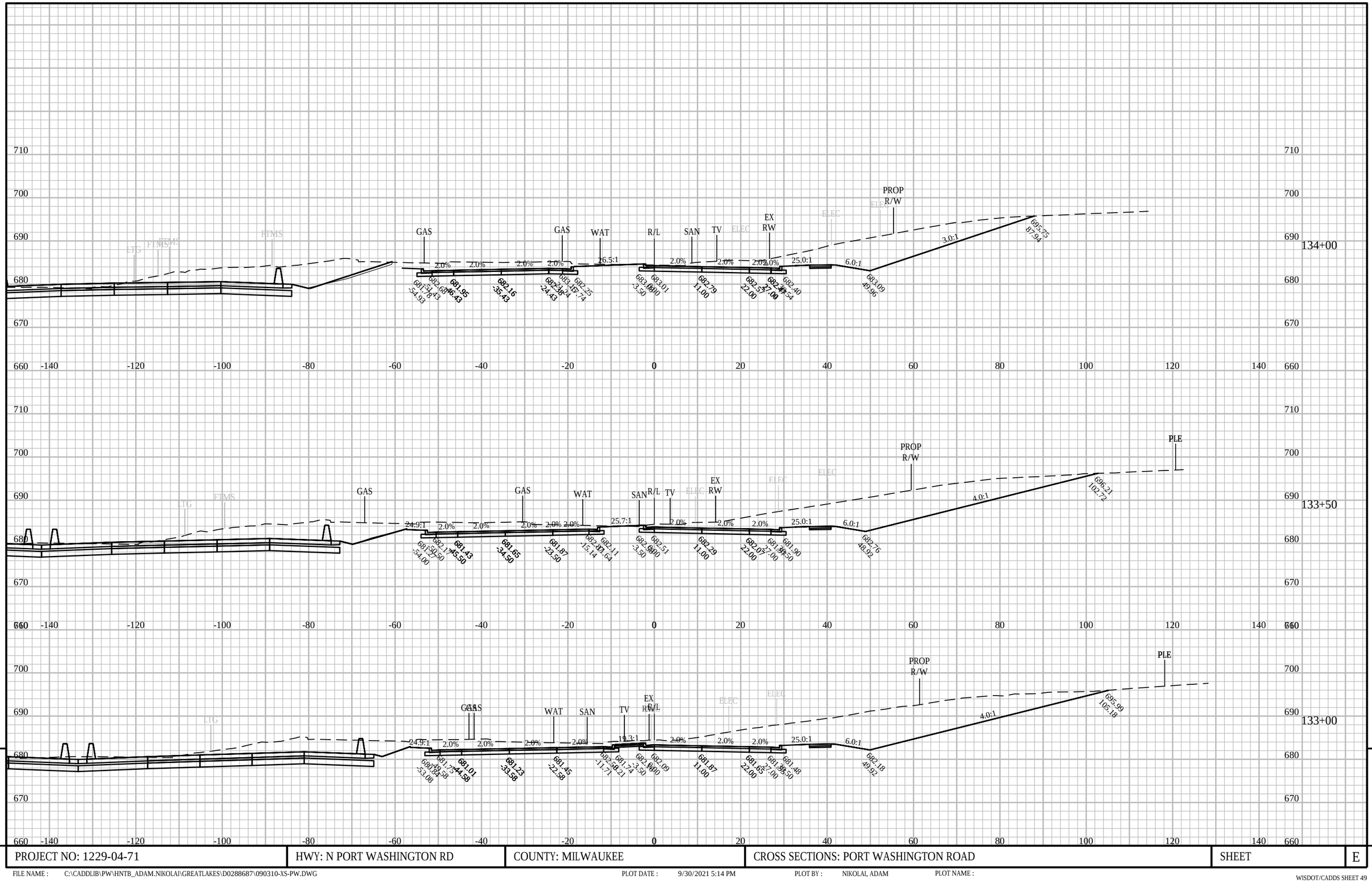
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



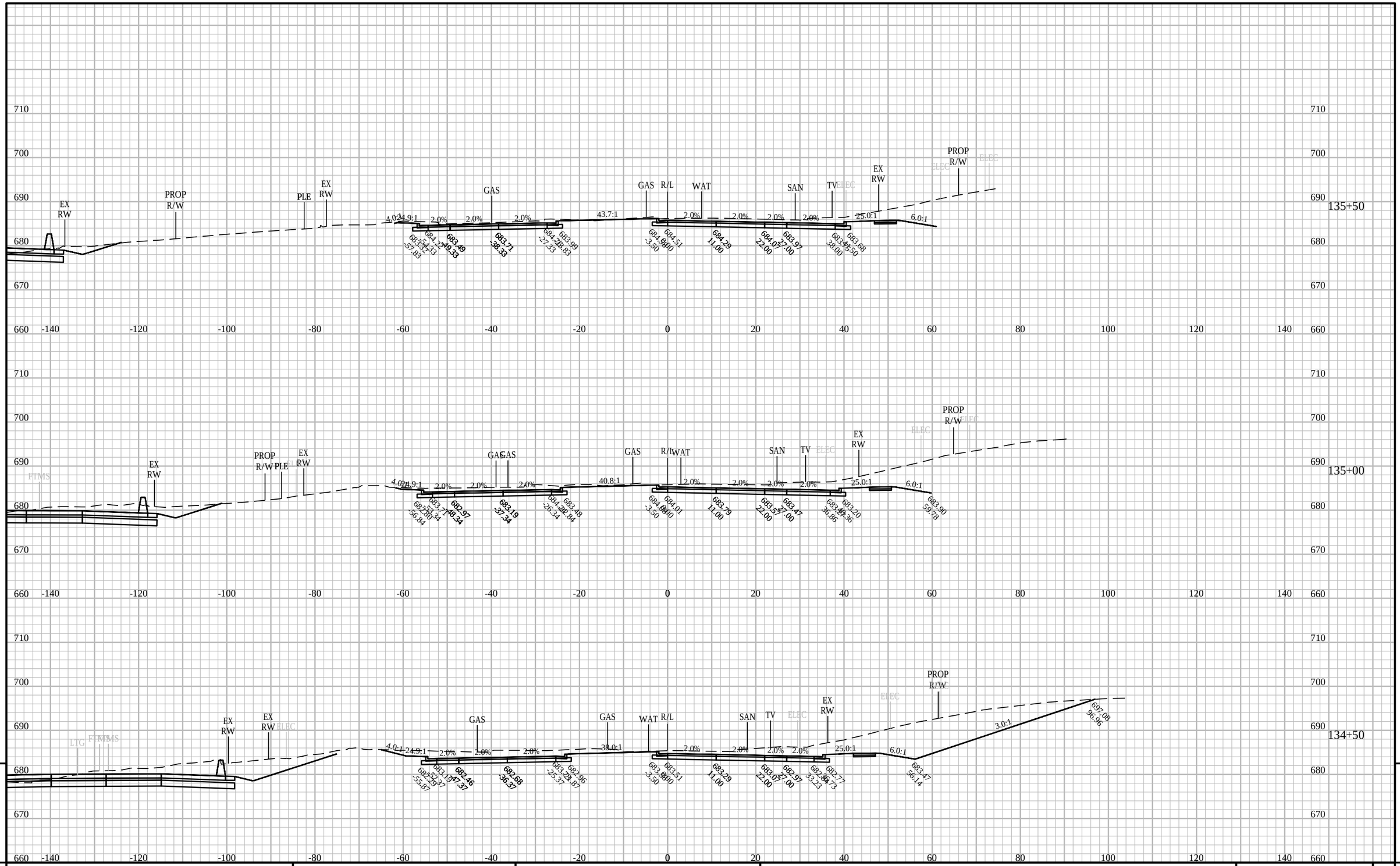
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:13 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:14 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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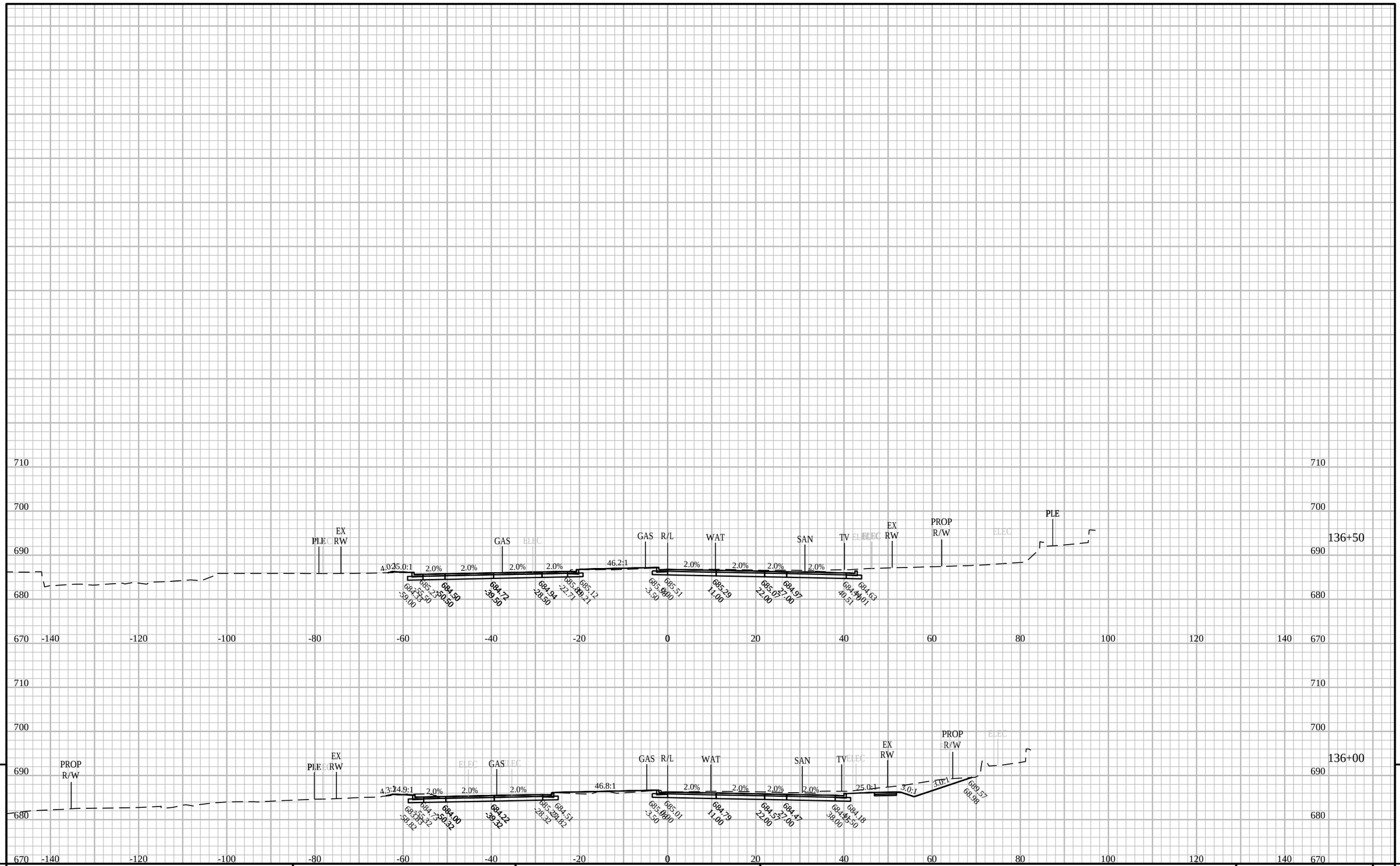
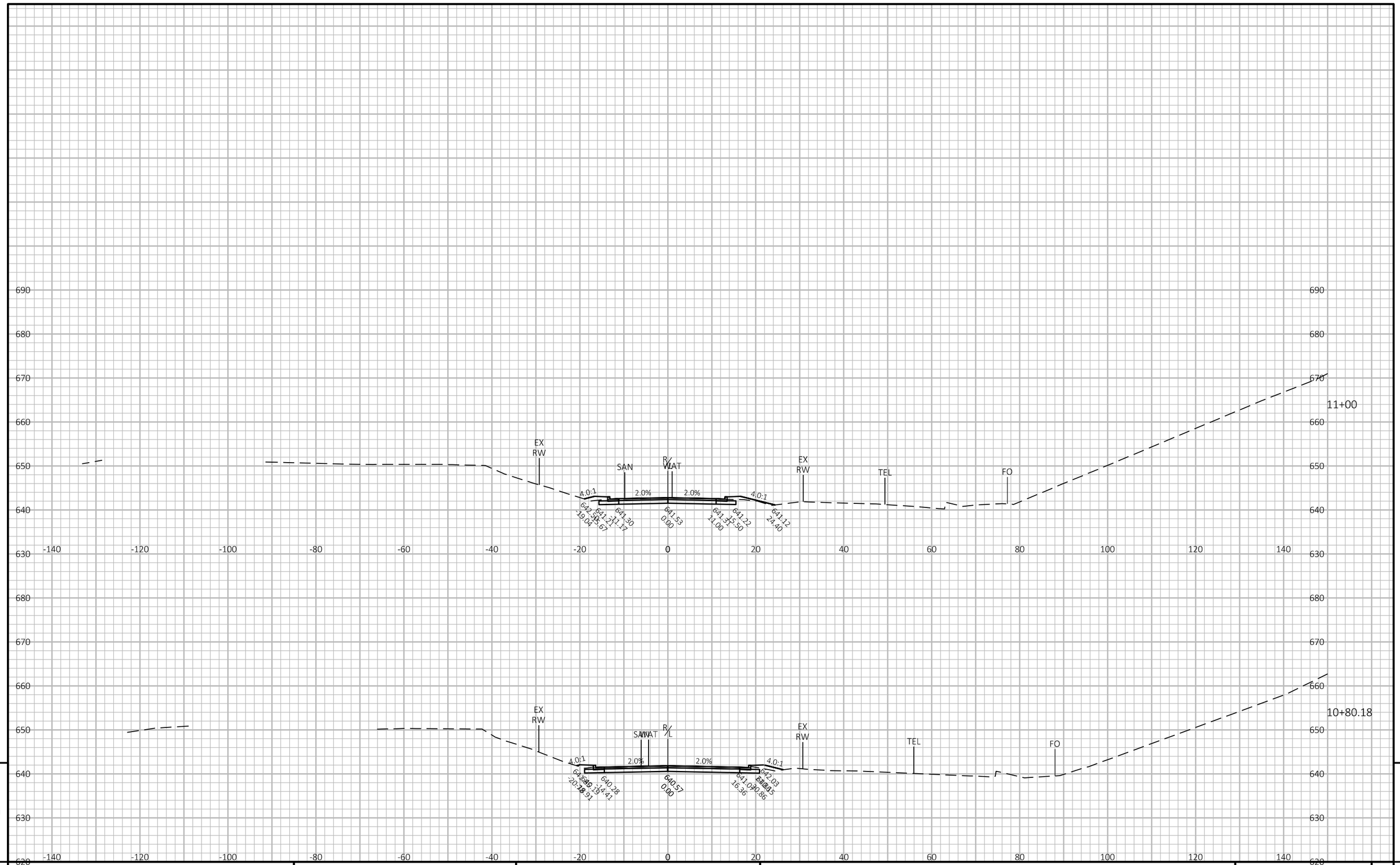
PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:14 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



PROJECT NO: 1229-04-71	HWY: N PORT WASHINGTON RD	COUNTY: MILWAUKEE	CROSS SECTIONS: PORT WASHINGTON ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_ADAM.NIKOLAI\GREATLAKES\D0288687\090310-XS-PW.DWG PLOT DATE : 9/30/2021 5:14 PM PLOT BY : NIKOLAI, ADAM PLOT NAME :



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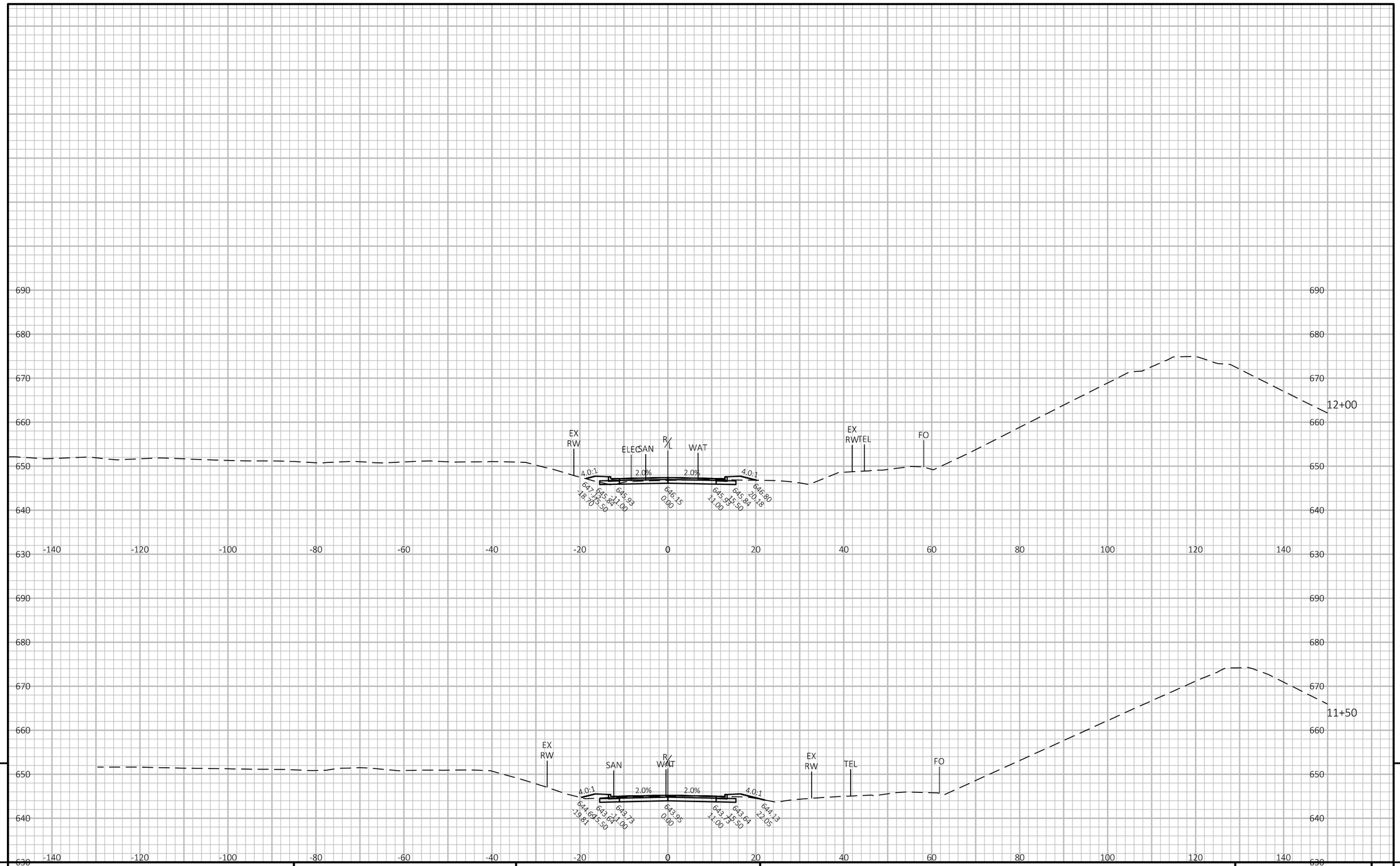
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: FAIRFIELD COURT	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090319-XS-FA.DWG PLOT DATE : 9/29/2021 9:37 AM PLOT BY : CECELIA KASTEN PLOT NAME :



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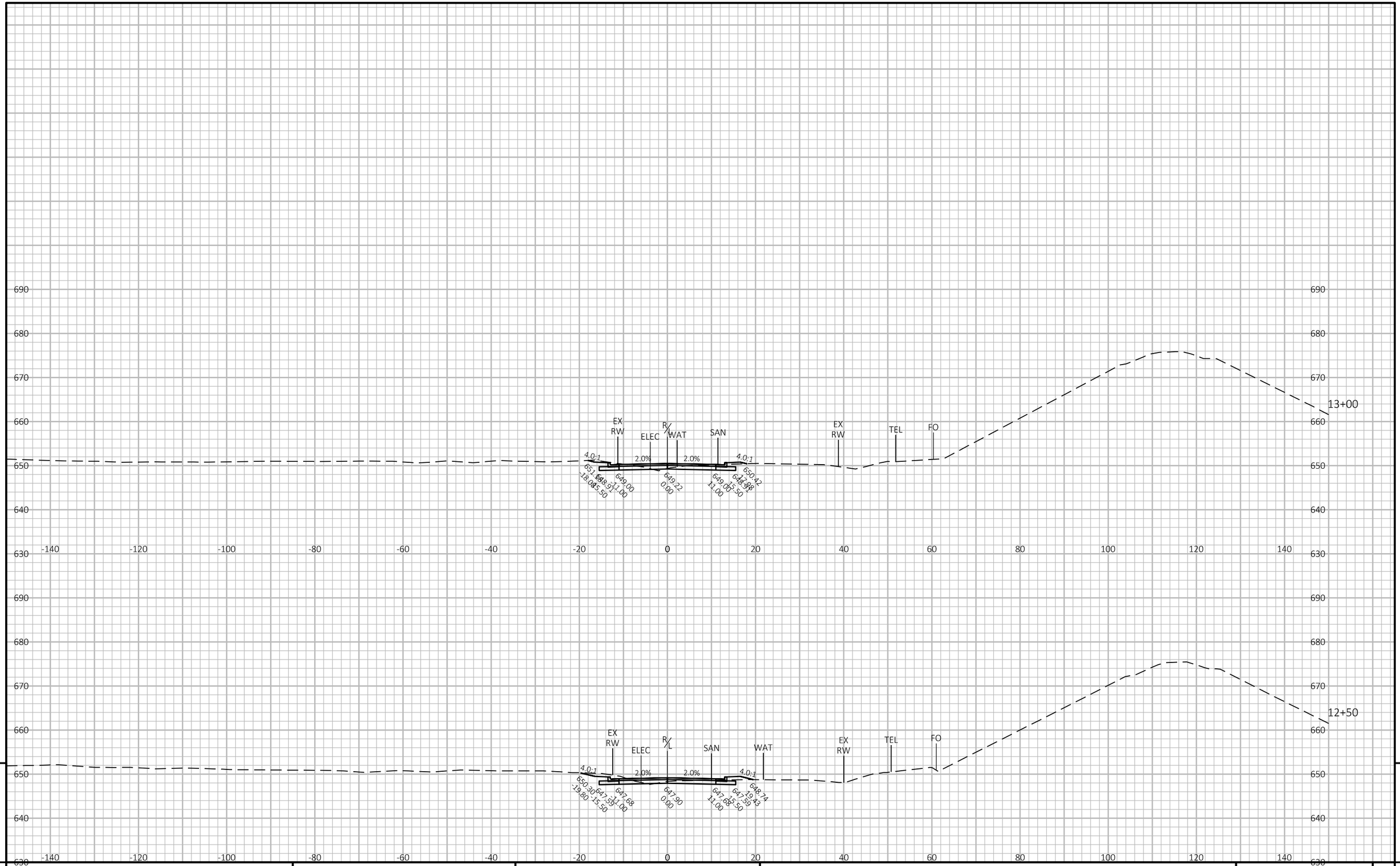
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: FAIRFIELD COURT	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090319-XS-FA.DWG PLOT DATE : 9/29/2021 9:37 AM PLOT BY : CECELIA KASTEN PLOT NAME :



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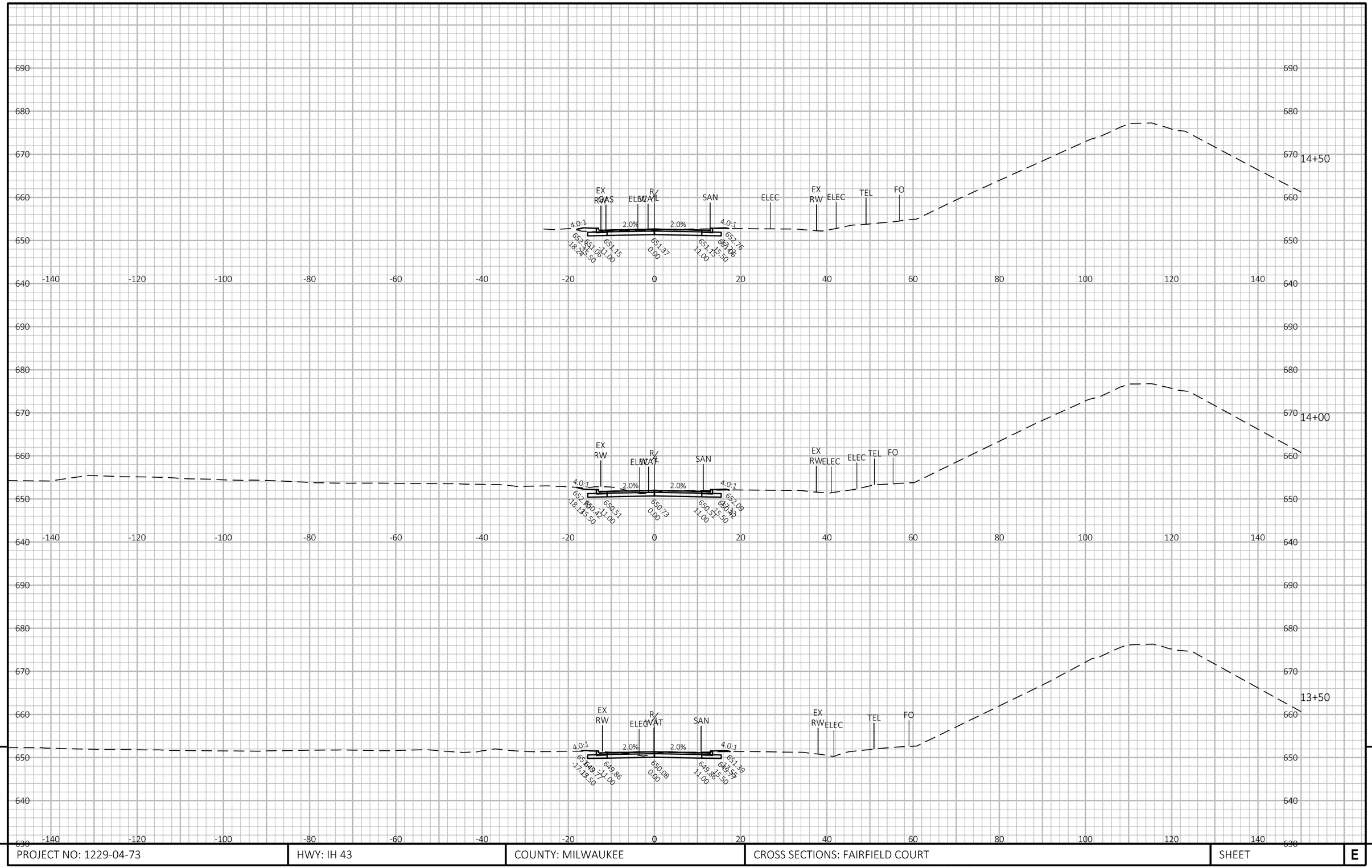
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: FAIRFIELD COURT	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090319-XS-FA.DWG PLOT DATE : 9/29/2021 9:38 AM PLOT BY : CECELIA KASTEN PLOT NAME :



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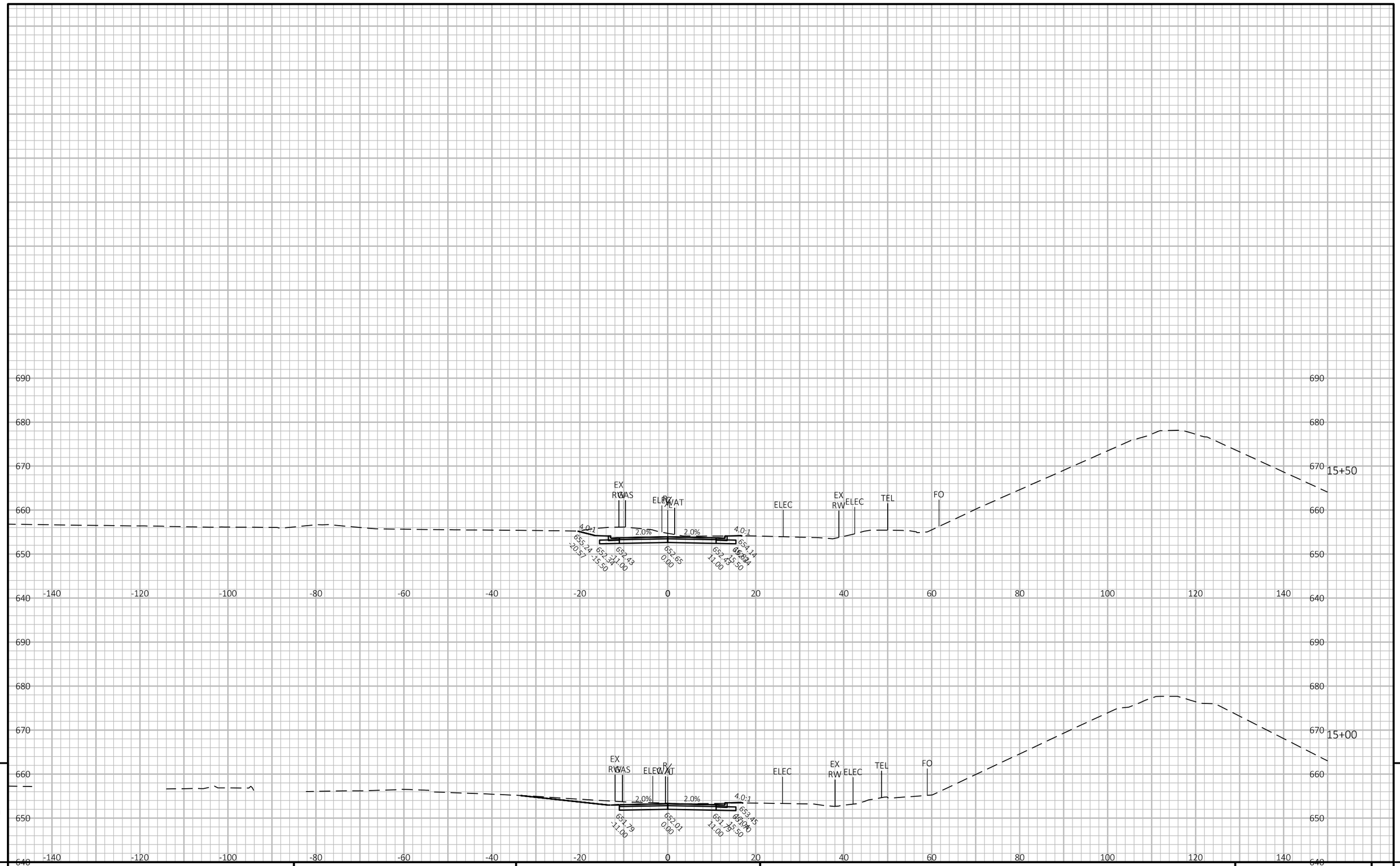
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: FAIRFIELD COURT	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090319-XS-FA.DWG PLOT DATE : 9/29/2021 9:38 AM PLOT BY : CECELIA KASTEN PLOT NAME :



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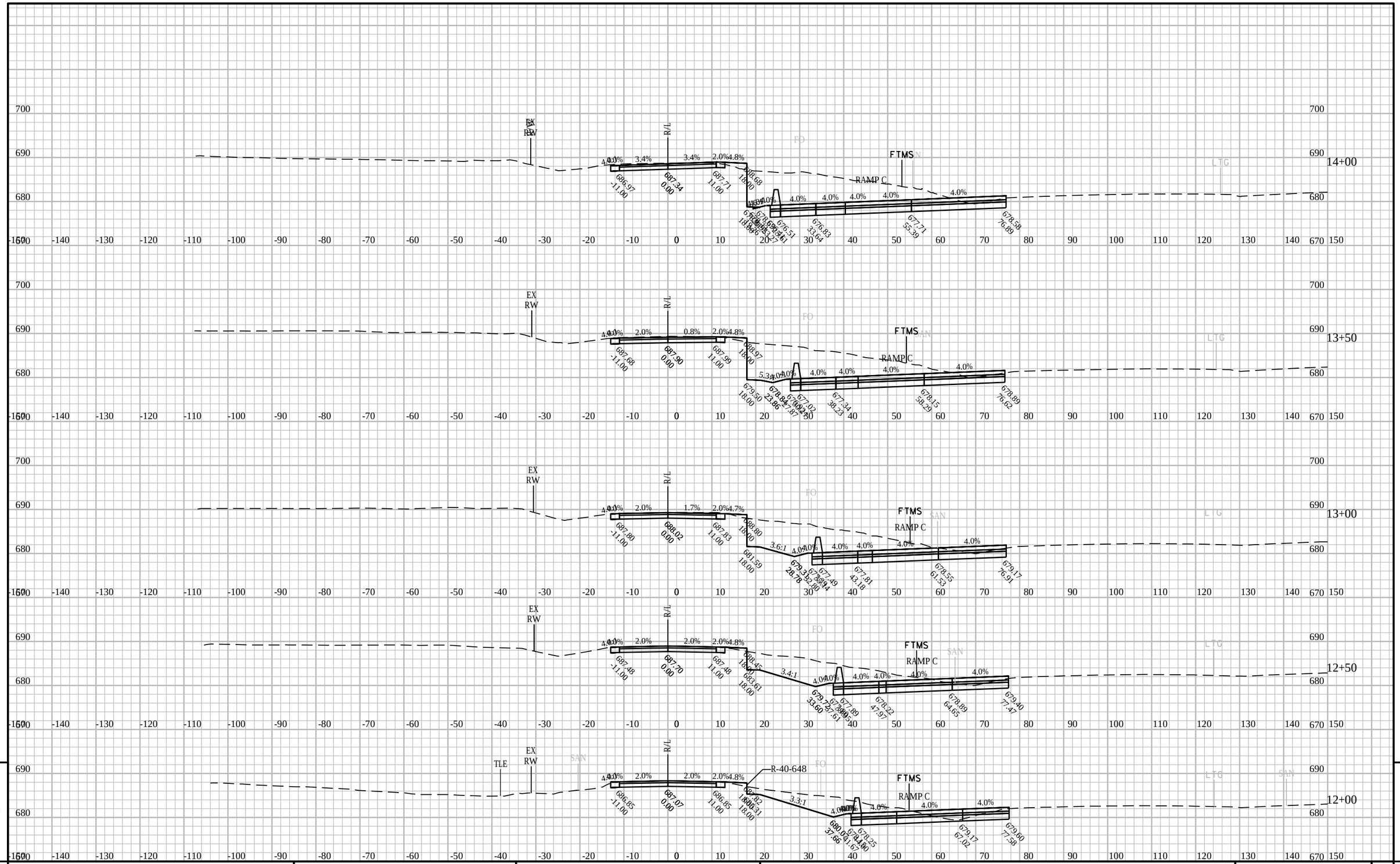
PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: FAIRFIELD COURT	SHEET	E

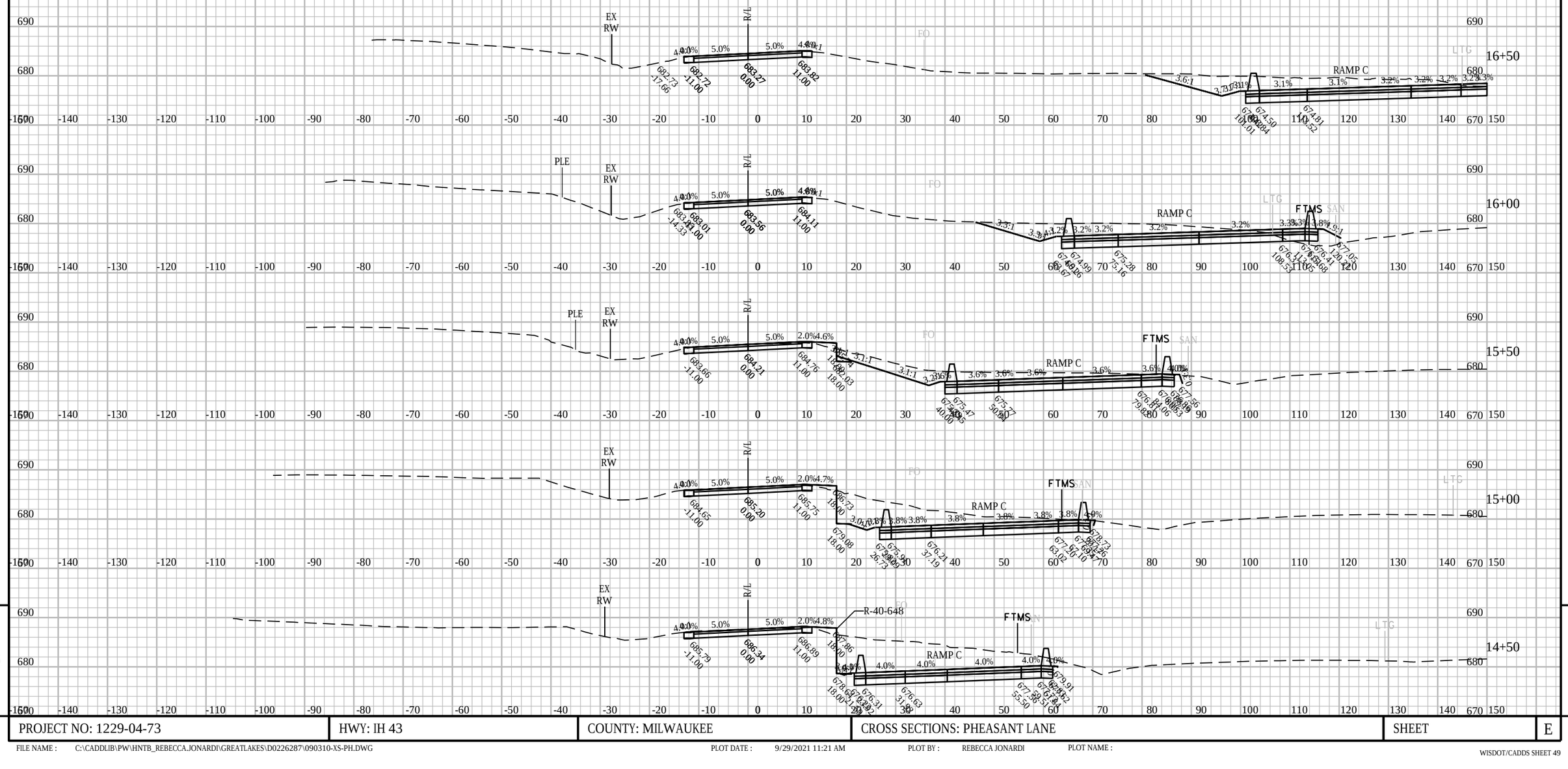
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090319-XS-FA.DWG PLOT DATE : 9/29/2021 9:38 AM PLOT BY : CECELIA KASTEN PLOT NAME :



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: PHEASANT LANE	SHEET	E

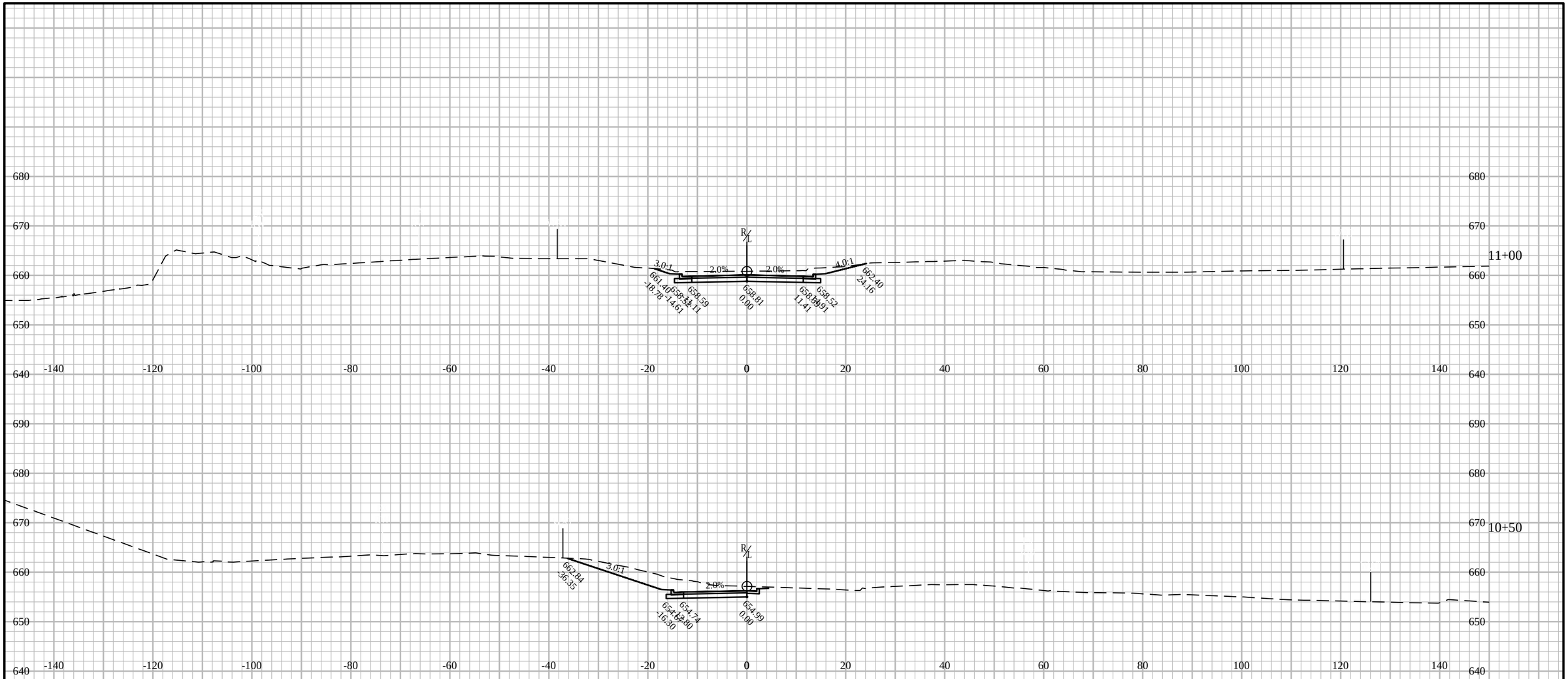
FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090310-XS-PH.DWG PLOT DATE : 9/29/2021 11:21 AM PLOT BY : REBECCA JONARDI PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1229-04-73	HWY: IH 43	COUNTY: MILWAUKEE	CROSS SECTIONS: PHEASANT LANE	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_REBECCA.JONARDI\GREATLAKES\D0226287\090310-XS-PH.DWG PLOT DATE : 9/29/2021 11:21 AM PLOT BY : REBECCA JONARDI PLOT NAME :



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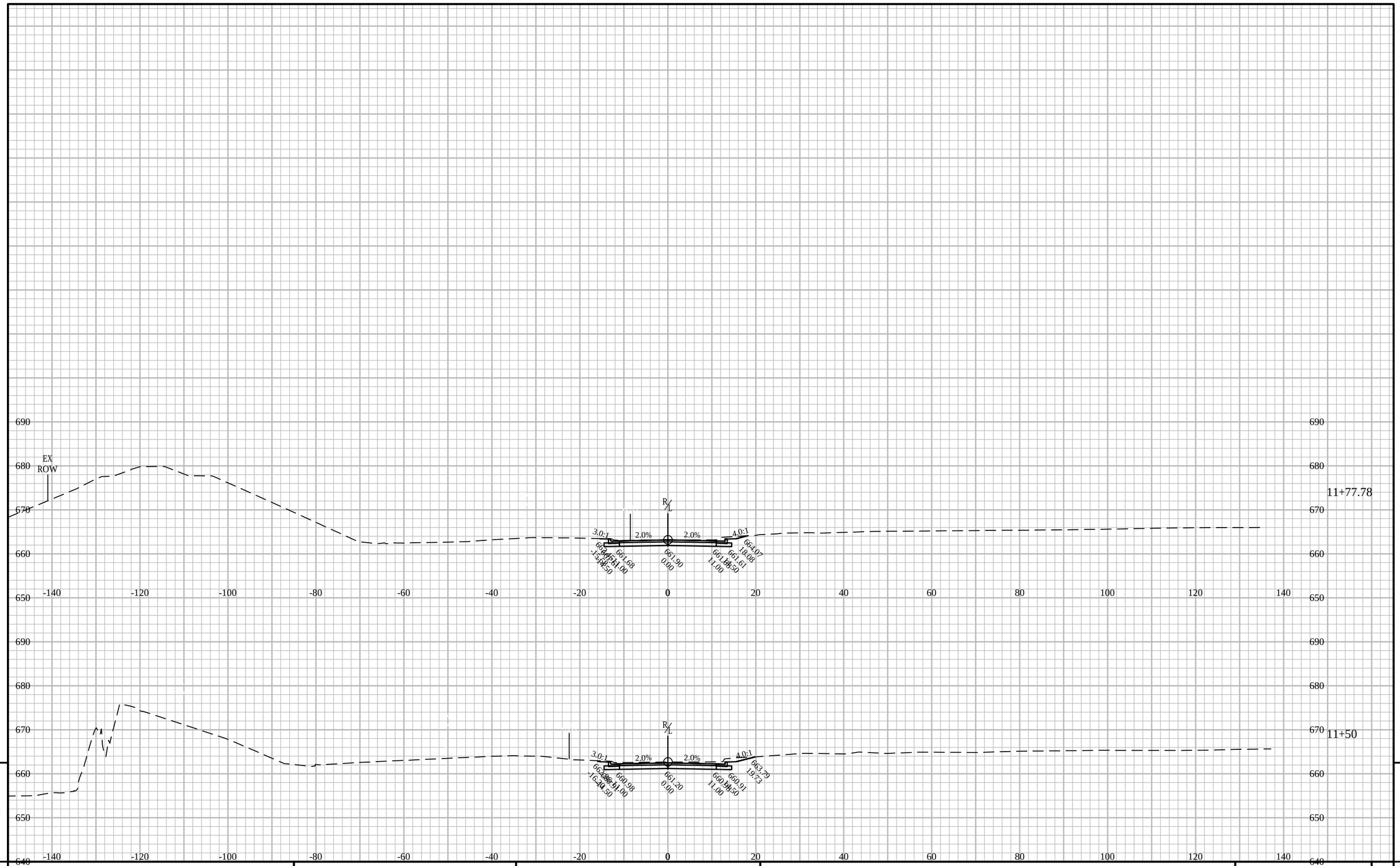
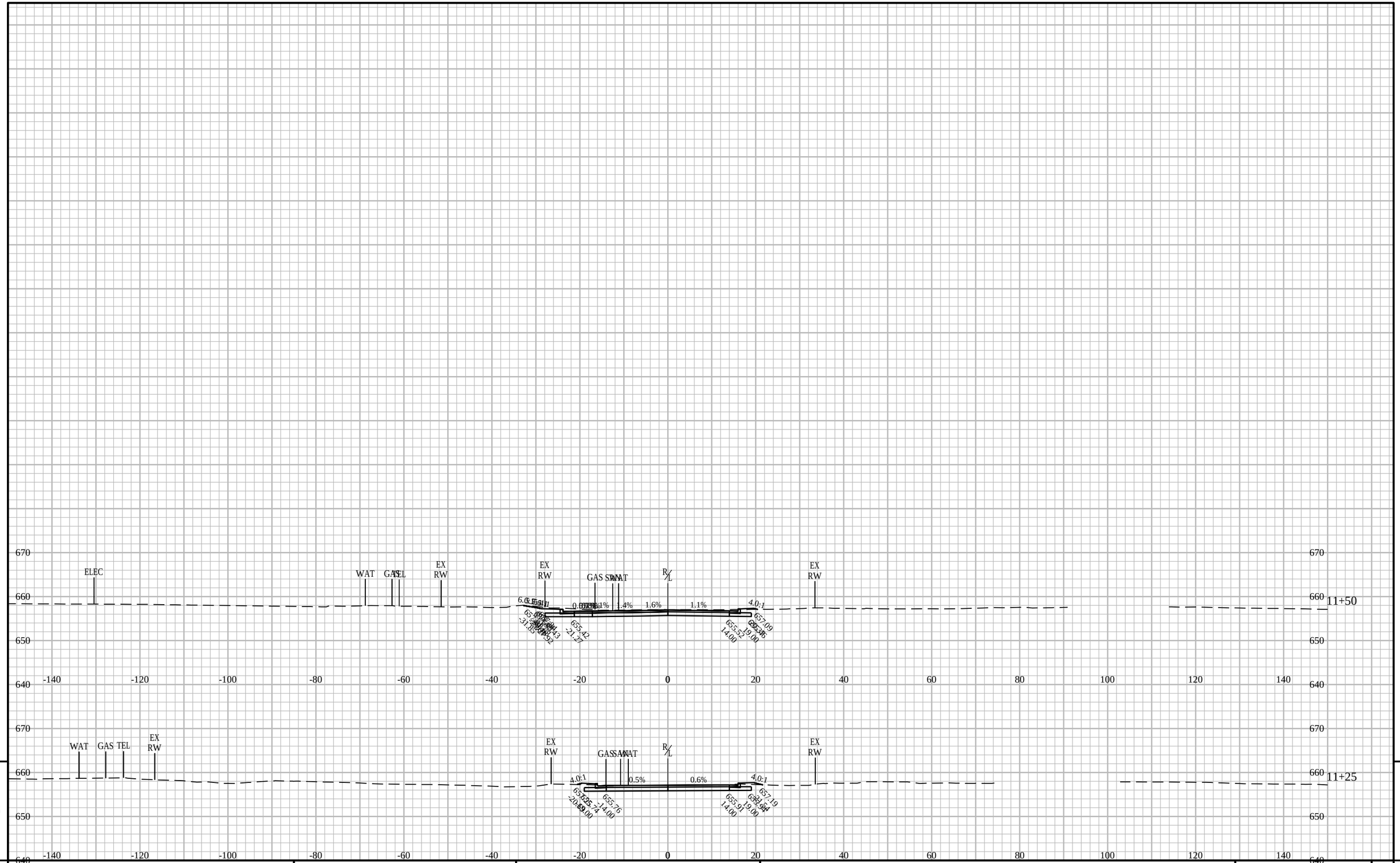
PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: KARL CAMPUS DRIVE	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090313-XS-PW_CROSSROADS.DWG PLOT DATE : 9/29/2021 6:28 AM PLOT BY : CECELIA KASTEN PLOT NAME :



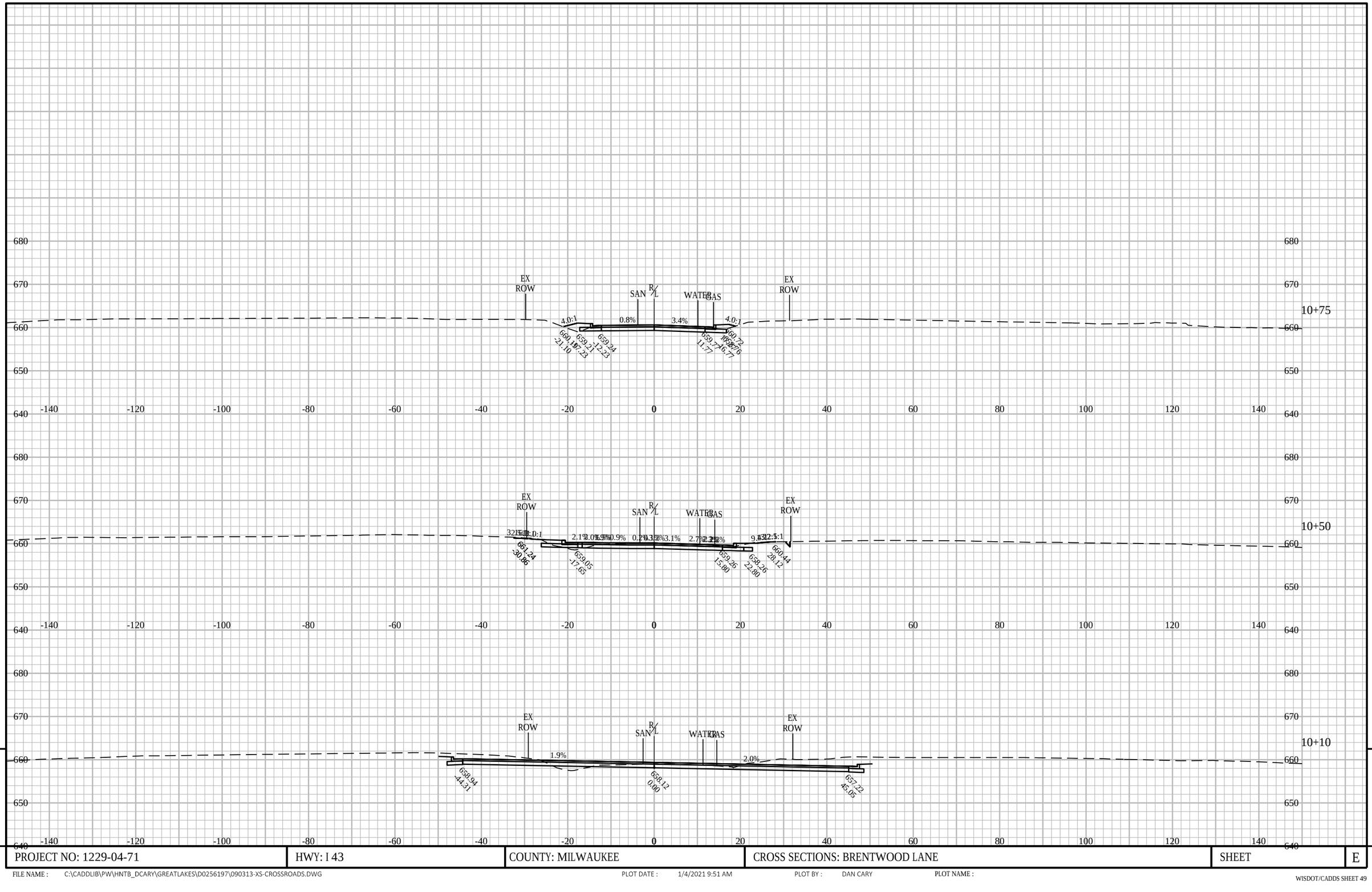
PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: KARL CAMPUS DRIVE	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090313-XS-PW_CROSSROADS.DWG PLOT DATE : 9/29/2021 6:28 AM PLOT BY : CECELIA KASTEN PLOT NAME :



PROJECT NO: 1229-04-73	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BRENTWOOD LANE AT JEAN NICOLET	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:15 PM PLOT BY : CECELIA KASTEN PLOT NAME :



PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: BRENTWOOD LANE	SHEET E

FILE NAME : C:\CADDLIB\PW\HNTB_DCARY\GREATLAKES\D0256197\090313-XS-CROSSROADS.DWG PLOT DATE : 1/4/2021 9:51 AM PLOT BY : DAN CARY PLOT NAME :

WISDOT/CADDS SHEET 49

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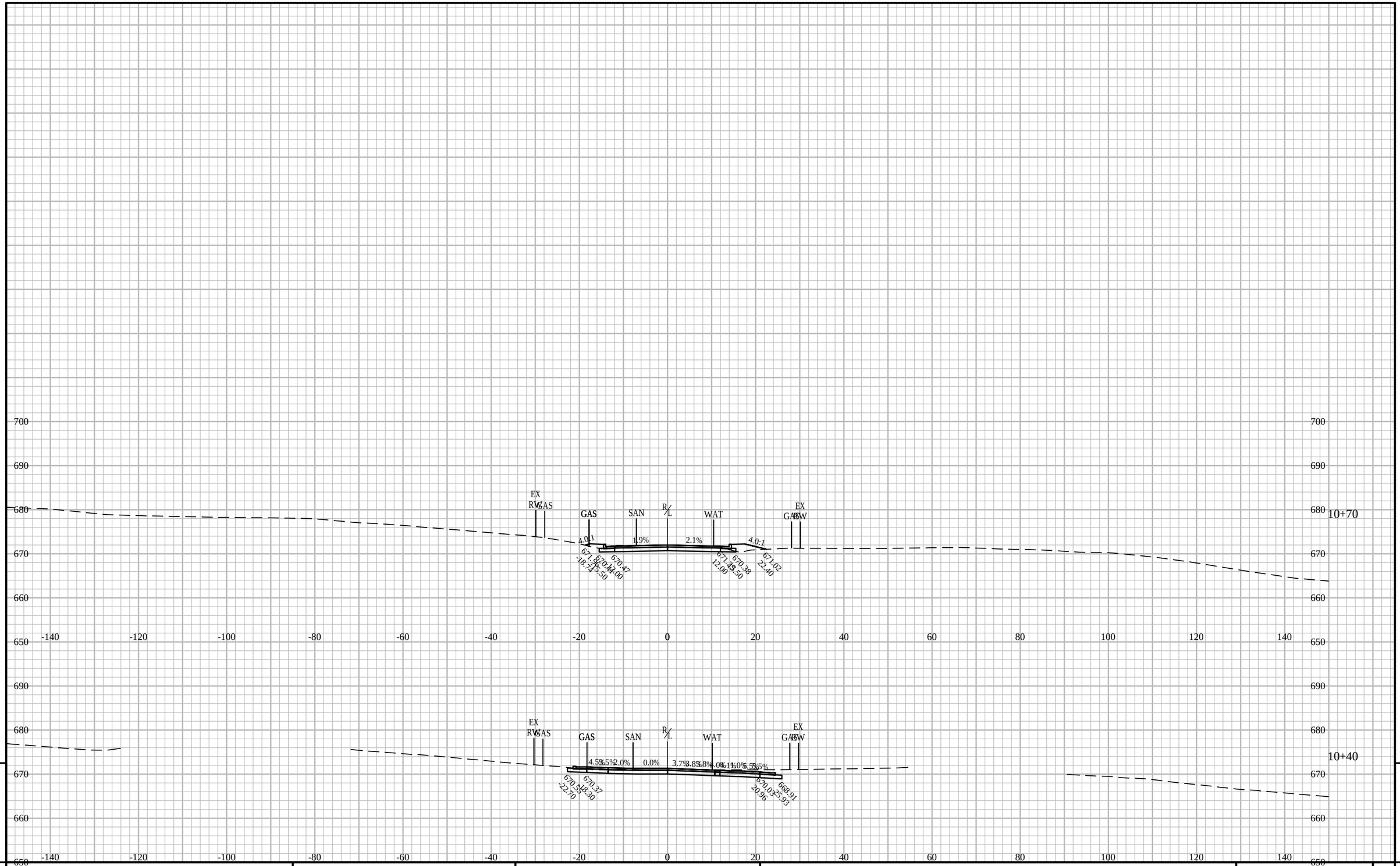

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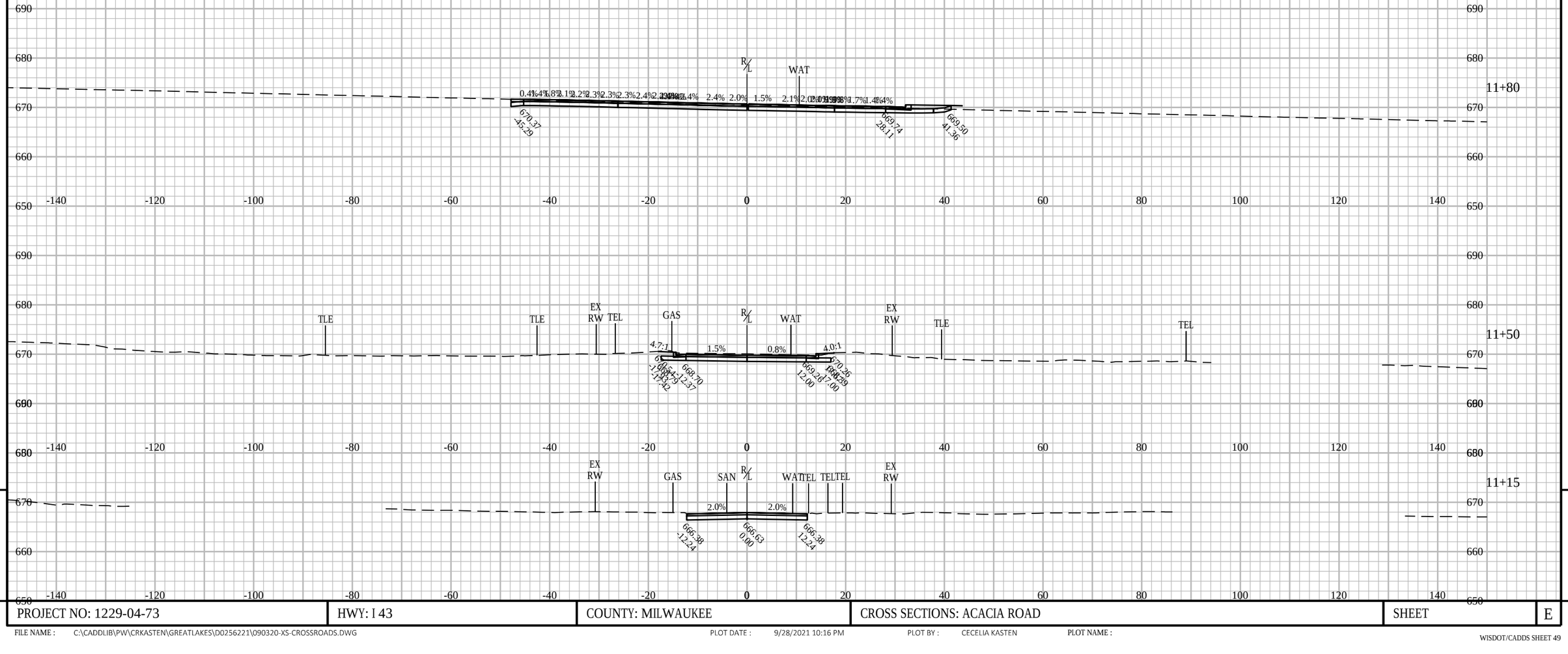
PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: CLOVERNOOK LANE AT PORT WASHINGTON	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:16 PM PLOT BY : CECELIA KASTEN PLOT NAME :



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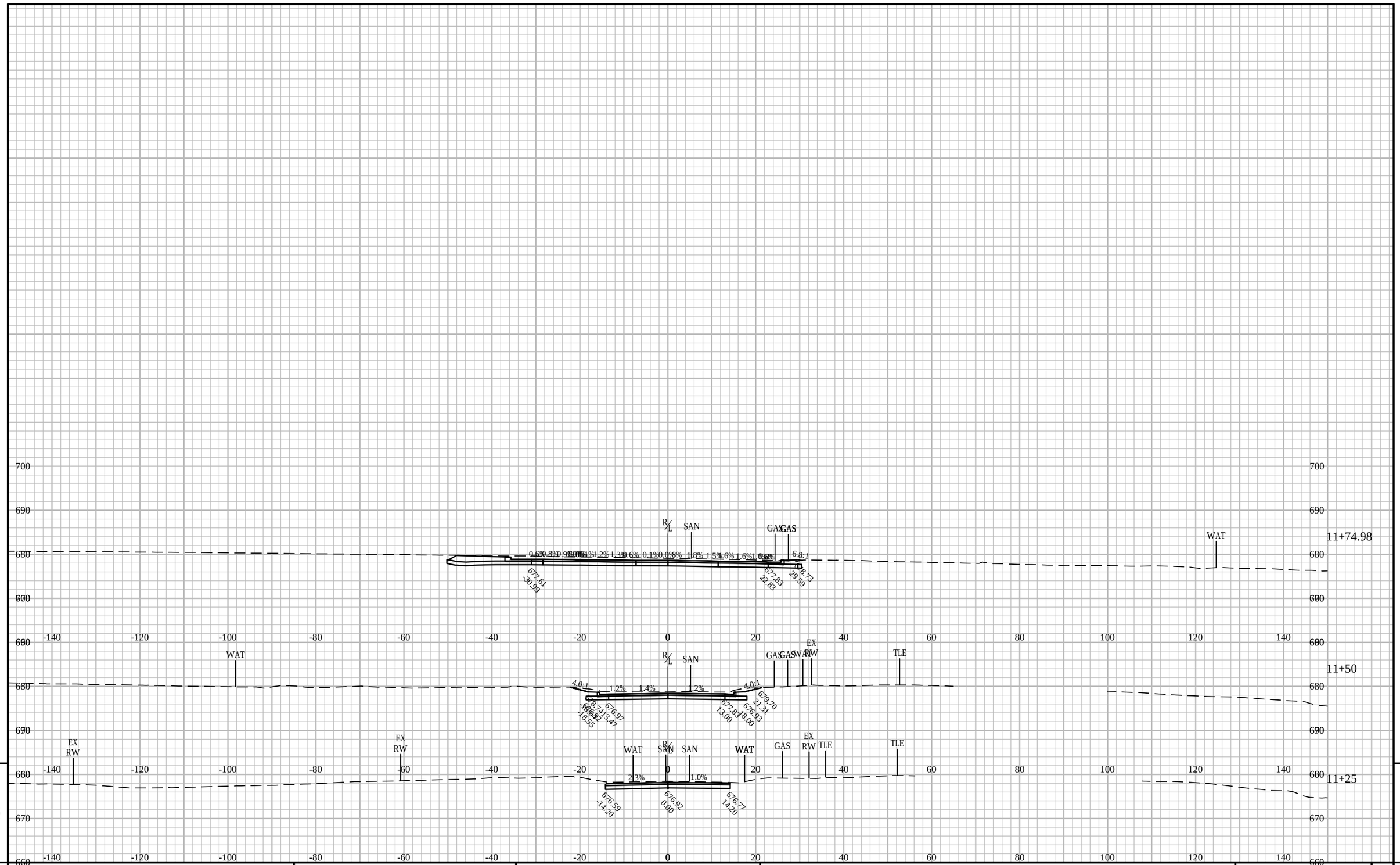
PROJECT NO: 1229-04-73	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: ACACIA ROAD	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:16 PM PLOT BY : CECELIA KASTEN PLOT NAME :



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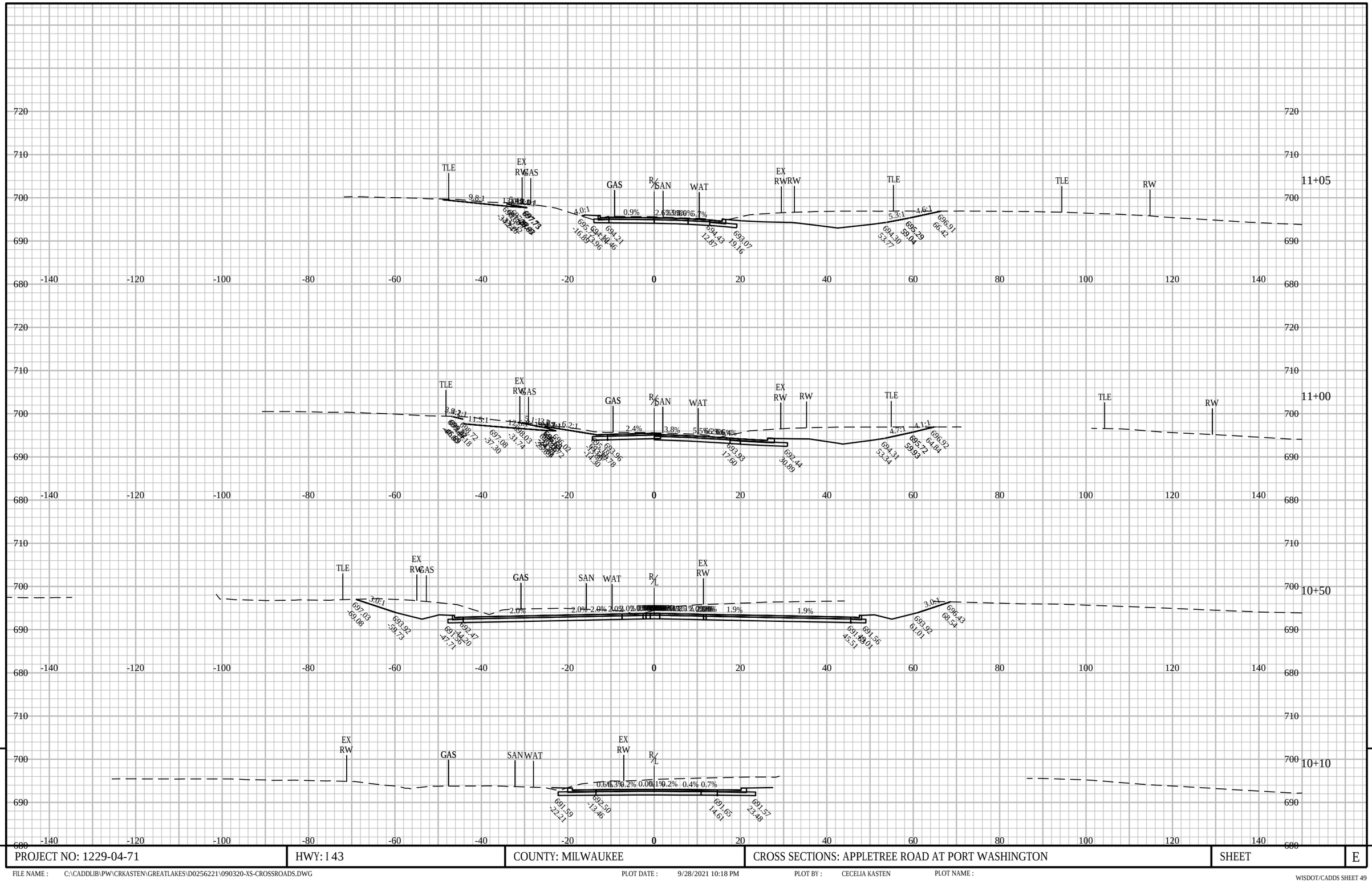
PROJECT NO: 1229-04-73	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETREE ROAD AT JEAN NICOLET	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:17 PM PLOT BY : CECELIA KASTEN PLOT NAME :



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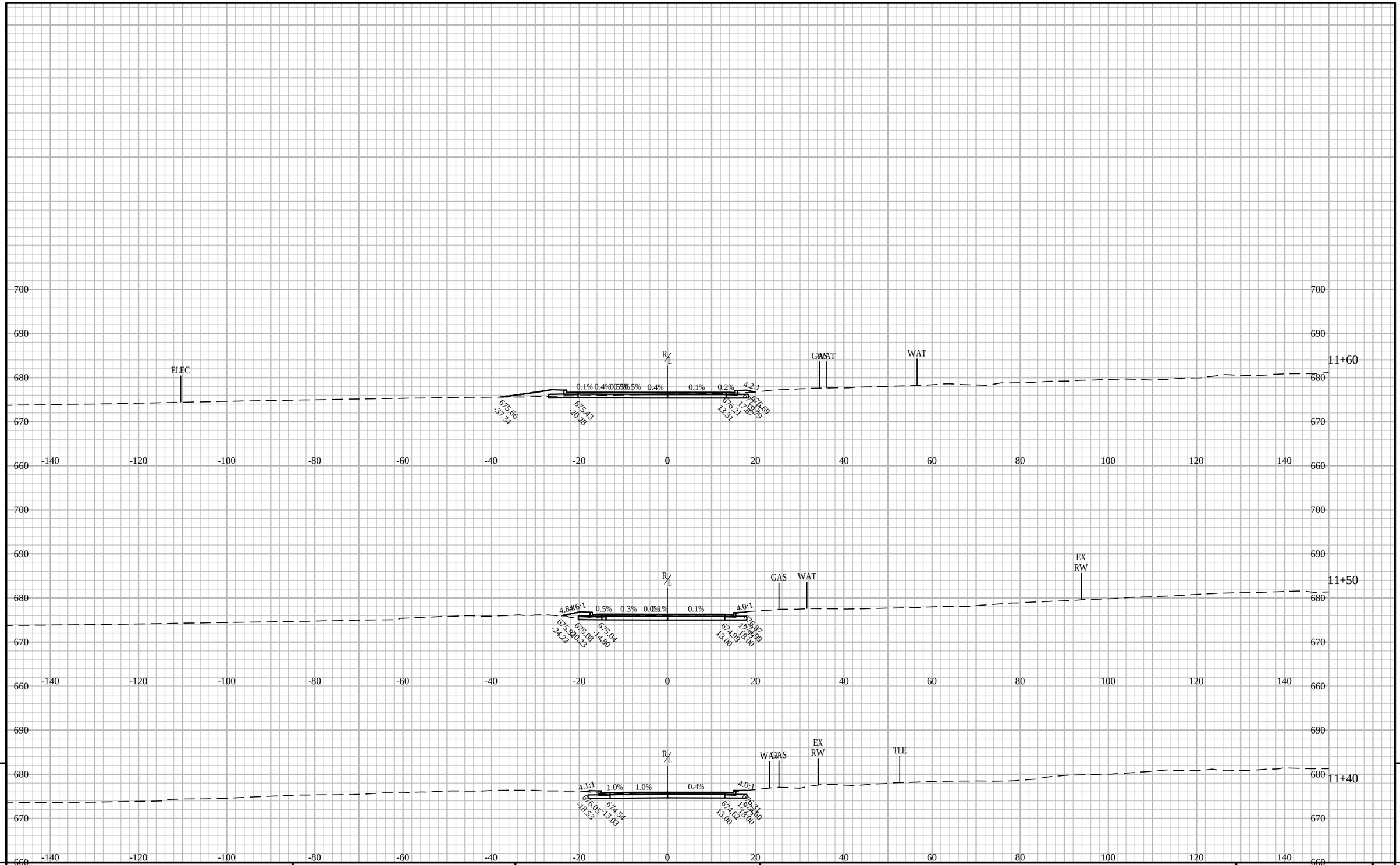
PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETREE ROAD AT PORT WASHINGTON	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:18 PM PLOT BY : CECELIA KASTEN PLOT NAME :



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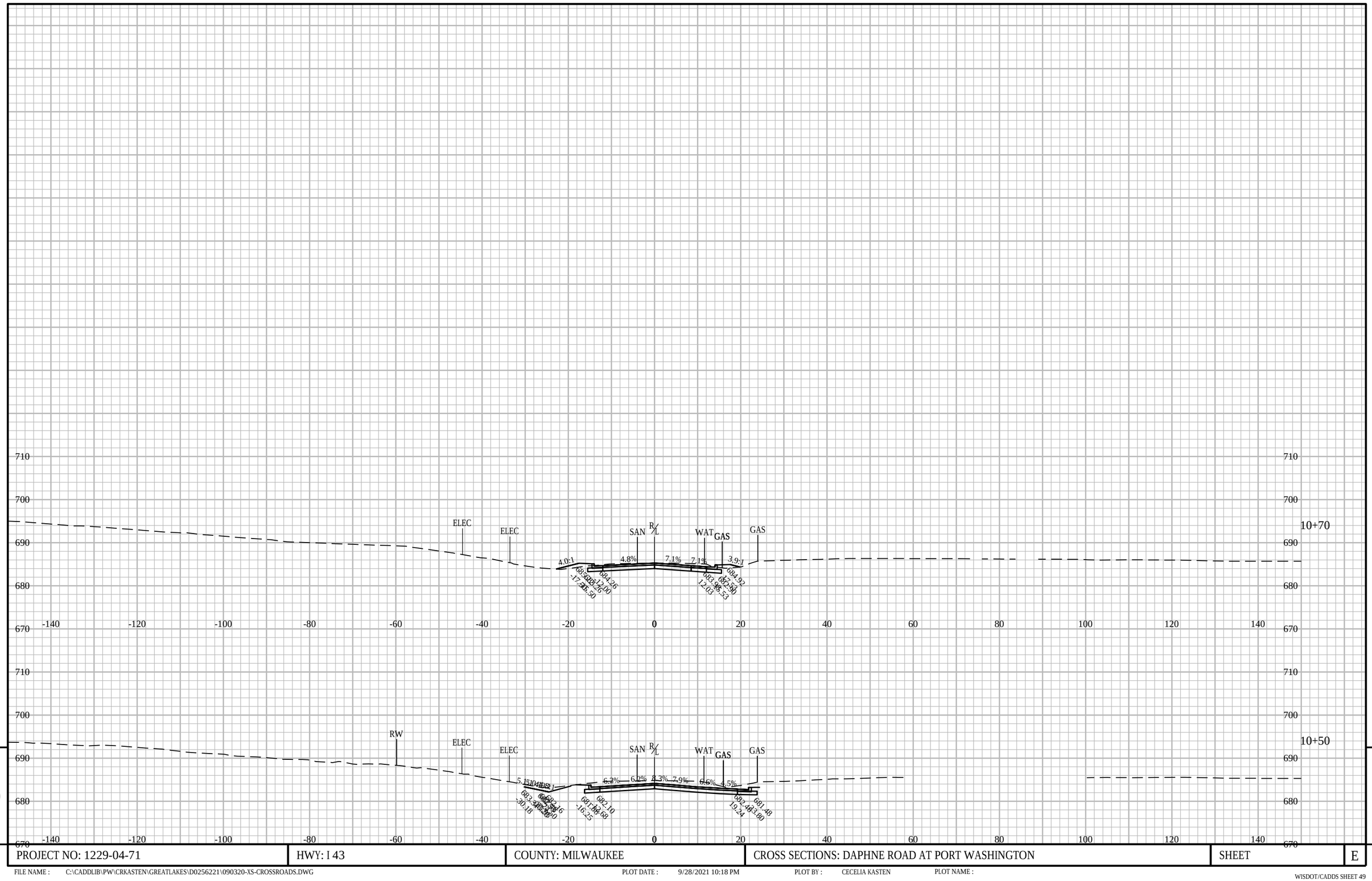
PROJECT NO: 1229-04-73	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: DAPHNE ROAD AT JEAN NICOLET	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:18 PM PLOT BY : CECELIA KASTEN PLOT NAME :



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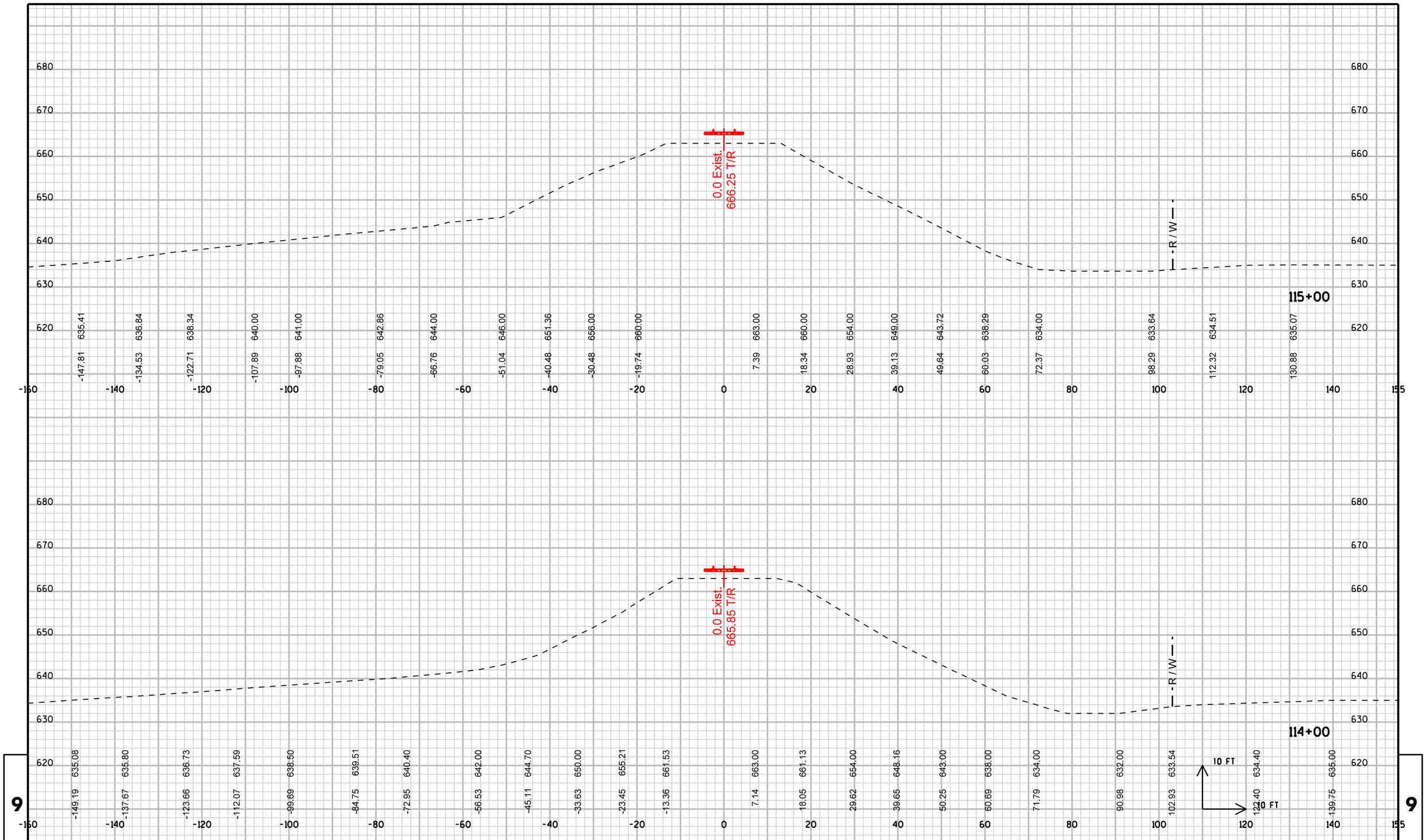
PROJECT NO: 1229-04-71	HWY: I 43	COUNTY: MILWAUKEE	CROSS SECTIONS: DAPHNE ROAD AT PORT WASHINGTON	SHEET	E

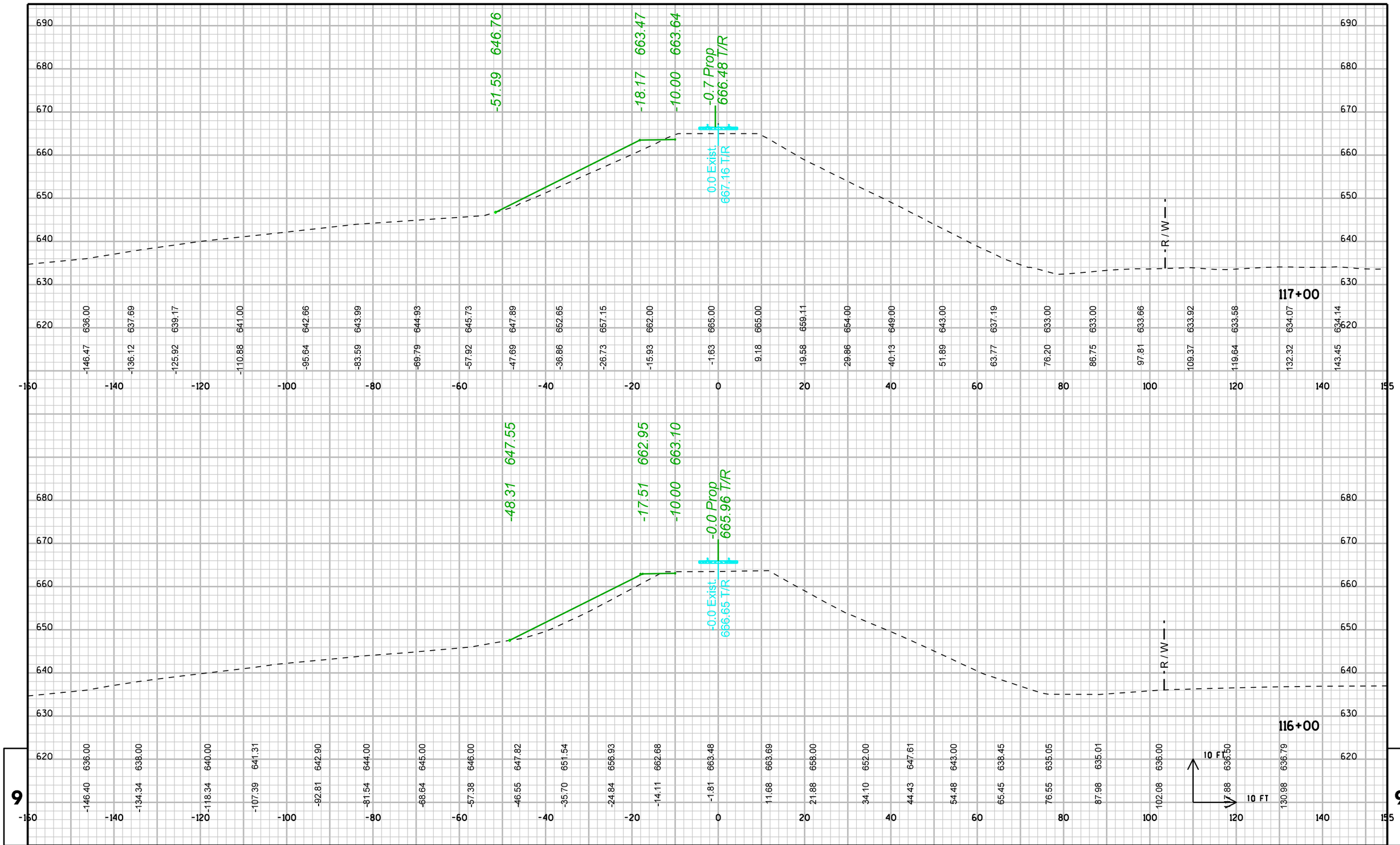
FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0256221\090320-XS-CROSSROADS.DWG PLOT DATE : 9/28/2021 10:18 PM PLOT BY : CECELIA KASTEN PLOT NAME :



9 9

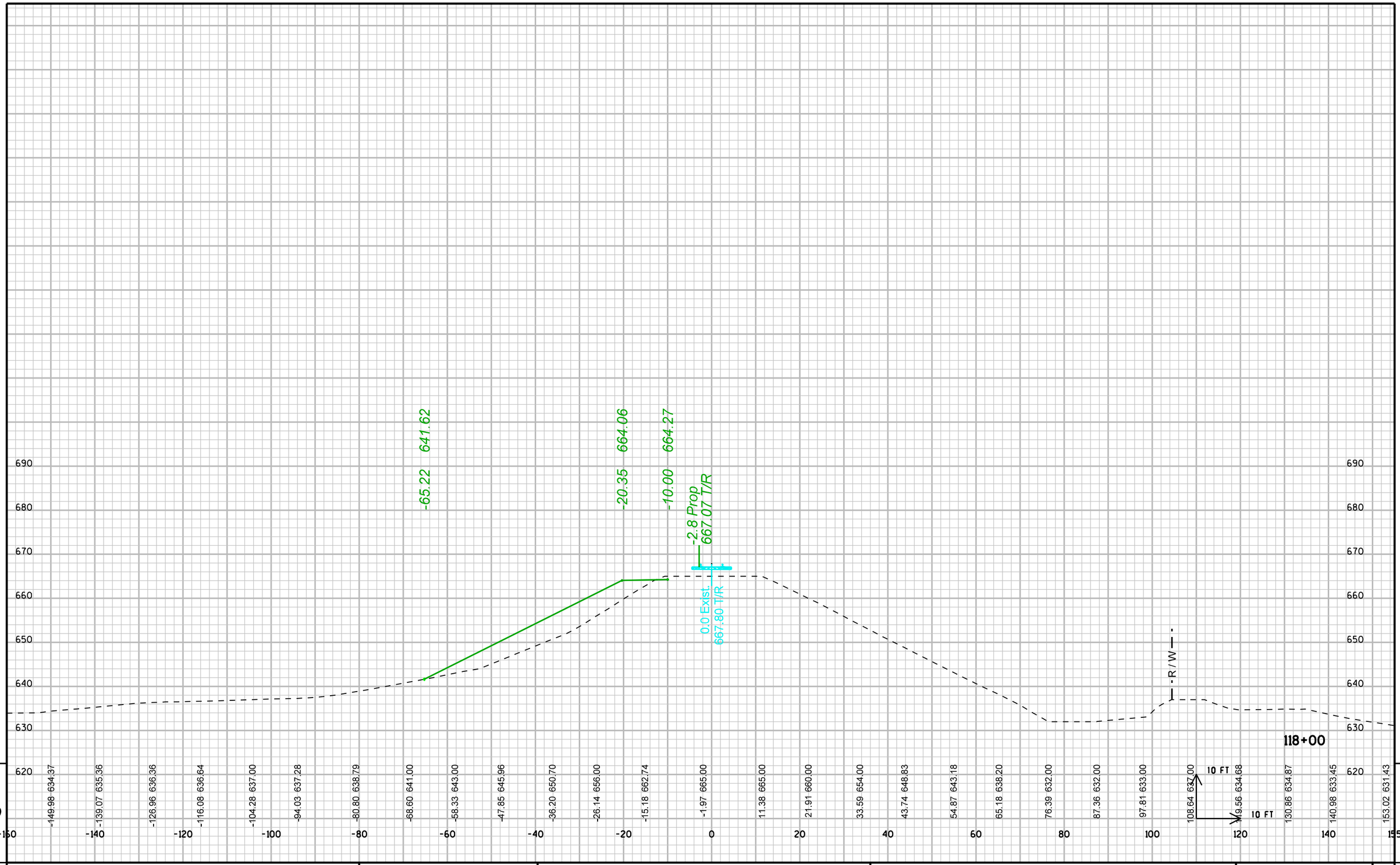
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A STA 114+00 TO 115+00	SHEET 16 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 116+00 TO 117+00	SHEET 17 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



9 9

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 118+00 TO 118+00	SHEET 18 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

-73.83 639.54

-23.49 664.71

-10.00 664.98

-6.0 Prop
667.72 T/R

+0.0 Exist.
668.37 T/R

690
680
670
660
650
640
630
620
610

634.40 635.00 635.29 636.17 637.00 637.67 640.93 643.67 645.75 648.91 655.25 662.00 665.00 665.00 659.54 654.00 648.52 643.07 639.00 635.08 630.46 627.46 627.00 626.62 626.31

-144.24 -129.43 -116.20 -105.09 -94.55 -81.92 -69.31 -58.15 -46.71 -35.63 -25.28 -14.70 3.98 14.19 24.52 35.06 45.50 56.10 66.47 76.51 87.65 97.91 111.40 122.23 135.82

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

10 FT
10 FT

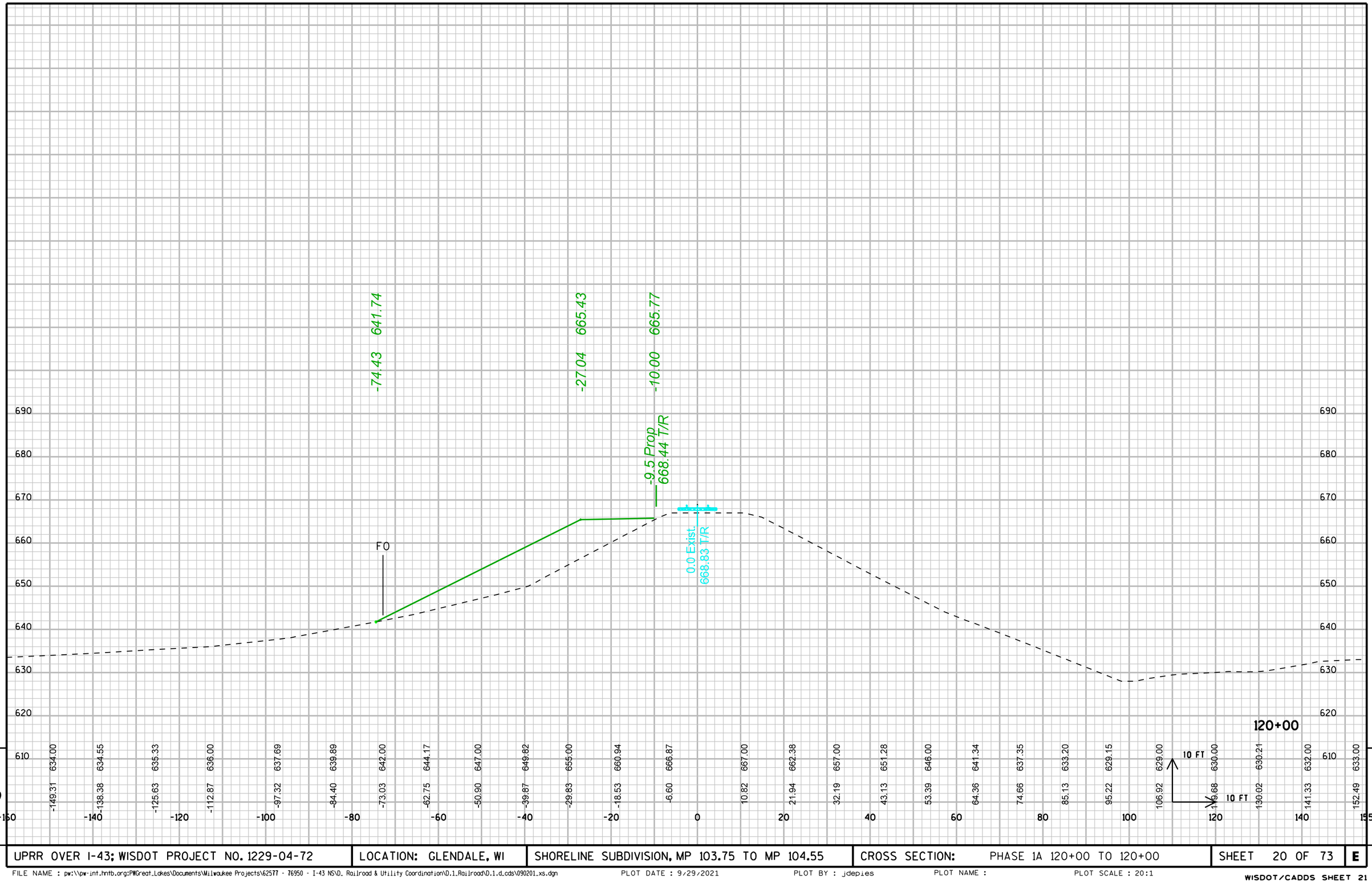
119+00

9 9

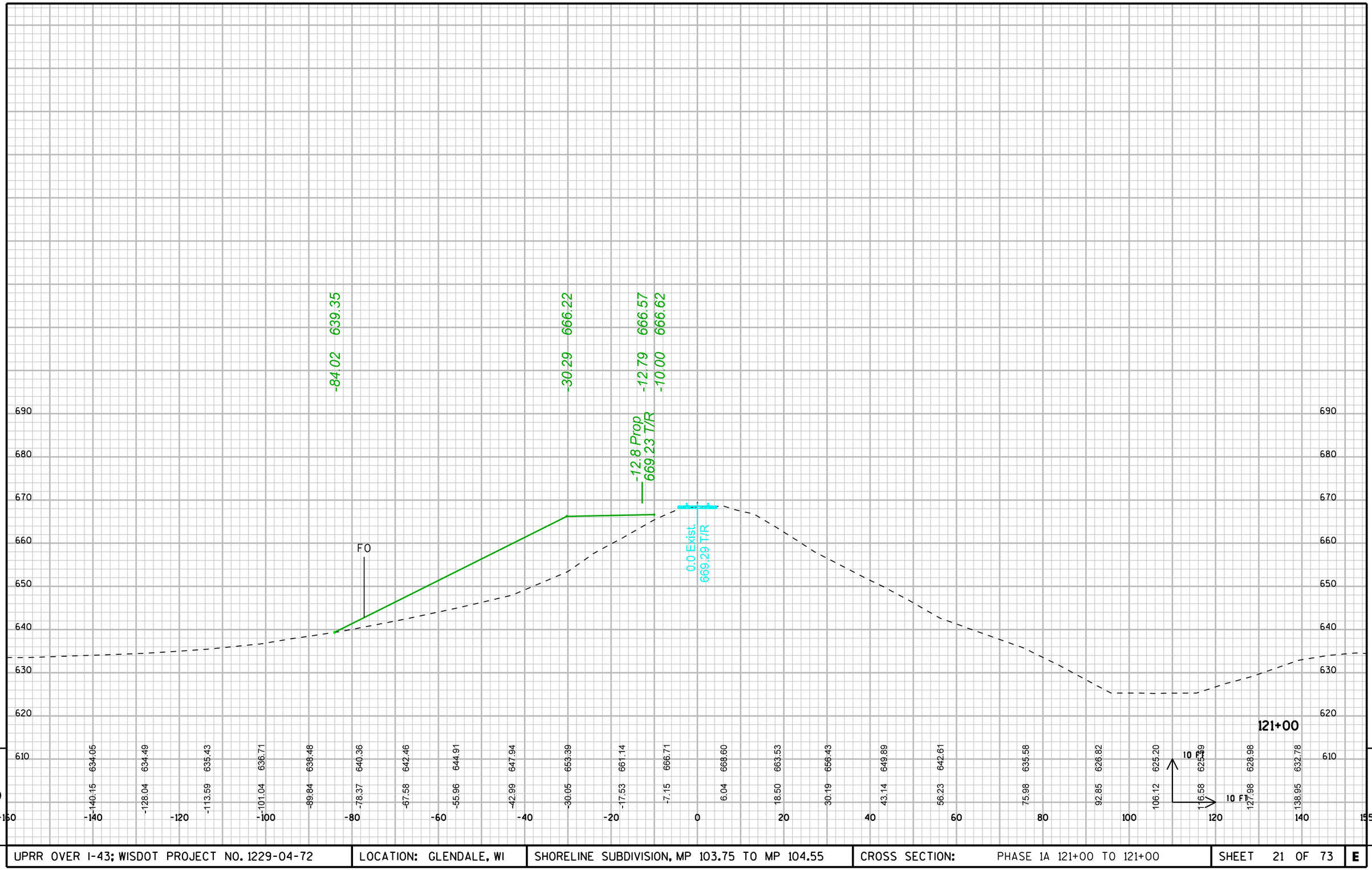
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1A 119+00 TO 119+00 | SHEET 19 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1.Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 120+00 TO 120+00	SHEET 20 OF 73	E



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 121+00 TO 121+00	SHEET 21 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

-91.91 637.82

-33.40 667.07

-15.90 667.42

-10.00 667.54

-15.9 Prop
670.08 T/R

0.0 Exist.
669.77 T/R

F0

690
680
670
660
650
640
630
620
610

-150.00 634.78
-139.96 634.25
-125.54 634.87
-112.19 635.65
-95.81 637.36
-83.85 639.15
-67.85 641.82
-55.99 644.49
-43.90 647.49
-33.73 652.09
-21.13 659.69
-10.68 665.87
3.83 668.96
15.74 664.29
26.60 657.64
36.70 652.71
48.14 647.63
63.71 640.50
77.78 633.70
91.22 626.51
106.63 626.03
120.76 629.42
135.17 633.13

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

10 FT
10 FT

122+00

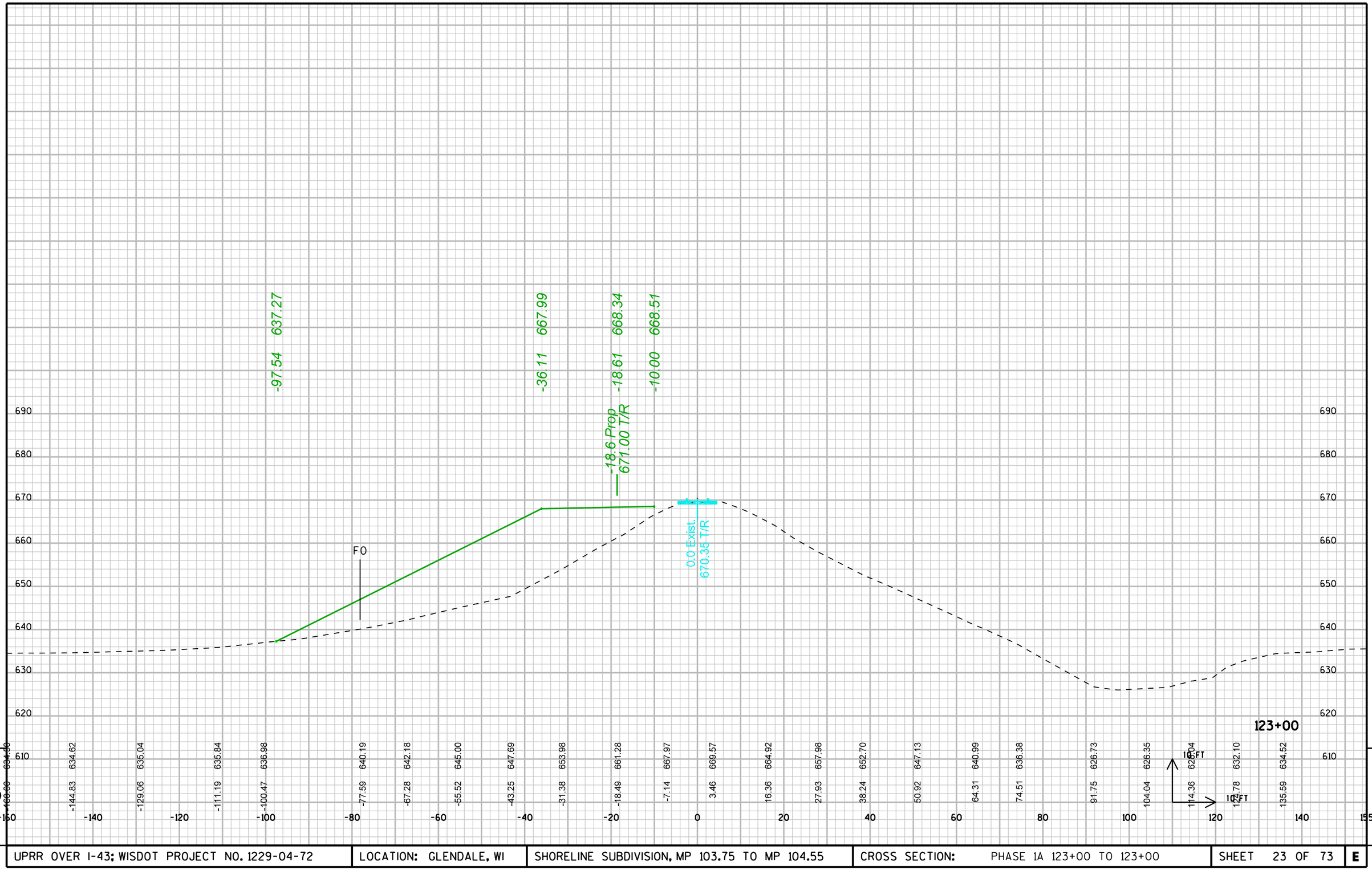
9

9

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 122+00 TO 122+00	SHEET 22 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1.Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 123+00 TO 123+00	SHEET 23 OF 73	E

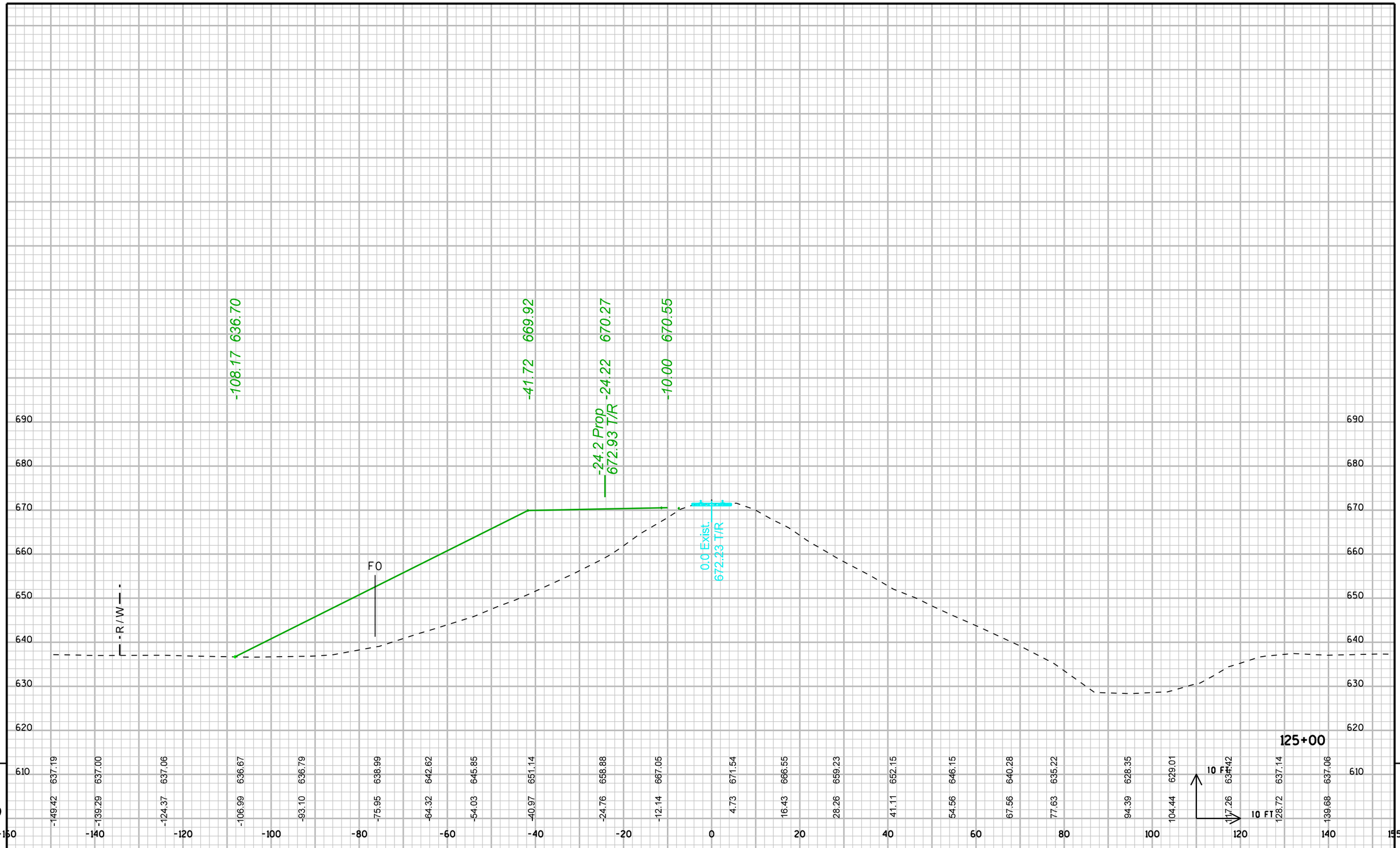
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21

-103.90 636.52
-39.02 668.95
-21.52 669.30
-10.00 669.54
-21.5 Prop
671.96 T/R
0.0 Exist.
671.23 T/R
F0
R/W
690
680
670
660
650
640
630
620
610
-149.45 635.57
-132.42 635.56
-121.16 635.71
-105.26 636.41
-91.45 637.58
-77.55 639.97
-61.22 644.00
-45.95 648.52
-30.19 655.43
-17.50 663.23
-6.60 669.15
5.69 670.57
16.96 665.24
31.70 655.86
45.40 648.95
56.29 643.95
67.15 639.74
79.59 634.03
90.50 627.91
103.70 626.95
117.32 631.19
131.34 635.01
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155
10 FT
10 FT
124+00
9
9

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 124+00 TO 124+00	SHEET 24 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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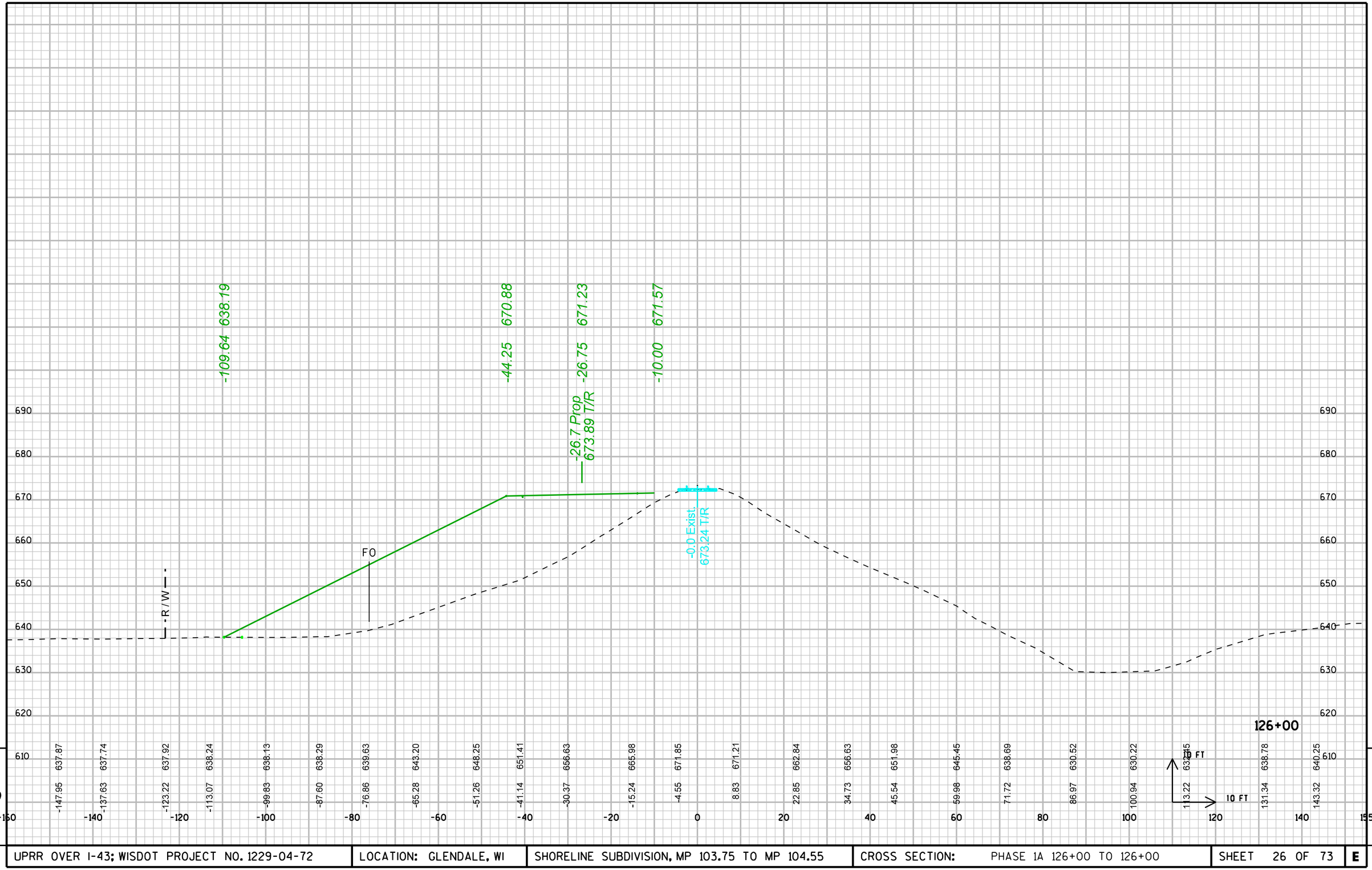
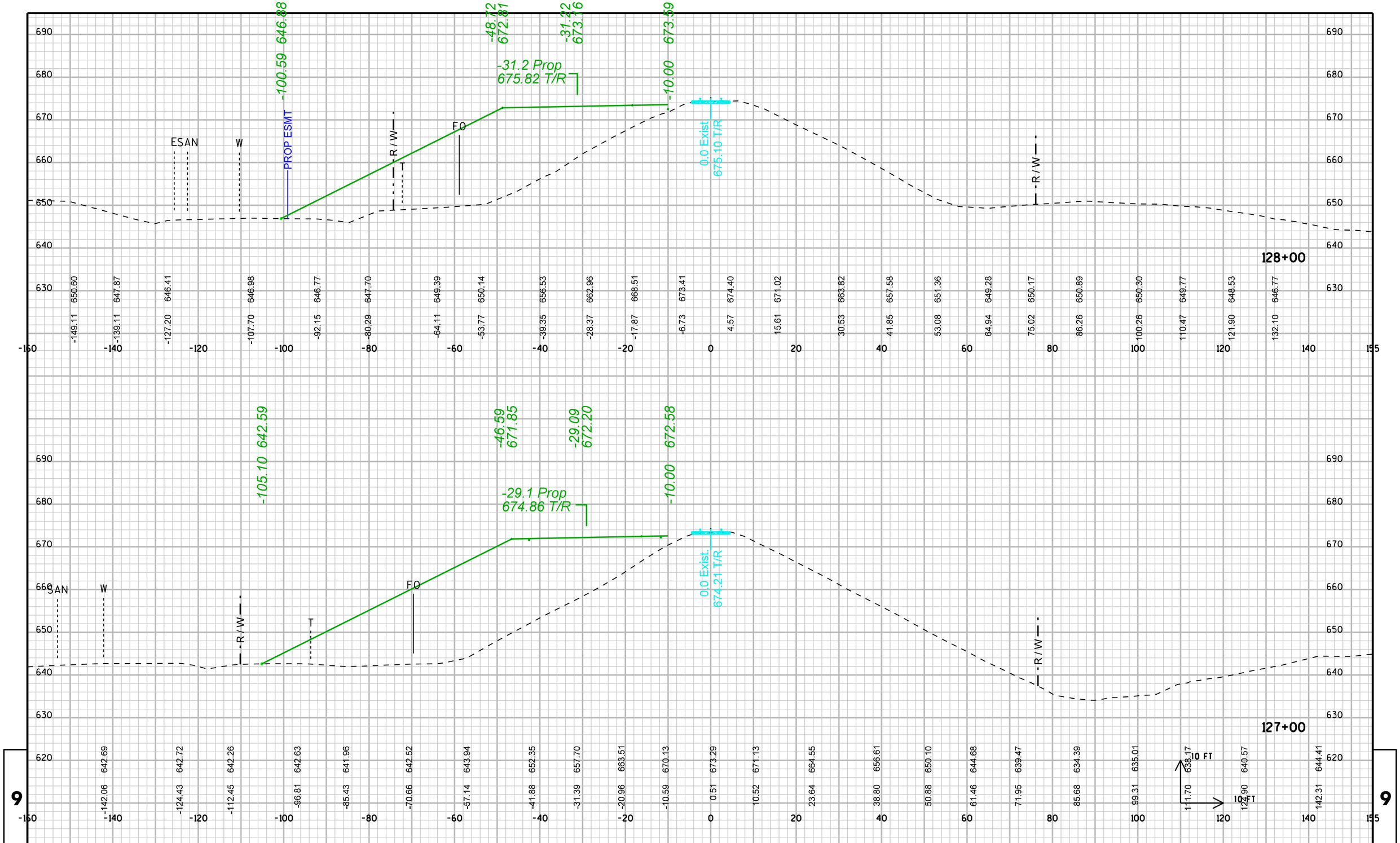


UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 126+00 TO 126+00	SHEET 26 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

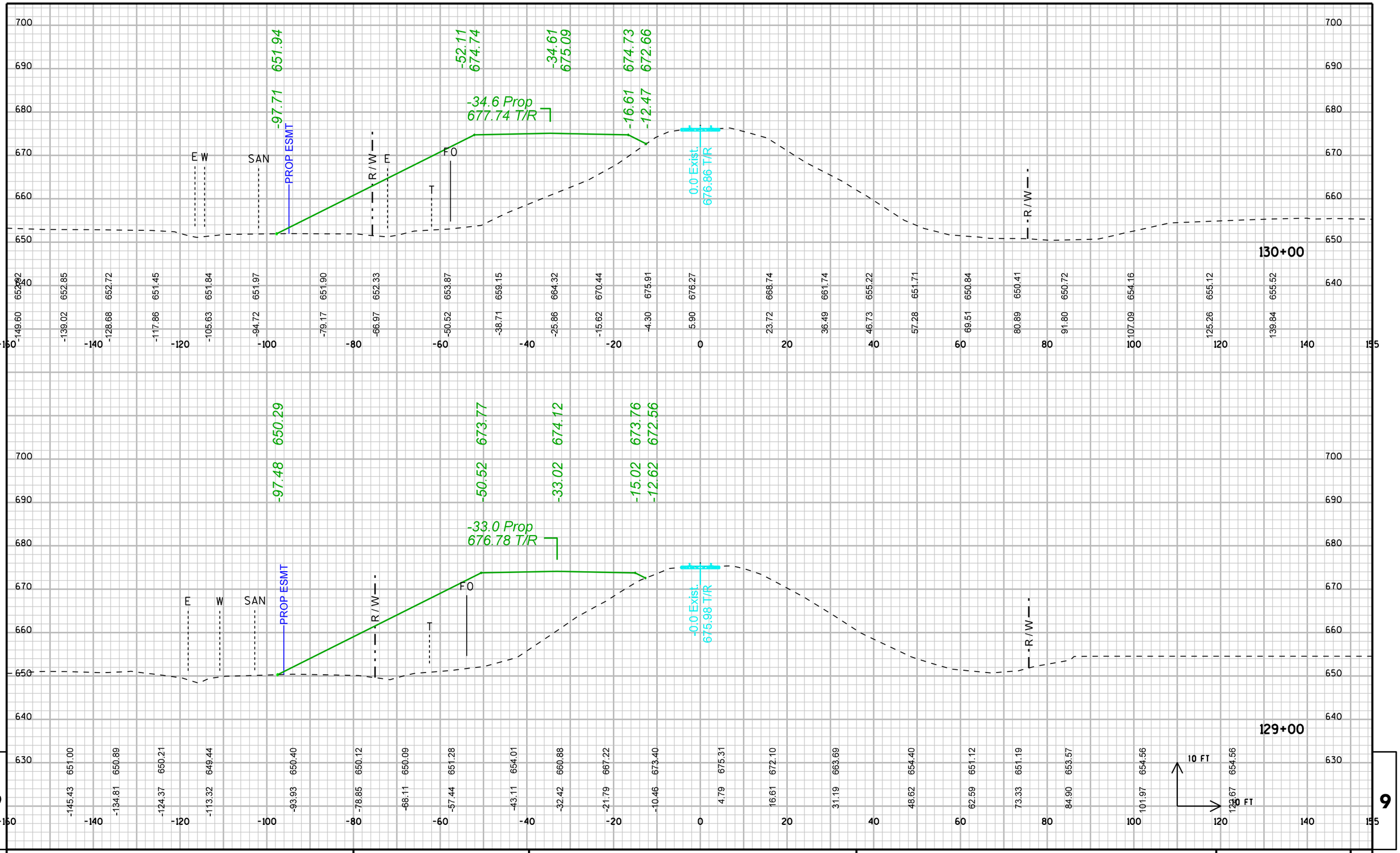
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 127+00 TO 128+00	SHEET 27 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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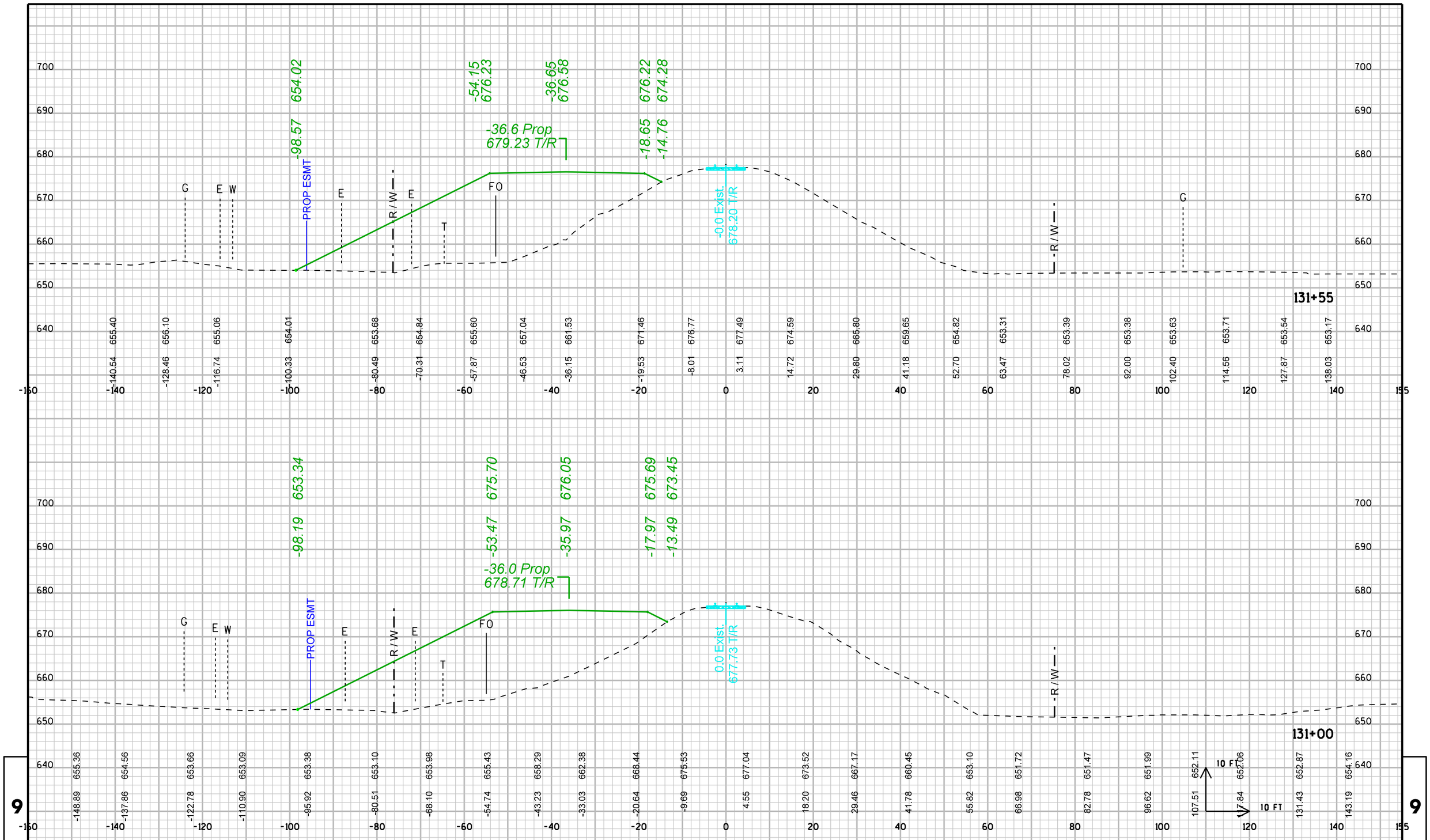
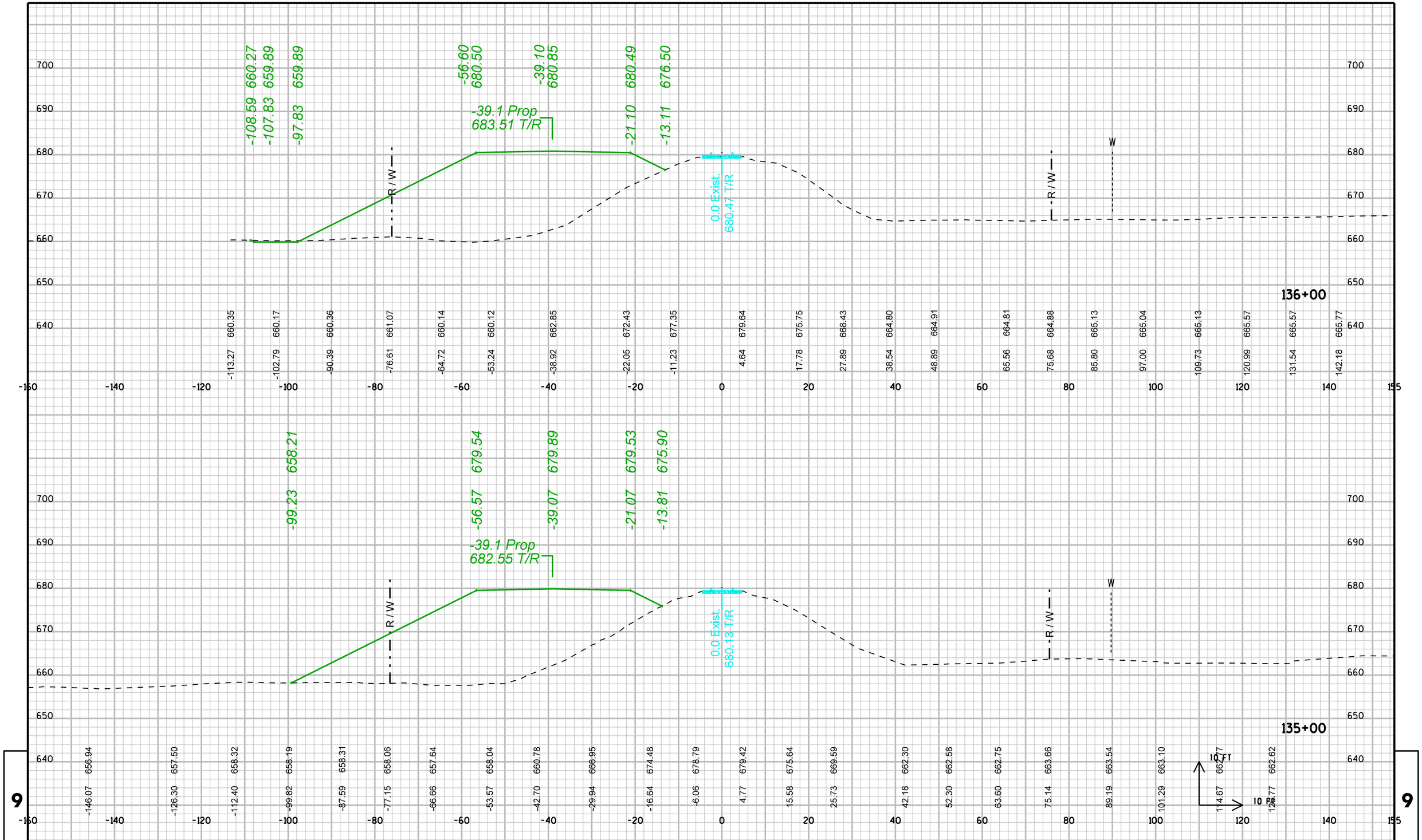
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 129+00 TO 130+00	SHEET 28 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 131+00 TO 131+55	SHEET 29 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn
PLOT DATE : 9/29/2021
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



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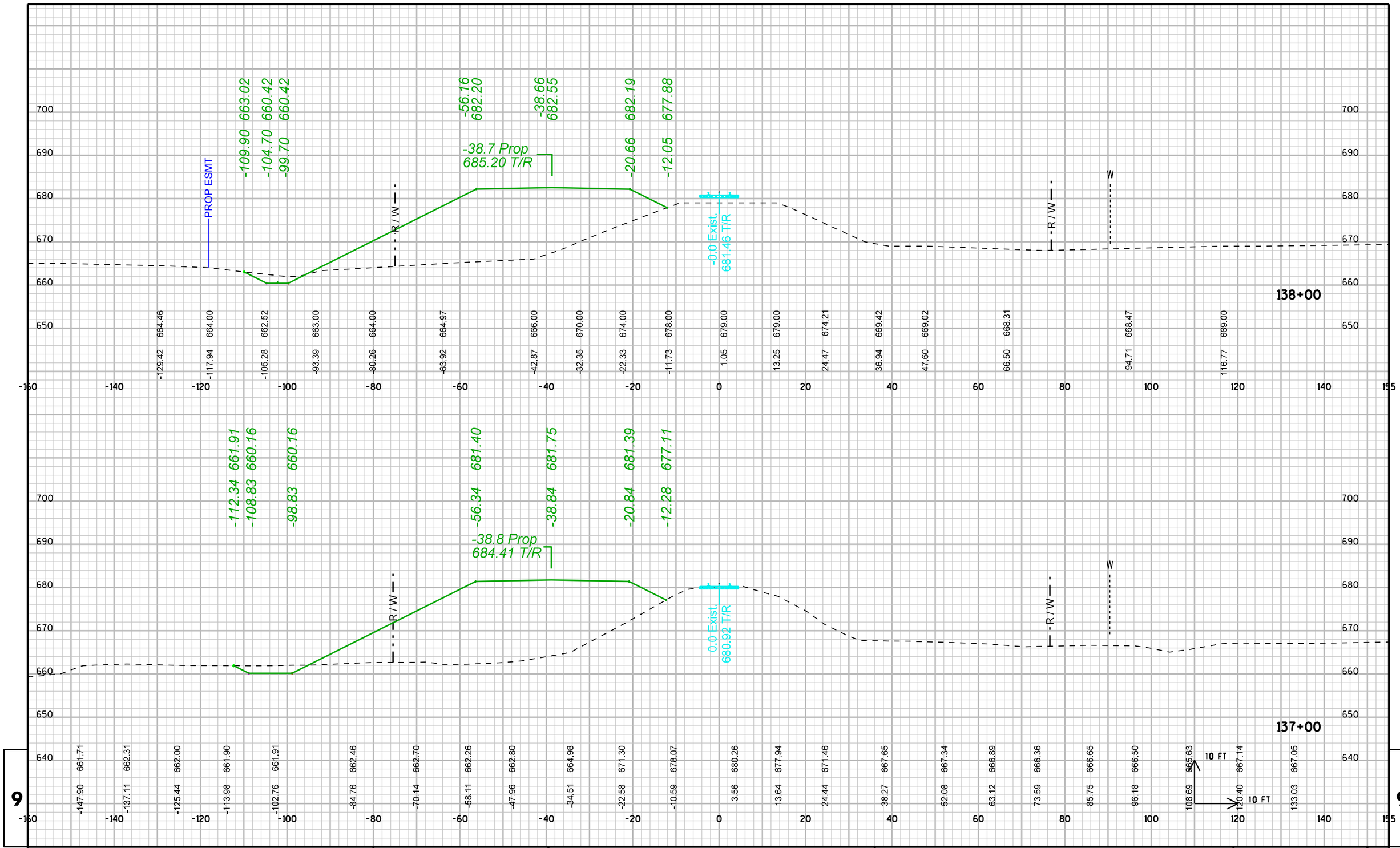
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 135+00 TO 136+00	SHEET 30 OF 73	E

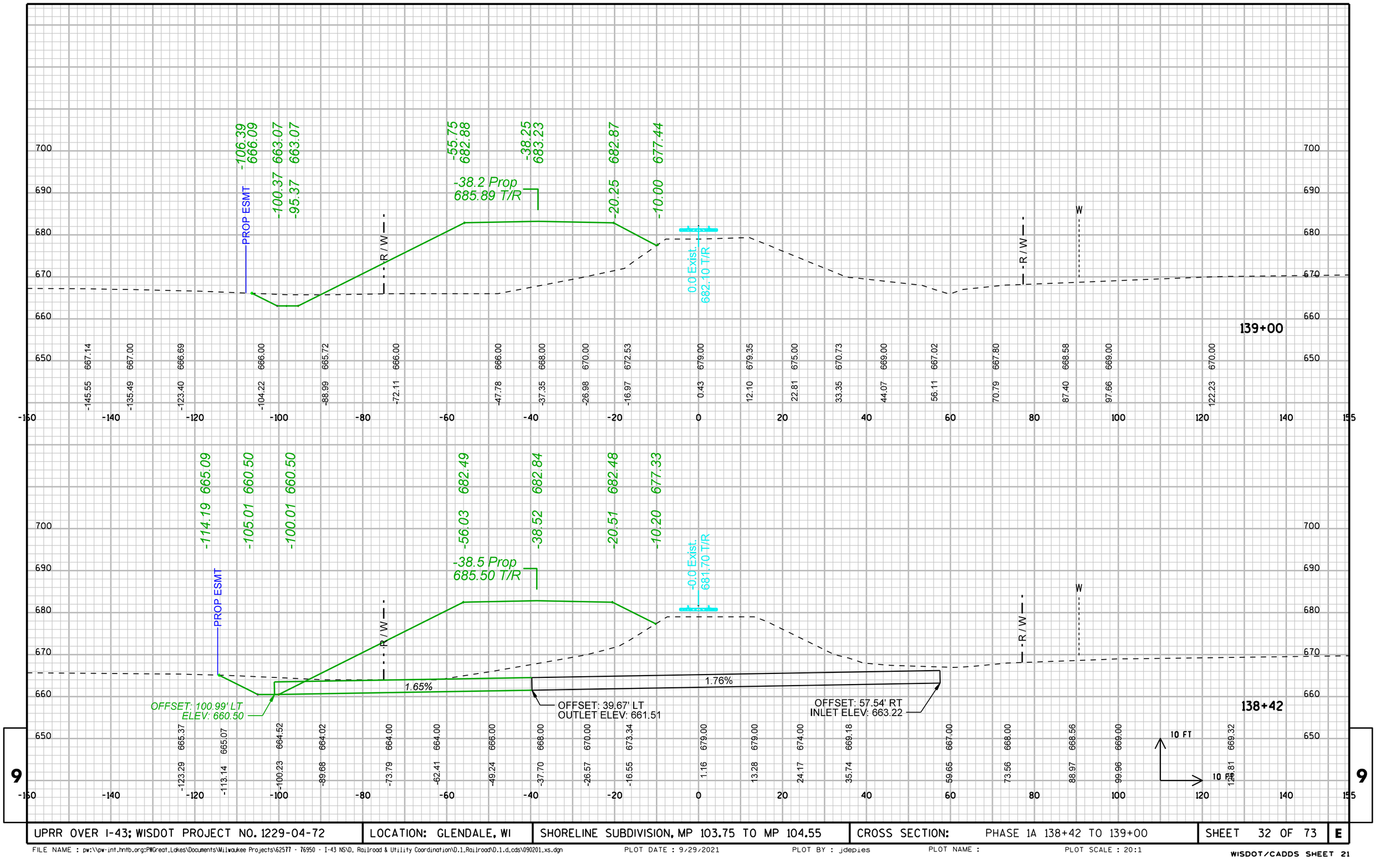
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 137+00 TO 138+00	SHEET 31 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

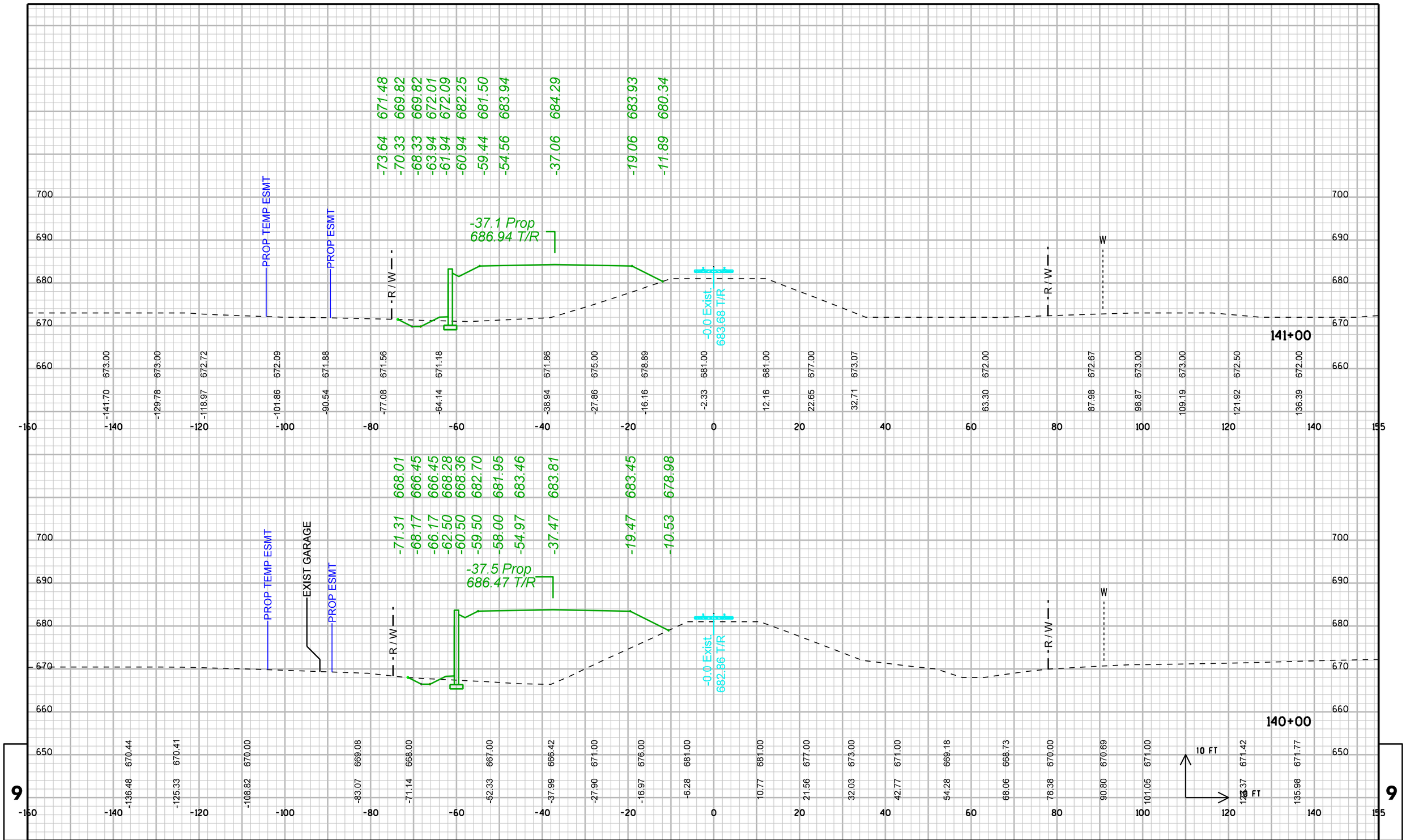
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 138+42 TO 139+00	SHEET 32 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

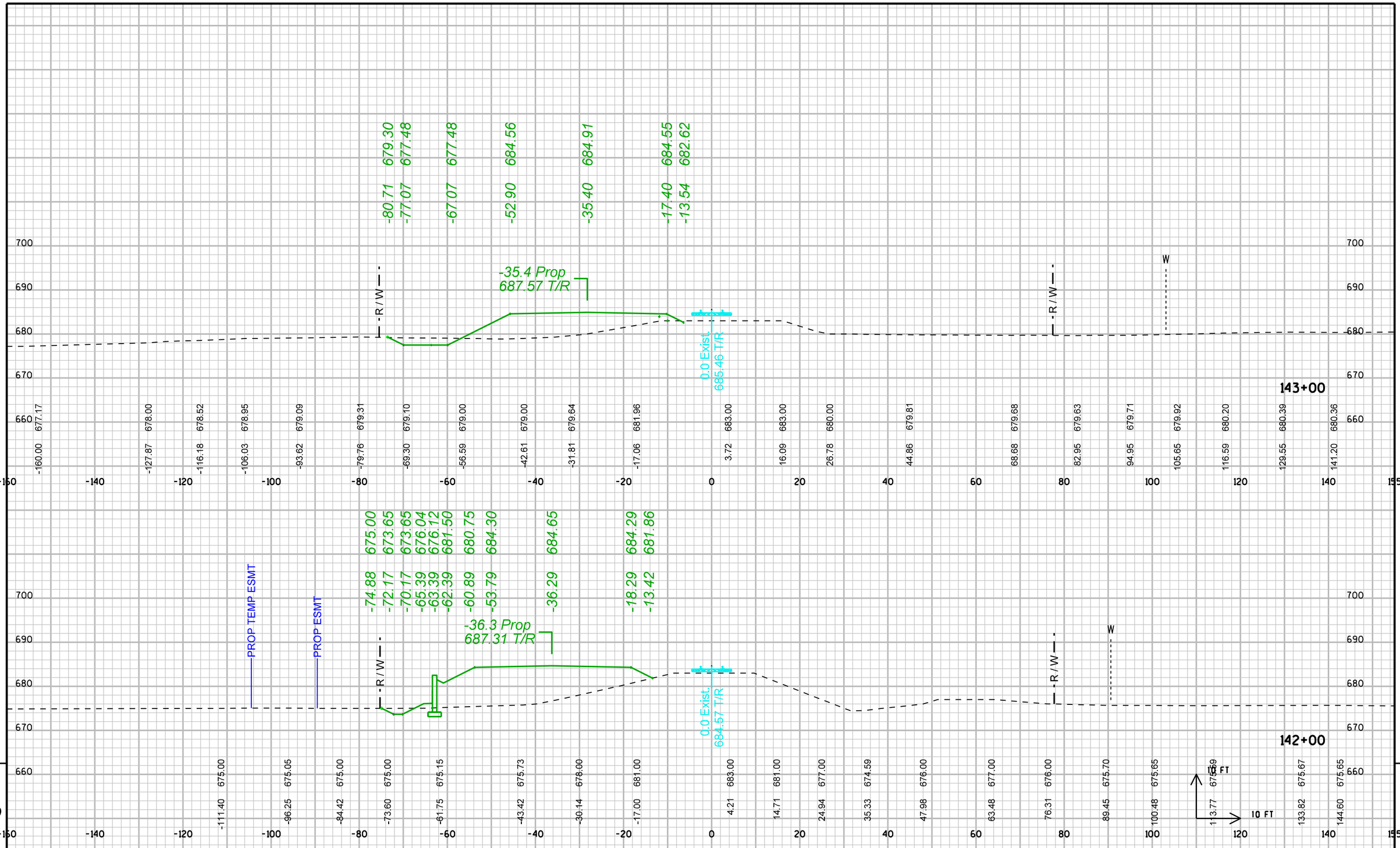
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 140+00 TO 141+00	SHEET 33 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

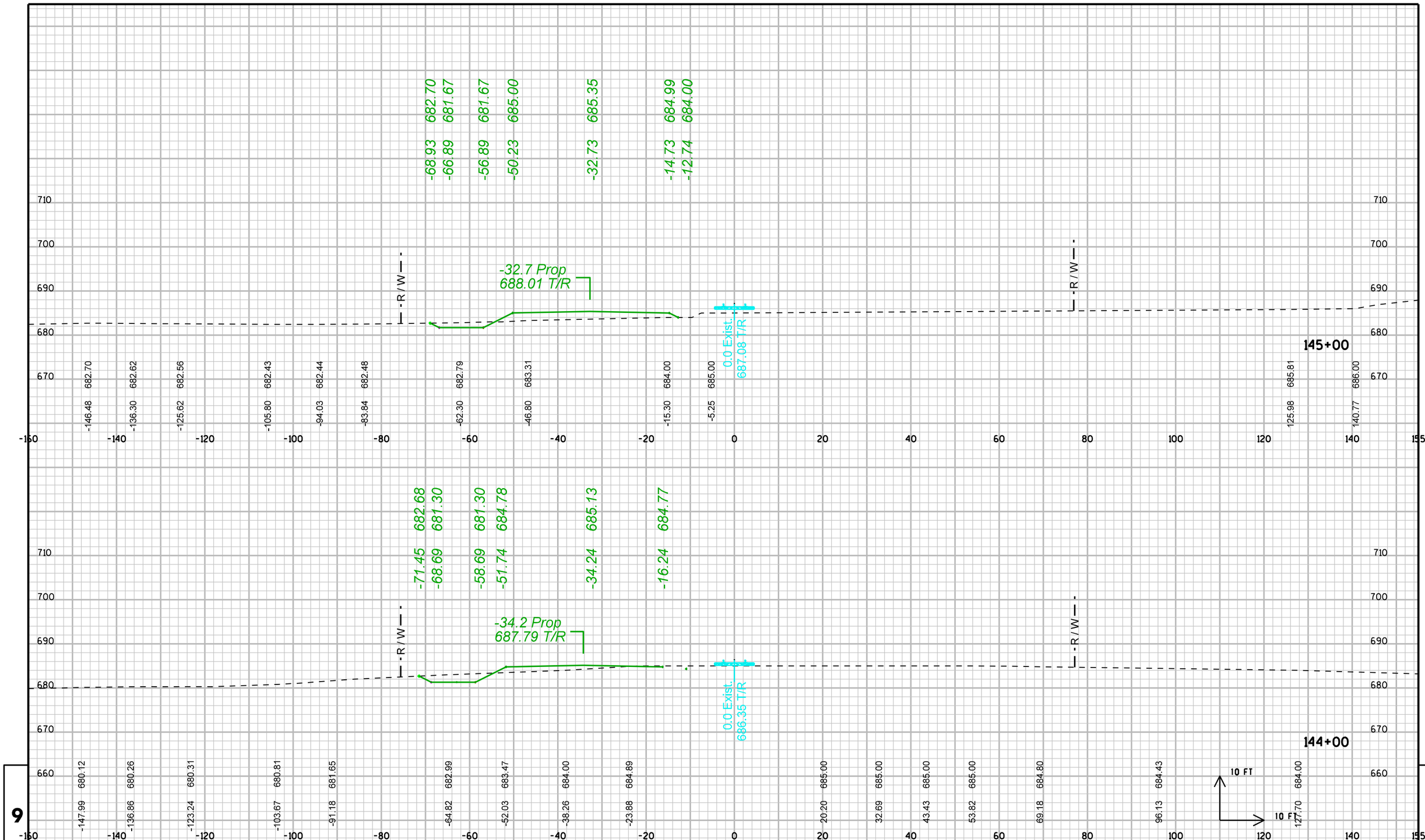
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 142+00 TO 143+00	SHEET 34 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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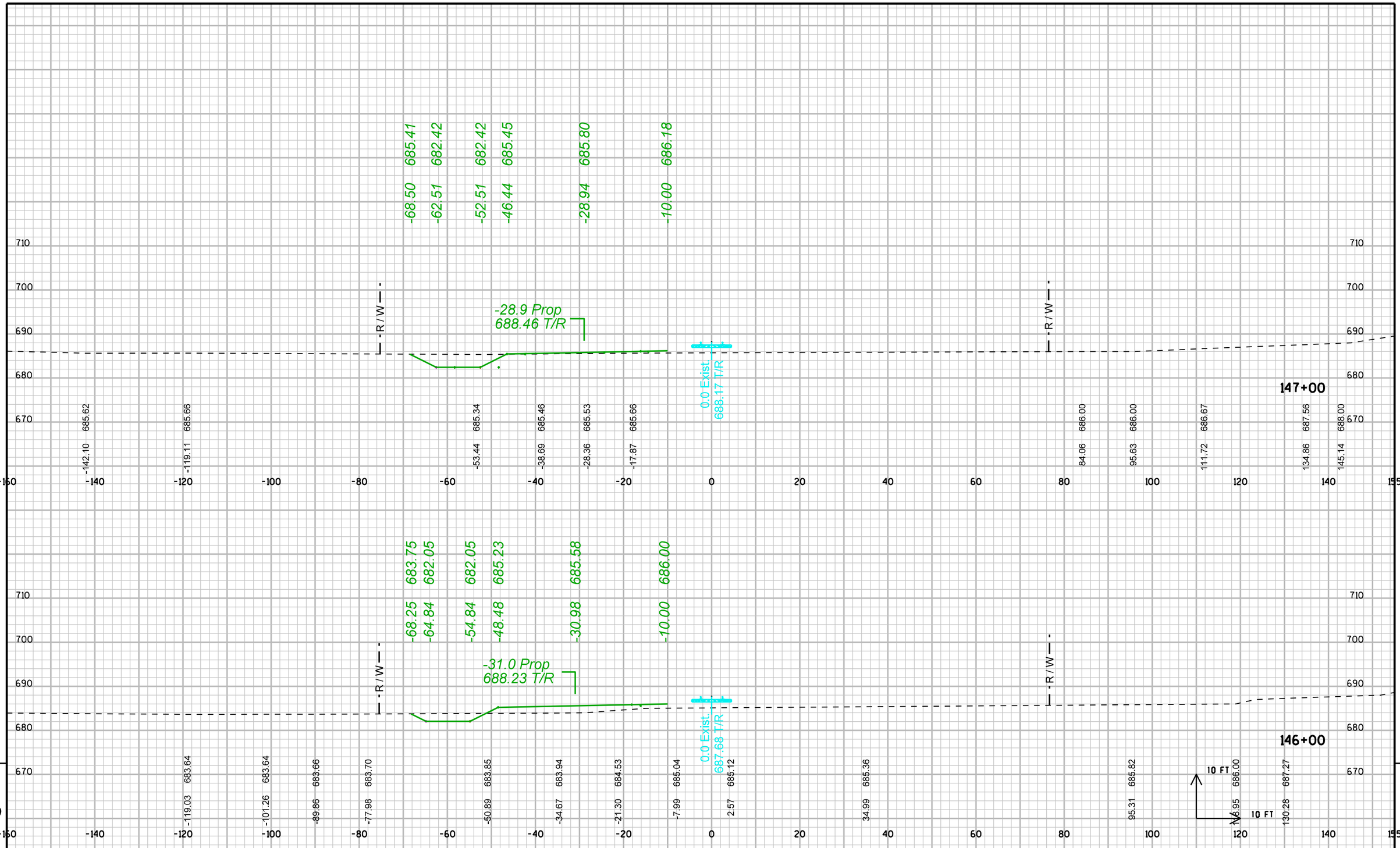
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 144+00 TO 145+00	SHEET 35 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 146+00 TO 147+00	SHEET 36 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn

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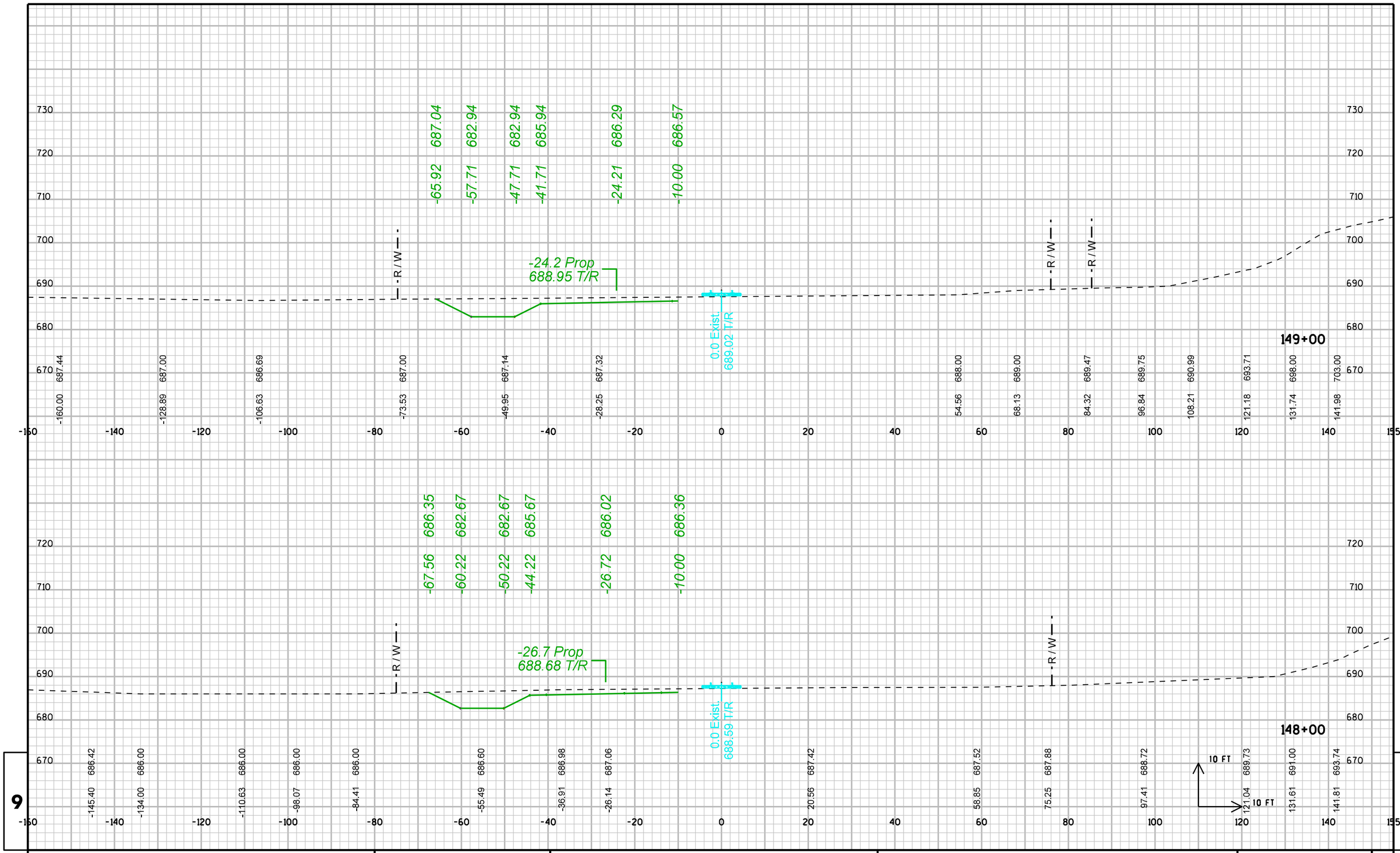
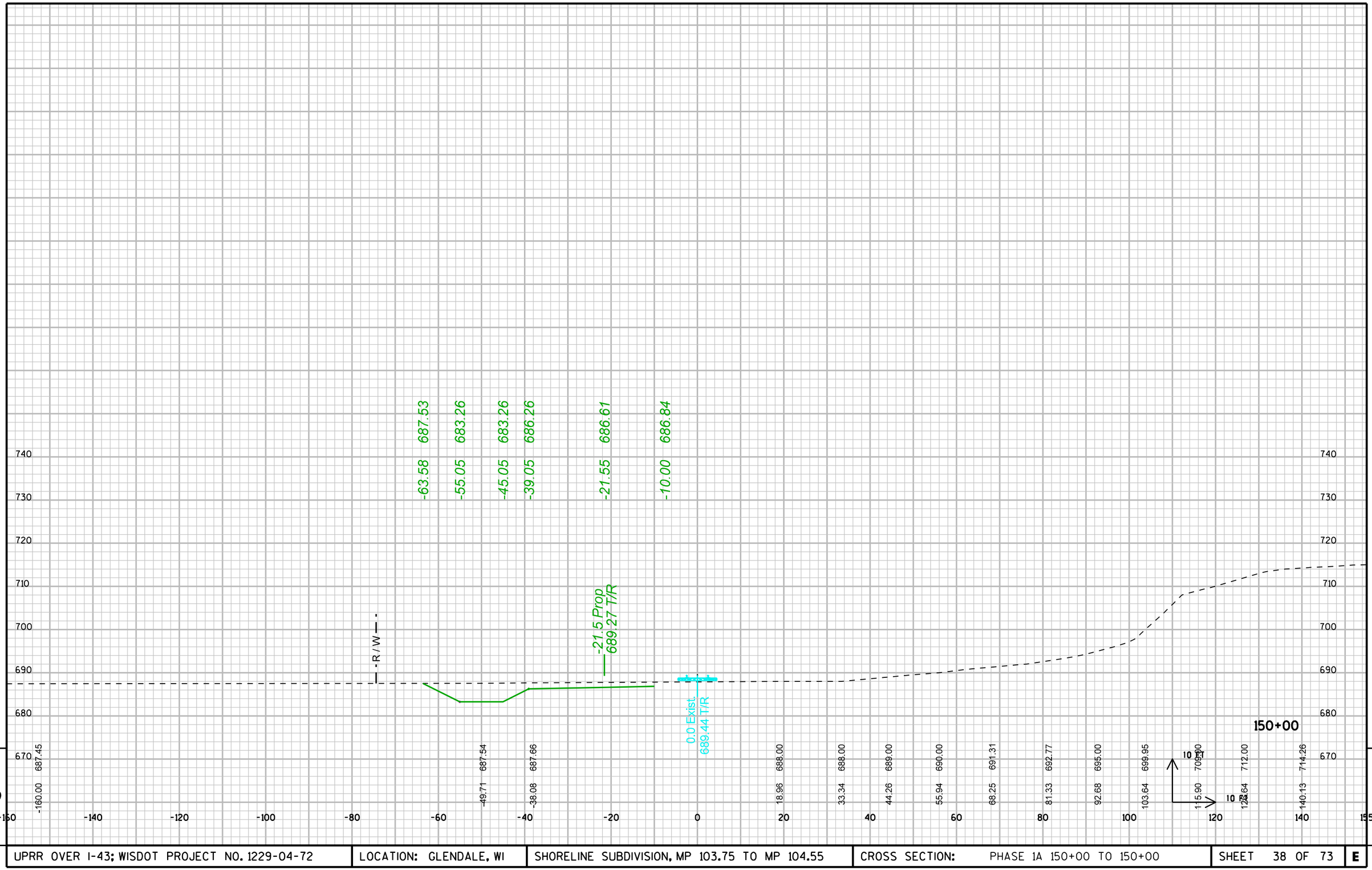
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 148+00 TO 149+00	SHEET 37 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

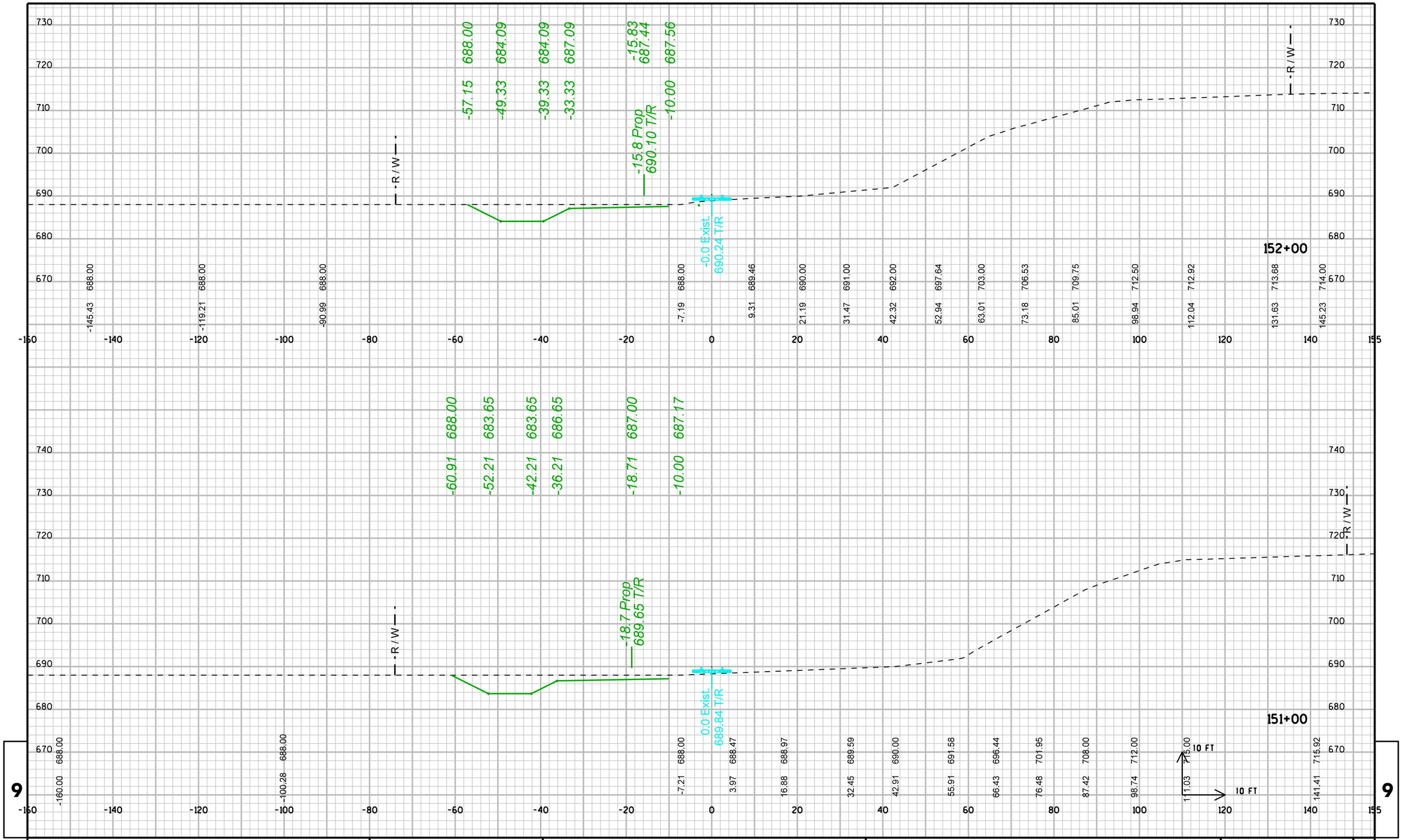
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1A 150+00 TO 150+00 | SHEET 38 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

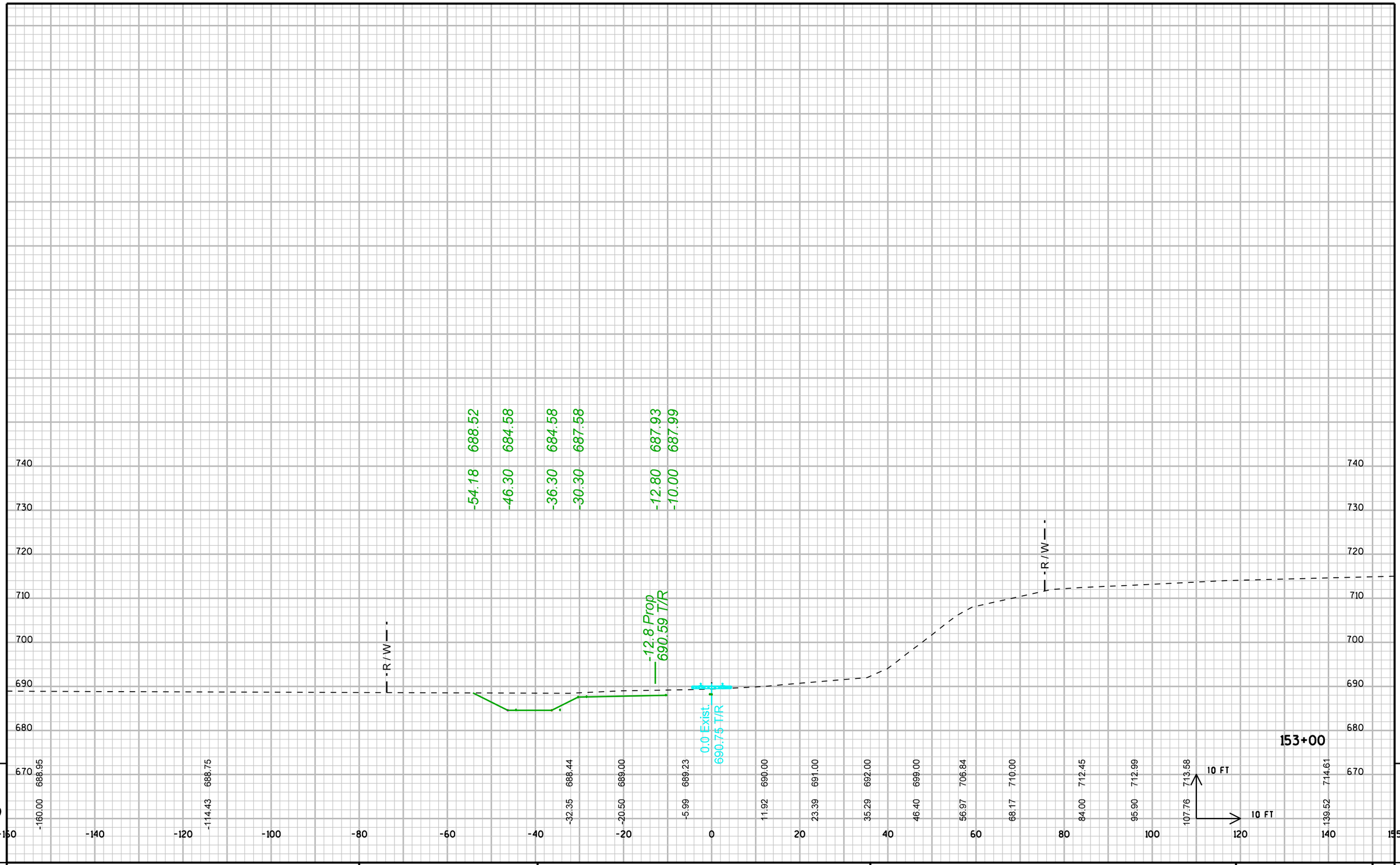
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 151+00 TO 152+00	SHEET 39 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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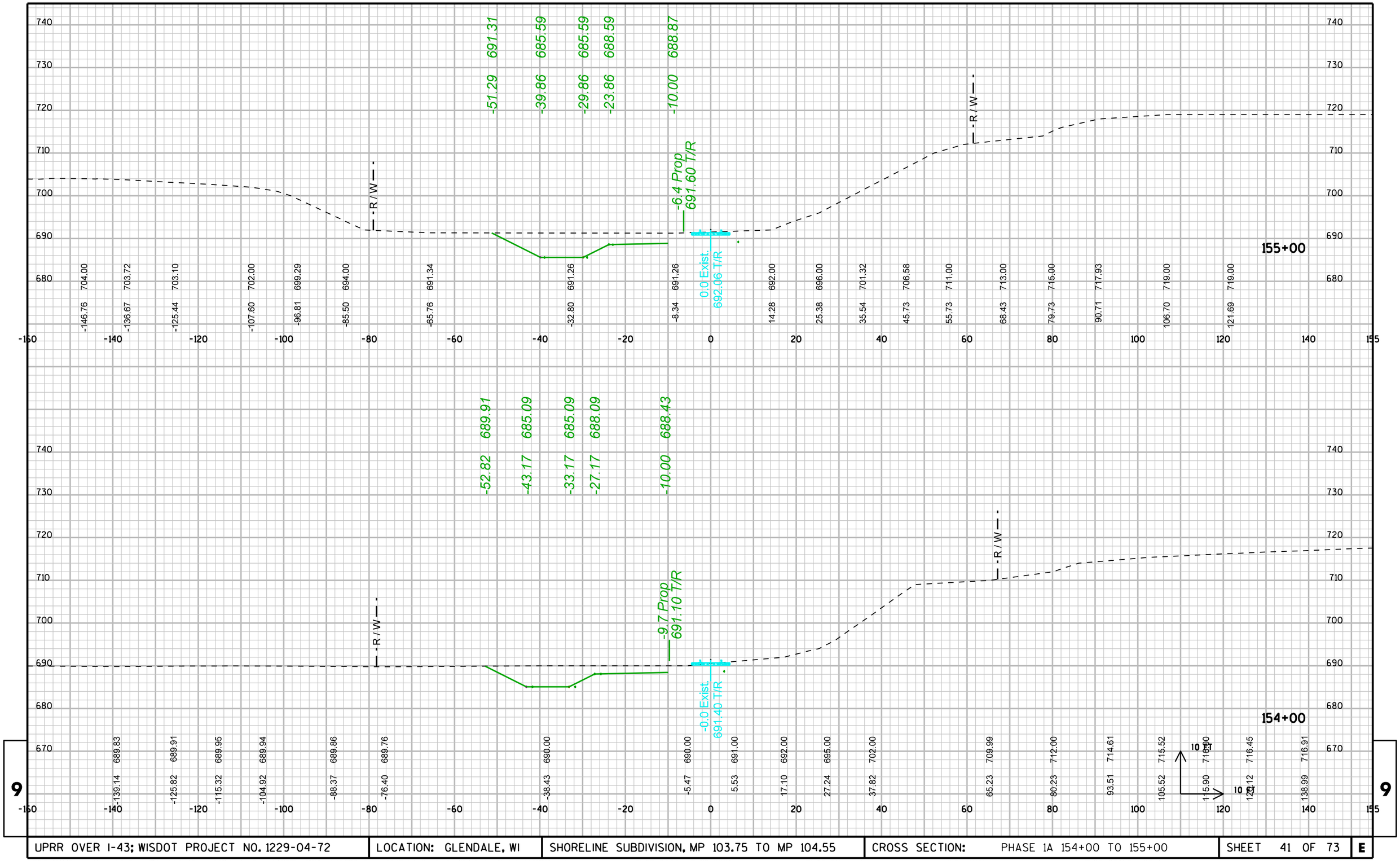
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 153+00 TO 153+00	SHEET 40 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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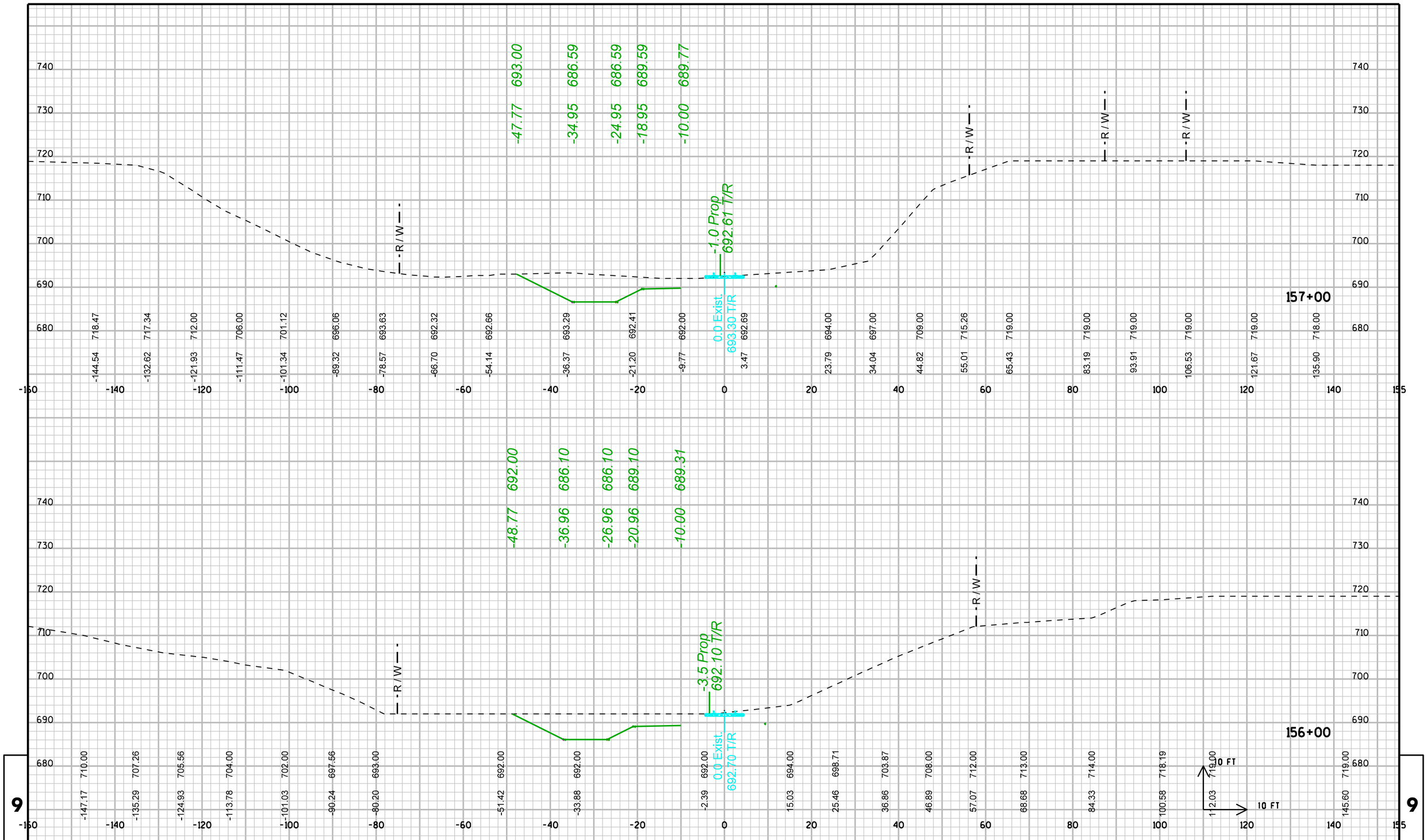
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 154+00 TO 155+00	SHEET 41 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

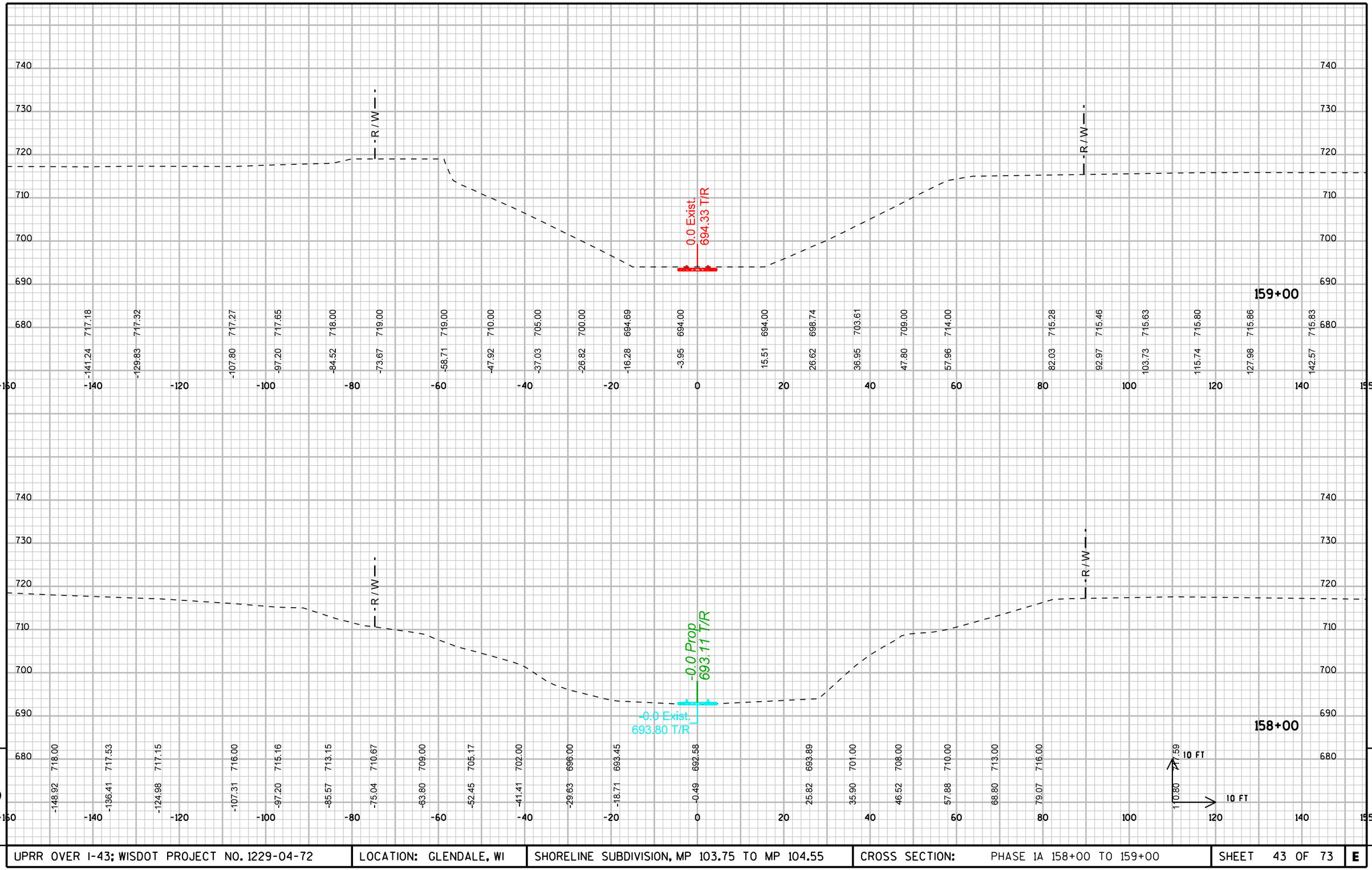
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 156+00 TO 157+00	SHEET 42 OF 73	E

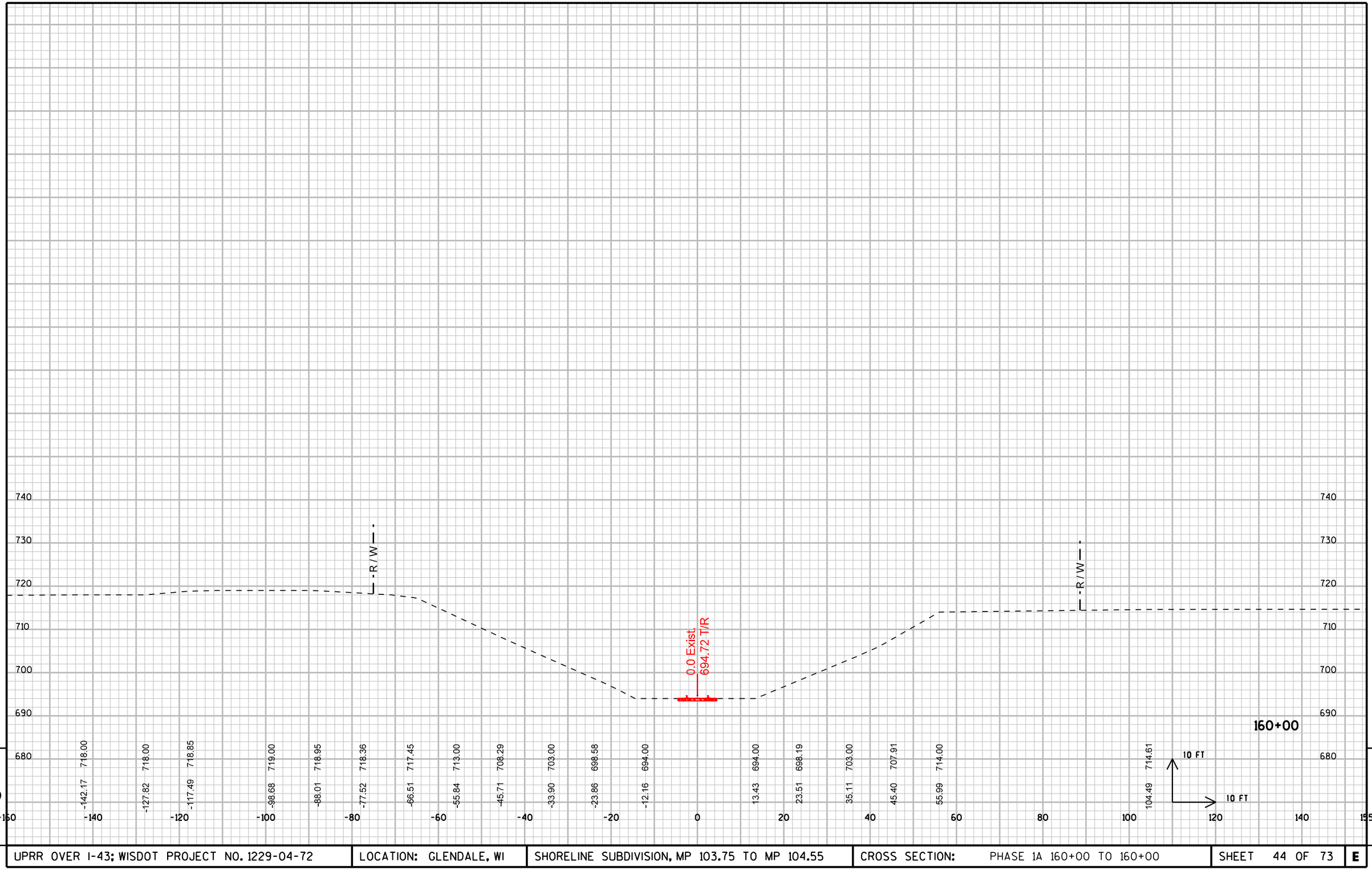
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9 9

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 158+00 TO 159+00	SHEET 43 OF 73 E



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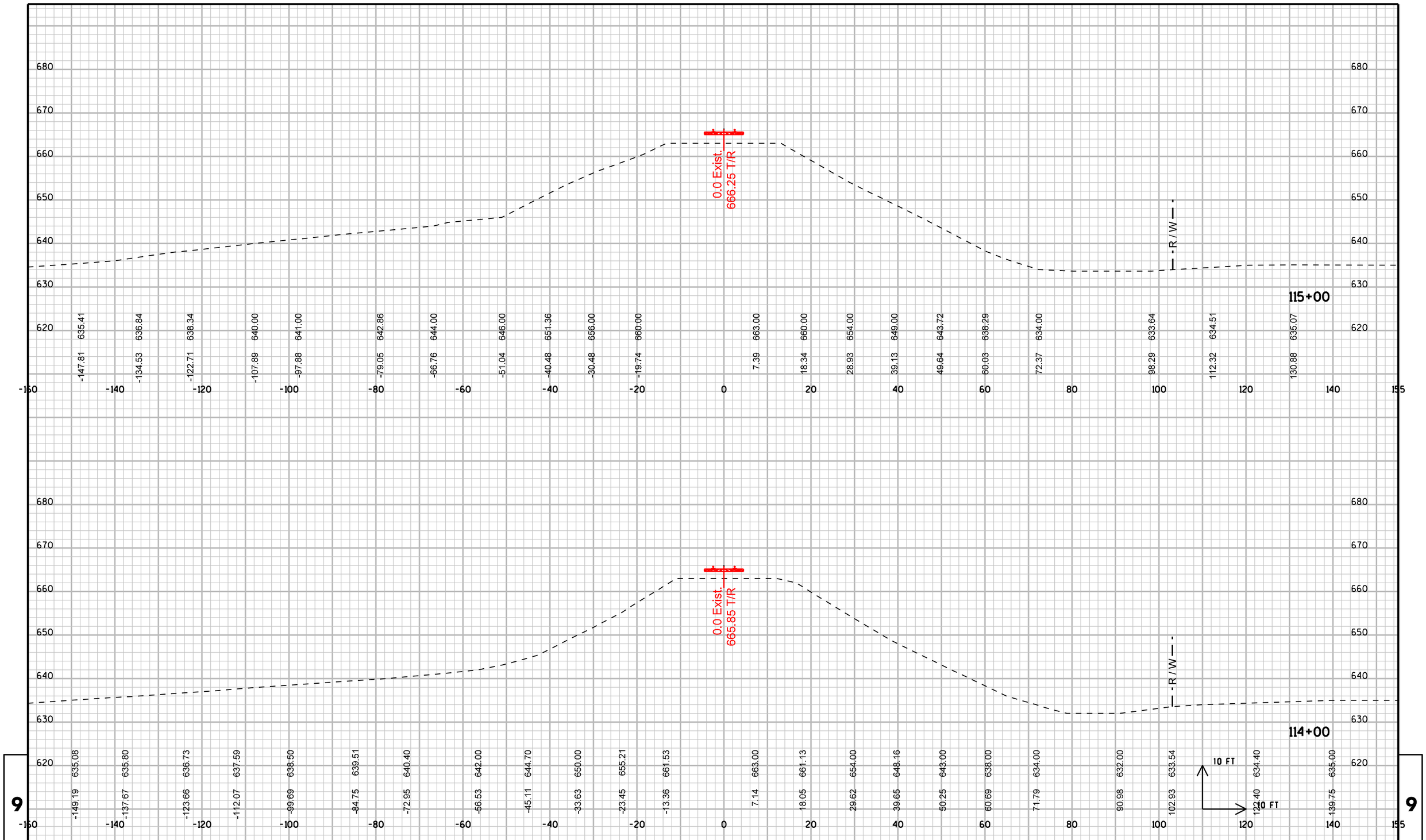
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1A 160+00 TO 160+00	SHEET 44 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090201_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1C STA 114+00 TO 115+00 | SHEET 45 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn
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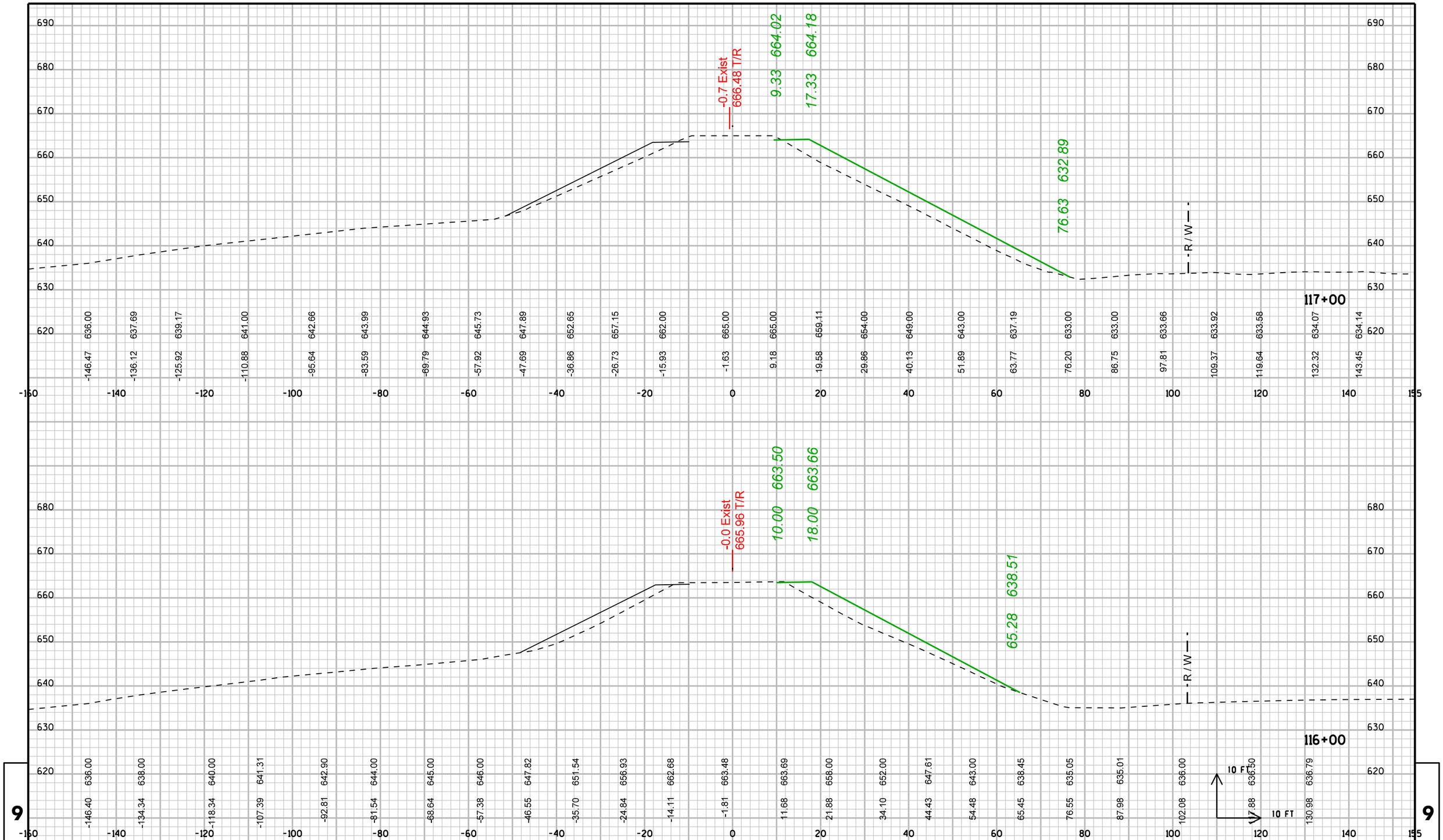
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



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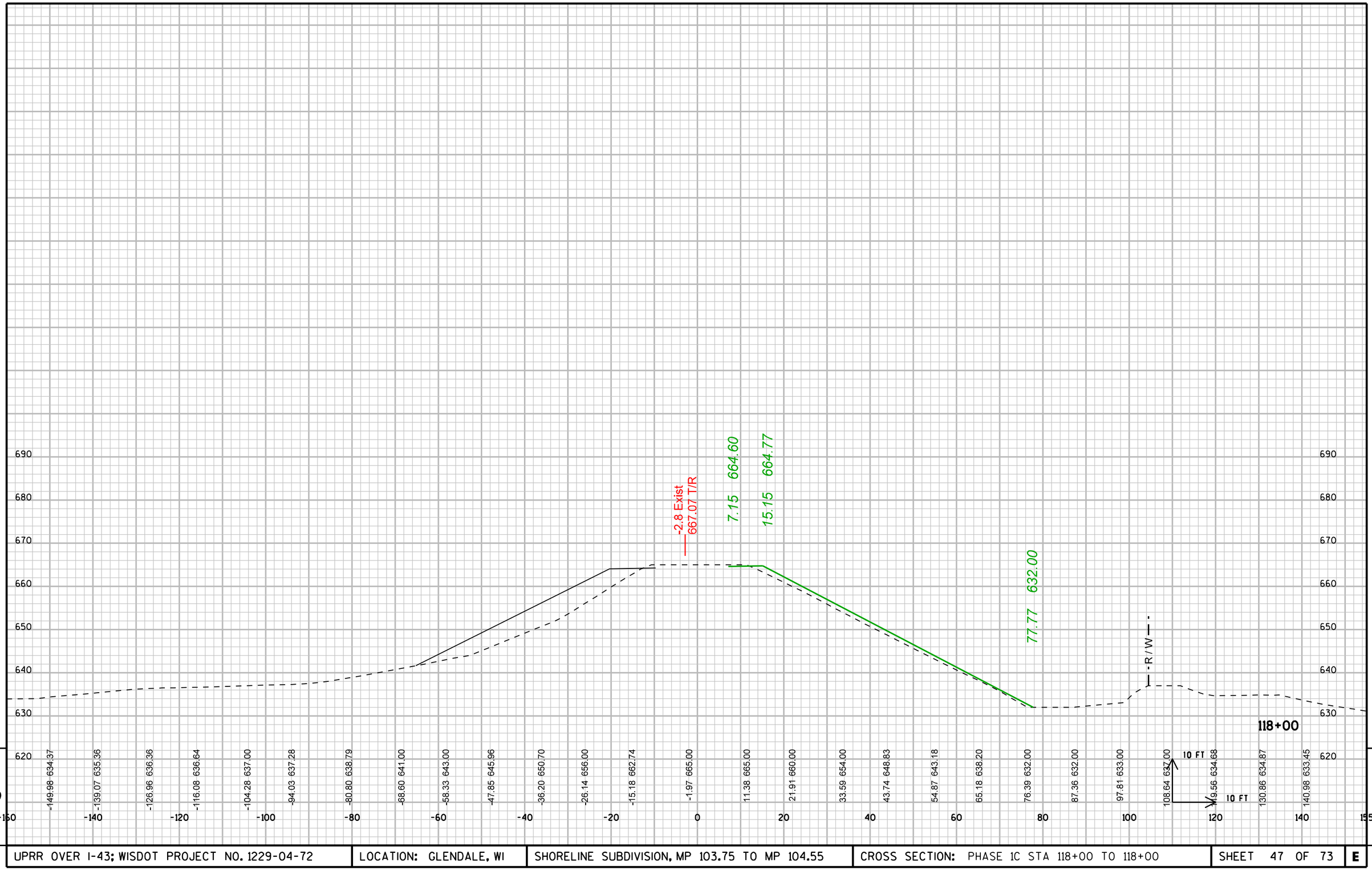
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1C STA 116+00 TO 117+00 | SHEET 46 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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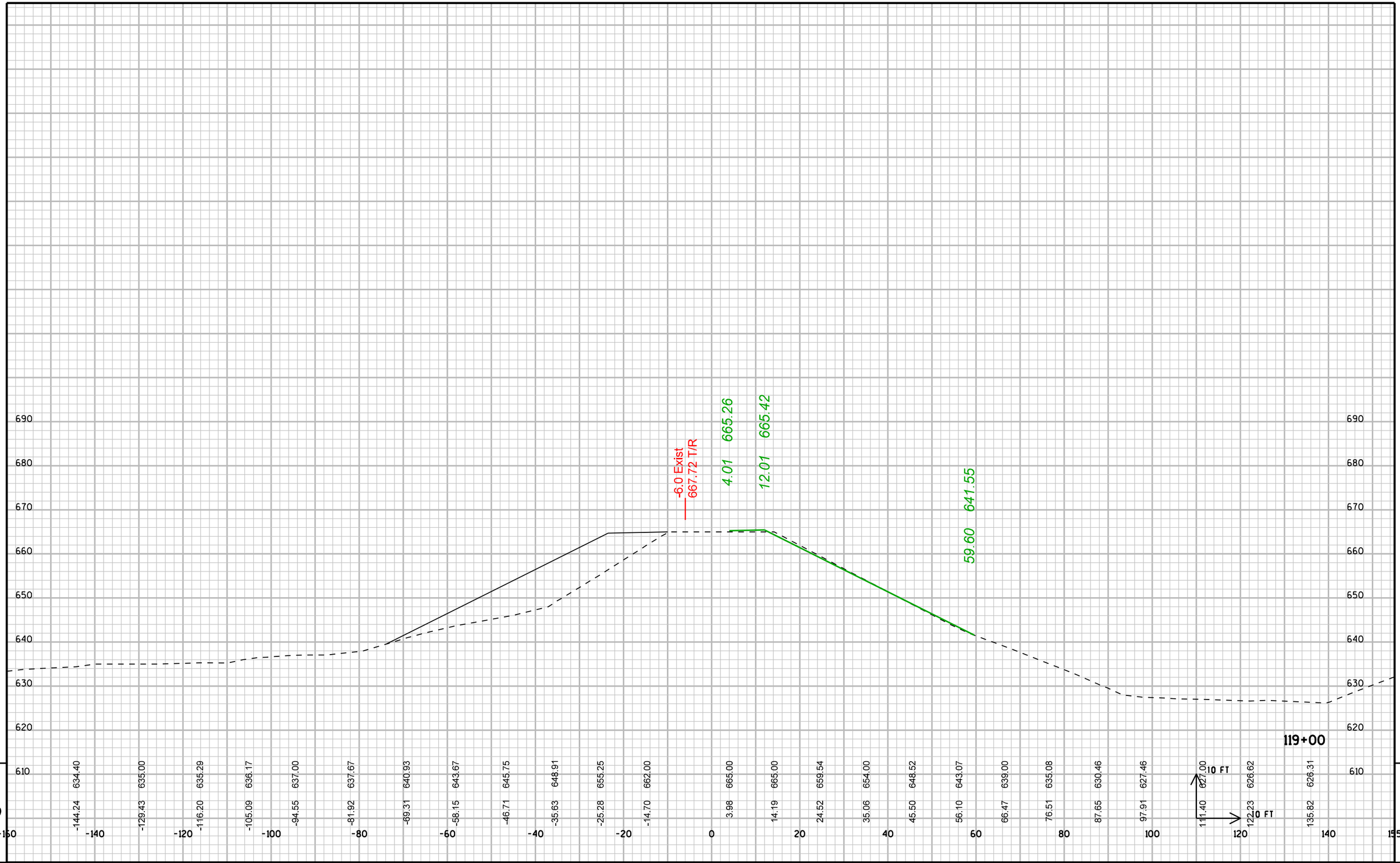
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 118+00 TO 118+00	SHEET 47 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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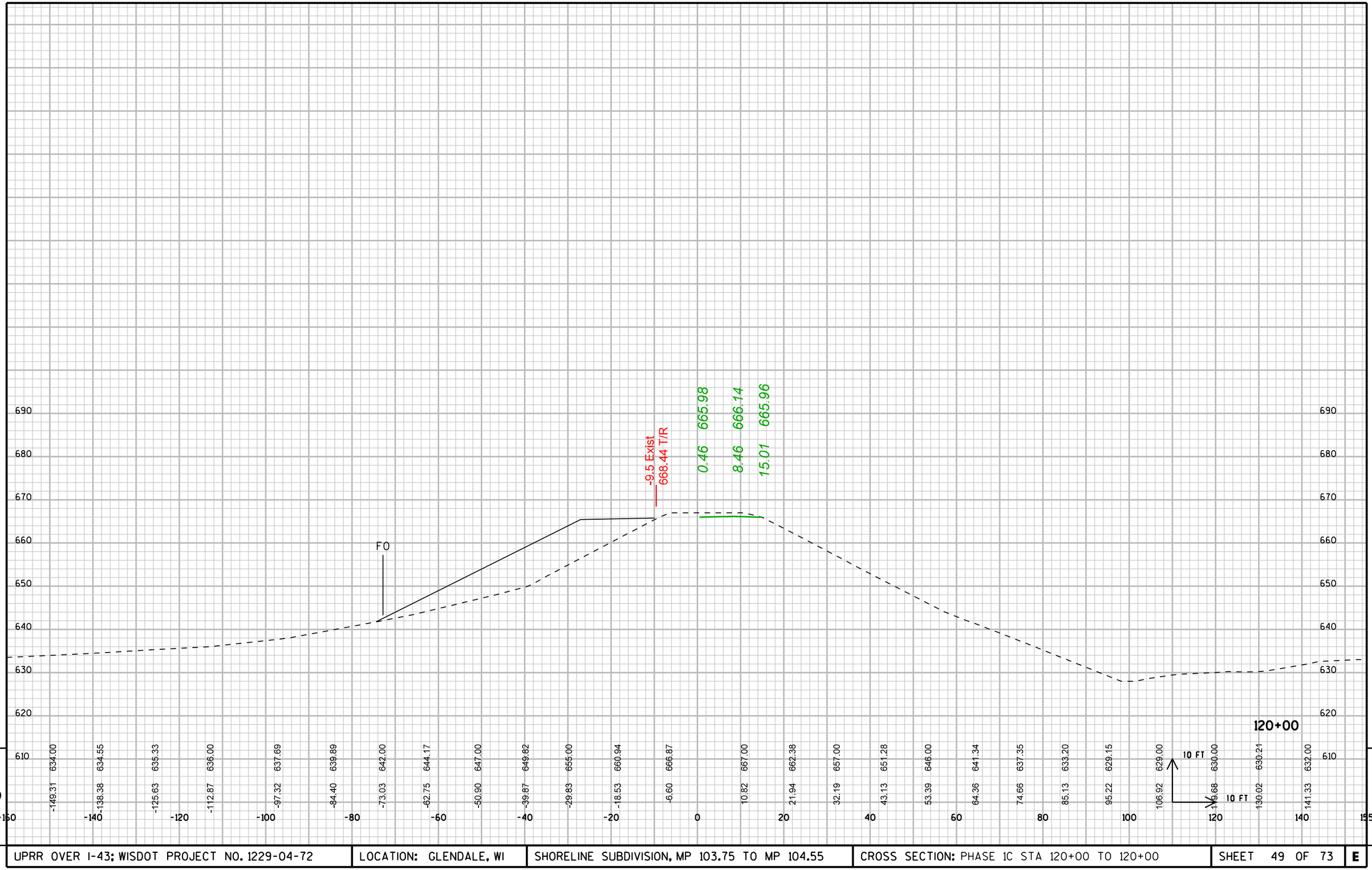
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 119+00 TO 119+00	SHEET 48 OF 73 E



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 120+00 TO 120+00	SHEET 49 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn
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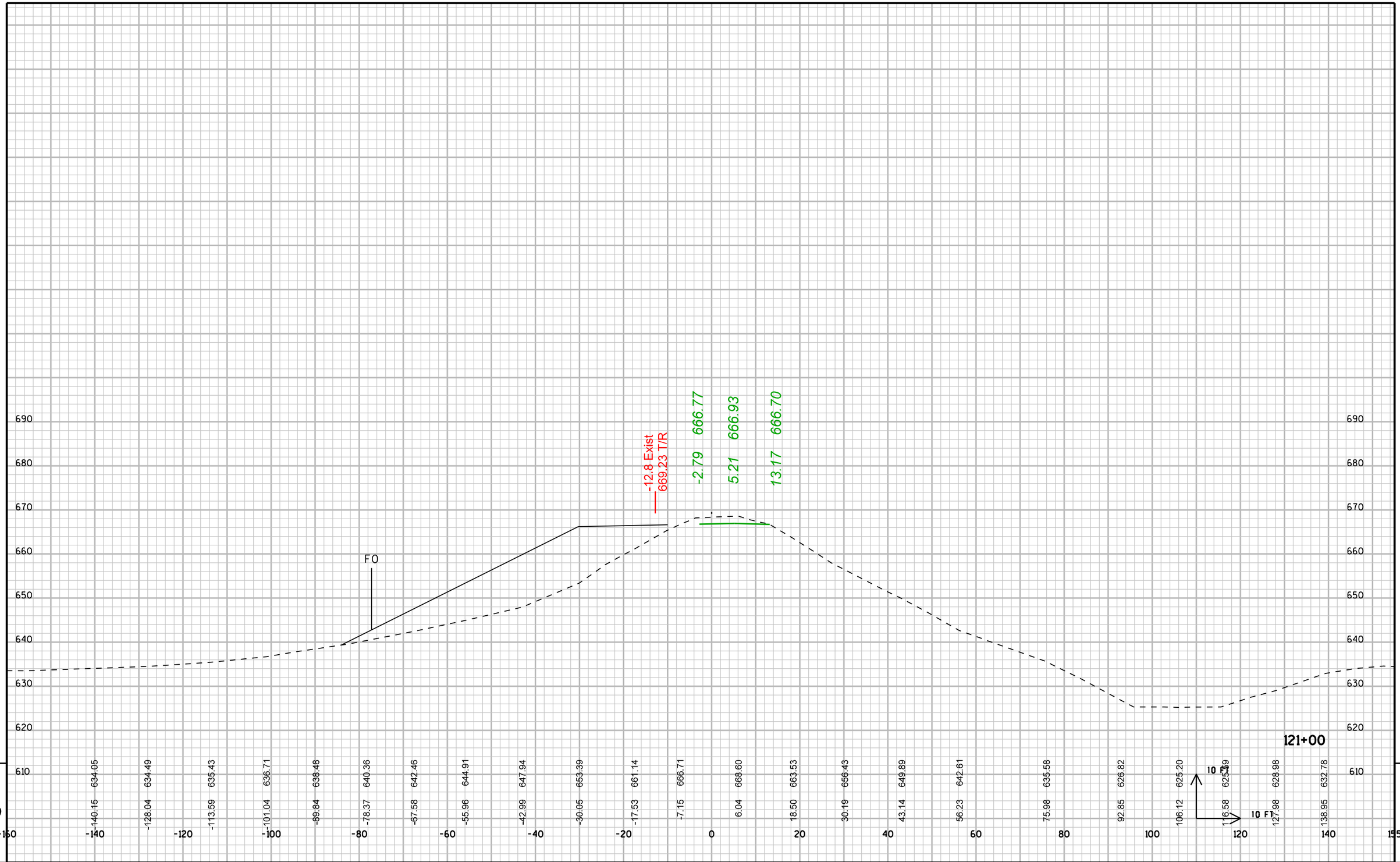
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 121+00 TO 121+00	SHEET 50 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

690
680
670
660
650
640
630
620
610

-15.9 Exist
670.08 T/R

667.62 667.78 667.70
-5.90 2.10 8.77

FO

634.78 634.25 634.87 635.65 637.36 639.15 641.82 644.49 647.49 652.09 659.69 665.87 668.96 664.29 657.64 652.71 647.63 640.50 633.70 626.51 626.03 629.42 633.13
-150.00 -139.96 -125.54 -112.19 -95.81 -83.85 -67.85 -55.99 -43.90 -33.73 -21.13 -10.68 3.83 15.74 26.60 36.70 48.14 63.71 77.78 91.22 106.63 120.76 135.17

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

122+00

10 FT
10 FT

9

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 122+00 TO 122+00	SHEET 51 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1.Railroad\D.1.d.cds\090202_xs.dgn
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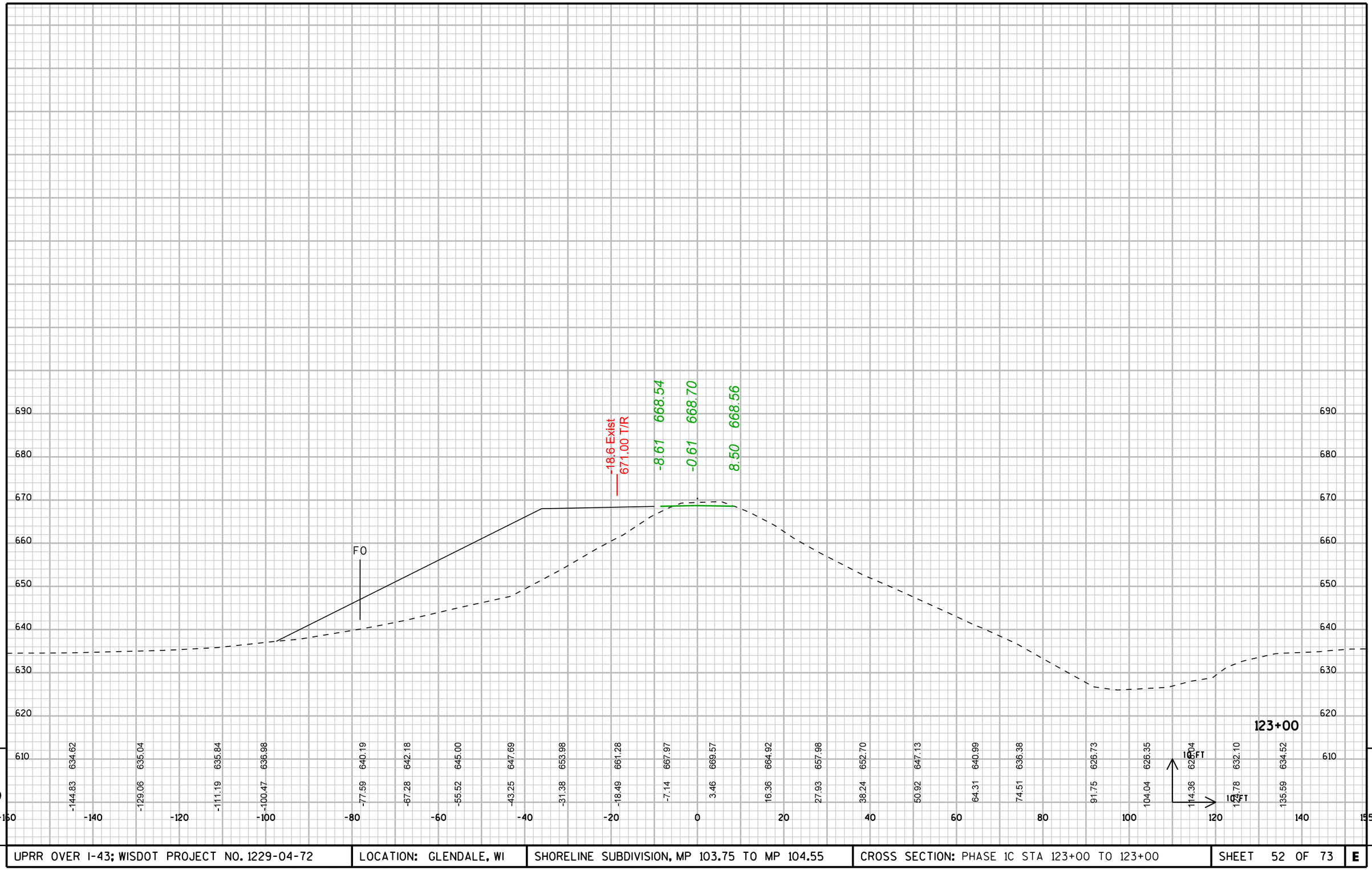
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1

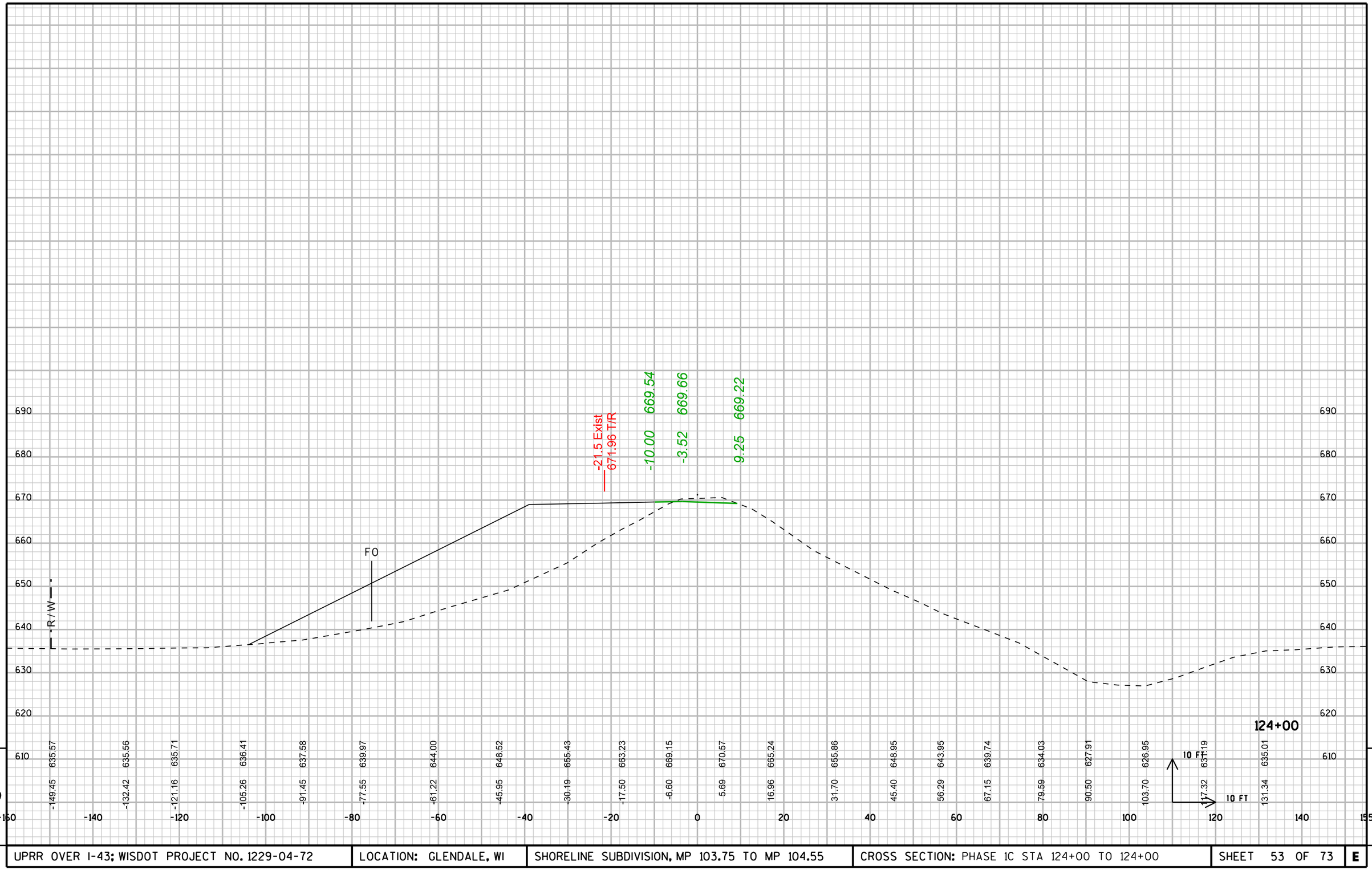
WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 123+00 TO 123+00	SHEET 52 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1.Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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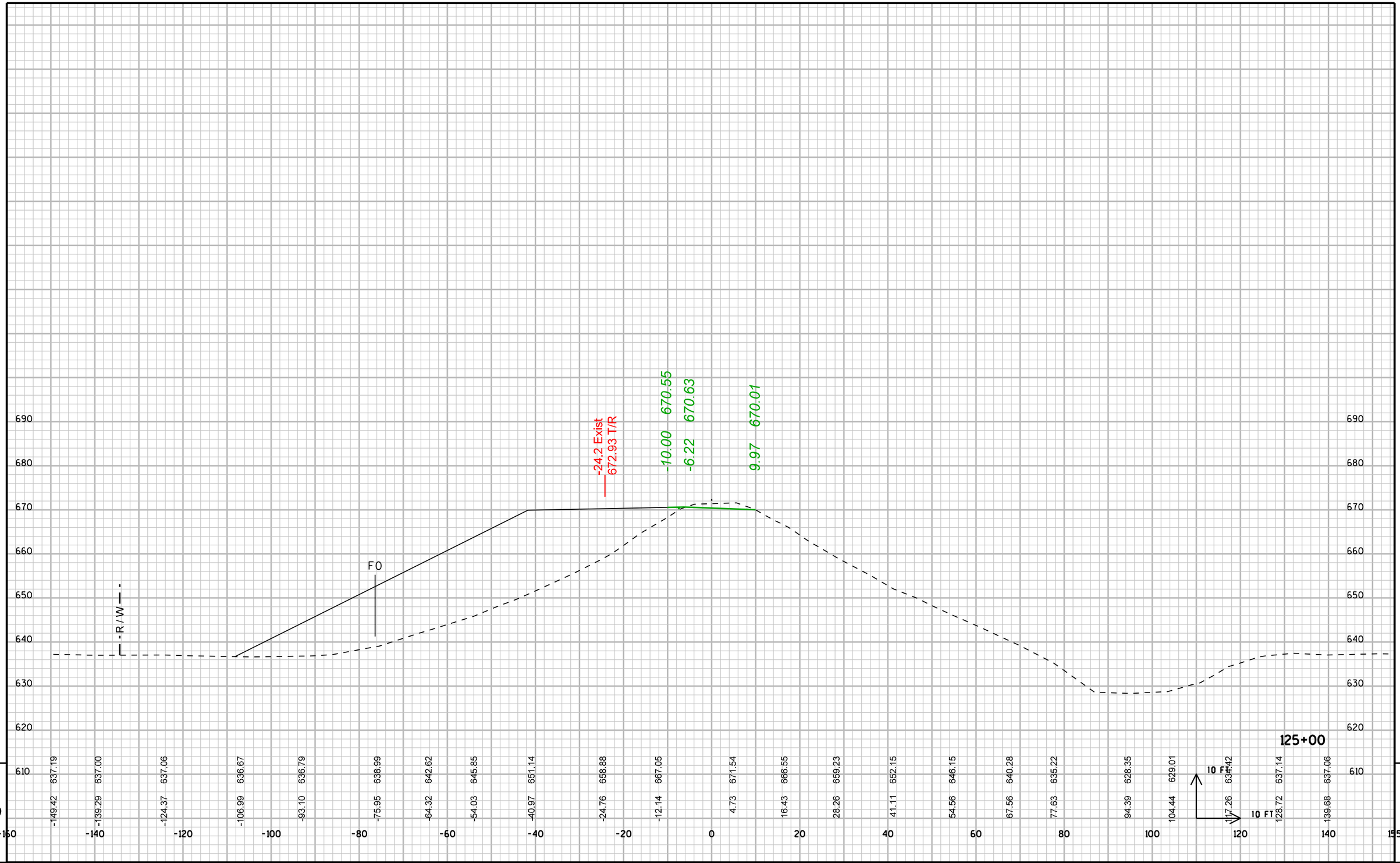
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 124+00 TO 124+00	SHEET 53 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D. Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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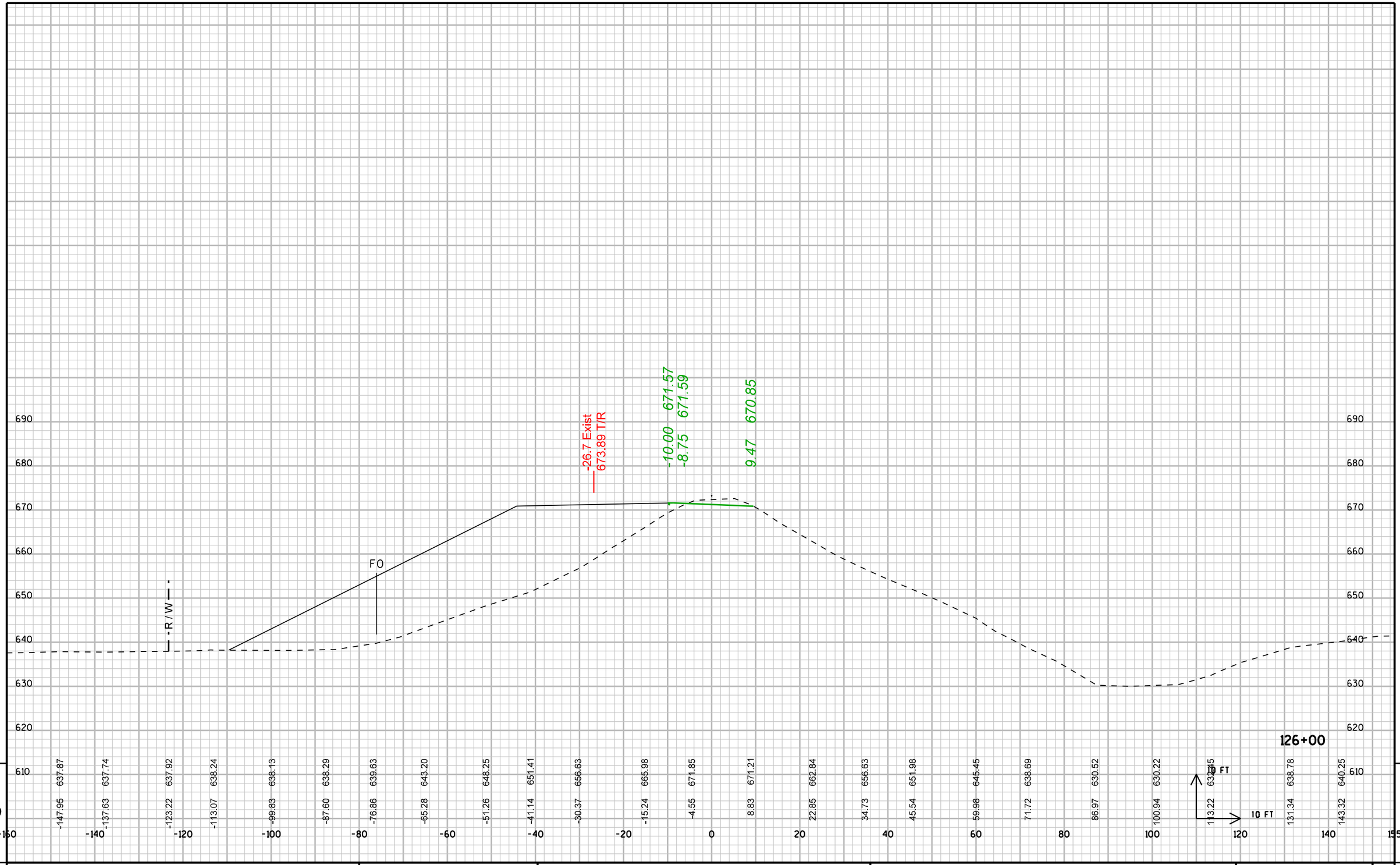
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1C STA 125+00 TO 125+00 | SHEET 54 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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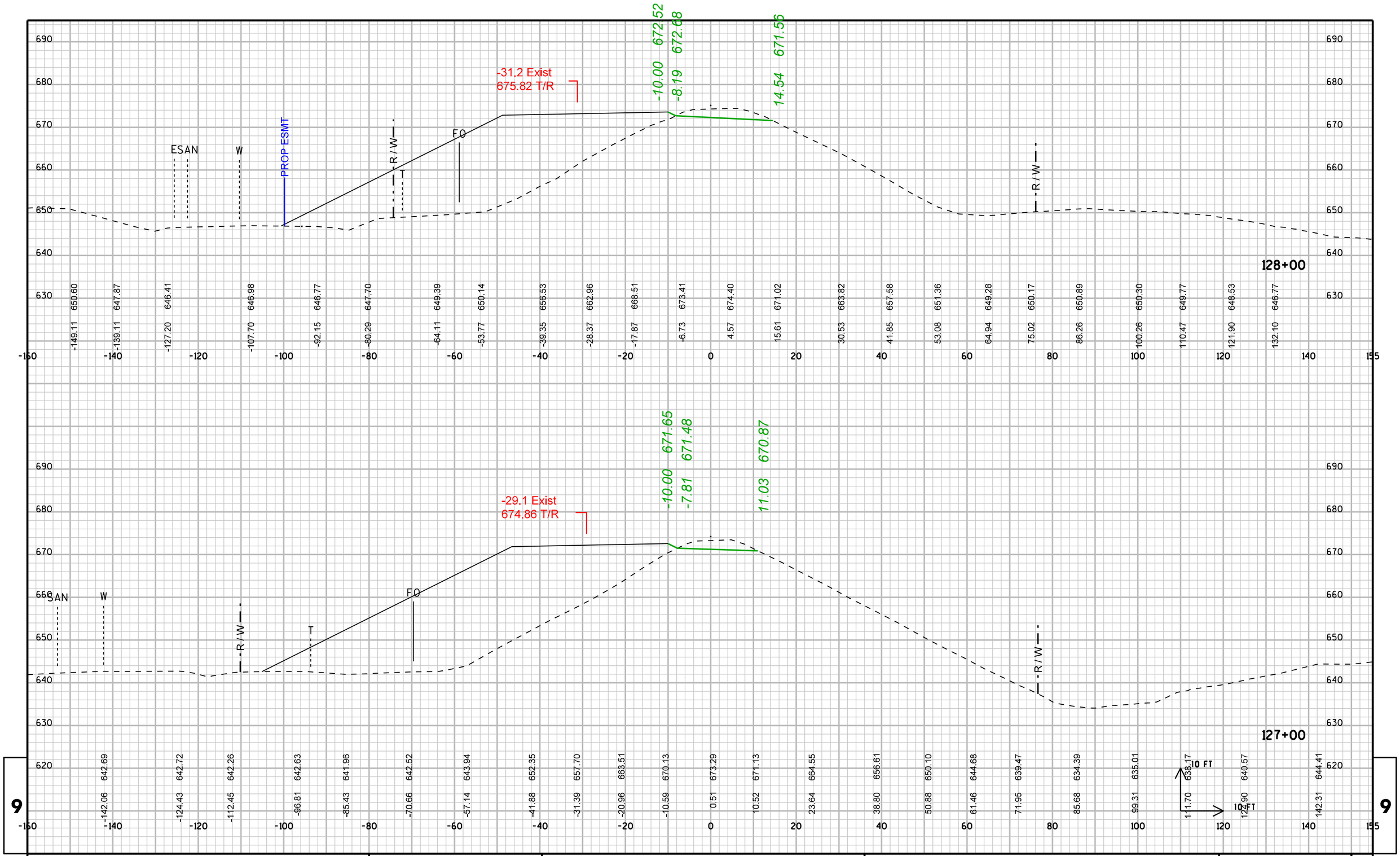
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1C STA 126+00 TO 126+00 | SHEET 55 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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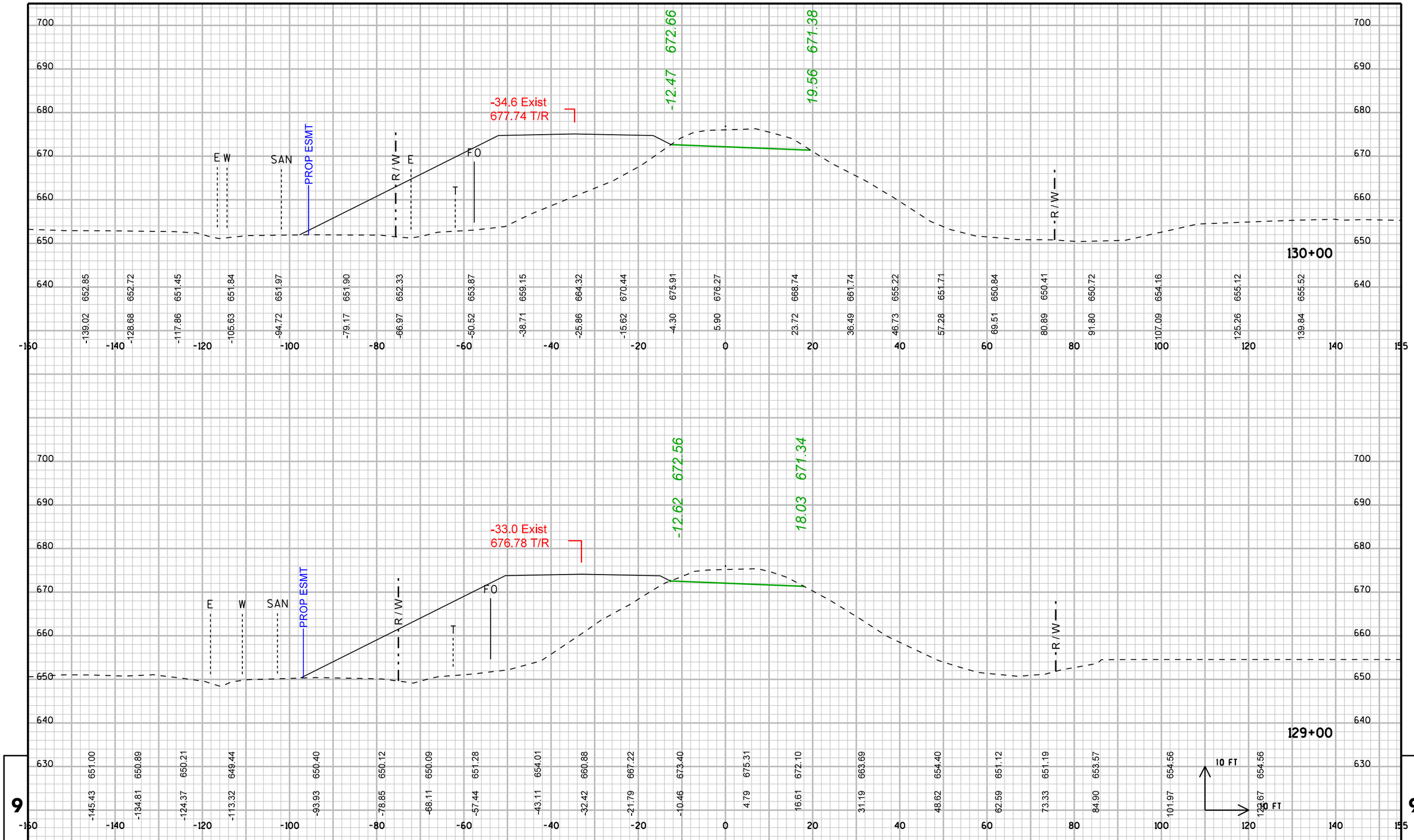
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 127+00 TO 128+00	SHEET 56 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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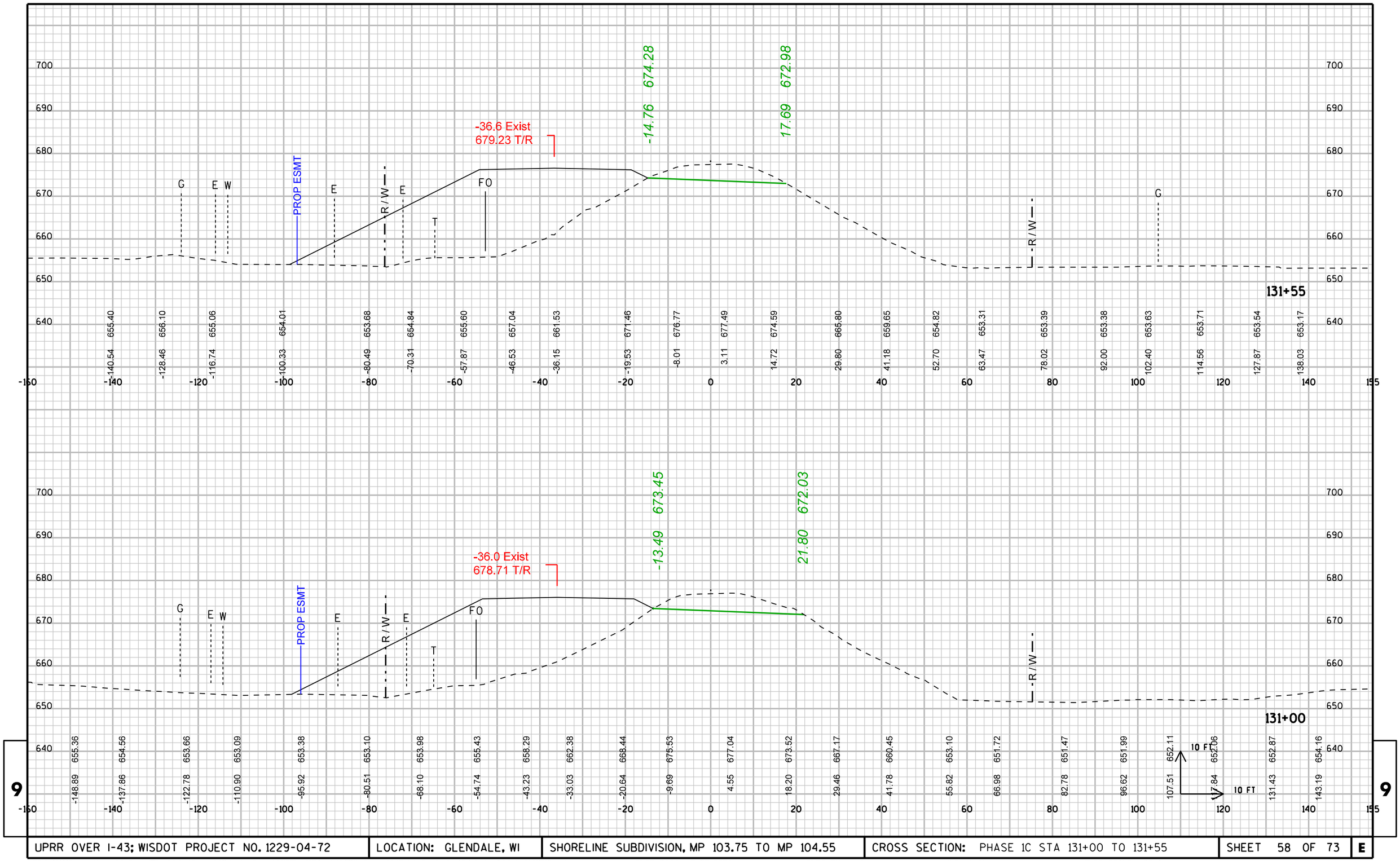
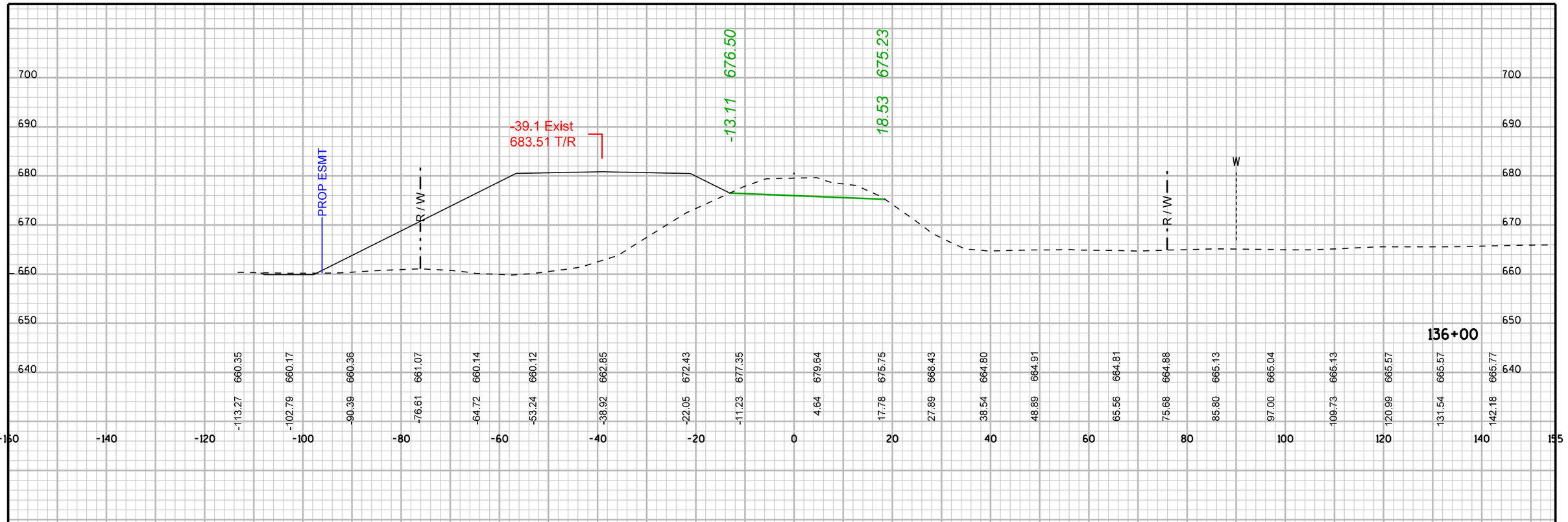
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 129+00 TO 130+00	SHEET 57 OF 73	E

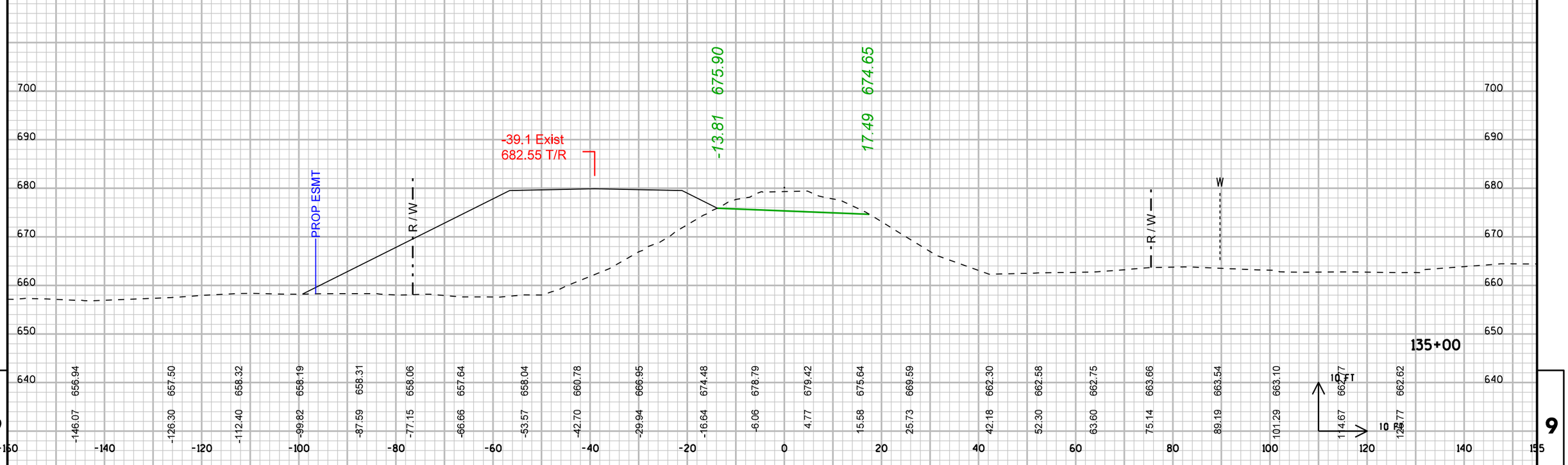


UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 131+00 TO 131+55	SHEET 58 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21





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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 135+00 TO 136+00	SHEET 59 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn
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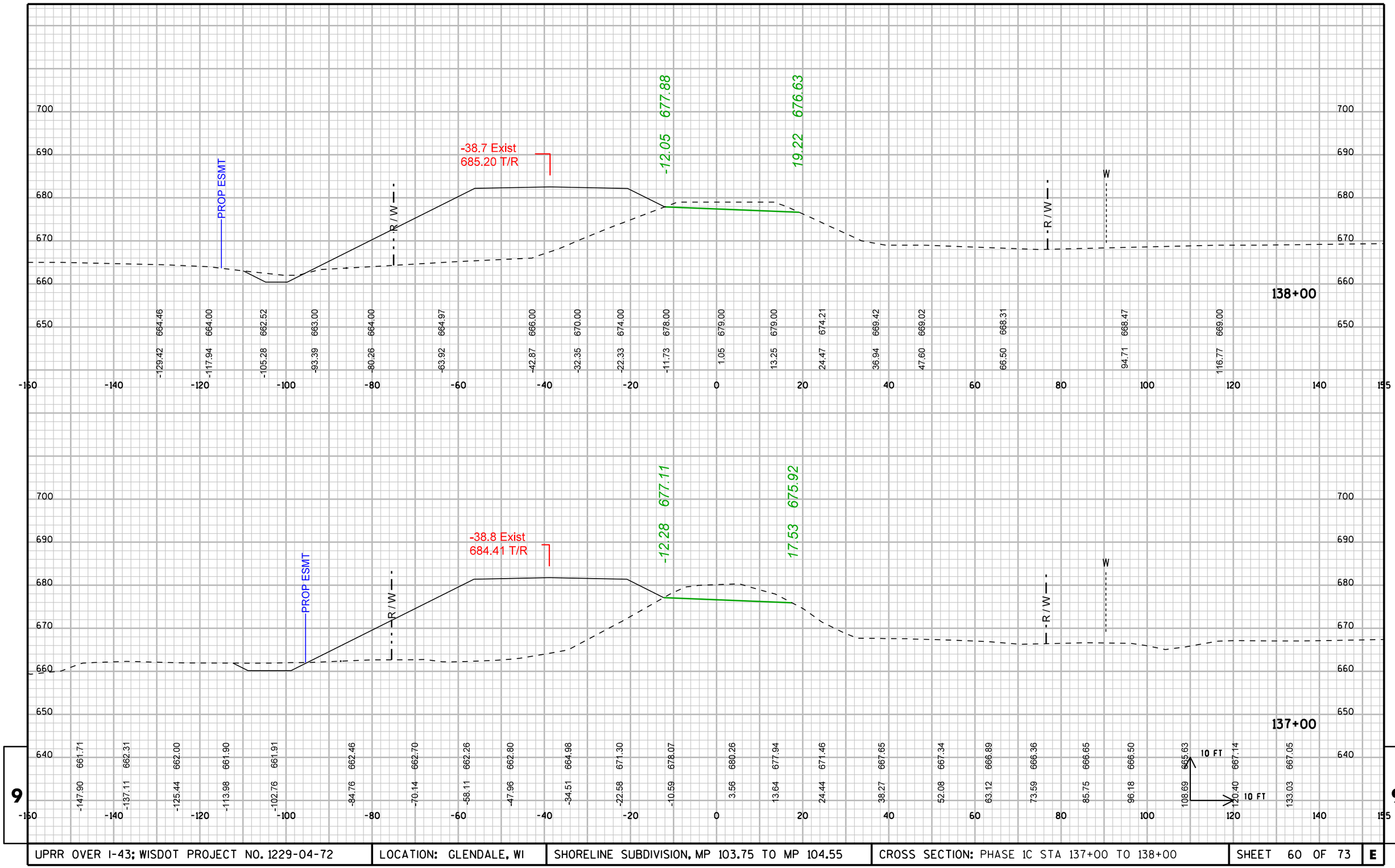
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72 | LOCATION: GLENDALE, WI | SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55 | CROSS SECTION: PHASE 1C STA 137+00 TO 138+00 | SHEET 60 OF 73 | E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn
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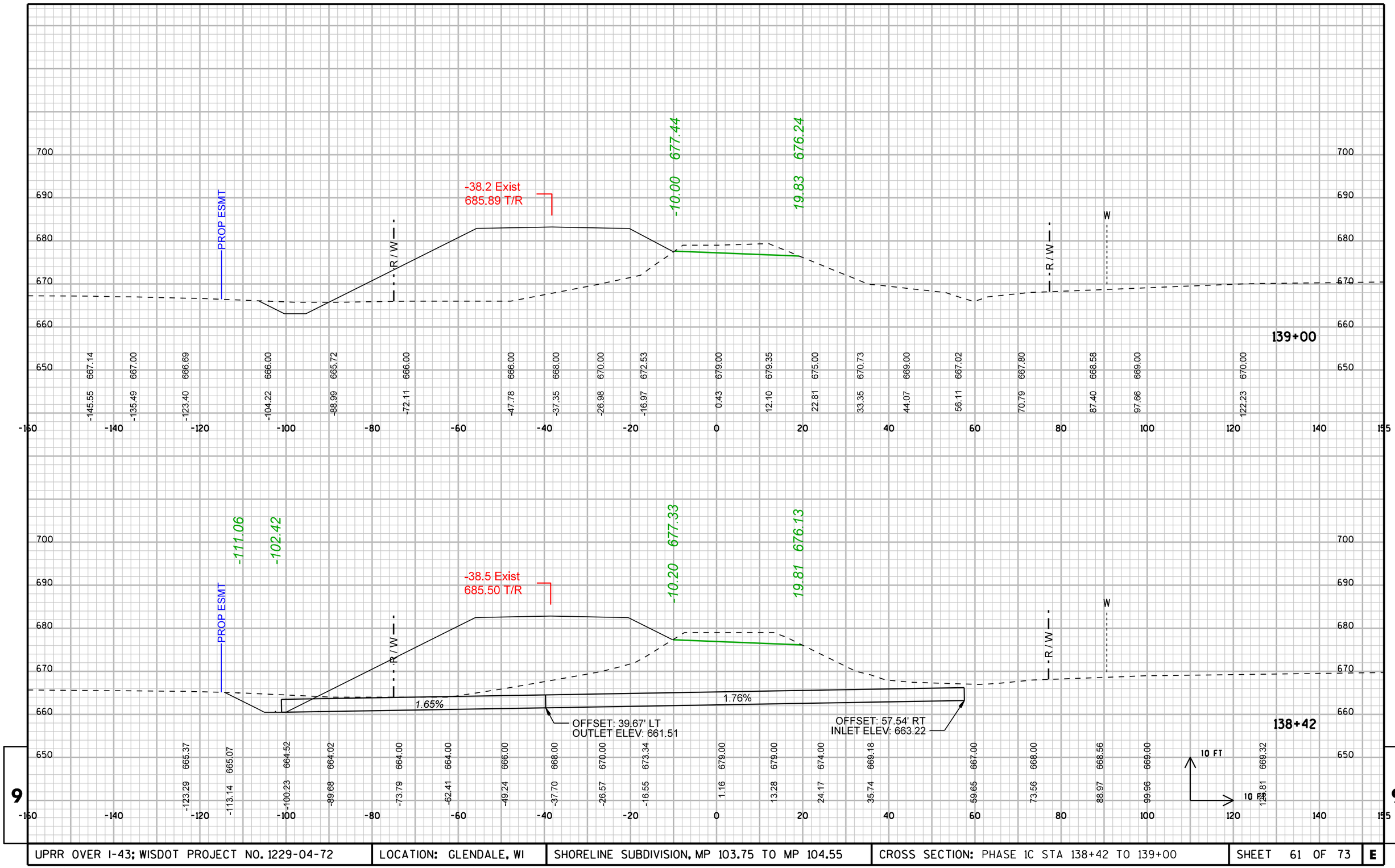
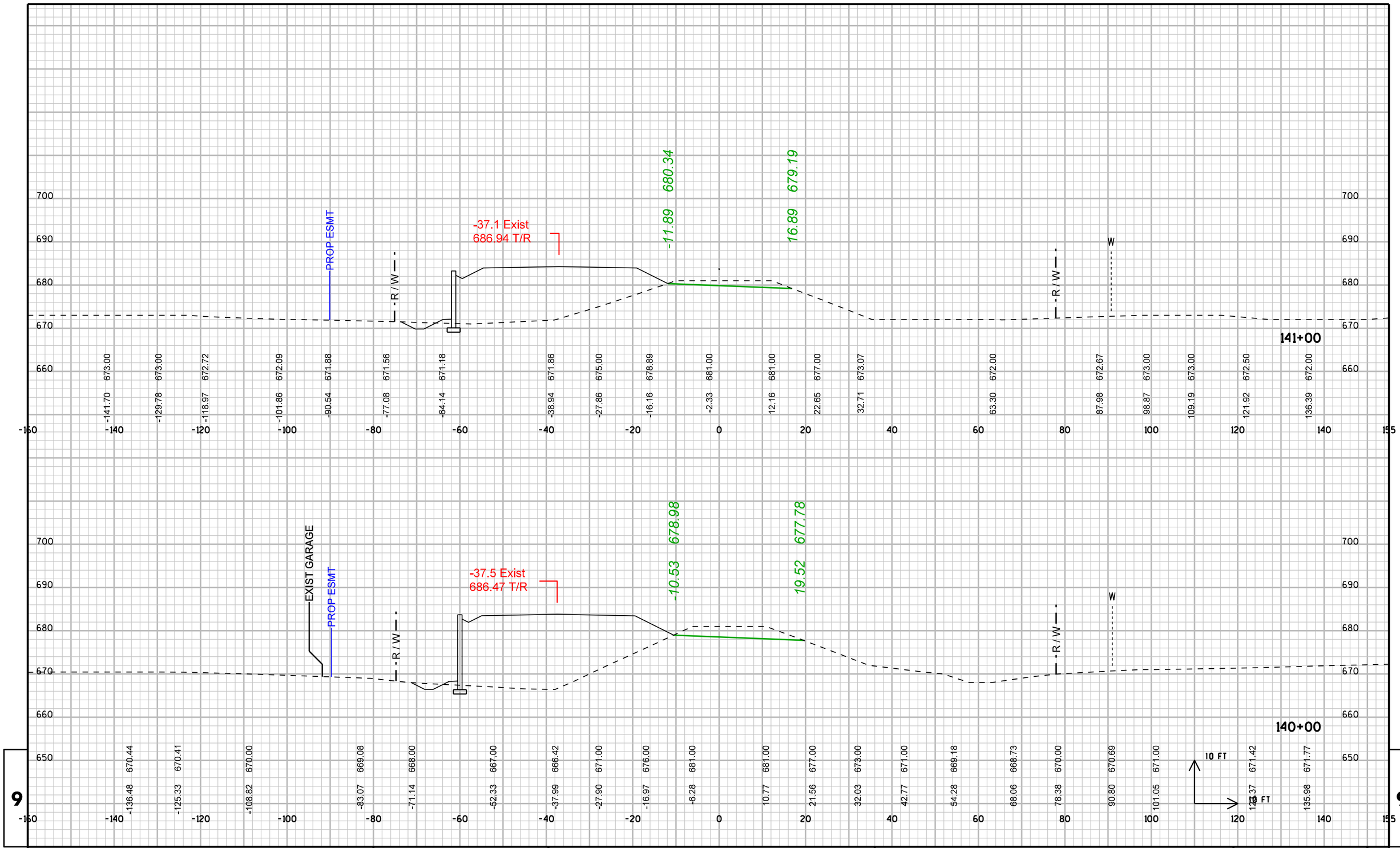


UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 138+42 TO 139+00	SHEET 61 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 140+00 TO 141+00	SHEET 62 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

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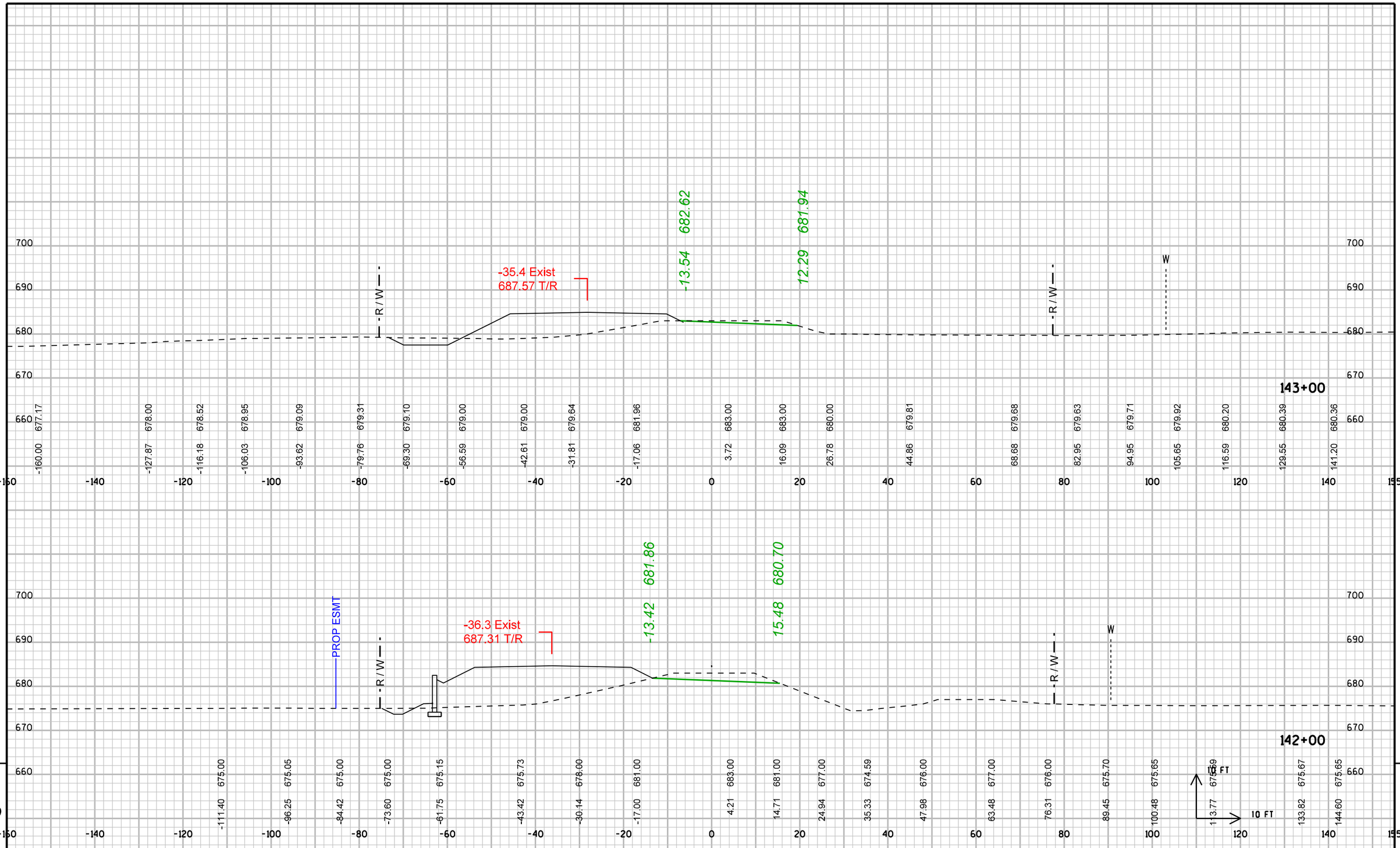

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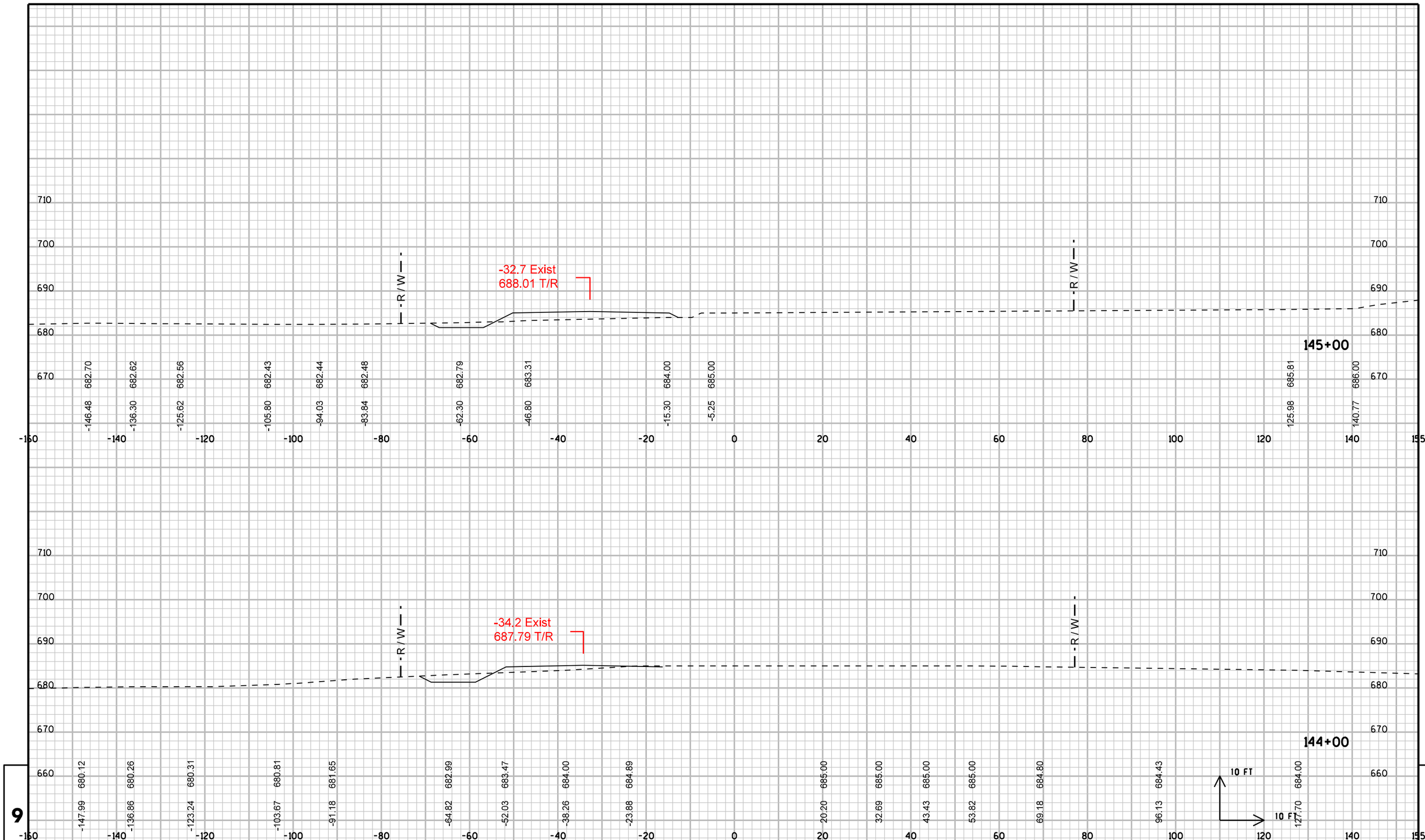
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 142+00 TO 143+00	SHEET 63 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 144+00 TO 145+00	SHEET 64 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

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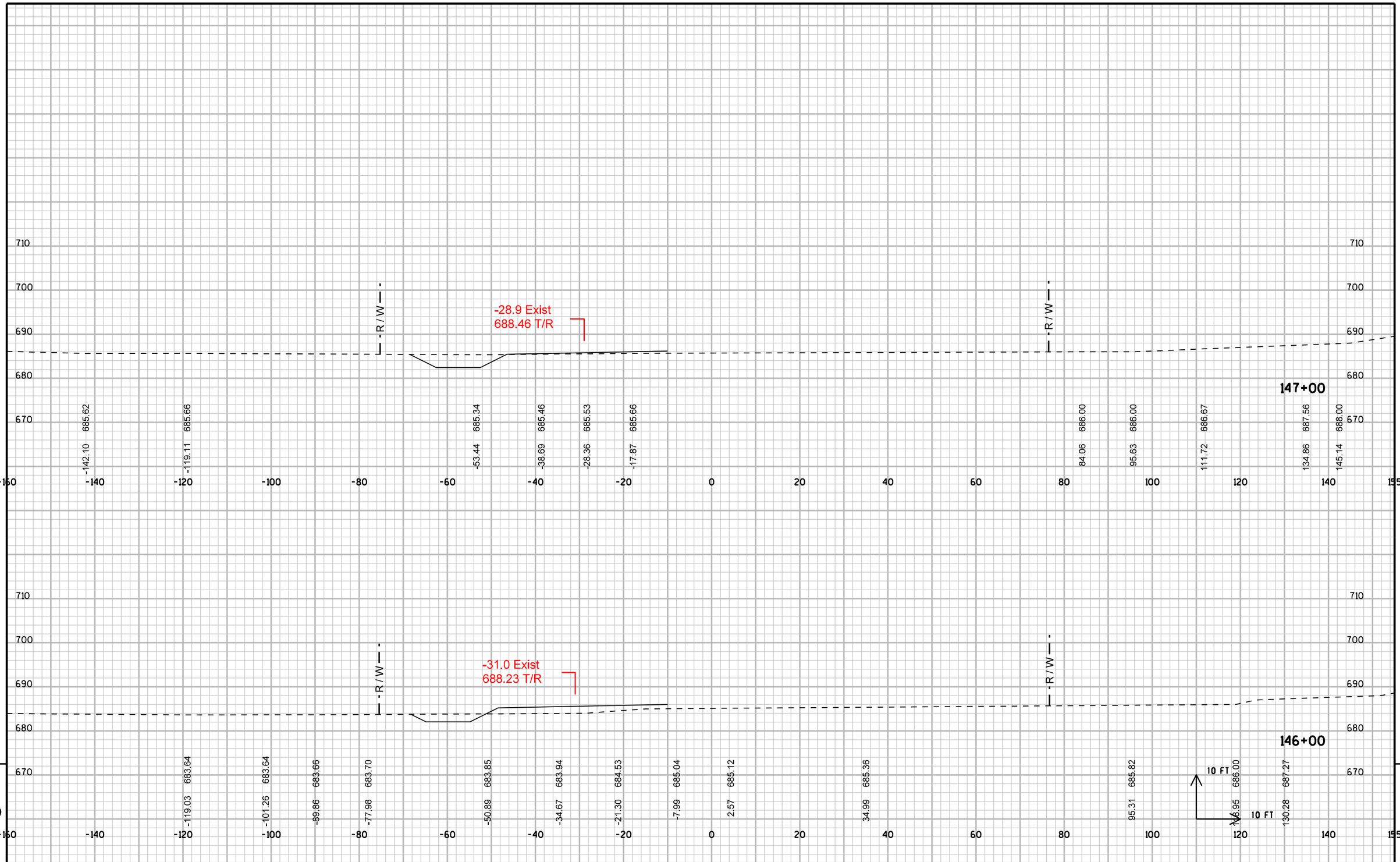

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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 146+00 TO 147+00	SHEET 65 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn

PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

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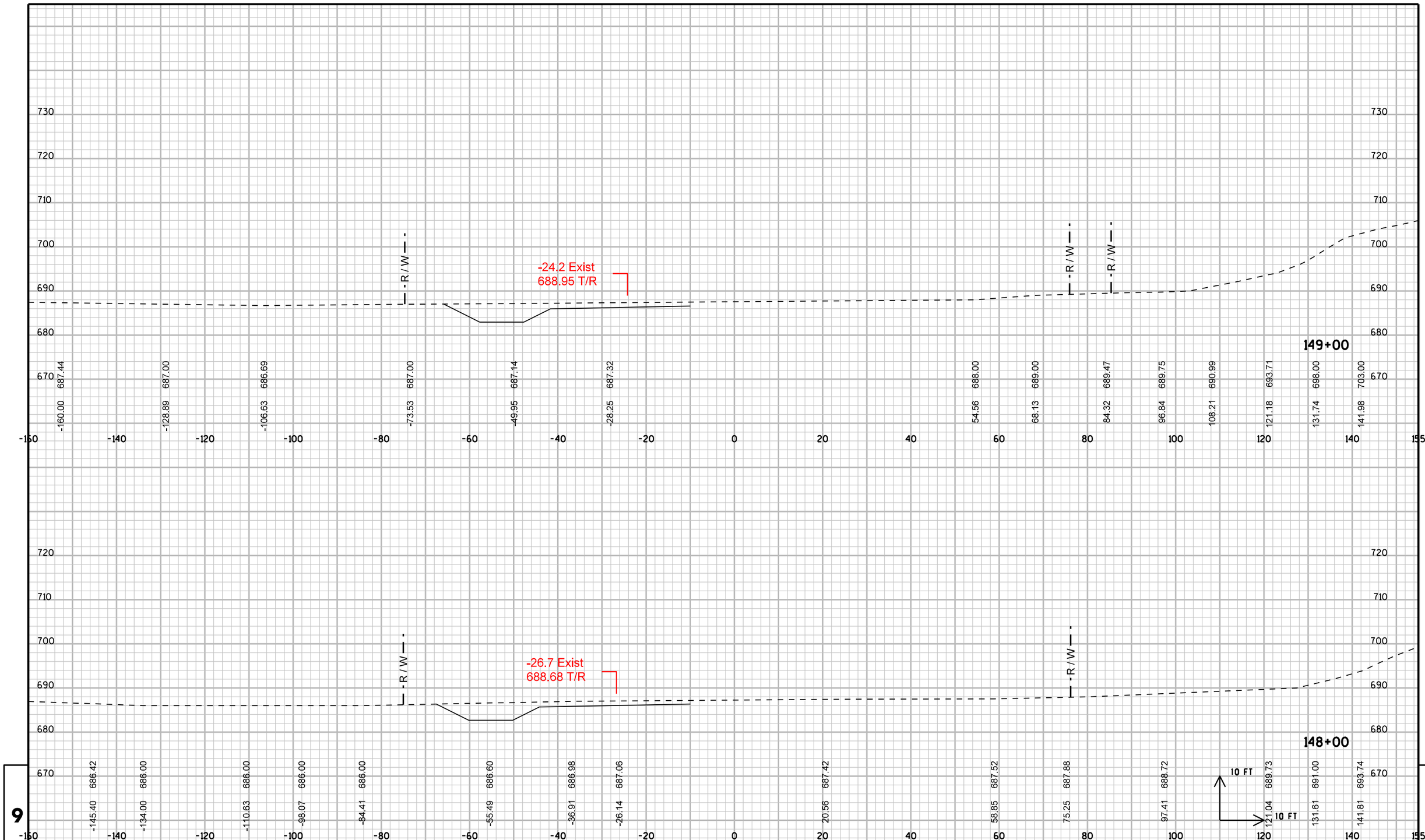

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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 148+00 TO 149+00	SHEET 66 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn
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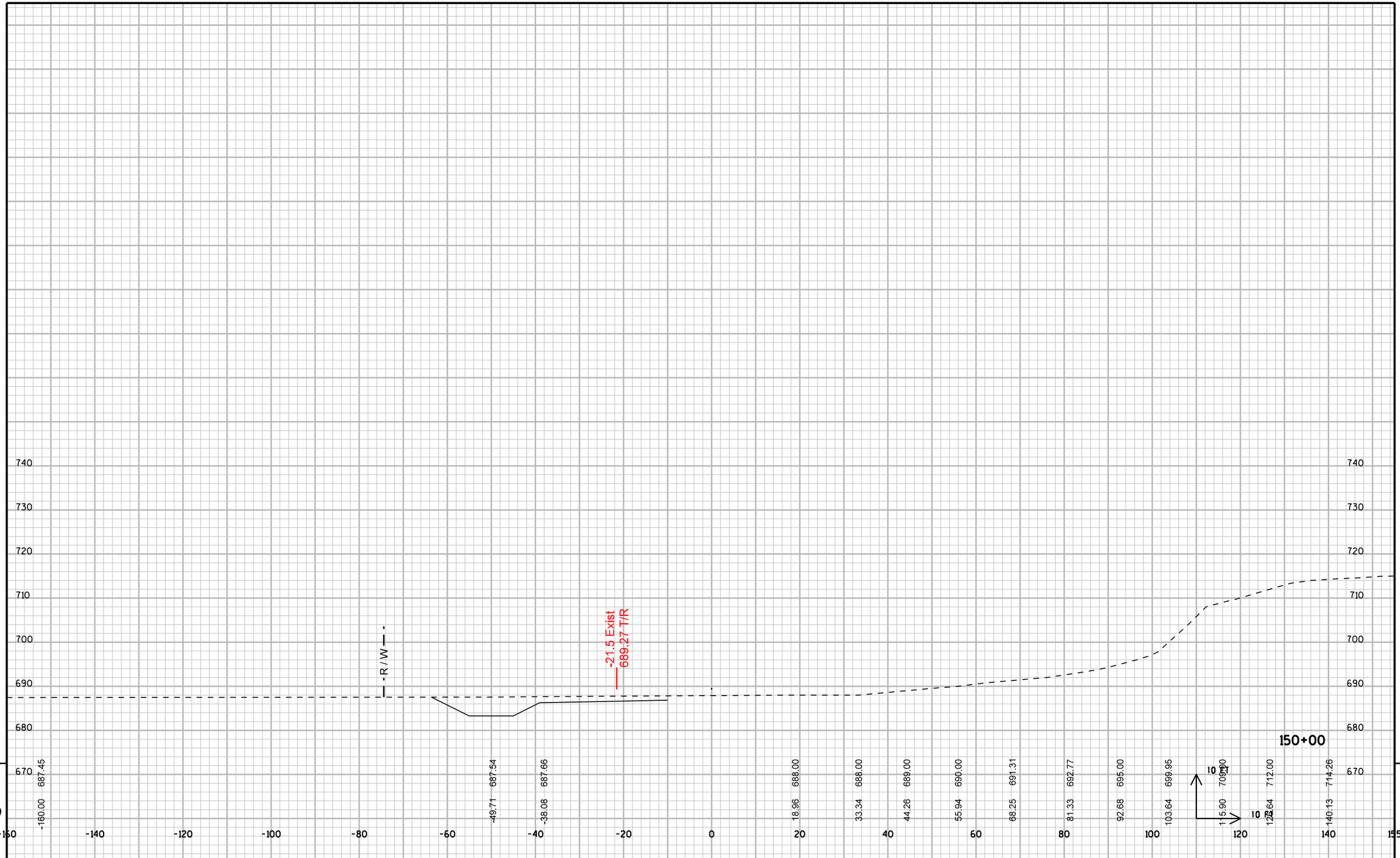
PLOT BY : jdepies
PLOT NAME :
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



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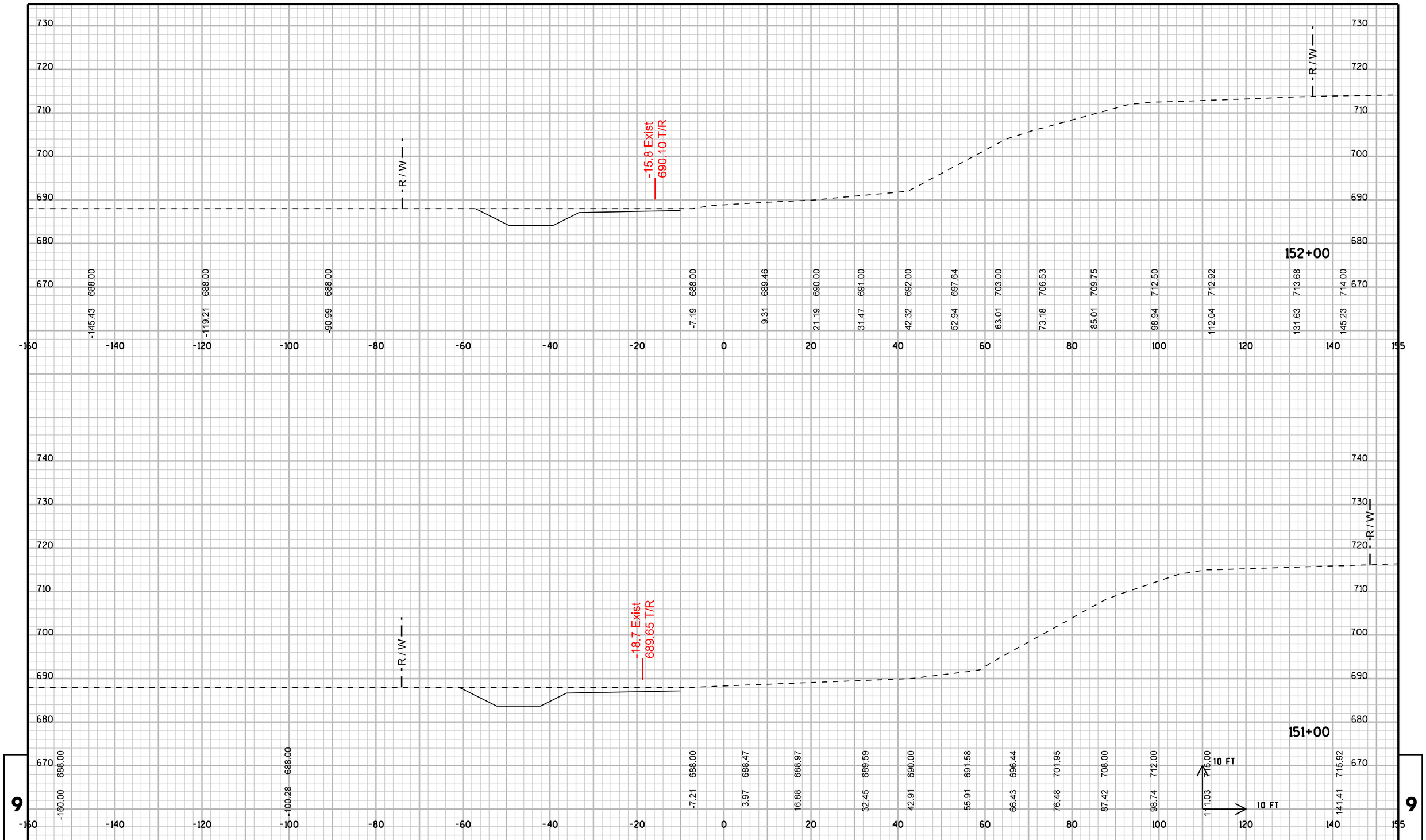
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 150+00 TO 150+00	SHEET 67 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 151+00 TO 152+00	SHEET 68 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn

PLOT DATE : 9/29/2021

PLOT BY : jdepies

PLOT NAME :

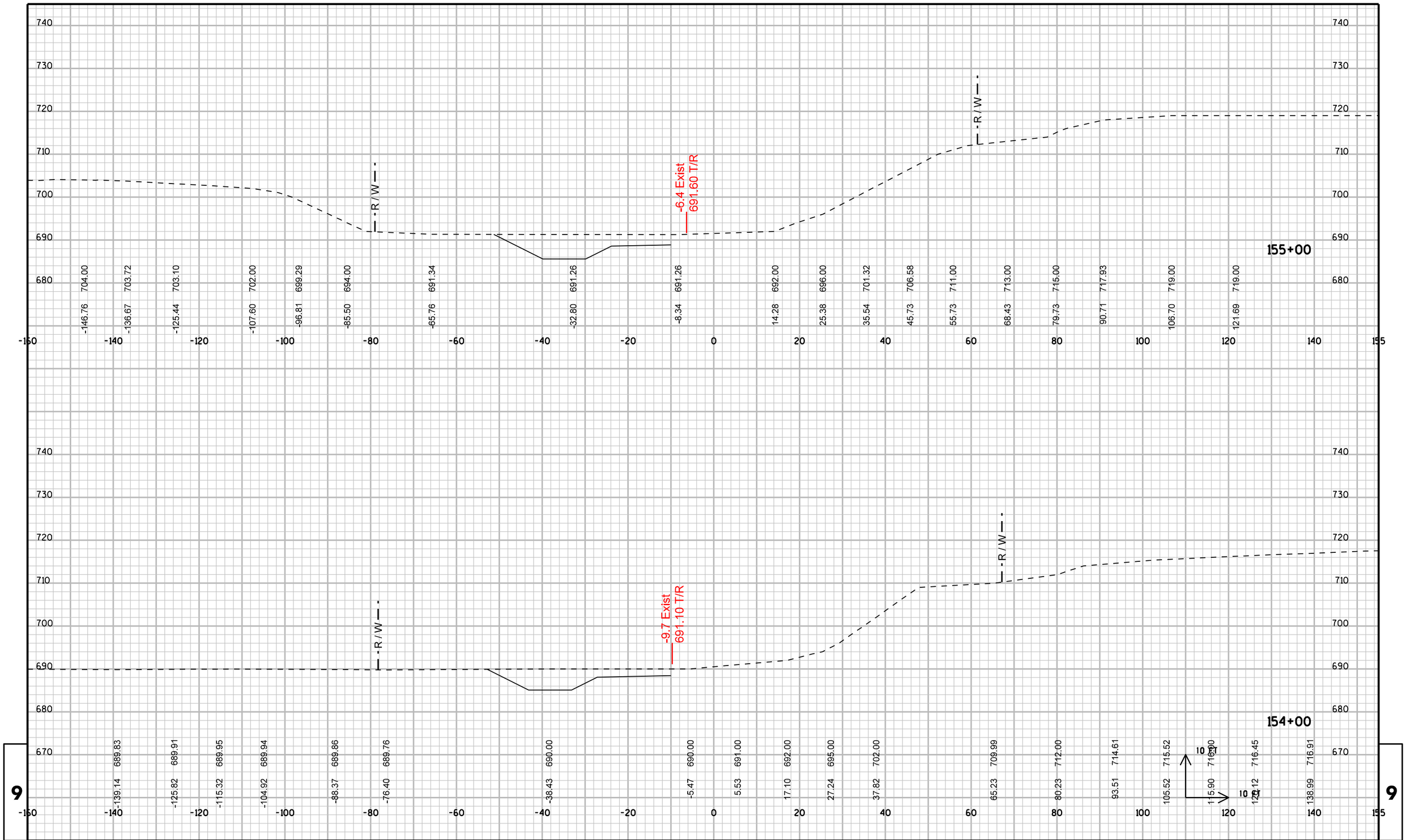
PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 153+00 TO 153+00	SHEET 69 OF 73	E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d.cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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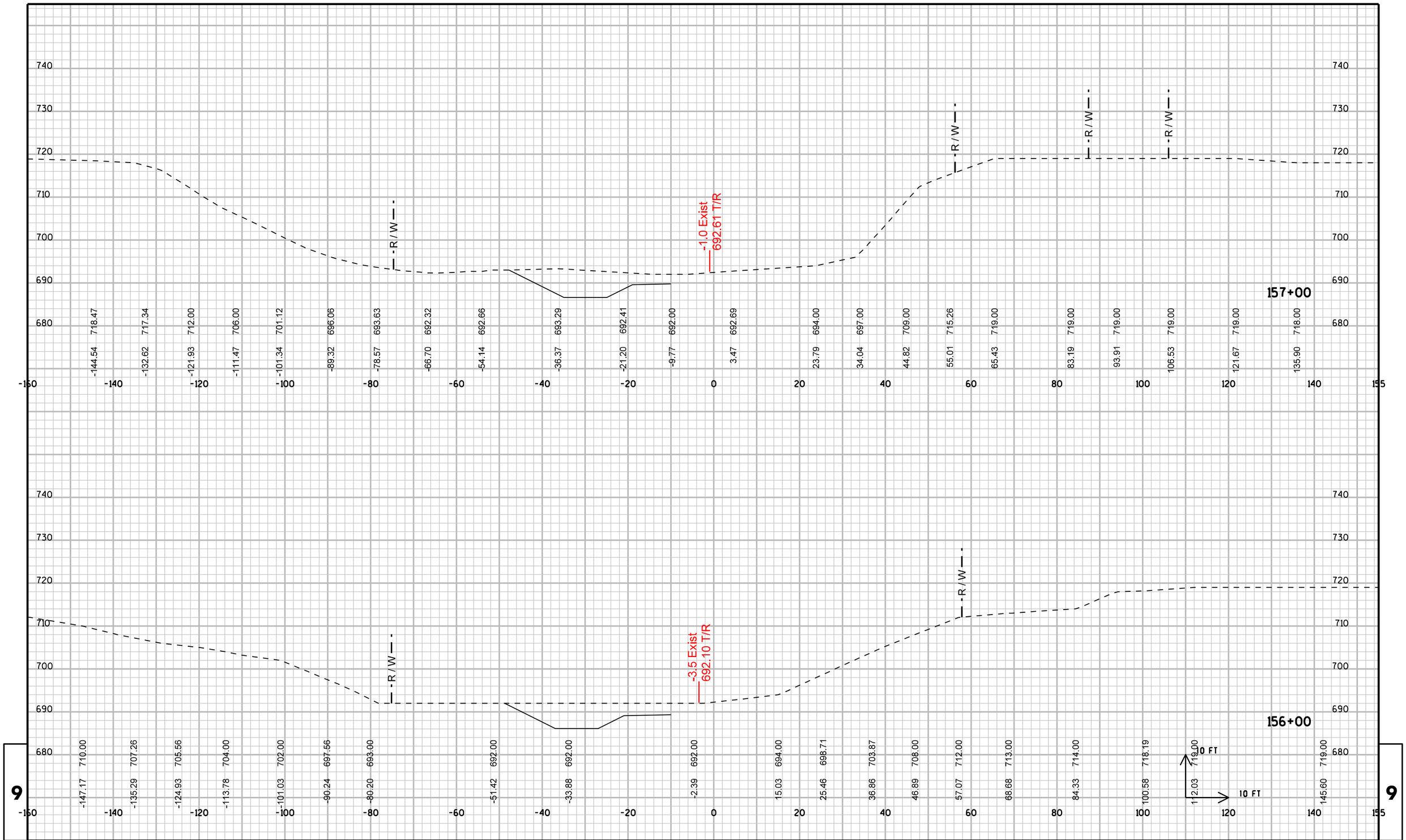
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 154+00 TO 155+00	SHEET 70 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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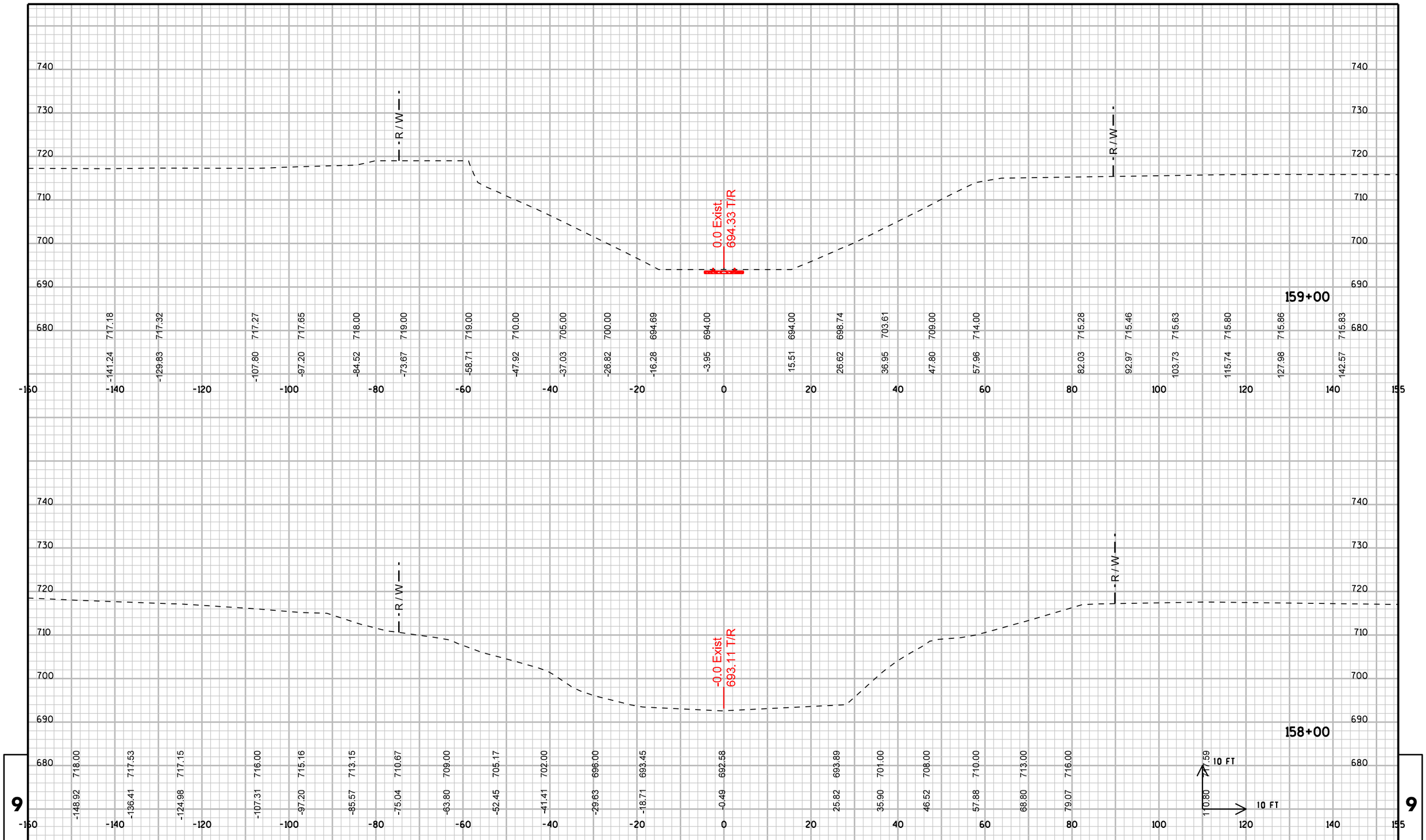
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 156+00 TO 157+00	SHEET 71 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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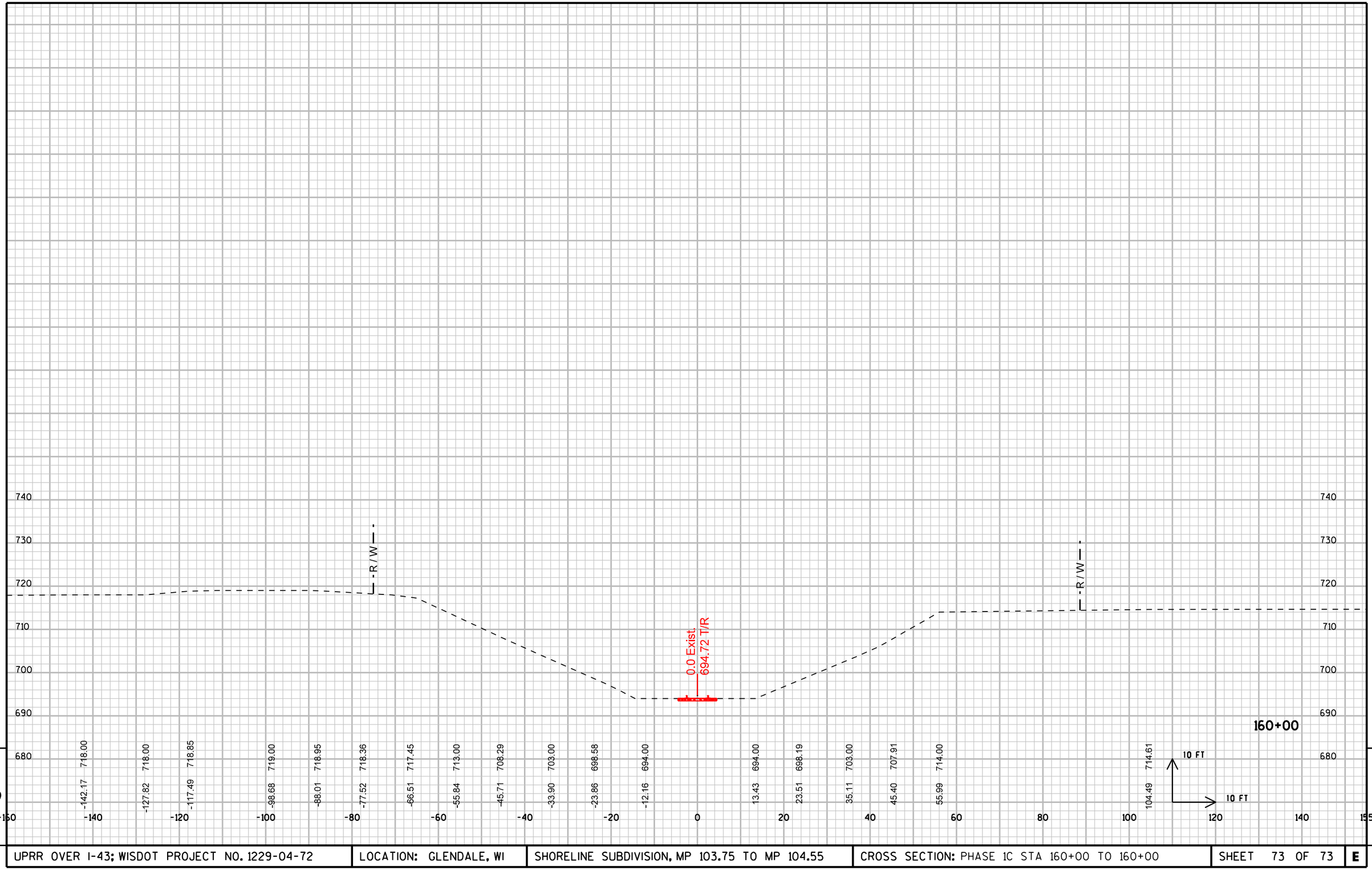
UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 158+00 TO 159+00	SHEET 72 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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UPRR OVER I-43; WISDOT PROJECT NO. 1229-04-72	LOCATION: GLENDALE, WI	SHORELINE SUBDIVISION, MP 103.75 TO MP 104.55	CROSS SECTION: PHASE 1C STA 160+00 TO 160+00	SHEET 73 OF 73 E

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\D_ Railroad & Utility Coordination\D.1_Railroad\D.1.d_cds\090202_xs.dgn PLOT DATE : 9/29/2021 PLOT BY : jdepies PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21