GRE

DECEMER 2019

PROJECT ID: 1500-47-71

WITH: 1500-37-76,1500-37-77

COUNTY: MANITOWOC

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 = 620

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1500-47-71	WISC 2018471	1
1500-37-76	WISC 2019743	1
1500-37-77	———	———

WALDO BLVD, CITY OF MANITOWOC
CTH R-FLEETWOOD DRIVE
USH 10
MANITOWOC COUNTY

STATE PROJECT NUMBER
1500-47-71

WALDO BLVD, CITY OF MANITOWOC
FLEETWOOD DRIVE-14TH STREET
USH 10
MANITOWOC COUNTY

STATE PROJECT NUMBER
1500-37-76/77

PROJECT LOCATION



DESIGN DESIGNATION

A.A.D.T.	2019	=	15,400
A.A.D.T.	2039	=	17,200
D.H.V.	2039	=	1,961
D.D.		=	58/42
T.		=	5.5%
DESIGN SPEED		=	40 MPH
ESALS		=	3,124,400

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
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

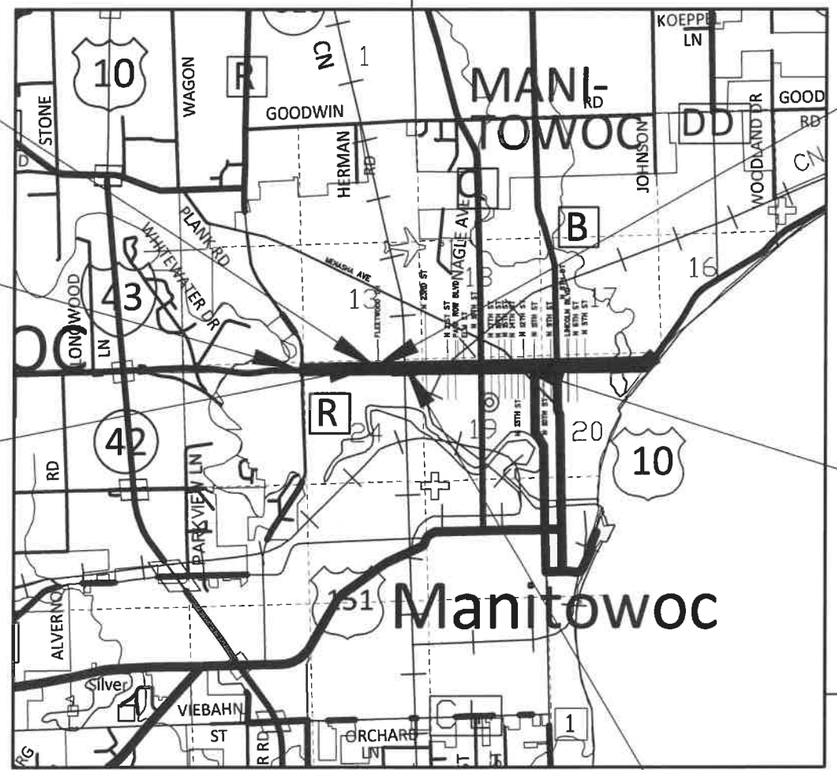
PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

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

STRUCTURE B-36-0232

BEGIN PROJECT 1500-47-71
STA. 38+00.00
Y=307069.287
X=222308.245

END PROJECT 1500-47-71
STA. 70+00.00



BEGIN PROJECT 1500-37-76/77
STA. 70+00.00
Y=306973.548
X=2255506.812

END PROJECT 1500-37-76/77
STA. 131+75.00

STRUCTURE B-36-0029

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.606 MI. PROJECT 1500-47-71
TOTAL NET LENGTH OF CENTERLINE = 1.170 MI. PROJECT 1500-37-76

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MANITOWOC COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR
CITY OF MANITOWOC
6-25-19
DATE
DIRECTOR OF PUBLIC INFRASTRUCTURE

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	AYRES ASSOCIATES
Project Manager	BRIAN HAEN
Regional Supervisor	CHAD DEGRAVE

APPROVED FOR THE DEPARTMENT
DATE: 7/10/19
(Signature)

E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_010101 TI (2020).DWG

PLOT DATE : 6/21/2019 11:17 AM

PLOT BY : AYRES ASSOCIATES

PLOT NAME :

WISDOT/CADDS SHEET 10

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER 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.

FILL, AS SHOWN ON THE PLAN SHEETS, PERTAINS TO EMBANKMENT CONSTRUCTED FROM EXCAVATION COMMON. THE FACTOR USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 1.33.

EXCAVATION BELOW SUBGRADE (EBS) WILL BE MEASURED AND PAID FOR AS EXCAVATION COMMON. THE LOCATION FOR EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATION AND WIDTH OF PRIVATE ENTRANCES WILL BE DETERMINED BY THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS. BASE AGGREGATE DENSE 1 1/4-INCH WILL BE USED UNDER ALL DRIVEWAYS.

THE REMOVAL OF ASPHALT DRIVEWAYS WILL BE PAID FOR AS EXCAVATION COMMON.

MAINTAIN DRIVING SURFACE TO ALL PROPERTY OWNERS WITH BASE AGGREGATE DENSE 1 1/4-INCH.

A SAW JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

SAW CUT LOCATIONS SHOWN ON THE PLAN ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD. THE LINE OF SUCH SAW CUTS WILL BE NEATLY DELINEATED THROUGH THE ASPHALT AND/OR CONCRETE STREETS, DRIVEWAYS AND/OR PARKING LOTS AT THE MATCH LINE AS SHOWN ON THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER WITHOUT ANY DAMAGE TO THE REMAINING PORTION OF THE EXISTING PAVEMENT.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS.

GENERAL NOTES

EROSION CONTROL MEASURES WILL BE PLACED AS SHOWN ON THE EROSION CONTROL PLAN. THE EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL BY THE ENGINEER. FINAL LIMITS OF FENCE REMOVAL TO BE DETERMINED BY THE ENGINEER.

RESHAPE AND SEEDING OF ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF THE ENGINEER DETERMINED CONSTRUCTION LIMITS ARE INCIDENTAL TO THE CONTRACT.

DO NOT USE FERTILIZER WITHIN 20 FEET OF NAVIGABLE WATERWAYS OR WETLANDS.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS AND TRAFFIC CONTROL DEVICES SHOWN IN THE PLANS ARE APPROXIMATE.

COVER ALL SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" AS SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.

CURB AND GUTTER ELEVATIONS ARE ALONG THE FLANGE OR FLAG LINE UNLESS OTHERWISE NOTED.

RADIUS POINTS, UNLESS OTHERWISE NOTED, ARE TO FACE OF CURB.

CURVE DATA IS BASED ON ARC DEFINITION.

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS.

PROPERTY LINES SHOWN ARE APPROXIMATE.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

CONCRETE DEPTH ON ALL CURB RAMPS SHALL BE 6-INCH.

REMOVAL OF ANY MESH OR REINFORCEMENT FOUND IN CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM

ALL WATER AND SANITARY SEWER UTILITIES ARE STATIONED FROM THE EAST BOUND CONSTRUCTION REFERENCE LINE.

THE OWNER RESERVES THE RIGHT TO SALVAGE ANY EXISTING UTILITY AND STREET APPURTENANCES INCLUDING, BUT NOT LIMITED TO, CASTINGS, VALVES, HYDRANTS OR SIGN AND SIGN SUPPORTS.

PROTECT EXISTING ASPHALT ON STREETS OUTSIDE OF PROPOSED SAW CUTS. ANY DAMAGE DURING CONSTRUCTION UNDER THIS CONTRACT SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.

PROTECT EXISTING WATER AND SANITARY SEWER UTILITIES AND APPURTENANCES NOT SHOWN TEMPORARY REMOVAL AND ANY DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PIPES ABANDONED-IN-PLACE SHALL HAVE A PIPE PLUG. EXISTING ABANDONED PIPES ENCOUNTERED SHALL RECEIVE A PIPE PLUG.

ALL SANITARY SEWER PIPE AND WATER MAIN SHALL BE SAW CUT AT RIGHT ANGLES TO PROVIDE A CLEAN JOINT.

FIELD VERIFY LOCATION, SIZE, AND TYPE OF SANITARY SEWER LATERALS AND CONNECT TO PROPOSED SANITARY PIPELINE WITH WYE, APPROPRIATE BEND, PIPELINE, AND TRANSITION COUPLINGS. SEWER SEWER LATERALS SHALL BE VISUALLY INSPECTED. ALL EXPOSED SANITARY LATERALS SHALL SHALL BE CONNECTED BY THE END OF THE DAY.

FIELD VERIFY SANITARY LATERAL INVERT ELEVATIONS TO EXISTING BUILDINGS. SANITARY LATERALS MAY NEED TO BE LOWERED TO AVOID PROPOSED WATER MAIN CONFLICTS. RISERS MAY BE REQUIRED.

DYE TESTING MAY BE REQUIRED TO FIELD VERIFY USE OF SANITARY LATERALS. ALL COSTS ASSOCIATED WITH DYE TESTING SHALL BE INCLUDED IN BID PRICE FOR SANITARY LATERAL RECONNECTION.

WHEN CONNECTING TO AN EXISTING MANHOLE, RECONSTRUCT NEW BENCH AND FLOW LINE TO ACCOMODATE NEW PIPE.

EXISTING WATER MAINS TO REMAIN IN SERVICE DURING CONSTRUCTION OF THE PROPOSED WATER MAIN. WATER SERVICES CAN NOT BE RECONNECTED UNTIL SAFE WATER SAMPLES HAVE BEEN OBTAINED AND THE PIPELINE HAS BEEN PRESSURE TESTED.

ALL WATER MAIN PIPELINES INCLUDING WATER SERVICES HAVING A DEPTH OF COVER LESS THAN 6-FEET OR UNDER STORM SEWER GREATER THAN 30" TO BE PROTECTED AGAINST FREEZING BY INSTALLATION OF 2-INCH THICK TRENCH INSULATION. INSULATION TO BE FULL TRENCH WIDTH AND PLACED ABOVE INITIAL BACKFILL ZONE.

WATER SERVICE SIZE TO BE INSTALLED AT A 1" MINIMUM DIAMETER OR MATCH EXISTING UNLESS NOTED ON DRAWINGS.

FIELD VERIFY LOCATION, SIZE AND TYPE OF WATER MAIN SERVICES. ALL FIELD VERIFICATION COSTS TO BE INCLUDED IN THE BID PRICES FOR WATER MAIN RECONNECTIONS.

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 9.81 ACRES
SOIL GROUP C

ORDER OF SECTION 2 SHEETS

GENERAL NOTES & CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER
PLANTING AND LIGHTING
PERMANENT SIGNING
TRAFFIC SIGNALS
PAVEMENT MARKING
TRAFFIC CONTROL
STAGE CONSTRUCTION
DETOURS
ALIGNMENT DIAGRAMS

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ET AL	AND OTHERS
BK	BACK
BLDG	BUILDING
BLK	BLOCK
BR	BRIDGE
CB	CATCH BASIN
CL OR C/L	CENTER LINE
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM
CPCS	CULVERT PIPE CORRUGATED STEEL
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CP	CULVERT PIPE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DWY OR DW	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB OR EBND	EASTBOUND
EL OR ELEV	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXIST OR EX	EXISTING
FF OR F-F	FACE TO FACE
FE	FIELD ENTRANCE
FG	FINISHED GRADE
FT	FOOT
INL	INLET
INV	INVERT
IP	IRON PIPE OR PIN
LT	LEFT
L	LENGTH OF CURVE
LIN FT OR LF	LINEAR FOOT
MH	MANHOLE
NC	NORMAL CROWN
NW OR N/W	NORMAL WATER
N	NORTH
Y	NORTH GRID COORDINATE
NB OR NBND	NORTHBOUND
PT	POINT
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
POC	POINT ON CURVE
POT	POINT ON TANGENT
RR	RAILROAD
RL OR R/L	REFERENCE LINE
REBAR	REINFORCEMENT BAR
REQ'D	REQUIRED
R/W	RIGHT-OF-WAY
R	RADIUS
S	SOUTH
SB OR SBND	SOUTHBOUND
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SE	SUPER ELEVATION
SURF	SURFACE
T	TANGENT
TYP	TYPICAL
WB OR WBND	WESTBOUND

AB	ANCHOR BOLT
ABV	ABOVE
ADJ	ADJUST
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
ALT	ALTERNATE WITH
ALT/	ALTERNATE
APPROX	APPROXIMATE
ASPH	ASPHALT
AUTO	AUTOMATIC
AVE	AVENUE
@	AT
BC	BACK OF CURB
BD	BOARD
BEL	BELOW
BETWN	BETWEEN
BF	BACK FACE
BFV	BUTTERFLY VALVE
BLD	BLIND
BLDG	BUILDING
BLKG	BLOCKING
BLVD	BOULEVARD
BM	BENCHMARK
BO	BREAKOFF
BRG	BEARING
BRK	BRICK
BS	BACK OF SIDEWALK
BTM	BOTTOM
BV	BALL VALVE
Ⓑ	BASELINE
B/	BOTTOM OF
CB	CATCH BASIN
CF	CUBIC FOOT
CHKD P	CHECKERED PLATE
CI	CAST IRON
CJ	CONTROL JOINT
CHL	CHLORINE
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
CONN	CONNECTION
CONST	CONSTRUCTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CONTR JT	CONTRACTION JOINT
COR	CORNER
CP	CONTROL POINT
CPLG	COUPLING
CRS	COURSE
CTG	CASTING
CULV	CULVERT
CV	CHECK VALVE
CW	COLD WATER
CY	CUBIC YARD
DEFL	DEFLECTION
DEG / °	DEGREE
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
DP	DEPTH
DR	DOOR
DTL	DETAIL
DWG	DRAWING
EA	EACH
EF	EACH FACE
EFF	EFFLUENT
EJ	EXPANSION JOINT
ELB	ELBOW
ELEC	ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
ER	END OF RADIUS
EST	ESTIMATE
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FERT	FERTILIZER
FGL	FIBERGLASS
FIN	FINISHED
FL	FLOWLINE
FLG	FLANGED
FLR	FLOOR
FM	FORCE MAIN
FN	FENCE
FT (')	FOOT
FTG	FOOTING
FUT	FUTURE

G	GAS
GA	GAGE
G OR GAR	GARAGE
GEN	GENERAL
GRD	GRADE, GROUND
GV	GATE VALVE
GRAV	GRAVEL
GW	GROUNDWATER
HB	HOSE BIB
HM	HOLLOW METAL
HORZ	HORIZONTAL
HSE	HOUSE
HT	HEIGHT
HW	HOT WATER
HWR	HOT WATER RETURN
HYD	HYDRANT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN (")	INCHES
INCL	INCLUDE
INF	INFLUENT
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JT	JOINT
KGV	KNIFE GATE VALVE
LAB	LABORATORY
LAV	LAVATORY
LG OR L	LENGTH
LOC	LOCATION
LP	LIGHT POLE
LS	LUMP SUM
LT	LEFT
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MFG	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MP	MID POINT
MTL	MATERIAL
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPW	NON-POTABLE WATER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OE	OVERHEAD ELECTRIC
OF	OUTSIDE FACE
OH	OVERHEAD
OPG	OPENING
PE	PRIVATE ENTRANCE
PED	PEDESTAL
PERF	PERFORATE
PKG	PARKING
P	PLATE
PL	PLACE
PLP	PROPERTY LINE
PP	POWER POLE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
%	PERCENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RD	ROOF DRAIN
RDWY	ROADWAY
RED	REDUCER
REF OR ℄	REFERENCE
REINF	REINFORCING
REM	REMOVE
REPL	REPLACE
REV	REVISED
RM	ROOM
RR	RAILROAD
RT	RIGHT

SAN	SANITARY
SAMH	SANITARY MANHOLE
SCH	SCHEDULE
SEC	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SPA	SPACE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSMH	STORM SEWER MANHOLE
ST	STREET
STD	STANDARD
STL	STEEL
SURF	SURFACE
SW	SIDEWALK
SWR	SEWER
SY	SQUARE YARD
SYS	SYSTEM
T&B	TOP & BOTTOM
TC	TOP BACK OF CURB
T	TELEPHONE
THK	THICKNESS
THRU	THROUGH
TP	TELEPHONE POLE
TYP	TYPICAL
T/	TOP OF
UG	UNDERGROUND GAS
UE	UNDERGROUND ELECTRICAL
UNEXC	UNEXCAVATED
UNO	UNLESS NOTED OTHERWISE
USH	UNITED STATES HIGHWAY
T	UNDERGROUND TELEPHONE
TV	UNDERGROUND VIDEO
V	VALVE
V&B	VALVE & BOX
VAR	VARIABLE
VER	VERTICAL
VC	VERTICAL CURVE
W	WEST
W/	WITH
W/O	WITHOUT
WD	WIDTH
WM	WATER MAIN
WS	WATER SURFACE
WTP	WATER TREATMENT PLANT
WTR	WATER
WWF	WELDED WIRE FABRIC
WWM	WOVEN WIRE MESH

PROJECT AND UTILITY CONTACTS

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EMAIL: sbacalzo@mpu.org

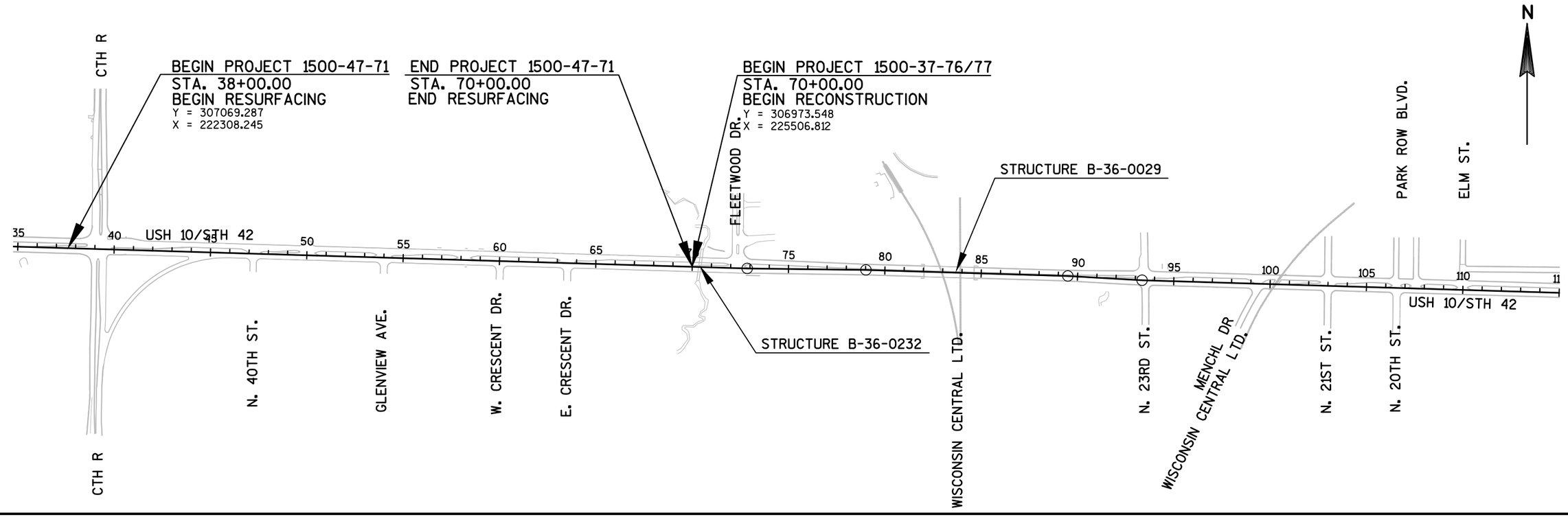
MANITOWOC COUNTY AIRPORT-AIRPORT FACILITY
3500 STATE HWY 310
MANITOWOC, WI 54220
PHONE: 920-683-4366

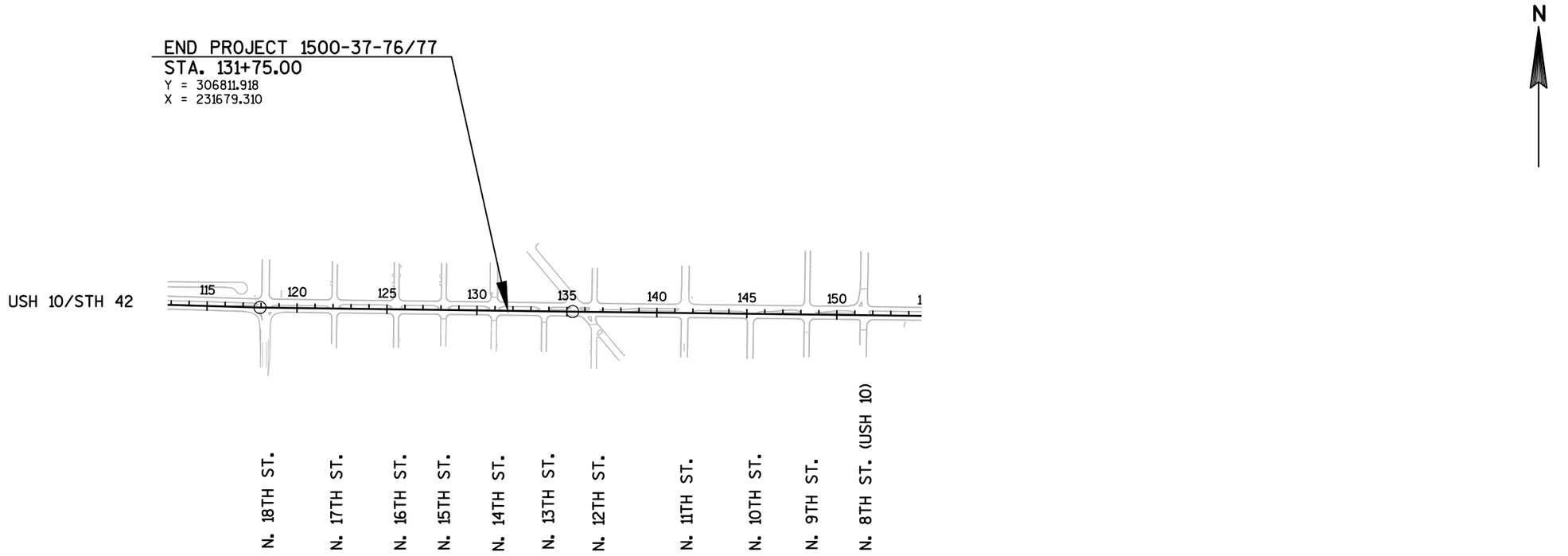
PAE TEC COMMUNICATIONS LLC - COMMUNICATION LINE
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PHONE: 262-792-7938
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WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
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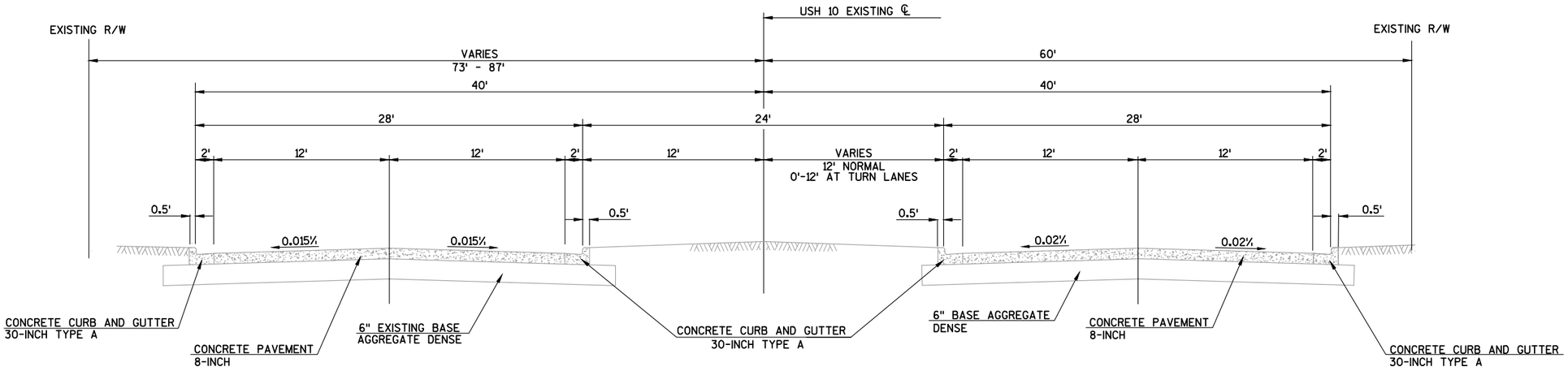
WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
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DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com



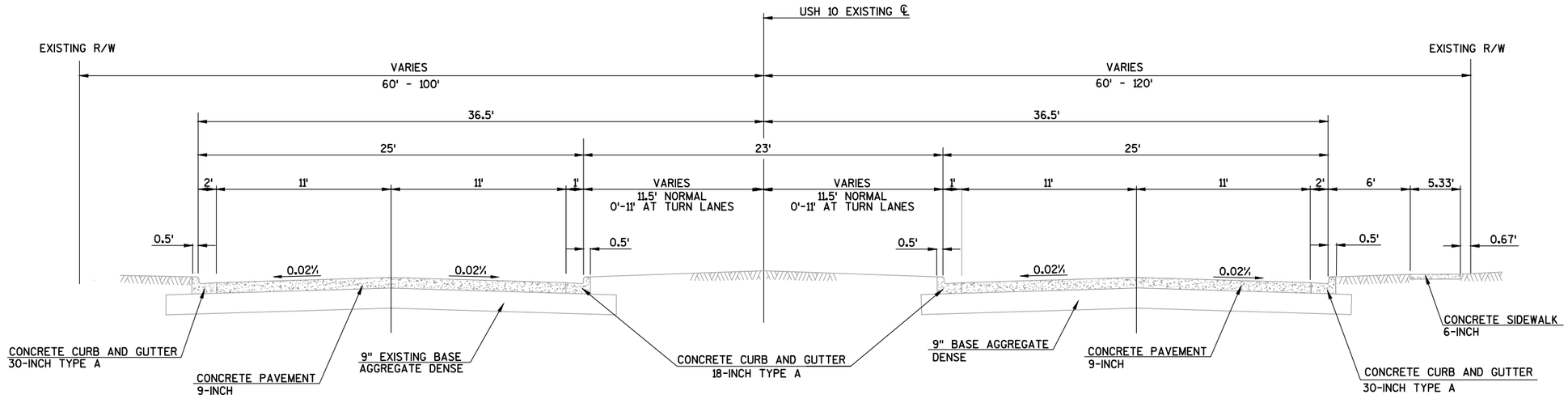


PROJECT NO: 1500-37-76/77, 1500-47-71	HWY: USH 10/STH 42	COUNTY: MANITOWOC	PROJECT OVERVIEW	SHEET 4	E



EXISTING TYPICAL SECTION FOR USH 10

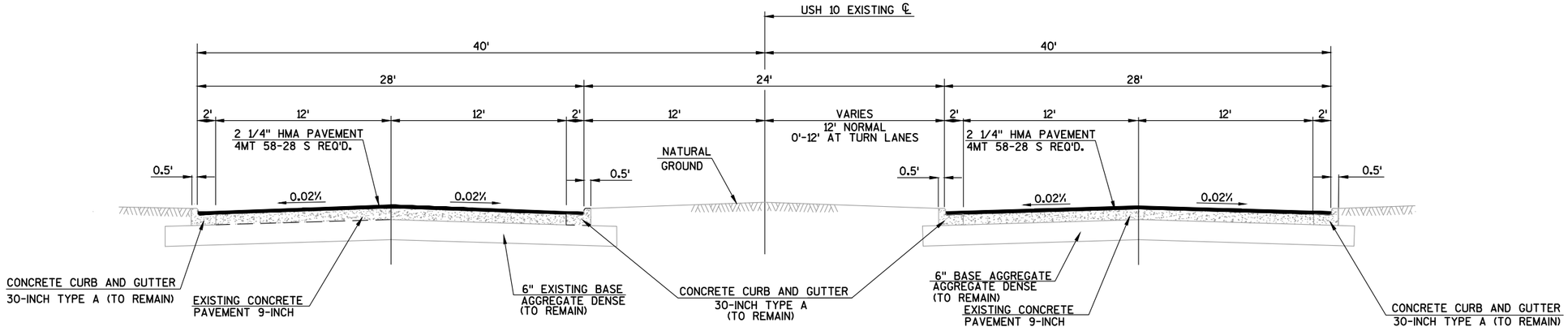
STA. 38+00-STA. 40+57



EXISTING TYPICAL SECTION FOR USH 10

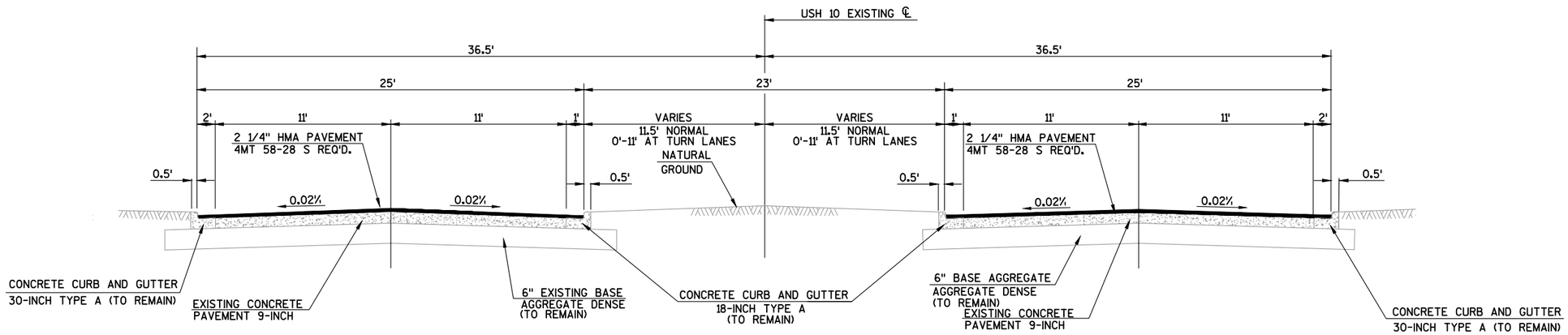
STA. 40+57-STA. 70+00

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 5	E



TYPICAL FINISHED SECTION FOR USH 10

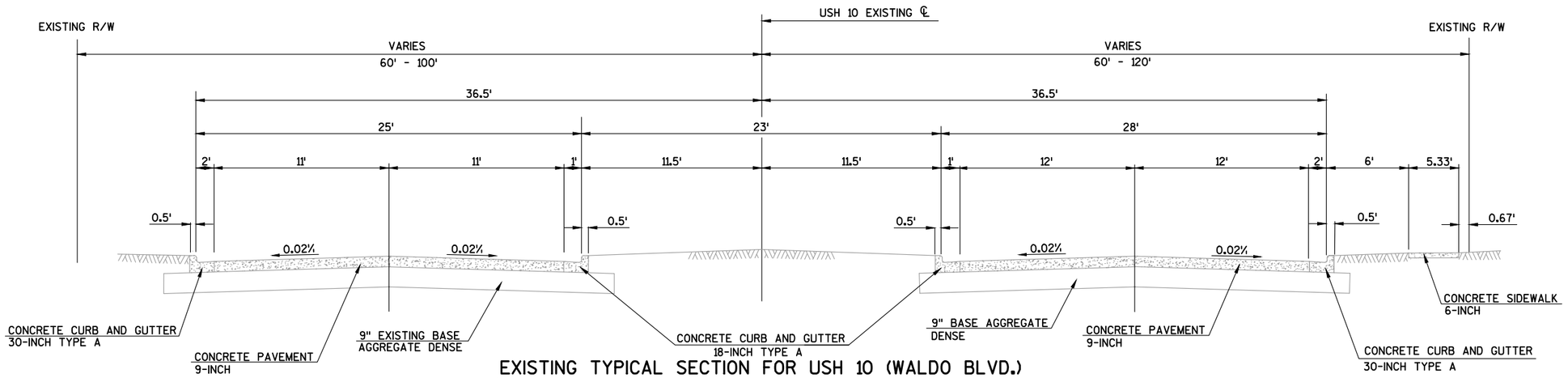
STA. 38+00 - STA. 40+57



TYPICAL FINISHED SECTION FOR USH 10

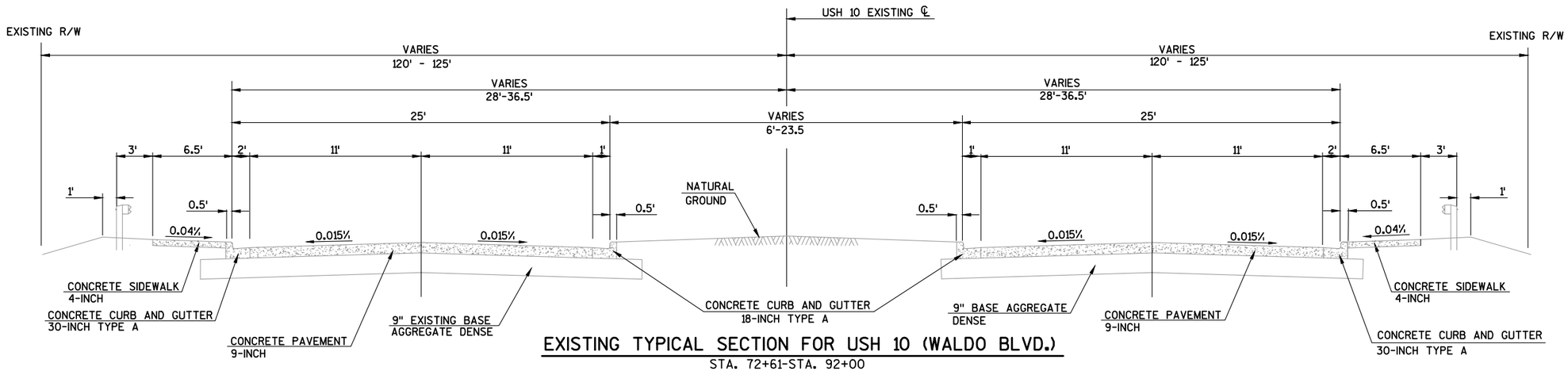
STA. 40+57-STA. 70+00

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 6	E



EXISTING TYPICAL SECTION FOR USH 10 (WALDO BLVD.)

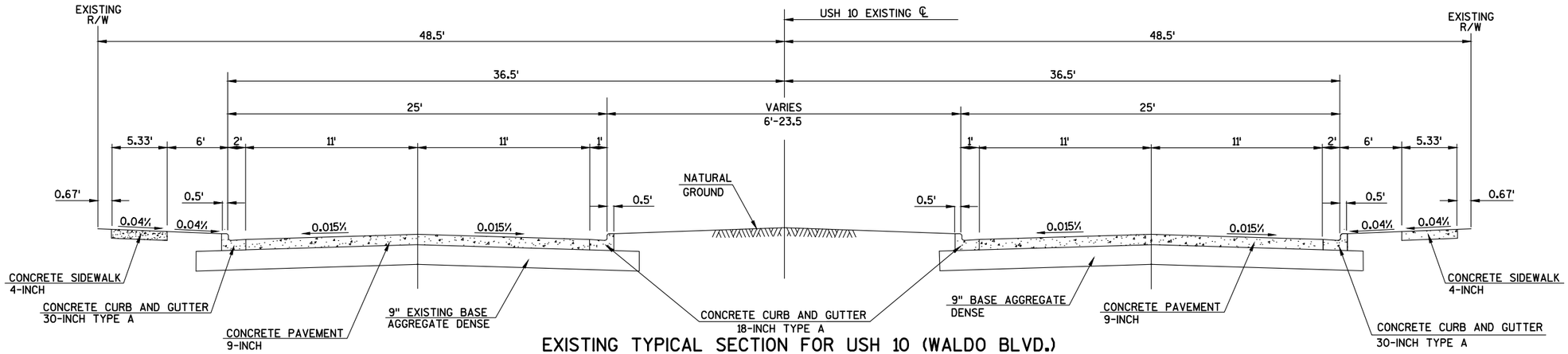
STA. 70+00-STA. 72+61



EXISTING TYPICAL SECTION FOR USH 10 (WALDO BLVD.)

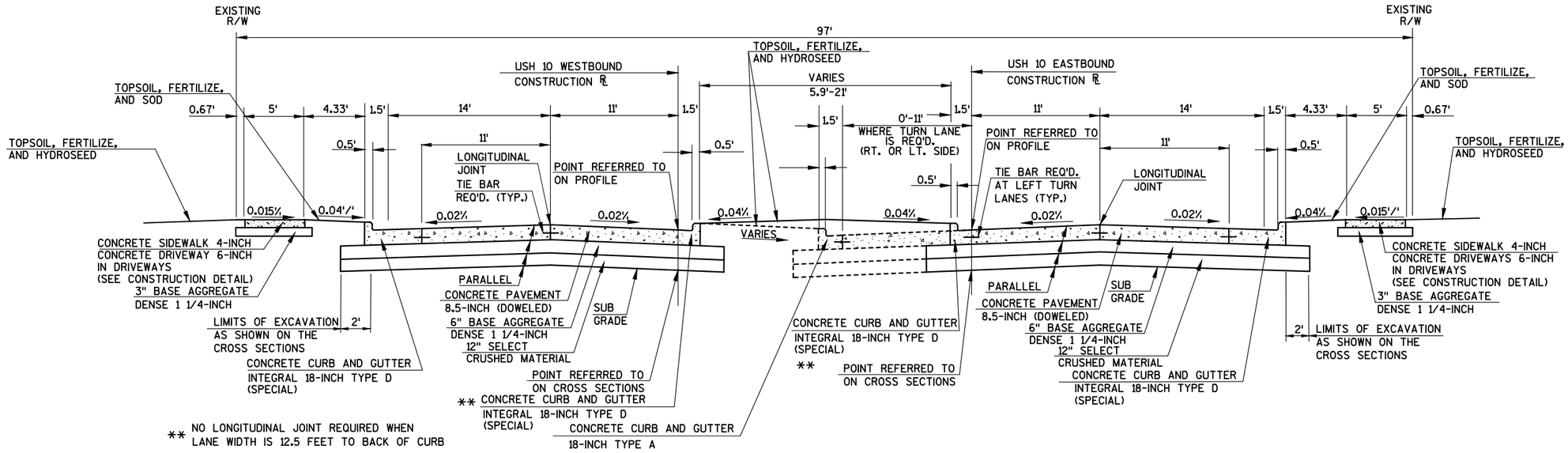
STA. 72+61-STA. 92+00

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 7	E



EXISTING TYPICAL SECTION FOR USH 10 (WALDO BLVD.)

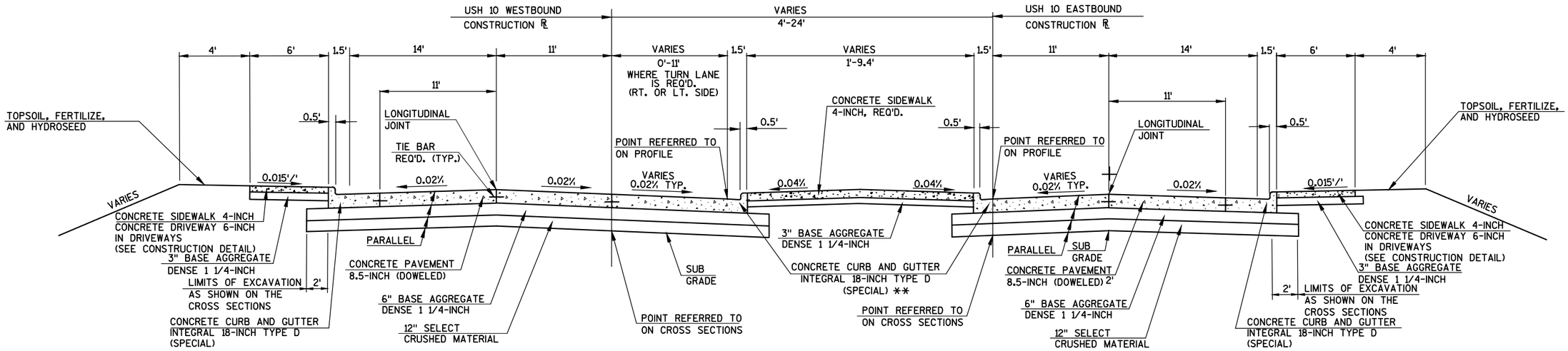
STA. 92+00-STA. 131+75.00



TYPICAL FINISHED CROSS SECTION FOR USH 10 (WALDO BOULEVARD)

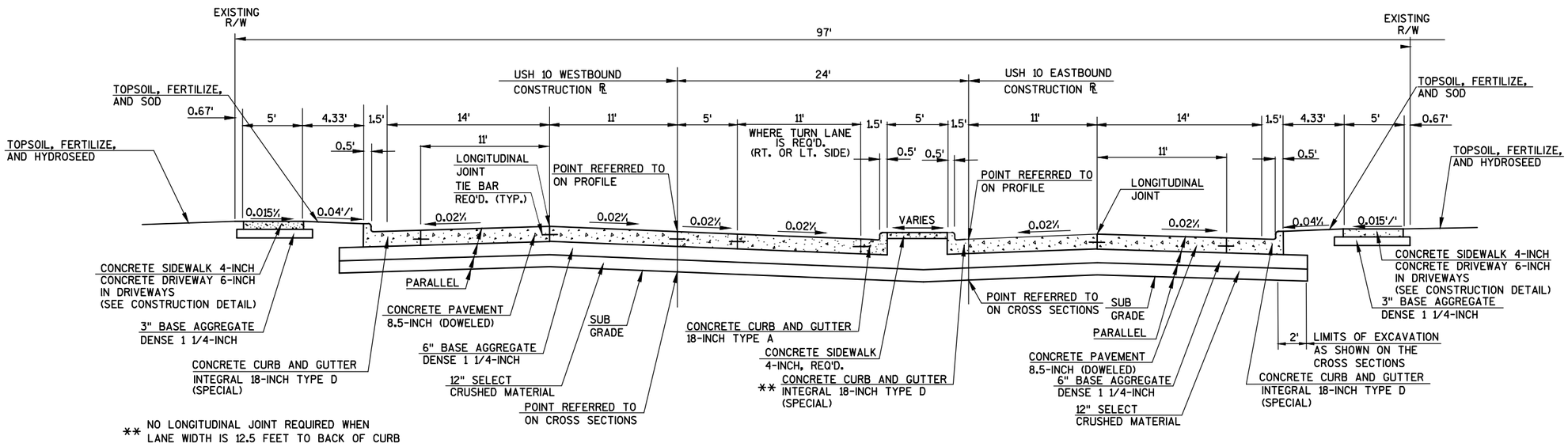
STA. 70+00 - STA. 77+50
STA. 93+50 - STA. 131+75

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 8	E



TYPICAL FINISHED CROSS SECTION FOR USH 10 (WALDO BOULEVARD)

STA. 77+50 - STA. 93+50

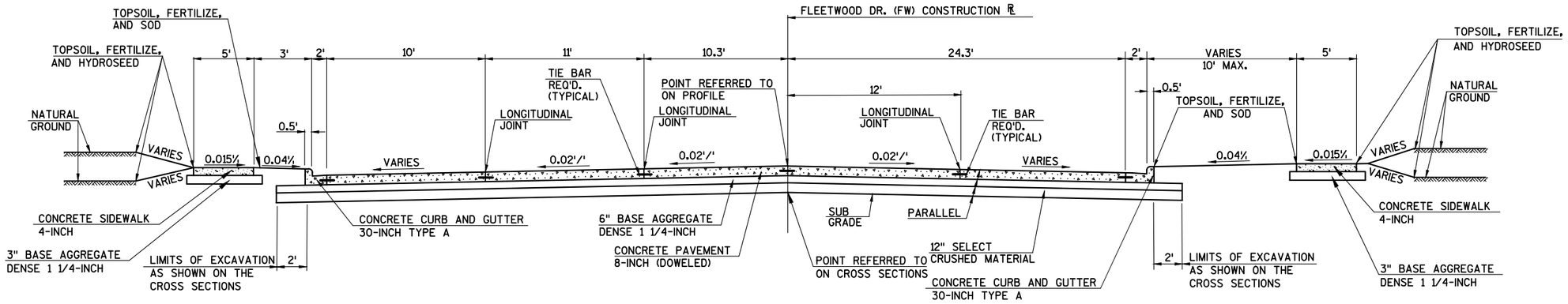


TYPICAL FINISHED CROSS SECTION FOR USH 10 (WALDO BOULEVARD) AT SLOTTED LEFT TURN LANES

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 9	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_020303_TS (2020).DWG PLOT DATE : 10/14/2019 12:03 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

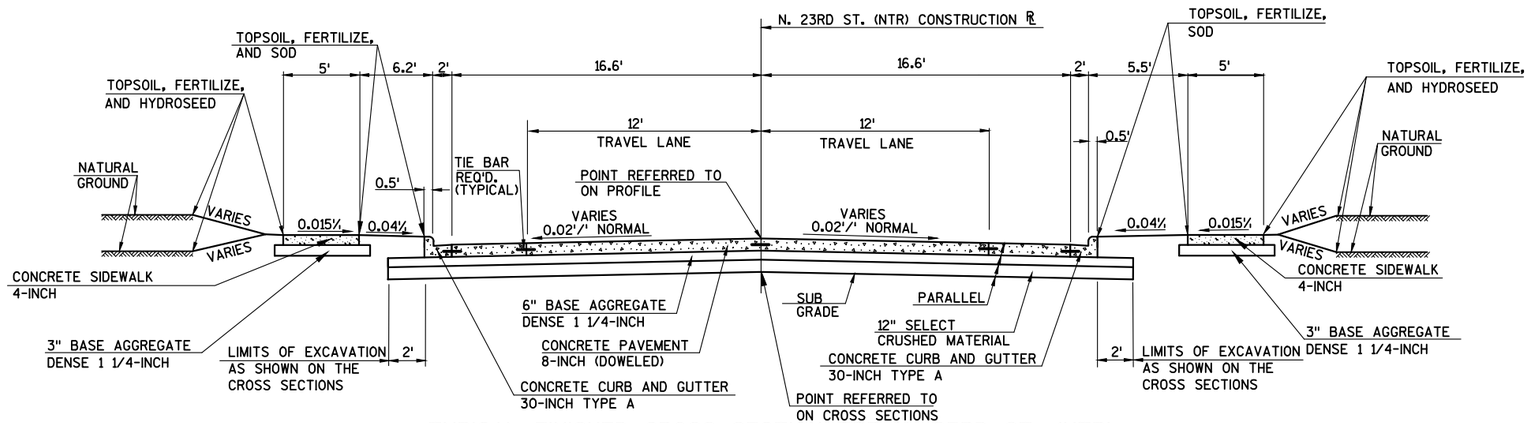


TYPICAL FINISHED CROSS SECTION FOR FLEETWOOD DRIVE (FW)

STA 10+25-STA. 10+75

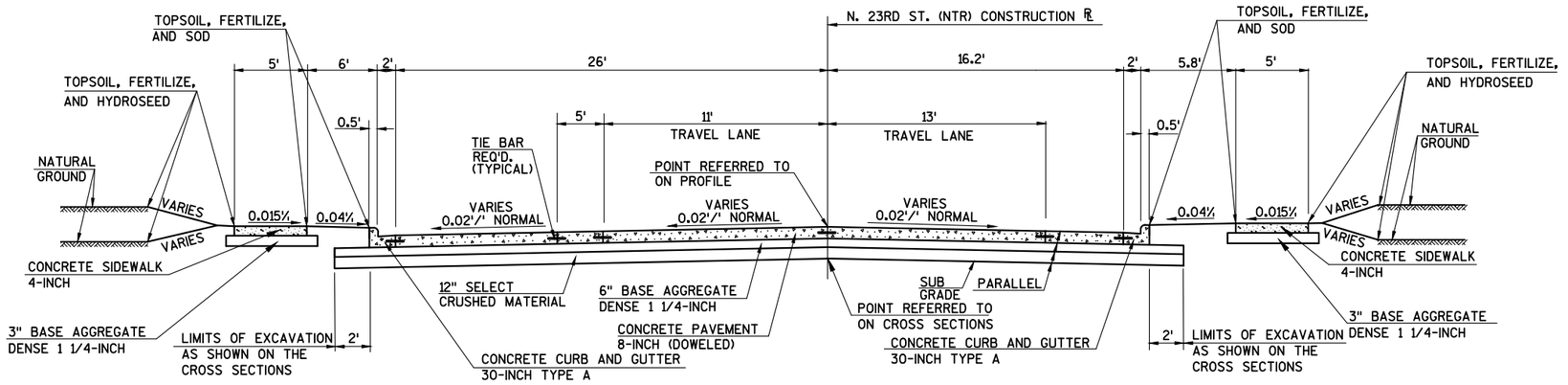
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 10	E

2



TYPICAL FINISHED CROSS SECTION FOR N. 23RD ST. (NTR)

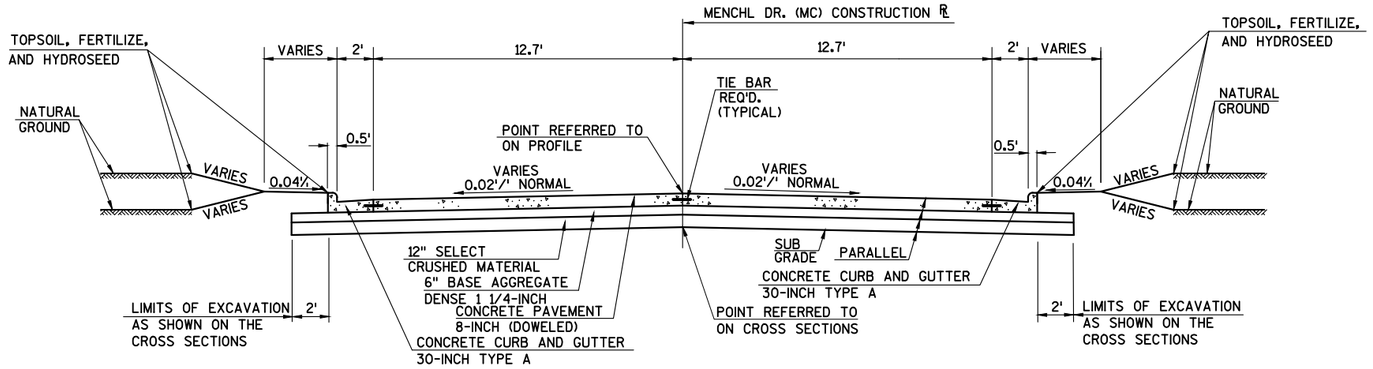
STA. 9+40-STA. 9+75



TYPICAL FINISHED CROSS SECTION FOR N. 23RD ST. (NTR)

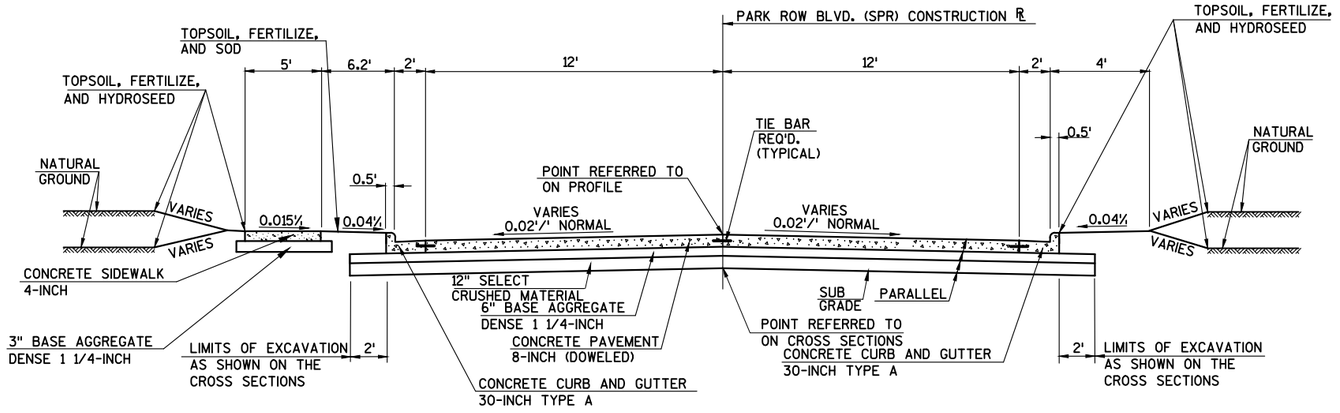
STA. 10+49-STA. 10+95

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET 11	E



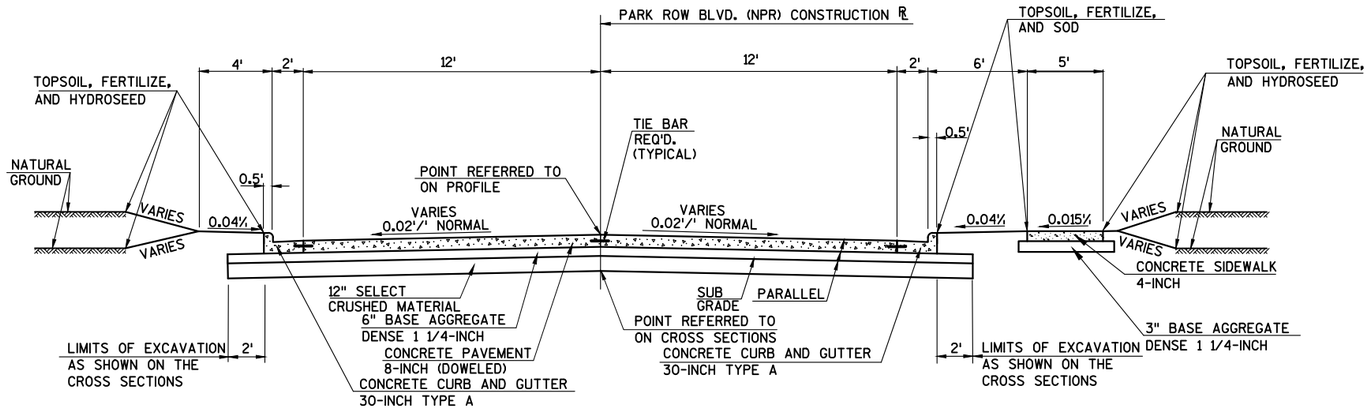
TYPICAL FINISHED CROSS SECTION FOR MENCHL DR. (MC)

STA. 9+10 -STA. 9+74



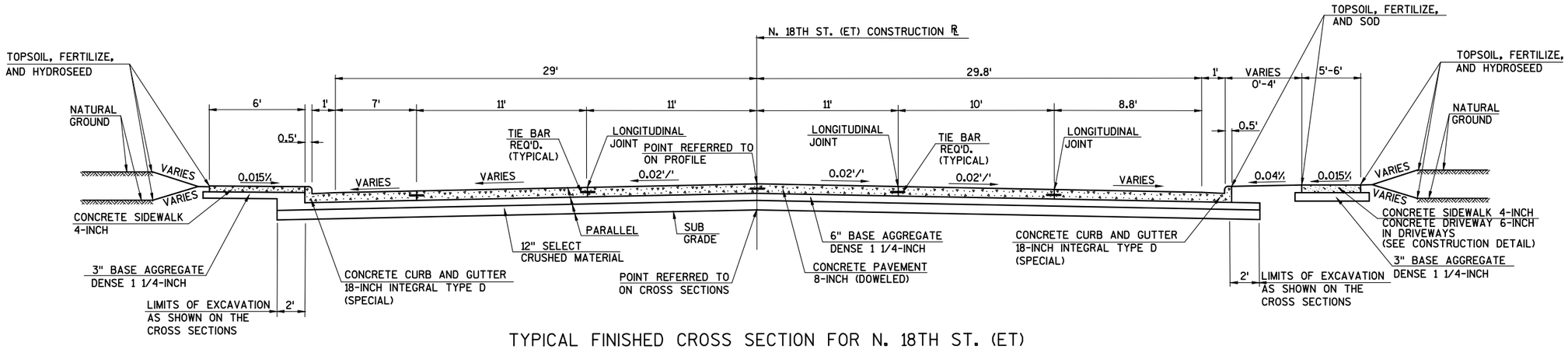
TYPICAL FINISHED CROSS SECTION FOR PARK ROW BLVD. (SPR)

STA. 10+49.33-STA. 10+85



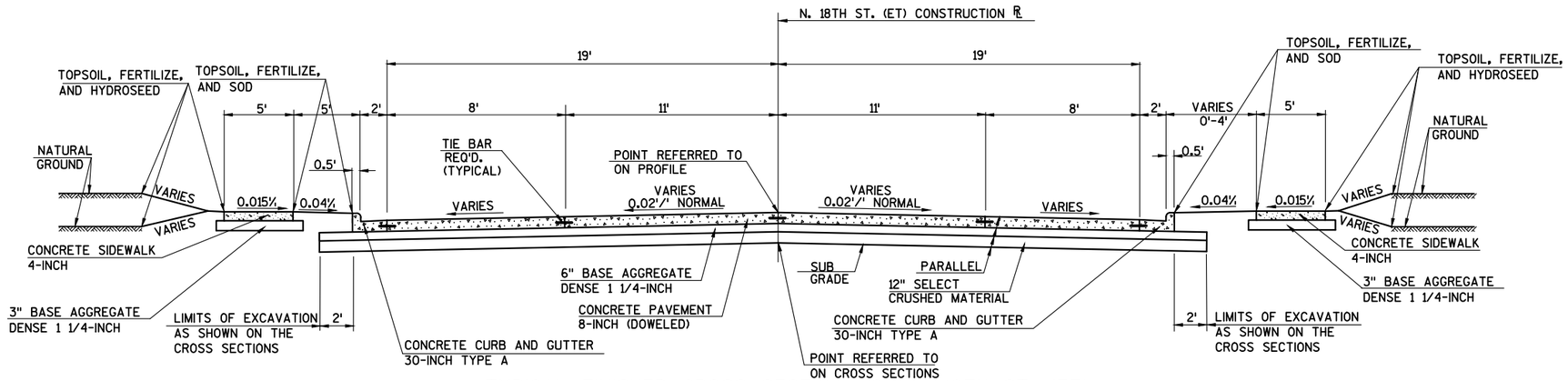
TYPICAL FINISHED CROSS SECTION FOR PARK ROW BLVD. (NPR)

STA. 10+25-STA. 10+60



TYPICAL FINISHED CROSS SECTION FOR N. 18TH ST. (ET)

STA. 9+00-STA. 9+75

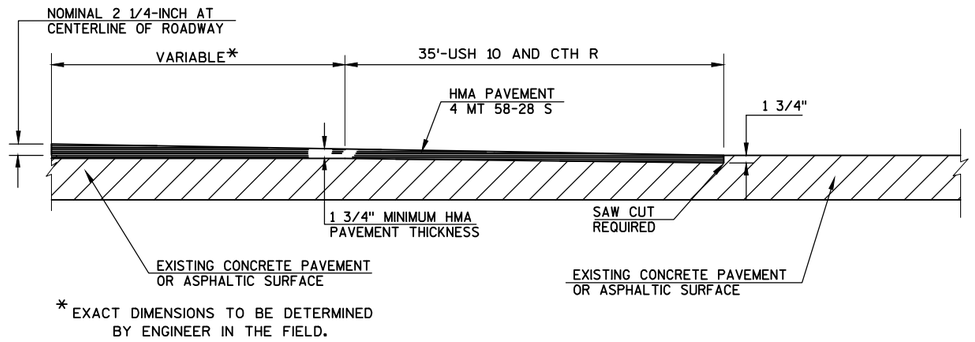


TYPICAL FINISHED CROSS SECTION FOR N. 18TH ST. (ET)

STA. 10+49-STA. 10+90

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TYPICAL SECTIONS	SHEET	E

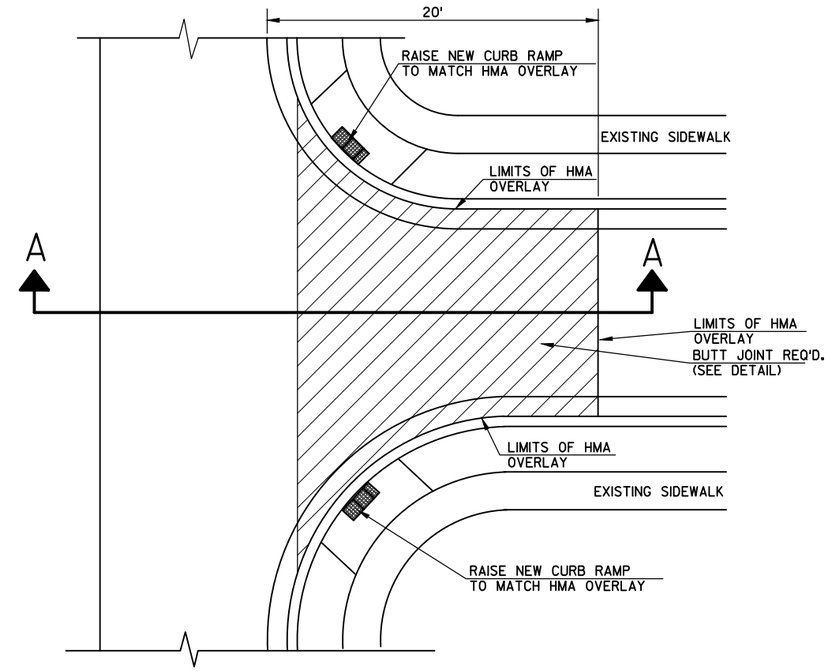
FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_020307_TS (2020).DWG PLOT DATE : 7/29/2019 5:41 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



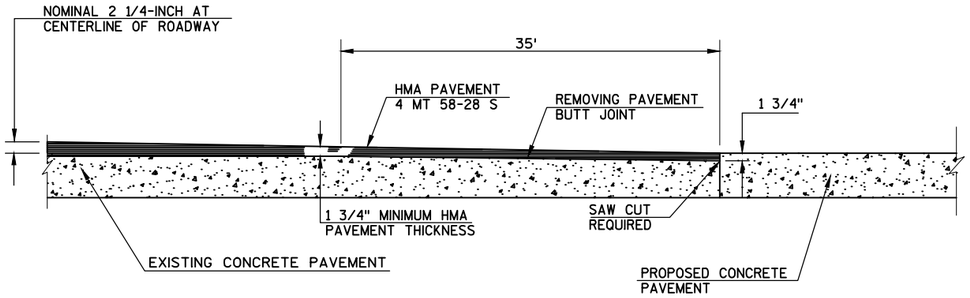
* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

DETAIL FOR BUTT JOINT

STA. 38+00 USH 10 WESTBOUND AND EASTBOUND
STA. 8+95 CTH R
STA. 11+40 CTH R

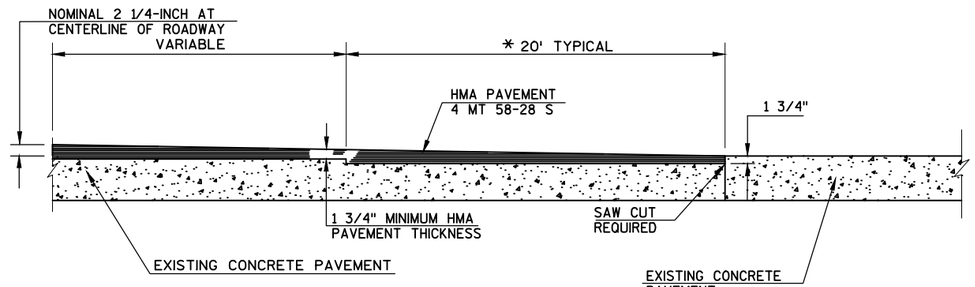


DETAIL FOR OVERLAY LIMITS AT SIDE STREETS



DETAIL FOR BUTT JOINT

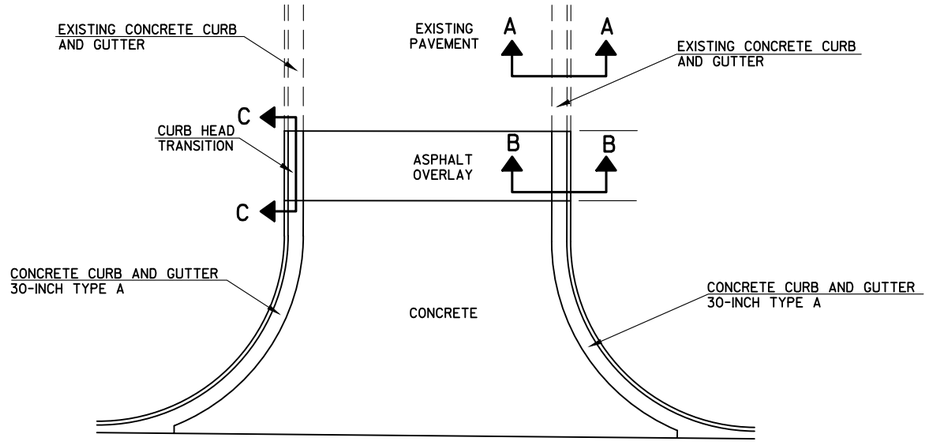
STA 70+00 USH 10 WESTBOUND AND EASTBOUND



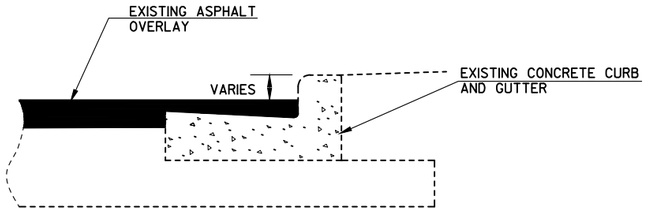
SECTION A-A

DETAIL FOR BUTT JOINT AT SIDEROADS

* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

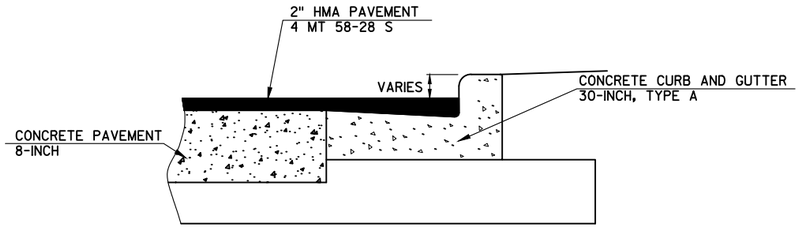


PLAN VIEW

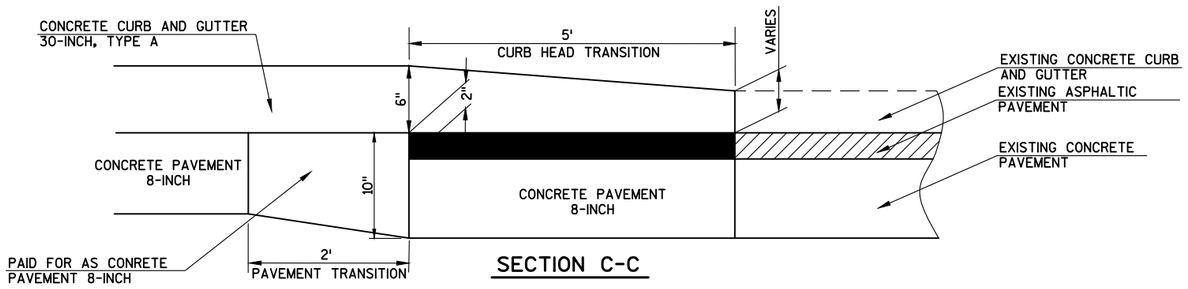


SECTION A-A

EXISTING SIDE STREET SECTION

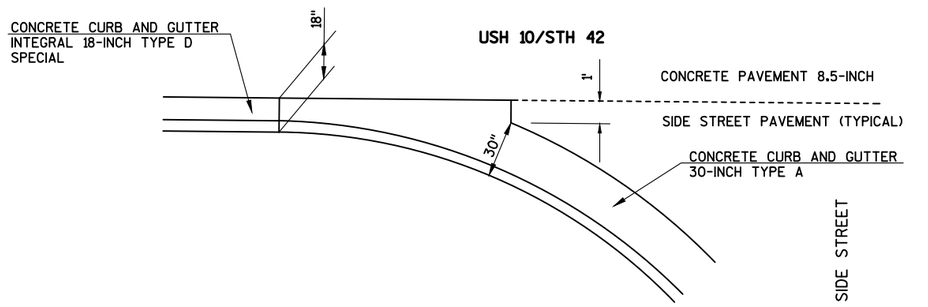


SECTION B-B



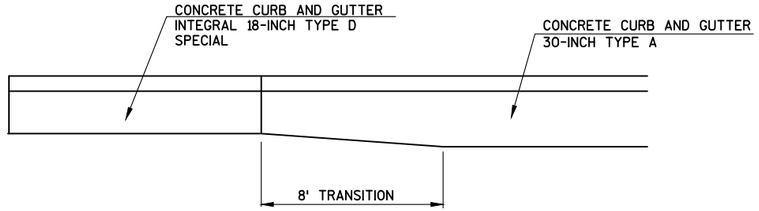
SECTION C-C

CURB HEAD TRANSITION FOR ASPHALT OVERLAID SIDE STREETS



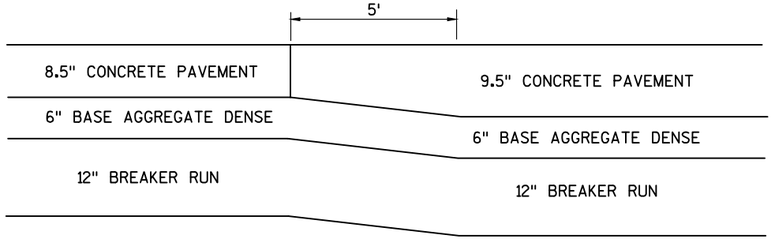
CONCRETE CURB AND GUTTER TRANSITION DETAIL

SEE PLAN DETAIL SHEETS FOR LOCATIONS

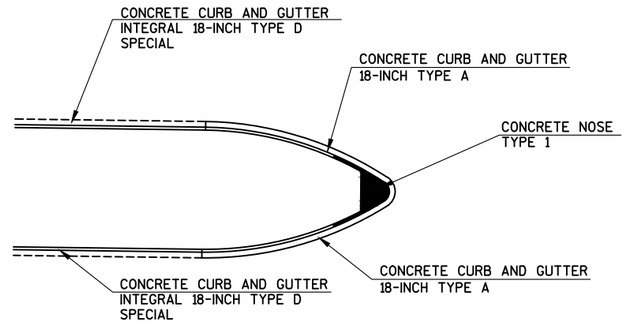


CONCRETE CURB AND GUTTER TRANSITION DETAIL

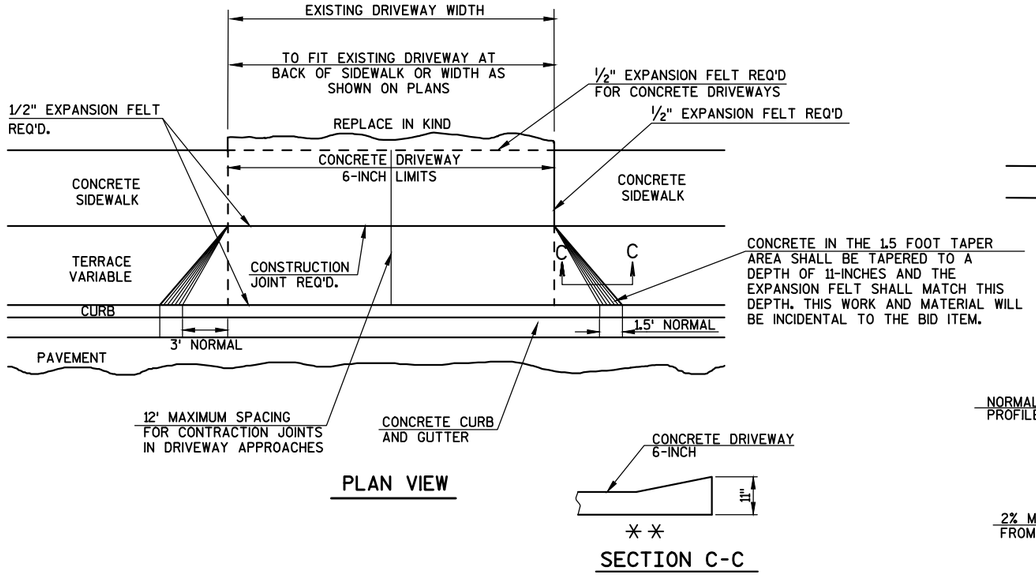
STA. 187+81.01 STH 42 WESTBOUND CONSTRUCTION ℞
STA. 187+82.19 STH 42 EASTBOUND CONSTRUCTION ℞



CONCRETE PAVEMENT TRANSITION AT ROUNDABOUT APPROACHES

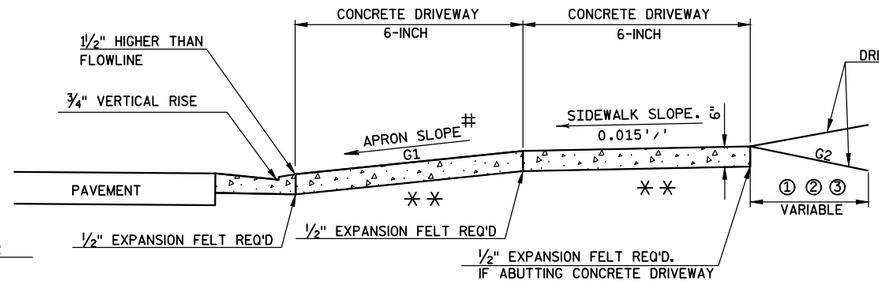


ISLAND NOSE DETAIL



PLAN VIEW

SECTION C-C



TYPICAL SIDEWALK SECTION

① — 6" BASE AGGREGATE DENSE 1 1/4-INCH BASE WITH 2" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

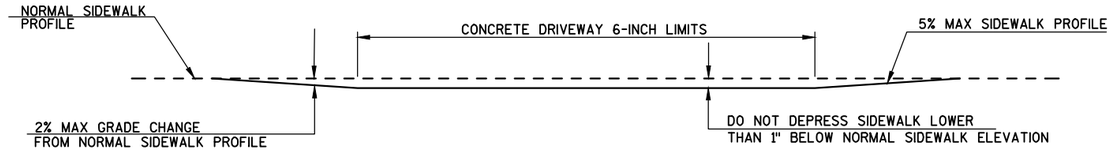
② — CONCRETE DRIVEWAY 6-INCH

③ — 6" BASE AGGREGATE DENSE 1 1/4-INCH

** - 6" BASE AGGREGATE DENSE 1 1/4-INCH REQUIRED UNDER CONCRETE DRIVEWAY

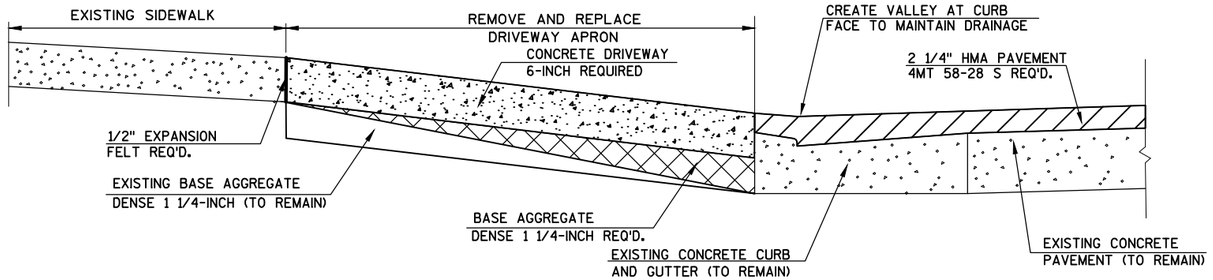
- APRON SLOPE (G)=10.7% FOR 4.33 FOOT TERRACE. SLOPE MAY NOT EXCEED 15%

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%



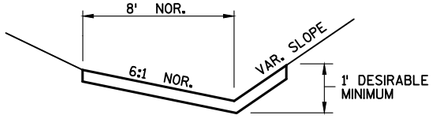
DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB AND GUTTER

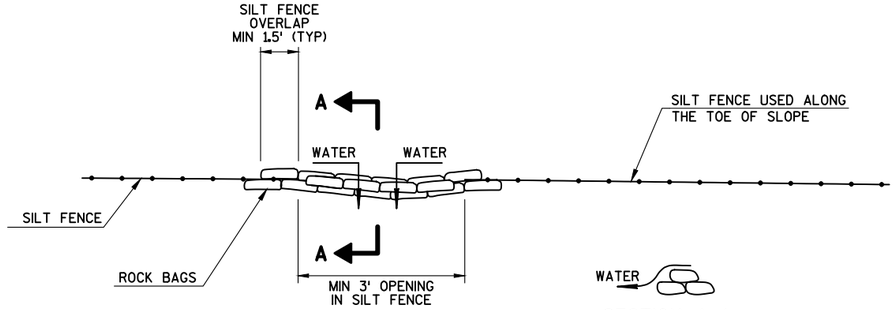


DRIVEWAY APRON REPLACEMENT IN RESURFACING AREAS

(SEE MISCELLANEOUS QUANTITIES AND PLAN FOR LOCATIONS)



EROSION MAT DETAIL FOR DITCHES

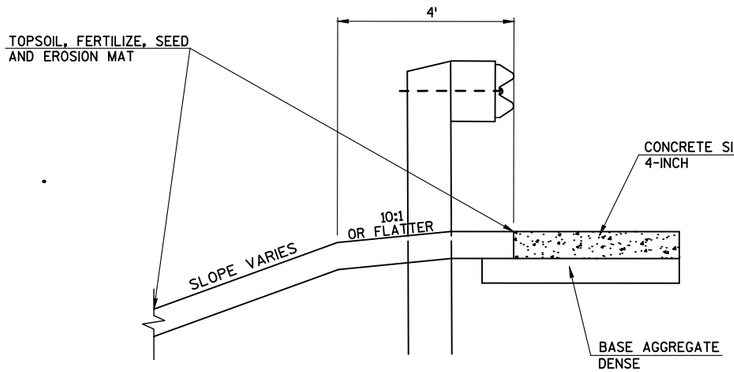


TOP VIEW

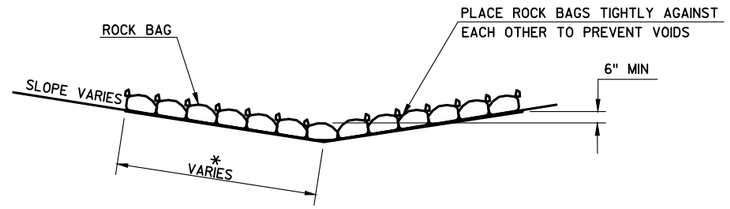
SECTION A-A

ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

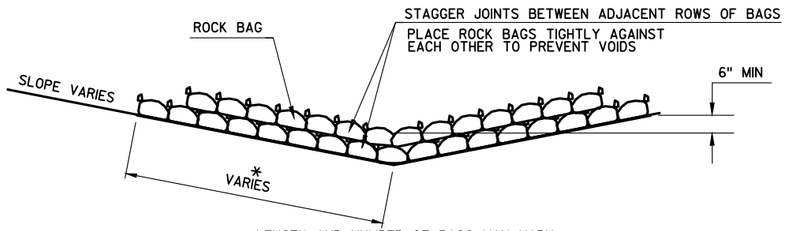
PAID AS ROCK BAGS



TOPSOIL AT GUARD RAIL



SIDE VIEW (SINGLE LAYER)



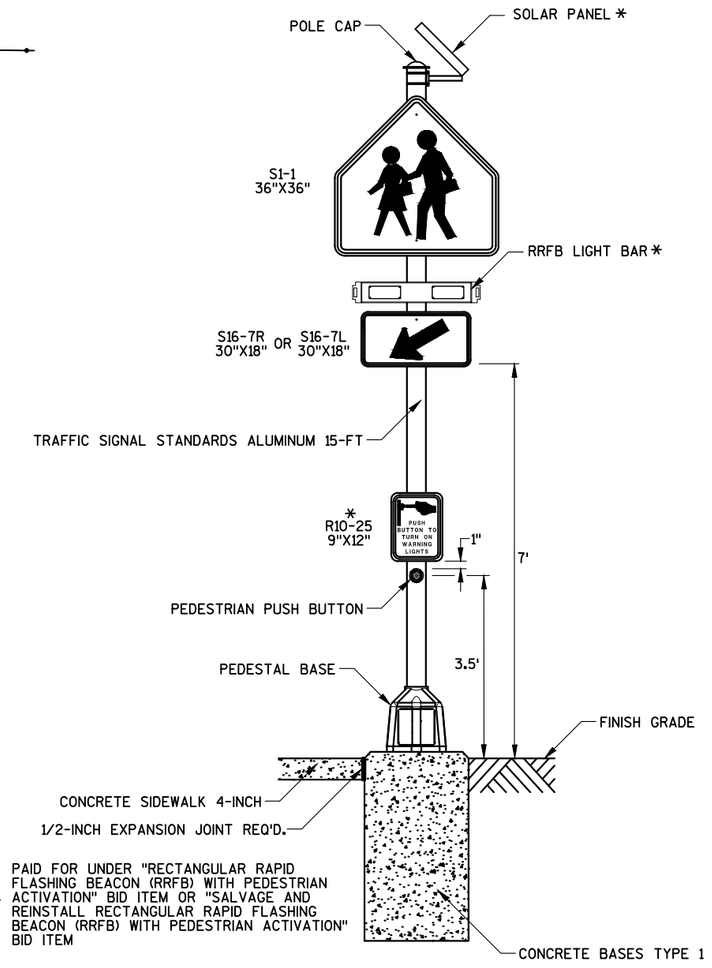
* LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS

(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)



* PAID FOR UNDER "RECTANGULAR RAPID FLASHING BEACON (RRFB) WITH PEDESTRIAN ACTIVATION" BID ITEM OR "SALVAGE AND REINSTALL RECTANGULAR RAPID FLASHING BEACON (RRFB) WITH PEDESTRIAN ACTIVATION" BID ITEM

RECTANGULAR RAPID FLASHING BEACON (RRFB) WITH PEDESTRIAN ACTIVATION ASSEMBLY DETAIL

SCALE: NONE

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

ANCHOR RODS SHALL BE 1.25" X 60".

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF
THE STANDARD SPECIFICATIONS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

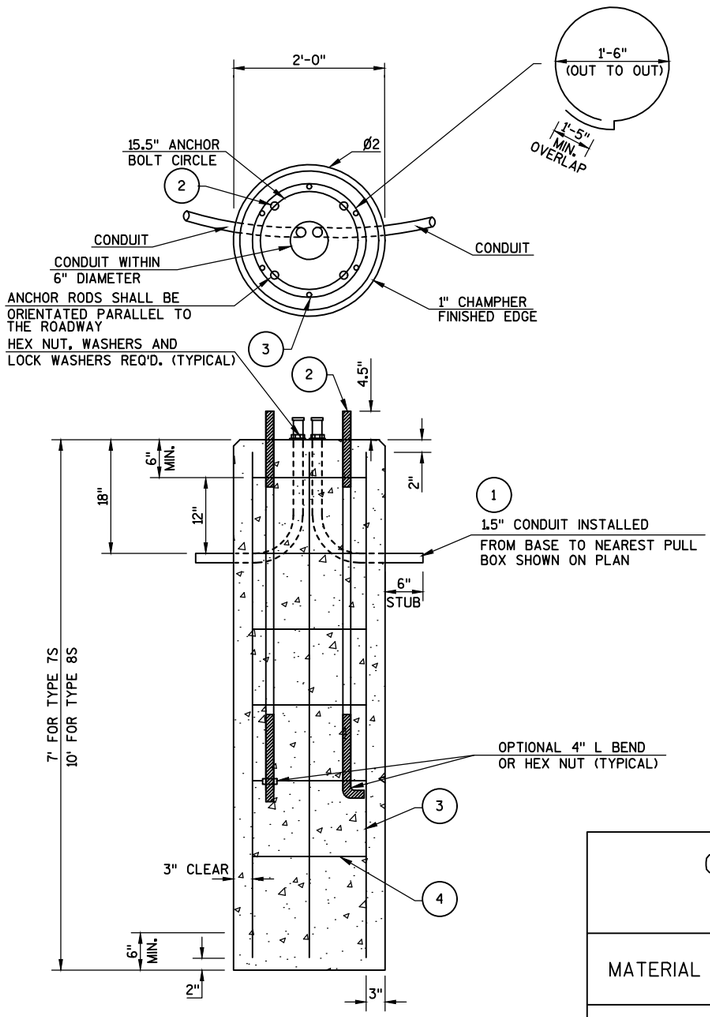
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

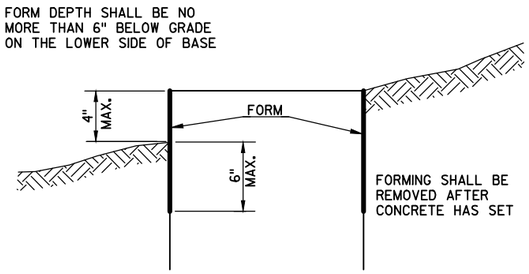
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) 4 - 1.25" DIA. X 5'-0" ANCHOR RODS

(3) 6 - NO. 6 X 6'-8" BAR STEEL REINFORCEMENT FOR TYPE 7S
6 - NO. 6 X 9'-8" BAR STEEL REINFORCEMENT FOR TYPE 8S

(4) 7 - NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C FOR TYPE 7S
10 - NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C FOR TYPE 8S





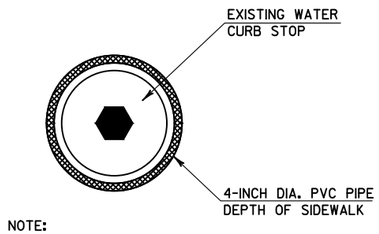
FORM DETAIL

QUANTITY REQUIREMENTS

		7S	8S
MATERIAL	UNIT OF MEASURE	APPROXIMATE AMOUNT	APPROXIMATE AMOUNT
CONCRETE	CUBIC YARDS	.8	1.2
HOOP STEEL REINFORCEMENT	LBS.	29	41
BAR STEEL REINFORCEMENT	LBS.	60	87

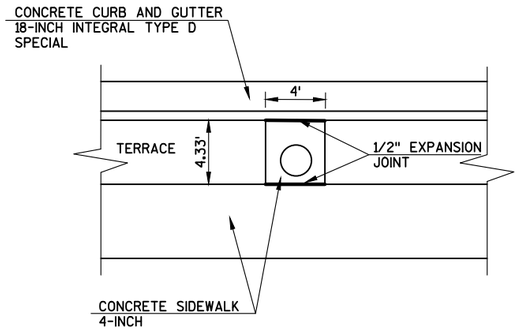
DETAIL FOR CONCRETE BASES TYPE 7 AND 8 SPECIAL

2



NOTE:
COST OF PVC PIPE IS
INCIDENTAL TO ITEMS
OF CONCRETE SIDEWALK

DETAIL FOR WATER CURB STOP IN SIDEWALK



DETAIL FOR LIGHTING BASE IN TERRACE

2

EXISTING R/W

WISCONSIN CENTRAL LTD.

EXISTING R/W

AUTHORIZED VEHICLES ONLY
R5-11
30"X24"

EP: 11+74.59ERC EMERGENCY
RAILROAD CROSSING
Y=307520.829
X=226627.672

CONSTRUCTION LIMITS
STA. 11+45
SAW CUT AND
REMOVE CURB

EXISTING R/W

N

RAILROAD CROSSING
SURFACE (BY OTHERS)

SILT FENCE
REQUIRED

11ERC

15'

SILT FENCE
REQUIRED

FAIRMONT ST.

REMOVE, SALVAGE AND
REPLACE CHAIN LINK
FENCE

CONSTRUCTION LIMITS
STA. 10+37

INLET PROTECTION
TYPE C REQ'D.

N. 24TH ST.

P.L.

P.L.

EXISTING R/W

EXISTING R/W

PLACE GEOTEXTILE FABRIC
TYPE SAS WITHIN 20 FEET
OF CROSSING SURFACE

G.P.

ASPH

CONC

BP: 10+00.00ERC EMERGENCY
RAILROAD CROSSING
Y=307428.235
X=226479.654

AUTHORIZED VEHICLES ONLY
R5-11
30"X24"

EXISTING R/W

FOR INFORMATION ONLY

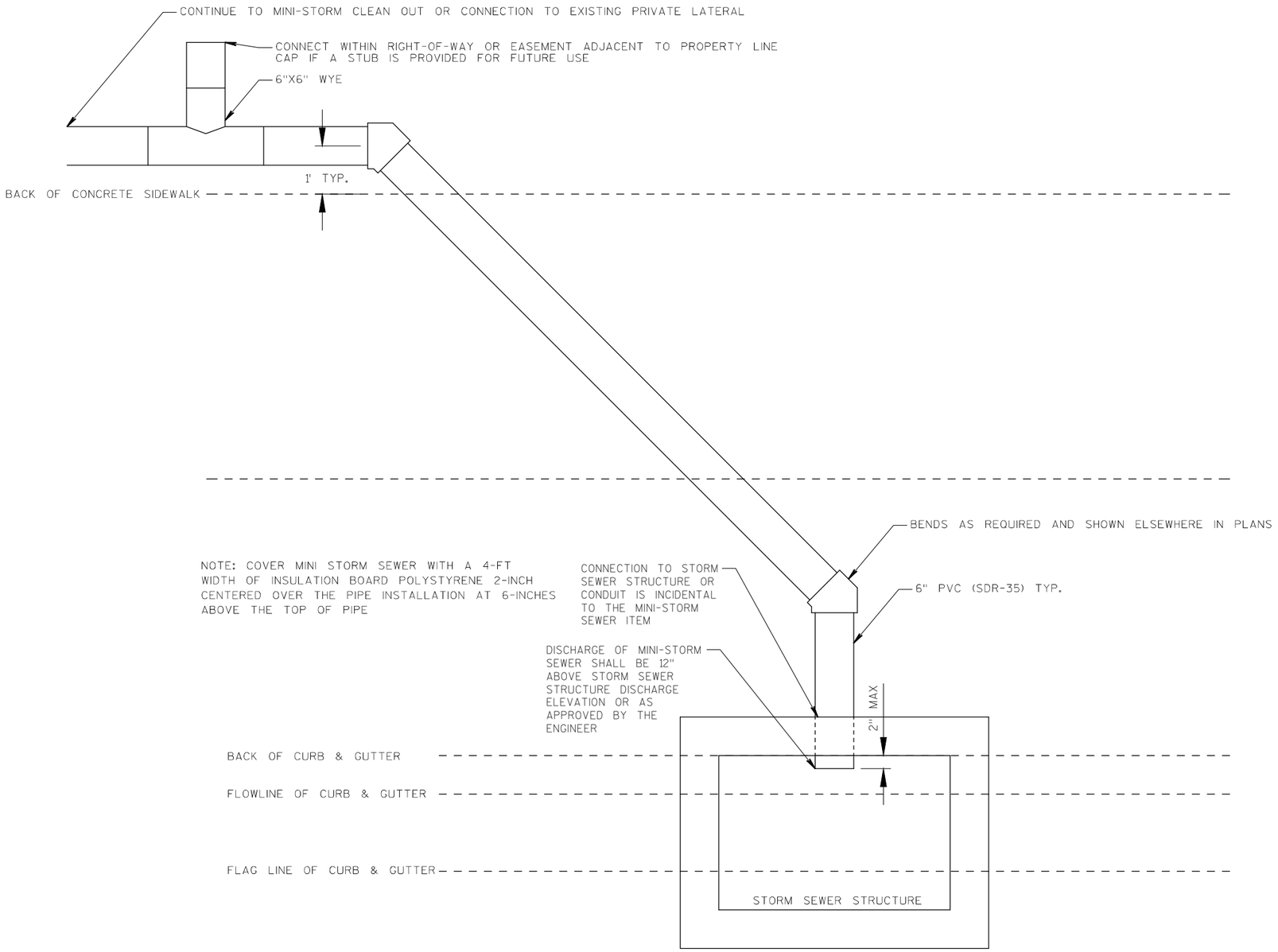
CONSTRUCTED BY PROJECT 1500-37-74
REMOVE AND RESTORE CROSSING AREA
PER SPECIAL PROVISION.



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CONSTRUCTION DETAIL-EMERGENCY VEHICLE RAILROAD CROSSING	SHEET	E

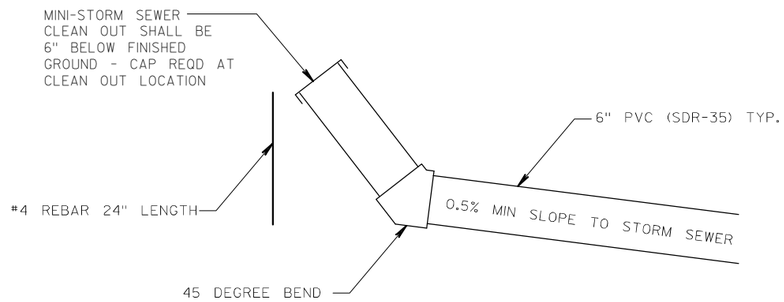
FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021009 CD (2020).DWG PLOT DATE : 7/29/2019 6:13 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

2



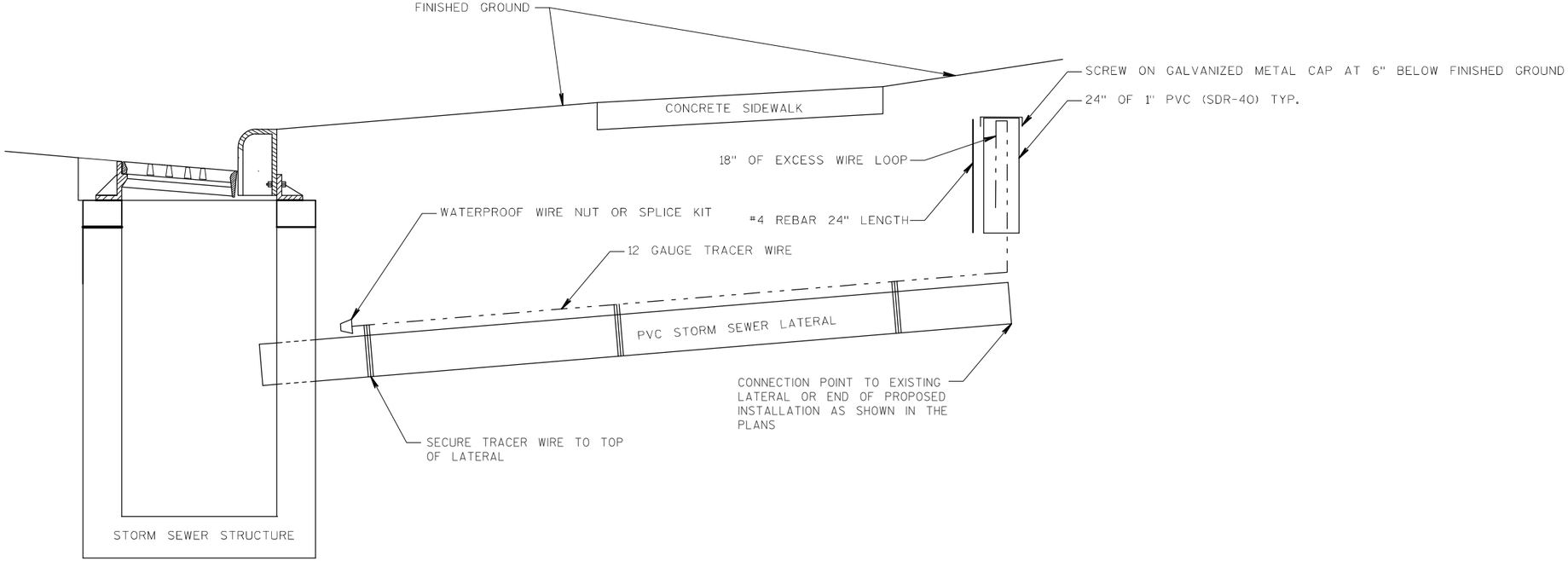
MINI-STORM SEWER AND PRIVATE LATERAL CONNECTION DETAIL

2

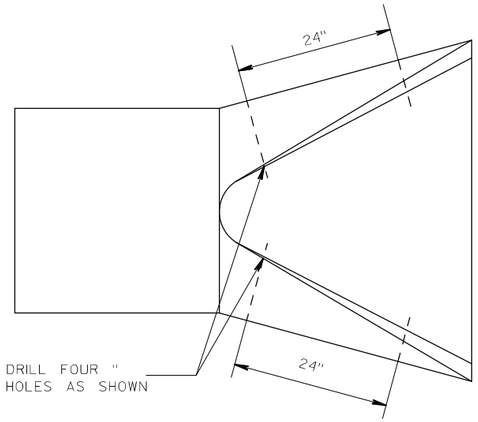


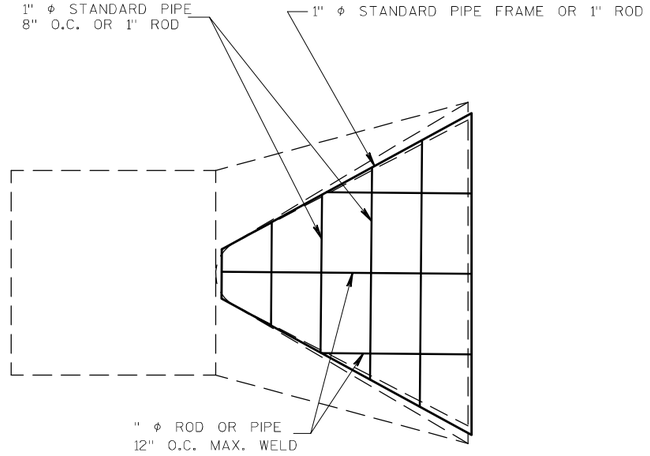
SEE STORM SEWER PLANS FOR CLEAN OUT LOCATIONS DESIGNATED AS - ⊕

MINI-STORM SEWER CLEAN OUT DETAIL

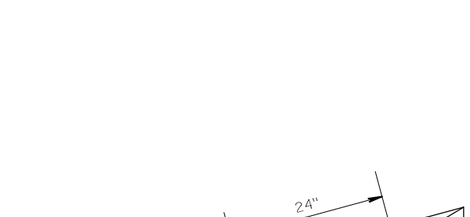


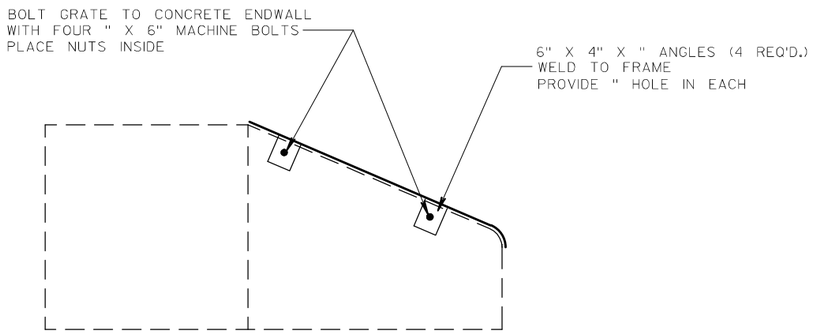
TRACER WIRE FOR STORM SEWER LATERAL DETAIL

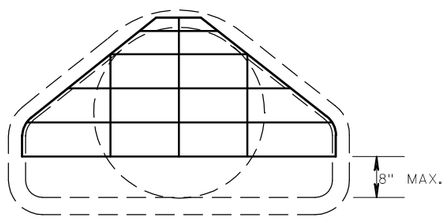




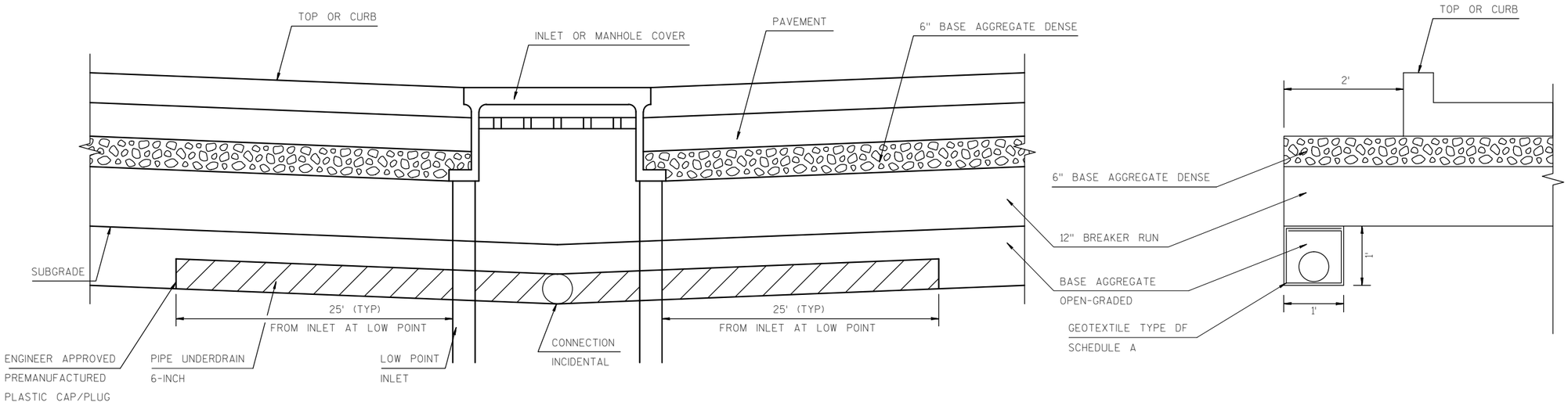
AT EACH PIPE



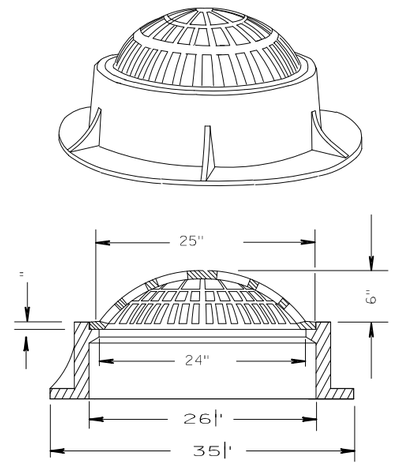




PIPE GRATE DETAIL

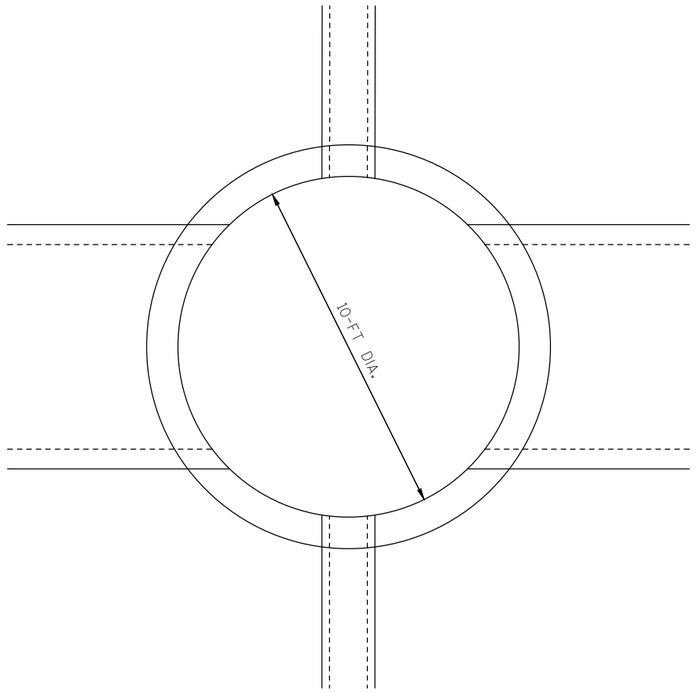


PIPE UNDERDRAIN DETAIL



TYPE 'BH' INLET

WEIGHT = 350 lbs.



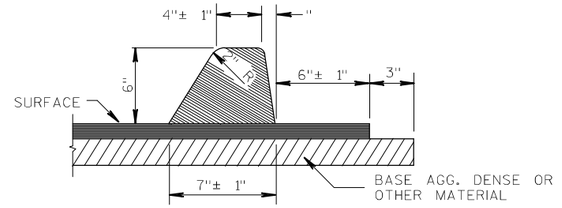
DETAIL FOR MANHOLES 10-FOOT DIAMETER SPECIAL

NOTES:

STRUCTURES AND REINFORCEMENT SHALL BE DESIGNED TO SUPPORT HS-20 LOADINGS

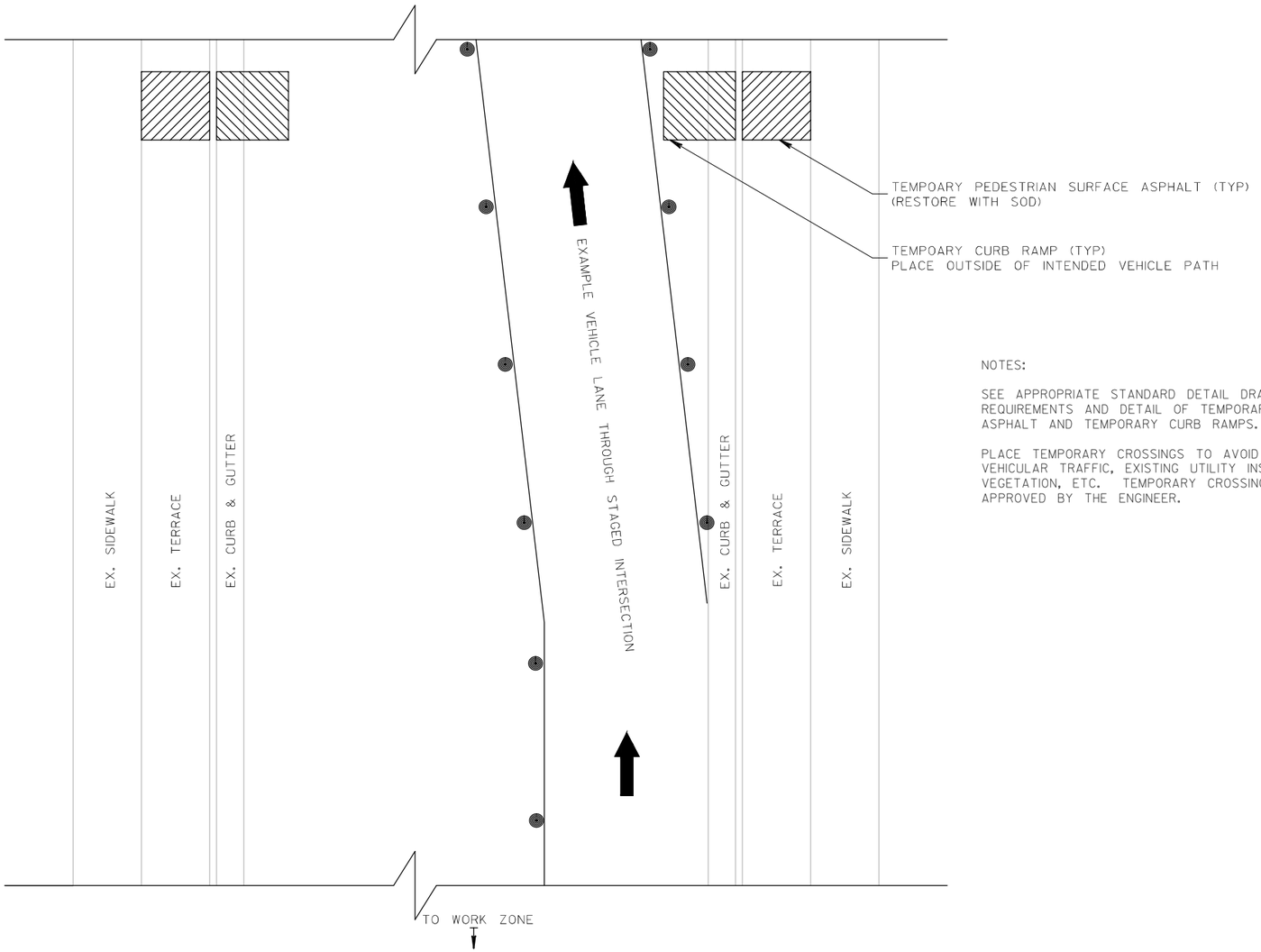
CONTRACTOR TO PROVIDE DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WISCONSIN FOR THE DESIGN OF THE MANHOLES

SEE STORM SEWER DETAILS FOR PIPE CONFIGURATIONS AND ELEVATIONS



ASPHALTIC CURB DETAIL

2

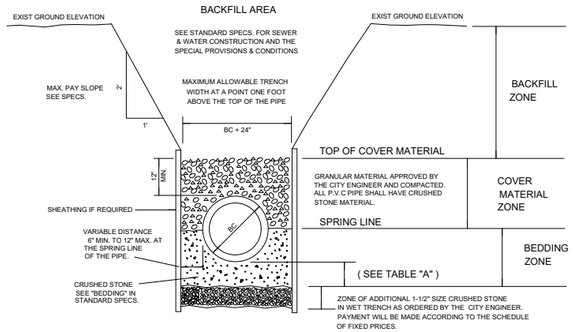


NOTES:

SEE APPROPRIATE STANDARD DETAIL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND DETAIL OF TEMPORARY PEDESTRIAN SURFACE ASPHALT AND TEMPORARY CURB RAMPS.

PLACE TEMPORARY CROSSINGS TO AVOID INTERFERENCE WITH VEHICULAR TRAFFIC, EXISTING UTILITY INSTALLATIONS, EXISTING VEGETATION, ETC. TEMPORARY CROSSING LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

TEMPORARY PEDESTRIAN CROSSING OUTSIDE OF CONSTRUCTION LIMITS AT A STAGED INTERSECTION

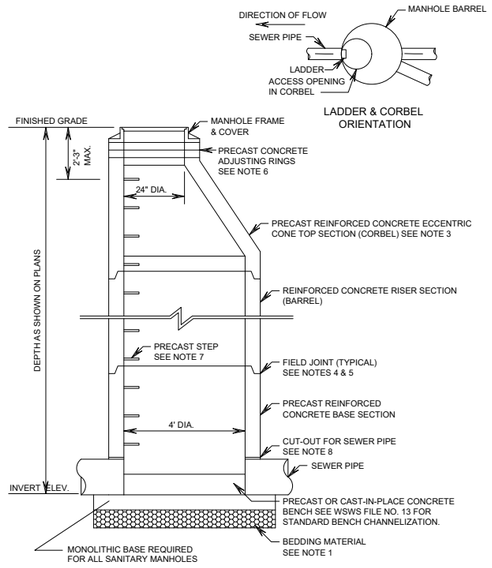


TYPICAL SECTION SHOWING
BEDDING AND BACKFILL REQUIREMENTS
FOR SANITARY AND STORM SEWER

TABLE "A"

PIPE DIAMETER	STONE THICKNESS
24" & OVER	8"
21"	7"
18"	6"
15"	5"
12" & UNDER	4"

1 **TRENCH SECTION**
NOT TO SCALE

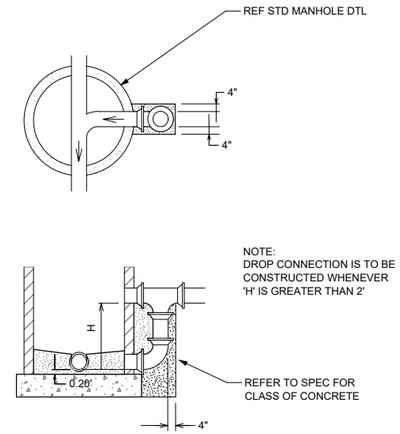


NOTES

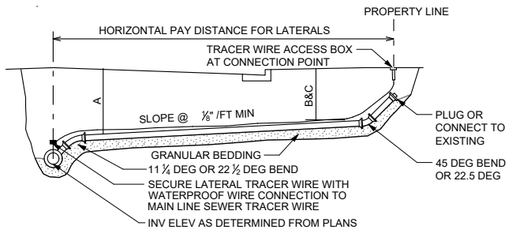
1. MANHOLE BASE SECTIONS SHALL BE PLACED ON AT LEAST 8" OF BEDDING MATERIAL CONFORMING TO WSWS 8.43.2 FOR DRY SUBGRADE AND WSWS 8.43.6 FOR WET SUBGRADE.
2. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM C-478 REQUIREMENTS.
3. PRECAST REINFORCED CONCRETE ECCENTRIC CONE TOPS (OFFSET CORBELS) MUST BE USED FOR MANHOLES OF DEPTHS GREATER THAN FIVE (5) FEET.

   IF THE MANHOLE DEPTH, AS MEASURED FROM THE TOP OF THE CASTING FRAME TO THE TOP OF THE MANHOLE BASE SLAB, IS LESS THAN 5 FEET, A FLAT PRECAST REINFORCED CONCRETE MANHOLE TOP SHALL BE USED INSTEAD OF A CORBEL SECTION. THE FLAT MANHOLE TOP SHALL BE PROVIDED WITH AN ECCENTRIC 24" DIAMETER OPENING FOR THE MANHOLE CASTING.
4. PRECAST REINFORCED CONCRETE RISER SECTIONS (BARRELS) MAY BE PLACED WITH TONGUE OR "D" JOINT ENDS EITHER UP OR DOWN.
5. ALL FIELD JOINTS AT MANHOLE PIECES SHALL BE WATERTIGHT AND SHALL BE MADE IN ACCORDANCE WITH WSWS 3.5.4(i).
6. PRECAST REINFORCED CONCRETE ADJUSTING RINGS SHALL BE USED TO ADJUST THE FRAME TO THE REQUIRED GRADE. A MINIMUM OF 4" AND A MAXIMUM OF 10" OF ADJUSTING RINGS AND MORTAR SHALL BE USED FOR THE ADJUSTMENT. MORTAR OR FLEXIBLE SEAL SHALL BE ..." MINIMUM THICKNESS BETWEEN EACH RING, RING AND STRUCTURE, AND RING AND FRAME. THE THICKNESS OF EACH GRADE RING SHALL RANGE FROM 2" MINIMUM TO 6" MAXIMUM. GRADE RINGS SHALL BE REINFORCED WITH AT LEAST ONE RING OF STEEL REBAR CENTERED WITHIN THE RING.
7. STEPS SHALL BE PRECAST INTO THE MANHOLE SECTIONS BY THE MANUFACTURER. THE STEPS SHALL MEET THE REQUIREMENTS OF WSWS 6.40.0. THE TOP STEP SHALL BE SET NO LESS THAN THREE (3) INCHES AND NO MORE THAN SIX (6) INCHES BELOW THE TOP OF THE CORBEL. THE STEPS SHALL BE EQUALLY SPACED VERTICALLY AT SIXTEEN (16) INCHES ON CENTER.
8. THE ENTIRE SPACE BETWEEN THE PIPE LEADS AND THE PRECAST MANHOLE WALL SHALL BE MORTARED OR CONCRETED IN PLACE BY THE CONTRACTOR. SOLID CONCRETE BRICKS MORTARED IN PLACE MAY BE USED AS A FILLER FOR STORM MANHOLES.
9. FOR DETAILS OF OUTSIDE DROP TYPE CONNECTIONS OF SEWER PIPE TO SANITARY MANHOLES SEE DETAIL WSWS FILE NO.19
10. ALL SANITARY MANHOLES SHALL HAVE A MONOLITHIC BASE.

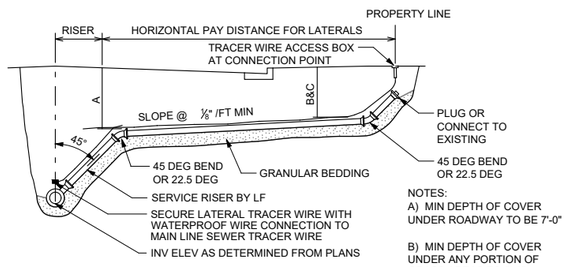
2 **STANDARD SANITARY MANHOLE**
NOT TO SCALE



3 **MANHOLE DROP ENTRANCE**
NOT TO SCALE



STANDARD INSTALLATION W/OUT RISER



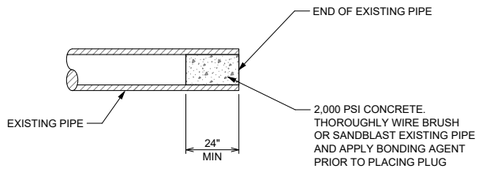
STANDARD INSTALLATION W/ RISER

NOTES:
A) MIN DEPTH OF COVER UNDER ROADWAY TO BE 7'-0"

B) MIN DEPTH OF COVER UNDER ANY PORTION OF GRASS AREAS TO 5'-0"

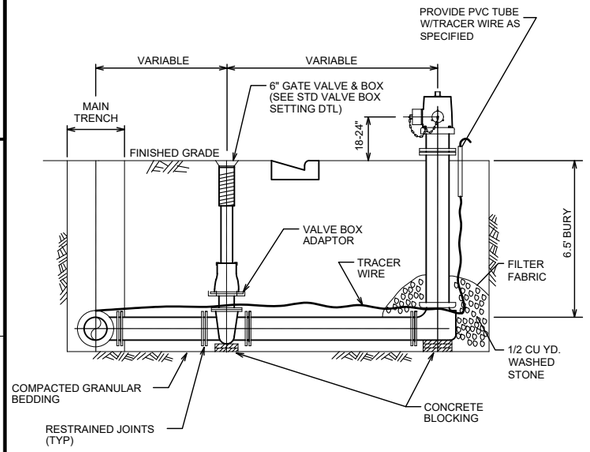
C) MIN DEPTH OF COVER AT PROPERTY LINE TO 9'-0" (12' DESIRABLE) OR AS REQUIRED TO SERVE EXISTING DEVELOPMENT.

4 **SANITARY SEWER LATERAL**
NOT TO SCALE



5 **PIPE PLUG**
NOT TO SCALE

PROJECT NO: 1500-37-77	HWY: USH 10/STH 42	COUNTY: MANITOWOC	CONSTRUCTION DETAILS	SHEET 27	E

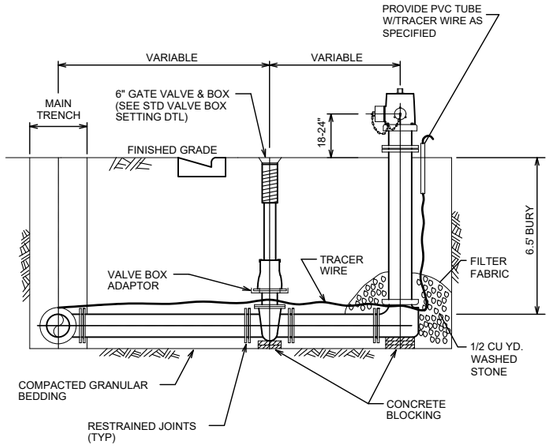


NOTE:

1. ENTIRE HYDRANT LEAD SHALL BE RESTRAINED FROM MAIN TO HYDRANT.
2. DUCTILE IRON FITTINGS, HYDRANT BARREL AND VALVE BOX SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT.

6 STANDARD HYDRANT ASSEMBLY WALDO BLVD

NOT TO SCALE

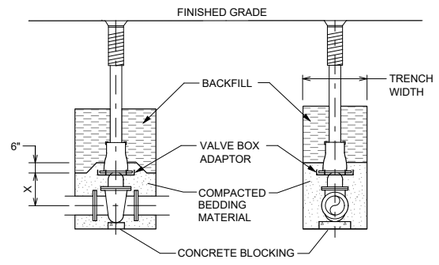


NOTE:

1. ENTIRE HYDRANT LEAD SHALL BE RESTRAINED FROM MAIN TO HYDRANT.
2. DUCTILE IRON FITTINGS, HYDRANT BARREL AND VALVE BOX SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT.

7 STANDARD HYDRANT ASSEMBLY SIDE STREETS

NOT TO SCALE



SIDE VIEW

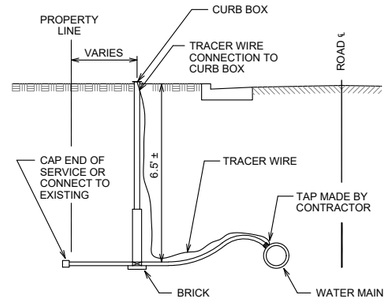
PIPE DIA (INCHES)	X=SETTING (INCHES)
2	6
3	7
4	8
6	12
8	13

FRONT VIEW

PIPE DIA (INCHES)	X=SETTING (INCHES)
10	17
12	21
14	25
16	30

8 STANDARD VALVE BOX SETTING

NOT TO SCALE

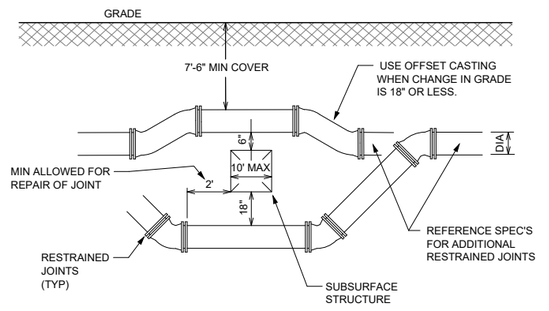


NOTE:

1. TAP WATER MAIN ON 45° WITH PIPE. MINIMUM HORIZONTAL DISTANCE BETWEEN CORP STOPS SHALL BE 3-FEET.
2. WATER SERVICES SHALL BE POLYETHYLENE UNLESS SHOWN OTHERWISE.

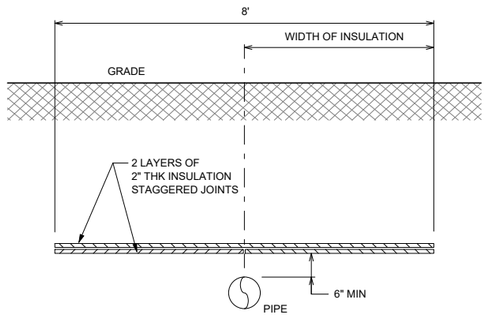
9 WATER SERVICE INSTALLATION

NOT TO SCALE



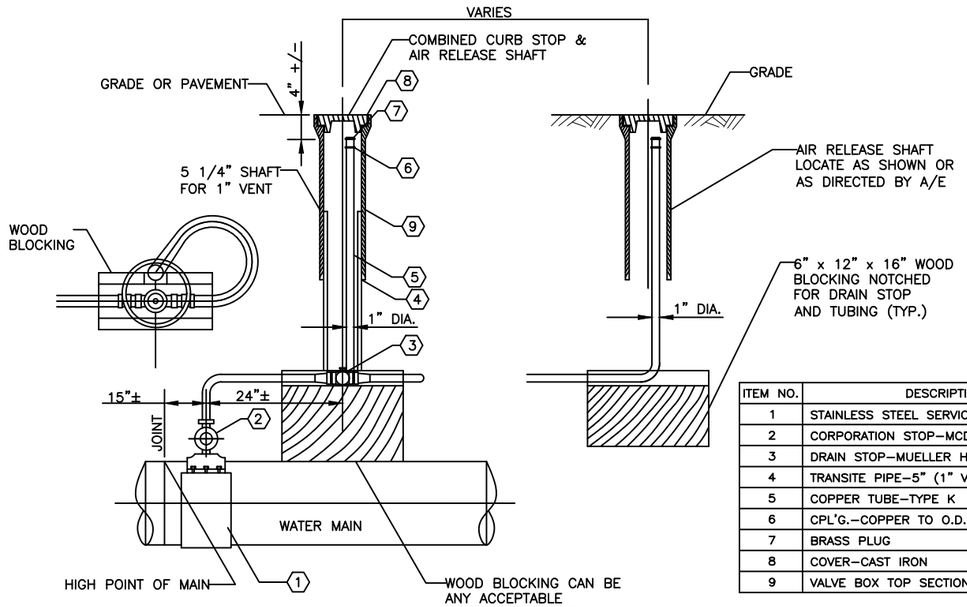
10 OFFSET W/RESTRAINED JOINTS (WATER MAIN AND FORCE MAIN)

NOT TO SCALE



11 TRENCH INSULATION

NOT TO SCALE



ITEM NO.	DESCRIPTION
1	STAINLESS STEEL SERVICE SADDLE (AS SPECIFIED)
2	CORPORATION STOP–MCDONALD
3	DRAIN STOP–MUELLER H–15214
4	TRANSITE PIPE–5" (1" VENT)
5	COPPER TUBE–TYPE K
6	CPL'G.–COPPER TO O.D. IRON
7	BRASS PLUG
8	COVER–CAST IRON
9	VALVE BOX TOP SECTION–CAST IRON

12 1" AIR RELEASE ASSEMBLY

NOT TO SCALE

NOTE: CONCRETE MEDIAN SLOPED
NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

R/W LINE

P.L.

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

CONSTRUCTION LIMITS
STA. 10+75

CONCRETE CURB AND GUTTER
30-INCH TYPE A REQ'D.

FENCE CHAIN LINK
POLYMER COATED 6-FT
REQUIRED

REMOVE FENCE
STA. 70+00-STA. 71+62

EXISTING R/W

CURB RAMP
TYPE 1 REQ'D.

TREE (TO
REMAIN)

CONCRETE SIDEWALK
4-INCH REQ'D.

BURIED TELEPHONE
(APPROXIMATE LOCATION)
AT&T

TREE (TO
REMAIN)

BURIED ELECTRIC
(APPROXIMATE LOCATION)

69WB S88°17'08"E 70WB 71WB 72WB

USH 10/STH 42

69EB 15"SS 70EB 71EB 72EB

S88°17'08"E

70+00.0 EB
4.1' LT.

14' 11' 10' 11' 11' 14'
4.33' 5' 4.33'

EXISTING R/W

FLEETWOOD DR.

1FW

10FW

9FW

CONCRETE CURB AND GUTTER
30-INCH TYPE A REQ'D.

BURIED GAS LINE
(APPROXIMATE LOCATION)
CAUTION

EXISTING R/W

BURIED FIBER OPTIC
(APPROXIMATE LOCATION)

SLOPE
INTERCEPT

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

CURB RAMP
TYPE 1 REQ'D.

PI: 72+85.47WB
Y=306988.995
X=225792.875

CONCRETE SIDEWALK
4-INCH REQ'D.

74+90.4
-30.8 WB

31.3'

24.3'

73WB 74WB S87°25'29"E 75WB

73EB 74EB S89°17'04"E 75EB

VARIES

74+90.1
30.8 EB

CONCRETE SIDEWALK
4-INCH REQ'D.

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

SLOPE
INTERCEPT

PI: 72+85.47EB
Y=306965.002
X=225792.157

CURB RAMP
TYPE 7 REQ'D.

REMOVE AND
REPLACE PAVERS

BRICK PAVERS

BEAM GUARD

WALL

STA. 72+40.94WB USH 10/STH 42=
STA. 10+00.00FW FLEETWOOD DR.
Y=306990.328
X=225748.362

EXISTING R/W

BURIED TELEPHONE
(APPROXIMATE LOCATION)

FENCE CHAIN LINK
POLYMER COATED 6-FT
REQUIRED

P.L.

R/W LINE

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

REMOVE FENCE
STA. 70+00-STA. 71+00

REMOVE
FENCE

STRUCTURE B-36-0232
REQUIRED

BEGIN PROJECT 1500-37-76
STA. 70+00.00
Y=306973.548
X=225506.812

USH 10 EASTBOUND &
ALL POINTS ARE TO FACE OF CURB

POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
4	70+00.00	4.09 LT	---	14	72+05.97	85.33 LT	35'
5	70+82.26	12.00 LT	---	15	71+70.97	85.00 LT	35'
6	71+64.22	12.00 LT	59'	16	72+67.02	99.00 LT	24'
7	71+88.18	18.10 LT	2'	17	72+65.41	89.70 LT	24'
8	71+67.96	23.00 LT	59'	18	72+91.00	90.26 LT	24'
9	72+71.41	10.93 LT	2'	19	72+65.43	88.60 LT	40'
10	73+03.75	22.41 LT	59'	20	73+05.72	49.36 LT	40'
11	73+01.02	1.00 LT	59'	21	72+65.43	88.60 LT	40'
12	72+85.47	26.00 RT	---				
13	71+70.97	50.00 LT	35'				

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021201_PD (2020).DWG PLOT DATE : 8/1/2019 10:31 AM PLOT BY : VERVILLE, PHILLIP PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

2

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

N

BURIED GAS LINE (APPROXIMATE LOCATION) CAUTION

EXISTING R/W

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

BURIED FIBER OPTIC (APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

PI= 79+01.63
Y=306961.311
X=226408.414

75+92.3
-33.54'

MGS TERMINAL TYPE 2 REQ'D.

SLOPE INTERCEPT

79+01.9
-33.50'

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

5' 2' 6' 14' 11'

75WB 76WB 77WB S87°25'29"E 78WB 79WB 80WB S88°16'16"E 81WB

USH 10/STH 42

75EB 76EB 77EB S89°17'04"E 78EB 79EB 80EB S88°16'16"E 81EB

BEGIN CONCRETE SIDEWALK 4-INCH REQ'D. STA. 77+50 EB.

2' 5' 6' 14' 11' 6'

75+37.2
36.27'

75+87.2
33.50'

BURIED ELECTRIC (APPROXIMATE LOCATION)

CONCRETE SIDEWALK 4-INCH REQ'D.

79+01.4
33.50'

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

MGS GUARDRAIL TERMINAL EAT REQ'D.

SLOPE INTERCEPT

PI= 79+01.66
Y=306957.313
X=226408.292

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

EXISTING R/W

P.L.

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET 30	E

2

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

N

BURIED GAS LINE (APPROXIMATE LOCATION) — CAUTION

BURIED ELECTRIC (APPROXIMATE LOCATION)

BURIED FIBER OPTIC (APPROXIMATE LOCATION)

EXISTING R/W

BURIED FIBER OPTIC (APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE APPROACH SLAB REQ'D.

MGS THRIE BEAM TRANSITION REQ'D.

81+89.60 -33.50'

REDECK STRUCTURE B-36-0029 (SEE STRUCTURE PLANS)

TREES

TRANS

MH

SAN MH

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE APPROACH SLAB REQ'D.

MGS THRIE BEAM TRANSITION REQ'D.

SLOPE INTERCEPT

84+76.63 -33.50'

CONCRETE SIDEWALK 4-INCH REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

6'

14'

11'

4'

25'

15'

USH 10/STH 42

81WB 82WB 83WB S88°16'16"E 84WB 85WB 86WB 87WB

81EB 82EB 83EB S88°16'16"E 84EB 85EB 86EB 87EB

MH 12"SS

81+89.75 33.50'

MGS THRIE BEAM TRANSITION REQ'D.

CONCRETE APPROACH SLAB REQ'D.

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

84+77.51 33.50'

MGS THRIE BEAM TRANSITION REQ'D.

CONCRETE APPROACH SLAB REQ'D.

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

SLOPE INTERCEPT

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

PLAYGROUND

EXISTING R/W

P.L.

TREES

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET 31 E

NOTE: CONCRETE MEDIAN SLOPED
NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

EXISTING R/W

BURIED FIBER OPTIC (APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

SLOPE INTERCEPT

CONCRETE SIDEWALK 4-INCH REQ'D.

PI: 89+49.20
Y=306929.708
X=227455.504
89+66.6
-33.5

89+52.0
-33.5

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

MGS GUARDRAIL TERMINAL EAT REQ'D.

90+16.6
-34.5

CONCRETE CURB AND GUTTER 18-INCH TYPE A REQ'D.

BURIED TELEPHONE (APPROXIMATE LOCATION)

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

CONCRETE SIDEWALK 4-INCH REQ'D.

87WB 88WB 89WB 90WB 91WB 92WB 93WB

87EB 88EB 89EB 90EB 91EB 92EB 93EB

S88°16'16"E

S89°41'48"E

S86°43'40"E

USH 10/STH 42

CONCRETE SIDEWALK 4-INCH REQ'D.
CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

89+50.1
33.5

PI: 89+49.22
Y=306925.710
X=227455.376

MGS TERMINAL TYPE 2 REQ'D.

90+37.3
33.5

SLOPE INTERCEPT

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

BURIED ELECTRIC (APPROXIMATE LOCATION)

EXISTING R/W

USH 10 EASTBOUND ℄
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS
5	89+49.2	1.00'LT	---
6	89+49.2	3.00'LT	---
7	90+93.1	1.00' LT	---
8	91+81.1	12.00' LT	---
9	92+91.5	20.75' LT	59'
10	92+85.5	12.00' LT	59'
11	93+05.7	17.71' LT	2'

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET 32	E

2

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

NOTE: CONCRETE MEDIAN SLOPED NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

PI STA. 93+35.21WB USH 10/STH 42
Y=306927.664
X=227841.503

STA. 93+49.93WB USH 10/STH 42=
STA. 10+24.10NTR N. 23RD ST.
Y=306927.224
X=227856.218

CONSTRUCTION LIMITS
STA. 10+95NTR

CURB RAMP
TYPE 1 REQ'D.

CURB RAMP
TYPE 1 REQ'D.

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

BURIED TELEPHONE
(APPROXIMATE LOCATION)

CONCRETE SIDEWALK
4-INCH REQ'D.

SLOPE
INTERCEPT

CAUTION — BURIED GAS LINE
(APPROXIMATE LOCATION)

EXISTING R/W

N. 23RD ST.

N00°13'16"W

93WB S89°41'48"E

94WB

95WB

96WB S88°17'07"E

97WB

98WB

99WB

93EB S86°43'40"E

94EB

95EB

96EB

97EB

98EB

99EB

S88°17'07"E

USH 10/STH 42

TLE LINE

16.2'

26'

16.6'

5'

14'

11'

10'

21'

4.33'

CONSTRUCTION LIMITS
STA. 9+40NTR

CURB RAMP
TYPE 1 REQ'D.

CURB RAMP
TYPE 1 REQ'D.

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK
4-INCH REQ'D.

SLOPE
INTERCEPT

CURB RAMP
TYPE 4B1 REQ'D.
WITH RADIAL
DETECTABLE WARNING
FIELD

N00°22'54"W

9NTR N. 23RD ST.

STA. 93+52.12EB USH 10/STH 42=
STA. 10+00.00NTR N. 23RD ST.
Y=306903.169
X=227857.692

PI STA. 93+35.25EB USH 10/STH 42=
Y=306903.675
X=227840.785

8+26.17

MENCHL DR.

8MC

9MC

USH 10 EASTBOUND
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
1	92+88.5	47.6' LT	30'	14	92+85.5	12.0' LT	59'
2	93+16.8	79.9' LT	30'	15	93+05.7	17.7' LT	2'
3	92+86.9	77.6' LT	30'	16	93+91.6	5.5' LT	2'
4	93+65.4	78.5' LT	30'	17	94+13.9	12.0' LT	59'
5	93+95.3	80.0' LT	30'	18	94+08.2	1.0' LT	59'
6	93+95.3	50.0' LT	30'	19	94+70.1	12.0' LT	---
7	93+97.6	26.0' RT	25'	20	95+58.1	23.0' LT	---
8	93+97.6	51.0' RT	25'	21	98+66.5	23.0' LT	59'
9	93+72.6	51.6' RT	25'	22	99+03.8	7.1' LT	2'
10	93+35.3	49.0' RT	25'	23	98+82.7	1.0' LT	59'
11	93+11.7	51.0' RT	25'	24	98+81.5	26.0' RT	25'
12	93+11.7	26.0' RT	25'	25	99+03.6	62.7' RT	25'
13	92+91.4	20.8' LT	59'	26	98+81.5	51.0' RT	25'

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021205_PD (2020).DWG PLOT DATE : 8/1/2019 10:58 AM PLOT BY : VERVILLE, PHILLIP PLOT NAME : PLOT SCALE : 1:40_XREF

NOTE: CONCRETE MEDIAN SLOPED NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

STA. 99+44.55EB USH 10/STH 42=
STA. 10+00.00MC MENCHL DR.
Y=306885.444
X=228449.804

STA. 102+99.01WB USH 10/STH 42=
STA. 10+24.00TF N. 21ST ST.
Y=306898.826
X=228804.879

STA. 102+99.54EB USH 10/STH 42=
STA. 10+00.00TF N. 21ST ST.
Y=306874.823
X=228804.635

CONSTRUCTION LIMITS
STA. 11+00TF

CONSTRUCTION LIMITS
STA. 9+10 MC

CONSTRUCTION LIMITS
STA. 9+35TF

WISCONSIN CENTRAL LTD.

EXISTING R/W

N. 21ST ST.

MENCHL DR.

N00°34'49"E

N00°32'50"E

CAUTION — BURIED GAS LINE (APPROXIMATE LOCATION)

BURIED TELEPHONE CABLE (APPROXIMATE LOCATION)

BURIED ELECTRIC (APPROXIMATE LOCATION)

SLOPE INTERCEPT

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

CURB RAMP TYPE 1 REQ'D.

CURB RAMP TYPE 4B1 REQ'D. WITH RADIAL DETECTABLE WARNING FIELD

TLE LINE

REMOVE CONC. BASE

REMOVE RAILROAD TRACKS

99WB 100WB 101WB 102WB 103WB 104WB 105WB

99EB 100EB 101EB 102EB 103EB 104EB 105EB

S88°17'07"E

USH 10/STH 42

PT: 9+87.52

PC: 9+42.95

10MC

9MC

9TF

USH 10 EASTBOUND
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
1	99+03.8	62.7' RT	25'	12	102+40.3	23.0' LT	59'
2	99+70.0	51.0' RT	25'	13	102+58.8	17.9' LT	2'
3	99+46.9	41.5' RT	25'	14	102+55.2	50.0' LT	25'
4	99+70.0	26.0' RT	25'	15	102+80.2	75.5' LT	25'
5	99+03.8	7.1' LT	2'	16	102+55.2	75.0' LT	25'
6	99+70.3	14.4' LT	2'	19	103+16.2	74.4' LT	25'
7	99+96.9	23.0' LT	59'	20	103+41.2	50.0' LT	25'
8	100+04.5	1.0' LT	59'	21	102+57.6	26.0' RT	25'
9	101+02.0	1.0' LT	---	22	102+82.6	50.4' RT	25'
10	101+90.0	12.0' LT	---	23	102+57.6	51.0' RT	25'
11	102+38.1	12.0' LT	59'	24	103+18.3	51.5' RT	25'

USH 10 EASTBOUND
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS
25	103+43.3	26.0' RT	25'
26	103+43.3	51.0' RT	25'
29	103+39.8	6.1' LT	22'
30	103+60.5	12.0' LT	59'
31	103+58.1	1.0' LT	59'
32	104+09.2	12.0' LT	---
33	104+97.2	23.0' LT	---
35	103+41.2	75.0' LT	25'

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021206_PD (2020).DWG PLOT DATE : 8/1/2019 11:05 AM PLOT BY : VERVILLE, PHILLIP PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

NOTE: CONCRETE MEDIAN SLOPED
NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

STA. 106+52.40WB USH 10/STH 42=
STA. 10+24.33SPR PARK ROW BLVD.
Y=306888.253
X=229158.109

BURIED TELEPHONE (APPROXIMATE LOCATION)

CURB RAMP TYPE 1 REQ'D.

TLE LINE

EXISTING R/W

11SPR N00°44'33"E 396.33' PARK ROW BLVD.

CONSTRUCTION LIMITS
STA. 10+85SPR

CURB RAMP TYPE 4B1 REQ'D.

CURB RAMP TYPE 4B1 REQ'D.

11NPR N1°30'14"E 380.00' PARK ROW BLVD.

CONSTRUCTION LIMITS
STA. 10+60NPR

STA. 107+56.10WB USH 10/STH 42=
STA. 10+00.00NPR PARK ROW BLVD.
Y=306885.150
X=229261.765

CURB RAMP TYPE 1 REQ'D.

SLOPE INTERCEPT

P.L.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

CURB RAMP TYPE 1 REQ'D.

11ELM N00°37'06"E 390.37' ELM ST.

CONSTRUCTION LIMITS
STA. 10+65ELM

STA. 109+97.37WB USH 10/STH 42=
STA. 10+00.00ELM ELM ST.
Y=306877.931
X=229502.921

CURB RAMP TYPE 1 REQ'D.

105WB S88°17'07"E 106WB 107WB 108WB 109WB 110WB 111WB

USH 10/STH 42

105EB S88°17'07"E 106EB 107EB 108EB 109EB 110EB 111EB

BURIED ELECTRIC (APPROXIMATE LOCATION)

14' 4.33' 11' 2' 11' 5'

12' 12' 12' 12' 12.9' 12.9' 5'

15.8' 15.8'

CURB RAMP TYPE 1 REQ'D.

CURB RAMP TYPE 1 REQ'D.

STA. 106+56.43EB USH 10/STH 42=
STA. 10+00.00SPR N. 20TH ST.
Y=306864.144
X=229161.366

9SPR N00°19'44"E N. 20TH ST.

CONSTRUCTION LIMITS
STA. 10+40SPR

SLOPE INTERCEPT

CONCRETE SIDEWALK 4-INCH REQ'D.

CURB RAMP TYPE 7B REQ'D.

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

USH 10 EASTBOUND & ALL POINTS ARE TO FACE OF CURB
CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

STATION & OFFSET TABLE				STATION & OFFSET TABLE				STATION & OFFSET TABLE				STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
1	105+90.8	1.0' LT	59'	12	106+75.5	51.6' RT	25'	23	106+82.8	11.9' LT	2'&59'	34	107+93.9	50.0' LT	25'	46	110+33.0	76.2' LT	21.7'
2	105+96.3	23.0' LT	59'	13	106+39.8	50.4' RT	25'	24	107+36.5	17.8' LT	2'&59'	35	107+85.8	11.2' LT	2'	47	110+11.3	75.9' LT	21.7'
3	106+24.1	13.7' LT	2'	14	106+14.8	51.0' RT	25'	25	107+34.4	20.0' LT	2'	36	108+15.2	1.0' LT	59'	48	110+11.3	74.4' LT	25'
4	106+12.6	50.0' LT	25'	15	106+14.8	26.0' RT	25'	26	107+34.4	23.0' LT	2'&59'	37	108+17.7	23.0' LT	59'	49	110+36.3	75.0' LT	25'
5	106+12.6	75.0' LT	25'	16	106+84.0	10.3' LT	2'	27	106+95.2	60.0' LT	59'	39	109+35.1	1.0' LT	59'	50	110+36.3	50.0' LT	25'
6	106+37.6	75.4' LT	25'	17	107+02.0	1.8' LT	9'&59'	28	107+11.8	60.0' LT	59'	40	109+37.0	23.0' LT	59'	51	110+26.9	11.4' LT	2'
7	106+65.9	54.9' LT	5'	18	107+05.0	1.8' LT	9'&59'	29	107+36.1	50.0' LT	5'	41	109+66.8	12.6' LT	2'	52	110+56.7	1.0' LT	59'
8	106+70.9	55.0' LT	5'	19	107+03.5	10.7' LT	9'	30	107+36.1	55.0' LT	5'	42	109+56.6	50.0' LT	25'	53	110+58.6	23.0' LT	59'
9	106+70.9	50.0' LT	5'	20	107+17.3	23.0' LT	59'	31	107+41.1	55.1' LT	5'	43	109+56.6	75.0' LT	25'				
10	107+00.5	26.0' RT	25'	21	107+17.3	36.0' RT	59'	32	107+68.9	74.2' LT	25'	44	109+81.6	75.4' LT	25'				
11	107+00.5	51.0' RT	25'	22	106+83.0	8.5' LT	2'&59'	33	107+93.9	75.0' LT	25'	45	110+14.9	88.2' LT	21.7'				

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021207_PD (2020).DWG PLOT DATE : 8/1/2019 11:12 AM PLOT BY : VERVILLE, PHILLIP PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

NOTE: CONCRETE MEDIAN SLOPED
NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB
AND GUTTER LOCATIONS

EXISTING R/W

CLERMONT ST.

CAUTION — BURIED GAS LINE (APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

BURIED TELEPHONE
(APPROXIMATE LOCATION)

CONCRETE SIDEWALK
4-INCH REQ'D.

SLOPE
INTERCEPT

111WB 112WB 113WB 114WB 115WB 116WB 117WB

USH 10/STH 42

S88°17'07"E

111EB 112EB 113EB 114EB 115EB 116EB 117EB

BURIED ELECTRIC
(APPROXIMATE LOCATION)

4.33' 14' 11' 21' 5' 16'

TLE LINE

CONCRETE SIDEWALK
4-INCH REQ'D.

SLOPE
INTERCEPT

CAUTION — BURIED GAS LINE
(APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

USH 10 EASTBOUND ℄
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS
1	113+86.4	1.0' LT	---
2	115+14.4	17.0' LT	---

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET 36	E

NOTE: CONCRETE MEDIAN SLOPED NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

EXISTING R/W

N. 18TH ST. N00°40'44"E

CONSTRUCTION LIMITS STA. 11+15ET

CURB RAMP TYPE 1 REQ'D.

STA. 118+23.72WB USH 10/STH 42=
STA. 10+24.14ET N. 18TH ST.
Y=306853.704
X=230328.918

CURB RAMP TYPE 1 REQ'D.
CONCRETE CURB 6-INCH REQ'D.

PI=117+93.98WB USH 10/STH 42=
Y=306854.096
X=230299.177

CONCRETE SIDEWALK 4-INCH REQ'D.

SLOPE INTERCEPT

TLE LINE

STA. 122+07.11WB USH 10/STH 42=
STA. 10+00.00SV N. 17TH ST.
Y=306848.656
X=230712.268

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

BURIED TELEPHONE CABLE (APPROXIMATE LOCATION)

CURB RAMP TYPE 1 REQ'D.

N. 17TH ST. N00°40'07"E

CONSTRUCTION LIMITS STA. 10+98SV

CURB RAMP TYPE 1 REQ'D.

117WB S88°17'07"E 118WB 119WB S89°14'44"E 120WB 121WB 122WB 123WB

USH 10/STH 42

117EB S88°17'07"E 118EB 119EB S89°14'44"E 120EB 121EB 122EB 123EB

CONCRETE SIDEWALK 4-INCH REQ'D.

CONCRETE SIDEWALK 4-INCH (PAVE TO RETAINING WALL-DO NOT DISTURB WALL)

CURB RAMP TYPE 1 REQ'D.

PI=117+94.23EB USH 10/STH 42=
Y=306830.100
X=230298.659

STA. 118+21.54EB USH 10/STH 42=
STA. 10+00.00ET N. 18TH ST.
Y=306829.741
X=230325.962

CAUTION BURIED GAS LINE (APPROXIMATE LOCATION)

CONSTRUCTION LIMITS STA. 9+00ET

N. 18TH ST. N00°35'10"E

CONCRETE SIDEWALK 4-INCH REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D. USH 10 EASTBOUND & ALL POINTS ARE TO FACE OF CURB

STA. 122+07.57EB USH 10/STH 42=
STA. 10+00.00SV N. 17TH ST.
Y=306824.658
X=230711.960

CONSTRUCTION LIMITS STA. 9+25SV

N. 17TH ST. N00°32'59"E

STATION & OFFSET TABLE				STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
3	117+76.8	50.0' LT	25'	15	121+68.3	50.0' LT	25'	28	117+64.4	19.0' LT	2'
4	117+76.8	75.0' LT	25'	16	121+68.3	75.0' LT	25'	29	117+64.4	17.0' LT	2'
5	118+03.1	75.3' LT	25'	17	121+93.3	75.0' LT	25'	30	117+47.5	23.0' LT	59'
6	118+45.1	75.0' LT	25'	18	122+21.7	75.0' LT	25'	31	118+82.3	7.0' LT	2'
7	118+70.1	75.0' LT	25'	19	122+46.7	75.0' LT	25'	32	118+82.3	5.0' LT	2'
8	118+70.1	50.0' LT	25'	20	122+46.7	50.0' LT	25'	35	118+99.1	1.0' LT	59'
9	117+48.0	26.0' RT	45'	21	121+68.2	26.0' RT	25'	36	121+66.3	4.0' LT	3'
10	117+48.0	71.0' RT	45'	22	121+68.2	51.0' RT	25'	37	121+66.3	7.0' LT	3'
11	117+92.8	67.4' RT	45'	23	121+93.2	50.9' RT	25'	38	121+66.3	1.0' LT	3'
12	118+52.5	71.1' RT	45'	24	122+22.2	51.1' RT	25'	39	122+36.9	12.0' LT	3'
13	118+97.5	71.0' RT	45'	25	122+47.2	51.0' RT	25'	40	122+67.7	23.0' LT	59'
14	118+97.5	26.0' RT	45'	26	122+47.2	26.0' RT	25'	41	122+67.6	1.0' LT	59'

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET 37	E

NOTE: CONCRETE MEDIAN SLOPED NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

STA. 125+51.05WB USH 10/STH 42=
STA. 10+24.00ST N. 16TH ST.
Y=306844.127
X=231056.187

SLOPE INTERCEPT

BURIED TELEPHONE CABLE (APPROXIMATE LOCATION)

CURB RAMP TYPE 1 REQ'D.

CONSTRUCTION LIMITS STA. 10+85ST

CURB RAMP TYPE 1 REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

STA. 128+14.41WB USH 10/STH 42=
STA. 10+24.00FT N. 15TH ST.

CURB RAMP TYPE 1 REQ'D.

CONSTRUCTION LIMITS STA. 11+00FT

CURB RAMP TYPE 1 REQ'D.

BURIED ELECTRIC (APPROXIMATE LOCATION)

BURIED GAS LINE (APPROXIMATE LOCATION)

CAUTION

CURB RAMP TYPE 1 REQ'D.

CONSTRUCTION LIMITS STA. 9+35FT

CURB RAMP TYPE 1 REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

CONCRETE CURB AND GUTTER 18-INCH INTEGRAL REQ'D.

CURB RAMP TYPE 1 REQ'D.

STA. 125+51.51EB USH 10/STH 42=
STA. 10+00.00ST N. 16TH ST.
Y=306820.129
X=231055.878

CURB RAMP TYPE 1 REQ'D.

CONSTRUCTION LIMITS STA. 9+23ST

STA. 128+14.89EB USH 10/STH 42=
STA. 10+00.00FT N. 15TH ST.
Y=306816.660
X=231319.230

BP: 8+29.80

BP: 8+21.72

USH 10 EASTBOUND & ALL POINTS ARE TO FACE OF CURB

USH 10 EASTBOUND & ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
1	125+11.9	50.0' LT	25'	13	127+75.5	50.0' LT	25'
2	125+11.9	75.0' LT	25'	14	127+75.5	75.0' LT	25'
3	125+36.9	74.9' LT	25'	15	128+00.5	75.0' LT	25'
4	125+66.2	74.9' LT	25'	16	128+29.1	75.0' LT	25'
5	125+91.2	75.0' LT	25'	17	128+54.1	75.0' LT	25'
6	125+91.2	50.0' LT	25'	18	128+54.1	50.0' LT	25'
7	125+91.1	26.0' RT	25'	19	128+54.3	26.0' RT	25'
8	125+91.1	51.0' RT	25'	20	128+54.3	51.0' RT	25'
9	125+66.1	51.1' RT	25'	21	128+29.3	51.1' RT	25'
10	125+37.5	50.9' RT	25'	22	128+00.7	50.9' RT	25'
11	125+12.5	51.0' RT	25'	23	127+75.7	51.0' RT	25'
12	125+12.5	26.0' RT	25'	24	127+75.7	26.0' RT	25'

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS
25	124+91.7	23.0' LT	59'
26	125+22.3	12.1' LT	3'
27	124+91.5	1.0' LT	59'
28	126+11.7	23.0' LT	59'
29	125+80.9	11.9' LT	3'
30	126+11.5	1.0' LT	59'
31	127+53.0	23.0' LT	59'
32	127+82.0	12.1' LT	3'
33	127+52.8	1.0' LT	59'
34	128+76.3	23.0' LT	59'
35	128+47.1	11.9' LT	3'
36	128+76.2	1.0' LT	59'

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021210_PD (2020).DWG PLOT DATE : 8/1/2019 11:31 AM PLOT BY : VERVILLE, PHILLIP PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

USH 10 EASTBOUND
ALL POINTS ARE TO FACE OF CURB

STATION & OFFSET TABLE				STATION & OFFSET TABLE			
POINT	STATION	OFFSET	RADIUS	POINT	STATION	OFFSET	RADIUS
1	130+52.3	50.0' LT	25'	12	130+56.1	26.0' RT	25'
2	130+52.3	75.0' LT	25'	22	130+32.2	23.0' LT	59'
3	130+77.3	75.2' LT	25'	23	130+62.8	12.1' LT	2'
4	131+14.1	74.8' LT	25'	24	130+32.0	1.0' LT	59'
5	131+39.1	75.0' LT	25'	25	131+59.2	23.0' LT	59'
6	131+39.1	50.0' LT	25'	26	131+28.4	11.9' LT	2'
7	131+35.7	26.0' RT	25'	27	131+59.1	1.0' LT	59'
8	131+35.7	51.0' RT	25'	28	132+44.2	1.0' LT	10'
9	131+10.7	50.8' RT	25'				
10	130+81.1	51.2' RT	25'				
11	130+56.1	51.0' RT	25'				

LEGEND

NON-INTEGRAL CURB AND GUTTER LOCATIONS

NOTE: CONCRETE MEDIAN SLOPED NOSES ARE TYPE 1 UNLESS OTHERWISE NOTED.

N

STA. 130+95.67WB USH 10/STH 42=
STA. 10+24.00FO N. 14TH ST.
Y=306836.955
X=231600.752

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

CAUTION

BURIED GAS LINE
(APPROXIMATE LOCATION)

BURIED TELEPHONE
(APPROXIMATE LOCATION)

CONCRETE SIDEWALK
4-INCH REQ'D.

CURB RAMP
TYPE 1 REQ'D.

TLE LINE

EXISTING R/W

CONSTRUCTION LIMITS
STA. 10+85FO

CONCRETE SIDEWALK
4-INCH REQ'D.

SLOPE
INTERCEPT

CURB RAMP
TYPE 1 REQ'D.

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

END PROJECT 1500-37-76
STA. 131+75.00

N. 14TH ST.

11FO

10FO

9FO

129WB S89°14'44"E 130WB 131WB 132WB

129EB 130EB 131EB 132EB

USH 10/STH 42

BURIED ELECTRIC
(APPROXIMATE LOCATION)

CONCRETE CURB AND GUTTER
18-INCH TYPE A REQ'D.

STA. 130+96.32EB USH 10/STH 42=
STA. 10+00.00FO N. 14TH ST.
Y=306812.955
X=231600.635

SLOPE
INTERCEPT

CONSTRUCTION LIMITS
STA. 9+30FO

CONCRETE SIDEWALK
4-INCH REQ'D.

CONCRETE CURB AND GUTTER
18-INCH INTEGRAL REQ'D.

N01°15'07"E

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021211_PD (2020).DWG
PLOT DATE : 8/1/2019 11:37 AM
PLOTTED BY : VERVILLE, PHILLIP
PLOT NAME :
PLOT SCALE : 1in:40 ft_XREF
WISDOT/CADDS SHEET 42

2

N

FLEETWOOD DR.

CONSTRUCTION LIMITS
STA. 10+85FW

LOW POINT
STA. 70+79.74

1FW

10FW

USH 10/STH 42

S87°25'29"E

VARIES

69WB 70WB 71WB 72WB 73WB 74WB 75WB

69EB 70EB 71EB 72EB 73EB 74EB 75EB

| | | |

2

N

PI: 79+01.63
Y=306961.229
X=226408.465

PI: 79+01.66
Y=306957.313
X=226408.292

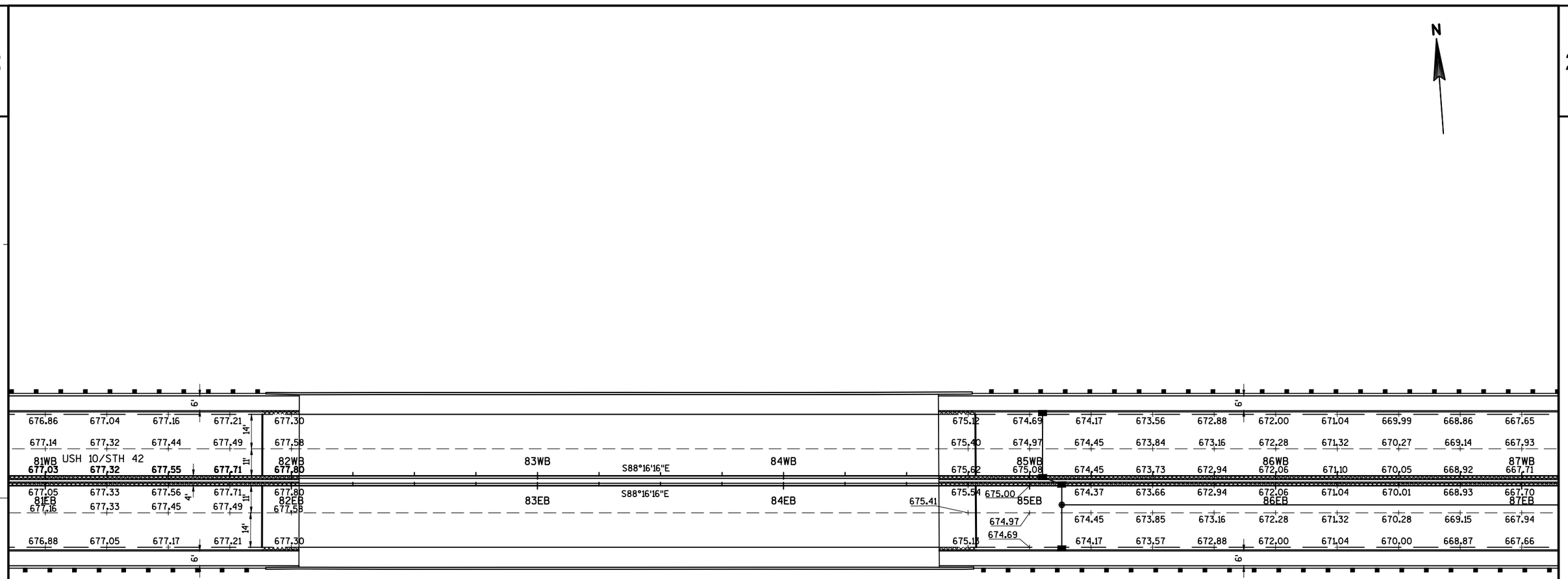
USH 10/STH 42

S89°17'04"E

S88°16'16"E

| | | |

2



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 42	E

2

N

PI: 89+49.20

LOW POINT
STA. 92+90.46

9'

14'

11'

4'

11'

14'

6'

87WB 88WB 89WB 90WB 91WB 92WB 93WB

87EB 88EB 89EB 90EB 91EB 92EB 93EB

USH 10/STH 42

S88°16'16"E

S88°16'16"E

S89°41'48"E

S86°43'40"E

PI: 89+49.22

LOW POINT
STA. 92+88.52

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 43	E

PI STA. 93+35.21 USH 10/STH 42
Y=306927.664
X=227841.503

STA. 93+50.00 USH 10/STH 42
STA. 10+24.10 N. 23RD ST.
Y=306927.222
X=227856.291

CONSTRUCTION LIMITS
STA. 10+95 (NTR)

N. 23RD ST. 11NTR M.91.ETAON

HIGH POINT
STA. 96+64.34

USH 10/STH 42

93EB S86°43'40"E 94EB 95EB S88°17'07"E 96EB 97EB 98EB 99EB

93WB S89°41'48"E 94WB 95WB S88°17'07"E 96WB 97WB 98WB 99WB

CONSTRUCTION LIMITS
STA. 9+40 (NTR)

N. 23RD ST. 9NTR M.95.22.00N

HIGH POINT
STA. 96+59.04

STA. 93+52.17WB USH 10/STH 42=
STA. 10+00.00 N. 23RD ST.
Y=306903.164
X=227857.692

PI STA. 93+35.25WB USH 10/STH 42=
Y=306903.670
X=227840.787

BP= 8+26.17

BP= 7+98.42

9MC

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 44	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021805_GR (2020).DWG PLOT DATE : 10/14/2019 11:46 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

2

2

N

STA. 99+44.55EB USH 10/STH 42=
STA. 10+00.00MC MENCHL DR.
Y=306885.444
X=228449.804

STA. 102+99.01WB USH 10/STH 42=
STA. 10+24.00TF N. 21ST ST.
Y=306898.821
X=228804.878

CONSTRUCTION LIMITS
STA. 11+00

N. 21ST ST.
N00°34'49"E

11TF

LOW POINT
STA. 100+01.76

HIGH POINT
STA. 104+95.16

649.60 649.95 649.70 649.74 649.38 649.43 649.35 649.44 649.29

647.26 647.16 647.07 646.97 646.91 646.96 647.11 647.38 647.75 648.13 648.46 648.73 648.93 649.06 649.16 649.25 649.45 649.65 649.75 649.84 649.94 650.01 650.02
647.54 647.44 647.35 647.25 647.19 647.24 647.39 647.66 648.03 648.41 648.74 649.01 649.21 649.34 649.44 649.53 649.63 649.52 649.73 649.55 649.93 650.03 650.12 650.22 650.29 650.30

99WB 647.13 100WB S88°17'07"E 101WB 102WB 103WB 649.83 104WB S88°17'07"E 105WB
647.32 647.22 647.03 646.97 647.02 647.17 647.44 647.81 648.19 648.52 648.79 648.99 649.12 649.22 649.31 649.41 649.51 649.61 649.71 649.81 649.90 650.00 650.07 650.08

USH 10/STH 42

99EB 647.07 646.93 646.71 646.66 100EB S88°17'07"E 101EB 648.45 648.64 102EB 648.79 648.91 649.24 649.11 649.20 649.31 649.40 649.56 649.72 649.90 650.02 103EB 649.33 649.53 104EB 105EB
647.04 646.86 646.71 647.02 647.32 647.63 647.93 648.24 648.51 648.21 648.73 648.90 649.02 649.12 649.23 649.43 649.53 649.63 649.73 649.83 649.94 650.04 650.13
647.26 647.08 646.73 646.93 646.78 647.03 646.81 647.24 647.54 647.84 648.15 648.46 648.73 648.95 649.12 649.24 649.34 649.45 649.55 649.65 649.75 649.85 649.95 650.05 650.16 650.26 650.35
646.95 646.93 646.65 646.65 S88°17'07"E

646.98 646.80 646.67 646.61 646.75 646.96 647.26 647.56 647.87 648.18 648.45 648.67 648.84 648.96 649.06 649.17 649.27 649.37 649.47 649.57 649.67 649.77 649.88 649.98 650.07
646.88 646.56 646.93 646.67 648.95 649.15 648.79 648.80 648.80 648.94 649.23 648.84 649.28 648.99

21' 10' 11' 11' 11' 11' 11' 14' 14' 4.33' 4.33' 5' 5'

LOW POINT
STA. 99+66.24

646.93 646.67 647.15 646.81 646.89 647.25 646.82 646.97

9MC MENCHL DR.

STA. 102+99.54EB USH 10/STH 42=
STA. 10+00.00TF N. 21ST ST.
Y=306874.823
X=228804.635

9TF

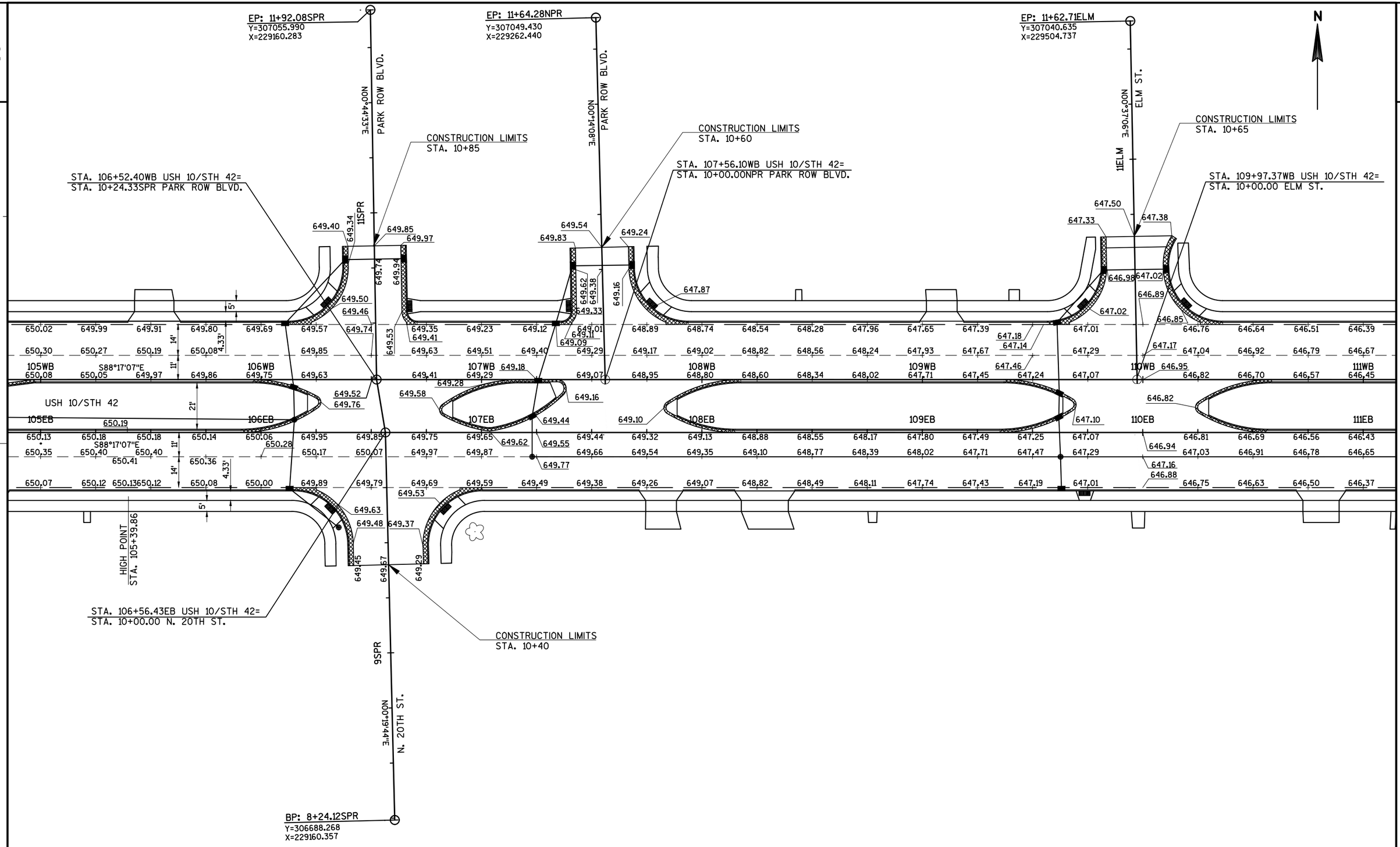
CONSTRUCTION LIMITS
STA. 9+35

N00°32'56"E N. 21ST ST.

BP: 8+20.06

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021806_GR (2020).DWG PLOT DATE : 10/14/2019 11:49 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

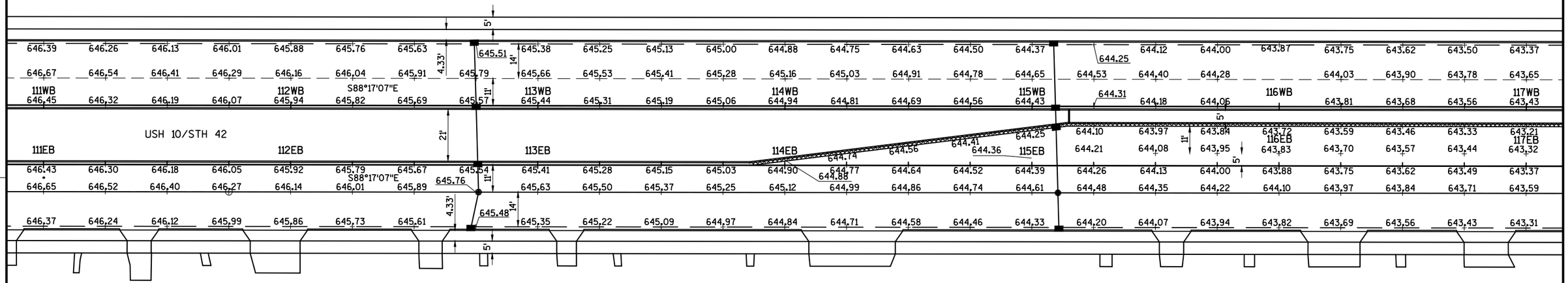


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021807_GR (2020).DWG PLOT DATE : 10/14/2019 11:51 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

2

N



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 47	E

2

N

CONSTRUCTION LIMITS
STA. 11+15

N. 18TH ST.
N00°40'44"E

STA. 122+07.61WB USH 10/STH 42=
STA. 10+00.00SV N. 17TH ST.
Y=306848.656
X=230712.268

N. 17TH ST.
N00°40'44"E

CONSTRUCTION LIMITS
STA. 10+98

STA. 102+99.54WB USH 10/STH 42=
STA. 10+24.14ET N. 18TH ST.
Y=306853.704
X=230328.918

PI=117+93.98WB USH 10/STH 42=
Y=306854.096
X=230299.177

11ET

11SV

643.07 642.88 642.81 643.39 643.11 643.16 642.79 642.86 642.60 642.77 642.60 642.91 643.02 643.04 643.16 642.93 642.80 642.57 642.35 642.69 642.22 642.80 642.66 642.27 642.81 643.08 643.47 642.87 643.49 643.86 643.44 642.70 642.79 636.88 637.02 636.98 636.62 636.73 636.61 636.36 636.69

643.37 643.24 643.12 642.90 642.34 641.97 641.53 641.06 640.58 640.10 639.62 639.15 638.67 638.19 637.73 637.32 636.97 636.67 636.41 636.15 635.89 635.63
643.65 643.52 643.40 642.74 642.49 642.25 641.81 641.34 640.86 640.38 639.90 639.43 638.95 638.47 638.01 637.60 637.25 637.10 636.95 636.69 636.43 636.17 635.91
117WB S88°17'07"E 118WB 119WB S89°14'44"E 120WB 121WB 122WB 123WB
643.43 643.30 643.18 643.05 642.63 642.37 642.03 641.59 641.12 640.64 640.16 639.68 639.21 638.73 638.25 637.79 637.38 637.03 636.73 636.47 636.21 635.95 635.69
USH 10/STH 42
643.21 643.08 642.95 642.83 642.27 641.98 641.54 641.07 640.59 640.11 639.63 639.16 638.68 638.22 637.02 636.60 636.35
117EB 118EB 119EB 120EB 121EB 122EB 123EB
643.32 643.19 643.06 642.93 642.72 642.06 641.88 641.44 640.97 640.49 640.01 639.53 639.05 638.58 638.10 637.64 637.23 636.90 637.10 636.26
643.37 643.24 643.11 642.98 642.86 642.45 642.14 641.75 641.33 640.90 640.48 640.05 639.63 639.20 638.78 638.35 637.93 637.54 637.19 636.88 636.60 636.33 636.05 635.78
643.59 643.46 643.33 643.09 642.97 642.56 642.25 641.97 641.55 641.12 640.70 640.27 639.85 639.42 639.00 638.57 638.15 637.76 637.41 637.31 637.10 636.82 636.55 636.27 636.00
S88°17'07"E S89°14'44"E
643.31 643.18 643.05 642.95 642.83 642.42 642.11 641.69 641.27 640.84 640.42 639.99 639.57 639.14 638.72 638.29 637.87 637.48 637.25 636.82 636.54 636.27 635.99 635.72
642.80 636.78 636.41
637.13 636.76
636.64 636.89 636.45
636.50
636.82 637.01

PI=117+94.23EB USH 10/STH 42=
Y=306830.100
X=230298.659

STA. 122+07.57EB USH 10/STH 42=
STA. 10+00.00SV N. 17TH ST.
Y=306824.658
X=230711.960

9ET

9SV

CONSTRUCTION LIMITS
STA. 9+25

CONSTRUCTION LIMITS
STA. 9+00

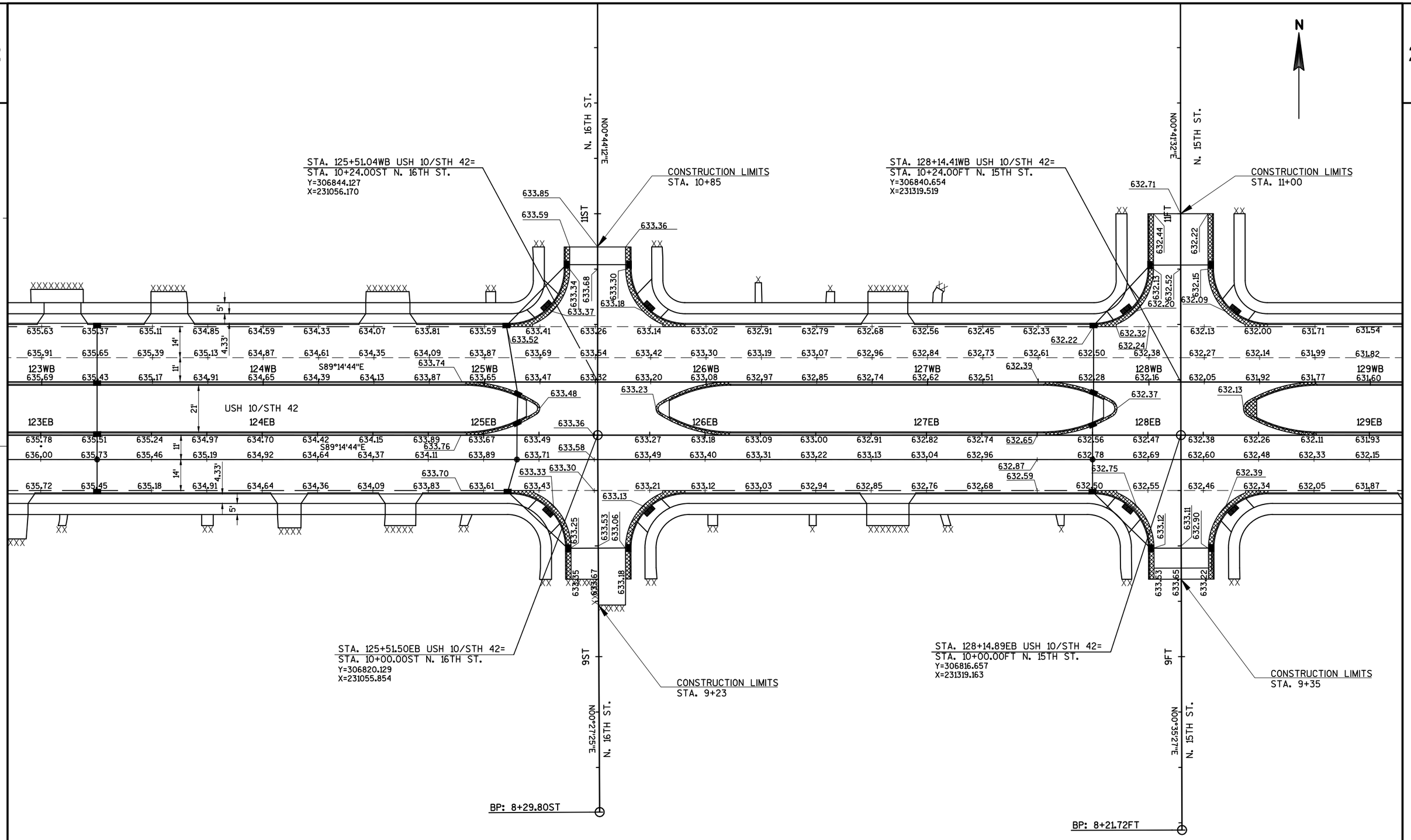
N. 18TH ST.
N00°35'10"E

STA. 102+99.54EB USH 10/STH 42=
STA. 10+00.00ET N. 18TH ST.
Y=306829.741
X=230325.962

N. 17TH ST.
N00°25'59"E

BP: 8+26.37

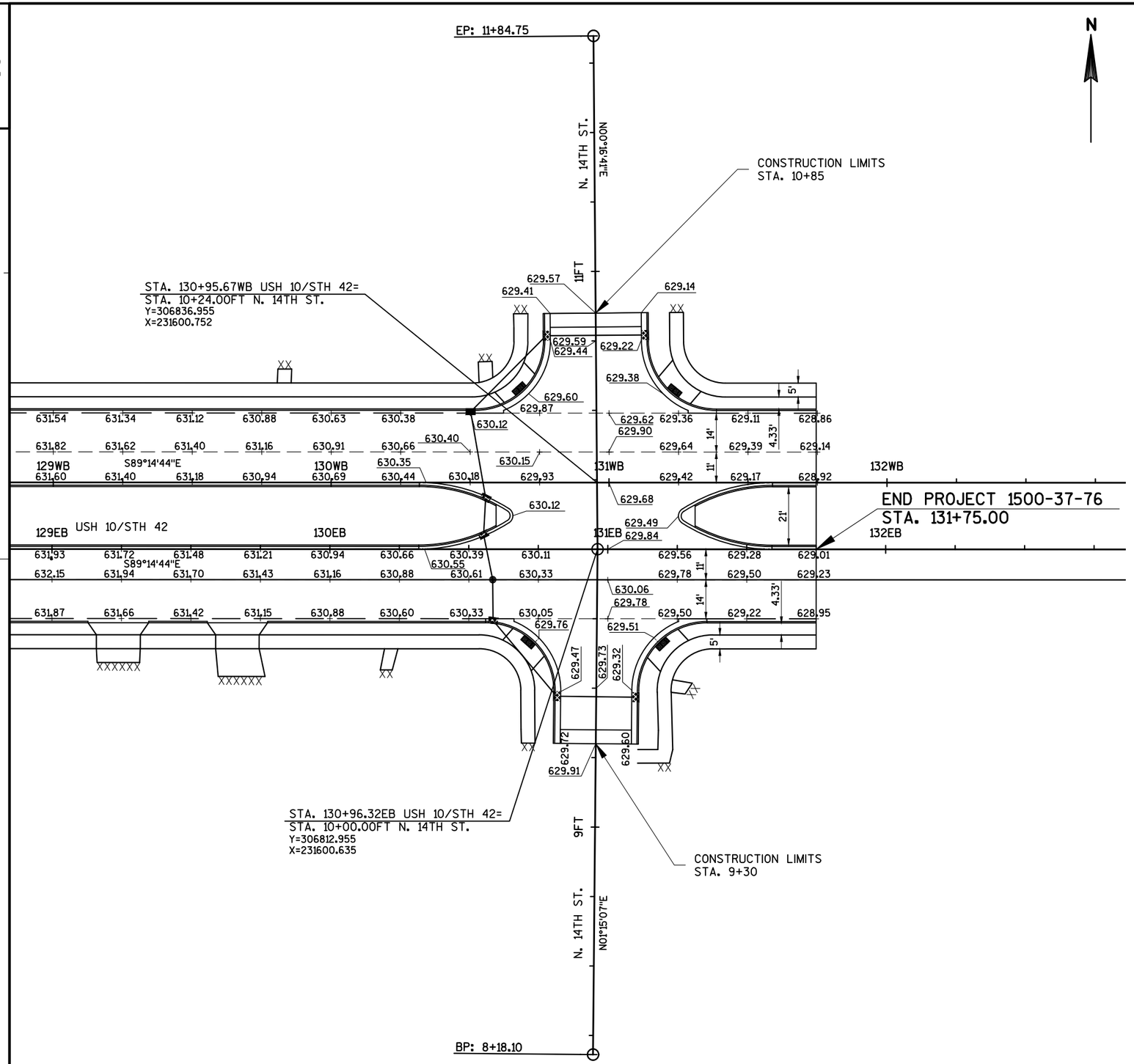
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 48	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_021810_GR (2020).DWG PLOT DATE : 10/14/2019 11:58 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

2



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT GRADES	SHEET 50	E

2

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- R ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

R/W LINE
EXISTING R/W
FLEETWOOD DR.
EXISTING R/W
EXISTING R/W
LINE
MATCH
EXISTING R/W
EXISTING R/W
R/W LINE

BEGIN PROJECT 1500-37-76
STA. 70+00.00

69WB 70WB 71WB 72WB 73WB 74WB 75WB
USH 10/STH 42
69EB 70EB 71EB 72EB 73EB 74EB 75EB
S88°17'08"E
S89°17'04"E

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_022001_EC (2020).DWG PLOT DATE : 10/14/2019 11:08 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

EXISTING R/W

LINE

SLOPE INTERCEPT

USH 10/STH 42

75WB 76WB 77WB 78WB 79WB 80WB 81WB

75EB 76EB 77EB S89°17'04"E 78EB 79EB 80EB S88°16'16"E 81EB

SLOPE INTERCEPT

MATCH

MATCH

EXISTING R/W

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_022002_EC (2020).DWG PLOT DATE : 10/14/2019 11:11 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

EXISTING R/W

LINE

MATCH

USH 10/STH 42

81WB 82WB 83WB S88°16'16"E 84WB 85WB 86WB 87WB

81EB 82EB 83EB S88°16'16"E 84EB 85EB 86EB 87EB

SLOPE INTERCEPT

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET 53	E

2

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

2

EXISTING R/W

EXISTING R/W

LINE

LINE

SLOPE INTERCEPT

87WB

USH 10/STH 42

88WB

89WB

90WB

91WB

92WB

93WB

87EB

88EB

S88°16'16"E

89EB

90EB

S86°43'40"E

91EB

92EB

93EB

MATCH

MATCH

SLOPE INTERCEPT

EXISTING R/W

IP

IP

EXISTING R/W

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET 54	E

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

2

2

EXISTING R/W

N. 23RD ST.

EXISTING R/W

EXISTING R/W

LINE

TLE LINE

SLOPE INTERCEPT

TLE LINE

EXISTING R/W

LINE

93WB 94WB 95WB 96WB 97WB 98WB 99WB

USH 10/STH 42

95EB 96EB 97EB 98EB 99EB

S86°45'40"E

93EB 94EB

S88°17'07"E

MATCH

EXISTING R/W

TLE LINE

SLOPE INTERCEPT

TLE LINE

MATCH

N. 23RD ST.

EXISTING R/W

EXISTING R/W

EXISTING R/W

MENCHL DR.

EXISTING R/W

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET 55	E

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

WISCONSIN CENTRAL LTD.

EXISTING R/W

N. 21ST ST.

LINE

SLOPE INTERCEPT

TLE LINE

99WB 100WB 101WB 102WB 103WB 104WB 105WB

99EB 100EB 101EB 102EB 103EB 104EB 105EB

USH 10/STH 42

S88°17'07"E

MATCH

MENCHL DR.

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

EXISTING R/W
PARK ROW BLVD.
EXISTING R/W
EXISTING R/W
PARK ROW BLVD.
EXISTING R/W
EXISTING R/W
ELM ST.
EXISTING R/W
EXISTING R/W

LINE
TLE LINE
EXISTING R/W
SLOPE INTERCEPT
TLE LINE
EXISTING R/W
EXISTING R/W
LINE

USH 10/STH 42

105WB 106WB 107WB 108WB 109WB 110WB 111WB

105EB 106EB 107EB 108EB 109EB 110EB 111EB

S88°17'07"E

EXISTING R/W
TLE LINE
TLE LINE
EXISTING R/W
EXISTING R/W
TLE LINE
SLOPE INTERCEPT
MATCH
MATCH

EXISTING R/W
N. 20TH ST.
EXISTING R/W

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL	SHEET 57	E

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

EXISTING R/W

CLERMONT ST.

LINE

IP

SLOPE INTERCEPT

111WB USH 10/STH 42 112WB 113WB 114WB 115WB 116WB 117WB

111EB 112EB 113EB 115EB 116EB 117EB

S88°17'07"E

114EB

TLE LINE

MATCH

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

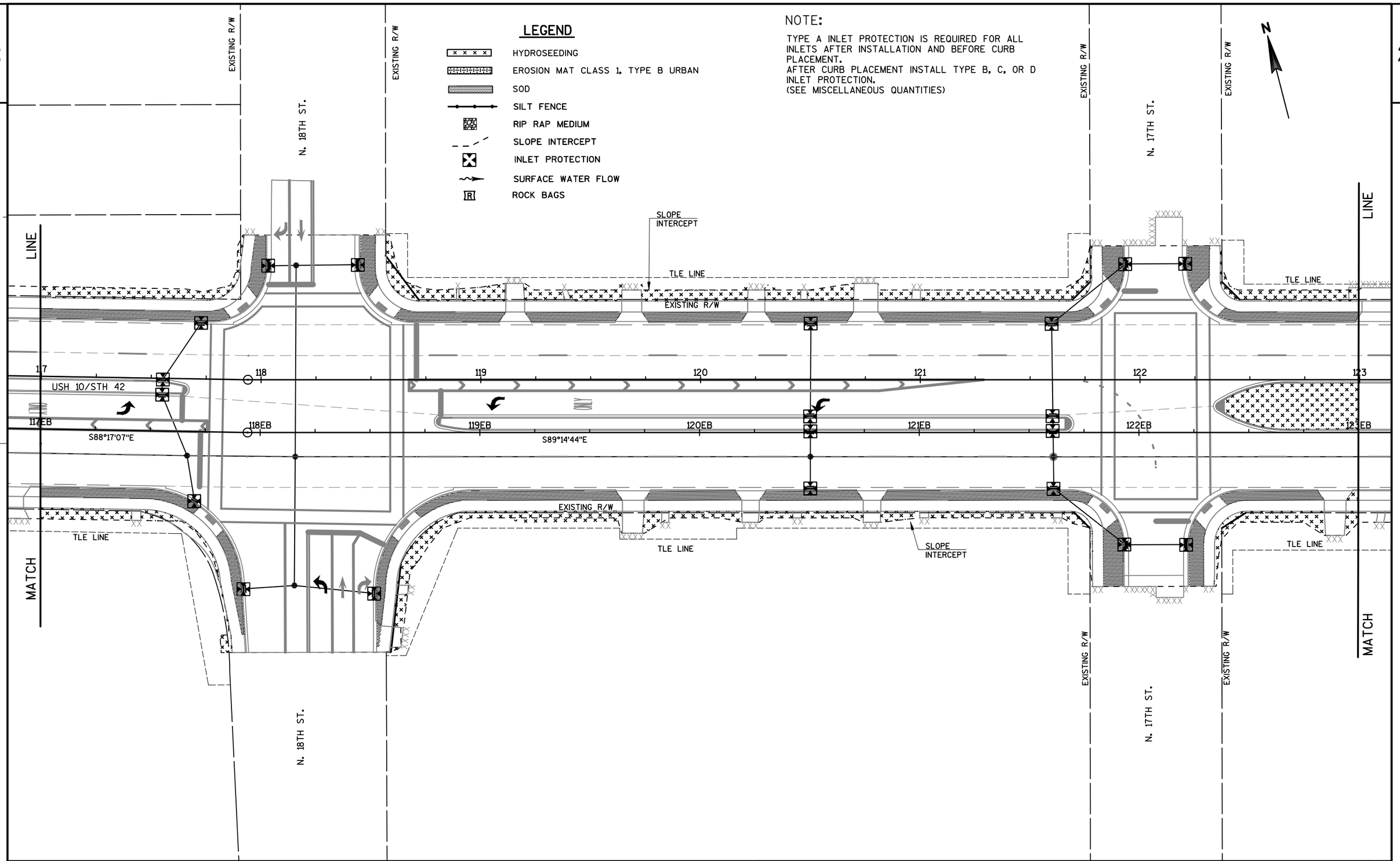
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET 58	E

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_022009_EC (2020).DWG PLOT DATE : 10/14/2019 11:27 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N

2

2

LINE

SLOPE INTERCEPT

TLE LINE

EXISTING R/W

EXISTING R/W

N. 16TH ST.

EXISTING R/W

TLE LINE

EXISTING R/W

EXISTING R/W

N. 15TH ST.

EXISTING R/W

TLE LINE

EXISTING R/W

LINE

123WB USH 10/STH 42 124WB 125WB 126WB 127WB 128WB 129WB

123EB 124EB 125EB 126EB 127EB 128EB 129EB

MATCH

SLOPE INTERCEPT

EXISTING R/W

TLE LINE

EXISTING R/W

N. 16TH ST.

EXISTING R/W

EXISTING R/W

TLE LINE

EXISTING R/W

N. 15TH ST.

EXISTING R/W

EXISTING R/W

TLE LINE

MATCH

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_022010_EC (2020).DWG PLOT DATE : 10/14/2019 11:29 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

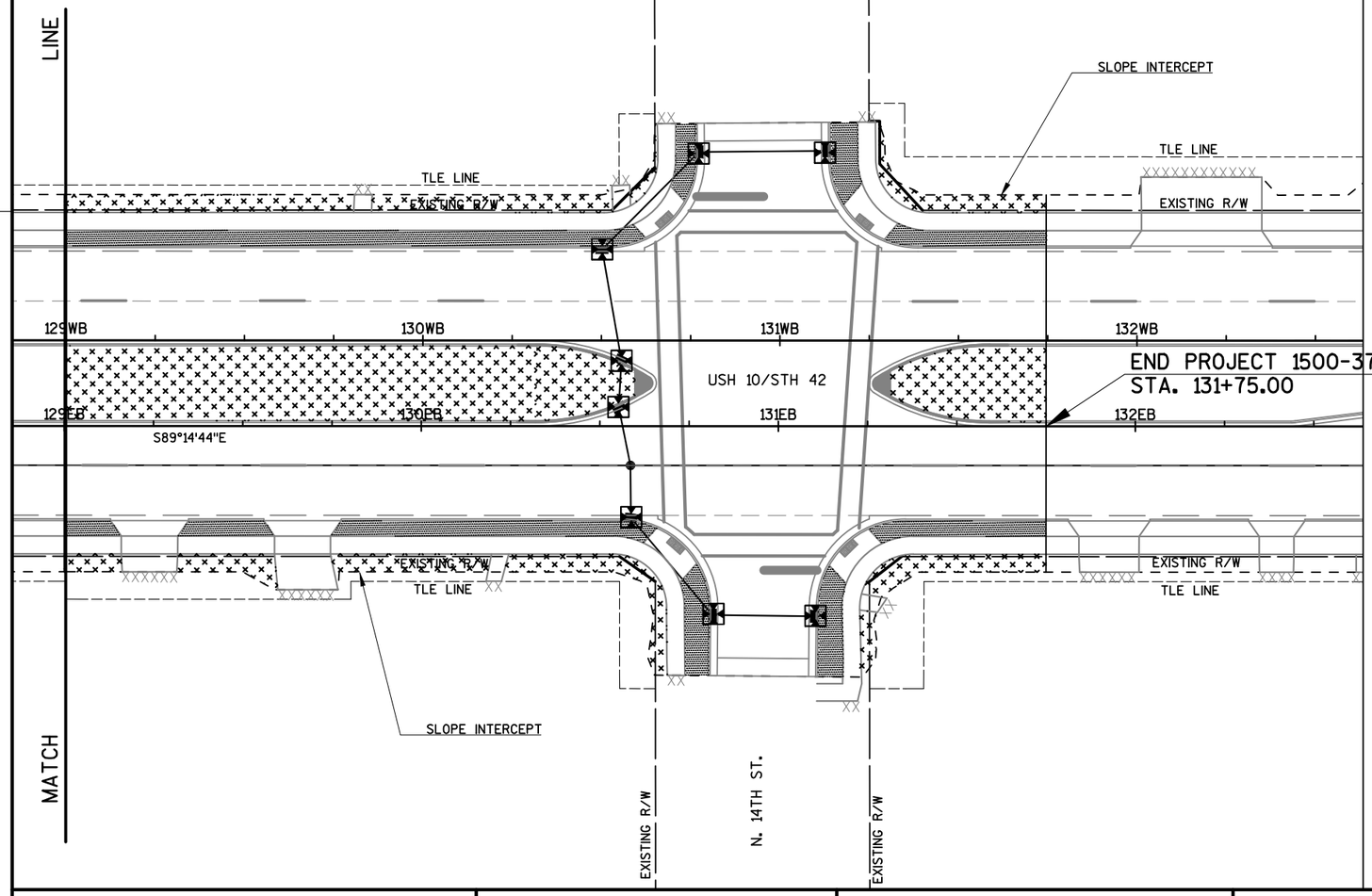
LEGEND

- HYDROSEEDING
- EROSION MAT CLASS 1, TYPE B URBAN
- SOD
- SILT FENCE
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW
- ROCK BAGS

NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.
(SEE MISCELLANEOUS QUANTITIES)

N



2

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	EROSION CONTROL PLAN	SHEET E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_022011_EC (2020).DWG PLOT DATE : 10/14/2019 11:31 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

6" PVC (2 PARALLEL RUNS)

12" RCP

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

N 40TH ST

43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

PROJECT NO:1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 62	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022501_SSRP
PLOT DATE : 6/11/2019 12:02 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

FLEETWOOD DR

10" CMP
8" PVC
10" RCP

USH 10/WALDO BLVD WB
USH 10/WALDO BLVD EB

12" RCP
15" RCP

69+00
70+00
71+00
72+00
73+00
74+00
75+00
76+00

PROJECT NO:1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 63	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022502_SSRP
PLOT DATE : 6/11/2019 12:02 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

12" RCP

76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00

SAN W E

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 64	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022503_SSRP
PLOT DATE : 6/11/2019 12:02 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

12" RCP

83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 65	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022504_SSRP
PLOT DATE : 6/11/2019 12:02 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

SEALING PIPES REQD AT CONSTRUCTION LIMITS
REMOVE 72" CMP TO EXISTING MANHOLE
15" PVC
12" PVC
72" CMP
15" PVC
18" RCP
15" RCP
12" RCP
12" CMP
15" CMP
18" PVC
N 23RD ST
USH 10/WALDO BLVD WB
USH 10/WALDO BLVD EB
15" RCP
90+00
91+00
92+00
93+00
94+00
95+00
96+00
97+00

PROJECT NO:1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 66	E

2

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

N 21ST ST

MENCHL DR

12" RCP
18" RCP
12" CMP
15" RCP
WALL
CONC.
ASPHALT
HSE
PORCH
CABC
G
SAN
W
E
T
GUY
GUY POLE
MH
98+00
99+00
100+00
101+00
102+00
103+00
104+00
105+00

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 67	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022506_SSRP
PLOT DATE : 6/11/2019 12:02 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

PARK ROW BLVD

PARK ROW BLVD

ELM ST

N 20TH ST

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

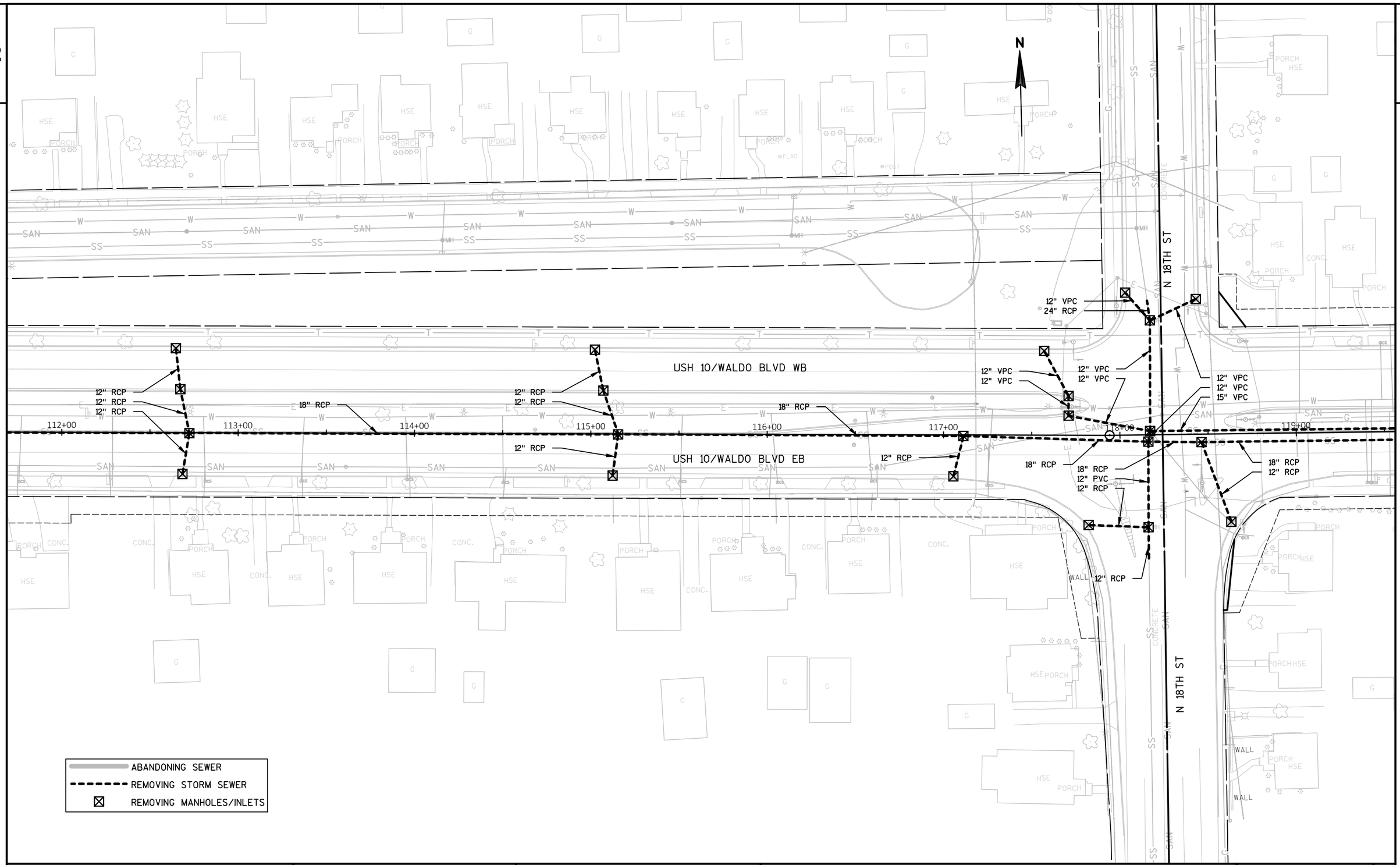
12" RCP
12" RCP
12" RCP
10" RCP
10" RCP
12" RCP
12" RCP
12" RCP
12" RCP
10" RCP
15" RCP
12" RCP
15" RCP
12" RCP
12" RCP
12" RCP
12" RCP
12" RCP
15" RCP
12" RCP
15" RCP

103+00 104+00 107+00 108+00 109+00 110+00 111+00 112+00

HSE PORCH CONC. ASPHALT G SHED BLDG SAN SS W E T GUY MH

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 68	E

2



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 69	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022508_SSRP
PLOT DATE : 6/11/2019 12:03 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

N

N 17TH ST

N 16TH ST

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

12" RCP

12" VPC
12" VPC

12" RCP
15" VPC

12" RCP
18" RCP

18" RCP

18" RCP
18" RCP
12" RCP
12" RCP

12" VPC
12" VPC

12" RCP
12" RCP
12" RCP
18" VPC

21" RCP

12" VPC
12" RCP
12" RCP

21" RCP
12" RCP
12" RCP

6" PVC

19+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00

ABANDONING SEWER

REMOVING STORM SEWER

REMOVING MANHOLES/INLETS

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET 70	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022509_SSRP

PLOT DATE : 6/11/2019 12:03 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

ABANDONING SEWER
REMOVING STORM SEWER
REMOVING MANHOLES/INLETS

N

N 15TH ST

N 14TH ST

N 13TH ST

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

12" RCP
12" RCP
12" RCP
21" RCP
21" RCP
12" RCP
12" RCP
12" RCP
6" PVC
21" RCP
21" RCP
12" RCP
12" RCP
12" RCP
12" RCP
21" RCP
24" RCP
24" RCP
36" RCP
36" RCP
21" RCP
12" RCP
12" RCP
12" RCP
12" RCP

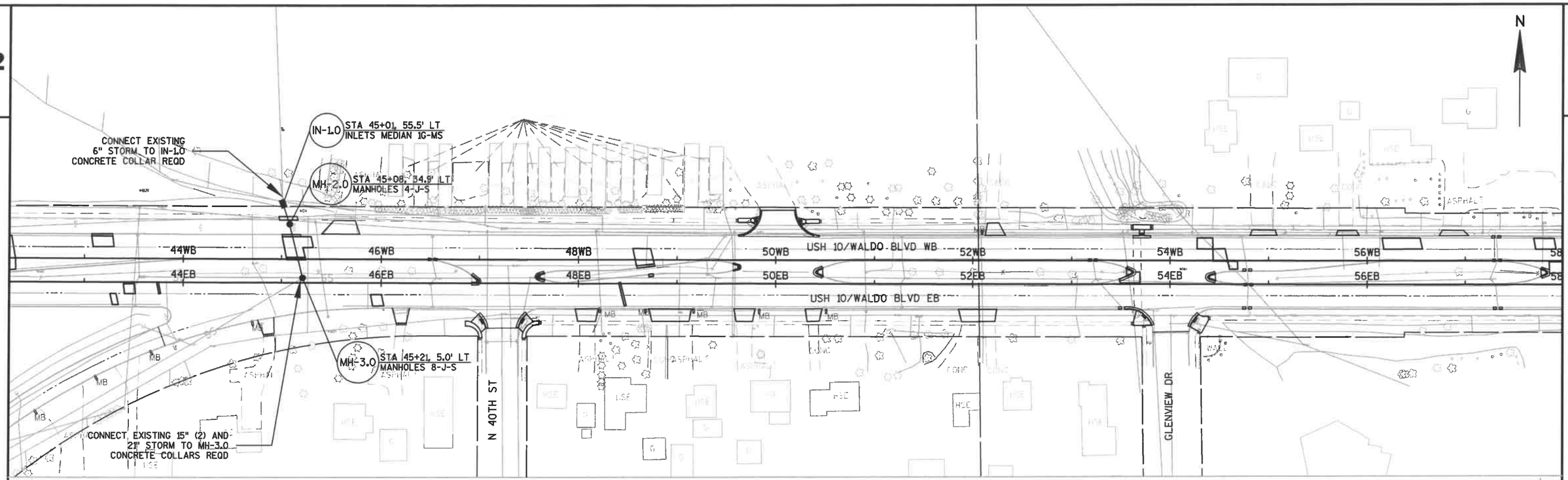
REMOVE 36" RCP TO FIRST PIPE JOINT EAST OF EXISTING MANHOLE STRUCTURE AT STA. 131+55, 11' RT

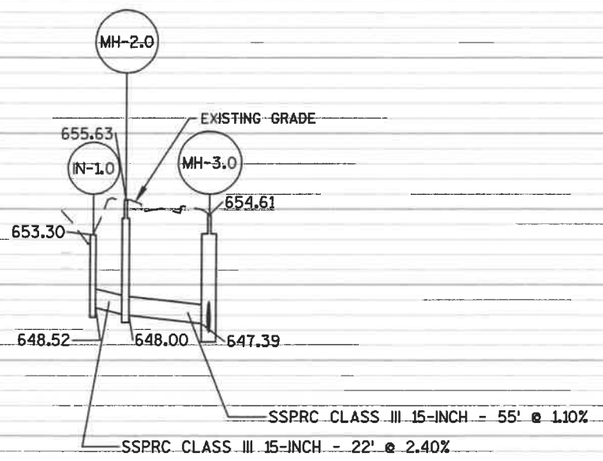
127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+0

PROJECT NO:1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER REMOVAL PLAN	SHEET	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771-45701271_022501_SSRPB.DWG
LAYOUT NAME - 022510_SSRP

PLOT DATE : 6/11/2019 12:03 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT





WISCONSIN
ANDREW W. BLOCK
E-41224-6
APPLETON
WI.
PROFESSIONAL ENGINEER

Andrew W. Block
7/16/2019

STORM SEWER PLANS DESIGNED BY
JT ENGINEERING, INC.

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15004771_OVERVIEW_SS.DWG
LAYOUT NAME - ****
PLOT DATE : 6/11/2019 1:20 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

EXISTING RW

STA 70+80, 25.2' LT
CATCH BASINS 2x3-H-S
CB-20.2

PIPE UNDERDRAIN
6-INCH REQD
SEE CONSTRUCTION DETAIL

CB-20.1 STA 70+90, 25.4' LT
CATCH BASINS 2x3-H

STA 10+76, 14.0' LT
MANHOLES 5-J-S
MH-24.3

CB-20.3 STA 70+90, 0.5' RT
CATCH BASINS 2x3-H

STA 70+80, 0.5' RT
CATCH BASINS 2x3-H-S
CB-20.4

STA 10+64, 32.8' LT
CATCH BASINS 2x3-H-S
CB-24.2

PIPE UNDERDRAIN
6-INCH REQD
SEE CONSTRUCTION DETAIL

CB-20.5 STA 70+90, 12.5' RT
CATCH BASINS 2x3-H

69WB 70WB 71WB 72WB

STA 70+03, 6.0' LT
MANHOLES 4-J-S
MH-18.0

69EB 70EB 71EB 72EB

CB-20.6 STA 70+80, 12.7' RT
CATCH BASINS 2x3-H-S

STA 70+80, 11.0' RT
MANHOLES 5-J-S
MH-20.0

PIPE UNDERDRAIN
6-INCH REQD
SEE CONSTRUCTION DETAIL

CB-20.7 STA 70+90, 25.4' RT
CATCH BASINS 2x3-H

STA 72+25, 11.0' RT
MANHOLES 4-J-S
MH-24.0

STA 70+80, 25.3' RT
INLETS 2x3-H-S
IN-22.0

OF-1B STA 70+65, 72.0' RT
APRON ENDWALLS FOR CPRC 24-INCH

EXISTING RW

FLEETWOOD DR

10FW

9FW

CB-24.1 STA 10+64, 25.8' RT
CATCH BASINS 2x3-H-S

CB-26.1 STA 73+16, 25.5' LT
CATCH BASINS 2x3-H

USH 10/WALDO BLVD WB

CB-26.2 STA 73+17, 0.5' RT
CATCH BASINS 2x3-H

73WB 74WB 75WB

CB-26.3 STA 73+17, 0.5' LT
CATCH BASINS 2x3-H

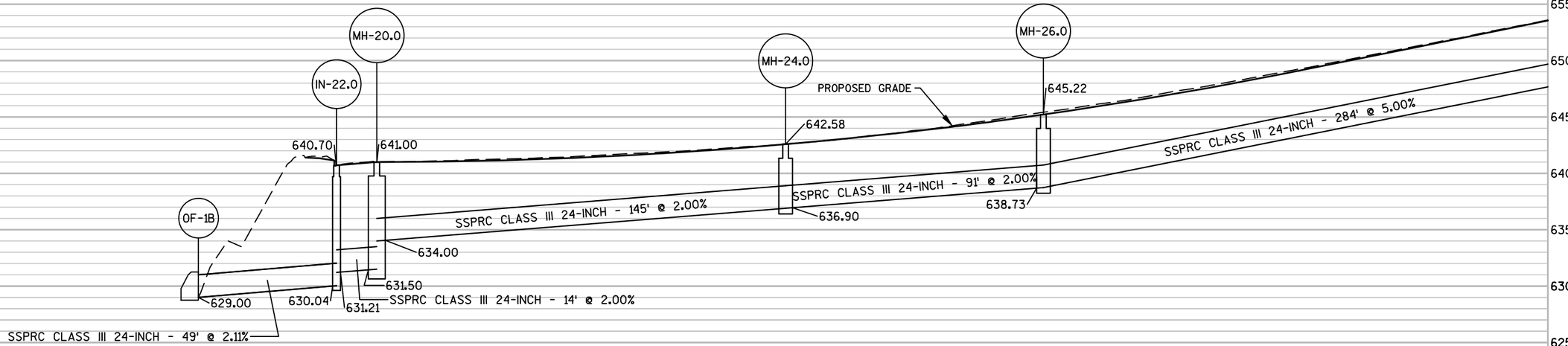
73EB 74EB 75EB

USH 10/WALDO BLVD EB

MH-26.0 STA 73+16, 11.0' RT
MANHOLES 4-J-S

STA 73+16, 25.5' RT
CATCH BASINS 2x3-H
CB-26.4

N



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 73	E

2

N

STA 70+80, 25.2' LT
CATCH BASINS 2x3-H-S
CB-20.2

CB-20.1
STA 70+90, 25.4' LT
CATCH BASINS 2x3-H

STA 10+76, 14.0' LT
MANHOLES 5-J-S
MH-24.3

CB-20.3
STA 70+90, 0.5' RT
CATCH BASINS 2x3-H

STA 70+80, 0.5' RT
CATCH BASINS 2x3-H-S
CB-20.4

STA 10+64, 32.8' LT
CATCH BASINS 2x3-H-S
CB-24.2

CB-20.5
STA 70+90, 12.5' RT
CATCH BASINS 2x3-H

STA 70+03, 6.0' LT
MANHOLES 4-J-S
MH-18.0

CB-20.6
STA 70+80, 12.7' RT
CATCH BASINS 2x3-H-S

CONNECT EXISTING
15" STORM TO MH-18.0
CONCRETE COLLAR REQD

STA 70+80, 11.0' RT
MANHOLES 5-J-S
MH-20.0

CB 20.7
STA 70+90, 25.4' RT
CATCH BASINS 2x3-H

STA 72+25, 11.0' RT
MANHOLES 4-J-S
MH-24.0

STA 70+80, 25.3' RT
INLETS 2x3-H-S
IN-22.0

OF-1B
STA 70+65, 72.0' RT
APRON ENDWALLS FOR CPRC 24-INCH

EXISTING RW

FLEETWOOD DR

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

CB-24.1
STA 10+64, 25.8' RT
CATCH BASINS 2x3-H-S

CB-26.1
STA 73+16, 25.5' LT
CATCH BASINS 2x3-H

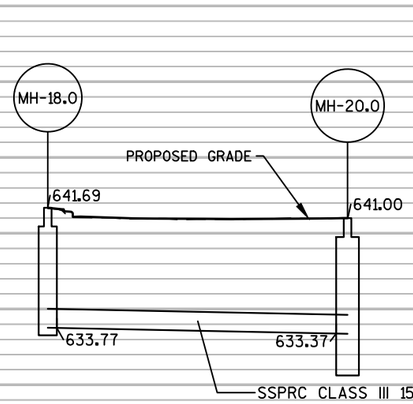
CB-26.2
STA 73+17, 0.5' RT
CATCH BASINS 2x3-H

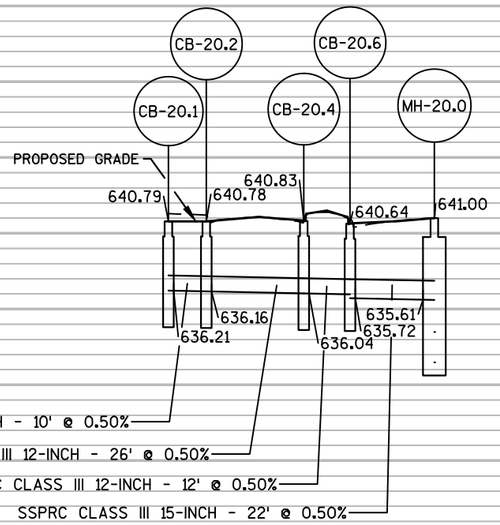
CB-26.3
STA 73+17, 0.5' LT
CATCH BASINS 2x3-H

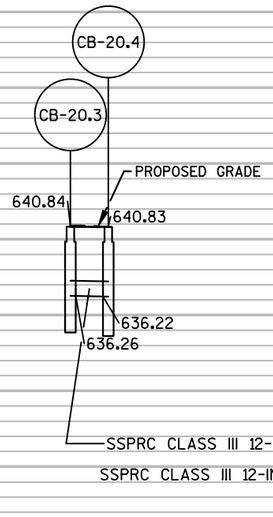
MH-26.0
STA 73+16, 11.0' RT
MANHOLES 4-J-S

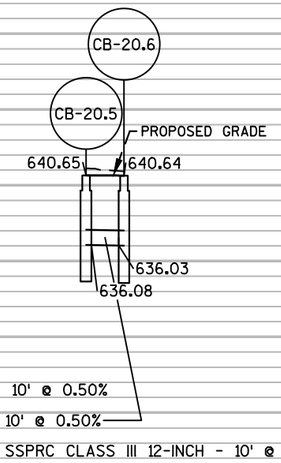
STA 73+16, 25.5' RT
CATCH BASINS 2x3-H
CB-26.4

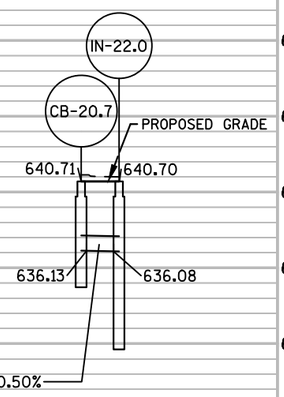
69WB 70WB 71WB 72WB 73WB 74WB 75WB
69EB 70EB 71EB 72EB 73EB 74EB 75EB





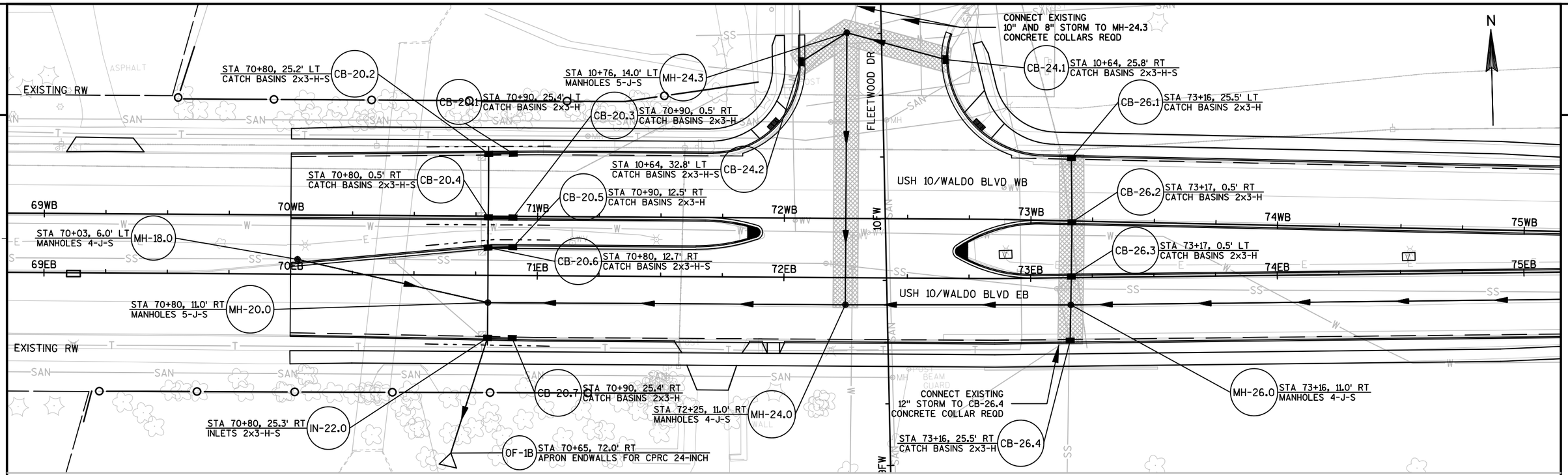


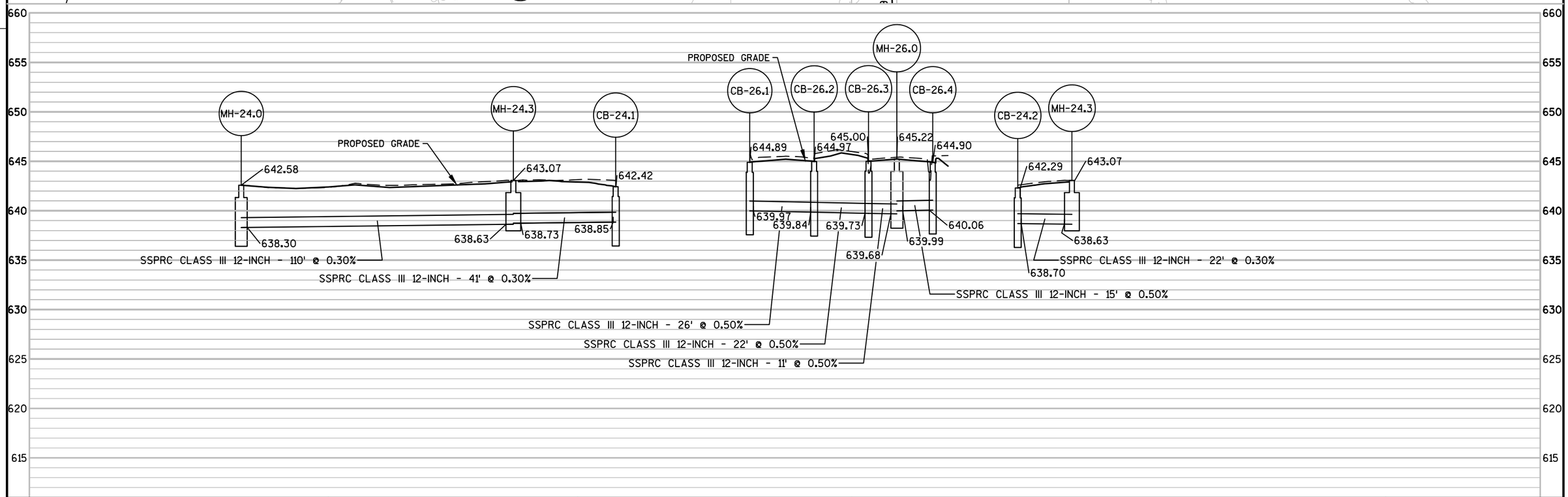




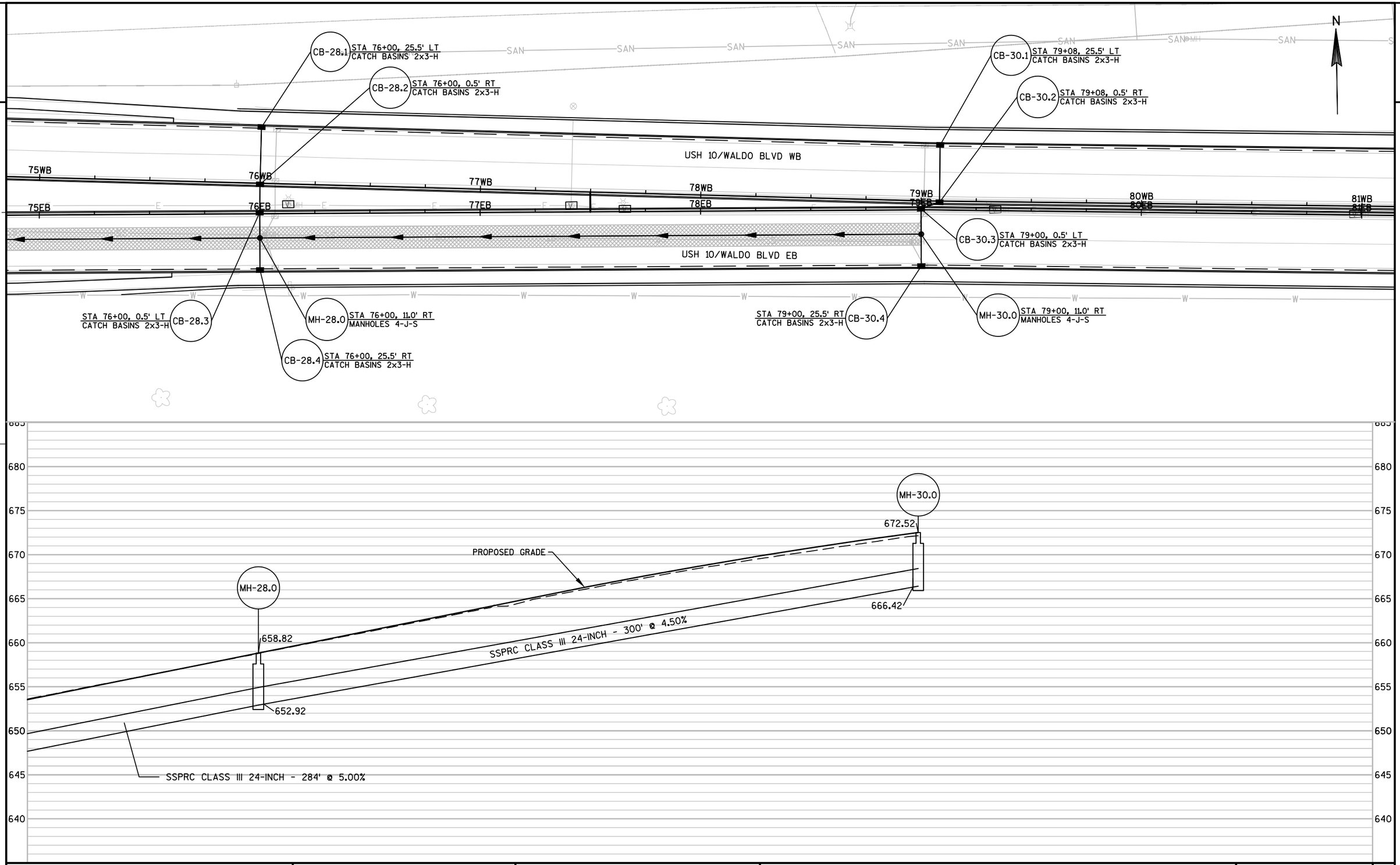
660 655 650 645 640 635 630 625 620 615

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 74	E

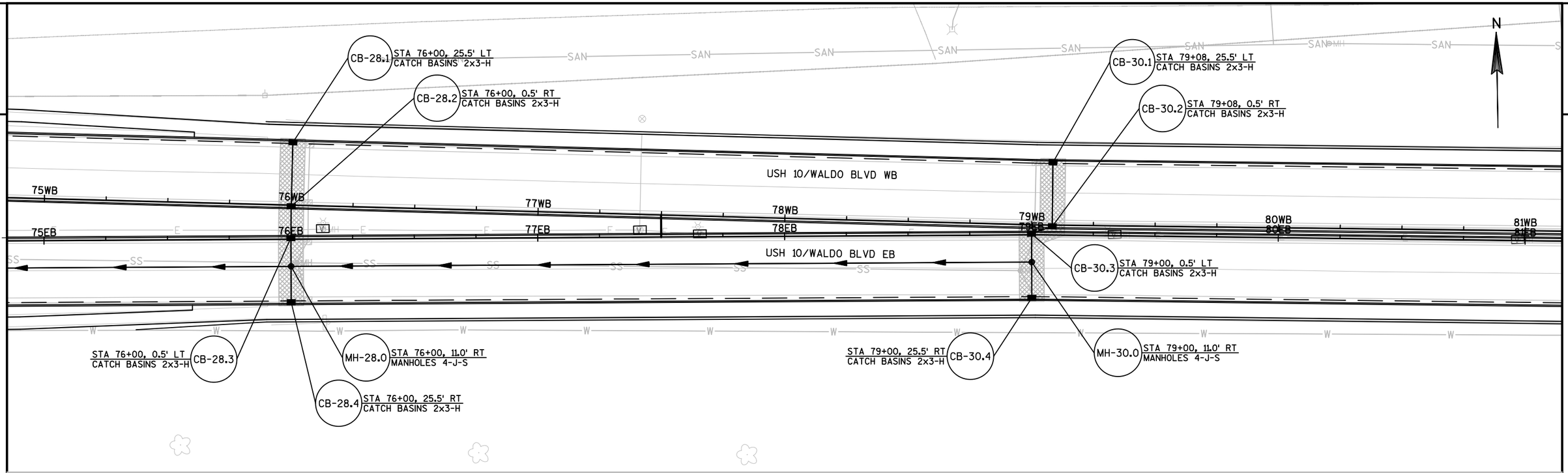


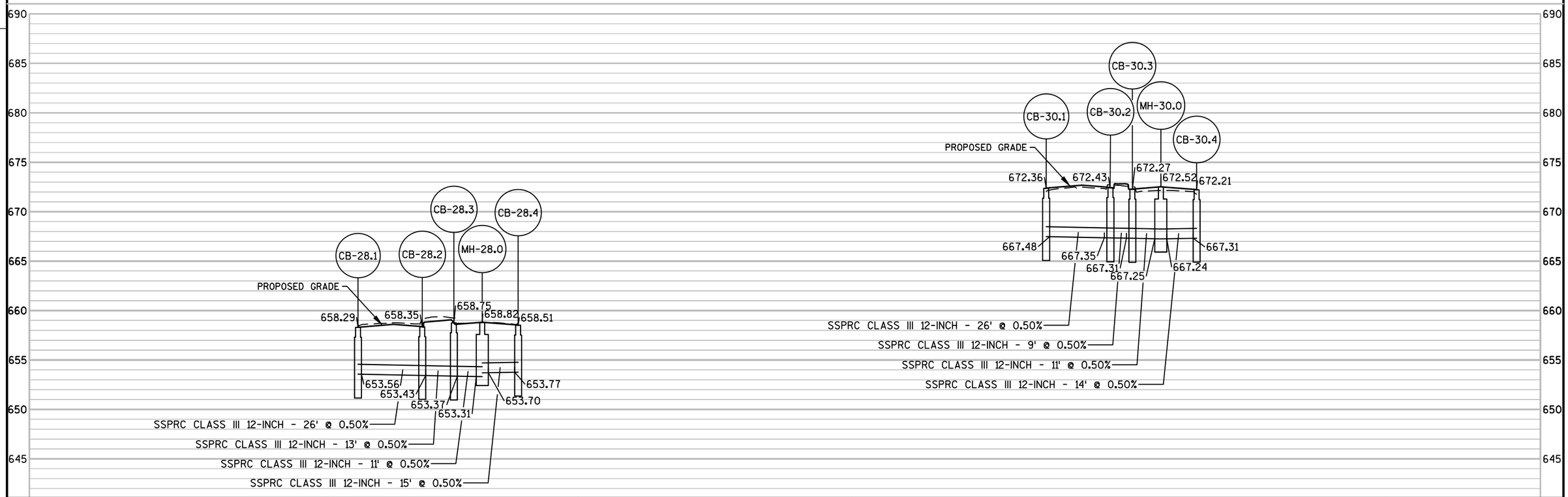


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 75	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 76	E





PROJECT NO:1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 77	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:42 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 41

2

N

CB-40.1 STA 85+05, 25.5' LT
CATCH BASINS 2x3-H

CB-40.2 STA 85+05, 0.5' RT
CATCH BASINS 2x3-H

CB-40.3 STA 85+13, 0.5' LT
CATCH BASINS 2x3-H

MH-40.0 STA 85+13, 7.8' RT
MANHOLES 4-J-S

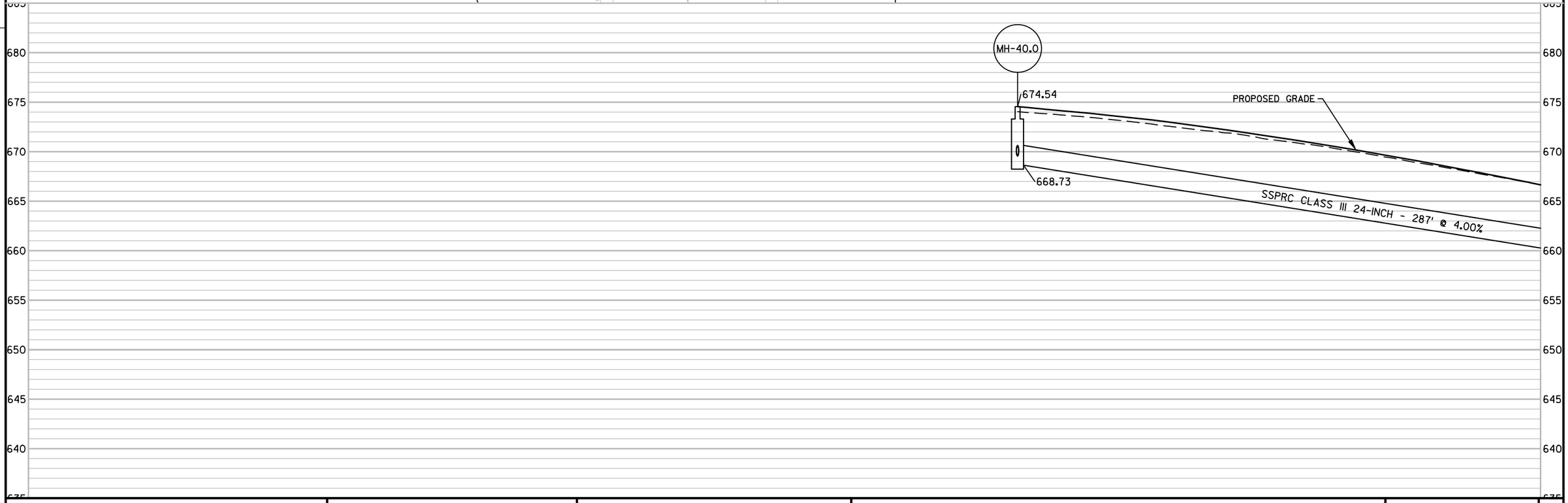
STA 85+13, 25.5' RT
CATCH BASINS 2x3-H CB-40.4

CANADIAN NATIONAL RR

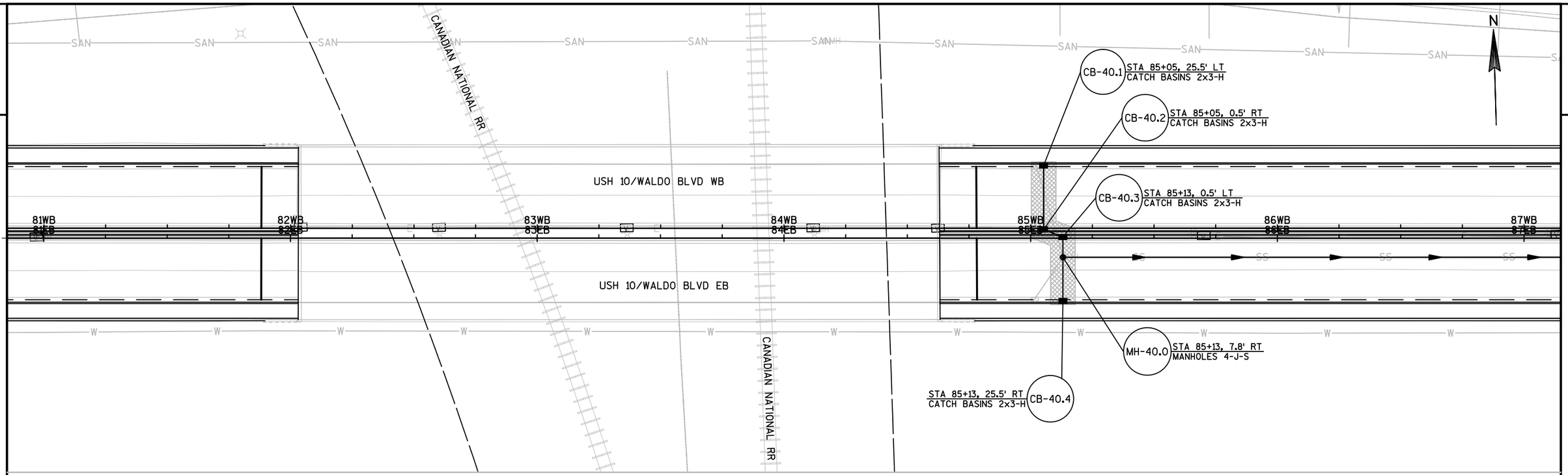
USH 10/WALDO BLVD WB

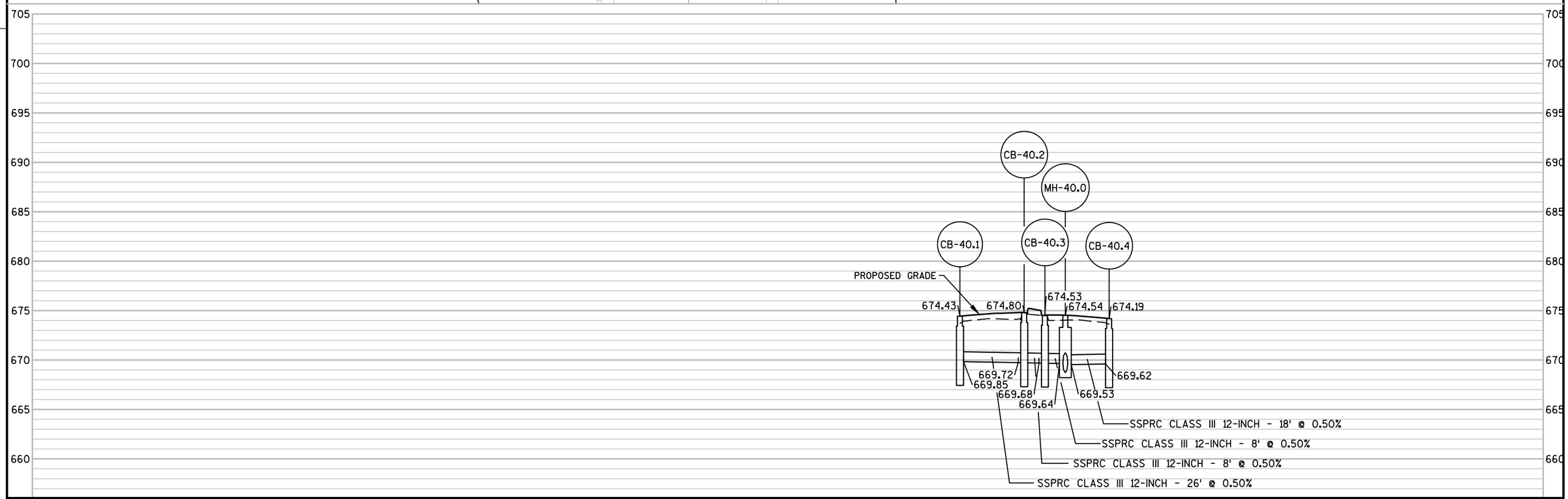
USH 10/WALDO BLVD EB

81WB 82WB 83WB 84WB 85WB 86WB 87WB

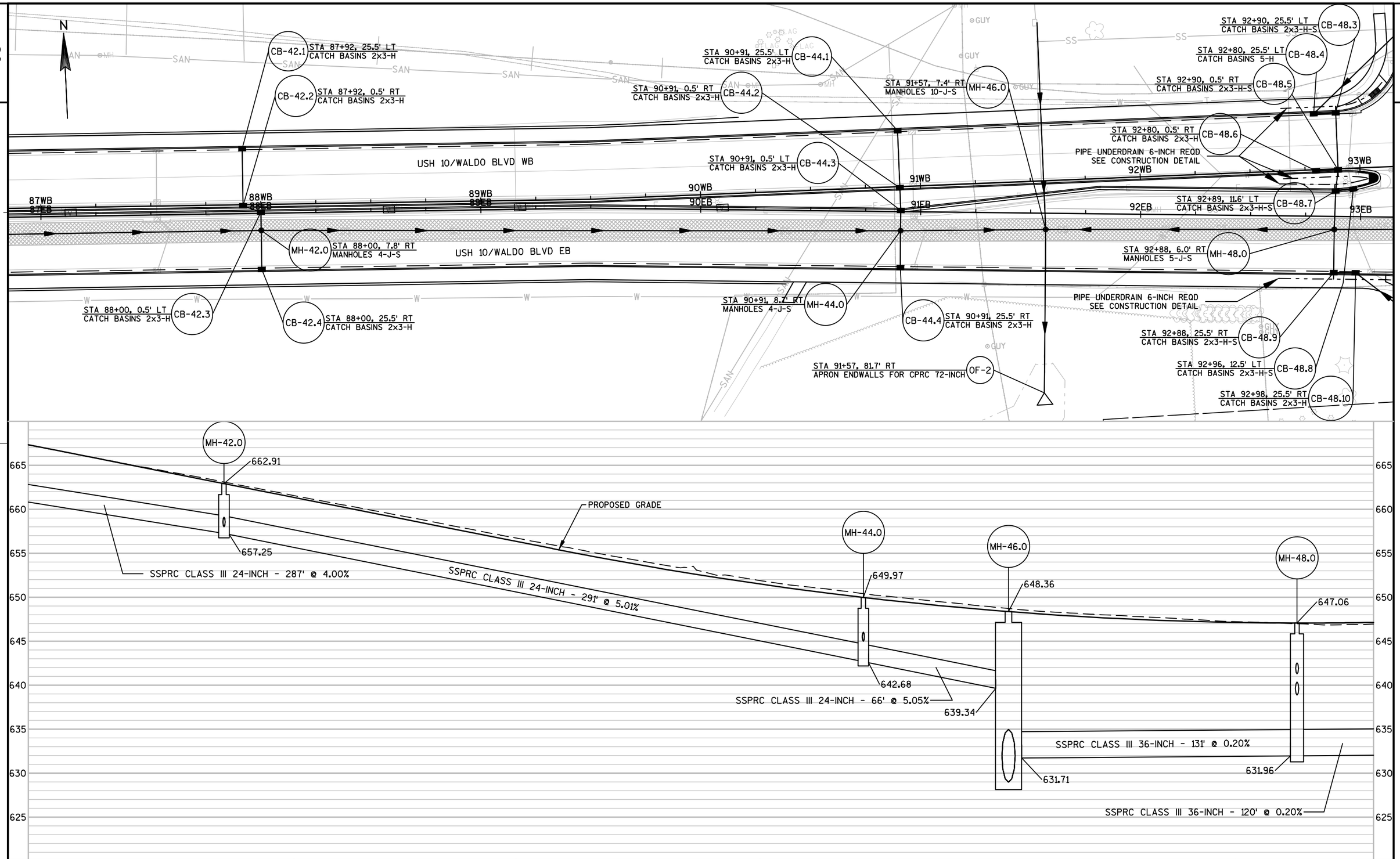


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 78	E

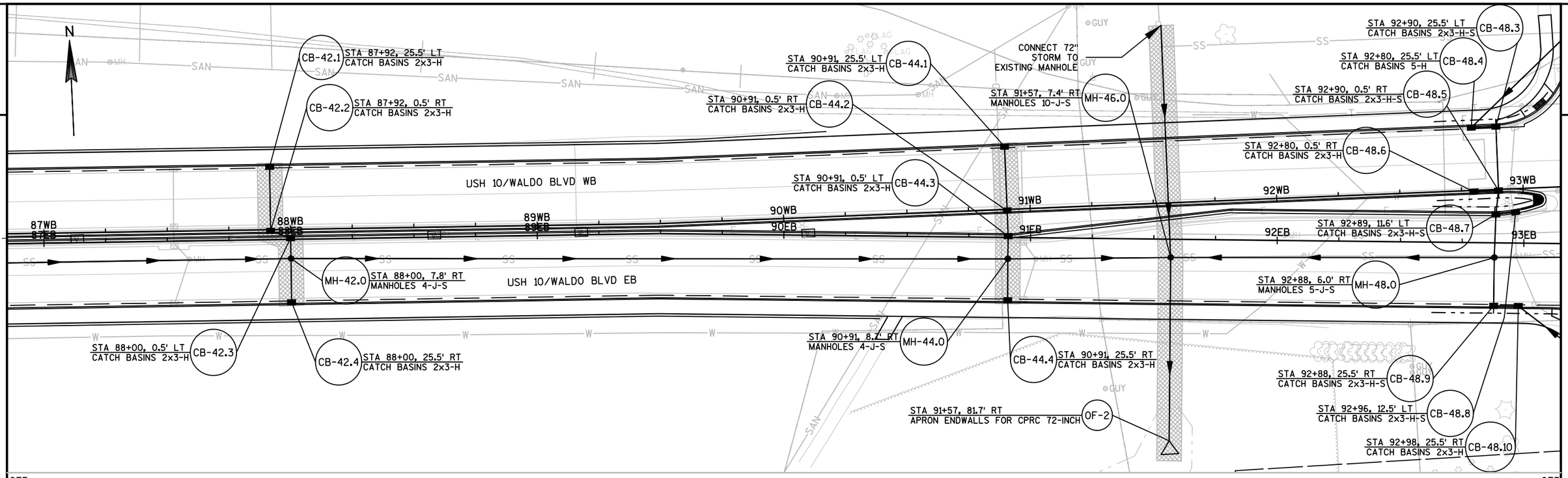


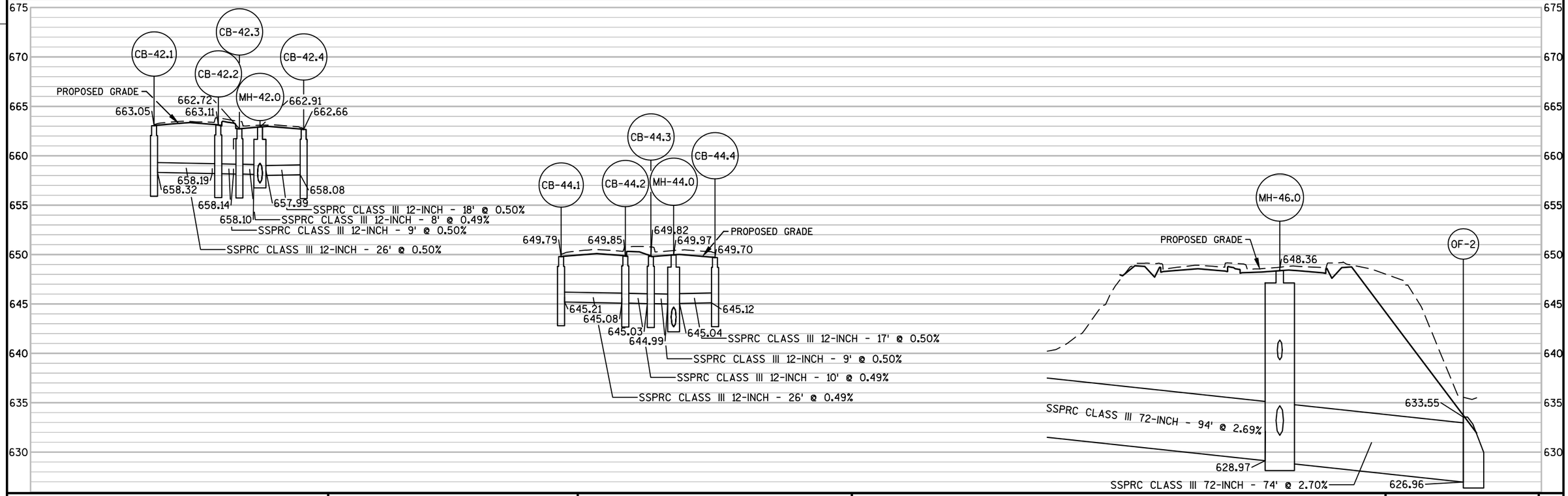


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 79	E



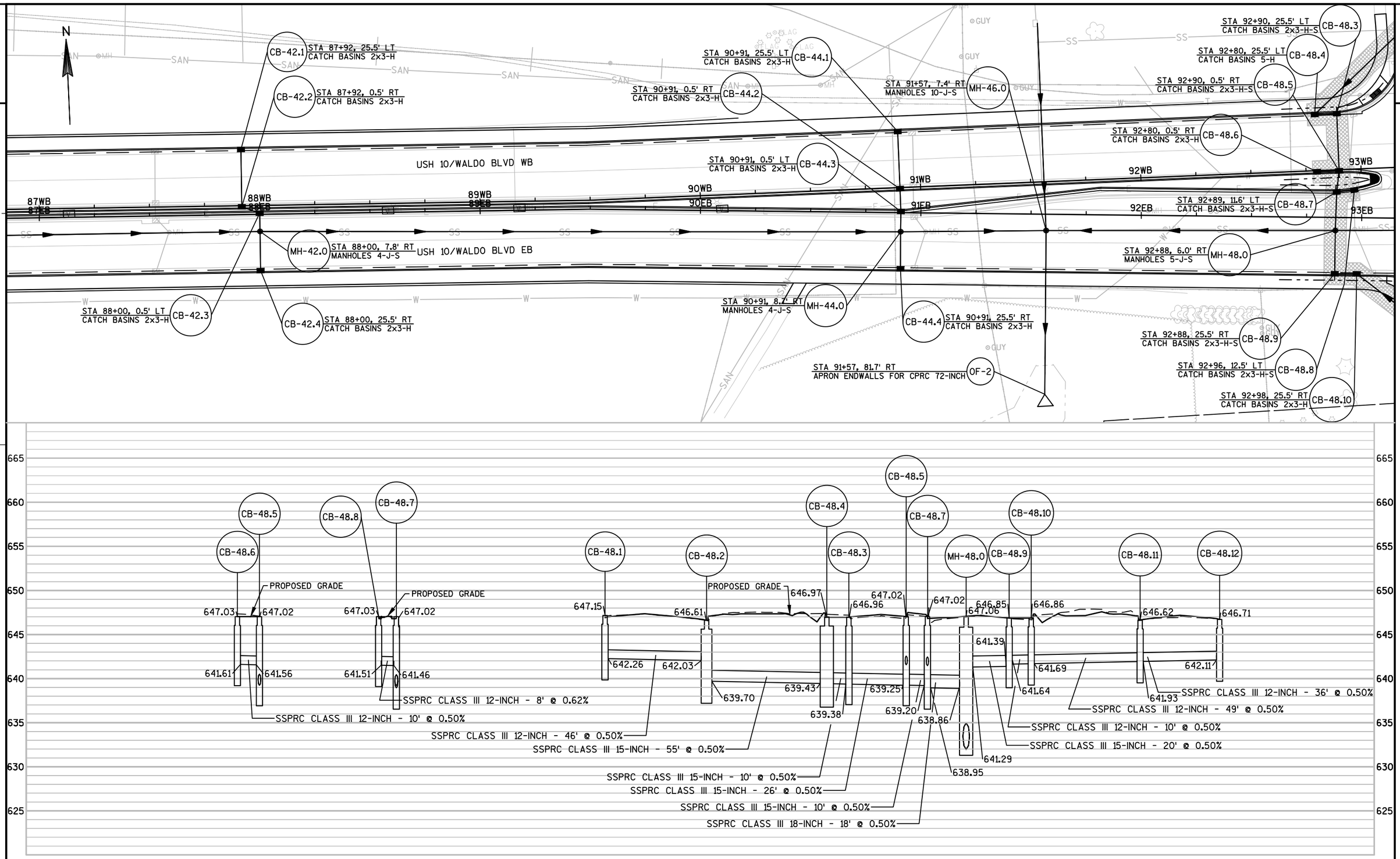
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 80	E





PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:44 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF

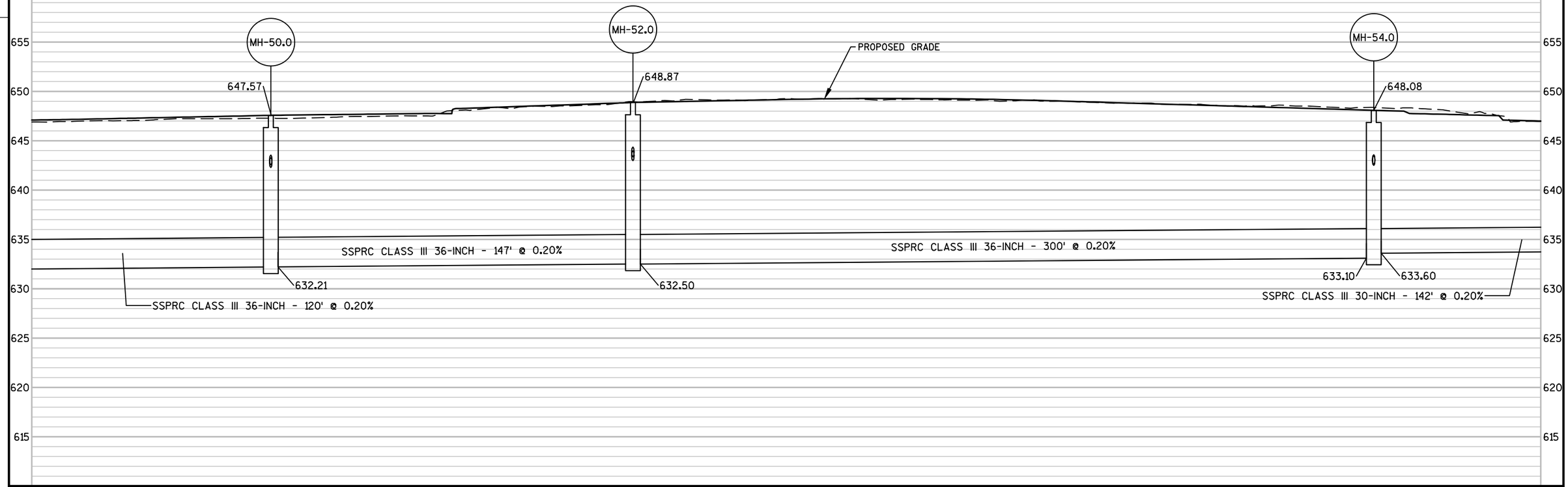


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 82	E

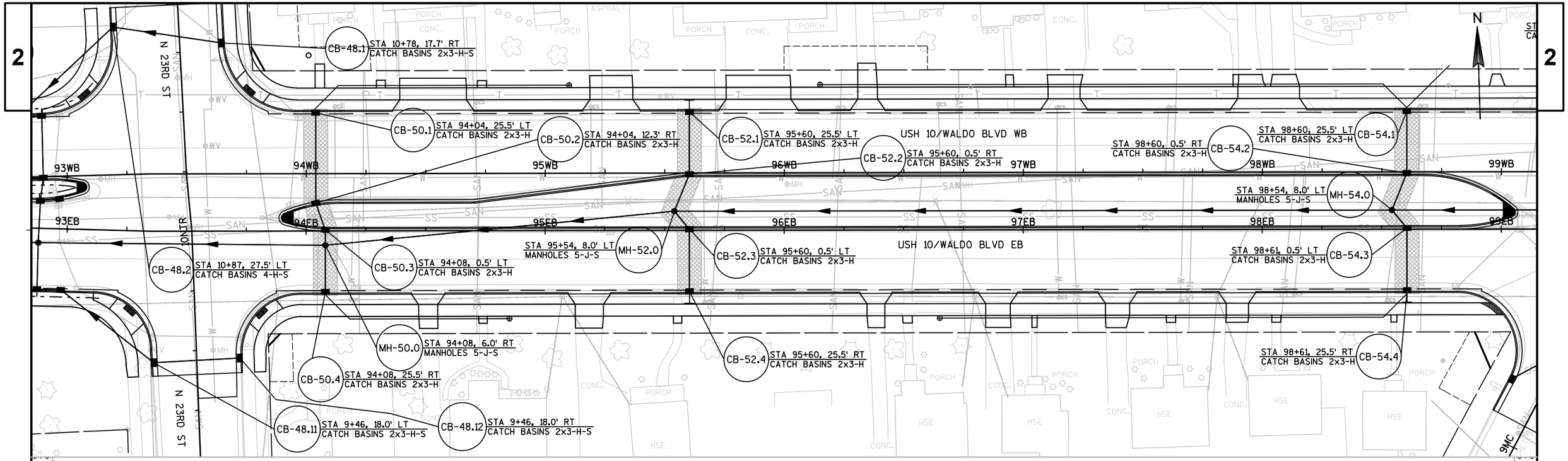
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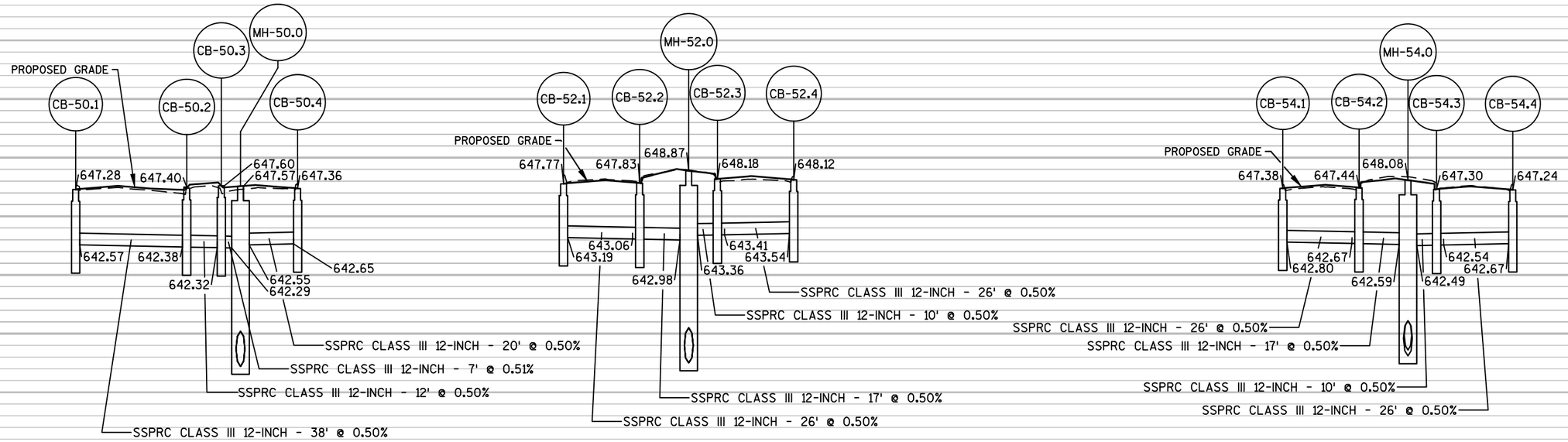
WISDOT/CADDS SHEET 41

REMOVE EXISTING STORM SEWER (12") TO CONSTRUCTION LIMITS SEAL PIPE TO NORTH
CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD
CB-48.1 STA 10+78, 17.7' RT CATCH BASINS 2x3-H-S
6-INCH PVC REQD SEE CONSTRUCTION DETAIL
CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL
6-INCH PVC REQD SEE CONSTRUCTION DETAIL
N 23RD ST
CONNECT EXISTING 15" STORM TO CB-48.2 CONCRETE COLLAR REQD
CB-50.1 STA 94+04, 25.5' LT CATCH BASINS 2x3-H
CB-50.2 STA 94+04, 12.3' RT CATCH BASINS 2x3-H
CB-52.1 STA 95+60, 25.5' LT CATCH BASINS 2x3-H
CB-52.2 STA 95+60, 0.5' RT CATCH BASINS 2x3-H
USH 10/WALDO BLVD WB
STA 98+60, 0.5' RT CATCH BASINS 2x3-H
CB-54.2
STA 98+60, 25.5' LT CATCH BASINS 2x3-H
CB-54.1
93WB 94WB 95WB 96WB 97WB 98WB 99WB
STA 98+54, 8.0' LT MANHOLES 5-J-S
MH-54.0
93EB 94EB 95EB 96EB 97EB 98EB 99EB
USH 10/WALDO BLVD EB
STA 95+54, 8.0' LT MANHOLES 5-J-S
MH-52.0
CB-48.2 STA 10+87, 27.5' LT CATCH BASINS 4-H-S
CB-50.3 STA 94+08, 0.5' LT CATCH BASINS 2x3-H
CB-52.3 STA 95+60, 0.5' LT CATCH BASINS 2x3-H
STA 98+61, 0.5' LT CATCH BASINS 2x3-H
CB-54.3
MH-50.0 STA 94+08, 6.0' RT MANHOLES 5-J-S
CB-52.4 STA 95+60, 25.5' RT CATCH BASINS 2x3-H
STA 98+61, 25.5' RT CATCH BASINS 2x3-H
CB-54.4
CB-50.4 STA 94+08, 25.5' RT CATCH BASINS 2x3-H
CB-48.11 STA 9+46, 18.0' LT CATCH BASINS 2x3-H-S
CB-48.12 STA 9+46, 18.0' RT CATCH BASINS 2x3-H-S
CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL
6-INCH PVC REQD SEE CONSTRUCTION DETAIL
N 23RD ST
9MC
N
2
2



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 83	E





PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 84	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\1500377l_022500_SSB.DWG PLOT DATE : 6/11/2019 11:45 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 41

2

STA 100+00, 0.5' RT
CATCH BASINS 2x3-H-S
CB-58.5

STA 100+02, 25.5' LT
CATCH BASINS 2x3-H-S
CB-58.3

CB-58.1
STA 100+57, 52.7' LT
CATCH BASINS 3-BH

NOTE: CONNECT EXISTING PRIVATE LATERAL TO CB-64.1 AND CB-64.2 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

12" CMCP

CB-58.2
STA 100+38, 25.5' LT
CATCH BASINS 2x3-H

N 21ST ST

CB-64.2
STA 10+74, 17.6' RT
CATCH BASINS 2x3-H-S

CB-64.3
STA 103+43, 25.5' LT
CATCH BASINS 2x3-H

N

USH 10/WALDO BLVD WB

PIPE UNDERDRAIN
6-INCH REQD
SEE CONSTRUCTION DETAIL

CB-58.4
STA 100+10, 0.5' RT
CATCH BASINS 2x3-H

MH-60.0
STA 101+00, 8.0' LT
MANHOLES 5-J-S

STA 10+78, 17.4' LT
CATCH BASINS 2x3-H
CB-64.1

6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

CB-64.4
STA 103+62, 11.5' RT
CATCH BASINS 2x3-H

99WB 100WB 101WB 102WB 103WB 104WB 105WB

99EB 100EB 101EB 102EB 103EB 104EB 105EB

10MC

PIPE UNDERDRAIN
6-INCH REQD
SEE CONSTRUCTION DETAIL

CB-56.1
STA 99+95, 1.2' LT
CATCH BASINS 4-H

MH-58.0
STA 99+97, 7.9' LT
MANHOLES 5-J-S

USH 10/WALDO BLVD EB

STA 103+51, 8.0' LT
MANHOLES 5-J-S
MH-64.0

CB-64.5
STA 103+60, 0.5' LT
CATCH BASINS 2x3-H

MENCHL DR

CB-56.2
STA 99+85, 3.7' LT
CATCH BASINS 4-H-S

6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

CB-56.5
STA 9+64, 14.3' RT
CATCH BASINS 2x3-H

CB-56.3
STA 99+76, 25.5' RT
CATCH BASINS 2x3-H

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

CB-56.6
STA 9+25, 14.1' LT
CATCH BASINS 2x3-H

CB-56.4
STA 99+66, 25.8' RT
CATCH BASINS 2x3-H-S

NOTE: CONNECT EXISTING PRIVATE LATERAL TO CB-56.3 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

STA 9+57, 18.5' LT
CATCH BASINS 2x3-H-S
CB-64.8

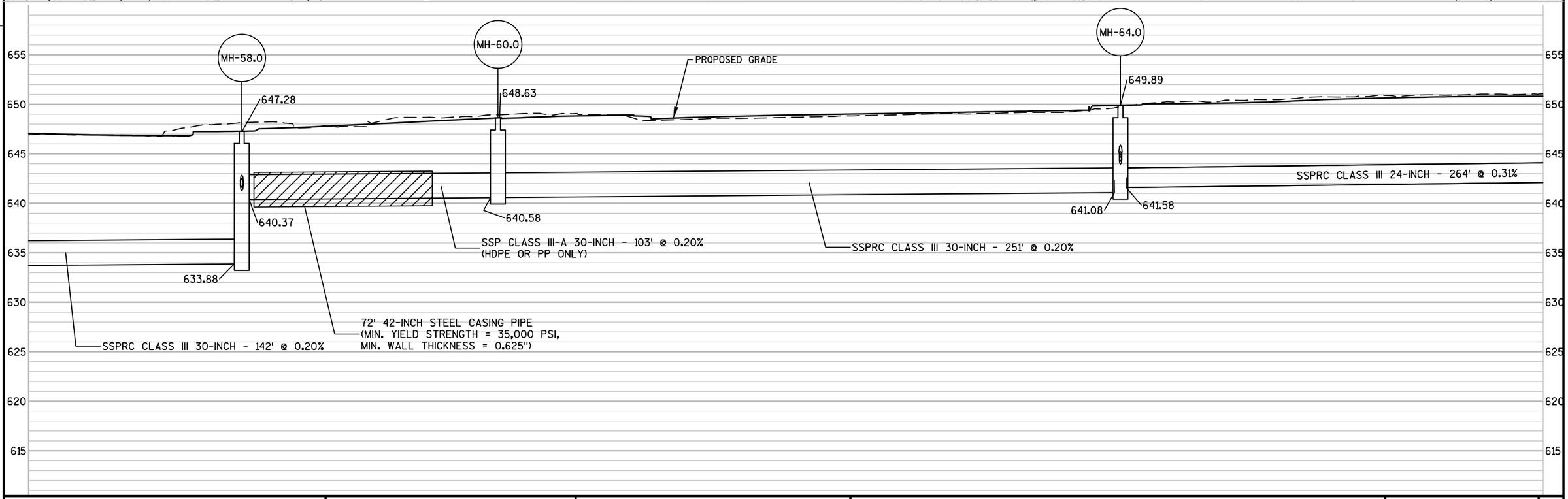
N 21ST ST

CB-64.6
STA 103+45, 25.5' RT
CATCH BASINS 2x3-H

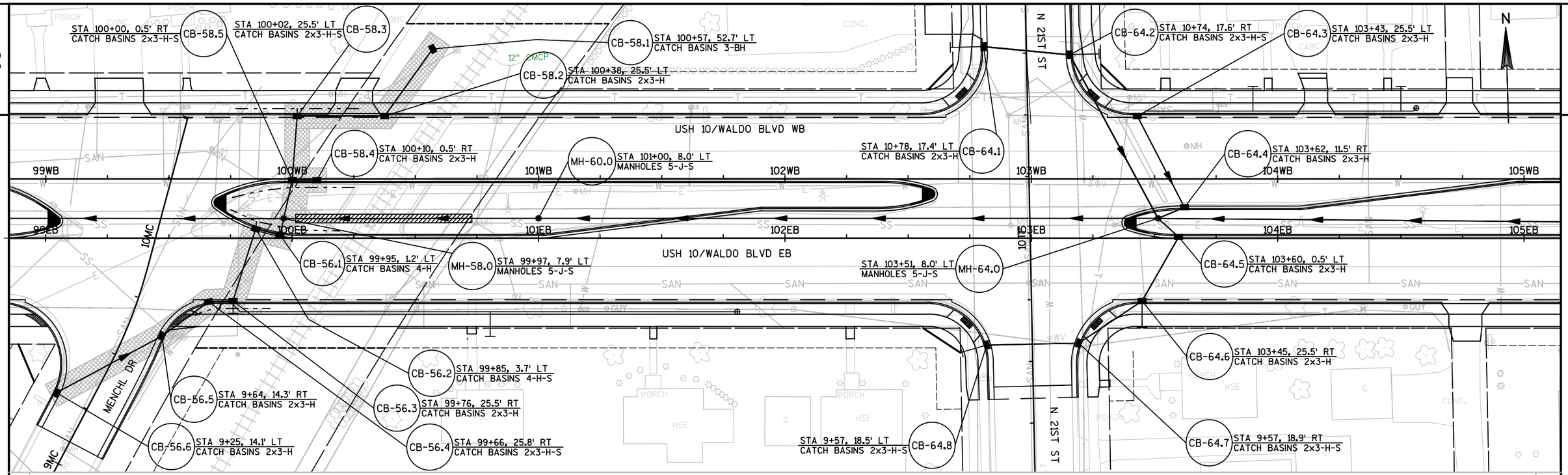
CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

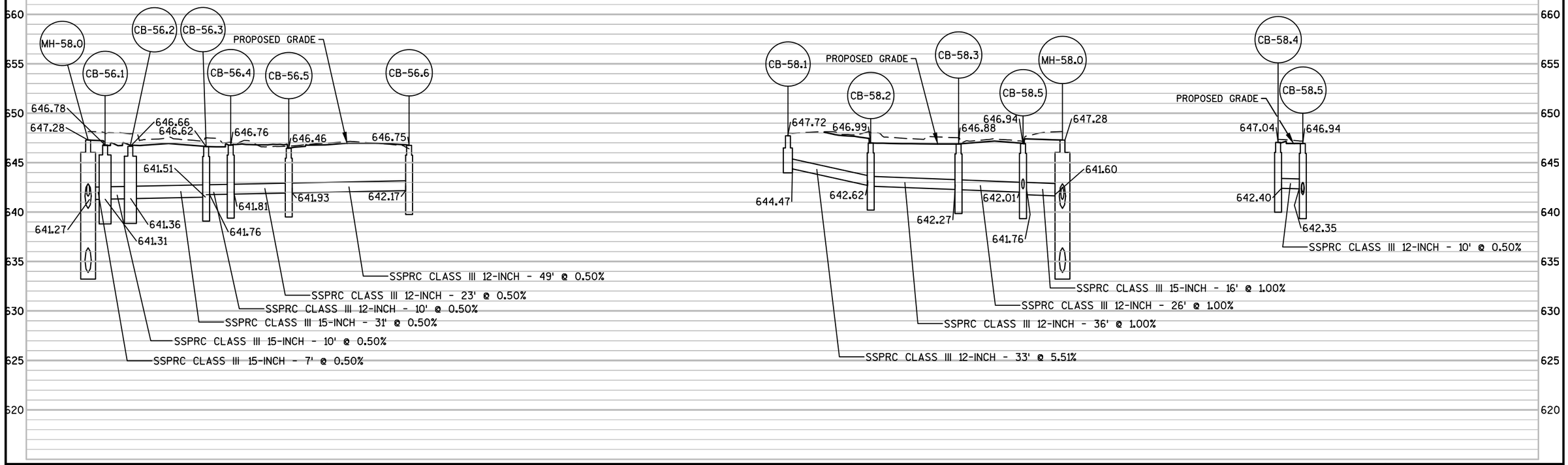
CB-64.7
STA 9+57, 18.9' RT
CATCH BASINS 2x3-H-S

9MC



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 85	E



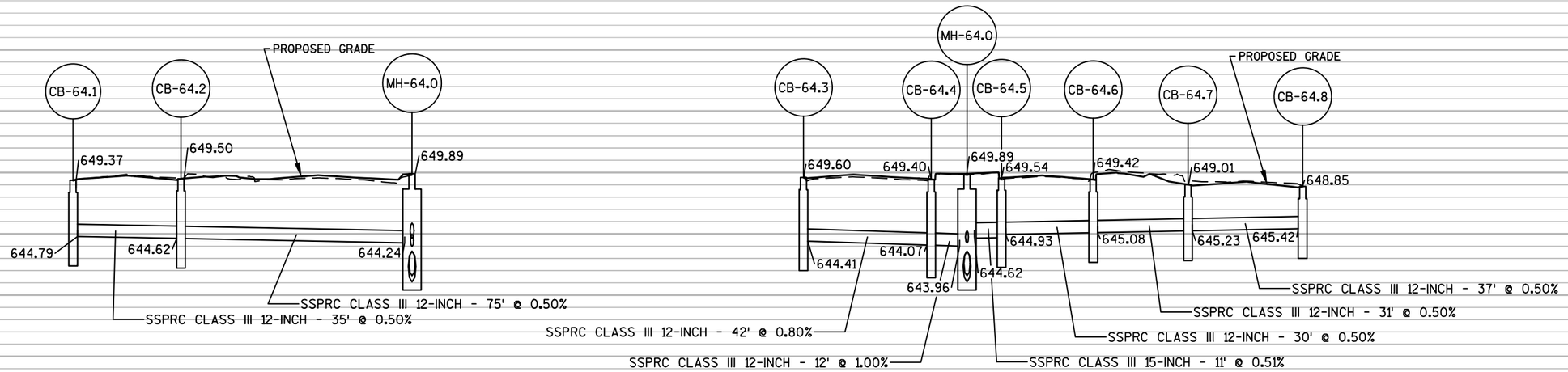


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 86	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 7/29/2019 11:42 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 41

STA 100+00, 0.5' RT
CATCH BASINS 2x3-H-S
CB-58.5
STA 100+02, 25.5' LT
CATCH BASINS 2x3-H-S
CB-58.3
CB-58.1
STA 100+57, 52.7' LT
CATCH BASINS 3-BH
12" CMCP
CB-58.2
STA 100+38, 25.5' LT
CATCH BASINS 2x3-H
CB-64.2
STA 10+74, 17.6' RT
CATCH BASINS 2x3-H-S
CB-64.3
STA 103+43, 25.5' LT
CATCH BASINS 2x3-H
N 21ST ST
N
USH 10/WALDO BLVD WB
CB-58.4
STA 100+10, 0.5' RT
CATCH BASINS 2x3-H
MH-60.0
STA 101+00, 8.0' LT
MANHOLES 5-J-S
STA 10+78, 17.4' LT
CATCH BASINS 2x3-H
CB-64.1
CB-64.4
STA 103+62, 11.5' RT
CATCH BASINS 2x3-H
99WB
100WB
101WB
102WB
103WB
104WB
105WB
99EB
100EB
101EB
102EB
103EB
104EB
105EB
10MC
USH 10/WALDO BLVD EB
CB-56.1
STA 99+95, 1.2' LT
CATCH BASINS 4-H
MH-58.0
STA 99+97, 7.9' LT
MANHOLES 5-J-S
STA 103+51, 8.0' LT
MANHOLES 5-J-S
MH-64.0
CB-64.5
STA 103+60, 0.5' LT
CATCH BASINS 2x3-H
CB-64.6
STA 103+45, 25.5' RT
CATCH BASINS 2x3-H
MENCHL DR
CB-56.2
STA 99+85, 3.7' LT
CATCH BASINS 4-H-S
CB-56.5
STA 9+64, 14.3' RT
CATCH BASINS 2x3-H
CB-56.3
STA 99+76, 25.5' RT
CATCH BASINS 2x3-H
CB-56.6
STA 9+25, 14.1' LT
CATCH BASINS 2x3-H
CB-56.4
STA 99+66, 25.8' RT
CATCH BASINS 2x3-H-S
9MC
STA 9+57, 18.5' LT
CATCH BASINS 2x3-H-S
CB-64.8
CB-64.7
STA 9+57, 18.9' RT
CATCH BASINS 2x3-H-S



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 87	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:46 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 41

STA 10+79, 13.4' LT
CATCH BASINS 2x3-H-S
CB-66.1

CB-66.1A
STA 10+79, 13.4' RT
CATCH BASINS 2x3-H

STA 107+26, 0.5' RT
CATCH BASINS 2x3-H
CB-68.3

CB-68.1
STA 10+52, 13.6' RT
CATCH BASINS 2x3-H

CB-68.1A
STA 10+52, 13.5' LT
CATCH BASINS 2x3-H

STA 109+61, 26.0' LT
CATCH BASINS 2x3-H
CB-70.3

STA 10+50, 14.3' LT
CATCH BASINS 2x3-H-S
CB-70.2

CB-70.1
STA 10+50, 14.3' RT
CATCH BASINS 2x3-H

STA 106+11, 25.5' LT
CATCH BASINS 2x3-H
CB-66.2

CB-68.2
STA 107+34, 25.5' LT
CATCH BASINS 2x3-H

STA 109+62, 6.1' RT
CATCH BASINS 2x3-H
CB-70.4

STA 109+62, 6.9' LT
CATCH BASINS 2x3-H
CB-70.5

STA 106+15, 3.5' RT
CATCH BASINS 2x3-H
CB-66.3

6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

STA 106+15, 5.8' LT
MANHOLES 4-H
MH-66.0

STA 106+13, 25.5' RT
CATCH BASINS 2x3-H
CB-66.4

STA 9+57, 22.2' LT
MANHOLES 4-J-S
MH-66.5

CB-68.4
STA 107+23, 7.4' LT
CATCH BASINS 2x3-H

MH-68.0
STA 107+23, 11.0' RT
MANHOLES 4-J-S

CONNECT EXISTING PRIVATE
LATERAL 6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

CONNECT EXISTING PRIVATE
LATERAL 6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

STA 109+63, 11.0' RT
MANHOLES 4-J-S
MH-70.0

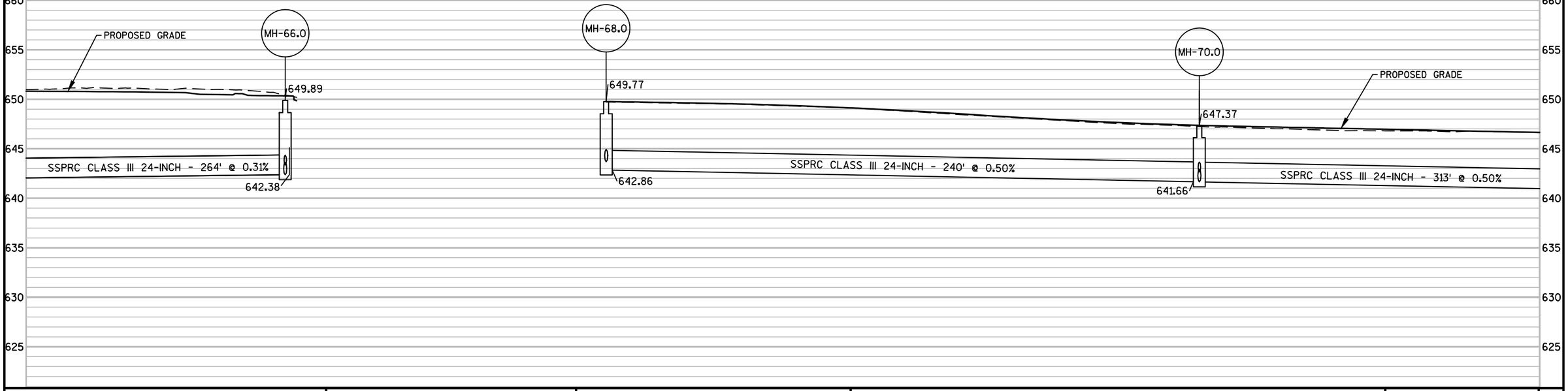
STA 109+63, 25.5' RT
CATCH BASINS 2x3-H
CB-70.6

CONNECT EXISTING PRIVATE
LATERAL 6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

NOTE:
CONNECT EXISTING PRIVATE LATERALS
TO CB-66.1, CB-68.1 AND CB-70.2
6-INCH PVC REQD SEE CONSTRUCTION DETAIL

PARK ROW BLVD
N 20TH ST
ELM ST
USH 10/WALDO BLVD WB
USH 10/WALDO BLVD EB
105WB 106WB 107WB 108WB 109WB 110WB 111WB
105EB 106EB 107EB 108EB 109EB 110EB 111EB
10SPR
10NPR
10ELM

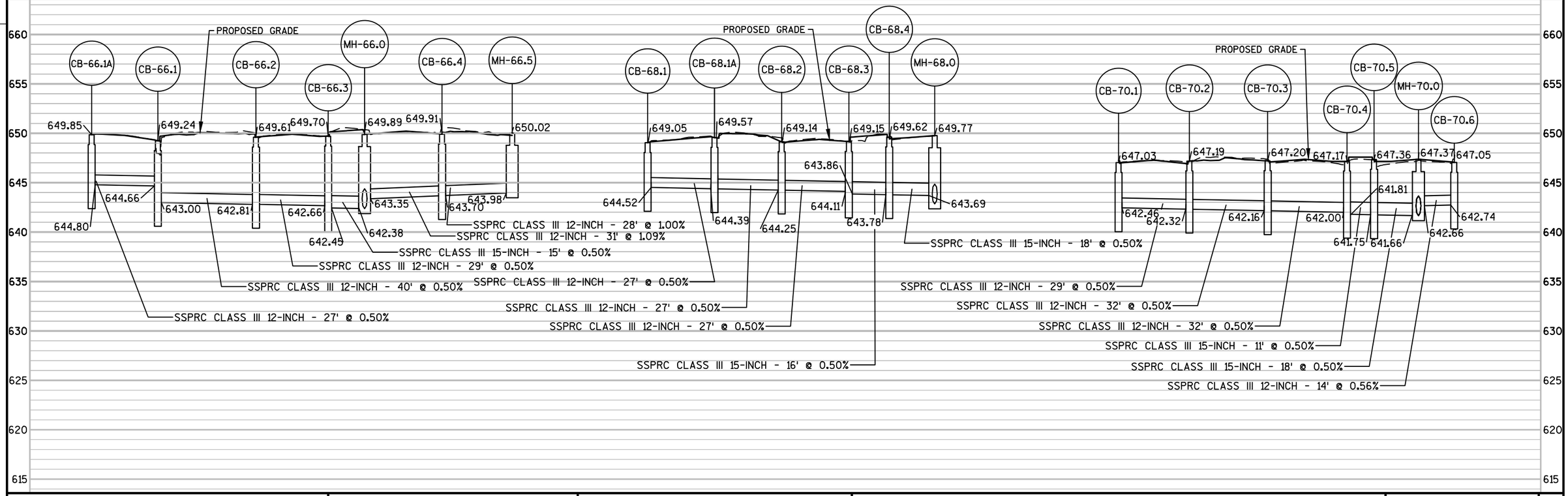
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 88	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG
PLOT DATE : 6/11/2019 11:47 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 41

STA 10+79, 13.4' LT
CATCH BASINS 2x3-H-S
CB-66.1
CB-66.1A
STA 10+79, 13.4' RT
CATCH BASINS 2x3-H
STA 107+26, 0.5' RT
CATCH BASINS 2x3-H
CB-68.3
CB-68.1
STA 10+52, 13.6' RT
CATCH BASINS 2x3-H
CB-68.1A
STA 10+52, 13.5' LT
CATCH BASINS 2x3-H
STA 109+61, 26.0' LT
CATCH BASINS 2x3-H
CB-70.3
STA 10+50, 14.3' LT
CATCH BASINS 2x3-H-S
CB-70.2
CB-70.1
STA 10+50, 14.3' RT
CATCH BASINS 2x3-H
N
PARK ROW BLVD
PARK ROW BLVD
ELM ST
STA 106+11, 25.5' LT
CATCH BASINS 2x3-H
CB-66.2
CB-68.2
STA 107+34, 25.5' LT
CATCH BASINS 2x3-H
STA 109+62, 6.1' RT
CATCH BASINS 2x3-H
CB-70.4
105WB
106WB
107WB
108WB
USH 10/WALDO BLVD WB
109WB
110WB
111WB
105EB
106EB
107EB
108EB
109EB
110EB
111EB
STA 109+62, 6.9' LT
CATCH BASINS 2x3-H
CB-70.5
STA 106+15, 3.5' RT
CATCH BASINS 2x3-H
CB-66.3
USH 10/WALDO BLVD EB
10SPR
10NPR
10ELM
STA 106+15, 5.8' LT
MANHOLES 4-H
MH-66.0
STA 106+13, 25.5' RT
CATCH BASINS 2x3-H
CB-66.4
STA 9+57, 22.2' LT
MANHOLES 4-J-S
MH-66.5
N 20TH ST
CONNECT EXISTING
12" STORM TO MH-66.5
CONCRETE COLLAR REQD
CB-68.4
STA 107+23, 7.4' LT
CATCH BASINS 2x3-H
MH-68.0
STA 107+23, 11.0' RT
MANHOLES 4-J-S
STA 109+63, 11.0' RT
MANHOLES 4-J-S
MH-70.0
STA 109+63, 25.5' RT
CATCH BASINS 2x3-H
CB-70.6



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 89	E

2

N

CB-72.1 STA 112+74, 25.5' LT
CATCH BASINS 2x3-H

CB-72.2 STA 112+75, 0.5' RT
CATCH BASINS 2x3-H

CB-74.1 STA 115+09, 25.5' LT
CATCH BASINS 2x3-H

CB-74.2 STA 115+09, 0.5' RT
CATCH BASINS 2x3-H

CB-74.3 STA 115+10, 8.5' RT
CATCH BASINS 2x3-H

USH 10/WALDO BLVD WB

111WB 112WB 113WB 114WB 115WB 116WB 117WB

CB-72.3 STA 112+76, 0.5' LT
CATCH BASINS 2x3-H

111EB 112EB 113EB 114EB 115EB 116EB 117EB

USH 10/WALDO BLVD EB

MH-72.0 STA 112+76, 11.0' RT
MANHOLES 4-J-S

MH-74.0 STA 115+11, 11.0' RT
MANHOLES 4-J-S

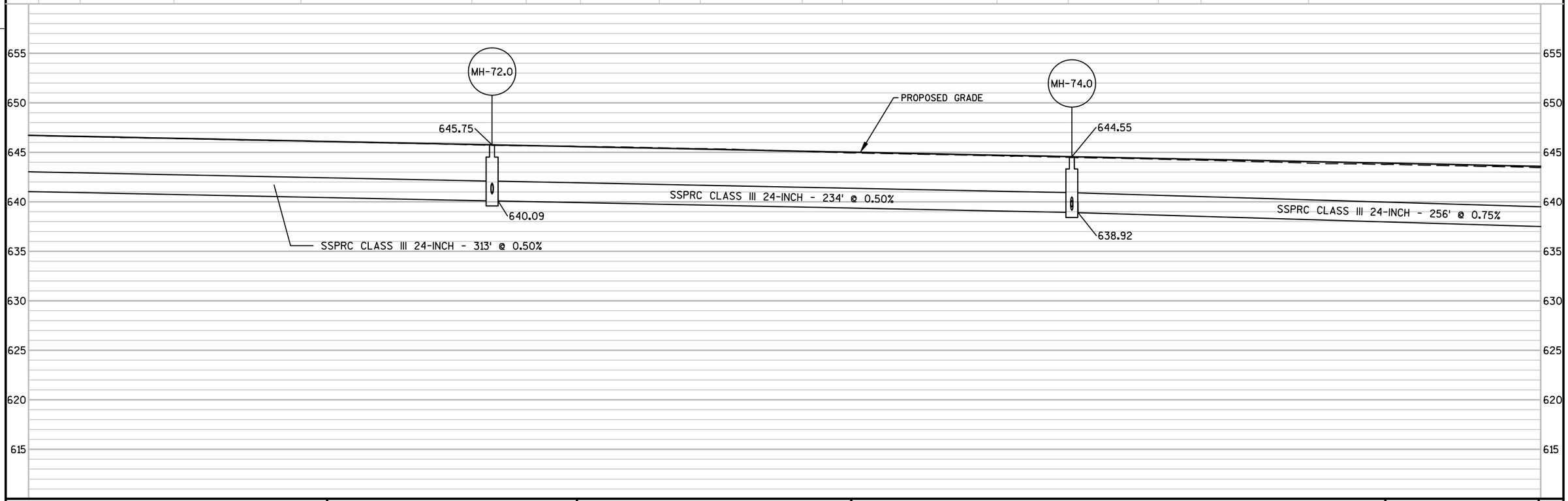
6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

CB-72.4 STA 112+73, 25.5' RT
CATCH BASINS 2x3-H

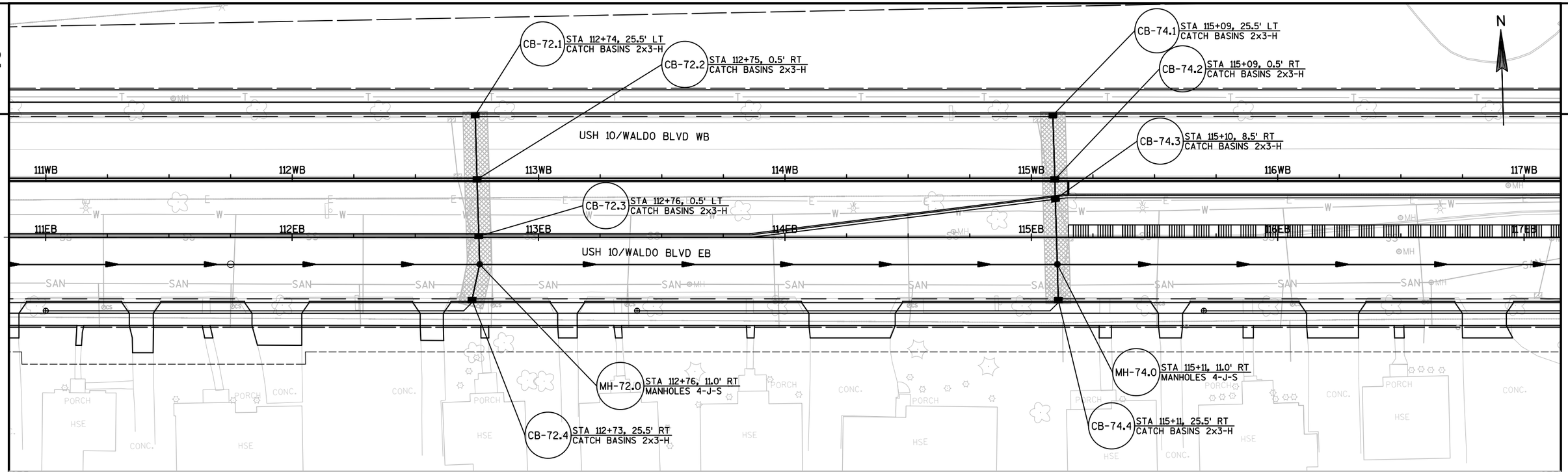
6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

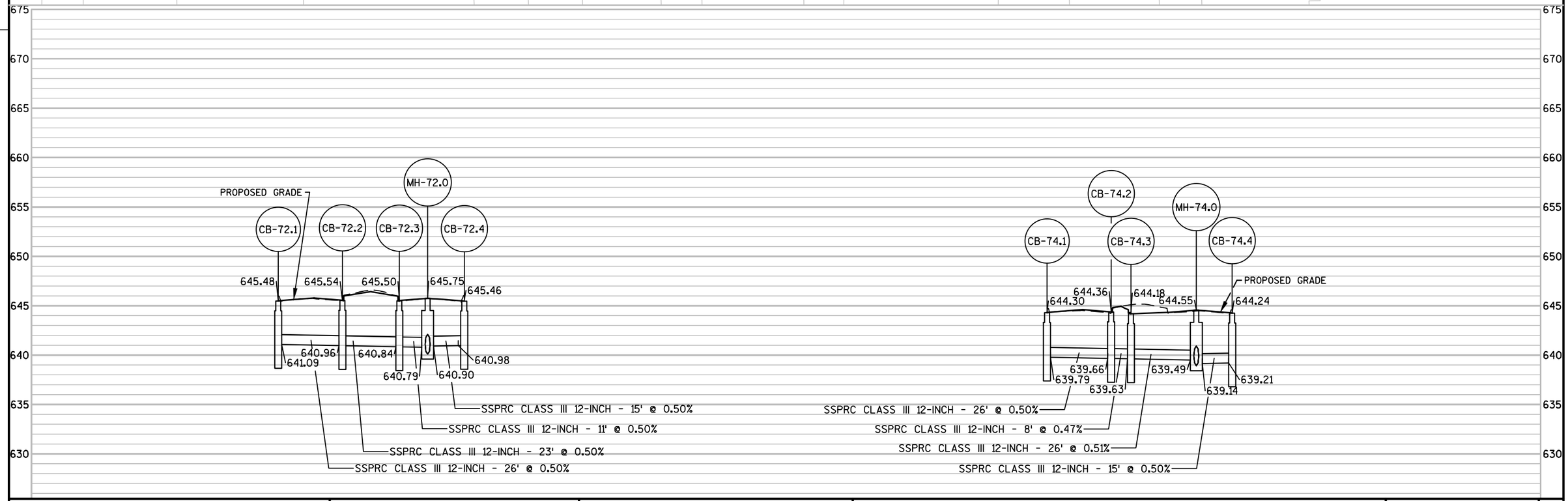
CB-74.4 STA 115+11, 25.5' RT
CATCH BASINS 2x3-H

6-INCH PVC REQD
SEE CONSTRUCTION DETAIL

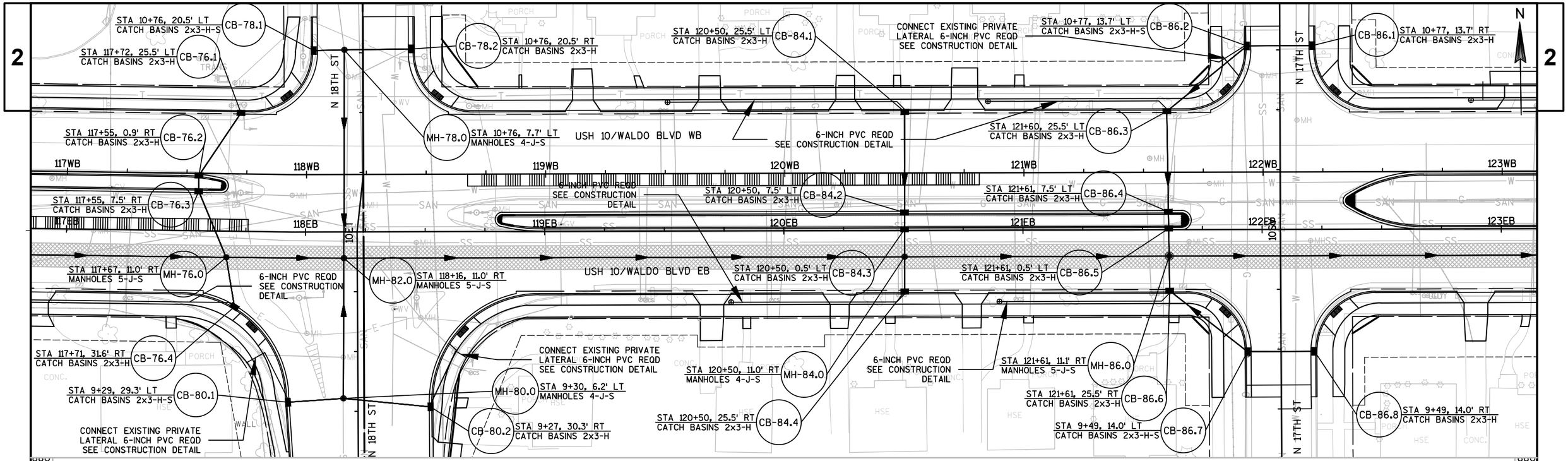


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 90	E





PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 91	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:48 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 41

STA 10+76, 20.5' LT
CATCH BASINS 2x3-H-S
CB-78.1

STA 117+72, 25.5' LT
CATCH BASINS 2x3-H
CB-76.1

STA 117+55, 0.9' RT
CATCH BASINS 2x3-H
CB-76.2

STA 117+55, 7.5' RT
CATCH BASINS 2x3-H
CB-76.3

STA 117+67, 11.0' RT
MANHOLES 5-J-S
MH-76.0

STA 117+71, 31.6' RT
CATCH BASINS 2x3-H
CB-76.4

STA 9+29, 29.3' LT
CATCH BASINS 2x3-H-S
CB-80.1

CONNECT EXISTING
12" STORM TO MH-80.0
CONCRETE COLLAR REQD

N 18TH ST

CONNECT EXISTING
24" STORM TO MH-78.0
CONCRETE COLLAR REQD

CB-78.2
STA 10+76, 20.5' RT
CATCH BASINS 2x3-H

MH-78.0
STA 10+76, 7.7' LT
MANHOLES 4-J-S

MH-82.0
STA 118+16, 11.0' RT
MANHOLES 5-J-S

CB-80.2
STA 9+27, 30.3' RT
CATCH BASINS 2x3-H

MH-80.0
STA 9+30, 6.2' LT
MANHOLES 4-J-S

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

117WB 118WB 119WB 120WB 121WB 122WB 123WB

117EB 118EB 119EB 120EB 121EB 122EB 123EB

STA 120+50, 25.5' LT
CATCH BASINS 2x3-H
CB-84.1

STA 120+50, 7.5' LT
CATCH BASINS 2x3-H
CB-84.2

STA 120+50, 0.5' LT
CATCH BASINS 2x3-H
CB-84.3

STA 120+50, 25.5' RT
CATCH BASINS 2x3-H
CB-84.4

STA 120+50, 11.0' RT
MANHOLES 4-J-S
MH-84.0

STA 10+77, 13.7' LT
CATCH BASINS 2x3-H-S
CB-86.2

STA 121+60, 25.5' LT
CATCH BASINS 2x3-H
CB-86.3

STA 121+61, 7.5' LT
CATCH BASINS 2x3-H
CB-86.4

STA 121+61, 0.5' LT
CATCH BASINS 2x3-H
CB-86.5

STA 121+61, 11.1' RT
MANHOLES 5-J-S
MH-86.0

STA 121+61, 25.5' RT
CATCH BASINS 2x3-H
CB-86.6

STA 9+49, 14.0' LT
CATCH BASINS 2x3-H-S
CB-86.7

N 17TH ST

CB-86.1
STA 10+77, 13.7' RT
CATCH BASINS 2x3-H

CB-86.8
STA 9+49, 14.0' RT
CATCH BASINS 2x3-H

N

2

675 670 665 660 655 650 645 640 635 630

CB-76.1 CB-76.3 CB-76.2 MH-76.0 CB-76.4
PROPOSED GRADE
643.01 643.13 642.89 643.17 642.77
638.43 638.28 638.09 638.56 638.46 638.24
SSPRC CLASS III 12-INCH - 21' @ 0.50%
SSPRC CLASS III 12-INCH - 30' @ 0.50%
SSPRC CLASS III 12-INCH - 7' @ 0.50%
SSPRC CLASS III 12-INCH - 31' @ 0.50%

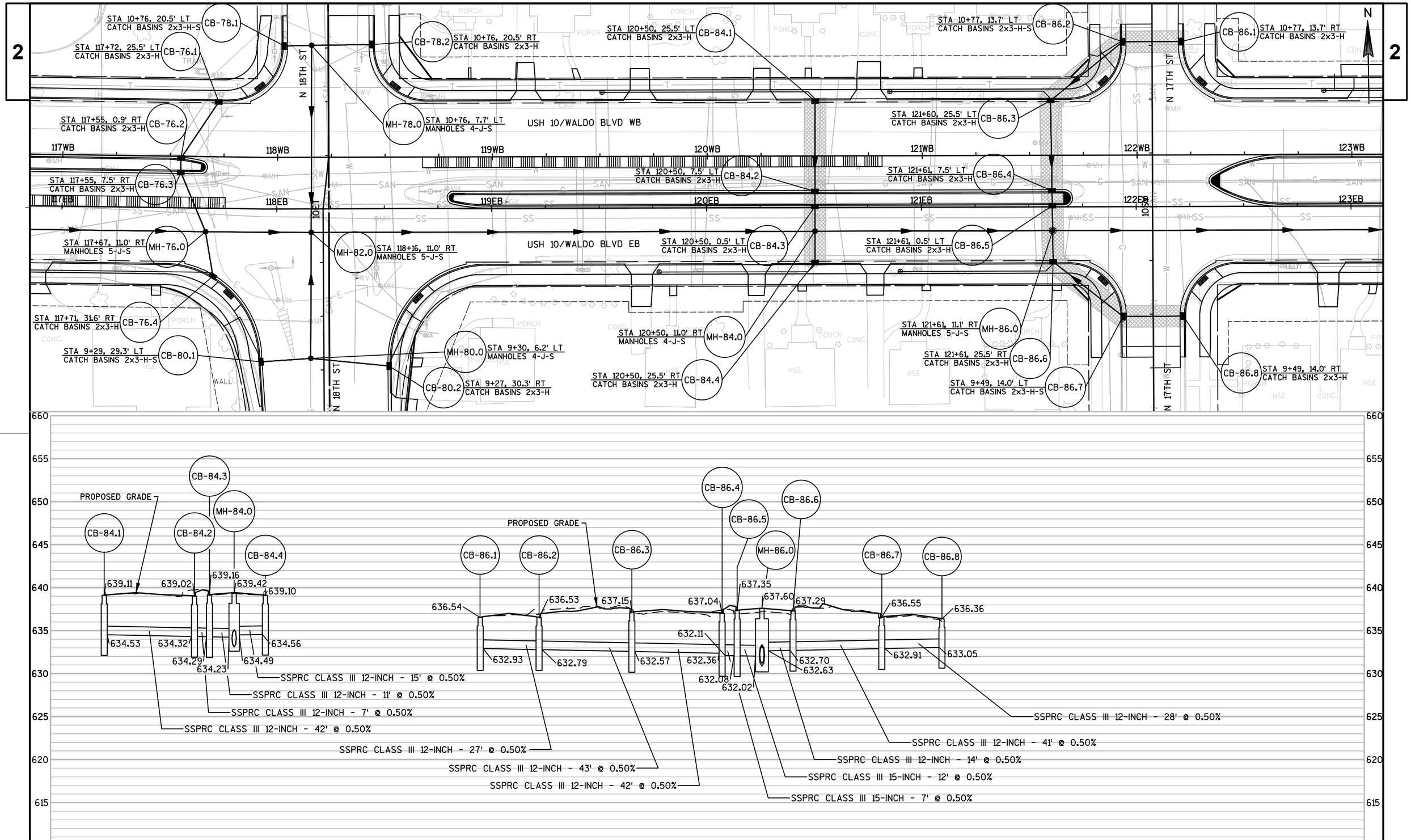
CB-78.1 MH-78.0 CB-78.2
PROPOSED GRADE
642.70 643.03 642.71
638.24 638.18 637.43 637.57
SSPRC CLASS III 12-INCH - 27' @ 0.50%
SSPRC CLASS III 12-INCH - 14' @ 0.48%

MH-78.0 MH-82.0 MH-80.0
PROPOSED GRADE
643.03 642.87 643.25
637.39 636.95 636.63 636.84
SSPRC CLASS III 24-INCH - 87' @ 0.50%
SSPRC CLASS III 15-INCH - 59' @ 0.37%

CB-80.1 MH-80.0 CB-80.2
PROPOSED GRADE
642.66 643.25 642.81
638.08 637.91 638.05 638.24
SSPRC CLASS III 12-INCH - 23' @ 0.75%
SSPRC CLASS III 12-INCH - 37' @ 0.50%

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:49 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 94	E

FILE NAME : X:\PROJECTS\MANITOWOC\1500-37-00_4570-12-00\DESIGN\C3D\SHEETSPLAN\STORM SEWER\15003771_022500_SSB.DWG PLOT DATE : 6/11/2019 11:49 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 41

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

6-INCH PVC REQD SEE CONSTRUCTION DETAIL

STA 10+77, 14.1' LT CATCH BASINS 2x3-H-S CB-92.2

CB-90.1 STA 123+25, 25.5' LT CATCH BASINS 2x3-H

CB-90.2 STA 123+25, 0.5' RT CATCH BASINS 2x3-H

STA 125+10, 25.5' LT CATCH BASINS 2x3-H CB-92.3

CB-90.3 STA 123+25, 0.5' LT CATCH BASINS 2x3-H

STA 125+15, 5.4' RT CATCH BASINS 2x3-H CB-92.4

STA 125+15, 5.5' LT CATCH BASINS 2x3-H CB-92.5

STA 125+15, 11.0' RT MANHOLES 5-J-S MH-92.0

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

MH-90.0 STA 123+25, 11.0' RT MANHOLES 5-J-S

CB-90.4 STA 123+25, 25.5' RT CATCH BASINS 2x3-H

STA 125+11, 25.5' RT CATCH BASINS 2x3-H CB-92.6

STA 9+49, 13.8' LT CATCH BASINS 2x3-H-S CB-92.7

N 16TH ST

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

CB-92.1 STA 10+77, 14.2' RT CATCH BASINS 2x3-H USH 10/WALDO BLVD WB

STA 10+77, 13.8' LT CATCH BASINS 2x3-H-S CB-96.2

6-INCH PVC REQD SEE CONSTRUCTION DETAIL

N 15TH ST

CB-96.1 STA 10+77, 13.8' RT CATCH BASINS 2x3-H

CB-96.3 STA 127+75, 25.5' LT CATCH BASINS 2x3-H-S

STA 127+75, 4.9' RT CATCH BASINS 2x3-H CB-96.4

STA 127+75, 4.7' LT CATCH BASINS 2x3-H CB-96.5

STA 127+75, 11.0' RT MANHOLES 5-J-S MH-96.0

USH 10/WALDO BLVD EB

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

CB-92.8 STA 9+49, 13.8' RT CATCH BASINS 2x3-H-S

CONNECT EXISTING LATERAL 8-INCH PVC REQD SEE CONSTRUCTION DETAIL

STA 127+75, 25.5' RT CATCH BASINS 2x3-H-S CB-96.6

STA 9+49, 13.8' LT CATCH BASINS 2x3-H-S CB-96.7

CB-96.8 STA 9+49, 13.8' RT CATCH BASINS 2x3-H

CONNECT EXISTING PRIVATE LATERAL 6-INCH PVC REQD SEE CONSTRUCTION DETAIL

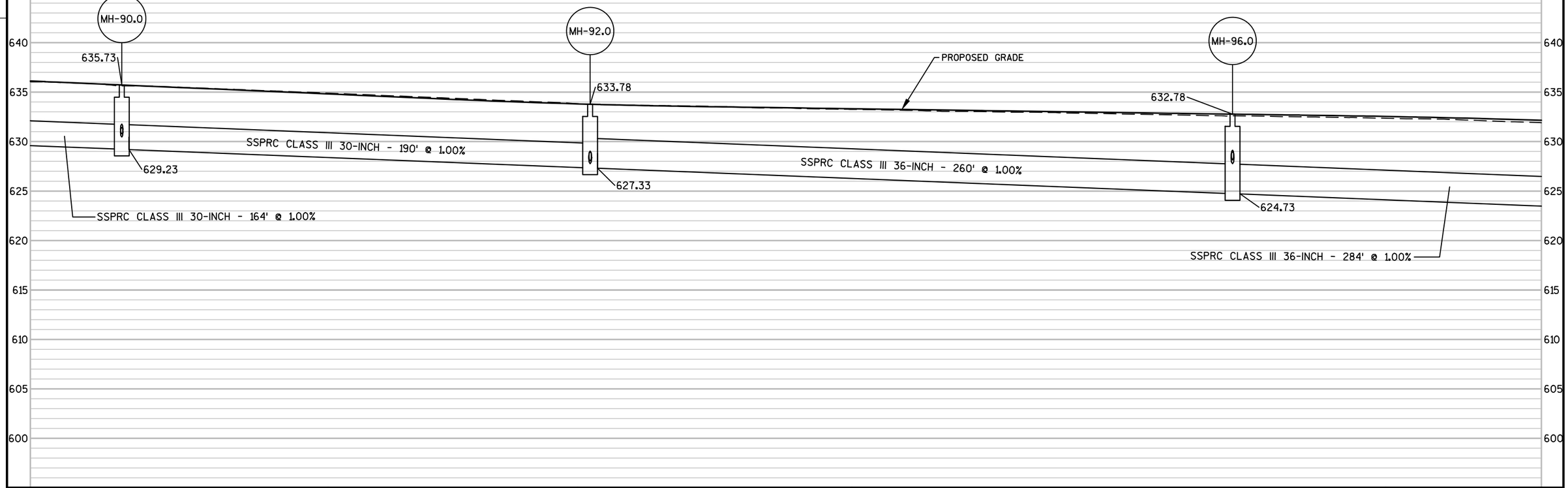
123WB 124WB 125WB 126WB 127WB 128WB 129WB

123EB 124EB 125EB 126EB 127EB 128EB 129EB

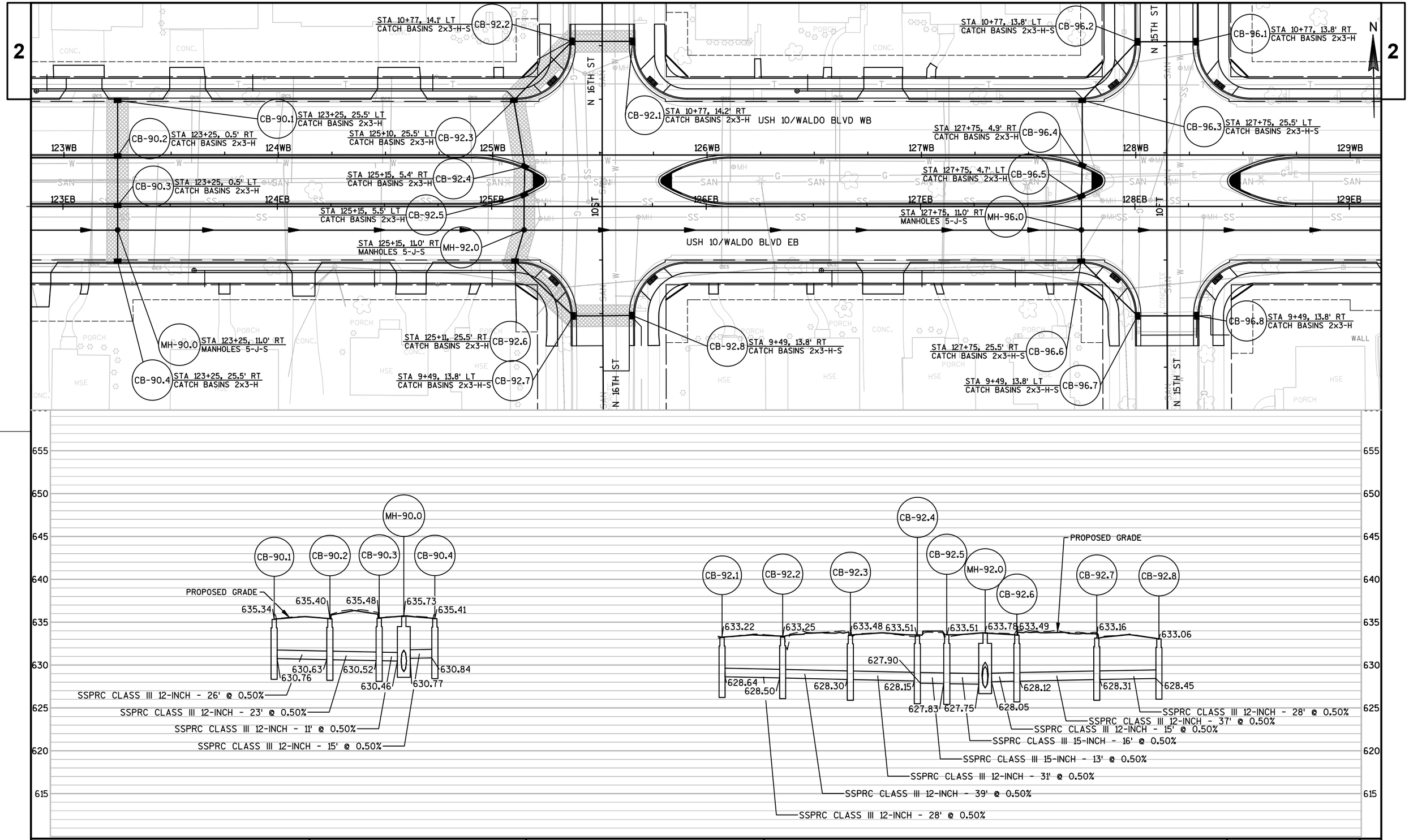
10' T

N

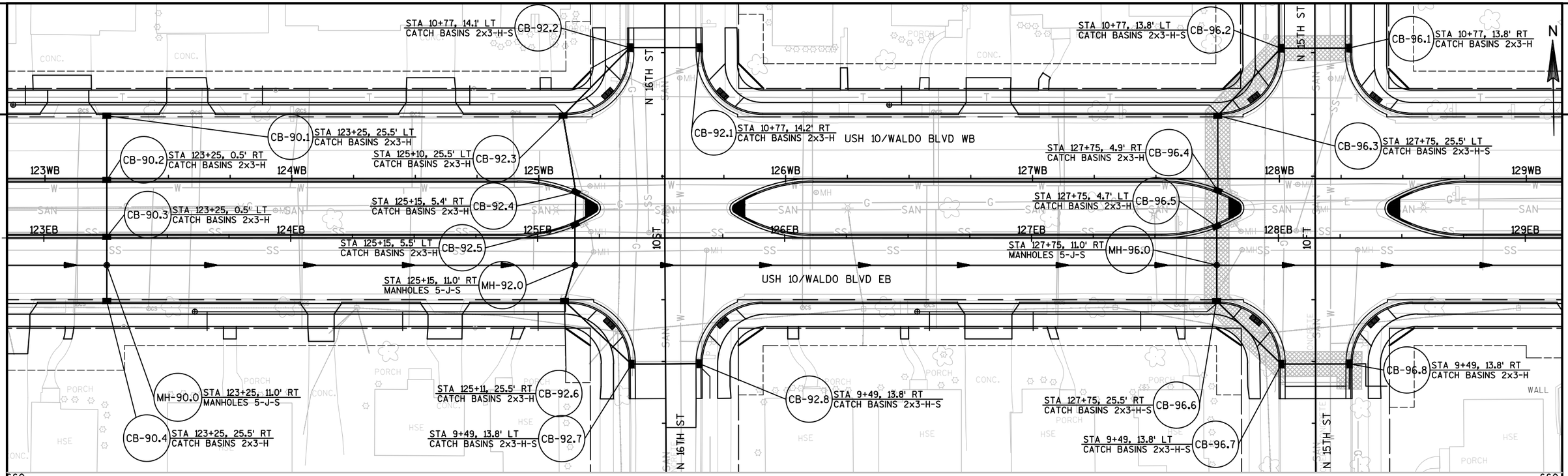
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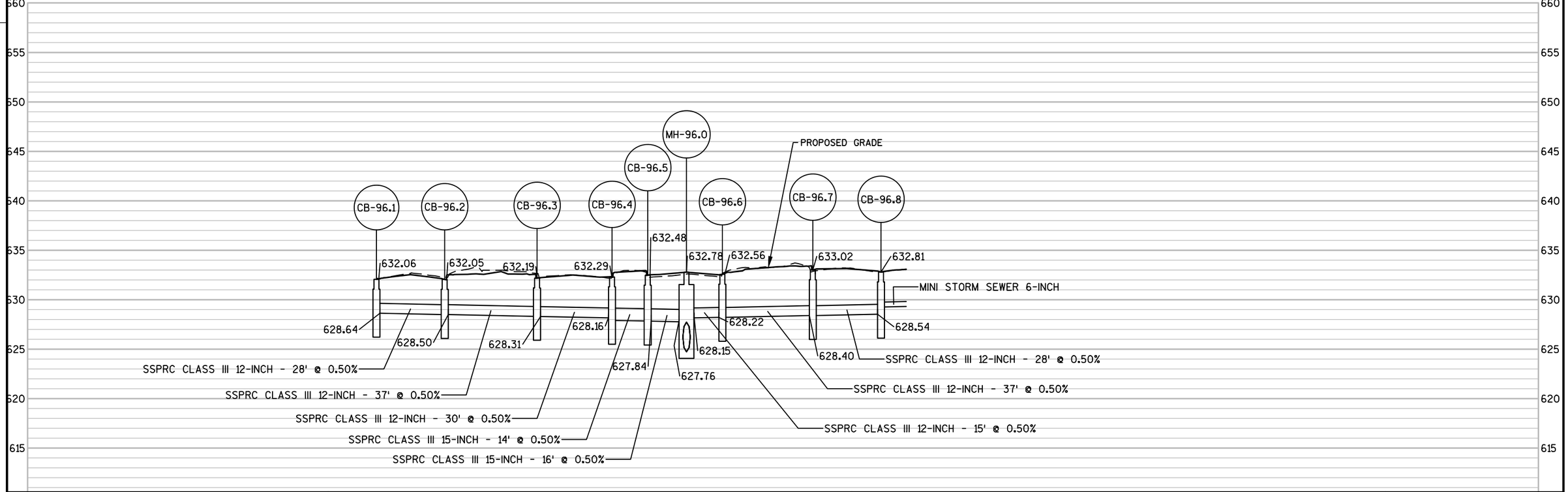


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 95	E

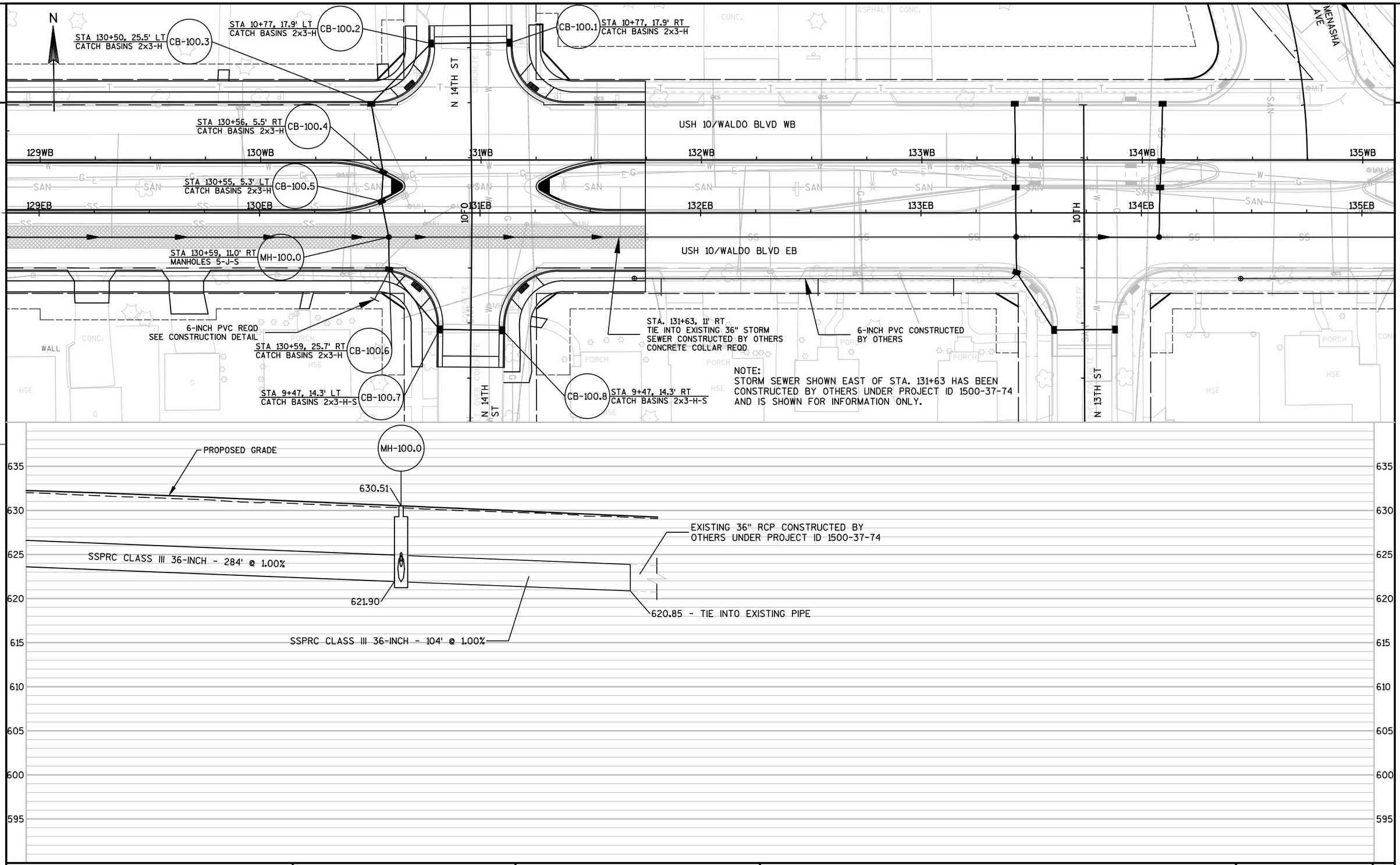


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 96	E

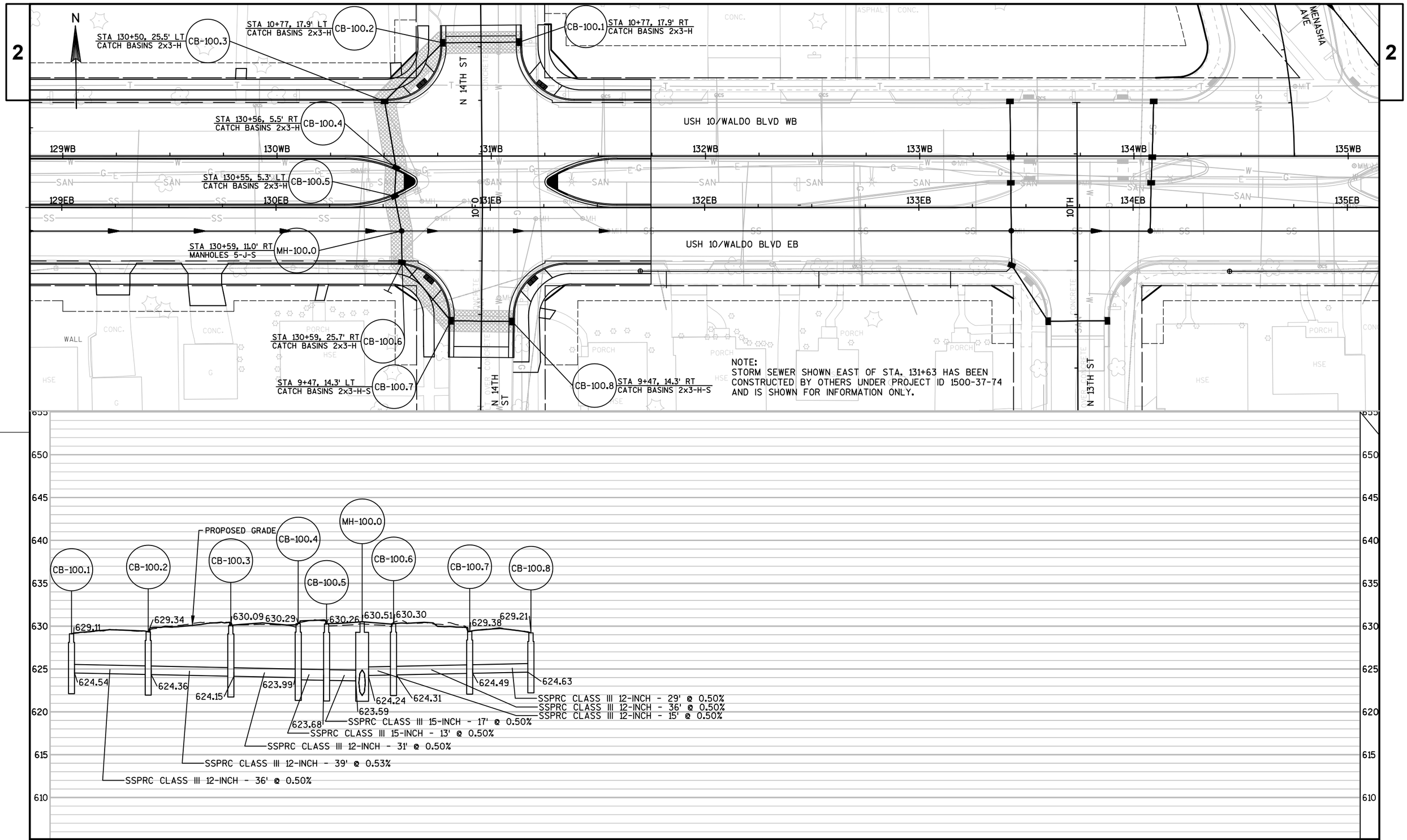




PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 97	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 98	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	STORM SEWER	SHEET 99	E

NOTES

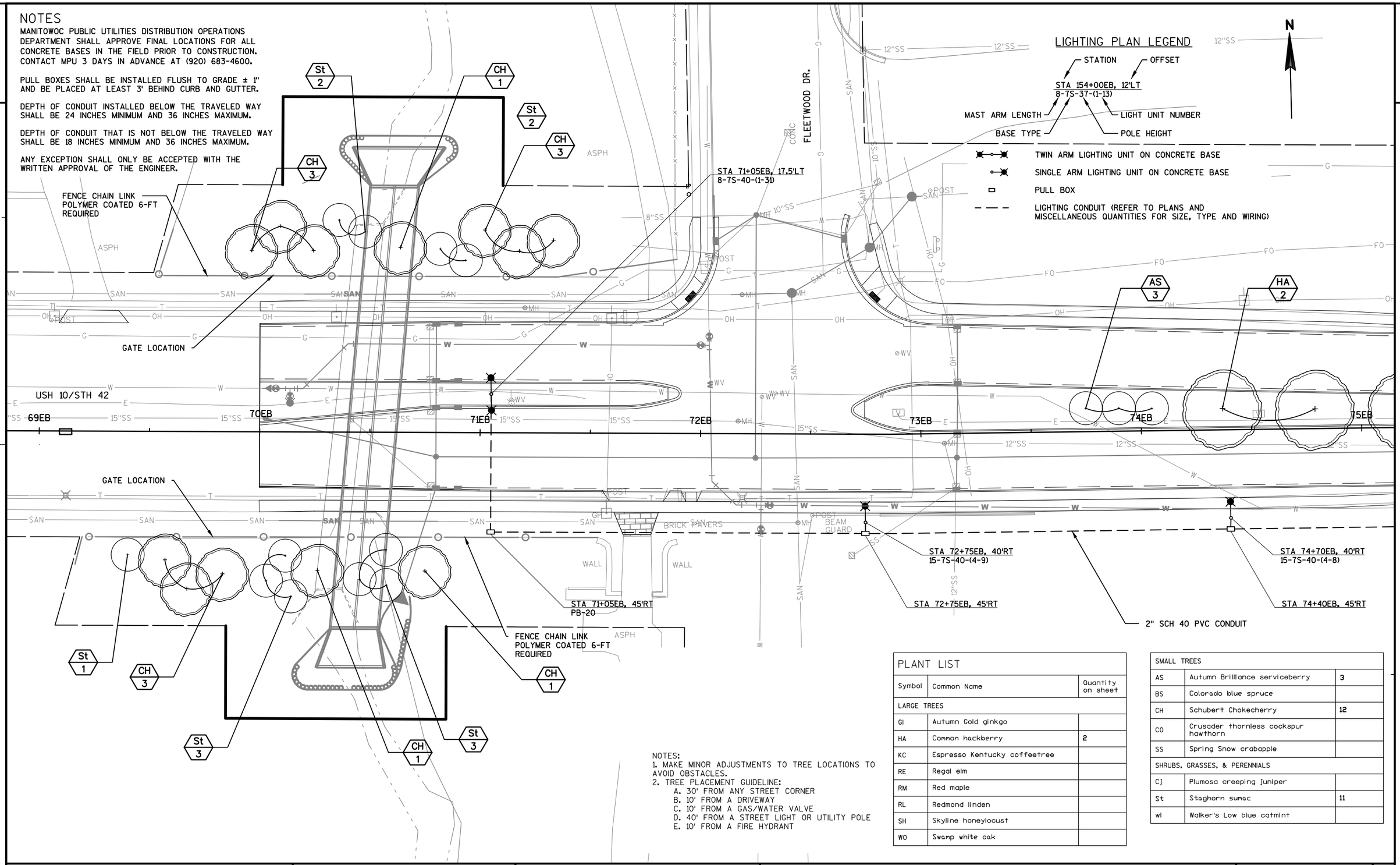
MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

PULL BOXES SHALL BE INSTALLED FLUSH TO GRADE ± 1" AND BE PLACED AT LEAST 3' BEHIND CURB AND GUTTER.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION SHALL ONLY BE ACCEPTED WITH THE WRITTEN APPROVAL OF THE ENGINEER.



NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST		
Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	2
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	3
BS	Colorado blue spruce	
CH	Schubert Chokecherry	12
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	11
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 100	E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\1500_37_76_023501_LP (2020).DWG PLOT DATE : 6/18/2019 7:17 AM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

2

N

INSTALL CONDUIT TO EXISTING MPU PEDESTAL "3H3185"
LOCATED ADJACENT TO POLE "5J8343"

SH 2

USH 10/STH 42

75EB 76EB 77EB 78EB 79EB 80EB 81EB

STA 76+20EB, 45'RT

STA 76+20EB, 40'RT
15-8S-40-(4-7)

2" SCH 40 PVC CONDUIT

STA 78+00EB, 40'RT
15-8S-40-(4-6)

STA 78+00EB, 45'RT

STA 78+51EB, 45'RT
PB-19

STA 80+00EB, 40'RT
15-8S-40-(4-5)

STA 80+00EB, 45'RT

LIGHTING PLAN LEGEND

STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — BASE TYPE — LIGHT UNIT NUMBER — POLE HEIGHT

TWIN ARM LIGHTING UNIT ON CONCRETE BASE

SINGLE ARM LIGHTING UNIT ON CONCRETE BASE

PULL BOX

LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

PULL BOXES SHALL BE INSTALLED FLUSH TO GRADE ± 1" AND BE PLACED AT LEAST 3' BEHIND CURB AND GUTTER.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION SHALL ONLY BE ACCEPTED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	2
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

2

LIGHTING PLAN LEGEND

STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

N

USH 10/STH 42

81WB 82WB 83WB 84WB 85WB 86WB 87WB

81EB 82EB 83EB 84EB 85EB 86EB 87EB

STA 82+00EB, 40'RT
15-8S-40-(4S-2)

STA 82+00EB, 45'RT

STA 84+75EB, 40'RT
15-8S-40-(4S-1)

STA 84+75EB, 45'RT

2" SCH 40 PVC CONDUIT

STA 86+35EB, 40'RT
15-8S-40-(4-4)

STA 86+35EB, 45'RT

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

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NOTES:
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   C. 10' FROM A GAS/WATER VALVE
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   E. 10' FROM A FIRE HYDRANT

PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 102	E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\1500_37_76_023503_LP (2020).DWG PLOT DATE : 6/18/2019 7:09 AM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

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LIGHTING PLAN LEGEND

STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

USH 10/STH 42

87EB 88EB 89EB 90EB 91EB 92EB 93EB

STA 88+15EB, 40'RT
15-8S-40-(4-3)

STA 88+15EB, 45'RT

2" SCH 40 PVC CONDUIT

STA 90+00EB, 40'RT
15-7S-40-(4-2)

STA 90+00EB, 45'RT

STA 92+00EB, 40'RT
15-7S-40-(4-1)

STA 92+00EB, 45'RT

STA 92+46EB, 40'RT
PB-18
INSTALL PULL BOX
ADJACENT TO MPU
POLE "5H7103"

NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 103	E

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

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LIGHTING PLAN LEGEND

STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

N

N. 23RD ST.

USH 10/STH 42

93EB 94EB 95EB 96EB 97EB 98EB 99EB

STA 97+10EB, 12'LT
8-7S-40-(1-29)

GAS LAMP

STA 94+10EB, 6.4'LT
8-7S-40-(1-30)

2" SCH 40 PVC CONDUIT

STA 94+10EB, 4.5'LT

CO 2

WO 1

STA 96+72EB, 29.5'RT
PB-17
INSTALL PULL BOX
ADJACENT TO MPU
POLE "5H7118"

STA 97+06EB, 4.5'LT

KC 1

WO 1

NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST		
Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	1
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	2

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	2
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 104	E

NOTES

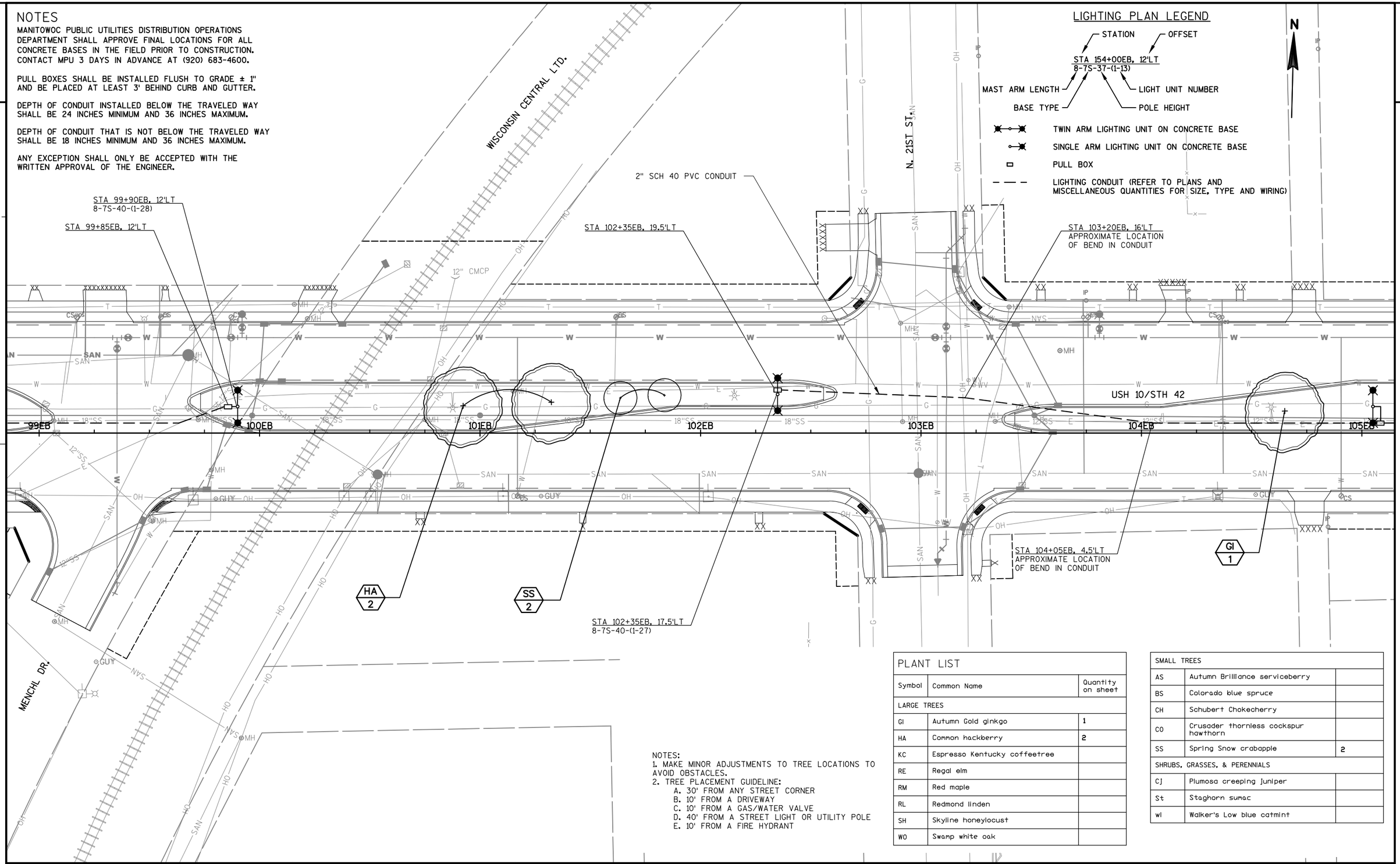
MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

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NOTES:
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   E. 10' FROM A FIRE HYDRANT

PLANT LIST		
Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	1
HA	Common hackberry	2
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	2
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

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LIGHTING PLAN LEGEND

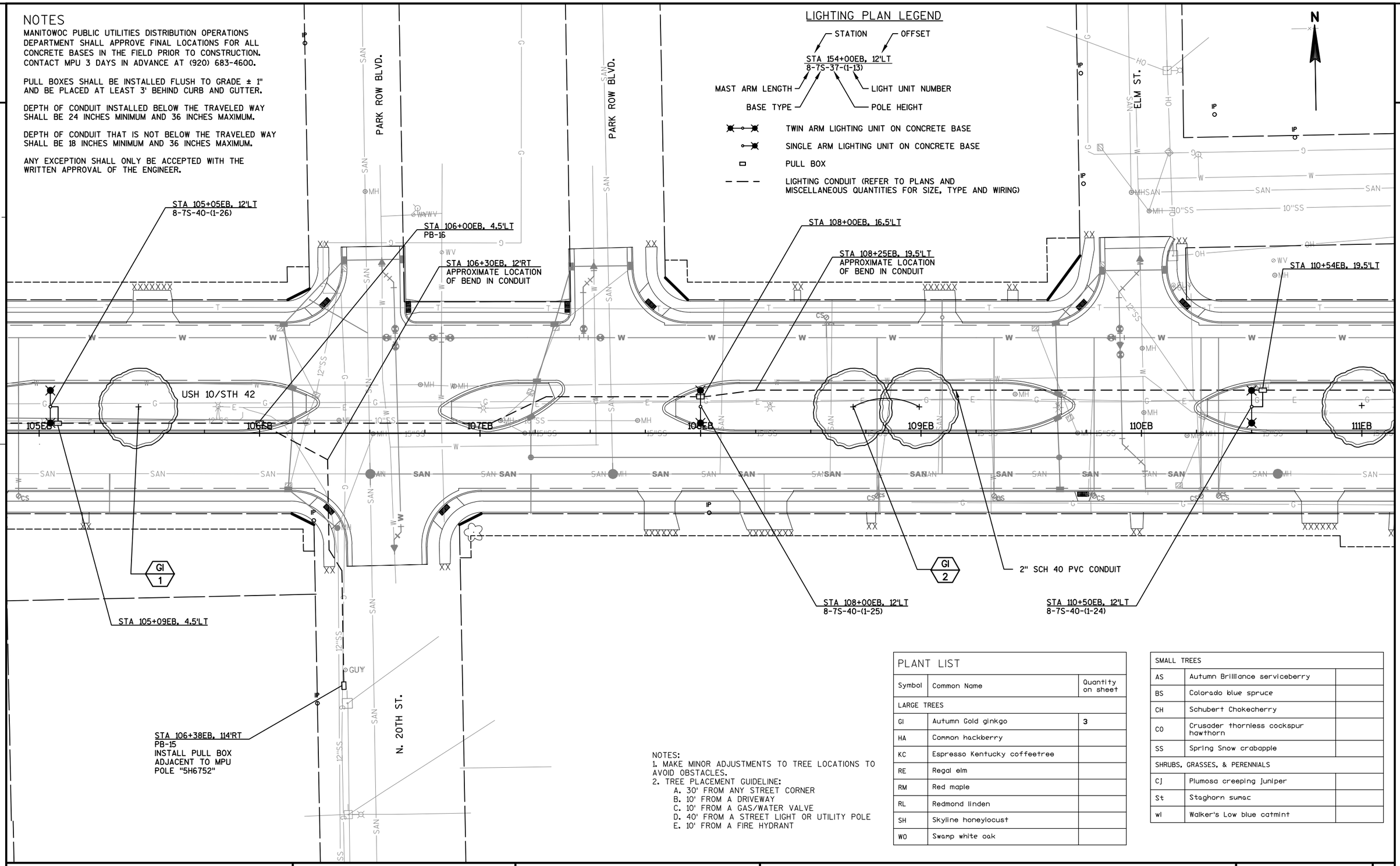
STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

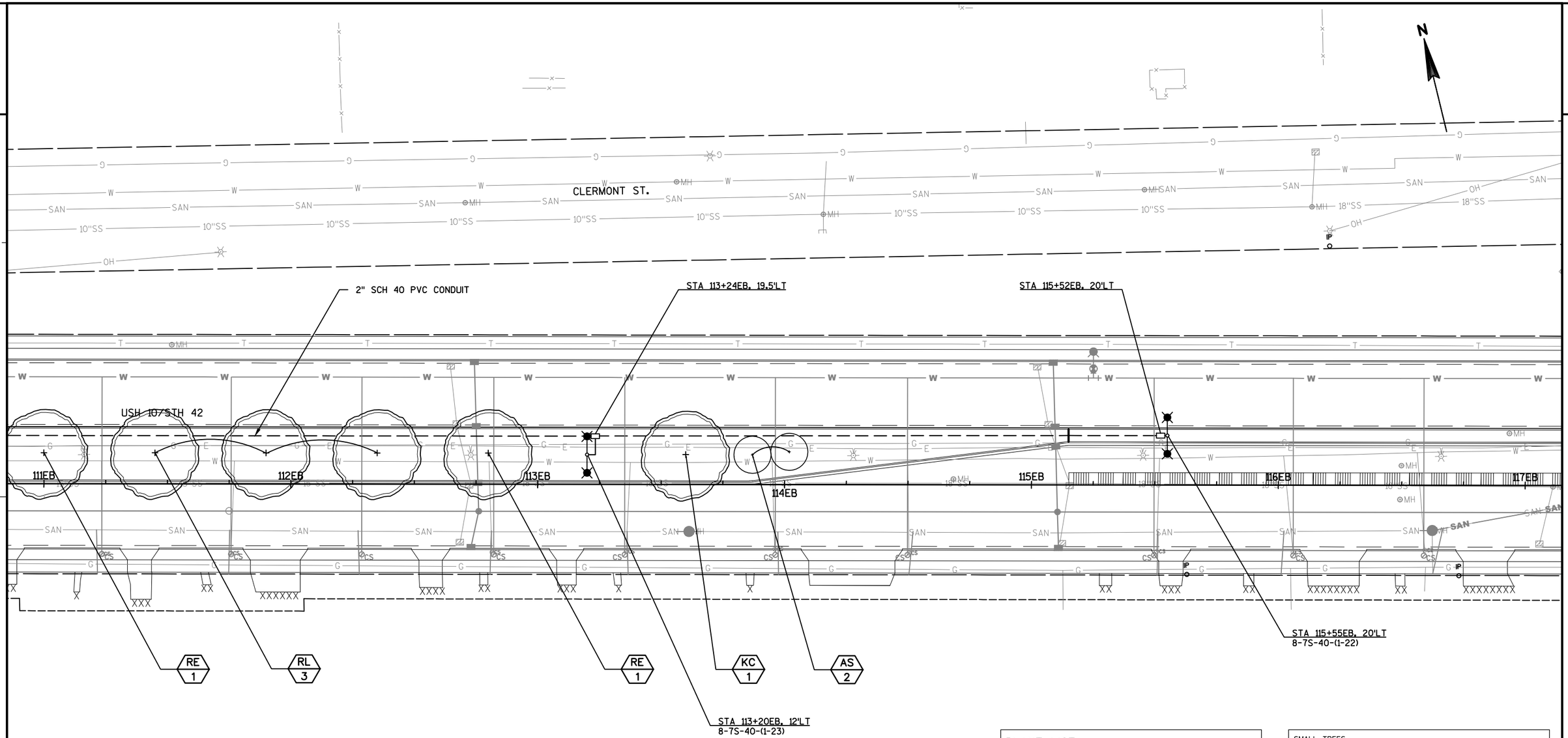


NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

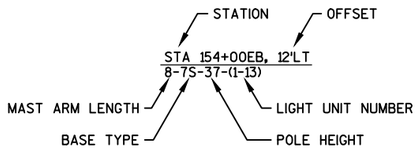
PLANT LIST		
Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	3
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 106	E



LIGHTING PLAN LEGEND



- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

PULL BOXES SHALL BE INSTALLED FLUSH TO GRADE ± 1" AND BE PLACED AT LEAST 3' BEHIND CURB AND GUTTER.

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   A. 30' FROM ANY STREET CORNER
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   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	1
RE	Regal elm	2
RM	Red maple	
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SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	2
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 107	E

NOTES

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LIGHTING PLAN LEGEND

STATION — OFFSET

STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

2" SCH 40 PVC CONDUIT

STA 122+70EB, 19.5'LT
APPROXIMATE LOCATION OF BEND IN CONDUIT

STA 120+60EB, 4'LT
8-7S-40-(1-21)

STA 120+63EB, 4'LT

STA 122+20EB, 4'LT
APPROXIMATE LOCATION OF BEND IN CONDUIT

N. 18TH ST.

N. 17TH ST.

USH 10/STH 42

117EB 118EB 119EB 120EB 121EB 122EB 123EB

NOTES:
1. MAKE MINOR ADJUSTMENTS TO TREE LOCATIONS TO AVOID OBSTACLES.
2. TREE PLACEMENT GUIDELINE:
   A. 30' FROM ANY STREET CORNER
   B. 10' FROM A DRIVEWAY
   C. 10' FROM A GAS/WATER VALVE
   D. 40' FROM A STREET LIGHT OR UTILITY POLE
   E. 10' FROM A FIRE HYDRANT

PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
wl	Walker's Low blue catmint	

PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 108	E

NOTES

MANITOWOC PUBLIC UTILITIES DISTRIBUTION OPERATIONS DEPARTMENT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT MPU 3 DAYS IN ADVANCE AT (920) 683-4600.

PULL BOXES SHALL BE INSTALLED FLUSH TO GRADE ± 1" AND BE PLACED AT LEAST 3' BEHIND CURB AND GUTTER.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

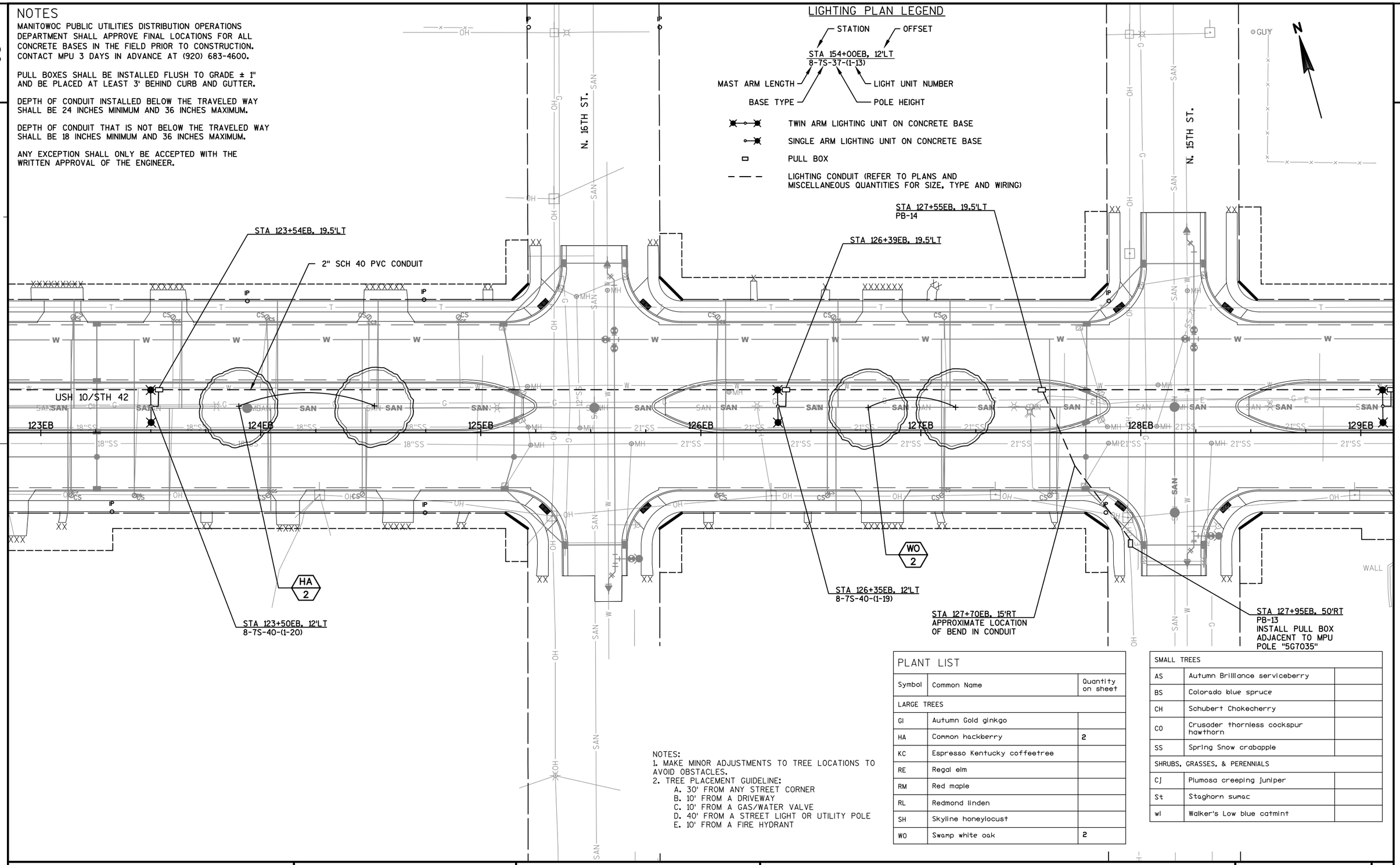
ANY EXCEPTION SHALL ONLY BE ACCEPTED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LIGHTING PLAN LEGEND

STA 154+00EB, 12'LT
8-7S-37-(1-13)

- STATION
- OFFSET
- MAST ARM LENGTH
- LIGHT UNIT NUMBER
- BASE TYPE
- POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)



NOTES:
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PLANT LIST

Symbol	Common Name	Quantity on sheet
LARGE TREES		
GI	Autumn Gold ginkgo	
HA	Common hackberry	2
KC	Espresso Kentucky coffeetree	
RE	Regal elm	
RM	Red maple	
RL	Redmond linden	
SH	Skyline honeylocust	
WO	Swamp white oak	2

SMALL TREES		
AS	Autumn Brilliance serviceberry	
BS	Colorado blue spruce	
CH	Schubert Chokecherry	
CO	Crusader thornless cockspur hawthorn	
SS	Spring Snow crabapple	
SHRUBS, GRASSES, & PERENNIALS		
CJ	Plumosa creeping juniper	
St	Staghorn sumac	
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PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING PLAN	SHEET 109 E

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LIGHTING PLAN LEGEND

STATION — OFFSET

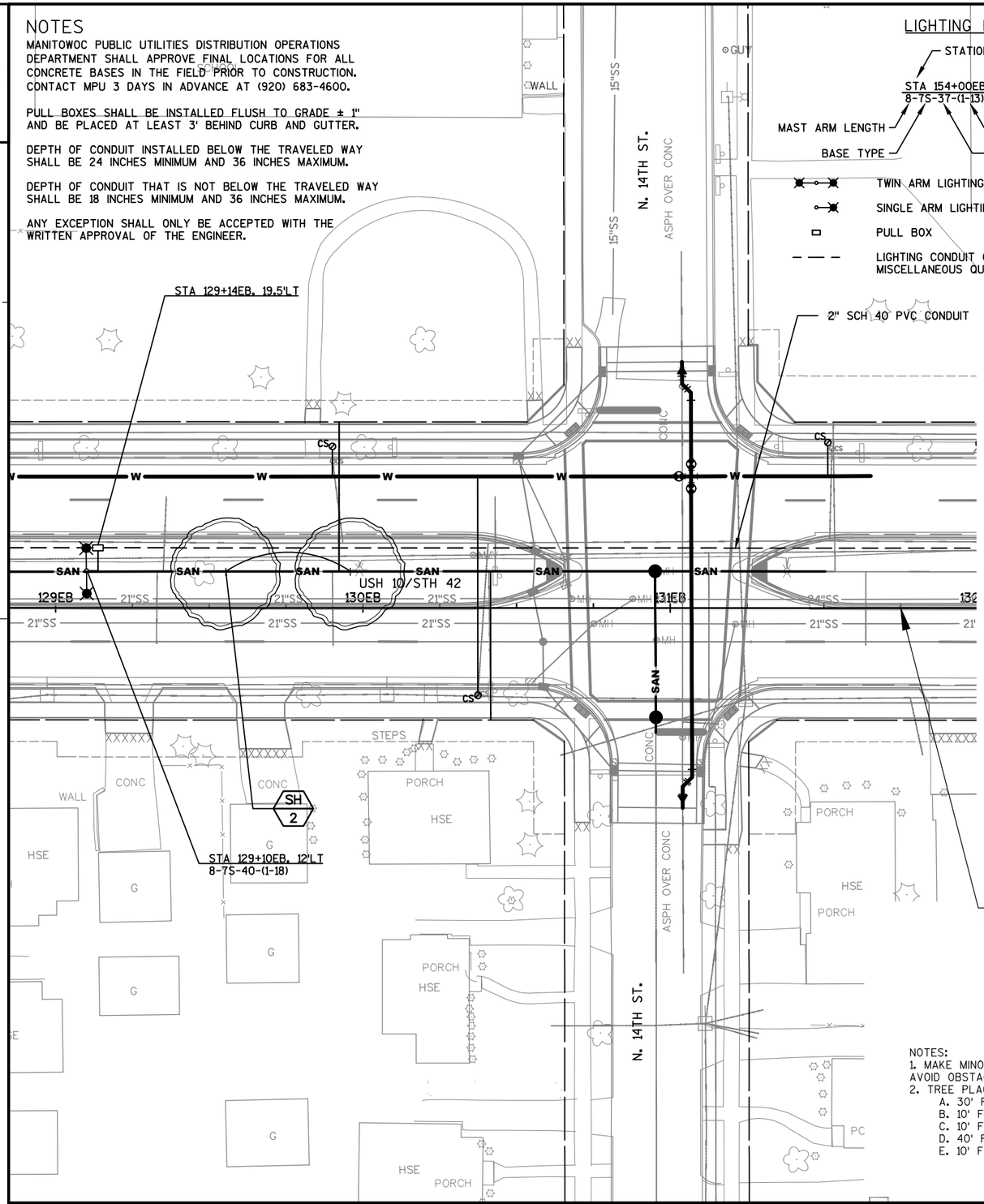
STA 154+00EB, 12'LT
8-7S-37-(1-13)

MAST ARM LENGTH — LIGHT UNIT NUMBER

BASE TYPE — POLE HEIGHT

- TWIN ARM LIGHTING UNIT ON CONCRETE BASE
- SINGLE ARM LIGHTING UNIT ON CONCRETE BASE
- PULL BOX
- LIGHTING CONDUIT (REFER TO PLANS AND MISCELLANEOUS QUANTITIES FOR SIZE, TYPE AND WIRING)

N



END PROJECT 1500-37-76
STA. 131+75.00

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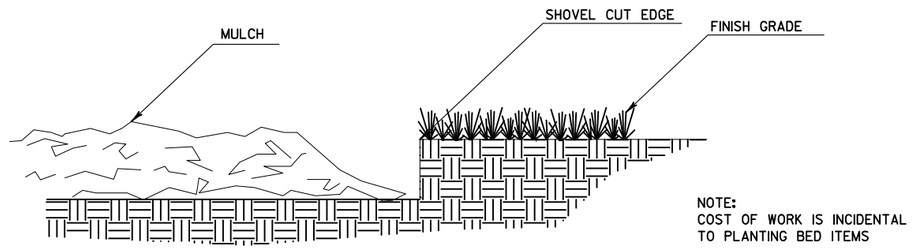
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PROJECT NO: 1500-37-76	HWY: USH10	COUNTY: MANITOWOC	LIGHTING AND LANDSCAPING	SHEET 110	E

PLANT DATA CHART

SYM	COMMON NAME	SCIENTIFIC NAME	TYPE	AVG. MATURE HEIGHT	SIZE (CAL. OR HT.) WHEN PLANTED	MODE	ROOT ZONE DIAM.	MINIMUM SIZE BALL/POT DEPTH	BALL/POT SPREAD	ROOT DIAM.	PLANT HOLE DEPTH	GUY/BRACE REQ'D	FERT. UNITS REQ'D	RODENT PROTECT DIAM.	MULCH RING DIA. OR BED
	DECIDUOUS TREES														
GI	AUTUMN GOLD GINKGO	GINKGO BILOBA 'AUTUMN GOLD'	1	45'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
HA	COMMON HACKBERRY	CELTIS OCCIDENTALIS	1	50'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
KC	ESPRESSO KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS 'ESPRESSO'	1	50'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
RE	REGAL ELM	ULMUS 'REGAL'	1	55'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
RL	REDMOND LINDEN	TILIA AMERICANA 'REDMOND'	1	55'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
RM	RED MAPLE	ACER RUBRUM	1	55'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
SH	SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE' SKYLINE®	1	50'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
WO	SWAMP WHITE OAK	QUERCUS BICOLOR	1	55'	2" CAL.	B&B	24"	16"	-	36"	16"	NO	4	NO	48"
	ORNAMENTAL TREES														
AS	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	3	20'	1 1/2" CAL.	B&B	16"	12"	-	28"	12"	NO	3	NO	40"
BS	COLORADO BLUE SPRICE	PICEA PUNGENS	6	50'	6' HT.	B&B	14"	11"	-	26"	11"	NO	2	NO	BED
CH	SCHUBERT CHOKECHERRY	PRUNUS VIRGINIANA 'SCHUBERT'	3	25'	1 1/2" CAL.	B&B	16"	12"	-	28"	12"	NO	3	NO	40"
CO	CRUSADER THORNLESS COCKSPUR HAW	CRATAEGUS CRUS-GALLI 'CRUZAM' CRUSADER™	3	25'	1 1/2" CAL.	B&B	16"	12"	-	28"	12"	NO	3	NO	40"
SS	SPRING SNOW CRABAPPLE	MALUS 'SPRING SNOW'	3	20'	1 1/2" CAL.	B&B	16"	12"	-	28"	12"	NO	3	NO	40"
	SHRUBS, GRASSES, & PERENNIALS														
Cj	PLUMOSA CREEPING JUNIPER	JUNIPERUS HORIZONTALIS 'PLUMOSA'	2	1'	6" HT.	CG	-	-	-	-	-	NO	2	NO	BED
St	STAGHORN SUMAC	RHUS TYPHINA	3	15'	2' HT.	CG	-	-	-	-	-	NO	2	NO	24"
wl	WALKER'S LOW BLUE CATMINT	NEPETA RACEMOSA 'WALKER'S LOW'	-	2'	SP4	CG	-	-	-	-	-	NO	-	-	BED



DETAIL FOR PLANTING BED SHOVEL CUT EDGE

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

MOUNTING OF ANY SIGNS ON TRAFFIC SIGNALS SHALL BE 5'-3" +/-.

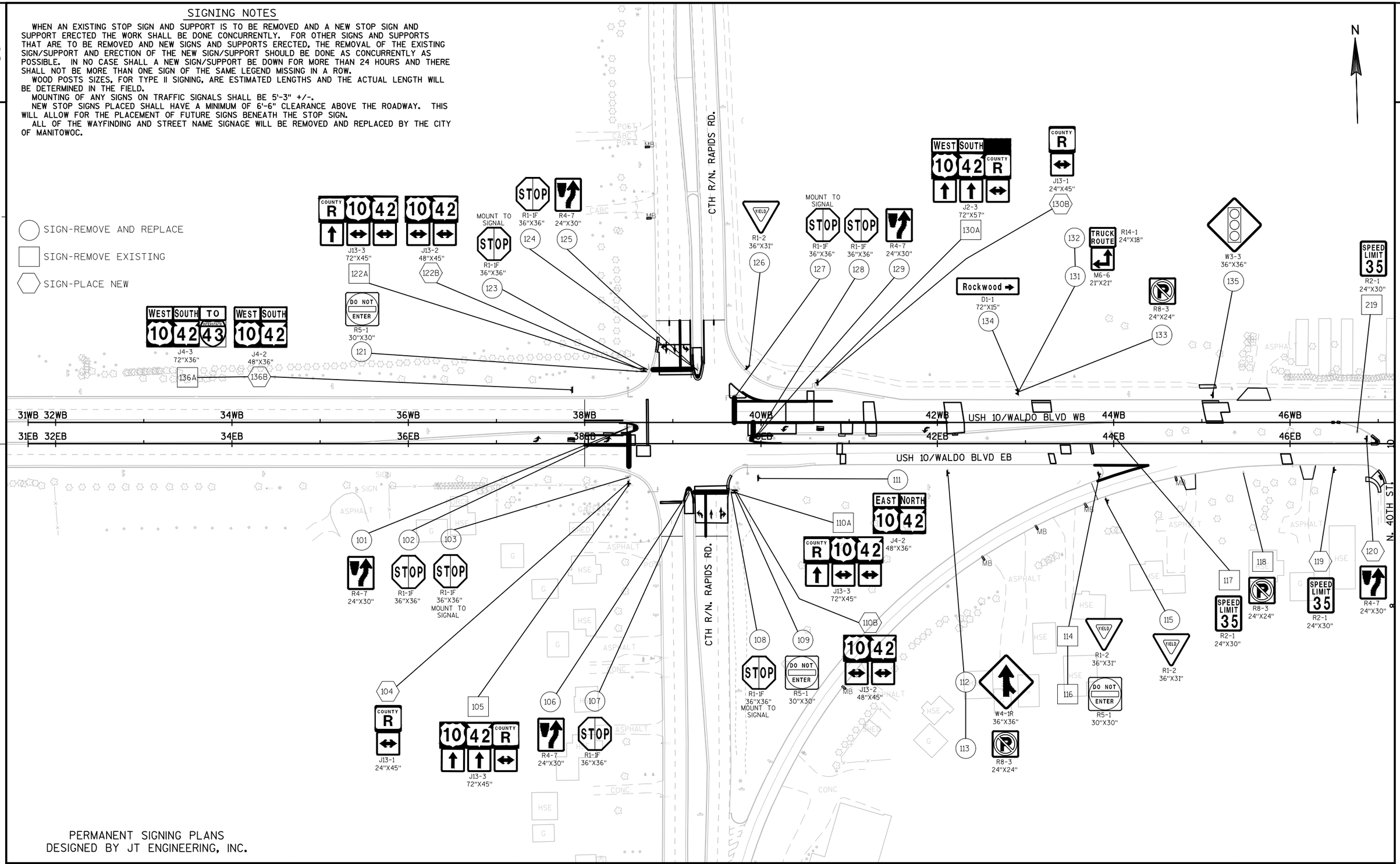
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SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW



PERMANENT SIGNING PLANS
DESIGNED BY JT ENGINEERING, INC.

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 112	E

2

N

SPEED LIMIT 35 R2-1 24"X30" 219

SPEED LIMIT 35 R2-1 24"X30" 220

221

JCT COUNTY R J1-1 24"X39"

222

223

JCT COUNTY R J1-1 24"X39"

R8-3 24"X24"

R4-7 24"X30" 224

R8-3 24"X24" 225

R8-3 24"X24" 227

WEST SOUTH TO 10 42 43 J4-3 72"X36" 228

R4-7 24"X30" 229

230

231

W11-2 30"X30"

W16-7L 24"X12"

48WB 50WB 52WB 54WB 56WB 58WB 60WB 62WB

USH 10/WALDO BLVD WB

48EB 50EB 52EB 54EB 56EB 58EB 60EB 62EB

USH 10/WALDO BLVD EB

SPEED LIMIT 35 R2-1 24"X30" 232

R8-3 24"X24" 233

SPEED LIMIT 35 R2-1 24"X30" 234

R8-3 24"X24" 308

N. 40TH ST.

GLENVIEW DR.

W. CRESCENT DR.

120 R4-7 24"X30"

201 STOP R1-1 36"X36"

202 R8-3 24"X24"

203 SPEED LIMIT 35 R2-1 24"X30"

204 R8-3 24"X24"

205 SPEED LIMIT 35 R2-1 24"X30"

206 W11-2 30"X30"

207 W16-7L 24"X12"

208 W11-2 30"X30"

209 STOP R1-1 36"X36"

210

211

EAST NORTH 10 42 J4-2 48"X36"

R8-3 24"X24"

212A NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64 30"X36"

212B WITHIN CITY or VILLAGE LIMITS R10-64F 42"X24"

213 R8-3 24"X24"

214 STOP R1-1 36"X36"

215

216

SPEED LIMIT 35 R2-1 24"X30"

R8-3 24"X24"

217 SPEED LIMIT 35 R2-1 24"X30"

218 R8-3 24"X24"

SIGNING NOTES

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SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 113	E

2

N

MOUNT TO LIGHT POLE

R8-3 24"X24" 308

R4-7 24"X30" 309

SPEED LIMIT 35 R2-1 24"X30" 310

SPEED LIMIT 35 R2-1 24"X30" 311

R8-3 24"X24" 312

SPEED LIMIT 35 R2-1 24"X30" 313

R8-3 24"X24" 314

WEST 10 SOUTH 42 J4-2 48"X36" 315

STOP R1-1 36"X36" 316

R4-7 24"X30" 317

SPEED LIMIT 35 R2-1 24"X30" 318

FLEETWOOD DR.

62WB 64WB 66WB USH 10/WALDO BLVD WB 68WB 70WB 72WB 74WB 76WB

62EB 64EB 66EB USH 10/WALDO BLVD EB 68EB 70EB 72EB 74EB 76EB

E. CRESCENT DR.

301 R8-3 24"X24"

302 STOP R1-1 36"X36"

303 R8-3 24"X24"

304 R8-3 24"X24"

305 SPEED LIMIT 35 R2-1 24"X30"

306 R8-3 24"X24"

307 EAST 10 NORTH 42 J4-2 48"X36"

SIGNING NOTES

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SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PROJECT NO: 1500-37-76 & 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 114	E

2

2

N

BLDG.

BLDG.

CONC.

ASPHAL

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

78WB
80WB
82WB
84WB
86WB
88WB
90WB
92WB

SPEED LIMIT 35
R2-1
24"X30"
403

R8-3
24"X24"
404

401

SPEED LIMIT 35
R2-1
24"X30"

SPEED LIMIT 30
R2-1
24"X30"
402

SIGNING NOTES

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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 115	E

SIGNING NOTES

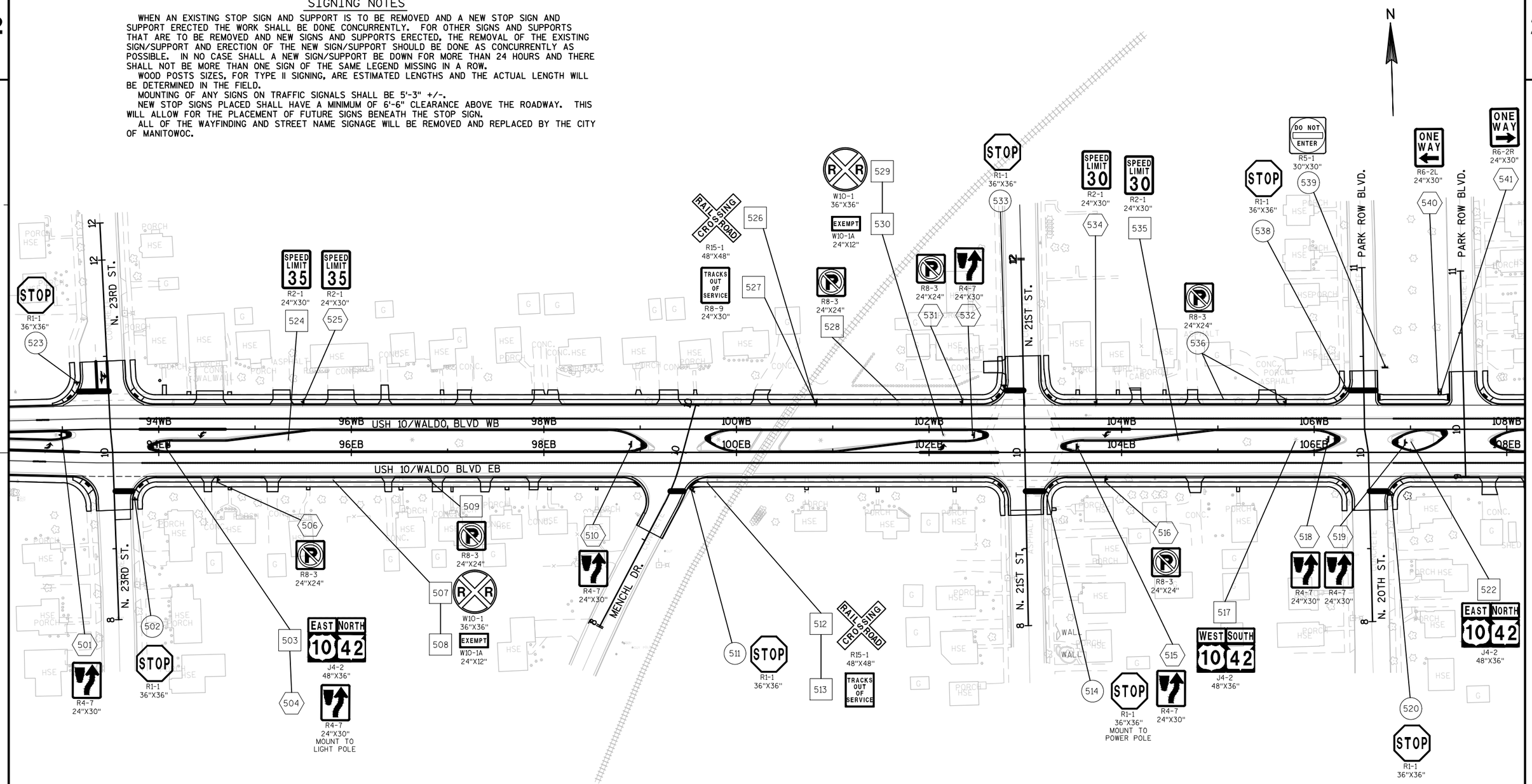
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SIGN-REMOVE EXISTING

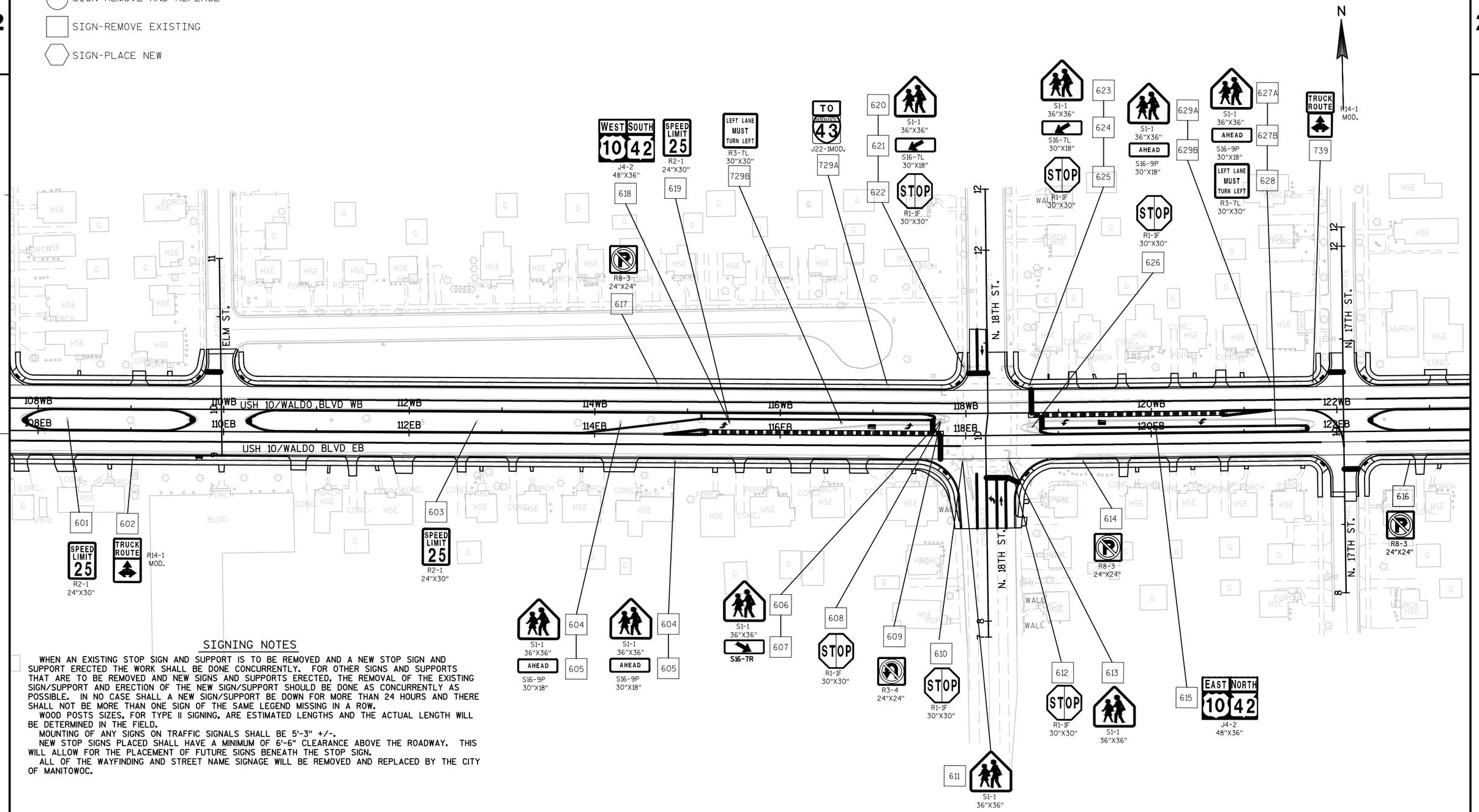
SIGN-PLACE NEW

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 116 E

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW



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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 117 E

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

NOTE: PLACE R2-1 (25 MPH) AND S5-2 SIGNS (*867A AND *867B) ALONG EB USH 10 BETWEEN THE 8TH AND 9TH STREET INTERSECTIONS IN A LOCATION APPROVED BY THE ENGINEER

724 STOP R1-1 36"X36"

725 R4-7 24"X30"

726A SPEED LIMIT 25 R2-1 24"X30"

726B END SCHOOL ZONE S5-2 24"X30"

728 R8-3 24"X24"

730 MOUNT TO SIGNAL STOP R1-1F 36"X36"

731 MOUNT TO SIGNAL STOP R1-1F 36"X36"

732 R4-7 24"X30"

733 STOP R1-1F 36"X36"

734 JH-1 24"X24"

735 M6-1 21"X21"

736 LEFT LANE MUST TURN LEFT R3-7L 30"X30"

741 STOP R1-1 36"X36"

742 NO OUTLET W14-2 30"X30"

701 SPEED LIMIT 25 R2-1 24"X30"

703 JH-1 24"X45"

704 MB6-6 MOUNT TO LIGHT POLE

705 R8-3 24"X24"

706 SPEED LIMIT 25 R2-1 24"X30"

707 BEGIN LEFT TURN LANE R3-20L 24"X36"

708 W3-3 36"X36"

709A S1-1 36"X36"

709B AHEAD S16-9P

710 FINES HIGHER R2-6P 24"X18"

711 TURNING VEHICLES TO R10-15-R 30"X30"

712 R4-7 24"X30"

713 R3-4 24"X24"

714 S1-1 36"X36"

715 S16-7R 30"X18"

716 STOP R1-1F 36"X36"

717 STOP R1-1F 36"X36" MOUNT TO SIGNAL

719 STOP R1-1F 36"X36" MOUNT TO SIGNAL

721 R8-3 24"X24"

722 SPEED LIMIT 25 R2-1 24"X30"

723 STOP R1-1 36"X36"

ELM ST.

N. 18TH ST.

N. 17TH ST.

USH 10/WALDO BLVD WB

USH 10/WALDO BLVD EB

108WB 110WB 112WB 114WB 116WB 118WB 120WB 122WB

108EB 110EB 112EB 114EB 116EB 118EB 120EB 122EB

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

MOUNTING OF ANY SIGNS ON TRAFFIC SIGNALS SHALL BE 5'-3" +/-.

NEW STOP SIGNS PLACED SHALL HAVE A MINIMUM OF 6'-6" CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

ALL OF THE WAYFINDING AND STREET NAME SIGNAGE WILL BE REMOVED AND REPLACED BY THE CITY OF MANITOWOC.

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 118	E

NOTE FOR SIGNS 856, 857, 859 & 860:
SIGN REMOVALS INTENDED FOR SIGNS EAST OF N. 15TH STREET
REPLACEMENT AND NEW SIGNS SHALL BE PLACED WEST OF
N. 15TH STREET

N

STOP R1-1 36"X36" 848
NO OUTLET W14-2 30"X30" 849
WEST 10 SOUTH 42 J4-2 48"X36" 846
R8-3 24"X24" 845
R8-3 24"X24" 847
SPEED LIMIT 25 R2-1 24"X30" 854
R8-3 24"X24" 853
SPEED LIMIT 25 R2-1 24"X30" 852
R4-7 24"X30" 850
R8-3 24"X24" 851
STOP R1-1 36"X36" 855
INSTALL ON RECTANGULAR RAPID FLASHING BEACON BASE AND POLE
S1-1 36"X36" 856
S16-7L 30"X18" 857
S1-1 36"X36" 859
S16-7R 30"X18" 860
R4-7 24"X30" 858
STOP R1-1 36"X36" 862
R4-7 24"X30" 861
S1-1 36"X36" 863
S16-7L 30"X18" 864
S1-1 36"X36" 865
S16-7R 30"X18" 866

N. 16TH ST.
N. 15TH ST.
N. 14TH ST.
N. 12TH ST.
MENASHA AVE.

USH 10/WALDO BLVD WB
USH 10/WALDO BLVD EB
124WB 126WB 128WB 130WB 132WB 134WB 136WB 138WB
124EB 126EB 128EB 130EB 132EB 134EB 136EB 138EB

S1-1 36"X36" AHEAD S16-9P 30"X18" 801 802
S1-1 36"X36" AHEAD S16-9P 30"X18" 803 804
STOP R1-1 36"X36" 805
R4-7 24"X30" 806
SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT S4-51 24"X48" 807
SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT S4-51 24"X48" 808
R8-3 24"X24" 809
S1-1 36"X36" S16-7L 30"X18" 810 811
S1-1 36"X36" S16-7R 30"X18" 812 813
INSTALL ON RECTANGULAR RAPID FLASHING BEACON BASE AND POLE
INSTALL ON RECTANGULAR RAPID FLASHING BEACON BASE AND POLE
STOP R1-1 36"X36" 815
R4-7 24"X30" 814
MOUNT BELOW SIGN #860
S1-1 36"X36" S16-7R 30"X18" 816 817
S1-1 36"X36" S16-7L 30"X18" 818 819
R4-7 24"X30" 820
STOP R1-1 36"X36" 821
R8-3 24"X24" 822

SIGN-REMOVE AND REPLACE
SIGN-REMOVE EXISTING
SIGN-PLACE NEW

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

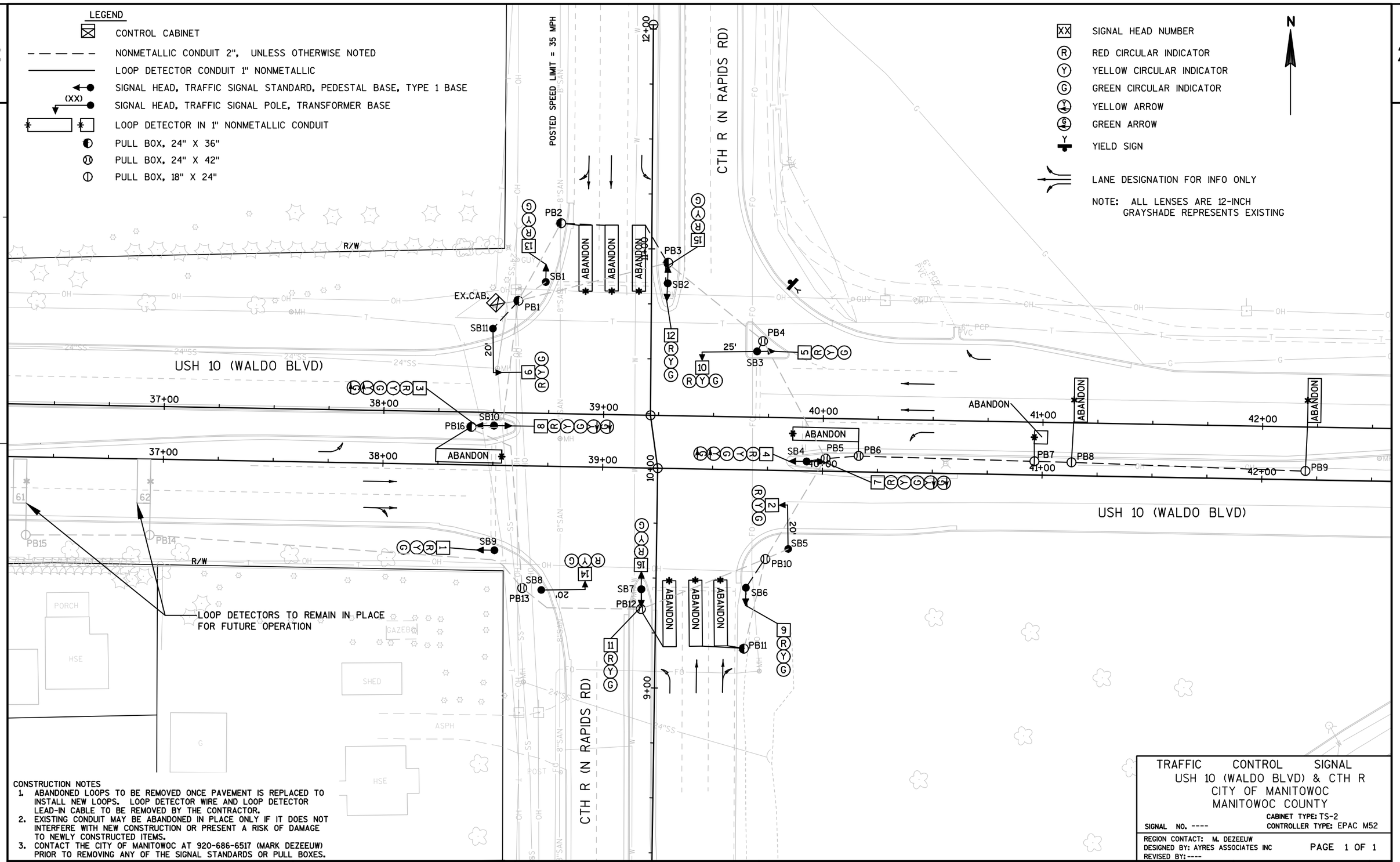
WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

MOUNTING OF ANY SIGNS ON TRAFFIC SIGNALS SHALL BE 5'-3" +/-.

NEW STOP SIGNS PLACED SHALL HAVE A MINIMUM OF 6'-6" CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

ALL OF THE WAYFINDING AND STREET NAME SIGNAGE WILL BE REMOVED AND REPLACED BY THE CITY OF MANITOWOC.

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 119	E



PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC SIGNAL REMOVAL PLAN-CTH R	SHEET 120	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE, TYPE 1 BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM, TYPE 13 BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE (LED)
- 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 ARROW RED ARROW
- FY Y ARROW YELLOW ARROW
- G ARROW GREEN ARROW
- DON'T WALK INDICATOR 16" / WALK INDICATOR 16"
- Y YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

N

USH 10 (WALDO BLVD)

CTH R (N RAPIDS RD)

POSTED SPEED LIMIT = 35 MPH

POSTED SPEED LIMIT = 45 MPH

R/W

LOOP 41 & 42 6'X30' 3 TURNS

LOOP 71 6'X30' 4 TURNS

OL'D'

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16 PB17 PB18

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8

CB1

55' 45' 50'

2-3" SPECIAL

3-3" SPECIAL

3" SPECIAL

LOOP 11 & 12 6'X24' 4 TURNS

OL'A'

LOOP 61 6'X24' 4 TURNS

LOOP 62 6'X24' 4 TURNS

LOOP 22 6'X20' 3 TURNS

150' TO STOP BAR

LOOP 21 6'X20' 4 TURNS

250' TO STOP BAR

LOOP 52 & 53 6'X20' 4 TURNS

LOOP 51 6'X6' 3 TURNS

OL'C'

LOOP 31 6'X30' 4 TURNS

LOOP 81 & 82 6'X30' 3 TURNS

OL'B'

37+00 38+00 39+00 40+00 41+00 42+00

PORCH HSE GAZEBO SHED ASPH POST

CONFIGURATION WITH HEAD NUMBERS

3-V	4-VL
XX R Y G	XX R Y FY G
1,2,3,6 7,8,11,12 13,16,17,18	4,5,9,10 14,15,19,20

MONOTUBE STRUCTURE NO.	
BASE NO.	STRUCTURE NO.
SB2	S-36-0049
SB4	S-36-0048
SB6	S-36-0047
SB8	S-36-0046

CONSTRUCTION NOTES

1. * IS THE FRONT CENTER OF THE LOOP DETECTORS
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE CITY OF MANITOWOC AT 920-686-6517 (MARK DEZEEUW).
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICTS WITH EXISTING UTILITY FACILITIES.
5. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED WITH A MINIMUM OF 2-FT CLEARANCE TO THE FACE OF THE CURB UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
6. CONDUIT INSTALLED IN EXISTING PAVEMENT WILL BE CONDUIT 3-INCH SPECIAL.
7. CONCRETE SECTIONS CUT TO PLACE NEW LOOP DETECTORS AT ALL LOCATIONS. REFER TO SDD 9F15 SHEET B 'LOOP DETECTOR INSTALLED IN BASE COURSE (OPTION 2)' FOR INSTALLATION METHOD.
8. CONDUIT EMBEDDED IN A TYPE 9, 10, 12, OR 13 BASE SHALL BE 3" CONDUIT.

TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD) & CTH R
CITY OF MANITOWOC
MANITOWOC COUNTY

CABINET TYPE: TS-2
SIGNAL NO. ---- CONTROLLER TYPE: EPAC M52

REGION CONTACT: M. DEZEEUW
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ----

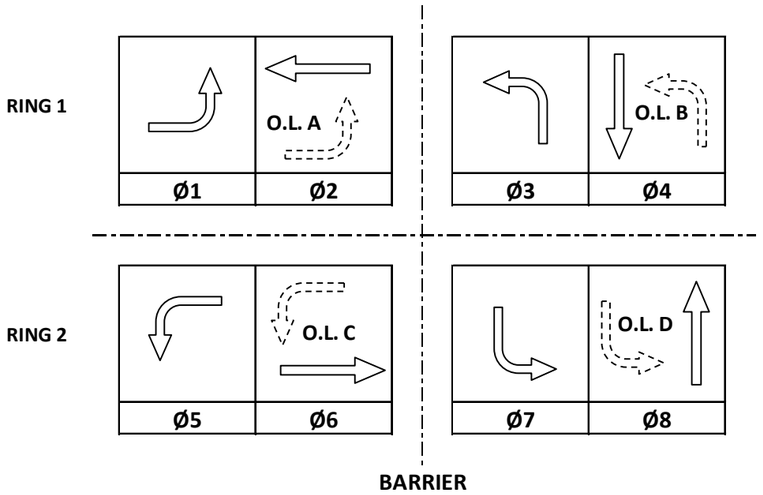
PAGE 1 OF 2

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC SIGNAL PLAN-CTH R	SHEET E

FILE NAME : V:\TRAFFIC\WK\41062900\SIGNAL PLAN SHEETS\024201 SP.DWG PLOT DATE : 6/18/2019 8:21 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	
Ø2	6,7,8	R
Ø3	14,15	
Ø4	16,17,18	R
Ø5	9,10	
Ø6	1,2,3	R
Ø7	19,20	
Ø8	11,12,13	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	4,5	R ←
OLB	14,15	R ←
OLC	9,10	R ←
OLD	19,20	R ←



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	11	21	31	41	51	61	71	81	82							
ASSIGNED PHASE	1	2	3	4	5	6	7	8	8							
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH							
SWITCH																
EXTEND	X	X	X	X	X	X	X	X	X							
EXTEND TIME																
DELAY																
USE ADDED INITIAL																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)	12	22	42	53	52	62										
ASSIGNED PHASE	1	2	4	5	5	6										
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH										
SWITCH																
EXTEND	X	X	X	X	X	X										
EXTEND TIME																
DELAY																
USE ADDED INITIAL																

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

USH 10/STH 42 & CTH R (RAPIDS AVE)
CITY OF MANITOWOC
MANITOWOC COUNTY
SIGNAL NO: N/A CABINET TYPE: TS2
CONTROLLER TYPE: EPAC M52
DATE: 11/18 PAGE NO. 2 OF 2

PROJECT ID:	1500-47-71
INTERSECTION:	USH 10 & CTH R

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	JUMPER	SIGNAL INDICATION WIRE COLOR									
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON
SB1	12	14					RED/BLK	ORG/BLK		BLK/WHT			
		16		RED	ORG	GRN							
SB2	15	12		RED	ORG	GRN							
		13		RED/BLK	ORG/BLK	GRN/BLK							
		15					RED/WHT	BLU/WHT		BLK/WHT			
SB3	12	4					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		6		RED	ORG	GRN							
SB4	15	2		RED	ORG	GRN							
		3		RED/BLK	ORG/BLK	GRN/BLK							
		5					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			
SB5	12	11		RED	ORG	GRN							
		19					RED/BLK	ORG/BLK		BLK/WHT			
SB6	15	17		RED	ORG	GRN							
		18		RED/BLK	ORG/BLK	GRN/BLK							
		20					RED/WHT	BLU/WHT		BLK/WHT			
SB7	12	1		RED	ORG	GRN							
		9					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
SB8	15	7		RED	ORG	GRN							
		8		RED/BLK	ORG/BLK	GRN/BLK							
		10					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			

Equipment grounding conductor 10 AWG Green XLP	
FROM	TO
CAB.	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CAB.

Pull Box Bonding Jumper 10 AWG Green XLP	
FROM	TO
PB1	SB1
PB3	SB1
PB4	SB2
PB5	SB2
PB9	SB4
PB10	SB5
PB12	SB5
PB13	SB6
PB14	SB7
PB17	SB7
PB18	SB8

NOTE:
- **Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications**
- **Ensure the grounded conductor in the feeder cable and the pole cables are both 18” longer than the ungrounded conductors.**
- **At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.**
- **Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.**

TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD.) & CTH R
CITY OF MANITOWOC
MANITOWOC COUNTY

PAGE 1 OF 1

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- 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
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

18TH ST.

POSTED SPEED LIMIT = 35 MPH

USH 10 (WALDO BLVD.)

EX. CAB.

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8

ABANDON

116+00 117+00 118+00 119+00 120+00 121+00

9+00 10+00 11+00 12+00

CONSTRUCTION NOTES

1. ABANDONED LOOPS TO BE REMOVED ONCE PAVEMENT IS REPLACED TO INSTALL NEW LOOPS. LOOP DETECTOR WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVE BY CONTRACTOR.
2. EXISTING CONDUIT MAY BE ABANDONED IN PLACE ONLY IF IT DOES NOT INTERFERE WITH NEW CONSTRUCTION OR PRESENT A RISK OF DAMAGE TO NEWLY CONSTRUCTED ITEMS.
3. CONTACT NE REGION ELECTRICAL UNIT AT 920-492-5710 PRIOR TO REMOVING ANY OF THE SIGNAL STANDARDS OR PULL BOXES.

TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD) & 18TH ST.
CITY OF MANITOWOC
MANITOWOC COUNTY

SIGNAL NO. ----

REGION CONTACT: M. DEZEEUW
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:----

PAGE 1 OF 1

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC SIGNAL REMOVAL PLAN-18TH ST.	SHEET E

FILE NAME : V:\TRAFFIC\WK\41062900\SIGNAL PLAN SHEETS\024002 RP.DWG PLOT DATE : 6/18/2019 8:42 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

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) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- MONOTUBE BASE, POLE, 15'-30' ARM, TYPE 10 BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM, TYPE 13 BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE (LED)
- 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
- FY YELLOW ARROW
- GA GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

18TH ST.

POSTED SPEED LIMIT = 35 MPH

LOOP 41 & 42
6'X20'
3 TURNS

LOOP 71 & 72
6'X20'
4 TURNS

OL'D'

USH 10 (WALDO BLVD.)

R/W

CB1

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16 PB17

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11

2-3" 3" 30' 45' 35'

116+00 117+00 118+00 119+00 120+00 121+00

9+00 10+00 11+00 12+00

OL'A'

LOOP 11 & 12
6'X20'
4 TURNS

250' TO STOP BAR

LOOP 61
6'X20'
4 TURNS

125' TO STOP BAR

LOOP 62
6'X20'
4 TURNS

125' TO STOP BAR

LOOP 22
6'X20'
4 TURNS

250' TO STOP BAR

LOOP 21
6'X20'
4 TURNS

OL'C'

LOOP 51 & 52
6'X20'
4 TURNS

OL'B'

LOOP 31 & 32
6'X20'
4 TURNS

LOOP 81 & 82
6'X20'
3 TURNS

MONOTUBE STRUCTURE NO.	
BASE NO.	STRUCTURE NO.
SB3	S-36-0053
SB5	S-36-0052
SB8	S-36-0051
SB11	S-36-0050

CONFIGURATION WITH HEAD NUMBERS

3-V	4-VL	PED
1,2,3,6 7,8,11,12 13,16,17,18	4,5,9,10 14,15,19,20	21,22,23 24,25,26 27,28

CONSTRUCTION NOTES

1. * IS THE FRONT CENTER OF THE LOOP DETECTORS
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE CITY OF MANITOWOC AT 920-686-6517 (MARK DEZEEUW).
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICTS WITH EXISTING UTILITY FACILITIES.
5. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED WITH A MINIMUM OF 2-FT CLEARANCE TO THE FACE OF THE CURB UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
6. CONDUIT EMBEDDED IN A TYPE 9, 10, 12, OR 13 BASE SHALL BE 3" CONDUIT.

TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD) & 18TH ST.
CITY OF MANITOWOC
MANITOWOC COUNTY

CABINET TYPE: TS-2
SIGNAL NO. ---- CONTROLLER TYPE: EPAC M52

REGION CONTACT: M. DEZEEUW
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ----

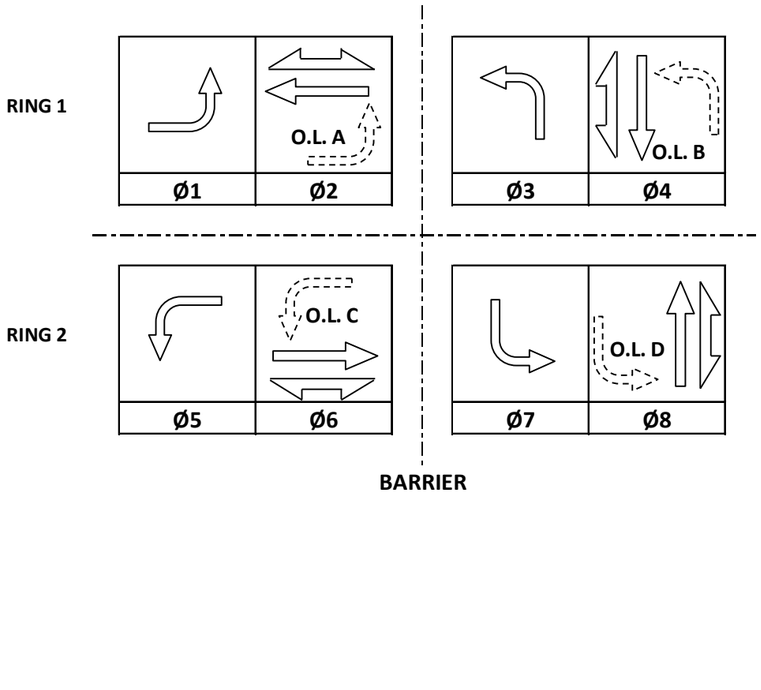
PAGE 1 OF 2

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC SIGNAL PLAN-18TH ST.	SHEET E

FILE NAME : V:\TRAFFIC\WK\41062900\SIGNAL PLAN SHEETS\024202 SP.DWG PLOT DATE : 6/18/2019 8:49 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3	14,15	R ←
Ø4	16,17,18	R
Ø5	9,10	R ←
Ø6	1,2,3	R
Ø7	19,20	R ←
Ø8	11,12,13	R
Ø2P	20,21	
Ø4P	22,23	
Ø6P	24,25	
Ø8P	26,27	
OLA	4,5	--
OLB	14,15	--
OLC	9,10	--
OLD	19,20	--



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	11	21	31	41	51	61	71	81								
ASSIGNED PHASE	1	2	3	4	5	6	7	8								
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH								
SWITCH																
EXTEND	X	X	X	X	X	X	X	X								
EXTEND TIME																
DELAY																
USE ADDED INITIAL																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)	12	22	32	42	52	62	72	82								
ASSIGNED PHASE	1	2	3	4	5	6	7	8								
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH								
SWITCH																
EXTEND	X	X	X	X	X	X	X	X								
EXTEND TIME																
DELAY																
USE ADDED INITIAL																

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

USH 10/STH 42 & 18TH ST
CITY OF MANITOWOC
MANITOWOC COUNTY

SIGNAL NO: N/A CABINET TYPE: TS2
CONTROLLER TYPE: EPAC M52
DATE: 01/18 PAGE NO. 2 OF 2

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	SEQUENCE OF OPERATIONS	SHEET NO: 126	E

FILE NAME : V:\TRAFFIC\WK\41062900\SIGNAL PLAN SHEETS\SEQUENCE OF OPS PLOT DATE : _____ PLOT BY : HICKMAN PLOT NAME : _____ PLOT SCALE : 1:1

2

PROJECT ID:	1500-37-76
INTERSECTION:	USH 10 & 18TH ST.

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	JUMPER	SIGNAL INDICATION WIRE COLOR									
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK	PED BUTTON
SB1	9	22									BLK	BLU	
		BUTTON											WHT/BLK
SB2	12	14					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		16		RED	ORG	GRN							
		23									BLK	BLU	
		BUTTON											WHT/BLK
SB3	15	12		RED	ORG	GRN							
		13		RED/BLK	ORG/BLK	GRN/BLK							
		15					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			
		28									BLK	BLU	
		BUTTON											WHT/BLK
SB4	12	4					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		6		RED	ORG	GRN							
		21									BLK	BLU	
		BUTTON											WHT/BLK
SB5	15	2		RED	ORG	GRN							
		3		RED/BLK	ORG/BLK	GRN/BLK							
		5					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			
SB6	9	26									BLK	BLU	
		BUTTON											WHT/BLK
SB7	12	11		RED	ORG	GRN							
		19					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		27									BLK	BLU	
		BUTTON											WHT/BLK
SB8	15	17		RED	ORG	GRN							
		18		RED/BLK	ORG/BLK	GRN/BLK							
		20					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			
SB9	9	24									BLK	BLU	
		BUTTON											WHT/BLK
SB10	12	1		RED	ORG	GRN							
		9					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		25									BLK	BLU	
		BUTTON											WHT/BLK
SB11	15	7		RED	ORG	GRN							
		8		RED/BLK	ORG/BLK	GRN/BLK							
		10					RED/WHT	BLU/WHT	GRN/WHT	BLK/WHT			

NOTE:
- **Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications**
- **Ensure the grounded conductor in the feeder cable and the pole cables are both 18” longer than the ungrounded conductors.**
- **At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.**
- **Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.**

TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD.) & 18TH ST.
CITY OF MANITOWOC
MANITOWOC COUNTY

Equipment grounding conductor 10 AWG Green XLP	
FROM	TO
CAB.	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	CAB.

Pull Box Bonding Jumper 10 AWG Green XLP	
FROM	TO
PB1	SB1
PB2	SB2
PB4	SB3
PB5	SB4
PB9	SB5
PB9	SB6
PB10	SB7
PB11	SB8
PB13	SB9
PB13	SB10
PB16	SB11
PB17	SB11

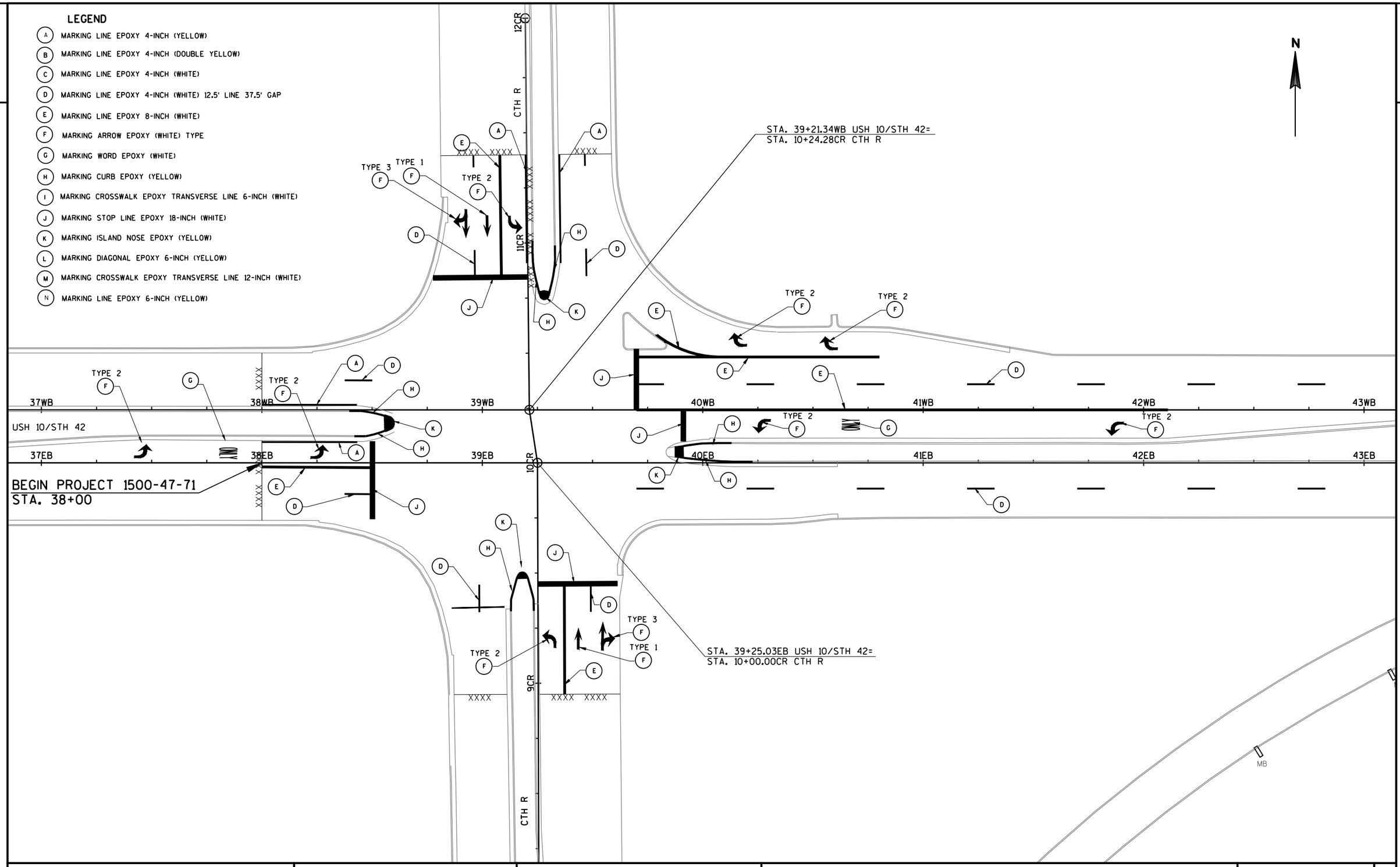
TRAFFIC CONTROL SIGNAL
USH 10 (WALDO BLVD.) & 18TH ST.
CITY OF MANITOWOC
MANITOWOC COUNTY

PAGE 2 OF 2

PROJECT NO: 1500-37-76	HWY: USH 10/STH 42	COUNTY: MANITOWOC	CABLE ROUTING SHEET	SHEET NO: 128	E

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)



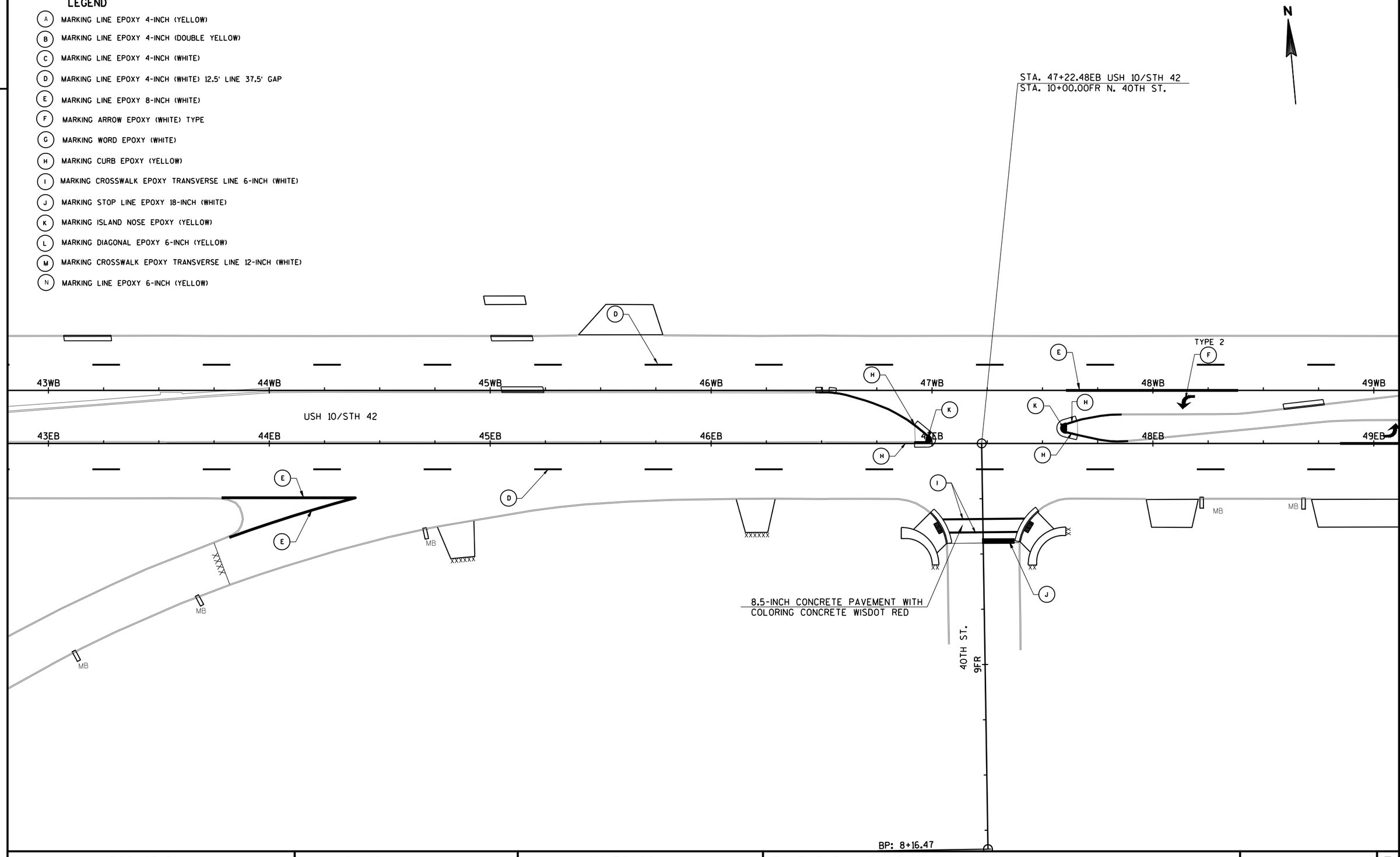
PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 129	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_024501_PM (2020).DWG
PLOT DATE : 10/14/2019 2:49 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1in:40 ft_XREF

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)



PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 130	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_024502_PM (2020).DWG PLOT DATE : 10/14/2019 2:49 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

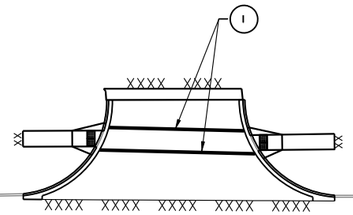
WISDOT/CADDS SHEET 42

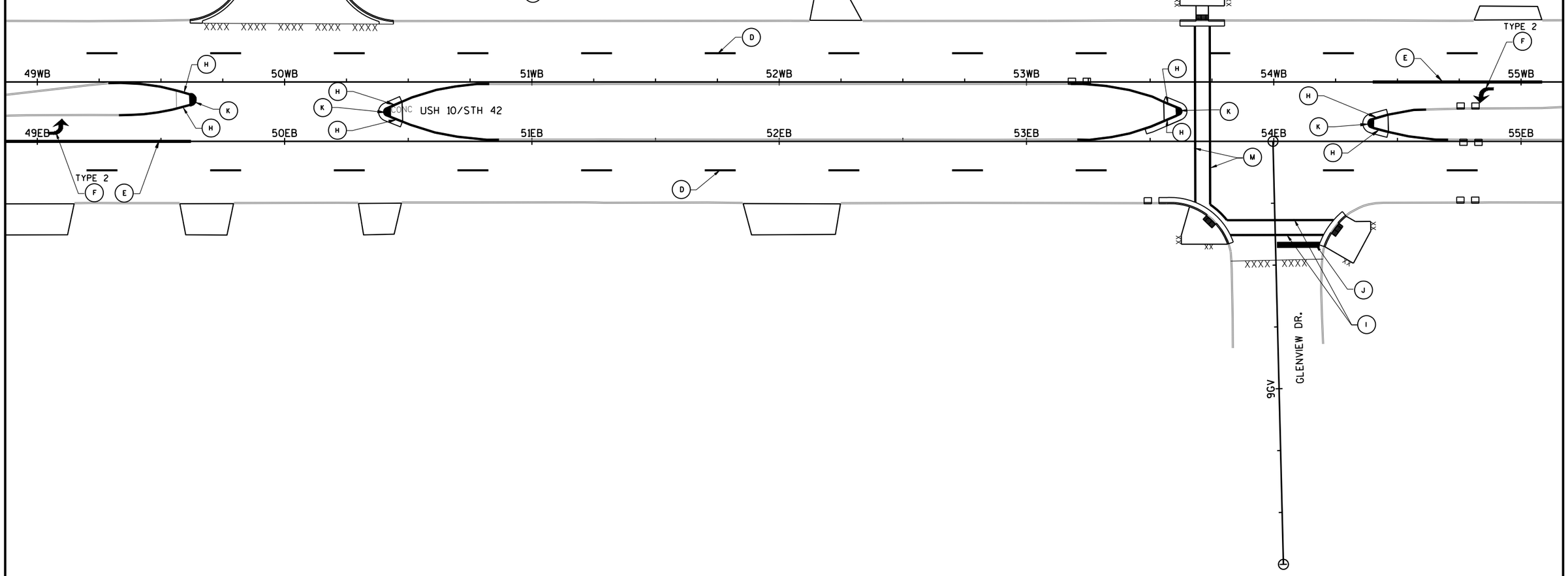
2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)

N





PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 131	E

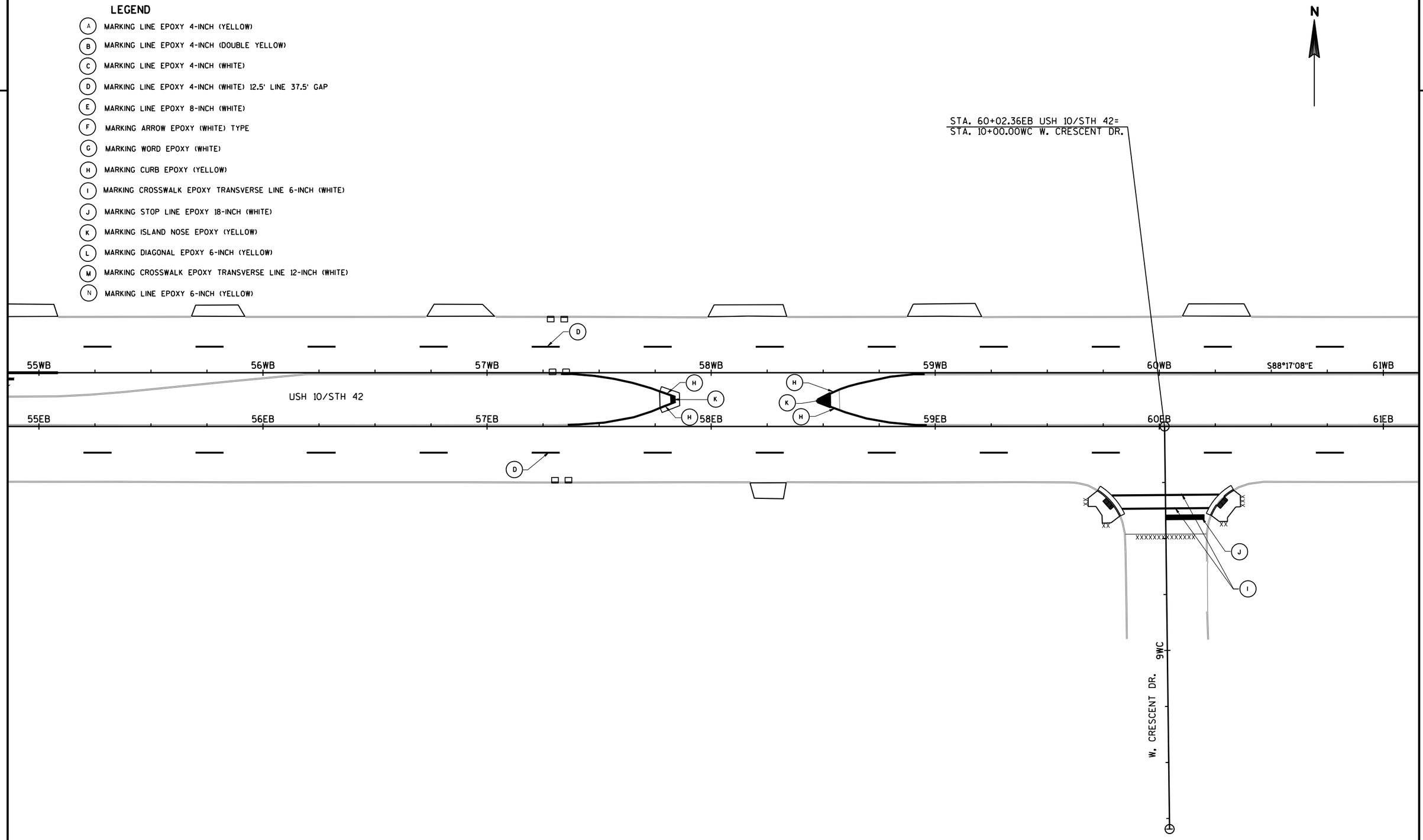
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WISDOT/CADDS SHEET 42

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)



PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 132	E

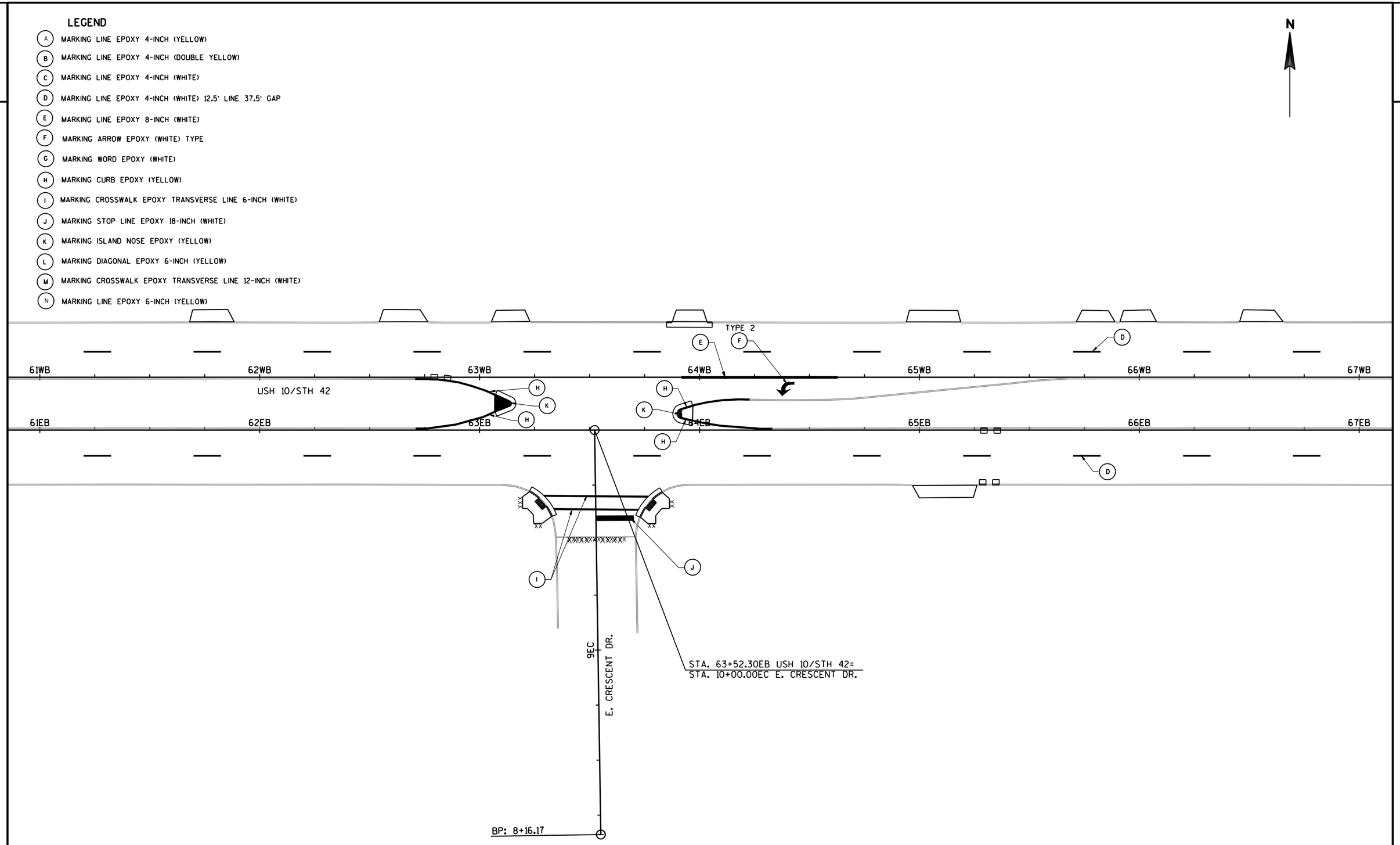
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WISDOT/CADDS SHEET 42

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
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- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)



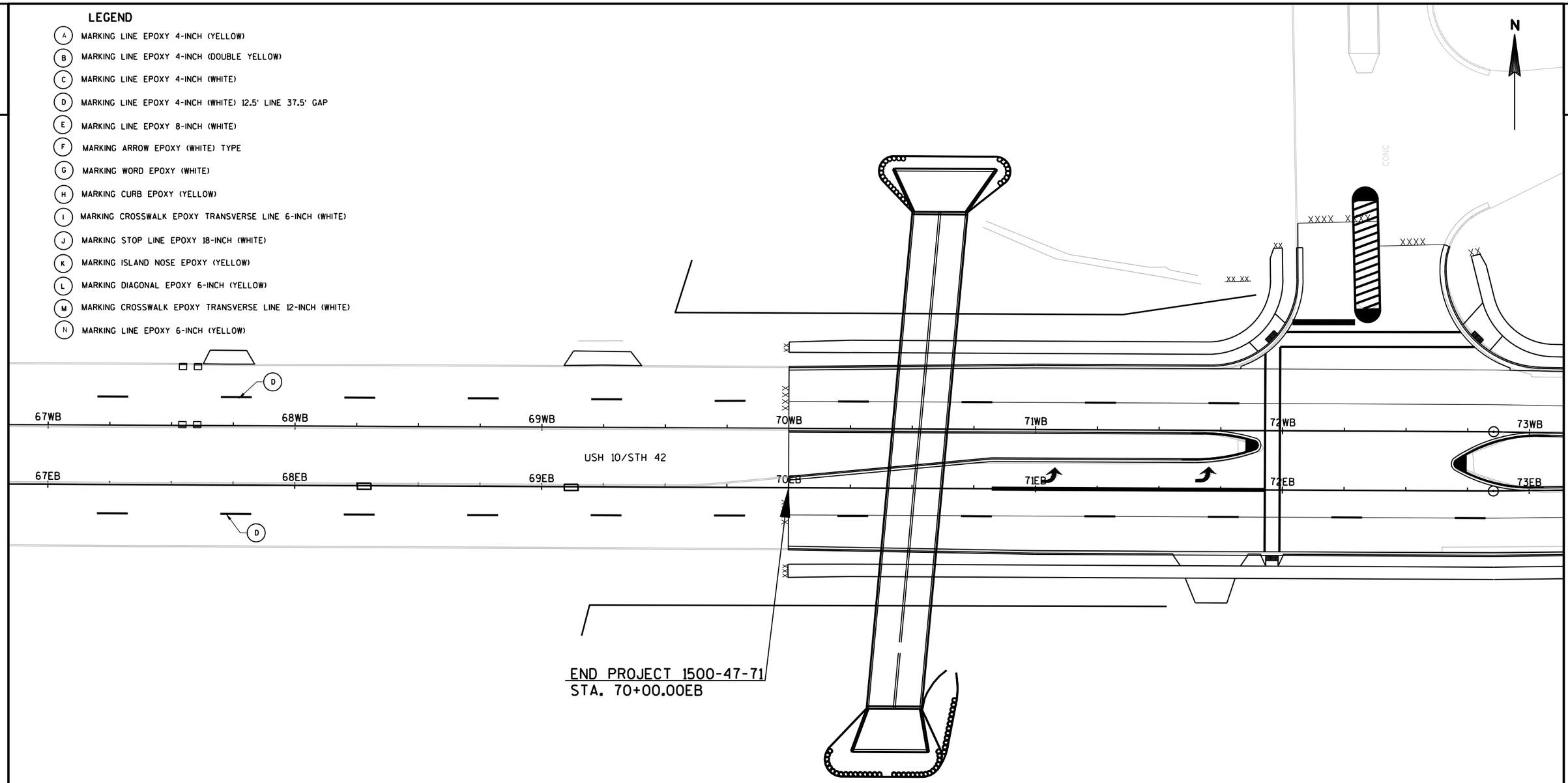
PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 133	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_024505_PM (2020).DWG PLOT DATE : 10/14/2019 2:51 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)



PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_024506_PM (2020).DWG PLOT DATE : 10/14/2019 2:52 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

2

N

FLEETWOOD DR.

10FW

9FW

LINE

MATCH

3"

USH 10/STH 42

69WB 70WB 71WB 72WB 73WB 74WB 75WB

69EB 70EB 71EB 72EB 73EB 74EB 75EB

S89°17'04"E

TYPE 2

TYPE 2

BEGIN PROJECT 1500-37-76
STA. 70+00.00

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
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- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024501_PM (2020).DWG PLOT DATE : 10/14/2019 10:55 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
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- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

N

2

LINE

USH 10/STH 42

75WB 76WB 77WB 78WB 79WB 80WB 81WB

75EB 76EB 77EB 78EB 79EB 80EB 81EB

D

D

LINE

MATCH

MATCH

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024502_PM (2020).DWG PLOT DATE : 10/14/2019 10:55 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

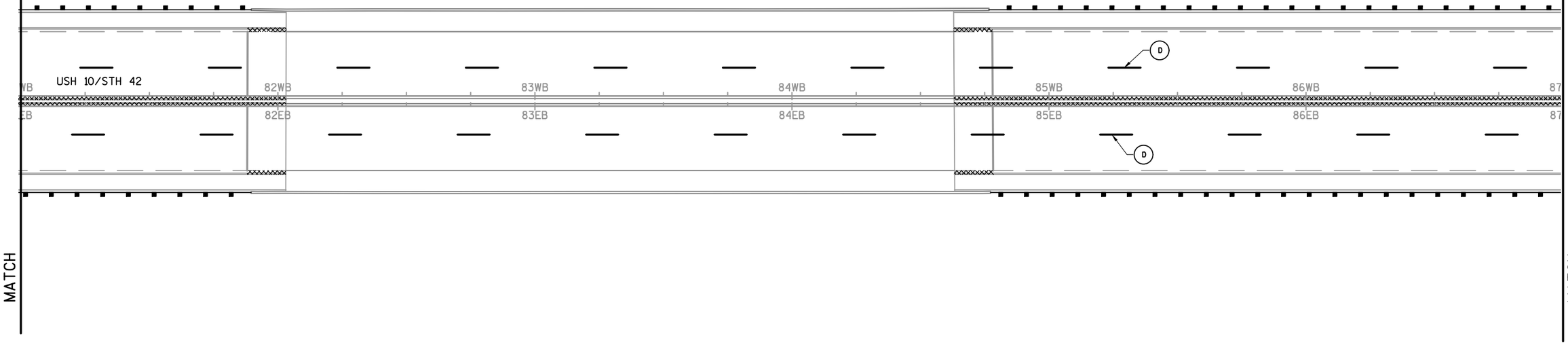
LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
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- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

N

2

LINE



LINE

MATCH

MATCH

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024503_PM (2020).DWG PLOT DATE : 10/14/2019 10:56 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
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- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

N

2

LINE

MATCH

LINE

MATCH

XX

XXX

87WB 88WB 89WB 90WB 91WB 92WB 93WB

87EB 88EB 89EB 90EB 91EB 92EB 93EB

D D

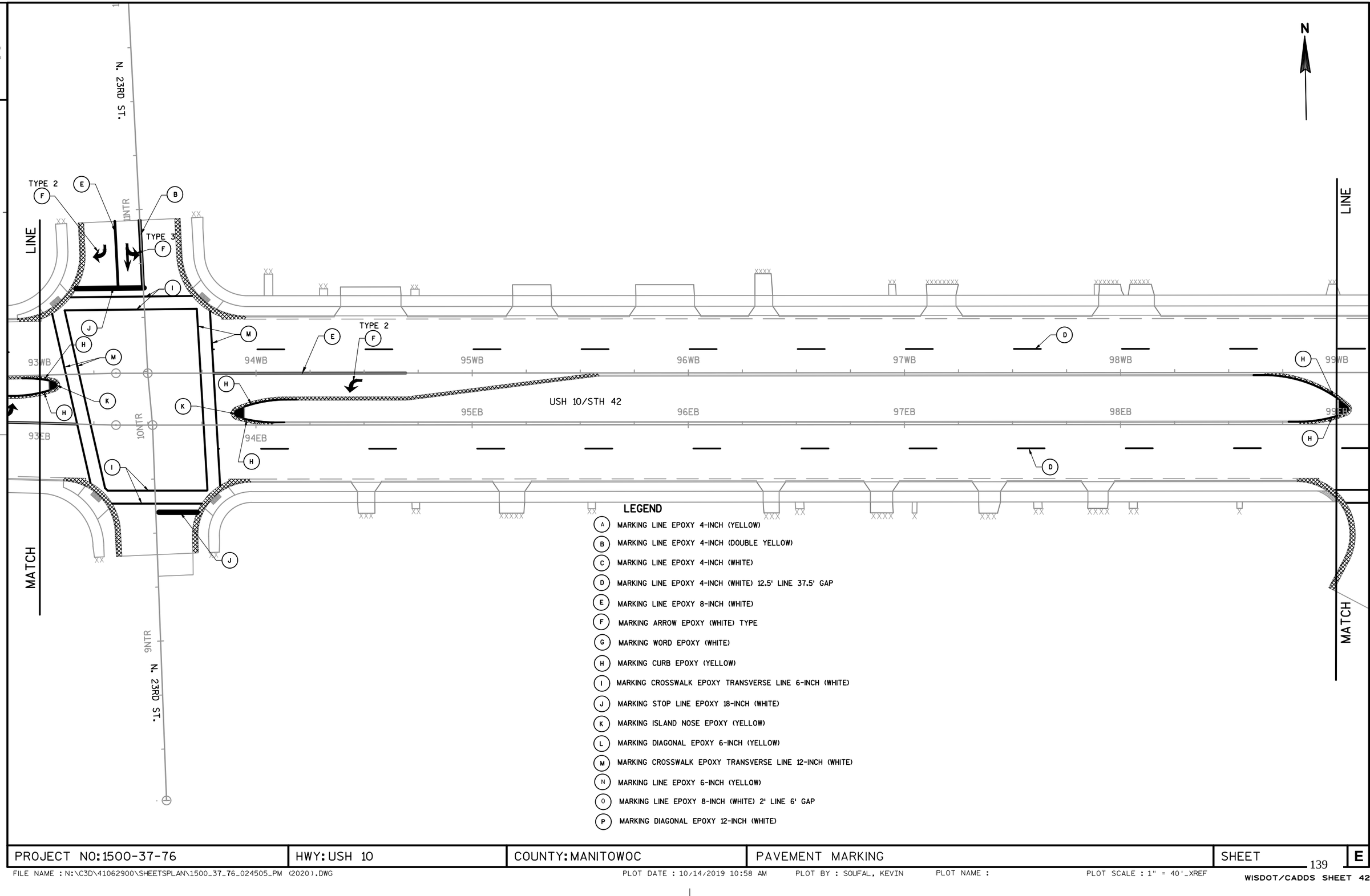
TYPE 2 F

E TYPE 2 F

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024504_PM (2020).DWG PLOT DATE : 10/14/2019 10:57 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

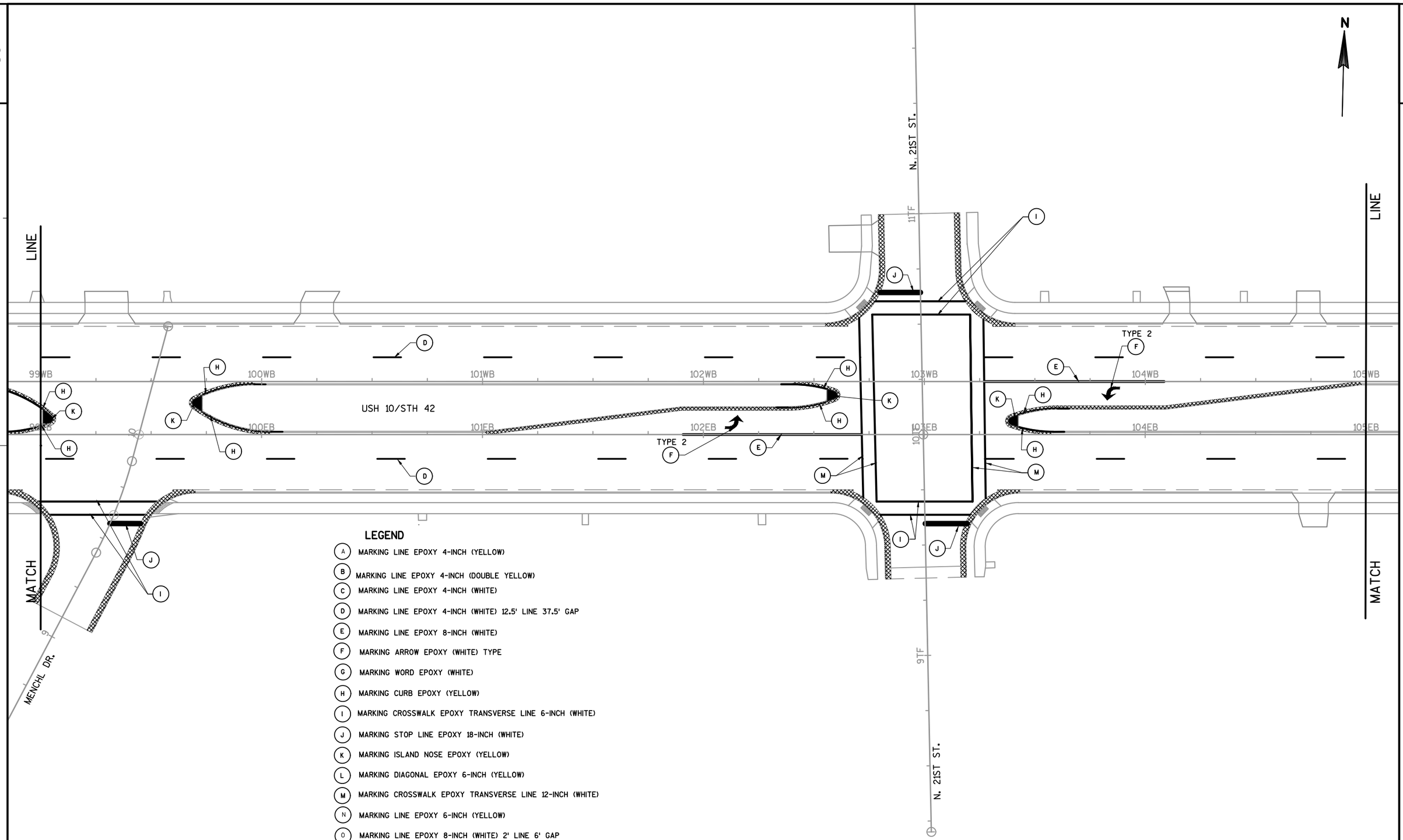
WISDOT/CADDS SHEET 42



LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET 139	E

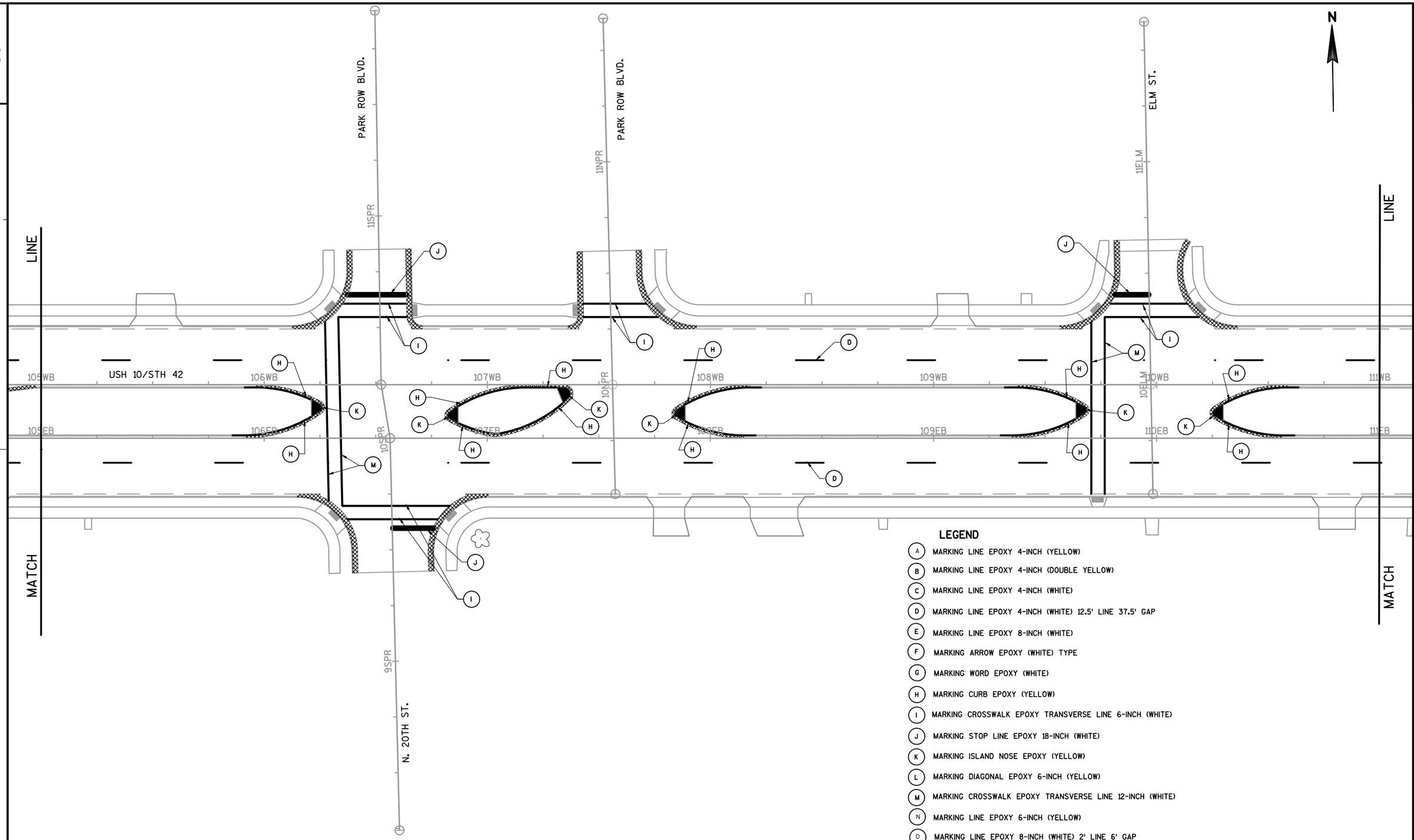


LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024506_PM (2020).DWG PLOT DATE : 10/14/2019 10:59 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42



LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024507_PM (2020).DWG PLOT DATE : 10/14/2019 11:00 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1" = 40'_XREF

2

2

N

LINE

LINE

USH 10/STH 42

111WB 112WB 113WB 114WB 115WB 116WB 117WB

111EB 112EB 113EB 114EB 115EB 116EB 117EB

TYPE 2

11'

D D E E E P E G F

MATCH

MATCH

LEGEND

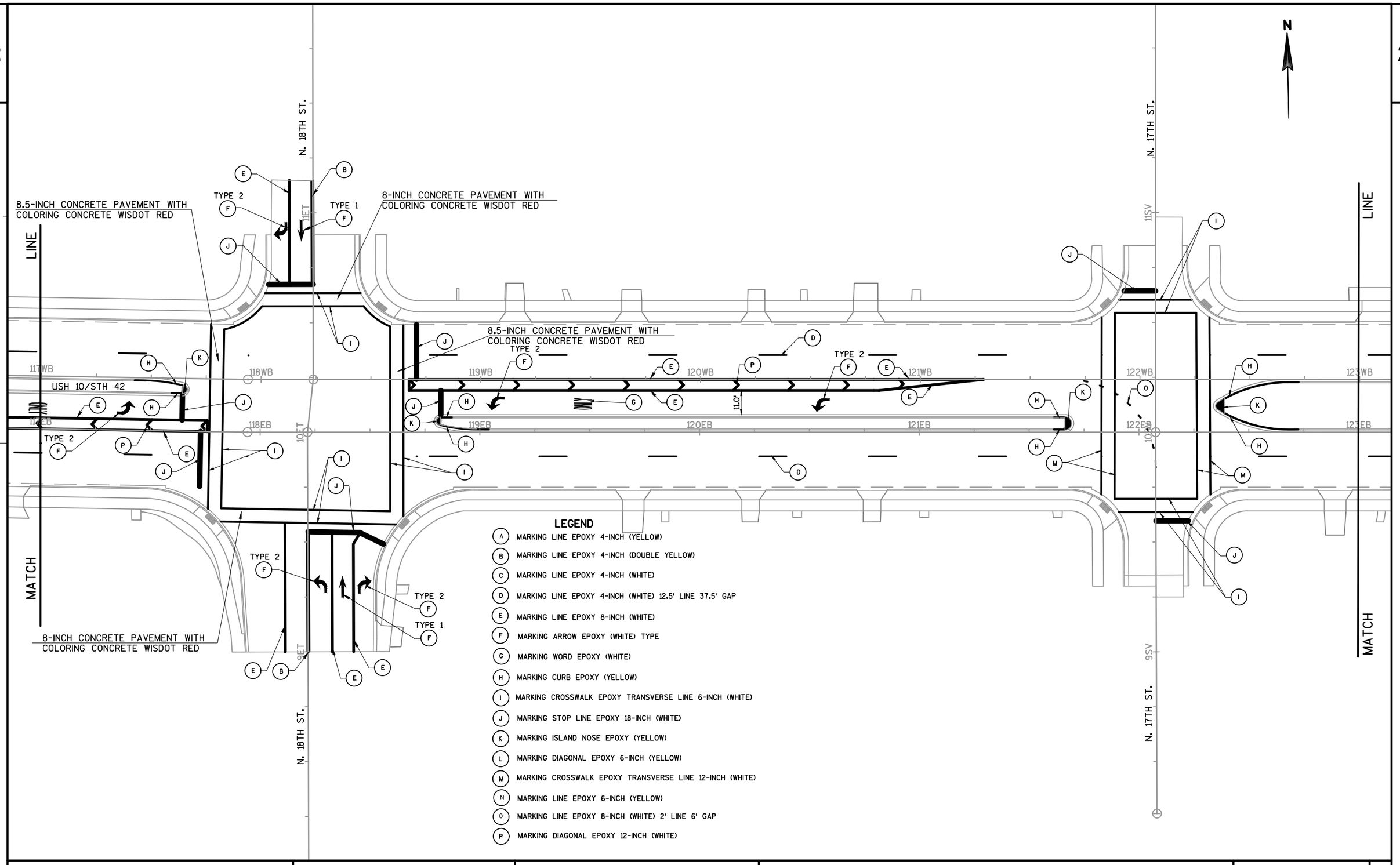
- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024508_PM (2020).DWG PLOT DATE : 10/14/2019 11:01 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

WISDOT/CADDS SHEET 42

2



LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024509_PM (2020).DWG PLOT DATE : 10/14/2019 11:02 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF
WISDOT/CADDS SHEET 42

2

N

N. 16TH ST.

N. 15TH ST.

8.5-INCH CONCRETE PAVEMENT WITH
COLORING CONCRETE WISDOT RED

LINE

8-INCH CONCRETE PAVEMENT WITH
COLORING CONCRETE WISDOT RED

123WB USH 10/STH 42 124WB 125WB 126WB 127WB 128WB 129WB

8.5-INCH CONCRETE PAVEMENT WITH
COLORING CONCRETE WISDOT RED

123EB 124EB 125EB 126EB 127EB 128EB 129EB

11ST 11FT 10ST 10FT

LINE

MATCH

8-INCH CONCRETE PAVEMENT WITH
COLORING CONCRETE WISDOT RED

9ST 9FT

N. 16TH ST. N. 15TH ST.

MATCH

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
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- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

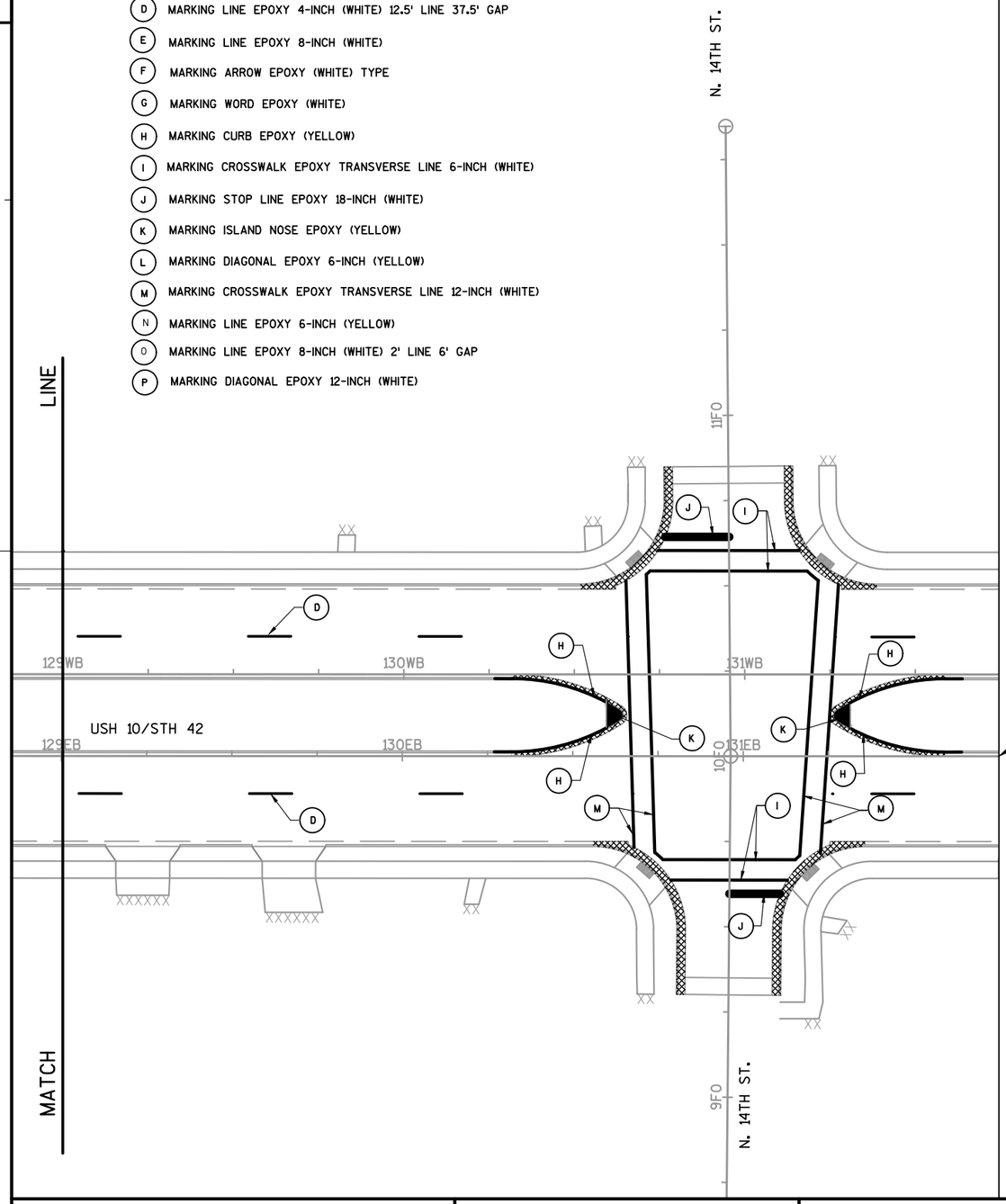
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024510_PM (2020).DWG PLOT DATE : 10/14/2019 11:03 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1in:40 ft_XREF

2

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (E) MARKING LINE EPOXY 8-INCH (WHITE)
- (F) MARKING ARROW EPOXY (WHITE) TYPE
- (G) MARKING WORD EPOXY (WHITE)
- (H) MARKING CURB EPOXY (YELLOW)
- (I) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (J) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (K) MARKING ISLAND NOSE EPOXY (YELLOW)
- (L) MARKING DIAGONAL EPOXY 6-INCH (YELLOW)
- (M) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE)
- (N) MARKING LINE EPOXY 6-INCH (YELLOW)
- (O) MARKING LINE EPOXY 8-INCH (WHITE) 2' LINE 6' GAP
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)



END PROJECT 1500-37-76
STA. 131+75.00

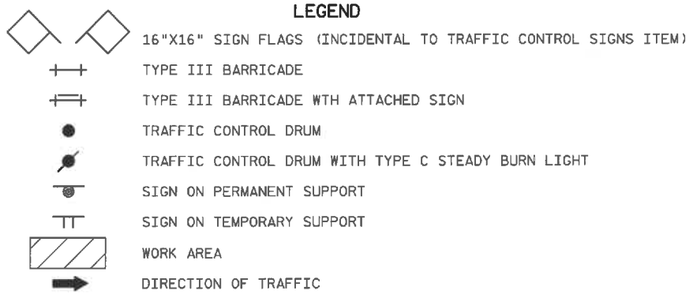
2

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PAVEMENT MARKING	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_024511_PM (2020).DWG PLOT DATE : 10/14/2019 11:04 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42

2

LEGEND



16"X16" SIGN FLAGS (INCIDENTAL TO TRAFFIC CONTROL SIGNS ITEM)

TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

WORK AREA

DIRECTION OF TRAFFIC



Andrew W. Block

7/16/2019

TRAFFIC CONTROL PLANS DESIGNED
BY JT ENGINEERING, INC.

TRAFFIC CONTROL GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGN DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

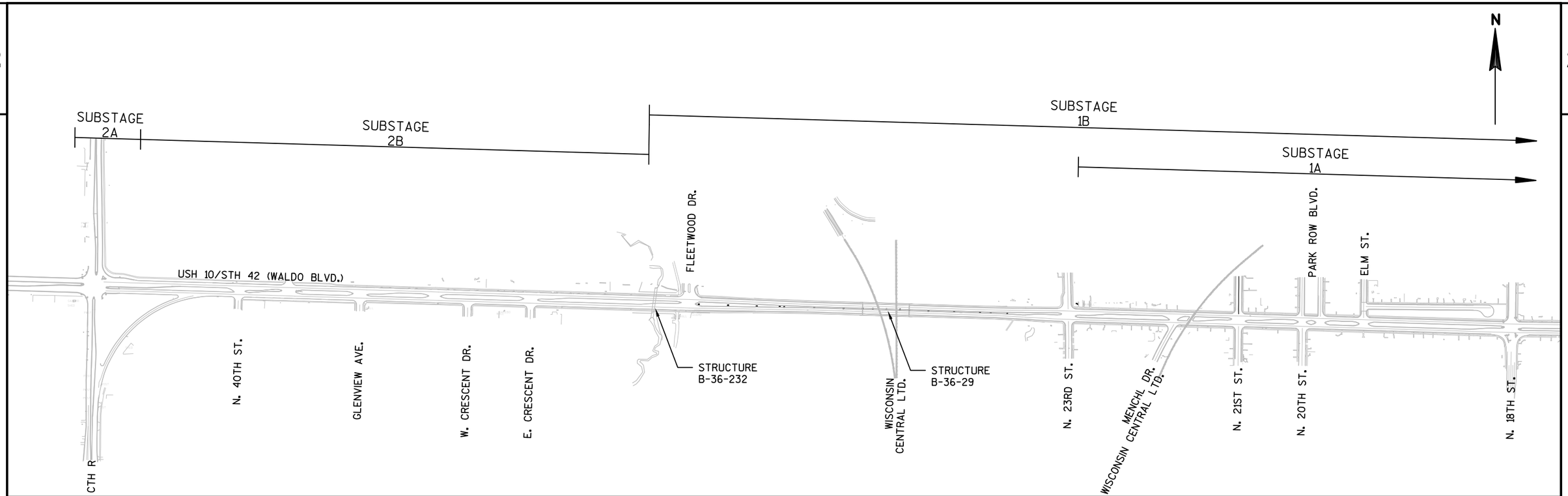
'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS ORANGE.

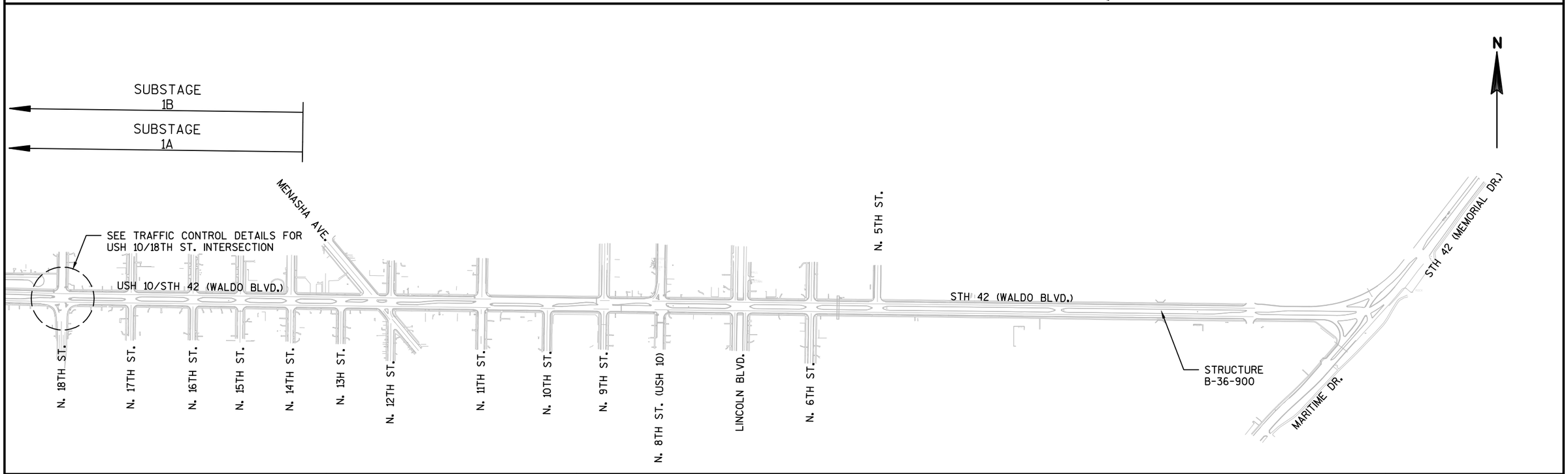
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED. USE OF SIGNS OTHER THAN 48" X 48" OR AS NOTED SHALL BE APPROVED BY THE ENGINEER.

FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A (LOW INTENSITY FLASHING) LIGHTS.

WORK AREAS SHOWN ILLUSTRATE GENERAL LOCATIONS OF WORK AND MAY NOT REFLECT ALL WORK REQUIRED.





PROJECT NO: 1500-37-76/77, 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC CONTROL OVERVIEW	SHEET 147 E

2

CLERMONT ST.

USH 10/WALDO BLVD.

ROAD CLOSED AHEAD
W20-3-A

ROAD CLOSED 1000 FT
W20-3-C

ROAD CLOSED 500 FT
W20-3-D

ROAD CLOSED
R11-2
48"X30"

W01-6
48"X24"

SEE S.D.D. BARRICADES AND SIGNS FOR MAINLINE CLOSURES.

PLACE BARRICADES AND SIGN IMMEDIATELY NORTH OF BELMONT ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

25' (TYP)

18TH ST.

END ROAD WORK
G20-2A
48"X24"

DO NOT ENTER
R5-1
30"X30"

W011-2
48"X48"

W016-7L
48"X24"

PLACE TEMPORARY CURB RAMPS, PEDESTRIAN CROSSING, AND SIGNING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET NORTH OF USH 10

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"X24"

PLACE R9-11 SIGN AND BARRICADE AT TEMPORARY PEDESTRIAN CROSSING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET NORTH OF USH 10

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW)
(165' TAPER)

SIDEWALK CLOSED
R9-9
24"X12"

STOP
R1-1
30"X30"

R3-2
24"X24"

W03-1

N

10' (TYP)

STAGE 1 WORK ZONE

TEMPORARY PEDESTRIAN BARRICADE

STOP
R1-1
30"X30"

LANE CLOSED
R11-2-L
48"X30"

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"X24"

PLACE R9-11 SIGN AND BARRICADE AT TEMPORARY PEDESTRIAN CROSSING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET SOUTH OF USH 10

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW & WHITE)
(165' TAPER AND 55' BUFFER DISTANCE)

W01-6
48"X24"

W03-1
W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

R3-1
24"X24"

LANE CLOSED
R11-2-L
48"X30"

STOP
R1-1
30"X30"

W011-2
48"X48"

W016-7R
48"X24"

LANE CLOSED
R11-2-L
48"X30"

PLACE TEMPORARY CURB RAMPS, PEDESTRIAN CROSSING, AND SIGNING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET SOUTH OF USH 10

SEE S.D.D. TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY AND BARRICADES AND SIGNS FOR MAINLINE CLOSURES FOR ADDITIONAL DETAILS FOR OUTSIDE LANE CLOSURE PRIOR TO SHIFTING TAPER

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC CONTROL - STAGE 1 - 18TH STREET (SHT 1 OF 2)	SHEET 148 E

2

2

CLERMONT ST.

USH 10/WALDO BLVD.

18TH ST.

ROAD CLOSED AHEAD
W20-3-A

ROAD CLOSED 1000 FT
W20-3-C

ROAD CLOSED 500 FT
W20-3-D

ROAD CLOSED
R11-2
48"X30"

SEE S.D.D. BARRICADES AND SIGNS FOR MAINLINE CLOSURES.

PLACE BARRICADES AND SIGN IMMEDIATELY NORTH OF BELMONT ST.

SIDEWALK CLOSED CROSS HERE
R9-11-A
48"X24"

PLACE R9-11-A SIGN AND BARRICADE AT TEMPORARY PEDESTRIAN CROSSING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET SOUTH OF USH 10

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

DO NOT ENTER
R5-1
30"X30"

W011-2
48"X48"

W016-7L
48"X24"

PLACE TEMPORARY CURB RAMPS, PEDESTRIAN CROSSING, AND SIGNING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET NORTH OF USH 10

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SIDEWALK CLOSED CROSS HERE
R9-11-A
48"X24"

STOP
R1-1
30"X30"

R3-2
24"X24"

W03-1

N

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

R3-1
24"X24"

STOP
R1-1
30"X30"

LANE CLOSED
R11-2-L
48"X30"

PLACE R9-11 SIGN AND BARRICADE AT TEMPORARY PEDESTRIAN CROSSING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET SOUTH OF USH 10

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
48"X24"

W01-6
48"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) (125' TAPER)

LANE CLOSED
R11-2-L
48"X30"

25' (TYP)

25' (TYP)

TEMPORARY PEDESTRIAN CURB RAMP REQD

STAGE 1 WORK ZONE

TEMPORARY PEDESTRIAN BARRICADE

W011-2
48"X48"

W016-7L
48"X24"

PLACE TEMPORARY CURB RAMPS, PEDESTRIAN CROSSING, AND SIGNING OUTSIDE OF CONSTRUCTION LIMITS ON 18TH STREET SOUTH OF USH 10

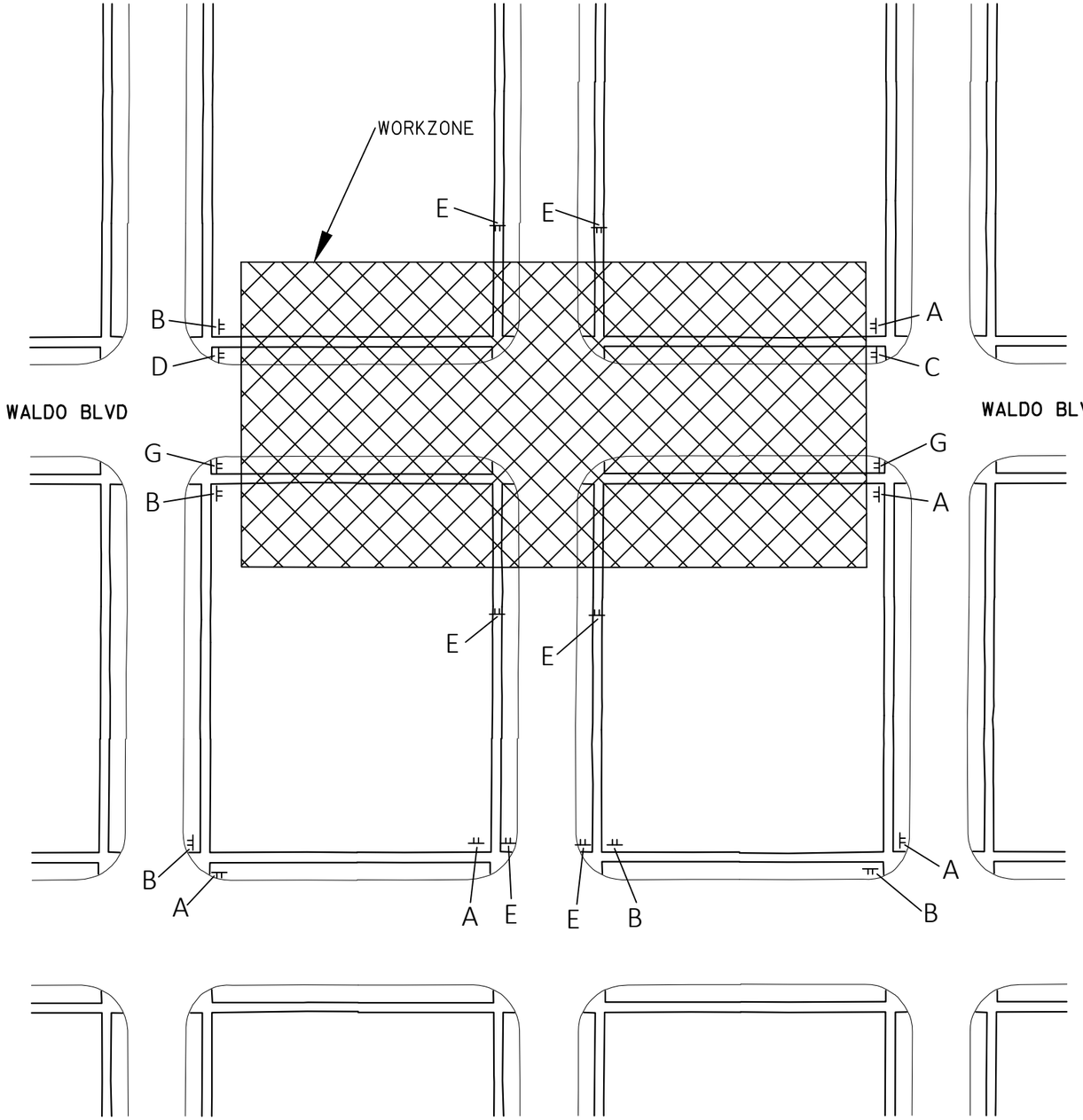
W004-2L

LEFT LANE CLOSED AHEAD
W20-55-A

ROAD WORK AHEAD
W20-1-A

SEE S.D.D. TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY FOR ADDITIONAL DETAILS

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC CONTROL - STAGE 1 - 18TH STREET (SHT 2 OF 2)	SHEET 149 E



A



M4-9BL
30"X24"

B



M4-9BR
30"X24"

C



R9-11
24"X12"

D



R9-11
24"X12"

E



R9-9
24"X12"

GENERAL NOTES

ADJUST SIGNING AS NECESSARY TO MEET FIELD CONDITIONS

TYPICAL SIGNING LAYOUT FOR PEDESTRIAN DETOURS

PROJECT NO: 1500-37-76/77	HWY: USH 10	COUNTY: MANITOWOC	TRAFFIC CONTROL - PEDESTRIAN DETOUR	SHEET 150	E

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

(X) PORTABLE CHANGEABLE MESSAGE SIGN

PCMS

POST MOUNTED SIGN

N

DETAIL #1
SEE SHEET 2 OF 4

DETAIL #2
SEE SHEET 2 OF 4

DETAIL #3
SEE SHEET 3 OF 4

DETAIL #4
SEE SHEET 3 OF 4

(SEE SHEET 4 OF 4)
MATCH LINE

WORK ZONE

Manitowoc 1¾ MILE

Wisconsin Maritime Museum EXIT 152

HWY 42 CLOSED TO MANITOWOC FOLLOW HWY 310

Manitowoc Exits
Hwy 42-151 1¾
Hwy 43 2¼
Hwy 10-310 7½

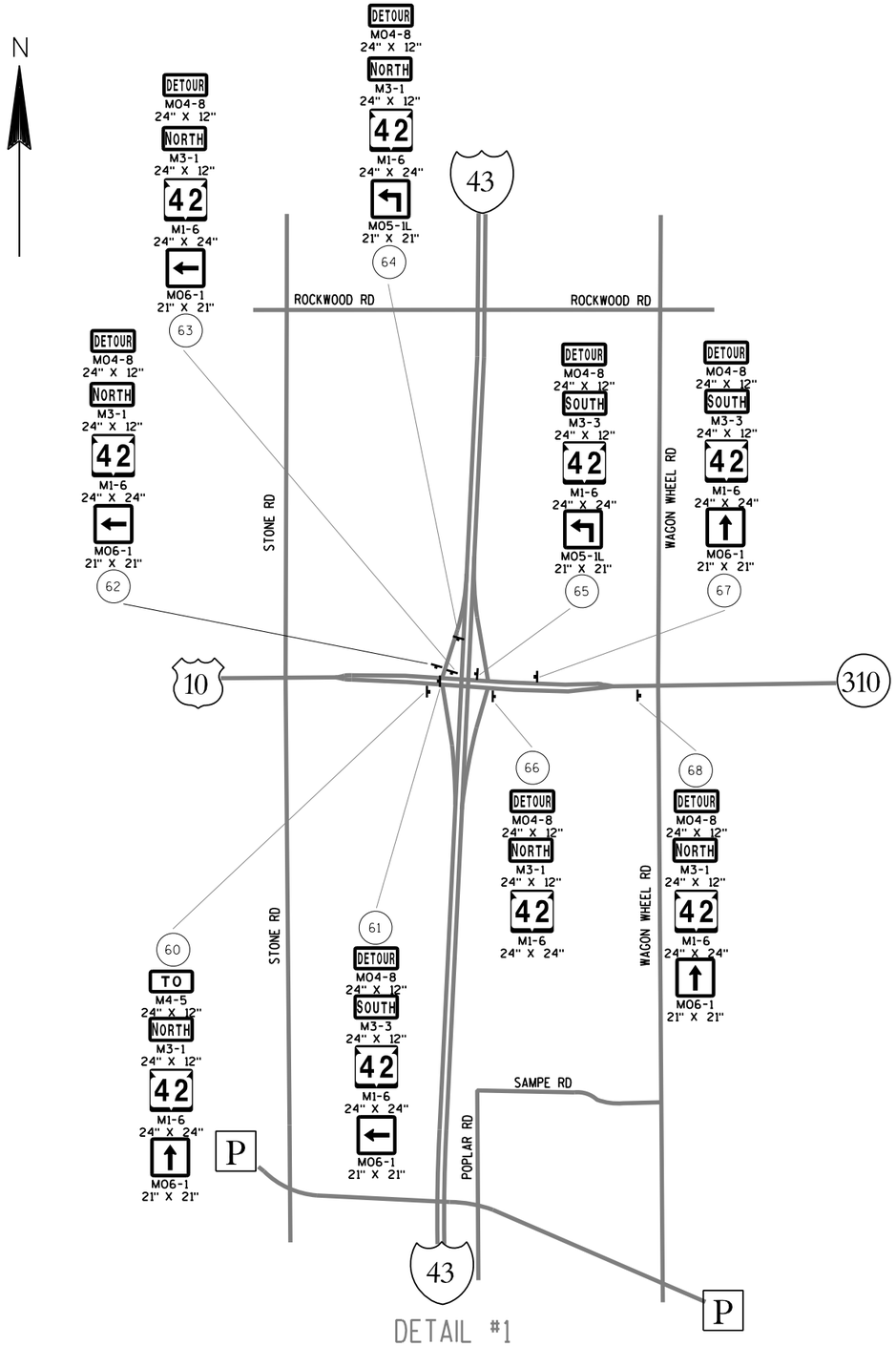
DETOUR AHEAD W20-2A 48" X 48"

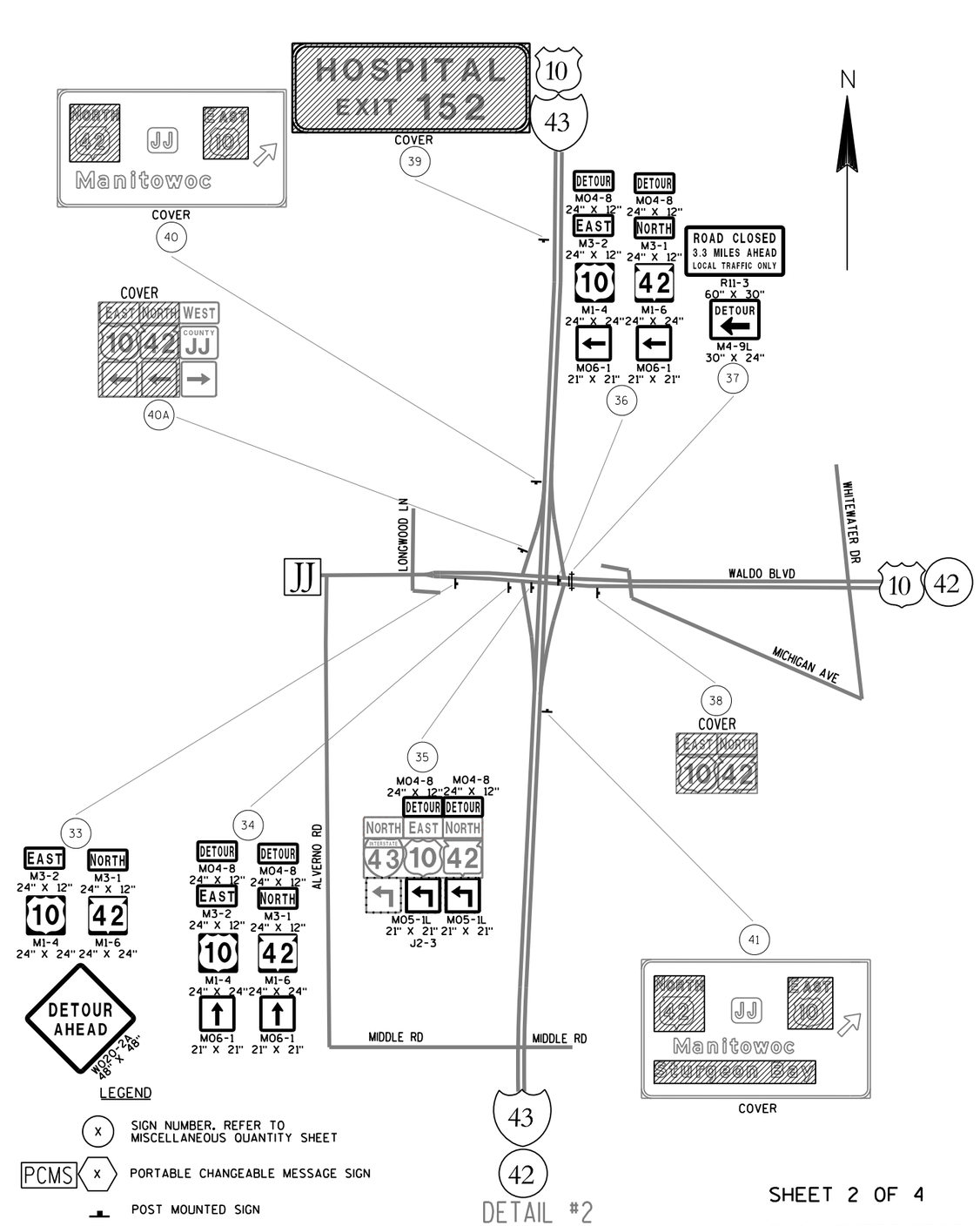
MIDDLE RD
LONGWOOD LN
STONE RD
ROCKWOOD RD
WAGON WHEEL RD
PARKVIEW LN
HECKER RD
CLOVER RD
SILVER CREEK RD
EXPO DR
CUSTER ST
MENASHA AVE
18TH STREET
8TH STREET
WALDO BLVD
MARITIME DR

SHEET 1 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	DETOUR SIGNING DETAIL	SHEET 151 E

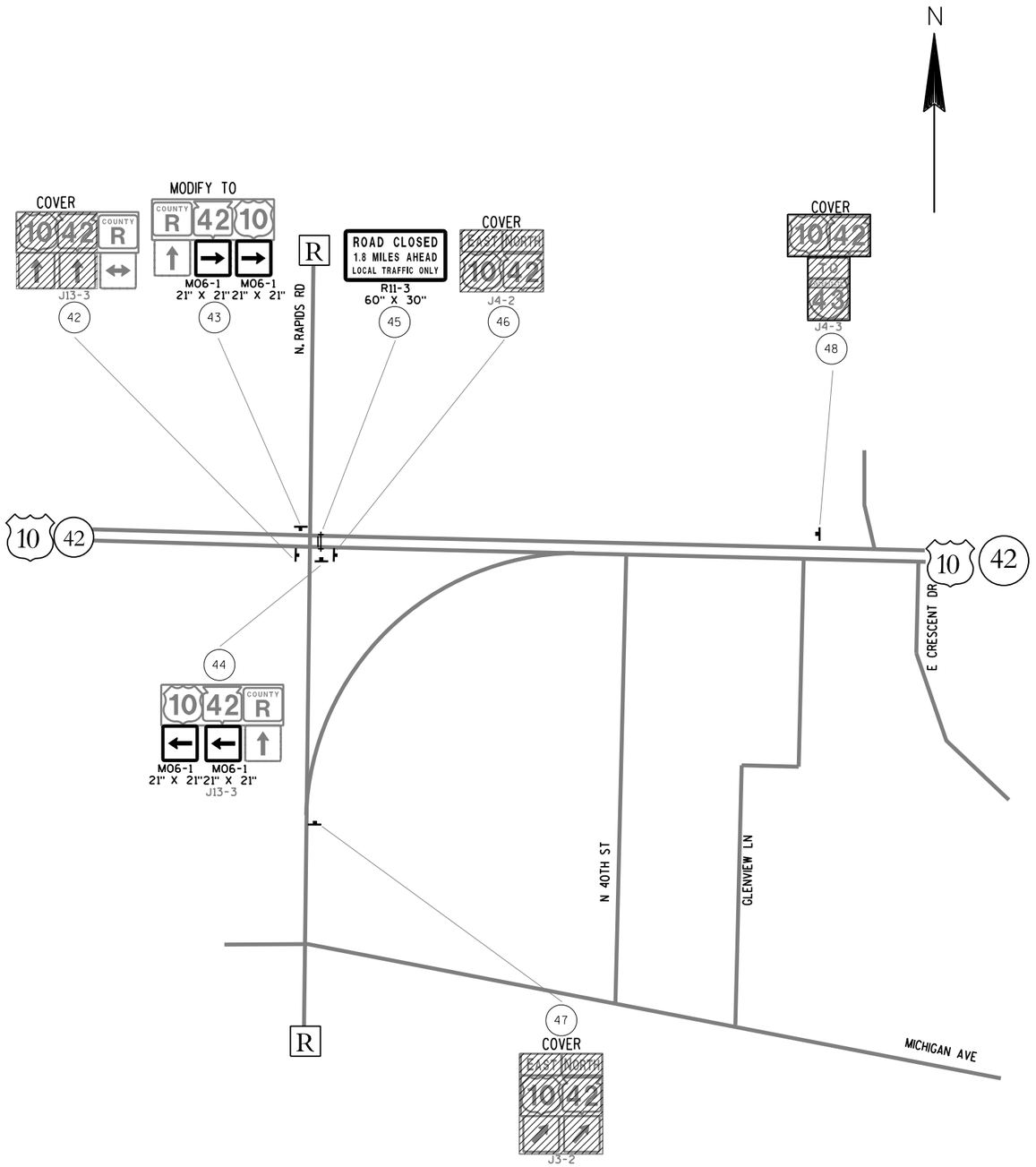




SHEET 2 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	DETOUR SIGNING DETAIL	SHEET 152	E



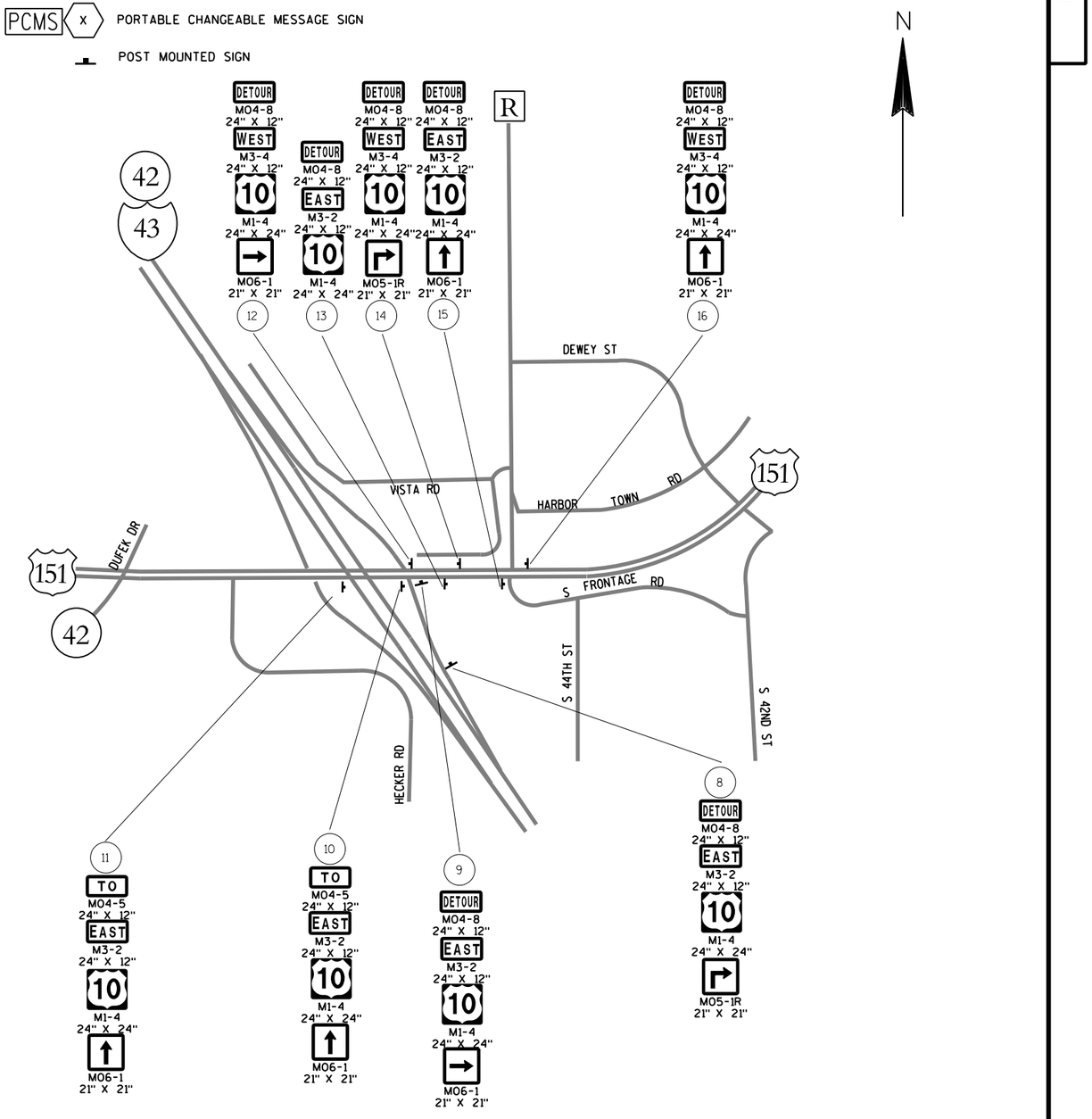
DETAIL #3

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN

POST MOUNTED SIGN



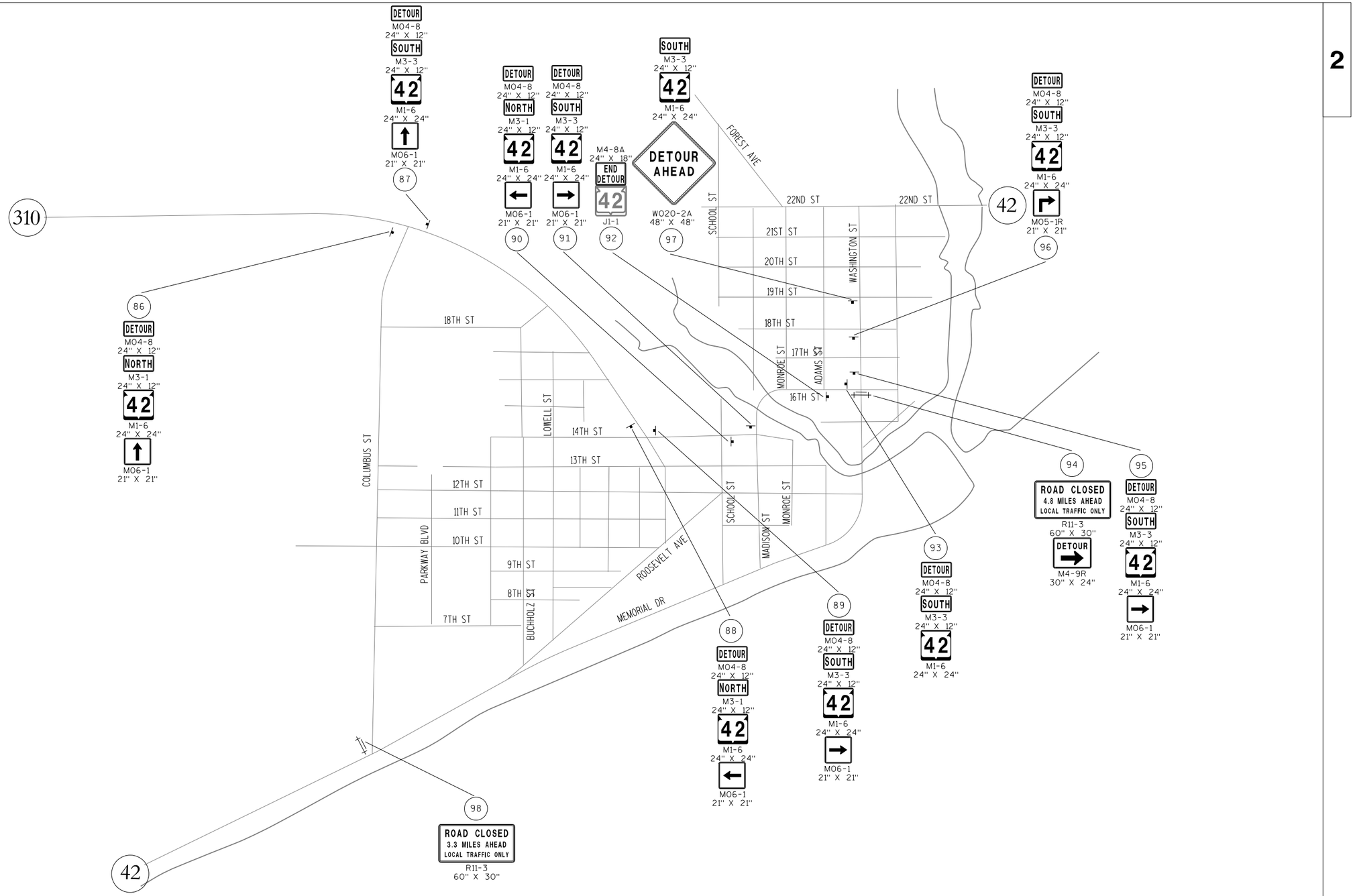
DETAIL #4

SHEET 3 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	DETOUR SIGNING DETAIL	SHEET 153	E

2



LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

SHEET 4 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

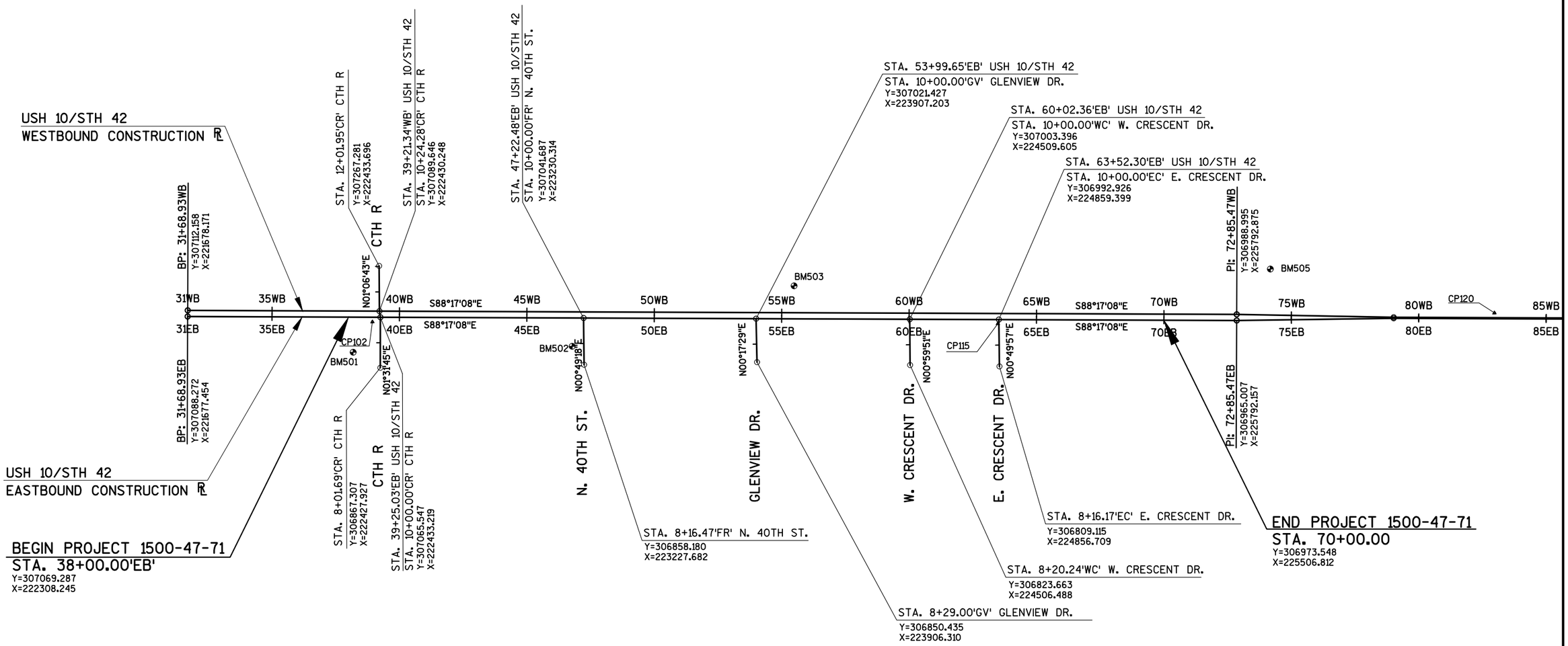
PROJECT NO:1500-37-76	HWY:USH 10	COUNTY:MANITOWOC	DETOUR SIGNING DETAIL	SHEET 154	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
501	38+19EB	TOP NE COR CONC PORCG-138' RT	660.39
502	46+48EB	TOP NE COR CONC PORCH-111' RT	655.83
503	55+48EB	TOP SE COR CONC PORCH-129' LT	655.22
505	74+20EB	CHIS BOX SE COR PAD-200' LT	647.34

PROJECT CONTROL

POINT NUMBER	STATION	OFFSET	Y	X	DESCRIPTION
CP102	38+94.06EB	18.06' RT	307048.419	222401.726	PK NAIL IN PAINTED PANEL
CP115	63+48.27EB	16.42' RT	306976.635	224854.878	PK NAIL IN PAINTED PANEL
CP120	82+97.04EB	22.94' LT	306968.318	226804.187	PK NAIL IN PAINTED PANEL



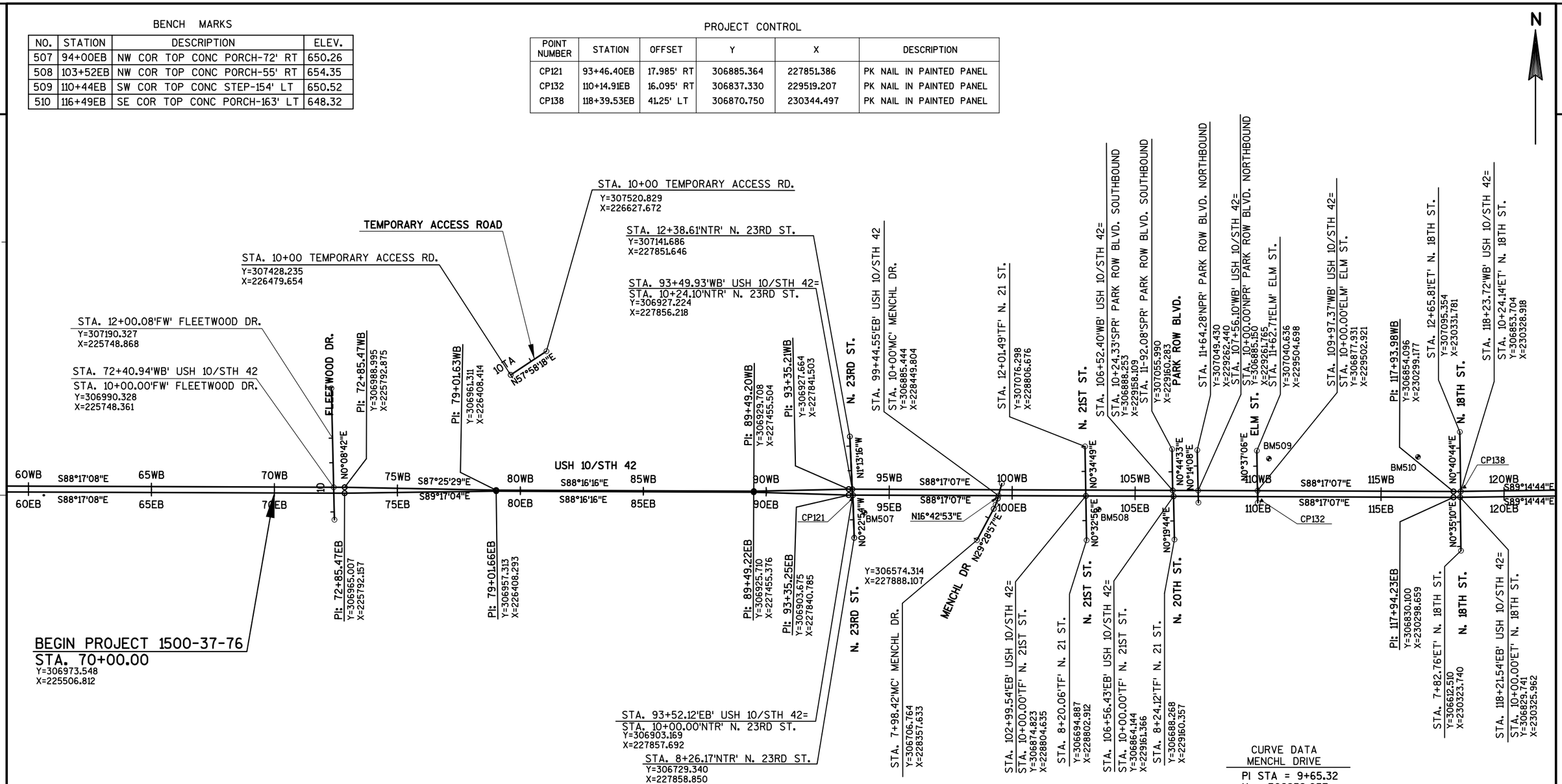
PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	ALIGNMENT DIAGRAM	SHEET 155	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
507	94+00EB	NW COR TOP CONC PORCH-72' RT	650.26
508	103+52EB	NW COR TOP CONC PORCH-55' RT	654.35
509	110+44EB	SW COR TOP CONC STEP-154' LT	650.52
510	116+49EB	SE COR TOP CONC PORCH-163' LT	648.32

PROJECT CONTROL

POINT NUMBER	STATION	OFFSET	Y	X	DESCRIPTION
CP121	93+46.40EB	17.985' RT	306885.364	227851.386	PK NAIL IN PAINTED PANEL
CP132	110+14.91EB	16.095' RT	306837.330	229519.207	PK NAIL IN PAINTED PANEL
CP138	118+39.53EB	41.25' LT	306870.750	230344.497	PK NAIL IN PAINTED PANEL



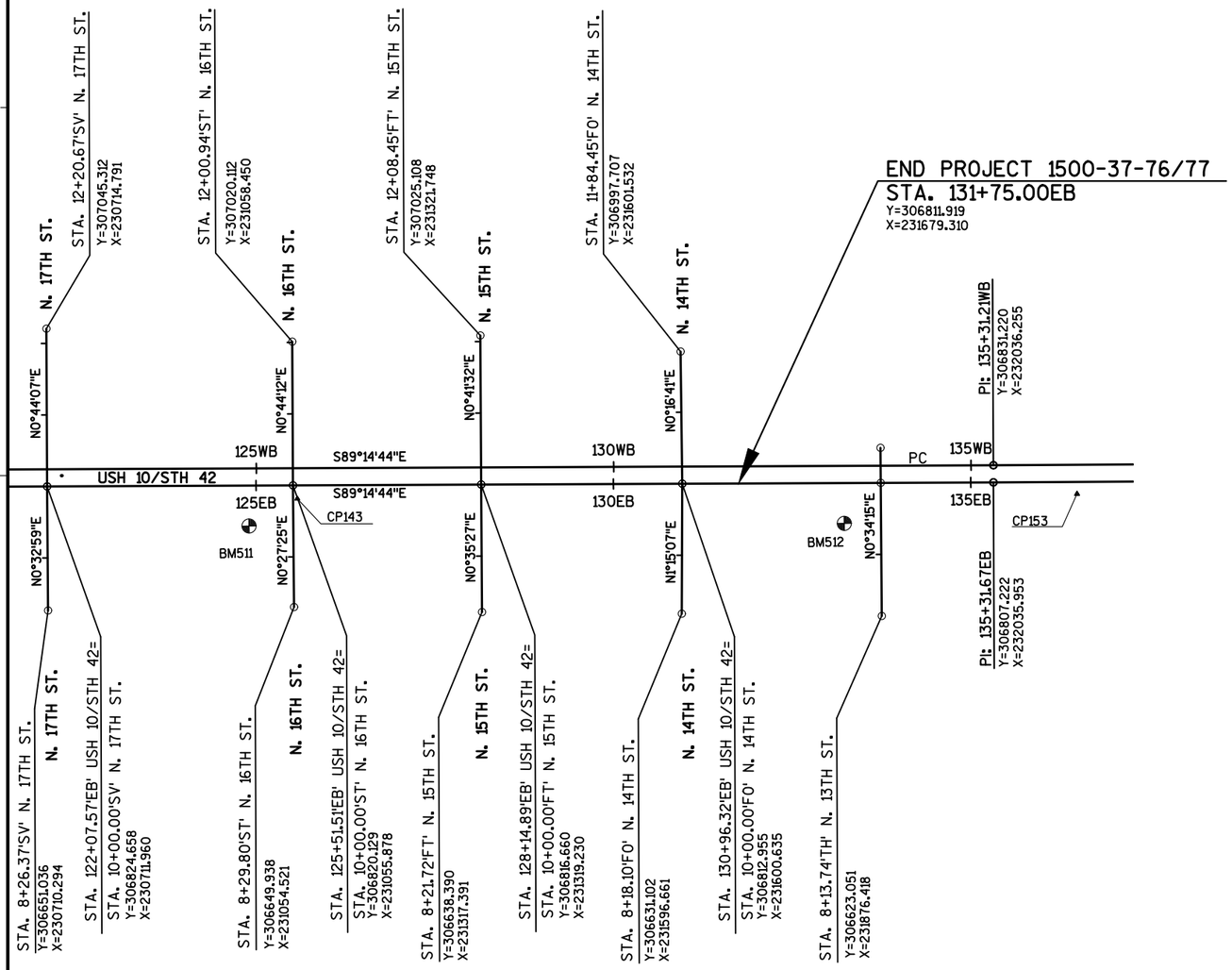
CURVE DATA
MENCHL DRIVE

PI STA = 9+65.32
Y = 306852.057
X = 228439.778
DELTA = 12°46'04"
D = 28°38'52"
T = 22.38'
L = 44.57'
R = 200.00'
PC STA = 9+42.95
Y = 306832.578
X = 228428.765
PT STA = 9+87.52
Y = 306873.488
X = 228446.213
BK = N29°28'57.0"E
AH = N16°42'52.5"E

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	ALIGNMENT DIAGRAM	SHEET 156	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
511	124+90EB	NE COR OF PORCH-56' RT	636.42
512	133+24EB	NE COR TOP CONC PORCH-56' RT	632.34



PROJECT CONTROL

POINT NUMBER	STATION	OFFSET	Y	X	DESCRIPTION
CP143	125+57.64EB	8.67' RT	306801.384	231061.758	PK NAIL IN PAINTED PANEL
CP153	136+48.55EB	16.71' RT	306789.113	232152.619	PK NAIL IN PAINTED PANEL

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	ALIGNMENT DIAGRAM	SHEET 157	E

					1500-37-76	1500-37-77	1500-47-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0002	201.0105	Clearing	STA	9.000	7.000		2.000
0004	201.0120	Clearing	ID	1,890.000	1,840.000		50.000
0006	201.0205	Grubbing	STA	9.000	7.000		2.000
0008	201.0220	Grubbing	ID	2,000.000	1,950.000		50.000
0010	203.0200	Removing Old Structure (station) 01. 83'EB'+32	LS	1.000	1.000		
0012	203.0225.S	Debris Containment (structure) 01. B-36-29	LS	1.000	1.000		
0014	203.0500.S	Removing Old Structure Over Waterway (station) 01. 70+52	LS	1.000	1.000		
0016	204.0100	Removing Pavement	SY	44,400.000	43,700.000		700.000
0018	204.0105	Removing Pavement Butt Joints	SY	1,055.000			1,055.000
0020	204.0110	Removing Asphaltic Surface	SY	85.000			85.000
0022	204.0115	Removing Asphaltic Surface Butt Joints	SY	270.000			270.000
0024	204.0130	Removing Curb	LF	10.000	10.000		
0026	204.0150	Removing Curb & Gutter	LF	591.000	41.000		550.000
0028	204.0155	Removing Concrete Sidewalk	SY	8,390.000	8,240.000		150.000
0030	204.0170	Removing Fence	LF	380.000	250.000		130.000
0032	204.0190	Removing Surface Drains	EACH	1.000	1.000		
0034	204.0195	Removing Concrete Bases	EACH	21.000	9.000		12.000
0036	204.0200	Removing Railroad Track	LF	125.000	125.000		
0038	204.0210	Removing Manholes	EACH	58.000	57.000		1.000
0040	204.0220	Removing Inlets	EACH	121.000	119.000		2.000
0042	204.0245	Removing Storm Sewer (size) 01. 12-Inch or Less	LF	5,070.000	4,970.000		100.000
0044	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	2,273.000	2,273.000		
0046	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	2,687.000	2,687.000		
0048	204.0245	Removing Storm Sewer (size) 04. 21-Inch	LF	1,165.000	1,165.000		
0050	204.0245	Removing Storm Sewer (size) 05. 24-Inch	LF	58.000	58.000		
0052	204.0245	Removing Storm Sewer (size) 06. 36-Inch	LF	21.000	21.000		
0054	204.0245	Removing Storm Sewer (size) 10. 72-Inch	LF	160.000	160.000		
0056	204.0280	Sealing Pipes	EACH	1.000	1.000		
0058	204.0291.S	Abandoning Sewer	CY	10.000	10.000		
0060	204.9060.S	Removing (item description) 01. Light Poles and Bases	EACH	32.000	32.000		
0062	204.9060.S	Removing (item description) 02. Railroad Signal Base	EACH	2.000	2.000		
0064	204.9090.S	Removing (item description) 01. Wooden Guardrail and Posts	LF	130.000	130.000		
0066	204.9090.S	Removing (item description) 02. Metal Railing	LF	25.000	25.000		
0068	205.0100	Excavation Common	CY	42,400.000	42,400.000		
0070	206.1000	Excavation for Structures Bridges (structure) 01. B-36-29	LS	1.000	1.000		
0072	206.2000	Excavation for Structures Culverts (structure) 01. B-36-232	LS	1.000	1.000		
0074	210.1500	Backfill Structure Type A	TON	250.000	250.000		

					1500-37-76	1500-37-77	1500-47-71
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0076	210.2500	Backfill Structure Type B	TON	4,590.000	4,590.000		
0078	213.0100	Finishing Roadway (project) 01. 1500-37-76	EACH	1.000	1.000		
0080	213.0100	Finishing Roadway (project) 02. 1500-47-71	EACH	1.000			1.000
0082	305.0110	Base Aggregate Dense 3/4-Inch	TON	10.000			10.000
0084	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	20,440.000	20,240.000		200.000
0086	311.0115	Breaker Run	CY	530.000	530.000		
0088	312.0110	Select Crushed Material	TON	36,700.000	36,700.000		
0090	390.0303	Base Patching Concrete	SY	1,250.000			1,250.000
0092	405.0100	Coloring Concrete WisDOT Red	CY	85.000	85.000		
0094	415.0080	Concrete Pavement 8-Inch	SY	3,835.000	3,700.000		135.000
0096	415.0085	Concrete Pavement 8 1/2-Inch	SY	37,020.000	37,020.000		
0098	415.0210	Concrete Pavement Gaps	EACH	3.000	3.000		
0100	415.0410	Concrete Pavement Approach Slab	SY	168.000	168.000		
0102	415.1080	Concrete Pavement HES 8-Inch	SY	515.000	515.000		
0104	415.1085	Concrete Pavement HES 8 1/2-Inch	SY	760.000	760.000		
0106	415.4100	Concrete Pavement Joint Filling	SY	44,100.000	44,100.000		
0108	415.5110.S	Concrete Pavement Joint Layout 01. 1500-37-76	LS	1.000	1.000		
0110	415.5110.S	Concrete Pavement Joint Layout 02. 1500-47-71	LS	1.000			1.000
0112	416.0160	Concrete Driveway 6-Inch	SY	1,950.000	1,450.000		500.000
0114	416.0610	Drilled Tie Bars	EACH	624.000	35.000		589.000
0116	416.0620	Drilled Dowel Bars	EACH	1,521.000	661.000		860.000
0118	455.0605	Tack Coat	GAL	1,155.500	6.500		1,149.000
0120	460.2000	Incentive Density HMA Pavement	DOL	1,918.000	8.000		1,910.000
0122	460.6224	HMA Pavement 4 MT 58-28 S	TON	2,987.000	12.000		2,975.000
0124	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	20.000	8.000		12.000
0126	465.0125	Asphaltic Surface Temporary	TON	450.000	450.000		
0128	465.0305	Asphaltic Surface Safety Islands	TON	10.000			10.000
0130	465.0310	Asphaltic Curb	LF	60.000	60.000		
0132	502.0100	Concrete Masonry Bridges	CY	730.000	730.000		
0134	502.3200	Protective Surface Treatment	SY	2,085.000	2,085.000		
0136	502.3210	Pigmented Surface Sealer	SY	239.000	239.000		
0138	502.4204	Adhesive Anchors No. 4 Bar	EACH	1,142.000	1,142.000		
0140	504.0100	Concrete Masonry Culverts	CY	613.000	613.000		
0142	505.0400	Bar Steel Reinforcement HS Structures	LB	75,760.000	75,760.000		
0144	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	168,550.000	168,550.000		
0146	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	16.000	16.000		
0148	506.4000	Steel Diaphragms (structure) 01. B-36-29	EACH	28.000	28.000		
0150	506.7050.S	Removing Bearings (structure) 01. B-36-29	EACH	16.000	16.000		
0152	509.1500	Concrete Surface Repair	SF	100.000	100.000		
0154	513.7016	Railing Steel Type C3	LF	578.000	578.000		

					1500-37-76	1500-37-77	1500-47-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0156	516.0500	Rubberized Membrane Waterproofing	SY	78.000	78.000		
0158	520.8000	Concrete Collars for Pipe	EACH	13.000	9.000		4.000
0160	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000		
0162	522.1072	Apron Endwalls for Culvert Pipe Reinforced Concrete 72-Inch	EACH	1.000	1.000		
0164	601.0105	Concrete Curb Type A	LF	30.000	30.000		
0166	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	5,430.000	5,210.000		220.000
0168	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,800.000	2,230.000		570.000
0170	602.0405	Concrete Sidewalk 4-Inch	SF	65,400.000	64,880.000		520.000
0172	602.0415	Concrete Sidewalk 6-Inch	SF	4,430.000	3,350.000		1,080.000
0174	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	470.000	360.000		110.000
0176	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	108.000	108.000		
0178	606.0200	Riprap Medium	CY	10.000	10.000		
0180	606.0300	Riprap Heavy	CY	135.000	135.000		
0182	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	3,043.000	3,043.000		
0184	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	619.000	542.000		77.000
0186	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	18.000	18.000		
0188	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	3,315.000	3,315.000		
0190	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	747.000	747.000		
0192	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	1,346.000	1,346.000		
0194	608.0372	Storm Sewer Pipe Reinforced Concrete Class III 72-Inch	LF	168.000	168.000		
0196	608.3030	Storm Sewer Pipe Class III-A 30-Inch	LF	103.000	103.000		
0198	611.0430	Reconstructing Inlets	EACH	14.000			14.000
0200	611.0535	Manhole Covers Type J-Special	EACH	35.000	33.000		2.000
0202	611.0624	Inlet Covers Type H	EACH	112.000	112.000		
0204	611.0639	Inlet Covers Type H-S	EACH	37.000	37.000		
0206	611.0642	Inlet Covers Type MS	EACH	1.000			1.000
0208	611.1004	Catch Basins 4-FT Diameter	EACH	3.000	3.000		
0210	611.1005	Catch Basins 5-FT Diameter	EACH	1.000	1.000		
0212	611.1230	Catch Basins 2x3-FT	EACH	143.000	143.000		
0214	611.2004	Manholes 4-FT Diameter	EACH	18.000	17.000		1.000
0216	611.2005	Manholes 5-FT Diameter	EACH	16.000	16.000		
0218	611.2008	Manholes 8-FT Diameter	EACH	1.000			1.000

					1500-37-76	1500-37-77	1500-47-71
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0220	611.3003	Inlets 3-FT Diameter	EACH	1.000	1.000		
0222	611.3230	Inlets 2x3-FT	EACH	1.000	1.000		
0224	611.3901	Inlets Median 1 Grate	EACH	1.000			1.000
0226	611.9800.S	Pipe Grates	EACH	1.000	1.000		
0228	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	250.000	250.000		
0230	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	1,442.000		1,442.000	
0232	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000		
0234	614.0920	Salvaged Rail	LF	2,445.000	2,445.000		
0236	614.0925	Salvaged Guardrail End Treatments	EACH	4.000	4.000		
0238	614.2300	MGS Guardrail 3	LF	2,150.000	2,150.000		
0240	614.2500	MGS Thrie Beam Transition	LF	95.200	95.200		
0242	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000		
0244	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000		
0246	616.0700.S	Fence Safety	LF	500.000	500.000		
0248	619.1000	Mobilization	EACH	1.000	0.600	0.250	0.150
0250	620.0300	Concrete Median Sloped Nose	SF	1,530.000	865.000		665.000
0252	623.0200	Dust Control Surface Treatment	SY	75,000.000	75,000.000		
0254	624.0100	Water	MGAL	764.000	762.000		2.000
0256	625.0100	Topsoil	SY	27,000.000	26,320.000		680.000
0258	627.0200	Mulching	SY	15,000.000	15,000.000		
0260	628.1504	Silt Fence	LF	6,900.000	6,900.000		
0262	628.1520	Silt Fence Maintenance	LF	41,400.000	41,400.000		
0264	628.1905	Mobilizations Erosion Control	EACH	16.000	13.000		3.000
0266	628.1910	Mobilizations Emergency Erosion Control	EACH	11.000	9.000		2.000
0268	628.2008	Erosion Mat Urban Class I Type B	SY	5,200.000	4,520.000		680.000
0270	628.7005	Inlet Protection Type A	EACH	151.000	150.000		1.000
0272	628.7010	Inlet Protection Type B	EACH	2.000	1.000		1.000
0274	628.7015	Inlet Protection Type C	EACH	265.000	195.000		70.000
0276	628.7020	Inlet Protection Type D	EACH	33.000	28.000		5.000
0278	628.7560	Tracking Pads	EACH	8.000	8.000		
0280	628.7570	Rock Bags	EACH	145.000	145.000		
0282	629.0210	Fertilizer Type B	CWT	20.500	20.000		0.500
0284	630.0130	Seeding Mixture No. 30	LB	5.000			5.000
0286	630.0140	Seeding Mixture No. 40	LB	160.000	150.000		10.000
0288	630.0200	Seeding Temporary	LB	225.000	220.000		5.000
0290	630.0300	Seeding Borrow Pit	LB	180.000	180.000		
0292	630.0500	Seed Water	MGAL	805.000	790.000		15.000
0294	631.0300	Sod Water	MGAL	110.000	110.000		
0296	631.1000	Sod Lawn	SY	4,140.000	4,140.000		
0298	632.0101	Trees (species) (size) (root) 01. Autumn Gold Ginkgo, 2-	EACH	4.000	4.000		

					1500-37-76	1500-37-77	1500-47-71
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
		Inch Cal., B&B					
0300	632.0101	Trees (species) (size) (root) 02. Common Hackberry, 2-Inch Cal., B&B	EACH	6.000	6.000		
0302	632.0101	Trees (species) (size) (root) 03. Espresso Kentucky Coffeetree, 2-Inch Cal., B&B	EACH	2.000	2.000		
0304	632.0101	Trees (species) (size) (root) 04. Regal Elm, 2-Inch Cal., B&B	EACH	2.000	2.000		
0306	632.0101	Trees (species) (size) (root) 05. Redmond Linden, 2-Inch Cal., B&B	EACH	3.000	3.000		
0308	632.0101	Trees (species) (size) (root) 06. Skyline Honeylocust, 2-Inch Cal., B&B	EACH	4.000	4.000		
0310	632.0101	Trees (species) (size) (root) 07. Swamp White Oak, 2-Inch Cal., B&B	EACH	4.000	4.000		
0312	632.0101	Trees (species) (size) (root) 08. Autumn Brilliance Serviceberry, 1.5-Inch Cal., B&B	EACH	5.000	5.000		
0314	632.0101	Trees (species) (size) (root) 09. Schubert Chokecherry, 6-Foot HT., B&B	EACH	12.000	12.000		
0316	632.0101	Trees (species) (size) (root) 10. Crusader Thornless Cockspur Hawthorn, 1.5-Inch Cal., B&B	EACH	2.000	2.000		
0318	632.0101	Trees (species) (size) (root) 11. Spring Snow Crabapple, 1.5-Inch Cal., B&B	EACH	2.000	2.000		
0320	632.0201	Shrubs (species) (size) (root) 01. Staghorn Sumac, 2-Foot HT., CG	EACH	11.000	11.000		
0322	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	10.000	10.000		
0324	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	56.000	39.000		17.000
0326	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	47.000	26.000		21.000
0328	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000		
0330	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	1.000	1.000		
0332	637.2210	Signs Type II Reflective H	SF	667.590	404.920		262.670
0334	637.2215	Signs Type II Reflective H Folding	SF	104.440	44.760		59.680
0336	637.2230	Signs Type II Reflective F	SF	145.250	110.750		34.500
0338	638.2602	Removing Signs Type II	EACH	122.000	80.000		42.000
0340	638.3000	Removing Small Sign Supports	EACH	70.000	46.000		24.000
0342	642.5401	Field Office Type D	EACH	1.000	0.600	0.250	0.150
0344	643.0300	Traffic Control Drums	DAY	82,520.000	37,680.000		44,840.000
0346	643.0410	Traffic Control Barricades Type II	DAY	1,800.000	1,800.000		
0348	643.0420	Traffic Control Barricades Type III	DAY	29,916.000	27,636.000		2,280.000
0350	643.0705	Traffic Control Warning Lights Type A	DAY	59,472.000	54,912.000		4,560.000
0352	643.0715	Traffic Control Warning Lights Type C	DAY	12,120.000	5,280.000		6,840.000
0354	643.0800	Traffic Control Arrow Boards	DAY	484.000	28.000		456.000
0356	643.0900	Traffic Control Signs	DAY	110,874.000	104,262.000		6,612.000
0358	643.0910	Traffic Control Covering Signs Type I	EACH	7.000	7.000		

					1500-37-76	1500-37-77	1500-47-71
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0360	643.0920	Traffic Control Covering Signs Type II	EACH	18.000	18.000		
0362	643.1000	Traffic Control Signs Fixed Message	SF	102.000	102.000		
0364	643.1050	Traffic Control Signs PCMS	DAY	168.000	126.000		42.000
0366	643.5000	Traffic Control	EACH	1.000	0.400	0.400	0.200
0368	644.1410	Temporary Pedestrian Surface Asphalt	SF	7,205.000	7,165.000		40.000
0370	644.1420	Temporary Pedestrian Surface Plywood	SF	1,020.000	1,000.000		20.000
0372	644.1430	Temporary Pedestrian Surface Plate	SF	1,020.000	1,000.000		20.000
0374	644.1601	Temporary Curb Ramp	DAY	6,815.000	6,815.000		
0376	644.1810	Temporary Pedestrian Barricade	LF	5,700.000	5,700.000		
0378	645.0105	Geotextile Type C	SY	850.000	850.000		
0380	645.0111	Geotextile Type DF Schedule A	SY	140.000	140.000		
0382	645.0120	Geotextile Type HR	SY	285.000	285.000		
0384	645.0220	Geogrid Type SR	SY	1,000.000	1,000.000		
0386	646.1020	Marking Line Epoxy 4-Inch	LF	5,520.000	3,920.000		1,600.000
0388	646.3020	Marking Line Epoxy 8-Inch	LF	2,805.000	1,885.000		920.000
0390	646.5020	Marking Arrow Epoxy	EACH	34.000	18.000		16.000
0392	646.5120	Marking Word Epoxy	EACH	5.000	3.000		2.000
0394	646.6120	Marking Stop Line Epoxy 18-Inch	LF	492.000	332.000		160.000
0396	646.7020	Marking Diagonal Epoxy 6-Inch	LF	140.000	140.000		
0398	646.7120	Marking Diagonal Epoxy 12-Inch	LF	150.000	150.000		
0400	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	2,590.000	2,260.000		330.000
0402	646.8120	Marking Curb Epoxy	LF	2,350.000	1,400.000		950.000
0404	646.8220	Marking Island Nose Epoxy	EACH	40.000	26.000		14.000
0406	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	1,505.000	1,505.000		
0408	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	120.000	120.000		
0410	646.9310	Marking Removal Special Marking Water Blasting	EACH	5.000	5.000		
0412	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,170.000	1,170.000		
0414	650.4000	Construction Staking Storm Sewer	EACH	188.000	185.000		3.000
0416	650.4500	Construction Staking Subgrade	LF	13,309.000	13,309.000		
0418	650.6500	Construction Staking Structure Layout (structure) 01. B-36-29	LS	1.000	1.000		
0420	650.6500	Construction Staking Structure Layout (structure) 02. B-36-232	LS	1.000	1.000		
0422	650.7000	Construction Staking Concrete Pavement	LF	13,309.000	13,309.000		
0424	650.8000	Construction Staking Resurfacing Reference	LF	3,200.000			3,200.000
0426	650.8500	Construction Staking Electrical Installations (project) 01. 1500-37-76	LS	1.000	1.000		
0428	650.8500	Construction Staking Electrical Installations (project) 02. 1500-47-71	LS	1.000			1.000
0430	650.9910	Construction Staking Supplemental Control (project) 01. 1500-37-76	LS	1.000	1.000		

					1500-37-76	1500-37-77	1500-47-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0432	650.9910	Construction Staking Supplemental Control (project) 02. 1500-47-71	LS	1.000			1.000
0434	650.9920	Construction Staking Slope Stakes	LF	13,309.000	13,309.000		
0436	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	6,623.000	6,170.000		453.000
0438	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,823.000	1,228.000		595.000
0440	652.0615	Conduit Special 3-Inch	LF	690.000			690.000
0442	652.0800	Conduit Loop Detector	LF	2,440.000	1,260.000		1,180.000
0444	653.0135	Pull Boxes Steel 24x36-Inch	EACH	10.000	5.000		5.000
0446	653.0140	Pull Boxes Steel 24x42-Inch	EACH	23.000	12.000		11.000
0448	653.0905	Removing Pull Boxes	EACH	53.000	40.000		13.000
0450	654.0101	Concrete Bases Type 1	EACH	17.000	13.000		4.000
0452	654.0110	Concrete Bases Type 10	EACH	1.000	1.000		
0454	654.0113	Concrete Bases Type 13	EACH	7.000	3.000		4.000
0456	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	1.000		1.000
0458	655.0230	Cable Traffic Signal 5-14 AWG	LF	945.000	499.000		446.000
0460	655.0240	Cable Traffic Signal 7-14 AWG	LF	677.000	324.000		353.000
0462	655.0250	Cable Traffic Signal 9-14 AWG	LF	469.000	469.000		
0464	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,459.000	695.000		764.000
0466	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,393.000	651.000		742.000
0468	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,859.000	1,326.000		1,533.000
0470	655.0610	Electrical Wire Lighting 12 AWG	LF	8,334.000	7,758.000		576.000
0472	655.0620	Electrical Wire Lighting 8 AWG	LF	2,709.000	942.000		1,767.000
0474	655.0700	Loop Detector Lead In Cable	LF	7,586.000	3,590.000		3,996.000
0476	655.0800	Loop Detector Wire	LF	8,212.000	4,122.000		4,090.000
0478	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. USH 10 & CTH R	LS	1.000			1.000
0480	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. USH 10 & 18th Street	LS	1.000	1.000		
0482	657.0100	Pedestal Bases	EACH	17.000	13.000		4.000
0484	657.0345	Poles Type 9	EACH	1.000	1.000		
0486	657.0355	Poles Type 12	EACH	1.000	1.000		
0488	657.0360	Poles Type 13	EACH	6.000	2.000		4.000
0490	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	14.000	10.000		4.000
0492	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	3.000	3.000		
0494	657.0530	Monotube Arms 30-FT	EACH	1.000	1.000		
0496	657.0535	Monotube Arms 35-FT	EACH	1.000	1.000		
0498	657.0545	Monotube Arms 45-FT	EACH	4.000	2.000		2.000
0500	657.0550	Monotube Arms 50-FT	EACH	1.000			1.000
0502	657.0555	Monotube Arms 55-FT	EACH	1.000			1.000
0504	657.0815	Luminaire Arms Steel 15-FT	EACH	6.000	2.000		4.000

					1500-37-76	1500-37-77	1500-47-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0506	658.0173	Traffic Signal Face 3S 12-Inch	EACH	24.000	12.000		12.000
0508	658.0174	Traffic Signal Face 4S 12-Inch	EACH	16.000	8.000		8.000
0510	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000		
0512	658.0500	Pedestrian Push Buttons	EACH	11.000	11.000		
0514	658.5069	Signal Mounting Hardware (location) 01. USH 10 & CTH R	LS	1.000			1.000
0516	658.5069	Signal Mounting Hardware (location) 02. USH 10 & 18th Street	LS	1.000	1.000		
0518	690.0150	Sawing Asphalt	LF	305.000	205.000		100.000
0520	690.0250	Sawing Concrete	LF	5,807.000	2,602.000		3,205.000
0522	715.0415	Incentive Strength Concrete Pavement	DOL	12,478.000	12,478.000		
0524	715.0502	Incentive Strength Concrete Structures	DOL	8,058.000	8,058.000		
0526	715.0710	Optimized Aggregate Gradation Incentive	DOL	47,208.000	47,208.000		
0528	801.0117	Railroad Flagging Reimbursement	DOL	16,250.000	16,250.000		
0530	999.1500.S	Crack and Damage Survey	LS	1.000	1.000		
0532	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000		
0534	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,400.000	4,400.000		
0536	SPV.0035	Special 40. Imported Water Main Trench Backfill	CY	3,000.000		3,000.000	
0538	SPV.0035	Special 50. Imported Sanitary Sewer Trench Backfill	CY	2,000.000		2,000.000	
0540	SPV.0035	Special 51. Sanitary Sewer Trench Stabilization	CY	200.000		200.000	
0542	SPV.0060	Special 01. Inlet Covers Type BH	EACH	1.000	1.000		
0544	SPV.0060	Special 02. Inlet Adjustment Castings	EACH	39.000			39.000
0546	SPV.0060	Special 03. Manhole Adjustment Castings	EACH	10.000			10.000
0548	SPV.0060	Special 04. Water Valve Adjustment Castings	EACH	10.000			10.000
0550	SPV.0060	Special 05. Manholes 10-FT Diameter Special	EACH	1.000	1.000		
0552	SPV.0060	Special 06. Mini Storm Cleanouts	EACH	19.000		19.000	
0554	SPV.0060	Special 07. Utility Line Openings	EACH	20.000	20.000		
0556	SPV.0060	Special 08. Gates Chain Link Polymer-Coated 10-Ft Wide	EACH	2.000	1.000		1.000
0558	SPV.0060	Special 20. Salvage Light Poles and Remove Bases	EACH	16.000	16.000		
0560	SPV.0060	Special 21. Concrete Bases Type 7 Special	EACH	19.000	19.000		
0562	SPV.0060	Special 22. Concrete Bases Type 8 Special	EACH	6.000	6.000		
0564	SPV.0060	Special 23. Composite Light Poles 40-FT	EACH	25.000	25.000		
0566	SPV.0060	Special 24. Luminaire Arms Aluminum 8-FT	EACH	27.000	27.000		
0568	SPV.0060	Special 25. Luminaire Arms Aluminum 15-FT	EACH	11.000	11.000		
0570	SPV.0060	Special 26. Luminaire LED	EACH	40.000	36.000		4.000
0572	SPV.0060	Special 27. Luminaire LED Special	EACH	2.000	2.000		
0574	SPV.0060	Special 28. Lighting Pull Box	EACH	32.000	32.000		
0576	SPV.0060	Special 40. Remove Fire Hydrants	EACH	7.000		7.000	
0578	SPV.0060	Special 41. Removing Valve, Valve Manholes, and Valve Boxes	EACH	25.000		25.000	

					1500-37-76	1500-37-77	1500-47-71
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0580	SPV.0060	Special 42. Install Gate Valve and Box 6-Inch	EACH	9.000		9.000	
0582	SPV.0060	Special 43. Install Gate Valve and Box 8-Inch	EACH	14.000		14.000	
0584	SPV.0060	Special 44. Install Gate Valve and Box 12-Inch	EACH	20.000		20.000	
0586	SPV.0060	Special 45. Install Fire Hydrant	EACH	7.000		7.000	
0588	SPV.0060	Special 46. Install Corporation Stop & Curb Stop and Box 1 1/4-Inch	EACH	68.000		68.000	
0590	SPV.0060	Special 47. Connect to Existing Water Main	EACH	24.000		24.000	
0592	SPV.0060	Special 48. Connect to Existing Water Service	EACH	68.000		68.000	
0594	SPV.0060	Special 50. Sanitary Manhole Casting Type J	EACH	22.000		22.000	
0596	SPV.0060	Special 51. Remove Sanitary Sewer Manhole	EACH	21.000		21.000	
0598	SPV.0060	Special 52. Reconstruct Manhole Bench	EACH	1.000		1.000	
0600	SPV.0060	Special 53. Reconnect Sanitary Sewer Lateral	EACH	69.000		69.000	
0602	SPV.0090	Special 01. Concrete Curb and Gutter Integral 18-Inch Type D	LF	14,820.000	14,820.000		
0604	SPV.0090	Special 02. Mini Storm Sewer 6-Inch	LF	3,200.000		3,200.000	
0606	SPV.0090	Special 03. Mini Storm Sewer 8-Inch	LF	15.000		15.000	
0608	SPV.0090	Special 04. Televising Sewers	LF	10,493.000	5,577.000	4,916.000	
0610	SPV.0090	Special 05. Marking Epoxy 6-Inch	LF	90.000	90.000		
0612	SPV.0090	Special 07. Marking Crosswalk Transverse Line Epoxy 12-Inch	LF	2,468.000	2,238.000		230.000
0614	SPV.0090	Special 08. Fence Chain Link Polymer-Coated 6-Ft	LF	375.000	260.000		115.000
0616	SPV.0090	Special 09. Steel Casing Pipe 42-Inch	LF	72.000	72.000		
0618	SPV.0090	Special 10. Pipe Underdrain 6-Inch Special	LF	580.000	580.000		
0620	SPV.0090	Special 40. Install Water Main 6-Inch	LF	259.000		259.000	
0622	SPV.0090	Special 41. Install Water Main 8-Inch	LF	1,043.000		1,043.000	
0624	SPV.0090	Special 42. Install Water Main 10-Inch	LF	43.000		43.000	
0626	SPV.0090	Special 43. Install Water Main 12-Inch	LF	4,745.000		4,745.000	
0628	SPV.0090	Special 44. Install Water Main 24-Inch	LF	33.000		33.000	
0630	SPV.0090	Special 45. Water Service Pipe 1 1/4-Inch	LF	3,098.000		3,098.000	
0632	SPV.0090	Special 46. Steel Casing Pipe 20-Inch	LF	80.000		80.000	
0634	SPV.0090	Special 50. Furnishing and Installing Sanitary Sewer Pipe 10-Inch	LF	649.000		649.000	
0636	SPV.0090	Special 51. Furnishing and Relaying Sanitary Sewer Pipe 8-inch	LF	401.000		401.000	
0638	SPV.0090	Special 52. Furnishing and Relaying Sanitary Sewer Pipe 10-inch	LF	29.000		29.000	
0640	SPV.0090	Special 53. Furnishing and Relaying Sanitary Sewer Pipe 12-inch	LF	1,904.000		1,904.000	
0642	SPV.0090	Special 54. Furnishing and Relaying Sanitary Sewer Pipe 18-inch	LF	41.000		41.000	
0644	SPV.0090	Special 55. Sanitary Lateral 6-Inch	LF	2,816.000		2,816.000	

					1500-37-76	1500-37-77	1500-47-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0646	SPV.0090	Special 56. Sanitary Lateral Risers 6-Inch	LF	130.000		130.000	
0648	SPV.0090	Special 57. Abandoning Sanitary Sewer	LF	743.000		743.000	
0650	SPV.0105	Special 01. Construction Staking Trees and Landscaping Project 1500-37-76	LS	1.000	1.000		
0652	SPV.0105	Special 02. Preservation of Existing Monuments Project 1500-37-76	LS	1.000	1.000		
0654	SPV.0105	Special 03. Preservation of Existing Monuments Project 1500-47-71	LS	1.000			1.000
0656	SPV.0105	Special 04. Verify and Restoring of Existing Monuments Project 1500-37-76	LS	1.000	1.000		
0658	SPV.0105	Special 05. Verify and Restoring of Existing Monuments Project 1500-47-71	LS	1.000			1.000
0660	SPV.0105	Special 06. Rectangular Rapid Flashing Beacon (RRFB) With Pedestrian Activation	LS	1.000	1.000		
0662	SPV.0105	Special 07. Waterway Isolation for Box Culvert B-36-0232	LS	1.000	1.000		
0664	SPV.0105	Special 08. Grading and Shaping, Removing Emergency Railroad Crossing	LS	1.000	1.000		
0666	SPV.0105	Special 09. Reinstall Chain Link Fence	LS	1.000	1.000		
0668	SPV.0105	Special 30. Remove Traffic Signals USH 10 & CTH R	LS	1.000			1.000
0670	SPV.0105	Special 31. Remove Traffic Signals USH 10 & 18th Street	LS	1.000	1.000		
0672	SPV.0105	Special 32. Remove Loop Detector Wire and Lead-In Cable USH 10 & CTH R	LS	1.000			1.000
0674	SPV.0105	Special 33. Remove Loop Detector Wire and Lead-In Cable USH 10 & 18th Street	LS	1.000	1.000		
0676	SPV.0105	Special 34. Traffic Signal Cabinet & Controller Fully Actuated 8 Phase USH 10 & CTH R	LS	1.000			1.000
0678	SPV.0105	Special 35. Traffic Signal Cabinet & Controller Fully Actuated 8 Phase USH 10 & 18th Str	LS	1.000	1.000		
0680	SPV.0105	Special 41. Abandoning Water Main and Appurtenances Project 1500-37-77	LS	1.000		1.000	
0682	SPV.0105	Special 51. Sanitary Sewer Pipeline Support	LS	1.000		1.000	
0684	SPV.0165	Special 01. Remove and Salvage Brick Pavers	SF	165.000	165.000		
0686	SPV.0165	Special 02. Install Salvaged Brick Pavers	SF	165.000	165.000		
0688	SPV.0165	Special 40. Water Main Trench Insulation 4-Inch	SF	896.000		896.000	
0690	SPV.0180	Special 01. Hydroseeding	SY	15,500.000	15,500.000		
0692	SPV.0200	Special 50. Sanitary Manhole 4-Foot	VF	259.400		259.400	
0694	SPV.0200	Special 51. Drop Manhole	VF	33.300		33.300	

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CLEARING AND GRUBBING

ID	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
PROJECT 1500-47-71								
	40+00	-	70+00	USH 10, MEDIAN	-	-	36	36
	69+00	-	70+00	USH 10, EB	1	1	-	-
	69+00	-	70+00	USH 10, WB	1	1	-	-
	UNDISTRIBUTED				-	-	14	14
	PROJECT TOTALS				2	2	50	50
PROJECT 1500-37-76								
	70+00	-	72+00	USH 10, EB	2	2	-	-
	70+00	-	72+00	USH 10, WB	2	2	-	-
	72+00	-	82+00	USH 10, EB	-	-	30	30
	84+50	-	90+00	USH 10, EB	-	-	75	75
	90+00	-	93+00	USH 10, EB	3	3	-	-
	93+50	-	99+35	USH 10, MEDIAN	-	-	12	12
	93+50	-	99+35	USH 10, EB	-	-	-	18
	93+50	-	99+35	USH 10, WB	-	-	24	24
	99+35	-	103+00	USH 10, EB	-	-	60	60
	99+35	-	103+00	USH 10, WB	-	-	102	102
	103+00	-	106+50	USH 10, EB	-	-	24	24
	103+00	-	106+50	USH 10, WB	-	-	84	84
	103+00	-	106+50	USH 10, MEDIAN	-	-	12	12
	106+50	-	110+00	USH 10, EB	-	-	54	54
	106+50	-	110+00	USH 10, WB	-	-	62	62
	106+50	-	110+00	USH 10, MEDIAN	-	-	12	12
	110+00	-	118+25	USH 10, EB	-	-	238	238
	110+00	-	118+25	USH 10, WB	-	-	127	181
	110+00	-	118+25	USH 10, MEDIAN	-	-	50	50
	118+25	-	122+00	USH 10, EB	-	-	138	168
	118+25	-	122+00	USH 10, WB	-	-	84	84
	122+00	-	125+50	USH 10, EB	-	-	42	42
	122+00	-	125+50	USH 10, WB	-	-	48	48
	122+00	-	125+50	USH 10, MEDIAN	-	-	24	24
	125+50	-	128+15	USH 10, EB	-	-	78	78
	125+50	-	128+15	USH 10, WB	-	-	30	30
	125+50	-	128+15	USH 10, MEDIAN	-	-	32	32
	128+15	-	131+00	USH 10, EB	-	-	84	84
	128+15	-	131+00	USH 10, WB	-	-	60	60
	128+15	-	131+00	USH 10, MEDIAN	-	-	12	12
	10+49	-	10+98	N. 17TH ST	-	-	48	48
	9+35	-	9+75	N. 15TH ST	-	-	24	24
	UNDISTRIBUTED				-	-	170	178
	PROJECT TOTALS				7	7	1,840	1,950
	TOTALS				9	9	1,890	2,000

REMOVING PAVEMENT

ID	CATEGORY	STATION	TO	STATION	LOCATION	204.0100 SY	REMARKS
PROJECT 1500-47-71							
	0010						
		38+00	-	70+00	USH 10, EB	75	ISLAND NOSE
		38+00	-	70+00	USH 10, EB, RT	216	PE
		38+00	-	70+00	USH 10, WB, LT	259	PE
		49+62	-	50+44	USH 10, LT	150	MOBILE PARK ENTRANCE
		PROJECT TOTAL				700	
PROJECT 1500-37-76							
	0010						
		70+00	-	82+03	USH 10, EB	3,833	
		70+00	-	82+03	USH 10, WB	3,595	
		84+63	-	93+50	USH 10, EB	2,825	
		84+63	-	93+50	USH 10, WB	2,618	
		93+50	-	99+35	USH 10, EB	1,743	
		93+50	-	99+35	USH 10, WB	1,983	
		99+35	-	103+00	USH 10, EB	1,275	
		99+35	-	103+00	USH 10, WB	1,181	
		103+00	-	106+50	USH 10, EB	1,099	
		103+00	-	106+50	USH 10, WB	1,252	
		106+50	-	110+00	USH 10, EB	1,197	
		106+50	-	110+00	USH 10, WB	1,203	
		110+00	-	118+25	USH 10, EB	2,644	
		110+00	-	118+25	USH 10, WB	2,469	
		118+25	-	122+00	USH 10, EB	1,150	
		118+25	-	122+00	USH 10, WB	1,544	
		122+00	-	125+50	USH 10, EB	1,106	
		122+00	-	125+50	USH 10, WB	1,118	
		125+50	-	128+15	USH 10, EB	865	
		125+50	-	128+15	USH 10, WB	861	
		128+15	-	131+00	USH 10, EB	925	
		128+15	-	131+00	USH 10, WB	920	
		131+00	-	131+75	USH 10, EB	254	
		131+00	-	131+75	USH 10, WB	258	
		10+25	-	10+85	FLEETWOOD DR	445	
		9+30	-	9+75	N. 23RD ST	196	
		10+50	-	10+95	N. 23RD ST	280	
		9+10	-	9+74	MENCHL DR	275	
		9+35	-	9+75	N. 21ST ST	194	
		10+49	-	11+00	N. 21ST ST	237	
		9+40	-	9+75	N. 20TH ST	129	
		10+49	-	10+85	PARK ROW BLVD, SB	129	
		10+25	-	10+60	PARK ROW BLVD, NB	128	
		10+25	-	10+65	ELM ST	146	
		9+00	-	9+75	N. 18TH ST	717	INCLUDES ISLANDS

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING PAVEMENT (CONTINUED)

ID	STATION	TO	STATION	LOCATION	204.0100 SY	REMARKS
PROJECT 1500-37-76						
0010						
	10+49	-	10+90	N. 18TH ST	286	
	9+30	-	9+75	N. 17TH ST	186	
	10+49	-	10+85	N. 17TH ST	165	
	9+24	-	9+75	N. 16TH ST	176	
	10+49	-	10+85	N. 16TH ST	151	
	9+35	-	9+75	N. 15TH ST	160	
	10+49	-	11+00	N. 15TH ST	199	
	9+45	-	9+75	N. 14TH ST	182	
	10+49	-	10+85	N. 14TH ST	180	
	70+00	-	82+03	USH 10, EB	7	PE
	93+50	-	99+35	USH 10, EB	69	PE
	93+50	-	99+35	USH 10, WB	137	PE
	99+35	-	103+00	USH 10, WB	19	PE
	103+00	-	106+50	USH 10, EB	10	PE
	103+00	-	106+50	USH 10, WB	32	PE
	106+50	-	110+00	USH 10, EB	59	PE
	106+50	-	110+00	USH 10, WB	16	PE
	110+00	-	118+25	USH 10, EB	191	PE
	118+25	-	122+00	USH 10, EB	44	PE
	118+25	-	122+00	USH 10, WB	56	PE
	122+00	-	125+50	USH 10, EB	50	PE
	122+00	-	125+50	USH 10, WB	75	PE
	125+50	-	128+15	USH 10, EB	23	PE
	125+50	-	128+15	USH 10, WB	24	PE
	128+15	-	131+00	USH 10, EB	48	PE
	CATEGORY 0010 TOTALS				43,339	
PROJECT 1500-37-76						
0020						
	ENTIRE PROJECT			USH 10	361	REMOVALS FOR COLORED CROSSWALKS
	CATEGORY 0020 TOTALS				361	
	TOTAL				44,400	

NOTE: SIDEWALK THROUGH DRIVEWAYS PAID FOR AS REMOVING SIDEWALK

REMOVING PAVEMENT BUTT JOINTS

ID	STATION	TO	STATION	LOCATION	204.0105 SY	REMARKS
PROJECT 1500-47-71						
	43+70	-	43+90	USH 10, EB	47	RT BYPASS LANE
	69+65	-	70+00	USH 10, EB	97	
	69+65	-	70+00	USH 10, WB	87	
	8+95	-	9+30	CTH R, NB	141	
	8+95	-	9+30	CTH R, SB	98	
	11+05	-	11+40	CTH R, NB	100	
	11+05	-	11+40	CTH R, SB	141	
	9+55	-	9+75	40TH ST	78	
	9+52	-	9+77	GLENVIEW DR	91	
	9+52	-	9+72	W CRESCENT DR	86	
	9+47	-	9+67	E CRESCENT DR	89	
	TOTAL				1,055	

REMOVING ASPHALTIC SURFACE

ID	STATION	TO	STATION	LOCATION	204.0110 SY	REMARKS
PROJECT 1500-47-71						
	38+48	-	38+56	USH 10, MEDIAN	7	ISLAND NOSE
	39+65	-	39+83	USH 10, LT	20	ISLAND
	39+88	-	39+91	USH 10, MEDIAN	2	ISLAND NOSE
	9+22	-	9+50	CTH R, MEDIAN	27	ISLAND / ISLAND NOSE
	10+78	-	11+10	CTH R, MEDIAN	29	ISLAND / ISLAND NOSE
	TOTAL				85	

REMOVING ASPHALTIC BUTT JOINTS

ID	STATION	TO	STATION	LOCATION	204.0115 SY
PROJECT 1500-47-76					
	38+00	-	38+35	USH 10, EB	158
	38+00	-	38+35	USH 10, WB	112
	TOTAL				270

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING CURB AND GUTTER

ID	STATION	TO	STATION	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB AND GUTTER LF	REMARKS
PROJECT 1500-47-71							
	38+00	-	70+00	USH 10, EB	-	68	
	38+00	-	70+00	USH 10, WB	-	234	
	8+95		9+75	CTH R	-	32	
	10+75		11+40	CTH R	-	58	
	9+55	-	9+75	40TH ST	-	23	
	9+52	-	9+75	GLENVIEW DR	-	71	
	9+52	-	9+75	W CRESCENT DR	-	32	
	9+47	-	9+75	E CRESCENT DR	-	32	
	PROJECT TOTAL				0	550	
PROJECT 1500-37-76							
	119+11			USH 10, WB, LT	10	-	PE
	12+92	-	13+18	FLEETWOOD DR, LT	-	26	PE
	10+59	-	10+65	ELM ST, LT	-	7	
	10+59	-	10+65	ELM ST, RT	-	8	
	PROJECT TOTAL				10	41	
	TOTAL				10	591	

REMOVING CONCRETE SIDEWALK

ID	STATION	TO	STATION	LOCATION	204.0155 SY	REMARKS
PROJECT 1500-47-71						
	9+55	-	9+75	40TH ST, LT	10	
	9+55	-	9+75	40TH ST, RT	20	
	49+62	-	49+83	USH 10, WB	20	
	50+22	-	50+44	USH 10, WB	15	
	53+62	-	53+80	USH 10, WB	15	
	9+52	-	9+75	GLENVIEW DR, LT	10	
	9+52	-	9+75	GLENVIEW DR, RT	20	
	9+52	-	9+75	W CRESCENT DR, LT	10	
	9+52	-	9+75	W CRESCENT DR, RT	10	
	9+47	-	9+75	E CRESCENT DR, LT	10	
	9+47	-	9+75	E CRESCENT DR, RT	10	
	PROJECT TOTAL				150	
PROJECT 1500-37-76						
	70+00	-	82+03	USH 10, EB	775	
	70+00	-	72+04	USH 10, WB	134	
	72+79	-	82+03	USH 10, WB	617	
	77+50	-	82+03	USH 10, MEDIAN	287	
	84+63	-	93+30	USH 10, EB	606	
	84+63	-	93+17	USH 10, WB	613	
	84+63	-	93+09	USH 10, MEDIAN	610	
	93+71	-	102+77	USH 10, WB	526	
	93+76	-	99+03	USH 10, EB	298	
	99+57	-	102+78	USH 10, EB	173	
	103+20	-	106+34	USH 10, WB	179	
	103+22	-	106+34	USH 10, EB	169	
	106+66	-	107+41	USH 10, WB	41	
	106+80	-	117+88	USH 10, EB	672	
	107+75	-	109+80	USH 10, WB	128	
	110+16	-	118+00	USH 10, WB	438	
	118+47	-	121+87	USH 10, WB	214	
	118+62	-	121+88	USH 10, EB	204	
	122+26	-	125+32	USH 10, WB	177	
	122+26	-	125+32	USH 10, EB	186	
	125+70	-	127+95	USH 10, WB	139	
	125+70	-	127+96	USH 10, EB	140	
	128+33	-	130+72	USH 10, WB	144	
	128+33	-	130+72	USH 10, EB	142	
	131+15	-	131+75	USH 10, EB	30	
	131+19	-	131+75	USH 10, WB	32	

3

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING CONCRETE SIDEWALK (CONTINUED)

ID	STATION	TO	STATION	LOCATION	204.0155 SY	REMARKS
PROJECT 1500-37-76						
	10+41	-	10+71	FLEETWOOD DR, RT	12	
	10+53	-	10+75	FLEETWOOD DR, LT	8	
	12+95	-	13+15	FLEETWOOD DR, LT	7	
	9+40	-	9+64	N. 23RD ST, LT	13	
	9+40	-	9+64	N. 23RD ST, RT	12	
	10+63	-	10+95	N. 23RD ST, RT	19	
	10+75	-	10+95	N. 23RD ST, LT	11	
	9+35	-	9+61	N. 21ST ST, LT	13	
	9+35	-	9+61	N. 21ST ST, RT	15	
	10+63	-	11+00	N. 21ST ST, LT	18	
	10+63	-	11+00	N. 21ST ST, RT	21	
	9+40	-	9+64	N. 20TH ST, LT	13	PARK ROW BLVD, SB ALIGNMENT
	9+40	-	9+64	N. 20TH ST, RT	13	PARK ROW BLVD, SB ALIGNMENT
	10+61	-	10+85	PARK ROW BLVD, SB, LT	13	
	10+35	-	10+60	PARK ROW BLVD, NB, RT	14	
	10+41	-	10+65	ELM ST, LT	11	
	10+41	-	10+61	ELM ST, RT	11	
	9+00	-	9+32	N. 18TH ST, LT	20	
	9+00	-	9+47	N. 18TH ST, RT	33	
	10+66	-	10+90	N. 18TH ST, RT	14	
	10+74	-	10+90	N. 18TH ST, LT	9	
	9+30	-	9+65	N. 17TH ST, LT	19	
	9+30	-	9+65	N. 17TH ST, RT	18	
	10+60	-	10+85	N. 17TH ST, LT	13	
	10+60	-	10+85	N. 17TH ST, RT	14	
	9+35	-	9+64	N. 16TH ST, LT	17	
	9+35	-	9+64	N. 16TH ST, RT	17	
	10+60	-	10+85	N. 16TH ST, LT	15	
	10+60	-	10+85	N. 16TH ST, RT	13	
	9+35	-	9+64	N. 15TH ST, LT	13	
	9+35	-	9+64	N. 15TH ST, RT	16	
	10+59	-	11+00	N. 15TH ST, LT	22	
	10+59	-	11+00	N. 15TH ST, RT	22	
	9+30	-	9+64	N. 14TH ST, LT	18	
	9+30	-	9+64	N. 14TH ST, RT	20	
	10+59	-	10+85	N. 14TH ST, LT	14	
	10+59	-	10+85	N. 14TH ST, RT	15	
	PROJECT TOTAL				8,240	
	TOTAL				8,390	

NOTE: SIDEWALK THROUGH DRIVEWAYS PAID FOR AS REMOVING SIDEWALK

REMOVING FENCE

ID	STATION	TO	STATION	LOCATION	204.0170 LF
PROJECT 1500-47-71					
	69+20	-	70+00	USH 10, EB	80
	69+50	-	70+00	USH 10, WB	50
	PROJECT TOTAL				130
PROJECT 1500-37-76					
	70+00	-	71+00	USH 10, EB	100
	70+00	-	71+50	USH 10, WB	150
	PROJECT TOTAL				250
	TOTALS				380

REMOVING SURFACE DRAINS

ID	STATION	TO	STATION	LOCATION	204.0190 EACH
PROJECT 1500-37-76					
	70+75	-	71+50	USH 10, WB	1
	TOTAL				1

REMOVING LIGHT POLES AND BASES, SALVAGE LIGHT POLE AND REMOVE BASES, AND REMOVING PULL BOXES

ID	STATION	TO	STATION	LOCATION	204.9060.01 REMOVING LIGHT POLES AND BASES EACH	SPV.0060.20 SALVAGE LIGHT POLES AND REMOVE BASES EACH	653.0905 * REMOVING PULL BOXES EACH
PROJECT 1500-37-76							
	70+00	-	82+00	USH 10, MEDIAN	2	6	7
	82+00	-	85+00	USH 10, MEDIAN	-	3	3
	85+00	-	93+50	USH 10, MEDIAN	-	6	6
	93+50	-	99+35	USH 10, MEDIAN	4	-	4
	99+35	-	103+00	USH 10, MEDIAN	3	-	2
	103+00	-	106+50	USH 10, MEDIAN	3	-	3
	106+50	-	110+00	USH 10, MEDIAN	3	-	-
	110+00	-	118+25	USH 10, MEDIAN	6	-	-
	118+25	-	122+00	USH 10, MEDIAN	2	1	1
	122+00	-	125+50	USH 10, MEDIAN	3	-	-
	125+50	-	128+15	USH 10, MEDIAN	2	-	-
	128+15	-	131+00	USH 10, MEDIAN	2	-	-
	131+00	-	131+75	USH 10, MEDIAN	1	-	-
	9+00	-	9+75	N. 18TH ST, LT	1	-	-
	TOTALS				32	16	26

* QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVING AND ABANDONING STORM SEWER
(NOTE: LOCATION PROVIDED TYPICALLY REFERS TO UPSTREAM STRUCTURE OR REMOVAL LIMIT)

ID	STATION	OFFSET (FT)		LOCATION	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	204.0245.01 REMOVING STORM SEWER 12-INCH OR LESS LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 21-INCH LF	204.0245.05 REMOVING STORM SEWER 24-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LT	204.0245.07 REMOVING STORM SEWER 72-Inch LF	204.0280 SEALING PIPES EA	204.0291.S* ABANDONING SEWER CY
PROJECT 1500-47-71															
	45+01	55.5	LT	USH 10	---	1	45	---	---	---	---	---	---	---	---
	45+08	34.9	LT	USH 10	---	1	55	---	---	---	---	---	---	---	---
	45+21	5.0	LT	USH 10	1	---	---	---	---	---	---	---	---	---	---
	PROJECT TOTALS				1	2	100	0	0	0	0	0	0	0	0
PROJECT 1500-37-76															
	70+41	6.2	LT	USH 10	---	1	37	---	---	---	---	---	---	---	---
	70+77	47.7	LT	USH 10	---	1	42	---	---	---	---	---	---	---	---
	70+77	24.3	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	70+77	9.4	LT	USH 10	---	1	15	---	---	---	---	---	---	---	---
	70+78	23.8	RT	USH 10	---	1	48	---	---	---	---	---	---	---	---
	72+06	81.5	LT	USH 10	---	1	---	---	---	---	---	---	---	---	1
	72+17	5.7	LT	USH 10	1	---	---	176	---	---	---	---	---	---	---
	72+25	99.1	LT	USH 10	1	---	---	---	---	---	---	---	---	---	1
	73+11	4.4	RT	USH 10	1	---	---	95	---	---	---	---	---	---	---
	73+16	24.2	RT	USH 10	---	1	21	---	---	---	---	---	---	---	---
	73+17	46.9	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	73+17	23.6	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	73+17	0.7	RT	USH 10	---	1	7	---	---	---	---	---	---	---	---
	76+02	9.5	RT	USH 10	1	---	292	---	---	---	---	---	---	---	---
	76+07	14.9	LT	USH 10	---	1	16	---	---	---	---	---	---	---	---
	76+07	1.1	RT	USH 10	---	1	10	---	---	---	---	---	---	---	---
	76+07	24.5	RT	USH 10	---	1	16	---	---	---	---	---	---	---	---
	76+08	38.1	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	78+95	14.5	RT	USH 10	1	---	293	---	---	---	---	---	---	---	---
	79+01	29.2	LT	USH 10	---	1	23	---	---	---	---	---	---	---	---
	79+01	6.1	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	79+01	1.9	RT	USH 10	---	1	14	---	---	---	---	---	---	---	---
	79+01	25.4	RT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	85+02	29.2	LT	USH 10	---	1	39	---	---	---	---	---	---	---	---
	85+02	25.0	RT	USH 10	---	1	21	---	---	---	---	---	---	---	---
	85+13	7.6	RT	USH 10	1	---	246	---	---	---	---	---	---	---	---
	87+53	29.0	LT	USH 10	---	1	23	---	---	---	---	---	---	---	---
	87+53	5.8	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	87+53	1.9	RT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	87+53	25.1	RT	USH 10	---	1	19	---	---	---	---	---	---	---	---
	87+59	7.5	RT	USH 10	1	---	343	---	---	---	---	---	---	---	---
	90+96	36.0	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	90+96	12.8	LT	USH 10	---	1	15	---	---	---	---	---	---	---	---
	90+97	1.9	RT	USH 10	---	1	9	---	---	---	---	---	---	---	---
	90+97	25.1	RT	USH 10	---	1	18	---	---	---	---	---	---	---	---
	91+02	8.6	RT	USH 10	1	---	---	55	---	---	---	---	---	---	---

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVING AND ABANDONING STORM SEWER CONT.
(NOTE: LOCATION PROVIDED TYPICALLY REFERS TO UPSTREAM STRUCTURE OR REMOVAL LIMIT)

ID	STATION	OFFSET (FT)		LOCATION	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	204.0245.01 REMOVING STORM SEWER 12-INCH OR LESS LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 21-INCH LF	204.0245.05 REMOVING STORM SEWER 24-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LT	204.0245.10 REMOVING STORM SEWER 72-Inch LF	204.0280 SEALING PIPES EA	204.0291.S* ABANDONING SEWER CY
PROJECT 1500-37-76 CONT.															
	91+51	86	LT	USH 10	---	---	---	---	---	---	---	---	160	---	---
	92+03	2.0	LT	USH 10	1	---	---	47	---	---	---	---	---	---	---
	92+10	6.2	RT	USH 10	1	---	---	54	---	---	---	---	---	---	---
	92+95	22.1	LT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	92+96	46.6	LT	USH 10	---	1	25	---	---	---	---	---	---	---	---
	92+96	9.8	LT	USH 10	---	1	6	---	---	---	---	---	---	---	---
	92+97	5.3	RT	USH 10	1	---	9	86	---	---	---	---	---	---	---
	92+97	3.9	LT	USH 10	1	---	---	---	94	---	---	---	---	---	---
	93+05	24.9	RT	USH 10	---	1	21	---	---	---	---	---	---	---	---
	93+17	85.6	LT	USH 10	---	1	---	---	---	---	---	---	---	---	8
	93+37	101	LT	USH 10	1	---	---	---	---	---	---	---	---	1	---
	93+41	98.1	LT	USH 10	---	---	---	55	---	---	---	---	---	---	---
	93+43	5.9	LT	USH 10	1	---	---	---	46	---	---	---	---	---	---
	93+65	78.1	LT	USH 10	---	1	45	---	---	---	---	---	---	---	---
	93+72	44.4	RT	USH 10	---	1	36	---	---	---	---	---	---	---	---
	93+81	5.5	LT	USH 10	1	---	---	---	39	---	---	---	---	---	---
	93+93	10.9	LT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	93+97	47.3	LT	USH 10	---	1	37	---	---	---	---	---	---	---	---
	94+07	0.4	RT	USH 10	---	1	27	111	---	---	---	---	---	---	---
	94+21	24.0	RT	USH 10	---	1	28	---	---	---	---	---	---	---	---
	95+27	0.6	RT	USH 10	---	1	---	120	---	---	---	---	---	---	---
	96+36	44.3	RT	USH 10	---	1	38	---	---	---	---	---	---	---	---
	98+81	23.9	RT	USH 10	---	1	36	---	---	---	---	---	---	---	---
	99+03	13.1	LT	USH 10	---	1	9	---	---	---	---	---	---	---	---
	99+05	62.8	RT	USH 10	---	1	52	---	---	---	---	---	---	---	---
	99+07	0	LT	USH 10	---	1	6	381	---	---	---	---	---	---	---
	99+07	5.5	LT	USH 10	1		---	---	525	---	---	---	---	---	---
	99+51	39.0	RT	USH 10	---	1	58	---	---	---	---	---	---	---	---
	99+68	11.7	LT	USH 10	---	1	7	---	---	---	---	---	---	---	---
	99+70	47.6	LT	USH 10	---	1	36	---	---	---	---	---	---	---	---
	99+72	6.0	LT	USH 10	1	---	---	---	66	---	---	---	---	---	---
	100+21	51.7	LT	USH 10	1	---	68	---	---	---	---	---	---	---	---
	100+40	23.9	RT	USH 10	---	1	47	---	---	---	---	---	---	---	---
	100+67	76.5	LT	USH 10	---	1	52	---	---	---	---	---	---	---	---
	100+75	5.9	LT	USH 10	1	---	---	---	103	---	---	---	---	---	---
	100+78	24.5	LT	USH 10	---	1	19	---	---	---	---	---	---	---	---
	100+83	47.4	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	100+84	0	RT	USH 10	---	1	11	---	---	---	---	---	---	---	---
	100+88	69.9	LT	USH 10	---	---	23	---	---	---	---	---	---	---	---
	100+91	23.6	RT	USH 10	---	1	25	---	---	---	---	---	---	---	---
	102+81	72.7	LT	USH 10	---	1	25	---	---	---	---	---	---	---	---
	102+91	49.8	LT	USH 10	1	---	---	45	---	---	---	---	---	---	---
	102+92	5.1	LT	USH 10	1	---	---	---	217	---	---	---	---	---	---
	103+17	64.3	LT	USH 10	---	1	30	---	---	---	---	---	---	---	---

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVING AND ABANDONING STORM SEWER CONT.

(NOTE: LOCATION PROVIDED TYPICALLY REFERS TO UPSTREAM STRUCTURE OR REMOVAL LIMIT)

ID	STATION	OFFSET (FT)		LOCATION	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	204.0245.01 REMOVING STORM SEWER 12-INCH OR LESS LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 21-INCH LF	204.0245.05 REMOVING STORM SEWER 24-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LT	204.0245.10 REMOVING STORM SEWER 72-Inch LF	204.0280 SEALING PIPES EA	204.0291.S* ABANDONING SEWER CY
PROJECT 1500-37-76 CONT.															
	103+34	5.3	LT	USH 10	1	---	---	42	---	---	---	---	---	---	---
	103+37	48.1	LT	USH 10	---	1	47	---	---	---	---	---	---	---	---
	103+44	2.7	LT	USH 10	---	1	10	---	---	---	---	---	---	---	---
	103+45	11.9	LT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	103+46	23.4	RT	USH 10	---	1	27	---	---	---	---	---	---	---	---
	106+09	47.4	LT	USH 10	---	1	35	---	---	---	---	---	---	---	---
	106+13	23.6	RT	USH 10	---	1	30	---	---	---	---	---	---	---	---
	106+22	4.9	LT	USH 10	---	1	288	---	---	---	---	---	---	---	---
	106+26	17.2	LT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	106+35	42.8	RT	USH 10	1	---	46	---	---	---	---	---	---	---	---
	106+36	5.9	LT	USH 10	1	---	15	---	---	---	---	---	---	---	---
	106+39	74.9	LT	USH 10	---	1	59	---	---	---	---	---	---	---	---
	106+51	0.3	RT	USH 10	1	---	---	69	---	---	---	---	---	---	---
	107+09	5.7	LT	USH 10	1	---	74	---	---	---	---	---	---	---	---
	107+20	0	RT	USH 10	1	---	13	251	---	---	---	---	---	---	---
	107+23	18.5	LT	USH 10	---	1	19	---	---	---	---	---	---	---	---
	107+34	47.6	LT	USH 10	---	1	31	---	---	---	---	---	---	---	---
	107+68	75.5	LT	USH 10	---	1	44	---	---	---	---	---	---	---	---
	107+71	5.8	LT	USH 10	1	---	63	---	---	---	---	---	---	---	---
	109+52	47.4	LT	USH 10	---	1	32	---	---	---	---	---	---	---	---
	109+64	17.7	LT	USH 10	---	1	12	---	---	---	---	---	---	---	---
	109+68	6.5	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	109+71	0	RT	USH 10	1	---	---	57	---	---	---	---	---	---	---
	109+82	75.9	LT	USH 10	---	1	82	---	---	---	---	---	---	---	---
	110+17	23.7	RT	USH 10	---	1	26	---	---	---	---	---	---	---	---
	110+27	0.1	RT	USH 10	---	1	---	245	---	---	---	---	---	---	---
	110+28	7.7	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	112+65	47.6	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	112+67	24.7	LT	USH 10	---	1	26	---	---	---	---	---	---	---	---
	112+69	23.5	RT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	112+72	0.3	RT	USH 10	---	1	---	---	243	---	---	---	---	---	---
	115+02	47.7	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	115+07	24.6	LT	USH 10	---	1	26	---	---	---	---	---	---	---	---
	115+12	23.7	RT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	115+15	0.1	RT	USH 10	---	1	---	---	196	---	---	---	---	---	---
	117+06	24	RT	USH 10	---	1	---	---	105	---	---	---	---	---	---
	117+11	0.3	RT	USH 10	1	---	24	---	---	---	---	---	---	---	---
	117+57	47.3	LT	USH 10	---	1	29	---	---	---	---	---	---	---	---
	117+71	21.9	LT	USH 10	---	1	11	---	---	---	---	---	---	---	---
	117+71	10.9	LT	USH 10	---	1	47	---	---	---	---	---	---	---	---
	117+82	51.4	RT	USH 10	---	1	34	---	---	---	---	---	---	---	---
	118+04	80.9	LT	USH 10	---	1	21	---	---	---	---	---	---	---	---
	118+15	52.3	RT	USH 10	1	---	49	---	---	---	---	---	---	---	---
	118+15	70.3	RT	USH 10	---	---	18	---	---	---	---	---	---	---	---

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVING AND ABANDONING STORM SEWER CONT.

(NOTE: LOCATION PROVIDED TYPICALLY REFERS TO UPSTREAM STRUCTURE OR REMOVAL LIMIT)

ID	STATION	OFFSET (FT)		LOCATION	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	204.0245.01 REMOVING STORM SEWER 12-INCH OR LESS LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 21-INCH LF	204.0245.05 REMOVING STORM SEWER 24-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LT	204.0245.10 REMOVING STORM SEWER 72-Inch LF	204.0280 SEALING PIPES EA	204.0291.S* ABANDONING SEWER CY
PROJECT 1500-37-76 CONT.															
	118+16	3.8	RT	USH 10	1	---	6	---	31	---	---	---	---	---	---
	118+17	2.2	LT	USH 10	1	---	---	344	---	---	---	---	---	---	---
	118+18	64.7	LT	USH 10	1	---	63	---	---	---	---	---	---	---	---
	118+44	76.4	LT	USH 10	---	1	29	---	---	---	---	---	---	---	---
	118+46	4.6	RT	USH 10	1	---	---	---	323	---	---	---	---	---	---
	118+62	49.7	RT	USH 10	---	1	48	---	---	---	---	---	---	---	---
	121+61	1.2	LT	USH 10	---	1	---	40	---	---	---	---	---	---	---
	121+61	13.4	LT	USH 10	---	1	12	---	---	---	---	---	---	---	---
	121+65	47.4	LT	USH 10	---	1	35	---	---	---	---	---	---	---	---
	121+67	23.5	RT	USH 10	---	1	19	---	---	---	---	---	---	---	---
	121+69	5.0	RT	USH 10	1	---	---	---	51	---	---	---	---	---	---
	121+93	67.4	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	121+94	50.8	RT	USH 10	---	1	28	---	---	---	---	---	---	---	---
	122+00	64.3	LT	USH 10	1	---	62	---	---	---	---	---	---	---	---
	122+01	2.2	LT	USH 10	1	---	---	---	321	---	---	---	---	---	---
	122+20	4.8	RT	USH 10	1	---	---	---	303	---	---	---	---	---	---
	122+21	51.1	RT	USH 10	---	1	47	---	---	---	---	---	---	---	---
	122+22	66.0	LT	USH 10	---	1	22	---	---	---	---	---	---	---	---
	125+10	47.6	LT	USH 10	---	1	31	---	---	---	---	---	---	---	---
	125+11	23.9	RT	USH 10	---	1	22	---	---	---	---	---	---	---	---
	125+19	18.0	LT	USH 10	---	1	13	---	---	---	---	---	---	---	---
	125+19	5.8	LT	USH 10	---	1	5	---	---	---	---	---	---	---	---
	125+21	2.5	LT	USH 10	1	---	8	---	24	---	---	---	---	---	---
	125+23	5.7	RT	USH 10	1	---	---	---	---	46	---	---	---	---	---
	125+36	65.4	LT	USH 10	---	1	8	---	---	---	---	---	---	---	---
	125+38	50	RT	USH 10	---	1	27	---	---	---	---	---	---	---	---
	125+43	61.9	LT	USH 10	1	---	60	---	---	---	---	---	---	---	---
	125+45	2.1	LT	USH 10	1	---	---	---	---	240	---	---	---	---	---
	125+65	50.1	RT	USH 10	---	1	46	---	---	---	---	---	---	---	---
	125+65	70.9	LT	USH 10	---	1	24	---	---	---	---	---	---	---	---
	125+68	5.0	RT	USH 10	1	---	---	---	---	217	---	---	---	---	---
	127+72	47.8	LT	USH 10	---	1	32	---	---	---	---	---	---	---	---
	127+74	24.0	RT	USH 10	---	1	22	---	---	---	---	---	---	---	---
	127+82	17.9	LT	USH 10	---	1	12	---	---	---	---	---	---	---	---
	127+82	5.8	LT	USH 10	---	1	5	---	---	---	---	---	---	---	---
	127+85	2.7	LT	USH 10	1	---	---	---	---	23	---	---	---	---	---
	127+85	4.9	RT	USH 10	1	---	---	---	---	47	---	---	---	---	---
	128+00	67.0	LT	USH 10	1	---	29	---	---	---	---	---	---	---	---
	128+01	57.8	RT	USH 10	---	1	27	---	---	---	---	---	---	---	---
	128+07	2.8	LT	USH 10	1	---	---	---	---	261	---	---	---	---	---
	128+28	71.5	LT	USH 10	1	---	72	---	---	---	---	---	---	---	---
	128+29	58.4	RT	USH 10	---	1	54	---	---	---	---	---	---	---	---
	128+32	4.8	RT	USH 10	1	---	---	---	---	243	---	---	---	---	---
	130+51	47.7	LT	USH 10	---	1	35	---	---	---	---	---	---	---	---

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING AND ABANDONING STORM SEWER CONT.
(NOTE: LOCATION PROVIDED TYPICALLY REFERS TO UPSTREAM STRUCTURE OR REMOVAL LIMIT)

ID	STATION	OFFSET (FT)		LOCATION	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	204.0245.01 REMOVING STORM SEWER 12-INCH OR LESS LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 21-INCH LF	204.0245.05 REMOVING STORM SEWER 24-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LT	204.0245.10 REMOVING STORM SEWER 72-Inch LF	204.0280 SEALING PIPES EA	204.0291.S* ABANDONING SEWER CY
PROJECT 1500-37-76 CONT.															
	130+54	24.0	RT	USH 10	---	1	28	---	---	---	---	---	---	---	---
	130+66	16.7	LT	USH 10	---	1	9	---	---	---	---	---	---	---	---
	130+66	7.7	LT	USH 10	---	1	6	---	---	---	---	---	---	---	---
	130+68	2.9	LT	USH 10	1	---	---	---	---	20	---	---	---	---	---
	130+75	5.1	RT	USH 10	1	---	15	---	---	46	---	---	---	---	---
	130+82	50.3	RT	USH 10	---	1	28	---	---	---	---	---	---	---	---
	130+88	2.9	LT	USH 10	1	---	---	---	---	---	47	---	---	---	---
	131+10	50.8	RT	USH 10	---	1	47	---	---	---	---	---	---	---	---
	131+21	5.2	RT	USH 10	1	---	---	---	---	22	---	---	---	---	---
	131+35	2.8	LT	USH 10	1	---	---	---	---	---	11	---	---	---	---
	131+43	5.1	RT	USH 10	1	---	---	---	---	---	---	13	---	---	---
	131+55	11	RT	USH 10	1	---	---	---	---	---	---	8	---	---	---
	PROJECT TOTALS				57	119	4970	2273	2687	1165	58	21	160	1	10
	TOTALS				58	121	5070	2273	2687	1165	58	21	160	1	10

*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING RAILROAD SIGNAL BASE

ID	STATION	LOCATION	204.9060.02 EACH
PROJECT 1500-37-76			
	100+00	USH 10, EB, RT	1
	100+77	USH 10, WB, LT	1
	TOTAL		2

REMOVING RAILROAD TRACK

ID	STATION	LOCATION	204.0200 LF
PROJECT 1500-37-76			
	100+40	USH 10, EB & WB	125
	TOTAL		125

REMOVING WOODEN GUARDRAIL & POSTS

ID	STATION	TO	STATION	LOCATION	204.9090.S.01 LF
PROJECT 1500-37-76					
	72+45	-	73+52	USH 10, EB	130
	TOTAL				130

3

REMOVING METAL RAILING

ID	STATION	TO	STATION	LOCATION	204.9090.S.02 LF
PROJECT 1500-37-76					
	70+35	-	70+60	USH 10, EB	25
	TOTAL				25

EARTHWORK SUMMARY

Project	From/To Station	Location	Common Excavation (1) (Item # 205.0100)		Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Comment:
			Cut (1)	EBS Excavation (3)		Factor 1.33			
1500-37-76	70+00 - 93+50	USH 10, EB	7,333		1,428	1,899	5,434	5,434	
	70+00 - 93+50	USH 10, WB	5,821		791	1,052	4,769	4,769	
	93+75 - 131+75	USH 10	25,070		87	116	24,954	24,954	
	10+64 - 10+75	FLEETWOOD DR	68				68	68	
	9+40 - 9+50	N. 23RD ST (S)	37				37	37	
	10+82 - 10+95	N. 23RD ST (N)	59				59	59	
	9+10 - 9+64	MENCHL DR	93		1	1	92	92	
	9+35 - 9+48	N. 21ST ST (S)	50				50	50	
	10+76 - 11+00	N. 21ST ST (N)	90				90	90	
	9+40 - 9+50	N. 20TH ST (S)	37				37	37	
	10+74 - 10+85	PARK ROW BLVD, SB	31				31	31	
	10+50 - 10+60	PARK ROW BLVD, NB	30				30	30	
	10+51 - 10+65	ELM ST	45				45	45	
	9+00 - 9+37	N. 18TH ST (S)	220		1	1	219	219	
	10+75 - 10+90	N. 18TH ST (N)	65				65	65	
	9+30 - 9+49	N. 17TH ST (S)	57		1	1	56	56	
	10+75 - 10+85	N. 17TH ST (N)	33				33	33	
	9+35 - 9+49	N. 16TH ST (S)	44				44	44	
	10+75 - 10+85	N. 16TH ST (N)	33				33	33	
	9+35 - 9+49	N. 15TH ST (S)	42				42	42	
	10+75 - 11+00	N. 15TH ST (N)	82		1	1	81	81	
	9+30 - 9+49	N. 14TH ST (S)	62				62	62	
	10+75 - 10+85	N. 14TH ST (N)	37				37	37	
		UNDISTRIBUTED		2,961			2,961	2,961	LOCATION TO BE DETERMINED BY ENGINEER
Totals			42,400		2,310	3,072	39,328	39,328	

1) Common Excavation includes existing asphalt and concrete. Item number 205.0100
3) EBS Excavation to be backfilled with Breaker Run
13) Expanded Fill Factor = 1.33, Expanded Fill = Unexpanded Fill * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the section. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the section.

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

BASE AGGREGATE DENSE AND WATER

ID	STATION	TO	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 * 1 1/4-INCH TON	312.0100 SELECT CRUSHED MATERIAL TON	624.0100 * WATER MGAL	REMARKS
PROJECT 1500-47-71									
	46+84	-	70+00	USH 10, EB	-	100	-	1	
	45+40	-	70+00	USH 10, WB	-	100	-	1	
	8+95	-	9+48	CTH R	7	-	-	-	AGGREGATE SHOULDER
	11+21	-	11+38	CTH R	3	-	-	-	AGGREGATE SHOULDER
	PROJECT TOTALS				10	200	0	2	
PROJECT 1500-37-76									
	70+00	-	72+50	USH 10, EB	-	292	464	8	
	70+00	-	72+50	USH 10, WB	-	301	494	8	
	70+00	-	73+01	USH 10, EB, LT	-	183	329	5	TURN LANE/MEDIAN
	72+50	-	82+03	USH 10, EB	-	1,227	1,993	35	
	72+50	-	82+03	USH 10, WB	-	1,238	1,982	32	
	84+63	-	93+50	USH 10, EB	-	1,108	1,780	29	
	84+63	-	93+50	USH 10, WB	-	1,101	1,776	29	
	90+93	-	93+50	USH 10, EB, LT	-	221	309	5	TURN LANE/MEDIAN
	93+50	-	95+59	USH 10, WB, RT	-	113	203	3	TURN LANE/MEDIAN
	93+50	-	99+35	USH 10, EB	-	755	1,204	20	
	93+50	-	99+35	USH 10, WB	-	800	1,175	20	
	98+66	-	100+05	USH 10, EB, LT	-	89	161	3	MEDIAN
	99+35	-	103+00	USH 10, EB	-	430	703	11	
	99+35	-	103+00	USH 10, WB	-	458	742	12	
	101+01	-	103+00	USH 10, EB, LT	-	107	193	3	TURN LANE/MEDIAN
	103+00	-	104+98	USH 10, WB, RT	-	106	192	3	TURN LANE/MEDIAN
	103+00	-	106+50	USH 10, EB	-	436	705	11	
	103+00	-	106+50	USH 10, WB	-	435	674	11	
	105+91	-	108+18	USH 10, EB, LT	-	157	282	4	MEDIAN
	106+50	-	110+00	USH 10, EB	-	439	684	11	
	106+50	-	110+00	USH 10, WB	-	403	653	11	
	109+38	-	110+57	USH 10, EB, LT	-	84	151	2	MEDIAN
	110+00	-	118+25	USH 10, EB	-	1,068	1,629	27	
	110+00	-	118+25	USH 10, WB	-	1,006	1,649	27	
	113+86	-	118+25	USH 10, EB, LT	-	352	593	9	TURN LANE/MEDIAN
	118+25	-	122+00	USH 10, EB	-	440	692	11	
	118+25	-	122+00	USH 10, WB	-	451	700	12	
	118+25	-	122+67	USH 10, WB, RT	-	412	685	11	TURN LANE/MEDIAN
	122+00	-	125+50	USH 10, EB	-	448	702	12	
	122+00	-	125+50	USH 10, WB	-	455	702	12	
	124+92	-	126+11	USH 10, EB, LT	-	82	147	2	MEDIAN
	125+50	-	128+15	USH 10, EB	-	329	522	9	
	125+50	-	128+15	USH 10, WB	-	329	522	9	
	127+53	-	128+76	USH 10, EB, LT	-	85	153	2	MEDIAN
	128+15	-	131+00	USH 10, EB	-	362	563	9	
	128+15	-	131+00	USH 10, WB	-	344	563	9	
	130+32	-	131+59	USH 10, EB, LT	-	88	159	2	MEDIAN
	131+00	-	131+75	USH 10, EB	-	153	196	3	
	131+00	-	131+75	USH 10, WB	-	430	631	11	
	132+43	-	131+75	USH 10, EB, LT	-	68	122	2	TURN LANE/MEDIAN

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

BASE AGGREGATE DENSE AND WATER (CONTINUED)

ID	STATION	TO	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 * 1 1/4-INCH TON	312.0100 SELECT CRUSHED MATERIAL TON	624.0100 * WATER MGAL	REMARKS
PROJECT 1500-37-76									
	10+25	-	10+85	FLEETWOOD DR	-	163	286	4	
	9+40	-	9+75	23RD ST	-	70	120	2	
	10+49	-	10+95	23RD ST	-	108	183	3	
	9+10	-	9+74	MENCHL DR	-	100	200	3	
	9+35	-	9+75	21ST ST	-	100	128	2	
	10+49	-	11+00	21ST ST	-	106	200	3	
	9+40	-	9+75	20TH ST	-	70	116	2	
	10+49	-	10+85	PARK ROW BLVD (SB)	-	52	90	1	
	10+25	-	10+60	PARK ROW BLVD (NB)	-	51	88	1	
	10+25	-	10+65	ELM ST	-	69	114	2	
	9+00	-	9+75	18TH ST	-	234	395	6	
	10+49	-	11+15	18TH ST	-	102	175	3	
	9+25	-	9+75	17TH ST	-	76	126	2	
	10+49	-	10+98	17TH ST	-	66	113	2	
	9+23	-	9+75	16TH ST	-	71	121	2	
	10+49	-	10+85	16TH ST	-	61	104	2	
	9+35	-	9+75	15TH ST	-	66	110	2	
	10+49	-	11+00	15TH ST	-	83	136	2	
	9+30	-	9+75	14TH ST	-	76	124	2	
	10+49	-	10+85	14TH ST	-	71	120	2	
	UNDISTRIBUTED			EBS BACKFILL	-	-	5,872	59	
	PROJECT TOTALS				0	19,180	36,700	562	
	TOTALS				10	19,380	36,700	564	

* QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

BASE PATCHING

ID	STATION	TO	STATION	LOCATION	390.0303 BASE PATCHING SY	415.0610 DRILLED * TIE BARS EACH	416.0620 DRILLED * DOWEL BARS EACH	REMARKS
PROJECT 1500-47-71								
	38+04	-	38+58	USH 10, EB	68	37	16	
	38+60	-	38+75	USH 10, EB	21	10	16	
	38+70	-	38+76	USH 10, MEDIAN	23	1	60	
	38+87	-	39+11	USH 10, RT	11	2	32	
	38+85	-	39+21	USH 10, LT	139	23	48	
	39+24	-	39+62	USH 10, RT	172	9	48	
	39+86	-	40+39	USH 10, WB	74	31	16	
	40+28	-	40+60	USH 10, WB	96	20	48	
	40+86	-	40+93	USH 10, EB	8	3	32	
	40+90	-	40+96	USH 10, WB	7	3	32	
	40+91	-	41+03	USH 10, WB	18	8	16	
	41+17	-	41+31	USH 10, WB	35	4	32	
	41+19	-	41+31	USH 10, WB	17	3	16	
	42+11	-	42+31	USH 10, WB	76	13	48	
	43+10	-	43+29	USH 10, WB	25	8	16	
	43+26	-	43+32	USH 10, EB	8	4	16	
	43+41	-	43+51	USH 10, EB	12	8	16	
	43+73	-	43+79	USH 10, EB	5	4	16	
	45+05	-	45+32	USH 10, WB	56	8	32	
	45+91	-	46+02	USH 10, EB	14	8	16	
	47+49	-	47+55	USH 10, MEDIAN	3	4	8	
	48+43	-	48+49	USH 10, EB	11	4	32	
	48+58	-	48+76	USH 10, WB	33	7	24	
	53+53	-	53+70	USH 10, MEDIAN	15	8	8	
	54+28	-	54+44	USH 10, WB	20	12	16	
	54+44	-	54+58	USH 10, WB	19	10	16	
	54+58	-	54+69	USH 10, WB	8	6	6	
	56+17	-	56+56	USH 10, WB	48	30	16	
	57+70	-	57+92	USH 10, WB	26	16	16	
	57+86	-	58+09	USH 10, MEDIAN	28	16	16	
	58+36	-	58+42	USH 10, WB	8	4	16	
	59+91	-	60+03	USH 10, EB	7	8	8	
	63+70	-	63+78	USH 10, EB	3	4	8	
	64+98	-	65+04	USH 10, WB	8	4	16	
	UNDISTRIBUTED			USH 10	128	40	82	FIELD LOCATED BY ENGINEER
	TOTALS				1,250	380	860	

* QUANTITIES SHOWN ELSEWHERE

CONCRETE APPROACH SLAB

ID	STATION	TO	STATION	LOCATION	415.0410 SY
PROJECT 1500-37-76					
	81+88	-	82+03	USH 10 / STH 42, EB	42
	81+88	-	82+03	USH 10 / STH 42, WB	42
	84+62	-	84+77	USH 10 / STH 42, EB	42
	84+62	-	84+77	USH 10 / STH 42, WB	42
	TOTAL				168

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ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE PAVEMENT

ID	CATEGORY	STATION	TO	STATION	LOCATION	405.0100 * COLORING CONCRETE WISDOT RED CY	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0085 CONCRETE PAVEMENT 8.5-INCH SY	415.0210 CONCRETE PAVEMENT GAPS EACH	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	415.1085 CONCRETE PAVEMENT HES 8.5-INCH SY	415.4100 JOINT FILLING SY	416.0610 * DRILLED TIE BARS EACH	416.0620 * DRILLED DOWEL BARS EACH	REMARKS
PROJECT 1500-47-71															
	0010														
		49+62	-	50+44	USH 10, WB	-	135	-	-	-	-	-	32	-	MOBILE PARK ENTRANCE
		PROJECT TOTALS				0	135	0	0	0	0	0	32	0	
PROJECT 1500-37-76															
	0010														
		70+00	-	72+50	USH 10, EB	-	-	676	-	-	-	731	-	22	
		70+00	-	72+50	USH 10, WB	-	-	687	-	-	-	713	-	21	
		70+00	-	73+01	USH 10, EB	-	-	438	-	-	-	438	-	-	TURN LANE/MEDIAN
		72+50	-	82+03	USH 10, EB	-	-	2,648	-	-	-	2,868	-	-	
		72+50	-	82+03	USH 10, WB	-	-	2,647	-	-	-	2,856	-	-	
		84+63	-	93+50	USH 10, EB	-	-	2,352	-	-	111	2,651	-	-	HES 23RD INTERSECTION
		84+63	-	93+50	USH 10, WB	-	-	2,353	-	-	111	2,649	-	-	HES 23RD INTERSECTION
		90+93	-	93+50	USH 10, EB	-	-	215	-	-	108	215	-	-	TURN LANE/MEDIAN
		93+50	-	95+59	USH 10, WB	-	-	156	-	-	108	156	-	-	TURN LANE/MEDIAN
		93+50	-	99+35	USH 10, EB	-	-	1,514	-	-	111	1,735	-	-	HES 23RD INTERSECTION
		93+50	-	99+35	USH 10, WB	-	-	1,514	-	-	111	1,742	-	-	HES 23RD INTERSECTION
		98+66	-	100+05	USH 10, EB	-	-	215	-	-	-	215	-	-	MEDIAN
		99+35	-	103+00	USH 10, EB	-	-	1,014	-	-	-	1,078	-	-	
		99+35	-	103+00	USH 10, WB	-	-	1,014	-	-	-	1,081	-	-	
		101+01	-	103+00	USH 10, EB	-	-	251	-	-	-	251	-	-	TURN LANE/MEDIAN
		103+00	-	104+98	USH 10, WB	-	-	248	-	-	-	248	-	-	TURN LANE/MEDIAN
		103+00	-	106+50	USH 10, EB	-	-	972	-	-	-	1,033	-	-	
		103+00	-	106+50	USH 10, WB	-	-	972	-	-	-	1,033	-	-	
		105+91	-	108+18	USH 10, EB	-	-	367	-	-	-	367	-	-	MEDIAN
		106+50	-	110+00	USH 10, EB	-	-	972	-	-	-	1,031	-	-	
		106+50	-	110+00	USH 10, WB	-	-	972	-	-	-	1,015	-	-	
		109+38	-	110+57	USH 10, EB	-	-	197	-	-	-	197	-	-	MEDIAN
		110+00	-	118+25	USH 10, EB	-	-	2,292	-	-	-	2,457	-	-	
		110+00	-	118+25	USH 10, WB	-	-	2,291	-	-	-	2,455	-	-	
		113+86	-	118+25	USH 10, EB	-	-	720	-	-	-	720	-	-	TURN LANE/MEDIAN
		118+25	-	122+00	USH 10, EB	-	-	1,041	-	-	-	1,103	-	-	
		118+25	-	122+00	USH 10, WB	-	-	1,043	-	-	-	1,108	-	-	
		118+25	-	122+67	USH 10, WB	-	-	861	-	-	-	861	-	-	TURN LANE/MEDIAN
		122+00	-	125+50	USH 10, EB	-	-	972	-	-	-	1,032	-	-	
		122+00	-	125+50	USH 10, WB	-	-	972	-	-	-	1,032	-	-	
		124+92	-	126+11	USH 10, EB	-	-	191	-	-	-	191	-	-	MEDIAN
		125+50	-	128+15	USH 10, EB	-	-	736	-	-	-	779	-	-	
		125+50	-	128+15	USH 10, WB	-	-	736	-	-	-	779	-	-	
		127+53	-	128+76	USH 10, EB	-	-	201	-	-	-	201	-	-	MEDIAN
		128+15	-	131+00	USH 10, EB	-	-	792	-	-	-	838	-	-	
		128+15	-	131+00	USH 10, WB	-	-	792	-	-	-	838	-	-	
		130+32	-	131+59	USH 10, EB	-	-	211	-	-	-	256	-	-	MEDIAN
		131+00	-	131+75	USH 10, EB	-	-	208	-	-	-	257	-	16	
		131+00	-	131+75	USH 10, WB	-	-	207	-	-	-	271	-	16	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE PAVEMENT (CONTINUED)

ID	CATEGORY	STATION	TO	STATION	LOCATION	405.0100 * COLORING CONCRETE WISDOT RED CY	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0085 CONCRETE PAVEMENT 8.5-INCH SY	415.0210 CONCRETE PAVEMENT GAPS EACH	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	415.1085 CONCRETE PAVEMENT HES 8.5-INCH SY	415.4100 JOINT FILLING SY	416.0610 * DRILLED TIE BARS EACH	416.0620 * DRILLED DOWEL BARS EACH	REMARKS
PROJECT 1500-37-76															
	0010														
		10+25	-	10+85	FLEETWOOD DR	-	411	-	-	-	-	444	3	20	
		9+40	-	9+75	23RD ST	-	-	-	-	160	-	180	-	22	
		10+49	-	10+95	23RD ST	-	-	-	-	255	-	283	-	26	
		9+10	-	9+74	MENCHL DR	-	220	-	-	-	-	252	-	16	
		9+35	-	9+75	21ST ST	-	154	-	-	-	-	178	-	20	
		10+49	-	11+00	21ST ST	-	212	-	-	-	-	241	-	23	
		9+40	-	9+75	20TH ST	-	153	-	-	-	-	175	-	20	
		10+49	-	10+85	PARK ROW BLVD (SB)	-	112	-	-	-	-	131	-	16	
		10+25	-	10+60	PARK ROW BLVD (NB)	-	109	-	-	-	-	128	-	17	
		10+25	-	10+65	ELM ST	-	131	-	-	-	-	155	-	22	
		9+00	-	9+75	18TH ST	-	586	-	-	-	-	608	-	38	
		10+49	-	11+15	18TH ST	-	255	-	-	-	-	279	9	26	
		9+25	-	9+75	17TH ST	-	141	-	-	-	-	167	3	16	
		10+49	-	10+98	17TH ST	-	146	-	-	-	-	168	4	16	
		9+23	-	9+75	16TH ST	-	156	-	-	-	-	180	4	16	
		10+49	-	10+85	16TH ST	-	131	-	-	-	-	153	-	16	
		9+35	-	9+75	15TH ST	-	126	-	-	-	-	150	-	16	
		10+49	-	11+00	15TH ST	-	170	-	-	-	-	198	-	16	
		9+30	-	9+75	14TH ST	-	144	-	-	-	-	170	-	16	
		10+49	-	10+85	14TH ST	-	143	-	-	-	-	165	-	16	
					18TH ST INTERSECTION	-	-	-	1	-	-	-	-	-	
					17TH ST INTERSECTION	-	-	-	1	-	-	-	-	-	
					16TH ST INTERSECTION	-	-	-	1	-	-	-	-	-	
					UNDISTRIBUTED	-	200	-	-	100	100	214	-	-	
		CATEGORY 0010 TOTALS				0	3,700	36,660	3	515	760	44,100	23	469	
	0020														
					18TH ST INTERSECTION	47	-	200	-	-	-	-	-	96	COLORED CROSSWALKS
					15TH ST INTERSECTION	38	-	160	-	-	-	-	-	96	COLORED CROSSWALKS
		CATEGORY 0020 TOTALS				85	0	360	0	0	0	0	0	192	
		PROJECT TOTALS				85	3,700	37,020	3	515	760	44,100	23	661	
		TOTALS				85	3,835	37,020	3	515	760	44,100	55	661	

* QUANTITIES SHOWN ELSEWHERE

NOTE: QUANTITIES FOR JOINT FILLING IN CURB & GUTTER AT TURN LANE / MEDIAN INCLUDED IN MAINLINE QUANTITY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

ASPHALTIC PAVEMENT

ID	STATION	TO	STATION	LOCATION	455.0605 * TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0305 ASPHALTIC SURFACE SAFETY ISLAND TON	COMMENT
PROJECT 1500-47-71									
	38+00	-	70+00	USH 10, EB	562	1,455	10	4	
	38+00	-	70+00	USH 10, WB	587	1,520	2	6	
	PROJECT TOTALS				1,149	2,975	12	10	
PROJECT 1500-37-76									
	95+28			USH 10, WB	-	-	2	-	
	104+15			USH 10, WB	-	-	1	-	PE
	104+74			USH 10, EB	-	-	1	-	PE
	104+76			USH 10, WB	-	-	1	-	PE
	105+50			USH 10, WB	-	-	2	-	PE
	110+81			USH 10, EB	-	-	1	-	PE
	9+30	-	9+40	21ST ST	1	2	-	-	
	10+60	-	10+65	ELM ST	1	2	-	-	
	9+25	-	9+35	17TH ST	1	2	-	-	
	9+35	-	9+40	15TH ST	1	2	-	-	
	9+30	-	9+35	14TH ST	1	2	-	-	
	10+80	-	10+85	14TH ST	1	2	-	-	
	PROJECT TOTALS				6	12	8	0	
	TOTALS				1,155	2,987	20	10	

* QUANTITIES SHOWN ELSEWHERE

CONCRETE CURB

ID	STATION	LOCATION	601.0105 TYPE A LF	REMARKS
PROJECT 1500-37-76				
	119+11	USH 10, WB	10	PE
	EMERGENCY VEHICLE RAILROAD X-ING		20	
	TOTAL		30	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

TEMPORARY PAVEMENT

ID	PROJECT STAGE	STA.	TO	STA.	OFFSET*	*305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	*455.0605 TACK COAT GAL	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF	REMARKS
PROJECT 1500-37-76										
	1	USH 10/18TH STREET INTERSECTION				345	0.5	150	60	COVERING UNDERGROUND INSTALLATION; 5" ASPHALTIC SURFACE TEMPORARY & 12" BAD 1 1/4-INCH
	1	USH 10/16TH AND 17TH STREET INTERSECTIONS				715	---	300	---	UNDISTRIBUTED FOR MAINTAINING ACCESS
		TOTALS				1060	0.5	450	60	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

CONCRETE COLLARS FOR PIPE

ID	STRUCT.	STA.	OFFSET	LOCATION	520.8000 EA	REMARKS
PROJECT 1500-47-71						
	1	45+01	55.5' LT	WB	1	CONNECT EXISTING 6" STORM SEWER WITH CONCRETE COLLAR
	3	45+21	5.0' LT	EB	3	CONNECT EXISITING 15", 15" & 21" CONCRETE STORM SEWER WITH CONCRETE COLLAR
			PROJECT TOTAL		4	
PROJECT 1500-37-76						
	MH-18.0	70+03	6' RT	USH 10 EB	1	CONNECT EXISTING 15" STORM SEWER TO MH-18.0 WITH CONCRETE COLLAR
	MH-24.3	72+25	99.2' RT	USH 10 EB	2	CONNECT EXISTING 10" & 8" STORM SEWER TO MH-24.3 WITH CONCRETE COLLAR
	CB-26.4	73+16	25.5' RT	USH 10 EB	1	CONNECT EXISTING 12" STORM SEWER TO CB-26.4 WITH CONCRETE COLLAR
	CB-48.2	10+87	27.5' RT	N. 23RD STREET	1	CONNECT EXISTING 15" STORM SEWER TO CB-48.2 WITH CONCRETE COLLAR
	MH-66.5	09+57	22.2' RT	SB PARK ROW BLVD.	1	CONNECT EXISITING 12" STORM SEWER TO MH-66.5 WITH CONCRETE COLLAR
	MH-78.0	10+76	7.7' RT	N 18TH ST	1	CONNECT EXISTING 24" STORM SEWER TO MH-78.0 WITH CONCRETE COLLAR
	MH-80.0	09+30	6.2' RT	N 18TH ST	1	CONNECT EXISTING 12" STORM SEWER TO MH-80.0 WITH CONCRETE COLLAR
	---	131+63	11' RT	USH 10 EB	1	CONNECT EXISTING 36" STORM SEWER TO PROPOSED TRUCK LINE
			PROJECT TOTAL		9	
			TOTAL		13	

APRON ENDWALLS

ID	STRUCTURE	STA.**	OFFSET**	LOCATION	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EA	522.1072 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH EA	611.9800.S PIPE GRATES EA	650.4000* CONSTRUCTION STAKING STORM SEWER EA	INVERT ELEV.
PROJECT 1500-37-76									
	OF-1B	70+65	72' RT	EB	1	---	---	1	631.25
	OF-2	91+57	81.7' RT	EB	---	1	1	1	633.55
				TOTAL	1	1	1	2	

*- ADDITIONAL QUANTITIES FOR BID ITEM 650.4000 ARE SHOWN ELSEWHERE
**-STATION AND OFFSET INFORMATION PROVIDED TO THE END OF PIPE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE CURB AND GUTTER

ID	STATION	TO	STATION	LOCATION	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	SPV.0090.01 INTEGRAL 18-INCH TYPE D LF	416.0610 * DRILLED TIE BARS EACH
PROJECT 1500-47-71								
	38+00	-	70+00	USH 10, EB	80	215	-	53
	38+00	-	70+00	USH 10, WB	120	205	-	62
	09+10		09+64	CTH R	-	33	-	3
	10+75		11+21	CTH R	-	74	-	14
	UNDISTRIBUTED				20	43	-	-
	PROJECT TOTALS				220	570	0	132
PROJECT 1500-37-76								
	70+00	-	82+03	USH 10, EB	667	-	1,656	-
	70+00	-	82+03	USH 10, WB	498	-	1,686	-
	84+63	-	93+50	USH 10, EB	842	-	850	-
	84+63	-	93+50	USH 10, WB	841	-	827	-
	93+50	-	99+35	USH 10, EB	35	-	956	-
	93+50	-	103+00	USH 10, WB	263	-	1,092	-
	99+35	-	103+00	USH 10, EB	188	-	385	-
	103+00	-	106+50	USH 10, EB	45	-	508	-
	103+00	-	106+50	USH 10, WB	182	-	370	-
	106+50	-	110+00	USH 10, EB	109	-	418	-
	106+50	-	110+00	USH 10, WB	103	-	347	-
	110+00	-	118+25	USH 10, EB	407	-	1,076	-
	110+00	-	118+25	USH 10, WB	48	-	1,428	-
	118+25	-	122+00	USH 10, EB	284	-	271	-
	118+25	-	122+00	USH 10, WB	284	-	298	-
	122+00	-	125+50	USH 10, EB	59	-	489	-
	122+00	-	125+50	USH 10, WB	59	-	489	-
	125+50	-	128+15	USH 10, EB	59	-	325	-
	125+50	-	128+15	USH 10, WB	59	-	325	-
	128+15	-	131+75	USH 10, EB	89	-	412	-
	128+15	-	137+75	USH 10, WB	89	-	412	-
	10+25	-	10+85	FLEETWOOD DR	-	150	-	-
	12+92	-	13+18	FLEETWOOD DR	-	26	-	12
	9+40	-	9+75	23RD ST	-	100	-	-
	10+49	-	10+95	23RD ST	-	125	-	-
	9+10	-	9+74	MENCHL DR	-	146	-	-
	9+35	-	9+75	21ST ST	-	110	-	-
	10+49	-	11+00	21ST ST	-	131	-	-
	9+40	-	9+75	20TH ST	-	110	-	-
	10+49	-	10+85	PARK ROW BLVD (SB)	-	130	-	-
	10+25	-	10+60	PARK ROW BLVD (NB)	-	90	-	-
	10+25	-	10+65	ELM ST	-	111	-	-
	9+00	-	9+75	18TH ST	-	-	200	-
	10+49	-	11+15	18TH ST	-	110	-	-
	9+25	-	9+75	17TH ST	-	121	-	-

CONCRETE CURB AND GUTTER (CONTINUED)

ID	STATION	TO	STATION	LOCATION	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	SPV.0090.01 INTEGRAL 18-INCH TYPE D LF	416.0610 * DRILLED TIE BARS EACH
PROJECT 1500-37-76								
	10+49	-	10+98	17TH ST	-	100	-	-
	9+23	-	9+75	16TH ST	-	110	-	-
	10+49	-	10+85	16TH ST	-	100	-	-
	9+35	-	9+75	15TH ST	-	110	-	-
	10+49	-	11+00	15TH ST	-	130	-	-
	9+30	-	9+75	14TH ST	-	120	-	-
	10+49	-	10+85	14TH ST	-	100	-	-
	PROJECT TOTALS				5,210	2,230	14,820	12
	TOTALS				5,430	2,800	14,820	144

* QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE SIDEWALK AND DRIVEWAY

ID	CATEGORY	STATION	TO	STATION	LOCATION	416.0160 DRIVEWAY 6-INCH SY	602.0405 SIDEWALK 4-INCH SF	602.0415 SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD (YELLOW) SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL (YELLOW) SF	COMMENT
PROJECT 1500-47-71											
	0010	38+48	-	39+92	USH 10, EB	-	81	-	-	-	WALDO/CTH R INTERSECTION
		46+84	-	70+00	USH 10, EB	215	241	966	80	-	
		45+40	-	70+00	USH 10, WB	285	198	114	30	-	
		PROJECT TOTALS				500	520	1,080	110	0	
PROJECT 1500-37-76											
	0010										
		70+00	-	72+50	USH 10, EB	26	1,131	31	10	-	
		70+00	-	72+50	USH 10, WB	-	1,110	84	10	-	
		72+50	-	82+03	USH 10, EB	-	5,444	-	-	-	
		72+50	-	82+03	USH 10, WB	-	5,325	147	10	-	
		77+50	-	82+03	USH 10, EB	-	826	-	-	-	MEDIAN
		84+63	-	93+50	USH 10, EB	-	5,265	94	10	-	
		84+63	-	93+50	USH 10, WB	-	5,083	67	10	-	
		84+63	-	93+04	USH 10, EB	-	2,241	-	-	-	MEDIAN
		93+50	-	99+35	USH 10, EB	96	2,350	110	-	27	
		93+50	-	99+35	USH 10, WB	222	2,268	134	10	-	
		99+35	-	103+00	USH 10, EB	-	1,642	128	-	27	
		99+35	-	103+00	USH 10, WB	25	1,604	70	10	-	
		103+00	-	106+50	USH 10, EB	15	1,512	140	20	-	
		103+00	-	106+50	USH 10, WB	43	1,423	150	20	-	
		106+50	-	110+00	USH 10, EB	71	1,494	110	20	-	
		106+50	-	110+00	USH 10, WB	24	1,368	140	20	54	
		110+00	-	118+25	USH 10, EB	250	3,335	135	10	-	
		110+00	-	118+25	USH 10, WB	-	3,899	160	20	-	
		115+15	-	117+65	USH 10, EB	-	1,236	-	-	-	MEDIAN
		118+25	-	122+00	USH 10, EB	50	1,575	148	20	-	
		118+25	-	122+00	USH 10, WB	70	1,553	185	20	-	
		118+82	-	121+66	USH 10, EB	-	1,409	-	-	-	MEDIAN
		122+00	-	125+50	USH 10, EB	66	1,416	180	20	-	
		122+00	-	125+50	USH 10, WB	96	1,284	200	20	-	
		125+50	-	128+15	USH 10, EB	32	1,086	187	20	-	
		125+50	-	128+15	USH 10, WB	30	1,100	180	20	-	
		128+15	-	131+00	USH 10, EB	62	1,056	200	20	-	
		128+15	-	131+00	USH 10, WB	-	1,216	170	20	-	
		131+00	-	131+75	USH 10, EB	-	293	100	10	-	INCLUDES MEDIAN
		131+00	-	131+75	USH 10, WB	-	272	100	10	-	
		10+48	-	10+75	FLEETWOOD DR	-	217	-	-	-	
		12+92	-	13+18	FLEETWOOD DR	30	-	-	-	-	
		9+40	-	9+57	23RD ST	-	163	-	-	-	
		10+68	-	10+95	23RD ST	-	278	-	-	-	
		9+35	-	9+57	21ST ST	-	225	-	-	-	
		10+66	-	11+00	21ST ST	31	263	-	-	-	
		9+40	-	9+55	20TH ST	-	155	-	-	-	
		10+69	-	10+85	PARK ROW BLVD (SB)	-	76	-	-	-	
		10+44	-	10+60	PARK ROW BLVD (NB)	-	78	-	-	-	
		10+43	-	10+65	ELM ST	-	188	-	-	-	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE SIDEWALK AND DRIVEWAY (CONTINUED)

ID	CATEGORY	STATION	TO	STATION	LOCATION	416.0160 DRIVEWAY 6-INCH SY	602.0405 SIDEWALK 4-INCH SF	602.0415 SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD (YELLOW) SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL (YELLOW) SF	COMMENT
PROJECT 1500-37-76											
	0010										
		9+00	-	9+52	18TH ST	12	502	-	-	-	
		10+67	-	10+90	18TH ST	-	220	-	-	-	
		9+30	-	9+55	17TH ST	-	247	-	-	-	
		10+70	-	10+85	17TH ST	-	143	-	-	-	
		9+35	-	9+75	16TH ST	-	201	-	-	-	
		10+70	-	10+85	16TH ST	-	148	-	-	-	
		9+35	-	9+56	15TH ST	-	202	-	-	-	
		10+68	-	11+00	15TH ST	-	314	-	-	-	
		9+30	-	9+56	14TH ST	-	278	-	-	-	
		10+68	-	10+85	14TH ST	-	166	-	-	-	
					UNDISTRIBUTED	199	-	-	-	-	MATCH JOINTS
		PROJECT TOTALS				1,450	64,880	3,350	360	108	
		TOTALS				1,950	65,400	4,430	470	108	

NOTE: CURB RAMPS TO BE PAID AS 6-INCH SIDEWALK

RIPRAP & GEOTEXTILE FABRIC

ID	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
PROJECT 1500-37-76				
	91+57	STH 10 / STH 42, RT	10	20
	TOTALS		10	20

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

STORM SEWER PIPE

ID	FROM STRUCT.	-	TO STRUCT.	608.0312 REINF. CONC. CLASS III 12-INCH LF	608.0315 REINF. CONC. CLASS III 15-INCH LF	608.0318 REINF. CONC. CLASS III 18-INCH LF	608.0324 REINF. CONC. CLASS III 24-INCH LF	608.0330 REINF. CONC. CLASS III 30-INCH LF	608.0336 REINF. CONC. CLASS III 36-INCH LF	608.0372 REINF. CONC. CLASS III 72-INCH LF	608.3030 CLASS III-A 30-INCH LF	SPV.0090.04 TELEVISING SEWER LF	SPV.0090.09 STEEL CASING PIPE 42-INCH LF	INLET ELEV	DISC ELEV	SLOPE FT/FT
PROJECT 1500-47-71																
	IN-1.0	-	MH-2.0	---	22	---	---	---	---	---	---	---	---	648.52	648.00	0.024
	MH-2.0	-	MH-3.0	---	55	---	---	---	---	---	---	---	---	648.00	647.39	0.011
	PROJECT TOTALS			0	77	0	0	0	0	0	0	0	0			
PROJECT 1500-37-76																
	MH-18.0	-	MH-20.0	---	79	---	---	---	---	---	---	79	---	633.77	633.37	0.0050
	MH-20.0	-	CB-22.0	---	---	---	14	---	---	---	---	14	---	631.50	631.21	0.0200
	CB-20.1	-	CB-20.2	10	---	---	---	---	---	---	---	---	---	636.21	636.16	0.0050
	CB-20.2	-	CB-20.4	26	---	---	---	---	---	---	---	---	---	636.16	636.04	0.0050
	CB-20.3	-	CB-20.4	10	---	---	---	---	---	---	---	---	---	636.26	636.22	0.0050
	CB-20.4	-	CB-20.6	12	---	---	---	---	---	---	---	---	---	636.04	635.97	0.0050
	CB-20.5	-	CB-20.6	10	---	---	---	---	---	---	---	---	---	636.08	636.03	0.0050
	CB-20.6	-	MH-20.0	---	22	---	---	---	---	---	---	---	---	635.72	635.61	0.0050
	CB-20.7	-	MH-22.0	10	---	---	---	---	---	---	---	---	---	636.13	636.08	0.0050
	CB-22.0	-	OF-1B	---	---	---	49	---	---	---	---	49	---	630.01	629.00	0.0211
	CB-24.1	-	MH-24.3	41	---	---	---	---	---	---	---	---	---	638.85	638.73	0.0029
	MH-24.0	-	MH-20.0	---	---	---	145	---	---	---	---	145	---	636.90	634.00	0.0200
	MH-24.3	-	MH-24.0	110	---	---	---	---	---	---	---	---	---	638.63	638.30	0.0030
	CB-24.2	-	MH-24.3	22	---	---	---	---	---	---	---	---	---	638.70	638.63	0.0030
	MH-26.0	-	MH-24.0	---	---	---	91	---	---	---	---	91	---	638.73	636.90	0.0201
	CB-26.1	-	CB-26.2	26	---	---	---	---	---	---	---	---	---	639.97	639.84	0.0050
	CB-26.2	-	CB-26.3	22	---	---	---	---	---	---	---	---	---	639.84	639.73	0.0050
	CB-26.3	-	MH-26.0	11	---	---	---	---	---	---	---	---	---	639.73	639.68	0.0050
	CB-26.4	-	MH-26.0	15	---	---	---	---	---	---	---	---	---	640.06	639.99	0.0050
	MH-28.0	-	MH-26.0	---	---	---	284	---	---	---	---	284	---	652.92	638.73	0.0500
	CB-28.1	-	CB-28.2	26	---	---	---	---	---	---	---	---	---	653.56	653.43	0.0050
	CB-28.2	-	CB-28.3	13	---	---		---	---	---	---	---	---	653.43	653.37	0.0050
	CB-28.3	-	MH-28.0	11	---	---	---	---	---	---	---	---	---	653.37	653.31	0.0050
	CB-28.4	-	MH-28.0	15	---	---	---	---	---	---	---	---	---	653.77	653.70	0.0050
	MH-30.0	-	MH-28.0	---	---	---	300	---	---	---	---	300	---	666.42	652.92	0.0450
	CB-30.1	-	CB-30.2	26	---	---	---	---	---	---	---	---	---	667.48	667.35	0.0050
	CB-30.2	-	CB-30.3	9	---	---	---	---	---	---	---	---	---	667.35	667.31	0.0050
	CB-30.3	-	MH-30.0	11	---	---	---	---	---	---	---	---	---	667.30	667.25	0.0050
	CB-30.4	-	MH-30.0	14	---	---	---	---	---	---	---	---	---	667.31	667.24	0.0050
	MH-40.0	-	MH-42.0	---	---	---	287	---	---	---	---	287	---	668.73	657.25	0.0400
	CB-40.1	-	CB-40.2	26	---	---	---	---	---	---	---	---	---	669.85	669.72	0.0050
	CB-40.2	-	CB-40.3	8	---	---	---	---	---	---	---	---	---	669.72	669.68	0.0050

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

STORM SEWER PIPE CONT.

ID	FROM STRUCT.	-	TO STRUCT.	608.0312 REINF. CONC. CLASS III 12-INCH LF	608.0315 REINF. CONC. CLASS III 15-INCH LF	608.0318 REINF. CONC. CLASS III 18-INCH LF	608.0324 REINF. CONC. CLASS III 24-INCH LF	608.0330 REINF. CONC. CLASS III 30-INCH LF	608.0336 REINF. CONC. CLASS III 36-INCH LF	608.0372 REINF. CONC. CLASS III 72-INCH LF	608.3030 CLASS III-A 30-INCH LF	SPV.0090.04 TELEVISING SEWER LF	SPV.0090.09 STEEL CASING PIPE 42-INCH LF	INLET ELEV	DISC ELEV	SLOPE FT/FT
PROJECT 1500-37-76 CONT.																
	CB-40.3	-	MH-40.0	8	---	---	---	---	---	---	---	---	---	669.68	669.64	0.0050
	CB-40.4	-	MH-40.0	18	---	---	---	---	---	---	---	---	---	669.62	669.53	0.0050
	MH-42.0	-	MH-44.0	---	---	---	291	---	---	---	---	291	---	657.25	642.68	0.0501
	CB-42.1	-	CB-42.2	26	---	---	---	---	---	---	---	---	---	658.32	658.19	0.0050
	CB-42.2	-	CB-42.3	9	---	---	---	---	---	---	---	---	---	658.19	658.14	0.0050
	CB-42.3	-	MH-42.0	8	---	---	---	---	---	---	---	---	---	658.14	658.10	0.0049
	CB-42.4	-	MH-42.0	18	---	---	---	---	---	---	---	---	---	658.08	657.99	0.0050
	MH-44.0	-	MH-46.0	---	---	---	66	---	---	---	---	66	---	642.68	639.34	0.0505
	CB-44.1	-	CB-44.2	26	---	---	---	---	---	---	---	---	---	645.21	645.08	0.0049
	CB-44.2	-	CB-44.3	10	---	---	---	---	---	---	---	---	---	645.08	645.03	0.0049
	CB-44.3	-	MH-44.0	9	---	---	---	---	---	---	---	---	---	645.03	644.99	0.0050
	CB-44.4	-	MH-44.0	17	---	---	---	---	---	---	---	---	---	645.12	645.04	0.0050
	EX MH	-	MH-46.0	---	---	---	---	---	---	94	---	---	---	631.50	628.97	0.0269
	MH-46.0	-	OF-2	---	---	---	---	---	---	74	---	74	---	628.97	626.96	0.0270
	MH-48.0	-	MH-46.0	---	---	---	---	---	131	---	---	131	---	631.96	631.71	0.0020
	CB-48.1	-	CB-48.2	46	---	---	---	---	---	---	---	---	---	642.26	642.03	0.0050
	CB-48.10	-	CB-48.9	10	---	---	---	---	---	---	---	---	---	641.69	641.64	0.0050
	CB-48.11	-	CB-48.10	49	---	---	---	---	---	---	---	---	---	641.93	641.69	0.0050
	CB-48.12	-	CB-48.11	36	---	---	---	---	---	---	---	---	---	642.11	641.93	0.0050
	CB-48.2	-	CB-48.4	---	55	---	---	---	---	---	---	---	---	639.70	639.43	0.0050
	CB-48.3	-	CB-48.5	---	26	---	---	---	---	---	---	---	---	639.38	639.25	0.0050
	CB-48.4	-	CB-48.3	---	10	---	---	---	---	---	---	---	---	639.43	639.38	0.0050
	CB-48.5	-	CB-48.7	---	10	---	---	---	---	---	---	---	---	639.25	639.20	0.0050
	CB-48.6	-	CB-48.5	10	---	---	---	---	---	---	---	---	---	641.61	641.56	0.0050
	CB-48.7	-	MH-48.0	---	---	18	---	---	---	---	---	---	---	638.95	638.86	0.0050
	CB-48.8	-	CB-48.7	8	---	---	---	---	---	---	---	---	---	641.51	641.46	0.0062
	CB-48.9	-	MH-48.0	---	20	---	---	---	---	---	---	---	---	641.39	641.29	0.0050
	MH-50.0	-	MH-48.0	---	---	---	---	---	120	---	---	120	---	632.21	631.96	0.0020
	CB-50.1	-	CB-50.2	38	---	---	---	---	---	---	---	---	---	642.57	642.38	0.0050
	CB-50.2	-	CB-50.3	12	---	---	---	---	---	---	---	---	---	642.38	642.32	0.0050
	CB-50.3	-	MH-50.0	7	---	---	---	---	---	---	---	---	---	642.32	642.29	0.0051
	CB-50.4	-	MH-50.0	20	---	---	---	---	---	---	---	---	---	642.65	642.55	0.0050
	MH-52.0	-	MH-50.0	---	---	---	---	---	147	---	---	147	---	632.50	632.21	0.0020
	CB-52.1	-	CB-52.2	26	---	---	---	---	---	---	---	---	---	643.19	643.06	0.0050
	CB-52.2	-	MH-52.0	17	---	---	---	---	---	---	---	---	---	643.06	642.98	0.0050
	CB-52.3	-	MH-52.0	10	---	---	---	---	---	---	---	---	---	643.41	643.36	0.0050
	CB-52.4	-	CB-52.3	26	---	---	---	---	---	---	---	---	---	643.54	643.41	0.0050
	MH-54.0	-	MH-52.0	---	---	---	---	---	300	---	---	300	---	633.10	632.50	0.0020

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER PIPE CONT.

ID	FROM STRUCT.	-	TO STRUCT.	608.0312 REINF. CONC. CLASS III 12-INCH LF	608.0315 REINF. CONC. CLASS III 15-INCH LF	608.0318 REINF. CONC. CLASS III 18-INCH LF	608.0324 REINF. CONC. CLASS III 24-INCH LF	608.0330 REINF. CONC. CLASS III 30-INCH LF	608.0336 REINF. CONC. CLASS III 36-INCH LF	608.0372 REINF. CONC. CLASS III 72-INCH LF	608.3030 CLASS III-A 30-INCH LF	SPV.0090.04 TELEVISING SEWER LF	SPV.0090.09 STEEL CASING PIPE 42-INCH LF	INLET ELEV	DISC ELEV	SLOPE FT/FT
PROJECT 1500-37-76 CONT.																
	CB-54.1	-	CB-54.2	26	---	---	---	---	---	---	---	---	---	642.80	642.67	0.0050
	CB-54.2	-	MH-54.0	17	---	---	---	---	---	---	---	---	---	642.67	642.59	0.0050
	CB-54.3	-	MH-54.0	10	---	---	---	---	---	---	---	---	---	642.54	642.49	0.0050
	CB-54.4	-	CB-54.3	26	---	---	---	---	---	---	---	---	---	642.67	642.54	0.0050
	CB-56.1	-	MH-58.0	---	7	---	---	---	---	---	---	---	---	641.31	641.27	0.0050
	CB-56.2	-	CB-56.1	---	10	---	---	---	---	---	---	---	---	641.36	641.31	0.0050
	CB-56.3	-	CB-56.2	---	31	---	---	---	---	---	---	---	---	641.51	641.36	0.0050
	CB-56.4	-	CB-56.3	10	---	---	---	---	---	---	---	---	---	641.81	641.76	0.0050
	CB-56.5	-	CB-56.4	23	---	---	---	---	---	---	---	---	---	641.93	641.81	0.0050
	CB-56.6	-	CB-56.5	49	---	---	---	---	---	---	---	---	---	642.17	641.93	0.0050
	MH-58.0	-	MH-54.0	---	---	---	---	142	---	---	---	142	---	633.88	633.60	0.0020
	CB-58.1	-	CB-58.2	33	---	---	---	---	---	---	---	---	---	644.47	642.62	0.0551
	CB-58.2	-	CB-58.3	36	---	---	---	---	---	---	---	---	---	642.62	642.27	0.0100
	CB-58.3	-	CB-58.5	26	---	---	---	---	---	---	---	---	---	642.27	642.01	0.0100
	CB-58.4	-	CB-58.5	10	---	---	---	---	---	---	---	---	---	642.40	642.35	0.0050
	CB-58.5	-	MH-58.0	---	16	---	---	---	---	---	---	---	---	641.76	641.60	0.0100
	MH-60.0	-	MH-58.0	---	---	---	---	---	---	---	103	103	72	640.58	640.37	0.0020
	MH-64.0	-	MH-60.0	---	---	---	---	251	---	---	---	251	---	641.08	640.58	0.0020
	CB-64.1	-	CB-64.2	35	---	---	---	---	---	---	---	---	---	644.79	644.62	0.0050
	CB-64.2	-	MH-64.0	75	---	---	---	---	---	---	---	---	---	644.62	644.24	0.0050
	CB-64.3	-	CB-64.4	42	---	---	---	---	---	---	---	---	---	644.41	644.07	0.0080
	CB-64.4	-	MH-64.0	12	---	---	---	---	---	---	---	---	---	644.07	643.96	0.0100
	CB-64.5	-	MH-64.0	---	11	---	---	---	---	---	---	---	---	644.68	644.62	0.0051
	CB-64.6	-	CB-64.5	30	---	---	---	---	---	---	---	---	---	645.08	644.93	0.0050
	CB-64.7	-	CB-64.6	31	---	---	---	---	---	---	---	---	---	645.23	645.08	0.0050
	CB-64.8	-	CB-64.7	37	---	---	---	---	---	---	---	---	---	645.42	645.23	0.0050
	MH-66.0	-	MH-64.0	---	---	---	264	---	---	---	---	264	---	642.38	641.58	0.0031
	CB-66.1	-	CB-66.2	40	---	---	---	---	---	---	---	---	---	643.00	642.81	0.0050
	CB-66.1A	-	CB-66.1	27	---	---	---	---	---	---	---	---	---	644.80	644.66	0.0050
	CB-66.2	-	CB-66.3	29	---	---	---	---	---	---	---	---	---	642.81	642.66	0.0050
	CB-66.3	-	MH-66.0	---	15	---	---	---	---	---	---	---	---	642.45	642.38	0.0050
	CB-66.4	-	MH-66.0	31	---	---	---	---	---	---	---	---	---	643.70	643.35	0.0109
	MH-66.5	-	CB-66.4	28	---	---	---	---	---	---	---	---	---	643.98	643.70	0.0100
	MH-68.0	-	MH-70.0	---	---	---	240	---	---	---	---	240	---	642.86	641.66	0.0050
	CB-68.1	-	CB-68.1A	27	---	---	---	---	---	---	---	---	---	644.52	644.39	0.0050
	CB-68.1A	-	CB-68.2	27	---	---	---	---	---	---	---	---	---	644.39	644.25	0.0050
	CB-68.2	-	CB-68.3	27	---	---	---	---	---	---	---	---	---	644.25	644.11	0.0050
	CB-68.3	-	CB-68.4	---	16	---	---	---	---	---	---	---	---	643.86	643.78	0.0050
	CB-68.4	-	MH-68.0	---	18	---	---	---	---	---	---	---	---	643.78	634.69	0.0050

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER PIPE CONT.

ID	FROM STRUCT.	-	TO STRUCT.	608.0312 REINF. CONC. CLASS III 12-INCH LF	608.0315 REINF. CONC. CLASS III 15-INCH LF	608.0318 REINF. CONC. CLASS III 18-INCH LF	608.0324 REINF. CONC. CLASS III 24-INCH LF	608.0330 REINF. CONC. CLASS III 30-INCH LF	608.0336 REINF. CONC. CLASS III 36-INCH LF	608.0372 REINF. CONC. CLASS III 72-INCH LF	608.3030 CLASS III-A 30-INCH LF	SPV.0090.04 TELEVISING SEWER LF	SPV.0090.09 STEEL CASING PIPE 42-INCH LF	INLET ELEV	DISC ELEV	SLOPE FT/FT
PROJECT 1500-37-76 CONT.																
	MH-70.0	-	MH-72.0	---	---	---	313	---	---	---	---	313	---	641.66	640.09	0.0050
	CB-70.1	-	CB-70.2	29	---	---	---	---	---	---	---	---	---	642.46	642.32	0.0050
	CB-70.2	-	CB-70.3	32	---	---	---	---	---	---	---	---	---	642.32	642.16	0.0050
	CB-70.3	-	CB-70.4	32	---	---	---	---	---	---	---	---	---	642.16	642.00	0.0050
	CB-70.4	-	CB-70.5	---	11	---	---	---	---	---	---	---	---	641.81	641.75	0.0050
	CB-70.5	-	MH-70.0	---	18	---	---	---	---	---	---	---	---	641.75	641.66	0.0050
	CB-70.6	-	MH-70.0	14	---	---	---	---	---	---	---	---	---	642.74	642.66	0.0056
	MH-72.0	-	MH-74.0	---	---	---	234	---	---	---	---	234	---	640.09	638.92	0.0050
	CB-72.1	-	CB-72.2	26	---	---	---	---	---	---	---	---	---	641.09	640.96	0.0050
	CB-72.2	-	CB-72.3	23	---	---	---	---	---	---	---	---	---	640.96	640.84	0.0050
	CB-72.3	-	MH-72.0	11	---	---	---	---	---	---	---	---	---	640.84	640.79	0.0050
	CB-72.4	-	MH-72.0	15	---	---	---	---	---	---	---	---	---	640.98	640.90	0.0050
	MH-74.0	-	MH-76.0	---	---	---	256	---	---	---	---	256	---	638.92	637.00	0.0075
	CB-74.1	-	CB-74.2	26	---	---	---	---	---	---	---	---	---	639.79	639.66	0.0050
	CB-74.2	-	CB-74.3	8	---	---	---	---	---	---	---	---	---	639.66	639.63	0.0047
	CB-74.3	-	MH-74.0	26	---	---	---	---	---	---	---	---	---	639.63	639.49	0.0051
	CB-74.4	-	MH-74.0	15	---	---	---	---	---	---	---	---	---	639.21	639.14	0.0050
	MH-76.0	-	MH-82.0	---	---	---	49	---	---	---	---	49	---	637.00	636.63	0.0075
	CB-76.1	-	CB-76.2	31	---	---	---	---	---	---	---	---	---	638.43	638.28	0.0050
	CB-76.2	-	CB-76.3	7	---	---	---	---	---	---	---	---	---	638.28	638.24	0.0050
	CB-76.3	-	MH-76.0	30	---	---	---	---	---	---	---	---	---	638.24	638.09	0.0050
	CB-76.4	-	MH-76.0	21	---	---	---	---	---	---	---	---	---	638.56	638.46	0.0050
	MH-78.0	-	MH-82.0	---	---	---	87	---	---	---	---	---	---	637.39	636.95	0.0050
	CB-78.1	-	MH-78.0	14	---	---	---	---	---	---	---	---	---	638.24	638.17	0.0048
	CB-78.2	-	MH-78.0	27	---	---	---	---	---	---	---	---	---	637.57	637.44	0.0050
	MH-80.0	-	MH-82.0	---	59	---	---	---	---	---	---	---	---	636.84	636.63	0.0037
	CB-80.1	-	MH-80.0	23	---	---	---	---	---	---	---	---	---	638.08	637.91	0.0075
	CB-80.2	-	MH-80.0	37	---	---	---	---	---	---	---	---	---	638.24	638.05	0.0050
	MH-82.0	-	MH-84.0	---	---	---	234	---	---	---	---	234	---	636.63	633.11	0.0150
	MH-84.0	-	MH-86.0	---	---	---	111	---	---	---	---	111	---	633.11	630.87	0.0175
	CB-84.1	-	CB-84.2	42	---	---	---	---	---	---	---	---	---	634.53	634.32	0.0050
	CB-84.2	-	CB-84.3	7	---	---	---	---	---	---	---	---	---	634.32	634.29	0.0050
	CB-84.3	-	MH-84.0	11	---	---	---	---	---	---	---	---	---	634.28	634.23	0.0050
	CB-84.4	-	MH-84.0	15	---	---	---	---	---	---	---	---	---	634.56	634.49	0.0050
	MH-86.0	-	MH-90.0	---	---	---	---	164	---	---	---	164	---	630.87	629.23	0.0100
	CB-86.1	-	CB-86.2	27	---	---	---	---	---	---	---	---	---	632.93	632.79	0.0050
	CB-86.2	-	CB-86.3	43	---	---	---	---	---	---	---	---	---	632.79	632.57	0.0050
	CB-86.3	-	CB-86.4	42	---	---	---	---	---	---	---	---	---	632.57	632.36	0.0050

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER PIPE CONT.

ID	FROM STRUCT.	-	TO STRUCT.	608.0312 REINF. CONC. CLASS III 12-INCH LF	608.0315 REINF. CONC. CLASS III 15-INCH LF	608.0318 REINF. CONC. CLASS III 18-INCH LF	608.0324 REINF. CONC. CLASS III 24-INCH LF	608.0330 REINF. CONC. CLASS III 30-INCH LF	608.0336 REINF. CONC. CLASS III 36-INCH LF	608.0372 REINF. CONC. CLASS III 72-INCH LF	608.3030 CLASS III-A 30-INCH LF	SPV.0090.04 TELEVISING SEWER LF	SPV.0090.09 STEEL CASING PIPE 42-INCH LF	INLET ELEV	DISC ELEV	SLOPE FT/FT
PROJECT 1500-37-76 CONT.																
	CB-86.4	-	CB-86.5	---	7	---	---	---	---	---	---	---	---	632.11	632.08	0.0050
	CB-86.5	-	MH-86.0	---	12	---	---	---	---	---	---	---	---	632.08	632.02	0.0050
	CB-86.6	-	MH-86.0	14	---	---	---	---	---	---	---	---	---	632.70	632.63	0.0050
	CB-86.8	-	CB-86.7	28	---	---	---	---	---	---	---	---	---	633.05	632.91	0.0050
	CB-86.7	-	CB-86.6	41	---	---	---	---	---	---	---	---	---	632.91	632.70	0.0050
	MH-90.0	-	MH-92.0	---	---	---	---	190	---	---	---	190	---	629.23	627.33	0.0100
	CB-90.1	-	CB-90.2	26	---	---	---	---	---	---	---	---	---	630.76	630.63	0.0050
	CB-90.2	-	CB-90.3	23	---	---	---	---	---	---	---	---	---	630.63	630.52	0.0050
	CB-90.3	-	MH-90.0	11	---	---	---	---	---	---	---	---	---	630.52	630.46	0.0055
	CB-90.4	-	MH-90.0	15	---	---	---	---	---	---	---	---	---	630.84	630.77	0.0047
	MH-92.0	-	MH-96.0	---	---	---	---	---	260	---	---	260	---	627.33	624.73	0.0100
	CB-92.1	-	CB-92.2	28	---	---	---	---	---	---	---	---	---	628.64	628.50	0.0050
	CB-92.2	-	CB-92.3	39	---	---	---	---	---	---	---	---	---	628.50	628.30	0.0050
	CB-92.3	-	CB-92.4	31	---	---	---	---	---	---	---	---	---	628.30	628.15	0.0050
	CB-92.4	-	CB-92.5	---	13	---	---	---	---	---	---	---	---	627.90	627.83	0.0050
	CB-92.5	-	MH-92.0	---	16	---	---	---	---	---	---	---	---	627.83	627.75	0.0050
	CB-92.6	-	MH-92.0	15	---	---	---	---	---	---	---	---	---	628.12	628.05	0.0047
	CB-92.8	-	CB-92.7	28	---	---	---	---	---	---	---	---	---	628.45	628.31	0.0050
	CB-92.7	-	CB-92.6	37	---	---	---	---	---	---	---	---	---	628.31	628.12	0.0050
	MH-96.0	-	MH-100.0	---	---	---	---	---	284	---	---	284	---	624.73	621.90	0.0100
	CB-96.1	-	CB-96.2	28	---	---	---	---	---	---	---	---	---	628.64	628.50	0.0050
	CB-96.2	-	CB-96.3	37	---	---	---	---	---	---	---	---	---	628.50	628.31	0.0050
	CB-96.3	-	CB-96.4	30	---	---	---	---	---	---	---	---	---	628.31	628.16	0.0050
	CB-96.4	-	CB-96.5	---	14	---	---	---	---	---	---	---	---	627.91	627.84	0.0050
	CB-96.5	-	MH-96.0	---	16	---	---	---	---	---	---	---	---	627.84	627.76	0.0050
	CB-96.6	-	MH-96.0	15	---	---	---	---	---	---	---	---	---	628.22	628.15	0.0050
	CB-96.7	-	CB-96.6	37	---	---	---	---	---	---	---	---	---	628.40	628.22	0.0050
	CB-96.8	-	CB-96.7	28	---	---	---	---	---	---	---	---	---	628.54	628.40	0.0050
	MH-100.0	-	EX. PIPE	---	---	---	---	---	104	---	---	104	---	621.90	620.85	0.0100
	CB-100.1	-	CB-100.2	36	---	---	---	---	---	---	---	---	---	624.54	624.36	0.0050
	CB-100.2	-	CB-100.3	39	---	---	---	---	---	---	---	---	---	624.36	624.15	0.0053
	CB-100.3	-	CB-100.4	31	---	---	---	---	---	---	---	---	---	624.15	623.99	0.0050
	CB-100.4	-	CB-100.5	---	13	---	---	---	---	---	---	---	---	623.74	623.68	0.0050
	CB-100.5	-	MH-100.0	---	17	---	---	---	---	---	---	---	---	623.68	623.59	0.0050
	CB-100.6	-	MH-100.0	15	---	---	---	---	---	---	---	---	---	624.31	624.24	0.0050
	CB-100.7	-	CB-100.6	36	---	---	---	---	---	---	---	---	---	624.49	624.31	0.0050
	CB-100.8	-	CB-100.7	29	---	---	---	---	---	---	---	---	---	624.63	624.49	0.0050
	PROJECT TOTALS			3043	542	18	3315	747	1346	168	103	5577	72			
	TOTALS			3043	619	18	3315	747	1346	168	103	5577	72			

*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER MANHOLES AND MANHOLE COVERS

ID	STRUCTURE	STA.	OFFSET*	LOCATION	611.0535 MANHOLE COVERS TYPE J-S EA	611.2004 MANHOLES 4-FT DIAMETER EA	611.2005 MANHOLES 5-FT DIA. EA	611.2008 MANHOLES 8-FT DIA. EA	SPV.0060.05 MANHOLES 10-FT DIAMETER SPECIAL EA	650.4000**** CONSTRUCTION STAKING STORM SEWER EA	RIM ELEV.	INVERT** ELEV.	DEPTH*** FT
PROJECT 1500-47-71													
	MH-2.0	45+08	34.9' LT	USH 10 WB	1	1	---	---	---	1	655.63	648.00	6.57
	MH-3.0	45+21	5.0' LT	USH 10 EB	1	---	---	1	---	1	654.61	646.88	6.71
		PROJECT TOTALS			2	1	0	1	0	2			
PROJECT 1500-37-76													
	MH-18.0	70+03	6' LT	USH 10 EB	1	1	---	---	---	1	641.69	633.77	6.86
	MH-20.0	70+80	11' RT	USH 10 EB	1	---	1	---	---	1	641.00	631.50	8.50
	MH-24.0	72+25	11' RT	USH 10 EB	1	1	---	---	---	1	642.58	636.90	4.68
	MH-24.3	10+76	14.0 LT	FLEETWOOD DR.	1	---	1	---	---	1	643.07	638.63	3.44
	MH-26.0	73+16	11' RT	USH 10 EB	1	1	---	---	---	1	645.22	638.73	5.49
	MH-28.0	76+00	11' RT	USH 10 EB	1	1	---	---	---	1	658.82	652.92	4.90
	MH-30.0	79+00	11' RT	USH 10 EB	1	1	---	---	---	1	672.52	666.42	5.10
	MH-40.0	85+13	7.8' RT	USH 10 EB	1	1	---	---	---	1	674.54	668.73	4.82
	MH-42.0	88+00	7.8' RT	USH 10 EB	1	1	---	---	---	1	662.91	657.25	4.67
	MH-44.0	90+91	8.7' RT	USH 10 EB	1	1	---	---	---	1	649.97	642.68	6.30
	MH-46.0	91+57	7.4' RT	USH 10 EB	1	---	---	---	1	1	648.36	628.97	18.72
	MH-48.0	92+88	6' RT	USH 10 EB	1	---	1	---	---	1	647.06	631.96	14.18
	MH-50.0	94+08	6' RT	USH 10 EB	1	---	1	---	---	1	647.57	632.21	14.44
	MH-52.0	95+54	8' LT	USH 10 EB	1	---	1	---	---	1	648.87	632.50	15.45
	MH-54.0	98+54	8' LT	USH 10 EB	1	---	1	---	---	1	648.08	633.10	14.07
	MH-58.0	99+97	7.9' LT	USH 10 EB	1	---	1	---	---	1	647.28	633.88	12.45
	MH-60.0	101+00	8' LT	USH 10 EB	1	---	1	---	---	1	648.63	640.58	7.09
	MH-64.0	103+51	8' LT	USH 10 EB	1	---	1	---	---	1	649.89	641.08	7.86
	MH-66.0	106+15	5.8' LT	USH 10 EB	---	1	---	---	---	1	649.89	642.38	6.51
	MH-66.5	09+57	22.2' LT	N. 20TH ST.	1	1	---	---	---	1	650.02	643.98	4.96
	MH-68.0	107+23	11' RT	USH 10 EB	1	1	---	---	---	1	649.77	642.86	5.91
	MH-70.0	109+63	11' RT	USH 10 EB	1	1	---	---	---	1	647.37	641.66	4.72
	MH-72.0	112+76	11' RT	USH 10 EB	1	1	---	---	---	1	645.75	640.09	4.67
	MH-74.0	115+11	11' RT	USH 10 EB	1	1	---	---	---	1	644.55	638.92	4.64
	MH-76.0	117+67	11' RT	USH 10 EB	1	---	1	---	---	1	643.17	637.00	5.18
	MH-78.0	10+76	7.7' LT	N 18TH ST	1	1	---	---	---	1	643.03	637.39	4.64
	MH-80.0	09+30	6.2' LT	N. 18TH ST.	1	1	---	---	---	1	643.25	636.84	5.35
	MH-82.0	118+16	11' RT	USH 10 EB	1	---	1	---	---	1	642.87	636.63	5.24
	MH-84.0	120+50	11' RT	USH 10 EB	1	1	---	---	---	1	639.42	633.11	5.32
	MH-86.0	121+61	11.1' RT	USH 10 EB	1	---	1	---	---	1	637.60	630.87	5.78
	MH-90.0	123+25	11' RT	USH 10 EB	1	---	1	---	---	1	635.73	629.23	5.55
	MH-92.0	125+15	11' RT	USH 10 EB	1	---	1	---	---	1	633.78	627.33	5.53
	MH-96.0	127+75	11' RT	USH 10 EB	1	---	1	---	---	1	632.78	624.73	7.14
	MH-100.0	130+59	11' RT	USH 10 EB	1	---	1	---	---	1	630.51	621.90	7.69
		PROJECT TOTALS			33	17	16	0	1	34			
		TOTALS			35	18	16	1	1	36			

NOTES:
* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT
**** ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER CATCH BASINS & INLETS AND COVERS

ID	STRUCT.	STA.	OFFSET*	LOCATION	611.0624 INLET COVERS TYPE H EA	611.0639 INLET COVERS TYPE H-S EA	611.0642 INLET COVERS TYPE MS EA	SPV.0060.01 INLET COVERS TYPE BH EA	611.1004 CATCH BASINS 4-FT DIA. EA	611.1005 CATCH BASINS 5-FT DIA. EA	611.1230 CATCH BASINS 2x3-FT EA	611.3003 INLETS 3-FT DIA. EA	611.3230 INLETS 3X2-FT EA	611.3901 INLETS MEDIAN 1 GRATE EA	650.4000**** CONSTR. STAKING STORM SEWER EA	RIM ELEV.	INVERT** ELEV.	DEPTH*** FT
PROJECT 1500-47-71																		
	IN-1.0	45+01	55.5' LT	USH 10 WB	---	---	1	---	---	---	---	---	---	1	1	653.30	648.52	4.95
			PROJECT TOTALS		0	0	1	0	0	0	0	0	0	1	1			
PROJECT 1500-37-76																		
	CB-20.1	70+90	25.4' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	640.79	634.21	5.57
	CB-20.2	70+80	25.2' LT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	640.78	634.16	5.62
	CB-20.3	70+90	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	640.84	634.26	5.57
	CB-20.4	70+80	0.5' RT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	640.83	634.04	5.79
	CB-20.5	70+90	12.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	640.65	634.08	5.57
	CB-20.6	70+80	12.7' RT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	640.64	633.72	5.92
	CB-20.7	70+90	25.4' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	640.71	634.13	5.57
	IN-22.0	70+80	25.3' RT	USH 10 EB	---	1	---	---	---	---	---	---	1	---	1	640.70	630.04	9.91
	CB-24.1	10+64	25.8' RT	FLEETWOOD DR.	---	1	---	---	---	---	1	---	---	---	1	642.42	636.85	4.57
	CB-24.2	10+64	32.8' LT	FLEETWOOD DR.	---	1	---	---	---	---	1	---	---	---	1	642.29	636.63	4.66
	CB-26.1	73+16	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	644.89	637.97	5.91
	CB-26.2	73+17	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	644.97	637.84	6.13
	CB-26.3	73+17	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	645.00	637.73	6.27
	CB-26.4	73+16	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	644.90	638.06	5.84
	CB-28.1	76+00	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	658.29	651.56	5.73
	CB-28.2	76+00	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	658.35	651.43	5.92
	CB-28.3	76+00	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	658.75	651.37	6.38
	CB-28.4	76+00	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	658.51	651.77	5.74
	CB-30.1	79+08	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	672.36	665.48	5.88
	CB-30.2	79+08	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	672.43	665.35	6.08
	CB-30.3	79+00	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	672.27	665.31	5.96
	CB-30.4	79+00	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	672.21	665.31	5.89
	CB-40.1	85+05	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	674.43	667.85	5.58
	CB-40.2	85+05	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	674.80	667.72	6.07
	CB-40.3	85+13	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	674.53	667.68	5.85
	CB-40.4	85+13	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	674.19	667.62	5.58
	CB-42.1	87+92	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	663.05	656.32	5.73
	CB-42.2	87+92	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	663.11	656.19	5.92
	CB-42.3	88+00	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	662.72	656.14	5.58
	CB-42.4	88+00	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	662.66	656.08	5.58
	CB-44.1	90+91	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.79	643.21	5.58
	CB-44.2	90+91	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.85	643.08	5.76
	CB-44.3	90+91	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.82	643.03	5.79
	CB-44.4	90+91	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.70	643.12	5.58

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER CATCH BASINS & INLETS AND COVERS CONT.

ID	STRUCT.	STA.	OFFSET*	LOCATION	611.0624 INLET COVERS TYPE H EA	611.0639 INLET COVERS TYPE H-S EA	611.0642 INLET COVERS TYPE MS EA	SPV.0060.01 INLET COVERS TYPE BH EA	611.1004 CATCH BASINS 4-FT DIA. EA	611.1005 CATCH BASINS 5-FT DIA. EA	611.1230 CATCH BASINS 2x3-FT EA	611.3003 INLETS 3-FT DIA. EA	611.3230 INLETS 3X2-FT EA	611.3901 INLETS MEDIAN 1 GRATE EA	650.4000**** CONSTR. STAKING STORM SEWER EA	RIM ELEV.	INVERT** ELEV.	DEPTH*** FT
PROJECT 1500-37-76 CONT.																		
	CB-48.1	10+78	17.7' RT	N. 23RD ST.	---	1	---	---	---	---	1	---	---	---	1	647.15	640.26	5.89
	CB-48.2	10+87	27.5' LT	N. 23RD ST.	---	1	---	---	1	---	---	---	---	---	1	646.61	637.70	7.91
	CB-48.3	92+90	25.5' LT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	646.97	637.43	8.54
	CB-48.4	92+80	25.5' LT	USH 10 WB	1	---	---	---	---	1	---	---	---	---	1	646.97	637.43	8.54
	CB-48.5	92+90	0.5' RT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	647.02	637.25	8.77
	CB-48.6	92+80	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.03	639.61	6.42
	CB-48.7	92+89	11.6' LT	USH 10 EB	---	1	---	---	---	---	1	---	---	---	1	647.02	636.95	9.06
	CB-48.8	92+96	12.5' LT	USH 10 EB	---	1	---	---	---	---	1	---	---	---	1	647.03	639.51	6.52
	CB-48.9	92+88	25.5' RT	USH 10 EB	---	1	---	---	---	---	1	---	---	---	1	646.85	639.39	6.46
	CB-48.10	92+98	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	646.86	639.69	6.17
	CB-48.11	9+46	18' LT	N. 23RD ST.	---	1	---	---	---	---	1	---	---	---	1	646.62	639.93	5.69
	CB-48.12	9+46	18' RT	N. 23RD ST.	---	1	---	---	---	---	1	---	---	---	1	646.71	640.11	5.60
	CB-50.1	94+04	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.28	640.57	5.71
	CB-50.2	94+04	12.3' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.40	640.38	6.02
	CB-50.3	94+08	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.60	640.32	6.27
	CB-50.4	94+08	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.36	640.65	5.71
	CB-52.1	95+60	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.77	641.19	5.58
	CB-52.2	95+60	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.83	641.06	5.77
	CB-52.3	95+60	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	648.18	641.41	5.77
	CB-52.4	95+60	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	648.12	641.54	5.57
	CB-54.1	98+60	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.38	640.80	5.58
	CB-54.2	98+60	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.44	640.67	5.77
	CB-54.3	98+61	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.30	640.54	5.77
	CB-54.4	98+61	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.24	640.67	5.57
	CB-56.1	99+95	1.2' LT	USH 10 EB	1	---	---	---	1	---	---	---	---	---	1	646.78	639.31	6.47
	CB-56.2	99+85	3.7' LT	USH 10 EB	---	1	---	---	1	---	---	---	---	---	1	646.66	639.36	6.30
	CB-56.3	99+76	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	646.62	639.51	6.11
	CB-56.4	99+66	25.8' RT	USH 10 EB	---	1	---	---	---	---	1	---	---	---	1	646.76	639.81	5.95
	CB-56.5	9+64	14.3' RT	MENCHL DR.	1	---	---	---	---	---	1	---	---	---	1	646.46	639.93	5.53
	CB-56.6	9+25	14.1' LT	MENCHL DR.	1	---	---	---	---	---	1	---	---	---	1	646.75	640.17	5.58
	CB-58.1	100+57	52.7' LT	USH 10 WB	---	---	---	1	---	---	---	1	---	---	1	647.72	644.47	2.92
	CB-58.2	100+38	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	646.99	640.62	5.37
	CB-58.3	100+02	25.5' LT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	646.88	640.27	5.61
	CB-58.4	100+10	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.04	640.40	5.64
	CB-58.5	100+00	0.5' RT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	646.94	639.76	6.18
	CB-64.1	10+78	17.4' LT	N. 21ST ST.	1	---	---	---	---	---	1	---	---	---	1	649.37	642.79	5.58
	CB-64.2	10+74	17.6' RT	N. 21ST ST.	---	1	---	---	---	---	1	---	---	---	1	649.50	642.62	5.88
	CB-64.3	103+43	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.60	642.41	6.19
	CB-64.4	103+62	11.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.40	642.07	6.33
	CB-64.5	103+60	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.54	642.68	5.86
	PROJECT 1500-37-71 SUBTOTALS				25	14	0	1	3	1	35	1	0	0	40			

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER CATCH BASINS & INLETS AND COVERS CONT.

ID	STRUCT.	STA.	OFFSET*	LOCATION	611.0624 INLET COVERS TYPE H EA	611.0639 INLET COVERS TYPE H-S EA	611.0642 INLET COVERS TYPE MS EA	SPV.0060.01 INLET COVERS TYPE BH EA	611.1004 CATCH BASINS 4-FT DIA. EA	611.1005 CATCH BASINS 5-FT DIA. EA	611.1230 CATCH BASINS 2x3-FT EA	611.3003 INLETS 3-FT DIA. EA	611.3230 INLETS 3X2-FT EA	611.3901 INLETS MEDIAN 1 GRATE EA	650.4000**** CONSTR. STAKING STORM SEWER EA	RIM ELEV.	INVERT** ELEV.	DEPTH*** FT
PROJECT 1500-37-76 CONT.																		
	CB-64.6	103+45	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.42	643.08	5.34
	CB-64.7	9+57	18.9' RT	N. 21ST ST.	---	1	---	---	---	---	1	---	---	---	1	649.01	643.23	4.78
	CB-64.8	9+57	18.5' LT	N. 21ST ST.	---	1	---	---	---	---	1	---	---	---	1	648.85	643.42	4.43
	MH-66.0	106+15	5.8' LT	USH 10 EB	1	---	---	---	---	---	---	---	---	---	---	649.89	642.38	6.51
	CB-66.1	10+79	13.4' LT	SB PARK ROW BLVD.	---	1	---	---	---	---	1	---	---	---	1	649.24	641.00	7.24
	CB-66.1A	10+79	13.4' RT	SB PARK ROW BLVD.	1	---	---	---	---	---	1	---	---	---	1	649.85	642.80	6.06
	CB-66.2	106+11	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.61	640.81	7.80
	CB-66.3	106+15	3.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.70	640.45	8.25
	CB-66.4	106+13	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.91	641.70	7.22
	CB-68.1	10+52	13.6' RT	NB PARK ROW BLVD.	1	---	---	---	---	---	1	---	---	---	1	649.05	642.52	5.53
	CB-68.1A	10+52	13.5' LT	NB PARK ROW BLVD.	1	---	---	---	---	---	1	---	---	---	1	649.57	642.39	6.18
	CB-68.2	107+34	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.14	642.25	5.89
	CB-68.3	107+26	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	649.15	641.86	6.29
	CB-68.4	107+23	7.4' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	649.62	641.78	6.84
	CB-70.1	10+50	14.3' RT	ELM ST.	1	---	---	---	---	---	1	---	---	---	1	647.03	640.46	5.57
	CB-70.2	10+50	14.3' LT	ELM ST.	---	1	---	---	---	---	1	---	---	---	1	647.19	640.32	5.87
	CB-70.3	109+61	26' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.20	640.16	6.04
	CB-70.4	109+62	6.1' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	647.17	640.00	6.17
	CB-70.5	109+62	6.9' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.36	639.75	6.61
	CB-70.6	109+63	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	647.05	640.74	5.31
	CB-72.1	112+74	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	645.48	639.09	5.39
	CB-72.2	112+75	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	645.54	638.96	5.58
	CB-72.3	112+76	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	645.50	638.84	5.66
	CB-72.4	112+73	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	645.46	638.98	5.48
	CB-74.1	115+09	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	644.30	637.79	5.51
	CB-74.2	115+09	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	644.36	637.66	5.69
	CB-74.3	115+10	8.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	644.18	637.63	5.55
	CB-74.4	115+11	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	644.24	637.21	6.03
	CB-76.1	117+72	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	643.01	636.43	5.57
	CB-76.2	117+55	0.9' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	643.13	636.28	5.85
	CB-76.3	117+55	7.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	642.89	636.24	5.65
	CB-76.4	117+71	31.6' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	642.77	636.56	5.21
	CB-78.1	10+76	20.5' LT	N 18TH ST.	---	1	---	---	---	---	1	---	---	---	1	642.70	636.24	5.47
	CB-78.2	10+76	20.5' RT	N 18TH ST.	1	---	---	---	---	---	1	---	---	---	1	642.71	635.57	6.14
	CB-80.1	9+29	29.3' LT	N 18TH ST.	---	1	---	---	---	---	1	---	---	---	1	642.66	636.08	5.58
	CB-80.2	9+27	30.3' RT	N 18TH ST.	1	---	---	---	---	---	1	---	---	---	1	642.81	636.24	5.58
	CB-84.1	120+50	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	639.11	632.53	5.58
	CB-84.2	120+50	7.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	639.02	632.32	5.70
	CB-84.3	120+50	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	639.16	632.29	5.87
	CB-84.4	120+50	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	639.10	632.56	5.54
	CB-86.1	10+77	13.7' RT	N. 17TH ST.	1	---	---	---	---	---	1	---	---	---	1	636.54	630.93	4.61

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

STORM SEWER CATCH BASINS & INLETS AND COVERS CONT.

ID	STRUCT.	STA.	OFFSET*	LOCATION	611.0624 INLET COVERS TYPE H EA	611.0639 INLET COVERS TYPE H-S EA	611.0642 INLET COVERS TYPE MS EA	SPV.0060.01 INLET COVERS TYPE BH EA	611.1004 CATCH BASINS 4-FT DIA. EA	611.1005 CATCH BASINS 5-FT DIA. EA	611.1230 CATCH BASINS 2x3-FT EA	611.3003 INLETS 3-FT DIA. EA	611.3230 INLETS 3X2-FT EA	611.3901 INLETS MEDIAN 1 GRATE EA	650.4000**** CONSTR. STAKING STORM SEWER EA	RIM ELEV.	INVERT** ELEV.	DEPTH*** FT
PROJECT 1500-37-76 CONT.																		
	CB-86.2	10+77	13.7' LT	N. 17TH ST.	---	1	---	---	---	---	1	---	---	---	1	636.53	630.79	4.74
	CB-86.3	121+60	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	637.15	630.57	5.58
	CB-86.4	121+61	7.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	637.04	630.11	5.93
	CB-86.5	121+61	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	637.35	630.08	6.27
	CB-86.6	121+61	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	637.29	630.70	5.58
	CB-86.7	9+49	14' LT	N. 17TH ST.	---	1	---	---	---	---	1	---	---	---	1	636.55	630.91	4.64
	CB-86.8	9+49	14' RT	N. 17TH ST.	1	---	---	---	---	---	1	---	---	---	1	636.36	631.05	4.31
	CB-90.1	123+25	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	635.34	628.76	5.58
	CB-90.2	123+25	0.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	635.40	628.63	5.77
	CB-90.3	123+25	0.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	635.48	628.52	5.96
	CB-90.4	123+25	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	635.41	628.84	5.58
	CB-92.1	10+77	14.2' RT	N. 16TH ST.	1	---	---	---	---	---	1	---	---	---	1	633.22	626.64	5.58
	CB-92.2	10+77	14.1' LT	N. 16TH ST.	---	1	---	---	---	---	1	---	---	---	1	633.25	626.50	5.76
	CB-92.3	125+10	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	633.48	626.30	6.18
	CB-92.4	125+15	5.4' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	633.51	625.90	6.61
	CB-92.5	125+15	5.5' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	633.51	625.83	6.68
	CB-92.6	125+11	25.5' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	633.49	626.12	6.37
	CB-92.7	9+49	13.8' LT	N. 16TH ST.	---	1	---	---	---	---	1	---	---	---	1	633.16	626.31	5.85
	CB-92.8	9+49	13.8' RT	N. 16TH ST.	---	1	---	---	---	---	1	---	---	---	1	633.06	626.45	5.61
	CB-96.1	10+77	13.8' RT	N. 15TH ST.	1	---	---	---	---	---	1	---	---	---	1	632.06	626.64	4.42
	CB-96.2	10+77	13.8' LT	N. 15TH ST.	---	1	---	---	---	---	1	---	---	---	1	632.05	626.50	4.55
	CB-96.3	127+75	25.5' LT	USH 10 WB	---	1	---	---	---	---	1	---	---	---	1	632.19	626.31	4.88
	CB-96.4	127+75	4.9' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	632.29	625.91	5.38
	CB-96.5	127+75	4.7' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	632.48	625.84	5.64
	CB-96.6	127+75	25.5' RT	USH 10 EB	---	1	---	---	---	---	1	---	---	---	1	632.56	626.22	5.35
	CB-96.7	9+49	13.8' LT	N. 15TH ST.	---	1	---	---	---	---	1	---	---	---	1	633.02	626.40	5.62
	CB-96.8	9+49	13.8' RT	N. 15TH ST.	1	---	---	---	---	---	1	---	---	---	1	632.81	626.54	5.27
	CB-100.1	10+77	17.9' RT	N. 14TH ST.	1	---	---	---	---	---	1	---	---	---	1	629.11	622.54	5.58
	CB-100.2	10+77	17.9' LT	N. 14TH ST.	1	---	---	---	---	---	1	---	---	---	1	629.34	622.36	5.98
	CB-100.3	130+50	25.5' LT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	630.09	622.15	6.94
	CB-100.4	130+56	5.5' RT	USH 10 WB	1	---	---	---	---	---	1	---	---	---	1	630.29	621.74	7.55
	CB-100.5	130+55	5.3' LT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	630.26	621.68	7.58
	CB-100.6	130+59	25.7' RT	USH 10 EB	1	---	---	---	---	---	1	---	---	---	1	630.30	622.31	6.99
	CB-100.7	9+47	14.3' LT	N. 14TH ST.	---	1	---	---	---	---	1	---	---	---	1	629.38	622.49	5.89
	CB-100.8	9+47	14.3' RT	N. 14TH ST.	---	1	---	---	---	---	1	---	---	---	1	629.21	622.63	5.58
	PROJECT TOTALS				112	37	0	1	3	1	143	1	1	0	149			
	TOTALS				112	37	1	1	3	1	143	1	1	1	150			

NOTES

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT

**** ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

ADJUSTING MISCELLANEOUS ITEMS

ID	STATION	LOCATION	SPV.0060.02 INLET ADJUSTMENT CASTINGS EA	SPV.0060.03 MANHOLE ADJUSTMENT CASTINGS EA	SPV.0060.04 WATER VALVE ADJUSTMENT CASTINGS EA
PROJECT 1500-47-71					
	38+51	USH 10, WB, LT	---	1	---
	38+80	USH 10, EB, LT	---	1	---
	43+52	USH 10, EB, RT	2	---	---
	43+54	USH 10, WB, LT	1	---	---
	43+98	USH 10, EB, RT	1	---	---
	46+50	USH 10, EB, RT	1	---	---
	46+52	USH 10, EB, RT	1	---	---
	46+52	USH 10, WB, LT	2	---	---
	49+30	USH 10, WB, LT	1	---	---
	47+34	USH 10, EB, LT	---	1	1
	47+51	USH 10, EB, LT	---	1	1
	49+31	USH 10, EB, LT	1	---	---
	49+35	USH 10, EB, RT	1	---	---
	49+39	USH 10, EB, LT	---	1	1
	49+49	USH 10, WB, LT	1	---	---
	51+27	USH 10, EB, RT	2	---	---
	51+28	USH 10, WB, LT	2	---	---
	53+19	USH 10, EB, RT	1	---	---
	53+21	USH 10, WB, LT	1	---	---
	53+51	USH 10, EB, RT	1	---	---
	54+10	USH 10, EB, LT	---	1	1
	54+72	USH 10, WB, LT	1	---	---
	54+79	USH 10, WB, LT	1	---	---
	54+79	USH 10, EB, RT	2	---	---
	57+31	USH 10, EB, RT	1	---	---
	57+32	USH 10, WB, LT	2	---	---
	57+33	USH 10, EB, RT	1	---	---
	59+81	USH 10, WB, LT	---	---	1
	62+82	USH 10, EB, RT	2	---	---
	62+83	USH 10, WB, LT	2	---	---
	63+72	USH 10, EB, LT	---	---	1
	65+32	USH 10, EB, RT	2	---	---
	65+32	USH 10, WB, LT	2	---	---
	67+58	USH 10, EB, RT	2	---	---
	67+58	USH 10, WB, LT	2	---	---
	9+69	40TH ST	---	1	1
	9+68	GLENVIEW DR	---	1	1
	9+69	W CRESCENT DR	---	1	1
	9+68	E CRESCENT DR	---	1	1
		TOTALS	39	10	10

PIPE UNDERDRAIN

ID	LOCATION	SPV.0090.10 PIPE UNDERDRAIN 6-INCH SPECIAL LF	* BASE AGGREGATE OPEN-GRADED CY	* GEOTEXTILE TYPE DF SCHEDULE A SY
PROJECT 1500-37-76				
	STRUCTURE SERIES 20	200	8	115
	STRUCTURE SERIES 48	180	7	100
	STRUCTURE SERIES 56/58	200	8	115
	TOTALS	580	23	330

*QUANTITIES ARE SHOWN FOR INFORMATION ONLY
AND ARE INCIDENTAL TO BID ITEM SPV.0090.10

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONCRETE MEDIAN NOSES

ID	STATION	LOCATION	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	416.0610 * DRILLED TIE BARS EACH	COMMENTS
PROJECT 1500-47-71					
	46+95	USH 10, EB	80	5	TYPE 1
	47+60	USH 10, EB	74	5	TYPE 1
	50+43	USH 10, EB	82	5	TYPE 1
	53+60	USH 10, EB	76	5	TYPE 1
	54+40	USH 10, EB	85	5	TYPE 1
	57+80	USH 10, EB	77	5	TYPE 1
	63+10	USH 10, EB	75	5	TYPE 1
	63+90	USH 10, EB	76	5	TYPE 1
	10+76	CTH R	40	5	TYPE 1
PROJECT TOTALS			665	45	
PROJECT 1500-37-76					
	71+90	USH 10, EB	34	-	TYPE 1
	72+90	USH 10, EB	40	-	TYPE 1
	93+05	USH 10, EB	27	-	TYPE 1
	93+90	USH 10, EB	36	-	TYPE 1
	99+05	USH 10, EB	40	-	TYPE 1
	99+70	USH 10, EB	40	-	TYPE 1
	102+60	USH 10, EB	36	-	TYPE 1
	103+40	USH 10, EB	34	-	TYPE 1
	106+25	USH 10, EB	40	-	TYPE 1
	106+85	USH 10, EB	40	-	TYPE 1
	107+35	USH 10, EB	43	-	TYPE 1
	107+85	USH 10, EB	41	-	TYPE 1
	109+65	USH 10, EB	40	-	TYPE 1
	110+25	USH 10, EB	40	-	TYPE 1
	117+66	USH 10, EB	13	-	TYPE 1
	118+80	USH 10, EB	13	-	TYPE 1
	121+70	USH 10, EB	25	-	TYPE 1
	122+35	USH 10, EB	31	-	TYPE 1
	125+20	USH 10, EB	40	-	TYPE 1
	125+80	USH 10, EB	40	-	TYPE 1
	127+80	USH 10, EB	45	-	TYPE 1
	128+45	USH 10, EB	45	-	TYPE 1
	130+60	USH 10, EB	41	-	TYPE 1
	131+30	USH 10, EB	41	-	TYPE 1
PROJECT TOTALS			865	0	
TOTALS			1,530	45	

* QUANTITIES SHOWN ELSEWHERE

STEEL PLATE BEAMGUARD & MGS GUARDRAIL

ID	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	REMARKS
PROJECT 1500-37-76									
	75+37.2	-	75+90.3	USH 10 / STH 42, EB, RT	-	-	1	-	
	75+90.3	-	81+52.9	USH 10 / STH 42, EB, RT	562.5	-	-	-	
	81+52.9	-	81+89.8	USH 10 / STH 42, EB, RT	-	39.5	-	-	MGS THRIE BEAM TRANSITION
	75+85.4	-	81+83.9	USH 10 / STH 42, WB, LT	587.5	-	-	1	
	81+83.9	-	81+92.1	USH 10 / STH 42, WB, LT	-	8.1	-	-	MGS W-BEAM TRANSITION
	84+77.5	-	84+69.4	USH 10 / STH 42, EB, RT	-	8.1	-	-	MGS W-BEAM TRANSITION
	84+69.4	-	90+37.3	USH 10 / STH 42, EB, RT	550.0	-	-	1	
	84+76.6	-	85+13.5	USH 10 / STH 42, WB, LT	-	39.5	-	-	MGS THRIE BEAM TRANSITION
	85+13.5	-	89+63.5	USH 10 / STH 42, WB, LT	450.0	-	-	-	
	89+63.5	-	90+16.6	USH 10 / STH 42, WB, LT	-	-	1	-	
TOTALS					2,150	95.2	2	2	

SALVAGING RAIL AND GUARDRAIL END TREATMENTS

ID	STATION	TO	STATION	LOCATION	614.0920 RAIL LF	614.0925 END TREATMENT EACH
PROJECT 1500-37-76						
	75+93	-	81+89	USH 10, EB	596	1
	75+98	-	81+90	USH 10, WB	594	1
	84+84	-	90+08	USH 10, WB	525	1
	84+84	-	90+39	USH 10, EB	555	-
	90+50	-	92+22	USH 10, EB	175	1
TOTAL					2,445	4

RECONSTRUCTING INLETS

ID	STATION	LOCATION	611.0430 EACH
PROJECT 1500-47-71			
	46+52	USH 10, WB	1
	53+22	USH 10, WB	1
	53+52	USH 10, EB	1
	54+78	USH 10, EB	1
	54+79	USH 10, WB	1
	54+80	USH 10, EB	1
	57+30	USH 10, WB	1
	57+31	USH 10, WB	1
	57+32	USH 10, EB	1
	62+82	USH 10, WB	1
	65+31	USH 10, EB	1
	65+32	USH 10, EB	1
	67+57	USH 10, WB	1
	67+58	USH 10, WB	1
TOTAL			14

DUST CONTROL & WATER

ID	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 * WATER MGAL
1500-37-76			
	UNDISTRIBUTED	75,000	200
	TOTALS	75,000	200

* QUANTITIES SHOWN ELSEWHERE

FENCE SAFETY

ID	LOCATION	616.0700.S QUANTITY LF
1500-37-76		
	UNDISTRIBUTED	500
	TOTAL	500

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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TOPSOIL, MULCHING, FERTILIZER, SOD, SEED, AND WATER

ID	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER, TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY	SPV.0180.01 HYDROSEEDING SY
PROJECT 1500-47-71															
	69+20	-	70+00	USH 10, EB	318	-	0.2	-	6	-	-	7	-	-	-
	69+75	-	70+00	USH 10, WB	62	-	0.1	-	1	-	-	1	-	-	-
	38+00	-	70+00	USH 10, CURB REPLACEMENT	300	-	0.2	5	3	5	-	7	-	-	-
	PROJECT TOTALS				680	0	0.5	5	10	5	0	15	0	0	0
PROJECT 1500-37-76															
	70+00	-	71+00	USH 10, EB	788	-	0.5	-	35	-	-	18	-	-	-
	70+00	-	71+50	USH 10, WB	925	-	0.6	-	42	-	-	21	-	-	-
	70+00	-	71+85	USH 10, MEDIAN	238	-	-	-	-	-	-	5	-	-	238
	70+00	-	75+60	USH 10, EB, TERRACE	251	-	0.2	-	-	-	-	-	6	251	-
	70+00	-	72+05	USH 10, WB, TERRACE	104	-	0.1	-	-	-	-	-	2	104	-
	71+00	-	75+57	USH 10, EB	426	-	-	-	-	-	-	10	-	-	426
	71+50	-	71+96	USH 10, WB	43	-	-	-	-	-	-	1	-	-	43
	72+67	-	75+61	USH 10, WB, TERRACE	164	-	0.1	-	-	-	-	-	4	164	-
	72+75	-	77+50	USH 10, MEDIAN	707	-	-	-	-	-	-	16	-	-	707
	72+78	-	75+57	USH 10, WB	225	-	-	-	-	-	-	5	-	-	225
	75+57	-	82+00	USH 10, EB	1,320	-	0.8	-	-	-	-	31	-	-	-
	75+57	-	82+00	USH 10, WB	1,307	-	0.8	-	-	-	-	29	-	-	-
	84+64	-	93+27	USH 10, EB	1,514	-	0.5	-	37	-	-	34	-	-	681
	84+64	-	93+05	USH 10, WB	1,103	-	0.1	-	7	-	-	25	-	-	958
	93+09	-	93+15	USH 10, WB, TERRACE	19	-	0.1	-	-	-	-	-	0.5	19	-
	93+12	-	93+36	USH 10, EB, TERRACE	18	-	0.1	-	-	-	-	-	0.5	18	-
	93+65	-	102+79	USH 10, WB, TERRACE	366	-	0.2	-	-	-	-	-	8	366	-
	93+73	-	98+93	USH 10, EB, TERRACE	216	-	0.1	-	-	-	-	-	5	216	-
	93+76	-	102+71	USH 10, WB	483	-	-	-	-	-	-	11	-	-	483
	93+83	-	99+00	USH 10, EB	238	-	-	-	-	-	-	5	-	-	238
	93+95	-	99+00	USH 10, MEDIAN	1,017	-	-	-	-	-	-	23	-	-	1,017
	99+25	-	102+75	USH 10, EB	255	-	-	-	-	-	-	6	-	-	255
	99+59	-	102+83	USH 10, EB, TERRACE	160	-	0.1	-	-	-	-	-	4	160	-
	99+73	-	102+55	USH 10, MEDIAN	509	-	-	-	-	-	-	11	-	-	509
	103+15	-	106+36	USH 10, WB, TERRACE	144	-	0.1	-	-	-	-	-	3	144	-
	103+19	-	106+40	USH 10, EB, TERRACE	154	-	0.1	-	-	-	-	-	3	154	-
	103+25	-	106+26	USH 10, WB	165	-	-	-	-	-	-	4	-	-	165
	103+27	-	106+30	USH 10, EB	145	-	-	-	-	-	-	3	-	-	145
	103+43	-	106+21	USH 10, MEDIAN	497	-	-	-	-	-	-	11	-	-	497
	106+65	-	107+40	USH 10, WB	71	-	-	-	-	-	-	2	-	-	71
	106+65	-	107+40	USH 10, WB, TERRACE	34	-	0.1	-	-	-	-	-	1	34	-
	106+76	-	117+95	USH 10, EB, TERRACE	443	-	0.3	-	-	-	-	-	10	443	-
	106+86	-	117+88	USH 10, EB	510	-	-	-	-	-	-	11	-	-	510
	106+87	-	107+32	USH 10, MEDIAN	77	-	-	-	-	-	-	2	-	-	77
	107+69	-	109+81	USH 10, WB, TERRACE	101	-	0.1	-	-	-	-	-	2	101	-

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

TOPSOIL, MULCHING, FERTILIZER, SOD, SEED, AND WATER (CONTINUED)

ID	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER, TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY	SPV.0180.01 HYDROSEEDING SY
PROJECT 1500-37-76															
	107+80	-	109+75	USH 10, WB	104	-	-	-	-	-	-	2	-	-	104
	107+89	-	109+63	USH 10, MEDIAN	380	-	-	-	-	-	-	9	-	-	380
	110+15	-	118+03	USH 10, WB, TERRACE	391	-	0.3	-	-	-	-	-	9	391	-
	110+20	-	117+91	USH 10, WB	443	-	-	-	-	-	-	10	-	-	443
	110+30	-	115+15	USH 10, MEDIAN	1,002	-	-	-	-	-	-	23	-	-	1,002
	118+46	-	121+93	USH 10, WB, TERRACE	166	-	0.1	-	-	-	-	-	4	166	-
	118+53	-	121+93	USH 10, EB, TERRACE	176	-	0.1	-	-	-	-	-	4	176	-
	118+57	-	121+79	USH 10, WB	182	-	-	-	-	-	-	4	-	-	182
	118+60	-	121+79	USH 10, EB	141	-	-	-	-	-	-	3	-	-	141
	122+22	-	125+36	USH 10, WB, TERRACE	144	-	0.1	-	-	-	-	-	3	144	-
	122+37	-	125+37	USH 10, EB, TERRACE	157	-	0.1	-	-	-	-	-	4	157	-
	122+22	-	125+22	USH 10, WB	131	-	-	-	-	-	-	3	-	-	131
	122+34	-	125+25	USH 10, EB	150	-	-	-	-	-	-	3	-	-	150
	122+39	-	125+19	USH 10, MEDIAN	623	-	-	-	-	-	-	14	-	-	623
	125+67	-	128+00	USH 10, WB, TERRACE	142	-	0.1	-	-	-	-	3	3	142	-
	125+67	-	128+00	USH 10, EB, TERRACE	125	-	0.1	-	-	-	-	-	3	125	-
	125+81	-	127+86	USH 10, WB	133	-	-	-	-	-	-	3	-	-	133
	125+78	-	127+88	USH 10, EB	105	-	-	-	-	-	-	2	-	-	105
	125+84	-	127+80	USH 10, MEDIAN	431	-	-	-	-	-	-	10	-	-	431
	128+29	-	130+76	USH 10, WB, TERRACE	152	-	0.1	-	-	-	-	-	3	152	-
	128+29	-	130+81	USH 10, EB, TERRACE	127	-	0.1	-	-	-	-	-	3	127	-
	128+44	-	130+66	USH 10, WB	126	-	-	-	-	-	-	3	-	-	126
	128+42	-	130+69	USH 10, EB	125	-	-	-	-	-	-	3	-	-	125
	128+49	-	130+60	USH 10, MEDIAN	464	-	-	-	-	-	-	10	-	-	464
	131+11	-	131+75	USH 10, EB, TERRACE	46	-	0.1	-	-	-	-	-	1	46	-
	131+14	-	131+75	USH 10, WB, TERRACE	39	-	0.1	-	-	-	-	-	1	39	-
	131+22	-	131+75	USH 10, EB	42	-	-	-	-	-	-	1	-	-	42
	131+27	-	131+75	USH 10, WB	30	-	-	-	-	-	-	1	-	-	30
	131+31	-	131+75	USH 10, MEDIAN	86	-	-	-	-	-	-	2	-	-	86
	WASTE SITE				-	13,200	8.3	-	-	180	180	293	-	-	-
	EMERGENCY VEHICLE RAILROAD X-ING				190	-	-	-	-	-	-	4	-	-	190
	UNDISTRIBUTED				5,030	1,800	5.4	0	29	40	-	100	23	301	3,367
	PROJECT TOTALS				26,320	15,000	20.0	0	150	220	180	790	110	4,140	15,500
	TOTALS				27,000	15,000	20.5	5	160	225	180	805	110	4,140	15,500

NOTE: WATER FOR SODDED AREAS AND SEEDED AREAS AT 1-INCH PER WEEK (4 WEEKS)

NOTE: BORROW PIT SEEDING TO BE USED AT WASTE AREAS FOR FINAL STABILIZATION

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

EROSION MAT

ID	STATION	TO	STATION	LOCATION	628.2008 EROSION MAT URBAN CLASS I, TYPE B SY
PROJECT 1500-47-71					
	69+21	-	70+00	USH 10, EB	318
	69+75	-	70+00	USH 10, WB	62
	38+00	-	70+00	USH 10, CURB REPLACEMENT	300
	PROJECT TOTALS				680
PROJECT 1500-37-76					
	75+57	-	82+00	USH 10, EB	1,320
	75+57	-	82+00	USH 10, WB	1,307
	84+64	-	85+00	USH 10, EB	200
	84+64	-	85+00	USH 10, WB	145
	91+00	-	92+25	USH 10, EB	633
	UNDISTRIBUTED				915
	PROJECT TOTALS				4,520
	TOTALS				5,200

SILT FENCE

ID	STATION	TO	STATION	LOCATION	628.1504 QUANTITY LF	628.1520 MAINTENANCE LF
PROJECT 1500-37-76						
	69+21	-	70+15	USH 10 / STH 42, RT	135	810
	69+70	-	70+45	USH 10 / STH 42, LT	115	690
	70+60	-	71+25	USH 10 / STH 42, RT	120	720
	72+25	-	82+12	USH 10 / STH 42, RT	1,025	6,150
	73+05	-	82+12	USH 10 / STH 42, LT	940	5,640
	84+55	-	93+15	USH 10 / STH 42, RT	975	5,850
	84+55	-	93+00	USH 10 / STH 42, LT	947	5,682
	99+33	-	99+70	USH 10 / STH 42, RT	59	354
	WASTE SITE				1,400	8,400
	UNDISTRIBUTED				1,184	7,104
	PROJECT TOTALS				6,900	41,400

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

INLET PROTECTION

ID	STRUCTURE NO.	STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
PROJECT 1500-47-71							
		43+54	USH 10, WB, LT	-	-	1	-
		43+52	USH 10, EB, MEDIAN	-	-	1	-
		43+52	USH 10, EB, RT	-	-	1	-
		43+98	USH 10, EB, RT	-	-	1	-
		45+01	USH 10, WB, LT	1	1	-	-
		46+52	USH 10, WB, LT	-	-	1	-
		46+52	USH 10, WB, MEDIAN	-	-	1	-
		46+50	USH 10, EB, MEDIAN	-	-	1	-
		46+53	USH 10, EB, RT	-	-	1	-
		47+08	USH 10, EB, RT	-	-	1	-
		47+40	USH 10, EB, RT	-	-	1	-
		49+49	USH 10, WB, LT	-	-	1	-
		49+30	USH 10, WB, MEDIAN	-	-	1	-
		49+30	USH 10, EB, MEDIAN	-	-	1	-
		49+35	USH 10, EB, RT	-	-	1	-
		51+28	USH 10, WB, LT	-	-	1	-
		51+28	USH 10, WB, MEDIAN	-	-	1	-
		51+28	USH 10, EB, MEDIAN	-	-	1	-
		51+28	USH 10, EB, RT	-	-	1	-
		53+20	USH 10, WB, MEDIAN	-	-	1	-
		53+20	USH 10, EB, MEDIAN	-	-	1	-
		53+52	USH 10, EB, RT	-	-	1	-
		53+83	USH 10, EB, RT	-	-	1	-
		54+20	USH 10, EB, RT	-	-	1	-
		54+71	USH 10, WB, LT	-	-	-	1
		54+79	USH 10, WB, MEDIAN	-	-	-	1
		54+79	USH 10, EB, MEDIAN	-	-	-	1
		54+79	USH 10, EB, RT	-	-	-	1
		57+32	USH 10, WB, LT	-	-	1	-
		57+32	USH 10, WB, MEDIAN	-	-	1	-
		57+32	USH 10, EB, MEDIAN	-	-	1	-
		57+34	USH 10, EB, RT	-	-	1	-
		62+82	USH 10, WB, LT	-	-	1	-
		62+82	USH 10, WB, MEDIAN	-	-	1	-
		62+82	USH 10, EB, MEDIAN	-	-	1	-
		62+84	USH 10, EB, RT	-	-	1	-
		65+33	USH 10, WB, LT	-	-	1	-
		65+33	USH 10, WB, MEDIAN	-	-	1	-
		65+32	USH 10, EB, MEDIAN	-	-	1	-
		65+32	USH 10, EB, RT	-	-	1	-
		67+57	USH 10, WB, LT	-	-	1	-
		67+58	USH 10, WB, MEDIAN	-	-	1	-
		67+58	USH 10, EB, MEDIAN	-	-	1	-
		67+57	USH 10, EB, RT	-	-	1	-
			CTH R, SOUTH OF USH 10	-	-	1	-
			CTH R, TURN LANE	-	-	2	-
			GLENVIEW DRIVE, SOUTH OF USH 10	-	-	2	-
			W. CRESCENT DRIVE, SOUTH OF USH 10	-	-	2	-
			E. CRESCENT DRIVE, SOUTH OF USH 10	-	-	1	-
			HAUL ROUTES	-	-	8	1
			UNDISTRIBUTED	-	-	15	-
PROJECT TOTALS				1	1	70	5

INLET PROTECTION (CONTINUED)

ID	STRUCTURE NO.	STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
PROJECT 1500-37-76							
	20.1	70+90	USH 10, WB, LT	1	-	1	-
	20.2	70+80	USH 10, WB, LT	1	-	-	1
	20.3	70+90	USH 10, WB, MEDIAN	1	-	1	-
	20.4	70+80	USH 10, WB, MEDIAN	1	-	-	1
	20.5	70+90	USH 10, EB, MEDIAN	1	-	1	-
	20.6	70+80	USH 10, EB, MEDIAN	1	-	-	1
	20.7	70+90	USH 10, EB, RT	1	-	1	-
	22.0	70+80	USH 10, EB, RT	1	-	-	1
	24.1	10+64	FLEETWOOD DR, RT	1	-	1	-
	24.2	10+64	FLEETWOOD DR, LT	1	-	1	-
	26.1	73+16	USH 10, WB, LT	1	-	1	-
	26.2	73+17	USH 10, WB, MEDIAN	1	-	1	-
	26.3	73+17	USH 10, EB, MEDIAN	1	-	1	-
	26.4	73+16	USH 10, EB, RT	1	-	1	-
	28.1	76+00	USH 10, WB, LT	1	-	1	-
	28.2	76+00	USH 10, WB, MEDIAN	1	-	1	-
	28.3	76+00	USH 10, EB, MEDIAN	1	-	1	-
	28.4	76+00	USH 10, EB, RT	1	-	1	-
	30.1	79+08	USH 10, WB, LT	1	-	1	-
	30.2	79+08	USH 10, WB, MEDIAN	1	-	1	-
	30.3	79+00	USH 10, EB, MEDIAN	1	-	1	-
	30.4	79+00	USH 10, EB, RT	1	-	1	-
	40.1	85+05	USH 10, WB, LT	1	-	1	-
	40.2	85+05	USH 10, WB, MEDIAN	1	-	1	-
	40.3	85+13	USH 10, EB, MEDIAN	1	-	1	-
	40.4	85+13	USH 10, EB, RT	1	-	1	-
	42.1	87+92	USH 10, WB, LT	1	-	1	-
	42.2	87+92	USH 10, WB, MEDIAN	1	-	1	-
	42.3	88+00	USH 10, EB, MEDIAN	1	-	1	-
	42.4	88+00	USH 10, EB, RT	1	-	1	-
	44.1	90+91	USH 10, WB, LT	1	-	1	-
	44.2	90+91	USH 10, WB, MEDIAN	1	-	1	-
	44.3	90+91	USH 10, EB, MEDIAN	1	-	1	-
	44.4	90+91	USH 10, EB, RT	1	-	1	-
	48.1	10+78	N. 23RD ST, RT	1	-	1	-
	48.2	10+87	N. 23RD ST, LT	1	-	1	-
	48.3	92+90	USH 10, WB, LT	1	-	-	1
	48.4	92+80	USH 10, WB, LT	1	-	1	-
	48.5	92+90	USH 10, WB, MEDIAN	1	-	-	1
	48.6	92+80	USH 10, WB, MEDIAN	1	-	1	-
	48.7	92+89	USH 10, EB, MEDIAN	1	-	-	1
	48.8	92+96	USH 10, EB, MEDIAN	1	-	1	-
	48.9	92+88	USH 10, EB, RT	1	-	-	1
	48.10	92+98	USH 10, EB, RT	1	-	1	-
	48.11	9+46	N. 23RD ST, LT	1	-	1	-

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

INLET PROTECTION (CONTINUED)

ID	STRUCTURE NO.	STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
PROJECT 1500-37-76							
48.12	9+46	N. 23RD ST, RT	1	-	1	-
50.1	94+04	USH 10, WB, LT	1	-	1	-
50.2	94+04	USH 10, WB, MEDIAN	1	-	1	-
50.3	94+08	USH 10, EB, MEDIAN	1	-	1	-
50.4	94+08	USH 10, EB, RT	1	-	1	-
52.1	95+60	USH 10, WB, LT	1	-	1	-
52.2	95+60	USH 10, WB, MEDIAN	1	-	1	-
52.3	95+60	USH 10, EB, MEDIAN	1	-	1	-
52.4	95+60	USH 10, EB, RT	1	-	1	-
54.1	98+60	USH 10, WB, LT	1	-	1	-
54.2	98+60	USH 10, WB, MEDIAN	1	-	1	-
54.3	98+61	USH 10, EB, MEDIAN	1	-	1	-
54.4	98+61	USH 10, EB, RT	1	-	1	-
56.1	99+95	USH 10, EB, MEDIAN	1	-	-	1
56.2	99+85	USH 10, EB, MEDIAN	1	-	1	-
56.3	99+76	USH 10, EB, RT	1	-	-	1
56.4	99+66	USH 10, EB, RT	1	-	1	-
56.5	9+64	MENCHIL DR, RT	1	-	1	-
56.6	9+25	MENCHIL DR, LT	1	-	1	-
58.1	100+67	USH 10, LT	1	1	-	-
58.2	100+10	USH 10, WB, LT	1	-	1	-
58.3	100+02	USH 10, WB, LT	1	-	-	1
58.4	100+10	USH 10, WB, MEDIAN	1	-	1	-
58.5	100+00	USH 10, WB, MEDIAN	1	-	-	1
64.1	10+78	N. 21ST ST, LT	1	-	1	-
64.2	10+74	N. 21ST ST, RT	1	-	1	-
64.3	103+43	USH 10, WB, LT	1	-	1	-
64.4	103+62	USH 10, WB, MEDIAN	1	-	1	-
64.5	103+60	USH 10, EB, MEDIAN	1	-	1	-
64.6	103+45	USH 10, EB, RT	1	-	1	-
64.7	9+57	N. 21ST ST, RT	1	-	1	-
64.8	9+57	N. 21ST ST, LT	1	-	1	-
66.1A	106+55	USH 10, WB, LT	1	-	1	-
66.1	10+79	PARK ROW BLVD, SB, LT	1	-	1	-
66.2	106+11	USH 10, WB, LT	1	-	1	-
66.3	106+15	USH 10, WB, MEDIAN	1	-	1	-
66.0	106+15	USH 10, EB, MEDIAN	1	-	1	-
66.4	106+13	USH 10, EB, RT	1	-	1	-
68.1	10+52	PARK ROW BLVD, NB, RT	1	-	1	-
68.1A	107+41	USH 10, WB, LT	1	-	1	-
68.2	107+34	USH 10, WB, LT	1	-	1	-
68.3	107+26	USH 10, WB, MEDIAN	1	-	1	-
68.4	107+23	USH 10, EB, MEDIAN	1	-	1	-
70.1	10+50	ELM ST, RT	1	-	1	-

INLET PROTECTION (CONTINUED)

ID	STRUCTURE NO.	STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
PROJECT 1500-37-76							
70.3	109+61	USH 10, WB, LT	1	-	1	-
70.4	109+62	USH 10, WB, MEDIAN	1	-	1	-
70.5	109+62	USH 10, EB, MEDIAN	1	-	1	-
70.6	109+63	USH 10, EB, RT	1	-	1	-
72.1	112+74	USH 10, WB, LT	1	-	1	-
72.2	112+75	USH 10, WB, MEDIAN	1	-	1	-
72.3	112+76	USH 10, EB, MEDIAN	1	-	1	-
72.4	112+73	USH 10, EB, RT	1	-	1	-
74.1	115+09	USH 10, WB, LT	1	-	1	-
74.2	115+09	USH 10, WB, MEDIAN	1	-	1	-
74.3	115+10	USH 10, EB, MEDIAN	1	-	1	-
74.4	115+11	USH 10, EB, RT	1	-	1	-
76.1	117+72	USH 10, WB, LT	1	-	1	-
76.2	117+55	USH 10, WB, MEDIAN	1	-	1	-
76.3	117+55	USH 10, EB, MEDIAN	1	-	1	-
76.4	117+71	USH 10, EB, RT	1	-	1	-
78.1	10+76	N. 18TH ST, LT	1	-	1	-
78.2	10+76	N. 18TH ST, RT	1	-	1	-
80.1	9+29	N. 18TH ST, LT	1	-	1	-
80.2	9+27	N. 18TH ST, RT	1	-	1	-
84.1	120+50	USH 10, WB, LT	1	-	1	-
84.2	120+50	USH 10, WB, MEDIAN	1	-	1	-
84.3	120+50	USH 10, EB, MEDIAN	1	-	1	-
84.4	120+50	USH 10, EB, RT	1	-	1	-
86.1	10+77	N. 17TH ST, LT	1	-	1	-
86.2	10+77	N. 17TH ST, RT	1	-	1	-
86.3	121+60	USH 10, WB, LT	1	-	1	-
86.4	121+61	USH 10, WB, MEDIAN	1	-	1	-
86.5	121+61	USH 10, EB, MEDIAN	1	-	1	-
86.6	121+61	USH 10, EB, RT	1	-	1	-
86.7	9+49	N. 17TH ST, RT	1	-	1	-
86.8	9+49	N. 17TH ST, LT	1	-	1	-
90.1	123+25	USH 10, WB, LT	1	-	1	-
90.2	123+25	USH 10, WB, MEDIAN	1	-	1	-
90.3	123+25	USH 10, EB, MEDIAN	1	-	1	-
90.4	123+25	USH 10, EB, RT	1	-	1	-
92.1	10+77	N. 16TH ST, LT	1	-	1	-
92.2	10+77	N. 16TH ST, RT	1	-	1	-
92.3	125+10	USH 10, WB, LT	1	-	1	-
92.4	125+15	USH 10, WB, MEDIAN	1	-	1	-
92.5	125+15	USH 10, EB, MEDIAN	1	-	1	-
92.6	125+11	USH 10, EB, RT	1	-	1	-
92.7	9+49	N. 16TH ST, RT	1	-	1	-
92.8	9+49	N. 16TH ST, LT	1	-	1	-
96.1	10+77	N. 15TH ST, LT	1	-	1	-

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

INLET PROTECTION (CONTINUED)

ID	STRUCTURE NO.	STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
PROJECT 1500-37-76							
	96.2	10+77	N. 15TH ST, RT	1	-	1	-
	96.3	127+75	USH 10, WB, LT	1	-	1	-
	96.4	127+75	USH 10, WB, MEDIAN	1	-	1	-
	96.5	127+75	USH 10, EB, MEDIAN	1	-	1	-
	96.6	127+75	USH 10, EB, RT	1	-	1	-
	96.7	9+49	N. 15TH ST, RT	1	-	1	-
	96.8	9+49	N. 15TH ST, LT	1	-	1	-
	100.1	10+77	N. 14TH ST, LT	1	-	1	-
	100.2	10+77	N. 14TH ST, RT	1	-	1	-
	100.3	130+50	USH 10, WB, LT	1	-	1	-
	100.4	130+56	USH 10, WB, MEDIAN	1	-	1	-
	100.5	130+55	USH 10, EB, MEDIAN	1	-	1	-
	100.6	130+59	USH 10, EB, RT	1	-	1	-
	100.7	9+47	N. 14TH ST, RT	1	-	1	-
	100.8	9+47	N. 14TH ST, LT	1	-	1	-
			HAUL ROUTES	-	-	19	16
			UNDISTRIBUTED	-	-	39	-
	PROJECT TOTALS			150	1	195	28
	TOTALS			151	2	265	33

EROSION CONTROL

ID	LOCATION	628.1905 MOBILIZATIONS EACH	628.1910 MOBILIZATIONS EMERGENCY EACH
PROJECT 1500-47-71			
	SUBSTAGE 3B	3	2
	PROJECT TOTALS	3	2
PROJECT 1500-37-76			
	SUBSTAGE 1B	3	2
	SUBSTAGE 1C	3	2
	SUBSTAGE 2A	3	2
	SUBSTAGE 2B	4	3
	PROJECT TOTALS	13	9
	TOTALS	16	11

TRACKING PADS

ID	LOCATION	628.7560 EACH
1500-37-76		
	UNDISTRIBUTED	8
	TOTAL	8

ROCK BAGS

ID	STATION	LOCATION	628.7570 ROCK BAGS EACH
PROJECT 1500-37-76			
	70+95	STH 10 / STH 42, LT	15
	71+05	STH 10 / STH 42, LT	15
	71+50	STH 10 / STH 42, LT	15
		UNDISTRIBUTED	100
	TOTALS		145

PLANTS AND TREES

ID	STATION	TO	STATION	LOCATION	DECIDUOUS TREES 632.0101.01 AUTUMN GOLD GINKGO (GI) EACH	632.0101.02 COMMON HACKBERRY (HA) EACH	632.0101.03 ESPRESSO KENTUCKY COFFEETREE (KC) EACH	632.0101.04 REGAL ELM (RE) EACH	632.0101.05 REDMOND LINDEN (RL) EACH	632.0101.06 SKYLINE HONEYLOCUST (SH) EACH	632.0101.07 SWAMP WHITE OAK (WO) EACH	ORNAMENTAL TREES 632.0101.08 AUTUMN BRILLIANCE SERVICEBERRY (AS) EACH	632.0101.09 SCHUBERT CHOKECHERRY (CH) EACH	632.0101.10 CRUSADER THORNLESS COCKSPUR HAWTHORN (CC EACH	632.0101.11 SPRING SNOW CRABAPPLE (SS) EACH	SHRUBS 632.0201.01 STAGHORN SUMAC (St) EACH
PROJECT 1500-37-76																
	69+00	-	75+00	USH 10	-	2	-	-	-	-	-	3	12	-	-	11
	75+00	-	93+00	USH 10	-	-	-	-	-	2	-	-	-	-	-	-
	93+00	-	99+00	USH 10	-	-	1	-	-	-	2	-	-	2	-	-
	99+00	-	105+00	USH 10	1	2	-	-	-	-	-	-	-	-	2	-
	105+00	-	111+00	USH 10	3	-	-	-	-	-	-	-	-	-	-	-
	111+00	-	123+00	USH 10	-	-	1	2	3	-	-	2	-	-	-	-
	123+00	-	129+00	USH 10	-	2	-	-	-	-	2	-	-	-	-	-
	129+00	-	131+75	USH 10	-	-	-	-	-	2	-	-	-	-	-	-
	PROJECT TOTALS				4	6	2	2	3	4	4	5	12	2	2	11
	TOTALS				4	6	2	2	3	4	4	5	12	2	2	11

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVAL OF TYPE II SIGNS AND SUPPORTS

ID	SIGN NO.	LOCATION	SIGN CODE	MOUNTED WITH SIGN NO.	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
PROJECT 1500-47-71							
	101	USH 10 WB	R4-7		1	---	BANDED TO SIGNAL
	102	USH 10 EB	R1-1F	101	---	---	BANDED TO SIGNAL
	103	USH 10 EB	R1-1F		1	---	BANDED TO SIGNAL
	105	USH 10 EB	J13-3		1	2	
	106	N RAPIDS RD - SOUTH OF USH 10	R4-7		1	---	BANDED TO SIGNAL
	107	N RAPIDS RD - SOUTH OF USH 10	R1-1F	106	---	---	BANDED TO SIGNAL
	108	N RAPIDS RD - SOUTH OF USH 10	R1-1F		1	---	BANDED TO SIGNAL
	109	N RAPIDS RD - SOUTH OF USH 10	R5-1	110	---	---	BANDED TO #110
	110A	N RAPIDS RD - SOUTH OF USH 10	J13-3		1	2	
	111	USH 10 EB	J4-2		1	1	
	112	USH 10 EB	W4-1R		1	1	
	113	USH 10 EB	R8-3	112	---	---	BANDED BELOW #112
	114	USH 10 EB	R1-2		1	1	
	115	USH 10 EB	R1-2		1	1	
	116	USH 10 EB	R5-1	114	---	---	BANDED TO BACK OF #114
	117	USH 10 EB	R2-1		1	---	BANDED TO LIGHT POLE
	118	USH 10 EB	R8-3		1	1	
	121	N RAPIDS RD - NORTH OF USH 10	R5-1	122	---	---	
	122A	N RAPIDS RD - NORTH OF USH 10	J13-3		1	2	
	123	N RAPIDS RD - NORTH OF USH 10	R1-1F		1	---	BANDED TO SIGNAL
	124	N RAPIDS RD - NORTH OF USH 10	R1-1F		1	---	BANDED TO SIGNAL
	125	N RAPIDS RD - NORTH OF USH 10	R4-7	124	---	---	BANDED TO SIGNAL
	126	USH 10 WB	R1-2		1	1	
	127	USH 10 WB	R1-1F		1	---	BANDED TO SIGNAL
	128	USH 10 WB	R1-1F		1	---	BANDED TO SIGNAL
	129	USH 10 WB	R4-7	128	---	---	BANDED TO SIGNAL
	130A	USH 10 WB	J2-3		1	2	
	131	USH 10 WB	M6-6	132	---	---	BANDED BELOW #132
	132	USH 10 WB	R14-1	134	---	---	BANDED BELOW #134
	133	USH 10 WB	R8-3	134	---	---	BANDED BELOW #134
	134	USH 10 WB	D1-1		1	2	ROCKWOOD ->
	135	USH 10 WB	W3-3		1	1	
	136A	USH 10 WB	J4-3		1	2	
	201	N 40TH ST	R1-1		1	1	
	204	USH 10 EB	R8-3		1	---	BANDED TO POWER POLE
	205	USH 10 EB	R2-1		1	---	BANDED TO LIGHT POLE
	208	USH 10 EB	W11-2		1	---	BANDED TO POWER POLE
	209	GLENVIEW DR	R1-1		1	1	
	210	USH 10 EB	J4-2		1	1	
	211	USH 10 EB	R8-3	210	---	---	BANDED BELOW #210
	213	USH 10 EB	R8-3		1	---	BANDED TO POWER POLE
	214	W CRESCENT DR	R1-1		1	1	
	217	USH 10 EB	R2-1		1	---	BANDED TO POWER POLE
	218	USH 10 EB	R8-3	217	---	---	BANDED BELOW #217

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVAL OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	MOUNTED WITH SIGN NO.	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
PROJECT 1500-47-71 CONT.							
	219	USH 10 WB	R2-1		1	---	BANDED TO SIGNAL
	221	USH 10 WB	J1-1		1	---	BANDED TO POWER POLE
	227	USH 10 WB	R8-3		1	---	BANDED TO POWER POLE
	228	USH 10 WB	J4-3		1	---	BANDED TO POWER POLE
	230	USH 10 WB	W11-2		1	---	BANDED TO POWER POLE
	232	USH 10 WB	R2-1		1	---	BANDED TO POWER POLE
	233	USH 10 WB	R8-3		1	---	BANDED TO POWER POLE
	302	E CRESENT DR	R1-1		1	1	
	304	USH 10 EB	R8-3		1	---	BANDED TO POWER POLE
	305	USH 10 EB	R2-1		1	---	
	310	USH 10 WB	R2-1		1	---	BANDED TO LIGHT POLE
		PROJECT TOTALS			42	24	
PROJECT 1500-37-76							
	306	USH 10 EB	R8-3		1	1	
	307	USH 10 EB	J4-2		1	1	
	313	USH 10 WB	R2-1		1	---	BANDED TO POWER POLE
	314	USH 10 WB	R8-3	113	---	---	BANDED TO POWER POLE
	315	USH 10 WB	J4-2		1	1	
	316	FLEETWOOD DR	R1-1		1	1	
	402	USH 10 EB	R2-1		1	---	BANDED TO POWER POLE
	502	N 23RD ST	R1-1		1	1	
	503	USH 10 EB	J4-2		1	---	BANDED TO LIGHT POLE
	507	USH 10 EB	W10-1		1	---	BANDED TO POWER POLE
	508	USH 10 EB	W10-1A	507	---	---	BANDED TO POWER POLE
	509	USH 10 EB	R8-3		1	---	BANDED TO POWER POLE
	511	MENCHL DR	R1-1		1	1	
	512	USH 10 EB	R15-1		1	---	BANDED TO POWER POLE
	513	USH 10 EB	R8-9	512	---	---	BANDED TO POWER POLE
	514	N 21ST ST	R1-1		1	1	
	517	USH 10 WB	J4-2		1	---	BANDED TO LIGHT POLE
	520	N 20TH ST	R1-1		1	1	
	522	USH 10 EB	J4-2		1	---	BANDED TO LIGHT POLE
	523	N 23RD ST	R1-1		1	1	
	524	USH 10 WB	R2-1		1	---	BANDED TO LIGHT POLE
	526	USH 10 WB	R15-1		1	1	
	527	USH 10 WB	R8-9	526	---	---	BANDED BELOW SIGN 526
	528	USH 10 WB	R8-3		1	1	
	529	USH 10 WB	W10-1		1	---	BANDED TO LIGHT POLE
	530	USH 10 WB	W10-1A	529	---	---	BANDED BELOW #529

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

REMOVAL OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	MOUNTED WITH SIGN NO.	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
PROJECT 1500-37-76 CONT.							
	533	N 21ST ST	R1-1		1	1	
	535	USH 10 WB	R2-1		1	---	BANDED TO LIGHT POLE
	536	USH 10 WB	R8-3		1	1	
	538	PARK ROW BLVD	R1-1		1	1	
	539	PARK ROW BLVD	R5-1		1	1	
	601	USH 10 WB	R2-1		1	---	BANDED TO LIGHT POLE
	602	USH 10 EB	R14-1 MOD		1	---	
	603	USH 10 EB	R2-1		1	---	BANDED TO LIGHT POLE
	604A	USH 10 EB	S1-1		1	---	BANDED TO LIGHT POLE
	604B	USH 10 EB	S16-9P	604A	---	---	BANDED BELOW #604
	605A	USH 10 EB	S1-1		1	1	
	605B	USH 10 EB	S16-9P	605A	---	---	
	606	USH 10 EB	S1-1		1	---	BANDED TO SIGNAL
	607	USH 10 EB	S16-7R	606	---	---	BANDED BELOW #606
	608	USH 10 EB	R1-1F	607	---	---	BANDED BELOW #607
	609	USH 10 WB	R3-4	606	---	---	BANDED TO BACK OF #606 ON SIGNAL
	610	USH 10 EB	R1-1F		1	---	BANDED TO SIGNAL
	611	USH 10 EB	S1-1	610	---	---	BANDED TO SIGNAL
	612	N 18TH ST	R1-1F		1	---	BANDED TO SIGNAL
	613	N 18TH ST	S1-1	612	---	---	BANDED TO SIGNAL
	614	USH 10 EB	R8-3		1	1	
	615	USH 10 EB	J4-2		1	---	USH 10, HWY 42 - BANDED TO LIGHT POLE
	616	USH 10 EB	R8-3		1	---	BANDED TO LIGHT POLE
	617	USH 10 WB	R8-3		1	1	
	618	USH 10 WB	J4-2		1	---	BANDED TO LIGHT POLE
	619	USH 10 WB	R2-1	618	---	---	BANDED TO LIGHT POLE BELOW 618
	620	N 18TH ST	S1-1		1	---	BANDED TO SIGNAL
	621	N 18TH ST	S16-7R	620	---	---	BANDED BELOW #620
	622	N 18TH ST	R1-1F	621	---	---	BANDED BELOW #621
	623	USH 10 WB	S1-1		1	---	BANDED TO SIGNAL
	624	USH 10 WB	S16-7R	623	---	---	BANDED BELOW #623
	625	USH 10 WB	R1-1F	624	---	---	BANDED BELOW #624
	626	USH 10 WB	R1-1F		1	---	BANDED TO SIGNAL
	627A	USH 10 WB	S1-1		1	---	BANDED TO LIGHT POLE
	627B	USH 10 WB	S16-9P	627A	---	---	BANDED TO LIGHT POLE BELOW #627A
	628	USH 10 WB	R3-7L	627B	---	---	BANDED TO POLE BELOW #627B
	629A	USH 10 WB	S1-1		1	1	
	629B	USH 10 WB	S16-9P	629A	---	---	
	703	USH 10 EB	JH-1		1	---	BANDED TO LIGHT POLE
	711	USH 10 EB	R10-15R		1	1	
	721	USH 10 EB	R8-3		1	1	
	723	N 17TH ST	R1-1		1	1	
	724	ELM ST	R1-1		1	1	
	729A	USH 10 WB	J22-1 MOD.		1	1	
	729B	USH 10 EB	R3-7L		1	---	BANDED TO LIGHT POLE
	734	USH 10 WB	JH-1		1	1	
	735	USH 10 WB	M6-1	734	---	---	BANDED BELOW #734
	739	USH 10 WB	R14-1 MOD.		1	1	
	741	N 17TH ST	R1-1		1	1	
	742	N 17TH ST	W14-2		1	1	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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REMOVAL OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	MOUNTED WITH SIGN NO.	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
PROJECT 1500-37-76 CONT.							
	801	USH 10 EB	S1-1		1	---	BANDED TO POWER POLE
	802	USH 10 EB	S16-9P	801	---	---	BANDED TO POWER POLE BELOW #801
	803	USH 10 EB	S1-1		1	---	BANDED TO LIGHT POLE
	804	USH 10 EB	S16-9P		1	---	BANDED TO LIGHT POLE BELOW #119A
	805	N 16TH ST	R1-1		1	1	
	807	USH 10 EB	S4-51		1	---	BANDED TO LIGHT POLE
	808	USH 10 EB	S4-51		1	1	
	809	USH 10 EB	R8-3	808	---	---	BANDED BELOW #808
	810	USH 10 EB	S1-1		1	1	
	811	USH 10 EB	S16-7L	810	---	---	BANDED BELOW #810
	812	USH 10 EB	S1-1		1	1	
	815	N 15TH ST	R1-1		1	1	
	816	USH 10 EB	S1-1		1	1	
	817	USH 10 EB	S16-7R	816	---	---	BANDED BELOW #816
	818	USH 10 EB	S1-1		1	1	
	819	USH 10 EB	S16-7L	818	---	---	BANDED BELOW #818
	821	N 14TH ST	R1-1		1	1	
	822	USH 10 EB	R8-3		1	1	
	845	USH 10 WB	R8-3		1	1	
	846	USH 10 WB	J4-2		1	---	BANDED TO LIGHT POLE
	848	N 16TH ST	R1-1		1	1	
	849	N 16TH ST	W14-2		1	1	
	852	USH 10 WB	R2-1		1	---	BANDED TO LIGHT POLE
	853	USH 10 WB	R8-3		1	1	
	855	N 15TH ST	R1-1		1	1	
	856	USH 10 WB	S1-1		1	1	
	857	USH 10 WB	S16-7L	856	---	---	BANDED BELOW #856
	859	USH 10 WB	S1-1		1	1	
	862	N 14TH ST	R1-1		1	1	
	863	USH 10 WB	S1-1		1	1	
	864	USH 10 WB	S16-7L	863	---	---	BANDED BELOW #863
	865	USH 10 WB	S1-1		1	---	BANDED TO LIGHT POLE
	866	USH 10 WB	S16-7R	865	---	---	BANDED TO LIGHT POLE BELOW #865
		PROJECT TOTALS			80	46	
		TOTALS			122	70	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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					ERECTION OF TYPE II SIGNS AND SUPPORTS						
					637.2215 SIGNS		634.0614	634.0616	634.0618	634.0620	
				637.2210	TYPE II	637.2230 SIGNS	POSTS	POSTS	POSTS	POSTS	
				SIGNS TYPE II	REFLECTIVE H	TYPE II	WOOD	WOOD	WOOD	WOOD	
			SIGN	REFLECTIVE H	FOLDING	REFLECTIVE F	4x6x14	4x6x16	4x6x18	4x6x20	
ID	SIGN NO.	LOCATION	CODE	W X H	S.F.	S.F.	S.F.	EACH	EACH	EACH	EACH	REMARKS
PROJECT 1500-47-71												
	101	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	1	---	---	MOUNT TO BACK SIDE OF #102
	102	USH 10 EB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	
	103	USH 10 EB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	104	USH 10 EB	J13-1	24" X 45"	7.50	---	---	---	1	---	---	
	106	N RAPIDS RD - S. OF USH 10	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO BACK SIDE OF #107
	107	N RAPIDS RD - S. OF USH 10	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	
	108	N RAPIDS RD - S. OF USH 10	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	109	N RAPIDS RD - S. OF USH 10	R5-1	30" X 30"	6.25	---	---	---	---	---	---	MOUNT TO BACKSIDE OF #110B
	110B	N RAPIDS RD - S. OF USH 10	J13-2	48" X 45"	15.00	---	---	---	1	---	---	HWY 42 & USH 10, SEE PLAN SHEET
	111	USH 10 EB	J4-2	48" X 36"	12.00	---	---	---	1	---	---	USH 10 & HWY 42, SEE PLAN SHEET
	112	USH 10 EB	W4-1R	36" X 36"	---	---	9.00	---	1	---	---	
	113	USH 10 EB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #112
	115	USH 10 EB	R1-2	36" X 31"	3.88	---	---	1	---	---	---	
	119	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	35 MPH
	120	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	121	N RAPIDS RD - N. OF USH 10	R5-1	30" X 30"	6.25	---	---	---	---	---	---	MOUNT TO BACKSIDE OF #122B
	122B	N RAPIDS RD - N. OF USH 10	J13-2	48" X 45"	15.00	---	---	---	1	---	---	HWY 42 & USH 10, SEE PLAN SHEET
	123	N RAPIDS RD - N. OF USH 10	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	124	N RAPIDS RD - N. OF USH 10	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	
	125	N RAPIDS RD - N. OF USH 10	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO BACKSIDE OF #124
	126	USH 10 WB	R1-2	36" X 31"	3.88	---	---	1	---	---	---	
	127	USH 10 WB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	128	USH 10 WB	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	
	129	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO BACK SIDE OF #128
	130B	USH 10 WB	J13-1	24" X 45"	7.50	---	---	---	1	---	---	CTH R, SEE PLAN SHEET
	131	USH 10 WB	M6-6	21" X 21"	3.07	---	---	---	---	---	---	MOUNT BELOW #132
	132	USH 10 WB	R14-1	24" X 18"	3.00	---	---	---	---	---	---	MOUNT BELOW #134
	133	USH 10 WB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #134
	134	USH 10 WB	D1-1	72" X 15"	7.50	---	---	---	2	---	---	ROCKWOOD ->
	135	USH 10 WB	W3-3	36" X 36"	---	---	9.00	---	1	---	---	
	136B	USH 10 WB	J4-2	48" X 36"	12.00	---	---	---	1	---		
	201	N 40TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	202	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	203	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	206	USH 10 EB	W11-2	30" X 30"	---	---	6.25	1	---	---	---	
	207	USH 10 EB	W16-7L	24" X 12"	---	---	2.00	---	---	---	---	MOUNT BELOW #206
	209	GLENVIEW DR	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	211	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	212A	USH 10 EB	R10-64	30" X 36"	7.50	---	---	---	1	---	---	
	212B	USH 10 EB	R10-64F	42" X 24"	7.00	---	---	---	---	---	---	MOUNT BELOW 212A
	214	W CRESCENT DR	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	215	USH 10 EB	R2-1	24" X 30"	5.00	---	---	---	1	---	---	
	216	USH 10 EB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #215

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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ERECTION OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	634.0620 POSTS WOOD 4x6x20 EACH	REMARKS
PROJECT 1500-47-71 CONT.												
	220	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	222	USH 10 WB	J1-1	24" X 39"	6.50	---	---	---	1	---	---	
	223	USH 10 WB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #222
	224	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	225	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	229	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	230	USH 10 WB	W11-2	30" X 30"	---	---	6.25	---	---	---	---	MOUNT TO POWER POLE
	231	USH 10 WB	W16-7L	24" X 12"	---	---	2.00	---	---	---	---	MOUNT TO POWER POLE
	233	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	234	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	301	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	302	E CRESENT DR	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	303	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	308	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	309	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO LIGHT POLE
		PROJECT TOTALS			262.67	59.68	34.50	17	21	0	0	
PROJECT 1500-37-76												
	306	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	311	USH 10 WB	R2-1	24" X 30"	5.00	---	---	---	1	---	---	
	312	USH 10 WB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #311
	316	FLEETWOOD DR	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	317	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	318	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	401	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	402	USH 10 EB	R2-1	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO POWER POLE
	403	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	404	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	501	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	502	N 23RD ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	504	USH 10 EB	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO LIGHT POLE
	506	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	510	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	511	MENCHL DR	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	514	N 21ST ST	R1-1	36" X 36"	7.46	---	---	---	---	---	---	MOUNT TO POWER POLE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

ERECTION OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	634.0620 POSTS WOOD 4x6x20 EACH	REMARKS
PROJECT 1500-37-76 CONT.												
	515	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	516	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	518	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	519	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	520	N 20TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	523	N 23RD ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	525	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	531	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	532	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	533	N 21ST ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	534	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	536	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	538	PARK ROW BLVD	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	539	PARK ROW BLVD	R5-1	30" X 30"	7.46	---	---	1	---	---	---	
	540	PARK ROW BLVD	R6-2L	24" X 30"	5.00	---	---	1	---	---	---	
	541	PARK ROW BLVD	R6-2R	24" X 30"	5.00	---	---	---	---	---	---	MOUNT ON BACKSIDE OF SIGN #540
	701	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	703	USH 10 EB	JH-1	24" X 24"	4.00	---	---	---	---	---	---	MOUNT TO LIGHT POLE
	704	USH 10 EB	M6-1	21" X 21"	3.07	---	---	---	---	---	---	MOUNT BELOW #703
	705	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	706	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	707	USH 10 EB	R3-20L	24" X 36"	6.00	---	---	---	1	---	---	
	708	USH 10 EB	W3-3	36" X 36"	---	---	9.00	---	1	---	---	
	709A	USH 10 EB	S1-1	36" X 36"	---	---	6.75	---	---	1	---	
	709B	USH 10 EB	S16-9P	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #709A
	710	USH 10 EB	R2-6P	24" X 18"	---	---	3.00	---	---	---	---	MOUNT BELOW #709B
	711	USH 10 EB	R10-15R	30" X 30"	6.25	---	---	1	---	---	---	
	712	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO BACKSIDE OF SIGNS #714-#716
	713	USH 10 WB	R3-4	24" X 24"	4.00	---	---	---	---	---	---	MOUNT TO BACKSIDE OF SIGNS #714-#716
	714	USH 10 EB	S1-1	36" X 36"	---	---	9.00	---	---	---	1	
	715	USH 10 EB	S16-7R	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW SIGN #714
	716	USH 10 EB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT BELOW SIGN #715
	717	USH 10 EB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	719	N 18TH ST	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	721	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	722	USH 10 EB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	25 MPH
	723	N 17TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	724	ELM ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

ERECTION OF TYPE II SIGNS AND SUPPORTS CONT.

ID	SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	634.0620 POSTS WOOD 4x6x20 EACH	REMARKS
PROJECT 1500-37-76 CONT.												
	725	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	726A	USH 10 WB	R2-1	24" X 30"	5.00	---	---	---	1	---	---	
	726B	USH 10 WB	S5-2	24" X 30"	5.00	---	---	---	---	---	---	MOUNT BELOW #726A
	728	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	730	N 18TH ST	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	731	USH 10 WB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL
	732	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	1	---	---	MOUT TO BACKSIDE OF #733
	733	USH 10 WB	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	
	734	USH 10 WB	JH-1	24" X 24"	4.00	---	---	1	---	---	---	
	735	USH 10 WB	M6-1	21" X 21"	3.07	---	---	---	---	---	---	MOUNT BELOW #734
	736	USH 10 WB	R3-7L	30" X 30"	6.25	---	---	1	---	---	---	
	741	N 17TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	742	N 17TH ST	W14-2	30" X 30"	---	---	6.25	---	1	---	---	
	805	N 16TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	806	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	808	USH 10 EB	S4-51	24" X 48"	8.00	---	---	---	---	1	---	
	809	USH 10 EB	R8-3	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW #808
	810	USH 10 EB	S1-1	36" X 36"	---	---	6.75	---	---	---	---	INSTALL ON RAPID FLASHING BEACON BASE AND POLE
	811	USH 10 EB	S16-7L	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #810
	812	USH 10 EB	S1-1	36" X 36"	---	---	6.75	---	---	---	---	INSTALL ON RAPID FLASHING BEACON BASE AND POLE
	813	USH 10 EB	S16-7R	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #812
	814	USH 10 WB	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT BELOW #860
	815	N 15TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	818	USH 10 EB	S1-1	36" X 36"	---	---	6.75	---	1	---	---	
	819	USH 10 EB	S16-7L	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #818
	820	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	821	N 14TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	822	USH 10 EB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	847	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	848	N 16TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	849	N 16TH ST	W14-2	30" X 30"	---	---	6.25	---	1	---	---	
	850	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	851	USH 10 WB	R8-3	24" X 24"	4.00	---	---	1	---	---	---	
	854	USH 10 WB	R2-1	24" X 30"	5.00	---	---	1	---	---	---	
	855	N 15TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	856	USH 10 WB	S1-1	36" X 36"	---	---	6.75	---	---	---	---	INSTALL ON RAPID FLASHING BEACON BASE AND POLE
	857	USH 10 WB	S16-7I	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #856
	858	USH 10 EB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	859	USH 10 WB	S1-1	36" X 36"	---	---	6.75	---	---	---	---	INSTALL ON RAPID FLASHING BEACON BASE AND POLE
	860	USH 10 WB	S16-7R	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #859
	861	USH 10 WB	R4-7	24" X 30"	5.00	---	---	1	---	---	---	
	862	N 14TH ST	R1-1	36" X 36"	7.46	---	---	---	1	---	---	
	863	USH 10 WB	S1-1	36" X 36"	---	---	6.75	---	1	---	---	
	864	USH 10 WB	S16-7L	30" X 18"	---	---	3.75	---	---	---	---	MOUNT BELOW #863
	867A	USH 10 EB	R2-1	24" X 30"	5.00	---	---	---	1	---	---	PLACE BETWEEN 8TH AND 9TH STREET INTERSECTIONS
	867B	USH 10 EB	S5-2	24"X30"	5.00	---	---	---	---	---	---	MOUNT BELOW #867A
		PROJECT TOTALS			404.92	44.76	110.75	39	26	2	1	
		TOTALS			667.59	104.44	145.25	56	47	2	1	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

TRAFFIC CONTROL

STAGE	LOCATION	EST. SERVICE PERIOD DAYS	643.0300 DRUMS NO	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO	643.0410 BARRICADES TYPE II DAYS	643.0420* BARRICADES TYPE III NO	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A NO	643.0705* WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO	643.0800 ARROW BOARDS DAYS	643.0900* SIGNS NO	643.0900* SIGNS DAYS	643.1050* SIGNS PCMS NO	643.1050* SIGNS PCMS DAYS	REMARKS
PROJECT 1500-47-71																			
2A	USH 10 AND CTH R INTERSECTION	76	250	19,000	0	0	20	1,520	40	3,040	60	4,560	4	304	55	4,180	4	28	
2B	USH 10 LANE CLOSURES	76	340	25,840	0	0	10	760	20	1,520	30	2,280	2	152	32	2,432	2	14	
	PROJECT TOTALS			44,840		0		2,280		4,560		6,840		456		6,612		42	
PROJECT 1500-37-76																			
1	LANE CLOSURES FOR TREE CLEARING	14	120	1,680	0	0	10	140	20	280	20	280	2	28	8	112	2	14	
1	USH 10 AT N. 14TH ST.	200	0	0	0	0	11	2,200	22	4,400	0	0	0	0	11	2,200	0	0	
1	N. 14TH ST.	200	0	0	0	0	8	1,600	16	3,200	0	0	0	0	16	3,200	0	0	
1	N. 17TH ST.	200	20	4,000	0	0	8	1,600	16	3,200	0	0	0	0	16	3,200	0	0	
1	N. 16TH ST.	200	20	4,000	0	0	8	1,600	16	3,200	0	0	0	0	16	3,200	0	0	
1	N. 15TH ST.	200	0	0	0	0	8	1,600	16	3,200	0	0	0	0	16	3,200	0	0	
1	18TH ST. (PHASE 1)	100	70	7,000	0	0	30	3,000	60	6,000	35	3,500	0	0	40	4,000	2	14	
1	18TH ST. (PHASE 2)	100	60	6,000	0	0	35	3,500	70	7,000	15	1,500	0	0	40	4,000	1	7	
1	MENCHL DR.	200	0	0	0	0	6	1,200	12	2,400	0	0	0	0	12	2,400	0	0	
1	21ST ST.	200	0	0	0	0	8	1,600	16	3,200	0	0	0	0	16	3,200	0	0	
1	20TH ST./PARK ROW BLVD.	200	0	0	0	0	10	2,000	20	4,000	0	0	0	0	17	3,400	0	0	
1	ELM ST.	200	0	0	0	0	2	400	4	800	0	0	0	0	4	800	0	0	
1	USH 10 W. OF FLEETWOOD DR. OR E. OF 23RD ST.	200	0	0	0	0	11	2,200	22	4,400	0	0	0	0	11	2,200	1	7	
1	FLEETWOOD DR.	200	0	0	0	0	6	1,200	12	2,400	0	0	0	0	4	800	0	0	
1	23RD ST.	200	0	0	0	0	10	2,000	20	4,000	0	0	0	0	8	1,600	0	0	
1	23RD ST. FULL CLOSURE	19	0	0	0	0	10	190	20	380	0	0	0	0	8	152	4	28	
1	18TH ST. FULL CLOSURE	3	0	0	0	0	10	30	20	60	0	0	0	0	8	24	1	7	
1	EMERGENCY VEHICLE RR CROSSING	180	0	0	0	0	4	720	6	1,080	0	0	0	0	2	360	0	0	
1	MISC. PEDESTRIAN DETOURS	90	0	0	20	1,800	0	0	0	0	0	0	0	0	20	1,800	0	0	
1	UNDISTRIBUTED	200	75	15,000	0	0	0	0	0	0	0	0	0	0	0	0	4	28	
	PROJECT TOTALS			37,680		1,800		26,780		53,200		5,280		28		39,848		105	
	TOTALS			82,520		1,800		29,060		57,760		12,120		484		46,460		147	

*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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TRAFFIC CONTROL SIGNS FIXED MESSAGE

ID	STAGE	LOCATION	643.1000* SF	REMARKS
PROJECT 1500-37-76				
	1 & 2	STH 42/MARITIME DR.	18	"WALDO BLVD OPEN TO MENASHA AVE" - SEE SIGN DETAIL
		TOTAL	18	

*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY PEDESTRIAN ACCOMMODATIONS

ID	STAGE	LOCATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	REMARKS
PROJECT 1500-47-71								
	2	USH 10	40	20	20	---	---	
		PROJECT TOTALS	40	20	20	0	0	
PROJECT 1500-37-76								
	1	USH 10	3,100	---	---	2,600	5,200	
	1	SIDEROADS	565	---	---	4,215	---	
		UNDISTRIBUTED	3,500	1,000	1,000	---	500	
		PROJECT TOTALS	7,165	1,000	1,000	6,815	5,700	
		TOTALS	7,205	1,020	1,020	6,815	5,700	

MARKING REMOVAL

ID	STAGE	LOCATION	646.9010 LINE WATER BLASTING 4-INCH LF	646.9110 LINE WATER BLASTING 8-INCH LF	646.9310 SPECIAL MARKING WATER BLASTING EA
PROJECT 1500-37-76					
	1	18TH ST.	1,505	120	5
		TOTALS	1,505	120	5

TEMPORARY MARKING LINE

ID	STAGE	LOCATION	649.0150 REMOVABLE TAPE 4-INCH LF
PROJECT 1500-37-76			
	1	18TH ST. (PHASE 1)	1,045
	1	18TH ST. (PHASE 2)	125
		TOTAL	1,170

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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MINI STORM SEWER

ID	LOCATION	612.0902.S.01 INSULATION BOARD POLYSTYRENE 2-INCH SY	SPV.0060.06 CLEANOUT EA	SPV.0090.02 6-INCH LF	SPV.0090.03 8-INCH LF
PROJECT 1500-37-77					
	94+08 - 94+85	38	1	85	---
	94+04 - 95+10	49	1	110	---
	95+60	5	---	10	---
	95+60	5	---	10	---
	96+15 - 98+60	111	1	250	---
	98+60 - 98+78	11	---	25	---
	96+65 - 98+60	89	1	200	---
	98+60	5	---	10	---
	99+76 - 101+80	100	1	225	---
	21ST ST.	18	---	40	---
	103+44 - 104+56	60	1	135	---
	105+35 - 106+13	36	1	80	---
	PARK ROW BLVD.	7	---	15	---
	107+25	12	---	25	---
	PARK ROW BLVD.	7	---	15	---
	108+44 110+17	87	1	195	---
	ELM ST.	7	---	15	---
	111+00 - 112+73	78	1	175	---
	113+40 - 115+11	78	1	175	---
	115+70 - 117+70	89	1	200	---
	18TH ST.	40	---	90	---
	119+51 - 120+51	45	1	100	---
	119+77 - 120+50	34	1	75	---
	120+86 - 121+60	34	1	75	---
	120+90 - 121+61	34	1	75	---
	17TH ST.	7	---	15	---
	122+87 - 125+10	112	1	250	---
	123+61 - 125+11	76	1	170	---
	16TH ST.	16	---	20	15
	126+42 - 127+75	65	1	145	---
	126+53 - 127+75	68	1	150	---
	15TH ST.	12	---	25	---
	14TH ST.	7	---	15	---
	TOTALS	1442	19	3200	15

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	Project 1500-37-76 LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	I-43, N. OF CLOVER RD, COVER TYPE I SIGN AS SHOWN										1	1		COVER "HWY 42-10"
2	I-43, N. OF SILVER CREEK RD, PLACE 1/2 MILE N. OF US 151 OFF-RAMP IN MEDIAN	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	WO 20-2A	48"X48"	1	214	214								
3	I-43, N. OF SILVER CREEK RD, PLACE 1/2 MILE N. OF US 151 OFF-RAMP ON RIGHT SHOULDER	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	WO 20-2A	48"X48"	1	214	214								
4	I-43, N. OF SILVER CREEK RD, PLACE 1/4 MILE N. OF US 151 OFF-RAMP IN MEDIAN	MO 4-8	36"X18"	1	214	214								
	"	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 5-2R	30"X30"	1	214	214								
5	I-43, N. OF SILVER CREEK RD, PLACE 1/4 MILE N. OF US 151 OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	214	214								
	"	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 5-2R	30"X30"	1	214	214								
6	I-43, AT US 151 OFF-RAMP, PLACE ADJACENT TO EXISTING TYPE I SIGN IN MEDIAN	MO 4-8	36"X18"	1	214	214								
	"	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 6-2	30"X30"	1	214	214								TILT RIGHT
7	I-43, AT US 151 OFF-RAMP, PLACE ADJACENT TO EXISTING TYPE I SIGN ON RIGHT SHOULDER	MO 4-8	36"X18"	1	214	214								
	"	M 3-2	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 6-2	30"X30"	1	214	214								TILT RIGHT
8	I-43 OFF-RAMP TO US 151, PLACE 500' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 5-1R	21"X21"	1	214	214								
9	I-43 OFF-RAMP TO US 151, PLACE 150' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								RIGHT
10	US 151, PLACE AT END OF PARAPET WALL FOR I-43 STRUCTURE EAST SIDE	MO 4-5	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
11	US 151, PLACE NEXT TO EXISTING J2-2 TYPE II SIGN AT I-43 SB RAMP INTERSECTION	MO 4-5	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
12	US 151, E. OF I-43, PLACE 300' E. OF I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								RIGHT
13	US 151, E. OF I-43, PLACE 200' E. OF I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
14	US 151, E. OF I-43, PLACE 550' E. OF I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 5-1R	21"X21"	1	214	214								
	PAGE SUBTOTALS			49		10,486	0	0	0	0		1	0	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	Project 1500-37-76 LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
15	US 151, W. OF CTH R, PLACE 150' W. OF CTH R INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
16	US 151, E. OF CTH R, PLACE 300' E. OF CTH R INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
17	US 151, E. OF CTH R, PLACE 100' W. OF DIVISION ST/35TH ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
18	US 151, E. OF CTH R, PLACE 100' E. OF DIVISION ST/35TH ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
19	US 151, E. OF CTH R, PLACE 100' W. OF CUSTER ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
20	US 151, E. OF CTH R, PLACE 100' E. OF CUSTER ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
21	US 151, W. OF US 10/10TH ST, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	214	214								
22	US 151, W. OF US 10/10TH ST, PLACE 100' W. OF US 10/10TH ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-4	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
23	US 10/10TH ST, AT US 151 INTERSECTION, MODIFY EXISTING J3-1 SIGN AS SHOWN	MO 4-8	24"X12"	1	214	214								
	"	MO 6-1	21"X21"	1	214	214								RIGHT
23A	INTERSECTION OF 8TH & WASHINGTON ST, COVER EXISTING J3-1 SIGN AS SHOWN			1							1		1	COVER "WEST 10 LT"
23B	US 10 WB, N. OF WASHINGTON ST, COVER EXISTING J4-1 SIGN AS SHOWN			1							1		1	COVER "WEST 10"
23C	US 10 WB, S. OF PINE ST, COVER EXISTING J1-2 SIGN AS SHOWN			1							1		1	COVER "JCT 42, JCT B"
23D	US 10 WB, N. OF PINE ST, COVER EXISTING J2-2 SIGN AS SHOWN			1							1		1	COVER "N 42 LT TURN, S 42 RT TURN"
24	US 10/10TH ST, S. OF WALDO BLVD INTERSECTION, PLACE IN TERRACE, FIELD DETERMINED	PCMS								7				
24A	STH 42, N. OF WALDO BLVD INTERSECTION, PLACE ON RIGHT SIDE, FIELD DETERMINED	PCMS								7				
25	US 10/STH 42, E. OF CTH R, PLACE ON RIGHT SIDE, FIELD DETERMINED	PCMS								7				
26	I-43/STH 42, N. OF US 151, PLACE TO RIGHT OF EXISTING J4-2 SIGN	MO 4-8	36"X18"	1	214	214								
	"	M 3-4	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
27	I-43/STH 42, N. OF CTH CS STRUCTURE, COVER EXISTING TYPE I AS SHOWN										1	1		
28	I-43/STH 42, N. OF MIDDLE RD, PLACE 1/2 MILE S. OF US 10/STH 42 INTERCHANGE ON RIGHT SHOULDER	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	WO 20-2A	48"X48"	1	214	214								
29	I-43/STH 42, N. OF MIDDLE RD, PLACE 1/2 MILE S. OF US 10/STH 42 INTERCHANGE IN MEDIAN	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	WO 20-2A	48"X48"	1	214	214								
30	I-43/STH 42, N. OF MIDDLE RD, PLACE 1/4 MILE S. OF US 10/STH 42 INTERCHANGE ON RIGHT SHOULDER	MO 4-8	36"X18"	1	214	214								
	"	M 3-4	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 6-1	30"X30"	1	214	214								AHEAD
	"	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 6-1	30"X30"	1	214	214								AHEAD
	PAGE SUBTOTALS			51		10,058	0	0	0	21		1	4	

PLAN SHEET PRODUCED BY WisDOT - NE REGION

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	Project 1500-37-76 LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
31	I-43/STH 42, N. OF MIDDLE RD, PLACE 1/4 MILE S. OF US 10/STH 42 INTERCHANGE IN MEDIAN	MO 4-8	36"X18"	1	214	214								
	"	M 3-4	36"X18"	1	214	214								
	"	M 1-4	36"X36"	1	214	214								10
	"	MO 6-1	30"X30"	1	214	214								AHEAD
	"	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 6-1	30"X30"	1	214	214								AHEAD
32	I-43/STH 42, N. OF MIDDLE RD, PLACE 200' S. OF US 10/STH 42 ON-RAMP	M 4-8A	30"X24"	1	214	214								
	"	M 3-3	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
33	CTH JJ, W. OF I-43, PLACE 750' W. OF I-43 SB RAMP INTERSECTION	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	WO 20-2A	48"X48"	1	214	214								
34	CTH JJ, W. OF I-43, PLACE 100' W. OF I-43 SB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								AHEAD
	"	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
35	CTH JJ, AT I-43 SB RAMP INTERSECTION, MODIFY EXISTING J2-3 AS SHOWN	MO 4-8	24"X12"	1	214	214								
	"	MO 5-1L	21"X21"	1	214	214								
	"	MO 4-8	24"X12"	1	214	214								
	"	MO 5-1L	21"X21"	1	214	214								
36	US 10/STH 42, AT I-43 NB RAMP INTERSECTION, PLACE IN MEDIAN JUST W. OF INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-2	24"X12"	1	214	214								
	"	M 1-4	24"X24"	1	214	214								10
	"	MO 6-1	21"X21"	1	214	214								LEFT
	"	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
37	US 10/STH 42, AT I-43 NB RAMP INTERSECTION, PLACE IN MEDIAN JUST E. OF INTERSECTION	R 11-3	60"X30"	1	214	214	214	428						3.3 MILES AHEAD
	"	M 4-9L	30"X24"	1	214	214								
38	US 10/STH 42, E. OF I-43, COVER EXISTING J4-2 AS SHOWN										1		1	COVER "EAST 10-NORTH 42"
39	I-43/US 10, N. OF STH 42/CTH JJ, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER ENTIRE SIGN
40	I-43/US 10, N. OF STH 42/CTH JJ, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
40A	I-43/US 10 OFF-RAMP TO STH 42/CTH JJ, COVER EXISTING J3-3 SIGN AS SHOWN										1		1	COVER "EAST 10 LT-NORTH 42 LT"
41	I-43, S. OF US 10/STH 42/CTH JJ, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
	PAGE SUBTOTALS			38		8,132	214	428	0	0		3	2	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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3

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	Project 1500-37-76 LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
42	US 10/STH 42, AT CTH R INTERSECTION, COVER EXISTING J13-3 AS SHOWN										1		1	COVER "10 AHEAD-42 AHEAD"
43	CTH R, AT US 10/STH 42 INTERSECTION, MODIFY EXISTING J13-3 AS SHOWN	MO 6-1	21"X21"	1	214	214								RIGHT
	"	MO 6-1	21"X21"	1	214	214								RIGHT
44	CTH R, AT US 10/STH 42 INTERSECTION, MODIFY EXISTING J13-3 AS SHOWN	MO 6-1	21"X21"	1	214	214								LEFT
	"	MO 6-1	21"X21"	1	214	214								LEFT
45	US 10/STH 42, AT CTH R INTERSECTION, PLACE IN SE QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	214	214	214	428						1.8 MILES AHEAD
46	US 10/STH 42, E. OF CTH R INTERSECTION, COVER EXISTING J4-2 AS SHOWN										1		1	
47	CTH R, S. OF US 10/STH 42, COVER EXISTING J3-2 AS SHOWN										1		1	
48	US 10/STH 42, E. OF CTH R INTERSECTION, COVER EXISTING J4-3 AS SHOWN										1		1	
49	STH 42, N. OF WALDO BLVD, COVER EXISTING J13-1 AS SHOWN										1		1	
50	STH 42, N. OF WALDO BLVD, COVER EXISTING J2-1 AS SHOWN										1		1	
51	I-43/US 10, N. OF CTH JJ INTERCHANGE, MODIFY EXISTING J4-2 AS SHOWN	M 4-8A	30"X24"	1	214	214								
52	I-43/US 10, N. OF CTH JJ INTERCHANGE, PLACE RIGHT OF EXISTING J4-2 TYPE II SIGN	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
53	I-43/US 10, S. OF CTH P, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER "NORTH 42-EAST 10"
53A	I-43/US 10, N. OF CTH P, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER ENTIRE SIGN
54	I-43/US 10, S. OF US 10/STH 310 INTERCHANGE, PLACE 1/4 MILE S. OF US 10 OFF-RAMP IN MEDIAN	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 5-2R	30"X30"	1	214	214								
55	I-43/US 10, S. OF US 10/STH 310 INTERCHANGE, PLACE 1/4 MILE S. OF US 10 OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 5-2R	30"X30"	1	214	214								
56	I-43/US 10, S. OF US 10/STH 310 INTERCHANGE, PLACE RIGHT OF EXISTING J4-2 TYPE II SIGN	MO 4-8A	36"X18"	1	214	214								
	"	M 3-3	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
57	I-43/US 10, S. OF US 10/STH 310 INTERCHANGE, PLACE LEFT OF EXISTING TYPE I EXIT SIGN	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 6-2	30"X30"	1	214	214								TILT RIGHT
58	US 10, W. OF I-43, PLACE 750' W. OF I-43 SB RAMP INTERSECTION ON RIGHT SHOULDER	FMS	84"X36"						21					
58A	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1900' PRIOR TO EXIT RAMP ON RIGHT SHOULDER	FMS	84"X36"						21					
59	US 10, W. OF I-43, PLACE 750' W. OF I-43 SB RAMP INTERSECTION IN MEDIAN	FMS	84"X36"						21					
59A	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1900' PRIOR TO EXIT RAMP IN MEDIAN	FMS	84"X36"						21					
60	US 10, W. OF I-43, PLACE 250' W. OF I-43 SB RAMP INTERSECTION ON RIGHT SHOULDER	M 4-5	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
61	US 10, AT I-43 INTERCHANGE, PLACE IN MEDIAN AT SB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
	PAGE SUBTOTALS			32		6,848	214	428	84	0		2	6	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	Project 1500-37-76 LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
62	I-43 SB OFF-RAMP TO US 10, PLACE 150' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
63	I-43 SB OFF-RAMP TO US 10, PLACE 150' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
64	I-43 SB OFF-RAMP TO US 10, PLACE 600' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 5-1L	21"X21"	1	214	214								
65	STH 310, JUST E. OF I-43, PLACE 50' W. OF RAMP INTERSECTION IN MEDIAN	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 5-1L	21"X21"	1	214	214								
66	STH 310, E. OF I-43, PLACE 250' E. OF I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
67	STH 310, E. OF I-43, PLACE 350' E. OF I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
68	STH 310, W. OF WAGON WHEEL RD, PLACE 300' W. OF WAGON WHEEL RD INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
69	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE LEFT, ADJACENT TO EXISTING TYPE I EXIT SIGN	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 6-2	30"X30"	1	214	214								TILT RIGHT
70	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1/4 MILE PRIOR TO EXIT RAMP IN MEDIAN	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 5-2R	30"X30"	1	214	214								
71	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1/4 MILE PRIOR TO EXIT RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	214	214								
	"	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	MO 5-2R	30"X30"	1	214	214								
72	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1/2 MILE PRIOR TO EXIT RAMP ON RIGHT SHOULDER	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	WO 20-2A	48"X48"	1	214	214								
73	I-43, N. OF US 10/STH 310 INTERCHANGE, PLACE 1/2 MILE PRIOR TO EXIT RAMP IN MEDIAN	M 3-1	36"X18"	1	214	214								
	"	M 1-6	36"X36"	1	214	214								42
	"	WO 20-2A	48"X48"	1	214	214								
	PAGE SUBTOTALS			45		9,630	0	0	0	0		0	0	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

Project 1500-37-76

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
74	STH 310, W. OF CTH R, PLACE 200' W. OF CTH R ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
75	STH 310, AT CTH R ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR WEST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
76	STH 310, AT CTH R ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR EAST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
77	STH 310, E. OF CTH R, PLACE 200' E. OF CTH R ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
78	STH 310, W. OF CTH Q, PLACE 200' W. OF CTH Q ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
79	STH 310, AT CTH Q ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR WEST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
80	STH 310, AT CTH Q ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR EAST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
81	STH 310, E. OF CTH Q, PLACE 200' E. OF CTH Q ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
82	STH 310, W. OF CTH Q, PLACE 200' W. OF CTH Q ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
83	STH 310, AT CTH B ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR WEST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
84	STH 310, AT CTH B ROUNDABOUT, PLACE ABOVE D1-1 SPLITTER ISLAND SIGN FOR EAST LEG	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-2	21"X21"	1	214	214								TILT RIGHT
85	STH 310, E. OF CTH Q, PLACE 200' E. OF CTH Q ROUNDABOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
	PAGE SUBTOTALS			48		10,272	0	0	0	0		0	0	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

Project 1500-37-76

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 214 DAYS	643.0900 SIGNS * DAYS	643.0420 BARRICADES TYPE III * DAYS	643.0705 WARNING LIGHTS TYPE A * DAYS	643.1000 FIXED MESSAGE SIGN * S.F.	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS *	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
86	STH 310, W. OF COLUMBUS ST, PLACE 150' W. OF COLUMBUS ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
87	STH 310, E. OF COLUMBUS ST, PLACE 150' E. OF COLUMBUS ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								AHEAD
88	STH 310, N. OF 14TH ST, PLACE 175' N. OF 14TH ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
89	STH 310, E. OF HAWTHORNE AVE, PLACE 75' E. OF HAWTHORNE AVE INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								RIGHT
90	STH 310, W. OF MADISON ST, PLACE 125' W. OF MADISON ST INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-1	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								LEFT
91	STH 310, N. OF 14TH ST, PLACE 90' N. OF 14TH ST INTERSECTION ON SIDEWALK	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								RIGHT
92	STH 310, W. OF STH 42, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	214	214								
93	STH 310, W. OF STH 42, PLACE 125' W. OF STH 42 INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
94	STH 42, AT STH 310 INTERSECTION, PLACE IN SW QUADRANT OF STH 310 INTERSECTION OFF ROADWAY	R 11-3	60"X30"	1	214	214	214	428						4.8 MILES AHEAD
	"	M 4-9R	30"X24"	1	214	214								
95	STH 42, N. OF STH 310, PLACE 75' N. OF STH 310 INTERSECTION	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 6-1	21"X21"	1	214	214								RIGHT
96	STH 42, S. OF 18TH ST, PLACE JUST S. OF 18TH ST INTERSECTION IN BUMPOUT	MO 4-8	24"X12"	1	214	214								
	"	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	MO 5-1R	21"X21"	1	214	214								
97	STH 42, S. OF 19TH ST, PLACE JUST S. OF 19TH ST INTERSECTION IN BUMPOUT	M 3-3	24"X12"	1	214	214								
	"	M 1-6	24"X24"	1	214	214								42
	"	WO 20-2S	48"X48"	1	214	214								
98	STH 42, S. OF COLUMBUS ST, PLACE IN SW QUADRANT ON PAVED SHOULDER	R 11-3	60"X30"	1	214	214	214	428						3.3 MILES AHEAD
99	US 10, S. OF STH 42, COVER EXISTING SIGNS ON SIGN BRIDGE STRUCTURE AS SHOWN										1		1	COVER ENTIRE SIGN AS NEEDED
	"										1		1	COVER ENTIRE SIGN AS NEEDED
100	US 10, S. OF STH 42, COVER EXISTING SIGNS ON SIGN BRIDGE STRUCTURE AS SHOWN										1		1	COVER ENTIRE SIGN AS NEEDED
101	US 10, S. OF STH 42, COVER EXISTING SIGNS ON SIGN BRIDGE STRUCTURE AS SHOWN										1		1	COVER ENTIRE SIGN AS NEEDED
102	US 10, S. OF STH 42, COVER EXISTING SIGNS ON SIGN BRIDGE STRUCTURE AS SHOWN										1		1	COVER ENTIRE SIGN AS NEEDED
	"										1		1	COVER ENTIRE SIGN AS NEEDED
	PAGE SUBTOTALS			42		8,988	428	856	0	0		0	6	
	PROJECT TOTALS			**305**		**64,414**	**856**	**1,712**	**84**	**21**		**7**	**18**	

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

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GEOTEXTILE AND GEOGRID

ID	STATION	LOCATION	645.0220 GEOGRID TYPE SR SY
1500-37-76			
	UNDISTRIBUTED	EBS AREAS	1,000
	TOTALS		1,000

LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES

ID	LOCATION	632.9101 EACH
1500-37-76		
	UNDISTRIBUTED	10
	TOTAL	10

UTILITY LINE OPENINGS

ID	STATION	LOCATION	SPV.0060.07 EACH
PROJECT 1500-37-76			
	UNDISTRIBUTED	USH 10	20
	PROJECT TOTAL		20
	TOTAL		20

MARKING

ID	STATION	TO	STATION	LOCATION	646.1020 EPOXY 4-INCH (YELLOW) LF	646.1020 EPOXY 4-INCH (WHITE) LF	SPV.0090.05 EPOXY 6-INCH LF	646.3020 EPOXY 8-INCH LF	646.5020 ARROW EPOXY EACH	646.5120 WORD EPOXY EACH	646.6120 STOPLINE EPOXY 18-INCH LF	646.7020 DIAGONAL EPOXY 6-INCH LF	646.7120 DIAGONAL EPOXY 12-INCH LF	646.7420 CROSSWALK TRANSVERSE LINE EPOXY 6-INCH LF	SPV.0090.07 CROSSWALK TRANSVERSE LINE EPOXY 12-INCH LF	646.8120 CURB EPOXY LF	646.8220 ISLAND NOSE EPOXY EACH
PROJECT 1500-47-71																	
	38+00	-	70+00	USH 10, EB	-	770	-	-	-	-	-	-	-	-	-	-	-
	38+00	-	70+00	USH 10, WB	-	770	-	-	-	-	-	-	-	-	-	-	-
				USH 10, CTH R INTERSECTION	-	60	-	620	12	2	160	-	-	-	-	162	4
				USH 10, N. 40TH ST INTERSECTION	-	-	-	78	1	-	-	-	-	70	-	160	2
				USH 10, MOBILE PARK ENTRANCE	-	-	-	78	1	-	-	-	-	80	-	152	2
				USH 10, GLENVIEW DR INTERSECTION	-	-	-	70	1	-	-	-	-	-	230	140	2
				USH 10, STATION 58+00	-	-	-	-	-	-	-	-	-	90	-	187	2
				USH 10, E. CRESCENT DR INTERSECTION	-	-	-	74	1	-	-	-	-	90	-	149	2
	PROJECT TOTALS				1,600		0	920	16	2	160	0	0	330	230	950	14
PROJECT 1500-37-76																	
	70+00	-	152+25	USH 10, EB	-	1,850	-	-	-	-	-	-	-	-	-	-	-
	70+00	-	152+25	USH 10, WB	-	1,800	-	-	-	-	-	-	-	-	-	-	-
				USH 10, FLEETWOOD DR INTERSECTION	-	-	90	110	2	-	25	140	-	149	165	119	4
				USH 10, N. 23RD ST INTERSECTION	60	-	-	255	5	1	32	-	-	207	335	86	2
				USH 10, MENCHL DR INTERSECTION	-	-	-	-	-	-	-	-	-	-	100	134	2
				USH 10, N. 21ST ST INTERSECTION	-	-	-	160	2	-	36	-	-	171	335	90	2
				USH 10, N. 20TH ST INTERSECTION	-	-	-	-	-	-	47	-	-	60	165	117	2
				USH 10, PARK ROW BLVD INTERSECTION	-	-	-	-	-	-	-	-	-	62	-	118	2
				USH 10, ELM ST INTERSECTION	-	-	-	-	-	-	-	-	-	77	158	138	2
				USH 10, N. 18TH ST INTERSECTION	210	-	-	1,340	9	2	128	-	150	620	-	107	2
				USH 10, N. 17TH ST INTERSECTION	-	-	-	20	-	-	-	-	-	142	332	83	2
				USH 10, N. 16TH ST INTERSECTION	-	-	-	-	-	-	-	-	-	143	332	136	2
				USH 10, N. 15TH ST INTERSECTION	-	-	-	-	-	-	30	-	-	470	-	136	2
				USH 10, N. 14TH ST INTERSECTION	-	-	-	-	-	-	34	-	-	159	316	136	2
	PROJECT TOTALS				3,920		90	1,885	18	3	332	140	150	2,260	2,238	1,400	26
	TOTALS				5,520		90	2,805	34	5	492	140	150	2,590	2,468	2,350	40

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONSTRUCTION STAKING

ID	CATEGORY	STATION		TO STATION	LOCATION	650.4500 SUBGRADE LF	650.6500 STRUCTURE LAYOUT LS	650.7000 CONCRETE PAVEMENT LF	650.8000 RESURFACING REFERENCE LF	650.8500 ELECTRICAL INSTALLATIONS LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF	SPV.0105.01 TREES AND LANDSCAPING PROJECT 1500-37-76 LS
PROJECT 1500-47-71													
	0010												
		38+00	-	70+00	USH 10 / STH 42	-	-	-	3,200	1	1	-	-
		PROJECT TOTALS				0	0	0	3,200	1	1	0	0
PROJECT 1500-37-76													
	0010												
		70+00	-	131+75	USH 10 / STH 42, EB	6,175	-	6,175	-		1	6,175	1
		70+00	-	131+75	USH 10 / STH 42, WB	6,175	-	6,175	-	-	-	6,175	-
		10+25	-	10+85	FLEETWOOD DR	60	-	60	-	-	-	60	-
		9+40	-	9+75	N. 23RD ST	35	-	35	-	-	-	35	-
		10+49	-	10+95	N. 23RD ST	46	-	46	-	-	-	46	-
		9+10	-	9+74	MENCHL DR	64	-	64	-	-	-	64	-
		9+35	-	9+75	N. 21ST ST	40	-	40	-	-	-	40	-
		10+49	-	11+00	N. 21ST ST	51	-	51	-	-	-	51	-
		9+40	-	9+75	N. 20TH ST	35	-	35	-	-	-	35	-
		10+49	-	10+85	PARK ROW BLVD, SB	36	-	36	-	-	-	36	-
		10+25	-	10+60	PARK ROW BLVD, NB	35	-	35	-	-	-	35	-
		10+25	-	10+65	ELM ST	40	-	40	-	-	-	40	-
		9+00	-	9+75	N. 18TH ST	75	-	75	-	-	-	75	-
		10+49	-	11+15	N. 18TH ST	66	-	66	-	-	-	66	-
		9+25	-	9+75	N. 17TH ST	50	-	50	-	-	-	50	-
		10+49	-	11+15	N. 17TH ST	66	-	66	-	-	-	66	-
		9+23	-	9+75	N. 16TH ST	52	-	52	-	-	-	52	-
		10+49	-	10+85	N. 16TH ST	36	-	36	-	-	-	36	-
		9+35	-	9+75	N. 15TH ST	40	-	40	-	-	-	40	-
		10+49	-	11+00	N. 15TH ST	51	-	51	-	-	-	51	-
		9+30	-	9+75	N. 14TH ST	45	-	45	-	-	-	45	-
		10+49	-	10+85	N. 14TH ST	36	-	36	-	-	-	36	-
		CATEGORY 0010 TOTALS				13,309	0	13,309	0	0	1	13,309	1
	0030												
		82+00	-	84+62	B-36-29	-	1	-	-	-	-	-	-
		CATEGORY 0030 TOTALS				0	1	0	0	0	0	0	0
	0050												
		70+00	-	131+75	USH 10 / STH 42	-	-	-	-	1	-	-	-
		CATEGORY 0050 TOTALS				0	0	0	0	1	0	0	0
	0070												
		70+40	-	70+62	B-36-232	-	1	-	-	-	-	-	-
		CATEGORY 0070 TOTALS				0	1	0	0	0	0	0	0
		PROJECT TOTALS				13,309	2	13,309	0	1	1	13,309	1
		TOTALS				13,309	2	13,309	3,200	2	2	13,309	1

NOTE: STORM SEWER STAKING IS SHOWN WITH STORM SEWER STRUCTURES.

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

CONDUIT RIGID NONMETALLIC

ID	CATEGORY	UNIT	TO	UNIT	STATION	TO	STATION	LOCATION	652.0225 * SCHEDULE 40 2-INCH LF
PROJECT 1500-37-76									
	0050								
		1-31	-	PB-20		71+05		USH 10, RT	65
		PB-20	-	4-9	71+05	-	72+75	USH 10, RT	170
		4-9	-	4-8	72+75	-	74+40	USH 10, RT	165
		4-8	-	4-7	74+40	-	76+20	USH 10, RT	180
		4-7	-	4-6	76+20	-	78+00	USH 10, RT	180
		4-6	-	PB-19	78+00	-	78+51	USH 10, RT	51
		PB-19	-	MPU PED		78+51		USH 10	150
		PB-19	-	4-5	78+51	-	80+00	USH 10, RT	149
		4-5	-	4S-2	80+00	-	82+00	USH 10, RT	200
		4S-1	-	4-4	84+75	-	86+35	USH 10, RT	160
		4-4	-	4-3	86+35	-	88+15	USH 10, RT	180
		4-3	-	4-2	88+15	-	90+00	USH 10, RT	185
		4-2	-	4-1	90+00	-	92+00	USH 10, RT	200
		4-1	-	PB-18	92+00	-	92+46	USH 10, RT	50
		1-30	-	1-29	94+10	-	97+10	USH 10, MEDIAN	300
		PB-17	-	1-29	96+72	-	97+10	USH 10, RT	80
		1-29	-	1-28	97+10	-	99+85	USH 10, MEDIAN	275
		1-27	-	1-26	102+35	-	105+05	USH 10, MEDIAN	270
		1-26	-	PB-16	105+05	-	106+00	USH 10, MEDIAN	95
		PB-16	-	PB-15	106+00		106+38	N. 20TH ST, LT	135
		PB-16	-	1-25	106+00	-	108+00	USH 10, MEDIAN	200
		1-25	-	1-24	108+00	-	110+50	USH 10, MEDIAN	250
		1-24	-	1-23	110+50	-	113+20	USH 10, MEDIAN	270
		1-23	-	1-22	113+20	-	115+55	USH 10, MEDIAN	235
		1-21	-	1-20	120+60	-	123+50	USH 10, MEDIAN	290
		1-20	-	1-19	123+50	-	126+35	USH 10, MEDIAN	285
		1-19	-	PB-14	126+35	-	127+55	USH 10, MEDIAN	120
		PB-14	-	PB-13	127+55	-	127+95	N. 15TH ST, LT	80
		PB-14	-	1-18	127+55		129+10	USH 10, MEDIAN	155
		1-18	-	1-17	129+10	-	131+75	USH 10, MEDIAN	265
		4-9				72+75		USH 10, RT	5
		4-8				74+40		USH 10, RT	5
		4-7				76+20		USH 10, RT	5

CONDUIT RIGID NONMETALLIC (CONTINUED)

ID	CATEGORY	UNIT	TO	UNIT	STATION	TO	STATION	LOCATION	652.0225 * SCHEDULE 40 2-INCH LF
PROJECT 1500-37-76									
	0050								
		4-6				78+00		USH 10, RT	5
		4-5				80+00		USH 10, RT	5
		4S-2				82+00		USH 10, RT	5
		4S-1				84+75		USH 10, RT	5
		4-4				86+35		USH 10, RT	5
		4-3				88+15		USH 10, RT	5
		4-2				90+00		USH 10, RT	5
		4-1				92+00		USH 10, RT	5
		1-30				94+10		USH 10, MEDIAN	5
		1-29				97+10		USH 10, MEDIAN	10
		1-28				99+90		USH 10, MEDIAN	5
		1-27				102+35		USH 10, MEDIAN	5
		1-26				105+05		USH 10, MEDIAN	10
		1-25				108+00		USH 10, MEDIAN	5
		1-24				110+50		USH 10, MEDIAN	10
		1-23				113+20		USH 10, MEDIAN	10
		1-22				115+55		USH 10, MEDIAN	5
		1-21				120+60		USH 10, MEDIAN	5
		1-20				123+50		USH 10, MEDIAN	10
		1-19				126+35		USH 10, MEDIAN	10
		1-18				129+10		USH 10, MEDIAN	10
		TOTAL							5,545

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

LIGHTING UNITS, PULL BOXES, CONCRETE BASES, AND POLES

ID	CATEGORY	UNIT	STATION	LOCATION	SPV.0060.21 CONCRETE BASES TYPE 7 SPECIAL EACH	SPV.0060.22 CONCRETE BASES TYPE 8 SPECIAL EACH	SPV.0060.23 COMPOSITE LIGHT POLES 40-FT EACH	SPV.0060.24 LUMINAIRE ARMS ALUMINUM 8-FT EACH	SPV.0060.25 LUMINAIRE ARMS ALUMINUM 15-FT EACH	SPV.0060.26 LUMINAIRE LED EACH	* SPV.0060.27 LUMINAIRE LED SPECIAL EACH	SPV.0060.28 LIGHTING PULL BOX EACH	* 655.0610 ELECTRICAL WIRING LIGHTING 12 AWG LF	REMARKS
PROJECT 1500-37-76														
	0050													
		1-31	71+05	USH 10, MEDIAN	1	-	1	1	-	1	-	-	195	
		PB-20	71+05	USH 10, RT	-	-	-	-	-	-	-	1	-	
		4-9	72+75	USH 10, RT	1	-	1	-	1	1	-	1	195	
		4-8	74+40	USH 10, RT	1	-	1	-	1	1	-	1	195	
		4-7	76+20	USH 10, RT	-	1	1	-	1	1	-	1	195	
		4-6	78+00	USH 10, RT	-	1	1	-	1	1	-	1	195	
		PB-19	78+51	USH 10, RT	-	-	-	-	-	-	-	1	-	
		4-5	80+00	USH 10, RT	-	1	1	-	1	1	-	1	195	
		4S-2	82+00	USH 10, RT	-	1	1	-	1	-	1	1	225	
		4S-1	84+75	USH 10, RT	-	1	1	-	1	-	1	1	225	
		4-4	86+35	USH 10, RT	-	1	1	-	1	1	-	1	195	
		4-3	88+15	USH 10, RT	1	-	1	-	1	1	-	1	195	
		4-2	90+00	USH 10, RT	1	-	1	-	1	1	-	1	195	
		4-1	92+00	USH 10, RT	1	-	1	-	1	1	-	1	195	
		PB-18	92+46	USH 10, RT	-	-	-	-	-	-	-	1	-	INSTALL ADJACENT TO MPU POLE 5H7103
		1-30	94+10	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		PB-17	96+72	USH 10, RT	-	-	-	-	-	-	-	1	-	INSTALL ADJACENT TO MPU POLE 5H7118
		1-29	97+10	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-28	99+90	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-27	102+35	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-26	105+05	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		PB-16	106+00	USH 10, MEDIAN	-	-	-	-	-	-	-	1	-	
		PB-15	106+38	N. 20TH ST, LT	-	-	-	-	-	-	-	1	-	INSTALL ADJACENT TO MPU POLE 5H6752
		1-25	108+00	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-24	110+50	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-23	113+20	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-22	115+55	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-21	120+60	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-20	123+50	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		1-19	126+35	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
		PB-14	127+55	USH 10, MEDIAN	-	-	-	-	-	-	-	1	-	
		PB-13	127+95	N. 15TH ST, LT	-	-	-	-	-	-	-	1	-	INSTALL ADJACENT TO MPU POLE 5G7035
		1-18	129+10	USH 10, MEDIAN	1	-	1	2	-	2	-	1	390	
	PROJECT TOTALS				19	6	25	27	11	36	2	32	7470	
	TOTALS				19	6	25	27	11	36	2	32	7470	

* QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

REMOVING PULL BOXES*

ID	INTERSECTION	653.0905 EACH
PROJECT 1500-47-71		
	USH 10 & CTH R	13
	PROJECT TOTAL	13
PROJECT 1500-37-76		
	USH 10 & 18TH AVE	14
	PROJECT TOTAL	14
	TOTALS	27

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING CONCRETE BASES

ID	INTERSECTION	204.0195 EACH
PROJECT 1500-47-71		
	USH 10 & CTH R	12
	PROJECT TOTAL	12
PROJECT 1500-37-76		
	USH 10 & 18TH AVE	9
	PROJECT TOTAL	9
	TOTALS	21

CONDUIT

INTERSECTION: USH 10 & CTH R			652.0225* CONDUIT RIGID 2-INCH LF	652.0235 CONDUIT RIGID 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
ID	FROM	TO			
PROJECT 1500-47-71					
	CABINET (CTH R)	PB1	--	72	--
	CABINET (CTH R)	PB18	--	33	--
	PB1	PB2	--	18	--
	PB1	PB3	--	128	--
	PB3	PB4	--	--	122
	PB4	PB5	--	--	164
	PB5	PB6	88	--	--
	PB5	PB9	--	--	90
	PB6	PB7	44	--	--
	PB7	PB8	91	--	--
	PB9	PB10	--	80	--
	PB10	PB11	20	--	--
	PB10	PB12	--	98	--
	PB12	PB13	--	--	116
	PB13	PB14	--	100	--
	PB14	PB15	128	--	--
	PB14	PB17	--	--	100
	PB17	PB18	--	--	98
	PB1	SB1	9	--	--
	PB4	SB2	--	13	--
	PB4	SB3	33	--	--
	PB9	SB4	--	16	--
	PB10	SB5	16	--	--
	PB13	SB6	--	22	--
	PB14	SB7	24	--	--
	PB18	SB8	--	15	--
	PROJECT TOTAL		453	595	690

CONDUIT (CONTINUED)

INTERSECTION: USH 10 & 18TH ST			652.0225* CONDUIT RIGID 2-INCH LF	652.0235 CONDUIT RIGID 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
ID	FROM	TO			
PROJECT 1500-37-76					
	CABINET (18TH ST.	PB1	--	54	--
	CABINET (18TH ST.	PB14	--	69	--
	PB1	PB2	--	42	--
	PB2	PB3	--	20	--
	PB2	PB4	--	98	--
	PB4	PB5	--	82	--
	PB5	PB6	117	--	--
	PB6	PB7	125	--	--
	PB5	PB8	--	100	--
	PB8	PB9	--	80	--
	PB9	PB10	--	80	--
	PB10	PB11	--	132	--
	PB11	PB12	--	124	--
	PB12	PB13	--	117	--
	PB13	PB14	125	--	--
	PB14	PB15	125	--	--
	PB13	PB16	--	96	--
	PB16	PB17	--	66	--
	PB1	SB1	11	--	--
	PB1	SB2	12	--	--
	PB4	SB3	--	14	--
	PB5	SB4	11	--	--
	PB9	SB5	--	20	--
	PB9	SB6	10	--	--
	PB10	SB7	18	--	--
	PB11	SB8	--	11	--
	PB12	SB9	44	--	--
	PB12	SB10	27	--	--
	PB17	SB11	--	23	--
	PROJECT TOTALS		625	1,228	0
	TOTALS		1,078	1,823	690

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

CONCRETE BASES

ID	BASE NO.	STATION		OFFSET	654.0101* CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
INTERSECTION: USH 10 & CTH R								
PROJECT 1500-47-71								
	CABINET (CTH R)	38+46	WB	46' LT	--	--	--	1
	SB1	38+72	WB	60' LT	1	--	--	--
	SB2	39+80	WB	73' LT	--	--	1	--
	SB3	39+70	WB	30' LT	1	--	--	--
	SB4	40+08	EB	34' RT	--	--	1	--
	SB5	39+66	EB	54' RT	1	--	--	--
	SB6	38+74	EB	68' RT	--	--	1	--
	SB7	38+45	EB	37' RT	1	--	--	--
	SB8	38+25	WB	35' LT	--	--	1	--
	PROJECT TOTALS				4	0	4	1

CONCRETE BASES (CONTINUED)

ID	BASE NO.	STATION		OFFSET	654.0101* CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
INTERSECTION: USH 10 & 18TH AVE								
PROJECT 1500-37-76								
	CABINET (18TH AVE)	117+65	WB	39' LT	--	--	--	1
	SB1	117+81	WB	30' LT	1	--	--	--
	SB2	117+96	WB	46' LT	1	--	--	--
	SB3	118+51	WB	43' LT	--	1	--	--
	SB4	118+67	WB	29' LT	1	--	--	--
	SB5	118+98	EB	29' RT	--	--	1	--
	SB6	118+71	EB	39' RT	1	--	--	--
	SB7	118+61	EB	49' RT	1	--	--	--
	SB8	117+88	EB	57' RT	--	--	1	--
	SB9	117+83	EB	48' RT	1	--	--	--
	SB10	117+70	EB	35' RT	1	--	--	--
	SB11	117+65	WB	29' LT	--	--	1	--
	PROJECT TOTALS				7	1	3	1
	TOTALS				11	1	7	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

PULL BOXES STEEL

ID	PB NO.	STATION	OFFSET		653.0135 24x36-INCH EACH	653.0140 24x42-INCH EACH
INTERSECTION: USH 10 & CTH R						
PROJECT 1500-47-71						
	PB1	38+63 WB	63'	LT	--	1
	PB2	38+69 WB	80'	LT	1	--
	PB3	39+28 WB	64'	LT	--	1
	PB4	39+89 WB	63'	LT	--	1
	PB5	39+98 WB	19'	RT	--	1
	PB6	40+86 WB	19'	RT	1	--
	PB7	41+29 WB	19'	RT	1	--
	PB8	42+20 WB	20'	RT	1	--
	PB9	39+93 EB	39'	RT	--	1
	PB10	39+57 EB	69'	RT	--	1
	PB11	39+65 EB	89'	RT	1	--
	PB12	39+18 EB	69'	RT	--	1
	PB13	38+65 EB	48'	RT	--	1
	PB14	38+22 EB	33'	RT	--	1
	PB15	36+94 EB	35'	RT	--	--
	PB16	36+38 EB	35'	RT	--	--
	PB17	38+20 WB	6'	RT	--	1
	PB18	38+39 WB	38'	LT	--	1
		PROJECT TOTALS			5	11

PULL BOXES STEEL "CONT."

ID	PB NO.	STATION	OFFSET		24x36-INCH EACH	24x42-INCH EACH
INTERSECTION: USH 10 & 18TH AVE						
PROJECT 1500-37-76						
	PB1	117+83 WB	41'	LT	--	1
	PB2	118+00 WB	55'	LT	--	1
	PB3	118+00 WB	65'	LT	1	--
	PB4	118+48 WB	56'	LT	--	1
	PB5	118+78 WB	29'	LT	--	1
	PB6	119+96 WB	29'	LT	1	--
	PB7	121+21 WB	29'	LT	1	--
	PB8	118+90 WB	19'	RT	--	1
	PB9	118+78 EB	33'	RT	--	1
	PB10	118+55 EB	66'	RT	--	1
	PB11	117+90 EB	67'	RT	--	1
	PB12	117+68 EB	45'	RT	--	1
	PB13	117+43 EB	29'	RT	--	1
	PB14	116+47 EB	29'	RT	1	--
	PB15	115+23 EB	29'	RT	1	--
	PB16	117+43 WB	4'	RT	--	1
	PB17	117+43 WB	29'	LT	--	1
		PROJECT TOTALS			5	12
		TOTALS			10	23

TRAFFIC DETECTOR LOOPS

ID	LOOP NO.	HOME RUN PB.	LOCATION*		SIZE (FT. X FT.)			NO. OF TURNS	PAVEMENT	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD-IN CABLE ^ LF	655.0800 LOOP DETECTOR WIRE LF
INTERSECTION: USH 10 & CTH R													
PROJECT 1500-47-71													
11		PB17	38+25	EB	4' LT	6'	X	24'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	84	72	300
12		PB17	38+54	EB	4' LT	6'	X	24'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	96	208	324
21		PB8	42+20	WB	12' LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	96	488	308
22		PB7	41+18	WB	11' LT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	92	392	228
31		PB12	39+31	EB	51' RT	6'	X	30'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	104	427	364
41		PB2	39+03	WB	56' LT	6'	X	30'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	110	54	285
42		PB2	38+91	WB	56' LT	6'	X	30'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	132	54	318
51		PB6	40+96	WB	7' RT	6'	X	6'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	52	349	126
52		PB5	40+14	WB	7' RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	90	255	296
53		PB5	39+86	WB	7' RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	76	255	204
61		PB16	36+38	EB	11' LT	6'	X	24'	4	CONCRETE	EXISTING LOOP DETECTOR	--	324	312
62		PB15	36+95	EB	11' LT	6'	X	24'	4	CONCRETE	EXISTING LOOP DETECTOR	--	262	312
71		PB3	39+15	WB	56' LT	6'	X	30'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	112	100	380
81		PB11	39+43	EB	51' RT	6'	X	3'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	60	378	129
82		PB11	39+54	EB	51' RT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	76	378	204
										PROJECT TOTALS	1180	3996	4090

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

TRAFFIC DETECTOR LOOPS 'CONTINUED'

INTERSECTION: USH 10 & 18TH AVE.

ID	LOOP NO.	HOME RUN PB.	LOCATION*		SIZE (FT. X FT.)					NO. OF TURNS	PAVEMENT	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD-IN CABLE ^ LF	655.0800 LOOP DETECTOR WIRE LF
PROJECT 1500-37-76															
	11	PB16	117+39	WB	14'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	72	76	260
	12	PB16	117+67	WB	14'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	72	76	260
	21	PB7	121+20	WB	12'	LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	66	431	248
	22	PB6	119+96	WB	12'	LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	66	296	248
	31	PB10	118+28	EB	68'	LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	102	327	320
	32	PB10	118+28	EB	42'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	102	327	320
	41	PB3	118+09	WB	69'	LT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	68	80	192
	42	PB2	118+09	WB	41'	LT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	68	60	192
	51	PB8	119+05	WB	10'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	82	230	280
	52	PB8	118+79	WB	10'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	78	230	272
	61	PB15	115+23	EB	11'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	72	375	260
	62	PB14	116+47	EB	11'	RT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	72	240	260
	71	PB3	118+19	WB	69'	LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	88	80	292
	72	PB2	118+19	WB	41'	LT	6'	X	20'	4	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	88	60	292
	81	PB10	118+37	EB	68'	RT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	82	327	213
	82	PB10	118+37	EB	42'	RT	6'	X	20'	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT) SDD 9F9-4	82	327	213
												PROJECT TOTALS	1260	3542	4122
												TOTALS	2,440	7,538	8,212

^ ADDITIONAL QUANTITY WITH CABLE TRAFFIC SIGNAL ITEMS
* LOCATION IS TO FRONT CENTER OF DETECTOR

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SIGNAL CABLE

INTERSECTION: USH 10 & CTH R			655.0230 CABLE TRAFFIC 5-14 AWG LF	655.0240 CABLE TRAFFIC 7-14 AWG LF	655.0250 CABLE TRAFFIC 9-14 AWG LF	655.0260 CABLE TRAFFIC 12-14 AWG LF	655.0270 CABLE TRAFFIC 15-14 AWG LF	655.0700 LOOP DETECTOR LEAD IN* LF
ID	FROM	TO						
PROJECT 1500-47-71								
	CABINET (CTH R)	SB1	--	--	--	39	--	--
	SB1	FACE 14	--	22	--	--	--	--
	SB1	FACE 16	19	--	--	--	--	--
	CABINET (CTH R)	SB2	--	--	--	--	183	--
	SB2	FACE 12	60	--	--	--	--	--
	SB2	FACE 13	45	--	--	--	--	--
	SB2	FACE 15	--	70	--	--	--	--
	CABINET (CTH R)	SB3	--	--	--	206	--	--
	SB3	FACE 4	--	22	--	--	--	--
	SB3	FACE 6	19	--	--	--	--	--
	CABINET (CTH R)	SB4	--	--	--	--	322	--
	SB4	FACE 2	50	--	--	--	--	--
	SB4	FACE 3	35	--	--	--	--	--
	SB4	FACE 5	--	65	--	--	--	--
	CABINET (CTH R)	SB5	--	--	--	367	--	--
	SB5	FACE 11	19	--	--	--	--	--
	SB5	FACE 19	--	22	--	--	--	--
	CABINET (CTH R)	SB6	--	--	--	--	206	--
	SB6	FACE 17	40	--	--	--	--	--
	SB6	FACE 18	50	--	--	--	--	--
	SB6	FACE 20	--	65	--	--	--	--
	CABINET (CTH R)	SB7	--	--	--	152	--	--
	SB7	FACE 1	19	--	--	--	--	--
	SB7	FACE 9	--	22	--	--	--	--
	CABINET (CTH R)	SB8	--	--	--	--	31	--
	SB8	FACE 7	40	--	--	--	--	--
	SB8	FACE 8	50	--	--	--	--	--
	SB8	FACE 10	--	65	--	--	--	--
	PROJECT TOTALS		446	353	0	764	742	0

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SIGNAL CABLE 'CONTINUED'

INTERSECTION: USH 10 & 18TH ST			655.0230 CABLE TRAFFIC 5-14 AWG LF	655.0240 CABLE TRAFFIC 7-14 AWG LF	655.0250 CABLE TRAFFIC 9-14 AWG LF	655.0260 CABLE TRAFFIC 12-14 AWG LF	655.0270 CABLE TRAFFIC 15-14 AWG LF	655.0700 LOOP DETECTOR LEAD IN* LF
ID	FROM	TO						
PROJECT 1500-37-76								
	CABINET (18TH AVE)	SB1	--	--	35	--	--	--
	SB1	FACE 22	14	--	--	--	--	--
	SB1	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB2	--	--	--	36	--	--
	SB2	FACE 14	--	22	--	--	--	--
	SB2	FACE 16	21	--	--	--	--	--
	SB2	FACE 23	14	--	--	--	--	--
	SB2	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB3	--	--	--	--	119	--
	SB3	FACE 12	36	--	--	--	--	--
	SB3	FACE 13	26	--	--	--	--	--
	SB3	FACE 15	--	48	--	--	--	--
	SB3	FACE 28	14	--	--	--	--	--
	SB3	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB4	---	--	--	191	--	--
	SB4	FACE 4	--	22	--	--	--	--
	SB4	FACE 6	21	--	--	--	--	--
	SB4	FACE 21	14	--	--	--	--	--
	SB4	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB5	--	--	--	--	279	--
	SB5	FACE 2	47	--	--	--	--	--
	SB5	FACE 3	36	--	--	--	--	--
	SB5	FACE 5	--	66	--	--	--	--
	CABINET (18TH AVE)	SB6	--	--	264	--	--	--
	SB6	FACE 26	14	--	--	--	--	--
	SB6	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB7	--	--	--	300	--	--
	SB7	FACE 11	21	--	--	--	--	--
	SB7	FACE 19	--	22	--	--	--	--
	SB7	FACE 27	14	--	--	--	--	--
	SB7	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB8	--	--	--	--	200	--
	SB8	FACE 17	47	--	--	--	--	--
	SB8	FACE 18	26	--	--	--	--	--
	SB8	FACE 20	--	57	--	--	--	--
	CABINET (18TH AVE)	SB9	--	--	170	--	--	--
	SB9	FACE 21	14	--	--	--	--	--
	SB9	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB10	--	--	--	168	--	--
	SB10	FACE 1	21	--	--	--	--	--
	SB10	FACE 9	--	22	--	--	--	--
	SB10	FACE 25	14	--	--	--	--	--
	SB10	BUTTON	--	--	--	--	--	6
	CABINET (18TH AVE)	SB11	--	--	--	--	53	--
	SB11	FACE 7	48	--	--	--	--	--
	SB11	FACE 8	37	--	--	--	--	--
	SB11	FACE 10	--	65		--	--	--
	PROJECT TOTALS		499	324	469	695	651	48
		TOTALS	945	677	469	1,459	1,393	48

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EQUIPMENT GROUNDING CONDUCTORS & PULL BOX JUMPERS

INTERSECTION: USH 10 & CTH R

ID	FROM	TO	655.0515 ELECTRICAL WIRE LF
PROJECT 1500-47-71			
		EQUIPMENT GROUNDING CONDUCTORS	
	CABINET (CTH R)	SB1	38
	SB1	SB2	168
	SB2	SB3	58
	SB3	SB4	200
	SB4	SB5	84
	SB5	SB6	162
	SB6	SB7	106
	SB7	SB8	154
	SB8	CABINET (CTH R)	32
		PULL BOX JUMPERS	
	PB1	SB1	19
	PB3	SB1	83
	PB4	SB2	23
	PB5	SB2	105
	PB9	SB4	26
	PB10	SB5	26
	PB12	SB5	74
	PB13	SB6	32
	PB14	SB7	34
	PB17	SB7	84
	PB18	SB8	25
		PROJECT TOTAL	1533

EQUIPMENT GROUNDING CONDUCTORS & PULL BOX JUMPERS 'CONTINUED'

INTERSECTION: USH 10 & 18TH AVE

ID	FROM	TO	655.0515 ELECTRICAL WIRE LF
PROJECT 1500-37-76			
		EQUIPMENT GROUNDING CONDUCTORS	
	CABINET (18TH AVE)	SB1	36
	SB1	SB2	29
	SB2	SB3	114
	SB3	SB4	77
	SB4	SB5	127
	SB5	SB6	25
	SB6	SB7	79
	SB7	SB8	106
	SB8	SB9	68
	SB9	SB10	31
	SB10	SB11	160
	SB11	CABINET (18TH AVE)	53
		PULL BOX JUMPERS	
	PB1	SB1	34
	PB2	SB2	44
	PB4	SB3	24
	PB5	SB4	21
	PB9	SB5	59
	PB9	SB6	20
	PB10	SB7	28
	PB11	SB8	21
	PB13	SB9	25
	PB13	SB10	48
	PB16	SB11	64
	PB17	SB11	33
		PROJECT TOTAL	1326
		TOTAL	2,859

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

3

TRAFFIC SIGNAL POLES AND LUMINAIRE ARMS

INTERSECTION: USH 10 & CTH R ID	BASE NO.	657.0100* PED. BASE EACH	657.0425* 15-FOOT STAND. EACH	657.0430 10-FOOT STAND. EACH	657.0345 POLES TYPE 9 EACH	657.0355 POLES TYPE 12 EACH	657.0360 POLES TYPE 13 EACH	657.0530 MONOTUBE ARMS 30-FT	657.0535 MONOTUBE ARMS 35-FT	657.0545 MONOTUBE ARMS 45-FT	657.0550 MONOTUBE ARMS 50-FT	657.0555 MONOTUBE ARMS 55-FT	657.0815 LUMINAIRE ARMS STEEL 15-FT EACH	SPV.0060.26* LUMINAIRE LED EACH
PROJECT 1500-47-71														
	SB1	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB2	--	--	--	--	--	1	--	--	--	--	1	1	1
	SB3	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB4	--	--	--	--	--	1	--	--	1	--	--	1	1
	SB5	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB6	--	--	--	--	--	1	--	--	--	1	--	1	1
	SB7	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB8	--	--	--	--	--	1	--	--	1	--	--	1	1
	PROJECT TOTALS	4	4	0	0	0	4	0	0	2	1	1	4	4

TRAFFIC SIGNAL POLES AND LUMINAIRE ARMS 'CONTINUED'

INTERSECTION: USH 10 & 18TH AVE ID	BASE NO.	657.0100* PED. BASE EACH	657.0425* 15-FOOT STAND. EACH	657.0430 10-FOOT STAND. EACH	657.0345 POLES TYPE 9 EACH	657.0355 POLES TYPE 12 EACH	657.0360 POLES TYPE 13 EACH	657.0530 MONOTUBE ARMS 30-FT	657.0535 MONOTUBE ARMS 35-FT	657.0545 MONOTUBE ARMS 45-FT	657.0550 MONOTUBE ARMS 50-FT	657.0555 MONOTUBE ARMS 55-FT	657.0815 LUMIN. ARMS STEEL 15-FT EACH	SPV.0060.26* LUMINAIRE LED EACH
PROJECT 1500-37-76														
	SB1	1	--	1	--	--	--	--	--	--	--	--	--	--
	SB2	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB3	--	--	--	1	--	--	1	--	--	--	--	--	--
	SB4	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB5	--	--	--	--	--	1	--	--	1	--	--	1	1
	SB6	1	--	1	--	--	--	--	--	--	--	--	--	--
	SB7	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB8	--	--	--	--	1	--	--	1	--	--	--	--	--
	SB9	1	--	1	--	--	--	--	--	--	--	--	--	--
	SB10	1	1	--	--	--	--	--	--	--	--	--	--	--
	SB11	--	--	--	--	--	1	--	--	1	--	--	1	1
	PROJECT TOTALS	7	4	3	1	1	2	1	1	2	0	0	2	2
	TOTALS	11	8	3	1	1	6	1	1	4	1	1	6	6

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SIGNAL FACES & LED MODULES

INTERSECTION: USH 10 & CTH R			658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0500* PEDESTRIAN PUSH BUTTON EACH
ID	SB NO.	FACE NO.				
PROJECT 1500-47-71						
	SB1	14		1		
		16	1			
	SB2	12	1			
		13	1			
		15		1		
	SB3	4		1		
		6	1			
	SB4	2	1			
		3	1			
		5		1		
	SB5	11	1			
		19		1		
	SB6	17	1			
		18	1			
		20		1		
	SB7	1	1			
		9		1		
	SB8	7	1			
		8	1			
		10		1		
		PROJECT TOTAL	12	8	0	0

SIGNAL FACES & LED MODULES 'CONTINUED'

INTERSECTION: USH 10 & 18TH AVE			658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0500* PEDESTRIAN PUSH BUTTON EACH
ID	SB NO.	FACE NO.				
PROJECT 1500-37-76						
	SB1	22			1	
		BUTTON				1
	SB2	14		1		
		16	1			
		23			1	
		BUTTON				1
	SB3	12	1			
		13	1			
		15		1		
		28			1	
		BUTTON				1
	SB4	4		1		
		6	1			
		21			1	
		BUTTON				1
	SB5	2	1			
		3	1			
		5		1		
	SB6	26			1	
		BUTTON				1
	SB7	11	1			
		19		1		
		27			1	
		BUTTON				1
	SB8	17	1			
		18	1			
		20		1		
	SB9	24			1	
		BUTTON				1
	SB10	1	1			
		9		1		
		25			1	
		BUTTON				1
	SB11	7	1			
		8	1			
		10		1		
		PROJECT TOTAL	12	8	8	8
		TOTALS	24	16	8	8

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

LIGHTING WIRE

ID	FROM	TO	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF
INTERSECTION: USH 10 & CTH R				
PROJECT 1500-47-71				
	CAB.	SB2	522	---
	SB2	LUM.	---	144
	SB2	SB4	525	---
	SB4	LUM.	---	144
	CAB.	SB8	96	---
	SB8	LUM.	---	144
	SB8	SB6	624	---
	SB6	LUM.	---	144
		PROJECT TOTAL	1767	576
INTERSECTION: USH 10 & 18TH ST				
PROJECT 1500-37-76				
	CAB.	SB11	153	---
	SB11	LUM.	---	144
	CAB.	SB5	789	---
	SB5	LUM.	---	144
		PROJECT TOTAL	942	288
		TOTALS	2709	864

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS

ID	LOCATION	SPV.0105.30 LS	SPV.0105.31 LS
PROJECT 1500-47-71			
	.30 USH 10 & CTH R	1	--
	PROJECT TOTALS	1	0
PROJECT 1500-37-76			
	.31 USH 10 & 18TH ST.	--	1
	PROJECT TOTALS	0	1
	TOTALS	1	1

SIGNAL MOUNTING HARDWARE

ID	LOCATION	658.5069.01 LS	658.5069.02 LS
PROJECT 1500-47-71			
	.01 USH 10 & CTH R	1	--
	PROJECT TOTALS	1	0
PROJECT 1500-37-76			
	.02 USH 10 & 18TH ST.	--	1
	PROJECT TOTALS	0	1
	TOTALS	1	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

ID	LOCATION	SPV.0105.32 LS	SPV.0105.33 LS
PROJECT 1500-47-71			
	.32 USH 10 & CTH R	1	--
	PROJECT TOTALS	1	0
PROJECT 1500-37-76			
	.33 USH 10 & 18TH ST.	--	1
	PROJECT TOTALS	0	1
	TOTALS	1	1

ELECTRICAL SERVICE METER BREAKER PEDESTAL

ID	LOCATION	656.0200.01 LS	656.0200.02 LS
PROJECT 1500-47-71			
	.01 USH 10 & CTH R	1	--
	PROJECT TOTALS	1	0
PROJECT 1500-37-76			
	.02 USH 10 & 18TH ST.	--	1
	PROJECT TOTALS	0	1
	TOTALS	1	1

TRAFFIC SIGNAL CABINET & CONTROLLER FULLY ACTUATED 8 PHASE

ID	LOCATION	SPV.0105.34 LS	SPV.0105.35 LS
PROJECT 1500-47-71			
	.34 USH 10 & CTH R	1	--
	PROJECT TOTALS	1	0
PROJECT 1500-37-76			
	.35 USH 10 & 18TH ST.	--	1
	PROJECT TOTALS	0	1
	TOTALS	1	1

TRAFFIC SIGNAL IDENTIFICATION PLAQUES (INCIDENTAL TO NEW INSTALLATIONS)

	LOCATION	BASE NO.	STRUCTURE NO.
PROJECT 1500-47-71			
	USH 10 & CTH R		
		SB8	S-36-0046
		SB6	S-36-0047
		SB4	S-36-0048
		SB2	S-36-0049
PROJECT 1500-37-76			
	USH 10 & 18TH ST		
		SB11	S-36-0050
		SB8	S-36-0051
		SB5	S-36-0052
		SB3	S-36-0053

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

SAWING PAVEMENT

ID	CATEGORY	STATION	LOCATION	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	REMARKS
PROJECT 1500-47-71						
	0010					
		38+00	USH 10, EB	36	-	BUTT JOINT
		38+00	USH 10, WB	24	-	BUTT JOINT
		38+35	USH 10, EB	-	124	
		38+75	USH 10, EB	-	159	
		9+10	CTH R, SB	-	24	BUTT JOINT
		9+10	CTH R, NB	-	50	BUTT JOINT
		9+35	CTH R, SB	-	56	
		9+50	CTH R, NB	-	67	
		10+80	CTH R, SB / MEDIAN	-	148	
		11+25	CTH R, SB	4	36	BUTT JOINT
		11+25	CTH R, NB	-	24	BUTT JOINT
		40+13	USH 10, WB	-	122	
		40+50	USH 10, WB	-	136	
		40+92	USH 10, EB	-	66	
		40+97	USH 10, WB	-	55	
		41+22	USH 10, WB	-	96	
		42+17	USH 10, WB	-	108	
		43+18	USH 10, WB	-	48	
		43+29	USH 10, EB	-	35	
		43+45	USH 10, EB	-	41	
		43+70	USH 10, EB, RT	-	20	BUTT JOINT
		43+75	USH 10, EB	-	31	
		45+10	USH 10, WB	-	73	
		45+95	USH 10, EB	-	45	
		46+53	USH 10, WB	-	14	
		46+99	USH 10, MEDIAN	-	29	ISLAND NOSE
		47+52	USH 10, MEDIAN	-	20	
		47+62	USH 10, MEDIAN	-	27	ISLAND NOSE
		48+47	USH 10, EB	-	56	
		48+64	USH 10, WB	-	57	
		48+74	USH 10, EB	-	10	
		50+00	USH 10, WB, LT	-	85	
		50+00	USH 10, WB, LT	36	-	CE
		50+43	USH 10, MEDIAN	-	28	ISLAND NOSE
		53+21	USH 10, WB, LT	-	14	
		53+64	USH 10, MEDIAN	-	54	ISLAND NOSE / PAVEMENT
		53+71	USH 10, WB, LT	-	23	CURB & GUTTER
		53+71	USH 10, WB, LT	-	10	SIDEWALK
		54+40	USH 10, MEDIAN	-	29	ISLAND NOSE
		54+40	USH 10, WB	-	54	
		54+50	USH 10, WB	-	52	
		54+60	USH 10, WB	-	34	
		54+80	USH 10, WB	-	14	
		54+80	USH 10, EB, LT & RT	-	28	
		56+34	USH 10, WB	-	101	

SAWING PAVEMENT (CONTINUED)

ID	STATION	LOCATION	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	REMARKS
PROJECT 1500-47-71					
0010					
	57+32	USH 10, WB, LT & RT	-	28	
	57+32	USH 10, EB	-	14	
	57+80	USH 10, WB	-	65	
	58+00	USH 10, MEDIAN	-	87	ISLAND NOSE / PAVEMENT
	58+39	USH 10, WB	-	38	
	60+00	USH 10, EB, RT	-	34	
	62+81	USH 10, WB	-	14	
	63+17	USH 10, MEDIAN	-	27	ISLAND NOSE
	63+75	USH 10, EB	-	22	
	63+89	USH 10, MEDIAN	-	27	
	63+95	USH 10, WB	-	26	
	65+00	USH 10, WB	-	38	
	65+31	USH 10, EB, LT & RT	-	28	
	67+58	USH 10, WB, LT & RT	-	28	
	68+28	USH 10, EB	-	11	
	69+12	USH 10, EB	-	11	
	9+45	N. 40TH ST, LT & RT	-	7	SIDEWALK
	9+55	N. 40TH ST	-	32	BUTT JOINT
	9+60	N. 40TH ST, RT	-	4	SIDEWALK
	9+65	N. 40TH ST, RT	-	22	CURB & GUTTER
	9+65	N. 40TH ST, LT	-	21	CURB & GUTTER
	9+52	GLENVIEW DR	-	36	BUTT JOINT
	9+60	GLENVIEW DR, LT	-	8	SIDEWALK
	9+60	GLENVIEW DR, RT	-	8	SIDEWALK
	9+65	GLENVIEW DR, RT	-	22	CURB & GUTTER
	9+70	GLENVIEW DR, LT	-	49	CURB & GUTTER
	9+52	W. CRESCENT DR	-	36	BUTT JOINT
	9+60	W. CRESCENT DR, RT	-	9	SIDEWALK
	9+60	W. CRESCENT DR, LT	-	8	SIDEWALK
	9+70	W. CRESCENT DR, RT	-	22	CURB & GUTTER
	9+70	W. CRESCENT DR, LT	-	22	CURB & GUTTER
	9+52	E. CRESCENT DR	-	36	BUTT JOINT
	9+60	E. CRESCENT DR, RT	-	9	SIDEWALK
	9+60	E. CRESCENT DR, LT	-	9	SIDEWALK
	9+70	E. CRESCENT DR, RT	-	22	CURB & GUTTER
	9+70	E. CRESCENT DR, LT	-	22	CURB & GUTTER
	PROJECT TOTALS		100	3,205	
PROJECT 1500-37-76					
0010					
	70+00	USH 10, EB, RT	-	35	ROAD / SIDEWALK
	70+00	USH 10, WB, LT	-	30	ROAD / SIDEWALK
	131+75	USH 10, EB, RT	28	5	ROAD / SIDEWALK
	131+75	USH 10, WB, LT	28	5	ROAD / SIDEWALK
	71+72	USH 10, EB, RT	-	13	PE - BRICK PAVERS
	71+82	USH 10, WB, LT	11	-	PE
	90+40	USH 10, EB, RT	-	6	SIDEWALK

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SAWING PAVEMENT (CONTINUED)

ID	CATEGORY	STATION	LOCATION	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	REMARKS
PROJECT 1500-37-76						
	0010					
		94+06	USH 10, WB, LT	-	4	SIDEWALK
		94+32	USH 10, WB, LT	-	4	SIDEWALK
		94+51	USH 10, EB, RT	-	8	PE
		94+53	USH 10, WB, LT	-	28	PE
		94+74	USH 10, WB, LT	-	5	SIDEWALK
		94+74	USH 10, EB, RT	-	3	SIDEWALK
		95+18	USH 10, EB, RT	-	11	PE
		95+28	USH 10, WB, LT	18	-	PE
		95+55	USH 10, EB, RT	-	4	SIDEWALK
		95+89	USH 10, WB, LT	-	27	PE
		96+35	USH 10, WB, LT	-	7	PE
		96+39	USH 10, EB, RT	-	7	PE
		96+52	USH 10, EB, RT	-	4	SIDEWALK
		96+90	USH 10, EB, RT	-	11	PE
		96+94	USH 10, WB, LT	-	3	SIDEWALK
		97+05	USH 10, EB, RT	-	2	SIDEWALK
		97+18	USH 10, WB, LT	-	15	PE
		97+39	USH 10, EB, RT	9	-	PE
		97+62	USH 10, EB, RT	-	4	SIDEWALK
		97+90	USH 10, EB, RT	-	9	PE
		98+01	USH 10, WB, LT	-	26	PE
		98+06	USH 10, EB, RT	-	4	SIDEWALK
		98+55	USH 10, EB, RT	-	3	SIDEWALK
		98+98	USH 10, WB, LT	-	4	SIDEWALK
		99+30	USH 10, WB, LT	-	20	PE
		99+57	USH 10, WB, LT	-	3	SIDEWALK
		100+27	USH 10, WB, LT	-	15	PE
		100+73	USH 10, EB, RT	-	4	SIDEWALK
		100+47	USH 10, EB, RT	-	3	SIDEWALK
		102+27	USH 10, EB, RT	-	3	SIDEWALK
		103+54	USH 10, WB, LT	-	4	SIDEWALK
		103+96	USH 10, WB, LT	-	3	SIDEWALK
		104+45	USH 10, WB, LT	-	3	SIDEWALK
		104+71	USH 10, EB, RT	11	-	PE
		104+74	USH 10, WB, LT	11	-	PE
		105+21	USH 10, EB, RT	-	3	SIDEWALK
		105+51	USH 10, WB, LT	17	-	PE
		107+82	USH 10, EB, RT	-	16	PE
		108+31	USH 10, EB, RT	-	21	PE
		108+44	USH 10, WB, LT	-	3	SIDEWALK
		108+77	USH 10, EB, RT	-	4	SIDEWALK
		109+09	USH 10, WB, LT	-	14	PE
		109+42	USH 10, WB, LT	-	5	SIDEWALK
		109+98	USH 10, EB, RT	-	5	SIDEWALK
		110+81	USH 10, EB, RT	16	-	PE

SAWING PAVEMENT (CONTINUED)

ID	CATEGORY	STATION	LOCATION	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	REMARKS
PROJECT 1500-37-76						
	0010					
		111+13	USH 10, EB, RT	-	2	SIDEWALK
		111+40	USH 10, EB, RT	-	8	PE
		111+66	USH 10, EB, RT	-	3	SIDEWALK
		111+94	USH 10, EB, RT	-	18	PE
		112+57	USH 10, EB, RT	-	9	PE
		112+78	USH 10, EB, RT	-	3	SIDEWALK
		113+12	USH 10, EB, RT	-	8	PE
		113+33	USH 10, EB, RT	-	3	SIDEWALK
		113+86	USH 10, EB, RT	-	3	SIDEWALK
		114+27	USH 10, EB, RT	-	33	PE
		115+30	USH 10, EB, RT	-	5	SIDEWALK
		115+57	USH 10, EB, RT	-	9	PE
		115+88	USH 10, EB, RT	-	4	SIDEWALK
		116+23	USH 10, EB, RT	-	21	PE
		116+50	USH 10, EB, RT	-	4	SIDEWALK
		116+86	USH 10, EB, RT	-	20	PE
		117+44	USH 10, EB, RT	-	4	SIDEWALK
		118+90	USH 10, WB, LT	-	1	SIDEWALK
		119+16	USH 10, WB, LT	-	8	PE
		119+39	USH 10, WB, LT	-	2	SIDEWALK
		119+69	USH 10, WB, LT	-	9	PE
		119+69	USH 10, EB, RT	-	9	PE
		119+84	USH 10, EB, RT	-	3	SIDEWALK
		120+23	USH 10, EB, RT	-	7	PE
		120+26	USH 10, WB, LT	-	8	PE
		120+44	USH 10, EB, RT	-	4	SIDEWALK
		120+48	USH 10, WB, LT	-	3	SIDEWALK
		120+76	USH 10, WB, LT	-	11	PE
		120+78	USH 10, EB, RT	-	8	PE
		120+99	USH 10, WB, LT	-	4	SIDEWALK
		121+02	USH 10, EB, RT	-	4	SIDEWALK
		121+63	USH 10, EB, RT	-	4	SIDEWALK
		122+89	USH 10, EB, RT	-	9	PE
		123+07	USH 10, WB, LT	-	24	PE
		123+10	USH 10, EB, RT	-	4	SIDEWALK
		123+58	USH 10, WB, LT	-	16	PE
		123+75	USH 10, EB, RT	-	5	SIDEWALK
		124+12	USH 10, EB, RT	-	10	PE
		124+57	USH 10, WB, LT	-	20	PE
		124+62	USH 10, EB, RT	-	14	PE
		124+91	USH 10, WB, RT	-	4	SIDEWALK
		125+03	USH 10, WB, LT	-	5	SIDEWALK
		126+03	USH 10, EB, RT	-	5	SIDEWALK
		126+24	USH 10, WB, LT	-	3	SIDEWALK
		126+49	USH 10, EB, RT	-	3	SIDEWALK

3

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SAWING PAVEMENT (CONTINUED)

ID	CATEGORY	STATION	LOCATION	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	REMARKS
PROJECT 1500-37-76						
	0010	126+57	USH 10, WB, LT	-	4	SIDEWALK
		126+83	USH 10, EB, RT	-	19	PE
		126+83	USH 10, WB, LT	-	18	PE
		127+06	USH 10, WB, LT	-	4	SIDEWALK
		127+09	USH 10, EB, RT	-	3	SIDEWALK
		127+61	USH 10, EB, RT	-	3	SIDEWALK
		129+24	USH 10, EB, RT	-	15	PE
		129+68	USH 10, EB, RT	-	17	PE
		129+84	USH 10, WB, LT	-	5	SIDEWALK
		130+21	USH 10, EB, RT	-	4	SIDEWALK
		130+56	USH 10, WB, LT	-	5	SIDEWALK
		10+80	FLEETWOOD DR	-	79	ROAD / SIDEWALK
		13+05	FLEETWOOD DR	-	40	PE
		9+40	N. 23RD ST	-	67	ROAD / SIDEWALK
		10+95	N. 23RD ST	-	58	ROAD / SIDEWALK
		9+10	MENCHL DR	-	31	ROAD
		9+35	N. 21ST ST	-	45	ROAD / SIDEWALK
		9+40	N. 21ST ST, RT	-	3	SIDEWALK
		10+89	N. 21ST ST, LT	-	12	PE
		11+00	N. 21ST ST	-	47	ROAD / SIDEWALK
		9+40	N. 20TH ST	-	46	ROAD / SIDEWALK
		10+85	PARK ROW BLVD, SB	-	34	ROAD / SIDEWALK
		10+60	PARK ROW BLVD, NB	-	34	ROAD / SIDEWALK
		10+65	ELM ST	30	14	ROAD / SIDEWALK
		9+00	N. 18TH ST	-	72	ROAD / SIDEWALK
		9+07	N. 18TH ST, RT	-	9	PE
		9+28	N. 18TH ST, RT	-	4	SIDEWALK
		10+90	N. 18TH ST	-	103	ROAD / SIDEWALK
		9+30	N. 17TH ST	-	50	ROAD / SIDEWALK
		10+85	N. 17TH ST	-	66	ROAD / SIDEWALK
		9+35	N. 16TH ST	-	64	ROAD / SIDEWALK
		10+85	N. 16TH ST	-	40	ROAD / SIDEWALK
		9+35	N. 15TH ST	-	40	ROAD / SIDEWALK
		11+00	N. 15TH ST	-	40	ROAD / SIDEWALK
		9+30	N. 14TH ST	26	14	ROAD / SIDEWALK
		9+50	N. 14TH ST, RT	-	5	SIDEWALK
		10+85	N. 14TH ST	-	48	ROAD / SIDEWALK
	CATEGORY 0010 TOTALS			205	1,942	
PROJECT 1500-37-76						
	0020		ENTIRE PROJECT	-	660	REMOVALS FOR COLORED XWALKS
	CATEGORY 0020 TOTALS			0	660	
	PROJECT TOTALS			205	2,602	
	TOTALS			305	5,807	

* QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

POLYMER-COATED CHAIN LINK FENCE

ID	STATION	TO	STATION	LOCATION	FENCE 6-FT SPV.0090.08 LF	GATES 10-FT WIDE SPV.0060.08 EACH
PROJECT 1500-47-71						
	69+55	-	70+00	USH 10, WB	45	-
	69+20	-	70+00	USH 10, EB	70	1
	PROJECT TOTAL				115	1
PROJECT 1500-37-76						
	70+00	-	71+90	USH 10, WB	180	1
	70+00	-	70+00	USH 10, EB	80	-
	PROJECT TOTAL				260	1
	TOTALS				375	2

MONUMENTS

ID	STATION	LOCATION	SPV.0105.02 PRESERVATION OF EXISTING MONUMENTS PROJECT 1500-37-76 LS	SPV.0105.03 PRESERVATION OF EXISTING MONUMENTS PROJECT 1500-47-71 LS	SPV.0105.04 VERIFY AND RESTORING OF EXISTING MONUMENTS PROJECT 1500-37-76 LS	SPV.0105.05 VERIFY AND RESTORING OF EXISTING MONUMENTS PROJECT 1500-47-71 LS
PROJECT 1500-37-76						
	ENTIRE PROJECT	USH 10	1	-	1	-
	PROJECT TOTALS		1	0	1	0
PROJECT 1500-47-71						
	ENTIRE PROJECT	USH 10	-	1	-	1
	PROJECT TOTALS		0	1	0	1
	TOTALS		1	1	1	1

RECTANGULAR RAPID FLASHING BEACON

ID	STATION	LOCATION	654.0101 * CONCRETE BASES TYPE 1 EACH	657.0100 * PEDESTAL BASES EACH	657.0425 * TRAFFIC SIGNAL STANDARDS ALUMINIUM 15-FT EACH	658.0500 * PEDESTRIAN PUSH BUTTONS EACH	SPV.0105.06 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM WITH PEDESTRIAN ACTIVATION LS
PROJECT 1500-37-76							
	127+80	USH 10, EB	3	3	3	3	1
	148+00	USH 10, EB	3	3	3	-	-
	TOTALS		6	6	6	3	1

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

BRICK PAVERS

ID	STATION	TO	STATION	LOCATION	REMOVE AND SALVAGE SPV.0165.01 SF	INSTALL SALVAGED SPV.0165.02 SF
PROJECT 1500-37-76						
	71+61	-	71+81	USH 10, EB	165	165
	TOTALS				165	165

GRADING AND SHAPING, REMOVING EMERGENCY RAILROAD CROSSING

ID	LOCATION	SPV.0105.08 LS
PROJECT 1500-37-76		
	EMERGENCY RR XING	1
		1

REINSTALL CHAIN LINK FENCE

ID	LOCATION	SPV.0105.09 LS
PROJECT 1500-37-76		
	EMERGENCY RR XING	1
		1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

SANITARY MANHOLES

ID	STATION	MANHOLE #	LOCATION	SPV.0060.50 CASTING TYPE J EACH	SPV.0060.51 REMOVE MANHOLE EACH	SPV.0060.52 RECONSTRUCT BENCH EACH	SPV.0200.50 MANHOLE 4-FOOT VF	SPV.0200.51 DROP MANHOLE VF
PROJECT 1500-37-77								
	72+21EB	-	USH 10	-	1	-	-	-
	10+82, 57'RT	31A	CITY PARKS SHOP	1	-	-	12.8	4.6
	10+60FW, 37'RT	31	FLEETWOOD DRIVE	1	1	-	13.3	-
	72+41EB 64'LT	30	USH 10	1	1	-	13.4	6.5
	10+64NTR, 2'LT	29	N 23RD STREET	1	1	-	8.2	-
	93+48EB, 35'LT	28	USH 10	1	-	-	8.6	-
	93+51EB, 2'LT	-	USH 10	-	1	-	-	-
	96+71EB, 35'LT	27	USH 10	1	-	-	10.4	-
	96+72EB	-	USH 10	-	1	-	-	-
	9+06MC	-	MENCHL DRIVE	-	-	1	-	-
	99+68EB, 35'LT	26	USH 10	1	1	-	10.1	-
	100+53EB, 19'RT	25	USH 10	1	1	-	10.8	-
	102+99EB, 18'RT	24	USH 10	1	1	-	14.1	4.0
	106+50EB, 18'RT	23	USH 10	1	1	-	15.7	6.7
	107+60EB, 19'RT	22	USH 10	1	-	-	15.6	2.3
	110+62EB, 18'RT	21	USH 10	1	1	-	13.6	-
	113+61EB, 19'RT	20	USH 10	1	1	-	13.1	-
	116+62EB, 18'RT	19	USH 10	1	1	-	12.7	-
	118+24EB, 11'LT	18	USH 10	1	1	-	13.0	4.7
	122+08EB, 11'LT	17	USH 10	1	1	-	9.9	-
	123+94EB, 11'LT	16A	USH 10	1	1	-	10.7	-
	125+52EB, 11'LT	16	USH 10	1	1	-	9.9	-
	9+64 FT, 0'LT	15A	N 15TH STREET	1	-	-	9.7	-
	128+15EB, 12'LT	15	USH 10	1	1	-	11.9	-
	9+64FO, 1'LT	14A	N 14TH STREET	1	1	-	10.8	4.5
	130+95EB, 12'LT	14	USH 10	1	1	-	11.1	-
	130+99EB	-	USH 10	-	1	-	-	-
	TOTALS			22	21	1	259.4	33.3

FURNISHING AND INSTALLING SANITARY SEWER PIPE

ID	MH	TO	MH	LOCATION	SPV.0090.50 10-INCH LF
PROJECT 1500-37-77					
	31	-	31A	USH 10	30
	28	-	27	USH 10	323
	27	-	26	USH 10	296
	TOTALS				649

SANITARY LATERAL

ID	MH	TO	MH	LOCATION	SPV.0060.53 RECONNECT EACH	SPV.0090.55 6-INCH LF	SPV.0090.56 RISERS LF
PROJECT 1500-37-77							
	28	-	27	USH 10	8	420	-
	27	-	26	USH 10	12	585	-
	25	-	24	USH 10	4	80	18
	24	-	NORTH	N 24TH STREET	2	60	-
	24	-	23	USH 10	3	170	23
	23	-	NORTH	PARK ROW BLVD	1	30	-
	23	-	22	USH 10	1	20	8
	22	-	21	USH 10	3	115	21
	21	-	20	USH 10	5	100	30
	20	-	19	USH 10	4	80	20
	19	-	18	USH 10	2	52	10
	18	-	17	USH 10	8	368	-
	17	-	16A	USH 10	4	184	-
	16A	-	16	USH 10	4	184	-
	16	-	15	USH 10	6	276	-
	15	-	14	USH 10	2	92	-
	TOTALS				69	2,816	130

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

FURNISHING AND RELAYING SANITARY SEWER PIPE

ID	MH	TO	MH	LOCATION	SPV.0090.51 8-INCH LF	SPV.0090.52 10-INCH LF	SPV.0090.53 12-INCH LF	SPV.0090.54 18-INCH LF	REMARKS
PROJECT 1500-37-77									
	65+26	-	30	USH 10	140	-	-	-	68LF WB, 72LF EB
	-	-	30	USH 10	28	-	-	-	CONNECTS TO EXISITING FROM WEST
	30	-	31	USH 10	-	-	-	41	
	29	-	28	USH 10	-	29	-	-	
	-	-	28	N 23RD STREET	34	-	-	-	CONNECTS TO EXISTING FROM SOUTH
	23	-	22	USH 10	-	-	110	-	
	22	-	21	USH 10	-	-	302	-	
	19	-	18	USH 10	-	-	164	-	
	-	-	18	N 18TH STREET	103	-	-	-	40' CONNECTS FROM SOUTH AND 63' CONNECTS FROM NORTH FROM EXISTING
	18	-	17	USH 10	-	-	384	-	
	17	-	16A	USH 10	-	-	186	-	
	16A	-	16	USH 10	-	-	158	-	
	16	-	15	USH 10	-	-	264	-	
	15	-	14	USH 10	-	-	280	-	
	14	-	13	USH 10	-	-	56	-	START AT TEMPORARY CONNECTION FROM PROJECT 1500-37-75
	15A	-	15	USH 10	48	-	-	-	
	14A	-	14	USH 10	48	-	-	-	
	TOTALS				401	29	1,904	41	

TELEVISING SEWERS

ID	MH	TO	MH	LOCATION	SPV.0090.04 * LF
PROJECT 1500-37-72					
	68+43EB, 40'R	-	72+45EB, 40'RT	USH 10	402
	68+80EB, 63'L	-	30	USH 10	361
	30	-	31	USH 10	41
	31	-	31A	USH 10	30
	29	-	28	USH 10	29
	28	-	SOUTH	N 23RD STREET	34
	28	-	27	USH 10	323
	27	-	26	USH 10	296
	26	-	25	USH 10/STH 42	101
	25	-	24	USH 10	246
	24	-	23	USH 10	351
	23	-	22	USH 10	110
	22	-	21	USH 10	302
	21		20	USH 10	299
	20	-	19	USH 10	301
	19	-	18	USH 10	164
	18	-	NORTH & SOUTH	N 18TH STREET	103
	18	-	17	USH 10	384
	17	-	16A	USH 10	186
	16A	-	16	USH 10	158
	16	-	15	USH 10	264
	15	-	14	USH 10	280
	14	-	13	USH 10	55
	15A	-	15	USH 10	48
	14A	-	14	USH 10	48
	TOTAL				4,916

* QUANTITIES SHOWN ELSEWHERE

ABANDONING SANITARY SEWER

ID	STATION	TO	STATION	LOCATION	SPV.0090.57 LF
PROJECT 1500-37-77					
	93+51	-	99+68	USH 10	617
	9+06	-	10+42	MENCHL DRIVE	126
	TOTAL				743

TRENCH BACKFILL

ID	STATION		SPV.0035.50 IMPORTED TRENCH BACKFILL CY	SPV.035.51 TRENCH STABILIZATION CY
PROJECT 1500-37-77				
	UNDISTRIBUTED	USH 10	2,000	200
	TOTALS		2,000	200

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

3

REMOVING VALVE, VALVE MANHOLES, AND VALVE BOXES

ID	STATION	LOCATION	SPV.0060.41 EA
PROJECT 1500-37-77			
	71+14	USH 10, LT	1
	72+04	USH 10, LT	1
	72+28	USH 10, LT	1
	72+34	USH 10, LT	1
	93+12	USH 10, LT	1
	93+62	USH 10, RT	1
	99+79	USH 10, LT	1
	99+79	USH 10, RT	1
	103+08	USH 10, RT	1
	103+22	USH 10, LT	2
	106+73	USH 10, LT	1
	106+88	USH 10, LT	1
	110+01	USH 10, LT	1
	110+01	USH 10, LT	1
	117+94	USH 10, LT	1
	118+37	USH 10, RT	1
	121+78	USH 10, LT	1
	122+14	USH 10, LT	1
	125+19	USH 10, LT	1
	125+56	USH 10, LT	1
	128+08	USH 10, LT	1
	128+22	USH 10, LT	1
	131+03	USH 10, LT	1
	131+04	USH 10, RT	1
	TOTAL		25

REMOVE FIRE HYDRANTS

ID	STATION	LOCATION	SPV.0060.40 REMOVE FIRE HYDRANTS EA
PROJECT 1500-37-77			
	71+14	USH 10, LT	1
	99+48	USH 10, LT	1
	102+56	USH 10, LT	1
	122+24	USH 10, LT	1
	125+71	USH 10, RT	1
	128+35	USH 10, RT	1
	131+17	USH 10, RT	1
	TOTAL		7

INSTALL WATER MAIN AND CONNECTIONS

STATION	TO	STATION	LOCATION	SPV.0090.40 6-INCH * LF	SPV.0090.41 8-INCH LF	SPV.0090.42 10-INCH LF	SPV.0090.43 12-INCH LF	SPV.0090.44 24-INCH LF	SPV.0060.47 CONNECT TO EXISTING EA
PROJECT 1500-37-77									
70+00	-	72+04	USH 10	-	-	-	209	-	1
72+04	-	93+61	USH 10	-	-	-	592	-	2
93+61	-	99+35	USH 10	-	-	-	575	-	-
99+35	-	103+21	USH 10	-	-	-	375	-	-
103+21	-	106+62	USH 10	-	-	-	351	-	-
106+62	-	107+47	USH 10	-	-	-	86	-	-
107+47	-	109+90	USH 10	-	-	-	243	-	-
109+90	-	118+37	USH 10	-	-	-	848	-	-
118+37	-	122+25	USH 10	-	-	-	390	-	-
122+25	-	125+73	USH 10	-	-	-	335	-	-
125+73	-	128+35	USH 10	-	-	-	264	-	-
128+35	-	131+16	USH 10	-	-	-	282	-	-
131+16	-	131+65	USH 10	-	-	-	58	-	1
9+32	-	10+64	N 23RD ST	-	121	-	-	-	2
9+29	-	10+43	MENCHL DR	114	-	-	-	-	1
9+39	-	10+94	N 21ST ST	-	160	-	-	-	2
9+45	-	10+80	N 20TH ST	-	-	-	137	33	2
10+19	-	10+55	NB PARK ROW BLVD	-	36	-	-	-	1
9+51	-	10+59	ELM ST	73	-	43	-	-	2
9+64	-	10+49	N 18TH ST	-	85	-	-	-	2
9+28	-	10+97	N 17TH ST	-	178	-	-	-	2
9+27	-	10+80	N 16TH ST	-	155	-	-	-	2
9+38	-	10+95	N 15TH ST	-	160	-	-	-	2
9+35	-	10+80	N 14TH ST	-	148	-	-	-	2
TOTALS				187	1,043	43	4,745	33	24

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

INSTALL GATE VALVES AND BOX

ID	STATION	LOCATION	SPV.0060.42 6-INCH EA *	SPV.0060.43 8-INCH EA	SPV.0060.44 12-INCH EA
PROJECT 1500-37-77					
	70+01	USH 10, LT	-	-	1
	72+04	USH 10, LT	-	-	2
	72+28	USH 10, LT	1	-	1
	83+03	USH 10, RT	-	-	1
	84+25	USH 10, RT	-	-	1
	93+61	USH 10, LT	-	1	2
	99+35	USH 10, LT	-	-	1
	101+04	USH 10, LT	-	-	1
	103+21	USH 10, LT	-	2	1
	106+62	USH 10, LT	-	2	1
	106+82	USH 10, LT	-	-	2
	107+47	USH 10, LT	-	1	1
	109+90	USH 10, LT	1	1	1
	118+38	USH 10, LT	-	1	1
	122+25	USH 10, LT	-	2	1
	125+73	USH 10, LT	-	2	1
	128+35	USH 10, LT	-	2	1
		TOTALS	2	14	20

* ADDITONAL QUANTITIES SHOWN ELSEWHERE

INSTALL FIRE HYDRANTS, LEAD, AND VALVE

ID	STATION	LOCATION	SPV.0090.40 WATER MAIN 6-INCH LF *	SPV.0060.45 FIRE HYDRANT EA	SPV.0060.42 GATE VALVE AND BOX 6-INCH EA *
PROJECT 1500-37-77					
	70+14	USH 10, LT	7	1	1
	99+92	USH 10, LT	11	1	1
	103+81	USH 10, LT	9	1	1
	115+26	USH 10, LT	11	1	1
	122+48	USH 10, LT	12	1	1
	9+50	N 14TH, RT	11	1	1
	9+53	N 15TH, RT	11	1	1
	9+43	N 16TH, RT	11	1	1
	TOTALS		83	8	8

IMPORTED WATER MAIN TRENCH BACKFILL

STATION TO STATION	LOCATION	SPV.0035.40 CY
PROJECT 1500-37-77		
UNDISTRIBUTED	USH 10	3000
TOTAL		3000

STEEL CASING PIPE

STATION TO STATION	LOCATION	SPV.0090.46 20-INCH LF
PROJECT 1500-37-77		
100+16 - 100+96	USH 10	80
TOTAL		80

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

WATER SERVICE

ID	STATION	LOCATION	SPV.0090.45 PIPE 1 1/4-INCH LF	SPV.0060.46 INSTALL CORPORATION STOP & CURB STOP AND BOX 1 1/4 -INCH EA	SPV.0060.48 CONNECT TO EXISTING EA	SPV.0165.40 4" WATER MAIN TRENCH INSULATION SF
PROJECT 1500-37-77						
	94+10	USH 10, LT	10	1	1	-
	94+15	USH 10, RT	72	1	1	-
	94+50	USH 10, RT	72	1	1	-
	94+70	USH 10, LT	10	1	1	-
	95+20	USH 10, LT	10	1	1	-
	95+67	USH 10, RT	72	1	1	-
	95+73	USH 10, LT	10	1	1	-
	96+17	USH 10, RT	72	1	1	-
	96+53	USH 10, RT	72	1	1	-
	96+63	USH 10, LT	10	1	1	-
	97+13	USH 10, LT	10	1	1	-
	97+15	USH 10, RT	72	1	1	-
	97+60	USH 10, LT	10	1	1	-
	97+65	USH 10, RT	72	1	1	-
	98+15	USH 10, RT	72	1	1	-
	98+53	USH 10, RT	72	1	1	-
	98+65	USH 10, LT	10	1	1	-
	99+15	USH 10, LT	10	1	1	-
	99+55	USH 10, LT	10	1	1	-
	99+87	USH 10, LT	10	1	1	-
	101+00	USH 10, RT	72	1	1	-
	101+18	USH 10, RT	72	1	1	32
	102+08	USH 10, RT	72	1	1	-
	103+78	USH 10, LT	10	1	1	-
	104+35	USH 10, LT	10	1	1	-
	104+90	USH 10, RT	72	1	1	32
	108+58	USH 10, LT	10	1	1	-
	108+80	USH 10, RT	72	1	1	32
	109+20	USH 10, LT	10	1	1	-
	111+24	USH 10, RT	72	1	1	32
	111+75	USH 10, RT	72	1	1	32
	112+82	USH 10, RT	72	1	1	32
	113+35	USH 10, RT	72	1	1	32
	113+95	USH 10, RT	72	1	1	32
	114+50	USH 10, RT	72	1	1	32
	115+50	USH 10, RT	72	1	1	32
	116+06	USH 10, RT	72	1	1	32
	116+58	USH 10, RT	72	1	1	32
	119+46	USH 10, LT	10	1	1	-
	119+95	USH 10, RT	72	1	1	32
	120+03	USH 10, LT	10	1	1	-
	120+48	USH 10, LT	10	1	1	-
	120+48	USH 10, RT	72	1	1	32
	120+98	USH 10, RT	72	1	1	32
	121+05	USH 10, LT	10	1	1	-

WATER SERVICE (CONTINUED)

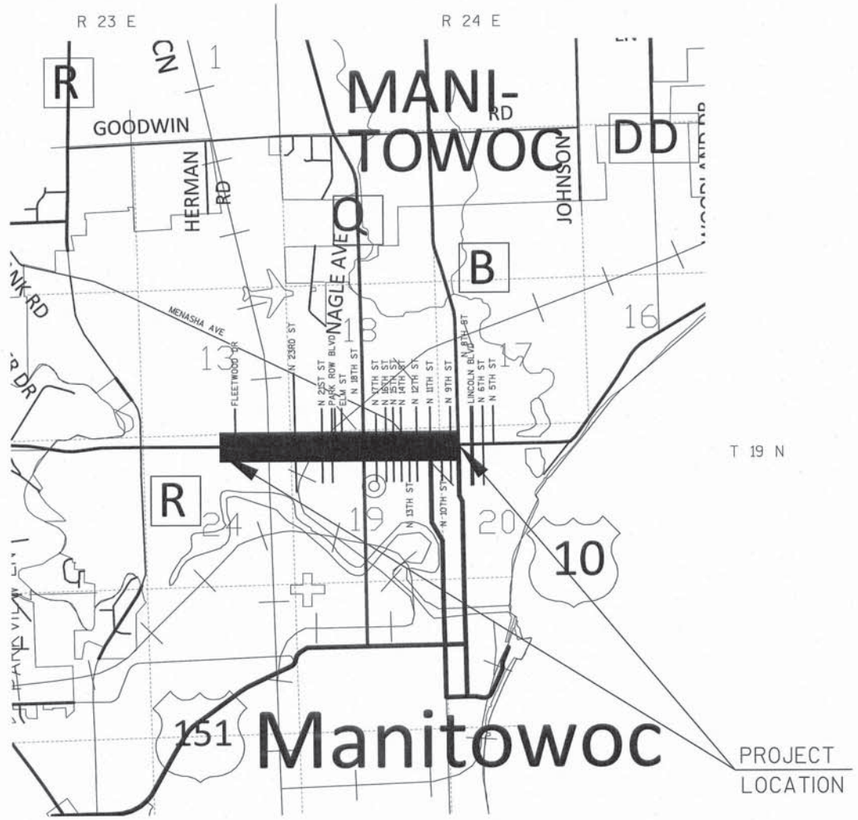
ID	STATION	LOCATION	SPV.0090.45 PIPE 1 1/4-INCH LF	SPV.0060.46 INSTALL CORPORATION STOP & CURB STOP AND BOX 1 1/4 -INCH EA	SPV.0060.48 CONNECT TO EXISTING EA	SPV.0165.40 4" WATER MAIN TRENCH INSULATION SF
PROJECT 1500-37-77						
	121+54	USH 10, RT	72	1	1	32
	122+63	USH 10, RT	72	1	1	32
	123+14	USH 10, RT	72	1	1	32
	123+14	USH 10, LT	10	1	1	-
	123+42	USH 10, RT	72	1	1	32
	123+60	USH 10, LT	10	1	1	-
	124+46	USH 10, RT	72	1	1	32
	124+48	USH 10, LT	10	1	1	-
	124+90	USH 10, LT	10	1	1	-
	126+06	USH 10, LT	10	1	1	-
	126+57	USH 10, RT	72	1	1	32
	126+60	USH 10, LT	10	1	1	-
	127+10	USH 10, LT	10	1	1	-
	127+10	USH 10, RT	72	1	1	32
	127+58	USH 10, RT	72	1	1	32
	130+38	USH 10, RT	72	1	1	32
	9+40	N 23RD ST, RT	30	1	1	-
	9+40	N 21ST ST, RT	14	1	1	-
	9+50	N 20TH ST, RT	18	1	1	-
	10+90	N 17TH ST, LT	30	1	1	-
	10+90	N 17TH ST, RT	15	1	1	-
	09+30	N 16TH ST, LT	26	1	1	-
	09+30	N 16TH ST, RT	13	1	1	-
	09+45	N 15TH ST, RT	14	1	1	-
	TOTALS		2,940	69	69	768

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

DOC # 1172800



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
1500-37-21
WALDO BLVD, CITY OF MANITOWOC
CTH R - 8TH STREET
USH 10
MANITOWOC COUNTY



LAYOUT
SCALE 0 0.5 MI.

CONVENTIONAL SYMBOLS

- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W OR HE LINE
- PROPERTY LINE
- LOT, TIE & OTHER MINOR LINES
- SLOPE INTERCEPT
- CORPORATE LIMITS
- UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
- NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
- TEMPORARY LIMITED EASEMENT AREA
- EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
- TRANSMISSION STRUCTURES
- BUILDING — TO BE REMOVED
- BRIDGE
- SECTION CORNER SYMBOL
- SECTION CORNER MONUMENT
- GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- SIGN
- R/W MONUMENT (TO BE SET)
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN (1-INCH UNLESS NOTED) IP
- OFF-PREMISE SIGN
- ELECTRIC POLE
- TELEPHONE POLE
- PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)

	COMPENSABLE	NON-COMPENSABLE

- ACCESS RESTRICTED BY ACQUISITION
- NO ACCESS (BY STATUTORY AUTHORITY)
- ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
- NO ACCESS (NEW HIGHWAY)
- PARCEL NUMBER (25) — UTILITY NUMBER (40)
- PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	100'
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

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 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

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1500-37-21

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MANITOWOC COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE USH 10 EASTBOUND CONSTRUCTION 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.
EXCLUDED FROM THIS EASEMENT IS ANY LAND CURRENTLY OCCUPIED BY BUILDINGS.

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 OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A HIGHWAY (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECT 1474-1-71, 1474-2-71, 4991-00-03, AND FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREETS ESTABLISHED FROM SUBDIVISION PLATS.

REGISTERS OFFICE
MANITOWOC COUNTY, WI } SS
RECEIVED FOR RECORD
2016 SEPT 23 @ 11:32AM
Cabinet D Plats Jacket 78
PRESTON F. JONES-REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040100 RW.DWG
APPRAISAL PLAT DATE :
PLOT DATE : 9/13/2016
PLOT BY :
PLOT NAME :
LAYOUT NAME - 1500-37-21 040100 RW - TPP TITLE 34X22

Doc# 1172800

TRANSPORTATION PROJECT PLAT NO: 1500-37-21 - 4.01

PART OF GOVERNMENT LOT 2, SECTION 24, TOWNSHIP 19 NORTH, RANGE 23 EAST, CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER USH 10, CTH R-8TH STREET, CITY OF MANITOWOC

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF MANITOWOC DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF MANITOWOC HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MANITOWOC, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW R/W SF	TOTAL R/W SF
1	HAROLD K. SALZBERG AND CHERILYN C. STEWART	FEE	4001	4001
2	CHRISTOPHER C. AND CHRISTINE C. ALLIE	FEE	4199	4199

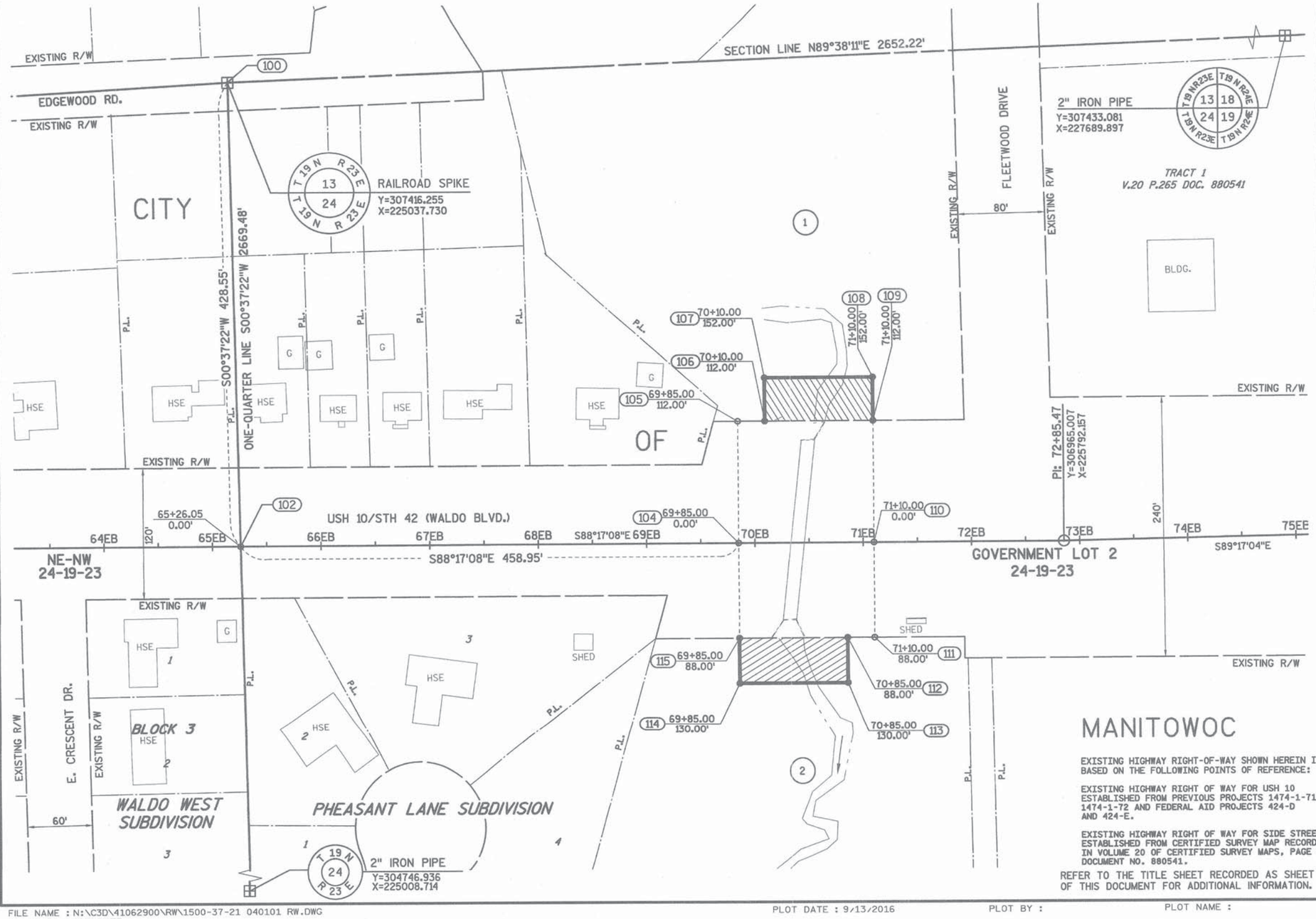
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

GN

SCALE, FEET 0 50' 100'

REGISTERS OFFICE
MANITOWOC COUNTY, WI } ss
RECEIVED FOR RECORD
2016 SEPT 23 @ 11:32AM
Cabinet D Plats Jacket 78
PRESTON F. JONES-REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21-4.01
AMENDMENT NO:___
SHEET 1 OF 2



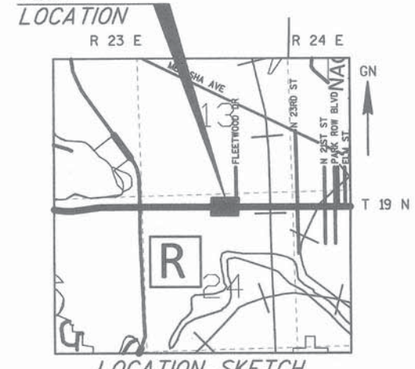
R/W POINT TABLE

POINT	Y COORDS	X COORDS
100	307416.255	225037.730
102	306987.728	225033.072
104	306973.997	225491.819
105	307085.939	225495.170
106	307085.191	225520.159
107	307125.180	225521.356
108	307122.189	225621.311
109	307082.199	225620.114
110	306970.257	225616.763
111	306882.288	225614.130
112	306883.036	225589.141
113	306841.063	225587.885
114	306844.055	225487.930
115	306886.028	225489.186

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
104-105	N01°42'52"E	112.00'
105-106	S88°17'08"E	25.00'
106-107	N01°42'52"E	40.00'
107-108	S88°17'08"E	100.00'
108-109	S01°42'52"W	40.00'
109-110	S01°42'52"W	112.00'
110-111	S01°42'52"W	88.00'
111-112	N88°17'07"W	25.00'
112-113	S01°42'52"W	42.00'
113-114	N88°17'08"W	100.00'
114-115	N01°42'52"E	42.00'
115-104	N01°42'52"E	88.00'

PLAT LOCATION



LOCATION SKETCH
NOT TO SCALE

MANITOWOC

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECTS 1474-1-71 AND 1474-1-72 AND FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREET ESTABLISHED FROM CERTIFIED SURVEY MAP RECORDED IN VOLUME 20 OF CERTIFIED SURVEY MAPS, PAGE 265, DOCUMENT NO. 880541.

REFER TO THE TITLE SHEET RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT FOR ADDITIONAL INFORMATION.

AYRES ASSOCIATES

I, JAMES R. CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF CITY OF MANITOWOC, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 9/22/2016
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF MANITOWOC

SIGNATURE: _____ DATE: 9-23-16
PRINT NAME: Daniel J Koski

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040101 RW.DWG
APPRAISAL PLAT DATE : _____
PLOT DATE : 9/13/2016 PLOT BY : PLOT NAME : PLOT SCALE : ==========

DOC # 1173018

TRANSPORTATION PROJECT PLAT NO: 1500-37-21 - 4.02

PART OF LOTS 23, 24, AND 28, BLOCK 2 AND LOTS 1 AND 10, BLOCK 3 OF THE PLAT OF MENCHL'S SUBDIVISION NO. 2, PART OF LOTS 3 AND 4 OF THE SUBDIVISION OF THE NORTHWEST QUARTER AND PART OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER, ALL IN SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER USH 10, CTH R-8TH STREET, CITY OF MANITOWOC

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF MANITOWOC DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF MANITOWOC HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MANITOWOC, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

CURVE TABLE					
CURVE	COURSE	LENGTH	RADIUS	LONG CHORD	LONG CHORD BEARING
C1	121-122	17.46'	1755.78'	17.46'	N30°58'39"E
C2	138-140	157.00'	1705.78'	156.94'	S34°47'50"W
C3	141-143	159.82'	1639.78'	159.76'	N36°19'04"E

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
116	306979.371	227885.039
117	306969.224	227890.250
118	306854.233	227888.277
119	306859.084	227893.286
120	306844.129	228392.855
121	306828.712	228398.862
122	306843.681	228407.848
123	306953.631	228411.139
124	306946.226	228775.428
125	306936.526	228765.344

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
126	306839.638	228760.132
127	306829.190	228775.013
128	306839.189	228775.125
129	306936.226	228775.339
130	306969.373	227885.253
131	306859.233	227888.288
138	306969.358	228554.206
140	306840.480	228464.643
141	306838.173	228541.705
143	306966.900	228636.326

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
116-130	S01°13'35"E	10.00'
130-131	S01°34'43"E	110.18'
131-118	N00°07'33"E	5.00'
118-119	N45°55'13"E	6.97'
119-120	S88°17'07"E	499.79'
120-121	S21°17'18"E	16.55'
C1	SEE CURVE TABLE	
122-123	N01°42'53"E	110.00'
123-117	N88°17'07"W	521.12'
117-116	N27°11'08"W	11.41'

R/W COURSE TABLE (HE)		
COURSE	BEARING	DISTANCE
C2	SEE CURVE TABLE	
140-141	S88°17'07"E	77.10'
C3	SEE CURVE TABLE	
143-138	N88°17'07"W	82.16'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
124-125	S46°06'36"W	13.99'
125-126	S03°04'46"W	97.03'
126-127	S54°55'36"E	18.18'
127-128	N00°38'37"E	10.00'
128-129	N00°07'36"E	97.04'
129-124	N00°30'20"E	10.00'

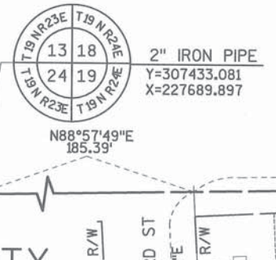
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW R/W SF	TOTAL R/W SF	HIGHWAY EASEMENT SF	TLE SF
3	KURT D. ZIPPERER	FEE AND TLE	25	25	------	968
4	TAMMY S. SCHROEDER	FEE AND TLE	12	12	------	188
---	------	------	------	------	------	------
---	------	------	------	------	------	------
7	WELLNER II, LLC	TLE	------	------	------	272
8	CARRIE BETH FRANZ CONTRERAS	TLE	------	------	------	328
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---	------	------	------	------	------	------
19	ANNA T. KRUEGER	FEE AND TLE	114	114	------	349
20	RICHARD VANG	FEE AND TLE	50	50	------	1620
21	ROBERT H. AND MARY ANN V. ZOCH	TLE	------	------	------	557
22	TROY N. AND JULIE M. HUDY	TLE	------	------	------	644
23	MATTHEW B. KING	FEE AND TLE	75	75	------	821
111	WISCONSIN CENTRAL LTD.	H.E. AND TLE	------	------	10452	637

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

REGISTERS OFFICE MANITOWOC COUNTY, WI } ss
RECEIVED FOR RECORD
2016 SEPT 29 @10:00AM
Cabinet D Plats Jacket 80
PRESTON F. JONES, REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21-4.02
AMENDMENT NO:____



2" IRON PIPE
Y=307433.081
X=227689.897

N88°57'49"E 185.39'

N88°57'49"E 670.39'

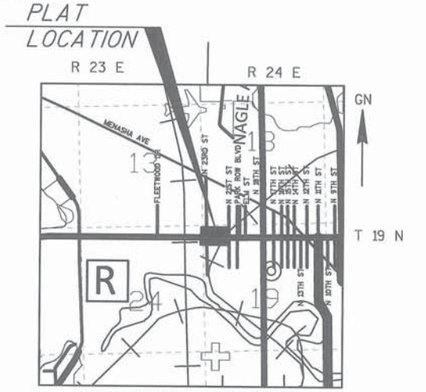
N88°57'49"E 234.40'

SECTION LINE N88°57'49"E 2647.06'



PK NAIL
Y=307480.961
X=230336.520

PLAT LOCATION



LOCATION SKETCH
NOT TO SCALE



EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECT 1474-1-71, FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREETS ESTABLISHED FROM SUBDIVISION PLATS.

REFER TO THE TITLE SHEET, RECORDED AS 2 OF 2 OF THIS DOCUMENT VOLUME 91172 OF TRANSPORTATION PROJECT PLATS, PAGE 800 AS DOCUMENT NO. 1172800 FOR ADDITIONAL INFORMATION.

AYRES ASSOCIATES

I, JAMES R. CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF CITY OF MANITOWOC, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: James R. Cappeart DATE: 9/26/2016
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF MANITOWOC

SIGNATURE: _____ DATE:
PRINT NAME: DANIEL KOSKI 9-28-16

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040102 RW.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 9/27/2016 8:29 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : **********

DOC# 1173019

TRANSPORTATION PROJECT PLAT NO: 1500-37-21 - 4.03

PART OF LOTS 13, 14, 15, 16, 19 AND 20, BLOCK 2 OF CENTRAL PARK SUBDIVISION, PART OF LOTS 11, 12 AND 13, BLOCK 1 OF CENTRAL PARK SUBDIVISION, PART OF LOT 4 OF CENTRAL PARK SUBDIVISION NO. 2 AND PART OF LOTS 7, 8, 9, 10 AND 11 OF THE SUBDIVISION OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, ALL IN SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER USH 10, CTH R-8TH STREET, CITY OF MANITOWOC

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF MANITOWOC DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF MANITOWOC HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MANITOWOC, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW R/W SF	TOTAL R/W SF	TLE SF
24	BURT R. AND KIMBERLY M. SILBERSACK	FEE AND TLE	50	50	694
25	DONALD L. AND JUDITH A. WOLLERSHEIM	TLE	------	------	367
26	JEFFERY P. YOUNG	TLE	------	------	358
27	MARK J. RAYMAKER AND JAMES M. MROTEK	FEE AND TLE	25	25	1165
28	INSPIRED ENDEAVORS LLC	TLE	------	------	198
29	ROSE MARIE KUBSCH	FEE AND TLE	25	25	1005
30	ROGER E. ZEAMER	FEE AND TLE	50	50	837
31	ANTHONY L. AND KIMBERLY M. ZUBA	FEE AND TLE	150	150	865
32	FREDERIC D. AND BARBARA L. HEIDERICH	FEE AND TLE	25	25	2205
---	------	------	------	------	------
34	WALDOPEN, LLC AND LMH WALDO BLVD, LLC	TLE	------	------	1814
35	CLYDE M. WEBBER III	TLE	------	------	827
36	ERIC AND SHARON INGMAN	TLE	------	------	1353
37	ROSEMARY A. KONITZER	TLE	------	------	549
38	KAYLA R. BICHLER	TLE	------	------	541
39	DAVID P. AND JOSEPH J. COPPENS	TLE	------	------	582

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

GN

0 50 100

SCALE, FEET

REGISTERS OFFICE
MANITOWOC COUNTY, WI } SS
RECEIVED FOR RECORD
2016 SEPT 29 @10:01AM
Cabinet D Plats Packet 80
PRESTON F. JONES, REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21-4.03
AMENDMENT NO:____

T 19 N R 23 E / T 19 N R 24 E / T 19 N R 23 E / T 19 N R 24 E — 13 18 24 19

2" IRON PIPE
Y=307433.081
X=227689.897

N88°57'49"E
1150.20'

T 19 N R 24 E — 18 19 — T 19 N R 24 E

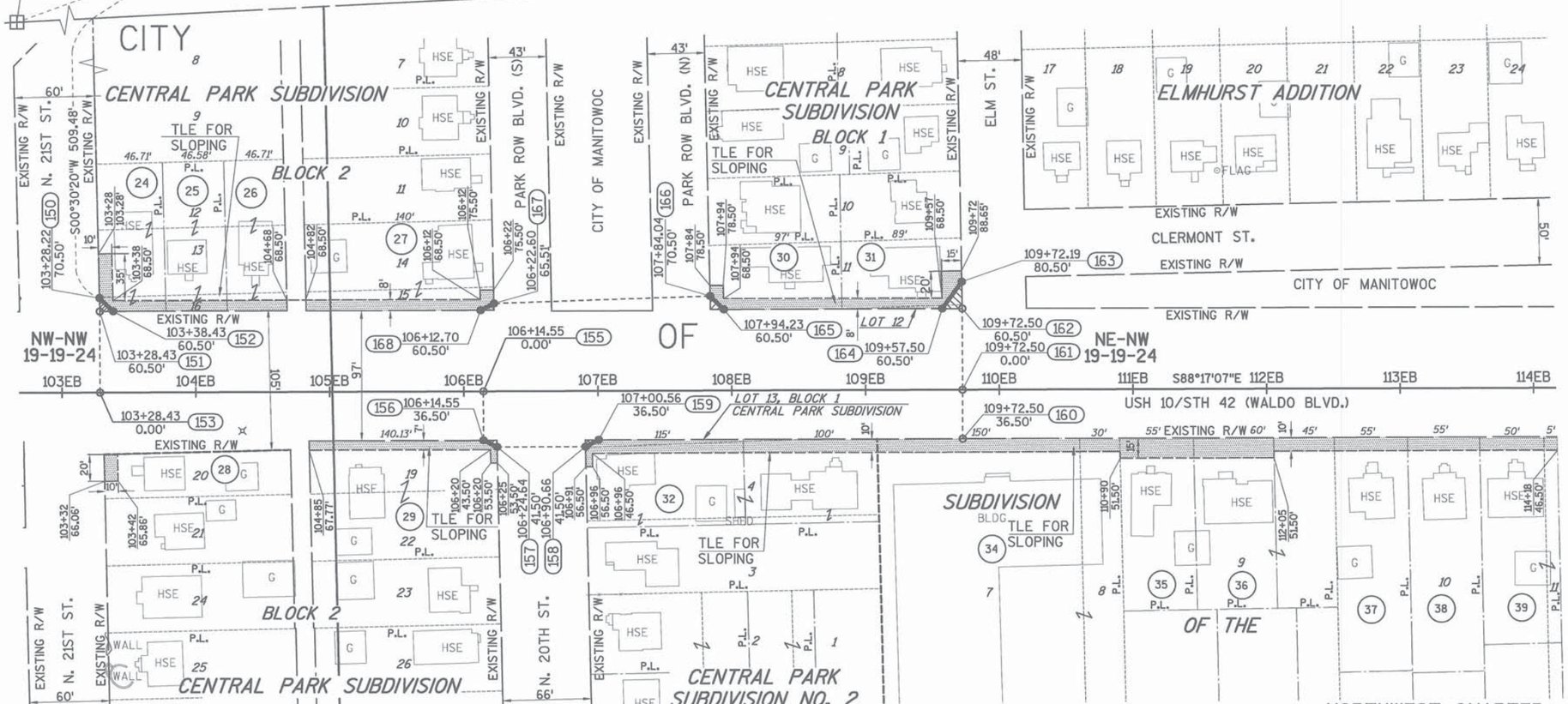
PK NAIL
Y=307480.961
X=230336.520

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
150-152	S43°53'24"E	14.29'
152-168	S88°17'07"E	274.27'
168-167	N64°53'09"E	11.10'
167-166	N89°56'40"E	161.51'
166-165	S43°49'54"E	14.28'
165-164	S88°17'07"E	163.27'

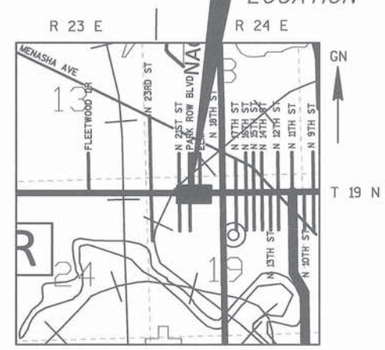
R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
164-163	N38°01'22"E	24.82'
163-162	S00°50'18"W	20.00'
162-161	S01°42'53"W	60.50'
161-160	S01°42'53"W	36.50'
160-159	N88°17'07"W	271.94'
159-158	S64°57'04"W	11.09'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
158-157	N88°17'19"W	66.01'
157-156	N61°56'29"W	11.27'
156-155	N01°42'53"E	36.50'
155-153	N88°17'07"W	286.12'
153-151	N01°42'53"E	60.50'
151-150	N00°30'20"E	10.00'

SECTION LINE N88°57'49"E 2647.06'



PLAT LOCATION



LOCATION SKETCH
NOT TO SCALE

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
150	306944.430	228835.414
151	306934.431	228835.326
152	306934.132	228845.321
153	306873.958	228833.516
155	306865.397	229119.506
156	306828.913	229118.414
157	306823.614	229128.355
158	306821.643	229194.338
159	306826.340	229204.388

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
160	306818.203	229476.201
161	306854.687	229477.293
162	306915.160	229479.103
163	306935.158	229479.396
164	306915.609	229464.110
165	306920.494	229300.915
166	306930.792	229291.029
167	306930.636	229129.517
168	306925.925	229119.467

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECT 1474-1-71, FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREETS ESTABLISHED FROM SUBDIVISION PLATS.

AYRES ASSOCIATES

I, JAMES R. CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF CITY OF MANITOWOC, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

SIGNATURE: James R. Cappeart DATE: 9/26/2016
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF MANITOWOC

SIGNATURE: _____ DATE: 9-28-16
PRINT NAME: DANIEL KOSKI

REFER TO THE TITLE SHEET, RECORDED AS 2 OF 2 OF THIS DOCUMENT VOLUME 91172 OF TRANSPORTATION PROJECT PLATS, PAGE 800 AS DOCUMENT NO. 1172800 FOR ADDITIONAL INFORMATION.

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040103 RW.DWG
APPRAISAL PLAT DATE : _____
PLOT DATE : 9/27/2016 8:32 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : **********

TRANSPORTATION PROJECT PLAT NO: 1500-37-21 - 4.04

PART OF LOTS 11 AND 12 OF THE SUBDIVISION OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, AND PART OF LOTS 19, 20, 21, 22, 23 AND 24, BLOCK 5, LOTS 19, 20, 21, 22, 23 AND 24, BLOCK 6 OF WOODS PARK ADDITION NO. 2, LOTS 1, 2, 3, 4, 5 AND 6, BLOCK 4, AND LOTS 1, 2, 3, 4, 5 AND 6, BLOCK 3 OF WOODS PARK ADDITION, ALL IN SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER USH 10, CTH R-8TH STREET, CITY OF MANITOWOC

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY MANITOWOC DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF MANITOWOC HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MANITOWOC, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECTS 1474-1-71 AND 4991-0-03, FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREETS ESTABLISHED FROM SUBDIVISION PLATS.

PK NAIL
Y=307480.961
X=230336.520

2" IRON PIPE
Y=307433.081
X=227689.897

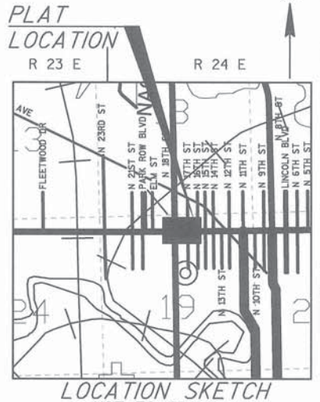
R/W POINT TABLE		
POINT	Y COORDS	X COORDS
181	306910.165	230329.605
182	306909.765	230362.602
183	306889.571	230377.358
184	306885.649	230675.019
185	306893.543	230683.097
186	306892.753	230743.092
187	306884.648	230751.013
188	306881.111	231019.611
189	306888.019	231026.679

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW R/W SF	TOTAL R/W SF	TLE SF
40	DOROTHY T. HOLSCHBACH	TLE	------	------	784
41	KEVIN J. DROSSART AND MICHELLE A. DEAN	TLE	------	------	650
42	RICHARD J. AND MARY LYNN J. RUEHR	TLE	------	------	605
43	RANDALL G. KNAPP	TLE	------	------	502
44	JAYSON LEFKY	TLE	------	------	1614
45	JULIE A. BERNHARDT	FEE AND TLE	150	150	583
46	CATHY A. GARDNER	TLE	------	------	532
47	MARILYN R. NELSON	TLE	------	------	532
48	RUTH A. WEDEMAN LIVING TRUST	TLE	------	------	532
49	JEFFREY J. AND MELISSA A. SCHMITZ	TLE	------	------	532
50	JULEE AND YING LYDIA V. THAO	FEE AND TLE	32	32	714
51	LAURA I. KRUEGER	FEE AND TLE	91	91	1401
52	RONALD AND DEBRA SKARVAN-HORNBURG	TLE	------	------	639
53	COLE AND SAMANTHA SKARVAN	TLE	------	------	373
54	PAULA BIERKE	TLE	------	------	373
55	MICHAEL T. AND JACLYN M. BETHKE, ET AL	FEE AND TLE	24	24	656
56	NHIA YANG AND MAI YIA XIONG	FEE AND TLE	32	32	530
57	DEBRA D. DUENO	TLE	------	------	364
58	VICTORIA K. LEIDER	TLE	------	------	362
59	MACE T. AND LAURA J. MURRAY	TLE	------	------	566
60	KENNETH E. AND DIANE M. BASKEN	FEE AND TLE	24	24	507
61	KENNETH B. STOKES	FEE AND TLE	39	39	872
62	DANIEL L. AND MARGARET A. JUCHNIEWICH	TLE	------	------	803
63	JAMES A. AND JOANNE A. OLM	TLE	------	------	662
64	RYAN E. AND ANDRA L. REVAK	TLE	------	------	331
65	JENNIFER G. WITCZAK	FEE AND TLE	35	35	443

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

PLAT LOCATION



LOCATION SKETCH
NOT TO SCALE

PK NAIL
Y=307400.592
X=233003.221

REGISTERS OFFICE
MANITOWOC COUNTY, WI
RECEIVED FOR RECORD
2016 SEPT 29 @10:02AM
Cabinet D Plats Jacket 81
PRESTON F. JONES, REGISTER

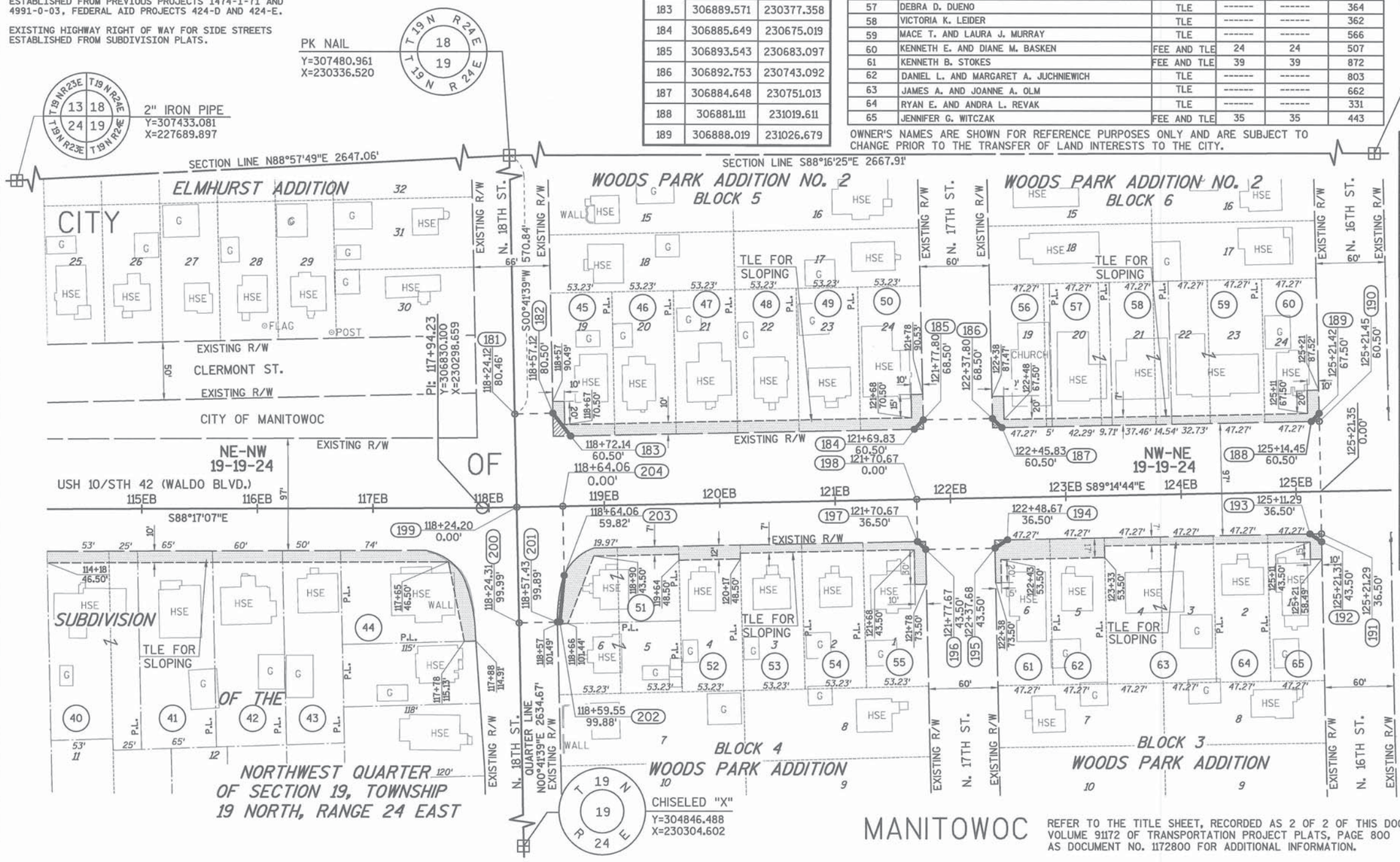
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21-4.04
AMENDMENT NO:____

GN
0 50 100
SCALE, FEET

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
203-202	S07°10'31"W	40.31'
202-201	N89°24'26"W	2.13'
201-200	N89°24'26"W	33.12'
200-199	N00°41'39"E	99.99'
199-181	N00°41'39"E	80.46'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
181-182	S89°18'21"E	33.00'
182-183	S36°09'21"E	25.01'
183-184	S89°14'44"E	297.69'
184-185	N45°39'25"E	11.29'
185-186	S89°14'44"E	60.00'
186-187	S44°20'35"E	11.33'
187-188	S89°14'44"E	268.62'
188-189	N45°39'23"E	9.88'
189-190	S00°45'16"W	7.00'
190-191	S00°49'51"W	97.00'
191-192	S00°40'06"W	7.00'
192-193	N54°16'55"W	12.22'
193-194	N89°14'44"W	262.62'
194-195	S58°15'30"W	13.03'
195-196	N89°14'46"W	60.00'
196-197	N44°17'12"W	9.91'
197-198	N00°45'16"E	36.50'
198-204	N89°14'44"W	306.61'
204-203	S00°45'16"W	59.82'

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
190	306881.019	231026.587
191	306784.030	231025.180
192	306777.030	231025.099
193	306784.161	231015.181
194	306787.619	230752.584
195	306780.765	230741.503
196	306781.554	230681.508
197	306788.646	230674.590
199	306829.706	230328.630
200	306729.727	230327.419
201	306729.386	230360.536
202	306729.365	230362.662
203	306769.362	230367.698
204	306829.181	230368.485



MANITOWOC

REFER TO THE TITLE SHEET, RECORDED AS 2 OF 2 OF THIS DOCUMENT VOLUME 91172 OF TRANSPORTATION PROJECT PLATS, PAGE 800 AS DOCUMENT NO. 1172800 FOR ADDITIONAL INFORMATION.

AYRES ASSOCIATES

I, JAMES R. CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF CITY OF MANITOWOC, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

SIGNATURE: _____ DATE: 9/26/2016
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF MANITOWOC

SIGNATURE: _____ DATE: 9-28-16
PRINT NAME: DANIEL KOSKI

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040104 RW.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 9/26/2016 7:45 AM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : ==========

DOC # 1173021

TRANSPORTATION PROJECT PLAT NO: 1500-37-21 - 4.05

PART OF LOTS 19, 20, 21, AND 22, BLOCK 7, LOTS 19, 20, 21 AND 22, BLOCK 8 AND LOTS 9, 10, 11, 12, 13 AND 14, BLOCK 9 OF WOODS PARK ADDITION NO. 2, PART OF LOTS 1, 2, 3, AND 4, BLOCK 2, LOTS 1, 2, 3 AND 4 BLOCK 1 AND BLOCK K OF WOODS PARK ADDITION, PART OF LOTS 1, 2 AND 13, BLOCK 3 AND LOTS 1, 2, 3, 4 AND 6, BLOCK 2 OF MENCHL'S SUBDIVISION AND PART OF LOT 5 OF ALLEN'S SUBDIVISION OF THE NORTH 1/2 OF THE NORTHEAST 1/4, ALL IN SECTION 19, TOWNSHIP 19 NORTH, RANGE 24 EAST, CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER USH 10, CTH R-8TH STREET, CITY OF MANITOWOC

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY MANITOWOC DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF MANITOWOC HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF MANITOWOC, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECT 1474-1-71, FEDERAL AID PROJECTS 424-D AND 424-E.

EXISTING HIGHWAY RIGHT OF WAY FOR SIDE STREETS ESTABLISHED FROM SUBDIVISION PLATS.

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
220	306890.229	231086.704
221	306880.229	231086.606
222	306880.097	231096.605
223	306877.644	231282.894
224	306884.552	231289.969
225	306884.762	231349.975
226	306876.657	231357.888
227	306874.015	231558.519
228	306885.856	231570.658
229	306898.065	231630.805
230	306898.025	231633.805
231	306886.026	231633.665
232	306872.869	231645.511
233	306869.312	231915.621

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
234	306869.519	231926.285
235	306886.308	231939.733
236	306933.361	231925.506
237	306942.393	231921.335
238	306992.303	231981.281
239	306867.133	232085.496
240	306866.757	232116.894
241	306871.660	232124.955
242	306866.661	232124.895
243	306806.165	232124.170
244	306807.222	232035.953
245	306808.783	231917.420
246	306772.286	231916.939
247	306765.405	231907.864

R/W POINT TABLE		
POINT	Y COORDS	X COORDS
248	306767.195	231847.880
249	306773.327	231837.946
250	306775.955	231638.375
251	306769.073	231629.294
252	306769.864	231569.299
253	306776.995	231559.382
254	306779.636	231358.839
255	306772.768	231348.765
256	306773.558	231288.770
257	306780.690	231278.763
258	306783.108	231095.174
259	306776.240	231085.093
260	306783.240	231085.175

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
220-222	S44°20'35"E	14.17'
222-223	S89°14'44"E	186.31'
223-224	N45°41'13"E	9.89'
224-225	N89°47'58"E	60.01'
225-226	S44°18'47"E	11.33'
226-227	S89°14'44"E	200.65'
227-228	N45°42'46"E	16.96'
228-229	N78°31'32"E	61.37'
229-230	S89°14'28"E	3.00'
230-231	S00°40'17"W	12.00'
231-232	S42°00'01"E	17.70'
232-233	S89°14'44"E	270.13'
233-234	N88°53'30"E	10.67'
C4	SEE CURVE TABLE	
C5	SEE CURVE TABLE	
236-237	N24°47'14"W	9.95'
237-238	N50°13'11"E	78.00'
238-239	S39°46'49"E	162.88'
239-240	S89°18'49"E	31.40'
240-241	N58°41'19"E	9.44'
241-242	S00°41'47"W	5.00'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
242-243	S00°41'12"W	60.50'
243-244	N89°18'48"W	88.22'
244-245	N89°14'44"W	118.54'
245-246	S00°45'16"W	36.50'
246-247	S52°49'49"W	11.39'
247-248	N88°17'27"W	60.01'
248-249	N58°18'59"W	11.67'
249-250	N89°14'44"W	199.59'
250-251	S52°50'37"W	11.39'
251-252	N89°14'40"W	60.00'
252-253	N54°16'52"W	12.21'
253-254	N89°14'44"W	200.56'
254-255	S55°43'01"W	12.19'
255-256	N89°14'43"W	60.00'
256-257	N54°31'16"W	12.29'
257-258	N89°14'44"W	183.60'
258-259	S55°44'03"W	12.20'
259-260	N00°40'06"E	7.00'
260-221	N00°50'43"E	97.00'
221-220	N00°33'34"E	10.00'

SCHEDULE OF LANDS & INTERESTS REQUIRED

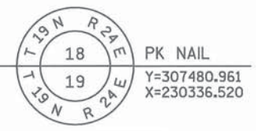
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW R/W SF	TOTAL R/W SF	TLE SF
66	JAVIER AND AURORA SAUCEDO	FEE AND TLE	50	50	1167
67	DAVID A. GILBERT	TLE	------	------	496
---	------	------	------	------	------
69	ROBERT B. AND PATRICIA E. CLARK	FEE AND TLE	25	25	796
70	DENNIS P. AND KATHLEEN A. RYAN	FEE AND TLE	35	35	541
71	YOLANDA F. SHROEDER	TLE	------	------	346
72	THOMAS R. PORTER	TLE	------	------	353
73	BARBARA J. RISTOW ROCKLEWITZ	FEE AND TLE	35	35	517
74	ST. FRANCIS OF ASSISSI	FEE AND TLE	1652	1652	7783
75	WELCOME HOME OF WI LLC	FEE AND TLE	35	35	1262
76	MARILYN M. NEUMEYER	FEE AND TLE	35	35	1162
77	LISA M. SMITH	FEE AND TLE	32	32	780
78	DARLENE E. PATYNSKI	TLE	------	------	415
79	ANDREW TRESTIK	TLE	------	------	339
80	ELAINE M. SCHROEDER	FEE AND TLE	30	30	591
81	THELMA I. AND TRAVIS ERTMAN	FEE AND TLE	20	20	377
82	JANICE JOHNSON	FEE AND TLE	32	32	533
83	JENNIFER HILDEBRANDT	TLE	------	------	408
84	DONNA L. ELLERT	TLE	------	------	812
85	GROELLE INVESTMENTS LLC	TLE	------	------	770
112	ANASTASIA M. CIHLAR	TLE	------	------	835
113	BRANDI L. GAGERMEIER	TLE	------	------	100

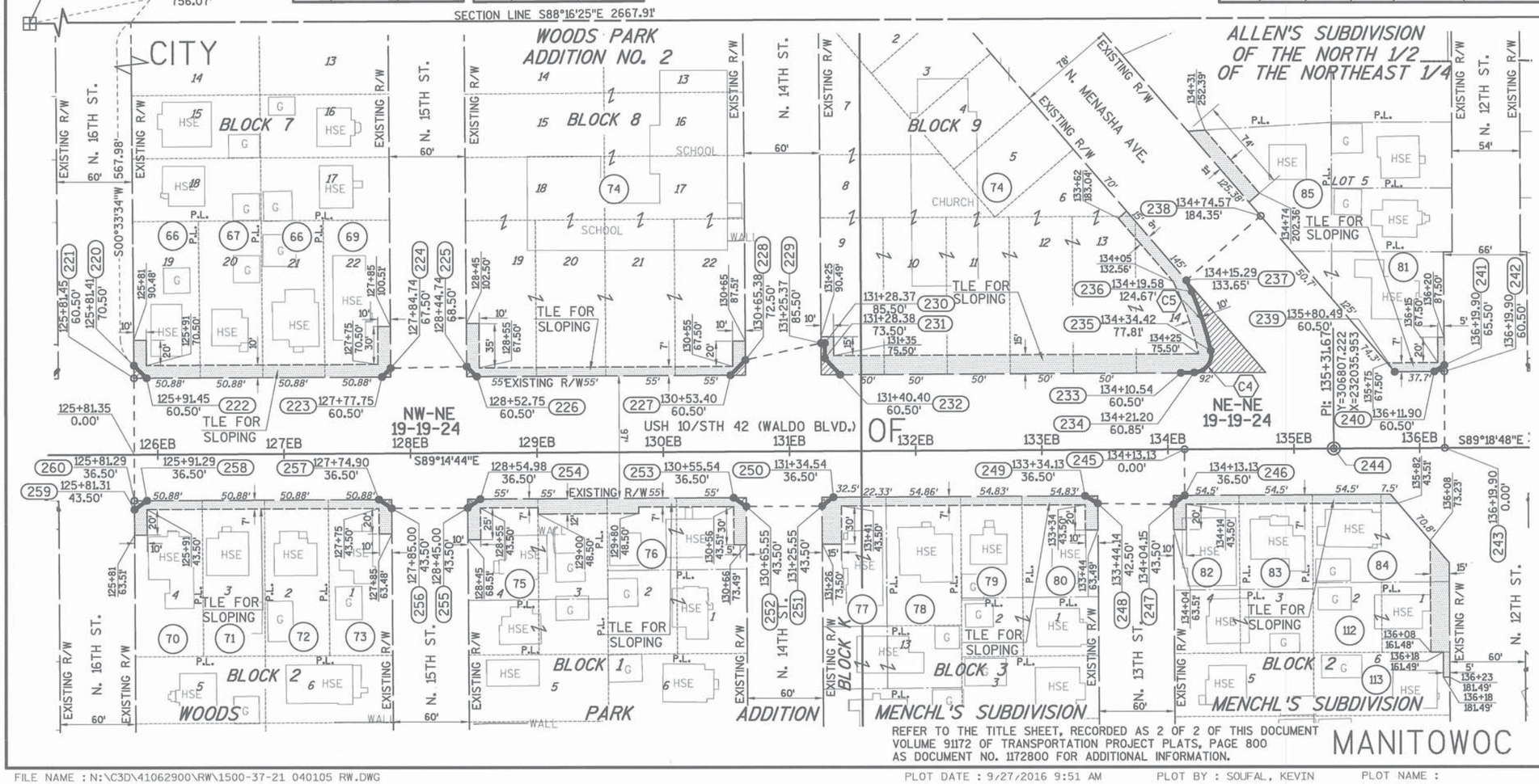
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY.

CURVE TABLE					
CURVE	COURSE	LENGTH	RADIUS	LONG CHORD	LONG CHORD BEARING
C4	234-235	24.53'	14.00'	21.51'	N38°41'36"E
C5	235-236	49.23'	265.17'	49.16'	N16°49'23"W

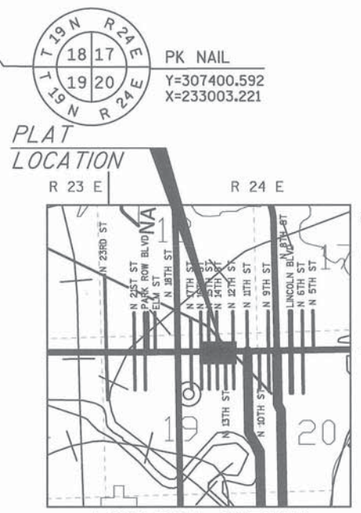
REGISTERS OFFICE
MANITOWOC COUNTY, WI } SS
RECEIVED FOR RECORD
2016 SEPT 29 @ 10:03AM
Cabinet D Plats Jacket 81
PRESTON F. JONES, REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-37-21-4.05
AMENDMENT NO:____

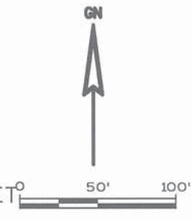




REFER TO THE TITLE SHEET, RECORDED AS 2 OF 2 OF THIS DOCUMENT VOLUME 91172 OF TRANSPORTATION PROJECT PLATS, PAGE 800 AS DOCUMENT NO. 1172800 FOR ADDITIONAL INFORMATION.



LOCATION SKETCH
NOT TO SCALE



AYRES ASSOCIATES

I, JAMES R. CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF CITY OF MANITOWOC, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: James R. Cappeart DATE: 9/26/2016
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF MANITOWOC

SIGNATURE: _____ DATE: 9-28-16
PRINT NAME: DANIEL KOSKI

FILE NAME : N:\C3D\41062900\RW\1500-37-21 040105 RW.DWG
APPRAISAL PLAT DATE : _____
PLOT DATE : 9/27/2016 9:51 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : ■■■■■■■■■■■■

BEGIN PROJECT 1500-47-71
STA. 38+00

BASE PATCHING
CONCRETE REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A
REMOVE AND REPLACE ISLAND
NOSE

EXISTING R/W

REMOVE ASPHALTIC PAVEMENT
REPLACE WITH CONCRETE
SIDEWALK 4-INCH

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

BASE PATCHING
CONCRETE REQ'D.

MANHOLE
ADJUSTMENT
CASTING REQ'D

BASE PATCHING
CONCRETE REQ'D.

USH 10/STH 42

37WB 38WB 39WB 40WB 41WB 42WB 43WB

37EB 38EB 39EB 40EB 41EB 42EB 43EB

12CR

CTH R

11CR

10CR

9CR

CTH R

REMOVE AND REPLACE
ASPHALTIC SURFACE

BURIED FIBER OPTIC
(APPROXIMATE LOCATION)

STA. 39+21.34WB USH 10/STH 42=
STA. 10+24.28CR CTH R

BURIED GAS LINE
(APPROXIMATE LOCATION)

CAUTION

REMOVE AND REPLACE
ASPHALTIC SURFACE

BURIED TELEPHONE
(APPROXIMATE LOCATION)

BASE PATCHING
CONCRETE REQ'D.

6" PCP
PVC

BASE PATCHING
CONCRETE REQ'D.

BASE PATCHING
CONCRETE REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

REMOVE ASPHALTIC PAVEMENT
REPLACE WITH CONCRETE
SIDEWALK 4-INCH

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

STA. 39+25.03EB USH 10/STH 42=
STA. 10+00.00CR CTH R

BASE PATCHING
CONCRETE REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

BASE PATCHING
CONCRETE REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND GUTTER
30-INCH TYPE A

BURIED ELECTRIC
(APPROXIMATE LOCATION)

BASE PATCHING
CONCRETE REQ'D.

BASE PATCHING
CONCRETE REQ'D.

EXISTING R/W

BURIED TELEPHONE
(APPROXIMATE LOCATION)

REMOVE AND REPLACE
ASPHALTIC SURFACE

BURIED TELEPHONE
(APPROXIMATE LOCATION)

GAZEBO
SHED
HSE
ASPH
POST
TRANS
GUY
MH
MB
OH
SAN
FO
XXXX

N

5

5

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET 255	E

NOTE:
INLET PROTECTION REQUIRED FOR ALL INLET LOCATIONS. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPE.

N

STA. 47+22.48EB USH 10/STH 42
STA. 10+00.00FR N. 40TH ST.

CONCRETE DRIVEWAY 6-INCH REQ'D.

BURIED GAS LINE (APPROXIMATE LOCATION) CAUTION

BURIED TELEPHONE (APPROXIMATE LOCATION)

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

INLET ADJUSTMENT CASTING REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.

EXISTING R/W

BASE PATCHING CONCRETE REQ'D.

BASE PATCHING CONCRETE REQ'D.

INLET ADJUSTMENT CASTING REQ'D.

REPLACE ISLAND NOSE

BASE PATCHING CONCRETE REQ'D.

ADJUST MANHOLE

MANHOLE ADJUSTMENT CASTING REQ'D

REPLACE CURB

43WB 44WB 45WB S88°17'08"E 46WB 47WB 48WB 49WB

INLET ADJUSTMENT CASTING REQ'D.

BURIED ELECTRIC (APPROXIMATE LOCATION)

USH 10/STH 42

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

REPLACE ISLAND NOSE

43EB 44EB 45EB S88°17'08"E 46EB 47EB 48EB 49EB

INLET ADJUSTMENT CASTING REQ'D.

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

REPLACE CURB

BASE PATCHING CONCRETE REQ'D.

BASE PATCHING CONCRETE REQ'D.

BASE PATCHING CONCRETE REQ'D.

INLET ADJUSTMENT CASTING REQ'D.

INLET ADJUSTMENT CASTING REQ'D.

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

CONCRETE SIDEWALK 4-INCH REQ'D.

CURB RAMP TYPE 1 REQ'D.

EXISTING R/W

CURB RAMP TYPE 1 REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE SIDEWALK 4-INCH REQ'D.
CONSTRUCTION LIMITS
STA. 9+55

CONCRETE DRIVEWAY 6-INCH REQ'D.

EXISTING R/W

40TH ST.
9FR

N00°49'18"E

BP: 8+16.47

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_050202_PN.DWG PLOT DATE : 7/29/2019 11:14 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 050202 pn (2020) PLOT SCALE : 1in:40 ft_XREF

NOTE:
INLET PROTECTION REQUIRED FOR
ALL INLET LOCATIONS. SEE MISCELLANEOUS
QUANTITIES FOR LOCATIONS AND TYPE.

N

CONCRETE PAVEMENT
8-INCH REQ'D.

ASPHALTIC SURFACE
REQ'D. (MATCH EXISTING
DEPTH)

CURB RAMP
TYPE 4B1 REQ'D.

CONCRETE SIDEWALK
4-INCH REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND
GUTTER 18-INCH TYPE A

BURIED GAS LINE
(APPROXIMATE LOCATION)

BURIED TELEPHONE
(APPROXIMATE LOCATION)

CONCRETE DRIVEWAY
6-INCH REQ'D.

EXISTING R/W

CONCRETE SIDEWALK
4-INCH REQ'D.

CONCRETE DRIVEWAY
6-INCH REQ'D.

CURB RAMP
TYPE 7B REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND
GUTTER 30-INCH TYPE A

INLET ADJUSTMENT
CASTING REQ'D.

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

REPLACE ISLAND
NOSE

INLET ADJUSTMENT
CASTING REQ'D.
BASE PATCHING
CONCRETE REQ'D.

49WB 50WB 51WB S88°17'08"E 52WB 53WB 54WB 55WB

USH 10/STH 42

49EB 50EB 51EB S88°17'08"E 52EB 53EB 54EB 55EB

MANHOLE
ADJUSTMENT
CASTING REQ'D

RECONSTRUCT INLET
INLET ADJUSTMENT
CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

REMOVE AND REPLACE
CONCRETE CURB AND
GUTTER 30-INCH TYPE A

ADJUST
MANHOLE

CURB RAMP
TYPE 1 REQ'D.

CONSTRUCTION LIMIT
STA. 9+52

CONCRETE DRIVEWAY
6-INCH REQ'D.

CONCRETE DRIVEWAY
6-INCH REQ'D.

CONCRETE DRIVEWAY
6-INCH REQ'D.

REMOVE AND REPLACE
CONCRETE CURB AND
GUTTER 30-INCH TYPE A

CURB RAMP
TYPE 1 REQ'D.

STA. 53+99.65EB USH 10/STH 42=
STA. 10+00.00GV GLENVIEW DR.

N00°17'29"E

GLENVIEW DR.

BURIED GAS LINE
(APPROXIMATE LOCATION)

BP: 8+29.00

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_050203_PN.DWG PLOT DATE : 7/29/2019 11:20 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 050203 pn (2020) PLOT SCALE : 1in:40 ft_XREF
WISDOT/CADDS SHEET 44

NOTE:
INLET PROTECTION REQUIRED FOR ALL INLET LOCATIONS. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPE.

N

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

BURIED TELEPHONE (APPROXIMATE LOCATION)

STA. 60+02.36EB USH 10/STH 42=
STA. 10+00.00WC W. CRESCENT DR.

CONCRETE DRIVEWAY 6-INCH REQ'D.

BURIED GAS LINE (APPROXIMATE LOCATION)

CAUTION

CONCRETE DRIVEWAY 6-INCH REQ'D.

EXISTING R/W

BASE PATCHING CONCRETE REQ'D.

BASE PATCHING CONCRETE REQ'D.

5

55WB 56WB 57WB 58WB 59WB 60WB S88°17'08"E 61WB

55EB 56EB 57EB 58EB 59EB 60EB 61EB

5

USH 10/STH 42

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

BASE PATCHING CONCRETE REQ'D.

REPLACE ISLAND NOSE

BURIED ELECTRIC (APPROXIMATE LOCATION)

INLET ADJUSTMENT CASTING REQ'D.

BASE PATCHING CONCRETE REQ'D.

MANHOLE ADJUSTMENT CASTING REQ'D

BURIED TELEPHONE (APPROXIMATE LOCATION)

EXISTING R/W

CONCRETE DRIVEWAY 6-INCH REQ'D.

CURB RAMP TYPE 1 REQ'D.

CURB RAMP TYPE 1 REQ'D.

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

CONSTRUCTION LIMITS STA. 9+52

EXISTING R/W

W. CRESCENT DR.

9WC

N00°59'51"E

EXISTING R/W

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_050204_PN.DWG PLOT DATE : 7/29/2019 11:22 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 050204 pn (2020) PLOT SCALE : 1in:40 ft_XREF

NOTE:
INLET PROTECTION REQUIRED FOR ALL INLET LOCATIONS. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS AND TYPE.

N

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

CONCRETE DRIVEWAY 6-INCH REQ'D.

CAUTION

BURIED GAS LINE (APPROXIMATE LOCATION)

BURIED TELEPHONE (APPROXIMATE LOCATION)

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONCRETE DRIVEWAY 6-INCH REQ'D.

EXISTING R/W

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

INLET ADJUSTMENT CASTING REQ'D.

BASE PATCHING CONCRETE REQ'D.

INLET ADJUSTMENT CASTING REQ'D.

5

61WB 62WB 63WB 64WB 65WB 66WB S88°17'08"E 67WB

USH 10/STH 42

REPLACE ISLAND NOSE

BURIED ELECTRIC (APPROXIMATE LOCATION)

5

61EB 62EB 63EB 64EB 65EB 66EB S88°17'08"E 67EB

INLET ADJUSTMENT CASTING REQ'D.

INLET ADJUSTMENT CASTING REQ'D.

MANHOLE ADJUSTMENT CASTING REQ'D

BASE PATCHING CONCRETE REQ'D.

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

EXISTING R/W

CURB RAMP TYPE 1 REQ'D.

CURB RAMP TYPE 1 REQ'D.

EXISTING R/W

BURIED TELEPHONE (APPROXIMATE LOCATION)

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

CONCRETE DRIVEWAY 6-INCH REQ'D.

CONSTRUCTION LIMITS STA. 9+47

REMOVE AND REPLACE CONCRETE CURB AND GUTTER 30-INCH TYPE A

STA. 63+52.30EB USH 10/STH 42=
STA. 10+00.00EC E. CRESCENT DR.

9EC N00°49'57"E E. CRESCENT DR.

EXISTING R/W

EXISTING R/W

BP: 8+16.17

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET 259	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_47_71_050205_PN.DWG PLOT DATE : 7/29/2019 11:25 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 050205 pn (2020) PLOT SCALE : 1in:40 ft_XREF

NOTE:
INLET PROTECTION REQUIRED FOR
ALL INLET LOCATIONS. SEE MISCELLANEOUS
QUANTITIES FOR LOCATIONS AND TYPE.

CONCRETE DRIVEWAY
6-INCH REQ'D.

BURIED TELEPHONE
(APPROXIMATE LOCATION)

CONCRETE DRIVEWAY
6-INCH REQ'D.

BURIED GAS LINE
(APPROXIMATE LOCATION)

REMOVE FENCE
STA. 69+50-STA. 70+00

EXISTING R/W

RECONSTRUCT INLET
INLET ADJUSTMENT CASTING REQ'D
REPLACE CONCRETE CURB
3-FOOT EACH SIDE OF INLET

INLET ADJUSTMENT
CASTING REQ'D.

INLET ADJUSTMENT
CASTING REQ'D.

BASE PATCHING
CONCRETE REQ'D.

BASE PATCHING
CONCRETE REQ'D.

BURIED ELECTRIC
(APPROXIMATE LOCATION)

USH 10/STH 42

BURIED TELEPHONE
(APPROXIMATE LOCATION)

REMOVE FENCE
STA. 69+25-STA. 70+00

END PROJECT 1500-47-71
STA. 70+00.00EB

FLEETWOOD DR.

67WB 68WB 69WB 70WB 71WB 72WB 73WB

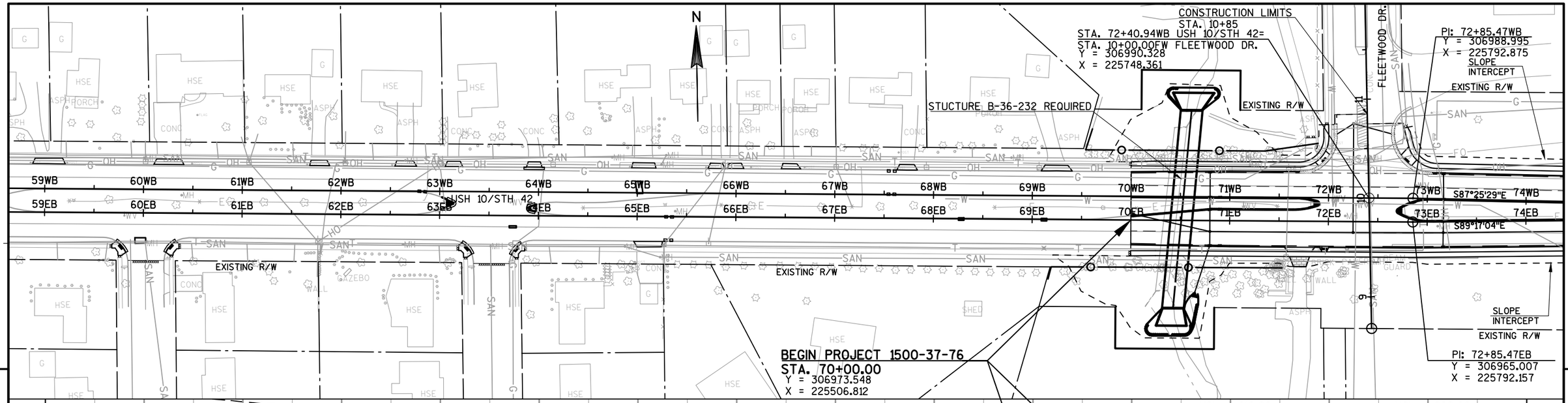
67EB 68EB 69EB 70EB 71EB 72EB 73EB

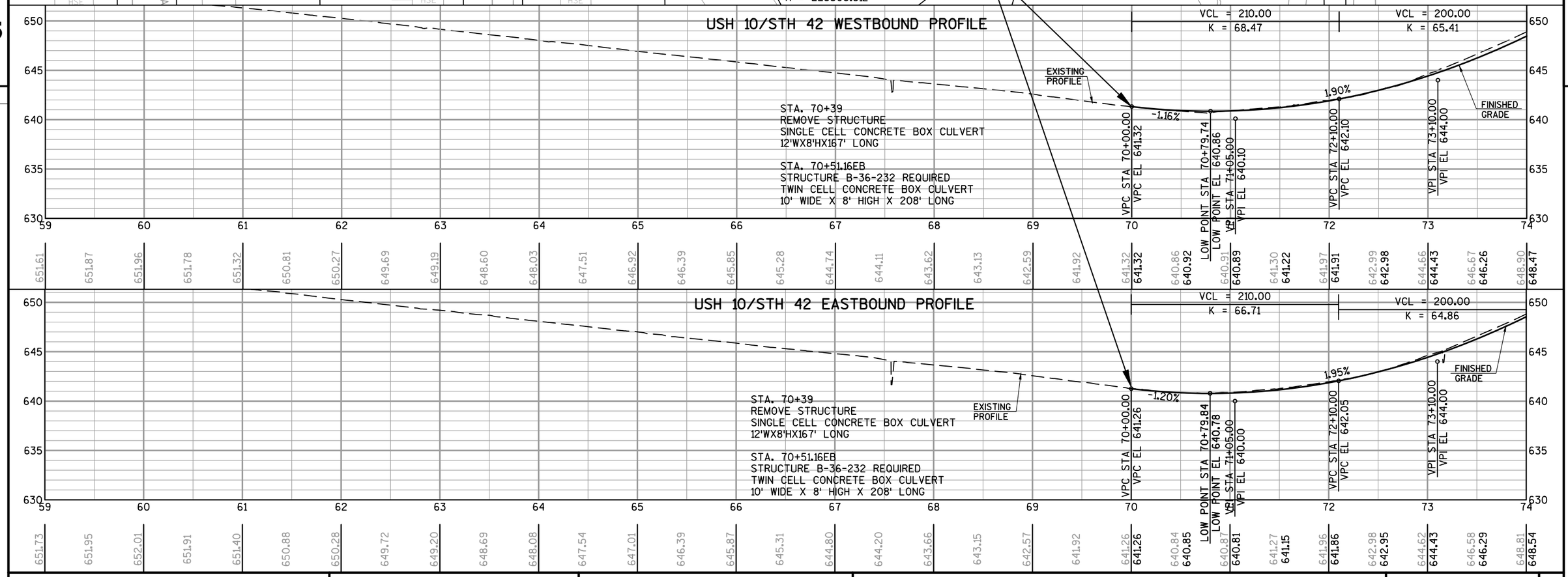
5

5

N

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN	SHEET 260	E





PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE:	SHEET 261	E

PI: 79+01.63WB
Y = 306961.311
X = 226408.414

EXISTING R/W

USH 10/STH 42

74WB 75WB S87°25'29"E 76WB 77WB 78WB 79WB 80WB 81WB S88°15'16"E 82WB 83WB 84WB 85WB 86WB 87WB 88WB 89WB

74EB 75EB 76EB 77EB 78EB 79EB 80EB 81EB S88°16'16"E 82EB 83EB 84EB 85EB 86EB 87EB 88EB 89EB

S89°17'04"E

EXISTING R/W

PI: 79+01.66EB
Y = 306957.314
X = 226408.234

SLOPE INTERCEPT

WISCONSIN CENTRAL LTD.

STA. 83+81.89
STRUCTURE B-36-29
4 SPAN 48" PRESTRESSED GIRDER BRIDGE

DECK REPLACEMENT REQUIRED

SLOPE INTERCEPT

EXISTING R/W

EXISTING R/W

N

5

5

VPI STA 80+16.33
VPI EL 679.56

VPI STA 85+37.21
VPI EL 675.81

EXISTING PROFILE

FINISHED GRADE

-0.72%

5.03%

-4.97%

VPC STA 74+10.00
VPC EL 649.03

VCL = 200.00
K = 64.86

VPC STA 77+41.33
VPC EL 665.72

HIGH POINT STA 82+22.50
HIGH POINT EL 677.83

VPT STA 82+91.33
VPT EL 677.58

VPC STA 83+77.21
VPC EL 676.96

VPT STA 86+97.21
VPT EL 667.86

VCL = 550.00
K = 95.57

VCL = 320.00
K = 75.29

STA. 83+81.89
STRUCTURE B-36-29
4 SPAN 48" PRESTRESSED GIRDER BRIDGE

DECK REPLACEMENT REQUIRED

74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
648.81	651.32	653.94	656.60	659.17	661.60	663.99	666.50	668.73	670.72	672.50	673.83	675.00	675.95	676.71	677.24	677.73	657.72	648.17	648.15	646.97	663.02	674.82	673.59	672.12	670.28	668.14	665.84	663.46	661.06	658.65
VPC 649.03	651.05	653.57	656.08	658.60	661.12	663.64	666.15	668.49	670.57	672.39	673.95	675.24	676.27	677.05	677.56	677.80	677.79	677.52	677.16	676.77	676.09	675.08	673.74	672.06	670.06	667.72	665.24	662.75	660.27	657.78

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: EASTBOUND	SHEET E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_050102_PP (2020).DWG PLOT DATE : 7/29/2019 11:40 AM PLOT BY : AYRES ASSOCIATES PLOT NAME :050102 pp PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44

PI: 79+01.63WB
Y = 306961.311
X = 226408.414

EXISTING R/W

USH 10/STH 42

74WB 75WB S87°25'29"E 76WB 77WB 78WB 79WB 80WB 81WB S88°16'15"E 82WB 83WB 84WB 85WB 86WB 87WB 88WB 89WB

74EB 75EB 76EB 77EB 78EB 79EB 80EB 81EB S88°16'16"E 82EB 83EB 84EB 85EB 86EB 87EB 88EB 89EB

S89°17'04"E

EXISTING R/W

PI: 79+01.66EB
Y = 306957.313
X = 226408.292

SLOPE INTERCEPT

STA. 83+81.89
STRUCTURE B-36-29
4 SPAN 48" PRESTRESSED GIRDER BRIDGE

DECK REPLACEMENT REQUIRED

SLOPE INTERCEPT

EXISTING R/W

WISCONSIN CENTRAL LTD.

EXISTING R/W

5

5

VPI STA 80+16.31
VPI EL 679.56

VPI STA 85+37.19
VPI EL 675.81

EXISTING PROFILE

FINISHED GRADE

STA. 83+81.89
STRUCTURE B-36-29
4 SPAN 48" PRESTRESSED GIRDER BRIDGE

DECK REPLACEMENT REQUIRED

VCL = 200.00
K = 65.41

4.96%

STA 76+00.00
EL 658.38

5.09%

VPC STA 77+41.31
VPC EL 665.57

VCL = 550.00
K = 94.70

HIGH POINT STA 82+23.09
HIGH POINT EL 677.83

VPT STA 82+91.31
VPT EL 677.58

-0.72%

VPC STA 83+77.19
VPC EL 676.96

VCL = 320.00
K = 75.20

VPT STA 86+97.19
VPT EL 667.85

-4.98%

STA 88+00.00
EL 662.74

-5.00%

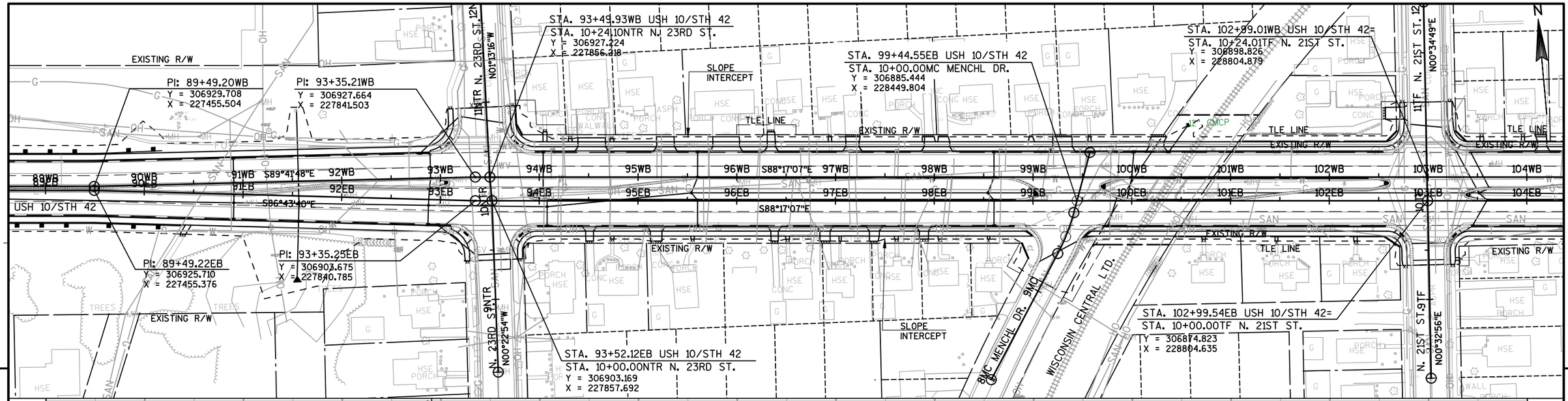
VPT STA 74+10.00
VPT EL 648.96

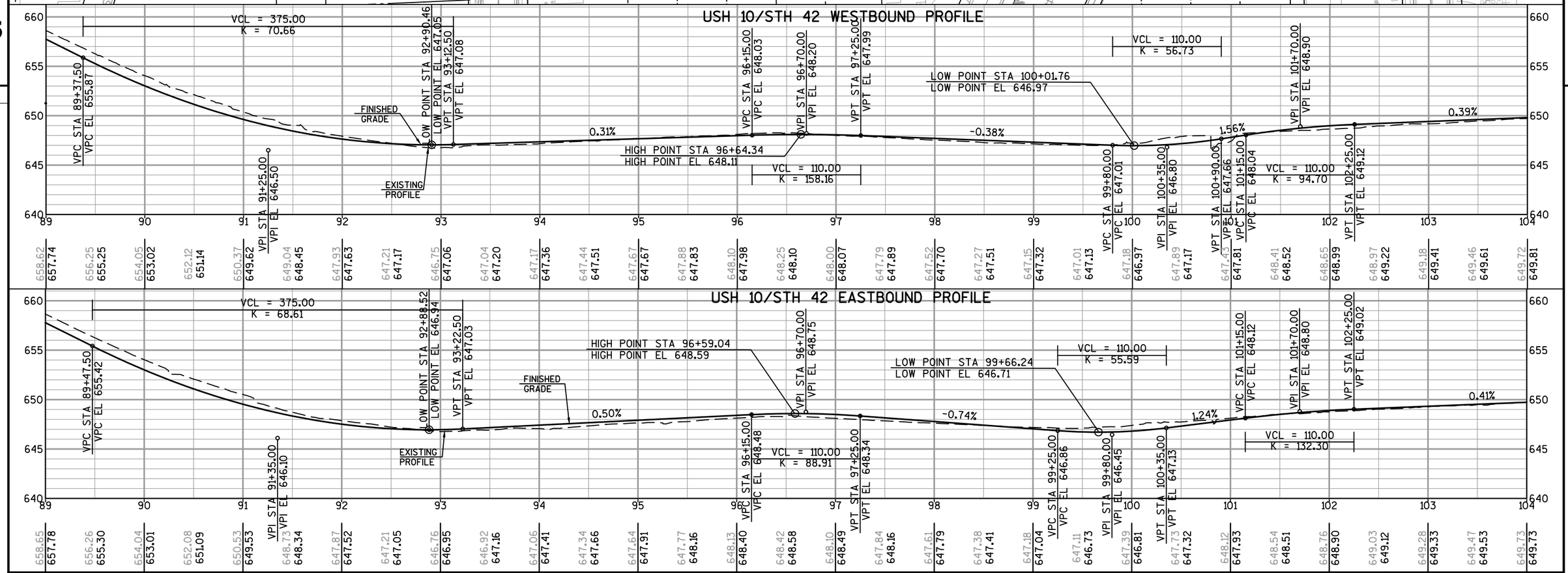
74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
648.90	654.16	656.35	659.00	661.48	663.98	666.41	668.67	670.69	672.51	673.84	674.99	675.92	676.64	677.24	677.72	657.62	648.03	648.18	646.96	662.98	674.80	673.50	672.07	670.28	668.09	665.84	663.44	661.05	658.62
648.47	653.42	655.90	658.38	660.93	663.47	666.01	668.38	670.48	672.32	673.89	675.20	676.25	677.03	677.55	677.80	677.79	677.52	677.16	676.77	676.09	675.08	673.73	672.06	670.05	667.71	665.22	662.74	660.24	657.74

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: WESTBOUND	SHEET	E

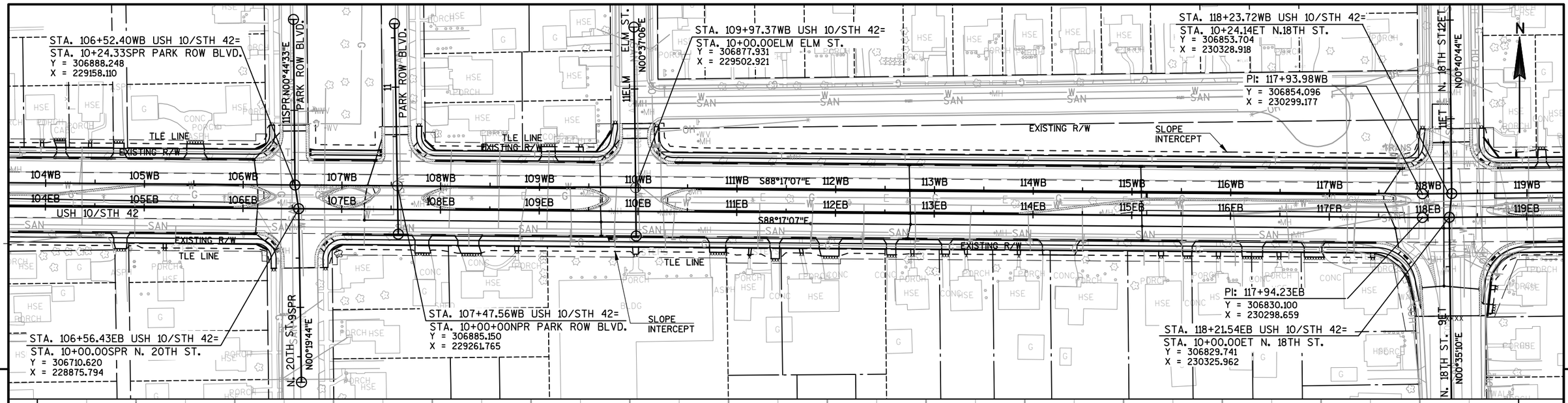
FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_050103_PP (2020).DWG PLOT DATE : 7/29/2019 11:46 AM PLOT BY : AYRES ASSOCIATES PLOT NAME :050103 pp PLOT SCALE : 1in:100ft_XREF

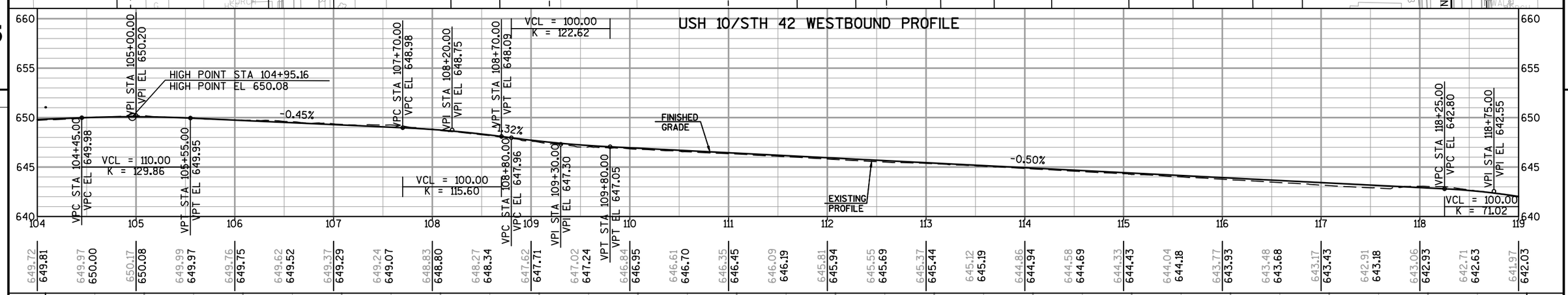
WISDOT/CADDS SHEET 44





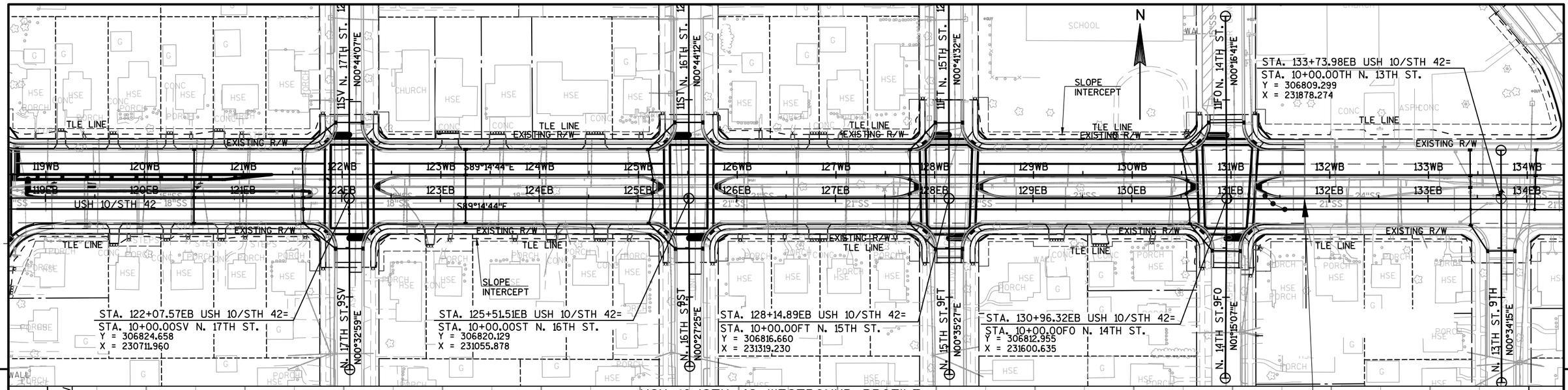
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE:	SHEET 264 E

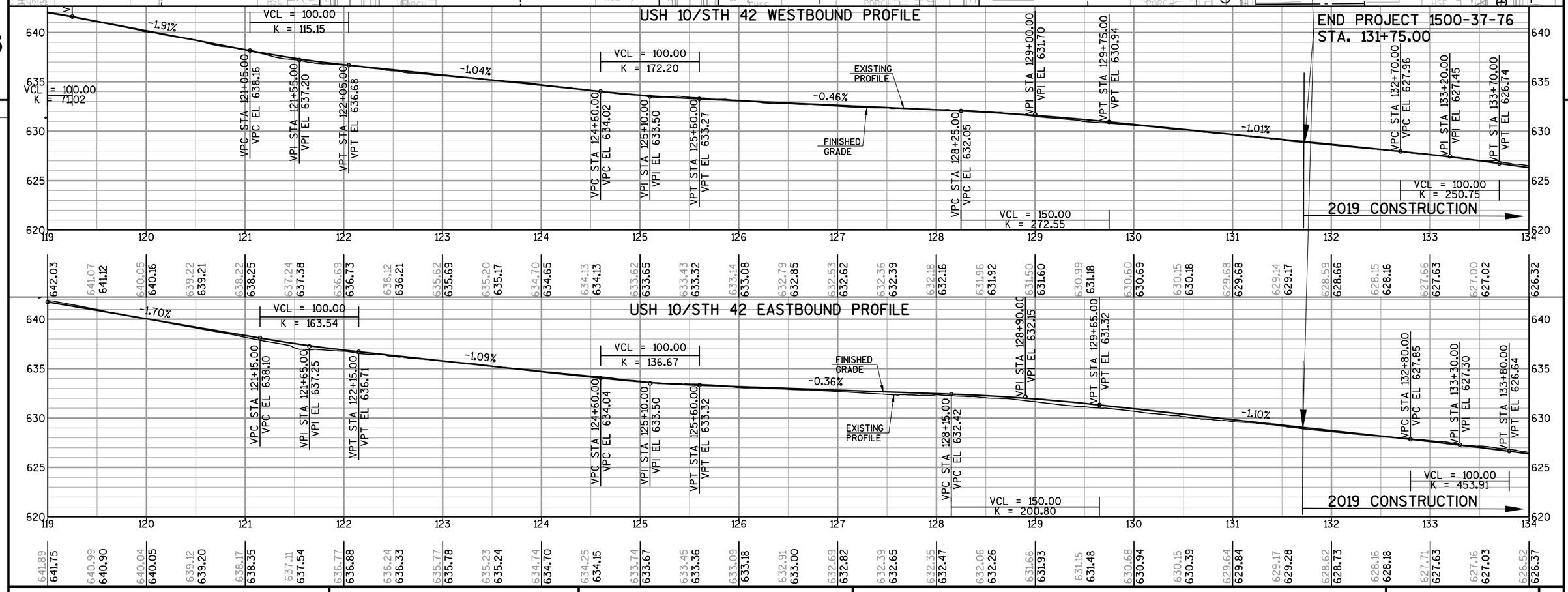




PROJECT NO: 1500-37-71	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE:	SHEET E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_050105_PP (2020).DWG PLOT DATE : 7/29/2019 11:58 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 050105 pp PLOT SCALE : ********

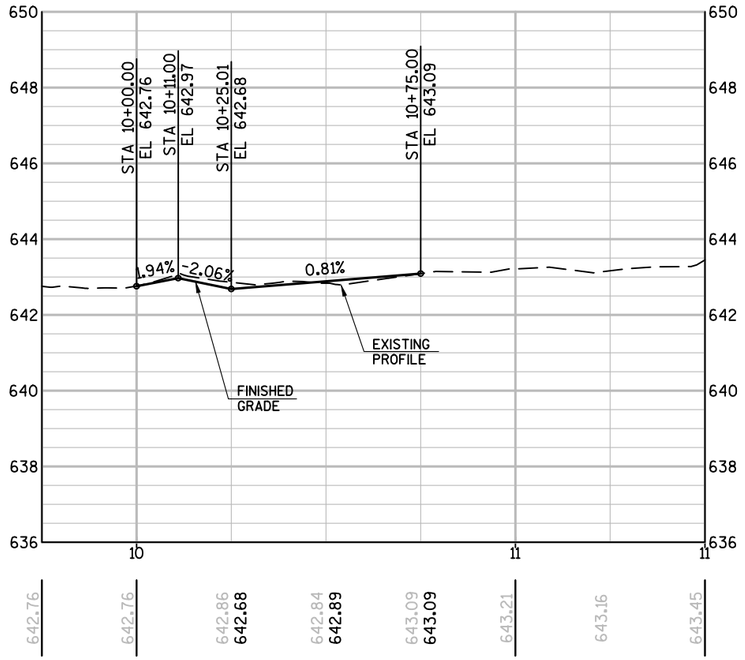




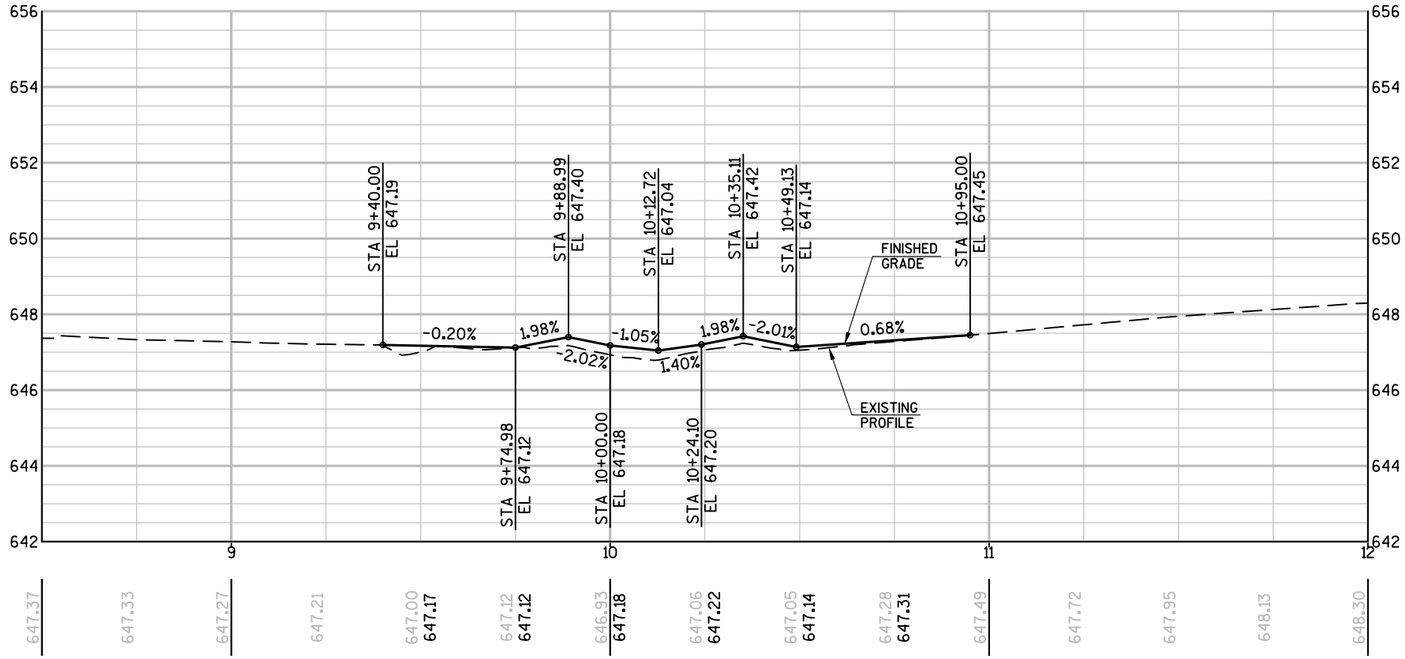
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE	SHEET	E

FILE NAME : N:\C3D\41062900\SHEETSPLAN\1500_37_76_050106_PP (2020).DWG
PLOT DATE : 7/29/2019 12:12 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : 050106 pp
PLOT SCALE : **********
WISDOT/CADDS SHEET 44

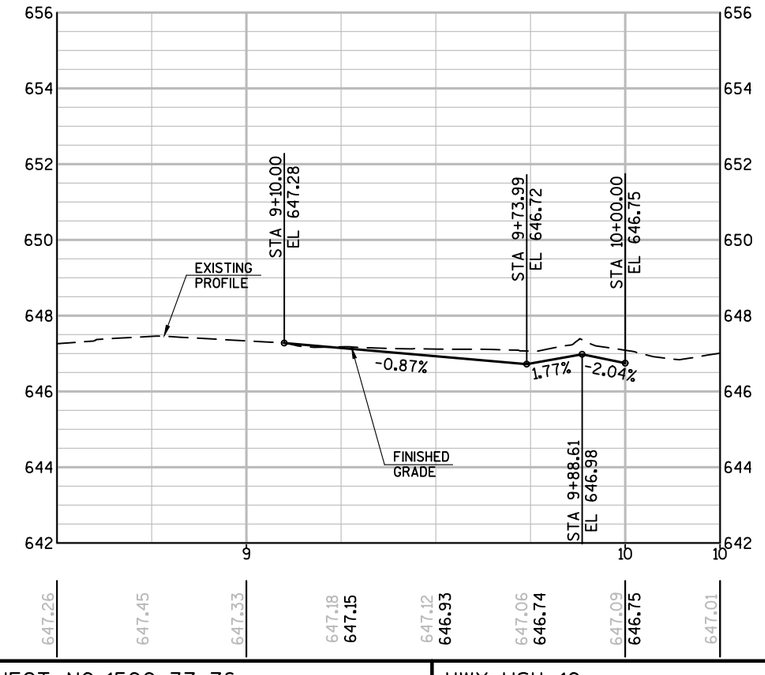
FLEETWOOD DR. PROFILE



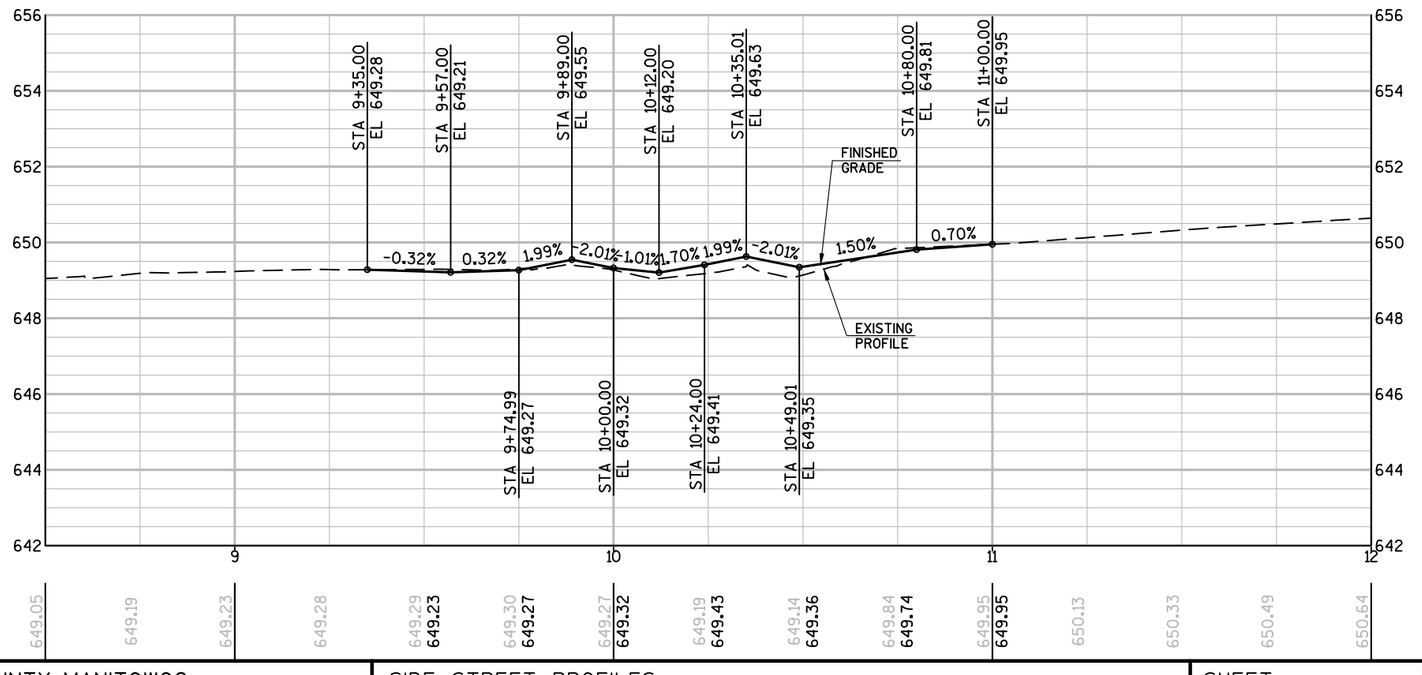
N. 23RD STREET PROFILE



MENCHL DR. PROFILE



N. 21ST STREET PROFILE

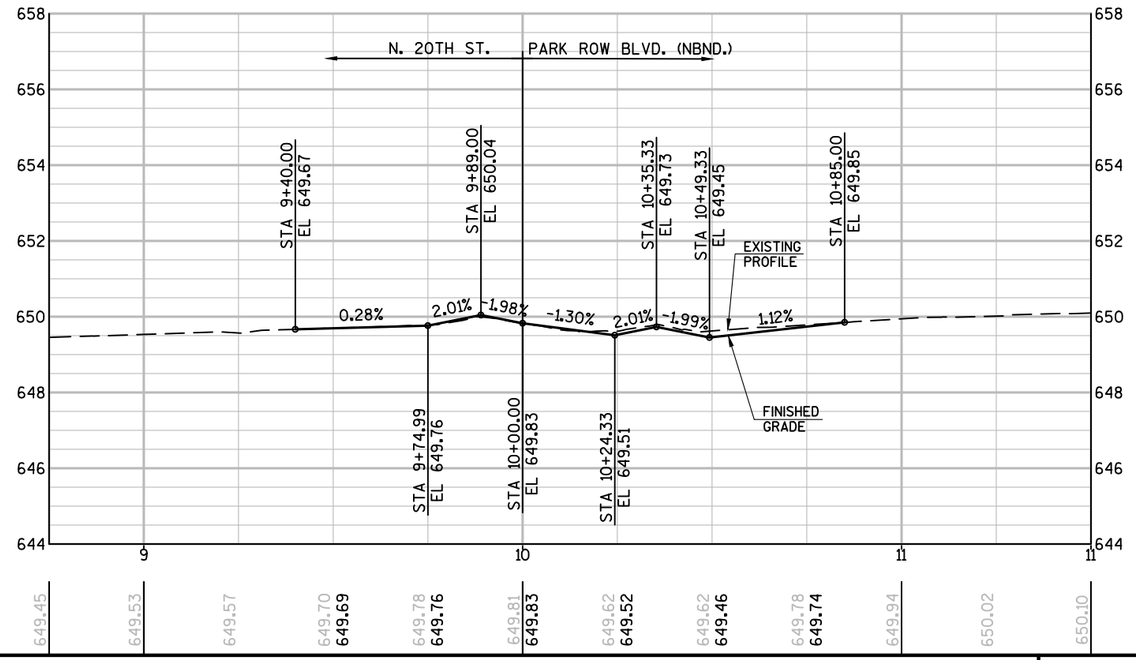


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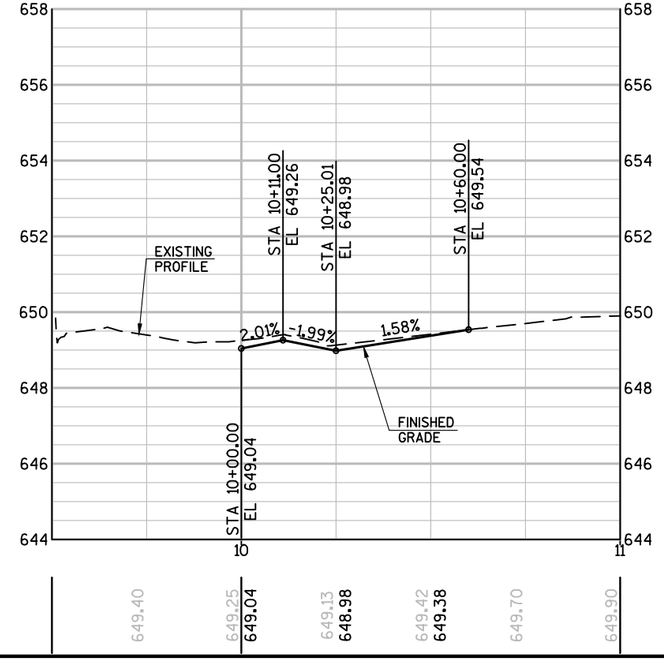
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PROJECT NO:1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	SIDE STREET PROFILES	SHEET 267	E

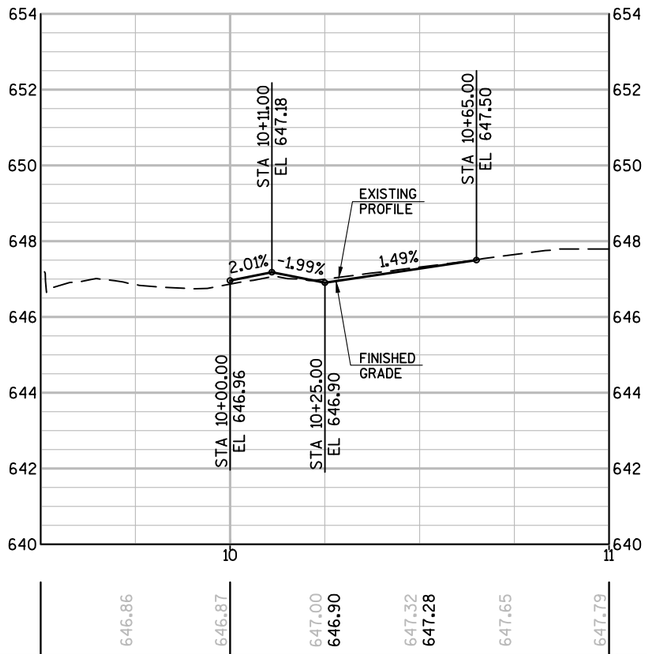
N. 20TH ST.-PARK ROW BLVD. (NBND.) PROFILE



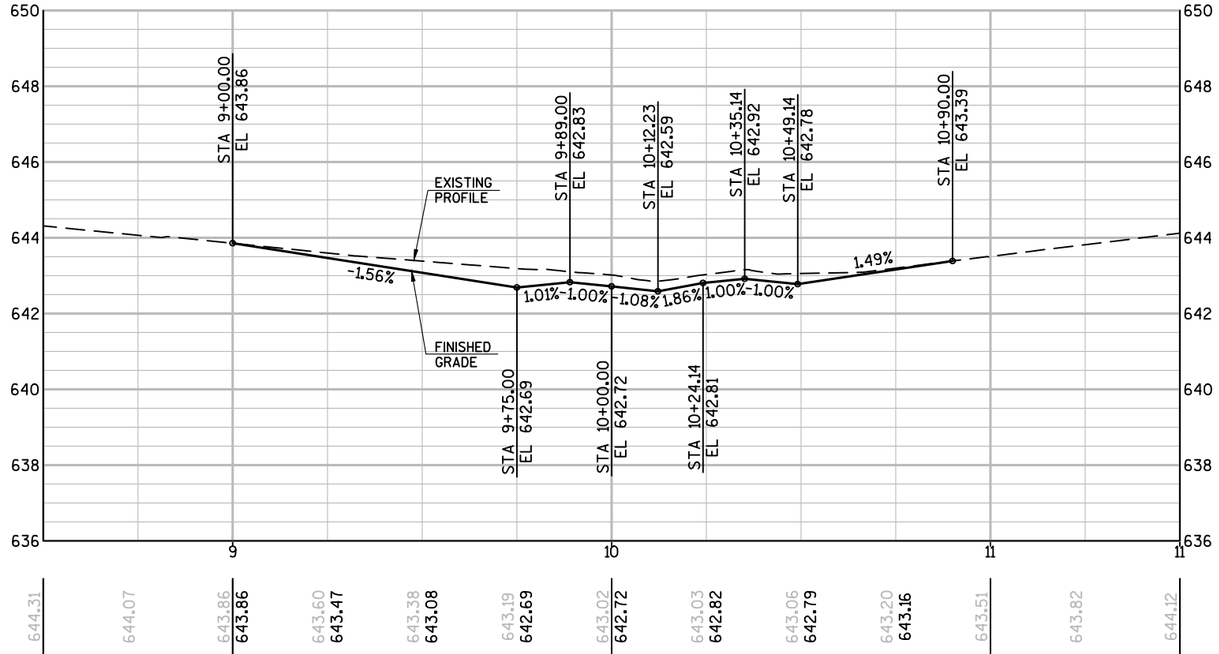
PARK ROW BLVD. (SBND.) PROFILE



ELM ST. PROFILE

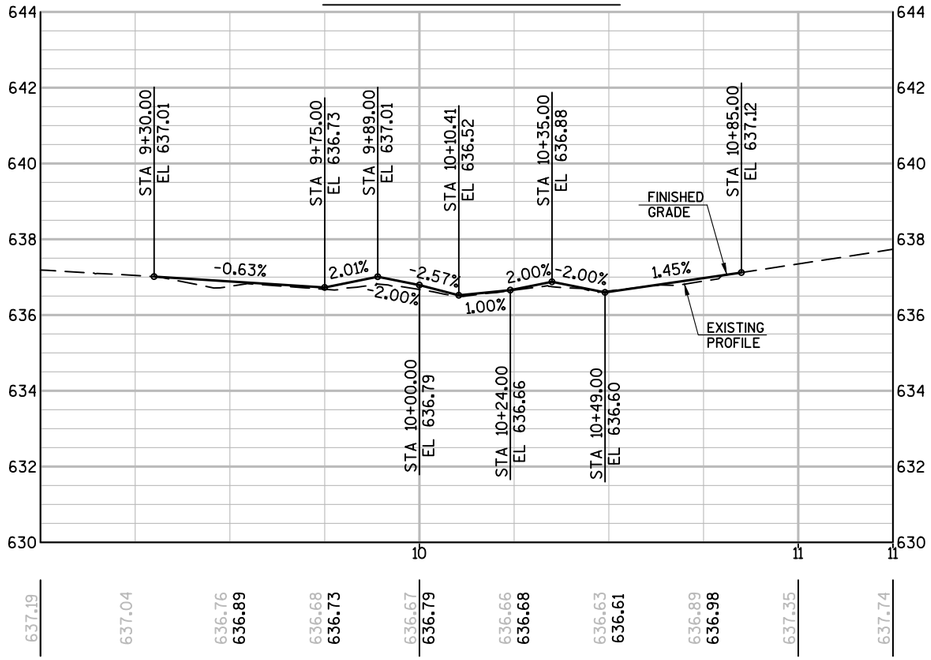


N. 18TH ST. PROFILE

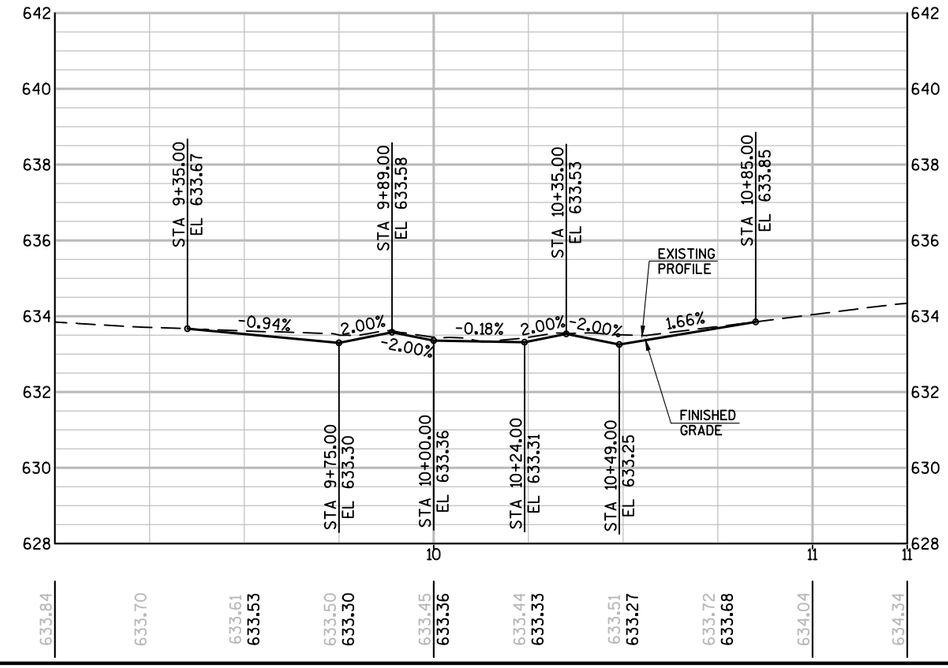


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	SIDE STREET PROFILES	SHEET 268	E

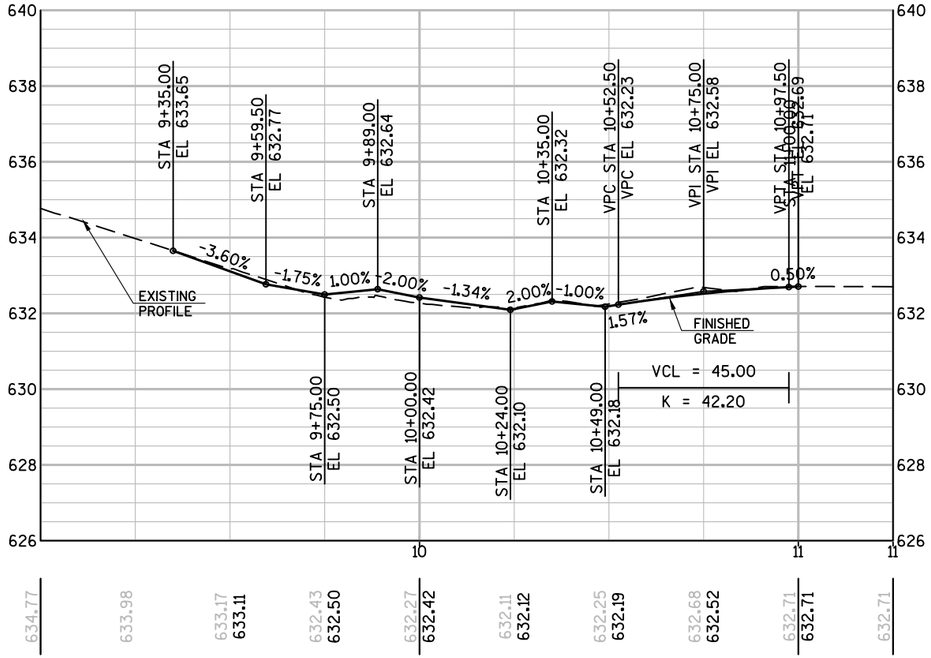
N. 17TH ST. PROFILE



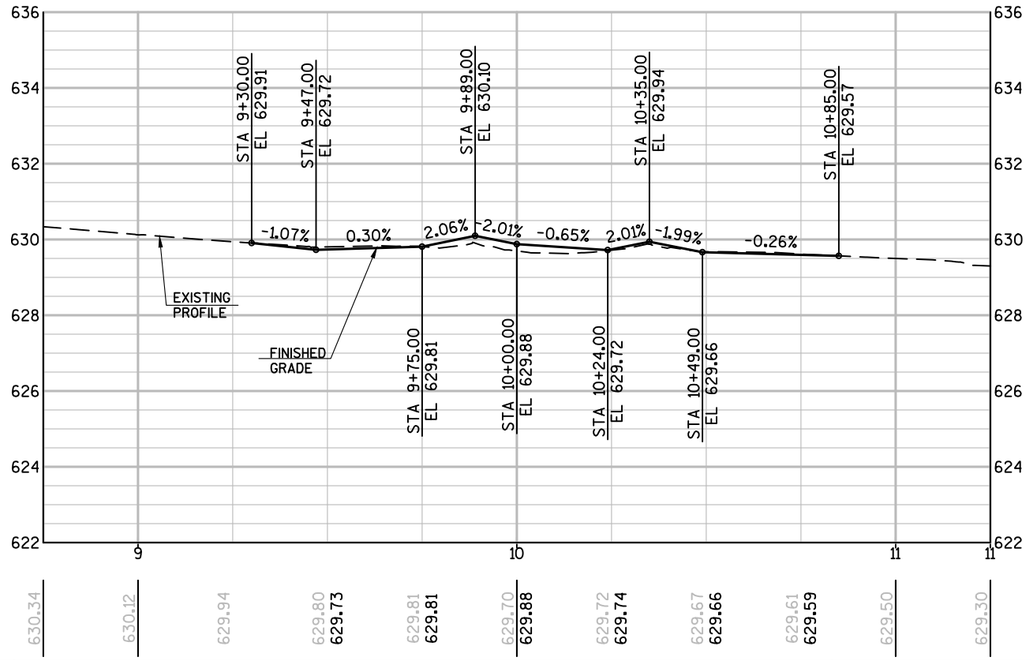
N. 16TH ST. PROFILE



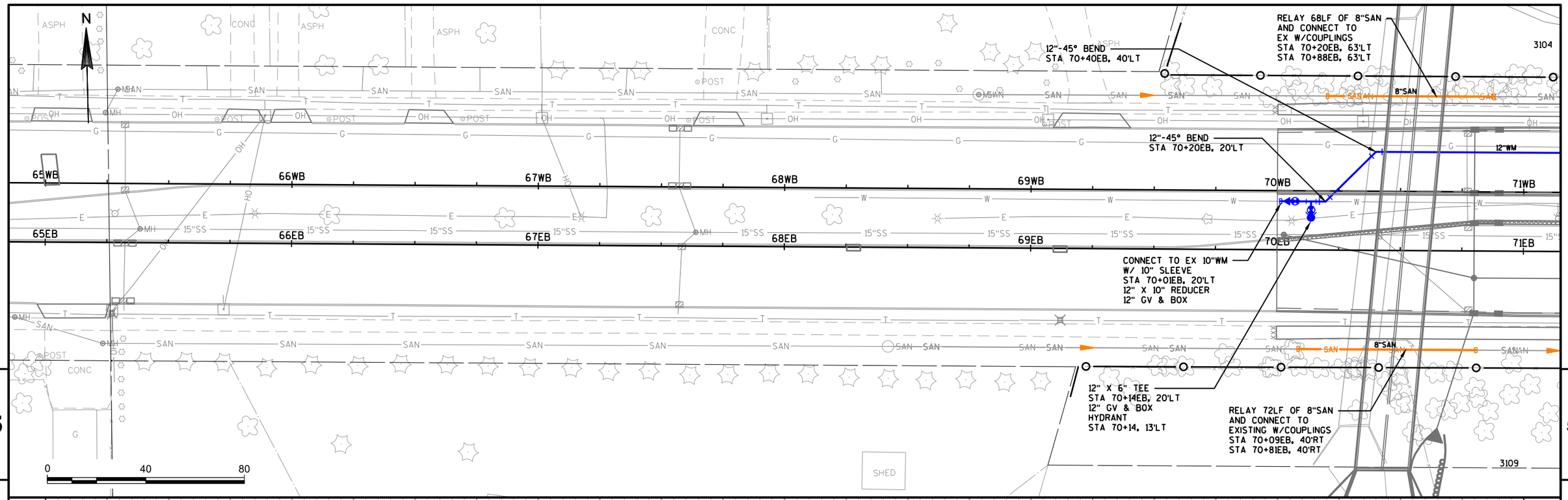
N. 15TH ST. PROFILE



N. 14TH ST. PROFILE



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	SIDE STREET PROFILES	SHEET 269 E



PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 270	E

3104

REMOVE EX SANITARY MANHOLE

FLEETWOOD DR

8"SAN

18"SAN

REMOVE AND NEW MANHOLE #30
STA 72+41EB, 64'LT
CONNECT TO EX SANITARY W/ COUPLINGS

CITY PARKS SHOP

USH 10/STH 42 (WALDO BLVD)

71WB 72WB 73WB 74WB 75WB 76WB 77WB

71EB 72EB 73EB 74EB 75EB 76EB 77EB

12"WM

10"W

9"W

12"SS

15"SS

BRICK PAVERS

CONCRETE WALL

POST BEAM GUARD

CONNECT TO EX 12"WM
W/ 12" SLEEVE
12" TEE
STA 72+04EB, 40'LT
12" GV & BOX (W & N)

(2) 12"-45° BENDS
STA 72+05EB, 22'RT
STA 72+16EB, 32'RT

CONNECT TO EX 6"WM
W/ 6" SOLID SLEEVE
STA 72+28EB, 46'RT

12" X 6" TEE
STA 72+28EB, 32'RT
12" GV & BOX (E), 32'RT
6" GV & BOX (S), 43'RT

CONNECT TO EX 12"WM
W/ 12" SLEEVE
STA 74+55EB, 36'RT

3109

N

0 40 80

5

5

NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

PROPOSED STORM SEWER

EXISTING GRADE @ ROADWAY

PROPOSED GRADE

RELAY 28LF OF 8" SAN

6' MINIMUM COVER

8"SAN

12"WM

MANHOLE #30
RIM 643.32
INV 8" W 636.40 (EX CONC)
INV 8" W 629.89 DROP
INV 18" S 629.14 (EX CONC LINED)
INV 18" NE 629.29 (EX CONC)

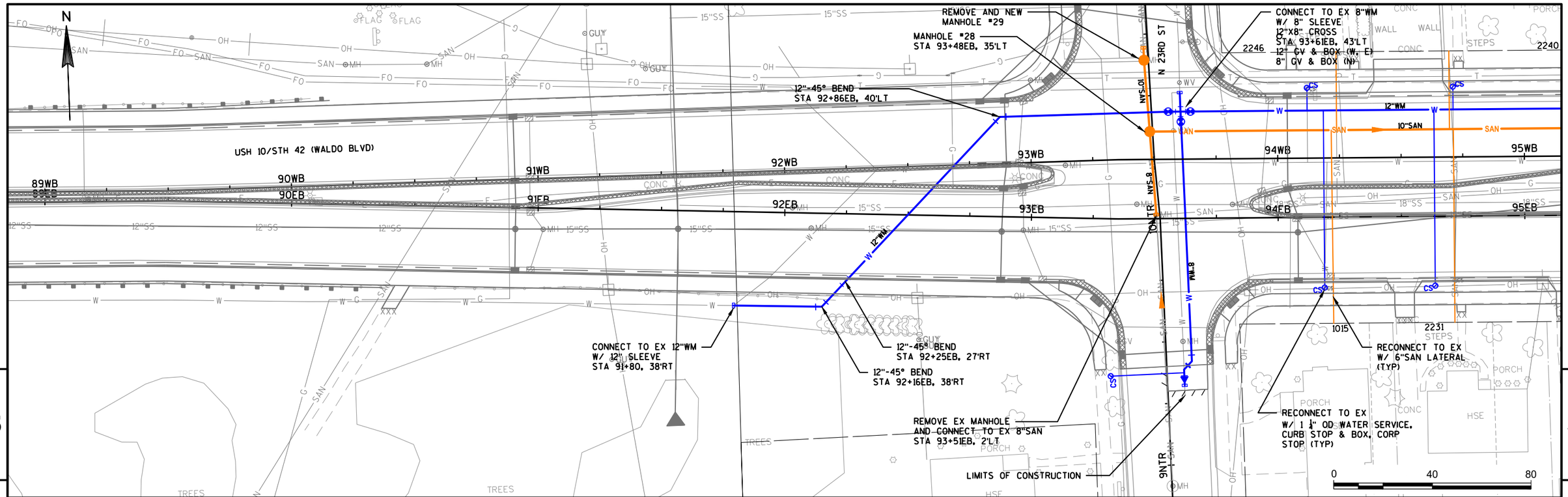
MANHOLE #31
RIM 643.35
INV 15" N 629.35 (EX CONC)
INV 18" SW 629.35 (EX CONC)
INV 10" NE 630.60

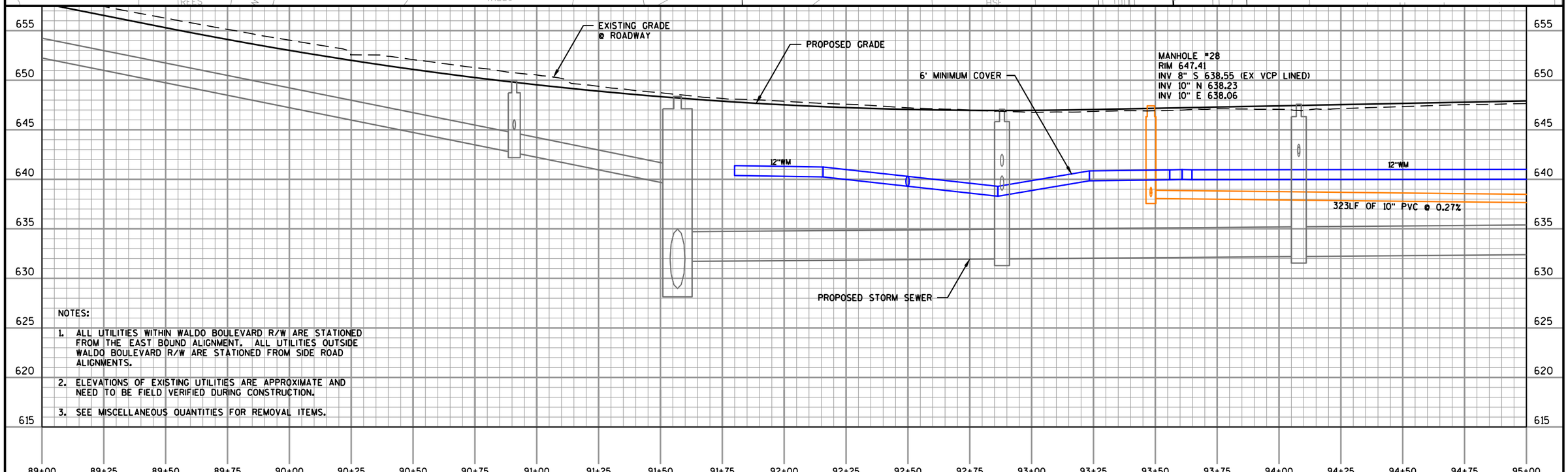
RELAY 41LF OF 18" PVC @ 0.15%

660 655 650 645 640 635 630 625 620

71+00 71+25 71+50 71+75 72+00 72+25 72+50 72+75 73+00 73+25 73+50 73+75 74+00 74+25 74+50 74+75 75+00 75+25 75+50 75+75 76+00 76+25 76+50 76+75 77+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 271	E





NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 272	E

RECONNECT TO EX W/ 1 1" OD WATER SERVICE, CURB STOP & BOX, CORP STOP (TYP)

MANHOLE #27 STA 96+71EB, 35'LT

RECONNECT TO EX W/ 6"SAN LATERAL (TYP)

12" X 6" TEE STA 99+35EB, 43'LT 12" GV & BOX (E) 6" GV & BOX (S)

HYDRANT, STA 99+92EB, 54'LT SEE NOTE 3

REMOVE AND NEW MANHOLE #26 STA 99+68EB, 35'LT CONNECT TO EX SANITARY W/ COUPLING

20" DIA STEEL CASING PIPE 12" DIA CARRIER PIPE STA 100+16EB, 43'LT

20" DIA STEEL CASING PIPE 12" DIA CARRIER PIPE STA 100+96EB, 43'LT

80LF OF 20" STEEL CASING OPEN CUTTING THROUGH RAILROAD CROSSING IS PERMITTED

N

2240 2232 2230 2224 2222 2214 2210 2208 2202 2200

12"WM 10"SAN 12"WM 10"SAN

95WB 96WB 97WB 98WB 99WB 100WB 101WB

95EB 96EB 97EB 98EB 99EB 100EB 101EB

USH 10/STH 42 (WALDO BLVD)

10+00 9+00 MENCHL DR

6"WM

2221 2217 2215 2213 2205 2203 2115

ABANDON-IN-PLACE EX 10"SAN SEWER

REMOVE EX SANITARY MANHOLE

ABANDON-IN-PLACE EX 10"SAN NORTH RECONSTRUCT MANHOLE BENCH

12" X 6" TEE STA 99+92EB, 43'LT 6" GV & BOX

REMOVE AND NEW MANHOLE #25 STA 100+53EB, 19'RT CONNECT TO EX SANITARY W/ COUPLINGS

0 40 80

5 5

660 655 650 645 640 635 630 625 620

PROPOSED GRADE

6' MINIMUM COVER

EXISTING GRADE

MANHOLE #27
RIM 648.32
INV 10" W 637.19
INV 10" E 637.19

12"WM

323LF OF 10" PVC @ 0.27%

296LF OF 10" PVC @ 0.27%

12"WM

PROPOSED STORM SEWER

MANHOLE #26
RIM 647.27
INV 10" W 636.40
INV 12" E 636.40 (EX VCP LINED)

MANHOLE #25
RIM 647.27
INV 12" NW 635.74 (EX VCP LINED)
INV 12" E 635.72 (EX VCP LINED)

NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. ALL HYDRANTS TO BE INSTALLED 1-FOOT FROM FACE OF SIDEWALK. ALL HYDRANT LEAD VALVES ON WALDO BLVD TO BE INSTALLED BETWEEN 12-INCH TEE AND PAN OF CURB. ALL HYDRANT LEAD VALVES ON SIDE STREETS TO BE INSTALLED BETWEEN BACK OF CURB AND HYDRANT.
4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

95+00 95+25 95+50 95+75 96+00 96+25 96+50 96+75 97+00 97+25 97+50 97+75 98+00 98+25 98+50 98+75 99+00 99+25 99+50 99+75 100+00 100+25 100+50 100+75 101+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 273	E

HYDRANT
STA 103+81EB, 54'LT
SEE NOTE 3

CONNECT TO EX 24"WM
W/ (2) 24" SLEEVES AND
24" X 12" CROSS
STA 106+82EB, 50'LT
STA 106+82EB, 17'LT
12" GV & BOX (W & E)
REMOVE EX CROSS

12"X8" CROSS
STA 106+62EB, 43'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

USH 10/STH 42 (WALDO BLVD)

RECONNECT TO EX
W/ 6"SAN LATERAL
(TYP)

REMOVE AND NEW
MANHOLE "24
STA 102+99EB, 18'RT
CONNECT TO EX
SANITARY W/ COUPLING

12" X 8" CROSS
STA 103+21EB, 43'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

12" X 6" TEE
STA 103+81EB, 43'LT
6" GV & BOX

REMOVE AND NEW
MANHOLE "23
STA 106+50EB, 18'RT
CONNECT TO EX
SANITARY W/ COUPLING

EXISTING GRADE

6' MINIMUM COVER

PROPOSED GRADE

PROPOSED STORM SEWER

MANHOLE "24
RIM 649.40
INV 8" N 639.14 (EX VCP LINED)
INV 8" N 635.10 DROP
INV 12" S 634.79 (EX VCP LINED)
INV 12" W 634.64 (EX VCP LINED)
INV 12" E 634.59 (EX VCP LINED)

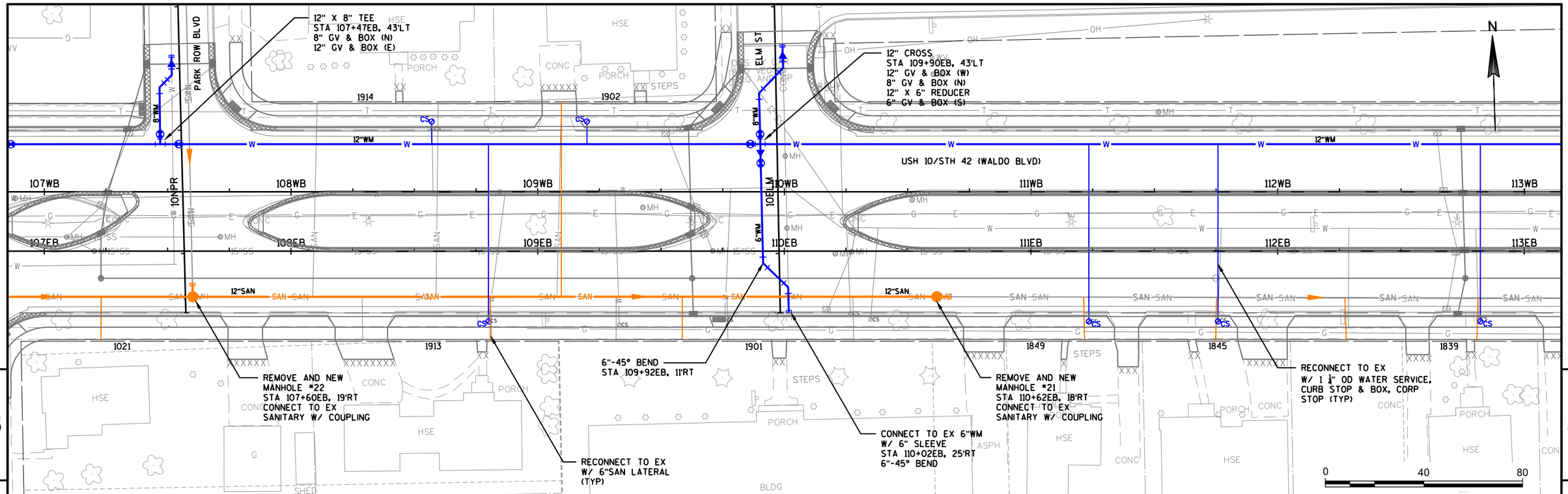
MANHOLE "23
RIM 649.92
INV 8" N 640.72 (EX VCP LINED)
INV 8" N 634.00 DROP
INV 10" S 639.62 (EX VCP LINED)
INV 12" W 633.62 (EX VCP LINED)
INV 12" E 633.47

RELAY
110LF OF 12" PVC
@ 0.27%

NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. ALL HYDRANTS TO BE INSTALLED 1-FOOT FROM FACE OF SIDEWALK. ALL HYDRANT LEAD VALVES ON WALDO BLVD TO BE INSTALLED BETWEEN 12-INCH TEE AND PAN OF CURB. ALL HYDRANT LEAD VALVES ON SIDE STREETS TO BE INSTALLED BETWEEN BACK OF CURB AND HYDRANT.
4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 274 E



NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 275	E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\WM_SAN_WALDO_15003772-2.DWG
LAYOUT NAME - 1500_37_72_023008_UP

PLOT DATE : 10/23/2019 1:35 PM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

HYDRANT
STA 115+26EB, 54'LT
SEE NOTE 3

12" X 6" TEE
STA 115+26EB, 44'LT
6" GV & BOX

CONNECT TO EX 8"WM
W/ 8" SLEEVE
STA 118+37EB, 49'LT
12" X 8" CROSS
STA 118+38EB, 43'LT
12" GV & BOX (W)
8" GV & BOX (S)

USH 10/STH 42 (WALDO BLVD)

N 18TH ST

REMOVE AND NEW
MANHOLE #20
STA 113+61EB, 19'RT
CONNECT TO EX
SANITARY W/ COUPLING

RECONNECT TO EX
W/ 1 1/4" OD WATER SERVICE,
CURB STOP & BOX, CORP.
STOP (TYP)

RECONNECT TO EX
W/ 6"SAN LATERAL
(TYP)

REMOVE AND NEW
MANHOLE #19
STA 116+62EB, 18'RT
CONNECT TO EX
SANITARY W/ COUPLING

REMOVE AND NEW
MANHOLE #18
STA 118+24EB, 11'LT

PROPOSED GRADE

PROPOSED STORM SEWER

6' MINIMUM COVER

EXISTING GRADE

MANHOLE #20
RIM 645.16
INV 12" W 631.34 (EX VCP LINED)
INV 12" E 631.34 (EX VCP LINED)

RELAY 164LF OF 12" PVC @ 0.76%

MANHOLE #19
RIM 643.63
INV 12" W 630.31 (EX VCP LINED)
INV 12" E 630.20

RELAY 384LF OF 12" PVC @ 0.75%

MANHOLE #18
RIM 642.59
INV 8" S 634.70 (EX PVC)
INV 8" S 630.00 DROP
INV 8" N 630.56 (EX PVC)
INV 12" W 628.96
INV 12" E 628.88

NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
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4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 276 E

RECONNECT TO EX
W/ 1 1/4" OD WATER SERVICE,
CURB STOP & BOX, CORP
STOP (TYP)

USH 10/STH 42

(WALDO BLVD)

N 17TH ST

12" X 8" CROSS
STA 122+25EB, 42'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

HYDRANT
STA 122+48EB, 30'LT
SEE NOTE 3

RECONNECT TO EX
W/ 6"SAN LATERAL
(TYP)

REMOVE AND NEW
MANHOLE #17
STA 122+08EB, 11'LT
CONNECT TO EX
SANITARY W/ COUPLING

12" X 6" TEE
STA 122+48EB, 18'LT
6" GV & BOX

REMOVE AND NEW
MANHOLE #16A
STA 123+94EB, 11'LT

0 40 80

6' MINIMUM COVER

EXISTING GRADE

PROPOSED STORM SEWER

PROPOSED GRADE

RELAY 384LF OF 12" PVC @ 0.75%

RELAY 186LF OF 12" PVC @ 0.85%

RELAY 158LF OF 12" PVC @ 0.85%

MANHOLE #17
RIM 636.53
INV 8" S 628.06 (EX VCP LINED)
INV 8" N 628.01 (EX VCP LINED)
INV 12" W 626.00
INV 12" E 625.88

MANHOLE #16A
RIM 635.59
INV 12" W 624.30
INV 12" E 624.19

NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
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4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

650 645 640 635 630 625 620 615 610

119+00 119+25 119+50 119+75 120+00 120+25 120+50 120+75 121+00 121+25 121+50 121+75 122+00 122+25 122+50 122+75 123+00 123+25 123+50 123+75 124+00 124+25 124+50 124+75

PROJECT NO: 1500-37-77 | HWY: USH 10 | COUNTY: MANITOWOC | PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN | SHEET E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\WM_SAN_WALDO_15003772-3.DWG
LAYOUT NAME - 1500_37_72_023010_UP
PLOT DATE : 10/23/2019 1:36 PM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

12" X 8" CROSS
STA 125+73EB, 42'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

REMOVE AND NEW
MANHOLE #16
STA 125+52EB, 11'LT
CONNECT TO EX
SANITARY W/ COUPLING

REMOVE AND NEW
MANHOLE #15
STA 128+15EB, 12'LT
CONNECT TO EX
SANITARY W/ COUPLING

12" X 8" CROSS
STA 128+35EB, 43'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

RECONNECT TO EX
W/ 1 ¼" OD WATER SERVICE,
CURB STOP & BOX, CORP
STOP (TYP)

USH 10/STH 42 (WALDO BLVD)

RECONNECT TO EX
W/ 6"SAN LATERAL
(TYP)

REMOVE AND NEW
MANHOLE #14
STA 130+95EB, 12'LT
CONNECT TO EX
SANITARY W/ COUPLING

REMOVE EX SANITARY
MANHOLE

MANHOLE #14A

0 40 80

PROPOSED STORM SEWER

EXISTING GRADE

PROPOSED GRADE

6' MINIMUM COVER

158LF OF 12" PVC
@ 0.85%

MANHOLE #16
RIM 633.34
INV 8" N 624.32 (EX VCP LINED)
INV 8" S 624.32 (EX VCP LINED)
INV 12" W 622.85
INV 12" E 622.74

RELAY 264LF OF 12" PVC @ 0.85%

MANHOLE #15
RIM 632.26
INV 8" N 622.16 (EX VCP LINED)
INV 8" S 622.16 (EX VCP)
INV 12" W 620.50
INV 12" E 620.40

RELAY 280LF OF 12" PVC @ 0.85%

MANHOLE #14
RIM 629.81
INV 8" S 618.02
INV 12" W 618.02
INV 12" E 617.92

NOTES:

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2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. ALL HYDRANTS TO BE INSTALLED 1-FOOT FROM FACE OF SIDEWALK. ALL HYDRANT LEAD VALVES ON WALDO BLVD TO BE INSTALLED BETWEEN 12-INCH TEE AND PAN OF CURB. ALL HYDRANT LEAD VALVES ON SIDE STREETS TO BE INSTALLED BETWEEN BACK OF CURB AND HYDRANT.
4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

640 635 630 625 620 615 610 605 600

125+00 125+25 125+50 125+75 126+00 126+25 126+50 126+75 127+00 127+25 127+50 127+75 128+00 128+25 128+50 128+75 129+00 129+25 129+50 129+75 130+00 130+25 130+50 130+75

PROJECT NO: 1500-37-77 | HWY: USH 10 | COUNTY: MANITOWOC | PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN | SHEET E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\WM_SAN_WALDO_15003772-3.DWG
LAYOUT NAME - 1500_37_72_023011_UP
PLOT DATE : 10/23/2019 1:37 PM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

12" X 8" CROSS
STA 131+07EB, 43'LT
12" GV & BOX (W)
8" GV & BOX (N & S)

REMOVE EX 12" BEND AND CONNECT TO EX 12"WM W/ SOLID SLEEVE STA 131+65EB, 43'LT

CONNECT TO EX 8"SAN W/ SOLID SLEEVE STA 131+50EB, 12'LT

USH 10/STH 42 (WALDO BLVD)

MEMASHA AVE

N 14TH ST

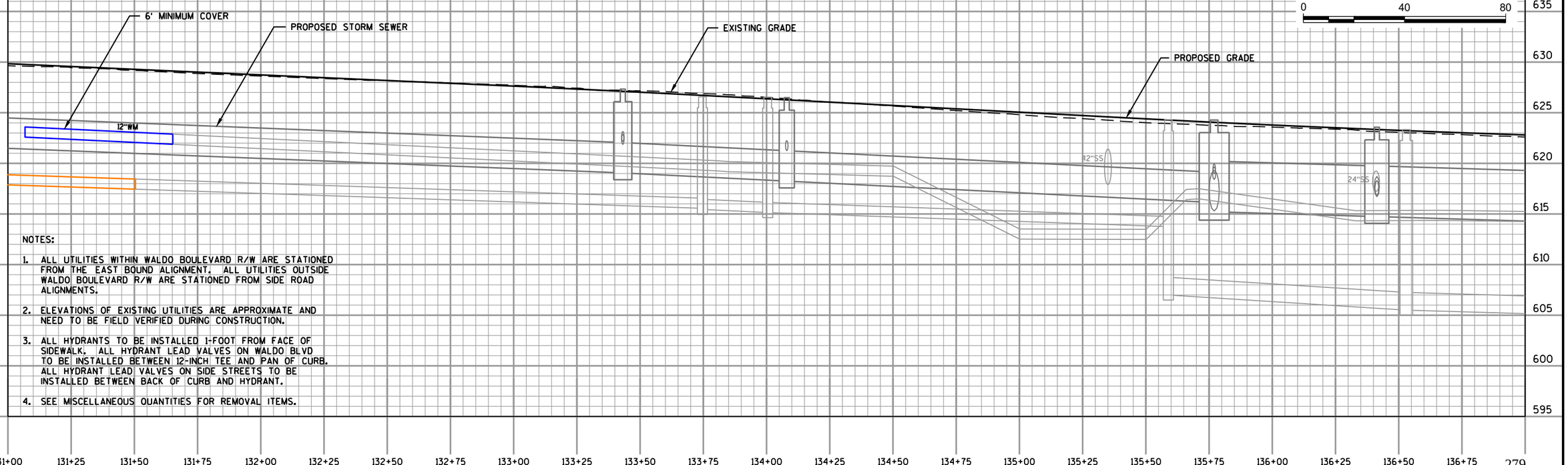
N 13TH ST

N 12TH ST

ABANDON

5

5

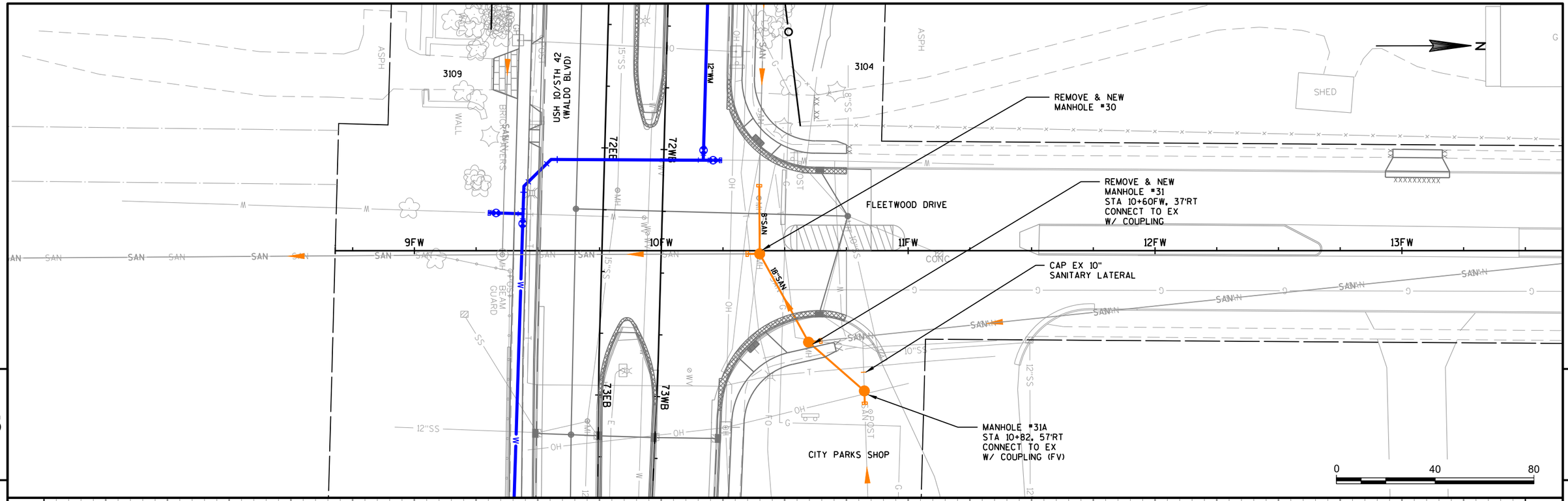


NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
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4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

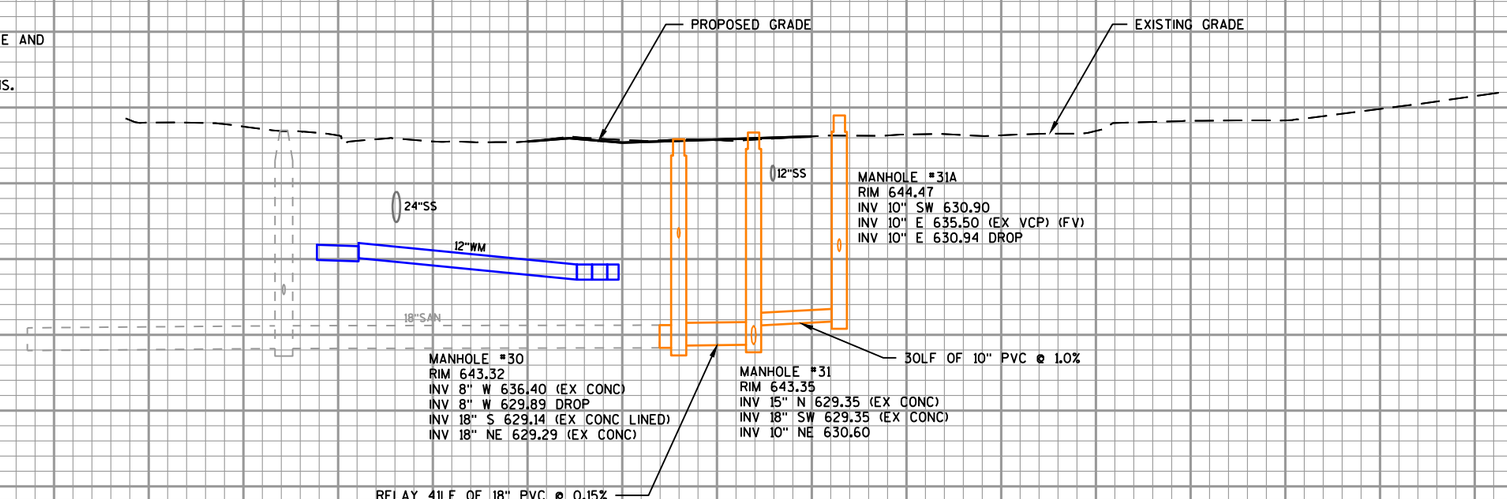
PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\WM_SAN_WALDO_15003772-3.DWG
LAYOUT NAME - 1500_37_75_023012_UP
PLOT DATE : 10/23/2019 1:37 PM
PLOT BY : SHALLOW, JON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



NOTES:

1. ALL UTILITIES WITHIN WALDO BOULEVARD R/W ARE STATIONED FROM THE EAST BOUND ALIGNMENT. ALL UTILITIES OUTSIDE WALDO BOULEVARD R/W ARE STATIONED FROM SIDE ROAD ALIGNMENTS.
2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.



PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 280	E

REMOVE EX SANITARY MANHOLE

RECONNECT TO EX W/ 1 1/4" OD WATER SERVICE, CURB STOP & BOX, CORP STOP (TYP)

USH 10/STH 42 (WALDO BLVD)

MANHOLE #28

N 23RD STREET

9NTR

10NTR

11NTR

12NTR

8"SAN

10"SAN

8"WM

CONSTRUCTION LIMITS

CONNECT TO EX 6"WM W/ 6" SLEEVE STA 9+32NTR, 7'LT (2) 8"-45° BENDS 8" X 6" REDUCER

REMOVE & NEW MANHOLE #29 STA 10+64NTR, 2'LT CONNECT TO EX SANITARY W/ COUPLING

93EB

93WB

94EB

94WB

12"WM

12"SAN

1015

2246

0 40 80

N

5

5

NOTES:

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2. ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND NEED TO BE FIELD VERIFIED DURING CONSTRUCTION.
3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

EXISTING GRADE

6' MINIMUM COVER

PROPOSED GRADE

8"WM

LINED 8"SAN

15"SS

18"SS

10"SAN

RELAY 34LF OF 8" PVC @ 0.33%

36"SS

MANHOLE #28
RIM 647.41
INV 8" S 638.55 (EX VCP)
INV 10" N 638.23
INV 10" E 638.06

MANHOLE #29
RIM 647.23
INV 10" N 638.86 (EX VCP LINED)
INV 10" S 638.31

RELAY 29LF OF 10" PVC @ 0.28%

655 650 645 640 635 630 625 620 615

7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 281	E

FILE NAME : V:\PROJECTS C3D\GB\41062900\SHEETSPLAN\WM_SAN_N_23RD_STREET.DWG
LAYOUT NAME - 1500_37_72_023017_UP

PLOT DATE : 10/24/2019 12:43 PM PLOT BY : SHALLOW, JON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

(2) 6"-45° BENDS
STA 10+10MC, 12'RT
STA 10+15MC, 14'RT

(2) 6"-45° BENDS
STA 9+96MC, 8'RT
STA 10+01MC, 10'RT

ABANDON-IN-PLACE EX 10"SAN NORTH
RECONSTRUCT MANHOLE BENCH

REMOVE & NEW
MANHOLE #26

BULKHEAD 8" CLAY

CONNECT TO EX 6"WM
W/ 6" SLEEVE
STA 9+29MC, 17'RT
6"-45° BEND

6"-22.5° BEND
STA 9+30MC, 17'RT

MENCHL DRIVE

8MC

9MC

10MC

99WB

100EB

100WB

USH 10/STH 42 (WALDO BLVD)

2200

2202

2203

2208

0 40 80

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3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

EXISTING GRADE

PROPOSED GRADE

6' MINIMUM COVER

18"SS

30"SS

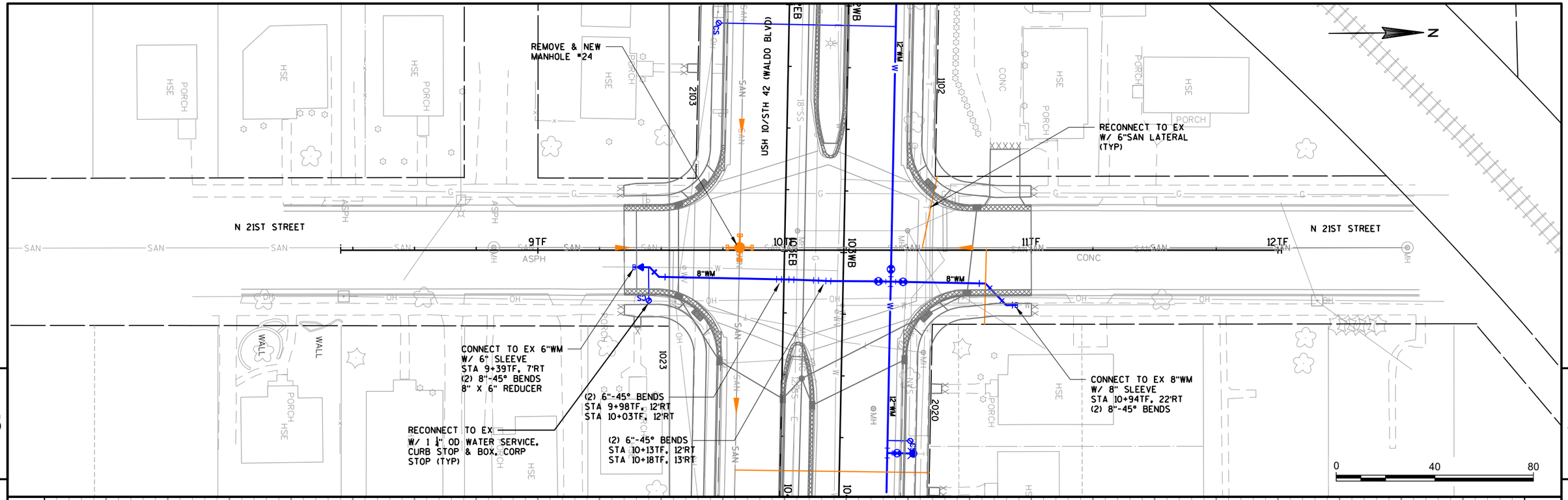
6"WM

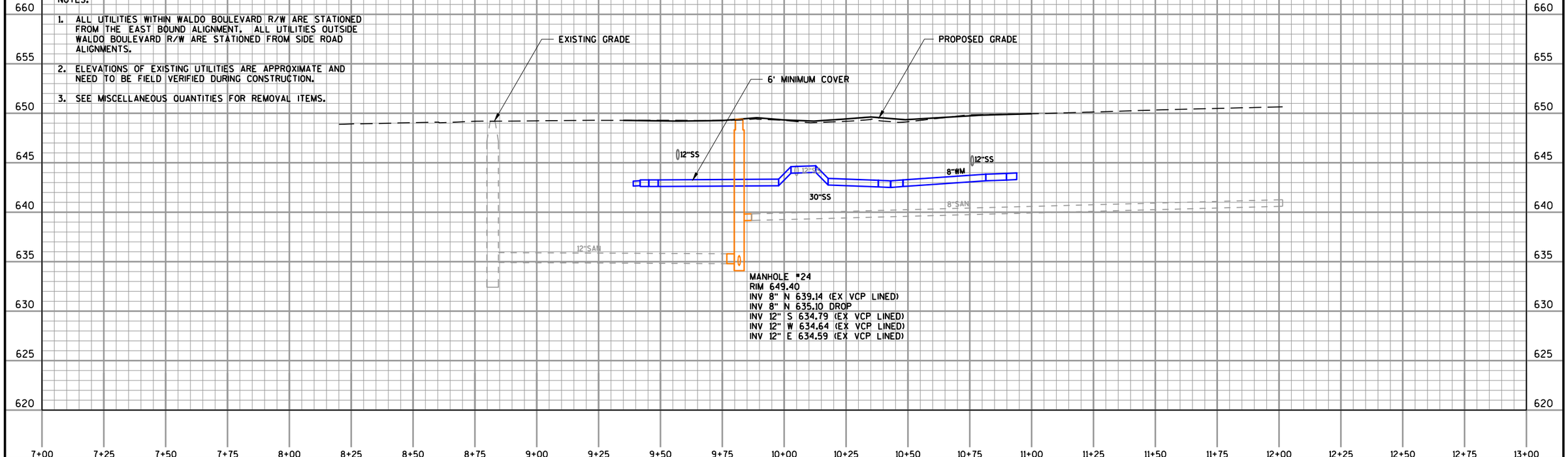
MANHOLE #26
RIM 647.27
INV 10" W 636.40
INV 12" E 636.40 (EX VCP LINED)

655 650 645 640 635 630 625 620 615

6+00 6+25 6+50 6+75 7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 282	E





PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 283 E

REMOVE & NEW MANHOLE #23

USH 10/STH 42 (WALDO BLVD)

2009

106EB

106WB

102

RECONNECT TO EX W/ 6"SAN LATERAL (TYP)

N 20TH STREET

SB PARK ROW BLVD

9SPR

10SPR

11SPR

8"WM

CONNECT TO EX 6"WM W/ 6" SLEEVE STA 9+45SPR, 4'RT (2) 8"-45° BENDS 8" X 6" REDUCER

(2) 8"-45° BENDS STA 9+98SPR, 6'RT STA 10+02SPR, 7'RT

RECONNECT TO EX W/ 1 1/4" OD WATER SERVICE, CURB STOP & BOX, CORP STOP (TYP)

101

107EB

107WB

CONNECT TO EX 6"WM W/ 6" SLEEVE STA 10+80SPR, 4'RT (2) 8"-45° BENDS 8" X 6" REDUCER

(2) 8"-45° BENDS STA 10+12SPR, 8'RT STA 10+17SPR, 9'RT

0 40 80

5

5

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3. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.

EXISTING GRADE

PROPOSED GRADE

6' MINIMUM COVER

15"SS

18"SS

8"WM

10"SAN

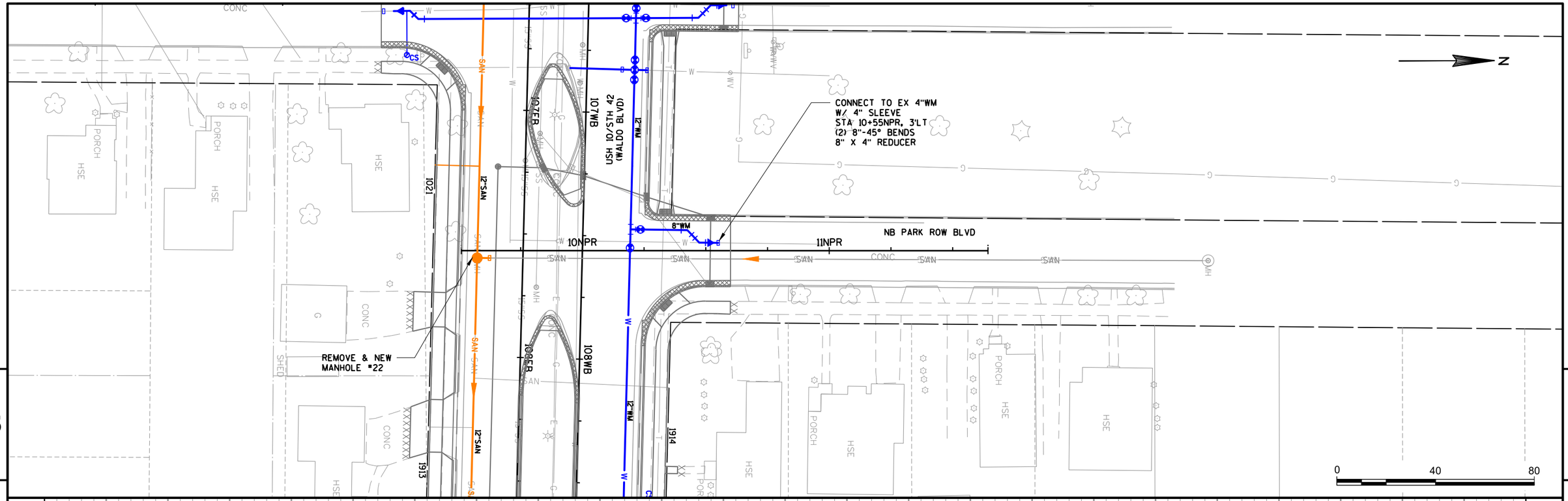
8"SAN

MANHOLE #23
RIM 649.92
INV 8" N 640.72 (EX VCP LINED)
INV 8" N 634.00 DROP
INV 10" S 639.62 (EX VCP LINED)
INV 12" W 633.62 (EX VCP LINED)
INV 12" E 633.47

660 655 650 645 640 635 630 625 620

7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 284	E



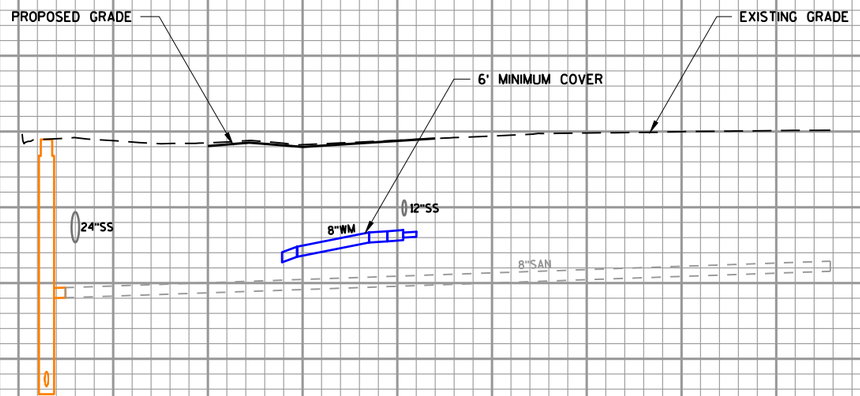
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660

NOTES:

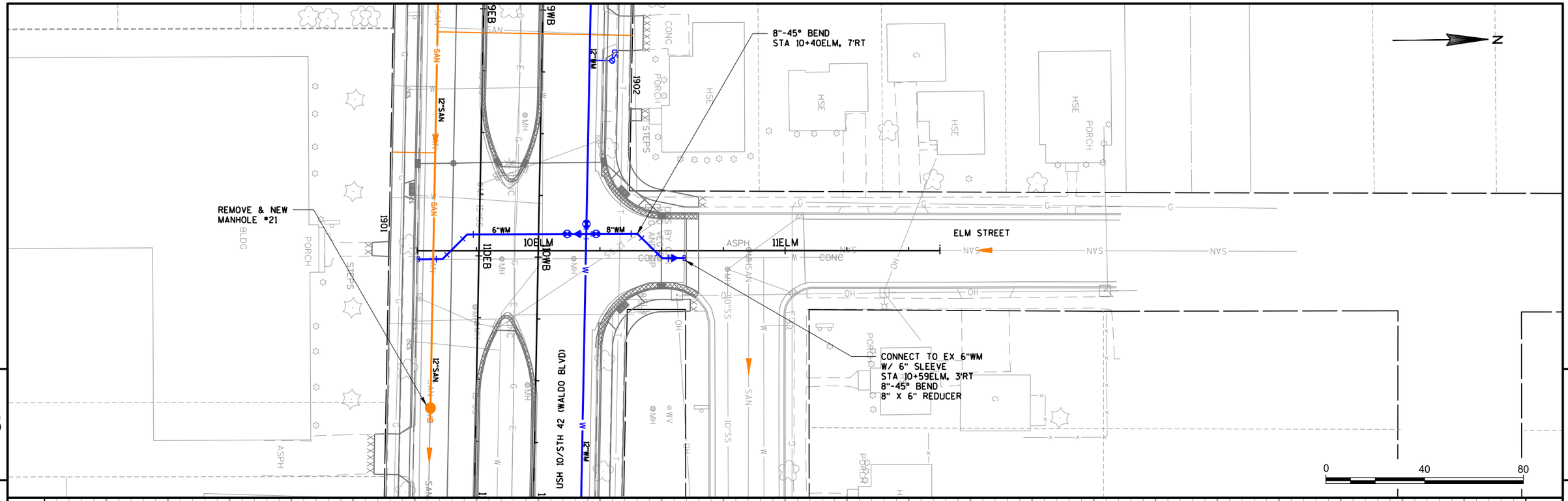
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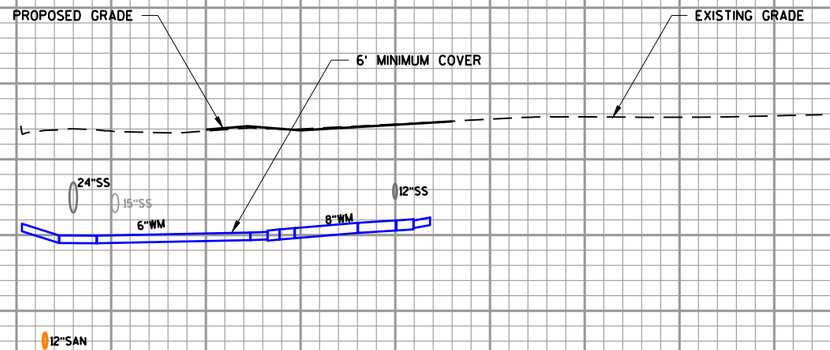


655 650 645 640 635 630 625 620

8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00 13+25 13+50 13+75 14+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 285	E





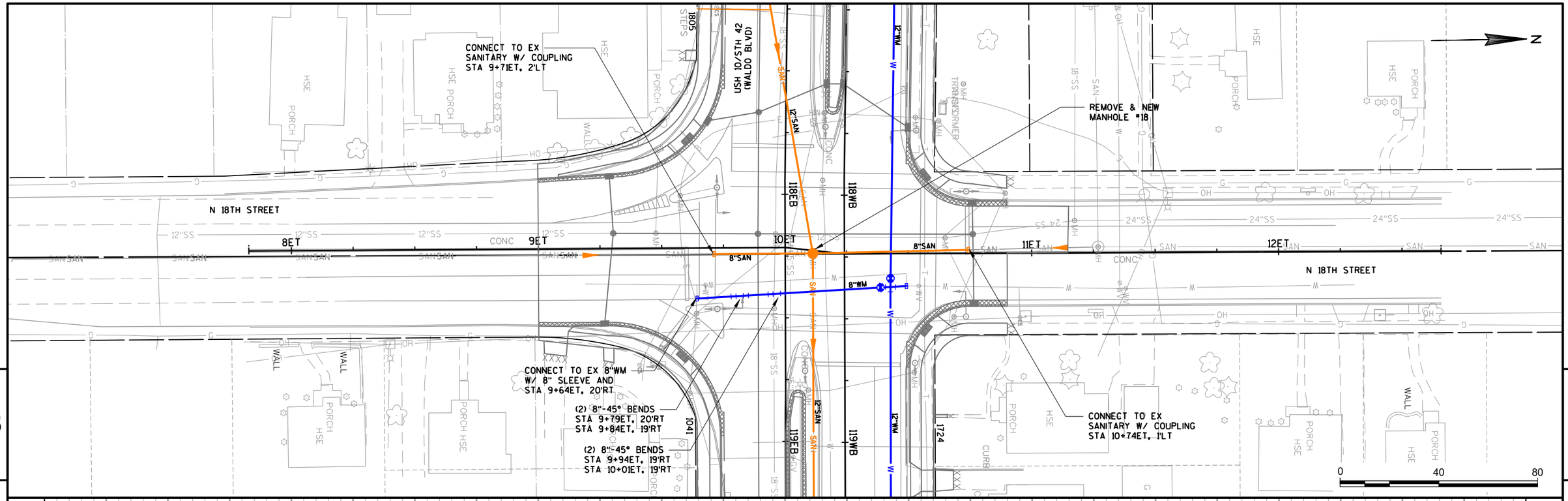
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660 655 650 645 640 635 630 625 620

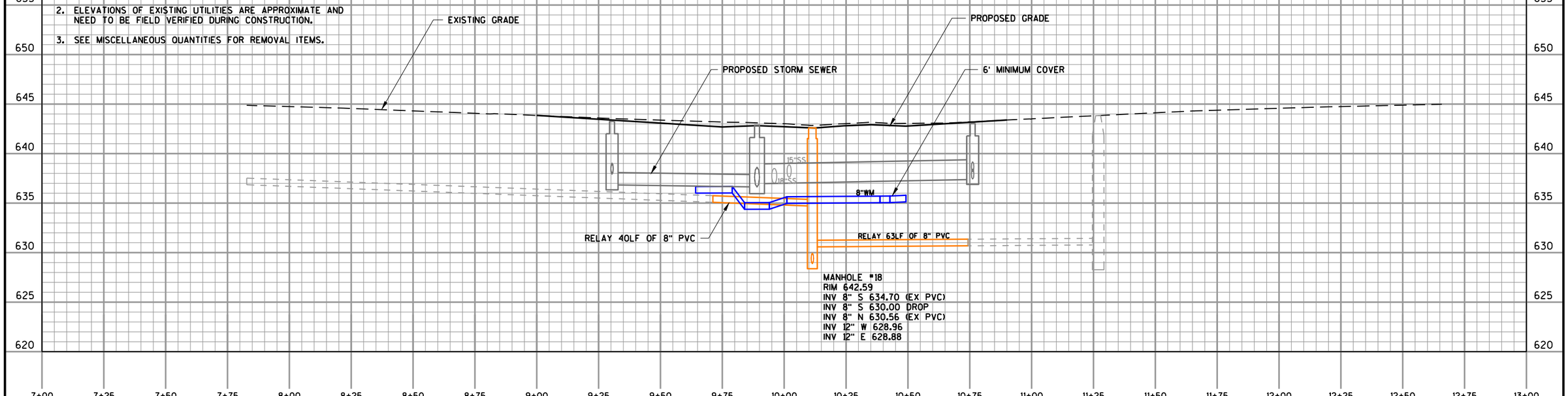
8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00 13+25 13+50 13+75 14+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 286	E

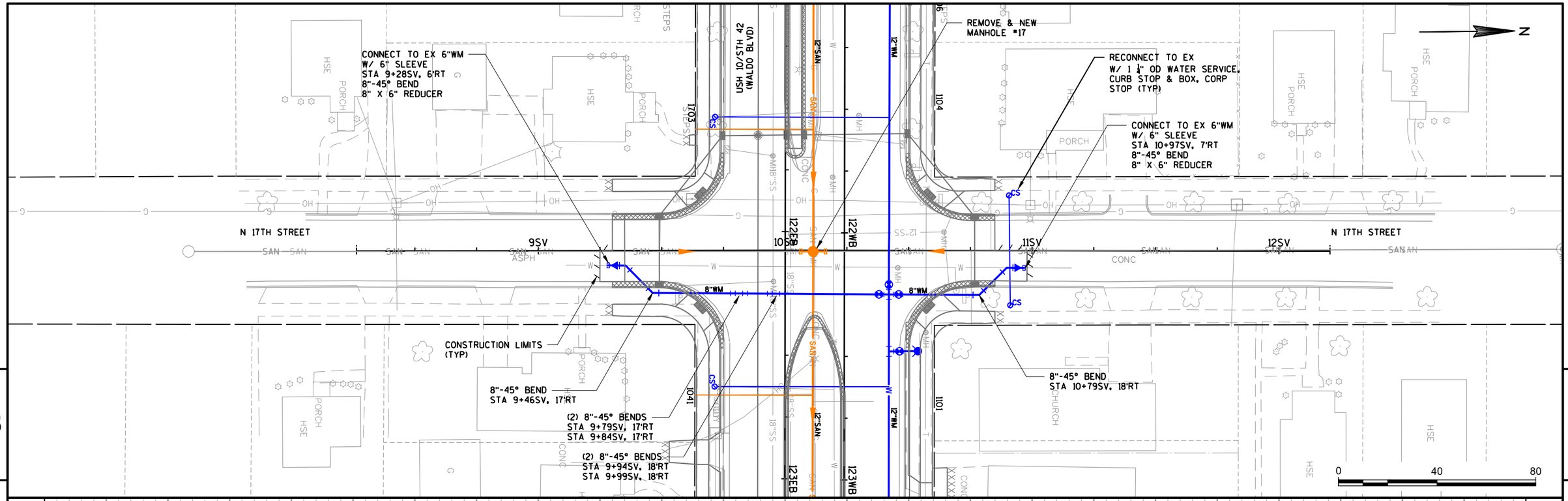


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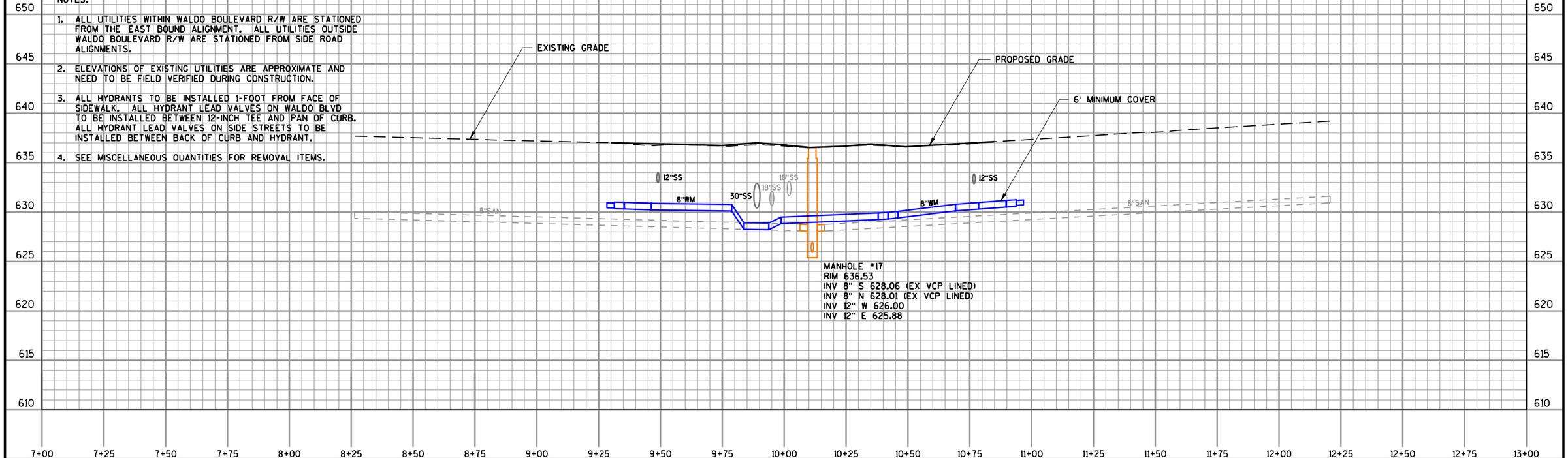


PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 287 E

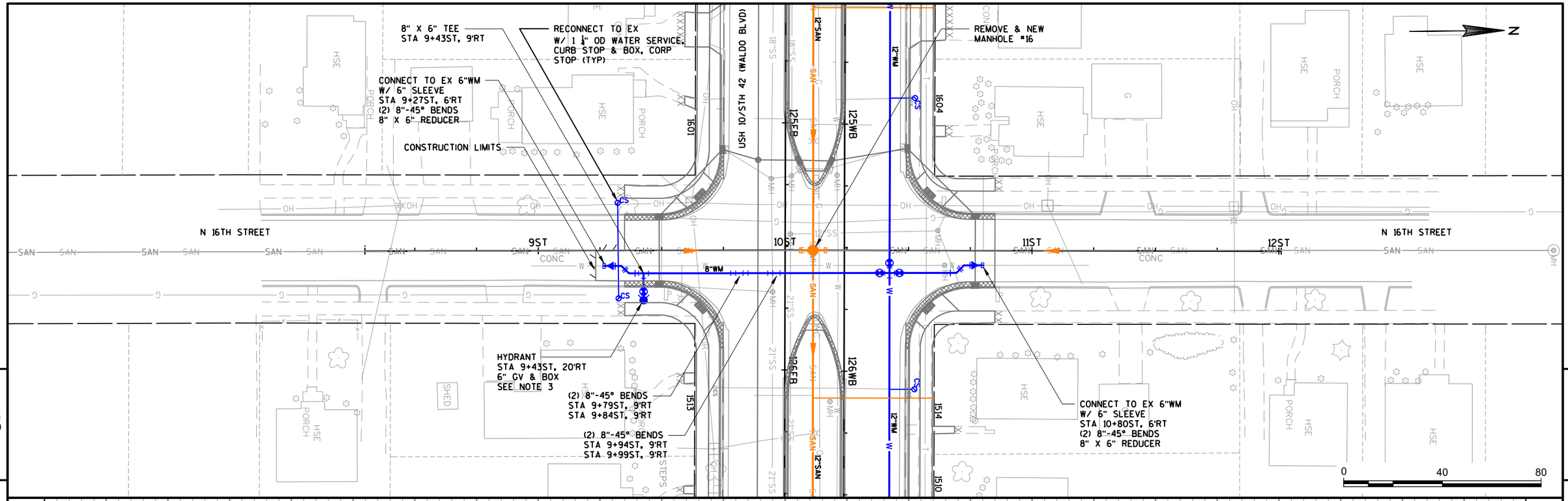


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4. SEE MISCELLANEOUS QUANTITIES FOR REMOVAL ITEMS.



PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 288	E

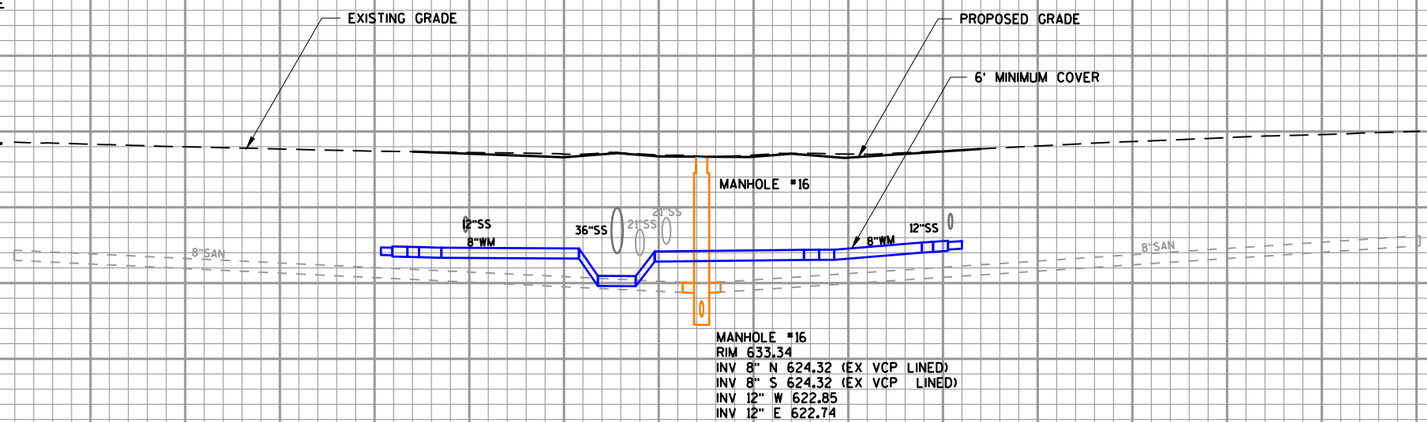


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NOTES:

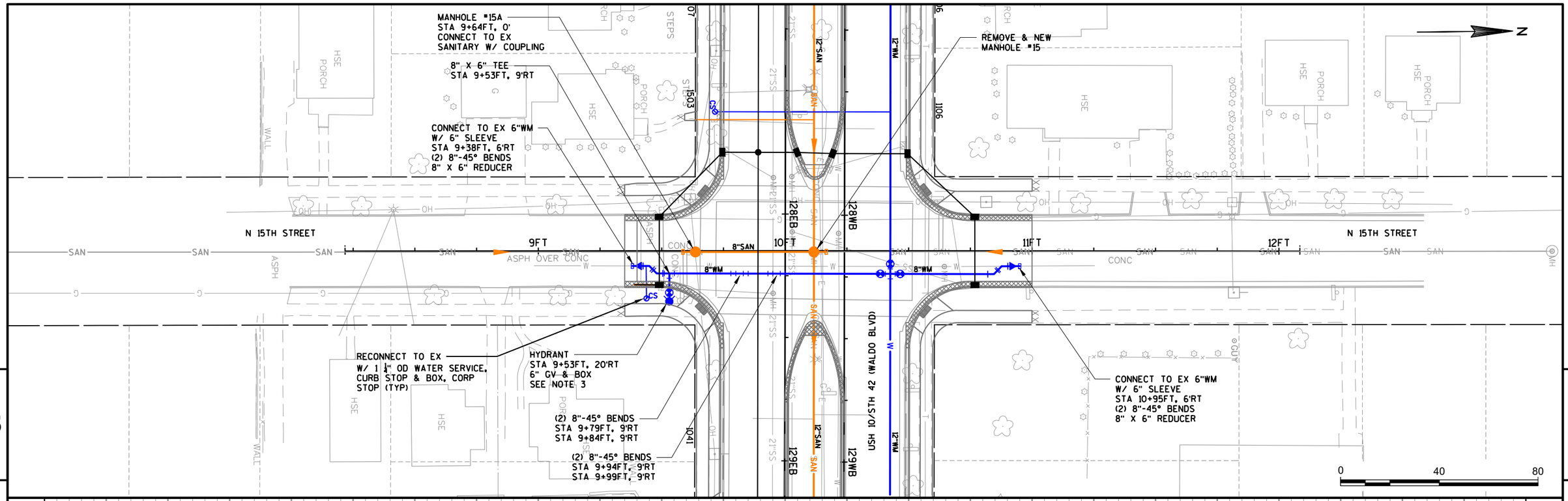
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645 640 635 630 625 620 615 610 605

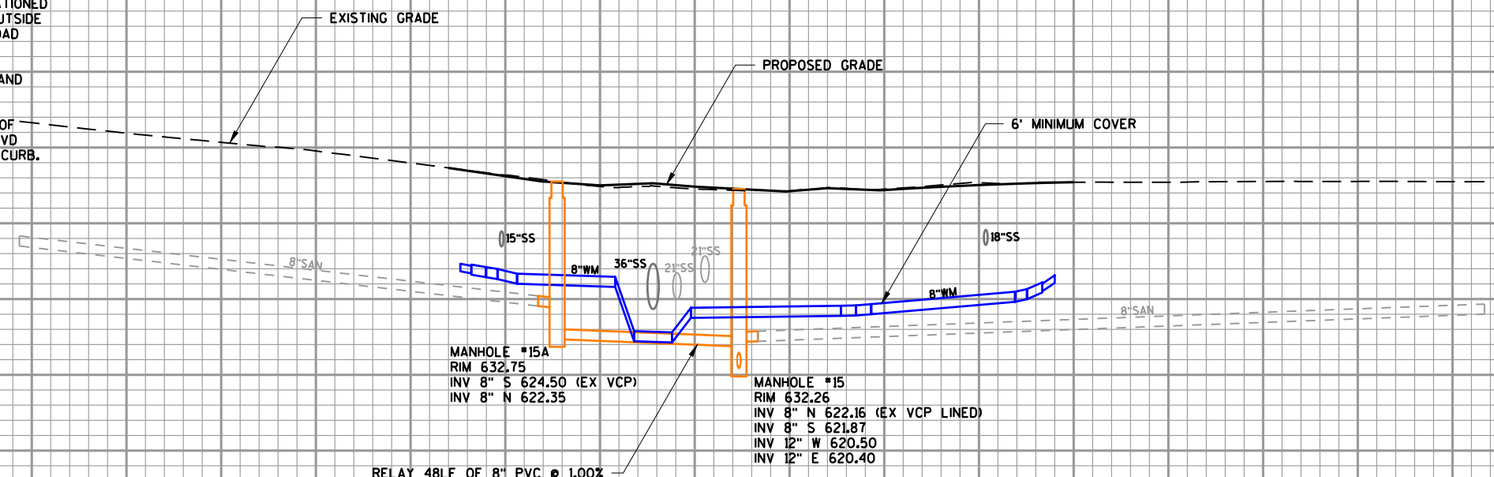
7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00

PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 289	E

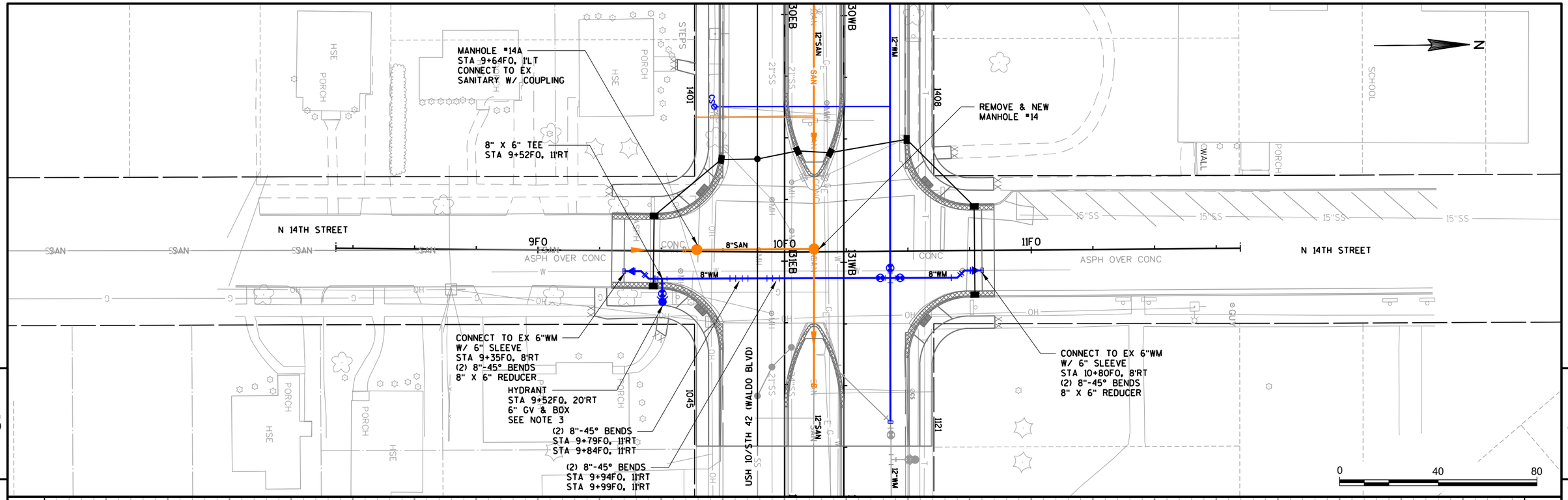


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PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 290	E

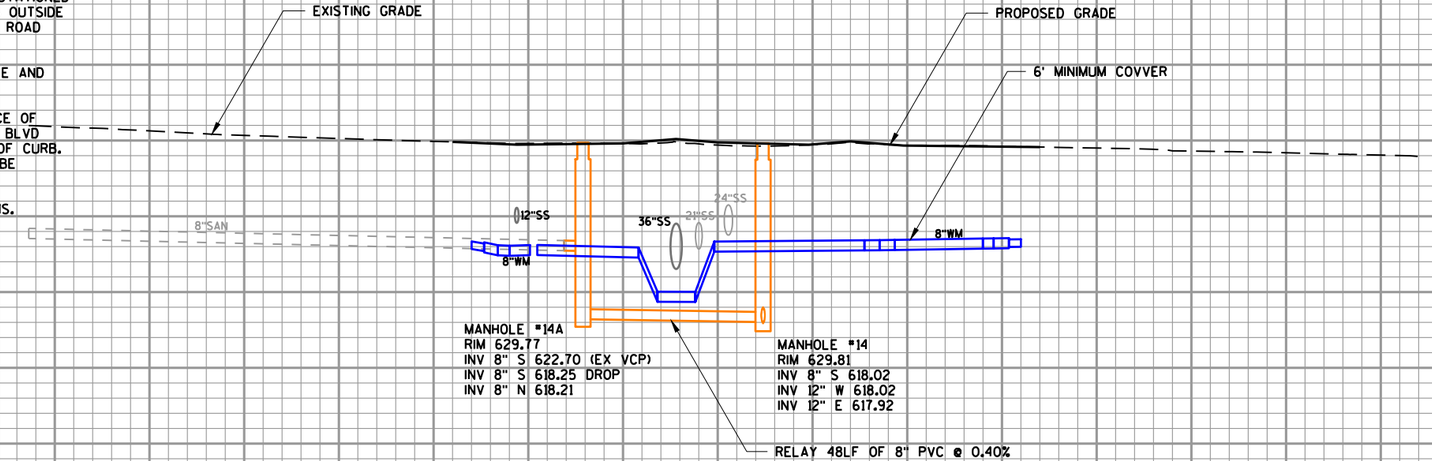


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PROJECT NO: 1500-37-77	HWY: USH 10	COUNTY: MANITOWOC	PLAN AND PROFILE: SANITARY SEWER AND WATER MAIN	SHEET 291	E

Standard Detail Drawing List

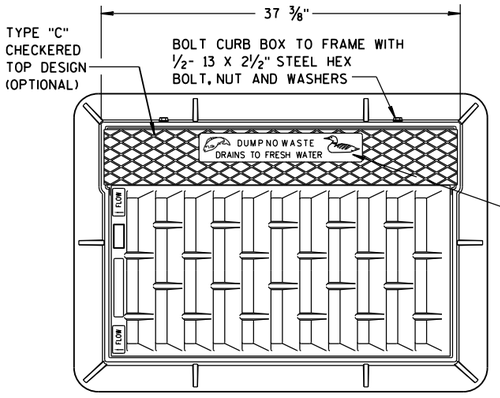
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-05	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
13C19-01	HMA LONGITUDINAL JOINTS
14A02-01	TREE PLANTING DETAIL
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

6

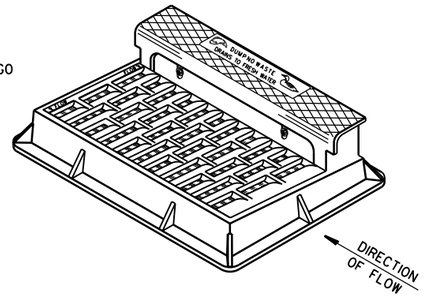
Standard Detail Drawing List

14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-05A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-05B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-05C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

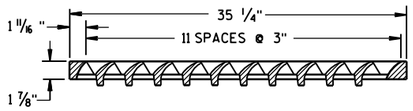
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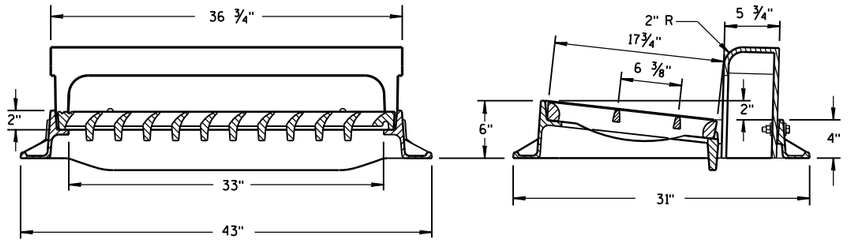


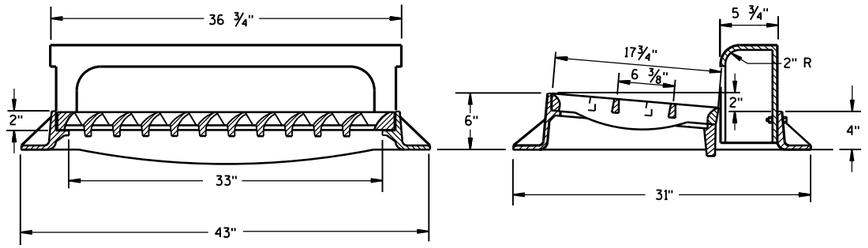
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

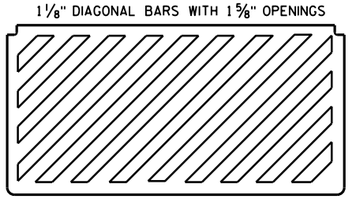






TYPE "H"

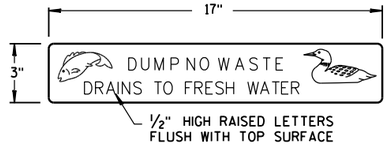
NOTE: EITHER CASTING IS ACCEPTABLE



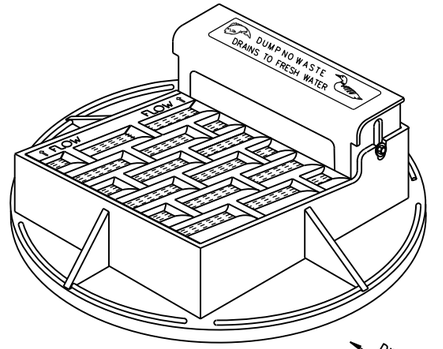
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

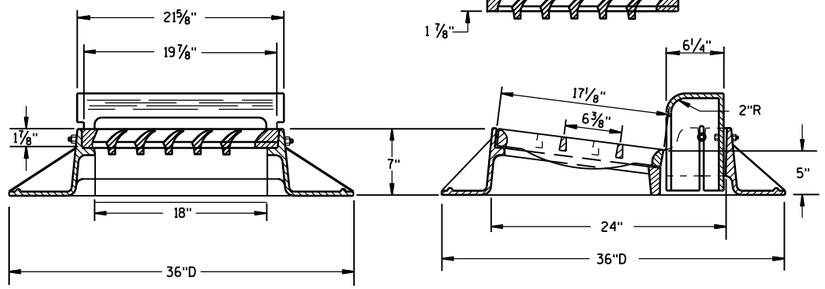


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



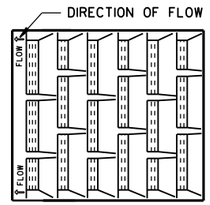
TYPE "A"

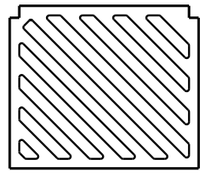
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

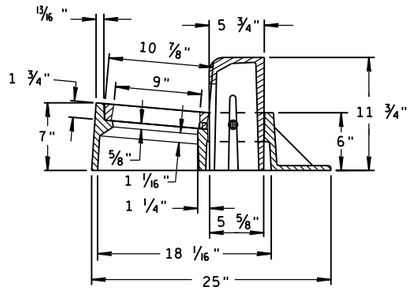


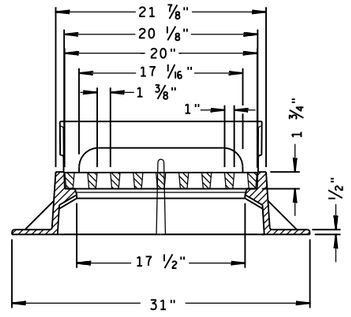


SPECIAL GRATE FOR TYPE "A" COVER

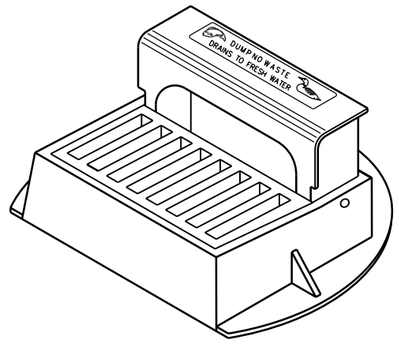
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"

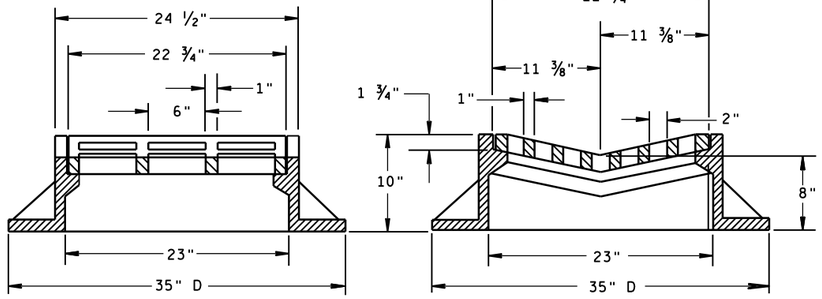


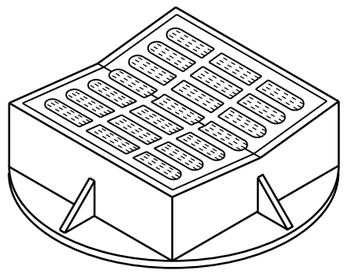
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

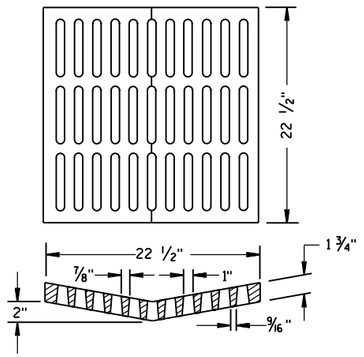
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 A 5-19a



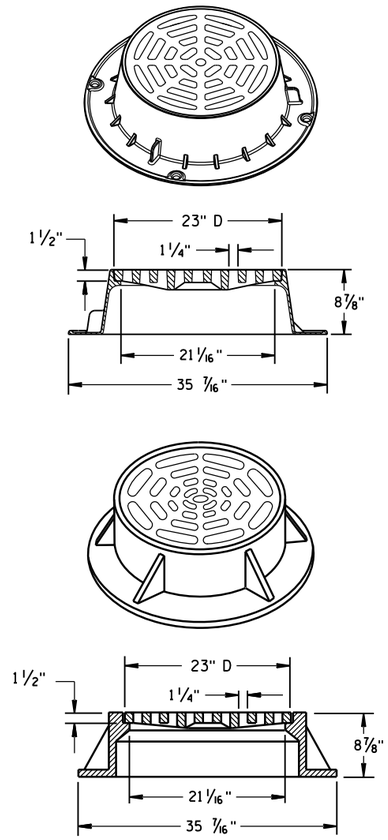


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

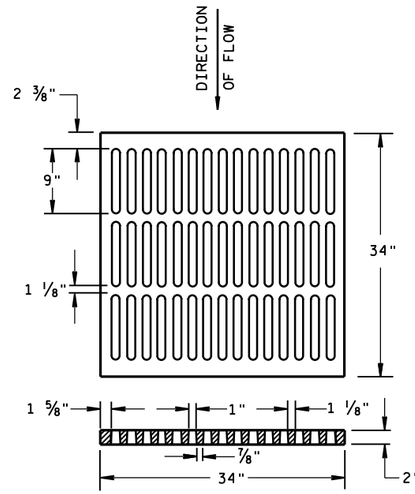
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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.

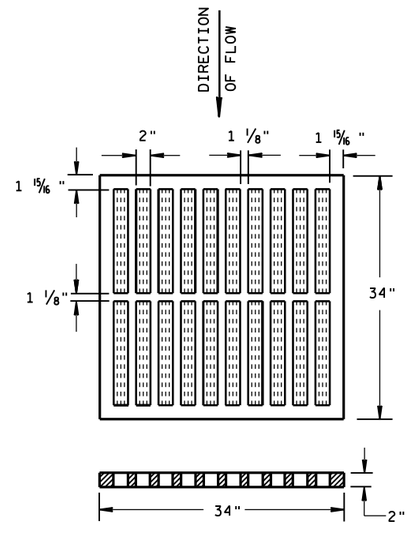
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



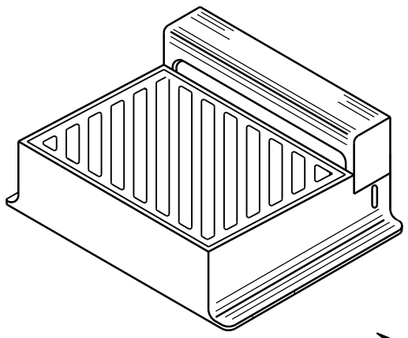
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

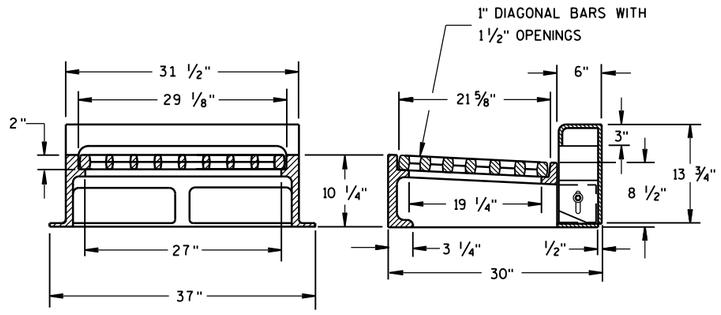


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

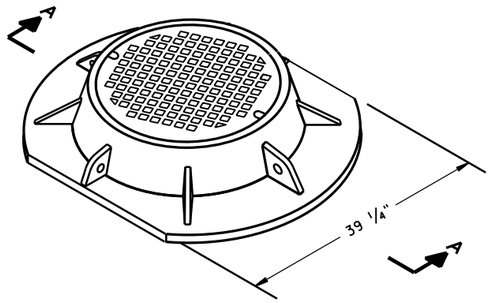
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

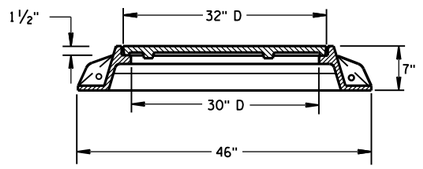
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

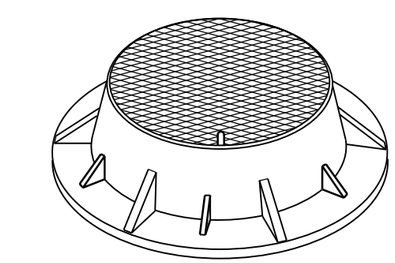
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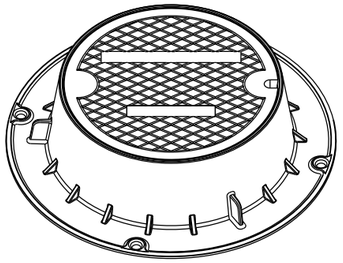
S.D.D. 8 A 5-19b

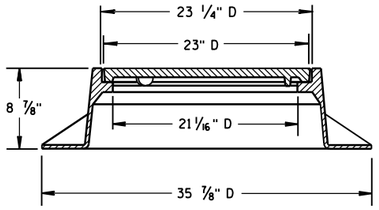


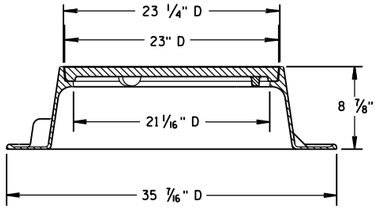


SECTION A-A
TYPE "K"









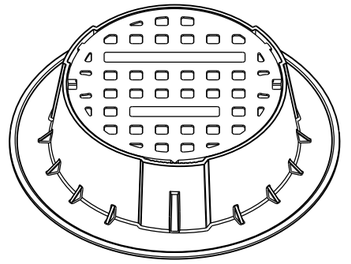
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

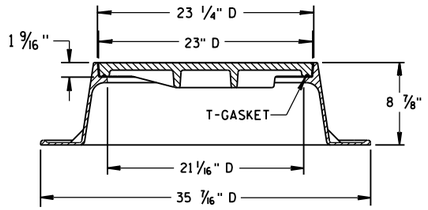
GENERAL NOTES

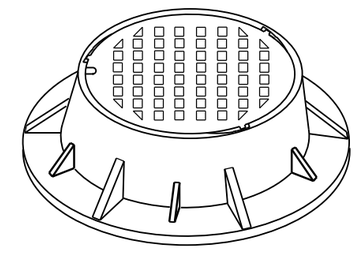
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

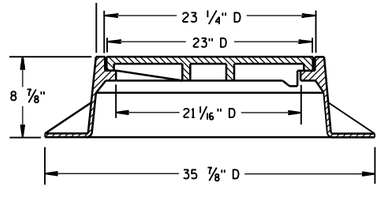
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

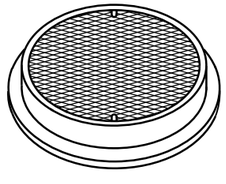


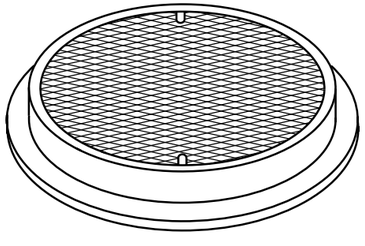


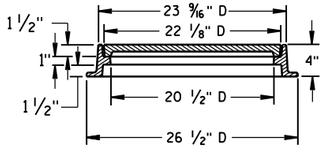




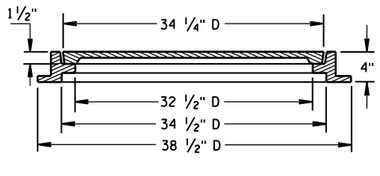
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



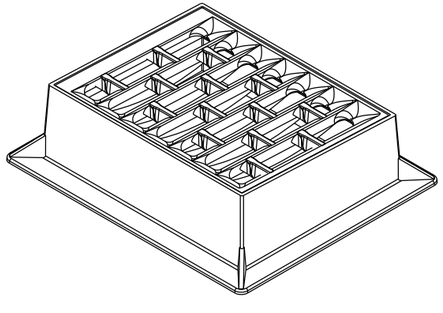


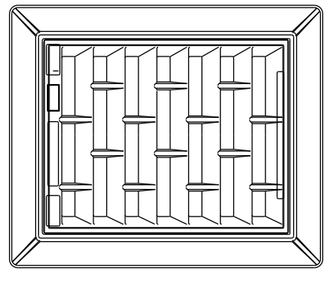


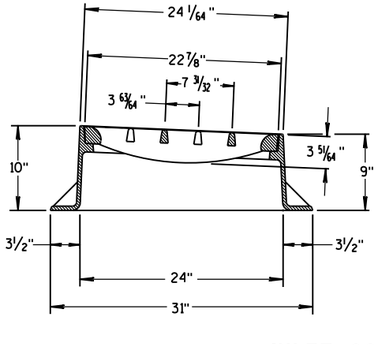
TYPE "L"

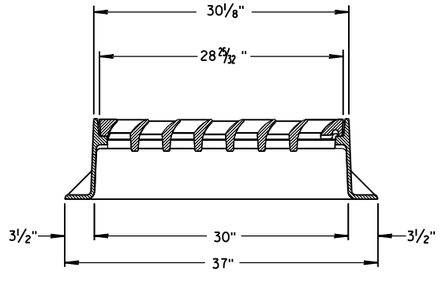


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

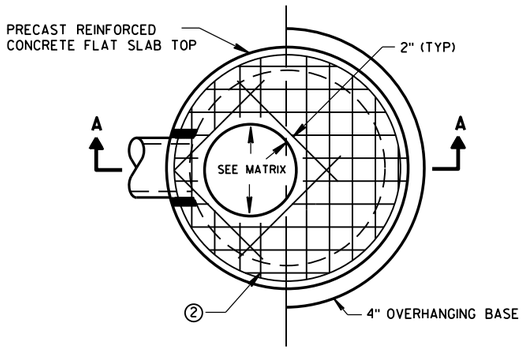
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

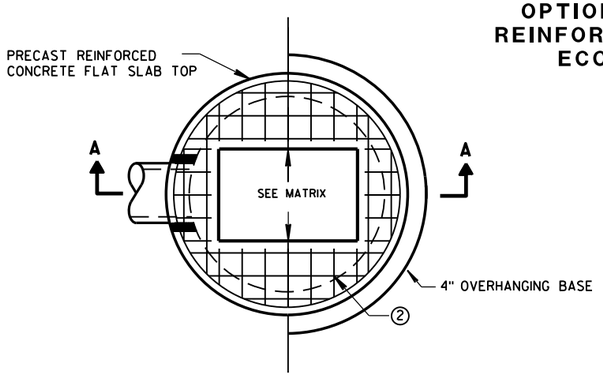
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

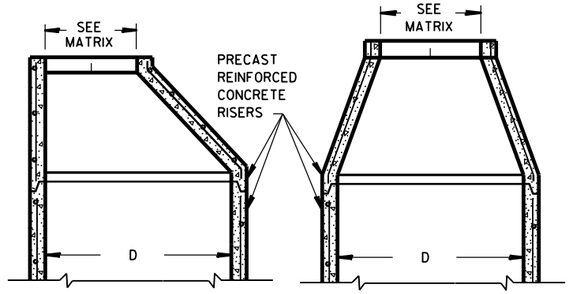
S.D.D. 8 A 5-19d



PLAN VIEW CIRCULAR OPENING

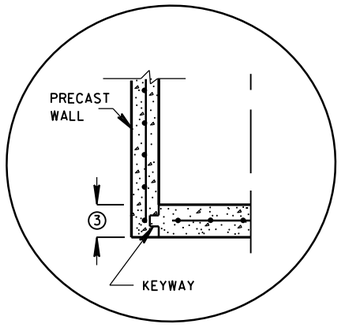


PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

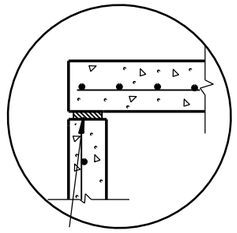
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



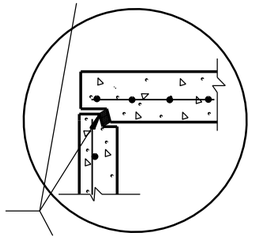
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

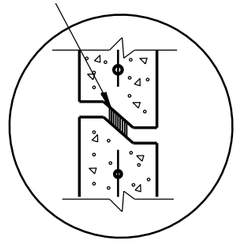


TOP WITH PLAIN END JOINT



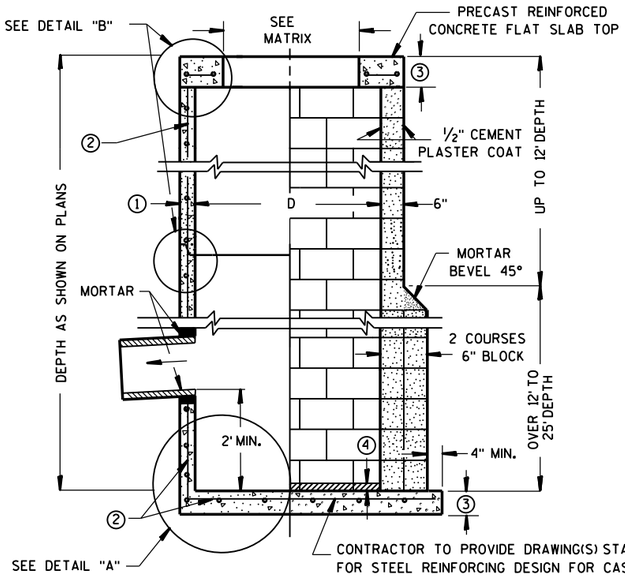
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

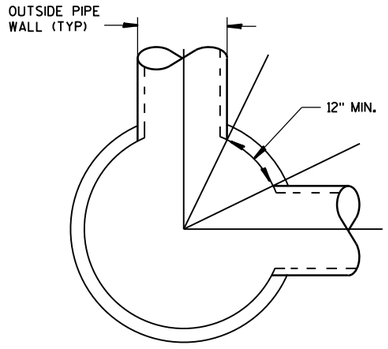
DETAIL "B"



SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



DETAIL "C"

GENERAL NOTES

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

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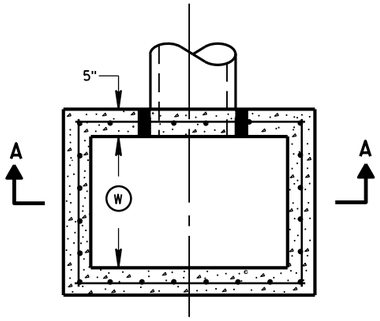
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

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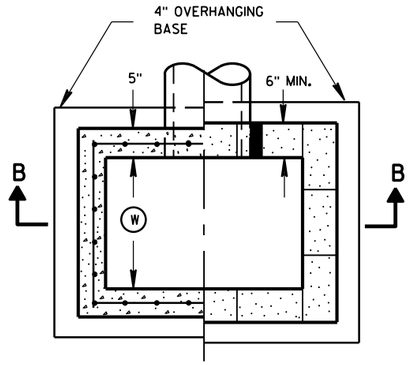
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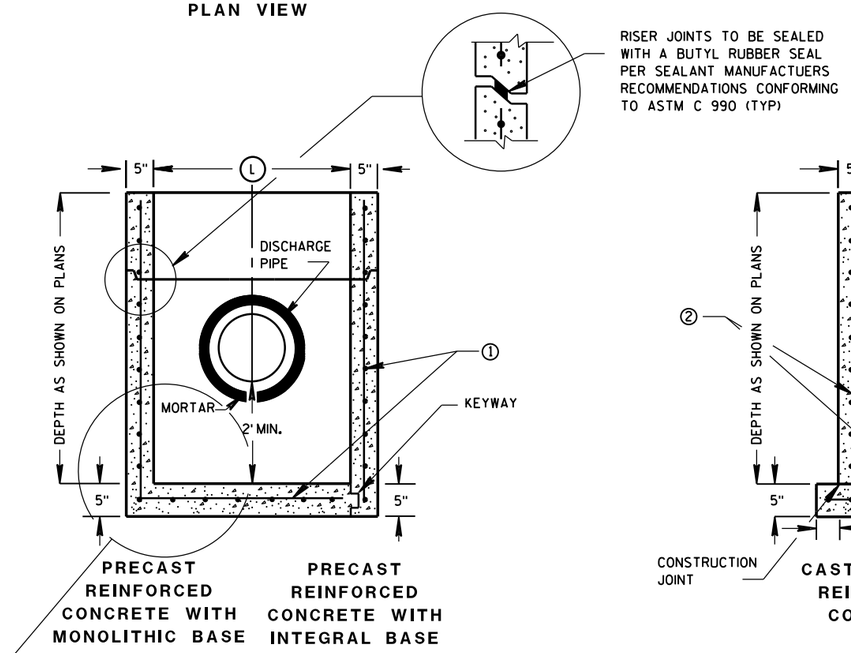
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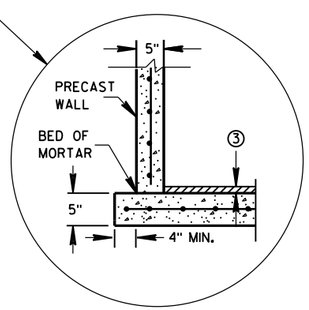
PLAN VIEW



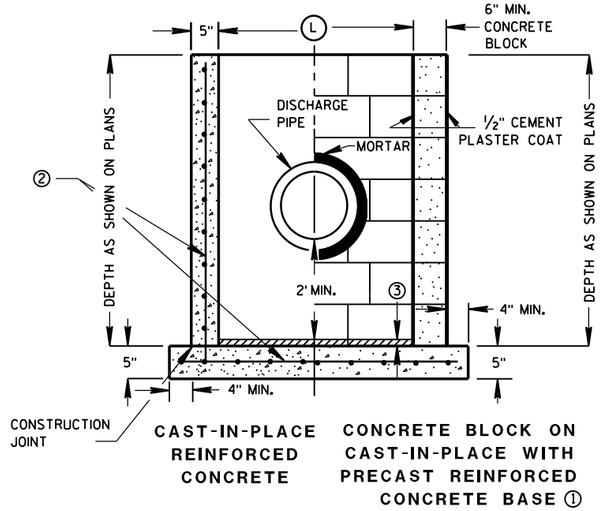
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

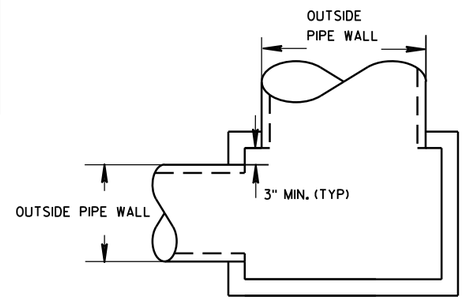
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

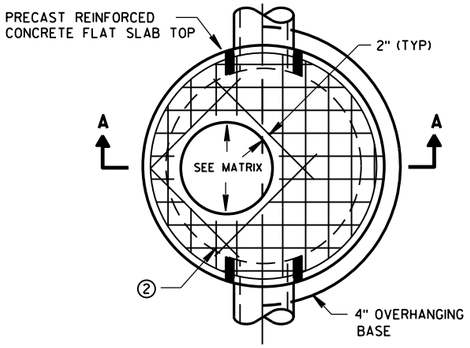
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

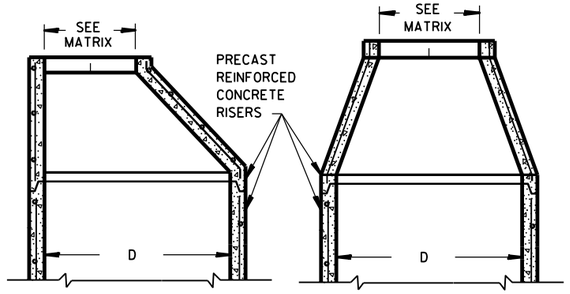
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ROADWAY STANDARDS UNIT SUPERVISOR
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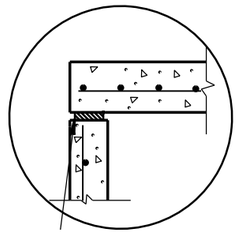


PLAN VIEW CIRCULAR OPENING

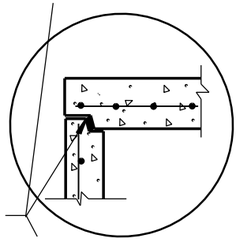


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

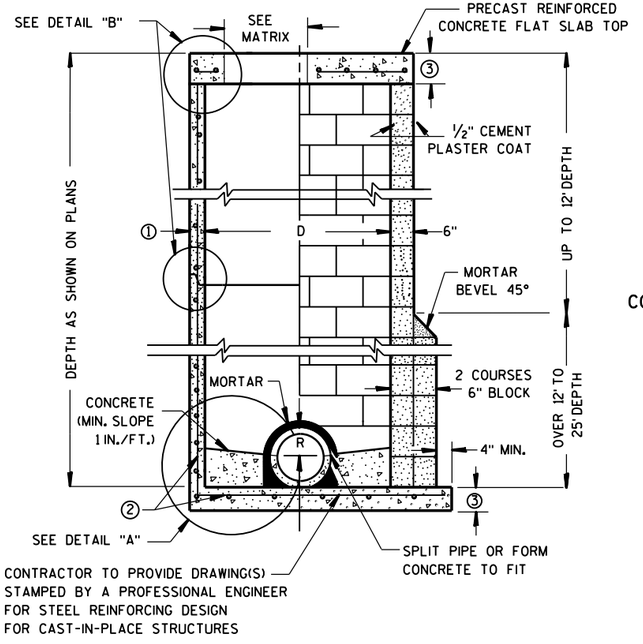


TOP WITH PLAIN END JOINT



JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

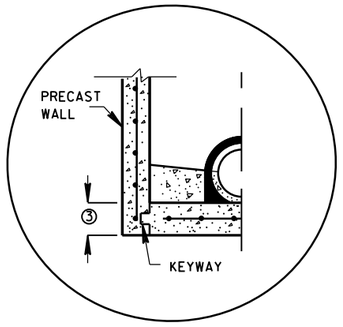
TOP WITH TONGUE AND GROOVE JOINT



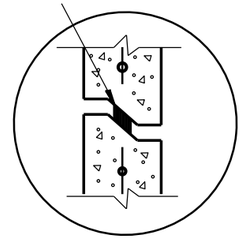
CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

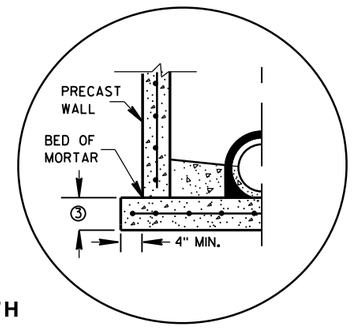


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



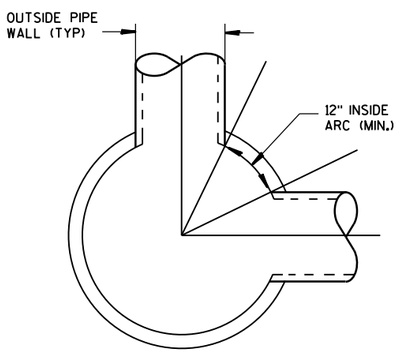
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

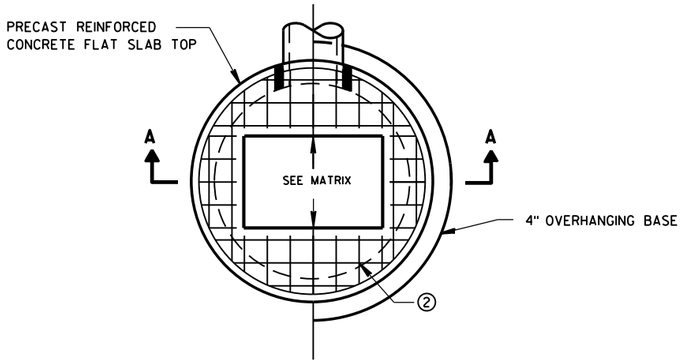
APPROVED

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DATE

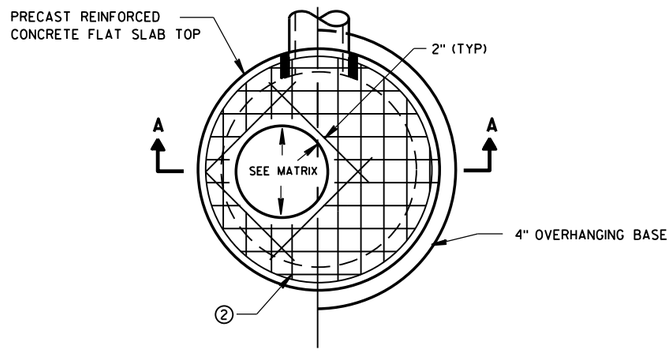
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERV

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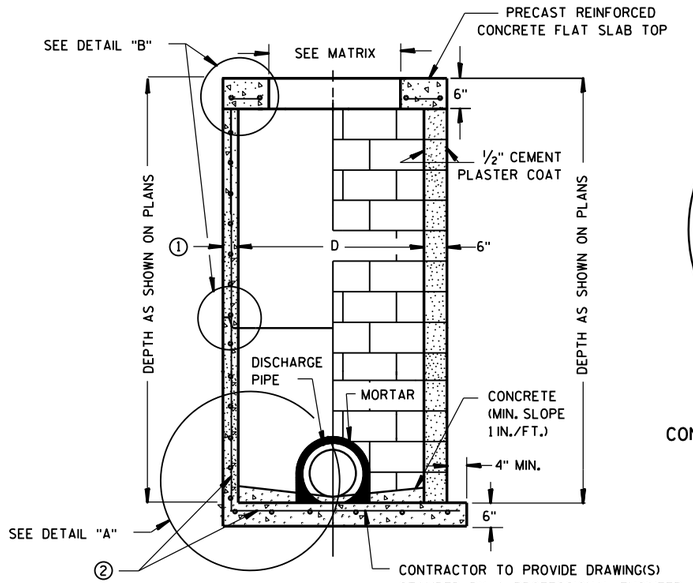
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

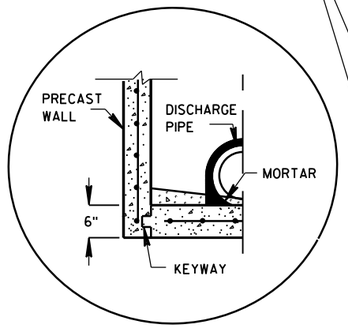


SECTION A-A

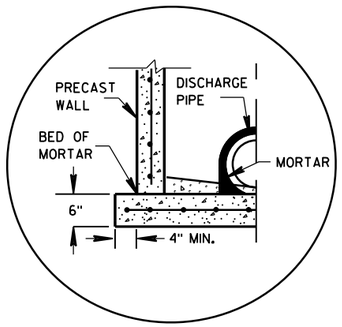
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

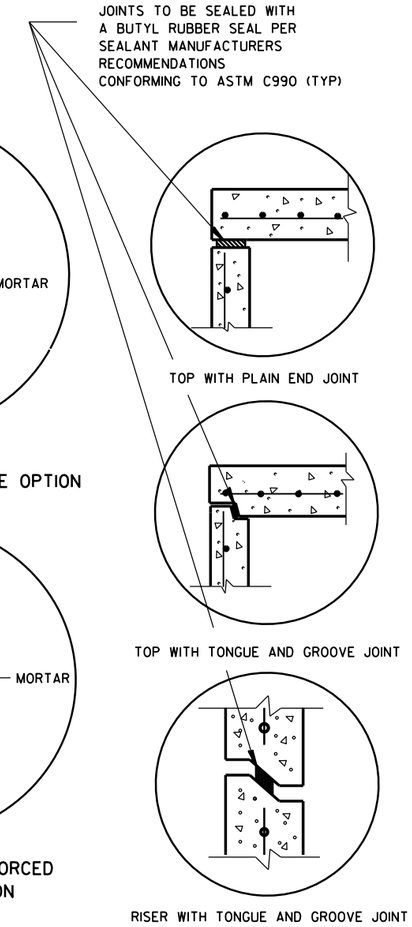


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

GENERAL NOTES

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

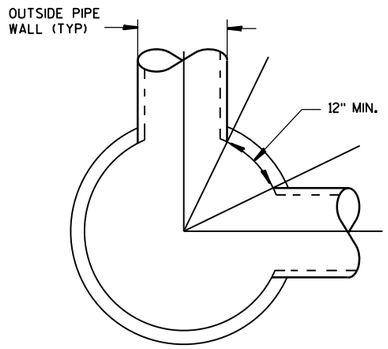
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

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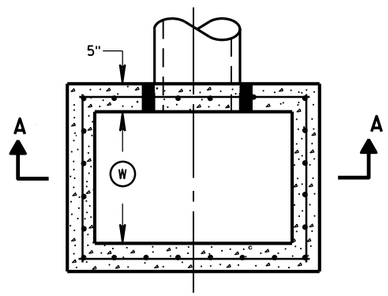
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S.D.D. 8 C 6-2

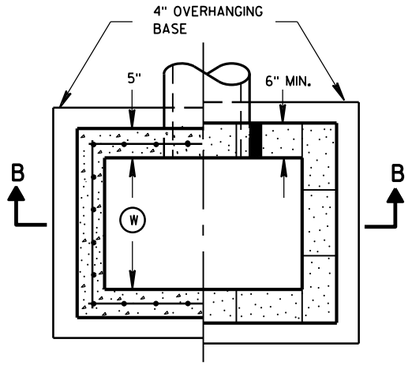
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S.D.D. 8 C 6-2

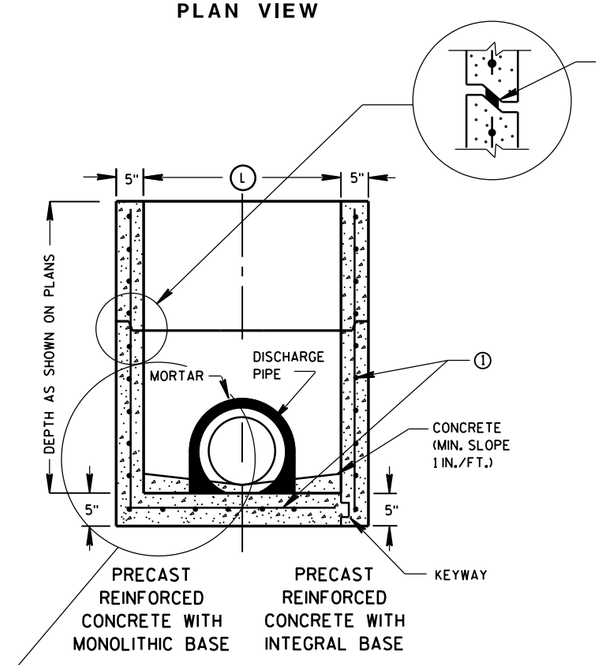
INLETS 3-FT AND 4-FT DIAMETER



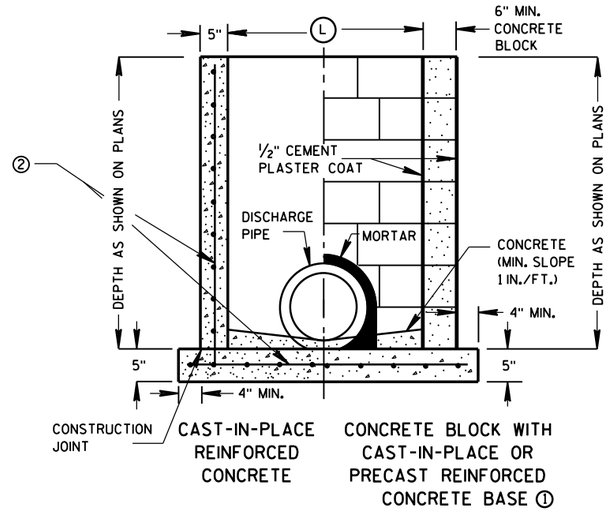
PLAN VIEW



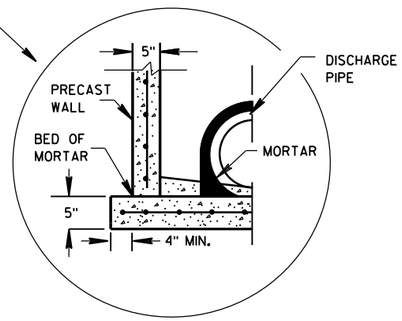
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

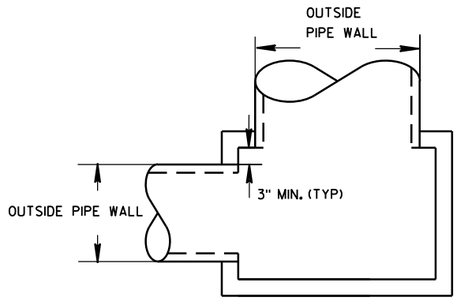
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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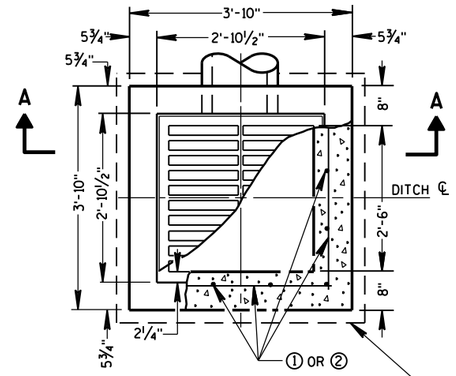
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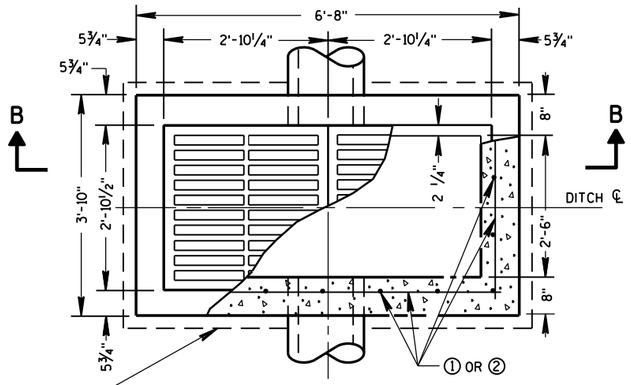
S.D.D. 8 C 7-2

6

S.D.D. 8 C 7-2

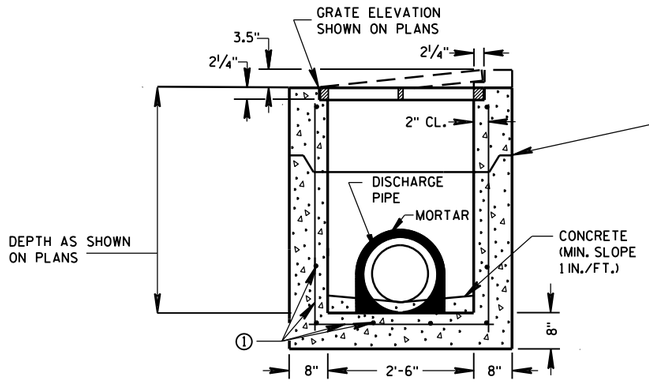


PLAN VIEW

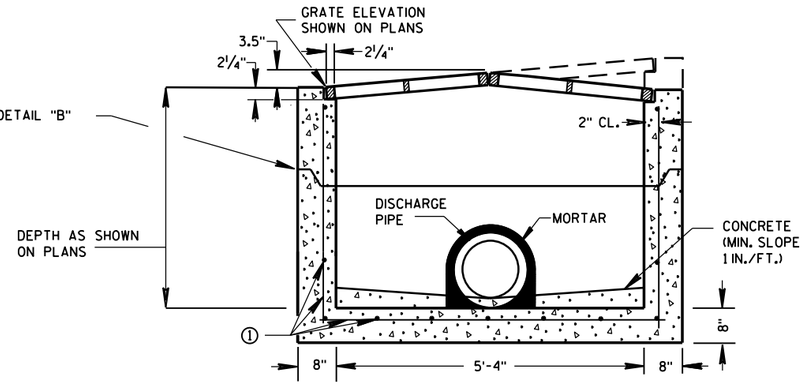


PLAN VIEW

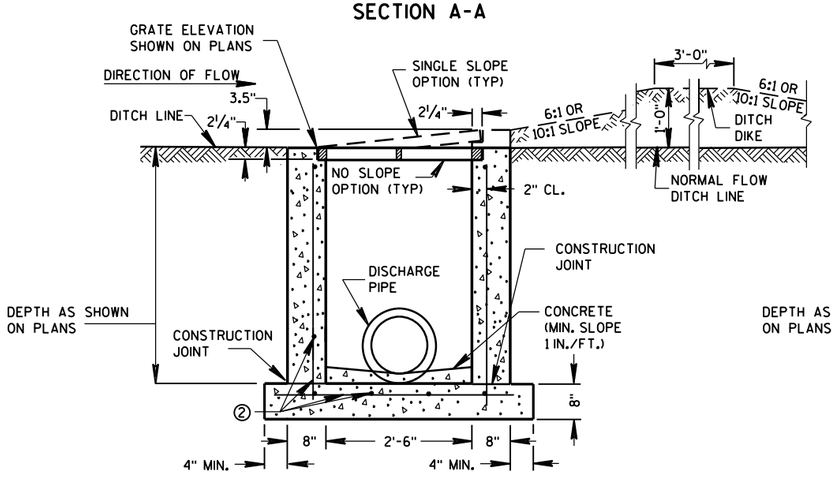
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



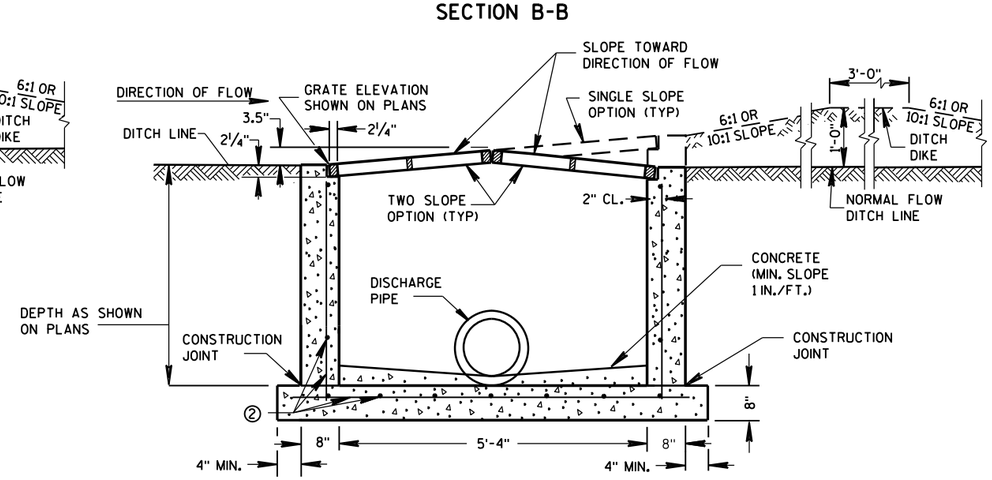
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

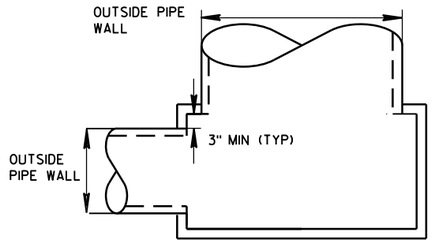
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

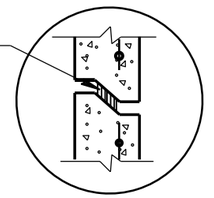
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



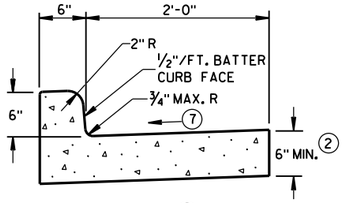
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

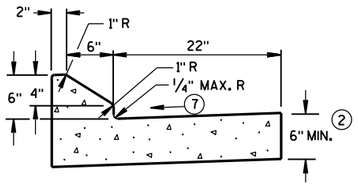
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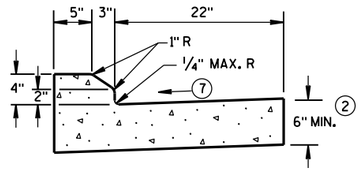
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S.D.D. 8 C 8-2



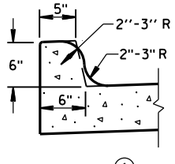
TYPES A (1) & D



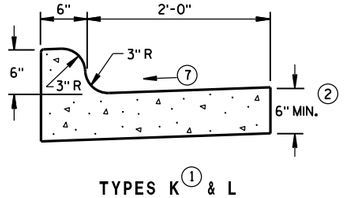
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

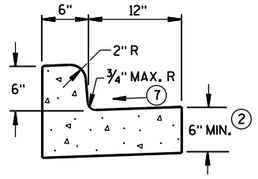


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



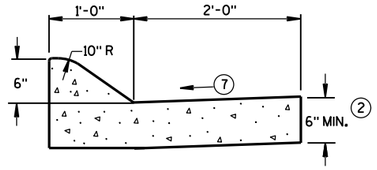
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

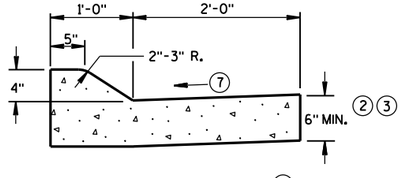


TYPES A (1) & D

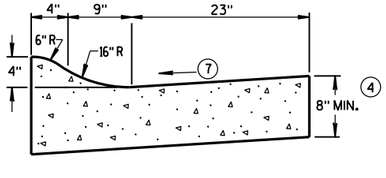
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

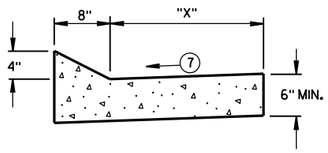


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

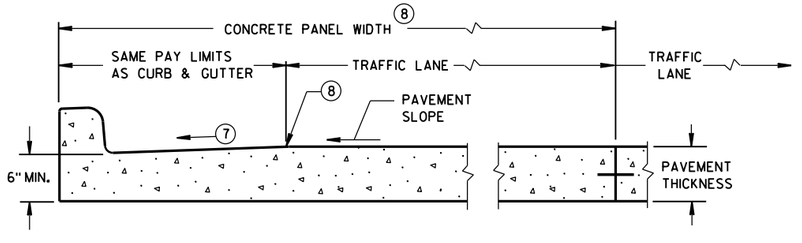
CONCRETE CURB & GUTTER 36"



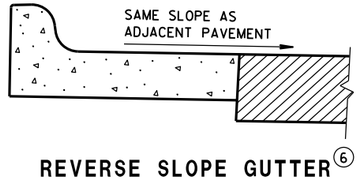
TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

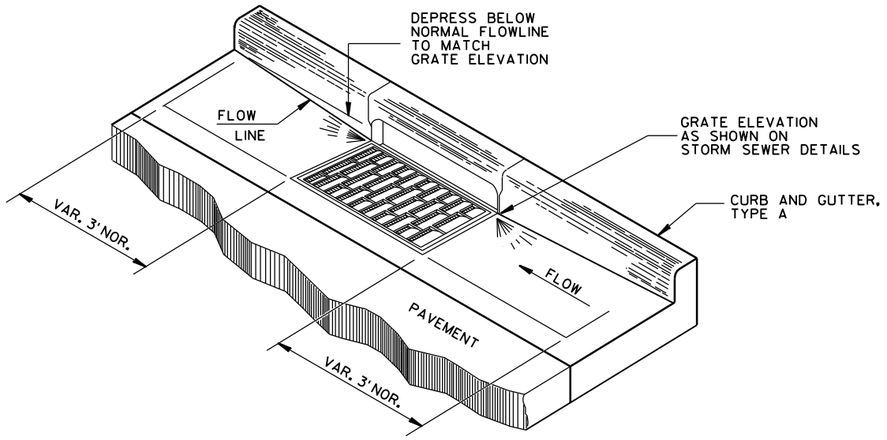
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

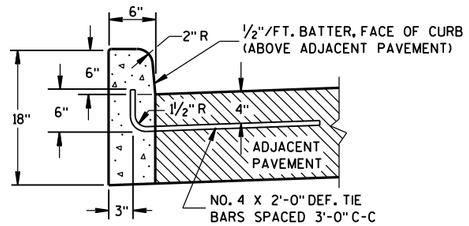
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

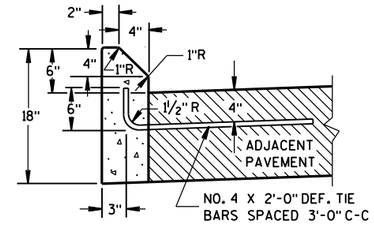
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

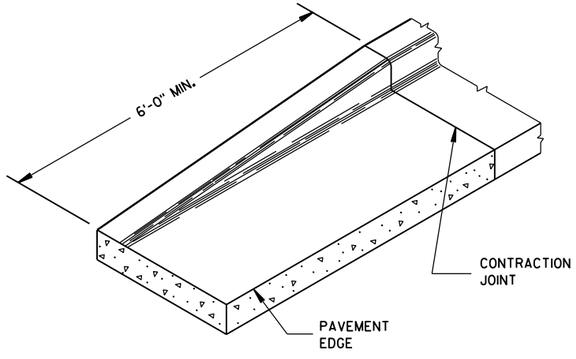


TYPES A (1) & D

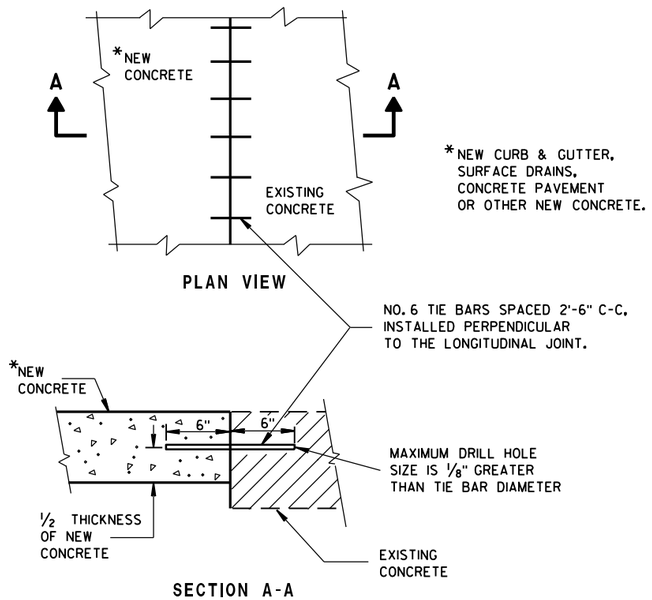


TYPES G (1) & J

CONCRETE CURB



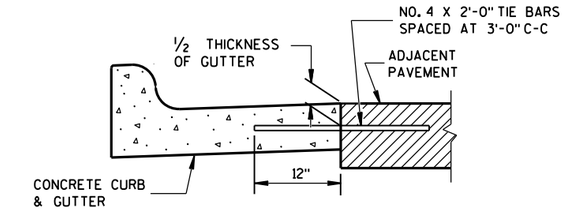
END SECTION CURB & GUTTER



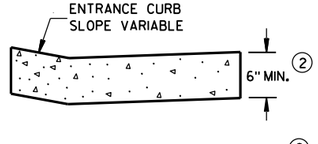
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

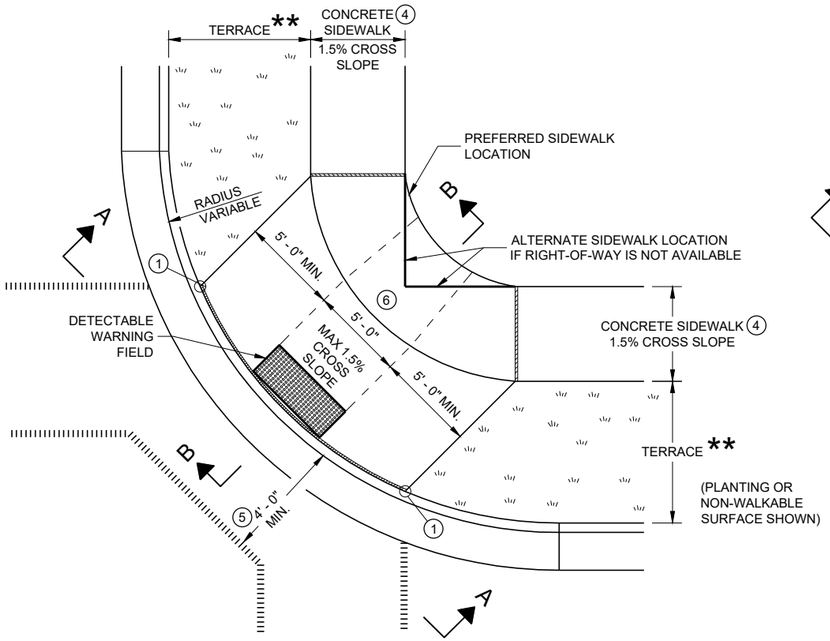
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 304 ENT
UNIT SUPERVISOR
FHWA

6

S.D.D. 8 D 1-20b

6

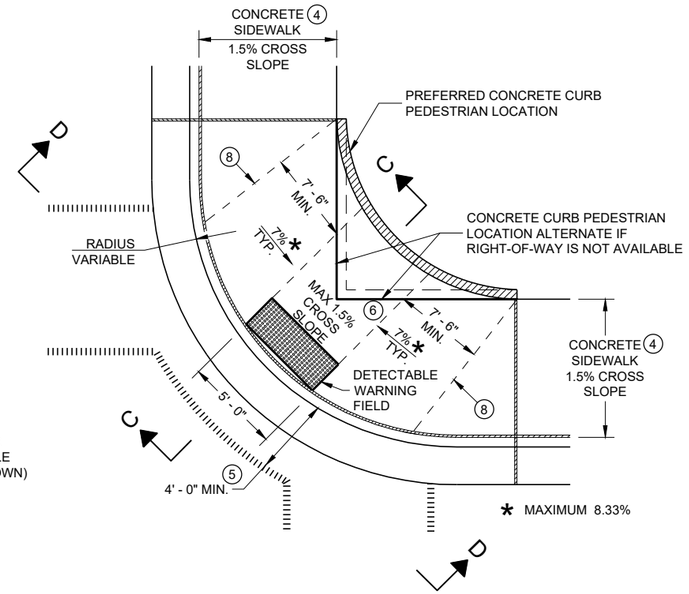
S.D.D. 8 D 1-20b



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

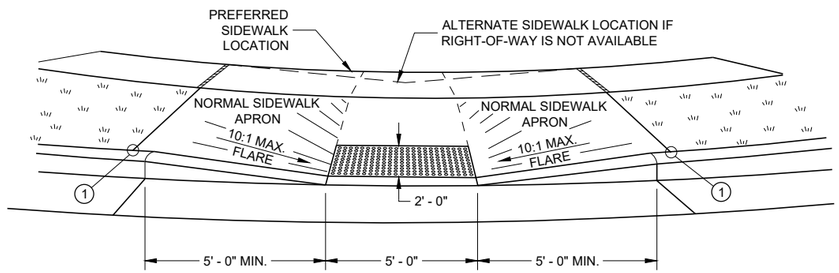
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

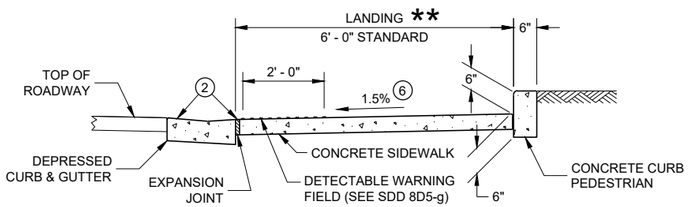
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

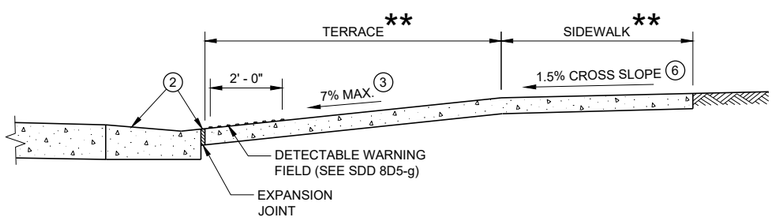


VIEW A - A FOR TYPE 1

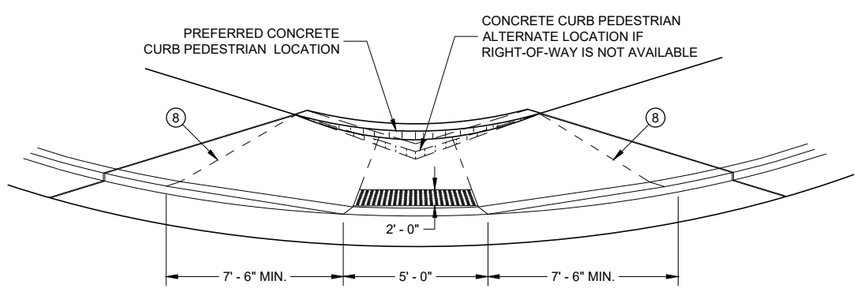


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

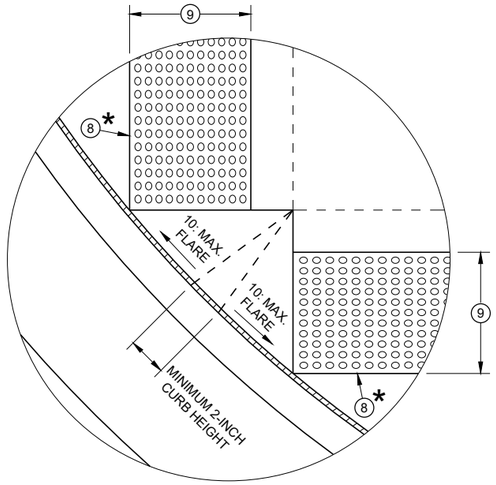
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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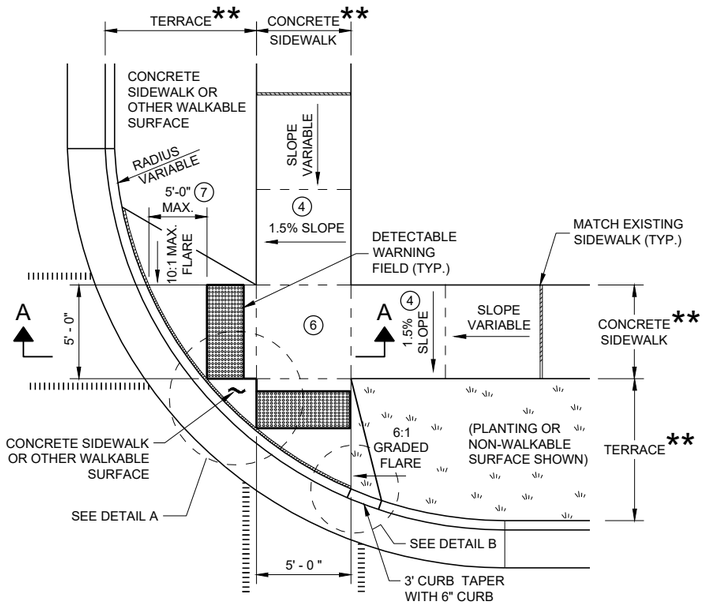
SDD 08D05 - 20a

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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

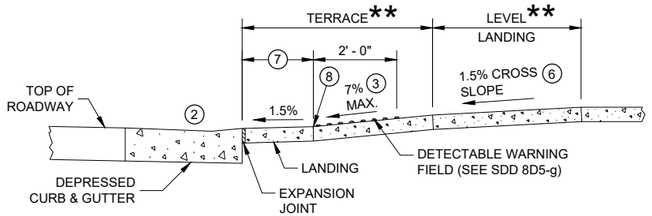
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

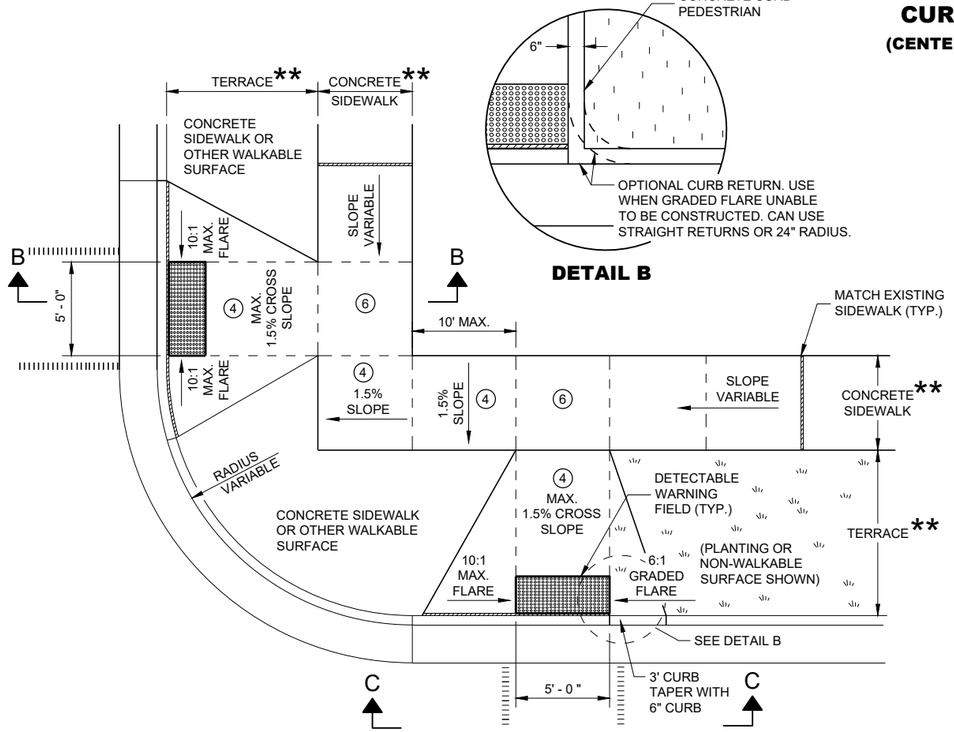
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

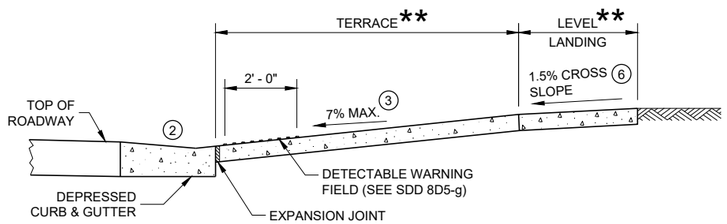
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



DETAIL B

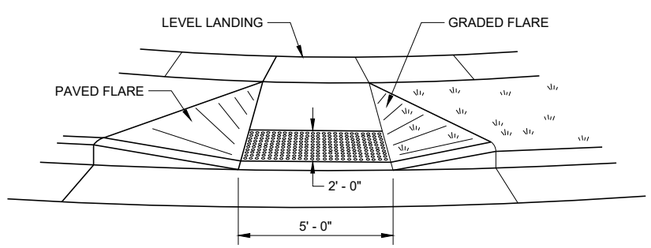
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



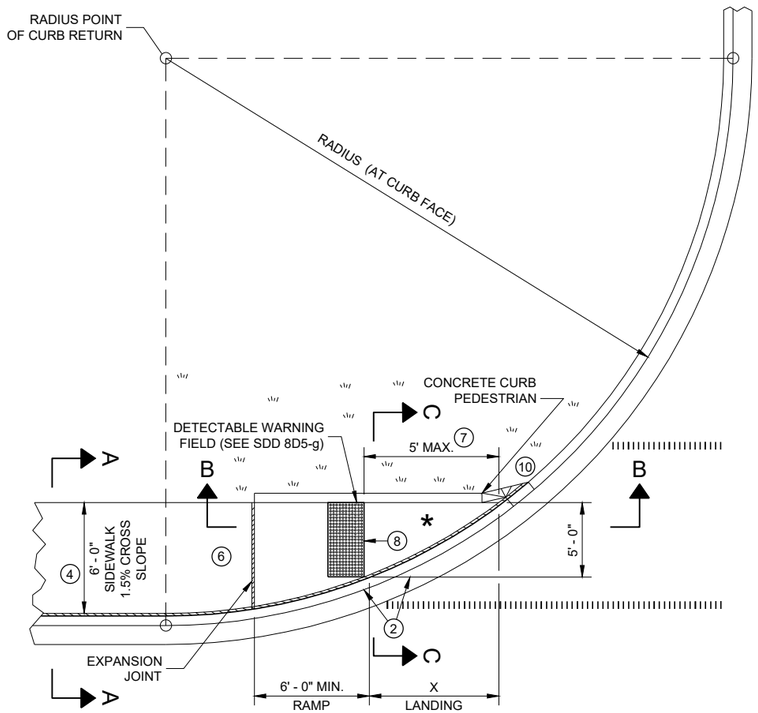
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

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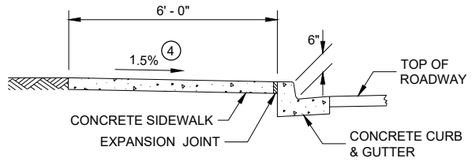


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

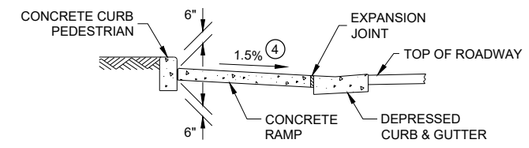
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

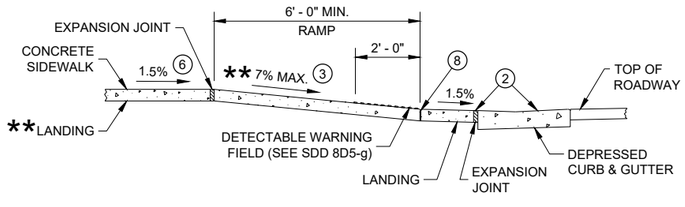
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



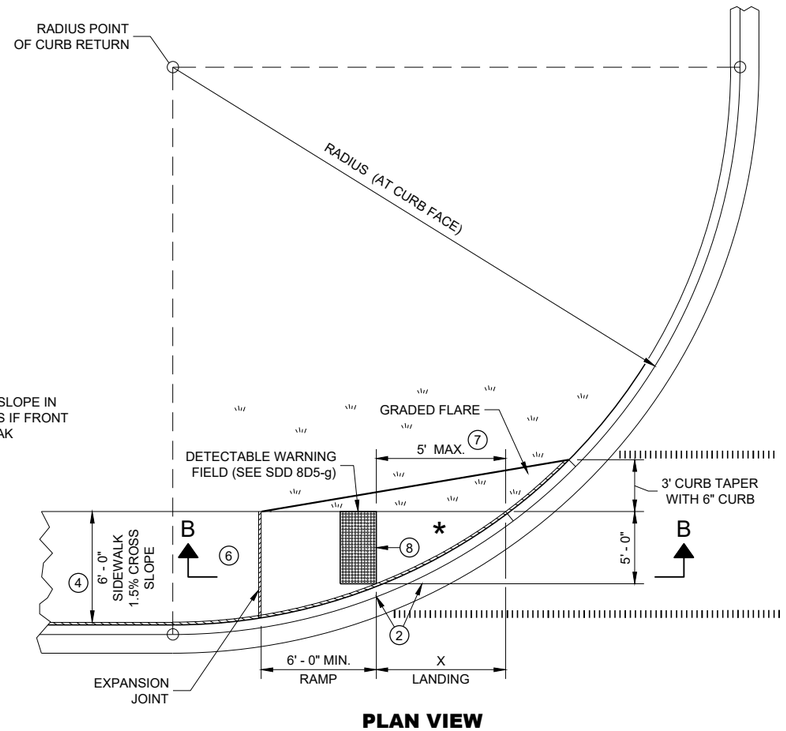
SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

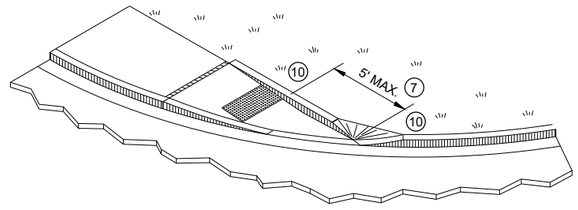
SECTION B - B FOR TYPE 4A AND TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

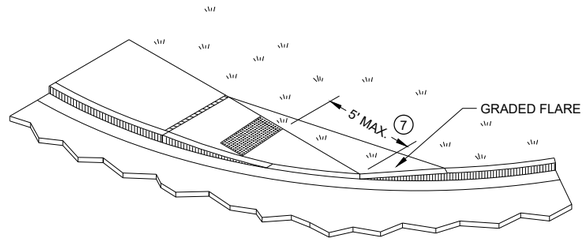


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



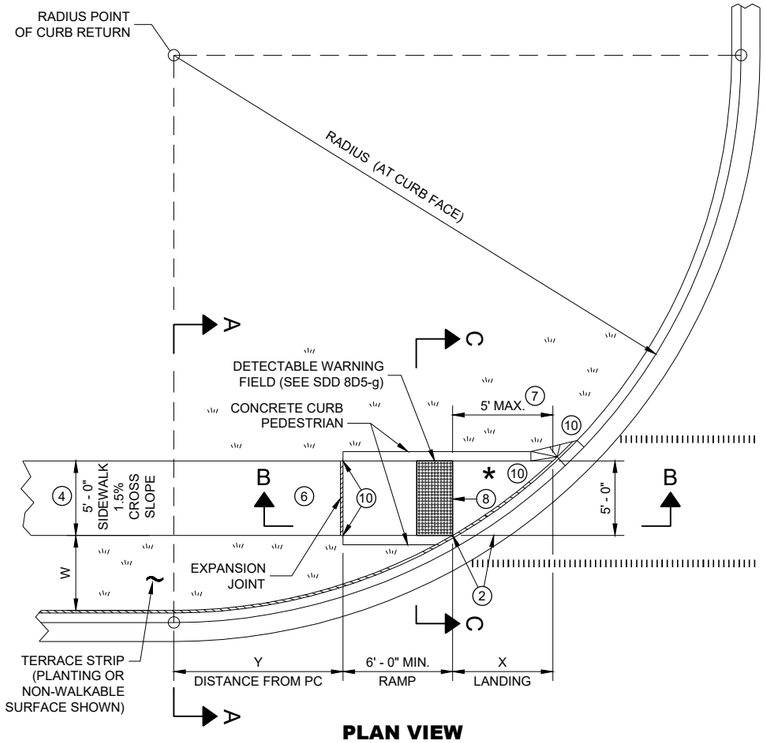
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D05 - 20c

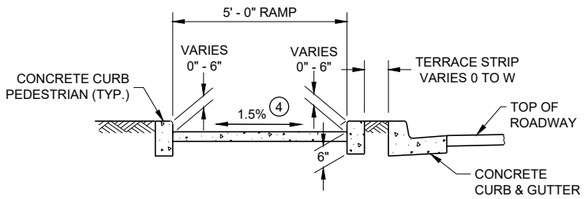


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

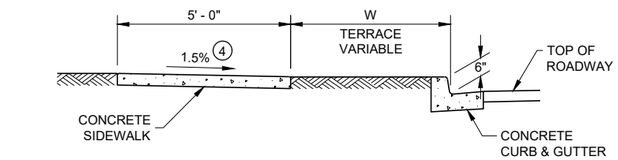
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

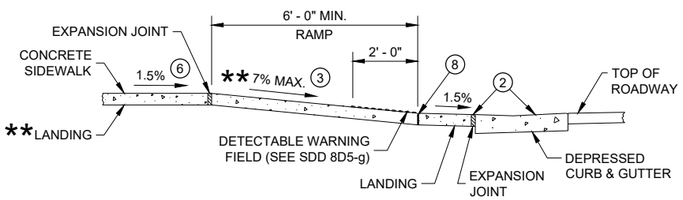
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



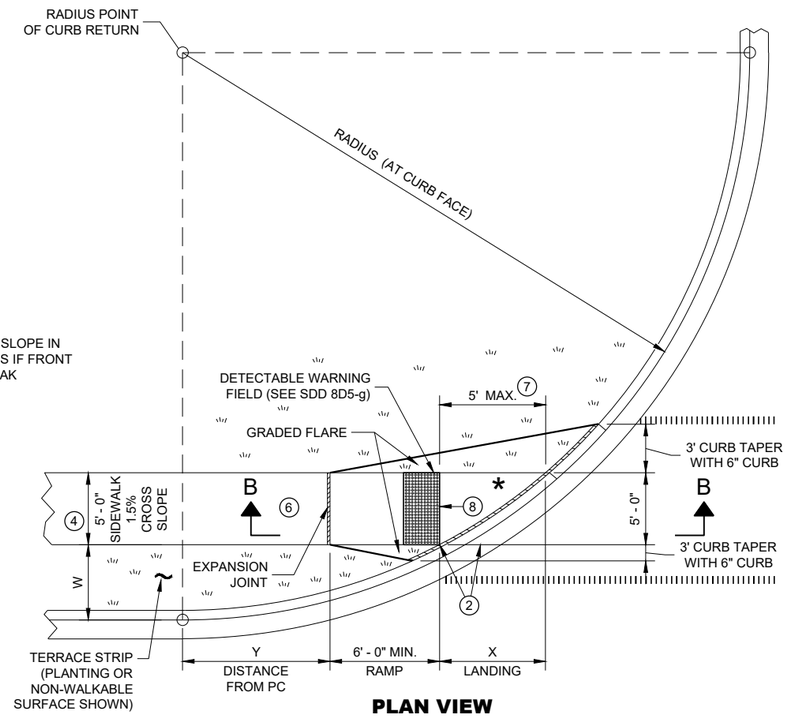
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

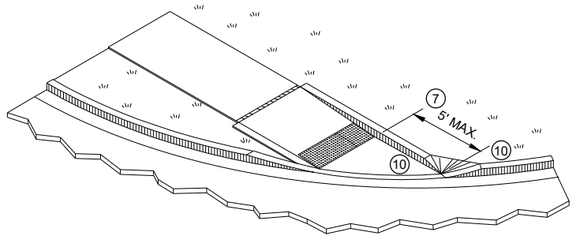
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

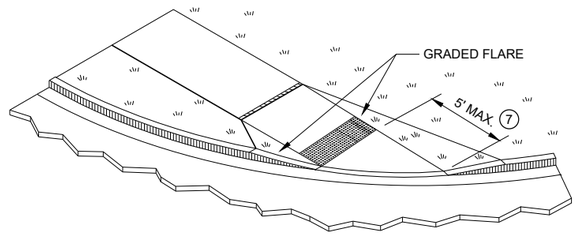


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



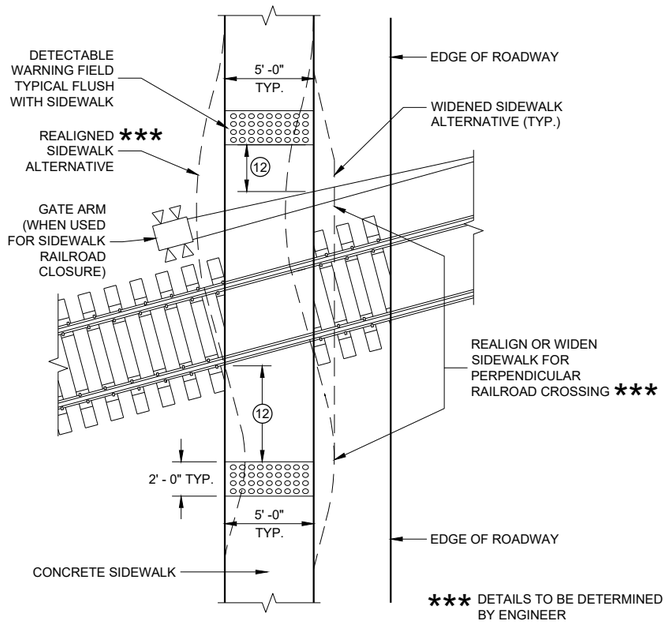
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

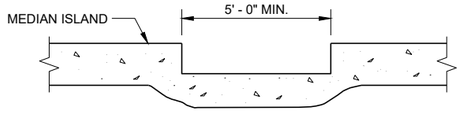
6

SDD 08D05 - 20d

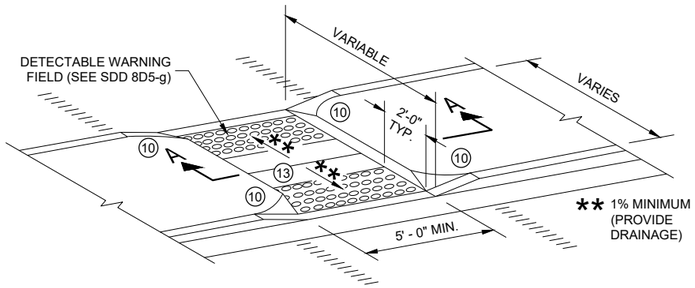


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

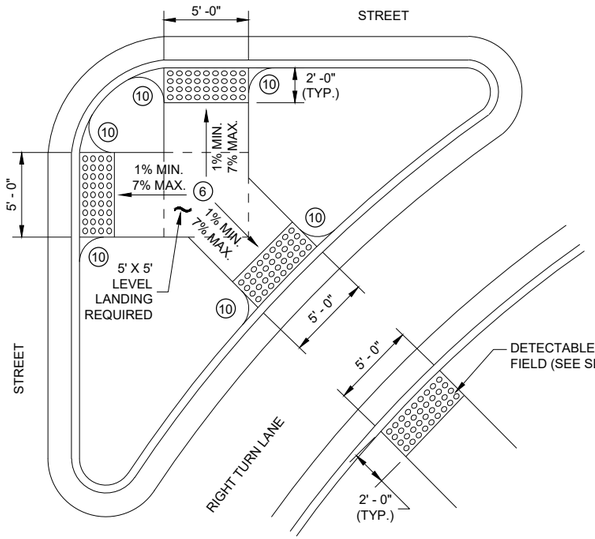
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

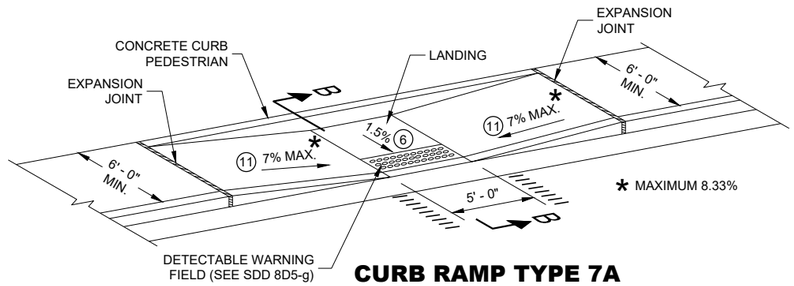
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

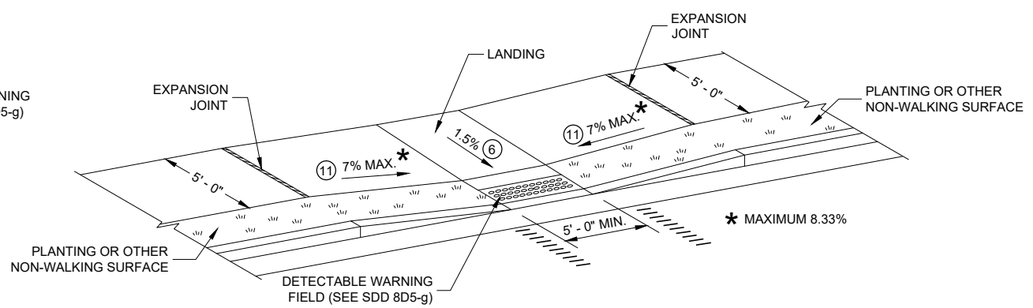
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

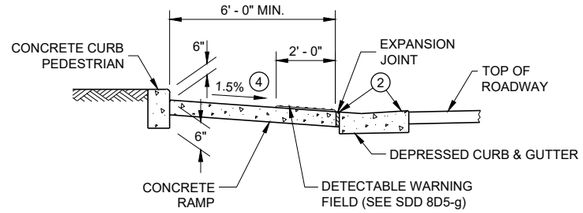
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

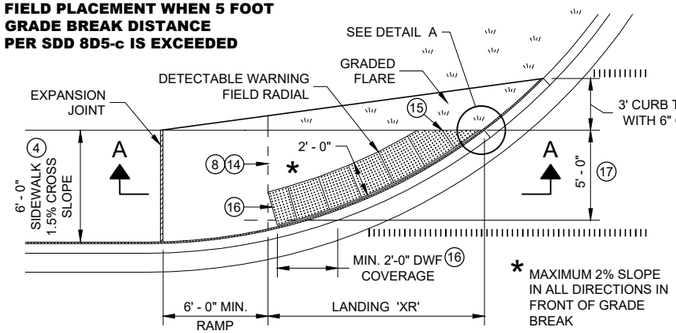
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

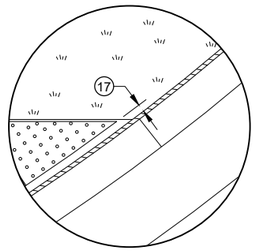
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



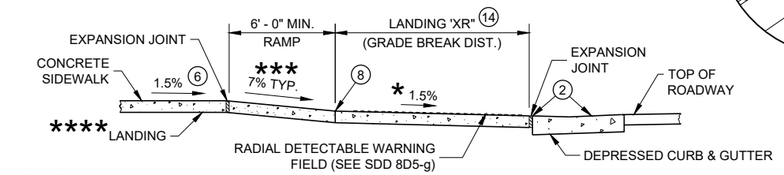
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

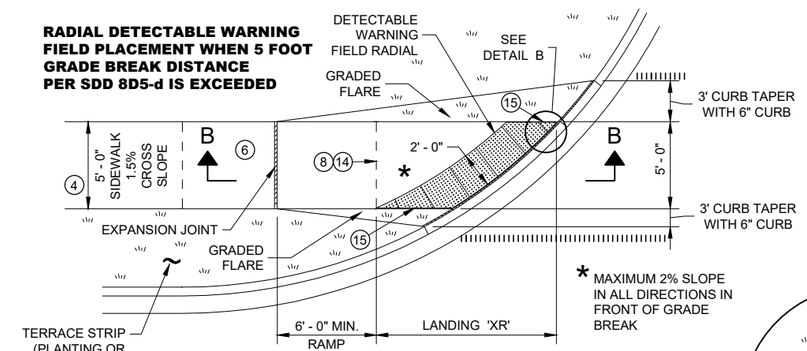


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

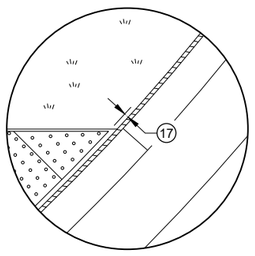
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



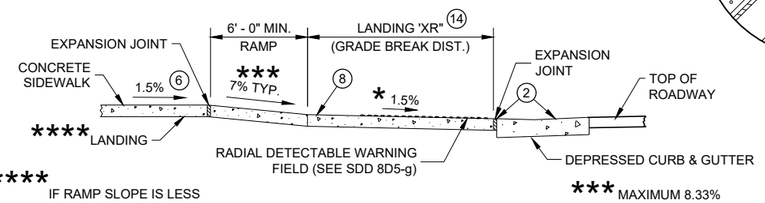
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

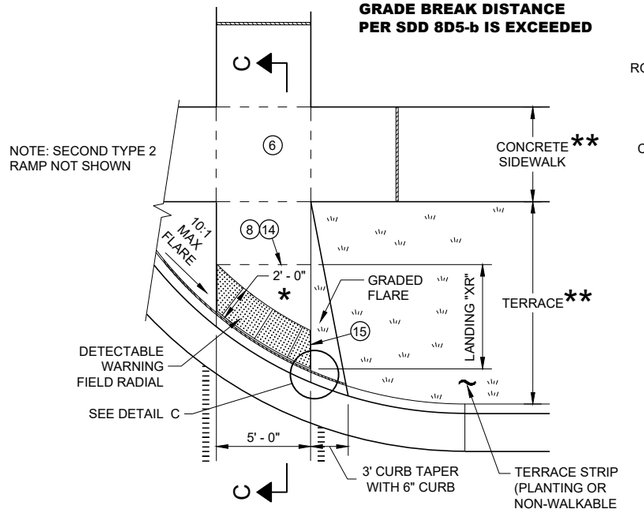
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

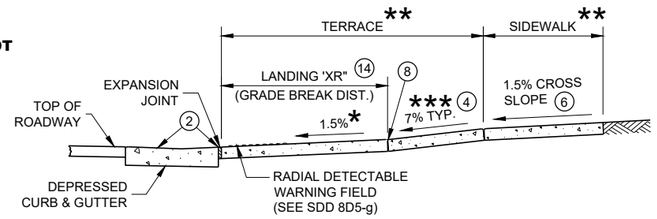


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

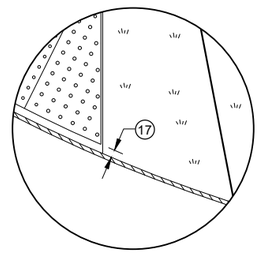


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

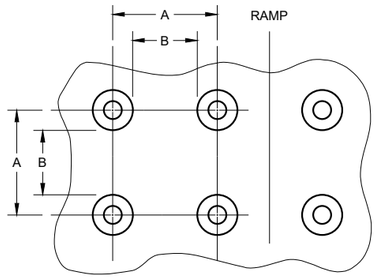
CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

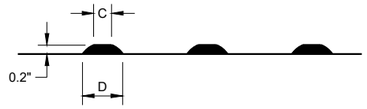
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

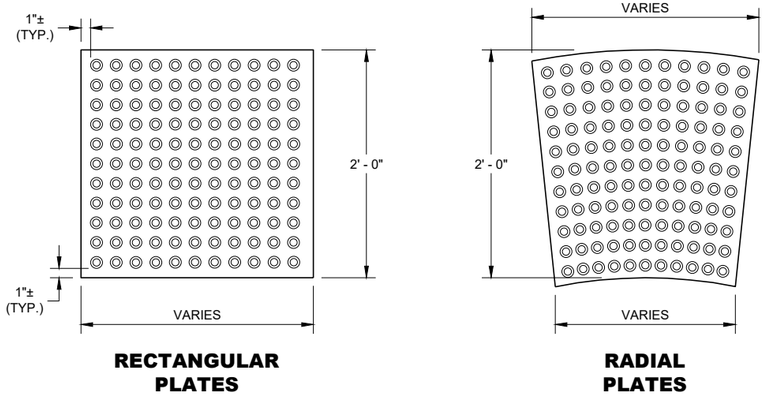


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

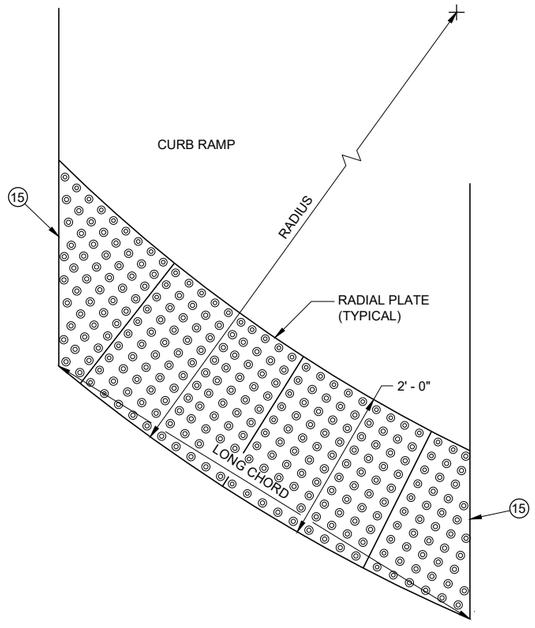
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

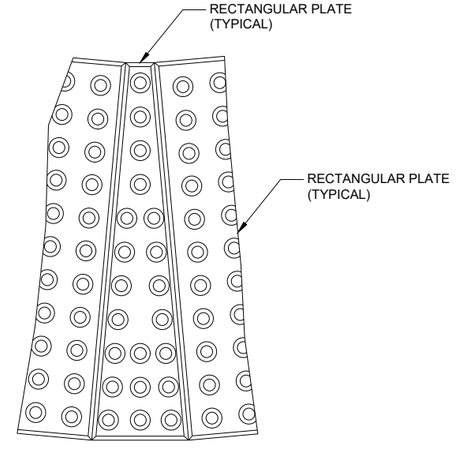
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 08D05 - 20g

METAL APRON ENDWALLS

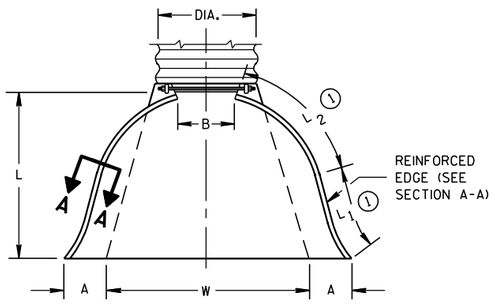
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

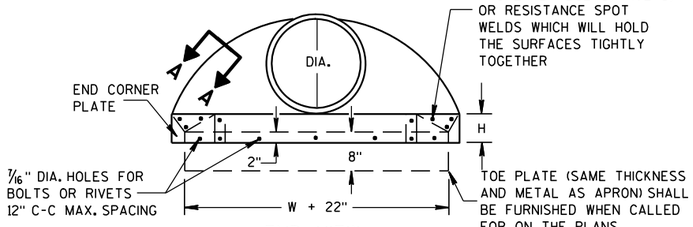
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

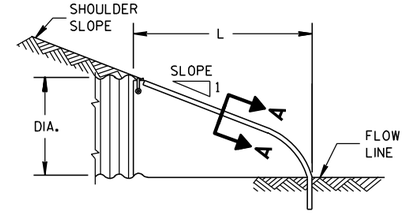
*MINIMUM
**MAXIMUM



PLAN VIEW

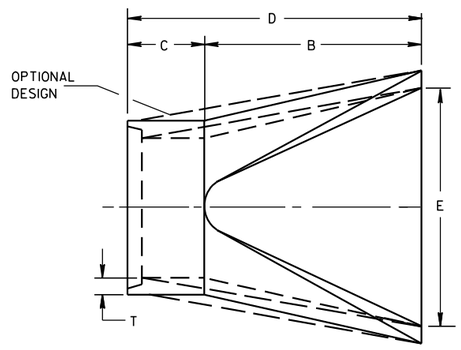


END VIEW

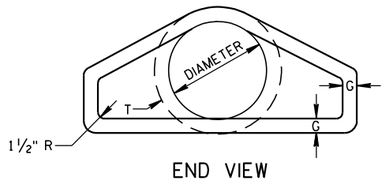


SIDE ELEVATION

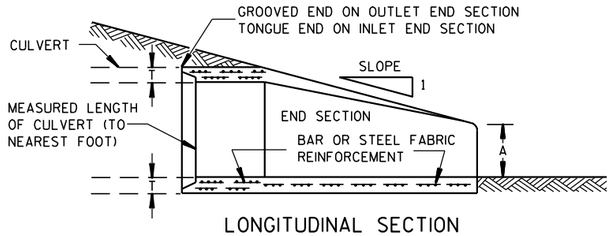
METAL ENDWALLS



PLAN

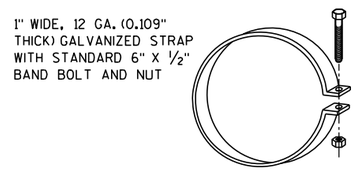


END VIEW



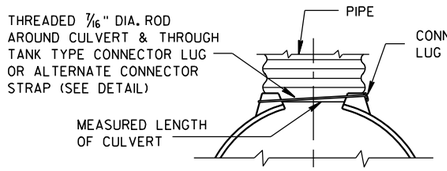
LONGITUDINAL SECTION

CONCRETE ENDWALLS

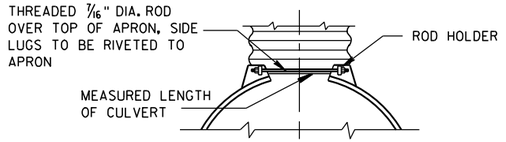


ALTERNATE FOR TYPE 1 CONNECTION

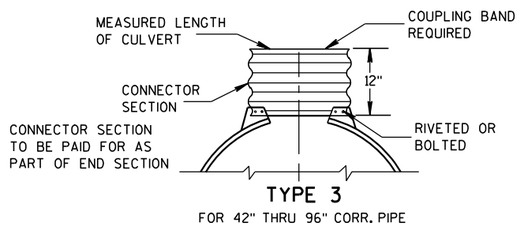
END SECTION CONNECTOR STRAP



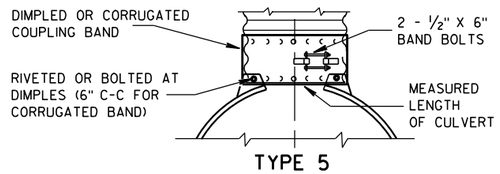
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

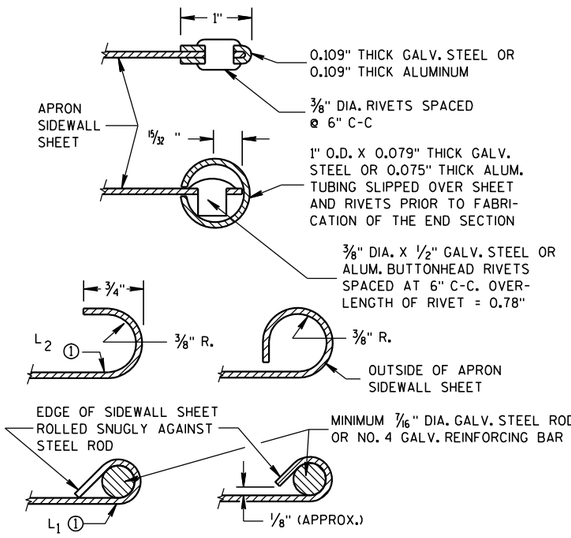
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

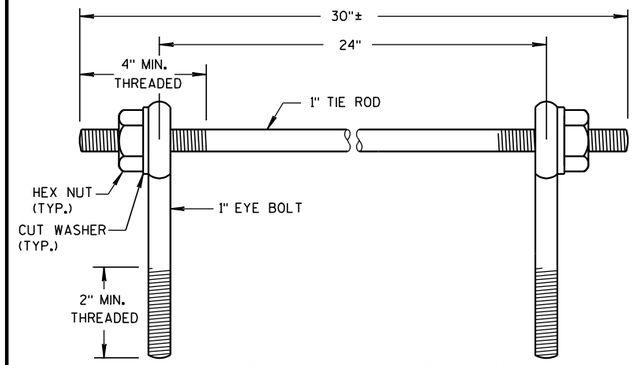
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

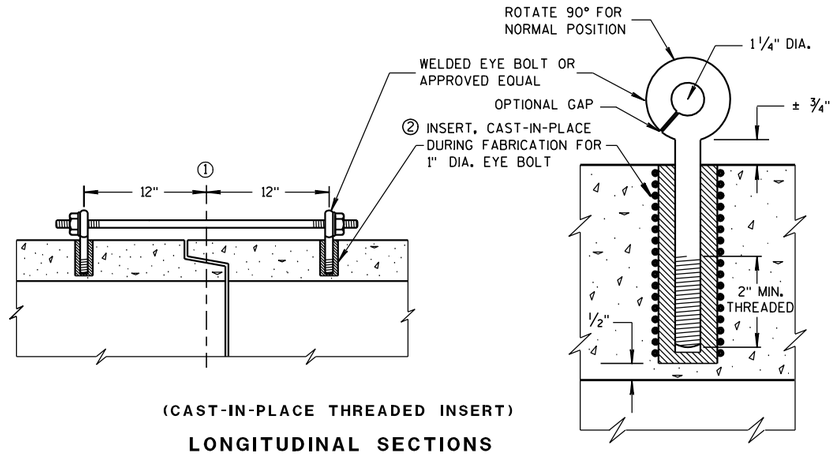
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

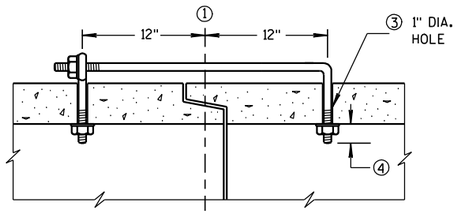
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

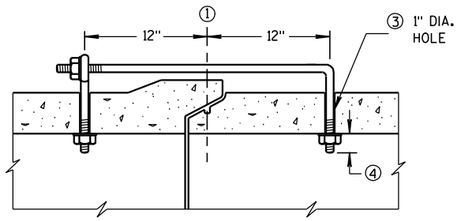
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

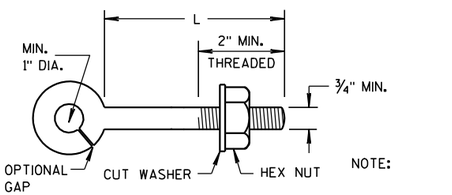


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

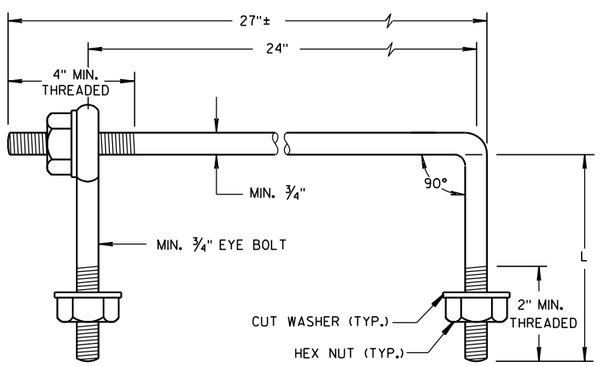
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

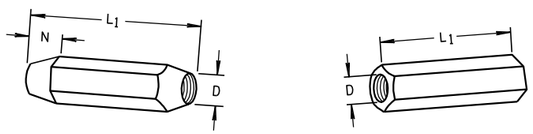
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

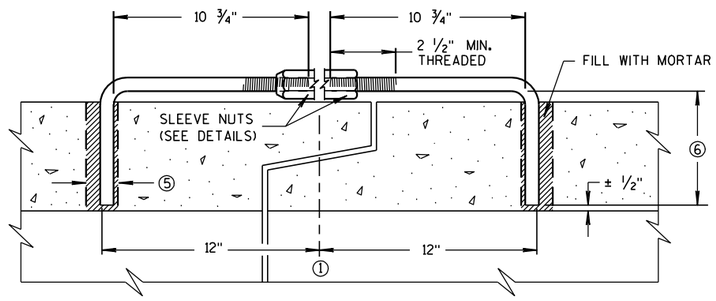
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

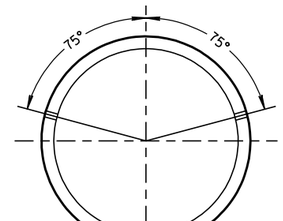
SLEEVE NUTS



LONGITUDINAL SECTION

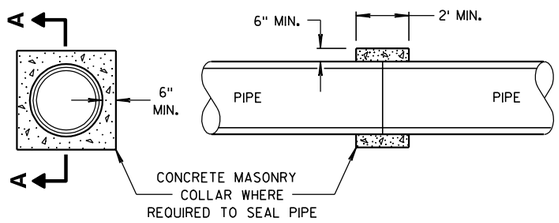
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

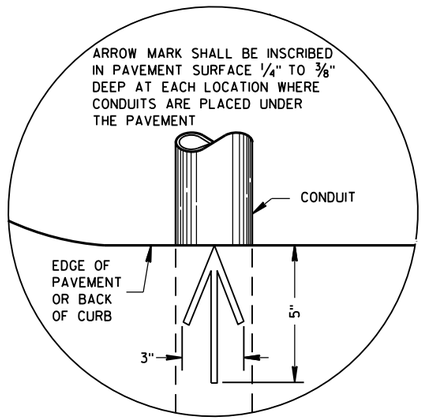
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
313
FHWA

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S.D.D. 8 F 4-7

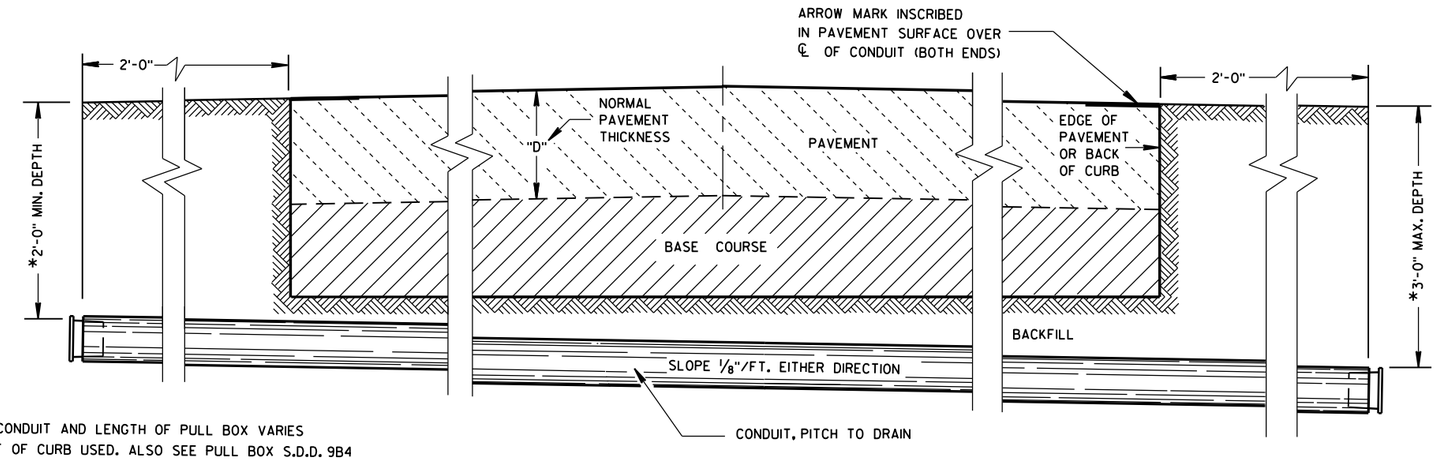
6

S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION 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 NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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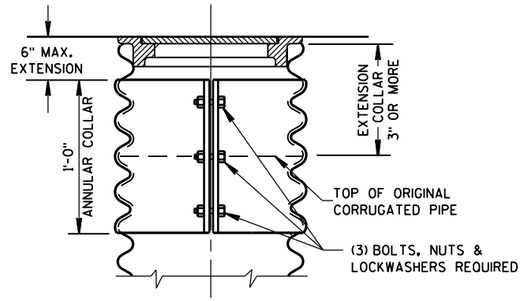
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

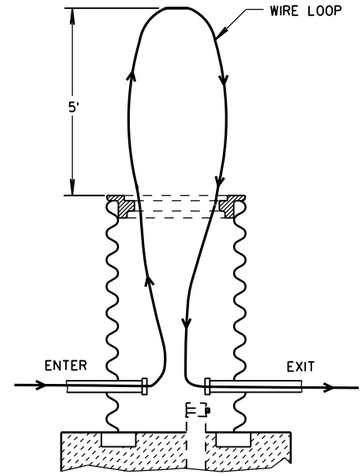
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

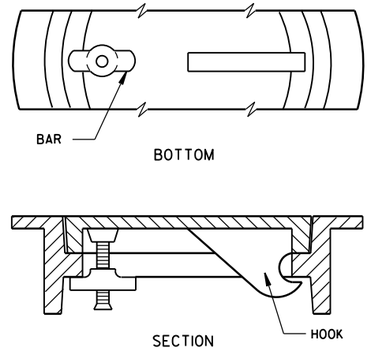
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

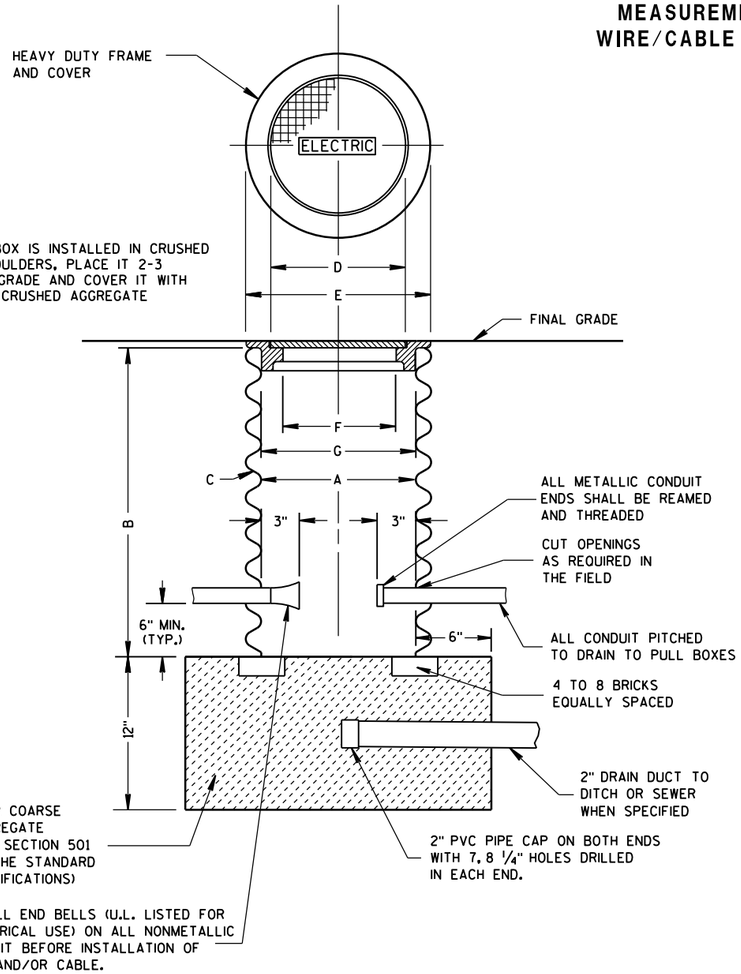


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



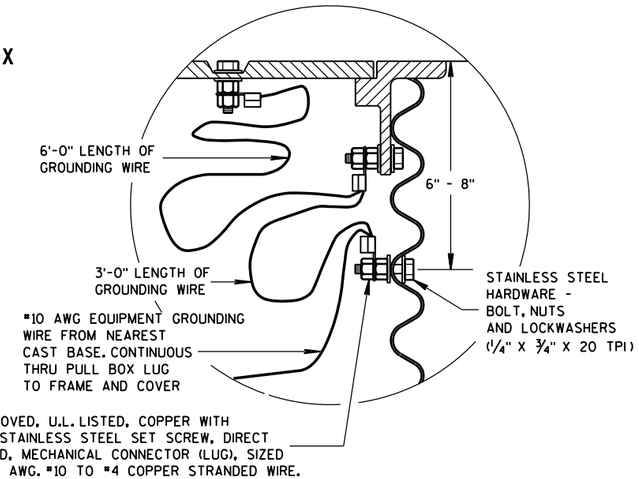
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

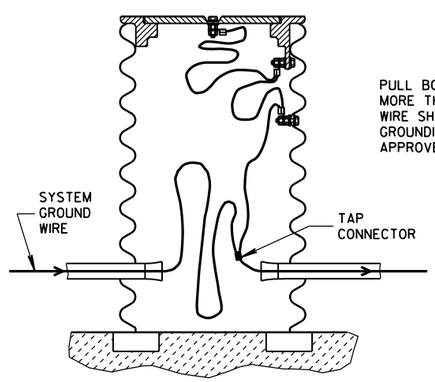


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

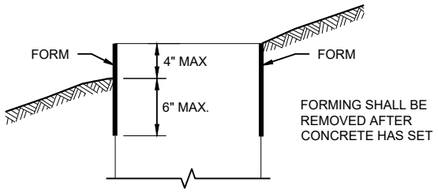
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
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S.D.D. 9 B 4-11

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

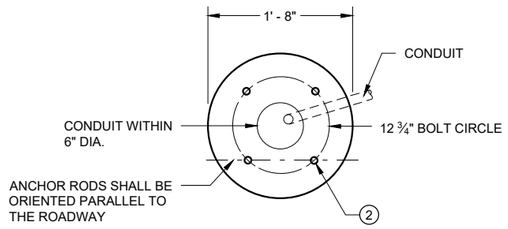
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

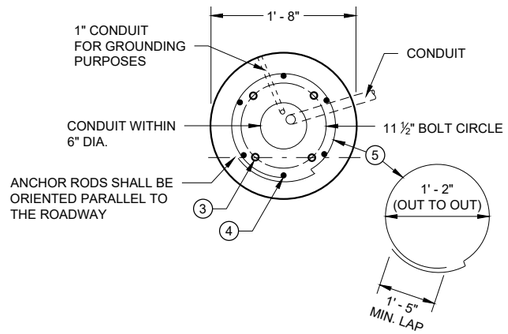
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

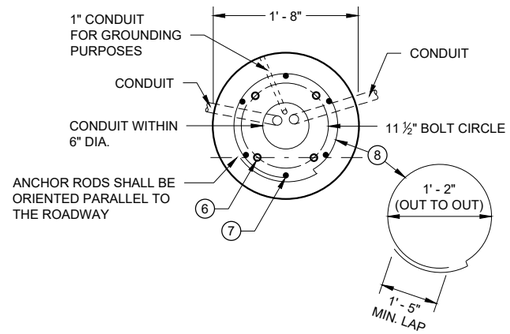
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

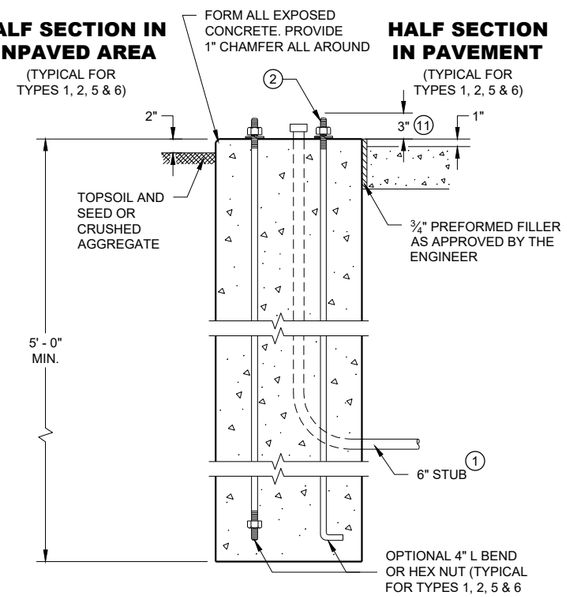
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

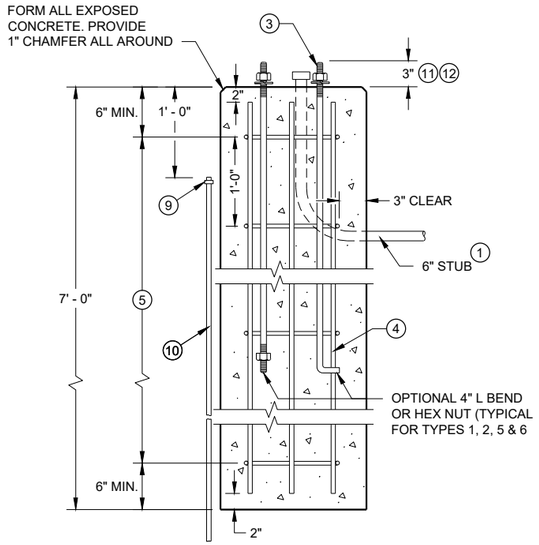
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

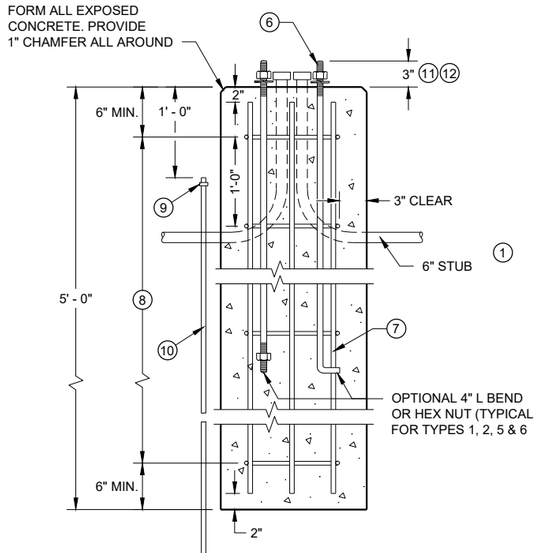
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 316

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

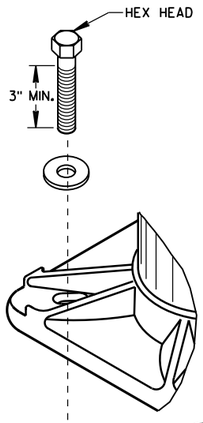
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

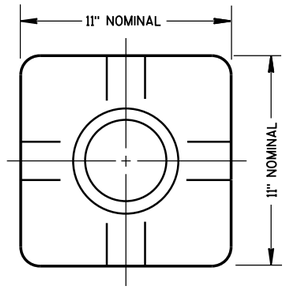
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

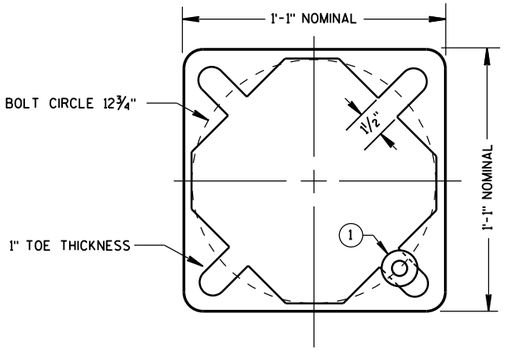
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

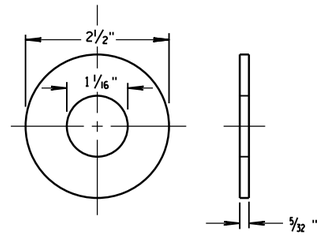




TOP VIEW
(PEDESTAL BASE)

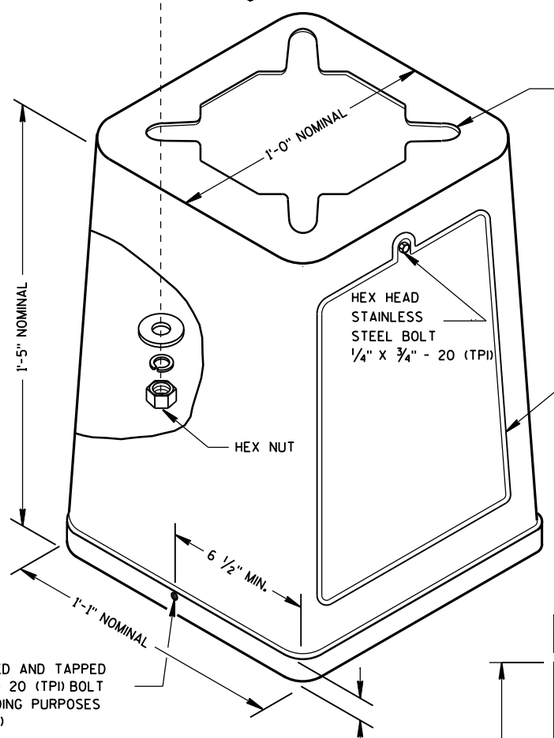


BOTTOM VIEW
(PEDESTAL BASE)

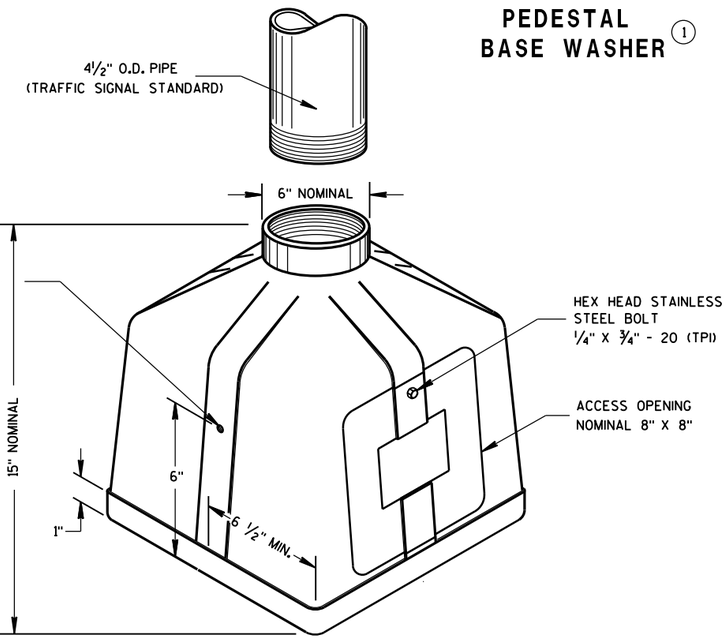


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

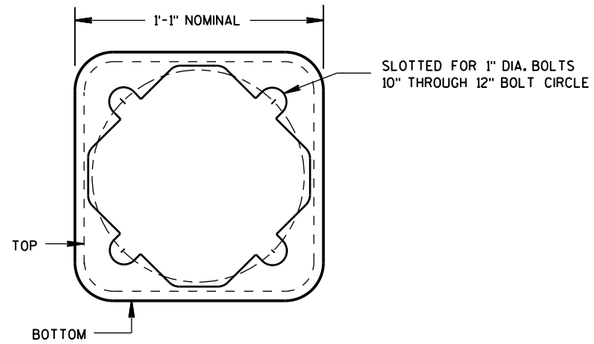


ISOMETRIC VIEW

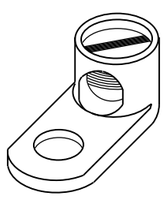


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

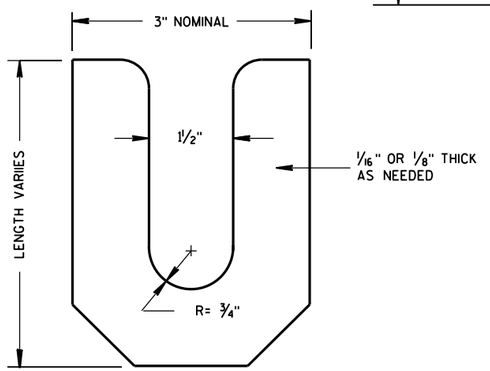


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

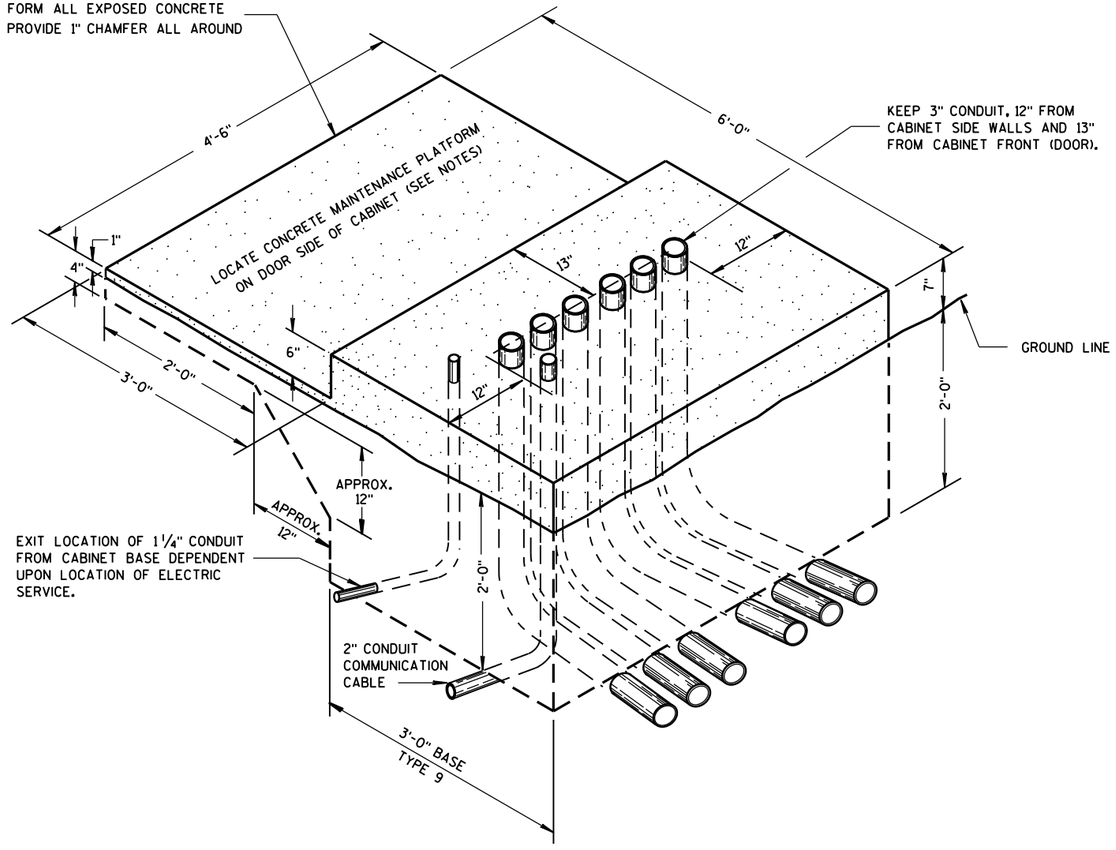
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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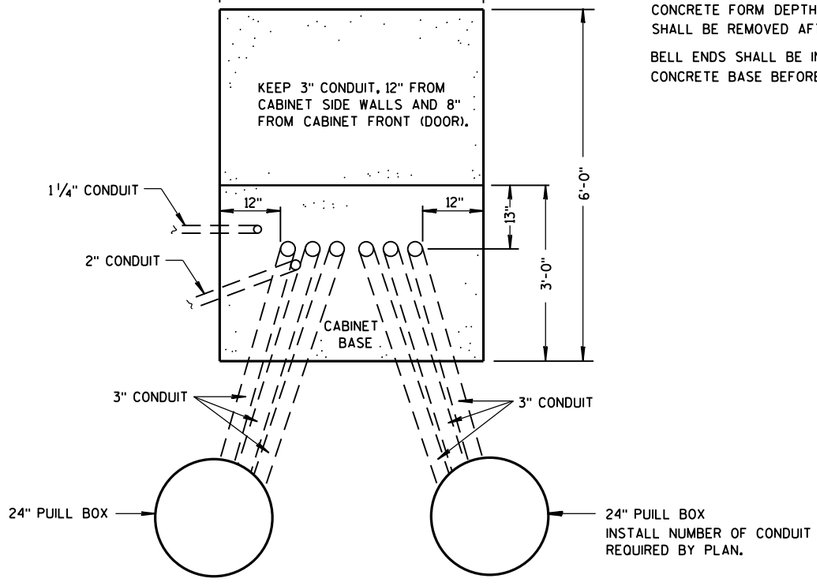
S.D.D. 9 C 3-4



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 318
FHWA

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

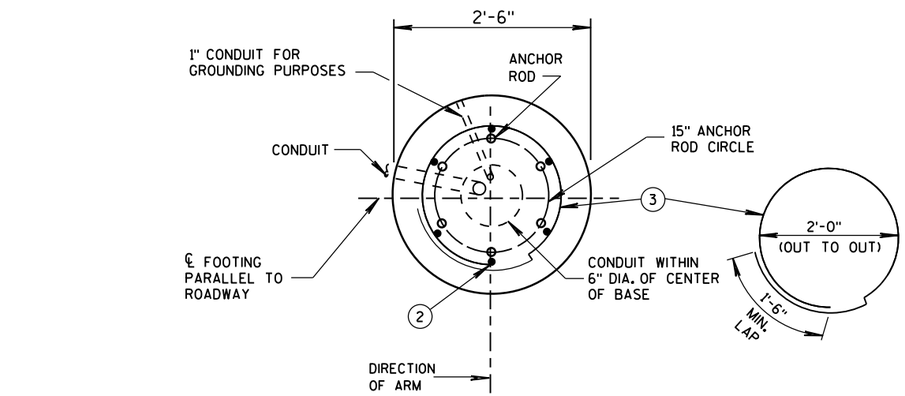
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

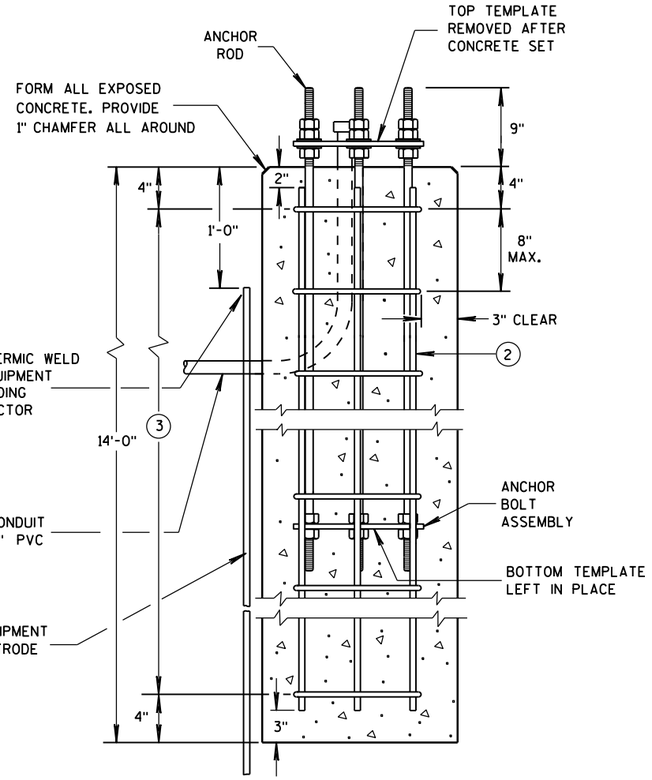
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

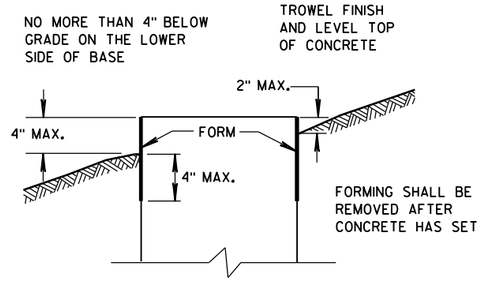




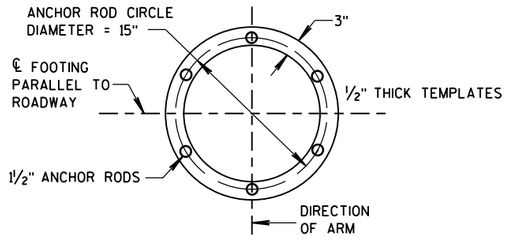
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

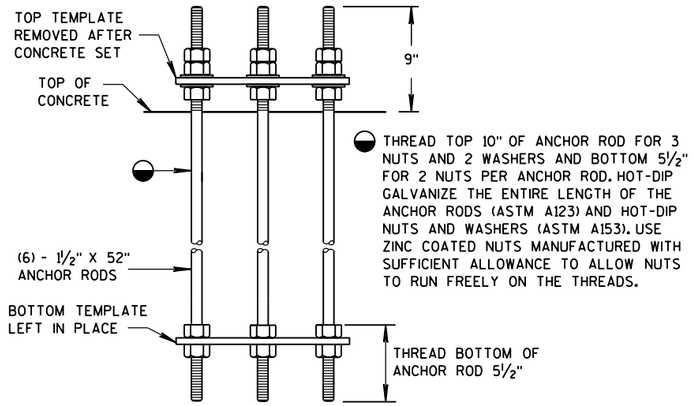
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

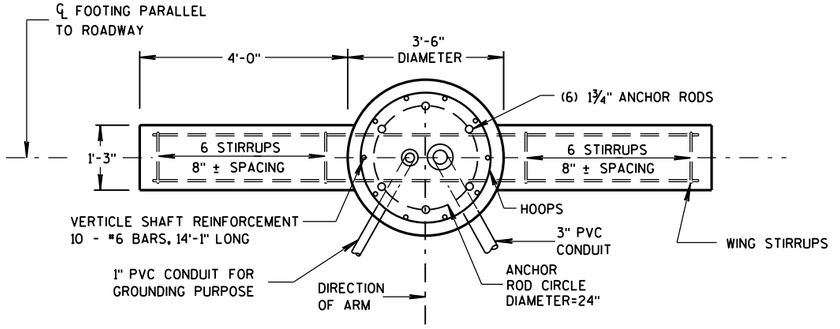
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

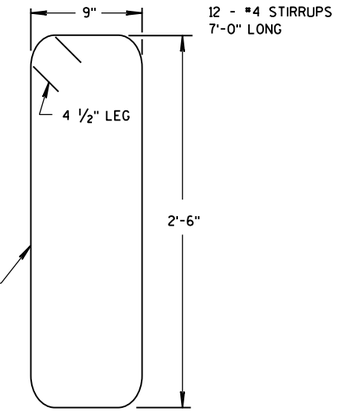
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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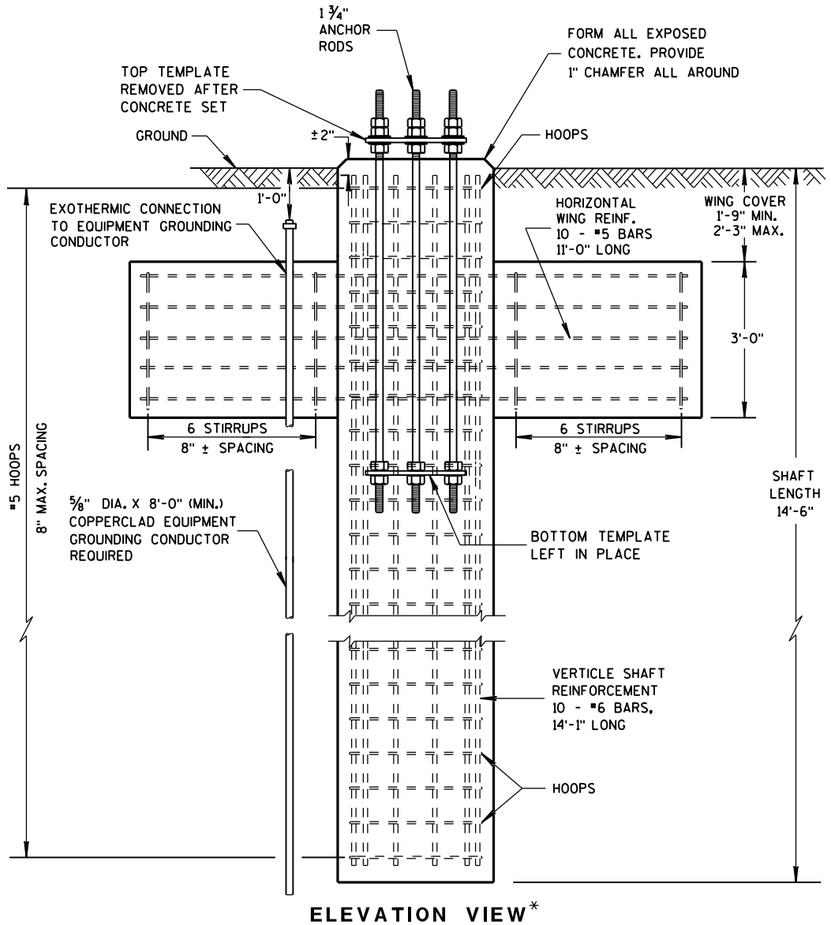
S.D.D. 9 C 11-10



PLAN VIEW

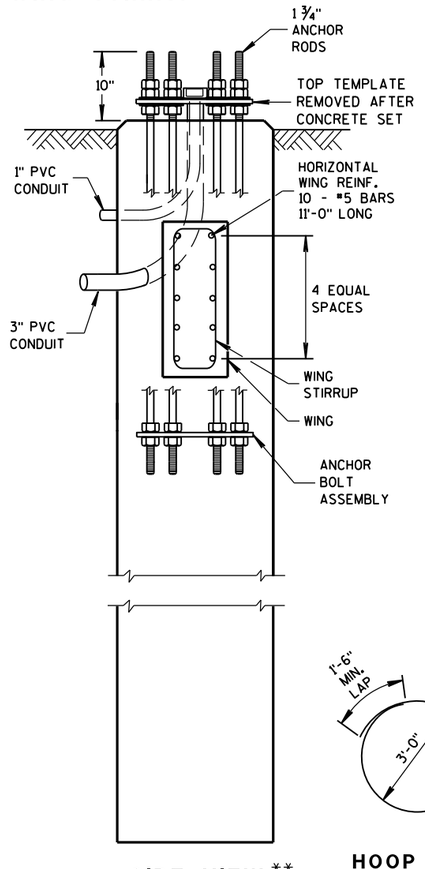


WING STIRRUP



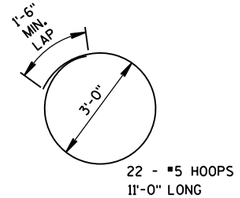
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING 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 ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

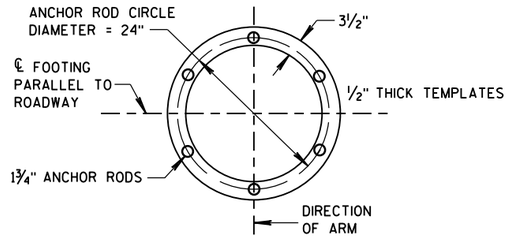
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

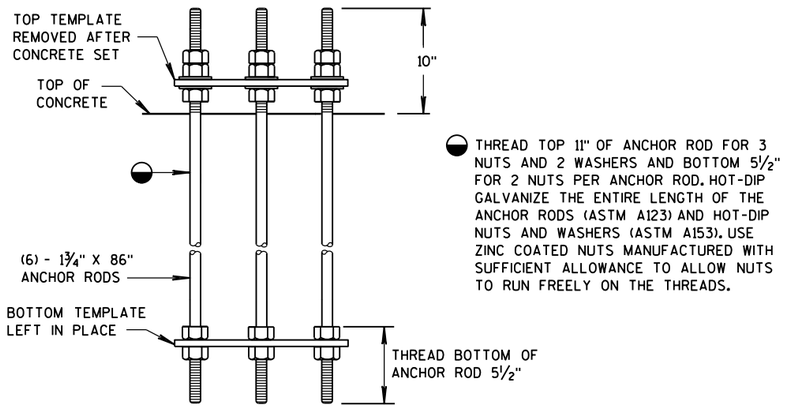
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-9a

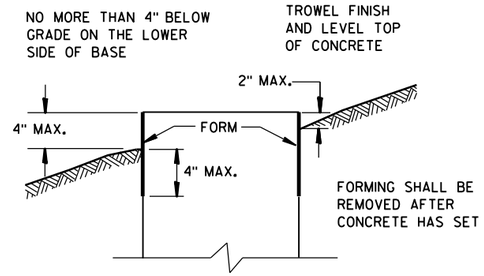


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

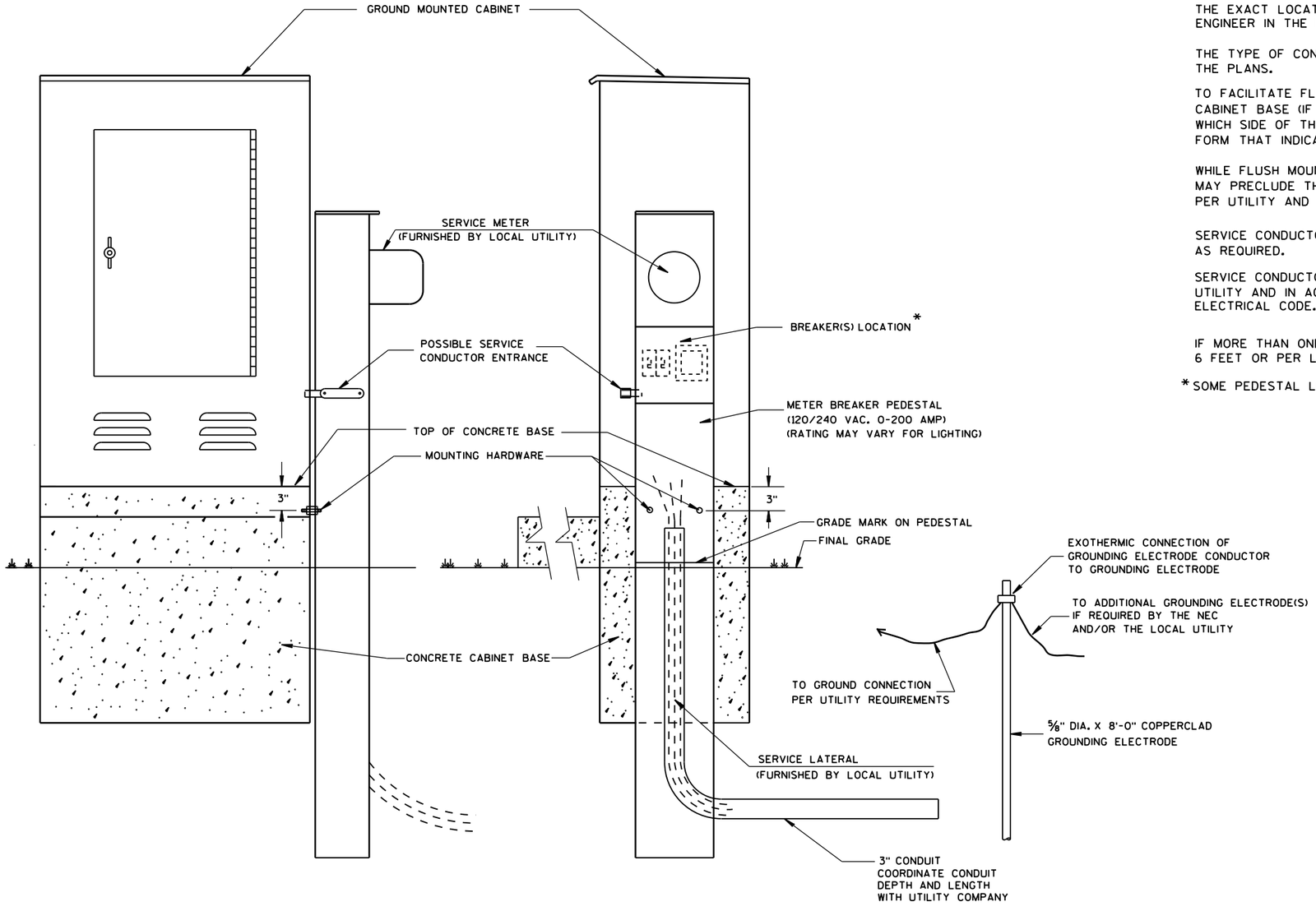
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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S.D.D. 9 C 12-9b

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S.D.D. 9 C 12-9b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

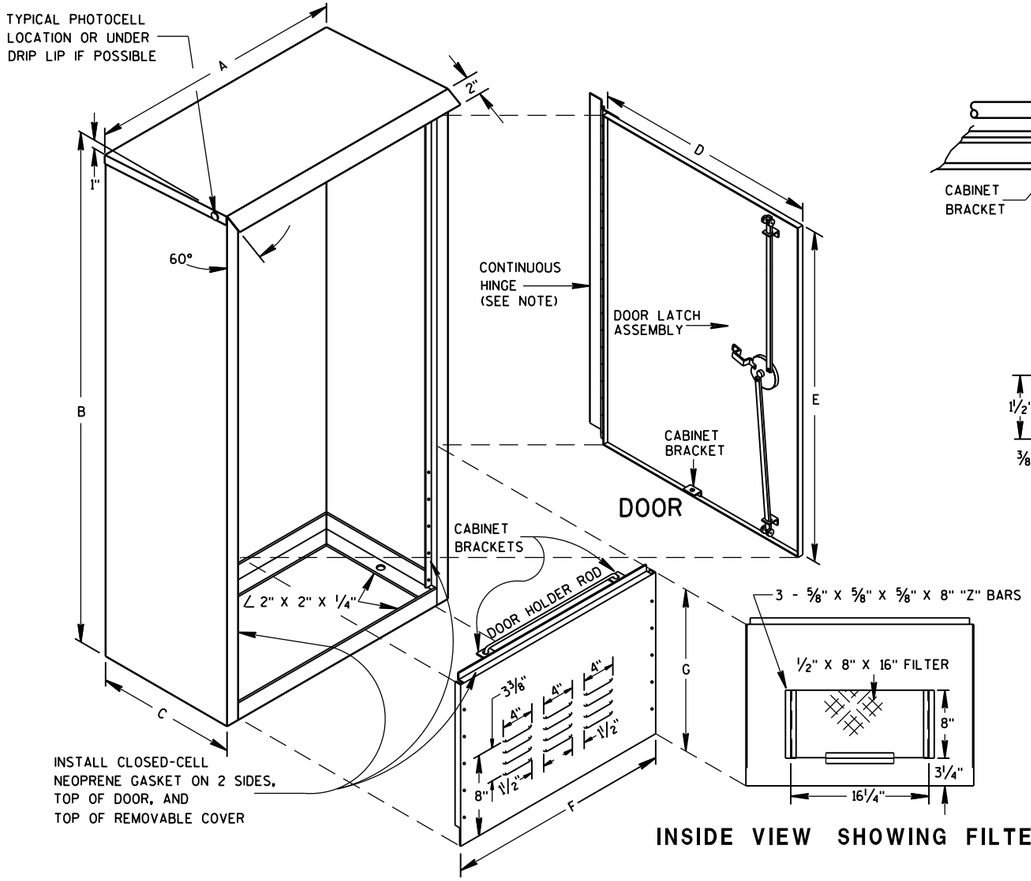
* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

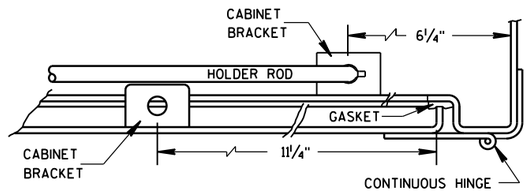
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 D 1-5

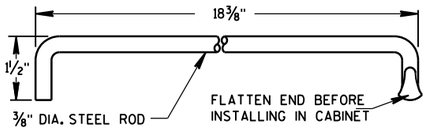


REMOVABLE COVER

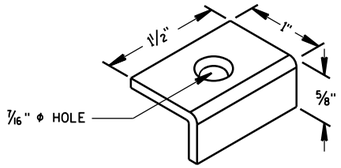
INSIDE VIEW SHOWING FILTER



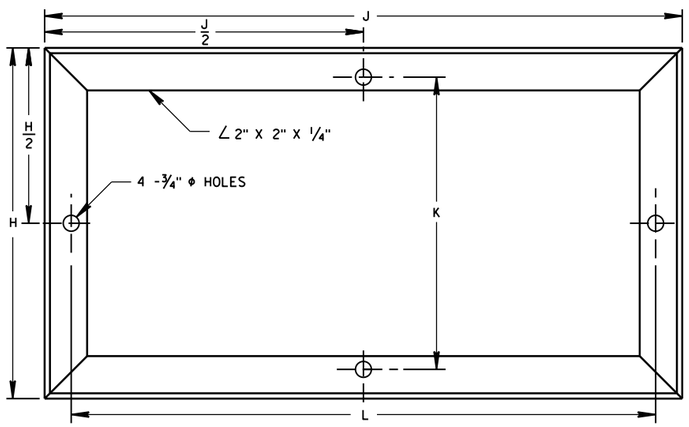
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

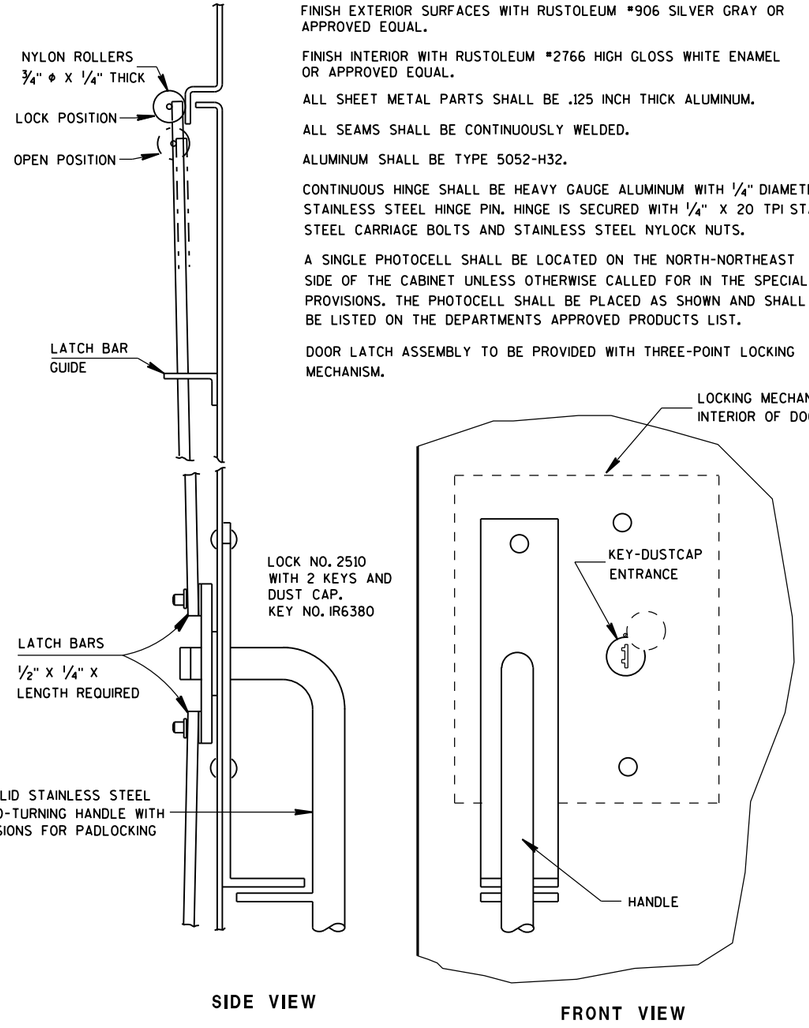
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

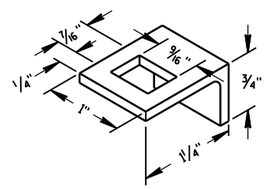
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 323

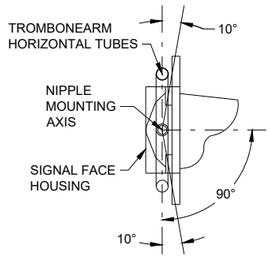
FHWA

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S.D.D. 9 D 2-3

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S.D.D. 9 D 2-3

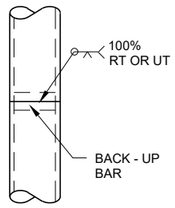


SECTION A-A

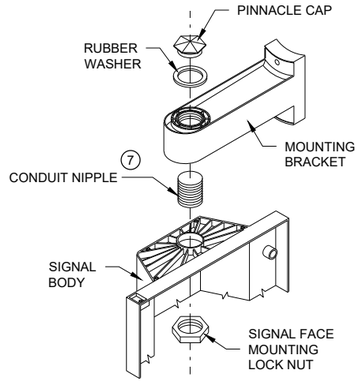
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

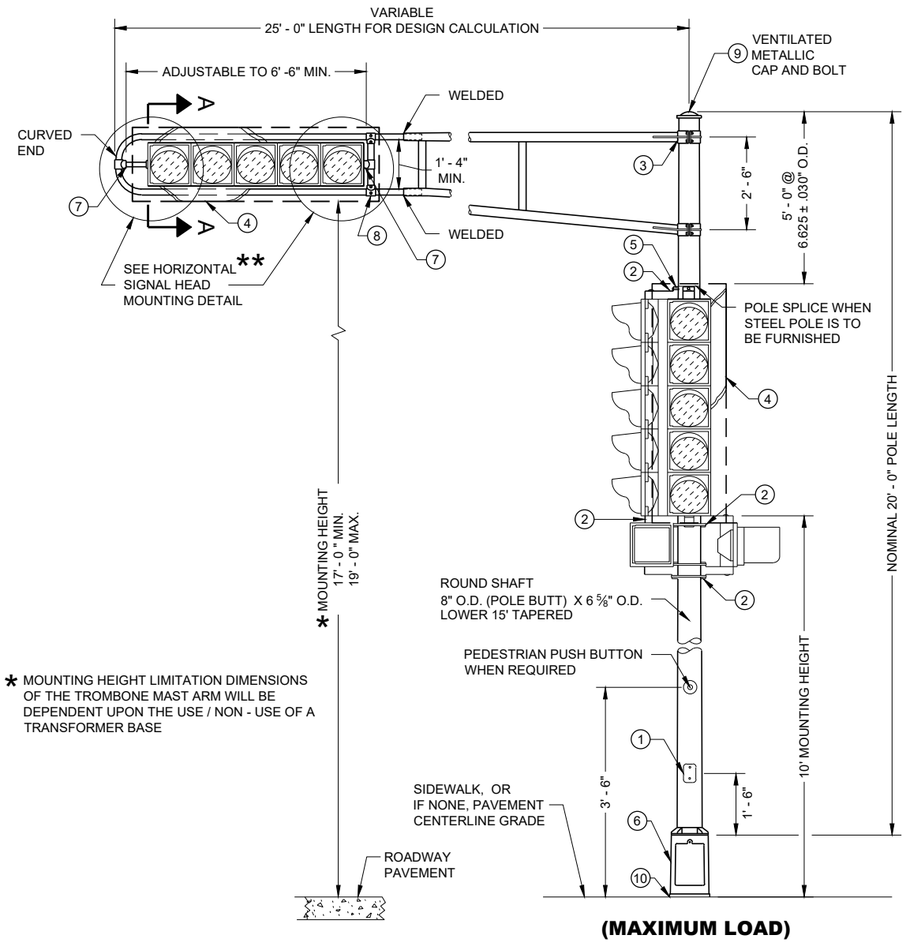
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

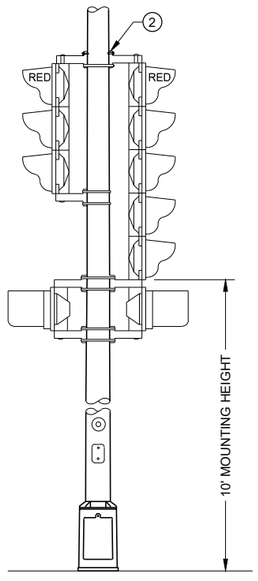
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

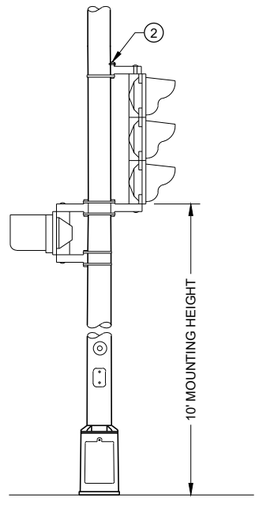


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

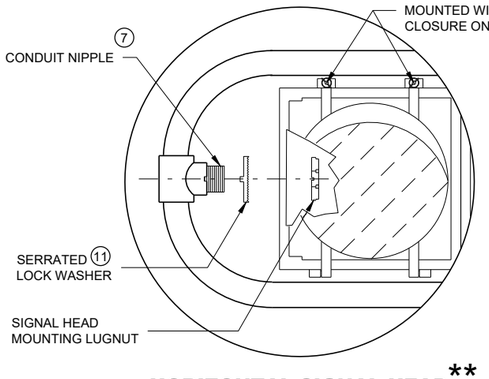
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

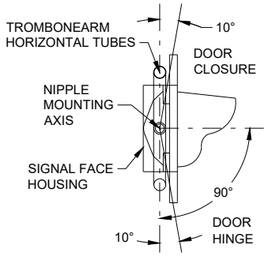
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

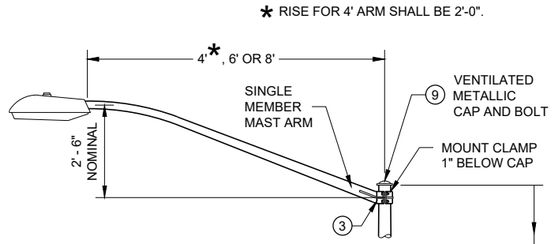
POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

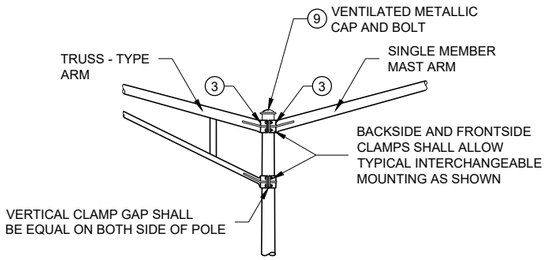
STATE OF WISCONSIN
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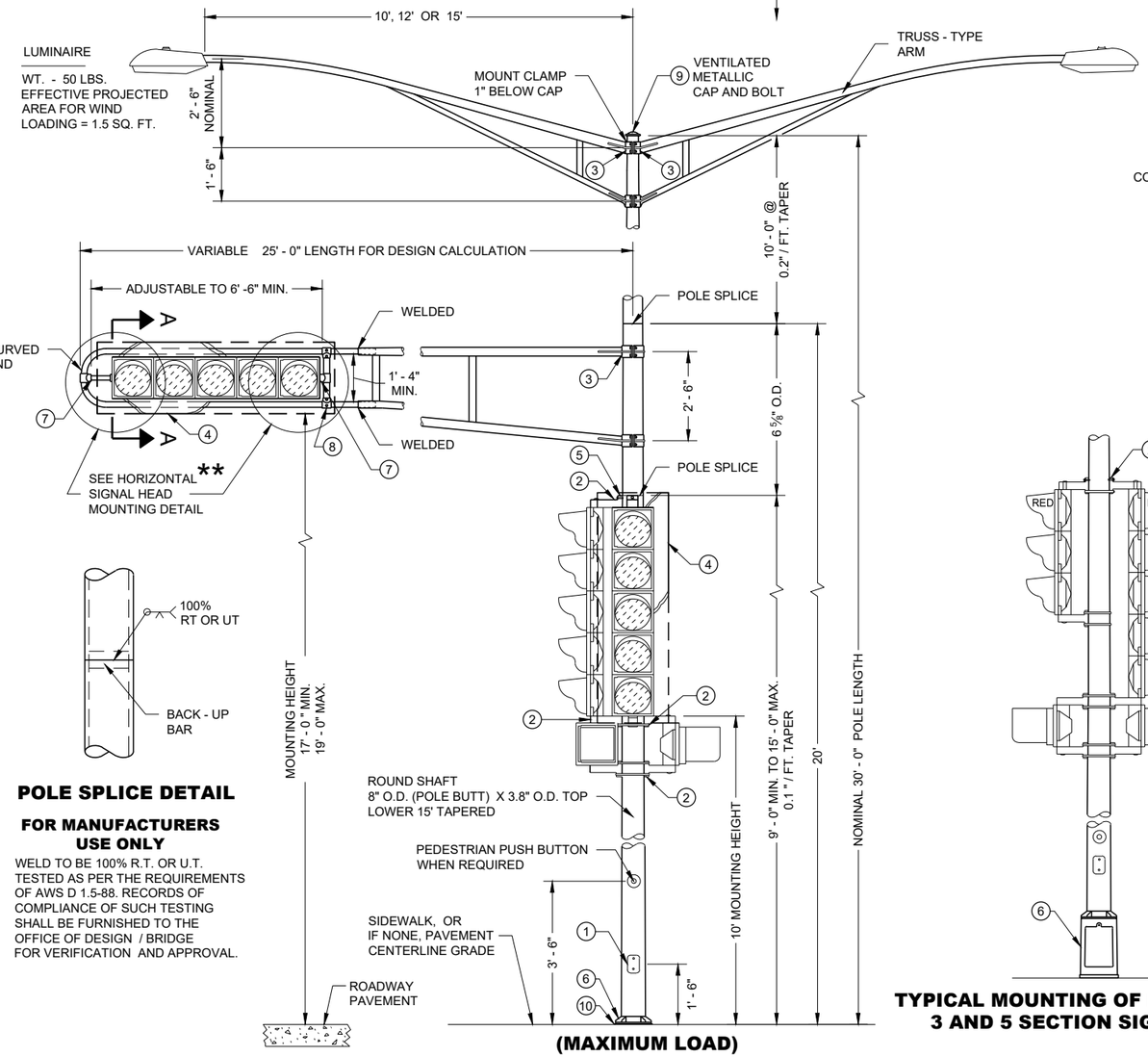


SECTION A-A

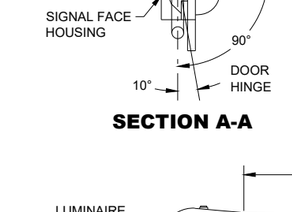




INTERCHANGEABLE MOUNTING DETAIL



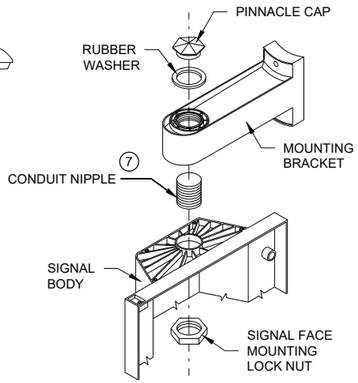
(MAXIMUM LOAD)



POLE SPLICE DETAIL

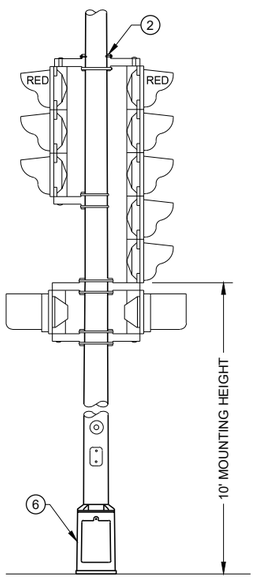
FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

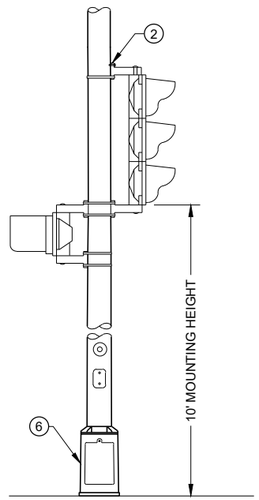


SIGNAL FACE MOUNTING DETAIL

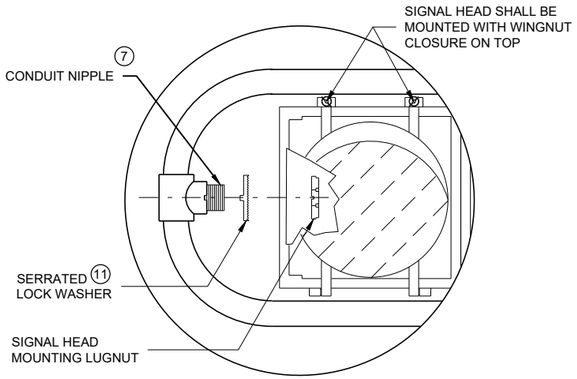
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

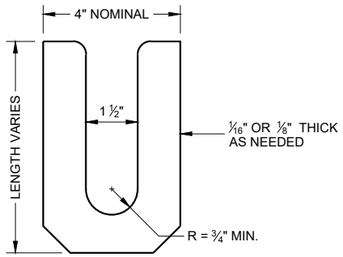
(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

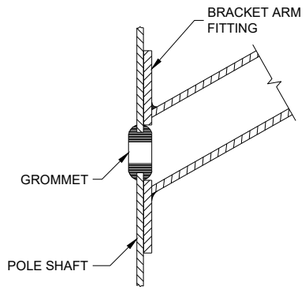
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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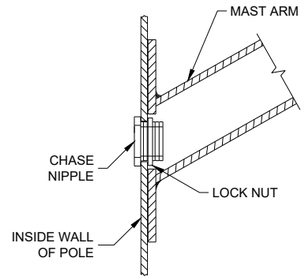
SDD 09E01 - 15b



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

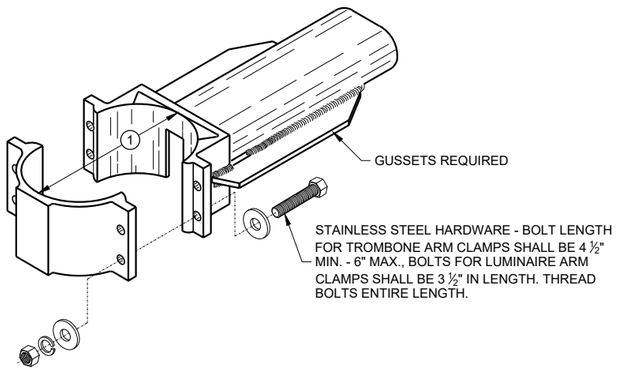
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

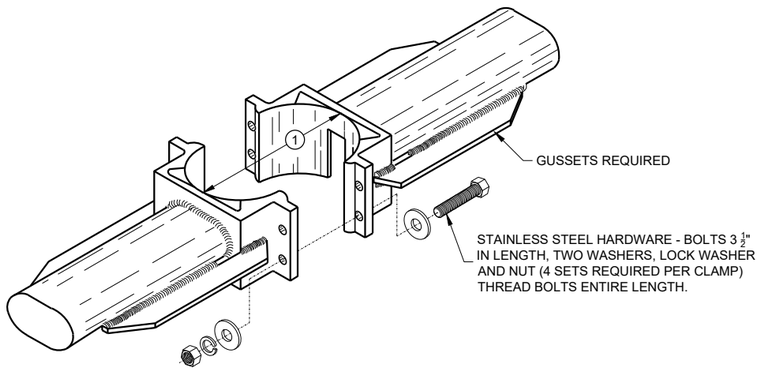
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

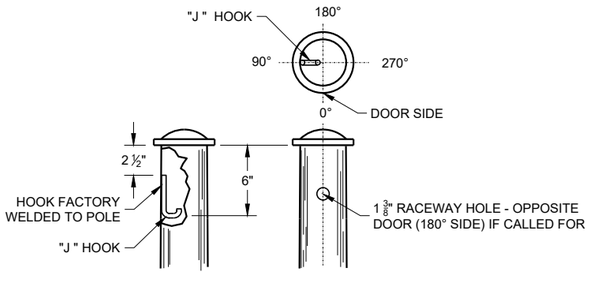
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



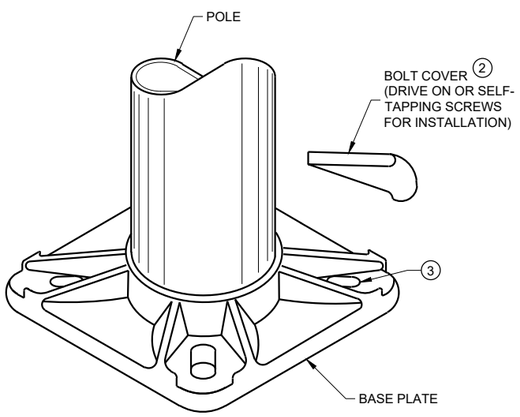
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



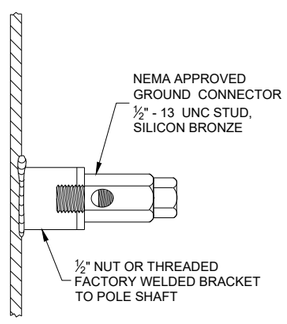
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

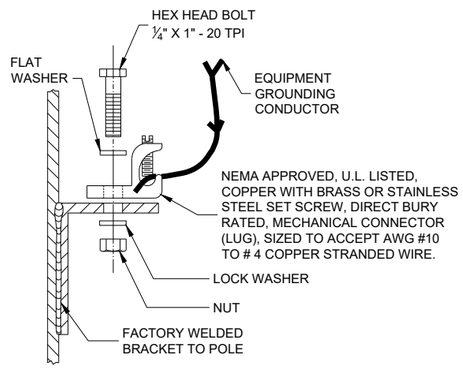


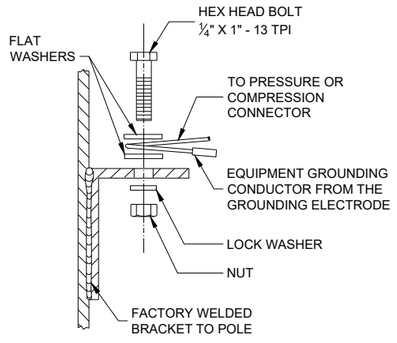
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 326

FHWA

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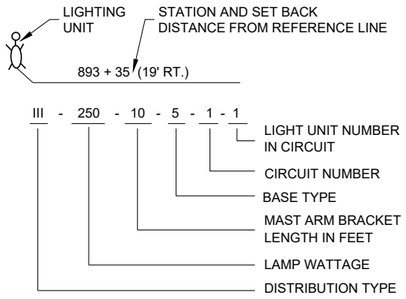
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GENERAL NOTES

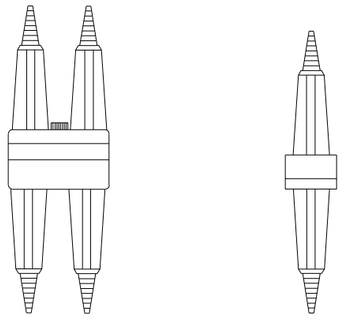
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

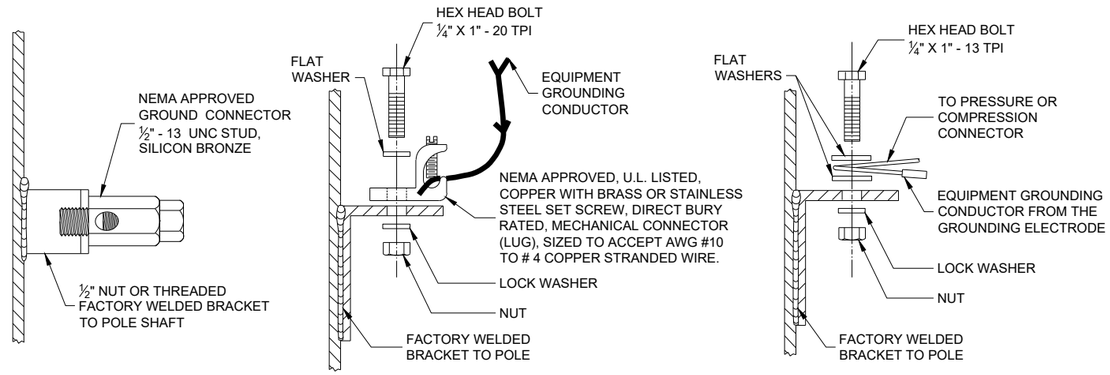


LIGHTING UNIT CODE
(TYPICAL)

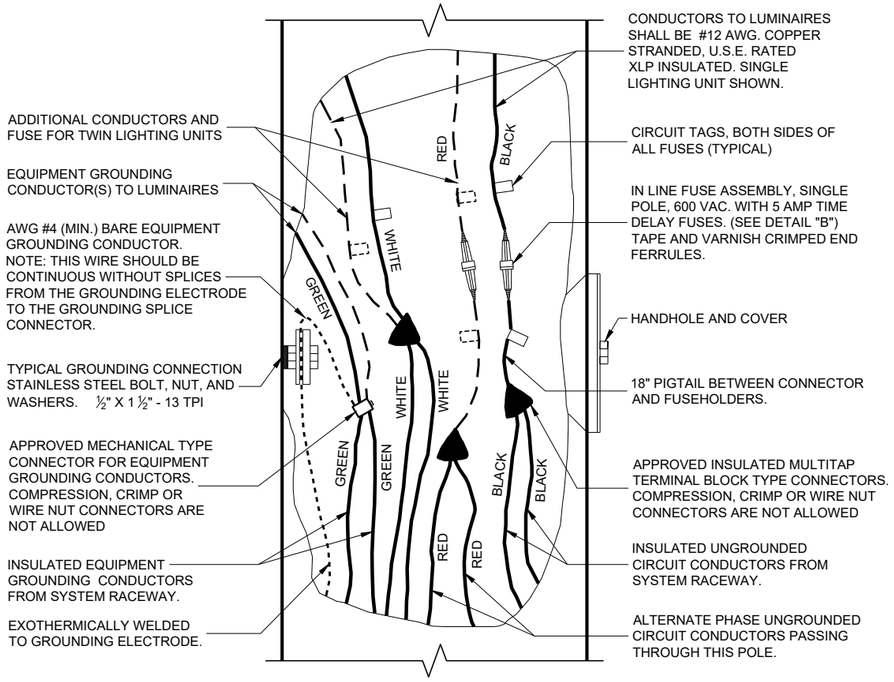


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

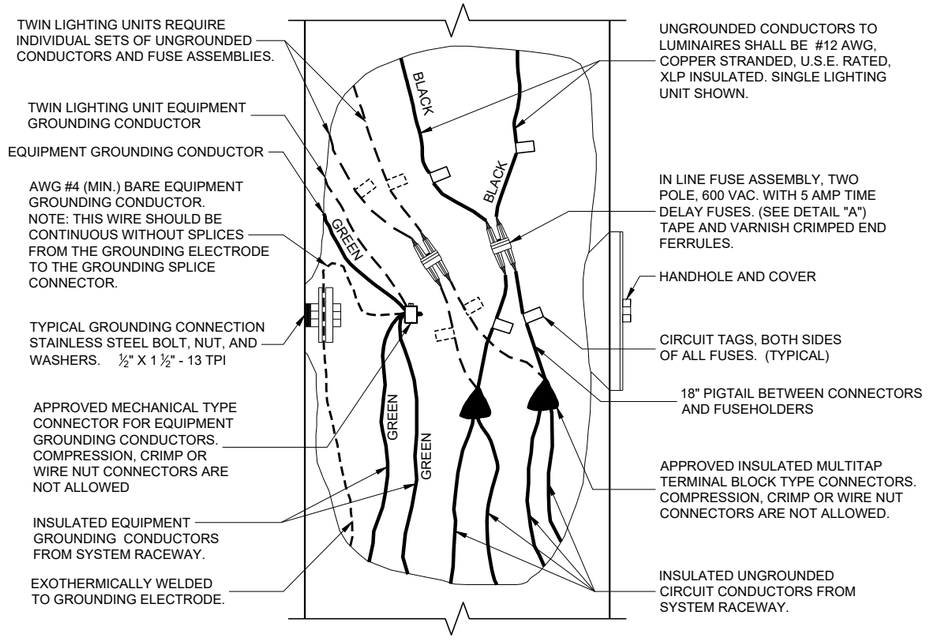
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 327

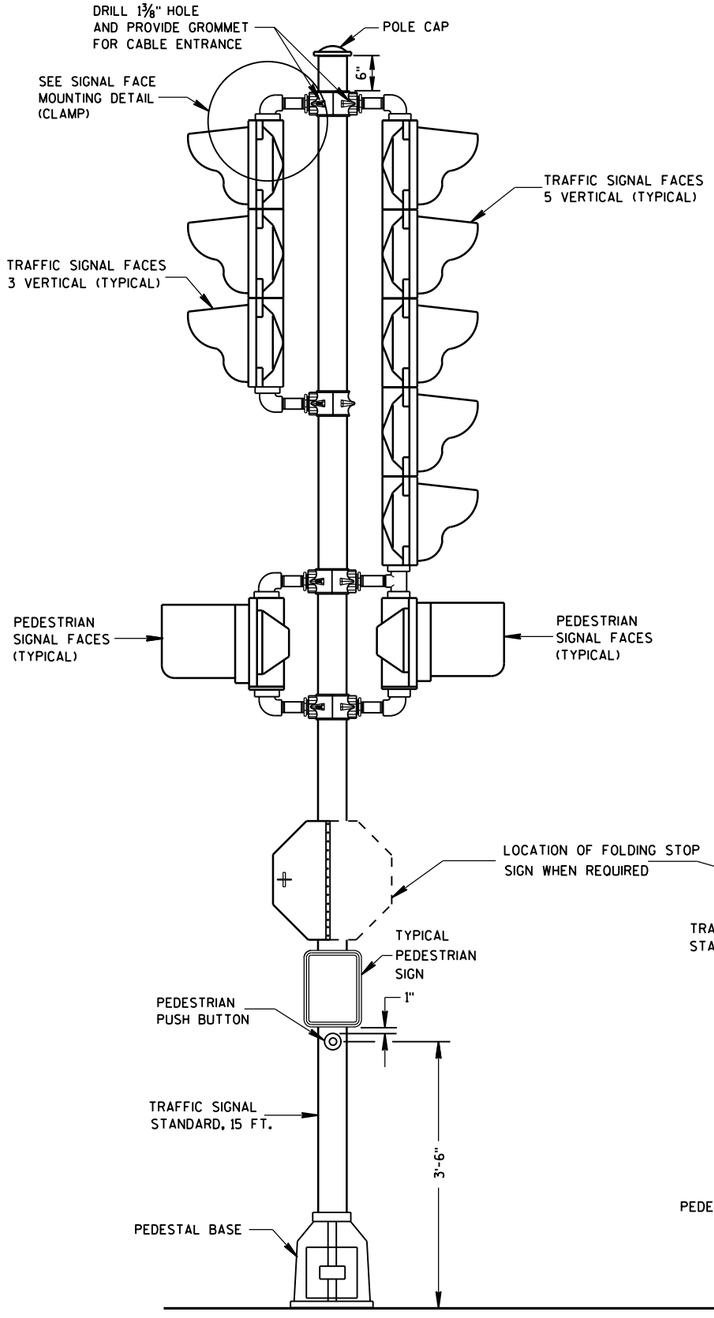
FHWA

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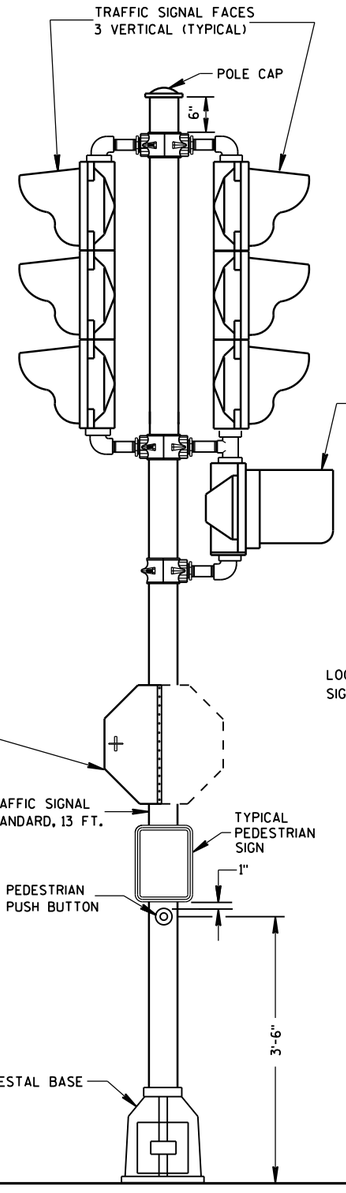
SDD 09E03 - 06

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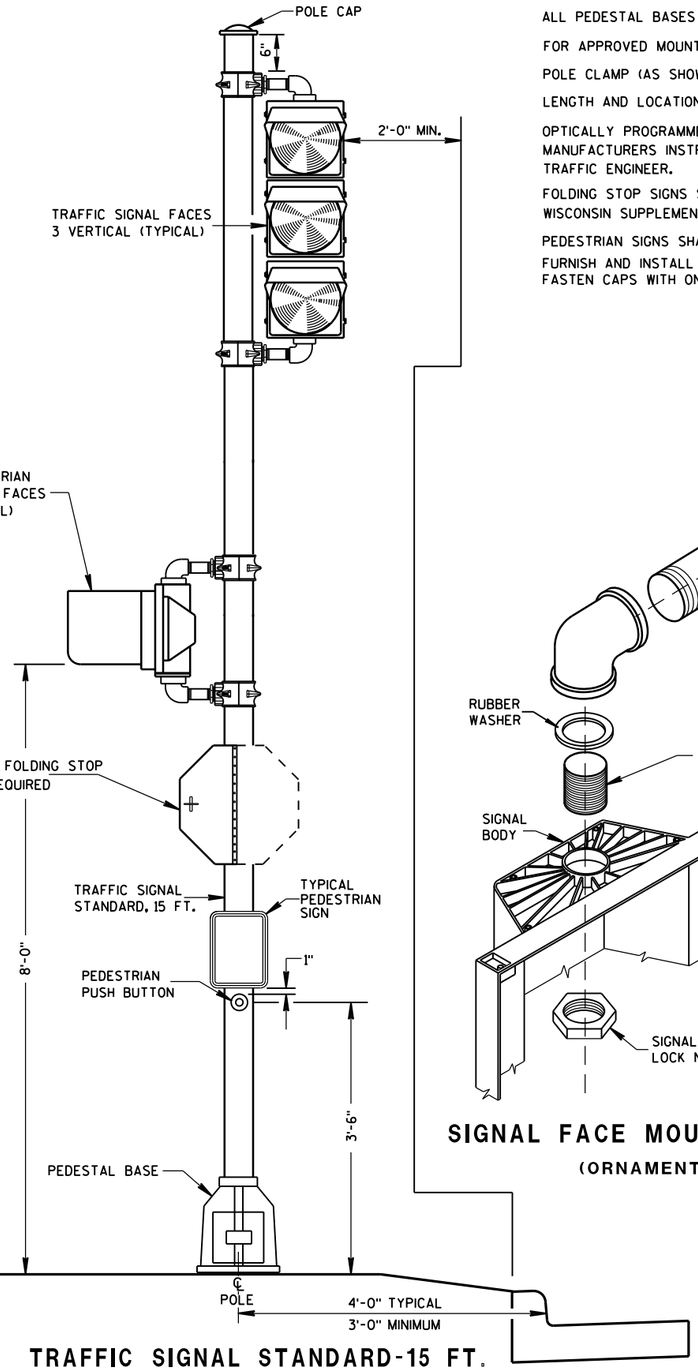
SDD 09E03 - 06



TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

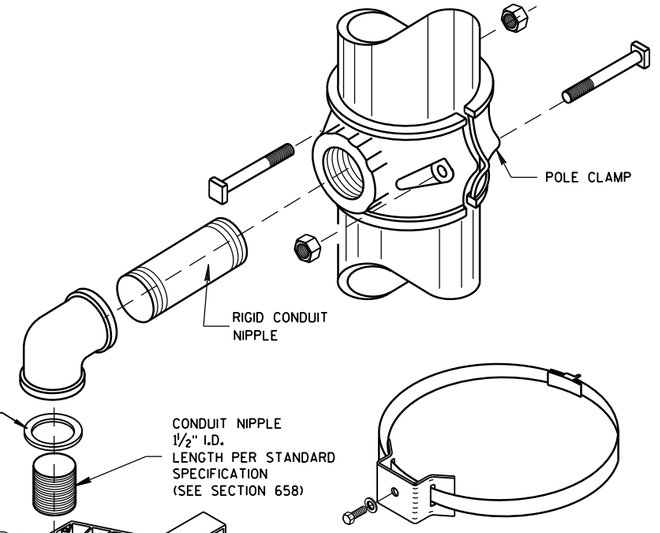
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

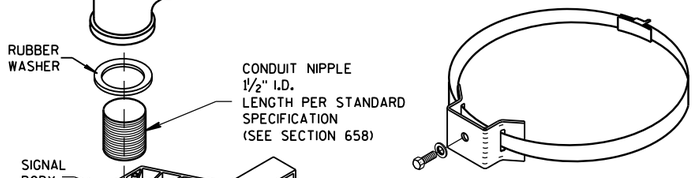
OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

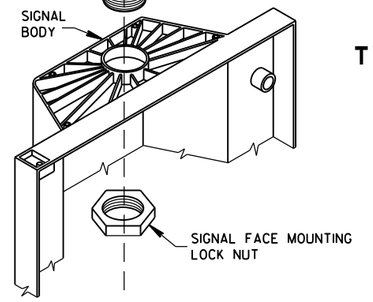
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.





TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



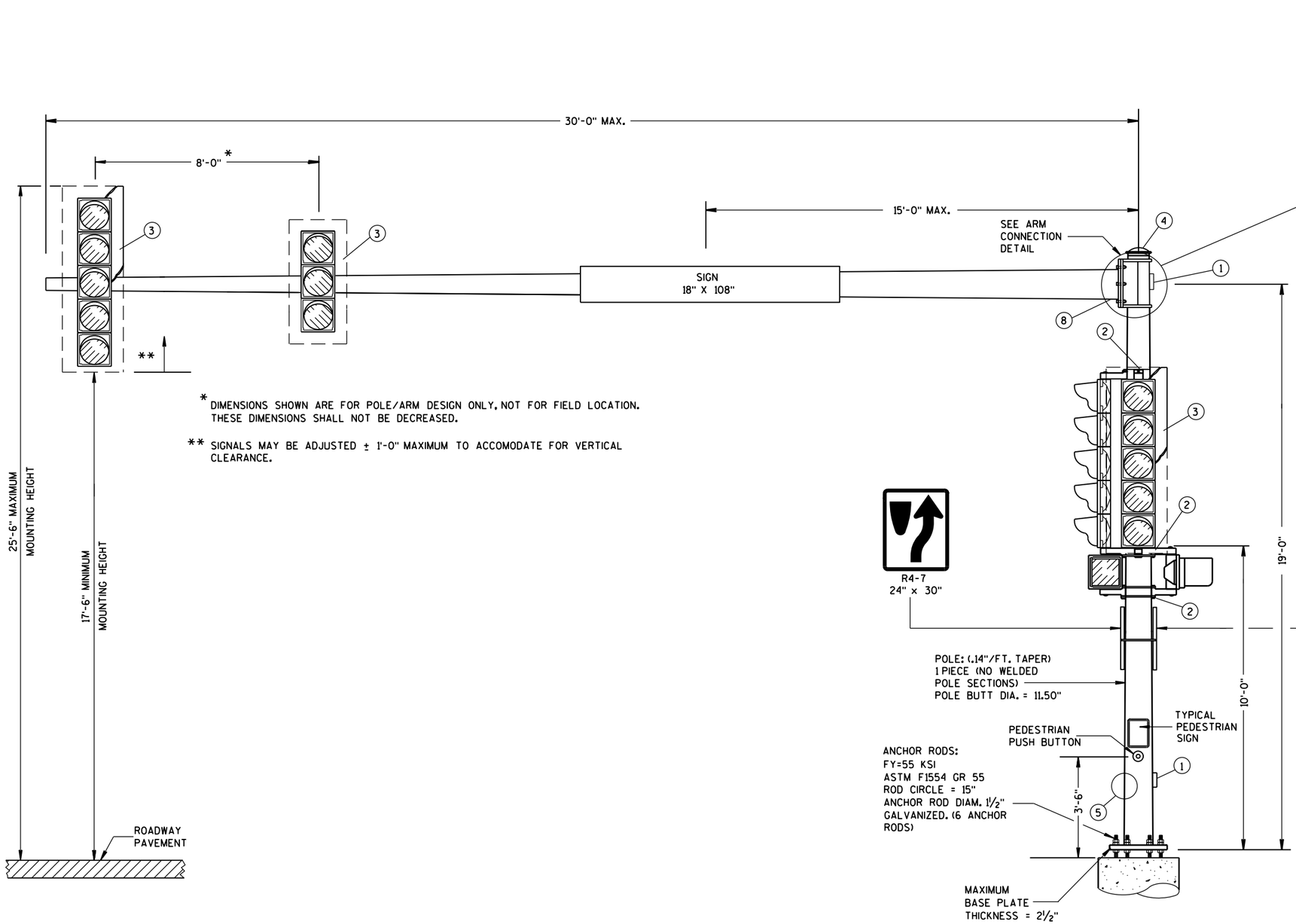
SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

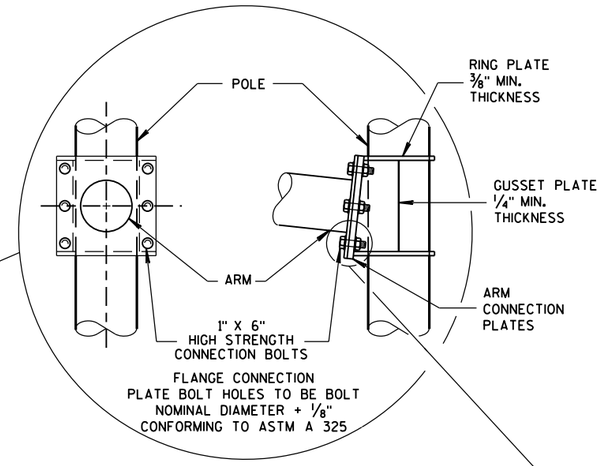
APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 328
FHWA

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S.D.D. 9 E 5-6

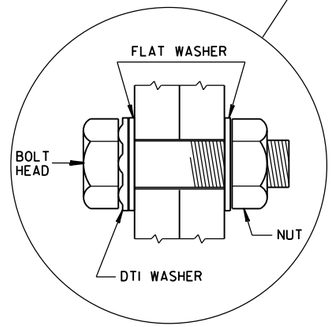


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

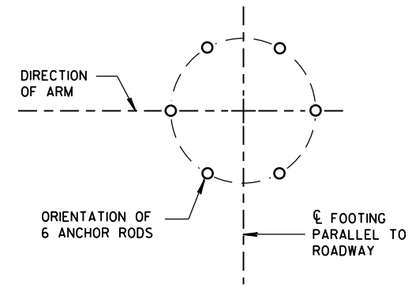
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

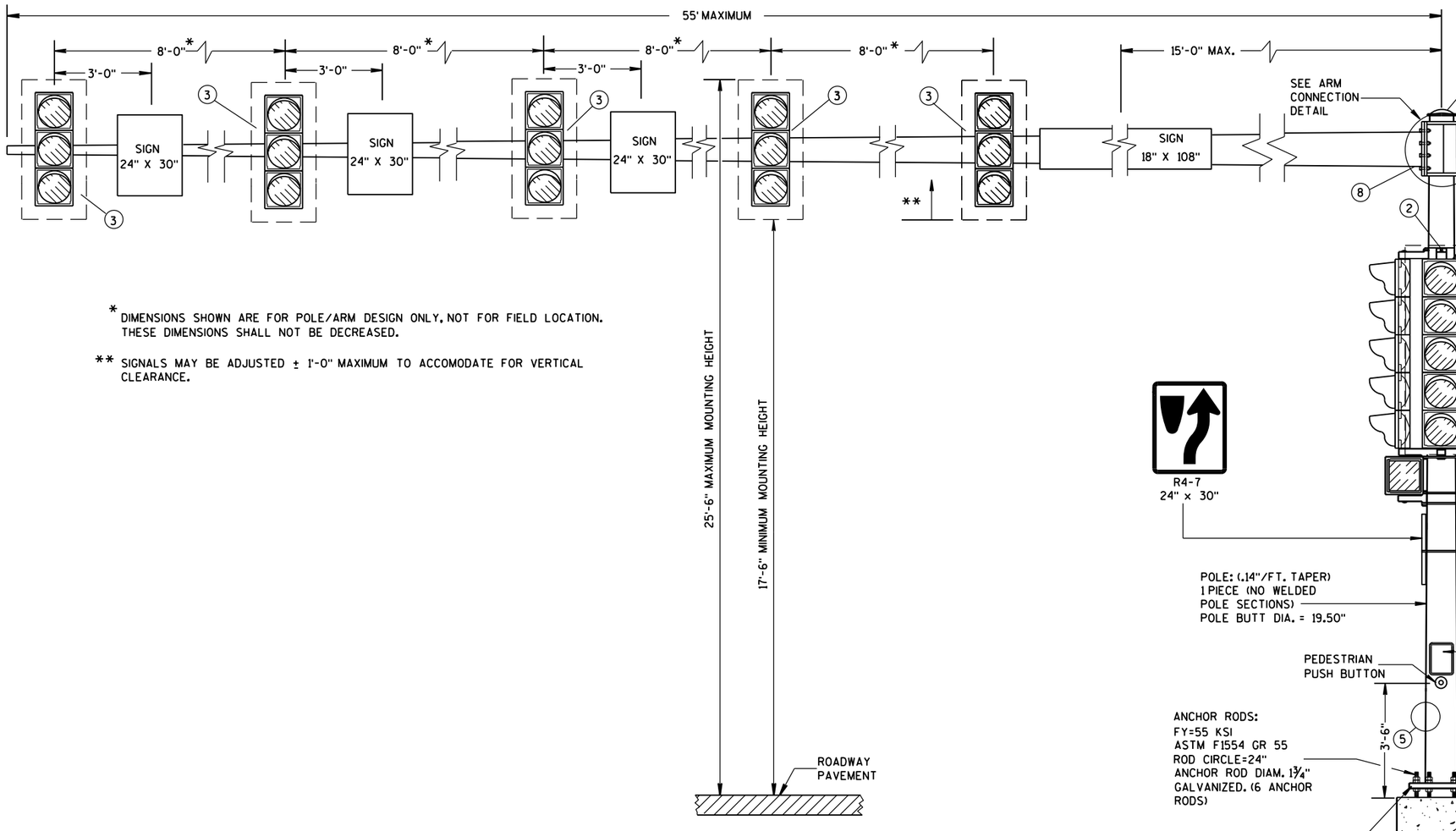
TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

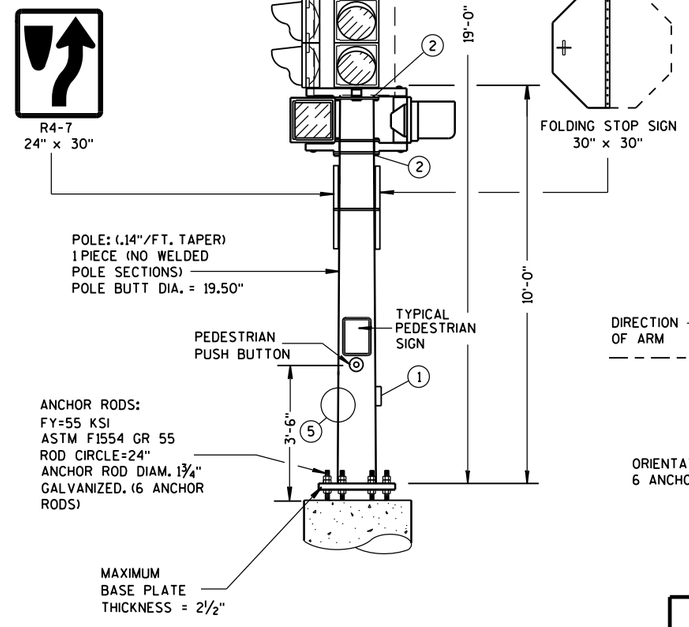
APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

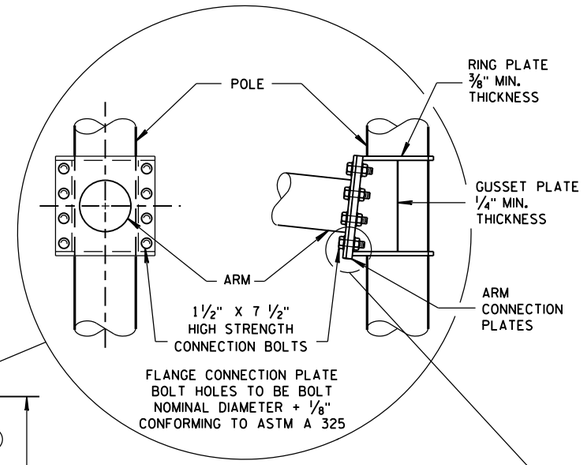
S.D.D. 9 E 8-8a



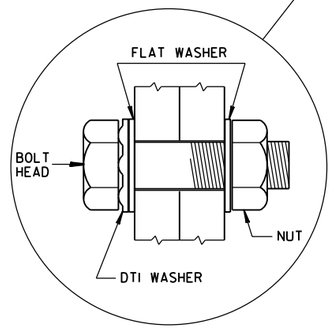
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

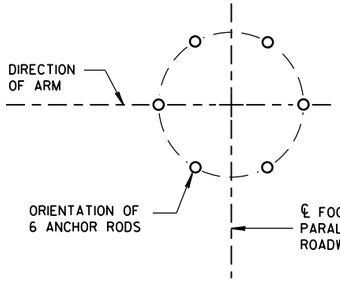




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May, 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 330

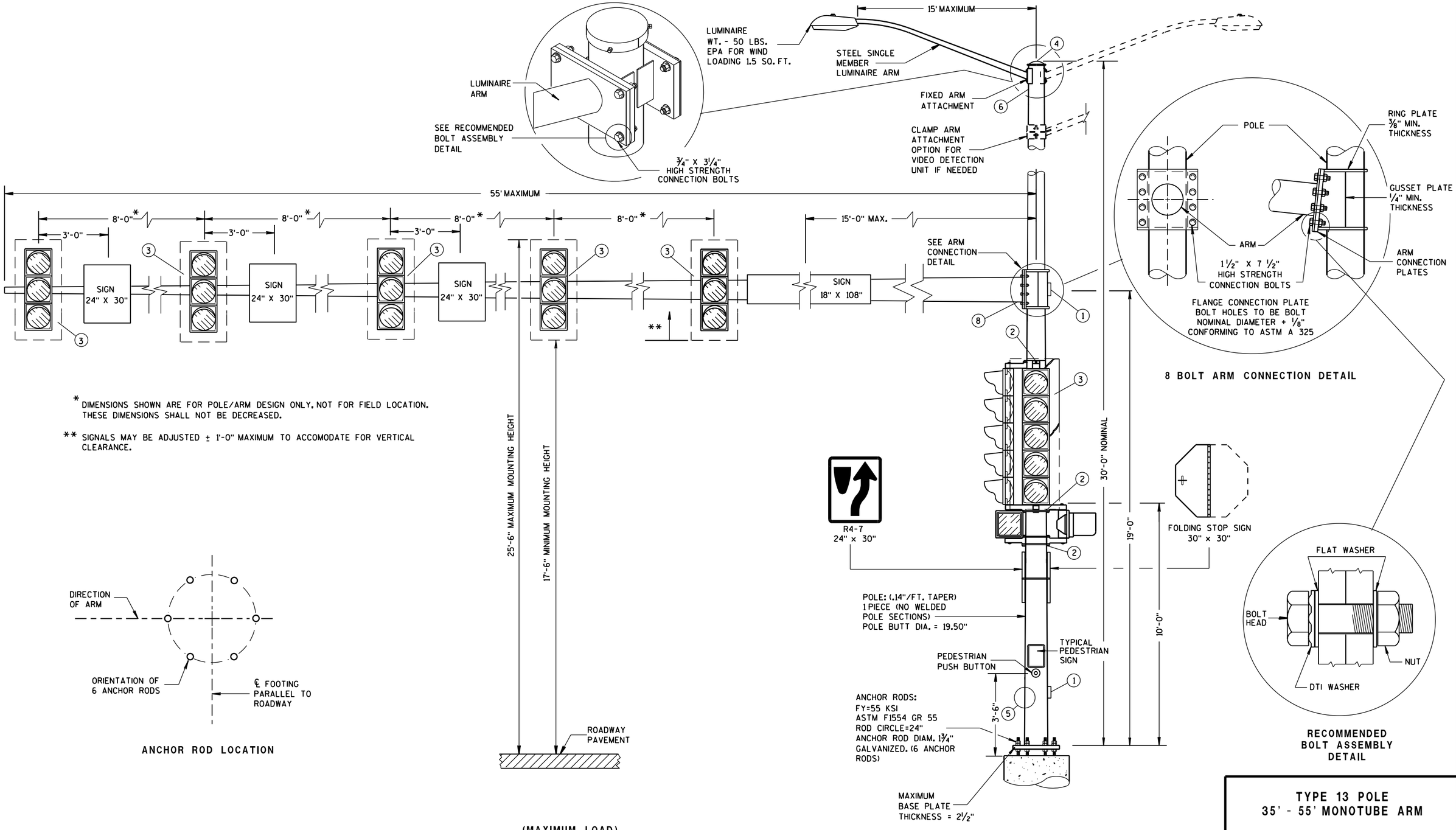
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S.D.D. 9 E 8-8c



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	331

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S.D.D. 9 E 8-8d

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S.D.D. 9 E 8-8d

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

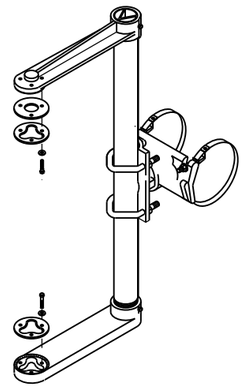
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

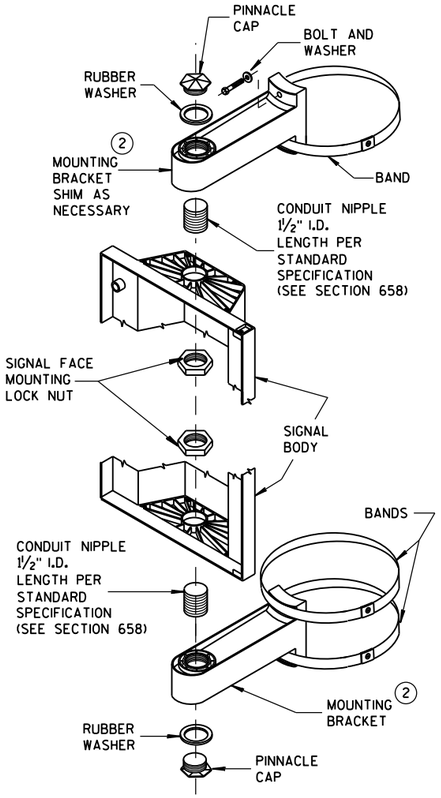
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

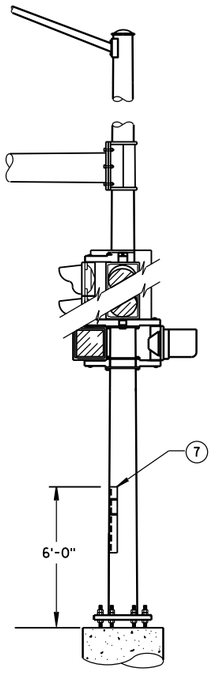


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

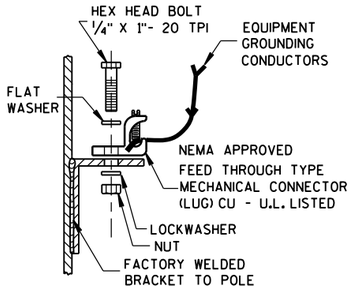
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

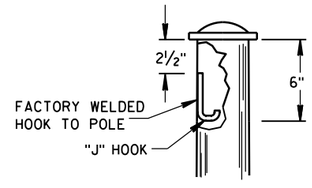


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 332

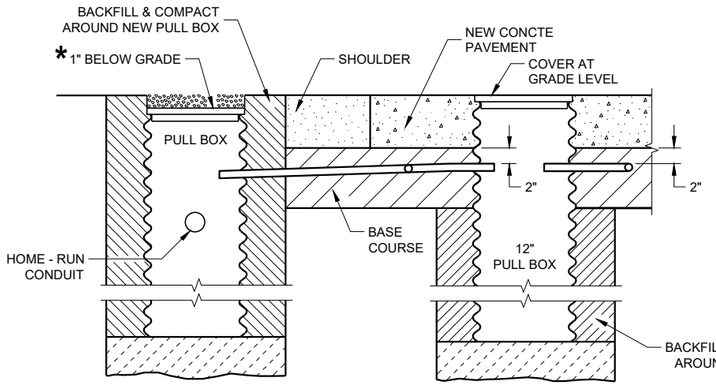
FHWA

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S.D.D. 9 E 8-8e

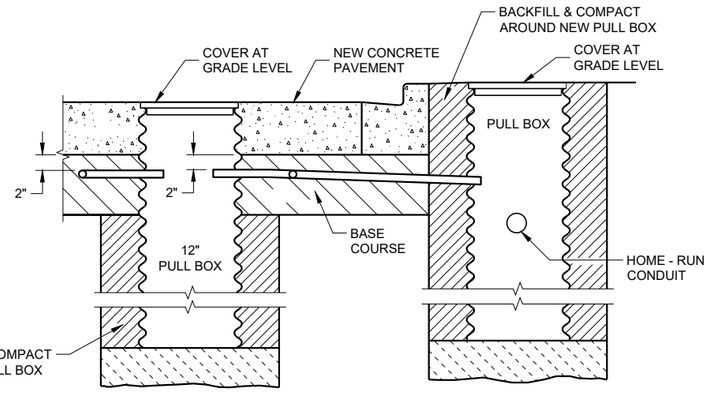
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S.D.D. 9 E 8-8e



SECTION A - A
NO CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL



SECTION B - B
CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL

* RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

ANY PVC LEADOUT CONDUIT CONTAINING MORE THAN ONE TWISTED PAIR OF LOOP LEAD WIRE SHALL BE 2".

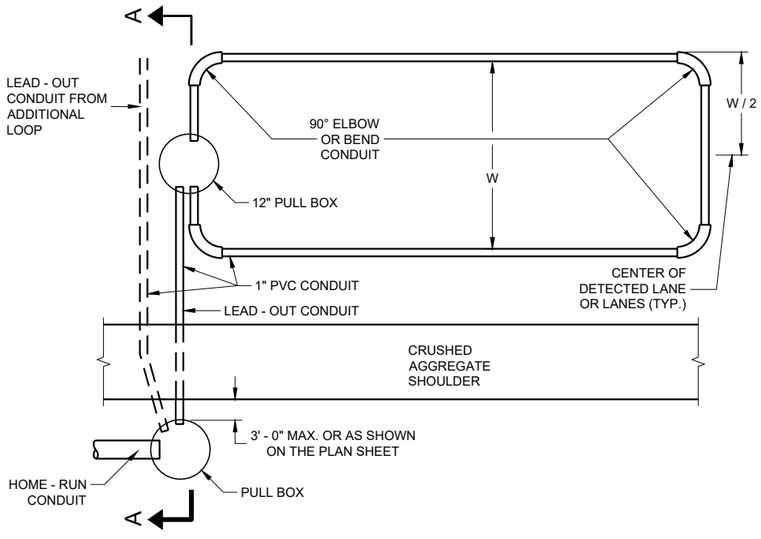
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

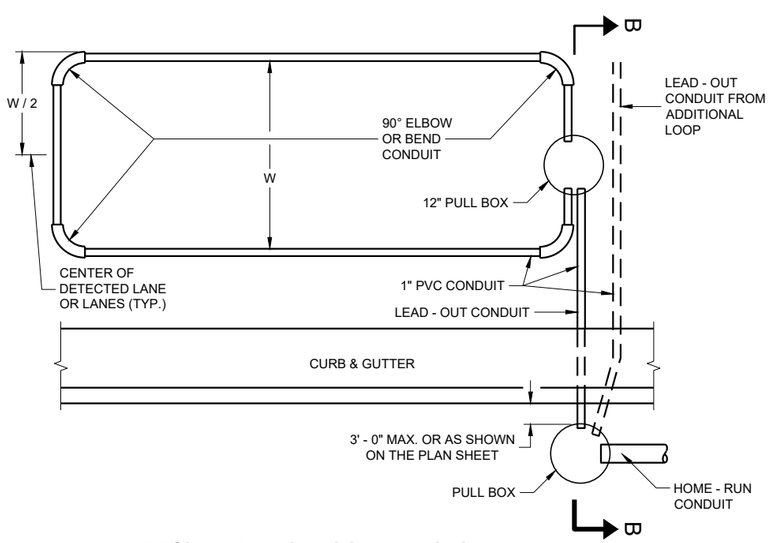
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET, PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

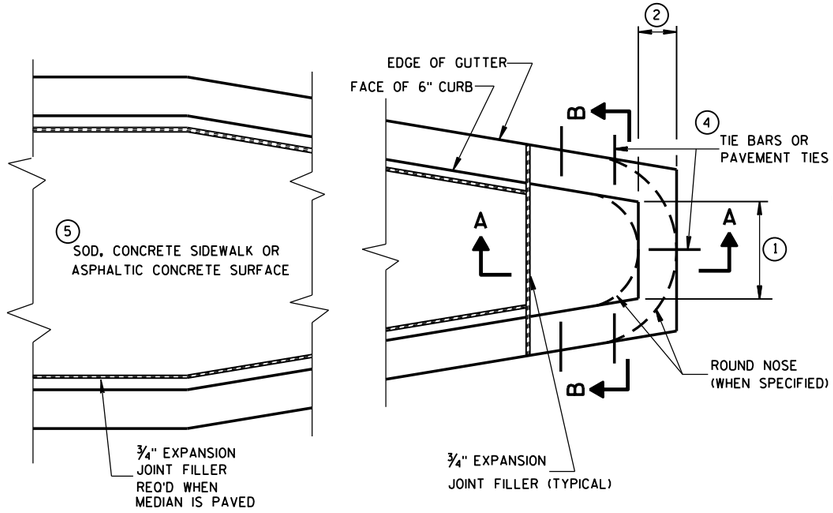
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

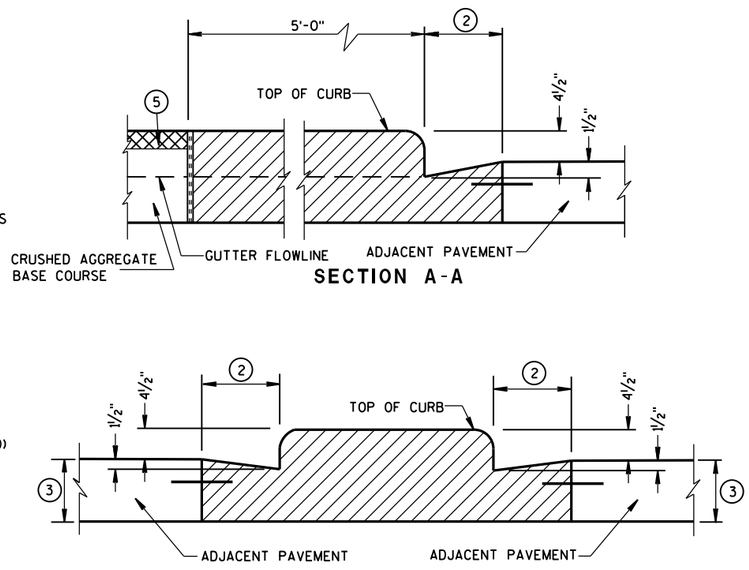
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

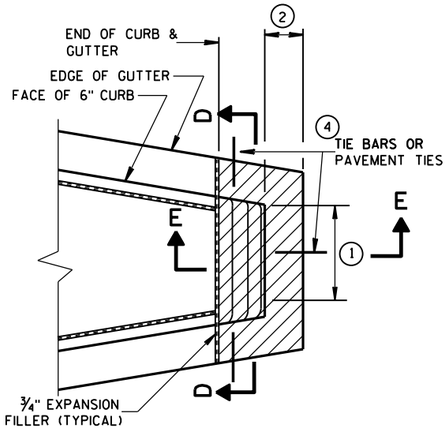
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

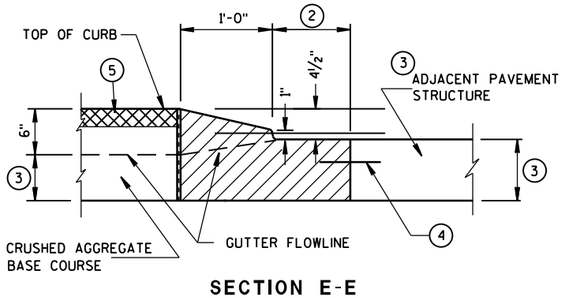
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

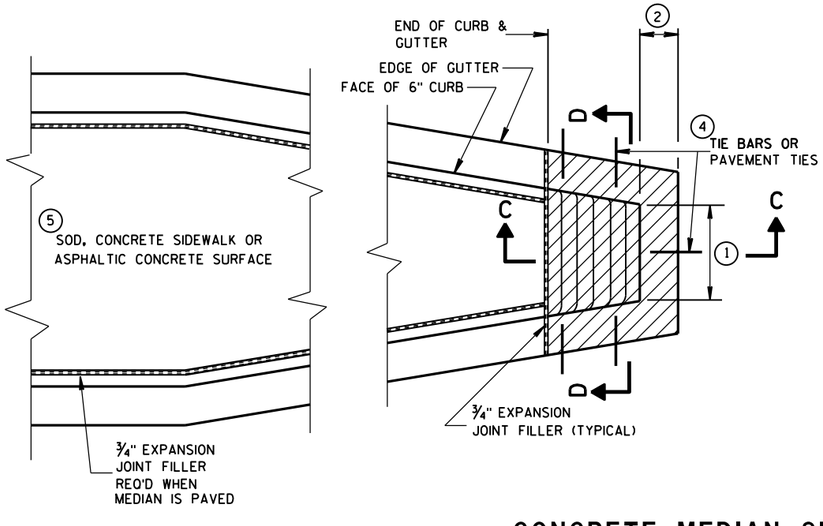
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

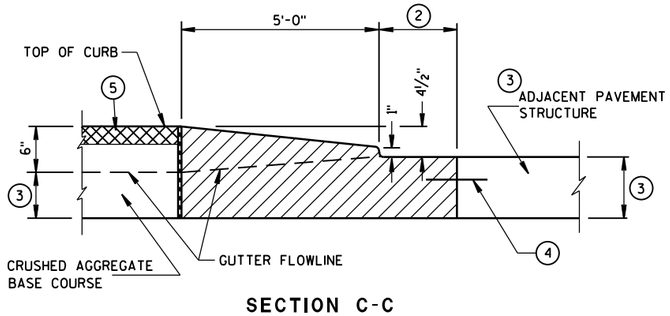




SECTION E-E

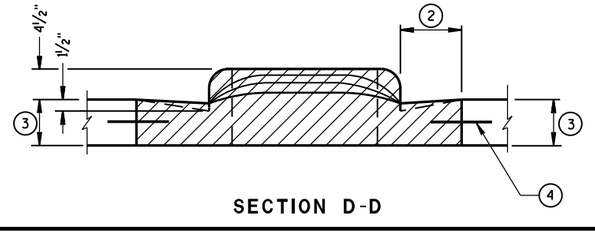
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
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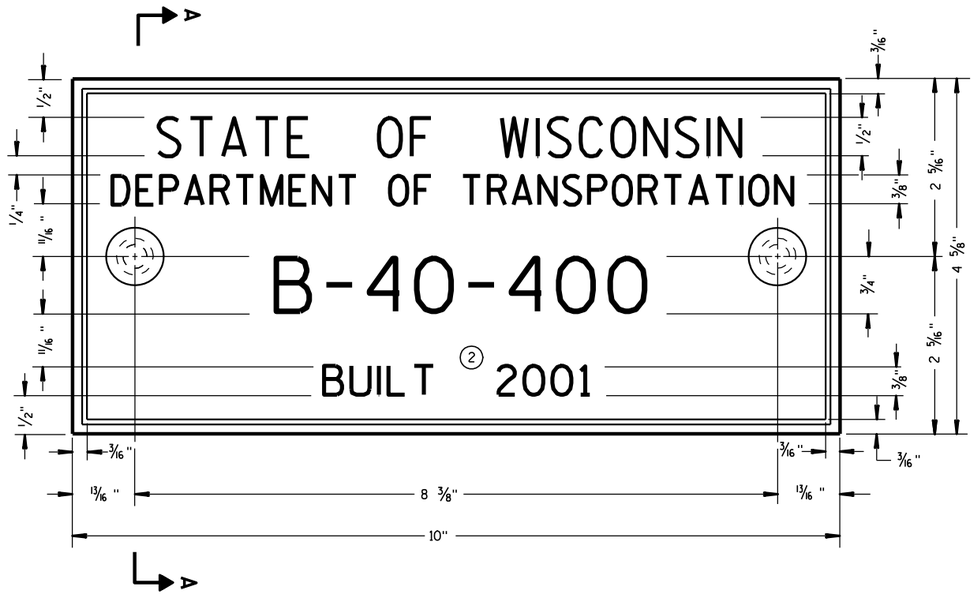
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

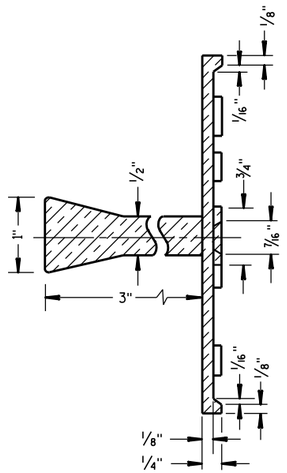
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

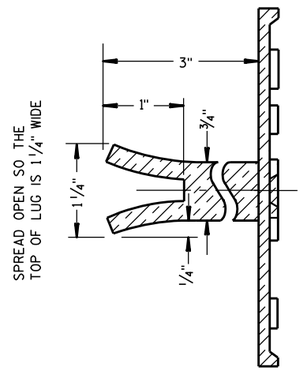
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

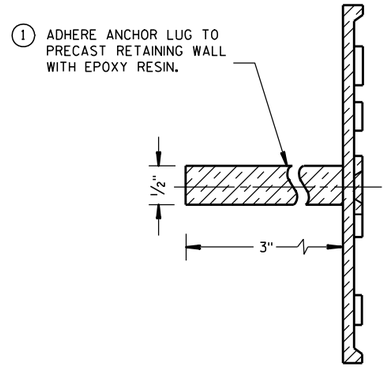
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

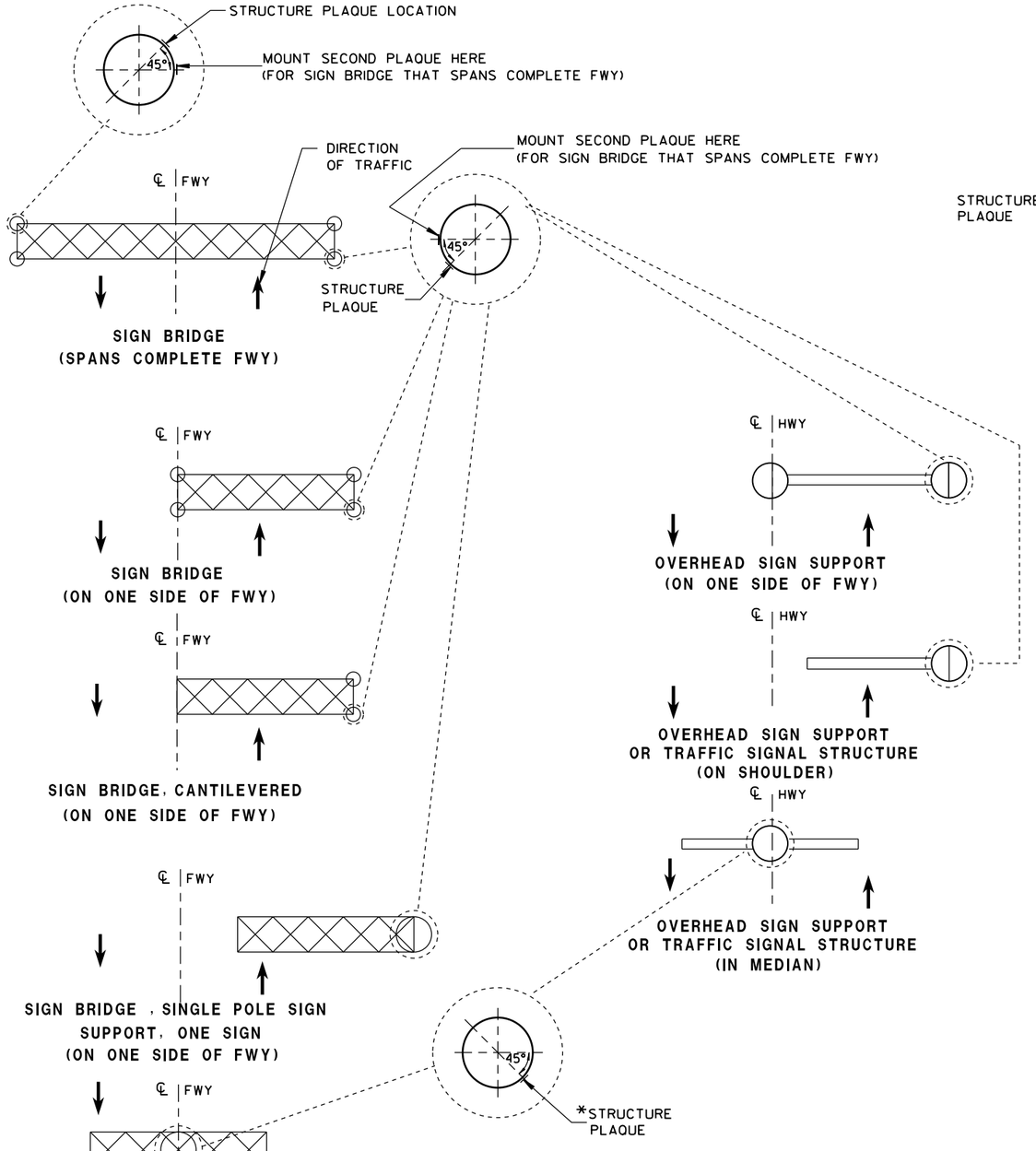
/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

335

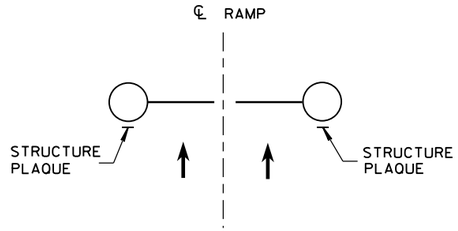
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S.D.D. 12 A 3-10

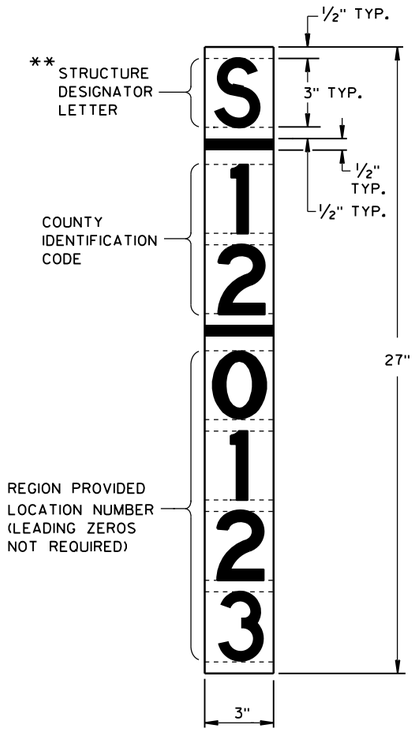


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

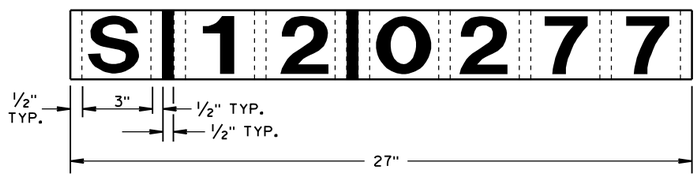
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

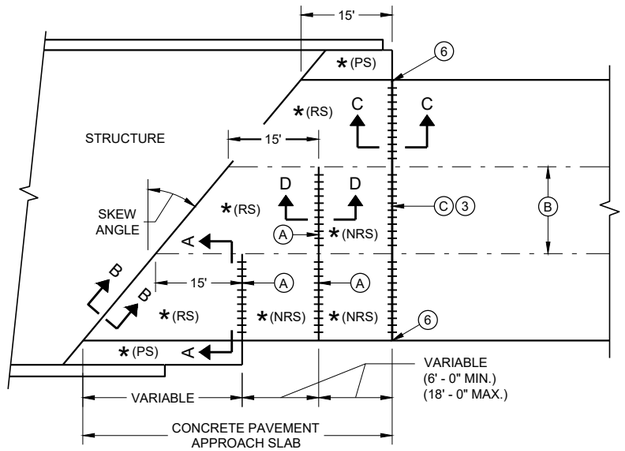
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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S.D.D. 12 A 4-3



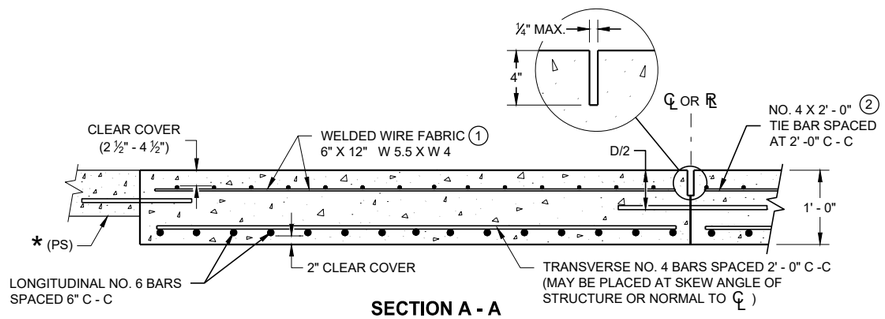
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (RS) = REINFORCED CONCRETE SLAB

* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

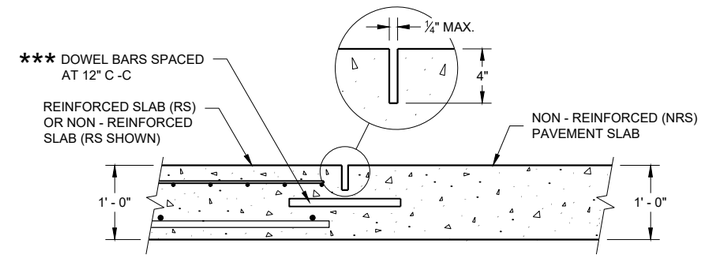
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

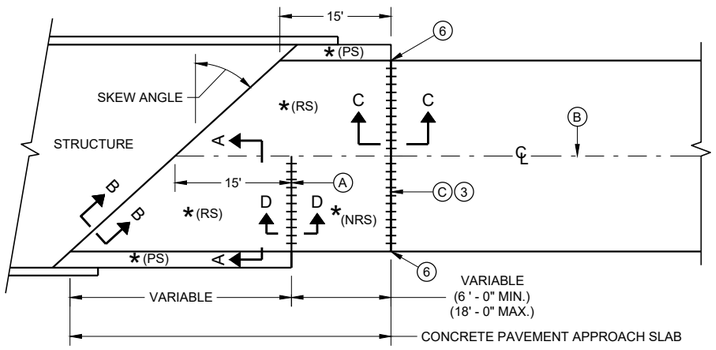
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

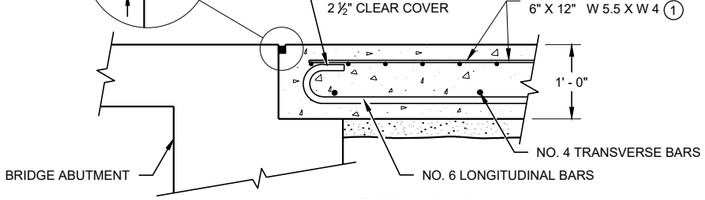
(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞



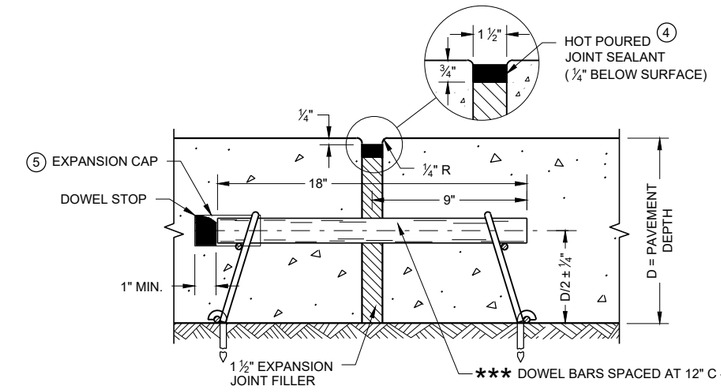
SECTION D - D
CONTRACTION JOINT



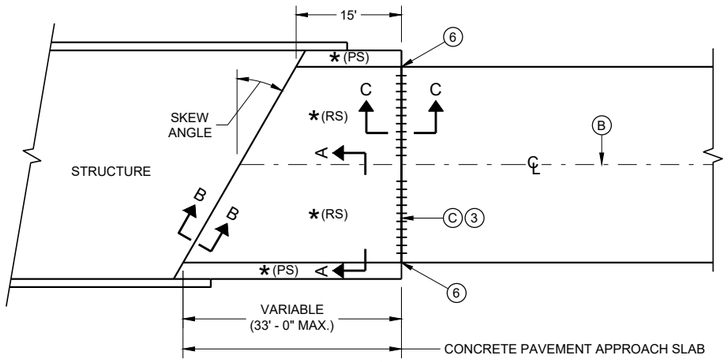
SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

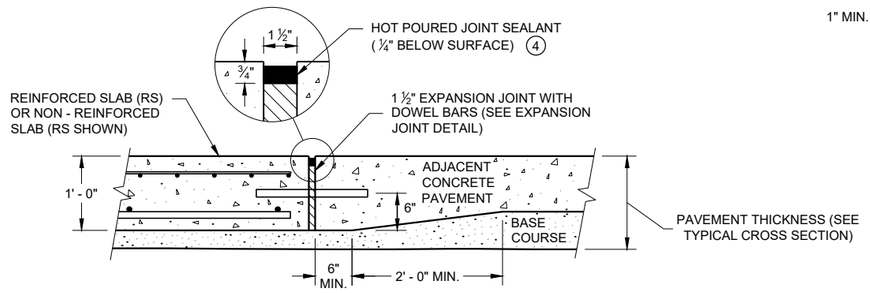


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

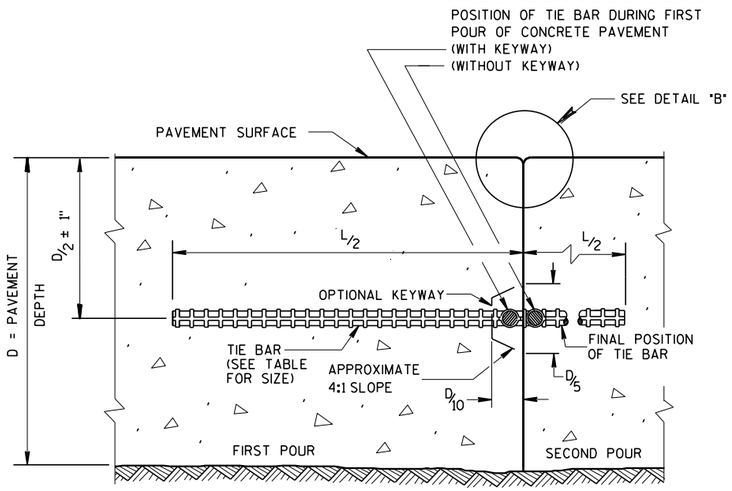
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

FHWA

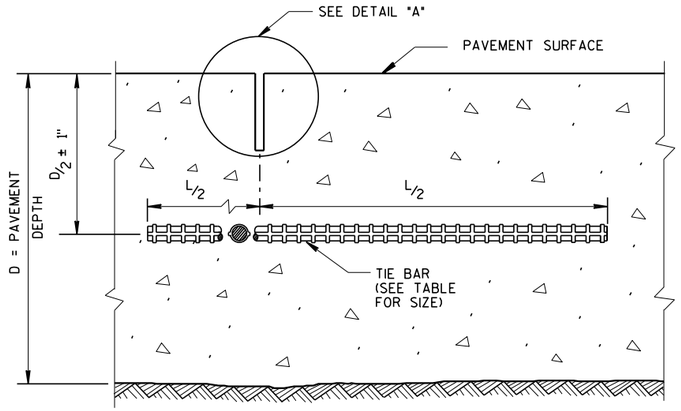
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SDD 13B02 - 09a

SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

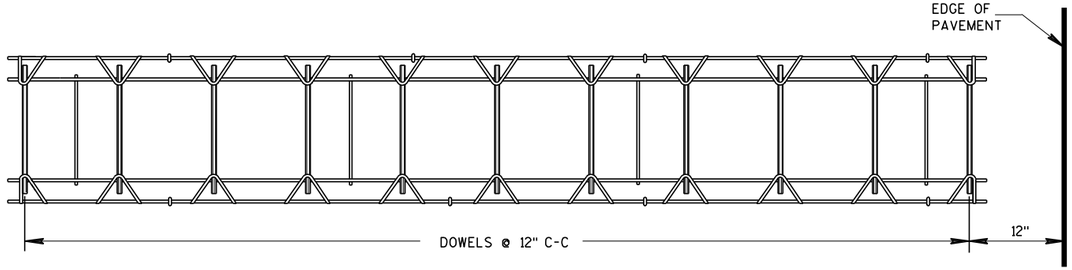
APPROVED
March 2018
DATE
/S/ Peter Kemp, PE
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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S.D.D. 13 C 1-19



PLAN VIEW



SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

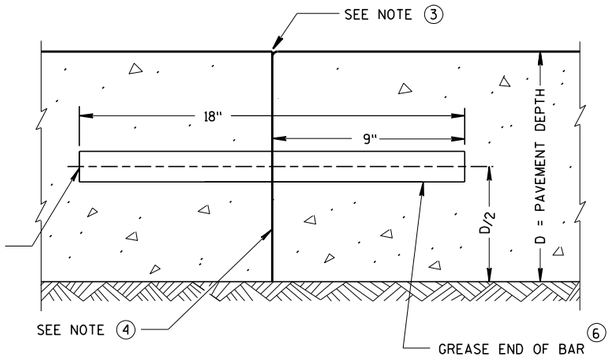
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

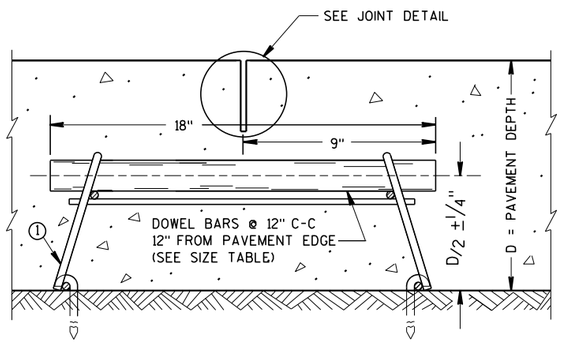
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

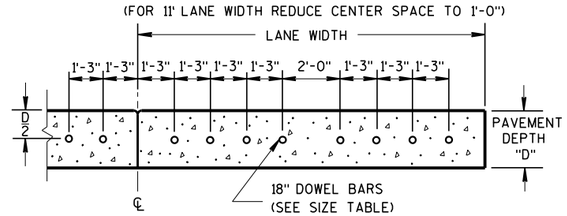
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



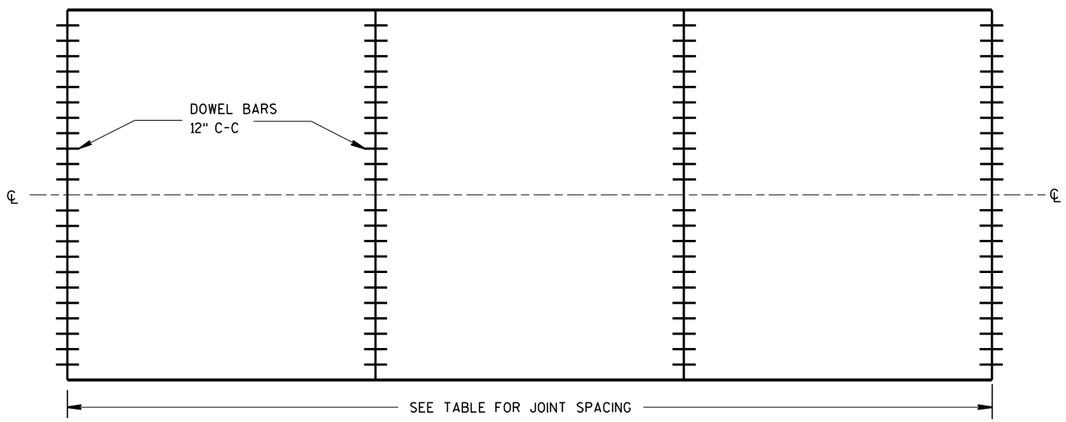
TRANSVERSE CONSTRUCTION JOINT



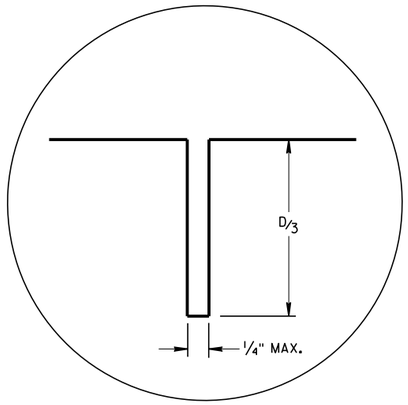
DOWELED CONTRACTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
339
FHWA

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S.D.D. 13 C 13-9

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S.D.D. 13 C 13-9

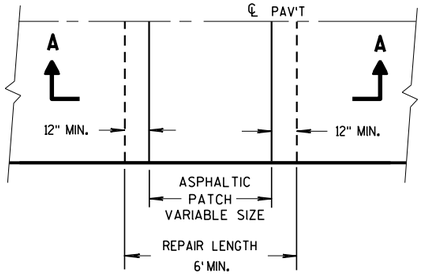
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

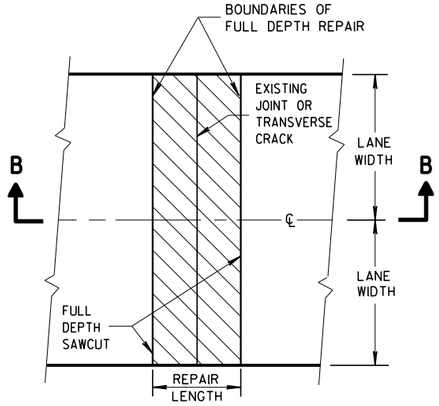
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

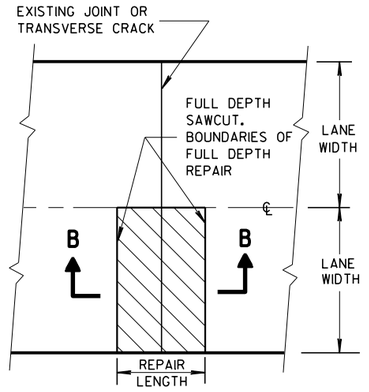
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

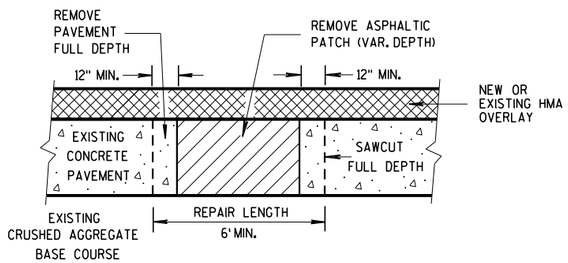


PLAN VIEW
(DOUBLE LANE REPAIR)



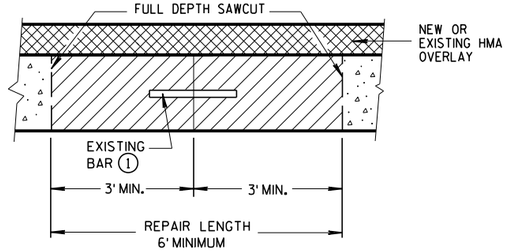
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

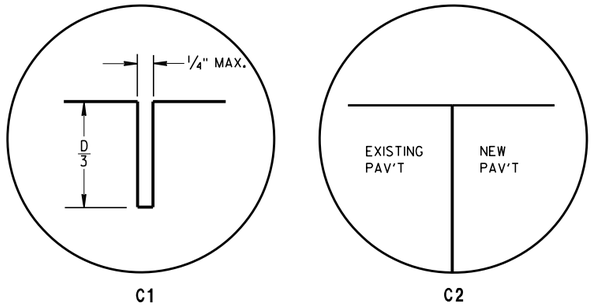
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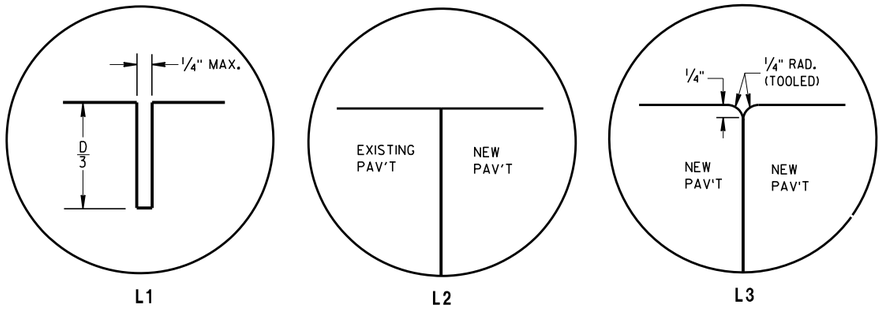
S.D.D. 13 C 14-7a

S.D.D. 13 C 14-7a

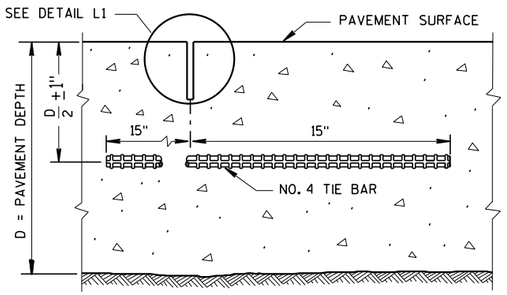
BASE PATCHING CONCRETE



TRANSVERSE JOINTS

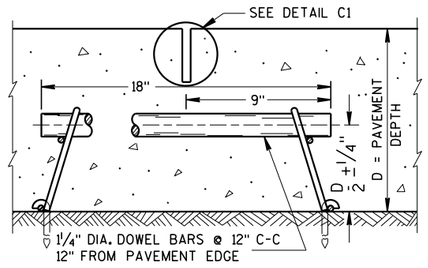


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

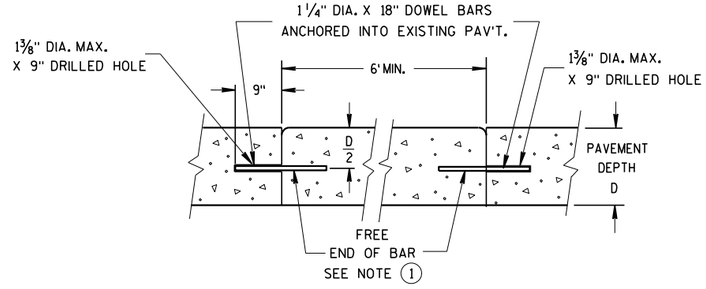
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

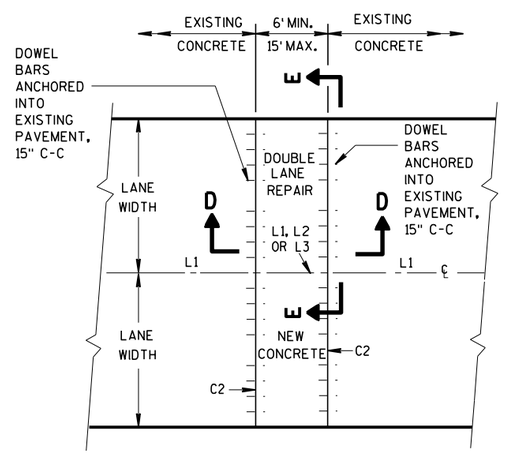
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

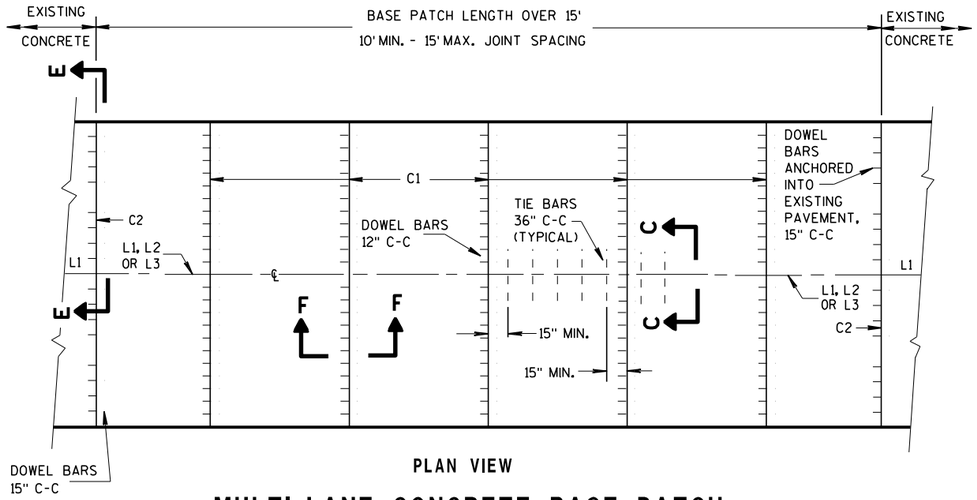


SECTION D-D



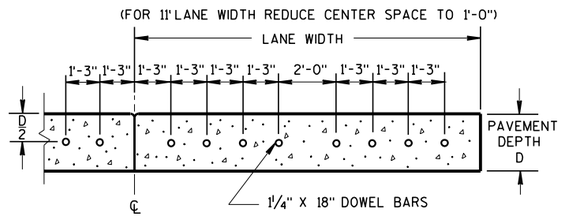
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

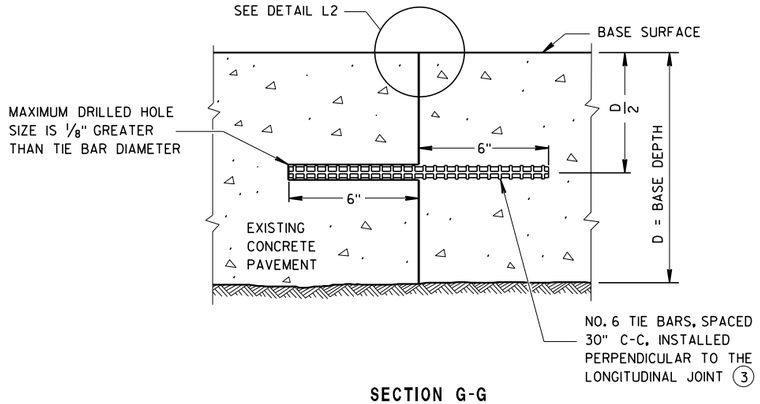


SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

6
S.D.D. 13 C 14-7b



SECTION G-G

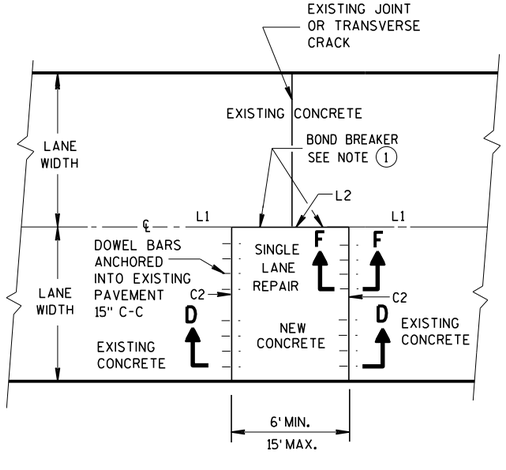
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

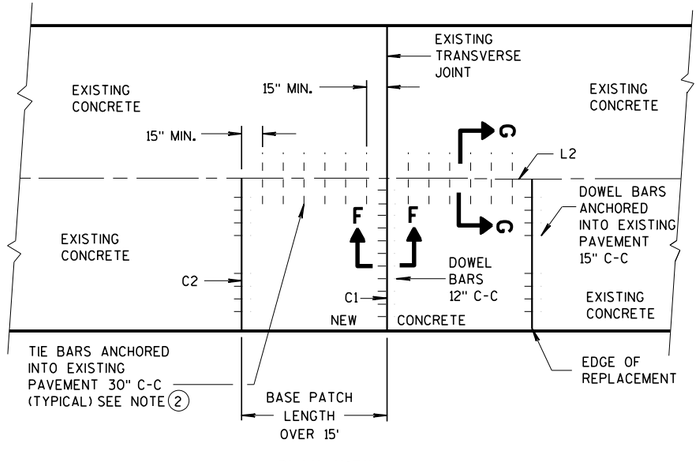
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

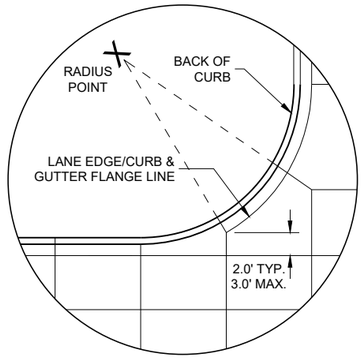
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

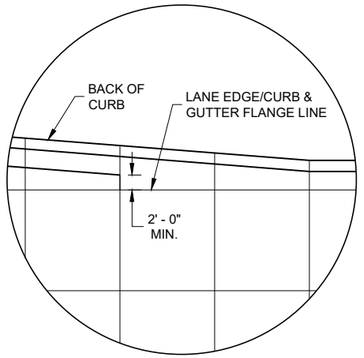
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

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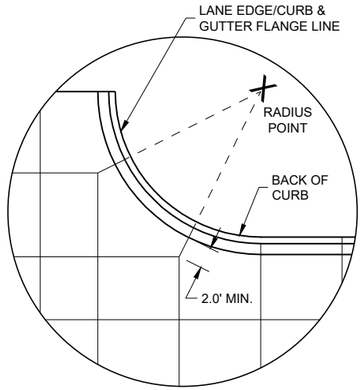
S.D.D. 13 C 14-7c



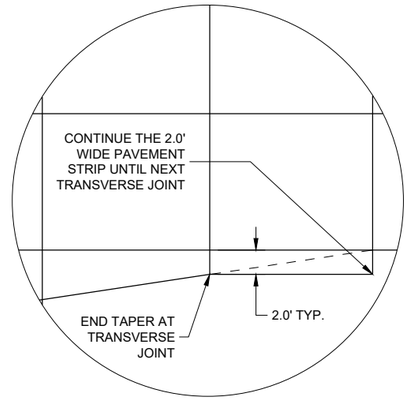
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

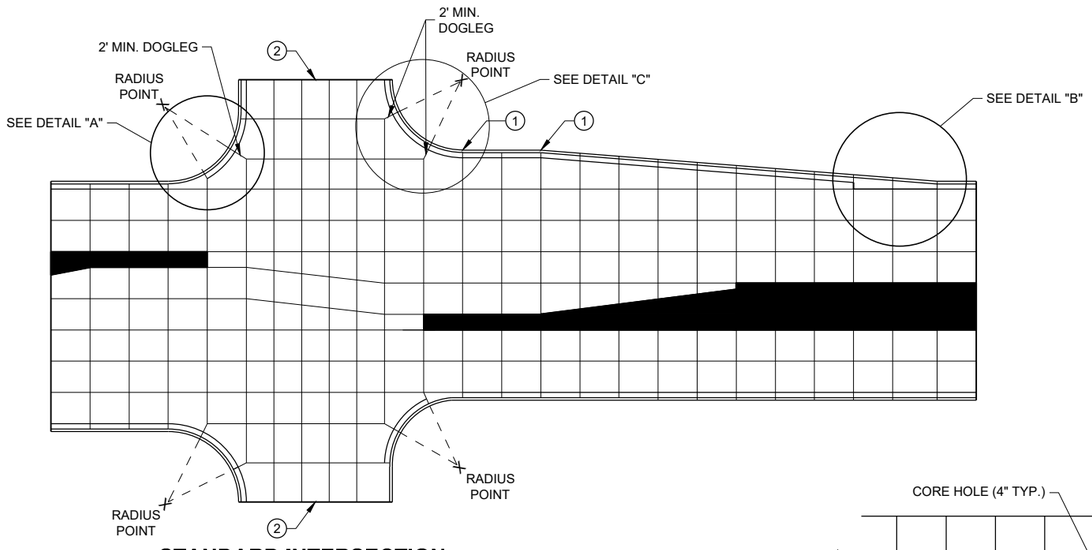
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

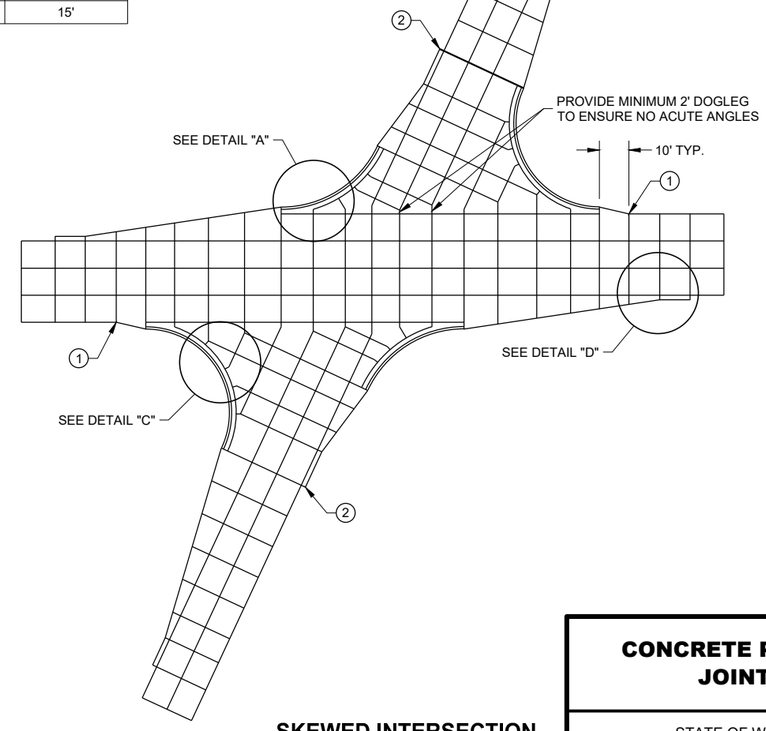
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



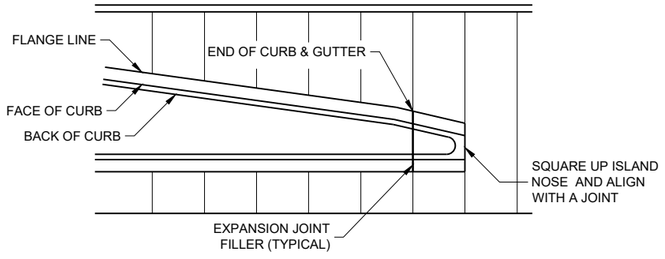
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

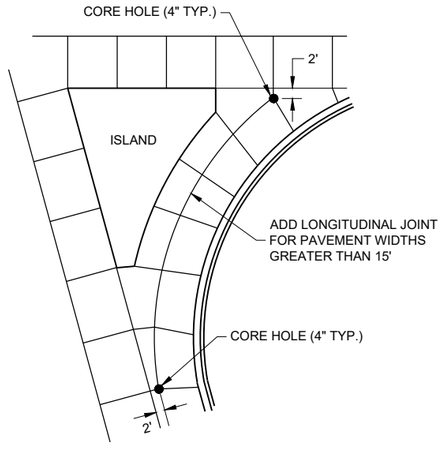
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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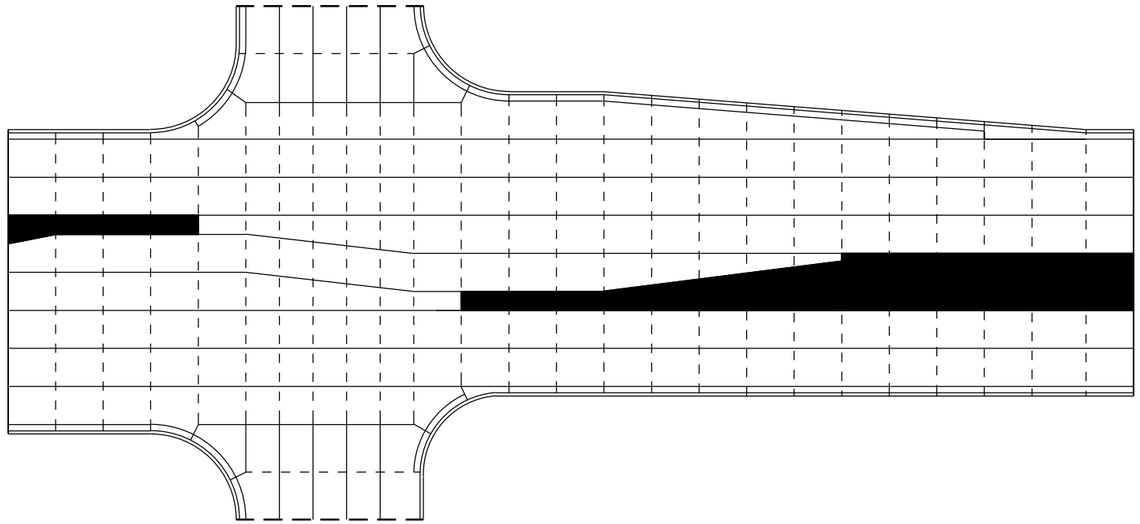
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

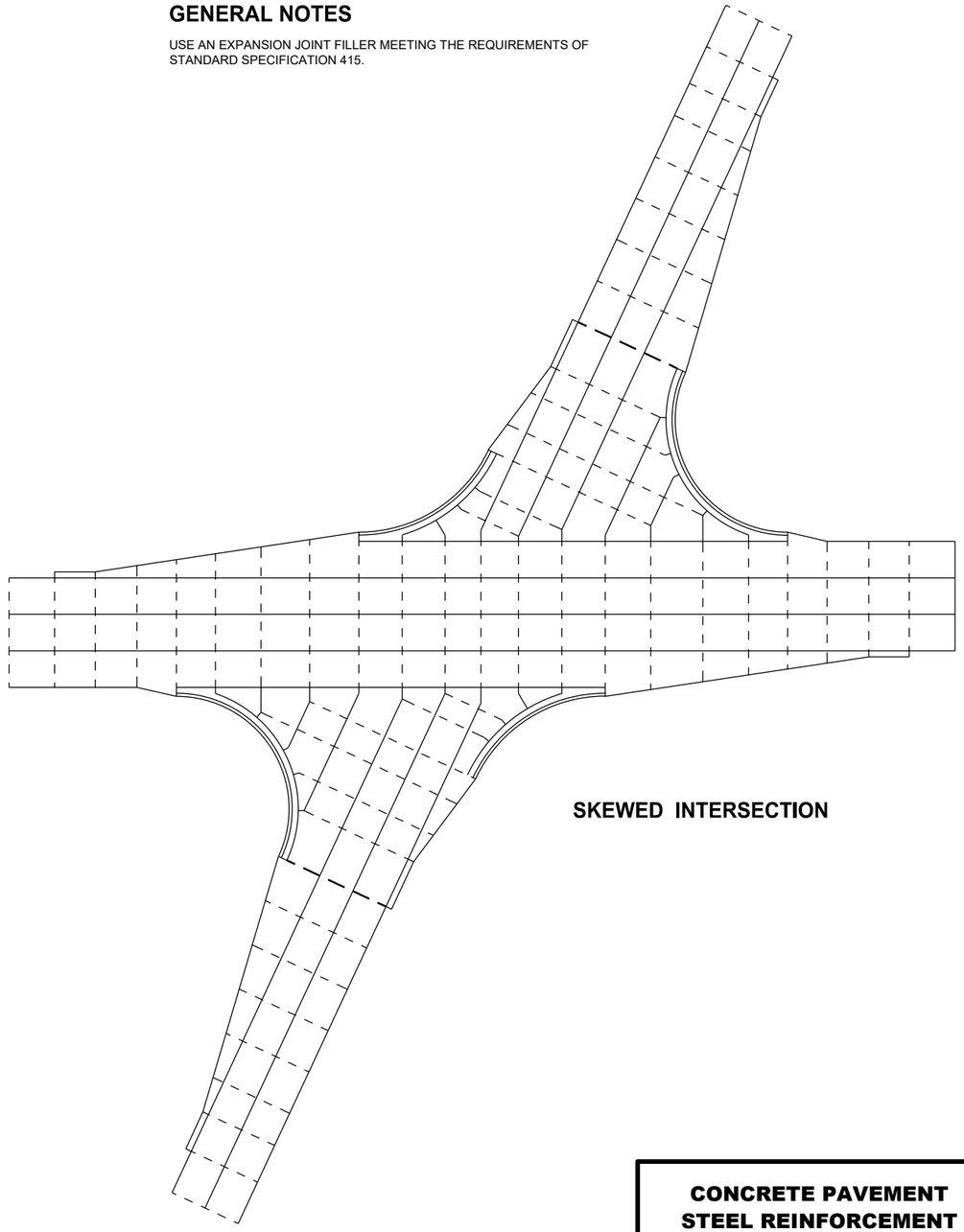
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

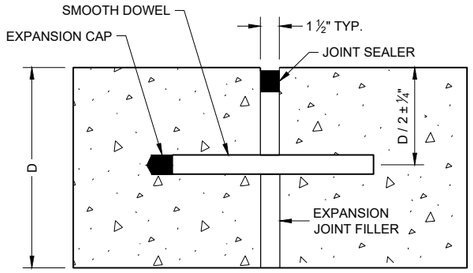
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

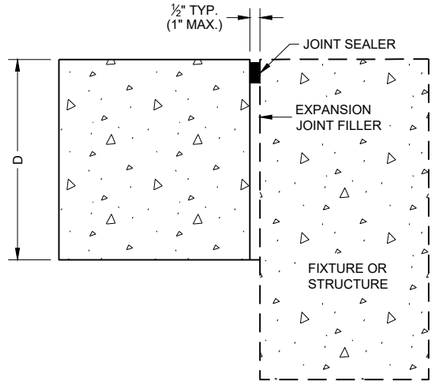
STATE OF WISCONSIN
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SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

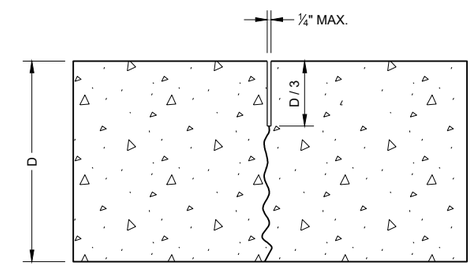
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

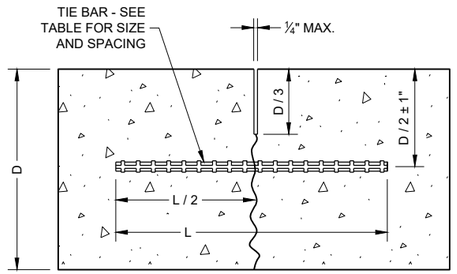
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

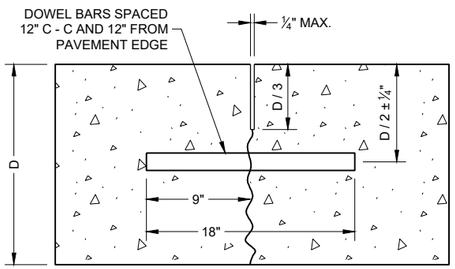
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

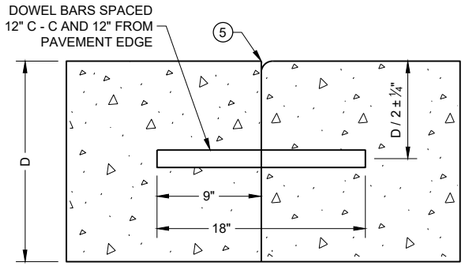


TIED LONGITUDINAL

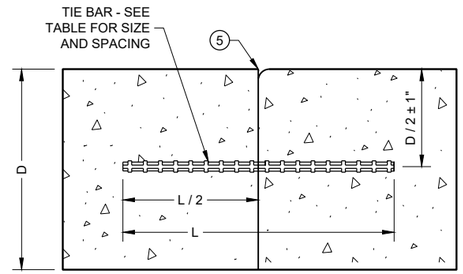


DOWELED TRANSVERSE

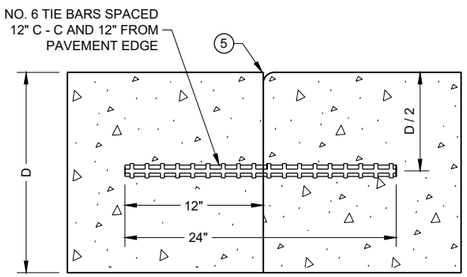
CONTRACTION JOINTS (2)



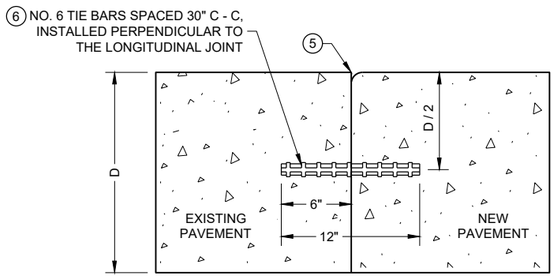
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

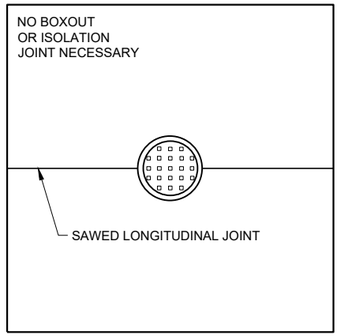
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

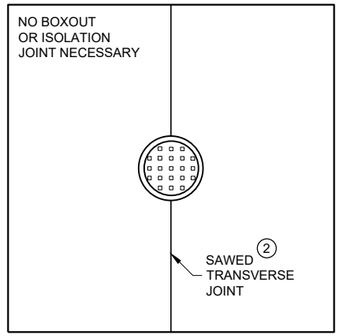
STATE OF WISCONSIN
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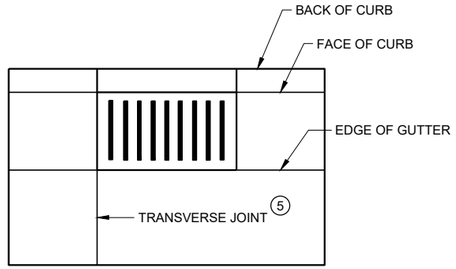
SDD 13C18 - 07c
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



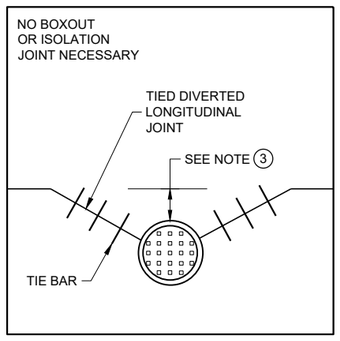
MANHOLE WITH TRANSVERSE JOINT



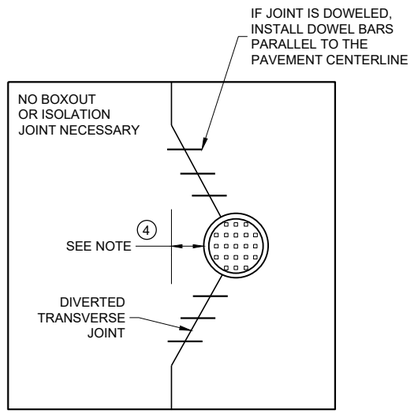
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

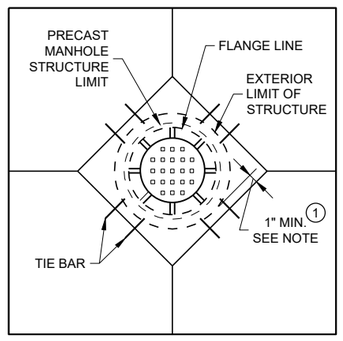
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

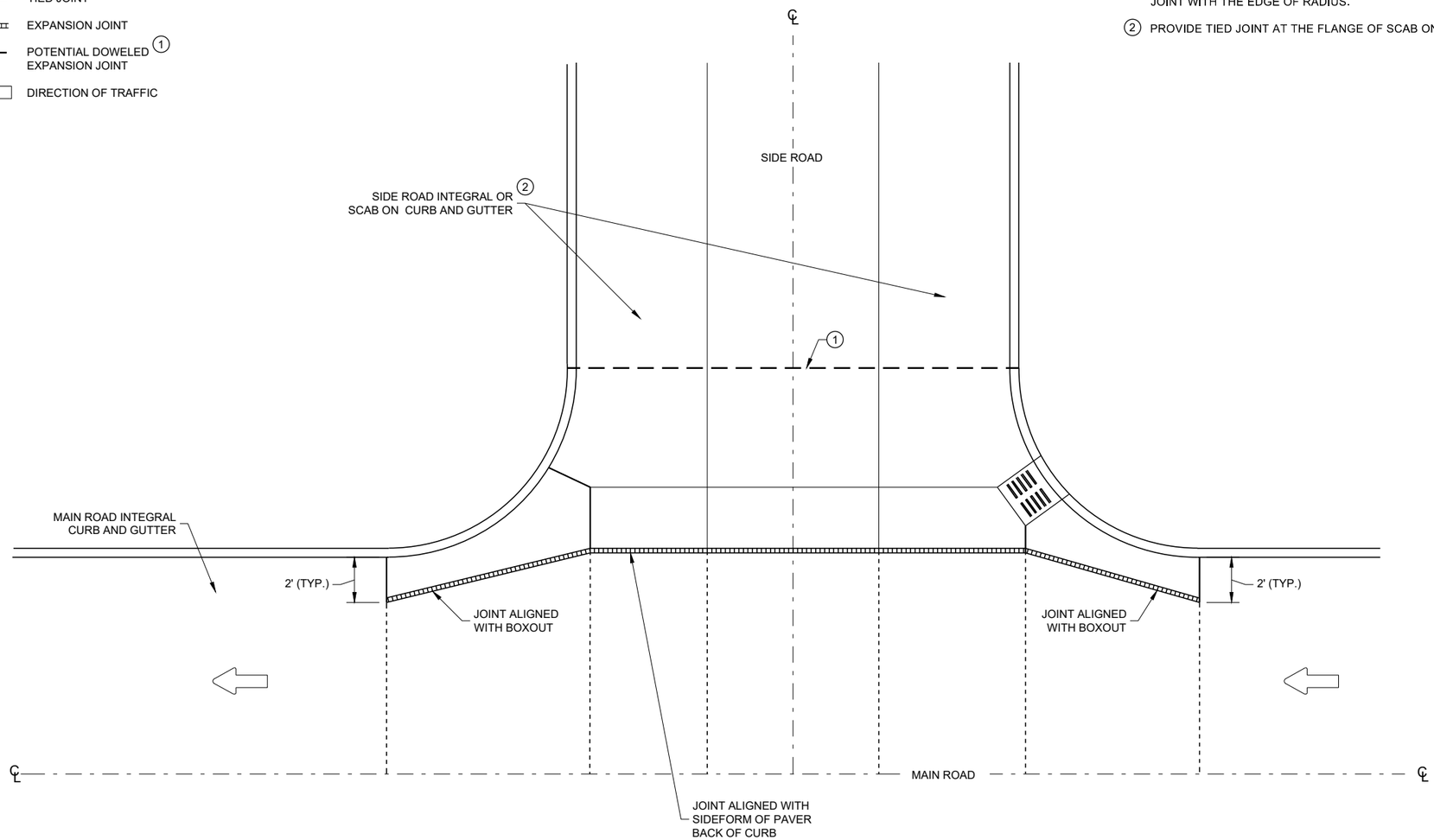
APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS
FHWA

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SDD13C18 - 07d
SDD13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

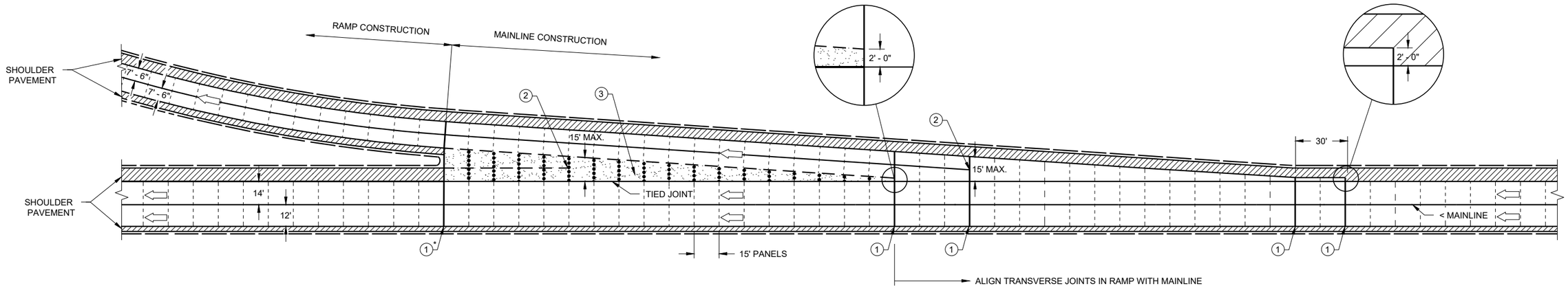
FHWA

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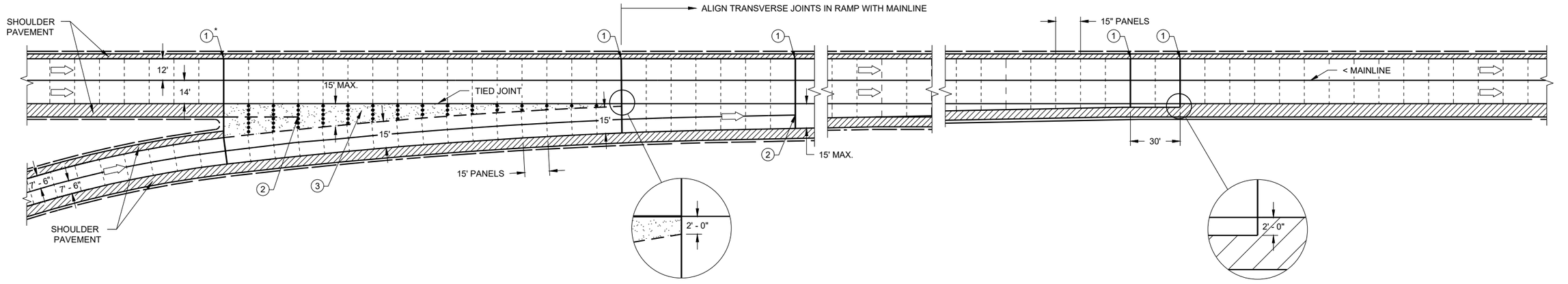
SDD 13C18 - 07f

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SDD 13C18 - 07f



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

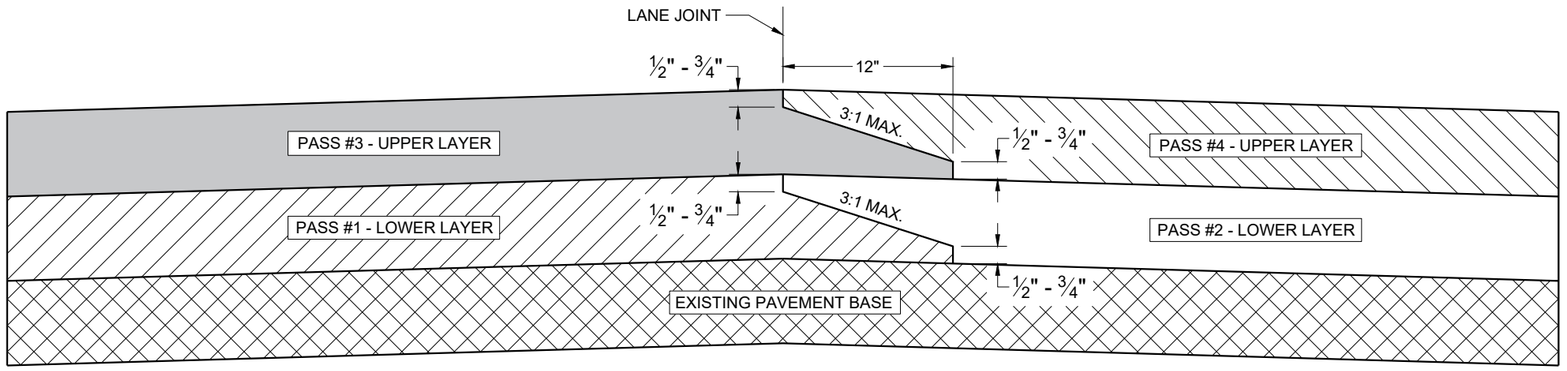
SDD13C18 - 07g

6

SDD13C18 - 07g

GENERAL NOTES

CONFORM TO STANDARD SPECIFICATION 450.3.2.8



TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINTS

6

6

SDD 13C19 - 01

SDD 13C19 - 01

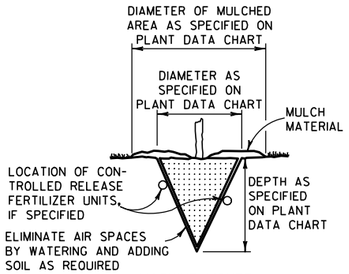
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

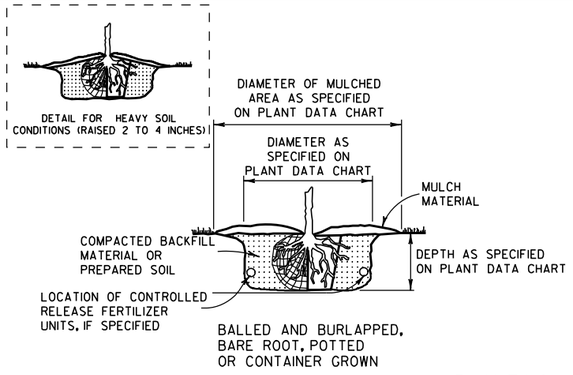
APPROVED
May 2019
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

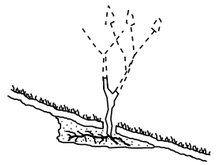
FHWA



MACHINE MOVED

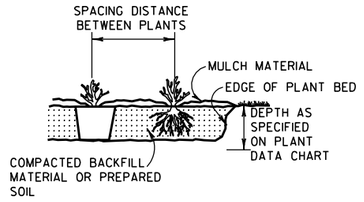


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN

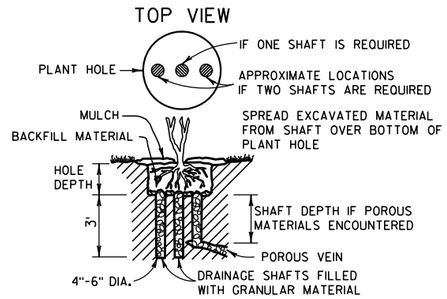


ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



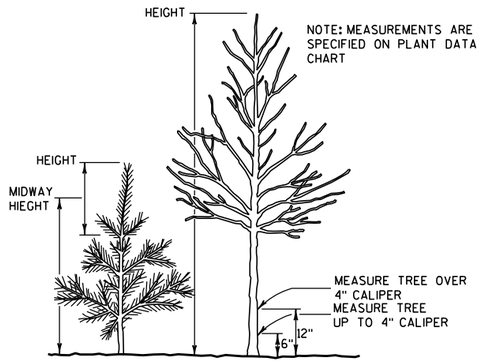
PREPARED BED (BARE ROOT AND POTTED)

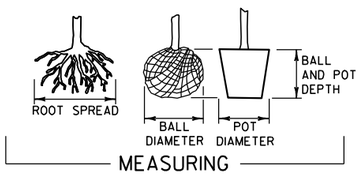


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

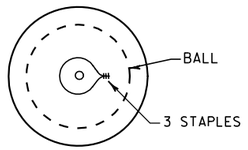
DRAINING

PLANTING

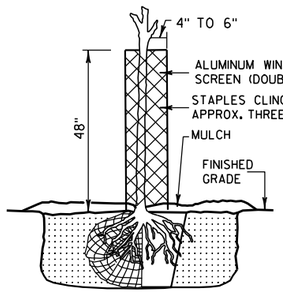




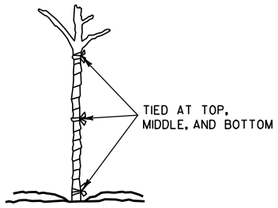
MEASURING



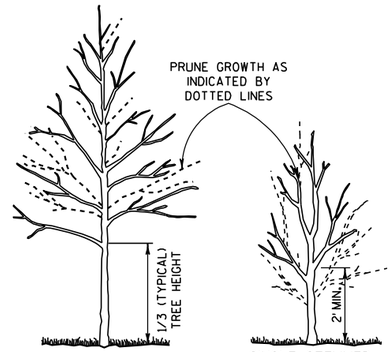
TOP VIEW



RODENT PROTECTION



WRAPPING

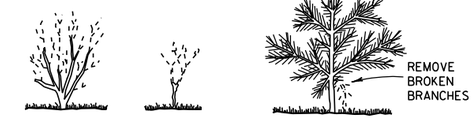


TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

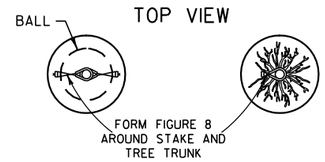


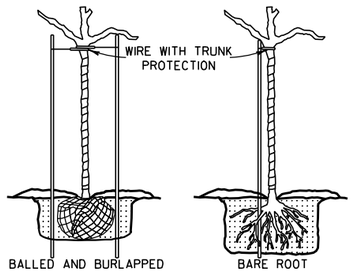
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

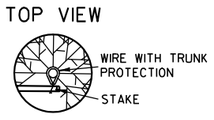
SUMAC

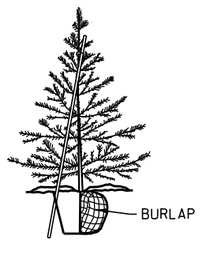
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



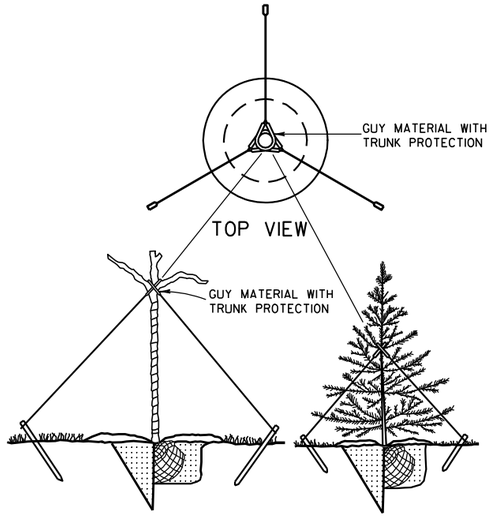




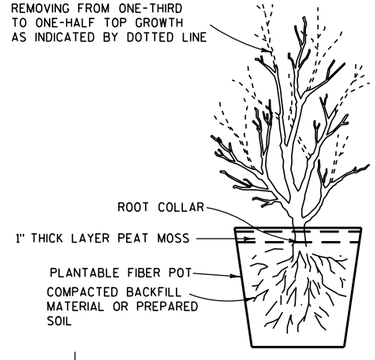


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

S.D.D. 14 A 2-1

6

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

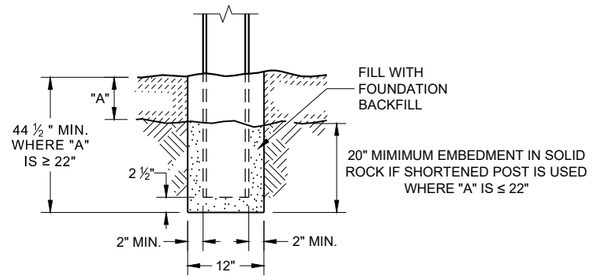
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

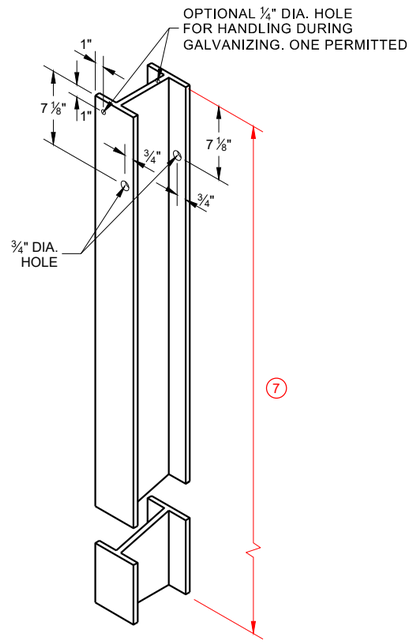
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

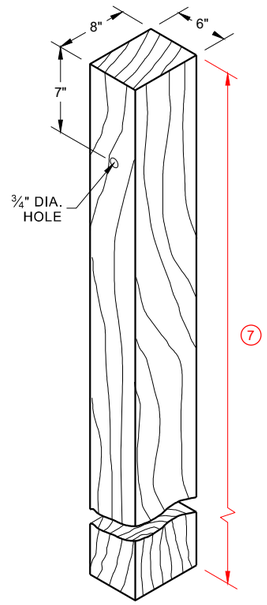
7. TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



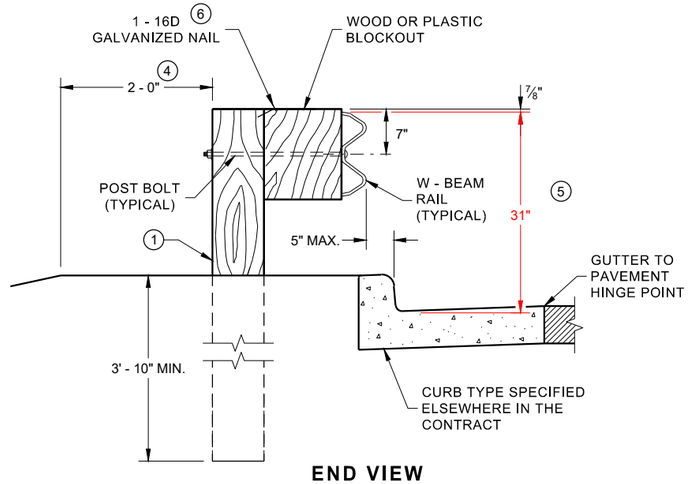
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



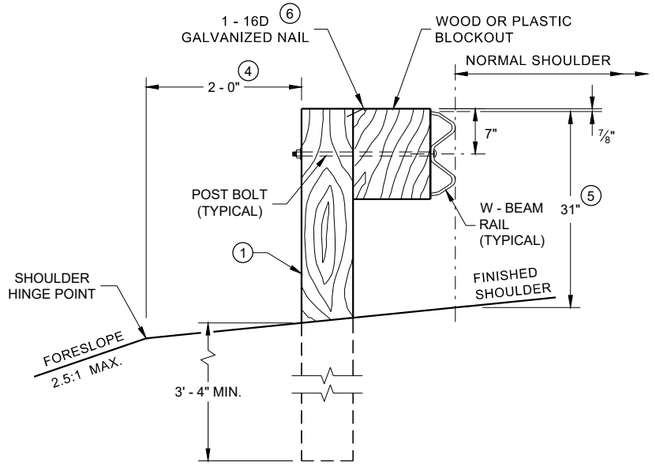
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



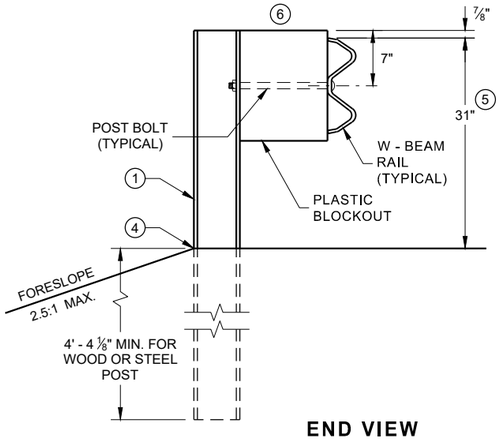
WOOD POST (6" X 8") NOMINAL (1)



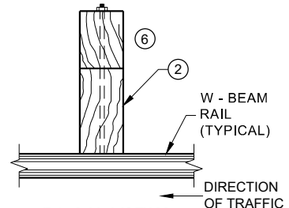
END VIEW
LOCATED ALONG A CURBED ROADWAY



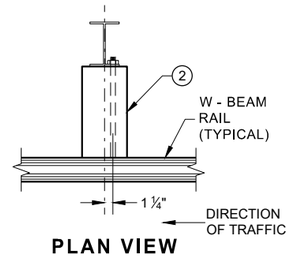
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



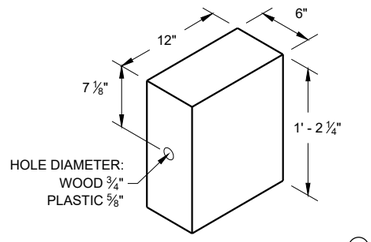
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



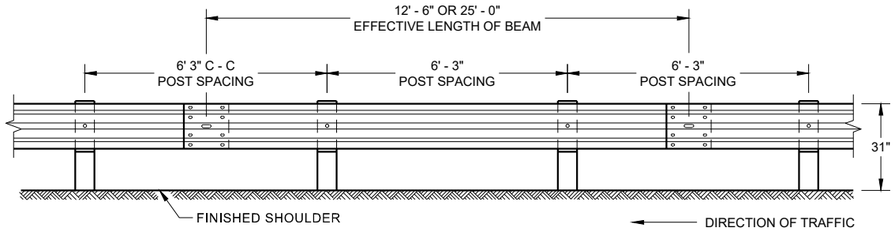
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

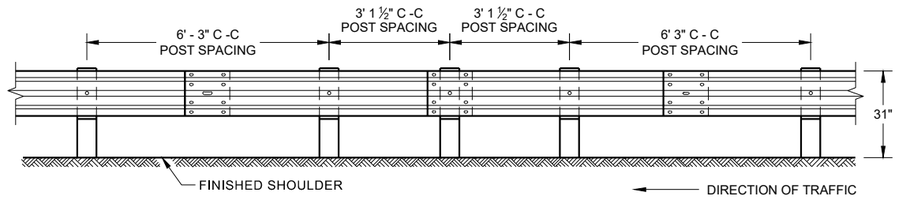
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 06a

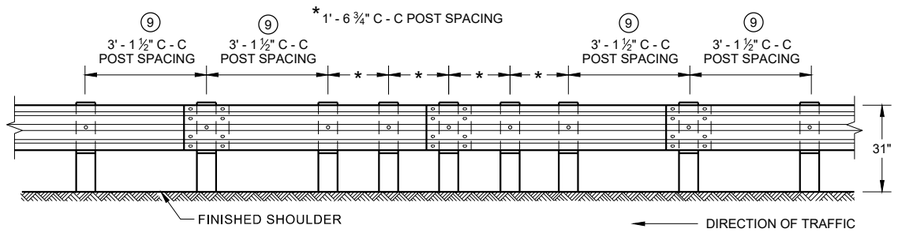
SDD 14B42 - 06a



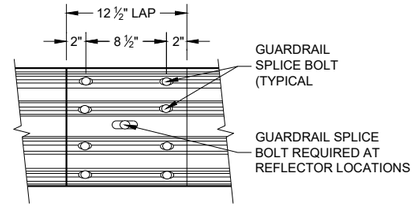
FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

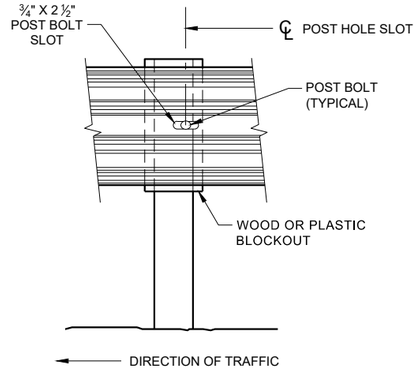
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

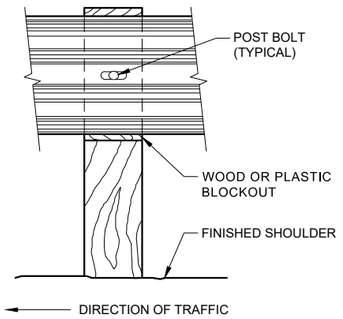
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

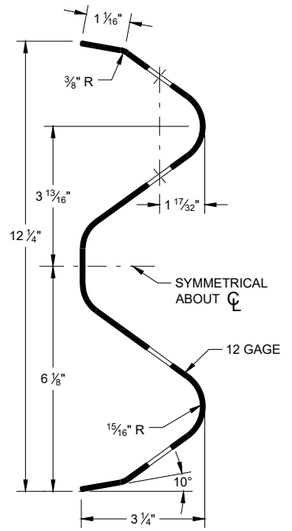
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



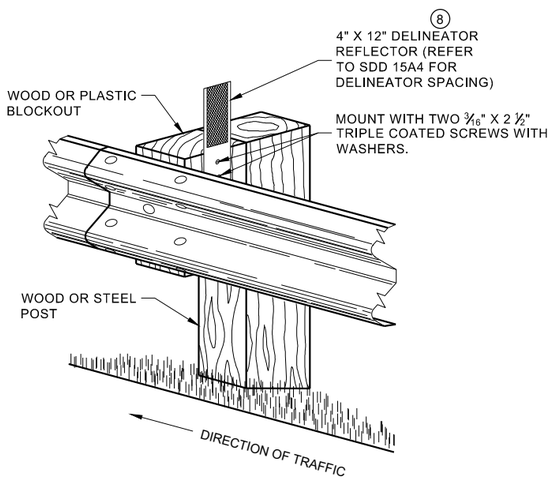
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



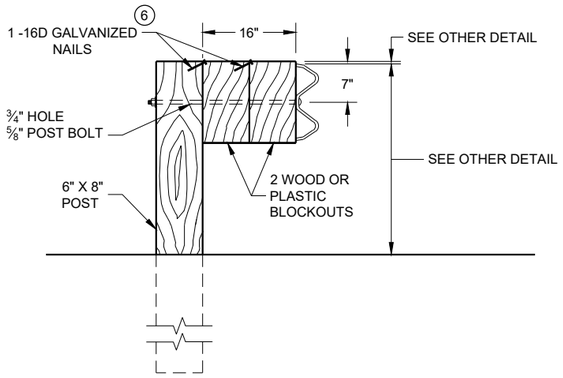
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

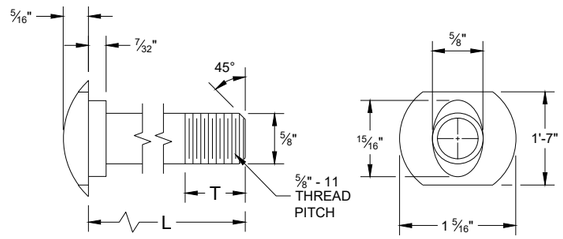


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

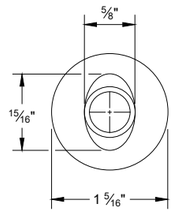
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

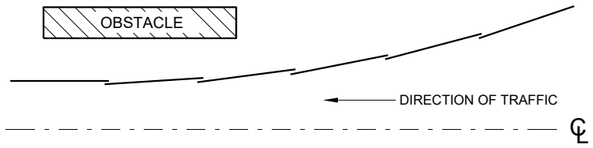


POST BOLT TABLE

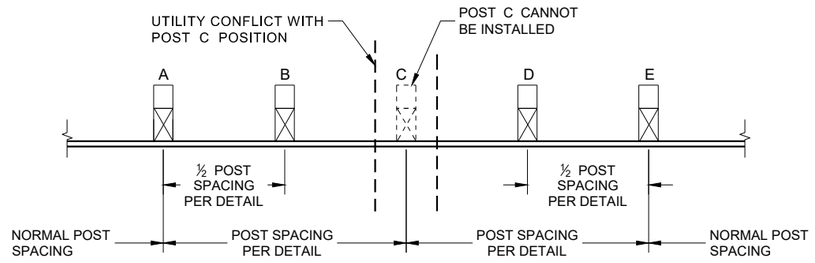
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



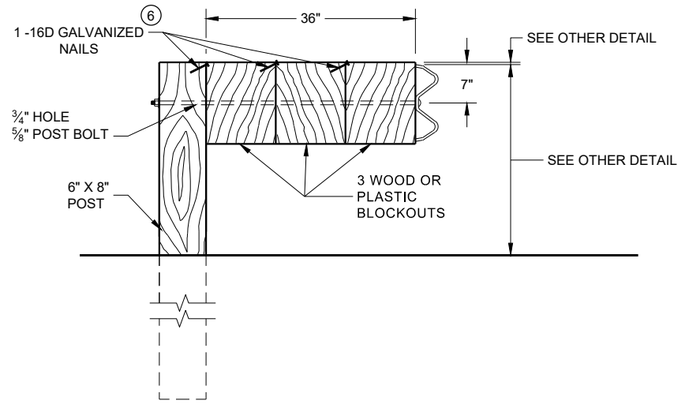
ALTERNATE BOLT HEAD



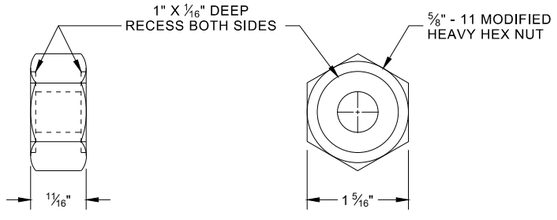
PLAN VIEW
BEAM LAPPING DETAIL



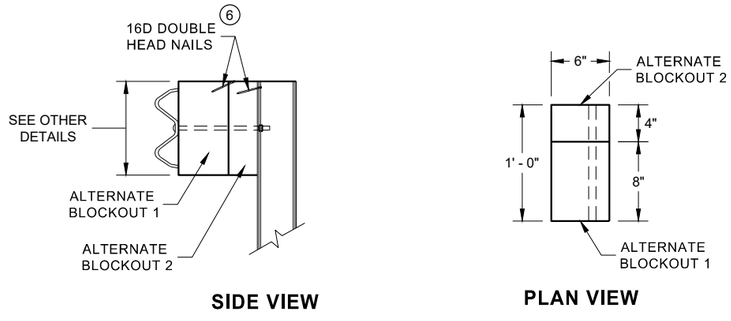
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

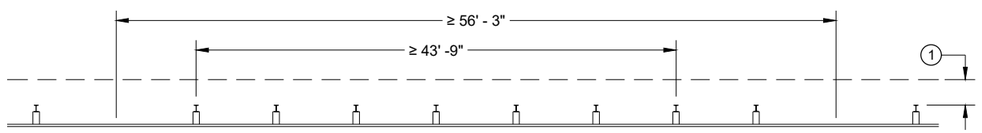
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

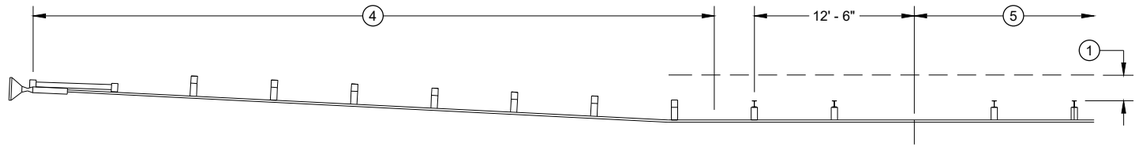
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

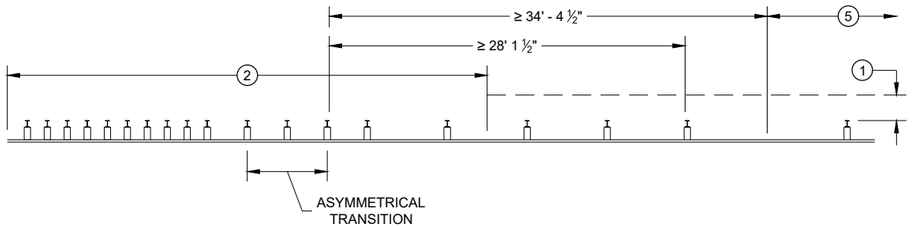
SDD 14B42 - 06c



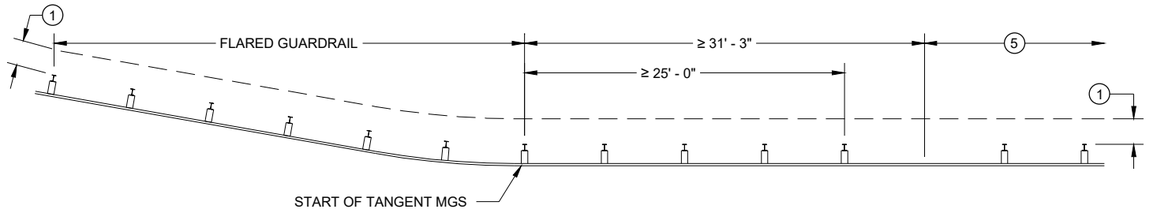
MISSING POST IN NORMAL BEAM GUARD RUN



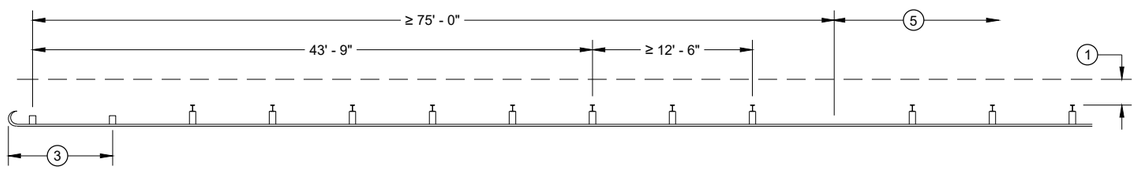
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



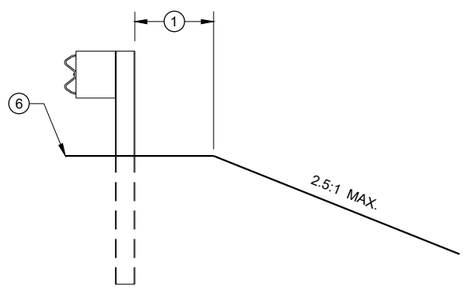
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

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SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

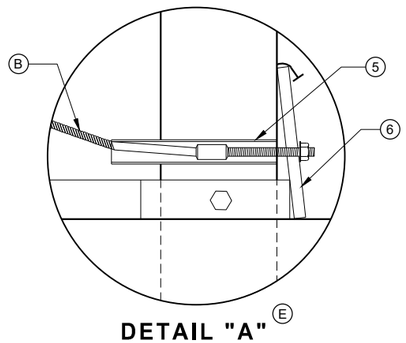
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

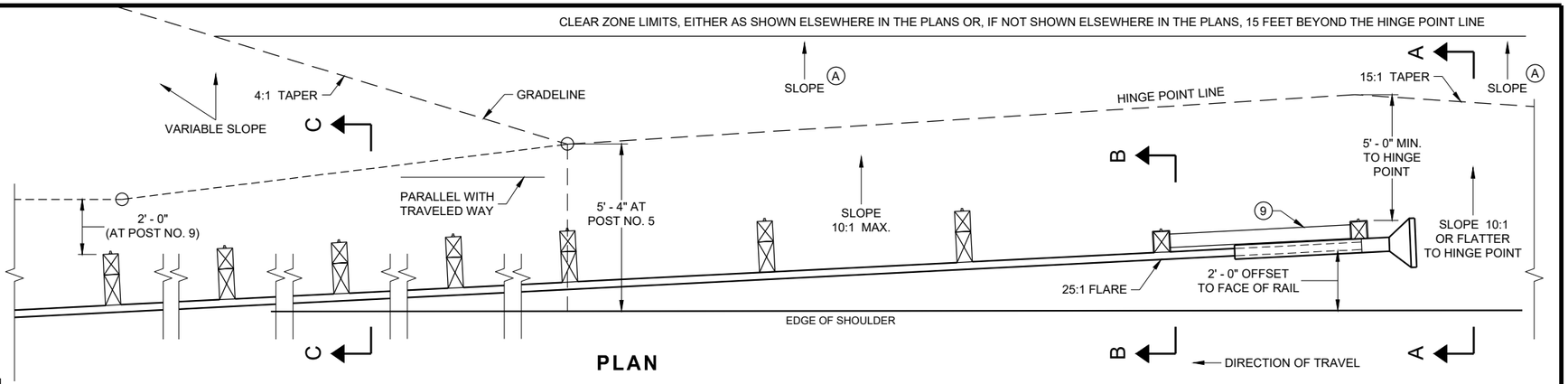
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

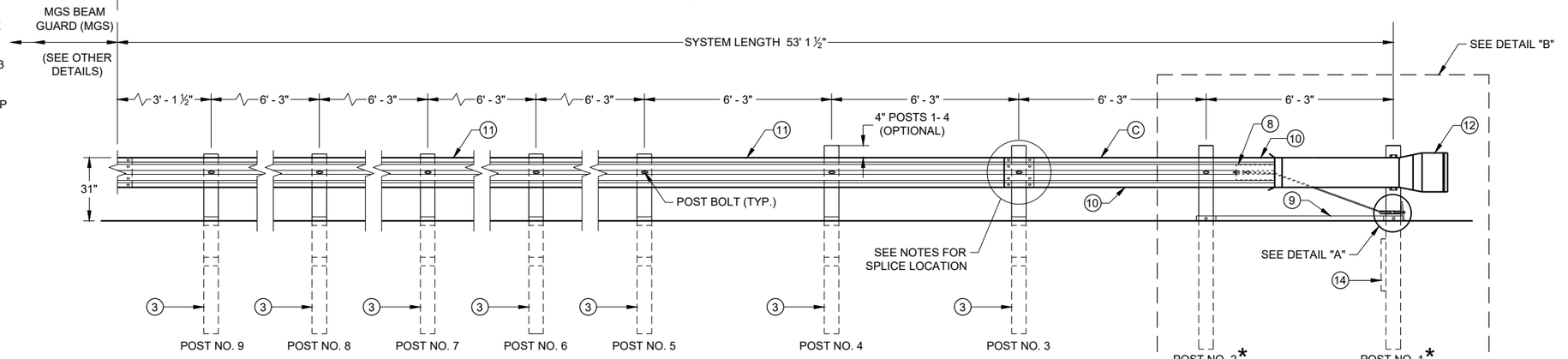
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



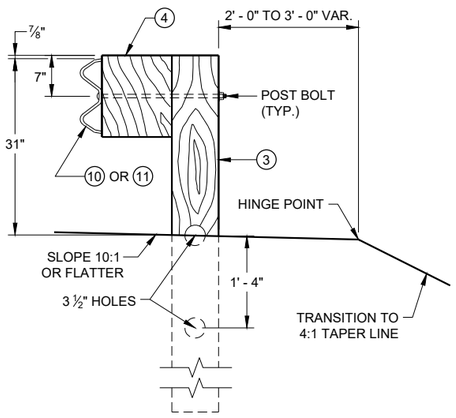
DETAIL "A" (E)



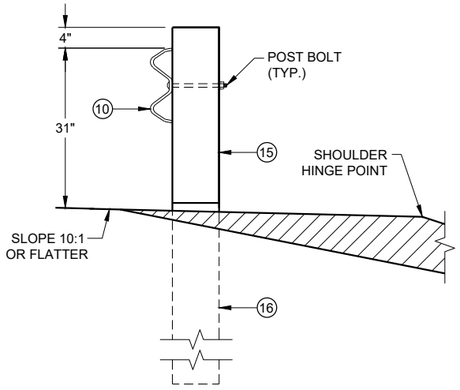
PLAN



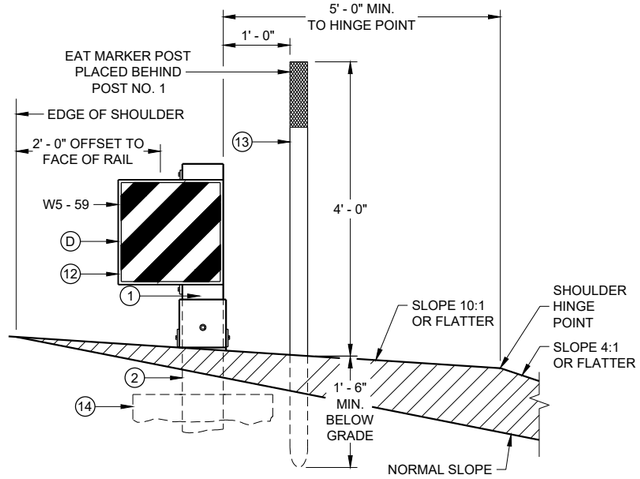
ELEVATION



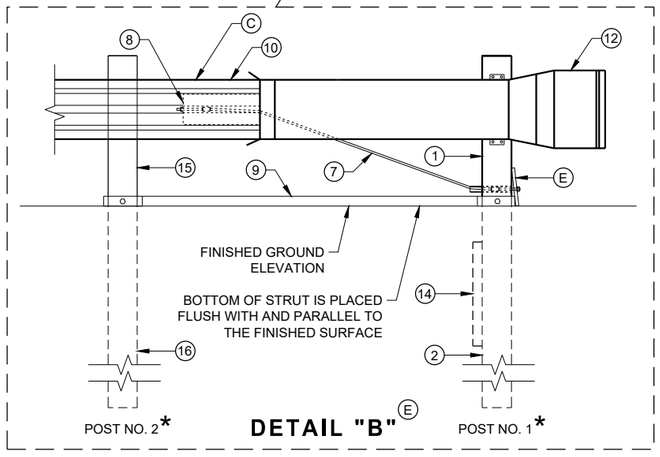
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



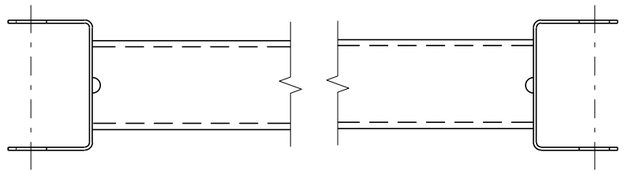
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

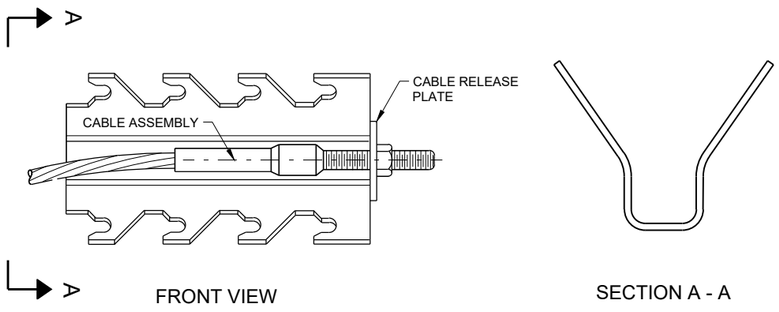
SDD 14B44 - 04a



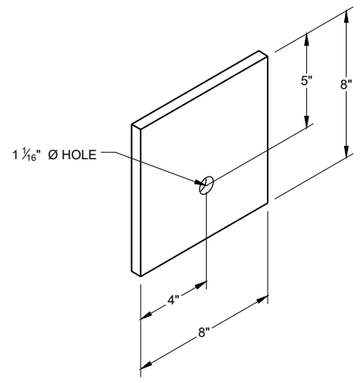
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



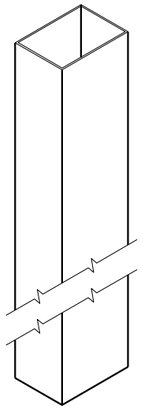
BEARING PLATE ⑥ Ⓔ

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

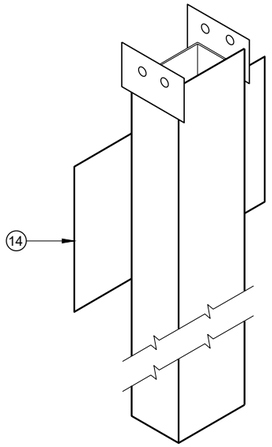
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

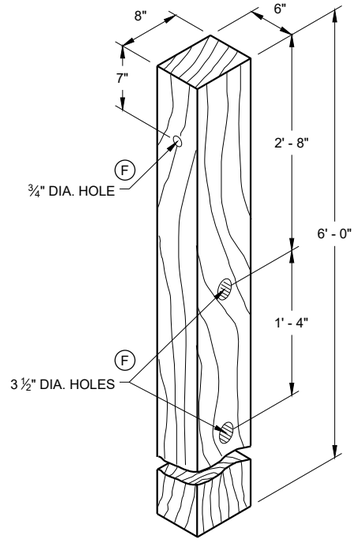
SDD 14B44 - 04b



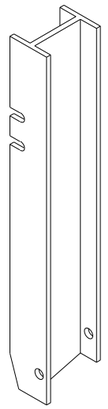
UPPER POST NO. 1 (1) (E)



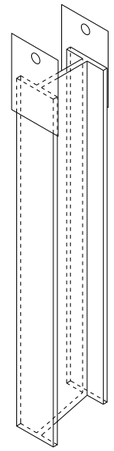
LOWER POST NO. 1 (2) (E)



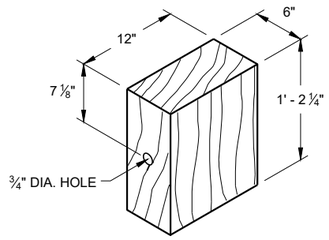
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



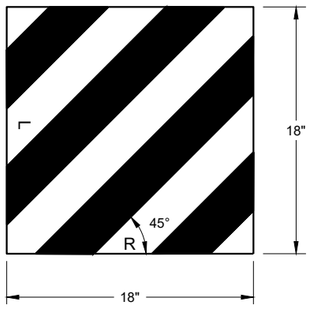
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

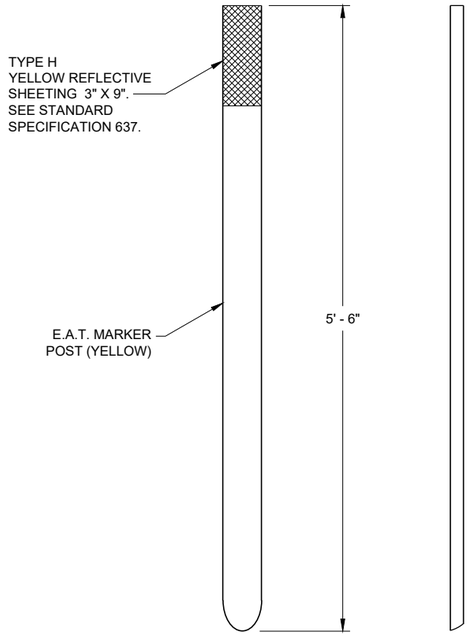


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



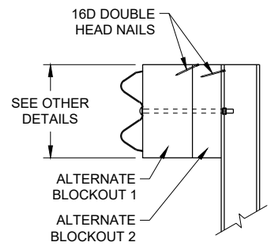
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

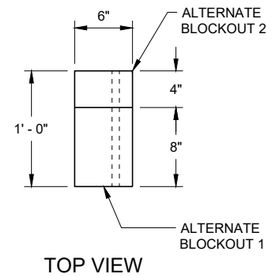


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

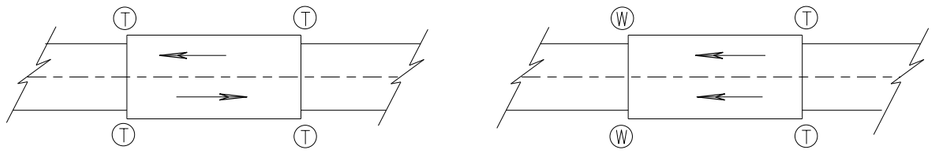
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

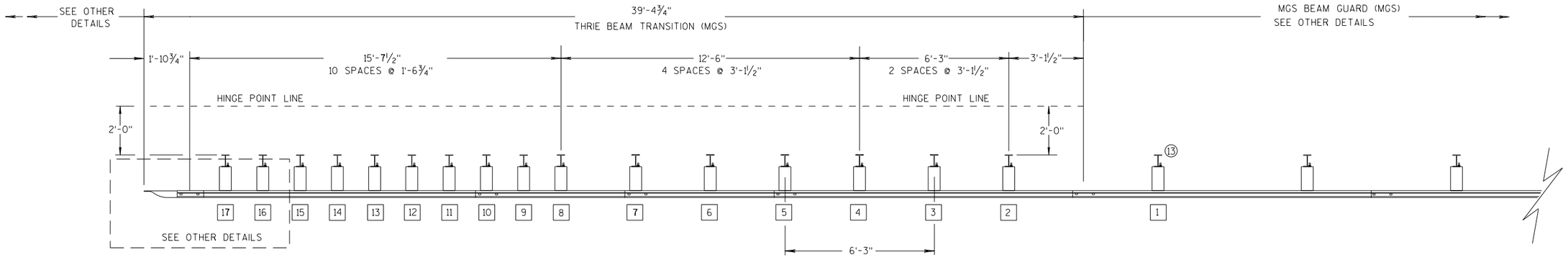
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

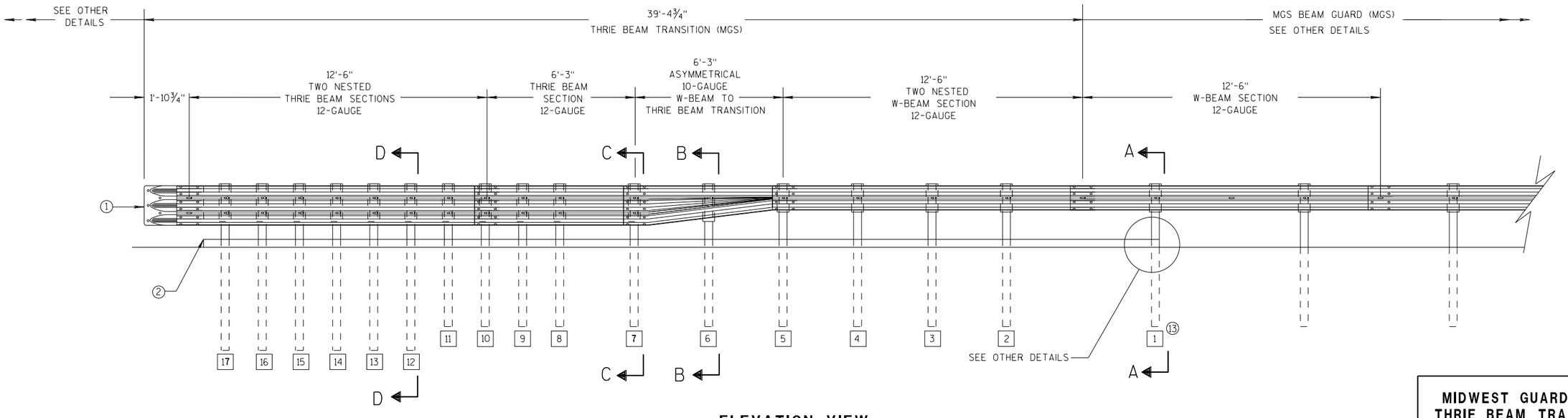
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF 358

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

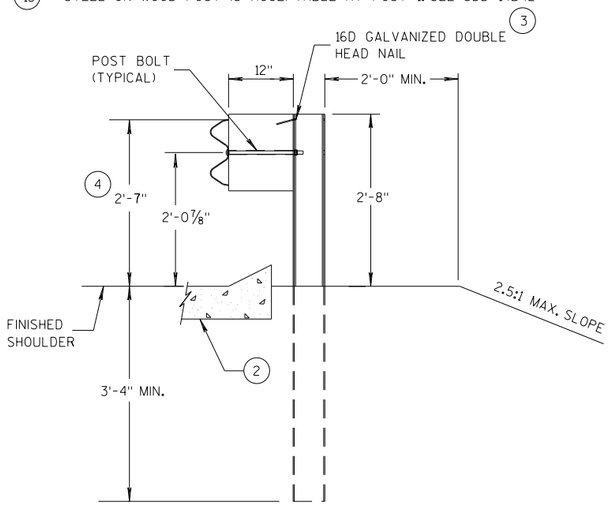
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

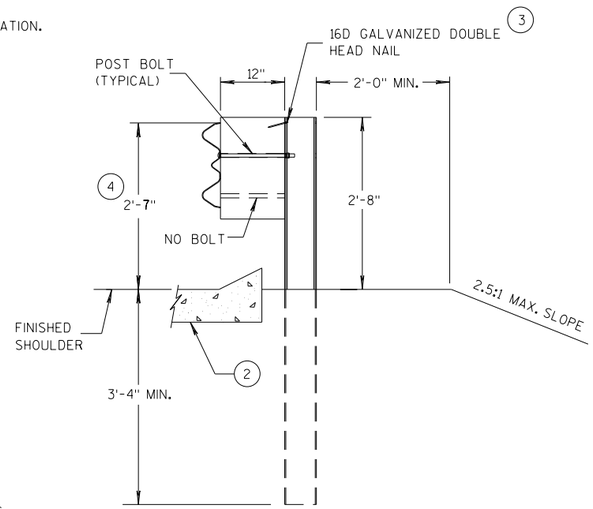
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



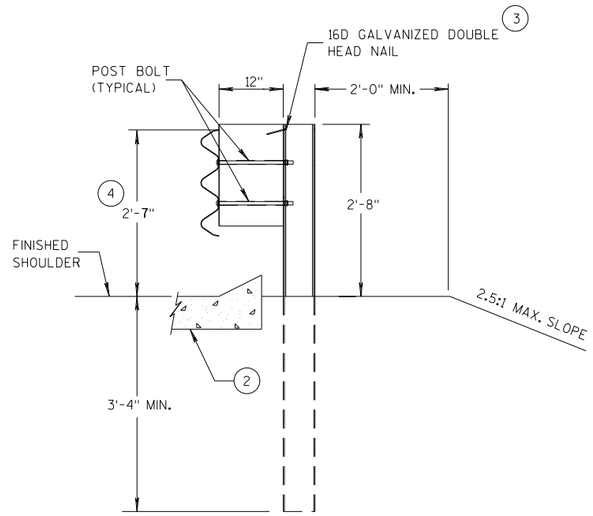
SECTION A-A (13)

POSTS 1-5



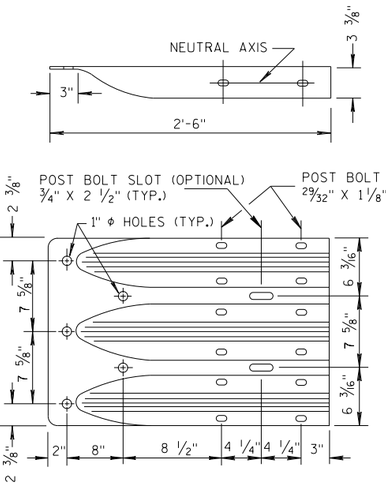
SECTION B-B

POST 6

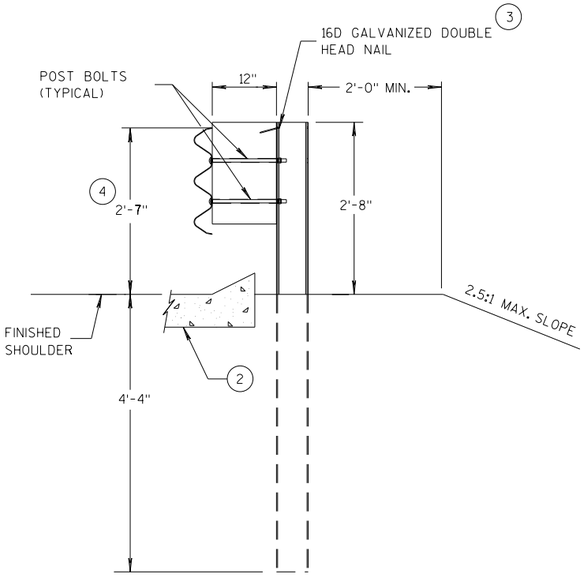


SECTION C-C

POSTS 7-11

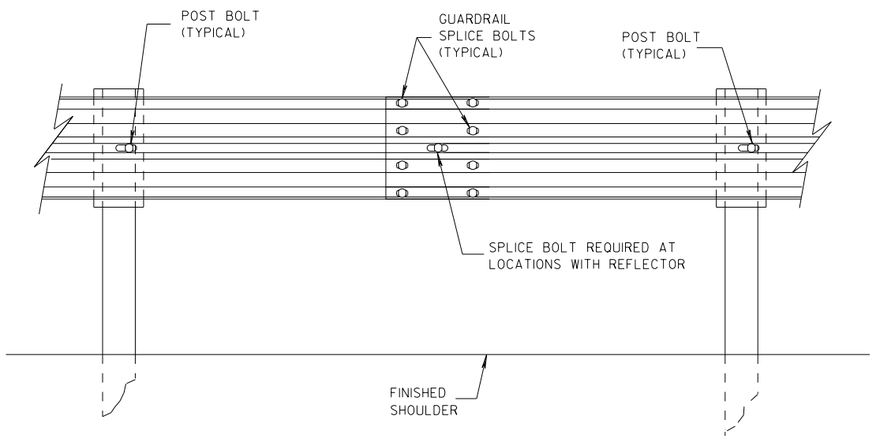


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

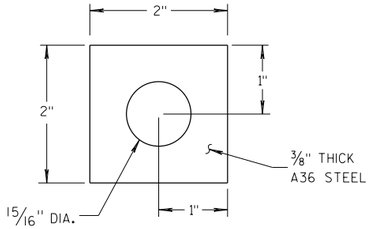
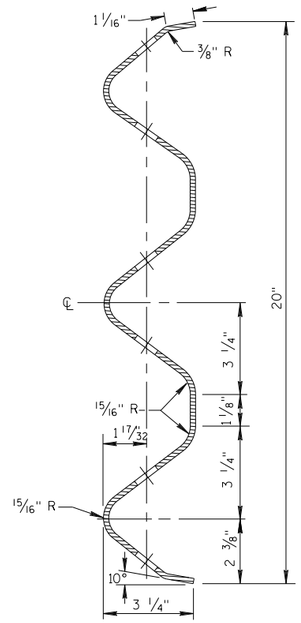


PLATE WASHER DETAIL



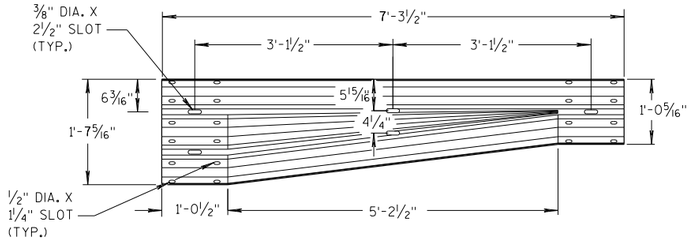
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

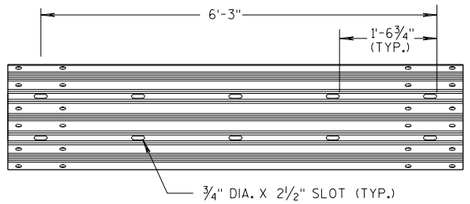
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

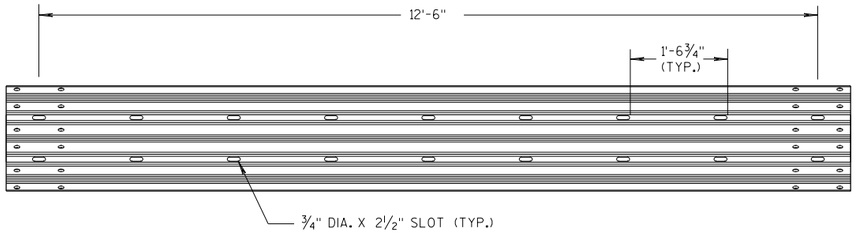
S.D.D. 14 B 45-5b



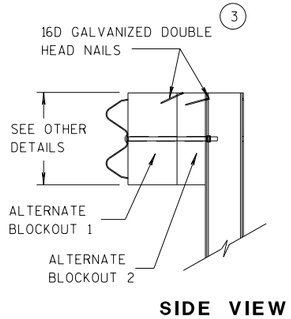
W-BEAM TO THRIE BEAM TRANSITION SECTION



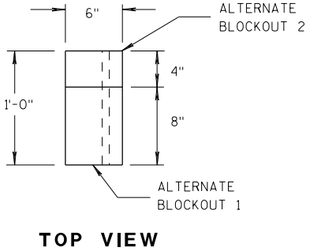
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

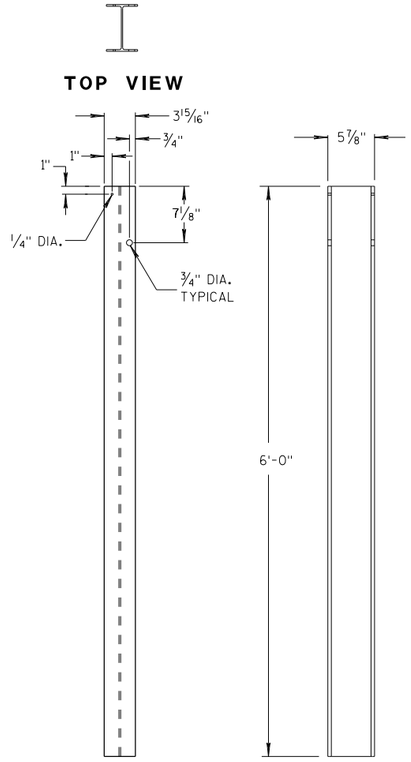


SIDE VIEW



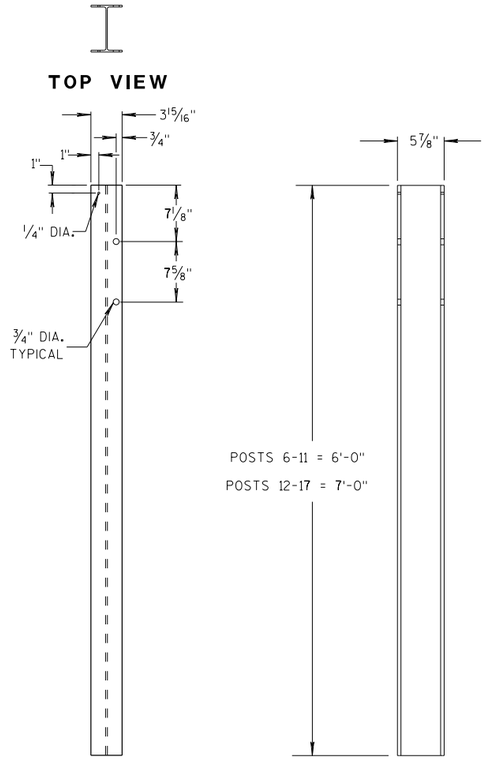
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



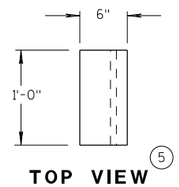
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

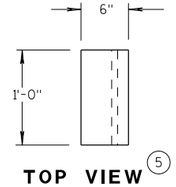


FRONT VIEW SIDE VIEW

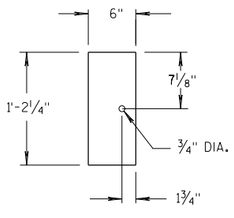
STEEL POSTS 6-17



TOP VIEW (5)

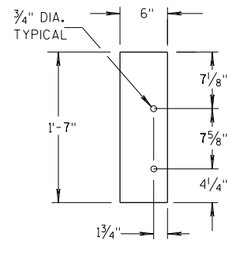


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

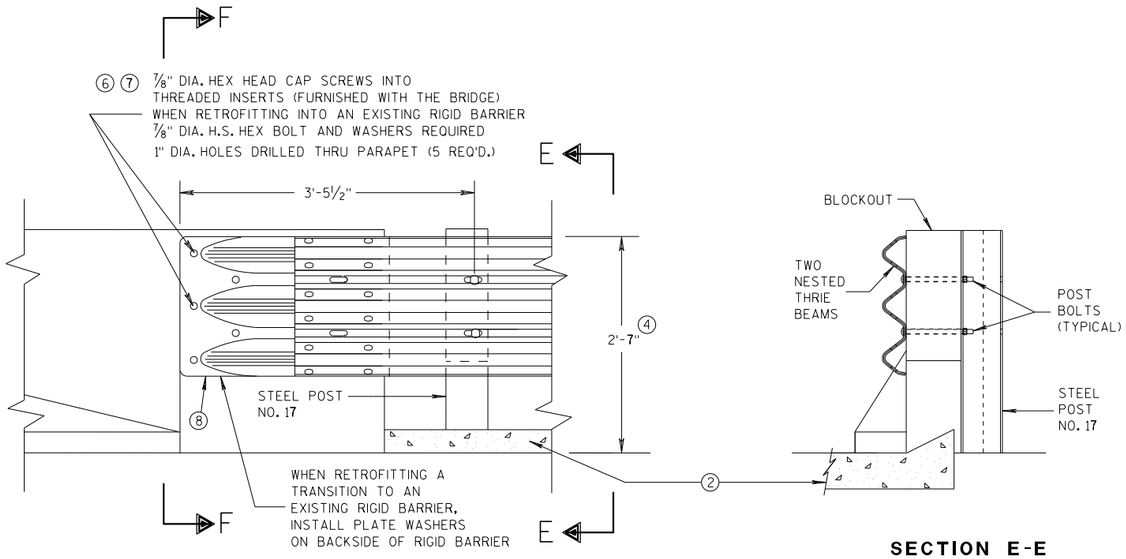
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF 360

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

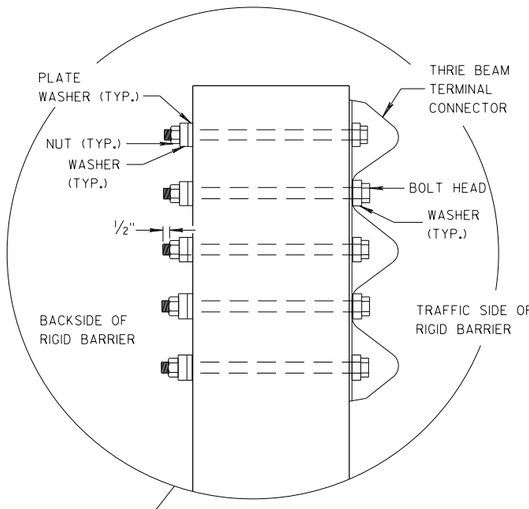
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

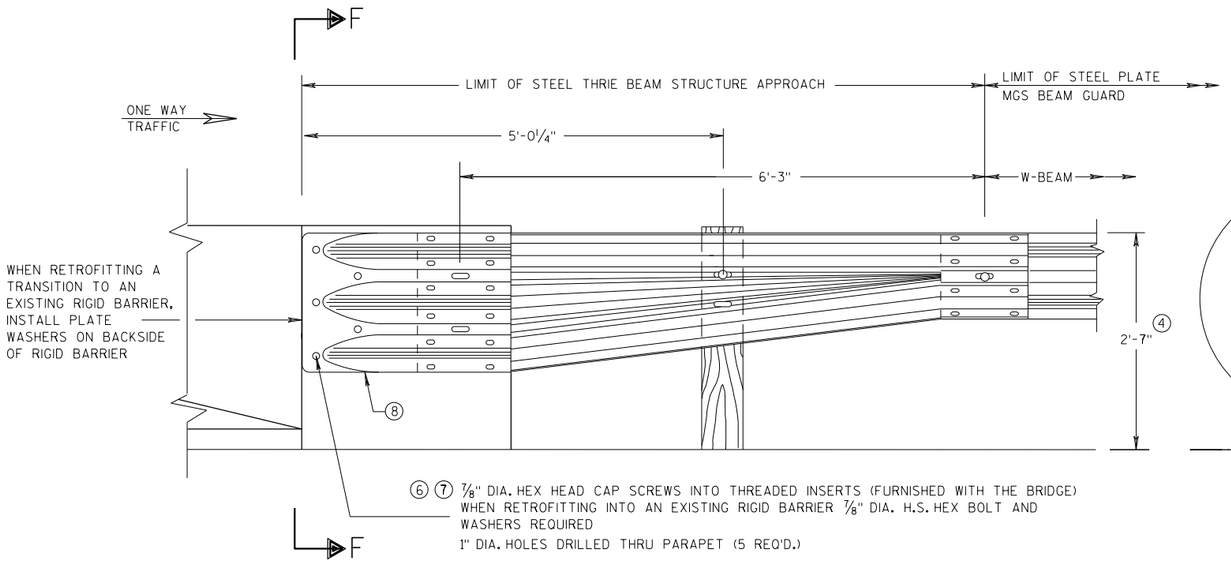
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

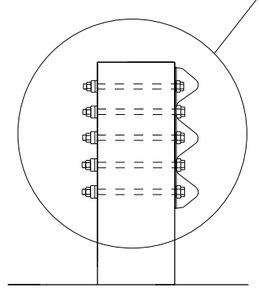
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

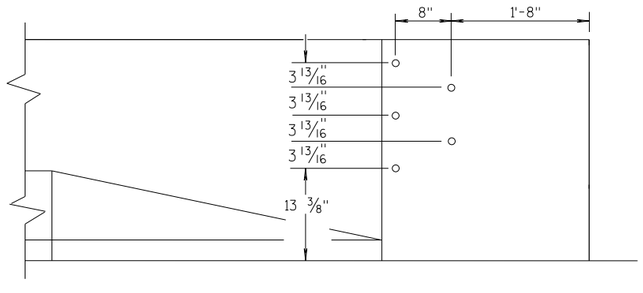




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

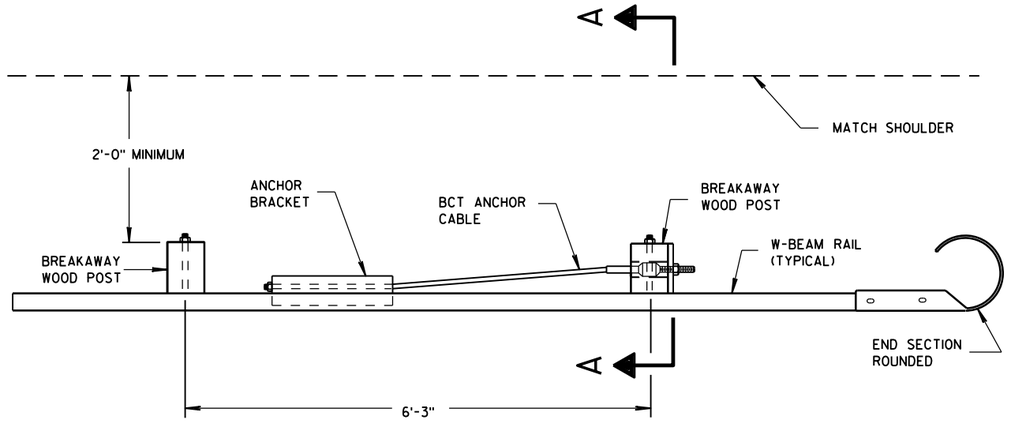
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

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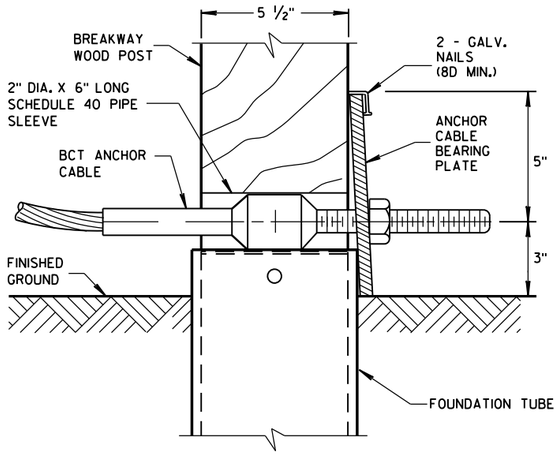
S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d



PLAN VIEW



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

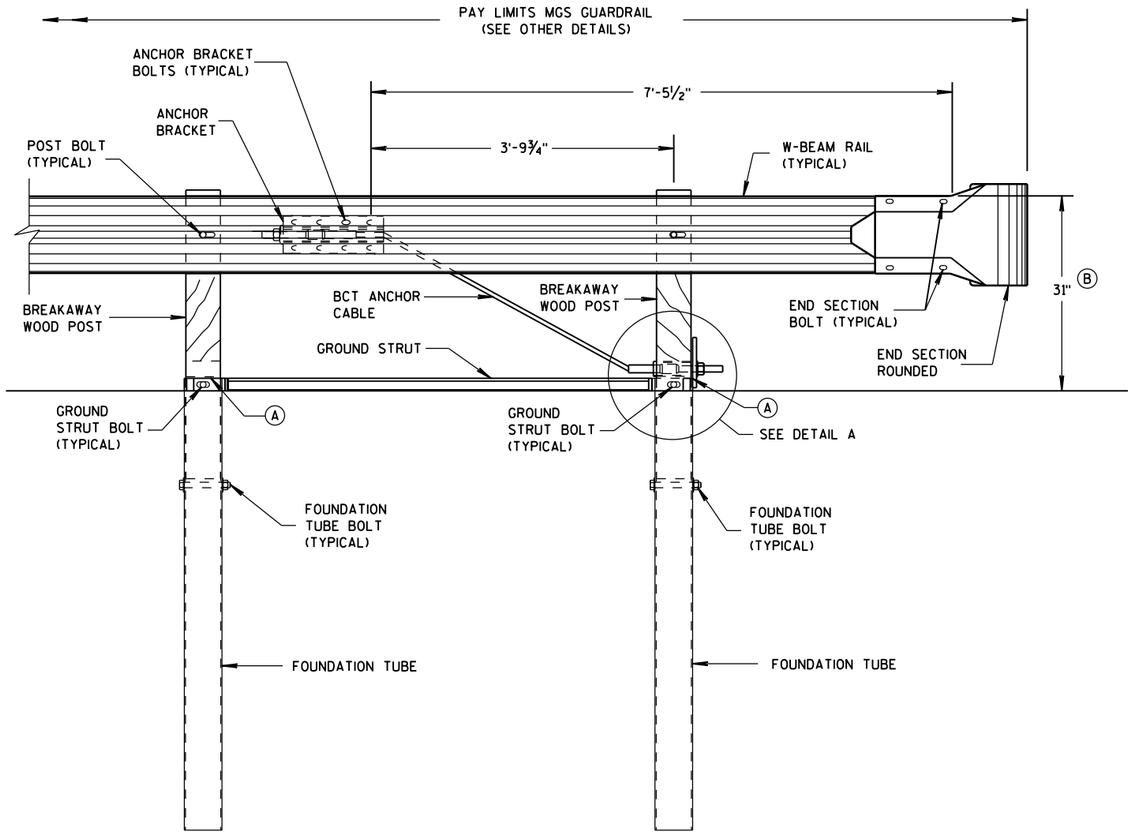
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

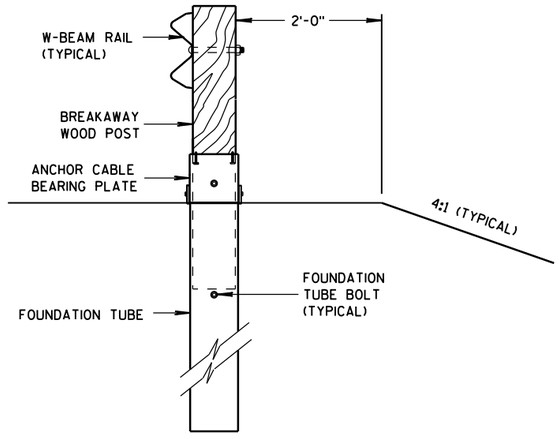
(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".

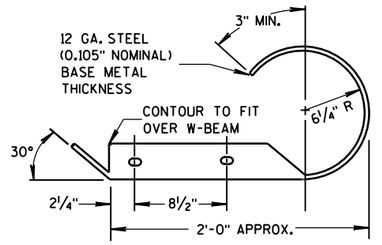


FRONT VIEW

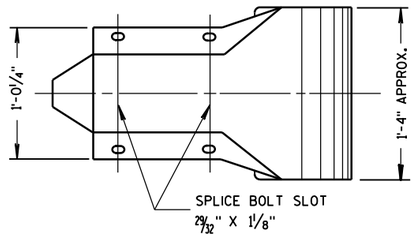
END RAIL DETAIL



SECTION A-A



PLAN VIEW



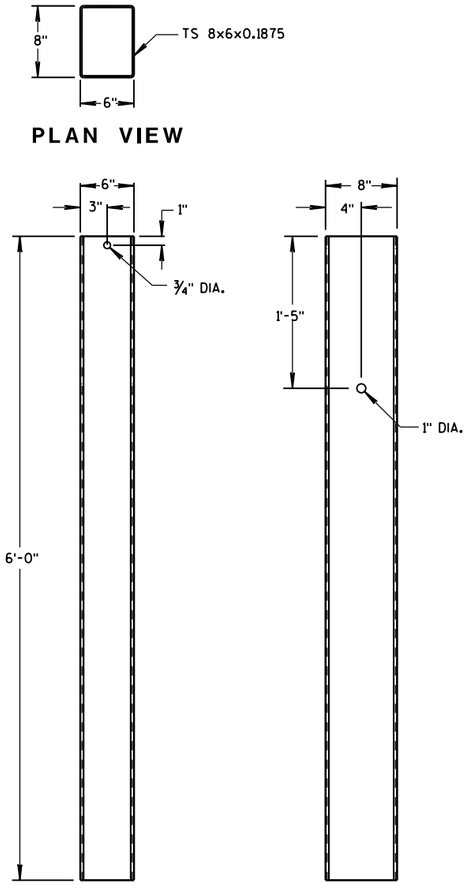
FRONT VIEW

W BEAM END SECTION ROUNDED

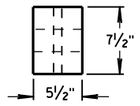
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

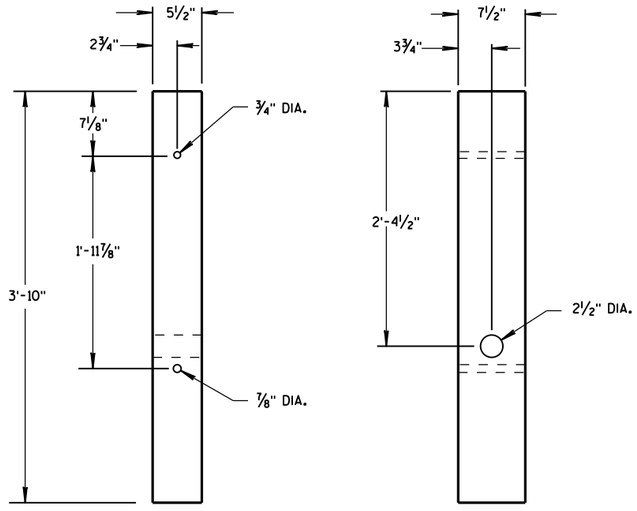
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 14 B 47-2a



FOUNDATION TUBE



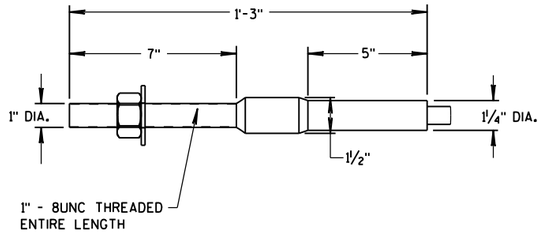


BREAKAWAY WOOD POST

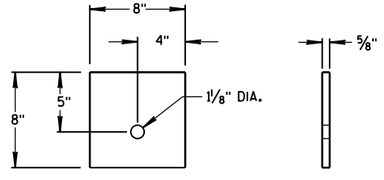
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



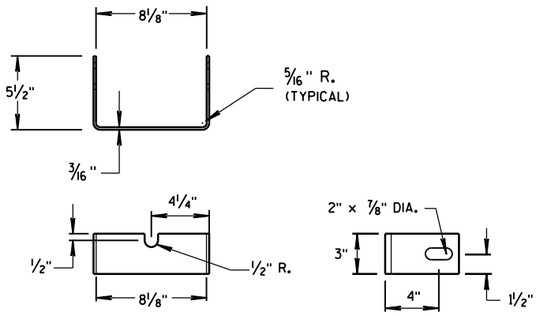
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

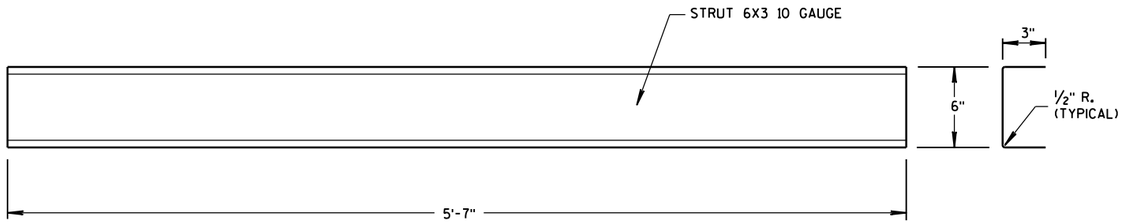
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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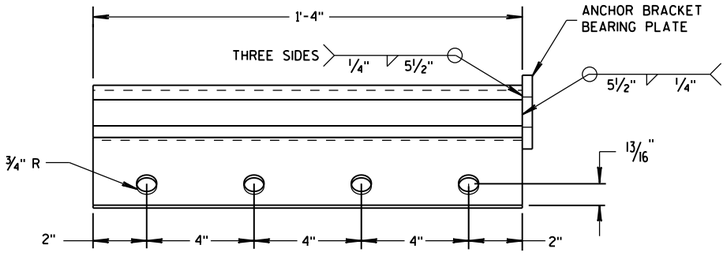
S.D.D. 14 B 47-2b

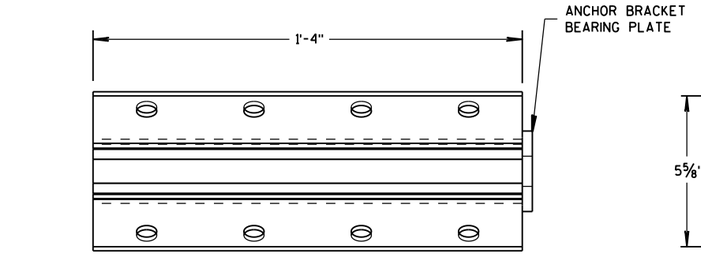


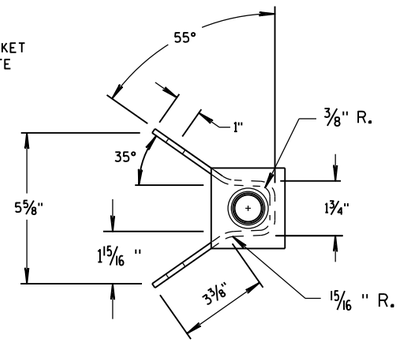
YOKE DETAIL



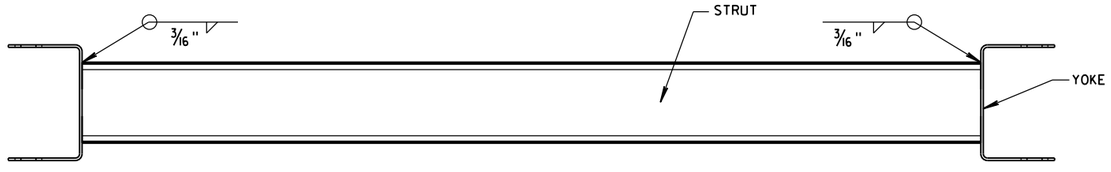
STRUT DETAIL



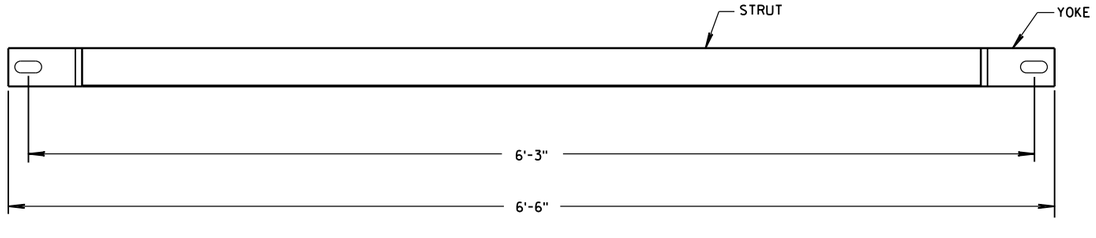




ANCHOR BRACKET

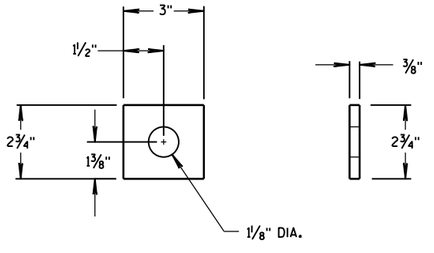


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

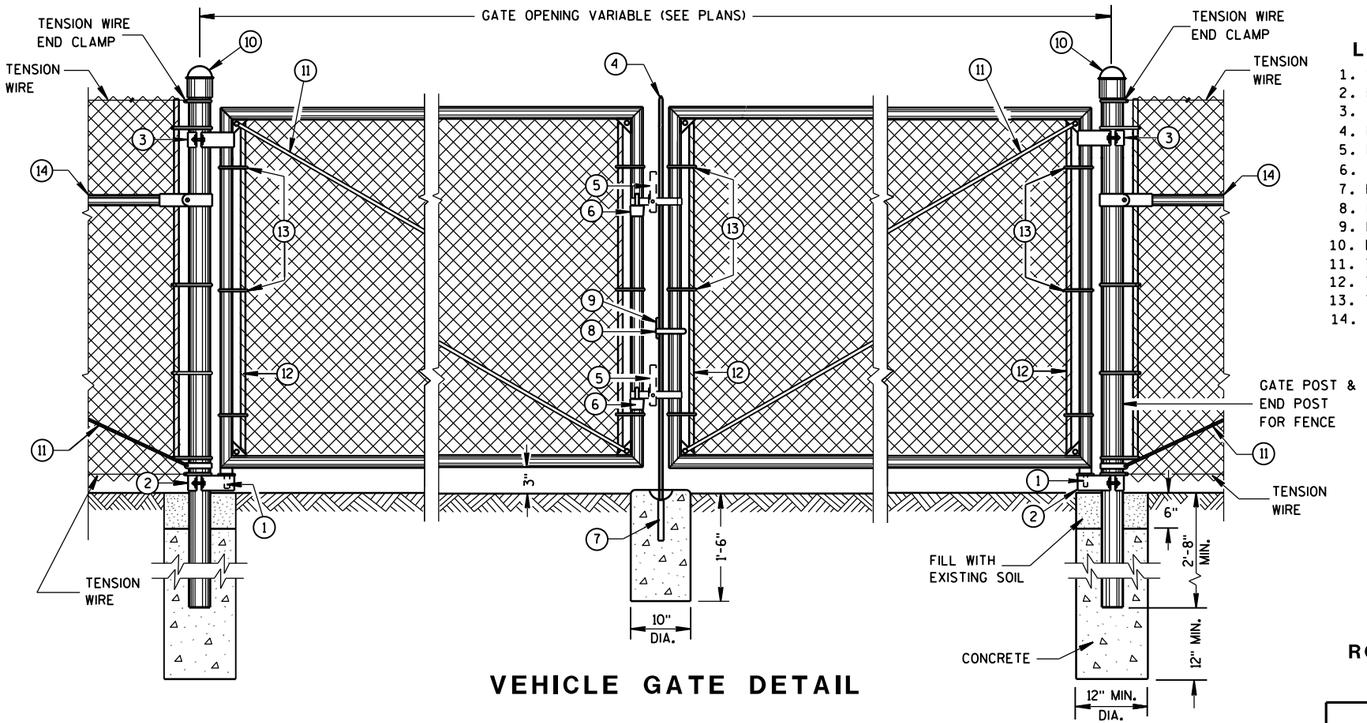
APPROVED
June 2014
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

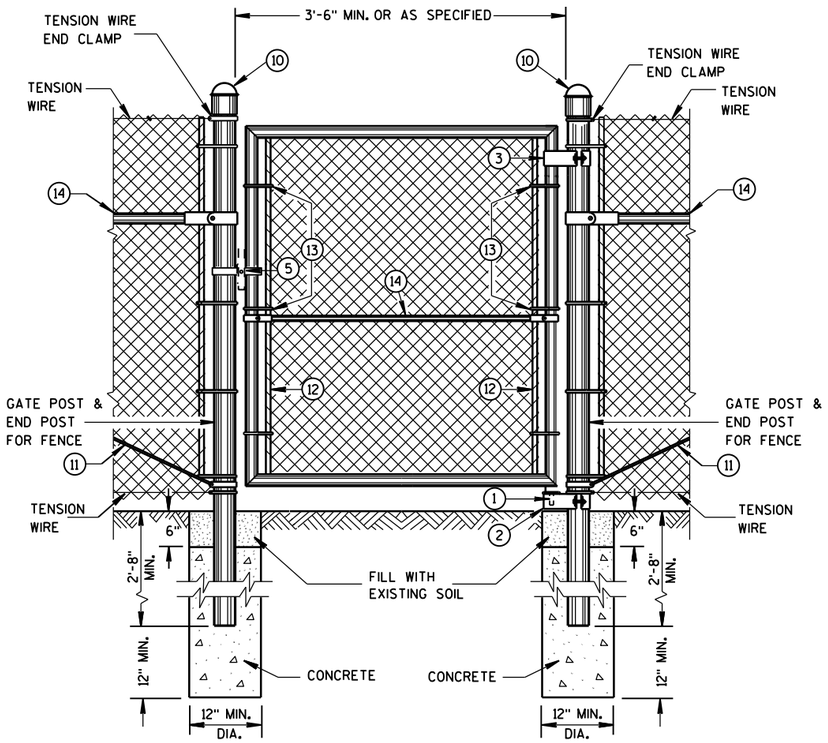
FHWA

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S.D.D. 14 B 47-2c



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

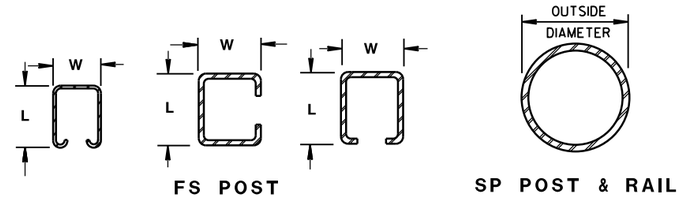
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

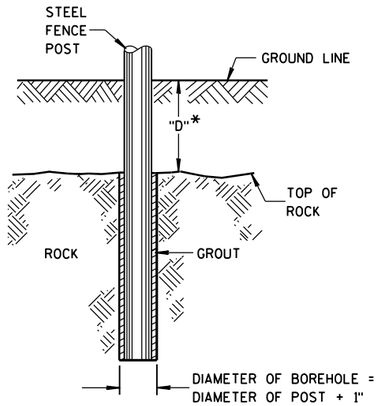
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

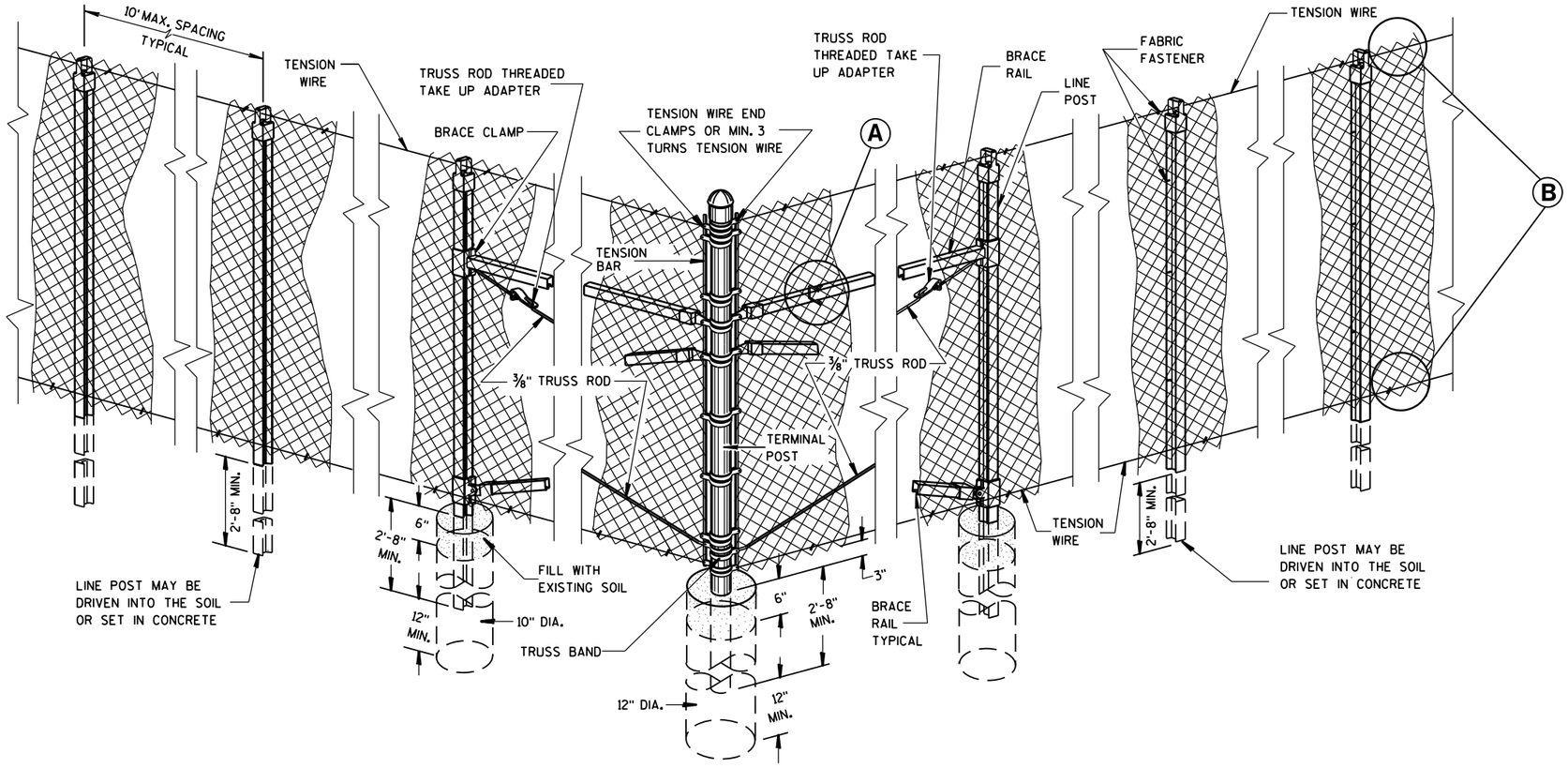
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S.D.D. 15 B 3-15a

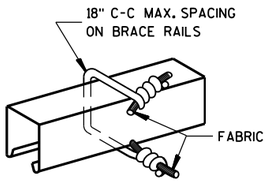


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



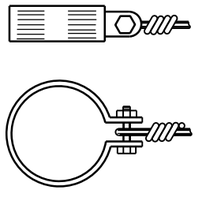
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



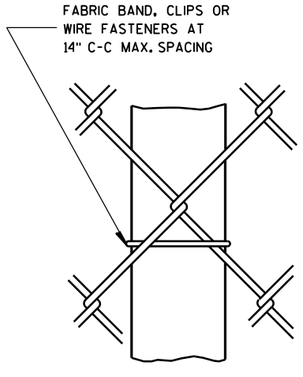
BRACE RAIL

FABRIC FASTENER

Ⓐ



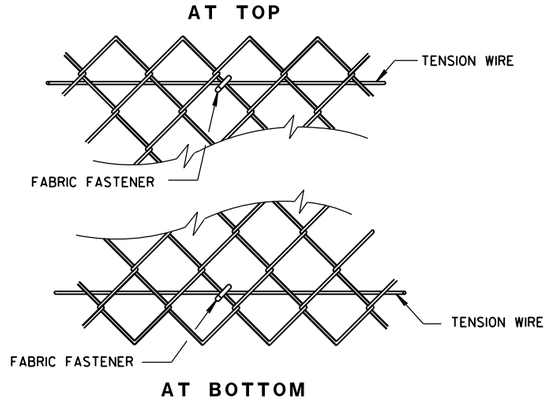
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

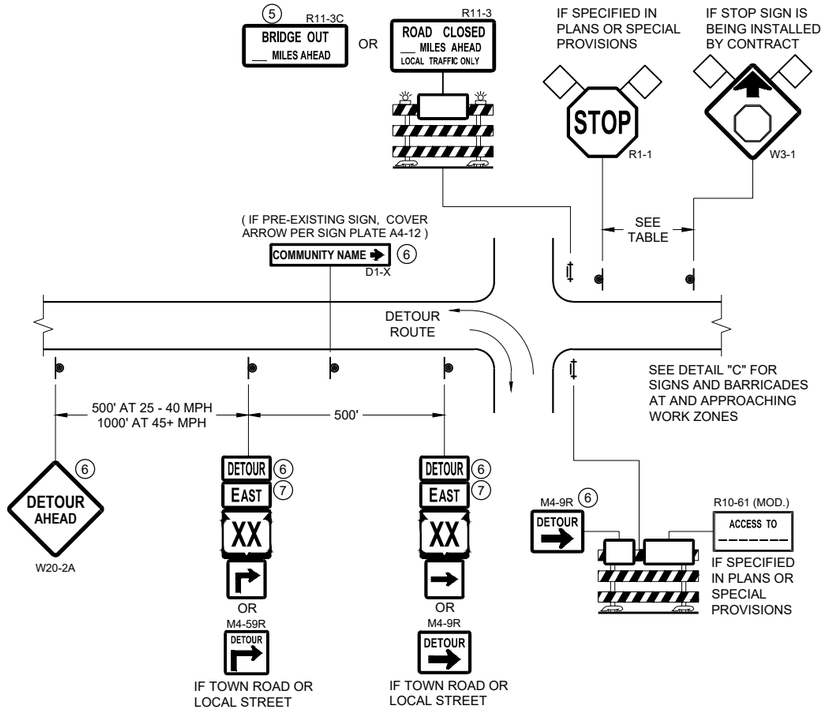
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-15b

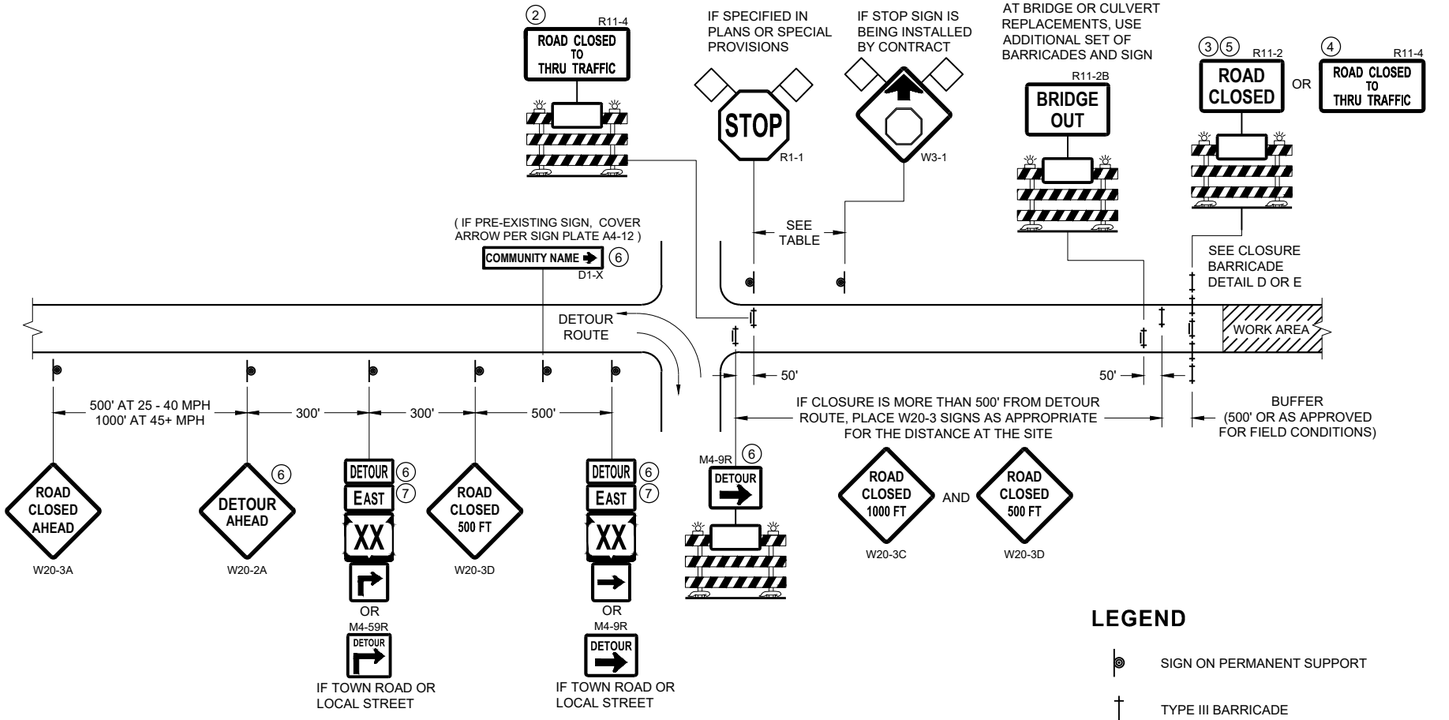
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S.D.D. 15 B 3-15b



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

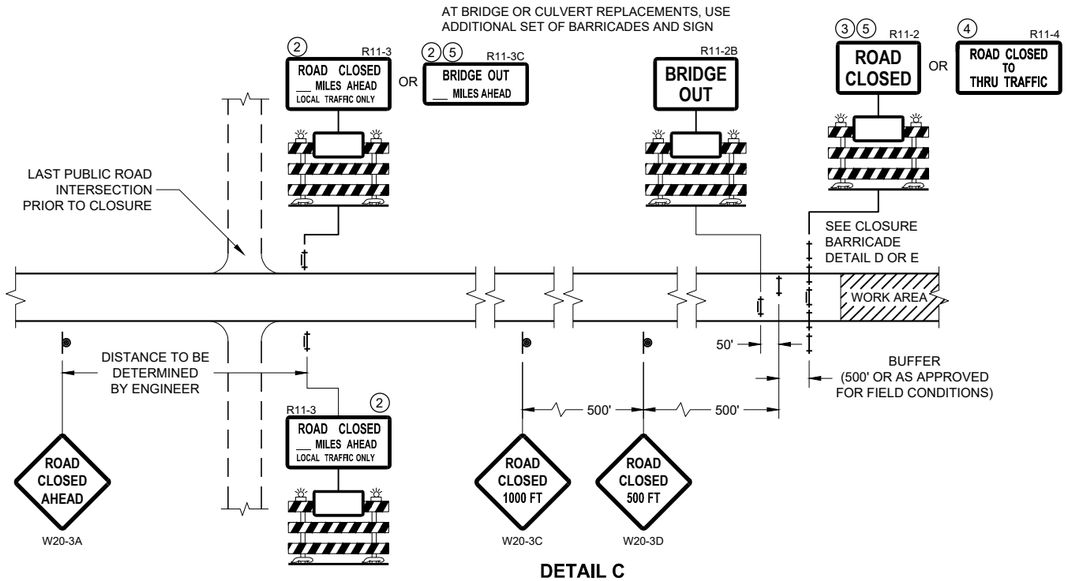


DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

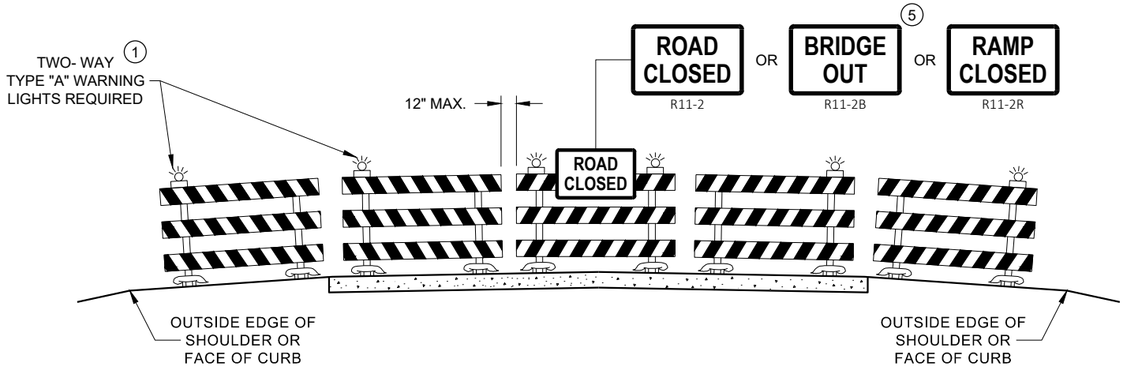
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

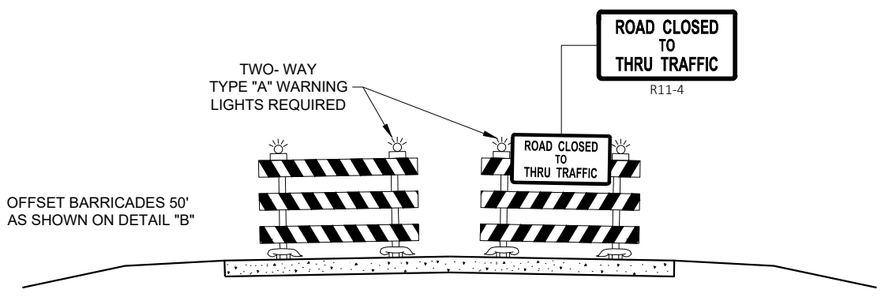
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SDD 15C02 - 07a

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 07b

6

SDD 15C02 - 07b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR EAST XX / WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES * G20-51

DETOUR WEST XX * OR M4-59L DETOUR ** IF TOWN ROAD OR LOCAL STREET

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

MATCH POINT

* M4-59L DETOUR ** OR DETOUR EAST XX * IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L DETOUR ** OR DETOUR EAST XX IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR ** IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX *

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

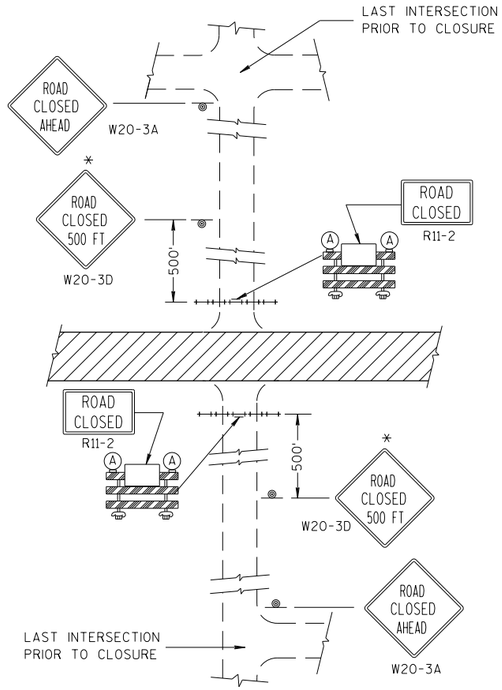
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

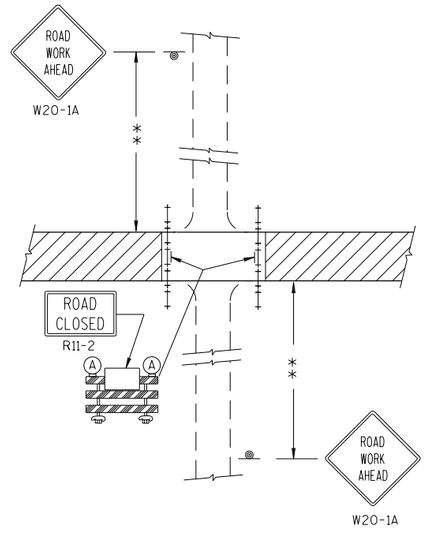
SDD 15C02 - 07c

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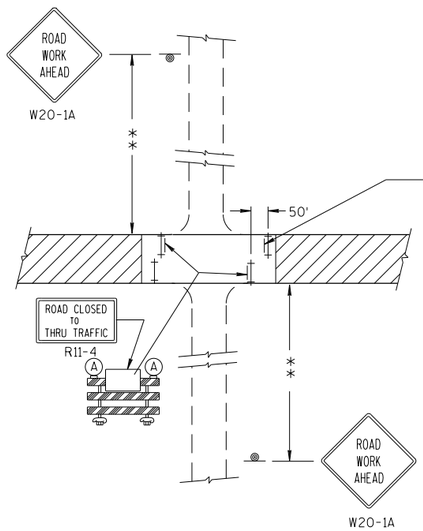
DETAIL 1

(NO ACCESS TO PROJECT)



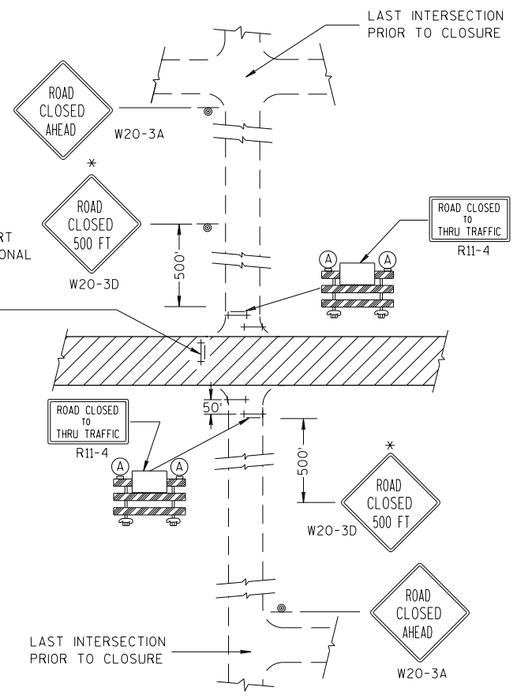
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGI
FHWA

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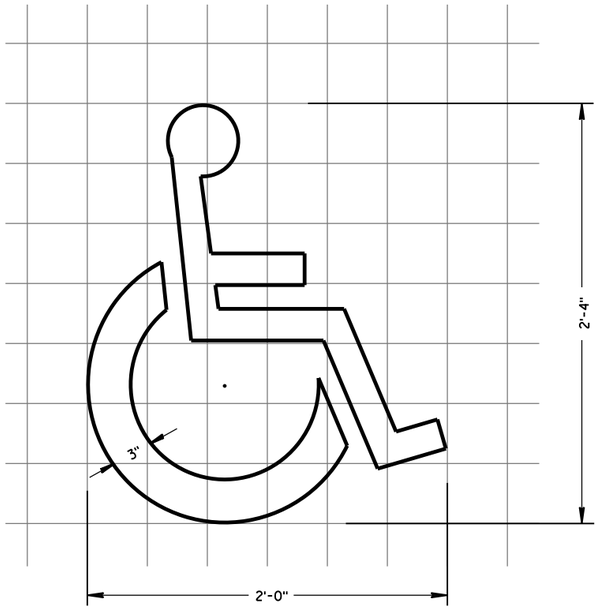
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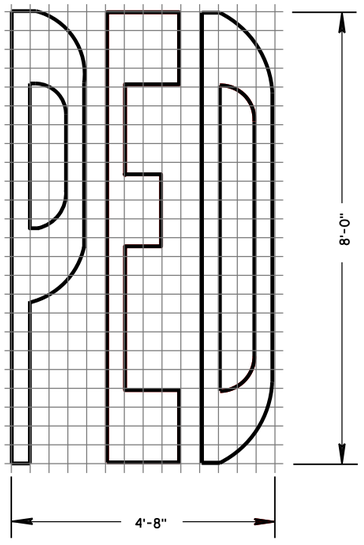
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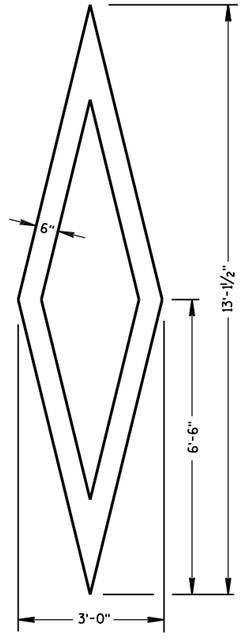
GENERAL NOTES

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



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

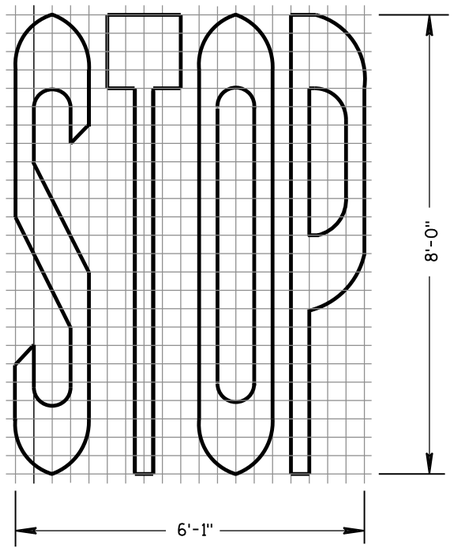
June 2017 — DATE

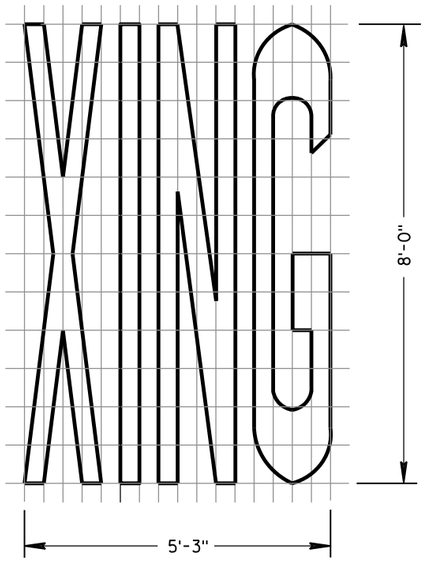
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

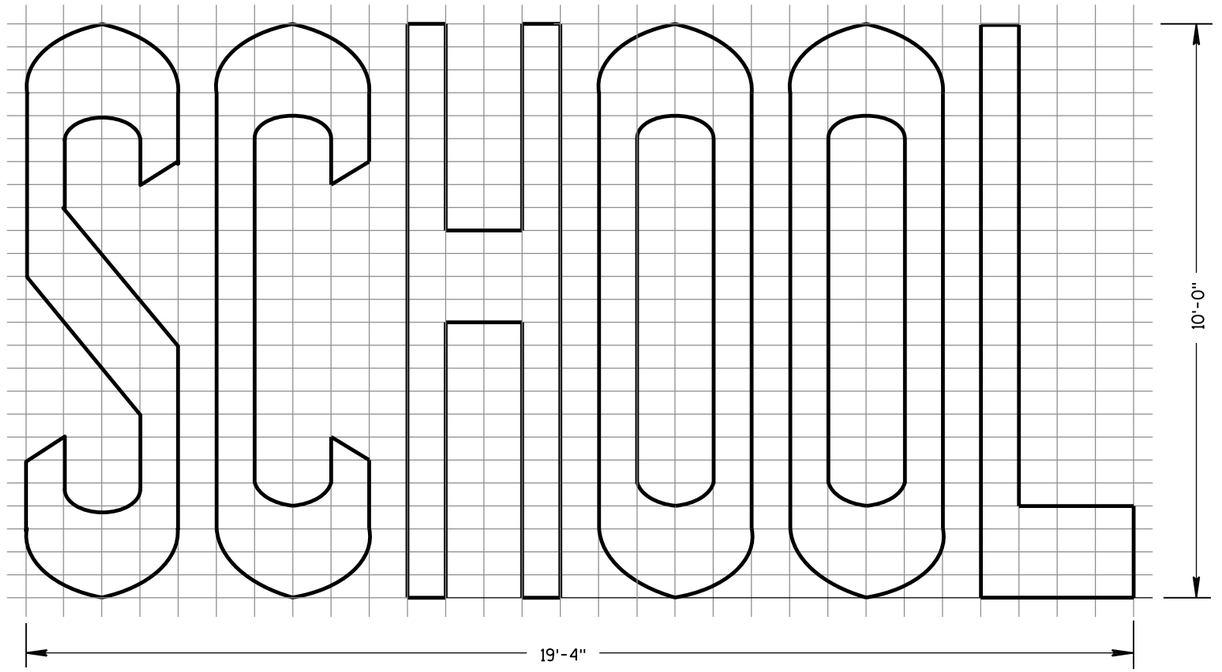
FHWA

GENERAL NOTES

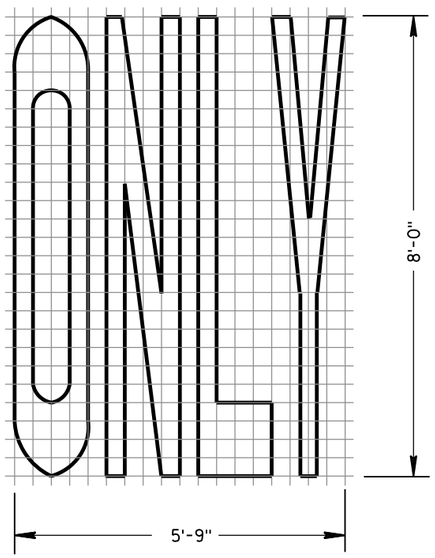
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

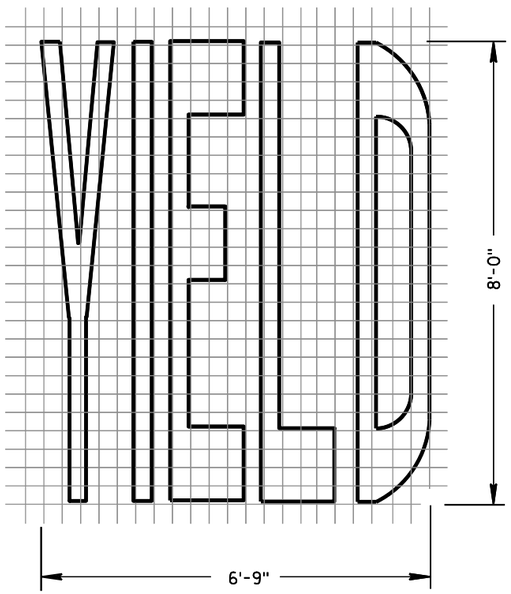


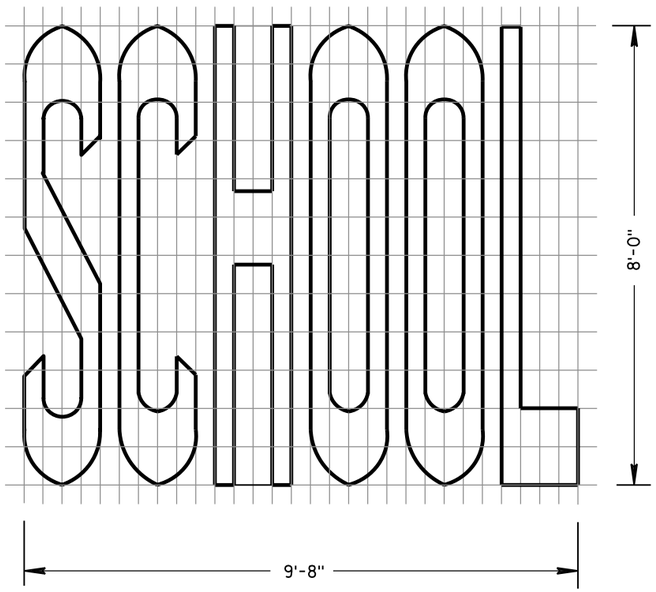




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

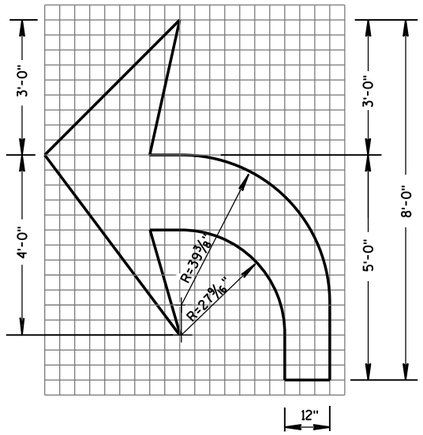
APPROVED
June 2017 — DATE
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FHWA

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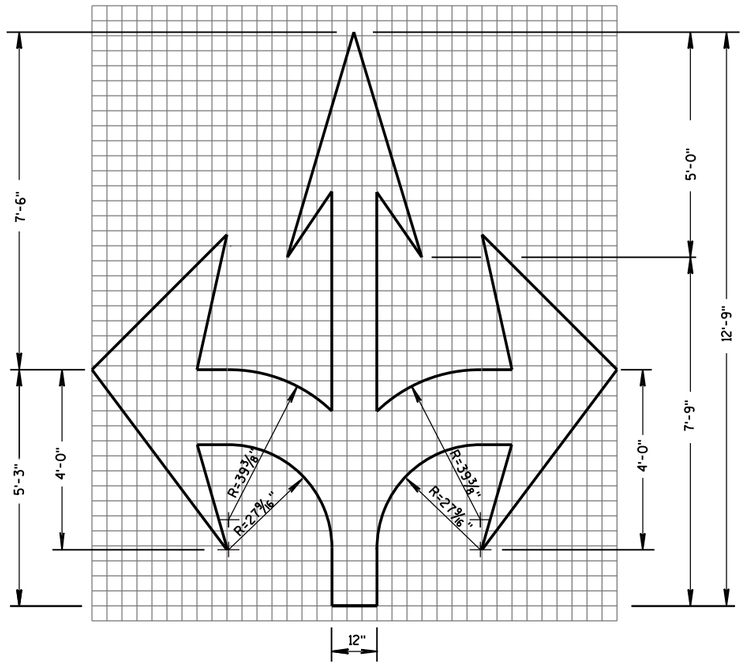
S.D.D. 15 C 7-14b

GENERAL NOTES

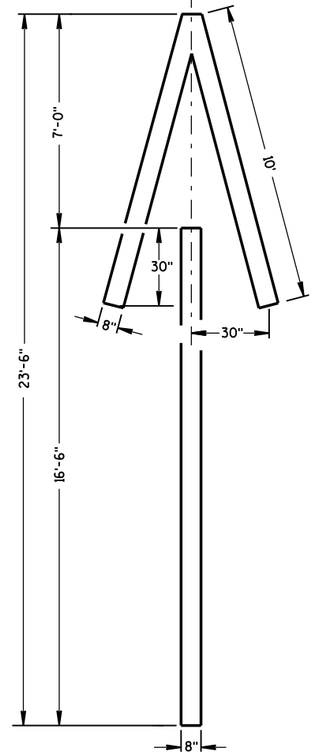
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



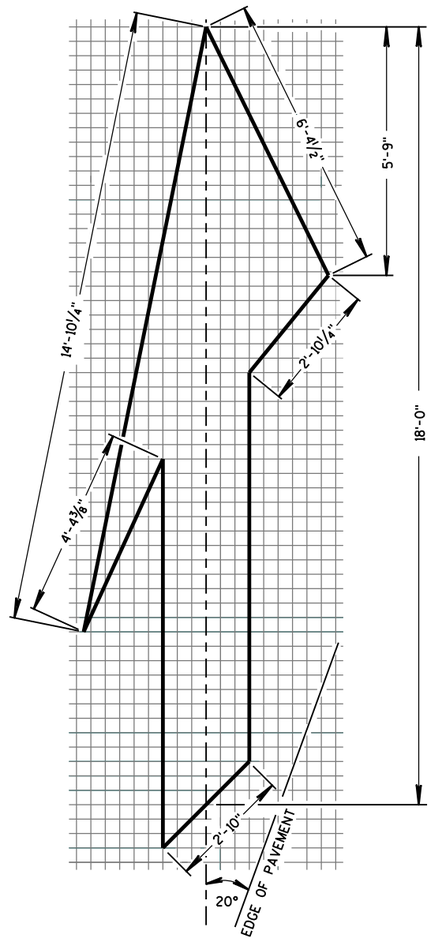
TYPE 2



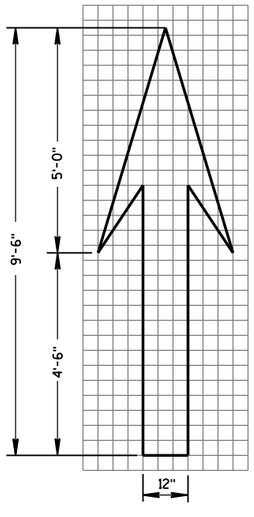
TYPE 6



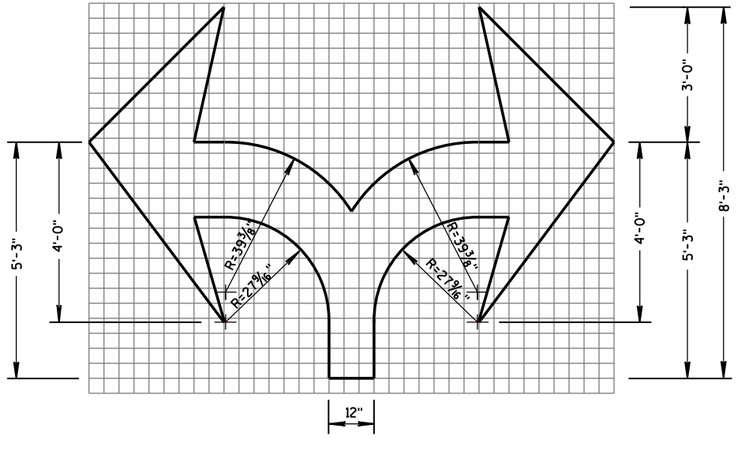
TYPE 4



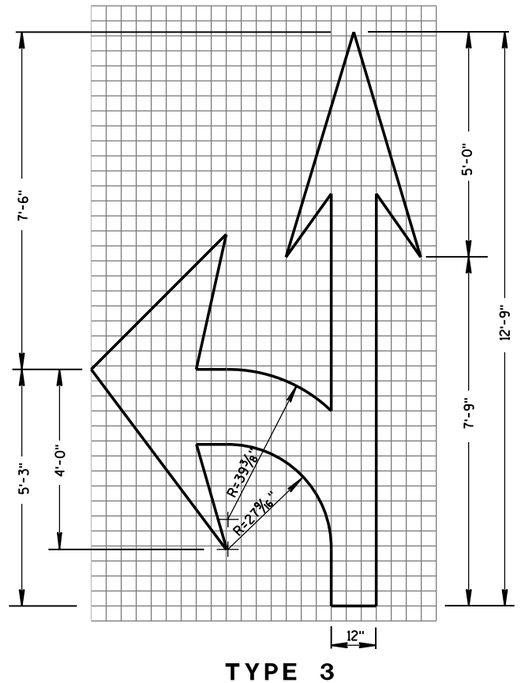
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

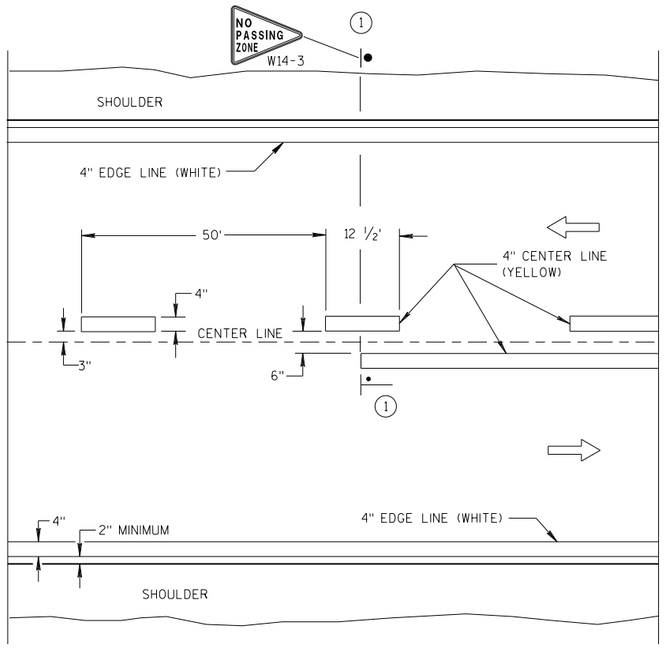
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June 2017 — DATE
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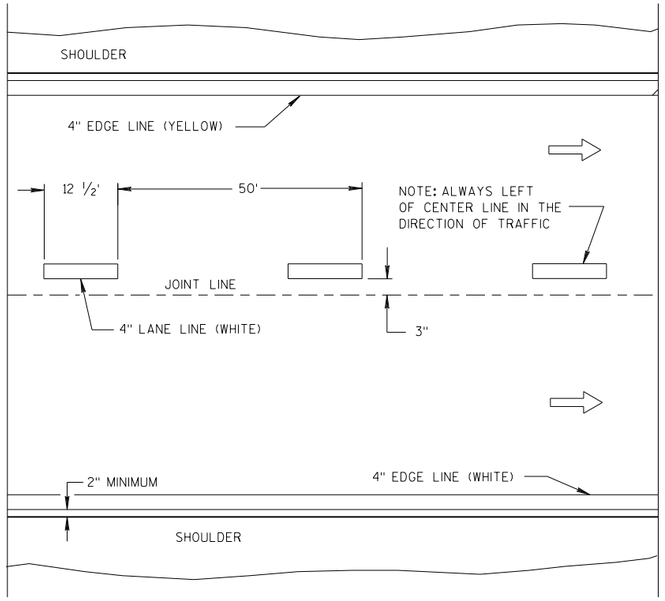
S.D.D. 15 C 7-14c

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S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

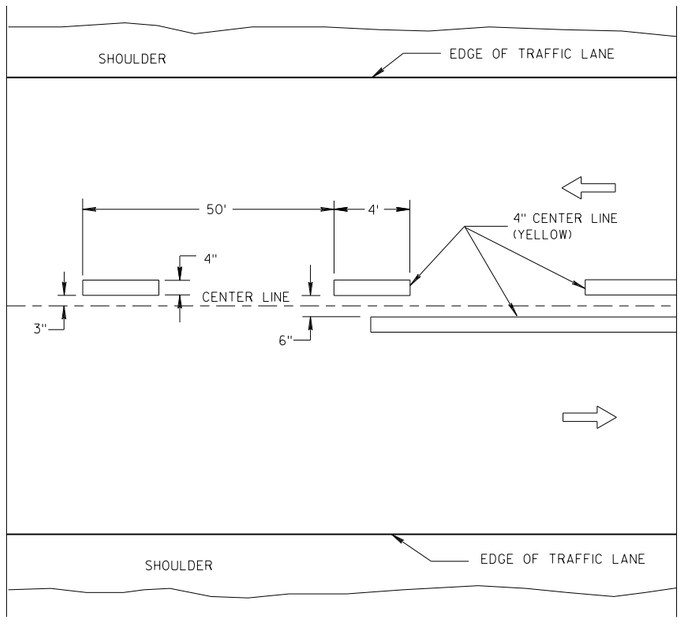
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

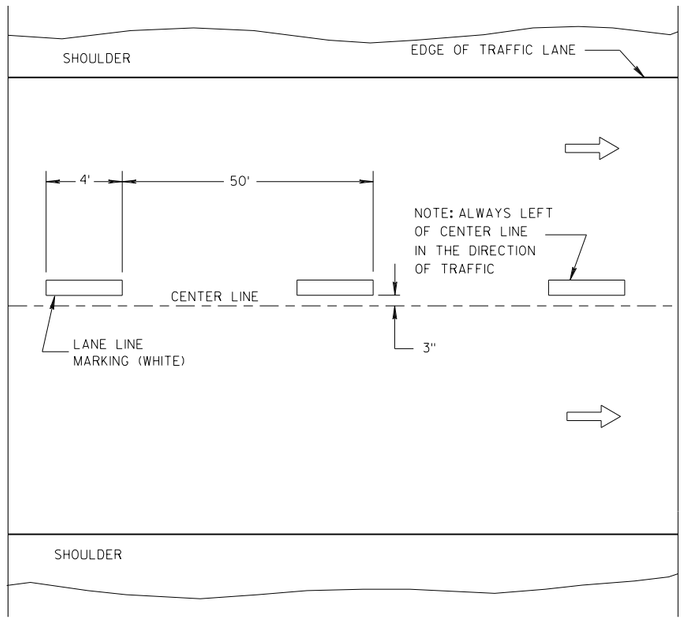
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

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S.D.D. 15 C 8-19a

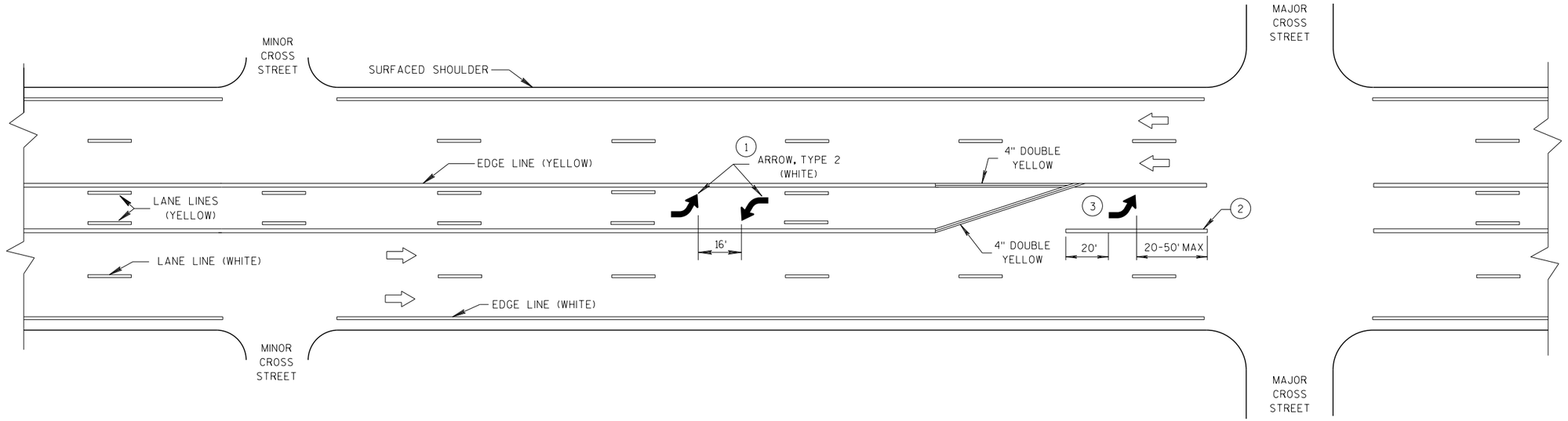
6

S.D.D. 15 C 8-19a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

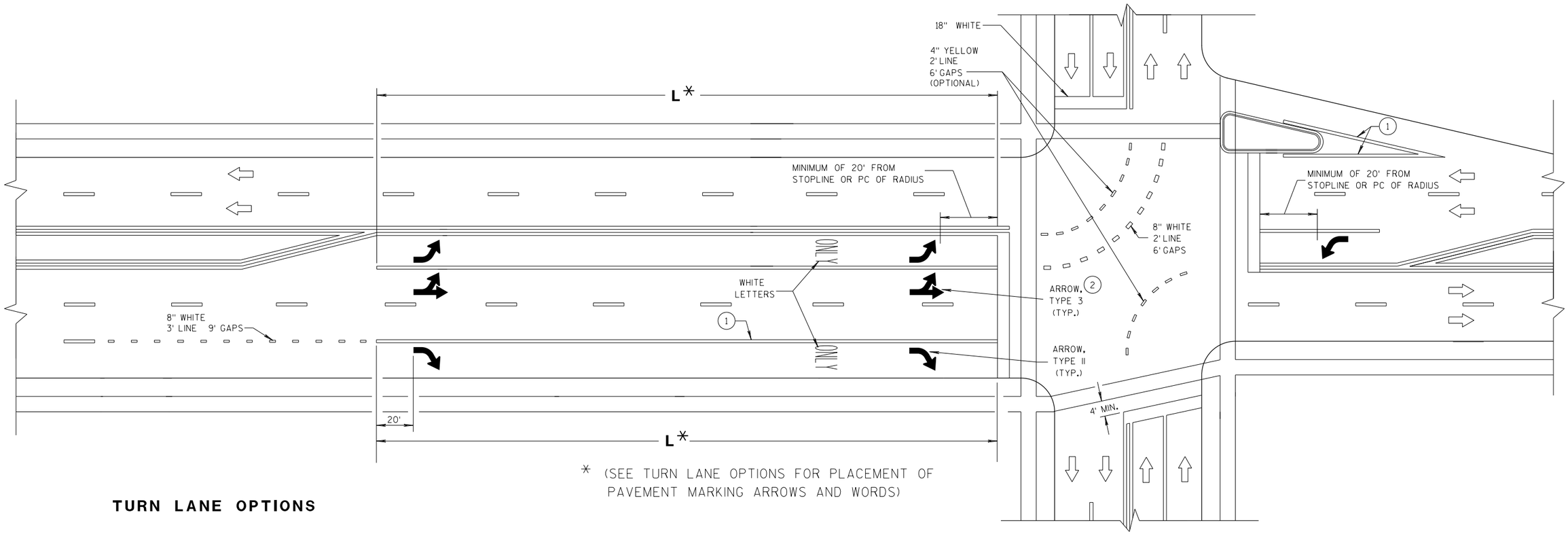
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 8-19b

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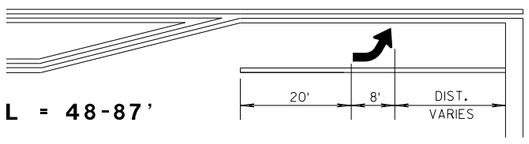
S.D.D. 15 C 8-19b



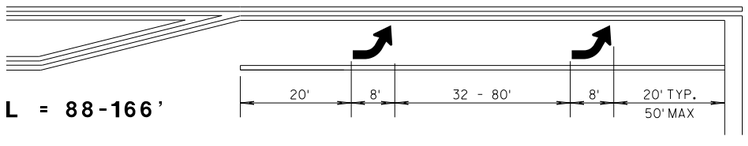
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

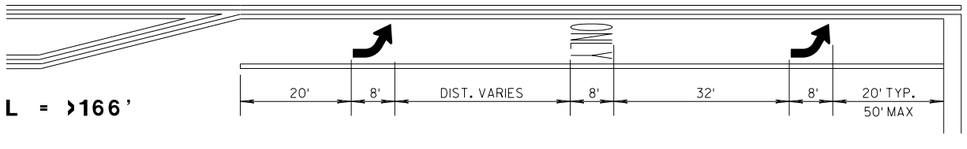
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

(1) 8" WHITE

(2) QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

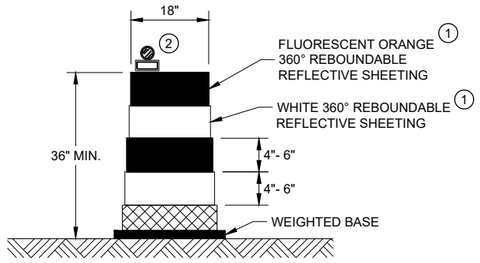
⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

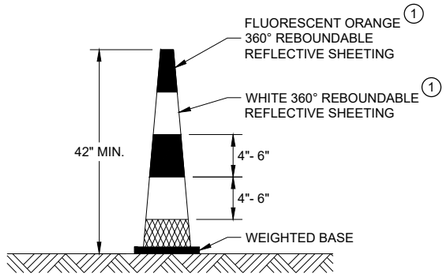
PAVEMENT MARKING (TURN LANES)

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

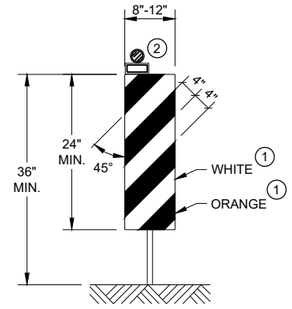


DRUM



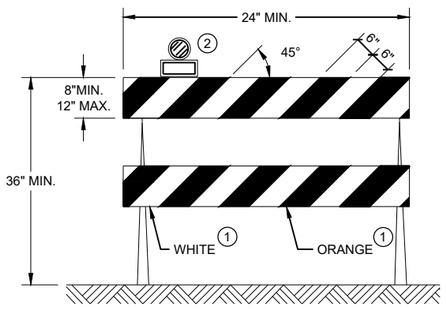
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



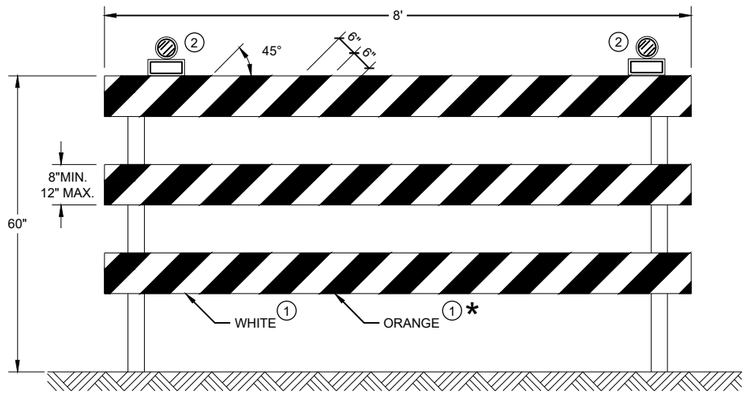
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15C11 - 07b

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SDD 15C11 - 07b

LEGEND

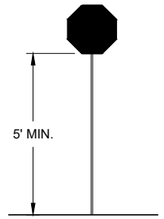
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

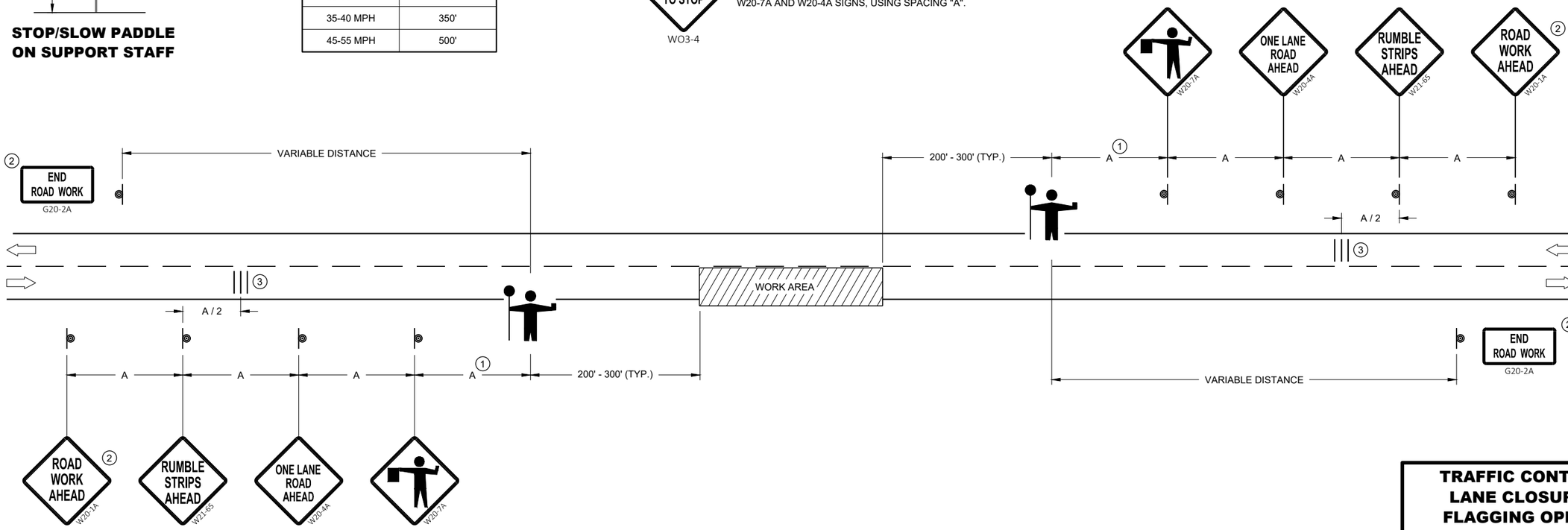
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

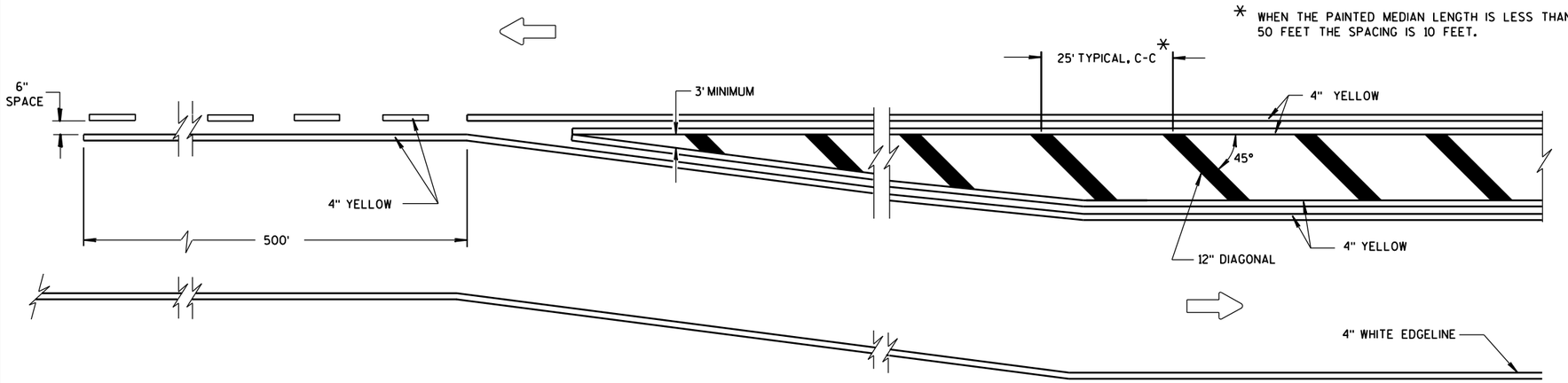
APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

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SDD 15C12 - 07



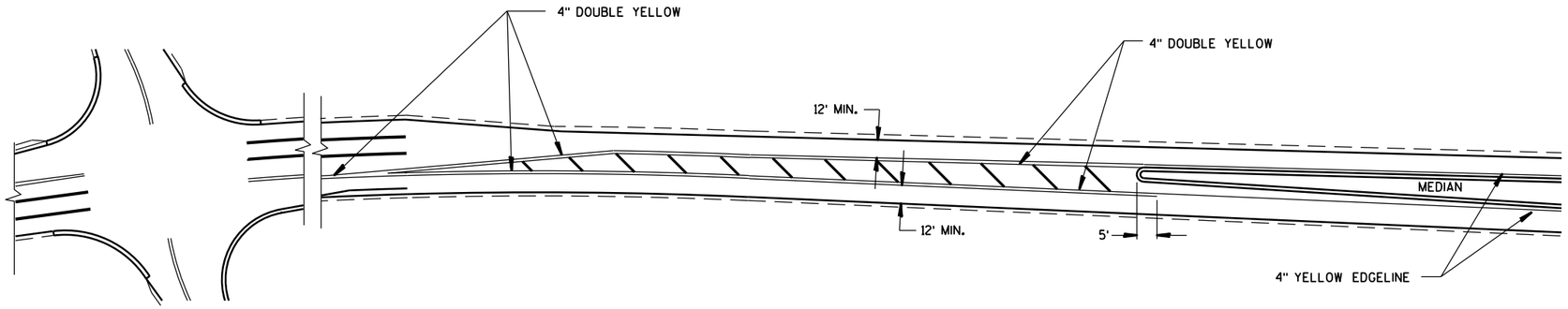
* WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10 FEET.

MEDIAN ISLAND DETAIL

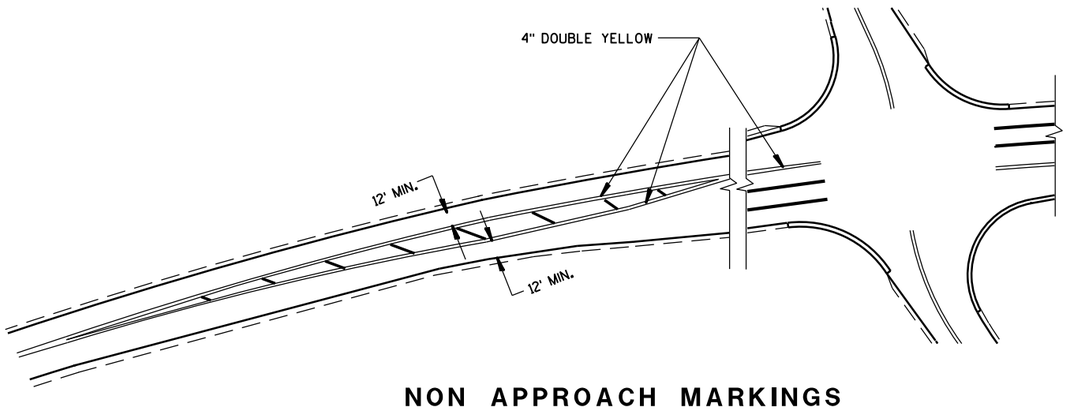
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

6

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S.D.D. 15 C 18-4

S.D.D. 15 C 18-4

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

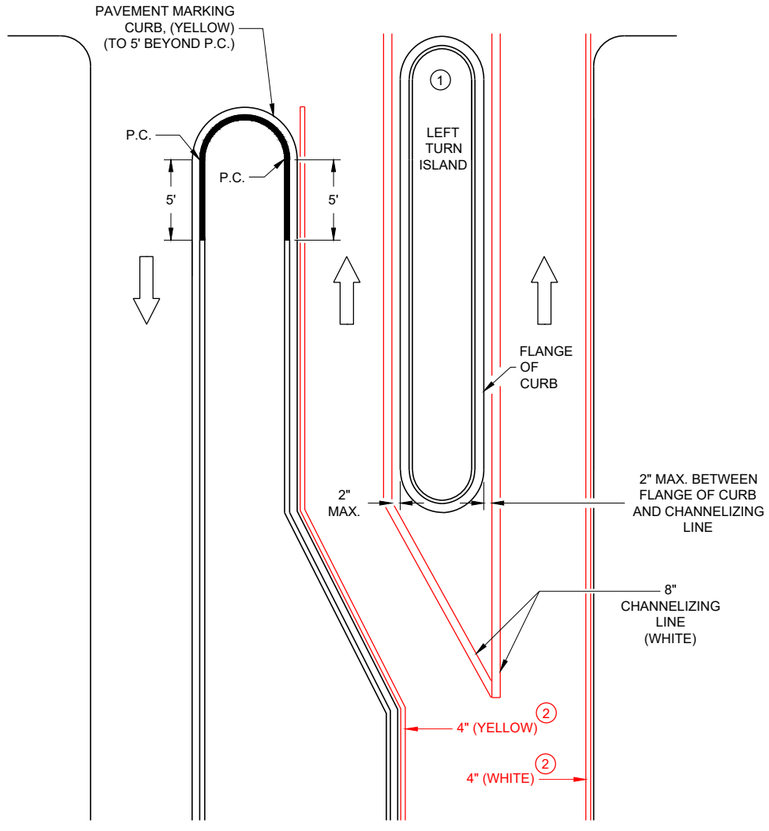
APPROVED

June 2017 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARK[illegible]EER

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REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

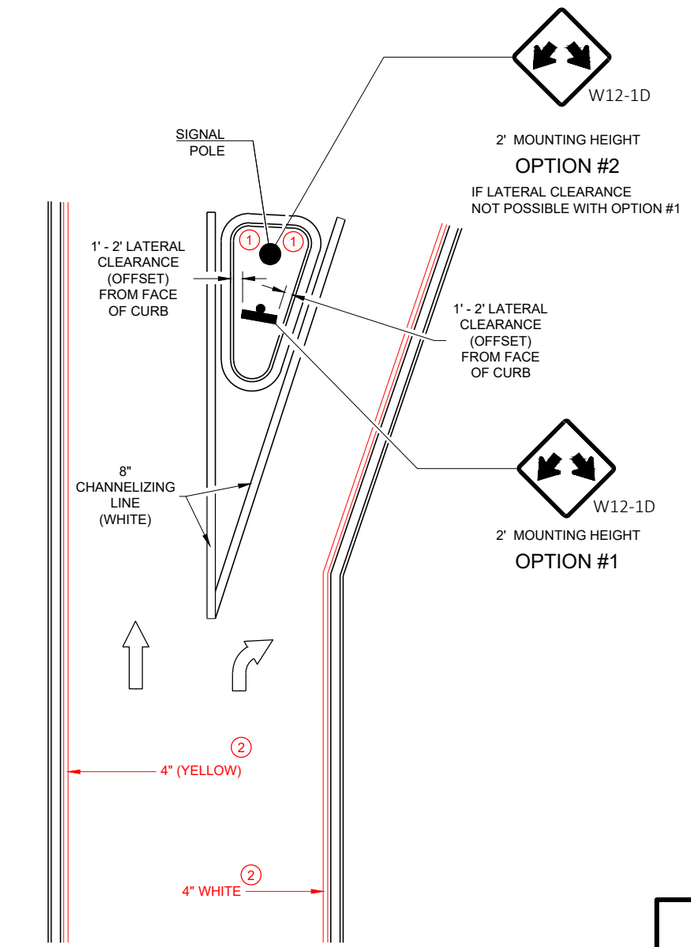
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

DOUBLE ARROW
WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

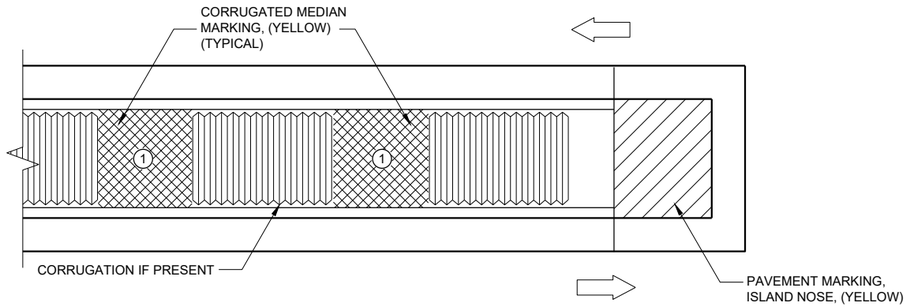
FHWA

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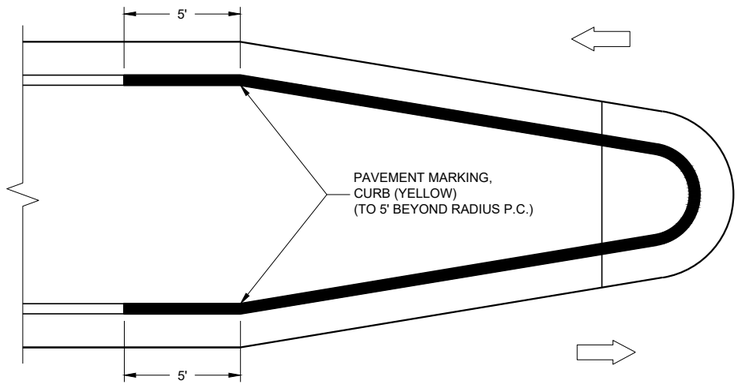
SDD 15C27 - 03a

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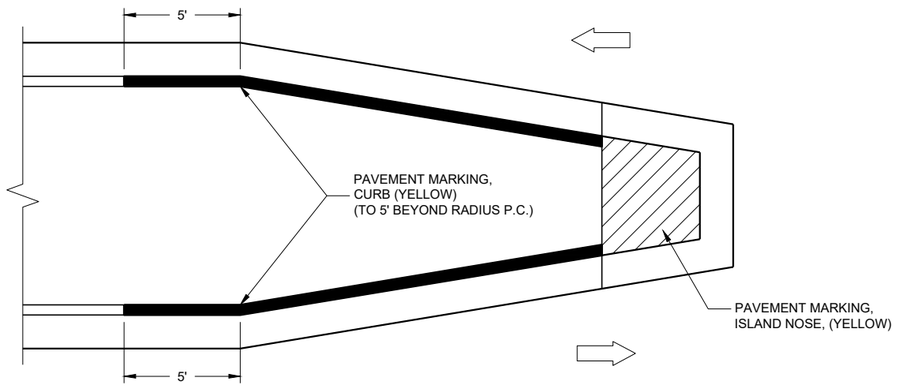
SDD 15C27 - 03a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS (ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

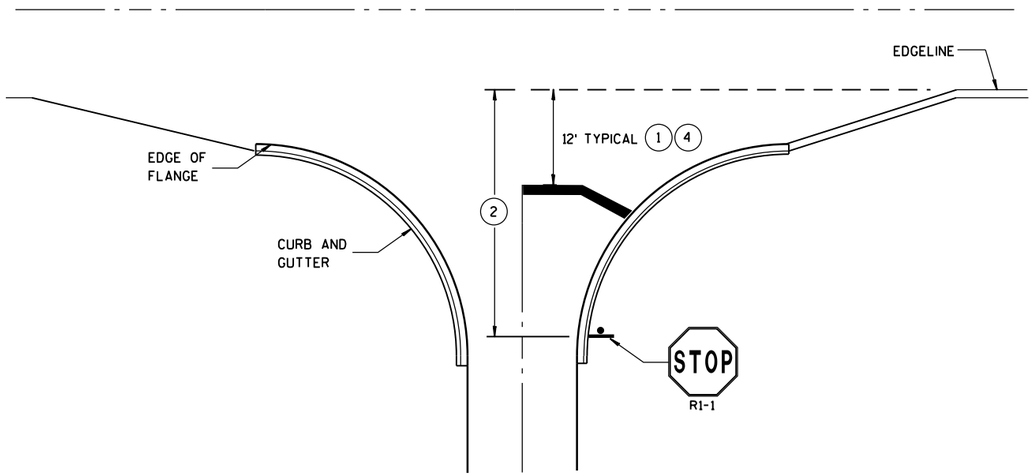
FHWA

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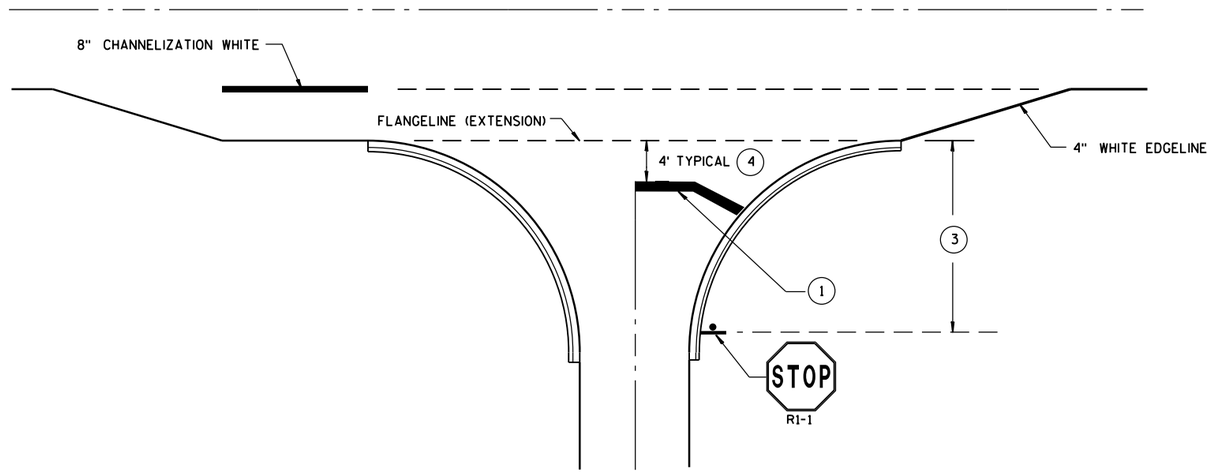
SDD 15C27 - 03b

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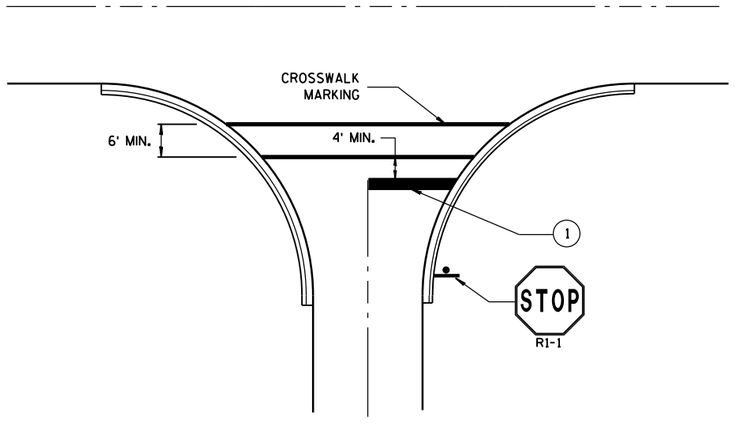
SDD15C27 - 03b



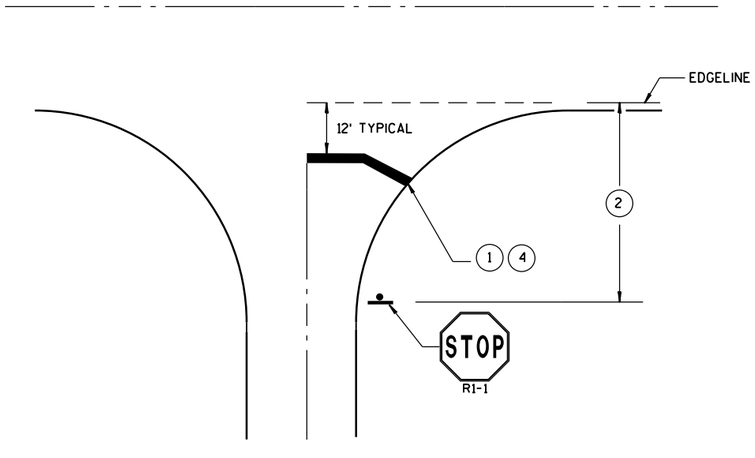
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR ENGINEER

FHWA

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S.D.D. 15 C 33-3

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

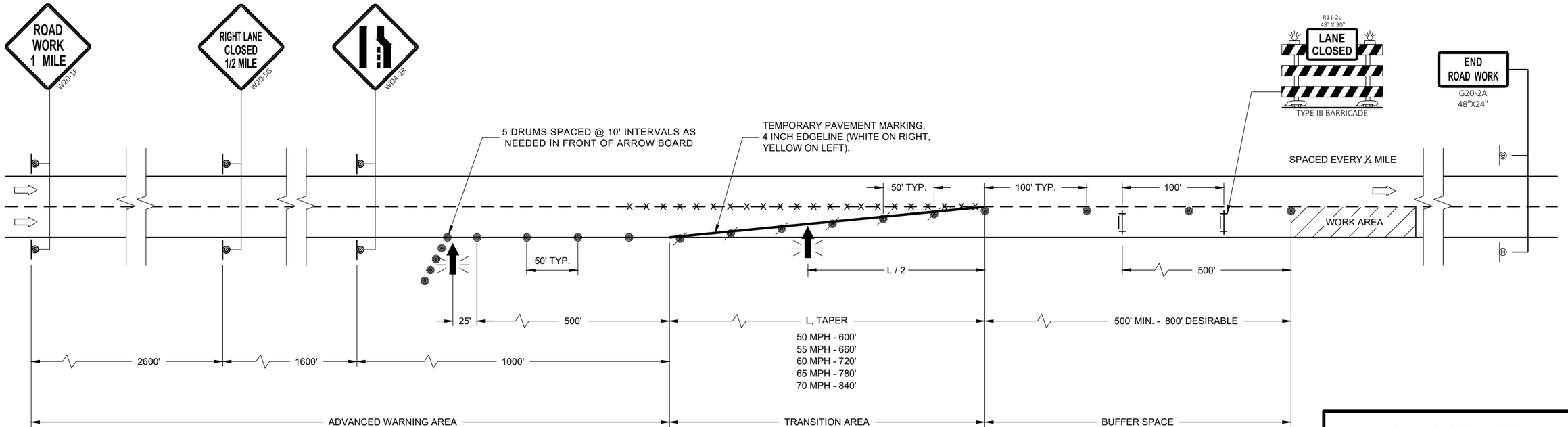
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL
LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

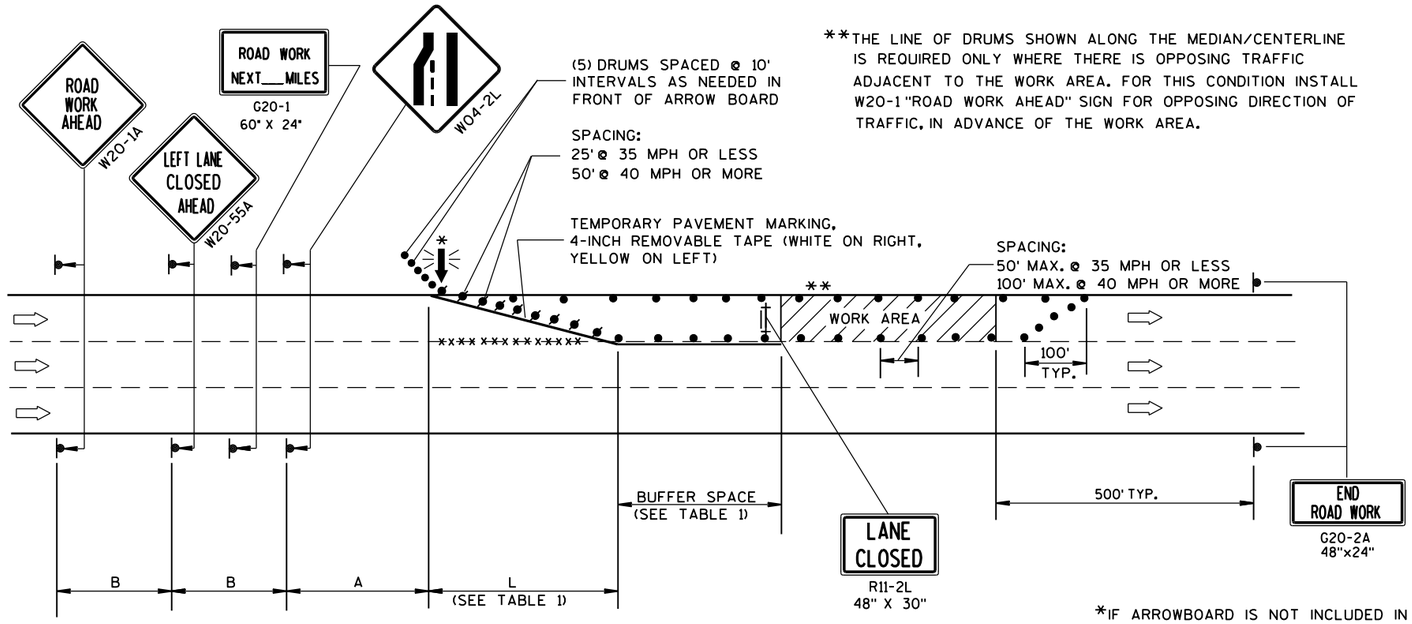
FHWA

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SDD 15D12 - 07a

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SDD 15D12 - 07a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

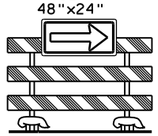


TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

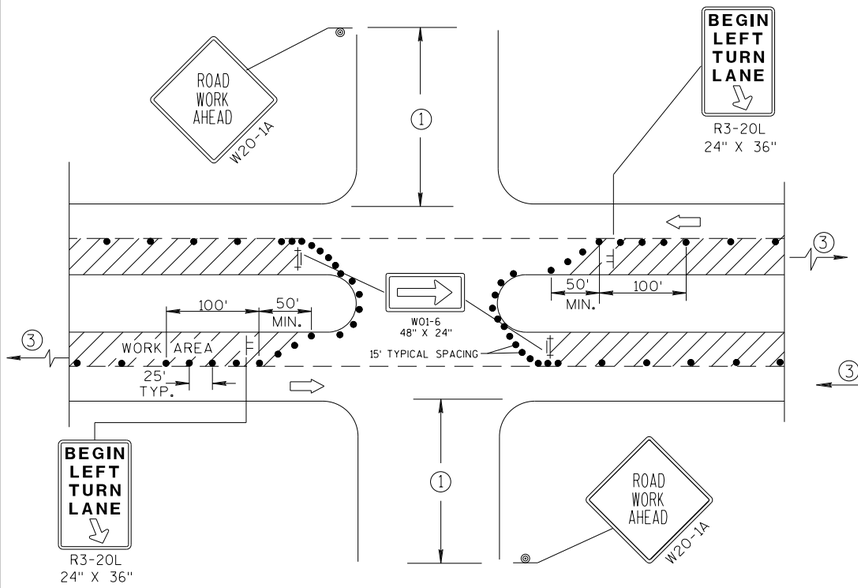
APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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S.D.D. 15 D 20-4

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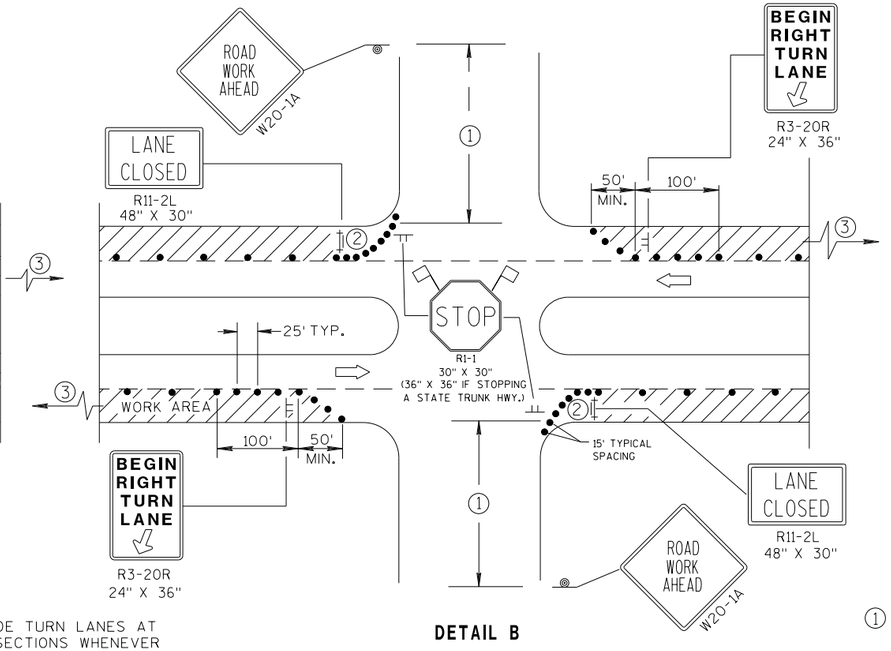
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DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

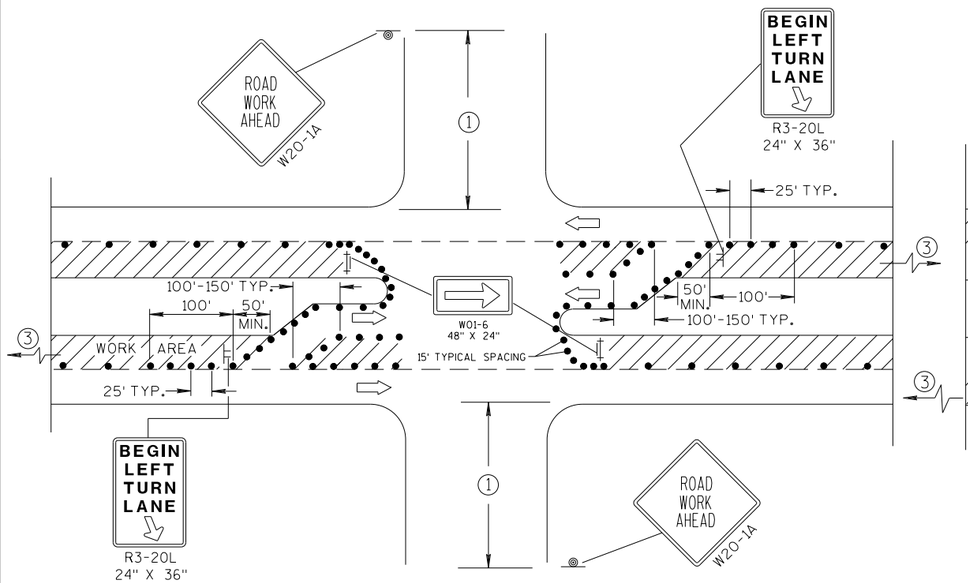
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

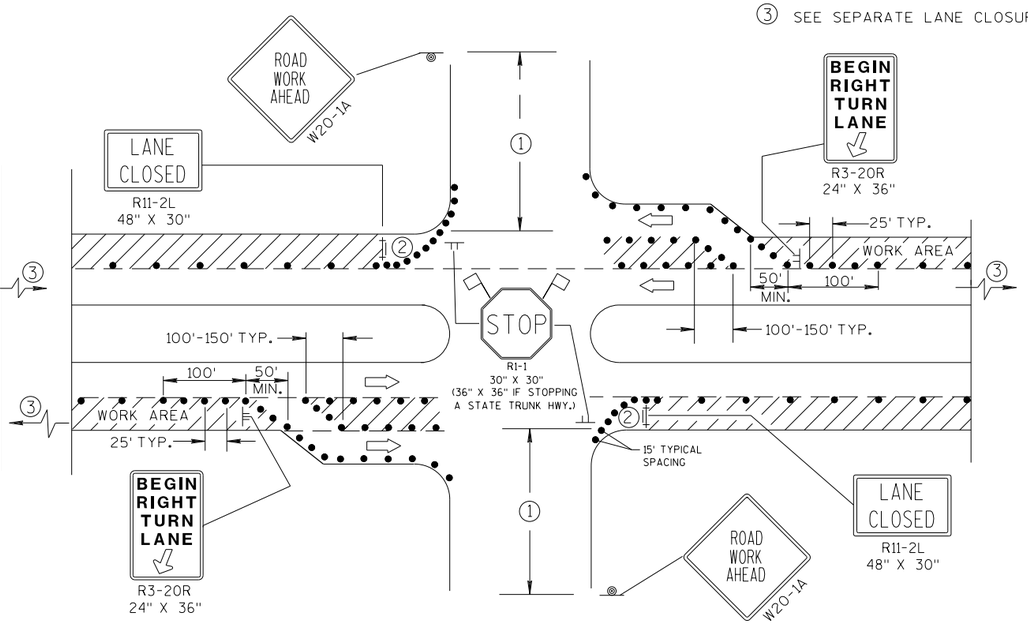
(2) ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

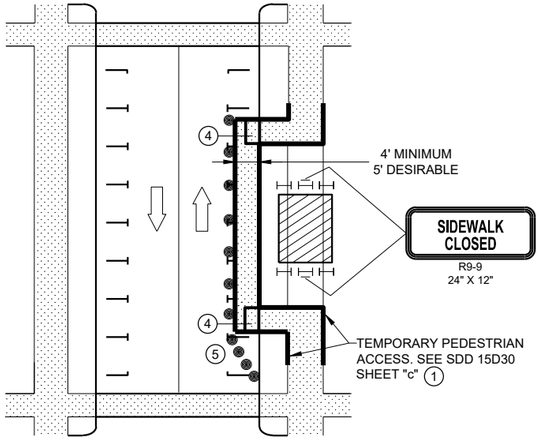
/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

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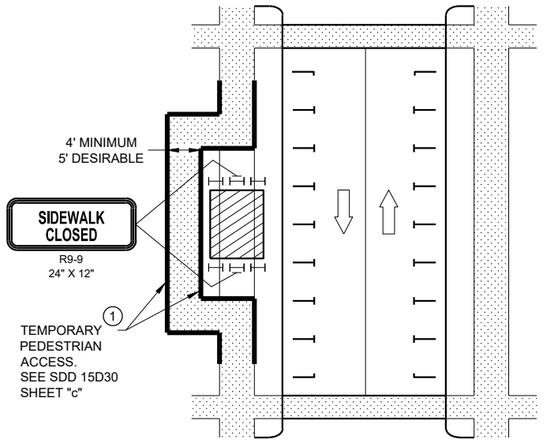
S.D.D. 15 D 21-6

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

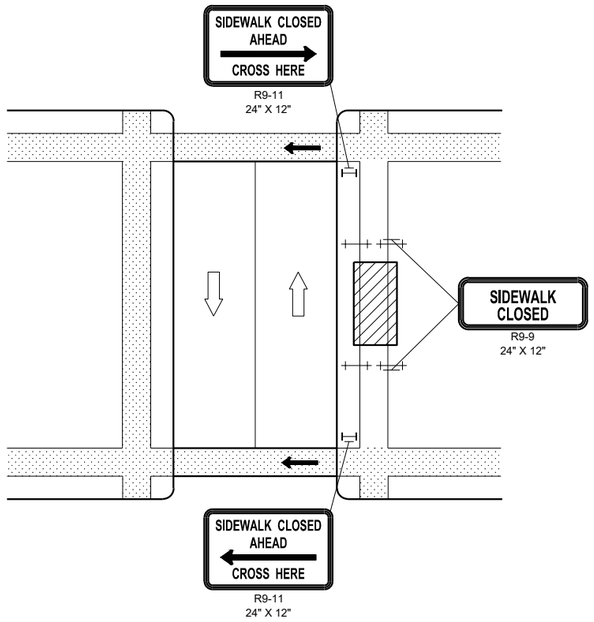


MID-BLOCK SIDEWALK SIDEWALK CLOSURE IN PARKING LANE

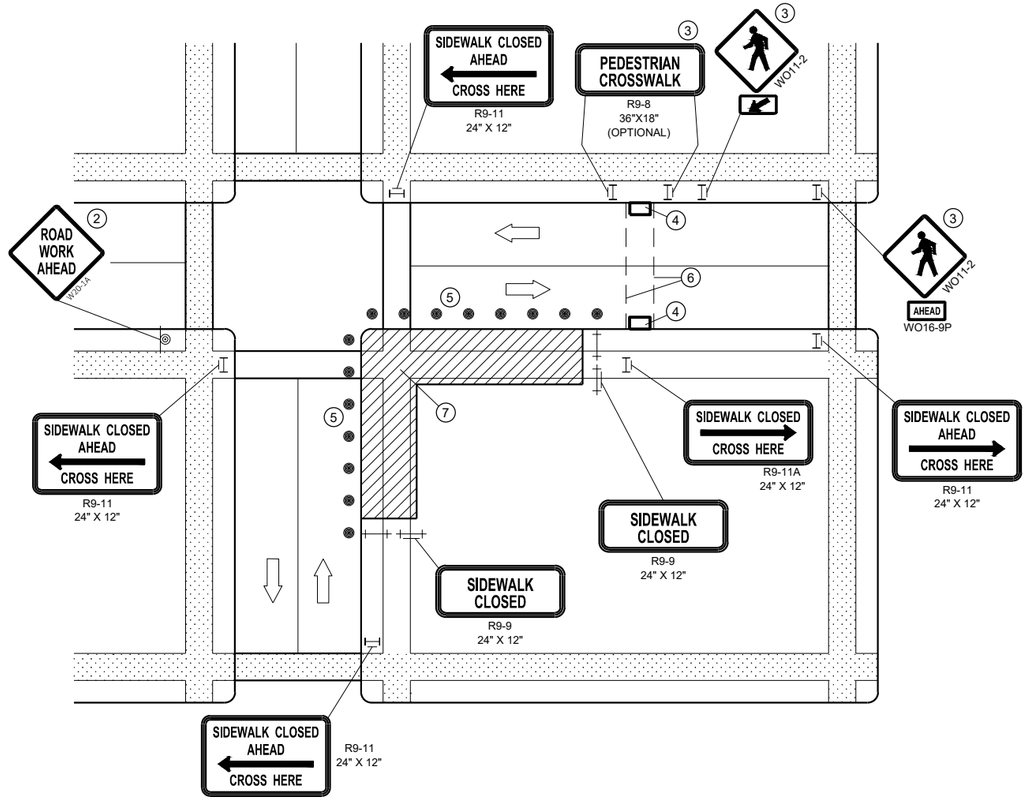
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

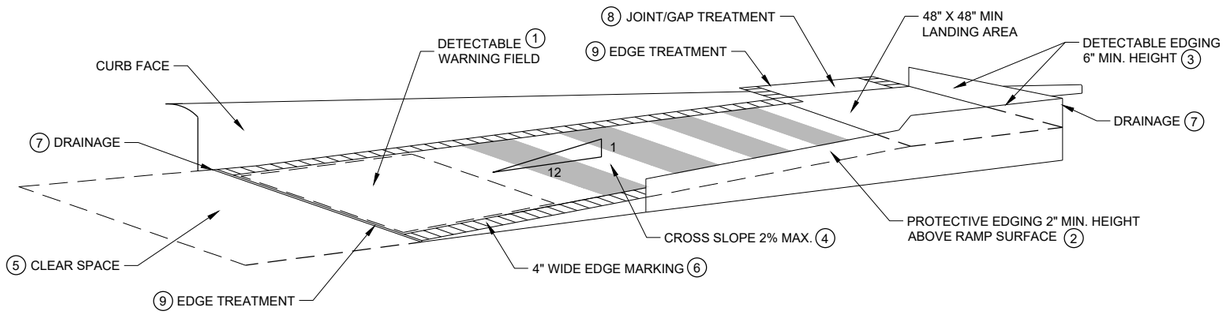
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

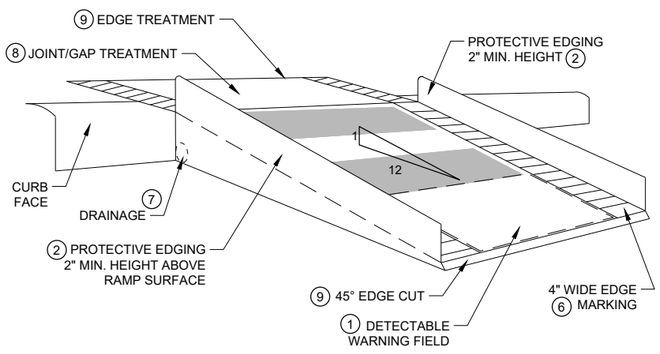
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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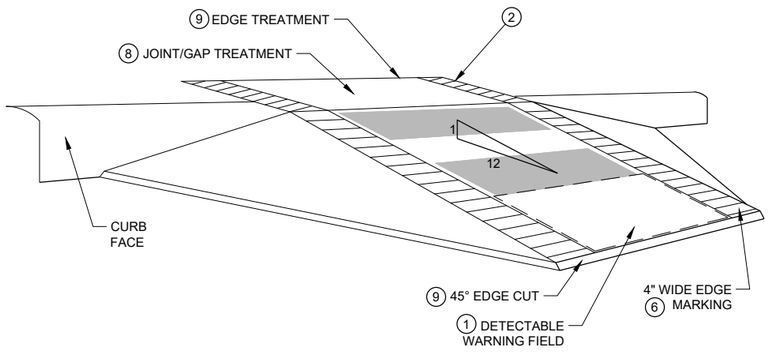
SDD15D30 - 05a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

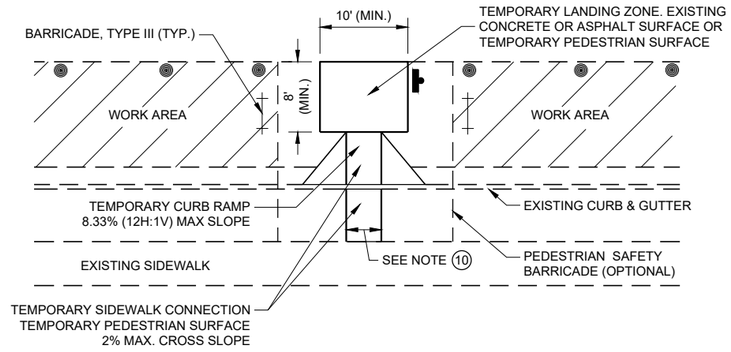
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.

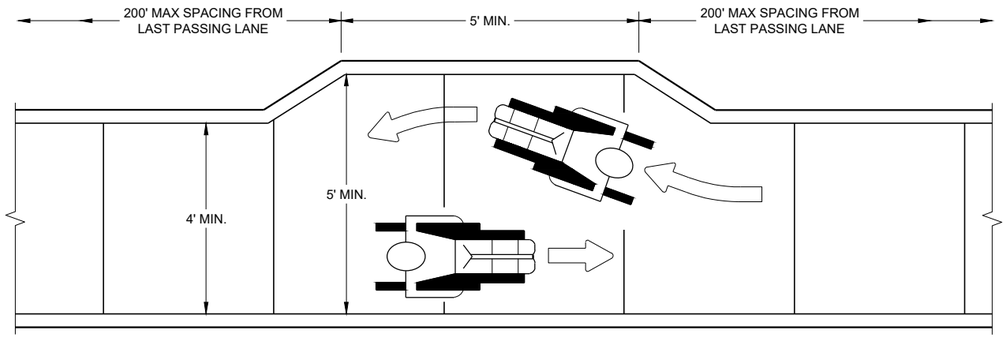


TEMPORARY BUS STOP PAD

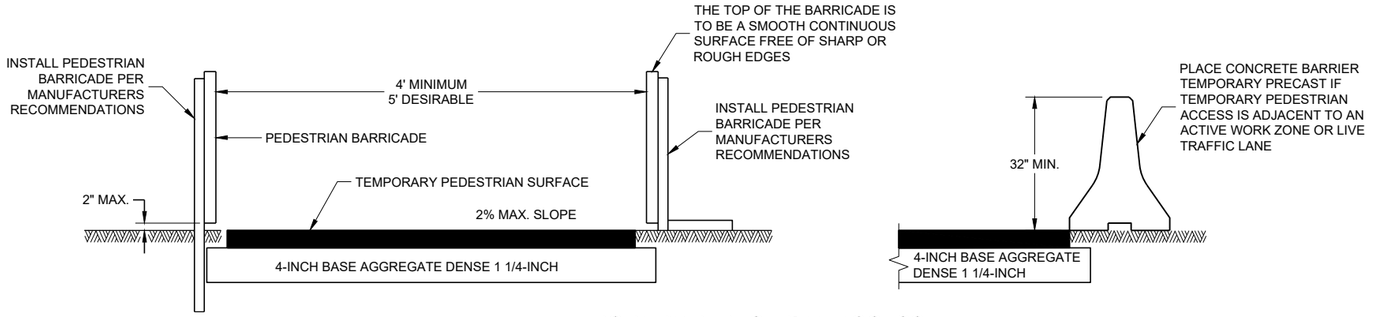
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

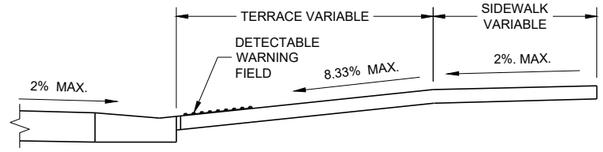
SDD 15D30 - 05b



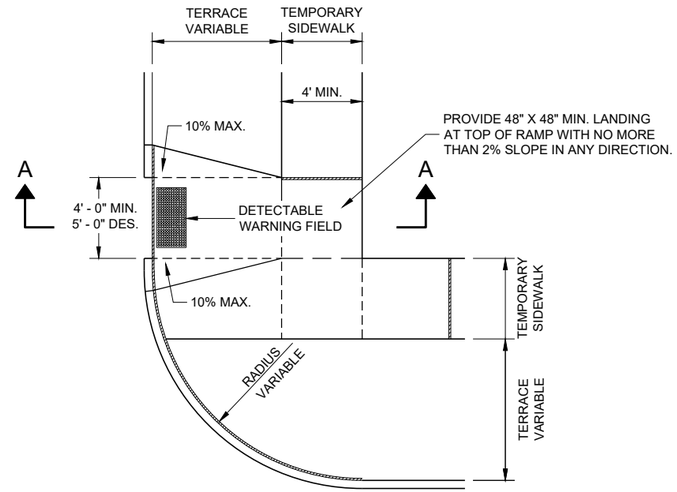
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS



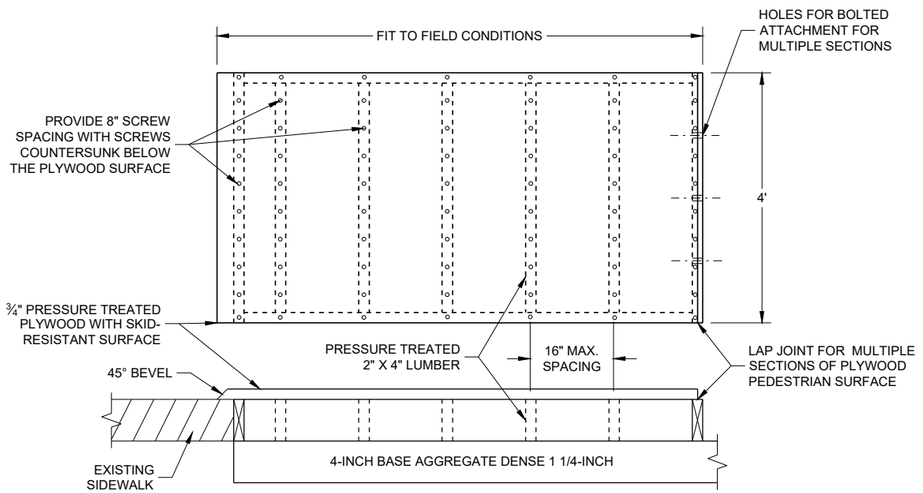
SECTION A - A



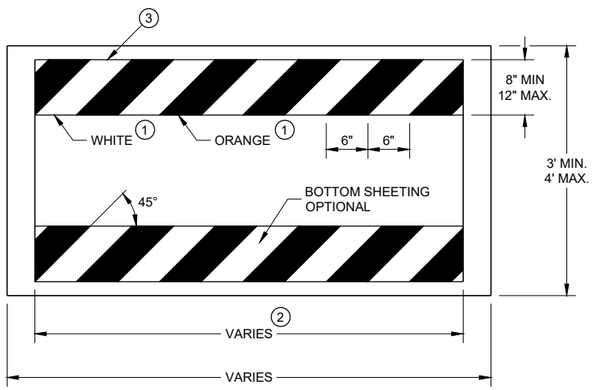
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

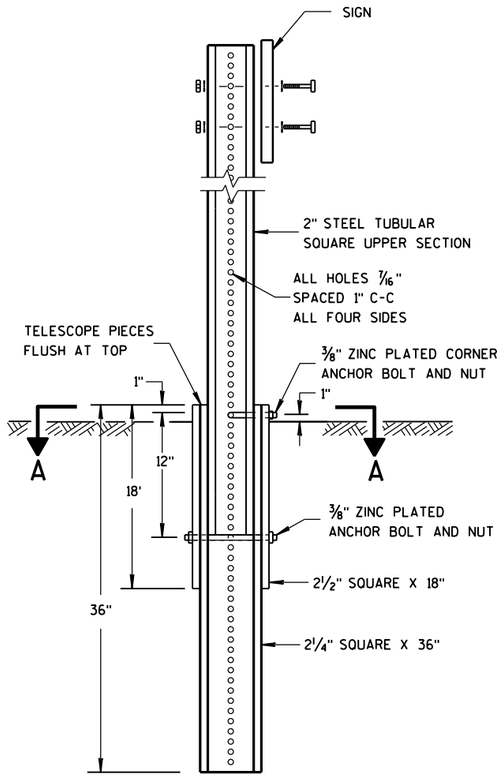
388

FHWA

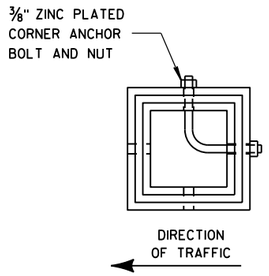
SDD 15D30 - 05c

6

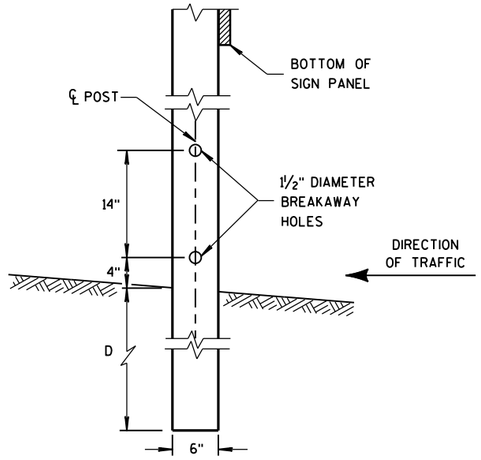
SDD 15D30 - 05c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



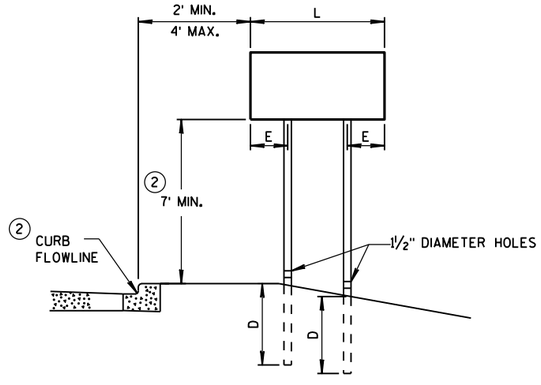
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

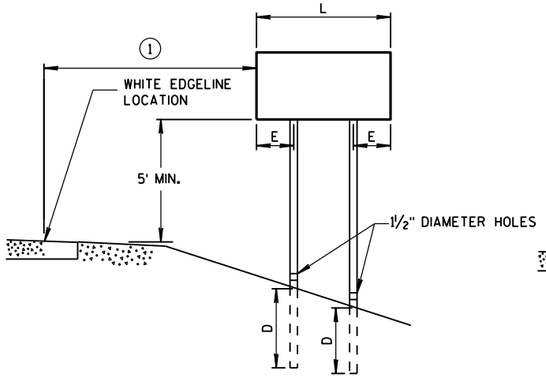
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

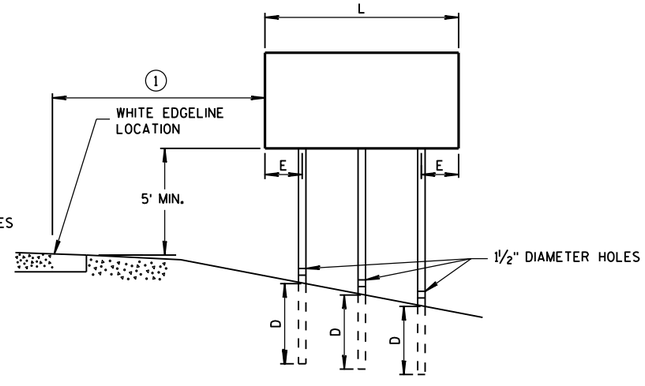
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

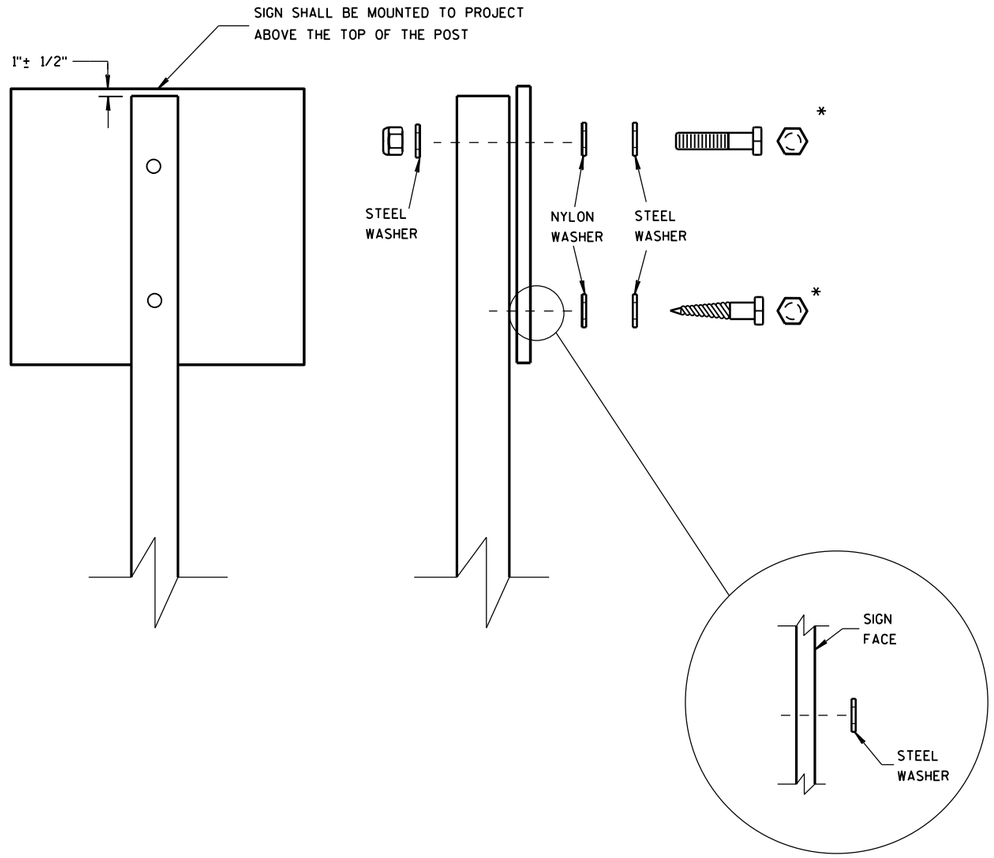
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

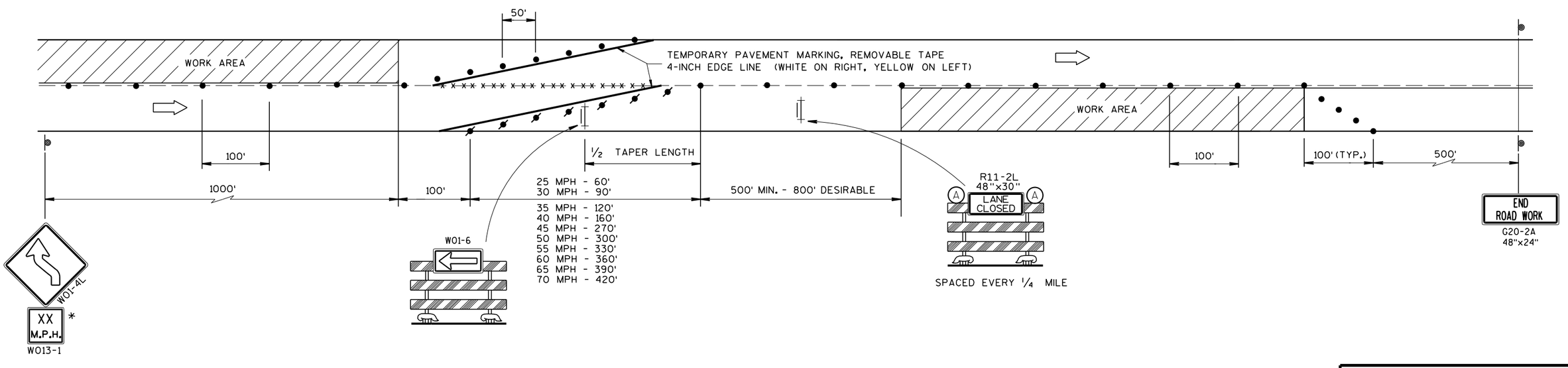
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew I
WORK ZONE E
FHWA

6

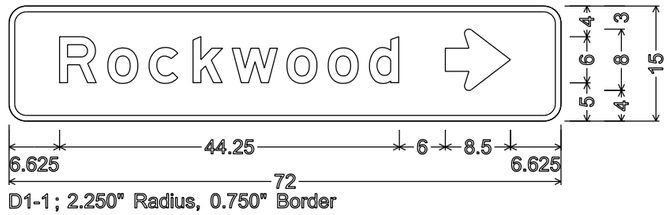
S.D.D. 15 D 40-1

6

S.D.D. 15 D 40-1

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-1 ; 2.250" Radius, 0.750" Border

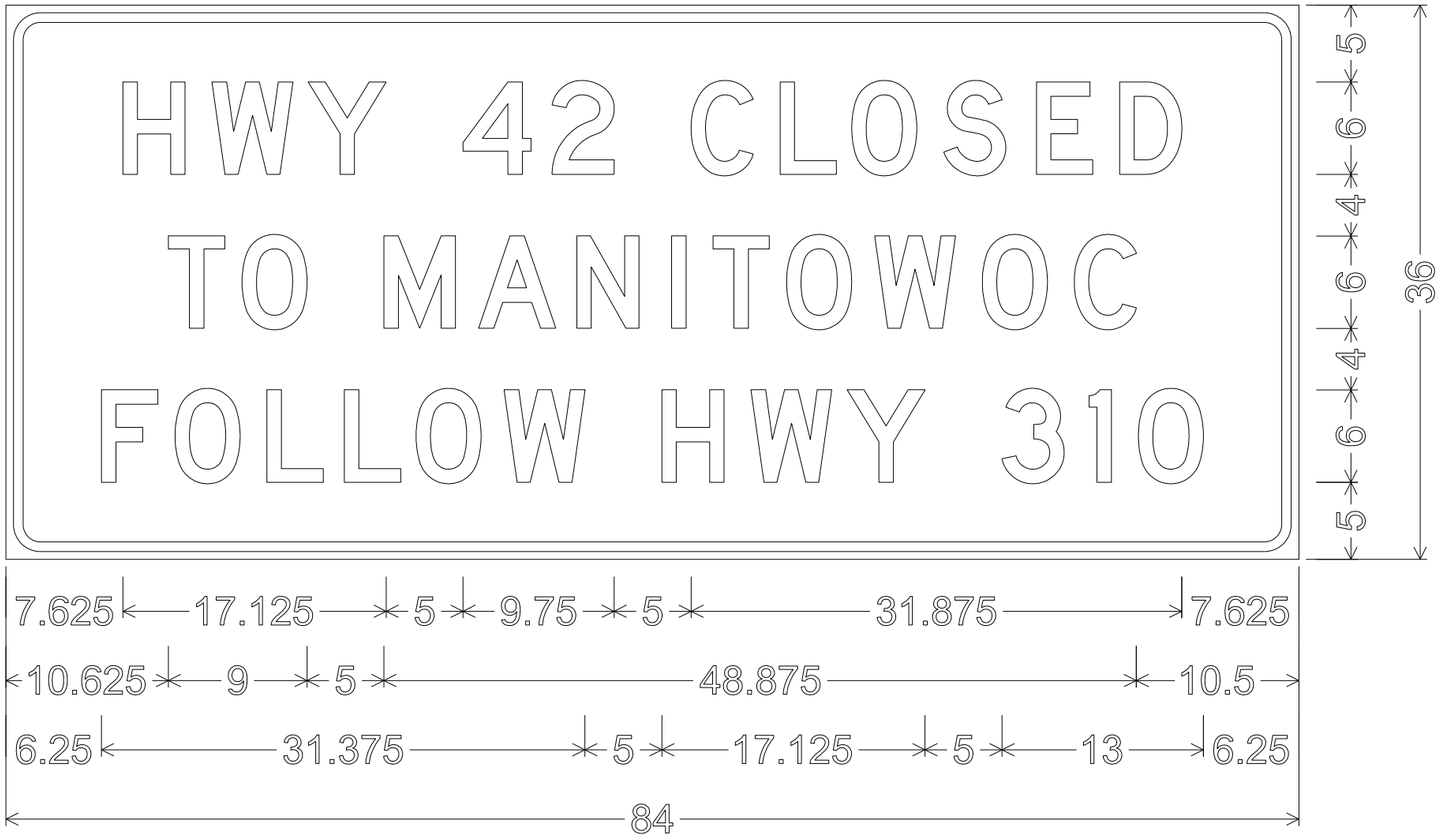
7

7

PROJECT NO: 1500-47-71	HWY: USH 10	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET NO: 392	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent

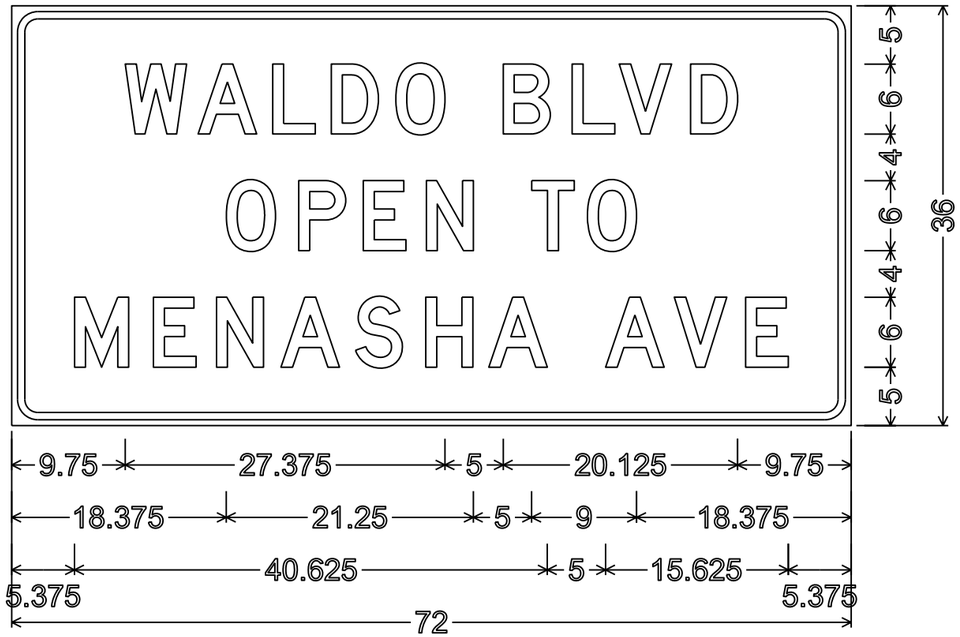
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	FIXED MESSAGE SIGN DETAIL	SHEET NO: 393	E

FILE NAME : N:\C3D\41062900\SheetsPlan\Hwy42Closed.dgn PLOT DATE : 6/18/2019 PLOT BY : soufalk PLOT NAME : PLOT SCALE : 1:9.8376

WISDOT/CADDS SHEET 42

NOTES

1. Fixed Message Type II Signs - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent

7

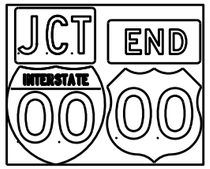
7

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	TEMPORARY SIGNING	SHEET NO: 394	E

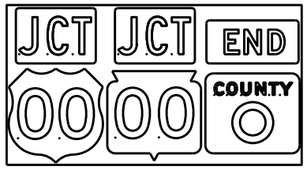
TYPICAL ASSEMBLIES



J1-1



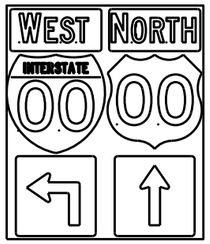
J1-2



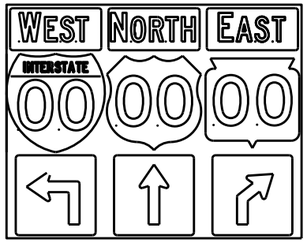
J1-3



J2-1



J2-2

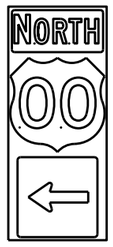


J2-3

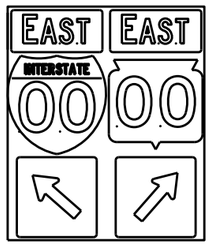


JV

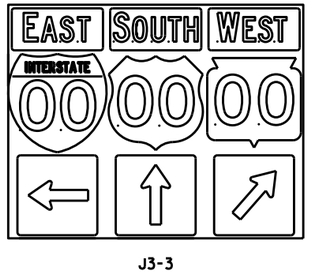
(Typical Vertical J-Assembly
See Note 10 and 11)



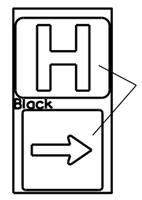
J3-1



J3-2



J3-3

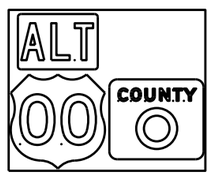


Blue Background

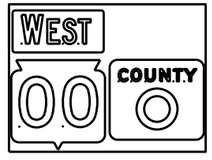
JH-1



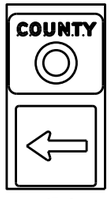
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

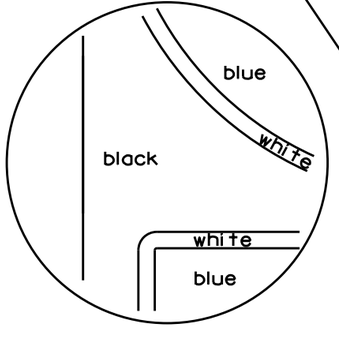


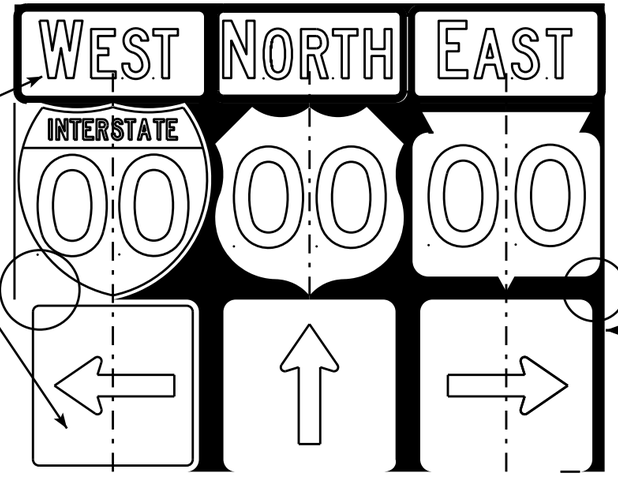
J23-1

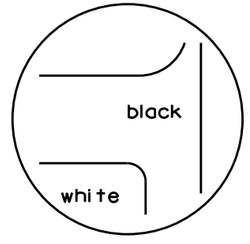


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

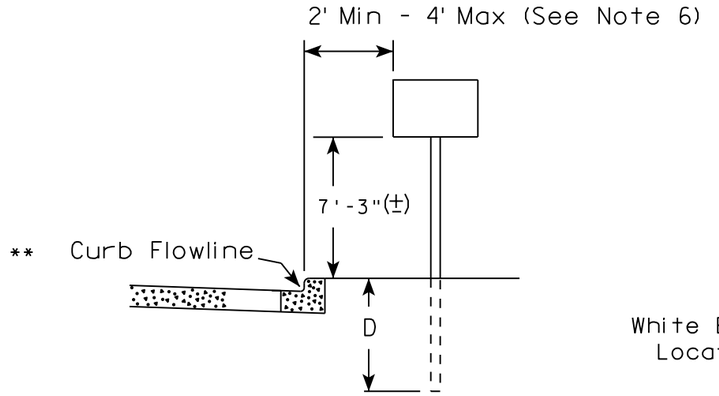
DATE 2/06/14 PL... A2-1S.8

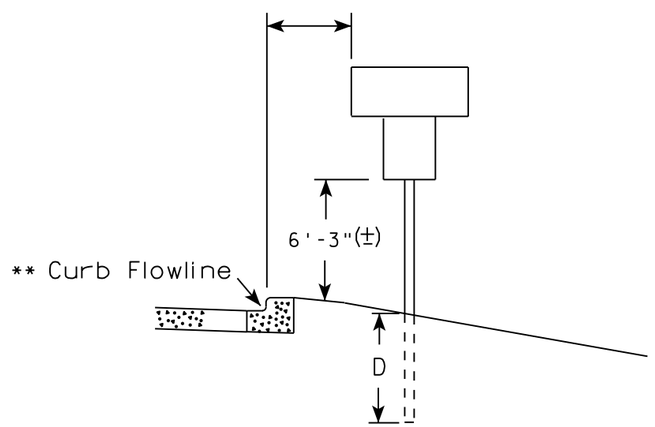
PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

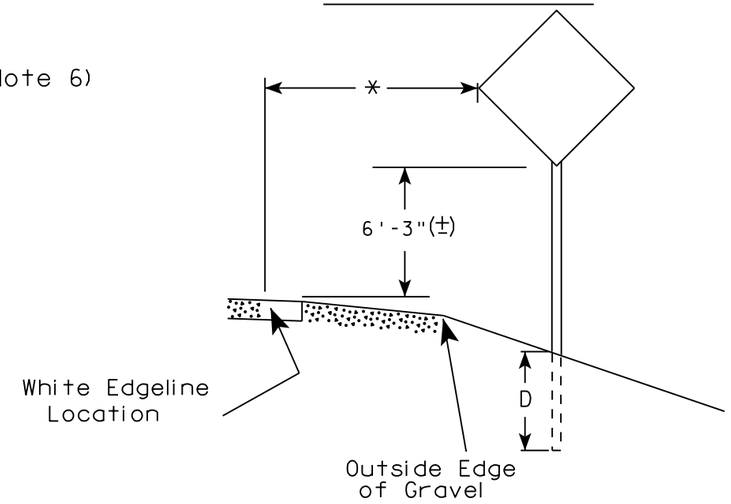
WISDOT/CADDS SHEET 42

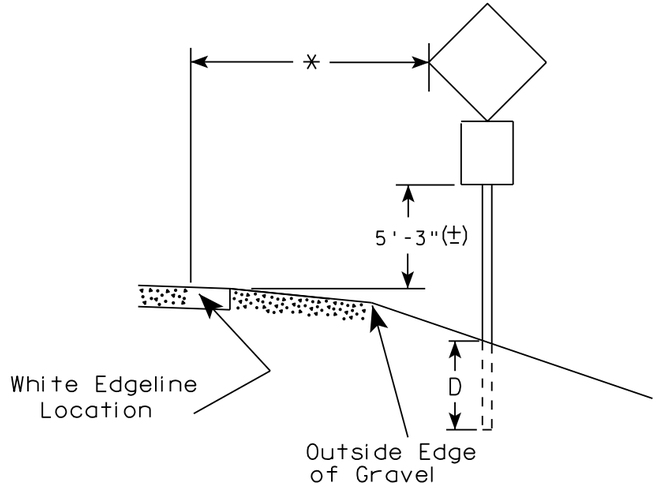
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

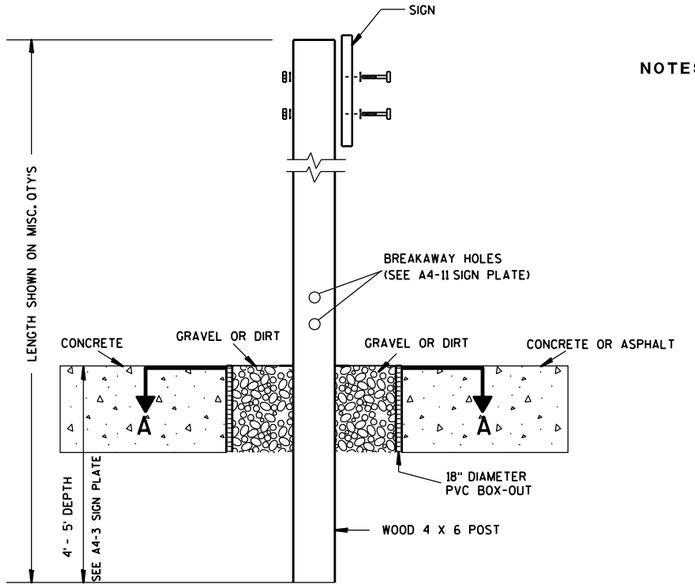
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

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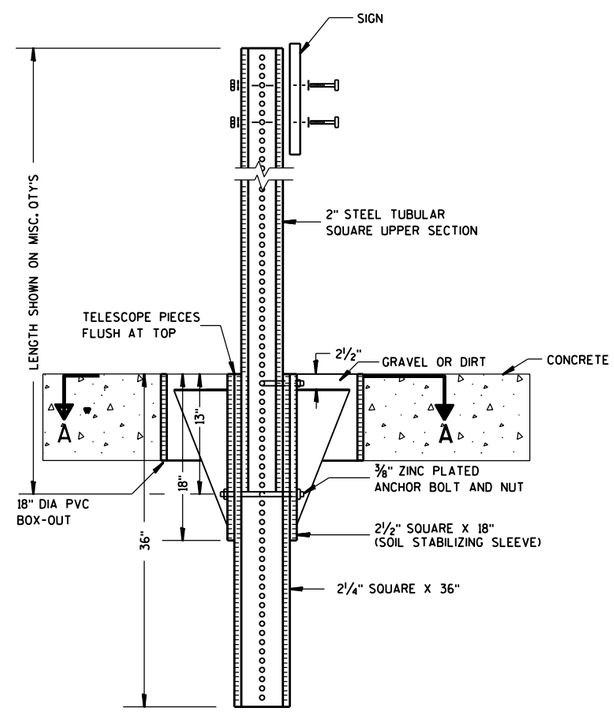
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 396	E



ELEVATION VIEW

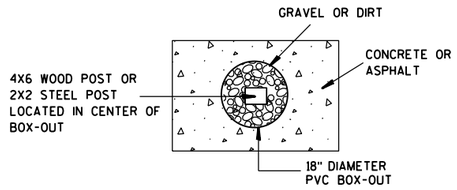
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

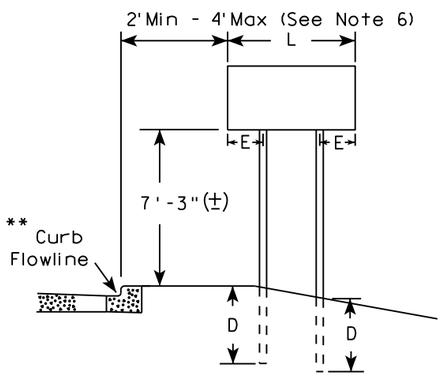
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

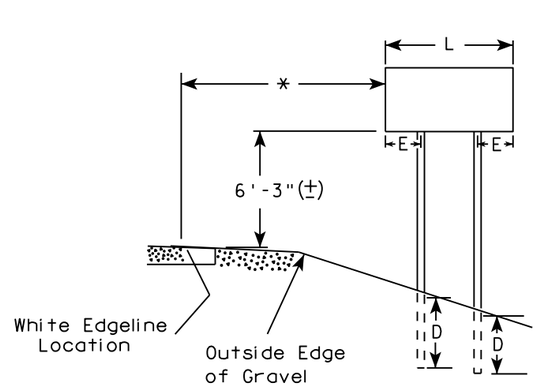
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

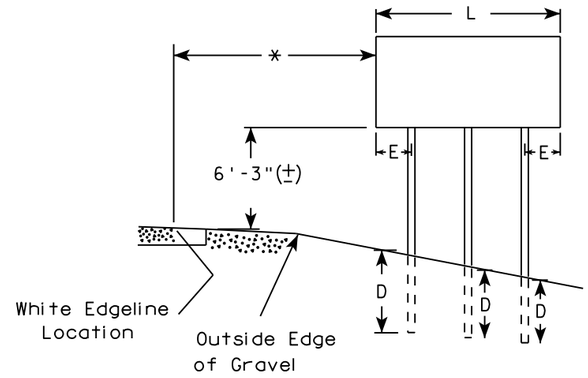
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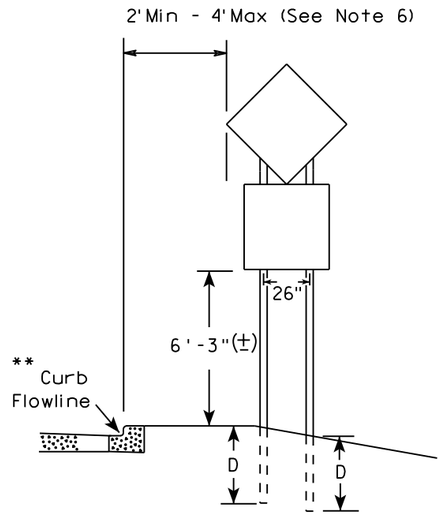
URBAN AREA



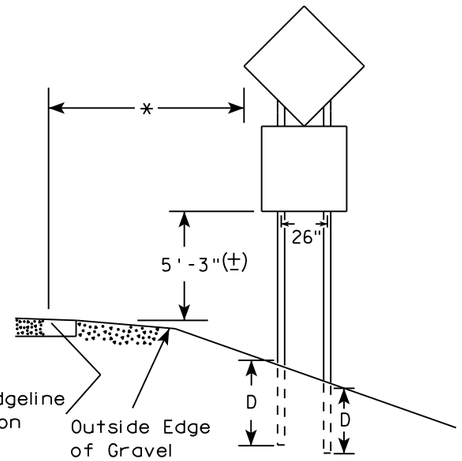
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

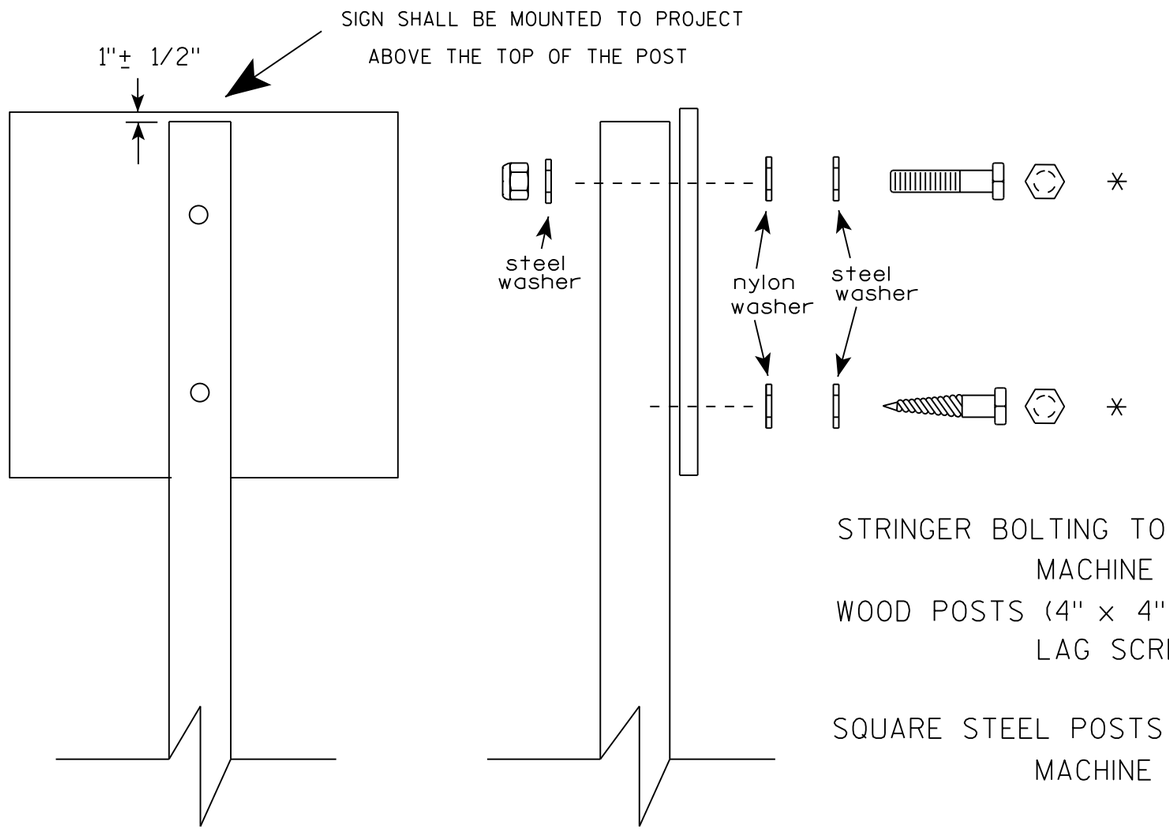
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 398	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

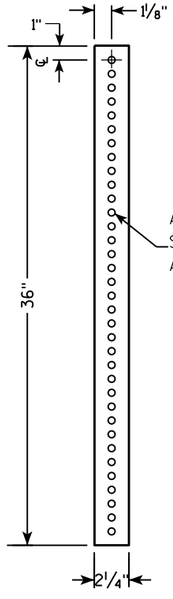
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

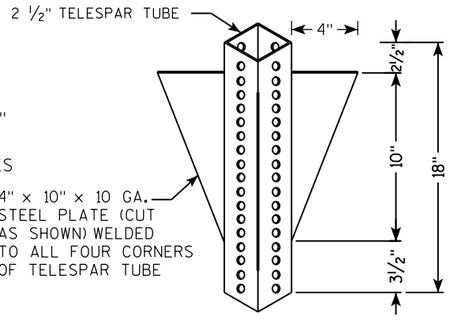
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

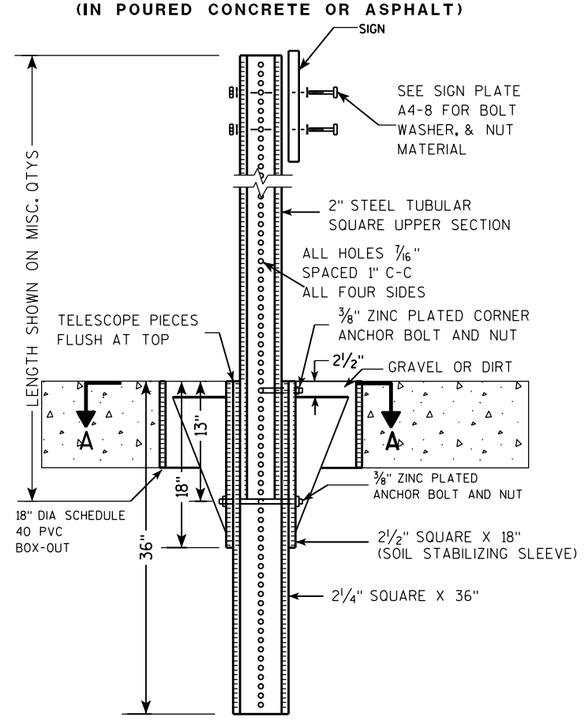
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



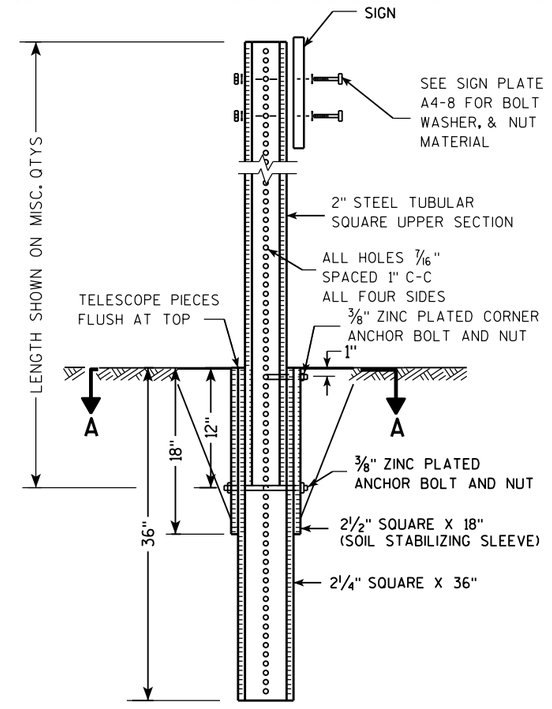
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

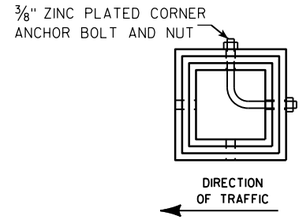


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

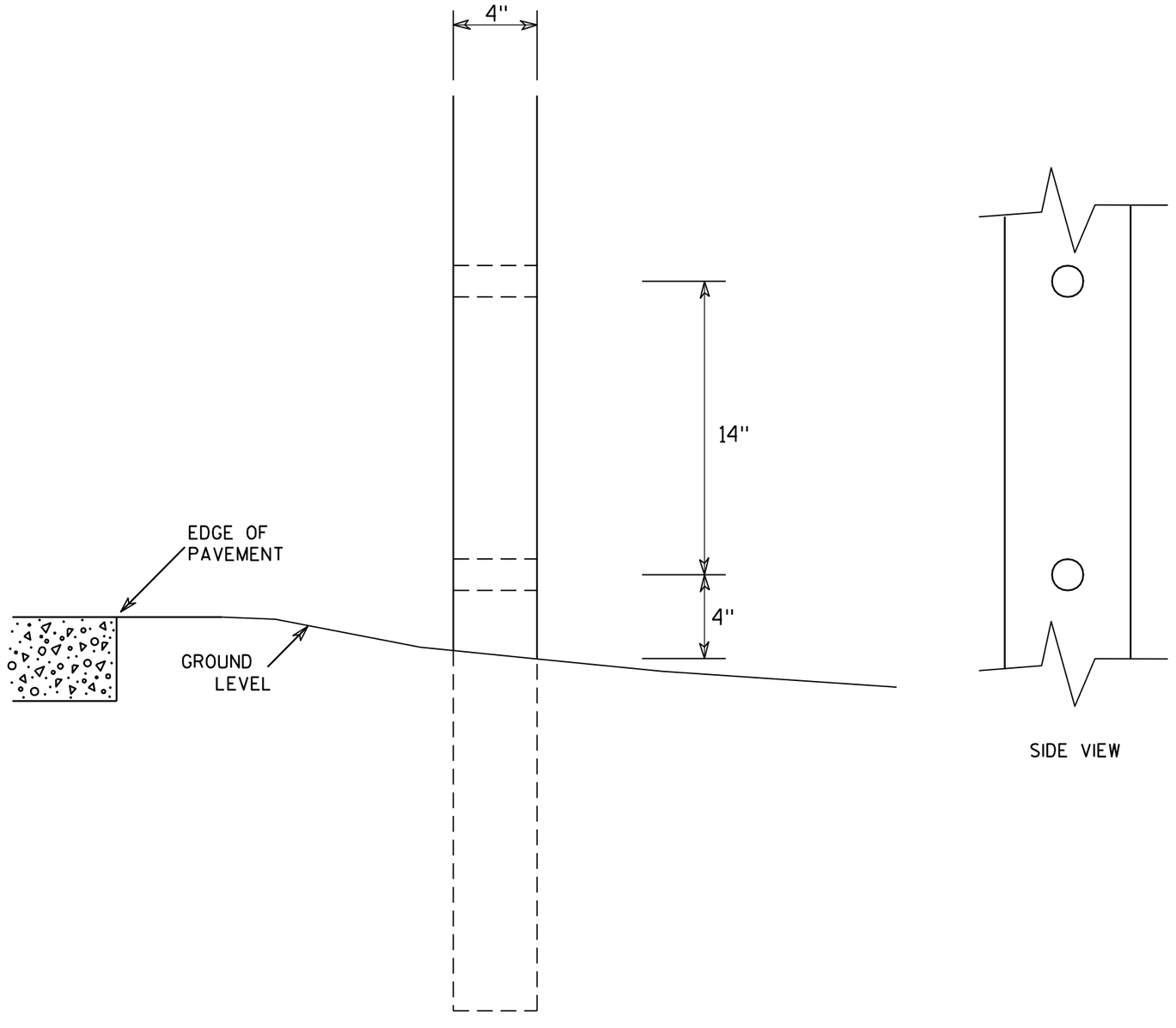
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 400 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

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4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

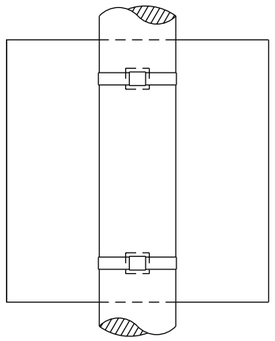
APPROVED Chester J Spang
for State Traffic Engineer

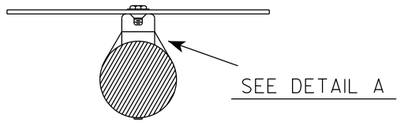
DATE 3/27/97 PLATE NO. A4-11.2

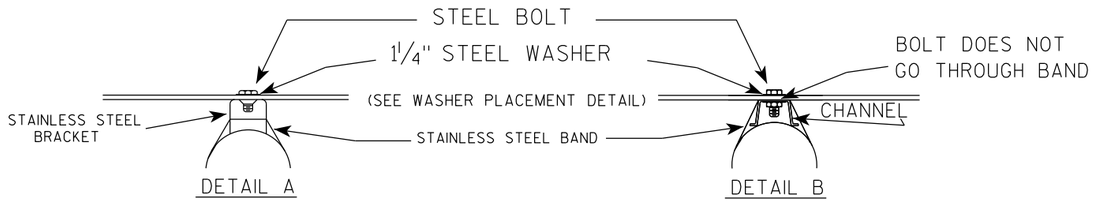
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 401	E

BANDING

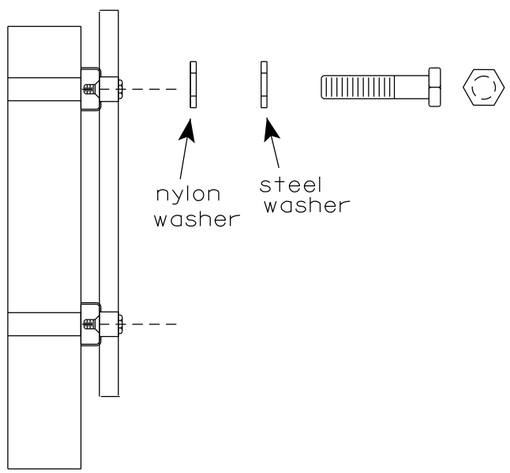
SINGLE SIGN







WASHER PLACEMENT

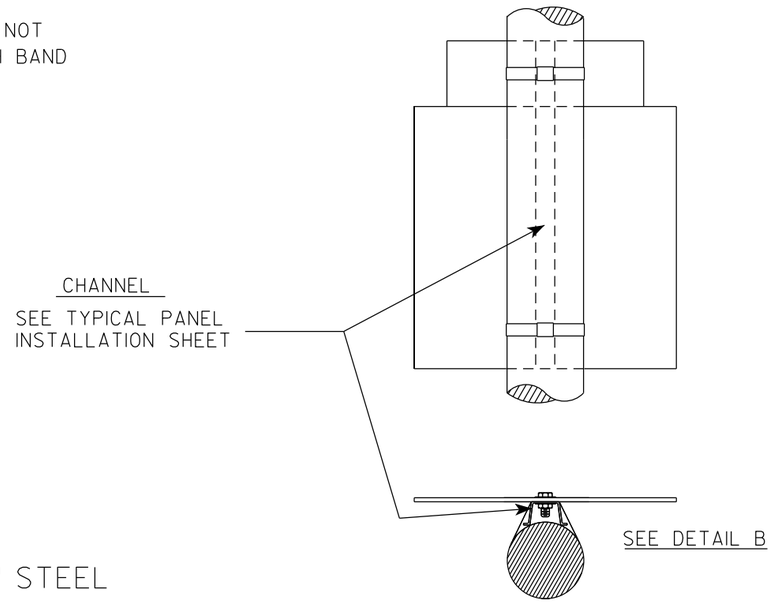


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

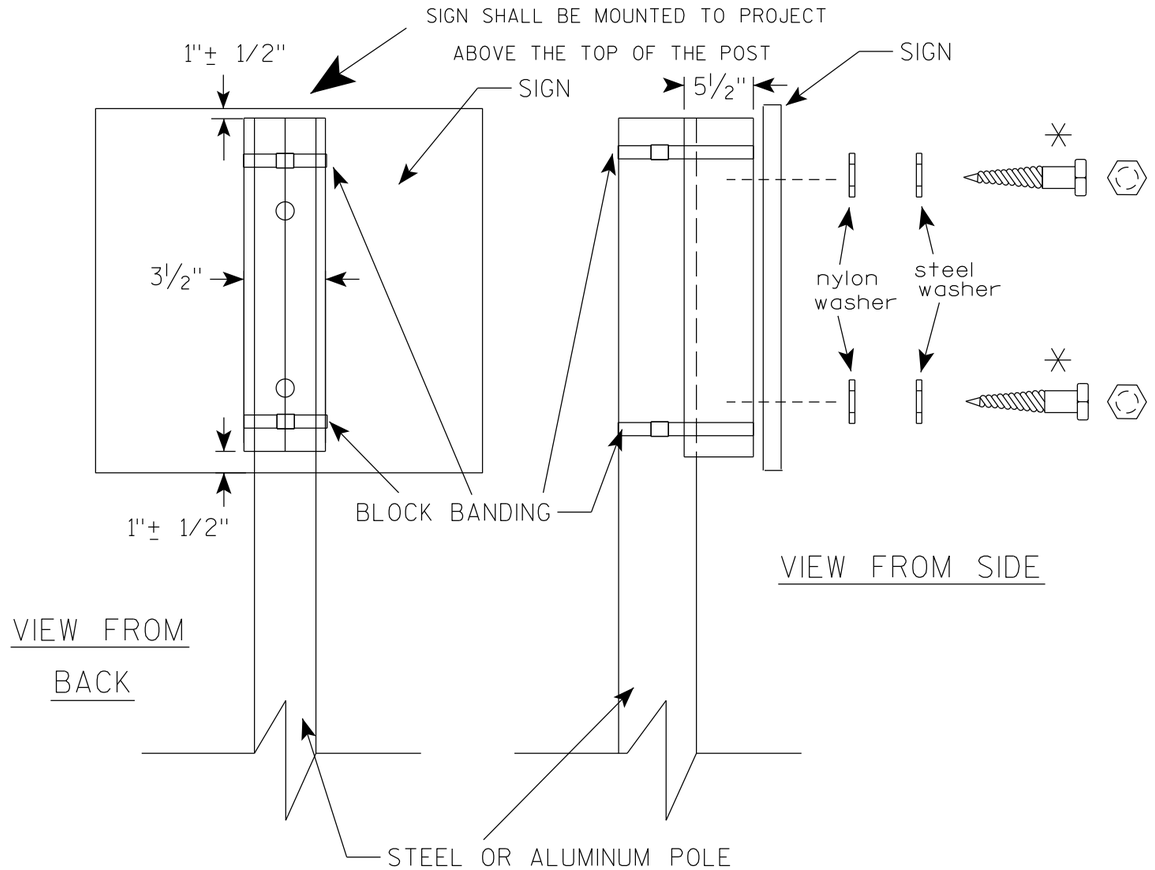
DATE 6/10/19 PLATE NO. A5-9.4

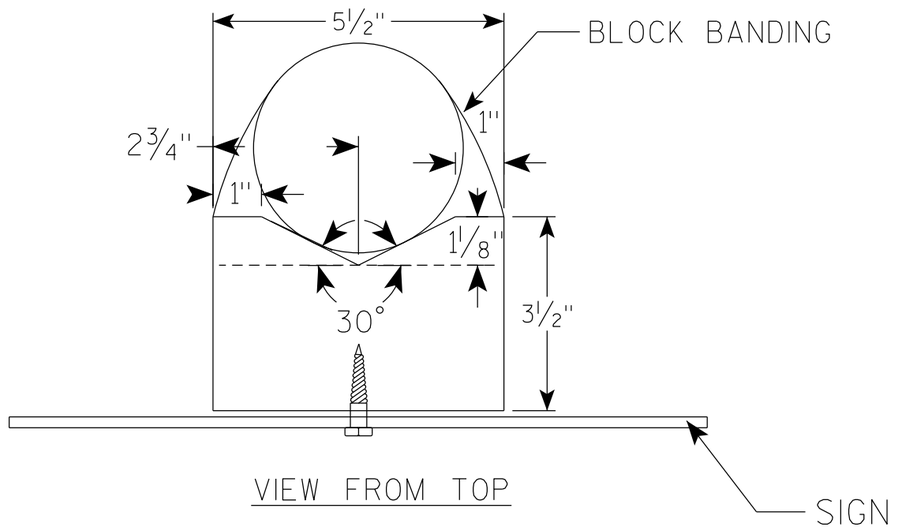
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 402	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

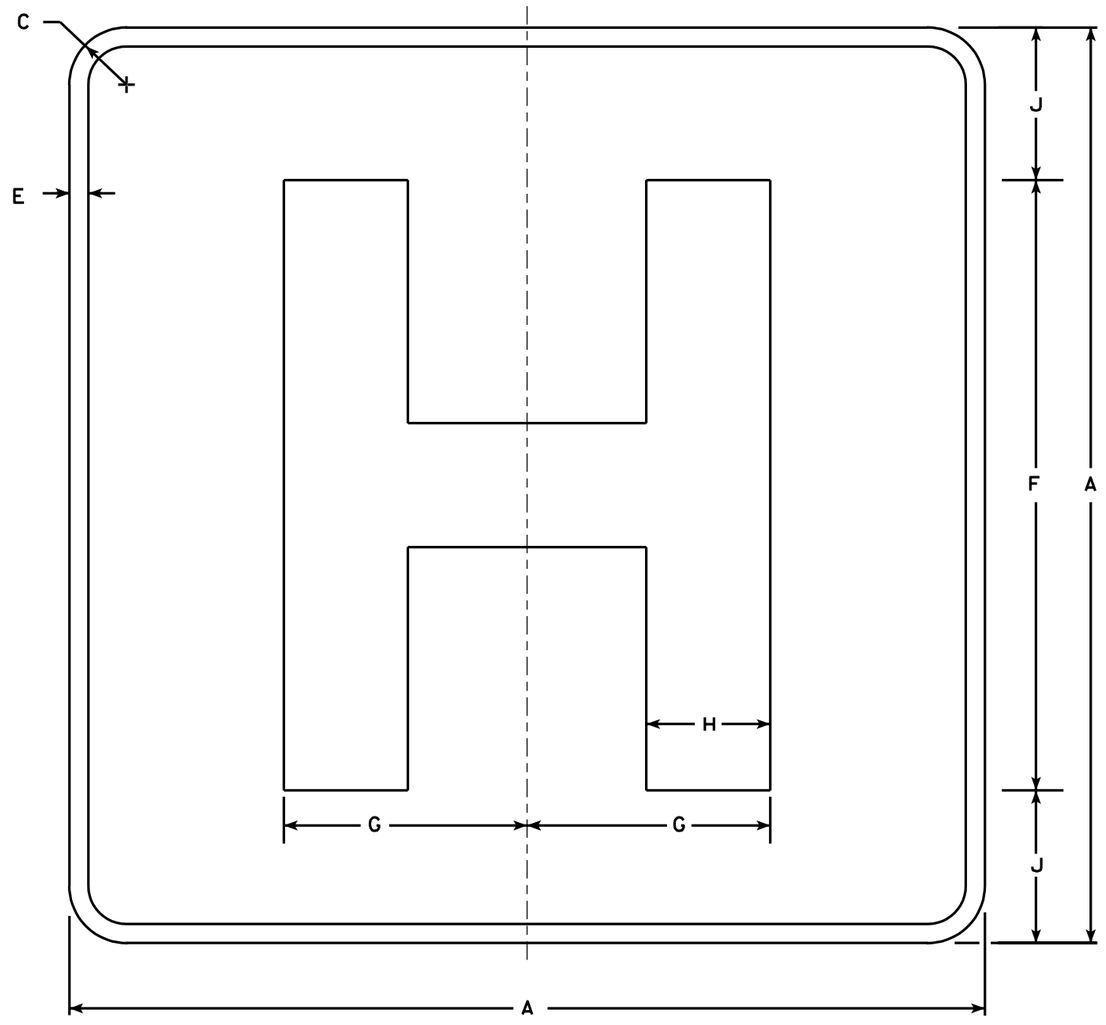
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 403 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgn PLOT DATE : 10-JUN 2019 4:15 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

7 7



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

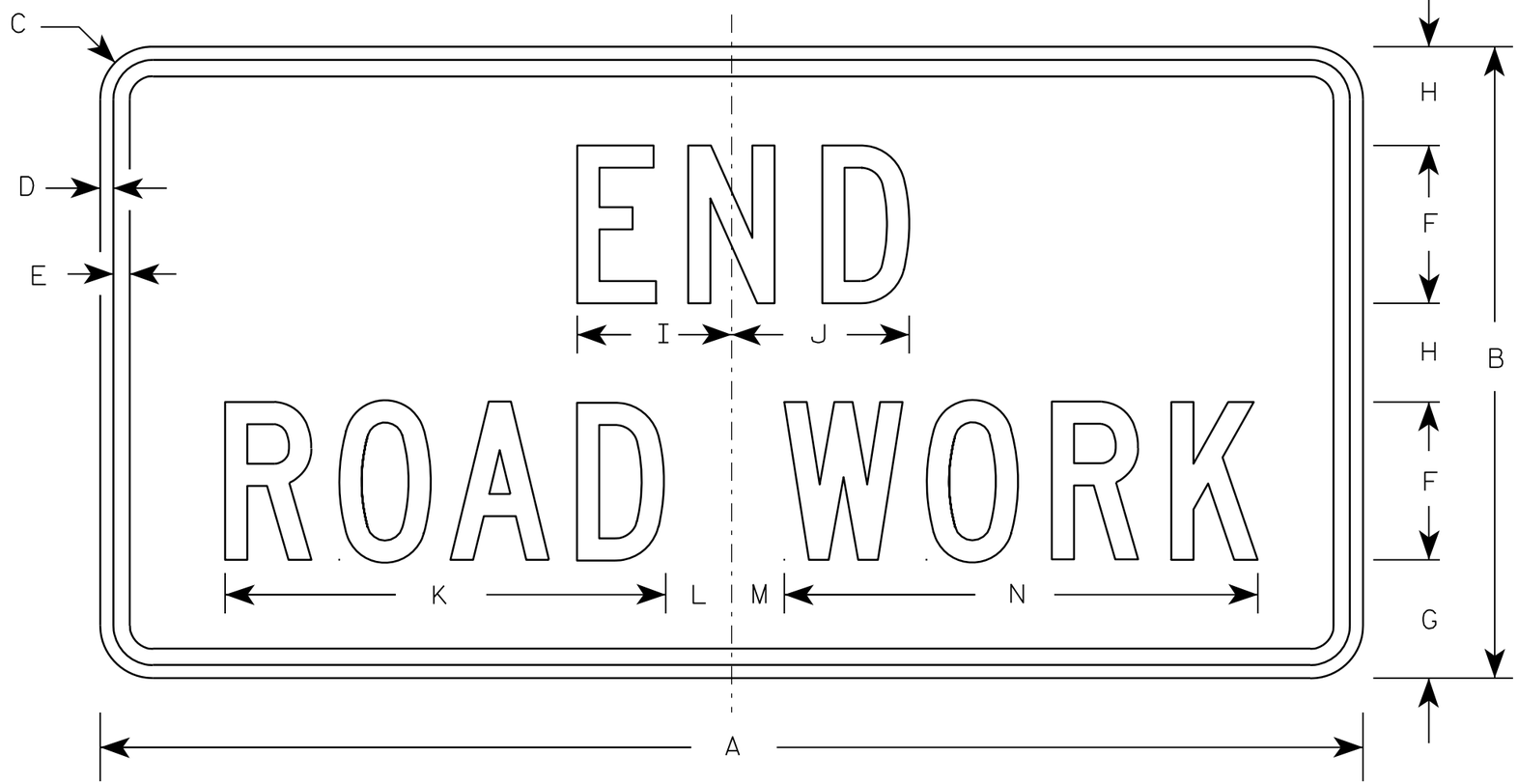
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

SHEET NO: 404 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

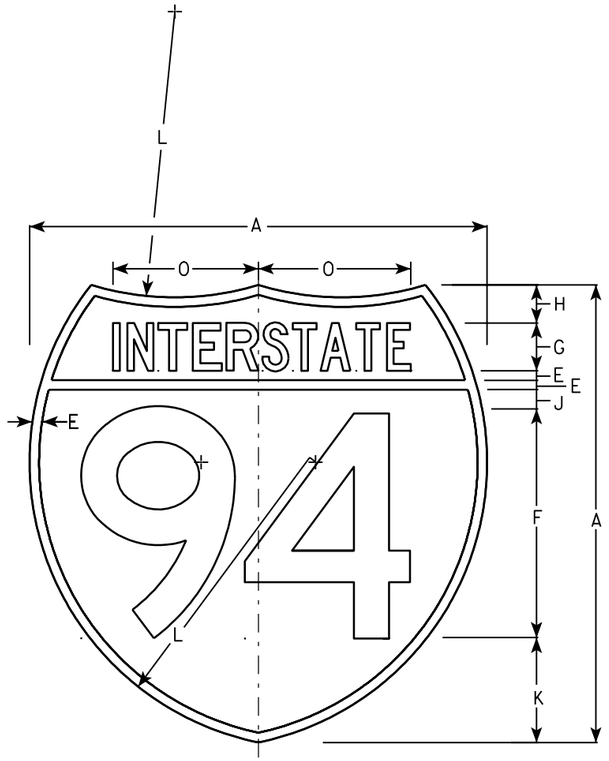
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

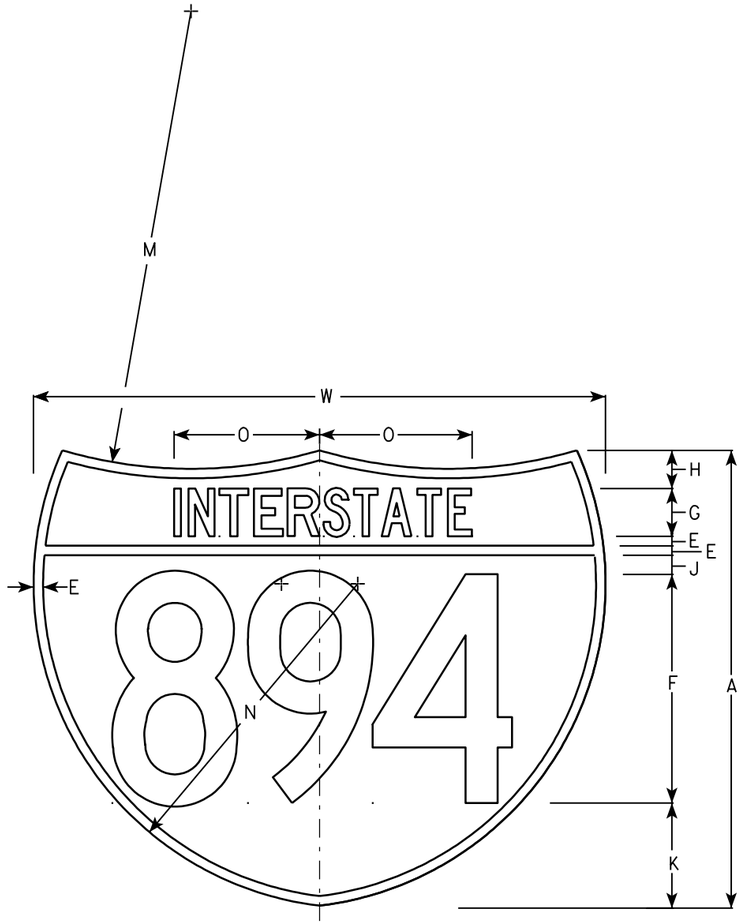
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 405	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

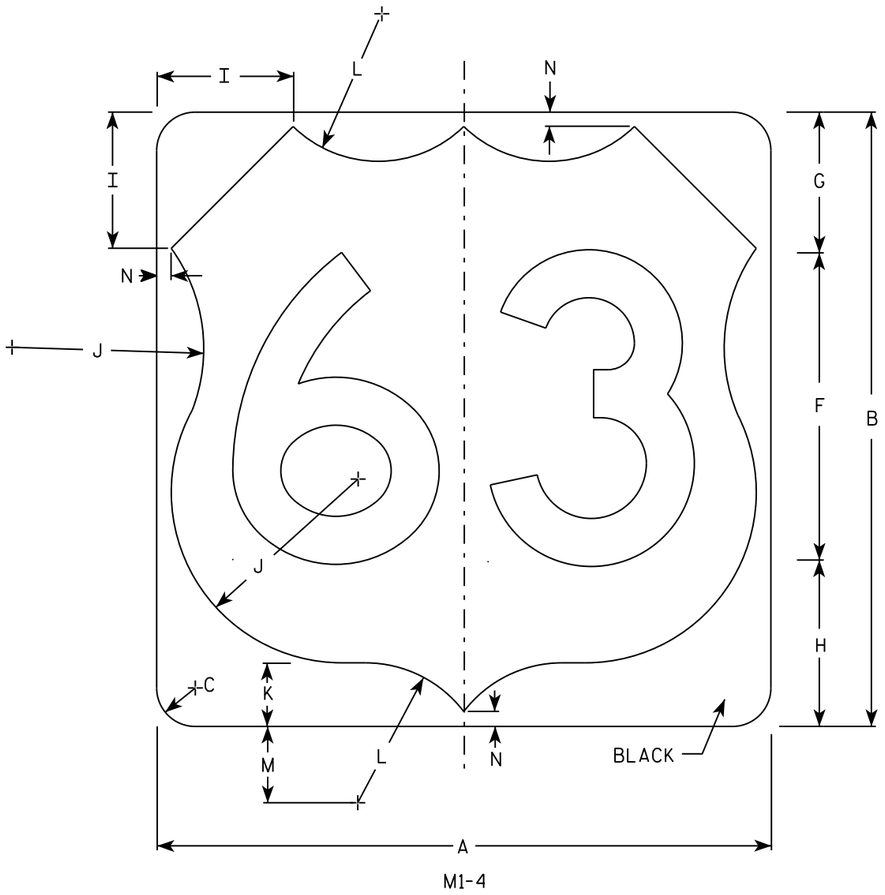
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

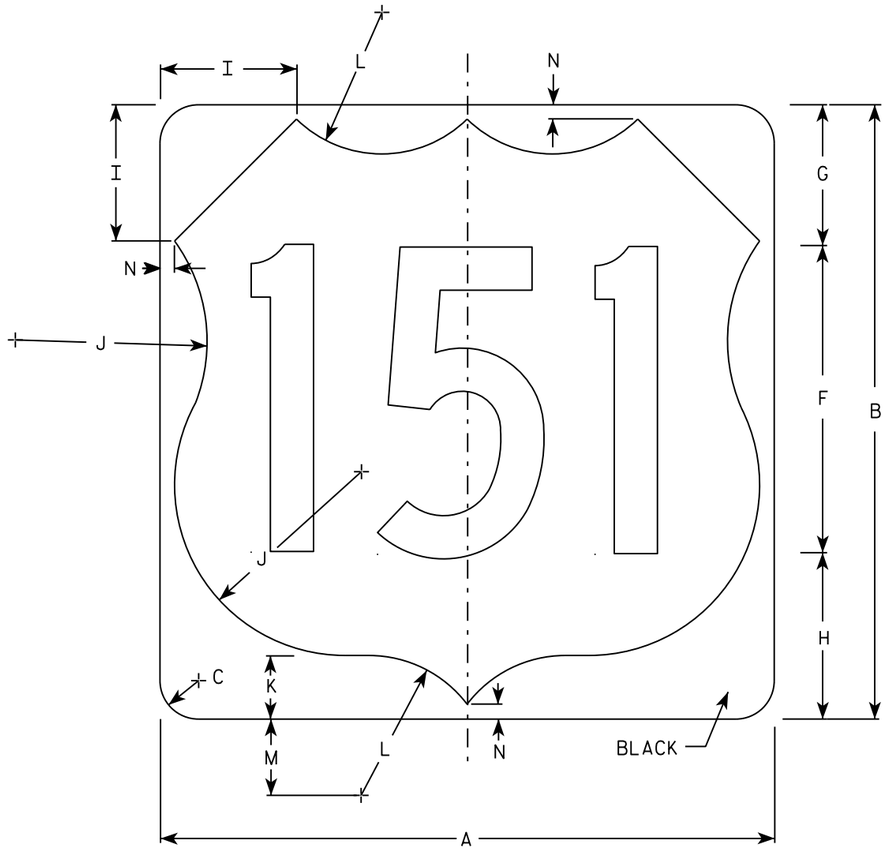
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 406	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M1-4



M1-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

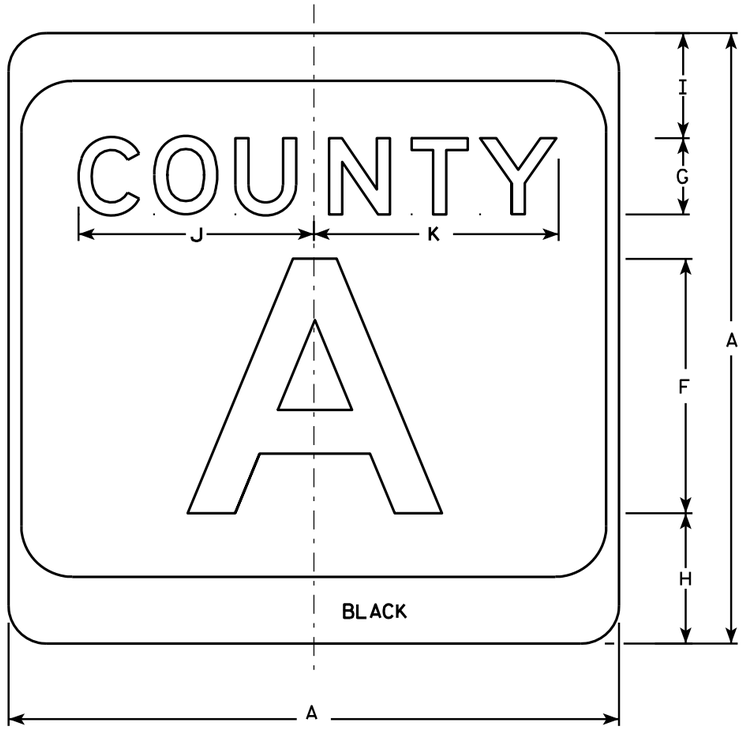
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

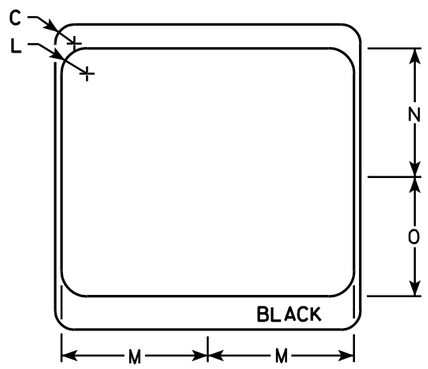
APPROVED Matthew R Rauch
for State Traffic Engineer

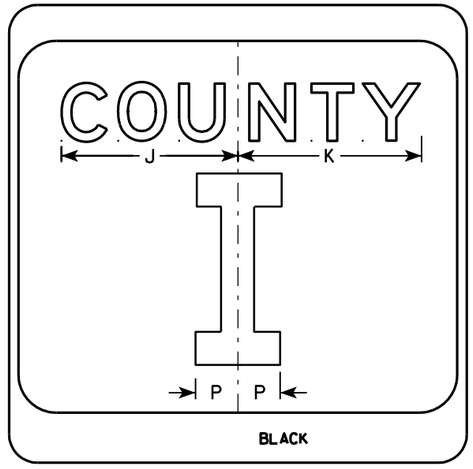
DATE 3/16/18 PLATE NO. M1-4.10

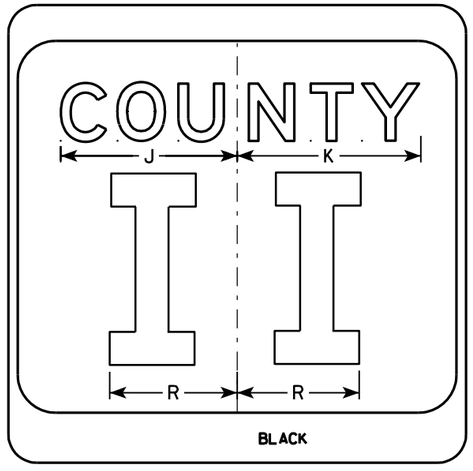
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

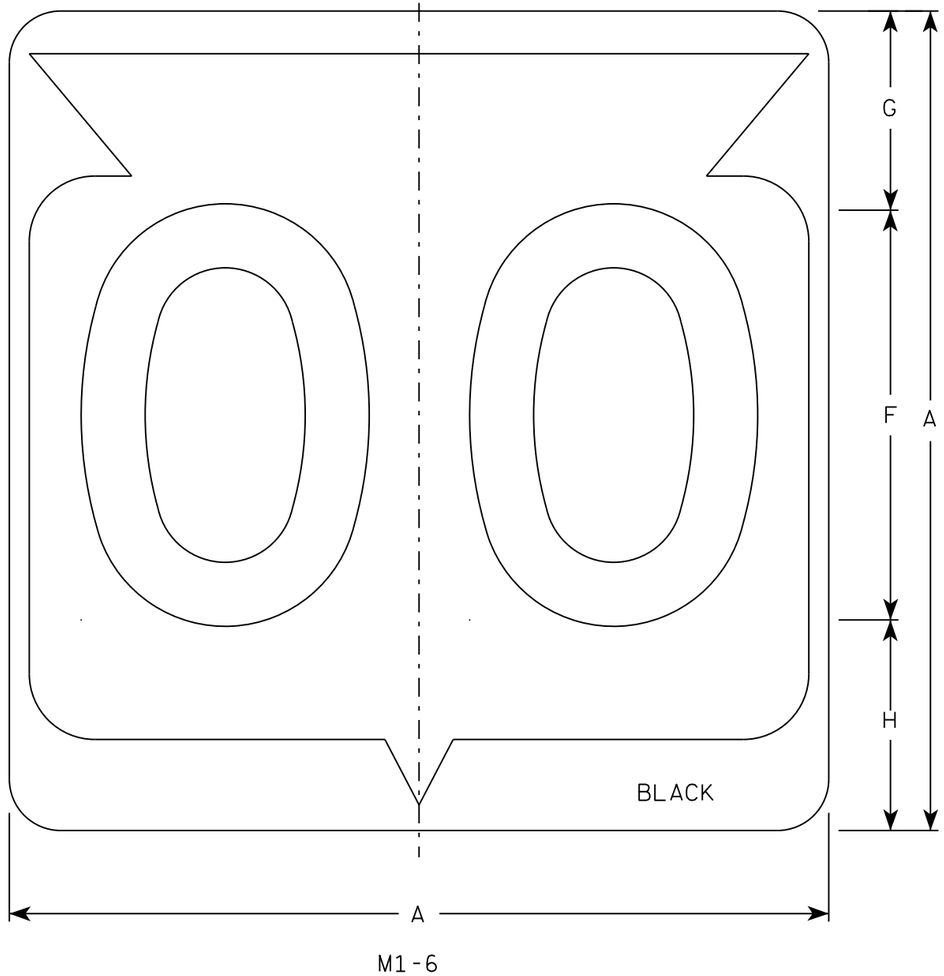
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

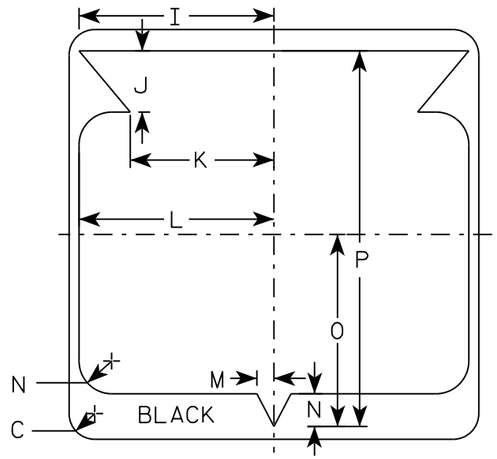
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 408	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

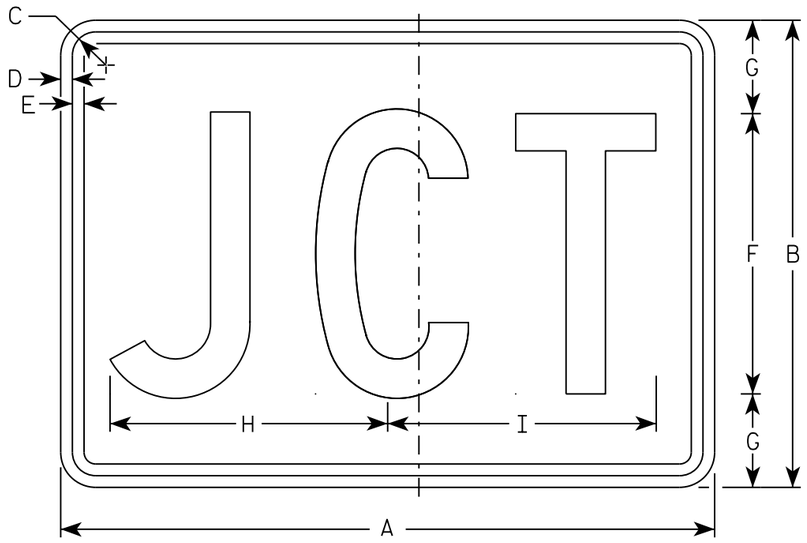
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

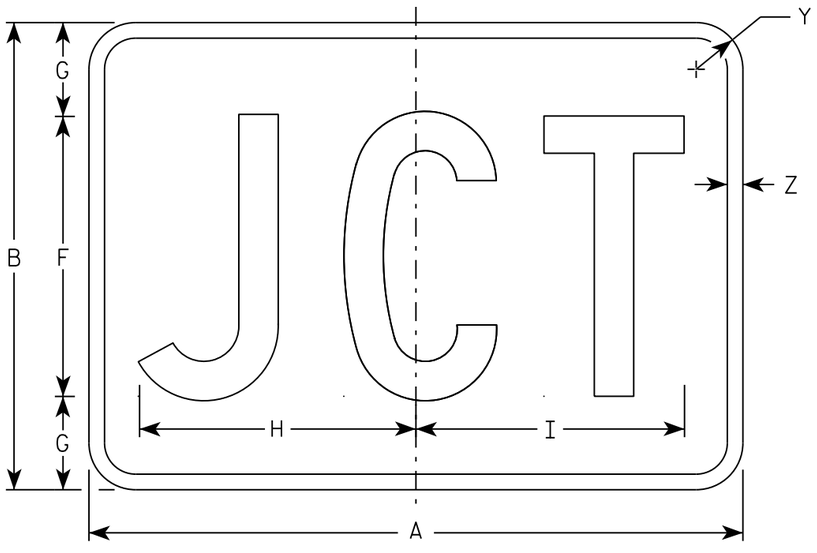
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 409 | E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

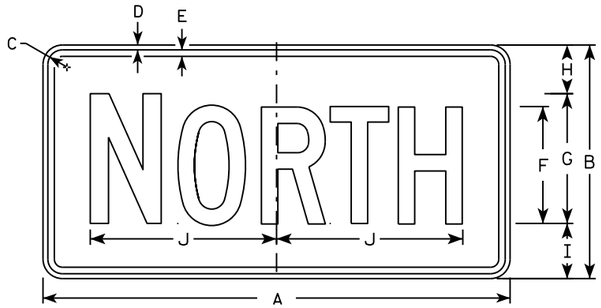
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

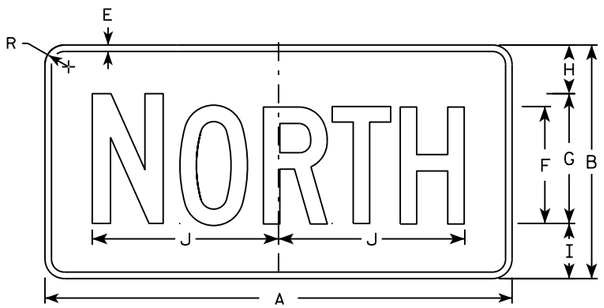
DATE 10/15/15 PLATE 410 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



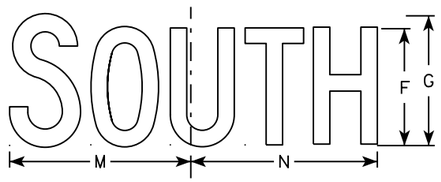
MB3-1
MK3-1
MN3-1



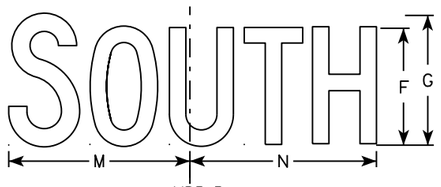
M3-2
MM3-2
MP3-2



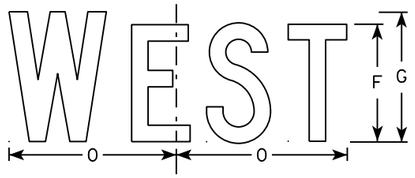
MB3-2
MK3-2
MN3-2



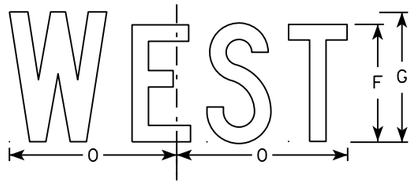
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

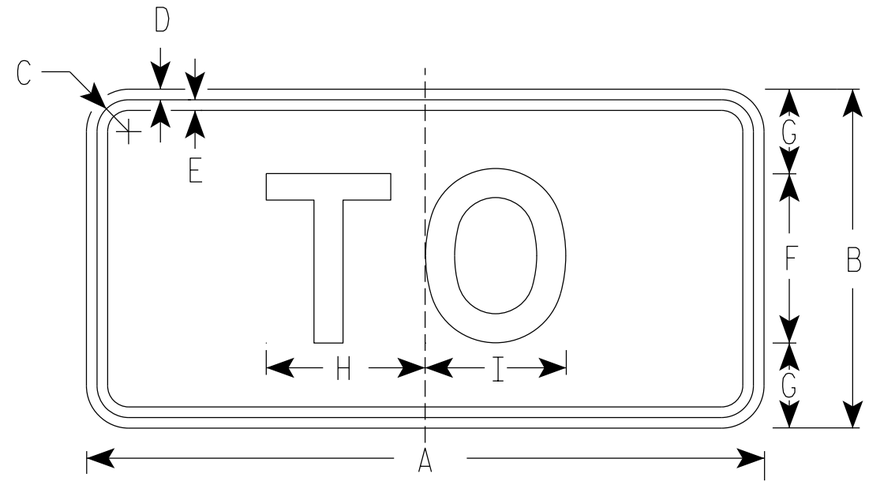
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

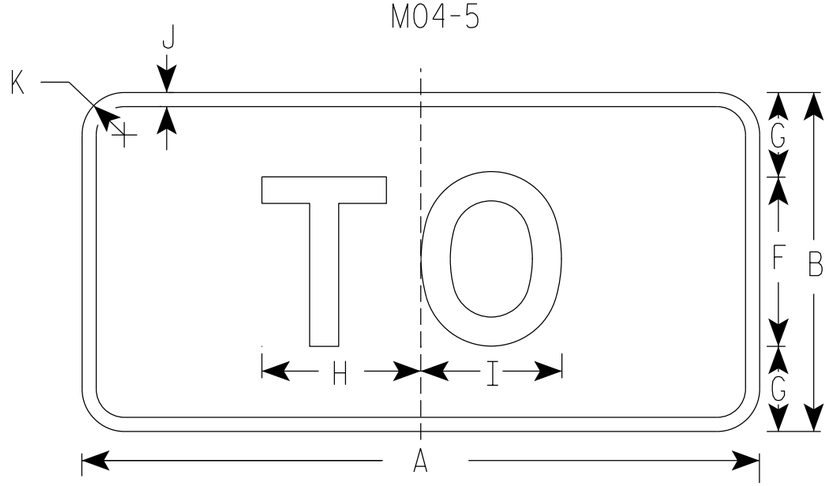
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

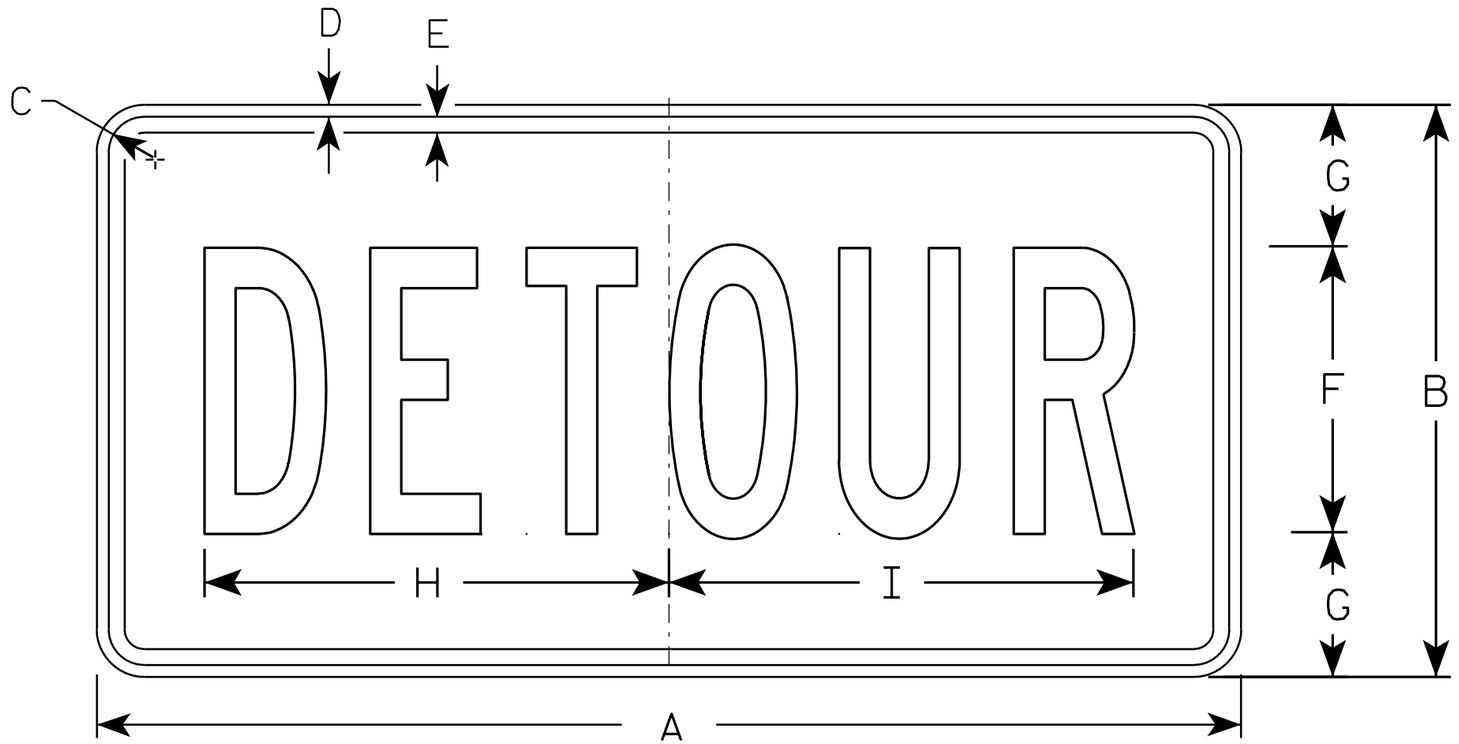
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 412 | E

7



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

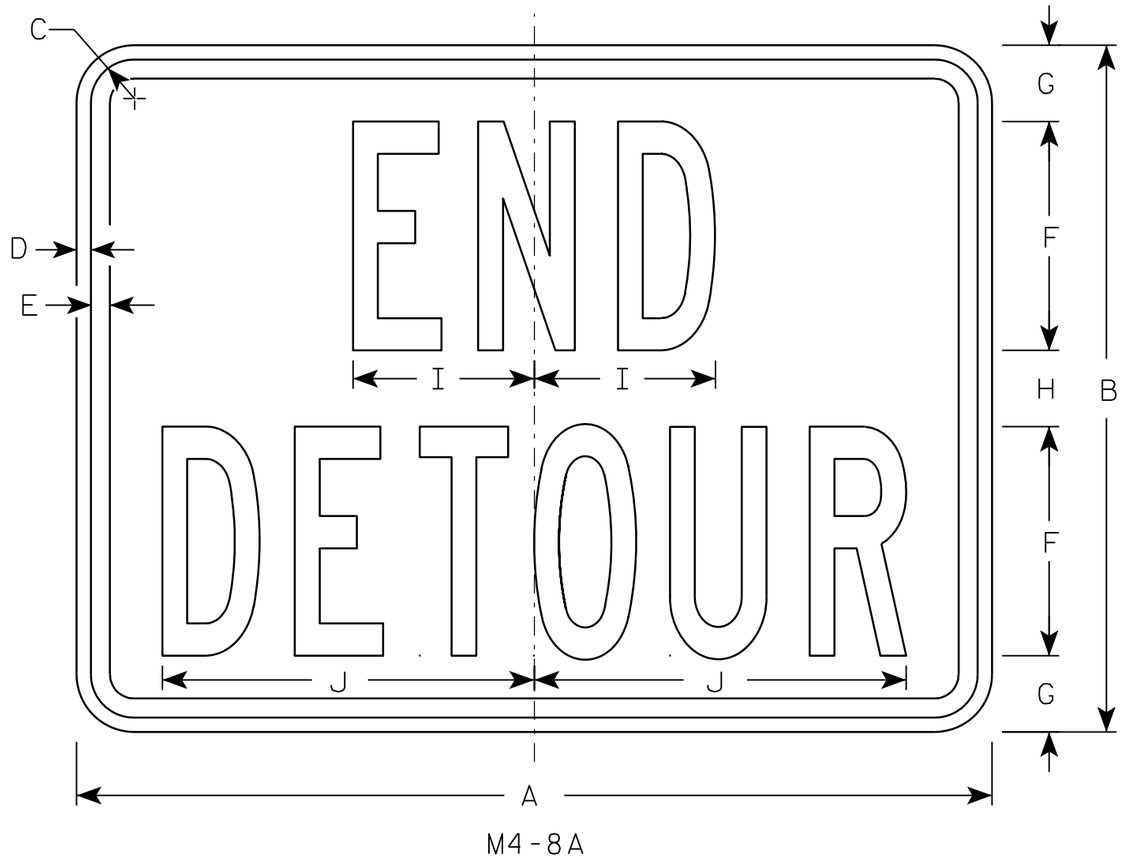
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 413	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

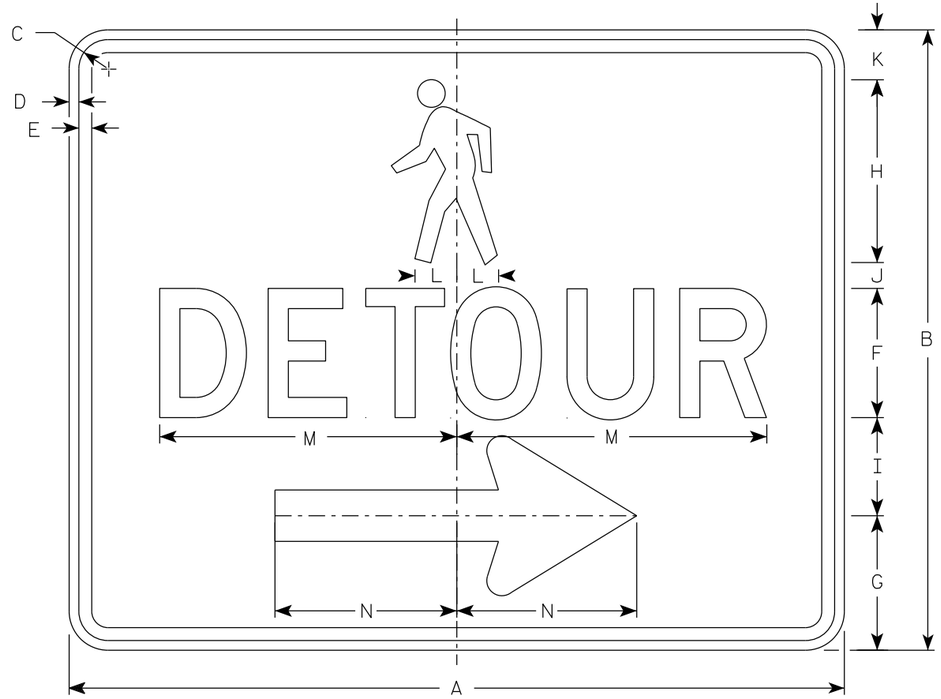
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

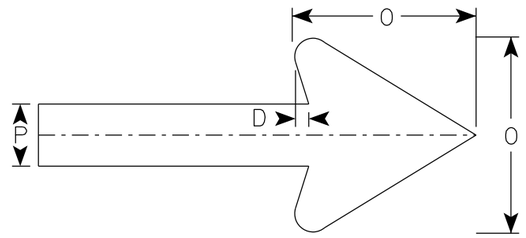
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 414	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

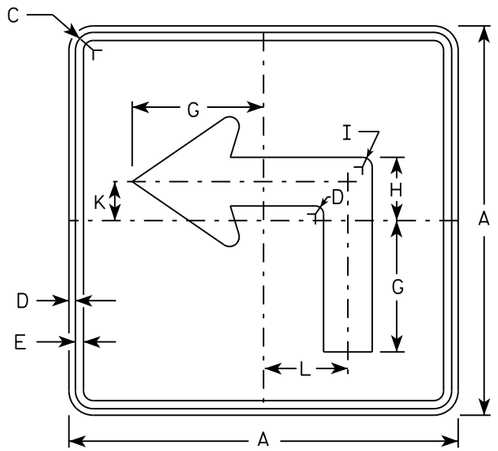
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

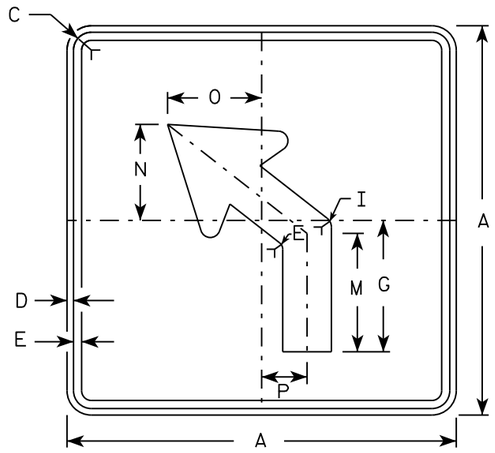
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

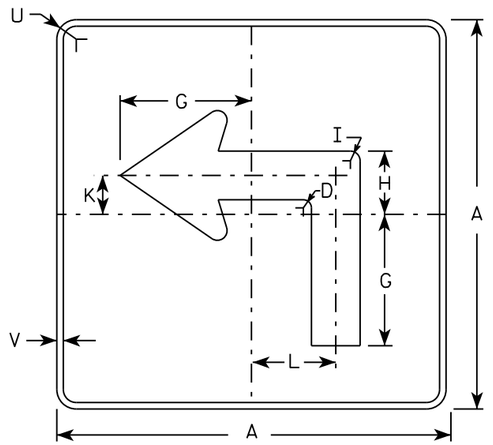
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 415 | E



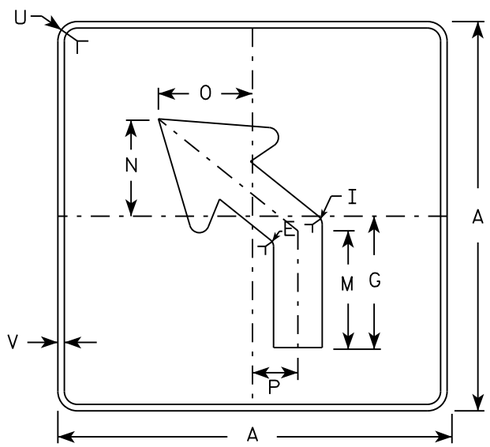
M5-1L
MM5-1L
MO5-1L
MP5-1L



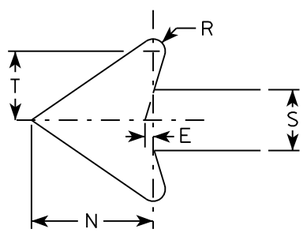
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

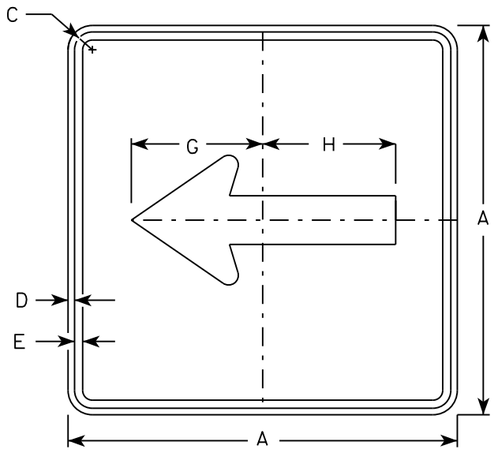
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

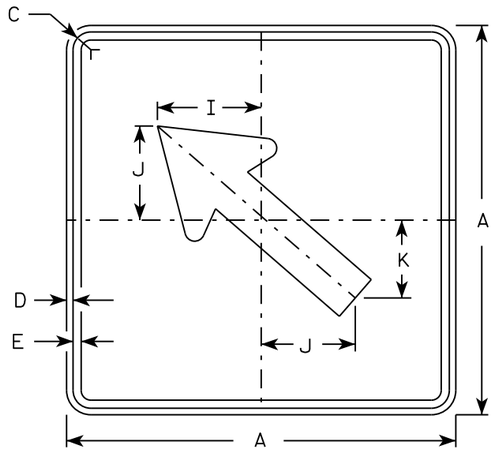
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



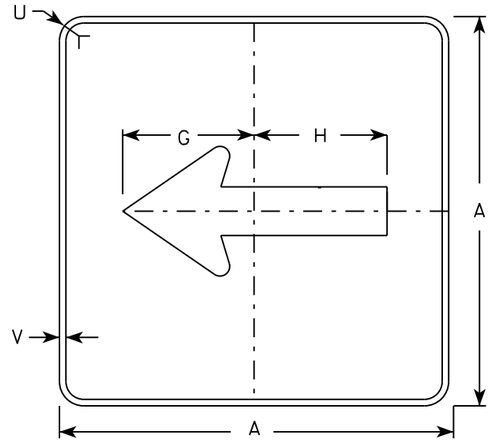
M6-1
MM6-1
MO6-1
MP6-1



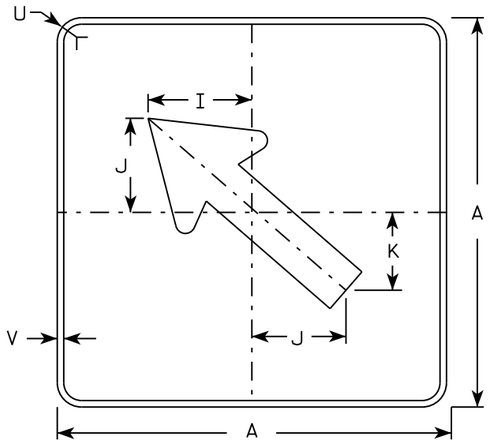
M6-2
MM6-2
MO6-2
MP6-2

NOTES

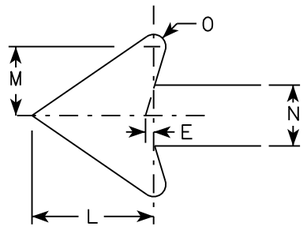
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

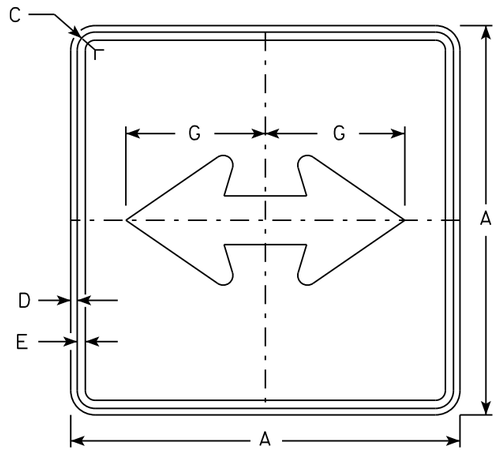
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

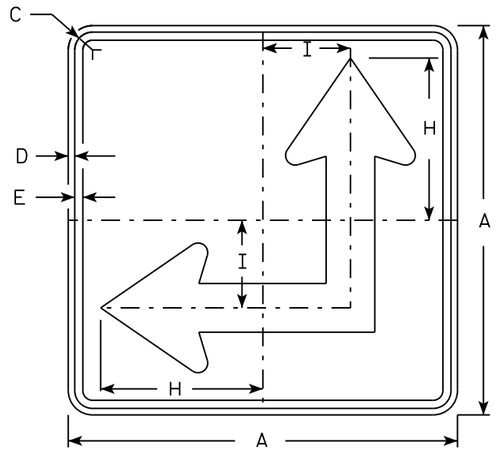
DATE 10/15/15 PLATE 417 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



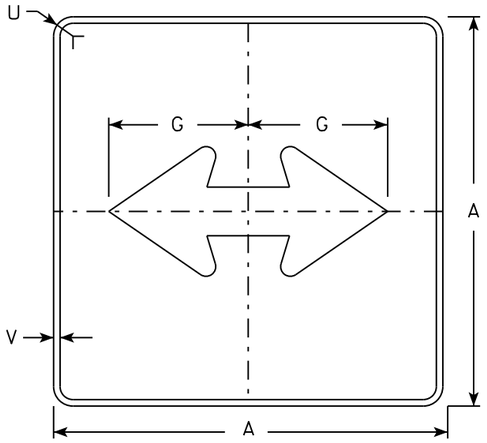
M6-4
MM6-4
MO6-4
MP6-4



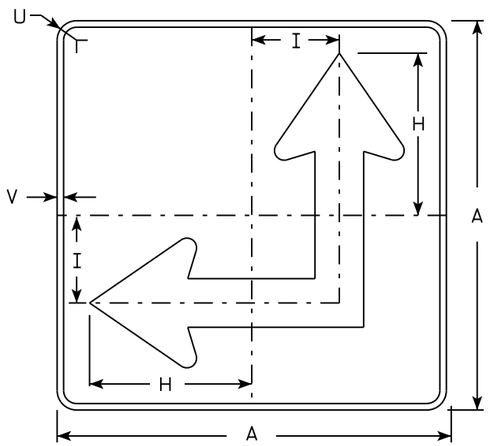
M6-6
MM6-6
MO6-6
MP6-6

NOTES

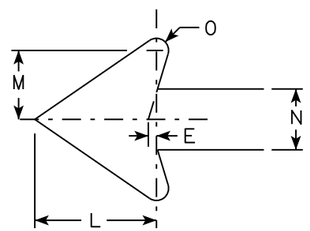
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

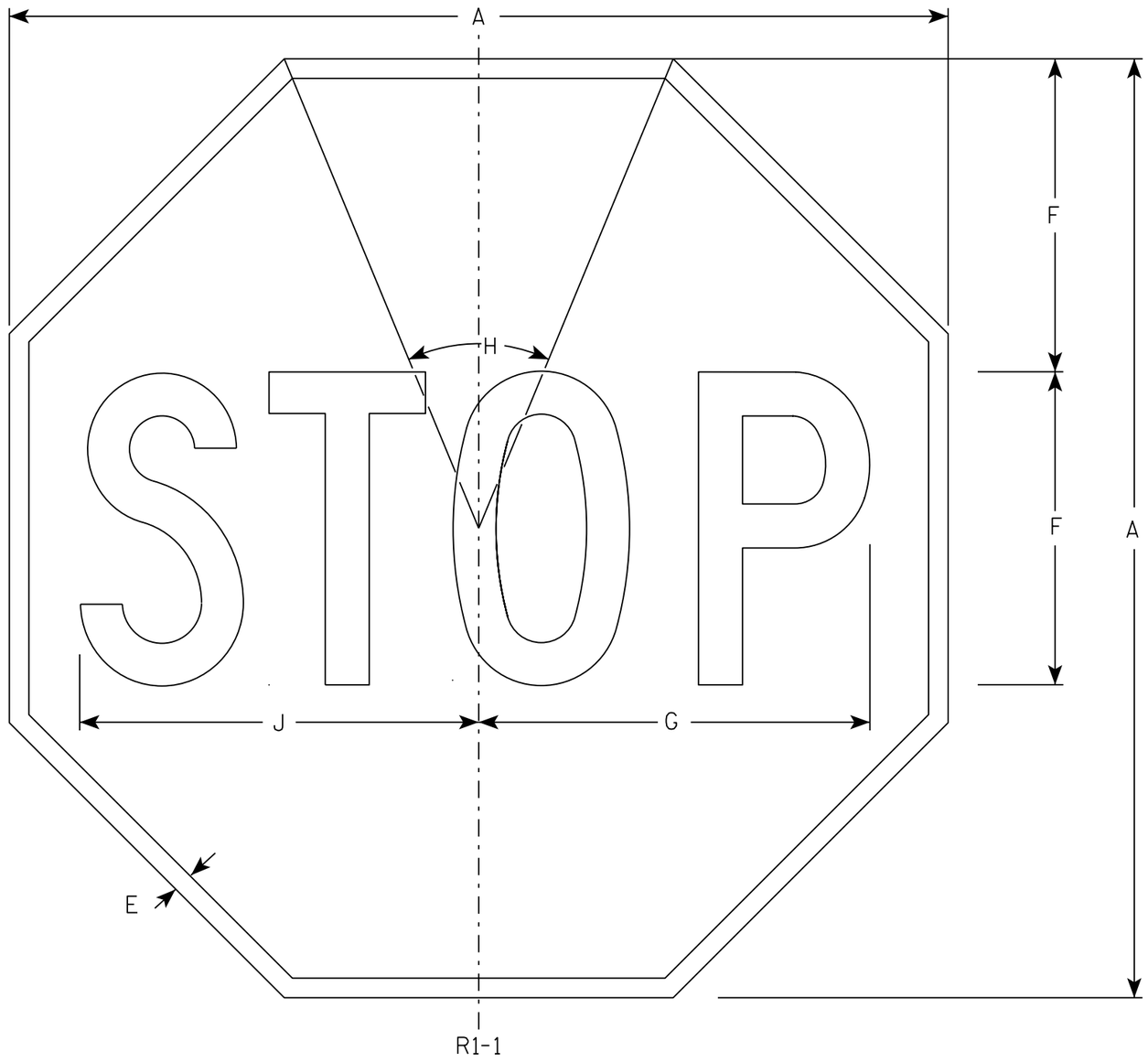
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE 418 M6-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

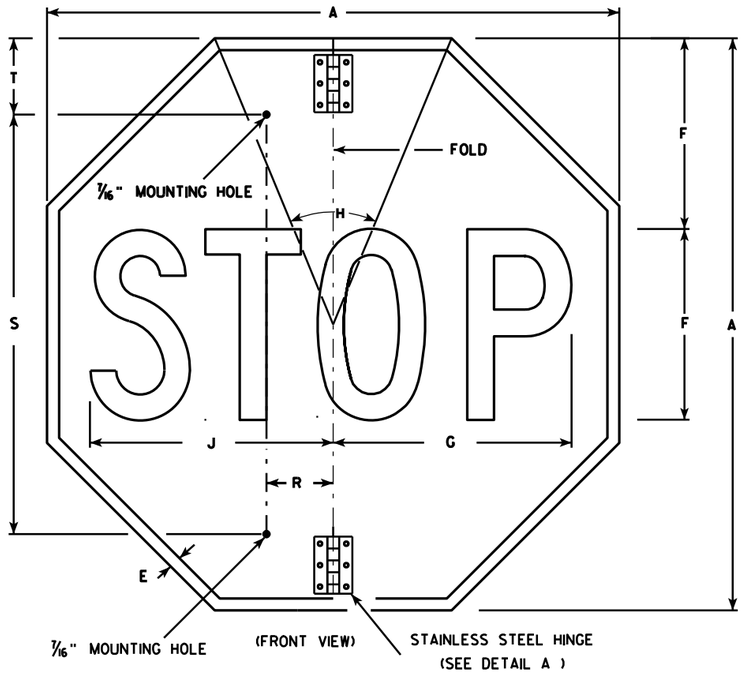
STANDARD SIGN
R1-1

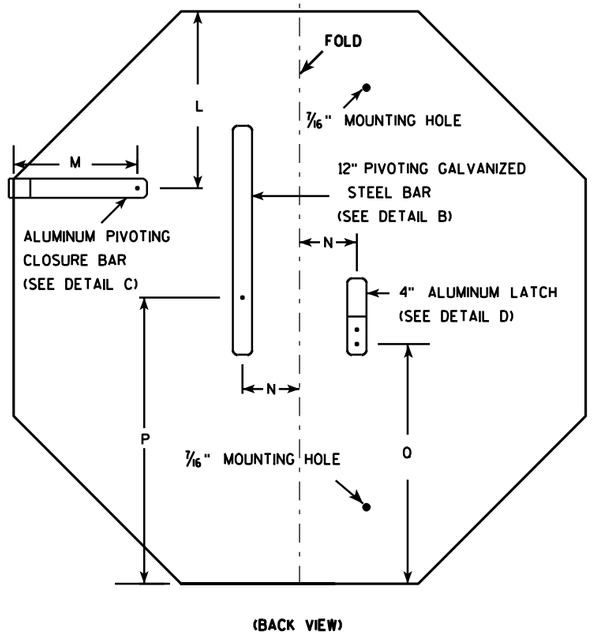
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

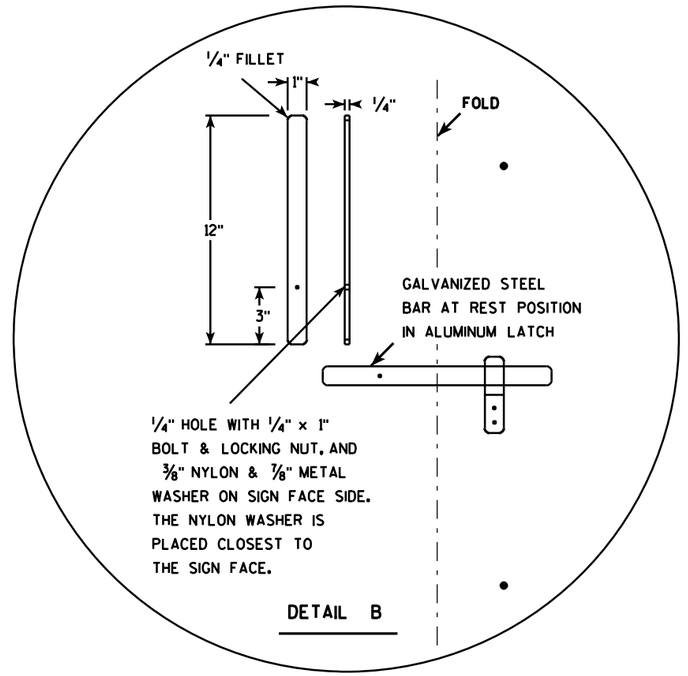
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 419	E

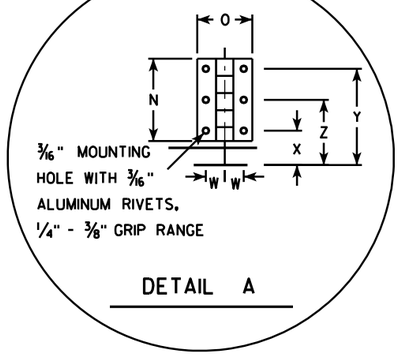


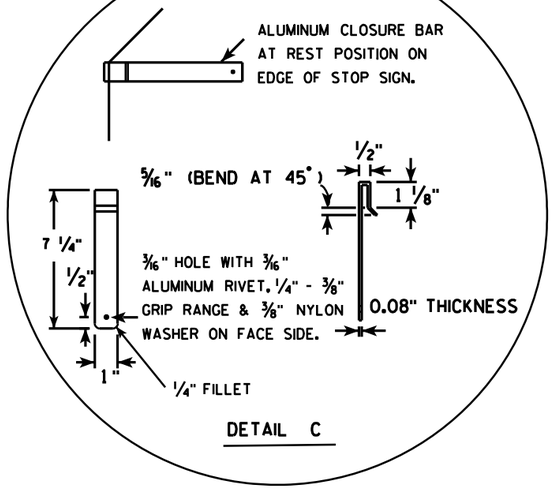


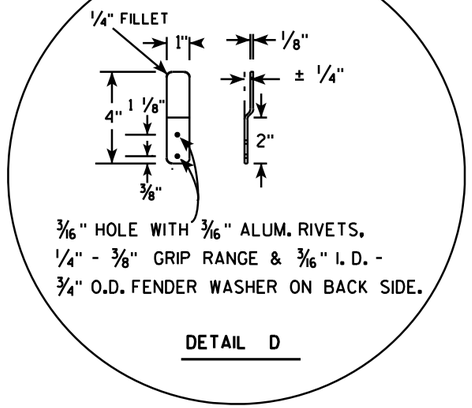
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

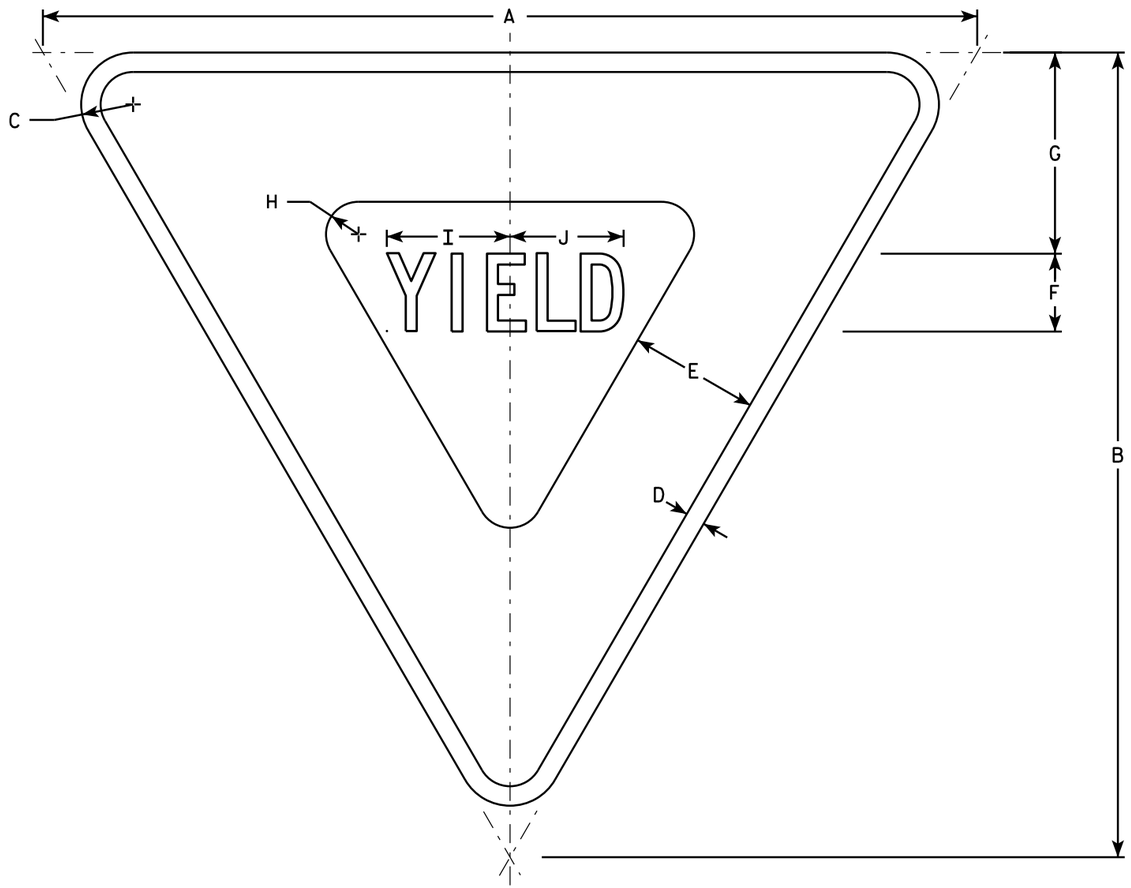
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 420	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

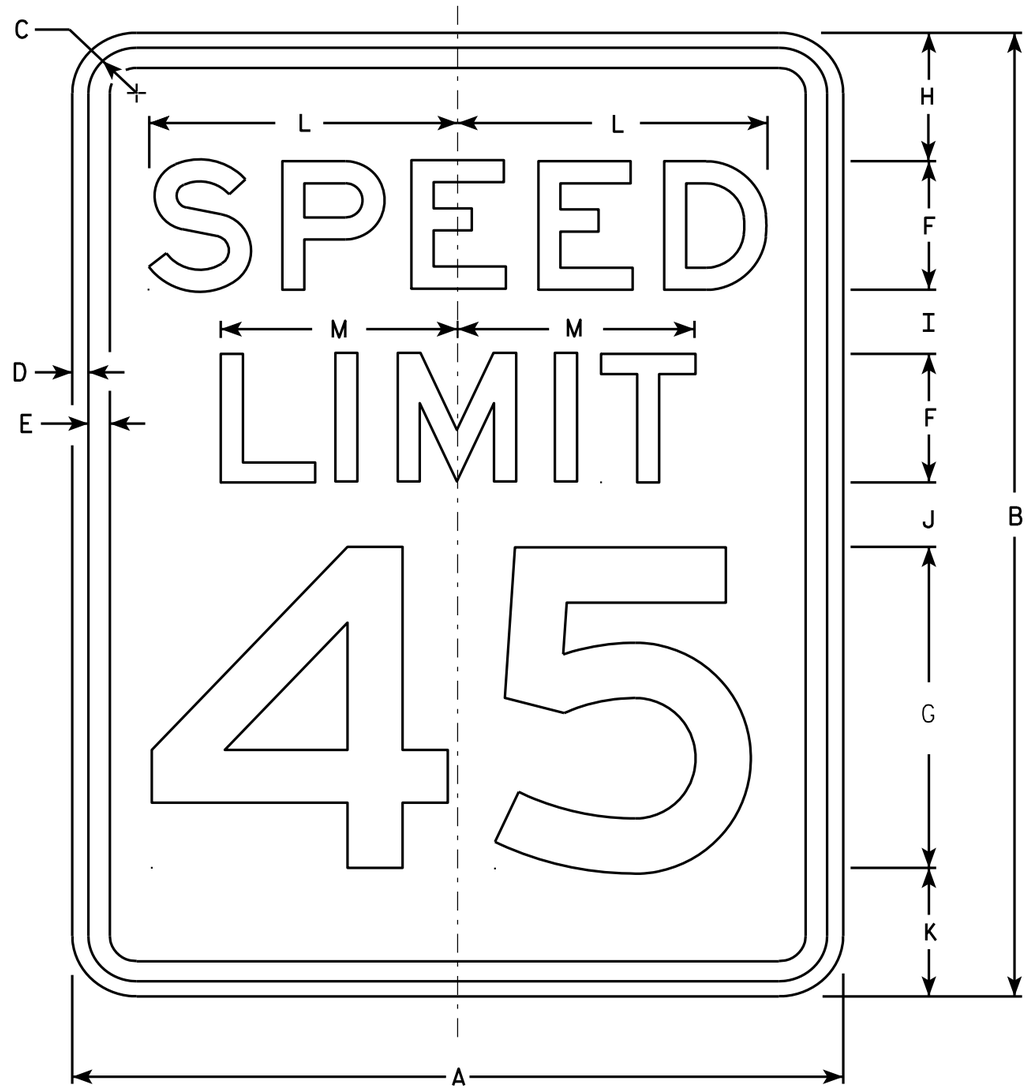
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

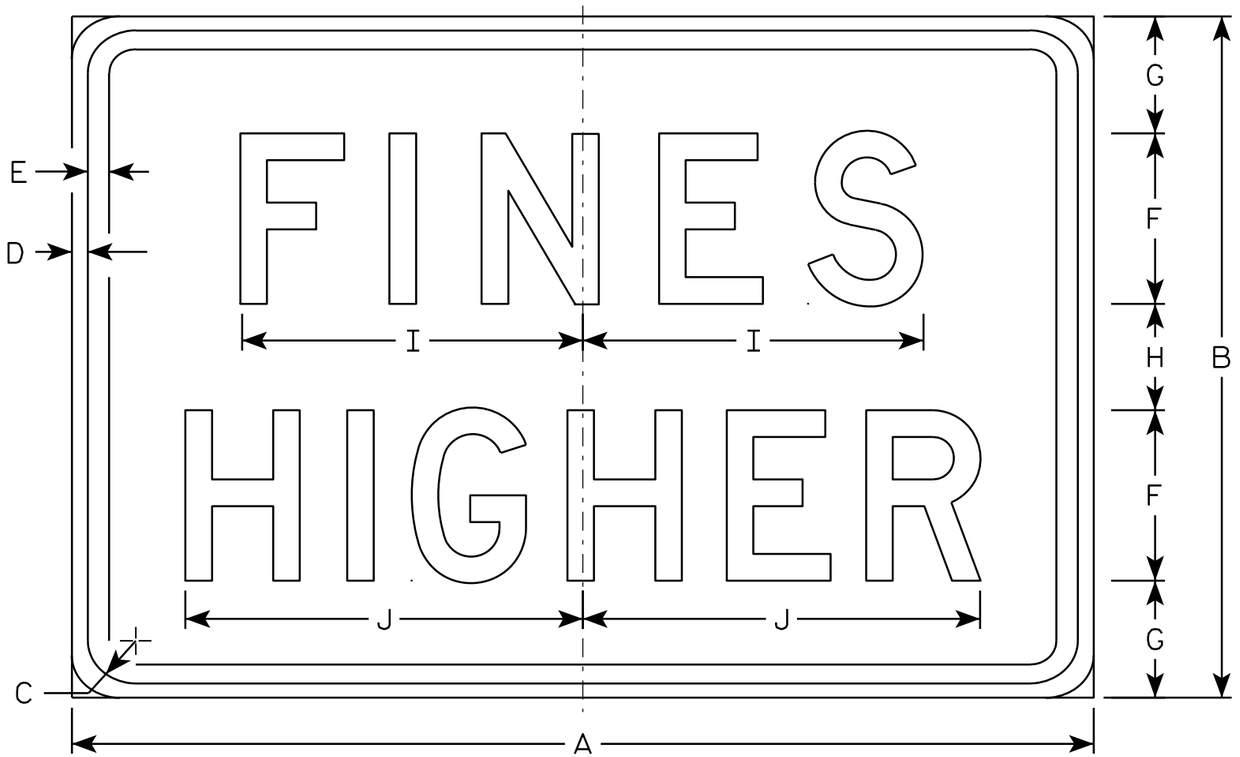
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 422 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42



R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

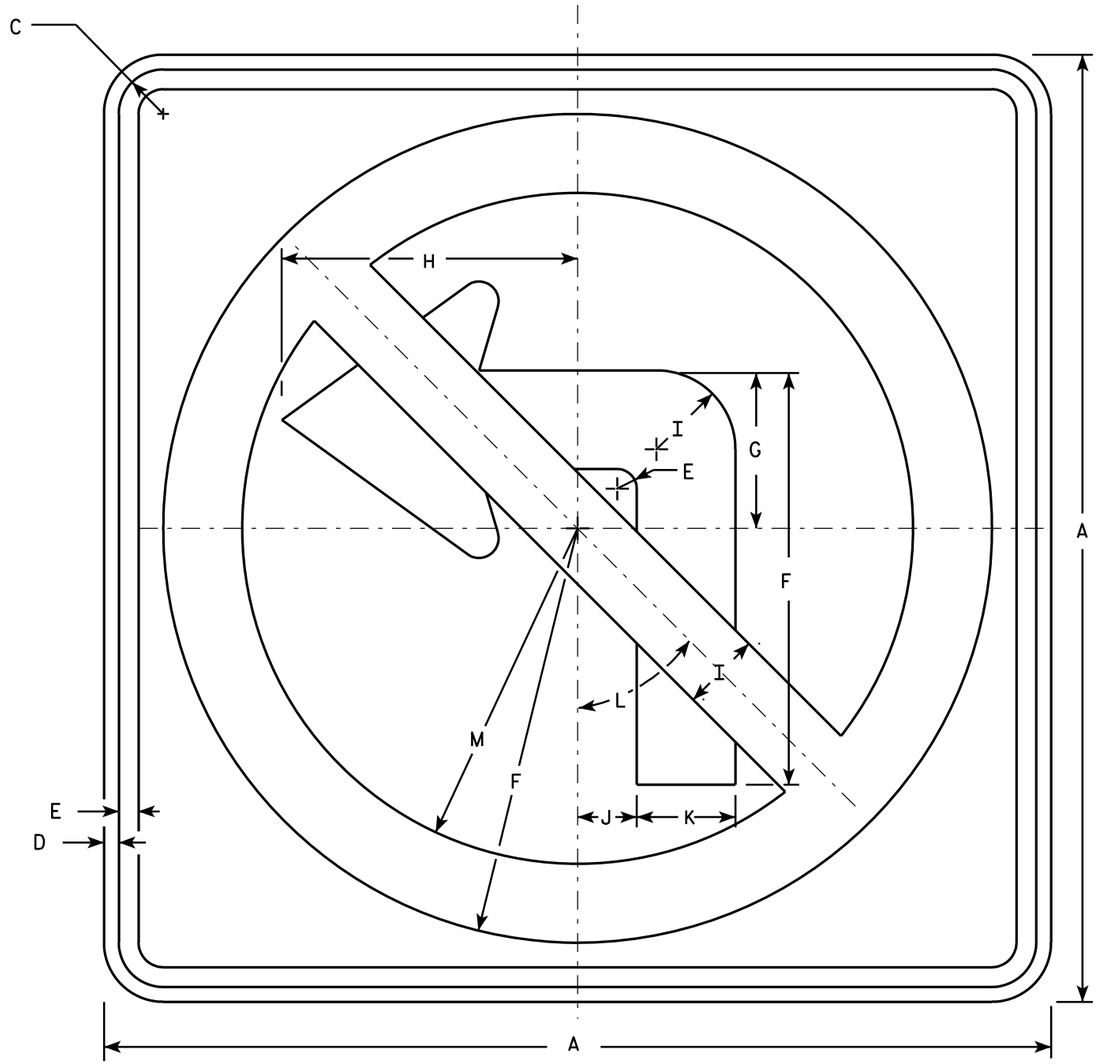
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

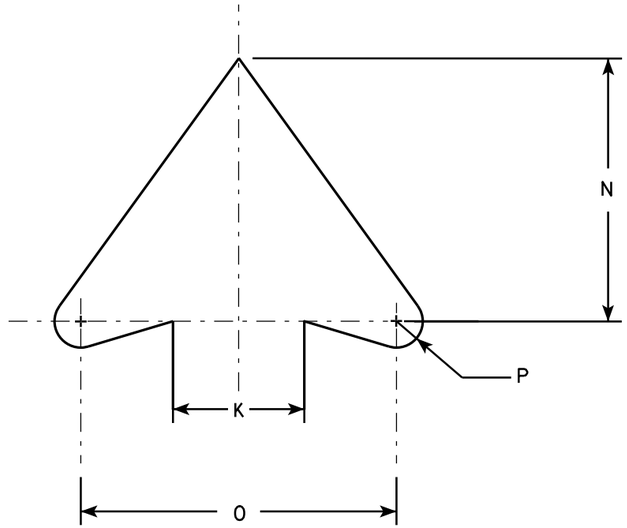
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 423 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

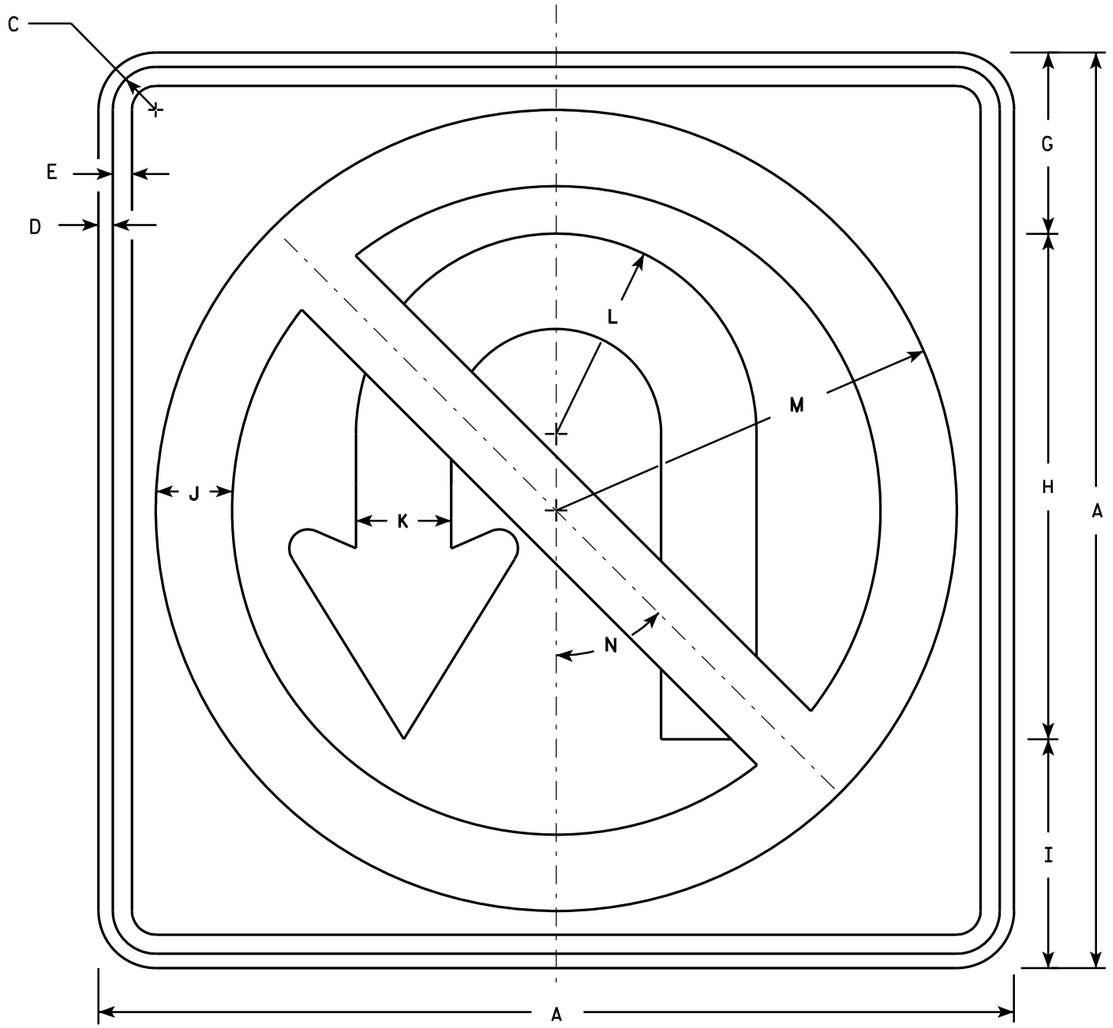
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

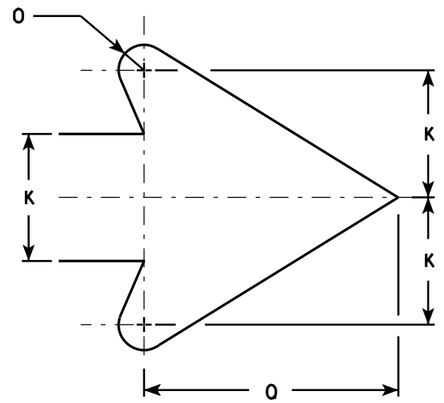
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 424	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

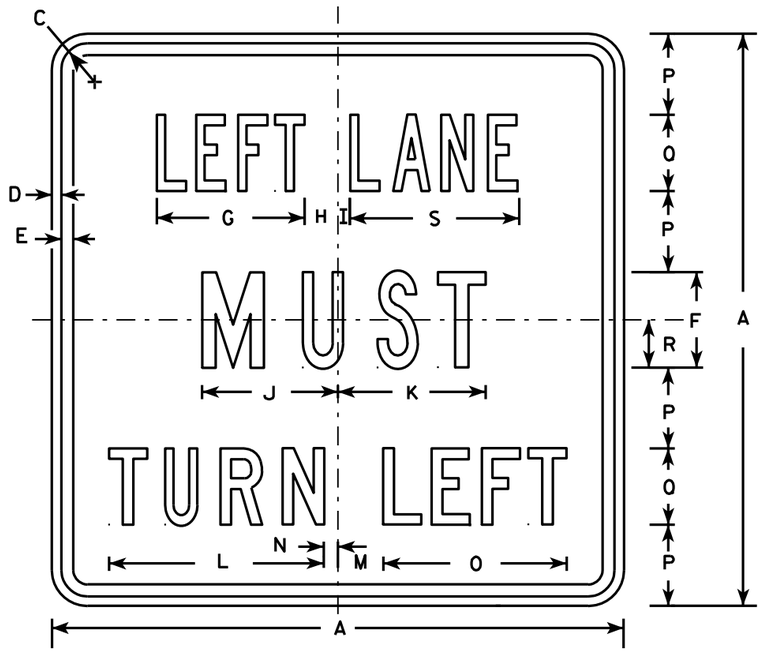
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

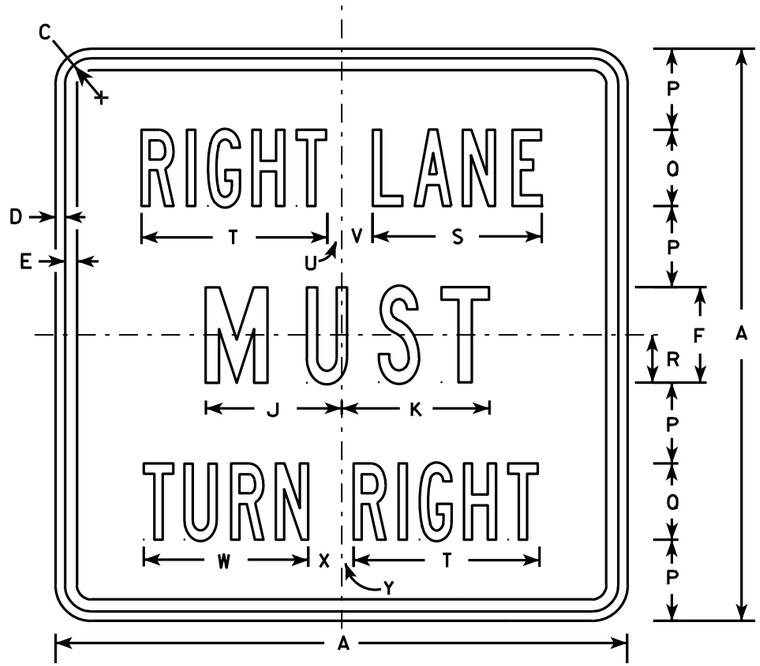
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 425	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

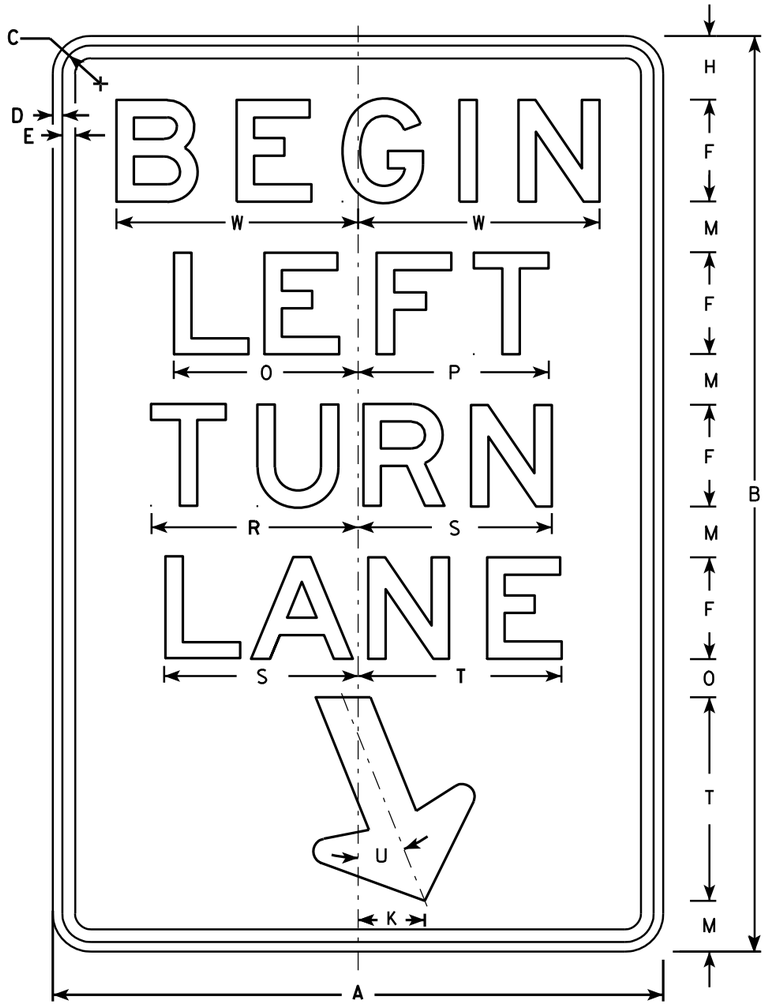
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

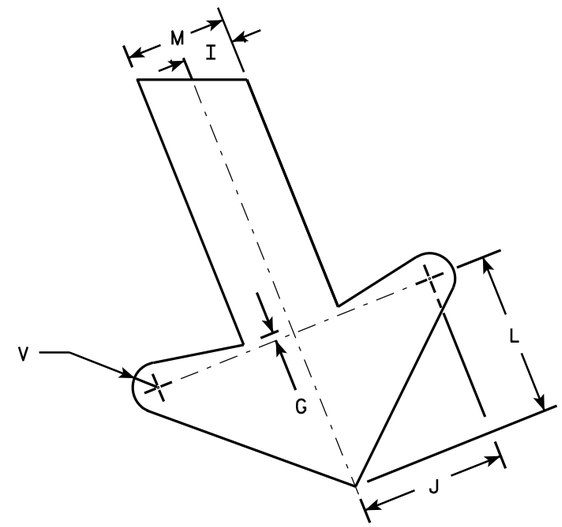
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 426 | E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

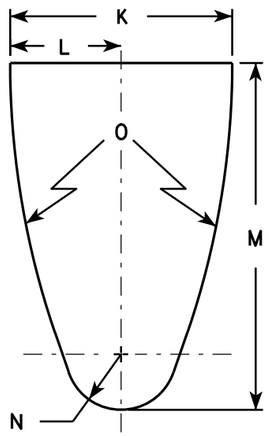
STANDARD SIGN
R3-20L

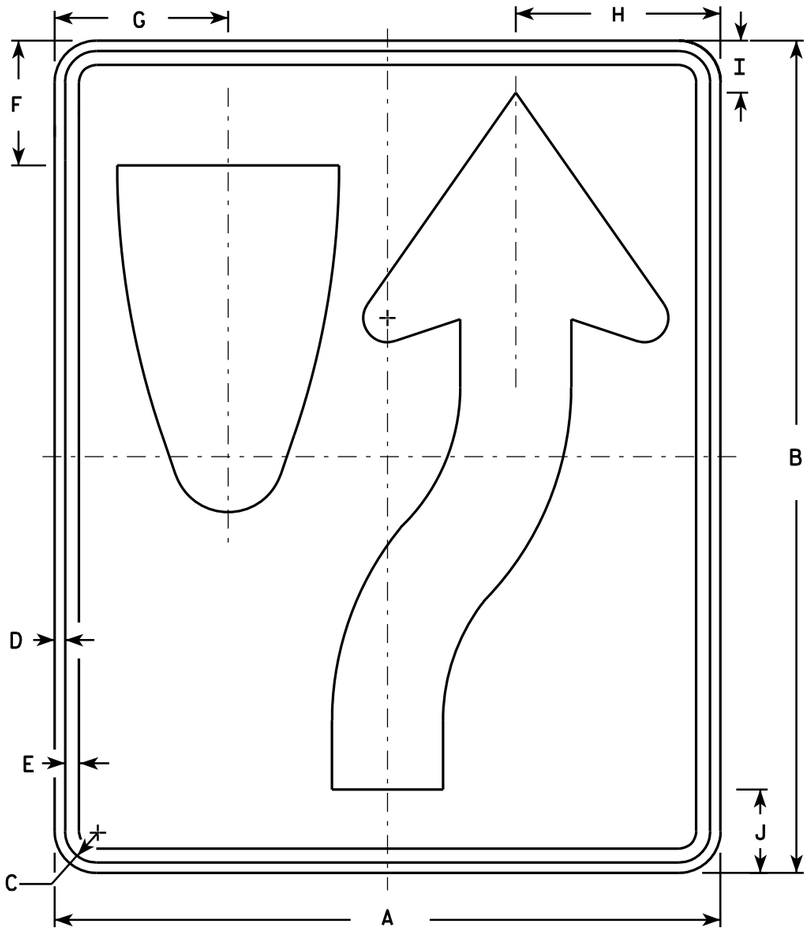
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 427 | E

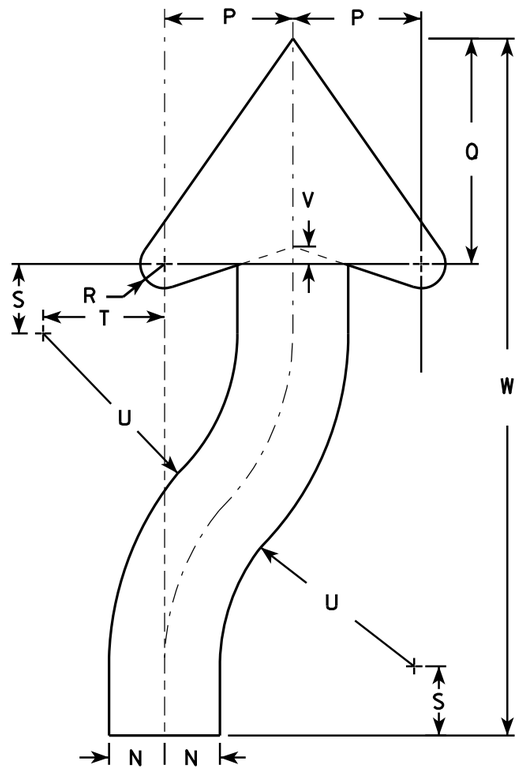




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

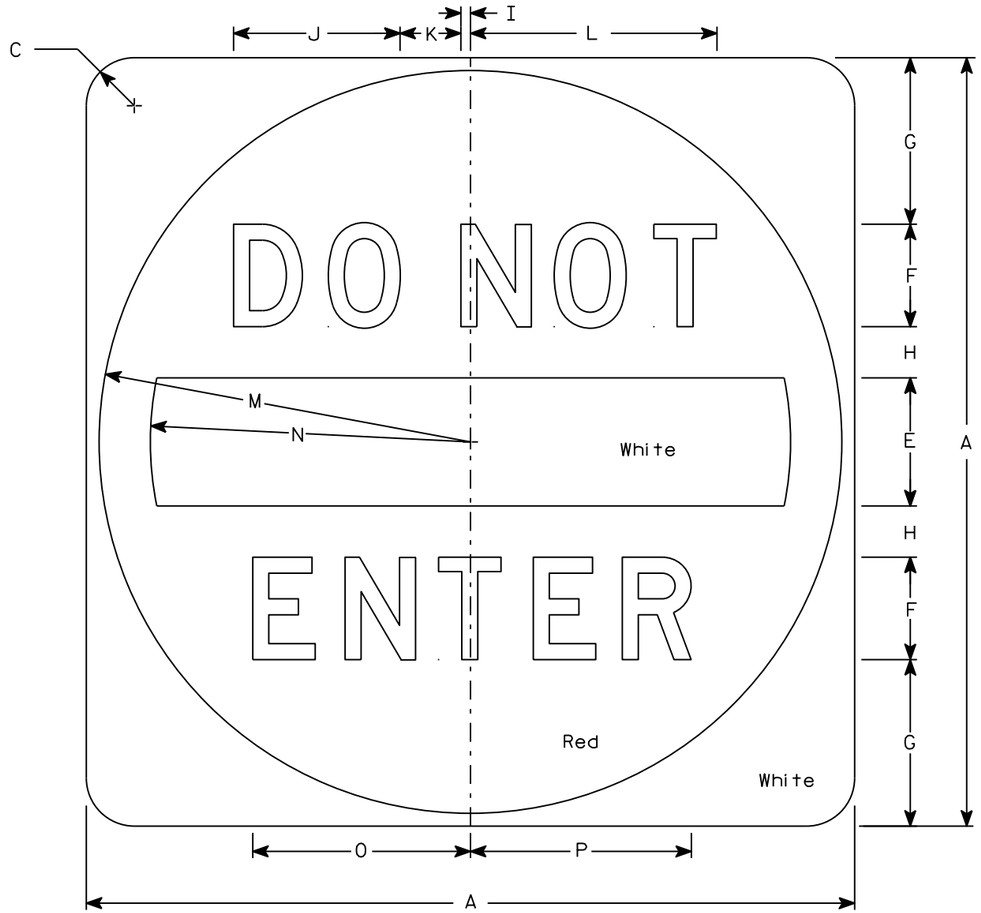
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 428	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

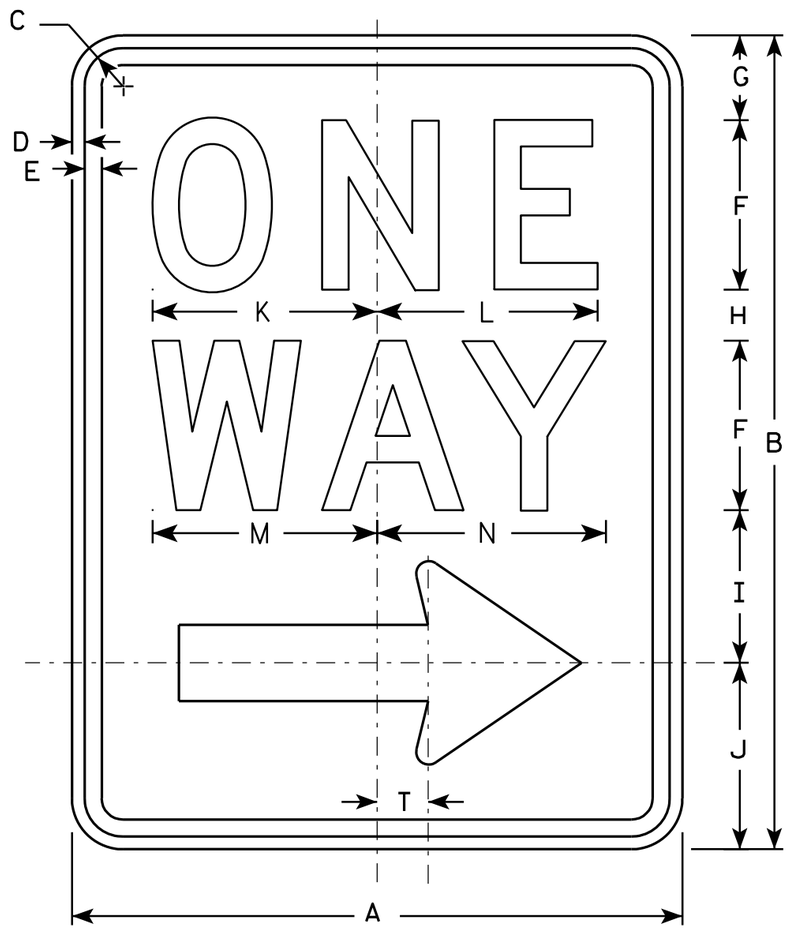
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

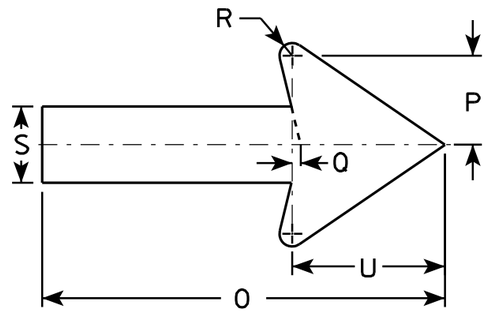
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

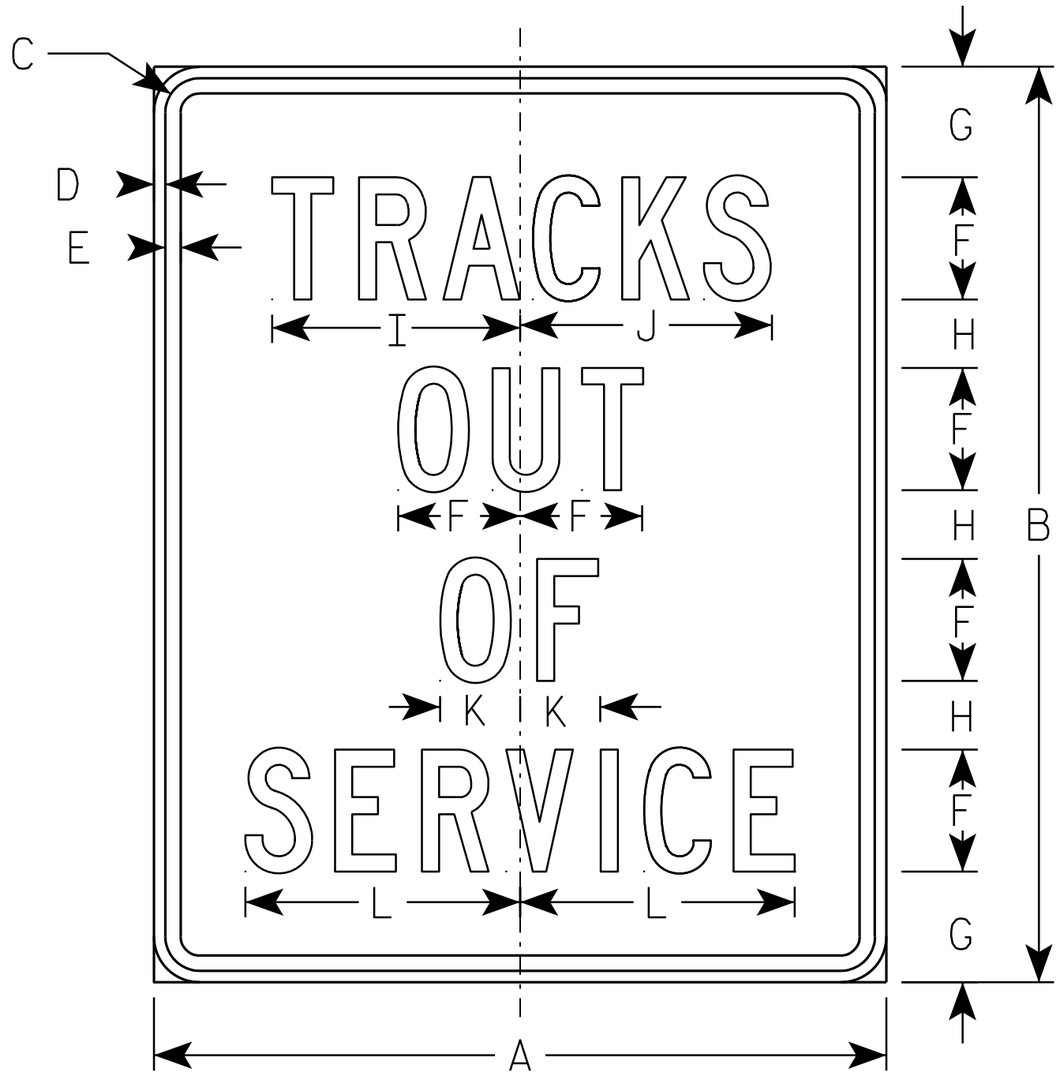
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 430	E



R8-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	8 1/8	8 1/4	2 5/8	9															5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	8 1/8	8 1/4	2 5/8	9															5.0
3																											
4																											
5																											

STANDARD SIGN
R8-9

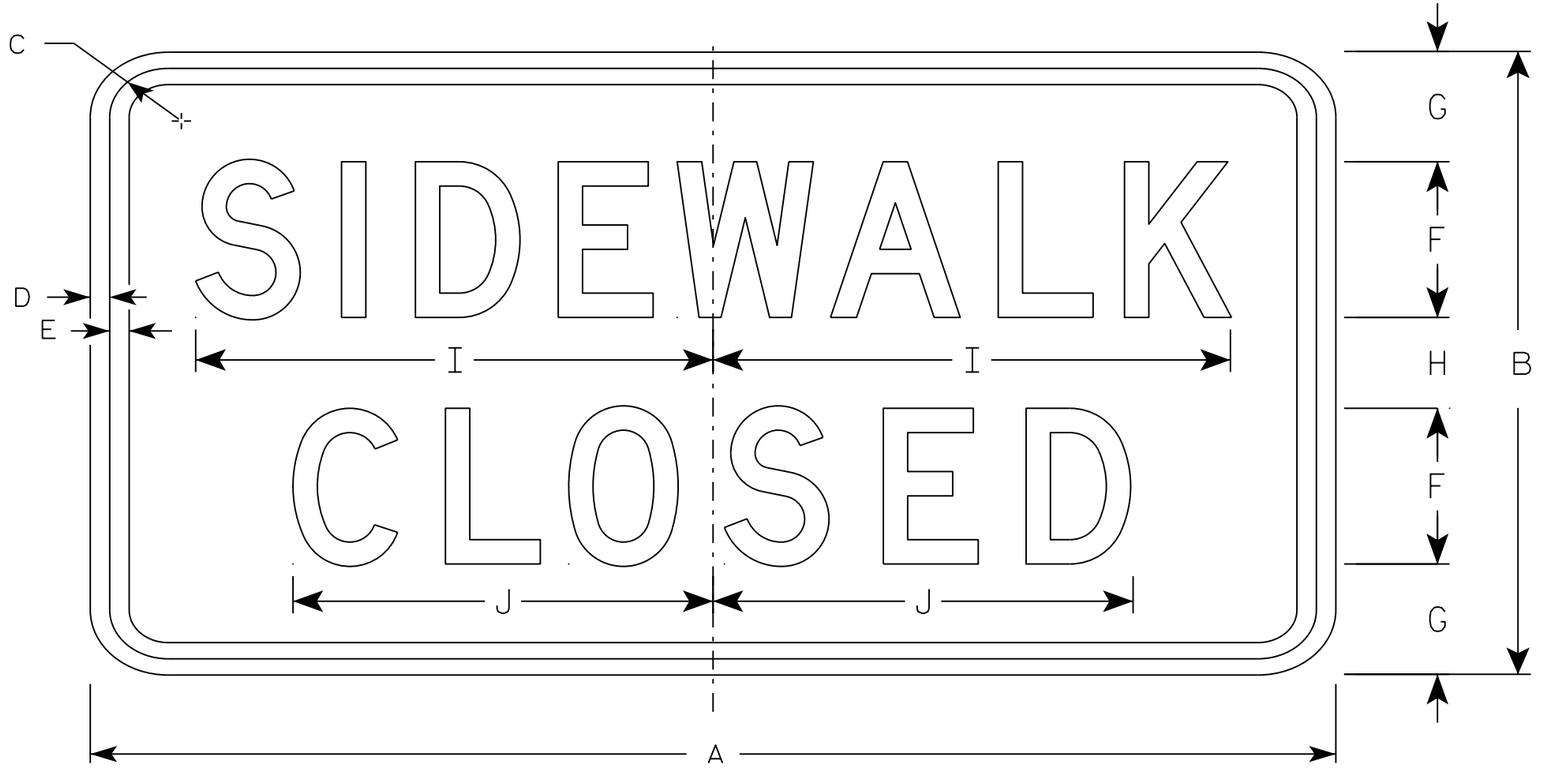
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-9.2

PROJECT NO:

SHEET NO: 431 E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

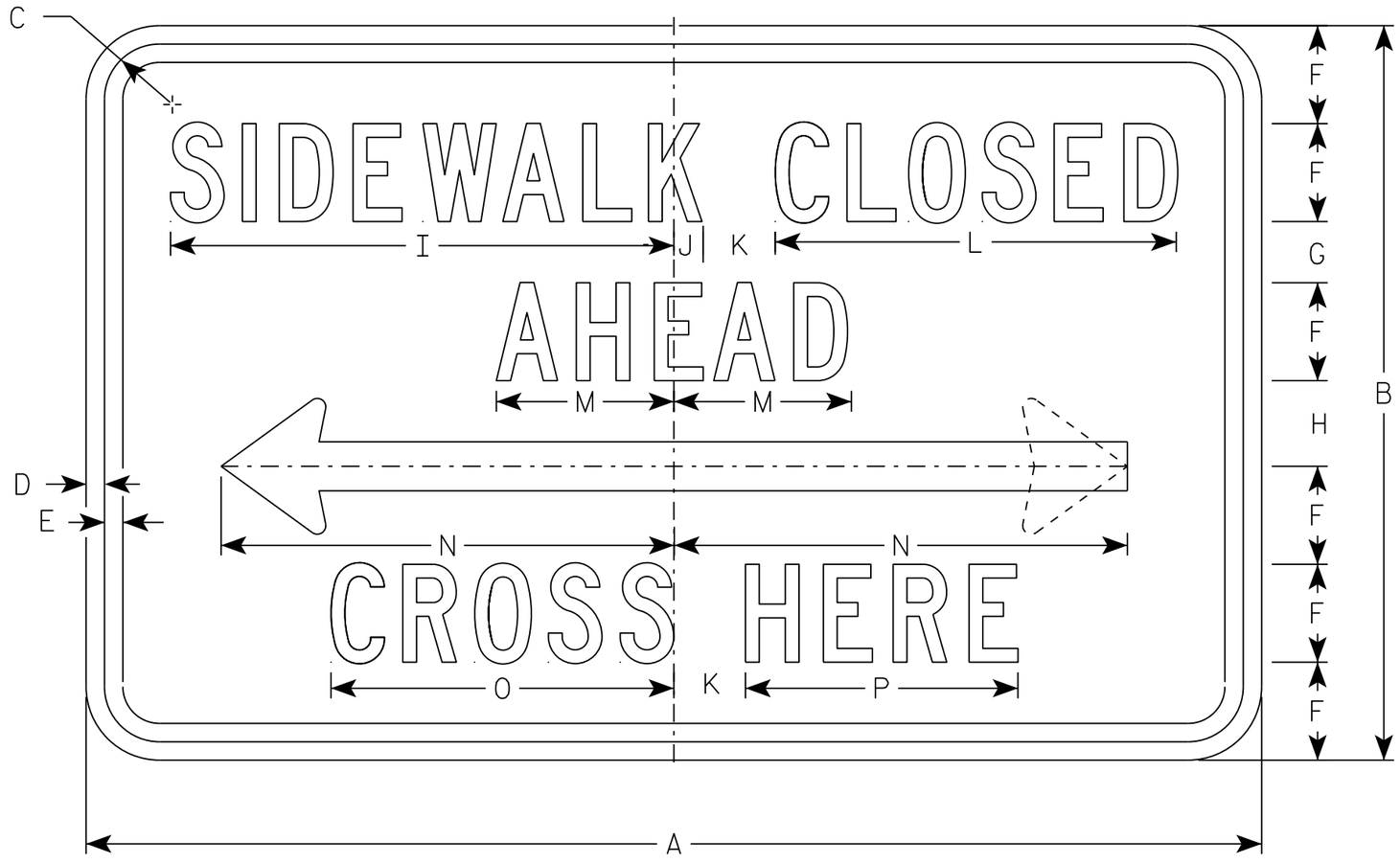
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

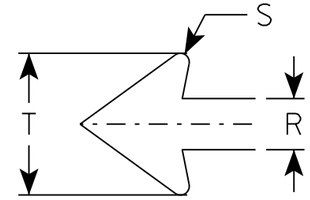
DATE 8/11/16 PLATE 432 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

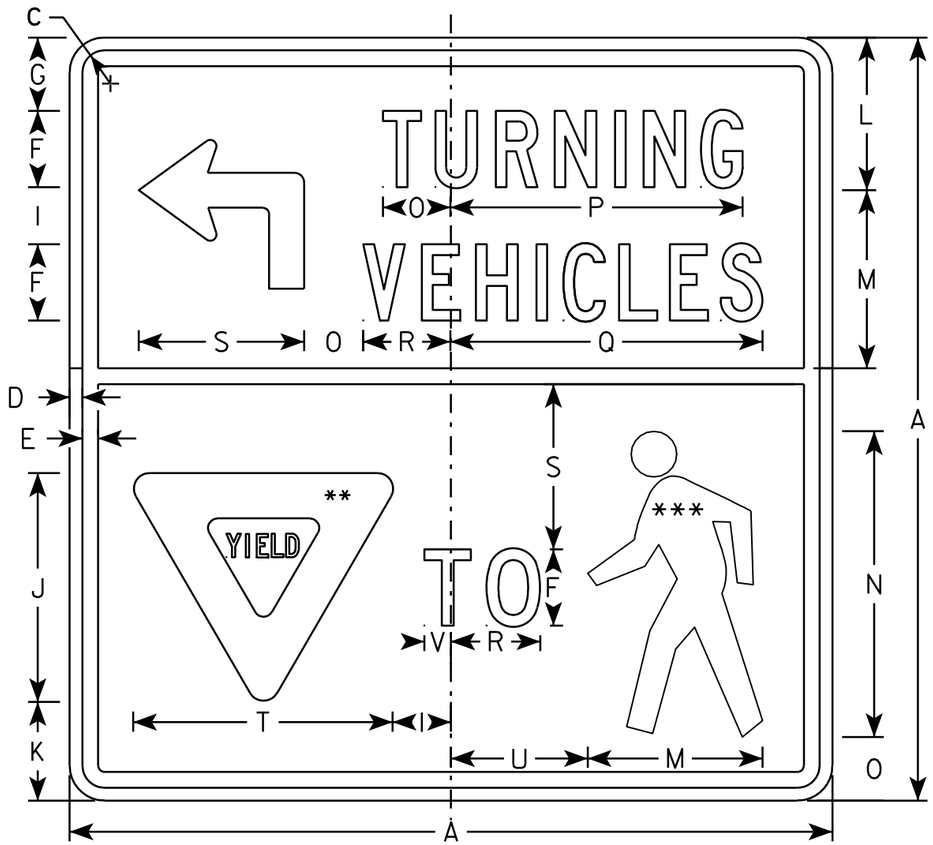
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 433	E



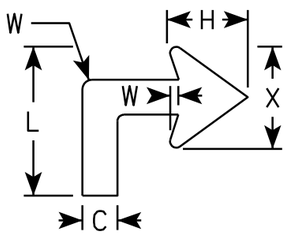
R10-15L

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Half- Yellow
   Bottom Half - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - C except "TO" Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

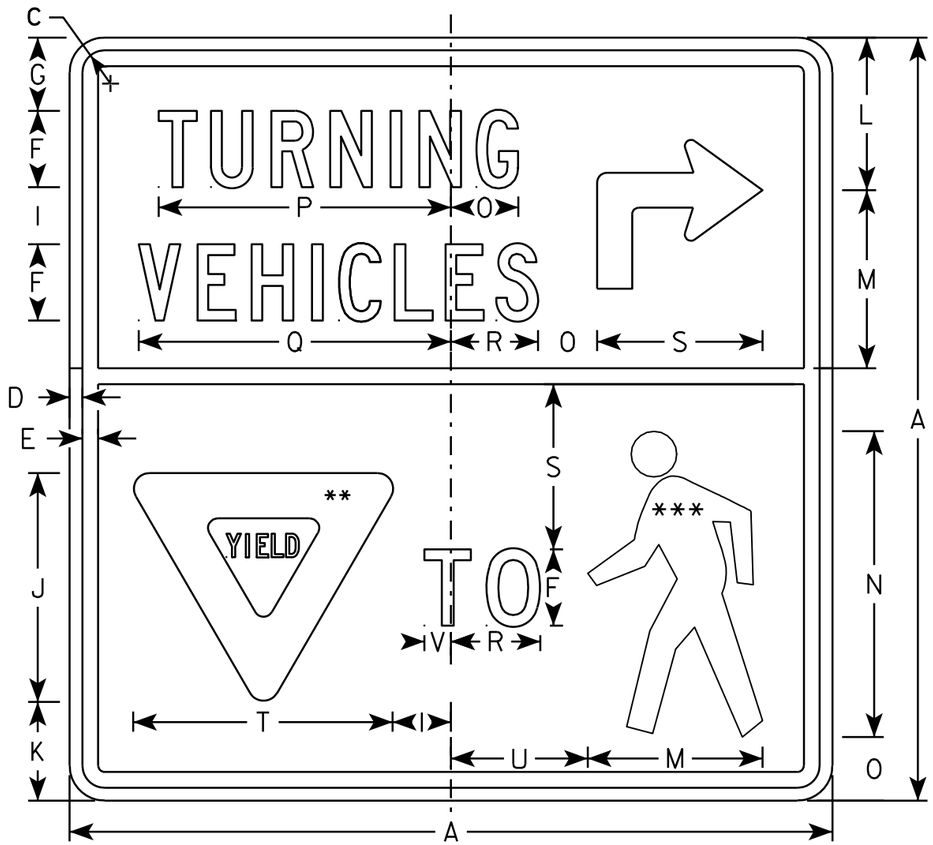
STANDARD SIGN
R10-15L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R10-15L.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 434 | E



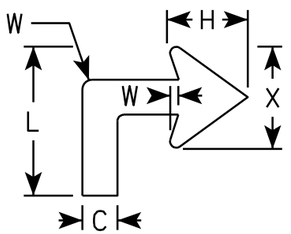
R10-15R

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Half- Yellow
   Bottom Half - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - C except "TO" Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

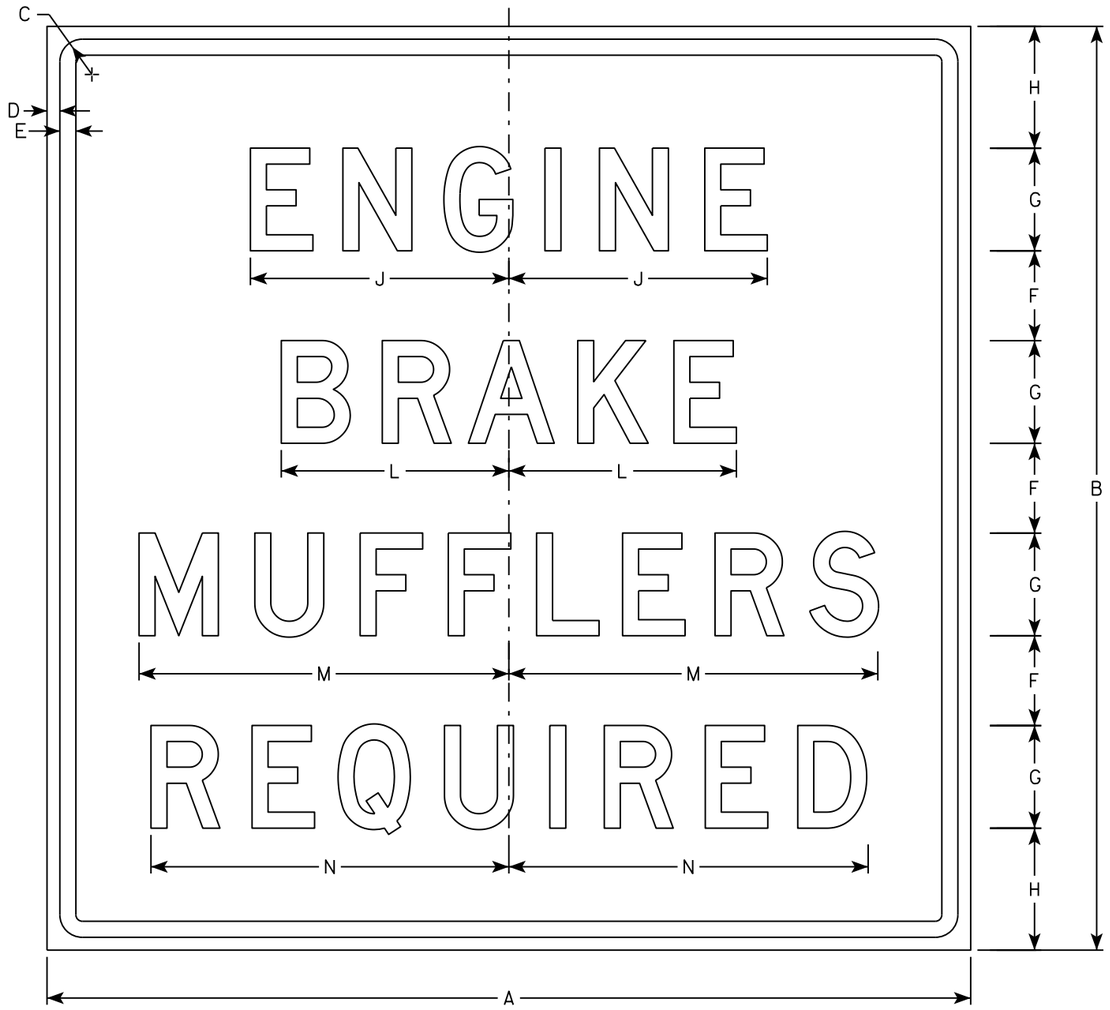
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R10-15R.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 435	E



R10-64

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D See note 5
4. Corners shall be rounded when base material is metal

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2S	36	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2M	36	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
3	42	42	1 3/8	1/2	5/8	4	5	5	3	12 5/8	4	11 1/8	18	17 3/8													12.25
4																											
5																											

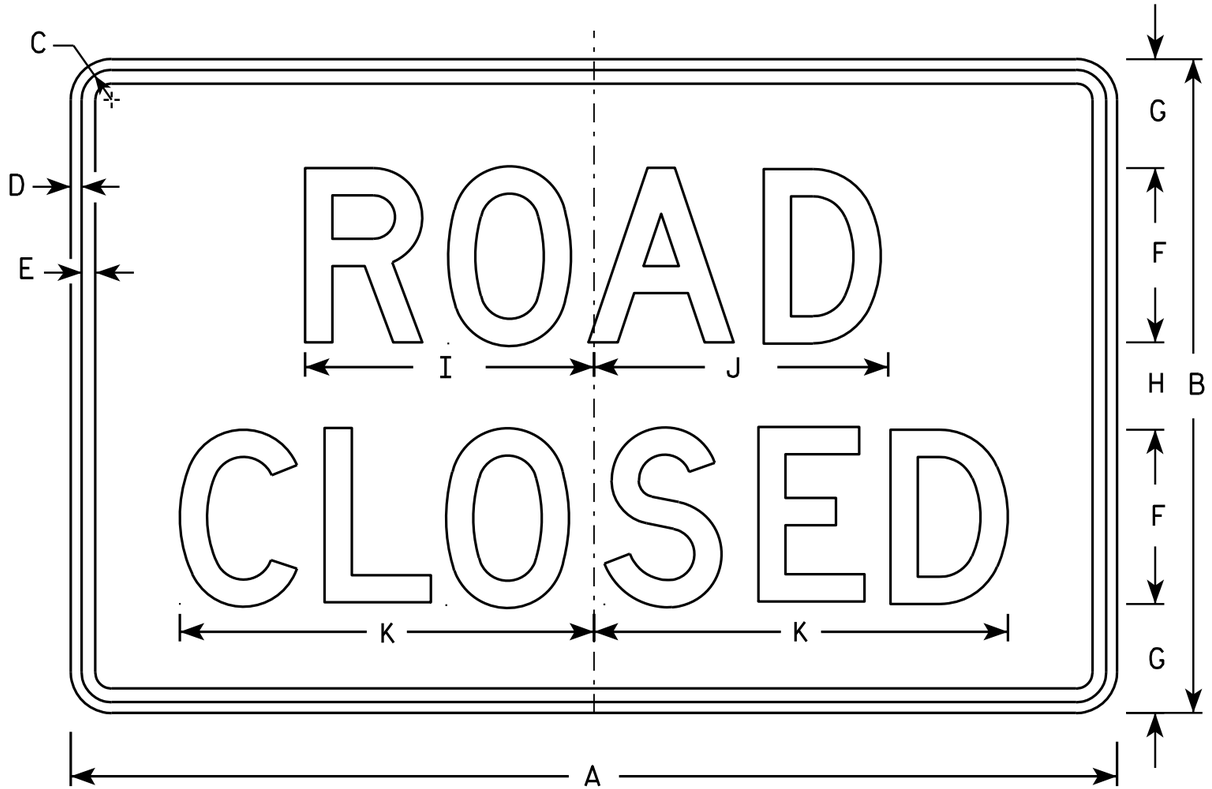
STANDARD SIGN
R10-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/3/18 PLATE NO. R10-64.8

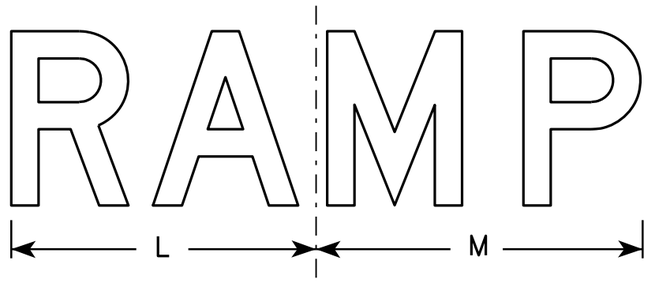
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 436 | E



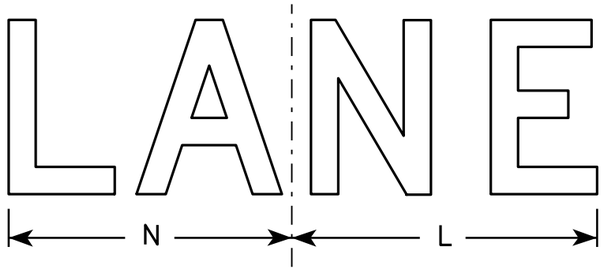
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

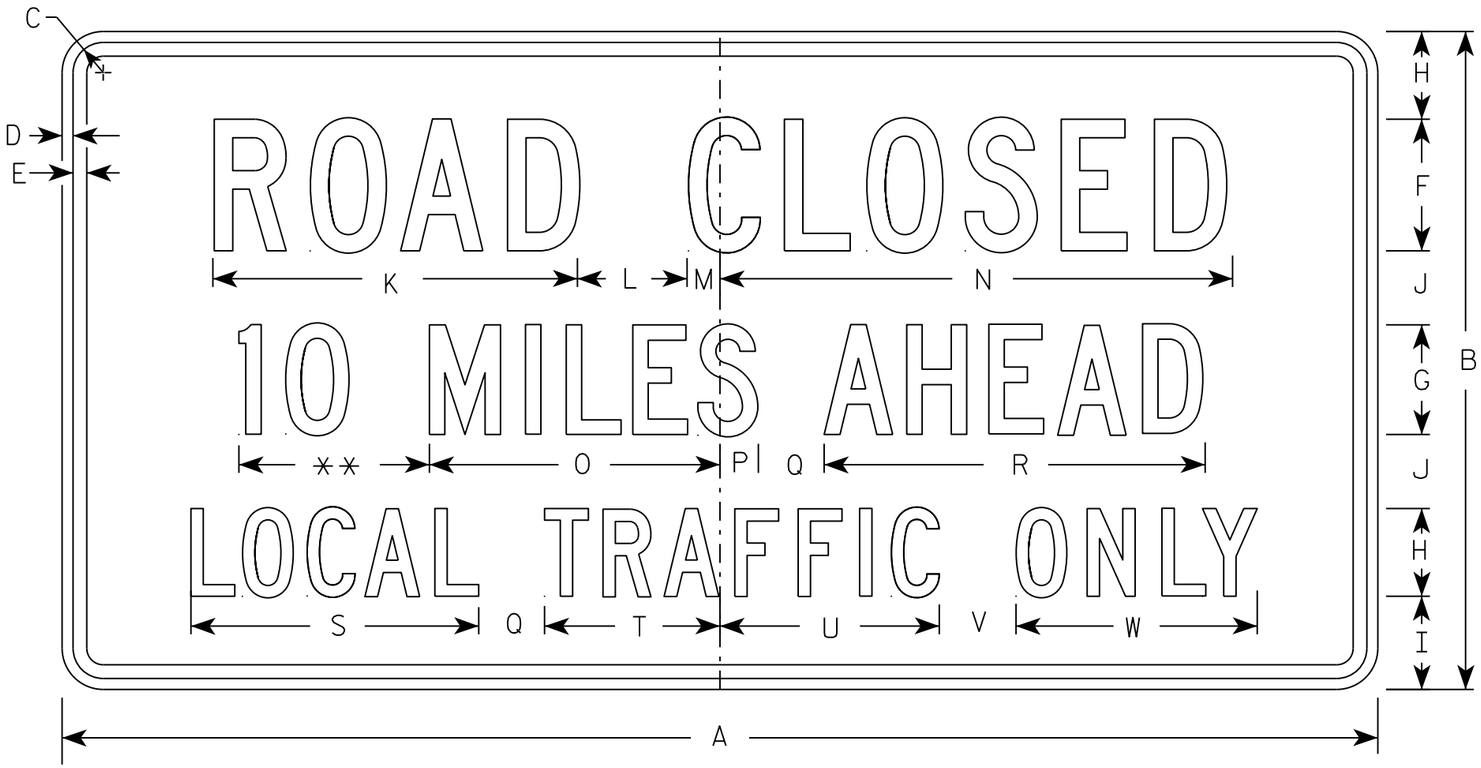
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 437	E

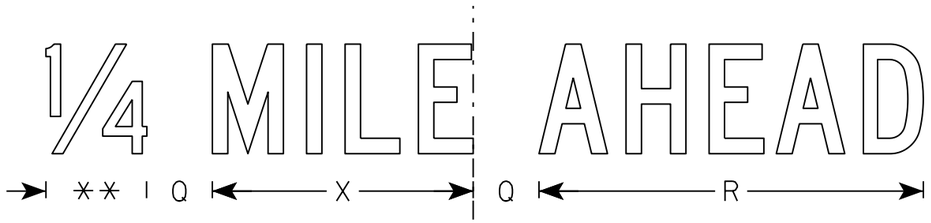
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

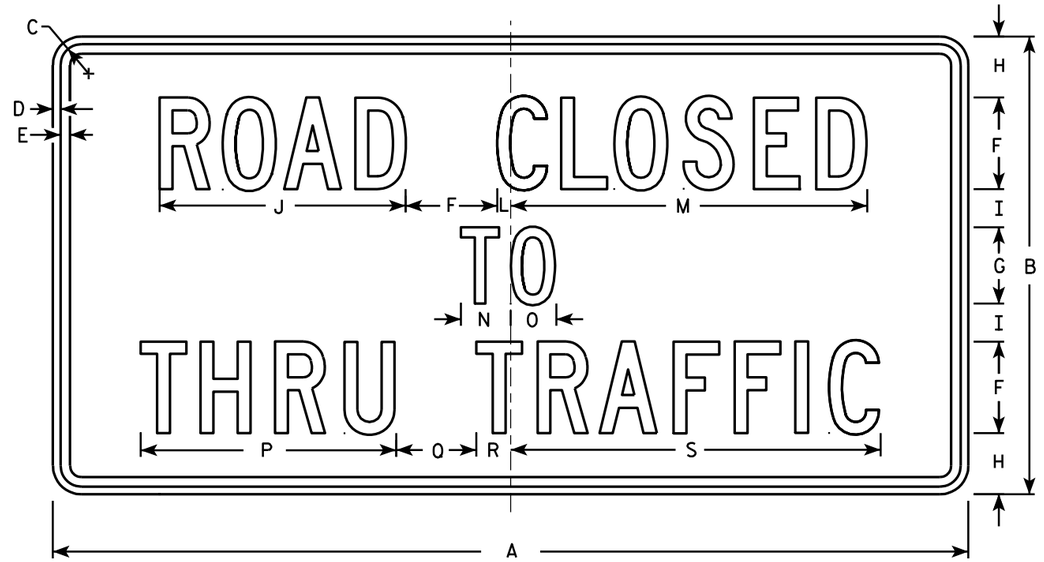
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/17 PLATE NO. R11-3.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 438	E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

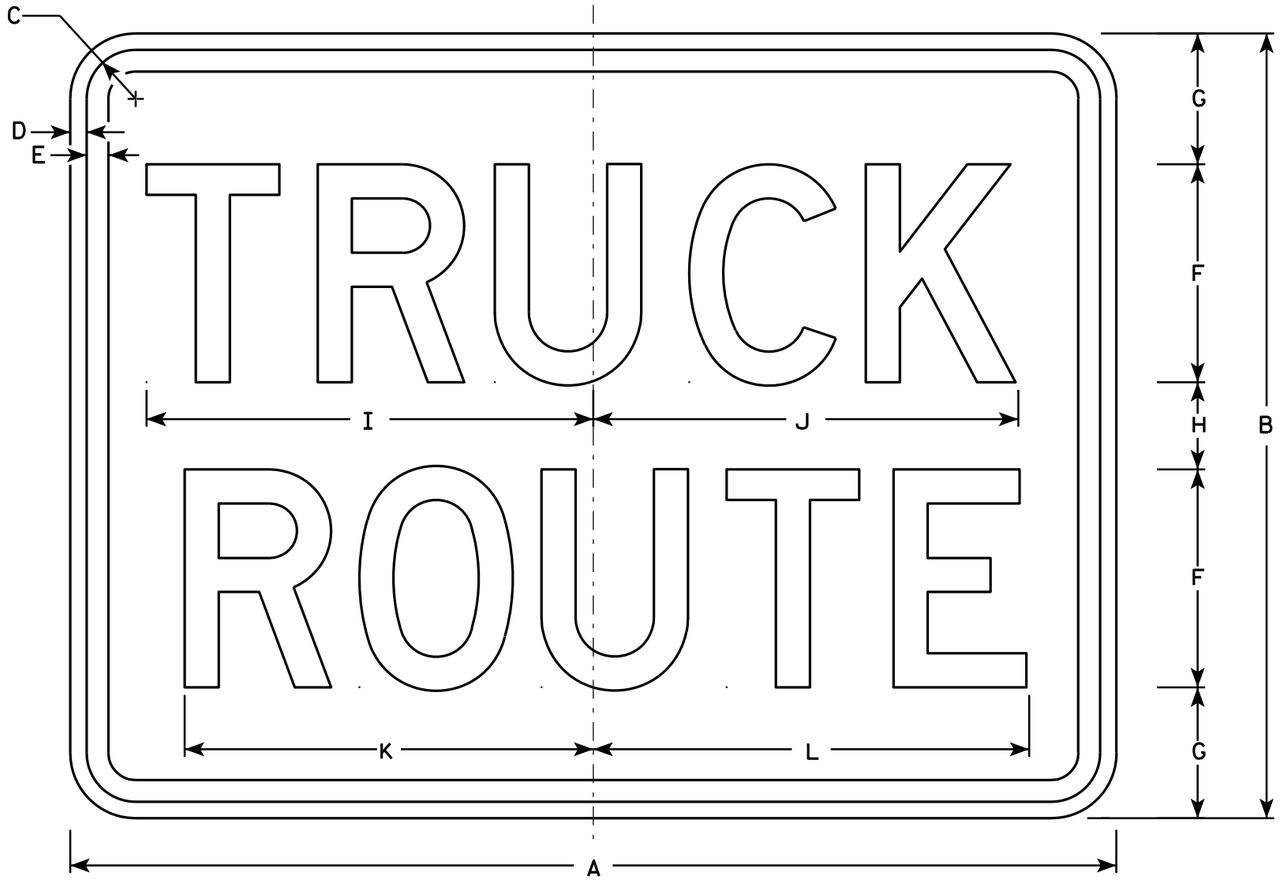
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 439 | E



R14-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
3	30	24	1 1/8	3/8	1/2	6	4	4	12 1/4	11 3/4	11 1/4	12															5.0
4																											
5																											

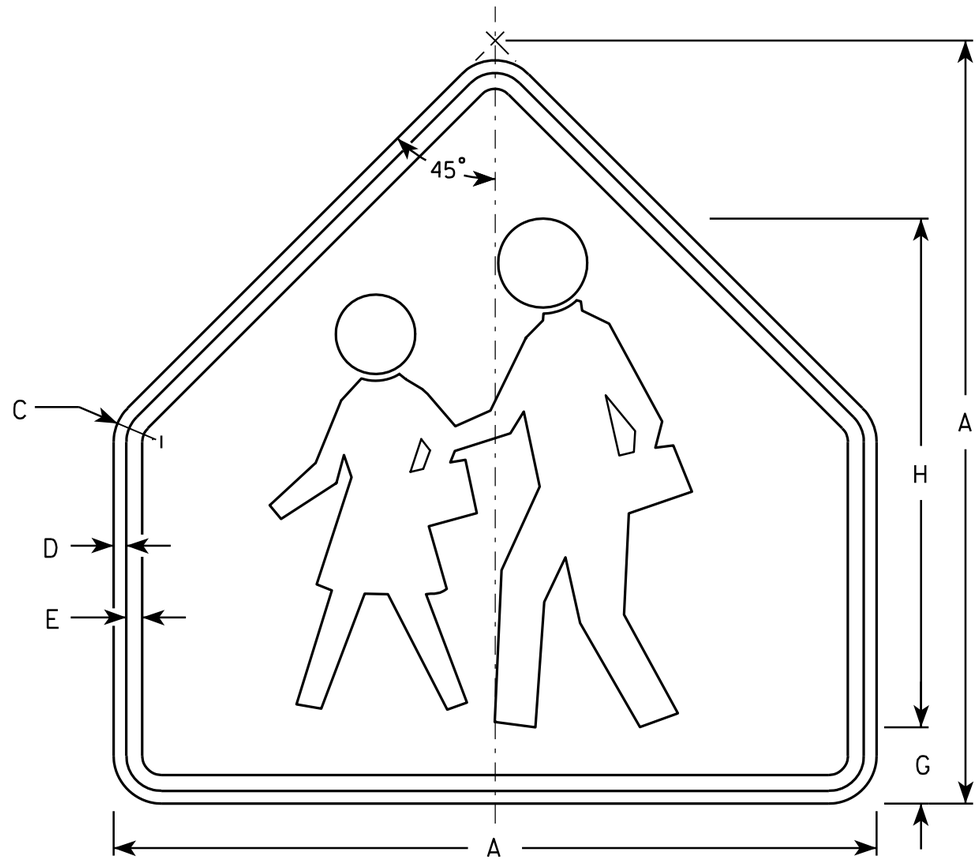
STANDARD SIGN
R14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R14-1.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 440	E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

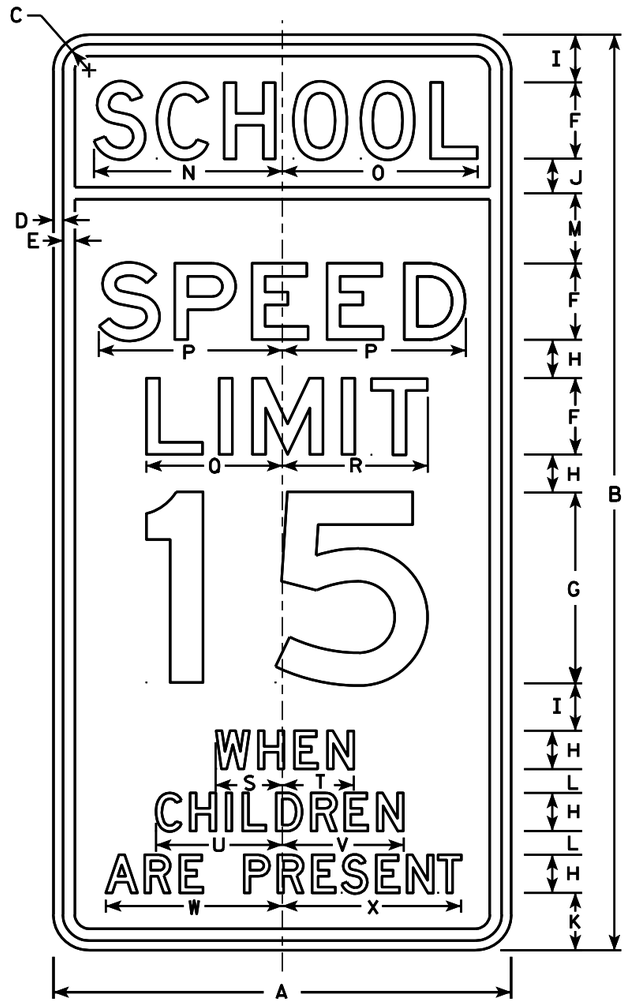
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 441	E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

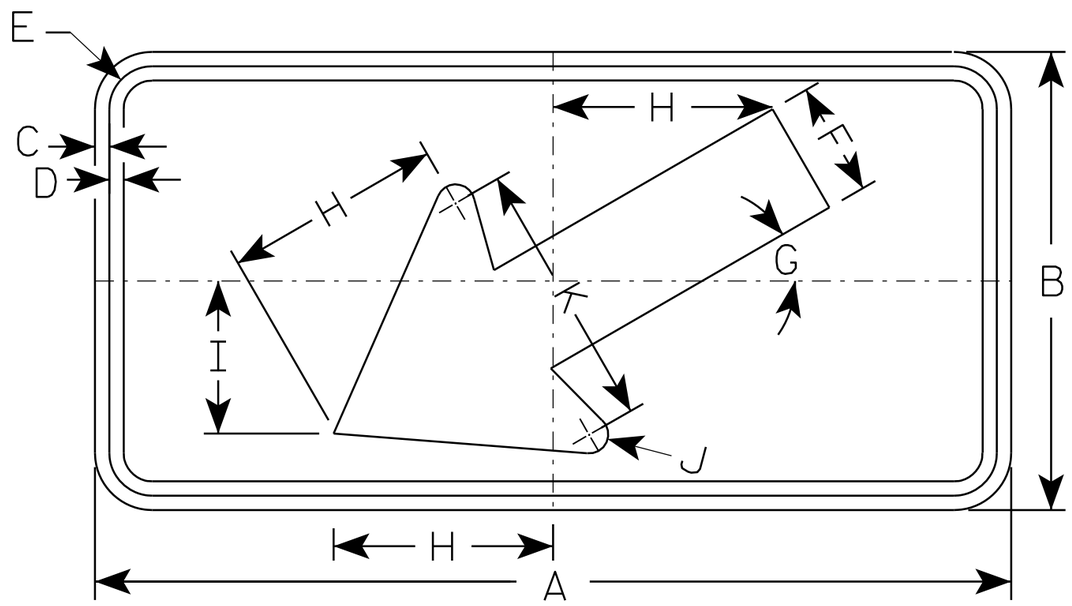
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 442 | E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

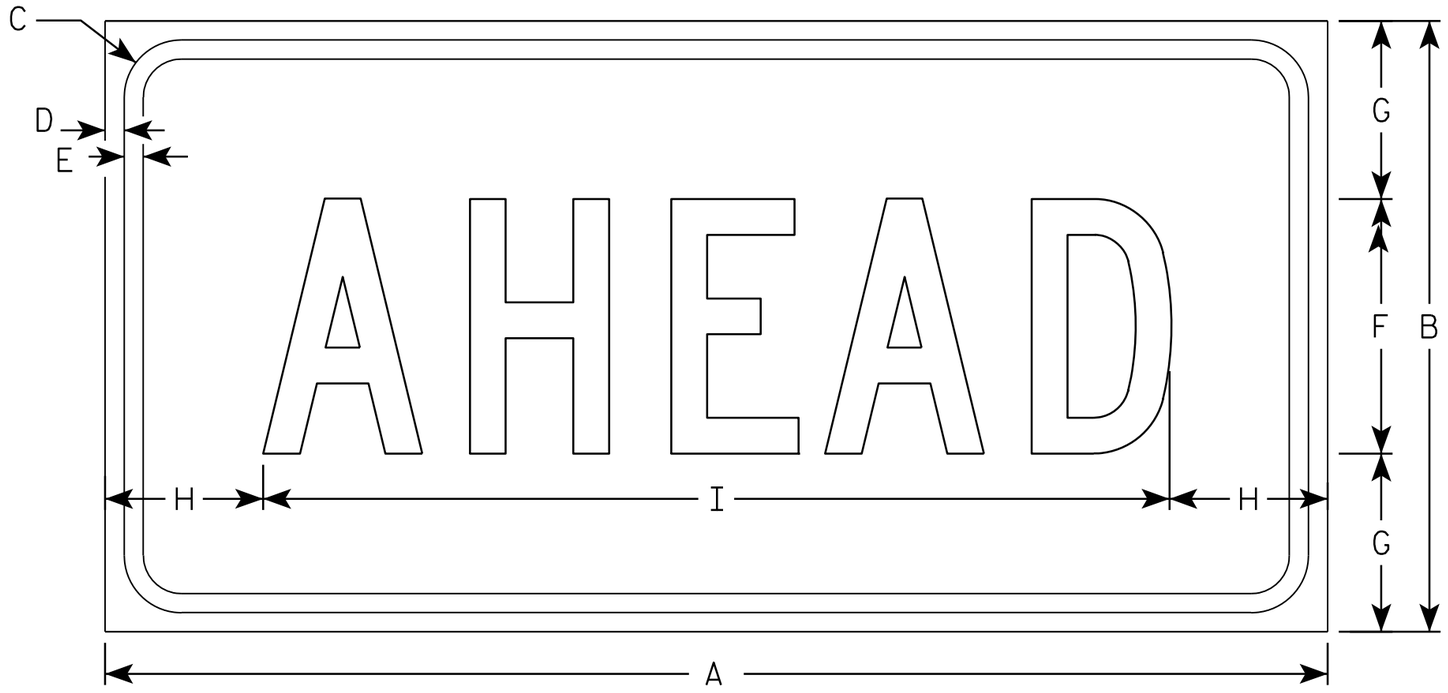
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 443 | E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

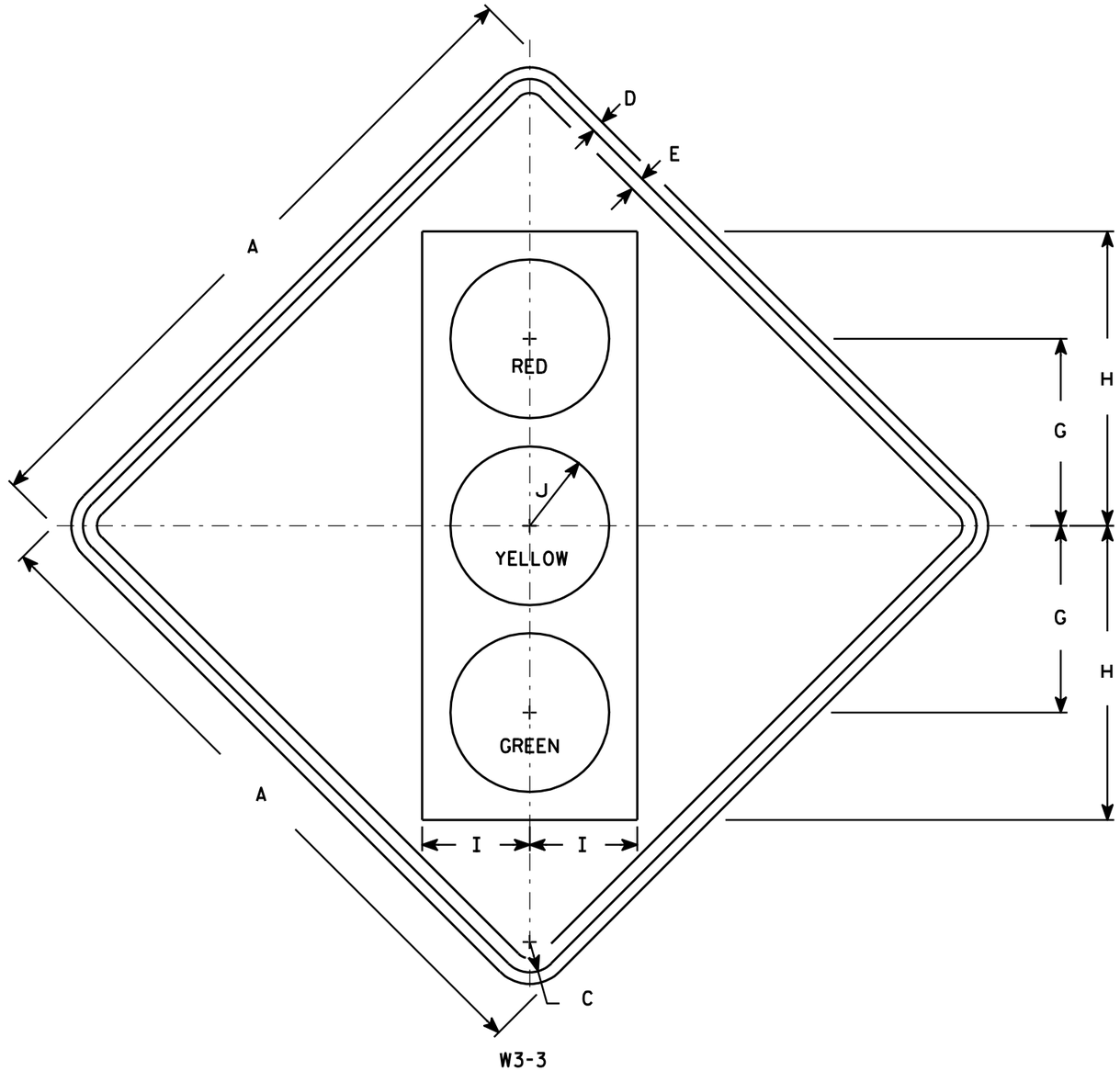
STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 444 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 445 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000

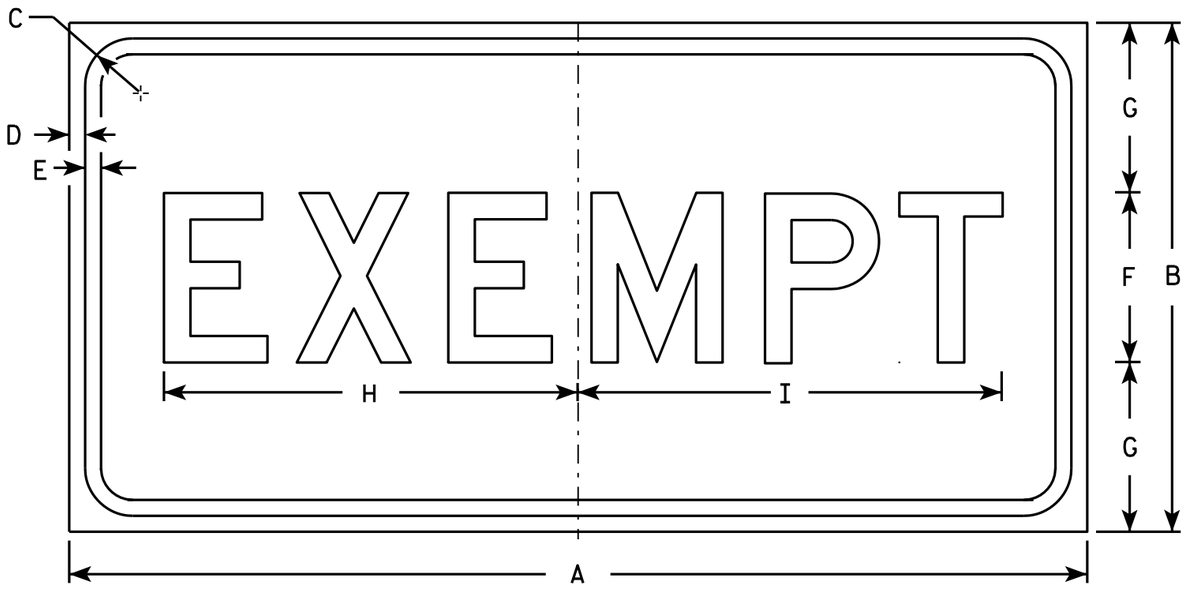
WISDOT/CADDS SHEET 42

7

7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 5
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Background - R15-3 is White Type H Reflective
   W10-1A is Yellow.



R15-3
and
W10-1A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	4	4	9 3/4	10																		2
2M	24	12	1 1/8	3/8	3/8	4	4	9 3/4	10																		2
3																											
4																											
5																											

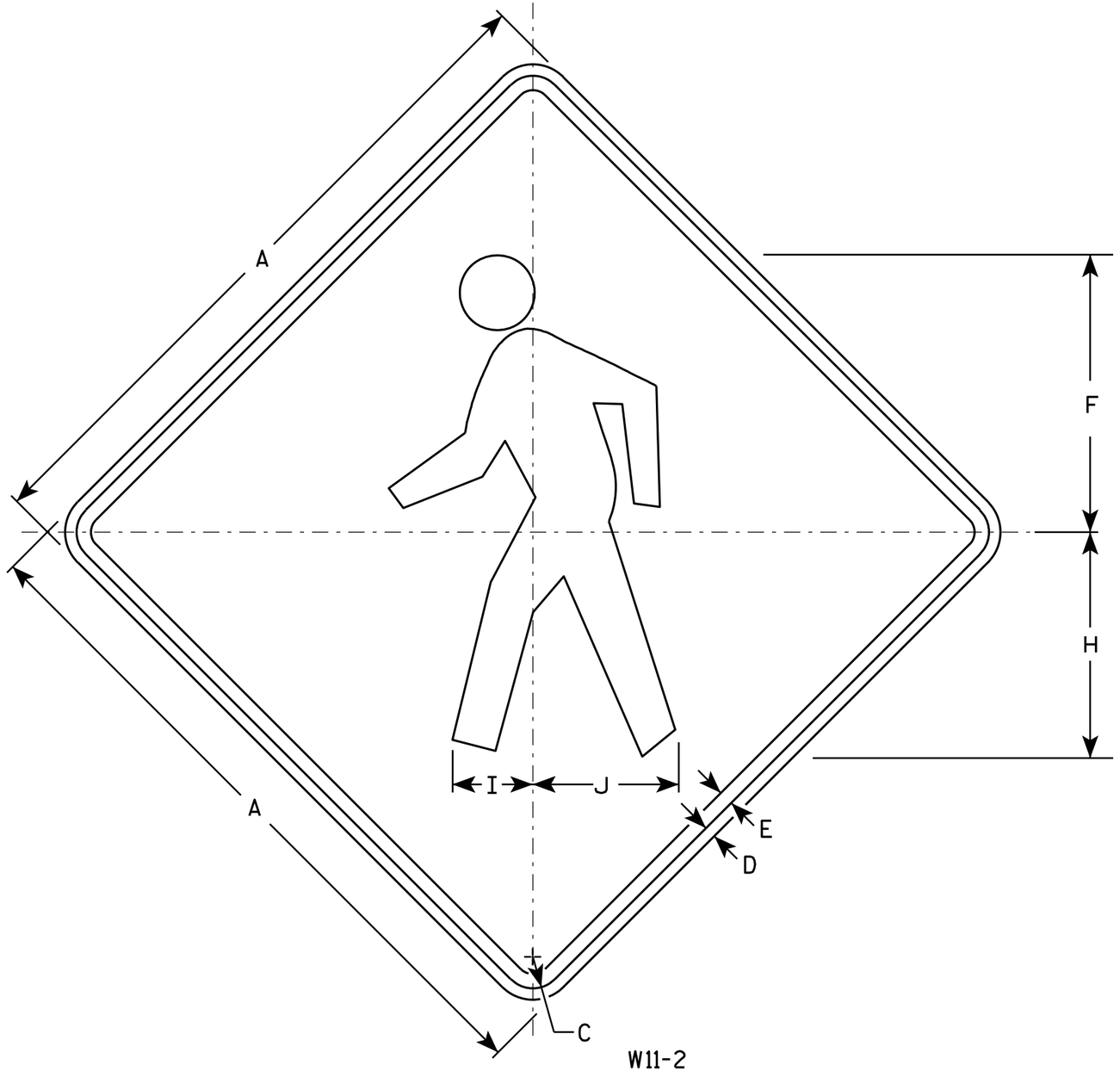
STANDARD SIGN
R15-3 & W10-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. R15-3.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 446	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

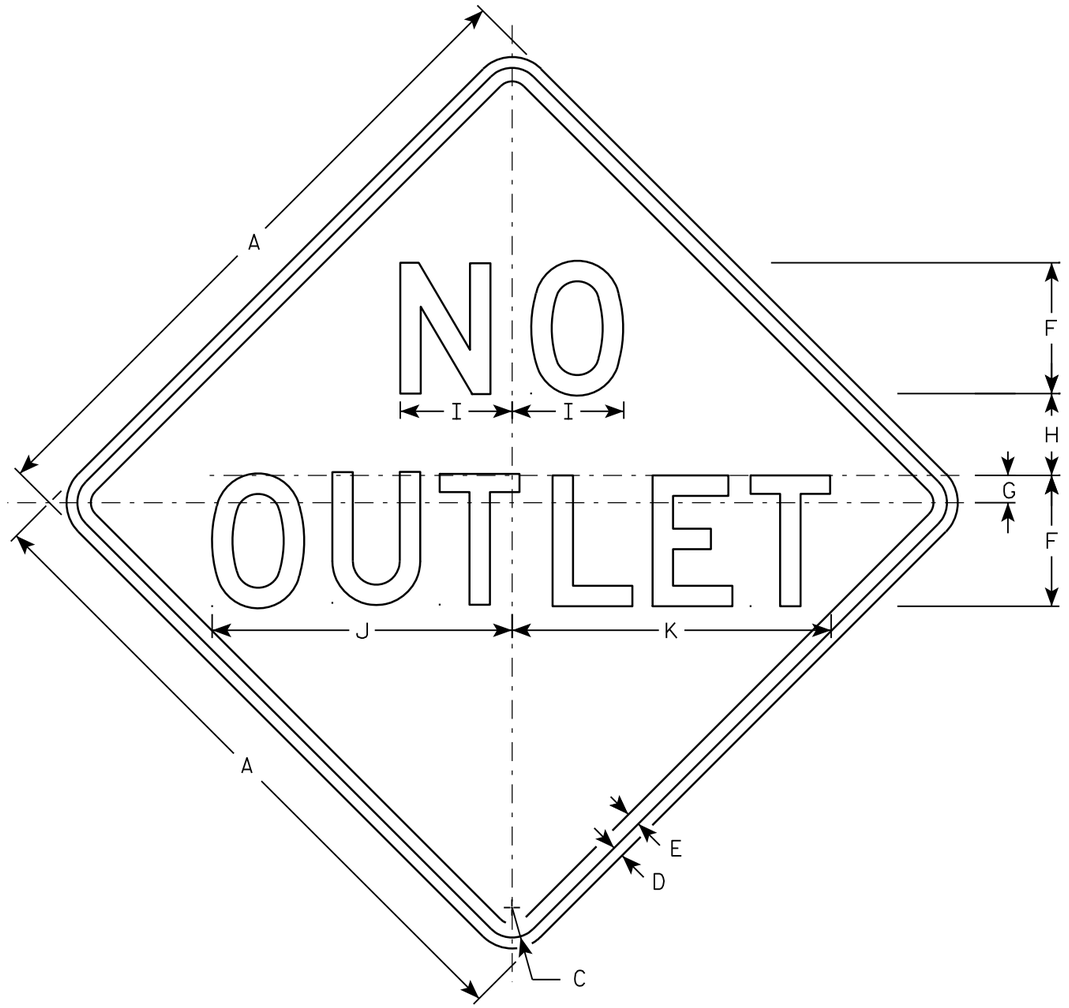
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 447	E



W14-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

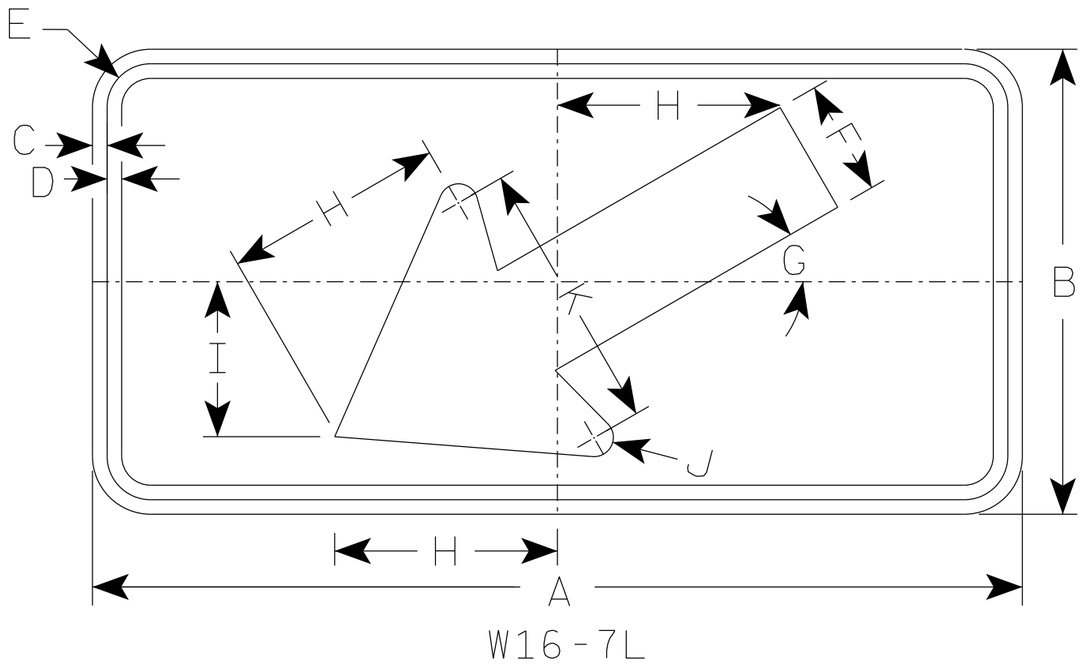
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-2.3

PROJECT NO:

SHEET NO: 448 E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-L
   except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

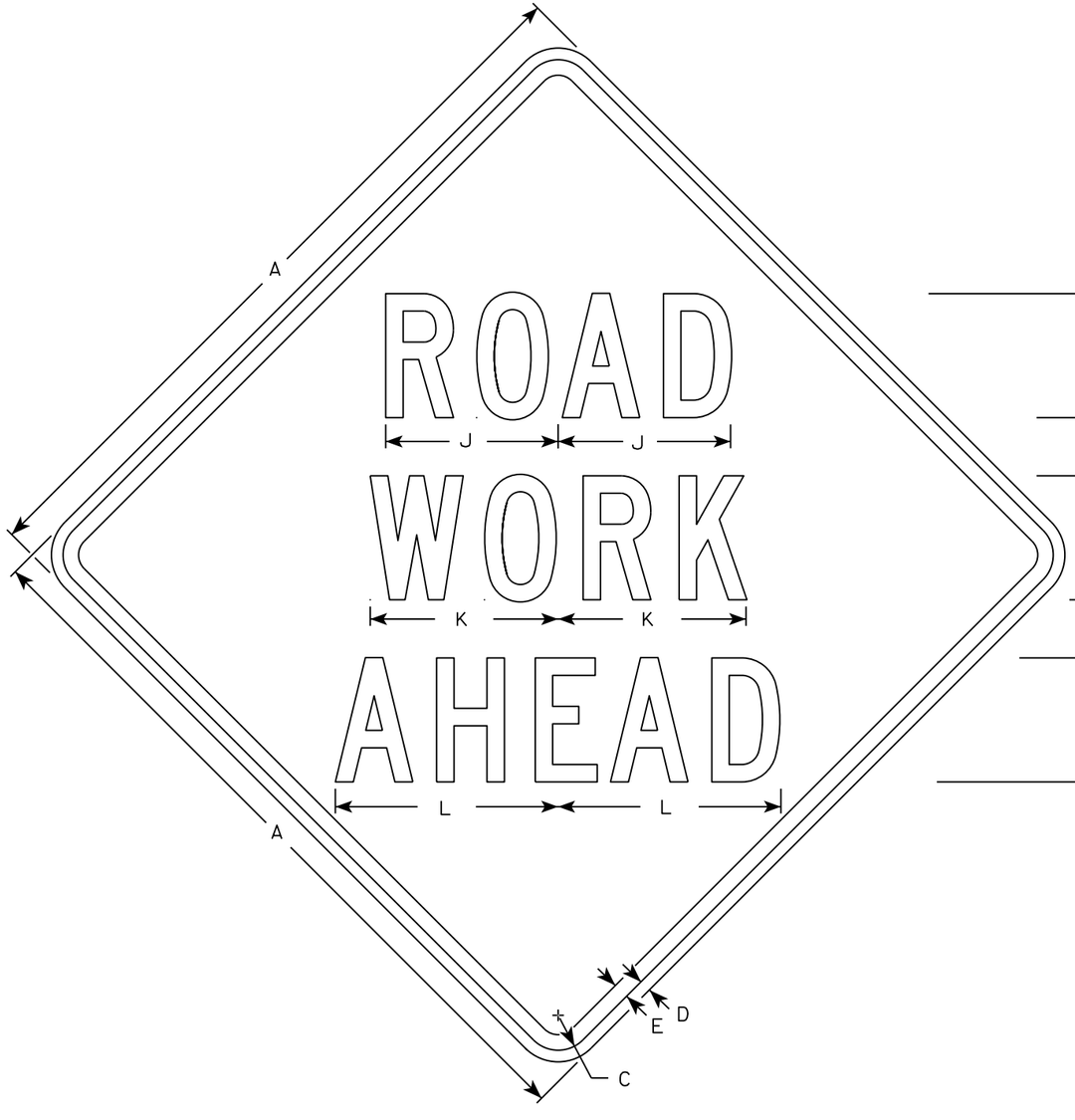
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

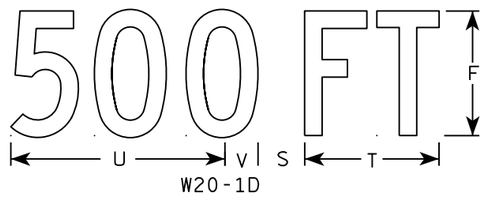
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/11/18 PLATE NO. W16-7.6

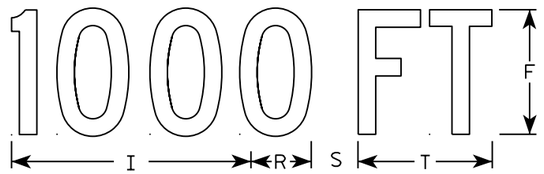
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 449 | E



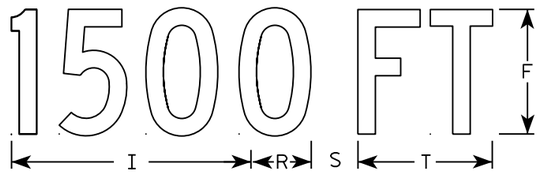
W20-1A



W20-1D



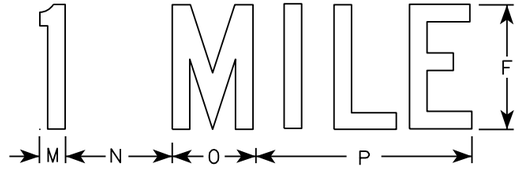
W20-1C



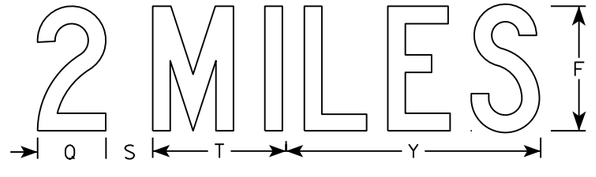
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

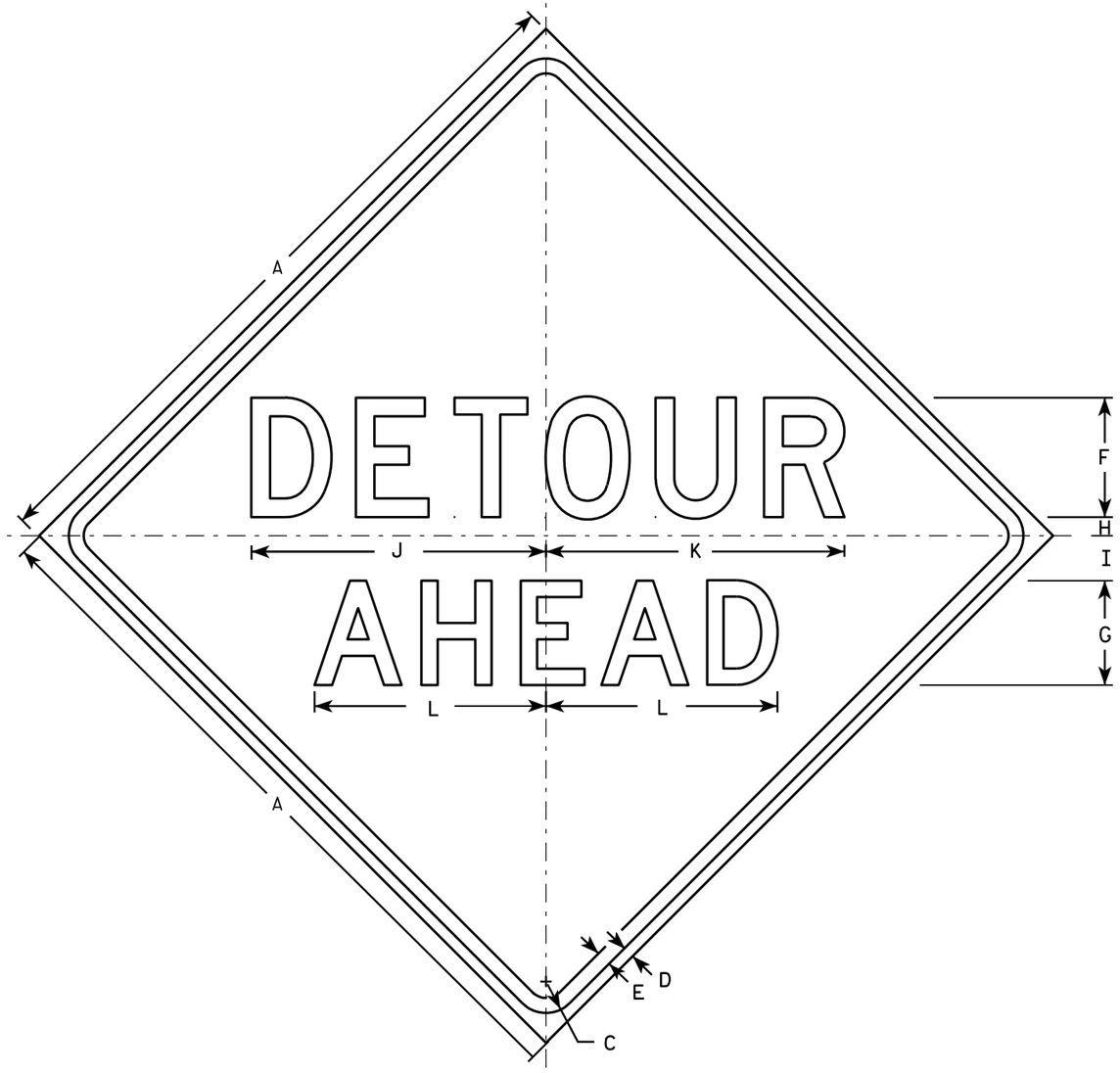
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

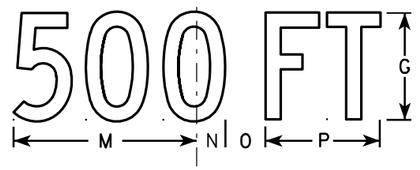
PROJECT NO:

SHEET NO: E

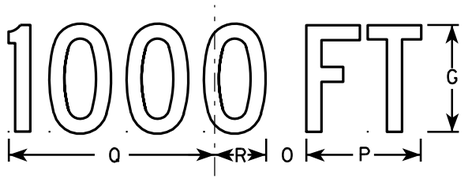
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



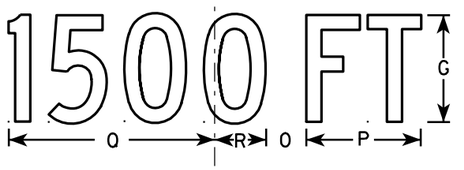
W20-2A



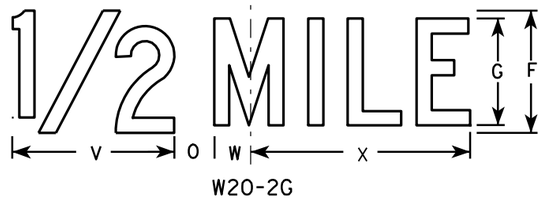
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

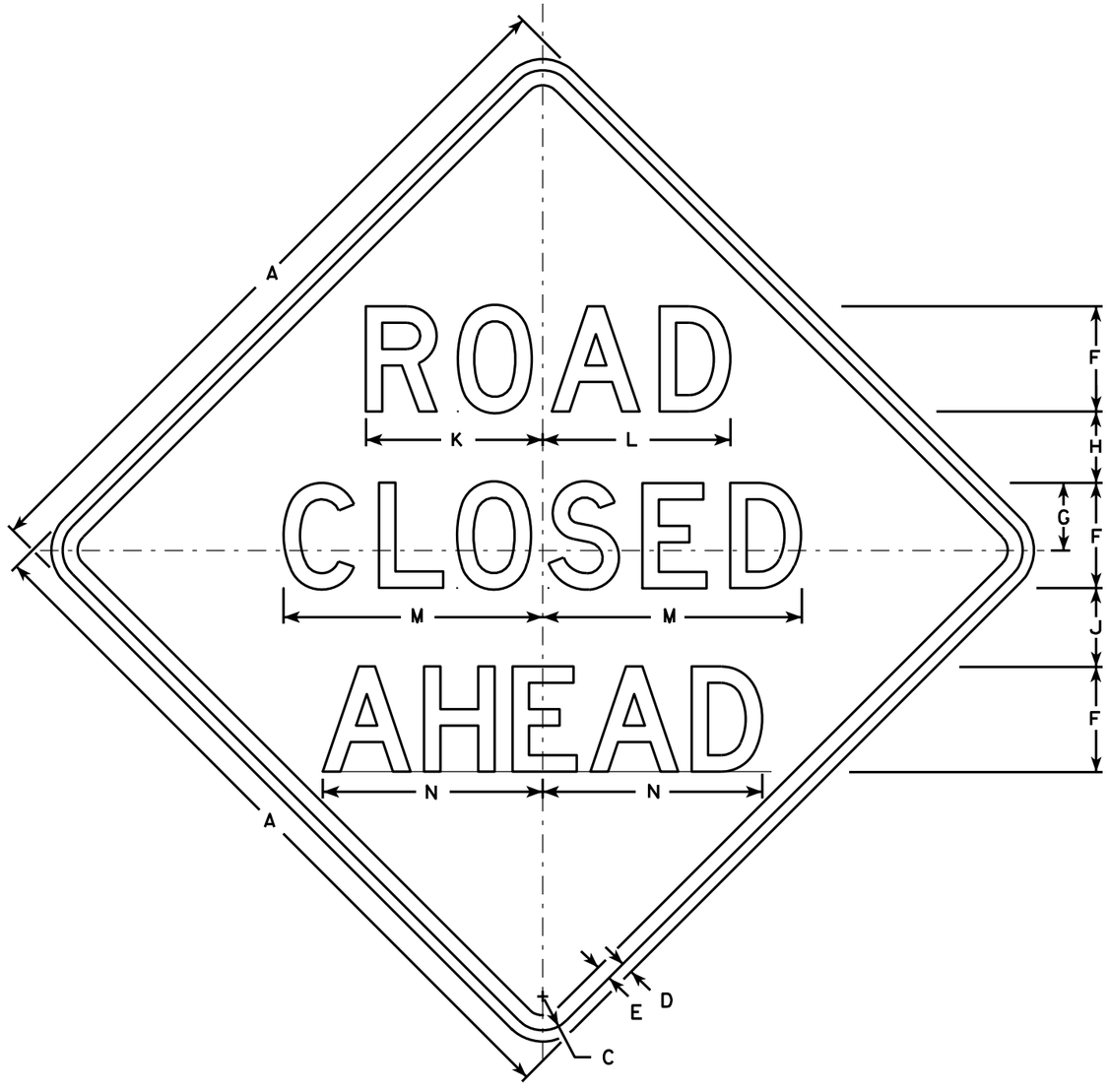
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

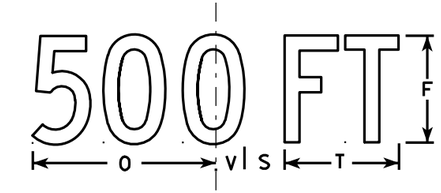
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

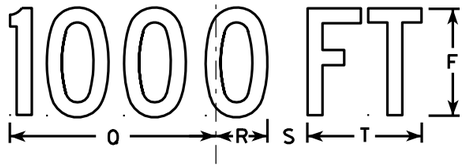
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 451	E



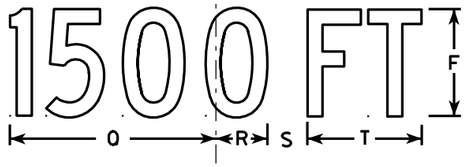
W20-3A



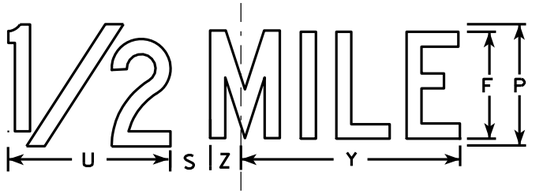
W20-3D



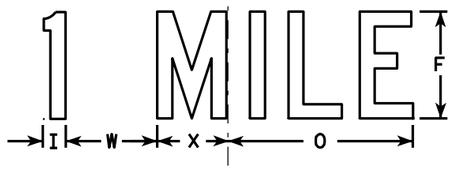
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

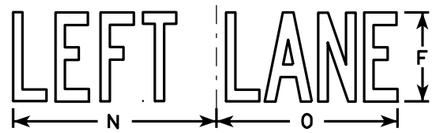
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 452 | E

7

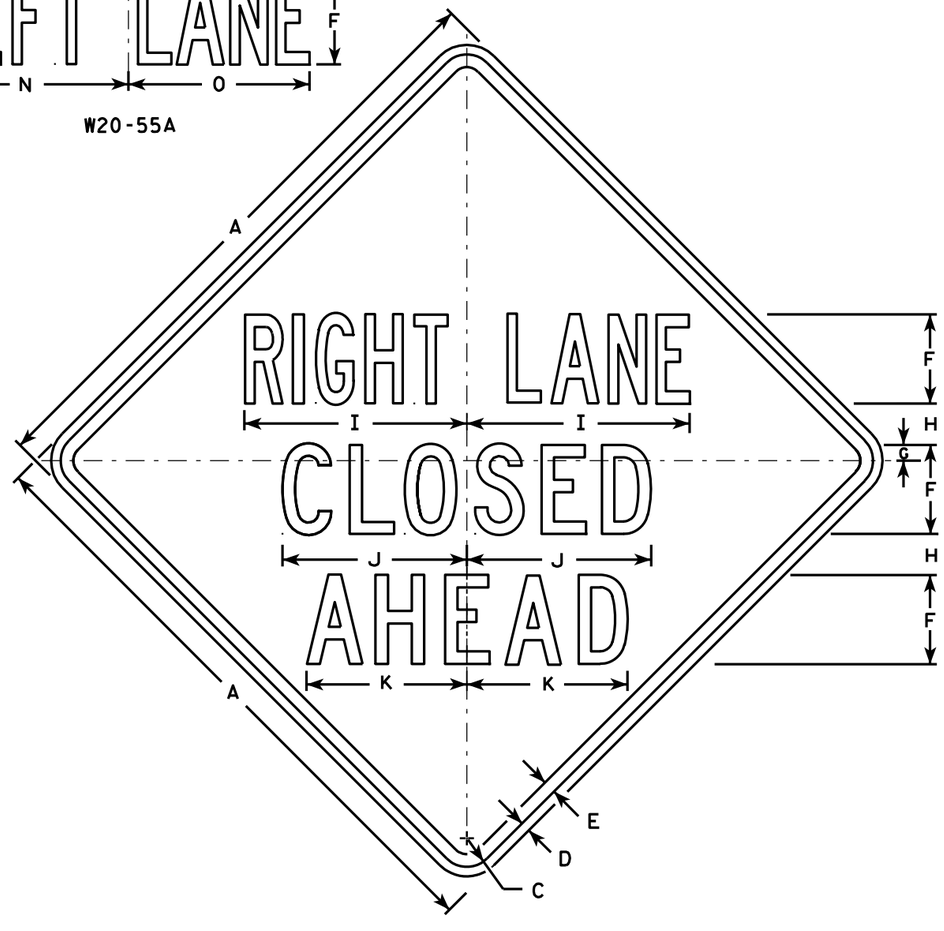
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



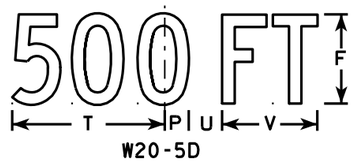
W20-56A



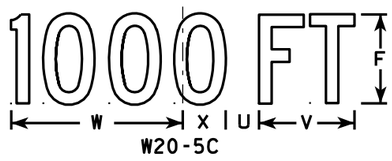
W20-55A



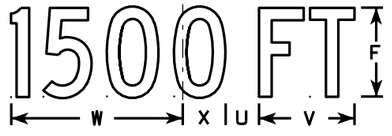
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

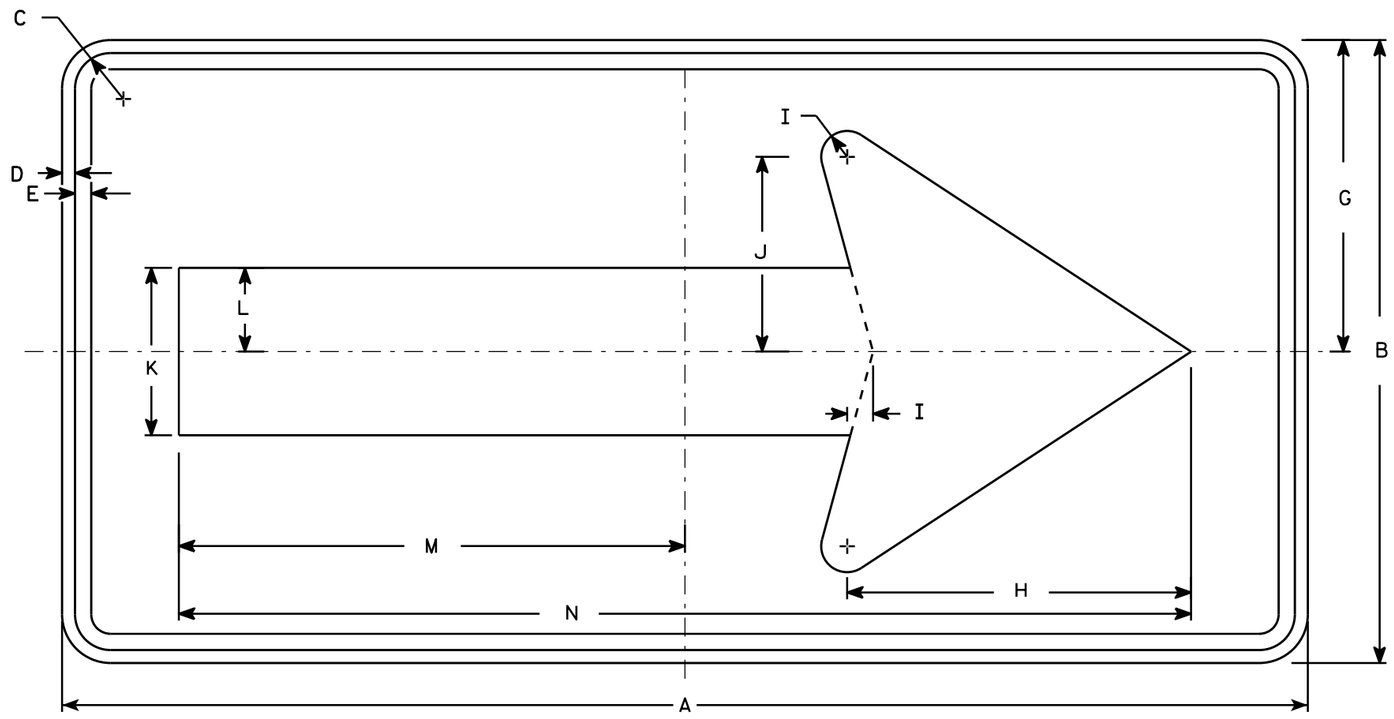
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 453	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

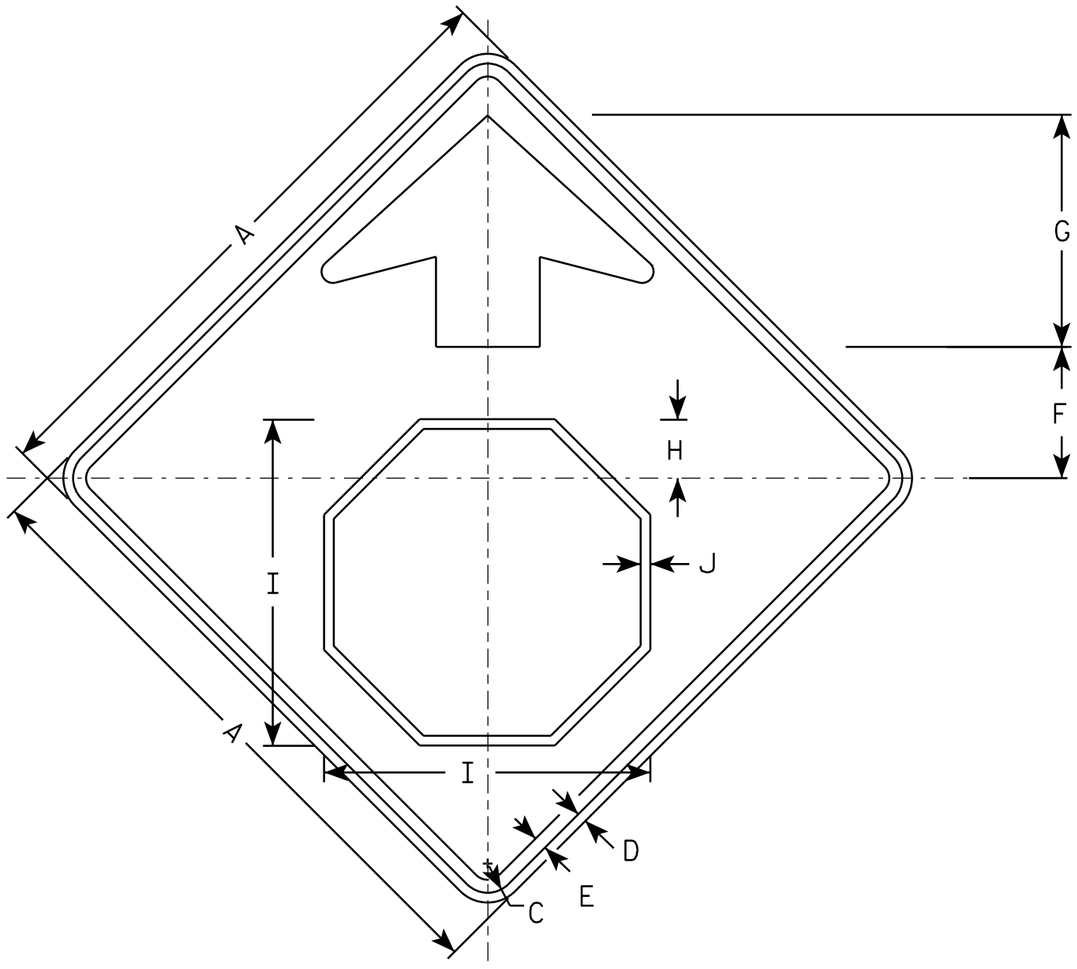
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

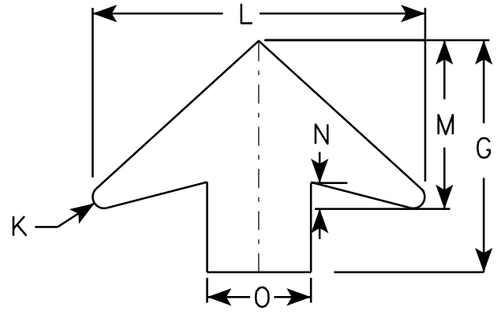
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W03-1

WISCONSIN DEPT OF TRANSPORTATION

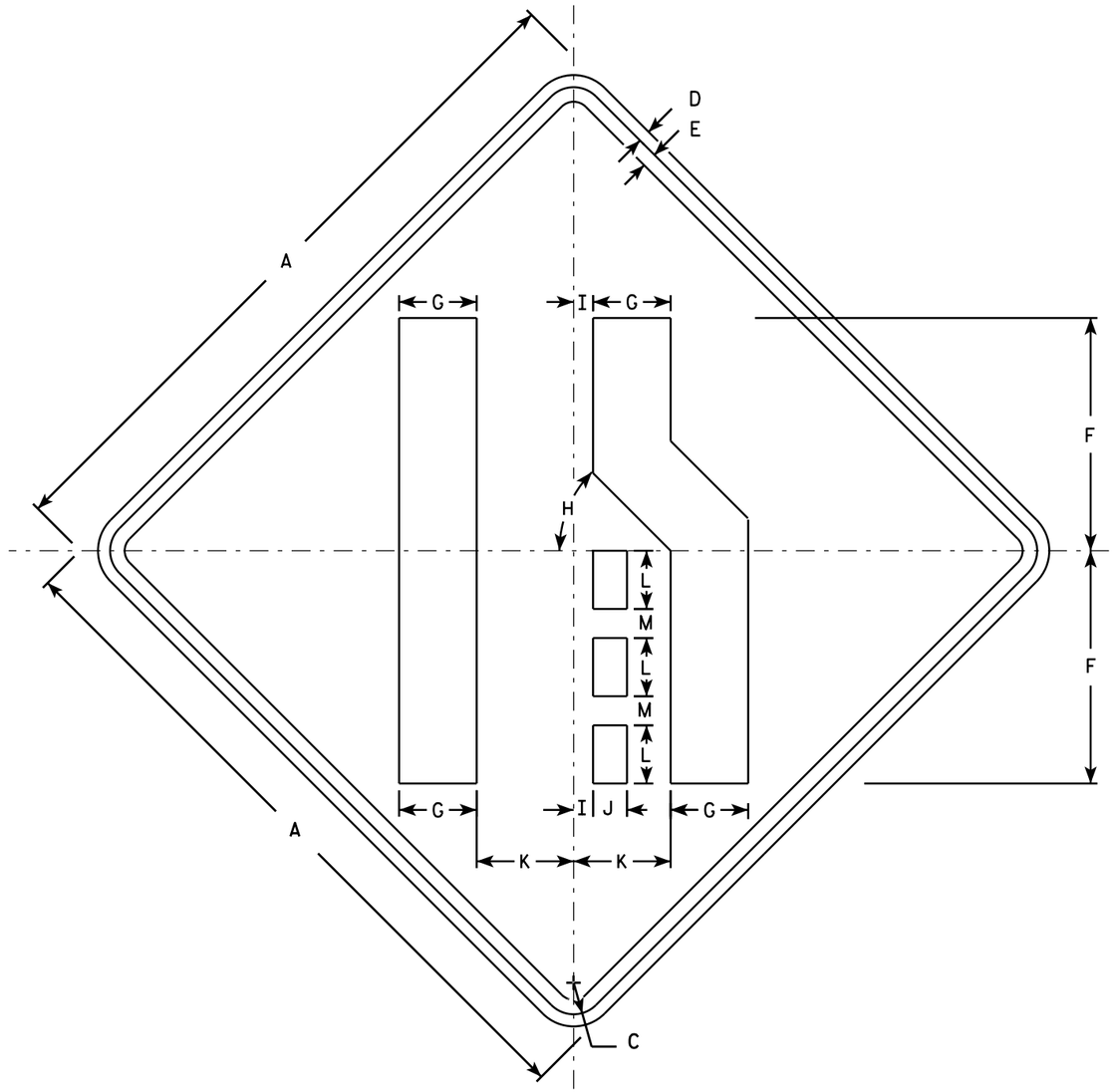
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 455 03-1.1

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W031.DGN PLOT DATE : 20-NOV-2013 10:54 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

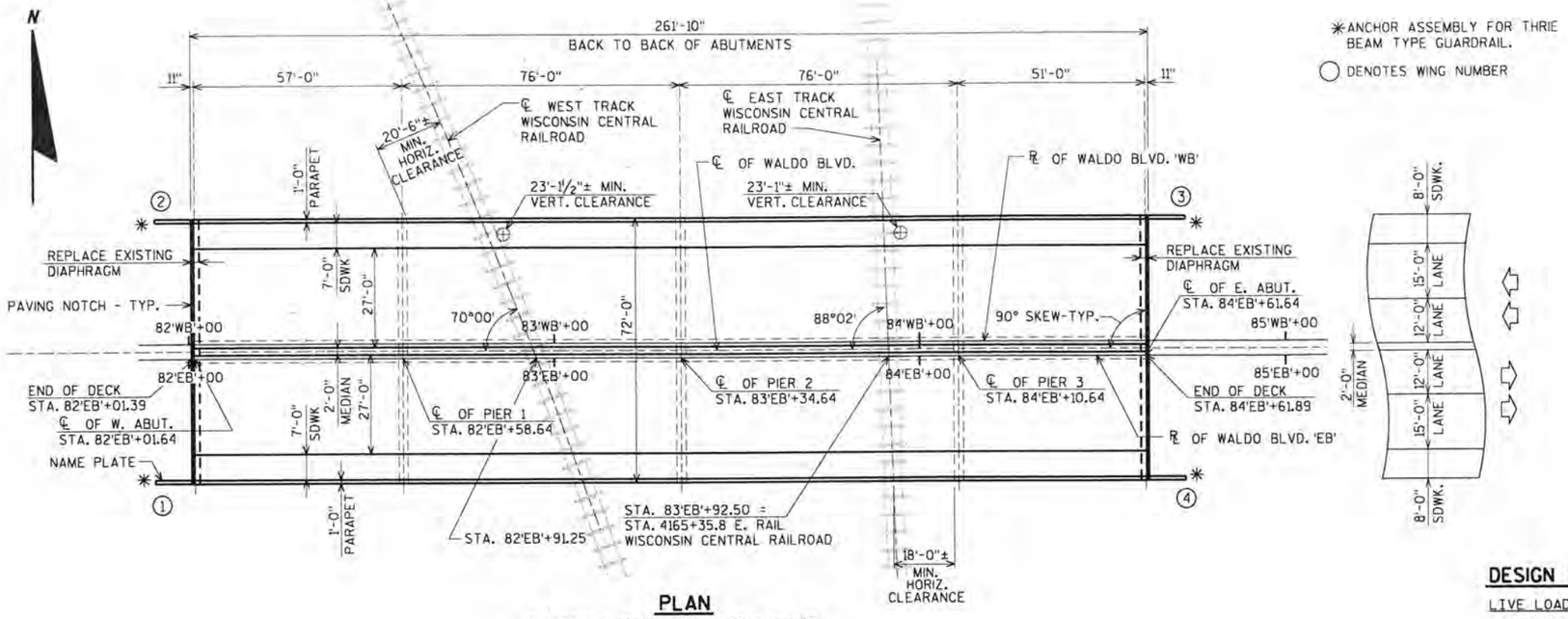
DATE 11/20/13 PLATE 456 W04-2.1

PROJECT NO:

SHEET NO: E

STATE PROJECT NUMBER

1500-37-76

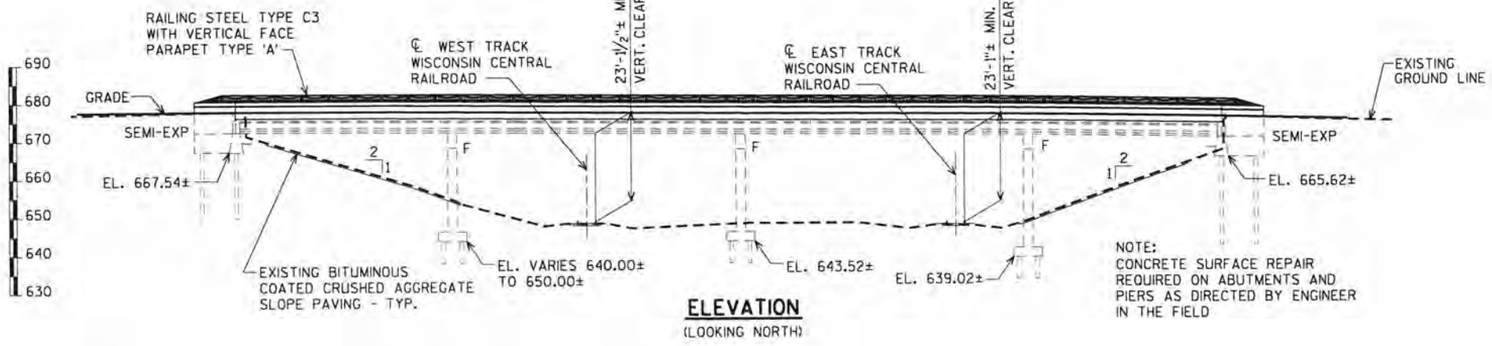


✳ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

◯ DENOTES WING NUMBER

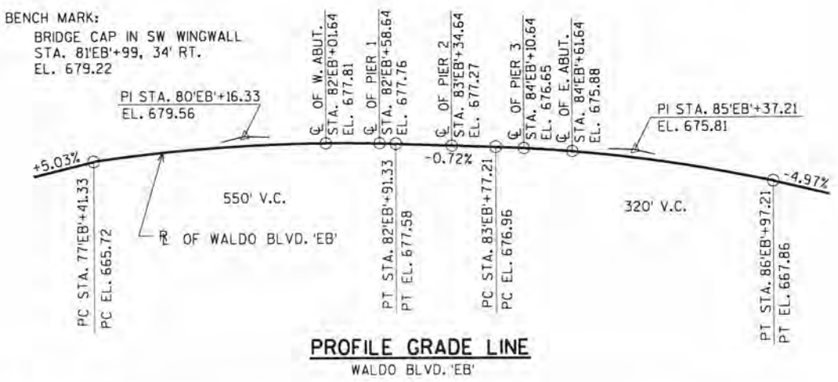
PLAN

4-SPAN 45" PRESTRESSED GIRDER BRIDGE
(DECK REPLACEMENT)



ELEVATION

(LOOKING NORTH)



PROFILE GRADE LINE

WALDO BLVD. 'EB'

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-21
OPERATING RATING: HS-36
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ——— f'c = 4,000 p.s.i.
ALL OTHER ——— f'c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— fy = 60,000 p.s.i.

TRAFFIC DATA:

A.A.D.T. = 9,700 (2016)
A.A.D.T. = 11,300 (2036)
R.D.S. = 40 M.P.H.

FOR TYPICAL SECTION AND GENERAL NOTES SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES & NOTES
3. WEST ABUTMENT
4. WEST ABUTMENT DETAILS & BILL OF BARS
5. EAST ABUTMENT
6. EAST ABUTMENT DETAILS & BILL OF BARS
7. STEEL DIAPHRAGM DETAILS
8. DECK ELEVATIONS
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE PLAN
11. SUPERSTRUCTURE DETAILS
12. SUPERSTRUCTURE BILL OF BARS
13. RAILING STEEL TYPE C3 AND VERTICAL FACE PARAPET "A" DETAILS
14. RAILING STEEL TYPE C3 DETAILS

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE
PROFESSIONAL ENGINEER
6/24/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 06/27/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-36-29

WALDO BLVD. OVER WISCONSIN CENTRAL RAILROAD

COUNTY	TOWN/CITY/VILLAGE
MANITOWOC	MANITOWOC

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	JLB	DESIGN CK'D.	JWZ	DRAWN BY	CLS	PLANS CK'D.	CBM

GENERAL PLAN

SHEET 1 OF 14

457

I.D.

DATE:

8

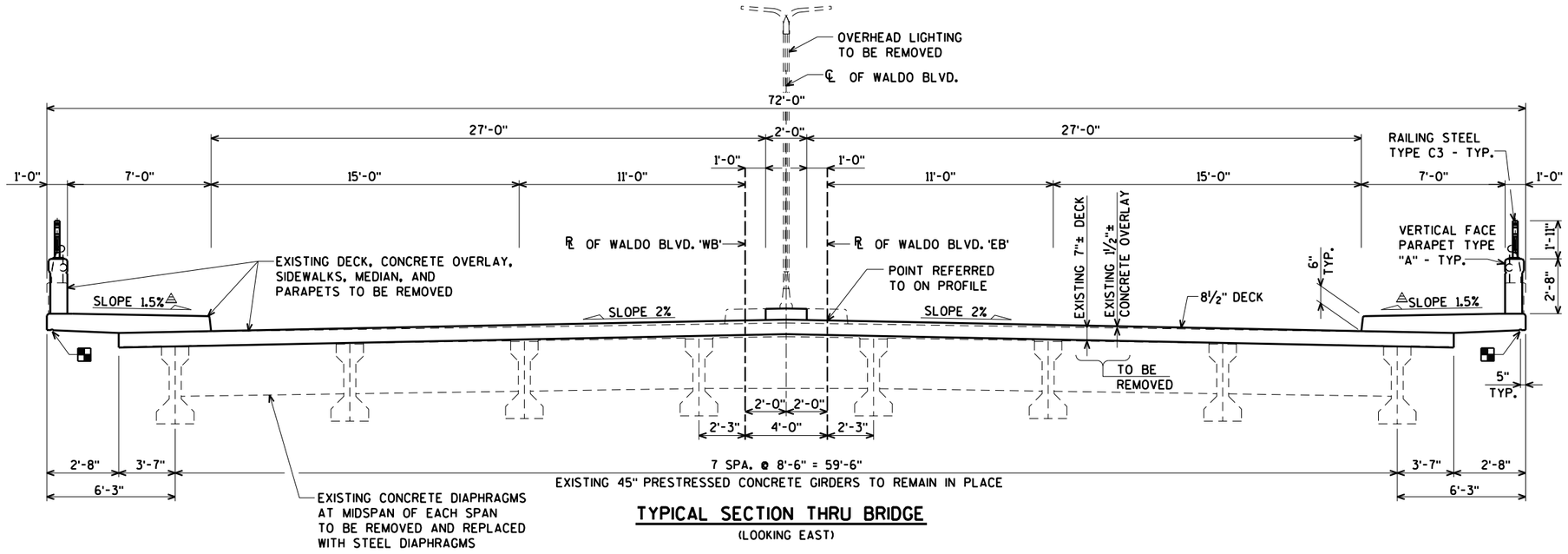
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LI:#41-0629.00 - Manitowoc County, Waldo Blvd±CN Overpass±BRIDGE±410629 gp.dgn

6/24/2019

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TYPICAL SECTION THRU BRIDGE

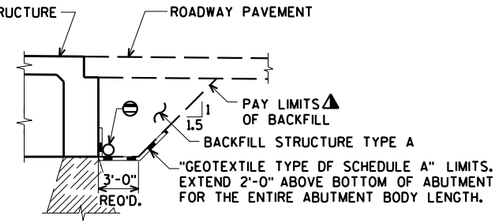
(LOOKING EAST)

△ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

■ ¾" V - GROOVE. EXTEND V - GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4.



BACKFILL STRUCTURE LIMITS THRU ABUTMENT

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL	CATEGORY 0020	CATEGORY 0030
203.0200	REMOVING OLD STRUCTURE STATION 83'EB'+32	LS	-----	-----	-----	1	-----	1
203.0225.S	DEBRIS CONTAINMENT B-36-29	LS	-----	-----	-----	1	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-36-29	LS	-----	-----	-----	1	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	125	125	-----	250	-----	250
502.0100	CONCRETE MASONRY BRIDGES	CY	7	7	716	730	-----	730
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	2,085	2,085	-----	2,085
502.3210	PIGMENTED SURFACE SEALER	SY	12	12	215	239	-----	239
502.4204	ADHESIVE ANCHORS NO. 4 BARS	EACH	160	160	822	1,142	-----	1,142
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,050	1,050	163,100	165,200	-----	165,200
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	8	8	-----	16	-----	16
506.4000	STEEL DIAPHRAGMS B-36-29	EACH	-----	-----	28	28	-----	28
506.7050.S	REMOVING BEARINGS B-36-29	EACH	8	8	-----	16	-----	16
◨ 509.1500	CONCRETE SURFACE REPAIR	SF	-----	-----	-----	100	-----	100
513.7016	RAILING STEEL TYPE C3	LF	27	27	524	578	578	-----
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	18	18	-----	36	-----	36
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	125	125	-----	250	-----	250
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	2	-----	4	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	70	70	-----	140	-----	140
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	½" & ¾"		

◨ UNDISTRIBUTED QUANTITY FOR SUBSTRUCTURE UNITS AS DIRECTED BY THE ENGINEER, IF NECESSARY.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

AT BACKFACE OF ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK, TOP OF SIDEWALK, FACE OF CURBS, AND TOP OF MEDIAN.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT UNLESS SHOWN OR NOTED OTHERWISE.

VARIATIONS TO THE NEW GRADE LINE OVER ½" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

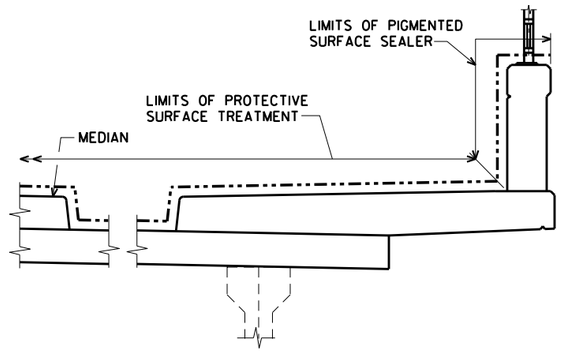
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1975.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE MINIMUM CONCRETE HAUNCH SHALL BE 2" FOR DESIGN CALCULATIONS AND THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH OF 4", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

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TYPICAL SECTION, QUANTITIES & NOTES

SHEET 2 OF 14
458

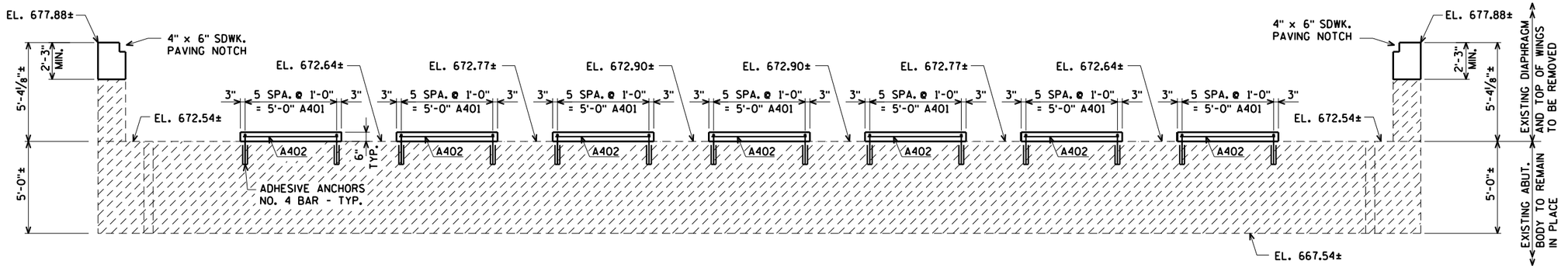
ORIGINAL PLANS PREPARED BY
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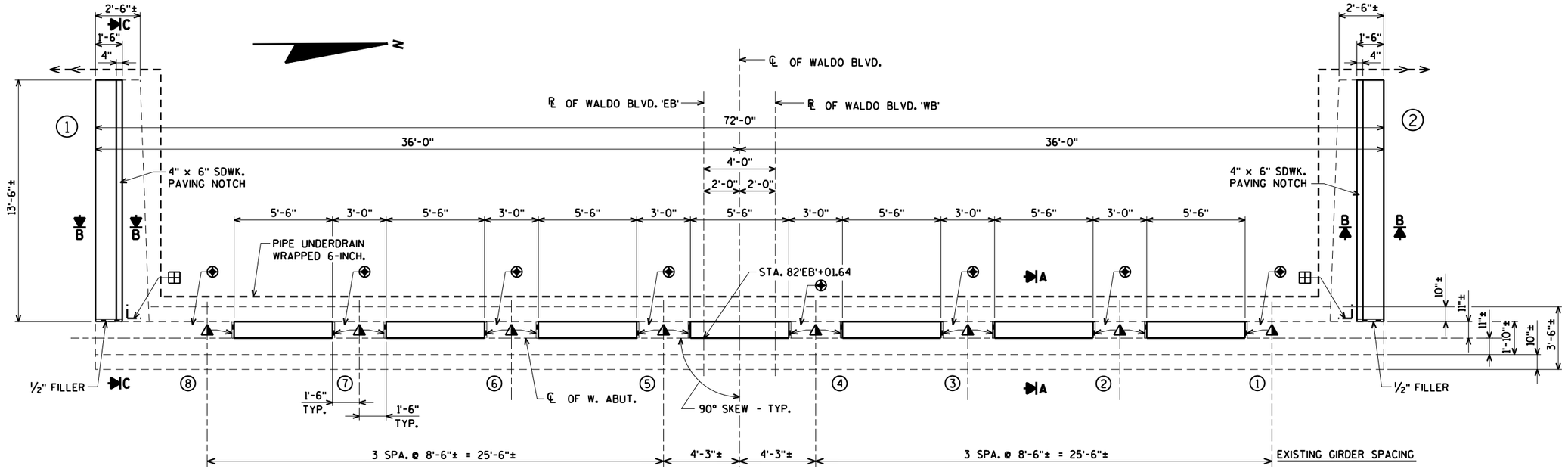
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

VERTICAL FACE PARAPET "A" NOT SHOWN. FOR DETAILS SEE SHEET 13

STATE PROJECT NUMBER
1500-37-76



ELEVATION
(LOOKING WEST)



PLAN

FOR SECTIONS A, B, AND C SEE SHEET 4

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

⊕ GRIND SMOOTH TOP OF ABUTMENT AFTER REMOVING DIAPHRAGM CONCRETE.

◭ ¾" CORK FILLER ON VERTICAL FACES THAT RUN PARALLEL WITH GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

WEST ABUTMENT

SHEET 3 OF 14
459

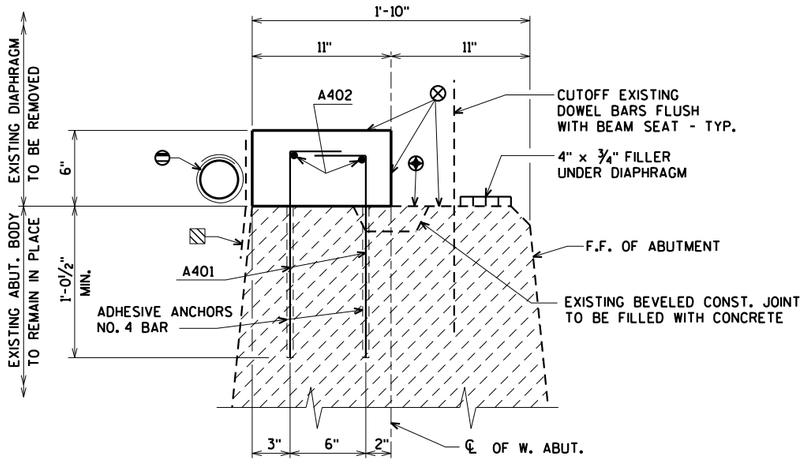
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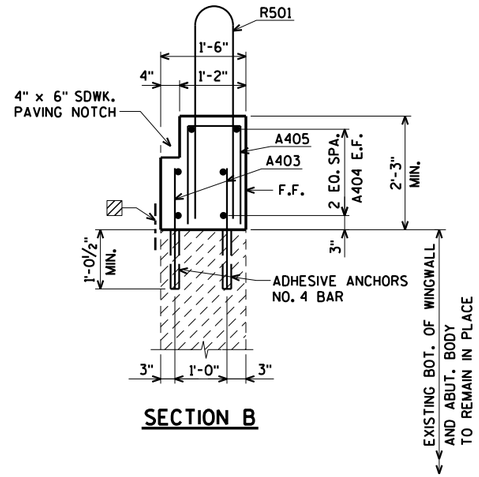
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STATE PROJECT NUMBER
1500-37-76



SECTION A



SECTION B

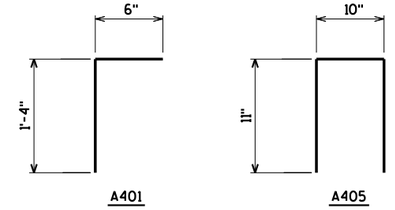
BILL OF BARS

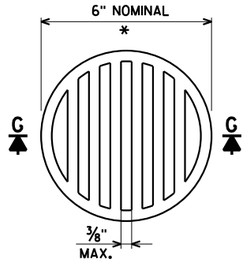
WEIGHT INCLUDES PARAPET STEEL SHOWN ON SHEET 13.

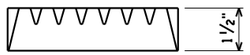
	BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.050* COATED LOCATION
ⓐ	A401	X	84	1-9	X		BODY DOWELS BTWN GIRDERS VERT.
	A402	X	14	5-2			BODY BTWN GIRDERS HORIZ.
ⓐ	A403	X	76	2-7			TOP OF WING DOWELS
	A404	X	12	13-2			TOP OF WING HORIZ.
	A405	X	38	4-6	X		TOP OF WING VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

ⓐ ADHESIVE ANCHORS NO. 4 BAR







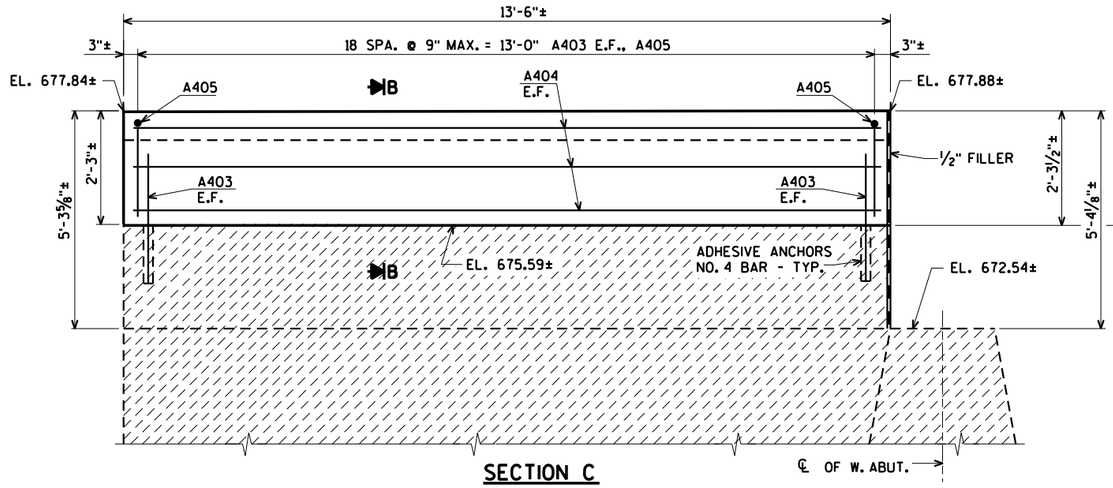
SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

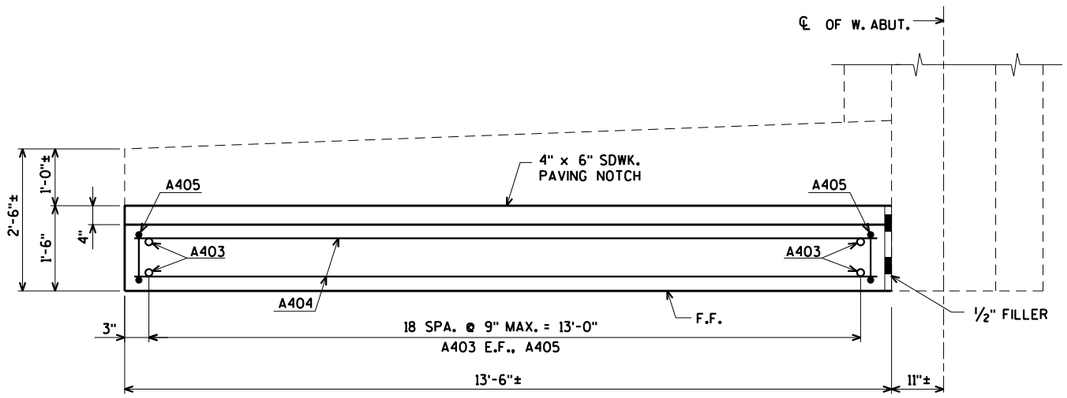
THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL



SECTION C

WING 1 SHOWN, WING 2 SIMILAR



WING PLAN

WING 1 SHOWN, WING 2 SIMILAR

FOR LOCATION OF SECTIONS A, B, AND C SEE SHEET 3

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT NOTCHES. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING NEW BEARING PADS AND SUPERSTRUCTURE DIAPHRAGM CONCRETE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

⊕ GRIND SMOOTH TOP OF ABUTMENT AFTER REMOVING DIAPHRAGM CONCRETE.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

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WEST ABUTMENT DETAILS & BILL OF BARS

SHEET 4 OF 14
460

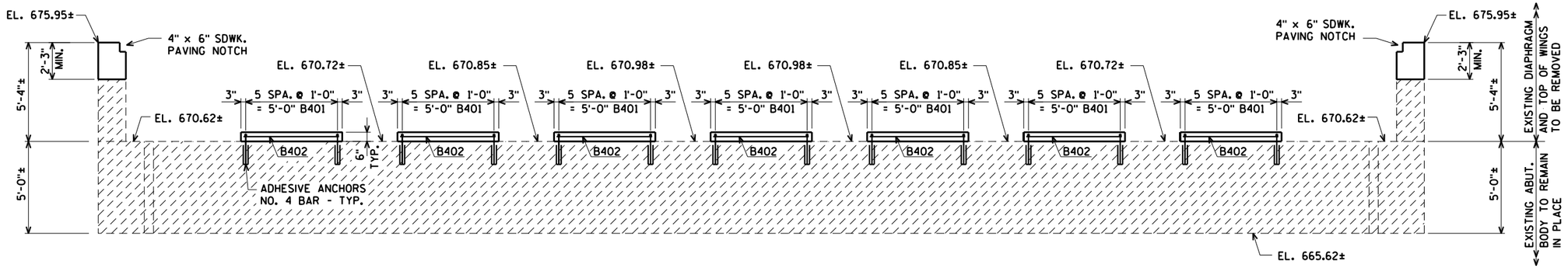
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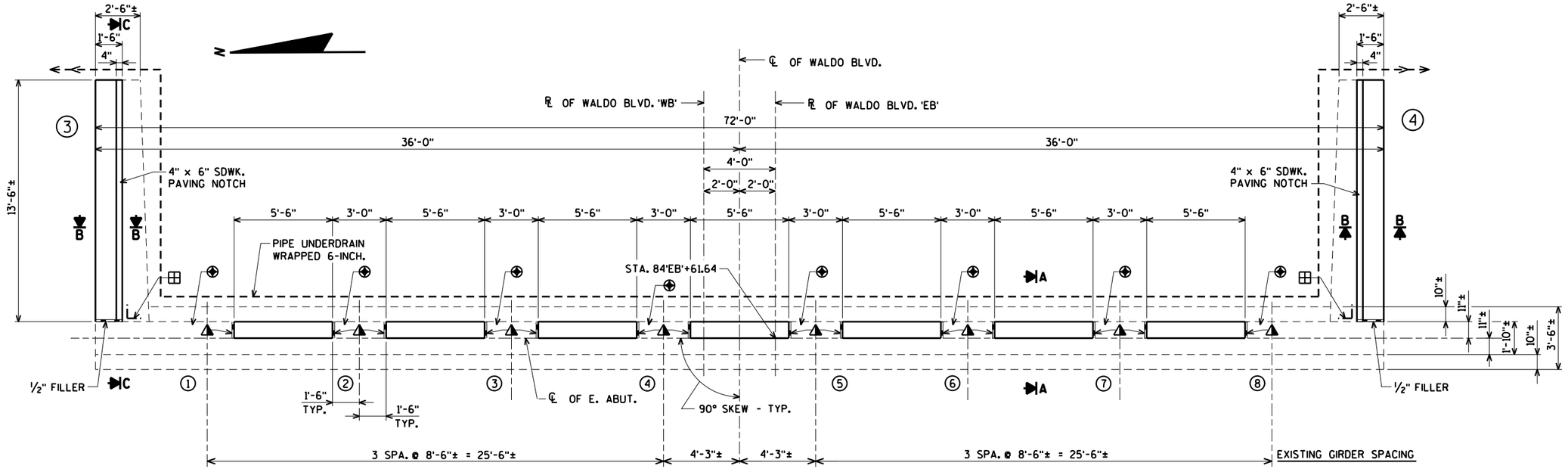
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

VERTICAL FACE PARAPET "A" NOT SHOWN. FOR DETAILS SEE SHEET 13

STATE PROJECT NUMBER
7615-37-76



ELEVATION
(LOOKING EAST)



PLAN

FOR SECTIONS A, B, AND C SEE SHEET 6

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

⊕ GRIND SMOOTH TOP OF ABUTMENT AFTER REMOVING DIAPHRAGM CONCRETE.

▲ ¾" CORK FILLER ON VERTICAL FACES THAT RUN PARALLEL WITH GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

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EAST ABUTMENT

SHEET 5 OF 14
461

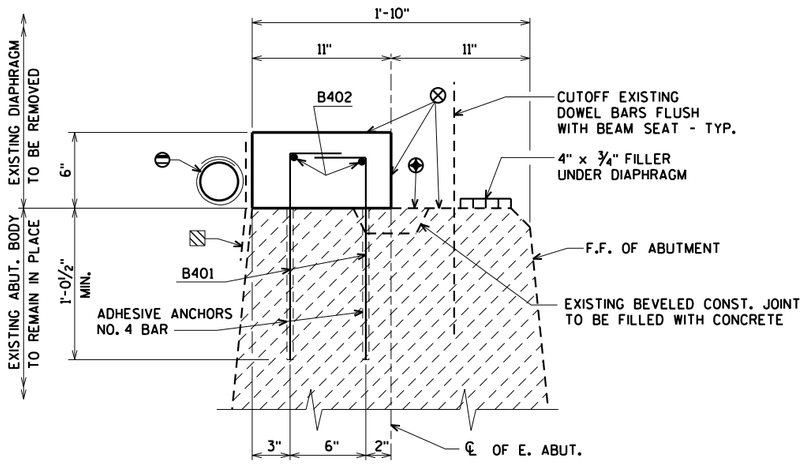
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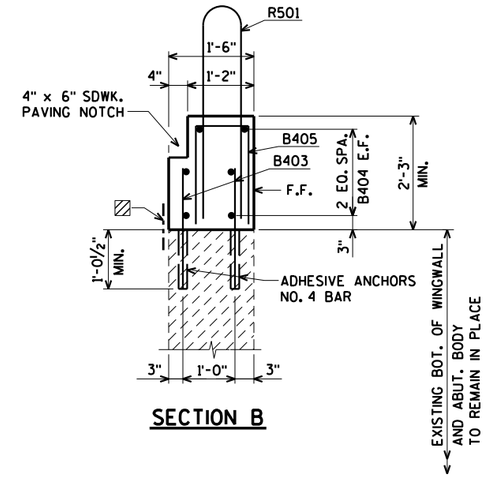
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SECTION A



SECTION B

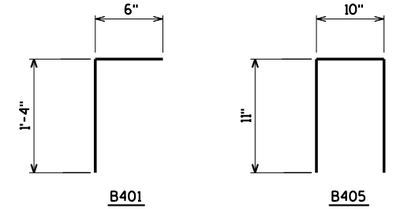
BILL OF BARS

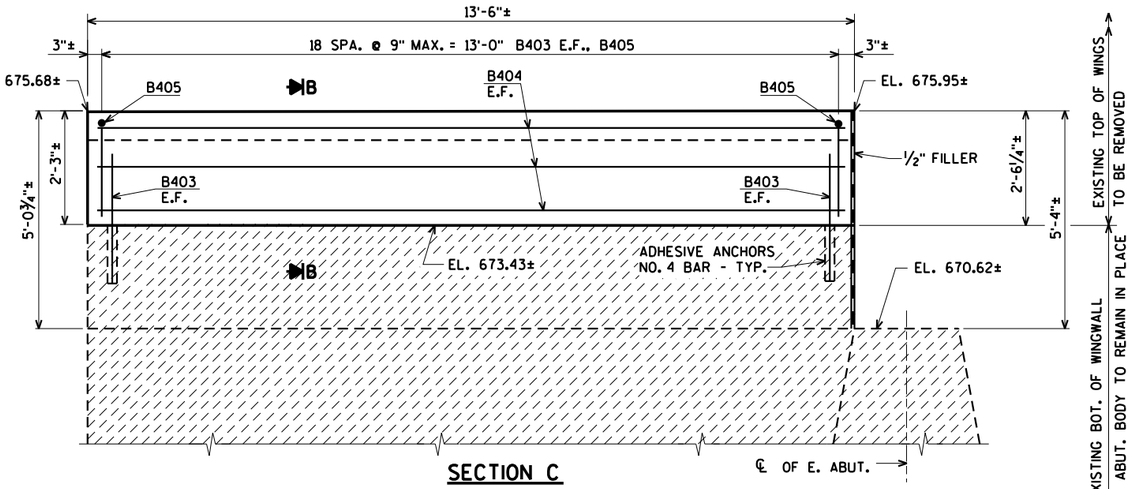
WEIGHT INCLUDES PARAPET STEEL SHOWN ON SHEET 13.

	BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.050" COATED LOCATION
⚠	B401	X	84	1-9	X		BODY DOWELS BTWN GIRDERS VERT.
	B402	X	14	5-2			BODY BTWN GIRDERS HORIZ.
⚠	B403	X	76	2-7			TOP OF WING DOWELS
	B404	X	12	13-2			TOP OF WING HORIZ.
	B405	X	38	4-6	X		TOP OF WING VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

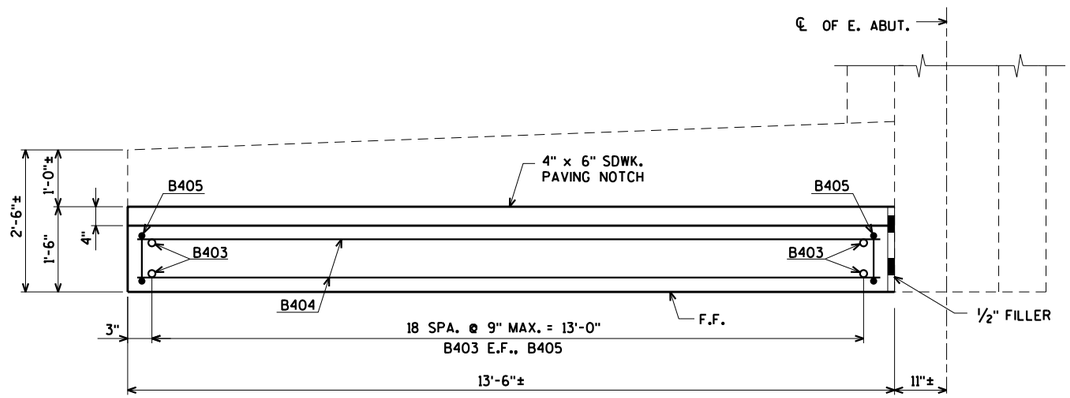
⚠ ADHESIVE ANCHORS NO. 4 BAR





SECTION C

WING 3 SHOWN, WING 4 SIMILAR



WING PLAN

WING 3 SHOWN, WING 4 SIMILAR

FOR LOCATION OF SECTIONS A, B, AND C SEE SHEET 5

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT NOTCHES. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING NEW BEARING PADS AND SUPERSTRUCTURE DIAPHRAGM CONCRETE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 4.

⊕ GRIND SMOOTH TOP OF ABUTMENT AFTER REMOVING DIAPHRAGM CONCRETE.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

EAST ABUTMENT DETAILS & BILL OF BARS

SHEET 6 OF 14
462

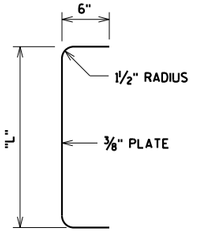
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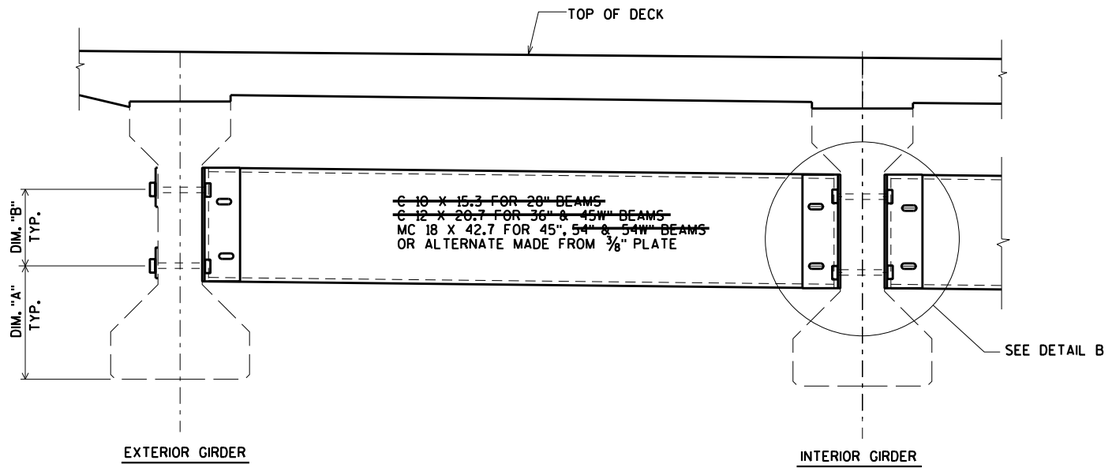
TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
~~28"~~	~~1'-0⅞"~~	~~5⅞"~~	~~9½"~~	~~2¼"~~
~~36"~~	~~1'-2⅞"~~	~~9⅞"~~	~~1'-1½"~~	~~3¼"~~
45"	1'-5⅜"	1'-1 ⅞"	1'-5½"	2¼"
~~45W"~~	~~1'-9⅛"~~	~~8⅞"~~	~~1'-0½"~~	~~2¾"~~
~~54"~~	~~1'-7⅞"~~	~~1'-5⅞"~~	~~1'-9½"~~	~~4¼"~~
~~54W"~~	~~1'-9⅛"~~	~~1'-5⅞"~~	~~1'-9½"~~	~~4¼"~~



SECTION THRU ALTERNATE DIAPHRAGM

*DIM "X" = 2½" FOR ALTERNATE PLATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL AND CORED HOLES IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-36-29", EACH.

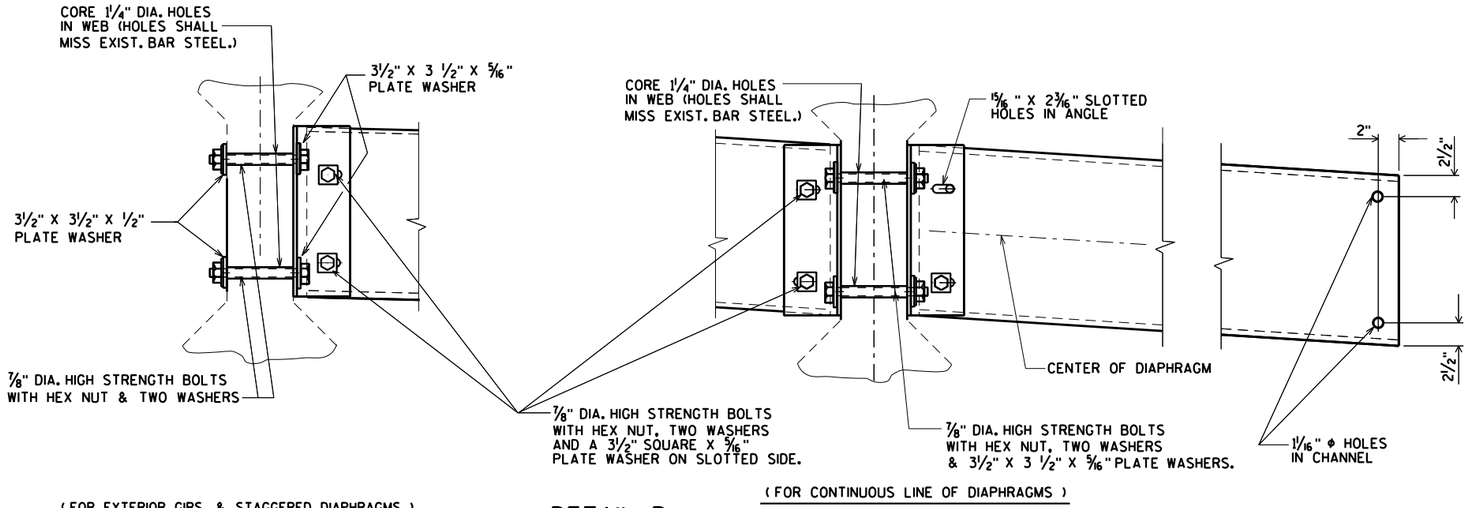
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

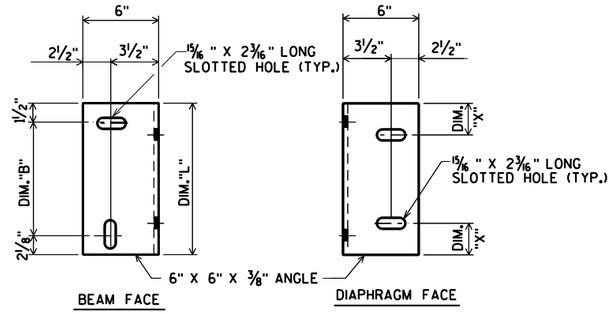
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

CORING HOLES IN EXISTING GIRDERS SHALL BE CONSIDERED INCIDENTAL TO "STEEL DIAPHRAGMS B-36-29".



DETAIL B



DIAPHRAGM SUPPORT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

STEEL DIAPHRAGM DETAILS

SHEET 7 OF 14
463

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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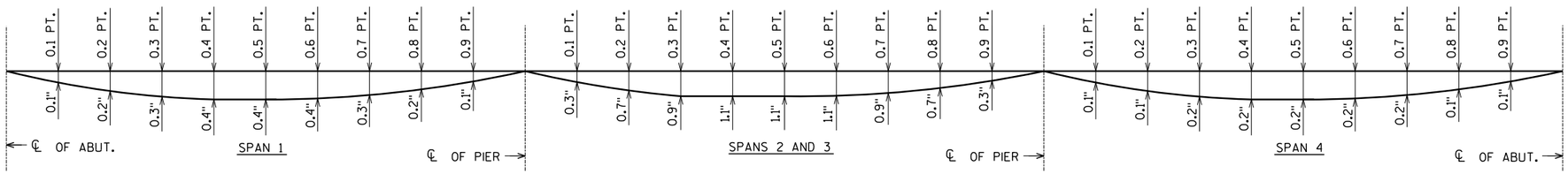
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U:\41-0629.00 - Manitowoc County, Waldo Blvd&CN Overpass\BRIDGE\410629 dia.dgn

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STATE PROJECT NUMBER

1500-37-76



ESTIMATED BEAM DEAD LOAD DEFLECTION DIAGRAMS

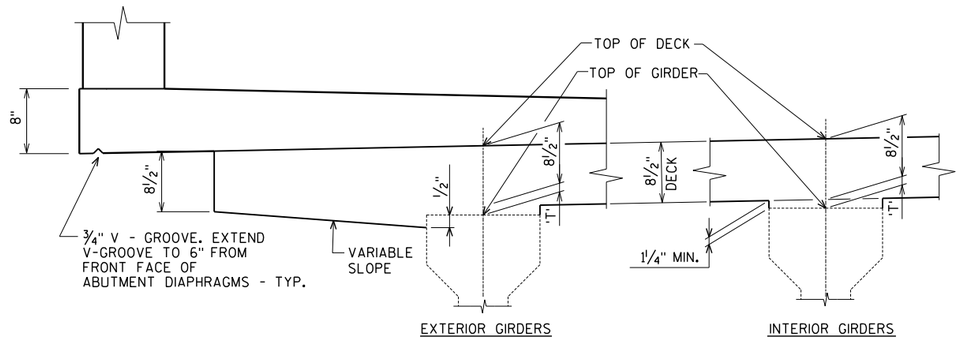
TOP OF DECK ELEVATIONS

SPAN 1											
	℄ OF WEST ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PIER 1
NORTH EDGE OF DECK	677.17	677.18	677.19	677.19	677.19	677.19	677.18	677.17	677.16	677.15	677.13
GIRDER 1	677.24	677.25	677.26	677.26	677.27	677.26	677.26	677.25	677.23	677.22	677.20
EDGE OF SIDEWALK	677.28	677.29	677.30	677.30	677.30	677.30	677.29	677.28	677.27	677.25	677.23
GIRDER 2	677.41	677.42	677.43	677.43	677.44	677.43	677.43	677.42	677.40	677.39	677.37
GIRDER 3	677.58	677.59	677.60	677.60	677.61	677.60	677.60	677.59	677.57	677.56	677.54
GIRDER 4	677.75	677.76	677.77	677.77	677.78	677.77	677.77	677.76	677.74	677.73	677.71
RL of Waldo Boulevard 'WB'	677.81	677.81	677.82	677.82	677.82	677.82	677.81	677.80	677.79	677.77	677.76
℄ OF WALDO BOULEVARD	677.84	677.85	677.86	677.86	677.86	677.86	677.85	677.84	677.83	677.81	677.79
RL of Waldo Boulevard 'EB'	677.81	677.81	677.82	677.82	677.82	677.82	677.81	677.80	677.79	677.77	677.76
GIRDER 5	677.75	677.76	677.77	677.77	677.78	677.77	677.77	677.76	677.74	677.73	677.71
GIRDER 6	677.58	677.59	677.60	677.60	677.61	677.60	677.60	677.59	677.57	677.56	677.54
GIRDER 7	677.41	677.42	677.43	677.43	677.44	677.43	677.43	677.42	677.40	677.39	677.37
EDGE OF SIDEWALK	677.28	677.29	677.30	677.30	677.30	677.30	677.29	677.28	677.27	677.25	677.23
GIRDER 8	677.24	677.25	677.26	677.26	677.27	677.26	677.26	677.25	677.23	677.22	677.20
SOUTH EDGE OF DECK	677.17	677.18	677.19	677.19	677.19	677.19	677.18	677.17	677.16	677.15	677.13

SPAN 2											
	℄ OF PIER 1	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PIER 2
NORTH EDGE OF DECK	677.13	677.09	677.06	677.01	676.96	676.92	676.86	676.81	676.75	676.70	676.64
GIRDER 1	677.20	677.17	677.13	677.08	677.03	676.99	676.93	676.88	676.82	676.77	676.71
EDGE OF SIDEWALK	677.23	677.20	677.16	677.12	677.07	677.02	676.97	676.91	676.86	676.80	676.75
GIRDER 2	677.37	677.34	677.30	677.25	677.20	677.16	677.10	677.05	676.99	676.94	676.88
GIRDER 3	677.54	677.51	677.47	677.42	677.37	677.33	677.27	677.22	677.16	677.11	677.05
GIRDER 4	677.71	677.68	677.64	677.59	677.54	677.50	677.44	677.39	677.33	677.28	677.22
RL of Waldo Boulevard 'WB'	677.76	677.72	677.68	677.64	677.59	677.54	677.49	677.43	677.38	677.32	677.27
℄ OF WALDO BOULEVARD	677.79	677.76	677.72	677.68	677.63	677.58	677.53	677.47	677.42	677.36	677.31
RL of Waldo Boulevard 'EB'	677.76	677.72	677.68	677.64	677.59	677.54	677.49	677.43	677.38	677.32	677.27
GIRDER 5	677.71	677.68	677.64	677.59	677.54	677.50	677.44	677.39	677.33	677.28	677.22
GIRDER 6	677.54	677.51	677.47	677.42	677.37	677.33	677.27	677.22	677.16	677.11	677.05
GIRDER 7	677.37	677.34	677.30	677.25	677.20	677.16	677.10	677.05	676.99	676.94	676.88
EDGE OF SIDEWALK	677.23	677.20	677.16	677.12	677.07	677.02	676.97	676.91	676.86	676.80	676.75
GIRDER 8	677.20	677.17	677.13	677.08	677.03	676.99	676.93	676.88	676.82	676.77	676.71
SOUTH EDGE OF DECK	677.13	677.09	677.06	677.01	676.96	676.92	676.86	676.81	676.75	676.70	676.64

SPAN 3											
	℄ OF PIER 2	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PIER 3
NORTH EDGE OF DECK	676.64	676.59	676.53	676.48	676.42	676.37	676.31	676.25	676.18	676.10	676.02
GIRDER 1	676.71	676.66	676.60	676.55	676.49	676.44	676.38	676.32	676.25	676.17	676.09
EDGE OF SIDEWALK	676.75	676.69	676.64	676.58	676.53	676.47	676.42	676.36	676.29	676.21	676.13
GIRDER 2	676.88	676.83	676.77	676.72	676.66	676.61	676.55	676.49	676.42	676.34	676.26
GIRDER 3	677.05	677.00	676.94	676.89	676.83	676.78	676.72	676.66	676.59	676.51	676.43
GIRDER 4	677.22	677.17	677.11	677.06	677.00	676.95	676.89	676.83	676.76	676.68	676.60
RL of Waldo Boulevard 'WB'	677.27	677.21	677.16	677.10	677.05	676.99	676.94	676.88	676.81	676.73	676.65
℄ OF WALDO BOULEVARD	677.31	677.25	677.20	677.14	677.09	677.03	676.98	676.92	676.85	676.77	676.69
RL of Waldo Boulevard 'EB'	677.27	677.21	677.16	677.10	677.05	676.99	676.94	676.88	676.81	676.73	676.65
GIRDER 5	677.22	677.17	677.11	677.06	677.00	676.95	676.89	676.83	676.76	676.68	676.60
GIRDER 6	677.05	677.00	676.94	676.89	676.83	676.78	676.72	676.66	676.59	676.51	676.43
GIRDER 7	676.88	676.83	676.77	676.72	676.66	676.61	676.55	676.49	676.42	676.34	676.26
EDGE OF SIDEWALK	676.75	676.69	676.64	676.58	676.53	676.47	676.42	676.36	676.29	676.21	676.13
GIRDER 8	676.71	676.66	676.60	676.55	676.49	676.44	676.38	676.32	676.25	676.17	676.09
SOUTH EDGE OF DECK	676.64	676.59	676.53	676.48	676.42	676.37	676.31	676.25	676.18	676.10	676.02

SPAN 4											
	℄ OF PIER 3	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF EAST ABUT.
NORTH EDGE OF DECK	676.02	675.96	675.89	675.82	675.75	675.68	675.60	675.52	675.43	675.34	675.25
GIRDER 1	676.09	676.03	675.96	675.90	675.83	675.75	675.67	675.59	675.50	675.42	675.32
EDGE OF SIDEWALK	676.13	676.06	676.00	675.93	675.86	675.79	675.71	675.62	675.54	675.45	675.36
GIRDER 2	676.26	676.20	676.13	676.07	676.00	675.92	675.84	675.76	675.67	675.59	675.49
GIRDER 3	676.43	676.37	676.30	676.24	676.17	676.09	676.01	675.93	675.84	675.76	675.66
GIRDER 4	676.60	676.54	676.47	676.41	676.34	676.26	676.18	676.10	676.01	675.93	675.83
RL of Waldo Boulevard 'WB'	676.65	676.58	676.52	676.45	676.38	676.31	676.23	676.14	676.06	675.97	675.88
℄ OF WALDO BOULEVARD	676.69	676.62	676.56	676.49	676.42	676.35	676.27	676.18	676.10	676.01	675.92
RL of Waldo Boulevard 'EB'	676.65	676.58	676.52	676.45	676.38	676.31	676.23	676.14	676.06	675.97	675.88
GIRDER 5	676.60	676.54	676.47	676.41	676.34	676.26	676.18	676.10	676.01	675.93	675.83
GIRDER 6	676.43	676.37	676.30	676.24	676.17	676.09	676.01	675.93	675.84	675.76	675.66
GIRDER 7	676.26	676.20	676.13	676.07	676.00	675.92	675.84	675.76	675.67	675.59	675.49
EDGE OF SIDEWALK	676.13	676.06	676.00	675.93	675.86	675.79	675.71	675.62	675.54	675.45	675.36
GIRDER 8	676.09	676.03	675.96	675.90	675.83	675.75	675.67	675.59	675.50	675.42	675.32
SOUTH EDGE OF DECK	676.02	675.96	675.89	675.82	675.75	675.68	675.60	675.52	675.43	675.34	675.25



DECK HAUNCH DETAILS

TO DETERMINE 'T': AFTER ALL DECK IS REMOVED, ELEVATIONS OF THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF SUBSTRUCTURE AND AT TENTH POINTS OF EACH SPAN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF GIRDER ELEVATION AFTER DECK REMOVAL
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS (8½")

= HAUNCH THICKNESS 'T'

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½".

NOTE: AN AVERAGE HAUNCH ('T') OF 4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

DECK ELEVATIONS

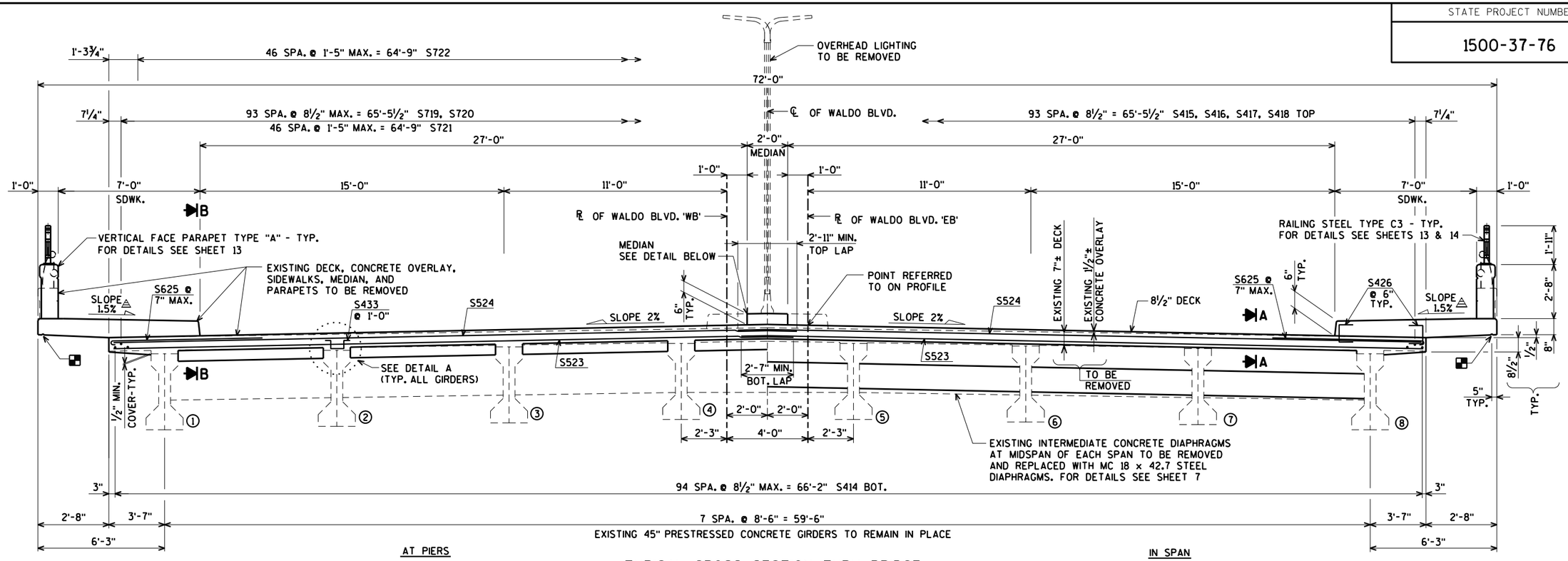
SHEET 8 OF 14
464

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

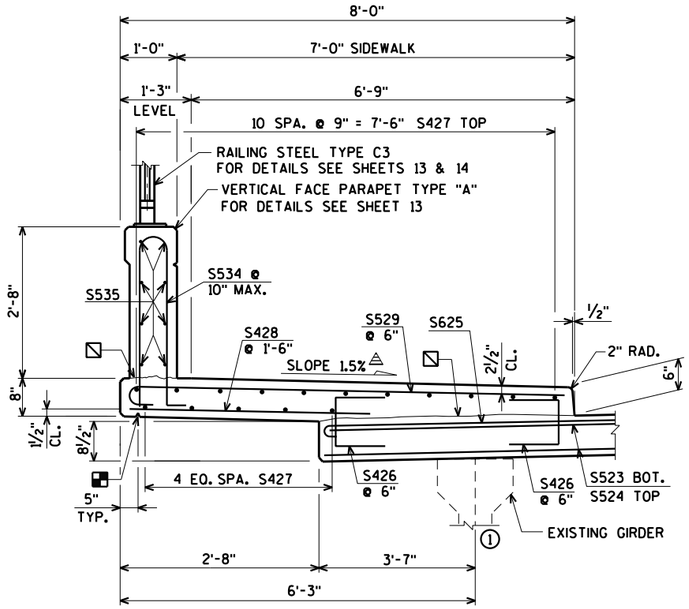
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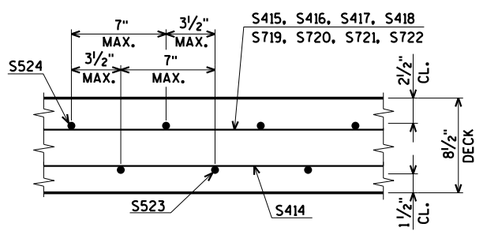
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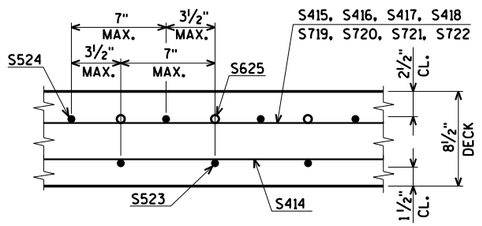
TYPICAL CROSS SECTION THRU BRIDGE
(LOOKING EAST)



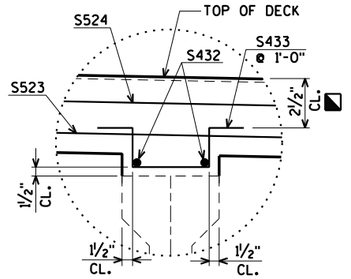
SECTION THRU SIDEWALK
(LOOKING EAST)



SECTION A

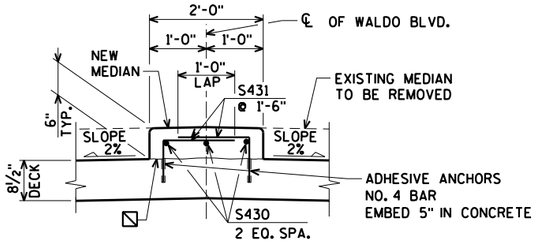


SECTION B



DETAIL A

TILT S433 BARS AS REQ'D. TO MAINTAIN 2½" CLEAR



MEDIAN DETAIL

△ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

▪ ¾" V - GROOVE. EXTEND V - GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

▨ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY	CLS	PLANS CK'D.	CBM

SUPERSTRUCTURE

SHEET 9 OF 14
465

ORIGINAL PLANS PREPARED BY
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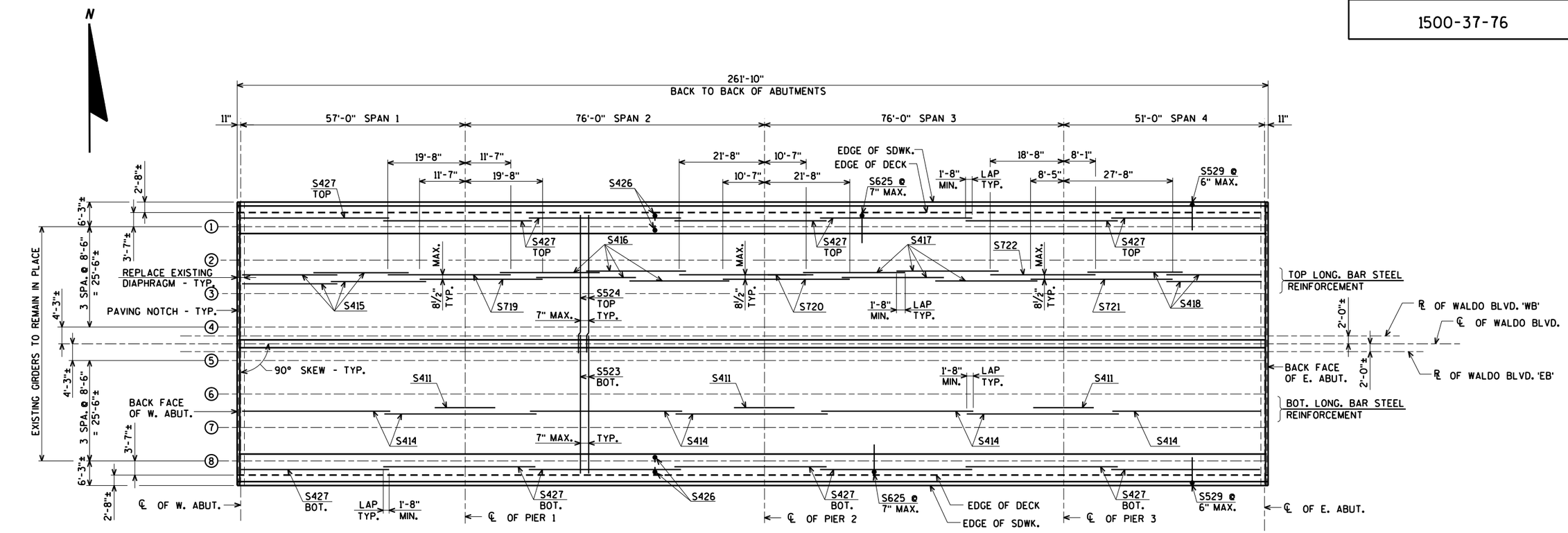
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6/24/2019

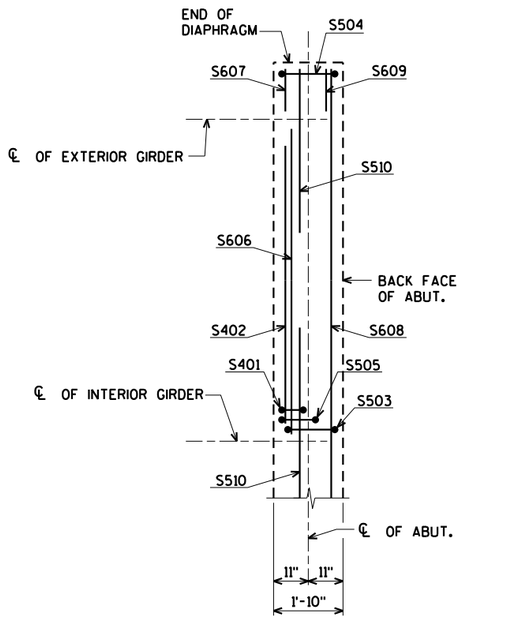
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STATE PROJECT NUMBER

1500-37-76

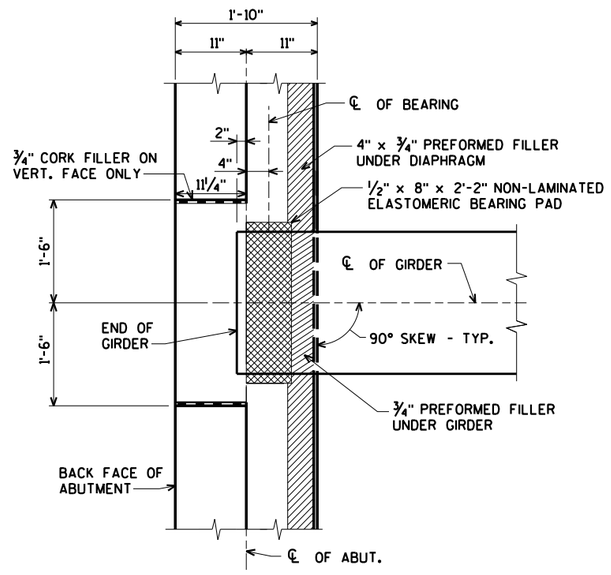


PLAN

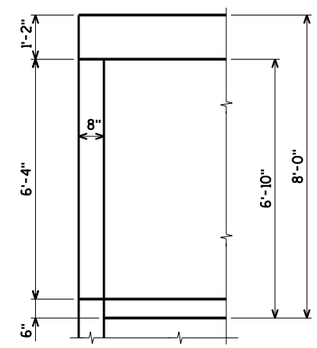


BAR STEEL AT DIAPHRAGM

(EAST ABUTMENT SHOW, WEST ABUTMENT SIMILAR)



ABUTMENT BEARING PAD DETAIL



PAVING NOTCH DETAIL

(TYPICAL ALL 4 CORNERS)
(WING 2 CORNER SHOWN, OTHER CORNERS SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE PLAN

SHEET 10 OF 14
466

ORIGINAL PLANS PREPARED BY
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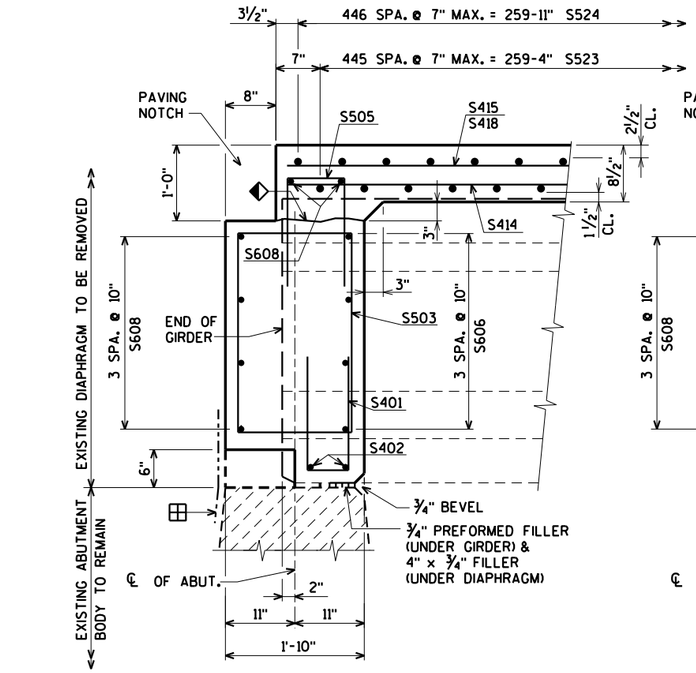
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6/24/2019

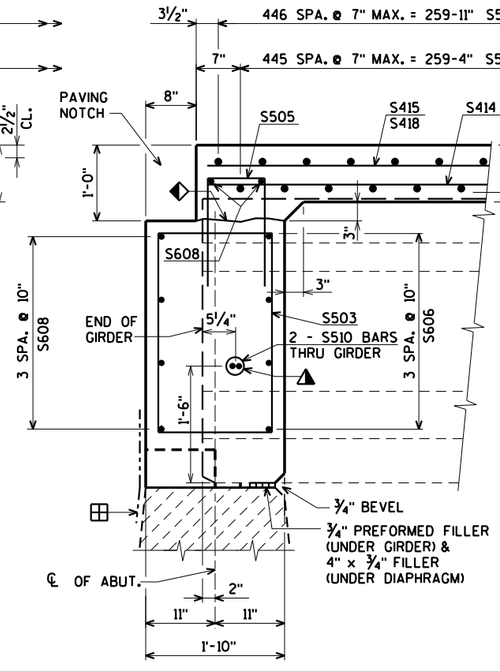
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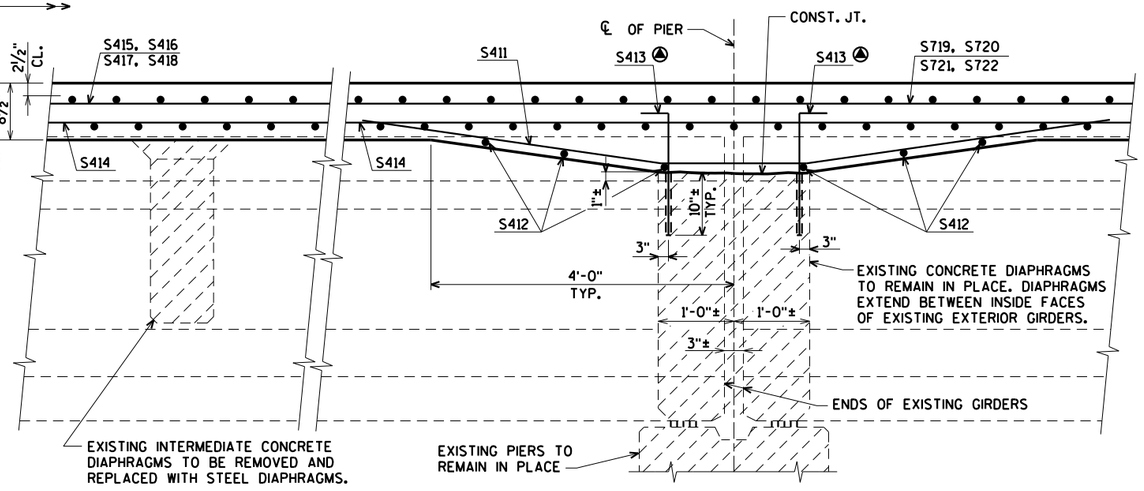
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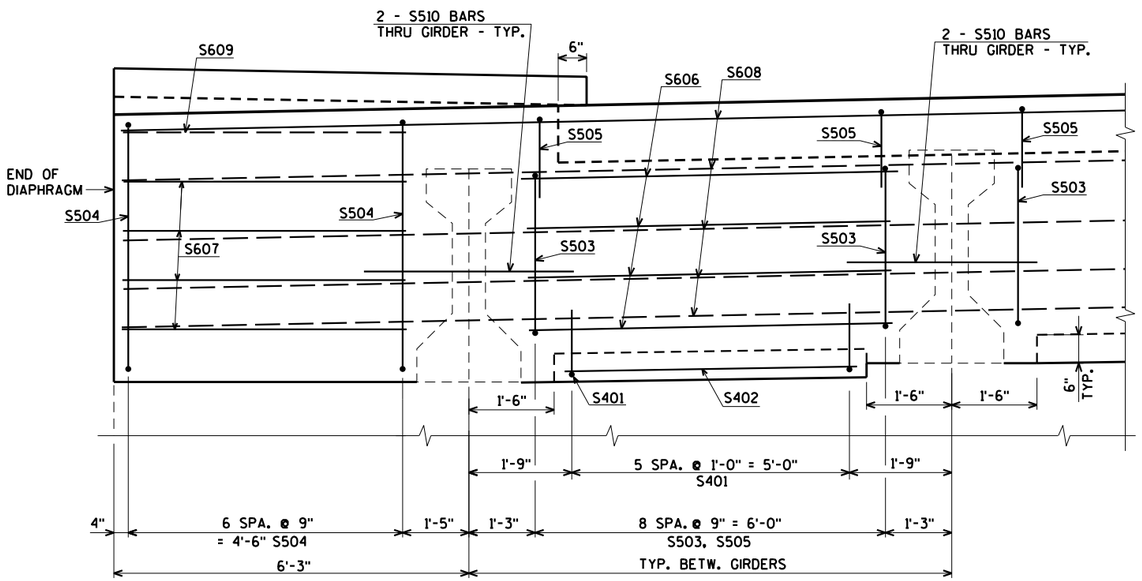
PART LONGITUDINAL SECTION AT ABUTMENT
(TYP. BETWEEN GIRDERS)



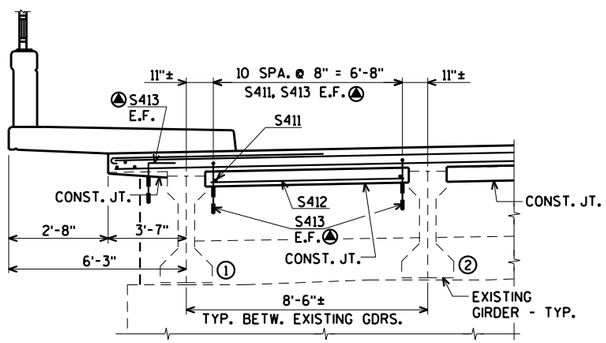
PART LONGITUDINAL SECTION AT ABUTMENT
(TYP. AT GIRDERS)



PART LONGITUDINAL SECTION @ DIAPH. & PIERS



PART ELEVATION AT ABUTMENT



TYPICAL SECTION AT EXISTING PIERS
(NORTH SIDE SHOWN, SOUTH SIDE SIMILAR)

- OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- FIELD DRILL 1½ ϕ HOLE IN WEB OF EXISTING GIRDERS FOR 2 S510 BARS. FIELD DRILLING INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".
- 18" RUBBERIZED MEMBRANE WATERPROOFING
- ADHESIVE ANCHORS NO. 4 BAR

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

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SUPERSTRUCTURE DETAILS

SHEET 11 OF 14
467

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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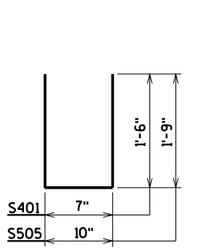
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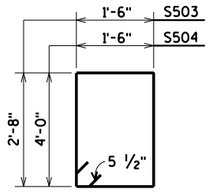
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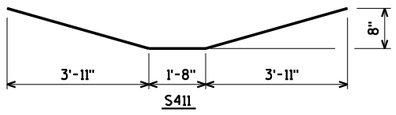
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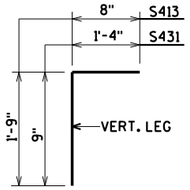
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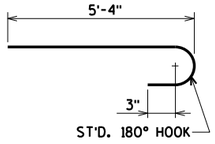
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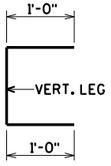




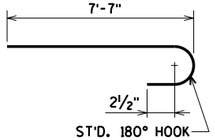




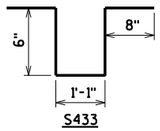
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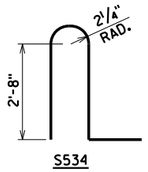
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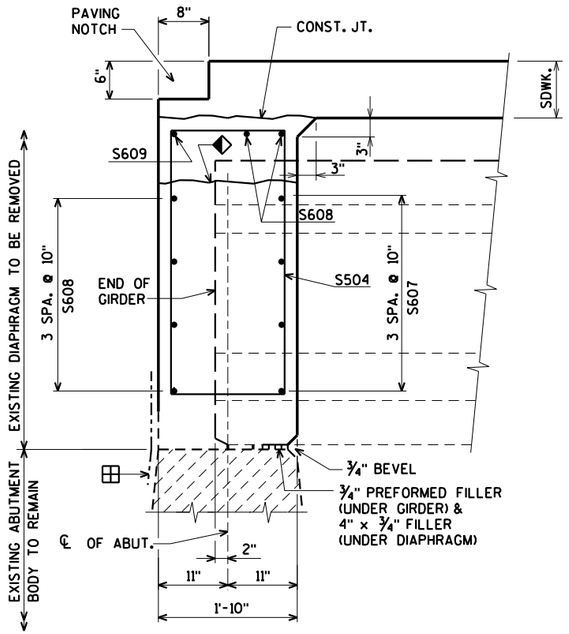
S529



S433



S534



PART LONGITUDINAL SECTION AT ABUTMENT
(TYP. AT ENDS OF DIAPHRAGM UNDER SIDEWALK)

◆ OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING

BILL OF BARS

	BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	163,100* COATED LOCATION
	S401	X	84	3-5	X			DIAPH. @ ABUT. VERT. @ NOTCH
	S402	X	28	5-2				DIAPH. @ ABUT. HORIZ. @ NOTCH
	S503	X	126	9-0	X			DIAPH. @ ABUT. VERT. BETWEEN GIRDERS
	S504	X	28	11-8	X			DIAPH. @ ABUT. VERT. EXTERIOR GIRDER
	S505	X	126	4-2	X			DIAPH. @ ABUT. VERT. BETWEEN GIRDERS
	S606	X	56	6-4				DIAPH. @ ABUT. HORIZ. BETW. GDRS.
	S607	X	16	5-0				DIAPH. @ ABUT. HORIZ. @ EXT. GDRS.
	S608	X	24	36-10				DIAPH. @ ABUT. HORIZ.
	S609	X	4	5-3				DIAPH. @ ABUT. HORIZ. EXTERIOR GIRDER
	S510	X	32	6-0				DIAPH. @ ABUT. HORIZ. THRU GDRS.
	S411	X	231	9-6	X			EXISTING DIAPH. @ PIER LONG.
	S412	X	126	6-10				EXISTING DIAPH. @ PIER TRANS.
▲	S413	X	474	2-4	X			EXISTING DIAPH. @ EXISTING PIERS VERT.
	S414	X	665	38-8				DECK LONG. BOT.
	S415	X	188	24-4				DECK LONG. TOP SPAN 1
	S416	X	188	25-5				DECK LONG. TOP SPAN 2
	S417	X	188	25-11				DECK LONG. TOP SPAN 3
	S418	X	141	23-5				DECK LONG. TOP SPAN 4
	S719	X	94	31-3				DECK LONG. TOP @ PIER 1
	S720	X	94	32-3				DECK LONG. TOP @ PIER 2
	S721	X	47	36-1				DECK LONG. TOP @ PIER 3
	S722	X	47	26-9				DECK LONG. TOP @ PIER 3
	S523	X	892	34-5				DECK TRANS. BOT.
	S524	X	894	34-8				DECK TRANS. TOP
	S625	X	892	6-0	X			DECK TRANS. TOP @ OVERHANG
	S426	X	2084	2-6	X			SDWK. VERT. @ DECK
	S427	X	224	38-8				SDWK. LONG. TOP & BOT.
	S428	X	348	3-6				SDWK. TRANS. BOT.
	S529	X	1042	8-3	X			SDWK. TRANS. TOP
	S430	X	21	38-8				MEDIAN LONG. TOP
▲	S431	X	348	2-0	X			MEDIAN VERT.
	S432	X	112	38-8				DECK LONG. BOT. @ HAUNCHES
	S433	X	2072	3-1	X			DECK @ GIRDER HAUNCHES
	S534	X	626	6-9	X			PARAPET VERT. @ SDWK.
	S535	X	112	39-7				PARAPET HORIZ. @ SDWK.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

▲ ADHESIVE ANCHORS NO. 4 BAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE BILL OF BARS

SHEET 12 OF 14
468

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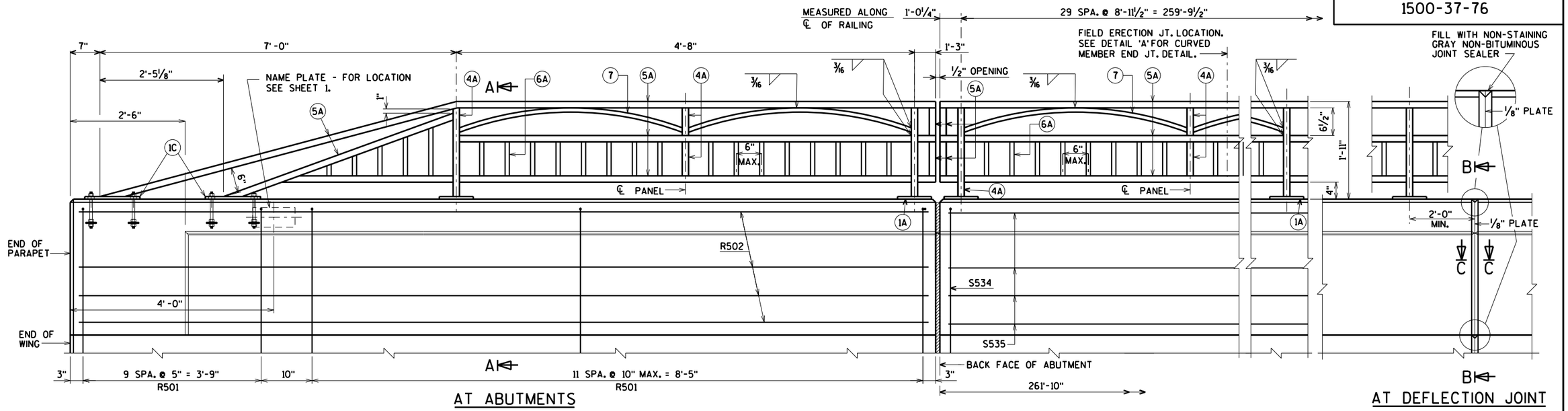
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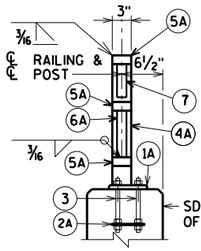
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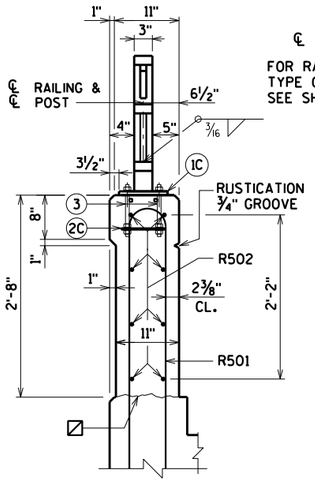


ELEVATION OF BACK FACE PARAPET AT SUPERSTRUCTURE AND WINGS

(WINGS 1 & 3 SHOWN, WINGS 2 & 4 SIMILAR)

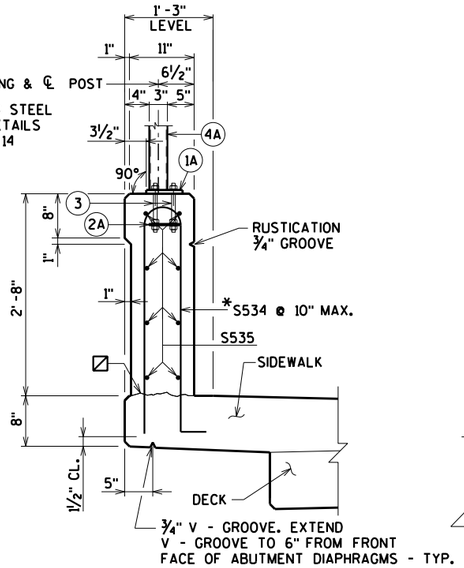


END VIEW



SECTION A-A

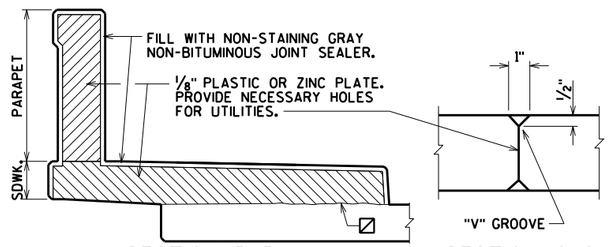
☐ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.



¾" V - GROOVE. EXTEND V - GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

SECTION THRU PARAPET ON BRIDGE

*ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING

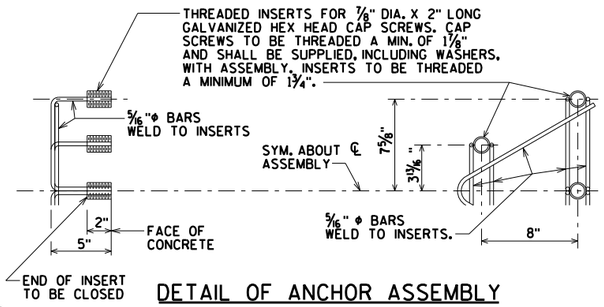


SECTION B-B

SECTION C-C

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

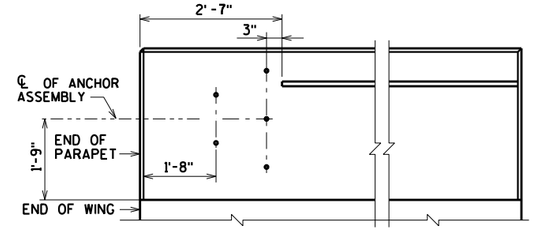
WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION B-B BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.



DETAIL OF ANCHOR ASSEMBLY

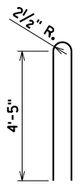
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

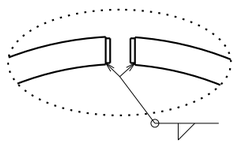


FRONT FACE OF PARAPET

(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)



R501



DETAIL A

SEAL ENDS ON CURVED STRUCTURAL TUBING WITH ¼" PLATE. WELD AND GRIND SMOOTH.

BILL OF BARS

550* COATED (WEST ABUTMENT)
550* COATED (EAST ABUTMENT)

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	LOCATION
R501	X	44	44	9-6	X	PARAPET VERT.
R502	X	8	8	13-2		PARAPET HORIZ.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

WORK THIS WHEET WITH SHEET 14.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

RAILING STEEL TYPE C3 AND VERTICAL FACE PARAPET "A" DETAILS

SHEET 13 OF 14
469

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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www.AyresAssociates.com

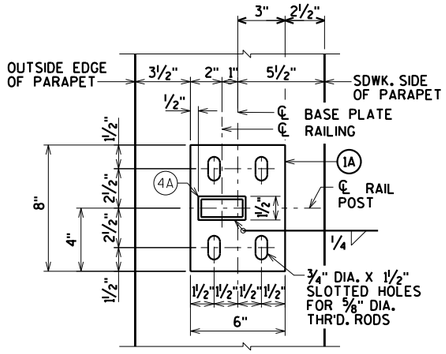
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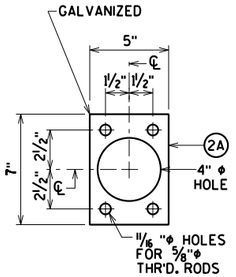
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6/24/2019

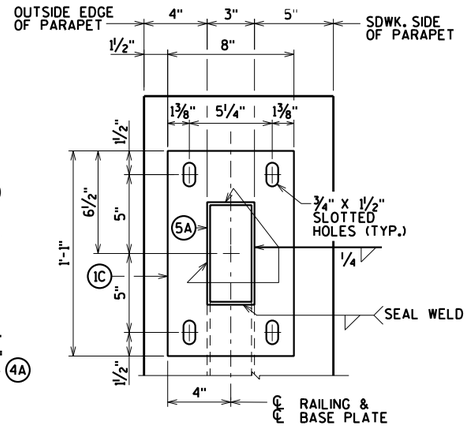
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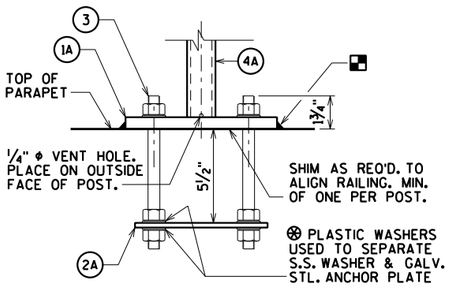
TYPICAL RAIL POST BASE PLATE
FOR 3"x1½"x3⁄16" POSTS (4A)



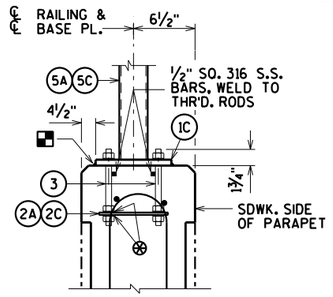
ANCHOR PLATE
FOR 3"x1½"x3⁄16" POSTS (4A)



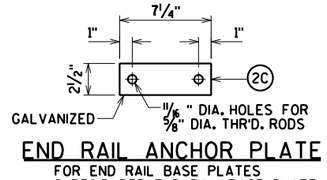
END RAIL BASE PLATE



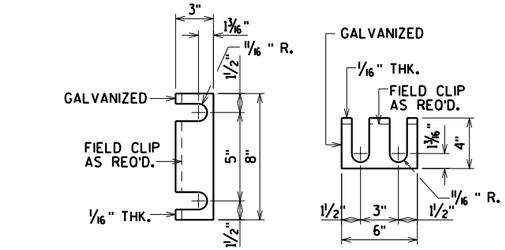
ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



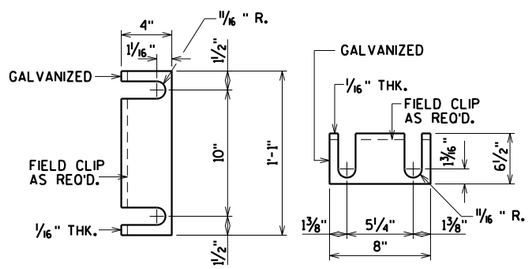
ANCHORAGE FOR END RAIL
NOTE: ANCHOR PLATES NOT REQ'D. WHEN ADHESIVE ANCHORS ARE USED.



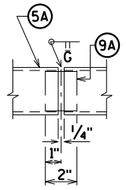
END RAIL ANCHOR PLATE
FOR END RAIL BASE PLATES
2 REQ'D. PER END RAIL BASE PLATE



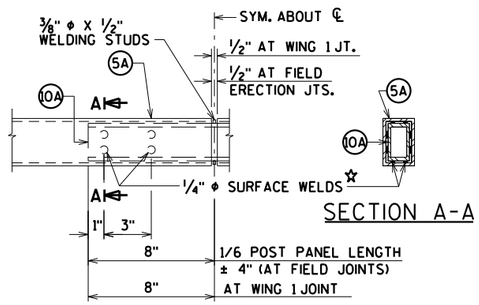
RAIL POST SHIM DETAIL
(2 SETS PER POST)



END RAIL SHIM DETAIL
(2 SETS PER POST)



SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



FIELD ERECTION JOINT DETAIL
☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

LEGEND
(1A) PLATE ⅝" X 6" X 8" WITH ¾" X 1½" SLOTTED HOLES.

(1C) PLATE ⅝" X 8" X 1'-1" WITH ¾" X 1½" SLOTTED HOLES.

(2A) ¼" X 5" X 7" ANCHOR PLATE WITH 11⁄16 " DIA. HOLES FOR THR'D. RODS NO. 3.

(2C) ¼" X 2½" X 7¼" ANCHOR PLATE 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. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

(4A) STRUCTURAL TUBING 3" X 1½" X 3⁄16". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5A) STRUCTURAL TUBING 3" X 1½" X 3⁄16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. (SPACE AT 6" MAX. ℄ TO ℄ SPACING). PLACE VERTICAL.

(7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.

(9A) RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. PROVIDE "SLIDING FIT".

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. (1'-4" ⊛ FIELD ERECTION JTS.) (1'-4" ⊛ WING 1 JT.)

NOTES
BID ITEM SHALL BE "RAILING STEEL TYPE C3", 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 CUTS.

ALL PLATES, BARS, 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 PLATES 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 AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK.

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.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

WORK THIS SHEET WITH SHEET 13.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-29

DRAWN BY CLS | PLANS CK'D. CBM

RAILING STEEL TYPE C3 DETAILS

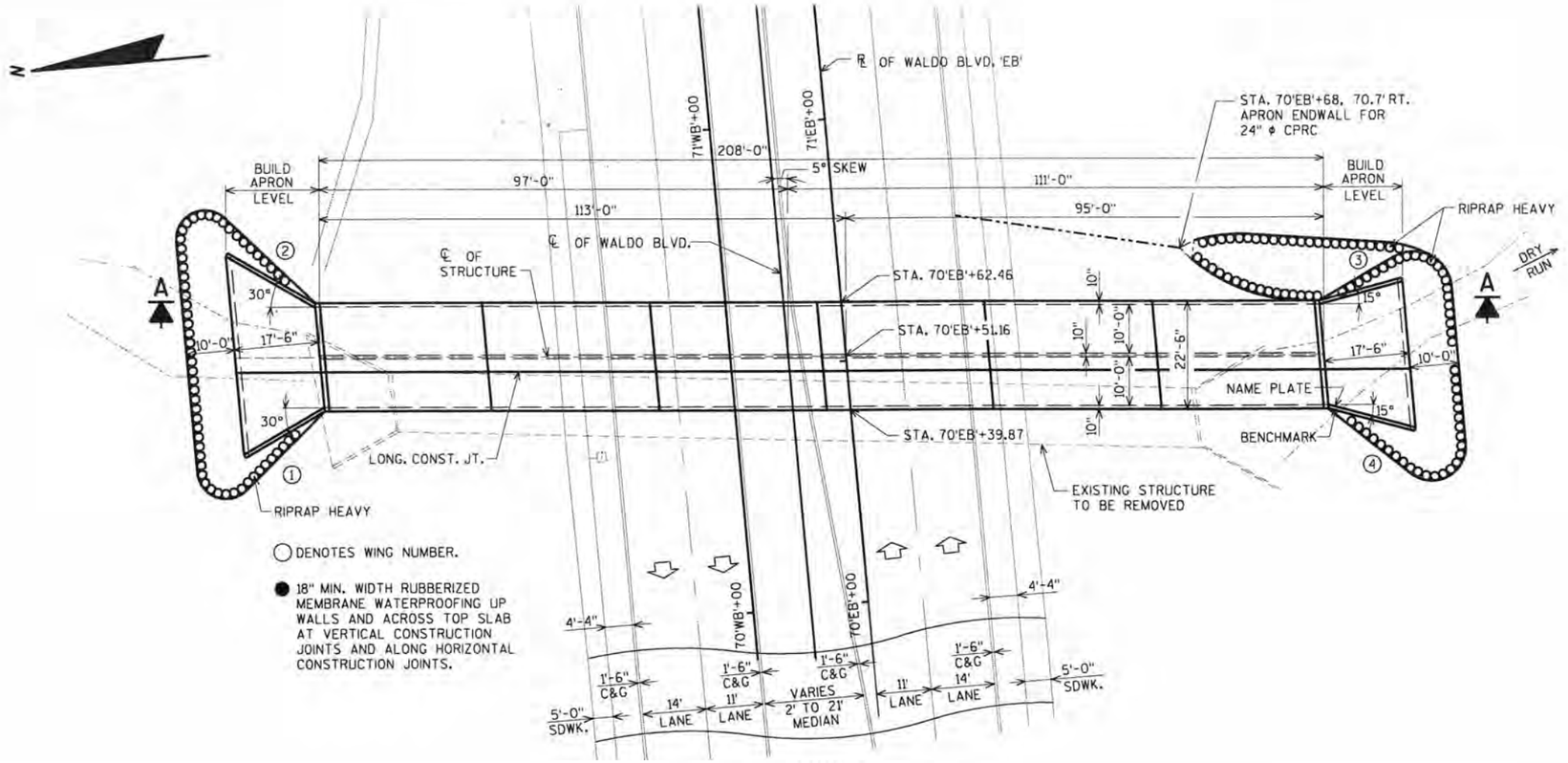
SHEET 14 OF 14
470

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AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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U:±41-0629.00 - Manitowoc County, Waldo Blvd±CN Overpass±BRIDGE±410629 para A.DGN

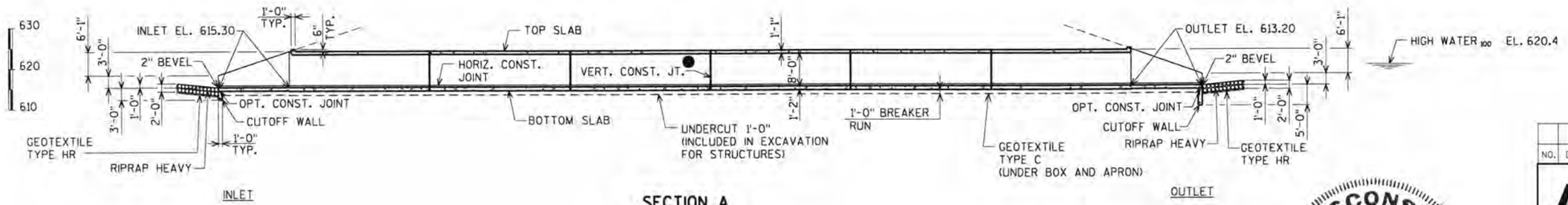
STATE PROJECT NUMBER

1500-37-76



PLAN

(TWIN CELL CONCRETE BOX CULVERT)



INLET

OUTLET

SECTION A

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.05
OPERATING RATING FACTOR : 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 255 KIPS

EARTH LOAD: DESIGNED FOR FILL HEIGHT RANGE OF 18 TO 20 FEET

MATERIAL PROPERTIES:

CONCRETE MASONRY ____ f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ____ f_y = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FLOOD
DRAINAGE AREA = 0.48 sq. mi.
WATERWAY AREA = 96 sq. ft.
V = 6.2 f.p.s.
Q_{100} = 590 c.f.s.
Q_2 = 180 c.f.s.
HIGH $WATER_{100}$ EL. 620.4
HIGH $WATER_2$ EL. 617.6
RDWY. OVERRFLOW = N/A
SCOUR CRITICAL CODE = 8

TRAFFIC DATA:

A.D.T. = 11,700 (2016)
A.D.T. = 13,600 (2036)
R.D.S. = 40 M.P.H.

FOR GENERAL NOTES SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. APRON DETAILS
5. INLET WING DETAILS
6. OUTLET WING DETAILS
7. BOX DETAILS
8. BAR STEEL LAYOUT
9. BILL OF BARS AND DETAILS

WISCONSIN ARLEN E BEAUDETTE E-36829 EAU CLAIRE WI PROFESSIONAL ENGINEER

6-24-19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
ARLEN BEAUDETTE
(715)-834-3161

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Eau Claire, WI 54701
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 06/27/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-36-232

WALDO BLVD. OVER DRY RUN

COUNTY MANITOWOC | ~~TOWN~~/CITY/~~VILLAGE~~ MANITOWOC

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY CKJ/JWZ	DESIGN CK'D. JLB	DRAWN BY CJM/CLS	PLANS CK'D.

GENERAL PLAN

SHEET 1 OF 9
471

I.D.

DATE:

11X17-5200.plt
410629 gp culv.dgn

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

8

6/24/2019

black.tbl

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O DESIGNATION M 213.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" SHALL BE THE EXISTING GROUND LINE.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON THE CONCRETE CUTOFF WALLS.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE EXISTING STRUCTURE TO BE REMOVED, IS A SINGLE CELL 12'± x 8'± CONCRETE BOX CULVERT WITH A BARREL LENGTH OF 167'±.

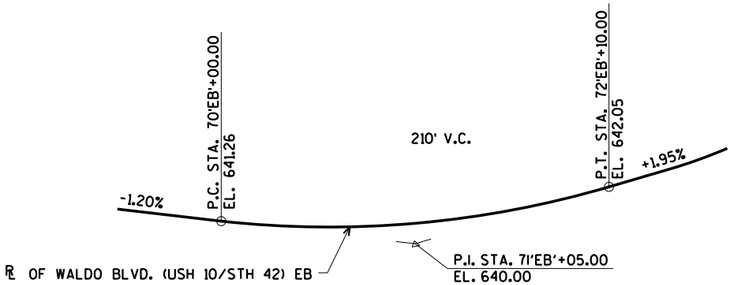
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TO THE ELEVATION OF THE TOP OF THE BOX WITHIN THE LENGTH OF THE BOX. THE PAY LIMITS OF THE BACKFILL STRUCTURAL ARE 3'-0" BEYOND THE HORIZONTAL PLAN LIMITS AT THE BOTTOM OF THE BOX AND APRON AND UP AT A 1:1.5 BACKFILL SLOPE FROM BOTTOM OF SLAB TO TOP OF BOX.

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 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES"

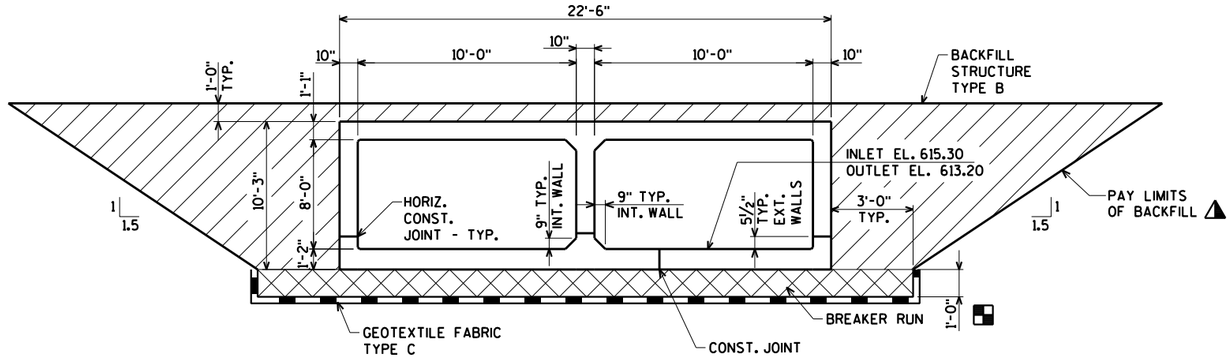
IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE. SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANUALR MATERIAL" IS ACCEPTABLE.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	AMOUNT
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STATION 70+52	1 LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-36-232	1 LS
210.2500	BACKFILL STRUCTURE TYPE B	4,590 TON
311.0110	BREAKER RUN	530 TON
504.0100	CONCRETE MASONRY CULVERTS	613 CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	75,760 LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	3,350 LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	42 SY
606.0300	RIPRAP HEAVY	135 CY
645.0105	GEOTEXTILE TYPE C	850 SY
645.0120	GEOTEXTILE TYPE HR	265 SY
	NON-BID ITEMS	
	FILLER	¾ SIZE



PROFILE GRADE LINE
WALDO BLVD. (USH 10/STH 42) EB



TYPICAL SECTION THRU BOX CULVERT AND BACKFILL DETAIL
(LOOKING SOUTH)

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

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STRUCTURE B-36-232

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QUANTITIES AND NOTES

SHEET 2 OF 9
472

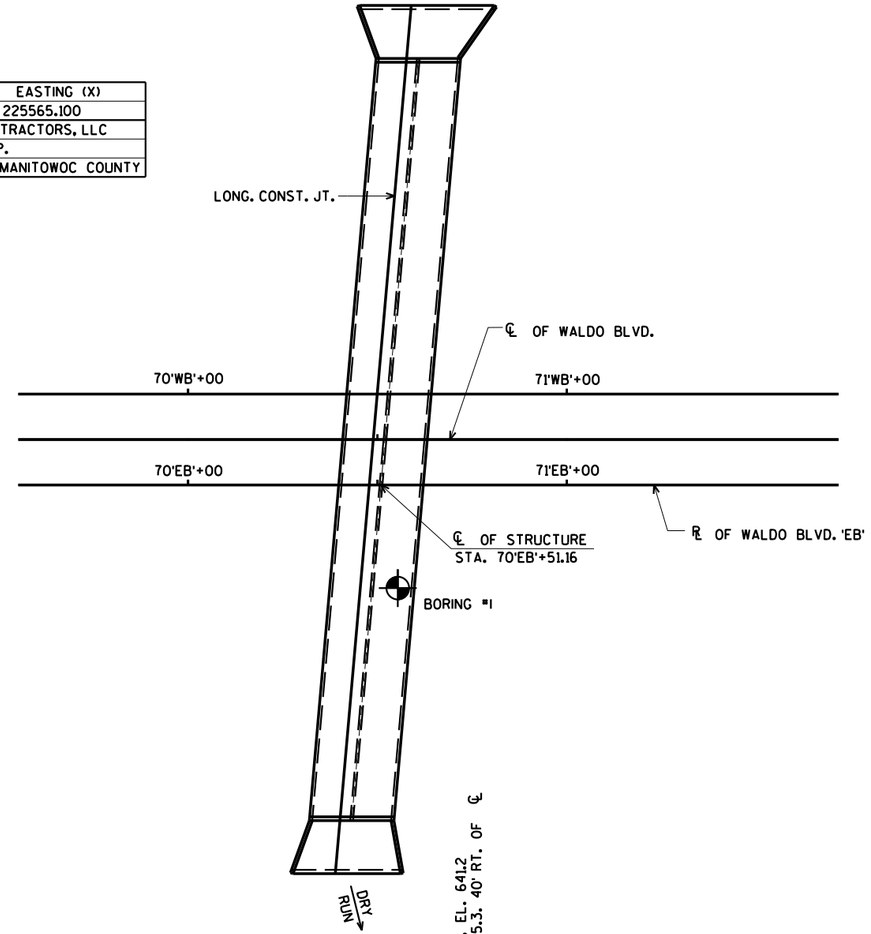
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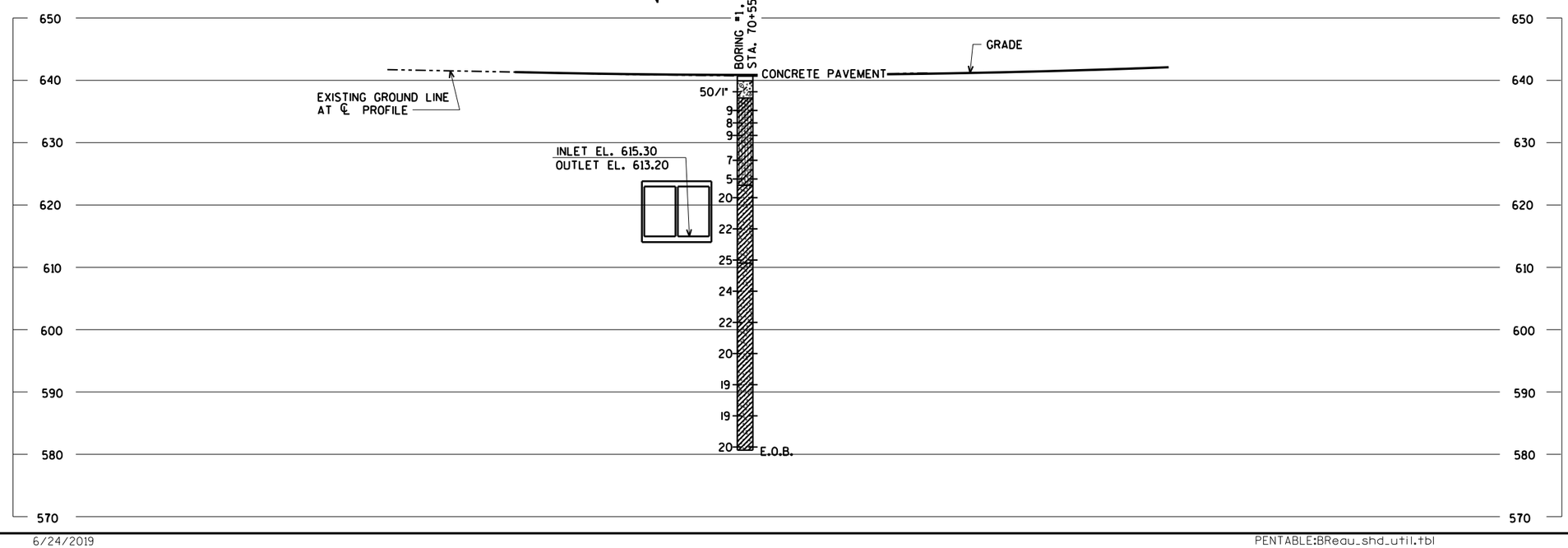
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8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	01/20/2015	306943.533	225565.100
BORINGS COMPLETED BY: GEOTECHNICAL DRILLING CONTRACTORS, LLC			
REPORT COMPLETED BY: RIVER VALLEY TESTING CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			





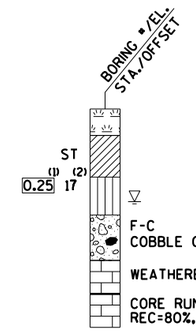
STATE PROJECT NUMBER

1500-37-76

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) 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 ST-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-36-232

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SUBSURFACE EXPLORATION

SHEET 3 OF 9
473

8

8

$PRFNAME$
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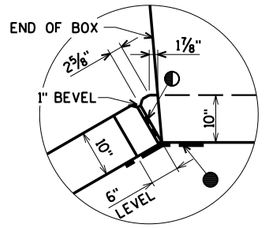
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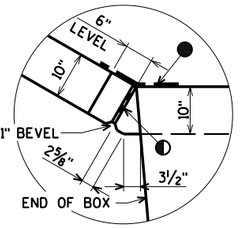
STATE PROJECT NUMBER

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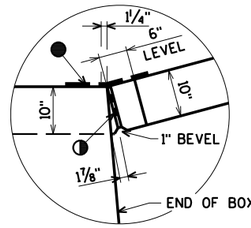
NOTE:
DO NOT RUN ANY BAR STEEL REINF. THRU JOINT FILLER.



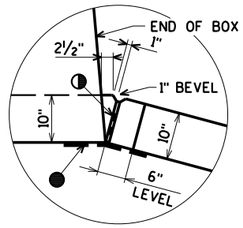
WING 1



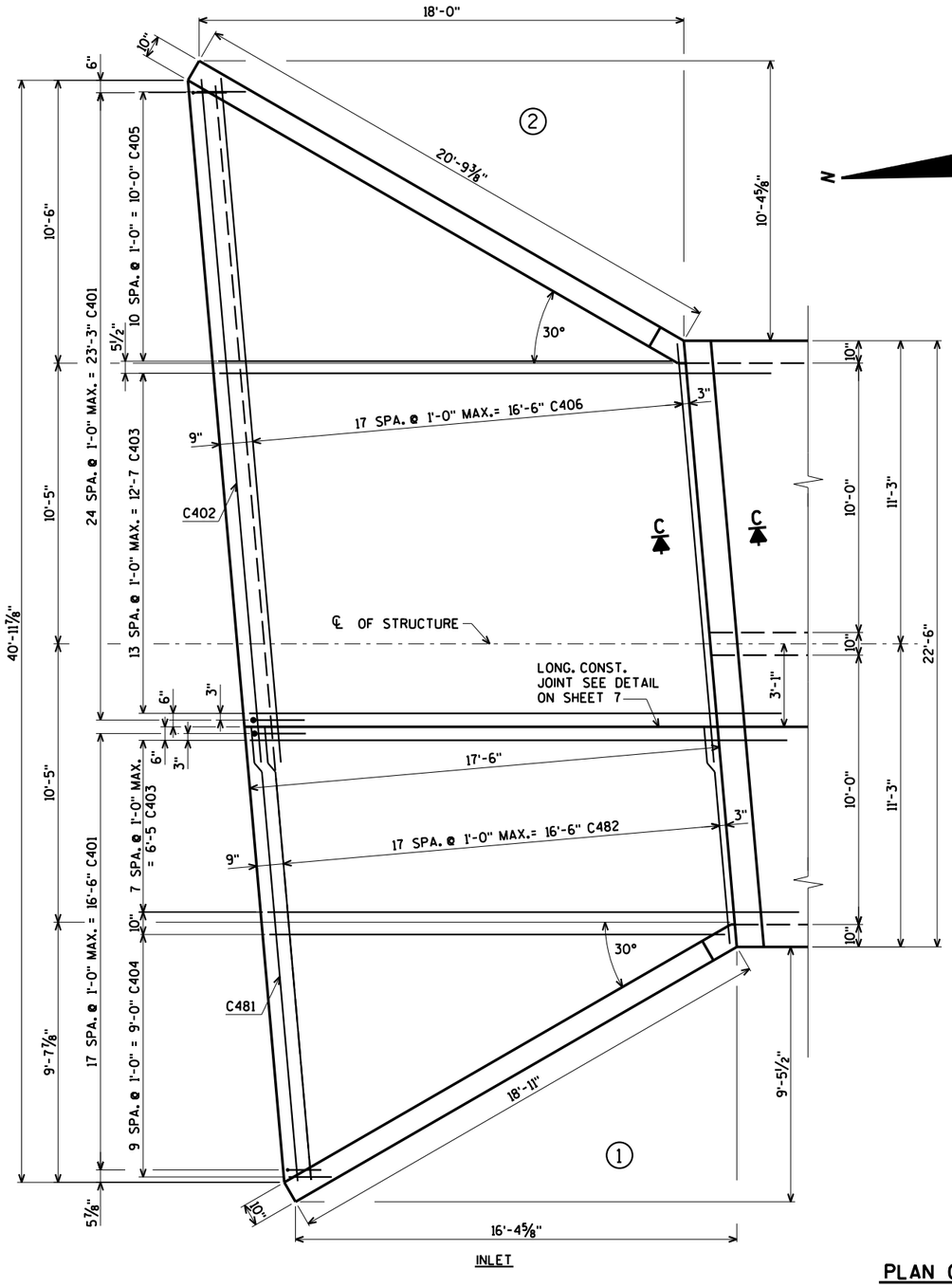
WING 2



WING 3

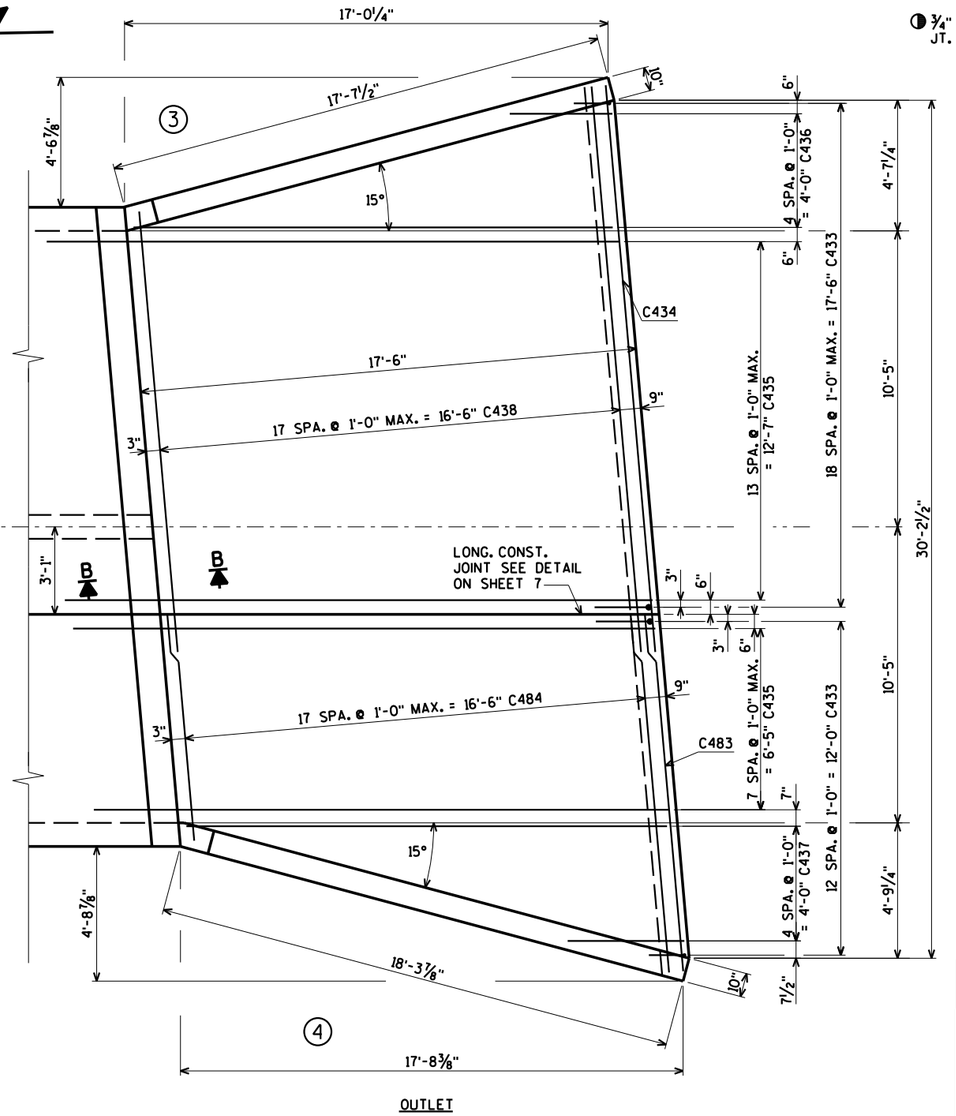


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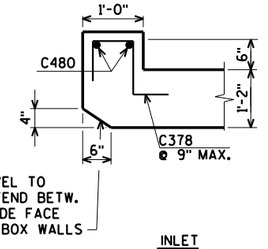
PLAN OF APRONS

CORNER DETAIL



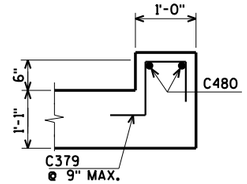
18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING.

¾" FILLER TO EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING.



INLET

SECTION C



OUTLET

SECTION B

HEADER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-232

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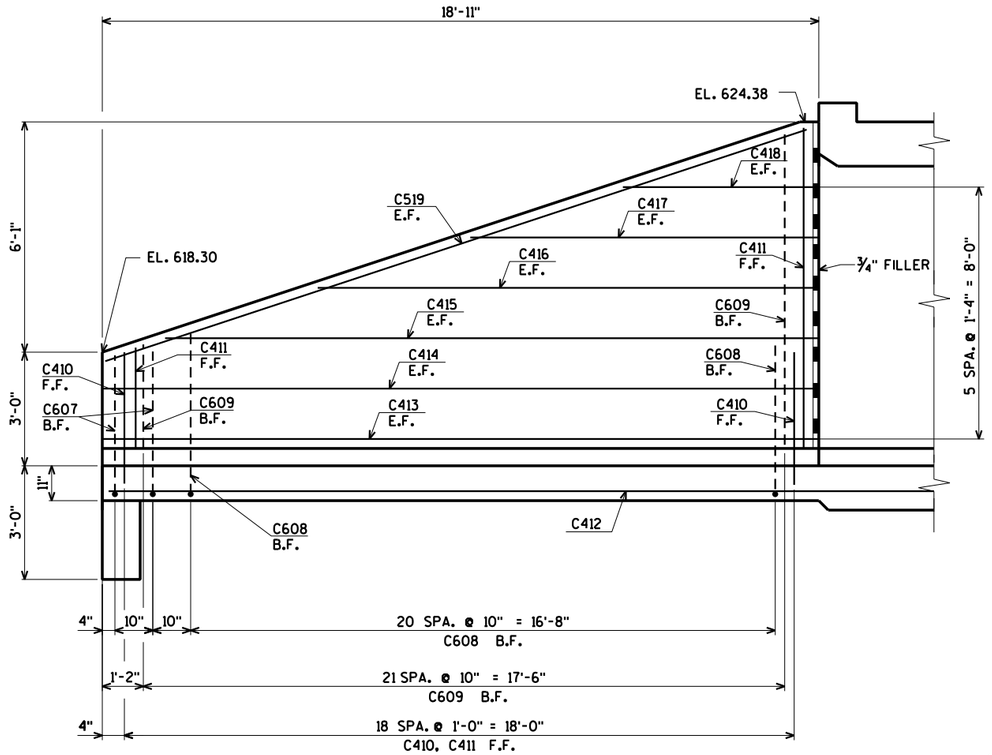
APRON DETAILS

SHEET 4 OF 9
474

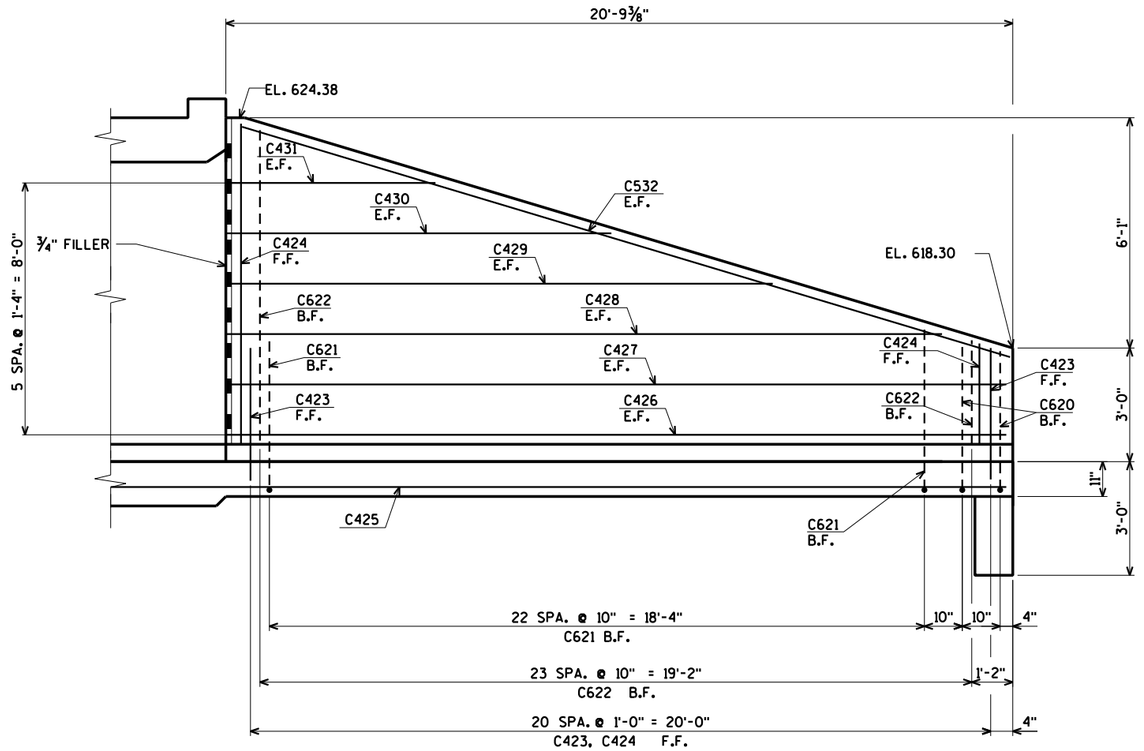
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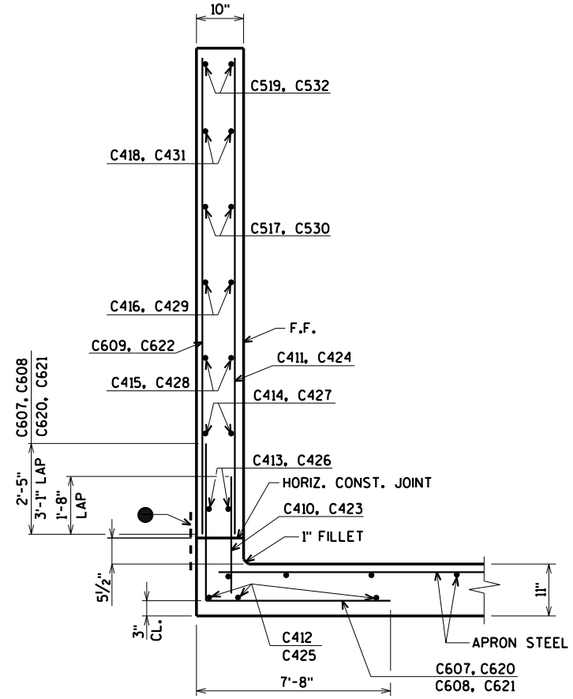
1500-37-76



ELEVATION - WING 1



ELEVATION - WING 2



TYP. SECTION THRU WING

● 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-36-232

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INLET WING DETAILS

SHEET 5 OF 9
475

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8

8

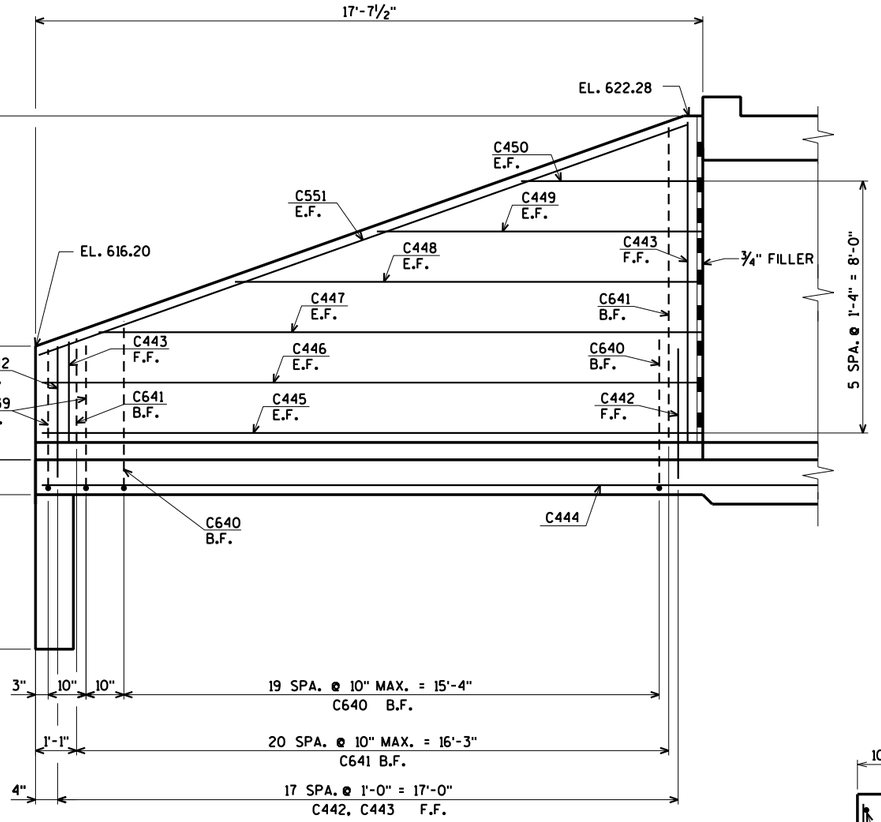
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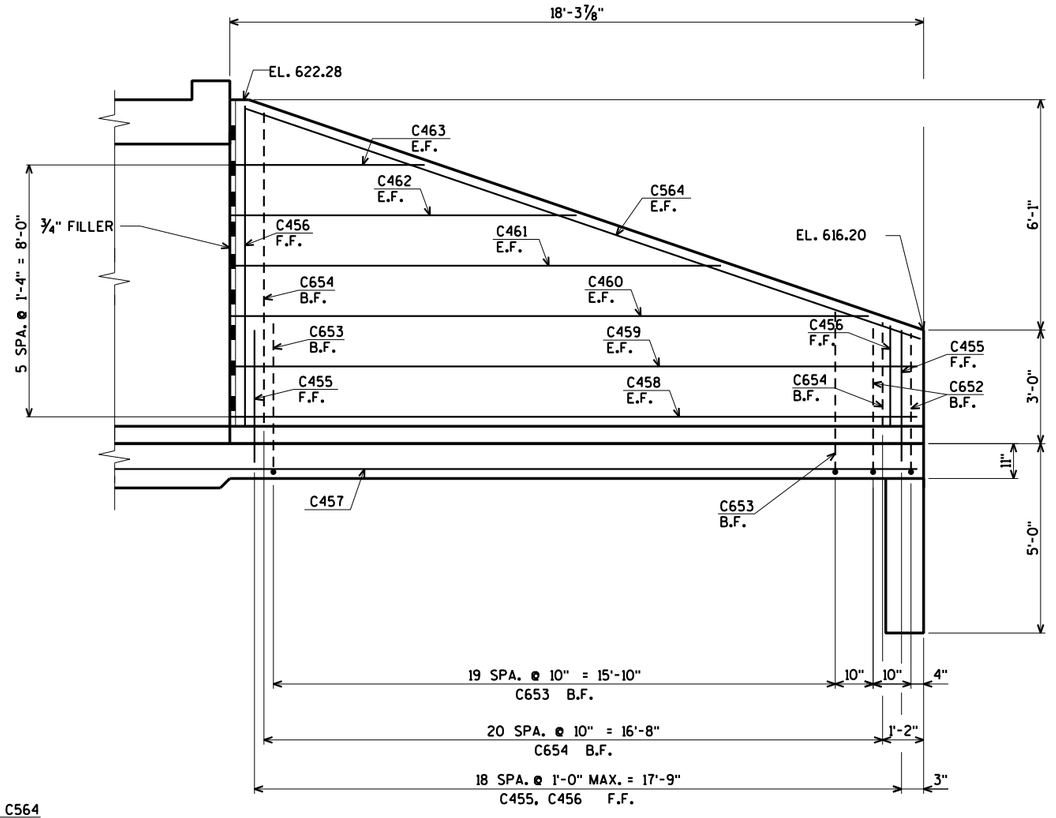
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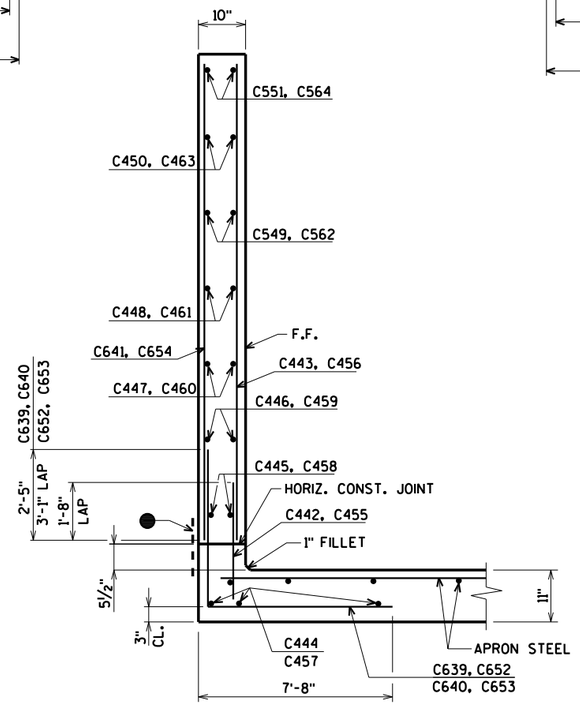
1500-37-76



ELEVATION - WING 3



ELEVATION - WING 4



TYP. SECTION THRU WING

● 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

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STATE OF WISCONSIN
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STRUCTURE B-36-232

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OUTLET WING DETAILS

SHEET 6 OF 9
476

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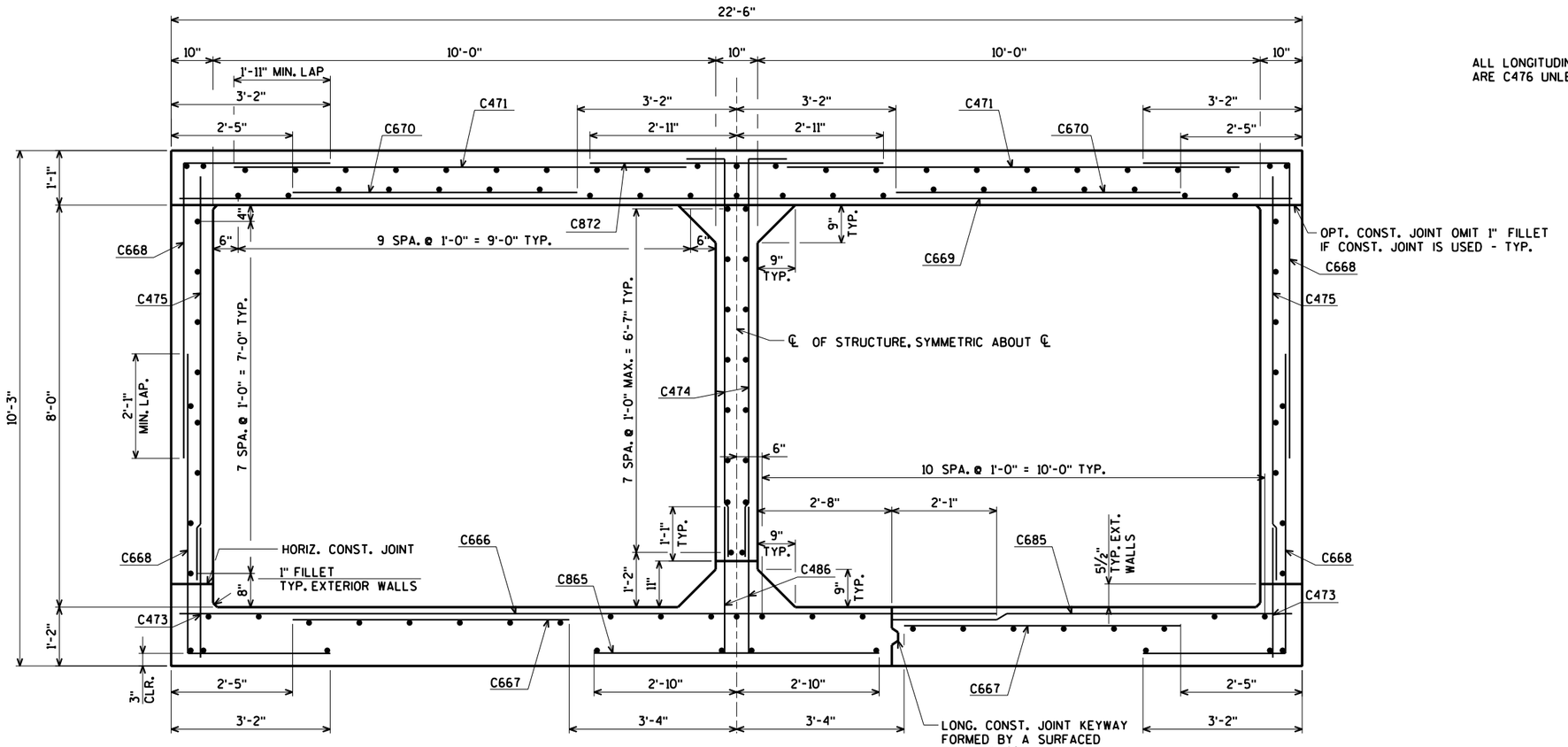
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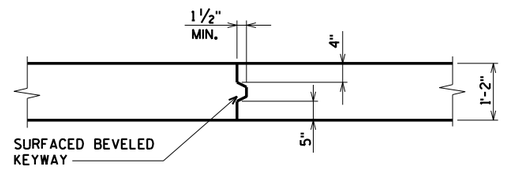
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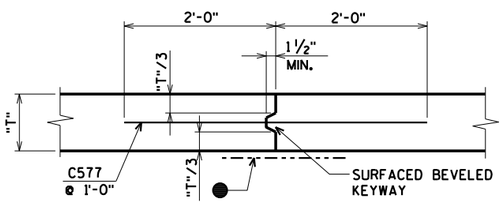


ALL LONGITUDINAL BARS IN BOX ARE C476 UNLESS SHOWN OTHERWISE

TYPICAL SECTION THRU BOX
(LOOKING SOUTH)



LONG. CONST. JOINT DETAIL
(BOTTOM SLAB OF BOX)



VERT. CONST. JOINT
(ALL WALLS AND SLABS)

● 18" RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONST. JOINTS AND ALONG HORIZONTAL CONST. JOINTS

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STRUCTURE B-36-232

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BOX DETAILS

SHEET 7 OF 9
477

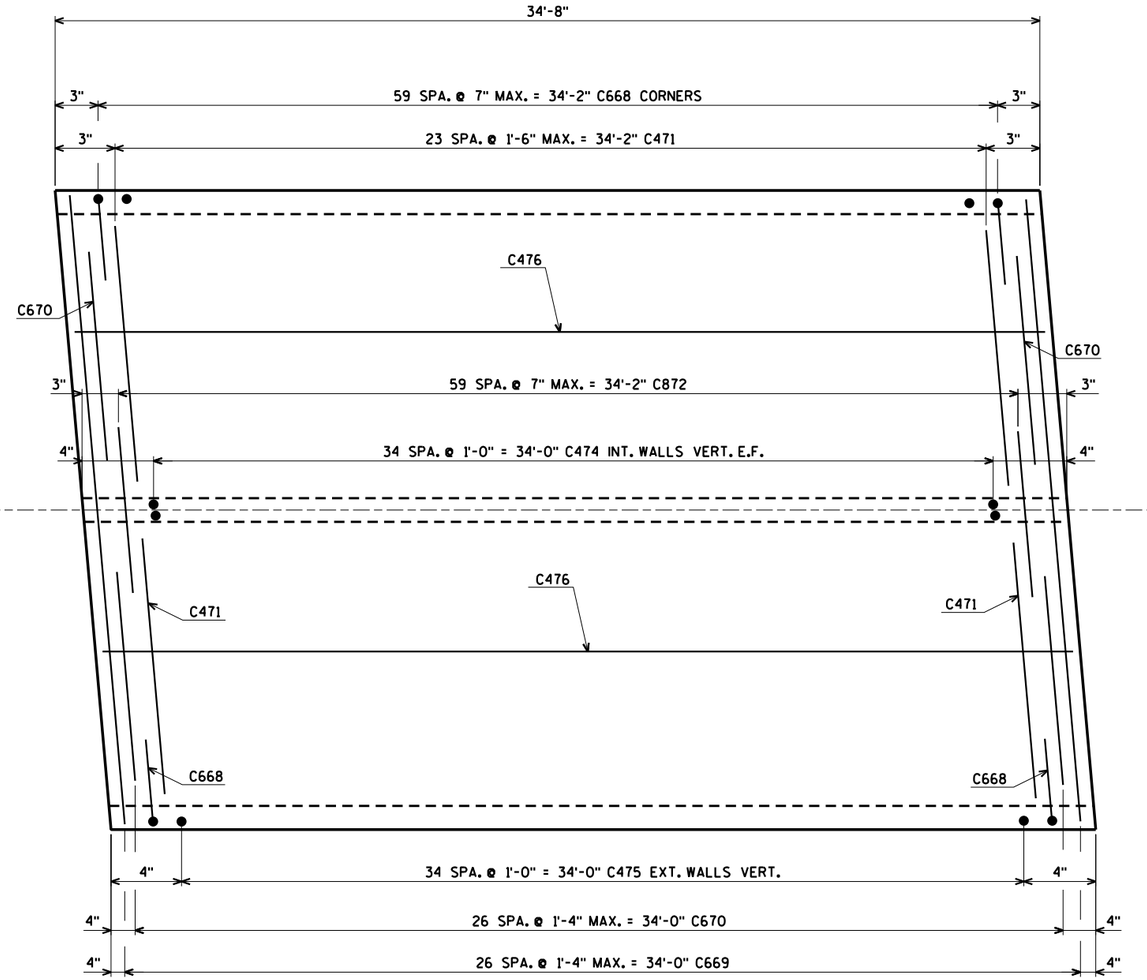
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6/24/2019
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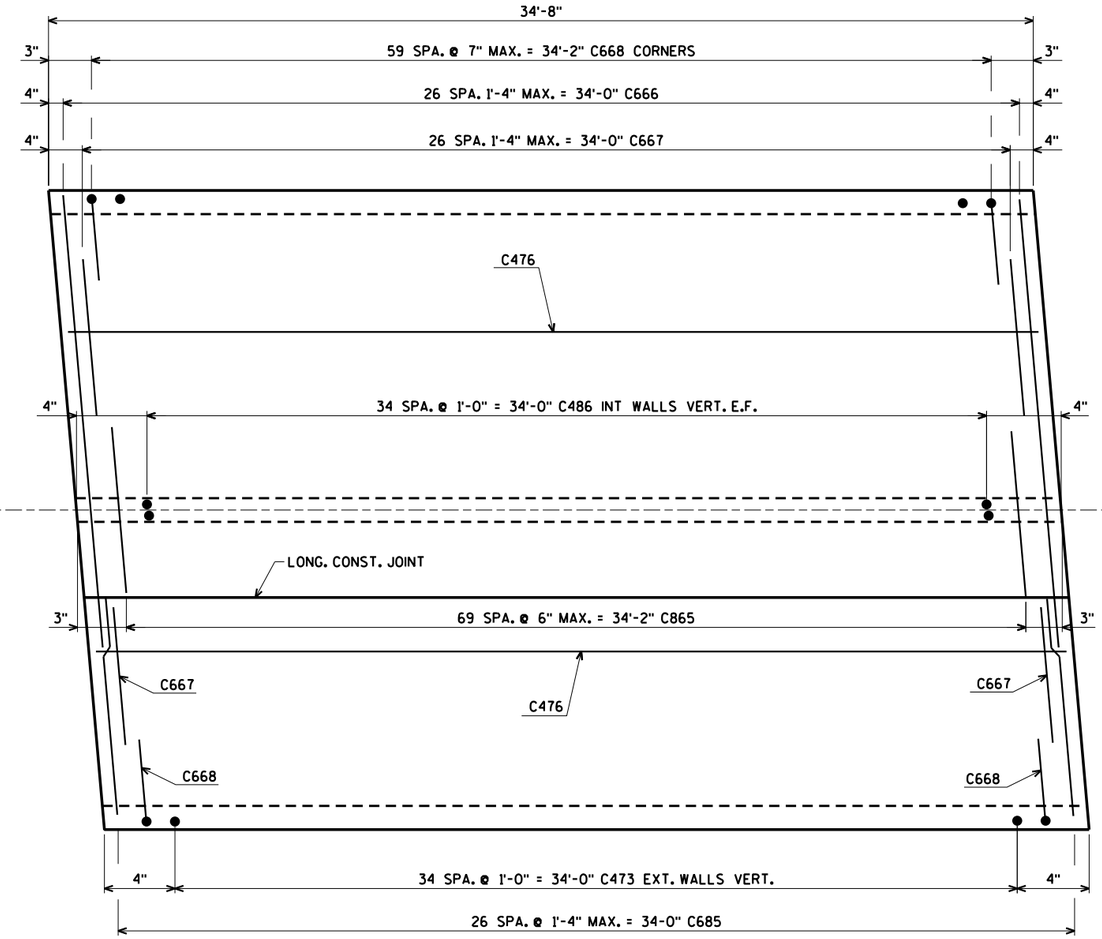
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$PRFNAME$
U:±41-0629.00 - Manitowoc County, Waldo Blvd±Box Culvert±BRIDGE±Final±410629 culv dtls.DGN



TOP SLAB PLAN
(SIX SECTIONS REQUIRED)



BOTTOM SLAB PLAN
(SIX SECTIONS REQUIRED)

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-232

DRAWN BY CJM | PLANS CK'D. AEB

BAR STEEL LAYOUT

SHEET 8 OF 9
478

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	3,350# COATED 75,760# UNCOATED LOCATION
C401		43	3-7	X			CUTOFF WALL INLET
C402		3	25-3				CUTOFF WALL INLET
C403		22	19-7				APRON INLET
C404		10	9-10			⊗	APRON INLET WING 1
C405		11	9-1			⊗	APRON INLET WING 2
C406		18	20-5			⊗	APRON INLET
C607	X	2	10-11	X			WING 1 VERT B.F.
C608	X	21	11-7	X			WING 1 VERT B.F.
C609	X	22	5-6			⊗	WING 1 VERT B.F.
C410	X	19	2-10				WING 1 VERT. F.F.
C411	X	19	5-5			⊗	WING 1 VERT. F.F.
C412		3	21-0				WING 1 HORIZ. APRON
C413	X	2	18-7				WING 1 HORIZ. E.F.
C414	X	2	18-7				WING 1 HORIZ. E.F.
C415	X	2	17-1				WING 1 HORIZ. E.F.
C416	X	2	13-1				WING 1 HORIZ. E.F.
C417	X	2	9-0				WING 1 HORIZ. E.F.
C418	X	2	5-0				WING 1 HORIZ. E.F.
C519	X	2	19-1				WING 1 DIAG. E.F.
C620	X	2	10-11	X			WING 2 VERT B.F.
C621	X	23	11-7	X			WING 2 VERT B.F.
C622	X	24	5-7			⊗	WING 2 VERT B.F.
C423	X	21	2-10				WING 2 VERT. F.F.
C424	X	21	5-4			⊗	WING 2 VERT. F.F.
C425		3	22-11				WING 2 HORIZ. APRON
C426	X	2	20-5				WING 2 HORIZ. E.F.
C427	X	2	20-5				WING 2 HORIZ. E.F.
C428	X	2	18-9				WING 2 HORIZ. E.F.
C429	X	2	14-4				WING 2 HORIZ. E.F.
C430	X	2	9-11				WING 2 HORIZ. E.F.
C431	X	2	5-6				WING 2 HORIZ. E.F.
C532	X	2	21-1				WING 2 DIAG. E.F.
C433		32	5-7	X			CUTOFF WALL OUTLET
C434		5	18-2				CUTOFF WALL OUTLET
C435		22	19-7				APRON OUTLET
C436		5	10-11			⊗	APRON OUTLET WING 3
C437		5	10-8			⊗	APRON OUTLET WING 4
C438		18	17-6			⊗	APRON OUTLET
C639	X	2	10-11	X			WING 3 VERT B.F.
C640	X	20	11-7	X			WING 3 VERT B.F.

BILL OF BARS (CONTINUED)

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	LOCATION
C641	X	21	5-7			⊗	WING 3 VERT B.F.
C442	X	18	2-10				WING 3 VERT. F.F.
C443	X	18	6-9			⊗	WING 3 VERT. F.F.
C444		3	19-9				WING 3 HORIZ. APRON
C445	X	2	17-3				WING 3 HORIZ. E.F.
C446	X	2	17-3				WING 3 HORIZ. E.F.
C447	X	2	15-5				WING 3 HORIZ. E.F.
C448	X	2	11-8				WING 3 HORIZ. E.F.
C449	X	2	7-11				WING 3 HORIZ. E.F.
C450	X	2	2-3				WING 3 HORIZ. E.F.
C551	X	2	18-4				WING 3 DIAG. E.F.
C652	X	2	10-11	X			WING 4 VERT B.F.
C653	X	20	11-7	X			WING 4 VERT B.F.
C654	X	21	5-5			⊗	WING 4 VERT B.F.
C455	X	19	2-10				WING 4 VERT. F.F.
C456	X	19	5-5			⊗	WING 4 VERT. F.F.
C457		3	20-5				WING 4 HORIZ. APRON
C458	X	2	18-0				WING 4 HORIZ. E.F.
C459	X	2	18-0				WING 4 HORIZ. E.F.
C460	X	2	16-6				WING 4 HORIZ. E.F.
C461	X	2	12-8				WING 4 HORIZ. E.F.
C462	X	2	8-9				WING 4 HORIZ. E.F.
C463	X	2	4-10				WING 4 HORIZ. E.F.
C564	X	2	18-11				WING 4 DIAG. E.F.
C865		420	5-8				BOX BOT. SLAB TRANS
C666		162	16-3				BOX BOT. SLAB TRANS.
C667		324	5-6				BOX BOT. SLAB TRANS.
C668		1,440	9-0	X			BOX CORNERS
C669		162	22-2				BOX TOP SLAB TRANS. TOP
C670		324	5-8				BOX TOP SLAB TRANS.
C471		288	9-0				BOX TOP SLAB TRANS.
C872		360	5-10				BOX TOP SLAB TRANS.
C473		420	2-10				BOX DOWELS VERT. EXT. WALLS
C474		420	8-11	X			BOX INT. WALL VERT. E.F.
C475		420	8-5				BOX EXT. WALLS VERT.
C476		678	34-4				BOX LONG.
C577		365	4-0				BOX DOWELS
C378		31	2-9	X			BOX HEADER VERT.
C379		31	2-11	X			BOX HEADER LONG.
C480		4	22-3				BOX HEADER INLET AND OUTLET
C481		3	16-11				CUTOFF WALL INLET
C482		18	12-6			⊗	APRON INLET
C483		5	12-2				CUTOFF WALL OUTLET
C484		18	10-1			⊗	APRON OUTLET
C685		162	8-0				BOX BOT. SLAB TRANS.
C486		420	3-4				BOX DOWELS VERT. INT. WALL E.F.

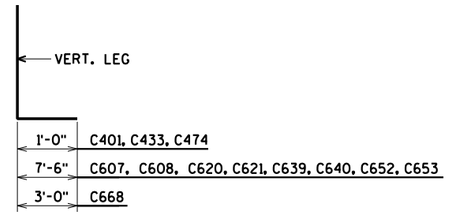
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

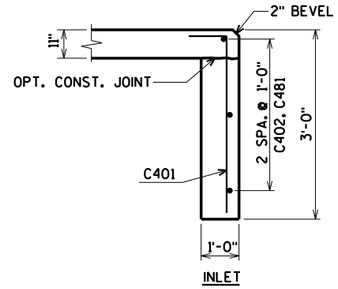
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
C404	1 SERIES OF 10	1'-7" TO 18'-1"
C405	1 SERIES OF 11	6" TO 17'-8"
C406	1 SERIES OF 18	15'-7" TO 25'-3"
C609	1 SERIES OF 22	2'-9" TO 8'-3"
C411	1 SERIES OF 19	2'-5" TO 8'-5"
C622	1 SERIES OF 24	2'-9" TO 8'-5"
C424	1 SERIES OF 21	2'-4" TO 8'-4"
C436	1 SERIES OF 5	4'-9" TO 17'-1"
C437	1 SERIES OF 5	4'-3" TO 17'-1"
C438	1 SERIES OF 18	15'-7" TO 19'-5"
C641	1 SERIES OF 21	2'-9" TO 8'-5"
C443	1 SERIES OF 18	3'-9" TO 9'-9"
C654	1 SERIES OF 21	2'-6" TO 8'-4"
C456	1 SERIES OF 19	2'-4" TO 8'-6"
C482	1 SERIES OF 18	8'-0" TO 17'-0"
C484	1 SERIES OF 18	8'-0" TO 12'-2"

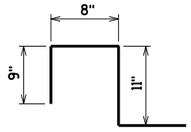
BUNDLE AND TAG EACH SERIES SEPARATELY.



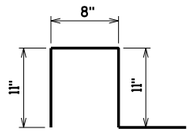


INLET

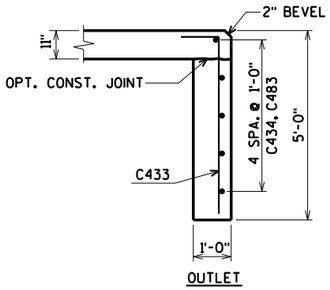
SECTION THRU CUTOFF WALL



C378

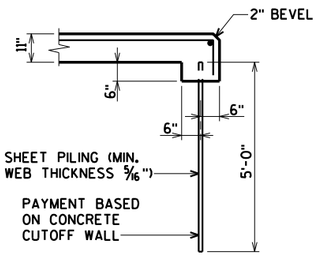


C379



OUTLET

SECTION THRU CUTOFF WALL



SECTION THRU ALTERNATE CUTOFF WALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-36-232

DRAWN BY CJM | PLANS CK'D. AEB

BILL OF BARS AND DETAILS

SHEET 9 OF 9
479

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0629.00 - Manitowoc County, Waldo Blvd\Box Culvert\BRIDGE\Final\410629 culv dtls.DGN

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EARTHWORK - USH 10 / STH 42 'EB'

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
70+00	95.2	216.6					
70+25	98.7	258.9	90	220	90	293	-203
70+50	103.0	190.3	93	208	183	569	-386
70+75	111.1	39.5	99	106	282	711	-429
71+00	117.6	0.3	106	18	388	735	-347
71+25	124.4	0.0	112	0	500	736	-235
71+50	125.1	0.0	116	0	616	736	-120
71+75	115.2	0.1	111	0	727	736	-9
72+00	126.4	0.0	112	0	839	736	103
72+25	121.0	0.3	114	0	953	736	217
72+50	125.0	0.0	114	0	1,067	736	331
72+75	110.3	0.3	109	0	1,176	736	440
73+00	94.0	0.0	95	0	1,271	737	534
73+25	102.0	0.0	91	0	1,361	737	625
73+50	105.0	0.0	96	0	1,457	737	721
73+75	105.2	0.0	97	0	1,555	737	818
74+00	108.3	0.0	99	0	1,653	737	917
74+25	100.6	0.0	97	0	1,750	737	1,014
74+50	98.6	0.0	92	0	1,842	737	1,106
74+75	102.2	0.0	93	0	1,935	737	1,199
75+00	103.0	0.0	95	0	2,030	737	1,294
75+25	99.6	8.7	94	4	2,124	742	1,382
75+50	100.1	12.3	92	10	2,216	755	1,462
75+75	100.0	1.8	93	7	2,309	764	1,546
76+00	96.0	0.2	91	1	2,400	765	1,635
76+25	92.2	0.8	87	0	2,487	765	1,722
76+50	90.9	1.2	85	1	2,572	767	1,805
76+75	90.2	1.1	84	1	2,656	768	1,888
77+00	90.3	1.7	84	1	2,739	770	1,969
77+25	92.9	1.7	85	2	2,824	772	2,052
77+50	89.0	1.7	84	2	2,908	774	2,134
77+75	85.8	1.8	81	2	2,989	776	2,213
78+00	82.4	4.3	78	3	3,067	780	2,287
78+25	78.7	7.5	75	5	3,142	787	2,355
78+50	75.1	7.4	71	7	3,213	796	2,417
78+75	72.5	7.9	68	7	3,281	806	2,476
79+00	70.0	5.0	66	6	3,347	813	2,534
79+25	66.5	5.5	63	5	3,410	820	2,590
79+50	62.9	4.8	60	5	3,470	826	2,644
79+75	60.9	5.6	57	5	3,528	833	2,695
80+00	60.6	5.8	56	5	3,584	840	2,744
80+25	62.4	7.3	57	6	3,641	848	2,793
80+50	62.2	7.3	58	7	3,698	857	2,842
80+75	61.7	6.7	57	7	3,756	865	2,890
81+00	64.9	4.4	59	5	3,814	872	2,942

EARTHWORK - USH 10 / STH 42 'EB' (CONTINUED)

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
81+25	66.1	4.0	61	4	3,875	877	2,998
81+50	67.9	4.2	62	4	3,937	882	3,055
81+75	69.1	5.3	63	4	4,000	888	3,112
82+00	72.0	66.1	65	33	4,066	932	3,133
82+01.39	72.0	66.1	4	3	4,070	937	3,133
B-36-0029							
84+61.64	69.1	118.1	0	0	4,070	937	3,133
84+75	69.1	118.1	34	58	4,104	1,015	3,089
85+00	57.7	2.9	59	56	4,162	1,089	3,073
85+25	64.6	1.2	57	2	4,219	1,092	3,127
85+50	67.1	1.1	61	1	4,280	1,093	3,187
85+75	65.6	1.1	61	1	4,341	1,094	3,247
86+00	71.0	0.6	63	1	4,405	1,095	3,309
86+25	73.7	0.2	67	0	4,472	1,096	3,376
86+50	76.6	0.0	70	0	4,541	1,096	3,445
86+75	76.4	0.1	71	0	4,612	1,096	3,516
87+00	79.1	0.1	72	0	4,684	1,096	3,588
87+25	82.2	0.1	75	0	4,759	1,096	3,662
87+50	83.7	0.0	77	0	4,836	1,096	3,739
87+75	87.5	0.0	79	0	4,915	1,096	3,818
88+00	90.8	0.0	83	0	4,997	1,096	3,901
88+25	92.4	0.0	85	0	5,082	1,096	3,986
88+50	94.1	0.0	86	0	5,168	1,096	4,072
88+75	97.6	0.0	89	0	5,257	1,096	4,161
89+00	99.0	0.0	91	0	5,348	1,096	4,252
89+25	100.5	0.0	92	0	5,441	1,096	4,344
89+50	103.5	0.0	94	0	5,535	1,096	4,439
89+75	110.1	0.0	99	0	5,634	1,096	4,538
90+00	117.9	0.0	106	0	5,740	1,096	4,643
90+25	112.2	0.0	106	0	5,846	1,096	4,750
90+50	117.6	0.0	106	0	5,952	1,096	4,856
90+75	124.8	0.0	112	0	6,065	1,096	4,968
91+00	128.3	0.0	117	0	6,182	1,096	5,085
91+25	129.9	154.0	120	71	6,301	1,191	5,110
91+50	127.7	306.7	119	213	6,421	1,475	4,946
91+75	125.7	176.5	117	224	6,538	1,772	4,765
92+00	129.7	12.3	118	87	6,656	1,889	4,767
92+25	139.5	0.5	125	6	6,781	1,897	4,884
92+50	126.0	0.4	123	0	6,904	1,897	5,007
92+75	123.7	0.0	116	0	7,019	1,897	5,122
93+00	97.6	1.4	102	1	7,122	1,898	5,223
93+25	104.5	0.0	94	1	7,215	1,899	5,316
93+50	150.9	0.0	118	0	7,333	1,899	5,434

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - USH 10 / STH 42 'WB'

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
70+00	70.90	107.89					
70+25	70.33	121.68	65	106	65	141	-76
70+50	69.03	201.63	65	150	130	340	-211
70+75	70.24	119.37	64	149	194	538	-344
71+00	78.48	50.12	69	78	263	642	-379
71+25	101.27	0.05	83	23	346	673	-327
71+50	79.87	0.00	84	0	430	673	-243
71+75	75.91	0.00	72	0	502	673	-171
72+00	89.41	0.00	77	0	579	673	-94
72+25	148.07	0.00	110	0	689	673	16
72+50	148.14	0.00	137	0	826	673	153
72+75	95.89	0.00	113	0	939	673	266
73+00	75.44	0.00	79	0	1,018	673	345
73+25	82.40	0.00	73	0	1,091	673	418
73+50	84.10	0.00	77	0	1,168	673	495
73+75	84.51	0.00	78	0	1,247	673	573
74+00	83.50	0.00	78	0	1,324	673	651
74+25	80.86	0.00	76	0	1,400	673	727
74+50	79.16	0.00	74	0	1,475	673	801
74+75	78.26	0.00	73	0	1,547	673	874
75+00	78.97	0.00	73	0	1,620	673	947
75+25	79.28	0.00	73	0	1,693	673	1,020
75+50	79.09	0.01	73	0	1,767	673	1,093
75+75	79.63	0.00	73	0	1,840	673	1,167
76+00	78.95	0.00	73	0	1,914	673	1,240
76+25	77.11	0.00	72	0	1,986	673	1,313
76+50	76.91	0.02	71	0	2,057	673	1,384
76+75	77.70	0.00	72	0	2,129	673	1,455
77+00	78.74	0.00	72	0	2,201	673	1,528
77+25	75.10	0.09	71	0	2,272	673	1,599
77+50	73.73	0.35	69	0	2,341	674	1,668
77+75	71.44	0.80	67	1	2,409	674	1,734
78+00	70.23	1.52	66	1	2,474	676	1,798
78+25	66.57	3.83	63	2	2,537	679	1,858
78+50	64.39	5.61	61	4	2,598	685	1,913
78+75	63.00	5.39	59	5	2,657	692	1,965
79+00	63.02	5.63	58	5	2,715	699	2,017
79+25	59.01	8.08	56	6	2,772	707	2,065
79+50	56.14	5.92	53	6	2,825	716	2,110
79+75	53.16	6.19	51	6	2,876	723	2,153
80+00	51.90	5.34	49	5	2,924	730	2,194
80+25	48.98	8.08	47	6	2,971	738	2,233
80+50	47.95	9.56	45	8	3,016	749	2,267
80+75	46.64	19.35	44	13	3,060	767	2,293
81+00	48.51	14.11	44	15	3,104	788	2,316

EARTHWORK - USH 10 / STH 42 'WB' (CONTINUED)

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
81+25	52.04	6.48	47	10	3,150	800	2,350
81+50	55.30	5.38	50	5	3,200	808	2,392
81+75	56.72	12.55	52	8	3,252	819	2,433
82+00	61.56	156.74	55	78	3,307	923	2,384
82+01.39	61.56	156.74	3	8	3,310	934	2,376
B-36-0029							
84+61.64	57.57	56.68	0	0	3,310	934	2,376
84+75	57.57	56.68	28	28	3,338	971	2,367
85+00	50.93	1.99	50	27	3,389	1,007	2,382
85+25	51.39	2.53	47	2	3,436	1,010	2,426
85+50	52.33	2.51	48	2	3,484	1,013	2,471
85+75	52.54	2.28	49	2	3,533	1,016	2,517
86+00	57.50	1.77	51	2	3,584	1,018	2,565
86+25	59.31	1.93	54	2	3,638	1,021	2,617
86+50	63.05	1.83	57	2	3,694	1,023	2,671
86+75	65.66	1.79	60	2	3,754	1,025	2,729
87+00	69.28	1.01	62	1	3,816	1,027	2,789
87+25	72.23	0.31	66	1	3,882	1,028	2,854
87+50	74.98	0.06	68	0	3,950	1,028	2,922
87+75	76.06	0.00	70	0	4,020	1,028	2,992
88+00	79.41	0.00	72	0	4,092	1,028	3,064
88+25	82.37	0.00	75	0	4,167	1,028	3,139
88+50	84.70	0.00	77	0	4,244	1,028	3,216
88+75	86.64	0.00	79	0	4,323	1,028	3,295
89+00	88.68	0.00	81	0	4,405	1,028	3,377
89+25	90.13	0.00	83	0	4,487	1,028	3,459
89+50	92.06	0.00	84	0	4,572	1,028	3,544
89+75	91.49	0.00	85	0	4,657	1,028	3,629
90+00	88.52	16.44	83	8	4,740	1,038	3,702
90+25	86.25	0.90	81	8	4,821	1,049	3,772
90+50	86.28	0.00	80	0	4,901	1,049	3,851
90+75	87.51	0.00	80	0	4,981	1,049	3,932
91+00	85.76	0.00	80	0	5,062	1,049	4,012
91+25	85.21	0.00	79	0	5,141	1,049	4,091
91+50	83.14	0.00	78	0	5,219	1,049	4,169
91+75	78.05	0.05	75	0	5,293	1,049	4,244
92+00	75.41	0.28	71	0	5,364	1,050	4,315
92+25	76.39	0.37	70	0	5,435	1,050	4,384
92+50	71.47	1.04	68	1	5,503	1,051	4,452
92+75	66.71	0.34	64	1	5,567	1,052	4,515
93+00	60.41	0.00	59	0	5,626	1,052	4,574
93+25	119.97	0.00	84	0	5,709	1,052	4,657
93+50	121.50	0.00	112	0	5,821	1,052	4,769

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - USH 10 / STH 42

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
93+75	187.92	0.00					
94+00	155.52	4.51	159	2	159	3	156
94+25	166.64	1.89	149	3	308	7	301
94+50	177.33	0.87	159	1	467	8	459
94+75	170.82	1.54	161	1	629	10	619
95+00	166.03	1.19	156	1	785	12	773
95+25	161.62	1.54	152	1	936	13	923
95+50	153.76	1.00	146	1	1,082	15	1,067
95+75	152.10	0.59	142	1	1,224	16	1,208
96+00	158.85	0.80	144	1	1,368	17	1,351
96+25	161.44	1.29	148	1	1,516	18	1,498
96+50	158.15	2.36	148	2	1,664	20	1,644
96+75	149.15	3.47	142	3	1,806	24	1,782
97+00	141.41	5.19	135	4	1,941	29	1,912
97+25	140.09	2.83	130	4	2,071	34	2,037
97+50	142.88	2.36	131	2	2,202	37	2,165
97+75	143.98	1.89	133	2	2,335	40	2,295
98+00	151.42	0.31	137	1	2,472	41	2,430
98+25	151.09	0.78	140	1	2,612	42	2,570
98+50	152.50	0.86	141	1	2,752	43	2,709
98+75	146.23	0.65	138	1	2,891	44	2,847
99+00	173.79	1.48	148	1	3,039	45	2,994
99+25	242.57	0.61	193	1	3,232	46	3,185
99+50	202.32	0.01	206	0	3,437	47	3,391
99+75	194.43	2.84	184	1	3,621	49	3,573
100+00	185.72	0.15	176	1	3,797	50	3,747
100+25	190.30	1.60	174	1	3,971	51	3,920
100+50	190.61	1.33	176	1	4,148	53	4,094
100+75	190.64	0.02	177	1	4,324	54	4,270
101+00	177.64	0.00	170	0	4,495	54	4,440
101+25	176.43	0.00	164	0	4,659	54	4,604
101+50	174.68	0.07	163	0	4,821	54	4,767
101+75	169.53	0.17	159	0	4,980	54	4,926
102+00	173.37	0.71	159	0	5,139	55	5,084
102+25	171.04	0.07	159	0	5,299	55	5,243
102+50	168.73	1.18	157	1	5,456	56	5,400
102+75	180.12	0.00	162	1	5,617	57	5,561
103+00	267.61	0.00	207	0	5,825	57	5,768
103+25	178.94	0.00	207	0	6,031	57	5,975
103+50	167.16	1.67	160	1	6,192	58	6,134

EARTHWORK - USH 10 / STH 42 (CONTINUED)

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
103+75	177.18	0.15	159	1	6,351	59	6,292
104+00	182.14	0.07	166	0	6,517	59	6,458
104+25	176.93	0.15	166	0	6,684	59	6,624
104+50	173.93	0.06	162	0	6,846	59	6,787
104+75	170.35	0.53	159	0	7,006	60	6,946
105+00	161.40	0.37	154	0	7,159	60	7,099
105+25	162.61	0.52	150	0	7,309	61	7,248
105+50	164.88	0.45	152	0	7,461	61	7,399
105+75	164.06	0.39	152	0	7,613	62	7,551
106+00	159.32	0.18	150	0	7,763	62	7,700
106+25	147.23	0.00	142	0	7,905	62	7,842
106+50	275.95	0.00	196	0	8,101	62	8,038
106+75	215.07	0.03	227	0	8,328	62	8,265
107+00	164.41	0.09	176	0	8,504	62	8,441
107+25	166.61	2.84	153	1	8,657	64	8,593
107+50	242.01	0.00	189	1	8,846	66	8,780
107+75	203.57	0.00	206	0	9,052	66	8,986
108+00	174.09	0.01	175	0	9,227	66	9,161
108+25	174.95	0.00	162	0	9,389	66	9,323
108+50	165.72	0.00	158	0	9,546	66	9,480
108+75	158.75	0.14	150	0	9,697	66	9,631
109+00	154.82	0.81	145	0	9,842	67	9,775
109+25	151.09	1.47	142	1	9,983	68	9,915
109+50	142.17	2.16	136	2	10,119	70	10,049
109+75	173.09	1.00	146	1	10,265	72	10,193
110+00	222.32	1.95	183	1	10,448	74	10,374
110+25	138.79	0.43	167	1	10,615	76	10,540
110+50	141.25	0.45	130	0	10,745	76	10,669
110+75	158.16	0.18	139	0	10,884	77	10,807
111+00	159.95	0.11	147	0	11,031	77	10,954
111+25	157.34	0.18	147	0	11,178	77	11,101
111+50	158.97	0.27	146	0	11,324	77	11,247
111+75	155.90	0.37	146	0	11,470	78	11,392
112+00	164.22	0.04	148	0	11,618	78	11,540
112+25	157.36	0.05	149	0	11,767	78	11,689
112+50	158.67	0.00	146	0	11,913	78	11,836
112+75	159.81	0.00	147	0	12,061	78	11,983
113+00	161.74	0.00	149	0	12,210	78	12,132
113+25	161.55	0.00	150	0	12,359	78	12,282
113+50	160.00	0.26	149	0	12,508	78	12,430

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - USH 10 / STH 42 (CONTINUED)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
113+75	164.16	0.00	150	0	12,658	78	12,580
114+00	168.63	0.00	154	0	12,812	78	12,734
114+25	174.60	0.00	159	0	12,971	78	12,893
114+50	181.32	0.00	165	0	13,136	78	13,058
114+75	206.05	0.00	179	0	13,315	78	13,237
115+00	207.61	0.00	192	0	13,507	78	13,429
115+25	206.14	0.18	192	0	13,699	78	13,620
115+50	204.24	0.00	190	0	13,888	78	13,810
115+75	203.78	0.06	189	0	14,077	78	13,999
116+00	203.16	0.21	188	0	14,266	79	14,187
116+25	199.45	0.41	186	0	14,452	79	14,373
116+50	190.31	1.20	180	1	14,633	80	14,553
116+75	189.97	0.42	176	1	14,809	81	14,728
117+00	189.15	0.32	176	0	14,984	81	14,903
117+25	183.18	0.58	172	0	15,157	82	15,075
117+50	178.71	3.11	168	2	15,324	84	15,240
117+75	198.34	0.00	175	1	15,499	86	15,412
118+00	302.18	0.00	232	0	15,730	86	15,644
118+25	338.76	0.00	297	0	16,027	86	15,941
118+50	285.97	0.00	289	0	16,316	86	16,230
118+75	206.40	0.01	228	0	16,544	86	16,458
119+00	198.36	0.35	187	0	16,732	86	16,645
119+25	203.37	0.00	186	0	16,918	87	16,831
119+50	202.43	0.00	188	0	17,106	87	17,019
119+75	202.25	0.23	187	0	17,293	87	17,206
120+00	200.48	0.00	186	0	17,479	87	17,392
120+25	200.25	0.00	186	0	17,665	87	17,578
120+50	196.85	0.12	184	0	17,849	87	17,762
120+75	200.80	0.01	184	0	18,033	87	17,946
121+00	193.82	0.63	183	0	18,216	88	18,128
121+25	191.62	0.06	178	0	18,394	88	18,306
121+50	180.18	0.36	172	0	18,566	88	18,478
121+75	145.95	0.00	151	0	18,717	88	18,629
122+00	266.01	0.00	191	0	18,908	88	18,819
122+25	197.29	0.00	214	0	19,122	88	19,034
122+50	150.12	0.93	161	0	19,283	89	19,194
122+75	153.64	0.90	141	1	19,424	90	19,334
123+00	159.95	0.03	145	0	19,569	91	19,478
123+25	162.61	0.15	149	0	19,718	91	19,627
123+50	167.78	0.01	153	0	19,871	91	19,780

EARTHWORK - USH 10 / STH 42 (CONTINUED)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
123+75	168.34	0.00	156	0	20,027	91	19,936
124+00	174.75	0.00	159	0	20,186	91	20,095
124+25	180.40	0.00	164	0	20,350	91	20,259
124+50	178.93	0.10	166	0	20,516	91	20,425
124+75	169.19	0.82	161	0	20,678	92	20,586
125+00	160.41	0.06	153	0	20,830	92	20,738
125+25	161.70	0.00	149	0	20,979	92	20,887
125+50	289.38	0.00	209	0	21,188	92	21,096
125+75	186.41	0.00	220	0	21,408	92	21,316
126+00	151.09	0.97	156	0	21,565	93	21,472
126+25	154.33	1.69	141	1	21,706	94	21,612
126+50	155.14	1.00	143	1	21,849	96	21,753
126+75	160.19	0.99	146	1	21,995	97	21,898
127+00	156.27	0.40	147	1	22,142	98	22,044
127+25	157.83	0.00	145	0	22,287	98	22,189
127+50	153.66	0.12	144	0	22,431	98	22,333
127+75	160.02	0.20	145	0	22,577	99	22,478
128+00	214.37	0.00	173	0	22,750	99	22,651
128+25	269.37	0.00	224	0	22,974	99	22,875
128+50	138.74	0.27	189	0	23,163	99	23,064
128+75	146.71	0.35	132	0	23,295	99	23,196
129+00	147.33	2.22	136	1	23,431	101	23,330
129+25	144.44	1.97	135	2	23,566	103	23,463
129+50	141.91	1.40	133	2	23,699	105	23,593
129+75	140.11	2.39	131	2	23,829	108	23,722
130+00	144.54	0.69	132	1	23,961	110	23,851
130+25	144.92	0.82	134	1	24,095	111	23,985
130+50	144.63	1.32	134	1	24,229	112	24,117
130+75	188.81	0.00	154	1	24,384	113	24,271
131+00	266.51	0.00	211	0	24,594	113	24,482
131+25	162.48	0.00	199	0	24,793	113	24,680
131+50	143.06	1.20	141	1	24,935	114	24,821
131+75	148.83	1.29	135	1	25,070	115	24,955

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - FLEETWOOD DR

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+64	178.10	0.00					
10+75	157.40	0.00	68	0	68	0	68
			68	0			

EARTHWORK - MENCHL DR

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+10	81.55	0.02					
9+25	38.47	0.93	33	0	33	0	33
9+50	42.31	0.00	37	0	71	1	70
9+64	42.35	0.69	22	0	93	1	92
			93	1			

EARTHWORK - N 23RD ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+40	99.99	0.00					
9+50	102.15	0.00	37	0	37	0	37
			37	0			

EARTHWORK - N 21ST ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+35	99.81	0.00					
9+48	108.35	0.00	50	0	50	0	50
			50	0			

EARTHWORK - N 23RD ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+82	124.11	0.02					
10+95	121.08	0.25	59	0	59	0	59
			59	0			

EARTHWORK - N 21ST ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+76	103.93	0.00					
11+00	99.19	0.06	90	0	90	0	90
			90	0			

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - N 20TH ST

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
9+40	100.14	0.00					
9+50	97.98	0.08	37	0	37	0	37
			37	0			

EARTHWORK - ELM ST

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
10+51	90.29	0.10					
10+65	84.14	0.00	45	0	45	0	45
			45	0			

EARTHWORK - PARK ROW BLVD, SB

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
10+74	75.15	0.00					
10+85	78.78	0.00	31	0	31	0	31
			31	0			

EARTHWORK - N 18TH ST (SOUTH)

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
9+00	144.78	0.04					
9+25	168.51	0.11	145	0	145	0	145
9+37	167.51	2.66	75	1	220	1	219
			220	1			

EARTHWORK - PARK ROW BLVD, NB

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
10+50	82.10	0.00					
10+60	80.73	0.00	30	0	30	0	30
			30	0			

EARTHWORK - N 18TH ST (NORTH)

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.33	Mass Ordinate Note 3
10+75	124.20	0.00					
10+90	110.99	0.19	65	0	65	0	65
			65	0			

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

EARTHWORK - N 17TH ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+30	83.99	0.31					
9+49	77.61	0.55	57	1	57	1	56
			57	1			

EARTHWORK - N 16TH ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+75	88.04	0.28					
10+85	90.15	0.00	33	0	33	0	33
			33	0			

EARTHWORK - N 17TH ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+75	90.00	0.00					
10+85	86.14	0.13	33	0	33	0	33
			33	0			

EARTHWORK - N 15TH ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+35	84.70	0.00					
9+49	79.03	1.40	42	0	42	0	42
			42	0			

EARTHWORK - N 16TH ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+35	86.73	0.00					
9+49	84.81	0.04	44	0	44	0	44
			44	0			

EARTHWORK - N 15TH ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+75	90.45	1.28					
11+00	85.62	0.06	82	1	82	1	81
			82	1			

Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)

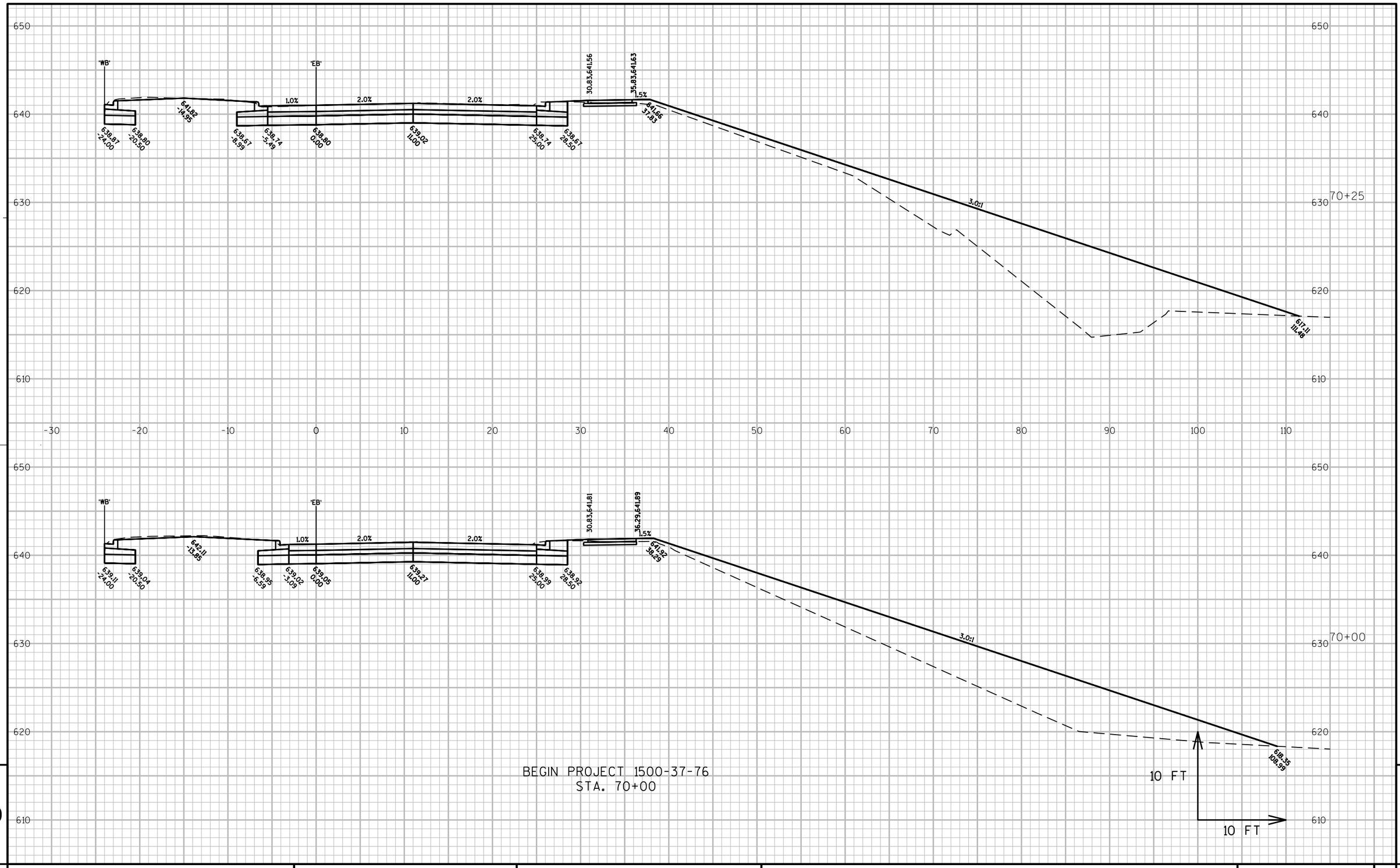
EARTHWORK - N 14TH ST (SOUTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
9+30	85.99	0.19					
9+49	90.54	0.00	62	0	62	0	62
			62	0			

EARTHWORK - N 14TH ST (NORTH)

	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate Note 3
10+75	97.91	0.46					
10+85	101.03	0.00	37	0	37	0	37
			37	0			

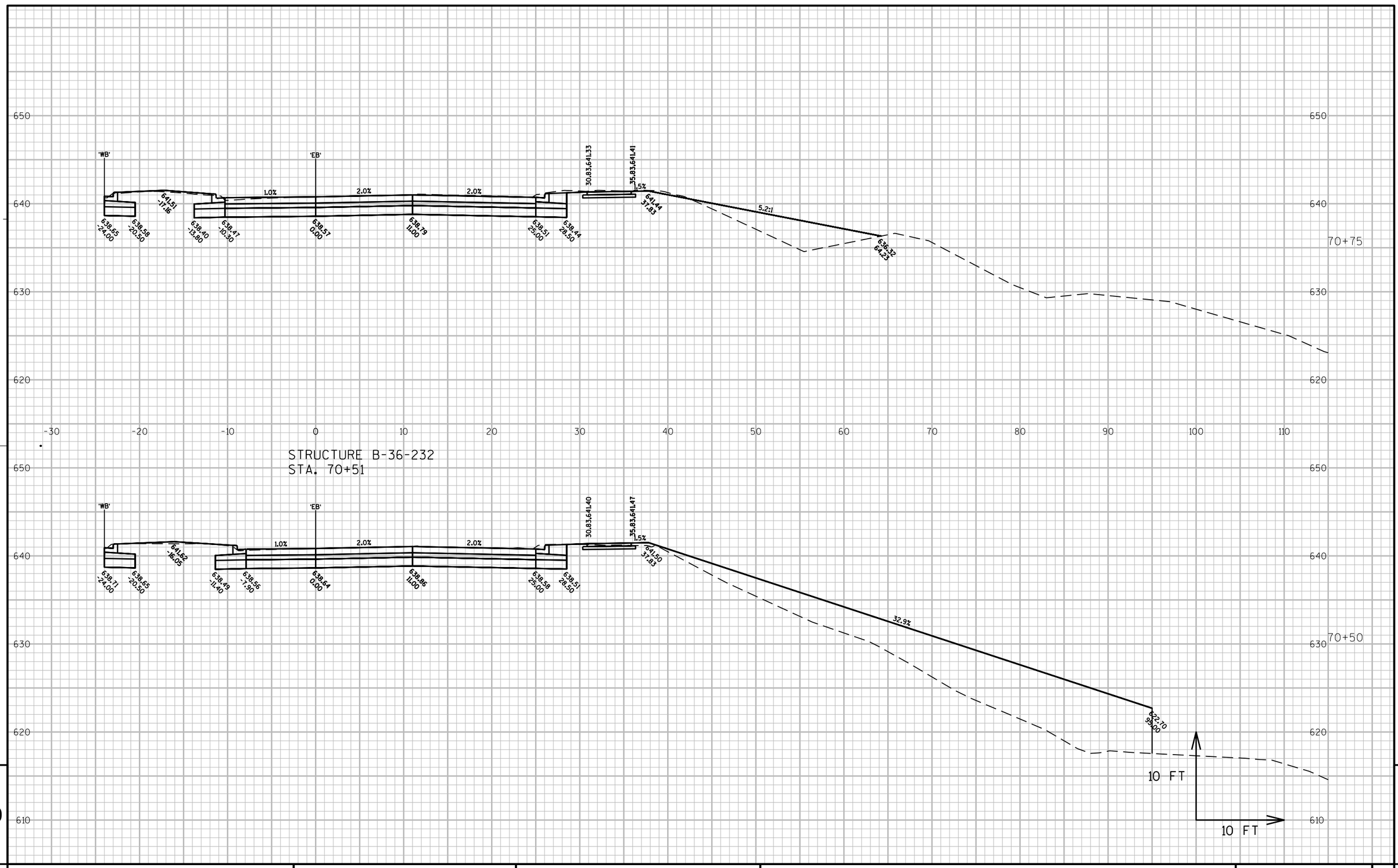
Notes:	
1 - Cut	Cut includes existing aspahlt and concrete
2 - Fill	Unexpanded
3 - Mass Ordinate	Cut - (Fill * Fill Factor)



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:05 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (9) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



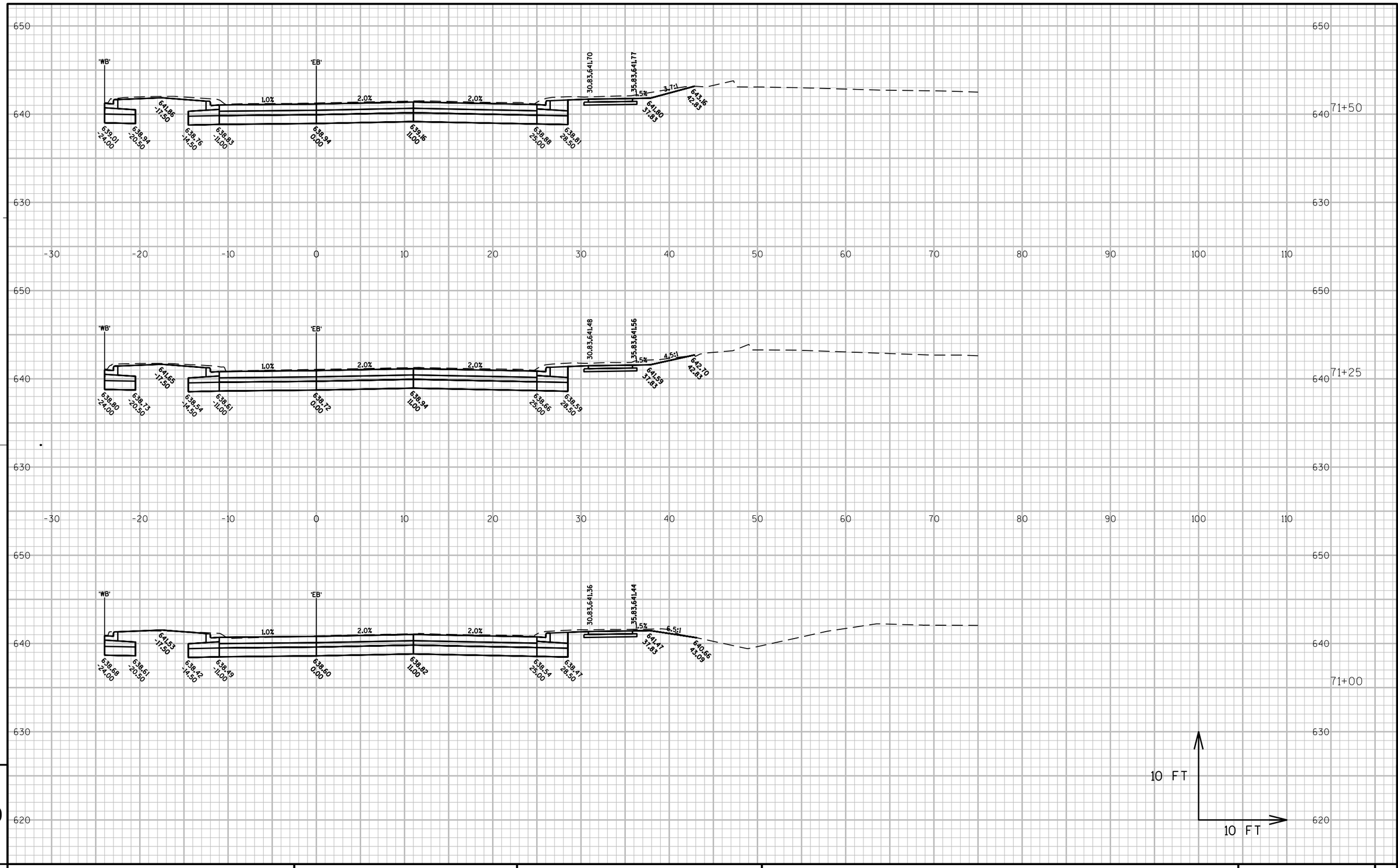
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

9

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (10) US 10 PLOT SCALE : 1:10_XREF

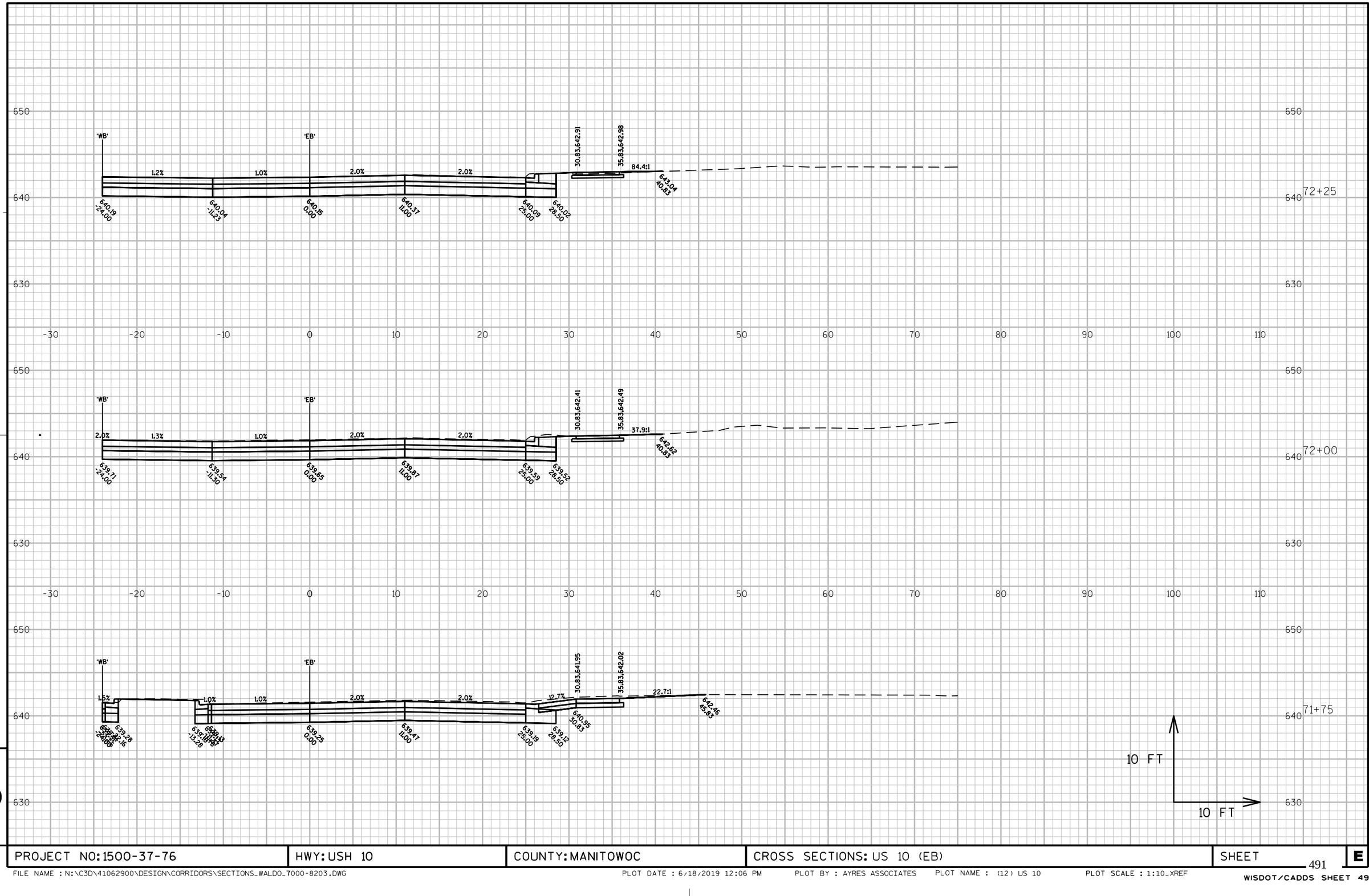
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (11) US 10 PLOT SCALE : 1:10_XREF

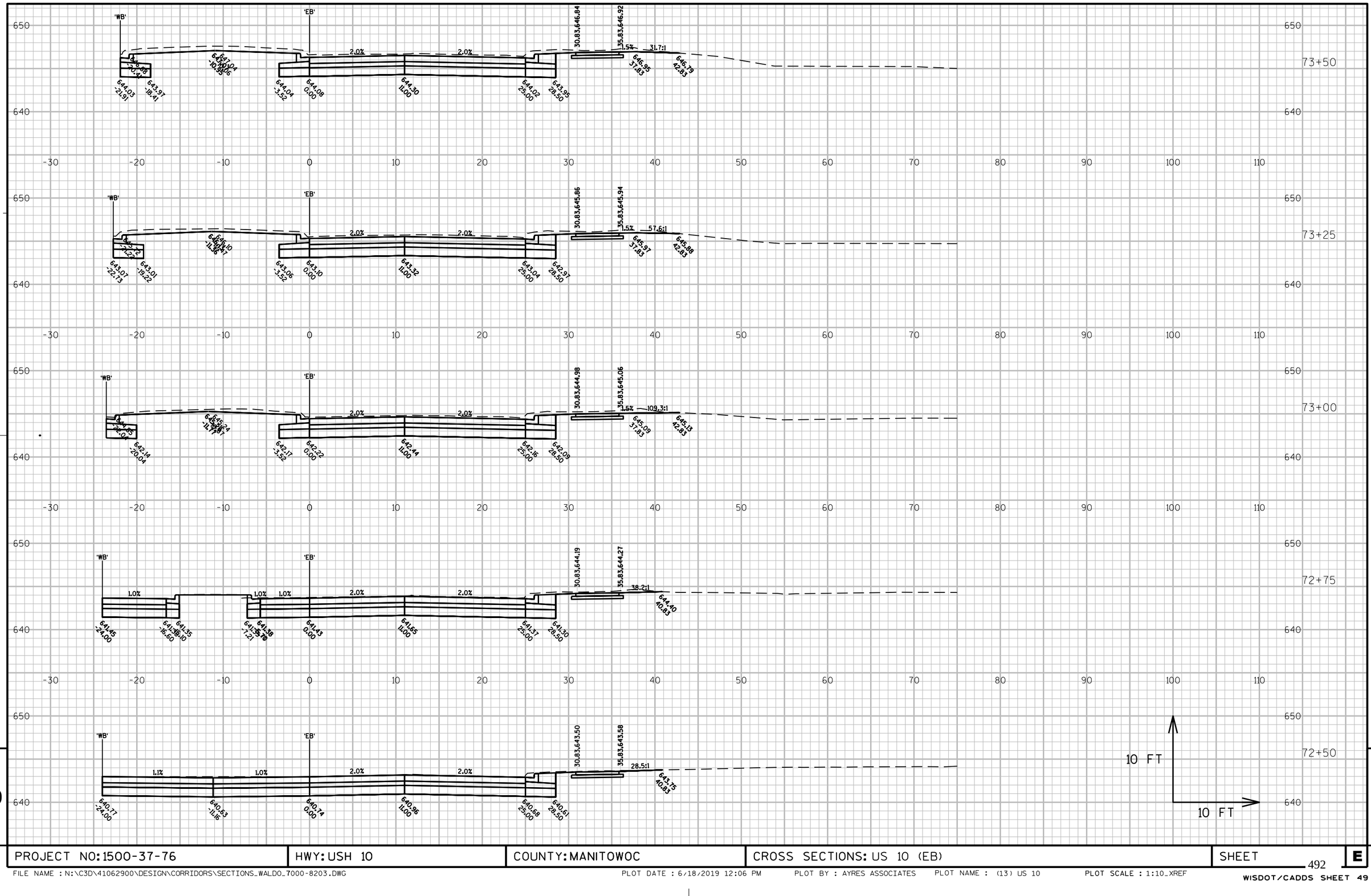
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

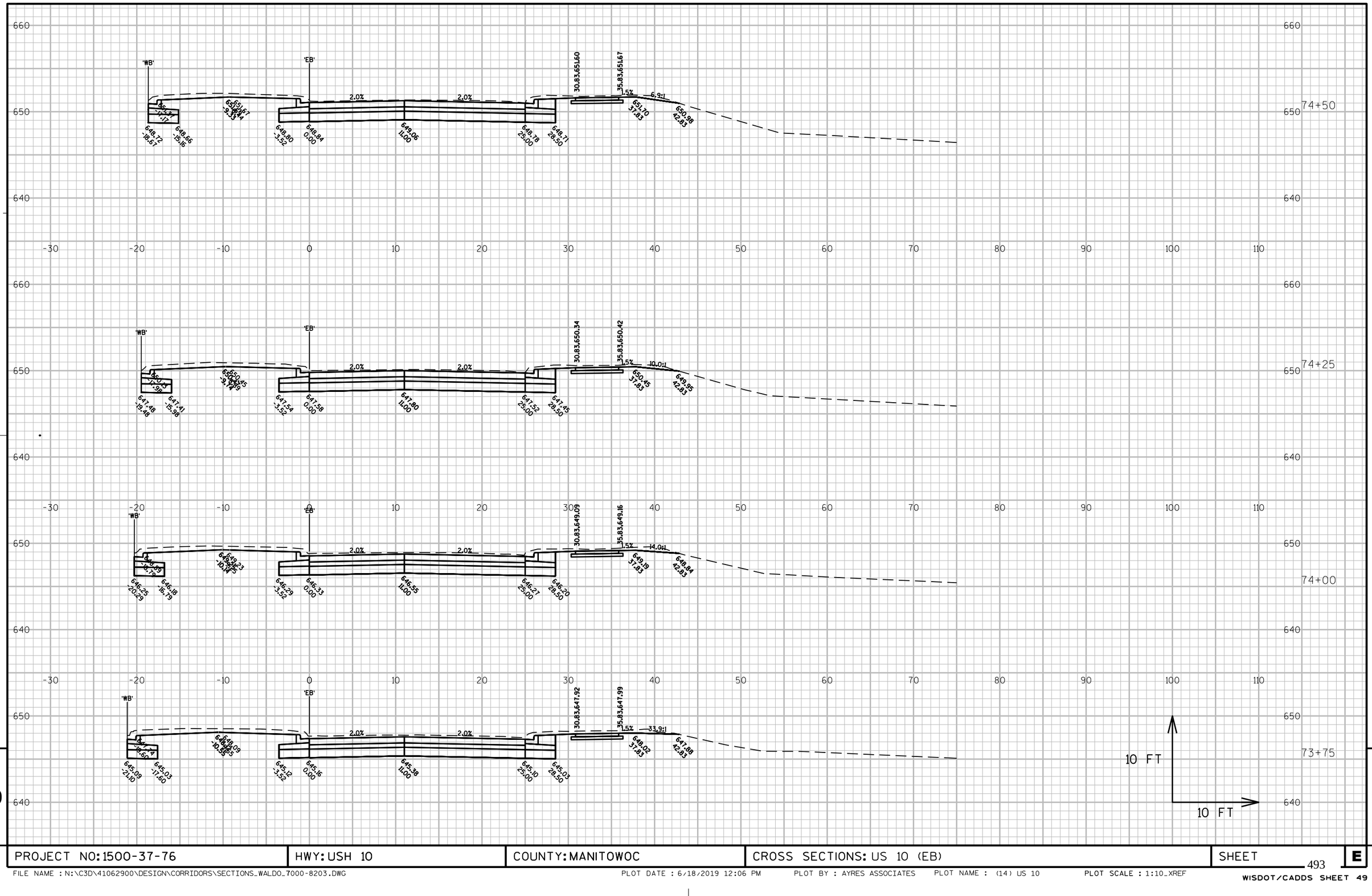
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (12) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

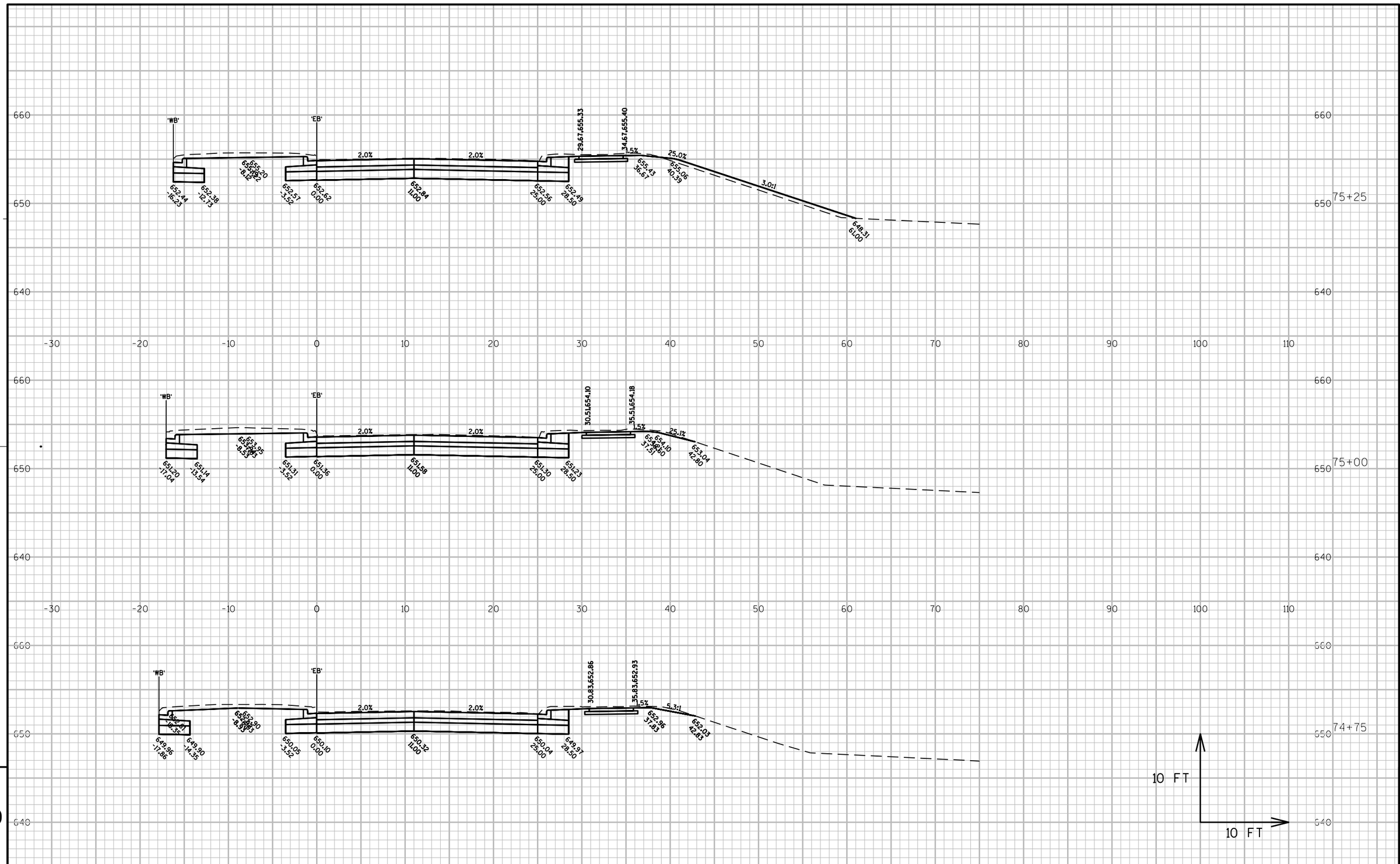
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WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (14) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

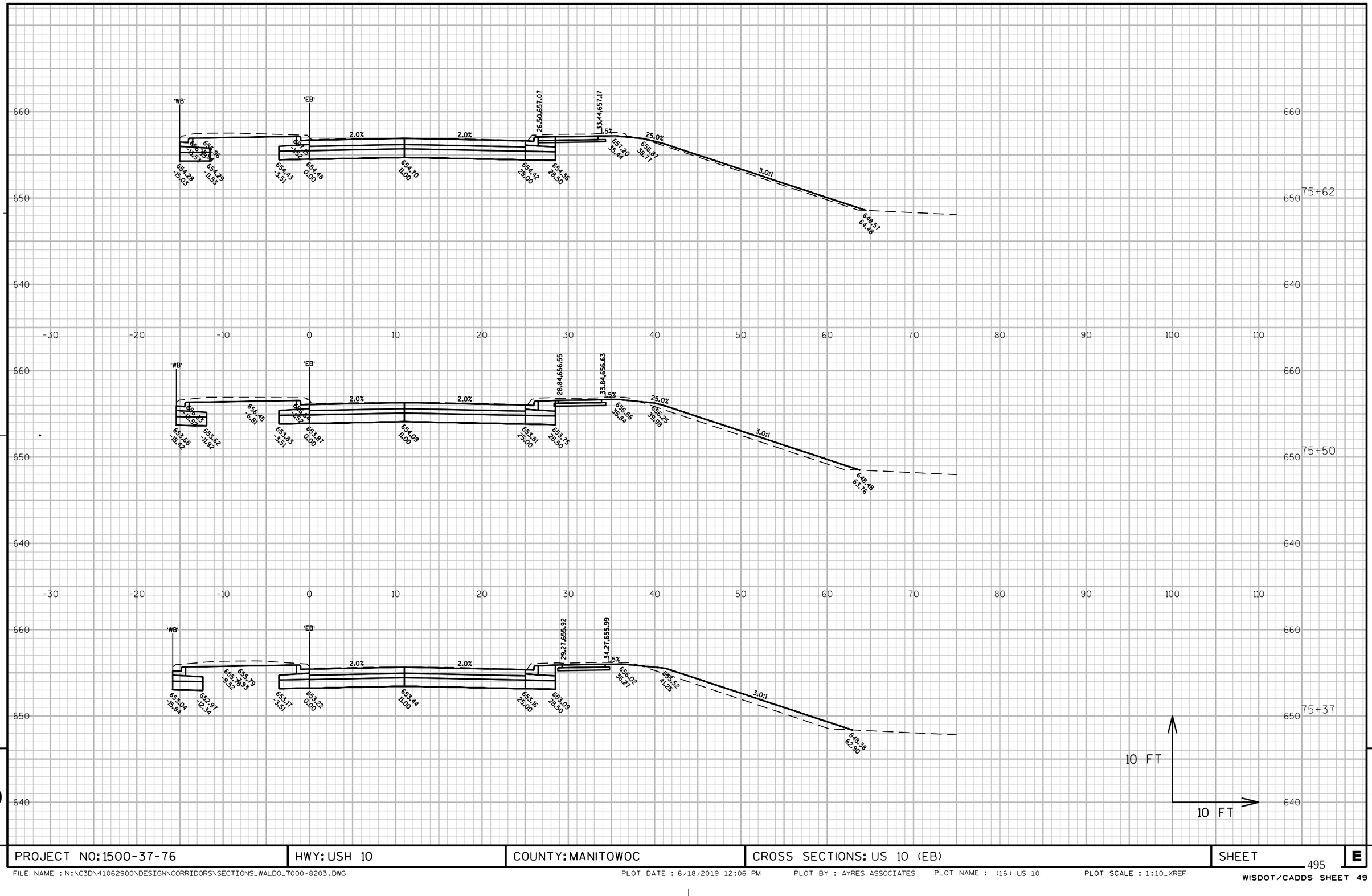


9

9

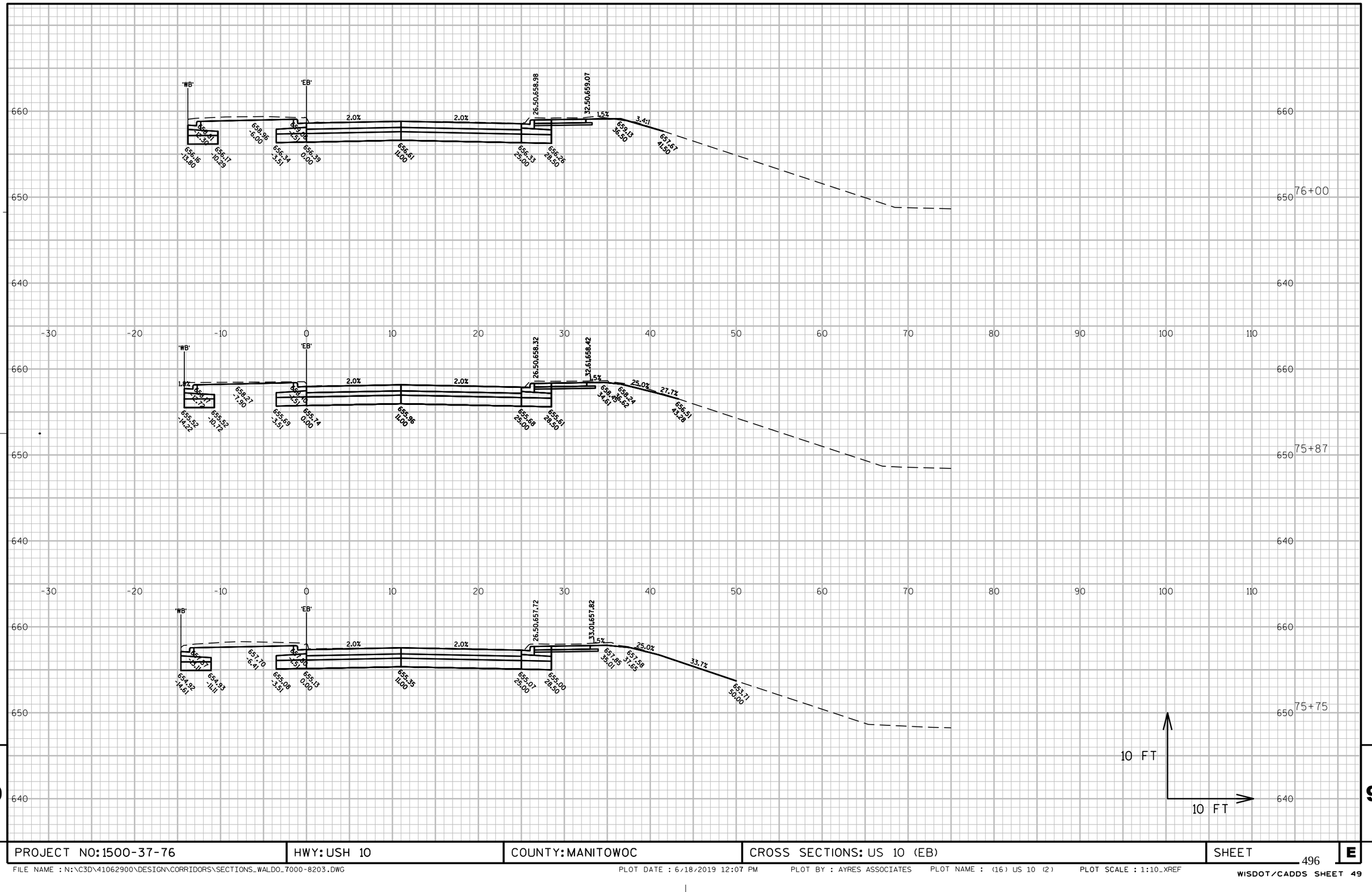
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (15) US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



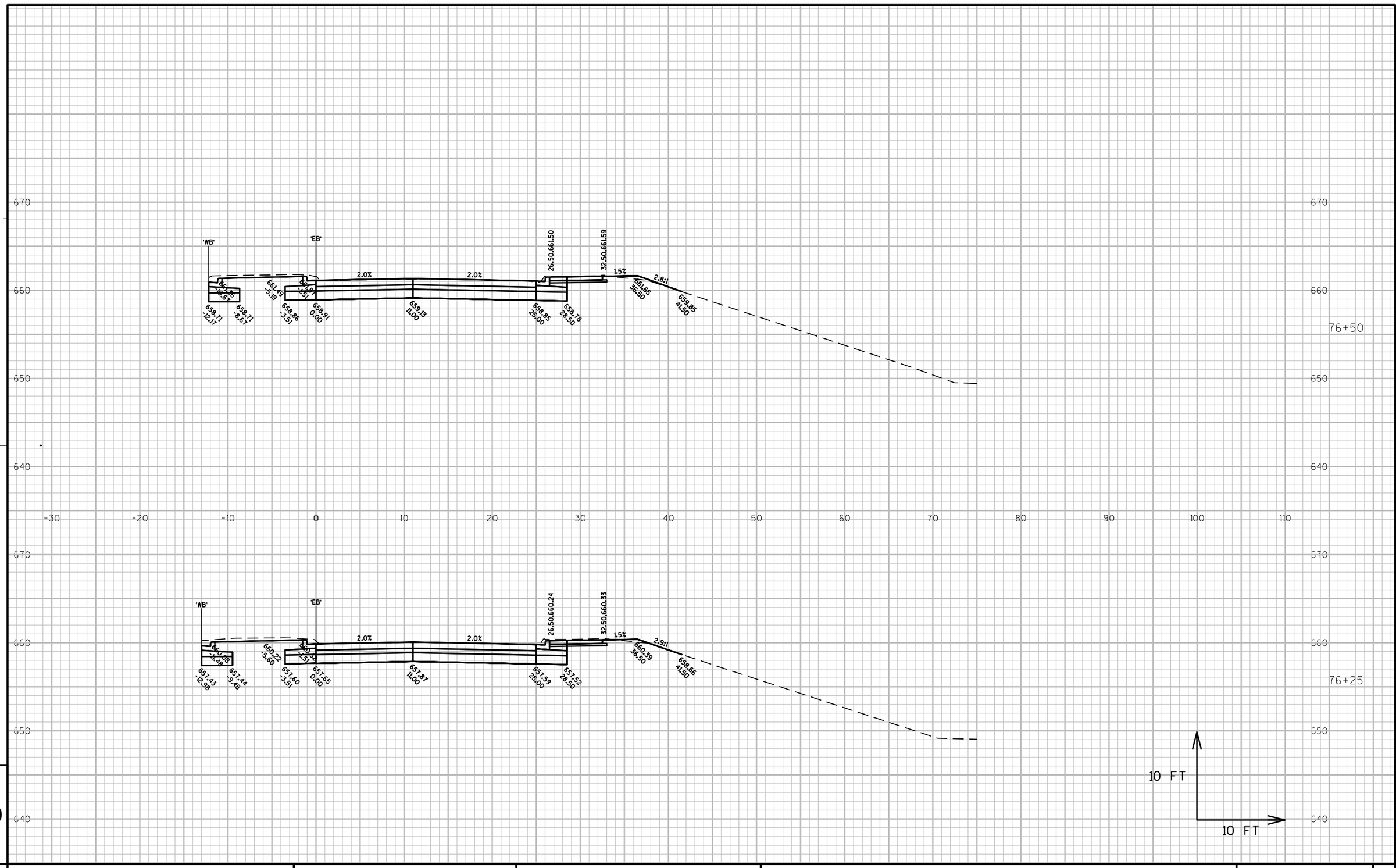
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 PLOT SCALE : 1:10_XREF



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

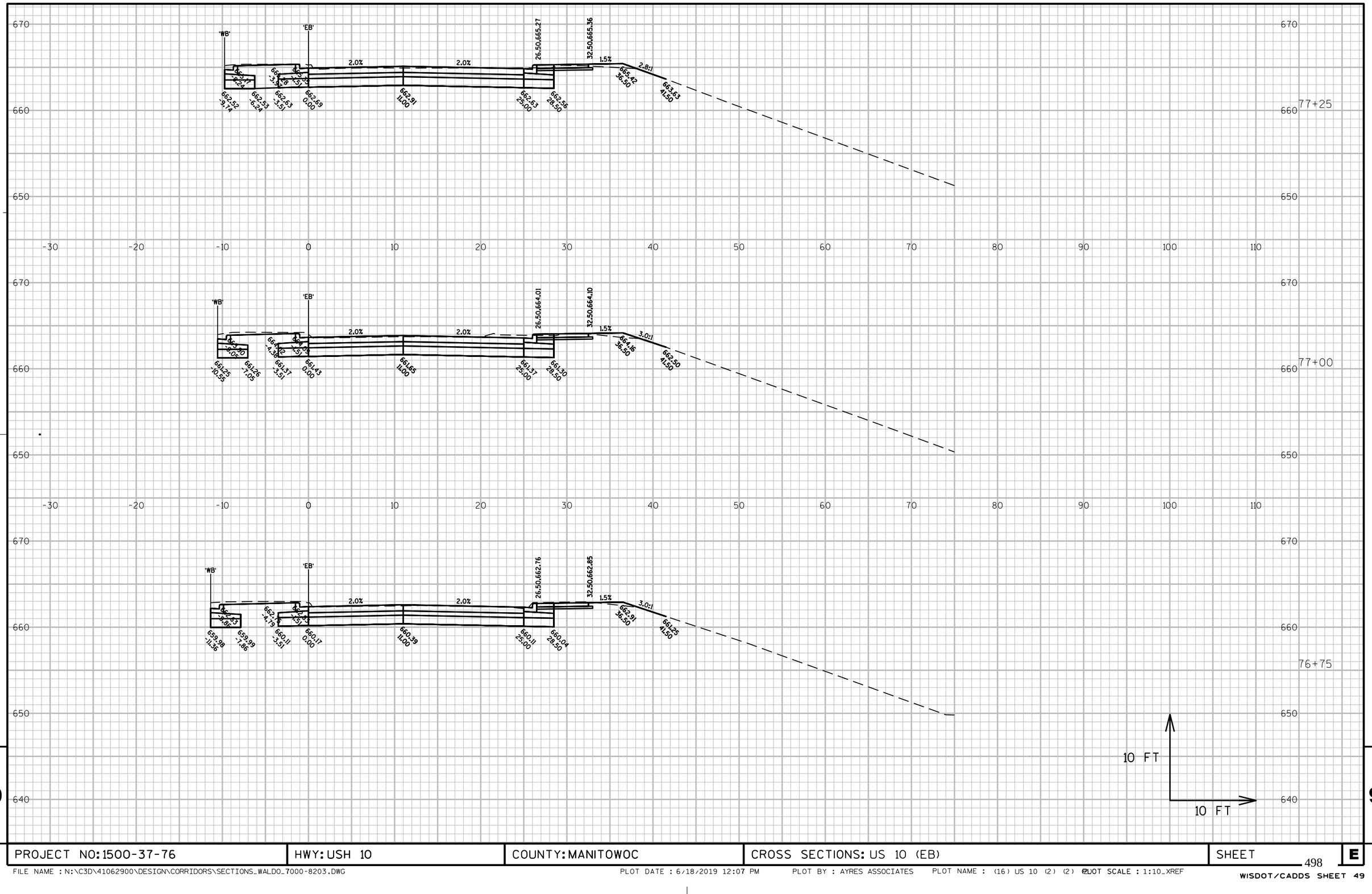
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:07 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 (2) PLOT SCALE : 1:10_XREF



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 497	E

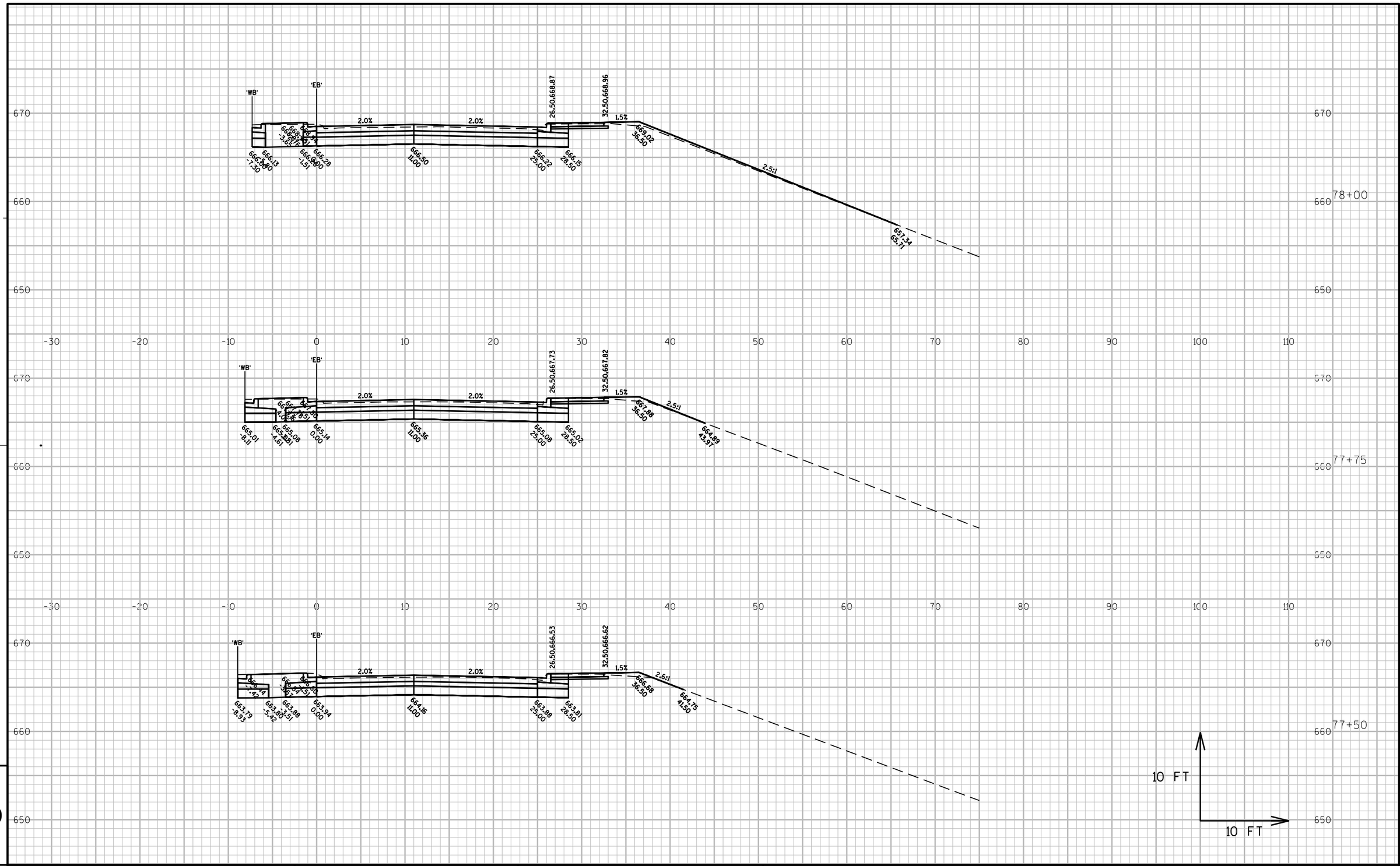
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WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:07 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 (2) (2) PLOT SCALE : 1:10_XREF



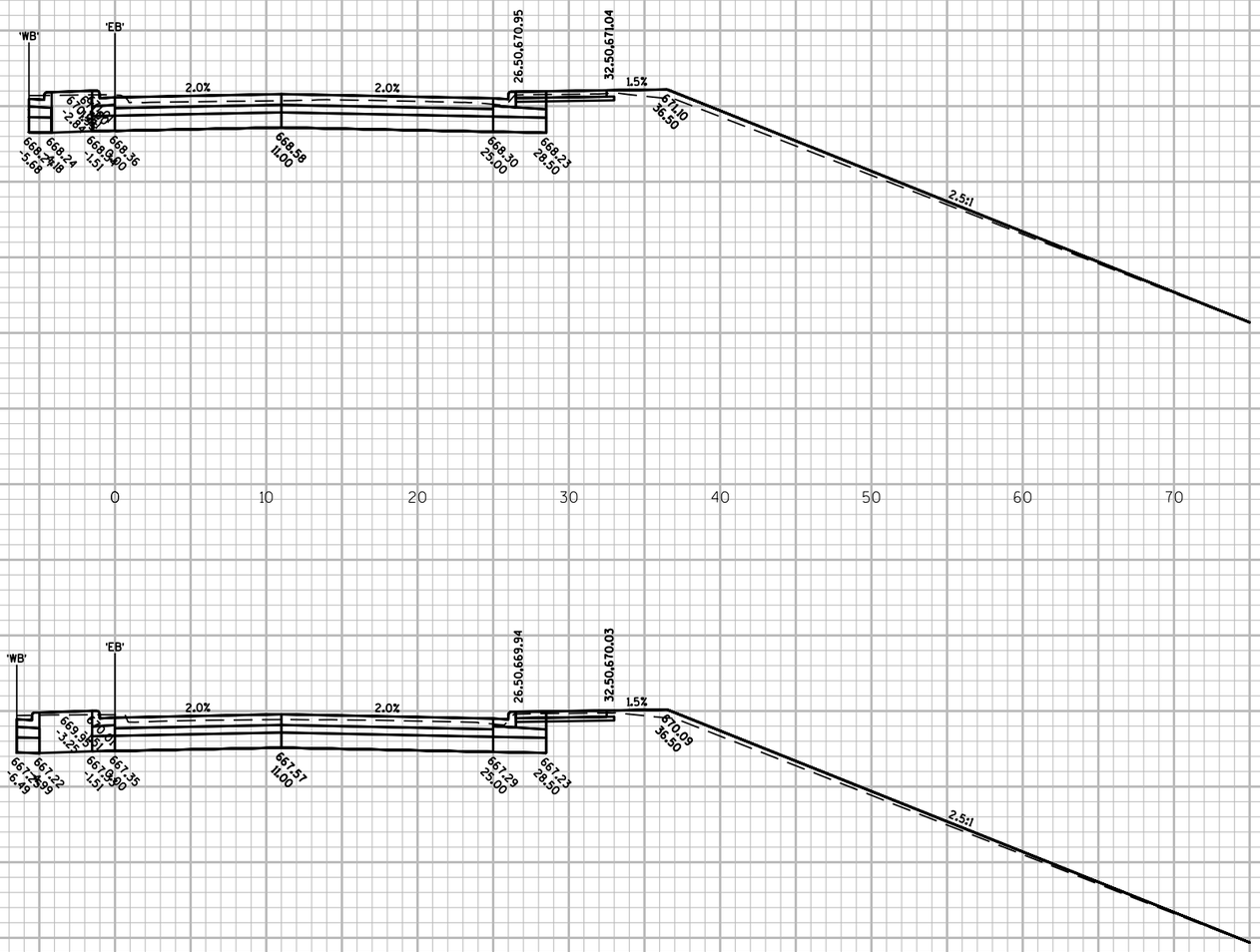
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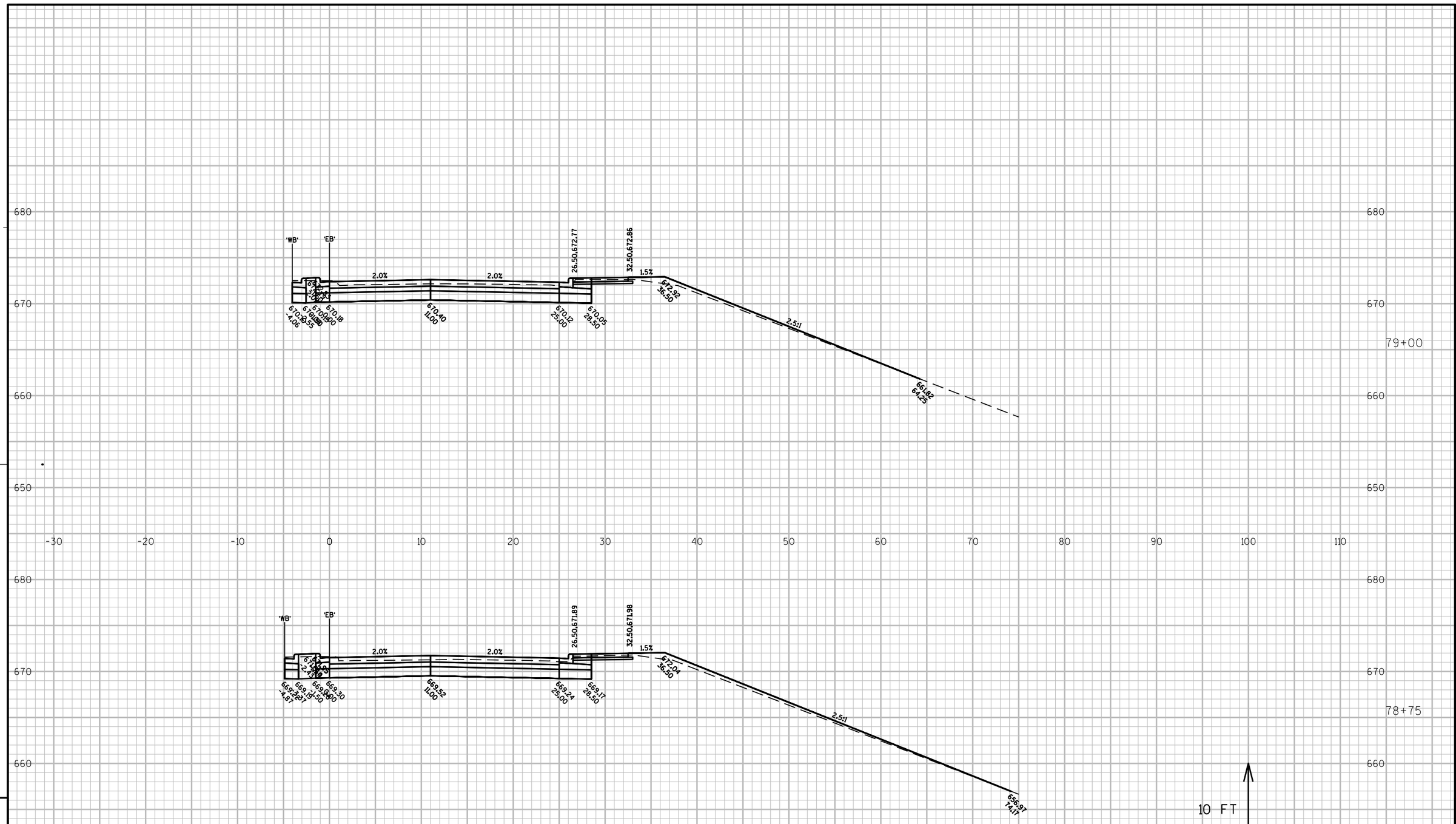
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 499	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:07 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 (2) (2) PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 500	E



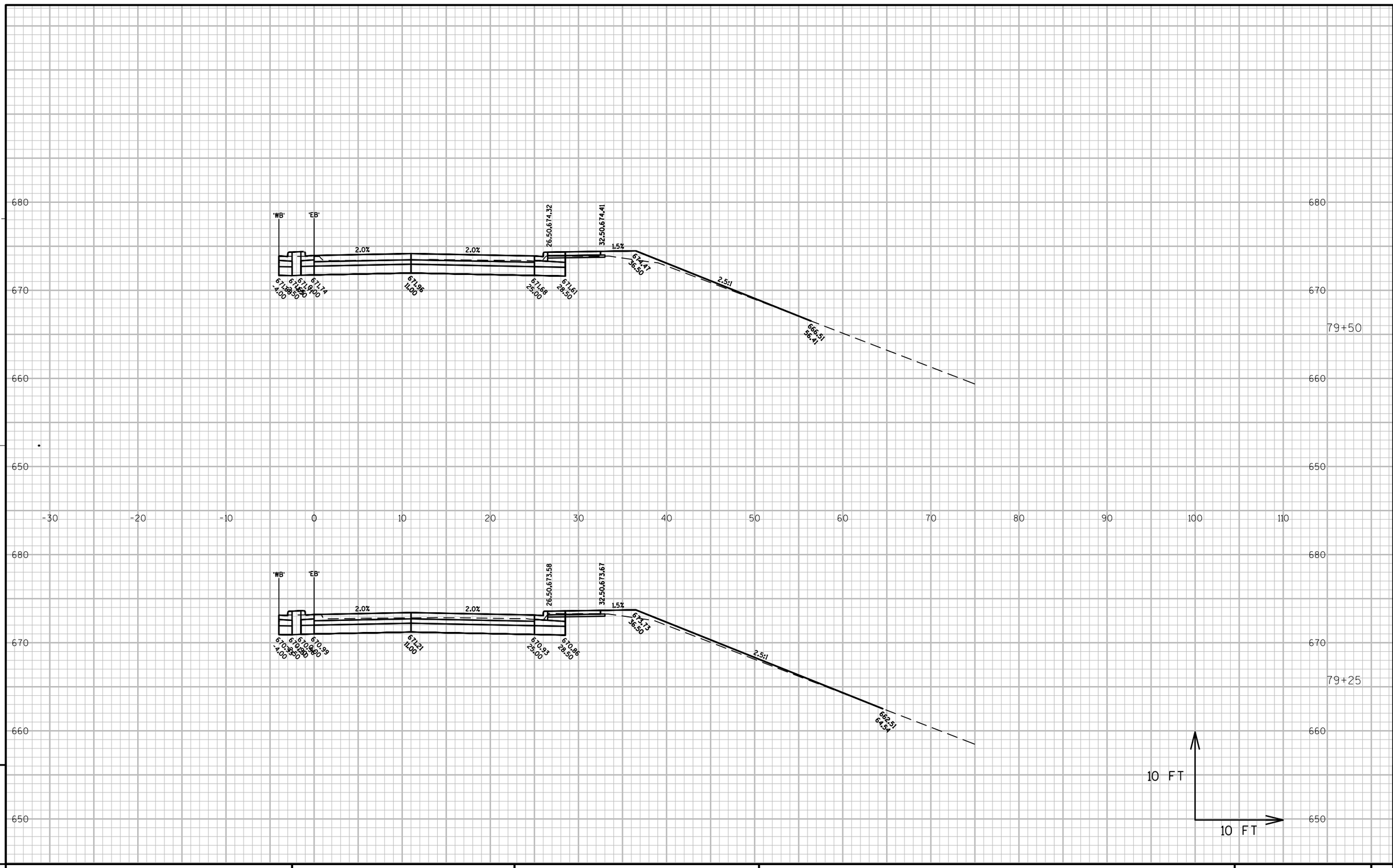
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

9

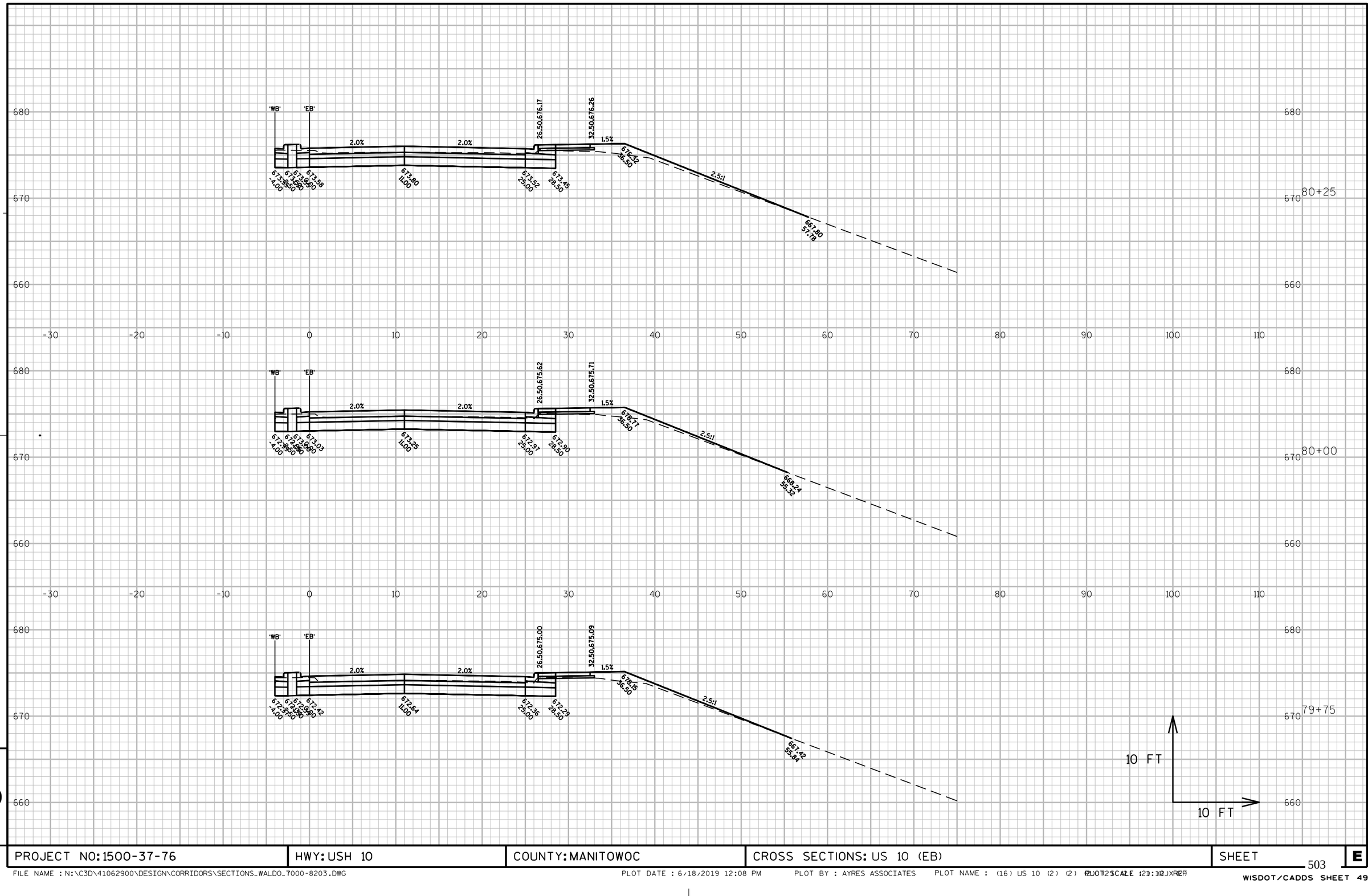
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:08 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 (2) (2) PLOT SCALE : 1.0000 PLOT STYLE TABLE : 10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG
PLOT DATE : 6/18/2019 12:08 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (16) US 10 (2) (2) PLOT SCALE = 1.000 XREF
WISDOT/CADDS SHEET 49

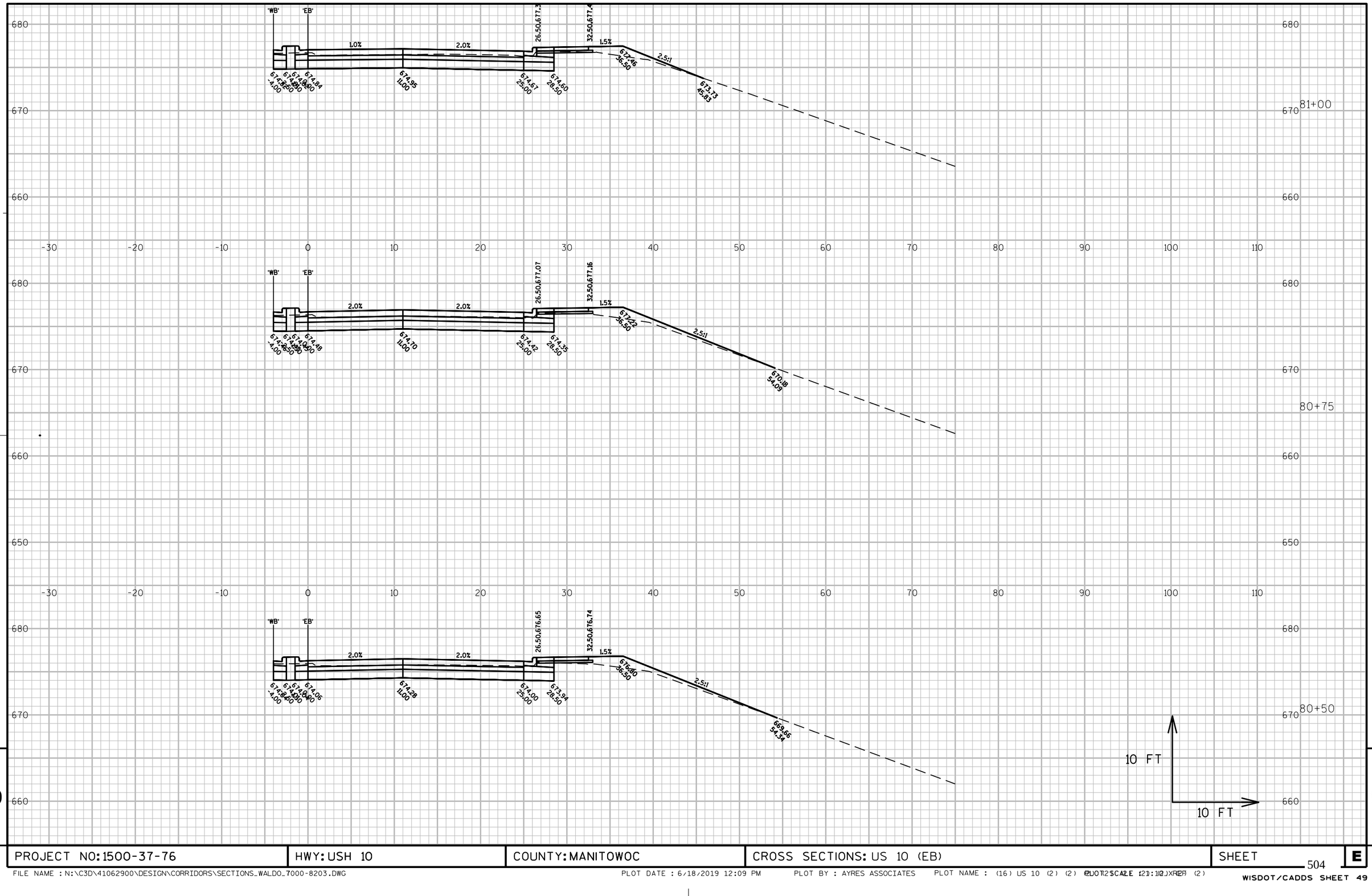


9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

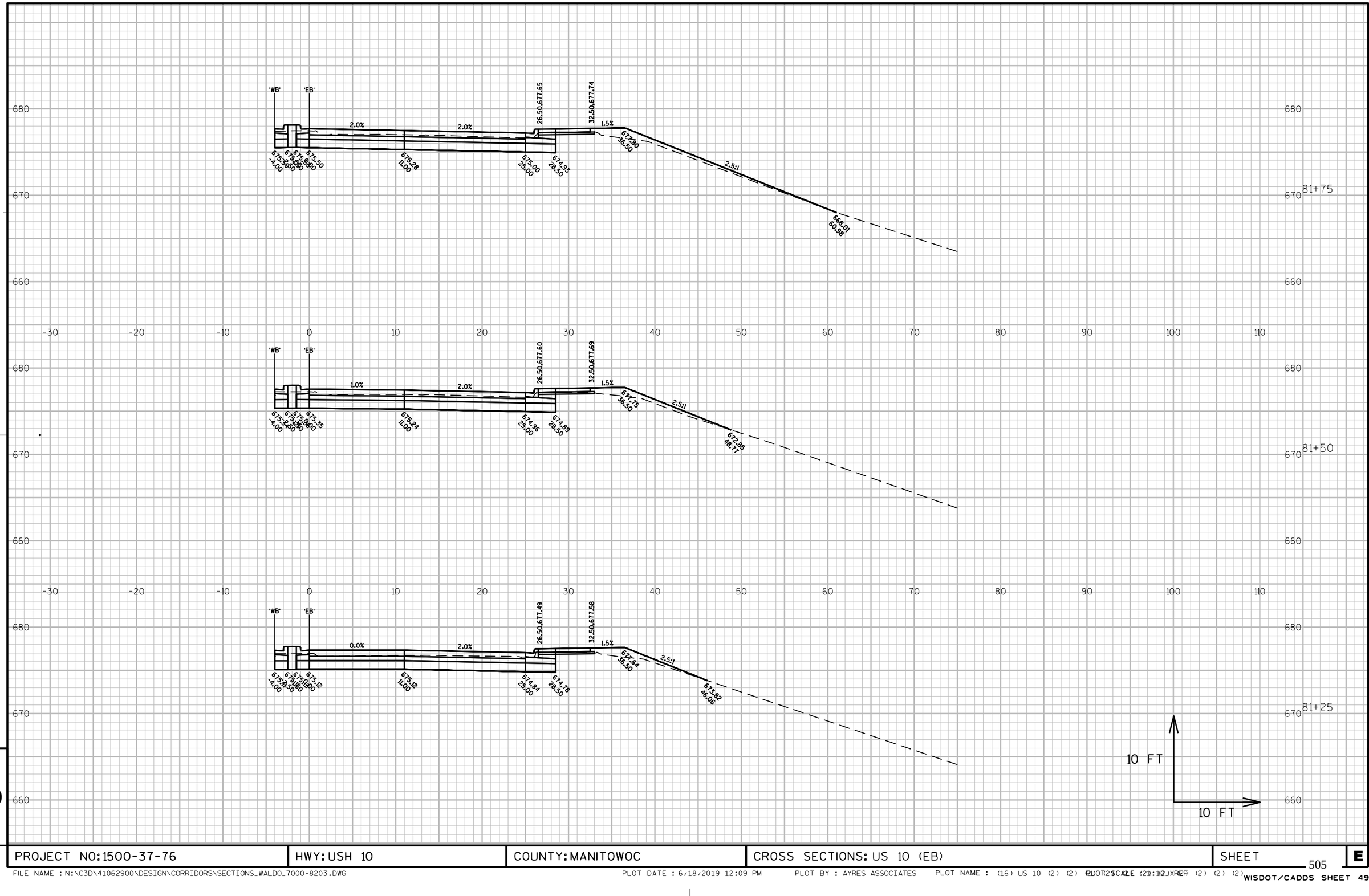
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PLOT DATE : 6/18/2019 12:08 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (16) US 10 (2) (2) PLOT SCALE = 1.000'
WISDOT/CADDS SHEET 49



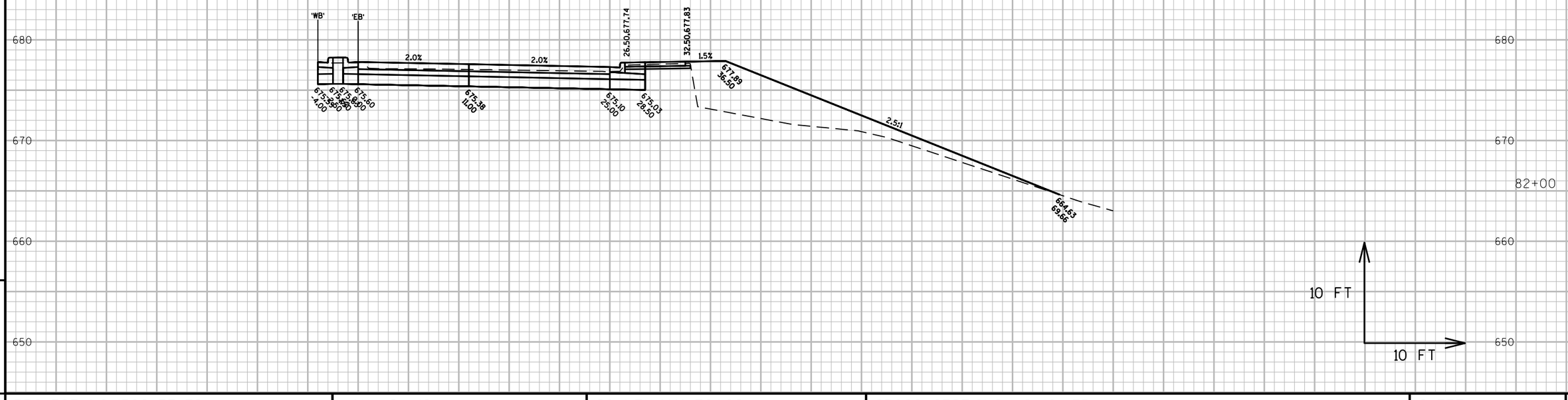
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 504	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 (2) (2) PLOT SCALE : 1.0000 PLOT STYLE TABLE : (2)

WISDOT/CADDS SHEET 49


'WB'
'EB'
2.0%
2.0%
26.50,677.65
32.50,677.74
1.5%
677.80
36.50
2.5:1
675.50
675.28
11.00
675.00
25.00
674.93
28.50
668.01
60.98
81+75
1.0%
2.0%
26.50,677.60
32.50,677.69
1.5%
677.75
36.50
2.5:1
675.35
675.24
11.00
674.96
25.00
674.89
28.50
672.85
48.17
81+50
0.0%
2.0%
26.50,677.49
32.50,677.58
1.5%
677.64
36.50
2.5:1
675.12
675.12
11.00
674.84
25.00
674.78
28.50
673.82
46.06
81+25
675.50
-4.00
675.50
-3.50
675.50
-3.00
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675.50

STRUCTURE B-36-29
STA. 83+35

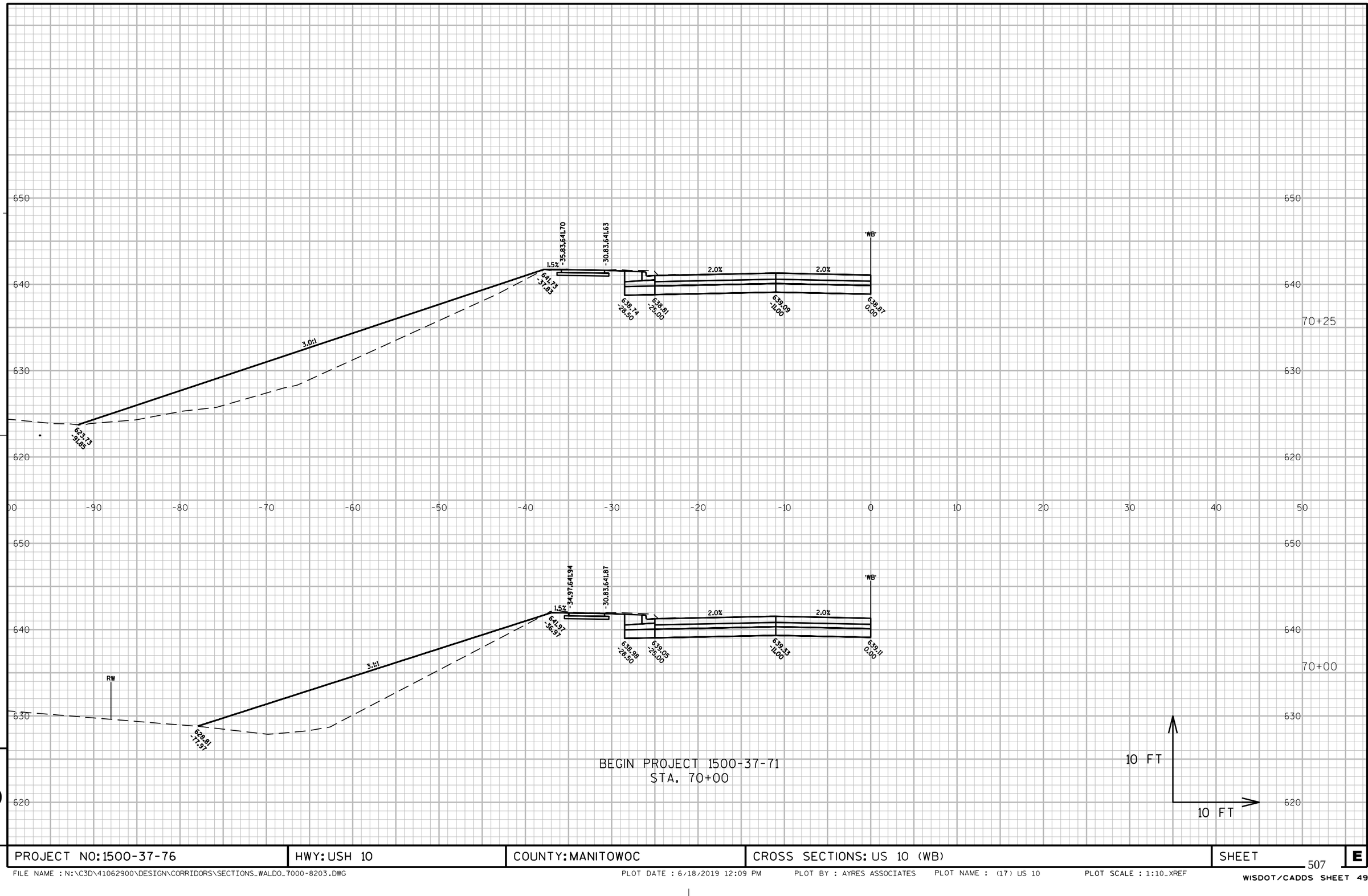


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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG
PLOT DATE : 6/18/2019 12:09 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (16) US 10 (2) (2) PLOT SCALE = 1.000 '/ IN
(2) (2)
WISDOT/CADDS SHEET 49

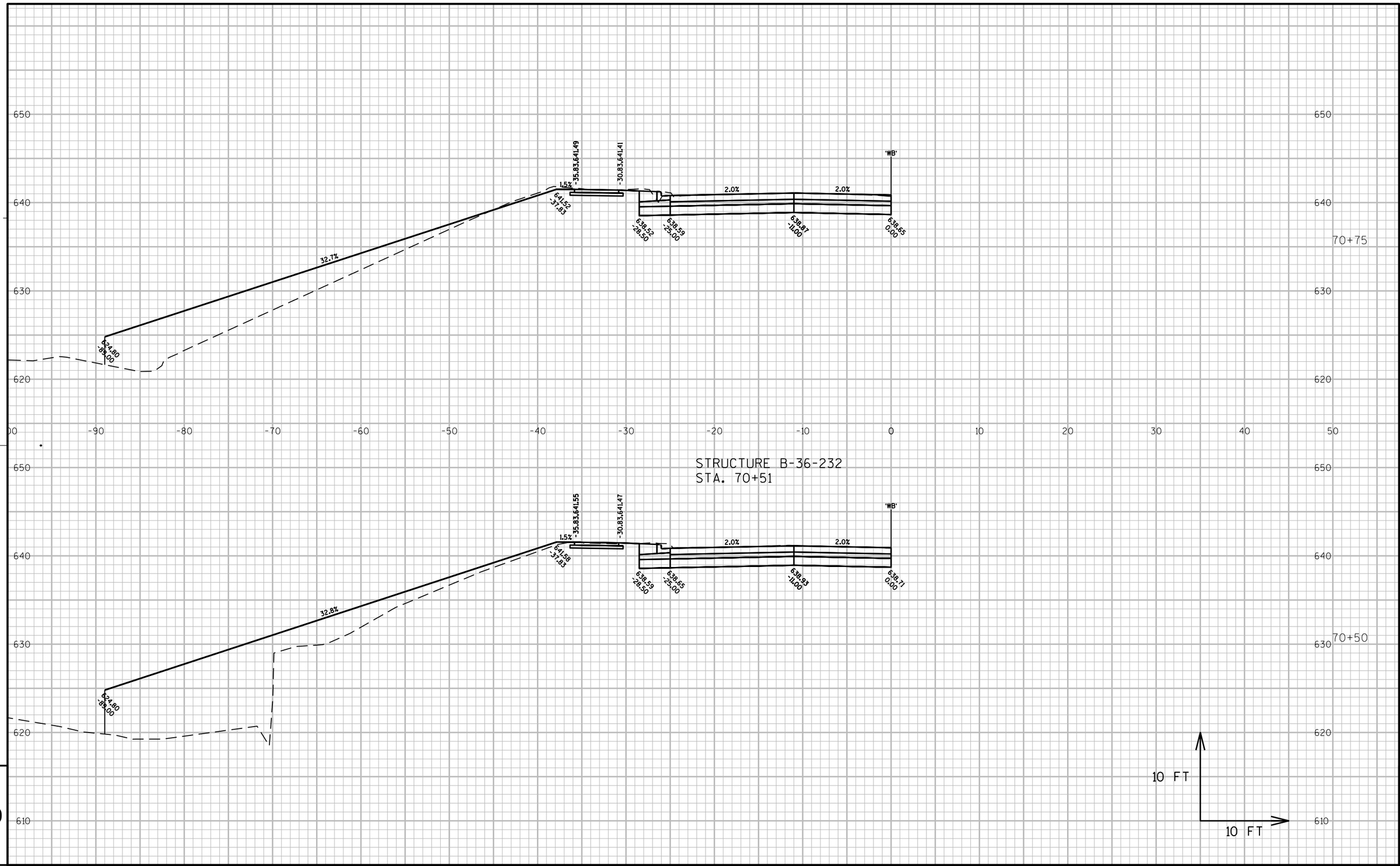


9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

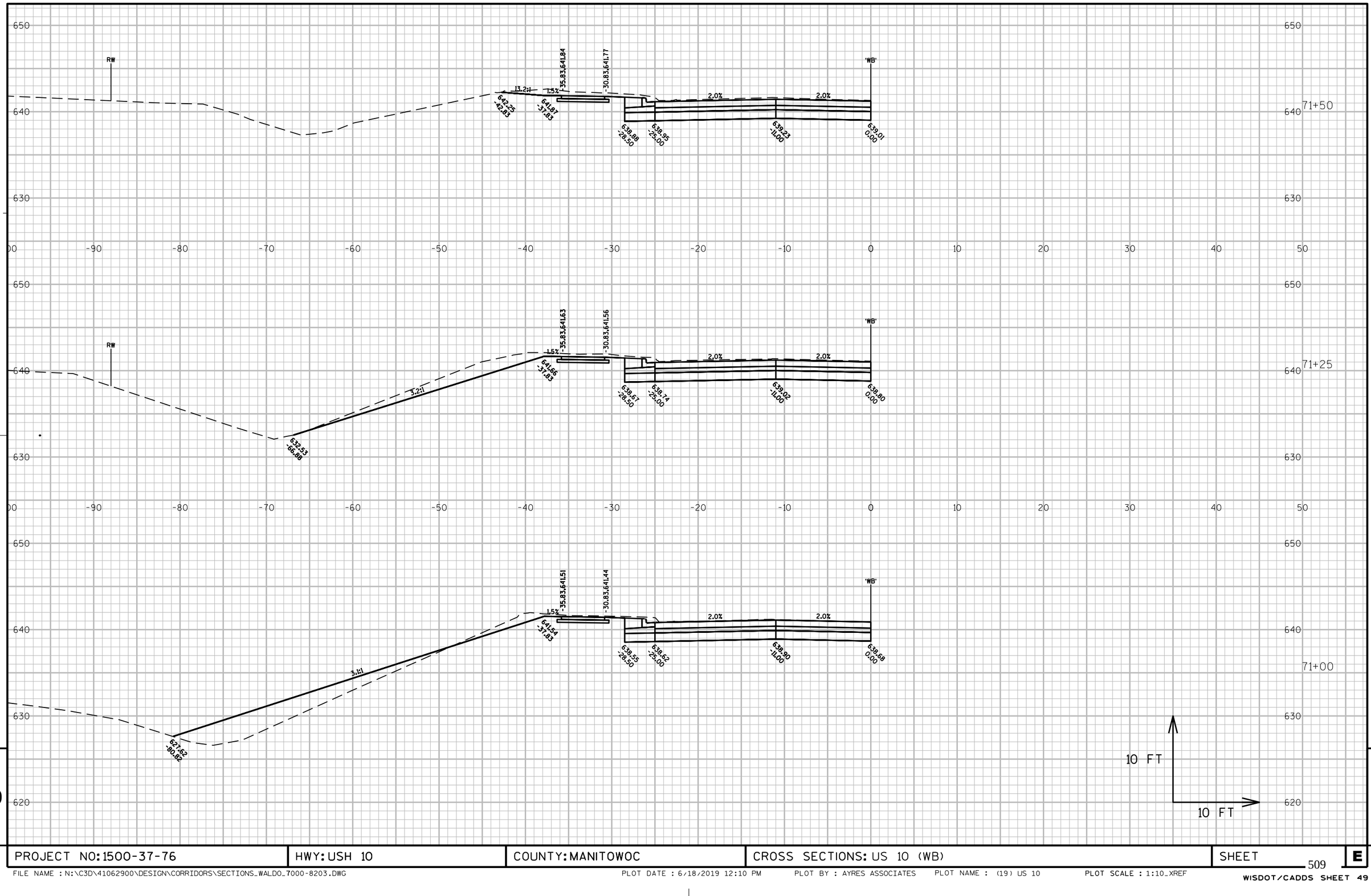
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (17) US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

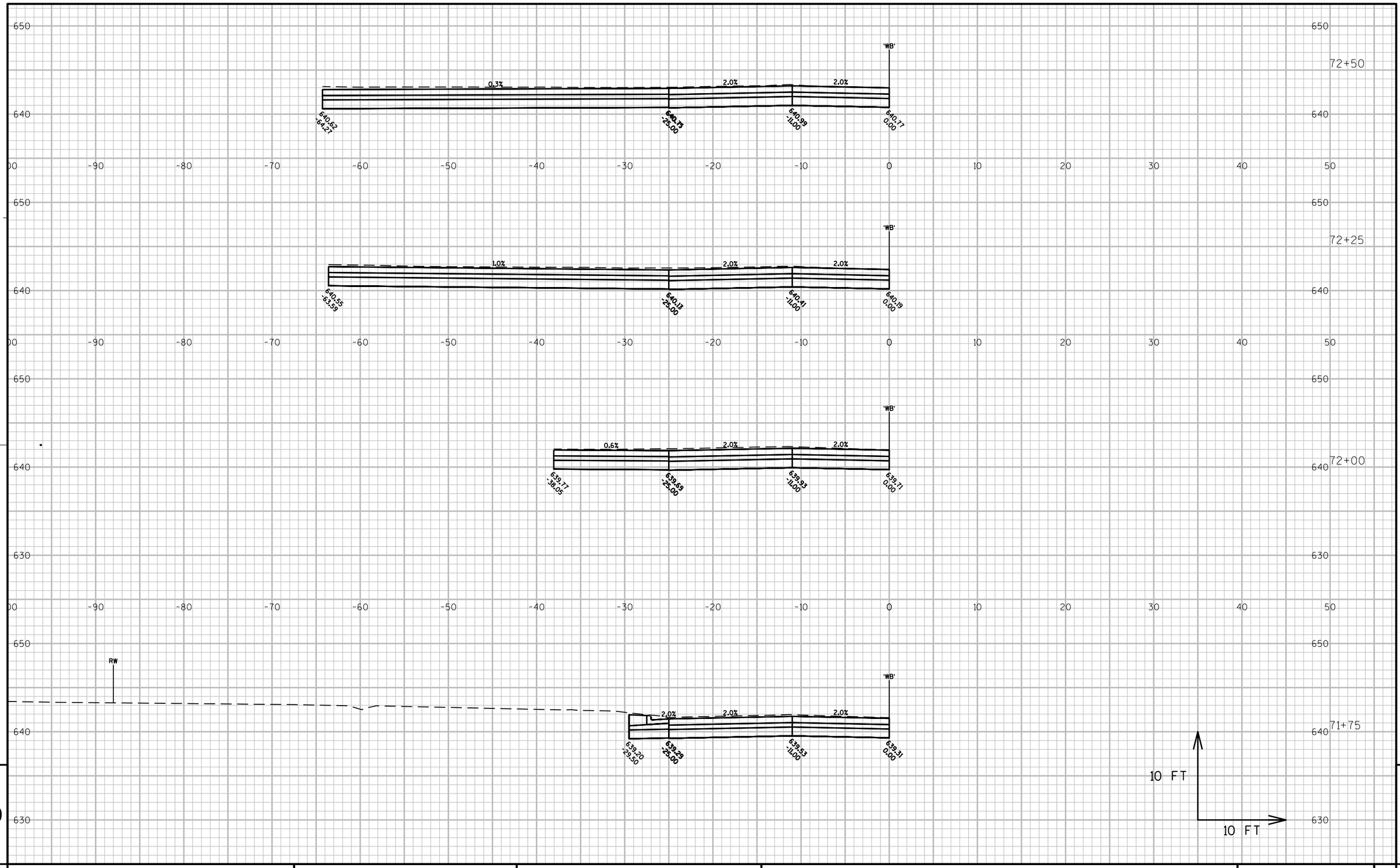
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WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

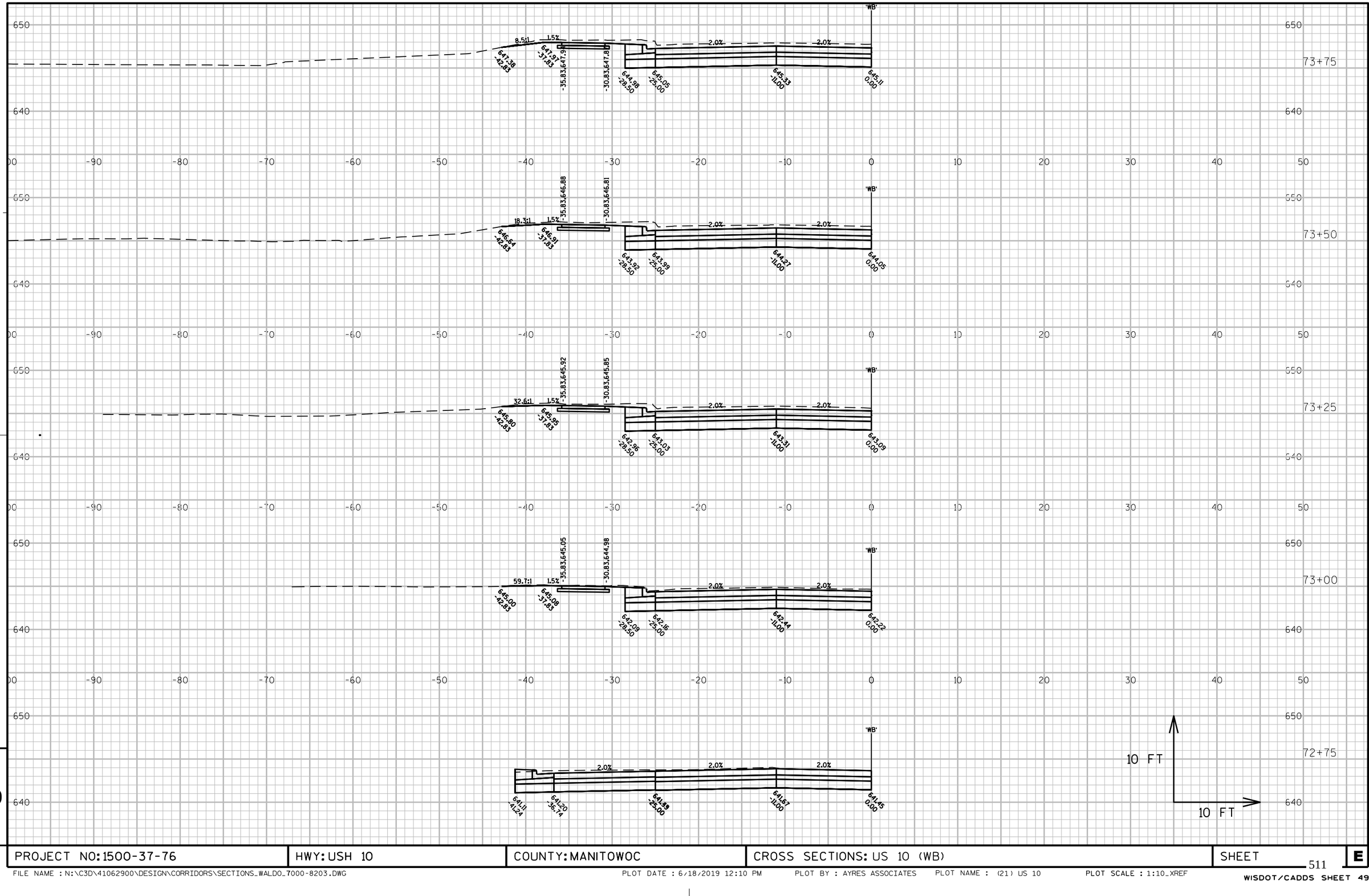
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WISDOT/CADDS SHEET 49



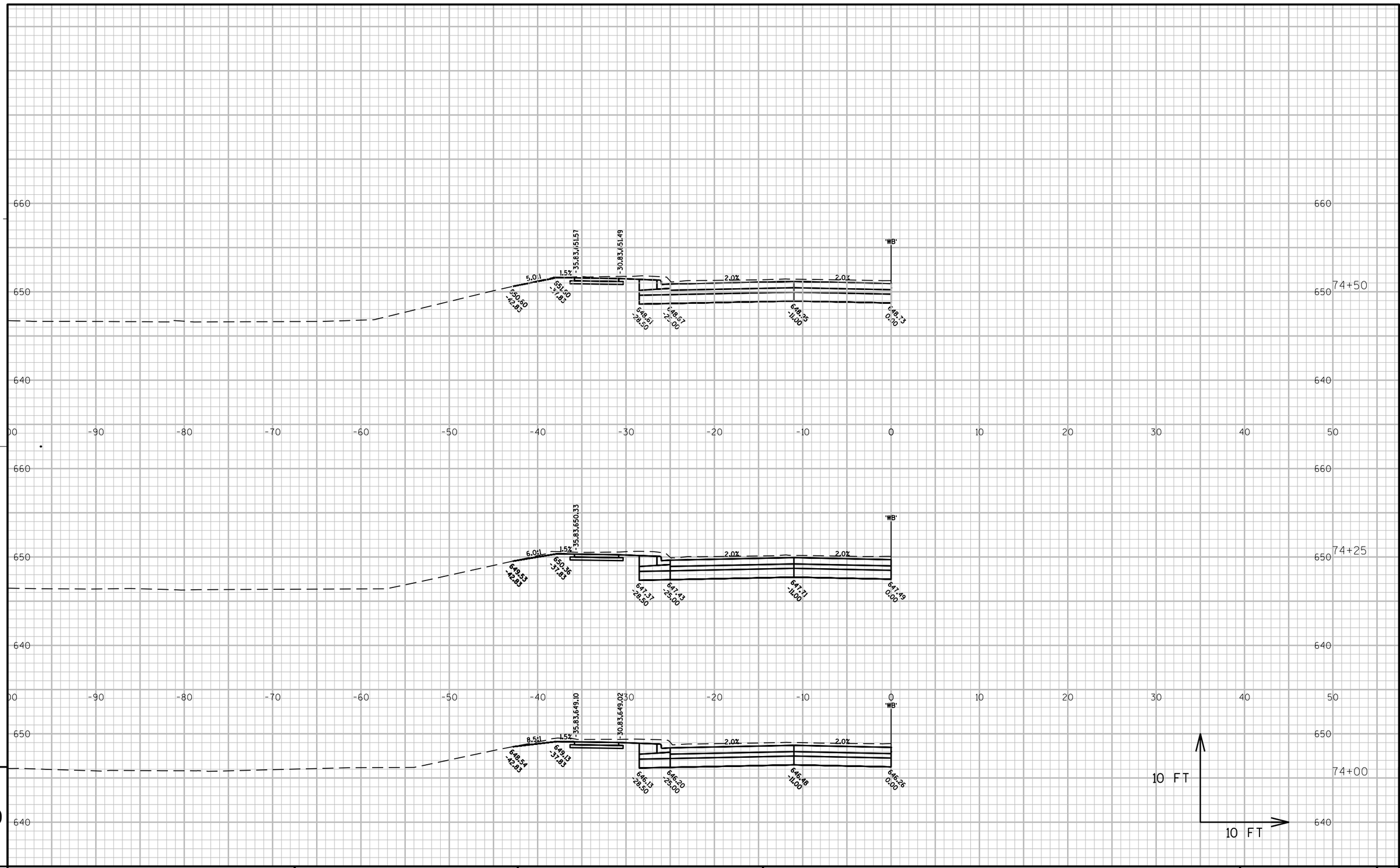
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (20) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



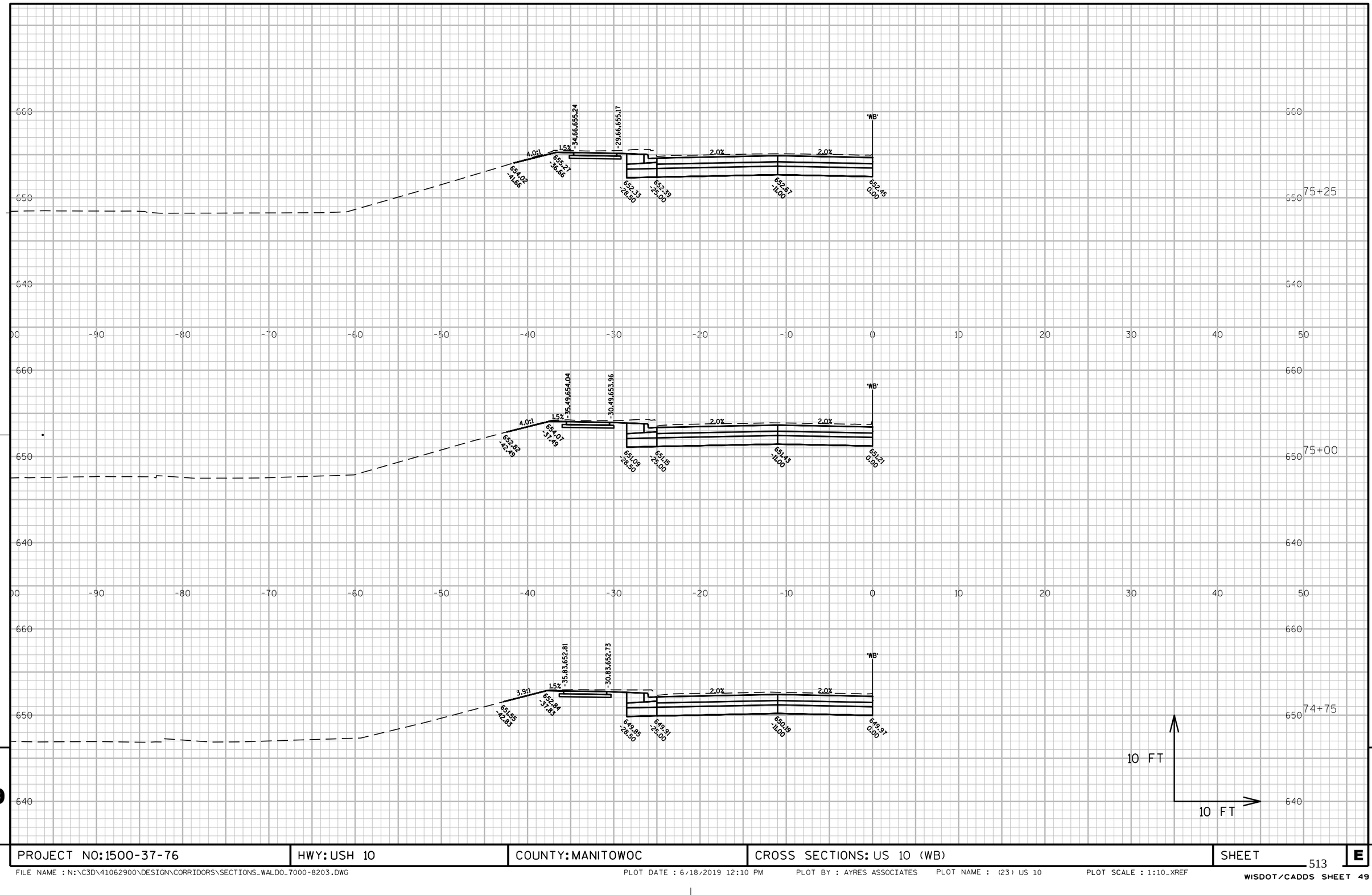
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

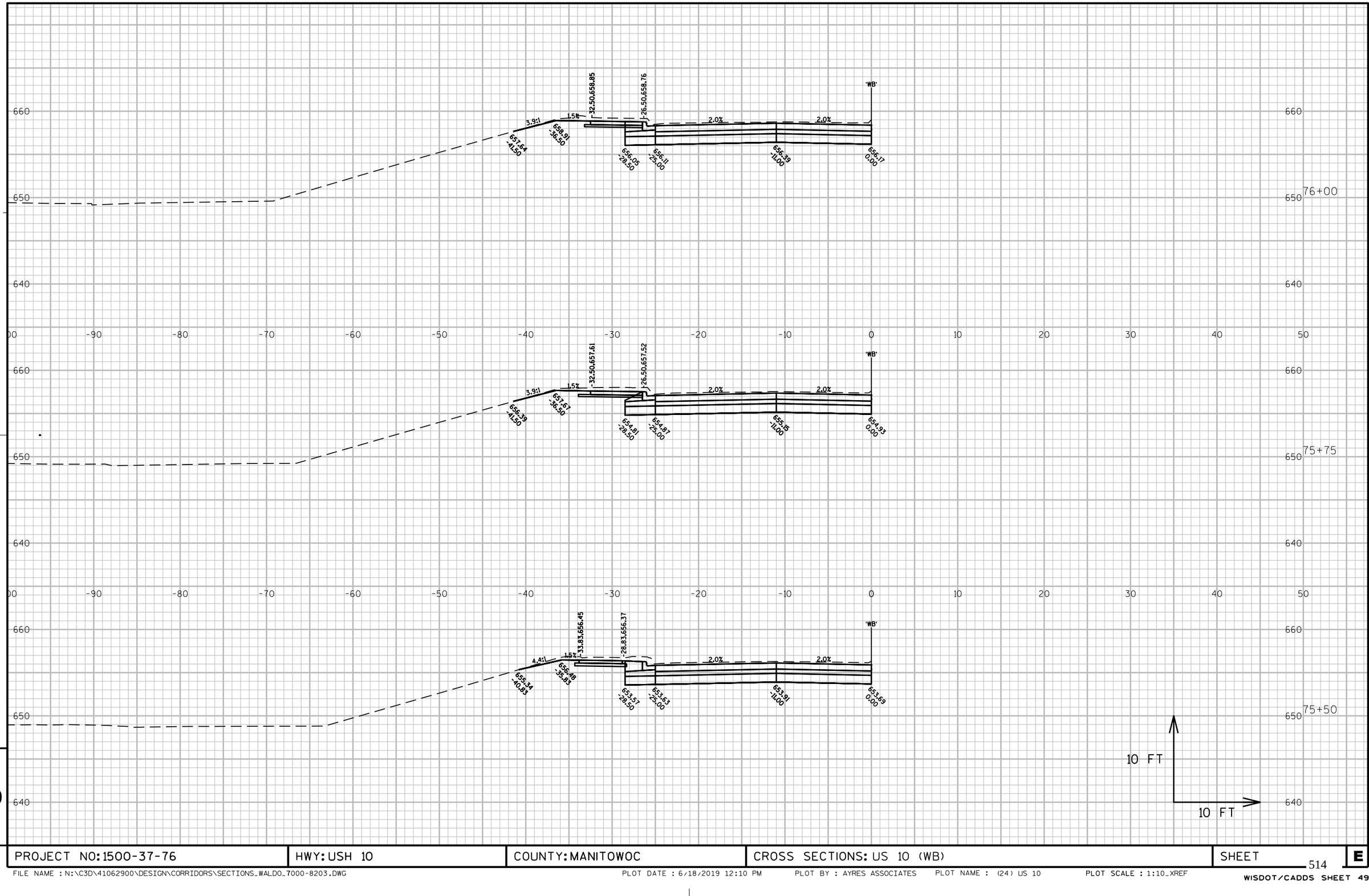
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WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

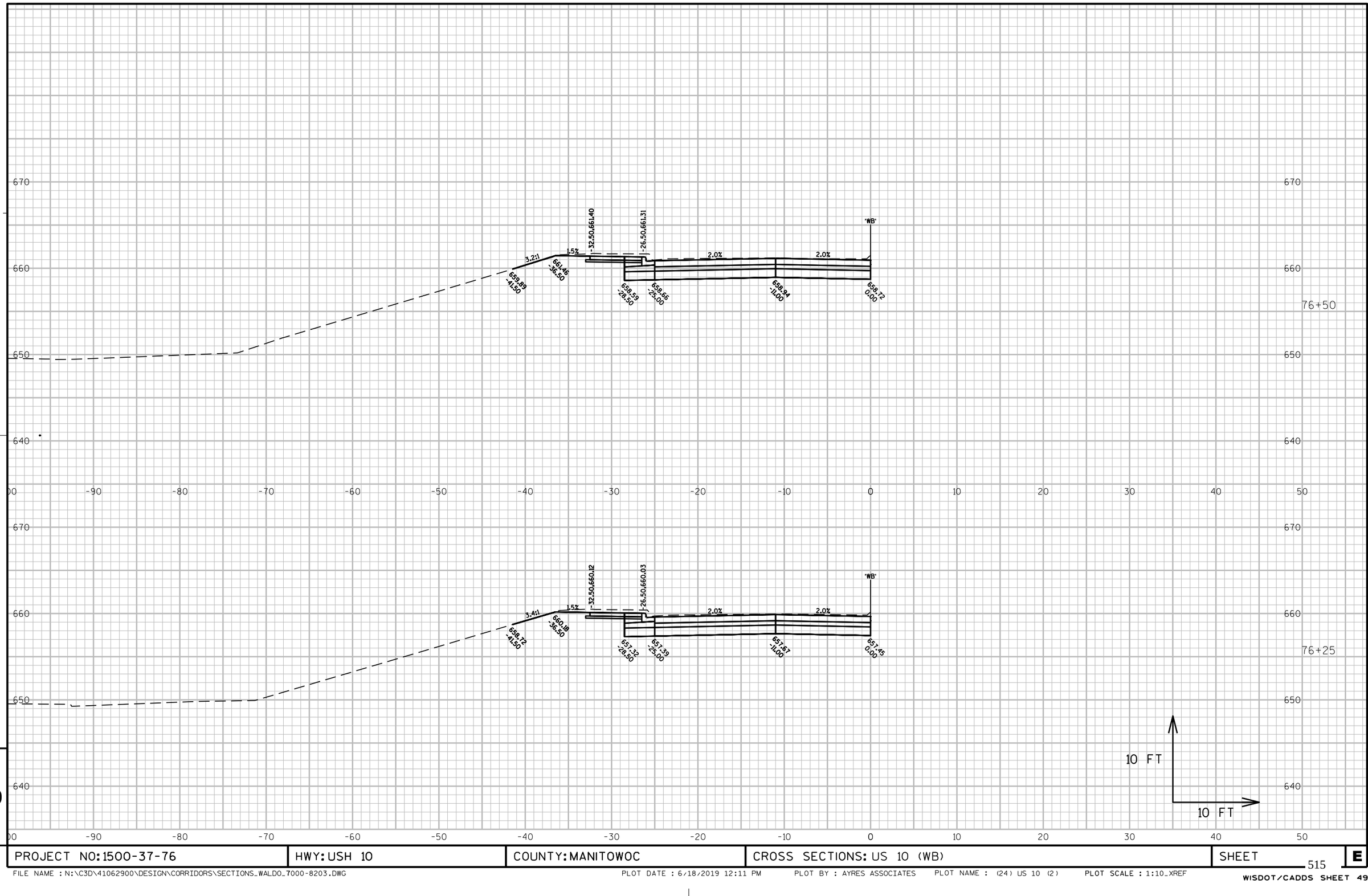
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (23) US 10 PLOT SCALE : 1:10_XREF



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 PLOT SCALE : 1:10_XREF

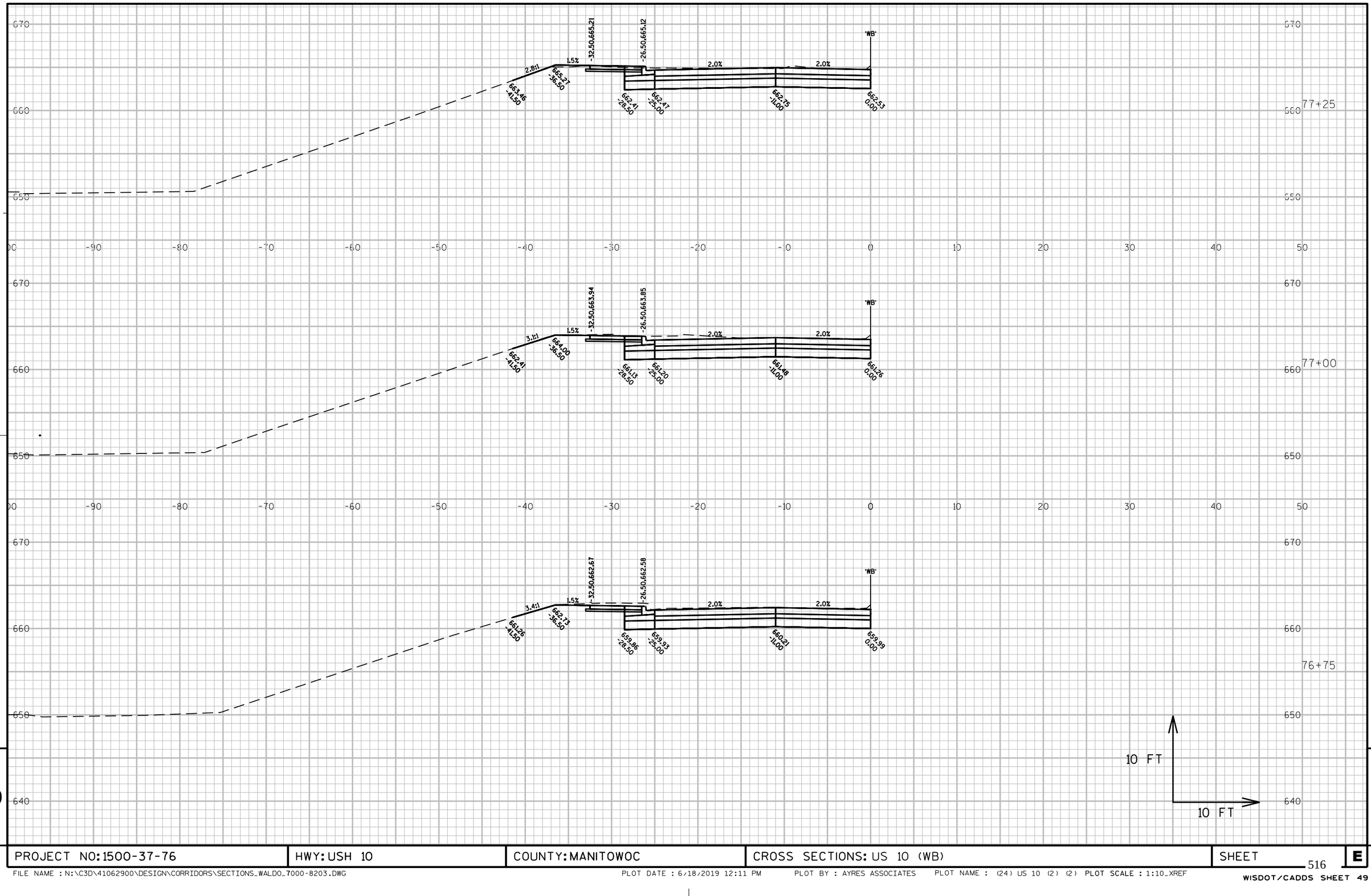
WISDOT/CADDS SHEET 49



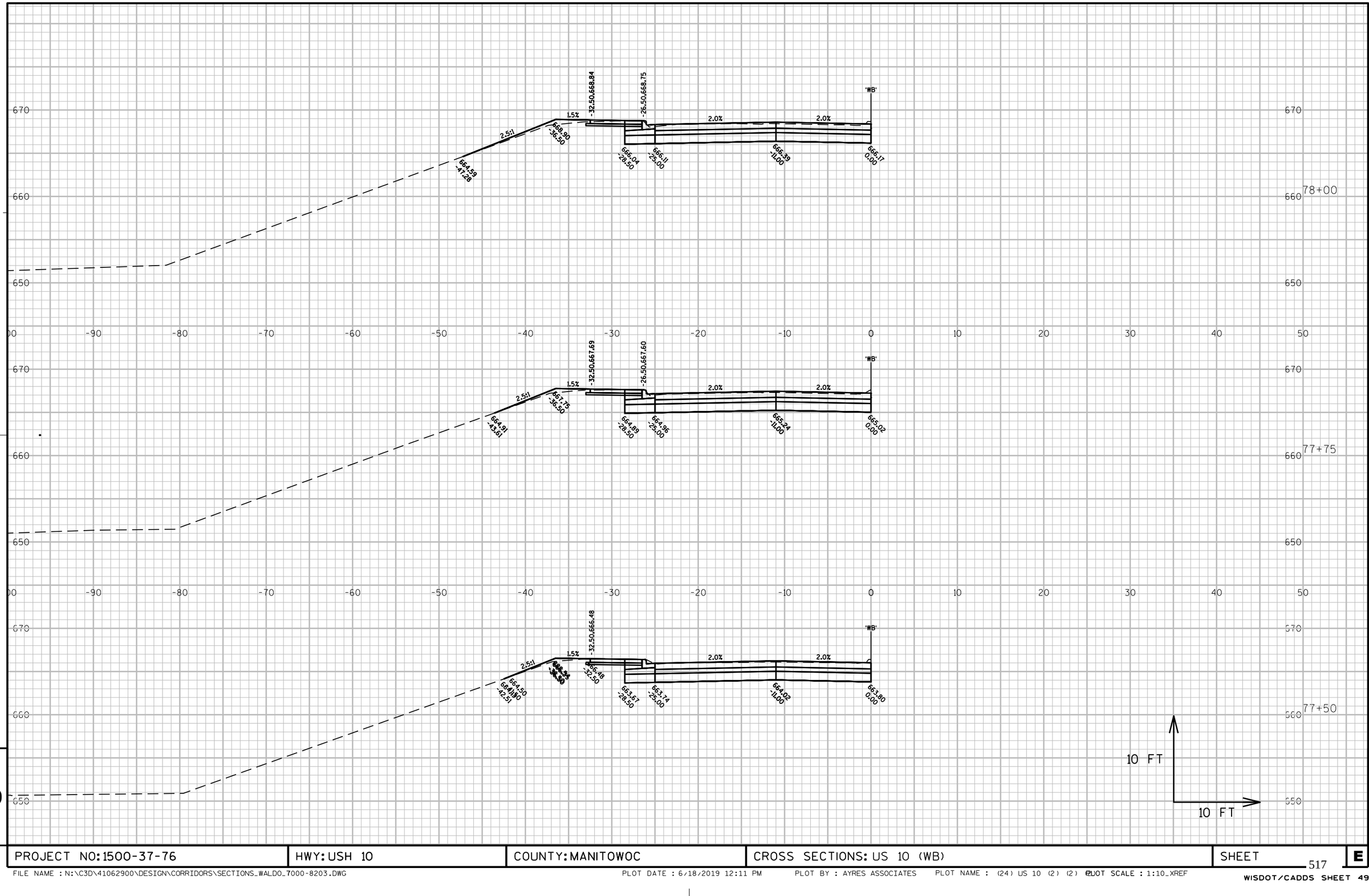
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:11 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

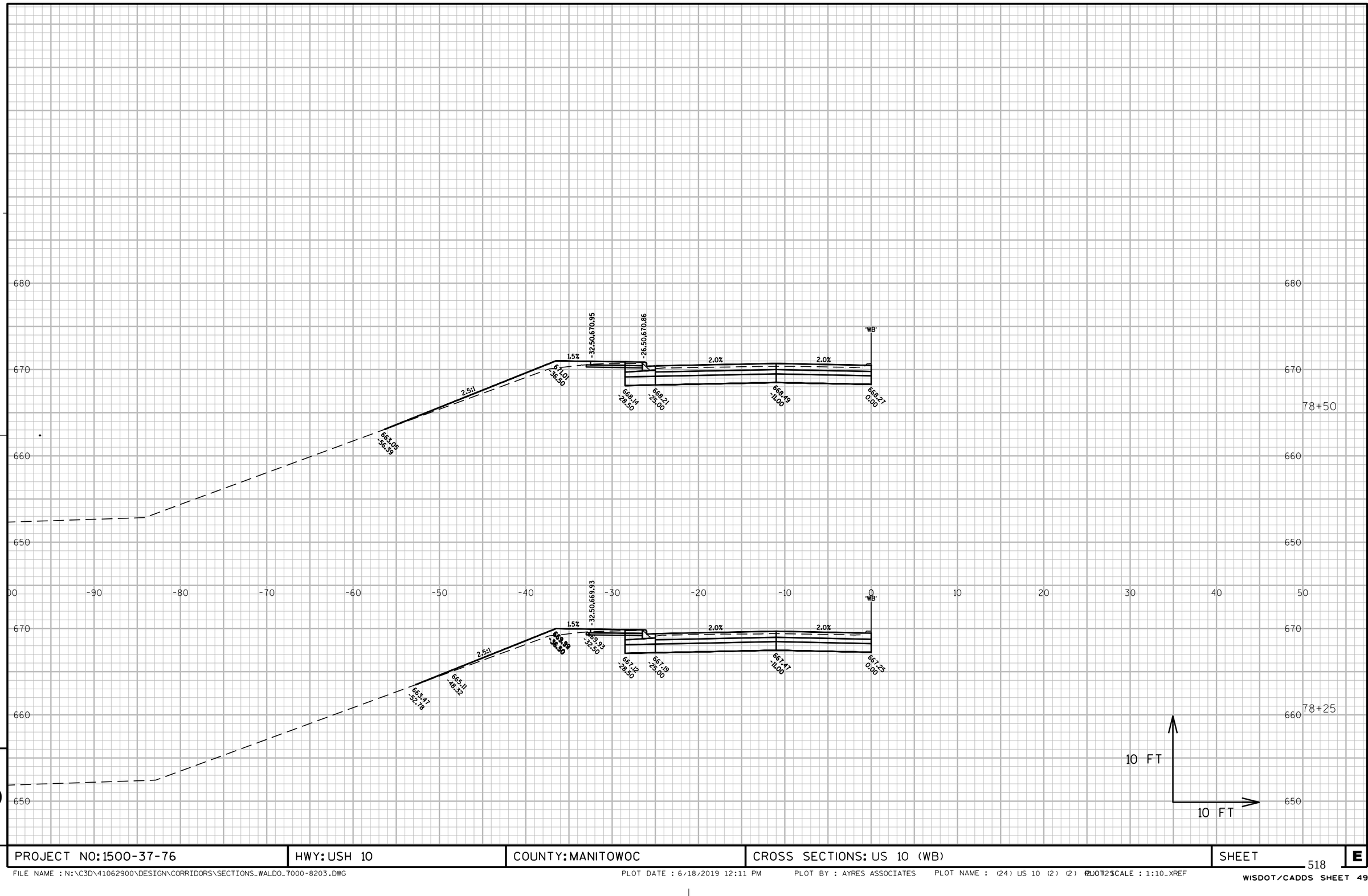


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E



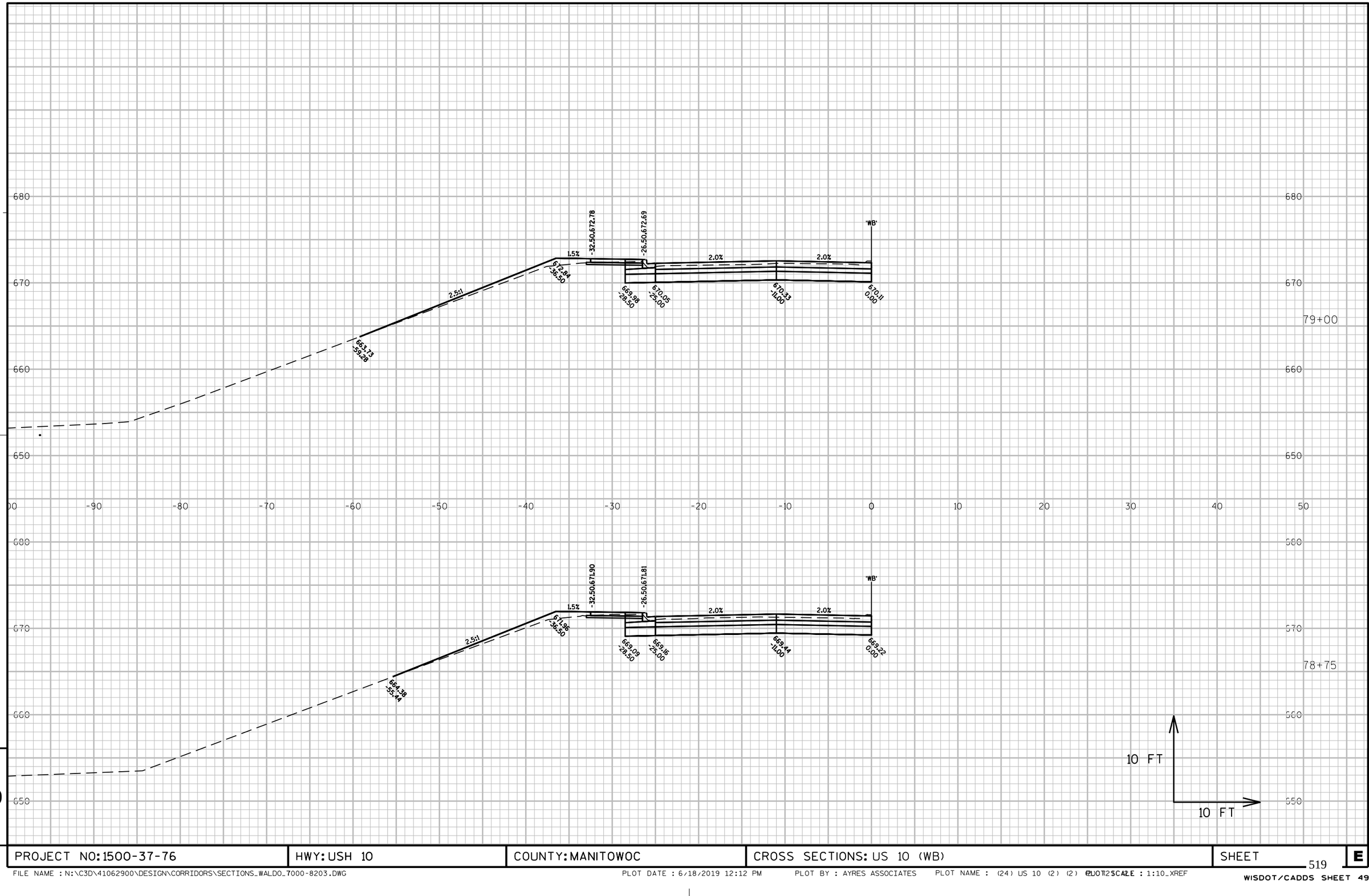
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:11 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



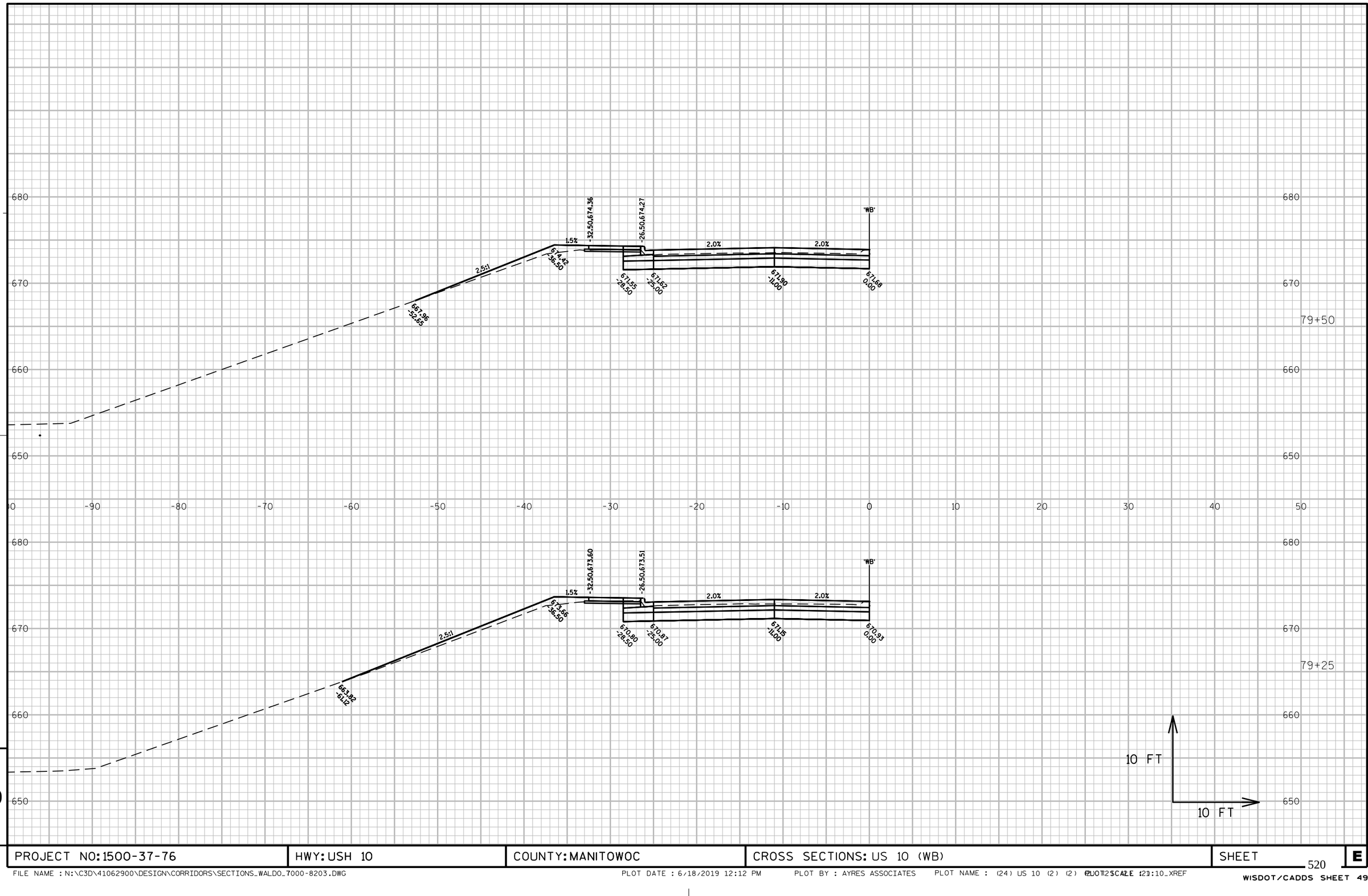
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:11 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1:10_XREF



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1:10_XREF



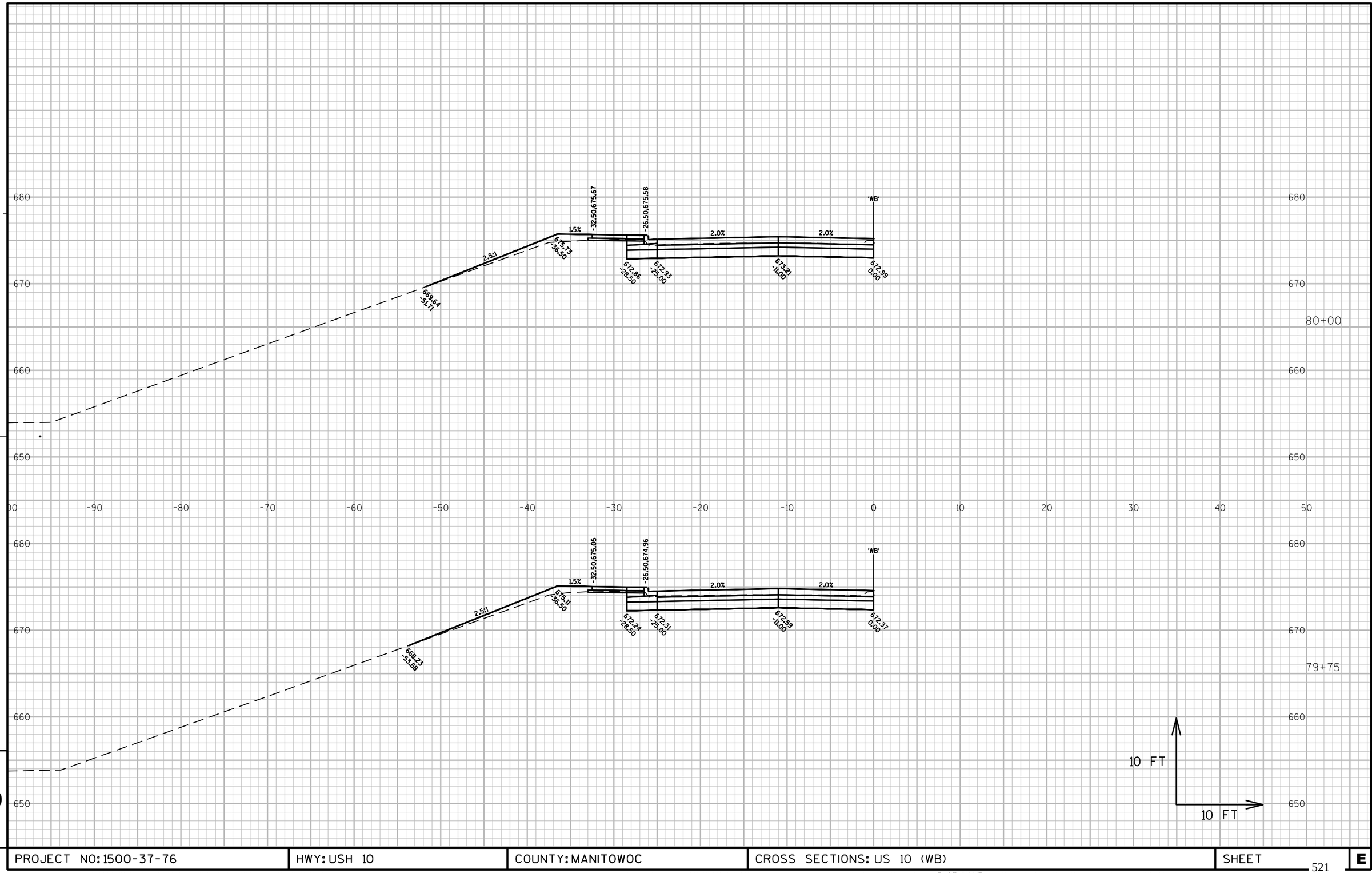
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

520

9

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1.0000 PLOT STYLE TABLE : 10_XREF

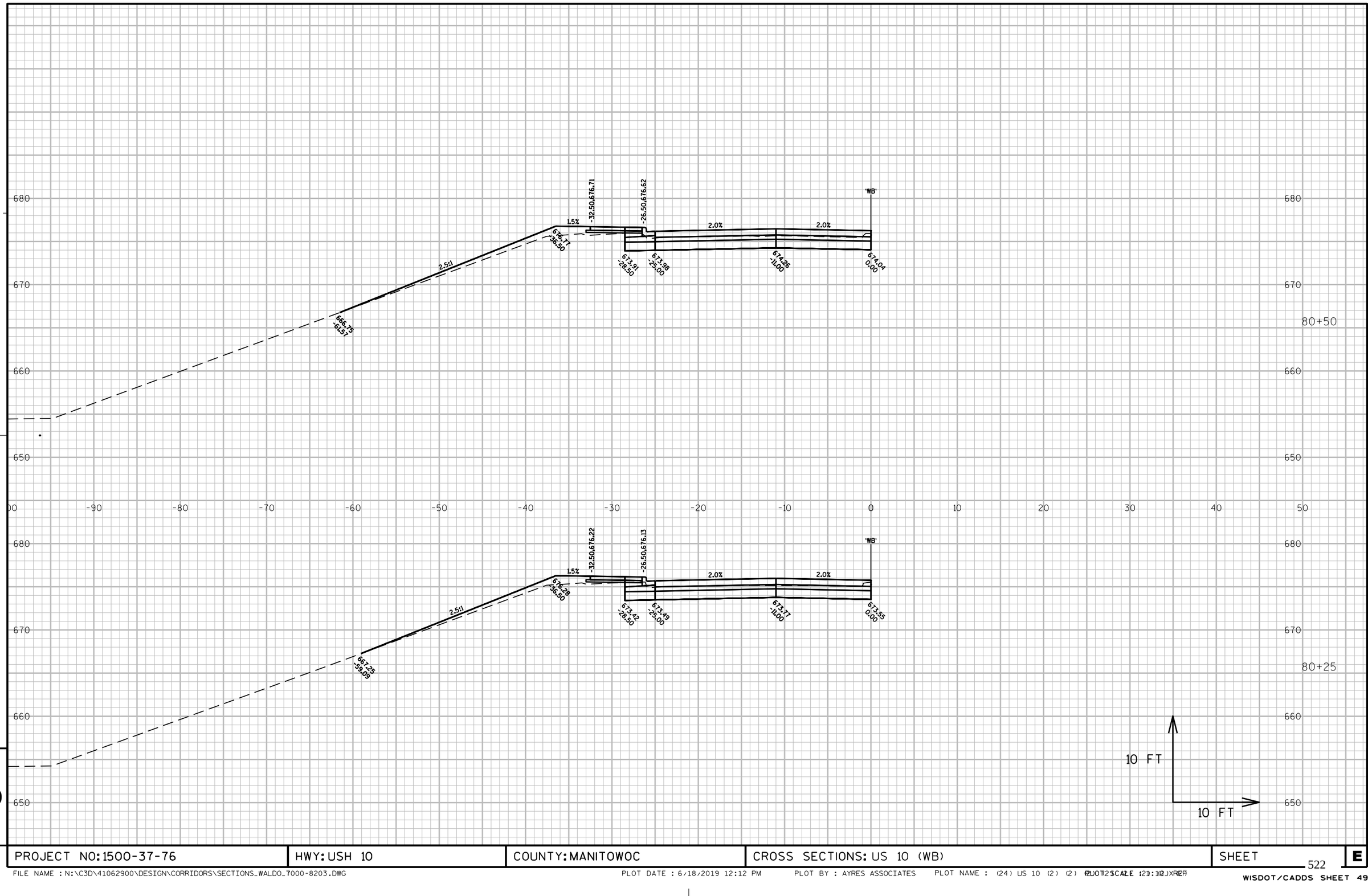


9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE 1:1 XREF



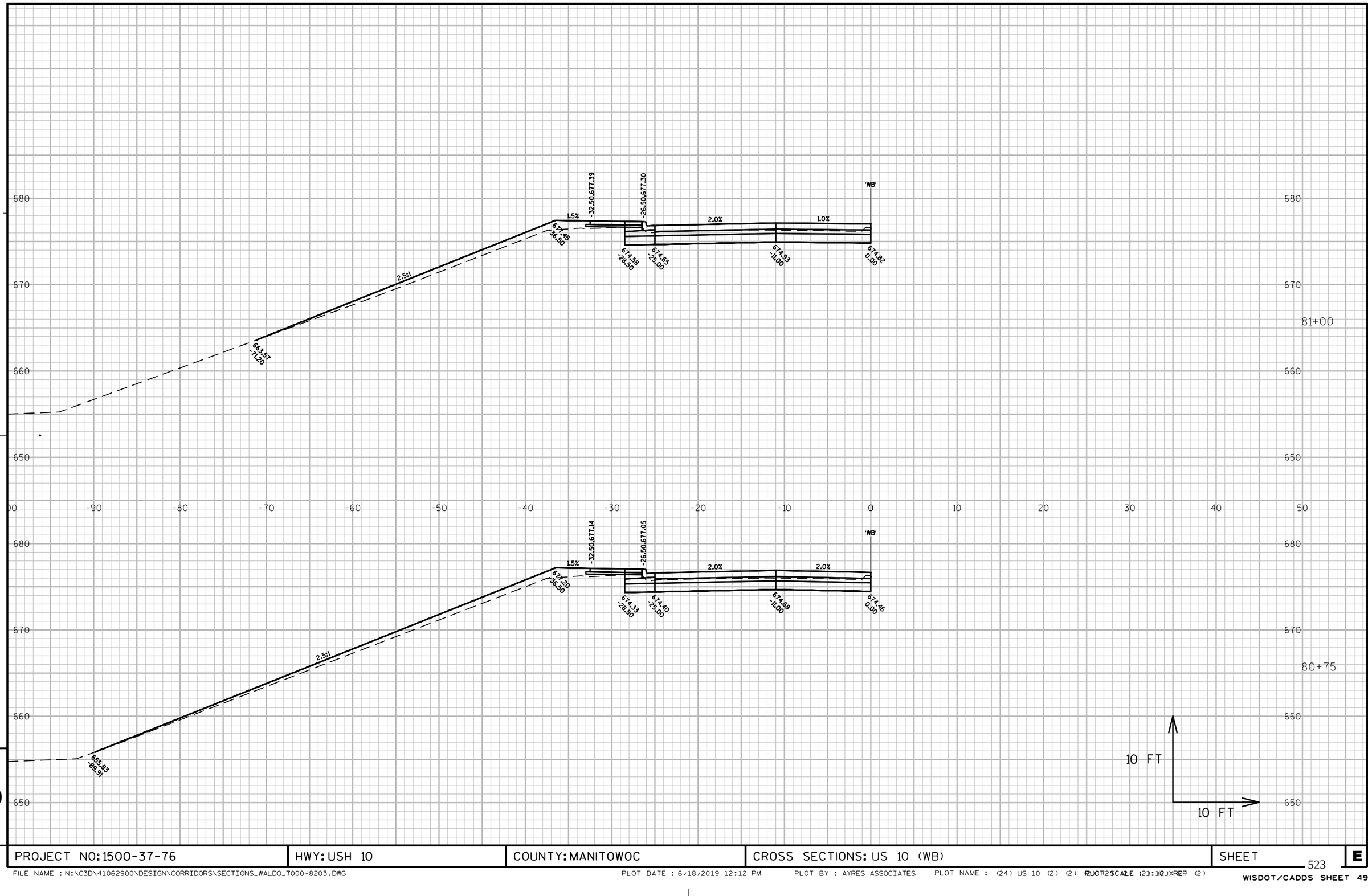
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1.0000 PLOT STYLE TABLE : ACAD.CTB

WISDOT/CADDS SHEET 49



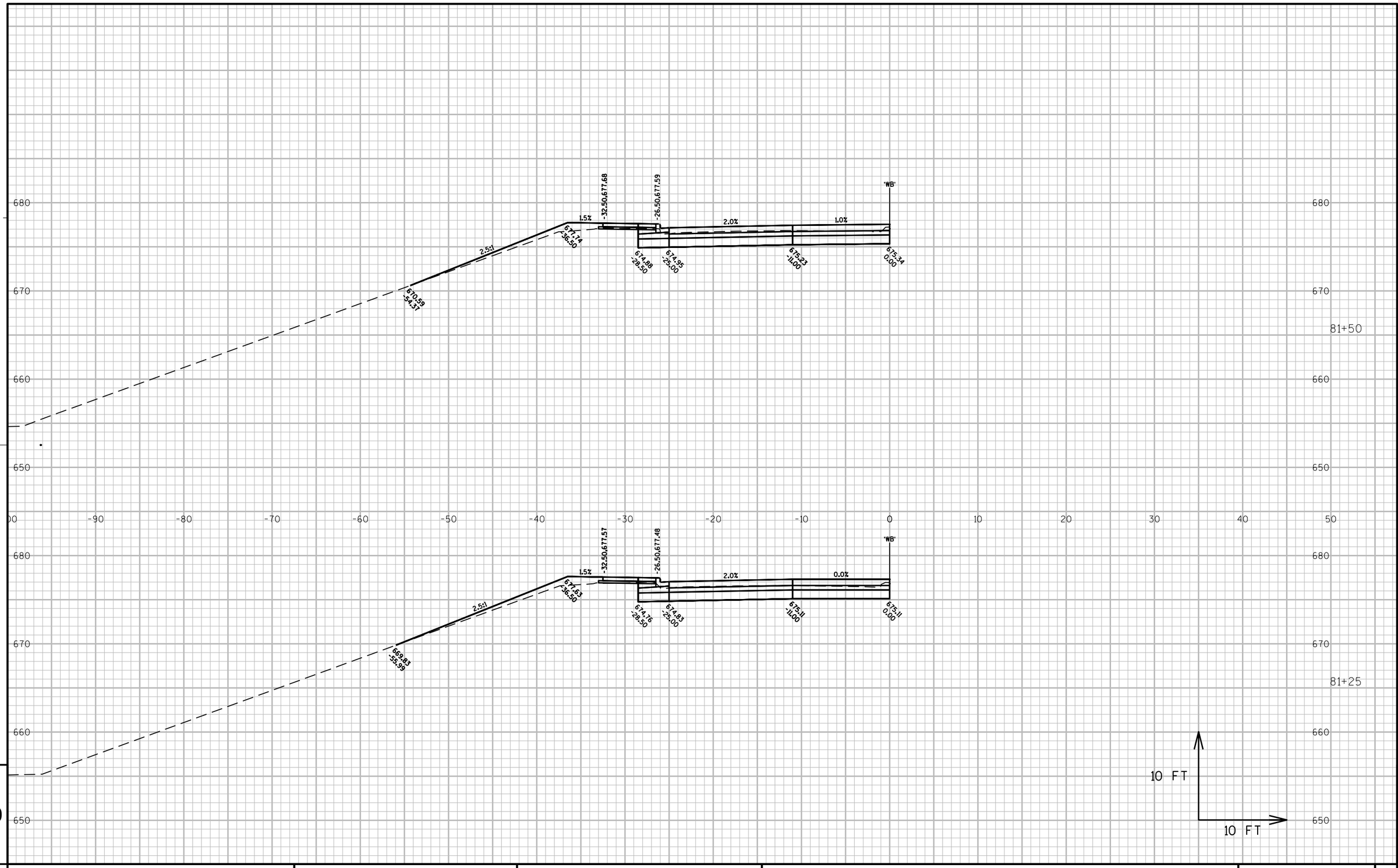
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

9

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG PLOT DATE : 6/18/2019 12:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1.0000 PLOT XREF (2)

WISDOT/CADDS SHEET 49



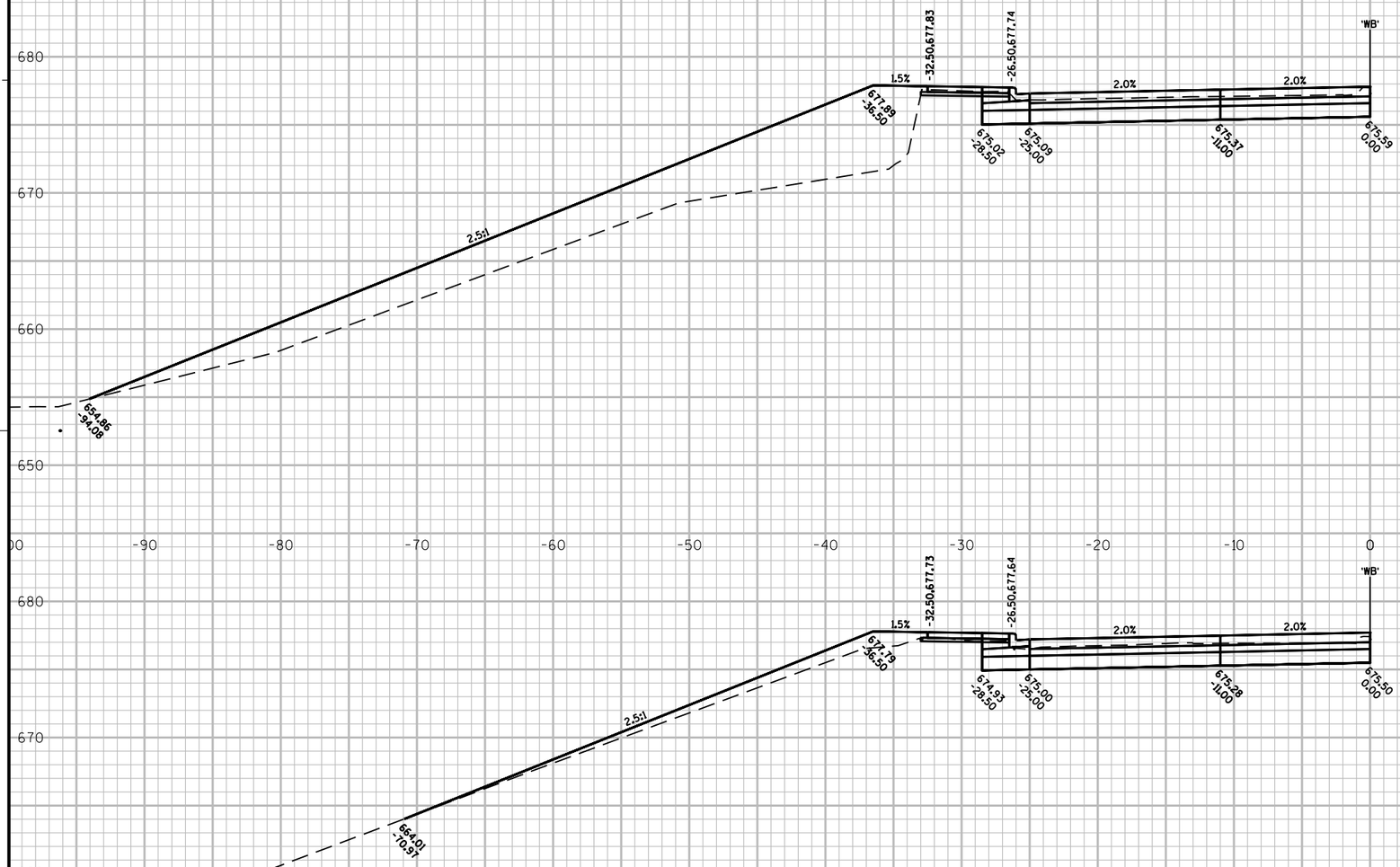
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET	E

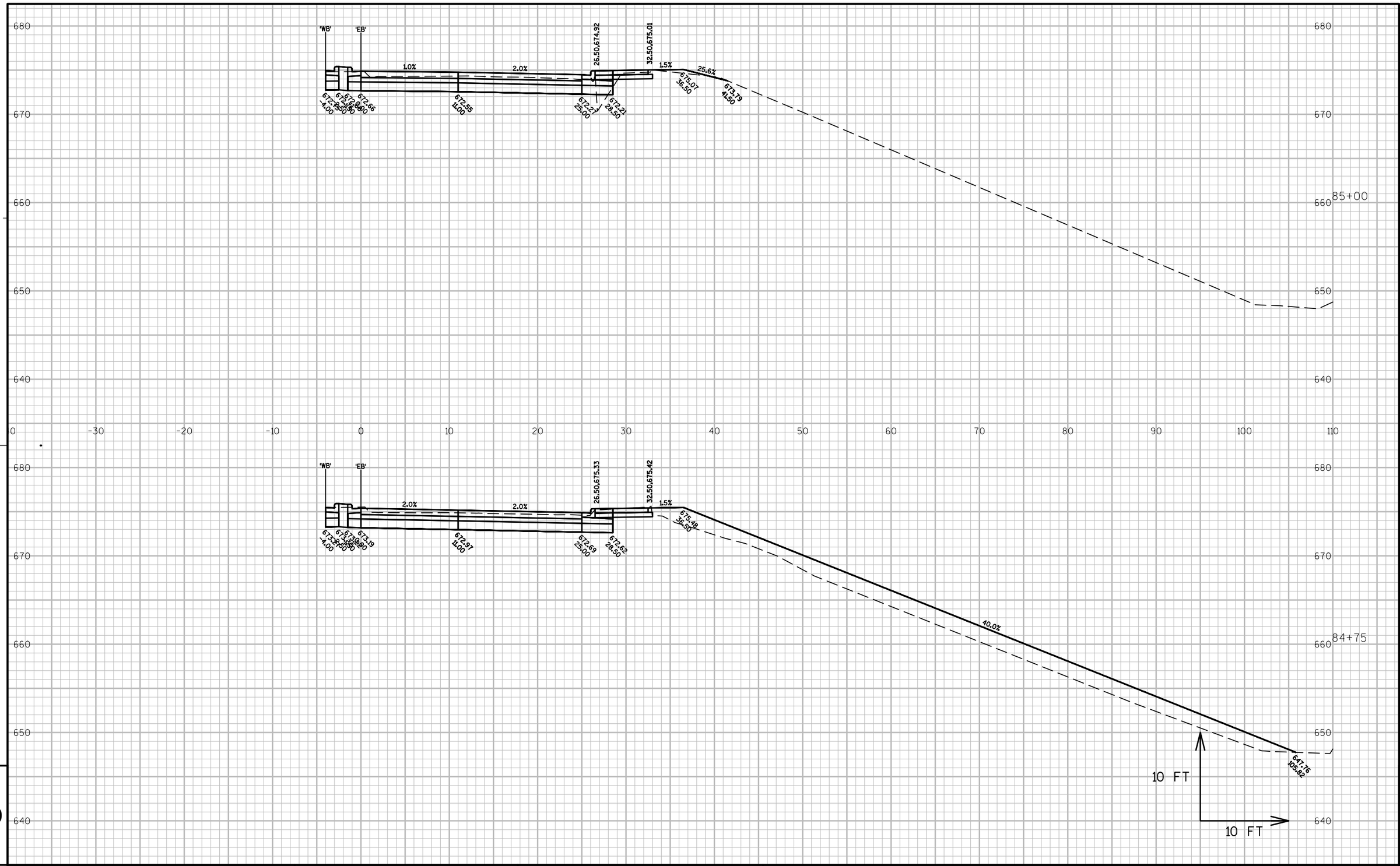
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG
PLOT DATE : 6/18/2019 12:13 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (24) US 10 (2) (2) PLOT SCALE : 1.0000 XREF (2) (2)
WISDOT/CADDS SHEET 49

STRUCTURE B-36-29
STA. 83+35



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 525	E

9 9

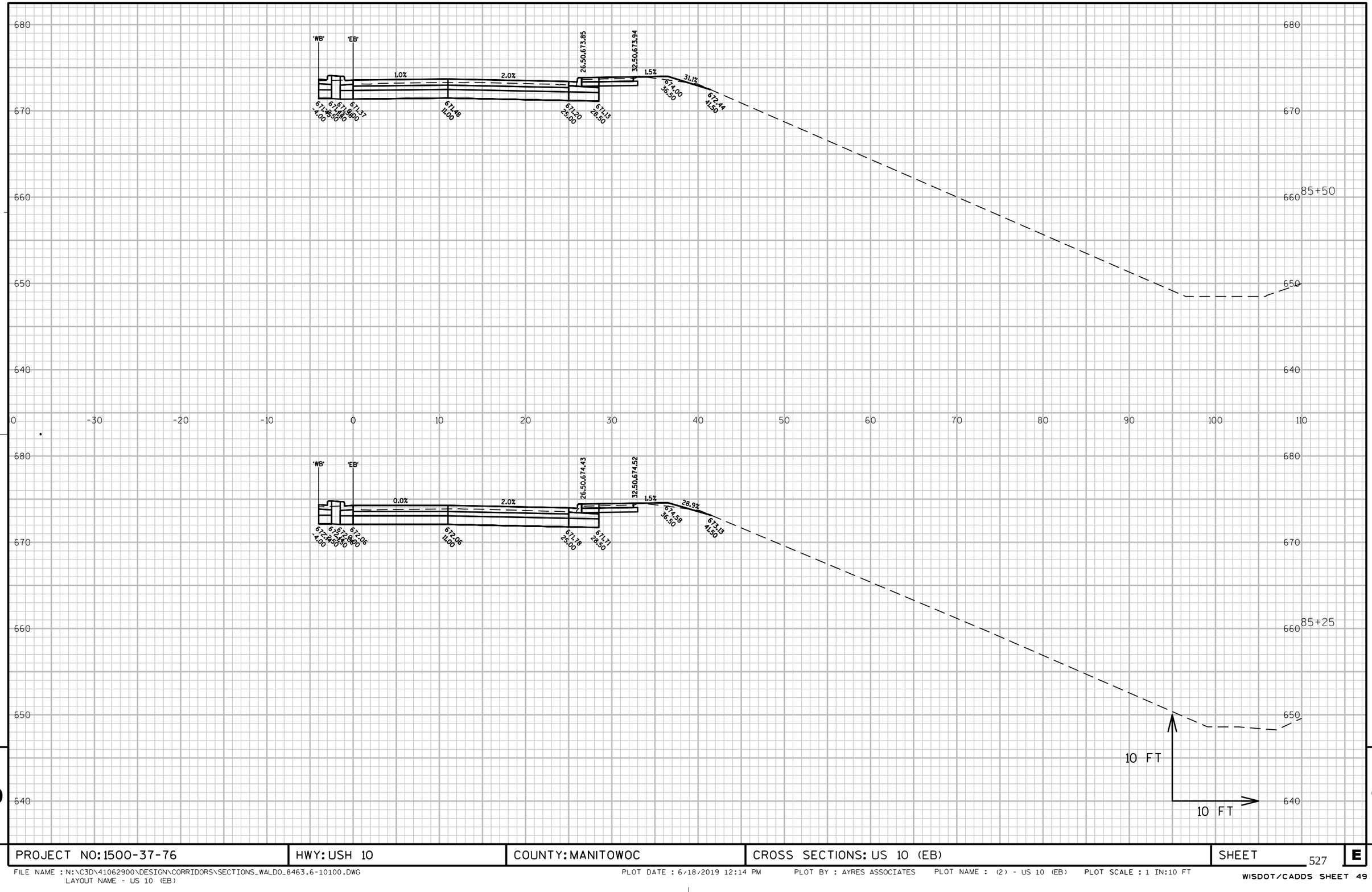


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:14 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

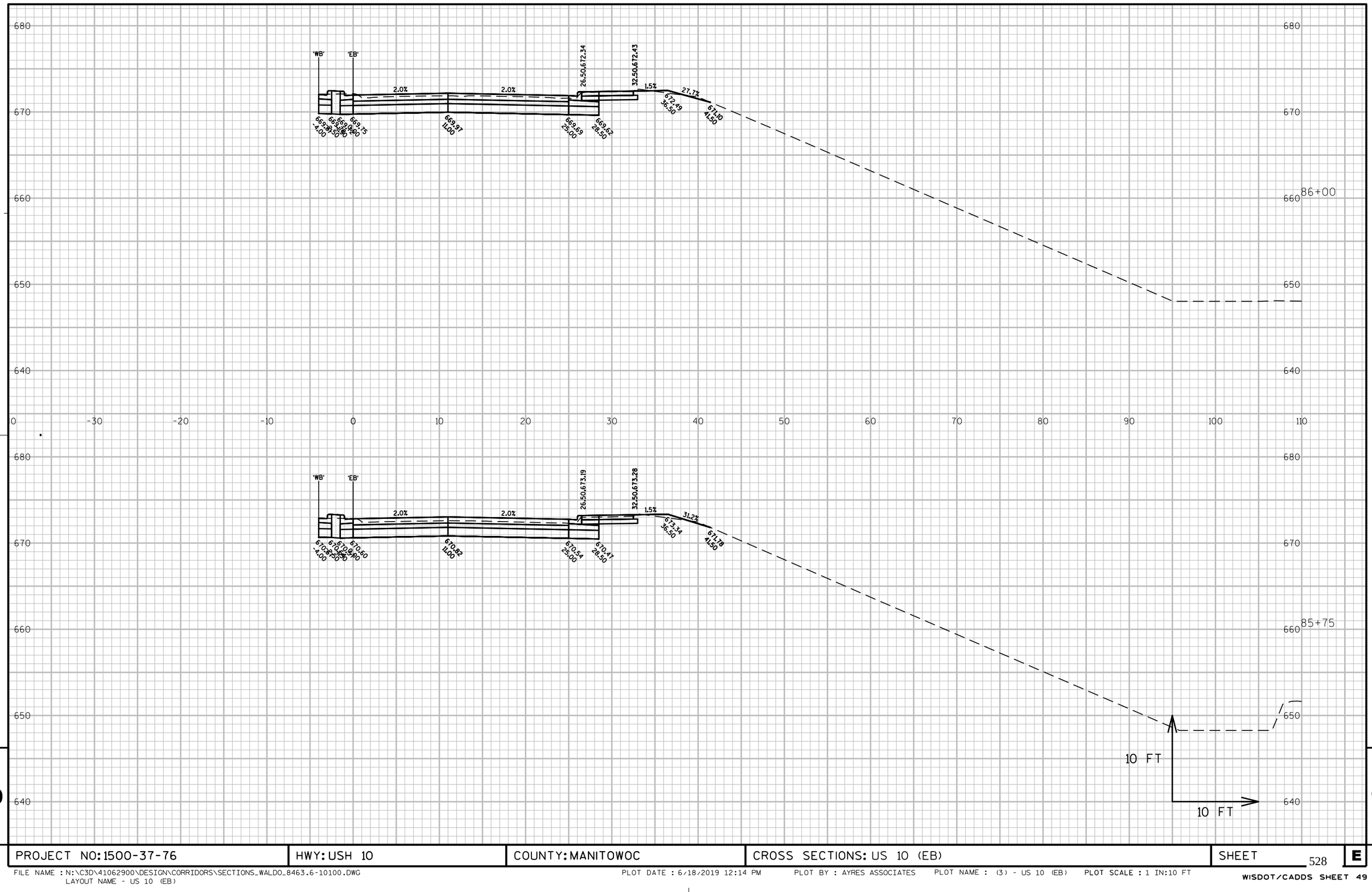


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 527	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:14 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

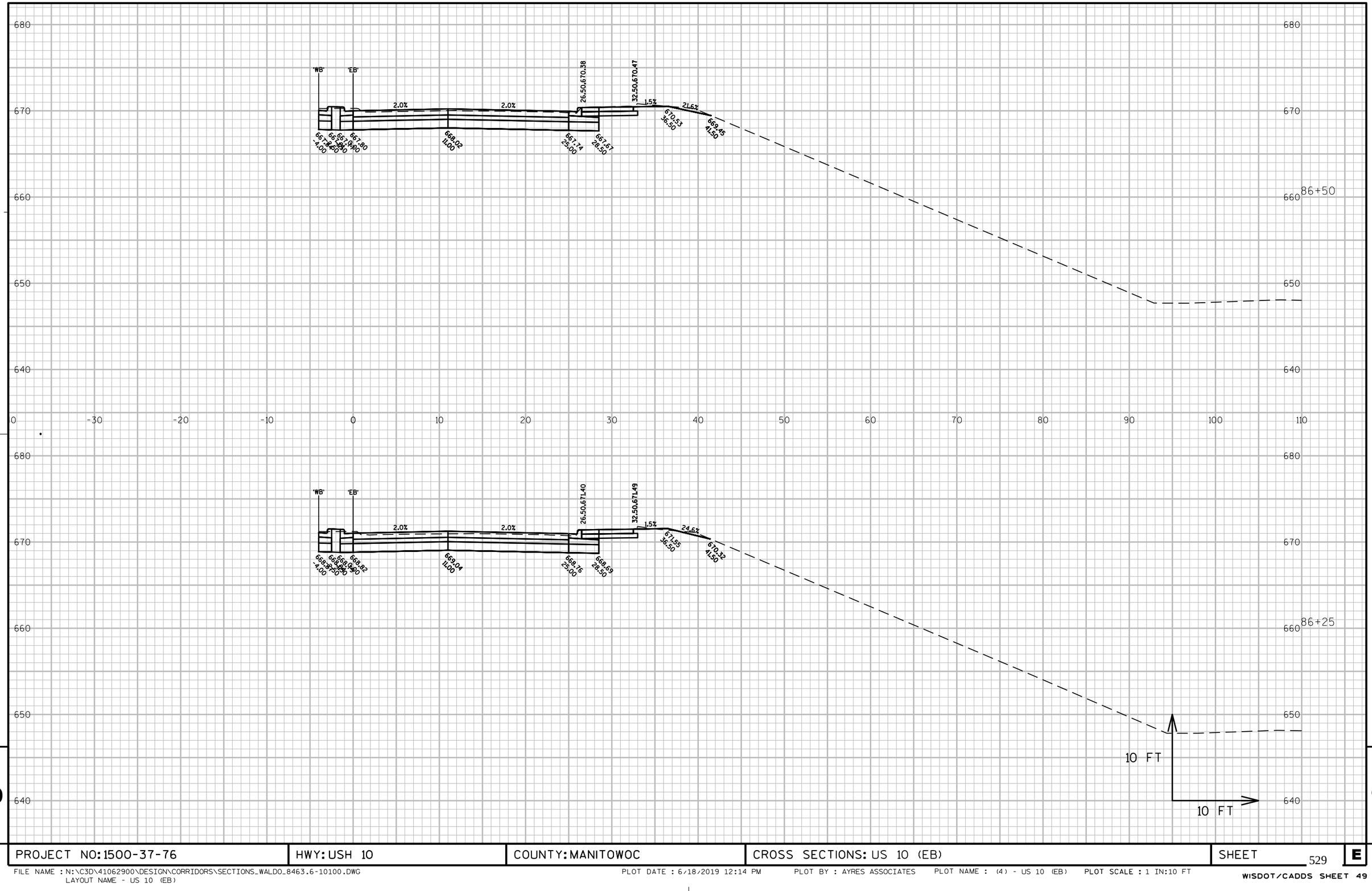


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 528	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:14 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (3) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

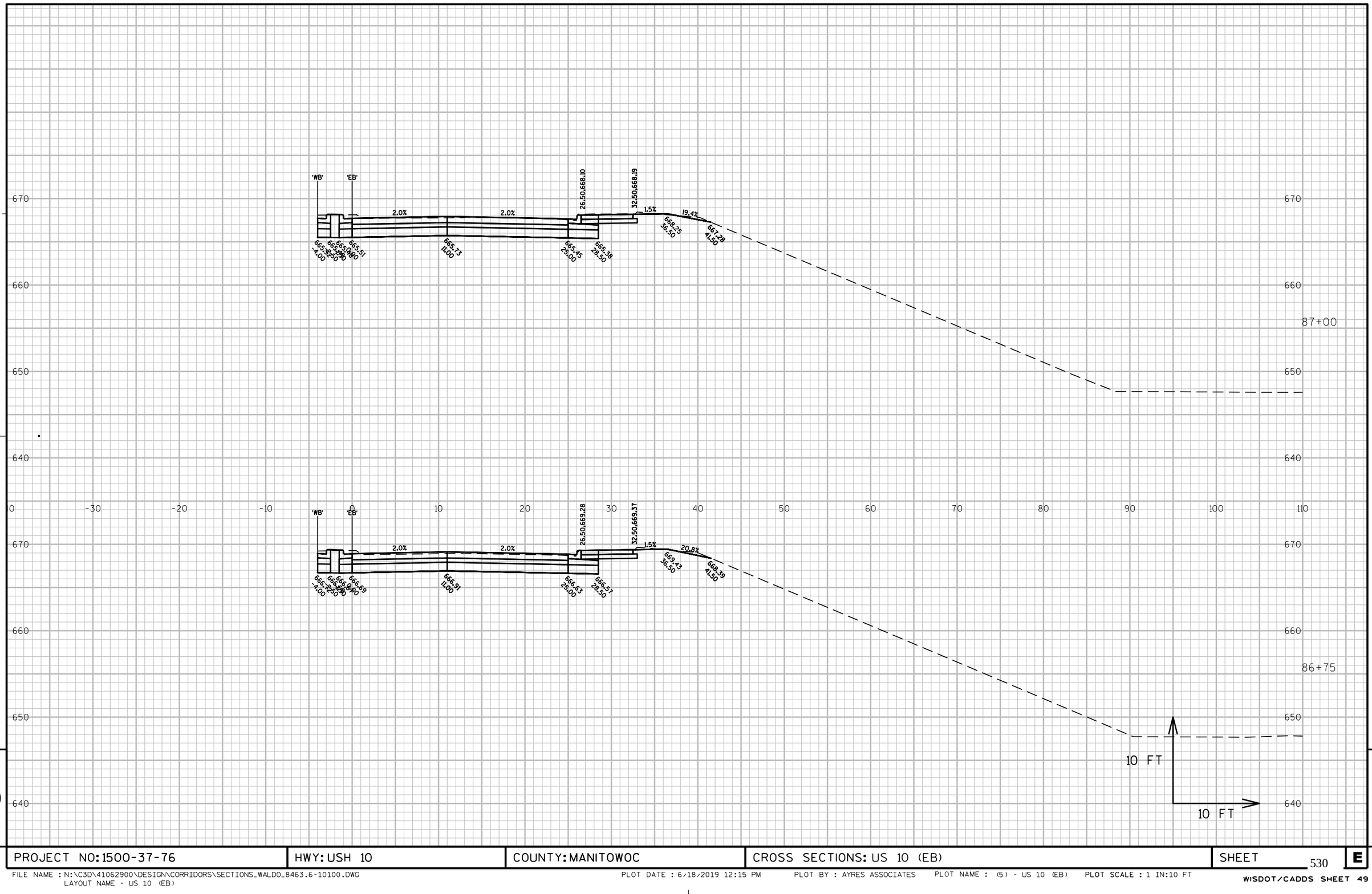


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 529	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:14 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (4) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

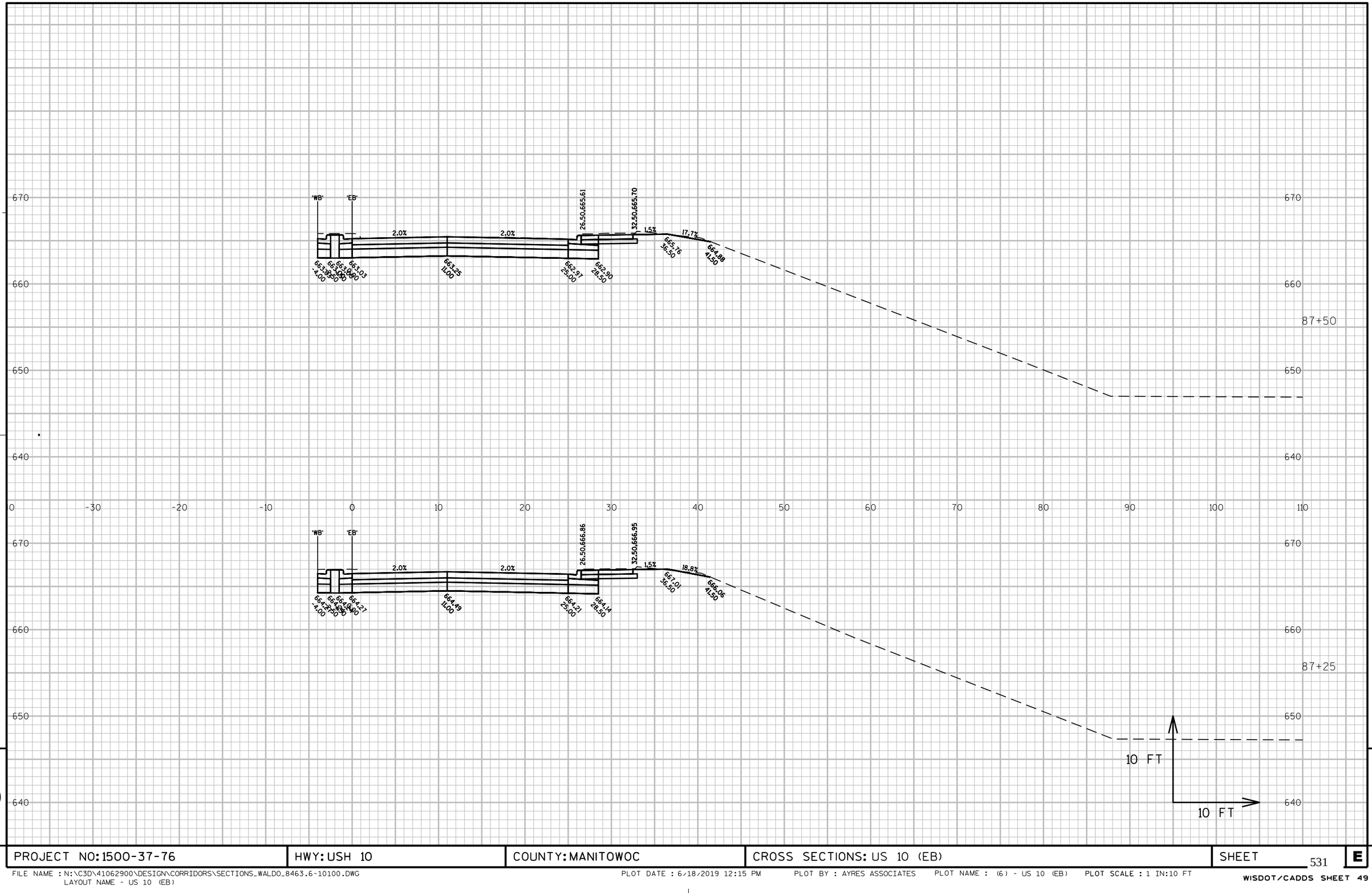


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 530	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (5) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

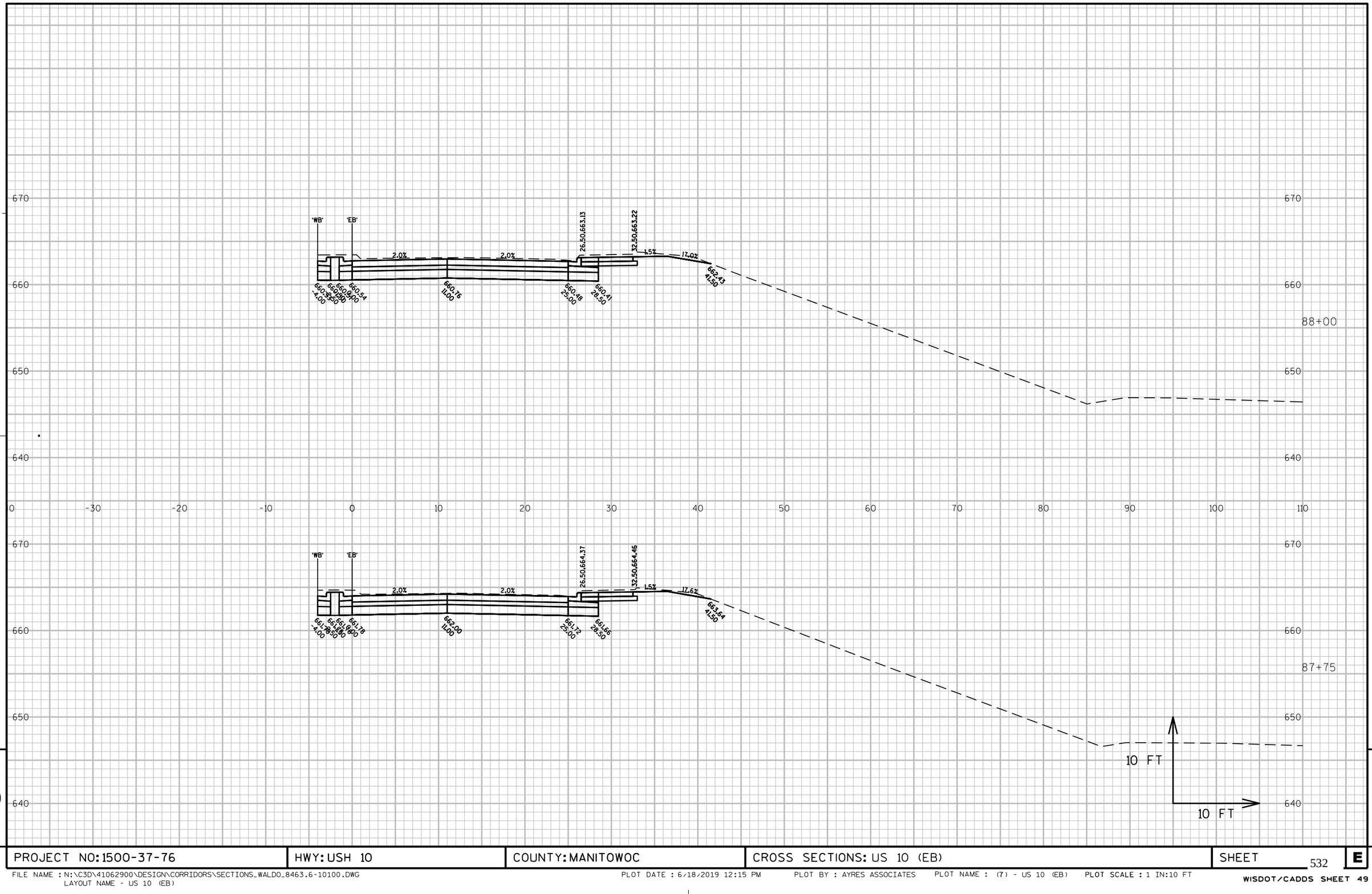


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 531	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (6) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

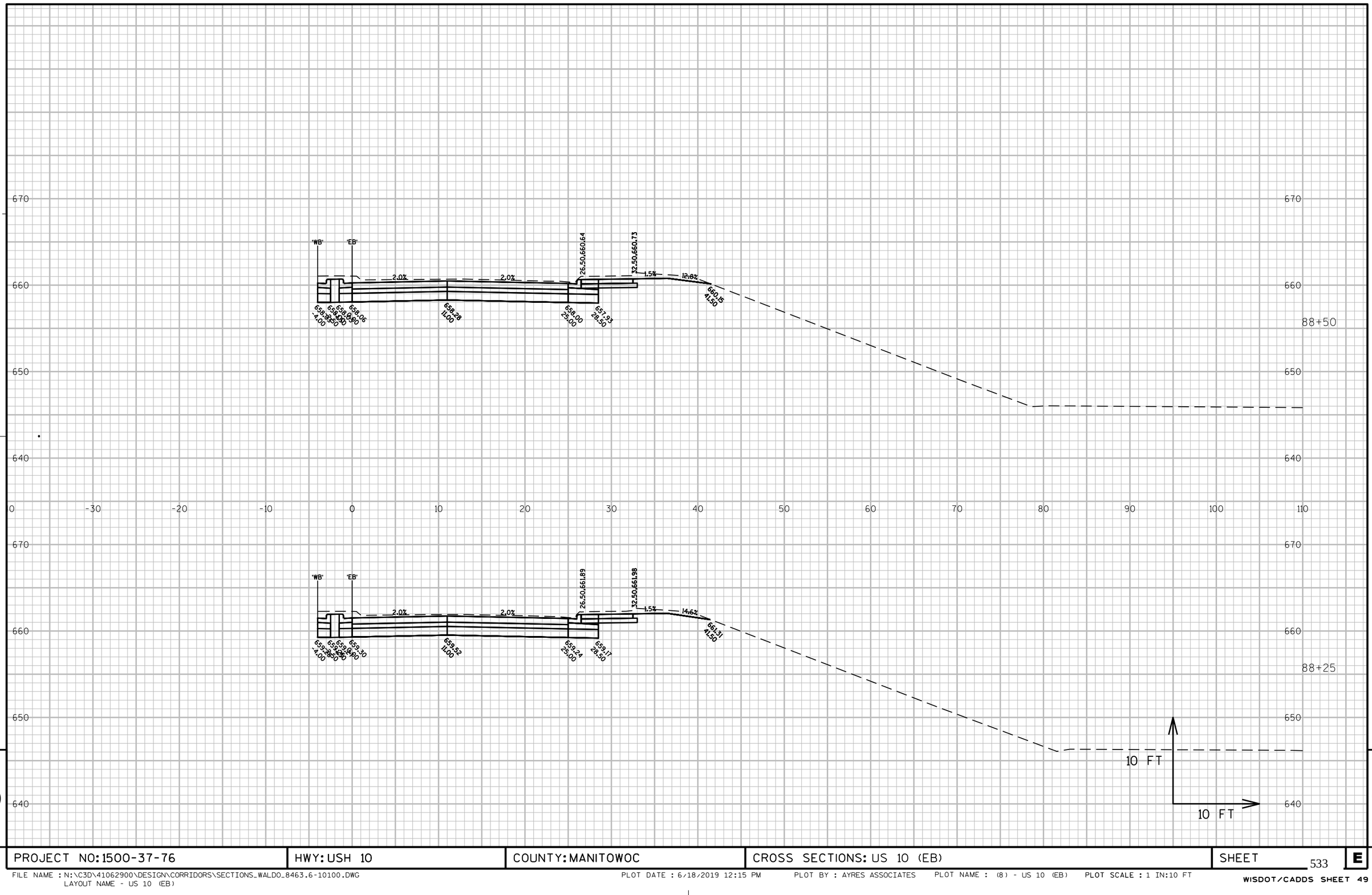


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 532	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (7) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

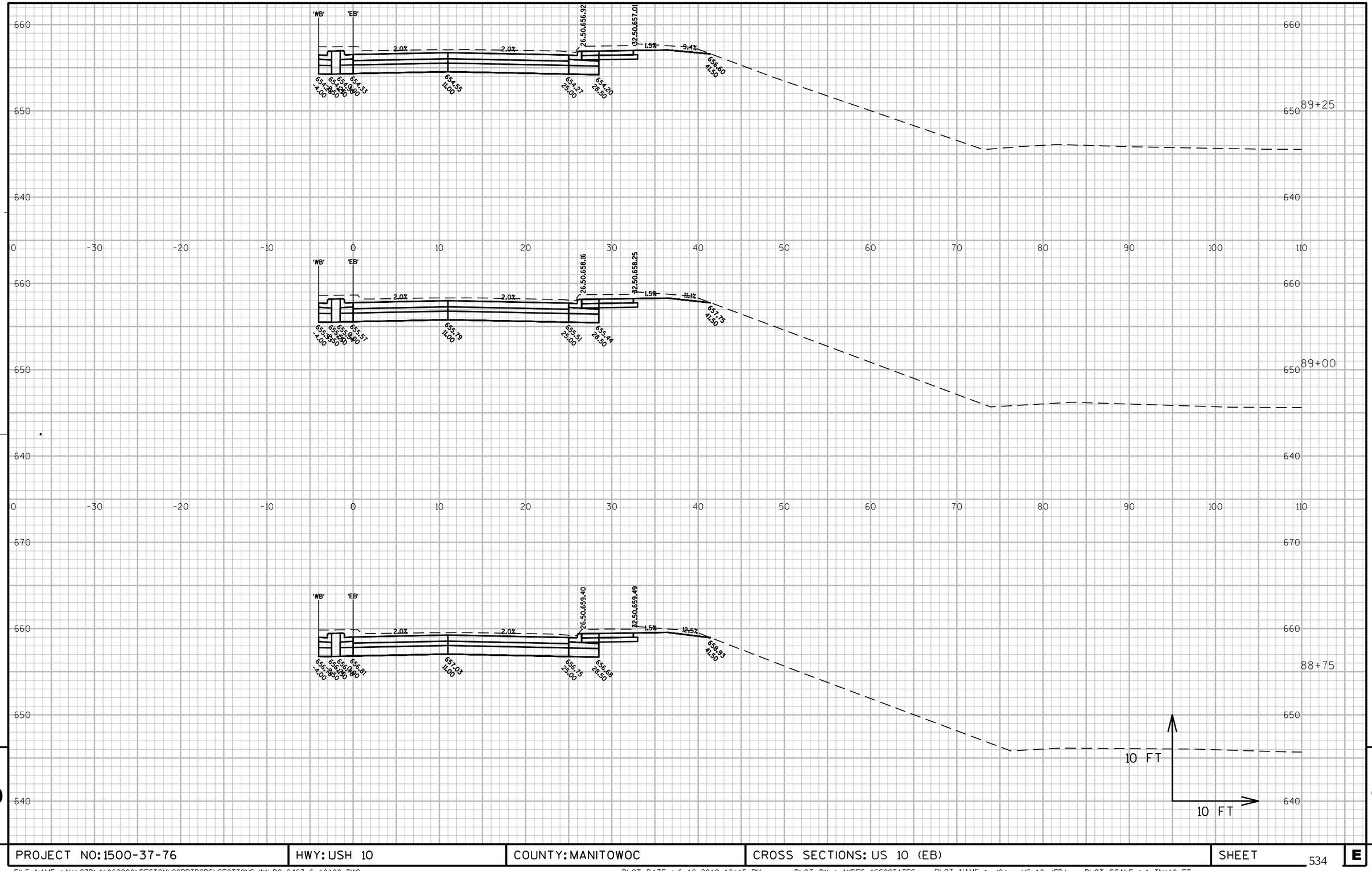


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 533	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (8) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

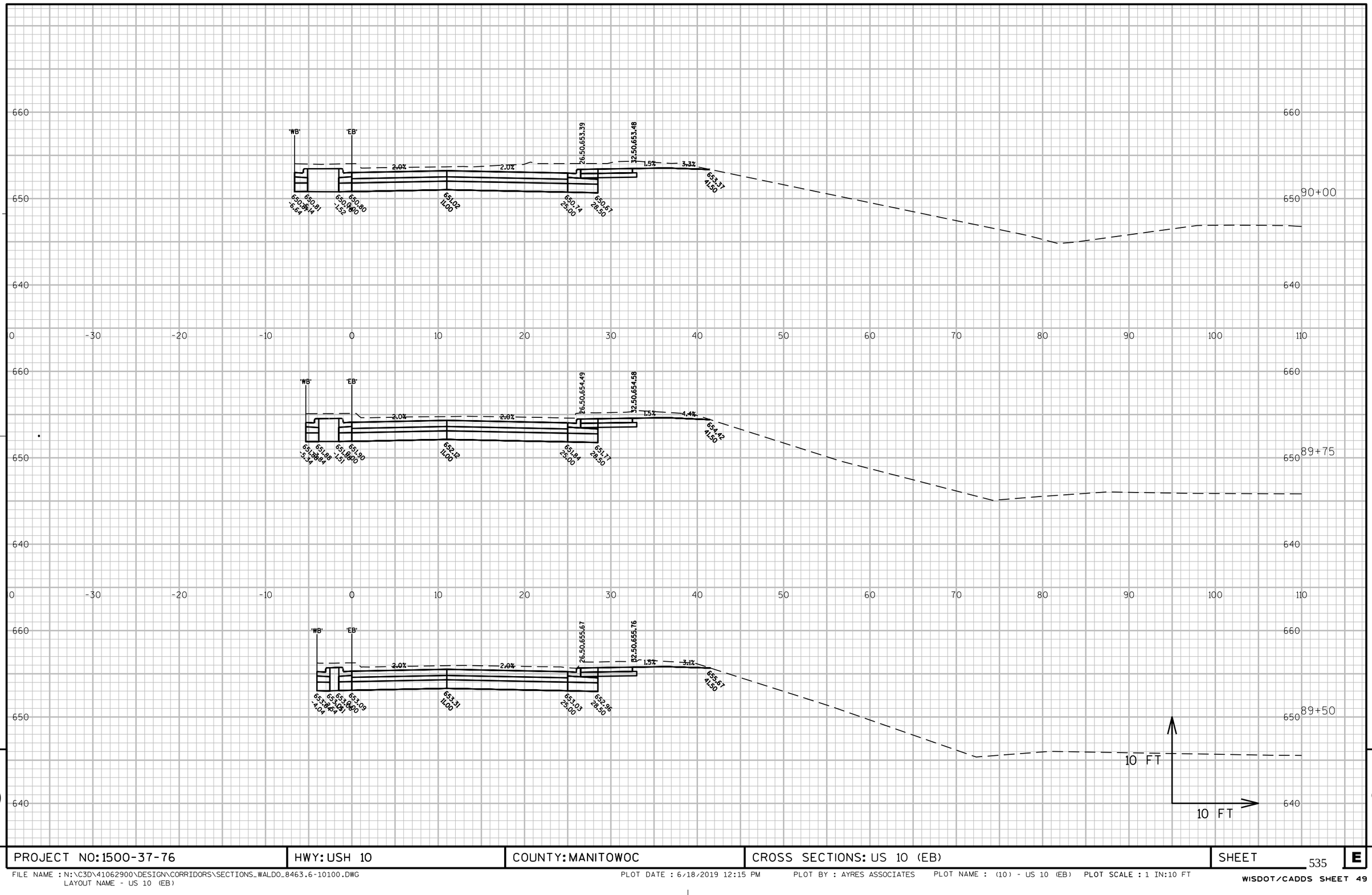


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 534	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (9) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

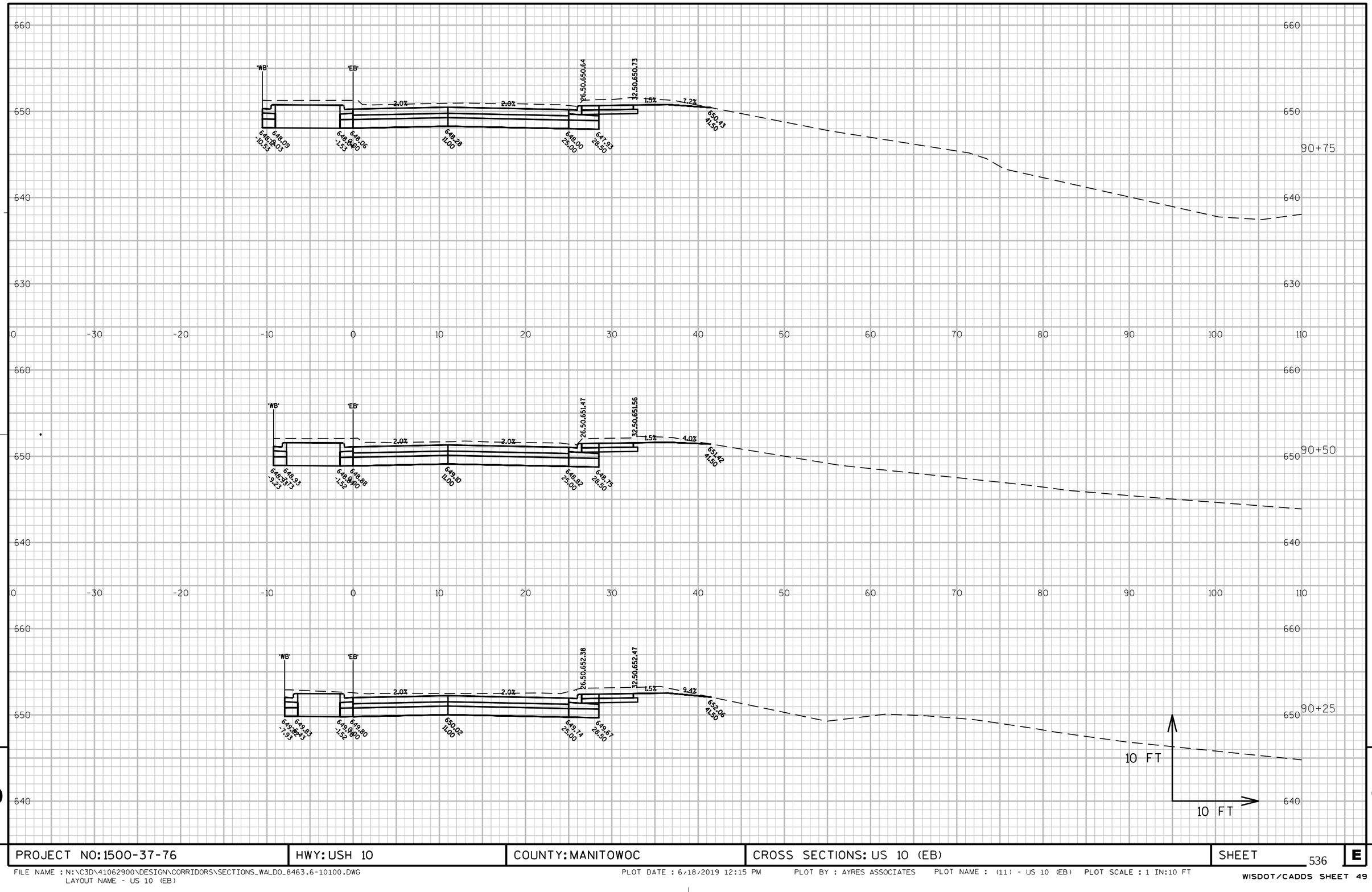


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 535	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (10) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

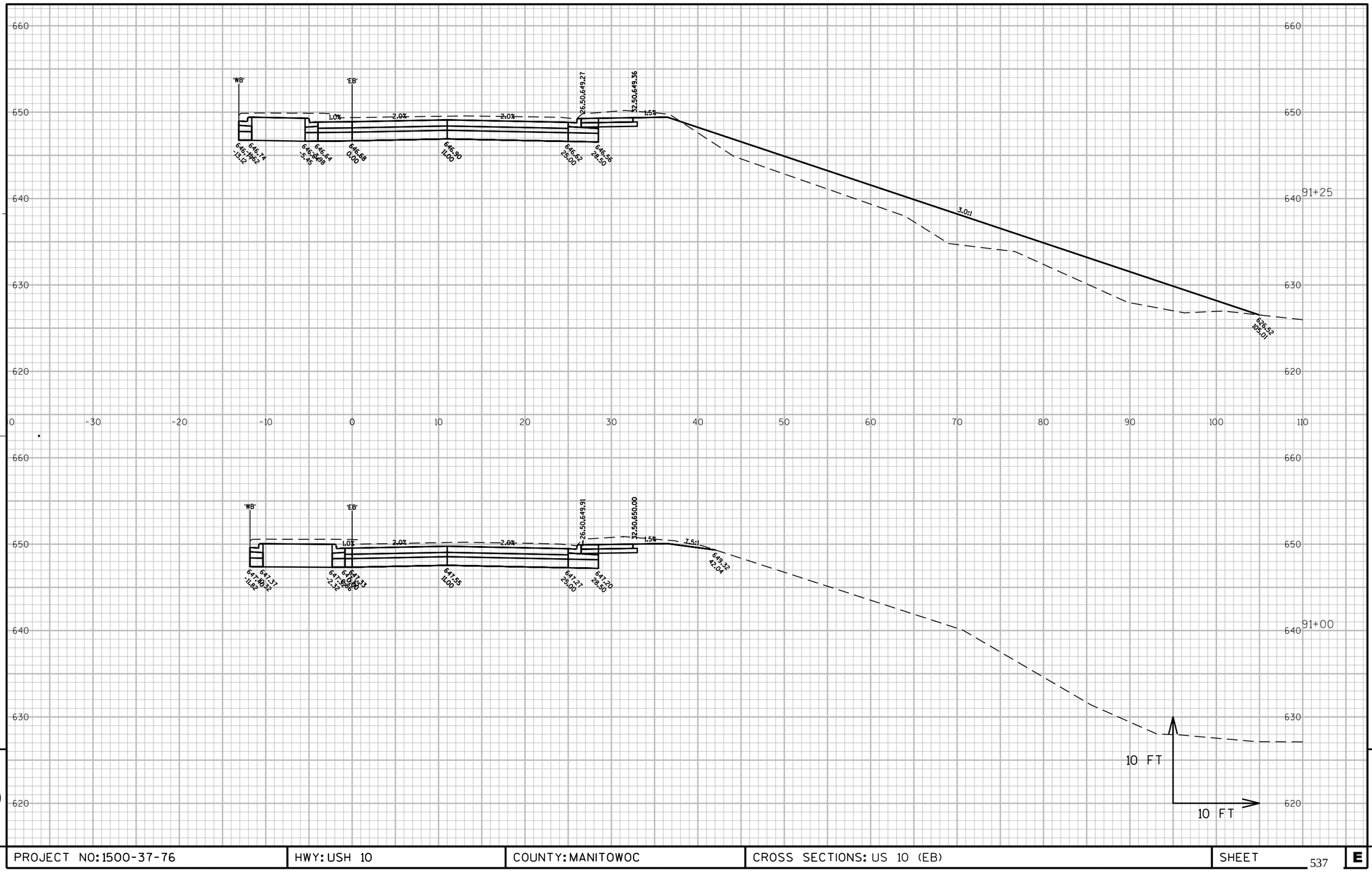


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 536	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (11) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

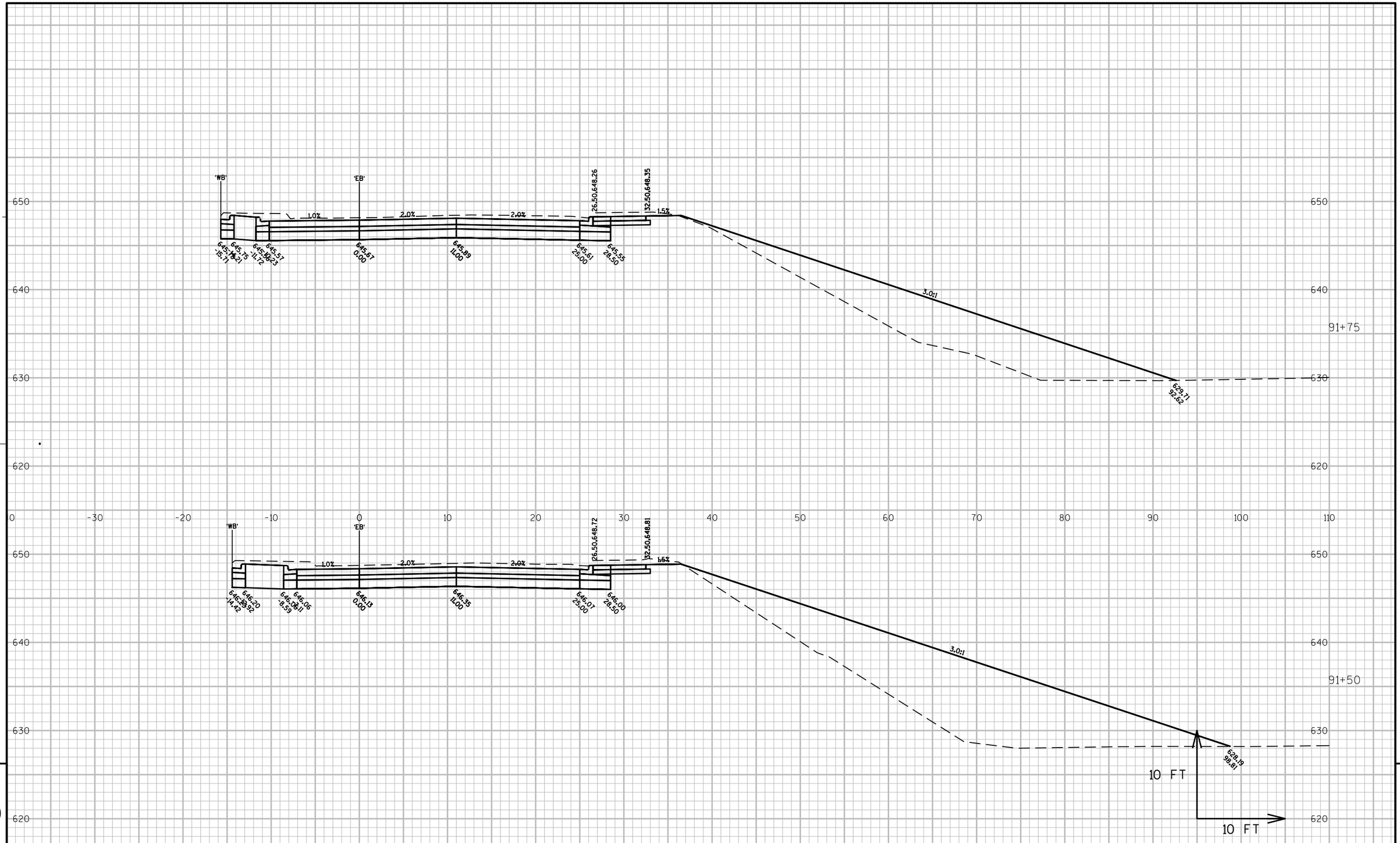
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 537	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:15 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (12) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

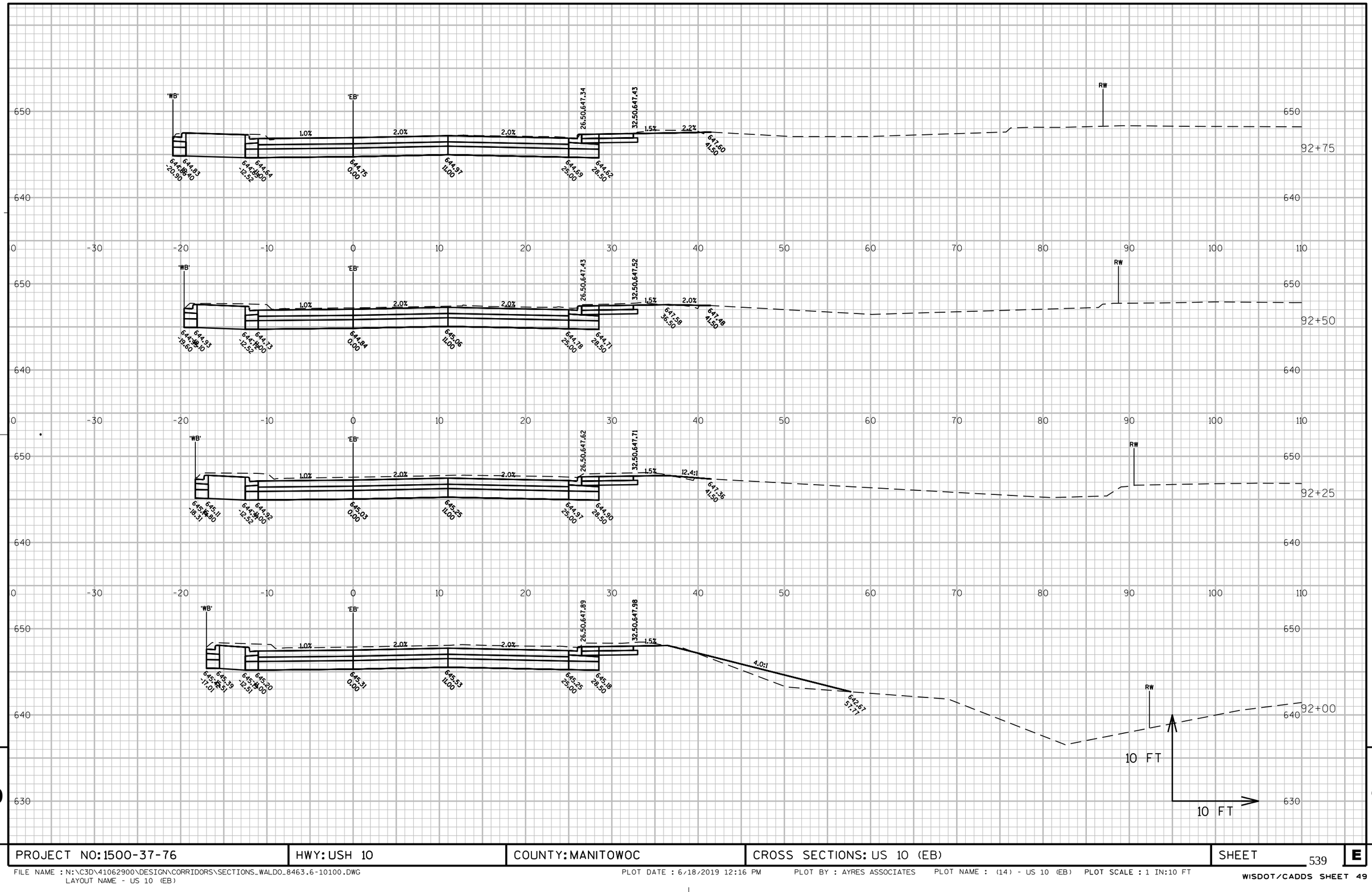


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 538	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:16 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (13) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

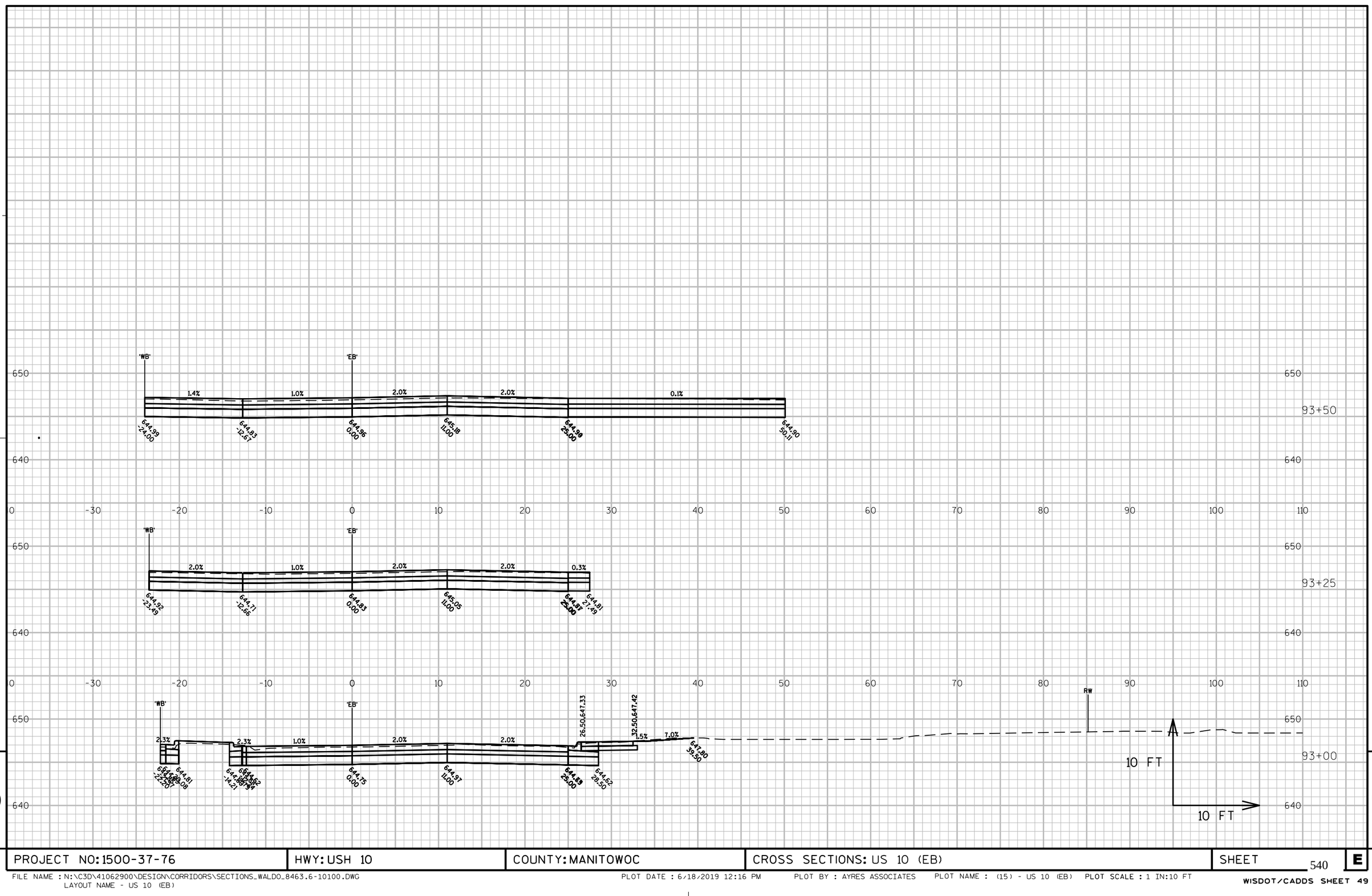


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 539	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:16 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (14) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

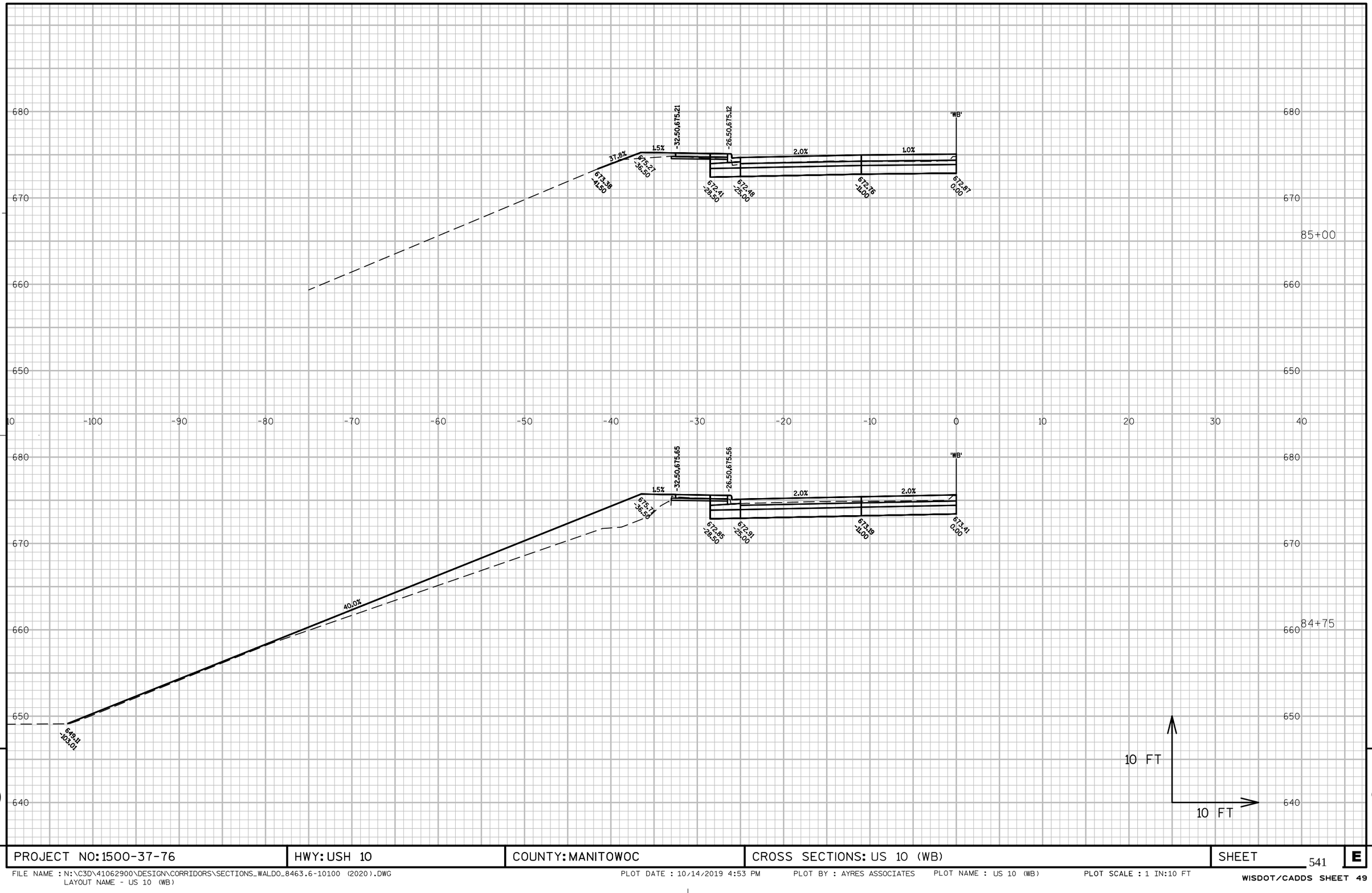


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (EB)	SHEET 540	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - US 10 (EB)

PLOT DATE : 6/18/2019 12:16 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (15) - US 10 (EB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

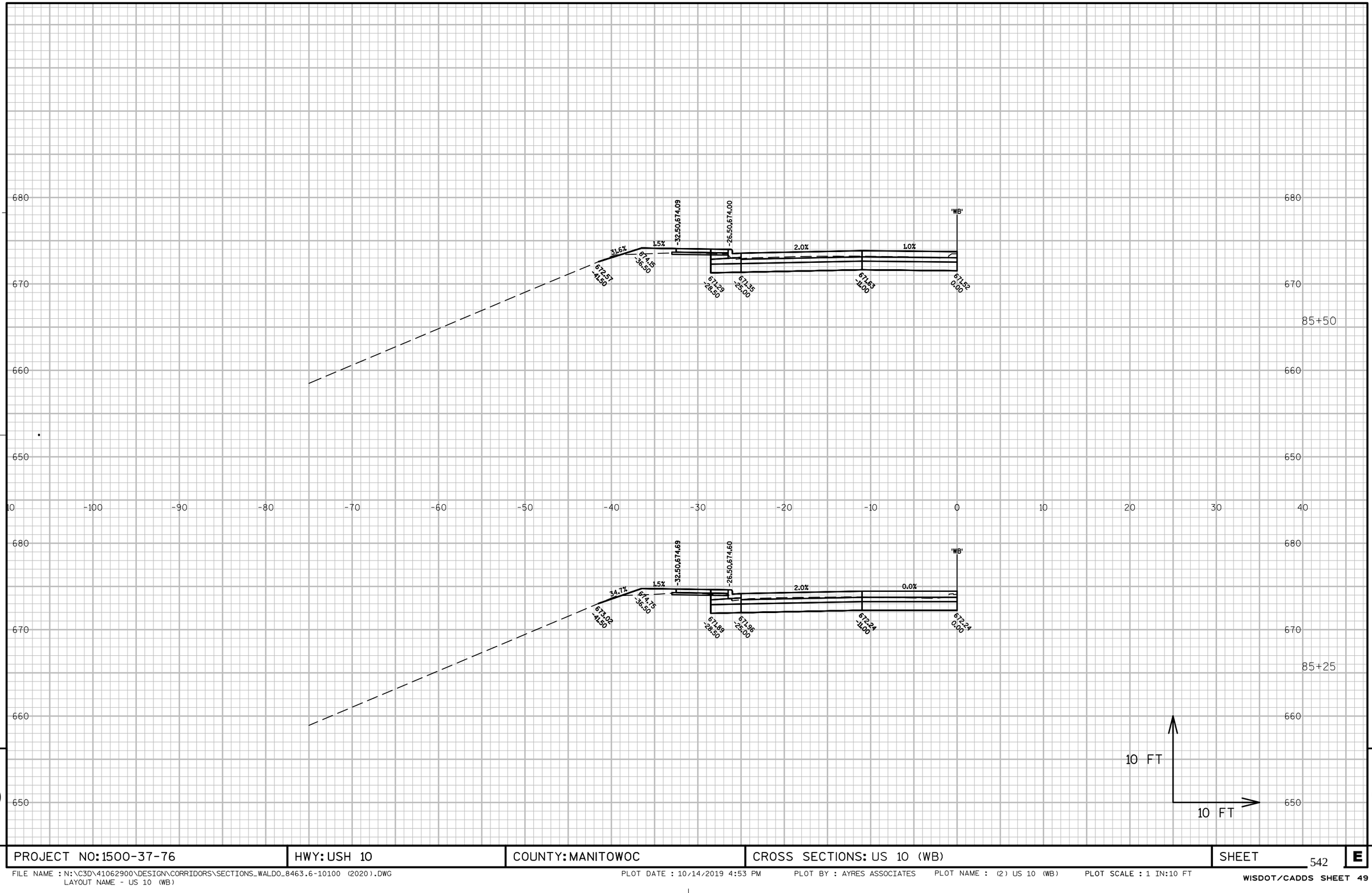


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 541	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:53 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : US 10 (WB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

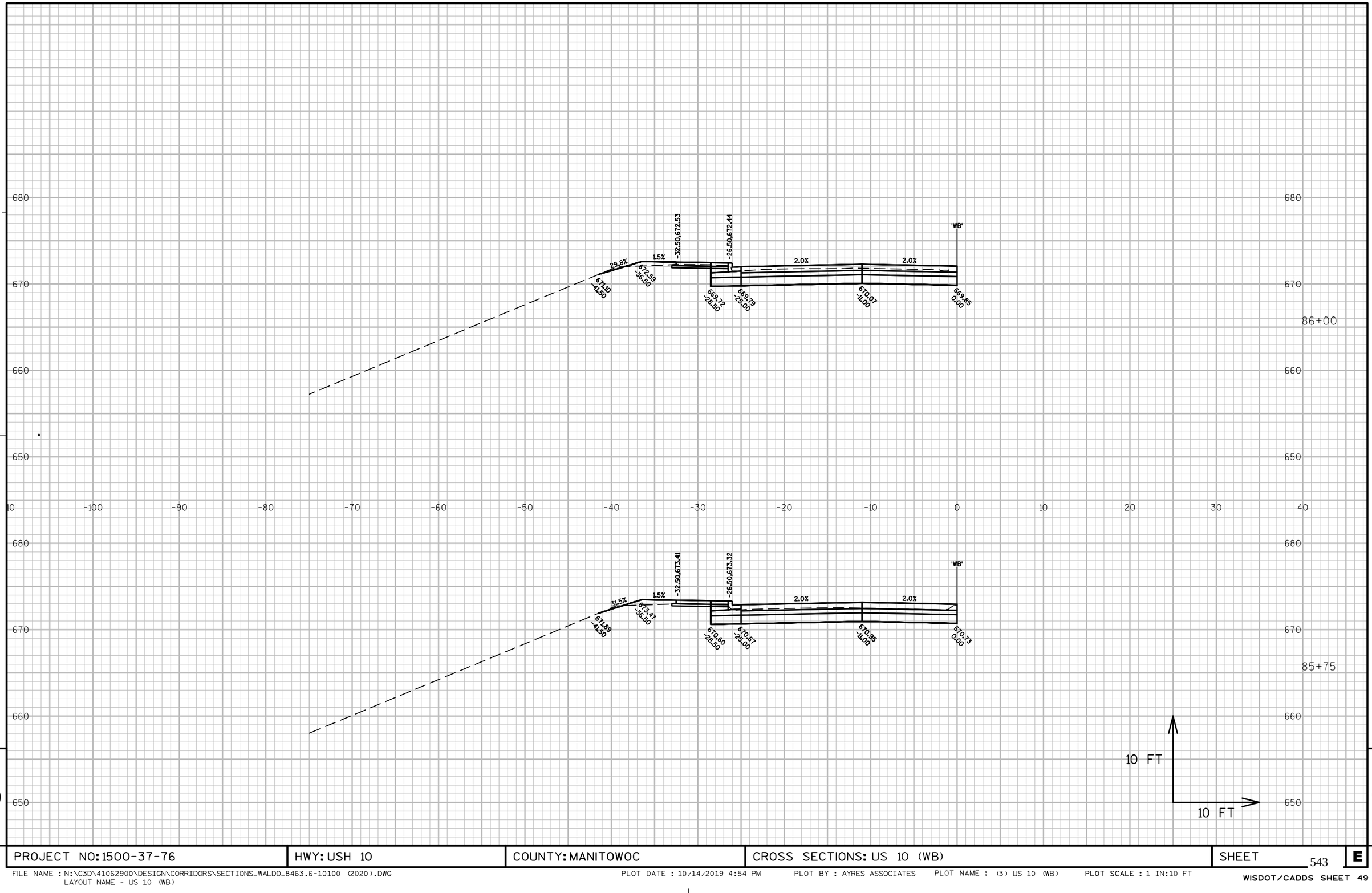


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 542	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:53 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2) US 10 (WB) PLOT SCALE : 1 IN:10 FT

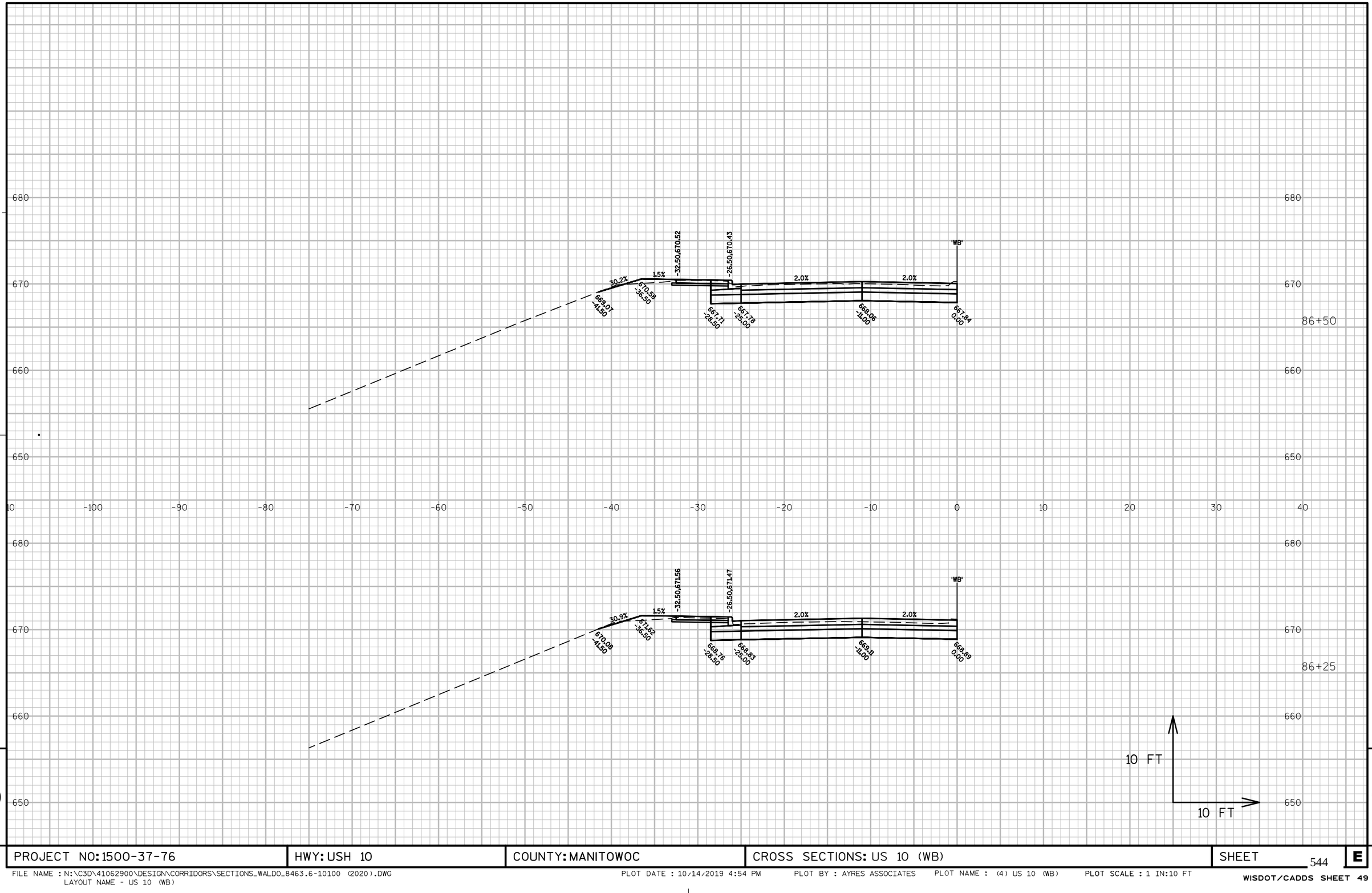
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 543	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:54 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (3) US 10 (WB) PLOT SCALE : 1 IN:10 FT



9

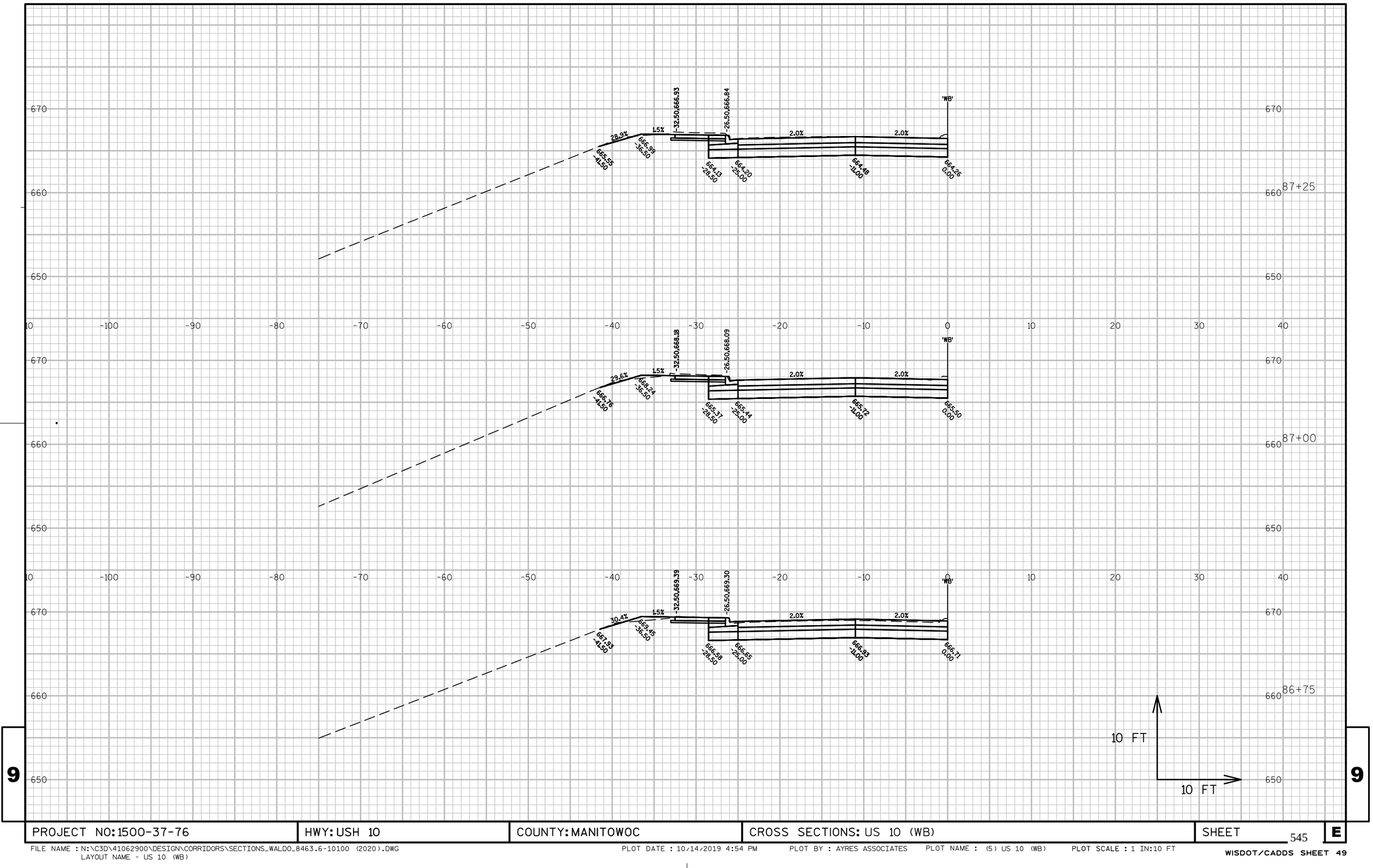
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 544	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:54 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (4) US 10 (WB) PLOT SCALE : 1 IN:10 FT

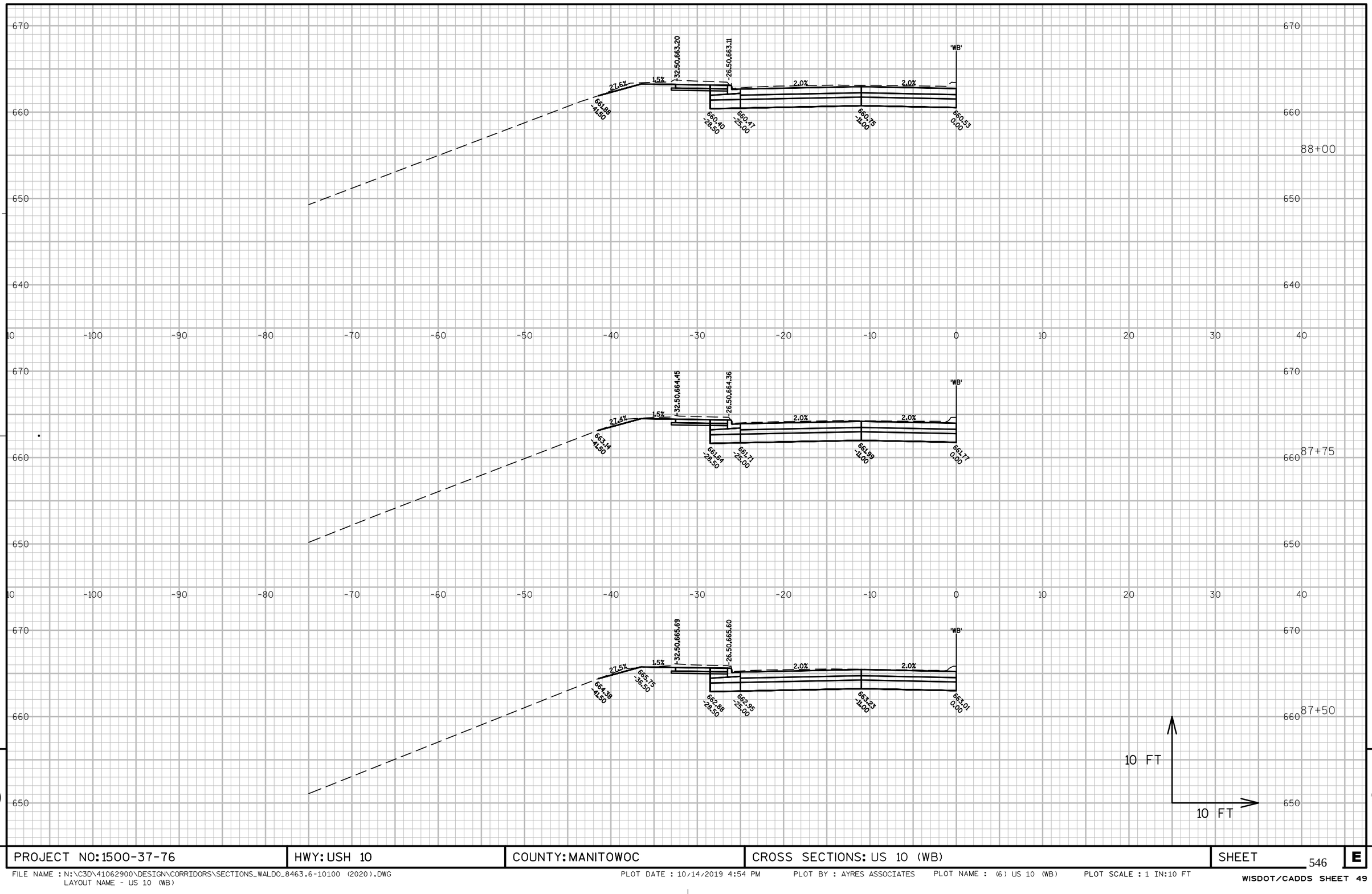
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 545	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:54 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (5) US 10 (WB) PLOT SCALE : 1 IN:10 FT

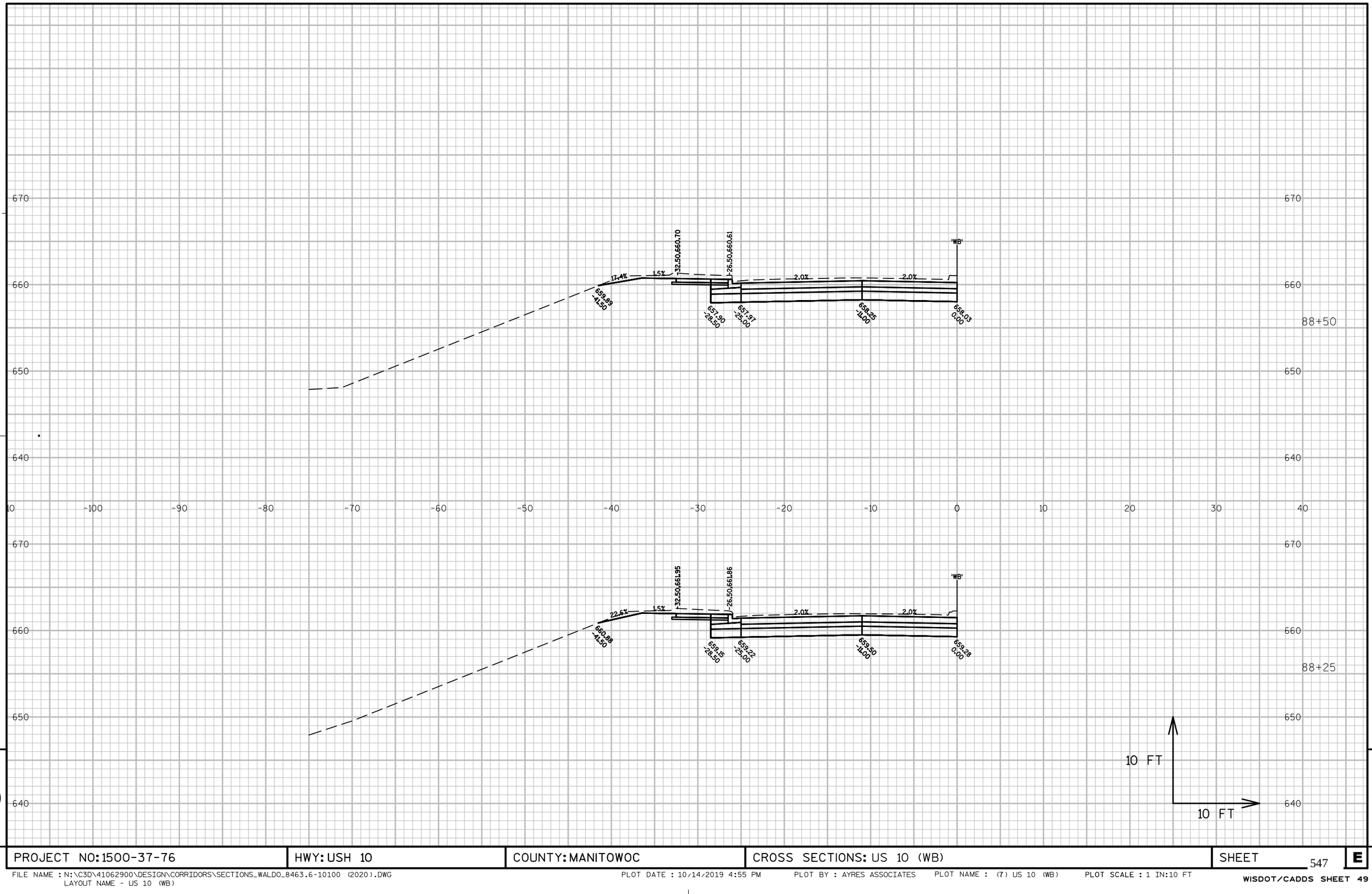


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 546	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:54 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (6) US 10 (WB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

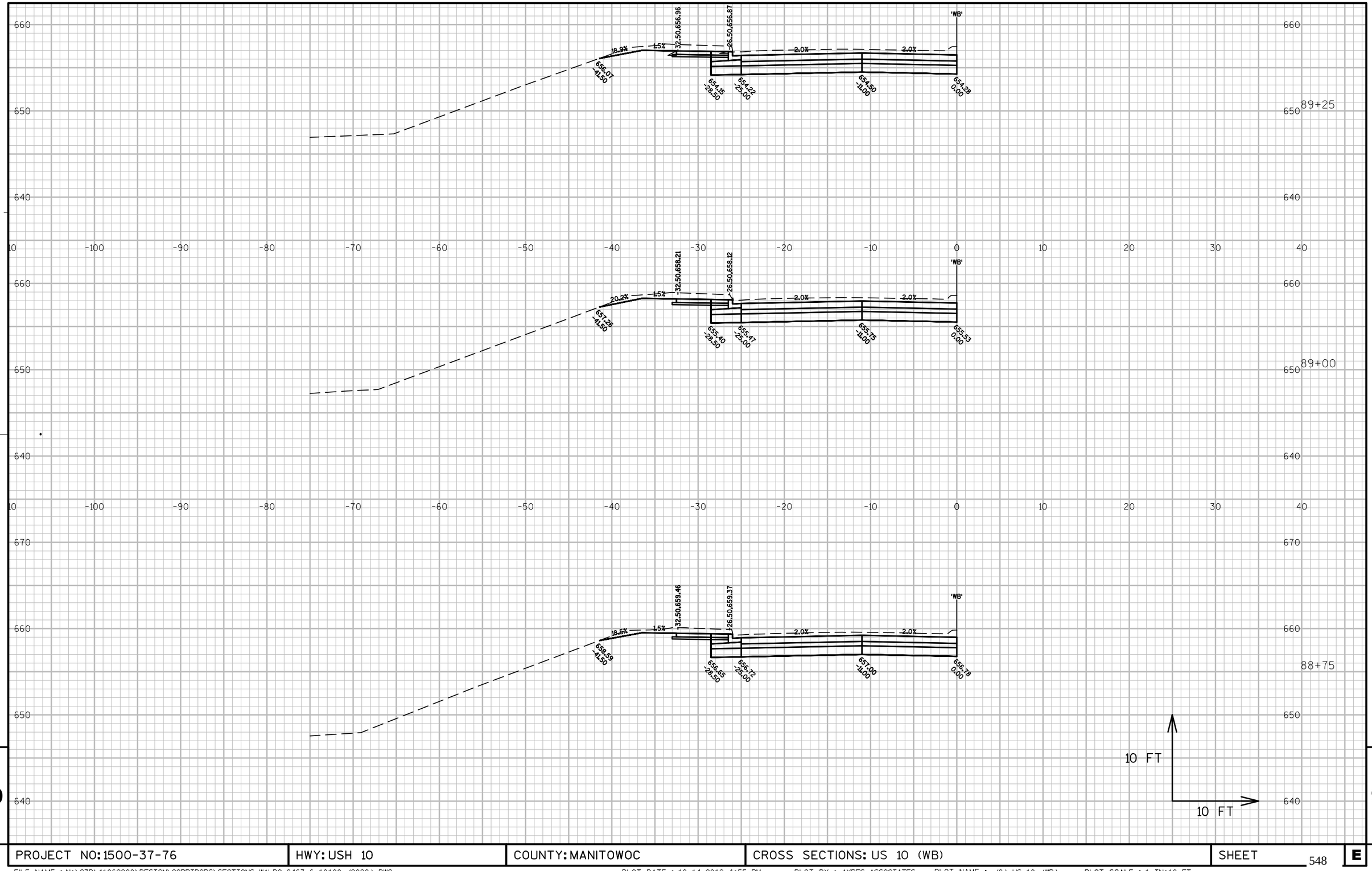


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 547	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:55 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (7) US 10 (WB) PLOT SCALE : 1 IN:10 FT

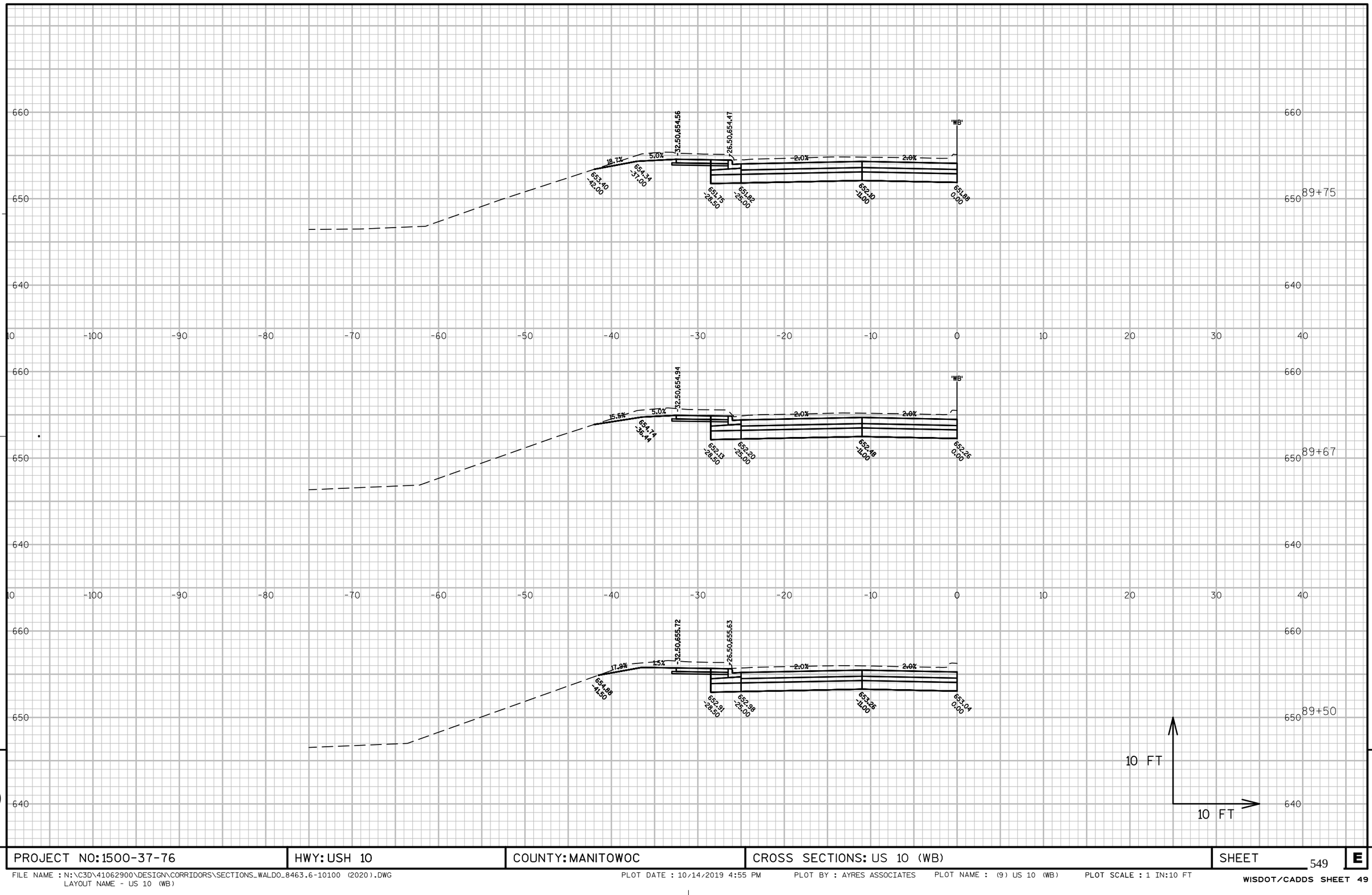
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 548	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:55 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (8) US 10 (WB) PLOT SCALE : 1 IN:10 FT

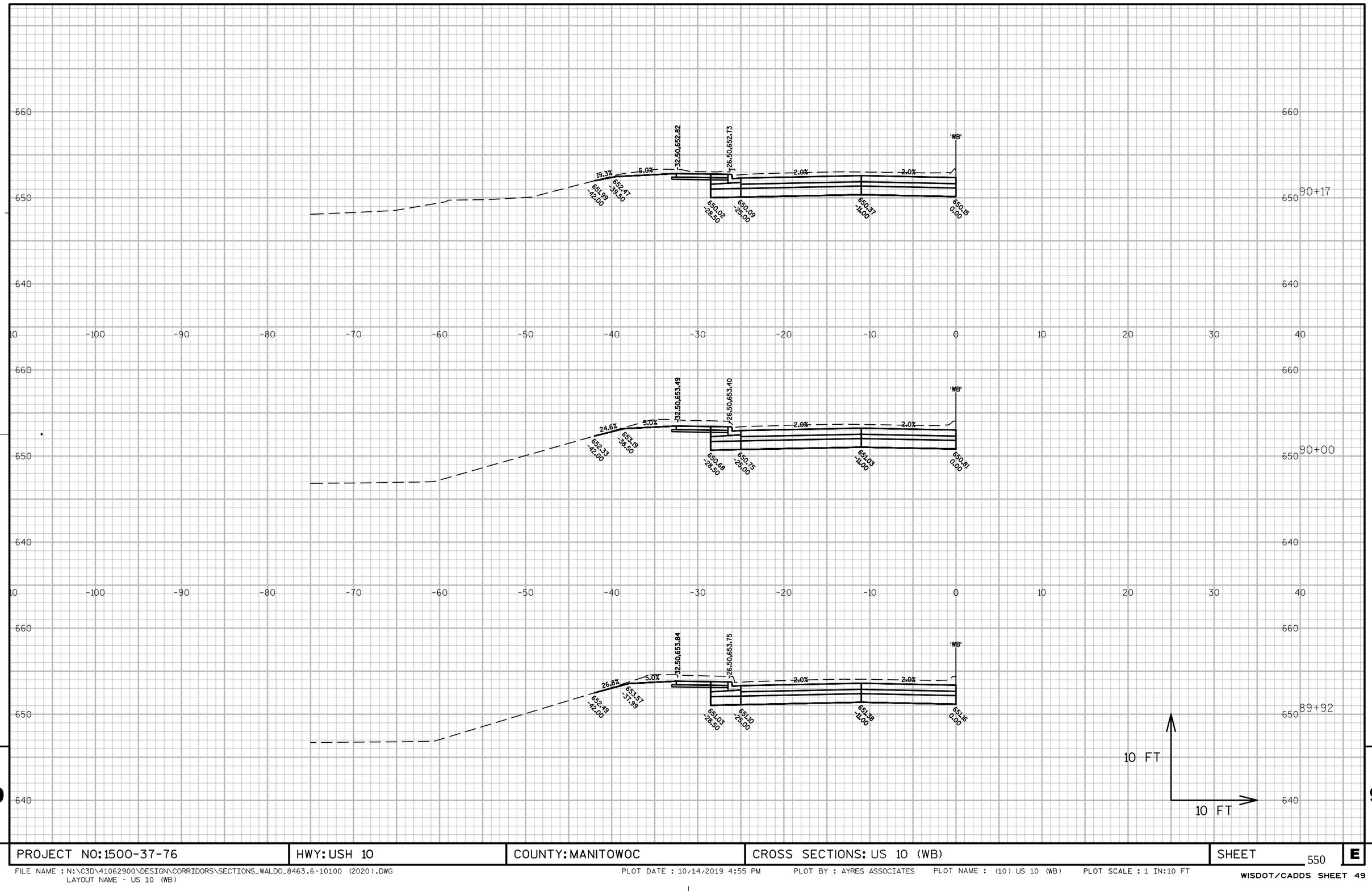


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 549	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:55 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (9) US 10 (WB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

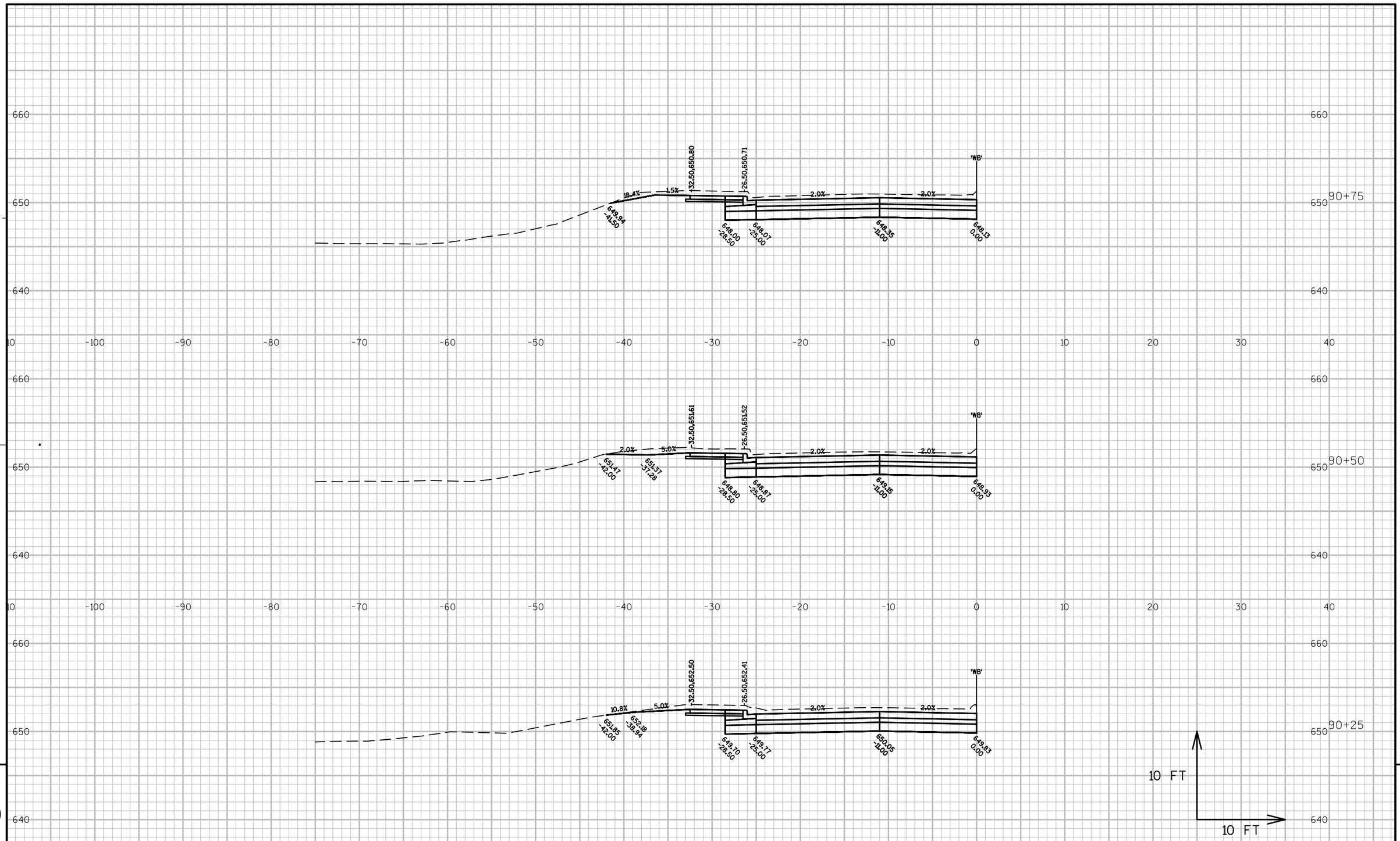


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 550	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:55 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (10) US 10 (WB) PLOT SCALE : 1 IN:10 FT

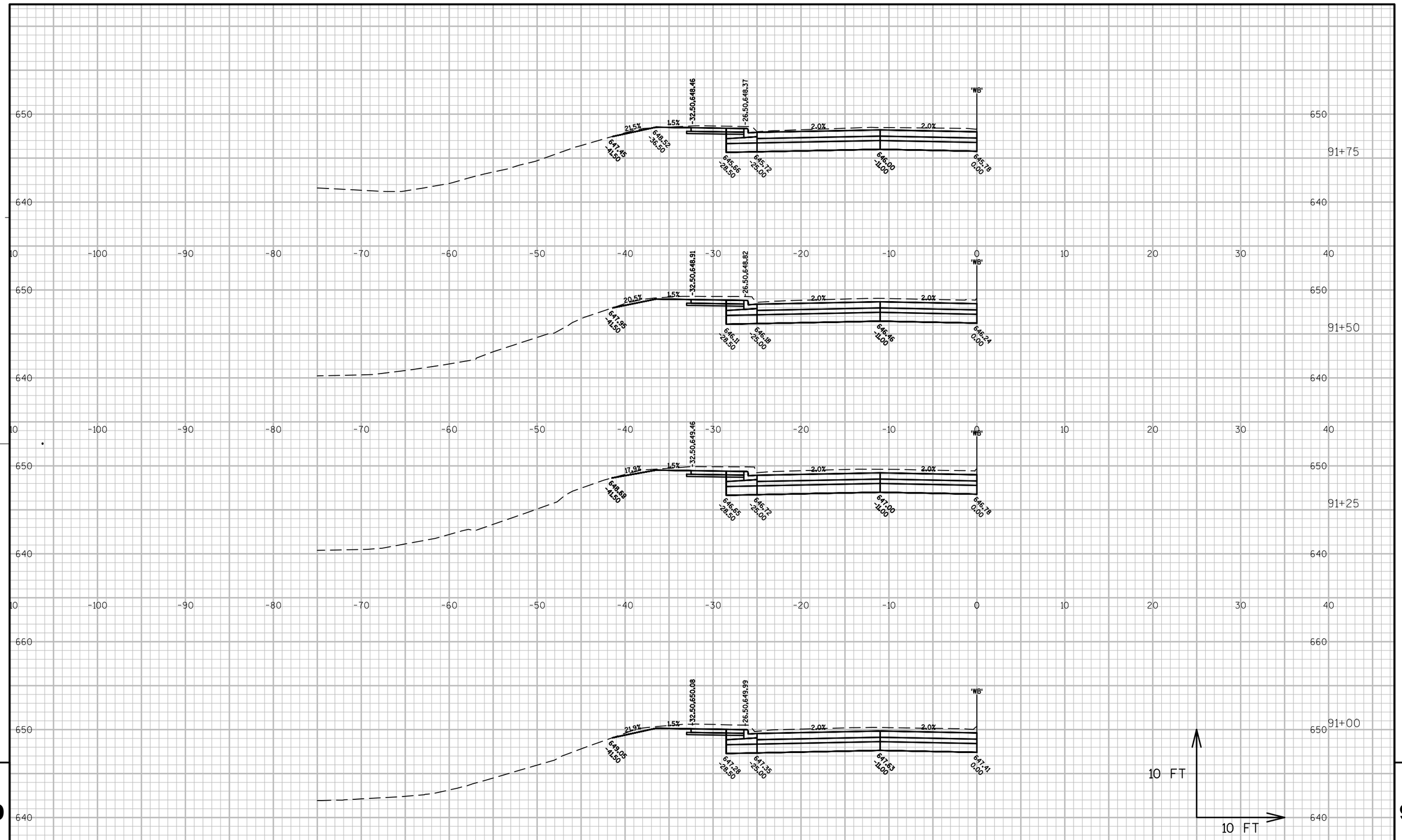
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 551	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:56 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (11) US 10 (WB) PLOT SCALE : 1 IN:10 FT

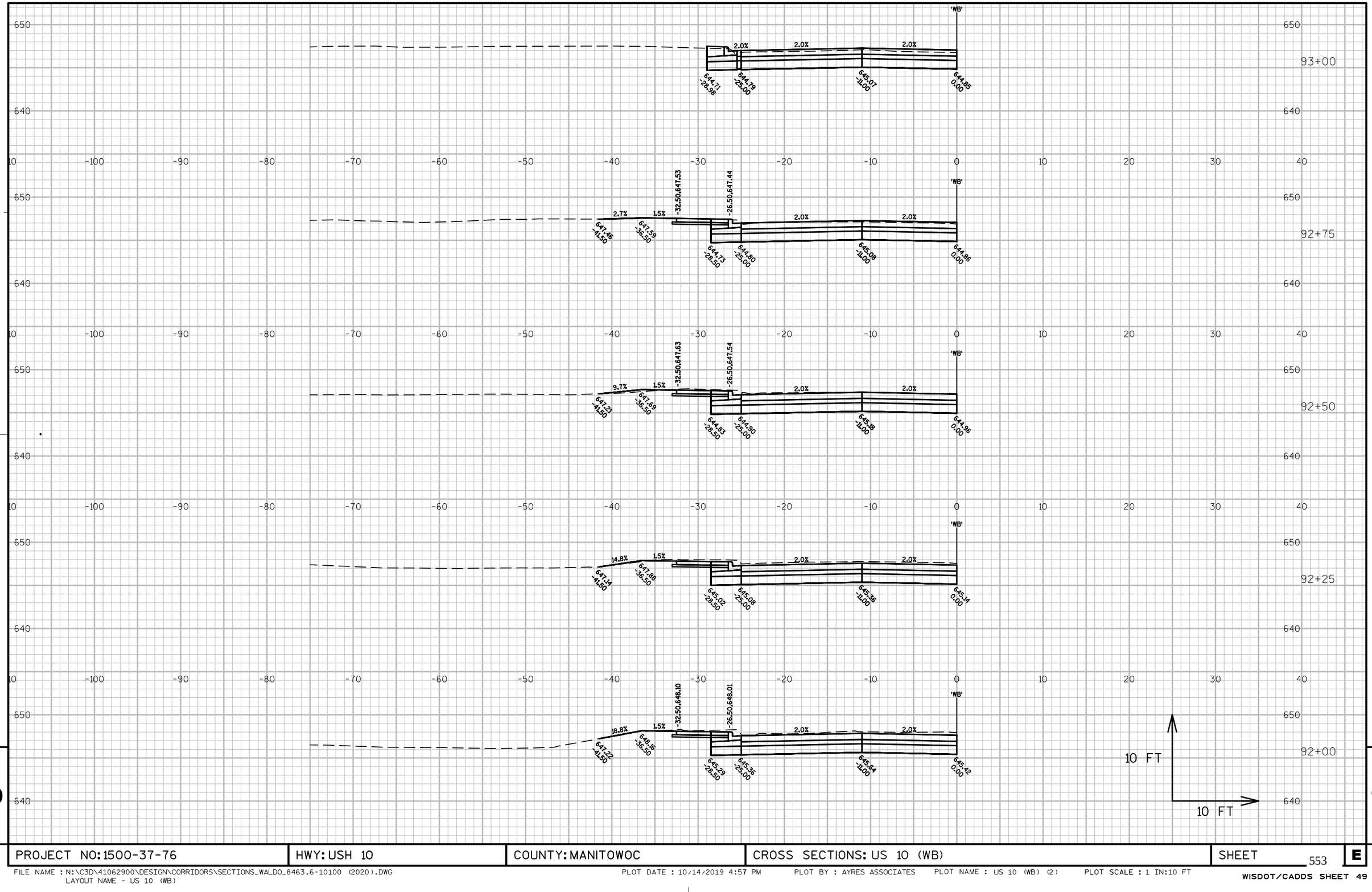


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 552	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:56 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (12) US 10 (WB) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

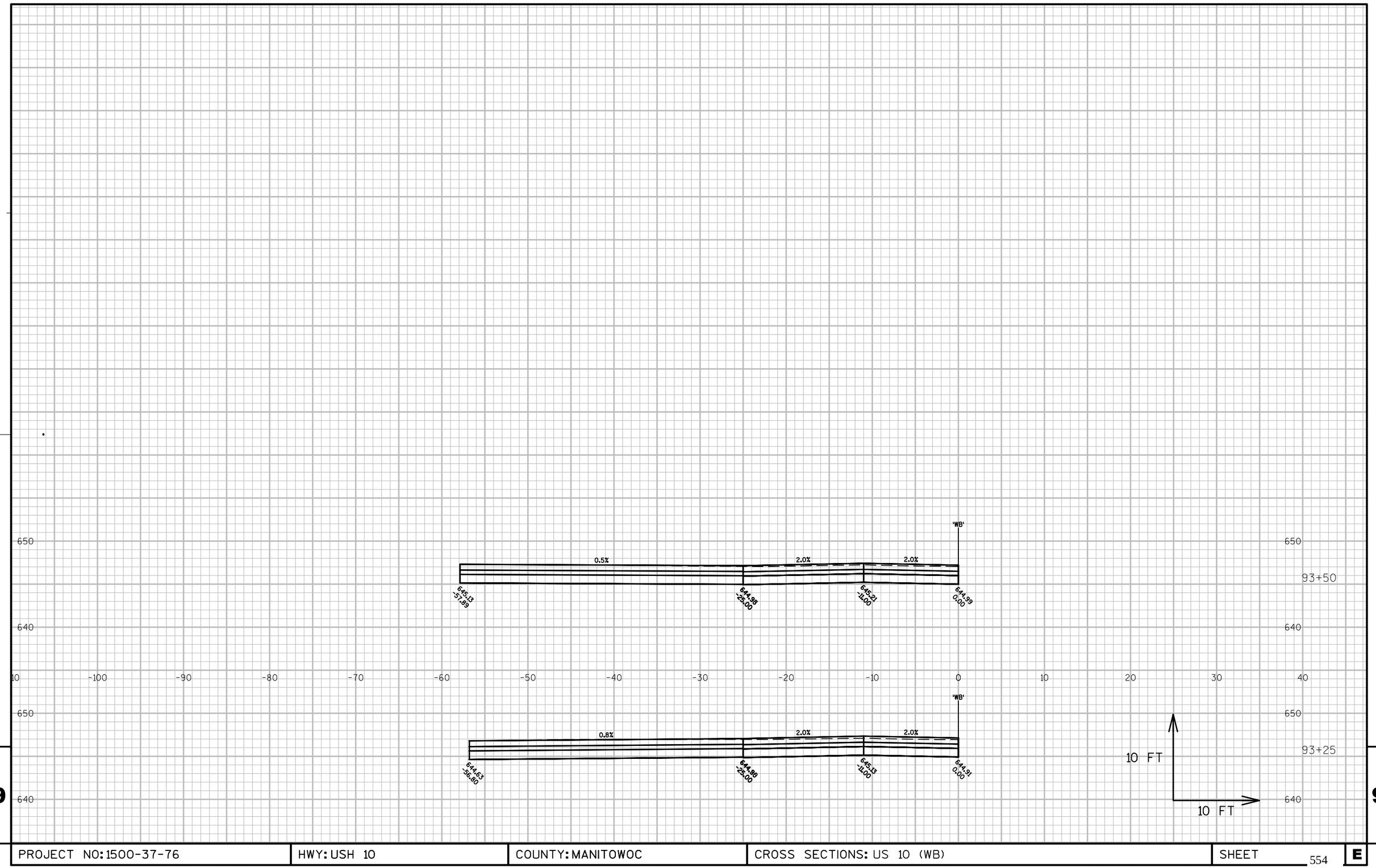


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 553	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

PLOT DATE : 10/14/2019 4:57 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : US 10 (WB) (2) PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



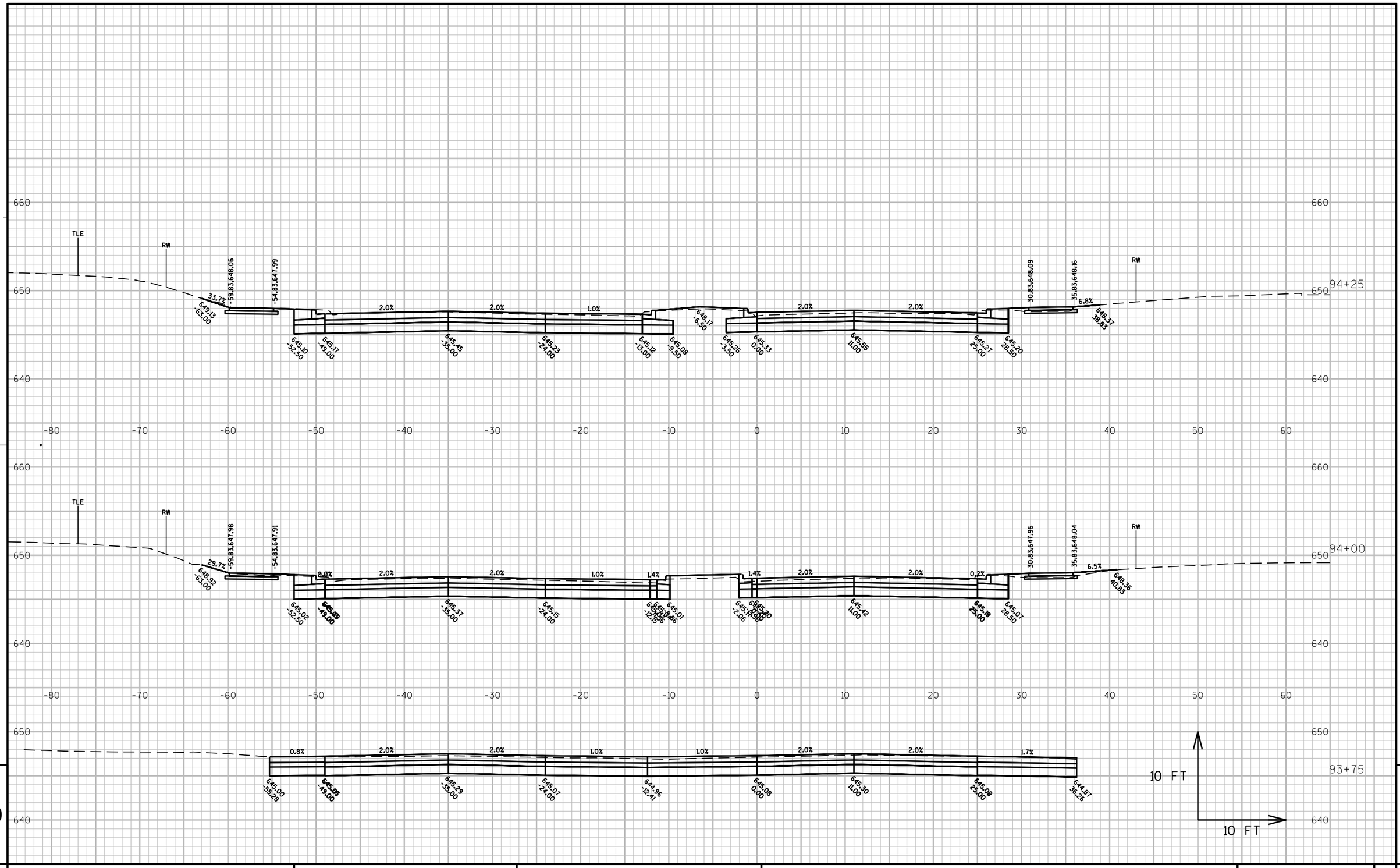
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10 (WB)	SHEET 554	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100 (2020).DWG
LAYOUT NAME - US 10 (WB)

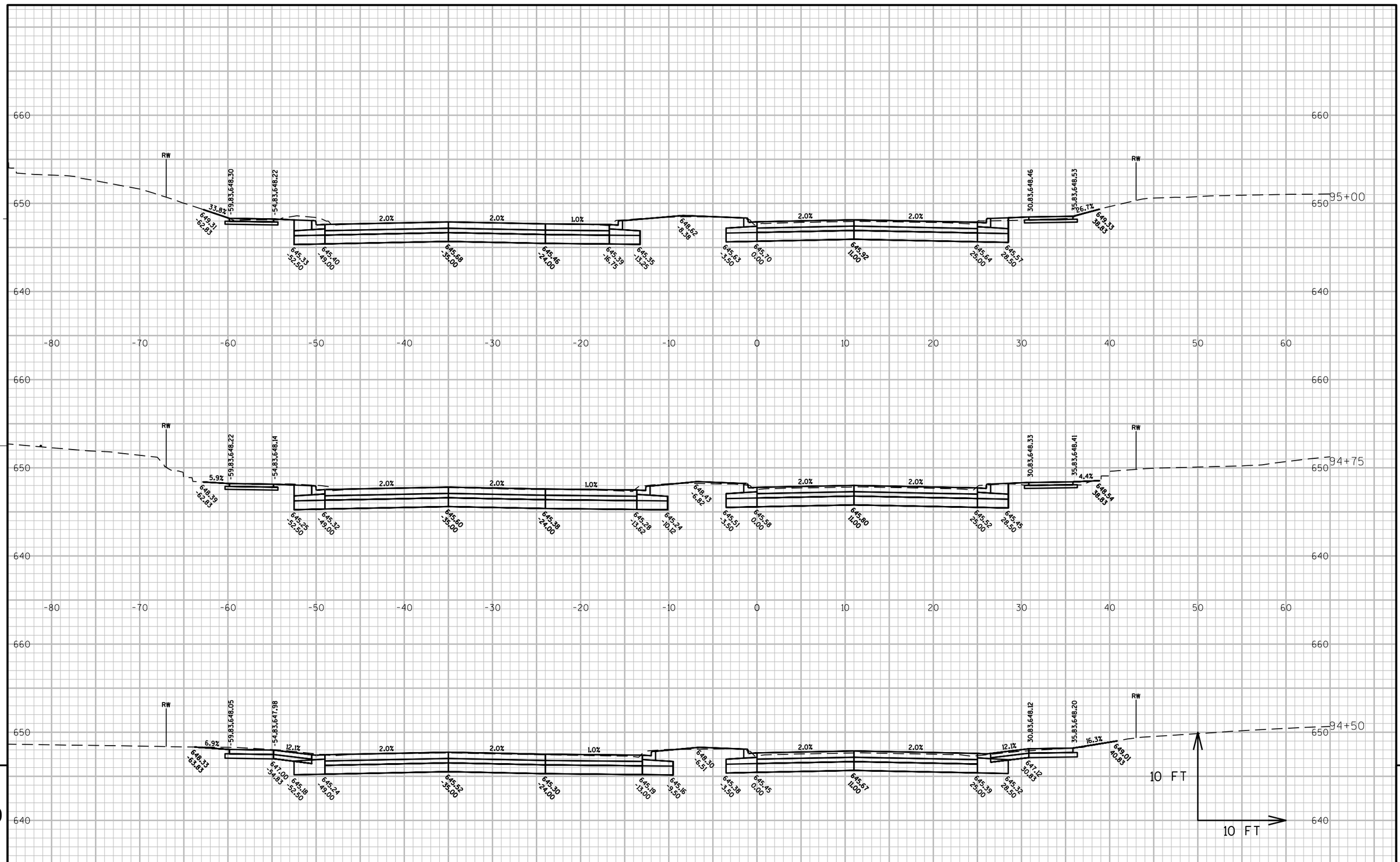
PLOT DATE : 10/14/2019 4:57 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (13) US 10 (WB) PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 555	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:18 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (9) US 10 PLOT SCALE : 1" = 10'_XREF

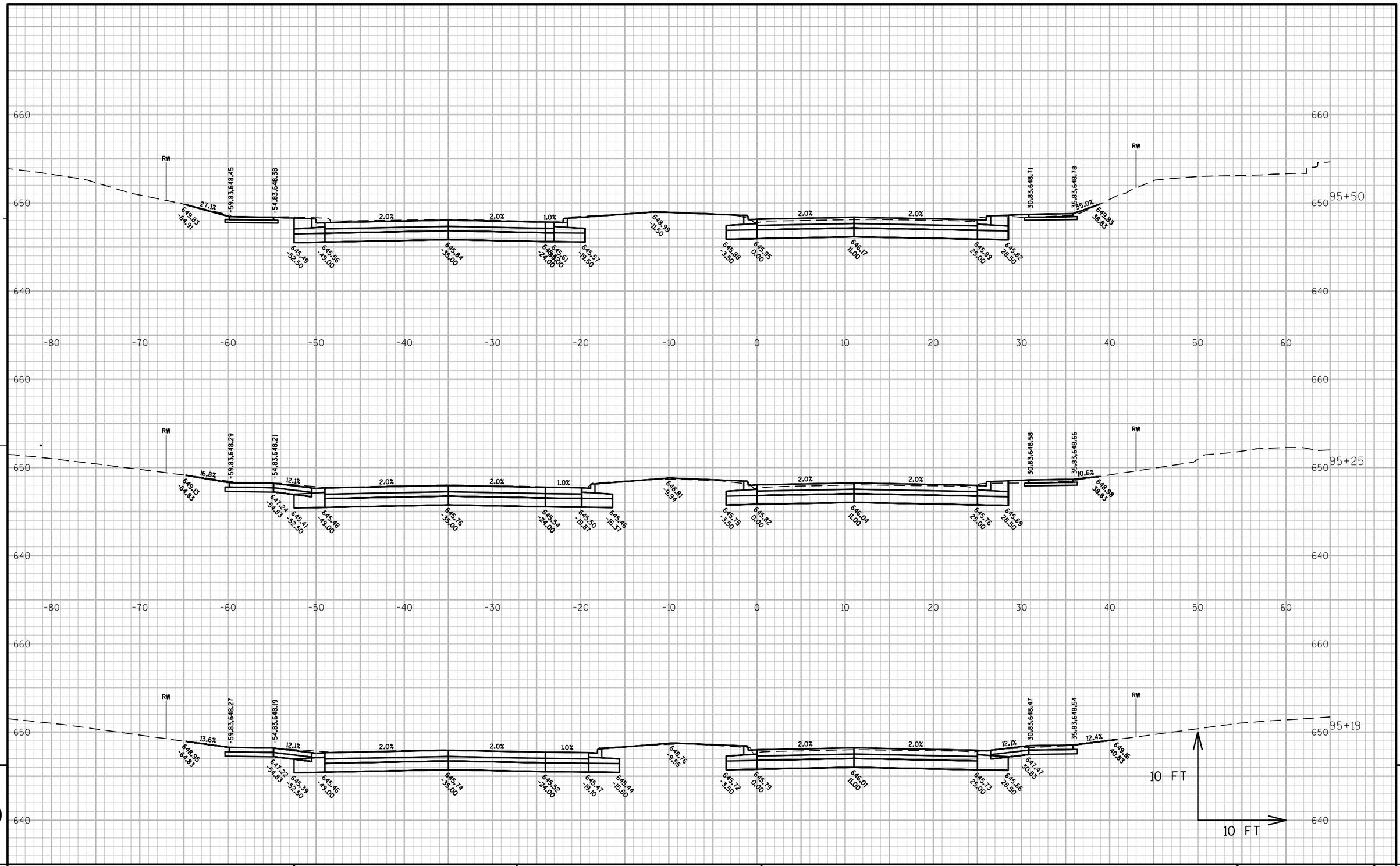
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 556	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:18 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (10) US 10 PLOT SCALE : 1" = 10'_XREF

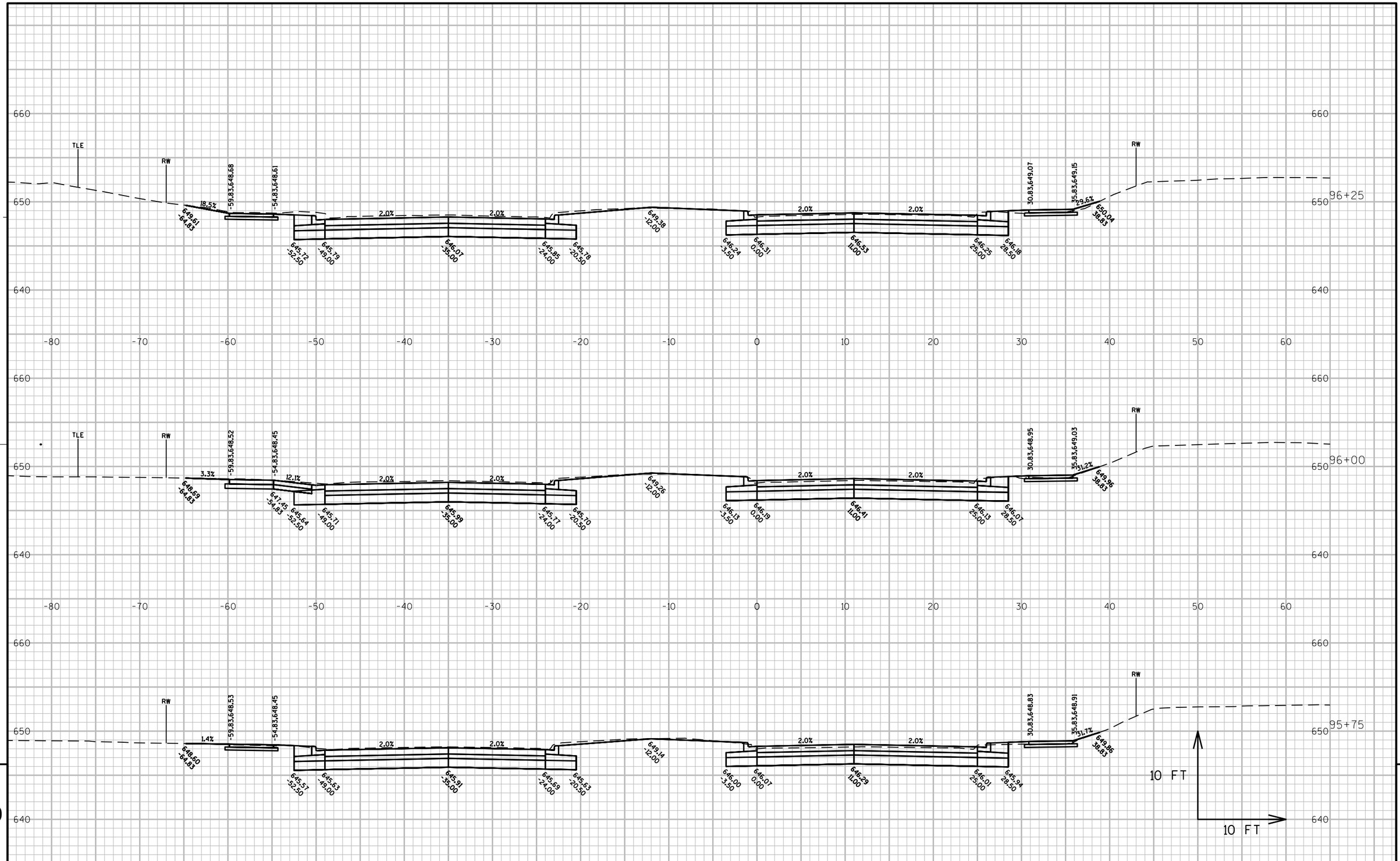
WISDOT/CADDS SHEET 49



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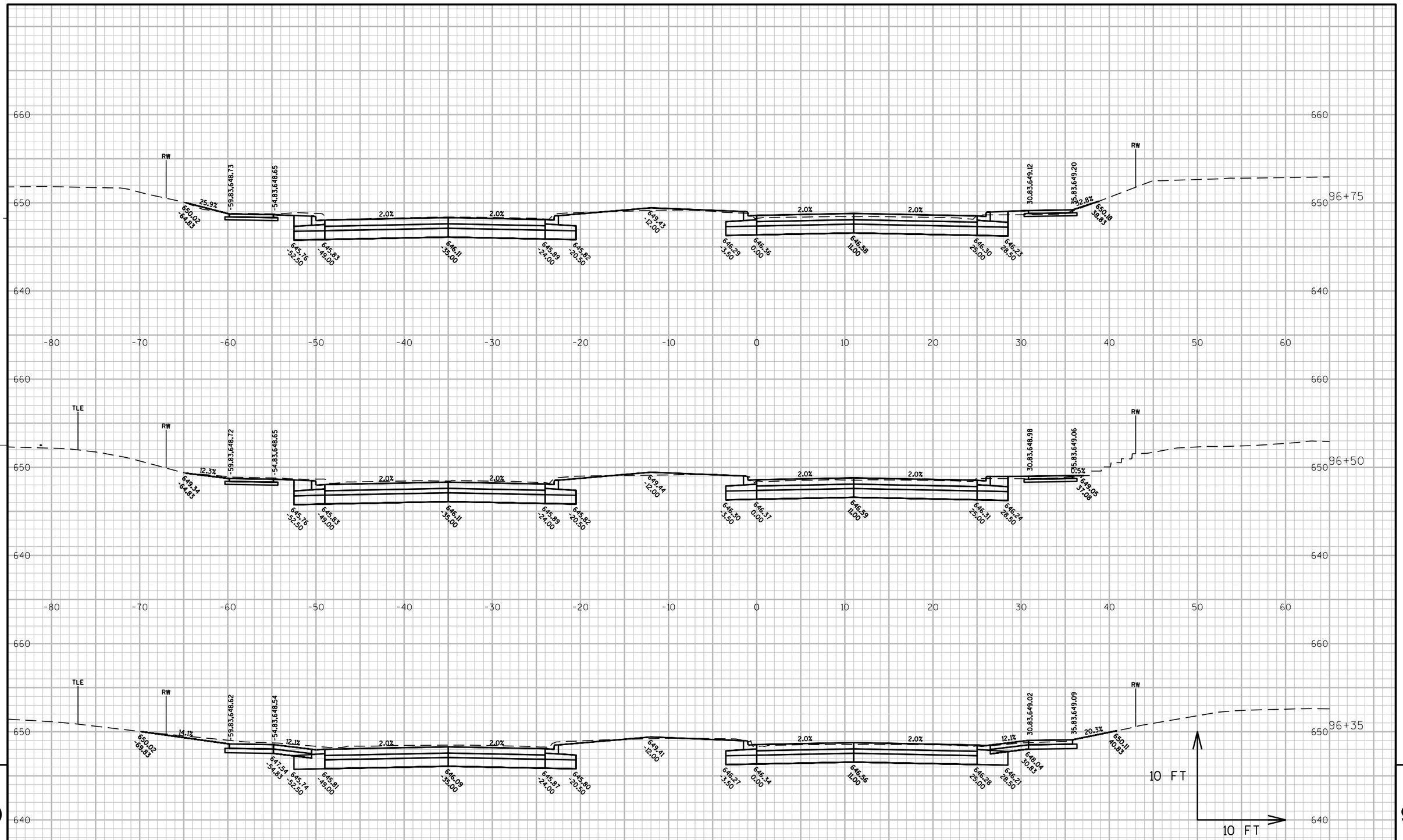
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 557	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 558	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:19 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (12) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



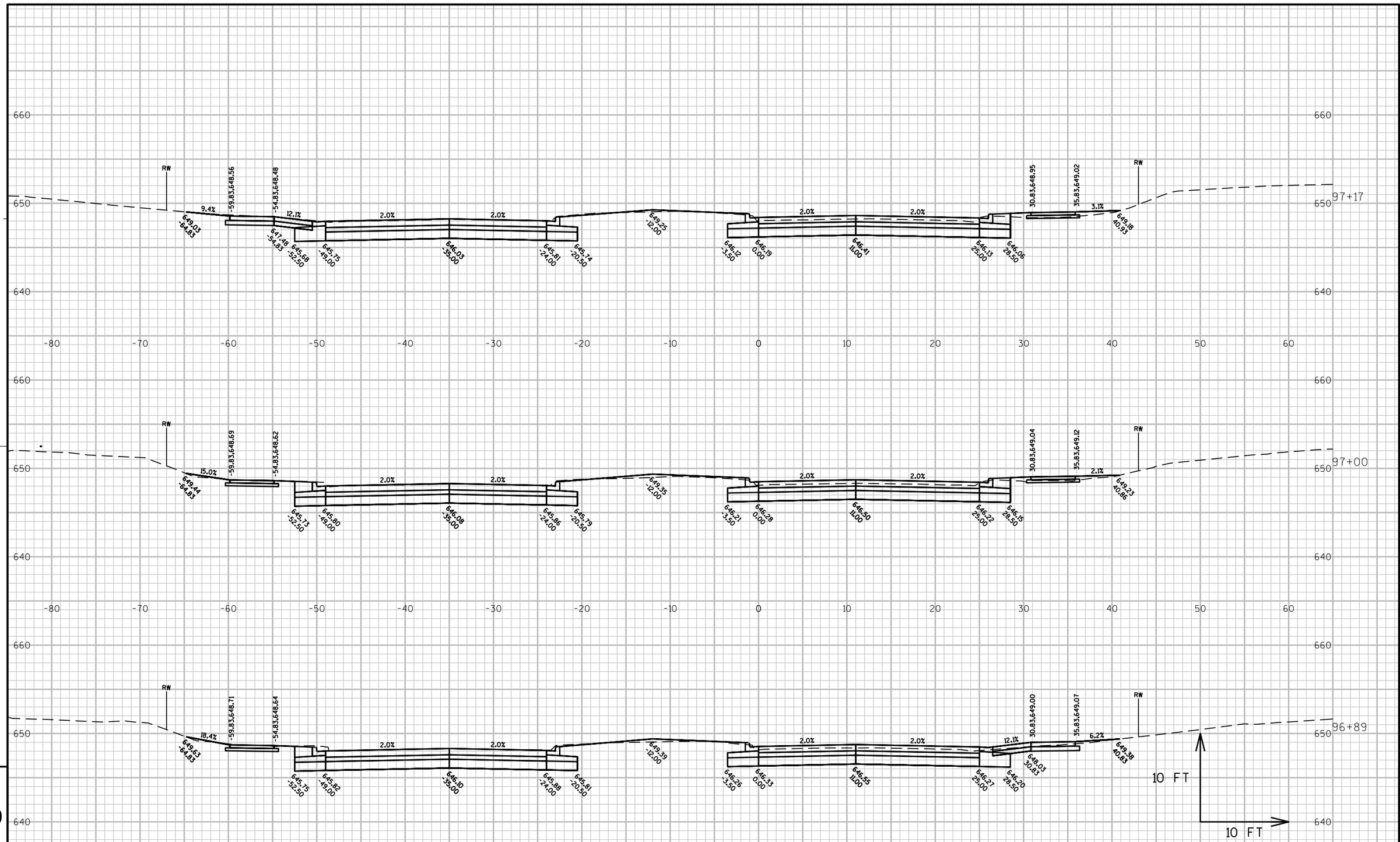
9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 559	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:19 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (13) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



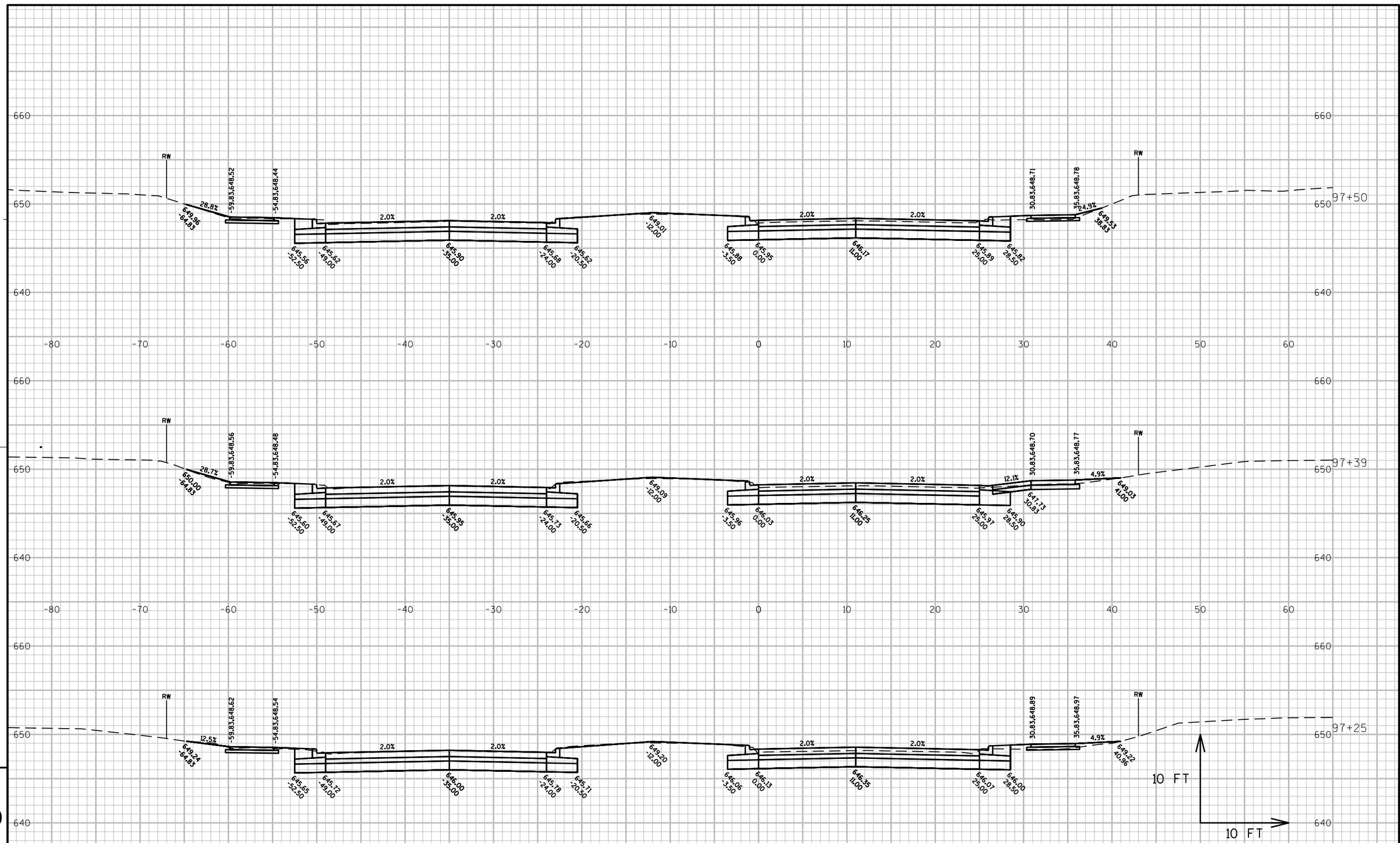
9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 560	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:19 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (14) US 10 PLOT SCALE : 1" = 10'_XREF

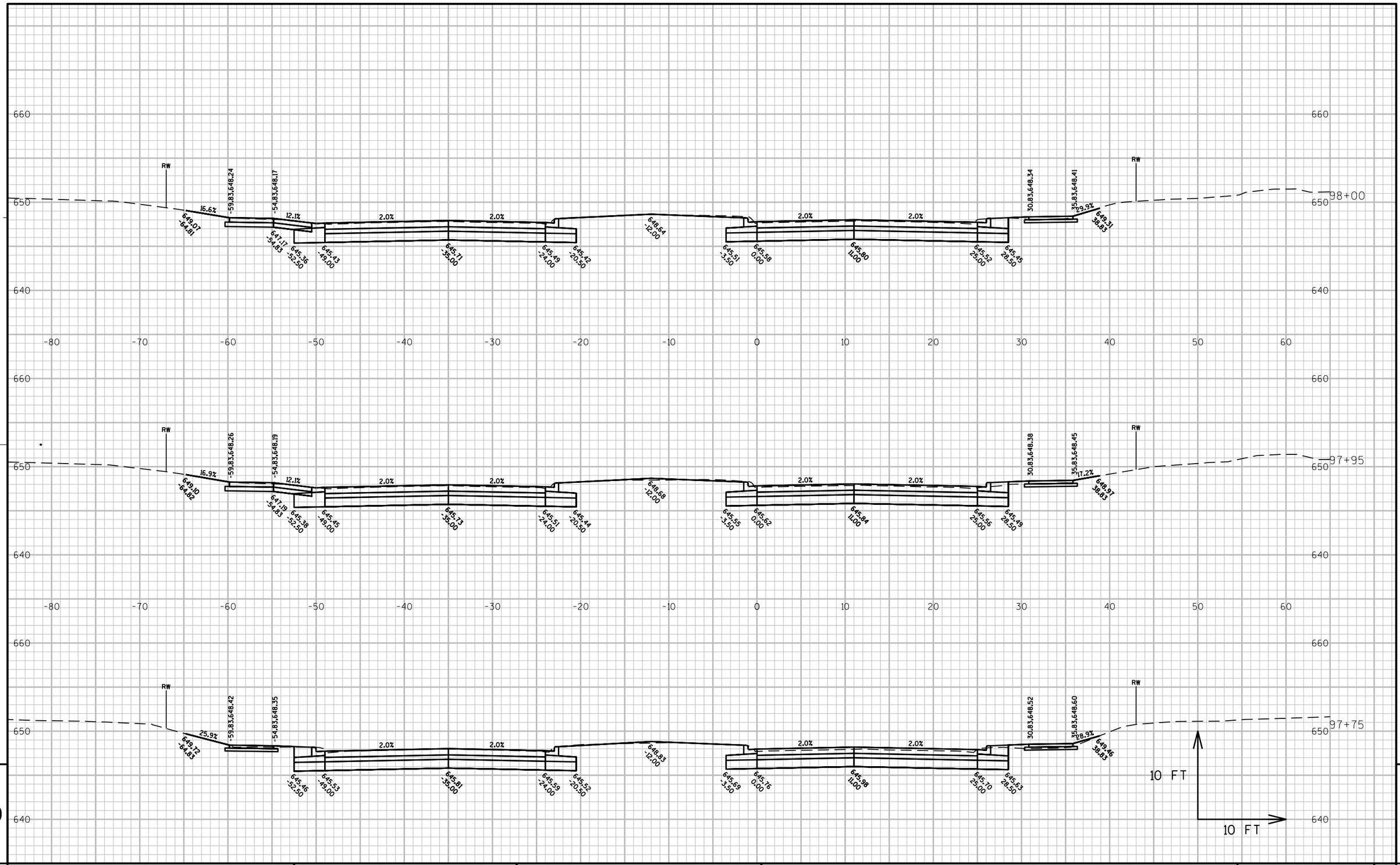
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:19 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (15) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



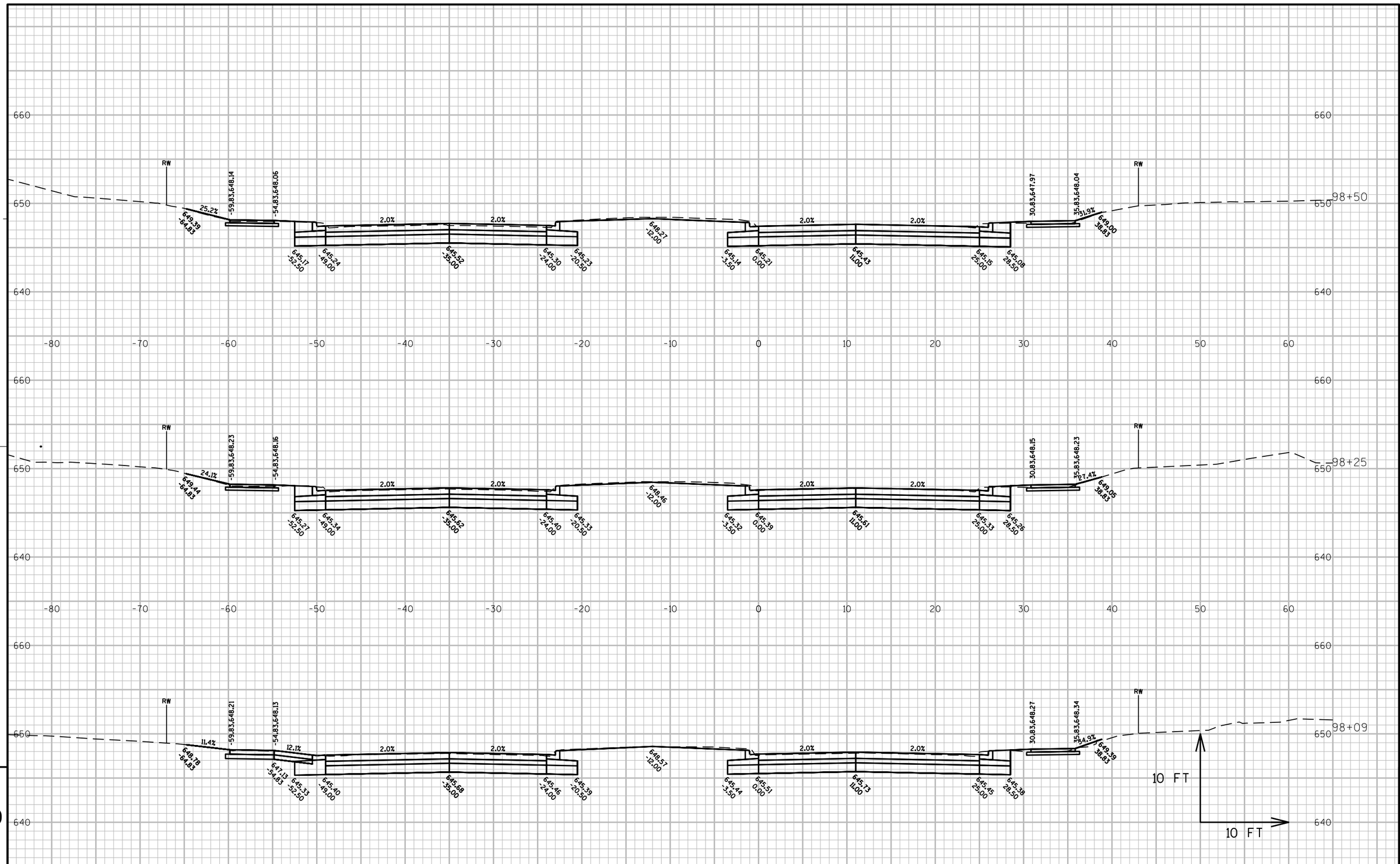
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

9

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:19 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 PLOT SCALE : 1" = 10'_XREF

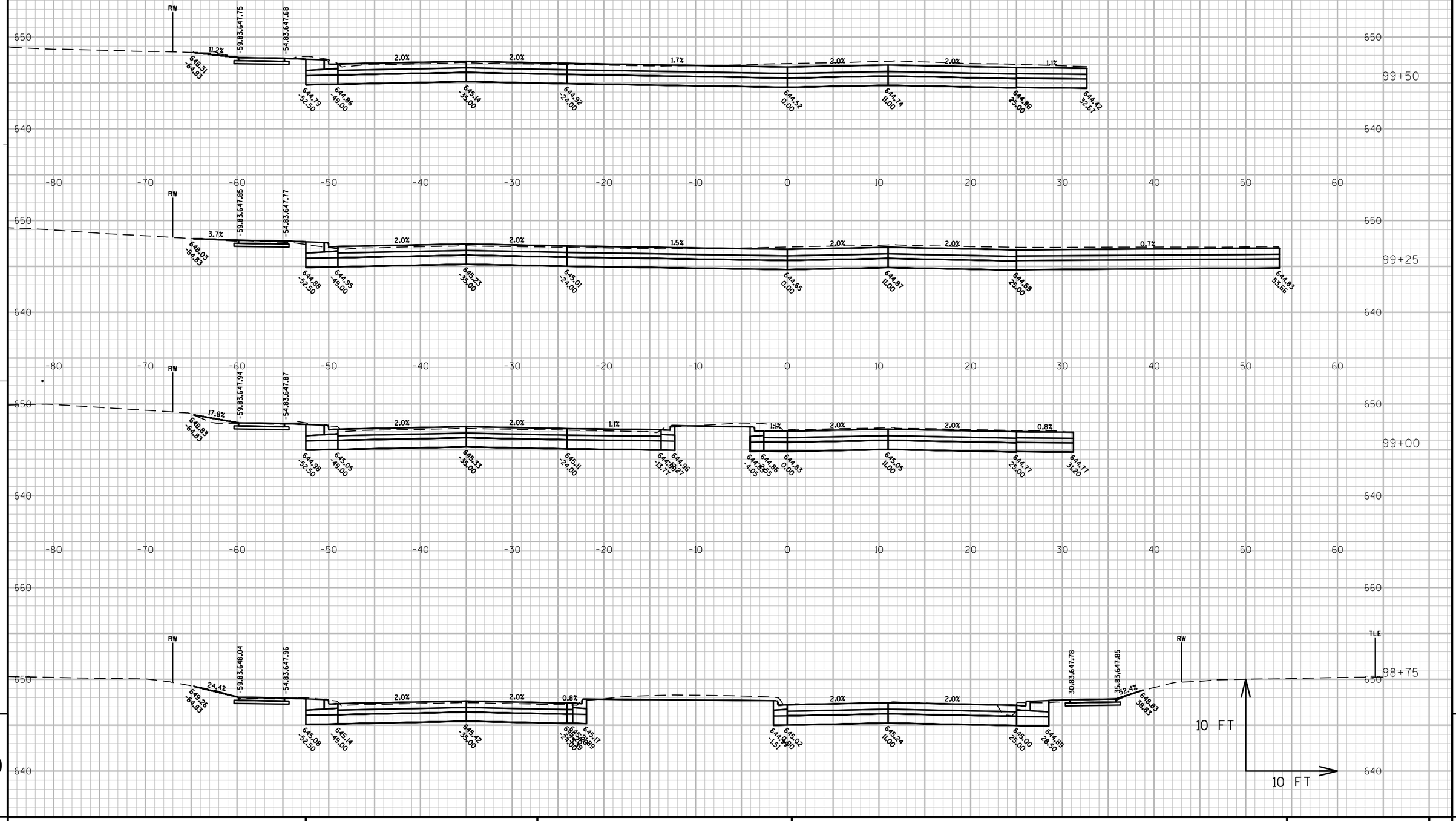
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 563	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:20 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (17) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

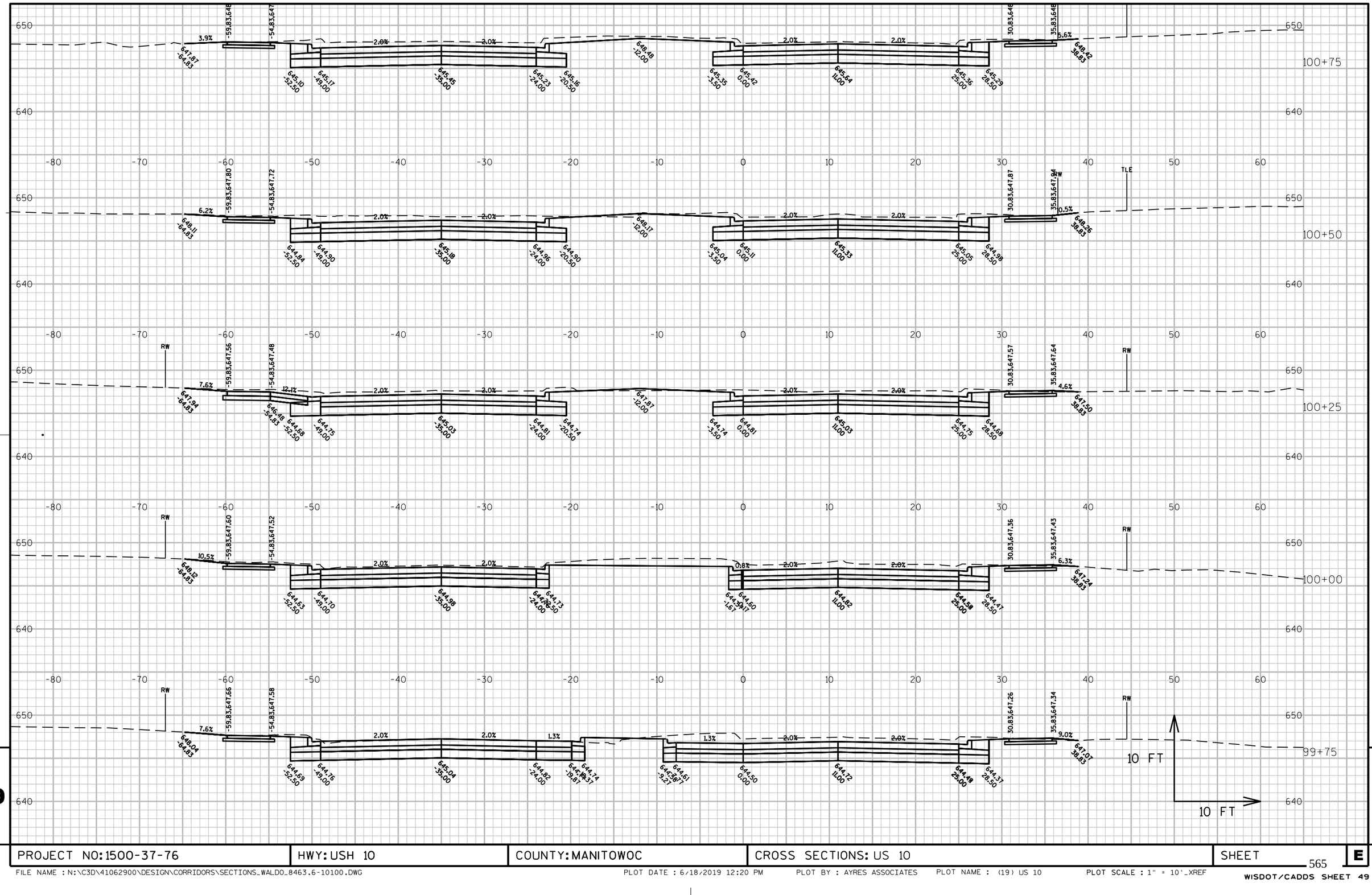


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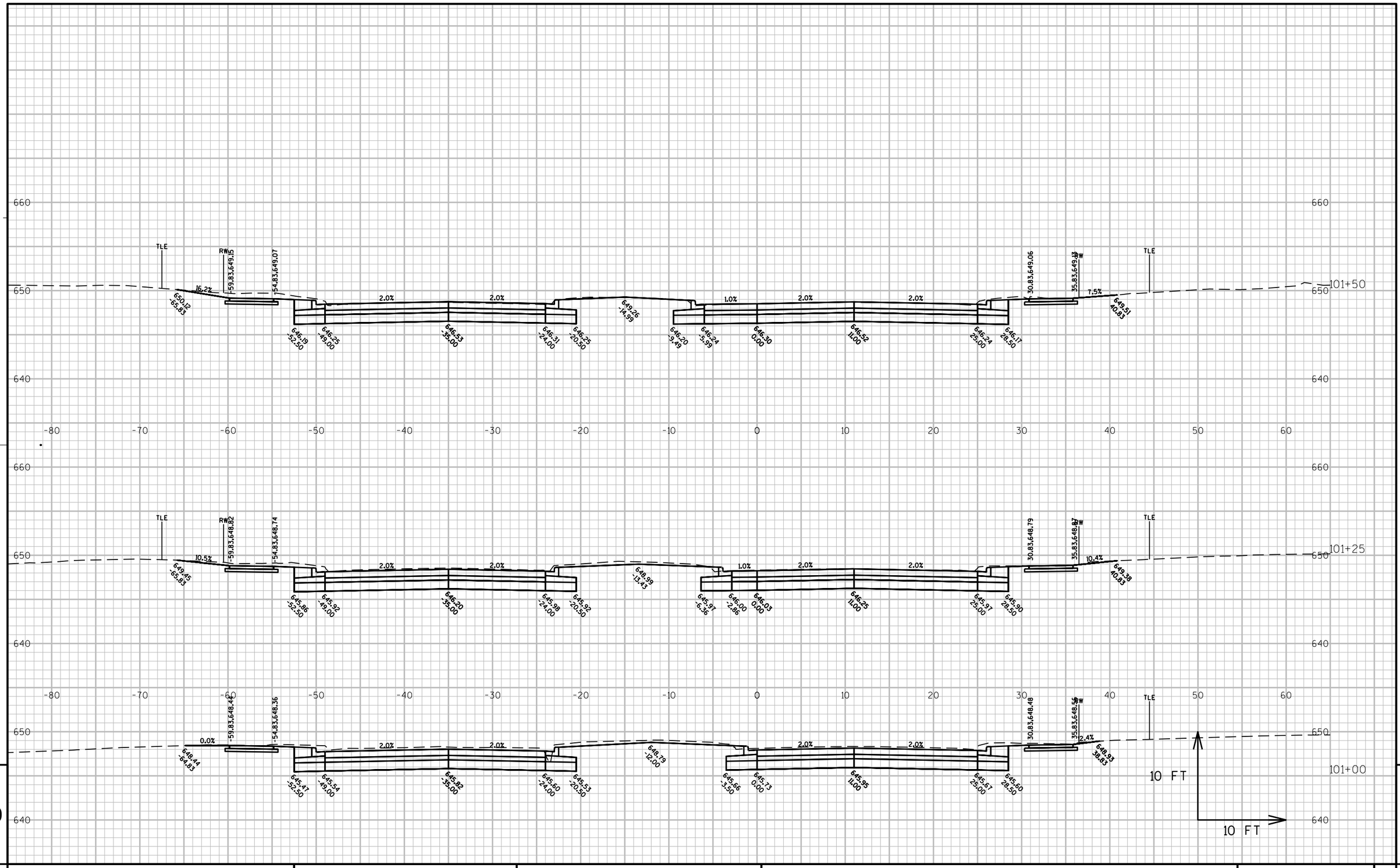
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
PLOT DATE : 6/18/2019 12:20 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (18) US 10
PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E



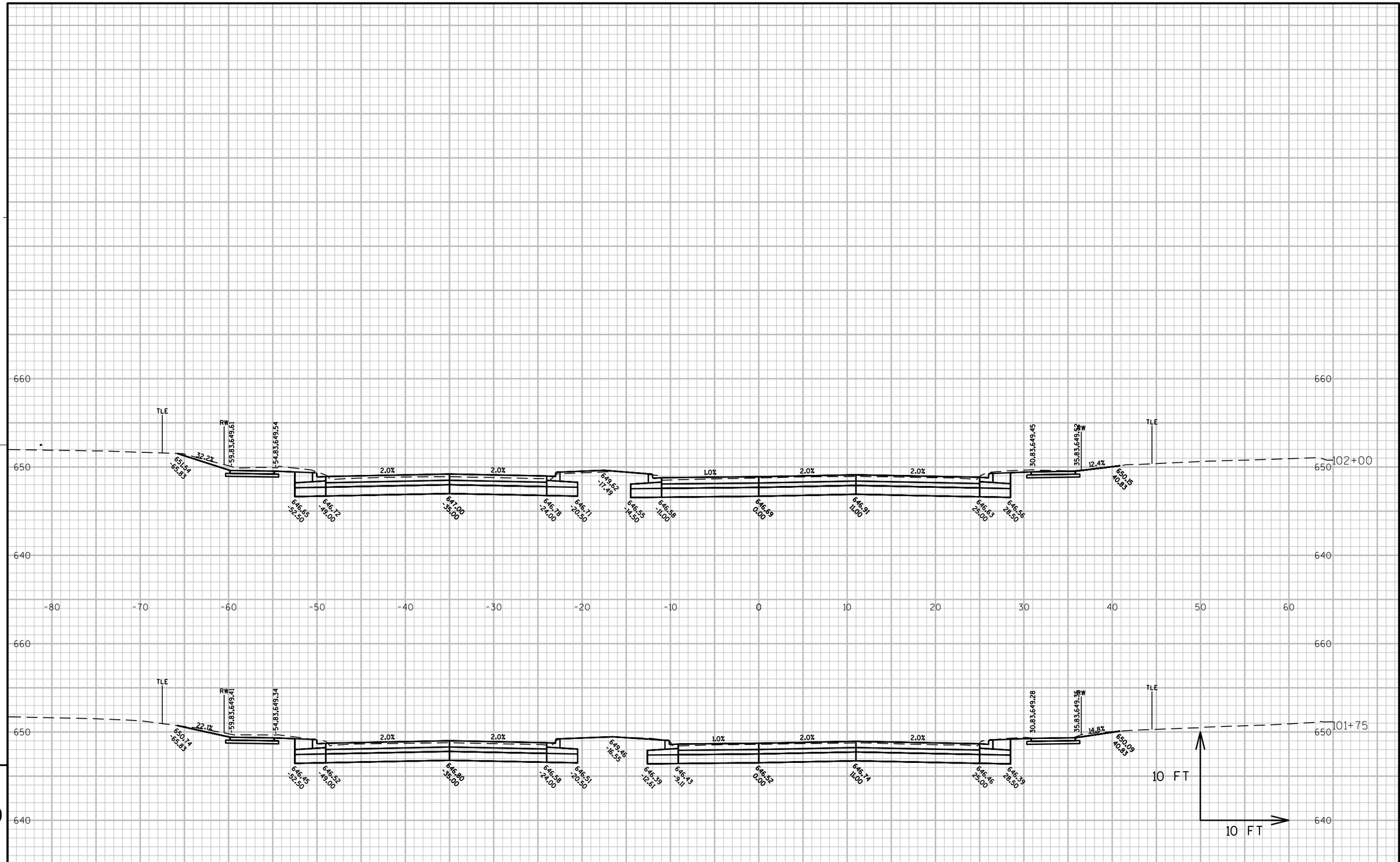
9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG PLOT DATE : 6/18/2019 12:21 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (19) US 10 (2) PLOT SCALE : 1" = 10'_XREF

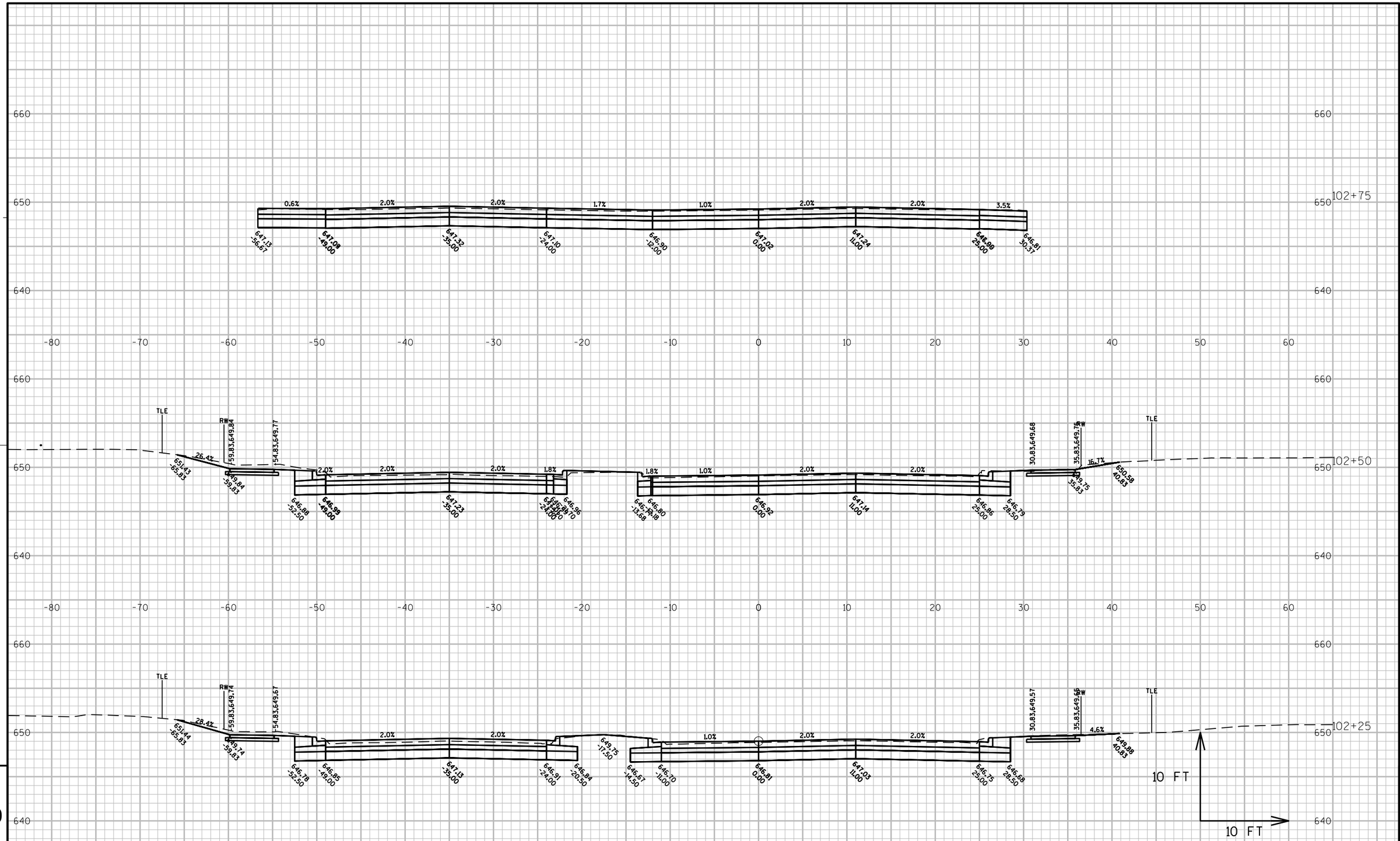
WISDOT/CADDS SHEET 49



9

9

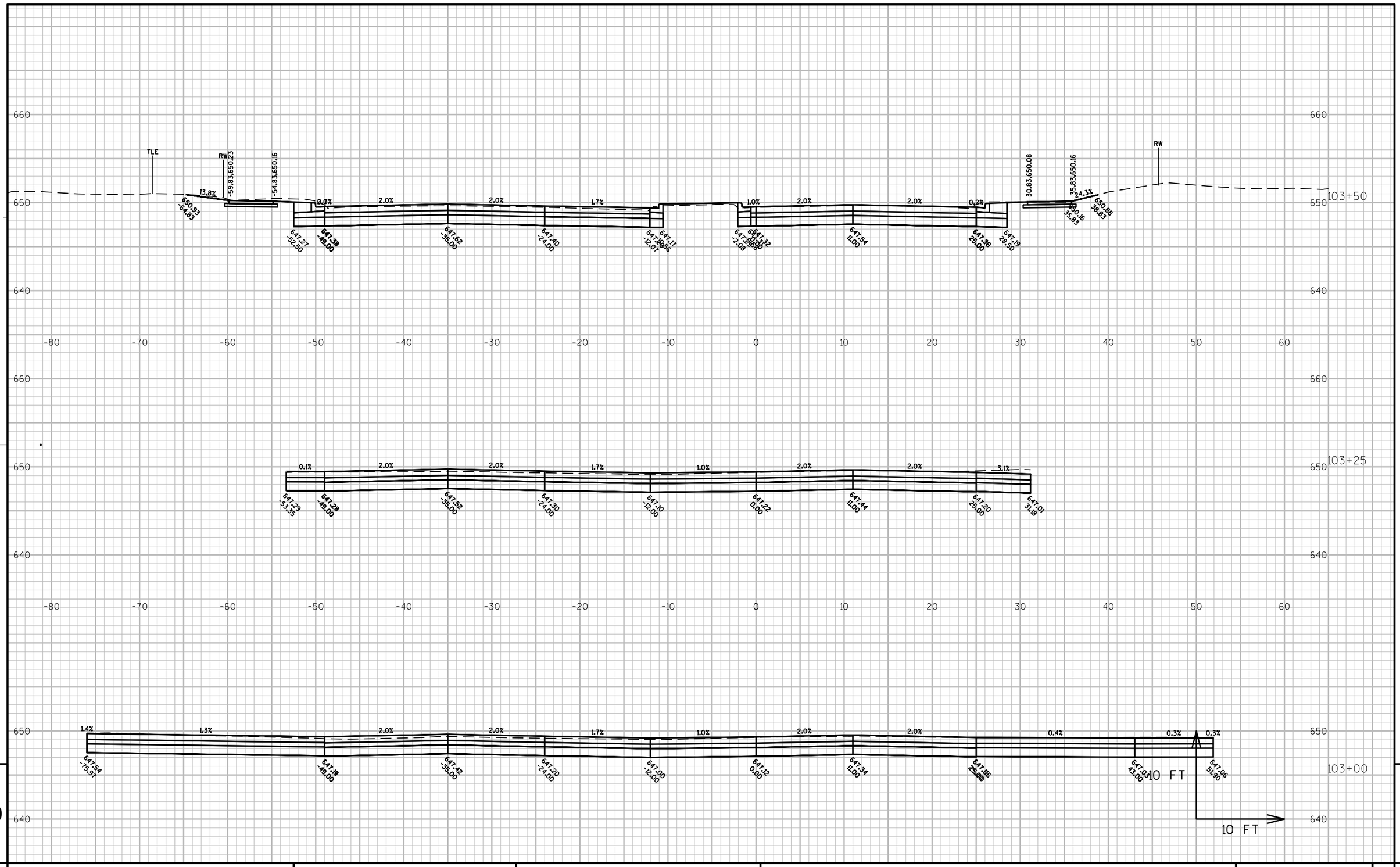
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 567	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 568 E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:23 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : US 10 PLOT SCALE : 1" = 10'_XREF

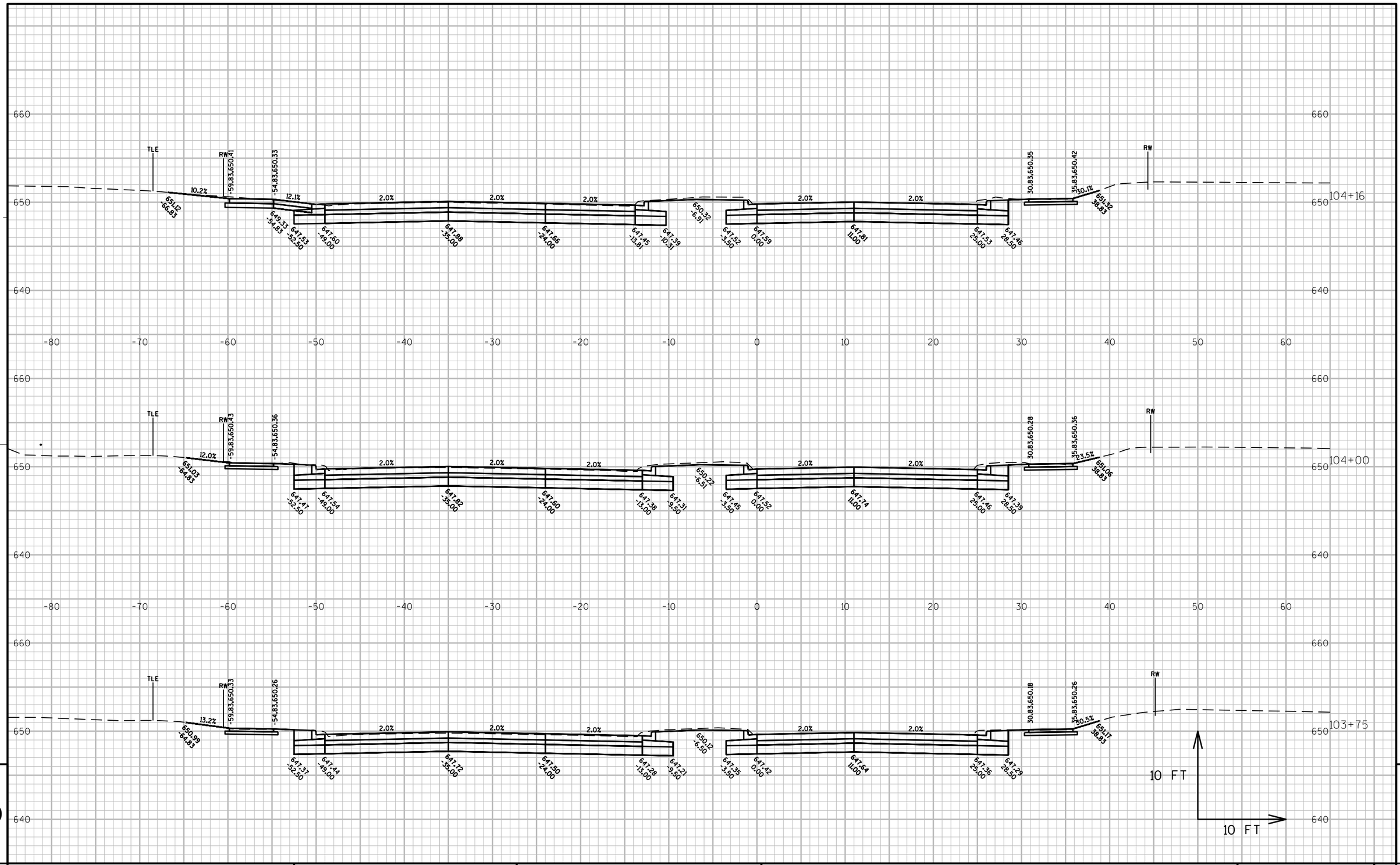
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:24 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2) US 10 PLOT SCALE : 1" = 10'_XREF

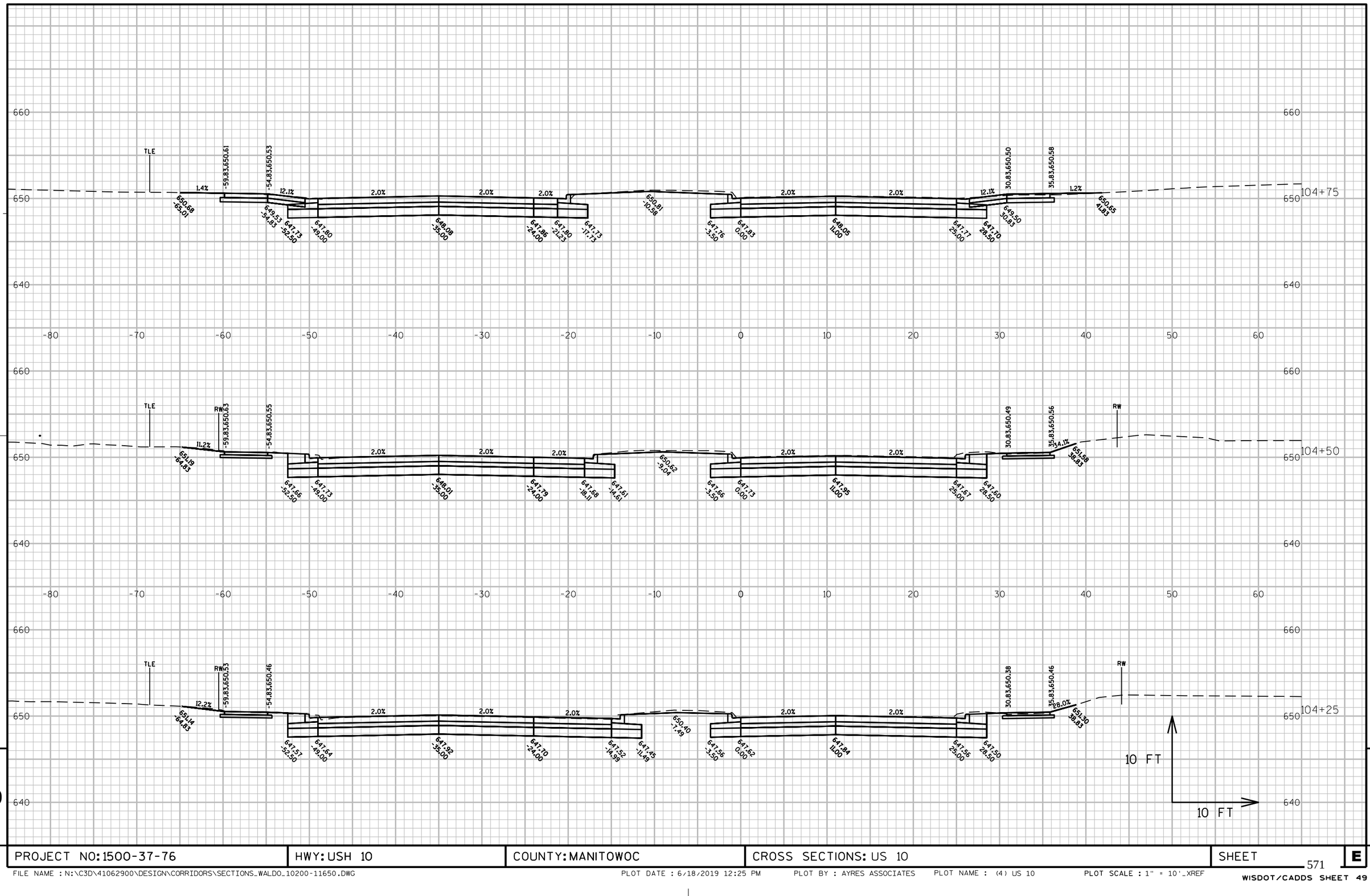
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 570	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:24 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (3) US 10 PLOT SCALE : 1" = 10'_XREF

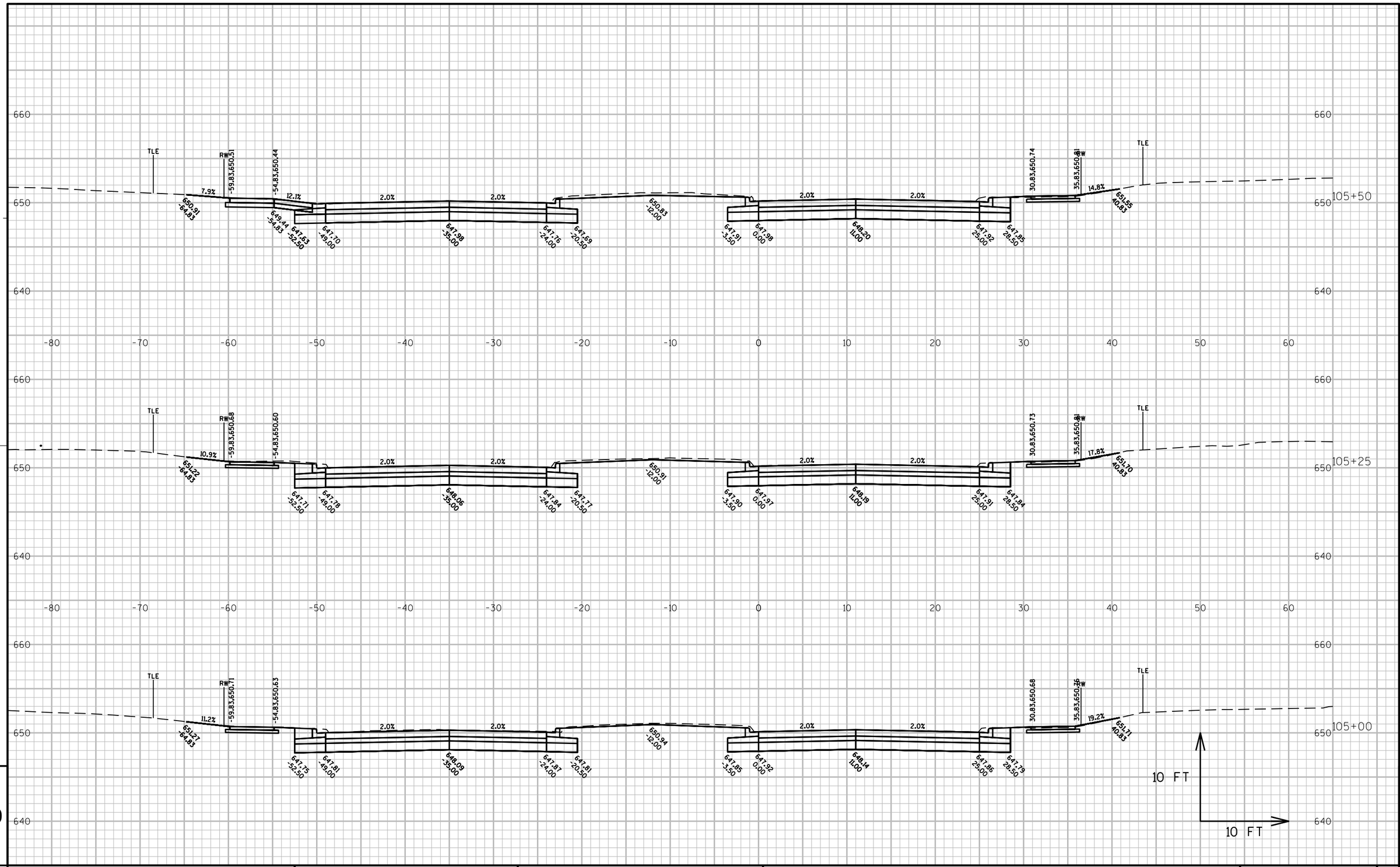
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

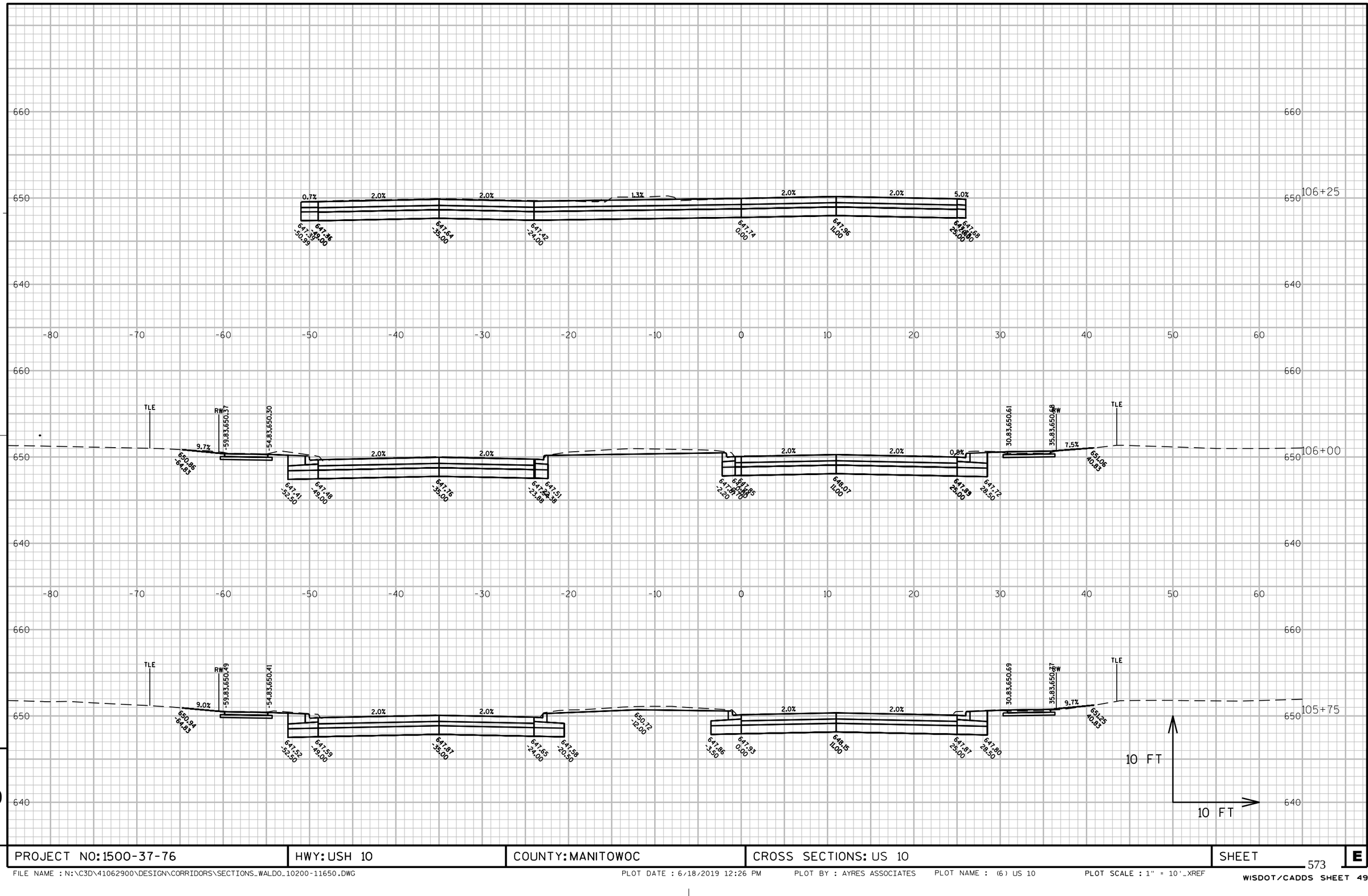
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:25 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (4) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

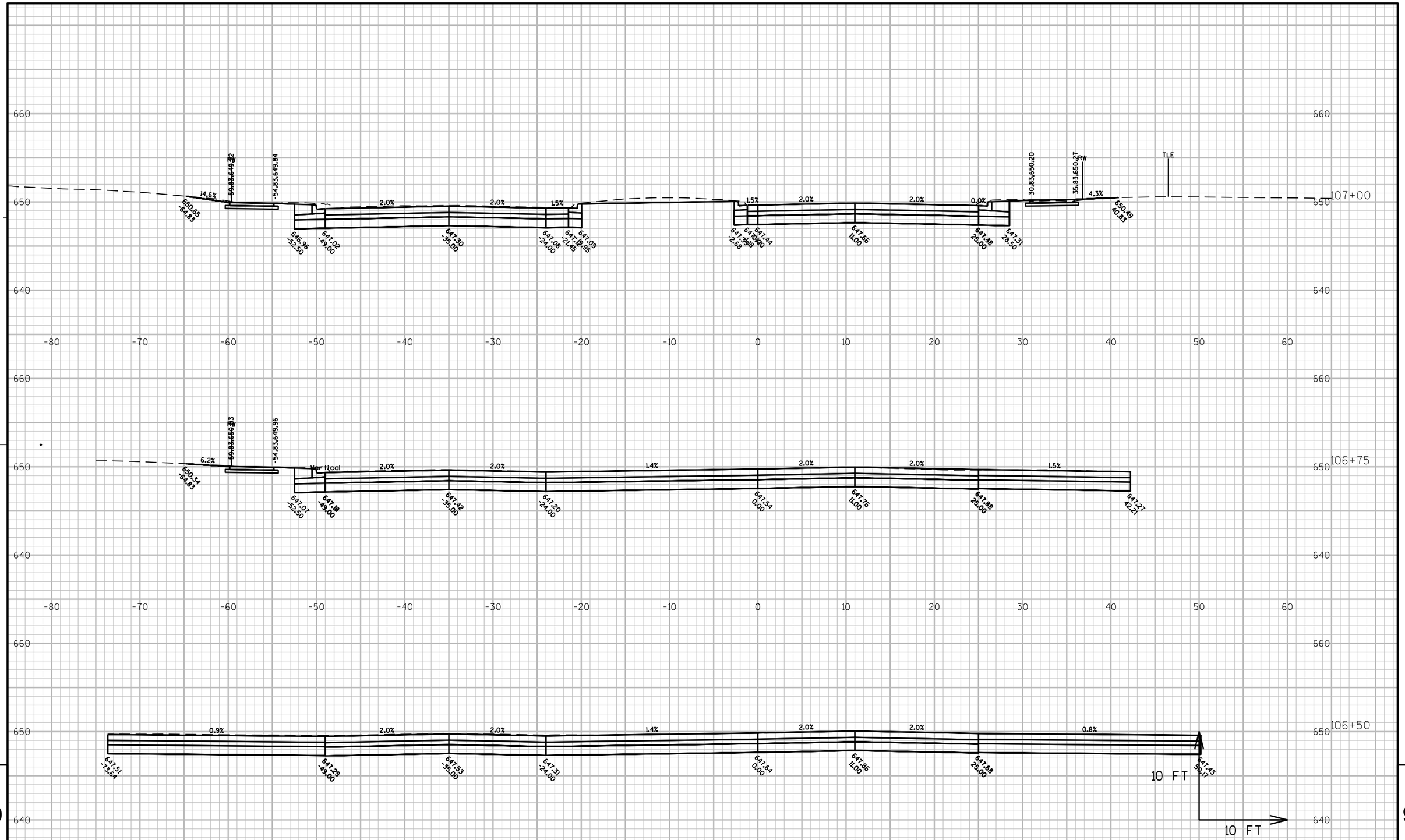
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
PLOT DATE : 6/18/2019 12:25 PM
PLOT BY : AYRES ASSOCIATES
PLOT NAME : (5) US 10
PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:26 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (6) US 10 PLOT SCALE : 1" = 10'_XREF

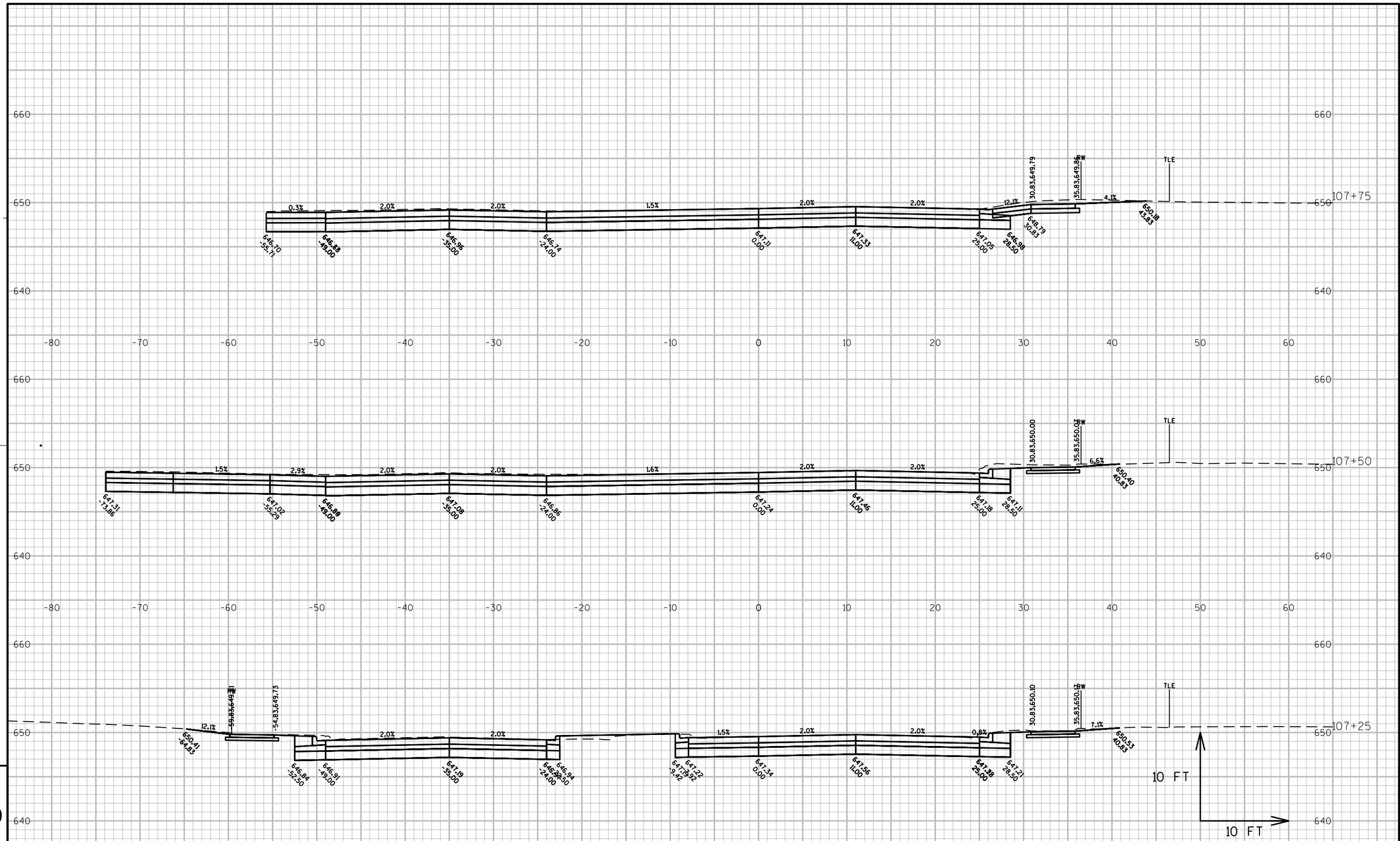
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 574	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:26 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (7) US 10 PLOT SCALE : 1" = 10'_XREF

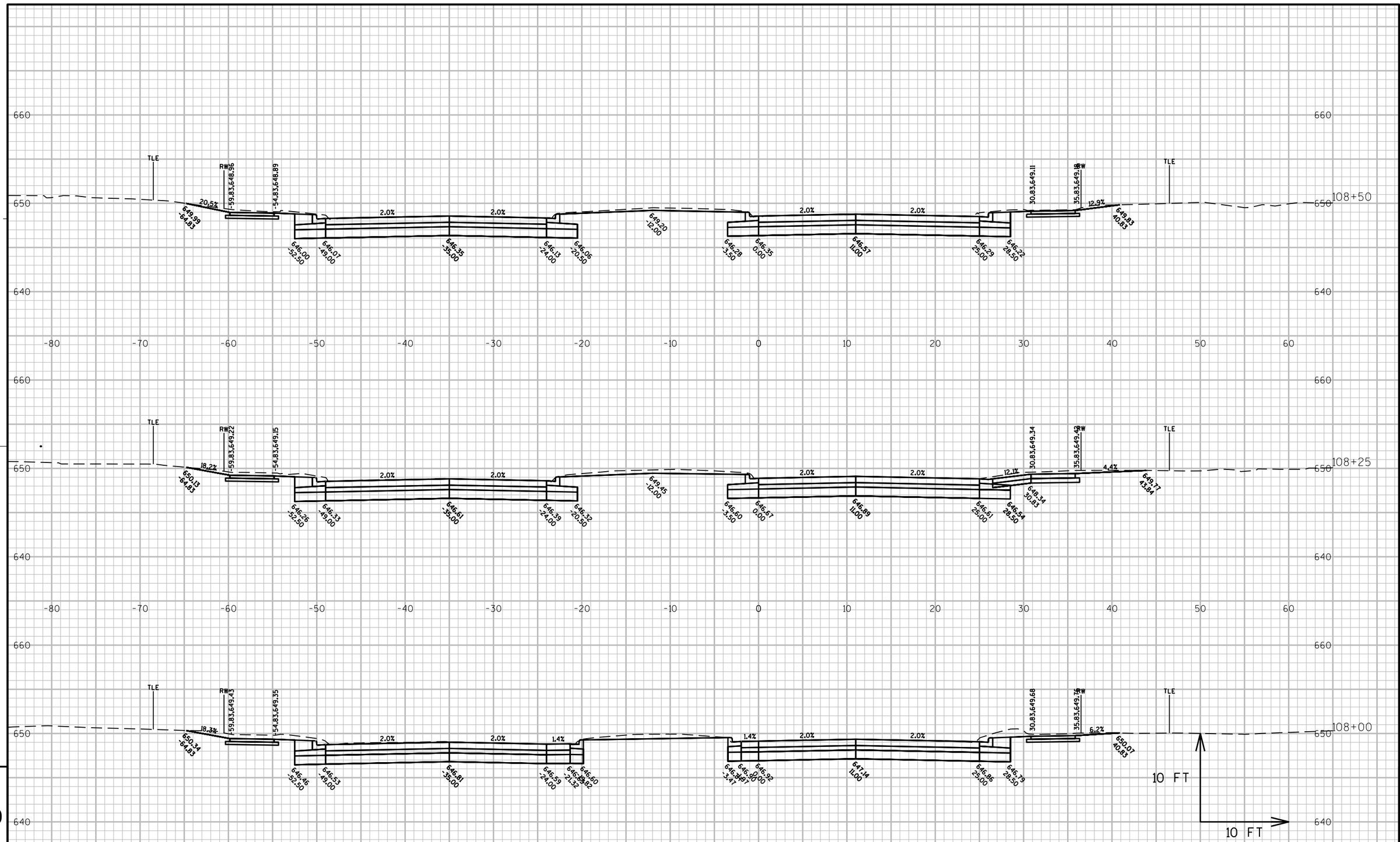
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 575	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:27 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (8) US 10 PLOT SCALE : 1" = 10'_XREF

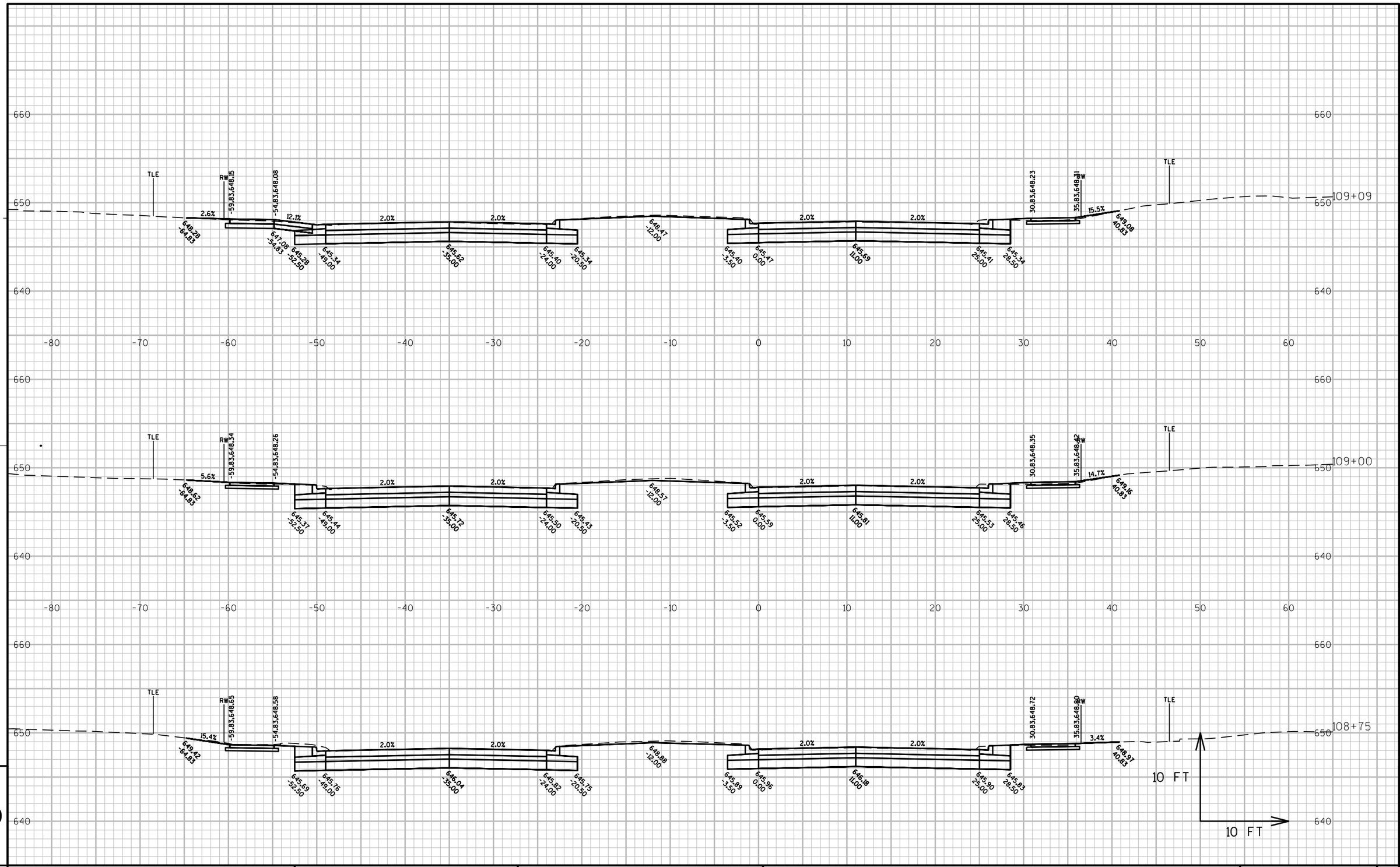
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 576 E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:27 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (9) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

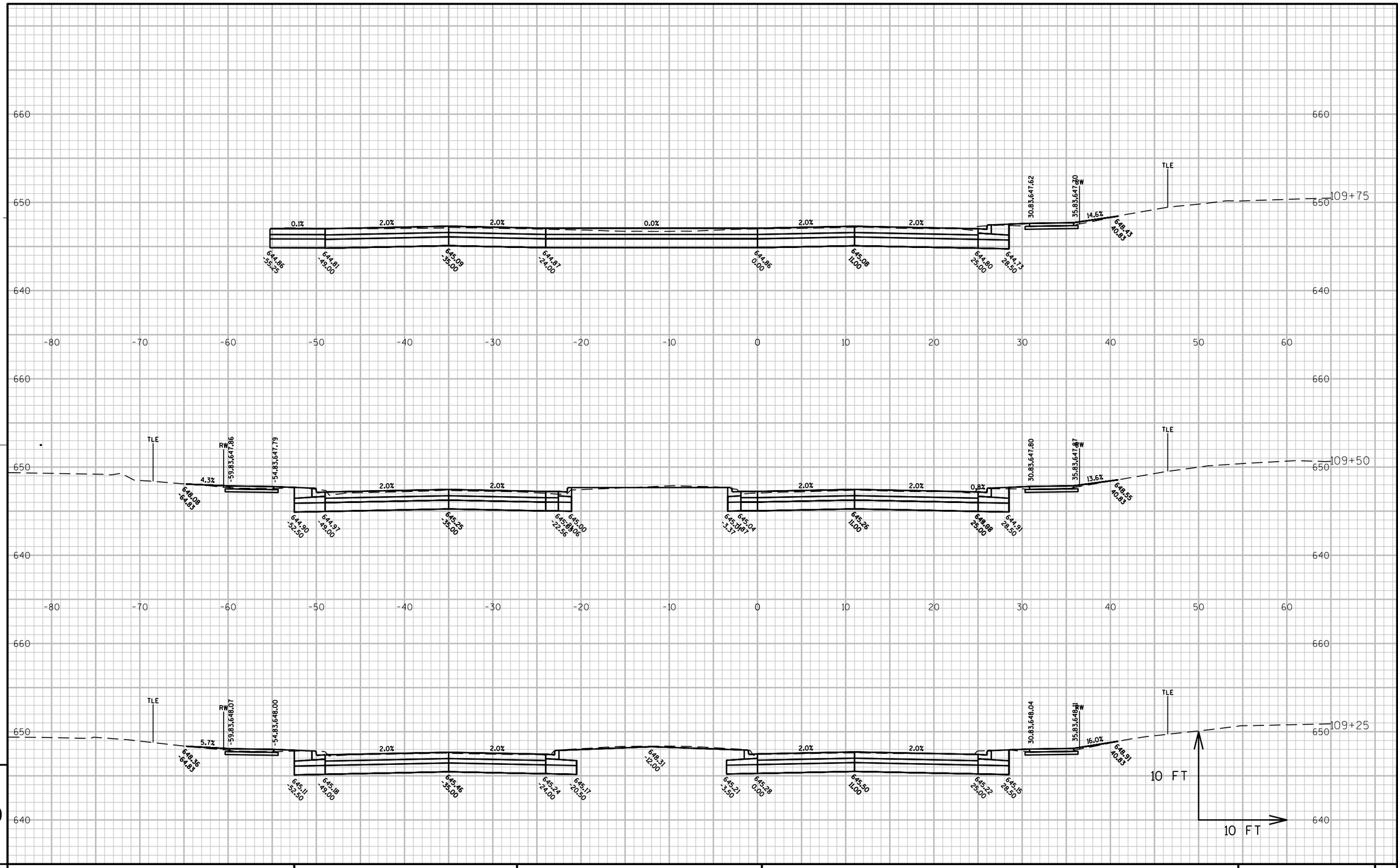
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

577

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:28 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (10) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



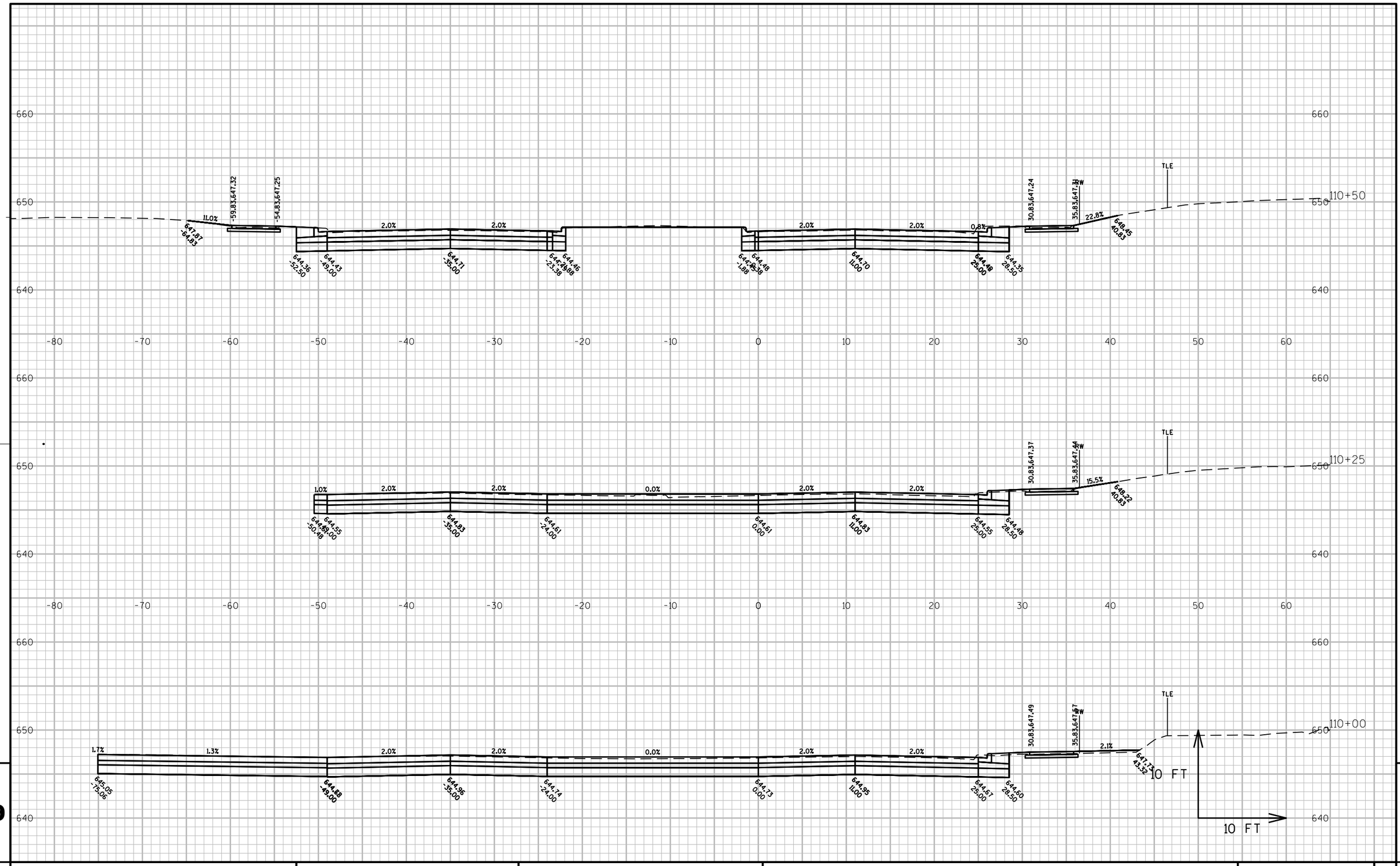
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

9

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:28 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (11) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

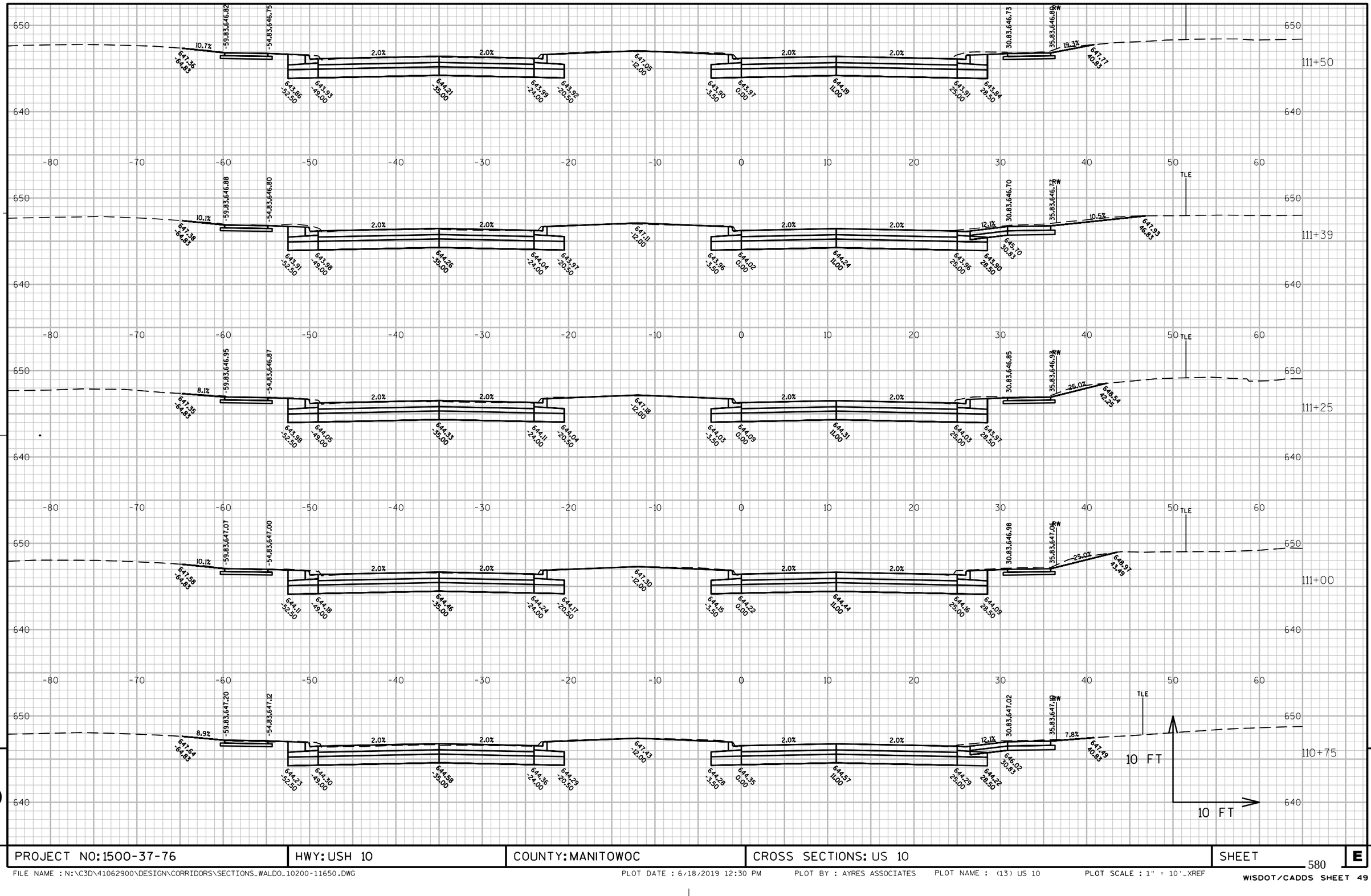


9

9

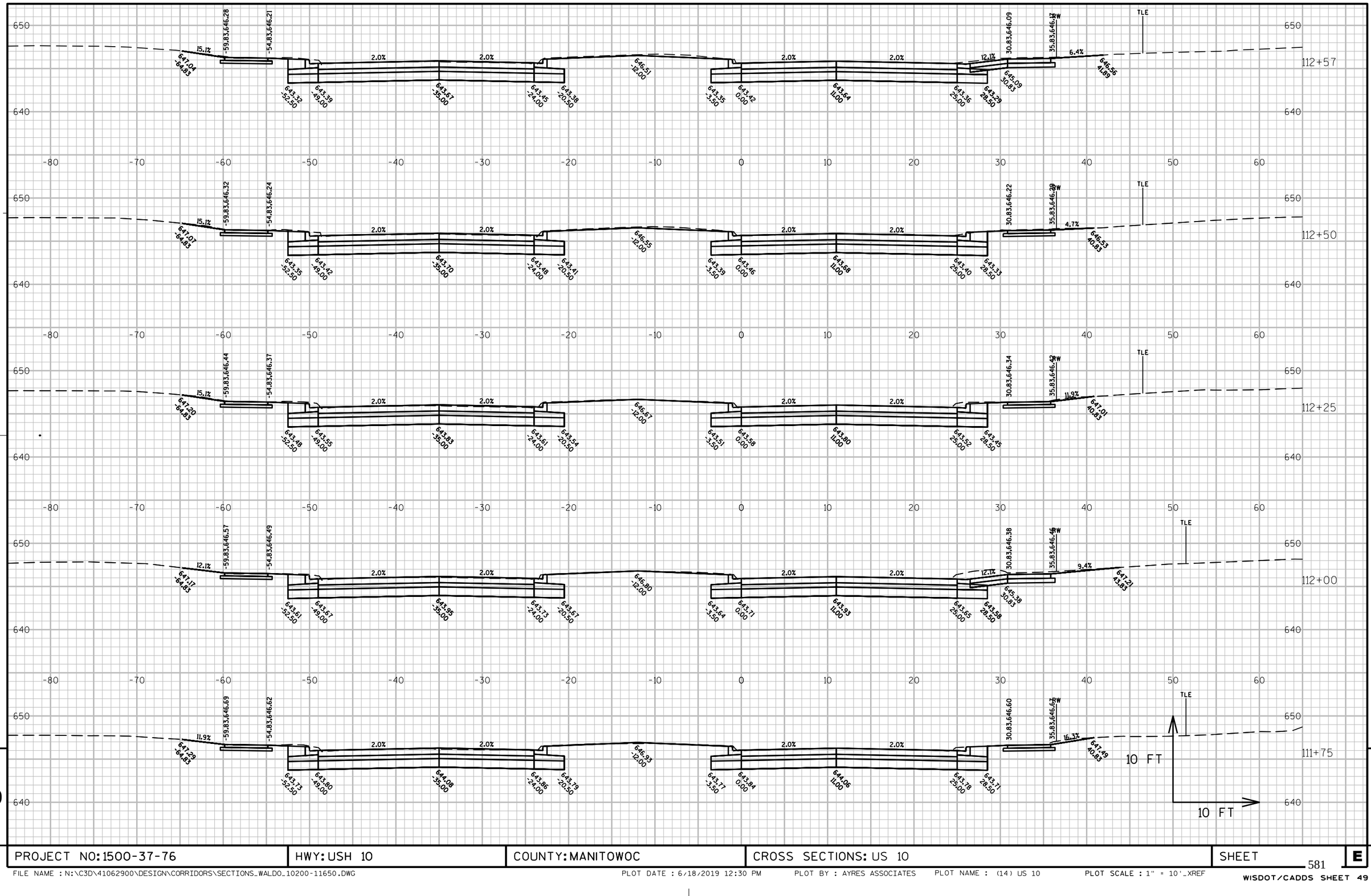
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:29 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (12) US 10 PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 580	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:30 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (13) US 10 PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



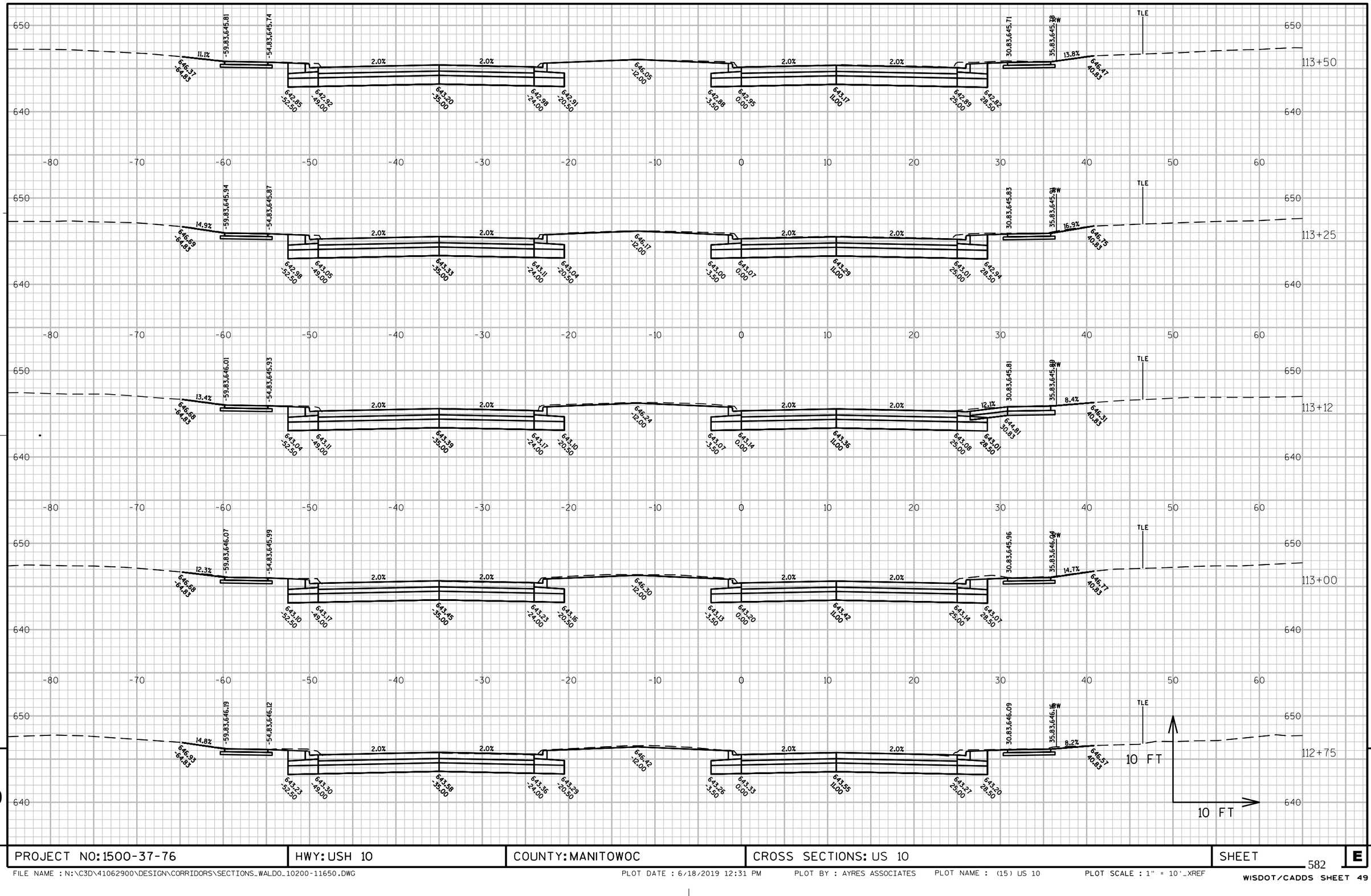
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:30 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (14) US 10 PLOT SCALE : 1" = 10'_XREF

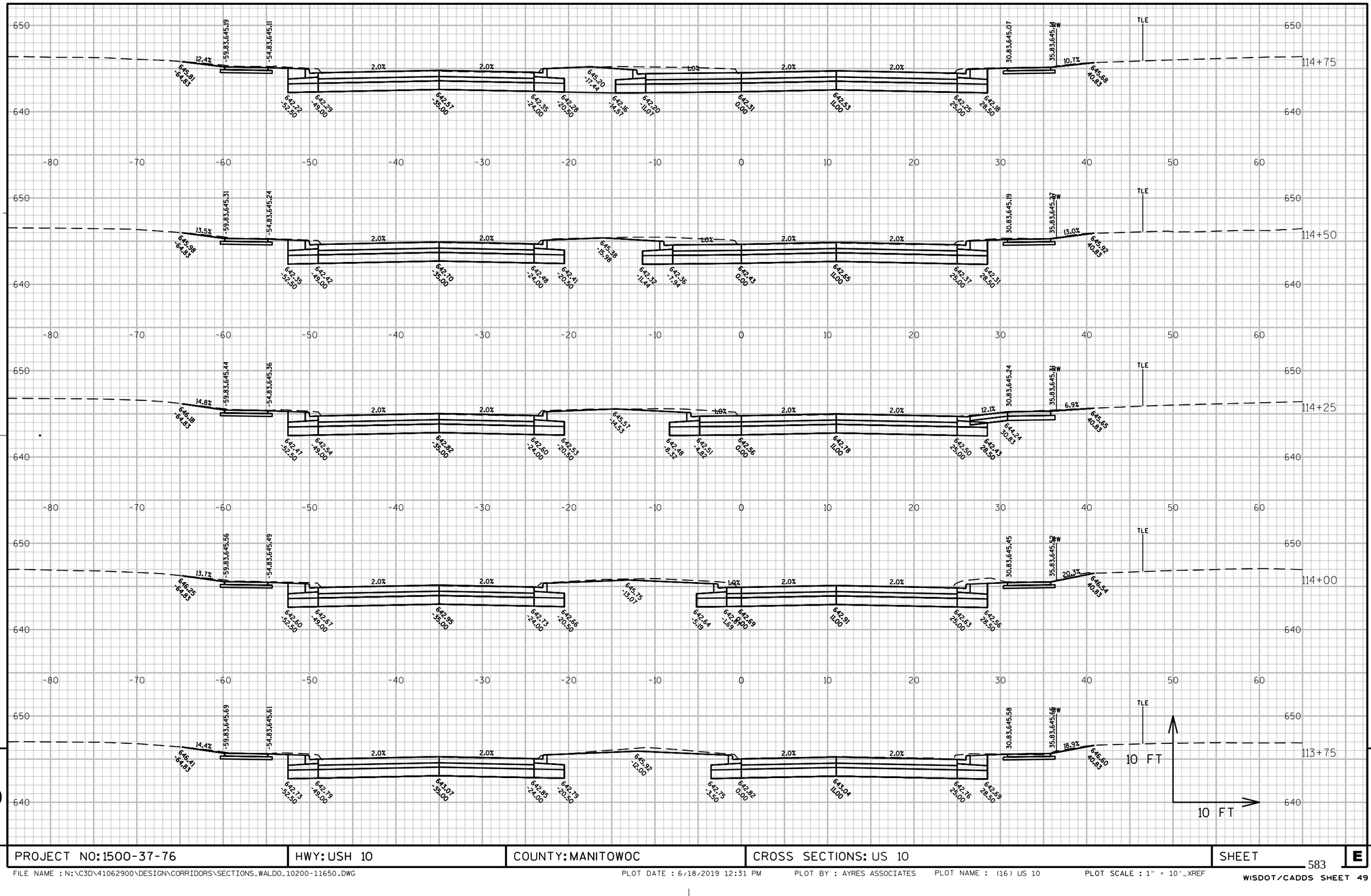
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:31 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (15) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

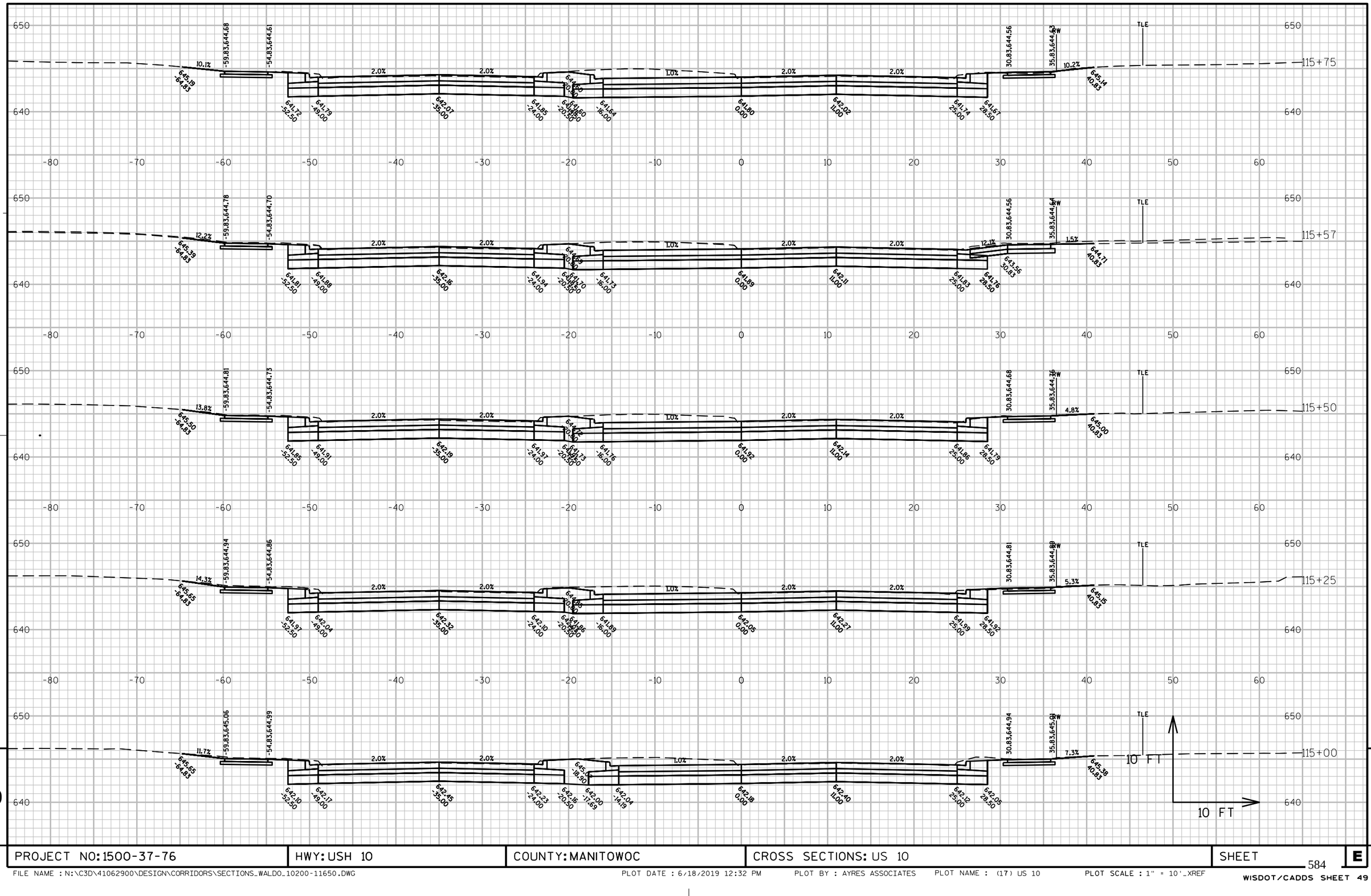
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

583

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:31 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



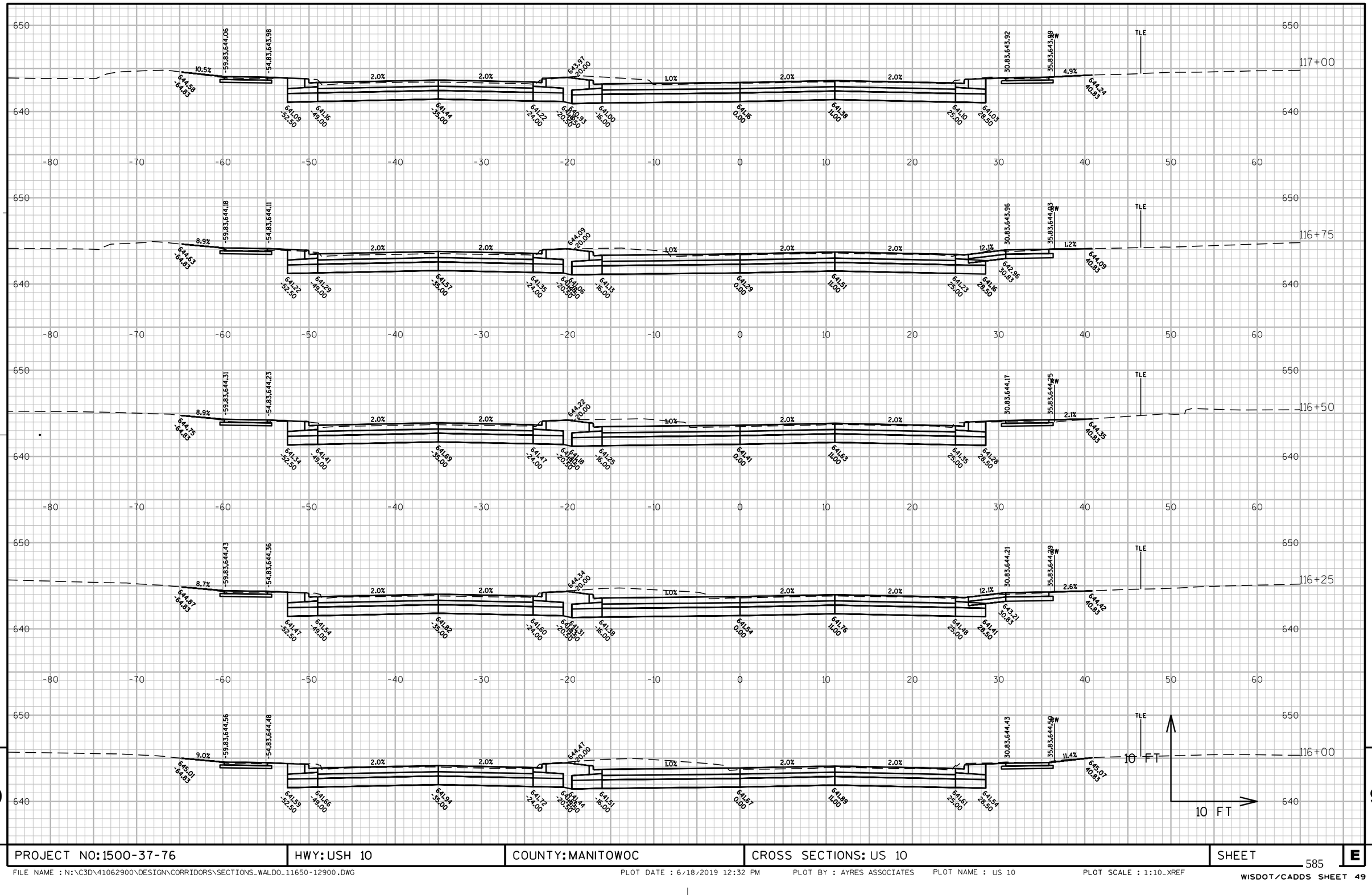
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

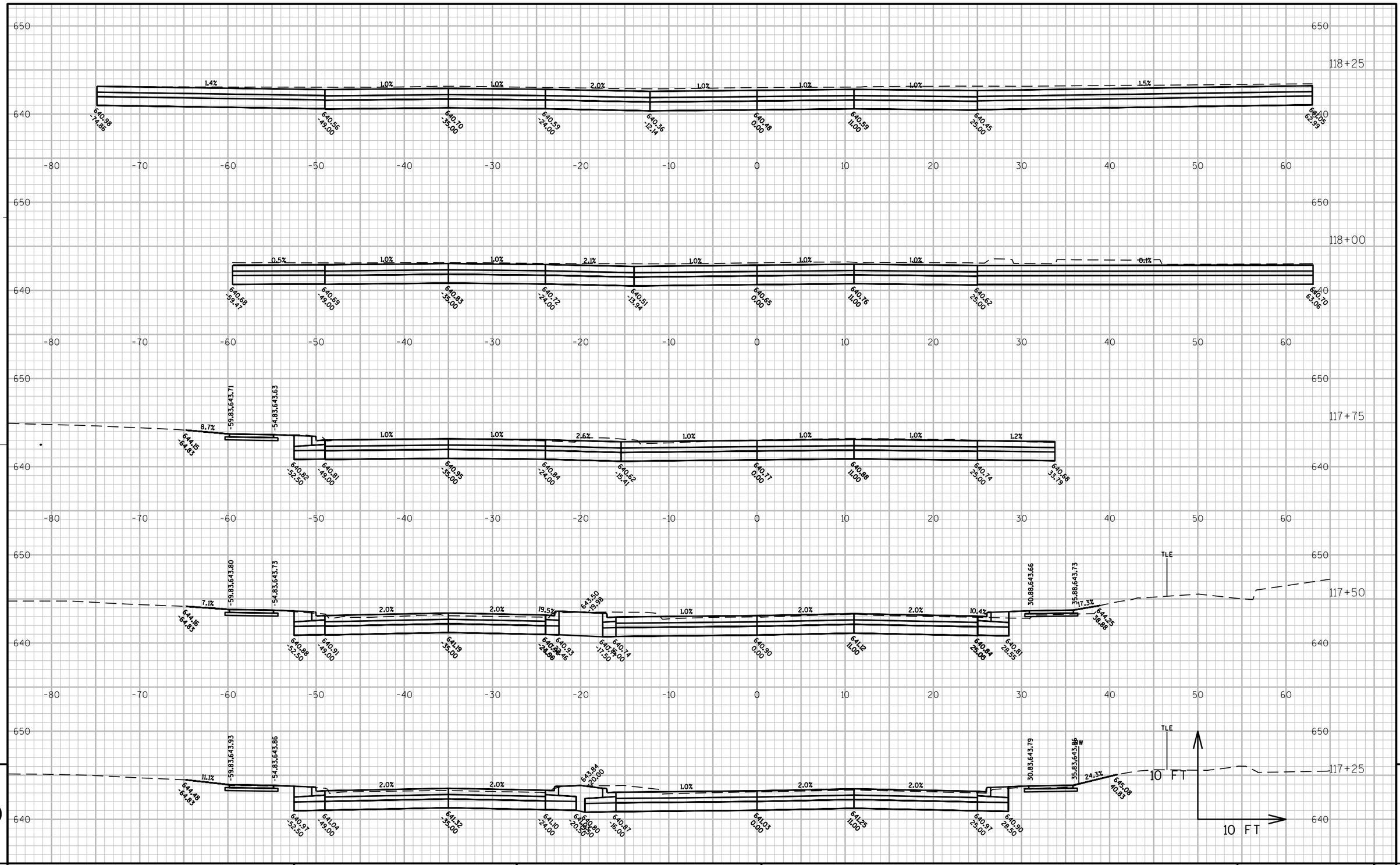
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG PLOT DATE : 6/18/2019 12:32 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (17) US 10 PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



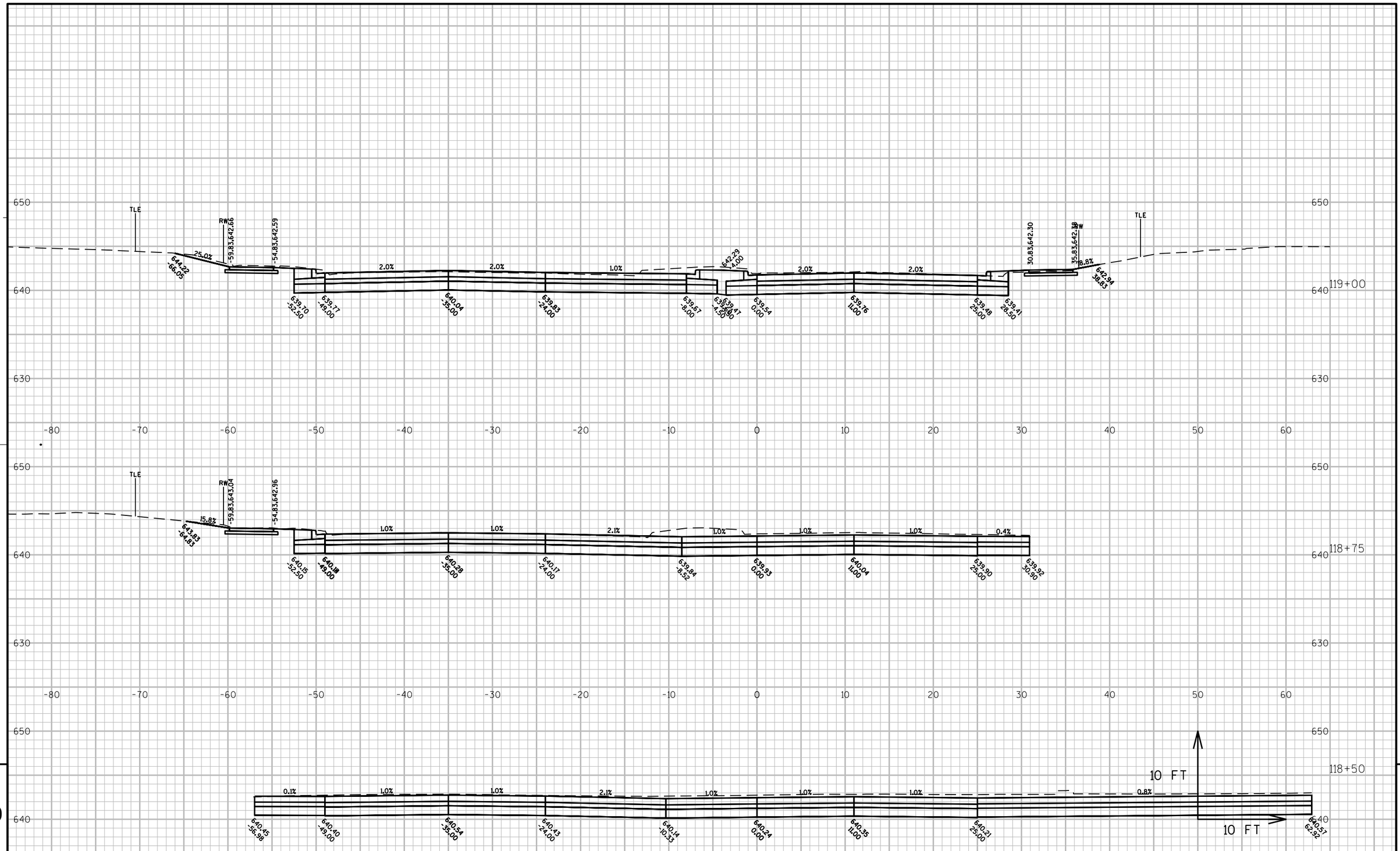
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:32 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:32 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (15) US 10 PLOT SCALE : 1:10_XREF



9

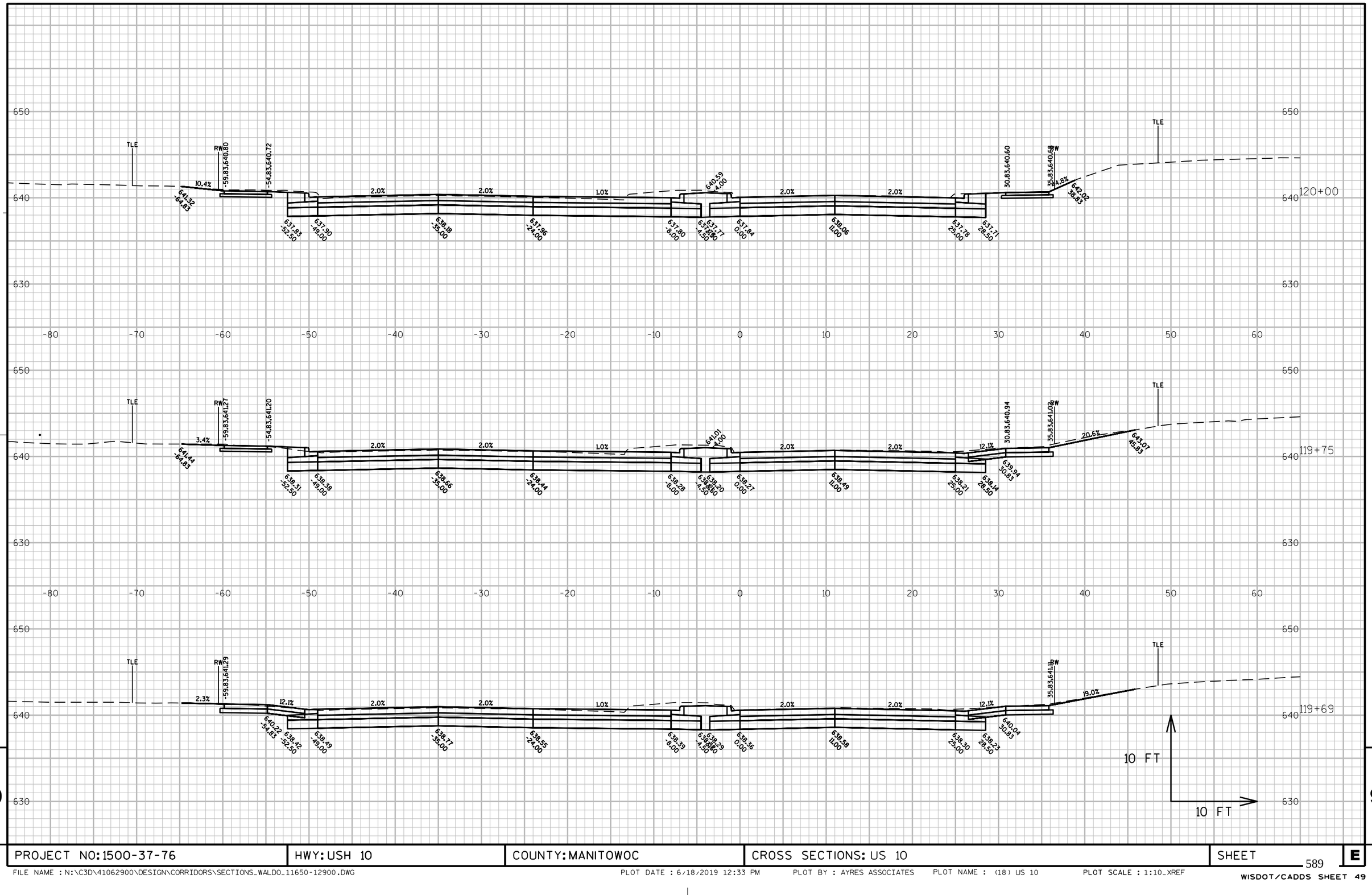
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

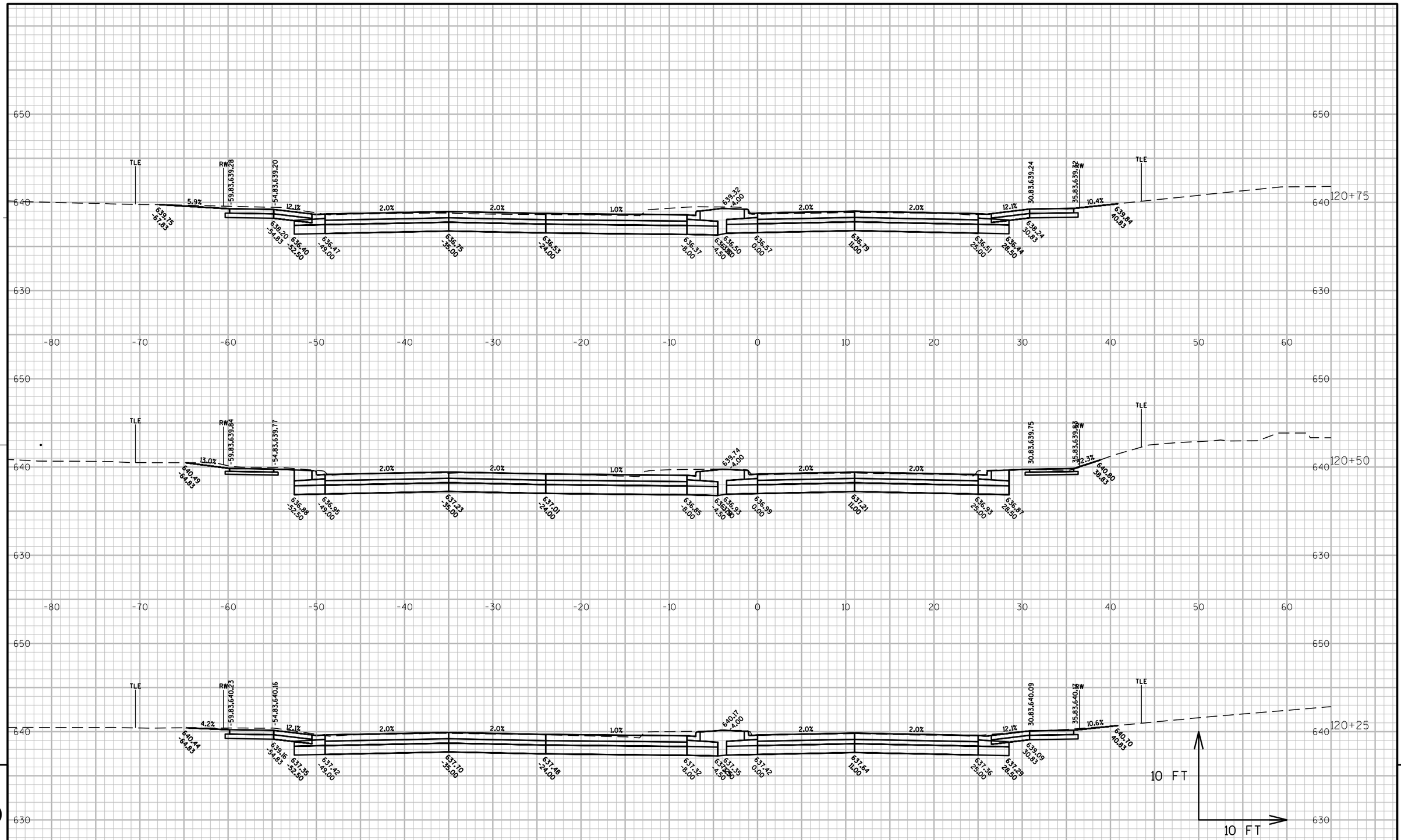
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:33 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (16) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 588	E



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 589	E



9

9

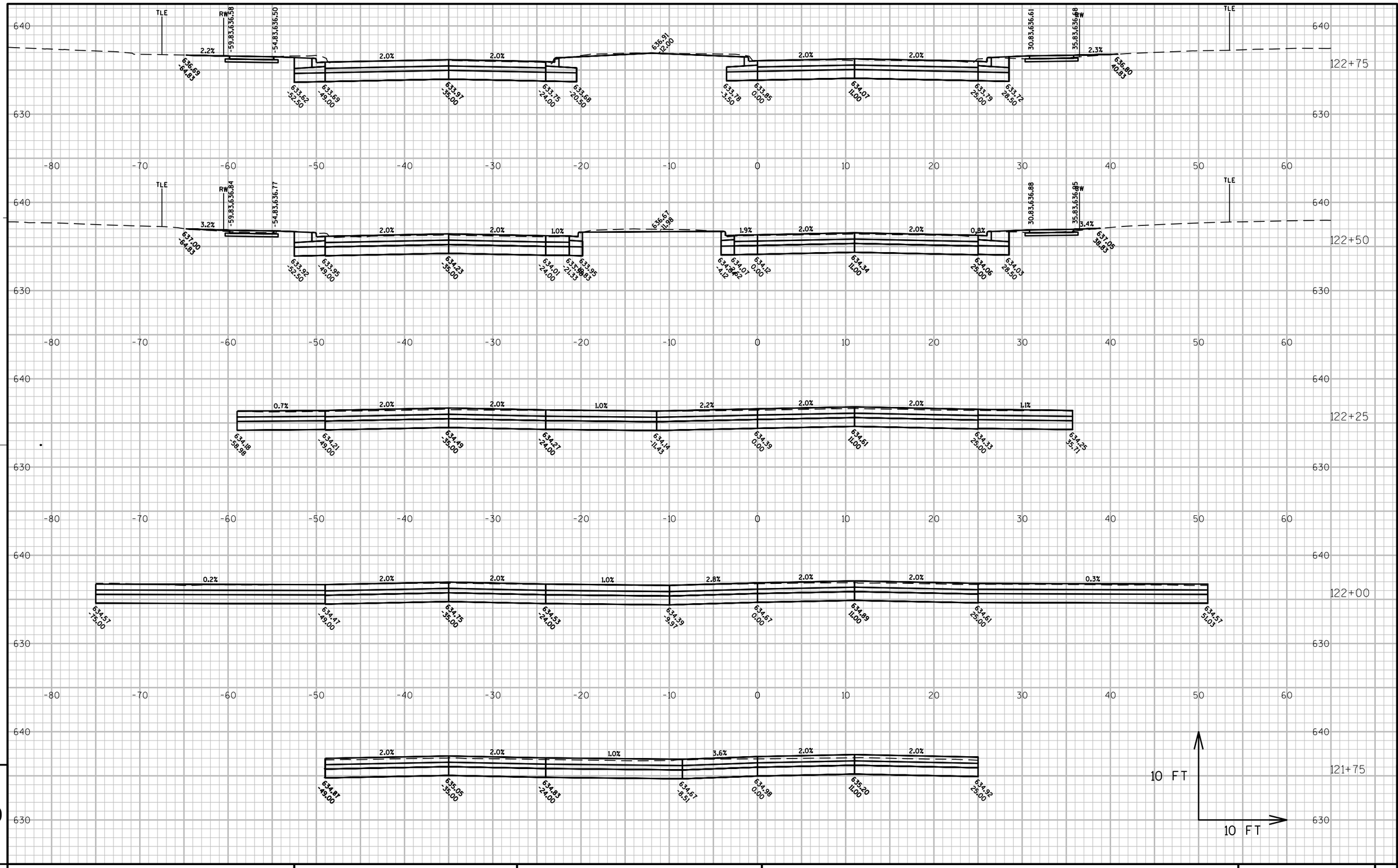
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (19) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (20) US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

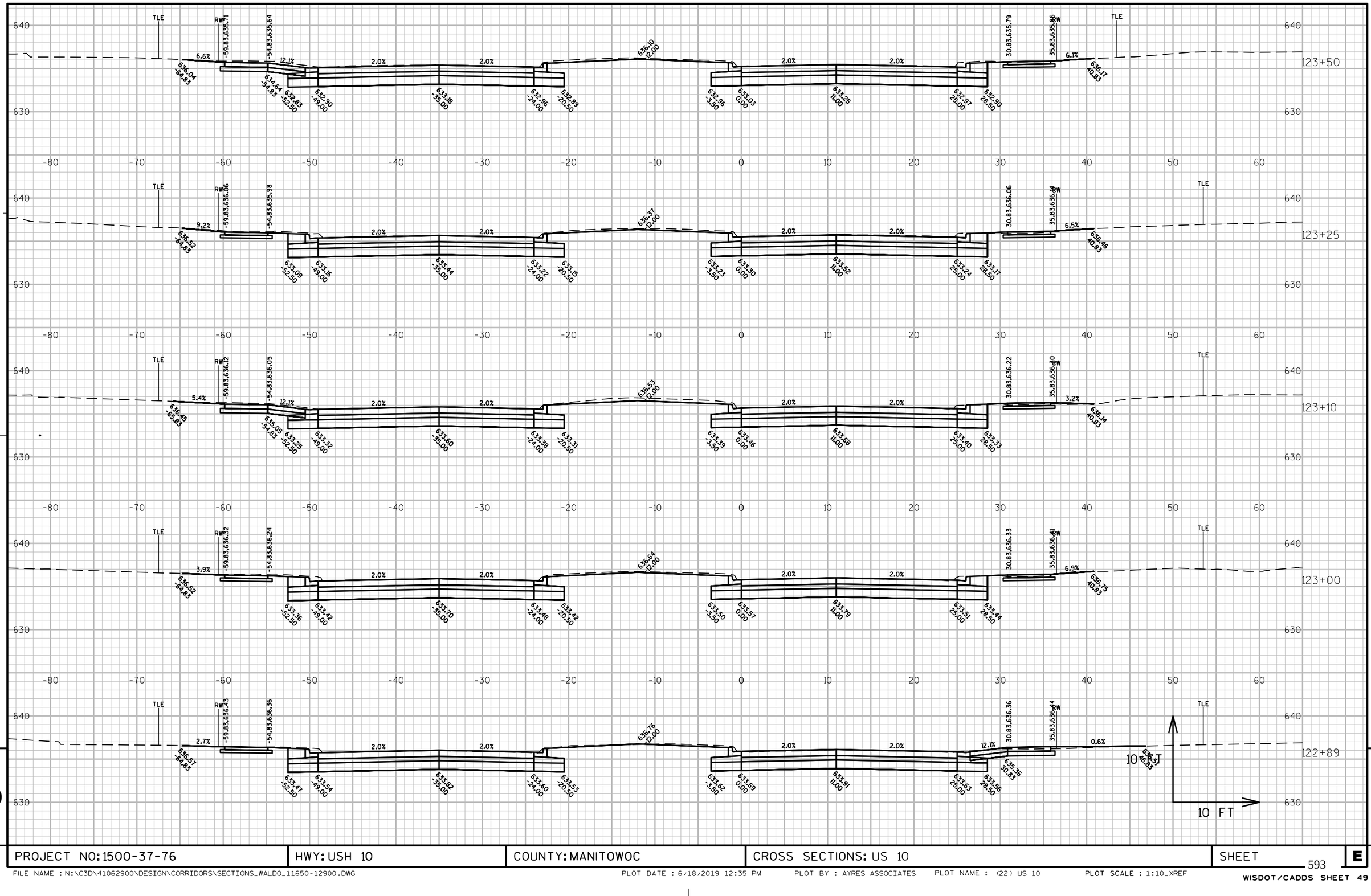


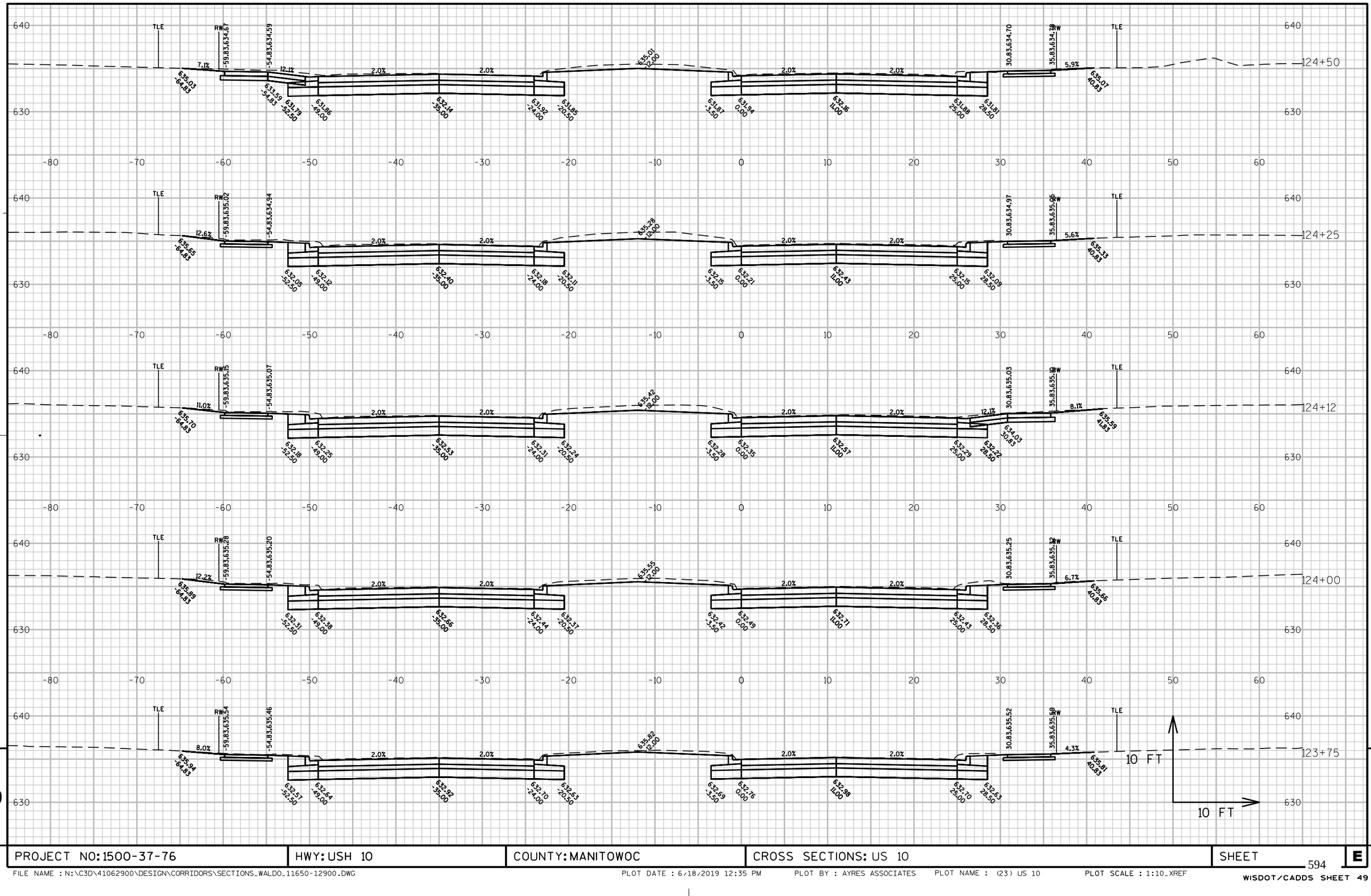
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (21) US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49


123+50
TLE
RW
-59.83,635.71
-54.83,635.64
6.6%
12.1%
2.0%
2.0%
6.1%
TLE
6.0%
6.0%
6.0%



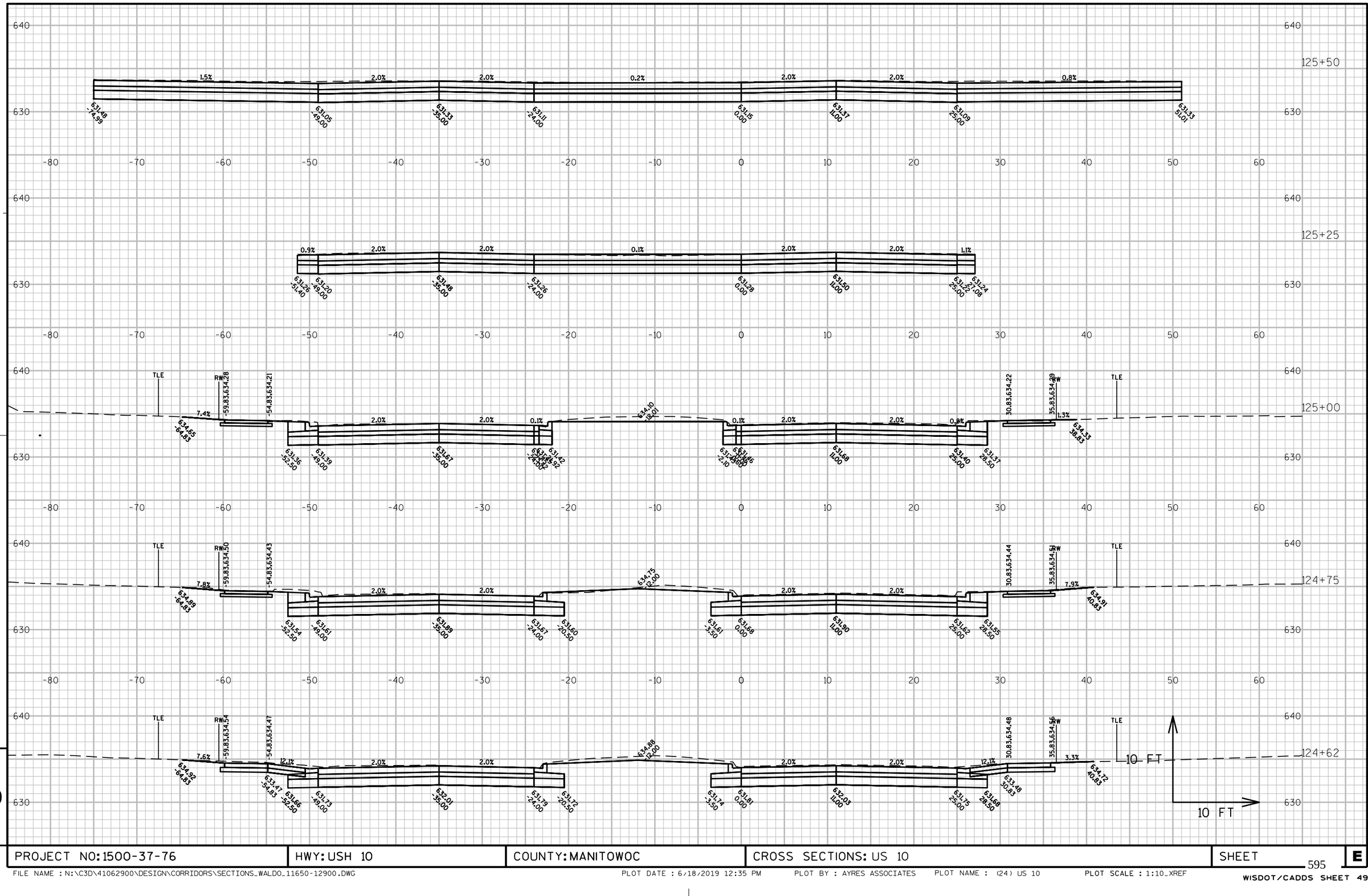
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PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

9

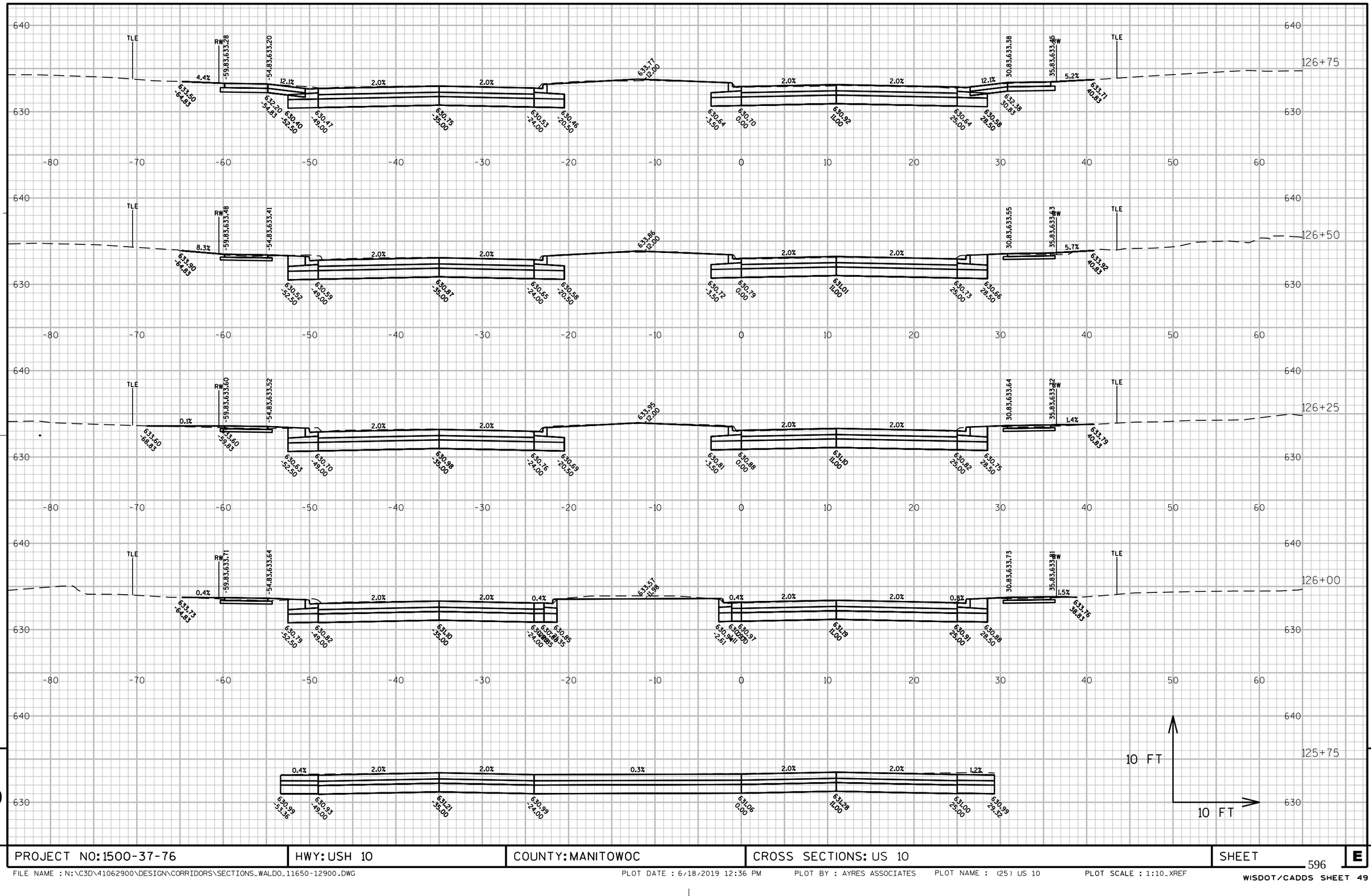
FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:35 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (23) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:35 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (24) US 10 PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



9

9

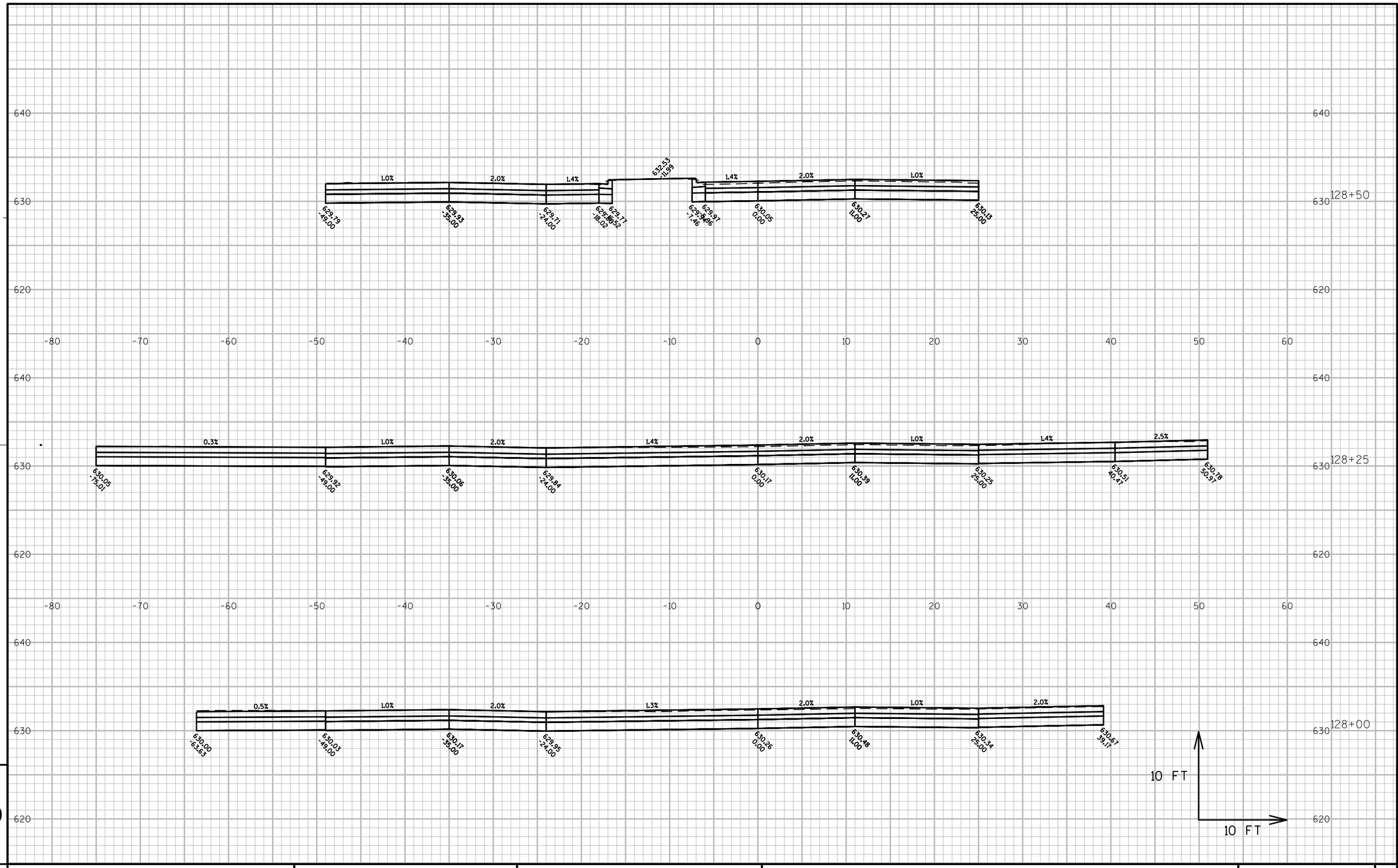
PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:36 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (25) US 10 PLOT SCALE : 1:10_XREF

9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 597	E



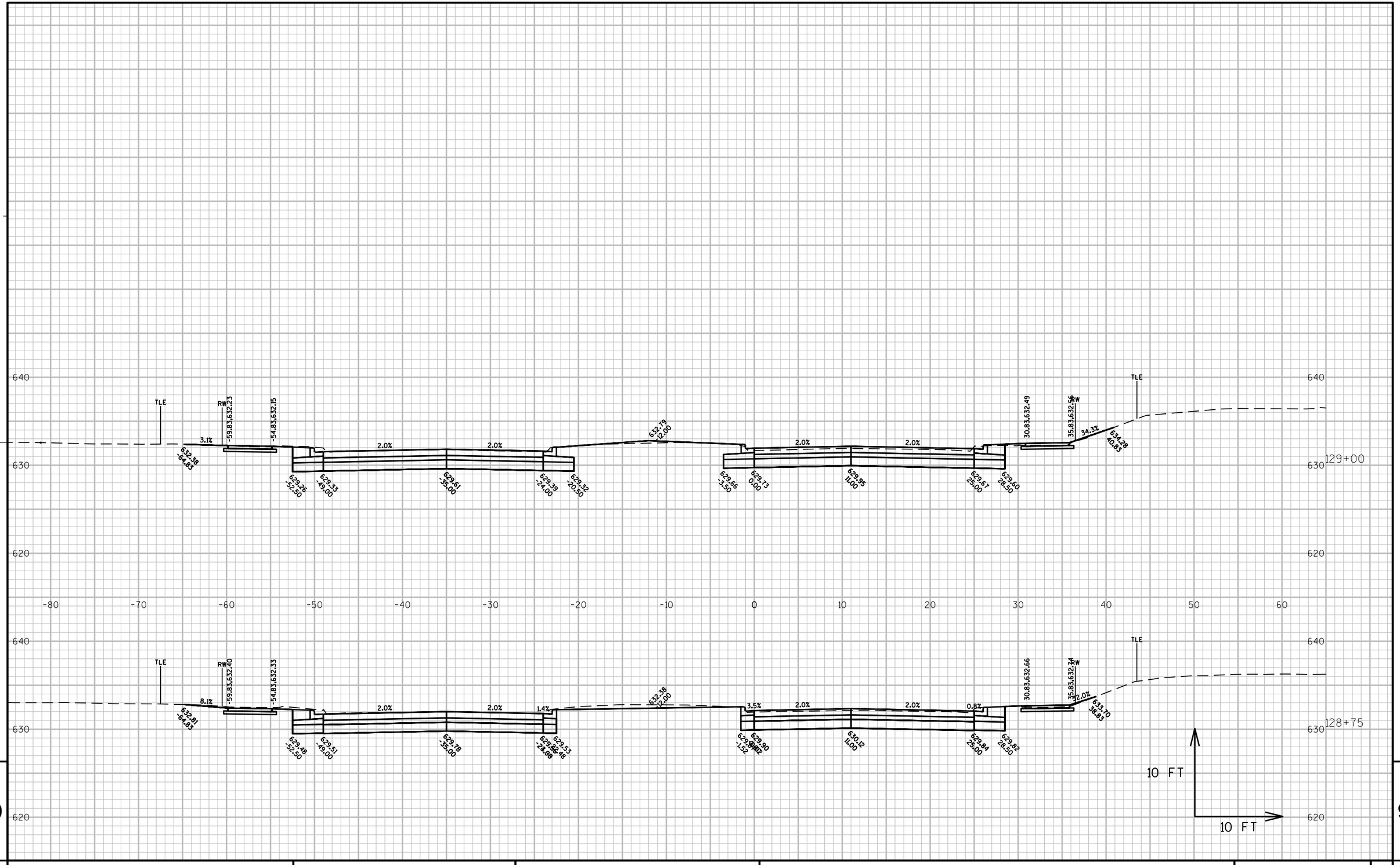
9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:37 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (26) US 10 (2) PLOT SCALE : 1:10_XREF

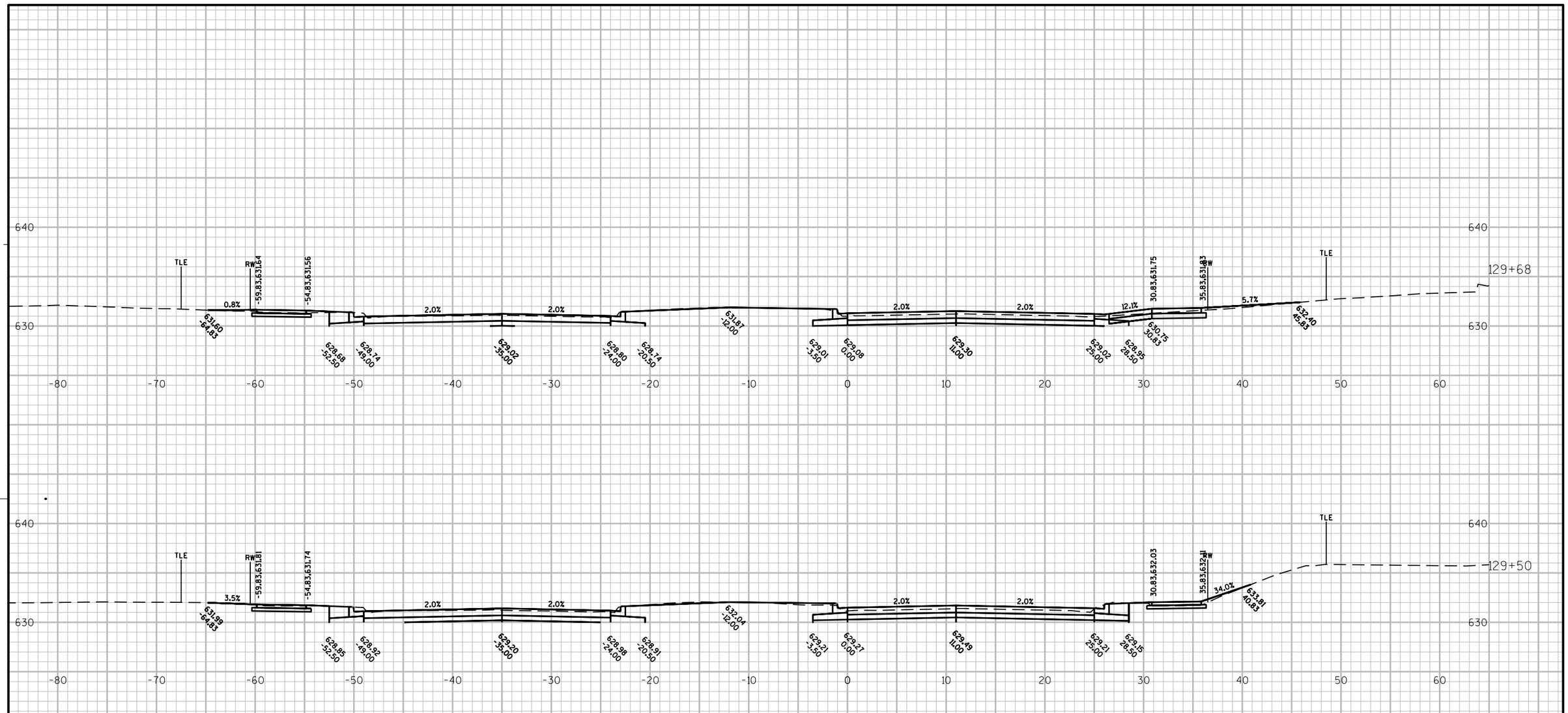
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 599	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG PLOT DATE : 6/18/2019 12:39 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (26) US 10 (2) (2) PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



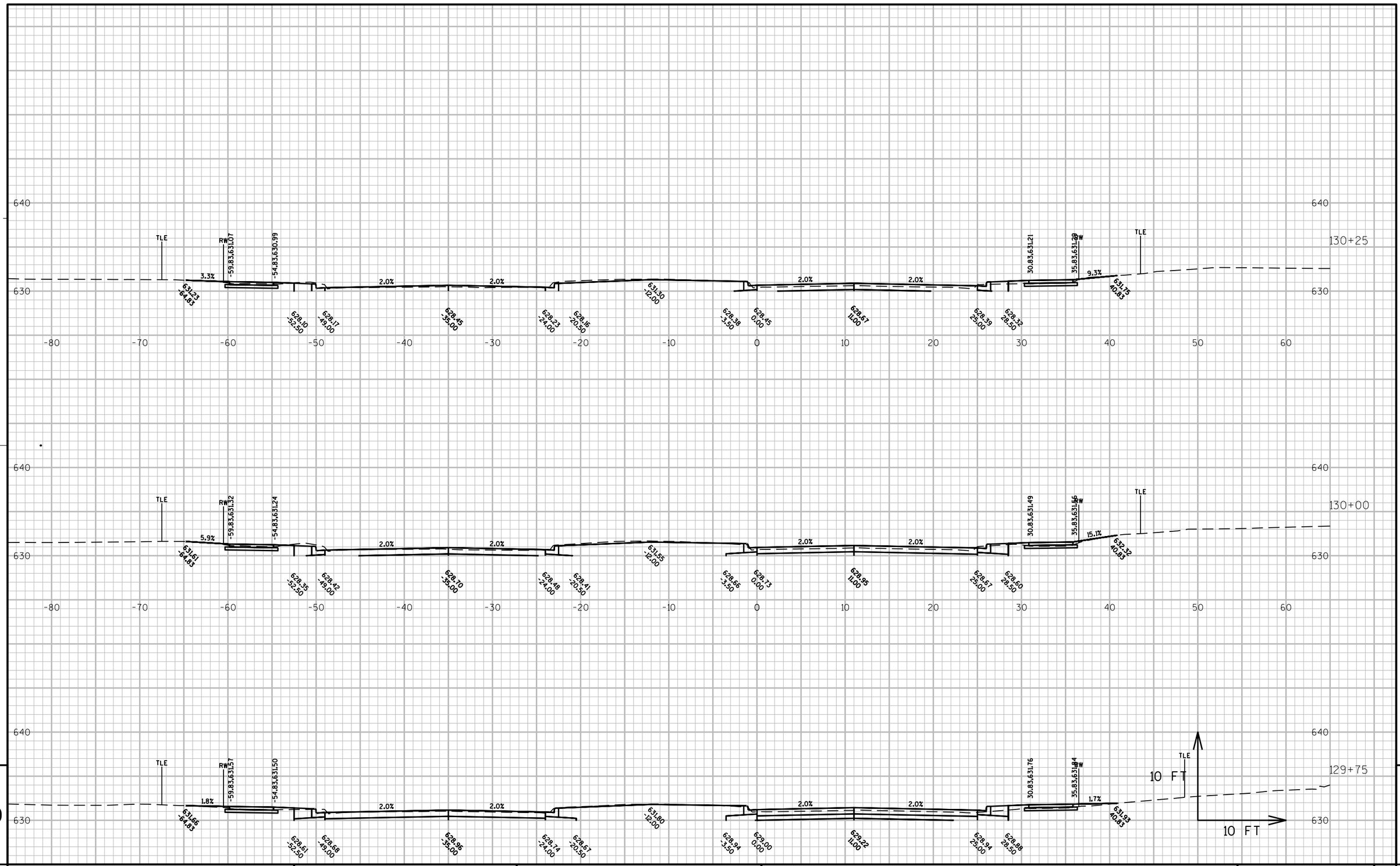
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9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET 600	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG PLOT DATE : 6/18/2019 12:40 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : US 10 PLOT SCALE : 1:10_XREF

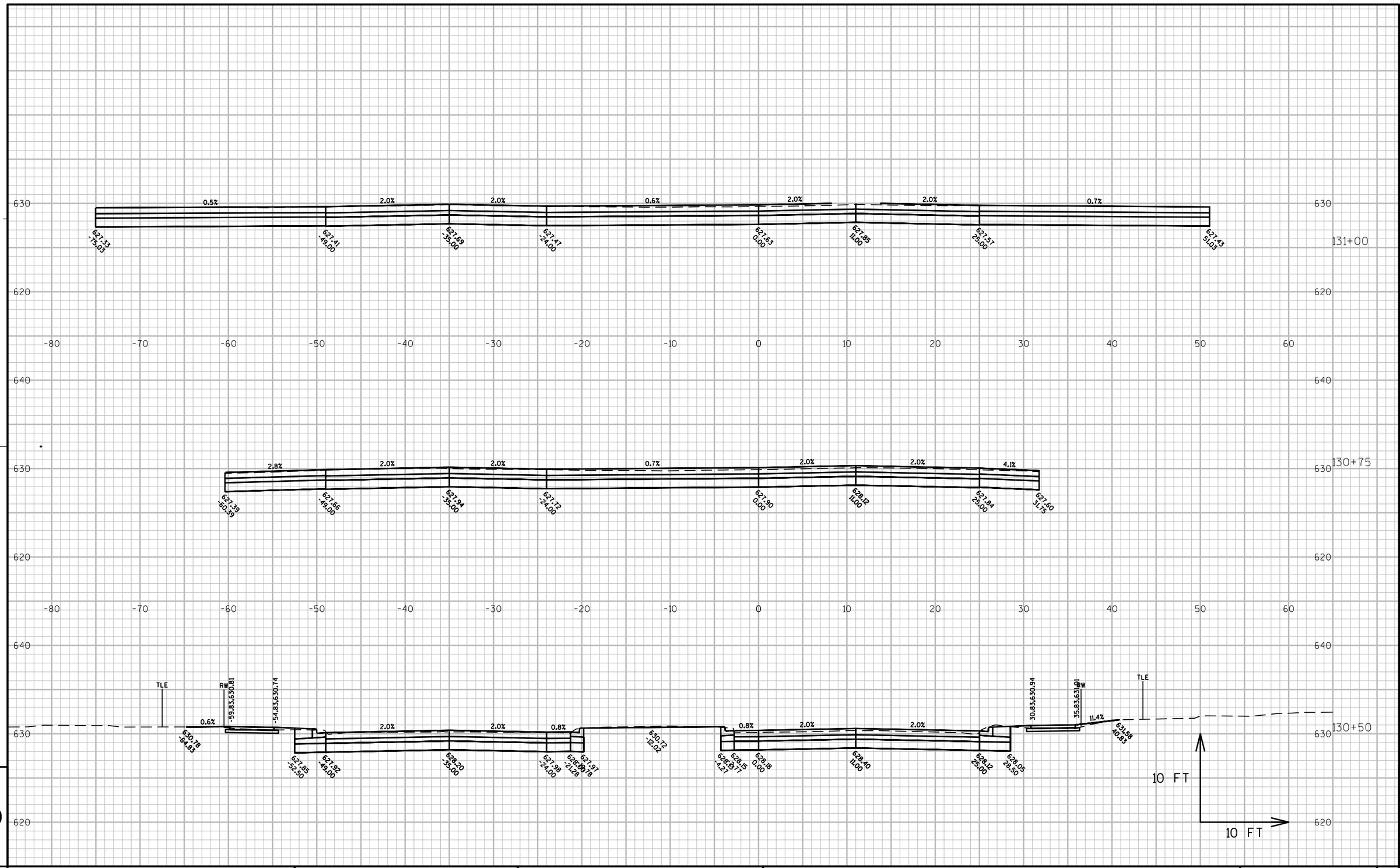
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG PLOT DATE : 6/18/2019 12:40 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

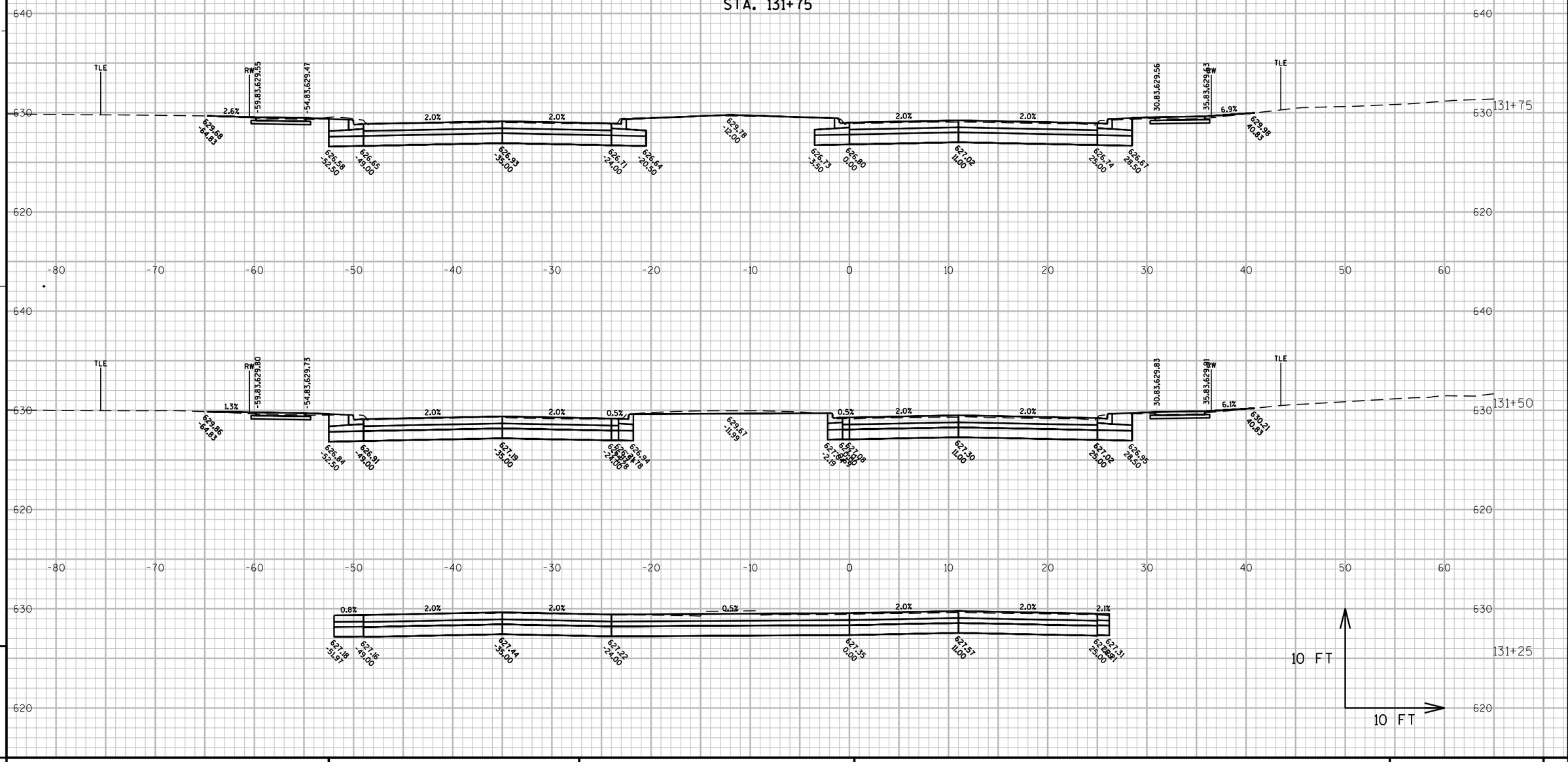


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG PLOT DATE : 6/18/2019 12:40 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (3) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

END PROJECT 1500-37-76
STA. 131+75

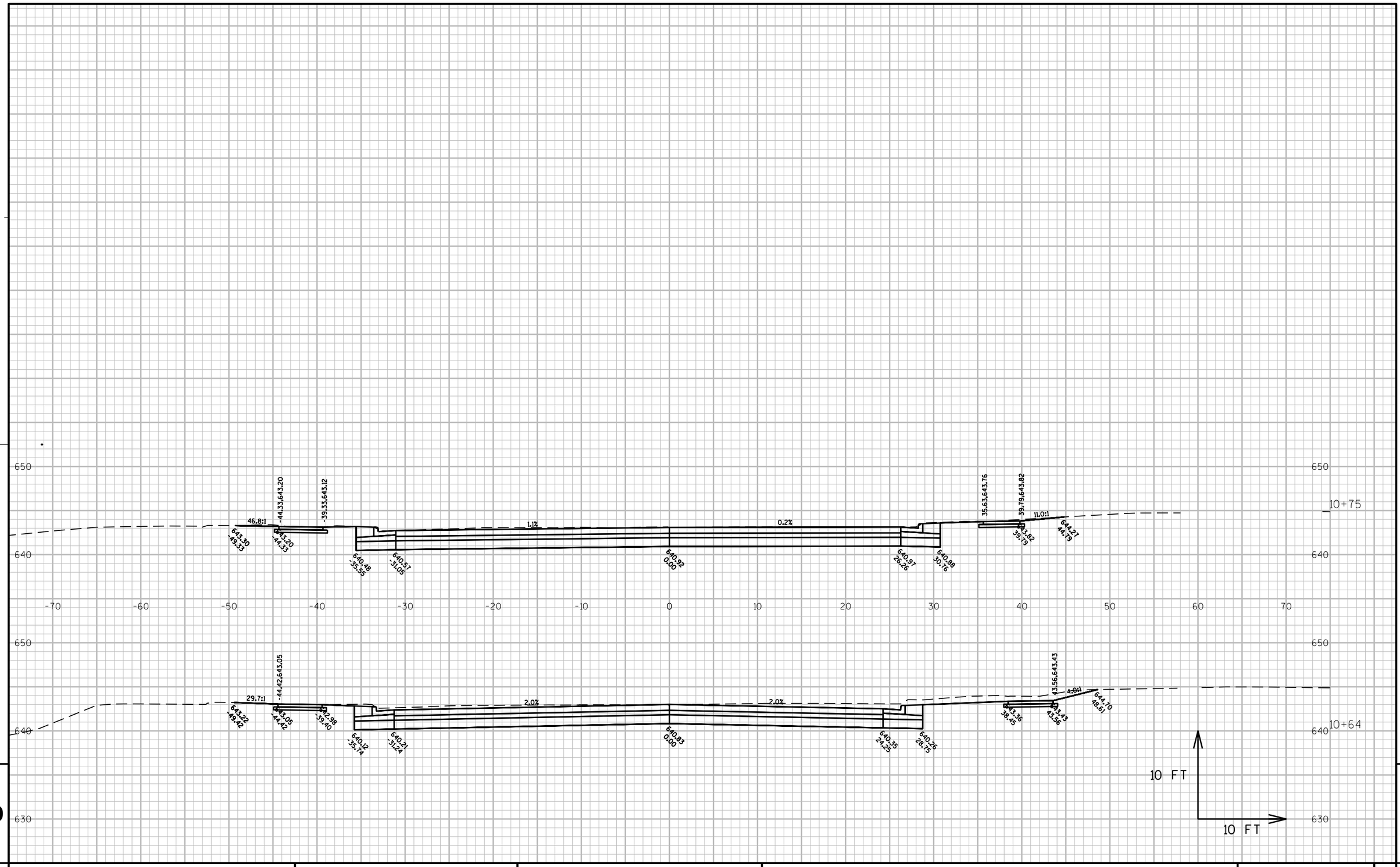


9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: US 10	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG PLOT DATE : 6/18/2019 12:40 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (4) US 10 PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

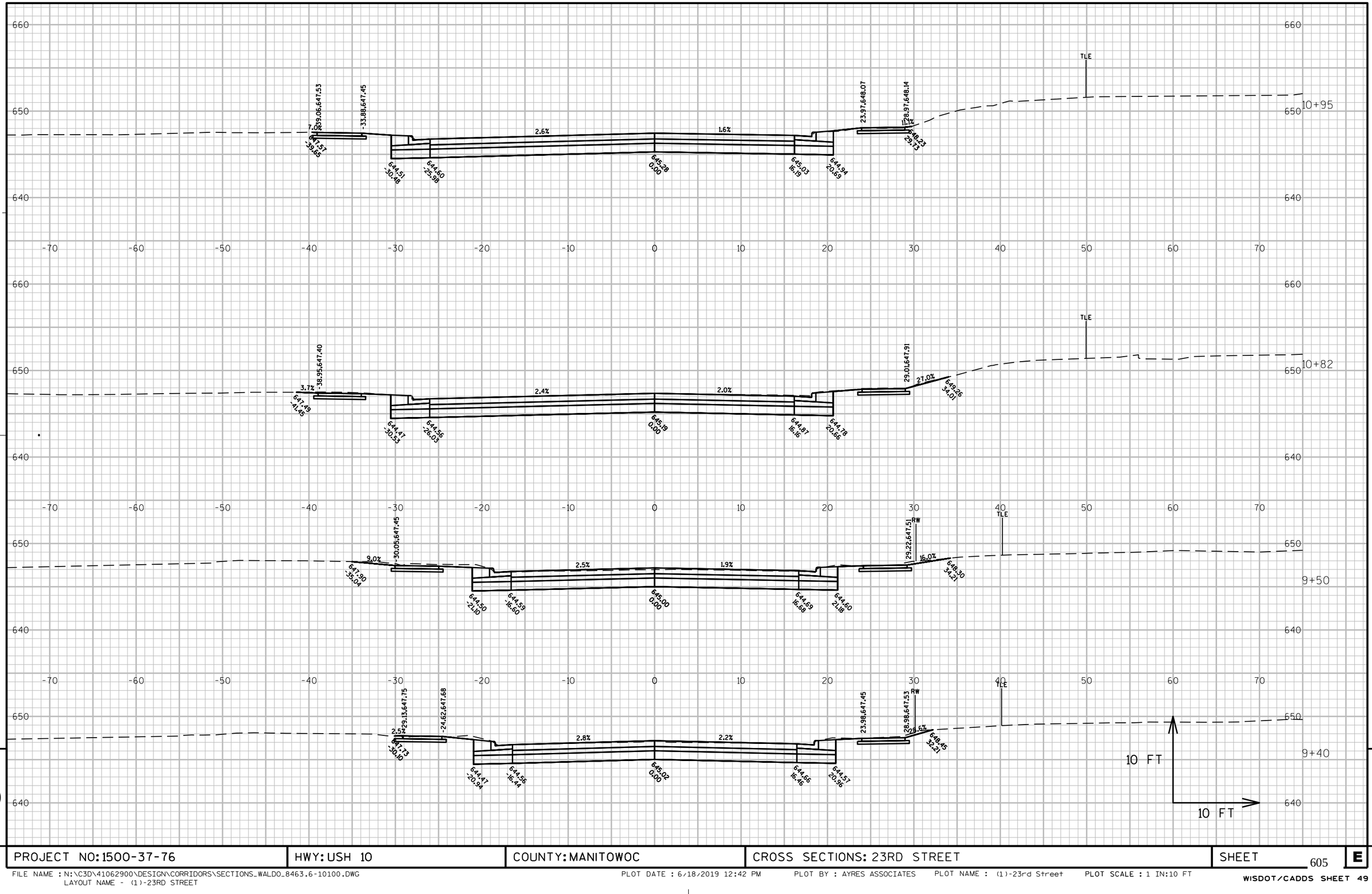


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: FLEETWOOD DRIVE	SHEET	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_7000-8203.DWG
LAYOUT NAME - FLEETWOOD DRIVE

PLOT DATE : 6/18/2019 12:41 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : Fleetwood Drive PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

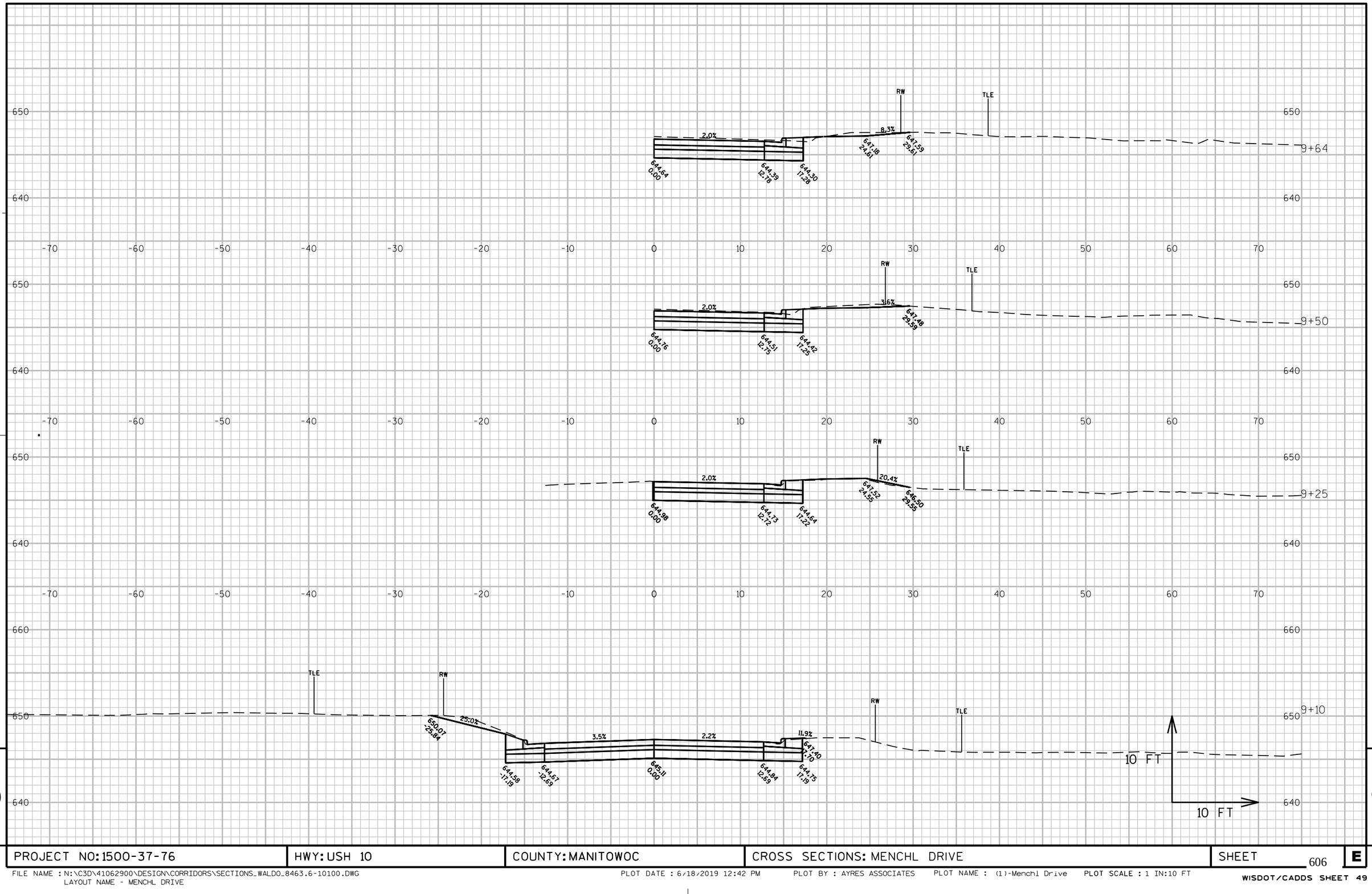


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 23RD STREET	SHEET 605	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - (1)-23RD STREET

PLOT DATE : 6/18/2019 12:42 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-23rd Street PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

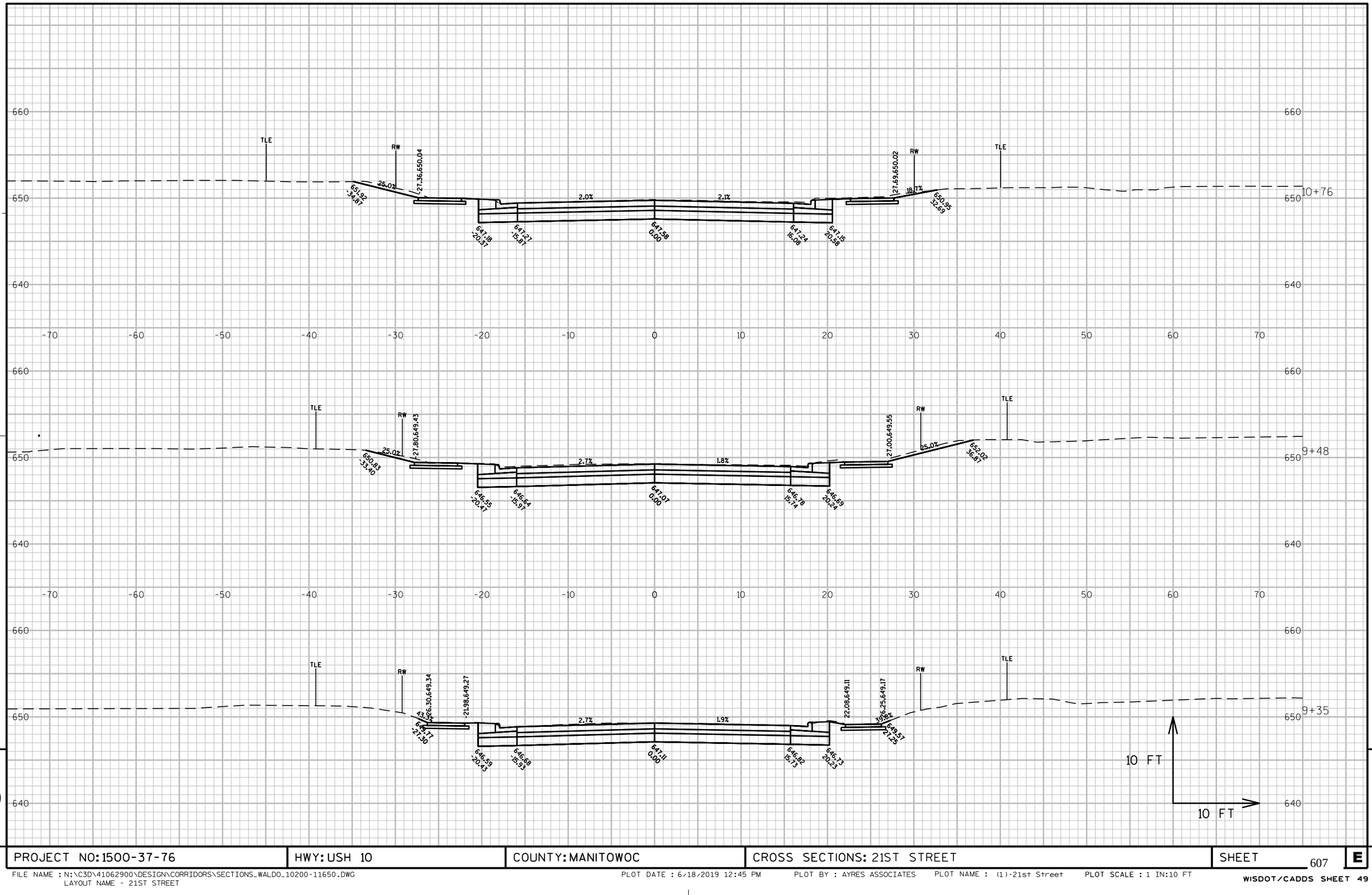
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: MENCHL DRIVE	SHEET 606	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_8463.6-10100.DWG
LAYOUT NAME - MENCHL DRIVE

PLOT DATE : 6/18/2019 12:42 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-Menchl Drive PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 21ST STREET	SHEET 607	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - 21ST STREET

PLOT DATE : 6/18/2019 12:45 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-21st Street PLOT SCALE : 1 IN:10 FT

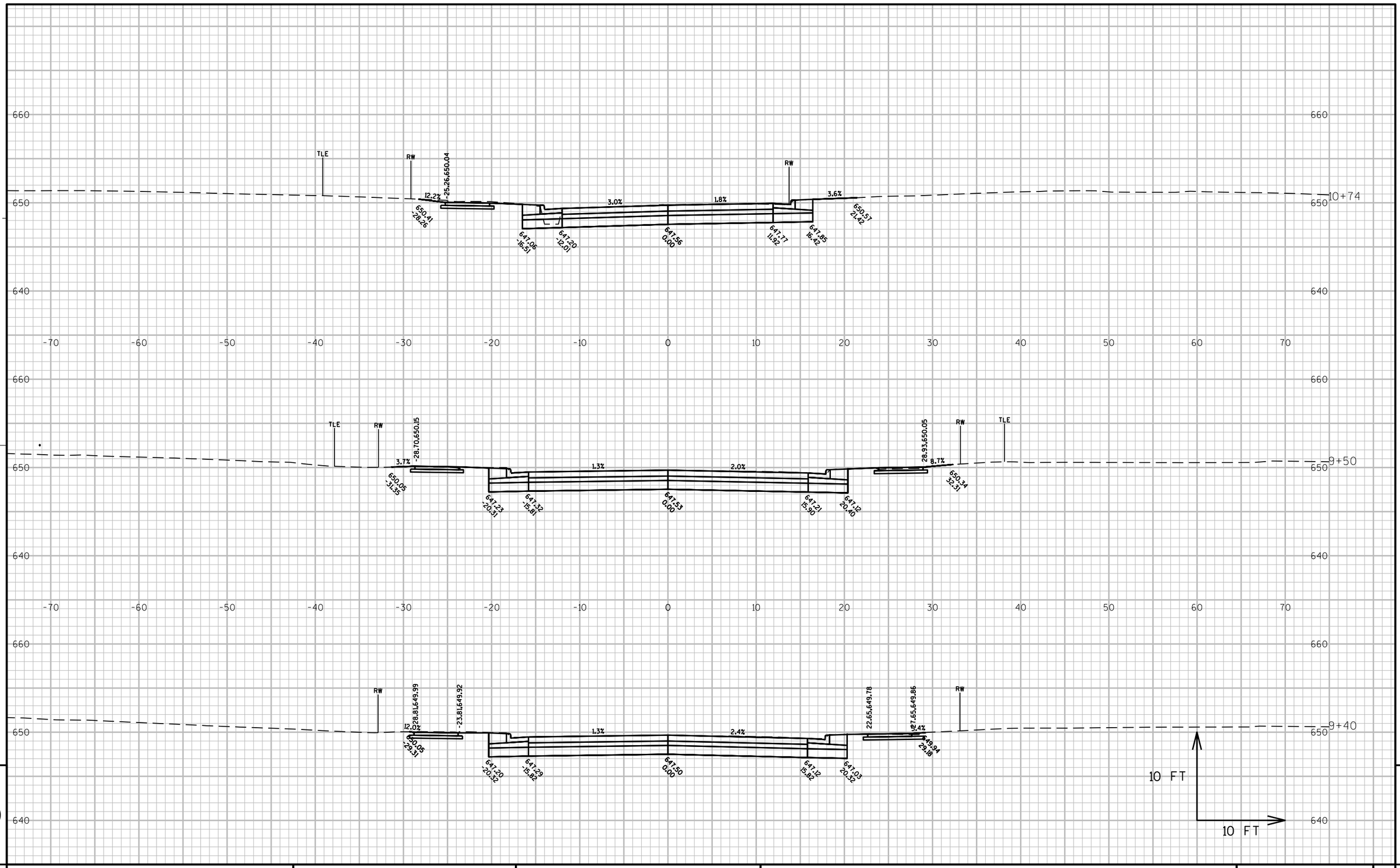
WISDOT/CADDS SHEET 49

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 21ST STREET	SHEET 608	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - 21ST STREET

PLOT DATE : 6/18/2019 12:45 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2)-21st Street PLOT SCALE : 1 IN:10 FT

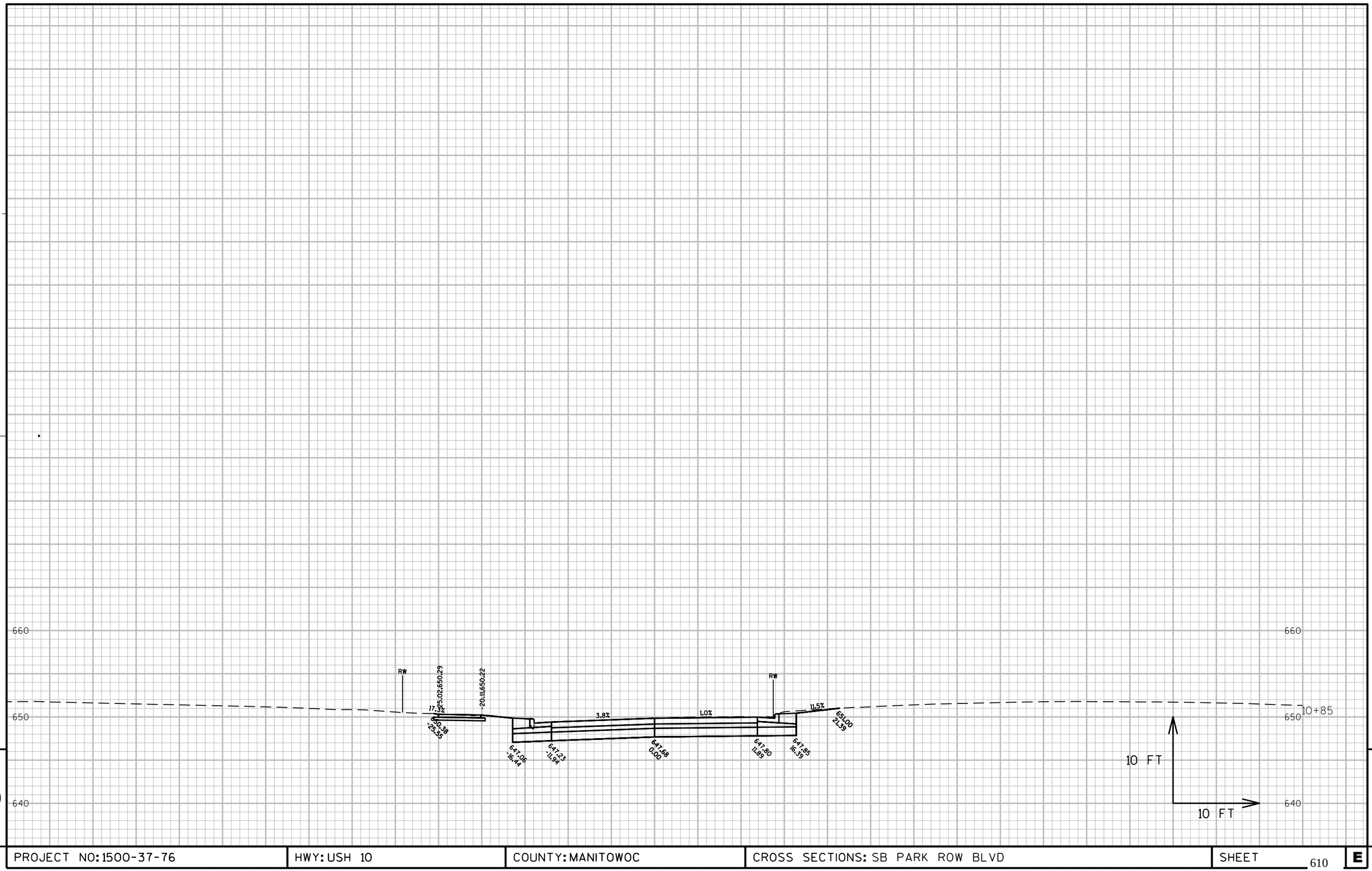
WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: SB PARK ROW BLVD	SHEET 609	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - SB PARK ROW BLVD

PLOT DATE : 6/18/2019 12:46 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-SB Park Row Blvd PLOT SCALE : 1 IN:10 FT



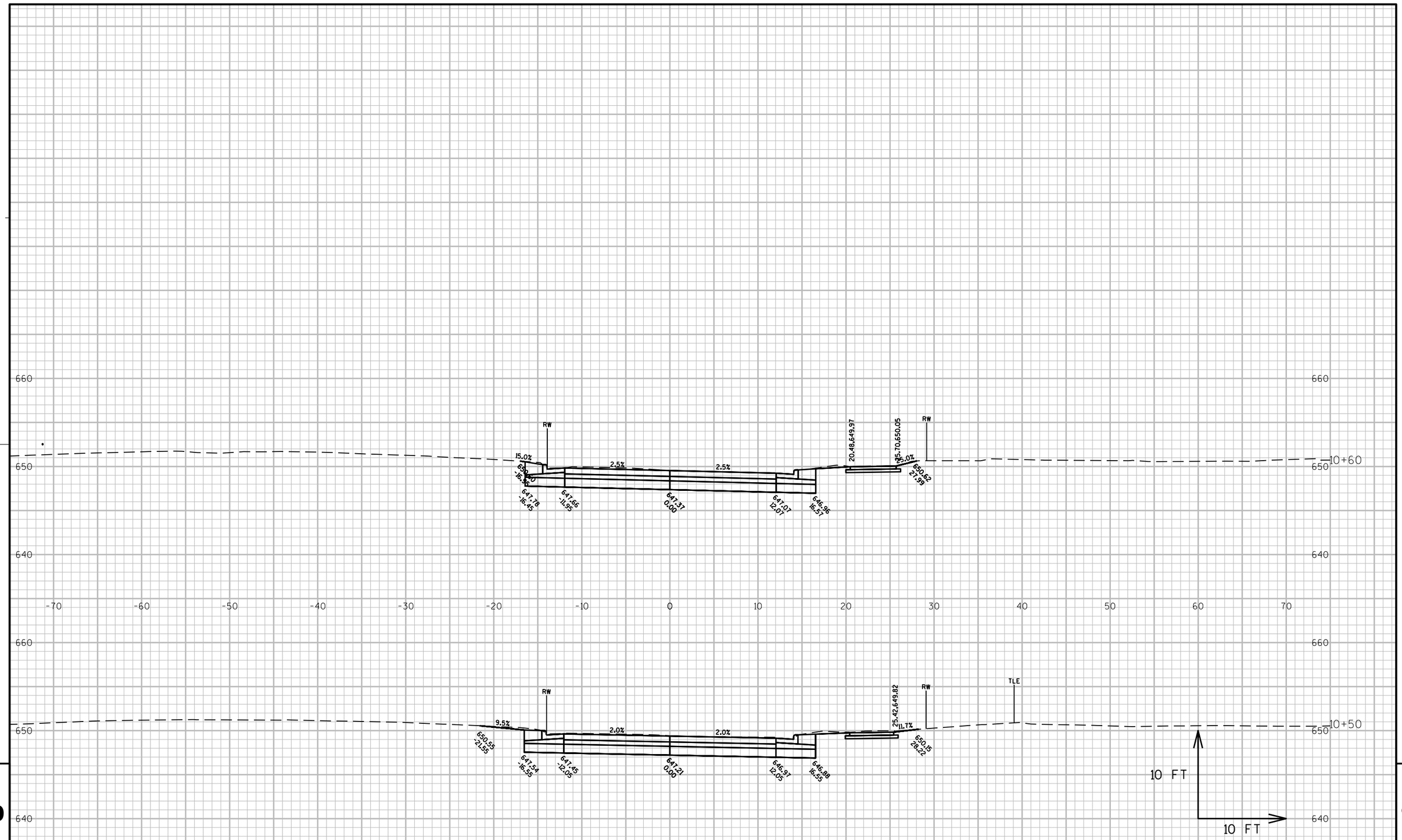
9

9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: SB PARK ROW BLVD	SHEET 610	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - SB PARK ROW BLVD

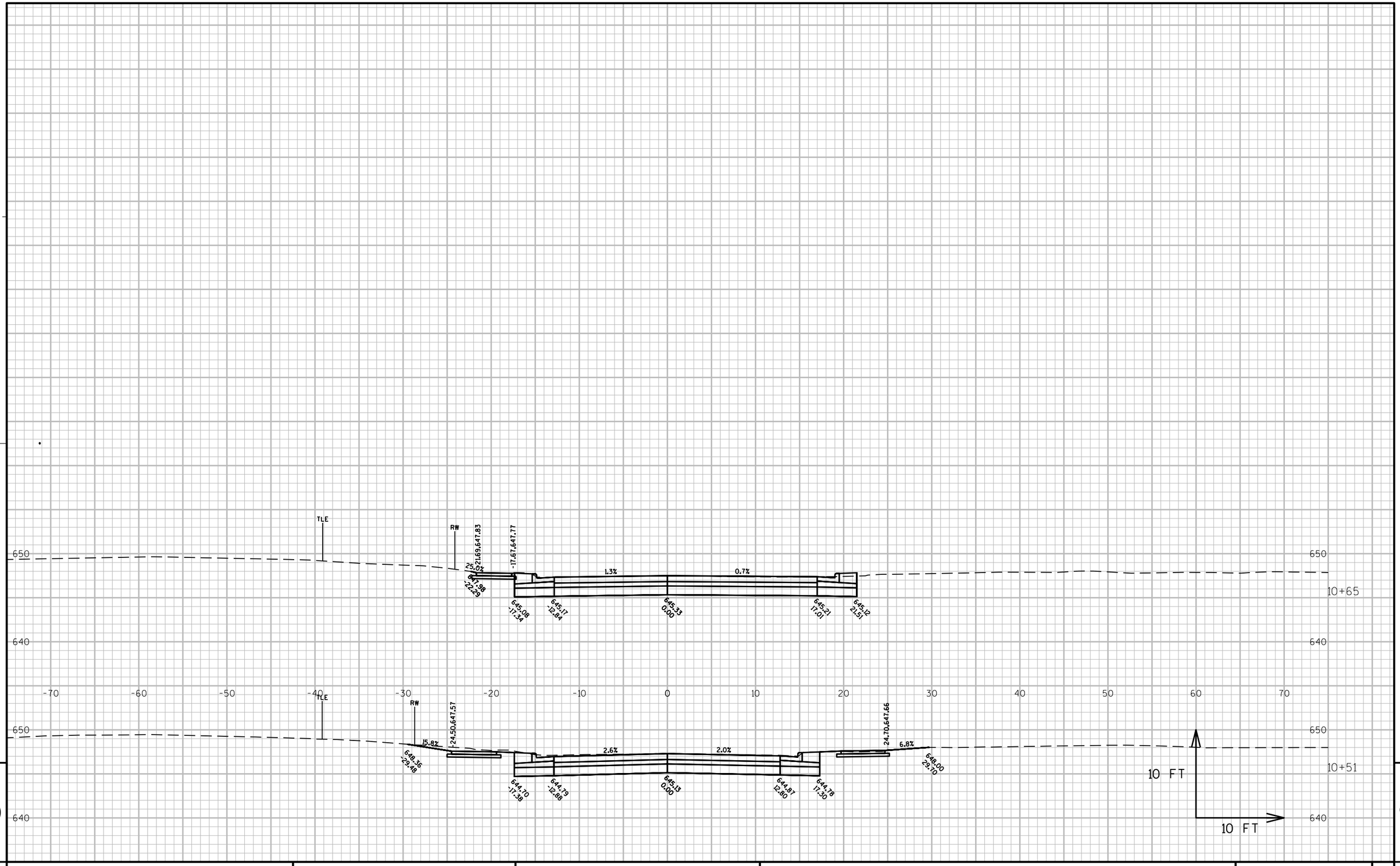
PLOT DATE : 6/18/2019 12:47 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2)-SB Park Row Blvd PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: NB PARK ROW BLVD	SHEET 611	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - NB PARK ROW BLVD

PLOT DATE : 6/18/2019 12:47 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-NB Park Row Blvd PLOT SCALE : 1 IN:10 FT



9

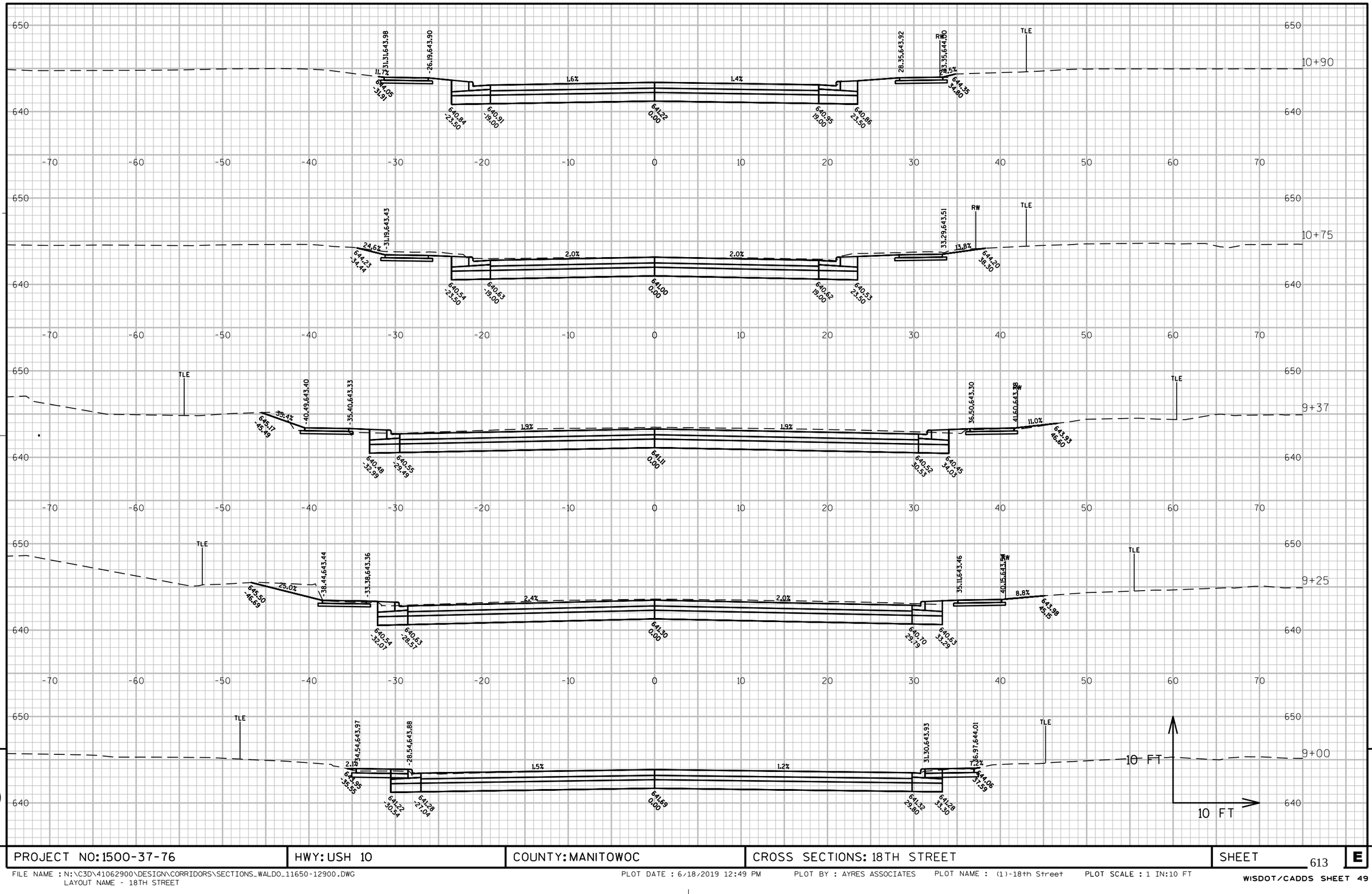
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: ELM STREET	SHEET 612	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_10200-11650.DWG
LAYOUT NAME - ELM STREET

PLOT DATE : 6/18/2019 12:48 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-Elm Street PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

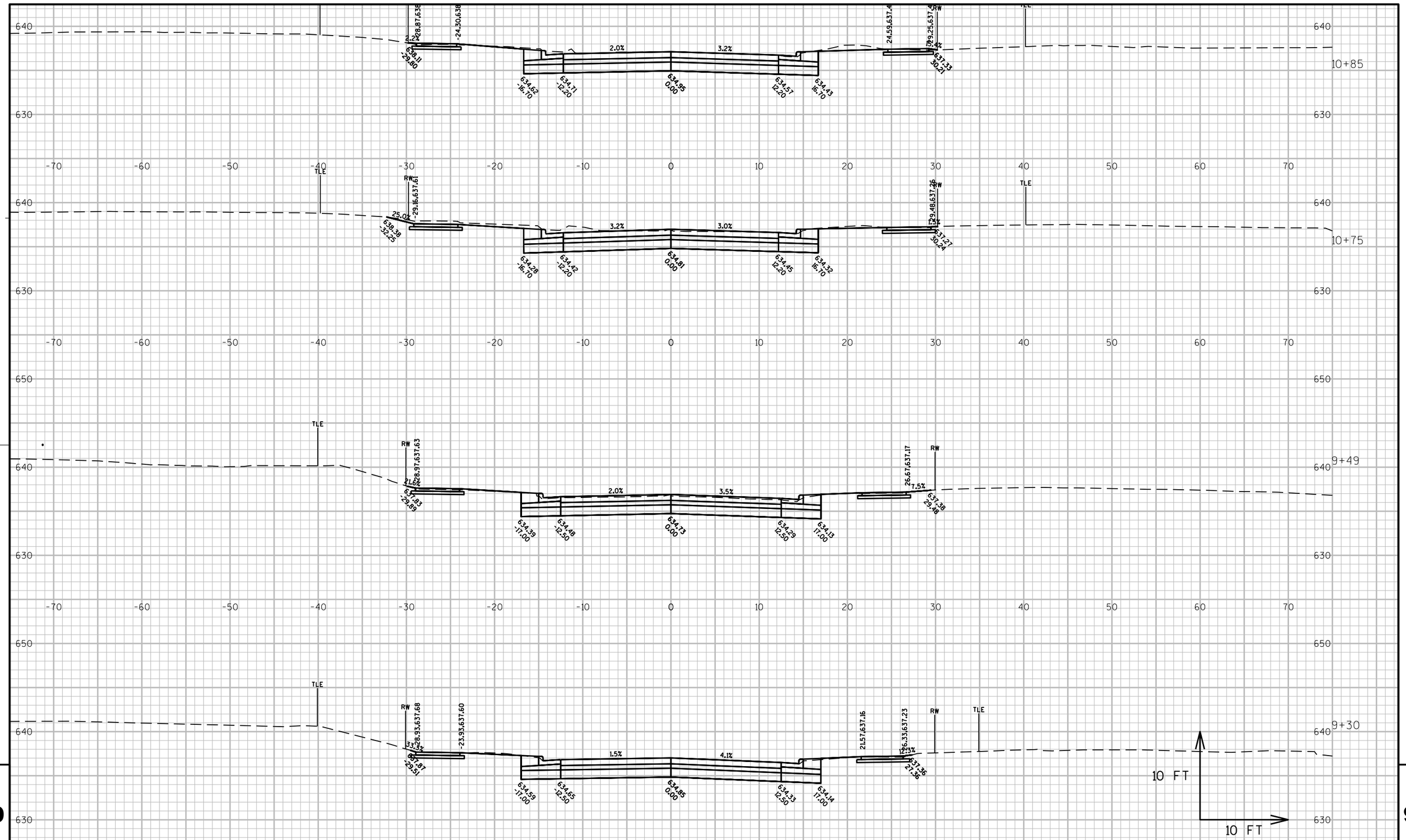


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 18TH STREET	SHEET 613 E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG
LAYOUT NAME - 18TH STREET

PLOT DATE : 6/18/2019 12:49 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-18th Street PLOT SCALE : 1 IN:10 FT

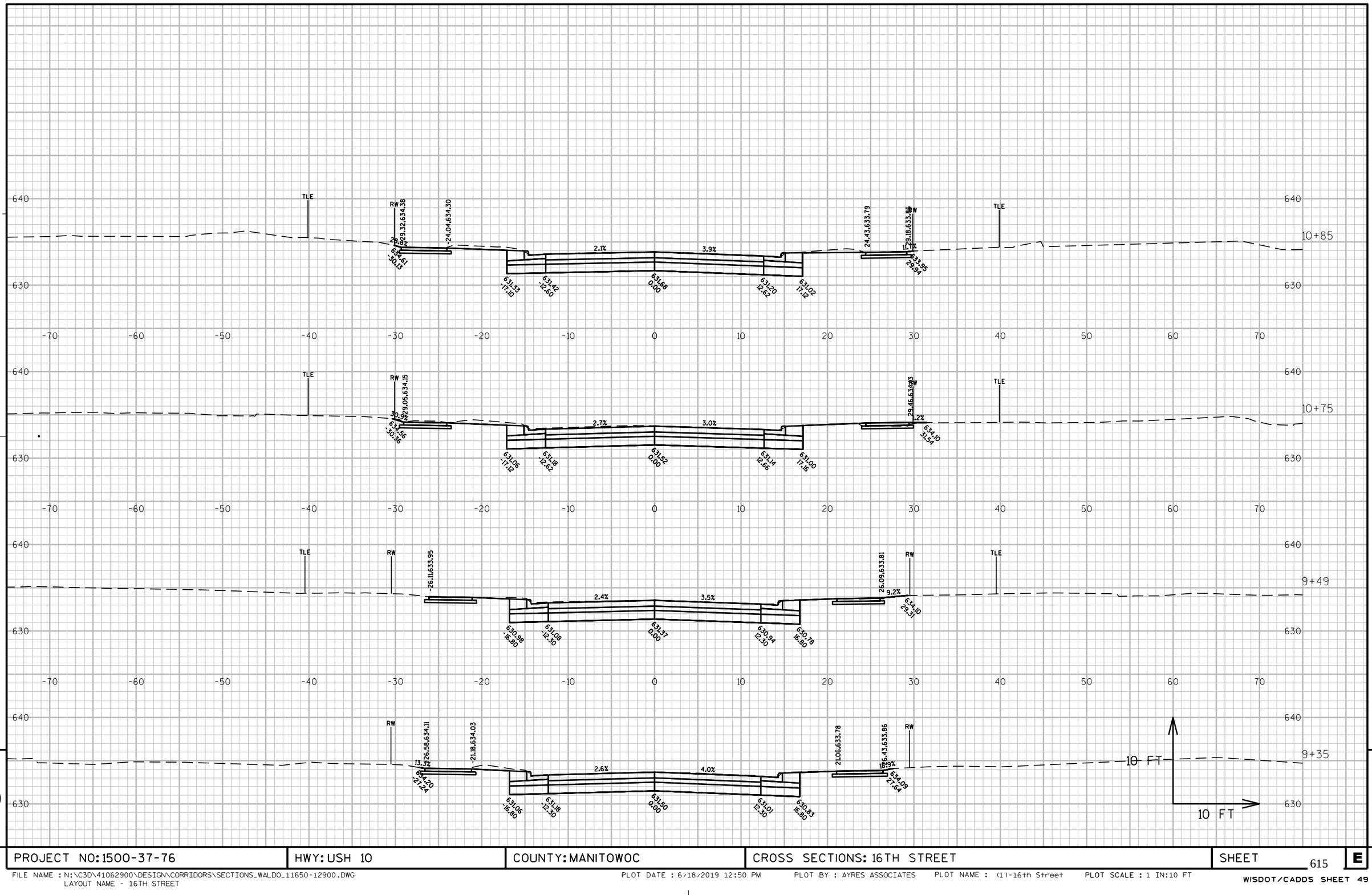
WISDOT/CADDS SHEET 49

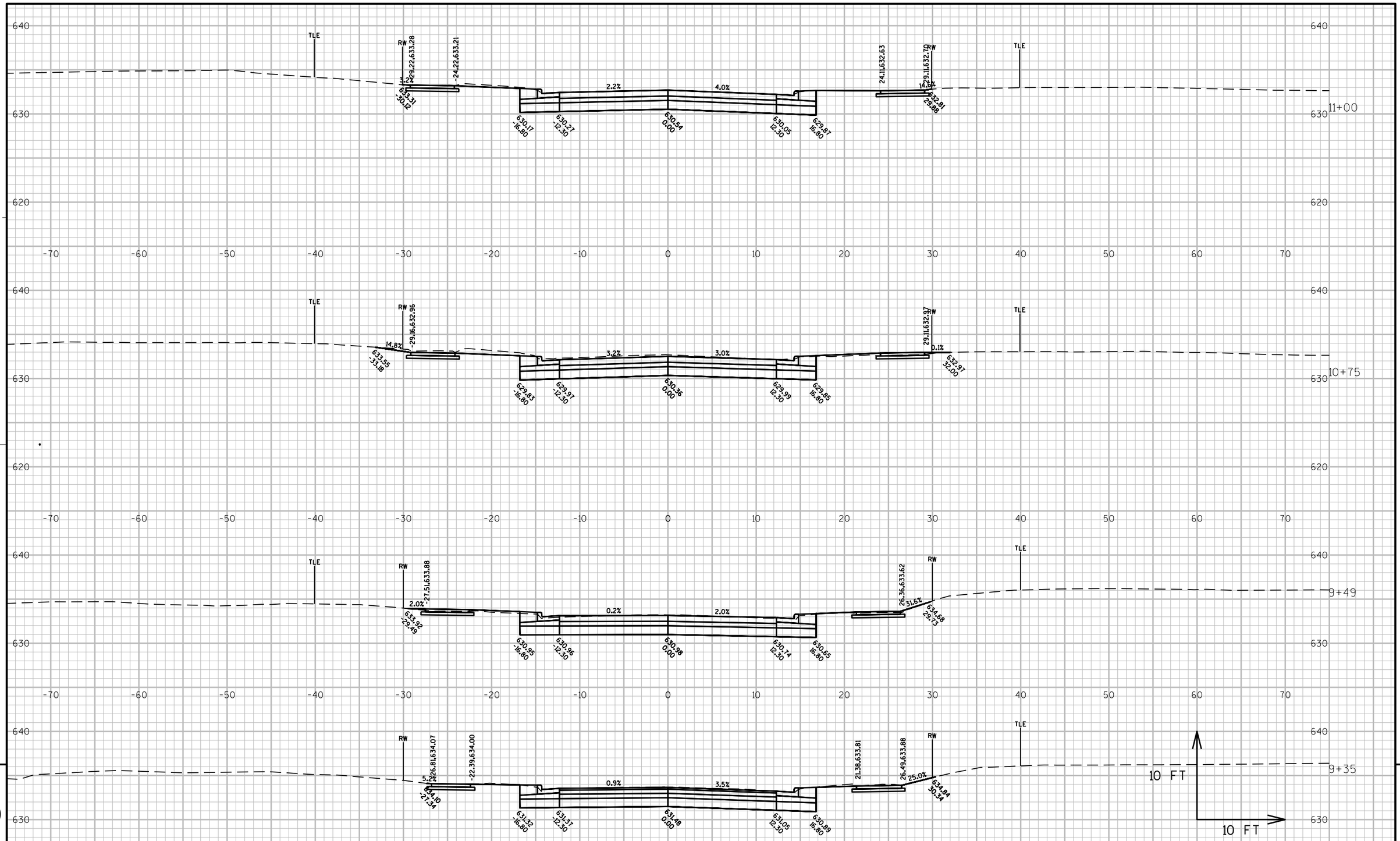


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 17TH STREET	SHEET 614 E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG
LAYOUT NAME - 17TH STREET

PLOT DATE : 6/18/2019 12:50 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-17th Street PLOT SCALE : 1 IN:10 FT


10+85
640
630
TLE
RW
-24.04,634.30
29.32,634.38
-30.13
-30.61
2.1%
3.9%
24.43,633.79
29.18,633.86
29.94
33.95
6.1%
6.2%
6.1%
6.1%
6.1

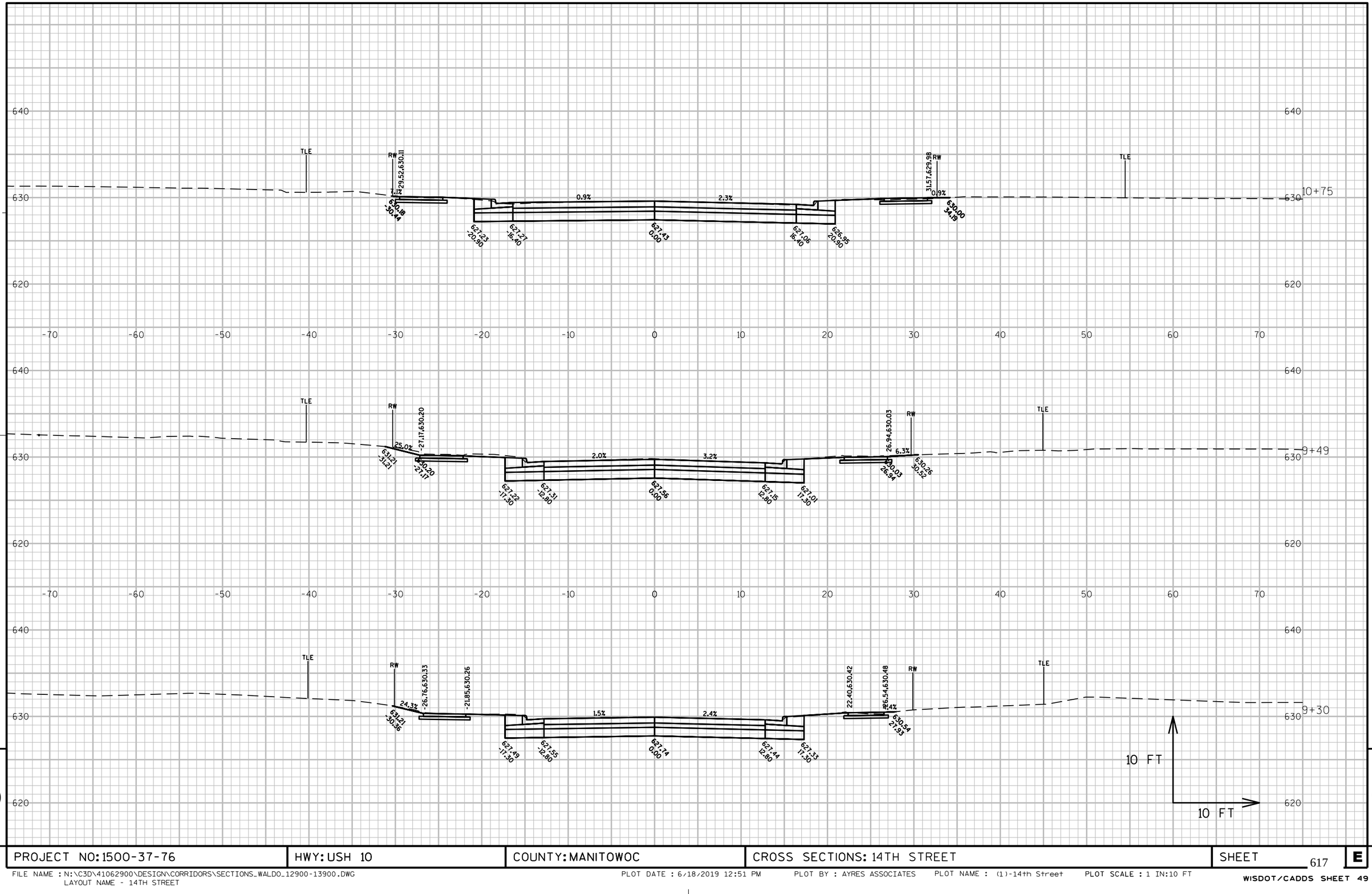


PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 15TH STREET	SHEET 616	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_11650-12900.DWG
LAYOUT NAME - 15TH STREET

PLOT DATE : 6/18/2019 12:50 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-15th Street PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

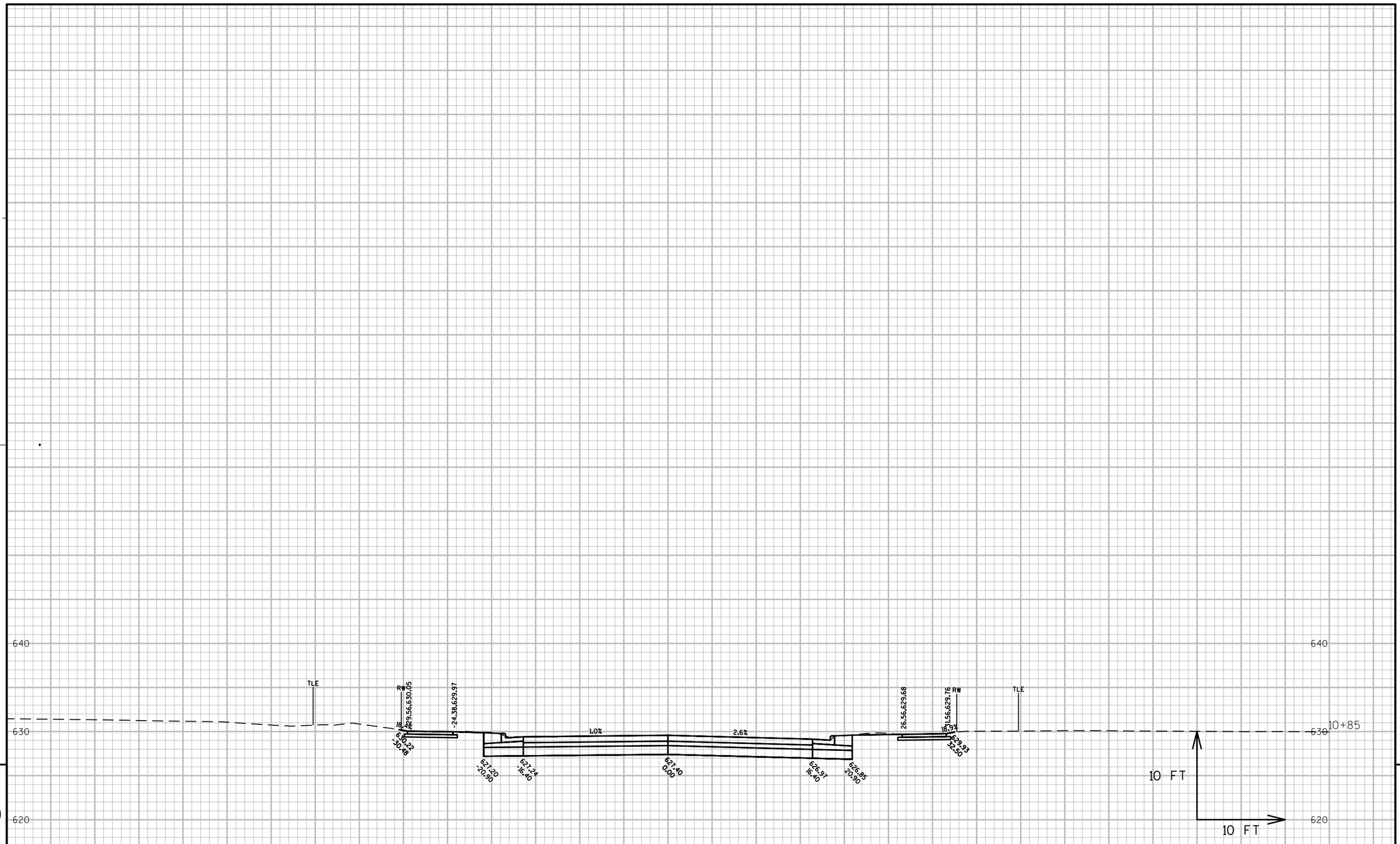
9

PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 14TH STREET	SHEET 617	E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG
LAYOUT NAME - 14TH STREET

PLOT DATE : 6/18/2019 12:51 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (1)-14th Street PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1500-37-76	HWY: USH 10	COUNTY: MANITOWOC	CROSS SECTIONS: 14TH STREET	SHEET 618 E

FILE NAME : N:\C3D\41062900\DESIGN\CORRIDORS\SECTIONS_WALDO_12900-13900.DWG
LAYOUT NAME - 14TH STREET

PLOT DATE : 6/18/2019 12:52 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : (2)-14th Street PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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