MAD

AUGUST 2019

PROJECT ID: 5290-00-72

WITH: PROJECTID2

COUNTY: DANE

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 = 718

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 12 - IH 39

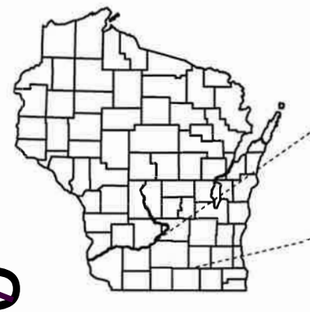
RIVER ROAD TO IH 39

STH 19

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5290-00-72	WISC 2019576	1

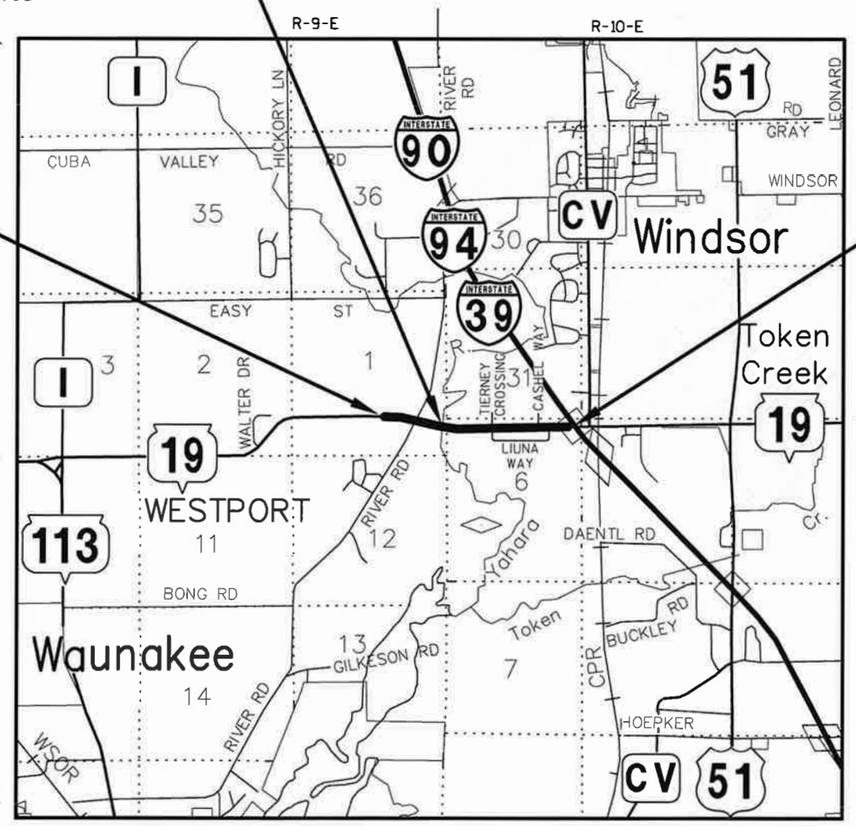
STATE PROJECT NUMBER
5290-00-72



STUCTURES B-13-794 & B-13-795

BEGIN PROJECT 5290-00-72
STA. 134+80.00'EB'
Y =526,885.870
X =825,141.982

END PROJECT 5290-00-72
STA. 194+00.00'EB'



LAYOUT

SCALE 0 1 mi.

TOTAL NET LENGTH OF CENTERLINE = 1.121 mi.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY ZONE, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

DESIGN DESIGNATION

A.A.D.T.	(2020)	=	28,000
A.A.D.T.	(2040)	=	33,000
D.H.V. (K30,TWO WAY)		=	3,760
D.D.	(%)	=	60/40
T.	(%)	=	5.6%
DESIGN SPEED (MPH)		=	60 (WEST OF E. LIUNA WAY)
			50 (WEST OF E. LIUNA WAY)
ESALS		=	5,800,000

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

ORIGINAL PLANS PREPARED BY:
AYRES ASSOCIATES

WISCONSIN
MATTHEW R. BARR
E-26188
MADISON
WI
PROFESSIONAL ENGINEER
4/23/19

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	AYRES ASSOCIATES
Project Manager	ALEX HAGEN
Regional Examiner	SW REGION
Regional Supervisor	KARLA KNORR

APPROVED FOR THE DEPARTMENT
DATE: 4/30/2019
(Signature)

E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0101_TI.DWG

PLOT DATE : 4/18/2019 8:01 AM

PLOT BY : KRUEGER, KIRK

PLOT NAME :

WISDOT/CADDS SHEET 10

GENERAL NOTES

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 COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

TEMPORARY STORAGE OF ANY EXCAVATION EQUIPMENT OR MATERIALS WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS.

EROSION CONTROL FEATURES ARE SHOWN AT APPROXIMATE LOCATIONS, WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER. REMOVAL OF ITEMS ARE INCIDENTAL TO THE RESPECTIVE EROSION CONTROL BID ITEM COSTS.

PLACE SALVAGED TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL.

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.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS AND TRAFFIC CONTROL DEVICES SHOWN IN THE PLANS ARE APPROXIMATE. EXACT LOCATIONS ARE DETERMINED BY THE ENGINEER.

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

AFTER PLACING CURB & GUTTER, ANY EXCESS CONCRETE PROTRUDING FROM THE BACK OF CURB LINE SHALL BE REMOVED BY THE CONTRACTOR BEFORE BACKFILLING.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A TRAFFIC LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 110 LB/SY/IN.

SEE TYPICAL FINISHED SECTIONS FOR HMA PAVEMENT LAYERS.

SOILS REPORTS PREPARED FOR THE PROJECT ARE AVAILABLE FOR REVIEW. CONTACT WISDOT PROJECT MANAGER ALEX HAGEN.

ABBREVIATIONS

A.D.T.	AVERAGE DAILY TRAFFIC
ATMS	ARTERIAL TRAFFIC MANAGEMENT SYSTEM
BM	BENCHMARK
BOC	BACK OF CURB
BTWN	BETWEEN
C&G	CURB AND GUTTER
C.E.	COMMERCIAL ENTRANCE
CONST	CONSTRUCTION
CP	CONTROL POINT
CTR.	CENTER
D.D.	DIRECTIONAL DISTRIBUTION
D.H.V.	DESIGN HOURLY VOLUME
DMS	DYNAMIC MESSAGE SIGN
EB	EASTBOUND
EXIST	EXISTING
GALV.	GALVANIZED
HMA	HOT MIX ASPHALT
H.S.	HIGH STRENGTH
ITS	INTELLIGENT TRAFFIC SYSTEM
MAX	MAXIMUM
MIN	MINIMUM
NB	NORTHBOUND
NOR	NORMAL
PC	POINT OF CURVATURE
PCC	POINT OF COMMON CURVATURE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVT	PAVEMENT
R/L	REFERENCE LINE
REQ'D	REQUIRED
SB	SOUTHBOUND
SYM	SYMMETRICAL
T.	PERCENT TRUCKS
TCC	TRAFFIC CONDITION CAMERA
TYP	TYPICAL
VAR	VARIABLE
WB	WESTBOUND
W+.	WEIGHT
X-WALK	CROSS WALK

ORDER OF SECTION 2 SHEETS

GENERAL NOTES AND CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING GRADES
PAVING DETAILS
DRAINAGE & EROSION CONTROL
STORM SEWER PLAN
UNDERDRAIN PLAN
EXISTING UTILITIES
SIGN REMOVALS
PERMANENT SIGNING AND PAVEMENT MARKING
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
TRAFFIC CONTROL & STAGE CONSTRUCTION
ALIGNMENT DIAGRAM

PROJECT CONTACTS

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CEL: (608) 963-8594
steven.bishop@centurylink.com

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BONNIE BEACH
MCI/METRO/VERIZON
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MADISON, WI 53704
(608) 294-7411
bonnie.s.beach@verizon.com

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

2

2

N

TOWN OF WESTPORT

RIVER ROAD

TOWN OF WESTPORT

VILLAGE OF DEFOREST

END CONSTRUCTION
63+10.00'RNB'

RONALD J TREINEN HEATHER L TREINEN

BEGIN PROJECT
134+80.00'EB'

DANE COUNTY

YAHARA RIVER

DANE COUNTY

VILLAGE OF DEFOREST

YAHARA HILLS LLC

TIERNEY CROSSING

STORE SPE MILLS FLEET II 2017-7 LLC

39
90
94

19

60'RNB'

130'EB'

140'WB'

140'EB'

OVERHEAD SIGN
STRUCTURE S-13-498

STRUCTURE B-13-795

150'WB'

150'EB'

OVERHEAD SIGN
STRUCTURE S-13-500

WOODBURN INCOME TR, MARY A

160'WB'

160'EB'

160'YA'

305'TC'

DALMORE RD

5'CW'

CASHEL WAY

VILLAGE OF DEFOREST

WINDSOR GATEWAY LLC

WINDSOR GATEWAY LLC

VILLAGE OF DEFOREST

170'WB'

180'WB'

190'WB'

170'EB'

180'EB'

190'EB'

19

50'RNB'

STRUCTURE B-13-794

WI DNR

DANE COUNTY

DANE COUNTY

8'LWS'

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

8'LES'

LIUNA WAY

BEGIN CONSTRUCTION
49+90.00'RNB'

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

END PROJECT
194+00.00'EB'

AUTUMN LEAF CT.

KIRKWOOD DR.

EDWARD F BUHLER
BUHLER FAMILY IRREV TR

TOWN OF BURKE

TOWN OF BURKE

VILLAGE OF DEFOREST

VILLAGE OF DEFOREST

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

YAHARA RIVER

RIVER ROAD

TOWN OF WESTPORT

TOWN OF WESTPORT

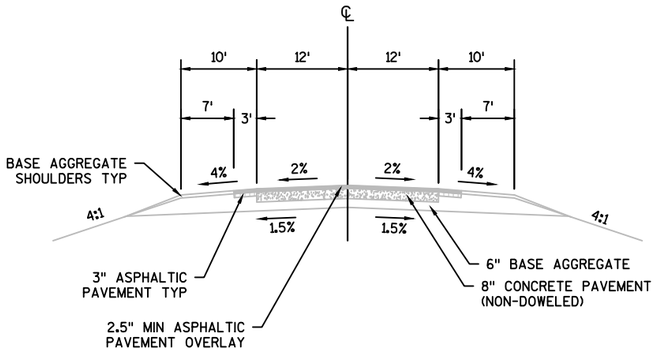
TOWN OF BURKE

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3	E

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LAYOUT NAME - 5290-00-02_0202_PO - 01

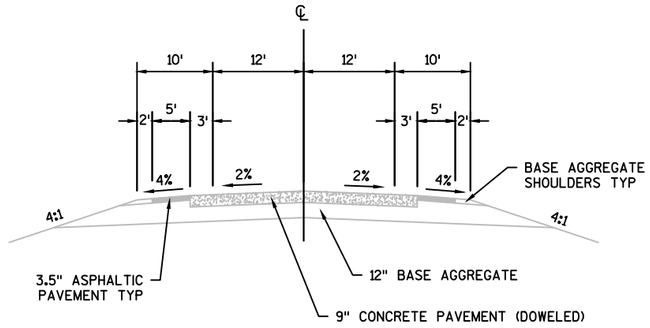
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WISDOT/CADDS SHEET 42



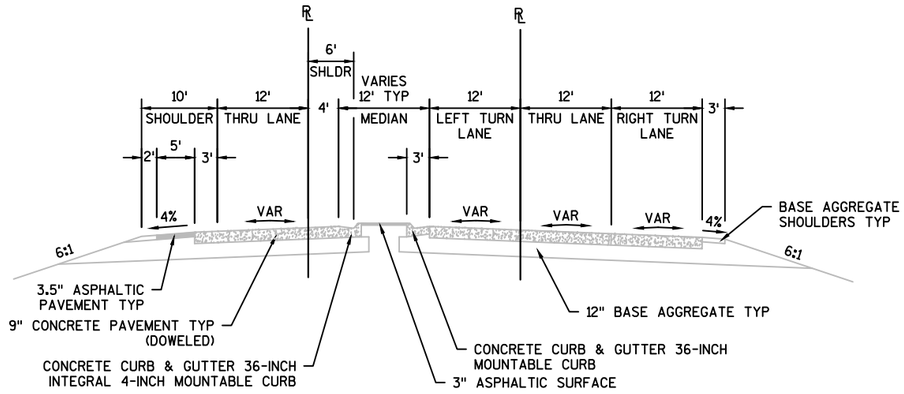
TYPICAL EXISTING SECTION - STH 19

STA. 120+00'EB' TO STA. 134+82'EB'
STA. 155+50'WB' TO STA. 179+97'WB'



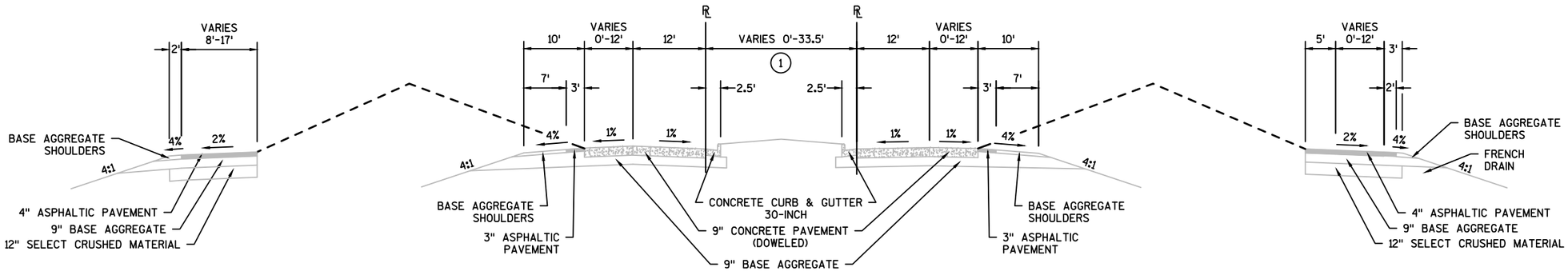
TYPICAL EXISTING SECTION - STH 19

STA. 134+82'WB' TO STA. 140+18'WB'
STA. 151+43'WB' TO STA. 154+75'WB'



TYPICAL EXISTING TURN LANE SECTION - STH 19

STA. 140+18'WB' TO STA. 144+12'WB'
STA. 145+90'WB' TO STA. 151+43'WB' (MIRRORED)



TYPICAL EXISTING SECTION - STH 19

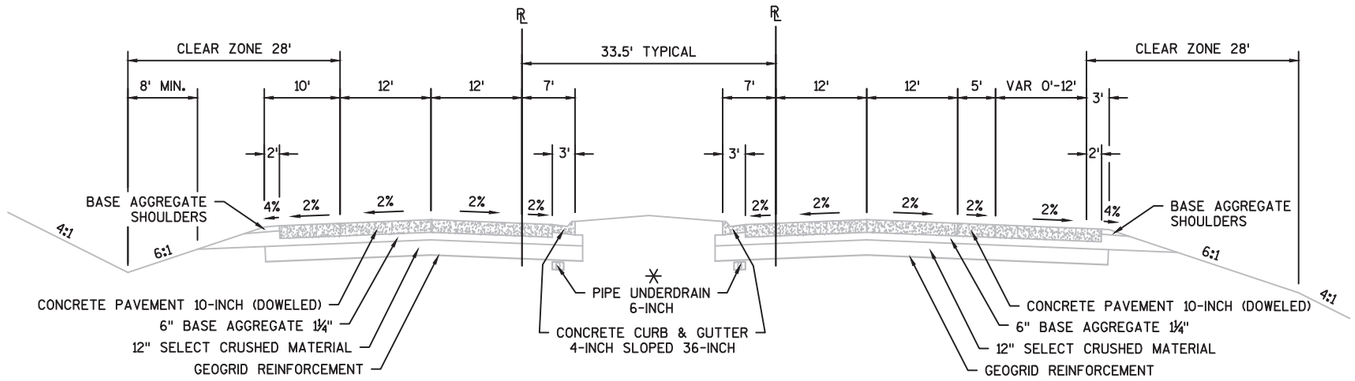
STA. 181+00'WB' TO STA. 194+34'WB'

STA. 179+97'WB' TO STA. 194+34'WB'

STA. 189+13'EB' TO STA. 194+00'EB'

(1) RAISED CURBED MEDIAN STA. 186+99'WB' TO STA. 194+34'WB'

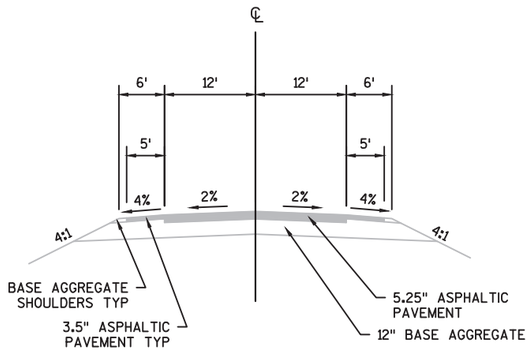
PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL EXISTING SECTIONS	SHEET 4	E



⚹ PIPE UNDER DRAIN IN COARSE AGGREGATE SIZE #1, WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE B

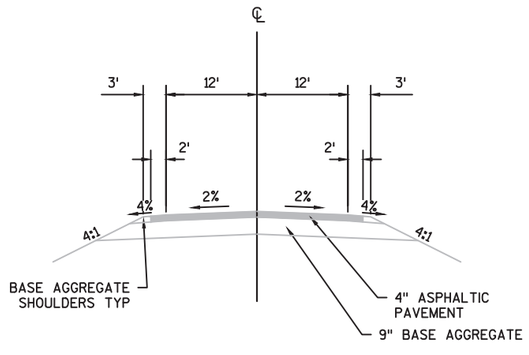
TYPICAL EXISTING SECTION - STH 19

STA. 194+34'WB' TO STA. 196+00'WB'



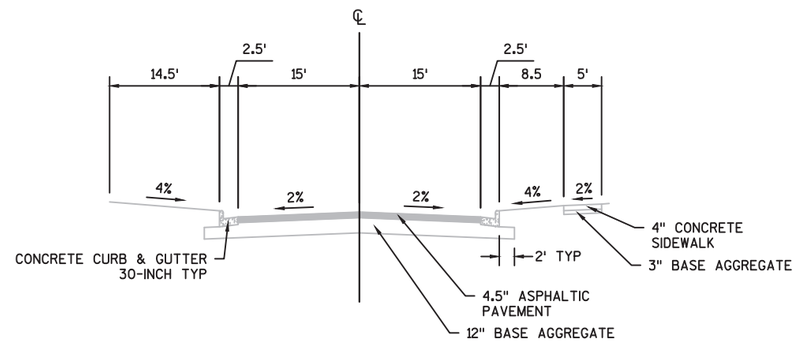
TYPICAL EXISTING SECTION - RIVER ROAD

STA. 52+85'RNB' TO STA. 61+40'RNB'



TYPICAL EXISTING SECTION - RIVER ROAD

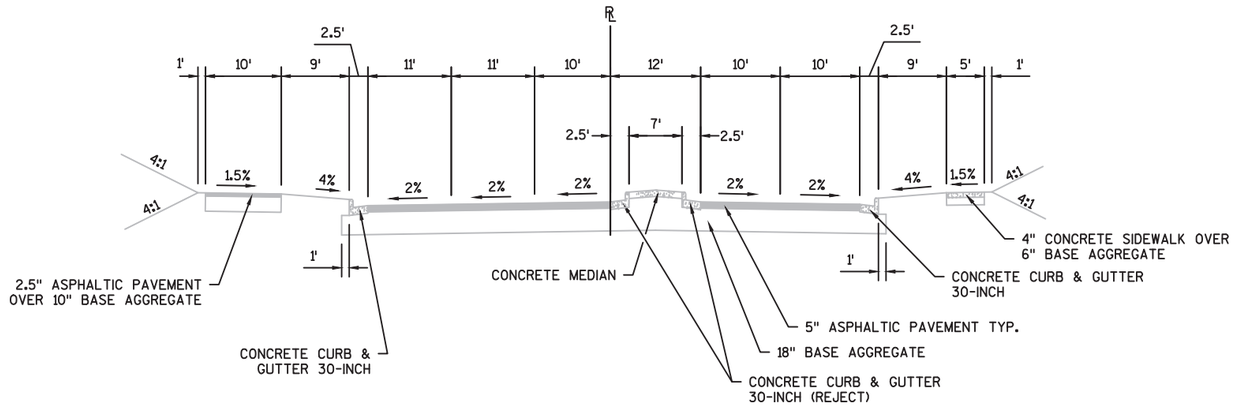
SOUTH OF STA. 52+85'RNB' &
NORTH OF STA. 61+40'RNB'



TYPICAL EXISTING SECTION - LIUNA WAY

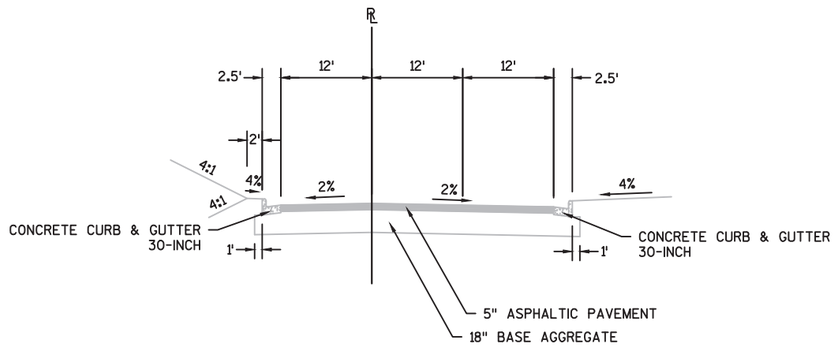
'LW' SHOWN - MIRROR SECTION FOR 'LE'
STA. 168+10'EB' RT
STA. 187+75'EB' RT

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL EXISTING SECTIONS	SHEET 5	E



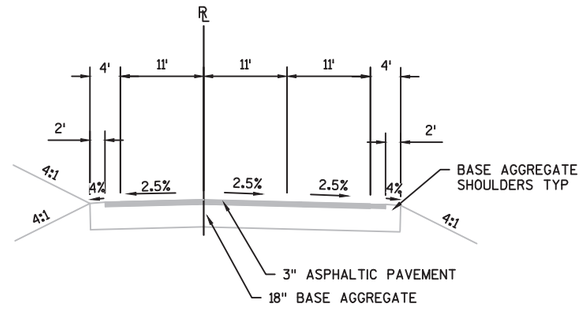
TYPICAL EXISTING SECTION - TIERNEY CROSSING

STA. 168+10'WB' LT



TYPICAL EXISTING SECTION - CASHEL WAY

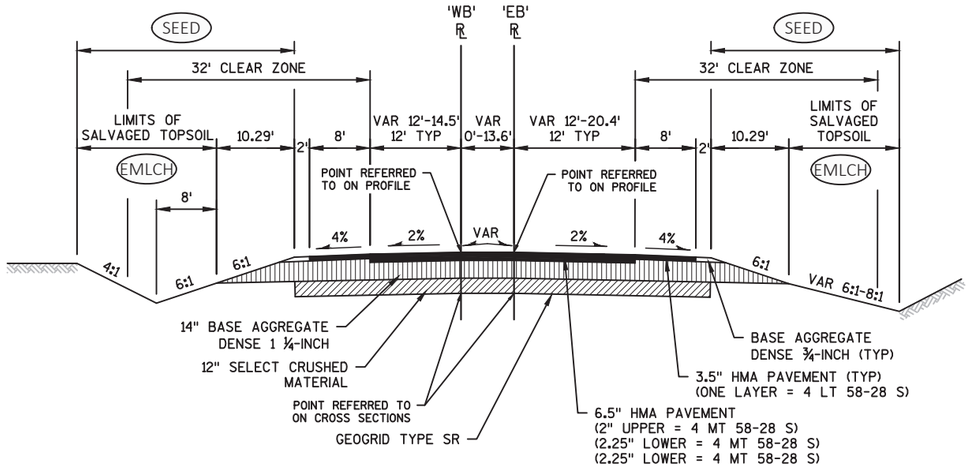
STA. 180+60'WB' LT



TYPICAL EXISTING SECTION - TEMPORARY ROAD

STA. 187+65'WB LT

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL EXISTING SECTIONS	SHEET 6	E



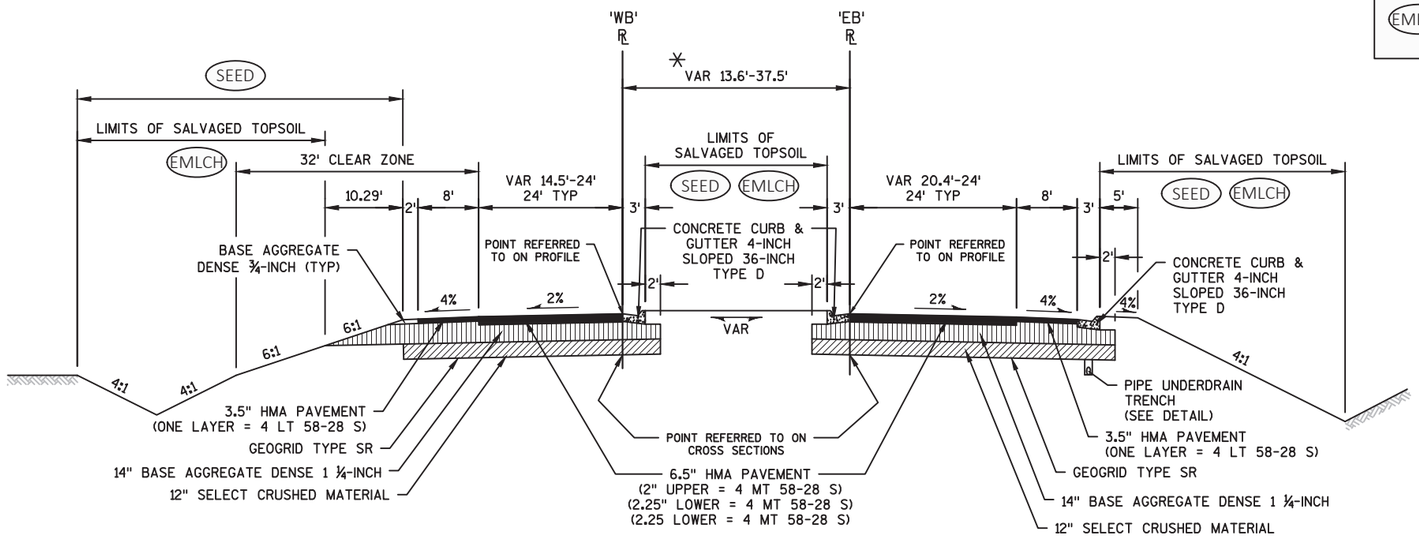
TYPICAL FINISHED SECTION - STH 19

STA. 134+80'EB' TO STA. 139+33.90'EB'

FINISHING NOTES:

(SEED) SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.

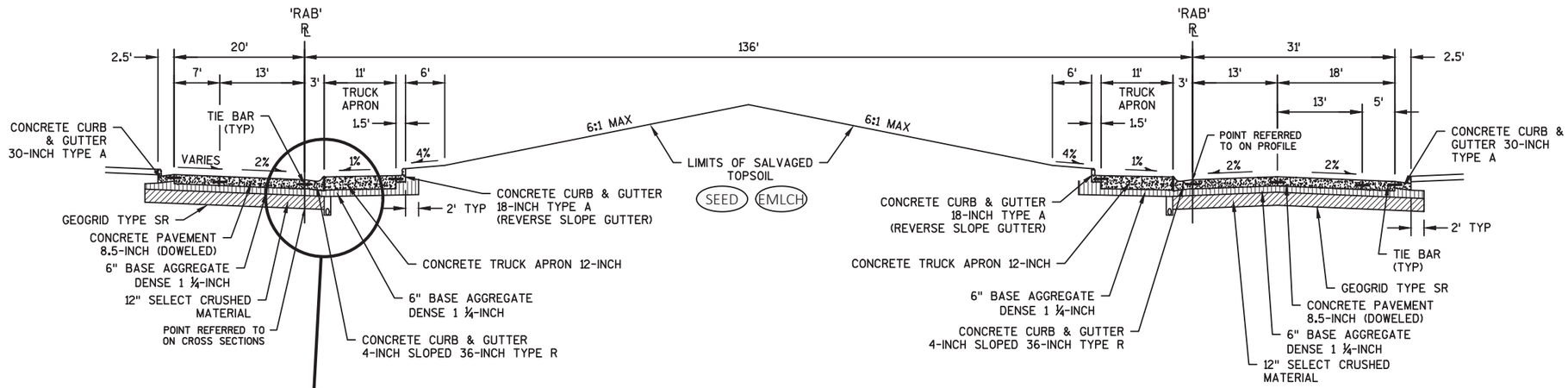


TYPICAL FINISHED SECTION - STH 19

STA. 139+33.90'EB' TO STA. 142+47.63'EB'

✳ WHEN 20' OR LESS BETWEEN 'WB' ℄ AND 'EB' ℄, OR UNDER A PAVED SURFACE, PROVIDE BASE LAYERS ACROSS ENTIRE MEDIAN.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL FINISHED SECTIONS	SHEET 7	E



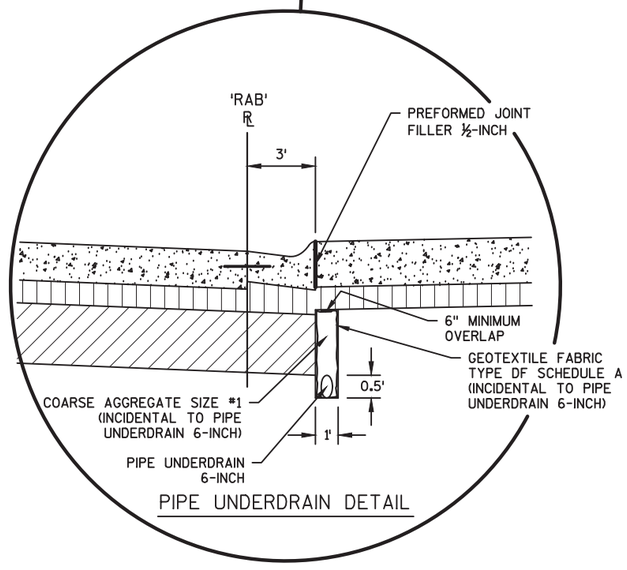
TYPICAL FINISHED SECTION - STH 19 & RIVER ROAD AT ROUNDABOUT

SECTION A-A'

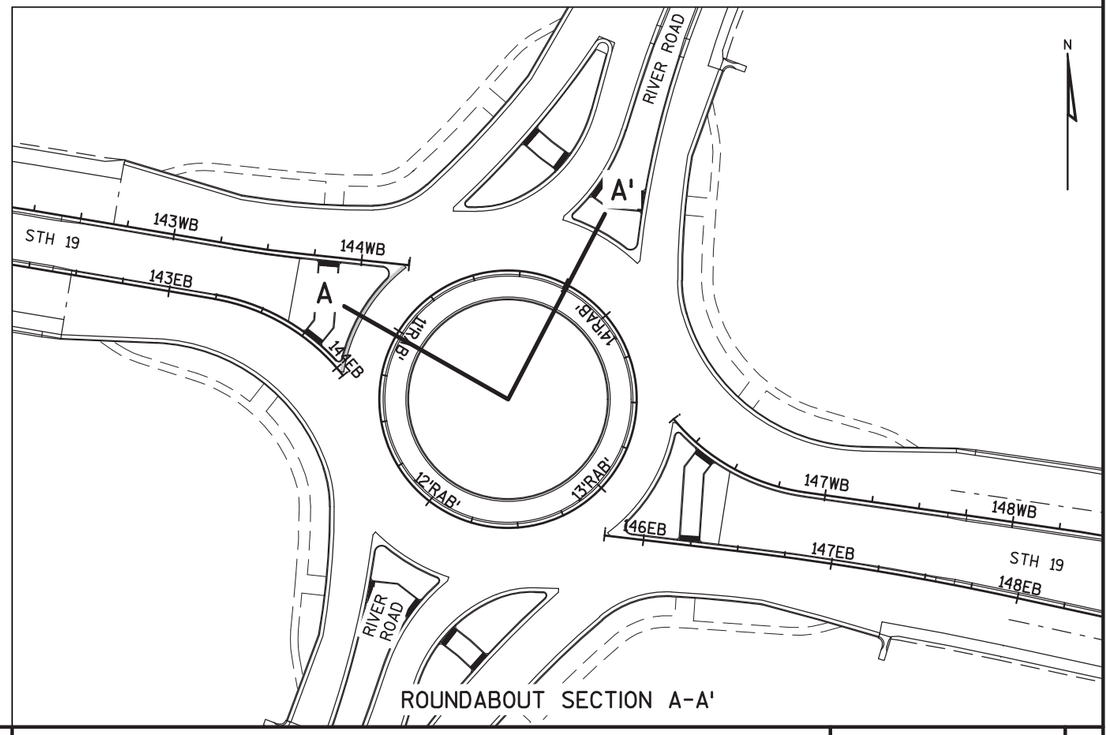
FINISHING NOTES:

(SEED) SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.

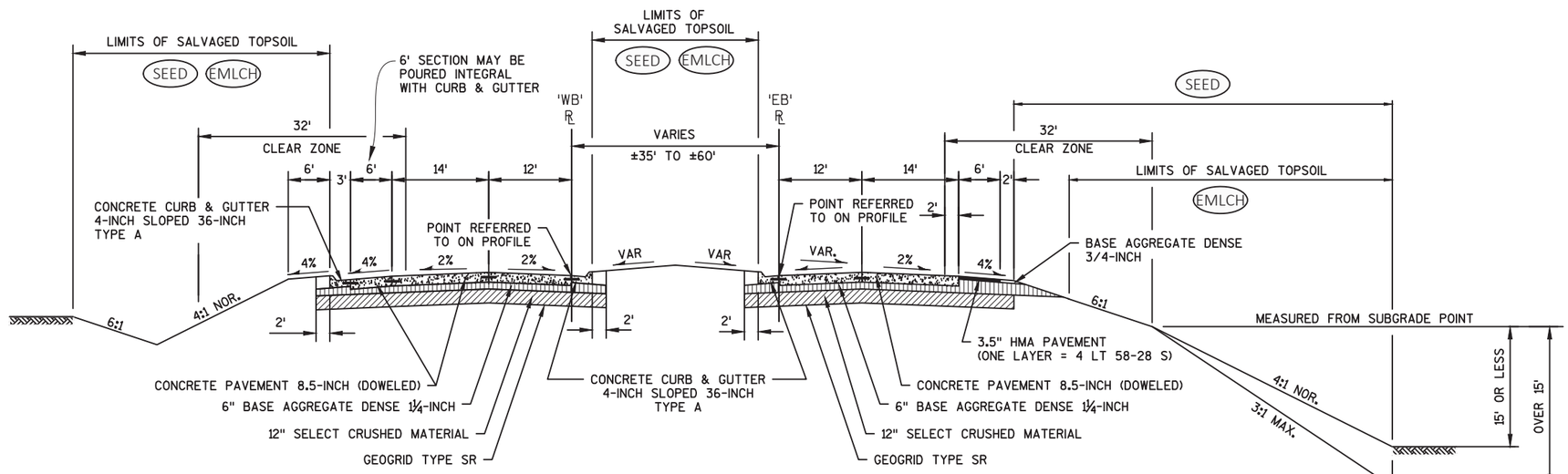


PIPE UNDERDRAIN DETAIL



ROUNDABOUT SECTION A-A'

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL FINISHED SECTIONS	SHEET 8	E



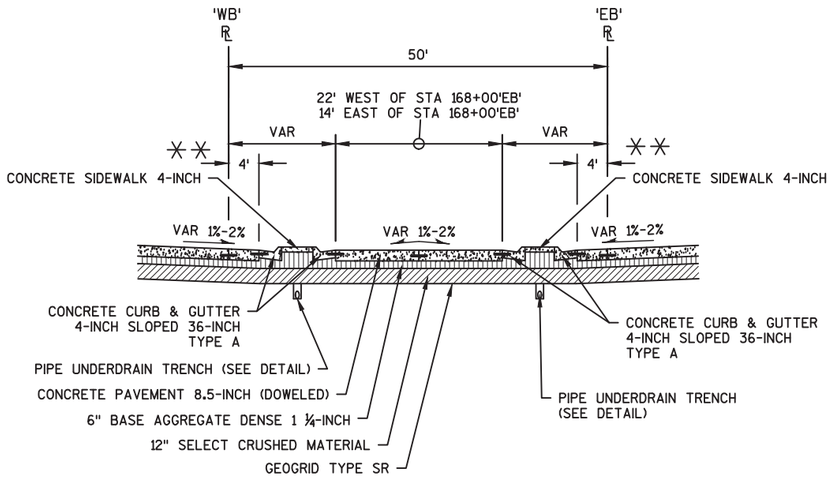
TYPICAL FINISHED SECTION - STH 19

STA. 142+47.63'EB' TO STA. 144+00'EB'
STA. 146+00'EB TO STA. 149+53.03'EB'

FINISHING NOTES:

SEED — SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

EMLCH — SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.



TYPICAL FINISHED MEDIAN SECTION - STH 19

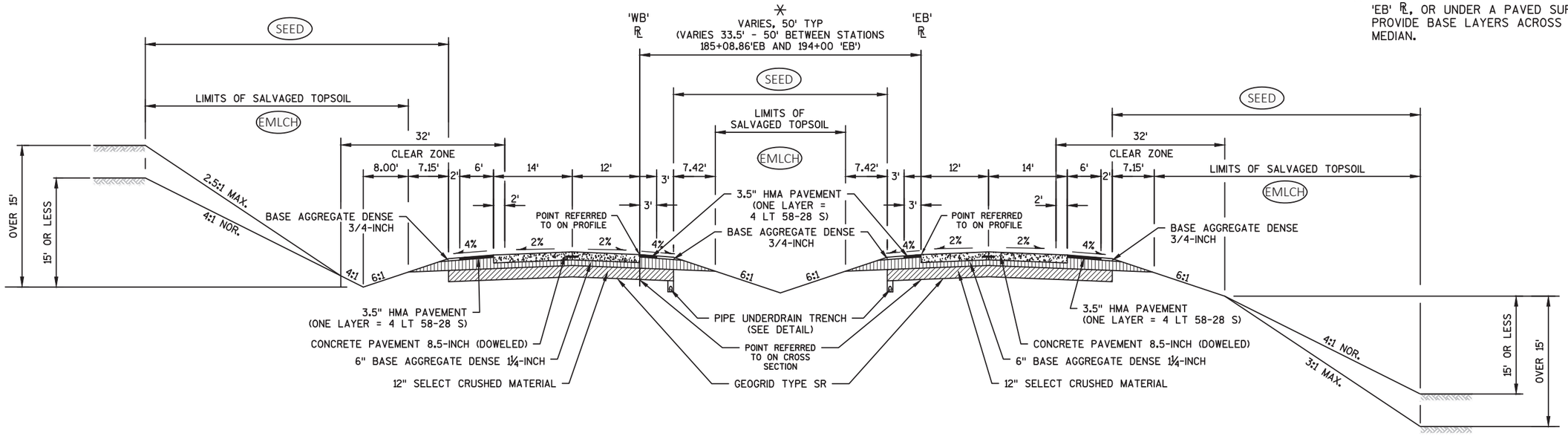
STA. 162+42.83'EB' TO STA. 173+55.59'EB'

✳✳ 4' SECTION MAY BE POURED INTEGRAL WITH CURB & GUTTER.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL FINISHED SECTIONS	SHEET 9	E

2

✳ WHEN 20' OR LESS BETWEEN 'WB' ℄ AND 'EB' ℄, OR UNDER A PAVED SURFACE, PROVIDE BASE LAYERS ACROSS ENTIRE MEDIAN.

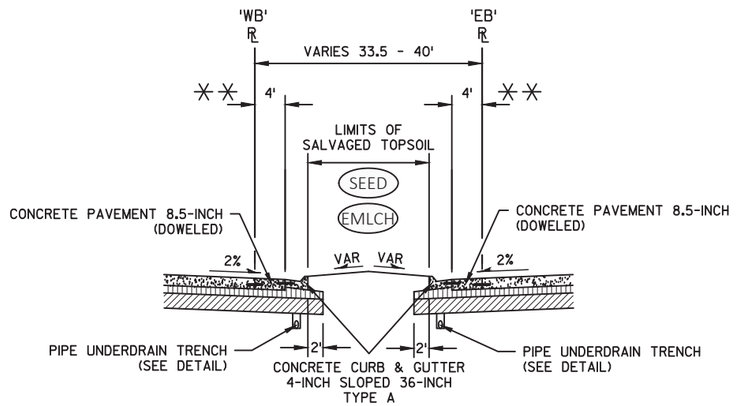


TYPICAL FINISHED SECTION - STH 19

STA. 149+53.03'EB' TO STA 194+00'EB'

SEED — FINISHING NOTES: SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

EMLCH — SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.

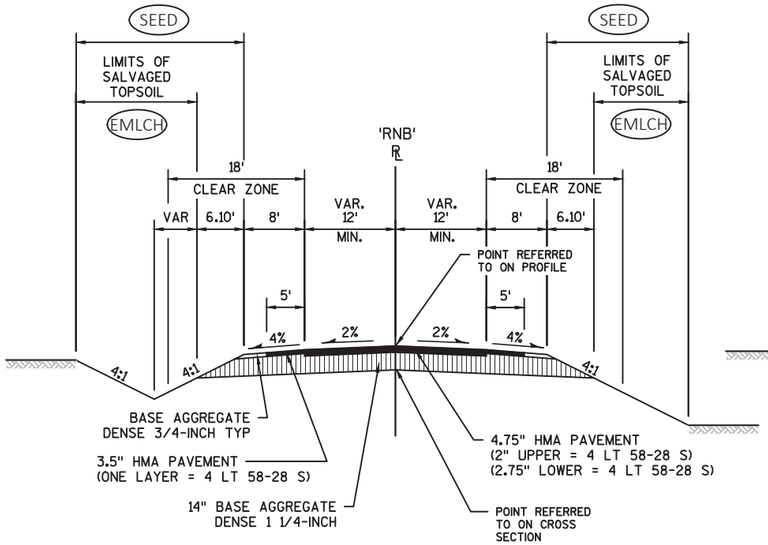


✳✳ 4' SECTION MAY BE POURED INTEGRAL WITH CURB & GUTTER.

TYPICAL FINISHED MEDIAN SECTION - STH 19

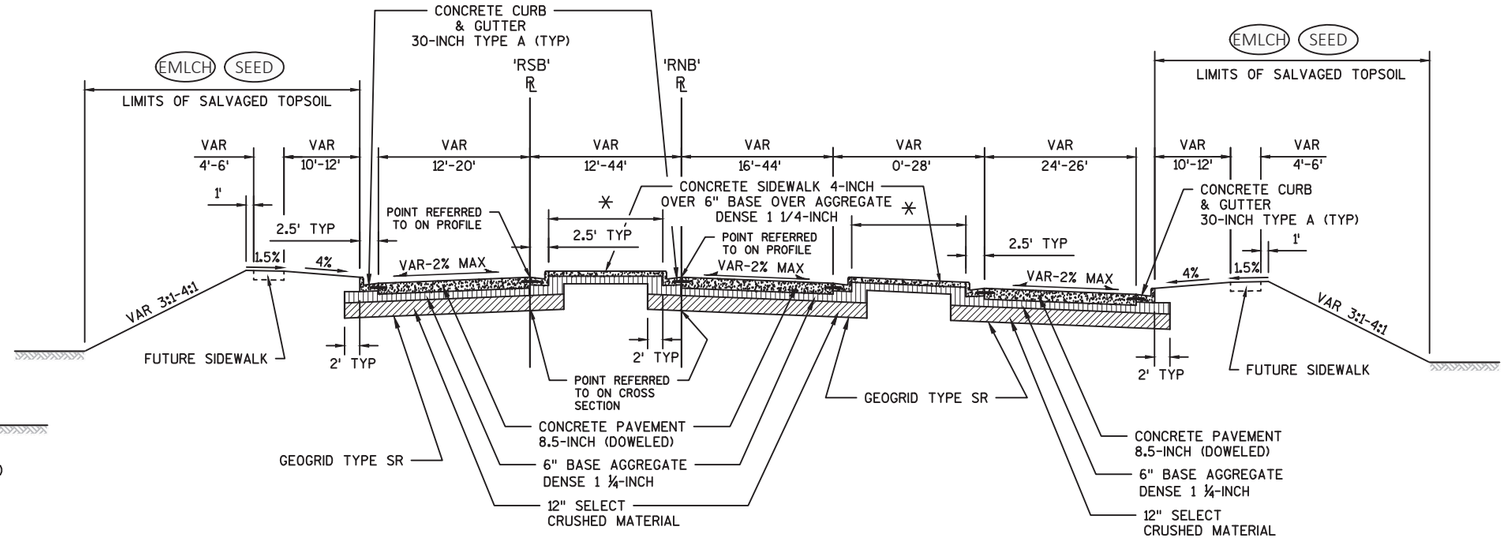
STA. 189+85.60'EB' TO STA. 194+00.00'EB'

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL FINISHED SECTIONS	SHEET 10	E



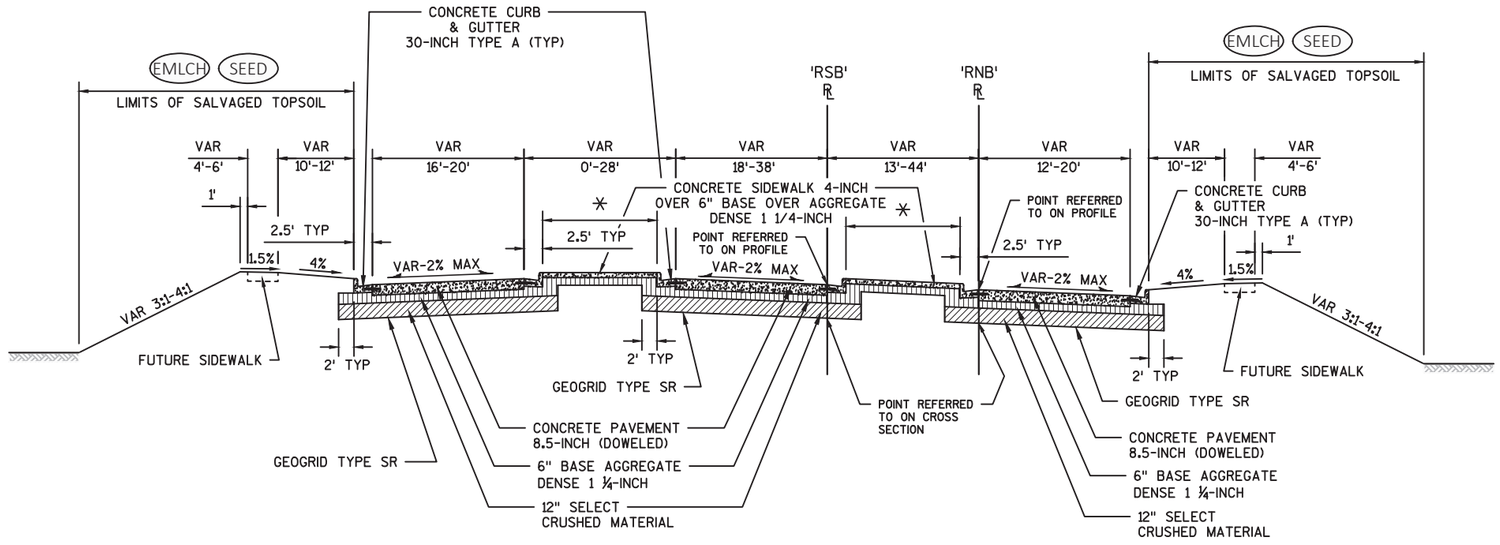
TYPICAL FINISHED SECTION - RIVER ROAD

STA. 49+90'RNB' TO STA. 52+83'RNB'
STA. 59+64'RNB' TO STA. 62+90'RNB'



TYPICAL FINISHED SECTION - RIVER ROAD

STA. 52+83'RNB' TO STA. 55+00'RNB'



TYPICAL FINISHED SECTION - RIVER ROAD

STA. 57+00'RNB' TO STA. 59+64'RNB'

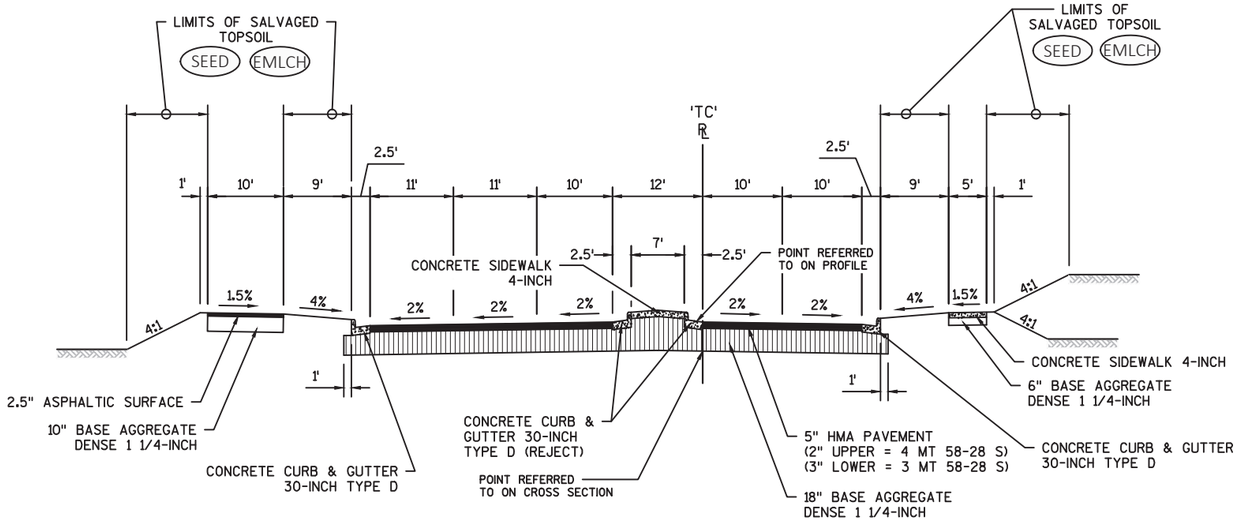
FINISHING NOTES:

(SEED) SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.

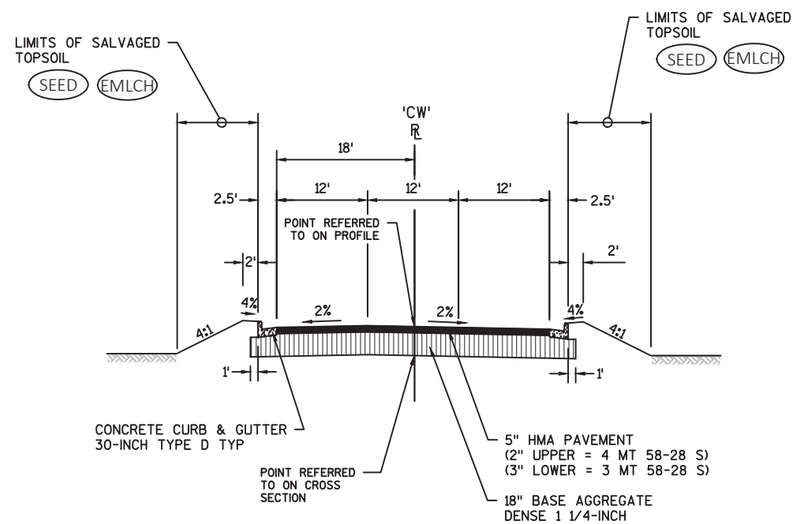
✳ WHEN 4' OR LESS PROVIDE BASE LAYERS ACROSS ENTIRE ISLAND.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TYPICAL FINISHED SECTIONS	SHEET 11	E



TYPICAL FINISHED SECTION - TIERNEY CROSSING

STA. 302+96.18'TC' TO STA. 304+08.00'TC'



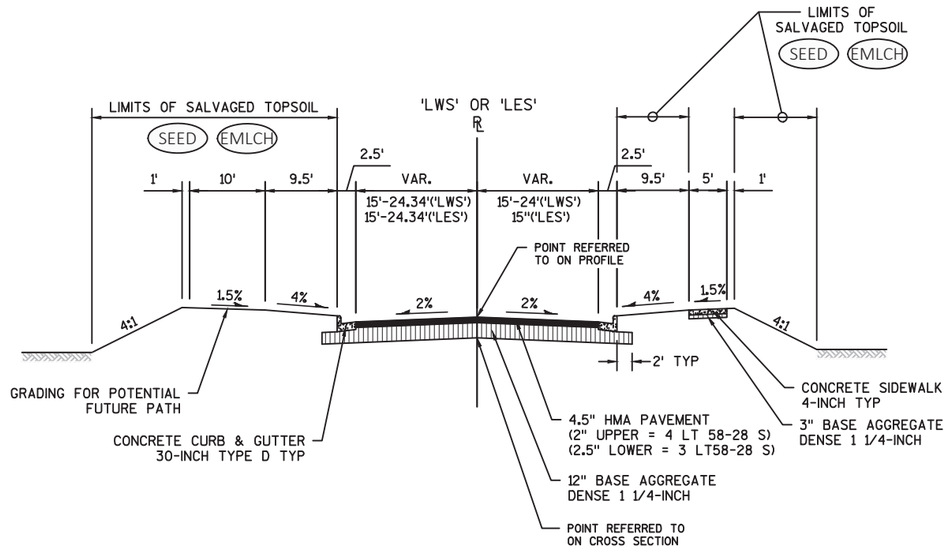
TYPICAL FINISHED SECTION - CASHEL WAY

STA. 1+83.65'CW' TO STA. 2+20.00'CW'

FINISHING NOTES:

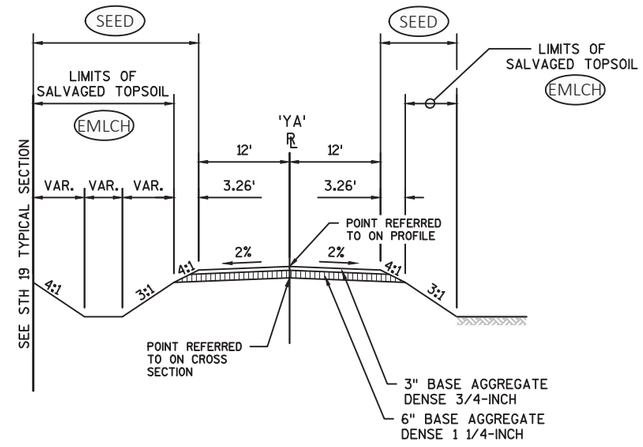
(SEED) SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, & FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE CONSTRUCTION DETAILS, MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLAN FOR MULCH AND EROSION MAT LOCATIONS.



TYPICAL FINISHED SECTION - LIUNA WAY

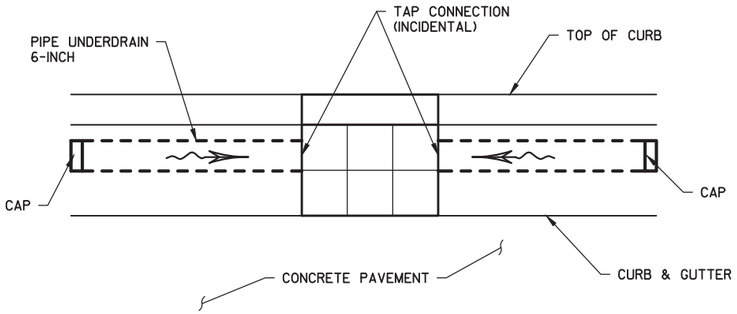
STA. 7+64.00'LWS' TO STA. 9+14.44'LWS'
STA. 8+33.40'LES' TO STA. 9+17.39'LES'



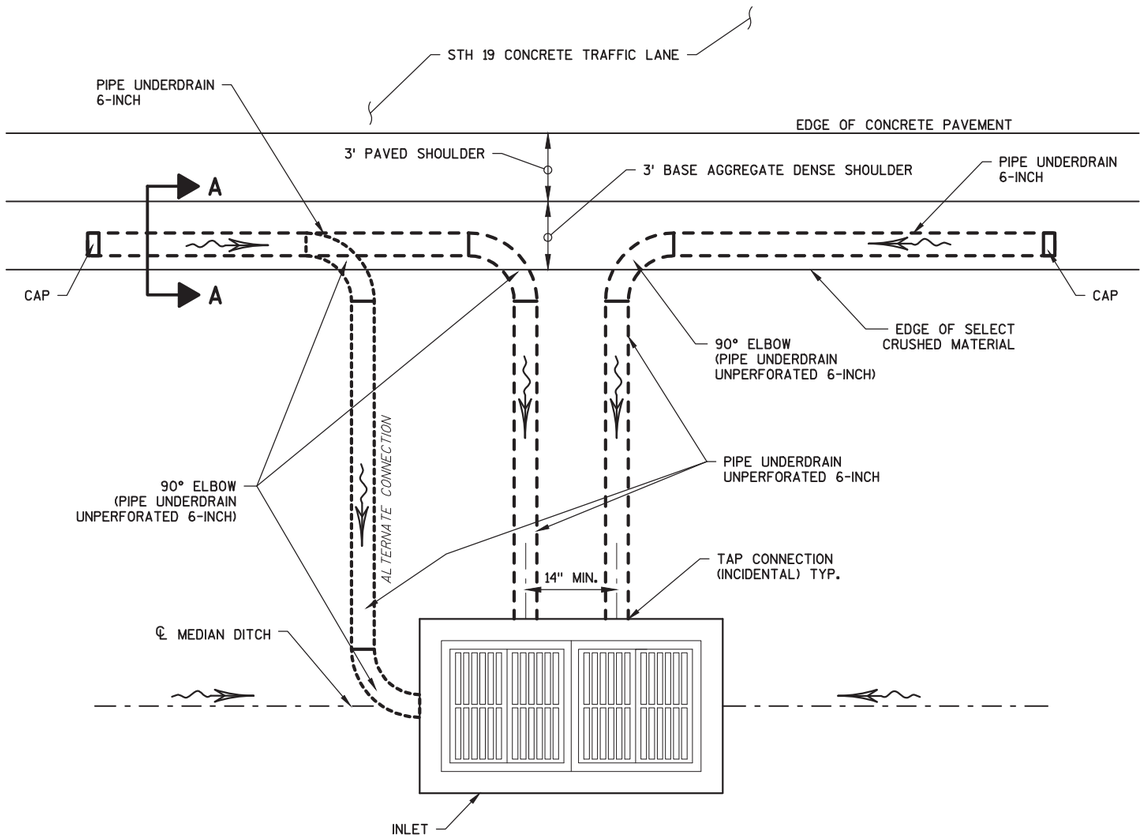
TYPICAL FINISHED SECTION - YAHARA RIVER ACCESS ROADWAY

STA. 156+58'YA' TO STA. 168+00'YA'

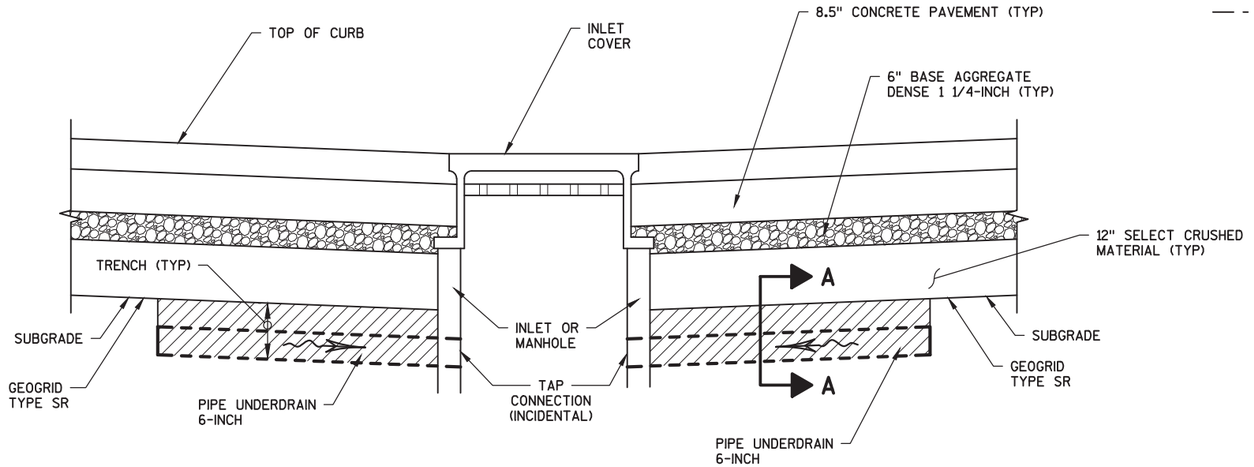
PROJECT NO:5290-00-72	HWY:STH 19	COUNTY:DANE	TYPICAL FINISHED SECTIONS	SHEET 12	E



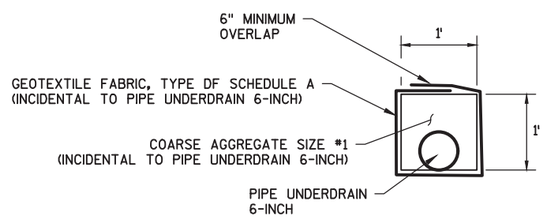
PLAN VIEW - CURB & GUTTER SECTION



PLAN VIEW - MEDIAN SHOULDER SECTION
LOW POINT SHOWN



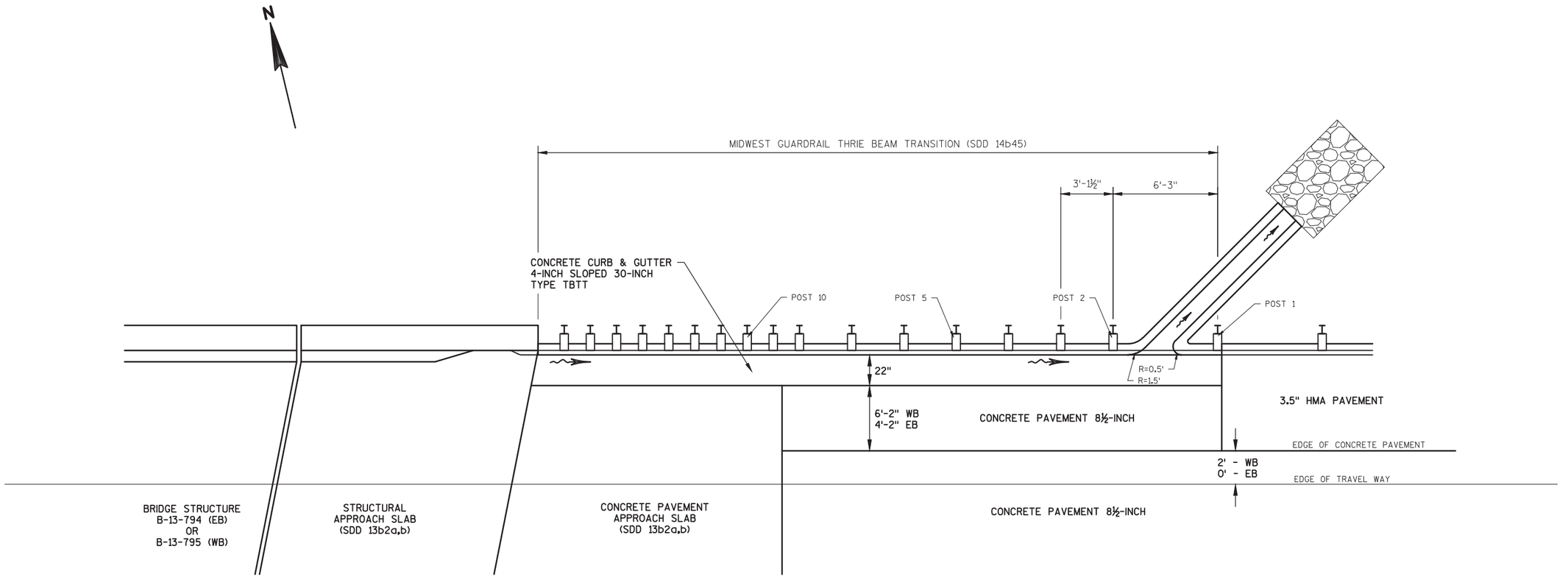
ELEVATION VIEW - CURB & GUTTER SECTION SHOWN
LOW POINT SHOWN



SECTION A-A
PIPE UNDERDRAIN TRENCH

PIPE UNDERDRAIN DETAILS

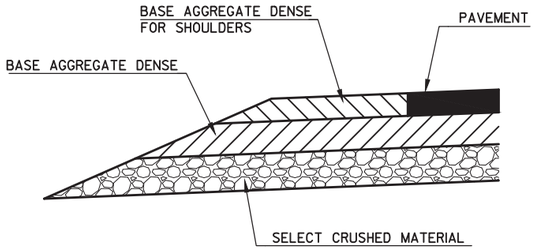
2



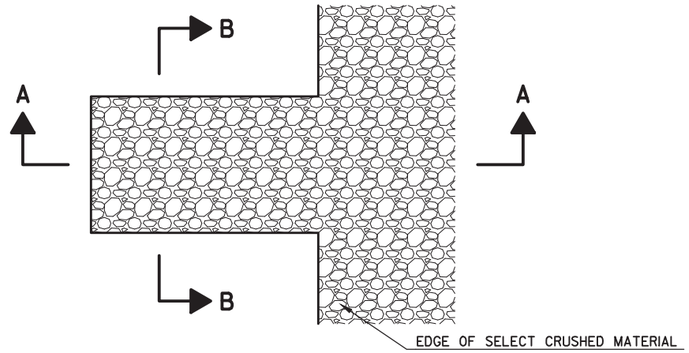
DETAIL FOR PLACEMENT OF CONCRETE SURFACE DRAIN FLUME

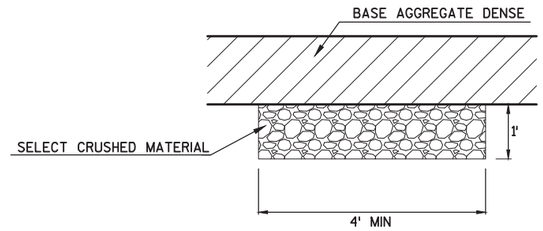
STA. 155+99'EB', LT
STA. 156+15'WB', LT

NOTE:
OTHER DETAILS CONFORM TO SDD 8D2 "CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES"



SECTION A-A





SECTION B-B

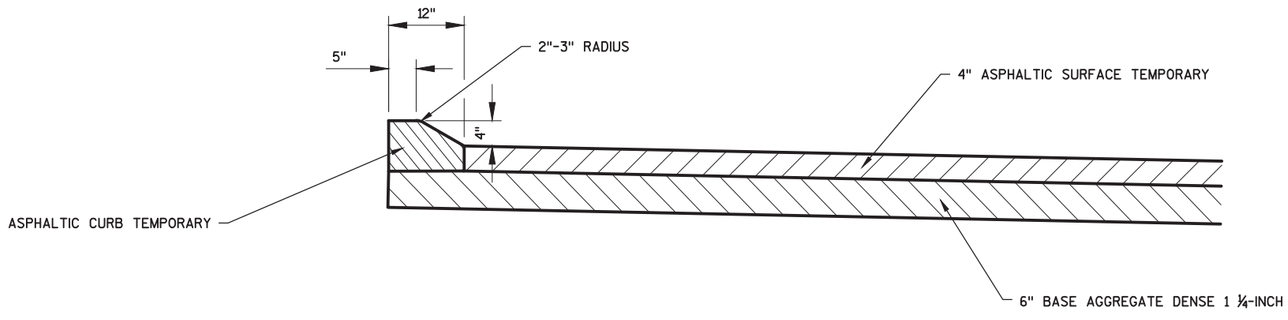
FRENCH DRAINS

DRAINS ARE TO BE CONSTRUCTED APPROXIMATELY 250' IN DITCH SECTIONS AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

EXACT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL.

DO NOT COVER SELECT CRUSHED MATERIAL WITH TOPSOIL.



DETAIL FOR ASPHALTIC CURB TEMPORARY

STA. 188+15'WB', LT TO STA. 194+70'WB', RT

2

2

A

A

~15'

BOTTOM OF EXCAVATION MARSH

153'EB'

154'EB'

155'EB'

STH 19 EB

EXCAVATION BOTTOM

BACKFILL GRANULAR GRADE 2

2' MIN

ABUTMENT OF
BRIDGE B-13-794

STH 19 EB

APPROXIMATE
BRIDGE PILING
LOCATION (TYP)

BACKFILL GRANULAR GRADE 2

BACKFILL GRANULAR GRADE 2

YAHARA RIVER

N

BOTTOM OF EXCAVATION MARSH

BOTTOM OF EXCAVATION MARSH

TEMPORARY SHORING

+/- 2'

SEE FOLLOWING SHEET FOR SECTION A-A VIEW

PLAN VIEW

880

870

860

850

840

PROPOSED PAVEMENT

APPROACH SLAB

ABUTMENT OF BRIDGE B-13-794

EXISTING GROUND ALONG EB REFERENCE LINE

HIGH WATER$_{100}$ EL. 861.9'

WATER EL. 858.0'
(ASSUMED FOR QUANTITIES)

860.0'

STATION 152+59'EB'

EL. 862.5

BACKFILL GRANULAR GRADE 2

850.0'

PROPOSED RIPRAP HEAVY

TEMPORARY SHORING

STATION 153+00'EB'

BOTTOM OF
EXCAVATION MARSH

BRIDGE PILING (TYP)

PAY LIMITS FOR TEMPORARY SHORING

ELEVATION

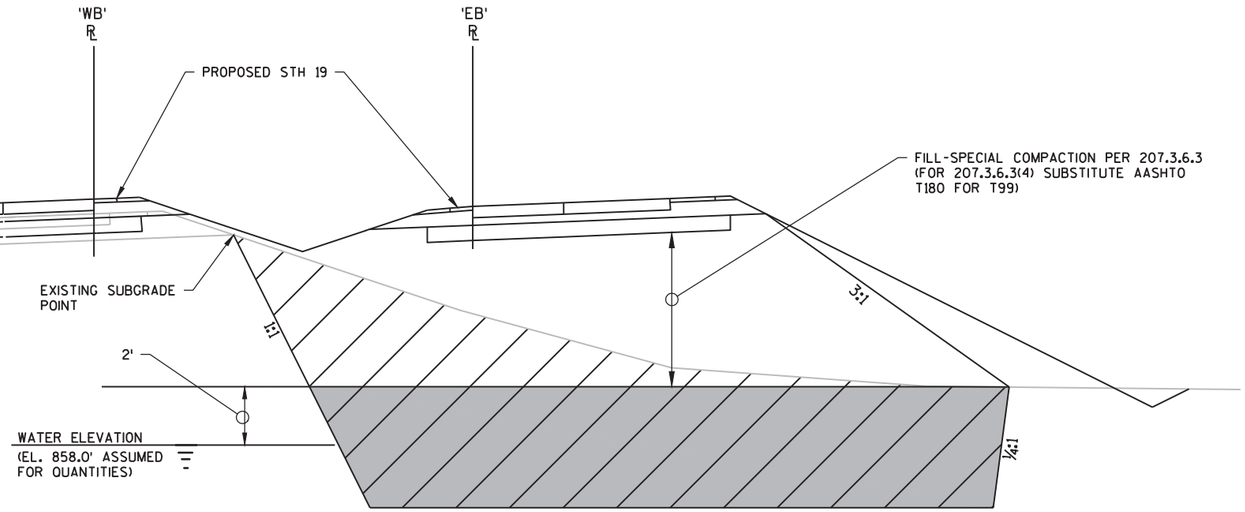
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS - MARSH EXCAVATION - 1 OF 2	SHEET 16	E

2



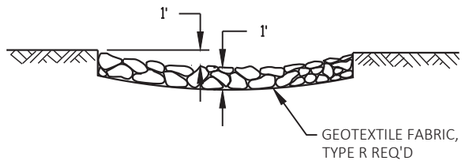
EXCAVATION MARSH

BACKFILL GRANULAR GRADE 2

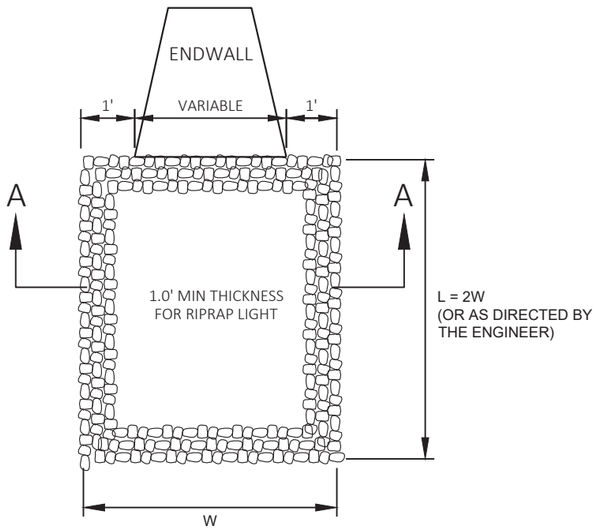


SECTION A-A

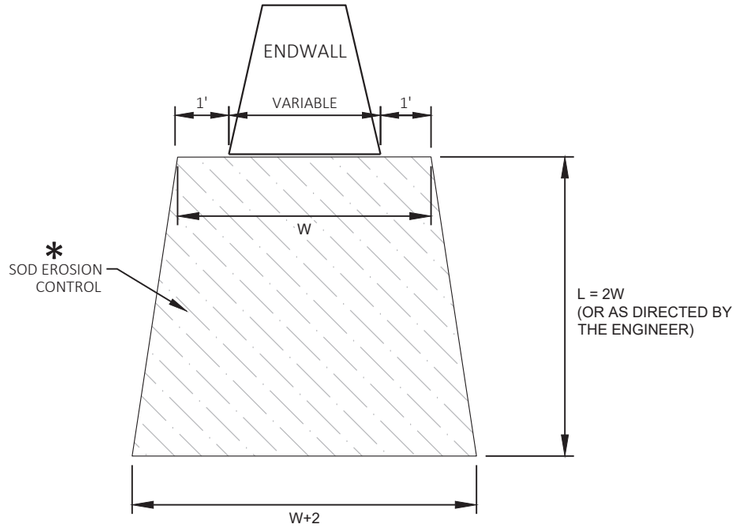
STA. 153+00'EB' TO STA. 154+59 'EB'



SECTION A-A

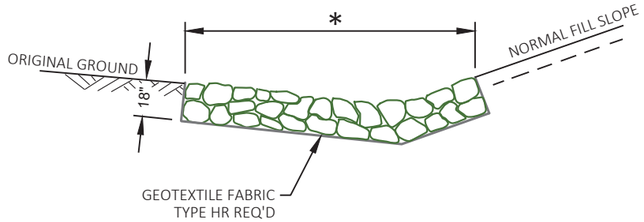


DETAIL FOR RIPRAP LIGHT TREATMENT AT CULVERTS



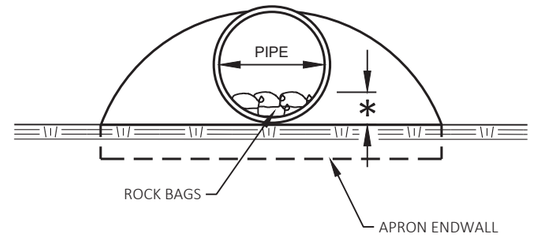
DETAIL FOR SOD EROSION CONTROL TREATMENT AT CULVERTS

* - STAKED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



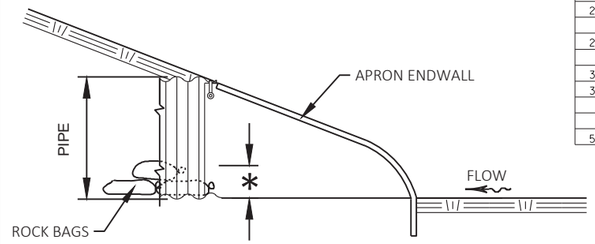
DETAIL FOR RIPRAP MEDIUM IN DITCHES

* - DIMENSIONS AS DIRECTED BY THE ENGINEER



END VIEW

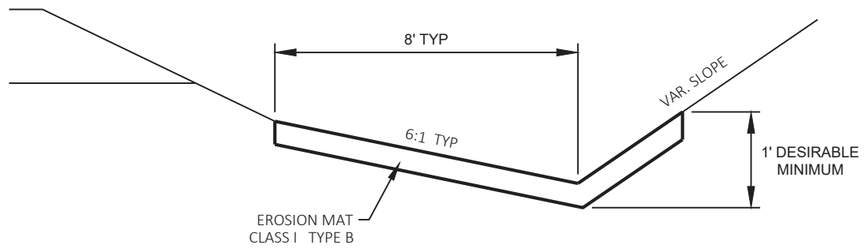
ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" X 23"	3
24"	3
27"	4
30"	5
19" X 30"	5
36"	7
24" X 38"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19



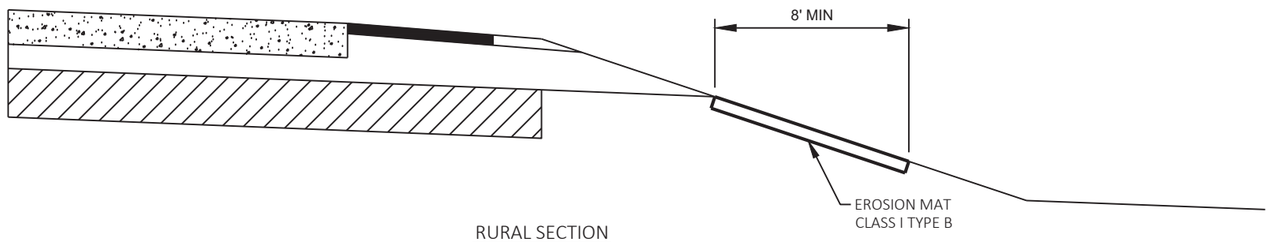
SIDE VIEW

DETAIL FOR CULVERT PIPE CHECK

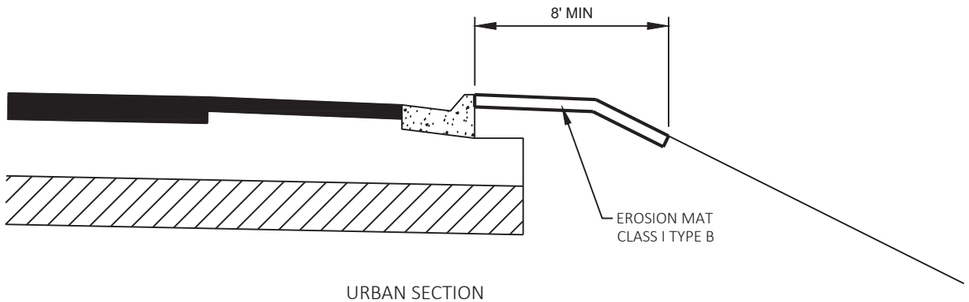
- PLACE AT 1/3 PIPE DIAMETER, 6" MINIMUM, OR
* AS DIRECTED BY THE ENGINEER



DETAIL FOR EROSION MAT FOR DITCHES

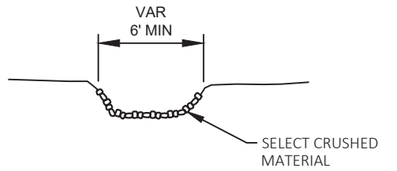


RURAL SECTION

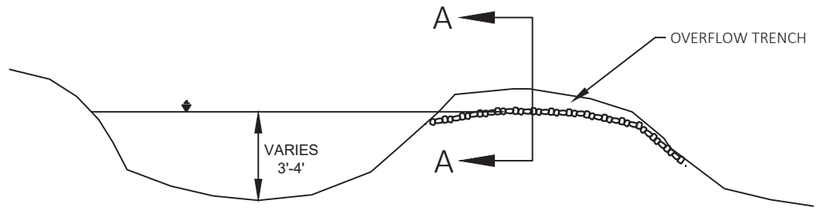


URBAN SECTION

DETAIL FOR EROSION MAT ALONG ROADWAYS



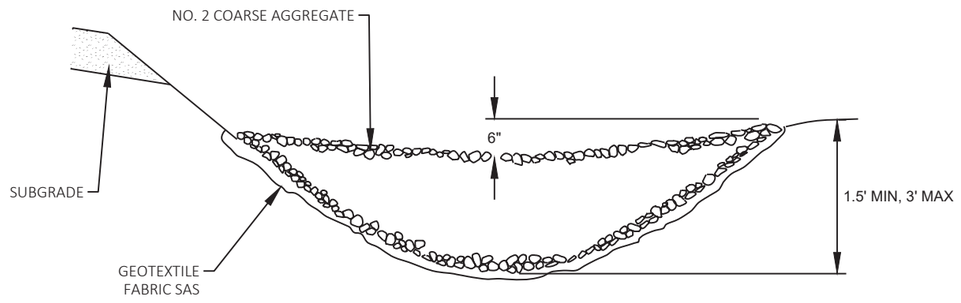
OVERFLOW TRENCH SECTION A-A



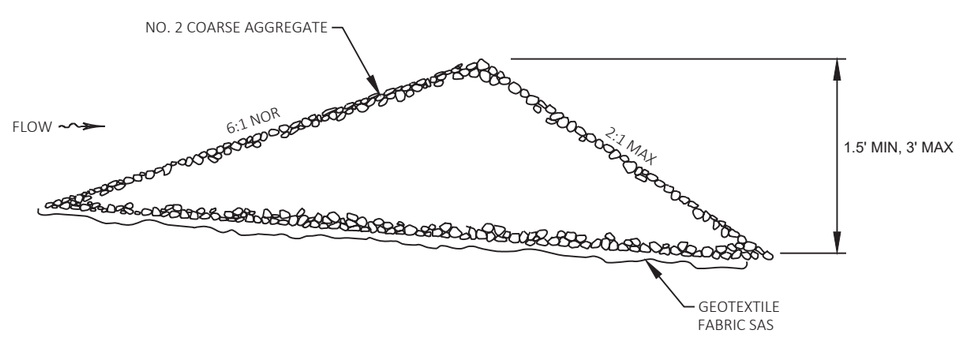
NOTES:
-EXCAVATION AND BACKFILL FOR SEDIMENT BASIN TO BE PAID FOR UNDER TEMPORARY SEDIMENT BASIN ITEM. (EXACT DIMENSIONS AND LOCATIONS TO BE AS DIRECTED BY THE ENGINEER IN THE FIELD.)

-CLEANING OF SEDIMENT BASINS, WHEN DIRECTED BY THE ENGINEER, IS PAID FOR UNDER THE ITEM OF "CLEANING SEDIMENT BASINS (C.Y.)

DETAIL FOR TEMPORARY SEDIMENT BASIN AND OUTLET



CROSS SECTION VIEW

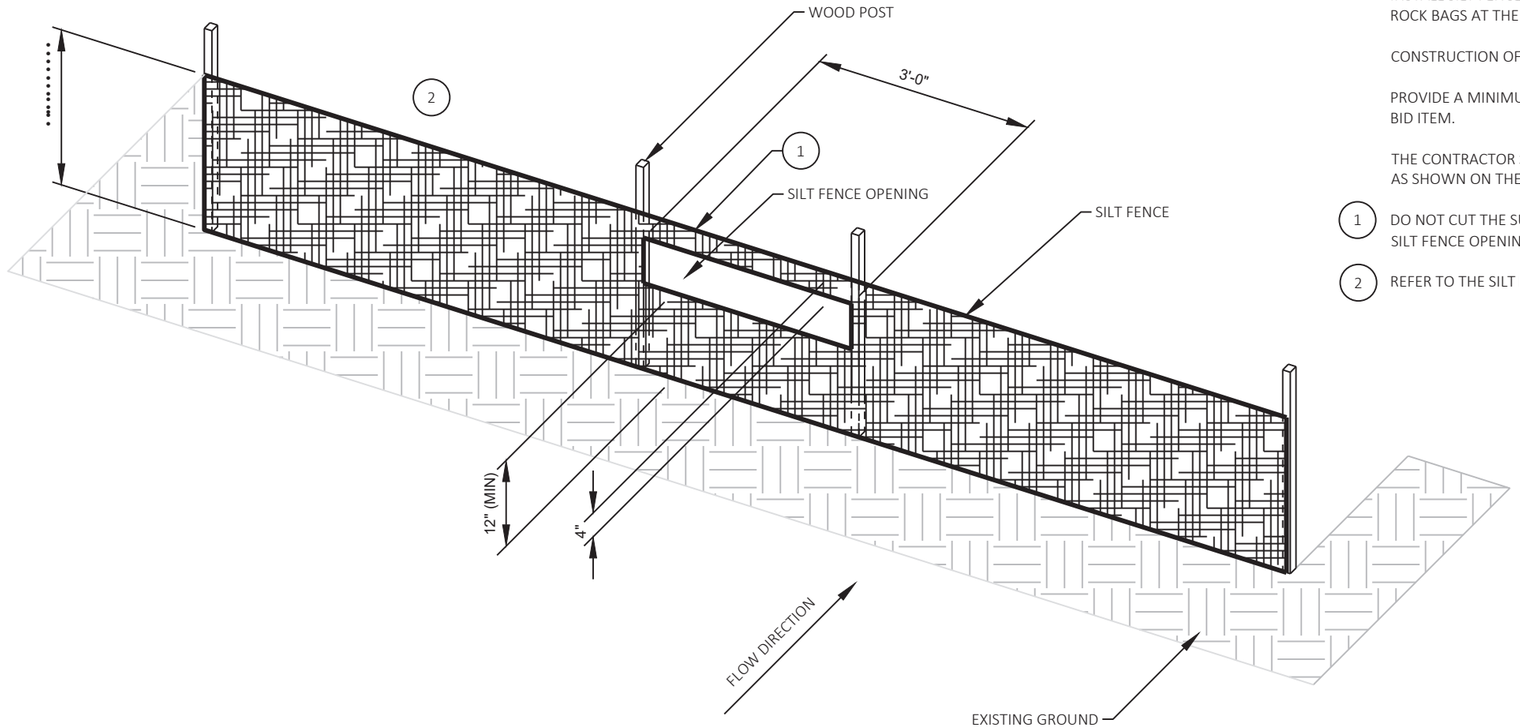


SIDE VIEW (SINGLE)

DETAIL FOR STONE OR ROCK DITCH CHECK

INTENDED FOR USE AS TEMPORARY EROSION CONTROL MEASURES.

NOTE:
REMOVAL OF STONE OR ROCK DITCH CHECKS WILL BE PAID FOR UNDER THE ITEM EXCAVATION STONE PILES AND STONE FENCES.



NOTES:

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CONSTRUCTING THE SILT FENCE OPENING, PLACE ROCK BAGS AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL.

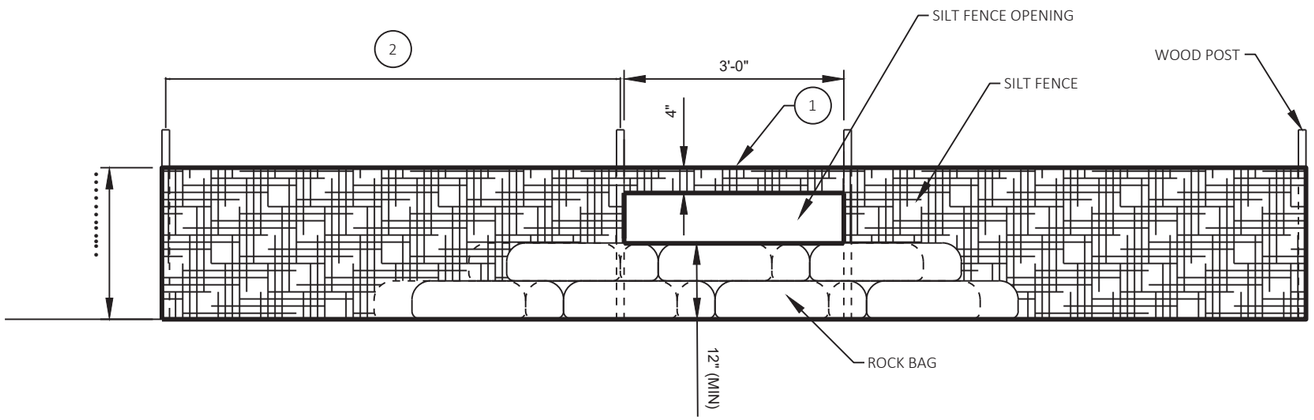
CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE BID ITEM.

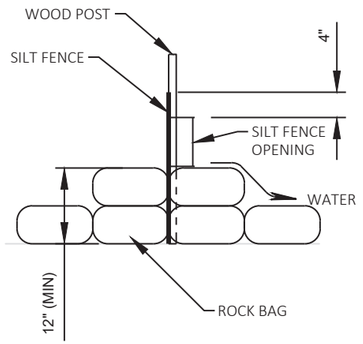
PROVIDE A MINIMUM OF 22 ROCK BAGS MINIMUM PER 3 FOOT OPENING. ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM.

THE CONTRACTOR SHALL ADJUST THE SILT FENCE RELIEF OPENINGS WITHIN THE SILT FENCE AS NECESSARY TO PROVIDE RELIEF: AS SHOWN ON THE PLANS, TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE FIELD ENGINEER.

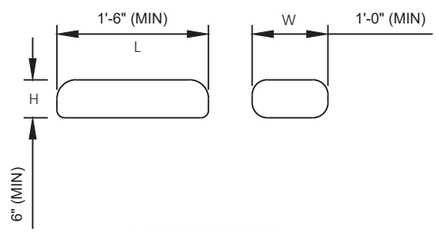
(1) DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. KEEP THE TOP OF THE SILT FENCE OPENING 1"± BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.

(2) REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.





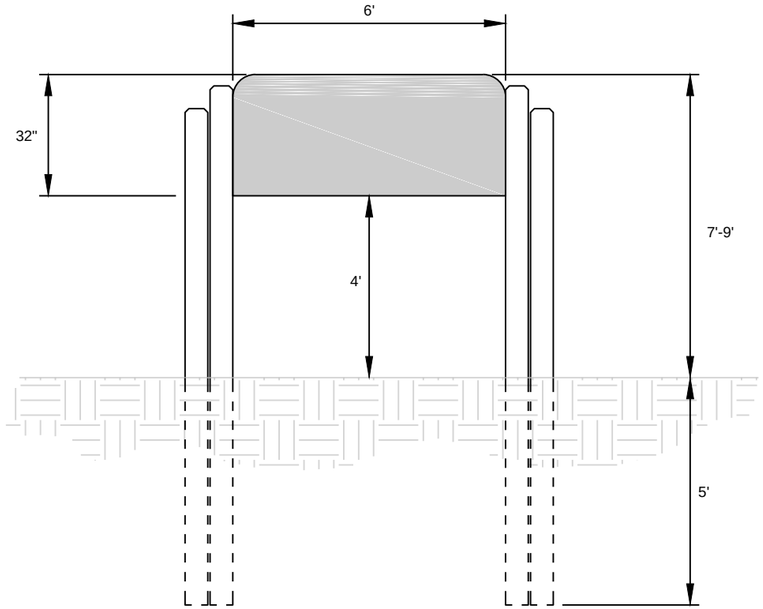
SECTION VIEW



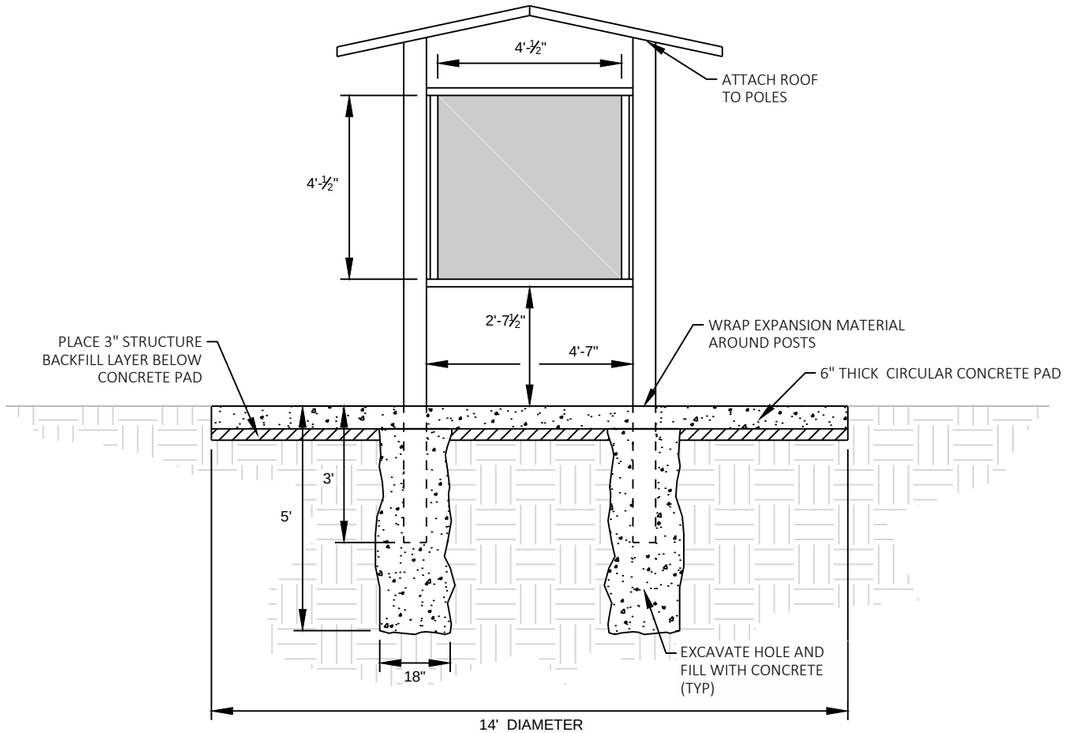
ROCK BAG DETAIL

SILT FENCE RELIEF DETAIL

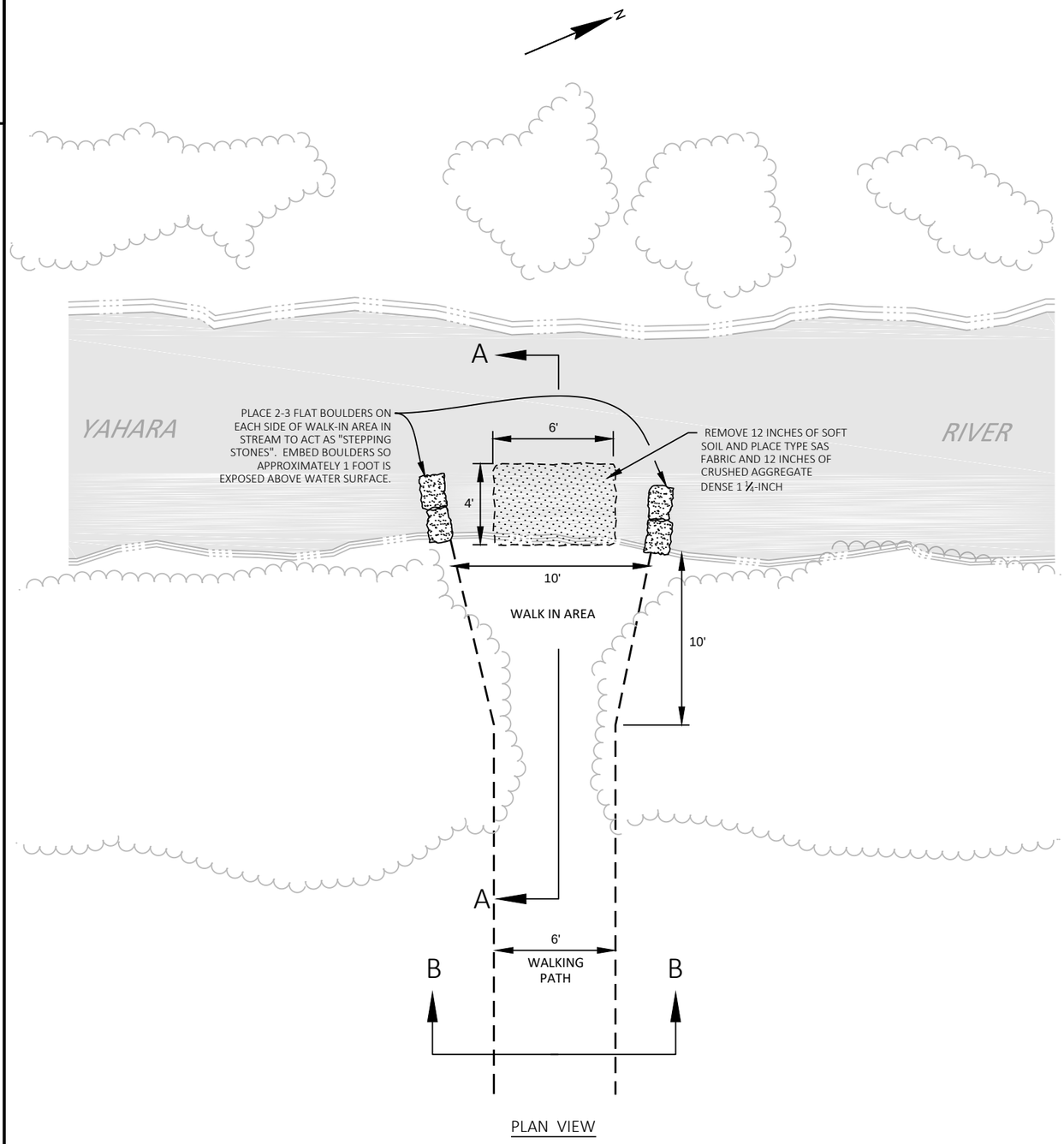
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 20	E



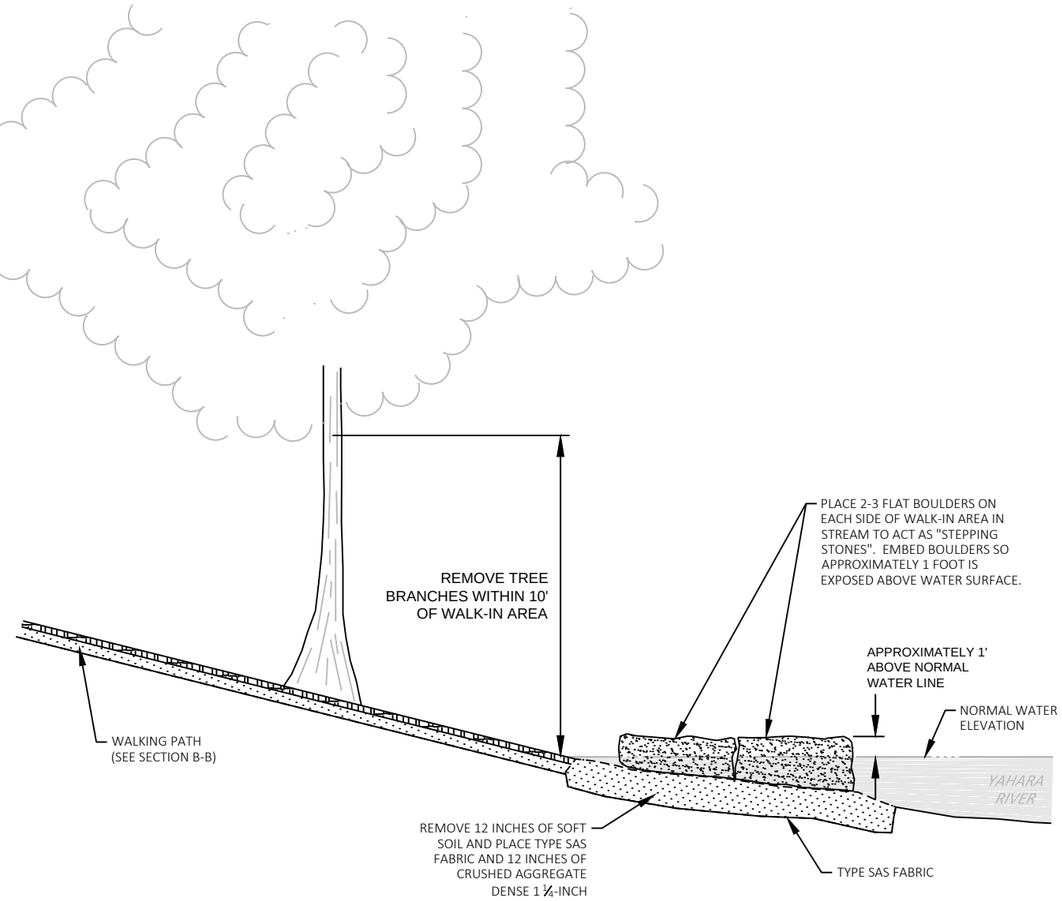
DETAIL FOR DANE COUNTY PARKS SIGN



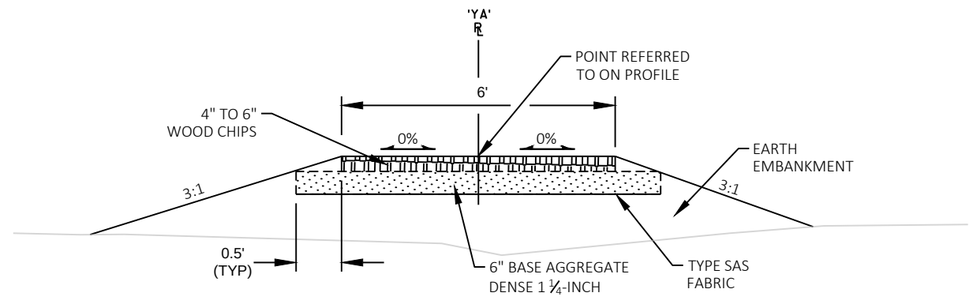
DETAIL FOR DANE COUNTY PARKS KIOSK



PLAN VIEW



SECTION A-A

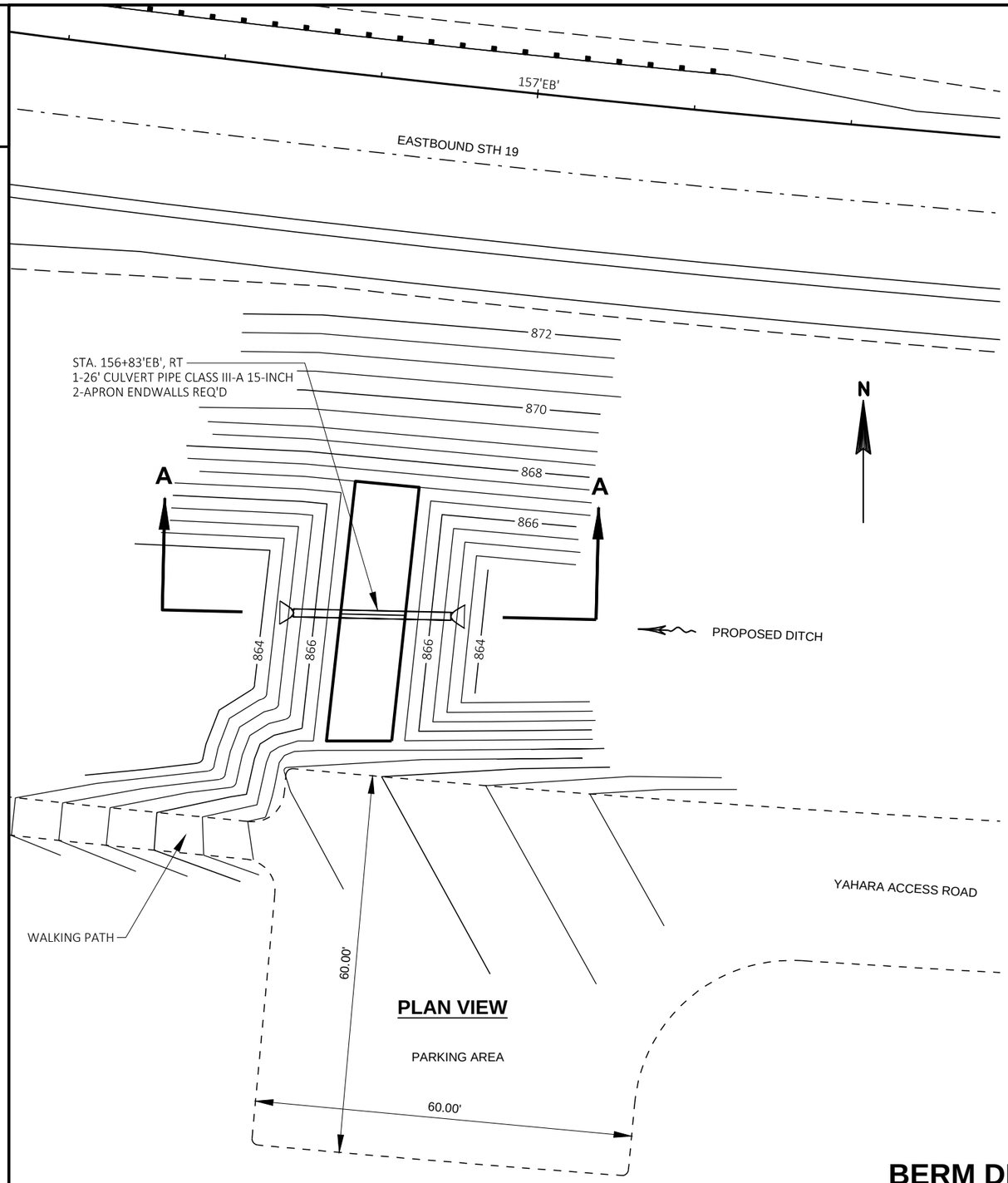


SECTION B-B (WALKING PATH)
STA. 154+87'YA' TO STA.156+58'YA'

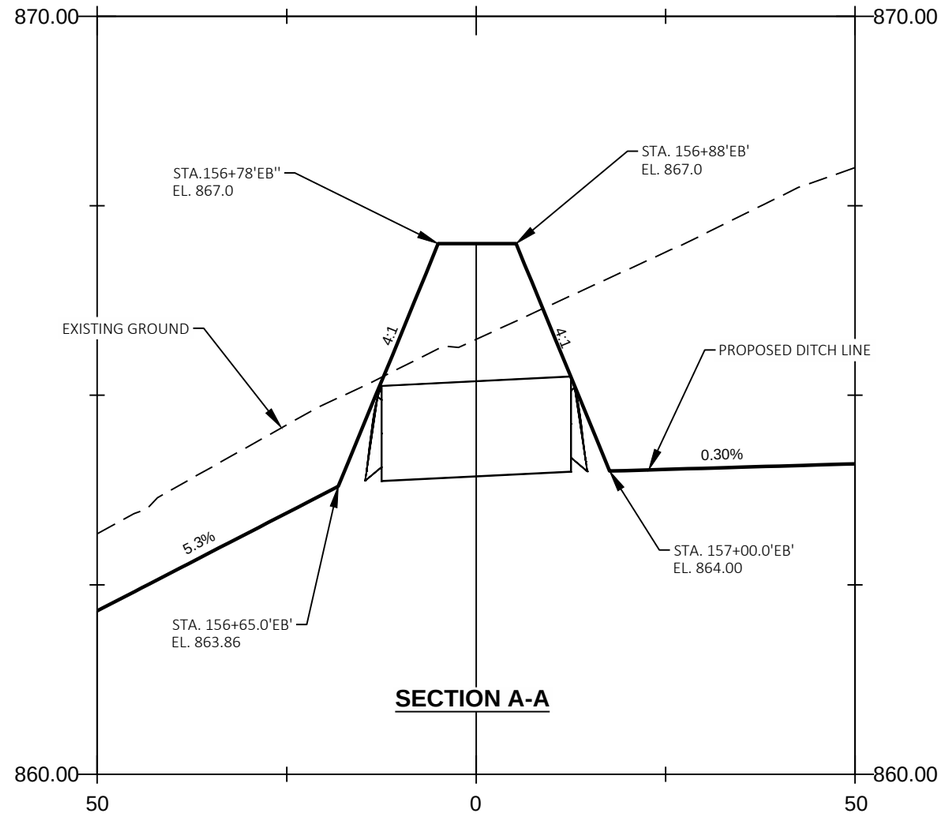
DETAIL FOR CANOE AND KAYAK LAUNCH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 22	E

2



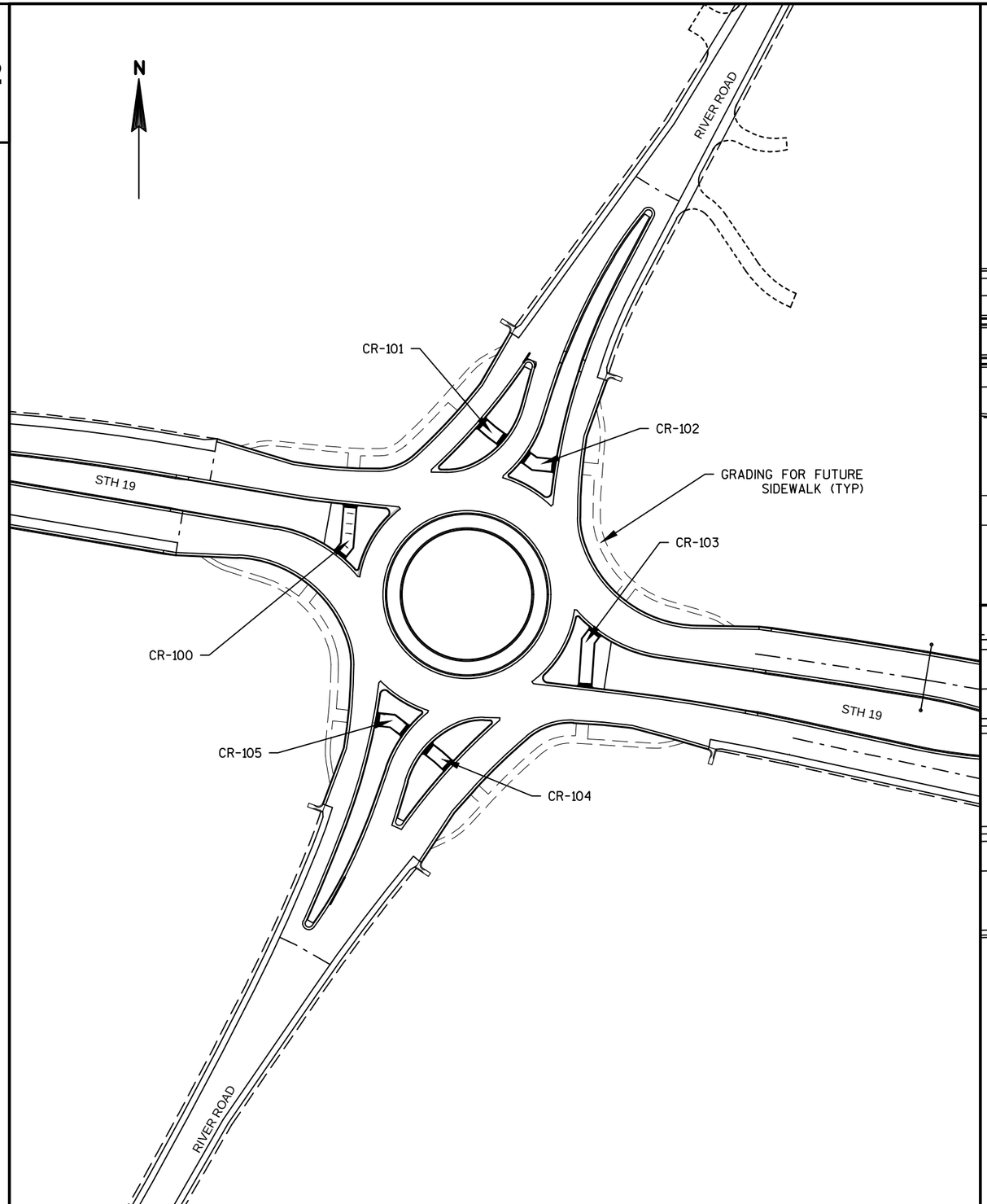
PLAN VIEW

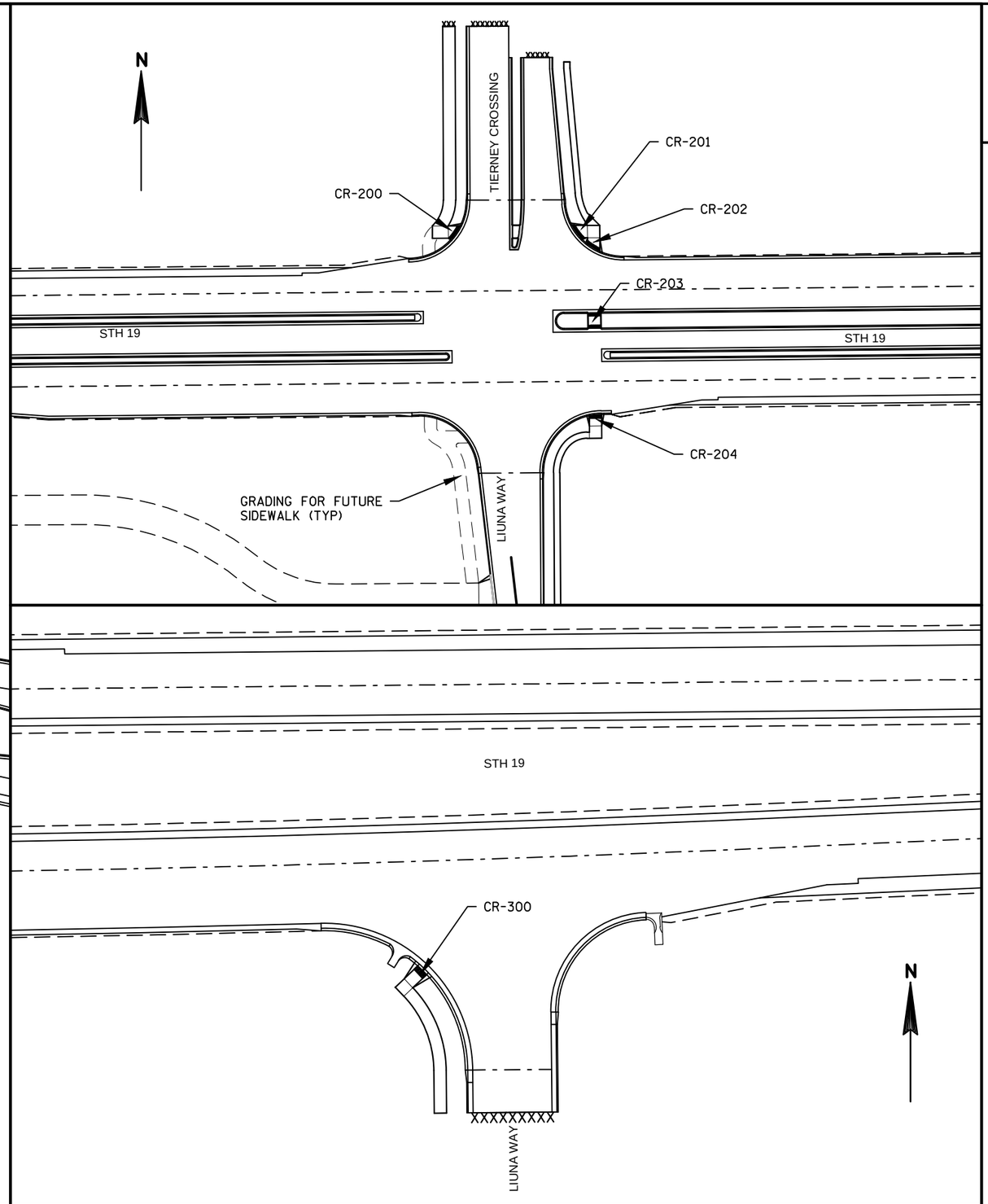


SECTION A-A

BERM DETAIL

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS - BERM	SHEET 23	E

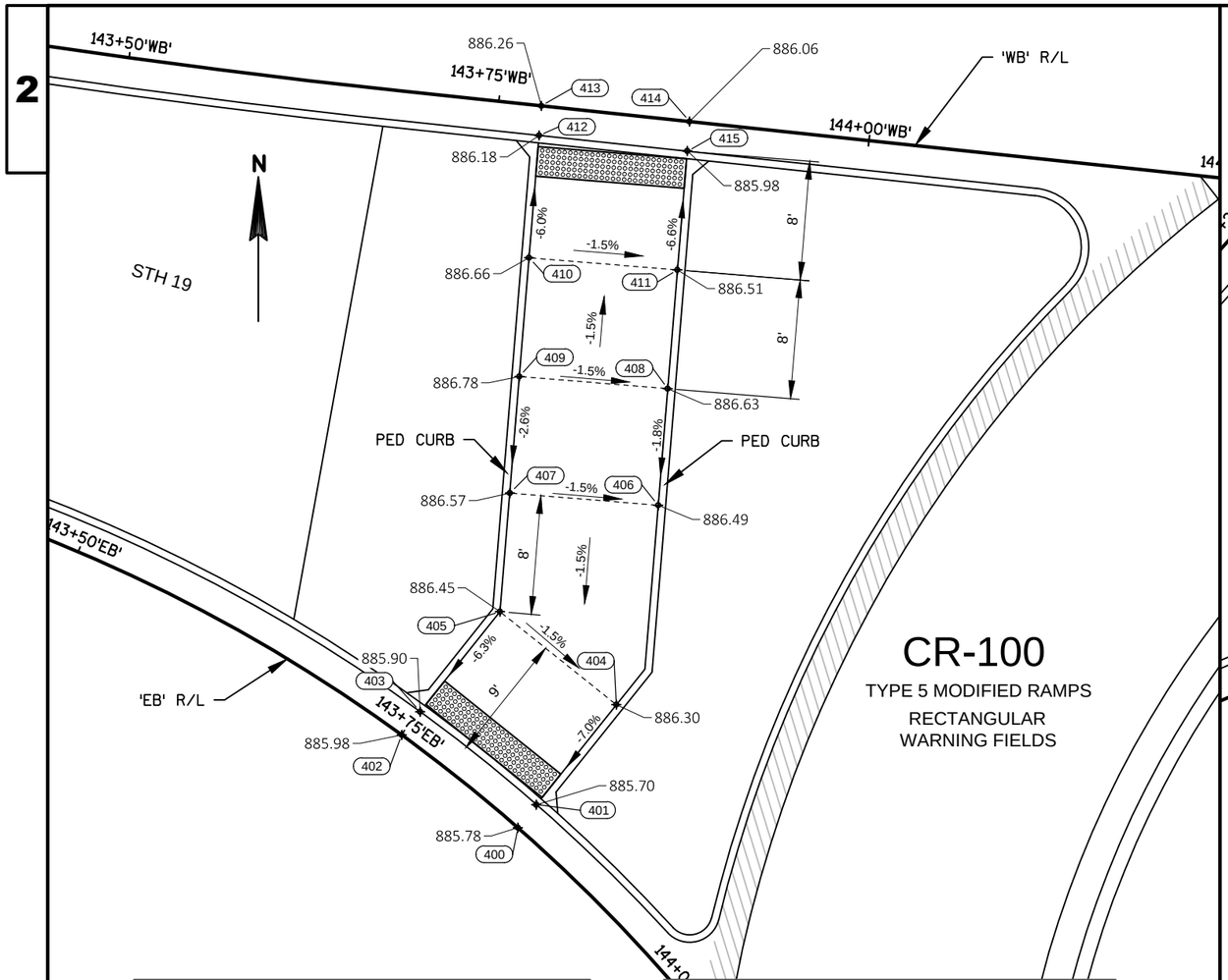


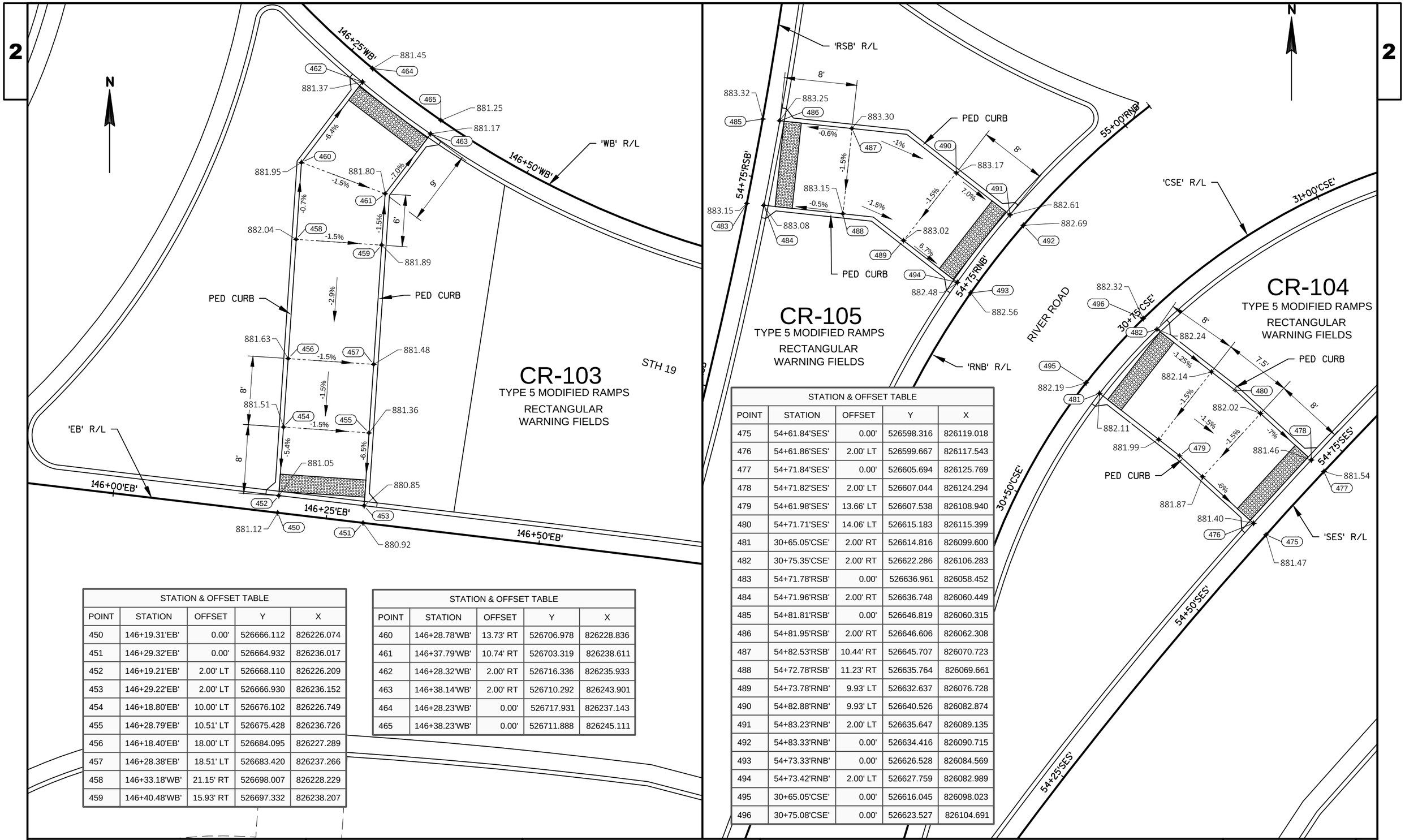


2

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS - CURB RAMP DETAILS	SHEET 24	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0210D_CD.DWG
LAYOUT NAME - CR_01
PLOT DATE : 5/21/2019 1:08 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

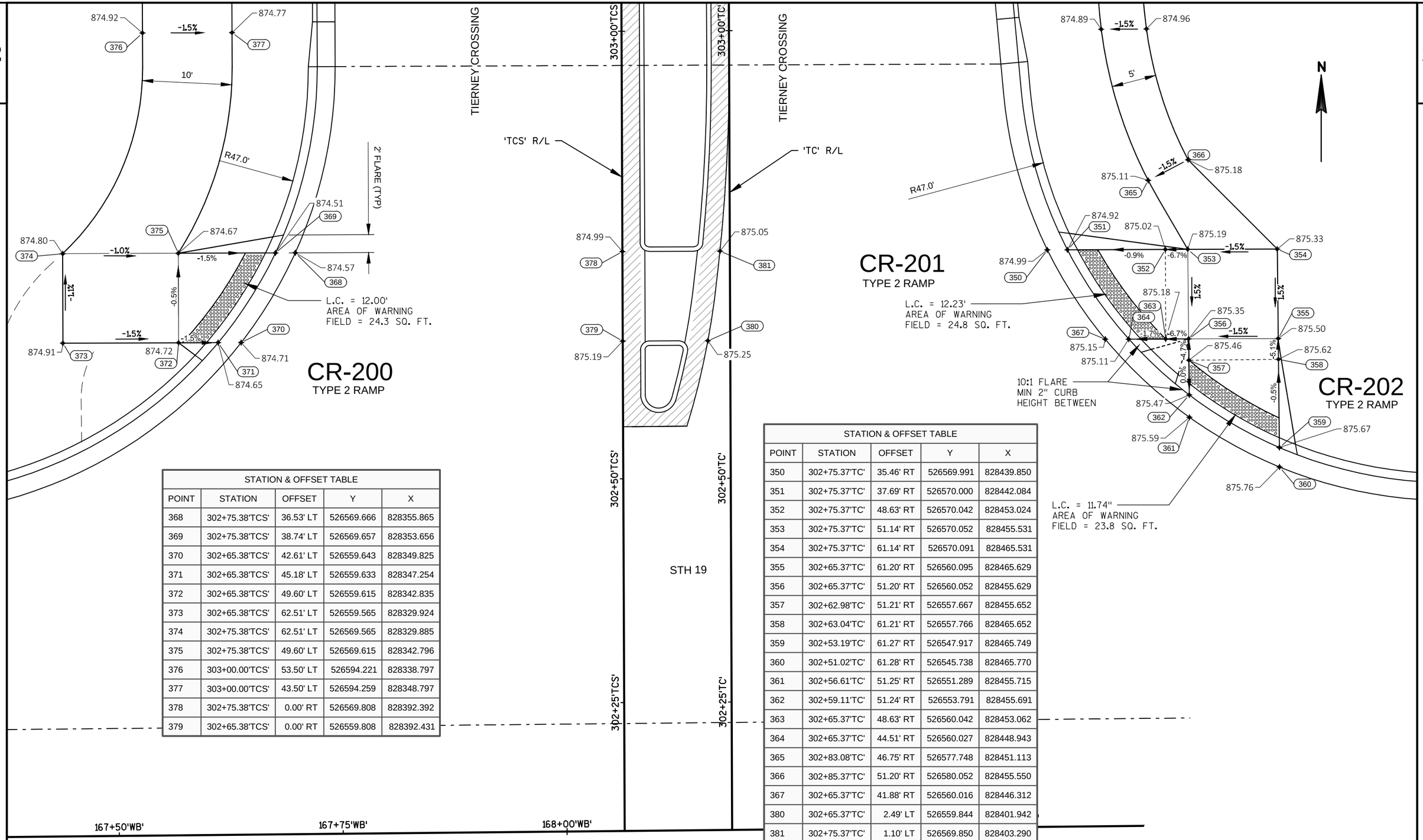

143+50'WB'
143+75'WB'
144+00'WB'
'WB' R/L
886.26
886.06
886.18
885.98
886.66
886.51
886.78
886.63
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886.83
886.67
886.87
886.71
886.91
886.75
886.95
886.79
886.99
886.83



STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
450	146+19.31'EB'	0.00'	526666.112	826226.074
451	146+29.32'EB'	0.00'	526664.932	826236.017
452	146+19.21'EB'	2.00' LT	526668.110	826226.209
453	146+29.22'EB'	2.00' LT	526666.930	826236.152
454	146+18.80'EB'	10.00' LT	526676.102	826226.749
455	146+28.79'EB'	10.51' LT	526675.428	826236.726
456	146+18.40'EB'	18.00' LT	526684.095	826227.289
457	146+28.38'EB'	18.51' LT	526683.420	826237.266
458	146+33.18'WB'	21.15' RT	526698.007	826228.229
459	146+40.48'WB'	15.93' RT	526697.332	826238.207

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
460	146+28.78'WB'	13.73' RT	526706.978	826228.836
461	146+37.79'WB'	10.74' RT	526703.319	826238.611
462	146+28.32'WB'	2.00' RT	526716.336	826235.933
463	146+38.14'WB'	2.00' RT	526710.292	826243.901
464	146+28.23'WB'	0.00'	526717.931	826237.143
465	146+38.23'WB'	0.00'	526711.888	826245.111

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
475	54+61.84'SES'	0.00'	526598.316	826119.018
476	54+61.86'SES'	2.00' LT	526599.667	826117.543
477	54+71.84'SES'	0.00'	526605.694	826125.769
478	54+71.82'SES'	2.00' LT	526607.044	826124.294
479	54+61.98'SES'	13.66' LT	526607.538	826108.940
480	54+71.71'SES'	14.06' LT	526615.183	826115.399
481	30+65.05'CSE'	2.00' RT	526614.816	826099.600
482	30+75.35'CSE'	2.00' RT	526622.286	826106.283
483	54+71.78'RSB'	0.00'	526636.961	826058.452
484	54+71.96'RSB'	2.00' RT	526636.748	826060.449
485	54+81.81'RSB'	0.00'	526646.819	826060.315
486	54+81.95'RSB'	2.00' RT	526646.606	826062.308
487	54+82.53'RSB'	10.44' RT	526645.707	826070.723
488	54+72.78'RSB'	11.23' RT	526635.764	826069.661
489	54+73.78'RNB'	9.93' LT	526632.637	826076.728
490	54+82.88'RNB'	9.93' LT	526640.526	826082.874
491	54+83.23'RNB'	2.00' LT	526635.647	826089.135
492	54+83.33'RNB'	0.00'	526634.416	826090.715
493	54+73.33'RNB'	0.00'	526626.528	826084.569
494	54+73.42'RNB'	2.00' LT	526627.759	826082.989
495	30+65.05'CSE'	0.00'	526616.045	826098.023
496	30+75.08'CSE'	0.00'	526623.527	826104.691



STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
368	302+75.38'TCS'	36.53' LT	526569.666	828355.865
369	302+75.38'TCS'	38.74' LT	526569.657	828353.656
370	302+65.38'TCS'	42.61' LT	526559.643	828349.825
371	302+65.38'TCS'	45.18' LT	526559.633	828347.254
372	302+65.38'TCS'	49.60' LT	526559.615	828342.835
373	302+65.38'TCS'	62.51' LT	526559.565	828329.924
374	302+75.38'TCS'	62.51' LT	526569.565	828329.885
375	302+75.38'TCS'	49.60' LT	526569.615	828342.796
376	303+00.00'TCS'	53.50' LT	526594.221	828338.797
377	303+00.00'TCS'	43.50' LT	526594.259	828348.797
378	302+75.38'TCS'	0.00' RT	526569.808	828392.392
379	302+65.38'TCS'	0.00' RT	526559.808	828392.431

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
350	302+75.37'TC'	35.46' RT	526569.991	828439.850
351	302+75.37'TC'	37.69' RT	526570.000	828442.084
352	302+75.37'TC'	48.63' RT	526570.042	828453.024
353	302+75.37'TC'	51.14' RT	526570.052	828455.531
354	302+75.37'TC'	61.14' RT	526570.091	828465.531
355	302+65.37'TC'	61.20' RT	526560.095	828465.629
356	302+65.37'TC'	51.20' RT	526560.052	828455.629
357	302+62.98'TC'	51.21' RT	526557.667	828455.652
358	302+63.04'TC'	61.21' RT	526557.766	828465.652
359	302+53.19'TC'	61.27' RT	526547.917	828465.749
360	302+51.02'TC'	61.28' RT	526545.738	828465.770
361	302+56.61'TC'	51.25' RT	526551.289	828455.715
362	302+59.11'TC'	51.24' RT	526553.791	828455.691
363	302+65.37'TC'	48.63' RT	526560.042	828453.062
364	302+65.37'TC'	44.51' RT	526560.027	828448.943
365	302+83.08'TC'	46.75' RT	526577.748	828451.113
366	302+85.37'TC'	51.20' RT	526580.052	828455.550
367	302+65.37'TC'	41.88' RT	526560.016	828446.312
380	302+65.37'TC'	2.49' LT	526559.844	828401.942
381	302+75.37'TC'	1.10' LT	526569.850	828403.290

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS - CURB RAMP DETAILS	SHEET 27	E

2

N

STH 19

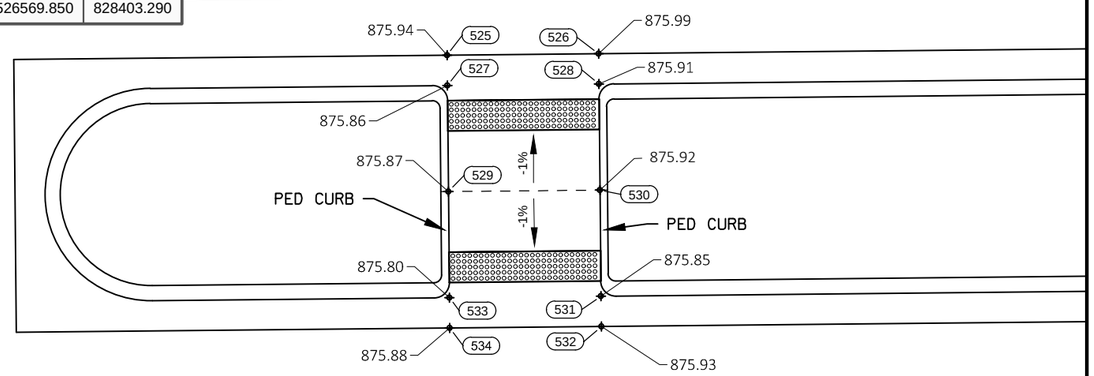
STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
525	168+69.95'WB'	4.00' RT	526501.712	828456.203
526	168+79.95'WB'	4.00' RT	526501.810	828466.202
527	168+69.95'WB'	6.00' RT	526499.712	828456.222
528	168+79.95'WB'	6.00' RT	526499.810	828466.222
529	168+69.95'WB'	13.00' RT	526492.712	828456.291
530	168+79.95'WB'	13.00' RT	526492.810	828466.291
531	168+79.95'WB'	20.00' RT	526485.811	828466.360
532	168+79.95'WB'	22.00' RT	526483.811	828466.379
533	168+69.95'WB'	20.00' RT	526485.712	828456.360
534	168+69.95'WB'	22.00' RT	526483.713	828456.380

2.49' LT	526559.844	828401.942
1.10' LT	526569.850	828403.290

'WB' R/L

168+75'WB'

169+00'WB'



CR-203

TYPE 5 RAMPS
RECTANGULAR
WARNING FIELDS

168+50'EB'

168+75'EB'

169+00'EB'

STH 19

168+25'EB'

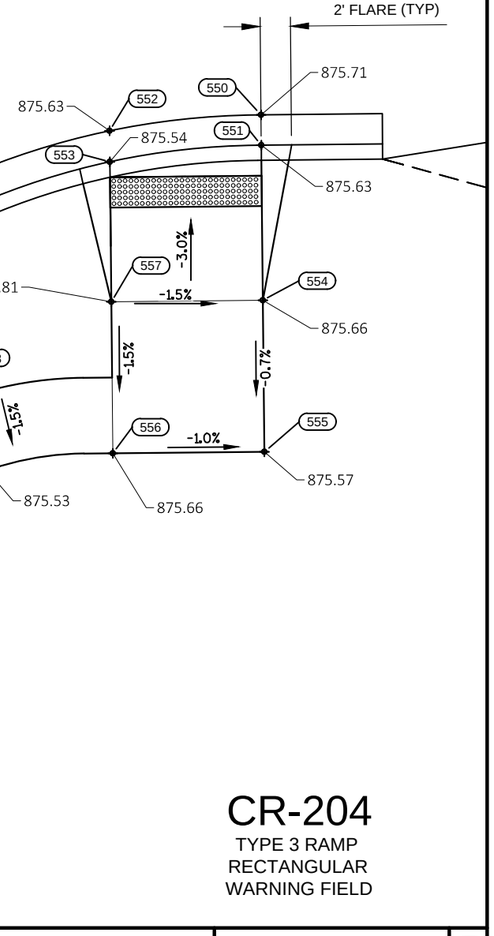
168+50'EB'

168+75'EB'

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
550	168+79.85'EB'	36.00' RT	526419.814	828467.009
551	168+79.85'EB'	38.00' RT	526417.814	828467.028
552	168+69.85'EB'	36.96' RT	526418.753	828457.019
553	168+69.85'EB'	39.00' RT	526416.712	828457.039
554	168+79.85'EB'	48.24' RT	526407.573	828467.129
555	168+79.85'EB'	58.24' RT	526397.573	828467.227
556	168+69.85'EB'	58.24' RT	526397.475	828457.228
557	168+69.85'EB'	48.24' RT	526407.475	828457.130
558	168+59.93'EB'	54.56' RT	526401.056	828447.280
559	168+61.54'EB'	59.30' RT	526396.336	828448.931
560	9+25.00'LWS'	36.50' RT	526380.301	828429.699
561	9+23.63'LWS'	41.31' RT	526378.956	828434.515

N

2' FLARE (TYP)



CR-204

TYPE 3 RAMP
RECTANGULAR
WARNING FIELD

LUINA WAY

PROJECT NO:5290-00-72	HWY:STH 19	COUNTY:DANE	CONSTRUCTION DETAILS - CURB RAMP DETAILS	SHEET 28	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0210D_CD.DWG
LAYOUT NAME - CR_05

PLOT DATE : 5/21/2019 1:08 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

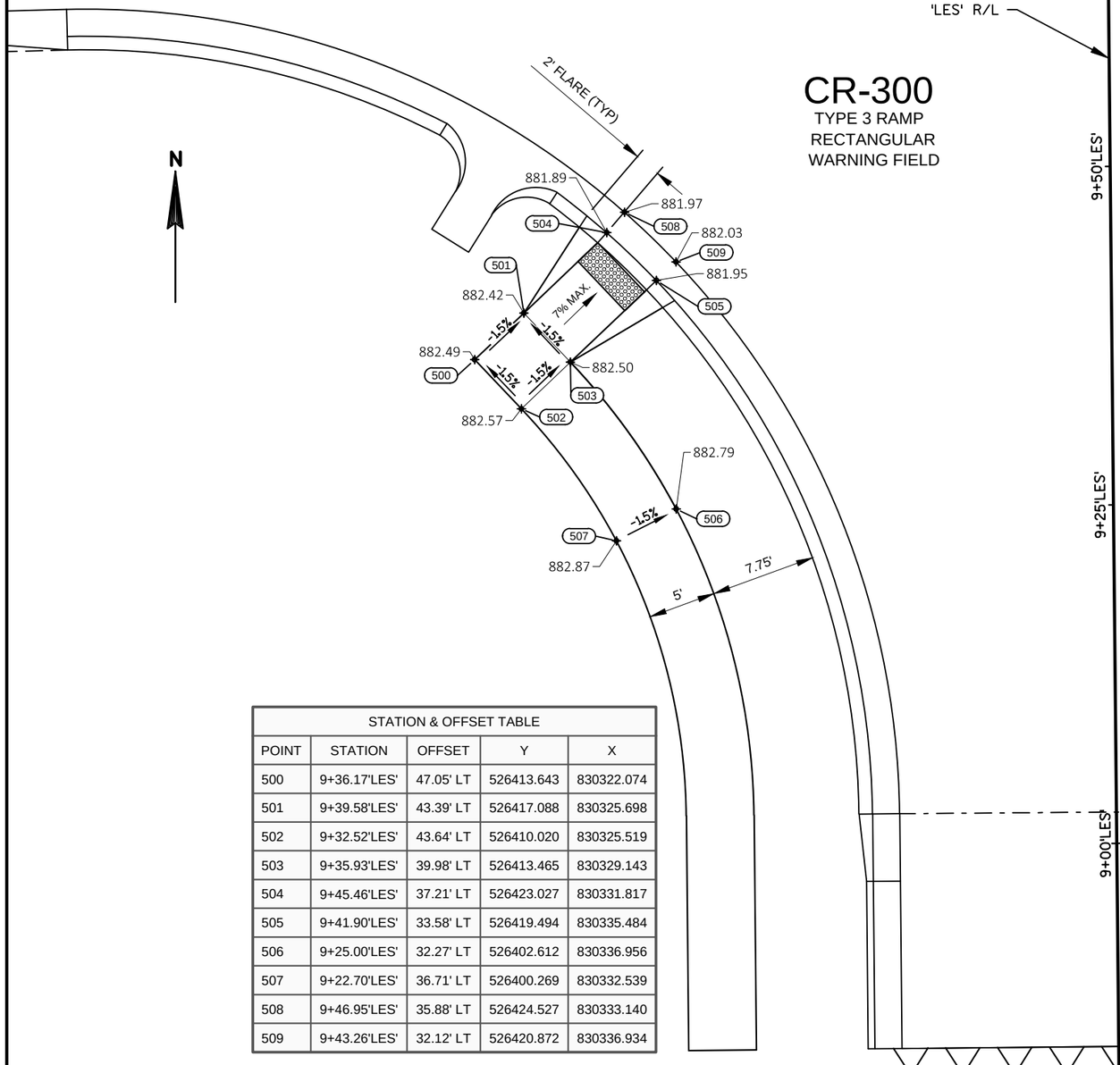
WISDOT/CADDS SHEET 42

2

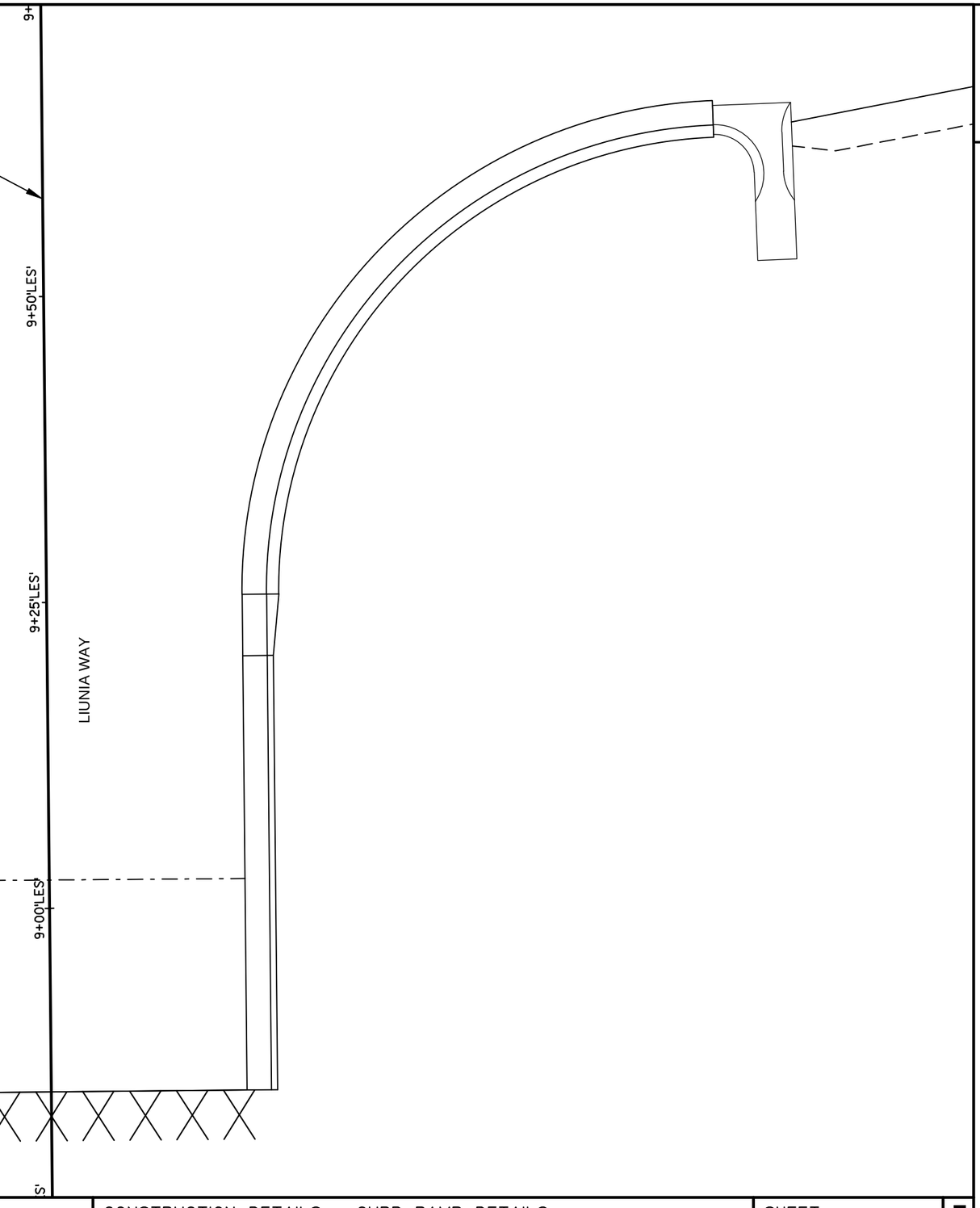
STH 19

CR-300

TYPE 3 RAMP
RECTANGULAR
WARNING FIELD



STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y	X
500	9+36.17'LES'	47.05' LT	526413.643	830322.074
501	9+39.58'LES'	43.39' LT	526417.088	830325.698
502	9+32.52'LES'	43.64' LT	526410.020	830325.519
503	9+35.93'LES'	39.98' LT	526413.465	830329.143
504	9+45.46'LES'	37.21' LT	526423.027	830331.817
505	9+41.90'LES'	33.58' LT	526419.494	830335.484
506	9+25.00'LES'	32.27' LT	526402.612	830336.956
507	9+22.70'LES'	36.71' LT	526400.269	830332.539
508	9+46.95'LES'	35.88' LT	526424.527	830333.140
509	9+43.26'LES'	32.12' LT	526420.872	830336.934



2

PROJECT NO:5290-00-72	HWY:STH 19	COUNTY:DANE	CONSTRUCTION DETAILS - CURB RAMP DETAILS	SHEET 29	E

2

16
EL. 910.24
CP-FENO
STA. 133+59.44'EB'
OFFSET 46.52' LT
X=825,023.097
Y=526,936.513
GUY
134+00'EB'

STH 19
152+00'WB'
153+00'WB'
GEODETIC SURVEY MARKER
(SEE SPECIAL PROVISIONS)
STA. 152+07.84'EB'
OFFSET 6.48' LT
X=826,804.306
Y=526,557.273
9
HMOD
10
EL. 868.45
CP-FENO
STA. 152+68.34'WB'
OFFSET 26.01' RT
X=826,856.088
Y=526,563.913
152+00'EB'
153+00'EB'

STA. 154+68.71'WB'
OFFSET 11.56' RT
X=827,055.951
Y=526,538.005
154+00'WB'
155+00'WB'
BENCHMARK-
DISK ON
EXISTING
STRUCTURE
2224
EL. 873.45
154+00'EB'
155+00'EB'
RIVER
YAHARA

164+00'WB'
165+00'WB'
CP-FENO
STA. 164+52.50'WB'
OFFSET 28.05' RT
X=828,039.010
Y=526,473.553
17
EL. 870.71
164+00'EB'
165+00'EB'

12
EL. 875.32
172+00'WB'
CP-T109
STA. 171+84.46'WB'
OFFSET 2.99' RT
X=828,770.683
Y=526,505.816
172+00'EB'

14
EL. 873.81
CP-FENO
STA. 176+86.47'WB'
OFFSET 72.80' LT
X=829,271.923
Y=526,586.540
177+00'WB'

192+00'WB'
193+00'WB'
ELEC
MH
192+00'EB'
193+00'EB'
CP-FENO
STA. 192+44.60'EB'
OFFSET 54.23' RT
X=830,831.971
Y=526,440.197
SIGN
13
EL. 875.39

51
4
NGS MON-BURKE N
EL. 884.20
X=837,286.308
Y=523,711,440
INL
WILLIAMSBURG WAY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CONSTRUCTION DETAILS - CONTROL POINTS	SHEET 30	E

2

2

N

STH 19

135'WB'
910.09
909.49
908.87
-0.4%
-1.8%
135'EB'
910.11
909.61
909.60
909.37
909.88
908.83

136'WB'
908.32
908.01
907.77
907.21
907.45
907.37
907.96
136'EB'
909.09
909.07
908.56
908.52
908.28
907.72
907.13
-2.0%
-4.0%

137'WB'
906.63
906.04
905.43
905.67
906.87
906.78
906.28
906.16
905.53
137'EB'
905.91
905.27
906.53
904.80
905.04
904.88
904.16
904.40
904.22
904.62
903.94

138'WB'
903.50
903.74
903.07
903.53
902.84
138'EB'
903.24
902.53
902.83
902.38
902.12
902.14
901.80
901.43
901.67
901.39
901.05

139'WB'
900.70
900.95
900.65
900.22
900.28
139'EB'
899.95
899.90
899.52
899.20
899.49
899.07
899.16
898.75

140'WB'
898.45
897.70
898.02
898.75
898.46
897.99
897.67
897.28
140'EB'
896.94
896.18
895.42
894.66
896.55
895.81
895.08
896.92
896.17
895.43
894.68
897.23
896.46
895.71
894.95
894.20
896.96
896.91
896.14
895.39
894.63
893.88

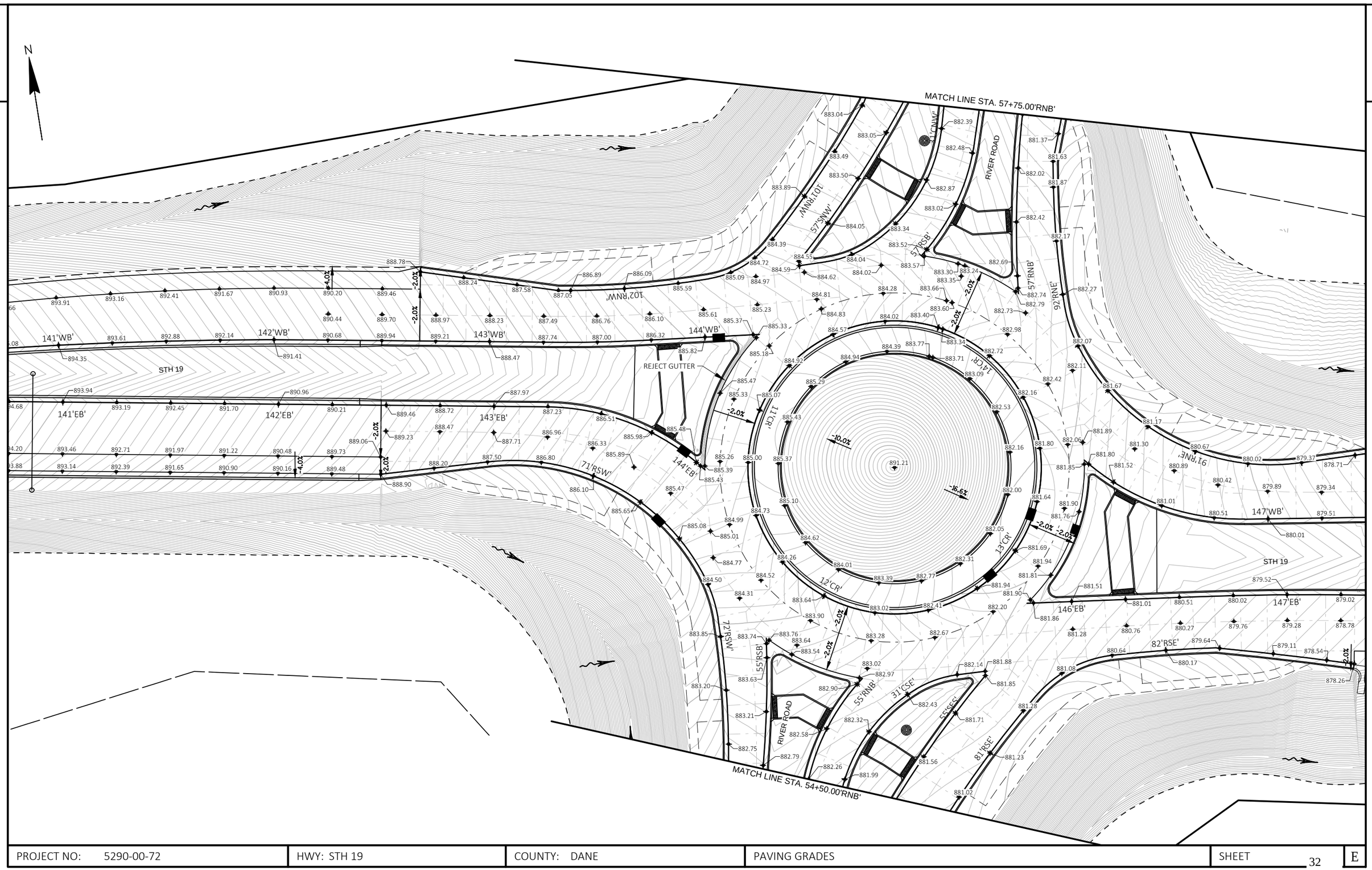
STH 19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 31	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET101

PLOT DATE : 5/20/2019 8:32 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



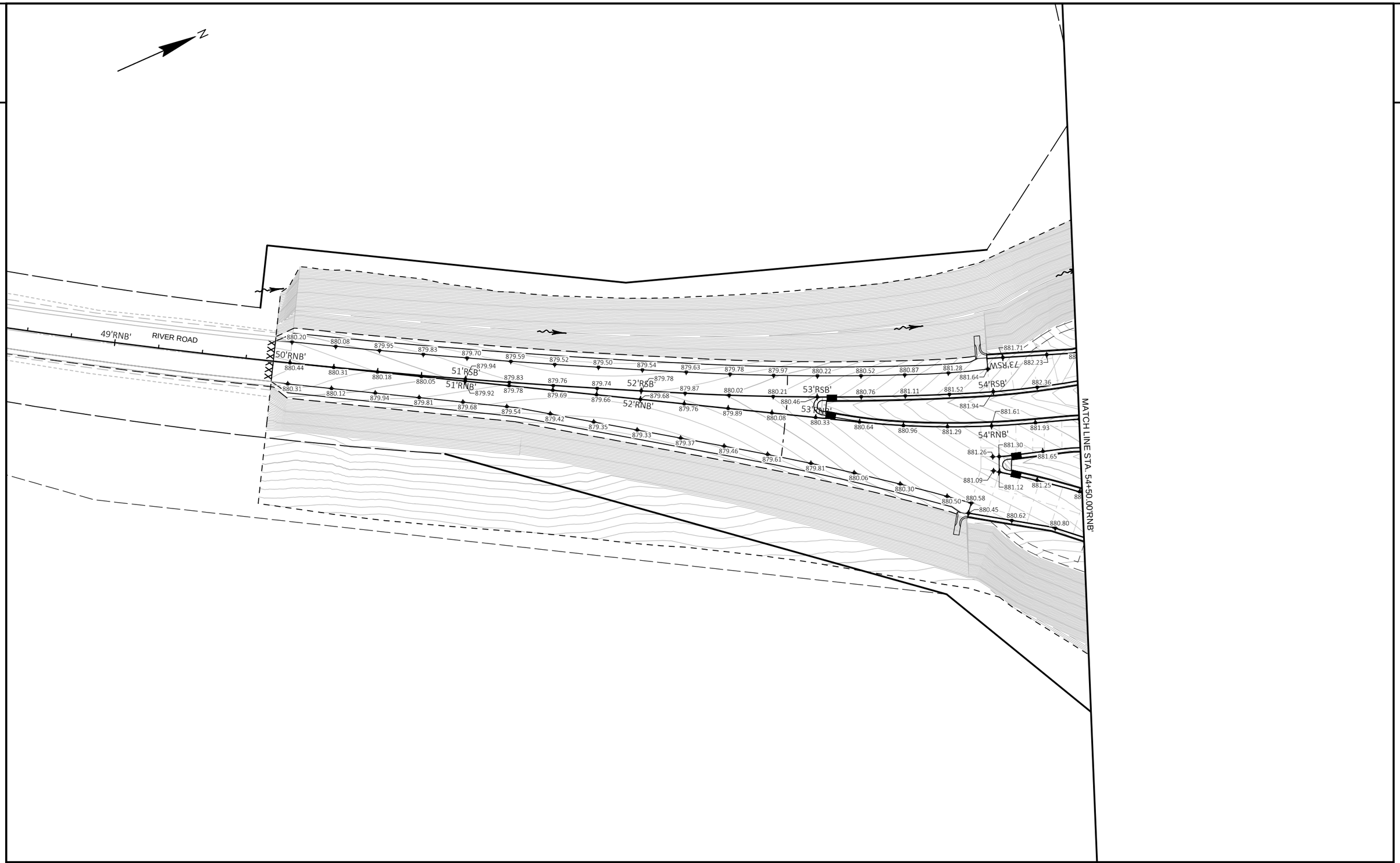
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 32	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET102

PLOT DATE : 5/20/2019 8:32 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

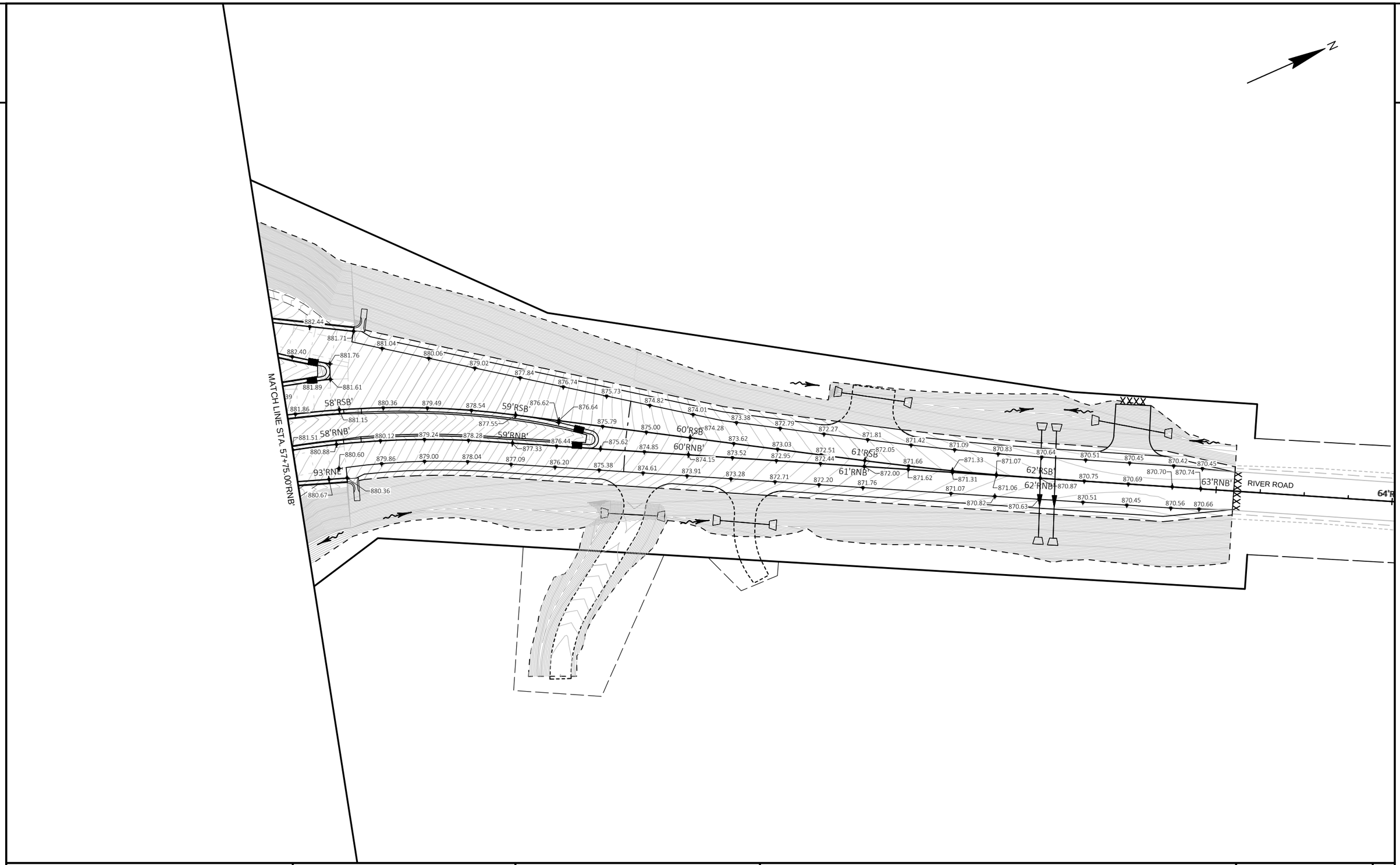


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES - RIVER ROAD	SHEET 33	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET103

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

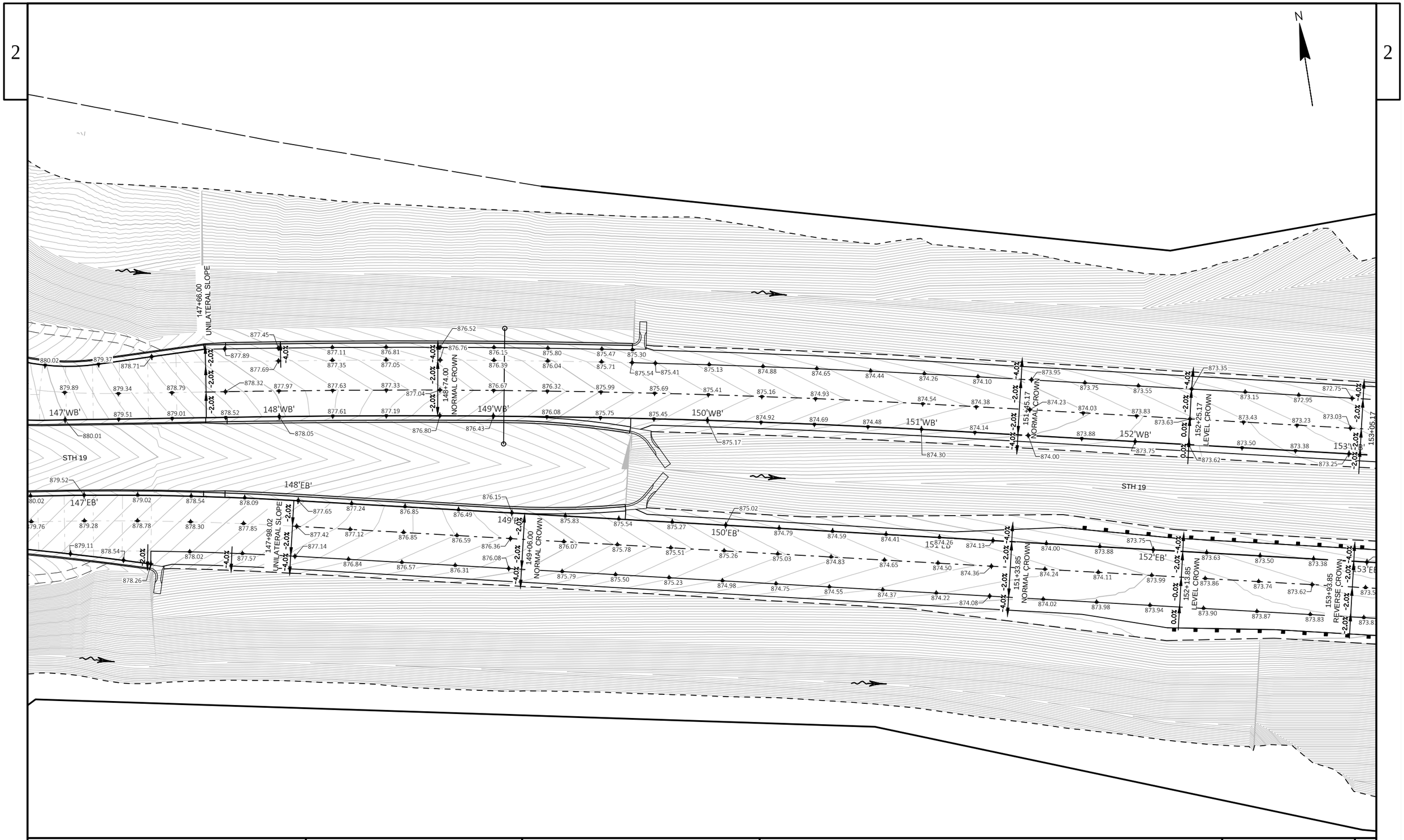
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES - RIVER ROAD	SHEET 34	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET104

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 35	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET105

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WB ALIGNMENT SUPERELEVATION TABLE

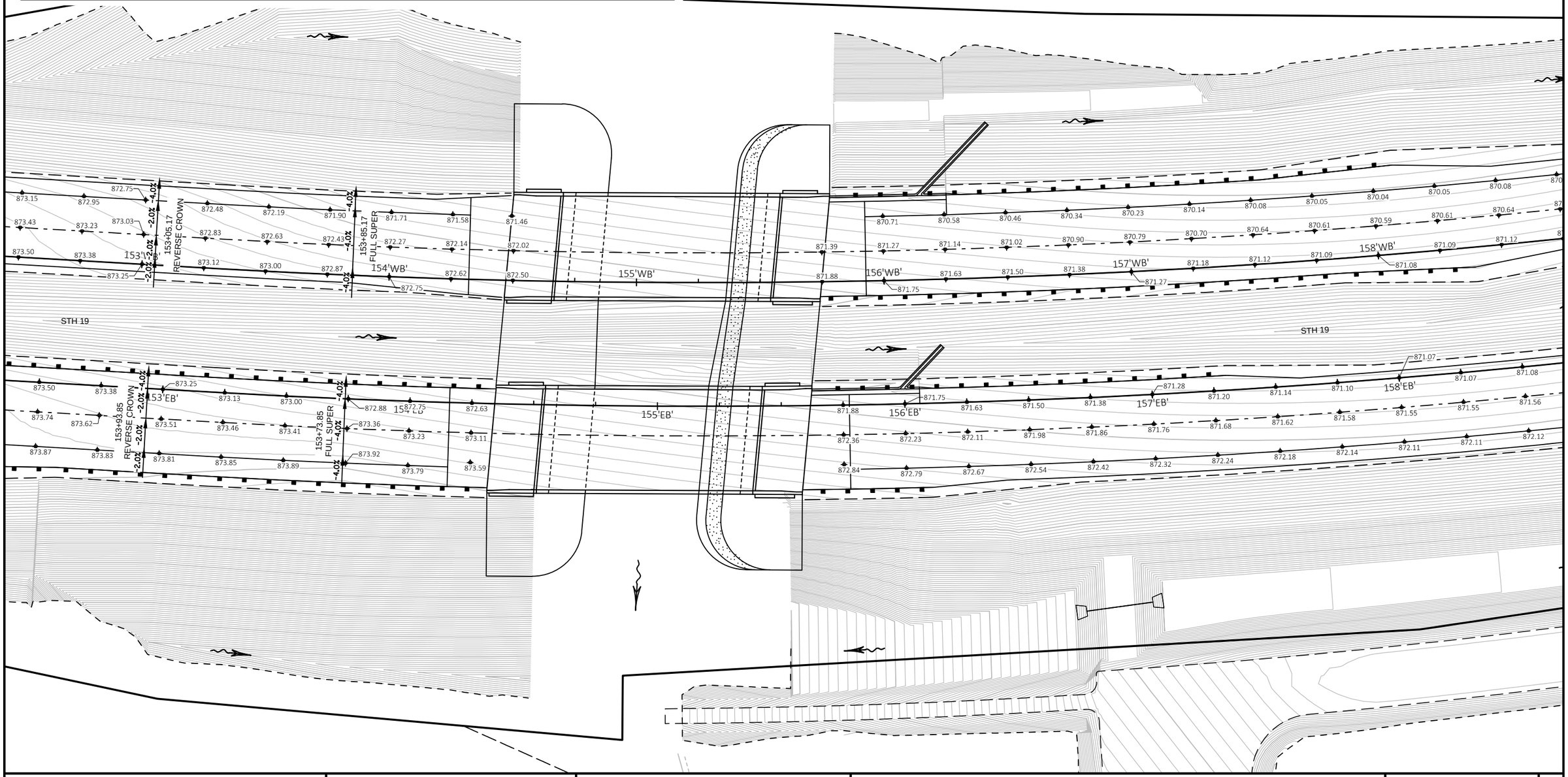
SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
EndNormalShoulder	151+45.17'	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	151+45.17'	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	152+25.17'	-4.00%	-2.00%	.00%	.00%
ReverseCrown	153+05.17'	-4.00%	-2.00%	2.00%	2.00%
BeginFullSuper	153+85.17'	-4.00%	-4.00%	4.00%	4.00%
EndFullSuper	160+41.15'	-4.00%	-4.00%	4.00%	4.00%
ReverseCrown	161+21.15'	-4.00%	-2.00%	2.00%	-0.50%
LevelCrown	162+01.15'	-4.00%	-2.00%	.00%	-2.96%
BeginNormalShoulder RT	162+25.00'	-4.00%	-2.00%	-0.60%	-4.00%
BeginNormalCrown	162+81.15'	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder LT	162+81.15'	-4.00%	-2.00%	-2.00%	-4.00%

EB ALIGNMENT SUPERELEVATION TABLE

SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
EndNormalShoulder	151+33.85'	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	151+33.85'	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	152+13.85'	-4.00%	-2.00%	.00%	.00%
ReverseCrown	152+93.85'	-4.00%	-2.00%	2.00%	2.00%
BeginFullSuper	153+73.85'	-4.00%	-4.00%	4.00%	4.00%
EndFullSuper	160+41.04'	-4.00%	-4.00%	4.00%	4.00%
ReverseCrown	161+21.04'	-4.00%	-2.00%	2.00%	2.00%
LevelCrown	162+01.04'	-4.00%	-2.00%	.00%	.00%
BeginNormalCrown	162+81.04'	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	162+81.04'	-4.00%	-2.00%	-2.00%	-4.00%

N

2



N

2

2

MH

MH

XXX

STH 19

STH 19

158'WB' 159'WB' 160'WB' 161'WB' 162'WB' 163'WB' 164'WB'

158'EB' 159'EB' 160'EB' 161'EB' 162'EB' 163'EB' 164'EB'

160+41.15 FULL SUPER

161+21.15 REVERSE CROWN

162+01.15 LEVEL CROWN

162+81.15 NORMAL CROWN

160+41.04 FULL SUPER

161+21.04 REVERSE CROWN

162+01.04 LEVEL CROWN

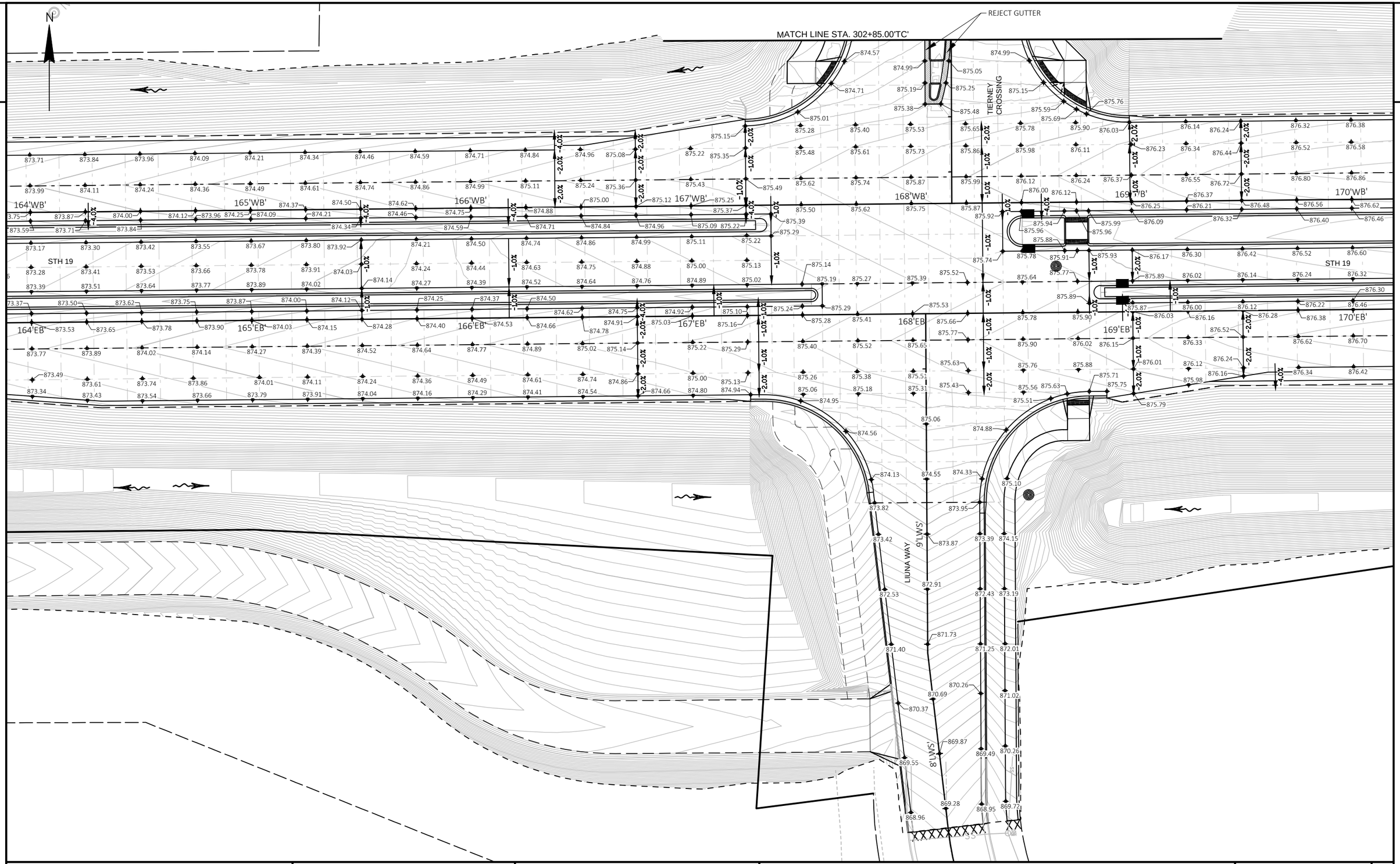
162+81.04 NORMAL CROWN

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 37	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET107

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 38	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET108

PLOT DATE : 6/20/2019 7:38 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCH LINE STA. 302+85.00'TC'

874.77 874.41 874.32 874.40 874.63 874.82

874.07 873.70 873.63 873.54 873.62 873.88 874.22

REJECT GUTTER

874.55 874.27 874.18 874.26 874.52 874.91

303'TC'' 304'TC'' TIERNEY CROSSING 305'TC'' 306'TC'' 307'TC''

874.59 874.29 874.17 874.22 874.46

873.78 873.73 873.65 873.75 874.03

874.22 874.43 874.54 874.81

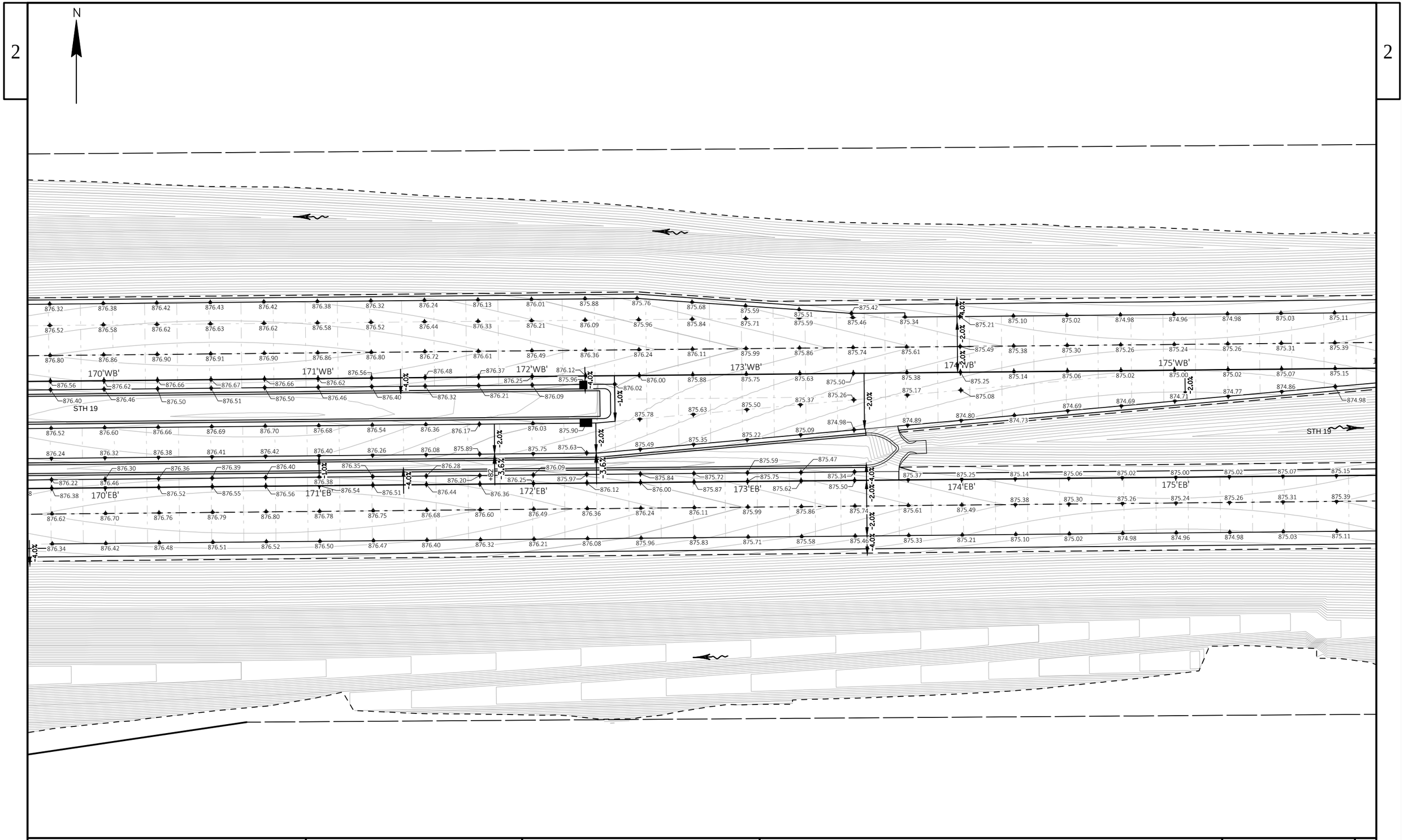
874.89 874.51

SS MH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES - TIERNEY CROSSING	SHEET 39	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET109

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : ##########



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 40	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET110

PLOT DATE : 6/20/2019 7:38 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

N

12'CW

CASHEL WAY

11'CW

878.41 878.31 878.55 878.25 878.35 878.70 878.55 878.51 879.10 879.13 878.84

877.97 878.20 878.38 878.56 878.66 878.86 879.11 879.37 879.62 879.88 880.15 880.39 880.64 880.90 881.15 881.40 881.62 881.83 882.02 882.18 882.33 882.45 882.56 882.65 882.71 882.79

878.29 878.55 878.80 879.06 879.31 879.57 879.82 880.08 880.33 880.59 880.84 881.10 881.35 881.60 881.82 882.03 882.22 882.38 882.53 882.65 882.76 882.85 882.91 882.96

878.31 878.57 878.83 879.08 879.34 879.59 879.85 880.10 880.36 880.61 880.87 881.12 881.38 881.63 881.88 882.10 882.31 882.50 882.66 882.81 882.93 883.04 883.13 883.19 883.24

179'WB' 180'WB' 181'WB' 182'WB' 183'WB' 184'WB' 185'WB'

878.07 878.33 878.59 878.84 879.10 879.35 879.61 879.86 880.12 880.37 880.63 880.88 881.14 881.39 881.64 881.86 882.07 882.26 882.42 882.57 882.69 882.80 882.89 882.95 883.00

STH 19

STH 19

882.07 882.70

878.07 878.33 878.59 878.84 879.10 879.35 879.61 879.86 880.12 880.37 880.63 880.88 881.14 881.39 881.64 881.86 882.07 882.26 882.42 882.57 882.70 882.80 882.89 882.96 883.01

179'EB' 180'EB' 181'EB' 182'EB' 183'EB' 184'EB' 185'EB'

878.31 878.57 878.83 879.08 879.34 879.59 879.85 880.10 880.36 880.61 880.87 881.12 881.38 881.63 881.88 882.10 882.31 882.50 882.66 882.80 882.94 883.04 883.13 883.20 883.25

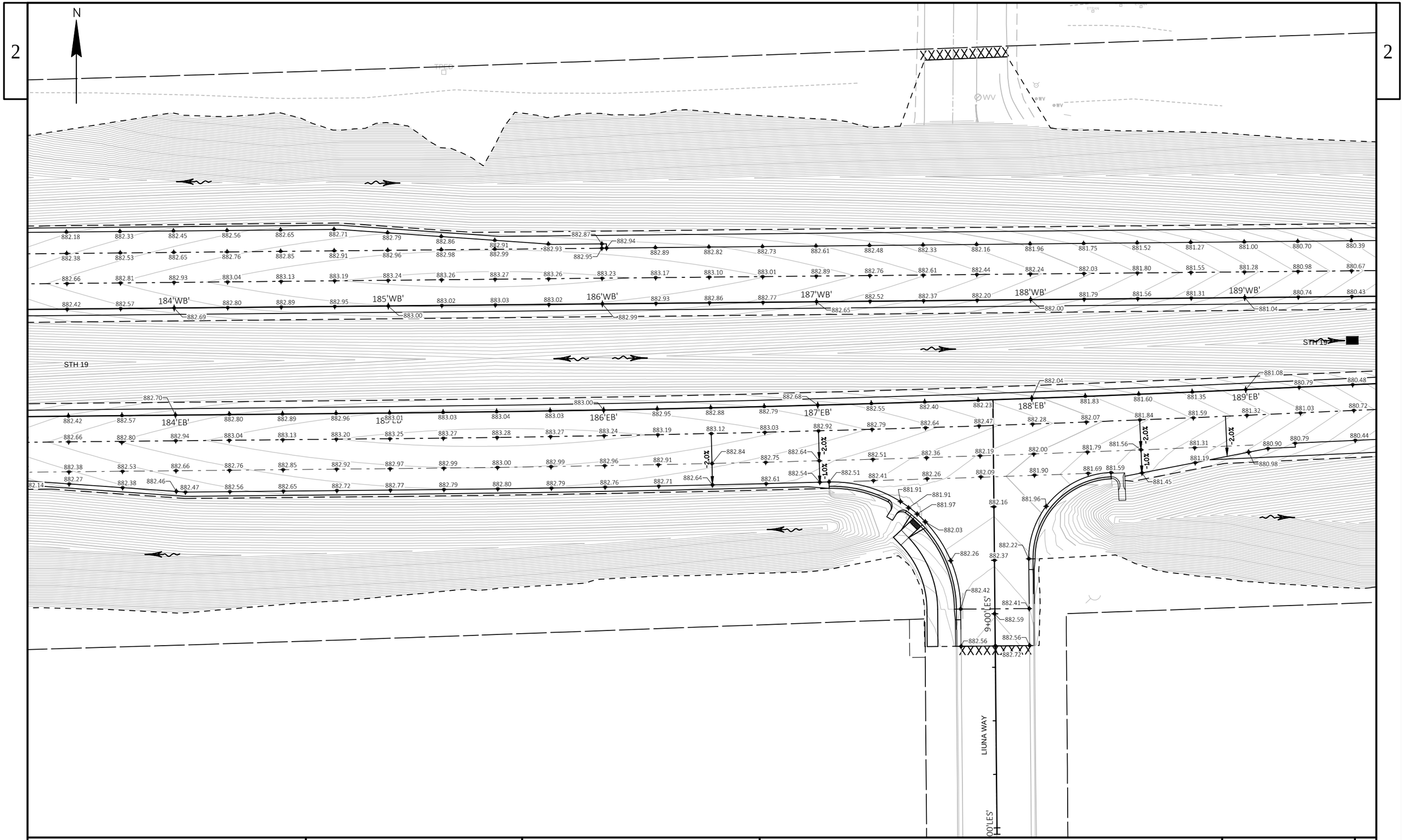
878.03 878.29 878.55 878.80 879.06 879.31 879.57 879.82 880.08 880.33 880.59 880.84 881.10 881.35 881.60 881.86 882.03 882.22 882.38 882.53 882.66 882.76 882.85 882.92 882.97

881.98 882.14 882.27 882.38 882.46 882.47 882.56 882.65 882.72 882.77

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 41	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET111

PLOT DATE : 5/20/2019 8:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 42	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET112

PLOT DATE : 5/20/2019 8:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

SAN MH

ELEC MH

ELEC MH

ELEC MH

ELEC MH

ELEC MH

STH 19

STH 19

-4.0%

-2.0%

-1.8%

-1.8%

-2.0%

-2.0%

-1.2%

-0.4%

1.00 880.70 880.39 880.06 879.71 879.34 878.95 878.53 878.10 877.65 877.18 876.69 876.18 875.65 875.11 874.50 873.89 873.27 872.66 872.04 871.44

1.28 880.98 880.67 880.34 879.99 879.62 879.23 878.81 878.38 877.93 877.46 876.97 876.46 875.93 875.39 874.78 874.17 873.55 872.94 872.32 871.71

WB' 880.74 880.43 880.10 190'WB' 879.38 878.99 878.57 191'WB' 877.69 877.22 876.73 192'WB' 875.69 875.15 874.61 193'WB' 873.53 872.99 872.45 194'WB' 871.91 871.38 870.93 195'WB'

881.04 879.86 879.75 879.67 879.30 878.91 878.49 878.14 878.06 877.61 877.14 876.65 876.22 876.14 875.61 875.07 874.53 874.07 873.99 873.45 872.91 872.37 871.83

881.08 879.91 879.73 879.36 878.97 878.57 878.14 877.69 877.23 876.74 876.23 875.71 875.17 874.64 874.10 873.57 873.03 872.49

880.79 880.48 880.16 879.81 190'EB' 879.44 879.05 878.65 878.22 191'EB' 877.77 877.31 876.82 876.31 192'EB' 875.79 875.25 874.72 874.18 193'EB' 873.65 873.11 872.57 194'EB' 195'EB'

'EB' 881.32 881.03 880.72 880.40 880.05 879.68 879.29 878.89 878.46 878.01 877.55 877.06 876.55 876.03 875.49 874.96 874.42 873.89 873.31 872.70

880.90 880.79 880.44 880.12 879.77 879.60 879.34 879.22 878.95 878.50 878.37 878.03 877.54 877.04 876.52 875.97 875.45 874.91 874.38 873.84 873.46 873.06 872.63 872.20

880.98

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING GRADES	SHEET 43	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0211_PG.DWG
LAYOUT NAME - ID-SHEET113

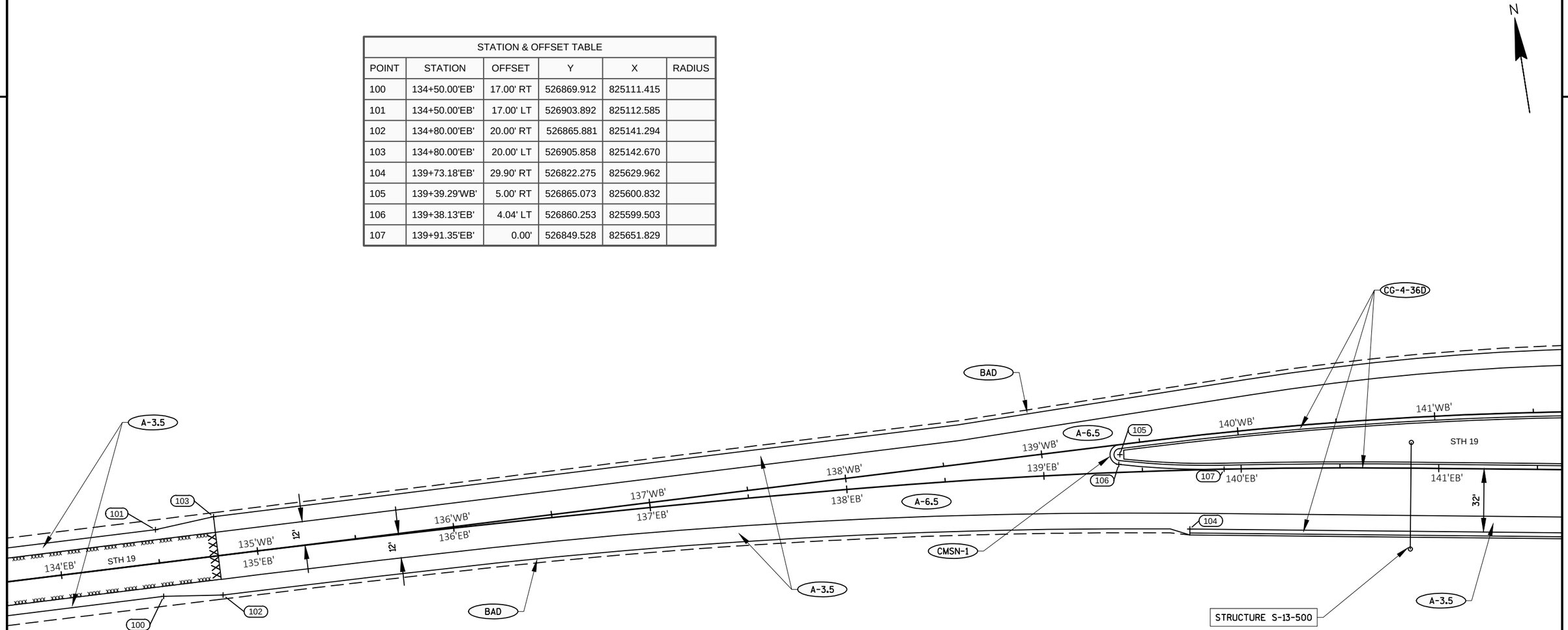
PLOT DATE : 5/20/2019 8:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

AF	ASPHALTIC FLUME
AS-2.5	2.5" ASPHALTIC SURFACE
A-3.5	3.5" HMA PAVEMENT
A-4.5	4.5" HMA PAVEMENT
A-4.75	4.75 HMA PAVEMENT
A-5	5" HMA PAVEMENT
A-6.5	6.5" HMA PAVEMENT
BAD	BASE AGGREGATE DENSE ¾-INCH (SHOULDER)
C-8.5	CONCRETE PAVEMENT 8.5-INCH
CCP	CONCRETE CURB PEDESTRIAN
CG	CONCRETE CURB TYPE G
CG-18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
CG-30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
CG-4-36A	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG-4-36D	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CG-36R	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
CG-TBTT	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBTT
CMBN	CONCRETE MEDIAN BLUNT NOSE
CMSN-1	CONCRETE MEDIAN SLOPED NOSE, TYPE 1
CMSN-2	CONCRETE MEDIAN SLOPED NOSE, TYPE 2
CPAS	CONCRETE PAVEMENT APPROACH SLAB
CSD	CONCRETE SURFACE DRAIN
CS-4	CONCRETE SIDEWALK 4-INCH
DOWEL	DRILLED DOWEL BARS (ANCHORED INTO EXISTING CONCRETE PAVEMENT, 15" CENTER TO CENTER, PER SDD 13C9-b)
DRW	CONCRETE DRIVEWAY 6-INCH
E-ASPH	2.5" ASPHALTIC SURFACE DRIVEWAYS & FE'S (CONSTRUCT ENTRANCE PER SDD 8D21)
EAT	MGS GUARDRAIL TERMINAL EAT
E-GRV	6" BASE AGGREGATE DENSE, 3/4-INCH AGGREGATE IN TOP 3" MIN. (CONSTRUCT ENTRANCE PER SDD 8D21)
ICD	ISLAND CORNER DETAIL (SDD 9A1b)
MGS3	MGS GUARDRAIL 3
SAS	STRUCTURAL APPROACH SLAB
TBTT	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBTT
THRIE	MGS THRIE BEAM TRANSITION
TIE	DRILLED TIE BARS (ANCHORED INTO CONCRETE PAVEMENT, 2'-6" CENTER TO CENTER, PER SDD 8D1-b)
TRUK	CONCRETE TRUCK APRON 12-INCH
TYPE2	MGS GUARDRAIL TERMINAL TYPE 2
WTRN	W-BEAM TRANSITION AND CONNECTION TO SQUARE END PARAPET, PER SDD 14B45-d
XXXXX	SAWCUT
	CURB RAMP DETECTABLE WARNING FIELD

2

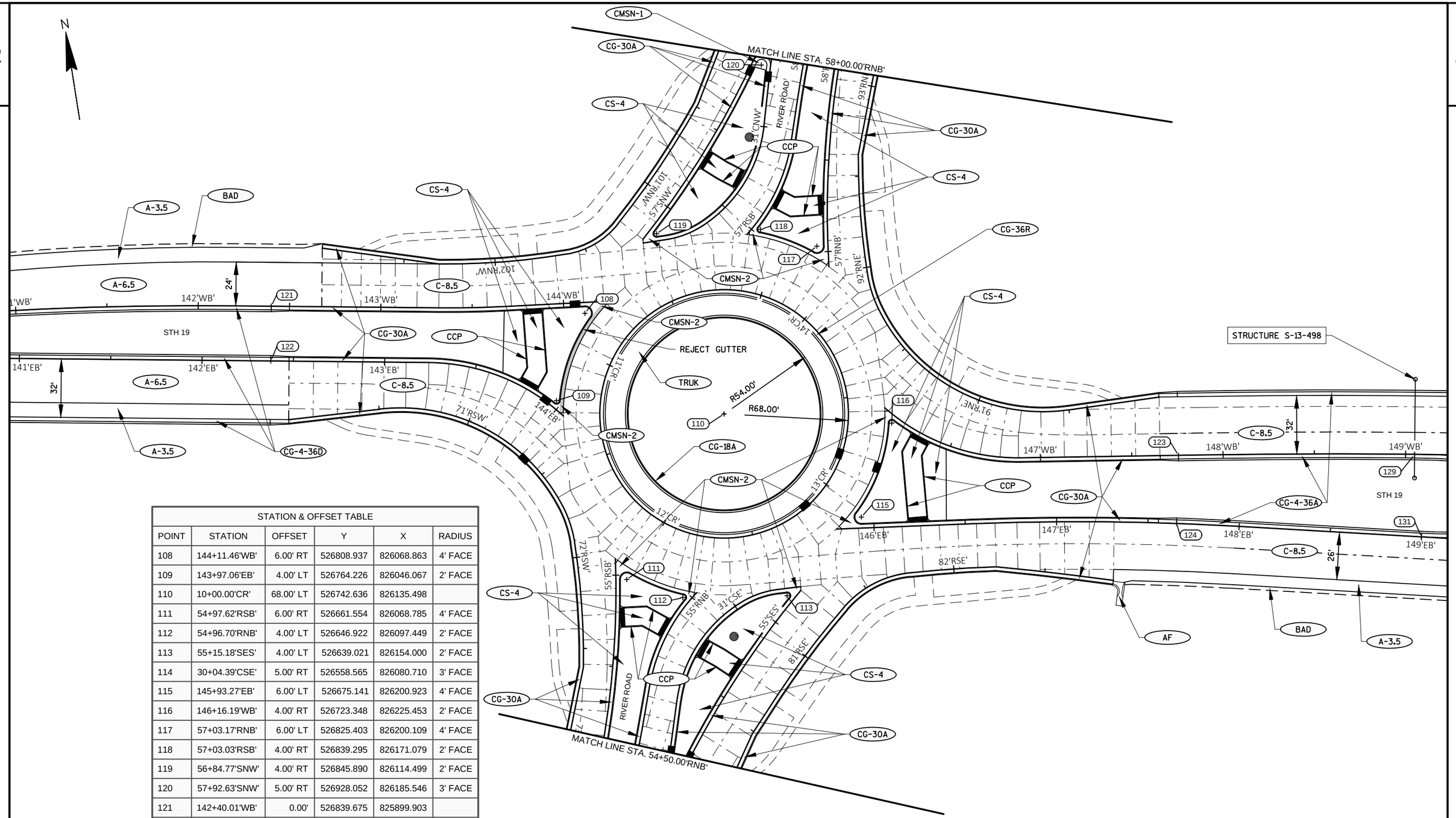
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
100	134+50.00'EB'	17.00' RT	526869.912	825111.415	
101	134+50.00'EB'	17.00' LT	526903.892	825112.585	
102	134+80.00'EB'	20.00' RT	526865.881	825141.294	
103	134+80.00'EB'	20.00' LT	526905.858	825142.670	
104	139+73.18'EB'	29.90' RT	526822.275	825629.962	
105	139+39.29'WB'	5.00' RT	526865.073	825600.832	
106	139+38.13'EB'	4.04' LT	526860.253	825599.503	
107	139+91.35'EB'	0.00'	526849.528	825651.829	



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS	SHEET 45	E

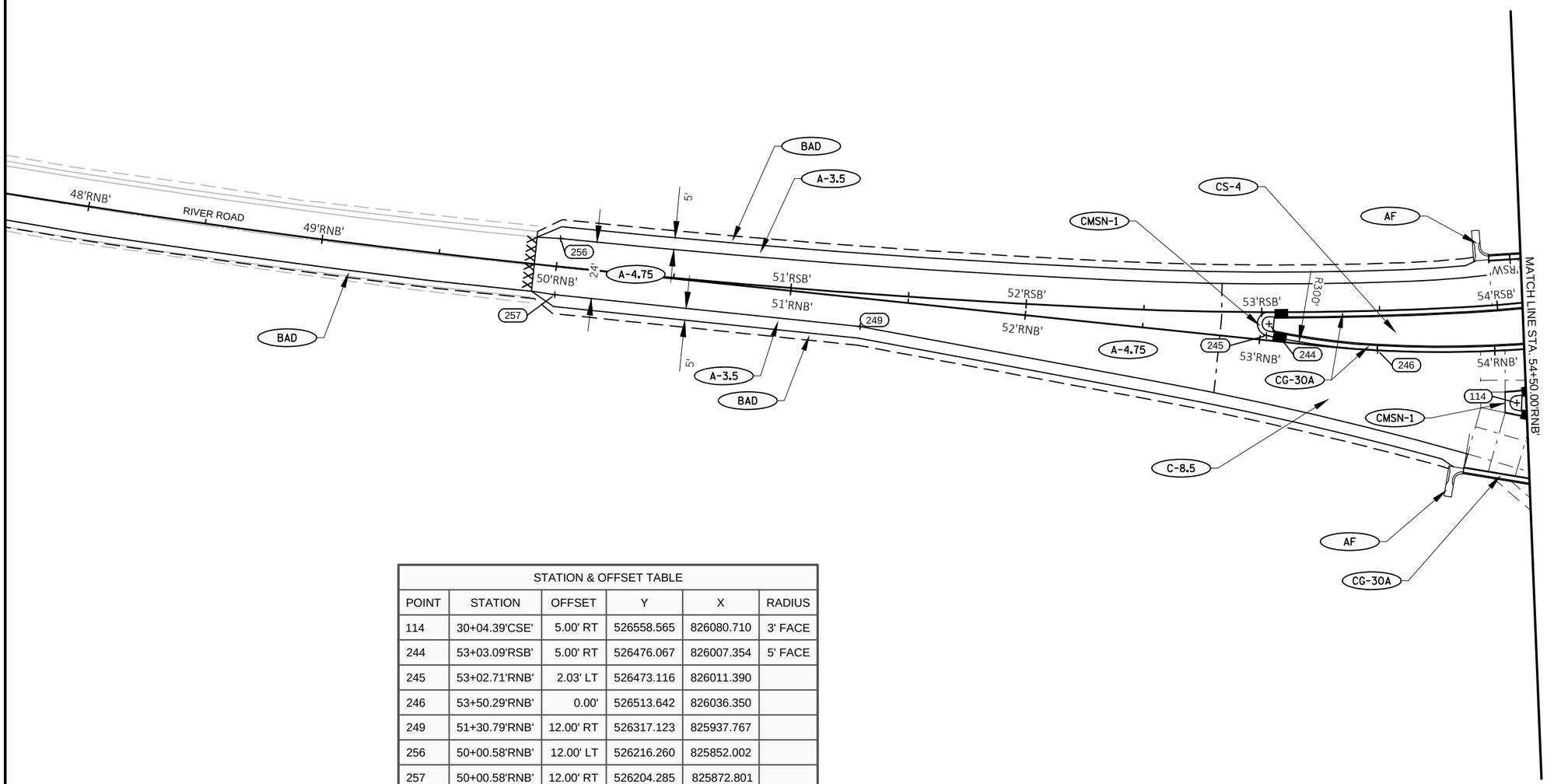
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0212_PD.DWG
LAYOUT NAME - PD-SHEET101

PLOT DATE : 5/20/2019 12:57 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT



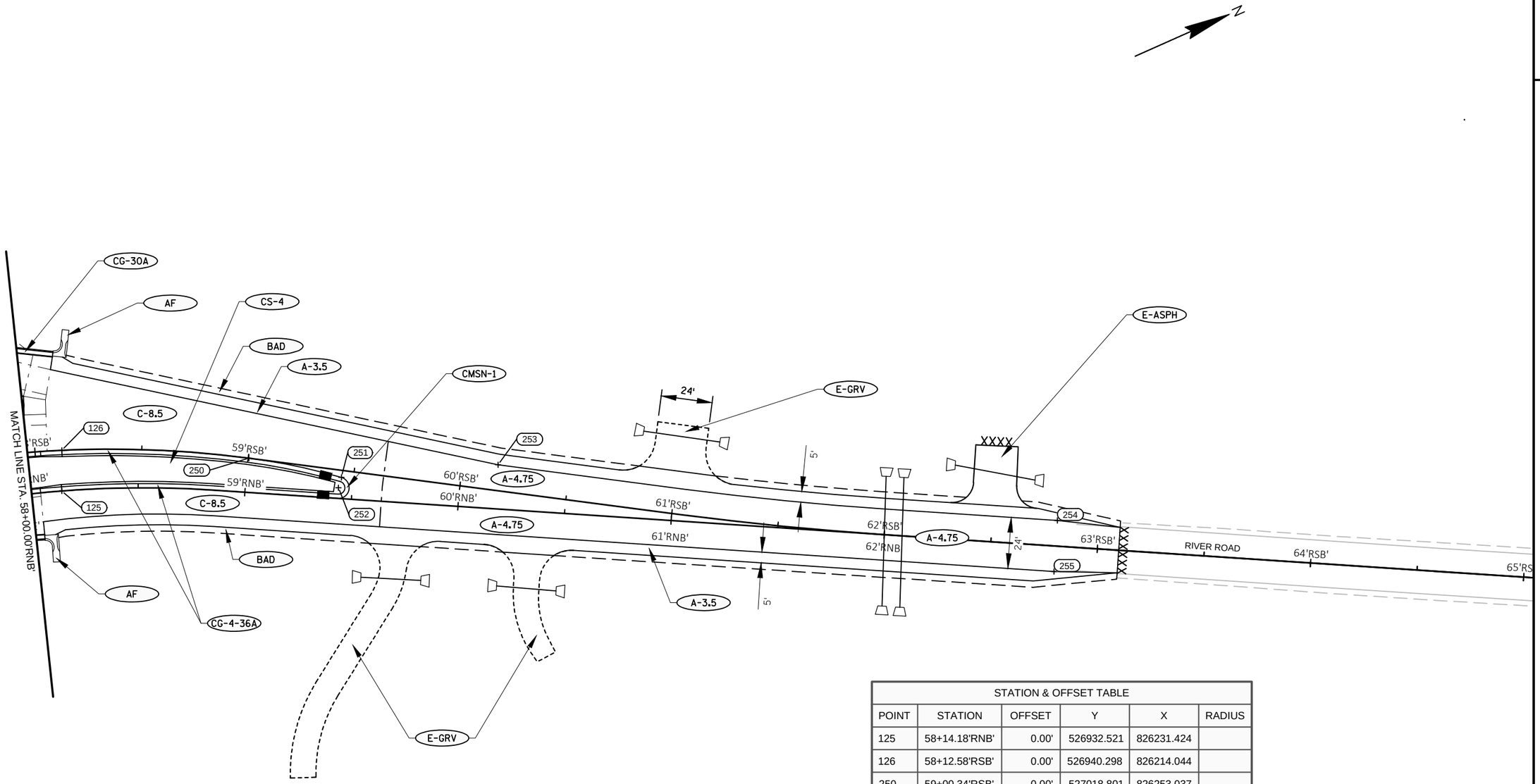
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
108	144+11.46'WB'	6.00' RT	526808.937	826068.863	4' FACE
109	143+97.06'EB'	4.00' LT	526764.226	826046.067	2' FACE
110	10+00.00'CR'	68.00' LT	526742.636	826135.498	
111	54+97.62'RSB'	6.00' RT	526661.554	826068.785	4' FACE
112	54+96.70'RNB'	4.00' LT	526646.922	826097.449	2' FACE
113	55+15.18'SES'	4.00' LT	526639.021	826154.000	2' FACE
114	30+04.39'CSE'	5.00' RT	526558.565	826080.710	3' FACE
115	145+93.27'EB'	6.00' LT	526675.141	826200.923	4' FACE
116	146+16.19'WB'	4.00' RT	526723.348	826225.453	2' FACE
117	57+03.17'RNB'	6.00' LT	526825.403	826200.109	4' FACE
118	57+03.03'RSB'	4.00' RT	526839.295	826171.079	2' FACE
119	56+84.77'SNW'	4.00' RT	526845.890	826114.499	2' FACE
120	57+92.63'SNW'	5.00' RT	526928.052	826185.546	3' FACE
121	142+40.01'WB'	0.00'	526839.675	825899.903	
122	142+37.63'EB'	0.00'	526810.092	825894.920	
123	147+75.61'WB'	0.00'	526681.373	826377.727	
124	147+65.77'EB'	0.00'	526644.691	826370.917	

2



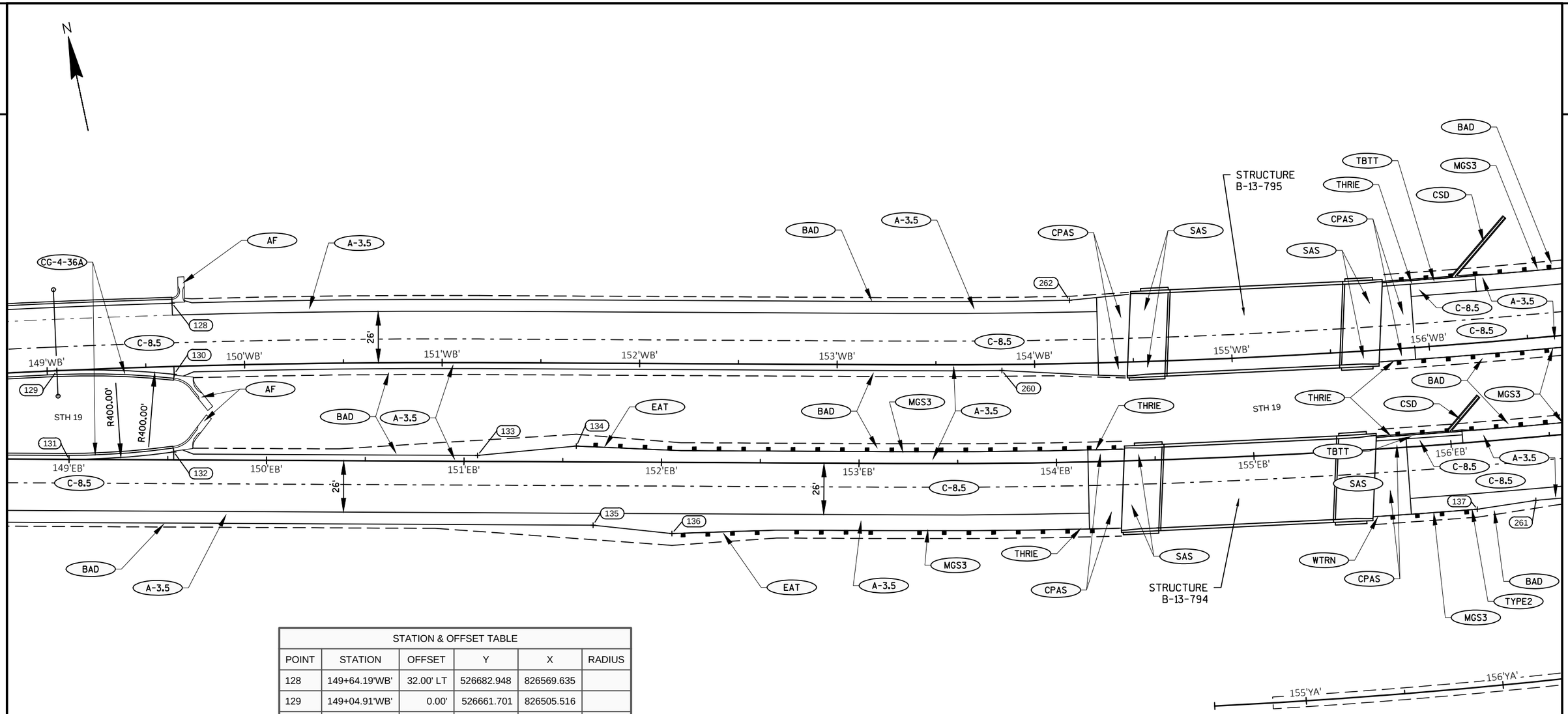
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
114	30+04.39'CSE'	5.00' RT	526558.565	826080.710	3' FACE
244	53+03.09'RSB'	5.00' RT	526476.067	826007.354	5' FACE
245	53+02.71'RNB'	2.03' LT	526473.116	826011.390	
246	53+50.29'RNB'	0.00'	526513.642	826036.350	
249	51+30.79'RNB'	12.00' RT	526317.123	825937.767	
256	50+00.58'RNB'	12.00' LT	526216.260	825852.002	
257	50+00.58'RNB'	12.00' RT	526204.285	825872.801	

2



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
125	58+14.18'RNB'	0.00'	526932.521	826231.424	
126	58+12.58'RSB'	0.00'	526940.298	826214.044	
250	59+00.34'RSB'	0.00'	527018.801	826253.037	
251	59+44.63'RNB'	9.89' LT	527054.701	826278.878	
252	59+43.57'RNB'	5.00' LT	527051.489	826282.710	5' FACE
253	60+16.44'RSB'	12.00' LT	527124.107	826303.357	
254	62+80.40'RNB'	12.00' LT	527352.695	826433.618	
255	62+80.40'RNB'	12.00' RT	527341.501	826454.848	

2

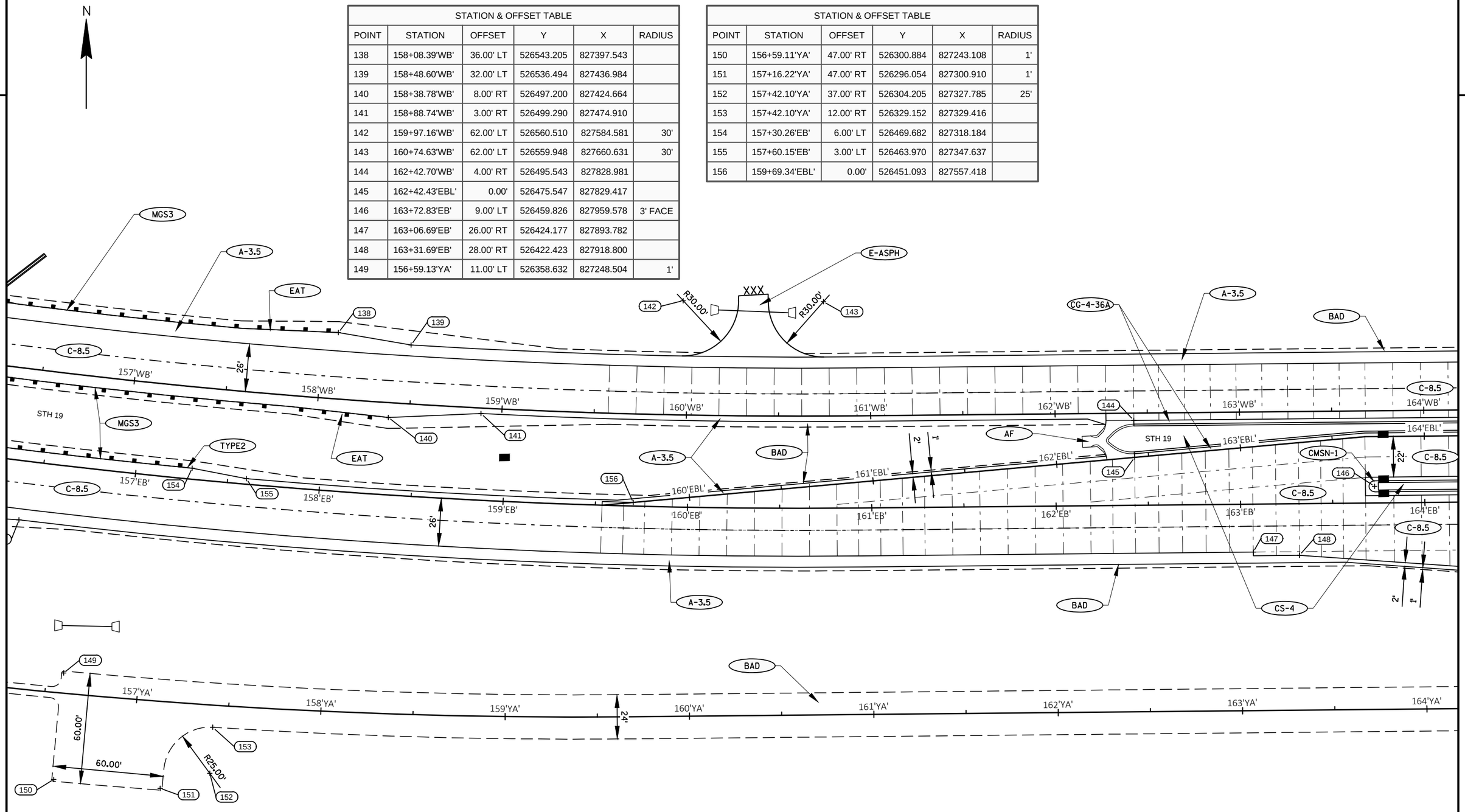


STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y	X	RADIUS
128	149+64.19'WB'	32.00' LT	526682.948	826569.635	
129	149+04.91'WB'	0.00'	526661.701	826505.516	
130	149+64.19'WB'	4.02' RT	526647.513	826563.182	
131	149+00.00'EB'	0.00'	526616.463	826502.141	
132	149+53.03'EB'	4.00' LT	526609.084	826554.812	
133	151+06.85'EB'	3.00' LT	526575.370	826704.891	
134	151+56.86'EB'	8.00' LT	526569.613	826754.815	
135	151+65.50'EB'	32.00' RT	526528.690	826754.745	
136	152+05.50'EB'	36.00' RT	526516.268	826792.976	
137	156+10.67'EB'	34.00' RT	526443.489	827194.370	
260	153+83.38'WB'	3.00' RT	526562.290	826973.513	
261	156+40.33'EB'	32.00' RT	526441.705	827224.327	
262	154+18.27'WB'	32.00' LT	526589.929	827014.350	

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
138	158+08.39'WB'	36.00' LT	526543.205	827397.543	
139	158+48.60'WB'	32.00' LT	526536.494	827436.984	
140	158+38.78'WB'	8.00' RT	526497.200	827424.664	
141	158+88.74'WB'	3.00' RT	526499.290	827474.910	
142	159+97.16'WB'	62.00' LT	526560.510	827584.581	30'
143	160+74.63'WB'	62.00' LT	526559.948	827660.631	30'
144	162+42.70'WB'	4.00' RT	526495.543	827828.981	
145	162+42.43'EBL'	0.00'	526475.547	827829.417	
146	163+72.83'EB'	9.00' LT	526459.826	827959.578	3' FACE
147	163+06.69'EB'	26.00' RT	526424.177	827893.782	
148	163+31.69'EB'	28.00' RT	526422.423	827918.800	
149	156+59.13'YA'	11.00' LT	526358.632	827248.504	1'

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
150	156+59.11'YA'	47.00' RT	526300.884	827243.108	1'
151	157+16.22'YA'	47.00' RT	526296.054	827300.910	1'
152	157+42.10'YA'	37.00' RT	526304.205	827327.785	25'
153	157+42.10'YA'	12.00' RT	526329.152	827329.416	
154	157+30.26'EB'	6.00' LT	526469.682	827318.184	
155	157+60.15'EB'	3.00' LT	526463.970	827347.637	
156	159+69.34'EBL'	0.00'	526451.093	827557.418	



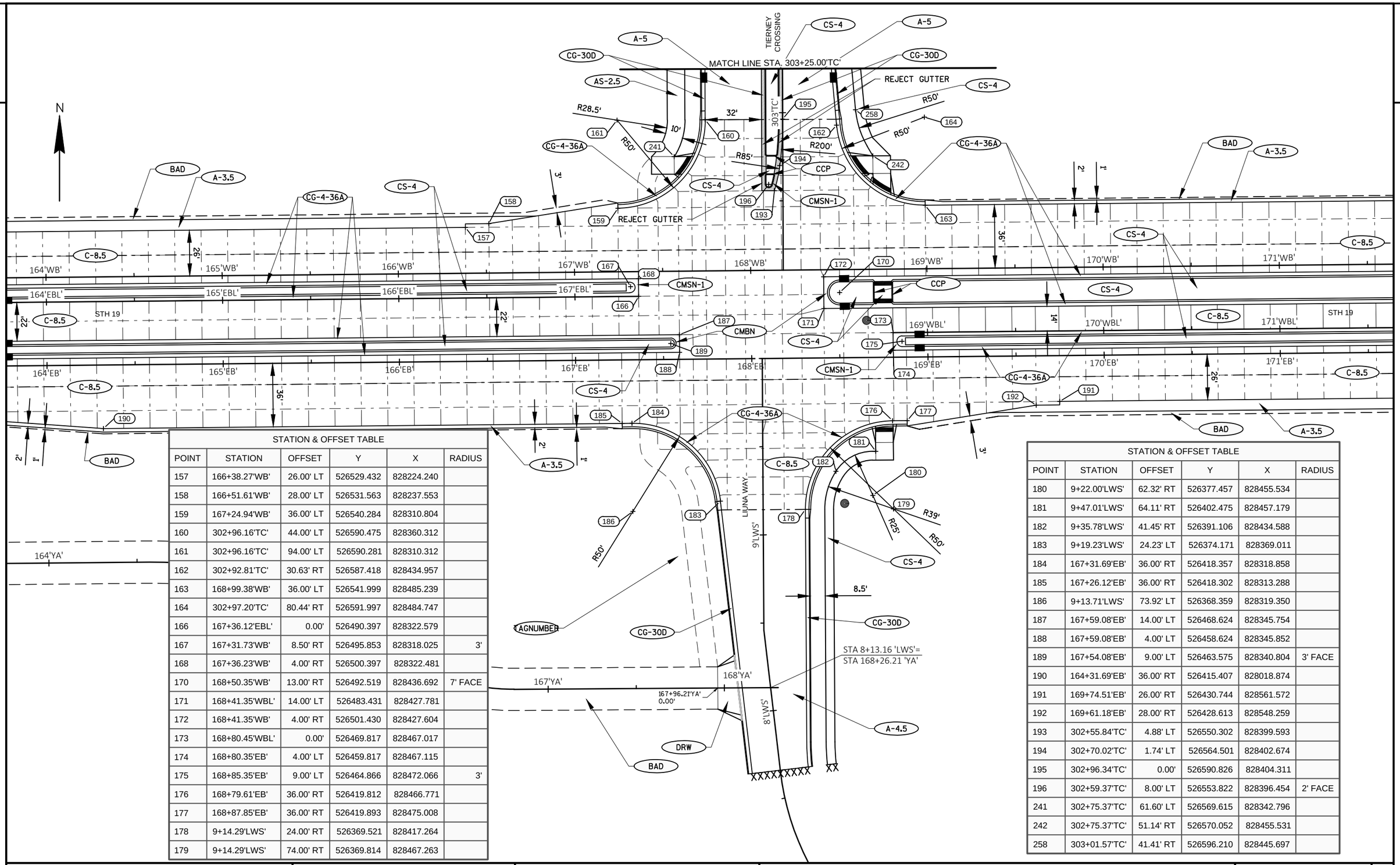
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS	SHEET 50	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0212_PD.DWG
LAYOUT NAME - PD-SHEET106

PLOT DATE : 5/20/2019 12:58 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
157	166+38.27'WB'	26.00' LT	526529.432	828224.240	
158	166+51.61'WB'	28.00' LT	526531.563	828237.553	
159	167+24.94'WB'	36.00' LT	526540.284	828310.804	
160	302+96.16'TC'	44.00' LT	526590.475	828360.312	
161	302+96.16'TC'	94.00' LT	526590.281	828310.312	
162	302+92.81'TC'	30.63' RT	526587.418	828434.957	
163	168+99.38'WB'	36.00' LT	526541.999	828485.239	
164	302+97.20'TC'	80.44' RT	526591.997	828484.747	
166	167+36.12'EBL'	0.00'	526490.397	828322.579	
167	167+31.73'WB'	8.50' RT	526495.853	828318.025	3'
168	167+36.23'WB'	4.00' RT	526500.397	828322.481	
170	168+50.35'WB'	13.00' RT	526492.519	828436.692	7' FACE
171	168+41.35'WBL'	14.00' LT	526483.431	828427.781	
172	168+41.35'WB'	4.00' RT	526501.430	828427.604	
173	168+80.45'WBL'	0.00'	526469.817	828467.017	
174	168+80.35'EB'	4.00' LT	526459.817	828467.115	
175	168+85.35'EB'	9.00' LT	526464.866	828472.066	3'
176	168+79.61'EB'	36.00' RT	526419.812	828466.771	
177	168+87.85'EB'	36.00' RT	526419.893	828475.008	
178	9+14.29'LWS'	24.00' RT	526369.521	828417.264	
179	9+14.29'LWS'	74.00' RT	526369.814	828467.263	

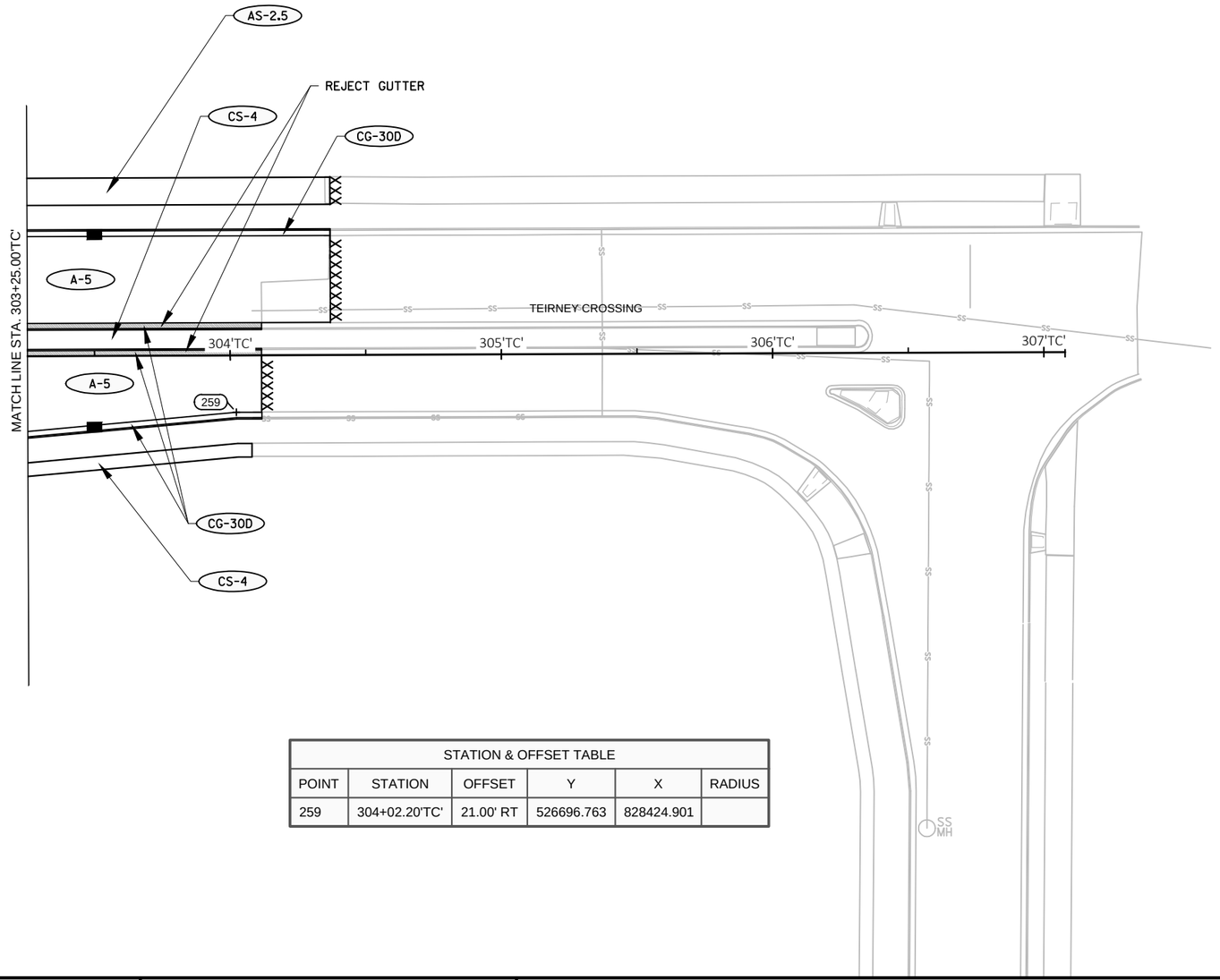
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
180	9+22.00'LWS'	62.32' RT	526377.457	828455.534	
181	9+47.01'LWS'	64.11' RT	526402.475	828457.179	
182	9+35.78'LWS'	41.45' RT	526391.106	828434.588	
183	9+19.23'LWS'	24.23' LT	526374.171	828369.011	
184	167+31.69'EB'	36.00' RT	526418.357	828318.858	
185	167+26.12'EB'	36.00' RT	526418.302	828313.288	
186	9+13.71'LWS'	73.92' LT	526368.359	828319.350	
187	167+59.08'EB'	14.00' LT	526468.624	828345.754	
188	167+59.08'EB'	4.00' LT	526458.624	828345.852	
189	167+54.08'EB'	9.00' LT	526463.575	828340.804	3' FACE
190	164+31.69'EB'	36.00' RT	526415.407	828018.874	
191	169+74.51'EB'	26.00' RT	526430.744	828561.572	
192	169+61.18'EB'	28.00' RT	526428.613	828548.259	
193	302+55.84'TC'	4.88' LT	526550.302	828399.593	
194	302+70.02'TC'	1.74' LT	526564.501	828402.674	
195	302+96.34'TC'	0.00'	526590.826	828404.311	
196	302+59.37'TC'	8.00' LT	526553.822	828396.454	2' FACE
241	302+75.37'TC'	61.60' LT	526569.615	828342.796	
242	302+75.37'TC'	51.14' RT	526570.052	828455.531	
258	303+01.57'TC'	41.41' RT	526596.210	828445.697	

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS	SHEET 51	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0212_PD.DWG
LAYOUT NAME - PD-SHEET107
PLOT DATE : 5/20/2019 12:58 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

N



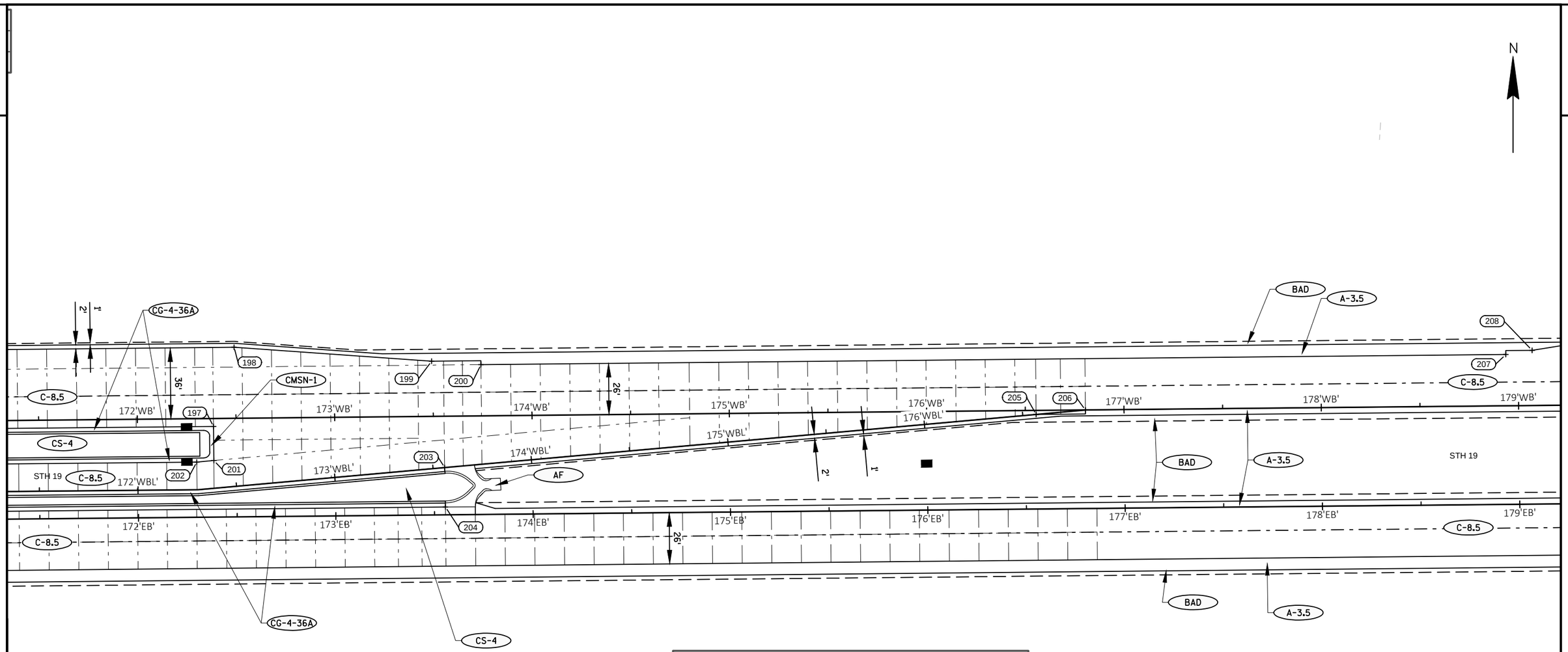
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
259	304+02.20'TC'	21.00' RT	526696.763	828424.901	

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS TIERNEY CROSSING	SHEET 52	E

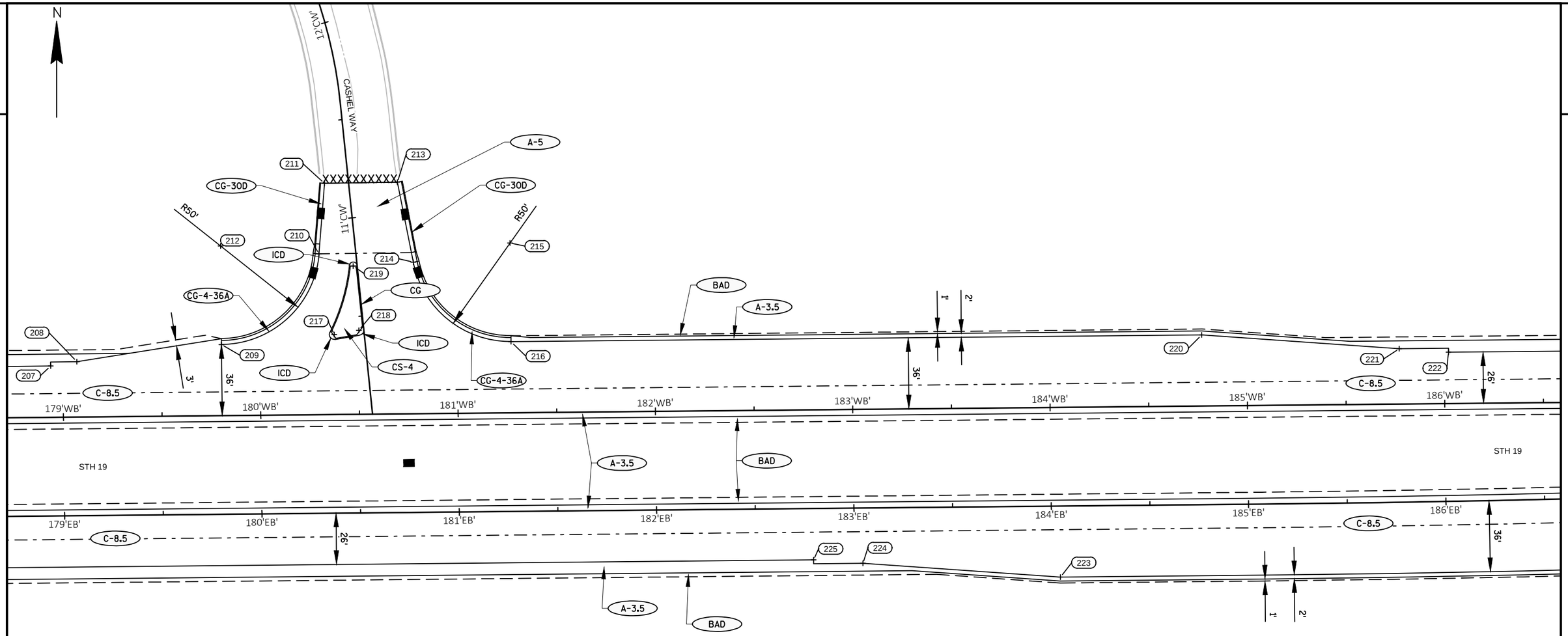
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0212_PD.DWG
LAYOUT NAME - PD-SHEET108

PLOT DATE : 5/20/2019 12:58 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



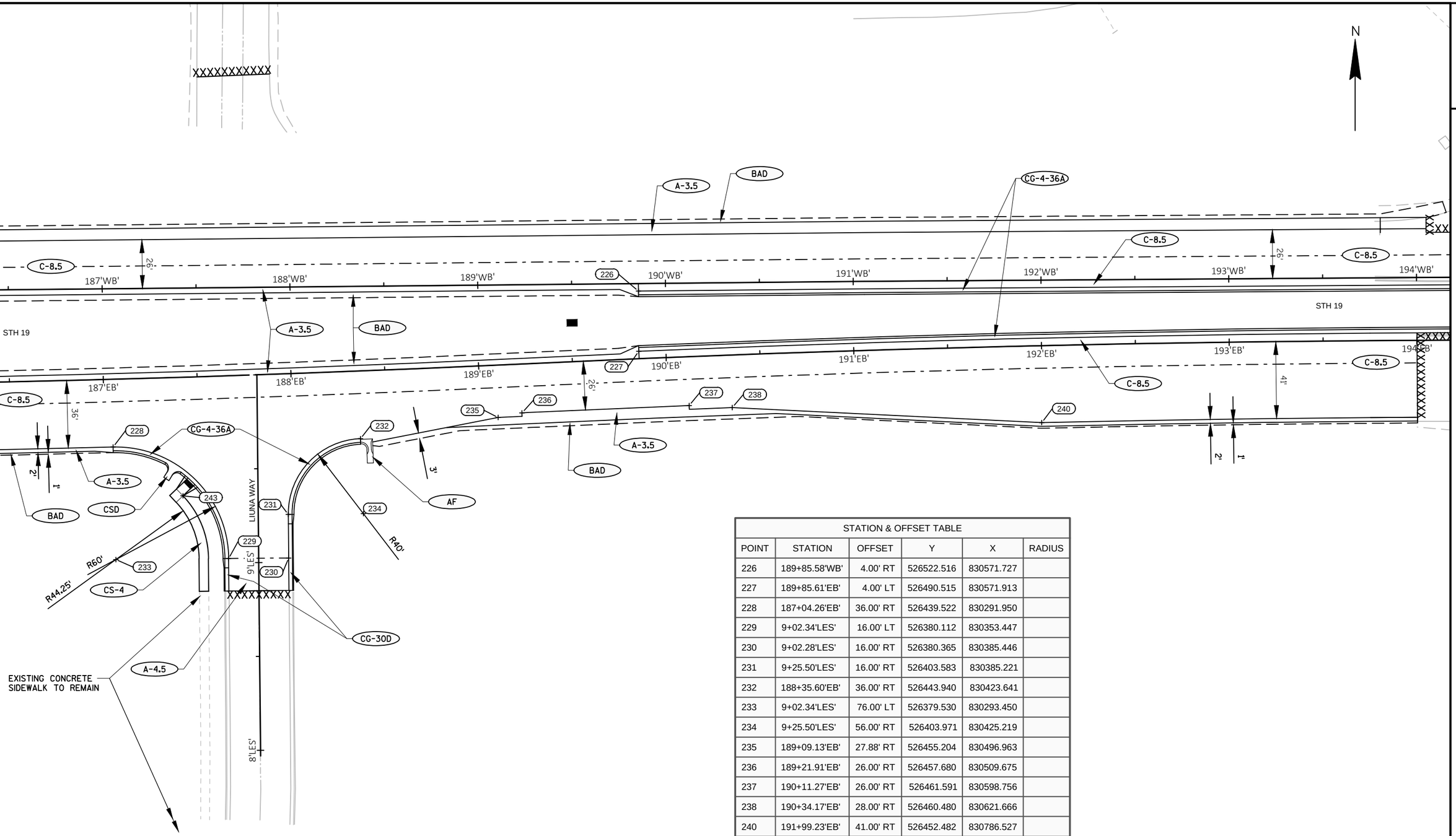
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
197	172+38.54'WB'	4.00' RT	526505.336	828824.766	
198	172+49.38'WB'	36.00' LT	526545.441	828835.222	
199	173+49.38'WB'	28.00' LT	526538.425	828935.296	
200	173+74.38'WB'	26.00' LT	526536.671	828960.314	
201	172+39.68'WBL'	14.00' LT	526488.028	828824.937	
202	172+31.01'WBL'	14.00' LT	526487.252	828816.303	
203	173+55.85'WBL'	0.00'	526484.487	828941.896	
204	173+55.59'EB'	4.00' LT	526464.490	828942.332	
205	176+56.81'WBL'	0.00'	526511.436	829241.647	
206	176+80.46'WB'	0.00'	526513.682	829266.626	
207	178+93.77'WB'	26.00' LT	526541.778	829479.678	
208	179+07.11'WB'	28.00' LT	526543.909	829492.991	



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
207	178+93.77'WB'	26.00' LT	526541.778	829479.678	
208	179+07.11'WB'	28.00' LT	526543.909	829492.991	
209	179+80.44'WB'	36.00' LT	526552.630	829566.242	
210	10+83.56'CW'	18.68' LT	526598.576	829615.586	
211	11+18.80'CW'	12.11' LT	526634.300	829618.490	
212	10+92.72'CW'	67.83' LT	526602.628	829565.750	
213	11+15.61'CW'	24.68' RT	526634.920	829655.410	
214	10+74.46'CW'	28.47' RT	526594.379	829663.420	
215	10+79.05'CW'	78.26' RT	526604.071	829712.472	
216	181+27.17'WB'	36.00' LT	526554.073	829712.964	

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
217	10+42.09'CW'	15.11' LT	526557.692	829623.402	2.5'
218	10+42.92'CW'	2.50' LT	526559.815	829635.864	2.5'
219	10+75.69'CW'	2.00' LT	526592.464	829632.986	2'
220	184+77.17'WB'	36.00' LT	526557.515	830062.947	
221	185+77.17'WB'	28.00' LT	526550.499	830163.021	
222	186+02.17'WB'	26.00' LT	526548.745	830188.039	
223	184+04.26'EB'	36.00' RT	526434.805	829991.349	
224	183+04.26'EB'	28.00' RT	526441.821	829891.275	
225	182+79.26'EB'	26.00' RT	526443.575	829866.257	

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS	SHEET 54	E



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y	X	RADIUS
226	189+85.58'WB'	4.00' RT	526522.516	830571.727	
227	189+85.61'EB'	4.00' LT	526490.515	830571.913	
228	187+04.26'EB'	36.00' RT	526439.522	830291.950	
229	9+02.34'LES'	16.00' LT	526380.112	830353.447	
230	9+02.28'LES'	16.00' RT	526380.365	830385.446	
231	9+25.50'LES'	16.00' RT	526403.583	830385.221	
232	188+35.60'EB'	36.00' RT	526443.940	830423.641	
233	9+02.34'LES'	76.00' LT	526379.530	830293.450	
234	9+25.50'LES'	56.00' RT	526403.971	830425.219	
235	189+09.13'EB'	27.88' RT	526455.204	830496.963	
236	189+21.91'EB'	26.00' RT	526457.680	830509.675	
237	190+11.27'EB'	26.00' RT	526461.591	830598.756	
238	190+34.17'EB'	28.00' RT	526460.480	830621.666	
240	191+99.23'EB'	41.00' RT	526452.482	830786.527	
243	9+35.93'LES'	39.98' LT	526413.465	830329.143	

2

N

IH 39/90/94

BAD
A-3.5
DOWEL
TIE
C-8.5
DOWEL
TIE
194'WB'
195'WB'
196'WB'
197'WB'
198'WB'
199'WB'
STH 19
C-8.5
CG-4-36A
STH 19
194'EB'
TIE
DOWEL
C-8.5
CG-4-36A
195'EB'
196'EB'
197'EB'
198'EB'
199'EB'
A-3.5
BAD

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PAVING DETAILS	SHEET 56	E

2

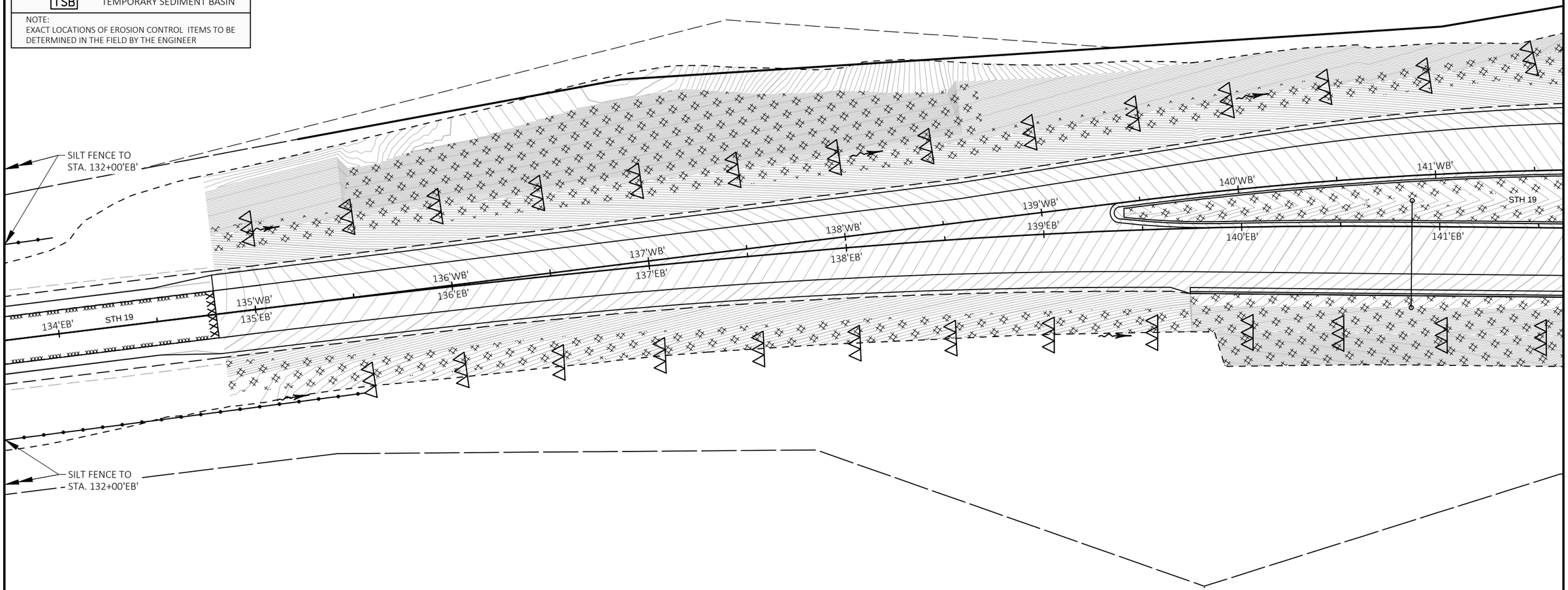
2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

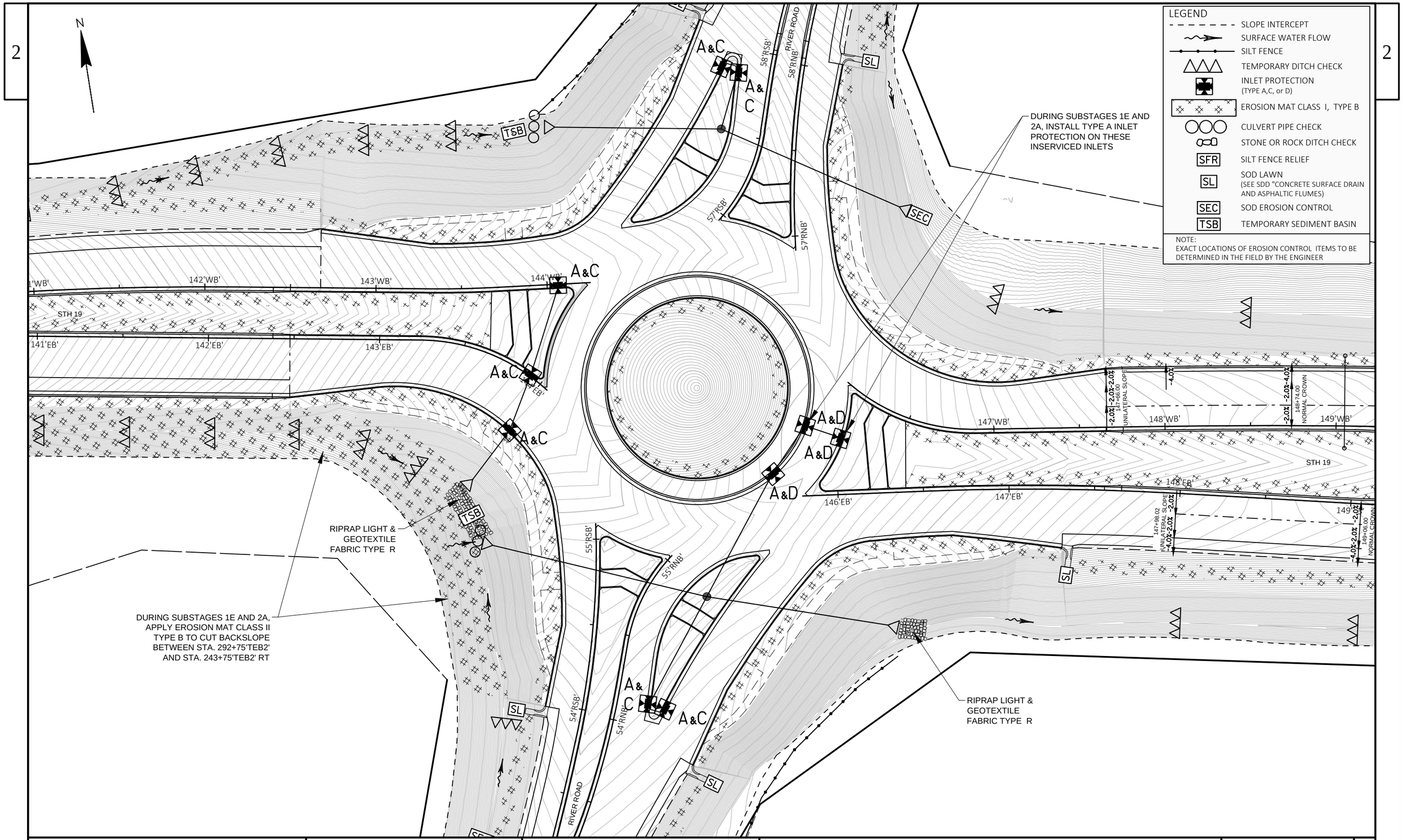
N



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 57	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET01

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 58	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET02

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

N

YAHARA

TURBIDITY BARRIER

FLUME PER SDD "CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES"

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

SL

STH 19

149'WB' 150'WB' 151'WB' 152'WB' 153'WB' 154'WB' 155'WB'

149'EB' 150'EB' 151'EB' 152'EB' 153'EB' 154'EB' 156'EB'

-4.0% -2.0% -4.0% 151+45.17 NORMAL CROWN

-4.0% 0.0% -2.0% -4.0% 152+25.17 LEVEL CROWN

-8.6% -2.0% -2.0% 153+05.17 REVERSE CROWN

-2.0% -4.0% 153+85.17 FULL SUPER

-6.2%

149+06.00 NORMAL CROWN

151+93.85 NORMAL CROWN

152+13.85 LEVEL CROWN

153+93.85 REVERSE CROWN

153+73.85 FULL SUPER

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

RIPRAP MEDIUM & GEOTEXTILE FABRIC TYPE HR

RIPRAP HEAVY & GEOTEXTILE FABRIC TYPE HR (SEE STRUCTURE PLANS)

RIVER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 59	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET03

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

N

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

TSB
SEC
XXX
A
A&C
A&C
A&C
SEC
SEC
SEC
STH 19
STH 19

157'WB' 158'WB' 159'WB' 160'WB' 161'WB' 162'WB' 163'WB' 164'WB'

157'EB' 158'EB' 159'EB' 160'EB' 161'EB' 162'EB' 163'EB' 164'EB'

160+41.15 FULL SUPER -4.0% -4.0%
161+21.15 REVERSE CROWN -4.0% -2.0%
162+01.15 LEVEL CROWN -3.0% -3.0% -2.0%
162+81.15 NORMAL CROWN -4.0% -1.0% -2.0% -2.0%

160+41.04 FULL SUPER -4.0% -4.0%
161+21.04 REVERSE CROWN -2.0% -2.0%
162+01.04 LEVEL CROWN -2.0% 0.0% -2.0%
162+81.04 NORMAL CROWN -2.0% -4.0% -2.0%

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 60	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET04

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

N

XXXXX

304'TC'

303'TC'

TIERNEY CROSSING

A&D

A&C

SEC

TSB

164'WB' 165'WB' 166'WB' 167'WB' 168'WB' 169'WB' 170'WB' 171'WB'

STH 19

164'EB' 165'EB' 166'EB' 167'EB' 168'EB' 169'EB' 170'EB' 171'EB'

STH 19

9'LWS'

LIUNA WAY

8'LWS'

2

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 61	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET05

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

N

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

172'WB' 173'WB' 174'WB' 175'WB' 176'WB' 177'WB' 178'WB' 179'WB'

A&C

STH 19

A&C

A

STH 19

172'EB' 173'EB' 174'EB' 175'EB' 176'EB' 177'EB' 178'EB' 179'EB'

SEC

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 62	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET06

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

N

CASHEL WAY

12'CW'

11'CW'

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

A&D

A&D

A&D

A&D

TSB

179'WB' 180'WB' 181'WB' 182'WB' 183'WB' 184'WB' 185'WB' 186'WB'

STH 19

A

SEC

179'EB' 180'EB' 181'EB' 182'EB' 183'EB' 184'EB' 185'EB' 186'EB'

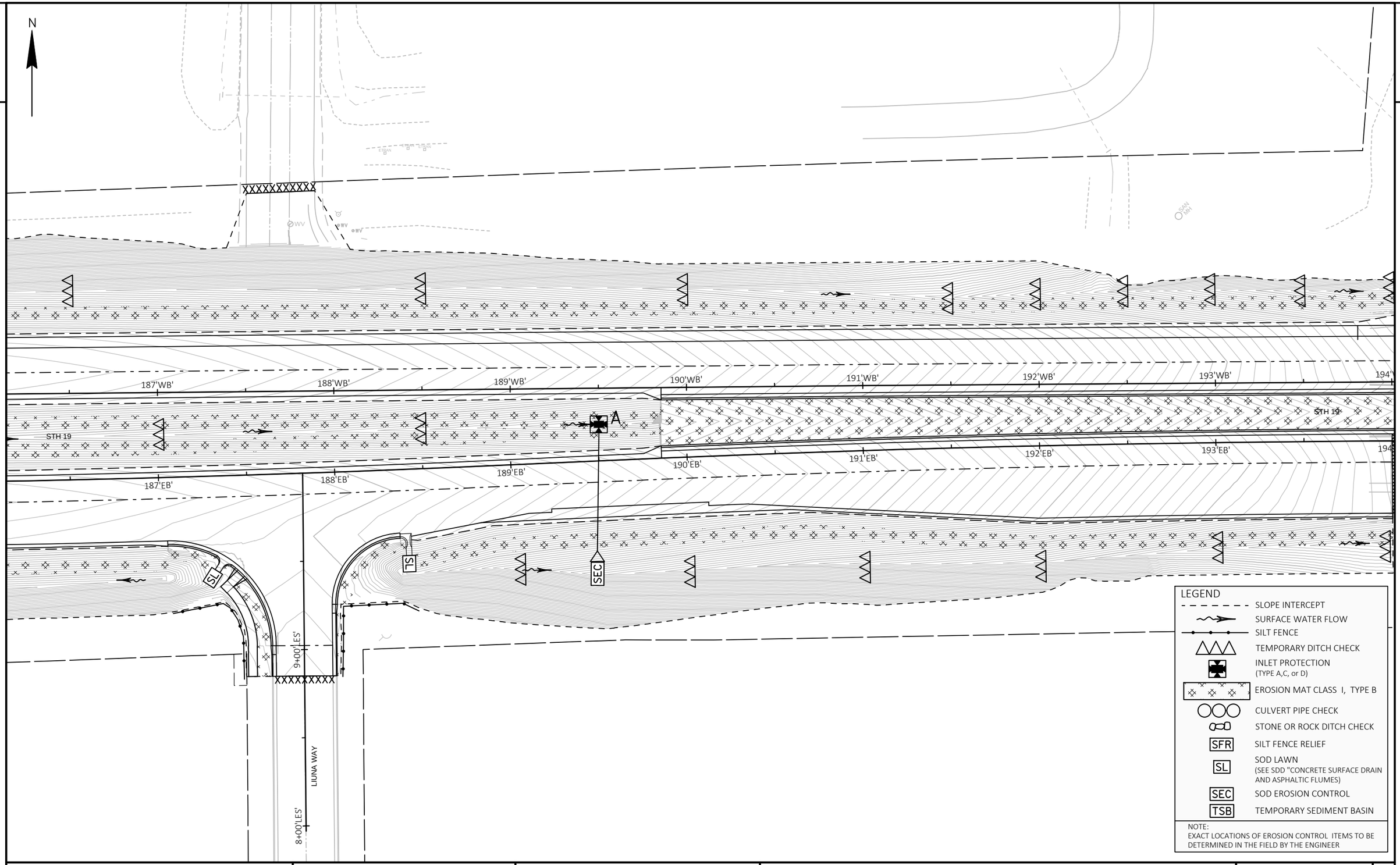
STH 19

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 63	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 64	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET08

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

N

IH 39/90/94 OFF-RAMP

IH 39/90/94

STH 19

193'WB' 194'WB' 195'WB' 196'WB' 197'WB' 198'WB' 199'WB'

193'EB' 194'EB' 195'EB' 196'EB' 197'EB' 198'EB' 199'EB'

C C

IH 39/90/94 ON-RAMP

LEGEND

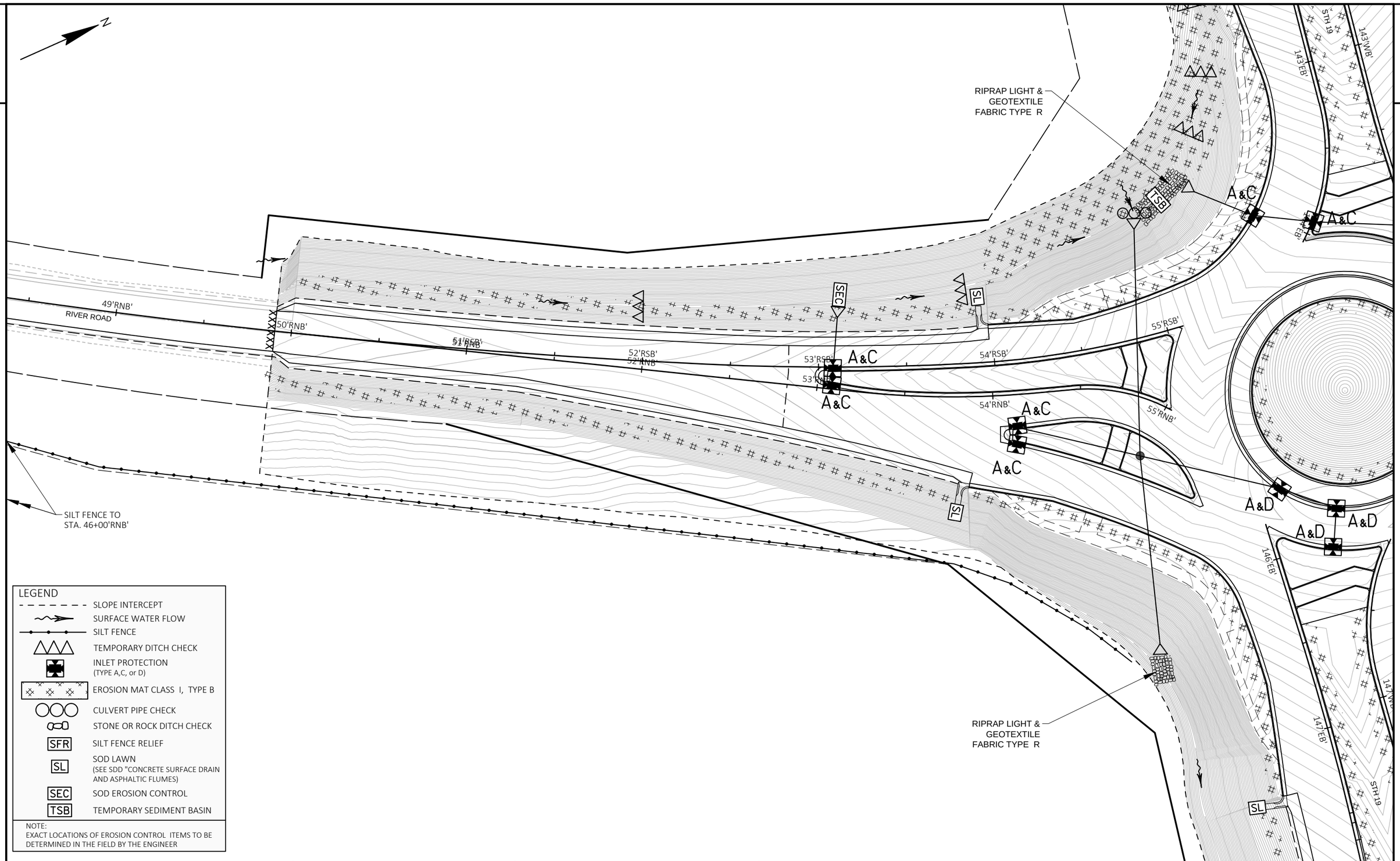
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 65	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET09

PLOT DATE : 5/20/2019 8:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT



LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 66 E

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

N

STH 19

144'LWB'

A&C

TSB

SFR

SL

A&C

A&C

57'RSB'

58'RSB'

59'RSB'

58'RNB'

59'RNB'

A&C

60'RSB'

60'RNB'

61'RSB'

61'RNB'

62'RNB

63'RNB'

64'R

RIVER ROAD

XXXX

SEC

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

SL

SEC

SEC

SFR

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

RIPRAP LIGHT & GEOTEXTILE FABRIC TYPE R

57'RNB'

147'LWB'

STH 19

-2.0% -2.0% -2.0%

147+66.00
UNILATERAL SLOPE

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 67	E

2

N

STH 19

166'EB'

166'WB'

167'EB'

167'WB'

168'EB'

168'WB'

169'EB'

169'WB'

170'EB'

170'WB'

TSB

8'LWS'

9'LWS'

LIUNA WAY

7'LWS'

6'LWS'

SS

A&D

A&C

303'TC'

304'TC'

305'TC'

TIERNEY CROSSING

SEC

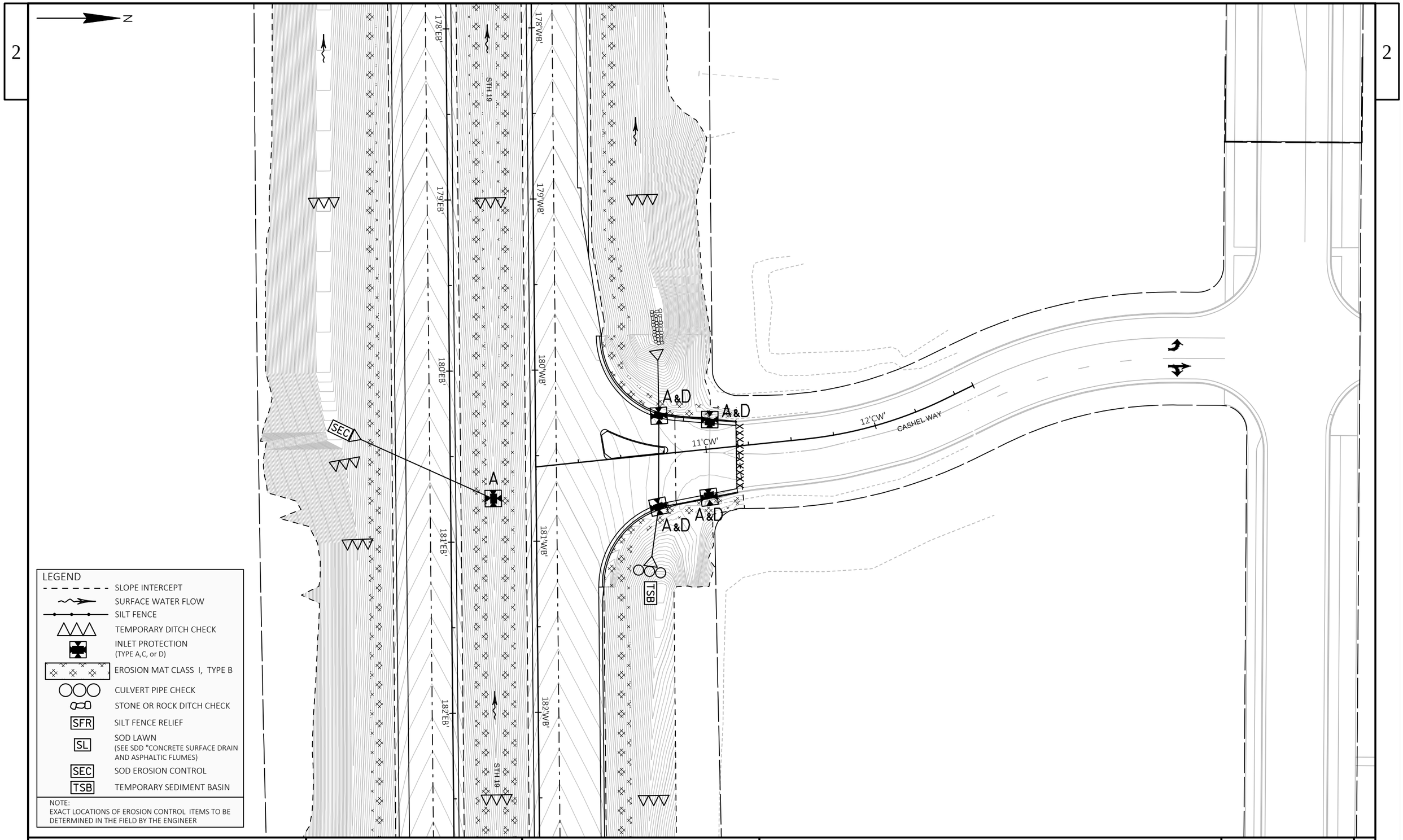
SFR

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- SILT FENCE
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE A,C, or D)
- EROSION MAT CLASS I, TYPE B
- CULVERT PIPE CHECK
- STONE OR ROCK DITCH CHECK
- SFR — SILT FENCE RELIEF
- SL — SOD LAWN (SEE SDD "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES)
- SEC — SOD EROSION CONTROL
- TSB — TEMPORARY SEDIMENT BASIN

NOTE:
EXACT LOCATIONS OF EROSION CONTROL ITEMS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 68	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	DRAINAGE & EROSION CONTROL	SHEET 69	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0220_DR.DWG
LAYOUT NAME - EC-SHEET13

PLOT DATE : 5/20/2019 8:29 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

5

5

STA 57+92'RNB', 47.0' LT
INLETS 2x3-H
4.4

4.3 STA 57+91'RNB', 38.4' LT
INLETS 2x3-H

4.1 STA 57+59'RNB', 44.2' LT
MANHOLES 6-J

4.0 STA 57+17'RNB', 65.0' RT
APRON ENDWALLS FOR CPRC 24-INCH

STA 57+54'RNB', 141.3' LT
APRON ENDWALLS FOR CPRC 24-INCH
4.2

RIVER ROAD

57RSB

57RNB

RIPRAP

N

144WB

143WB

STA 143+81'EB', 52.9' LT
INLETS 2x3-H
1.3

STA 143+92'EB', 1.5' LT
INLETS 2x3-H
1.2

STH 19

143EB

142EB

141EB

STA 13+18'CR', 1.5' LT
INLETS 2x2.5-T
3.6

STA 12+83'CR', 1.5' LT
INLETS 2x2.5-T
3.5

12'CR'

147WB

148WB

STA 146+04'EB', 32.8' LT
INLETS 2x3-H
3.7

STH 19

148EB

147EB

146EB

STA 144+05'EB', 32.2' RT
INLETS 2x3-H
1.1

STA 54+82'RNB', 120.4' LT
APRON ENDWALLS FOR CPRC 18-INCH
1.0

3.1 STA 54+99'RNB', 31.2' RT
MANHOLES 6-J

55+00RSB

55'MB

3.0 STA 146+26'EB', 77.3' RT
APRON ENDWALLS FOR CPRC 30-INCH

STA 54+68'RNB', 92.5' LT
APRON ENDWALLS FOR CPRC 30-INCH
3.2

RIVER ROAD

STA 54+13'RNB', 18.7' RT
INLETS 2x3-H
3.3

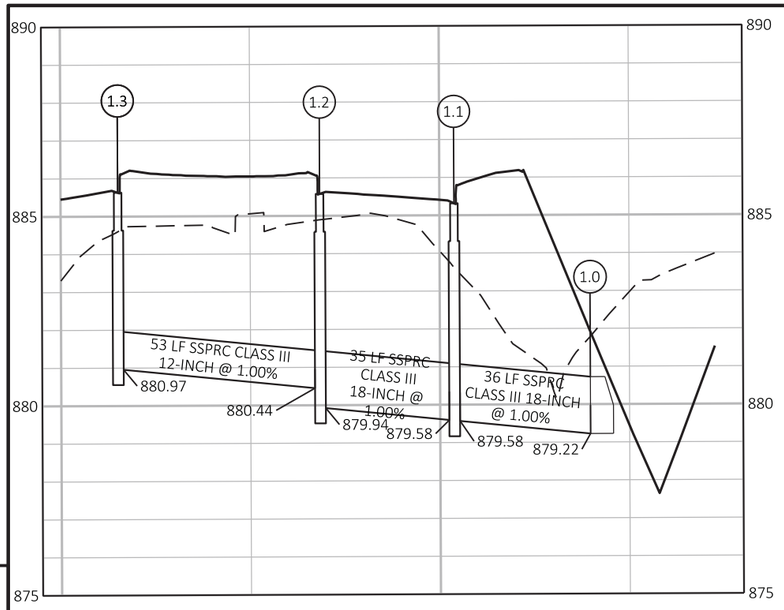
3.4 STA 54+12'RNB', 27.9' RT
INLETS 2x3-H

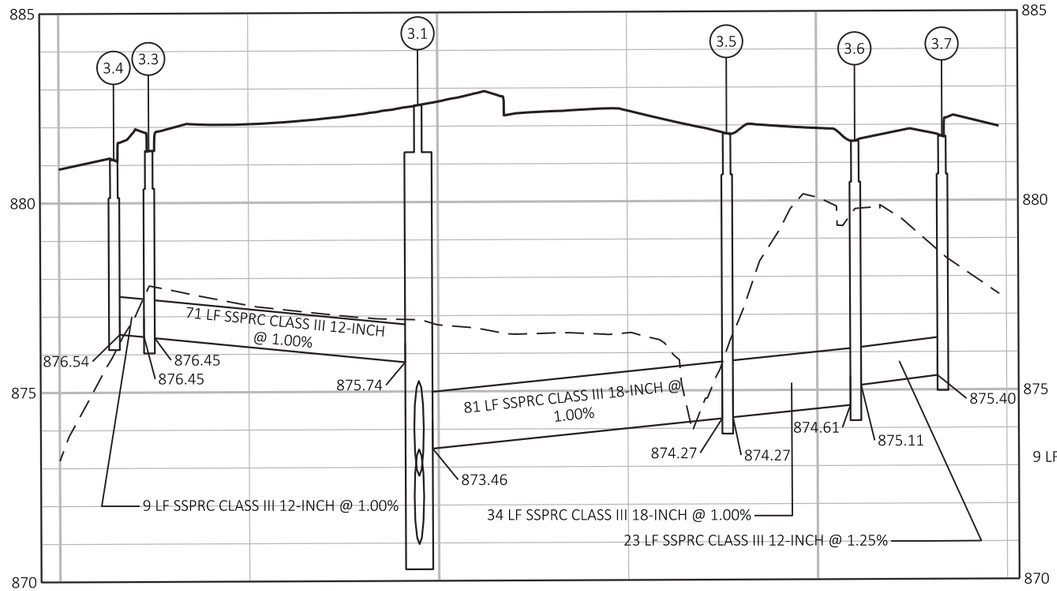
55+00RSB

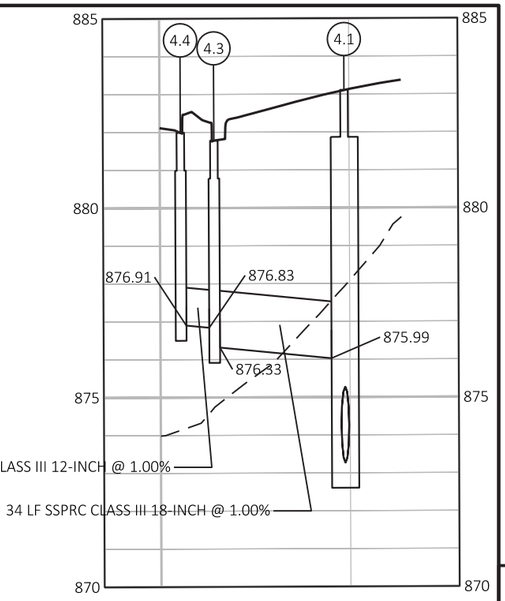
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 70	E

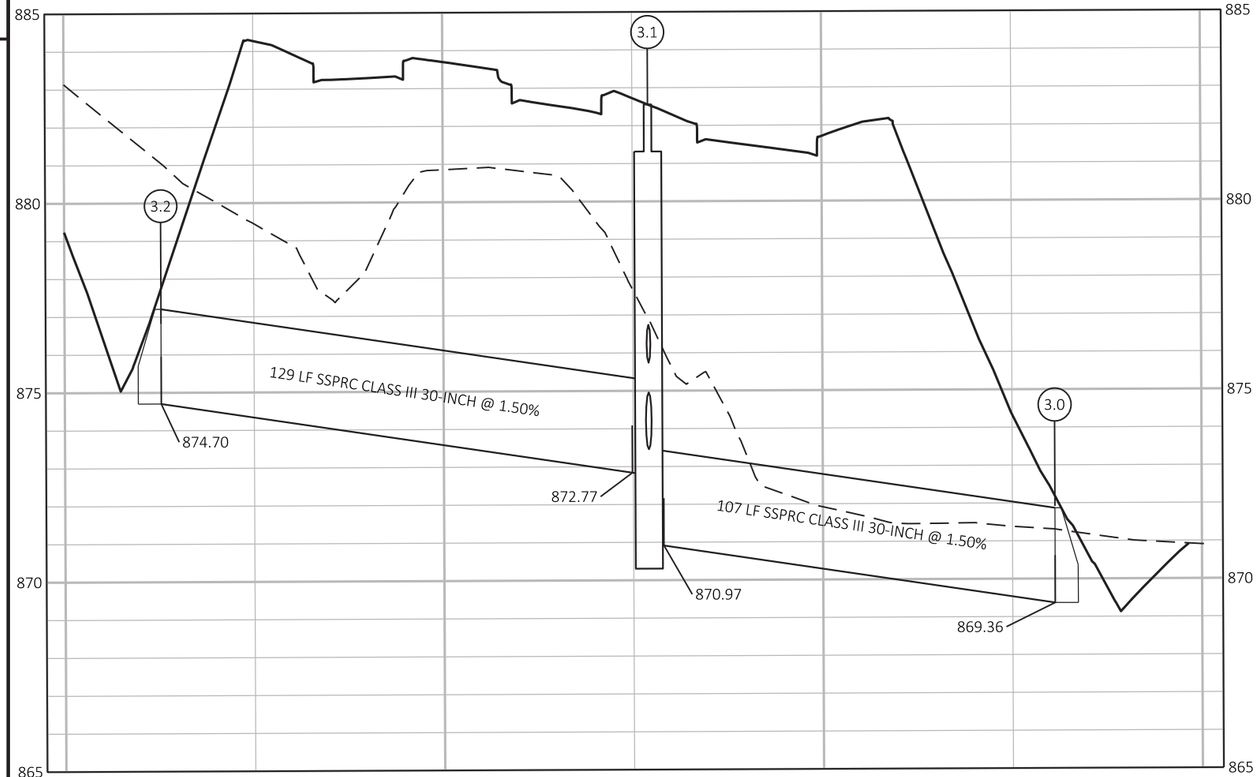
FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 1

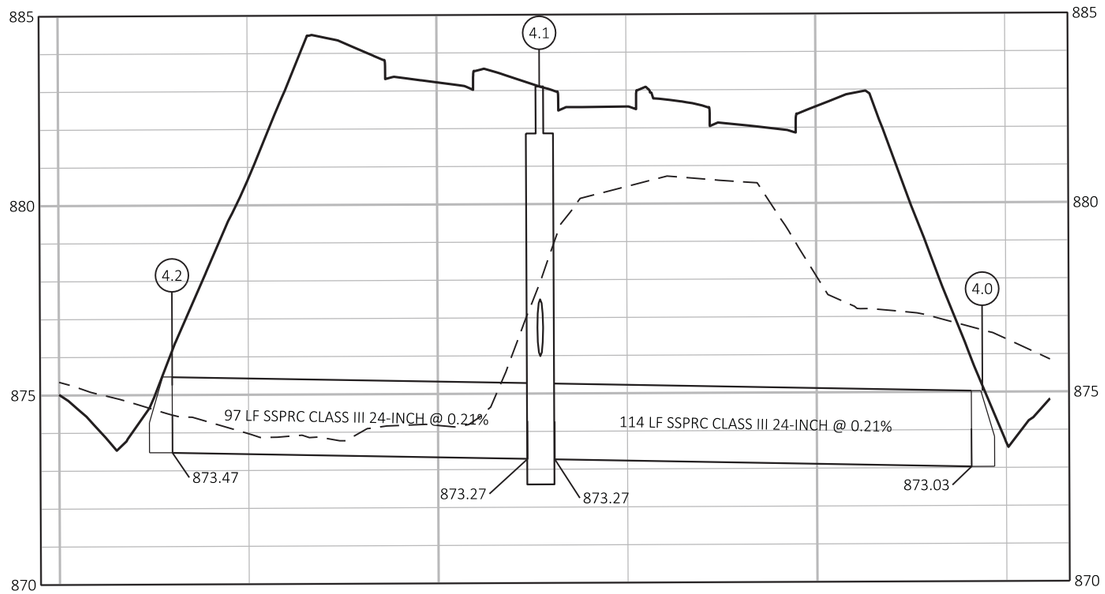
PLOT DATE : 4/23/2019 6:52 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT









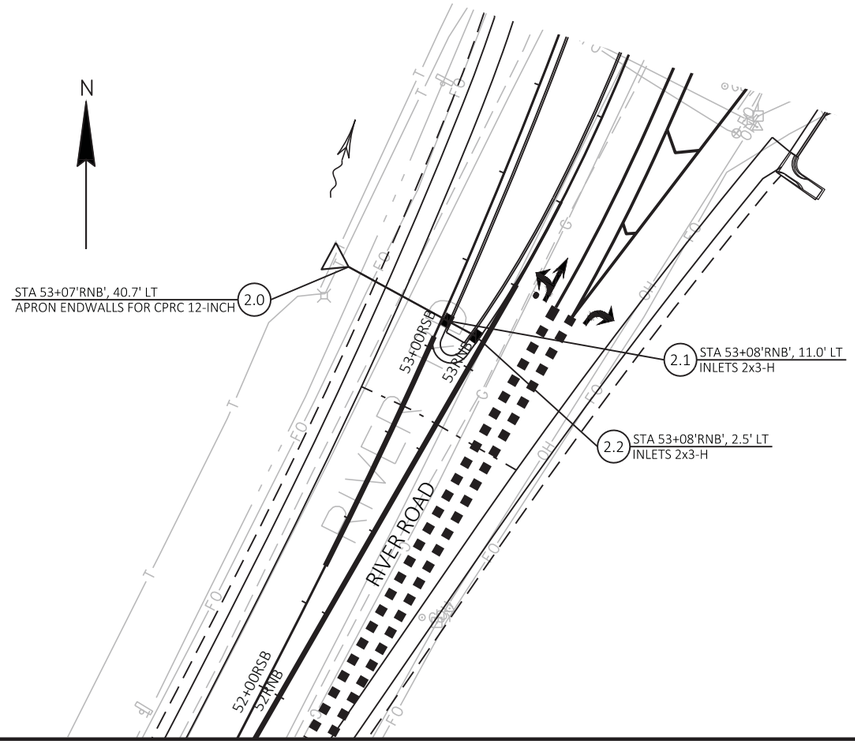


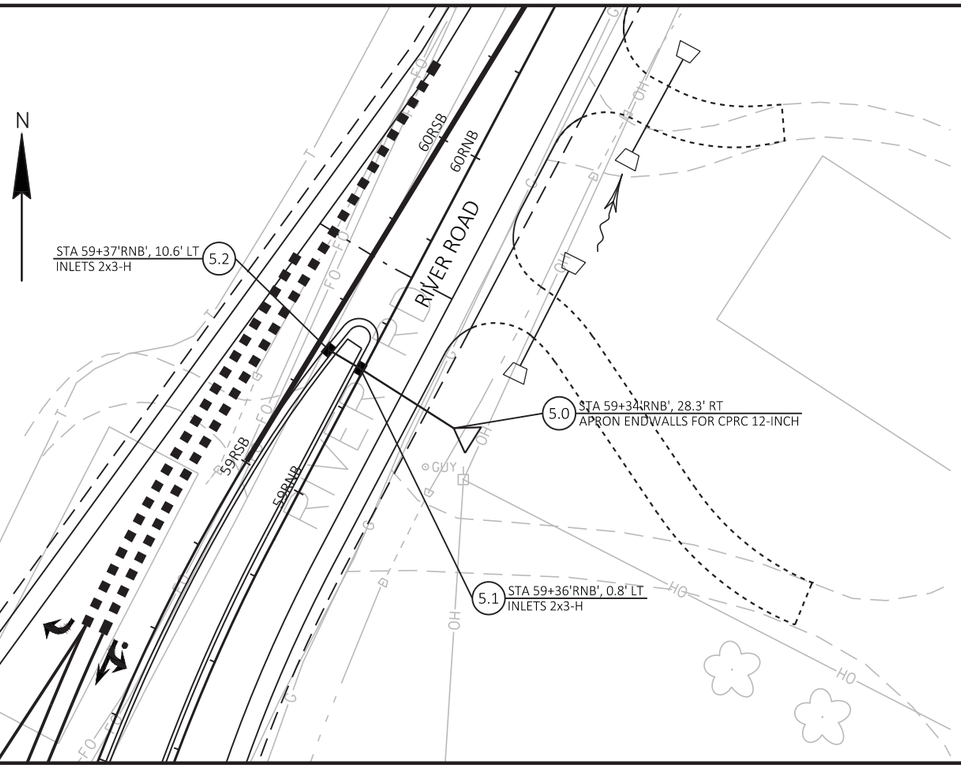
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 71	E

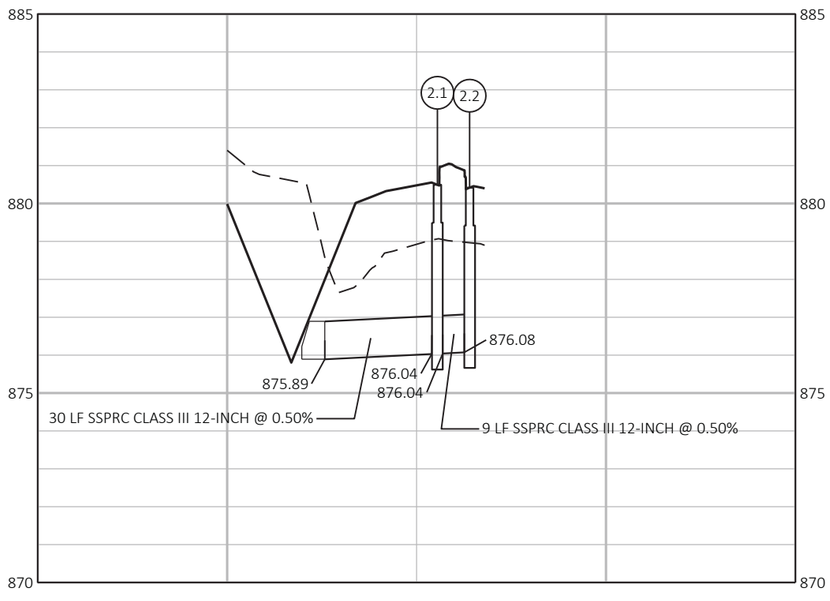
FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 1A

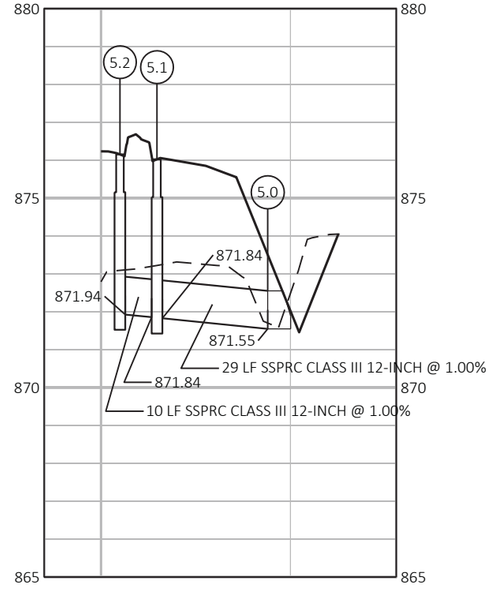
PLOT DATE : 4/23/2019 6:52 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





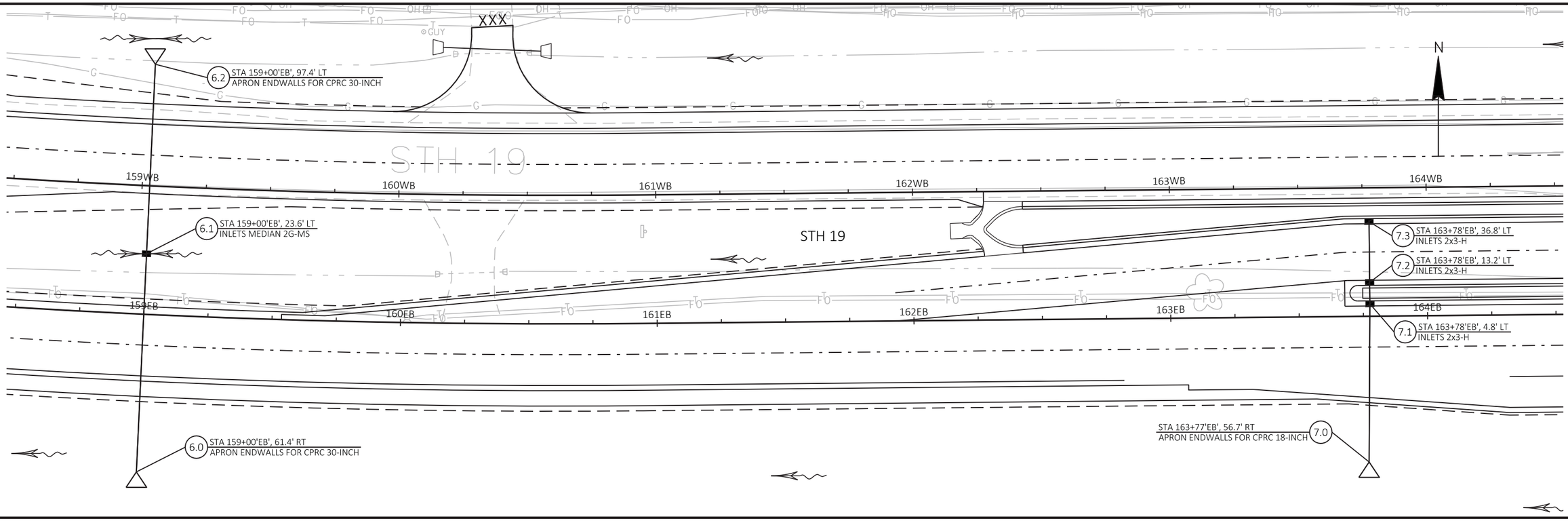


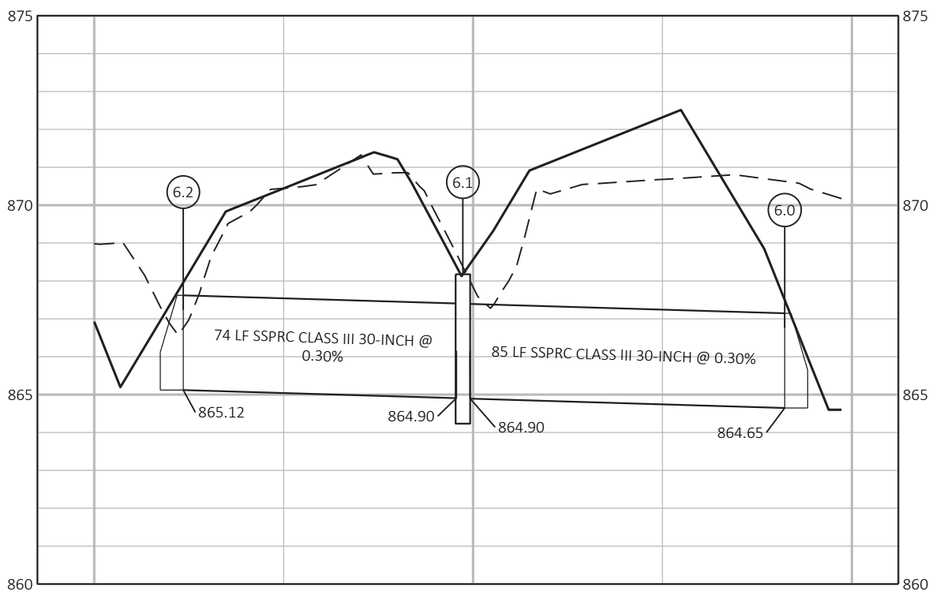


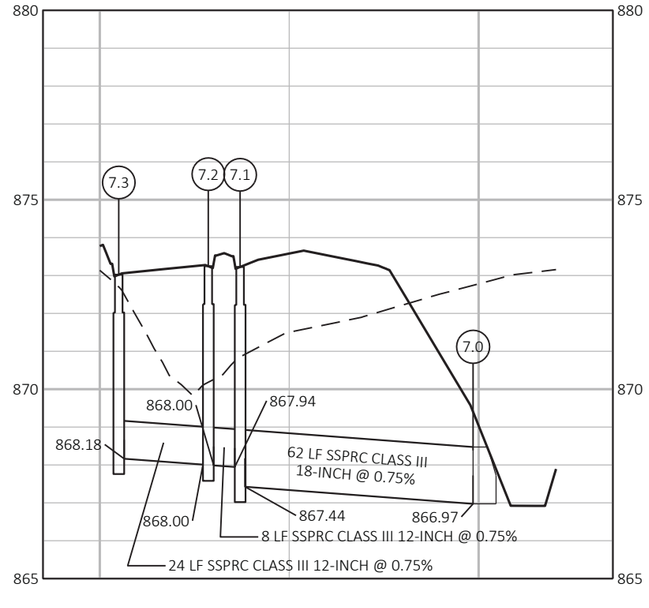
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 72	E

FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 2

PLOT DATE : 4/23/2019 6:53 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT







PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 73	E

CC2 STA 303+53'TC', 16.1' LT
CONCRETE COLLAR REQUIRED

9.4 STA 303+50'TC', 45.5' LT
INLETS 2x3-H

9.5 STA 303+50'TC', 27.1' RT
INLETS 2x3-H

9.2 STA 303+20'TC', 15.9' LT
MANHOLES 6-J

9.1 STA 303+20'TC', 29.7' RT
MANHOLES 6-H

9.3 STA 303+20'TC', 45.5' LT
INLETS 2x3-H

9.0 STA 303+00'TC', 65.1' RT
APRON ENDWALLS FOR CPRC 30-INCH

TIERNEY CROSSING

303TC

8.2 STA 168+97'EB', 111.4' LT
APRON ENDWALLS FOR CPRC 42-INCH

8.5 STA 168+53'EB', 44.5' LT
INLETS 2x3-H

8.4 STA 168+53'EB', 29.5' LT
INLETS 2x3-H

8.1 STA 168+65'EB', 21.0' LT
MANHOLES 8-J

8.3 STA 168+95'EB', 13.3' LT
INLETS 2x3-H

8.6 STA 168+95'EB', 4.9' LT
INLETS 2x3-H

8.7 STA 167+33'EB', 82.0' RT
APRON ENDWALLS FOR CPRC 12-INCH

8.0 STA 168+52'EB', 82.7' RT
MANHOLES 8-J

8.8 STA 168+81'EB', 86.6' RT
APRON ENDWALLS FOR CPRC 24-INCH

CC1 STA 168+50'EB', 91.5' RT
CONCRETE COLLAR REQUIRED

LIUNA WAY

9LWS

STH 19

166WB 167WB 168WB 169WB 170WB 171WB

166EB 167EB 168EB 169EB 170EB 171EB

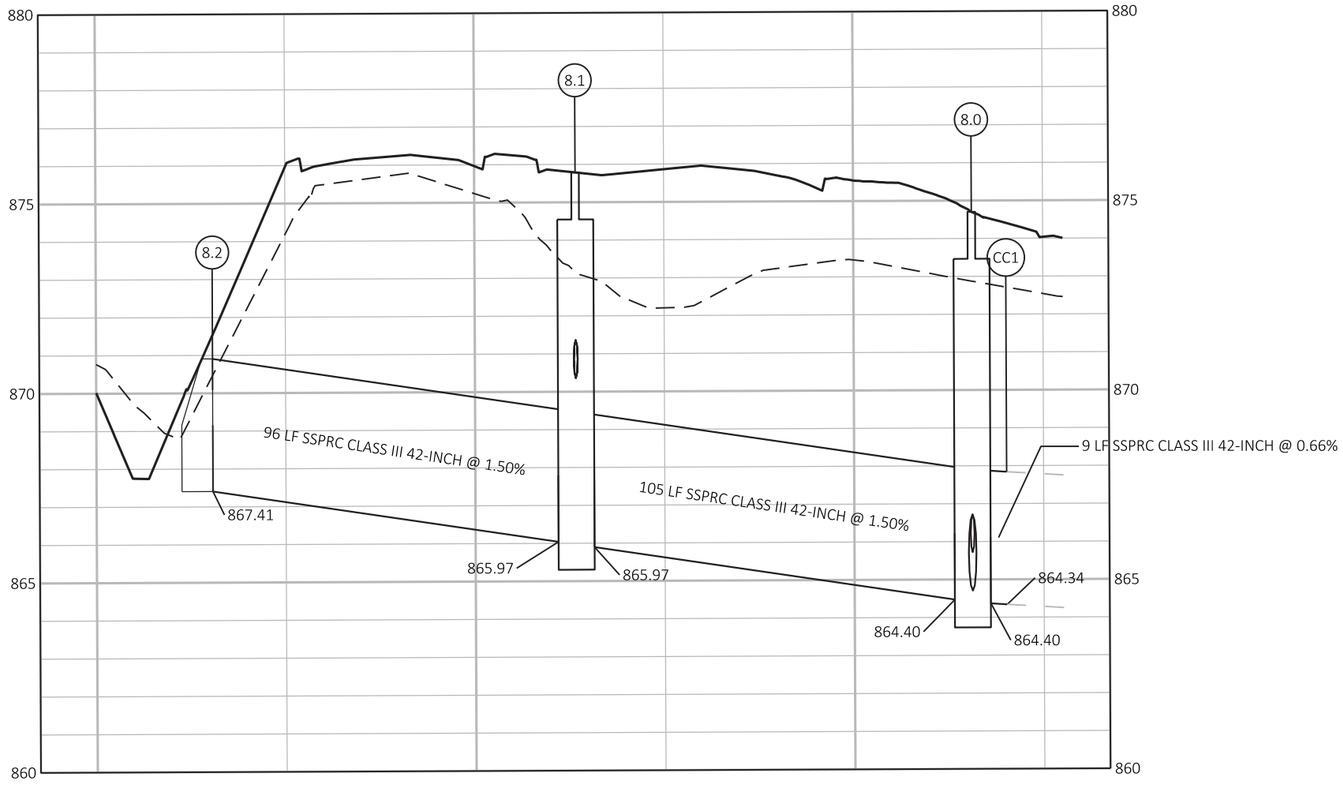
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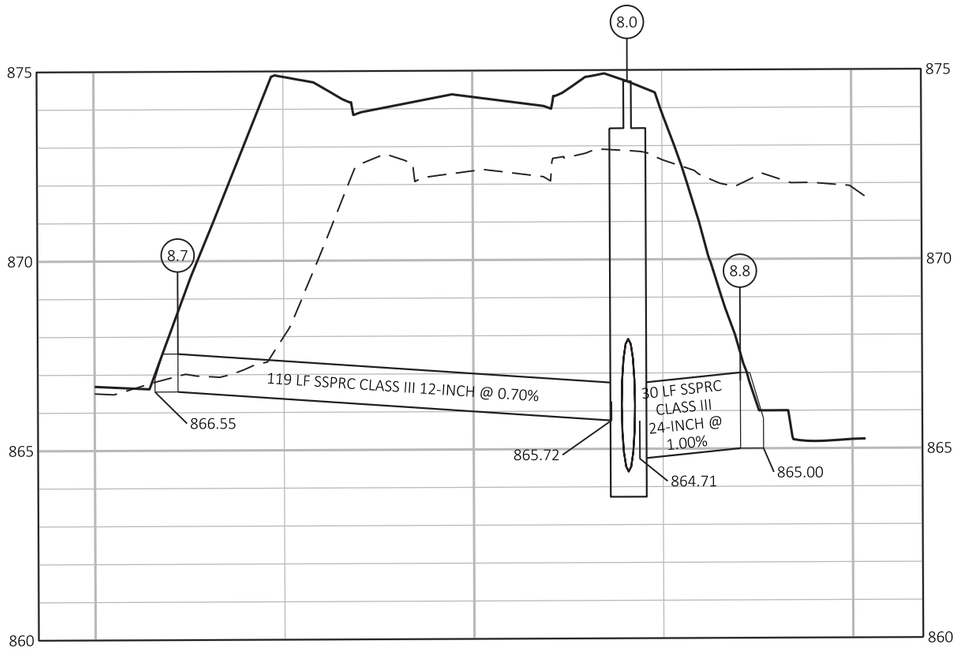
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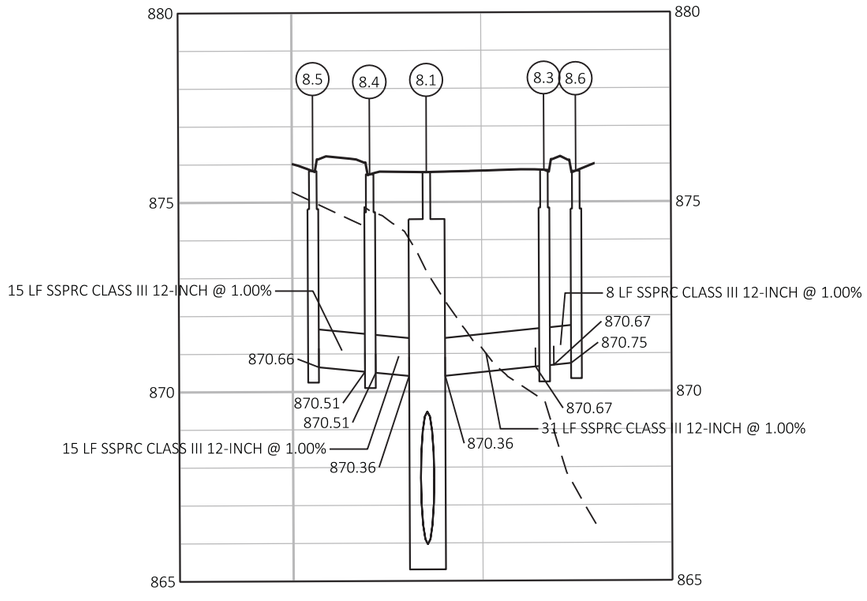
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 74	E

FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 4

PLOT DATE : 4/23/2019 6:53 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : ##########



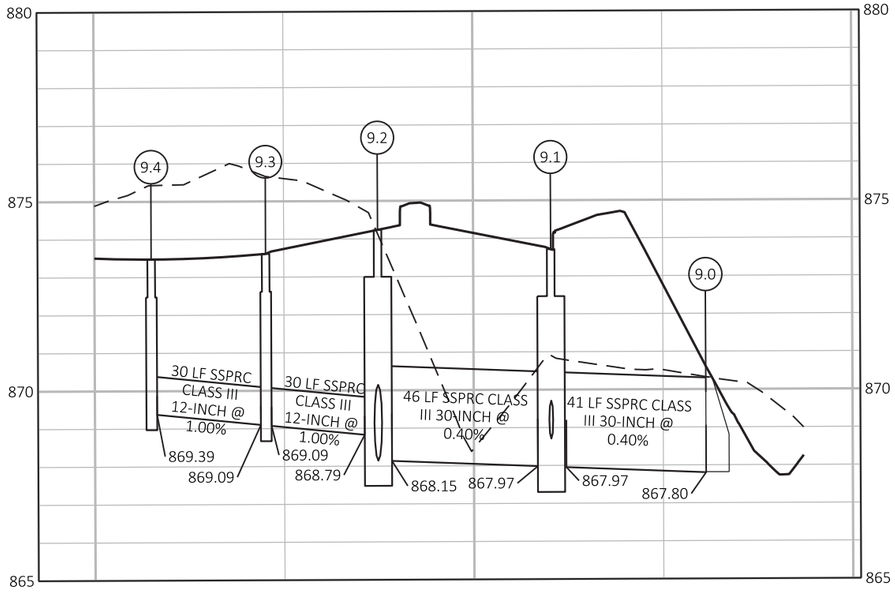


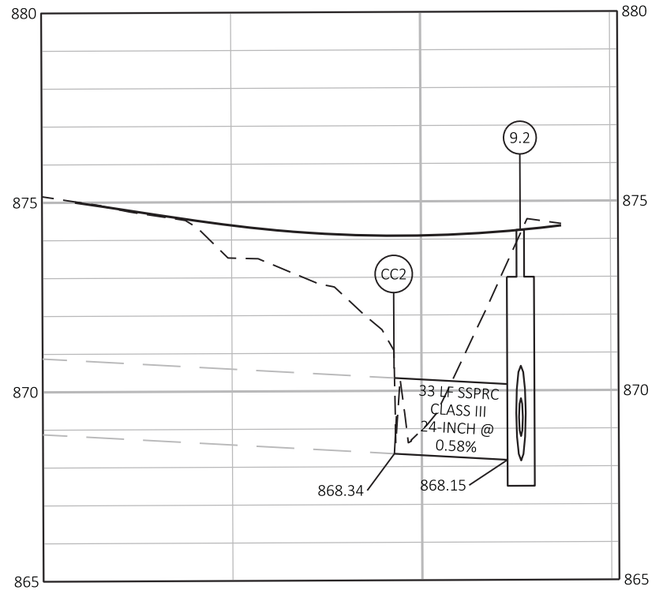


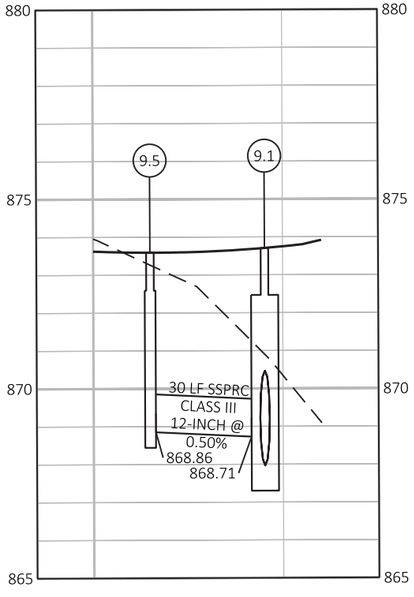
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 75	E

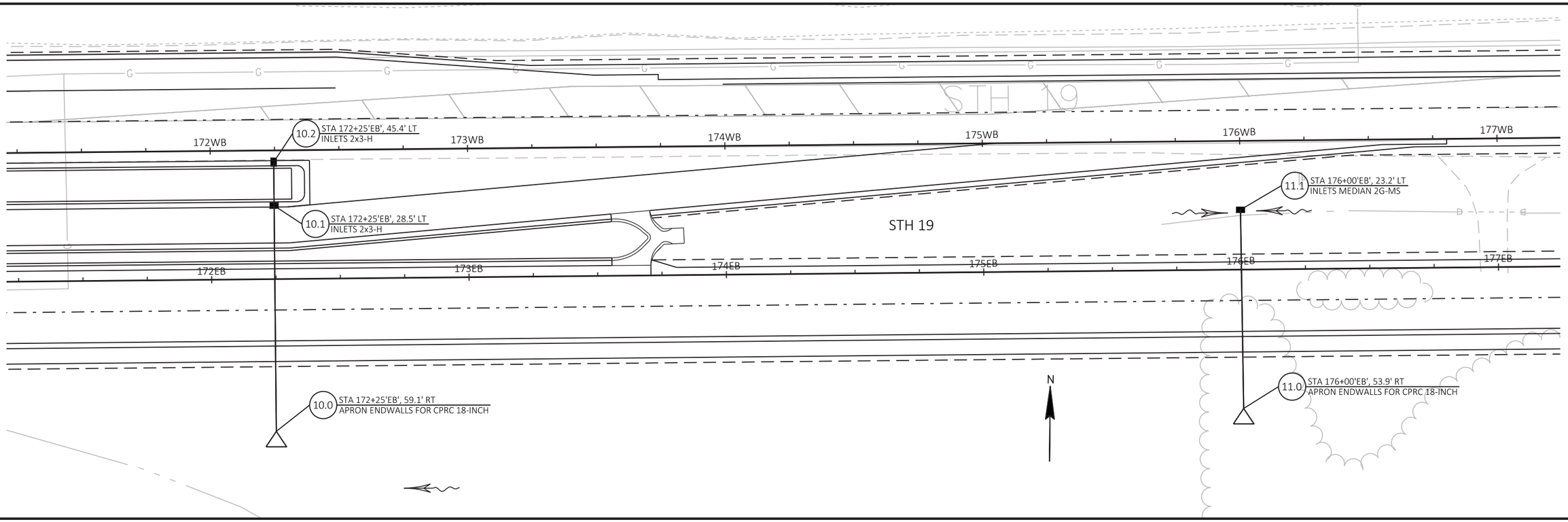
FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 4A

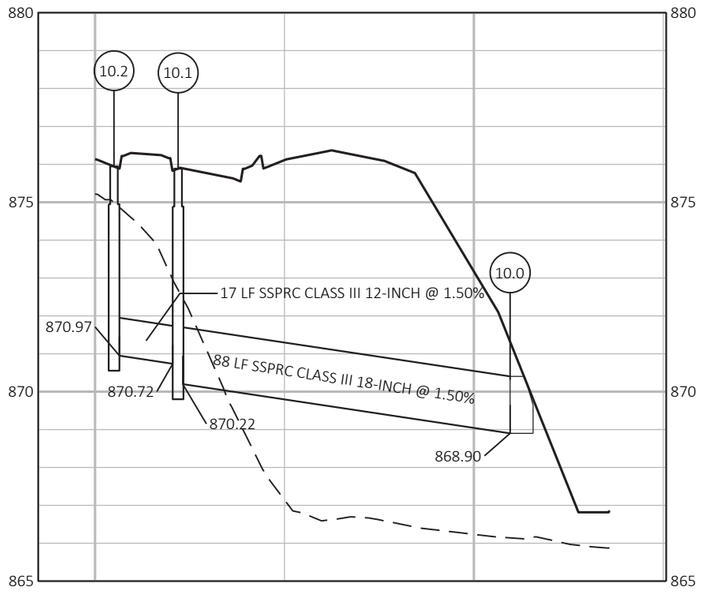
PLOT DATE : 4/23/2019 6:54 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

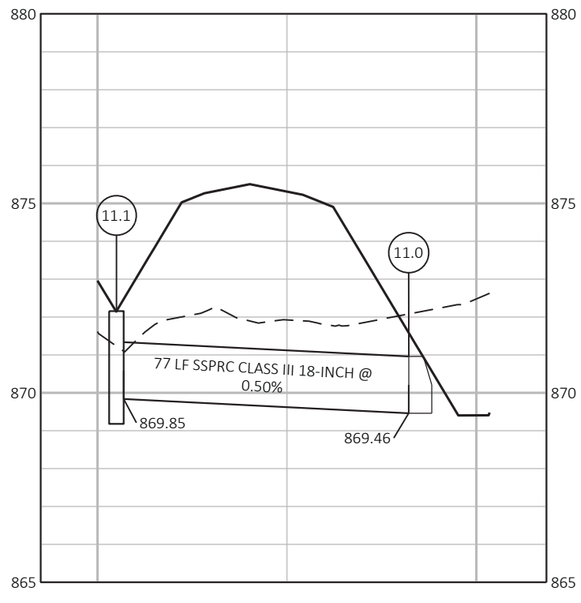

880
875
870
865
9.4
9.3
9.2
9.1
9.0
30 LF SSPRC CLASS III 12-INCH @ 1.00%
869.39
869.09
30 LF SSPRC CLASS III 12-INCH @ 1.00%
869.09
868.79
46 LF SSPRC CLASS III 30-INCH @ 0.40%
868.15
867.97
41 LF SSPRC CLASS III 30-INCH @ 0.40%
867.97
867.80


880
875
870
865
9.2
CC2
33 LF SSPRC CLASS III 24-INCH @ 0.58%
868.34
868.15

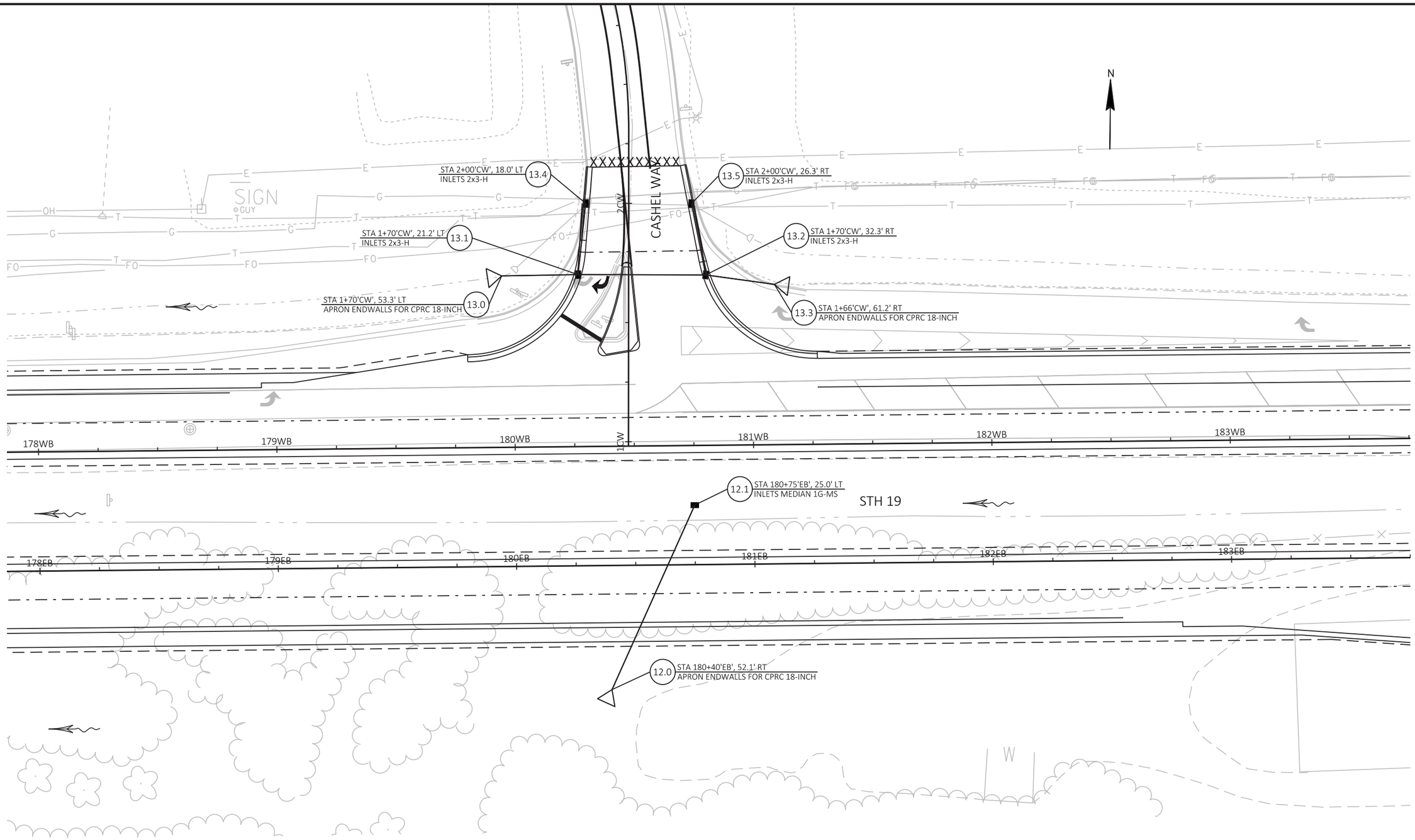

880
875
870
865
9.5
9.1
30 LF SSPRC CLASS III 12-INCH @ 0.50%
868.86
868.71







PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 77	E

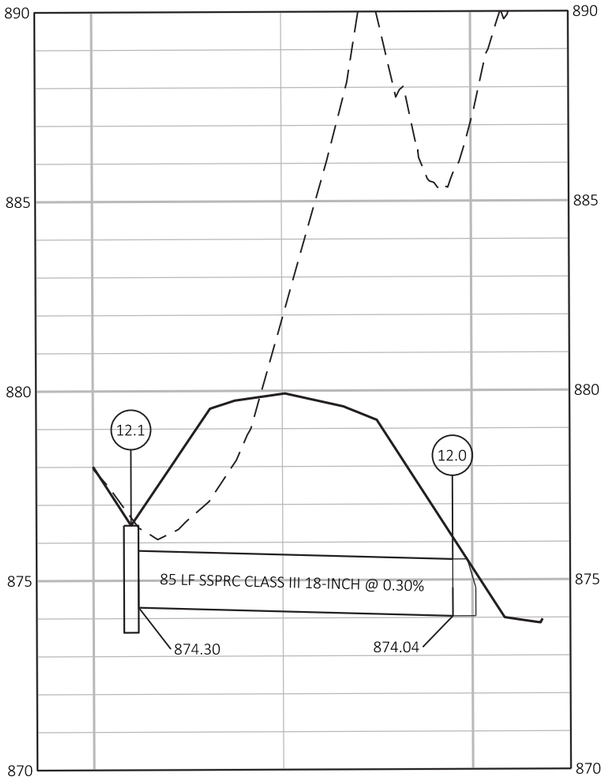


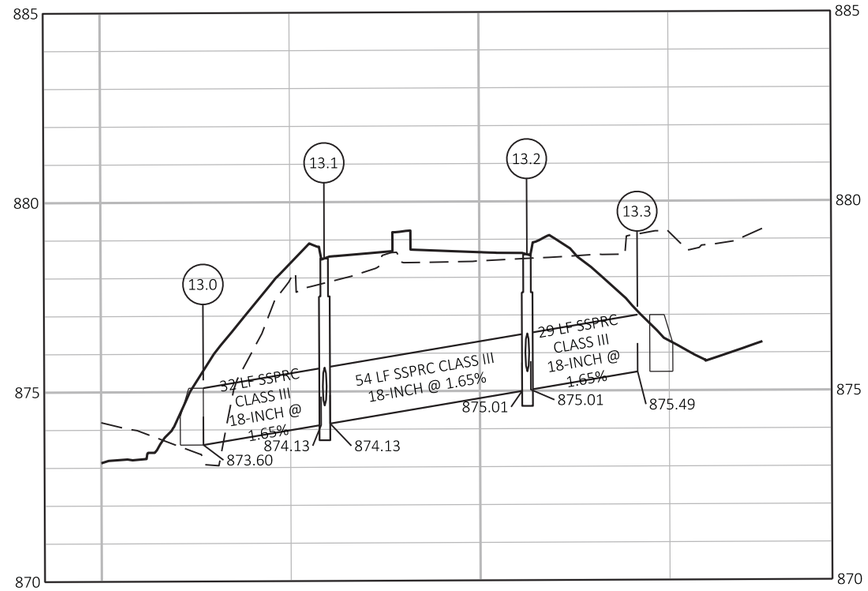
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 78	E

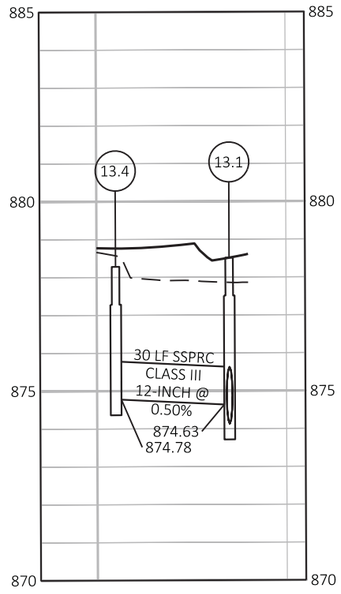
FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 6

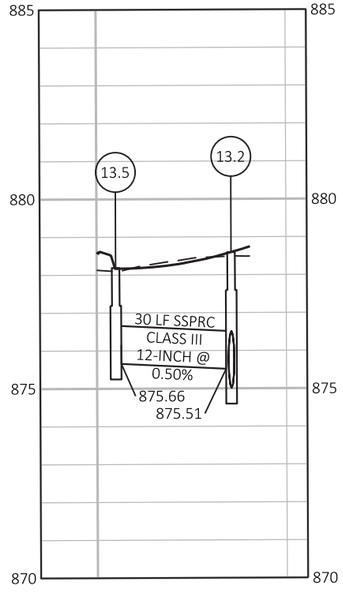
PLOT DATE : 4/23/2019 6:54 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44









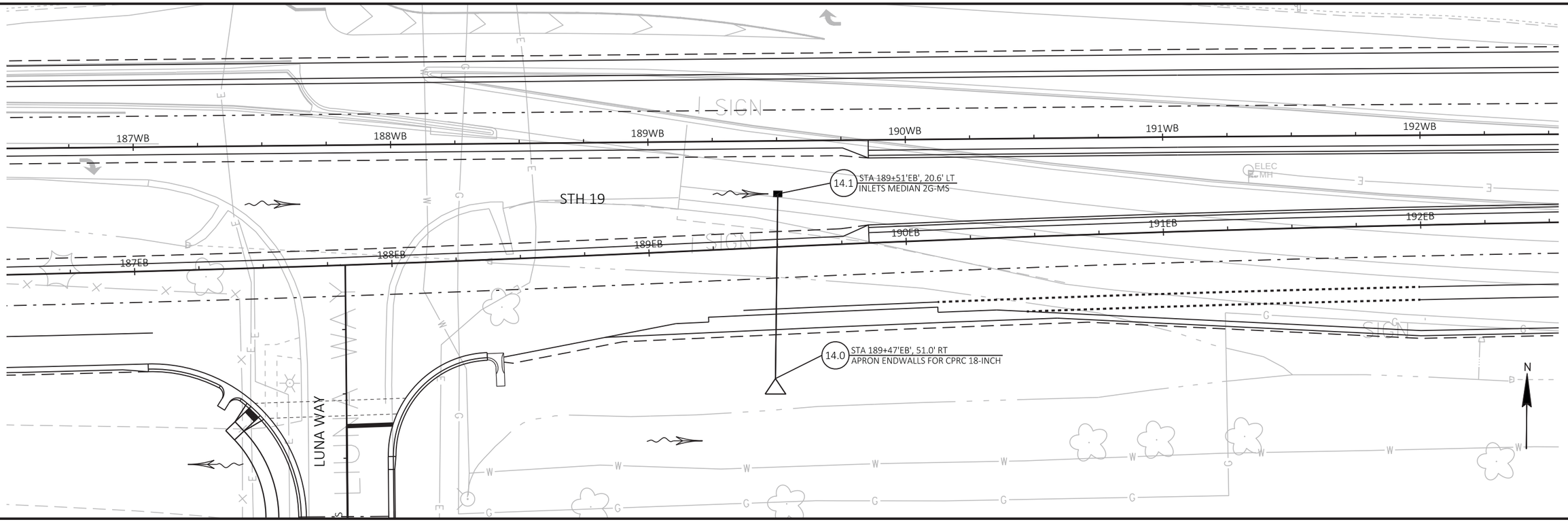
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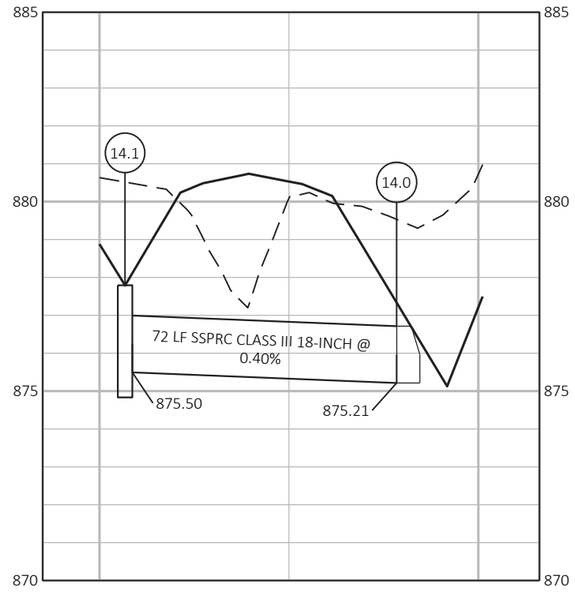
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 79	E

FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 6A

PLOT DATE : 4/23/2019 6:55 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	STORM SEWER	SHEET 80	E

FILE NAME : G:\AYRES\16019-000 STH 19\CIVIL3D\DESIGN\PIPENETWORKS\KL_0002_PIPE_NETWORK.DWG
LAYOUT NAME - SS 7

PLOT DATE : 4/23/2019 6:55 AM PLOT BY : MICHAEL PLESSEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

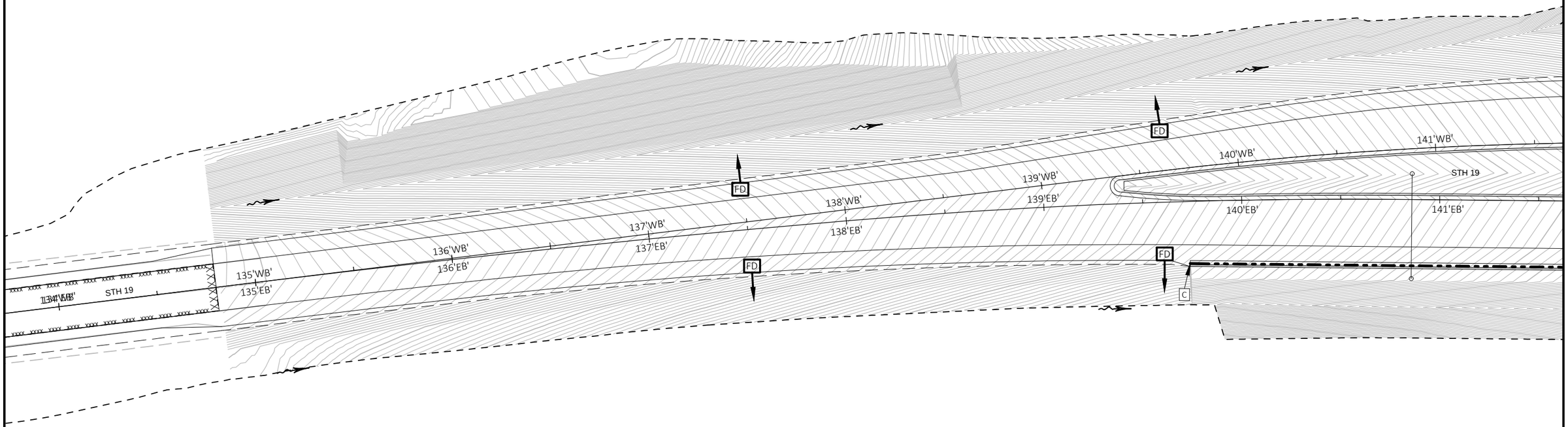
2

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

N



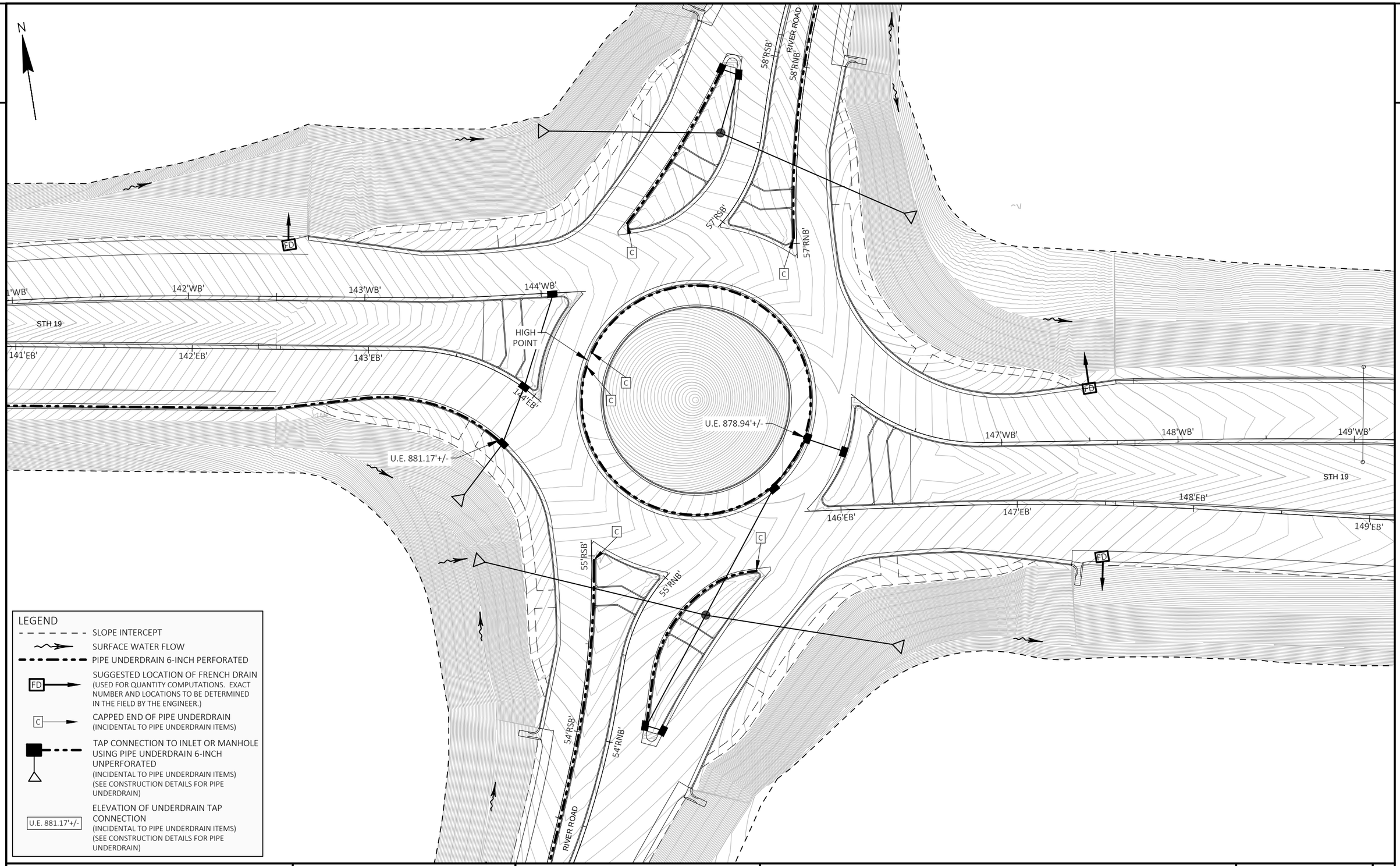
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 81	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET01

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 82	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET02

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

N

YAHARA

RIVER

STH 19

149'WB' 150'WB' 151'WB' 152'WB' 153'WB' 154'WB' 155'WB' 156'WB'

149'EB' 150'EB' 151'EB' 152'EB' 153'EB' 154'EB' 155'EB' 156'EB'

FD

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 83 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET03

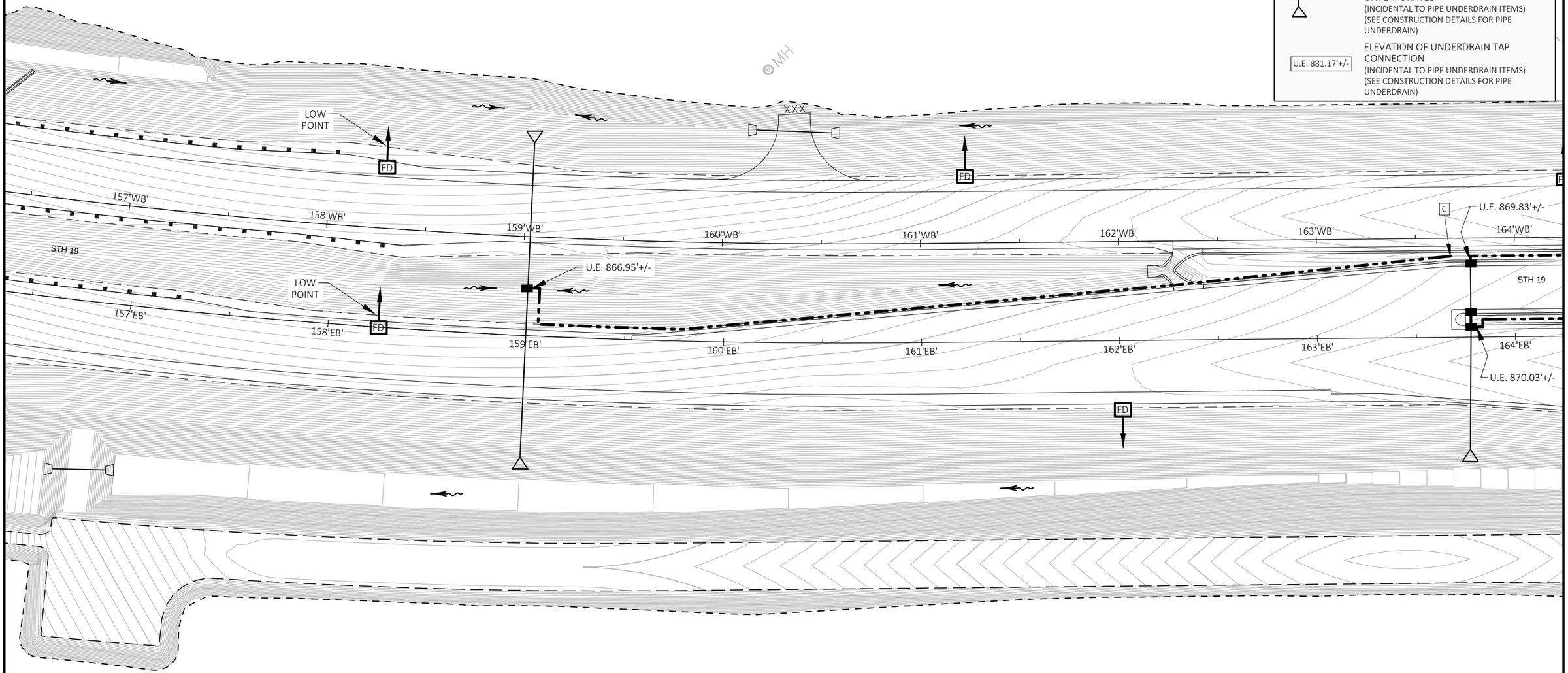
PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
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- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 84	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET04

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

TIERNEY CROSSING

304'TC'

303'TC'

XXXXX

U.E. 870.64'+/-

U.E. 870.77'+/-

U.E. 872.63'+/-

U.E. 872.68'+/-

U.E. 870.28'+/-

MH

FD

C

164'WB'

165'WB'

166'WB'

167'WB'

168'WB'

169'WB'

170'WB'

171'WB'

HIGH POINT

STH 19

164'EB'

165'EB'

166'EB'

167'EB'

168'EB'

169'EB'

170'EB'

171'EB'

9'LWS'

LUNA WAY

8'LWS'

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

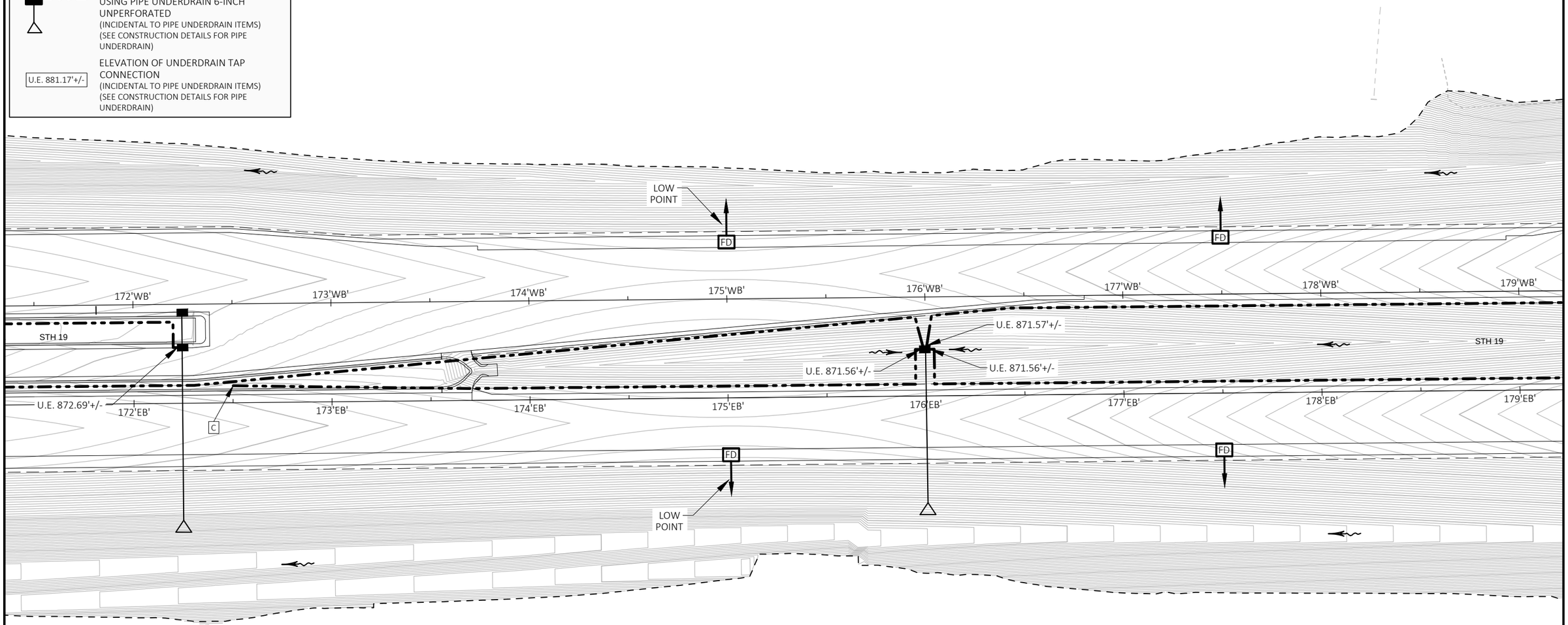
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 85 E

2

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

N



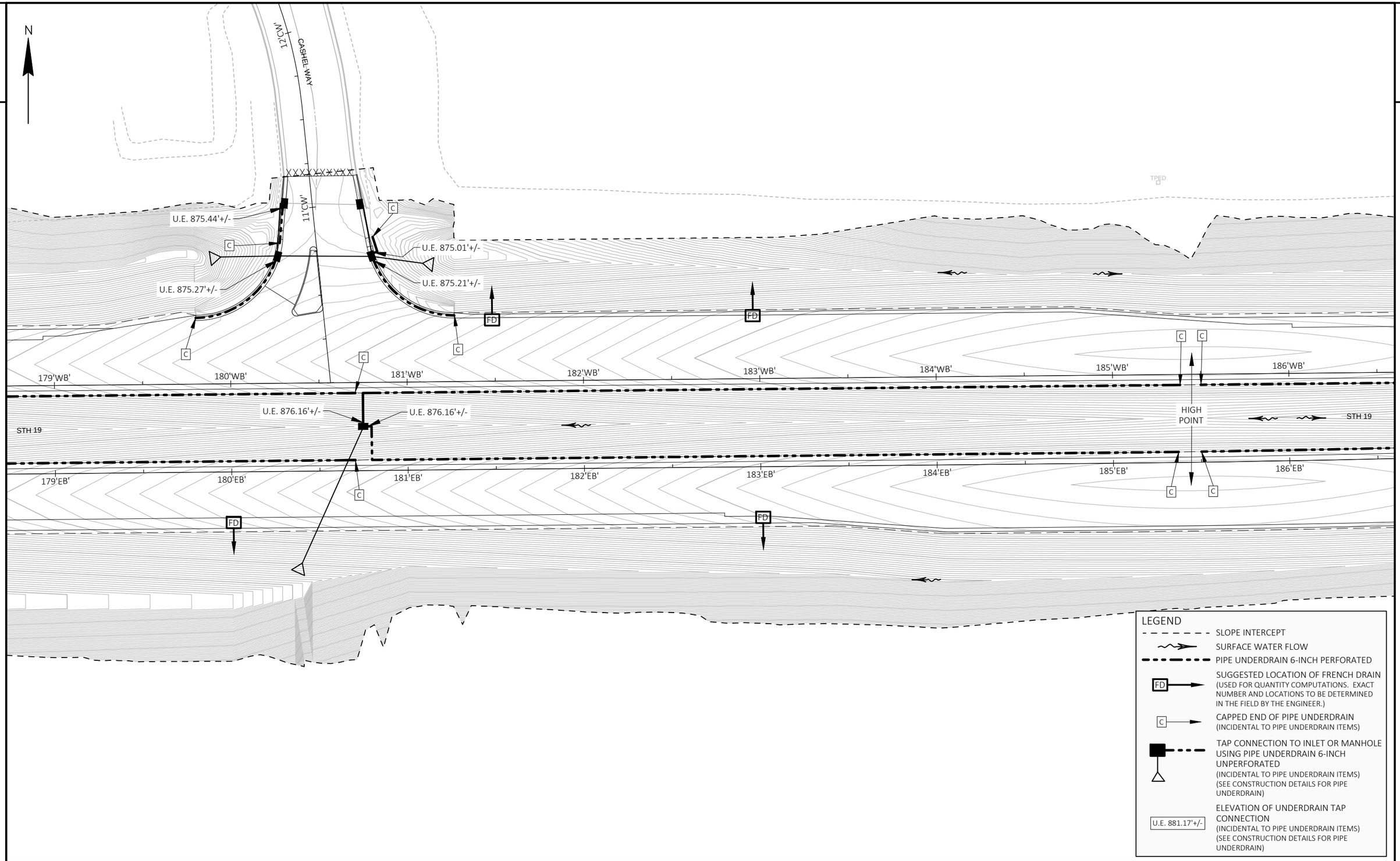
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 86	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET06

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 87	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET07

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

N

187'WB' 188'WB' 189'WB' 190'WB' 191'WB' 192'WB' 193'WB'

U.E. 876.54'+/-

U.E. 876.86'+/-

STH 19

187'EB' 188'EB' 189'EB' 190'EB' 191'EB' 192'EB' 193'EB'

9+00'LES'

8+00'LES'

LIUNA WAY

FD

C

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 88	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET08

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

IH 39/90/94 OFF-RAMP

IH 39/90/94

FD

CONNECT TO EXISTING PIPE UNDERDRAIN (INCIDENTAL)

193'WB' 194'WB' 195'WB' 196'WB' 197'WB' 198'WB' 199'WB'

STH 19

EXISTING STORM SEWER INLETS

ELEC MH

STH 19

193'EB' 194'EB' 195'EB' 196'EB' 197'EB' 198'EB' 199'EB'

CONNECT TO EXISTING PIPE UNDERDRAIN (INCIDENTAL)

FD

IH 39/90/94 ON-RAMP

LEGEND

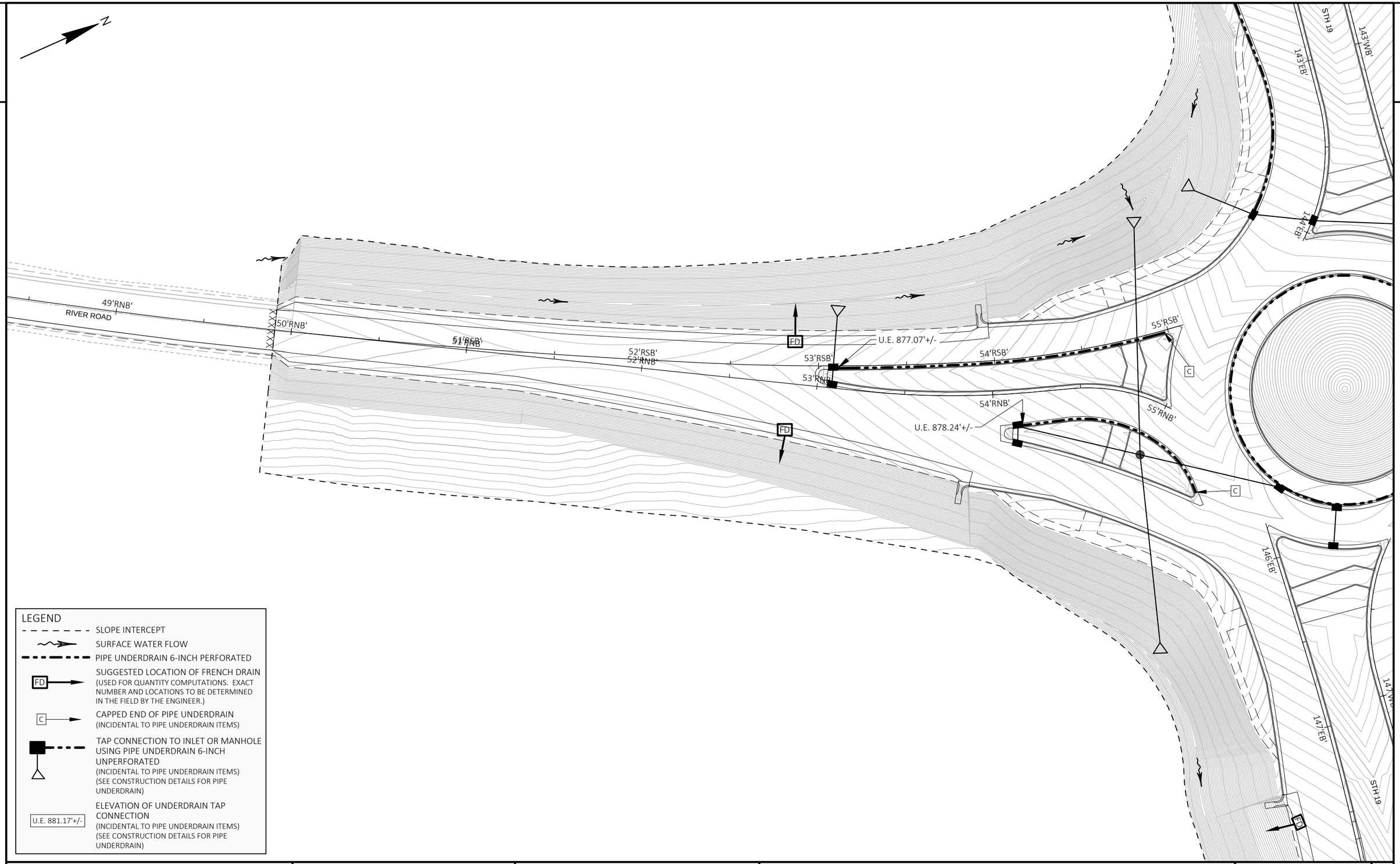
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
- C — CAPPED END OF PIPE UNDERDRAIN (INCIDENTAL TO PIPE UNDERDRAIN ITEMS)
- TAP CONNECTION TO INLET OR MANHOLE USING PIPE UNDERDRAIN 6-INCH UNPERFORATED (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)
- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 89	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0226_PU.DWG
LAYOUT NAME - PU-SHEET09

PLOT DATE : 4/30/2019 1:01 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:50 FT

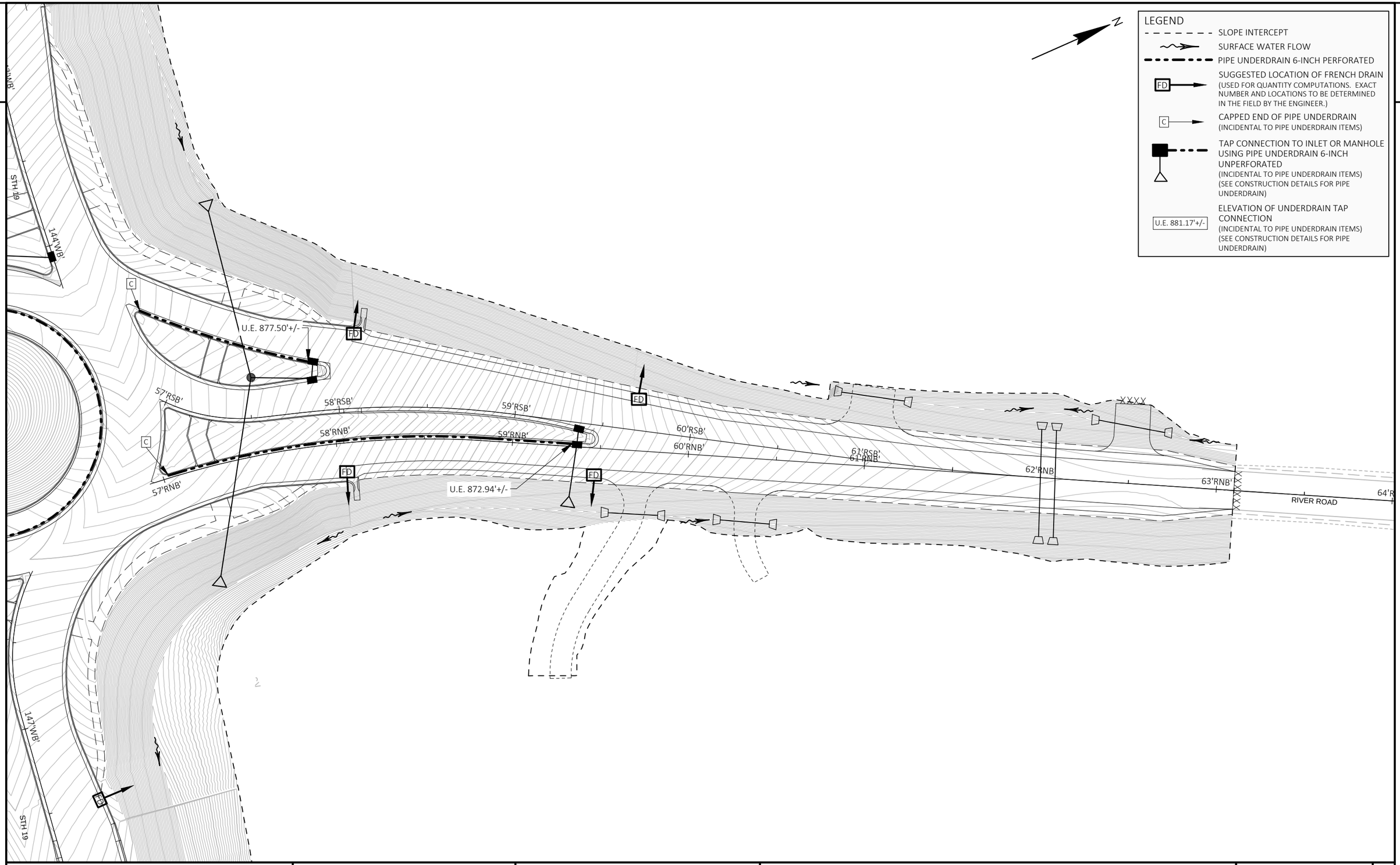
WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- PIPE UNDERDRAIN 6-INCH PERFORATED
- FD — SUGGESTED LOCATION OF FRENCH DRAIN (USED FOR QUANTITY COMPUTATIONS. EXACT NUMBER AND LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.)
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- U.E. 881.17'+/- — ELEVATION OF UNDERDRAIN TAP CONNECTION (INCIDENTAL TO PIPE UNDERDRAIN ITEMS) (SEE CONSTRUCTION DETAILS FOR PIPE UNDERDRAIN)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 90	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	UNDERDRAIN PLAN	SHEET 91	E

2

N

2

ALLIANT ENERGY
(ELECTRIC)

ALLIANT ENERGY
(ELECTRIC)

OH

GUY

116'EB'

STH 19

118'EB'

120'EB'

122'EB'

124'EB'

126'EB'

128'EB'

STH 19

130'EB'

T

TDS TELECOM
(COMMUNICATION)

TDS TELECOM
(COMMUNICATION)

CENTURYLINK
(COMMUNICATION)

N

ALLIANT ENERGY
(ELECTRIC)

STH 19

130'EB'

132'EB'

134'EB'

136'WB'

136'EB'

138'WB'

138'EB'

140'WB'

140'EB'

142'WB'

142'EB'

144'WB'

144'EB'

STH 19

SLOPE INTERCEPT

CENTURYLINK
(COMMUNICATION)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	EXISTING UTILITIES	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0230_UT.DWG
LAYOUT NAME - 01

PLOT DATE : 4/30/2019 1:19 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

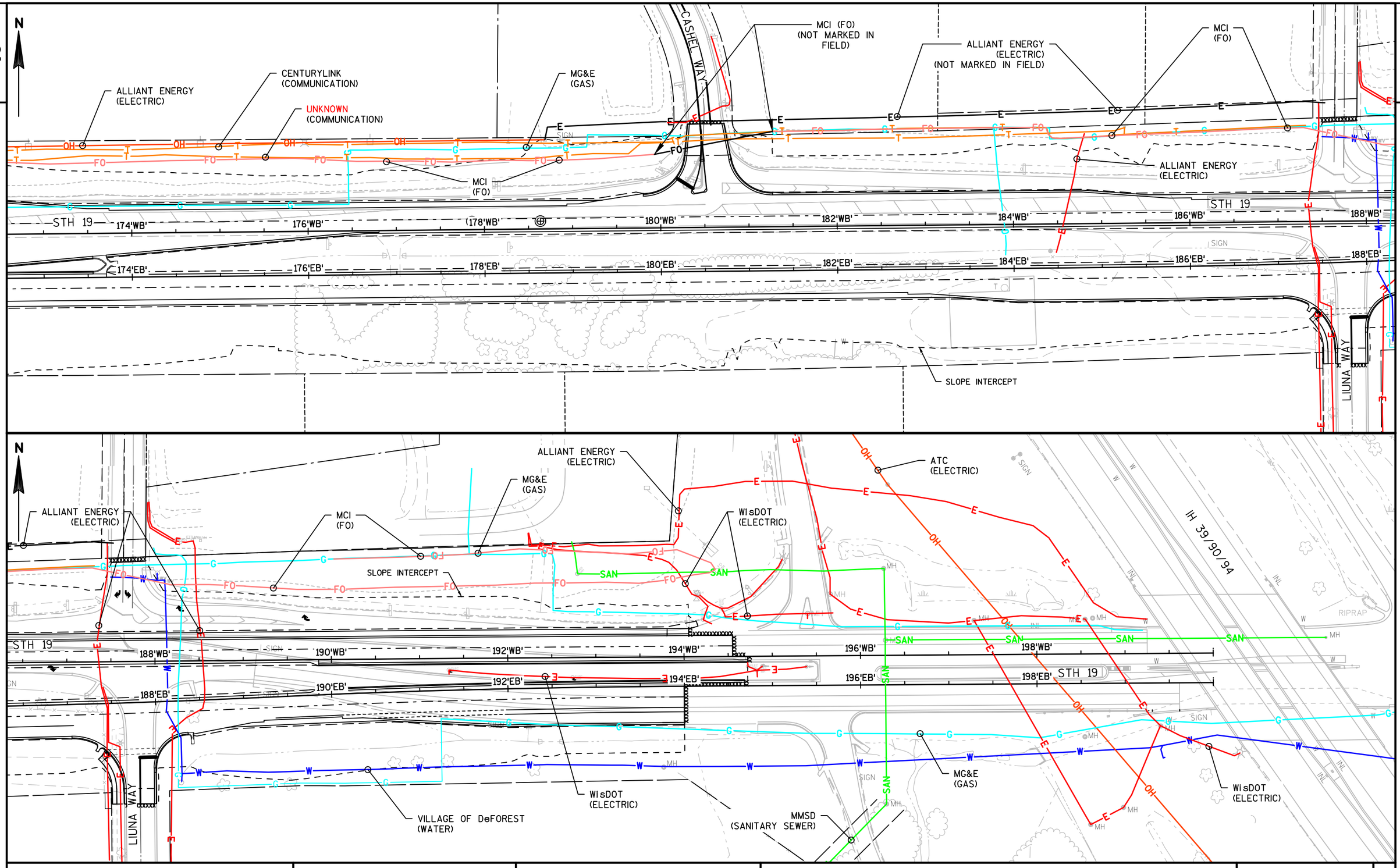
WISDOT/CADDS SHEET 42

CENTURYLINK (COMMUNICATION & FO)
CHARTER COMMUNICATION
WisDOT (SIGNALS - ELECTRIC)
RIVER ROAD
58'RNB'
57'RNB'
144'WB'
141'EB'
STH 19
CHARTER COMMUNICATION
146'EB'
148'WB'
148'EB'
150'WB'
150'EB'
152'WB'
152'EB'
154'WB'
154'EB'
156'WB'
156'EB'
158'WB'
158'EB'
55'RNB'
54'RNB'
MG&E (GAS)
MG&E (ABANDONED GAS)
MCI (FO)
ALLIANT ENERGY (ELECTRIC)
CHARTER COMMUNICATION (FO)
CENTURYLINK (COMMUNICATION & FO)
CENTURYLINK (COMMUNICATION & FO)
CHARTER COMMUNICATION (FO)
SLOPE INTERCEPT
MCI (FO)
ALLIANT ENERGY (ELECTRIC)
CENTURYLINK (COMMUNICATION)
CHARTER COMMUNICATION (FO)
MG&E (GAS)
MMSD (SANITARY SEWER)
MMSD (SANITARY SEWER SERVICE)
MCI (FO) (NOT MARKED IN FIELD)
VILLAGE OF DEFOREST (SANITARY SEWER)
MCI (FO)
N

MMSD (SANITARY SEWER SERVICE)
CHARTER COMMUNICATION (FO)
CENTURYLINK (COMMUNICATION)
MCI (FO)
MG&E (GAS)
ALLIANT ENERGY (ELECTRIC)
CENTURYLINK (COMMUNICATION) (NOT MARKED IN FIELD)
CHARTER COMMUNICATION (FO)
VILLAGE OF DEFOREST (SANITARY SEWER)
TEIRNEY CROSSING
UNKNOWN (COMMUNICATION)
CENTURYLINK (COMMUNICATION)
MCI (FO)
MG&E (GAS)
158'WB'
STH 19
160'WB'
162'WB'
164'WB'
166'WB'
168'WB'
170'WB'
172'WB'
STH 19
158'EB'
160'EB'
162'EB'
164'EB'
166'EB'
168'EB'
170'EB'
172'EB'
CENTURYLINK (COMMUNICATION & FO)
ALLIANT ENERGY (ELECTRIC)
MG&E (ABANDONED GAS)
ALLIANT ENERGY (ELECTRIC)
SLOPE INTERCEPT
VILLAGE OF DEFOREST (WATER)
VILLAGE OF DEFOREST (SANITARY SEWER)
LIUNA WAY
SIGN
MG&E (ABANDONED GAS)

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	EXISTING UTILITIES	SHEET 93	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0230_UT.DWG
LAYOUT NAME - 02
PLOT DATE : 4/30/2019 1:19 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	EXISTING UTILITIES	SHEET 94	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0230_UT.DWG
LAYOUT NAME - 03

PLOT DATE : 4/30/2019 1:19 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 19

140'WB'

140'EB'

142'WB'

142'EB'

144'WB'

144'EB'

146'EB'

148'WB'

148'EB'

OH

T

FO

C

ALLIANT ENERGY
(ELECTRIC)

CENTURYLINK
(COMMUNICATION)

CHARTER COMMUNICATION

SLOPE INTERCEPT

CENTURYLINK
(COMMUNICATION & FO)

CHARTER COMMUNICATION

CENTURYLINK
(COMMUNICATION & FO)

CHARTER COMMUNICATION

CENTURYLINK
(COMMUNICATION & FO)

SEPC

49'RNB'

50'RNB'

RIVER ROAD

52'RNB'

53'RNB'

54'RNB'

55'RNB'

57'RNB'

58'RNB'

59'RNB'

60'RNB'

61'RNB'

62'RNB'

63'RNB'

64'RNB'

RIVER ROAD

ALLIANT ENERGY
(ELECTRIC)

CENTURYLINK
(COMMUNICATION & FO)

MG&E
(GAS)

MG&E
(GAS)

CHARTER COMMUNICATION (FO)

MG&E
(ABANDONED GAS)

CENTURYLINK
(COMMUNICATION & FO)

WISDOT
(SIGNALS - ELECTRIC)

ALLIANT ENERGY
(ELECTRIC)

MG&E
(GAS)

CENTURYLINK
(COMMUNICATION)

MG&E
(GAS)

ALLIANT ENERGY
(ELECTRIC)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	EXISTING UTILITIES	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0230_UT.DWG
LAYOUT NAME - 04

PLOT DATE : 4/30/2019 1:20 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

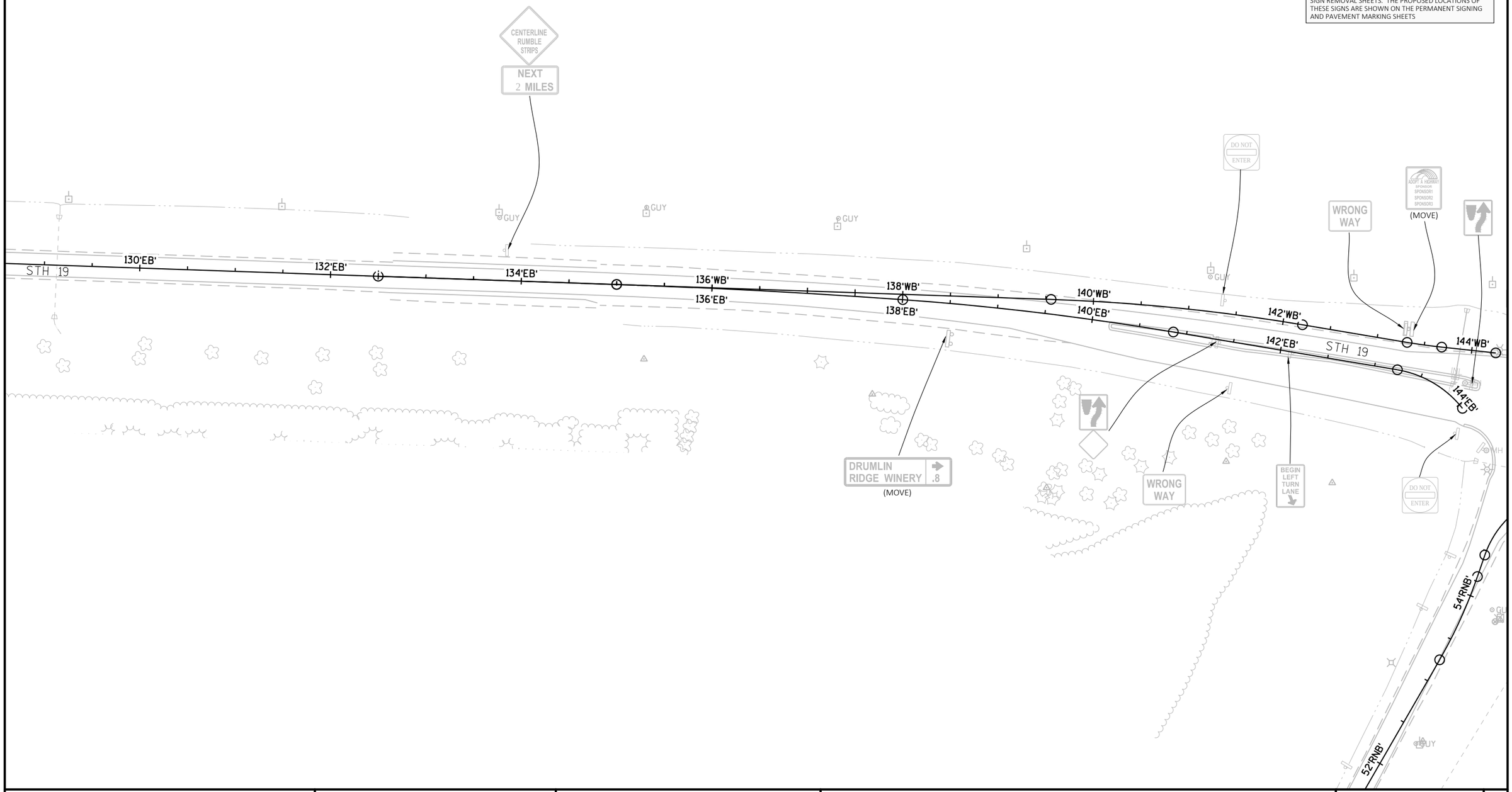
N

LEGEND

- EXISTING SIGN ON SINGLE SUPPORT
- EXISTING SIGN ON DOUBLE SUPPORT
- TWO EXISTING SIGNS ON SINGLE SUPPORT (FACING OPPOSING DIRECTIONS)

NOTES:
REMOVE ALL SIGNS DEPICTED ON THESE SHEETS UNLESS NOTED OTHERWISE.

EXISTING SIGNS TO BE MOVED ARE IDENTIFIED ON THE SIGN REMOVAL SHEETS. THE PROPOSED LOCATIONS OF THESE SIGNS ARE SHOWN ON THE PERMANENT SIGNING AND PAVEMENT MARKING SHEETS



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SIGN REMOVALS	SHEET 96	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0232A_SIGN REMOV.DWG
LAYOUT NAME - 01
PLOT DATE : 4/22/2019 7:16 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

2

N

RIVER ROAD

60'RNB'

59'RNB'

58'RNB'

57'RNB'

54'RNB'

52'RNB'

EPED

RIPRAP

144'WB'

144'EB'

STH 19

148'WB'

150'WB'

152'WB'

154'WB'

156'WB'

158'WB'

146'EB'

148'EB'

150'EB'

152'EB'

154'EB'

156'EB'

158'EB'

DO NOT ENTER

4790

(CONTACT PROPERTY OWNER OR TOWN OF WESTPORT FOR REMOVAL OF FIRE NO. SIGN)

BEGIN LEFT TURN LANE

WRONG WAY

DRUMLIN RIDGE WINERY .8

(MOVE)

WESTPORT

NO ENGINE BRAKING WITHIN TOWN LIMITS

(CONTACT TOWN OF WESTPORT FOR REMOVAL OF SIGNS)

MH

ADOPT A HIGHWAY SPONSOR SPONSOR1 SPONSOR2 SPONSOR3

(MOVE)

WRONG WAY

DO NOT ENTER

DeForest POPULATION 8936

NO PASSING ZONE

LEGEND

- EXISTING SIGN ON SINGLE SUPPORT
- EXISTING SIGN ON DOUBLE SUPPORT
- TWO EXISTING SIGNS ON SINGLE SUPPORT (FACING OPPOSING DIRECTIONS)

NOTES:
REMOVE ALL SIGNS DEPICTED ON THESE SHEETS UNLESS NOTED OTHERWISE.

EXISTING SIGNS TO BE MOVED ARE IDENTIFIED ON THE SIGN REMOVAL SHEETS. THE PROPOSED LOCATIONS OF THESE SIGNS ARE SHOWN ON THE PERMANENT SIGNING AND PAVEMENT MARKING SHEETS

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SIGN REMOVALS	SHEET 97	E

2

N

STH 19

158'WB' 160'WB' 162'WB' 164'WB' 166'WB' 168'WB' 170'WB' 172'WB'

158'EB' 160'EB' 162'EB' 164'EB' 166'EB' 168'EB' 170'EB' 172'EB'

SPEED LIMIT 55

ONE WAY

TO 39 INTERSTATE / TO 90 INTERSTATE / TO 94 INTERSTATE

SPEED LIMIT 45

SPEED LIMIT 45

TRUCK TO 39/90 INTERSTATE 94

LIUNA WAY

STH 19

LIUNA WAY

STOP

(CONTACT VILLAGE OF DEFOREST FOR REMOVAL OF ROAD NAME SIGN)

NO PARKING ANY TIME

(MOVE)

NO PARKING ANY TIME

(MOVE)

SPEED LIMIT 25

(MOVE)

CASHEL WAY

11+00

12+00

ONLY

(TO REMAIN)

ONLY

(TO REMAIN)

SPEED LIMIT 25

(TO REMAIN)

NO PARKING ANY TIME

(TO REMAIN)

(MOVE)

(MOVE)

SPEED LIMIT 45

(MOVE)

DO NOT ENTER

WEST 19

(MOVE)

BEGIN RIGHT TURN LANE

N

TO 39 INTERSTATE / TO 90 INTERSTATE / TO 94 INTERSTATE

SPEED LIMIT 45

(MOVE D2-1)

Waunakee 6

STOP

(MOVE)

TRUCK TO 39/90 INTERSTATE 94

ONLY

(TO REMAIN)

STOP

STH 19

172'WB' 174'WB' 176'WB' 178'WB' 180'WB' 182'WB' 184'WB' 186'WB'

172'EB' 174'EB' 176'EB' 178'EB' 180'EB' 182'EB' 184'EB' 186'EB'

Cashel Way

LEFT LANE MUST TURN LEFT

SPEED LIMIT 45

JCT 39 INTERSTATE / JCT 90 INTERSTATE / JCT 94 INTERSTATE

(MOVE)

LEGEND

- EXISTING SIGN ON SINGLE SUPPORT
- EXISTING SIGN ON DOUBLE SUPPORT
- TWO EXISTING SIGNS ON SINGLE SUPPORT (FACING OPPOSING DIRECTIONS)

NOTES:
REMOVE ALL SIGNS DEPICTED ON THESE SHEETS UNLESS NOTED OTHERWISE.

EXISTING SIGNS TO BE MOVED ARE IDENTIFIED ON THE SIGN REMOVAL SHEETS. THE PROPOSED LOCATIONS OF THESE SIGNS ARE SHOWN ON THE PERMANENT SIGNING AND PAVEMENT MARKING SHEETS

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SIGN REMOVALS	SHEET 98	E

2

N

(TO REMAIN)

(CONTACT PROPERTY OWNER FOR REMOVAL OF SIGN)

(CONTACT PROPERTY OWNER FOR REMOVAL OF SIGNS)

Cashel Way

ONE WAY

STOP

DO NOT ENTER

DO NOT ENTER

BEGIN RIGHT TURN LANE

WRONG WAY

Dalmore Rd

(MOVE SIGN ONLY, WITHOUT TEMPORARY FLAGS)

(TO REMAIN)

LEFT TURN YIELD ON FLASHING YELLOW ARROW

(ON SIGNAL POLE TO REMAIN)

NORTH 39 WEST 90 WEST 94

(TO REMAIN)

IH 39/90/94

STH 19

SIGN

186'WB' 188'WB' 190'WB' 192'WB' 194'WB' 196'WB' 198'WB'

186'EB' 188'EB' 190'EB' 192'EB' 194'EB' 196'EB' 198'EB'

9+00

8+00

LIUNA WAY

TRUCK TO 39/90 94

(MOVE)

LIUNA WAY

STOP

ONE WAY

(CONTACT VILLAGE OF DEFOREST FOR REMOVAL OF ROAD NAME SIGN)

SOUTH 39 EAST 90 EAST 94

RAMP CLOSED USE ALT ROUTE

(MOVE R11-54F)

(MOVE SIGN ONLY, WITHOUT TEMPORARY FLAGS)

Sun Prairie

Milwaukee

Janesville

WRONG WAY

(MOVE)

SOUTH 39 EAST 90 EAST 94

STOP

(ON LIGHT POLE TO REMAIN)

DO NOT ENTER

(ON LIGHT POLE TO REMAIN)

STOP

(TO REMAIN)

SOUTH 39 EAST 90 EAST 94

(MOVE)

LEGEND

- EXISTING SIGN ON SINGLE SUPPORT
- EXISTING SIGN ON DOUBLE SUPPORT
- TWO EXISTING SIGNS ON SINGLE SUPPORT (FACING OPPOSING DIRECTIONS)

NOTES:
REMOVE ALL SIGNS DEPICTED ON THESE SHEETS UNLESS NOTED OTHERWISE.

EXISTING SIGNS TO BE MOVED ARE IDENTIFIED ON THE SIGN REMOVAL SHEETS. THE PROPOSED LOCATIONS OF THESE SIGNS ARE SHOWN ON THE PERMANENT SIGNING AND PAVEMENT MARKING SHEETS

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SIGN REMOVALS	SHEET 99	E

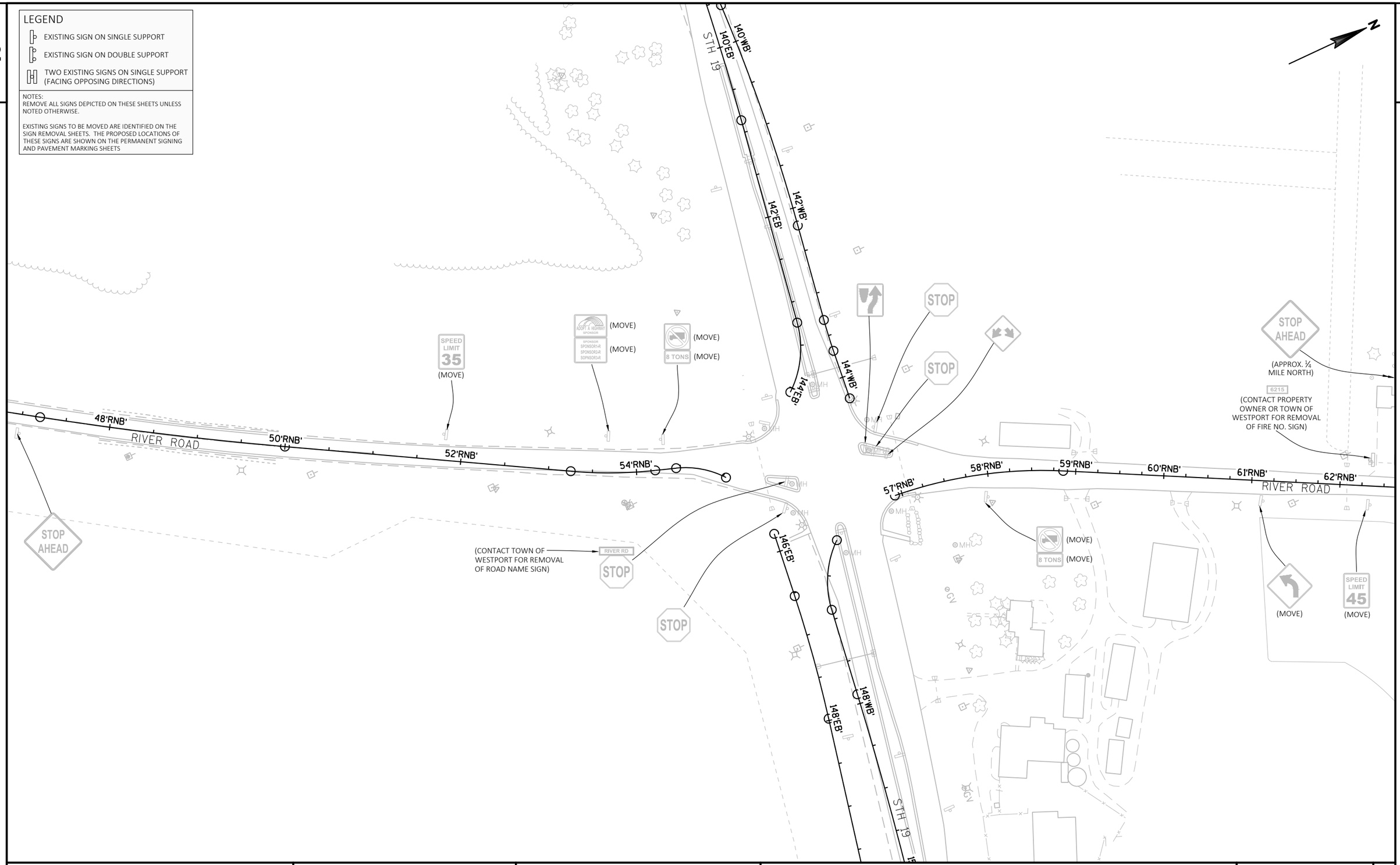
2

LEGEND

- EXISTING SIGN ON SINGLE SUPPORT
- EXISTING SIGN ON DOUBLE SUPPORT
- TWO EXISTING SIGNS ON SINGLE SUPPORT (FACING OPPOSING DIRECTIONS)

NOTES:
REMOVE ALL SIGNS DEPICTED ON THESE SHEETS UNLESS NOTED OTHERWISE.

EXISTING SIGNS TO BE MOVED ARE IDENTIFIED ON THE SIGN REMOVAL SHEETS. THE PROPOSED LOCATIONS OF THESE SIGNS ARE SHOWN ON THE PERMANENT SIGNING AND PAVEMENT MARKING SHEETS



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SIGN REMOVALS	SHEET 100	E

2

LEGEND

- PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
- TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
- TF-1 — TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
- XX-XX — SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
- M-XX — MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

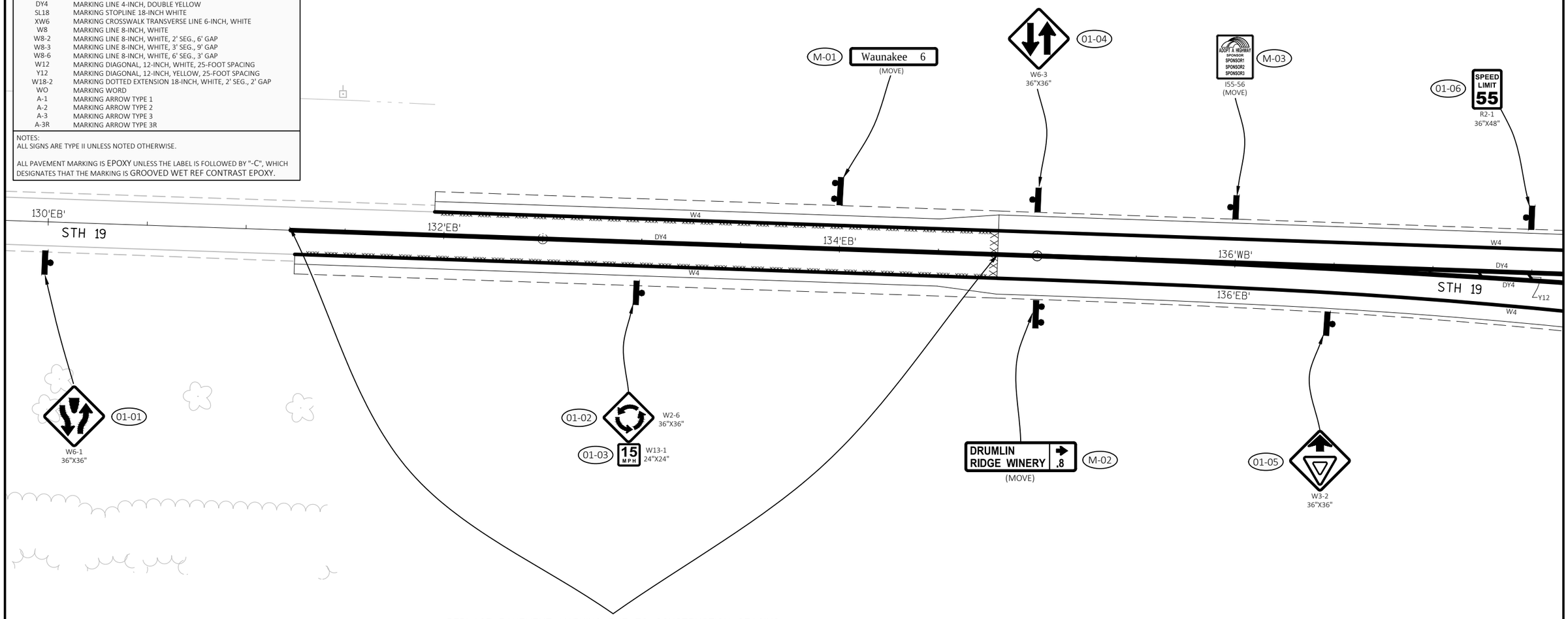
LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

N

2



REPLACE PAVEMENT MARKING DUE TO CONSTRUCTION STAGING

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 101	E

2

N

02-01 DO NOT ENTER
R5-1
36"X36"

02-02 WEST 19
J4-1
24"X36"

02-03
R4-7
24"X30"

02-04
W5-54S
18"X18"

02-09 WRONG WAY
R5-1A
42"X30"

02-10
W6-2
36"X36"

02-11
W4-2R
36"X36"

OVERHEAD SIGN SUPPORT S-13-500 (SEE DETAIL)

STH 19

138'WB'

138'EB'

140'WB'

140'EB'

142'WB'

142'EB'

144'WB'

12'CR'

11'CR'

W4 W4-3 W8-3 W8-6 W8 W12 Y4 DY4 Y12 W18-2 SL18 XW6 CBY INY A-3R A-3

02-05
R3-8CC
36"X30"
(ON SIGN STRUCTURE)

02-06
TYPE I
(SEE SPECIAL SIGN DETAILS)

02-07
TYPE I
(SEE SPECIAL SIGN DETAILS)

02-08
R3-8CC
36"X30"
(ON SIGN STRUCTURE)

02-12
W4-2R
36"X36"

LEGEND

- PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
- TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
- TF-1 — TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
- XX-XX — SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
- M-XX — MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

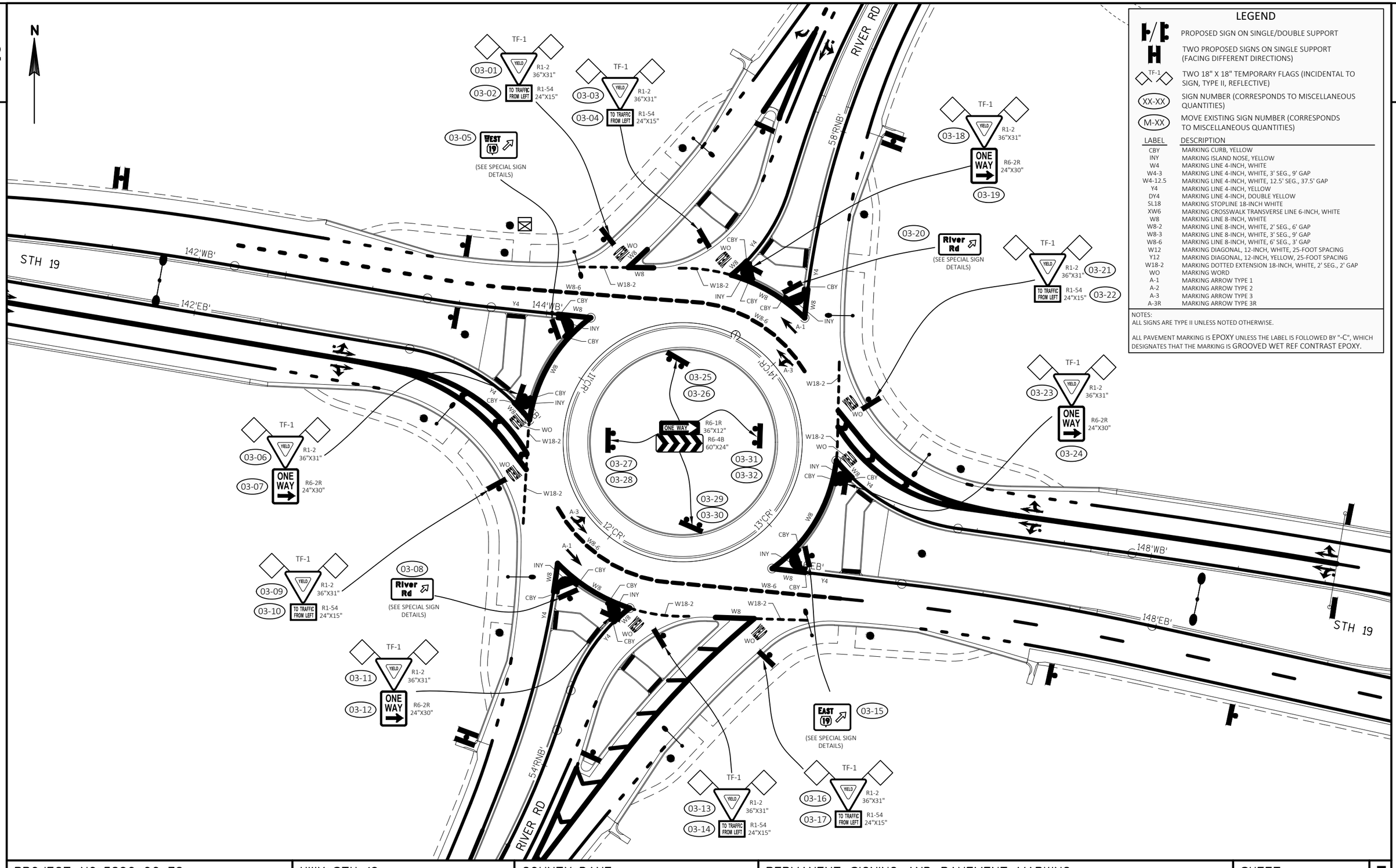
ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 102	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0232B_PS - PM.DWG
LAYOUT NAME - 02

PLOT DATE : 5/20/2019 10:47 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42



LEGEND

P/P	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 103	E

2

N

04-03

19 WEST
Waunakee
River Rd

TYPE I
(SEE SPECIAL SIGN DETAILS)

04-04

19 WEST
Waunakee
River Rd

TYPE I
(SEE SPECIAL SIGN DETAILS)

04-02

R3-8CC
36"X30"
(ON SIGN STRUCTURE)

04-05

R3-8CC
36"X30"
(ON SIGN STRUCTURE)

.8 DRUMLIN RIDGE WINERY

M-05

(MOVE)

OVERHEAD SIGN SUPPORT S-13-498
(SEE DETAIL)

STH 19

148'WB'

150'WB'

152'WB'

148'EB'

150'EB'

152'EB'

W8 W12 W4-3 W4 W8 A-3 A-3R Y4 W4-12.5-C W8-6

WEST 19

04-01

J4-1
36"X54"

ADOPT A HIGHWAY
SPONSOR
SPONSOR1
SPONSOR2
SPONSOR3

M-04

I55-56
(MOVE)

SPEED LIMIT 45

04-06

W3-5
36"X36"

SPEED LIMIT 45

04-07

W3-5
36"X36"

LEGEND

	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

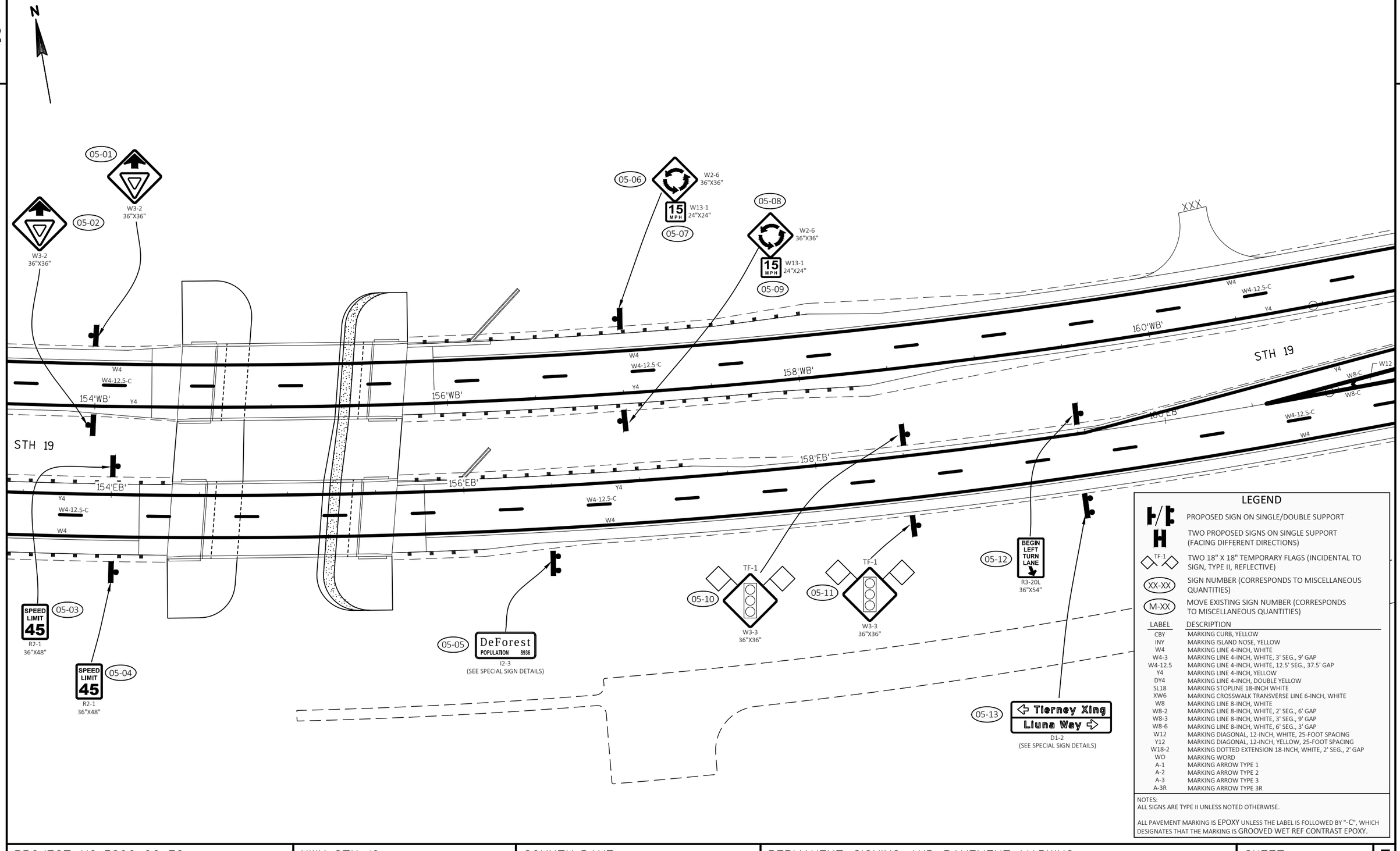
LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 104	E

2



LEGEND

F/D	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 105	E

LEGEND

F/B	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

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N

2

2

06-01 W12-1D 24"X24"

06-02 WRONG WAY R5-1A 42"X30"

06-03 WRONG WAY R5-1A 42"X30"

06-04 SPEED LIMIT 55 R2-1 36"X48"

06-05 SPEED LIMIT 55 R2-1 36"X48"

06-06 STOP R1-1F 36"X36" (ON SIGNAL POLE)

06-07 R4-7 36"X48" (ON SIGNAL POLE)

06-08 STOP R1-1F 36"X36" (ON SIGNAL POLE)

06-09 STOP R1-1F 36"X36" (ON SIGNAL POLE)

06-10 DO NOT ENTER R5-1 36"X36" (ON SIGNAL POLE)

06-11 DO NOT ENTER R5-1 36"X36" (ON SIGNAL POLE)

STH 19

162'WB' 164'WB' 166'WB' 168'WB'

162'EB' 164'EB' 166'EB' 168'EB'

TIERNEY CROSSING

LIUNA WAY

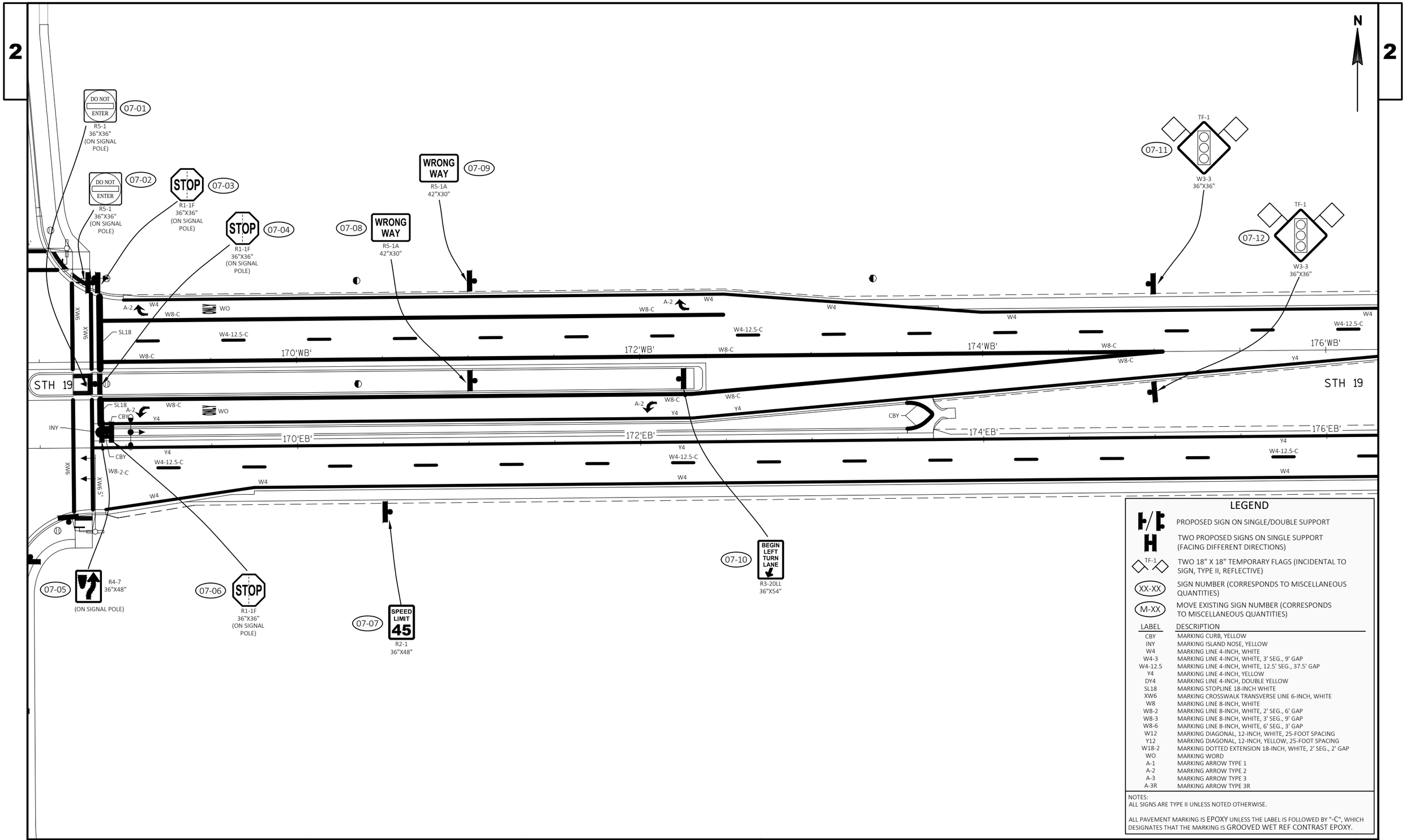
304'TCS'

45'

40'

W4 W4-12.5-C Y4 W8-C W12 A2 WO SL18 CBY INY

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 106	E



LEGEND

F/D	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 107	E

2

N

CASHEL WAY

12'CW'

11'CW'

08-01 Liuna Way / Tierney Xing ⇨
D1-2
(SEE SPECIAL SIGN DETAILS)

08-02 ONE WAY R6-1R 36"X12"
M-06 STOP R1-1 (MOVE)
08-03 DIVIDED HIGHWAY R6-3A 30"X24"

M-07
R4-7
(MOVE)

M-08
R3-2
(MOVE)

08-05 DO NOT ENTER R5-1 36"X36"

08-06 WRONG WAY R5-1A 42"X30"

08-04 ONE WAY R6-2R 24"X30"

WO
DY4
A-2
INY
CBY
SL18

W4
W4-12.5-C
Y4
W8-C
A2

176'WB'
178'WB'
180'WB'
182'WB'

176'EB'
178'EB'
180'EB'
182'EB'

STH 19

LEGEND

	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 108	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0232B_PS - PM.DWG
LAYOUT NAME - 08
PLOT DATE : 5/20/2019 10:48 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

LEGEND

P/D	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

09-12 — 19 EAST / Sun Prairie / AHEAD — D1-70 (SEE SPECIAL SIGN DETAILS)

09-06 — Cashel Way — D1-1 (SEE SPECIAL SIGN DETAILS)

M-11 — SPEED LIMIT 45 — (MOVE)

09-07 — ONE WAY — R6-2R 24"x30"

09-01 — JCT 39 90 94 — J1-3 72"X39"

09-02 — WRONG WAY — R5-1A 42"X30"

M-09 — JCT 39 90 94 — J1-3 (MOVE)

09-03 — NORTH WEST WEST 39 90 94 KEEP LEFT — D1-70 (SEE SPECIAL SIGN DETAILS)

09-04 — SOUTH EAST EAST 39 90 94 SECOND RIGHT — D1-70 (SEE SPECIAL SIGN DETAILS)

09-05 — DO NOT ENTER — R5-1 36"X36"

M-10 — RAMP CLOSED USE ALT ROUTE — (MOVE)

09-08 — ONE WAY — R6-1R 36"X12"

09-09 — STOP — R1-1 36"x36"

09-10 — DIVIDED HIGHWAY — R6-3A 30"X24"

M-12 — ONLY — (MOVE)

STH 19

184'WB' 186'WB' 188'WB' 190'WB'

184'EB' 186'EB' 188'EB' 190'EB'

LIUNA WAY

91'LES'

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 109	E

2

N

IH 39/90/94 OFF-RAMP

WEST 19 M-15 (MOVE)

M-13 W3-3 (MOVE)

REPLACE PAVEMENT MARKING
OUTSIDE RECONSTRUCTION LIMITS
DUE TO CONSTRUCTION STAGING

NORTH WEST WEST 39 90 94 (EXISTING SIGN TO REMAIN)

10-02 SOUTH EAST EAST 39 90 94 Madison
D1-70
(SEE SPECIAL SIGN DETAILS)
(MOUNT ON BACK OF EXISTING SIGN)

W4 W4-12.5-C Y4 192'WB' 194'WB' 196'WB' 198'WB'

STH 19

192'EB' 194'EB' 196'EB' 198'EB'

W4-3-C W8-3-C W4-C W8-C A-2 WO W8-C SL18

M-14 W3-3 (MOVE)

WRONG WAY M-16 (MOVE)

10-01 NORTH WEST WEST 39 90 94 Wis Dells
SOUTH EAST EAST 39 90 94 Madison
D1-71
(SEE SPECIAL SIGN DETAILS)

SOUTH EAST EAST 39 90 94 (MOVE) M-17

IH 39/90/94 ON-RAMP

LEGEND

F/B	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 110	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0232B_PS - PM.DWG
LAYOUT NAME - 10
PLOT DATE : 5/20/2019 10:48 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : **********

2

REPLACE PAVEMENT MARKING
OUTSIDE RECONSTRUCTION LIMITS
DUE TO CONSTRUCTION STAGING

IH 39/90/94 WB

IH 39/90/94 ON-RAMP

RIPRAP

RIPRAP

RIPRAP

198+80'WB'

W4

W4

W4-12.5-C

W4-12.5-C

W8-C

198'WB'

W8-C

STH 19

199+55'WB'

198'EB'

STH 19 WB

STH 19 EB

IH 39/90/94 EB

N

CANADIAN NATIONAL RAILROAD

NOTE:
APPROXIMATELY 600 FEET OF WESTBOUND STH 19 SKIP DASH PAVEMENT MARKING LOCATED BETWEEN THE IH 39/90/94 WB OFF RAMP AND PEPSI WAY WILL BE REMOVED DUE TO CONSTRUCTION STAGING. REPLACE REMOVED PAVEMENT MARKING WITH W4-12.5-C.

STH 19 WB

W8-2-C

REPLACE PAVEMENT MARKING
OUTSIDE RECONSTRUCTION LIMITS
DUE TO CONSTRUCTION STAGING

STH 19 EB

IH 39/90/94
OFF-RAMP

LEGEND

P/P H	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

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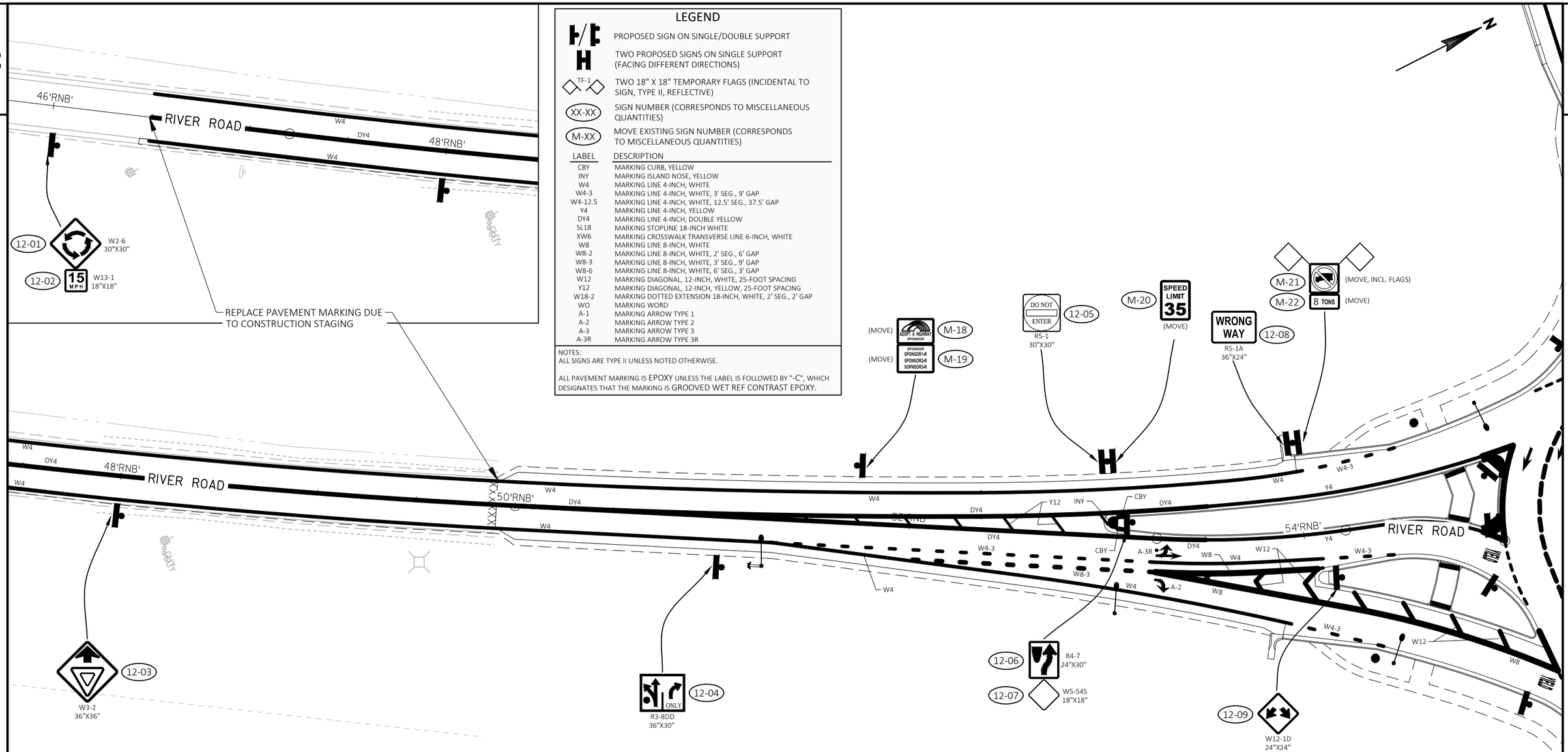
LEGEND

	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
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WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
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A-3R	MARKING ARROW TYPE 3R

NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

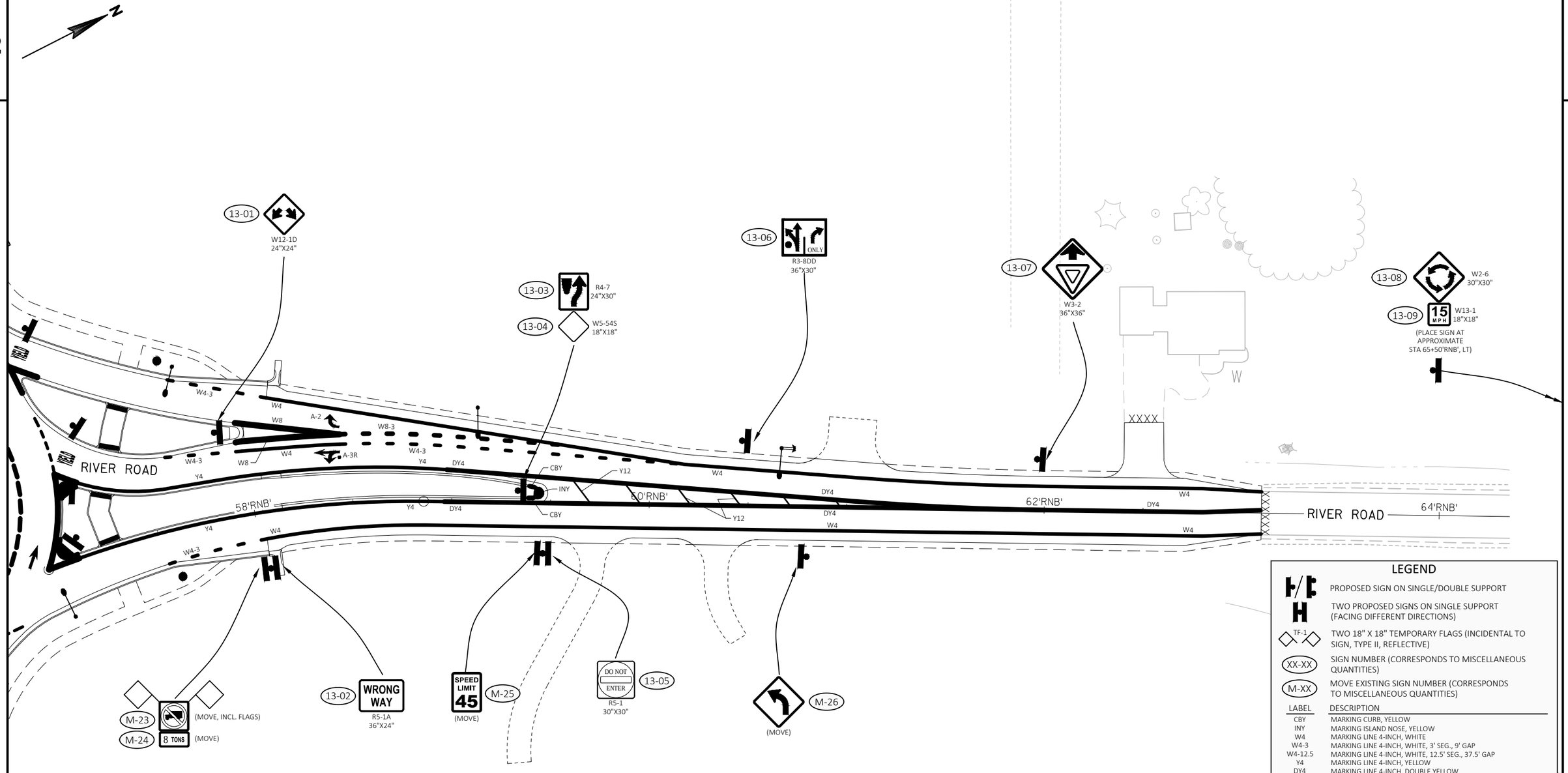
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 112	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0232B_PS - PM.DWG
LAYOUT NAME - 12
PLOT DATE : 5/20/2019 10:49 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



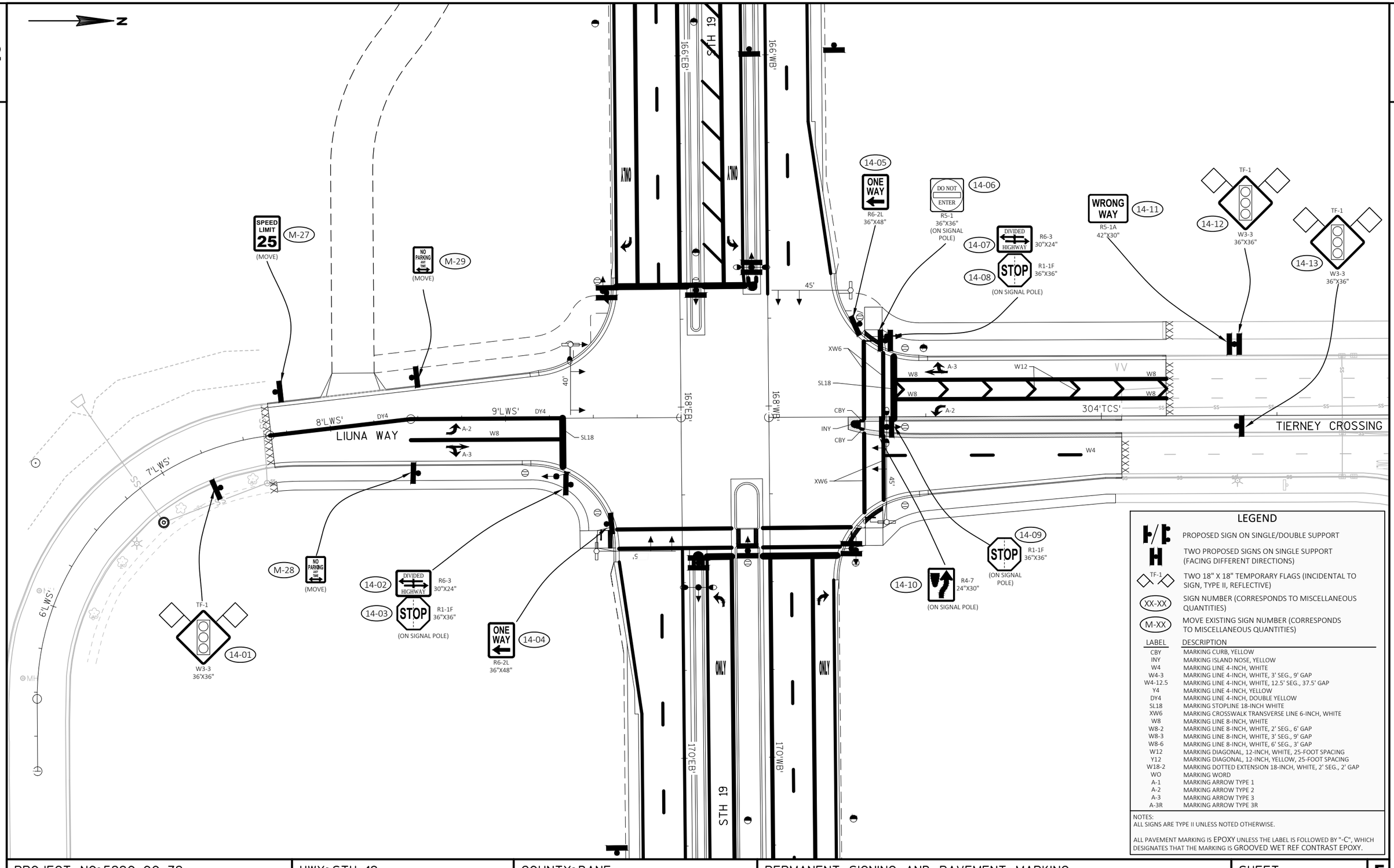
LEGEND

F/B	PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
H	TWO PROPOSED SIGNS ON SINGLE SUPPORT (FACING DIFFERENT DIRECTIONS)
TF-1	TWO 18" X 18" TEMPORARY FLAGS (INCIDENTAL TO SIGN, TYPE II, REFLECTIVE)
XX-XX	SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
M-XX	MOVE EXISTING SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

LABEL	DESCRIPTION
CBY	MARKING CURB, YELLOW
INY	MARKING ISLAND NOSE, YELLOW
W4	MARKING LINE 4-INCH, WHITE
W4-3	MARKING LINE 4-INCH, WHITE, 3' SEG., 9' GAP
W4-12.5	MARKING LINE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE 4-INCH, YELLOW
DY4	MARKING LINE 4-INCH, DOUBLE YELLOW
SL18	MARKING STOPLINE 18-INCH WHITE
XW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE
W8	MARKING LINE 8-INCH, WHITE
W8-2	MARKING LINE 8-INCH, WHITE, 2' SEG., 6' GAP
W8-3	MARKING LINE 8-INCH, WHITE, 3' SEG., 9' GAP
W8-6	MARKING LINE 8-INCH, WHITE, 6' SEG., 3' GAP
W12	MARKING DIAGONAL, 12-INCH, WHITE, 25-FOOT SPACING
Y12	MARKING DIAGONAL, 12-INCH, YELLOW, 25-FOOT SPACING
W18-2	MARKING DOTTED EXTENSION 18-INCH, WHITE, 2' SEG., 2' GAP
WO	MARKING WORD
A-1	MARKING ARROW TYPE 1
A-2	MARKING ARROW TYPE 2
A-3	MARKING ARROW TYPE 3
A-3R	MARKING ARROW TYPE 3R

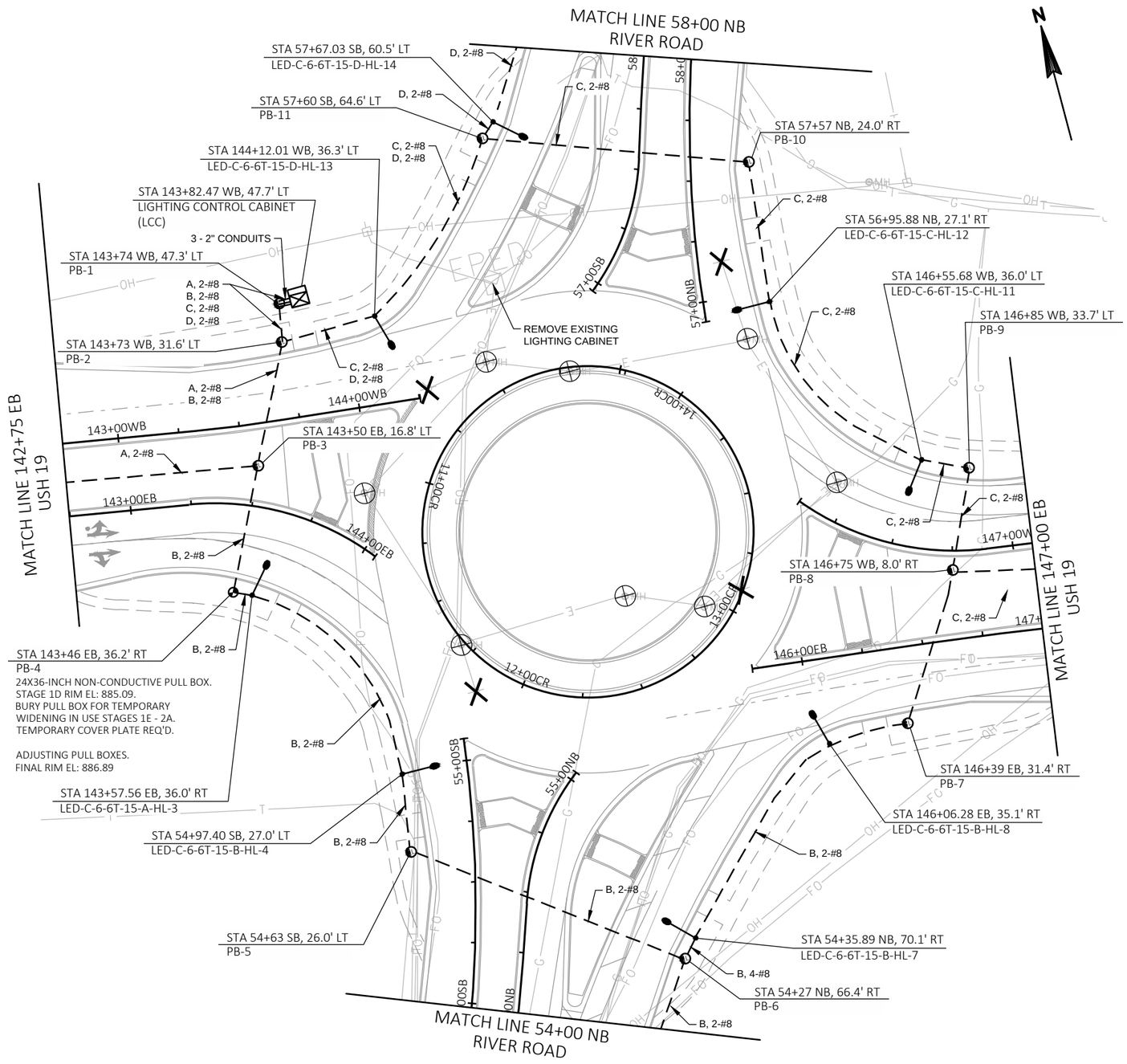
NOTES:
ALL SIGNS ARE TYPE II UNLESS NOTED OTHERWISE.

ALL PAVEMENT MARKING IS EPOXY UNLESS THE LABEL IS FOLLOWED BY "-C", WHICH DESIGNATES THAT THE MARKING IS GROOVED WET REF CONTRAST EPOXY.



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 114	E

2



LEGEND

- REMOVE LIGHTING UNIT AND REMOVE CONCRETE BASE
- REMOVE PULL BOXES
- LIGHTING UNIT, LUMINAIRES UTILITY LED C
- LIGHTING CONTROL CABINET (LCC)
- PULL BOXES NON-CONDUCTIVE 24x42-INCH
- CONDUIT RIGID NON-METALIC SCHEDULE 40 2-INCH, UNLESS NOTED
- CONDUIT STUB

GENERAL LIGHTING NOTES

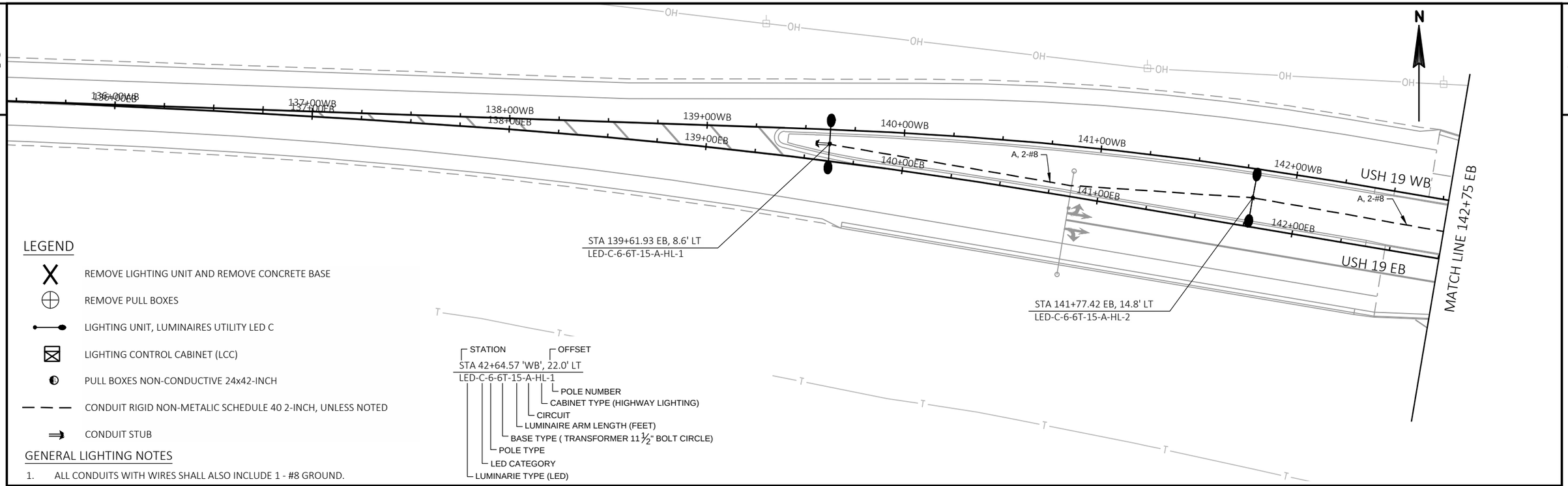
1. ALL CONDUITS WITH WIRES SHALL ALSO INCLUDE 1 - #8 GROUND.

STA 42+64.57 'WB', 22.0' LT
LED-C-6-6T-15-A-HL-1

- STATION
- OFFSET
- POLE NUMBER
- CABINET TYPE (HIGHWAY LIGHTING)
- CIRCUIT
- LUMINAIRE ARM LENGTH (FEET)
- BASE TYPE (TRANSFORMER 11 1/2" BOLT CIRCLE)
- POLE TYPE
- LED CATEGORY
- LUMINARIE TYPE (LED)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	LIGHTING PLAN	SHEET 115	E

2



LEGEND

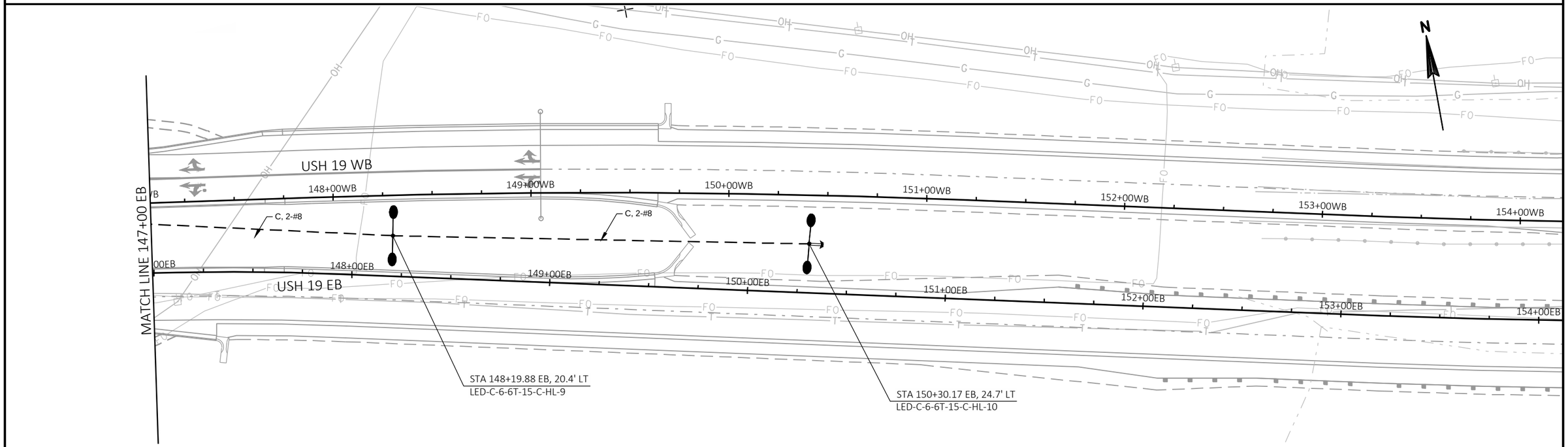
- REMOVE LIGHTING UNIT AND REMOVE CONCRETE BASE
- REMOVE PULL BOXES
- LIGHTING UNIT, LUMINAIRES UTILITY LED C
- LIGHTING CONTROL CABINET (LCC)
- PULL BOXES NON-CONDUCTIVE 24x42-INCH
- CONDUIT RIGID NON-METALIC SCHEDULE 40 2-INCH, UNLESS NOTED
- CONDUIT STUB

GENERAL LIGHTING NOTES

1. ALL CONDUITS WITH WIRES SHALL ALSO INCLUDE 1 - #8 GROUND.

STA 42+64.57 'WB', 22.0' LT
LED-C-6-6T-15-A-HL-1

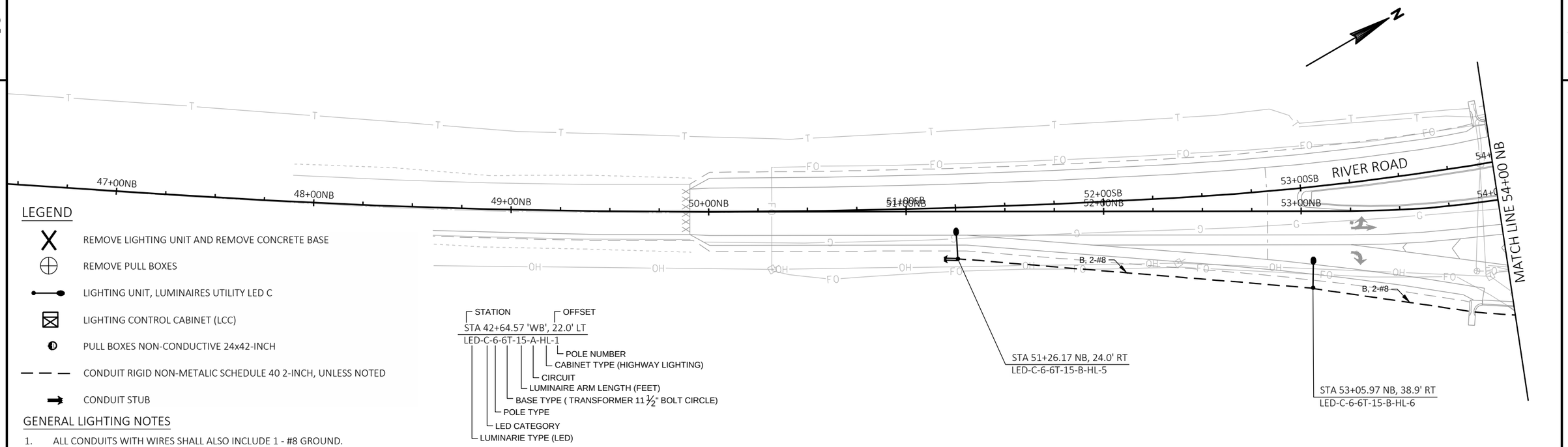
- STATION
- OFFSET
- LUMINARIE TYPE (LED)
- LED CATEGORY
- POLE TYPE
- BASE TYPE (TRANSFORMER 11 1/2" BOLT CIRCLE)
- LUMINAIRE ARM LENGTH (FEET)
- CIRCUIT
- CABINET TYPE (HIGHWAY LIGHTING)
- POLE NUMBER



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	LIGHTING PLAN	SHEET 116	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0236_LP.DWG
LAYOUT NAME - 5290-00-02_0236_LP - 02 023501 LP
PLOT DATE : 4/24/2019 4:56 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2



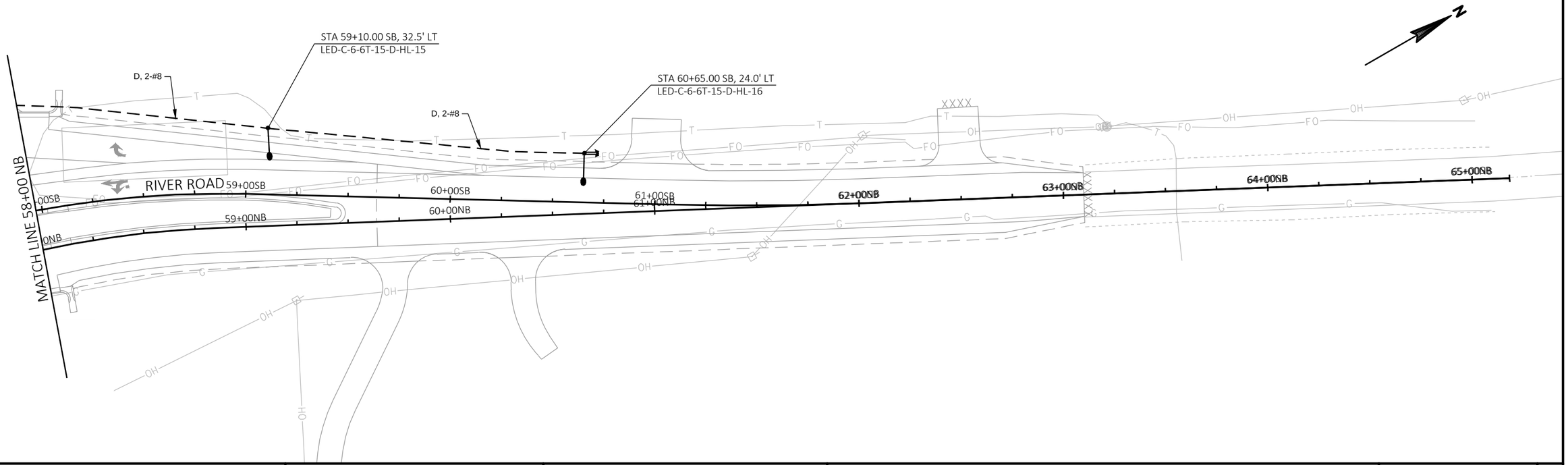
LEGEND

- REMOVE LIGHTING UNIT AND REMOVE CONCRETE BASE
- REMOVE PULL BOXES
- LIGHTING UNIT, LUMINAIRES UTILITY LED C
- LIGHTING CONTROL CABINET (LCC)
- PULL BOXES NON-CONDUCTIVE 24x42-INCH
- CONDUIT RIGID NON-METALIC SCHEDULE 40 2-INCH, UNLESS NOTED
- CONDUIT STUB

STA 42+64.57 'WB', 22.0' LT (STATION, OFFSET)
LED-C-6-6T-15-A-HL-1
- POLE NUMBER
- CABINET TYPE (HIGHWAY LIGHTING)
- CIRCUIT
- LUMINAIRE ARM LENGTH (FEET)
- BASE TYPE (TRANSFORMER 11 ½" BOLT CIRCLE)
- POLE TYPE
- LED CATEGORY
- LUMINARIE TYPE (LED)

GENERAL LIGHTING NOTES

1. ALL CONDUITS WITH WIRES SHALL ALSO INCLUDE 1 - #8 GROUND.



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	LIGHTING PLAN	SHEET 117	E

2

LEGEND

- CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD
- PB PUSH BUTTON
- LUMINAIRES UTILITY LED C, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX NON-CONDUCTIVE, 24" X 36"
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- VIDEO DETECTION CAMERA (STATE FURNISHED)
- XX SIGNAL HEAD NUMBER
- SIGNAL HEAD POLES TYPE 4, TRANSFORMER BASE CONCRETE BASE TYPE 2, LUMINAIRE UTILITY LED C LUMINAIRE ARMS TRUSS 4-INCH CLAMP 12-FT
- XX WALK/DON'T WALK INDICATOR 16" COUNTDOWN TIMER 16"
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

TIERNEY CROSSING

STH 19

MATCH LINE 165+00

MATCH LINE 171+00

LIUNA WAY

SPEED LIMIT 25

SPEED LIMIT 45

SPEED LIMIT 55

2 FIBER OPTIC TERMINATIONS

CABINET S-13-1410

FUTURE

LOOP 41 & 42 6' X 20' 3 TURNS'

LOOP 71 & 72 6' X 20' 4 TURNS'

LOOP 73 & 74 6' X 20' 3 TURNS'

LOOP 12 & 14 6' X 20' 4 TURNS

LOOP 11 & 13 6' X 20' 3 TURNS'

LOOP 15 6' X 20' 4 TURNS

LOOP 61 6' X 20' 3 TURNS

LOOP 21 6' X 20' 3 TURNS'

LOOP 53 6' X 20' 4 TURNS'

LOOP 51 & 52 6' X 20' 3 TURNS'

LOOP 83 & 84 6' X 20' 4 TURNS'

LOOP 81 & 82 6' X 20' 4 TURNS'

150' TO STOP BAR

OLG

OLH

R/W

Φ1 Φ2 Φ4 Φ6 Φ8

MONOTUBE STRUCTURE NUMBERS	
BASE NO.	STRUCTURE NO.
SB3	S-13-1410-03
SB7	S-13-1410-01
SB9	S-13-1410-04
SB13	S-13-1410-02

CONSTRUCTION NOTES

1. LOCATION OF LOOP DETECTORS IS FRONT CENTER OF LOOP UNLESS OTHERWISE NOTED.
2. LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. ALL LOOP DETECTORS SHALL BE TESTED AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
4. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN SECTION 652 OF THE STANDARD SPECIFICATIONS.
5. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY B3E OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
6. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.

TRAFFIC CONTROL SIGNAL
STH 19 & LIUNA WAY/TIERNEY CROSSING
VILLAGE OF DEFOREST
DANE COUNTY

CABINET TYPE: TBD
SIGNAL NO. S-13-1410 CONTROLLER TYPE: TBD

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ----

PAGE 1 OF 3

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 118	E

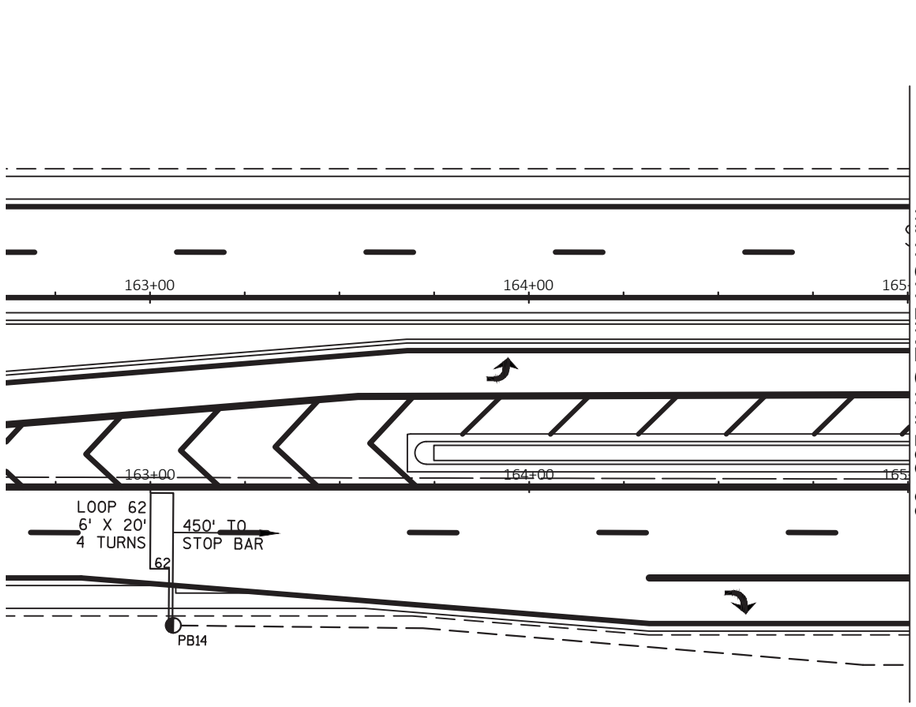
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0240_SP.DWG
LAYOUT NAME - 01

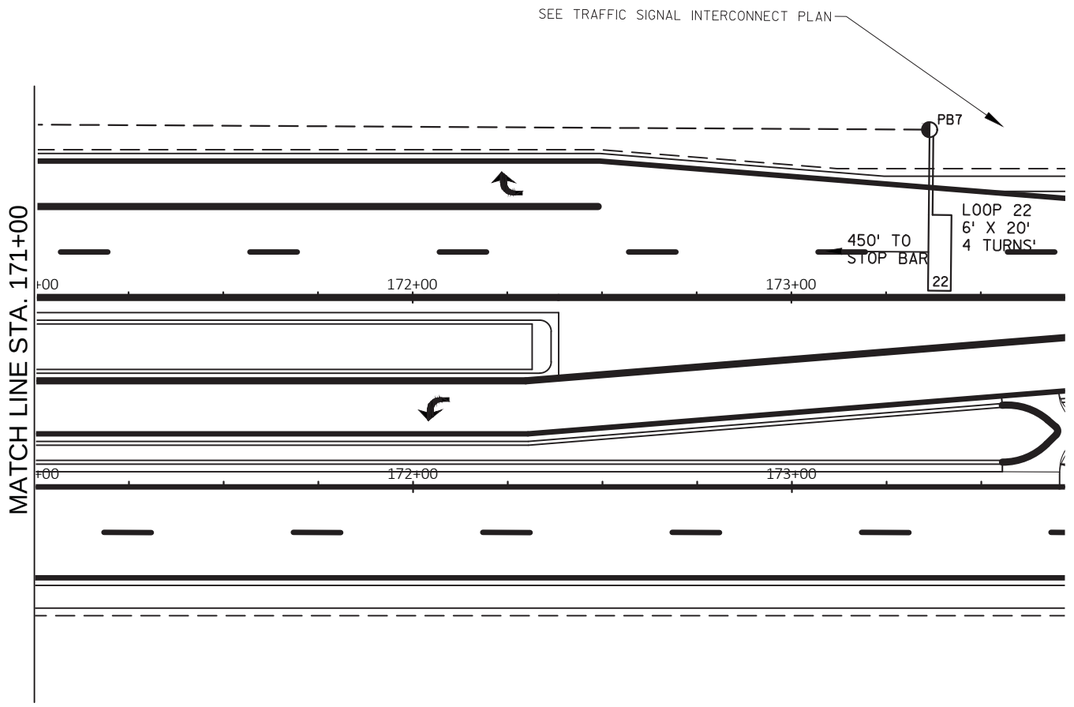
PLOT DATE : 5/22/2019 12:03 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
STH 19 & LIUNA WAY/TIERNEY CROSSING
VILLAGE OF DEFOREST
DANE COUNTY

SIGNAL NO. S13-1410

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ----

PAGE 2 OF 3

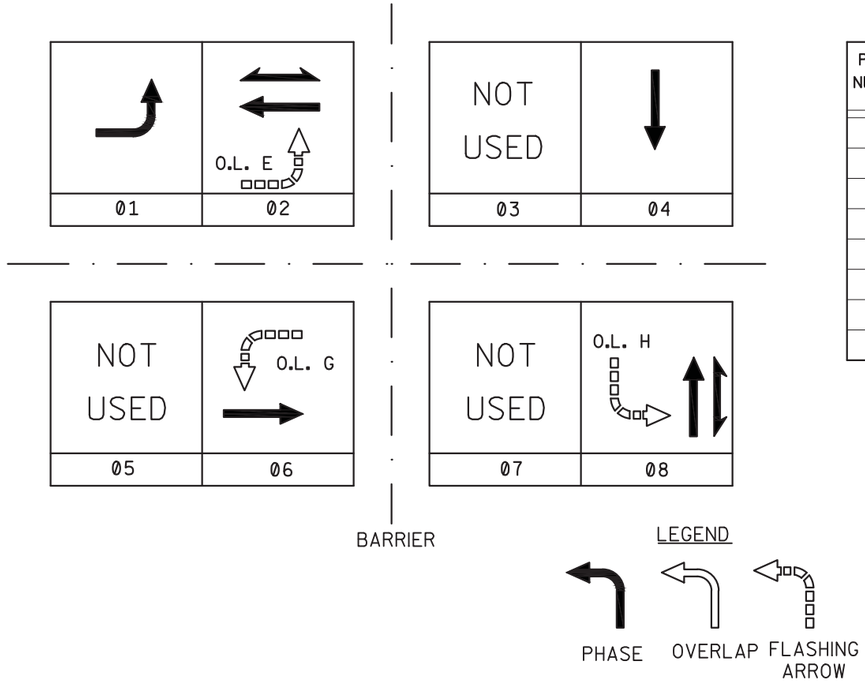
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 119	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0240_SP.DWG
LAYOUT NAME - 02

PLOT DATE : 5/22/2019 12:03 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH	
01	4-6	R	
02	7-9	R	
03			
04	16-18	R	
05			
06	1-3	R	
07			
08	13-15	R	
02 PED	91,92		
04 PED			
06 PED			
08 PED	93,94		O.L. ASSIGNMENTS
OLA			
OLB			
OLC			
OLD			
OLE	4-6	R	02
OLF			
OLG	10-12	R	06
OLH	18-21	R	08



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	X
CELL MODEM	
PHONE	

CENTRAL SYSTEM	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM #:	SS-13-0110

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	12	14	15	22	42	52	53	62
PHASE CALLED		1		2	4	6		6
PHASE EXTENDED		1	1	2	4	6	6	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH			X				X	
LOOP FUNCTION	NIU		SYS	SYS			SYS	SYS

19	17	23	21	27	25	31	29	
72	74	82	83					DETECTOR #(S)
	8	8	8					PHASE CALLED
	8	8	8					PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
NIU								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	11	13	--	21	41	51	--	61
PHASE CALLED		1		2	4	5		6
PHASE EXTENDED		1			4	5		6
DISCONNECT TIME				15				15
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION	NIU			DIS				DIS

20	18	24	22	28	26	32	30	
71	73	81	84					DETECTOR #(S)
	8	8	8					PHASE CALLED
	8	8	8					PHASE EXTENDED
								DISCONNECT TIME
			3					CALLING DELAY
								EXTENSION STRETCH
NIU								LOOP FUNCTION

DIS = DISCONNECT
NIU = NOT IN USE
SYS = SYSTEM

TRAFFIC CONTROL SIGNAL
STH 19 & LIUNA WAY/TIERNEY CROSSING
VILLAGE OF DEFOREST
DANE COUNTY

SIGNAL NO. S13-1410

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ----

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SEQUENCE OF OPERATIONS	SHEET 120	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0240_SP.DWG
LAYOUT NAME - Sequence of Ops
PLOT DATE : 5/22/2019 12:04 PM
PLOT BY : HICKMAN, TRISTAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

STH 19 & LIUNA WAY/TIERNEY CROSSING
TRAFFIC SIGNAL CABLING CHART
NO. 14 AWG

CABLE RUN	CABLE	HEAD NO.	MOV'T	LENS	CONDUCTOR COLOR
CABINET TO SB1	9/C	16	SB	R	R
				Y	O
				G	G
		91	Ø2 PED	DW	BLK
				W	BLU
CABINET TO SB2	9/C	19	SB LT	← R	R
				← Y	O
				← FY	G
CABINET TO SB3	9/C	14	NB	R	R
				Y	O
				G	G
		15	NB	R	R/BLK
				Y	W/BLK
				G	G/BLK
		92	Ø2 PED	DW	BLK
				W	BLU
CABINET TO SB4	9/C	7	WB	R	R
				Y	O
				G	G
		93	Ø8 PED	DW	BLK
				W	BLU
		5	EB LT	← R	R/BLK
				← Y	W/BLK
				← G	G/BLK
CABINET TO SB5	5/C	6	EB LT	← R	R
				← Y	O
				← G	G
CABINET TO SB7	9/C	2	EB	R	R
				Y	O
				G	G
		3	EB	R	R/BLK
				Y	W/BLK
				G	G/BLK
		94	Ø8 PED	DW	BLK
				W	BLU
CABINET TO SB8	7/C	13	NB	R	R
				Y	O
				G	G
		20	SB LT	← R	BLK
				← Y	W/BLK
				← FY	BLU

STH 19 & LIUNA WAY/TIERNEY CROSSING
TRAFFIC SIGNAL CABLING CHART (cont.)
NO. 14 AWG

CABLE RUN	CABLE	HEAD NO.	MOV'T	LENS	CONDUCTOR COLOR
CABINET TO SB9	15/C	17	SB	R	R
				Y	O
				G	G
		18	SB	R	R/BLK
				Y	O/BLK
				G	G/BLK
		21	SB LT	← R	BLK
				← Y	W/BLK
				← FY	BLU
CABINET TO SB10	7/C	1	EB	R	R
				Y	O
				G	G
		11	WB LT	← R	BLK
				← Y	W/BLK
				← FY	BLU
CABINET TO SB11	5/C	12	WB LT	← R	R
				← Y	O
				← FY	G
CABINET TO SB12	5/C	4	EB LT	← R	R
				← Y	O
				← G	G
CABINET TO SB13	7/C	8	WB	R	R
				Y	O
				G	G
		9	WB	R	R/BLK
				Y	W/BLK
				G	G/BLK

EQUIPMENT GROUNDING CONDUCTOR NO. 10 AWG XLP (GREEN)

FROM	TO
CABINET	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	CABINET

PED BUTTON CABLING LOOP DETECTOR LEAD-IN NO. 14 AWG

FROM	TO
CABINET	SB1
CABINET	SB2
CABINET	SB3
CABINET	SB4
CABINET	SB5
CABINET	SB7
CABINET	SB7

LIGHTING UF NO. 12 AWG W/ GROUND

FROM	TO
CABINET	SB2
CABINET	SB6
CABINET	SB9
CABINET	SB12

VIDEO DETECTION CAT/5E CABLE

FROM	TO
CABINET	SB7
CABINET	SB13

PULL BOX BONDING JUMPER 10 AWG GREEN XLP

FROM	TO
PB1	CABINET
PB18	CABINET
PB3	SB2
PB4	SB3
PB5	SB4
PB8	SB5
PB10	SB7
PB11	SB8
PB12	SB10
PB15	SB11
PB18	SB13

TRAFFIC CONTROL SIGNAL
STH 19 & LIUNA WAY/TIERNEY CROSSING
VILLAGE OF DEFOREST
DANE COUNTY

GENERAL NOTES

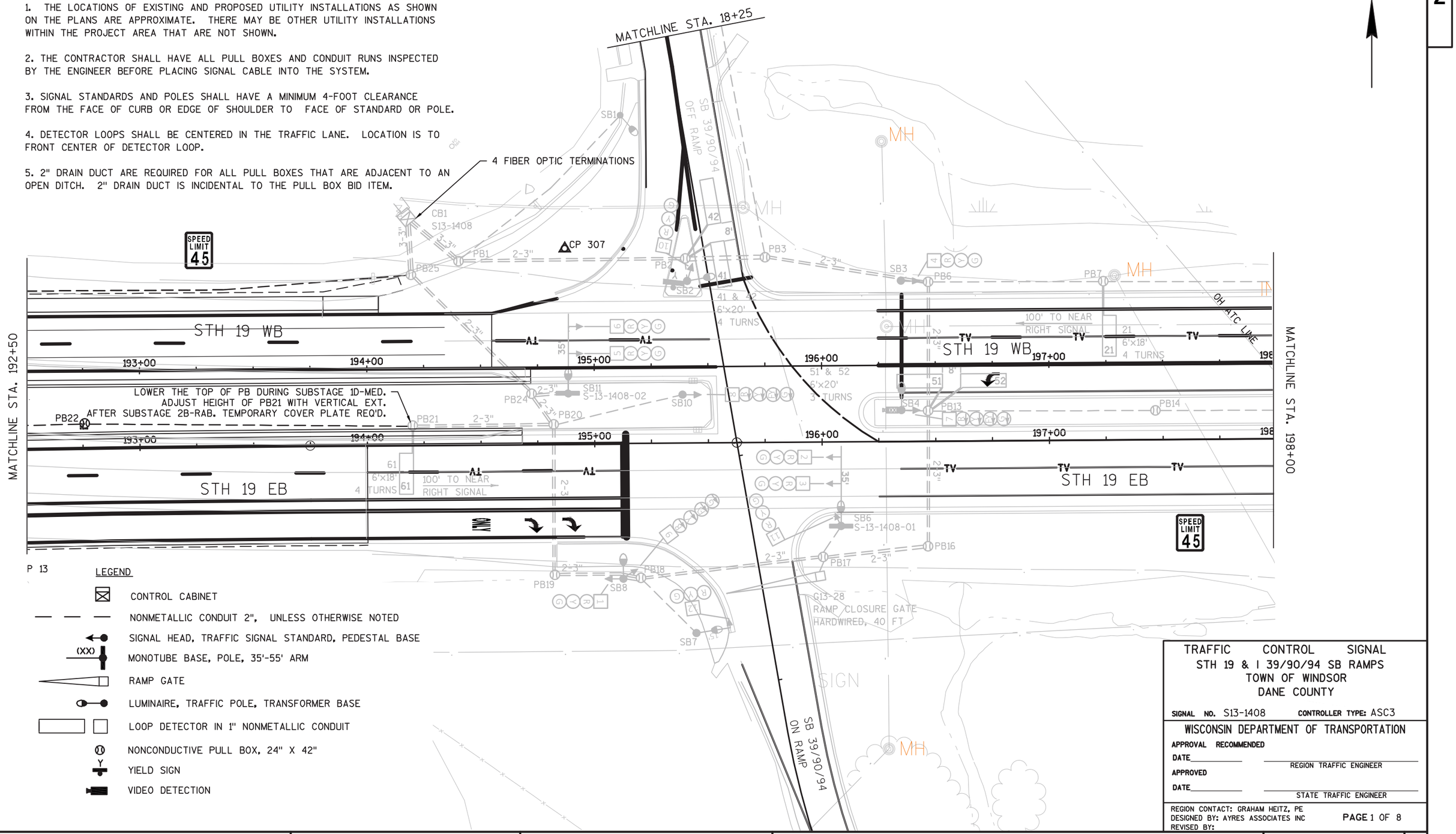
1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

2. THE CONTRACTOR SHALL HAVE ALL PULL BOXES AND CONDUIT RUNS INSPECTED BY THE ENGINEER BEFORE PLACING SIGNAL CABLE INTO THE SYSTEM.

3. SIGNAL STANDARDS AND POLES SHALL HAVE A MINIMUM 4-FOOT CLEARANCE FROM THE FACE OF CURB OR EDGE OF SHOULDER TO FACE OF STANDARD OR POLE.

4. DETECTOR LOOPS SHALL BE CENTERED IN THE TRAFFIC LANE. LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.

5. 2" DRAIN DUCT ARE REQUIRED FOR ALL PULL BOXES THAT ARE ADJACENT TO AN OPEN DITCH. 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- RAMP GATE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 42"
- YIELD SIGN
- VIDEO DETECTION

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL NO. S13-1408 CONTROLLER TYPE: ASC3

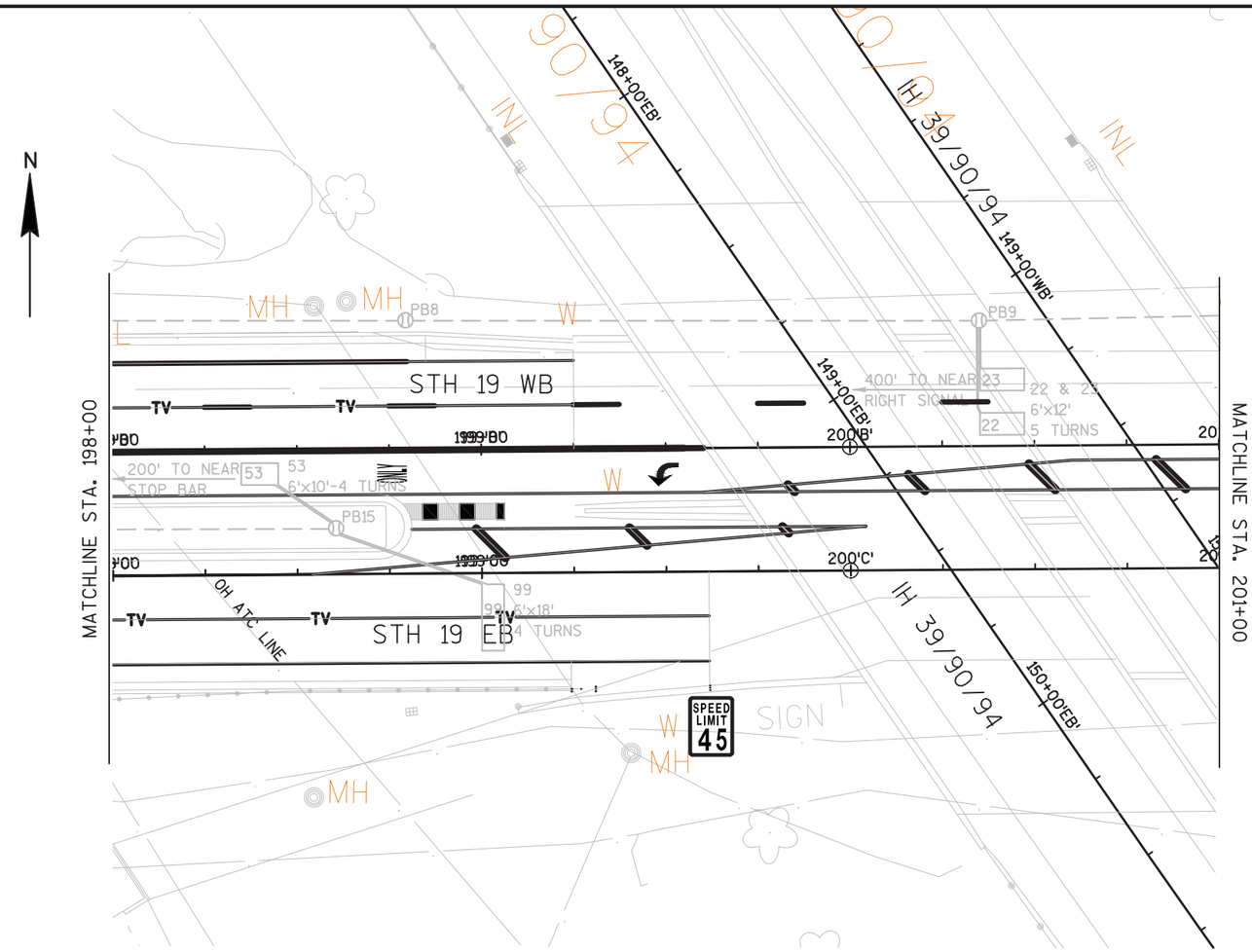
WISCONSIN DEPARTMENT OF TRANSPORTATION

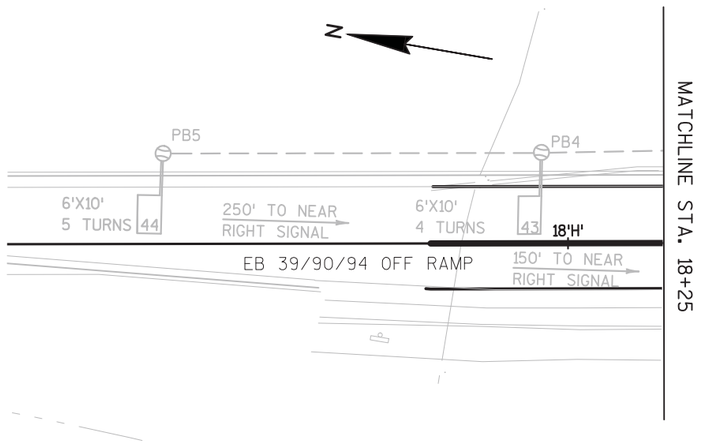
APPROVAL RECOMMENDED
DATE_____ REGION TRAFFIC ENGINEER
APPROVED
DATE_____ STATE TRAFFIC ENGINEER

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 122 E

FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024001_SP
PLOT DATE : 6/26/2019 9:05 AM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********
WISDOT/CADDS SHEET 44





LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 42"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL NO. S13-1408

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

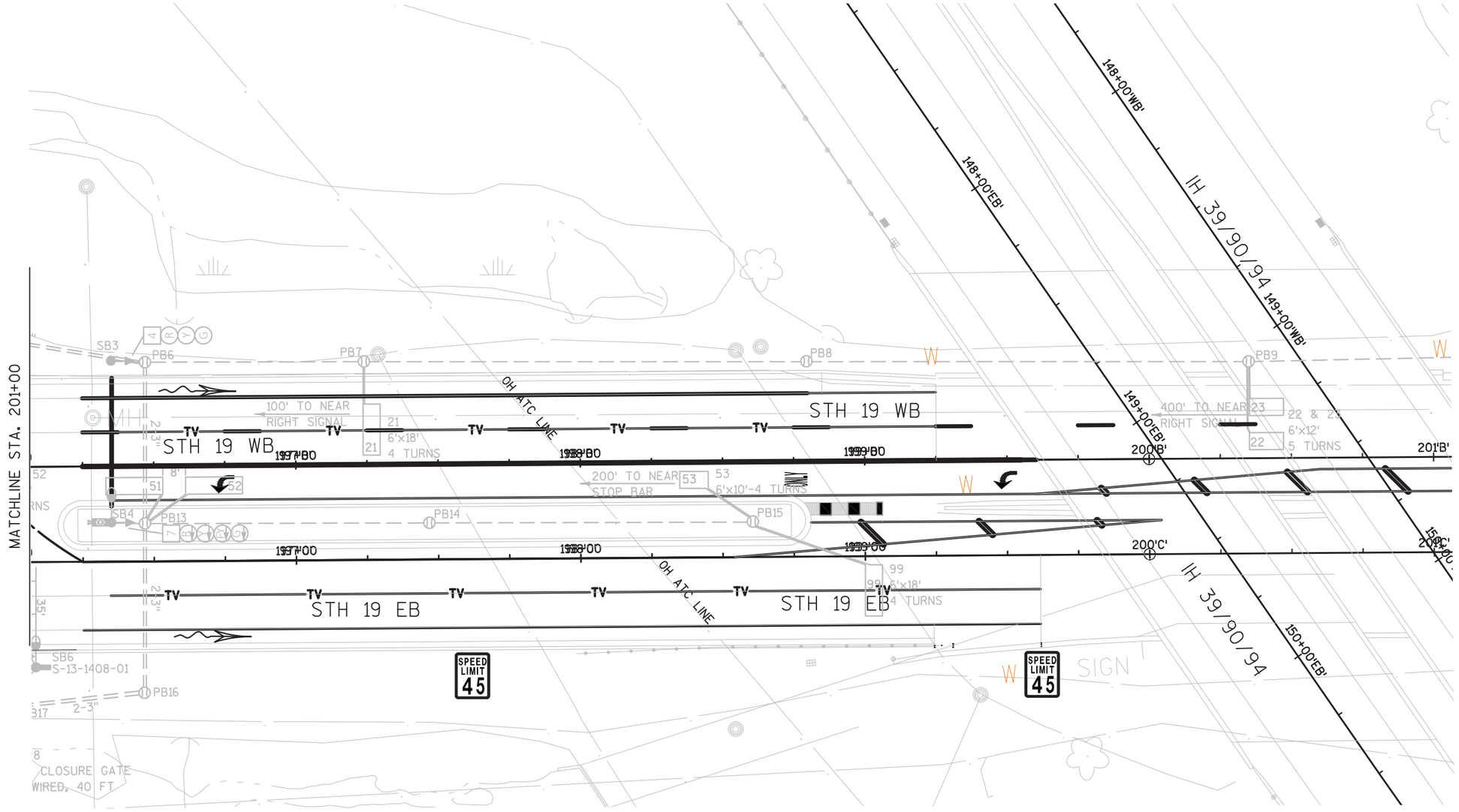
PAGE 2 OF 8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 123	E

FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024002_SP

PLOT DATE : 5/22/2019 12:06 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********

2



LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- RAMP GATE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 42"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL NO. S13-1408

REGION CONTACT:
DESIGNED BY:
REVISED BY:

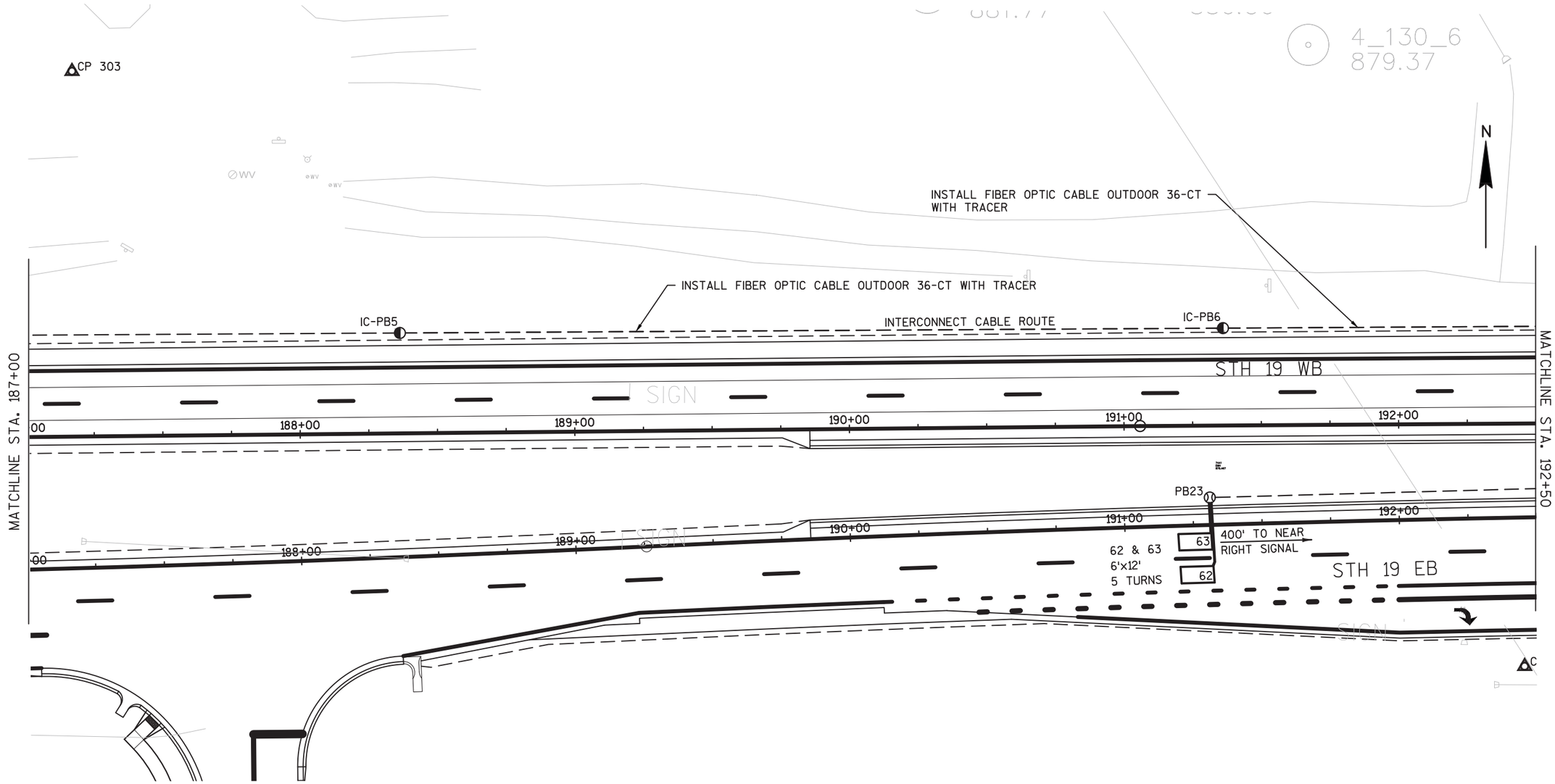
PAGE 3 OF 8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 124	E

FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024003_SP

PLOT DATE : 5/22/2019 12:06 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********

2



LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- RAMP GATE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 36"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL SYSTEM NO. SS-13-0110

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 4 OF 8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 125	E

FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024004_SP
PLOT DATE : 5/22/2019 12:06 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********
WISDOT/CADDS SHEET 44

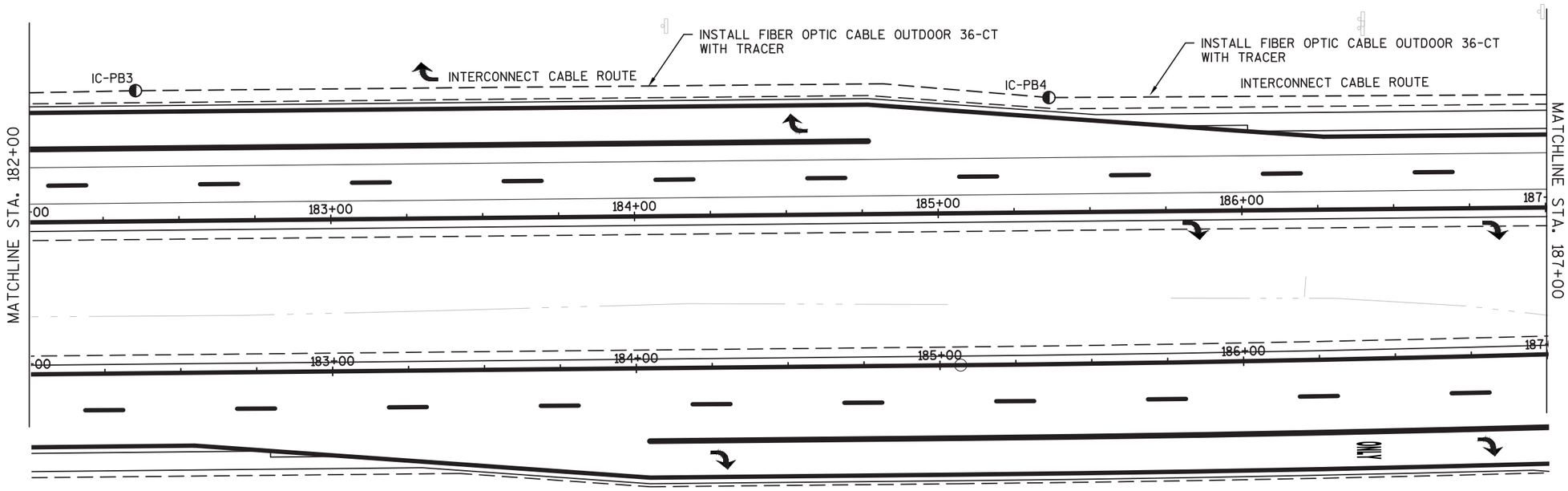
2

2

CP 302

TPED

N



LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- RAMP GATE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 36"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL SYSTEM NO. SS-13-0110

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 5 OF 8

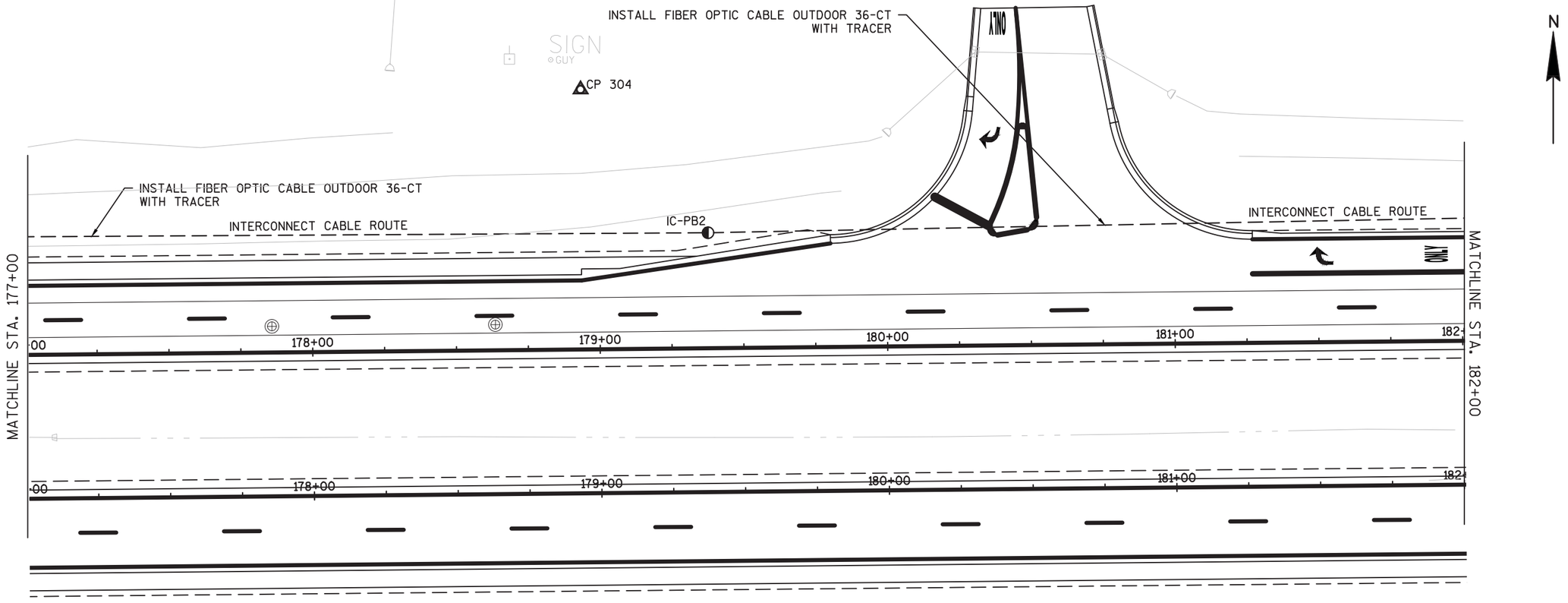
PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 126	E

FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024005_SP

PLOT DATE : 5/22/2019 12:07 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********

WISDOT/CADDS SHEET 44

2



LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- RAMP GATE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- NONCONDUCTIVE PULL BOX, 24" X 36"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL SYSTEM NO. SS-13-0110

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 6 OF 8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 127	E

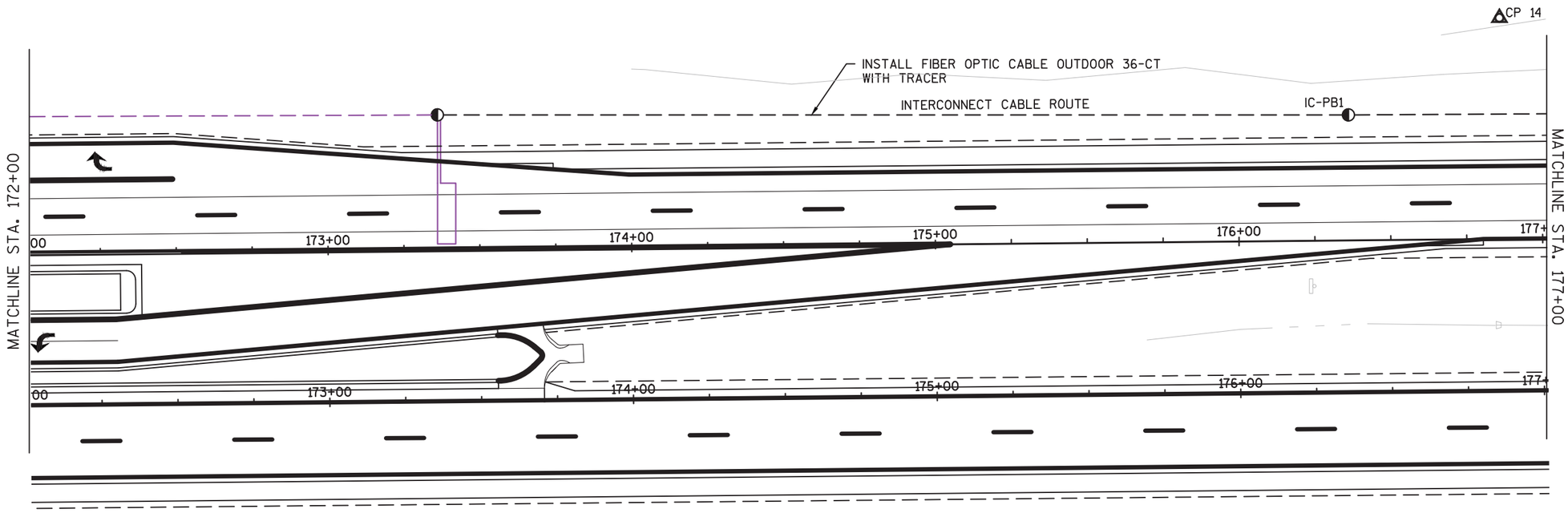
FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024006_SP

PLOT DATE : 5/22/2019 12:07 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********

2

2

N



LEGEND

— — — NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

RAMP GATE

LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

NONCONDUCTIVE PULL BOX, 24" X 36"

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL SYSTEM NO. SS-13-0110

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 7 OF 8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 128	E

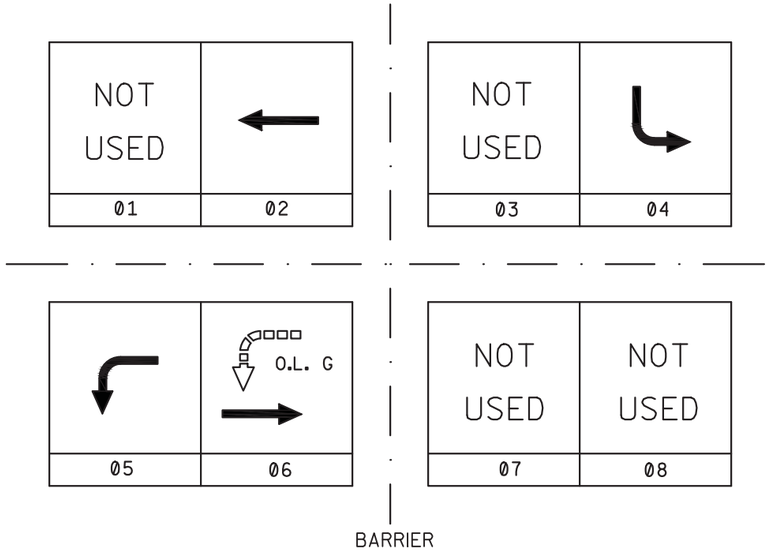
FILE NAME : V:\TRANS-MD\410717 STH 19\TRAFFIC\FROM WISDOT\024001_SP_ADJ.DWG
LAYOUT NAME - 024007_SP

PLOT DATE : 5/22/2019 12:07 PM PLOT BY : HICKMAN, TRISTAN PLOT NAME : PLOT SCALE : *********

WISDOT/CADDS SHEET 44

	HEAD NUMBERS	FLASH
01		
02	4-6	R
03		
04	10-12	R
05	7-9	R
06	1-3	R
07		
08		
02 PED		
04 PED		
06 PED		
08 PED		

O.L. ASSIGNMENTS			
OLA			
OLB			
OLC			
OLD			
OLE			
OLF			
OLG	7-9		06
OLH			



FOR INFORMATION ONLY

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	X

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	X
CELL MODEM	
PHONE	

CENTRAL SYSTEM	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *:	SS-13-0110

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR *(S)	22	41	43	51	53	62	99*									
PHASE CALLED	2	4	4	5	5	6										
PHASE EXTENDED	2	4	4	5	5	6										
DISCONNECT TIME																
CALLING DELAY							15									
EXTENSION STRETCH	2.2					2.2										
LOOP FUNCTION							PE									

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR *(S)	21	23	42	44	52	61	63									
PHASE CALLED	2	2	4	4	5	6	6									
PHASE EXTENDED	2	2	4	4	5	6	6									
DISCONNECT TIME	15					15										
CALLING DELAY																
EXTENSION STRETCH		2.2		2.2			2.2									
LOOP FUNCTION	DIS					DIS										

DIS = DISCONNECT * AN ACTUATION DETECTOR INPUT NO. 15 SHALL INITIATE PREEMPTION PROGRAM 10.

TRAFFIC CONTROL SIGNAL
STH 19 & I 39/90/94 SB RAMPS
TOWN OF WINDSOR
DANE COUNTY

SIGNAL NO. S13-1408

REGION CONTACT: GRAHAM HEITZ, PE
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 8 OF 8

2

REFERENCED STANDARD DETAIL DRAWINGS

15C2a-C	BARRICADES AND SIGNS FOR MAINLINE CLOSURES (DETAIL C)
15C2b-D	BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
15C2b-E	BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)
15C2f	TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING
15C4	TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY DIVIDED ROAD OPEN TO TRAFFIC
15C5	TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR GREATER TWO-WAY DIVIDED ROAD OPEN TO TRAFFIC
15C12	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D12a	TRAFFIC CONTROL, LANE CLOSURE
15D20	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NONFREEWAY/EXPRESSWAY
15D21	TRAFFIC CONTROL, INTERESCTION WITHIN SINGLE LANE CLOSURE
15D27	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY
15D30a	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

TEMPORARY PAVEMENT MARKING & MARKING REMOVAL

R-4	MARKING REMOVAL LINE 4-INCH (DESCRIPTION)
R-8	MARKING REMOVAL LINE 8-INCH (DESCRIPTION)
R-W	MARKING REMOVAL LINE WIDE (DESCRIPTION)
R-S	MARKING REMOVAL SPECIAL MARKING (DESCRIPTION)
R-WB-4	MARKING REMOVAL LINE WATER BLASTING 4-INCH (DESCRIPTION)
R-WB-8	MARKING REMOVAL LINE WATER BLASTING 8-INCH (DESCRIPTION)
TP-4W	TEMPORARY MARKING LINE PAINT 4-INCH WHITE - SOLID
TP-4Y	TEMPORARY MARKING LINE PAINT 4-INCH YELLOW - SOLID
TP-4DY	TEMPORARY MARKING LINE PAINT 4-INCH DOUBLE YELLOW - SOLID
TP-4WD	TEMPORARY MARKING LINE PAINT 4-INCH WHITE LANE LINE DASH (12.5 FT LINE, 37.5 FT SKIP)
TP-8W	TEMPORARY MARKING LINE PAINT 8-INCH WHITE - SOLID
TP-D	TEMPORARY MARKING DIAGONAL PAINT 12-INCH, 25' SPACING (COLOR)
TP-SL	TEMPORARY MARKING STOP LINE PAINT 18-INCH
TP-A	TEMPORARY MARKING ARROW PAINT (DESCRIPTION)
TP-W	TEMPORARY MARKING WORD PAINT (DESCRIPTION)
TRT-4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE - SOLID
TRT-4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW - SOLID
TRT-4DY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW - SOLID
TRT-4WD	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LANE LINE DASH (12.5 FT LINE, 37.5 FT SKIP)
TRT-8W	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE - SOLID
TRT-D	TEMPORARY MARKING DIAGONAL REMOVABLE TAPE 12-INCH, 25' SPACING (COLOR)
TRT-SL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
TE-SL	TEMPORARY MARKING STOP LINE EPOXY 18-INCH
P-SPM	PERMANENT SIGNS AND PAVEMENT MARKING IN SERVICE AS REQ'D (SEE DETAILS)
CW-4	COLD WEATHER MARKING EPOXY 4-INCH (DESCRIPTION)
CW-8	COLD WEATHER MARKING EPOXY 8-INCH (DESCRIPTION)

NOTES

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 AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

IF EXISTING SIGNS TO BE REMOVED, OR TO BE MOVED TO A NEW PERMANENT LOCATION, ARE FIRST MOVED FOR SERVICE UNDER STAGED CONSTRUCTION, AS APPROVED BY THE ENGINEER, THE SIGNS AND SUPPORTS WILL BE PAID FOR AS "TRAFFIC CONTROL SIGNS".

START SHOULDER CLOSURES WITH THE 5 DRUM MINIMUM TAPER, PER SDD 15D28.

OTHER SYMBOLS

- 4" ASPHALTIC SURFACE TEMPORARY
- GENERAL WORK AREA
- TRAFFIC FLOW ARROW ONE PER OPEN LANE
- TRAFFIC CONTROL DRUMS (TYPICAL SPACING)
- TRAFFIC CONTROL DRUMS WITH LIGHTS (TYPICAL SPACING)
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS (TYPICAL SPACING)
- FLASHING ARROW BOARD
- FENCE SAFETY
- EXISTING SIGN (SPEED LIMIT 45)
- EXISTING TYPE I SIGN
- EXISTING TYPE II SIGN
- EXISTING SIGN ON FULL SPAN OVERHEAD SUPPORT
- EXISTING SIGN ON CANTILEVER OVERHEAD SUPPORT
- EXISTING SIGN ON SINGLE POLE SUPPORT IN MEDIAN (BUTTERFLY)
- EXISTING DYNAMIC MESSAGE SIGN (DMS)
- COVERING SIGNS
- PROPOSED TEMPORARY SIGN (ROAD WORK AHEAD, W20-1A)
- SIGN ON TEMPORARY SUPPORT (MOVEABLE SUPPORT MAY BE USED)
- SIGN ON PERMANENT SUPPORT
- PERMANENT TYPE I SIGN (OVERHEAD SIGN SUPPORT)
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TYPE II BARRICADE WITH/WITHOUT ATTACHED SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- 16" X 16" ORANGE WARNING FLAGS (INCIDENTAL TO OTHER ITEMS OF WORK)
- PROPOSED PERMANENT LIGHTING

2

N

HICKORY LN

RIVER RD

EASY ST

INTERSTATE 39 / INTERSTATE 90 / INTERSTATE 94

SUBSTAGES 1A TO 1C — ROAD WORK AHEAD W20-1A / ROAD CLOSED AHEAD W20-3A

STARTING SUBSTAGE 1D

WEST 19 — M3-4 24"X12" — M1-6 24"X24" — ROAD WORK AHEAD W20-1A

51

COUNTY CV

CANADIAN PACIFIC RAILROAD

WHEN CLOSED TO TRAFFIC 15C2a-C

OPEN TO TRAFFIC SUBSTAGES 1A, 1B, 2B, 2C 15C5

SUBSTAGES 1A TO 1C — ROAD CLOSED AHEAD W20-3A / ROAD WORK AHEAD W20-1A

STARTING SUBSTAGE 1D

SUBSTAGE 2A ONLY — ROAD CLOSED AHEAD W20-3A / ROAD WORK AHEAD W20-1A

ALL SUBSTAGES EXCEPT 2A

15C4

END ROAD WORK G20-2A 48"X24"

15C2b-E

15C2b-D LOCATE BETWEEN STH 19 AND ENTRANCES

15C2b-D SUBSTAGE 2A ONLY

TIERNEY XING

DALMORE ROAD

CASHEL WAY

TEMPORARY ACCESS

15C2b-D STARTING SUBSTAGE 1D

END ROAD WORK G20-2A 48"X24"

BLANCHAR'S CSG

N TOWNE RD

19

END ROAD WORK G20-2A 48"X24" KIRKWOOD DR

15C2b-D SUBSTAGE 2B-RAB2 ONLY

15C2b-D SUBSTAGE 1A TO 1C

LIUNA WAY

15C2b-D SUBSTAGE 1D ONLY

ONE-WAY SERVICE DRIVE

PEPSI WAY

WILLIAMSBURG WAY

ONE-WAY SERVICE DRIVE

YAHARA RIVER

RIVER RD

IMPERIAL DR

15C2a-C 15C5 SUBSTAGE 2A ONLY

TOKEN CREEK

ALL SUBSTAGES EXCEPT 1D — ROAD WORK AHEAD W20-1A / SUBSTAGE 1D ONLY — ROAD CLOSED AHEAD W20-3A

ALL SUBSTAGES EXCEPT 1A-LNW1 & 1A-LNW2 — ROAD WORK AHEAD W20-1A / SUBSTAGES 1A-LNW1 & 1A-LNW2 — ROAD CLOSED AHEAD W20-3A

RIVER RD

WEST OF IH 39
ALL STAGES

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - ADVANCED WARNING SIGNING -1 OF 3	SHEET 131	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250B_TC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/29/2019 11:06 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:1320 FT

WISDOT/CADDS SHEET 42

2

N

HICKORY LN

EASY ST

RIVER RD

INTERSTATE 39
INTERSTATE 90
INTERSTATE 94

WEST 19 M3-4 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

COUNTY CV

CANADIAN PACIFIC RAILROAD

51

BLANCHAR'S CSG

N TOWNE RD

19

TIERNEY XING

CASHEL WAY

LIUNA WAY

STA 131'EB'

KIRKWOOD DR

RIVER RD

IMPERIAL DR

YAHARA RIVER

ONE-WAY SERVICE DRIVE

PEPSI WAY

ROAD WORK AHEAD W20-1A

WILLIAMSBURG WAY

ONE-WAY SERVICE DRIVE

TOKEN CREEK

WEST 19 M3-4 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

INTERSTATE 39
INTERSTATE 90
INTERSTATE 94

51

RIVER RD

EAST OF IH 39 - BOTH WB STH 19
LANES OPEN EAST OF IH 39

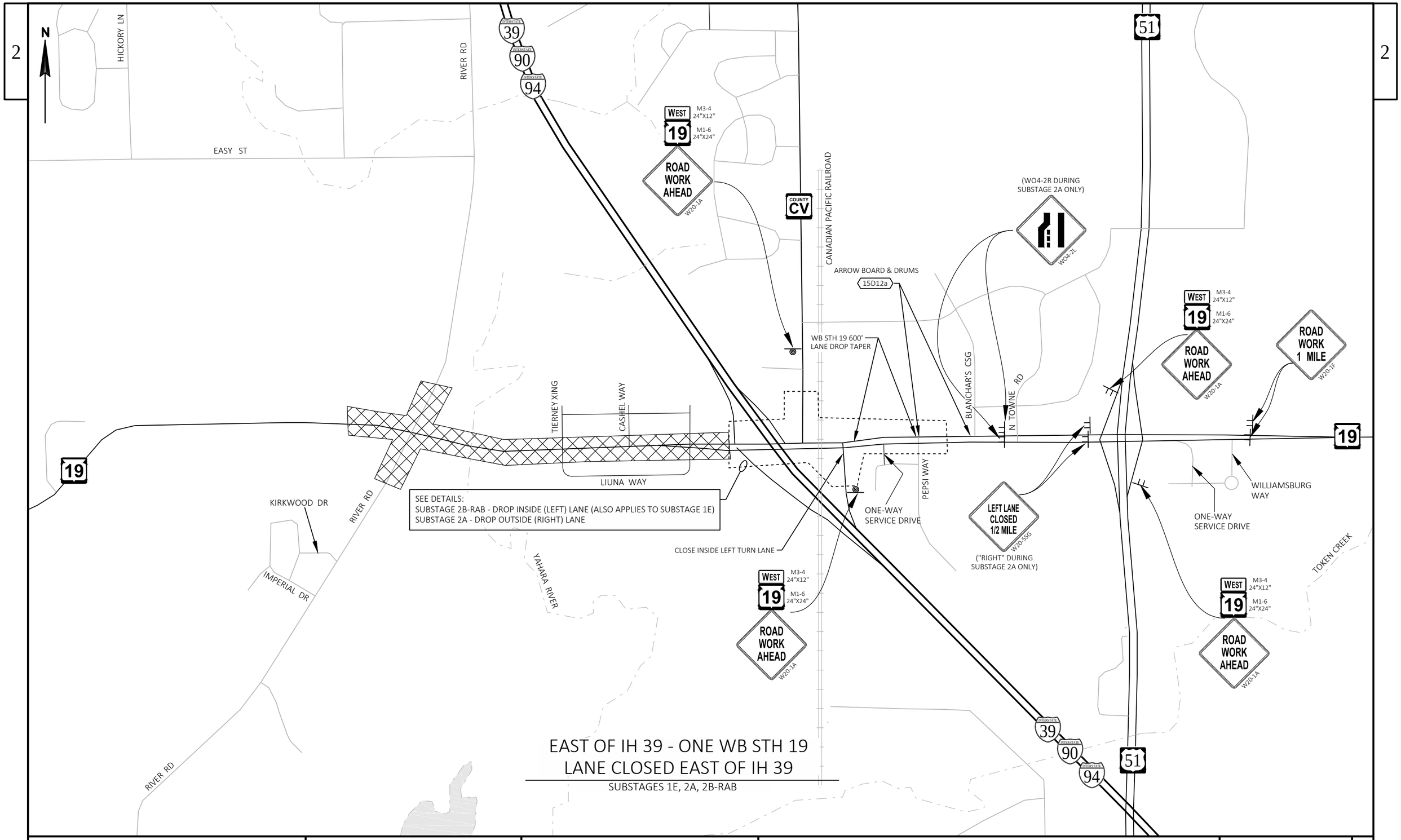
ALL SUBSTAGES EXCEPT 1E, 2A, 2B-RAB1

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - ADVANCED WARNING SIGNING -2 OF 3	SHEET 132	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250B_TC.DWG
LAYOUT NAME - 02

PLOT DATE : 4/29/2019 11:06 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:1320 FT

WISDOT/CADDS SHEET 42



EAST OF IH 39 - ONE WB STH 19 LANE CLOSED EAST OF IH 39

SUBSTAGES 1E, 2A, 2B-RAB

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - ADVANCED WARNING SIGNING -3 OF 3	SHEET 133	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250B_TC.DWG
LAYOUT NAME - 03
PLOT DATE : 4/29/2019 11:06 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:1320 FT
WISDOT/CADDS SHEET 42

2

N

HICKORY LN

EASY ST

RIVER RD

INTERSTATE 39 / INTERSTATE 90 / INTERSTATE 94

WEST 19 M3-4 24"X12" M1-6 24"X24" MAX. 11' WIDTH W12-52

WEST 19 M3-4 36"X18" M1-6 36'X36" MAX. 11' WIDTH W12-52

COUNTY CV

CANADIAN PACIFIC RAILROAD

LOCATION OF 11-FT WIDTH RESTRICTION FOR WB STH 19

MAX. 11' WIDTH W12-52

TIERNEY XING

CASHEL WAY

LIUNA WAY

BLANCHAR'S CSG

N TOWNE RD

51

WEST 19 M3-4 36"X18" M1-6 36'X36" MAX. 11' WIDTH W12-52

MAX. 11' WIDTH W12-52

1 1/2 MILES AHEAD WO57-52 48"X36"

19

PEPSI WAY

ONE-WAY SERVICE DRIVE

WILLIAMSBURG WAY

ONE-WAY SERVICE DRIVE

KIRKWOOD DR

RIVER RD

IMPERIAL DR

YAHARA RIVER

TOKEN CREEK

WEST 19 M3-4 36"X18" M1-6 36'X36" MAX. 11' WIDTH W12-52

WEST 19 M3-4 36"X18" M1-6 36'X36" MAX. 11' WIDTH W12-52

INTERSTATE 39 / INTERSTATE 90 / INTERSTATE 94

51

RIVER RD

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - WIDTH RESTRICTION SUBSTAGE 2A & 2B-RAB	SHEET 134	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250B_TC.DWG
LAYOUT NAME - WIDTH RESTRICTION
PLOT DATE : 4/29/2019 11:06 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

COUNTY I

EASY ST

HICKORY LN

RIVER RD

INTERSTATE 39 / INTERSTATE 90 / INTERSTATE 94

WINDSOR RD

COUNTY CV

51

PCMS
SITE RV-NB2

PCMS
SITE RV-SB1

PCMS
SITE 19-WB1

PCMS
SITE 19-WB2

PORTAGE RD

TIERNEY XING

CASHEL WAY

19

LIUNA WAY

BLANCHAR'S CSG

N TOWNE RD

PEPSI WAY

PCMS
SITE 19-EB

PCMS
SITE RV-SB2

PCMS
SITE RV-NB1

RIVER RD

YAHARA RIVER

CANADIAN PACIFIC RAILROAD

BONG RD

CHEROKEE MARSH

SCALE, FEET 0 1000 2000

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PCMS - SHEET 1 OF 2	SHEET 135 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250B_TC_PCMS.DWG
LAYOUT NAME - PCMS SHEET 01

PLOT DATE : 4/30/2019 1:53 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

2

PCMS SITE	STAGE 1												STAGE 2					
	PRE SUBSTAGE 1A		SUBSTAGE 1A		SUBSTAGE 1B		SUBSTAGE 1C		SUBSTAGE 1D		SUBSTAGE 1E		SUBSTAGE 2A		SUBSTAGE 2B		SUBSTAGE 2C	
	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B	FRAME A	FRAME B
19-EB	**ROAD WORK	BEGINS M-DD	N/A		N/A		*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A
19-WB1	**ROAD WORK	BEGINS M-DD	N/A		N/A		*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A	*NEW TRAFFIC PATTERN	N/A
19-WB2	**ROAD WORK	BEGINS M-DD	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
RV-NB1	**HWY 19 ROAD WORK	BEGINS M-DD	N/A		N/A		N/A		**NO LEFT TO WB HWY 19	BEGINS M-DD	N/A		N/A		N/A		N/A	
RV-SB1	**HWY 19 ROAD WORK	BEGINS M-DD	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
RV-NB2	N/A		N/A		**ROAD CLOSED	BEGINS M-DD	N/A		N/A		N/A		N/A		N/A		N/A	
RV-SB2	N/A		N/A		N/A		N/A		N/A		N/A		**ROAD CLOSED	M-DD TO M-DD	N/A		N/A	

*MESSAGE IN USE FOR 3 DAYS AT THE BEGINNING OF THE SUBSTAGE.

**MESSAGE IN SERVICE FOR 7 DAYS IMMEDIATELY PRECEDING THE CONDITION.

2

N

PATH CLOSED
R9-9(MOD)
24"X12"
THROUGHOUT
CONSTRUCTION

SIDEWALK CLOSED
R9-9
24"X12"
THROUGHOUT
CONSTRUCTION

DALMORE ROAD

TIERNEY XING

CASHEL WAY

TEMPORARY ROAD

19

19

SIDEWALK CLOSED
R9-9
24"X12"
THROUGHOUT
CONSTRUCTION

SIDEWALK CLOSED
R9-9
24"X12"
THROUGHOUT
CONSTRUCTION

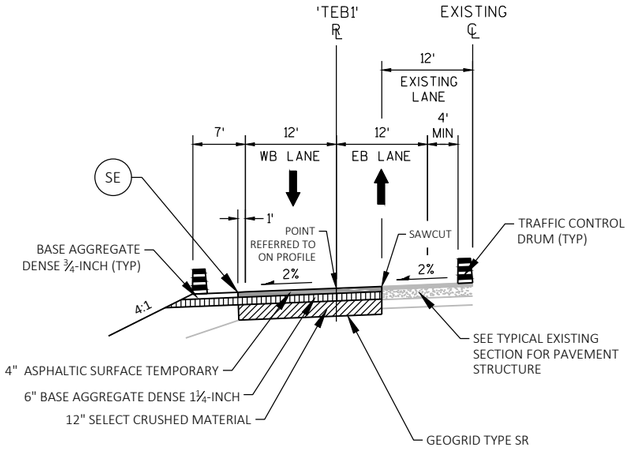
LIUNA WAY

LIUNA WAY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - SIDEWALKS	SHEET 137	E

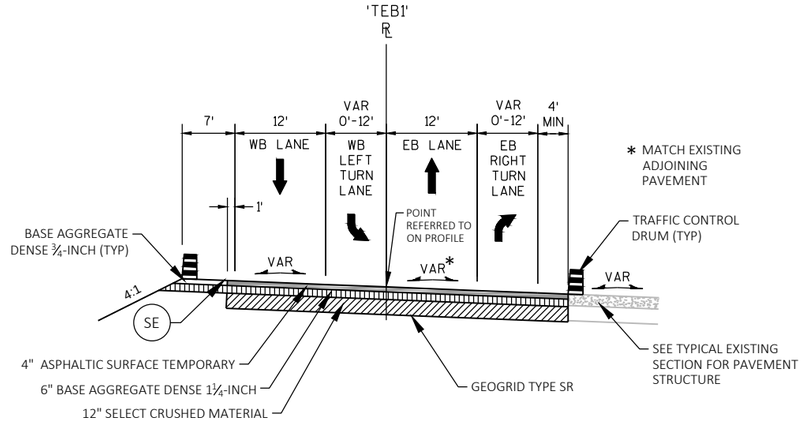
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0250C_TC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/24/2019 2:17 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ############



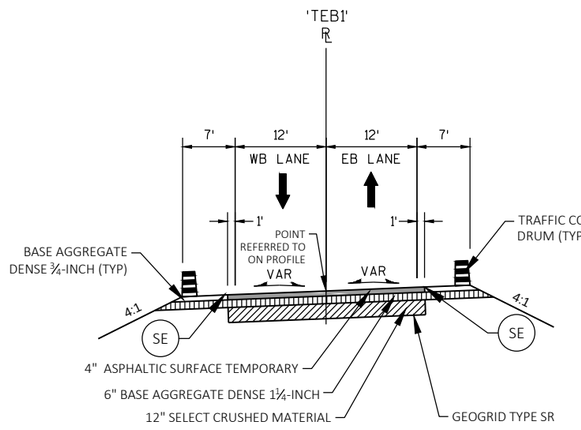
STH 19 - SUBSTAGES 1C, 1D & 1E

WIDENING ALONG EXISTING WB
STA. 231+97'TEB1' TO STA. 234+80'TEB1'



STH 19 - SUBSTAGES 1C, 1D & 1E

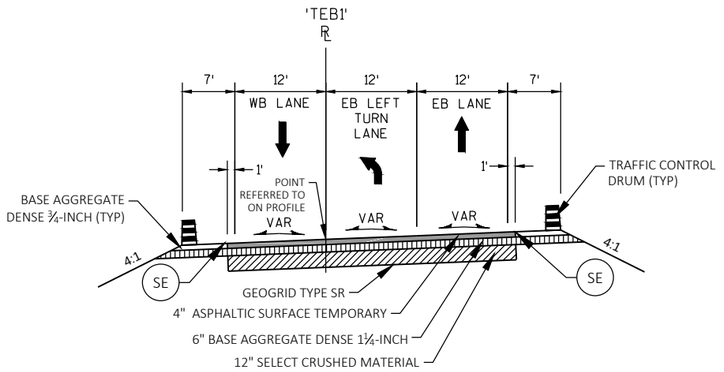
WIDENING ALONG EXISTING WB
STA. 234+80'TEB1' TO STA. 244+00'TEB1'



STH 19 - SUBSTAGE 1C

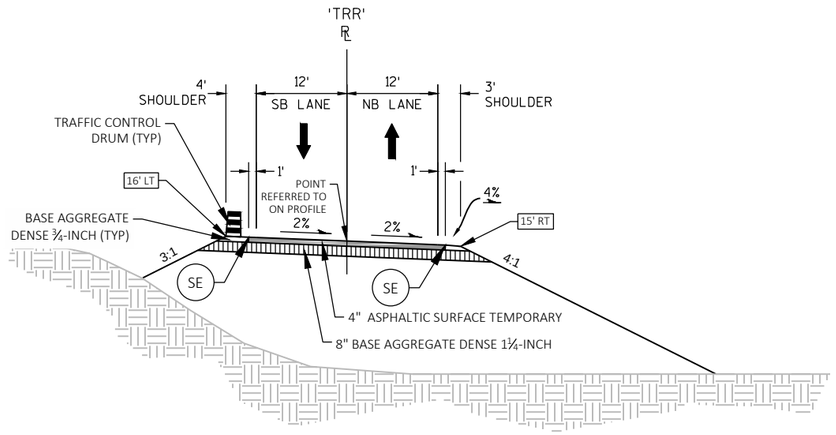
TEMPORARY 2-WAY MEDIAN CROSSOVER
STA. 258+00'TEB1' TO STA. 260+00'TEB1'

(SE) SAFETY EDGE PER SDD 14B29



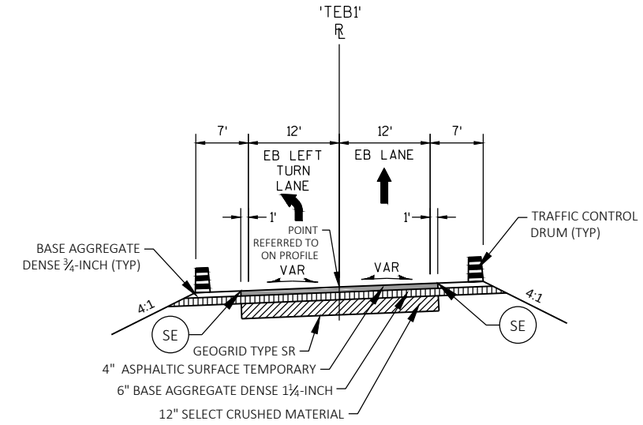
STH 19 - SUBSTAGE 1C

TEMPORARY 2-WAY MEDIAN CROSSOVER
STA. 274+50'TEB1' TO STA. 276+50'TEB1'



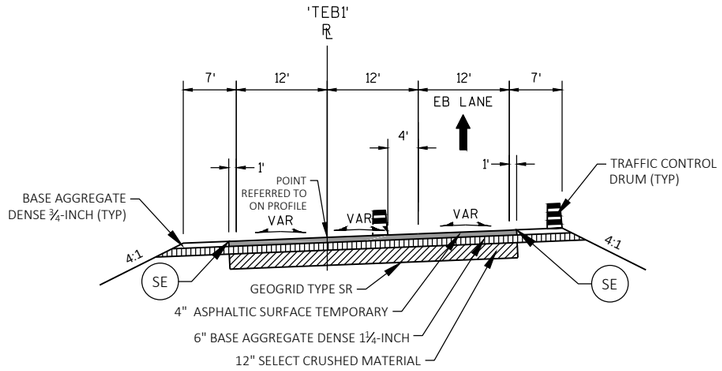
SOUTH RIVER ROAD - SUBSTAGE 1C

TEMPORARY ROADWAY



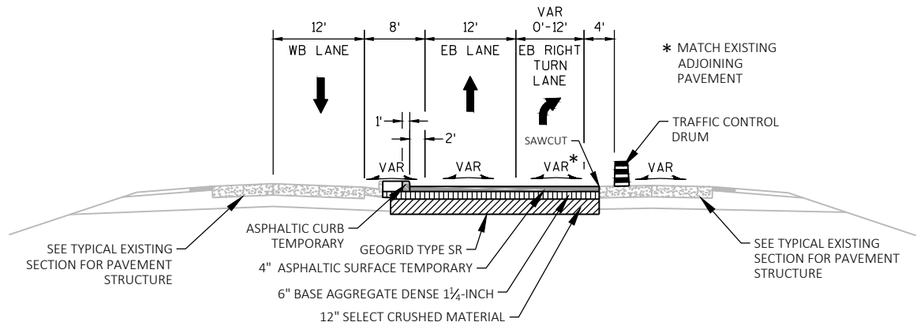
STH 19 - SUBSTAGE 1D

TEMPORARY EB MEDIAN CROSSOVER
STA. 258+00'TEB1' TO STA. 260+00'TEB1'



STH 19 - SUBSTAGES 1D

TEMPORARY EB MEDIAN CROSSOVER
STA. 274+50'TEB1' TO STA. 276+50'TEB1'

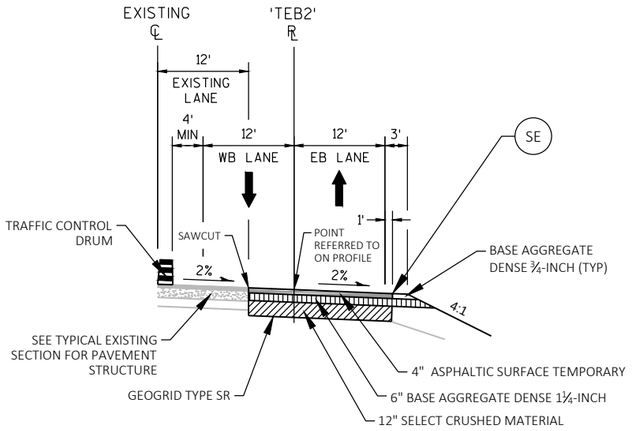


STH 19 - SUBSTAGE 1D

TEMPORARY EB SHIFT
STA. 188+15'WB', LT TO STA. 194+70'WB', RT

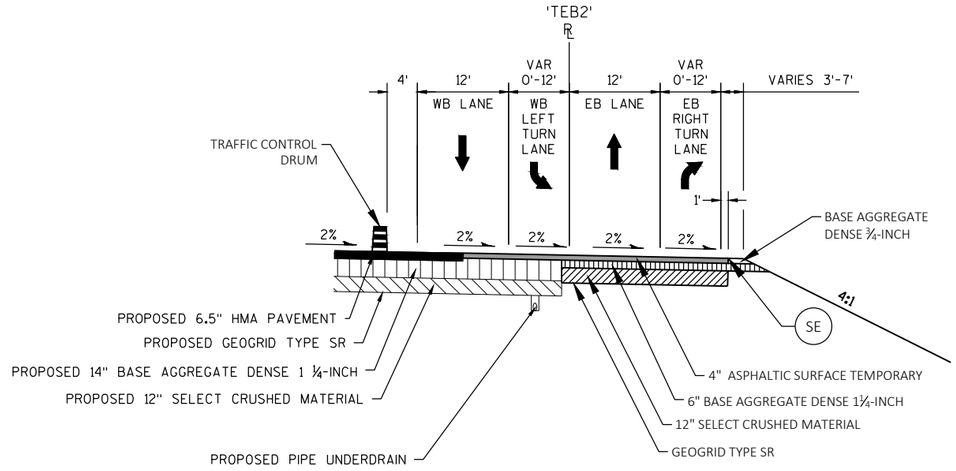
(SE) SAFETY EDGE PER SDD 14B29

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 139	E



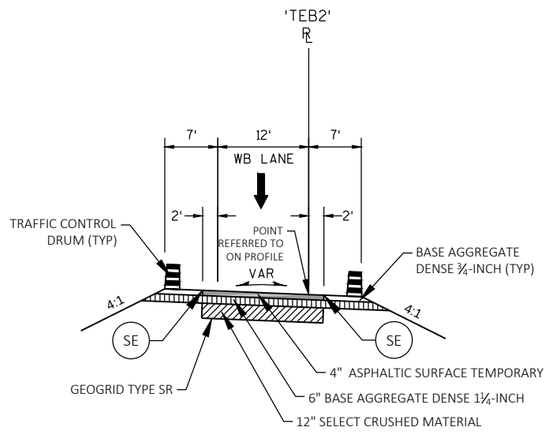
STH 19 - SUBSTAGE 2A

WIDENING ALONG EXISTING EB
STA. 231+38'TEB2' TO STA. 234+80'TEB2'



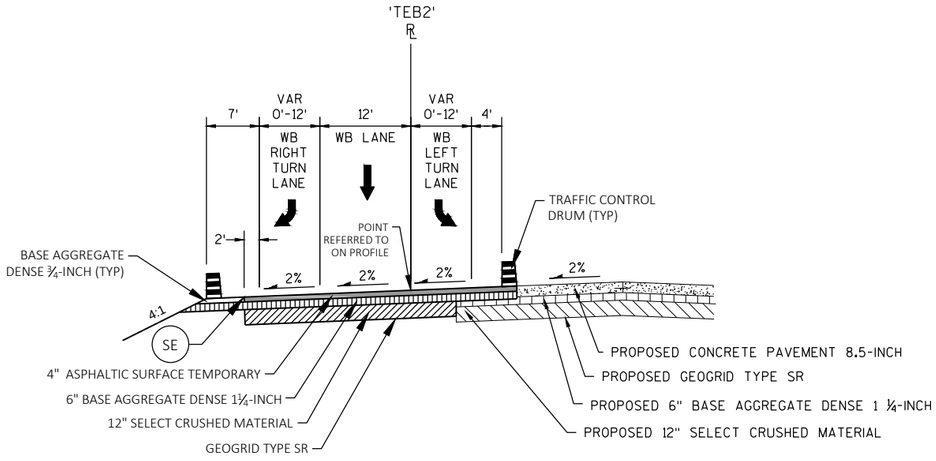
STH 19 - SUBSTAGE 2A

WIDENING ALONG PROPOSED EB
STA. 234+80'TEB2' TO STA. 243+50'TEB2'



STH 19 - SUBSTAGES 2A & 2B

TEMPORARY WB MEDIAN CROSSOVER
STA. 258+50'TEB2' TO STA. 261+50'TEB2'

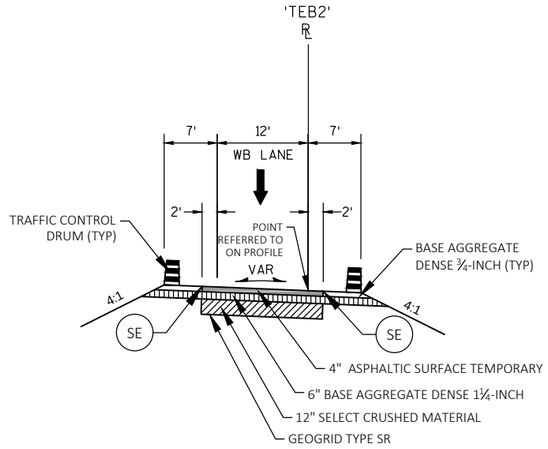


STH 19 - SUBSTAGE 2A

TEMPORARY WB MEDIAN CROSSOVER
STA. 273+50'TEB2' TO STA. 275+50'TEB2'

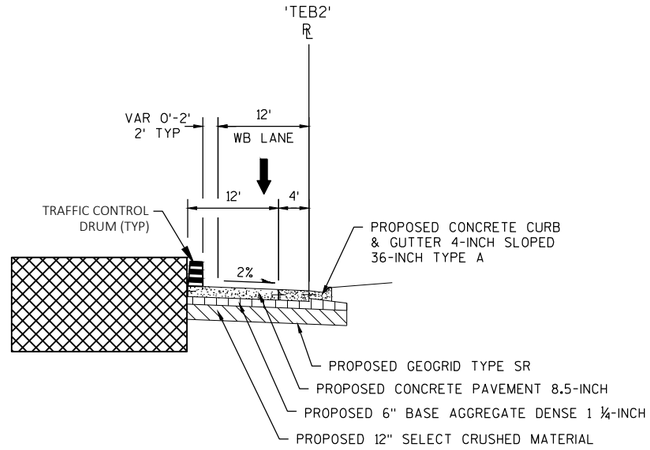
SE SAFETY EDGE PER SDD 14B29

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 140	E



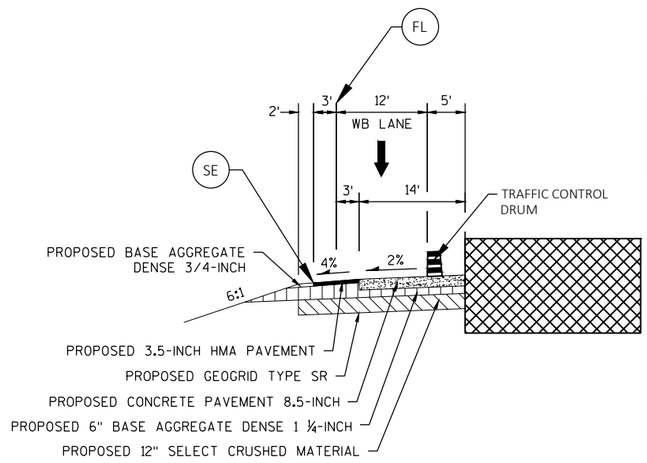
STH 19 - SUBSTAGE 2A

TEMPORARY WB MEDIAN CROSSOVER
STA. 292+50'TEB2' TO STA. 294+50'TEB2'



STH 19 - SUBSTAGE 2A

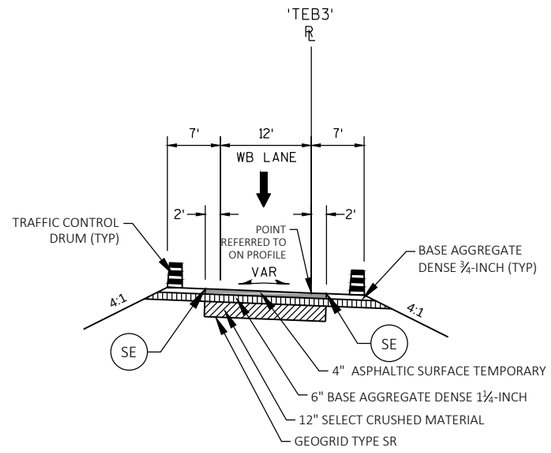
WB LANE SHIFT
STA. 294+50'TEB2' TO STA. 295+35'TEB2'



FL LOCATION OF FLAGLINE FOR EXISTING CURB & GUTTER, EAST OF STA. 194+73'WB'

STH 19 - SUBSTAGE 2B-RAB

WB LANE SHIFT
STA. 187+00'WB' LT TO STA. 198+50'WB' LT



STH 19 - SUBSTAGES 2A & 2B

TEMPORARY WB MEDIAN CROSSOVER
STA. 248+50'TEB3' TO STA. 251+00'TEB3'

SE SAFETY EDGE PER SDD 14B29

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 141	E

2

2

N

CONSTRUCT
TEMPORARY WIDENING

15C12
15D28

W06-3

DO NOT
ENTER
R5-1
36"X36"

W06-1

19

128EB

130EB

132EB

134WB

136WB

138WB
138EB

140WB
140EB

19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A	SHEET 142	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A.DWG
LAYOUT NAME - 01

PLOT DATE : 4/29/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

INT - INTERMITTENT OVERNIGHT CLOSURE OF RIVER RD - NORTH

N

INT
15C2b-E

RIVER RD

INT
R3-2
24"X24"

WRONG WAY
R5-1A
42"X30"

CONSTRUCT TEMPORARY WIDENING

15C12
15D28

INT
15C2b-D

CONSTRUCT TEMPORARY WIDENING

DO NOT ENTER
R5-1
36"X36"

INT
R3-1
24"X24"

15C12
(OVERNIGHT)

19

142WB
142EB
144WB
144EB

STOP
R1-1
36"X36"

-REMOVE MEDIAN AND PORK CHOP ISLAND, AND PLACE TEMPORARY PAVEMENT
-MAINTAIN TWO-WAY TRAFFIC ON STH 19 AND RIVER RD

146EB
148WB
148EB
150WB
152WB
152EB
154WB
154EB
156WB
156EB

W06-3

W06-1

YAHARA RIVER

54RNB

52RNB

50RNB RIVER RD

STOP
R1-1
36"X36"

WRONG WAY
R5-1A
42"X30"

DO NOT ENTER
R5-1
36"X36"

15C12
15D28

CONSTRUCT EB STH 19

CONSTRUCT TEMPORARY WIDENING ALONG NB RIVER RD

W03-1

STA. 47'00'RNB' RT

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A	SHEET 143	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A.DWG
LAYOUT NAME - 02

PLOT DATE : 4/29/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

(INT) - INTERMITTENT OVERNIGHT CLOSURE OF LIUNA WAY

FOR TRAFFIC CONTROL AFTER LIUNA WAY IS RECONSTRUCTED, SEE SUBSTAGE 1B

TRUCK TO INTERSTATE 39/90 94

MOVE (PAID FOR AS "TRAFFIC CONTROL SIGNS")

INSTALL STORM SEWER PIPE UNDER FLAGGING 15C12 WHEN LIUNA WAY IS FULLY CLOSED OVERNIGHT

15C12
15D28

NO PASSING ZONE
W14-3
48"X36"

CONSTRUCT TWO-WAY TEMPORARY MEDIAN CROSSOVER

SPEED LIMIT 45
W3-5
36"X36"

SPEED LIMIT 45
R2-1
30"X36"

INT
R3-1
36"X36"

INT
15C2b-D

STOP
R1-1
36"X36"

INT
R3-2
36"X36"

TIERNEY XING

N

158WB 160WB 162WB 164WB 166WB 168WB 170WB 172WB

158EB 160EB 162EB 164EB 166EB 168EB 170EB 172EB

19

19

CONSTRUCT EB STH 19 AND PARK ACCESS

15C12
15D28

15C12
15D28

CONSTRUCT EB STH 19

LIUNA WAY

SPEED LIMIT 25
R2-1
30"X36"

MH WV GUY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A	SHEET 144	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A.DWG
LAYOUT NAME - 03

PLOT DATE : 4/29/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

CASHEL WAY

TEMPORARY ROADWAY

MOVE
Cashel Way
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

CONSTRUCT TWO-WAY TEMPORARY MEDIAN CROSSOVER

15C12
15D28

174WB 176WB 178WB 180WB 182WB 184WB 186WB 188WB

19

174EB 176EB 178EB 180EB 182EB 184EB 186EB 188EB

15C12
15D28

SPEED LIMIT 45
R2-1
30"X36"

CONSTRUCT EB STH 19

MOVE
JCT 39 JCT 90 JCT 94
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

LIUNA WAY

IP

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A	SHEET 145	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A.DWG
LAYOUT NAME - 04

PLOT DATE : 4/29/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TEMPORARY ROADWAY

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

N

19

188WB

190WB

192WB

194WB

196WB

198WB

188EB

190EB

192EB

194EB

196EB

198EB

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

LIUNA WAY

STH 19 TO SB I-39/90/94

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A	SHEET 146	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A.DWG
LAYOUT NAME - 05

PLOT DATE : 4/29/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

(INT) - INTERMITTENT OVERNIGHT CLOSURE OF LIUNA WAY

N

SEE SUBSTAGE 1A

EB RIGHT TURN PROHIBITED

4' MIN CLEAR WIDTH

25' TYP

R3-1
36"X36"

ONE WAY
R6-2L
36"X48"

INT
15C2b-D

INT
R3-2
36"X36"

MAINTAIN WB LEFT TURN

SEE SUBSTAGE 1A

19

162WB 164WB 166WB 168WB 170WB 172WB 174WB 176WB

162EB 164EB 166EB 168EB 170EB 172EB 174EB 176EB

16' MIN CLEAR WIDTH

CONSTRUCT EB STH 19

INSTALL STORM SEWER WHEN LIUNA WAY IS FULLY CLOSED OVERNIGHT

25' TYP

SW-600-18

12' MIN CLEAR WIDTH

TRUCK TO INTERSTATE 39/90 94

MOVE
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

TRT-4W

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED AHEAD
W20-3A

25' TYP

16' MIN CLEAR WIDTH

LIUNA WAY

WRONG WAY
R5-1A
42"X30"

DO NOT ENTER
R5-1
36"X36"

R3-2
24"X24"

W26-3

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A-LNW1	SHEET 147	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0261_1A-LNW1.DWG
LAYOUT NAME - 01

PLOT DATE : 4/29/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

INT - INTERMITTENT OVERNIGHT CLOSURE OF LIUNA WAY

N

INT
R3-2
36"X36"

INT
R3-1
36"X36"

INT
15C2b-D

ONE WAY
R6-2L
36"X48"

ONE WAY
R6-2R
36"X48"

SEE SUBSTAGE 1A

SEE SUBSTAGE 1A

MAINTAIN WB
LEFT TURN

25' TYP

19

19

162WB 164WB 166WB 168WB 170WB 172WB 174WB 176WB

162EB 164EB 166EB 168EB 170EB 172EB 174EB 176EB

16' MIN CLEAR WIDTH

SM 18

SM 19

25' TYP

16' MIN CLEAR WIDTH

TRUCK TO
39/90
94

MOVE
(PAID FOR AS "TRAFFIC
CONTROL SIGNS")

ROAD
CLOSED
R11-2
48"X30"

ROAD
CLOSED
AHEAD
W20-3A

LIUNA WAY

WRONG
WAY
R5-1A
42"X30"

DO NOT
ENTER
R5-1
36"X36"

R3-2
24"X24"

W06-3

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A-LNW2	SHEET 148	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1A-LNW2.DWG
LAYOUT NAME - 01

PLOT DATE : 4/29/2019 11:24 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

BLOCK OFF END OF OLD PIPE
(INCIDENTAL TO OTHER ITEMS OF WORK)

MH

GUY

168+73WB
37' LT

169+5WB
37' LT

19

166WB

168WB

170WB

168+56WB
11' RT

166+00WB
12' RT

168+89WB
8' RT

168+64WB
11' RT

166+00WB
25' RT

168+64WB
26' RT

166EB

168EB

170EB

BLOCK OFF END OF PROPOSED PIPE
(INCIDENTAL TO OTHER ITEMS OF WORK)

9+50LWS

9+34LWS
0'

9+33LWS
26' RT

6"

9+00LWS

9+4LWS
0'

9+3LWS
26' RT

8+50LWS

LIUNA WAY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1A - PAVING DETAILS & DRAINAGE	SHEET 149	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1AX (PD AND DR).DWG
LAYOUT NAME - 01

PLOT DATE : 4/23/2019 2:32 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ROAD CLOSED
R11-2
48"X30"

2 BARRICADES

SLOPE INTERCEPTS FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

2 BARRICADES

ROAD CLOSED
R11-2
48"X30"

GUY

GUY

GUY

GUY

19

232TEB1

234TEB1

236TEB1

238TEB1

240TEB1

19

CW-4
(WHITE-SOLID)

W06-1

W06-3

DO NOT ENTER
R5-1
36"X36"

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B	SHEET 150	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1B.DWG
LAYOUT NAME - 01

PLOT DATE : 4/29/2019 11:29 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

SLOPE INTERCEPTS FOR CONSTRUCTION STAGING TEMPORARY WIDENING

2 BARRICADES

2 BARRICADES

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

DO NOT ENTER
R5-1
36"X36"

SLOPE INTERCEPTS FOR CONSTRUCTION STAGING TEMPORARY WIDENING

CW-4
(WHITE-SOLID)

(DOUBLE YELLOW-SOLID)
CW-4

W06-1

242TEB1

244TEB1

246TEB1

248TEB1

250TEB1

252TEB1

254TEB1

256TEB1

19

WRONG WAY
R5-1A
42"X30"

CW-4
(WHITE-SOLID)

ROAD CLOSED
R11-2
48"X30"

2 BARRICADES

WRONG WAY
R5-1A
42"X30"

DO NOT ENTER
R5-1
36"X36"

SLOPE INTERCEPTS FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

CONTINUE CONSTRUCTING PROPOSED EB STH 19

W06-3

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

CW-4
(WHITE-SOLID)

RIVER RD

YAHARA RIVER

501TRR

502TRR

503TRR

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B	SHEET 151	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1B.DWG
LAYOUT NAME - 02

PLOT DATE : 4/29/2019 11:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

TIERNEY XING

ROAD CLOSED
R11-2
48"X30"

CW-4
(WHITE-SOLID)

2 BARRICADES

W3-5
36"X36"

SPEED LIMIT 45
R2-1
30"X36"

3 BARRICADES

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

CW-4
(WHITE-SOLID)

STOP
R1-1
36"X36"

TE-SL

19

258TEB1

260TEB1

262TEB1

264TEB1

266TEB1

268TEB1

270TEB1

272TEB1

CW-4
(DOUBLE YELLOW ℄)

3 BARRICADES

NO PASSING ZONE
W14-3
48"X36"

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

TRUCK TO Junction 39/90 94

MOVE
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

SPEED LIMIT 25
R2-1
24"X30"

LIUNA WAY

MH

MH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B	SHEET 152	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1B.DWG
LAYOUT NAME - 03

PLOT DATE : 4/29/2019 11:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

CASHEL WAY

TEMPORARY ROADWAY

SEE SUBSTAGE 1A

MOVE
Cashel Way
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

ROAD CLOSED
R11-2
48"X30"

CW-4
(WHITE-SOLID)

278TEB1

280TEB1

276TEB1

274TEB1

19

19

3 BARRICADES

CONTINUE CONSTRUCTING EB STH 19

SPEED LIMIT 45
R2-1
30"X36"

MOVE
JCT 39 JCT 90 JCT 94
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

LIUNA WAY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B	SHEET 153	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1B.DWG
LAYOUT NAME - 04

PLOT DATE : 4/29/2019 11:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

19

SLOPE INTERCEPTS FOR CONSTRUCTION
STAGING TEMPORARY WIDENING (TYP)

ROAD CLOSED
R11-2
48"X30"

2 BARRICADES

ROAD CLOSED
R11-2
48"X30"

STOP
R1-1
36"X36"

STOP
R1-1
36"X36"

CW-4
(WHITE-SOLID)

RIVER RD

TE-SL

CW-8
(WHITE
CHANNELIZING)

RIVER RD

49TRR
50TRR
52TRR
54TRR
56TRR

246TEB1
244TEB1
248TEB1
250TEB1

CW-4
(WHITE-SOLID)

STOP
R1-1
36"X36"

W03-1

SLOPE INTERCEPTS FOR CONSTRUCTION
STAGING TEMPORARY WIDENING (TYP)

CONTINUE CONSTRUCTING
PROPOSED EB STH 19

19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B	SHEET 154	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1B.DWG
LAYOUT NAME - 05

PLOT DATE : 4/29/2019 11:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

GUY

GUY

GUY

234TEB1

236TEB1

238TEB

231+97TEB1
12' LT

232TEB1

19

MATCH EXISTING PAVEMENT EDGE

234+60TEB1
13' RT

19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 155	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 01

PLOT DATE : 5/23/2019 8:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

SLOPE INTERCEPTS FOR CONSTRUCTION
STAGING TEMPORARY WIDENING (TYP)

238TEB1

240TEB1

242TEB1

244

19

241+63TEB1
0'

13.0'

242+69TEB1
17' LT

241+92TEB1
13' RT

242+93TEB1
25' RT

MATCH EXISTING PAVEMENT EDGE

R = 1113'

SS

GUY

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 156	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 02

PLOT DATE : 5/23/2019 8:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

TEMPORARY 18-INCH CULVERT EXTENSION

TEMPORARY 42-INCH CULVERT EXTENSION

CONCRETE PIPE COLLAR

CONCRETE PIPE COLLAR

RIVER ROAD

244+76TEB1
25' LT

244TEB1

MATCH EXISTING PAVEMENT EDGE

MATCH EXISTING PAVEMENT EDGES

EXISTING 36-INCH CULVERT

SLOPE INTERCEPTS FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

245+57TEB1
25' LT

MATCH EXISTING PAVEMENT EDGE

247+50TEB1
25' LT

246TEB1

19

MATCH EXISTING PAVEMENT EDGE

TEMPORARY COVER PLATE

248TEB1

MATCH EXISTING PAVEMENT EDGES

TEMPORARY COVER PLATE

19

55+93TRR
25' LT

56+16TRR
14' RT

56TRR

R = 299'

55+8TRR
13' LT

INSTALL PORTION OF PERMANENT STORM SEWER. INCIDENTAL TO OTHER ITEMS OF WORK, TEMPORARILY SEAL UNNEEDED STORM SEWER OPENINGS IN MANHOLE STRUCTURE UNTIL LATER STAGES.

RIVER ROAD

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 157	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 03

PLOT DATE : 5/23/2019 8:30 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

19

250TEB1

MATCH EXISTING PAVEMENT EDGES

252TEB1

254TEB1

19

256T

GUY

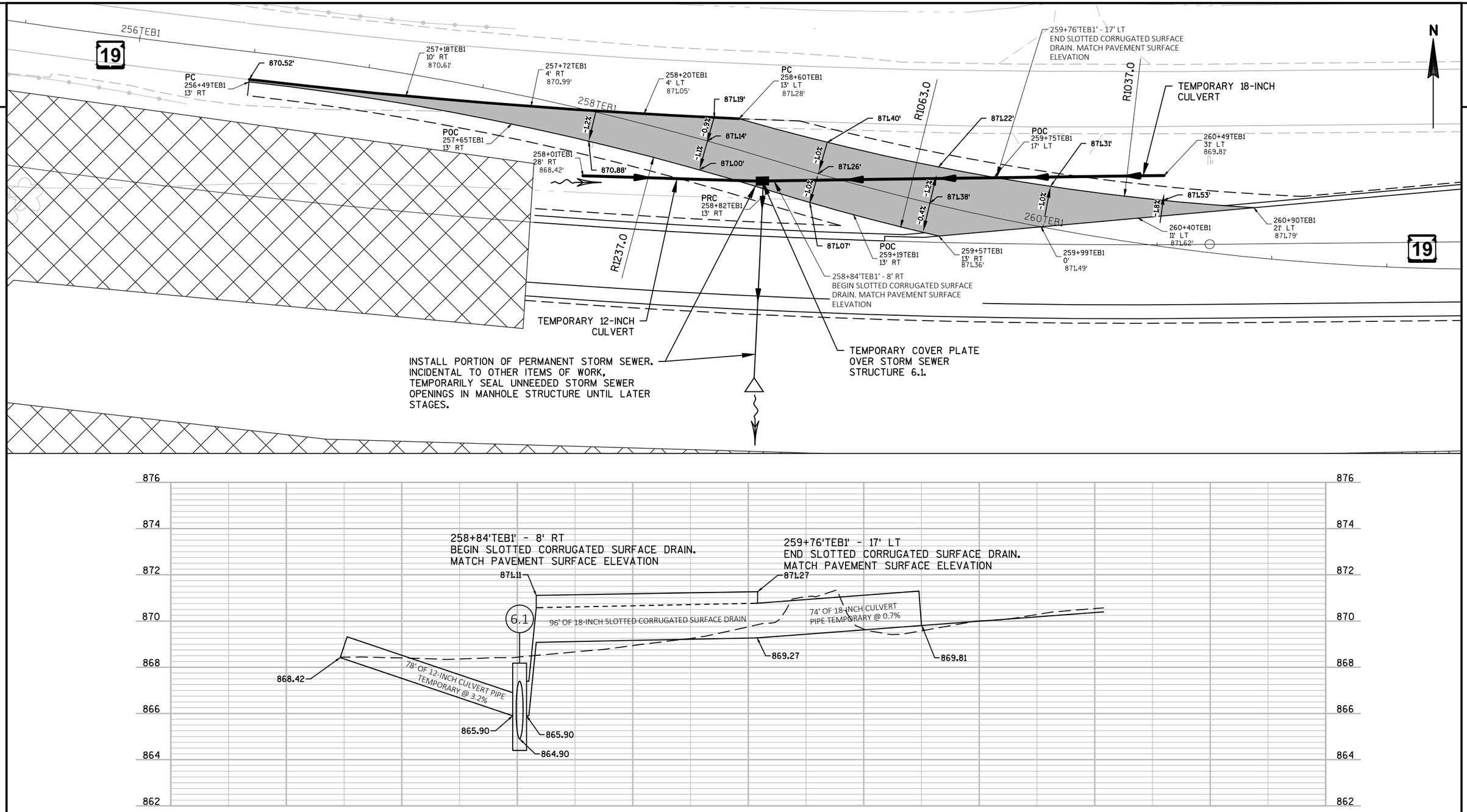
YAHARA RIVER

GUY

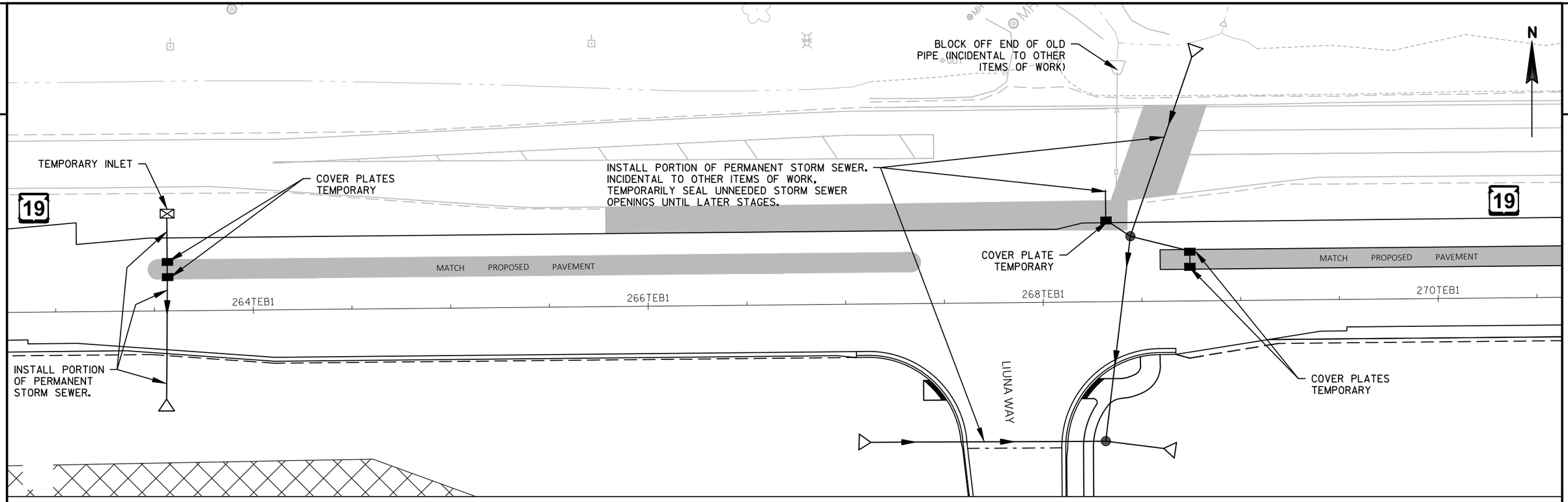
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 158	E

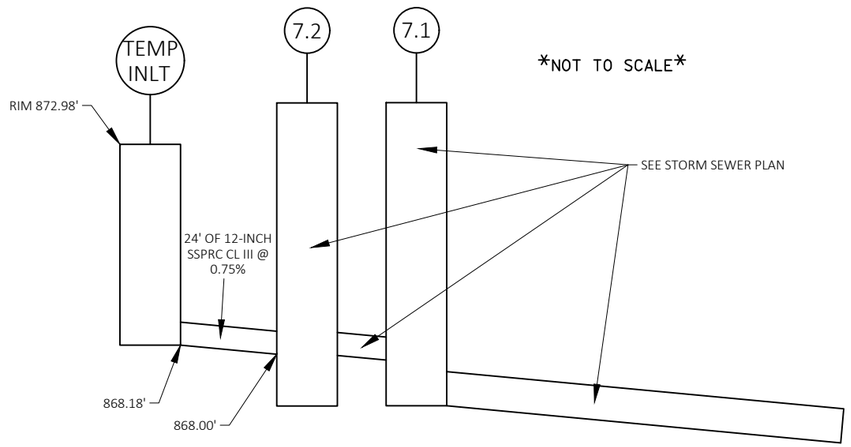
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 04

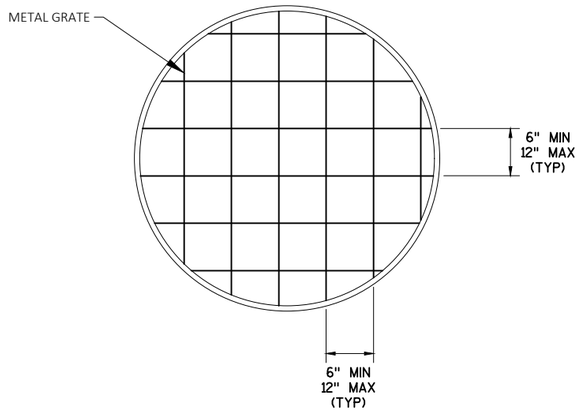
PLOT DATE : 5/23/2019 8:31 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 159	E

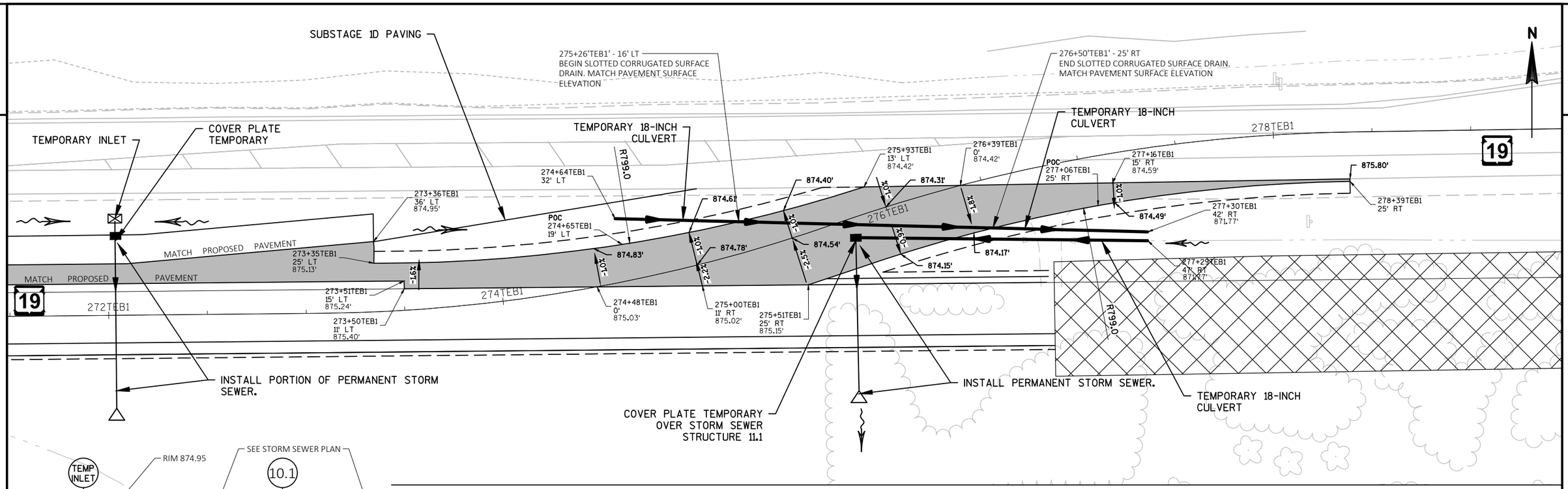


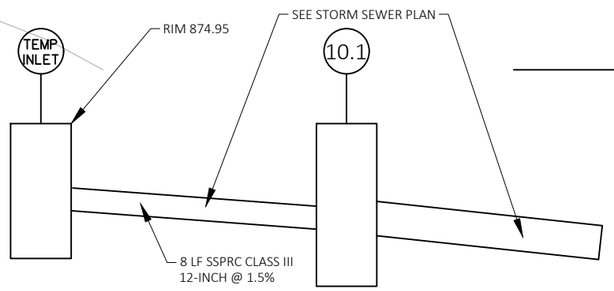




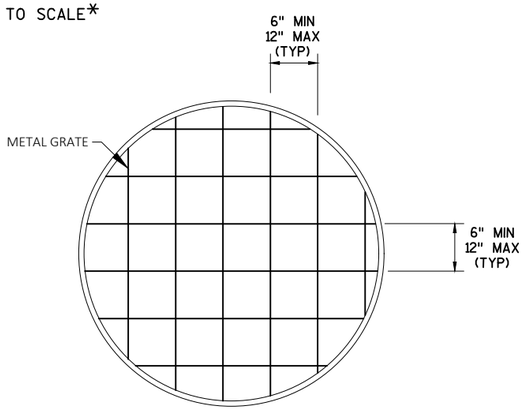
DETAIL FOR TEMPORARY INLET COVER

- COVER MAY BE CIRCULAR, RECTANGULAR, OR SQUARE.
- SUPPLY AND PLACEMENT OF COVER INCLUDED IN THE COST OF "INLETS TEMPORARY".



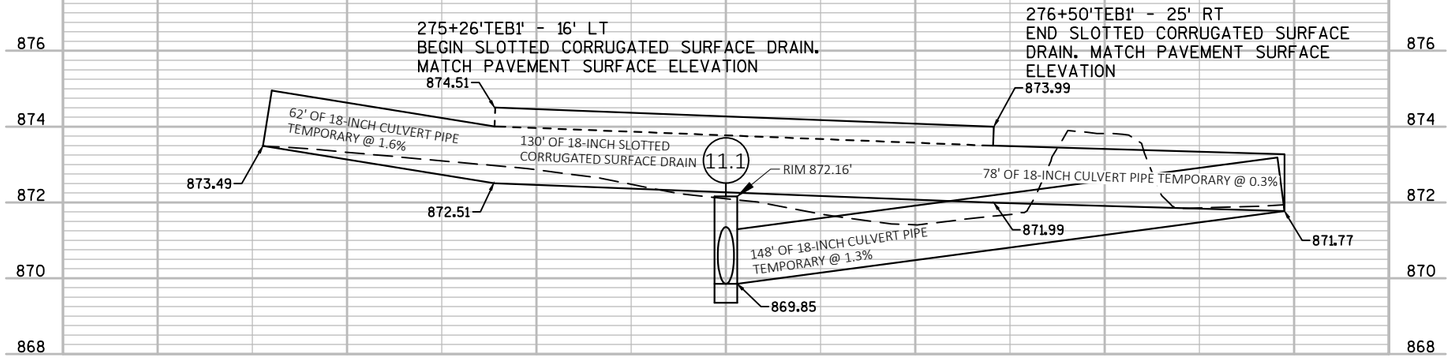


NOT TO SCALE



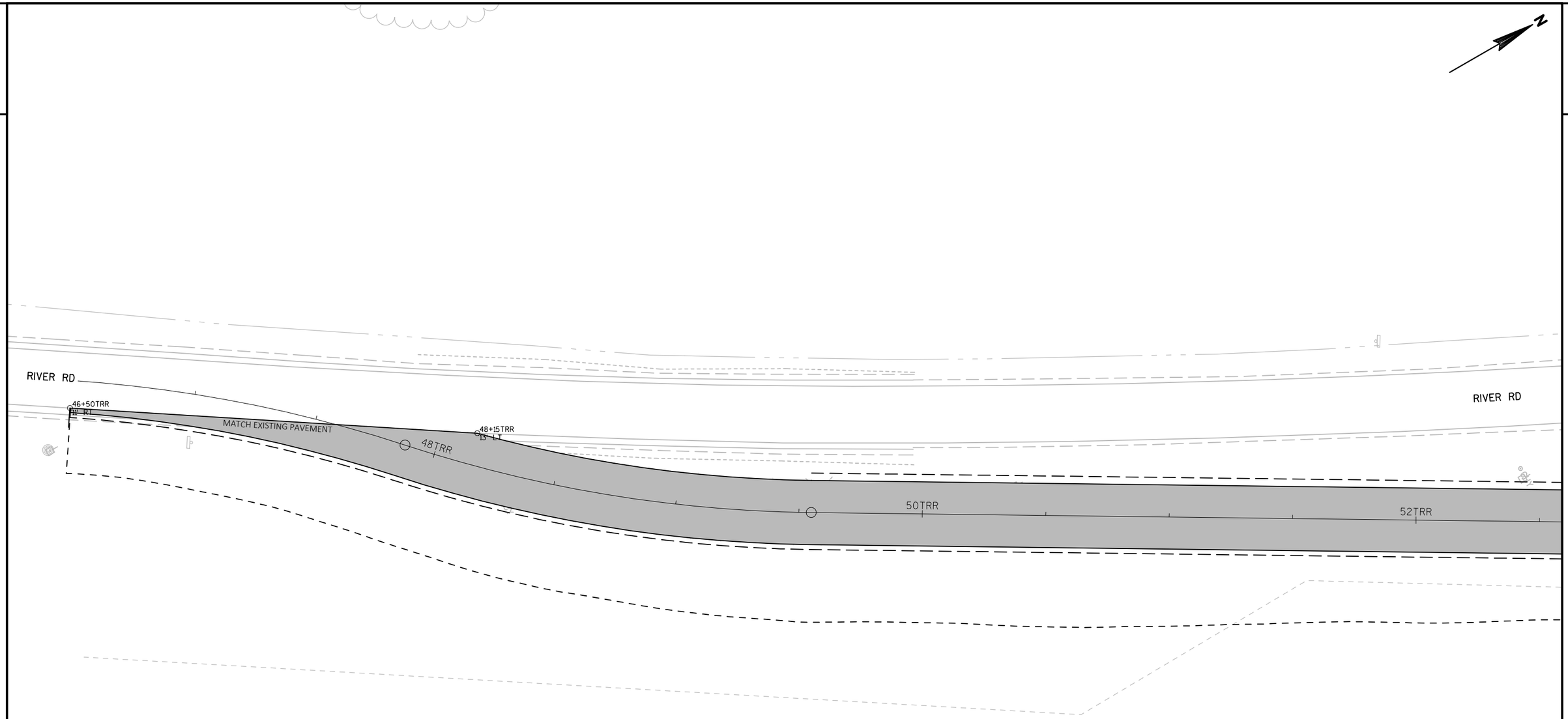
DETAIL FOR TEMPORARY INLET COVER

- COVER MAY BE CIRCULAR, RECTANGULAR, OR SQUARE.
- SUPPLY AND PLACEMENT OF COVER INCLUDED IN THE COST OF "INLETS TEMPORARY".



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 161	E

2

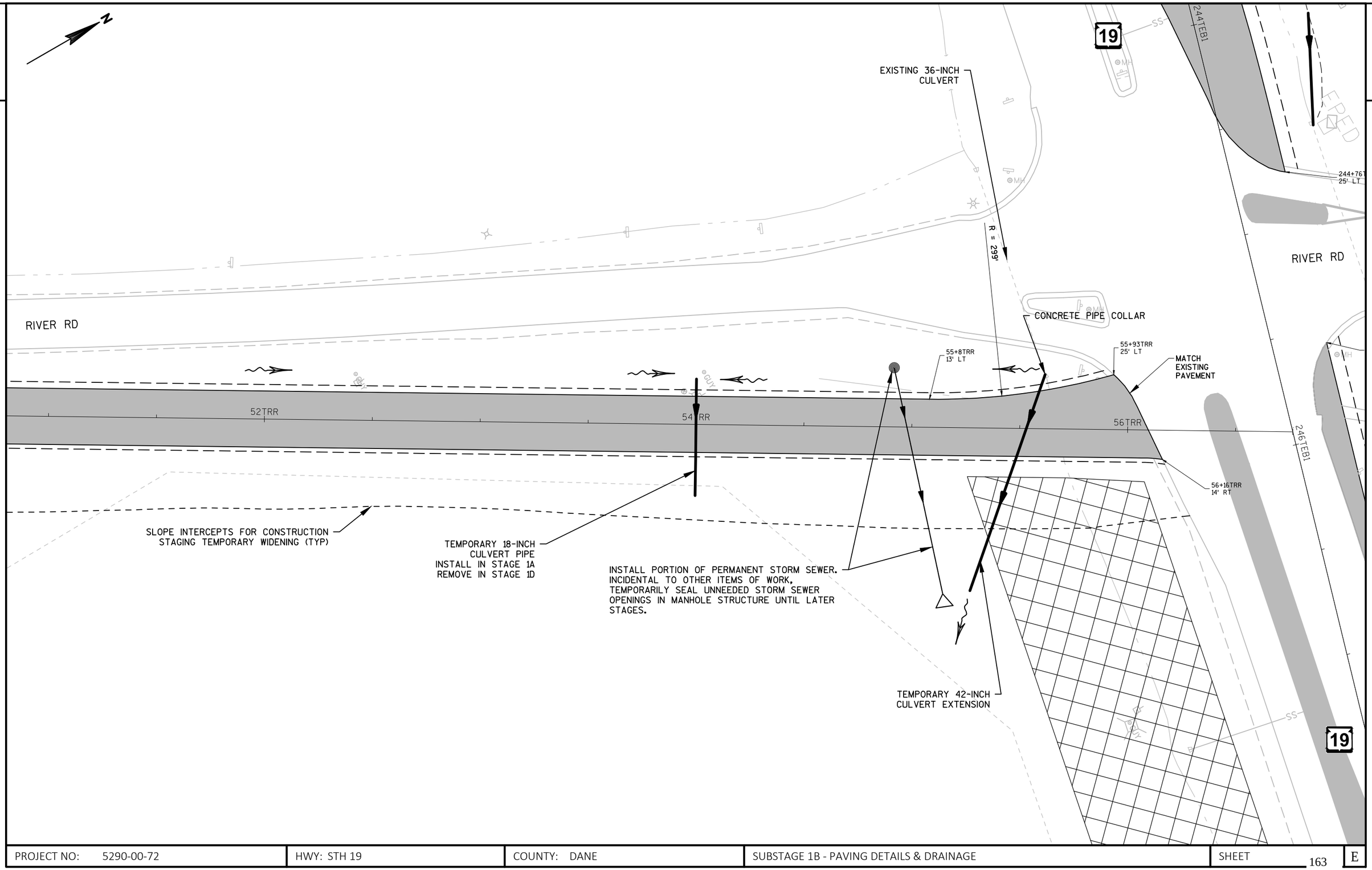


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 162	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 08

PLOT DATE : 5/23/2019 8:31 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1B - PAVING DETAILS & DRAINAGE	SHEET 163	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1BX (PD AND DR).DWG
LAYOUT NAME - 09
PLOT DATE : 5/23/2019 8:31 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

(DOUBLE-YELLOW CENTERLINE & WHITE EDGELINE)

R-WB-4

TP-4W

TP-4DY

GUY

GUY

GUY

GUY

50' TYP

50' TYP

232 EB1

234 EB1

236 EB1

238 EB1

240 EB1

19

19

15C12

15D28

WO1-4L

45 MPH

WO13-1
36"X36"

WO1-6
60"X30"

CONSTRUCT PROPOSED
EB STH 19 &
TEMPORARY WIDENING

WO6-1

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 164	E

2

N

BEGIN CONSTRUCTING NORTH LEG OF RIVER RD

CONSTRUCT PROPOSED EB STH 19, TEMPORARY WIDENING, SOUTH LEG OF RIVER RD, AND RAB

CONTINUE CONSTRUCTING PROPOSED EB STH 19

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

(DOUBLE YELLOW CENTERLINE)

(YELLOW)

(18" STOPLINE)

RIVER RD

YAHARA RIVER

TP-4W
TP-4DY
TP-D
TP-8W
R-W
R-4
R-8
15C2b-D
Rt100.00'
R3000.00'
R50'
R60'
50' TYP
241+90TEB1 12' RT
242+90TEB1 24' RT
245+00TEB1 24' RT
246+40TEB1 24' RT
247+47TEB1 12' RT
248+40TEB1 0'
249+36TEB1 12' LT
56+08TRR 12' RT
55+94TRR 25' LT
55+08TRR 12' LT
242TEB1
246TEB1
248TEB1
250TEB1
252TEB1
254TEB1
256TEB1
54RNB
54TRR
52RNB
52TRR
51RNB
50RNB
15D28
GUY
MH
GV

WO6-3
WO1-4L
WO1-4R
WO6-1
WO3-5
R3-1 36"X36"
R4-7 36"X48"
WO13-1 36"X36"
R3-8E 54"X48"
R3-20R 36"X54"
R3-8D 54"X48"
R3-2 36"X36"
R2-1 36"X48"

45 MPH
SPEED LIMIT 45
BEGIN RIGHT TURN LANE
ONLY ONLY
19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 165	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1C.DWG
LAYOUT NAME - 02
PLOT DATE : 4/30/2019 10:28 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

TIERNEY XING

WO1-6
60"X30"

TEMPORARY MEDIAN CROSSOVER

TP-4W

WO6-3

WO6-2

WO1-4R

45
MPH

WO13-1
36"X36"

R3-2
36"X36"

WO1-7
60"X30"

CONSTRUCT PORTION OF WB STH 19 (INCLUDING CONNECTION TO TIERNEY XING

R3-1
36"X36"

ENTRANCE CLOSED

TRT-D
(YELLOW)

15C2b-D

(DOUBLE YELLOW CENTERLINE & WHITE EDGELINE)

R-4

R10-50'

50' TYP

TEMPORARY PAVEMENT

TRT-4W

15D28

TEMPORARY PAVEMENT

19

258TEB1

260TEB1

262TEB1

264TEB1

266TEB1

268TEB1

270TEB1

272TEB1

50'TYP

TP-4DY

TRT-4W

TRT-4DY

15D28

P-SPM

R4-7
36"X48"

R-4
(DOUBLE YELLOW ℄)

TRT-8W

TRT-4W

P-SPM

TRT-4DY

TRT-SL

STOP
R1-1
36"X36"

WO1-4L

35
MPH
WO13-1
36"X36"

WO6-1

15C2b-D

WO1-6
60"X30"

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

TRUCK
TO
INTERSTATE
39/90
94

MOVE
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

SPEED LIMIT
25
R2-1
30"X36"

LIUNA WAY

MH

MH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 166	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1C.DWG
LAYOUT NAME - 03

PLOT DATE : 4/30/2019 10:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

TEMPORARY ROADWAY

CASHEL WAY

TEMPORARY MEDIAN CROSSOVER

PAVEMENT MARKING WORD & ARROW TO REMAIN

WO1-6
60"X30"

R-S
(TYPE 2 ARROW)

(WHITE-SOLID)
R-8

TP-4DY

TP-8W

50' TYP

TP-4W

R3-8E
54"X48"

TRT-8W

15C2b-D

R800.00'

278TEB1

280TEB1

276TEB1

274TEB1

19

R-S
(WORD "ONLY")

TP-W
"ONLY"

R-4
(DOUBLE YELLOW & WHITE EDGELINE)

TRT-4W

TRT-4DY

TRT-8W
3' LINE, 9' SKIP

TP-A
(TYPE 2)

15C2b-D

MOVE
Cashel Way
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

WO1-6
60"X30"

R3-8E
54"X48"

CONTINUE CONSTRUCTING EB STH 19

SPEED LIMIT
45
R2-1
30"X36"

15D28

WO1-4L

35 MPH
WO13-1
36"X36"

MOVE
JCT 39 JCT 90 JCT 94
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

LIUNA WAY

IP

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 167	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1C.DWG
LAYOUT NAME - 04

PLOT DATE : 4/30/2019 10:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TEMPORARY ROADWAY

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

19

LIUNA WAY

SIGN

MH

W

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

STH 19 TO SB I-39/90/94

N

2

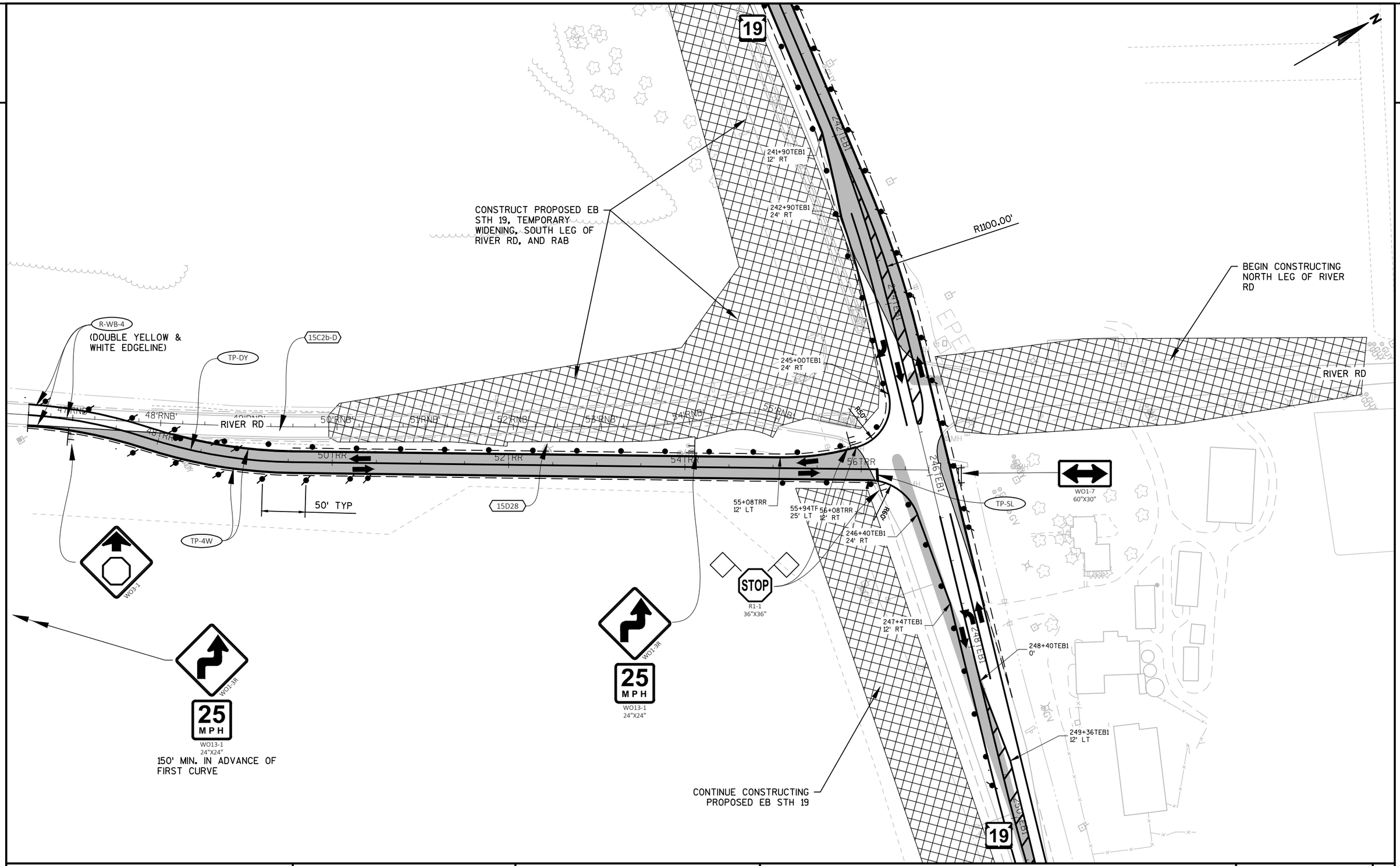
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 168	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1C.DWG
LAYOUT NAME - 05

PLOT DATE : 4/30/2019 10:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

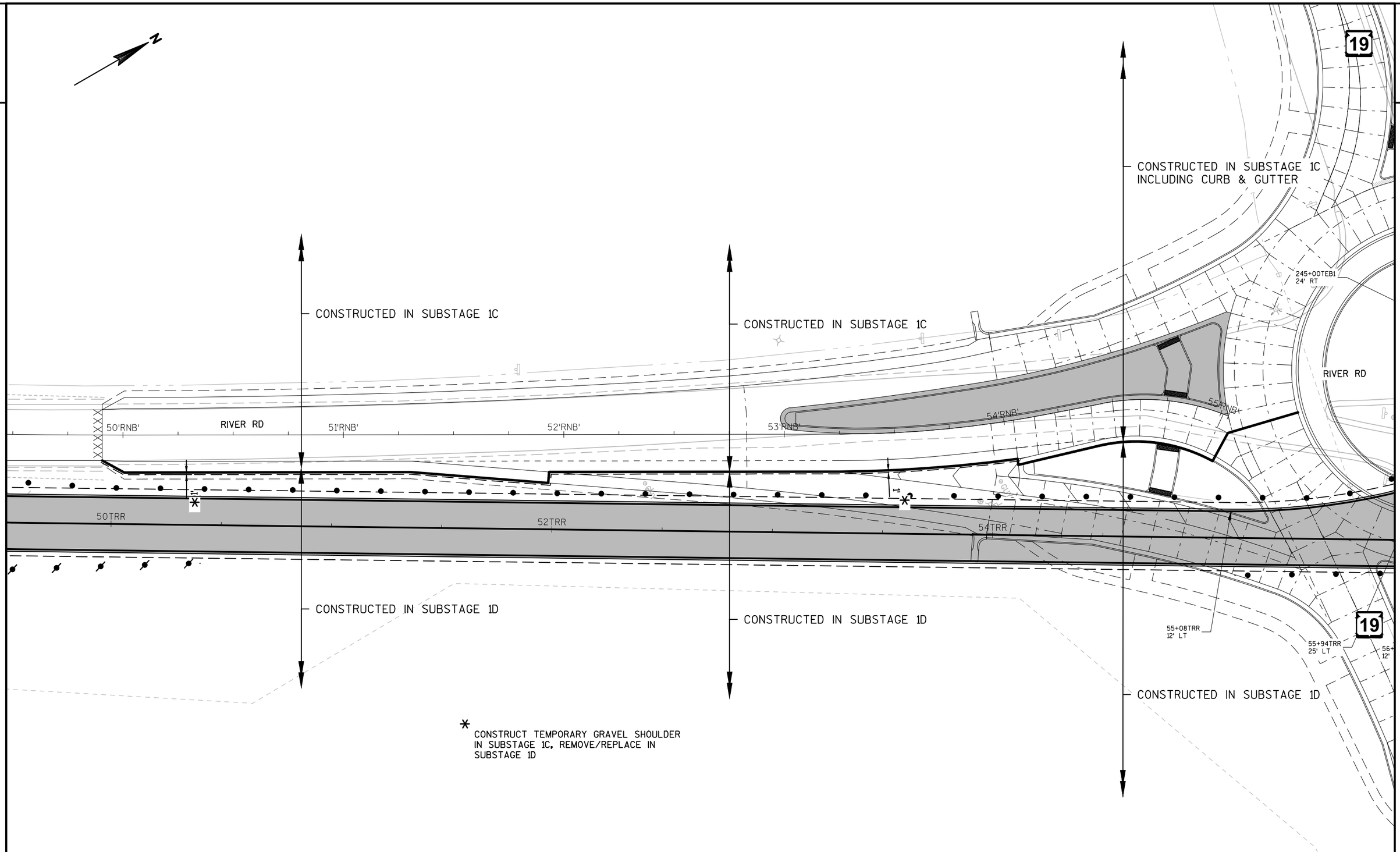
2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1C	SHEET 169	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0262_1C.DWG
LAYOUT NAME - 06

PLOT DATE : 4/30/2019 10:28 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT


N
CONSTRUCTED IN SUBSTAGE 1C
CONSTRUCTED IN SUBSTAGE 1C
CONSTRUCTED IN SUBSTAGE 1C INCLUDING CURB & GUTTER
50'RNB'
RIVER RD
51'RNB'
52'RNB'
53'RNB'
54'RNB'
55'RNB'
RIVER RD
245+00TEB1
24' RT
50TRR
52TRR
54TRR
CONSTRUCTED IN SUBSTAGE 1D
CONSTRUCTED IN SUBSTAGE 1D
CONSTRUCTED IN SUBSTAGE 1D
55+08TRR
12' LT
55+94TRR
25' LT
56+
12'
19
19
* CONSTRUCT TEMPORARY GRAVEL SHOULDER IN SUBSTAGE 1C, REMOVE/REPLACE IN SUBSTAGE 1D

2

N

TIERNEY XING

15C2b-D

SEE SUBSTAGE 1C
FOR DETAILS

(4 BARRICADES)
ROAD CLOSED
R11-2
48"X30"

DO NOT ENTER
R5-1
36"X36"

TEMPORARILY CLOSED

WO1-6
60"X30"

ONE WAY
R6-2L
36"X48"

(3 BARRICADES)
LANE CLOSED
R11-2L
48"X30"

CLOSE LEFT TURN LANES

CONSTRUCT MEDIAN ISLANDS
AND FINISH TRAFFIC SIGNAL

LANE CLOSED
R11-2L
48"X30"

R3-1
36"X36"

SEE SUBSTAGE 1D FOR
LEFT TURN LANE

P-SPM
TRT-4Y
50' TYP
15'
25'

19

160WB
162WB
164WB
168WB
170WB
172WB
174WB

262TEB1
264TEB1
266TEB1
268TEB1
270TEB1
272TEB1
274TEB1

INT

DO NOT ENTER
R5-1
36"X36"

15C2b-D

R3-1
36"X36"

R3-2
36"X36"

WRONG WAY
R5-1A
42"X30"

LANE CLOSED
R11-2L
48"X30"

SEE SUBSTAGE 1D FOR DETAILS

TRUCK TO INTERSTATE 39/90 94

MOVE
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

SPEED LIMIT 25
R2-1
30"X36"

LIUNA WAY

ONE WAY
R6-1R
36"X12"

STOP
R1-1
36"X36"

DIVIDED HIGHWAY
R6-3
30"X24"

WO1-4L

35 MPH
WO13-1
36"X36"

WRONG WAY
R5-1A
42"X30"

R3-2
36"X36"

(INT) - INTERMITTENT OVERNIGHT CLOSURE OF LIUNA WAY

MH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D-LNW	SHEET 171	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0263_1D-LNW_MED.DWG
LAYOUT NAME - LNW

PLOT DATE : 5/23/2019 8:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1"=100'

2

N

PERMANENTLY CLOSED

TEMPORARY ROADWAY

ROAD CLOSED
R11-2
48"X30"

15C2b-D

SEE SUBSTAGE 1D FOR DETAILS

WO1-6
60"X30"

TP-4Y

TP-4W

R3-1
36"X36"

FOR WB STH 19, RESTRICT REMOVABLE TAPE YELLOW EDGELINE & LIGHTED DRUMS TO THE HOURS OF 9PM TO 6AM

AVOID PULL BOX

WO4-2L

10' MIN CLEAR WB LEFT LANE

SB I-39/90/94 TO STH 19

SHIFT MARKING 2' (9PM TO 6AM ONLY)

TRT-4Y

50' TYP

19

184WB

186WB

188WB

190WB

192WB

194WB

196WB

198WB

MH

TP-4W

200' MIN

R-8

R3-1
36"X36"

15C2b-D

15C12

15D28

50' TYP

AVOID PULL BOX

ROAD CLOSED
R11-2
48"X30"

WO4-4R

35 MPH
WO13-1
36"X36"

LIUNA WAY

IP

TEMPORARILY CLOSED

15C2b-D

STH 19 TO SB I-39/90/94

39 90 94

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D-MED	SHEET 172	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0263_1D-LNW_MED.DWG
LAYOUT NAME - MED

PLOT DATE : 5/23/2019 8:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1"=100'

2

2

N

R-4 (DOUBLE YELLOW CENTERLINES & WHITE EDGELINE)
R-8 (WHITE CHANNELIZING LINE)
R-W (YELLOW 12" DIAGONAL)

15C2b-D

CONTINUE CONSTRUCTING
NORTH LEG OF RIVER RD

RIVER RD

R4-7
36"X48"

WO1-7
60"X30"

WO1-4L

45
MPH
WO13-1
36"X36"

TP-4DY EXTEND

TP-8W EXTEND

ONLY ONLY
R3-8E
54"X48"

242TEB1

19

244+12TEB1
24' RT

244+61TEB1
66' RT

244+71TEB1
126' RT

244+97TEB1
81' RT

R50'

R60'

TP-SL

245+50TEB1
24' RT

246+57TEB1
12' RT

246TEB1

248TEB1

148WB

250TEB1

150WB

252TEB1

152WB

254TEB1

154WB

256TEB1

156WB

WO6-1

SPEED
LIMIT
45
R2-1
36"X48"

YAHARA RIVER

50'TYP

CONTINUE CONSTRUCTING
PROPOSED EB STH 19,
TEMPORARY WIDENING,
SOUTH LEG OF RIVER RD,
AND RAB

R3-2
36"X36"

STOP
R1-1
36"X36"

TRT-4W

TRT-4DY

SPEED
LIMIT
35
R2-1
24"X30"

TRT-4W

SPEED
LIMIT
45
WO3-5

CONTINUE CONSTRUCTING
PROPOSED EB STH 19

WO6-3

WO1-4R

45
MPH
WO13-1
36"X36"

CONTINUE CONSTRUCTING PARK
ACCESS (MAY BE USED AS
ACCESS TO BRIDGE
CONSTRUCTION)

524NB

546NB

RIVER RD

50'TYP

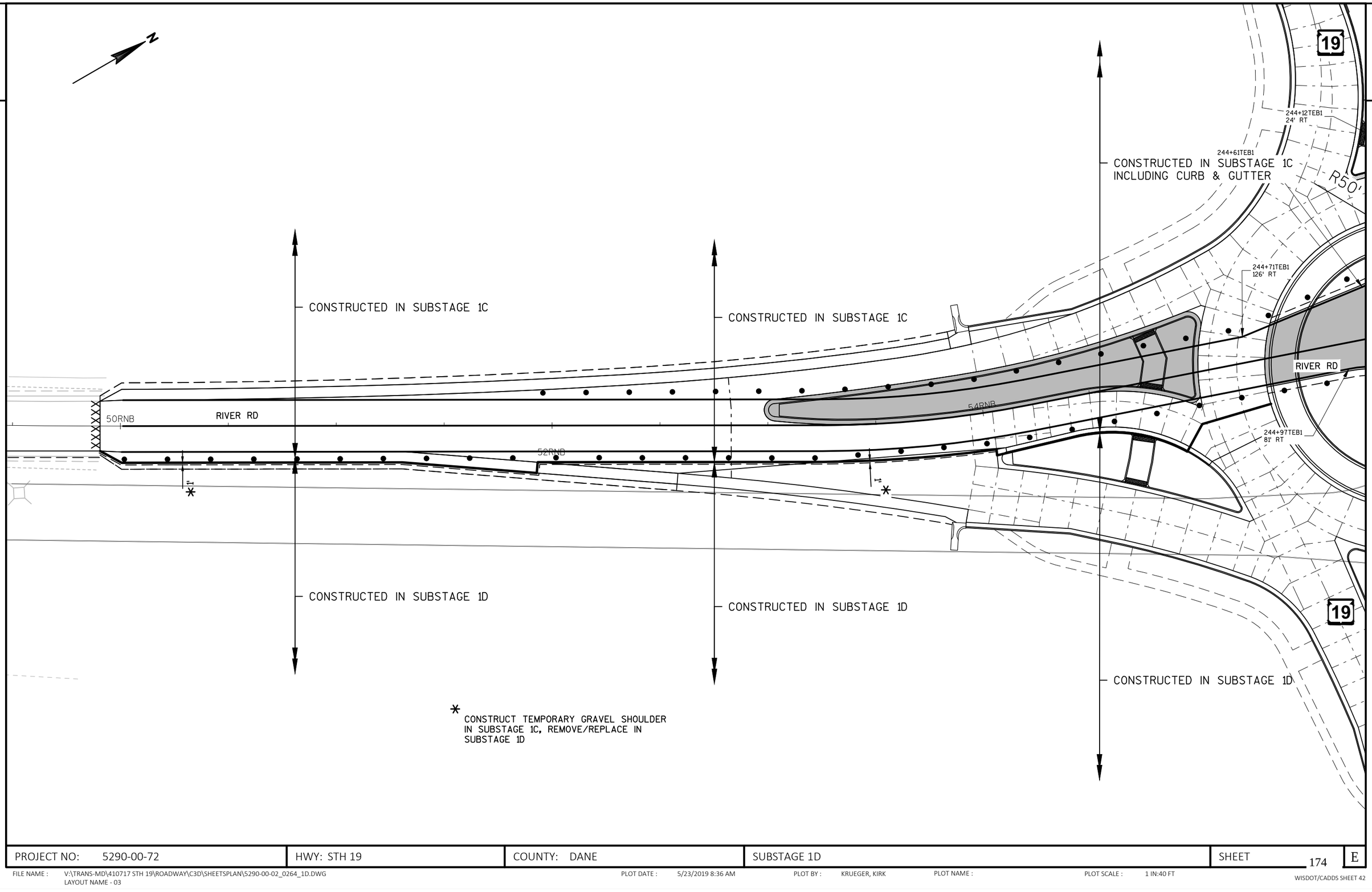
REMOVE TEMPORARY
WIDENING AND FINISH
SOUTH LEG OF RIVER RD

WO3-1

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D	SHEET 173	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1D.DWG
LAYOUT NAME - 02
PLOT DATE : 5/23/2019 8:36 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D	SHEET 174	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1D.DWG
LAYOUT NAME - 03

PLOT DATE : 5/23/2019 8:36 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

WO6-3

WO1-6
60"X30"

TEMPORARY MEDIAN CROSSOVER FOR EB TRAFFIC

BEGIN LEFT TURN LANE
R3-20L
36"X54"

ONE WAY
R6-2R
24"X30"

WO6-2

TP-4Y

TRT-4Y

P-SPM

TRT-4W

WO1-6
60"X30"

50'TYP

TIERNEY XING

LANE CLOSED
R11-2L
48"X30"
(CLOSE MIDDLE LANE)

TRAFFIC SIGNAL IN SERVICE. PERMANENT MEDIAN THRU LANE CLOSED FOR EB STH 19 & WB STH 19

DO NOT ENTER
R5-1
36"X36"

LANE CLOSED
R11-2L
48"X30"

WRONG WAY
R5-1A
42"X30"

N

259+08TEB1
12' LT

260+80TEB1
8' LT

261+14TEB1
26' LT

258+09TEB1
0' RT

259+50TEB1
12' LT

259+86TEB1
0' LT

160WB

162WB

164WB

166WB

168WB

170WB

172WB

R500'

19

260TEB1

262TEB1

264TEB1

266TEB1

268TEB1

270TEB1

272TEB1

TRT-8W
(3' LINE, 9' SKIP)

TRT-4W

TRT-8W

TRT-4Y

15D28

P-SPM

50'TYP

DO NOT ENTER
R5-1
36"X36"

P-SPM

TRT-4Y

WRONG WAY
R5-1A
42"X30"

TRT-4W

TRT-4Y

P-SPM

WO6-1

WO3-3

LANE CLOSED
R11-2L
48"X30"

WRONG WAY
R5-1A
42"X30"

DEAD END
WO14-1

LIUNA WAY

P-SPM

WO1-4L

35 MPH
WO13-1
36"X36"

WO6-2

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

MH

MH

MH

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D	SHEET 175	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1D.DWG
LAYOUT NAME - 04

PLOT DATE : 5/23/2019 8:37 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

TUBULAR MARKERS @ 25'

TUBULAR MARKERS @ 50'

CASHEL WAY

TEMPORARY ROADWAY

PERMANENTLY CLOSED

15C2b-D

BEGIN LEFT TURN LANE
R3-20L
36"X54"

WO3-3

MAINTAIN RIGHT-IN/OUT ACCESS

WO1-4L

35 MPH
WO13-1
36"X36"

ROAD CLOSED
R11-2
48"X30"

TRT-4Y
TRT-4W
TRT-8W
P-SPM
TP-4Y
TP-4W

19

275+11TEB1
43' LT

275+94TEB1
26' LT

278+39TEB1
12' LT

174+74WB
12' LT

R824'

25'

278TEB1

280TEB1

P.I.
182+44WB
15' LT

4' TYP

50'

P.I.
186+00WB
22' LT

50'TYP

P.I.
187+98WB
22' LT

174WB

176WB

276TEB1

178WB

180WB

182WB

184WB

186WB

188WB

R788'

R500'

273+51TEB1
1' RT

277+42TEB1
12' LT

276+44TEB1
12' LT

275+91TEB1
12' RT

50'TYP

TP-4W

273+08TEB1
0'

272+94TEB1
33' LT

272+93TEB1
47' LT

WO1-6
60"X30"

LANE CLOSED
R11-2L
48"X30"

R3-2
36"X36"

SPEED LIMIT 45
R2-1
30"X36"

MOVE
JCT 39 JCT 90 JCT 94
(PAID FOR AS "TRAFFIC CONTROL SIGNS")

R3-1
36"X36"

ROAD CLOSED
R11-2
48"X30"

LIUNA WAY

IP

TEMPORARY MEDIAN CROSSOVER FOR EB TRAFFIC

CONTINUE CONSTRUCTING PROPOSED EB STH 19 (INCLUDING EASTERN ACCESS OF LIUNA WAY)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D	SHEET 176	E

2

2

15C2b-D

TEMPORARY ROADWAY

PERMANENTLY CLOSED

TP-4Y

ROAD CLOSED
R11-2
48"X30"

R3-1
36"X36"

1' TEMPORARY ASPHALT CURB (MATCH INTO EXISTING CURB & GUTTER AT END)

WO1-6
60"X30"

AVOID PULL BOX

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

P.I.
187+98WB
22' LT

4" TYP

P.I.
188+98WB
20' LT

P.I.
189+50WB
18' LT

TP-4W

TP-4Y

TP-A
(TYPE 2)

PC
193+25WB
8' RT

PCC
194+15WB
22' RT

R = 410'

PT
195+14WB
33' RT

TRT-4Y

TRT-8W

188WB

190WB

192WB

194WB

196WB

198WB

25' TYP

190+38WB
0' LT

191+86WB
20' RT

193+25WB
30' RT

194+13WB
33' RT

TRT-4W

TP-4W

TP-W
("ONLY")

R = 525'

R-4
(WHITE DASH)

TP-8W

LANE CLOSED
R11-2L
48"X30"

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

19

WO1-4R

35 MPH
WO13-1
36"X36"

WO3-3

ONLY ONLY
R3-8D
54"X48"

BEGIN RIGHT TURN LANE
R3-20R
36"X54"

LIUNA WAY

SOUTH 39 90 EAST 94 EAST (MOVE)

(PAID FOR AS "TRAFFIC CONTROL SIGNS")

15C2b-D

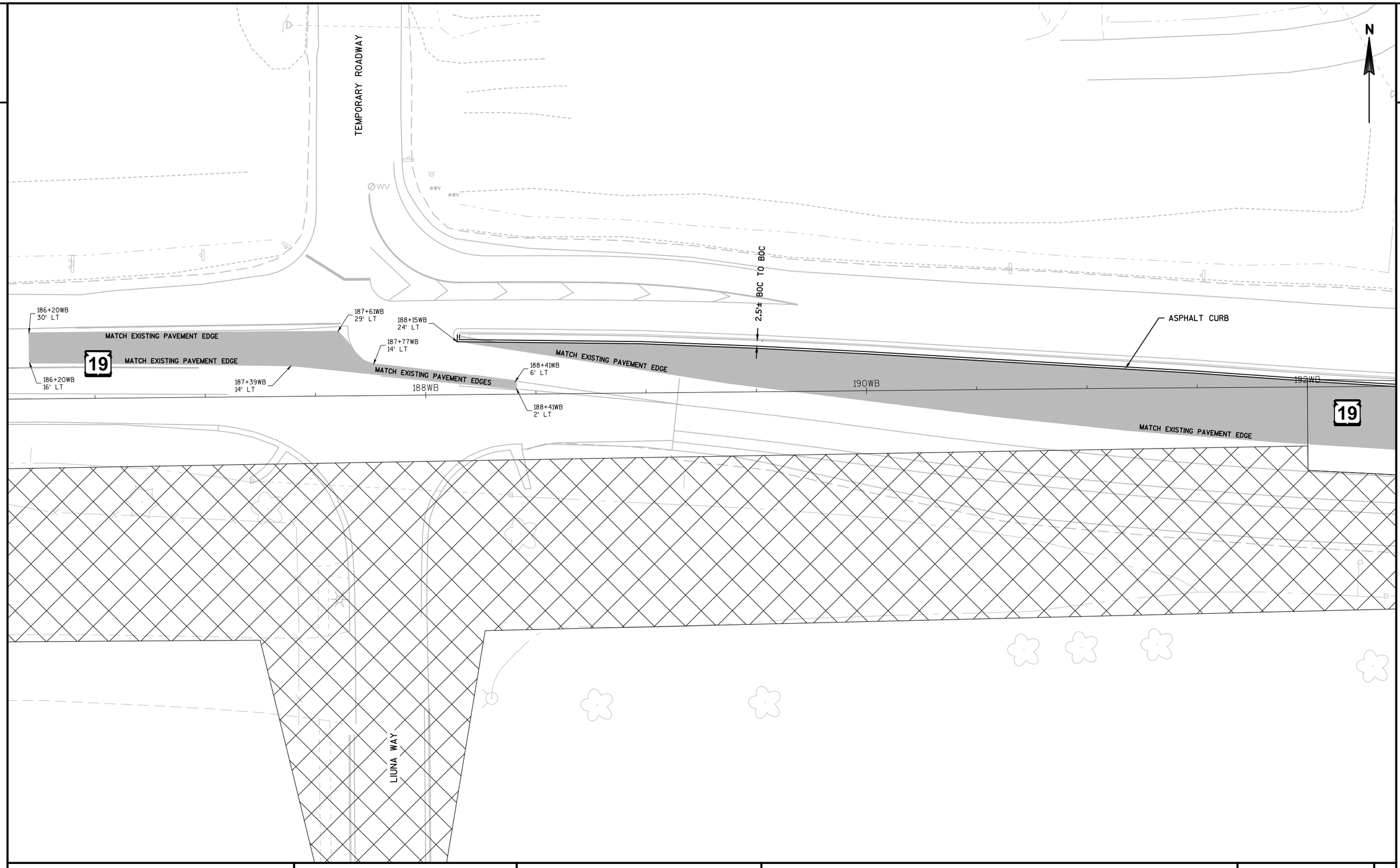
STH 19 TO SB I-39/90/94

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D	SHEET 177	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1D.DWG
LAYOUT NAME - 06

PLOT DATE : 5/23/2019 8:37 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

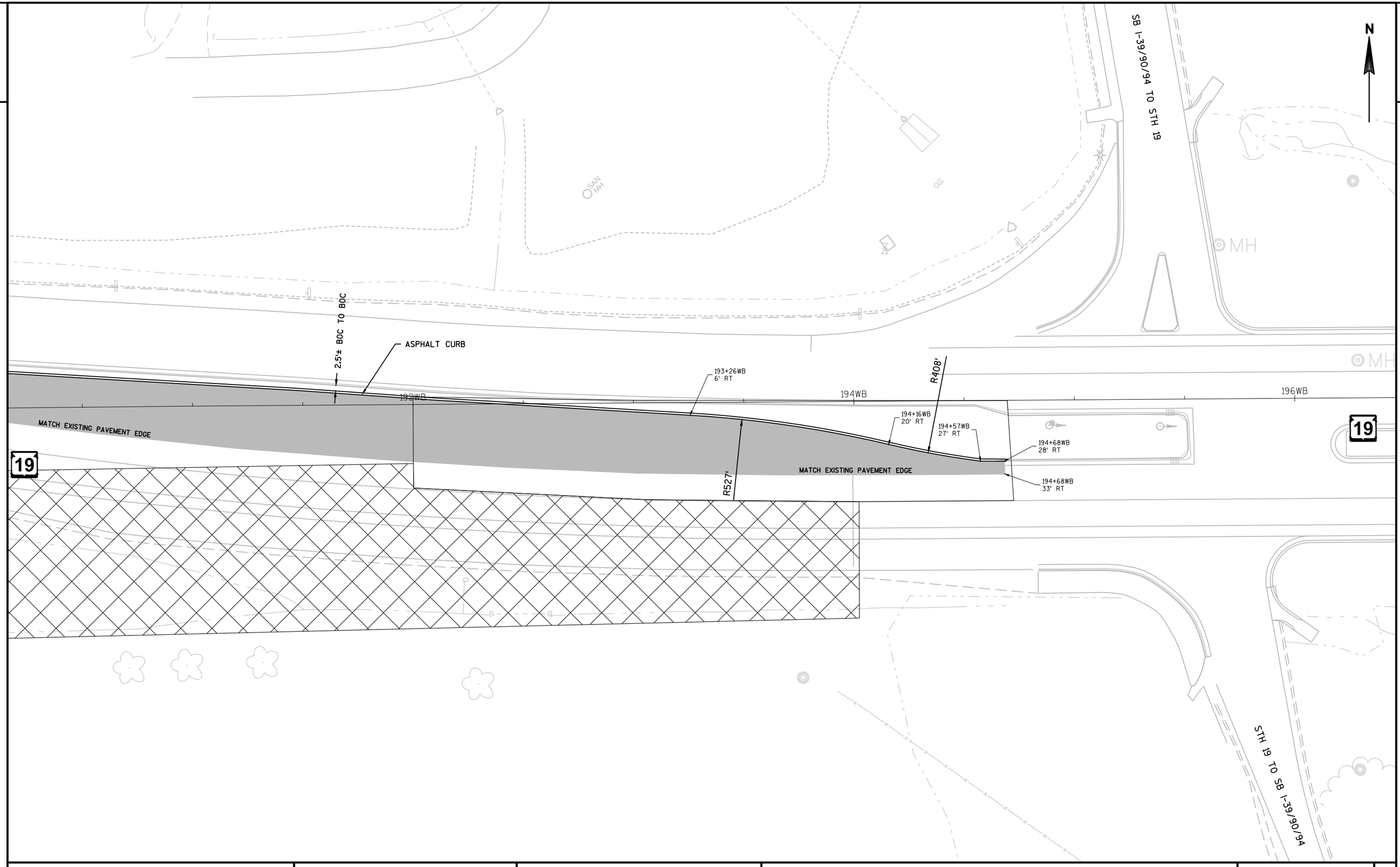


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D - PAVING DETAILS AND DRAINAGE	SHEET 178	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1DX (PD AND DR).DWG
LAYOUT NAME - 01

PLOT DATE : 4/24/2019 9:03 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ############

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1D - PAVING DETAILS AND DRAINAGE	SHEET 179	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1DX (PD AND DR).DWG
LAYOUT NAME - 02

PLOT DATE : 4/24/2019 9:03 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ############

2

N

RIVER RD

19

235TEB1

235TEB2

240TEB1

240TEB2

245TEB1

245TEB2

250TEB1

250TEB2

255TEB1

255TEB2

260TEB1

260TEB2

LANE CLOSED
R11-2L
48"X30"

CONTINUE CONSTRUCTING NORTH LEG OF RIVER RD

STH 19 MEDIAN-SPLIT, ON OUTSIDE LANE IN EACH DIRECTION

LANE CLOSED
R11-2L
48"X30"

R3-2
36"X36"

LANE CLOSED
R11-2L
48"X30"

INSIDE LANE CLOSED DRUMS SPACED AT 50'

MGS GUARDRAIL TEMPORARY TERMINAL EAT - POST 1 18' LT OF TEB2 RL, (HINGE POINT 2' BEHIND TERMINAL HEAD)

REMOVE EB TEMPORARY MEDIAN CROSSOVER

ONE WAY
R6-2R
36"X48"

TRT-SL

STOP
R1-1
36"X36"

RIGHT-IN/RIGHT-OUT ACCESS

R3-2
36"X36"

ONLY
R3-5OR
30"X36"

P-SPM

SEE SUBSTAGE 1D DETAILS FOR OTHER PERTINENT INFORMATION

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

CONSTRUCT SINGLE LANE WB TEMPORARY MEDIAN CROSSOVER

SEE SUBSTAGE 2A DETAILS FOR OTHER PERTINENT INFORMATION

RIVER RD

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1E	SHEET 180	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1E.DWG
LAYOUT NAME - 01

PLOT DATE : 7/1/2019 2:53 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

N

PERMANENT TRAFFIC SIGNAL
IN SERVICE
(SEE DETAILS SUBSTAGE 1D)

TIERNEY XING

REMOVE EB TEMPORARY
MEDIAN CROSSOVER

SEE SUBSTAGE 1D FOR WB
LEFT TURN LANE

MAINTAIN RIGHT-IN/RIGHT-OUT
ACCESS (SEE DETAILS
SUBSTAGE 1D)

LANE
CLOSED
R11-2L
48"X30"

PERMANENTLY CLOSED
(SEE DETAILS
SUBSTAGE 1D)

TEMPORARY ROADWAY

LANE
CLOSED
R11-2L
48"X30"

19

265TEB2

265TEB1

270TEB2

270TEB1

275TEB1

275TEB2

280TEB1

280TEB2

285TEB2

290TEB2

19

GUY

SIGN

CONSTRUCT SINGLE LANE
WB TEMPORARY MEDIAN
CROSSOVER

INSIDE LANE CLOSED
DRUMS SPACED AT
50'

STH 19 MEDIAN-SPLIT, ON
OUTSIDE LANE IN EACH
DIRECTION

W01-4R

LIUNA WAY

MH

MH

LIUNA WAY

IP

CONTINUE CONSTRUCTING PARK
ACCESS (MAY BE USED AS
ACCESS TO BRIDGE
CONSTRUCTION)

SEE SUBSTAGE 2A FOR EB
LEFT TURN LANE

MAINTAIN RIGHT-IN/RIGHT-OUT
ACCESS

P-SPM

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1E	SHEET 181	E

2

TEMPORARY ROADWAY

PERMANENTLY CLOSED.

SEE DETAILS
SUBSTAGE 1D

CONSTRUCT SINGLE WB LANE
TEMPORARY MEDIAN CROSSOVER

AVOID PULL BOX

LANE
CLOSED
R11-2L
48"X30"

SEE DETAILS SUBSTAGE 2B-RAB

INSIDE LANE
CLOSED

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

50'TYP

295TEB2

290TEB2

4' SHIFT
45:1 TAPER

+00TEB2

+80TEB2

P-SPM

P-SPM

TRT-4Y

TRT-8W

R-WB-4
(WHITE EDGELINE)

REMOVE EB TEMPORARY
MEDIAN CROSSOVER

ALL INTERCHANGE
MOVEMENTS OPEN TO
TRAFFIC

LIUNA WAY

STH 19 TO SB I-39/90/94

N

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 1E	SHEET 182	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0264_1E.DWG
LAYOUT NAME - 03

PLOT DATE : 5/20/2019 9:04 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

(DOUBLE YELLOW CENTERLINE & WHITE EDGELINE)

R-WB-4

CONSTRUCT PROPOSED WB STH 19 (REMOVE TEMPORARY WIDENING)

15D28

WO1-4R

45 MPH

WO13-1
36"X36"

WO6-3

50'TYP

19

232TEB2

234TEB2

236TEB2

238TEB2

240TEB2

GUY

GUY

GUY

50'TYP

235+50TEB2
15' RT

235+00TEB2
19' RT

TRT-4DY

TRT-4W

SLOPE INTERCEPT FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

WO1-4R

45 MPH

WO13-1
36"X36"

WO6-1

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 183	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 01

PLOT DATE : 5/20/2019 9:06 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

CONSTRUCT PROPOSED WB STH 19, NORTH LEG OF RIVER RD, AND RAB

(END) -AT END OF SUBSTAGE, WHEN RIVER ROAD SOUTH IS CLOSED

N

2

RIVER RD

BEGIN RIGHT TURN LANE
R3-20R
36"X54"

TRT-4W

WO6-2

TRT-4DY

TRT-D

19

242TEB2

15C2b-D

R100'

244TEB2

245+13TEB2
12' LT

TRT-4W

54+81RNB
31' LT

R50'

246TEB2

12'

50'TYP

247+44TEB2
12' LT

TRT-4DY

249+68TEB2
0'

248TEB2

250TEB2

252TEB2

254TEB2

256TEB2

19

R3-2
36"X36"

WO1-7
60"X30"

END

R3-2
36"X36"

R3-1
36"X36"

15D28

R3-8E
54"X48"
(COVER SIGN
END)

WO6-1

CONSTRUCT PROPOSED WB STH 19

WO1-4L

45 MPH
WO13-1
36"X36"

WO6-3

YAHARA RIVER

MGS GUARDRAIL TEMPORARY TERMINAL EAT - POST 1 18' LT OF TEB2 RL. (HINGE POINT 2' BEHIND TERMINAL HEAD)

R3-8D
54"X48"
(COVER SIGN
END)

R3-1
36"X36"

WO1-4L

45 MPH
WO13-1
36"X36"

END

54+33RNB
12' LT

54RNB

R50'

TRT-4W

STOP
R1-1
36"X36"

WO6-2

WO1-6
60"X30"

TRT-SL

LANE CLOSED
R11-2L
48"X30"

SPEED LIMIT 45
WO3-5

15C12
15D28

CONSTRUCT SINGLE LANE TEMPORARY MEDIAN CROSSOVER

P-SPM

SPEED LIMIT 45
R2-1
36"X48"

15C2b-D

END

52RNB

15'

50'TYP

CONSTRUCT RAISED ISLAND

END

SPEED LIMIT 35
R2-1
24"X30"

TRT-4DY

50RNB

RIVER RD

WO3-1

WO6-3

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

WO6-1

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 184	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/1/2019 2:57 PM

PLOT BY : KRUEGER, KIRK

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

TEMPORARY WB MEDIAN CROSSOVER

CONSTRUCT PROPOSED WB STH 19

BEGIN LEFT TURN LANE
R3-20L
36"X54"

15C2b-D

15D28

259+21TEB2
15' RT

258TEB2

260TEB2

262TEB2

264TEB2

266TEB2

268TEB2

270TEB2

272TEB2

19

50'TYP

15'

TRT-4Y

TRT-8W

P-SPM

TRT-4W

WO1-6
60"X30"

WO6-2

WO1-4L

45
MPH
WO13-1
36"X36"

LANE CLOSED
R11-2L
48"X30"
(CLOSE MIDDLE LANE)

TIERNEY XING

DO NOT ENTER
R5-1
36"X36"

LANE CLOSED
R11-2L
48"X30"

WRONG WAY
R5-1A
42"X30"

WO5-3

LANE CLOSED
R11-2L
48"X30"

CONTINUE CONSTRUCTING PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

LIUNA WAY

PERMANENT TRAFFIC SIGNAL IN SERVICE. PERMANENT MEDIAN THRU LANE CLOSED FOR EB STH 19 & WB STH 19

MH

GUY

SS

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 185	E

2

2

N

TEMPORARILY CLOSED

PERMANENTLY CLOSED.

CASHEL WAY

TEMPORARY ROADWAY

CONSTRUCT PROPOSED
WB STH 19

PREVENT LEFT-TURN ACCESS TO
AND FROM WB STH 19

TEMPORARY WB MEDIAN
CROSSOVER

R3-8D
54"X48"

W03-3

W06-1

W01-4R

35
MPH

W01-1
36"X36"

SIGN

TRT-8W

273+51TEB2
23' LT

TRT-4W

19

274+65TEB2
12' LT

15D28

50'TYP

274TEB2

276TEB2

278TEB2

280TEB2

282TEB2

284TEB2

286TEB2

288TEB2

25'TYP

R300'

TRT-4Y

TRT-8W

TRT-4W

TRT-4DY

WO1-6
60"X30"

P-SPM

BEGIN
LEFT
TURN
LANE

R3-20L
36"X54"

W06-3

W06-1

LIUNA WAY

IP

50' TUBLAR MARKER SPACING

25' TUBLAR MARKER
SPACING

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 186	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 04

PLOT DATE : 5/20/2019 9:07 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TEMPORARY ROADWAY

PERMANENTLY CLOSED

CONSTRUCT PROPOSED WB STH 19

16' MIN CLEAR WIDTH TYP. AT END OF SUBSTAGE 2A, REDUCE TO 12' MIN. CLEAR WIDTH TO CONSTRUCT OUTSIDE LANE

WO1-6
60"X304"

WO6-2

TEMPORARY WB MEDIAN CROSSOVER

SB I-39/90/94 TO STH 19

WO1-4L

35
MPH
WO13-1
36"X36"

AVOID PULL BOX

OUTSIDE LANE CLOSED

R3-8E
54"X48"

STH 19 TO NB I-39/90/94

N

15D28

TRT-4DY

TRT-4W

294TEB2

292TEB2

290TEB2

288TEB2

50'TYP

(2'LINE, 6'SKIP)

TRT-4W

50'TYP

10'

12'

(3'LINE, 9'SKIP)

TRT-4W

100' TAPER
2' SHIFT

19

25'
TYP

P-SPM

TRT-4Y

R-WB-8

(8" WHITE CHANNELIZING LINE)

TRT-8W

2' SHIFT

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

R/L = FLAGLINE

TRT-4Y

(2'LINE, 6'SKIP)

MARKED PAINTED EDGELINE

R3-2
36"X36"

P-SPM

LIUNA WAY

PREVENT LEFT-TURN ACCESS TO AND FROM WB STH 19

SOUTH EAST EAST
39 90 94

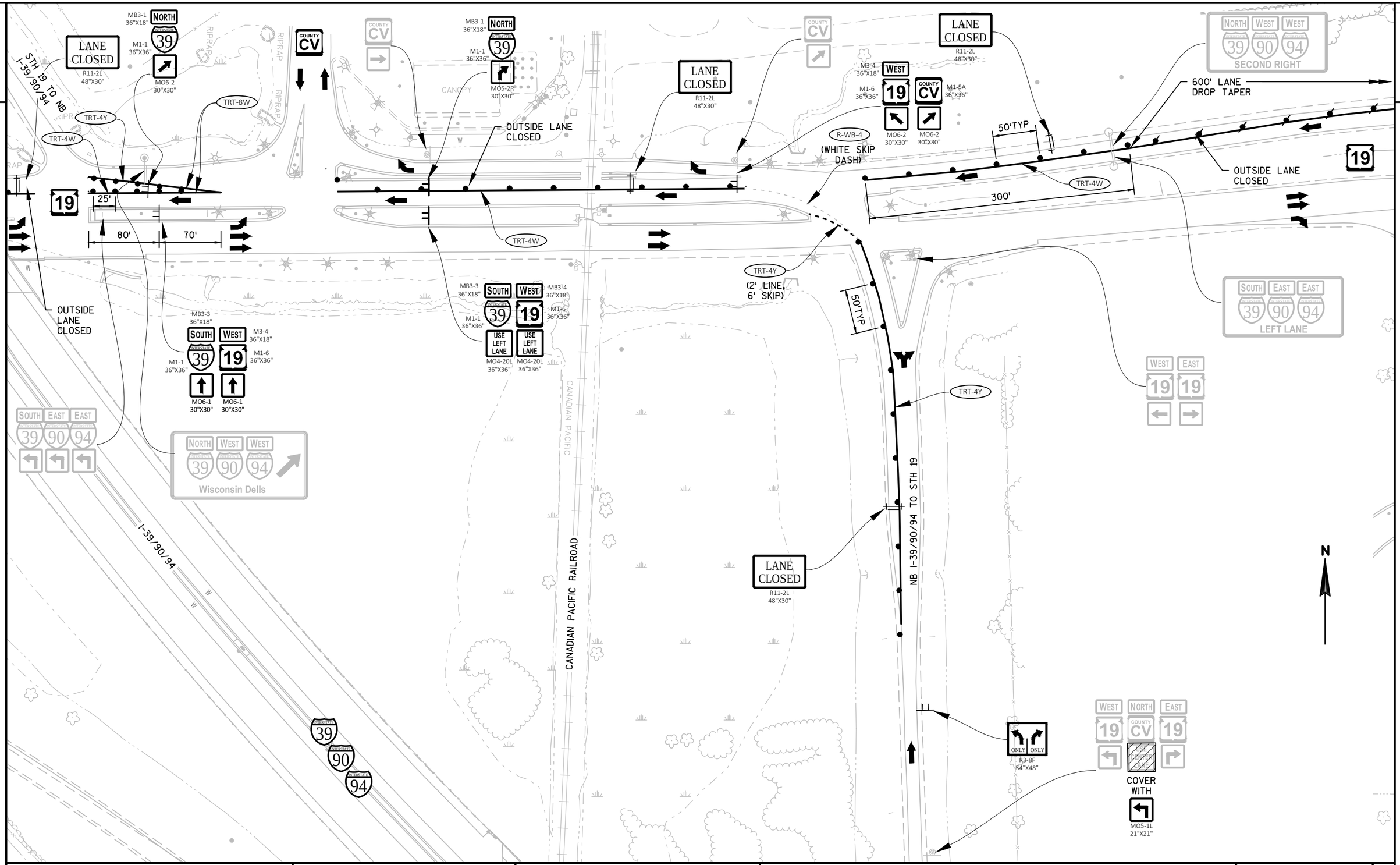
STH 19 TO SB I-39/90/94

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 187	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 05

PLOT DATE : 5/20/2019 9:07 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 188	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 06

PLOT DATE : 5/20/2019 9:07 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

600' LANE
DROPTAPER

300'

50'TYP

TRT-4W

R-WB-4

(WHITE LANE LINE)

SEE DETAIL FOR ADVANCED
WARNING SIGNING

15D12a

19

19

SERVICE DRIVE

PEPSI WAY

MH

SIGN

CANOPY

FILLER
CAPS

A/C

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A	SHEET 189	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2A.DWG
LAYOUT NAME - 07

PLOT DATE : 5/20/2019 9:07 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

GUY

GUY

GUY

19

19

232TEB2

231+38TEB2
13' RT

234TEB2

MATCH PROPOSED PAVEMENT EDGE

236TEB2

MATCH PROPOSED PAVEMENT EDGE

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINGE	SHEET 190	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2AX (PD AND DR).DWG
LAYOUT NAME - 01

PLOT DATE : 5/20/2019 11:11 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

GUY

19

238TEB2

MATCH PROPOSED PAVEMENT EDGE

240TEB2

242TEB2

241+20TEB2
13' RT

19

MATCH PROPOSED PAVEMENT EDGE

242+73TEB2
25' RT

150' TAPER

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINGE	SHEET 191	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2AX (PD AND DR).DWG
LAYOUT NAME - 02

PLOT DATE : 5/20/2019 11:11 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

19

2

2

N

INLET IN SERVICE

INSTALL PORTION OF PERMANENT STORM SEWER. INCIDENTAL TO OTHER ITEMS OF WORK, TEMPORARILY SEAL UNNEEDED STORM SEWER OPENINGS UNTIL LATER STAGES.

COVER PLATE TEMPORARY

MATCH PROPOSED PAVEMENT EDGE

241+20TEB2
13' RT

242TEB2

242+73TEB2
25' RT

150' TAPER

TEMPORARY 16' EXTENSION (18-INCH)

R49'

244+21TEB2
59' RT

244+16TEB2
25' LT

244TEB2

INLETS IN SERVICE WITH TYPE A INLET PROTECTION

MATCH PROPOSED PAVEMENT EDGE

245+46TEB2
25' LT

245+67TEB2
25' LT

MATCH PROPOSED PAVEMENT EDGE

246TEB2

COVER PLATE TEMPORARY

MATCH PROPOSED PAVEMENT EDGE

246+38TEB2
13' RT

13'

MATCH PROPOSED PAVEMENT EDGE

MATCH PROPOSED PAVEMENT EDGE

54RNB

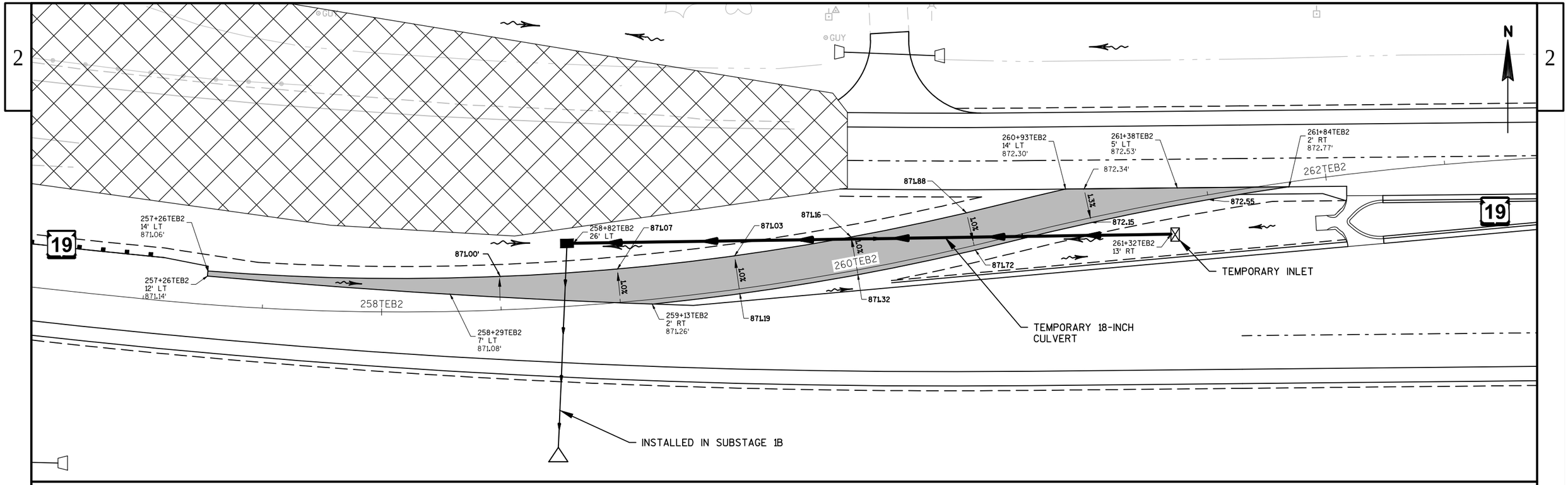
COVER PLATES TEMPORARY

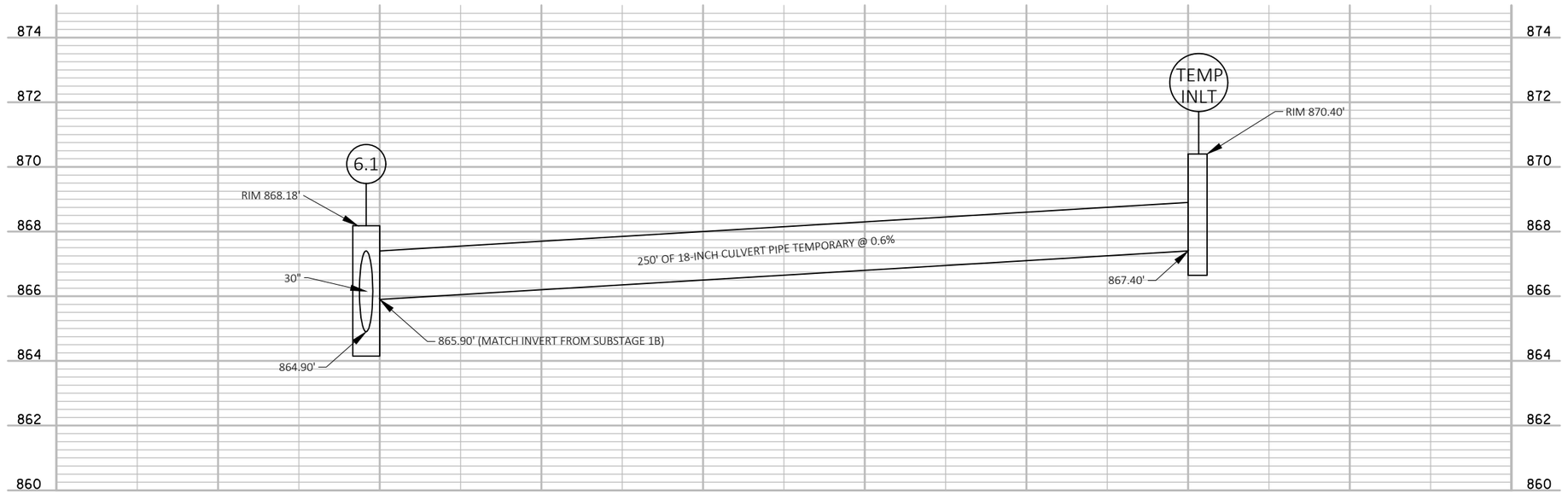
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINGE	SHEET 192	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2AX (PD AND DR).DWG
LAYOUT NAME - 03

PLOT DATE : 5/20/2019 11:11 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



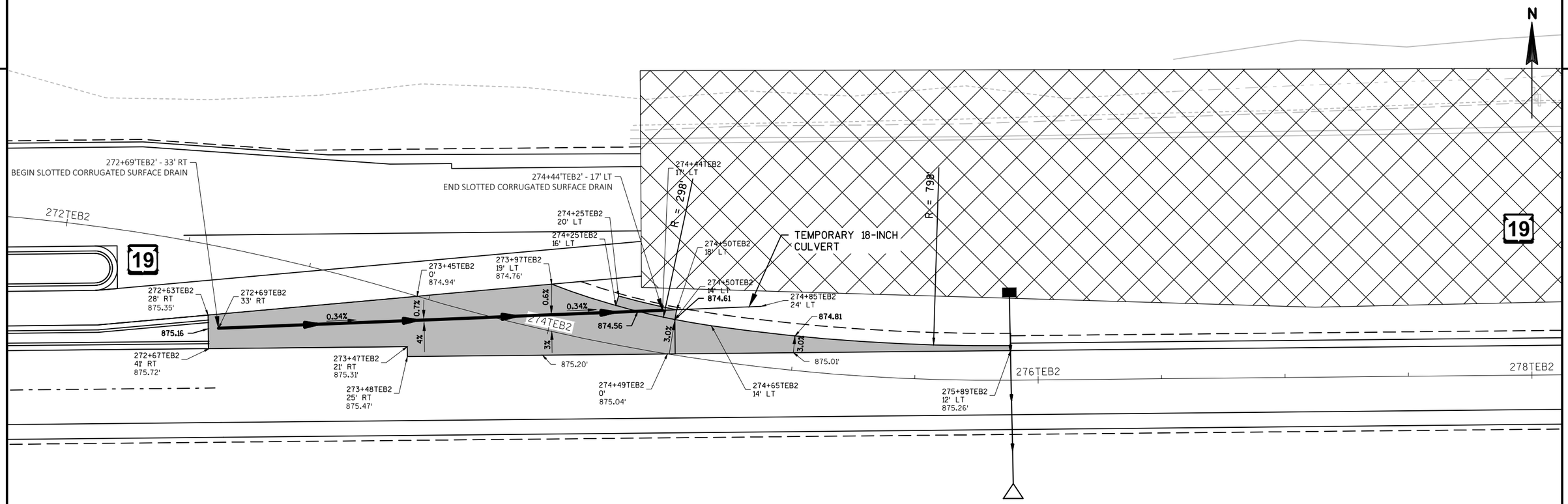


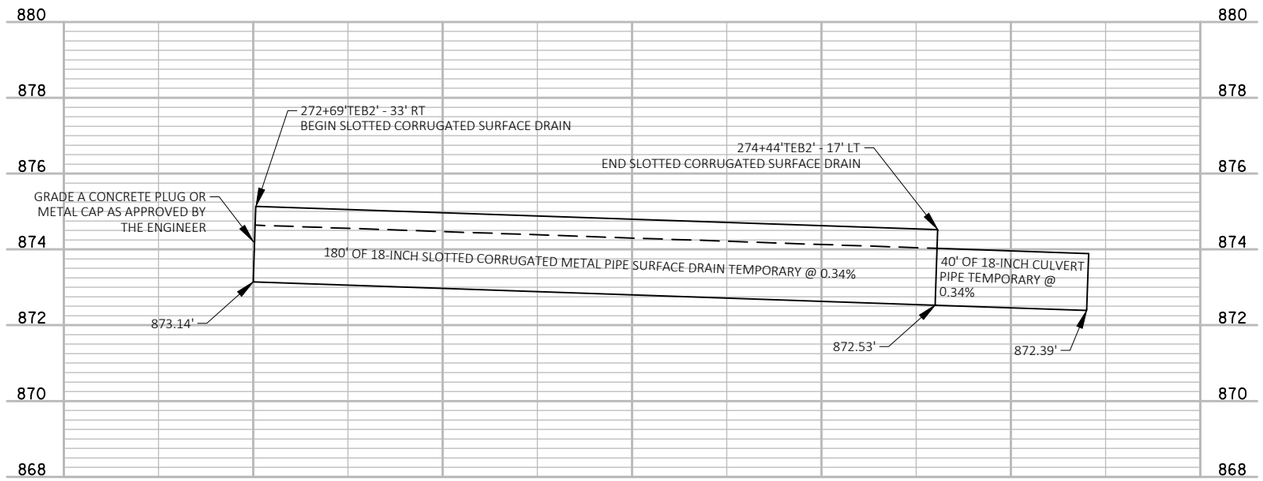
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINAGE	SHEET 193	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2AX (PD AND DR).DWG
LAYOUT NAME - 04

PLOT DATE : 7/2/2019 9:33 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINAGE	SHEET 194	E

2

N

293+51TEB2
14' LT
872.82'

294+00TEB2
6' LT
871.75'

294+62TEB2
4' LT
870.69'

294TEB2

292+00TEB2
14' LT
876.03'

292TEB2

292+50TEB2
7' LT
874.98'

292+89TEB2
2' RT
874.13'

19

19

SAN MH

ELEC MH

ELEC MH

ELEC MH

MH

MH

SIGN

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2A - PAVING DETAILS & DRAINGE	SHEET 195	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0265_2AX (PD AND DR).DWG
LAYOUT NAME - 06

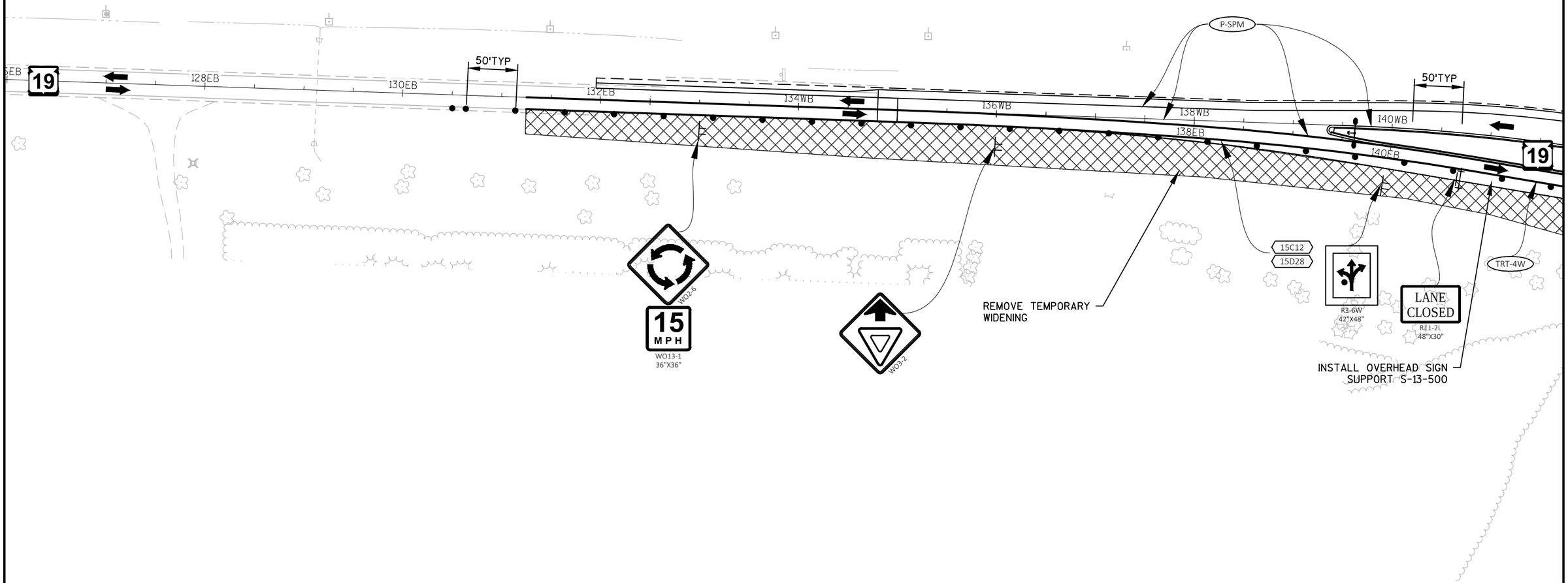
PLOT DATE : 5/20/2019 11:12 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

NOTE:
LIGHTS IN SERVICE AT THE BEGINNING OF SUBSTAGE 2B-RAB, UNLESS INDICATED OTHERWISE.

N



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 196	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 01

PLOT DATE : 5/20/2019 9:23 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

NOTES:
-SEE NEXT SHEET FOR EB PATHWAY LAYOUT INFORMATION.
-LIGHTS IN SERVICE AT THE BEGINNING OF SUBSTAGE 2B-RAB, UNLESS INDICATED OTHERWISE.
-PERMANENT YIELD SIGNS (R1-2), AS WELL AS R1-54, AND R6-2R SIGNS IN SERVICE. LOCATIONS DENOTED BY (YLD)

-YIELD LINE PAVEMENT MARKING AT ROUNDABOUT ENTRY POINTS IN SERVICE.

BRING LIGHT INTO SERVICE WITHIN ONE WEEK OF INITIATING SUBSTAGE 2B-RAB

25' SPACING

OPEN NORTH LEG OF RIVER ROAD TO TRAFFIC

LIGHT TO BE INSTALLED SUBSTAGE 2C

CONTINUE CONSTRUCTION OF WB STH 19

REMOVE TEMPORARY WIDENING

25' SPACING

15' SPACING

20' MIN CLEAR

180' TAPER (45:1)

FINISH SHOULDER & CENTRAL RAB ISLAND & MEDIAN EAST OF RAB (REMOVE TEMPORARY PAVEMENT)

CONTINUE CONSTRUCTION OF PARK ACCESS (MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

RIVER RD

YAHARA RIVER

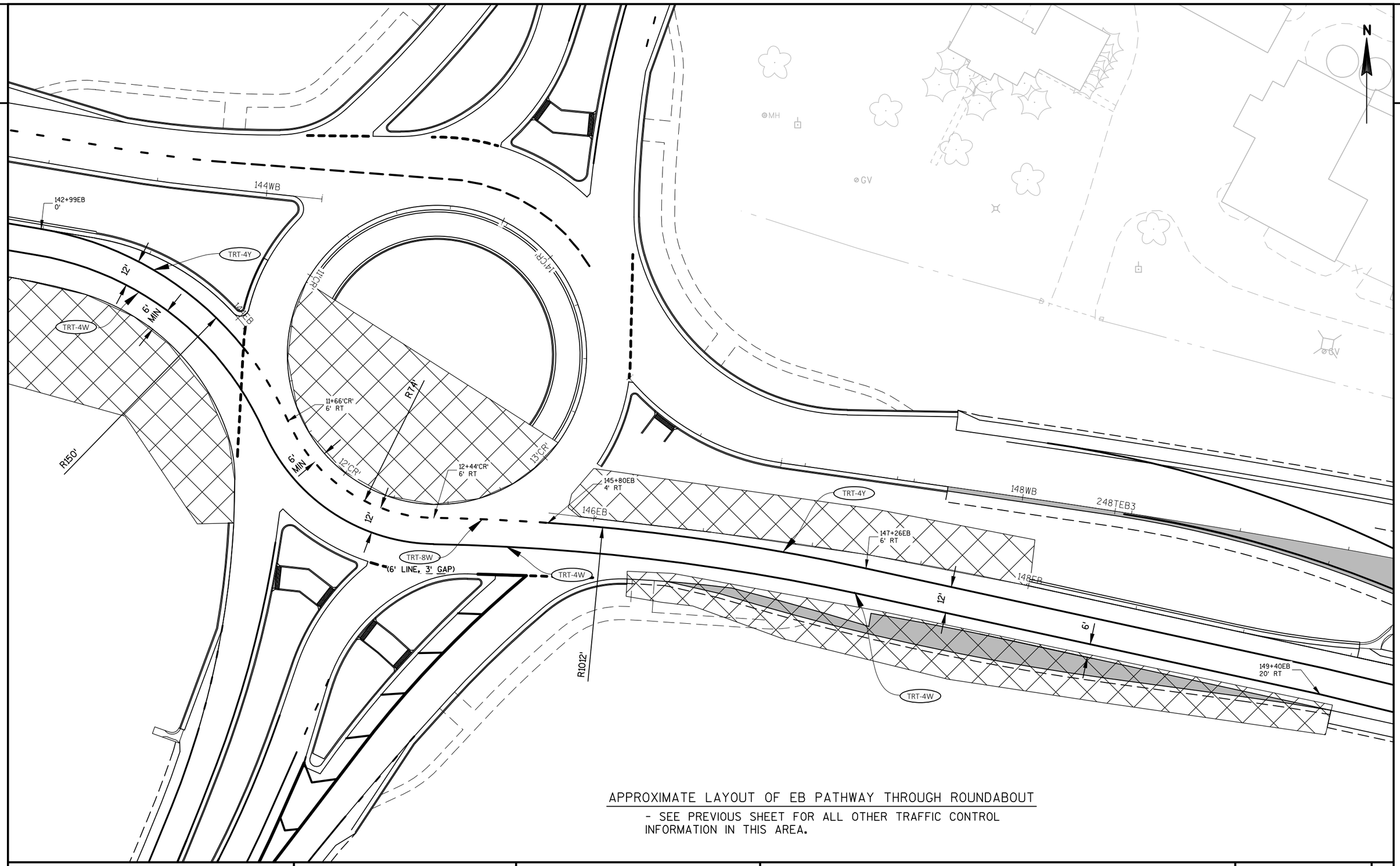
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 197	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 02

PLOT DATE : 5/20/2019 9:23 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

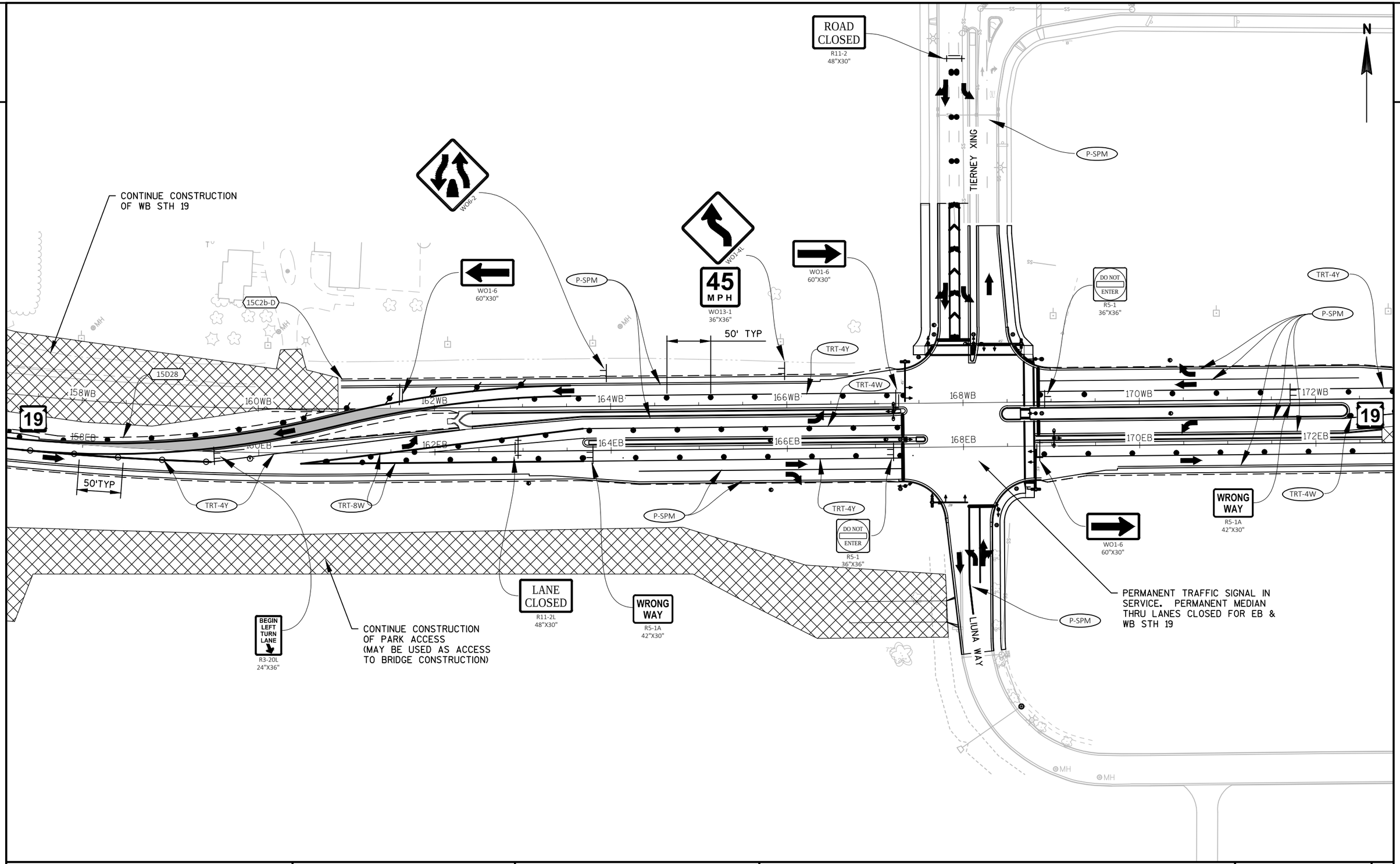


APPROXIMATE LAYOUT OF EB PATHWAY THROUGH ROUNDABOUT

- SEE PREVIOUS SHEET FOR ALL OTHER TRAFFIC CONTROL INFORMATION IN THIS AREA.

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 198	E

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 199	E

2

N

CASHEL WAY

TEMPORARY ROADWAY

LANE CLOSED
R11-2L
48"X30"

REMOVE TEMPORARY PAVEMENT AND FINISH MEDIAN

BEGIN LEFT TURN LANE
R3-20L
36"X54"

SIGN

P-SPM

MEDIAN THROUGH LANE CLOSED

TEMPORARY ROADWAY ACCESS REMOVED

50'TYP

TRT-4W

TRT-4Y

187+00WB
24' LT

174WB 176WB 178WB 180WB 182WB 184WB 186WB 188WB

19

TRT-8W

174EB 176EB 178EB 180EB 182EB 184EB 186EB 188EB

19

50'TYP

TRT-4Y

MEDIAN THROUGH LANE CLOSED

P-SPM

TRT-4Y

P-SPM

LIUNA WAY

IP

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 200	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 04

PLOT DATE : 5/20/2019 9:24 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

TEMPORARY ROADWAY

SHIFT WB TRAFFIC TO OUTSIDE

AVOID PULL BOX

REDUCE TO 12' MIN. CLEAR WIDTH TO CONSTRUCT INSIDE LANE

REMOVE TEMPORARY PAVEMENT AND FINISH CONSTRUCTION IN MEDIAN

PERMANENTLY CLOSED

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

N

M3-4 36"X18" WEST

M1-6 36"X36" 19

MO6-1 30"X30"

(WHITE-SOLID) R-WB-4

(WHITE LANE LINE) R-WB-4

LANE CLOSED R11-2L 48"X30"

195+85WB 28' LT

195+50WB 28' LT

195+25WB 28' LT

194+73WB 29' LT

189+50WB 29' LT

196+70WB 28' LT

198+50WB 24' LT

200+60WB 12' LT

198+51WB 12' RT

TRT-4Y

TRT-4W

TRT-8W

50'TYP

188WB

190WB

192WB

194WB

196WB

198WB

188EB

190EB

192EB

194EB

196EB

198EB

19

AVOID PULL BOX

INSIDE LANE CLOSED

MEDIAN THROUGH LANES CLOSED

P-SPM

INSTALL CONCRETE PAVEMENT & CURB & GUTTER

LANE CLOSED R11-2L 48"X30"

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

BEGIN LEFT TURN LANE R3-20L 36"X54"

MB3-3 36"X18" SOUTH

M1-1 36"X36"

MO6-2 30"X30"

SOUTH EAST EAST

LIUNA WAY

IP

SIGN

MH

W

STH 19 TO SB I-39/90/94

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 201	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 05

PLOT DATE : 5/20/2019 9:24 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

STH 19 TO NB I-39/90/94

R3-8D
54"X48"

TRT-4Y

19

SIGN

SIGN

INSIDE LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

COUNTY CV

FILLER CAP

CANOPY

SIGN

SIGN

W

TRT-4Y

LANE CLOSED
R11-2L
48"X30"

50'TYP

INSIDE LANE CLOSED

CANADIAN PACIFIC RAILROAD

N

600' LANE DROP TAPER

NORTH WEST WEST
39 90 94
SECOND RIGHT

LANE CLOSED
R11-2L
48"X30"

STOP LINE

50'TYP

19

INSIDE LANE CLOSED

300'

SOUTH EAST EAST
39 90 94
LEFT LANE

50'TYP

NB I-39/90/94 TO STH 19

WEST EAST
19 19

TRT-4Y

SOUTH EAST EAST
39 90 94

NORTH WEST WEST
39 90 94
Wisconsin Dells

I-39/90/94

W

W

39

90

94

LANE CLOSED
R11-2L
48"X30"

SIGN

SIGN

SIGN

R3-8F
54"X48"

WEST NORTH EAST
19 COUNTY CV 19

COVER WITH

MO5-1L
21"X21"

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 202	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 06

PLOT DATE : 5/20/2019 9:24 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

600' LANE
DROP TAPER

300'

50'TYP

TRT-4Y

R-WB-4

(WHITE LANE LINE)

INSIDE LANE
CLOSED

19

19

SEE DETAIL FOR ADVANCED
WARNING SIGNING

15D12a

SERVICE DRIVE

PEPSI WAY

CANOPY

FILLER
CAPS

A/C

INL

MH

SIGN

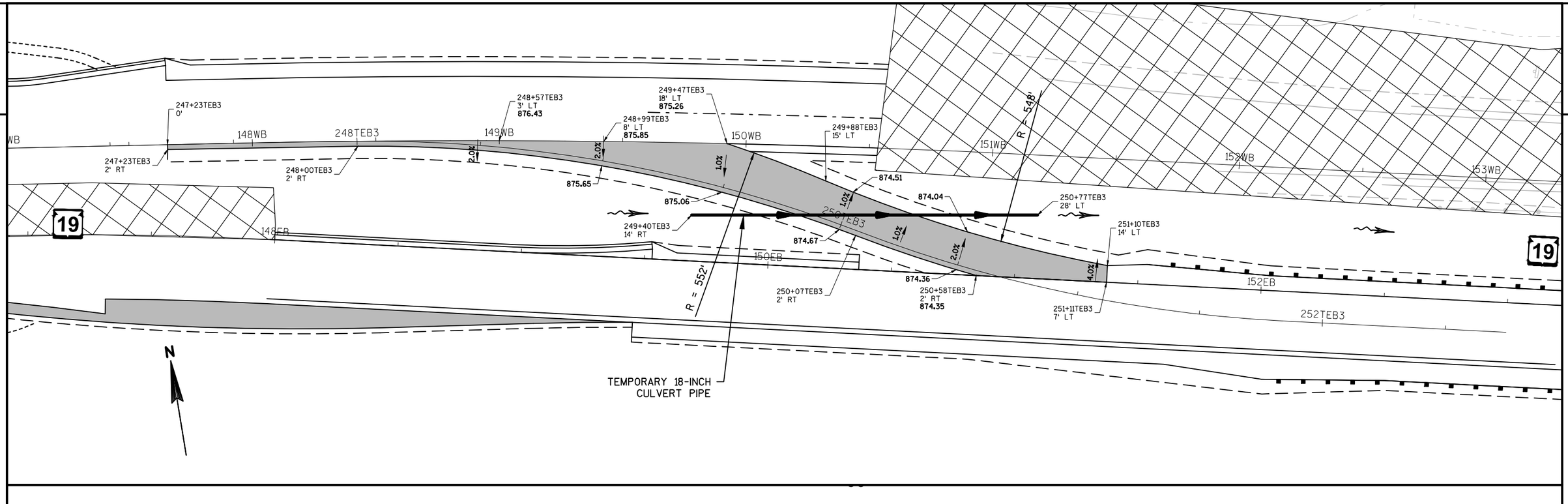
W

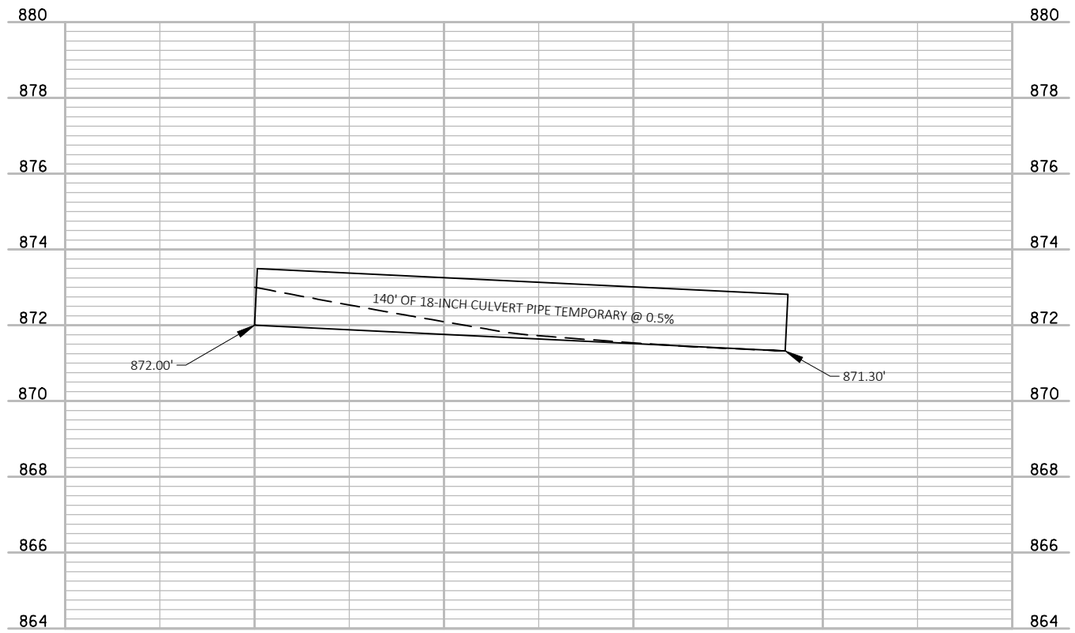
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB	SHEET 203	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0266_2B-RAB.DWG
LAYOUT NAME - 07

PLOT DATE : 5/20/2019 9:24 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1"=100'

WISDOT/CADDS SHEET 42





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B-RAB - PAVING DETAILS & DRAINAGE	SHEET 204	E

2

2

N

P-SPM
(WB)

19

128EB

130EB

132EB

134WB

136WB

138WB
138EB

140WB

140EB

19

COVER PERMANENT SIGN R3-8CC

50'

P-SPM

TRT-4Y

LANE
CLOSED

R11-2L
48"X30"

CLOSE EB INSIDE LANE

R3-6W
42"X48"

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B	SHEET 205	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2B.DWG
LAYOUT NAME - 01

PLOT DATE : 4/30/2019 2:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

P-SPM (WB)

-ALL MOVEMENTS AT ROUNDABOUT ARE OPEN TO TRAFFIC
-ALL PERMANENT R1-2, R1-54, & R6-2R SIGNS IN SERVICE.

CLOSE EB INSIDE LANE

LANE CLOSED
R11-2L
48"X30"

R3-8CC
36"X30"

TEMPORARY WB MEDIAN CROSSOVER

WO3-2

WO6-1

WO2-6

15 MPH
WO13-1
36"X36"

CONTINUE TO CONSTRUCT PROPOSED WB STH 19

WO1-4R

35 MPH
WO13-1
36"X36"

WO6-3

CLOSE EB INSIDE LANE

WO6-2

WO1-6
60"X30"

SPEED LIMIT 45
WO3-5

SPEED LIMIT 45
R2-1
36"X48"

CONTINUE CONSTRUCTION OF PARK ACCESS
(MAY BE USED AS ACCESS TO BRIDGE CONSTRUCTION)

SEE SUBSTAGE 2B-RAB1 FOR DETAILS

P-SPM

TRT-4W

TRT-4Y

TRT-4DY

142WB
142EB
144WB
144EB
146EB
148WB
248TEB3
148EB
150WB
250TEB3
150EB
252TEB3
152WB
154WB
156WB

54XSB
54RNB
52RNB
50RNB
58RSB
58RNB

RIVER RD

YAHARA RIVER

19

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B	SHEET 206	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2B.DWG
LAYOUT NAME - 02

PLOT DATE : 4/30/2019 2:12 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LANE CLOSED
R11-2L
48"X30"

N

TIERNEY XING

WO1-4L

45 MPH
WO13-1
36"X36"

WO6-2

WO1-6
60"X30"

CONTINUE CONSTRUCTION
OF WB STH 19

TEMPORARY WB MEDIAN CROSSOVER

15C2b-D

WO1-6
60"X30"

MEDIAN LANE CLOSED

TRT-4Y

P-SPM

DO NOT ENTER
R5-1
36"X36"

WRONG WAY
R5-1A
42"X30"

TRT-4W

158WB 160WB 162WB 164WB 166WB 168WB 170WB 172WB

158EB 160EB 162EB 164EB 166EB 168EB 170EB 172EB

19

19

TRT-4W

TRT-8W

162+10EB
12' RT

TRT-4Y

TRT-4W

P-SPM

CONTINUE CONSTRUCTION
OF PARK ACCESS
(MAY BE USED AS ACCESS
TO BRIDGE CONSTRUCTION)

WO3-3

LIUNA WAY

PERMANENT TRAFFIC SIGNAL IN
SERVICE. PERMANENT MEDIAN
THRU LANE CLOSED FOR WB
STH 19

P-SPM

MH

MH

SEE SUBSTAGE 2A FOR
DETAILS

P-SPM

(EB)
(TIERNEY XING / LIUNA WAY)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B	SHEET 207	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2B.DWG
LAYOUT NAME - 03

PLOT DATE : 4/30/2019 2:12 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

CASHEL WAY

TEMPORARY ROADWAY

PERMANENTLY CLOSED

P-SPM

P-SPM

P-SPM
(WB)

TRT-4Y

TRT-8W

TRT-4W

+00WB

600' LANE DROP 15D20

+00WB

50'TYP

174WB

176WB

178WB

180WB

182WB

184WB

186WB

188WB

19

19

174EB

176EB

178EB

180EB

182EB

184EB

186EB

188EB

TRT-4Y

LANE CLOSED
R11-2L
48"X30"

BEGIN LEFT TURN LANE
R3-20L
36"X54"

LANE CLOSED
R11-2L
48"X30"

MEDIAN THROUGH LANE CLOSED

ADD DRUMS IN FRONT OF ARROW BOARD PER SDD 15D20

LIUNA WAY

P-SPM
(EB)

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B	SHEET 208	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2B.DWG
LAYOUT NAME - 04

PLOT DATE : 4/30/2019 2:12 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TEMPORARY ROADWAY

PERMANENTLY CLOSED

W04-2L

LEFT LANE CLOSED AHEAD

W20-5SA

SB I-39/90/94 TO STH 19

STH 19 TO NB I-39/90/94

39 90 94

N

188WB 190WB 192WB 194WB 196WB 198WB

188EB 190EB 192EB 194EB 196EB 198EB

19

ALL INTERCHANGE MOVEMENTS OPEN TO TRAFFIC

LIUNA WAY

P-SPM
(EB)
(WB)

STH 19 TO SB I-39/90/94

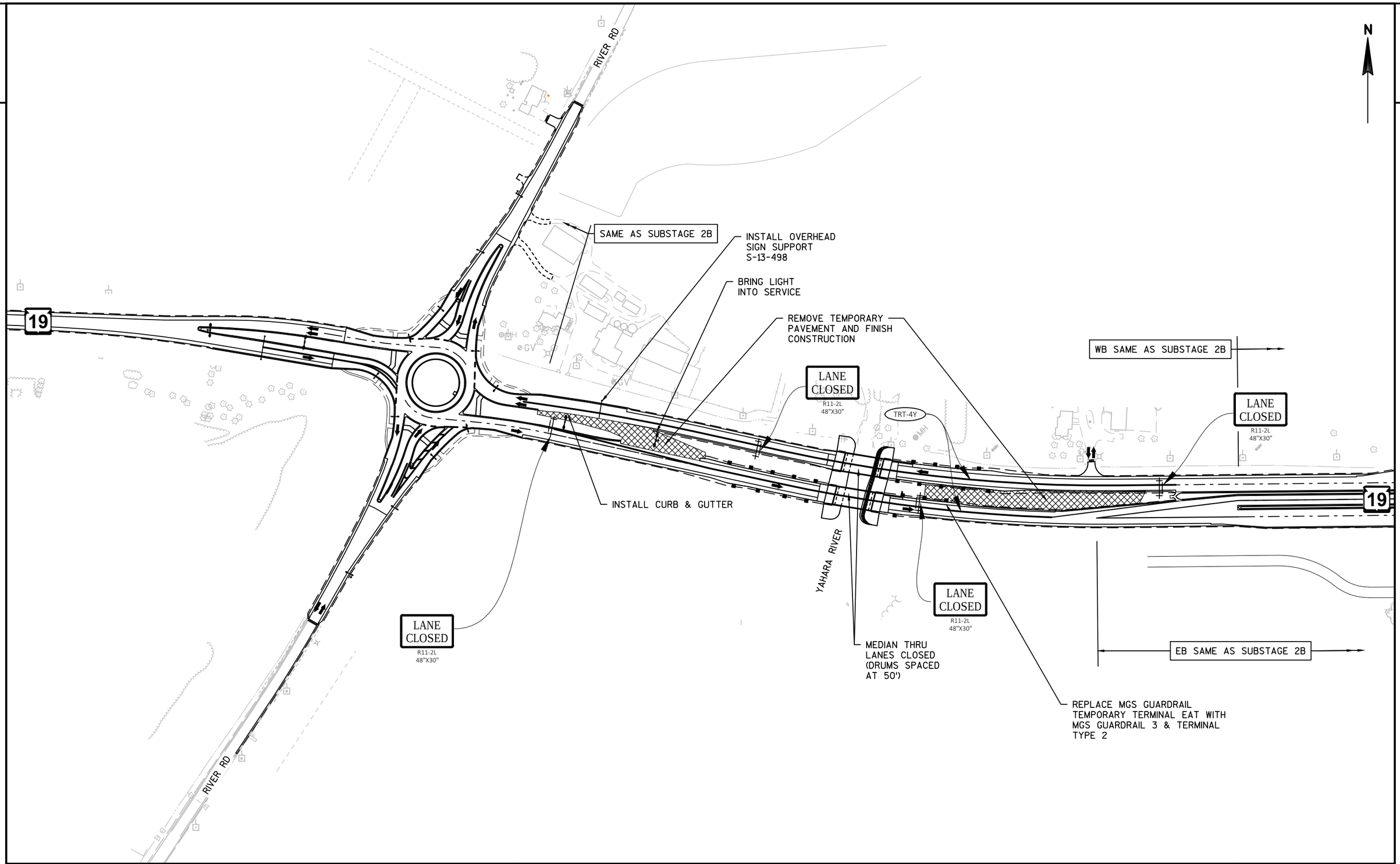
39 90 94

2

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2B	SHEET 209	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2B.DWG
LAYOUT NAME - 05

PLOT DATE : 4/30/2019 2:12 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	SUBSTAGE 2C	SHEET 210	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0267_2C.DWG
LAYOUT NAME - 01

PLOT DATE : 5/23/2019 8:40 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1"=200'

WISDOT/CADDS SHEET 42

STH 19

CURVE = C1
PI STA = 143+66.64'EB'
Y = 526788.661
X = 826022.139
DELTA = 42°13'29"
D = 52°05'13"
T = 42.47'
L = 81.07'
R = 110.00'
PC STA = 143+24.17'EB'
Y = 526795.717
X = 825980.257
PT STA = 144+05.24'EB'
Y = 526755.290
X = 826048.412
BK = S80°26'17"E
AH = S38°12'48"E

CURVE = C2
PI STA = 147+25.87'EB'
Y = 526653.546
X = 826331.894
DELTA = 5°30'57"
D = 3°49'11"
T = 72.26'
L = 144.41'
R = 1500.00'
PC STA = 146+53.61'EB'
Y = 526662.067
X = 826260.139
PT STA = 147+98.02'EB'
Y = 526638.167
X = 826402.498
BK = S83°13'40"E
AH = S77°42'42"E

CURVE = C3
PI STA = 143+50.05'WB'
Y = 526821.395
X = 826008.419
DELTA = 3°29'43"
D = 9°32'57"
T = 18.31'
L = 36.60'
R = 600.00'
PC STA = 143+31.74'WB'
Y = 526824.436
X = 825990.367
PT STA = 143+68.35'WB'
Y = 526819.461
X = 826026.623
BK = S80°26'17"E
AH = S83°55'59"E

CURVE = C4
PI STA = 146+50.48'WB'
Y = 526699.534
X = 826250.000
DELTA = 42°13'29"
D = 52°05'13"
T = 42.47'
L = 81.07'
R = 110.00'
PC STA = 146+08.01'WB'
Y = 526732.220
X = 826222.879
PT STA = 146+89.07'WB'
Y = 526693.555
X = 826292.050
BK = S39°41'00"E
AH = S81°54'28"E

CENTER

CURVE = C30
PI STA = 10+00.00'CR'
Y = 526803.586
X = 826165.650
DELTA = 359°59'57"
D = 84°15'31"
T = 0.00'
L = 427.26'
R = 68.00'
PC STA = 10+00.00'CR'
Y = 526803.586
X = 826165.650
PT STA = 14+27.26'CR'
Y = 526803.585
X = 826165.651
BK = N63°40'42"W
AH = N63°40'38"W

CURVE = C31
PI STA = 10+00.00'CCR'
Y = 526815.239
X = 826171.413
DELTA = 360°00'00"
D = 70°44'08"
T = 0.00'
L = 508.94'
R = 81.00'
PC STA = 10+00.00'CCR'
Y = 526815.239
X = 826171.413
PT STA = 15+08.94'CCR'
Y = 526815.239
X = 826171.413
BK = N63°40'47"W
AH = N63°40'46"W

RIVER ROAD

CURVE = C12
PI STA = 57+26.20'RSB'
Y = 526856.641
X = 826186.493
DELTA = 33°27'47"
D = 57°17'45"
T = 30.06'
L = 58.40'
R = 100.00'
PC STA = 56+96.14'RSB'
Y = 526837.695
X = 826163.153
PT STA = 57+54.54'RSB'
Y = 526885.316
X = 826195.517
BK = N50°55'55"E
AH = N17°28'08"E

CURVE = C13
PI STA = 58+39.68'RSB'
Y = 526966.523
X = 826221.073
DELTA = 13°58'25"
D = 11°27'33"
T = 61.27'
L = 121.94'
R = 500.00'
PC STA = 57+78.40'RSB'
Y = 526908.074
X = 826202.679
PT STA = 59+00.34'RSB'
Y = 527018.801
X = 826253.037
BK = N17°28'08"E
AH = N31°26'33"E

CURVE = C14
PI STA = 53+73.52'RNB'
Y = 526533.470
X = 826048.481
DELTA = 10°59'32"
D = 11°27'33"
T = 48.11'
L = 95.92'
R = 500.00'
PC STA = 53+25.41'RNB'
Y = 526491.776
X = 826024.476
PT STA = 54+21.33'RNB'
Y = 526578.976
X = 826064.095
BK = N29°55'51"E
AH = N18°56'20"E

CURVE = C15
PI STA = 54+75.25'RNB'
Y = 526629.977
X = 826081.595
DELTA = 33°27'47"
D = 57°17'45"
T = 30.06'
L = 58.40'
R = 100.00'
PC STA = 54+45.19'RNB'
Y = 526601.543
X = 826071.839
PT STA = 55+03.60'RNB'
Y = 526648.318
X = 826105.413
BK = N18°56'20"E
AH = N52°24'07"E

CURVE = C16
PI STA = 57+90.01'RNB'
Y = 526911.126
X = 826214.351
DELTA = 22°14'26"
D = 11°27'33"
T = 98.28'
L = 194.09'
R = 500.00'
PC STA = 56+91.73'RNB'
Y = 526813.308
X = 826204.827
PT STA = 58+85.81'RNB'
Y = 526998.061
X = 826260.191
BK = N05°33'41"E
AH = N27°48'07"E

RIVER ROAD

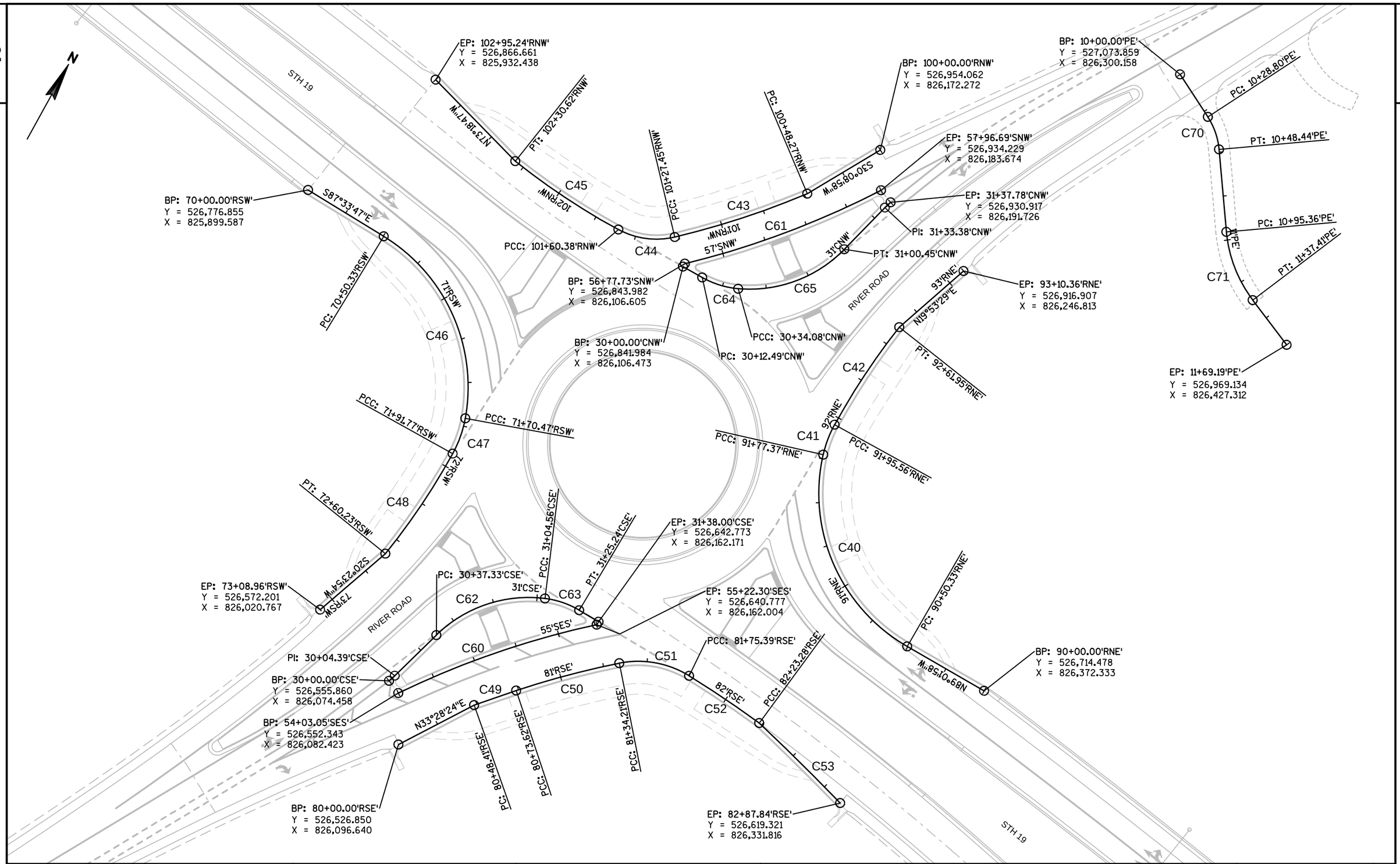
CURVE = C10
PI STA = 53+12.08'RSB'
Y = 526485.491
X = 826008.179
DELTA = 5°48'25"
D = 3°49'11"
T = 76.08'
L = 152.03'
R = 1500.00'
PC STA = 52+36.00'RSB'
Y = 526417.513
X = 825974.018
PT STA = 53+88.03'RSB'
Y = 526556.577
X = 826035.288
BK = N26°40'52"E
AH = N20°52'27"E

CURVE = C11
PI STA = 54+48.85'RSB'
Y = 526613.405
X = 826056.959
DELTA = 13°52'15"
D = 11°27'33"
T = 60.82'
L = 121.04'
R = 500.00'
PC STA = 53+88.03'RSB'
Y = 526556.577
X = 826035.288
PT STA = 55+09.07'RSB'
Y = 526673.771
X = 826064.374
BK = N20°52'27"E
AH = N07°00'12"E

BP: 145+79.32'EB'
Y = 526,670.828
X = 826,186.366

PROJECT NO: 5290-00-72 | HWY: STH 19 | COUNTY: DANE | ROUNDABOUT ALIGNMENTS | SHEET 211 | E

2



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	ROUNDABOUT ALIGNMENTS	SHEET 212	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0272_AD_02.DWG
LAYOUT NAME - AD_02
PLOT DATE : 3/9/2019 8:11 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

NE QUADRANT

CURVE = C40
PI STA = 91+24.04'RNE'
Y = 526716.571
X = 826248.310
DELTA = 72°47'07"
D = 57°17'45"
T = 73.71'
L = 127.03'
R = 100.00'
PC STA = 90+50.33'RNE'
Y = 526715.327
X = 826322.006
PT STA = 91+77.37'RNE'
Y = 526787.334
X = 826227.688
BK = N89°01'58"W
AH = N16°14'51"W

CURVE = C41
PI STA = 91+86.52'RNE'
Y = 526796.124
X = 826225.126
DELTA = 16°02'05"
D = 88°08'50"
T = 9.16'
L = 18.19'
R = 65.00'
PC STA = 91+77.37'RNE'
Y = 526787.334
X = 826227.688
PT STA = 91+95.56'RNE'
Y = 526805.279
X = 826225.092
BK = N16°14'51"W
AH = N00°12'46"W

CURVE = C42
PI STA = 92+28.83'RNE'
Y = 526838.553
X = 826224.968
DELTA = 9°30'37"
D = 14°19'26"
T = 33.27'
L = 66.39'
R = 400.00'
PC STA = 91+95.56'RNE'
Y = 526805.279
X = 826225.092
PT STA = 92+61.95'RNE'
Y = 526871.390
X = 826230.344
BK = N00°12'46"W
AH = N09°17'51"E

NW QUADRANT

CURVE = C43
PI STA = 100+87.95'RNW'
Y = 526881.111
X = 826123.525
DELTA = 9°26'42"
D = 11°55'39"
T = 39.68'
L = 79.19'
R = 480.37'
PC STA = 100+48.27'RNW'
Y = 526912.324
X = 826148.030
PT STA = 101+27.45'RNW'
Y = 526854.342
X = 826094.231
BK = S38°08'03"W
AH = S47°34'44"W

CURVE = C44
PI STA = 101+44.69'RNW'
Y = 526842.713
X = 826081.505
DELTA = 41°55'20"
D = 127°19'26"
T = 17.24'
L = 32.93'
R = 45.00'
PC STA = 101+27.45'RNW'
Y = 526854.342
X = 826094.231
PT STA = 101+60.38'RNW'
Y = 526842.563
X = 826064.267
BK = S47°34'44"W
AH = S89°30'05"W

CURVE = C45
PI STA = 101+95.59'RNW'
Y = 526842.256
X = 826029.059
DELTA = 10°03'39"
D = 14°19'26"
T = 35.21'
L = 70.24'
R = 400.00'
PC STA = 101+60.38'RNW'
Y = 526842.563
X = 826064.267
PT STA = 102+30.62'RNW'
Y = 526848.105
X = 825994.339
BK = S89°30'05"W
AH = N80°26'17"W

SW QUADRANT

CURVE = C46
PI STA = 71+18.85'RSW'
Y = 526771.807
X = 826018.203
DELTA = 68°49'58"
D = 57°17'45"
T = 68.51'
L = 120.14'
R = 100.00'
PC STA = 70+50.33'RSW'
Y = 526774.720
X = 825949.752
PT STA = 71+70.47'RSW'
Y = 526706.922
X = 826040.204
BK = S87°33'47"E
AH = S18°43'49"E

CURVE = C47
PI STA = 71+81.21'RSW'
Y = 526696.747
X = 826043.654
DELTA = 18°46'17"
D = 88°08'50"
T = 10.74'
L = 21.30'
R = 65.00'
PC STA = 71+70.47'RSW'
Y = 526706.922
X = 826040.204
PT STA = 71+91.77'RSW'
Y = 526686.003
X = 826043.646
BK = S18°43'49"E
AH = S00°02'28"W

CURVE = C48
PI STA = 72+26.08'RSW'
Y = 526651.689
X = 826043.622
DELTA = 9°48'22"
D = 14°19'26"
T = 34.31'
L = 68.46'
R = 400.00'
PC STA = 71+91.77'RSW'
Y = 526686.003
X = 826043.646
PT STA = 72+60.23'RSW'
Y = 526617.880
X = 826037.753
BK = S00°02'28"W
AH = S09°50'51"W

SE QUADRANT

CURVE = C49
PI STA = 80+61.01'RSE'
Y = 526576.667
X = 826131.697
DELTA = 0°57'47"
D = 3°49'11"
T = 12.61'
L = 25.21'
R = 1500.00'
PC STA = 80+48.41'RSE'
Y = 526567.230
X = 826123.340
PT STA = 80+73.62'RSE'
Y = 526585.963
X = 826140.212
BK = N41°31'32"E
AH = N42°29'19"E

CURVE = C50
PI STA = 81+03.95'RSE'
Y = 526608.333
X = 826160.702
DELTA = 7°17'35"
D = 12°02'13"
T = 30.34'
L = 60.59'
R = 476.00'
PC STA = 80+73.62'RSE'
Y = 526585.963
X = 826140.212
PT STA = 81+34.21'RSE'
Y = 526627.920
X = 826183.866
BK = N42°29'19"E
AH = N49°46'54"E

CURVE = C51
PI STA = 81+55.82'RSE'
Y = 526641.873
X = 826200.366
DELTA = 42°53'57"
D = 104°10'27"
T = 21.61'
L = 41.18'
R = 55.00'
PC STA = 81+34.21'RSE'
Y = 526627.920
X = 826183.866
PT STA = 81+75.39'RSE'
Y = 526640.863
X = 826221.952
BK = N49°46'54"E
AH = S87°19'08"E

CURVE = C52
PI STA = 81+99.35'RSE'
Y = 526639.742
X = 826245.885
DELTA = 4°34'29"
D = 9°33'06"
T = 23.96'
L = 47.89'
R = 599.85'
PC STA = 81+75.39'RSE'
Y = 526640.863
X = 826221.952
PT STA = 82+23.28'RSE'
Y = 526636.716
X = 826269.653
BK = S87°19'08"E
AH = S82°44'40"E

CURVE = C53
PI STA = 82+55.57'RSE'
Y = 526628.698
X = 826300.924
DELTA = 2°30'21"
D = 3°52'55"
T = 32.28'
L = 64.56'
R = 1476.00'
PC STA = 82+23.28'RSE'
Y = 526636.716
X = 826269.653
PT STA = 82+87.84'RSE'
Y = 526619.321
X = 826331.816
BK = S75°37'12"E
AH = S73°06'50"E

SE ISLAND

CURVE = C60
PI STA = 54+62.96'SES'
Y = 526601.327
X = 826116.915
DELTA = 13°39'55"
D = 11°27'33"
T = 59.91'
L = 119.25'
R = 500.00'
PC STA = 54+03.05'SES'
Y = 526552.343
X = 826082.423
PT STA = 55+22.30'SES'
Y = 526640.777
X = 826162.004
BK = N35°09'03"E
AH = N48°48'58"E

PI: 30+04.39'CSE'
Delta = 2°44'47"
Y = 526,560.002
X = 826075.921
BK = N19°26'50"E
AH = N16°42'03"E

CURVE = C62
PI STA = 30+73.39'CSE'
Y = 526626.091
X = 826095.749
DELTA = 51°21'28"
D = 76°23'40"
T = 36.06'
L = 67.23'
R = 75.00'
PC STA = 30+37.33'CSE'
Y = 526591.551
X = 826085.386
PT STA = 31+04.56'CSE'
Y = 526639.565
X = 826129.198
BK = N16°42'03"E
AH = N68°03'31"E

CURVE = C63
PI STA = 31+15.05'CSE'
Y = 526643.485
X = 826138.928
DELTA = 23°41'46"
D = 114°35'30"
T = 10.49'
L = 20.68'
R = 50.00'
PC STA = 31+04.56'CSE'
Y = 526639.565
X = 826129.198
PT STA = 31+25.24'CSE'
Y = 526643.163
X = 826149.412
BK = N68°03'31"E
AH = S88°14'43"E

NW ISLAND

CURVE = C61
PI STA = 57+37.49'SNW'
Y = 526884.500
X = 826150.533
DELTA = 13°37'53"
D = 11°27'33"
T = 59.76'
L = 118.96'
R = 500.00'
PC STA = 56+77.73'SNW'
Y = 526843.982
X = 826106.605
PT STA = 57+96.69'SNW'
Y = 526934.229
X = 826183.674
BK = N47°18'45"E
AH = N33°40'52"E

CURVE = C64
PI STA = 30+23.45'CNW'
Y = 526841.708
X = 826129.924
DELTA = 24°44'21"
D = 114°35'30"
T = 10.97'
L = 21.59'
R = 50.00'
PC STA = 30+12.49'CNW'
Y = 526841.837
X = 826118.960
PT STA = 30+34.08'CNW'
Y = 526846.180
X = 826139.937
BK = S89°19'38"E
AH = N65°56'01"E

CURVE = C65
PI STA = 30+69.61'CNW'
Y = 526860.671
X = 826172.382
DELTA = 50°42'09"
D = 76°23'40"
T = 35.53'
L = 66.37'
R = 75.00'
PC STA = 30+34.08'CNW'
Y = 526846.180
X = 826139.937
PT STA = 31+00.45'CNW'
Y = 526894.957
X = 826181.718
BK = N65°56'01"E
AH = N15°13'51"E

PI: 31+33.38'CNW'
Delta = 2°44'47"
Y = 526,926.739
X = 826190.371
BK = N15°13'51"E
AH = N17°58'39"E

PE RIVER ROAD

CURVE = C70
PI STA = 10+38.82'PE'
Y = 527055.751
X = 826334.500
DELTA = 28°08'18"
D = 143°14'22"
T = 10.02'
L = 19.64'
R = 40.00'
PC STA = 10+28.80'PE'
Y = 527060.426
X = 826325.632
PT STA = 10+48.44'PE'
Y = 527047.446
X = 826340.114
BK = S62°11'53"E
AH = S34°03'35"E

CURVE = C71
PI STA = 11+16.95'PE'
Y = 526990.689
X = 826378.483
DELTA = 32°07'18"
D = 76°23'40"
T = 21.59'
L = 42.05'
R = 75.00'
PC STA = 10+95.36'PE'
Y = 527008.577
X = 826366.391
PT STA = 11+37.41'PE'
Y = 526981.969
X = 826398.237
BK = S34°03'35"E
AH = S66°10'53"E

5290-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	24.000	24.000
0004	201.0205	Grubbing	STA	24.000	24.000
0006	203.0100	Removing Small Pipe Culverts	EACH	13.000	13.000
0008	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 155+11 'WB'	LS	1.000	1.000
0010	204.0100	Removing Pavement	SY	26,040.000	26,040.000
0012	204.0110	Removing Asphaltic Surface	SY	3,100.000	3,100.000
0014	204.0130	Removing Curb	LF	95.000	95.000
0016	204.0150	Removing Curb & Gutter	LF	1,110.000	1,110.000
0018	204.0155	Removing Concrete Sidewalk	SY	130.000	130.000
0020	204.0165	Removing Guardrail	LF	610.000	610.000
0022	204.0170	Removing Fence	LF	1,020.000	1,020.000
0024	204.0180	Removing Delineators and Markers	EACH	28.000	28.000
0026	204.0190	Removing Surface Drains	EACH	4.000	4.000
0028	204.0195	Removing Concrete Bases	EACH	5.000	5.000
0030	204.0210	Removing Manholes	EACH	3.000	3.000
0032	204.0220	Removing Inlets	EACH	8.000	8.000
0034	204.0230	Removing Building (station) 01. 58+50	LS	1.000	1.000
0036	204.0230	Removing Building (station) 02. 183+75	LS	1.000	1.000
0038	204.0245	Removing Storm Sewer (size) 01. 15-Inch	LF	188.000	188.000
0040	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	137.000	137.000
0042	204.0245	Removing Storm Sewer (size) 03. 48-Inch	LF	190.000	190.000
0044	204.9060.S	Removing (item description) 01. Lighting Control Cabinets	EACH	1.000	1.000
0046	204.9060.S	Removing (item description) 02. Lighting Units	EACH	4.000	4.000
0048	204.9060.S	Removing (item description) 03. Post-Mounted Barricades	EACH	6.000	6.000
0050	205.0100	Excavation Common	CY	71,710.000	71,710.000
0052	205.0300	Excavation Stone Piles and Stone Fences	CY	224.000	224.000
0054	205.0400	Excavation Marsh	CY	5,679.000	5,679.000
0056	206.1000	Excavation for Structures Bridges (structure) 01. B-13-0794	LS	1.000	1.000
0058	206.1000	Excavation for Structures Bridges (structure) 02. B-13-0795	LS	1.000	1.000
0060	208.0100	Borrow	CY	33,566.000	33,566.000
0062	209.2500	Backfill Granular Grade 2	TON	10,600.000	10,600.000
0064	210.1500	Backfill Structure Type A	TON	720.000	720.000
0066	213.0100	Finishing Roadway (project) 01. 5290-00-72	EACH	1.000	1.000
0068	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,470.000	3,470.000
0070	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	50,880.000	50,880.000
0072	312.0110	Select Crushed Material	TON	57,027.000	57,027.000

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Line	Item	Item Description	Unit	Total	Qty
0074	371.1000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	TON	50,140.000	50,140.000
0076	405.0100	Coloring Concrete WisDOT Red	CY	152.000	152.000
0078	415.0085	Concrete Pavement 8 1/2-Inch	SY	40,169.000	40,169.000
0080	415.0210	Concrete Pavement Gaps	EACH	2.000	2.000
0082	415.0410	Concrete Pavement Approach Slab	SY	296.000	296.000
0084	415.1085	Concrete Pavement HES 8 1/2-Inch	SY	2,406.000	2,406.000
0086	416.0160	Concrete Driveway 6-Inch	SY	37.000	37.000
0088	416.0512	Concrete Truck Apron 12-Inch	SY	457.000	457.000
0090	416.0610	Drilled Tie Bars	EACH	45.000	45.000
0092	416.0620	Drilled Dowel Bars	EACH	32.000	32.000
0094	416.1010	Concrete Surface Drains	CY	7.000	7.000
0096	416.1110	Concrete Shoulder Rumble Strips	LF	1,152.000	1,152.000
0098	450.1100.S	Asphaltic Mixture For Extreme Conditions	TON	540.000	540.000
0100	450.4000	HMA Cold Weather Paving	TON	1,757.000	1,757.000
0102	455.0605	Tack Coat	GAL	698.000	698.000
0104	460.2000	Incentive Density HMA Pavement	DOL	3,630.000	3,630.000
0106	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	850.000	850.000
0108	460.5223	HMA Pavement 3 LT 58-28 S	TON	95.000	95.000
0110	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,393.000	2,393.000
0112	460.6223	HMA Pavement 3 MT 58-28 S	TON	165.000	165.000
0114	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,249.000	1,249.000
0116	465.0105	Asphaltic Surface	TON	25.000	25.000
0118	465.0110	Asphaltic Surface Patching	TON	25.000	25.000
0120	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	23.000	23.000
0122	465.0125	Asphaltic Surface Temporary	TON	4,056.000	4,056.000
0124	465.0315	Asphaltic Flumes	SY	217.000	217.000
0126	465.0400	Asphaltic Shoulder Rumble Strips	LF	3,739.000	3,739.000
0128	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	351.000	351.000
0130	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	351.000	351.000
0132	502.0100	Concrete Masonry Bridges	CY	820.000	820.000
0134	502.3200	Protective Surface Treatment	SY	1,200.000	1,200.000
0136	502.3210	Pigmented Surface Sealer	SY	260.000	260.000
0138	503.0146	Prestressed Girder Type I 45W-Inch	LF	860.000	860.000
0140	505.0400	Bar Steel Reinforcement HS Structures	LB	13,120.000	13,120.000
0142	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	106,240.000	106,240.000
0144	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	2,920.000	2,920.000
0146	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	20.000	20.000
0148	506.4000	Steel Diaphragms (structure) 01. B-13-0794	EACH	8.000	8.000
0150	506.4000	Steel Diaphragms (structure) 02. B-13-0795	EACH	8.000	8.000
0152	511.1300	Temporary Shoring (location) Marsh Excavation	SF	1,450.000	1,450.000

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Line	Item	Item Description	Unit	Total	Qty
0154	516.0500	Rubberized Membrane Waterproofing	SY	48.000	48.000
0156	520.1015	Apron Endwalls for Culvert Pipe 15-Inch	EACH	2.000	2.000
0158	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	8.000	8.000
0160	520.2012	Culvert Pipe Temporary 12-Inch	LF	78.000	78.000
0162	520.2018	Culvert Pipe Temporary 18-Inch	LF	952.000	952.000
0164	520.2042	Culvert Pipe Temporary 42-Inch	LF	158.000	158.000
0166	520.3315	Culvert Pipe Class III-A 15-Inch	LF	27.000	27.000
0168	520.3318	Culvert Pipe Class III-A 18-Inch	LF	168.000	168.000
0170	520.8000	Concrete Collars for Pipe	EACH	5.000	5.000
0172	520.8700	Cleaning Culvert Pipes	EACH	3.000	3.000
0174	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	2.000	2.000
0176	521.2005.S	Surface Drain Pipe Corrugated Metal Slotted (inch) 18-Inch	LF	406.000	406.000
0178	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	3.000	3.000
0180	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	8.000	8.000
0182	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0184	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	5.000	5.000
0186	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	1.000	1.000
0188	522.2324	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	122.000	122.000
0190	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	4.000	4.000
0192	550.0500	Pile Points	EACH	52.000	52.000
0194	550.2108	Piling CIP Concrete 10 3/4 X 0.50-Inch	LF	2,015.000	2,015.000
0196	601.0115	Concrete Curb Type G	LF	96.000	96.000
0198	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	333.000	333.000
0200	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	3,475.000	3,475.000
0202	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	637.000	637.000
0204	601.0551	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	LF	5,271.000	5,271.000
0206	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	1,237.000	1,237.000
0208	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	415.000	415.000
0210	601.0586	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBTT	LF	91.000	91.000
0212	601.0600	Concrete Curb Pedestrian	LF	391.000	391.000
0214	602.0405	Concrete Sidewalk 4-Inch	SF	28,822.000	28,822.000
0216	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	320.000	320.000

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Line	Item	Item Description	Unit	Total	Qty
0218	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	79.000	79.000
0220	606.0100	Riprap Light	CY	58.000	58.000
0222	606.0200	Riprap Medium	CY	14.000	14.000
0224	606.0300	Riprap Heavy	CY	970.000	970.000
0226	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	630.000	630.000
0228	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	719.000	719.000
0230	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	274.000	274.000
0232	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	482.000	482.000
0234	608.0342	Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	LF	210.000	210.000
0236	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0238	611.0530	Manhole Covers Type J	EACH	5.000	5.000
0240	611.0624	Inlet Covers Type H	EACH	29.000	29.000
0242	611.0642	Inlet Covers Type MS	EACH	7.000	7.000
0244	611.0652	Inlet Covers Type T	EACH	2.000	2.000
0246	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000
0248	611.2008	Manholes 8-FT Diameter	EACH	2.000	2.000
0250	611.3225	Inlets 2x2.5-FT	EACH	2.000	2.000
0252	611.3230	Inlets 2x3-FT	EACH	28.000	28.000
0254	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0256	611.3902	Inlets Median 2 Grate	EACH	3.000	3.000
0258	611.8120.S	Cover Plates Temporary	EACH	16.000	16.000
0260	612.0106	Pipe Underdrain 6-Inch	LF	8,299.000	8,299.000
0262	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	223.000	223.000
0264	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	380.000	380.000
0266	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0268	614.1200	MGS Guardrail Temporary Terminal EAT	EACH	1.000	1.000
0270	614.2300	MGS Guardrail 3	LF	804.000	804.000
0272	614.2500	MGS Thrie Beam Transition	LF	203.000	203.000
0274	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0276	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000
0278	616.0700.S	Fence Safety	LF	80.000	80.000
0280	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5290-00-72	EACH	1.000	1.000
0282	619.1000	Mobilization	EACH	1.000	1.000
0284	620.0200	Concrete Median Blunt Nose	SF	89.000	89.000

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Line	Item	Item Description	Unit	Total	Qty
0286	620.0300	Concrete Median Sloped Nose	SF	491.000	491.000
0288	623.0200	Dust Control Surface Treatment	SY	78,120.000	78,120.000
0290	624.0100	Water	MGAL	435.000	435.000
0292	625.0500	Salvaged Topsoil	SY	138,470.000	138,470.000
0294	627.0200	Mulching	SY	142,500.000	142,500.000
0296	628.1504	Silt Fence	LF	3,920.000	3,920.000
0298	628.1520	Silt Fence Maintenance	LF	3,920.000	3,920.000
0300	628.1905	Mobilizations Erosion Control	EACH	13.000	13.000
0302	628.1910	Mobilizations Emergency Erosion Control	EACH	13.000	13.000
0304	628.1920	Cleaning Sediment Basins	CY	76.000	76.000
0306	628.2004	Erosion Mat Class I Type B	SY	29,270.000	29,270.000
0308	628.2023	Erosion Mat Class II Type B	SY	300.000	300.000
0310	628.6005	Turbidity Barriers	SY	500.000	500.000
0312	628.6510	Soil Stabilizer Type B	ACRE	7.000	7.000
0314	628.7005	Inlet Protection Type A	EACH	35.000	35.000
0316	628.7015	Inlet Protection Type C	EACH	35.000	35.000
0318	628.7020	Inlet Protection Type D	EACH	37.000	37.000
0320	628.7504	Temporary Ditch Checks	LF	2,400.000	2,400.000
0322	628.7515.S	Stone or Rock Ditch Checks	CY	70.000	70.000
0324	628.7555	Culvert Pipe Checks	EACH	60.000	60.000
0326	628.7560	Tracking Pads	EACH	12.000	12.000
0328	628.7570	Rock Bags	EACH	50.000	50.000
0330	629.0210	Fertilizer Type B	CWT	133.000	133.000
0332	630.0120	Seeding Mixture No. 20	LB	3,630.000	3,630.000
0334	630.0140	Seeding Mixture No. 40	LB	600.000	600.000
0336	630.0171	Seeding Mixture No. 70A	LB	34.000	34.000
0338	630.0200	Seeding Temporary	LB	1,879.000	1,879.000
0340	630.0300	Seeding Borrow Pit	LB	910.000	910.000
0342	631.0300	Sod Water	MGAL	45.000	45.000
0344	631.1000	Sod Lawn	SY	100.000	100.000
0346	631.1100	Sod Erosion Control	SY	137.000	137.000
0348	633.5200	Markers Culvert End	EACH	16.000	16.000
0350	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	16.000	16.000
0352	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	14.000	14.000
0354	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	49.000	49.000
0356	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	17.000	17.000
0358	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	3.000	3.000
0360	637.1220	Signs Type I Reflective SH	SF	391.000	391.000
0362	637.2210	Signs Type II Reflective H	SF	906.000	906.000
0364	637.2215	Signs Type II Reflective H Folding	SF	67.000	67.000

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Line	Item	Item Description	Unit	Total	Qty
0366	637.2230	Signs Type II Reflective F	SF	219.000	219.000
0368	638.2102	Moving Signs Type II	EACH	36.000	36.000
0370	638.2602	Removing Signs Type II	EACH	114.000	114.000
0372	638.3000	Removing Small Sign Supports	EACH	63.000	63.000
0374	638.4000	Moving Small Sign Supports	EACH	28.000	28.000
0376	641.8100	Overhead Sign Support (structure) 01. S-13-500	LS	1.000	1.000
0378	641.8100	Overhead Sign Support (structure) 02. S-13-498	LS	1.000	1.000
0380	642.5401	Field Office Type D	EACH	1.000	1.000
0382	643.0300	Traffic Control Drums	DAY	77,390.000	77,390.000
0384	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0386	643.0410	Traffic Control Barricades Type II	DAY	1,520.000	1,520.000
0388	643.0420	Traffic Control Barricades Type III	DAY	6,070.000	6,070.000
0390	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	109.000	109.000
0392	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	109.000	109.000
0394	643.0705	Traffic Control Warning Lights Type A	DAY	12,530.000	12,530.000
0396	643.0715	Traffic Control Warning Lights Type C	DAY	16,610.000	16,610.000
0398	643.0800	Traffic Control Arrow Boards	DAY	80.000	80.000
0400	643.0900	Traffic Control Signs	DAY	41,370.000	41,370.000
0402	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0404	643.1050	Traffic Control Signs PCMS	DAY	88.000	88.000
0406	643.5000	Traffic Control	EACH	1.000	1.000
0408	645.0111	Geotextile Type DF Schedule A	SY	160.000	160.000
0410	645.0120	Geotextile Type HR	SY	1,799.000	1,799.000
0412	645.0130	Geotextile Type R	SY	301.000	301.000
0414	645.0140	Geotextile Type SAS	SY	495.000	495.000
0416	645.0220	Geogrid Type SR	SY	80,776.000	80,776.000
0418	646.1020	Marking Line Epoxy 4-Inch	LF	24,688.000	24,688.000
0420	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	2,893.000	2,893.000
0422	646.3020	Marking Line Epoxy 8-Inch	LF	1,890.000	1,890.000
0424	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	5,153.000	5,153.000
0426	646.5020	Marking Arrow Epoxy	EACH	40.000	40.000
0428	646.5120	Marking Word Epoxy	EACH	18.000	18.000
0430	646.6120	Marking Stop Line Epoxy 18-Inch	LF	267.000	267.000
0432	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	120.000	120.000
0434	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	7,817.000	7,817.000
0436	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	2,058.000	2,058.000
0438	646.7120	Marking Diagonal Epoxy 12-Inch	LF	905.000	905.000
0440	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	387.000	387.000
0442	646.8120	Marking Curb Epoxy	LF	326.000	326.000
0444	646.8220	Marking Island Nose Epoxy	EACH	16.000	16.000

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Line	Item	Item Description	Unit	Total	Qty
0446	646.9000	Marking Removal Line 4-Inch	LF	7,346.000	7,346.000
0448	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	4,220.000	4,220.000
0450	646.9100	Marking Removal Line 8-Inch	LF	347.000	347.000
0452	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	445.000	445.000
0454	646.9200	Marking Removal Line Wide	LF	161.000	161.000
0456	646.9300	Marking Removal Special Marking	EACH	2.000	2.000
0458	649.0105	Temporary Marking Line Paint 4-Inch	LF	21,133.000	21,133.000
0460	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	67,859.000	67,859.000
0462	649.0205	Temporary Marking Line Paint 8-Inch	LF	2,849.000	2,849.000
0464	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	4,282.000	4,282.000
0466	649.0505	Temporary Marking Arrow Paint	EACH	2.000	2.000
0468	649.0605	Temporary Marking Word Paint	EACH	2.000	2.000
0470	649.0805	Temporary Marking Stop Line Paint 18-Inch	LF	13.000	13.000
0472	649.0820	Temporary Marking Stop Line Epoxy 18-Inch	LF	75.000	75.000
0474	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	107.000	107.000
0476	649.0905	Temporary Marking Diagonal Paint 12-Inch	LF	340.000	340.000
0478	649.0950	Temporary Marking Diagonal Removable Tape 12-Inch	LF	699.000	699.000
0480	650.4000	Construction Staking Storm Sewer	EACH	70.000	70.000
0482	650.4500	Construction Staking Subgrade	LF	21,680.000	21,680.000
0484	650.5000	Construction Staking Base	LF	21,680.000	21,680.000
0486	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	11,946.000	11,946.000
0488	650.6000	Construction Staking Pipe Culverts	EACH	14.000	14.000
0490	650.6500	Construction Staking Structure Layout (structure) 01. B-13-0794	LS	1.000	1.000
0492	650.6500	Construction Staking Structure Layout (structure) 02. B-13-0795	LS	1.000	1.000
0494	650.6500	Construction Staking Structure Layout (structure) 03. S-13-498	LS	1.000	1.000
0496	650.6500	Construction Staking Structure Layout (structure) 05. S-13-500	LS	1.000	1.000
0498	650.7000	Construction Staking Concrete Pavement	LF	11,360.000	11,360.000
0500	650.8500	Construction Staking Electrical Installations (project) 01. 5290-00-02	LS	1.000	1.000
0502	650.9000	Construction Staking Curb Ramps	EACH	19.000	19.000
0504	650.9910	Construction Staking Supplemental Control (project) 01. 5290-00-72	LS	1.000	1.000
0506	650.9920	Construction Staking Slope Stakes	LF	16,223.000	16,223.000
0508	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	6,156.000	6,156.000
0510	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,416.000	1,416.000
0512	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0514	652.0800	Conduit Loop Detector	LF	2,022.000	2,022.000

Line	Item	Item Description	Unit	Total	Qty
0516	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	17.000	17.000
0518	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	20.000	20.000
0520	653.0900	Adjusting Pull Boxes	EACH	3.000	3.000
0522	653.0905	Removing Pull Boxes	EACH	10.000	10.000
0524	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
0526	654.0102	Concrete Bases Type 2	EACH	3.000	3.000
0528	654.0106	Concrete Bases Type 6	EACH	16.000	16.000
0530	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
0532	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
0534	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0536	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0538	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,599.000	1,599.000
0540	655.0240	Cable Traffic Signal 7-14 AWG	LF	875.000	875.000
0542	655.0250	Cable Traffic Signal 9-14 AWG	LF	629.000	629.000
0544	655.0270	Cable Traffic Signal 15-14 AWG	LF	229.000	229.000
0546	655.0320	Cable Type UF 2-10 AWG Grounded	LF	44.000	44.000
0548	655.0505	Electrical Wire Traffic Signals 14 AWG	LF	2,981.000	2,981.000
0550	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	3,356.000	3,356.000
0552	655.0610	Electrical Wire Lighting 12 AWG	LF	3,616.000	3,616.000
0554	655.0620	Electrical Wire Lighting 8 AWG	LF	8,418.000	8,418.000
0556	655.0700	Loop Detector Lead In Cable	LF	5,952.000	5,952.000
0558	655.0800	Loop Detector Wire	LF	4,290.000	4,290.000
0560	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. 143+83	LS	1.000	1.000
0562	657.0100	Pedestal Bases	EACH	6.000	6.000
0564	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	19.000	19.000
0566	657.0315	Poles Type 4	EACH	3.000	3.000
0568	657.0327	Poles Type 6-Aluminum	EACH	16.000	16.000
0570	657.0355	Poles Type 12	EACH	3.000	3.000
0572	657.0360	Poles Type 13	EACH	1.000	1.000
0574	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	6.000	6.000
0576	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0578	657.0545	Monotube Arms 45-FT	EACH	3.000	3.000
0580	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	26.000	26.000
0582	657.0815	Luminaire Arms Steel 15-FT	EACH	4.000	4.000
0584	658.0173	Traffic Signal Face 3S 12-Inch	EACH	18.000	18.000
0586	658.0174	Traffic Signal Face 4S 12-Inch	EACH	3.000	3.000
0588	658.0416	Pedestrian Signal Face 16-Inch	EACH	4.000	4.000
0590	658.0500	Pedestrian Push Buttons	EACH	6.000	6.000
0592	658.5069	Signal Mounting Hardware (location) 01. STH 19 &	LS	1.000	1.000

5290-00-72

Line	Item	Item Description	Unit	Total	Qty
		Liuna Way/Tierney Ct			
0594	659.1125	Luminaires Utility LED C	EACH	30.000	30.000
0596	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0598	670.0100	Field System Integrator	LS	1.000	1.000
0600	677.0200	Install Camera Assembly	EACH	2.000	2.000
0602	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	2,981.000	2,981.000
0604	678.0400	Fiber Optic Termination	EACH	6.000	6.000
0606	690.0150	Sawing Asphalt	LF	3,135.000	3,135.000
0608	690.0250	Sawing Concrete	LF	3,224.000	3,224.000
0610	715.0415	Incentive Strength Concrete Pavement	DOL	13,009.500	13,009.500
0612	715.0502	Incentive Strength Concrete Structures	DOL	4,884.000	4,884.000
0614	715.0710	Optimized Aggregate Gradation Incentive	DOL	43,378.000	43,378.000
0616	740.0440	Incentive IRI Ride	DOL	8,000.000	8,000.000
0618	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,500.000	1,500.000
0620	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,000.000	1,000.000
0622	SPV.0060	Special 01. Inlets Temporary	EACH	3.000	3.000
0624	SPV.0060	Special 02. Landmark Reference Monuments Special	EACH	3.000	3.000
0626	SPV.0060	Special 03. Verify Landmark Reference Monuments Special	EACH	12.000	12.000
0628	SPV.0060	Special 04. Temporary Sediment Basin	EACH	8.000	8.000
0630	SPV.0090	Special 01. Asphaltic Curb Temporary	LF	660.000	660.000
0632	SPV.0090	Special 02. Fill Existing Rumble Strips	LF	355.000	355.000
0634	SPV.0090	Special 03. Restore Existing Rumble Strips	LF	355.000	355.000
0636	SPV.0105	Special 01. Walking Path	LS	1.000	1.000
0638	SPV.0105	Special 02. Canoe and Kayak Launch	LS	1.000	1.000
0640	SPV.0105	Special 03. Installing Furnished Dane County Park Kiosk	LS	1.000	1.000
0642	SPV.0105	Special 04. Installing Furnished Dane County Park Sign	LS	1.000	1.000
0644	SPV.0105	Special 06. Remove & Reinstall Loop Detector Wire & Lead-in Cable	LS	1.000	1.000
0646	SPV.0105	Special 07. Transport and Install State-Furnished CAT5E Cable, STH 19	LS	1.000	1.000

CLEARING & GRUBBING

CAT	STA	TO	STA	OFFSET	ALIGN	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010							
	152+00	-	153+00	RT	EB	1	1
	154+00	-	156+00	RT	EB	2	2
	155+00	-	157+00	LT	WB	2	2
	163+00	-	164+00	LT	EB	1	1
	7+00	-	10+00	RT	LWS	3	3
	176+00	-	183+00	RT	EB	7	7
	186+00	-	192+00	RT	EB	6	6
	154+50	-	155+50	RT	YA	1	1
	154+50	-	155+50	LT	YA	1	1
	CATEGORY 0010 SUBTOTAL					24	24
	PROJECT TOTAL					**24**	**24**

REMOVING ASPHALTIC SURFACE

CAT	STA	TO	STA	OFFSET	ALIGN	204.0110 REMOVING ASPHALTIC SURFACE SY	COMMENTS
0010							
	163+67	-	167+59	LT	EB	430	STAGE 1D-LNW MEDIAN ISLAND
	168+78	-	172+75	RT	WB	1630	STAGE 1D-LNW MEDIAN ISLAND
	52+98	-	54+93	LT	RNB	470	STAGE 2B-RAB- MEDIAN ISLAND
	CATEGORY 0010 SUBTOTAL					2530	
0050							
	256+71	-	260+97	LT/RT	TEB1	570	STAGE 1E- MEDIAN CROSSOVER
	CATEGORY 0050 SUBTOTAL					570	
	PROJECT TOTAL					**3100**	

REMOVING PAVEMENT

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	204.0100 REMOVING PAVEMENT SY
0010							
	134+80	-	154+73	LT/RT	WB	WEST OF B-13-795	8620
			55+19	LT/RT	RNB	SOUTH RIVER RD	460
			55+35	LT/RT	RSB	NORTH RIVER RD	460
	155+50	-	194+55	LT/RT	WB	EAST OF B-13-795	16500
	CATEGORY 0010 SUBTOTAL						26040
	PROJECT TOTAL						**26040**

REMOVING CURB & GUTTER AND SIDEWALK

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
0010									
	7+66	-	9+98	RT	LWS	SIDEWALK	-	-	130
	7+66	-	10+39	LT	LWS		-	310	-
	7+66	-	10+39	RT	LWS		-	290	-
	10+44	-	10+82	LT	CW	SPLITTER ISLAND	95	-	-
	10+56	-	11+18	LT	CW		-	90	-
	10+56	-	11+18	RT	CW		-	80	-
	8+00	-	10+27	RT	LES		-	160	-
	8+00	-	10+37	LT	LES		-	180	-
	CATEGORY 0010 SUBTOTAL						95	1110	130
	PROJECT TOTAL						**95**	**1110**	**130**

REMOVING CONCRETE BASE

CAT	STA	OFFSET	ALIGN	204.0195* REMOVING CONCRETE BASE EACH
0010				
	152+12	6.8' LT	WB	1
	CATEGORY 0010 SUBTOTAL			1
	PROJECT TOTAL			**1**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

REMOVING GUARDRAIL

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010							
	152+70	-	154+65	RT	WB	STH 19	200
	153+69	-	154+67	LT	WB	STH 19	97
	155+56	-	157+92	LT	WB	STH 19	220
	155+61	-	156+53	RT	WB	STH 19	93
			CATEGORY 0010 SUBTOTAL				610
			PROJECT TOTAL				**610**

REMOVING FENCE

CAT	STA	TO	STA	OFFSET	ALIGN	204.0170 REMOVING FENCE LF
0010						
	149+59	-	152+84	LT	WB	370
	181+88	-	8+97	RT/LT	EB/LES	650
			CATEGORY 0010 SUBTOTAL			1020
			PROJECT TOTAL			**1020**

REMOVING BUILDINGS

CAT	STA	OFFSET	ALIGN	204.0230.01 REMOVING BUILDING (TOBACCO SHED) LS	204.0230.02 REMOVING BUILDING (SALT SHED) LS	COMMENTS
0010						
	58+50	LT	RNB	1	-	85' x 30' TOBACCO SHED
	183+75	RT	EB	-	1	100' x 65' SALT SHED
	CATEGORY 0010 SUBTOTAL			1	1	
	PROJECT TOTAL			**1**	**1**	

REMOVING DELINEATORS AND MARKERS

CAT	STA	TO	STA	OFFSET	ALIGN	204.0180 REMOVING DELINEATORS AND MARKERS EACH
0010						
			143+86	RT	WB	1
	11+73	-	12+71	RT	CR	2
	57+05	-	57+12	30' RT	RNB	2
			62+07	LT/RT	RNB	2
			147+47	32' RT	WB	1
			150+24	29' RT	WB	1
			168+60	LT	WB	1
			168+81	55' RT	WB	1
			10+80	48' LT	CW	1
			10+83	50' RT	CW	1
	10+83	-	11+04	RT	CW	5
	186+26	-	188+39	LT	WB	8
	187+22	-	188+37	40' RT	WB	2
			CATEGORY 0010 SUBTOTAL			28
			PROJECT TOTAL			**28**

REMOVING SURFACE DRAINS

CAT	STA	OFFSET	ALIGN	LOCATION	204.0190 REMOVING SURFACE DRAINS EACH
0010					
	146+00	LT	WB	NB RIVER RD/ WB	1
	146+00	RT	EB	NB RIVER RD/ EB	1
	10+22	LT	LES	LIUNA WAY EAST/ EB	1
	10+22	RT	LES	LIUNA WAY EAST/ EB	1
				CATEGORY 0010 SUBTOTAL	4
				PROJECT TOTAL	**4**

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EXISTING DRAINAGE REMOVALS

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 15-INCH LF	204.0245.02 REMOVING STORM SEWER 24-INCH LF	204.0245.03 REMOVING STORM SEWER 48-INCH LF	COMMENTS
0010													
			143+86	RT	WB	MEDIAN	-	-	1	9	-	-	RCCP MATERIAL
			143+86	RT	WB	MEDIAN	-	-	1	69	-	-	RCCP MATERIAL
			56+00		RNB	RUNS ACROSS RD	1	-	-	-	-	-	36-INCH RCCP
			57+07		RNB	RUNS ACROSS RD	1	-	-	-	-	-	36-INCH RCCP
			57+46	74' RT	RNB		-	1	-	-	-	-	
	58+89	-	59+17	31' RT	RNB	DRIVEWAY	1	-	-	-	-	-	18-INCH
	58+95	-	59+21	5' LT	RSB	DRIVEWAY	1	-	-	-	-	-	18-INCH
	60+10	-	60+28	30' RT	RNB	DRIVEWAY	1	-	-	-	-	-	18-INCH
			62+07	LT/RT	RNB	RUNS ACROSS RD	1	-	-	-	-	-	24x38-Inch
	62+35	-	62+65	27' LT	RSB	DRIVEWAY	1	-	-	-	-	-	18-INCH
			147+50	LT	WB	MEDIAN	-	-	1	63	-	-	RCCP MATERIAL
			150+23	LT	WB	MEDIAN	-	-	2	47	-	-	RCCP MATERIAL
	160+13	-	160+41	19' LT	EB	DRIVEWAY	1	-	-	-	-	-	18-INCH
	160+23	-	160+50	55' LT	WB	DRIVEWAY	1	-	-	-	-	-	18-INCH
	302+65	-	302+72	LT/RT	TC	RUNS ACROSS RD	1	-	-	-	-	-	
	168+58	-	168+60	LT/RT	WB		-	1	-	-	-	110	
	168+58	-	168+81	RT	WB		-	-	-	-	26	-	
	9+17	-	168+58	RT	LWS/WB		-	1	-	-	-	80	
	176+86	-	177+09	28' RT	WB	DRIVEWAY	1	-	-	-	-	-	18-INCH
	10+80	-	11+04	LT	CW		-	-	1	-	40	-	12-INCH RCCP
	10+83	-	10+98	RT	CW		-	-	1	-	27	-	12-INCH RCCP
	10+98	-	11+04	LT/RT	CW	RUNS ACROSS RD	-	-	1	-	44	-	18-INCH RCCP
	187+22	-	188+37	38' RT	WB	RUNS ACROSS LES RD	1	-	-	-	-	-	
	192+36	-	192+60	95' RT	WB		1	-	-	-	-	-	
CATEGORY 0010 SUBTOTAL							13	3	8	188	137	190	
PROJECT TOTAL							**13**	**3**	**8**	**188**	**137**	**190**	

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STH 19 EARTHWORK SUMMARY

CATEGORY 0010

SUBSTAGE	LOCATION	Excavation Common (1) (Item # 205.0100)		Unusable Pavement Material	Marsh Excavation (Item # 205.0400)	Available Material (4)	Unexpanded Fill	Expanded Fill (5) Factor 1.30	Reduced Marsh in Fill (6) Factor 0.60	Mass Ordinate +/- (7)	Borrow (8) (Item # 208.0100)
		Cut (2)	EBS Excavation (3)								
1A	EB*/LWS*/YA/	8743	437	166	5679	8577	35877	42210	3407	-33634	33634
1C	EB/RSB/RAB/WB	25823	1291	2532	0	23290	12476	16219	0	7071	0
1D	RNB*/EB	7523	376	577	0	6946	3061	3979	0	2968	0
1E	TEMP. CROSSOVER	154	0	0	0	154	0	0	0	154	0
2A	WB/RAB/RNB/RSB*/TEMP. CROSSOVER	16326	816	4851	0	11475	10510	13662	0	-2187	2187
2B	WB/TEMP. CROSSOVER	2135	107	664	0	1471	2973	3864	0	-2393	2393
2C	TEMP. CROSSOVER	133	0	47	0	86	64	83	0	3	0
	CATEGORY 0010 SUBTOTALS	60837	3027	8837	5679	52000	64960	80018	3407	-28018	-

CATEGORY 0050

1A	TEMP. CROSSOVERS/EB*/LWS*	4547	227	0	0	4547	678	881	0	3666	0
1C	TC/TCS	1024	51	0	0	1024	655	852	0	173	0
1D	RNB*	122	6	0	0	122	0	0	0	122	0
1E	TEMP. CROSSOVERS	373	0	193	0	180	22	29	0	151	0
2A	CW/RSB*	1213	61	98	0	1115	102	133	0	982	0
2C	TEMP. CROSSOVER	222	0	80	0	142	22	29	0	113	0
	CATEGORY 0050 SUBTOTALS	7501	345	371	0	7130	1479	1923	0	5208	0
	PROJECT TOTALS	68338	3373	9208	5679	59130	66439	81941	3407	-22811	33566

1) Excavation Common is the total of Cut and EBS Excavation.
2) Cut includes Unusable Pavement Material, which includes Concrete and Asphalt.
3) EBS Excavation (CY) to be backfilled with Select Crushed Material. EBS Excavation volume assumed 5% of Cut (2) of Excavation Common. Assumption made that EBS Material is unusable in Fills.
4) Available Material = Cut - Unusable Pavement Material
5) Expanded Fill Factor = 1.30; Expanded Fill = (Unexpanded Fill - Reduced Marsh) * Fill Factor
6) Marsh in Fill Reduction Factor = 0.6. Assumption made that Excavated Marsh Material is usable in Fills outside the 1:1 slope.
7) Mass Ordinate + or - Qty calculated for the project. Plus quantity is an excess of material, and minus is a shortage of material.
8) Borrow = Negative Mass Ordinate. Mass Ordinate = Available Material (5) - Expanded Fill (6)
9) Categories 0010 and 0050 were combined to show amount broken out in each substage for each pay item.
10) All quantities shown in CY.
11) Assumption made that material is not moved between stages to reduce borrow.
12) * See Computer Earthwork Data sheets for notes regarding shifting of quantities between categories.

COMBINED CATEGORIES - PAY ITEMS (9)

Substage	Excavation Common (Item # 205.0100)	Marsh Exc. (Item # 205.0400)	Borrow Item # 208.0100)
1A	13955	5679	29968
1C	28189	0	0
1D	8028	0	0
1E	527	0	0
2A	18415	0	1205
2B	2242	0	2393
2C	355	0	0
PROJECT TOTAL	71711	5679	33566

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EXCAVATION STONE PILES & STONE FENCES

205.0300

CAT	STA	TO	STA	OFFSET	ALIGN	EXCAVATION STONE PILES & STONE FENCES CY	COMMENTS
0010							
			57+05	RT	RNB	2	RIPRAP FOR EXISTING 36-INCH CULVERT
	63+20	-	154+47	RT/LT	RNB/WB	38	STONE OR ROCK DITCH CHECK
	154+75	-	154+96	LT/RT	WB	69	RIPRAP FOR B-13-795
	155+22	-	155+48	LT/RT	WB	96	RIPRAP FOR B-13-795
	155+58	-	7+60	RT/LT	EB/LWS	10	STONE OR ROCK DITCH CHECK
		UNDISTRIBUTED				10	
			CATEGORY 0010 SUBTOTAL			224	
				PROJECT TOTAL		**224**	

3

REMOVING POST MOUNTED BARRICADE

204.9060.S.03

CAT	STA	OFFSET	ALIGN	REMOVING POST MOUNTED BARRICADES EACH
0050				
	304+10	LT	TCS	3
	304+10	RT	TC	3
	CATEGORY 0050 SUBTOTAL			6
			PROJECT TOTAL	**6**

BASE AGGREGATE MATERIAL

CAT	STA	TO	STA	ALI	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	371.1000.S* QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	624.0100 WATER MGAL
0010								
	131+25	-	144+25	WB	130	6950	6950	71
	10+00	-	14+27	CR	-	780	780	8
	49+90	-	55+09	RSB	66	2470	2470	25
	56+78	-	62+10	RNB	83	2640	2640	27
	145+85	-	154+32	WB	170	3320	3320	35
	155+58	-	194+55	WB	900	16000	16000	170
	7+65	-	9+64	LWS	-	540	540	5
	8+85	-	9+64	LES	-	190	190	2
	156+58	-	167+96	YA	750	1570	1570	23
	UNDISTRIBUTED				211	3440	3440	34
	CATEGORY 0010 SUBTOTAL				2310	37900	37900	400
0050								
	51+30	-	55+08	RNB	-	54	54	1
	57+08	-	59+64	RSB	-	280	280	3
	159+54	-	167+59	EB	-	580	580	6
	8+00	-	9+64	LWS	-	97	97	1
	302+47	-	304+37	TCS	-	1560	1560	16
	10+36	-	11+18	CW	-	570	570	6
	UNDISTRIBUTED				0	310	310	3
	CATEGORY 0050 SUBTOTAL				0	3450	3450	35
	PROJECT TOTAL				**2310**	**41350**	**41350**	**435**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

SELECT CRUSHED MATERIAL

CAT	STA	TO	STA	ALIGN	312.0110* SELECT CRUSHED MATERIAL TON	645.0220* GEOGRID TYPE SR SY
0010						
	134+80	-	143+00	WB/EB	3630	5710
	143+00	-	147+00	WB/EB	4350	6870
	52+83	-	54+00	RNB	620	960
	58+00	-	59+64	RNB	660	1020
	147+00	-	154+34	EB	2200	3450
	147+00	-	154+48	WB	2160	3380
	155+62	-	194+00	EB	12200	19240
	155+75	-	194+55	WB	10800	17010
	UNDISTRIBUTED EBS				5770	-
	CATEGORY 0010 SUBTOTAL				42390	57640
0050						
	52+83	-	55+04	RNB	93	150
	57+93	-	59+64	RNB	500	790
	159+54	-	167+59	EB	1610	2530
	9+14	-	9+64	LWS	93	150
	302+37	-	302+96	TC	1000	1580
	168+42	-	176+81	WB	1280	2020
	10+26	-	10+82	CW	870	1370
	UNDISTRIBUTED EBS				660	-
	CATEGORY 0050 SUBTOTAL				6106	8590
	PROJECT TOTAL				**48496**	**66230**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**
****INCLUDES FRENCH DRAIN QUANTITIES**

CONSTRUCTABILITY & BACKFILL FOR REMOVAL OF MARSH SOIL

CAT	STA	TO	STA	ALIGN	209.2500 BACKFILL GRANULAR GRADE 2 TON	511.1300 TEMPORARY SHORING (MARSH EXCAVATION) SF	COMMENTS
0010							
	152+50	-	154+59	EB	10600	1450	
			CATEGORY 0010 SUBTOTAL		10600	1450	
			PROJECT TOTAL		**10600**	**1450**	

3

CONCRETE APPROACH SLABS & CONCRETE SURFACE DRAIN

CAT	STA	TO	STA	OFFSET	ALIGN	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.1010 CONCRETE SURFACE DRAINS CY
0010							
	154+16	-	154+34	LT/RT	EB	79	-
	154+32	-	154+47	LT/RT	WB	71	-
	155+62	-	155+78	LT/RT	EB	75	-
	155+75	-	155+93	LT/RT	WB	71	-
	155+97	-	156+17	LT	EB	-	2
	156+13	-	156+44	LT	WB	-	3
	9+49	-	9+54	LT	LES	-	2
			CATEGORY 0010 SUBTOTAL			296	7
				PROJECT TOTAL		**296**	**7**

CONCRETE PAVEMENT ITEMS

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	405.0100 COLORING CONCRETE WISDOT RED CY	415.0085 CONCRETE PAVEMENT 8.5-INCH SY	415.1085 CONCRETE PAVEMENT HES 8.5-INCH SY	415.0210 CONCRETE PAVEMENT GAPS EACH	416.0512 CONCRETE TRUCK APRON 12-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	COMMENTS
0010														
	142+48	-	144+06	RT	EB	STH 19 EB LANES	-	533	-	-	-	-	-	
	142+68	-	144+25	LT	WB	STH 19 WB LANES	-	495	-	-	-	-	-	
	10+00	-	14+27	RT	CR	ROUNDABOUT	-	1631	-	-	-	-	-	
	10+00	-	14+27	RT	CR	TRUCK APRON RAB	152	-	-	-	457	-	-	
	52+83	-	55+09	LT	RSB	SB RIVER RD LANES	-	385	-	-	-	-	-	
	52+83	-	55+03	RT	RNB	NB RIVER RD LANES	-	935	-	-	-	-	-	
	56+98	-	59+64	RT	RNB	NB RIVER RD LANES	-	446	-	-	-	-	-	
	57+05	-	59+64	LT	RSB	SB RIVER RD LANES	-	445	-	-	-	-	-	
	144+00	-	147+00	LT/RT	EB	SUBSTAGE 1C	-	-	-	1	-	-	-	
	146+00	-	154+16	RT	EB	STH 19 EB LANES	-	2467	-	-	-	-	-	
	146+08	-	154+32	LT	WB	STH 19 WB LANES	-	2603	-	-	-	22	13	
	155+77	-	194+00	RT	EB	STH 19 EB LANES	-	12863	-	-	-	23	19	
	155+93	-	194+70	LT/RT	WB	STH 19 WB LANES	-	11239	-	-	-	-	-	
	192+80	-	194+55	LT	WB	STH 19 WB OUTSIDE LANE	-	-	277	-	-	-	-	SUBSTAGE 2A
	189+85	-	194+70	LT/RT	WB	STH 19 WB INSIDE LANE	-	-	834	-	-	-	-	SUBSTAGE 2B-RAB
	166+00	-	170+00	LT/RT	EB	SUBSTAGE 1A-LNW1	-	-	-	1	-	-	-	
	167+26	-	168+06	LT/RT	EB	LIUNA WAY LANES	-	-	545	-	-	-	-	SUBSTAGE 1A-LNW1
	168+06	-	168+88	LT/RT	EB	LIUNA WAY LANES	-	-	644	-	-	-	-	SUBSTAGE 1A-LNW2
	9+02	-	9+64	LT/RT	LES	LIUNA WAY LANES	-	347	-	-	-	-	-	
						CATEGORY 0010 SUBTOTAL	152	34389	2300	2	457	45	32	
0050														
	52+83	-	55+08	RT	RNB	SB RIVER RD RT TURN LANE	-	115	-	-	-	-	-	
	57+08	-	59+64	LT	RSB	SB RIVER RD RT TURN LANE	-	515	-	-	-	-	-	
	159+54	-	167+59	LT	EB	STH 19 EB LT TURN LANE	-	1730	-	-	-	-	-	
	9+14	-	9+64	LT	LWS	LIUNA WAY LANE	-	-	106	-	-	-	-	
	302+37	-	302+96	LT/RT	TC	TIERNEY CROSSING LANES	-	1200	-	-	-	-	-	
	168+41	-	176+81	RT	WB	STH 19 WB LT TURN LANE	-	1217	-	-	-	-	-	
	10+36	-	10+82	LT/RT	CW	CW LANES & WB STH 19 RT TURN LANE	-	1003	-	-	-	-	-	
						CATEGORY 0050 SUBTOTAL	0	5780	106	0	0	0	0	
						PROJECT TOTAL	**152**	**40169**	**2406**	**2**	**457**	**45**	**32**	

3

DRIVEWAYS

CAT	STA	TO	STA	OFFSET	ALIGN	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	371.1000.S* QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010									
	59+60	-	59+84	RT	RNB	55	55	-	-
	60+13	-	60+55	RT	RNB	26	26	-	-
	60+73	-	61+25	LT	RSB	26	26	-	-
	62+30	-	62+70	LT	RSB	24	24	-	9
	159+98	-	160+74	LT	WB	35	35	-	14
	7+97	-	8+32	LT	LWS	14	14	37	-
			CATEGORY 0010 SUBTOTAL			180	180	37	23
				PROJECT TOTAL		**180**	**180**	**37**	**23**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

TEMPORARY ASPHALTIC CURB

CAT	STA	TO	STA	OFFSET	ALIGN	SPV.0090.01 ASPHALTIC CURB TEMPORARY LF	COMMENTS
0010							
	188+14	-	194+69	LT/RT	WB	660	INSTALLED IN STAGE 1D TEMPORARY EB SHIFT
			CATEGORY 0010 SUBTOTAL			660	
				PROJECT TOTAL		**660**	

3

ASPHALT FLUMES

CAT	STA	TO	STA	OFFSET	ALIGN	465.0315 ASPHALT FLUMES SY
0010						
	53+90	-	53+98	LT	RSB	16
	53+78	-	53+86	RT	RNB	23
	58+04	-	58+12	RT	RNB	16
	58+10	-	58+18	LT	RSB	23
	147+32	-	147+40	RT	EB	24
	149+53	-	149+61	LT	EB	12
	149+64	-	149+72	RT	WB	12
	149+64	-	149+72	LT	WB	17
	188+36	-	188+44	RT	EB	12
			CATEGORY 0010 SUBTOTAL			155
0050						
	162+14	-	162+43	LT	EB	31
	173+56	-	173+84	RT	WB	31
			CATEGORY 0050 SUBTOTAL			62
				PROJECT TOTAL		**217**

RUMBLE STRIPS

CAT	STA	TO	STA	OFFSET	ALIGN	416.1110 CONCRETE SHOULDER RUMBLE STRIPS LF	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL LF	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	SPV.0090.02 FILLING EXISTING RUMBLE STRIPS LF	SPV.0090.03 RESTORE EXISTING RUMBLE STRIPS LF
0010												
	131+25	-	134+76	CL	WB	-	-	351	351	-	355	355
	131+25	-	139+23	LT	WB	-	798	-	-	-	-	-
	131+95	-	142+18	RT	EB	-	1026	-	-	-	-	-
	147+32	-	154+16	RT	EB	684	-	-	-	-	-	-
	149+64	-	154+32	LT	WB	468	-			-	-	-
	150+14	-	154+07	LT	WB	-	393	-	-	-	-	-
	156+02	-	162+82	RT	EB	-	680	-	-	-	-	-
	156+18	-	159+72	LT	WB	-	354	-	-	-	-	-
	161+00	-	165+88	LT	WB	-	488	-	-	-	-	-
	USED FOR FLAGGING OPERATION					-	-	-	-	1	-	-
			CATEGORY 0010 SUBTOTAL			1152	3739	351	351	1	355	355
				PROJECT TOTAL		**1152**	**3739**	**351**	**351**	**1**	**355**	**355**

ASPHALT PAVEMENT ITEMS

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
0010												
	134+80	-	142+68	LT	WB	STH 19 EB LANES	513	197	-	-	-	513
	134+80	-	142+48	RT	EB	STH 19 WB LANES	-	241	-	-	-	626
	134+80	-	142+68	LT	WB	STH 19 WB SHLDR	168	-	-	168	-	-
	134+80	-	142+48	RT	EB	STH 19 EB SHLDR	170	-	-	170	-	-
	49+90	-	53+98	LT	RSB	RIVER RD SB SHLDR	-	-	-	43	-	-
	49+90	-	52+83	LT/RT	RNB	RIVER RD LANES	-	67	-	252	-	-
	49+90	-	53+92	RT	RNB	RIVER RD NB SHLDR	-	-	-	43	-	-
	58+04	-	63+10	RT	RNB	RIVER RD NB SHLDR	56	-	-	56	-	-
	58+09	-	63+10	LT	RSB	RIVER RD SB SHLDR	57	-	-	57	-	-
	59+64	-	63+10	LT/RT	RNB	RIVER RD LANES	273	73	-	273	-	
	147+32	-	154+16	RT	EB	SOUTH STH 19 EB SHLDR	-	-	-	100	-	-
	149+53	-	154+16	LT	EB	NORTH STH 19 EB SHLDR	-	-	-	51	-	-
	149+64	-	154+32	LT	WB	NORTH STH 19 WB SHLDR	63	-	-	63	-	-
	149+64	-	154+32	RT	WB	SOUTH STH 19 WB SHLDR	34	-	-	34	-	-
	155+78	-	167+26	RT	EB	SOUTH STH 19 EB SHLDR	116	-	-	116	-	-
	156+06	-	162+28	LT	EB	NORTH STH 19 EB SHLDR	43	-	-	43	-	-
	155+93	-	161+28	RT	WB	SOUTH STH 19 WB SHLDR	61	-	-	61	-	-
	156+26	-	166+78	LT	WB	NORTH STH 19 WB SHLDR	142	-	-	142	-	-
	7+65	-	9+14	LT/RT	LWS	LUNA WAY LANES	61	39	77	61	-	-
	169+99	-	179+34	LT	WB	NORTH STH 19 WB SHLDR	-	-	-	91	-	-
	169+34	-	186+04	RT	EB	SOUTH STH 19 EB SHLDR	-	-	-	190	-	-
	173+71	-	189+86	LT	EB	NORTH STH 19 EB SHLDR	-	-	-	104	-	-
	173+71	-	189+86	RT	WB	SOUTH STH 19 WB SHLDR	-	-	-	97	-	-
	181+27	-	193+81	LT	WB	NORTH STH 19 WB SHLDR	-	-	-	122	-	-
	8+85	-	9+02	LT/RT	LES	LIUNA WAY LANES	-	4	8	7	-	-
	188+81	-	190+82	RT	EB	SOUTH STH 19 EB SHLDR	-	-	-	32	-	-
						CATEGORY 0010 SUBTOTAL	1757	621	85	2376	0	1139
0050												
	51+30	-	52+83	RT	RNB	RIVER RD LANES	-	1	-	5	-	-
	8+00	-	9+14	LT	LWS	LIUNA WAY LANE	-	6	10	12	-	-
	303+96	-	304+37	LT	TCS	SB TIERNEY CROSSING LANES	-	35	-	-	83	55
	303+96	-	304+12	RT	TC	NB TIERNEY CROSSING LANES	-	23	-	-	54	36
	10+82	-	11+18	LT/RT	CW	CASHEL WAY LANES	-	12	-	-	28	19
						CATEGORY 0050 SUBTOTAL	0	77	10	17	165	110
						PROJECT TOTAL	**1757**	**698**	**95**	**2393**	**165**	**1249**

ASPHALTIC SURFACE TEMPORARY

CAT	STAGE	STA	TO	STA	OFFSET	ALIGN	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110* SELECT CRUSH MATERIAL TON	371.1000.S* QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	450.1100.S ASPHALTIC MIXTURE EXTREME CONDITIONS TON	460.4110.S REHEATING ASPHALTIC PAVEMENT LONGITUDINAL JOINTS LF	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	645.0220* GEOGRID TYPE SR SY	COMMENTS
0010																
	1A	232+00	-	244+76	LT/RT	TEB1	360	1440	2220	1440	-	-	-	786	3511	STAGING TEMPORARY WIDENING
	1A	244+82	-	245+04	LT	TEB2	-	-	-	-	-	-	-	11	-	REMOVE PORK CHOP ISLAND
	1A	46+49	-	56+16	LT/RT	TRR	140	950	-	950	-	-	-	564	-	STAGING TEMPORARY WIDENING
	1A	245+57	-	247+50	LT	TEB1	45	79	86	79	-	-	-	30	135	STAGING TEMPORARY WIDENING
	1A	245+68	-	251+15	LT/RT	TEB1	-	270	510	270	-	-	-	180	802	REMOVE MEDIAN ISLAND
	1A-LNW1	9+03	-	9+23	RT	LWS	-	-	-	-	-	-	-	20	-	AFTER INSTALLING PIPE RUN
	1A-LNW1	168+54	-	169+05	LT	WB	-	-	-	-	-	-	-	38	-	AFTER INSTALLING PIPE RUN
	1A-LNW2	165+99	-	168+64	RT	WB	-	-	-	-	-	-	-	92	-	
	1A-LNW2	167+26	-	167+59	RT	WB	-	12	23	12	-	-	-	8	36	
	1B	263+47	-	267+38	LT	TEB1	-	-	-	-	-	-	-	97	-	SPLITTER ISLAND MEDIAN
	1C	52+98	-	55+04	LT	RNB	-	-	-	-	-	-	-	106	-	ISLAND MEDIAN
	1C	244+41	-	245+14	LT	TEB1	-	-	-	-	-	-	-	102	-	
	1C	159+65	-	160+65	LT	WB	-	-	-	-	-	-	-	64	-	
	1C	174+49	-	175+00	RT	WB	13	130	230	130	-	-	-	82	367	ROUNDABOUT TEMPORARY PAVEMENT
	1D-MED	186+20	-	188+42	LT	WB	-	-	-	-	-	-	-	62	-	
	1D-MED	188+14	-	194+68	LT/RT	WB	-	570	1090	570	-	-	-	391	1724	INCLUDES MATERIAL FOR ASPHALTIC CURB TEMP.
	1D	231+38	-	244+22	RT	TEB2	91	710	1350	710	-	-	-	478	2134	STAGING TEMPORARY WIDENING
	1D	244+16	-	245+46	LT/RT	TEB2	23	38	89	38	-	-	-	113	503	ROUNDABOUT TEMPORARY PAVEMENT
	1D	245+60	-	251+12	LT	TEB2	-	-	-	-	-	-	-	59	-	STAGING TEMPORARY WIDENING
	1D	246+14	-	249+20	RT	TEB2	22	65	120	65	-	-	-	44	196	STAGING TEMPORARY WIDENING
	1E	292+00	-	294+63	LT/RT	TEB2	45	130	179	130	-	-	-	63	283	TEMPORARY SINGLE LANE MEDIAN CROSSOVER
	2A	147+65	-	151+49	LT/RT	TEB3	61	180	264	180	-	-	-	93	417	TEMPORARY SINGLE LANE MEDIAN CROSSOVER
	2B-RAB	131+25	-	139+73	RT	EB	-	-	-	-	-	850	-	-	-	AFTER REMOVING TEMPORARY EB WIDENING
		PROJECT LIMITS					-	-	-	-	-	-	25	-	-	
		UNDISTRIBUTED					70	426	570	426	-	-	-	333	941	
		CATEGORY 0010 SUBTOTAL					870	5000	6731	5000	0	850	25	3816	11050	
0050																
	1A	256+70	-	260+97	LT/RT	TEB1	83	250	364	250	129	-	-	-	575	TEMPORARY 2-WAY MEDIAN CROSSOVER
	1A	268+59	-	278+39	LT/RT	TEB1	36	370	656	370	366	-	-	-	1633	TEMPORARY 2-WAY MEDIAN CROSSOVER
	1E	257+26	-	260+88	LT/RT	TEB2	86	210	282	210	-	-	-	100	446	TEMPORARY SINGLE LANE MEDIAN CROSSOVER
	1E	272+64	-	275+76	LT/RT	TEB2	58	220	332	220	-	-	-	118	525	TEMPORARY SINGLE LANE MEDIAN CROSSOVER
		UNDISTRIBUTED					27	110	166	110	45	-	-	22	318	
		CATEGORY 0050 SUBTOTAL					290	1160	1800	1160	540	0	0	240	3496	
		PROJECT TOTAL					**1160**	**6160**	**8531**	**6160**	**540**	**850**	**25**	**4056**	**14546**	

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

TEMPORARY DRAINAGE

CAT	STAGE	STA	TO	STA	OFFSET	ALIGN	520.2012 CULVERT PIPE TEMPORARY 12-INCH LF	520.2018 CULVERT PIPE TEMPORARY 18-INCH LF	520.2042 CULVERT PIPE TEMPORARY 42-INCH LF	520.8000* CONCRETE PIPE COLLAR FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 18-INCH EACH	611.0430 RECONSTRUCTING INLETS EACH	611.8120.S COVER PLATES TEMPORARY EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	650.6000* CONSTRUCTION STAKING PIPE CULVERT EACH	SPV.0060.01 TEMPORARY INLET EACH	COMMENTS
0010																		
	1A			54+00	LT/RT	TRR	-	54	-	-	-	-	-	-	-	1	-	TEMP. 18-INCH CULVET
	1A			54+92	LT	TRR	-	-	-	-	-	-	-	1	-	-	-	COVER MANHOLE 3.1
	1B	55+28	-	55+62	RT	TRR	-	-	106	1	1	-	-	-	-	1	-	EXISTING CULVERT EXTENSION
	1B			243+89	LT	TEB1	-	10	-	1	1	-	-	-	-	1	-	EXISTING CULVERT EXTENSION
	1C			143+58	RT	EB	-	-	-	-	-	-	-	1	-	-	-	PROPOSED PB-4
	1B	244+07	-	244+58	LT	TEB1	-	-	52	1	1	-	-	-	-	1	-	EXISTING CULVERT EXTENSION
	1B			247+20	RT	TEB1	-	-	-	-	-	-	-	1	-	-	-	COVER INLET
	1B			249+94	LT	TEB1	-	-	-	-	-	-	-	2	-	-	-	COVER INLETS
	1B			268+32	LT	TEB1	-	-	-	-	-	-	-	1	-	-	-	COVER INLETS 8.4
	1B			268+74	LT	TEB1	-	-	-	-	-	-	-	1	-	-	-	COVER INLETS 8.6
	1B			268+74	LT	TEB1	-	-	-	-	-	-	-	1	-	-	-	COVER INLETS 8.3
	1B			263+57	LT	TEB1	-	-	-	-	-	-	-	-	1	-	1	TEMP. INLET STUB PIPE TO INLET 7.2
	1B			272+04	LT	TEB1	-	-	-	-	-	-	-	1	1	-	1	TEMP. INLET STUB PIPE TO INLET 10.1
	1D			194+20	LT	EB	-	-	-	-	-	-	-	1	-	-	-	EXISTING PB-21
	2A	243+56	-	243+63	RT	TEB2	-	16	-	-	-	-	-	-	-	1	-	EXTEND PIPE RUN 1.0
	2A			243+78	RT	TEB2	-	-	-	-	-	-	-	1	-	-	-	COVER INLET 1.1
	2A			245+34	LT	TEB2	-	-	-	-	-	-	-	1	-	-	-	COVER INLET 3.5
	2A			53+08	LT	RNB	-	-	-	-	-	-	-	1	-	-	-	COVER INLET 2.1
	2A			53+08	LT	RNB	-	-	-	-	-	-	-	1	-	-	-	COVER INLET 2.2
				CATEGORY 0010 SUBTOTAL			0	80	158	3	3	0	0	14	2	5	2	
0050																		
	1B	258+01	-	258+75	LT/RT	TEB1	78	-	-	-	-	-	1	-	1	-	-	CONNECT TO INLET 6.1 MEDIAN CROSSOVER
	1B		-	258+78	RT	TEB1	-	-	-	-	-	-	-	1	-	-	-	COVER INLET 6.1 MEDIAN CROSSOVER
	1B	258+81	-	261+30	LT	TEB1	-	74	-	-	-	96	-	-	1	-	-	CONNECT TO INLET 6.1 MEDIAN CROSSOVER
	1B	274+64	-	277+30	LT/RT	TEB1	-	140	-	-	-	130	-	-	1	-	-	MEDIAN CROSSOVER
	1B	275+83	-	277+29	RT	TEB1	-	148	-	-	-	-	1	1	1	-	-	CONNECT TO INLET 11.1 MEDIAN CROSSOVER
	2A	258+82	-	261+32	LT/RT	TEB2	-	250	-	-	-	-	-	-	1	-	1	CONNECT TO INLET 6.1 MEDIAN CROSSOVER
	2A	272+69	-	274+85	LT/RT	TEB2	-	40	-	-	-	180	-	-	1	-	-	MEDIAN CROSSOVER
	2B	249+40	-	250+77	LT/RT	TEB3	-	140	-	-	-	-	-	-	-	1	-	MEDIAN CROSSOVER
				CATEGORY 0050 SUBTOTAL			78	792	0	0	0	406	2	2	6	1	1	
				PROJECT TOTAL			**78**	**872**	**158**	**3**	**3**	**406**	**2**	**16**	**8**	**6**	**3**	

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

CONCRETE CURB & GUTTER

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	601.0115 CONCRETE CURB TYPE G LF	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	601.0586 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBTT LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010																
	139+40	-	142+38	LT	EB	SOUTH MEDIAN	-	-	-	-	-	298	-	-	-	298
	139+42	-	142+40	RT	WB	NORTH MEDIAN	-	-	-	-	-	298	-	-	-	298
	139+73	-	142+38	RT	EB	RT	-	-	-	-	-	265	-	-	-	265
	142+38	-	143+97	LT	EB	SOUTH MEDIAN	-	-	159	-	-	-	-	-	-	159
	142+40	-	144+13	RT	WB	NORTH MEDIAN	-	-	173	-	-	-	-	-	-	173
	143+62	-	143+86	LT	EB	MEDIAN	-	-	-	-	-	-	-	-	86	86
	69+90	-	73+08	RT	RSW	RT	-	-	318	-	-	-	-	-	-	318
	11+00	-	11+45	LT	CR	EAST MEDIAN	-	-	50	-	-	-	-	-	-	50
	12+35	-	12+61	RT	CR	NORTH MEDIAN	-	-	32	-	-	-	-	-	-	32
	53+05	-	54+99	RT	RSB	WEST MEDIAN	-	-	194	-	-	-	-	-	-	194
	53+05	-	54+96	LT	RNB	EAST MEDIAN	-	-	191	-	-	-	-	-	-	191
	54+08	-	55+16	LT	SES	WEST SPLITTER ISLAND	-	-	110	-	-	-	-	-	-	110
	54+09	-	55+15	LT	SES	EAST SPLITTER ISLAND	-	-	106	-	-	-	-	-	-	106
	54+70	-	54+87	RT	RNB	SPLITTER ISLAND	-	-	-	-	-	-	-	-	48	48
	54+72	-	54+85	LT	RNB	MEDIAN	-	-	-	-	-	-	-	-	57	57
	80+00	-	82+88	RT	RSE	RT	-	-	288	-	-	-	-	-	-	288
	10+00	-	14+27	RT	CR	RAB ISLAND	-	333	-	-	-	-	-	-	-	333
	10+00	-	14+27	LT	CR	TRUCK APRON	-	-	-	-	-	-	415	-	-	415
	100+00	-	103+00	LT	RNW	LT	-	-	292	-	-	-	-	-	-	292
	14+12	-	14+34	LT	CR	SOUTH MEDIAN	-	-	32	-	-	-	-	-	-	32
	57+02	-	59+41	LT	RNB	EAST MEDIAN	-	-	113	-	128	-	-	-	-	241
	57+03	-	57+90	RT	RSB	WEST MEDIAN	-	-	110	-	129	-	-	-	-	239
	57+19	-	57+32	LT	RNB	MEDIAN	-	-	-	-	-	-	-	-	55	55
	12+96	-	13+37	RT	CR	WEST MEDIAN	-	-	54	-	-	-	-	-	-	54
	145+92	-	147+65	LT	EB	SOUTH MEDIAN	-	-	361	-	-	-	-	-	-	361
	146+16	-	147+75	RT	WB	NORTH MEDIAN	-	-	157	-	-	-	-	-	-	157
	146+17	-	146+31	LT	EB	MEDIAN	-	-	-	-	-	-	-	-	97	97
	147+75	-	149+64	RT	WB	NORTH MEDIAN	-	-	-	-	-	188	-	-	-	188
	147+65	-	149+53	LT	EB	SOUTH MEDIAN	-	-	-	-	-	188	-	-	-	188
	89+90	-	93+10	RT	RNE	RT	-	-	320	-	-	-	-	-	-	320
	147+75	-	149+64	LT	WB	LT	-	-	190	-	-	-	-	-	-	190
	155+62	-	156+06	LT	EB	LT	-	-	-	-	-	-	-	44	-	44
	155+78	-	156+26	LT	WB	LT	-	-	-	-	-	-	-	47	-	47
	163+75	-	167+36	LT	EB	SOUTH SPLITTER ISLAND	-	-	-	-	378	-	-	-	-	378
	7+66	-	9+14	RT	LWS	RT	-	-	-	146	-	-	-	-	-	146

CONTINUED ON NEXT PAGE

CONCRETE CURB & GUTTER (CONTINUED)

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	601.0115 CONCRETE CURB TYPE G LF	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	601.0586 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBTT LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010																
	9+14	-	9+62	RT	LWS	RT	-	-	-	-	84	-	-	-	-	84
	168+49	-	168+70	RT	WB	NORTH SPLITTER ISLAND	-	-	-	-	27	-	-	-	-	27
	168+80	-	172+30	LT	WB	NORTH SPLITTER ISLAND	-	-	-	-	358	-	-	-	-	358
	8+85	-	9+61	LT	LES	LT	-	-	-	-	92	-	-	-	-	92
	8+85	-	9+64	RT	LES	RT	-	-	-	-	59	-	-	-	-	59
	189+85	-	195+47	RT	WB	NORTH MEDIAN	-	-	-	-	562	-	-	-	-	562
	190+81	-	194+95	RT	EB	RT	-	-	-	-	413	-	-	-	-	413
			195+51	RT	WB	EAST MEDIAN	-	-	-	-	2	-	-	-	-	2
						CATEGORY 0010 SUBTOTAL	0	333	3250	146	2232	1237	415	91	343	8047
0050																
	56+84	-	57+90	RT	SNW	EAST SPLITTER ISLAND	-	-	120	-	-	-	-	-	-	120
	56+85	-	57+90	RT	SNW	WEST SPLITTER ISLAND	-	-	105	-	-	-	-	-	-	105
	57+13	-	57+29	LT	RSB	SPLITTER ISLAND	-	-	-	-	-	-	-	-	48	48
	162+42	-	167+29	LT	EB	SOUTH MEDIAN	-	-	-	-	487	-	-	-	-	487
	162+42	-	167+29	RT	WB	NORTH MEDIAN	-	-	-	-	487	-	-	-	-	487
	163+75	-	167+36	LT	EB	NORTH SPLITTER ISLAND	-	-	-	-	378	-	-	-	-	378
	7+66	-	9+19	LT	LWS	LT	-	-	-	156	-	-	-	-	-	156
	9+19	-	9+62	LT	LWS	LT	-	-	-	-	76	-	-	-	-	76
	302+48	-	302+96	LT	LCS	LT	-	-	-	-	75	-	-	-	-	75
	302+49	-	302+97	RT	TC	RT	-	-	-	-	75	-	-	-	-	75
	302+96	-	304+37	LT	LCS	LT	-	-	-	141	-	-	-	-	-	141
	302+97	-	304+12	RT	TC	RT	-	-	-	116	-	-	-	-	-	116
	168+49	-	168+70	LT	EB	SOUTH SPLITTER ISLAND	-	-	-	-	27	-	-	-	-	27
	168+80	-	172+30	LT	EB	SOUTH SPLITTER ISLAND	-	-	-	-	358	-	-	-	-	358
	168+87	-	173+56	LT	WB	NORTH MEDIAN	-	-	-	-	469	-	-	-	-	469
	168+87	-	173+56	LT	EB	SOUTH MEDIAN	-	-	-	-	469	-	-	-	-	469
	10+38	-	10+75	RT	CW	RT	-	-	-	-	67	-	-	-	-	67
	10+45	-	10+82	LT	CW	LT	-	-	-	-	71	-	-	-	-	71
	10+75	-	11+18	RT	CW	RT	-	-	-	42	-	-	-	-	-	42
	10+82	-	11+18	LT	CW	LT	-	-	-	36	-	-	-	-	-	36
	10+38		10+78	LT	CW	SOUTH SPLITTER ISLAND	96	-	-	-	-	-	-	-	-	96
						CATEGORY 0050 SUBTOTAL	96	0	225	491	3039	0	0	0	48	3899
						PROJECT TOTAL	**96**	**333**	**3475**	**637**	**5271**	**1237**	**415**	**91**	**391**	**11946**

SIDEWALKS AND CURB RAMPS

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	305.0120* BASE AGGREGATE DENSE 1 1/4 -INCH TON	371.1000.S* QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	465.0105 ASPHALTIC SURFACE TON	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING RADIAL FIELD NATURAL PATINA SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH
0010													
	143+78	-	143+88	RT	WB	MEDIAN ISLAND CURB RAMP	16	16	-	426	40	-	2
	143+88	-	144+13	RT	WB	MEDIAN ISLAND	30	30	-	797	-	-	-
	53+05	-	54+73	LT	RSB	MEDIAN ISLAND	86	86	-	2318	-	-	-
	54+72	-	54+82	RT	RSB	MEDIAN ISLAND CURB RAMP	10	10	-	266	40	-	2
	54+82	-	54+98	LT	RNB	MEDIAN ISLAND	18	18	-	489	-	-	-
	54+10	-	54+62	LT	SES	SPLITTER ISLAND	31	31	-	831	-	-	-
	54+62	-	54+72	LT	SES	SPLITTER ISLAND CURB RAMP	8	8	-	227	40	-	2
	54+72	-	55+15	LT	SES	SPLITTER ISLAND	27	27	-	734	-	-	-
	56+85	-	57+28	RT	SNW	SPLITTER ISLAND	27	27	-	732	-	-	-
	57+28	-	57+38	RT	SNW	SPLITTER ISLAND CURB RAMP	8	8	-	227	40	-	2
	57+38	-	57+90	RT	SNW	SPLITTER ISLAND	31	31	-	831	-	-	-
	57+00	-	57+20	LT	RNE	MEDIAN ISLAND	19	19	-	518	-	-	-
	57+20	-	57+30	LT	RNE	MEDIAN ISLAND CURB RAMP	10	10	-	262	40	-	2
	57+30	-	59+41	LT	RNE	MEDIAN ISLAND	100	100	-	2735	-	-	-
	143+56	-	143+75	LT	EB	MEDIAN	15	15	-	399	-	-	-
	145+90	-	146+19	LT	EB	MEDIAN	33	33	-	901	-	-	-
	146+19	-	146+29	LT	EB	MEDIAN CURB RAMP	17	17	-	469	40	-	2
	146+28	-	146+41	LT	EB	MEDIAN	17	17	-	471	-	-	-
	163+75	-	167+36	LT	EB	SPLITTER ISLAND	56	56	-	1509	-	-	-
	7+65	-	9+61	RT	LWS	CURB RAMP	43	43	-	1152	20	-	1
	168+49	-	168+70	RT	WB	SPLITTER ISLAND MEDIAN	1	1	-	22	-	-	-
	168+70	-	168+80	RT	WB	SPLITTER ISLAND CURB RAMP	4	4	-	120	40	-	2
	168+80	-	172+31	RT	WB	SPLITTER ISLAND MEDIAN	160	160	-	4201	-	-	-
	8+85	-	9+47	LT	LES	CURB RAMP	12	12	-	337	20	-	1
						CATEGORY 0010 SUBTOTAL	780	780	0	20974	320	0	16
0050													
	162+28	-	167+29	LT	EB	MEDIAN	100	100	-	2711	-	-	-
	302+54	-	304+12	RT	TC	CURB RAMP	36	36	-	1003	-	54	2
	302+62	-	302+65	RT	TCS	MEDIAN	0.4	0	-	11	-	-	-
	302+65	-	302+75	RT	TCS	MEDIAN	2	2	-	53	-	-	-
	302+65	-	304+37	LT	TCS	CURB RAMP	8	8	-	207	-	25	1
	302+75	-	304+37	LT	TCS	SIDEWALK	99	99	25	-	-	-	-
	302+75	-	304+07	RT	TCS	MEDIAN	34	34	-	911	-	-	-
	168+87	-	173+70	RT	WB	MEDIAN	99	99	-	2640	-	-	-
	10+40	-	10+75	LT	CW	MEDIAN ISLAND	12	12	-	312	-	-	-
						CATEGORY 0050 SUBTOTAL	390	390	25	7848	0	79	3
						PROJECT TOTAL	**1170**	**1170**	**25**	**28822**	**320**	**79**	**19**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

RIPRAP

CAT	STA		OFFSET	ALIGN	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY
0010								
	144+00		RT	EB	14	-	-	59
	59+88		RT	RNB	2	-	-	13
	60+25		RT	RNB	2	-	-	13
	62+00		RT	RNB	3	-	-	17
	62+08		RT	RNB	3	-	-	17
	62+27		LT	RNB	2	-	-	13
	146+26		RT	EB	4	-	-	21
	149+70		RT	WB	4	-	-	20
	152+74		RT	EB	-	12	53	-
	156+16		LT	EB	3	-	-	17
	156+45		LT	WB	3	-	-	17
	162+15		RT	WB	4	-	-	20
	172+25		RT	EB	2	-	-	13
	173+84		RT	WB	4	-	-	20
	10+77		LT	CW	2	-	-	13
	UNDISTRIBUTED				6	2	6	28
	CATEGORY 0010 SUBTOTAL				58	14	59	301
	PROJECT TOTAL				**58**	**14**	**59**	**301**

UNDERDRAIN

CAT	STA	TO	STA	OFFSET	ALIGN	*COARSE AGGREGATE SIZE #1 TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	*GEOTEXTILE FABRIC TYPE DF SCHEDULE A SY
0010									
	139+73	-	144+02	RT	EB	23	407	0	226
	52+61	-	54+98	RT	RSB	11	188	0	104
	54+15	-	55+14	RT	SES	7	109	6	64
	11+03	-	13+18	RT	CR	19	207	0	115
	11+03	-	13+20	LT	CR	19	204	0	113
	56+85	-	58+09	RT	SNW	6	101	0	56
	57+03	-	59+34	LT	RNB	13	232	0	129
	159+02	-	163+75	LT	EB	28	471	24	275
	163+80	-	168+93	LT	EB	29	513	0	285
	163+80	-	167+32	EB	LT	20	352	0	196
	9+18	-	9+62	RT	LWS	5	80	17	54
	302+48	-	303+17	LT	TCS	5	97	0	54
	302+49	-	303+17	RT	TC	5	96	0	53
	169+98	-	170+65	WB	RT	9	167	0	93
	169+98	-	170+65	WB	RT	9	167	0	93
	170+70	-	172+22	WB	RT	10	152	17	94
	170+70	-	176+00	WB	RT	31	529	17	303
	170+70	-	175+97	EB	LT	31	525	22	304
	176+00	-	180+74	WB	RT	28	474	17	273
	176+03	-	180+66	EB	LT	27	462	22	269
	180+75	-	185+45	WB	RT	28	469	22	273
	180+79	-	185+45	EB	LT	28	466	23	272
	185+50	-	189+50	WB	RT	24	400	16	231
	185+50	-	189+50	EB	LT	24	399	20	233
	185+55	-	194+68	EB	LT	29	514	0	286
	185+55	-	194+72	WB	RT	29	518	0	288
	CATEGORY 0010 SUBTOTAL					497	8299	223	4736
	PROJECT TOTAL					**497**	**8299**	**223**	**4736**

***INCIDENTAL TO PIPE UNDERDRAIN 6-INCH**

3

GUARDRAIL

CAT	STA	TO	STA	OFFSET	ALIGN	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT EACH	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	COMMENTS
0010											
	151+57	-	154+35	LT	EB	-	185	39	1	-	
	152+08	-	154+32	RT	EB	-	137	39	1	-	
	155+58	-	156+11	RT	EB	-	41	6	-	1	WTRN PER SDD 14B45-D
	155+62	-	157+30	LT	EB	1	122	39	-	-	TEMPORARY FOR STAGE 1E TO 2B
	155+79	-	158+08	LT	WB	-	135	39	1	-	
	155+74	-	158+39	RT	WB	-	172	39	1	-	
	156+74	-	157+27	LT	EB	-	10	-	-	1	STAGE 2C - FINAL
	CATEGORY 0010 SUBTOTAL					1	804	203	4	2	
	PROJECT TOTAL					**1**	**804**	**203**	**4**	**2**	

SAFETY FENCE

CAT	LOCATION	616.0700.S SAFETY FENCE LF
0010		
	CLOSED SIDEWALK NEAR LIUNA WAY	40
	CLOSED SIDEWALK NEAR TIERNEY CROSSING	40
	CATEGORY 0010 SUBTOTAL	80
	PROJECT TOTAL	**80**

DUST CONTROL

CAT	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
0010		
	PROJECT LIMITS	71010
	UNDISTRIBUTED	7110
	CATEGORY 0010 SUBTOTAL	78120
	PROJECT TOTAL	**78120**

CONCRETE MEDIAN NOSE

CAT	STA	OFFSET	ALIGN	LOCATION	620.0200 CONCRETE MEDIAN BLUNT NOSE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	COMMENTS
0010							
	139+34	LT	EB	MEDIAN	-	60	TYPE 1
	144+14	RT	WB	MEDIAN	-	7	TYPE 2
	143+98	LT	EB	MEDIAN	-	4	TYPE 2
	53+00	LT	RNB	MEDIAN	-	60	TYPE 1
	54+97	LT	RNB	MEDIAN	-	4	TYPE 2
	55+00	RT	RSB	MEDIAN	-	7	TYPE 2
	54+08	LT	SES	SPLITTER ISLAND	-	26	TYPE 1
	55+16	LT	SES	SPLITTER ISLAND	-	4	TYPE 2
	57+00	LT	RNB	MEDIAN	-	7	TYPE 2
	57+02	RT	RSB	MEDIAN	-	4	TYPE 2
	59+41	RT	RSB	MEDIAN	-	60	TYPE 1
	145+10	LT	FB	MEDIAN	-	7	TYPE 2
	146+08	RT	WB	MEDIAN	-	4	TYPE 2
	163+73	LT	EB	SPLITTER ISLAND	-	26	TYPE 1
	167+54	LT	EB	SPLITTER ISLAND	26	-	-
	168+44	RT	WB	SPLITTER ISLAND	63	-	-
	172+34	RT	WB	SPLITTER ISLAND	-	63	TYPE 1
	195+50	RT	WB	MEDIAN	-	13	TYPE 1
	CATEGORY 0010 SUBTOTAL				89	355	
0050							
	56+84	RT	SNW	SPLITTER ISLAND	-	4	TYPE 2
	57+90	LT	RSB	SPLITTER ISLAND	-	60	TYPE 1
	167+30	RT	WB	MEDIAN	-	23	TYPE 1
	168+85	LT	EB	MEDIAN	-	26	TYPE 1
	302+60	LT	TC	MEDIAN	-	22	TYPE 1
	CATEGORY 0050 SUBTOTAL				0	136	
	PROJECT TOTAL				**89**	**491**	

3

3

EROSION CONTROL MOBILIZATION

CAT	STAGE	LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 EMERGENCY MOBILIZATION EROSION CONTROL EACH
0010				
	SUBSTAGE 1A	STH 19	2	2
	SUBSTAGE 1B	STH 19	1	1
	SUBSTAGE 1C	STH 19	2	2
	SUBSTAGE 1D	STH 19	2	2
	SUBSTAGE 1E	STH 19	1	1
	SUBSTAGE 2A	STH 19	2	2
	SUBSTAGE 2B	STH 19	2	2
	SUBSTAGE 2C	STH 19	1	1
		PROJECT TOTAL	**13**	**13**

SOIL STABILZER

CAT	LOCATION	628.6510 SOIL STABILZER TYPE B ACRE
0010		
	AFTER STAGE 1B	6
	UNDISTRIBUTED	1
	SUBTOTAL CATEGORY 0010	7
	PROJECT TOTAL	**7**

SEDIMENT BASINS

CAT	STA	OFFSET	ALIGN	LOCATION	628.1920 CLEANING SEDIMENT BASINS CY	SPV.0060.04 TEMPORARY SEDIMENT BASIN EACH
0010						
	143+88	LT	WB		10	1
	11+63	LT	CR		10	1
	159+07	LT	WB		10	1
	9+12	RT	LWS		10	1
	9+15	LT	LWS		10	1
	302+88	RT	TC		10	1
	10+59	RT	CW		10	1
	UNDISTRIBUTED				6	1
	CATEGORY 0010 SUBTOTAL				76	8
				PROJECT TOTAL	**76**	**8**

TRACKING PAD

CAT	LOCATION	628.7560 TRACKING PADS EACH
0010		
	SUBSTAGE 1A	2
	SUBSTAGE 1B	2
	SUBSTAGE 1C	2
	SUBSTAGE 1D	2
	SUBSTAGE 2A	2
	SUBSTAGE 2B	2
	CATEGORY 0010 SUBTOTAL	12
	PROJECT TOTAL	**12**

3

EROSION CONTROL

CAT	STA	TO	STA	OFFSET	ALIGN	628.6005 TURBIDITY BARRIERS SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENACE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7515.S STONE OR ROCK DITCH CHECK CY	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	*645.0140 GEOTEXTILE FABRIC TYPE SAS SY
0010																
	131+93	-	49+80	RT/LT	EB/RSB	-	350	350	3	3	3	330	-	5	-	-
	131+93	-	63+20	LT/LT	WB/RSB	-	570	570	4	4	4	310	-	17	22	-
	10+00	-	14+22	LT/RT	CR	-	-	-	3	3	3	-	-	-	-	-
	49+80	-	154+34	RT/RT	RNB/EB	-	920	920	3	3	3	100	-	-	-	-
	63+20	-	154+47	RT/LT	RNB/WB	-	350	350	1	1	1	150	40	4	22	240
	146+30	-	154+34	LT	EB	-	-	-	-	-	-	63	-	-	-	-
	154+51	-	155+08	LT/RT	EB	500	-	-	-	-	-	-	-	-	-	-
	155+58	-	7+60	RT/LT	EB/LWS	-	-	-	4	4	4	150	10	4	-	50
	155+62	-	194+00	LT	EB	-	-	-	-	-	-	190	-	2	-	-
	155+78	-	304+37	LT/LT	WB/TCS	-	210	210	2	2	2	100	-	7	-	-
	7+60	-	8+80	RT/LT	LWS/LES	-	670	670	3	3	3	180	-	-	-	-
	304+30	-	11+32	LT/LT	TC/CW	-	100	100	9	9	9	93	-	8	-	-
	11+32	-	194+42	RT/LT	CW/WB	-	-	-	2	2	2	220	-	2	-	-
	8+80	-	195+00	RT/RT	LES/EB	-	84	84	1	1	1	110	-	-	-	-
	195+00	-	196+00	LT	EB	-	-	-	-	-	2	-	-	-	-	-
	UNDISTRIBUTED					-	666	666	-	-	-	405	20	11	6	60
	CATEGORY 0010 SUBTOTAL					500	3920	3920	35	35	37	2400	70	60	50	350
	PROJECT TOTAL					**500**	**3920**	**3920**	**35**	**35**	**37**	**2400**	**70**	**60**	**50**	**350**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

FINISHING ITEMS

CAT	STA	TO	STA	OFFSET	ALIGN	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0171 SEEDING MIXTURE NO. 70A LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BARROW PIT LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY	631.1100 SOD EROSION CONTROL SY
0010																		
	131+92	-	63+20	LT/LT	WB/RSB	11590	8430	3130	--	8.3	330	15	--	160	--	2	10	8
	131+92	-	49+80	RT/LT	EB/RSB	13610	10460	3080	--	9.4	400	270	--	180	--	2	10	5
	139+42	-	143+65	RT	WB	990	270	720	--	0.6	27	--	--	10	--	--	--	--
	10+00	-	14+22	LT/RT	CR	1090	820	280	--	0.7	30	--	--	10	--	--	--	--
	63+20	-	154+52	RT/LT	RNB/WB	9290	7580	1640	--	6.3	37	160	--	130	--	5	20	16
	49+80	-	154+52	RT/RT	RNB/EB	9570	8260	1240	--	6.5	280	--	--	130	--	3	20	--
	146+48	-	154+50	RT	WB	2270	620	1640	--	1.9	83	--	--	30	--	--	--	--
	155+30	-	167+37	LT	WB	6280	4960	1300	--	4.5	120	51	--	80	--	1	--	10
	154+98	-	7+66	RT/LT	EB/LWS	5640	4390	1220	--	4.1	180	--	--	80	--	4	--	29
	155+70	-	162+30	RT	WB	1130	--	1190	--	1.4	60	--	--	20	--	--	--	--
	168+80	-	179+80	LT	WB	7600	6590	1010	--	5.4	230	--	--	100	--	--	--	--
	7+65	-	8+80	RT/LT	LWS/LES	15180	13400	1740	--	10.5	450	--	--	200	--	4	10	16
	173+71	-	194+72	RT	WB	4890	920	3950	--	4.8	210	--	--	70	--	--	--	--
	181+27	-	195+50	LT	WB	10920	9760	1160	--	7.6	330	--	--	150	--	--	--	--
	8+85	-	195+50	RT/RT	LES/EB	5220	4640	570	--	3.4	150	--	--	70	--	2	10	8
	154+80	-	168+00	LT/RT	YA	8000	8000	--	--	5.0	33	--	24	110	--	--	--	--
	243+75	-	292+75	RT	TEB2	--	--	--	250	--	--	--	--	--	--	--	--	--
	BORROW PIT SITE					--	32960	--	--	20.8	--	--	--	--	890	--	--	--
	UNDISTRIBUTED					22660	17820	4780	50	20	600	104	10	310	--	10	20	20
	CATEGORY 0010 SUBTOTAL					135930	139880	28650	300	121	3550	600	34	1840	890	33	100	112
0050																		
	167+37	-	304+40	LT/LT	WB/TCS	820	650	160	--	0.5	22	--	--	10	--	--	--	--
	304+20	-	168+80	RT/LT	TCS/WB	600	440	140	--	0.4	16	--	--	--	--	2	--	15
	179+80	-	11+20	LT/LT	WB/CW	350	240	100	--	0.2	9	--	--	10	--	--	--	--
	11+20	-	181+27	RT/LT	CW/WB	340	230	110	--	0.2	9	--	--	9	--	--	--	--
	BORROW PIT SITE					--	740	--	--	0.5	--	--	--	--	20	--	--	--
	UNDISTRIBUTED					430	320	110	--	10	23	--	--	10	--	10	--	10
	CATEGORY 0050 SUBTOTAL					2540	2620	620	0	12	80	0	0	39	20	12	0	25
	PROJECT TOTAL					**138470**	**142500**	**29270**	**300**	**133**	**3630**	**600**	**34**	**1880**	**910**	**45**	**100**	**137**

PERMANENT SIGNING TYPE II

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	SIGN CODE	SIZE (INCH)	SIZE X (INCH)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12 FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18 FT EACH	634.0622 POSTS WOOD 4X6-INCH X 22 FT EACH	REMARKS
0010																	
	01-01	130+00	RT	EB	DIVIDED HIGHWAY AHEAD	W6-1	36	36	9.00	--	--	--	--	1	--	--	
	01-02	133+00	RT	EB	CIRCULAR INTERSECTION	W2-6	36	36	--	--	9.00	--	--	1	--	--	SHARE POST WITH SIGN NO. 01-03
	01-03	133+00	RT	EB	SPEED LIMIT 15 M.P.H.	W13-1	24	24	--	--	4.00	--	--	--	--	--	MOUNT BELOW SIGN NO. 01-02
	01-04	134+98	LT	WB	TWO-WAY TRAFFIC	W6-3	36	36	--	--	9.00	--	--	1	--	--	
	01-05	136+50	RT	EB	YIELD AHEAD	W3-2	36	36	--	--	9.00	--	--	1	--	--	
	01-06	137+50	LT	WB	SPEED LIMIT 55 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	02-01	139+48	LT	WB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	SHARE POST WITH SIGN NO. 02-02
	02-02	139+48	LT	WB	WEST 19	J4-1	24	36	6.00	--	--	--	--	1	--	--	SHARE POST WITH SIGN NO. 02-01
	02-03	139+50	LT	EB	KEEP RIGHT	R4-7	24	30	5.00	--	--	1	--	--	--	--	SHARE POST WITH SIGN NO. 02-04
	02-04	139+50	LT	EB	OBJECT MARKER	W5-54S	18	18	--	--	2.25	--	--	--	--	--	MOUNT BELOW SIGN NO. 02-03
	02-05	140+86	LT	EB	LEFT, AHEAD / RIGHT, AHEAD (ROUNDABOUT)	R3-8CC	36	30	7.50	--	--	--	--	--	--	--	MOUNT ON SIGN STRUCTURE (S-13-500)
	02-08	140+86	RT	EB	LEFT, AHEAD / RIGHT, AHEAD (ROUNDABOUT)	R3-8CC	36	30	7.50	--	--	--	--	--	--	--	MOUNT ON SIGN STRUCTURE (S-13-500)
	02-09	141+51	LT	WB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	--	1	--	--	SHARE POST WITH SIGN NO. 02-10
	02-10	141+51	LT	WB	DIVIDED HIGHWAY ENDS	W6-2	36	36	--	--	9.00	--	--	--	1	--	SHARE POST WITH SIGN NO. 02-09
	02-11	143+50	LT	WB	LANE REDUCTION TRANSITION - RIGHT	W4-2R	36	36	9.00	--	--	--	--	1	--	--	
	02-12	143+50	RT	WB	LANE REDUCTION TRANSITION - RIGHT	W4-2R	36	36	9.00	--	--	--	1	--	--	--	
	03-05	144+05	RT	WB	WEST 19 ROUNDABOUT EXIT	D1-1	42	30	8.75	--	--	--	1	--	--	--	
	03-06	143+92	LT	EB	YIELD	R1-2	36	31	3.88	--	--	--	--	--	1	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-07	143+92	LT	EB	ONE WAY	R6-2R	24	30	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-06
	03-08	54+85	LT	RNB	RIVER ROAD ROUNDABOUT EXIT	D1-2	48	24	8.00	--	--	1	--	--	--	--	
	03-09	144+28	RT	EB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-10	144+28	RT	EB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-09
	03-11	54+94	RT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	--	1	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-12	54+94	RT	RNB	ONE WAY	R6-2R	24	30	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-11
	03-13	55+03	RT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-14	55+03	RT	RNB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-13
	03-15	146+00	LT	EB	EAST 19 ROUNDABOUT EXIT	D1-1	42	30	8.75	--	--	--	1	--	--	--	
	03-16	55+03	RT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-17	55+03	RT	RNB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-16
	03-18	57+14	LT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	--	1	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-19	57+14	LT	RNB	ONE WAY	R6-2R	24	30	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-18
	03-20	57+11	LT	RNB	RIVER ROAD ROUNDABOUT EXIT	D1-2	48	24	8.00	--	--	1	--	--	--	--	
	03-21	145+94	LT	WB	YIELD	R1-2	36	31	3.88	--	--	--	--	--	1	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-22	145+94	LT	WB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-23
	03-23	146+20	RT	WB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-24	146+20	RT	WB	ONE WAY	R6-2R	24	30	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-23
	03-25	10+36	LT	CR	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	2	--	--	--	--	
	03-26	10+36	LT	CR	CHEVRON FOR ROUNDABOUT	R6-4B	60	24	10.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-25
	03-27	11+36	LT	CR	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	2	--	--	--	--	
	03-28	11+36	LT	CR	CHEVRON FOR ROUNDABOUT	R6-4B	60	24	10.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-27
	03-29	12+53	LT	CR	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	2	--	--	--	--	
	03-30	12+53	LT	CR	CHEVRON FOR ROUNDABOUT	R6-4B	60	24	10.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-29
	03-31	13+58	LT	CR	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	2	--	--	--	--	
	03-32	13+58	LT	CR	CHEVRON FOR ROUNDABOUT	R6-4B	60	24	10.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-31
	04-01	147+49	RT	EB	WEST 19	J4-1	36	54	13.50	--	--	--	--	1	--	--	
	04-02	149+05	LT	WB	LEFT, AHEAD / RIGHT, AHEAD (ROUNDABOUT)	R3-8CC	36	30	7.50	--	--	--	--	--	--	--	MOUNT ON SIGN STRUCTURE (S-13-498)
	04-05	149+05	RT	WB	LEFT, AHEAD / RIGHT, AHEAD (ROUNDABOUT)	R3-8CC	36	30	7.50	--	--	--	--	--	--	--	MOUNT ON SIGN STRUCTURE (S-13-498)
	04-06	150+03	LT	EB	SPEED REDUCTION AHEAD 45 M.P.H.	W3-5	36	36	--	--	9.00	--	--	--	--	--	
	04-07	150+03	RT	EB	SPEED REDUCTION AHEAD 45 M.P.H.	W3-5	36	36	--	--	9.00	--	--	--	--	--	

CONTINUED ON NEXT PAGE

PERMANENT SIGNING TYPE II (CONTINUED)

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	SIGN CODE	SIZE (INCH)	X (INCH)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12 FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18 FT EACH	634.0622 POSTS WOOD 4X6-INCH X 22 FT EACH	REMARKS
	05-01	153+98	LT	WB	YIELD AHEAD	W3-2	36	36	--	--	9.00	--	--	1	--	--	
	05-02	153+98	LT	EB	YIELD AHEAD	W3-2	36	36	--	--	9.00	--	--	1	--	--	
	05-03	154+02	LT	EB	SPEED LIMIT 45 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	05-04	154+02	RT	EB	SPEED LIMIT 45 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	05-05	156+50	RT	EB	DEFOREST POPULAYION 8,936	I2-3	60	24	10.00	--	--	--	--	2	--	--	
	05-06	157+00	LT	WB	CIRCULAR INTERSECTION	W2-6	36	36	--	--	9.00	--	--	1	--	--	SHARE POST WITH SIGN NO. 05-07
	05-07	157+00	LT	WB	SPEED LIMIT 15 M.P.H.	W13-1	24	24	--	--	4.00	--	--	--	--	--	MOUNT BELOW SIGN NO. 05-06
	05-08	157+00	RT	WB	CIRCULAR INTERSECTION	W2-6	36	36	--	--	9.00	--	--	1	--	--	SHARE POST WITH SIGN NO. 05-09
	05-09	157+00	RT	WB	SPEED LIMIT 15 M.P.H.	W13-1	24	24	--	--	4.00	--	--	--	--	--	MOUNT BELOW SIGN NO. 05-08
	05-10	158+52	LT	EB	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	05-11	158+52	RT	EB	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	06-02	165+00	LT	EB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	1	--	--	--	
	06-03	165+00	LT	EB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	1	--	--	--	
	06-04	166+00	RT	WB	SPEED LIMIT 55 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	06-05	166+00	LT	WB	SPEED LIMIT 55 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	06-09	167+34	LT	EB	STOP FOLDABLE	R1-1F	36	36	0.00	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	06-10	167+34	LT	EB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	07-07	170+50	RT	EB	SPEED LIMIT 45 M.P.H.	R2-1	36	48	12.00	--	--	--	--	1	--	--	
	07-08	171+00	RT	WB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	1	--	--	--	
	07-09	171+00	LT	WB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	1	--	--	--	
	07-11	175+00	LT	WB	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	07-12	175+00	RT	WB	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	09-01	184+00	LT	EB	JCT 39/90/94	J1-3	72	39	--	--	--	--	--	2	--	--	
	09-02	184+04	RT	EB	WRONG WAY	R5-1A	42	30	8.75	--	--	--	--	--	--	--	SHARE POST WITH SIGN NO. M-09
	09-03	186+00	LT	EB	NORTH I-39, WEST I-90, WEST I-94 KEEP LEFT	D1-70	84	48	28.00	--	--	--	--	--	3	--	
	09-04	186+00	RT	EB	SOUTH I39, EAST I90, EAST I94 SECOND RIGHT	D1-70	84	48	28.00	--	--	--	--	--	3	--	
	09-05	187+00	RT	EB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	1	--	--	
	09-07	188+00	LT	EB	ONE WAY	R6-2R	24	30	5.00	--	--	--	--	1	--	--	
	09-08	9+39	RT	LES	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	--	--	--	1	--	MOUNT ABOVE SIGN NO. 09-09
	09-09	9+39	RT	LES	STOP	R1-1	36	36	7.46	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 09-08
	09-10	9+39	RT	LES	DIVIDED HIGHWAY CROSSING	R6-3A	30	24	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 09-09
	09-12	189+00	LT	EB	EAST 19 SUN PRAIRIE AHEAD	D1-70	84	54	31.50	--	--	--	--	--	3	--	
	10-01	195+07	RT	EB	AHEAD NORTH I-39, WEST I-90, WEST I-94 WISCONSIN DELLS/ SOUTH I39, EAST I90, EAST I94, MADISON RIGHT	D1-71	102	96	68.00	--	--	--	--	--	--	3	
	10-02	197+50	LT	EB	SOUTH I39, EAST I90, EAST I94, MADISON LEFT	D1-70	102	48	34.00	--	--	--	--	--	--	--	MOUNT ON BACK OF EXISITING SIGN
	12-01	46+00	RT	RNB	CIRCULAR INTERSECTION	W2-6	30	30	--	--	6.25	--	--	1	--	--	SHARE POST WITH SIGN NO. 12-02
	12-02	46+00	RT	RNB	SPEED LIMIT 15 M.P.H.	W13-1	18	18	--	--	2.25	--	--	--	--	--	MOUNT BELOW SIGN NO. 12-01
	12-03	48+00	RT	RNB	YIELD AHEAD	W3-2	36	36	--	--	9.00	--	--	1	--	--	
	12-04	51+05	RT	RNB	LEFT, AHEAD / RIGHT ONLY (ROUNDABOUT)	R3-8DD	36	30	7.50	--	--	--	--	1	--	--	
	12-05	53+00	LT	RSB	DO NOT ENTER	R5-1	30	30	6.25	--	--	--	--	1	--	--	
	12-06	53+11	LT	RNB	KEEP RIGHT	R4-7	24	30	5.00	--	--	1	--	--	--	--	SHARE POST WITH SIGN NO. 12-07
	12-07	53+11	LT	RNB	OBJECT MARKER	W5-54S	18	18	--	--	2.25	--	--	--	--	--	MOUNT BELOW SIGN NO. 12-06
	12-08	54+00	LT	RSB	WRONG WAY	R5-1A	36	24	6.00	--	--	--	--	--	--	--	SHARE POST WITH SIGN NO. M-21/22
	12-09	54+12	RT	RNB	DOUBLE DOWN ARROWS	W12-1D	24	24	--	--	4.00	1	--	--	--	--	
	13-02	58+05	RT	RNB	WRONG WAY	R5-1A	36	24	6.00	--	--	--	--	--	--	--	SHARE POST WITH SIGN NO. M-23/24
	13-03	59+35	LT	RNB	KEEP RIGHT	R4-7	24	30	5.00	--	--	1	--	--	--	--	
	13-04	59+35	LT	RNB	OBJECT MARKER	W5-54S	18	18	--	--	2.25	--	--	--	--	--	SHARE POST WITH AND MOUNT BELOW 13-03
	13-05	59+48	RT	RNB	DO NOT ENTER	R5-1	30	30	6.25	--	--	--	--	--	--	--	SHARE POST WITH SIGN NO. M-25
	13-06	60+48	LT	RNB	LEFT, AHEAD / RIGHT ONLY (ROUNDABOUT)	R3-8DD	36	30	7.50	--	--	--	--	1	--	--	
	13-07	61+98	LT	RNB	YIELD AHEAD	W3-2	36	36	--	--	9.00	--	--	1	--	--	
	13-08	65+50	LT	RNB	CIRCULAR INTERSECTION	W2-6	30	30	--	--	6.25	--	--	1	--	--	SHARE POST WITH SIGN NO. 13-09
	13-09	65+50	LT	RNB	SPEED LIMIT 15 M.P.H.	W13-1	18	18	--	--	2.25	--	--	--	--	--	MOUNT BELOW SIGN NO. 13-08
	14-01	7+26	LWS	RT	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	14-02	9+36	LWS	RT	DIVIDED HIGHWAY CROSSING	R6-3A	30	24	5.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	14-03	9+36	LWS	RT	STOP FOLDABLE	R1-1F	36	36	--	7.46	--	--	--	--	--	--	ON SIGNAL POLE
						CATEGORY 0010 SUBTOTAL			654	15	193	14	7	40	15	3	

CONTINUED ON NEXT PAGE

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PERMANENT SIGNING TYPE II (CONTINUED)

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	SIGN CODE	SIZE (INCH)	SIZE X (INCH)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12 FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18 FT EACH	634.0622 POSTS WOOD 4X6-INCH X 22 FT EACH	REMARKS
0050																	
	03-01	57+20	LT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-02	57+20	LT	RNB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-01
	03-03	57+26	LT	RNB	YIELD	R1-2	36	31	3.88	--	--	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	03-04	57+26	LT	RNB	TO TRAFFIC FROM LEFT	R1-54	24	15	2.50	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. 03-03
	05-12	159+52	LT	EB	BEGIN LEFT TURN LANE	R3-20L	36	54	13.50	--	--	--	--	1	--	--	
	05-13	159+50	RT	EB	TIERNEY XING LEFT / LIUNA WAY RIGHT	D1-2	114	36	28.50	--	--	--	2	--	--	--	
	06-01	163+80	LT	EB	DOUBLE DOWN ARROWS	W12-1D	24	24	--	--	4.00	1	--	--	--	--	
	06-06	167+21	LT	EB	STOP FOLDABLE	R1-1F	36	36	0.00	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	06-07	167+21	RT	WB	KEEP RIGHT	R4-7	36	48	12.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	06-08	167+34	LT	EB	STOP FOLDABLE	R1-1F	36	36	0.00	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	06-11	167+34	LT	EB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	07-01	168+82	RT	WB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	07-02	168+82	RT	WB	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	07-03	168+82	RT	WB	STOP FOLDABLE	R1-1F	36	36	--	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	07-04	168+82	RT	WB	STOP FOLDABLE	R1-1F	36	36	--	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	07-05	168+90	RT	WB	KEEP RIGHT	R4-7	36	48	12.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	07-06	168+90	RT	WB	STOP FOLDABLE	R1-1F	36	36	--	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	07-10	172+24	RT	WB	BEGIN LEFT TURN LANE	R3-20L	36	54	13.50	--	--	--	--	--	1	--	
	08-01	178+00	LT	WB	TIERNEY XIING RIGHT / LIUNA WAY LEFT	D1-2	114	36	28.50	--	--	--	2	--	--	--	
	08-02	10+60	LT	CW	ONE WAY RIGHT ARROW	R6-1R	36	12	3.00	--	--	--	--	--	1	--	MOUNT ABOVE SIGN NO. M-06
	08-03	10+60	LT	CW	DIVIDED HIGHWAY CROSSING	R6-3A	30	24	5.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN NO. M-06
	08-04	180+20	WB	RT	ONE WAY	R6-2R	36	48	12.00	--	--	--	--	1	--	--	
	08-05	181+50	WB	LT	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	1	--	--	
	08-06	183+30	WB	LT	WRONG WAY	R5-1A	42	30	8.75	--	--	--	1	--	--	--	
	09-06	188+00	WB	LT	CASHEL WAY RIGHT	D1-1	102	21	14.88	--	--	--	2	--	--	--	
	13-01	57+87	RNB	LT	DOUBLE DOWN ARROWS	W12-1D	24	24	--	--	4.00	1	--	--	--	--	
	14-04	9+59	LWS	RT	ONE WAY	R6-2L	36	48	12.00	--	--	--	--	1	--	--	
	14-05	302+61	TCS	LT	ONE WAY	R6-2L	36	48	12.00	--	--	--	--	1	--	--	
	14-06	302+79	TCS	LT	DO NOT ENTER	R5-1	36	36	9.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	14-07	302+79	TCS	LT	DIVIDED HIGHWAY CROSSING	R6-3	30	24	5.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	14-08	302+79	TCS	LT	STOP FOLDABLE	R1-1F	36	36	0.00	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	14-09	302+79	TCS	RT	STOP FOLDABLE	R1-1F	36	36	0.00	7.46	--	--	--	--	--	--	ON SIGNAL POLE
	14-10	302+79	TCS	RT	KEEP RIGHT	R4-7	24	30	5.00	--	--	--	--	--	--	--	ON SIGNAL POLE
	14-11	304+77	TCS	LT	WRONG WAY	R5-1A	42	30	8.75	--	--	--	--	1	--	--	SHARE POST WITH SIGN NO. 14-12
	14-12	304+77	TCS	LT	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	--	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
	14-13	304+77	TCS	RT	TRAFFIC SIGNALS AHEAD	W3-3	36	36	--	--	9.00	--	--	1	--	--	18" X 18" FLAGS INCIDENTAL TO SIGNS
						CATEGORY 0050 SUBTOTAL			252	52	26	2	7	9	2	0	
						PROJECT TOTAL			**906**	**67**	**219**	**16**	**14**	**49**	**17**	**3**	

3

PERMANENT SIGNING TYPE I

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	SIGN CODE	SIZE (INCH)	SIZE X (INCH)	637.1220 SIGNS TYPE I REFLECTIVE SH SF	641.8100.01 OVERHEAD SIGN SUPPORT (S-13-498) LS	641.8100.02 OVERHEAD SIGN SUPPORT (S-13-500) LS
0010											
	02-06	140+86	RT	EB	EAST 19, SUN PRAIRIE AHEAD/ RIVER ROAD LEFT	E6-52	144	102	102.00	-	-
	02-07	140+86	RT	EB	EAST 19, SUN PRAIRIE AHEAD/ RIVER ROAD RIGHT	E6-53	144	102	102.00	-	-
	04-03	148+05	LT	WB	WEST 19, WAUNAKEE AHEAD/ RIVER ROAD RIGHT	E6-52	132	102	93.50	-	-
	04-04	148+05	LT	WB	WEST 19, WAUNAKEE AHEAD/ RIVER ROAD LEFT	E6-53	132	102	93.50	-	-
					CATEGORY 0010 SUBTOTAL				391	0	0
0040											
		140+86	RT	EB			-	-	-	1	-
		148+05	LT	WB			-	-	-	-	1
					CATEGORY 0040 SUBTOTAL				0	1	1
					PROJECT TOTAL				**391**	**1**	**1**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

SIGN REMOVALS

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	638.2102 MOVING SIGN TYPE II EACH	638.2602 REMOVING SIGN TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010										
		133+81	32' LT	WB	CENTERLINE RUMBLE STRIP/ NEXT 2 MILES	-	2	1	-	SIGNS SHARE POST
	M-02	138+54	54' RT	EB	DRUMLIN RIDGE WINERY RIGHT 0.8	1	-	-	2	MOVE TO STA 135+02 'EB' 30' RT
		141+37	13' LT	WB	DO NOT ENTER	-	1	1	-	
		141+38	5' RT	EB	KEEP RIGHT/ OBJECT MARKER	-	2	1	-	
		141+52	49' RT	EB	WRONG WAY	-	1	1	-	
		142+13	2' RT	EB	BEGIN LEFT TURN LANE	-	1	1	-	
		143+31	14' LT	WB	WRONG WAY	-	1	-	-	SIGN SHARES POST
	M-03	143+31	14' LT	WB	ADOPT A HIGHWAY	1	-	-	1	MOVE TO STA 135+98 'WB' 28' LT
		143+91	88' RT	WB	DO NOT ENTER	-	1	1	-	
		144+00	36' RT	WB	KEEP RIGHT	-	1	1	-	
		146+01	73' LT	EB	KEEP RIGHT	-	1	1	-	
		146+51	122' LT	EB	DO NOT ENTER	-	1	1	-	
	M-04	148+36	24' RT	WB	ADOPT A HIGHWAY	1	-	-	1	MOVE TO STA 148+55 'EB' 40' RT
		148+36	24' RT	WB	WRONG WAY	-	1	-	-	SIGN SHARES POST
		148+67	25' LT	WB	BEGIN LEFT TURN LANE	-	1	1	-	
		149+43	43' LT	WB	WRONG WAY	-	1	1	-	
		150+31	15' LT	WB	KEEP RIGHT/ OBJECT MARKER	-	2	1	-	
		150+33	28' RT	WB	DO NOT ENTER	-	1	1	-	
	M-05	151+59	49' LT	WB	DRUMLIN RIDGE WINERY LEFT 0.8	1	-	-	2	MOVE TO STA 152+48 'WB' 13' RT
		156+36	23' RT	WB	DEFOREST POPULATION 8936	-	1	2	-	
		158+27	13'RT	WB	NO PASSING ZONE	-	1	1	-	
		159+37	6' RT	WB	DIVIDED HIGHWAY AHEAD	-	1	1	-	
		160+96	15' RT	WB	SPEED LIMIT 45 M.P.H. AHEAD	-	1	1	-	
		164+10	33' LT	WB	TWO WAY TRAFFIC	-	1	1	-	
		166+65	19' RT	WB	SPEED LIMIT 45 M.P.H.	-	1	1	-	
		166+68	38' LT	WB	SPEED LIMIT 55 M.P.H.	-	1	1	-	
	M-27	7+93	20' LT	LWS	SPEED LIMIT 25 M.P.H	1	-	-	1	MOVE TO STA 7+71 'LWS' 24' LT
	M-29	8+58	18' LT	LWS	NO PARKING ANY TIME	1	-	-	1	MOVE TO STA 8+47 'LWS' 24' LT
	M-28	8+61	30' RT	LWS	NO PARKING ANY TIME	1	-	-	1	MOVE TO STA 8+50 'LWS' 30' RT
		8+71	19' LT	LWS	TRUCK/ TO/ I39,90,94/ AHEAD ARROW	-	-	-	-	PAID AS TRAFFIC CONTROL SIGN
		168+39	41' RT	WB	STOP	-	1	1	-	
		169+52	53' LT	WB	TO 39 LEFT/ TO 90 LEFT/ TO 94 LEFT	-	9	2	-	
		171+77	47' LT	WB	DIVIDED HIGHWAY AHEAD	-	1	1	-	
		173+68	54' LT	WB	TO 39 LEFT/ TO 90 LEFT/ TO 94 LEFT	-	9	2	-	
		176+25	51' LT	WB	SPEED LIMIT 45 M.P.H.	-	1	1	-	
		178+12	56' LT	WB	NO U-TURN	-	1	1	-	
	M-01	178+12	56' LT	WB	WAUNAKEE 6	1	-	-	2	MOVE TO STA 133+98 'WB' 29' LT
		178+30	21' RT	WB	LEFT LANE MUST TURN LEFT	-	1	1	-	
		184+08	10' RT	WB	SPEED LIMIT 45 M.P.H.	-	1	1	-	
	M-11	184+11	62' LT	WB	SPEED LIMIT 45 M.P.H.	1	-	-	1	MOVE TO STA 189+97 'WB' 39' LT
	M-09	186+22	22' RT	WB	JCT 39 / JCT 90 / JCT 94	-	-	-	-	PAID AS TRAFFIC CONTROL SIGN
		186+29	23' LT	WB	KEEP RIGHT/ OBJECT MARKER	-	2	1	-	
		186+40	61' LT	WB	DO NOT ENTER/ BEGIN RIGHT TURN LANE	-	2	1	-	
	M-15	186+40	78' LT	WB	WEST/19	1	-	-	1	MOVE TO STA 191+96 'WB' 40' LT
		186+99	67' LT	WB	CASHEL WAY	-	1	2	-	

CONTINUED ON NEXT PAGE

SIGN REMOVALS (CONTINUED)

CAT	SIGN NO.	STA	OFFSET	ALIGN	SIGN WORDING & PICTORIALS	638.2102 MOVING SIGN TYPE II EACH	638.2602 REMOVING SIGN TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010										
		187+06	23' LT	WB	NO LEFT TURN	-	1	1	-	
		187+37	67' LT	WB	STOP/ ONE WAY	-	2	1	-	
		187+53	24' LT	WB	ADDED LANE (FROM LEFT)	-	-	-	-	
	M-12	8+96	25' RT	LES	RIGHT TURN ONLY	1	-	-	1	MOVE TO STA 8+88 'LES' 25' RT
		9+58	24' RT	LES	TRUCK/ TO/ I39,90,94/ RIGHT ARROW	-	4	1	-	
		188+26	31' RT	WB	STOP/ ONE WAY	-	2	1	-	
		188+44	26' LT	WB	DO NOT ENTER	-	1	1	-	
		188+66	23' LT	WB	NO LEFT TURN	-	1	1	-	
		188+83	21' LT	WB	ADDED LANE (FROM LEFT)	-	1	1	-	
		188+96	20' LT	WB	DO NOT ENTER/ NO U-TURN	-	2	1	-	
		189+18	40' RT	WB	SOUTH I39/ EAST I90/ EAST I94/ RIGHT AHEAD	-	9	2	-	
	M-10	189+22	17' LT	WB	RAMP CLOSED USE ALT ROUTE	1	-	-	-	MOVE TO STA 186+00 'EB' 53' RT
		189+22	17' LT	WB	NORTH I39/ WEST I90/ WEST I94/ AHEAD	-	9	2	-	
		190+64	54' LT	WB	BEGIN RIGHT TURN LANE	-	1	1	-	
		190+68	4' RT	WB	WRONG WAY	-	-	-	-	
	M-13	191+27	13' RT	WB	SIGNAL AHEAD	1	-	-	1	MOVE TO STA 193+30 'EB' 14' LT WITHOUT TEMP. FLAGS
	M-14	191+29	70' RT	WB	SIGNAL AHEAD	1	-	-	1	MOVE TO STA 193+31 'EB' 45' RT WITHOUT TEMP. FLAGS
		191+54	55' LT	WB	DALMORE RD	-	1	1	-	
		193+50	86' RT	WB	AHEAD SUN PRAIRIE, MILWAUKEE JANESVILLE RIGHT	-	1	1	-	SHARE'S POSTS WITH M-16
	M-16	193+50	86' RT	WB	WRONG WAY	1	-	-	1	MOVE TO STA 193+01 'EB' 48' RT
		193+96	5' RT	WB	LEFT LANE ENDS	-	1	1	-	
		194+02	40' LT	WB	LEFT LANE ENDS	-	1	1	-	
		194+96	87' RT	WB	SOUTH I39/ EAST I90/ EAST I94/ RIGHT	-	9	-	-	MOVED SIGN SUPPORTS WITH M-17
	M-17	194+96	87' RT	WB	SOUTH I39/ EAST I90/ EAST I94/ LEFT	9	-	-	2	MOVE TO STA 195+07 'EB' 61' RT
		48+00	22' RT	RNB	STOP AHEAD	-	1	1	-	
	M-20	51+78	30' LT	RNB	SPEED LIMIT 35 M.P.H.	1	-	-	1	MOVE TO STA 53+00 'RNB' 38' LT
	M-18/19	53+64	42' LT	RNB	ADOPT A HIGHWAY/ SPONSOR INFO	2	-	-	1	MOVE TO STA 51+73 'RNB' 29' LT
	M-21/22	54+30	34' LT	RNB	NO TRUCKS/ 8 TONS	2	-	-	1	MOVE TO STA 54+00 'RNB' 47' LT
		54+75	LT	RNB	STOP	-	1	1	-	
		54+76	27' RT	RNB	STOP	-	1	1	-	
		56+56	48' LT	RNB	KEEP RIGHT	-	1	1	-	
		56+60	48' LT	RNB	STOP	-	1	1	-	
		56+94	81' LT	RNB	STOP	-	1	1	-	
		56+97	51' LT	RNB	DOUBLE DOWN ARROWS	-	1	1	-	
	M-23/24	57+98	27' RT	RNB	NO TRUCKS/ 8 TONS	2	-	-	1	MOVE TO STA 58+05 RNB' 29' RT
	M-26	61+14	23' RT	RNB	LEFT CURVE AHEAD	1	-	-	1	MOVE TO STA 60+79 RNB' 25' RT
	M-25	62+35	21' RT	RNB	SPEED LIMIT 45 M.P.H.	1	-	-	1	MOVE TO STA 59+45 'RNB' 25' RT
	1/4 MILES NORTH OF RNB	LIMITS		RNB	STOP AHEAD	-	1	1	-	
					CATEGORY 0010 SUBTOTAL	33	108	60	25	
0050										
		168+16	46' LT	WB	ONE WAY ARROW LEFT	-	1	1	-	
		176+25	14' RT	WB	LEFT CASHEL WAY	-	-	-	-	PAID AS TRAFFIC CONTROL SIGN
		10+53	19' LT	CW	STOP	-	1	1	-	
	M-08	10+54	12' LT	CW	NO LEFT TURN	1	-	-	1	MOVE TO STA 10+47 'CW' 10' LT
	M-06	10+65	50' LT	CW	STOP	1	-	-	1	MOVE TO STA 10+60 'CW' 38' LT
		10+71	48' LT	CW	TRUCK/ TO/ I39,90,94/ LEFT ARROW	-	4	1	-	
	M-07	10+72	7' LT	CW	KEEP RIGHT	1	-	-	1	MOVE TO STA 10+74 'CW' 2' LT
					CATEGORY 0050 SUBTOTAL	3	6	3	3	
					PROJECT TOTAL	**36**	**114**	**63**	**28**	

3

PCMS SIGNS

CAT	LOCATION	SUBSTAGE	DAYS	NO. IN SERVICE EACH	643.1050 SIGNS PCMS DAYS
0010					
	19-EB, 19-WB1, 19-WB2, RV-NB1, RV-SB1	PRE-1A	7	5	35
		SUBSTAGE 1A SUBTOTAL			35
0010					
	RV-NB2	1B	3	1	3
		SUBSTAGE 1B SUBTOTAL			3
	19-EB, 19-WB1	1C	3	2	6
		SUBSTAGE 1C SUBTOTAL			6
0010					
	19-EB, 19-WB1	1D	3	2	6
	RV-NB1	1D	7	1	7
		SUBSTAGE 1D SUBTOTAL			13
0010					
	19-EB, 19-WB1	1E	3	2	6
		SUBSTAGE 1E SUBTOTAL			6
0010					
	19-EB, 19-WB1	2A	3	2	6
	RV-SB2	2A	7	1	7
		SUBSTAGE 2A SUBTOTAL			13
0010					
	19-EB, 19-WB1	2B	3	2	6
		SUBSTAGE 2B SUBTOTAL			6
0010					
	19-EB, 19-WB1	2C	3	2	6
		SUBSTAGE 2C SUBTOTAL			6
		CATEGORY 0010 PROJECT TOTAL			**88**

FLEXIBLE TUBULAR MARKER POSTS

CAT	LOCATION	STAGE	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH
0010				
	STH 19	1D	33	33
	STH 19	2A	42	42
	STH 19	2B	12	12
	STH19	2B-RAB	22	22
	CATEGORY 0010 PROJECT TOTAL		**109**	**109**

TRAFFIC CONTROL COVERING SIGNS

CAT	LOCATION	STAGE	643.0920 TRAFFIC CONTROL COVING SIGN TYPE II EACH	COMMENTS
0010				
	243+75 RT TEB2	2A	1	COVER SIGN R3-8D
	249+18 LT TEB2	2A	1	COVER SIGN R3-8E
	140+86 WB	2B	2	COVER SIGNS R3-8CC
	CATEGORY 0010 SUBTOTAL		4	
	PROJECT TOTAL		**4**	

***ALL QUANTITIES USE ONE CYCLE**

3

TRAFFIC CONTROL

CAT	LOCATION	STAGE	DAYS	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II EACH	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS EACH	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
0010																	
	STH 19	1A	66		0	3	198	1	66	2	132		0		0	55	3630
	STH 19	LNW1	7	44	309	3	21	2	14	4	28	9	64		0	40	280
	STH 19	LNW2	7	33	230	3	21	2	14	4	28		0		0	40	280
	10% UNDISTRIBUTED				51		20		6		22		6		0		420
	SUBSTAGE 1A SUBTOTAL				590		260		100		210		70		0		4610
0010	STH 19	1B	95		0	3	285	22	2090	44	4180		0		0	66	6270
	10% UNDISTRIBUTED				0		29		210		420		0		0		630
	SUBSTAGE 1B SUBTOTAL				0		320		2300		4600		0		0		6900
	STH 19	1C	105	202	21244	3	315	13	1365	26	2730	77	8077		0	83	8715
	10% UNDISTRIBUTED				2126		35		135		270		803		0		875
	SUBSTAGE 1C SUBTOTAL				23370		350		1500		3000		8880		0		9590
0010	STH 19	1D	26	190	4945	3	78	19	494	38	988	5	130		0	83	2158
	STH 19	LNW	4	101	402	3	12	12	48	24	96	5	20		0	52	208
	STH 19	MED	7	57	401	3	21	8	56	16	112	32	225		0	34	238
	UNDISTRIBUTED				572		9		62		124		35		0		256
	SUBSTAGE 1D SUBTOTAL				6320		120		660		1320		410		0		2860
0010	STH 19	1E	14	34	477	3	42	10	140	20	280	12	168		0	51	714
	UNDISTRIBUTED				53		8		10		30		22		0		76
	SUBSTAGE 1E SUBTOTAL				530		50		150		310		190		0		790
0010	STH 19	2A	77	235	18095	3	231	10	770	20	1540	43	3311		0	154	11858
	UNDISTRIBUTED				1815		19		80		150		329		0		1182
	SUBSTAGE 2A SUBTOTAL				19910		250		850		1690		3640		0		13040
0010	STH19	2B	28	575	16100	3	84	7	196	14	392	33	924	1	28	49	1372
	STH19	2B-RAB	14	294	4116	3	42	13	182	26	728	45	1260	1	14	114	1596
	UNDISTRIBUTED				2024		14		42		110		216		8		292
	SUBSTAGE 2B SUBTOTAL				22240		140		420		1230		2400		50		3260
0010	STH 19	2C	7	575	4025	3	21	11	77	22	154	33	924	1	28	42	294
	UNDISTRIBUTED				405		9		13		16		96		2		26
	SUBSTAGE 2C SUBTOTAL				4430		30		90		170		1020		30		320
	CATEGORY 0010 PROJECT TOTAL				**77390**		**1520**		**6070**		**12530**		**16610**		**80**		**41370**

TEMPORARY MARKING

CAT	STAGE	646.6464* COLD WEATHER MARKING EPOXY 4-INCH WHITE LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH YELLOW LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH WHITE LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	649.0205 TEMPORARY MARKING LINE PAINT 8-INCH WHITE LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE LF	649.0505 TEMPORARY MARKING ARROW PAINT EACH	649.0605 TEMPORARY MARKING WORD PAINT EACH	649.0805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	649.0820 TEMPORARY MARKING STOP LINE EPOXY 18-INCH LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	649.0905 TEMPORARY MARKING DIAGONAL PAINT 12-INCH LF	649.0950 TEMPORARY MARKING DIAGONAL PAINT REMOVABLE TAPE 12-INCH EACH
0010																		
	1B	1414	2428	110	-	-	-	-	-	-	-	-	-	-	75	-	-	-
	1C	-	-	-	-	8549	5780	1510	5124	442	1060	1	1	13	-	27	340	577
	1D-LNW	-	-	-	-	-	-	-	2553	-	-	-	-	-	-	-	-	-
	1D-MED	-	-	-	-	951	493	-	911	-	-	-	-	-	-	-	-	-
	1D	-	-	-	-	2490	2870	3261	4948	2407	1140	1	1	-	-	34	-	-
	1E	-	-	-	-	-	-	-	525	-	135	-	-	-	-	23	-	-
	2A	-	-	-	-	-	-	8953	11995	-	1503	-	-	-	-	23	-	122
	2B-RAB	-	-	-	-	-	-	3349	17169	-	244	-	-	-	-	-	-	-
	2B	-	-	-	-	-	-	425	4666	-	200	-	-	-	-	-	-	-
	2C	-	-	-	-	-	-	-	2470	-	-	-	-	-	-	-	-	-
CATEGORY 0010 PROJECT TOTAL		**1414**	**2428**	**110**	**0**	**11990**	**9143**	**17498**	**50361**	**2849**	**4282**	**2**	**2**	**13**	**75**	**107**	**340**	**699**
		3842		**110**		**21133**		**67859**										

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

REMOVING PAVEMENT MARKINGS

CAT	STAGE	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
0010								
	1B		-	-	52	-	-	-
	1C		3389	1713	-	110	85	2
	1D-MED		-	-	160	-	-	-
	1D		456	-	135	-	76	-
	1E		-	132	-	-	-	-
	2A		-	2025	-	335	-	-
	2B-RAB		150	350	-	-	-	-
	2C		3351	-	-	-	-	-
CATEGORY 0010 PROJECT TOTAL			**7346**	**4220**	**347**	**445**	**161**	**2**

PERMANENT PAVEMENT MARKING

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.1020 EPOXY 4-INCH (YELLOW) LF	646.1020 EPOXY 4-INCH (WHITE) LF	646.1545 GROOVED WET REF CONTRAST 4-INCH (WHITE) LF	646.3020 EPOXY 8-INCH (WHITE) LF	646.3545 GROOVED WET REF CONTRAST 8-INCH WHTE LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (YELLOW) LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (WHITE) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (YELLOW) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (WHITE) LF
0010																
	131+22	-	139+92	CL	WB	CENTER LINE	DOUBLE YELLOW, DY4	1738	-	-	-	-	-	-	-	-
	131+25	-	142+48	RT	EB		W4	-	1121	-	-	-	-	-	-	-
	131+95	-	142+68	LT	WB		W4	-	1076	-	-	-	-	-	-	-
	139+34	-	140+86	RT	EB	SPLIT LANES	W8-3	-	-	-	-	-	-	-	-	38
	139+92	-	143+92	LT	EB	MEDIAN	SOUTH Y4	401	-	-	-	-	-	-	-	-
	139+92	-	144+07	LT	WB	MEDIAN	NORTH Y4	416	-	-	-	-	-	-	-	-
	140+86	-	144+05	RT	EB	SPLITTER	W8	-	-	-	-	-	-	-	-	449
	142+20	-	143+74	LT	WB		W8-3	-	-	-	39	-	-	-	-	-
	142+48	-	143+12	RT	EB		W4-3	-	16	-	-	-	-	-	-	-
	142+68	-	143+32	LT	WB		W4-3	-	16	-	-	-	-	-	-	-
	142+90	-	144+05	RT	EB		CHEVRONS, W8	-	-	-	26	-	-	-	-	-
	143+92	-	144+06	LT/RT	EB/WB	SOUTH SIDE MEDIAN	W8	-	-	-	102	-	-	-	-	-
	143+87	-	13+91	LT	WB/CR	LANES	W8-6	-	-	-	112	-	-	-	-	-
	46+50	-	54+00	LT	RSB		W4	-	745	-	-	-	-	-	-	-
	46+50	-	53+51	CL	RNB	CENTER LINE	DOUBLE YELLOW, DY4	1402	-	-	-	-	-	-	-	-
	46+50	-	53+88	RT	RNB		W4	-	746	-	-	-	-	-	-	-
	51+42	-	53+22	RT	RNB	LANES	W4-3	-	45	-	-	-	-	-	-	-
	52+02	-	53+22	RT	RNB	LANES	W4-3	-	-	-	30	-	-	-	-	-
	53+25	-	54+05	RT	RNB		W4	-	82	-	-	-	-	-	-	-
	53+25	-	55+08	RT	RNB		W8	-	-	-	318	-	-	-	-	-
	53+51	-	54+92	LT	RNB	MEDIAN	WEST/EAST, Y4	283	-	-	-	-	-	-	-	-
	53+88	-	54+30	RT	RNB		W4-3	-	12	-	-	-	-	-	-	-
	54+00		54+50	RT	RNB		W4-3	-	12	-	-	-	-	-	-	-
	54+05	-	54+50	RT	RNB	LANES	W4-3	-	11	-	-	-	-	-	-	-
	54+92	-	11+90	LT	RNB/CR	MEDIAN	W8	-	-	-	78	-	-	-	-	-
	11+73	-	146+23	RT	CR/EB		W8-6	-	-	-	118	-	-	-	-	-
	10+12	-	14+06	LT	CR	MEDIAN	W8	-	-	-	78	-	-	-	-	-
	57+08	-	58+96		RNB	MEDIAN	EAST, Y4	188	-	-	-	-	-	-	-	-
	57+19	-	58+97	LT	RNB	MEDIAN	WEST, Y4	189	-	-	-	-	-	-	-	-
	57+52	-	58+01	RT	RNB		W4-3	-	12	-	-	-	-	-	-	-
	57+62	-	57+95	LT	RNB		W4-3	-	9	-	-	-	-	-	-	-
	57+95	-	58+48	LT	RNB		W4	-	56	-	-	-	-	-	-	-
	58+04	-	63+10	RT	RNB		W4	-	507	-	-	-	-	-	-	-
	59+56	-	63+10	LT	RNB		W4	-	356	-	-	-	-	-	-	-
	58+45	-	60+18	LT	RNB		W4-3	-	44	-	-	-	-	-	-	-

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PERMANENT PAVEMENT MARKING (CONTINUED)

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.1020 EPOXY 4-INCH (YELLOW) LF	646.1020 EPOXY 4-INCH (WHITE) LF	646.1545 GROOVED WET REF CONTRAST 4-INCH (WHITE) LF	646.3020 EPOXY 8-INCH (WHITE) LF	646.3545 GROOVED WET REF CONTRAST 8-INCH WHTE LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (YELLOW) LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (WHITE) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (YELLOW) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (WHITE) LF
0010																
	58+96	-	63+10	LT	RNB	CENTER LINE	DOUBLE YELLOW, DY4	826	-	-	-	-	-	-	-	-
	12+87	-	13+43	RT	CR	MEDIAN	W8	-	-	-	106	-	-	-	-	-
	145+90	-	149+05	LT	WB		W8	-	-	-	322	-	-	-	-	105
	145+98	-	159+54		EB	INNER SHLDR LINE	Y4	-	-	-	-	-	-	-	1356	-
	146+20	-	167+31	RT	EB		W4-12.5-C	-	-	528	-	-	-	-	-	-
	146+22	-	167+36		WB	INNER SHLDR LINE	Y4	180	-	-	-	-	1936	-	-	-
	146+66	-	147+32	RT	EB		W4-3	-	16	-	-	-	-	-	-	-
	146+93	-	147+66	LT	WB		W4-3	-	18	-	-	-	-	-	-	-
	147+32	-	167+31	RT	EB	OUTSIDE SHLDR LINE	W4	-	2005	-	-	-	-	-	-	-
	147+66	-	167+25	LT	WB	OUTSIDE SHLDR LINE	W4	-	697	-	-	-	-	1260	-	-
	149+05	-	167+36	LT	WB		W4-12.5-C	-	-	458	-	-	-	-	-	-
	160+58	-	167+31	LT	EB	START LEFT TURN LANE	W8-C	-	-	-	-	678	-	-	-	-
	164+32	-	167+31	RT	EB	RIGHT TURN LANE	W8-C	-	-	-	-	300	-	-	-	-
	7+65	-	9+33		LWS	CENTER LINE	DY4	336	-	-	-	-	-	-	-	-
	8+45	-	9+33	RT	LWS		W8	-	-	-	87	-	-	-	-	-
	168+80	-	195+14		EB	INNER SHLDR LINE	Y4	2634	-	-	-	-	-	-	-	-
	168+85	-	172+30		WB	INNER MAINLINE SHLDR	W8-C	-	-	-	-	620	-	-	-	-
	168+85	-	195+20	LT	WB	CENTER LINE	W4-12-5-C	-	-	659	-	-	-	-	-	-
	168+88	-	186+04	RT	EB	OUTSIDE SHLDR MAINLINE	W4	-	1819	-	-	-	-	-	-	-
	168+99	-	179+81	LT	WB	OUTSIDE SHLDR MAINLINE	W4	-	1083	-	-	-	-	-	-	-
	169+18	-	195+14	RT	EB	CENTER LINE	W4-12-5-C	-	-	649	-	-	-	-	-	-
	176+80	-	195+54		WB	INNER MAINLINE SHLDR	Y4	1874	-	-	-	-	-	-	-	-
	181+27	-	194+85		WB	OUTSIDE SHLDR MAINLINE	W4	-	1358	-	-	-	-	-	-	-
	184+04	-	187+06	RT	EB	RIGHT TURN LANE	W8-C	-	-	-	-	303	-	-	-	-
	8+85	-	9+38		LES	CENTER LINE	DY4	106	-	-	-	-	-	-	-	-
	188+36	-	190+11	RT	EB	OUTSIDE SHLDR MAINLINE	W4	-	177	-	-	-	-	-	-	-
	190+11	-	191+99	RT	EB	START RIGHT TURN LANE	W4-3-C	-	-	47	-	-	-	-	-	-
	190+45	-	191+99	RT	EB	START RIGHT TURN LANE	W8-3-C	-	-	-	-	39	-	-	-	-
	190+82	-	194+95	RT	EB	OUTSIDE SHLDR MAINLINE	W4	-	413	-	-	-	-	-	-	-
	191+99	-	195+14	RT	EB	RIGHT TURN LANE	W8-C	-	-	-	-	314	-	-	-	-
	191+99	-	195+14	RT	EB		W4-C	-	-	314	-	-	-	-	-	-
	196+25	-	198+80	LT	WB	OUTSIDE SHLDR MAINLINE	W4	-	255	-	-	-	-	-	-	-
	196+25	-	199+55		WB	INNER MAINLINE SHLDR	Y4	330	-	-	-	-	-	-	-	-
	196+25	-	200+38		WB	CENTER LINE	W4-12.5-C	-	-	103	-	-	-	-	-	-
							CATEGORY 0010 SUBTOTAL	10903	12708	2758	1414	2254	1936	1260	1356	592
								23611					3196		1948	

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PERMANENT PAVEMENT MARKING (CONTINUED)

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.1020 EPOXY 4-INCH (YELLOW) LF	646.1020 EPOXY 4-INCH (WHITE) LF	646.1545 GROOVED WET REF CONTRAST 4-INCH (WHITE) LF	646.3020 EPOXY 8-INCH (WHITE) LF	646.3545 GROOVED WET REF CONTRAST 8-INCH WHTE LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (YELLOW) LF	646.6464* COLD WEATHER MARKING EPOXY 4-INCH (WHITE) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (YELLOW) LF	646.6468* COLD WEATHER MARKING EPOXY 8-INCH (WHITE) LF
0050																
	56+92	-	57+17	LT	RNB	MEDIAN	W8	-	-	-	30	-	-	-	-	-
	57+73	-	58+12	LT	RNB		W4-3	-	12	-	-	-	-	-	-	-
	57+96	-	58+45	LT	RNB		W8	-	-	-	106	-	-	-	-	-
	58+13	-	59+56	LT	RNB		W4	-	152	-	-	-	-	-	-	-
	58+45	-	59+55	LT	RNB	START RIGHT TURN LANE	W8-3	-	-	-	28	-	-	-	-	-
	159+54	-	167+31	LT	EB	INNER SHLDR LINE	Y4	-	-	-	-	-	779	-	-	-
	160+58	-	167+31	LT	EB	LEFT TURN LANES SHLDR	W8-C	-	-	-	-	672	-	-	-	-
	161+93	-	167+31	LT	EB	LEFT TURN LANES	W4-12-5-C	-	-	135	-	-	-	-	-	-
	161+94	-	163+68	LT	EB		W8-C	-	-	-	-	350	-	-	-	-
	302+76	-	302+89	RT	TCS		W4-12.5	-	34	-	-	-	-	-	-	-
	302+82	-	304+37	LT	TCS	LANES	W8	-	-	-	156	-	-	-	-	-
	302+82	-	304+37	LT	TCS	RIGHT TURN LANE	W8	-	-	-	156	-	-	-	-	-
	168+85	-	172+30	RT	WB		W8-C	-	-	-	-	620	-	-	-	-
	168+85	-	176+81	RT	WB		Y4	797	-	-	-	-	-	-	-	-
	168+86	-	172+49	LT	WB	RIGHT TURN LANE	W8-C	-	-	-	-	364	-	-	-	-
	172+30	-	175+05	RT	WB	LEFT TURN LANE	W8-C	-	-	-	-	543	-	-	-	-
	10+75	-	11+18	LT	CW	CENTER LINE	DY4	82	-	-	-	-	-	-	-	-
	181+27	-	184+77	LT	WB	RIGHT TURN LANE	W8-C	-	-	-	-	350	-	-	-	-
							CATEGORY 0050 SUBTOTAL	879	198	135	476	2899	779	0	0	0
								1077					779		0	
							PROJECT TOTAL	**24689**		**2892**	**1890**	**5153**	**3975**		**1948**	

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

PERMANENT PAVEMENT MARKING

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY (YELLOW) LF	646.8220 MARKING ISLAND NOSE EPOXY (YELLOW) EACH
0010																
	135+00	-	139+34	LT	EB	MEDIAN	DIAGONAL STRIPS, Y12	-	-	-	-	87	-	-	-	-
	139+34	-	139+48	RT	EB	INNER LANE	A-3R	1	-	-	-	-	-	-	-	-
	139+34	-	139+48	RT	EB	OUTER LANE	A-3	1	-	-	-	-	-	-	-	-
	139+36	-	139+41	LT	EB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	139+41	-	139+44	LT	EB	MEDIAN CURB	NORTH/SOUTH CBY	-	-	-	-	-	-	-	6	-
	140+86	-	140+99	RT	EB	INNER LANE	A-3R	1	-	-	-	-	-	-	-	-
	140+86	-	140+99	RT	EB	OUTER LANE	A-3	1	-	-	-	-	-	-	-	-
	142+82	-	142+94	RT	EB	INNER LANE	A-3R	1	-	-	-	-	-	-	-	-
	142+82	-	142+94	RT	EB	OUTER LANE	A-3	1	-	-	-	-	-	-	-	-
	143+36	-	144+19	RT	EB	CHEVRONS	W12	-	-	-	-	-	26	-	-	-
	143+97	-	144+19	RT	EB	LANES	YIELD, WO	-	2	-	-	-	-	-	-	-
	143+91	-	143+99	LT	EB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	143+91	-	143+99	LT	EB	MEDIAN CURB	CBY	-	-	-	-	-	-	-	18	-
	144+06	-	144+16	RT	WB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	144+06	-	144+16	RT	WB	MEDIAN CURB	NORTH/SOUTH CBY	-	-	-	-	-	-	-	19	-
	11+28	-	11+70	LT	CR		W18-2	-	-	-	30	-	-	-	-	-
	50+50	-	53+00	LT	RNB	MEDIAN	DIAGONAL STRIPS, Y12	-	-	-	-	55	-	-	-	-
	53+00	-	53+05	L	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	53+05	-	53+08	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	6	-
	53+25	-	53+38	RT	RNB	INNER LANE	A-3R	1	-	-	-	-	-	-	-	-
	53+25	-	53+33	RT	RNB	OUTER LANE	A-3	1	-	-	-	-	-	-	-	-
	53+51	-	55+05	RT	RNB		W12	-	-	-	-	-	85	-	-	-
	54+83	-	54+98	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	18	-
	54+84	-	54+98	LT	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	54+90	-	54+99	LT	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	54+90	-	54+99	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	18	-
	54+96	-	55+20	RT	RNB	INNER LANE	YIELD, WO	-	2	-	-	-	-	-	-	-
	55+05	-	146+02	RT	RNB/EB		W18-2	-	-	-	33	-	-	-	-	-
	11+78	-	11+98	RT	CR	LANES	A-3, A-1	2	-	-	-	-	-	-	-	-
	13+93	-	14+13	LT	CR	LANES	A-3, A-1	2	-	-	-	-	-	-	-	-
			57+10	LT	WB		W18-2	-	-	-	15	-	-	-	-	-
	56+94	-	57+07	LT	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	56+94	-	57+08	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	18	-
	57+13	-	57+22	LT	RNB	LANES	YIELD, WO	-	1	-	-	-	-	-	-	-
	57+09	-	57+19	LT	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	57+09	-	57+19	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	18	-
	58+11	-	58+45	LT	RNB	LANE	A-3R	1	-	-	-	-	-	-	-	-
	59+39	-	59+41	LT	RNB	MEDIAN CURB	WEST/EAST CBY	-	-	-	-	-	-	-	6	-
	59+41	-	59+47	LT	RNB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	59+50	-	61+50	LT	RNB	MEDIAN	DIAGONAL STRIPS, Y12	-	-	-	-	65	-	-	-	-
	13+43	-	13+84	RT	CR		W18-2	-	-	-	29	-	-	-	-	-
	145+87	-	146+19	LT	WB	LANES	YIELD, WO	-	2	-	-	-	-	-	-	-
	145+90	-	145+97	LT	EB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	145+90	-	145+98	LT	EB	MEDIAN CURB	NORTH/SOUTH CBY	-	-	-	-	-	-	-	18	-
	146+05	-	146+79	LT	WB	CHEVRONS	W12	-	-	-	-	-	26	-	-	-

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PERMANENT PAVEMENT MARKING (CONTINUED)

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY (YELLOW) LF	646.8220 MARKING ISLAND NOSE EPOXY (YELLOW) EACH
0010																
	146+13	-	146+22	RT	WB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	146+13	-	146+22	RT	WB	MEDIAN CURB	NORTH/SOUTH CBY	-	-	-	-	-	-	-	18	-
	147+23	-	147+36	LT	WB	LANES	A-3, A-3R	2	-	-	-	-	-	-	-	-
	148+92	-	149+04	LT	WB	LANES	A-3, A-3R	2	-	-	-	-	-	-	-	-
	164+52	-	164+60	RT	EB	RIGHT TURN LANE	A2	1	-	-	-	-	-	-	-	-
	166+63	-	166+72	RT	EB	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	167+03	-	167+11	RT	EB	RIGHT TURN LANE	A2	1	-	-	-	-	-	-	-	-
			167+31	RT	EB		SL18	-	-	40	-	-	-	-	-	-
	8+66	-	8+74	RT	LWS	LEFT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	8+66	-	8+79	RT	LWS	AHEAD/RIGHT LANE	A-3	1	-	-	-	-	-	-	-	-
			9+33	RT	LWS		SL18	-	-	28	-	-	-	-	-	-
			168+69	LT/RT	WB		XW6	-	-	-	-	-	-	50	-	-
			168+69	LT/RT	EB		XW6	-	-	-	-	-	-	65	-	-
			168+80	LT/RT	WB		XW6	-	-	-	-	-	-	44	-	-
			168+80	LT/RT	EB		XW6	-	-	-	-	-	-	64	-	-
			168+85	LT/RT	WB		SL18	-	-	42	-	-	-	-	-	-
	184+25	-	184+33	RT	EB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	186+37	-	186+46	RT	EB	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	186+77	-	186+85	RT	EB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	8+68	-	8+76	RT	LES	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	9+09	-	9+17	RT	LES	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
			9+38	RT	LES		SL18	-	-	18	-	-	-	-	-	-
	192+19	-	192+27	RT	EB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	194+46	-	194+54	RT	EB	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	194+86	-	194+94	RT	EB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
			195+14	RT	EB		SL18	-	-	45	-	-	-	-	-	-
							CATEGORY 0010 SUBTOTAL	26	11	173	106	208	137	223	163	11
												345				

CONTINUED ON NEXT PAGE

PERMANENT PAVEMENT MARKING (CONTINUED)

CAT	STA	TO	STA	OFFSET	ALIGN	LOCATION	DESCRIPTION	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY (YELLOW) LF	646.8220 MARKING ISLAND NOSE EPOXY (YELLOW) EACH
0050																
	57+07	-	144+16	LT	RNB/WB		W18-2	-	-	-	14	-	-	-	-	-
	57+08	-	57+17	LT	RNB	RIGHT TURN LANE	YIELD, WO	-	1	-	-	-	-	-	-	-
	58+13	-	58+46	LT	RNB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	160+58	-	167+31	LT	EB	START LEFT TURN LANE	W12	-	-	-	-	-	450	-	-	-
	162+28	-	162+43	LT	EB	MEDIAN	CBY	-	-	-	-	-	-	-	35	-
	163+89	-	163+97	LT	EB	LEFT TURN LANES	A-2	2	-	-	-	-	-	-	-	-
	166+63	-	166+71	LT	EB	LEFT TURN LANES	ONLY, WO	-	2	-	-	-	-	-	-	-
	167+03	-	167+11	LT	EB	LEFT TURN LANES	A-2	2	-	-	-	-	-	-	-	-
	167+27	-	167+29	LT	EB	MEDIAN CURB	CBY	-	-	-	-	-	-	-	6	-
	167+29	-	167+34	LT	EB	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
			167+31	LT	EB	LEFT TURN LANES	SL18	-	-	23	-	-	-	-	-	-
	302+57	-	302+63	RT	TCS	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	302+63	-	302+65	RT	TCS	MEDIAN	CBY	-	-	-	-	-	-	-	4	-
			302+65	LT	TCS	CROSSWALK	XW6	-	-	-	-	-	-	44	-	-
			302+65	RT	TCS	CROSSWALK	XW6	-	-	-	-	-	-	45	-	-
			302+76	LT	TCS	CROSSWALK	XW6	-	-	-	-	-	-	38	-	-
			302+76	RT	TCS	CROSSWALK	XW6	-	-	-	-	-	-	37	-	-
			302+82	LT	TCS		SL18	-	-	35	-	-	-	-	-	-
	302+82	-	304+37	LT	TCS	RIGHT TURN LANE CHEVRONS	W12	-	-	-	-	-	110	-	-	-
	303+00	-	303+13	LT	TCS	RIGHT TURN LANE	A-3	1	-	-	-	-	-	-	-	-
	303+03	-	303+11	LT	TCS	LEFT TURN LANES	A-2	1	-	-	-	-	-	-	-	-
			168+85	RT	WB		SL18	-	-	14	-	-	-	-	-	-
	168+88	-	168+71	RT	WB	MEDIAN CURB	CBY	-	-	-	-	-	-	-	6	-
	169+06	-	169+14	RT	WB	LEFT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	169+06	-	169+14	LT	WB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	169+45	-	169+53	RT	WB	LEFT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	169+45	-	169+53	LT	WB	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	172+02	-	172+10	RT	WB	LEFT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	172+21	-	172+29	LT	WB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	173+56	-	173+72	RT	WB	MEDIAN	CBY	-	-	-	-	-	-	-	35	-
	10+47	-	10+55	LT	CW		SL18	-	-	22	-	-	-	-	-	-
	10+39	-	10+43	LT	CW	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	10+39	-	10+40	LT	CW	MEDIAN CURB	CBY	-	-	-	-	-	-	-	11	-
	10+40	-	10+45	LT	CW	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	10+44	-	10+76	LT	CW	MEDIAN CURB	CBY	-	-	-	-	-	-	-	35	-
	10+44	-	10+76	LT	CW	MEDIAN CURB	CBY	-	-	-	-	-	-	-	31	-
	10+70	-	10+77	LT	CW	LEFT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	10+74	-	10+78	LT	CW	MEDIAN NOSE	INY	-	-	-	-	-	-	-	-	1
	11+08	-	11+17	LT	CW	LEFT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	181+47	-	181+55	LT	WB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
	181+87	-	181+95	LT	WB	RIGHT TURN LANE	ONLY, WO	-	1	-	-	-	-	-	-	-
	184+49	-	184+57	LT	WB	RIGHT TURN LANE	A-2	1	-	-	-	-	-	-	-	-
							CATEGORY 0050 SUBTOTAL	14	7	94	14	0	560	164	163	5
												560				
							PROJECT TOTAL	**40**	**18**	**267**	**120**	**905**		**387**	**326**	**16**

STORM SEWER STRUCTURES

CAT	STRUCTURE	STATION	OFFSET*	LOCATION	520.8000 +Concrete Collars for Pipe EACH	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch EACH	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch EACH	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch EACH	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch EACH	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch EACH	611.0530 Manhole Covers Type J EACH	611.0624 Inlet Covers Type H EACH	611.0642 Inlet Covers Type MS EACH	611.0652 Inlet Covers Type T EACH	611.2006 Manholes 6-FT Diameter EACH	611.2008 Manholes 8-FT Diameter EACH	611.3225 Inlets 2x2.5-FT EACH	611.3230 Inlets 2x3-FT EACH	611.3901 Inlets Median 1 Grate EACH	611.3902 Inlets Median 2 Grate EACH	650.4000 +Construction Staking Storm Sewer EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
0010																								
	1.0	54+82	120.4' LT	RIVER-NB_01	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		879.22	
	1.1	144+05	32.2' RT	STH19-EB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	885.32	879.58	4.94
	1.2	143+92	1.5' LT	STH19-EB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	885.58	879.94	4.85
	1.3	143+81	52.9' LT	STH19-EB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	885.63	880.97	3.83
	2.0	53+07	40.7' LT	RIVER-NB_01	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		875.89	
	2.1	53+08	11' LT	RIVER-NB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	880.49	876.04	3.62
	2.2	53+08	2.5' LT	RIVER-NB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	880.42	876.08	3.51
	3.0	146+26	77.3' RT	STH19-EB_02	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1		869.36	
	3.1	54+99	31.2' RT	RIVER-NB_01	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	1	882.56	870.97	10.64
	3.2	54+68	92.5' LT	RIVER-NB_01	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1		874.70	
	3.3	54+13	18.7' RT	RIVER-NB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	881.38	876.45	4.09
	3.4	54+12	27.9' RT	RIVER-NB_01	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	881.14	876.54	3.76
	3.5	12+83	1.5' LT	CENTER_ROUNDABOUT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	881.78	874.27	6.63
	3.6	13+18	1.5' LT	CENTER_ROUNDABOUT	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	881.57	874.61	6.09
	3.7	146+04	32.8' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	881.69	875.40	5.46
	4.0	57+17	65' RT	RIVER-NB_02	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1		873.03	
	4.1	57+59	44.2' LT	RIVER-NB_02	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	1	883.10	873.27	8.85
	4.2	57+54	141.3' LT	RIVER-NB_02	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1		873.47	
	4.3	57+91	38.4' LT	RIVER-NB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	881.78	876.33	4.66
	4.4	57+92	47' LT	RIVER-NB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	881.99	876.91	4.24
	5.0	59+34	28.3' RT	RIVER-NB_02	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		871.55	
	5.1	59+36	0.8' LT	RIVER-NB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	876.02	871.84	3.35
	5.2	59+37	10.6' LT	RIVER-NB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	876.15	871.94	3.38
	6.0	159+00	61.4' RT	STH19-EB_02	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1		864.65	
	6.1	159+00	23.6' LT	STH19-EB_02	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	1	868.18	864.90	3.57
	6.2	159+00	97.4' LT	STH19-EB_02	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1		865.12	
	7.0	163+77	56.7' RT	STH19-EB_02	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		866.97	
	7.1	163+78	4.8' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.23	867.44	5.00
	8.0	168+52	82.7' RT	STH19-EB_02	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	874.70	864.40	9.44
	8.1	168+65	21' LT	STH19-EB_02	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	875.79	865.97	8.95
	8.2	168+97	111.4' LT	STH19-EB_02	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1		867.41	
	8.7	167+33	82' RT	STH19-EB_02	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		866.55	
	8.8	168+81	86.6' RT	STH19-EB_02	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1		865.00	
	CC1	168+50	91.5' RT	STH19-EB_02	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		864.34	
	10.0	172+25	59.1' RT	STH19-EB_02	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		868.90	
	10.1	172+25	28.5' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.89	870.22	4.88
	11.0	176+00	53.9' RT	STH19-EB_02	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		869.46	
	11.1	176+00	23.2' LT	STH19-EB_02	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	1	872.16	869.85	2.52
	12.0	180+40	52.1' RT	STH19-EB_02	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		874.04	
	12.1	180+75	25' LT	STH19-EB_02	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	876.46	874.30	2.37
	14.0	189+47	51' RT	STH19-EB_02	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		875.21	
	14.1	189+51	20.6' LT	STH19-EB_02	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	1	877.79	875.50	2.50
				CATEGORY 0010 SUBTOTALS	1	3	6	3	4	1	4	14	7	2	2	2	2	14	1	3	42			

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STORM SEWER STRUCTURES

CAT	STRUCTURE	STATION	OFFSET*	LOCATION	520.8000 *Concrete Collars for Pipe EACH	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch EACH	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch EACH	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch EACH	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch EACH	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch EACH	611.0530 Manhole Covers Type J EACH	611.0624 Inlet Covers Type H EACH	611.0642 Inlet Covers Type MS EACH	611.0652 Inlet Covers Type T EACH	611.2006 Manholes 6-FT Diameter EACH	611.2008 Manholes 8-FT Diameter EACH	611.3225 Inlets 2x2.5-FT EACH	611.3230 Inlets 2x3-FT EACH	611.3901 Inlets Median 1 Grate EACH	611.3902 Inlets Median 2 Grate EACH	650.4000 *Construction Staking Storm Sewer EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
0050																								
	7.2	163+78	13.2' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.25	868.00	4.41
	7.3	163+78	36.8' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.02	868.18	4.02
	8.3	168+95	13.3' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.84	870.67	4.34
	8.4	168+53	29.5' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.73	870.51	4.39
	8.5	168+53	44.5' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.82	870.66	4.33
	8.6	168+95	4.9' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.81	870.75	4.23
	9.0	303+00	65.1' RT	TIERNEY-TC	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1		867.80	
	9.1	303+20	29.7' RT	TIERNEY-TC	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	873.71	867.97	4.79
	9.2	303+20	15.9' LT	TIERNEY-TC	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	1	874.24	868.15	5.10
	9.3	303+20	45.5' LT	TIERNEY-TC	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.62	869.09	3.69
	9.4	303+50	45.5' LT	TIERNEY-TC	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.48	869.39	3.25
	9.5	303+50	27.1' RT	TIERNEY-TC	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	873.59	868.86	3.90
	CC2	303+53	16.1' LT	TIERNEY-TC	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		868.34	
	10.2	172+25	45.4' LT	STH19-EB_02	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	875.94	870.97	4.14
	13.0	1+70	53.3' LT	CASHEL -CW	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		873.60	
	13.1	1+70	21.2' LT	CASHEL -CW	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	878.51	874.13	3.59
	13.2	1+70	32.3' RT	CASHEL -CW	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	878.60	875.01	2.79
	13.3	1+66	61.2' RT	CASHEL -CW	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		875.49	
	13.4	2+00	18' LT	CASHEL -CW	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	878.28	874.78	2.67
	13.5	2+00	26.3' RT	CASHEL -CW	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	878.19	875.66	1.69
				0050 CATEGORY SUBTOTALS	1	0	2	0	1	0	1	15	0	0	2	0	0	14	0	0	20			
				PROJECT TOTALS	**2**	**3**	**8**	**3**	**5**	**1**	**5**	**29**	**7**	**2**	**4**	**2**	**2**	**28**	**1**	**3**	**62**			

REMARKS
* 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 LISTED ELSEWHERE

MINOR SIDE ROAD, PRIVATE ENTRANCE, AND SLOPE DRAINS

CAT	STATION	LOCATION	520.3315 Culvert Pipe Class III-A 15-Inch LF	520.3318 Culvert Pipe Class III-A 18-Inch LF	522.2324 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch LF	520.1015 Apron Endwalls for Culvert Pipe 15-Inch EACH	520.1018 Apron Endwalls for Culvert Pipe 18-Inch EACH	521.1518 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1 EACH	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch EACH	633.5200 Marking Culvert Ends EACH	650.6000 ***Construction Staking Pipe Culvert EACH	ALUMINUM THICKNESS (INCHES)	STEEL THICKNESS (INCHES)	*JOINT TIES EACH	**ELEVATIONS INLET	OUTLET
0010																
	59+71, RT	RIVER ROAD NB	-	28	-	-	2	-	-	2	1	0.06	0.064	-	870.81	870.07
	60+34, RT	RIVER ROAD NB	-	28	-	-	2	-	-	2	1	0.06	0.064	-	869.07	868.31
	61+02, LT	RIVER ROAD NB	-	36	-	-	2	-	-	2	1	0.0600	0.0640	-	867.75	867.27
	62+00	RIVER ROAD NB	-	-	61	-	-	-	2	2	1	-	-	6	866.05	864.83
	62+08	RIVER ROAD NB	-	-	61	-	-	-	2	2	1	-	-	6	866.05	864.83
	62+50, LT	RIVER ROAD NB	-	38	-	-	2	-	-	2	1	0.06	0.064	-	867.55	866.68
	156+83, RT	STH 19 EB	27	-	-	2	-	-	-	2	1	0.06	0.064	-	864.00	863.86
	160+36, LT	STH 19 WB	-	38	-	-	-	2	-	2	1	0.06	0.064	-	867.08	866.65
		PROJECT TOTALS	**27**	**168**	**122**	**2**	**8**	**2**	**4**	**16**	**8**					

* NON-BID ITEM: FOR INFORMATION ONLY
** PIPE INVERT AT END OF PIPE: FOR INFORMATION ONLY. FIELD VERIFY
*** ADDITIONAL QUANTITIES LISTED ELSEWHERE

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STORM SEWER PIPES

CAT	FROM	-	TO	LOCATION	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch LF	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch LF	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch LF	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch LF	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
0010													
	1.1	-	1.0	STH19-EB_01	-	36	-	-	-	3	879.58	879.22	0.0100
	1.2	-	1.1	STH19-EB_01	-	35	-	-	-	-	879.94	879.58	0.0100
	1.3	-	1.2	STH19-EB_01	53	-	-	-	-	-	880.97	880.44	0.0100
	2.1	-	2.0	RIVER-NB_01	30	-	-	-	-	3	876.04	875.89	0.0050
	2.2	-	2.1	RIVER-NB_01	9	-	-	-	-	-	876.08	876.04	0.0050
	3.1	-	3.0	RIVER-NB_01	-	-	-	107	-	3	870.97	869.36	0.0150
	3.2	-	3.1	RIVER-NB_01	-	-	-	129	-	3	874.70	872.77	0.0150
	3.3	-	3.1	RIVER-NB_01	71	-	-	-	-	-	876.45	875.74	0.0100
	3.4	-	3.3	RIVER-NB_01	9	-	-	-	-	-	876.54	876.45	0.0100
	3.5	-	3.1	STH19-EB_02	-	81	-	-	-	-	874.27	873.46	0.0100
	3.6	-	3.5	STH19-EB_02	-	34	-	-	-	-	874.61	874.27	0.0100
	3.7	-	3.6	STH19-EB_02	23	-	-	-	-	-	875.40	875.11	0.0125
	4.1	-	4.0	RIVER-NB_02	-	-	114	-	-	3	873.27	873.03	0.0021
	4.2	-	4.1	RIVER-NB_02	-	-	97	-	-	3	873.47	873.27	0.0021
	4.3	-	4.1	RIVER-NB_02	-	34	-	-	-	-	876.33	875.99	0.0100
	4.4	-	4.3	RIVER-NB_02	9	-	-	-	-	-	876.91	876.83	0.0100
	5.1	-	5.0	RIVER-NB_02	29	-	-	-	-	3	871.84	871.55	0.0100
	5.2	-	5.1	RIVER-NB_02	10	-	-	-	-	-	871.94	871.84	0.0100
	6.1	-	6.0	STH19-EB_02	-	-	-	85	-	3	864.90	864.65	0.0030
	6.2	-	6.1	STH19-EB_02	-	-	-	74	-	3	865.12	864.90	0.0030
	7.1	-	7.0	STH19-EB_02	-	62	-	-	-	3	867.44	866.97	0.0075
	7.2	-	7.1	STH19-EB_02	8	-	-	-	-	-	868.00	867.94	0.0075
	8.0	-	CC1	LIUNA-LWS	-	-	-	-	9	-	864.40	864.34	0.0067
	8.1	-	8.0	STH19-EB_02	-	-	-	-	105	-	865.97	864.40	0.0150
	8.2	-	8.1	STH19-EB_02	-	-	-	-	96	3	867.41	865.97	0.0150
	8.7	-	8.0	LIUNA-LWS	119	-	-	-	-	3	866.55	865.72	0.0070
	8.8	-	8.0	LIUNA-LWS	-	-	30	-	-	3	865.00	864.71	0.0100
	10.1	-	10.0	STH19-EB_02	-	88	-	-	-	3	870.22	868.90	0.0150
	11.1	-	11.0	STH19-EB_02	-	77	-	-	-	3	869.85	869.46	0.0050
	12.1	-	12.0	STH19-EB_02	-	85	-	-	-	3	874.30	874.04	0.0030
	14.1	-	14	STH19-EB_02	-	72	-	-	-	3	875.50	875.21	0.0040
			0010 CATEGORY SUBTOTALS		370	604	241	395	210				
0050													
	7.3	-	7.2	STH19-EB_02	24	-	-	-	-	-	868.18	868.00	0.0075
	8.3	-	8.1	STH19-EB_02	31	-	-	-	-	-	870.67	870.36	0.0100
	8.4	-	8.1	STH19-EB_02	15	-	-	-	-	-	870.51	870.36	0.0100
	8.5	-	8.4	STH19-EB_02	15	-	-	-	-	-	870.66	870.51	0.0100
	8.6	-	8.3	STH19-EB_02	8	-	-	-	-	-	870.75	870.67	0.0100
	9.1	-	9.0	TIERNEY-TC	-	-	-	41	-	3	867.97	867.80	0.0040
	9.2	-	9.1	TIERNEY-TC	-	-	-	46	-	-	868.15	867.97	0.0040
	9.3	-	9.2	TIERNEY-TC	30	-	-	-	-	-	869.09	868.79	0.0100
	9.4	-	9.3	TIERNEY-TC	30	-	-	-	-	-	869.39	869.09	0.0100
	9.5	-	9.1	TIERNEY-TC	30	-	-	-	-	-	868.86	868.71	0.0050
	10.2	-	10.1	STH19-EB_02	17	-	-	-	-	-	870.97	870.72	0.0150
	13.1	-	13.0	CASHEL -CW	-	32	-	-	-	3	874.13	873.60	0.0165
	13.2	-	13.1	CASHEL -CW	-	54	-	-	-	-	875.01	874.13	0.0165
	13.3	-	13.2	CASHEL -CW	-	29	-	-	-	3	875.49	875.01	0.0165
	13.4	-	13.1	CASHEL -CW	30	-	-	-	-	-	874.78	874.63	0.0050
	13.5	-	13.2	CASHEL -CW	30	-	-	-	-	-	875.66	875.51	0.0050
	CC2	-	9.2	TIERNEY-TC	-	-	33	-	-	-	868.34	868.15	0.0058
			0050 CATEGORY SUBTOTALS		260	115	33	87	0				
			PROJECT TOTALS		**630**	**719**	**274**	**482**	**210**				

* NON-BID ITEM: FOR INFORMATION ONLY

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MISCELLANEOUS ITEMS

PROJECT NUMBER	CAT	STA - STA	213.0100 FINISHING ROADWAY (5290-00-72) EACH	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (5290-00-72) EACH	619.1000 MOBILIZATION EACH
5290-00-72	0010	PROJECT LIMITS	1	0.70	0.70
5290-00-72	0020	PROJECT LIMITS	-	0.15	0.15
5290-00-72	0030	PROJECT LIMITS	-	0.15	0.15
5290-00-72	0040	PROJECT LIMITS	-	-	-
5290-00-72	0050	PROJECT LIMITS	-	-	-
		PROJECT TOTAL	**1**	**1**	**1**

TRAFFIC CONTROL AND FIELD OFFICE

PROJECT NUMBER	CAT	STA - STA	642.5401 FIELD OFFICE TYPE D EACH	643.5000 TRAFFIC CONTROL EACH
5290-00-72	0010	PROJECT LIMITS	0.70	0.70
5290-00-72	0020	PROJECT LIMITS	0.15	0.15
5290-00-72	0030	PROJECT LIMITS	0.15	0.15
5290-00-72	0040	PROJECT LIMITS	-	-
5290-00-72	0050	PROJECT LIMITS	-	-
		PROJECT TOTAL	**1**	**1**

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CONSTRUCTION STAKING

PROJECT NUMBER	CAT	STA - STA	650.6500.01 CONSTRUCTION STAKING STRUCTURAL LAYOUT (B-13-0794) LS	650.6500.02 CONSTRUCTION STAKING STRUCTURAL LAYOUT (B-13-0795) LS	650.6500.03 CONSTRUCTION STAKING STRUCTURAL LAYOUT (S-13-498) LS	650.6500.05 CONSTRUCTION STAKING STRUCTURAL LAYOUT (S-13-500) LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5290-00-72) LS
5290-00-72	0010	PROJECT LIMITS	-	-	-	-	1
5290-00-72	0020	PROJECT LIMITS	1	-	-	-	-
5290-00-72	0030	PROJECT LIMITS	-	1	-	-	-
5290-00-72	0040	PROJECT LIMITS	-	-	1	1	-
		PROJECT TOTAL	**1**	**1**	**1**	**1**	**1**

CONSTRUCTION STAKING

CAT	STA	TO	STA	ALIGN	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	COMMENTS
0010									
	231+97	-	244+76	TEB1	1279	1279	-	-	TEMPORARY WIDENING WB LANE
	134+80	-	144+20	WB	940	940	-	940	
	142+67	-	144+25	WB	-	-	158	-	
	231+38	-	244+22	TEB2	1284	1284	-	-	TEMPORARY WIDENING EB LANE
	134+80	-	144+02	EB	922	922	-	922	
	142+47	-	144+05	EB	-	-	158	-	
	49+90	-	54+98	RNB	508	508	-	508	
	52+83	-	55+04	RNB	-	-	221	-	
	49+90	-	55+10	RSB	520	520	-	520	
	52+83	-	55+09	RSB	-	-	226	-	
	10+00	-	14+22	CR	422	422	422	422	
	56+92	-	59+64	RNB	-	-	272	-	
	56+92	-	63+10	RNB	618	618	-	618	
	56+96	-	59+64	RSB	-	-	268	-	
	56+96	-	63+10	RSB	614	614	-	614	
	145+79	-	154+16	EB	837	837	837	837	
	146+08	-	154+32	WB	824	824	824	824	
	155+77	-	194+00	EB	3823	3823	3823	3823	
	155+92	-	194+55	WB	3863	3863	3863	3863	
	7+65	-	10+00	LWS	235	235	-	235	
	9+14	-	9+64	LWS	-	-	50	-	
	10+00	-	11+18	CW	118	118	-	118	
	10+26	-	10+82	CW	-	-	56	-	
	7+97	-	10+00	LES	203	203	-	203	
	9+02	-	9+64	LES	-	-	62	-	
	247+23	-	251+11	TEB3	388	388	-	-	TEMPORARY MEDIAN SINGLE LANE CROSSOVER
	292+00	-	294+63	TEB2	263	263	-	-	TEMPORARY MEDIAN SINGLE LANE CROSSOVER
	154+83	-	168+30	YA	1347	1347	-	1347	
		CATEGORY 0010 SUBTOTAL			19008	19008	11240	15794	
0050									
	256+70	-	260+96	TEB1	426	426	-	-	TEMPORARY MEDIAN CROSSOVER
	257+26	-	260+87	TEB2	361	361	-	-	TEMPORARY MEDIAN SINGLE LANE CROSSOVER
	302+10	-	304+12	TC	202	202	-	202	
	302+36	-	302+96	TC	-	-	60	-	
	302+10	-	304+37	TCS	227	227	-	227	
	302+36	-	302+96	TCS	-	-	60	-	
	273+50	-	278+39	TEB1	489	489	-	-	TEMPORARY MEDIAN CROSSOVER
	272+64	-	275+76	TEB2	312	312	-	-	TEMPORARY MEDIAN SINGLE LANE CROSSOVER
	188+14	-	194+69	WB	655	655	-	-	TEMPORARY MEDIAN CROSSOVER
		CATEGORY 0050 SUBTOTAL			2672	2672	120	429	
		PROJECT TOTAL			**21680**	**21680**	**11360**	**16223**	

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LIGHTING REMOVALS

CAT	STA	OFFSET	ALIGN	204.0195 REMOVING CONCRETE BASES* EACH	204.9060.S.02 REMOVING LIGHTING UNITS EACH
0010					
	10+71	20' RT	CR	1	1
	11+85	12' RT	CR	1	1
	13+10	0' RT	CR	1	1
	14+10	55' RT	CR	1	1
	CATEGORY 0010 SUBTOTAL			4	4
	PROJECT TOTAL			**4**	**4**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING PULL BOXES

CAT	STA	OFFSET	ALIGN	653.0905* REMOVING PULL BOXES EACH
0010				
	10+22	2' LT	CR	1
	10+51	13' RT	CR	1
	11+09	25'RT	CR	1
	11+69	3'RT	CR	1
	12+60	38'LT	CR	1
	12+94	11' LT	CR	1
	13+47	35' RT	CR	1
	13+94	34' RT	CR	1
	CATEGORY 0010 SUBTOTAL			8
	PROJECT TOTAL			**8**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

REMOVING LIGHTING CONTROL CABINETS

CAT	STA	OFFSET	ALIGN	204.9060.S.01 REMOVING LIGHT CONTROL CABINETS EACH
0010				
	10+40	40' RT	CR	1
	CATEGORY 0010 SUBTOTAL			1
	PROJECT TOTAL			**1**

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

CAT	LOCATION	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS LS
0010		
	PROJECT LIMITS (5290-00-02)	1
	CATEGORY 0010 SUBTOTAL	1
	PROJECT TOTAL	**1**

LIGHTING CONTROL CABINET AND BASES

CAT	STATION	OFFSET	ALIGN	DESCRIPTION	654.0224 CONCRETE CONTROL CABINET BASES TYPE L24 EACH	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LCC) LS	659.2124 LIGHTING CONTROL CABINETS 120/240 24-INCH EACH
0010							
	143+83	47.7' LT	WB	LCC	1	1	1
	CATEGORY 0010 SUBTOTAL				1	1	1
	PROJECT TOTAL				**1**	**1**	**1**

CONDUIT AND ELECTRICAL WIRE LIGHTING

CAT	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0620 ELECTRIC WIRE LIGHTING 8 AWG LF
0010				
	LCC	PB-1	15	135
	PB-1	PB-2	15	225
	PB-2	PB-3	52	310
	PB-3	2	177	561
	2	1	216	678
	1	STUB	10	-
	PB-3	PB-4	53	189
	PB-4	3	7	51
	3	4	102	336
	4	PB-5	33	129
	PB-5	PB-6	121	393
	PB-6	6	134	432
	6	5	180	570
	5	STUB	10	-
	PB-6	7	9	95
	7	8	96	318
	8	PB-7	34	-
	PB-7	PB-8	65	-
	PB-8	9	159	507
	9	10	210	660
	10	STUB	10	-
	PB-8	PB-9	44	162
	PB-9	11	20	90
	11	12	94	312
	12	PB-10	52	186
	PB-10	PB-11	90	300
	PB-11	14	10	100
	14	15	143	459
	15	16	155	495
	16	STUB	10	-
	PB-11	13	85	475
	13	PB-2	40	250
CATEGORY 0010 SUBTOTAL			2451	8418
PROJECT TOTAL			**2451**	**8418**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

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PULL BOXES NON-CONDUCTIVE 24X42-INCH

CAT	STATION	OFFSET	ALIGN	NAME	653.0154* PULL BOXES NON-CONDUCTIVE 24X36-INCH EACH	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH	653.0900 ADJUSTING PULL BOXES EACH
0010							
	143+74	47.3' LT	WB	PB-1	-	1	-
	143+72	31.6' LT	WB	PB-2	-	1	-
	143+50	16.8' LT	EB	PB-3	-	1	-
	143+45	36.2' RT	EB	PB-4	1	-	1
	54+63	26.0' LT	SB	PB-5	-	1	-
	54+27	66.4' RT	NB	PB-6	-	1	-
	146+39	31.4' RT	EB	PB-7	-	1	-
	146+62	18.5' LT	EB	PB-8	-	1	-
	146+84	33.7' LT	WB	PB-9	-	1	-
	57+57	24.0' RT	NB	PB-10	-	1	-
	57+60	64.6' LT	SB	PB-11	-	1	-
		CATEGORY 0010 SUBTOTAL			1	10	1
		PROJECT TOTAL			**1**	**10**	**1**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

LIGHTING UNITS AND ELECTRICAL WIRE LIGHTING

CAT	POLE NUMBER	STA	OFFSET	ALIGN	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0327 POLES TYPE 6 - ALUMINUM EACH	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
0010									
	1	139+62	8.6' LT	EB	310	1	1	2	2
	2	141+78	14.8' LT	EB	310	1	1	2	2
	3	143+58	36.0' RT	EB	186	1	1	1	1
	4	54+97	27.0' LT	SB	186	1	1	1	1
	5	51+26	24.0' RT	NB	186	1	1	1	1
	6	53+06	38.9' RT	NB	186	1	1	1	1
	7	54+36	70.1' RT	NB	186	1	1	1	1
	8	146+06	35.1' RT	EB	186	1	1	1	1
	9	148+20	20.4' LT	EB	310	1	1	2	2
	10	150+30	24.7' LT	EB	310	1	1	2	2
	11	146+56	36.0' LT	WB	186	1	1	1	1
	12	56+96	27.1' RT	NB	186	1	1	1	1
	13	144+12	36.3' LT	WB	186	1	1	1	1
	14	57+67	60.5' LT	SB	186	1	1	1	1
	15	59+10	32.5' LT	SB	186	1	1	1	1
	16	60+65	24.0' LT	SB	186	1	1	1	1
		CATEGORY 0010 SUBTOTAL			3472	16	16	20	20
			PROJECT TOTAL		**3472**	**16**	**16**	**20**	**20**

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CONCRETE BASES TYPE 6

CAT	STATION	OFFSET	ALIGN	POLE NUMBER	654.0106 CONCRETE BASES TYPE 6 EACH
0010					
	139+62	8.6' LT	EB	1	1
	141+78	14.8' LT	EB	2	1
	143+58	36.0' RT	EB	3	1
	54+97	27.0' LT	SB	4	1
	51+26	24.0' RT	NB	5	1
	53+06	38.9' RT	NB	6	1
	54+36	70.1' RT	NB	7	1
	146+06	35.1' RT	EB	8	1
	148+20	20.4' LT	EB	9	1
	150+30	24.7' LT	EB	10	1
	146+56	36.0' LT	WB	11	1
	56+96	27.1' RT	NB	12	1
	144+12	36.3' LT	WB	13	1
	57+67	60.5' LT	SB	14	1
	59+10	32.5' LT	SB	15	1
	60+65	24.0' LT	SB	16	1
		CATEGORY 0010 SUBTOTAL			16
		PROJECT TOTAL			**16**

SAWING

CAT	STA	TO	STA	OFFSET	ALIGN	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
0010								
	131+25	-	134+80	RT	EB	360	-	SHOULDER
	131+95	-	134+80	LT	EB	290	-	SHOULDER
			134+80	LT/RT	EB	-	24	MAINLINE LANES
			49+90	LT/RT	RNB	28	-	MAINLINE LANES
			63+10	LT/RT	RSB	22	-	MAINLINE LANES
	62+40	-	62+60	LT	RSB	20	-	DRIVEWAY
	231+38	-	235+00	LT/RT	TEB2	360	-	STAGING 1D INSTALLING TEMP. EB WIDENING
	231+97	-	234+65	LT/RT	TEB1	270	-	STAGING 1A INSTALLING TEMP. WB WIDENING
			143+57	RT	EB	40	-	STAGING 2B-RAB REMOVE TEMP. EB WIDENING
	244+82	-	245+04	LT	TEB1	-	94	STAGING 1B SPLITTER ISLAND REMOVAL
	46+49	-	48+15	LT/RT	TRR	170	-	STAGING 1A- INSTALLING TEMP. RNB WIDENING
	55+23	-	56+16	LT	TRR	120	-	STAGING 1A- INSTALLING TEMP. RNB WIDENING
	244+32	-	244+95	LT	TEB1	-	100	STAGING 1A- INSTALLING TEMP. WB WIDENING
	244+43	-	245+12	RT	TEB1	-	69	STAGING 1C- INSTALLING TEMP. ASPHALT IN RAB
	245+47	-	245+90	LT	TEB1	-	74	STAGING 1A- INSTALLING TEMP. WB WIDENING
	245+68	-	251+14	LT/RT	TEB1	-	1110	STAGING 1B- SPLITTER ISLAND REMOVAL
	160+28	-	160+45	LT	WB	16	-	DRIVEWAY
	166+00	-	168+64	LT	WB	270	-	STAGING 1A-LNW1 INSTALLING TEMP. ASPHALT
	268+35	-	268+84	LT	TEB1	-	170	STAGING 1A-LNW1 INSTALLING PIPE
			7+66	RT	LWS	-	10	SIDEWALK
			7+66	LT/RT	LWS	32	5	MAINLINE LANES AND CURB/GUTTER
	7+66	-	10+40		LWS	270	-	STAGING 1A-LNW1 LONGITUDINAL CUT ALONG LANE
	9+04	-	9+34	RT	LWS	48	5	STAGING 1A-LNW1 INSTALLING PIPE
			10+25	RT	LWS	42	-	STAGING 1A-LNW1 INSTALLING TEMP. ASPHALT
			8+85	LT/RT	LES	32	5	MAINLINE LANES AND CURB/GUTTER
			175+00	LT	WB	-	38	STAGING 1D- TEMP. TRANSITION TURN LANE WB
	186+20	-	188+41	LT	WB	-	480	STAGING 1D-MED SPLITTER ISLAND REMOVAL
	188+15	-	194+69	LT/RT	WB	-	660	STAGING 1D-MED SPLITTER ISLAND REMOVAL
			194+00	RT	EB	-	45	MAINLINE LANES
	194+00	-	194+69	LT	EB	-	69	LONGITUDINAL CUT ALONG CURB/GUTTER
			194+05	LT	WB	-	8	TRANSVERSAL CUT ACROSS SHOULDER
	194+05	-	194+55	LT	WB	-	50	LONGITUDINAL CUT ALONG SHOULDER
			194+55	LT	WB	-	24	MAINLINE LANES
	194+55	-	194+70	LT	WB	-	15	LONGITUDINAL CUT ALONG CURB/GUTTER
			194+70	RT	WB	-	7	CURB AND GUTTER
			194+70	LT	EB	-	7	CURB AND GUTTER
	293+29	-	294+62	LT	TEB2	-	140	STAGING 1E- TEMP. MEDIAN CROSSOVER
			CATEGORY 0010 SUBTOTAL			2390	3209	
0050								
	256+49	-	258+61	LT/RT	TEB1	210	-	STAGING 1A- TEMP. MEDIAN CROSSOVER
			304+37	LT	TCS	32	10	MAINLINE LANES AND SIDEWALK
			304+38	LT	TCS	10	-	ASPHALT SIDEWALK
			304+12	RT	TC	21	-	MAINLINE LANES
	273+97	-	275+89	LT	TEB2	190	-	STAGING 1E- TEMP. MEDIAN CROSSOVER
	275+93	-	278+39	LT/RT	TEB1	250	-	STAGING 1A- TEMP. MEDIAN CROSSOVER
			11+18	LT/RT	CW	32	5	MAINLINE LANES AND CURB/GUTTER
			CATEGORY 0050 SUBTOTAL			745	15	
			PROJECT TOTAL			**3135**	**3224**	

OPTIMIZED AGGREGATE GRADATION INCENTIVE

CAT	LOCATION	715.0710 OPTIMIZED AGGREGATE GRADATION INCENTIVE DOL
0010		
	PROJECT LIMITES	37406
	CATEGORY 0010 SUBTOTAL	37406
0050		
	PROJECT LIMITES	5972
	CATEGORY 0050 SUBTOTAL	5972
	PROJECT TOTAL	**43378**

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LANDMARK REFERENCE MONUMENTS

CAT	DESCRIPTION	SPV.0060.02 LANDMARK REFERENCE MONUMENTS SPECIAL EACH	SPV.0060.03 VERIFY LANDMARK REFERENCE MONUMENTS EACH
0010			
	M.C. SECTION 31/6 T9N R10E, T8N R10E	1	4
	SECTION 6 T8N R10E	1	4
	SECTION 31 T9N R10E	1	4
	CATEGORY 0010 SUBTOTAL	3	12
	PROJECT TOTAL	**3**	**12**

YAHARA RIVER ACCESS ROAD AND WALKING PATH

CAT	STA	TO	STA	ALIGN	LOCATION	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	371.1000.S* QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TON	645.0140* GEOTEXTILE FABRIC TYPE SAS SY	SPV.0105.01 WALKING PATH LS	SPV.0105.02 CANOE & KAYAK LAUNCH LS	SPV.0105.03 INSTALLING FURNISHED DANE COUNTY PARK KIOSK LS	SPV.0105.04 INSTALLING FURNISHED DANE COUNTY PARK SIGN LS
0010												
	154+83	-	156+58	YA	WALKING PATH	1230	1230	140	1	-	1	1
			154+83	YA	CANOE & KAYAK LAUNCH	50	50	5	-	1	-	-
					CATEGORY 0010 SUBTOTAL	1280	1280	145	1	1	1	1
					PROJECT TOTAL	**1280**	**1280**	**145**	**1**	**1**	**1**	**1**

***ADDITIONAL QUANTITIES LISTED ELSEWHERE**

3

CONCRETE BASES

BASE NO.	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING							
CABINET	167+47 WB	72' LT	---	---	---	---	1
SB1	167+61 WB	68' LT	1	---	---	---	---
SB2	168+13 WB	67' LT	---	1	---	---	---
SB3	168+64 WB	66' LT	---	---	---	1	---
SB4	168+82 WB	49' LT	1	---	---	---	---
SB5	168+82 WB	13' RT	---	---	1	---	---
SB6	169+03 EB	9' LT	---	1	---	---	---
SB7	168+82 EB	49' RT	---	---	---	1	---
SB8	168+39 EB	71' RT	1	---	---	---	---
SB9	167+64 EB	63' RT	---	---	---	1	---
SB10	167+34 EB	44' RT	1	---	---	---	---
SB11	167+34 EB	9' LT	---	---	1	---	---
SB12	167+21 WB	9' RT	---	1	---	---	---
SB13	167+35 WB	47' LT	---	---	---	1	---
		TOTAL	**4**	**3**	**2**	**4**	**1**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

PULL BOXES NON-CONDUCTIVE

PB NO.	STATION	OFFSET	653.0154* 24x36-INCH EACH	653.0164 24x42-INCH EACH
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING				
PB1	167+68	WB 78' LT	---	1
PB2	167+68	WB 88' LT	1	---
PB3	168+13	WB 77' LT	---	1
PB4	168+57	WB 77' LT	---	1
PB5	168+90	WB 49' LT	---	1
PB6	171+36	WB 46' LT	1	---
PB7	173+36	WB 44' LT	1	---
PB8	168+89	WB 13' RT	---	1
PB9	171+36	WB 14' RT	1	---
PB10	168+60	EB 48' RT	---	1
PB11	168+37	EB 89' RT	---	1
PB12	167+28	EB 47' RT	---	1
PB13	165+81	EB 47' RT	1	---
PB14	163+06	EB 36' RT	1	---
PB15	167+28	EB 9' LT	---	1
PB16	167+12	EB 9' LT	1	---
PB17	165+81	EB 9' LT	1	---
PB18	167+50	WB 52' LT	---	1
COMMUNICATION PULL BOXES				
IC-PB1	176+37	WB 41' LT	1	---
IC-PB2	179+38	WB 40' LT	1	---
IC-PB3	182+36	WB 43' LT	1	---
IC-PB4	185+37	WB 38' LT	1	---
IC-PB5	188+37	WB 36' LT	1	---
IC-PB6	191+36	WB 36' LT	1	---
		TOTAL	**14**	**10**

* ADDITIONAL QUANTITIES ELSEWHERE

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

3

PEDESTRIAN BUTTON CABLE

FROM	TO	SLACK PER PB & CB LF	655.0700* LOOP DETECTOR LEAD-IN CABLE LF
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING			
CAB	SB1	16	49
SB1	BUTTON	16	6
CAB	SB2	16	109
SB2	BUTTON	16	6
CAB	SB3	16	172
SB3	BUTTON	16	6
CAB	SB4	16	227
SB4	BUTTON	16	6
CAB	SB5	16	303
SB5	BUTTON	16	6
CAB	SB7	16	409
SB7	BUTTON	16	6
	TOTAL		**1305**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

3

FROM	TO	CONDUIT 652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	CONDUIT 652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING				
CABINET	PB1	---	63	---
CABINET	PB18	---	63	---
PB1	PB3	---	90	---
PB1	PB2	11	---	---
PB3	PB4	---	90	---
PB4	PB5	---	90	---
PB5	PB6	145	---	---
PB6	PB7	301	---	---
PB5	PB8	---	122	---
PB8	PB9	150	---	---
PB8	PB10	---	180	---
PB10	PB11	---	94	---
PB10	PB12	---	264	---
PB12	PB13	146	---	---
PB13	PB14	276	---	---
PB12	PB15	---	112	---
PB15	PB16	16	---	---
PB16	PB17	135	---	---
PB15	PB18	---	192	---
PB1	SB1	12	---	---
PB3	SB2	10	---	---
PB4	SB3	13	---	---
PB5	SB4	8	---	---
PB8	SB5	5	---	---
PB8	SB6	32	---	---
PB10	SB7	22	---	---
PB11	SB8	28	---	---
PB12	SB9	---	39	---
PB12	SB10	8	---	---
PB15	SB11	5	---	---
PB15	SB12	33	---	---
PB18	SB13	---	17	---
	SUBTOTAL	**1356**	**1416**	**0**

FROM	TO	CONDUIT 652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	CONDUIT 652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
COMMUNICATION CONDUIT				
PB7	IC-PB1	300	---	---
IC-PB1	IC-PB2	301	---	---
IC-PB2	IC-PB3	298	---	---
IC-PB3	IC-PB4	300	---	---
IC-PB4	IC-PB5	300	---	---
IC-PB5	IC-PB6	300	---	---
IC-PB6	EX-PB1	285	---	1
	SUBTOTAL	**2084**	**0**	**1**
	TOTAL	**3440**	**1416**	**1**

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UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

SIGNAL CABLE

		655.0230	655.0240	655.0250	655.0270
		CABLE TRAFFIC SIGNAL			
FROM	TO	5-14 AWG LF	7-14 AWG LF	9-14 AWG LF	15-14 AWG LF
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING					
CABINET	SB1	---	---	39	---
SB1	FACE 16	21	---	---	---
SB1	FACE 91	18	---	---	---
CABINET	SB2	---	---	89	---
SB2	FACE 19	---	22	---	---
CABINET	SB3	---	---	142	---
SB3	FACE 14	54	---	---	---
SB3	FACE 15	66	---	---	---
SB3	FACE 92	18	---	---	---
CABINET	SB4	---	187	---	---
SB4	FACE 7	21	---	---	---
SB4	FACE 93	18	---	---	---
CABINET	SB5	253	---	---	---
SB5	FACE 6	34	---	---	---
CABINET	SB6	273	---	---	---
SB6	FACE 10	26	---	---	---
CABINET	SB7	---	---	359	---
SB7	FACE 2	62	---	---	---
SB7	FACE 3	50	---	---	---
SB7	FACE 94	18	---	---	---
CABINET	SB8	---	408	---	---
SB8	FACE 13	21	---	---	---
SB8	FACE 20	---	21	---	
CABINET	SB9	---	---	---	229
SB9	FACE 17	41	---	---	---
SB9	FACE 18	26	---	---	---
SB9	FACE 21	63	---	---	---
CABINET	SB10	---	194	---	---
SB10	FACE 1	21	---	---	---
SB10	FACE 11	21	---	---	---
CABINET	SB11	132	---	---	---
SB11	FACE 12	38	---	---	---
CABINET	SB12	160	---	---	---
SB12	FACE 4	26	---	---	---
CABINET	SB13	---	43	---	---
SB13	FACE 8	65	---	---	---
SB13	FACE 9	53	---	---	---
	TOTAL	**1599**	**875**	**629**	**229**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

EQUIPMENT GROUNDING CONDUCTORS & PULL BOX JUMPERS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	LF
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING			
EQUIPMENT GROUNDING CONDUCTORS			
		(GREEN)	(WHITE)
CABINET	SB1	43	43
SB1	SB2	87	87
SB2	SB3	88	88
SB3	SB4	85	85
SB4	SB5	97	97
SB5	SB6	45	45
SB6	SB7	160	160
SB7	SB8	117	117
SB8	SB9	276	276
SB9	SB10	58	58
SB10	SB11	90	90
SB11	SB12	48	48
SB12	SB13	165	165
SB13	CABINET	47	47
PULL BOX BONDING JUMPERS			
		(GREEN)	(WHITE)
PB1	CABINET	31	31
PB18	CABINET	31	31
PB3	SB2	20	20
PB4	SB3	24	24
PB5	SB4	18	18
PB8	SB5	17	17
PB10	SB7	32	32
PB11	SB8	38	38
PB12	SB10	18	18
PB15	SB11	16	16
PB18	SB13	27	27
	SUBTOTAL	1678	1678
	TOTAL	**3356**	

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

LOOP DETECTORS

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: STH 19 & LIUNA WAY/TIERNEY CROSSING									
11	PB16	167+35 EB 20' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	68	150	172
12	PB16	167+09 EB 20' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	68	150	224
13	PB16	167+35 EB 31' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	90	150	194
14	PB16	167+09 EB 31' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	90	150	246
15	PB17	165+81 EB 25' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	82	287	238
21	PB6	173+36 WB 12' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	100	391	204
22	PB7	173+16 WB 12' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	100	638	256
41	PB2	167+80 WB 67' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	74	27	178
42	PB2	167+80 WB 91' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	74	27	178
51	PB8	168+83 EB 21' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	90	246	194
52	PB8	169+09 EB 21' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	102	246	206
53	PB9	170+35 EB 22' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	78	400	234
61	PB13	165+81 EB 12' RT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	98	342	202
62	PB14	163+06 EB 12' RT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	82	623	238
71	PB2	167+91 WB 67' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	94	27	250
72	PB2	167+91 WB 91' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	94	27	250
73	PB3	168+02 WB 67' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	76	27	180
74	PB3	168+02 WB 91' LT	6' X 20'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	82	27	186
81	PB11	168+24 EB 64' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	74	356	230
82	PB11	168+24 EB 90' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	74	356	230
83	PB11	168+12 EB 64' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	96	356	252
84	PB11	168+12 EB 90' LT	6' X 20'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	96	356	252
						TOTAL	**1690**	**4647**	**4290**

^ LOCATION IS TO THE FRONT CENTER OF THE DETECTOR

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

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TRAFFIC SIGNAL BASES AND POLES

BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0355 POLES TYPE 12 EACH	657.0360 POLES TYPE 13 EACH	657.0425 TRAFFIC SIGNAL STANDARD ALUMINUM 15-FOOT EACH	657.0540 MONOTUBE ARMS 40-FT EACH	657.0545 MONOTUBE ARMS 45-FT EACH
INTERSECROSSINGION: STH 19 & LIUNA WAY/TIERNEY CROSSING								
SB1	1	---	---	---	---	1	---	---
SB2	---	1	1	---	---	---	---	---
SB3	---	---	---	1	---	---	---	1
SB4	1	---	---	---	---	1	---	---
SB5	1	---	---	---	---	1	---	---
SB6	---	1	1	---	---	---	---	---
SB7	---	---	---	1	---	---	---	1
SB8	1	---	---	---	---	1	---	---
SB9	---	---	---	---	1	---	1	---
SB10	1	---	---	---	---	1	---	---
SB11	1	---	---	---	---	1	---	---
SB12	---	1	1	---	---	---	---	---
SB13	---	---	---	1	---	---	---	1
TOTAL	**6**	**3**	**3**	**3**	**1**	**6**	**1**	**3**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

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TRAFFIC SIGNAL FACES

SB NO.	FACE NO.	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
INTERSECROSSINGION: STH 19 & LIUNA WAY/TIERNEY CROSSING					
SB1	16	1	--	--	--
	91	--	--	1	--
	BUTTON	--	--	--	1
SB2	19	1	---	--	--
	BUTTON	--	--	--	1
SB3	14	1	--	--	--
	15	1	--	--	--
	92	--	--	1	--
	BUTTON	--	--	--	1
SB4	5	--	1	--	--
	7	1	--	--	--
	93	--	--	1	--
	BUTTON	--	--	--	1
SB5	6	--	1	--	--
	BUTTON	--	--	--	1
SB6	10	1		--	--
SB7	2	1	--	--	--
	3	1	--	--	--
	94	--	--	1	--
	BUTTON	--	--	--	1
SB8	13	1	--	--	--
	20	1	--	--	--
SB9	17	1	--	--	--
	18	1	--	--	--
	21	1	--	--	--
SB10	1	1	--	--	--
	11	1	--	--	--
SB11	12	1	--	--	--
SB12	4	--	1	--	--
SB13	8	1	--	--	--
	9	1	--	--	--
	TOTAL	**18**	**3**	**4**	**6**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

3

LIGHTING UNITS

BASE NO.	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	657.0815 LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LIGHTING UTILITY LED C EACH
INTERSECROSSINGION: STH 19 & LIUNA WAY/TIERNEY CROSSING			
SB2	2	---	2
SB3	---	1	1
SB6	2	---	2
SB7	---	1	1
SB9	---	1	1
SB12	2	---	2
SB13	---	1	1
TOTAL	**6**	**4**	**10**

SIGNAL MOUNTING HARDWARE (ORNAMENTAL)

LOCATION	658.5069.01 LS
.01 STH 19 & LIUNA WAY/TIERNEY CROSSING	1
TOTAL	**1**

3

LIGHTING WIRE

FROM	TO	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
INTERSECTION: STH 19 & LIUNA WAY/TIERNEY CROSSING			
CABINET	SB13	44	--
SB13	LUM.	--	144
	TOTAL	**44**	**144**

INSTALL CAMERA ASSEMBLY

LOCATION	677.0200 EACH
STH 19 & LIUNA WAY/TIERNEY CROSSING	2
TOTAL	**2**

TRANSPORT AND INSTALL STATE-FURNISHED CAT5E CABLE (LOCATION)

LOCATION	SPV.0105.07 LS	FOR INFORMATION ONLY LF
STH 19 & LIUNA WAY/TIERNEY CROSSING	1	CABLE TO SB13 = 418 LF CABLE TO SB13 = 112 LF
TOTAL	**1**	

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

INTERCONNECT FIBER OPTIC CABLE SUMMARY

FROM	TO	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT LF	655.0505 ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG LF
CAB - LIUNA WAY	PB1	73	73
PB1	PB3	100	100
PB3	PB4	100	100
PB4	PB5	100	100
PB5	PB6	155	155
PB6	PB7	311	311
PB7	IC-PB1	310	310
IC-PB1	IC-PB2	310	310
IC-PB2	IC-PB3	310	310
IC-PB3	IC-PB4	310	310
IC-PB4	IC-PB5	310	310
IC-PB5	IC-PB6	310	310
IC-PB6	EX-PB1	295	295
EX-PB1	CB1 (S13-1408)	60	60
	TOTAL	**2981**	**2981**

INTERCONNECT ITEMS

CABINET	LOCATION	STATION	OFFSET	678.0400 FIBER OPTIC TERMINATION EACH
CABINET (S13-1408)	STH 19 & LIUNA WAY/TIERNEY CROSSING	194+18 WB	66' LT	4
CABINET (S13-1410)	STH 19 & SB IH 39/90/94	167+47 WB	72' LT	2
			TOTAL	**6**

FIELD SYSTEM INTEGRATOR (PROJECT)

PROJECT	670.0100 FIELD SYSTEM INTEGRATOR LS
5290-00-72 SIGNALS	1
TOTAL	**1**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0050

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
INTERSECTION: STH 19 & SB IH 39/90/94 INTERSECTION		
PB21	PB22	125
PB22	PB23	140
	TOTAL	**265**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING SIGNAL EQUIPMENT

INTERSECTION	653.0905 REMOVING PULL BOXES EACH
STH 19 & SB IH 39/90/94 INTERSECTION	2
TOTAL	**2**

PULL BOXES NON-CONDUCTIVE

PB NO.	STATION	OFFSET	653.0154* 24x36-INCH EACH
INTERSECTION: STH 19 & SB IH 39/90/94 INTERSECTION			
PB22	192+74 EB	11' LT	1
PB23	191+36 EB	12' LT	1
		TOTAL	**2**

* ADDITIONAL QUANTITIES ELSEWHERE

ADJUSTING PULL BOXES

INTERSECTION	PULL BOX NO.	STA./OFFSET	653.0900 ADJUSTING PULL BOXES EACH
STH 19 & SB IH 39/90/94 INTERSECTION	PB21	194+20 EB, 8' LT	2
		TOTAL	**2**

REMOVE AND REINSTALL LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.06 LS
STH 19 & SB IH 39/90/94	1
TOTAL	**1**

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0010

3

LOOP DETECTORS

LOOP NO.	HOME RUN PB.	LOCATION^	SIZE (FT. X FT.)	NO. OF TURNS	PAVEMENT	SDD INSTALLATION REFERENCE	652.0800* CONDUIT LOOP DETECTOR LF
INTERSECTION: STH 19 & SB IH 39/90/94 INTERSECTION							
61	PB16	167+35 EB 20' LT	6' X 18'	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	104
62	PB16	167+09 EB 20' LT	6' X 12'	5	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	88
63	PB16	167+35 EB 31' LT	6' X 12'	5	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SDD 9F15 SHEET B	140
						TOTAL	**332**

^ LOCATION IS TO THE FRONT CENTER OF THE DETECTOR

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED, ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0010

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

5290-00-22

USH 12 - IH 39

RIVER ROAD TO IH 39

STH 19

DANE COUNTY



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) — W (TYPE)
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
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (3/4-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — OFF-PREMISE SIGN (I-25)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	●	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	▣	⌑

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

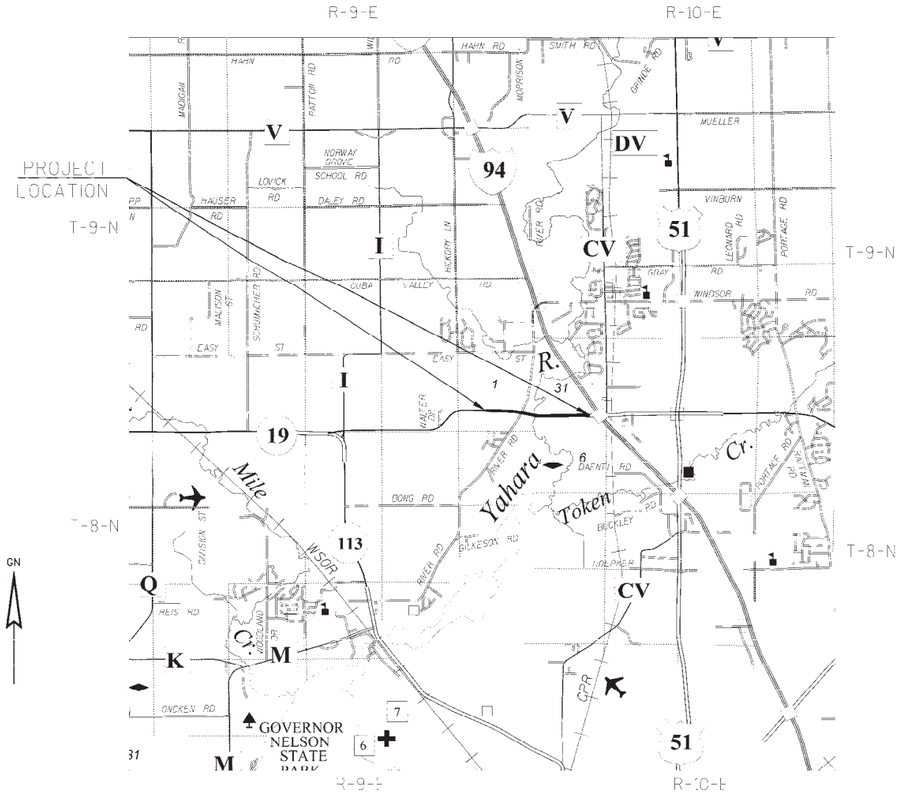
PARCEL NUMBER (25) UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	POINT OF REVERSE CURVATURE	PRC
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	REMAINING	REM
CERTIFIED SURVEY MAP	CSM	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
END OF PROJECT	EP	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
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		

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



LAYOUT
SCALE 0 1 MI

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 5290-00-22

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (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 3/4" X 24" REBARS), 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 NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE 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 EASEMENT (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 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.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING ACCESS CONTROL ALONG STH 19 HAS BEEN ESTABLISHED FROM PREVIOUS PROJECTS 5291-01-21, T90-2(10), 1010-02-20, CSM 14659, AND CSV 14841.

EXISTING ACCESS CONTROL ALONG 39 HAS BEEN ESTABLISHED FROM PREVIOUS PROJECTS T90-2(10), 1010-02-20, AND 1011-00-24.

EXISTING ACCESS CONTROL ALONG TIERNEY CROSSING HAS BEEN ESTABLISHED FROM CSM 14841.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 19 ESTABLISHED FROM PREVIOUS PROJECTS 5291-01-21, T90-2(10), 1010-02-20, THE PLAT OF UNION CONSERVANCY PARK, AND CSM 14841.

EXISTING HIGHWAY RIGHT-OF-WAY FOR RIVER ROAD ESTABLISHED FROM CENTERLINE OF EXISTING PAVMENTS AND FROM CSM 14621.

EXISTING HIGHWAY RIGHT-OF-WAY FOR LUNA WAY ESTABLISHED FROM THE PLAT OF UNION CONSERVANCY PARK AND FROM PREVIOUS PROJECT 1010 02 20.

EXISTING HIGHWAY RIGHT-OF-WAY FOR TIERNEY CROSSING ESTABLISHED FROM DOC.#5395427 AND CSM 14841.

EXISTING HIGHWAY RIGHT-OF-WAY FOR DALVORE ROAD ESTABLISHED FROM DOC.#5395427 AND CSM 14659.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CASHEL WAY ESTABLISHED FROM CSV 14659.

EXISTING HIGHWAY RIGHT-OF-WAY FOR 139 ESTABLISHED FROM PREVIOUS PROJECTS I 90-2(20)122, T90-2(20), 1011-00-24, AND 1010-02-20.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5290-00-22 - 4.01
SHEET 2 OF 2
AMENDMENT NO: 280

FILE NAME : X:\PROJECTS\DANE\5290-00-02 STH 19\DESIGN\C3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : 7/30/18
PLOT DATE : 7/12/2016 7:41 AM
PLOT BY : CHAD KWIATKOWSKI
PLOT NAME :

5290-00-22 -4.01

LAYOUT NAME - 040101-RP - TPP TITLE 34X22

TRANSPORTATION PROJECT PLAT NO: 5290-00-22 -4.01

THAT PART OF THE NW 1/4 OF THE SE 1/4, THE NE 1/4 OF THE SE 1/4, AND THE SW 1/4 OF THE SE 1/4, AND THAT PART OF LOT 2, CSM 14621 LOCATED IN AND PART OF THE SE 1/4 OF THE SE 1/4, ALL IN SECTION 1, TOWNSHIP 8 NORTH, RANGE 9 EAST, TOWN OF WESTPORT, DANE COUNTY, WISCONSIN.

RELOCATION ORDER STH 19 USH 12 - IH 39 (RIVER ROAD TO IH 39) DANE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION 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 PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 19 ESTABLISHED FROM PROJECT 5291-01-21.

EXISTING HIGHWAY RIGHT-OF-WAY FOR RIVER ROAD ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENT AND FROM CSM 14621.

EXISTING ACCESS CONTROL ALONG STH 19 HAS BEEN ESTABLISHED FROM PREVIOUS PROJECT 5291-01-21.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

FOUND IRON PINS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2

SCHEDULE OF LANDS & INTERESTS REQUIRED								
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W ACRES. REQUIRED NEW	EXISTING	TOTAL	T.L.E. ACRES	P.L.E. ACRES	H.E. ACRES
1	RONALD J. & HEATHER L. TREINEN	FEE & TLE	1.031	0.571	1.602	0.133	---	---
2	BRIAN & MICHELLE CARLSON	FEE	0.038	0.062	0.100	---	---	---
3	DANE COUNTY	FEE & TLE	1.992	0.475	2.467	0.661	---	---
4	MARY A. WOODBURN	FEE	0.338	0.768	1.106	---	---	---
6	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	FEE	0.675	---	0.675	---	---	---

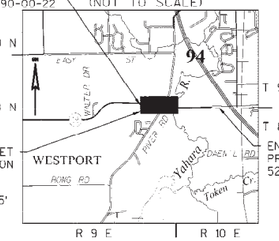
NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

GN

0 100 200
SCALE, FEET

BEGIN PROJECT 5290-00-22

PROJECT LOCATION (NOT TO SCALE)



END PROJECT 5290-00-22

KRISTI CHLEBOWSKI
DANE COUNTY
REGISTER OF DEEDS

DOCUMENT #
5432491
08/08/2018 02:33 PM
Trans Fee:
Exempt #:
Rec. Fee: 25.00
Pages:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5290-00-22-4.01
SHEET 1 OF 2
AMENDMENT NO:___

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
100-101	S88° 01' 10"E	624.86'
101-102	N88° 15' 39"E	154.14'
102-103	N88° 33' 22"E	165.65'
103-104	S84° 41' 46"E	415.44'
104-105	N89° 23' 13"E	294.24'
105-106	N48° 05' 58"E	184.42'
106-107	N32° 33' 56"E	301.04'
107-108	N27° 48' 07"E	105.00'
108-109	S62° 11' 53"E	19.45'
109-110	S62° 11' 53"E	66.00'
110-111	S62° 11' 53"E	19.55'
111-112	S27° 21' 15"W	492.61'
112-113	S13° 02' 40"E	72.99'
113-114	S70° 10' 49"E	124.76'
114-115	S71° 26' 30"E	127.39'
115-116	S75° 10' 01"E	295.29'
116-117	N88° 53' 45"E	107.94'
117-118	S78° 58' 14"E	189.28'
119-120	N84° 19' 05"W	56.05'

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
120-121	S09° 31' 24"W	26.00'
121-122	N75° 56' 27"W	188.54'
122-123	N69° 03' 33"W	232.65'
123-124	N79° 07' 56"W	392.20'
124-125	S63° 10' 39"W	151.44'
125-126	S39° 37' 14"W	295.55'
126-127	SEE CURVE TABLE	---
127-128	S33° 51' 14"W	161.67'
128-129	N56° 12' 27"W	73.00'
129-130	N33° 51' 14"E	161.75'
130-131	SEE CURVE TABLE	---
131-132	N59° 47' 42"W	35.64'
132-133	N29° 56' 39"E	204.69'
133-134	N18° 47' 27"E	205.70'
134-135	N33° 07' 21"W	95.63'
135-136	N78° 33' 01"W	114.54'
136-137	S81° 30' 51"W	188.57'
137-138	N61° 39' 13"W	207.58'
138-139	N81° 26' 15"W	242.13'
139-140	N88° 01' 10"W	773.08'

FOUND ALUMINUM CAP MONUMENT
Y=530,998.802
X=824,407.183

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	CENTURYLINK-COMMUNICATION	RELEASE OF RIGHTS
102	ALLIANT ENERGY-ELECTRIC	RELEASE OF RIGHTS
103	CHARTER-COMMUNICATION	RELEASE OF RIGHTS

NW-SE

S00°09'24"E, 4,015.12' COR TO EX R/W

N00°09'24"W, 72.92' R/L TO EX R/W

TOWN

STA:127+55.96'EB'

R/L BEARING S 88°01'43" E

130'EB'

135'EB'

140'EB'

SIXTEENTH LINE

STH 19

TLE GRADING 0.133 AC.

FEE 1.027 AC.

FEE 0.004 AC.

PI:136+50.19'EB'

PC:135+00.00'EB'

PCC:138+00.34'EB'

PI:139+43.27'EB'

STA:139+74.48'EB'

PT:140+86.00'EB'

STA:141+10.80'EB'

PI:143+66.64'EB'

PC:143+24.17'EB'

PT:144+05.24'EB'

PC:54+45.19'NB'

R/L BEARING N 18°56'20" E

PT:54+21.33'NB'

PC:53+25.41'NB'

PT:57+90.01'NB'

PC:56+91.73'NB'

PC:145+53.61'EB'

PI:147+25.87'EB'

PT:147+98.02'EB'

PC:153+20.52'EB'

R/L BEARING S 77°42'42" E

PI:145+79.32'EB'

PT:55+03.60'NB'

PI:53+73.52'NB'

PT:50+00.00'NB'

PC:47+20.30'NB'

R/L BEARING N 33°47'33" E

STA:48+11.54'NB'

N56°12'27"W, 33.53' R/L TO EX R/W

N56°12'27"W, 39.47' EX R/W TO R/L

SW-SE

SE-SE

LOT 2

CSM NO. 14621
VOLUME 101,
PAGE 1/8
DOC. 5361068

WESTPORT

SEPTIC SYSTEM DRAIN FIELD EASEMENT V.1093/P.477 DOC. 1637754

RIGHT OF WAY EASEMENT V.1093/P.477 DOC. 1637754

RIVER RD

S62°11'53"E, 30.55' R/W TO R/L

S62°11'53"E, 35.45' R/L TO R/W

R/L BEARING N 27°48'07" E

FEE 0.242 AC.

TLE GRADING 0.010 AC.

TLE GRADING 0.122 AC.

TLE GRADING 0.529 AC.

FEE 1.431 AC.

FEE 0.319 AC.

FD 1" REBAR 0.30' N 0.20' E

FD 3/4" 0.55' N 0.90' E

SILOS

N.T.S.

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
100	127+53.25'EB'	72.87'
101	133+78.11'EB'	72.77'
102	135+31.60'EB'	82.81'
103	136+95.00'EB'	95.00'
104	141+00.00'EB'	101.00'
105	143+51.00'EB'	161.00'
106	59+15.00'NB'	75.00'
107	62+15.00'NB'	50.00'
108	63+20.00'NB'	50.00'
109	63+20.00'NB'	30.55'
110	63+20.00'NB'	35.45'
111	63+20.00'NB'	55.00'
112	58+20.00'NB'	55.00'
113	146+70.61'EB'	189.47'
114	147+80.34'EB'	167.14'
115	149+05.00'EB'	153.11'
116	152+00.00'EB'	140.00'
117	153+05.00'EB'	165.00'
118	155+03.02'EB'	164.56'
119	155+41.27'EB'	105.68'

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
120	154+87.00'EB'	109.00'
121	154+87.00'EB'	135.00'
122	153+05.00'EB'	125.00'
123	150+75.00'EB'	90.00'
124	146+75.00'EB'	95.00'
125	53+75.00'NB'	95.00'
126	50+93.00'NB'	42.33'
127	48+30.59'NB'	41.12'
128	46+70.00'NB'	39.47'
129	46+70.00'NB'	33.53'
130	48+32.63'NB'	31.85'
131	49+80.00'NB'	29.36'
132	49+80.00'NB'	65.00'
133	51+85.00'NB'	65.00'
134	54+02.48'NB'	100.00'
135	142+76.61'EB'	128.04'
136	141+62.13'EB'	124.27'
137	139+76.20'EB'	180.80'
138	137+75.93'EB'	100.39'
139	135+32.22'EB'	77.19'
140	127+58.83'EB'	77.13'

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
T100	134+50.00'EB'	77.43'
T101	137+50.00'EB'	120.00'
T102	139+40.00'EB'	92.42'
T103	60+55.00'NB'	57.07'
T104	60+55.00'NB'	65.00'
T105	60+35.00'NB'	75.00'
T106	60+15.00'NB'	57.38'
T107	59+90.00'NB'	57.58'
T108	59+60.00'NB'	140.00'
T109	59+10.00'NB'	140.00'
T110	59+10.00'NB'	58.20'
T111	49+00.00'NB'	90.00'
T112	47+50.00'NB'	70.00'

CURVE TABLE				
PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
126-127	S30° 57' 09"W	2,608.82'	264.11'	264.22'
130-131	N32° 12' 03"E	2,535.82'	146.30'	146.32'

(100) CENTURYLINK-COMMUNICATION
V.395, PG.599, DOC.1347499-PARCEL 1
NO RECORDED EASEMENT-PARCEL 2
V.396, PG.1, DOC.1347500-PARCEL 4
V.1029, PG.182, DOC.1606712-PARCEL 6
(CONVEYANCE OF RIGHTS)

(102) ALLIANT ENERGY-ELECTRIC
NO RECORDED EASEMENT-PARCEL 1
NO RECORDED EASEMENT-PARCEL 3

(103) CHARTER-COMMUNICATION
NO RECORDED EASEMENT-PARCEL 1
NO RECORDED EASEMENT-PARCEL 2

BRASS MONUMENT
Y=525,559.556
X=824,422.068

EAST 1/4 CORNER OF SECTION 1 FOUND ALUMINUM MONUMENT
Y=528,139.469
X=827,143.141

S00°57'09"W, 1,484.40' COR TO R/W

WESTPORT
VILLAGE OF DEFOREST

P.I.=57+90.01'NB'
Y=526,911.126
X=826,214.351
Δ. =22°14'26" RT
D. =11°27'33"
R. =500.00'
L. =194.09'
T. =98.28'
P.C.=56+91.73'NB'
Y=526,813.308
X=826,204.827
P.T.=58+85.81'NB'
Y=526,998.061
X=826,260.191
DB=N05°33'41"E
DA=N27°48'07"E

P.I. =65+18.37'NB'
Y=526,998.061
X=826,260.191
DB=S27°48'07"W

155'EB'
207.63' PC TO TRAV
PC:153+20.52'EB'
S00°57'09"W, 25.64' COR TO TAN

N89°36'33"E 59.25' MC-CORNER

S00°57'09"W, 146.88' R/W TO COR

COMPUTED FROM TIE SHEET
Y=526,508.412
X=827,116.322

SECTION LINE
STA:155+27.03'EB'

S00°57'09"W, 400.37' TAN TO R/W

MEANDER CORNER FOUND ALUMINUM MONUMENT
Y=526,508.008
X=827,057.073

TOWN OF BURKE

S00°57'09"E, 886.34' COR TO R/W

N00°57'09"W, 400.37' TAN TO R/W

S88°38'40"E 116.39' MC TO CORNER

MEANDER CORNER FOUND BRASS MONUMENT
Y=525,498.953
X=826,983.135

P.I.=145+79.32'EB'
Y=526,670.828
X=826,186.366
DA=S83°13'40"E

COMPUTED FROM TIE SHEET
Y=525,496.200
X=827,099.492

P.I.=48+60.20'NB'
Y=526,088.523
X=825,792.305
Δ. =03°51'42" LT
D. =01°22'50"
R. =4,150.00'
L. =279.70'
T. =139.90'
P.C.=47+20.30'NB'
Y=525,972.254
X=825,714.491
P.T.=50+00.00'NB'
Y=526,209.768
X=825,862.111
DB=N33°47'33"E
DA=N29°55'52"E

P.I.=53+73.52'NB'
Y=526,533.470
X=826,048.481
Δ. =10°59'32" LT
D. =11°27'33"
R. =500.00'
L. =95.93'
T. =48.11'
P.C.=53+25.41'NB'
Y=526,491.776
X=826,024.476
P.T.=54+21.33'NB'
Y=526,578.976
X=826,064.095
DB=N29°55'52"E
DA=N18°56'20"E

P.I.=54+75.25'NB'
Y=526,629.977
X=826,081.595
Δ. =33°27'47" RT
D. =57°17'45"
R. =100.00'
L. =58.40'
T. =30.06'
P.C.=54+45.19'NB'
Y=526,601.543
X=826,071.839
P.T.=55+03.60'NB'
Y=526,648.318
X=826,105.413
DB=N18°56'20"E
DA=N52°24'07"E

P.I. =44+89.29'NB'
Y=525,780.272
X=825,586.007
DA=N33°47'33"E

P.I.=136+50.19'EB'
Y=526,880.015
X=825,312.067
Δ. =02°08'06" RT
D. =00°42'39"
R. =8,060.00'
L. =300.34'
T. =150.19'
P.C.=135+00.00'EB'
Y=526,885.182
X=825,161.971
P.C.C.=138+00.34'EB'
Y=526,869.261
X=825,461.867
DB=S88°01'43"E
DA=S85°53'37"E

P.I.=139+43.27'EB'
Y=526,859.026
X=825,604.437
Δ. =05°27'21" RT
D. =01°54'36"
R. =3,000.00'
L. =285.66'
T. =142.94'
P.C.C.=138+00.34'EB'
Y=526,869.261
X=825,461.867
P.T.=140+86.00'EB'
Y=526,835.281
X=825,745.389
DB=S85°53'37"E
DA=S80°26'17"E

P.I.=143+66.64'EB'
Y=526,788.661
X=826,022.139
Δ. =42°13'29" RT
D. =52°05'14"
R. =110.00'
L. =81.07'
T. =42.47'
P.C.=143+24.17'EB'
Y=526,795.717
X=825,980.257
P.T.=144+05.24'EB'
Y=526,755.290
X=826,048.412
DB=S80°26'17"E
DA=S38°12'48"E

P.I.=147+25.87'EB'
Y=526,653.546
X=826,331.894
Δ. =05°30'58" RT
D. =03°49'11"
R. =1,500.00'
L. =144.41'
T. =72.26'
P.C.=146+53.61'EB'
Y=526,662.067
X=826,260.139
P.T.=147+98.02'EB'
Y=526,638.167
X=826,402.498
DB=S83°13'40"E
DA=S77°42'42"E

P.I.=157+09.07'EB'
Y=526,444.267
X=827,292.678
Δ. =12°51'06" LT
D. =01°39'39"
R. =3,450.00'
L. =773.85'
T. =388.56'
P.C.=153+20.52'EB'
Y=526,526.964
X=826,913.024
P.T.=160+94.37'EB'
Y=526,448.088
X=827,681.216
DB=S77°42'42"E
DA=N89°26'12"E

I, CAROLYN J. SAMPSON, 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 THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

SIGNATURE: Carolyn J Sampson DATE: 8/8/18
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SW REGION - MADISON
SIGNATURE: Cory Schlagel DATE: 8/8/18
PRINT NAME: CORY SCHLAGEL

ENGINEERING, INC

FILE NAME : X:\PROJECTS\DANE\5290-00-02 STH 19\DESIGN\C3D\SHEETS\PLAN\040102-RP.DWG PLOT DATE : 8/7/2018 4:15 PM PLOT BY : CHAD KWIATKOWSKI PLOT NAME : PLOT SCALE : **********
APPRAISAL PLAT DATE : 7/30/18

5290-00-22 -4.01

TRANSPORTATION PROJECT PLAT NO: 5290-00-22 -4.02 AMENDMENT NO: 2

ADDS UTILITY NUMBER 105 TO PARCEL 3 OF TPP 5290-00-22-4.02, RECORDED AS DOCUMENT 5434148

THAT PART OF LOTS 1, 2, AND OUTLOT 1, CSM 14841 LOCATED IN THE SE 1/4 OF THE SW 1/4, AND THAT PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 31, TOWNSHIP 9 NORTH, RANGE 10 EAST, AND THAT PART OF LOTS 1 AND 11 OF THE PLAT OF UNION CONSERVANCY PARK, LOCATED IN THE NE 1/4 OF THE NW 1/4 OF SECTION 6, TOWNSHIP 8 NORTH, RANGE 10 EAST, ALL IN THE VILLAGE OF DEFOREST; ALSO THAT PART OF THE NW 1/4 OF THE NW 1/4, AND THE NE 1/4 OF THE NW 1/4, OF SECTION 6, TOWNSHIP 8 NORTH, RANGE 10 EAST, TOWN OF BURKE, ALL IN DANE COUNTY, WISCONSIN.

RELOCATION ORDER STH 19 USH 12 - IH 39 (RIVER ROAD TO IH 39) DANE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION 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 PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 19 ESTABLISHED FROM PROJECTS 5291-01-21, T90-2(10), THE PLAT OF UNION CONSERVANCY PARK, AND CSM #14841.

EXISTING HIGHWAY RIGHT-OF-WAY FOR LIUNA WAY ESTABLISHED FROM THE PLAT OF UNION CONSERVANCY PARK.

EXISTING HIGHWAY RIGHT-OF-WAY FOR TIERNEY CROSSING ESTABLISHED FROM DOC.#53954274, CSM #14659, AND CSM #14841.

EXISTING HIGHWAY RIGHT-OF-WAY FOR DALMORE ROAD ESTABLISHED FROM DOC.#53954274 AND CSM #14841.

EXISTING HIGHWAY ACCESS CONTROL RIGHT-OF-WAY FOR STH 19 ESTABLISHED FROM PROJECTS 5291-01-21 AND T90-2(10).

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

FOUND IRON PINS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, DOCUMENT NO. 5432491 FOR ADDITIONAL INFORMATION.

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
200	155+03.02'EB'	164.56'
201	156+80.00'EB'	155.00'
202	160+10.75'EB'	122.14'
203	165+31.63'EB'	122.01'
204	165+32.48'EB'	157.42'
205	167+52.39'EB'	156.73'
206	304+30.00"T"	65.76'
207	304+30.00"T"	46.74'
208	303+61.18"T"	46.86'
209	168+71.60'EB'	156.47'
210	178+61.40'EB'	153.67'
211	178+65.09'EB'	153.66'
212	177+77.26'EB'	112.09'
213	170+65.00'EB'	110.08'
214	8+60.00'LWS'	41.04'
215	7+78.41'LWS'	33.74'
216	7+60.00'LWS'	33.02'
217	7+85.59'LWS'	31.87'
218	7+85.00'LWS'	85.44'
219	167+35.34'EB'	109.15'
220	165+00.00'EB'	95.00'
221	161+00.00'EB'	95.00'
222	158+00.00'EB'	102.00'
223	155+41.27'EB'	105.68'

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
200-201	S78° 58' 14"E	169.03'
201-202	S80° 31' 21"E	319.03'
202-203	N89° 33' 29"E	517.91'
203-204	N00° 49' 11"E	35.42'
204-205	N89° 35' 54"E	219.91'
205-206	N00° 19' 12"W	112.87'
206-207	N89° 46' 41"E	112.50'
207-208	S00° 19' 12"E	68.82'
208-209	S09° 02' 47"E	44.20'
209-210	N89° 35' 54"E	989.81'
210-211	SEE CURVE TABLE	---
212-213	S89° 35' 54"W	712.26'
213-214	S81° 36' 02"W	220.63'
214-215	S00° 18' 34"E	77.45'
215-216	SEE CURVE TABLE	---
216-217	N76° 04' 20"W	69.40'
217-218	S82° 41' 36"W	53.58'
218-219	N03° 39' 29"E	114.91'
219-220	N87° 07' 20"W	235.77'
220-221	S89° 26' 12"W	400.00'
221-222	N89° 27' 47"W	308.39'
222-223	N84° 19' 05"W	266.48'

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	CENTURYLINK-COMMUNICATION	RELEASE OF RIGHTS
102	ALLIANT ENERGY-ELECTRIC	RELEASE OF RIGHTS
104	MADISON METROPOLITAN SEWERAGE DISTRICT-SANITARY SEWER	RELEASE OF RIGHTS
105	VILLAGE OF DEFOREST-SANITARY SEWER	RELEASE OF RIGHTS
106	MG&E-GAS	RELEASE OF RIGHTS

CURVE TABLE				
PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
210-211	N89° 35' 37"E	22,752.31'	3.69'	3.69'
215-216	S04° 32' 14"E	117.00'	17.25'	17.27'

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
T200	159+40.67'EB'	131.71'
T201	165+31.94'EB'	135.00'
T202	167+05.00'EB'	156.93'
T203	304+30.00"T"	90.00'
T204	169+00.00'EB'	156.38'
T205	8+61.98'LWS'	55.00'
T206	7+60.00'LWS'	45.00'

KRISTI CHLEBOWSKI
DANE COUNTY
REGISTER OF DEEDS

DOCUMENT #
5479759
04/10/2019 08:59 AM
Trans Fee:
Exempt #:
Rec. Fee: 25.00
Pages:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5290-00-22-4.02
AMENDMENT NO: 2

EAST 1/4 CORNER OF SECTION 1 FOUND ALUMINUM MONUMENT
Y=528,139.469
X=827,143.441

COMPUTED FROM TIE SHEET
Y=526,508.412
X=827,116.322

MEANDER CORNER FOUND ALUMINUM MONUMENT
Y=526,508.008
X=827,057.073
N89°36'33"E 59.25' MC TO CORNER

P.I.=157+09.07'EB'
Y=526,444.267
X=827,292.678
Δ. =12°51'06" LT
D. =01°39'39"
R. =3,450.00'
L. =773.85'
T. =388.56'
P.C.=153+20.52'EB'
Y=526,526.964
X=826,913.024
P.T.=160+94.37'EB'
Y=526,448.088
X=827,681.216
DB=S77°42'42"E
DA=N89°26'12"E

MEANDER CORNER FOUND BRASS MONUMENT
Y=525,498.953
X=826,983.135
S88°38'40"E 116.39' MC TO CORNER

COMPUTED FROM TIE SHEET
Y=525,496.200
X=827,099.492

MEANDER CORNER FOUND ALUMINUM MONUMENT
Y=531,820.064
X=829,461.034
N89°34'25"E 25.00' MC TO COR

COMPUTED FROM TIE SHEET
Y=531,820.250
X=829,486.033

LOT 2 CSM NO. 14659

S00°23'36"W 5,201.22' COR TO EX R/W

S00°57'09"W, 1,484.40' COR TO R/W

N00°57'09"E, 146.88' COR TO R/W

N00°57'09"E, 100.37' R/W TO TAN

N00°57'09"E, 886.34' COR TO R/W

N00°57'09"E, 25.64' TAN TO COR

156'EB'

180.93' PI TO TRAV

PI:157+09.07'EB'

N.T.S.

YAHARA RIVER

WESTPORT

VILLAGE OF DEFOREST

TOWN OF BURKE

P.L.

SAN

FO

G

W

TPED

TLE 0.157 AC.
FEE 0.305 AC.
T200
FD 3/4" REBAR 0.40' N 1.62' W
N.T.S.

FEE 0.305 AC.

SILO

TLE GRADING 0.157 AC.

R/W DEDICATED BY CSM 14659 AND DOC. 53954274

SW-SW

SIXTEENTH LINE

CSM NO. 14841 VOLUME 104, PAGE 62 DOC. 5420911 LOT 2

TIERNEY CROSSING

PI:307+0.82'T'

N89°46'41"E 65.76' EX R/W TO R/L

TLE GRADING 0.093 AC.

T203

N89°46'41"E 46.74' R/L TO EX R/W

TLE GRADING 0.005 AC.

SE-SW

CSM NO. 14841 VOLUME 104, PAGE 62 DOC. 5420911

LOT 1

50' VISION CORNER EASEMENT (TYP. BOTH SIDES TIERNEY CROSSING) CSM NO. 14841

OUTLOT 1

T202

T204

T201

112.5'

72.5'

TPED

SECTION LINE BEARING

S89°36'33"W 2,255.69' COR TO COR

S89°33'49"W 77.73' COR TO COR

S02°17'16"W 59.16' COR TO R/L

S02°17'16"W 112.23' R/L TO EX R/W

N02°17'16"E 5,219.96' COR TO EX R/W

STA:155+27.03'EB'

PI:157+09.07'EB'

PT:160+94.37'EB'

160'EB'

165'EB'

170'EB'

175'EB'

STA 168+05.95'EB' = STA 10+00.00'LWS' Y=526,455.086 X=828,392.762

R/L BEARING N 00°20'10" W

STA 168+17.02'EB' = STA 301+60.72'T' Y=526,455.194 X=828,403.836

R/L, BEARING N 89°26'12" E

STA. 177+82.87'EB'

SEE DETAIL 1

STH 19

DALMORE ROAD

ROAD DEDICATION & ACCESS EASEMENT DOC. 5395427

80'

99'

100'

165'

P.L.

LOT 1

LOT 2

LOT 3

PLAT OF UNION CONSERVANCY PARK

OUTLOT 2 CSM NO. 14659

FOUND CONCRETE MONUMENT
Y=526,523.804
X=829,371.963

FOUND CONCRETE MONUMENT
Y=526,524.396
X=829,449.689

N89°23'36"W 94.76' EX R/W TO COR

QUARTER LINE

N.T.S.

TOWN OF BURKE

VILLAGE OF DEFOREST

R/L BEARING N 06°40'29" W

FEE 0.126 AC.

FEE 0.077 AC.

TLE GRADING 0.029 AC.

T205

T206

PC:5+46.19'LWS'

PI:5+05.03'LWS'

PI:6+80.53'LWS'

R/L BEARING S 89°37'47" W

LOT 11

LOT 10

LIUNA WAY

NW-NW

NE-NW

DETAIL 1 (N.T.S.)

FD 1 1/4" REBAR

VISION CORNER EASEMENT PLAT OF UNION CONSERVANCY PARK

PI:8+46.07'LWS'

PI:5+46.30'LWS'

N76°04'20"W, 35.36' EX R/W TO R/L

N76°04'20"W, 34.04' R/L TO R/W

P.I.=6+80.53'LWS'
Y=526,087.510
X=828,418.667
Δ. =83°41'43" RT
D. =38°11'50"
R. =150.00'
L. =219.11'
T. =134.34'
P.C.=5+46.19'LWS'
Y=526,088.378
X=828,553.005
P.T.=7+65.30'LWS'
Y=526,220.940
X=828,403.052
DB=N89°37'47"E
DA=N06°40'29"W

P.I.=8+46.07'LWS'
Y=526,301.158
X=828,393.665
DA=N0°20'10"W

VILLAGE OF DEFOREST

PROJECT LOCATION (NOT TO SCALE)

BEGIN PROJECT 5290-00-22

END PROJECT 5290-00-22

SHEET LOCATION

WESTPORT

EASY ST

WALTER DR

RIVER RD

BONG RD

Yahara

DAENTL RD

Token Cr.

T 9 N

T 8 N

R 9 E

R 10 E

GN

0 100 200

SCALE, FEET

SCHEDULE OF LANDS & INTERESTS REQUIRED								
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W ACRES, REQUIRED			T.L.E. ACRES	P.L.E. ACRES	H.E. ACRES
			NEW	EXISTING	TOTAL			
3	DANE COUNTY	FEE & TLE	3.034	---	3.034	0.157	---	---
7	YAHARA GATEWAY, LLC	TLE	---	---	---	0.098	---	---
8	WISCONSIN LABORERS' APPRENTICESHIP & TRAINING FUND	FEE & TLE	0.203	---	0.203	0.029	---	---
9	VILLAGE OF DEFOREST	TLE	---	---	---	0.037	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(100) CENTURYLINK-COMMUNICATION
V.1029, PG.182, DOC.1606712-PARCEL 3
(CONVEYANCE OF RIGHTS) (NORTH SIDE)
NO RECORDED EASEMENT-PARCEL 3 (SOUTH SIDE)

(104) MADISON METROPOLITAN SEWERAGE DISTRICT -SANITARY SEWER
V.208, PG.10, DOC.1275716-PARCEL 3
V.1079, PG.496, DOC.1630768-PARCEL 3 (CONVEYANCE OF RIGHTS)

(105) VILLAGE OF DEFOREST -SANITARY SEWER
DOC.5407861-PARCEL 3

(102) ALLIANT ENERGY-ELECTRIC
(WISCONSIN POWER AND LIGHT COMPANY, A WISCONSIN CORPORATION)
NO RECORDED EASEMENT-PARCEL 3
NO RECORDED EASEMENT-PARCEL 8 (WEST)
DOC.3831003 & DOC.3868221-PARCEL 8 (EAST)

(106) MG&E-GAS
NO RECORDED EASEMENT-PARCEL 8

JL ENGINEERING, INC
Consultant Services

I, CAROLYN J. SAMPSON, 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 THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

SIGNATURE: Carolyn J Sampson DATE: 3/27/19
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SW REGION - MADISON
SIGNATURE: Cory Schlagel DATE: 4/9/2019
PRINT NAME: CORY SCHLAGEL

FILE NAME : X:\PROJECTS\DANE\5290-00-02 STH 19\DESIGN\C3D\SHEETSPLAN\040102-RP-AMEND_.DWG
APPRAISAL PLAT DATE : 7/30/18
PLOT DATE : 3/27/2019 8:54 AM
PLOT BY : CHAD KWIATKOWSKI
PLOT NAME :
PLOT SCALE : **********

5290-00-22 -4.02

TRANSPORTATION PROJECT PLAT NO: 5290-00-22 -4.03

THAT PART OF LOT 5 OF THE PLAT OF UNION CONSERVANCY PARK LOCATED IN THE NW 1/4 OF THE NE 1/4 OF SECTION 6, TOWNSHIP 8 NORTH, RANGE 10 EAST, VILLAGE OF DEFOREST, DANE COUNTY, WISCONSIN.

RELOCATION ORDER STH 19 USH 12 - IH 39 (RIVER ROAD TO IH 39) DANE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION 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 PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 19 ESTABLISHED FROM PREVIOUS PROJECTS T90-2(10), 1010-02-20, AND THE PLAT OF UNION CONSERVANCY PARK.

EXISTING HIGHWAY RIGHT-OF-WAY FOR LIUNA WAY ESTABLISHED FROM THE PLAT OF UNION CONSERVANCY PARK AND FROM PREVIOUS PROJECT 1010-02-20.

EXISTING HIGHWAY RIGHT-OF-WAY FOR I39 ESTABLISHED FROM PREVIOUS PROJECTS I 90-2(02)122, T90-2(10), 1011-00-24, AND 1010-02-20.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CASHEL WAY ESTABLISHED FROM CSM 14659.

EXISTING HIGHWAY RIGHT-OF-WAY FOR DALMORE ROAD ESTABLISHED FROM CSM 14659.

EXISTING HIGHWAY ACCESS CONTROL FOR STH 19 ESTABLISHED FROM PREVIOUS PROJECTS 5291-01-21, T90-2(10), 1010-02-20, AND CSM 14659.

EXISTING HIGHWAY ACCESS CONTROL FOR I39 ESTABLISHED FROM PREVIOUS PROJECTS T90-2(10), 1011-00-24, AND 1010-02-20.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

FOUND IRON PINS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

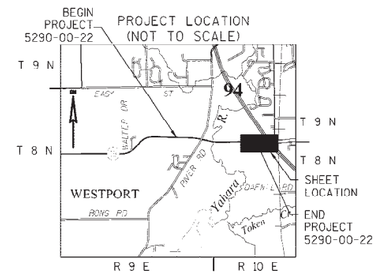
REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, DOCUMENT NO. 5432491 FOR ADDITIONAL INFORMATION.

SCHEDULE OF LANDS & INTERESTS REQUIRED								
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W ACRES. REQUIRED NEW	EXISTING	TOTAL	T.L.E. ACRES	P.L.E. ACRES	H.E. ACRES
8	WISCONSIN LABORERS' APPRENTICESHIP & TRAINING FUND	TLE	---	---	---	0.003	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTERST REQUIRED
102	ALLIANT ENERGY-ELECTRIC	RELEASE OF RIGHTS

(102) ALLIANT ENERGY-ELECTRIC
(WISCONSIN POWER AND LIGHT COMPANY,
A WISCONSIN CORPORATION)
V.59-055B, PG.266, DOC.4447251-PARCEL 8



KRISTI CHLEBOWSKI
DANE COUNTY
REGISTER OF DEEDS

DOCUMENT #
5434149
08/15/2018 11:25 AM
Trans Fee:
Exempt #:
Rec. Fee: 25.00
Pages:

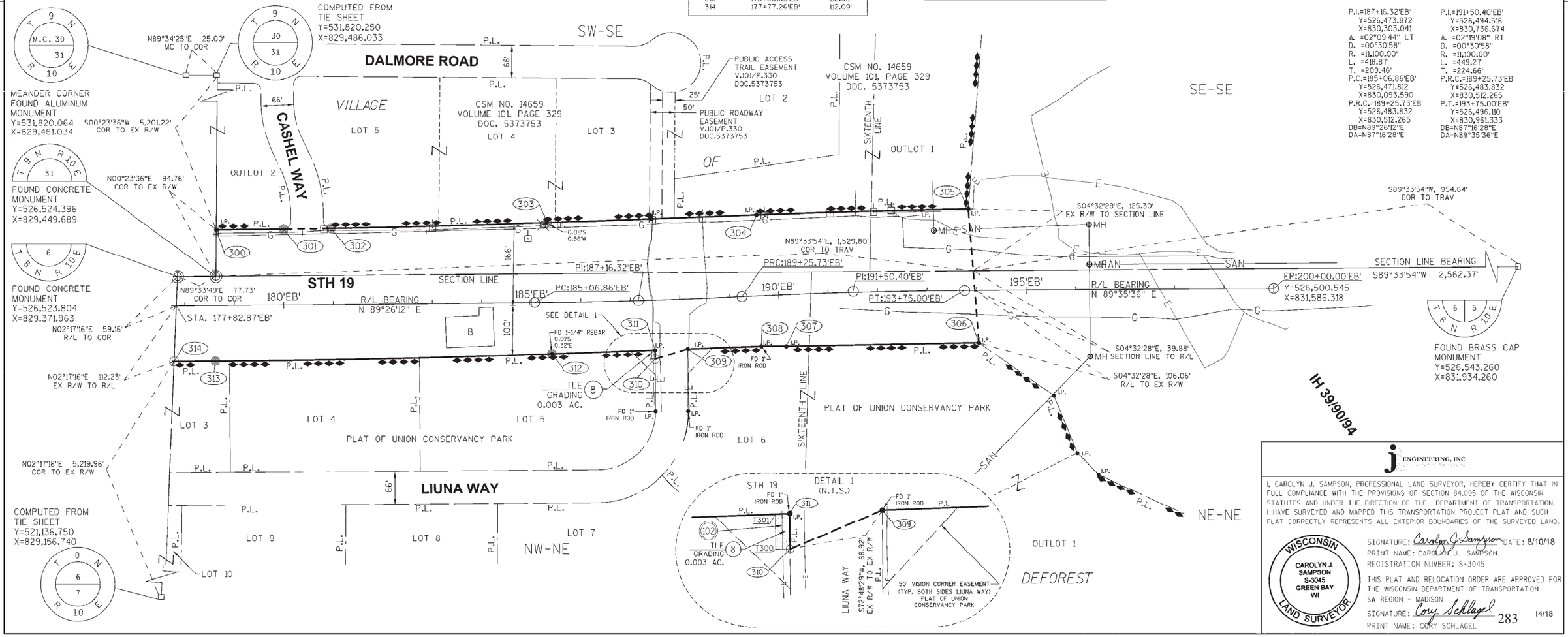
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5290-00-22-4.03
AMENDMENT NO:___

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
300	178+65.09'EB'	153.66'
301	180+01.05'EB'	153.71'
302	180+97.09'EB'	154.23'
303	185+33.75'EB'	161.67'
304	189+62.42'EB'	163.88'
305	193+84.36'EB'	164.74'
306	194+03.92'EB'	105.78'
307	190+11.02'EB'	104.28'
308	189+60.35'EB'	102.11'
309	188+12.33'EB'	101.11'
310	187+46.48'EB'	119.20'
311	187+46.89'EB'	101.47'
312	185+40.15'EB'	104.25'
313	178+60.65'EB'	112.33'
314	177+77.26'EB'	112.09'

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
300-301	SEE CURVE TABLE	---
301-302	N89° 07' 32"E	96.05'
302-303	SEE CURVE TABLE	---
303-304	N87° 54' 21"E	423.44'
304-305	SEE CURVE TABLE	---
306-307	S88° 56' 38"W	389.44'
307-308	N89° 56' 06"W	50.25'
308-309	S87° 54' 21"W	148.73'
309-310	S72° 48' 29"W	68.92'
310-311	N00° 25' 55"W	17.96'
311-312	S87° 54' 21"W	208.68'
312-313	SEE CURVE TABLE	---
313-314	S89° 35' 54"W	83.39'

CURVE TABLE					
PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
300-301	N89° 25' 04"E	22,752.31'	135.96'	135.96'
302-303	N88° 27' 19"E	22,752.31'	436.33'	436.34'
304-305	N88° 26' 13"E	23,084.31'	428.03'	428.03'
312-313	S88° 45' 07"W	23,018.31'	679.87'	679.89'

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
T300	187+39.32'EB'	119.05'
T301	187+39.69'EB'	101.29'



P.I.=187+16.32'EB'
Y=526,473.872
X=830,303.041
Δ =02°09'44" LT
D. =00°30'58"
R. =11,100.00'
L. =418.87'
T. =209.46'
P.C.=185+06.86'EB'
Y=526,471.812
X=830,093.590
P.R.C.=189+25.73'EB'
Y=526,483.832
X=830,512.265
DB=N89°26'12"E
DA=N87°16'28"E

P.I.=191+50.40'EB'
Y=526,494.516
X=830,736.674
Δ =02°19'08" RT
D. =00°30'58"
R. =11,100.00'
L. =449.27'
T. =224.66'
P.R.C.=189+25.73'EB'
Y=526,483.832
P.T.=193+75.00'EB'
Y=526,496.110
X=830,961.333
DB=N89°16'28"E
DA=N89°35'36"E

ENGINEERING, INC

I, CAROLYN J. SAMPSON, 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 THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

SIGNATURE: Carolyn J Sampson DATE: 8/10/18
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SW REGION - MADISON
SIGNATURE: Cory Schlagel
PRINT NAME: CORY SCHLAGEL

283 14/18

FILE NAME : X:\PROJECTS\DANE\5290-00-02 STH 19\DESIGN\C3D\SHEETSPLAN\040102-RP.DWG
APPRAISAL PLAT DATE : 7/30/18
PLOT DATE : 8/10/2018 11:30 AM PLOT BY : CHAD KWIATKOWSKI PLOT NAME : PLOT SCALE : ''''''''''''

5290-00-22-4.03

DATE: JULY 30, 2018	REVISION DATE

TRANSPORTATION PROJECT PLAT 5290-00-22-4.04

RELOCATION ORDER STH 19 USH 12 - IH 39 (RIVER ROAD TO IH 39) DANE COUNTY

4

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
100	526983.698	824418.171
101	526962.102	825042.655
102	526966.780	825196.723
103	526970.954	825362.319
104	526932.552	825775.977
105	526935.701	826070.200
106	527058.861	826207.463
107	527312.570	826369.502
108	527405.450	826418.476
109	527396.379	826435.679
110	527365.593	826494.063
111	527356.476	826511.355
112	526918.951	826285.006
113	526847.847	826301.480
114	526805.545	826418.850
115	526765.002	826539.613
116	526689.406	826825.064
117	526691.486	826932.979
118	526655.274	827118.764
119	526382.421	827114.227
120	526387.971	827058.450
121	526362.329	827054.148
122	526408.130	826871.258
123	526491.279	826653.977
124	526565.226	826268.811
125	526496.894	826133.668
126	526269.265	825945.219
127	526042.766	825809.381
128	525908.504	825719.317
129	525949.105	825658.650
130	526083.432	825748.757
131	526207.231	825826.720
132	526225.163	825795.916
133	526402.526	825898.087
134	526597.258	825964.345
135	526677.352	825912.087
136	526700.089	825799.827
137	526672.263	825613.321
138	526770.823	825430.632
139	526806.873	825191.200
140	526833.592	824418.581

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
200	526655.274	827118.764
201	526622.935	827284.675
202	526570.402	827599.355
203	526574.396	828117.253
204	526609.810	828117.760
205	526611.353	828337.663
206	526724.219	828337.032
207	526724.655	828449.532
208	526655.840	828449.916
209	526612.188	828456.866
210	526619.130	829446.647
211	526619.156	829450.339
212	526352.551	829365.121
213	526347.557	828652.884
214	526315.329	828434.623
215	526237.878	828435.041
216	526220.679	828436.406
217	526237.385	828369.043
218	526230.571	828315.899
219	526345.245	828323.230
220	526357.081	828087.761
221	526353.148	827687.780
222	526356.037	827379.402
223	526382.421	827114.227

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
300	526619.156	829450.339
301	526620.538	829586.289
302	526622.003	829682.327
303	526633.766	830118.500
304	526649.239	830541.658
305	526660.914	830969.528
306	526390.538	830991.002
307	526383.360	830601.626
308	526383.417	830551.378
309	526377.982	830402.745
310	526357.610	830336.901
311	526375.569	830336.765
312	526367.943	830128.220
313	526353.136	829448.513
314	526352.551	829365.121

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

N

RONALD J. TREINEN
HEATHER L. TREINEN

PROPOSED TLE (TYP)

SLOPE INTERCEPT (TYP)

ALLIANT ENERGY

PROPOSED ROW (TYP)

EXISTING ROW (TYP)

BEGIN CONSTRUCTION
SHOULDER REPLACEMENT
STA 131+95'EB' LT
MATCH EXISTING

128'EB' STH 19 130'EB' 132'EB' 134'EB' 136'WB' 136'EB' 138'EB' 140'WB' 140'EB' STH 19

S88°01'43"E

PC: 135+00.00'EB'

PC: 138+00.34'EB'

PT: 140+86.00'EB'

PI STA = 139+43.27'EB'
Y = 526859.026
X = 825604.437
DELTA = 5°27'20"
D = 1°54'35"
T = 142.94'
L = 285.66'
R = 3000.00'
PC STA = 138+00.34'EB'
Y = 526869.261
X = 825461.867
PT STA = 140+86.00'EB'
Y = 526835.281
X = 825745.389
BK = S85°53'37"E
AH = S80°26'17"E

OVERHEAD SIGN SUPPORT
S-13-500
(SEE DETAIL)

CENTURYLINK

TDS TELECOM

BEGIN CONSTRUCTION
SHOULDER REPLACEMENT
STA 131+25'EB' RT
MATCH EXISTING

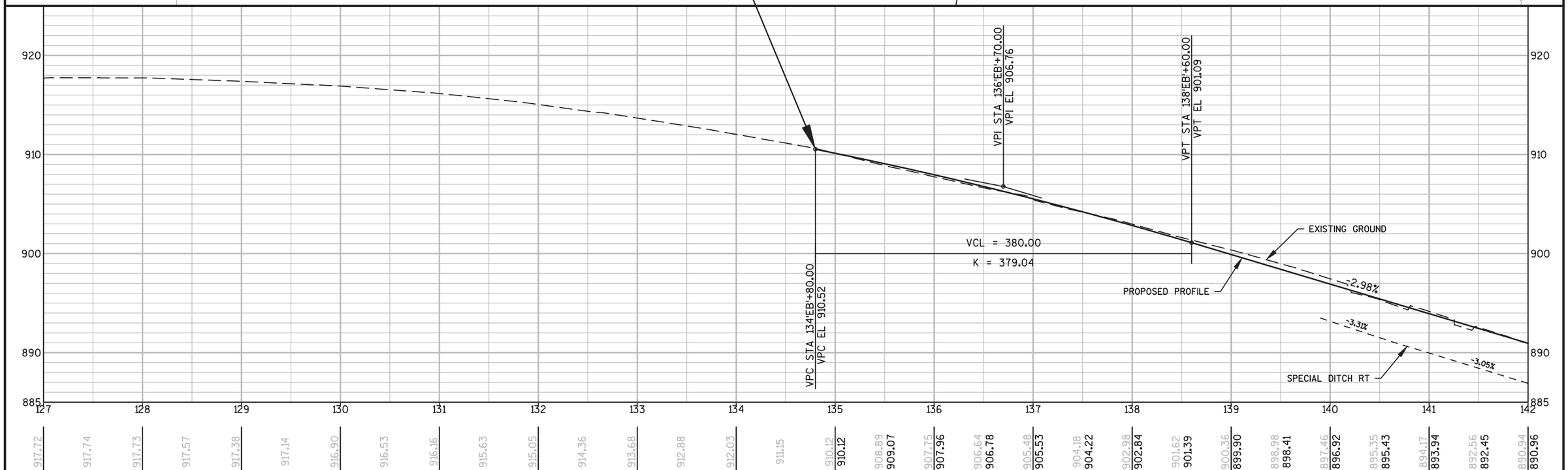
BEGIN PROJECT
STA 134+80.00'EB'

STEVEN F. GREVE
MARY L. GREVE

WOODBURN INCOME TR, MARY A

5

5



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET 285 E

RONALD J. TREINEN
HEATHER L. TREINEN
ALLIANT ENERGY
CENTURYLINK
RIVER ROAD
REMOVE DRIVEWAY
DANE COUNTY
MG&E
MCI
CHARTER COMMUNICATION
WISDOT
CAUTION
SLOPE INTERCEPT (TYP)
PROPOSED ROW (TYP)
EXISTING ROW (TYP)
YAHARA RIVER
MMSD
VILLAGE OF DEFOREST
B-13-795
GEODETIC SURVEY CONTROL STATION (SEE SPECIAL PROVISIONS)
STH 19
142'WB'
144'WB'
142'EB'
144'EB'
S80°26'17"E
148'WB'
150'WB'
152'WB'
154'WB'
156'WB'
156'EB'
154'EB'
152'EB'
150'EB'
148'EB'
146'EB'
S77°42'42"E
S83°13'40"E
BM #2224
HMOD
PC: 143+24.17'EB'
EP: 144+05.24'EB'
BP: 145+79.32'EB'
PC: 146+53.61'EB'
PT: 147+98.02'EB'
PC: 153+20.52'EB'
PROPOSED BERM
COMPUTED SECTION CORNER LOCATION
MONUMENTED MEANDER CORNER (SEE SPECIAL PROVISIONS)
B-13-794
WOODBURN INCOME TR, MARY A
WETLAND BOUNDARY (TYP)
WI DNR
CONSTRUCTION PERMIT (TYP)
PROPERTY LINE (TYP)
DANE COUNTY
APPROXIMATE DRAIN TILE LOCATIONS. AVOID DISTURBING OUTSIDE PROPOSED CONSTRUCTION LIMITS.

PI STA = 143+66.64'EB'
Y = 526788.661
X = 826022.139
DELTA = 42°13'29"
D = 52°05'13"
T = 42.47'
L = 81.07'
R = 110.00'
PC STA = 143+24.17'EB'
PT STA = 144+05.24'EB'

PI STA = 147+25.87'EB'
Y = 526653.546
X = 826331.894
DELTA = 5°30'57"
D = 3°49'11"
T = 72.26'
L = 144.41'
R = 1500.00'
PC STA = 146+53.61'EB'
Y = 526662.067
X = 826260.139
PT STA = 147+98.02'EB'
Y = 526638.167
X = 826402.498
BK = S83°13'40"E
AH = S77°42'42"E

PI STA = 157+09.07'EB'
Y = 526444.267
X = 827292.678
DELTA = 12°51'06"
D = 1°39'39"
T = 388.56'
L = 773.85'
R = 3450.00'
PC STA = 153+20.52'EB'
Y = 526526.964
X = 826913.024
PT STA = 160+94.37'EB'
Y = 526448.088
X = 827681.216
BK = S77°42'42"E
AH = N89°26'12"E
S.E. = 4.0%
L.R. = 160'

STA. 156+83'EB', RT
1 - 26' 15-INCH CP CL. III-A REQ'D
2 - APRON ENDWALLS REQ'D

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
2224	154+68'WB'	11.6' RT	DISC ON SW BRIDGE PARAPET	873.45'

STA. 154+98'EB'
STRUCTURE B-13-794 REQ'D
SINGLE SPAN 45W-INCH
PRESTRESSED GIRDER
40' - 9" CLEAR ROADWAY

STA 143+40.00
EL 886.78
STA 143+55.00
EL 886.38
STA 144+05.24
EL 885.38
STA 145'EB'+79.32
EL 881.92
VPC STA 147'EB'+20.00
VPC EL 879.12
VPI STA 149'EB'+20.00
VPI EL 875.15
VPT STA 151'EB'+20.00
VPT EL 874.15
VCL = 400.00
K = 269.13
VCL = 340.00
K = 340.00
VPC STA 156'EB'+52.00
VPC EL 871.49

-2.98%
-2.67%
-2.00%
-1.52%
-1.99%
-0.50%
-1.00%
-14.50%
-1.50%
5.33%
25.00%
0.00%
-25.00%
-0.46%

SPECIAL DITCH RT
PROPOSED PROFILE
EXISTING GROUND
SPECIAL DITCH RT
MEDIAN SPECIAL DITCH
MEDIAN SPECIAL DITCH
HIGH WATER EL. 861.9 100
WATER EL. 855.2 (4-22-16)
STREAM BED EL. 852.6±

890 880 870 860 855
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157

890.94 890.96 889.55 889.46 888.02 887.97 886.33 886.51 884.74 885.48 872.70 881.51 871.90 880.51 871.29 879.52 870.88 878.54 870.21 877.65 870.71 876.85 871.22 876.15 870.93 875.54 870.69 875.02 870.67 874.59 870.59 874.26 870.99 874.00 869.80 873.75 866.47 873.50 863.95 873.25 863.85 873.00 863.12 872.75 862.07 872.50 852.95 872.25 861.97 872.00 863.78 871.75 865.53 871.50 867.90 871.28

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET 286 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_02
PLOT DATE : 5/20/2019 11:16 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

MMSD

PI: 163+67.83'EBL'
Delta = 4°34'26"
Y = 526,486.775
X = 827,954.313

DANE COUNTY

STA 159+53.66 'EB'=
STA 159+52.37 'EBL'
Y = 526,449.574
X = 827,540.523

CHARTER COMMUNICATION

ALLIANT ENERGY

MCI

N

PROPERTY LINE (TYP)

YAHARA GATEWAY LLC

VILLAGE OF DEFOREST

TIERNEY CROSSING

EXISTING ROW (TYP)

YAHARA GATEWAY LLC

VILLAGE OF DEFOREST

CAUTION

MG&E

PI: 163+67.83'EBL'

158'WB' 160'WB' 162'WB' 164'WB' 164'EBL' N89°26'12"E 166'EBL' 166'WB' 168'WB' 170'WB' 172'WB'

STH 19

158'EB' 160'EBL' N84°51'45"E 162'EBL' 160'EB' 162'EB' 164'EB' 166'EB' 168'EB' 170'EB' 172'EB'

STH 19

N89°26'12"E

PT: 160+94.37'EB'

CENTURYLINK

PROPOSED ROW (TYP)

PI STA = 157+09.07'EB'
Y = 526444.267
X = 827292.678
DELTA = 12°51'06"
D = 1°39'39"
T = 388.56'
L = 773.85'
R = 3450.00'
PC STA = 153+20.52'EB'
Y = 526526.964
X = 826913.024
PT STA = 160+94.37'EB'
Y = 526448.088
X = 827681.216
BK = S77°42'42"E
AH = N89°26'12"E
S.E. 4.0%
L.R. = 160'

YAHARA RIVER ACCESS

CONSTRUCTION PERMIT (TYP)

SLOPE INTERCEPT (TYP)

DANE COUNTY

LIUNA WAY

PROPOSED TLE (TYP)

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

NOTE:
ARCHAEOLOGICAL SITE IS LOCATED BETWEEN THE YAHARA RIVER AND TIERNEY CROSSING/LIUNA WAY (WEST). CONTRACTOR SHALL AVOID USING AREAS OUTSIDE THE PROPOSED CONSTRUCTION LIMITS WITHIN THAT RANGE FOR OBTAINING BORROW AND FOR STAGING OF PERSONNEL, EQUIPMENT, AND/OR SUPPLIES.

VCL = 340.00
K = 340.00

VCL = 265.00
K = 265.00

LOW POINT STA 158+22.00
LOW POINT EL 871.06

VPT STA 159'EB'+92.00
VPT EL 871.49

VPC STA 169'EB'+39.50
VPC EL 876.23

VPI STA 170'EB'+72.00
VPI EL 876.890

MEDIAN SPECIAL DITCH

PROPOSED PROFILE

0.50%

-0.32%

0.50%

VPI STA 158'EB'+22.00
VPI EL 870.64

0.30%

0.30%

1.47%

SPECIAL DITCH RT

EXISTING GROUND

-0.50%

-1.07%

0.50%

HIGH POINT STA 170+72.00
HIGH POINT EL 876.56

860 870 880 890

157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172

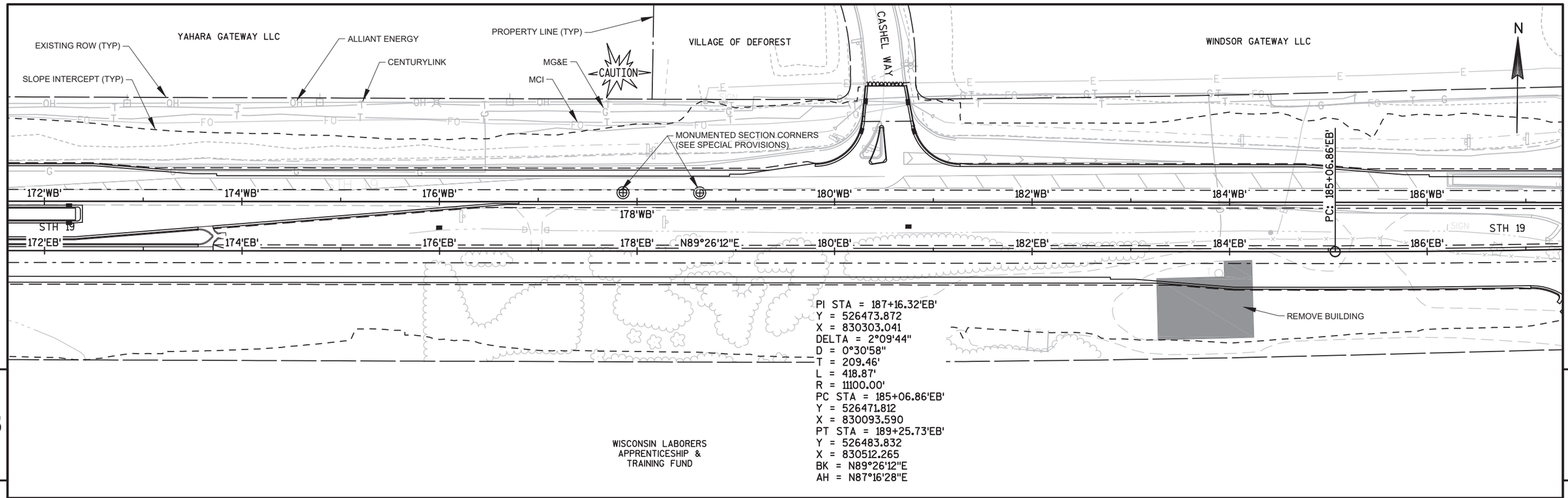
867.90 871.28 | 870.03 871.14 | 870.66 871.07 | 870.87 871.08 | 870.31 871.15 | 869.71 871.31 | 868.94 871.53 | 868.67 871.78 | 869.02 872.03 | 869.96 872.28 | 870.69 872.53 | 871.34 872.78 | 871.63 873.03 | 871.30 873.28 | 870.83 873.53 | 869.98 873.78 | 869.39 874.03 | 868.84 874.28 | 868.41 874.53 | 868.05 874.78 | 867.88 875.03 | 869.15 875.28 | 873.78 875.53 | 874.04 875.78 | 866.54 876.03 | 866.97 876.28 | 867.00 876.46 | 866.93 876.55 | 866.97 876.54 | 867.01 876.44 | 867.10 876.25

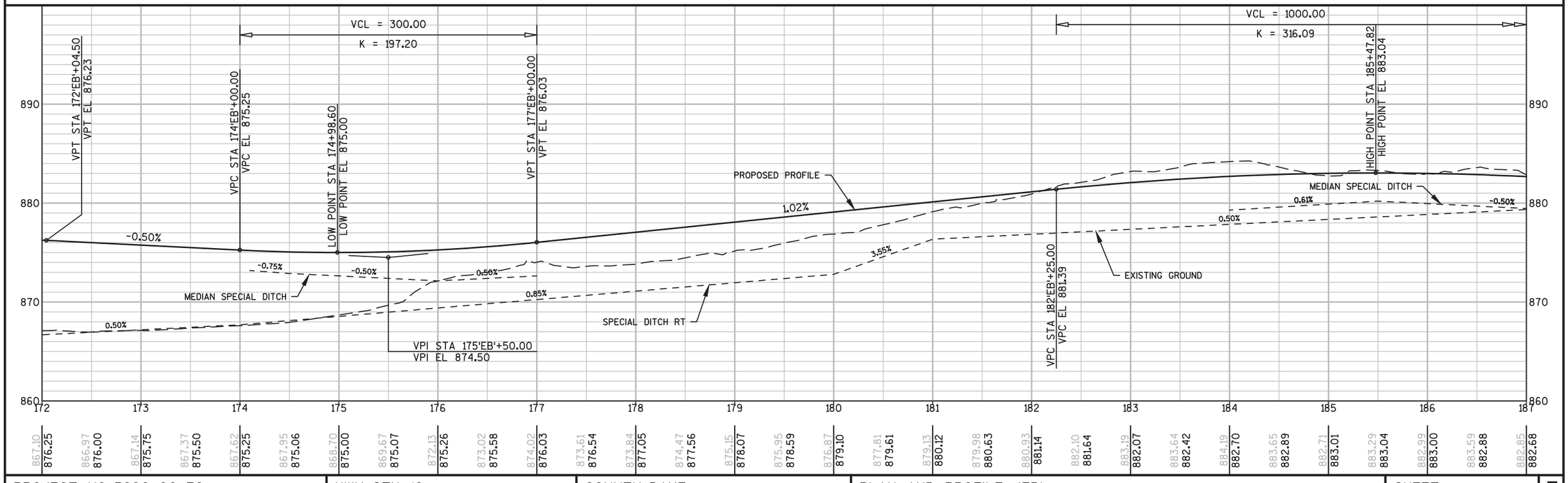
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET 287 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_03

PLOT DATE : 5/20/2019 11:16 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET 288	E

WINDSOR GATEWAY LLC

VILLAGE OF DEFOREST

CENTURYLINK

EXISTING ROW (TYP)

EXIT RAMP

ALLIANT ENERGY

ATC

CAUTION

N

MCI

SLOPE INTERCEPT (TYP)

AVOID PULL BOXES

IH 39/90/94

WISDOT

186'WB' 188'WB' 190'WB' 192'WB' 194'WB' 196'WB' 198'WB'

STH 19

186'EB' 188'EB' 190'EB' 192'EB' 194'EB' 196'EB' N89°35'36"E 198'EB' STH 19

PRC: 189+25.73'EB'

VILLAGE OF DEFOREST

PT: 193+75.00'EB'

EP: 200+00.00'EB'

CAUTION

MG&E

PI STA = 187+16.32'EB'
Y = 526473.872
X = 830303.041
DELTA = 2°09'44"
D = 0°30'58"
T = 209.46'
L = 418.87'
R = 11100.00'
PC STA = 185+06.86'EB'
Y = 526471.812
X = 830093.590
PT STA = 189+25.73'EB'
Y = 526483.832
X = 830512.265
BK = N89°26'12"E
AH = N87°16'28"E

PI STA = 191+50.40'EB'
Y = 526494.516
X = 830736.674
DELTA = 2°19'08"
D = 0°30'58"
T = 224.66'
L = 449.27'
R = 11100.00'
PC STA = 189+25.73'EB'
Y = 526483.832
X = 830512.265
PT STA = 193+75.00'EB'
Y = 526496.110
X = 830961.333
BK = N87°16'28"E
AH = N89°35'36"E

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

LIUNA WAY

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

MMSD

ENTRANCE RAMP

END PROJECT
STA 194+00.00'EB'

5

5

VPI STA 187'EB'+25.00
VPI EL 886.50

VPT STA 192'EB'+25.00
VPT EL 875.79

PROPOSED PROFILE

MEDIAN SPECIAL DITCH

EXISTING GROUND

SPECIAL DITCH RT

-0.50%
-0.71%
-3.19%
-1.14%
-2.14%
-2.04%

VCL = 1000.00
K = 316.09

890 880 870 860

187 188 189 190 191 192 193 194 195 196 197 198 199 200

882.85 882.68
882.44 882.40
881.22 882.04
877.85 881.60
877.92 881.08
879.03 880.48
879.89 879.81
879.20 879.05
878.42 878.22
877.47 877.31
876.37 876.31
875.33 875.25
874.22 874.18
873.13 873.11
872.02 872.04
871.05
870.11
869.39
868.83
868.50
868.44
868.28
868.04
867.86
867.81
867.90
868.09

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET 289	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_05

PLOT DATE : 5/20/2019 11:17 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

N

RONALD J. TREINEN
HEATHER L. TREINEN

PROPOSED TLE (TYP)

SLOPE INTERCEPT (TYP)

ALLIANT ENERGY

PROPOSED ROW (TYP)

EXISTING ROW (TYP)

BEGIN CONSTRUCTION
SHOULDER REPLACEMENT
STA 131+95'EB' LT
MATCH EXISTING

IBP: 132+50.00'WB'

PI: 135+00.00'WB'

PC: 139+55.59'WB'

128'EB' STH 19 130'EB' 132'EB' 134'WB' 136'WB' S88°01'43"E 138'WB' 140'WB' 142'W

136'EB' 138'EB' 140'EB' STH 19 142'E

BEGIN CONSTRUCTION
SHOULDER REPLACEMENT
STA 131+25'EB' RT
MATCH EXISTING

BEGIN PROJECT
STA 134+80.00'EB'

STEVEN F. GREVE
MARY L. GREVE

PI STA = 140+88.27'WB'
Y = 526864.945
X = 825749.893
DELTA = 7°35'26"
D = 2°51'53"
T = 132.68'
L = 264.96'
R = 2000.00'
PC STA = 139+55.59'WB'
Y = 526869.509
X = 825617.295
PT STA = 142+20.56'WB'
Y = 526842.906
X = 825880.726
BK = S88°01'43"E
AH = S80°26'17"E

WOODBURN INCOME TR, MARY A

5

5

PROPOSED PROFILE

VPI STA 136'WB'+82.50
VPI EL 906.61

VPT STA 138'WB'+85.00
VPT EL 900.66

EXISTING GROUND

-2.94%

-9.08%

SPECIAL DITCH LT.

VPC STA 134'WB'+80.00
VPC EL 910.50

VCL = 405.00
K = 398.59

910
900
890
880

127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142

914.36 913.68 912.88 912.03 911.15 910.12 910.11 908.90 909.09 907.76 908.01 906.67 906.87 905.62 905.67 904.29 904.40 903.12 903.07 901.90 901.67 900.50 900.22 899.04 898.75 897.77 897.28 896.29 895.81 894.76 894.35 893.14 892.88 891.47 891.41

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET 290 E

RONALD J. TREINEN
HEATHER L. TREINEN
ALLIANT ENERGY
CENTURYLINK
RIVER ROAD
WISDOT
REMOVE DRIVEWAY
OVERHEAD SIGN SUPPORT S-13-498 (SEE DETAIL)
CHARTER COMMUNICATION
DANE COUNTY
SLOPE INTERCEPT (TYP)
PROPOSED ROW (TYP)
EXISTING ROW (TYP)
STA. 155+17'WB'
REMOVE STRUCTURE B-13-861
2-SPAN SLAB
76' OVERALL LENGTH
47' OVERALL WIDTH
MMSD
WETLAND BOUNDARY (TYP)
DANE COUNTY
VILLAGE OF DEFOREST
YAHARA RIVER
B-13-795
B-13-794
STH 19
BM #2224
HMOD
MCI
MG&E
CAUTION
PT: 142+20.56'WB'
PC: 143+31.74'WB'
PT: 143+68.35'WB'
EP: 144+25.29'WB'
BP: 146+08.01'WB'
PC: 147+89.18'WB'
PT: 151+18.74'WB'
PC: 153+31.84'WB'
PT: 146+89.07'WB'
S80°26'17"E
S81°54'28"E
S77°42'42"E
142'WB'
144'WB'
146'WB'
148'WB'
150'WB'
152'WB'
154'WB'
156'WB'
142'EB'
144'EB'
146'EB'
148'EB'
150'EB'
152'EB'
154'EB'
156'EB'
PI STA = 143+50.05'WB'
Y = 526821.395
X = 826008.419
DELTA = 3°29'43"
D = 9°32'57"
T = 18.31'
L = 36.60'
R = 600.00'
PC STA = 143+31.74'WB'
Y = 526824.436
X = 825990.367
PT STA = 143+68.35'WB'
Y = 526819.461
X = 826026.623
BK = S80°26'17"E
AH = S83°55'59"E
WOODBURN INCOME TR, MARY A
PI STA = 146+50.48'WB'
Y = 526699.534
X = 826250.000
DELTA = 42°13'29"
D = 52°05'13"
T = 42.47'
L = 81.07'
R = 110.00'
PC STA = 146+08.01'WB'
Y = 526732.220
X = 826222.879
PT STA = 146+89.07'WB'
Y = 526693.555
X = 826292.050
BK = S39°41'00"E
AH = S81°54'28"E
PI STA = 149+54.04'WB'
Y = 526656.257
X = 826554.375
DELTA = 4°11'46"
D = 1°16'24"
T = 164.85'
L = 329.56'
R = 4500.00'
PC STA = 147+89.18'WB'
Y = 526679.463
X = 826391.162
PT STA = 151+18.74'WB'
Y = 526621.171
X = 826715.452
BK = S81°54'28"E
AH = S77°42'42"E
GEODETIC SURVEY CONTROL STATION (SEE SPECIAL PROVISIONS)
PROPERTY LINE (TYP)
PI STA = 157+14.77'WB'
Y = 526494.320
X = 827297.818
DELTA = 12°51'06"
D = 1°41'07"
T = 382.93'
L = 762.64'
R = 3400.00'
PC STA = 153+31.84'WB'
Y = 526575.818
X = 826923.666
PT STA = 160+94.48'WB'
Y = 526498.086
X = 827680.724
BK = S77°42'42"E
AH = N89°26'12"E
S.E. 4.0%
L.R. = 160'
COMPUTED SECTION CORNER LOCATION
MONUMENTED MEANDER CORNER (SEE SPECIAL PROVISIONS)
WI DNR
CONSTRUCTION PERMIT (TYP)
DANE COUNTY

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
2224	154+68'WB'	11.6' RT	DISC ON SW BRIDGE PARAPET	873.45'

STA 144+25.29'WB'
EL 885.32
-2.60%
-2.00%
-9.08%
STA 143+60.00'WB'
EL 886.71
STA 143+75.00'WB'
EL 886.32
STA 146+08.01'WB'
EL 881.86
VCL = 400.00
K = 265.84
PROPOSED PROFILE
-2.00%
-0.50%
-2.50%
-1.00%
-5.50%
-6.75%
-1.50%
-4.12%
-0.30%
EXISTING GROUND
VPC STA 147'WB'+50.00
VPC EL 879.01
VPI STA 149'WB'+50.00
VPI EL 875.00
VPT STA 151'WB'+50.00
VPT EL 874.00
VPC STA 156'WB'+70.00
VPC EL 871.40
STA. 155+11'WB'
STRUCTURE B-13-795 REQ'D
SINGLE SPAN 45W-INCH
PRESTRESSED GIRDER
40' - 9" CLEAR ROADWAY
HIGH WATER EL. 861.9
100
SPECIAL DITCH LT.
SPECIAL DITCH LT.
WATER EL. 855.2 (4-22-16)
STREAM BED EL. 851.9±
890
880
870
860
855
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157

| | | |

STA. 160+36'WB'
CONSTRUCT PE, LT
1 - 38' 18-INCH CP CL.III-A REQ'D
2 - 6:1 SLOPE STEEL ENDWALLS REQ'D

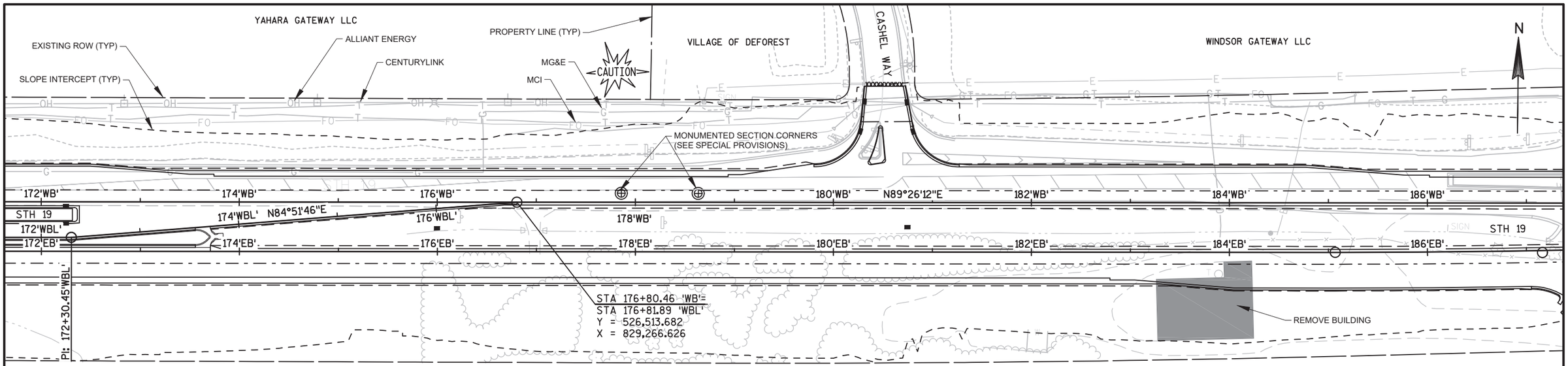
MMSD
DANE COUNTY
CHARTER COMMUNICATION
ALLIANT ENERGY
MCI
N
PROPERTY LINE (TYP)
YAHARA GATEWAY LLC
VILLAGE OF DEFOREST
TIERNEY CROSSING
EXISTING ROW (TYP)
YAHARA GATEWAY LLC
VILLAGE OF DEFOREST
CAUTION
MG&E
PT: 160+94.48'WB'
158'WB' 160'WB' 162'WB' 164'WB' 166'WB' N89°26'12"E 168'WB' 170'WB' 172'WB'
STH 19
158'EB' 160'EB' 162'EB' 164'EB' 166'EB' 168'EB' 170'WBL' N89°26'12"E STH 19 172'WBL'
170'EB' 172'EB'
PI: 172+30.45'WBL'
CENTURYLINK
PROPOSED ROW (TYP)
YAHARA RIVER ACCESS
CONSTRUCTION PERMIT (TYP)
SLOPE INTERCEPT (TYP)
DANE COUNTY
LIUNA WAY
SIGN
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

PI STA = 157+14.77'WB'
Y = 526494.320
X = 827297.818
DELTA = 12°51'06"
D = 1°41'07"
T = 382.93'
L = 762.64'
R = 3400.00'
PC STA = 153+31.84'WB'
Y = 526575.818
X = 826923.666
PT STA = 160+94.48'WB'
Y = 526498.086
X = 827680.724
BK = S77°42'42"E
AH = N89°26'12"E
S.E. 4.0%
L.R. = 160'

NOTE:
ARCHAEOLOGICAL SITE IS LOCATED BETWEEN THE YAHARA RIVER AND TIERNEY CROSSING/LIUNA WAY (WEST). CONTRACTOR SHALL AVOID USING AREAS OUTSIDE THE PROPOSED CONSTRUCTION LIMITS WITHIN THAT RANGE FOR OBTAINING BORROW AND FOR STAGING OF PERSONNEL, EQUIPMENT, AND/OR SUPPLIES.

VCL = 260.00
K = 260.00
VPT STA 159'WB'+30.00
VPT EL 871.40
VPI STA 158'WB'+00.00
VPI EL 870.75
PROPOSED PROFILE
EXISTING GROUND
SPECIAL DITCH LT.
-0.30%
1.23%
0.50%
2.00%
0.50%
-2.04%
VPC STA 169'WB'+17.50
VPC EL 876.34
VPI STA 170'WB'+50.00
VPI EL 877.00
VPT STA 171'WB'+82.50
VPT EL 876.34
VCL = 265.00
K = 265.00

| | | |

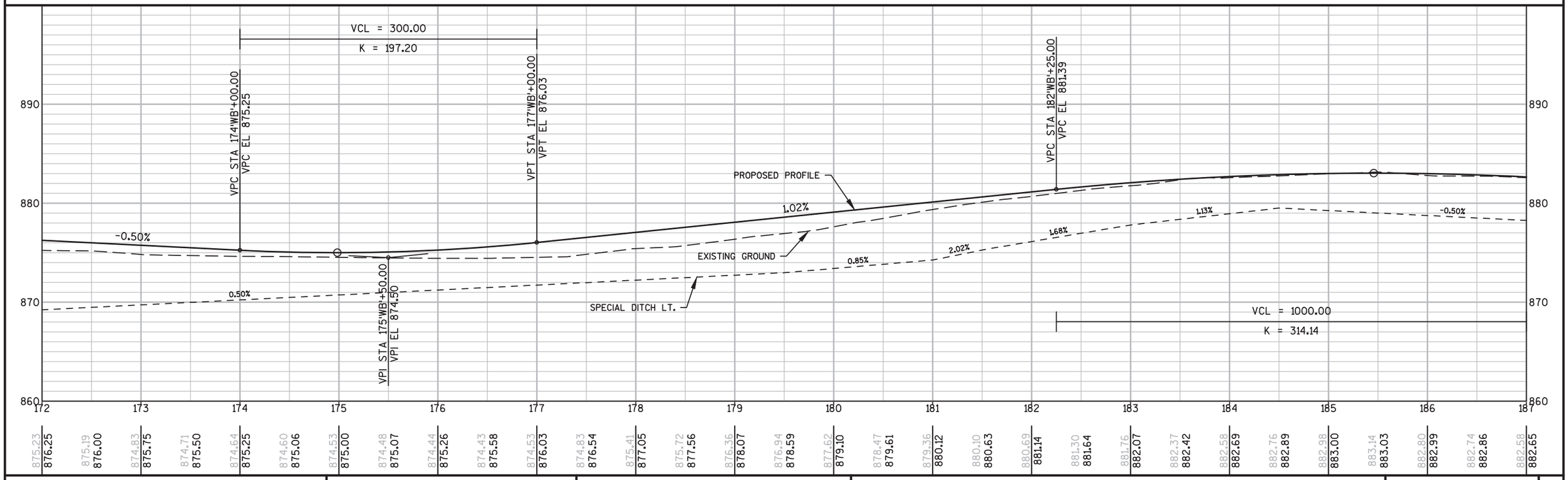


5

PI: 172+30.45'WBL'
Delta = 4°34'26"
Y = 526,473.258
X = 828,817.000

WISCONSIN LABORERS
APPRENTICESHIP &
TRAINING FUND

5



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET 293	E

WINDSOR GATEWAY LLC

VILLAGE OF DEFOREST

CENTURYLINK

EXISTING ROW (TYP)

EXIT RAMP

ALLIANT ENERGY

ATC

CAUTION

MCI

PI: 191+05.86'WB'
Delta = 0°09'25"
Y = 526527.6991
X = 830691.9646

SLOPE INTERCEPT (TYP)

AVOID PULL BOX

END WB CURB & GUTTER REPLACEMENT
STA. 194+71.95'WB'
MATCH EXISTING

WISDOT

EP: 200+00.00'WB'

IH 39/90/94

N

186'WB' 188'WB' N89°26'12"E 190'WB' 192'WB' N89°35'36"E 194'WB' 196'WB' 198'WB'

STH 19

186'EB' 188'EB' 190'EB' 192'EB' 194'EB' 196'EB' 198'EB'

AVOID PULL BOX

END WB RECONSTRUCTION
STA. 194+54.92'WB'
MATCH EXISTING

VILLAGE OF DEFOREST

END PROJECT
STA 194+00.00'EB'

CAUTION

MG&E

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

LIUNA WAY

MMSD

ENTRANCE RAMP

5

5

VPI STA 187'WB'+25.00
VPI EL 886.50

VPT STA 192'WB'+25.00
VPT EL 875.69

STA 194+00.00'WB'
EL 871.91

STA 194+55.00'WB'
EL 870.92

PROPOSED PROFILE

EXISTING GROUND

SPECIAL DITCH LT.

-1.00%
-2.16%
-2.53%
-1.80%
-2.00%
-3.65%
-8.28%

VCL = 1000.00
K = 314.14

890
880
870
860

187 188 189 190 191 192 193 194 195 196 197 198 199 200

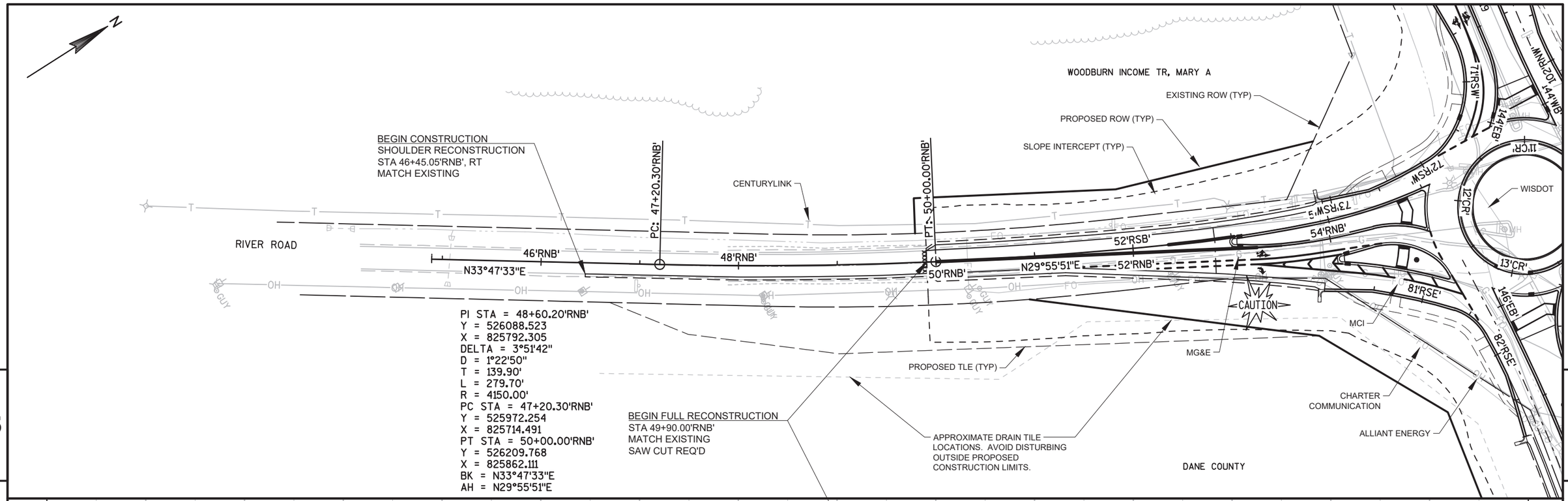
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET 294	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501B_WB_PP.DWG
LAYOUT NAME - PP_05

PLOT DATE : 5/20/2019 11:25 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET 295 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_100

PLOT DATE : 4/30/2019 11:51 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

ALLIANT ENERGY
PROPOSED ROW (TYP)
SLOPE INTERCEPT (TYP)
APPROXIMATE DRAIN TILE LOCATIONS. AVOID DISTURBING OUTSIDE PROPOSED CONSTRUCTION LIMITS.
RONALD J. TREINEN
HEATHER L. TREINEN
CENTURYLINK
REMOVE BUILDING
WOODBURN INCOME TR, MARY A
STH 19
WISDOT
DANE COUNTY
MCI
CAUTION
MG&E
EXISTING ROW (TYP)
PROPOSED TLE (TYP)
APPROXIMATE LOCATION OF DRAIN TILE FIELD. AVOID DISTURBING OUTSIDE PROPOSED CONSTRUCTION LIMITS.
BRIAN CARLSON AND MICHELLE CARLSON
CHARTER COMMUNICATION
RIVER ROAD
PC: 61+04.69'RSB'
STA 59+71.50 'RNB'=
STA 10+00.00 'PE'
PT: 62+00.00'RSB'
PI STA = 61+52.36'RSB'
Y = 527233.815
X = 826384.500
DELTA = 3°38'26"
D = 3°49'11"
T = 47.67'
L = 95.31'
R = 1500.00'
PC STA = 61+04.69'RSB'
Y = 527193.145
X = 826359.634
PT STA = 62+00.00'RSB'
Y = 527275.981
X = 826406.734
BK = N31°26'33"E
AH = N27°48'07"E
STA. 59+72'RNB'
CONSTRUCT PE RT
1 - 28' 18-INCH CP CL.III-A REQ'D
2 - APRON ENDWALLS REQ'D
STA. 60+34'RNB'
CONSTRUCT PE RT
1 - 28' 18-INCH CP CL.III-A REQ'D
2 - APRON ENDWALLS REQ'D
END CONSTRUCTION
STA 63+10.00'RNB'
MATCH EXISTING
SAW CUT REQ'D

'RNB'

VPC STA 57+05.00'RNB'
VPC EL 882.64
VPI STA 57+80.00'RNB'
VPI EL 881.94
VPC STA 58+85.00'RNB'
VPC EL 877.90
VPT STA 62+85.00'RNB'
VPT EL 870.72
STA 63+10.00'RNB'
EL 870.78
STA 56+91.73'RNB'
EL 882.77
VPT STA 58+55.00'RNB'
VPT EL 879.05
VPI STA 60+85.00'RNB'
VPI EL 870.21
-0.94%
1.24%
-0.50%
3.85%
-2.75%
0.26%
VCL = 400.00
K = 97.48
VCL = 150.00
K = 51.59
EXISTING GROUND
PROPOSED PROFILE
SPECIAL DITCH RT
STA. 62+00.03'RNB' & 62+08.39'RNB'
2 - 61' 24x38-INCH CPRCHE CL. HE III REQ'D
4 - APRON ENDWALLS REQ'D

'PE'

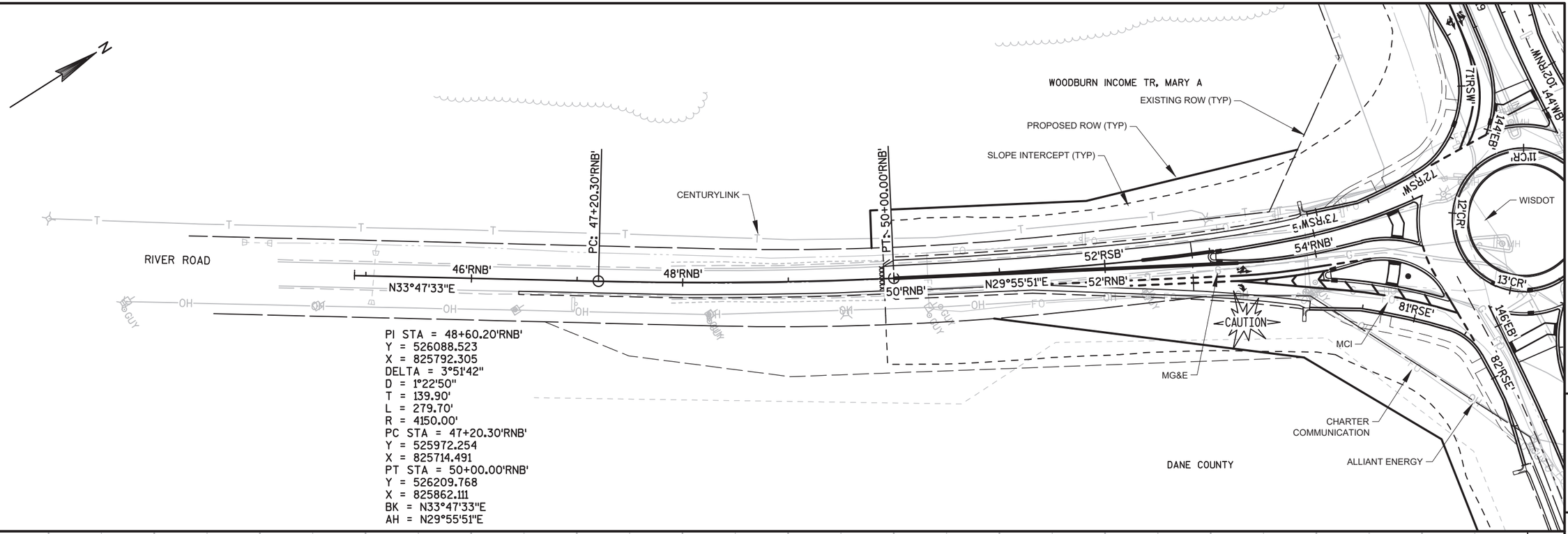
VCL = 50.00
K = 7.57
VPC STA 10+12.00'PE'
EL 874.72
STA 11+37.93'PE'
EL 875.41
VPC STA 10+20.00'PE'
VPC EL 874.40
VPI STA 10+45.00'PE'
VPI EL 873.40
VPT STA 10+70.00'PE'
VPT EL 874.05
STA 11+15.00'PE'
EL 875.22
-2.00%
4.00%
2.60%
0.84%
PROPOSED PROFILE
EXISTING GROUND

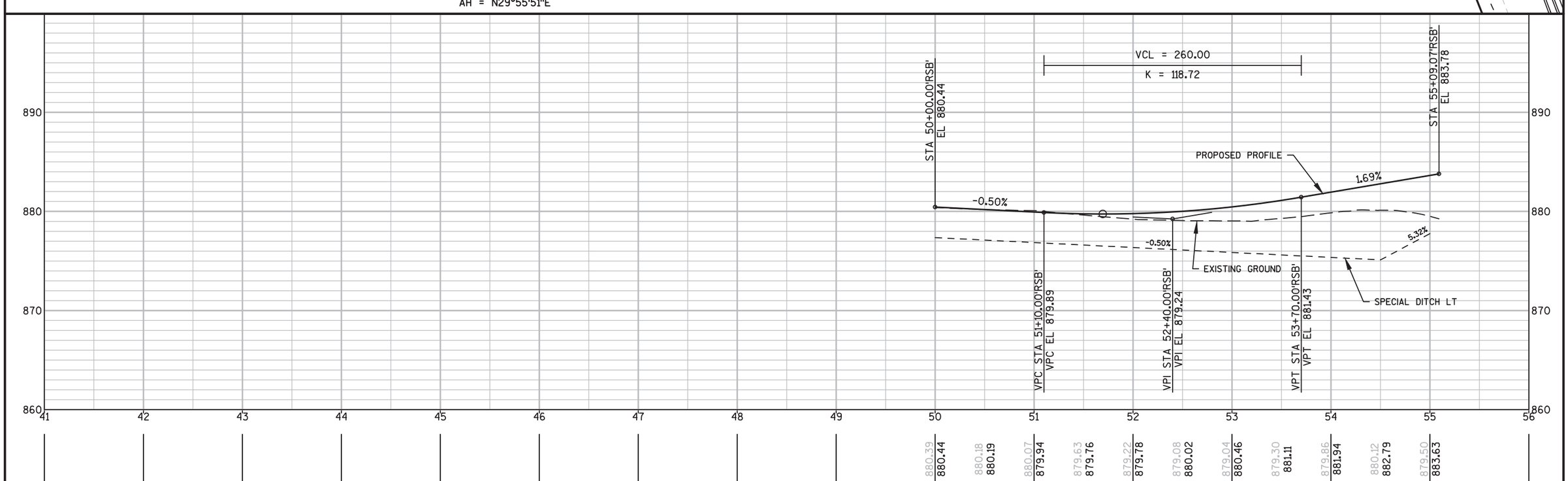
880.84	882.69	880.43	882.02	878.47	880.88	876.19	879.24	874.43	877.33	872.82	875.62	871.80	874.15	870.97	872.95	870.61	872.00	870.53	871.31	870.50	870.87	870.42	870.69	870.67	870.76	870.72	870.80	870.92	871.28
872.23	874.96	871.62	873.79	873.95	874.83	875.28																							

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET 296 E

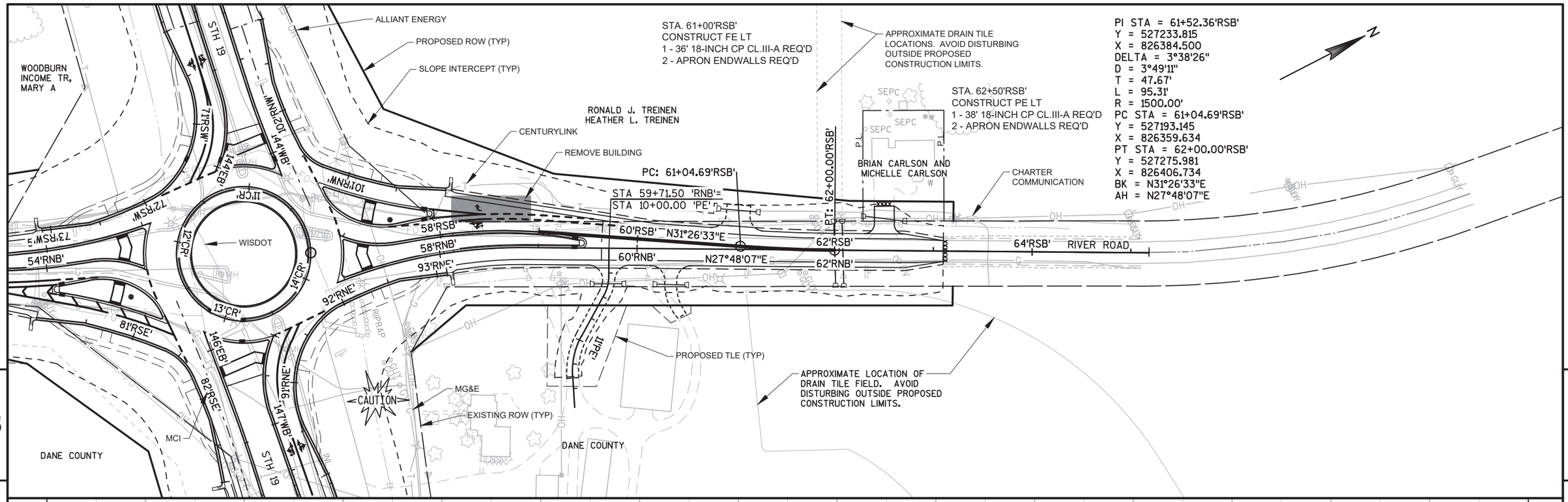
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_101
PLOT DATE : 4/30/2019 11:51 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RSB' RIVER ROAD	SHEET 297 E



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RSB' RIVER ROAD	SHEET 298 E

WOODBURN INCOME TR, MARY A

PROPOSED ROW (TYP)

CENTURYLINK

SLOPE INTERCEPT (TYP)

RONALD J. TREINEN
HEATHER L. TREINEN

CHARTER COMMUNICATION

REMOVE BUILDING

STA 59+71.50 'RNB'=
STA 10+00.00 'PE'

RIVER ROAD

WISDOT

MG&E

CAUTION

MCI

ALLIANT ENERGY

EXISTING ROW (TYP)

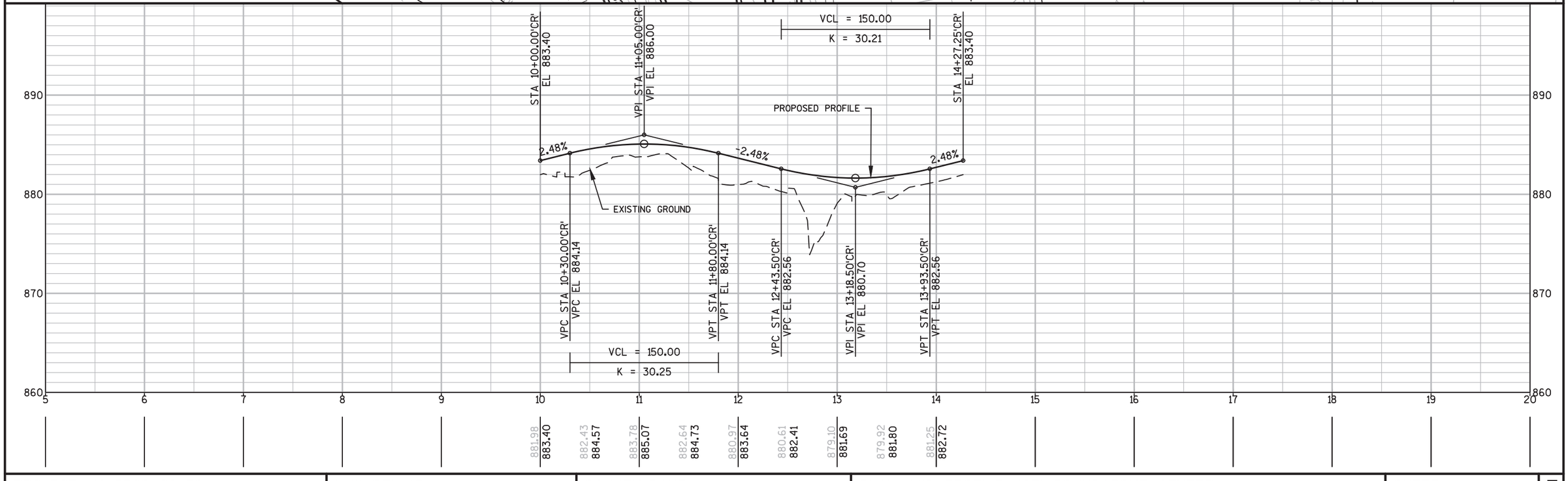
PROPOSED TLE (TYP)

DANE COUNTY

RIPRAP

5

5



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'CR' ROUNDABOUT CENTER	SHEET 299	E

POTENTIAL DANE COUNTY PARKING

CHARTER COMMUNICATION

STH 19

N

PROPERTY LINE (TYP)

PROPOSED ROW (TYP)

SLOPE INTERCEPT (TYP)

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

ALLIANT ENERGY

VILLAGE OF DEFOREST

CHARTER COMMUNICATION

STA 168+05.95 'EB'=
STA 10+00.00 'LWS'

STA 168+06.43 'WB'=
STA 302+10.66 'TCS'

168+00'YA'

PI: 8+46.07'LWS'

PT: 7+65.30'LWS'

168+00'EB'

168+00'WB'

TIERNEY CROSSING

303+00'TC"

EXISTING ROW (TYP)

8+00'LWS'

N6°40'29"W

9+00'LWS'

N0°20'10"W

STA 168+26.21 'YA'=
STA 8+13.16 'LWS'

LIUNA WAY

CAUTION

MG&E

STA 168+18.43 'WB'=
STA 302+10.72 'TC"

7+00'LWS'

PROPOSED TLE (TYP)

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

END CONSTRUCTION
STA 7+66.00'LWS'
MATCH EXISTING

PI: 8+46.07'LWS'
Y=526301.158
X=828393.665
Delta = 6°20'20"

169+00'EB'

169+00'WB'

MCI

CENTURYLINK

5

5

880
878
876
874
872
870
868
866

VPC STA 7+70.00'LWS'
VPC EL 869.19

VPT STA 8+60.00'LWS'
VPT EL 872.21

VPI STA 8+95.00'LWS'
VPI EL 873.96

STA 9+74.00'LWS'
EL 875.54

STA 9+88.00'LWS'
EL 875.68

STA 10+00.00'LWS'
EL 875.56

PROPOSED PROFILE

VCL = 90.00
K = 27.77

STA 7+66.00'LWS'
EL 869.12

1.74%

2.00%

1.00%

1.00%

VPI STA 8+15.00'LWS'
VPI EL 869.97

VPC STA 8+60.00'LWS'
VPC EL 872.21

VPT STA 9+30.00'LWS'
VPT EL 874.66

EXISTING GROUND

VCL = 70.00
K = 23.50

5+50 6+00 6+50 7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50

866.90 867.15 867.38 867.52 867.73 868.00 868.25 868.52 868.84 869.27 869.28 869.73 869.87 870.20 870.69 870.75 871.73 871.35 872.91 871.90 873.87 872.45 874.55 873.02 875.06 873.60 875.55 873.97 875.56

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'LWS' LIUNA WAY WEST	SHEET 300	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_200

PLOT DATE : 4/30/2019 11:59 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

PROPOSED ROW (TYP)
STH 19
CAUTION
MG&E
PROPOSED TLE (TYP)
SLOPE INTERCEPT (TYP)
YAHARA GATEWAY LLC
CHARTER COMMUNICATION
EXISTING ROW (TYP)
N
VILLAGE OF DEFOREST
STA 168+05.95 'EB'=
STA 10+00.00 'LWS'
STA 168+06.43 'WB'=
STA 302+10.66 'TCS'
168+00'EB'
168+00'WB'
9+00'LWS'
N0°20'10"W
LIUNA WAY
303+00'TCS'
TIERNEY CROSSING
304+00'TCS'
305+00'TCS'
306+00'TCS'
303+00'TC"
304+00'TC"
305+00'TC"
306+00'TC"
N0°13'19"W
STA 168+18.43 'WB'=
STA 302+10.72 'TC"
5
5
CENTURYLINK
MCI
VILLAGE OF DEFOREST
ALLIANT ENERGY
END CONSTRUCTION
STA 304+11.57'TC'
MATCH EXISTING
YAHARA GATEWAY LLC
VCL = 124.00
K = 34.97
STA 302+22.72'TC"
EL 875.96
STA 302+46.72'TC"
EL 875.62
VPC STA 302+84.00'TC"
VPC EL 874.87
VPT STA 304+08.00'TC"
VPT EL 874.57
PROPOSED PROFILE
1.00%
-1.00%
2.00%
-2.01%
1.53%
STA 302+10.72'TC"
EL 875.84
STA 302+36.72'TC"
EL 875.82
VPI STA 303+46.00'TC"
VPI EL 873.62
EXISTING GROUND
STA 304+15.00'TC"
EL 874.68
SPECIAL DITCH RT
882
880
878
876
874
872
870
868
300+50
301+00
301+50
302+00
302+50
303+00
303+50
304+00
304+50
305+00
305+50
306+00
306+50
875.70 875.94
875.04 875.56
872.98 875.05
872.99 874.59
869.26 874.29
872.11 874.17
873.70 874.22
873.99 874.46
874.86
875.29
875.68
876.07
876.43
876.78
877.13
877.53
877.91
878.34

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'TC' TIERNEY CROSSING NORTHBOUND	SHEET 301 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_201
PLOT DATE : 4/30/2019 11:59 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

PROPOSED ROW (TYP)
STH 19
CAUTION
MG&E
PROPOSED TLE (TYP)
SLOPE INTERCEPT (TYP)
YAHARA GATEWAY LLC
CHARTER COMMUNICATION
EXISTING ROW (TYP)
N
VILLAGE OF DEFOREST
STA 168+05.95 'EB'=
STA 10+00.00 'LWS'
168+00'EB'
STA 168+06.43 'WB'=
STA 302+10.66 'TCS'
168+00'WB'
9+00'LWS'
N0°20'10"W
LIUNA WAY
303+00'TCS'
TIERNEY CROSSING
304+00'TCS'
305+00'TCS'
306+00'TCS'
303+00'TC"
304+00'TC"
305+00'TC"
306+00'TC"
N0°13'19"W
STA 168+18.43 'WB'=
STA 302+10.72 'TC"
169+00'EB'
169+00'WB'
CENTURYLINK
MCI
VILLAGE OF DEFOREST
ALLIANT ENERGY
END CONSTRUCTION
STA 304+37.00'TCS'
MATCH EXISTING
YAHARA GATEWAY LLC
5
5

VCL = 124.00
K = 34.82

STA 302+10.66'TCS' EL 875.78
STA 302+22.66'TCS' EL 875.90
STA 302+36.66'TCS' EL 875.76
STA 302+46.66'TCS' EL 875.56
VPC STA 302+82.00 VPC EL 874.86
VPT STA 304+06.00 VPT EL 874.61
STA 304+40.00'TCS' EL 875.15
VPI STA 303+44.00 VPI EL 873.63

1.00% -1.00% 2.00% -1.98% 1.58% 1.47% 1.50% 0.50%

PROPOSED PROFILE
EXISTING GROUND
SPECIAL DITCH LT

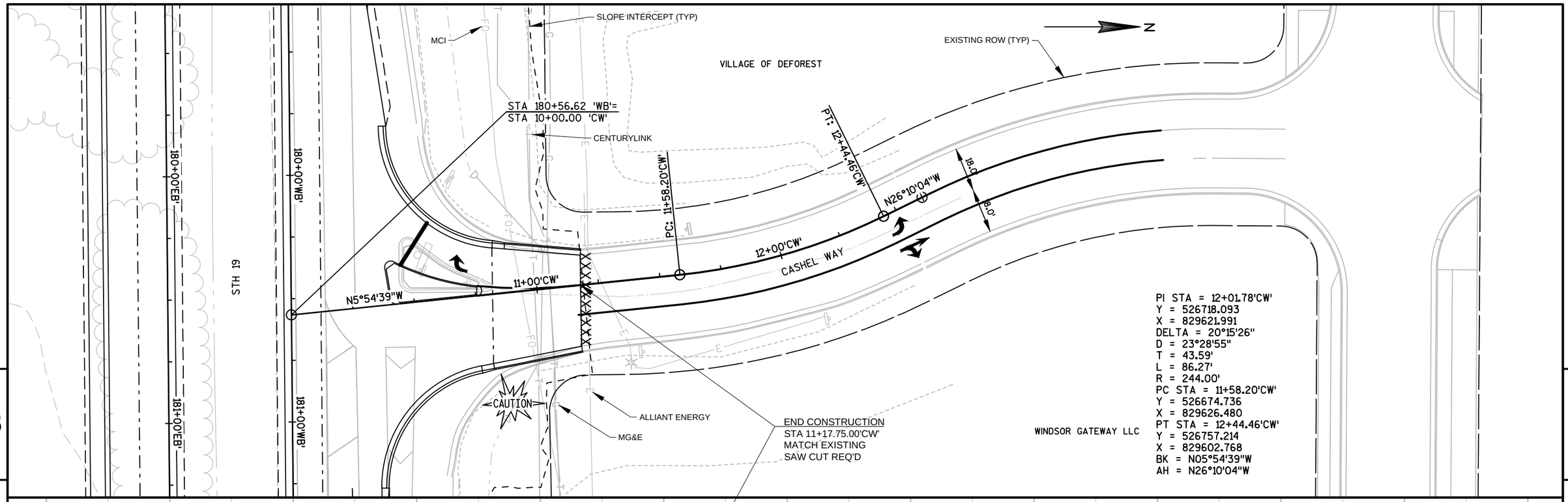
882 880 878 876 874 872 870 868

300+50 301+00 301+50 302+00 302+50 303+00 303+50 304+00 304+50 305+00 305+50 306+00 306+50

875.68 875.88 | 875.04 875.50 | 873.19 875.00 | 873.68 874.55 | 872.12 874.27 | 870.07 874.18 | 873.08 874.26 | 873.93 874.52 | 874.91 874.91 | 875.30 | 875.69 | 876.07 | 876.44 | 876.79 | 877.14 | 877.54 | 877.93 | 878.25

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'TCS' TIERNEY CROSSING SOUTHBOUND	SHEET 302	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_202
PLOT DATE : 4/30/2019 11:59 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'CW' CASHEL WAY	SHEET 303 E

EXISTING ROW (TYP)

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

SLOPE INTERCEPT (TYP)

PROPOSED TLE (TYP)

LIUNA WAY

8+00'LES'

9+00'LES'

N0°33'21"W

187+00'EB'

STH 19

187+00'WB'

188+00'EB'

188+00'WB'

STA 187+81.84 'EB'=
STA 10+00.00 'LES'

CENTURYLINK

N

WINDSOR GATEWAY LLC

ALLIANT ENERGY

CAUTION

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

MG&E

END CONSTRUCTION
STA 8+85.00'LES'
MATCH EXISTING

VILLAGE OF DEFOREST

MCI

VILLAGE OF DEFOREST

PROPERTY LINE (TYP)

5

5

STA 8+85.00'LES'
EL 882.72

STA 9+73.99'LES'
EL 882.14

STA 9+88.00'LES'
EL 882.42

STA 10+00.00'LES'
EL 882.18

-0.85%

0.98%

1.98%

2.02%

EXISTING GROUND

PROPOSED PROFILE

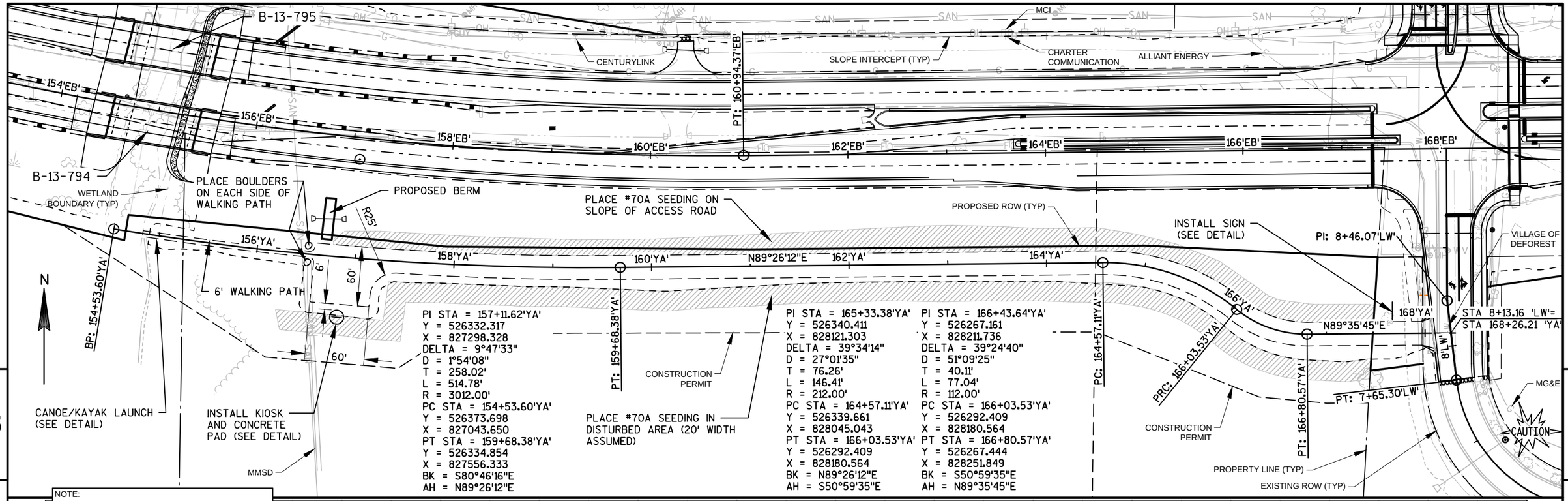
STA 9+63.99'LES'
EL 882.04

888
886
884
882
880
878
876
874

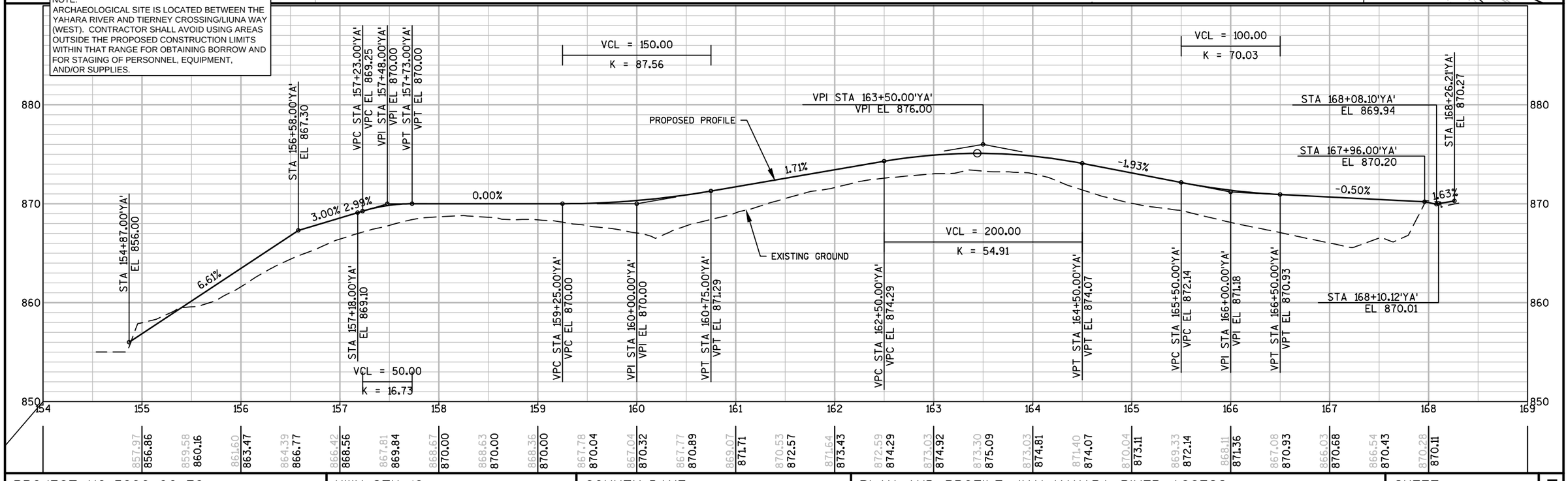
7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00

882.06 882.44 882.65 882.73 882.69 882.59 882.50 882.37 882.30 882.16 882.12 882.16 881.95 882.18

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'LES' LUINA WAY EAST	SHEET 304	E



NOTE:
ARCHAEOLOGICAL SITE IS LOCATED BETWEEN THE YAHARA RIVER AND TIERNEY CROSSING/LIUNA WAY (WEST). CONTRACTOR SHALL AVOID USING AREAS OUTSIDE THE PROPOSED CONSTRUCTION LIMITS WITHIN THAT RANGE FOR OBTAINING BORROW AND FOR STAGING OF PERSONNEL, EQUIPMENT, AND/OR SUPPLIES.



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'YA' YAHARA RIVER ACCESS	SHEET 305 E

N

SLOPE INTERCEPT FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

RONALD J. TREINEN
HEATHER L. TREINEN

BP: 231+97.30TEB1
PRC: 233+75.12TEB1
PCC: 234+51.40TEB1
PT: 239+57.28TEB1
PC: 241+62.53TEB1
PT: 244+04.11TEB1
R 1113'
232TEB1
234TEB1
236TEB1
238TEB1
240TEB1
S82°54'15"E
242TEB1
244TEB1
S73°40'37"E
246TEB1
STH 19
RIVER ROAD

PI STA = 232+86.40TEB1
Y = 526892.529
X = 824948.503
DELTA = 9°15'44"
D = 5°12'31"
T = 89.10'
L = 177.82'
R = 1100.00'
PC STA = 231+97.30TEB1
Y = 526895.594
X = 824859.451
PT STA = 233+75.12TEB1
Y = 526903.837
X = 825036.887
BK = S88°01'43"E
AH = N82°42'33"E

STEVEN F. GREVE
MARY L. GREVE

PI STA = 234+13.28TEB1
Y = 526908.679
X = 825074.734
DELTA = 3°58'24"
D = 5°12'31"
T = 38.16'
L = 76.28'
R = 1100.00'
PC STA = 233+75.12TEB1
Y = 526903.837
X = 825036.887
PT STA = 234+51.40TEB1
Y = 526910.887
X = 825112.826
BK = N82°42'33"E
AH = N86°40'57"E

PI STA = 237+05.04TEB1
Y = 526925.566
X = 825366.040
DELTA = 10°24'48"
D = 2°03'30"
T = 253.64'
L = 505.88'
R = 2783.44'
PC STA = 234+51.40TEB1
Y = 526910.887
X = 825112.826
PT STA = 239+57.28TEB1
Y = 526894.234
X = 825617.737
BK = N86°40'57"E
AH = S82°54'15"E

WOODBURN INCOME TR, MARY A

PI STA = 242+83.58TEB1
Y = 526853.928
X = 825941.534
DELTA = 9°13'39"
D = 3°49'11"
T = 121.05'
L = 241.57'
R = 1500.00'
PC STA = 241+62.53TEB1
Y = 526868.881
X = 825821.413
PT STA = 244+04.11TEB1
Y = 526819.906
X = 826057.704
BK = S82°54'15"E
AH = S73°40'37"E

STA 245+93.88 'TEB'=
STA 56+76.54 'TRR'

56'TRR'
N30°42'40"E
RIVER ROAD
STH 19

5

5

-1.42%
-1.58%
-1.89%
-1.67%
-1.28%
-0.98%
-2.45%
-2.30%
-2.42%
-2.99%
-2.99%
-2.98%
-2.92%
-4.07%
-3.47%
-3.33%
-2.36%
-2.70%
-2.83%
-2.42%

VPI STA 235+60.00TEB1
VPI EL 909.64

VCL = 100.00
K = 68.17

STA 232+50.00TEB1 EL 914.34
STA 233+00.00TEB1 EL 913.55
STA 233+58.00TEB1 EL 912.46
STA 234+61.54TEB1 EL 910.73
STA 235+00.00TEB1 EL 910.23
VPC STA 235+10.00TEB1 VPC EL 910.14
VPT STA 236+10.00TEB1 VPT EL 908.42
STA 236+50.00TEB1 EL 907.44
STA 237+50.00TEB1 EL 905.14
STA 238+50.00TEB1 EL 902.71
STA 239+50.00TEB1 EL 899.72
STA 241+00.00TEB1 EL 895.26
STA 242+00.00TEB1 EL 892.34
STA 243+00.00TEB1 EL 888.27
STA 243+50.00TEB1 EL 886.54
STA 244+00.00TEB1 EL 884.87
STA 244+35.00TEB1 EL 884.05
STA 245+07.46TEB1 EL 882.09
STA 245+50.00TEB1 EL 880.89

910 900 890 880
900 890 880 870
232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247

| | | |

SLOPE INTERCEPT FOR CONSTRUCTION STAGING TEMPORARY WIDENING (TYP)

DANE COUNTY

YAHARA RIVER

DANE COUNTY

STH 19

PC: 249+36.09TEB1

PT: 251+97.65TEB1

PC: 253+60.49TEB1

PRC: 256+49.01TEB1

PRC: 258+81.85TEB1

PT: 262+05.94TEB1

R 1037'

248TEB1

250TEB1

252TEB1

254TEB1

256TEB1

258TEB1

260TEB1

262TEB1

S73°40'37"E

S78°40'20"E

PI STA = 250+66.95TEB1
Y = 526633.611
X = 826693.829
DELTA = 4°59'44"
D = 1°54'35"
T = 130.86'
L = 261.56'
R = 3000.00'
PC STA = 249+36.09TEB1
Y = 526670.391
X = 826568.240
PT STA = 251+97.65TEB1
Y = 526607.906
X = 826822.143
BK = S73°40'37"E
AH = S78°40'20"E

PI STA = 255+04.84TEB1
Y = 526547.567
X = 827123.353
DELTA = 4°52'46"
D = 1°41'28"
T = 144.35'
L = 288.52'
R = 3388.00'
PC STA = 253+60.49TEB1
Y = 526575.920
X = 826981.816
PT STA = 256+49.01TEB1
Y = 526531.356
X = 827266.789
BK = S78°40'20"E
AH = S83°33'06"E

PI STA = 257+65.77TEB1
Y = 526518.243
X = 827382.807
DELTA = 10°40'21"
D = 4°35'01"
T = 116.76'
L = 232.84'
R = 1250.00'
PC STA = 256+49.01TEB1
Y = 526531.356
X = 827266.789
PT STA = 258+81.85TEB1
Y = 526483.871
X = 827494.390
BK = S83°33'06"E
AH = S72°52'45"E

PI STA = 260+45.19TEB1
Y = 526435.785
X = 827650.492
DELTA = 17°41'04"
D = 5°27'24"
T = 163.34'
L = 324.08'
R = 1050.00'
PC STA = 258+81.85TEB1
Y = 526483.871
X = 827494.390
PT STA = 262+05.94TEB1
Y = 526437.392
X = 827813.824
BK = S72°52'45"E
AH = N89°26'12"E

5

N

DANE COUNTY

WI DNR

DANE COUNTY

5

DANE COUNTY

YARAHA GATEWAY LLC

VILLAGE OF DEFOREST

YARAHA GATEWAY LLC

PC: 273+08.32TEB1

PRC: 275+73.84TEB1

264TEB1

266TEB1

268TEB1

270TEB1

272TEB1

274TEB1

276TEB1

278TEB

N89°26'12"E

N89°26'12"E

N

DANE COUNTY

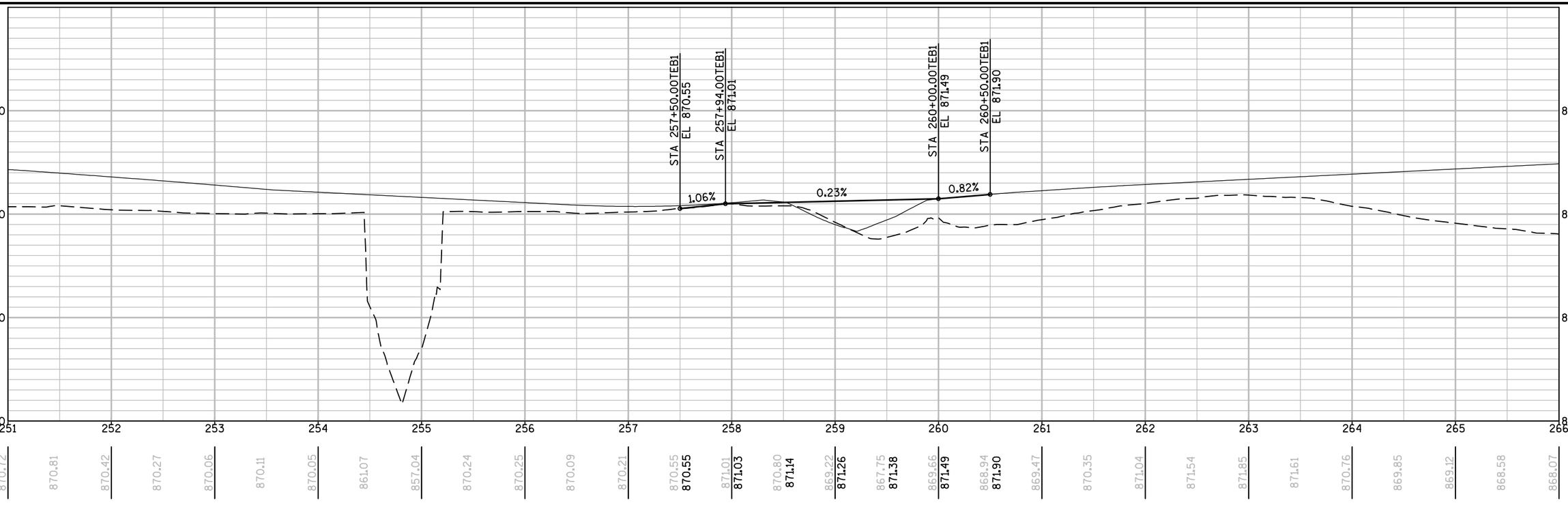
LIUNA WAY

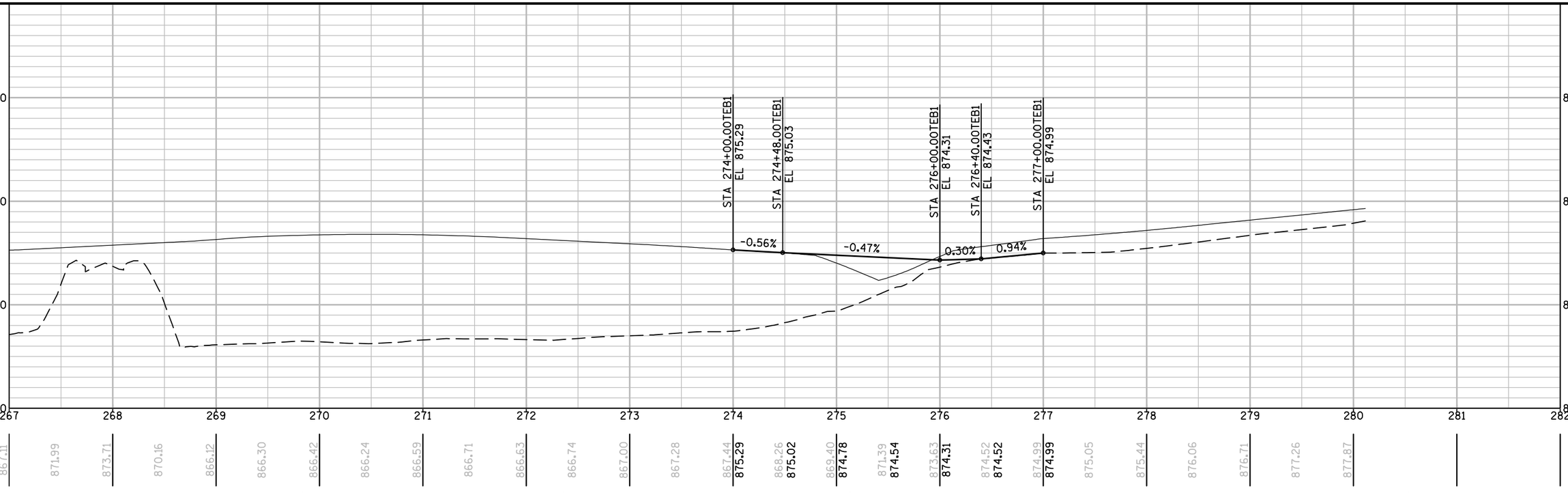
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

PI STA = 274+42.28TEB1
Y = 526449.550
X = 829050.107
DELTA = 18°44'08"
D = 7°03'22"
T = 133.96'
L = 265.52'
R = 812.00'
PC STA = 273+08.32TEB1
Y = 526448.232
X = 828916.158
PT STA = 275+73.84TEB1
Y = 526493.821
X = 829176.535
BK = N89°26'12"E
AH = N70°42'04"E

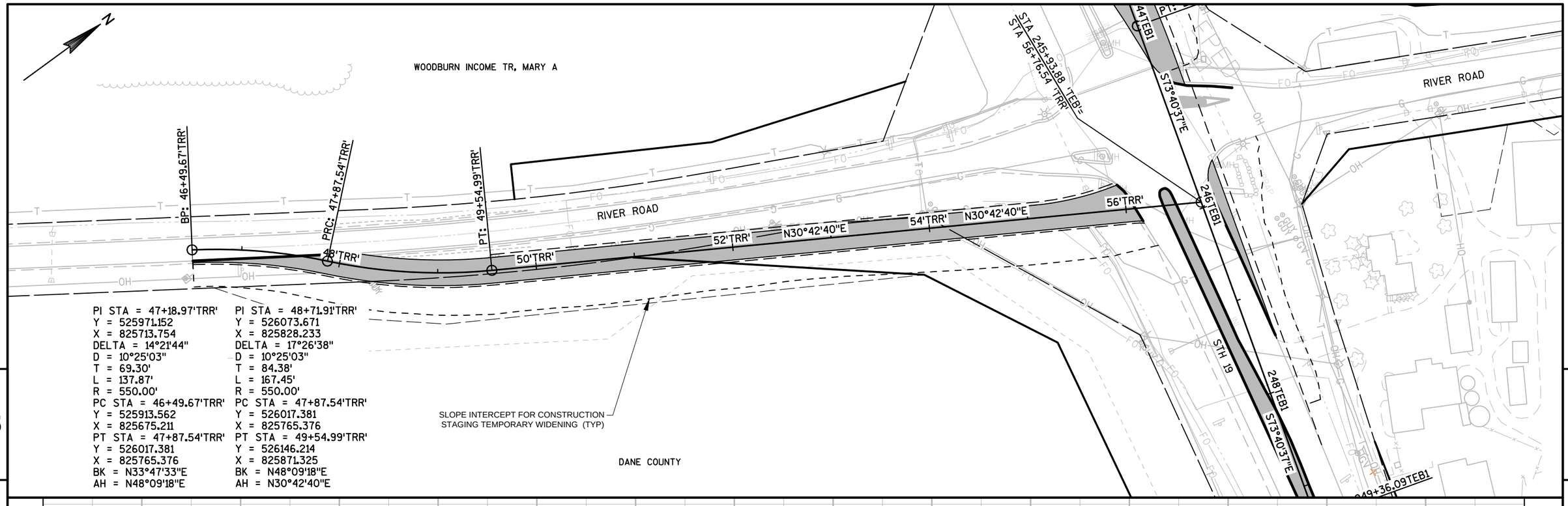
PI STA = 277+07.33TEB1
Y = 526537.938
X = 829302.520
DELTA = 18°24'13"
D = 6°57'12"
T = 133.49'
L = 264.67'
R = 824.00'
PC STA = 275+73.84TEB1
Y = 526493.821
X = 829176.535
PT STA = 278+38.51TEB1
Y = 526540.024
X = 829435.989
BK = N70°42'04"E
AH = N89°06'17"E

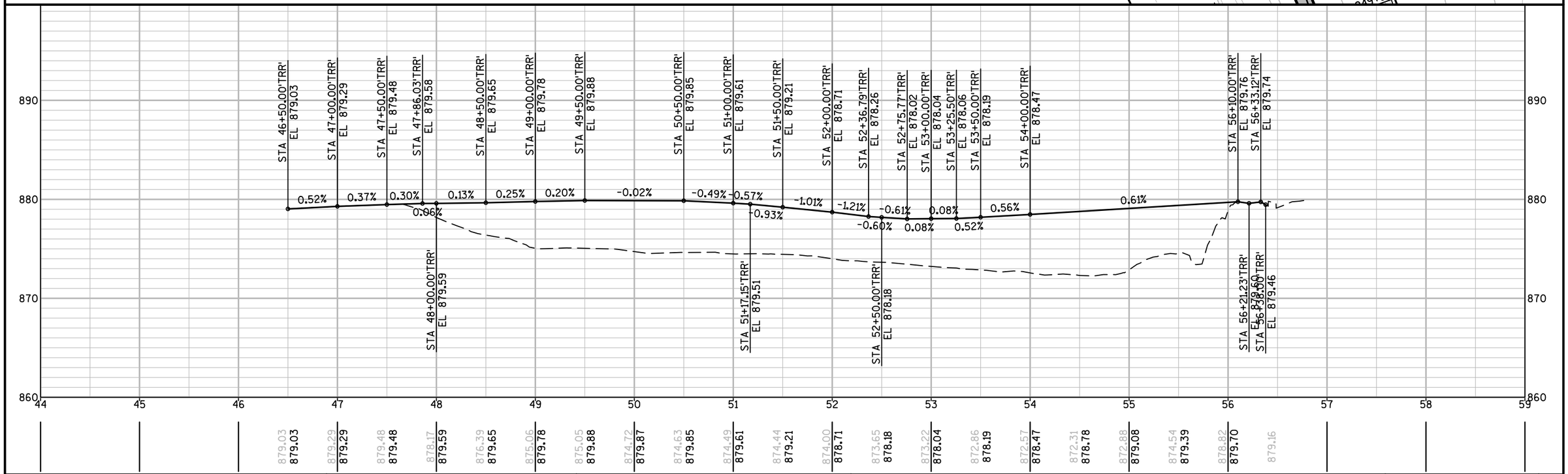
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 1B 'TEB1' LINE	SHEET 307	E





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 1B 'TEB1' LINE	SHEET 308	E





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 1B 'TRR' LINE	SHEET 309	E

PI STA = 232+12.42TEB2
Y = 526895.074
X = 824874.565
DELTA = 7°43'54"
D = 5°12'31"
T = 74.33'
L = 148.44'
R = 1100.00'
PC STA = 231+38.09TEB2
Y = 526897.631
X = 824800.277
PT STA = 232+86.53TEB2
Y = 526882.546
X = 824947.832
BK = S88°01'43"E
AH = S80°17'49"E

PI STA = 233+60.86TEB2
Y = 526870.019
X = 825021.100
DELTA = 7°43'54"
D = 5°12'31"
T = 74.33'
L = 148.44'
R = 1100.00'
PC STA = 232+86.53TEB2
Y = 526882.546
X = 824947.832
PT STA = 234+34.96TEB2
Y = 526867.462
X = 825095.387
BK = S80°17'49"E
AH = S88°01'43"E

PI STA = 238+91.01TEB2
Y = 526851.774
X = 825551.168
DELTA = 7°35'26"
D = 2°51'53"
T = 132.68'
L = 264.96'
R = 2000.00'
PC STA = 237+58.34TEB2
Y = 526856.338
X = 825418.570
PT STA = 240+23.30TEB2
Y = 526829.734
X = 825682.001
BK = S88°01'43"E
AH = S80°26'17"E

PI STA = 241+96.13TEB2
Y = 526801.024
X = 825852.432
DELTA = 11°07'53"
D = 5°12'31"
T = 107.19'
L = 213.71'
R = 1100.00'
PC STA = 240+88.94TEB2
Y = 526818.830
X = 825746.731
PT STA = 243+02.65TEB2
Y = 526763.147
X = 825952.707
BK = S80°26'17"E
AH = S69°18'24"E

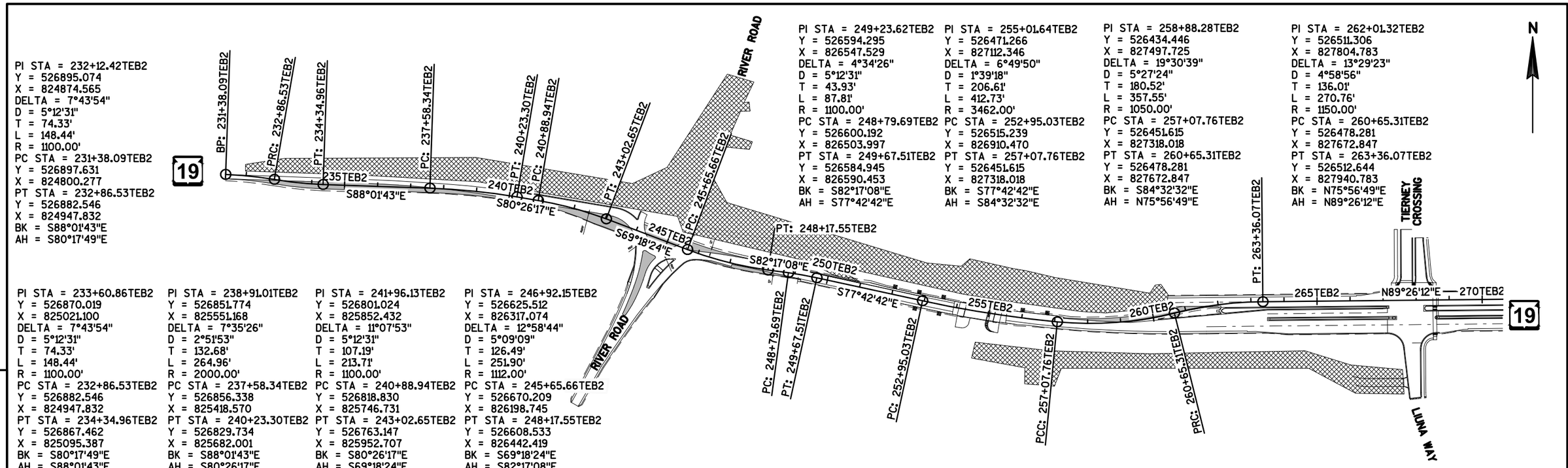
PI STA = 246+92.15TEB2
Y = 526625.512
X = 826317.074
DELTA = 12°58'44"
D = 5°09'09"
T = 126.49'
L = 251.90'
R = 1112.00'
PC STA = 245+65.66TEB2
Y = 526670.209
X = 826198.745
PT STA = 248+17.55TEB2
Y = 526608.533
X = 826442.419
BK = S69°18'24"E
AH = S82°17'08"E

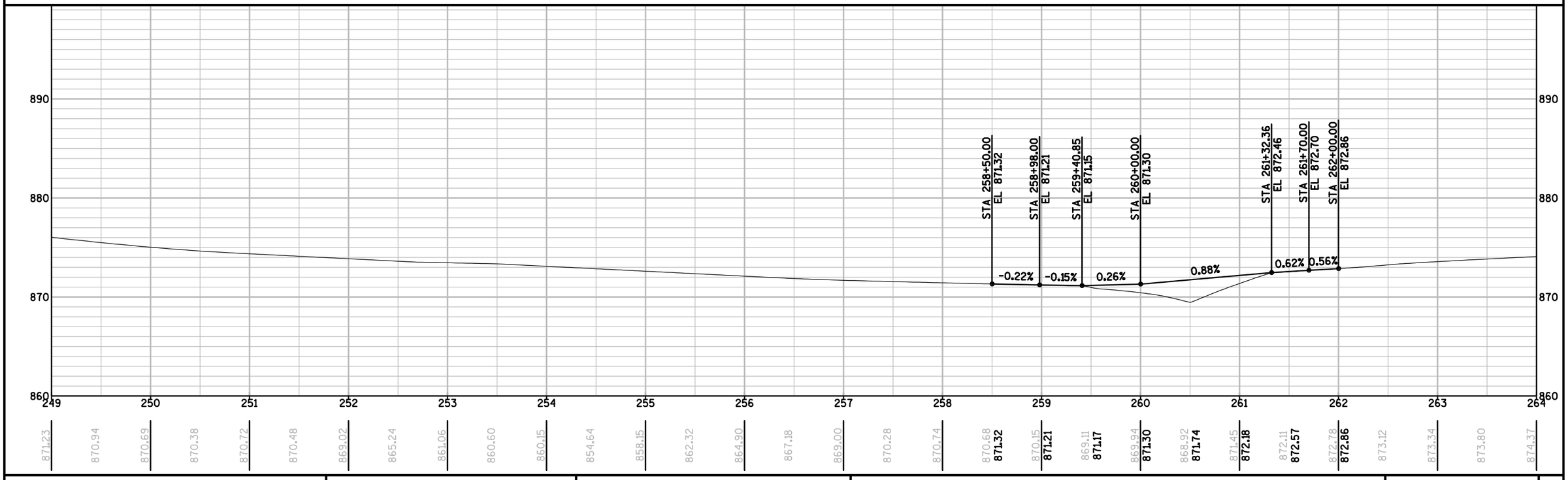
PI STA = 249+23.62TEB2
Y = 526594.295
X = 826547.529
DELTA = 4°34'26"
D = 5°12'31"
T = 43.93'
L = 87.81'
R = 1100.00'
PC STA = 248+79.69TEB2
Y = 526600.192
X = 826503.997
PT STA = 249+67.51TEB2
Y = 526584.945
X = 826590.453
BK = S82°17'08"E
AH = S77°42'42"E

PI STA = 255+01.64TEB2
Y = 526471.266
X = 827112.346
DELTA = 6°49'50"
D = 1°39'18"
T = 206.61'
L = 412.73'
R = 3462.00'
PC STA = 252+95.03TEB2
Y = 526515.239
X = 826910.470
PT STA = 257+07.76TEB2
Y = 526451.615
X = 827318.018
BK = S77°42'42"E
AH = S84°32'32"E

PI STA = 258+88.28TEB2
Y = 526434.446
X = 827497.725
DELTA = 19°30'39"
D = 5°27'24"
T = 180.52'
L = 357.55'
R = 1050.00'
PC STA = 257+07.76TEB2
Y = 526451.615
X = 827318.018
PT STA = 260+65.31TEB2
Y = 526478.281
X = 827672.847
BK = S84°32'32"E
AH = N75°56'49"E

PI STA = 262+01.32TEB2
Y = 526511.306
X = 827804.783
DELTA = 13°29'23"
D = 4°58'56"
T = 136.01'
L = 270.76'
R = 1150.00'
PC STA = 260+65.31TEB2
Y = 526478.281
X = 827672.847
PT STA = 263+36.07TEB2
Y = 526512.644
X = 827940.783
BK = N75°56'49"E
AH = N89°26'12"E





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 2A 'TEB2' LINE	SHEET 310	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501S_2A_PP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/1/2019 3:35 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : ############

PI STA = 272+21.32TEB2
Y = 526521.349
X = 828825.994
DELTA = 17°25'41"
D = 7°09'43"
T = 122.62'
L = 243.34'
R = 800.00'
PC STA = 270+98.70TEB2
Y = 526520.143
X = 828703.383
PT STA = 273+42.04TEB2
Y = 526485.777
X = 828943.338
BK = N89°26'12"E
AH = S73°08'08"E

PI STA = 274+66.50TEB2
Y = 526449.671
X = 829062.441
DELTA = 17°25'41"
D = 7°03'22"
T = 124.46'
L = 246.99'
R = 812.00'
PC STA = 273+42.04TEB2
Y = 526485.777
X = 828943.338
PT STA = 275+89.03TEB2
Y = 526450.895
X = 829186.892
BK = S73°08'08"E
AH = N89°26'12"E

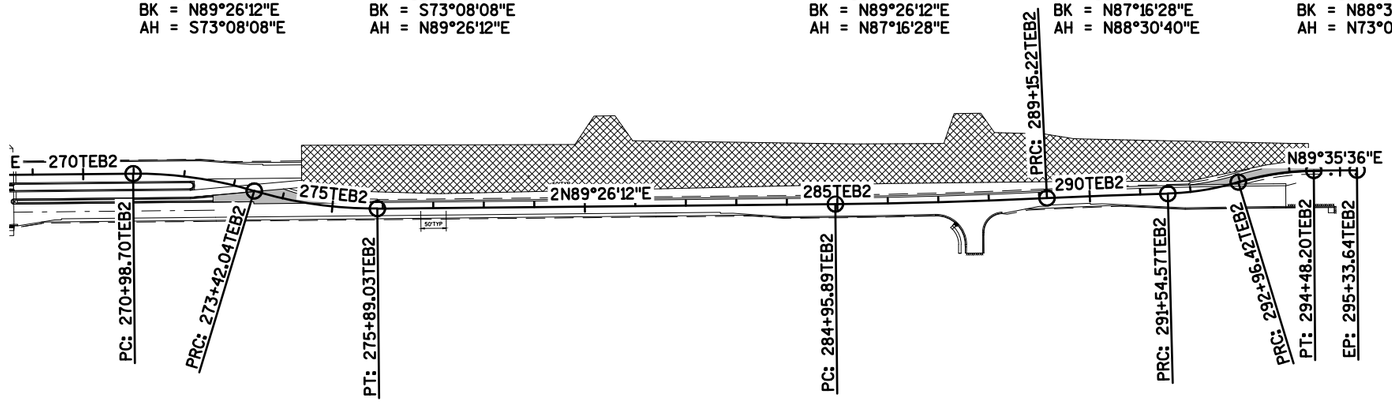
PI STA = 287+05.58TEB2
Y = 526461.875
X = 830303.385
DELTA = 2°09'44"
D = 0°30'56"
T = 209.69'
L = 419.32'
R = 11112.00'
PC STA = 284+95.89TEB2
Y = 526459.813
X = 830093.708
PT STA = 289+15.22TEB2
Y = 526471.846
X = 830512.835
BK = N89°26'12"E
AH = N87°16'28"E

PI STA = 290+34.90TEB2
Y = 526477.537
X = 830632.379
DELTA = 1°14'12"
D = 0°31'00"
T = 119.68'
L = 239.35'
R = 11088.00'
PC STA = 289+15.22TEB2
Y = 526471.846
X = 830512.835
PT STA = 291+54.57TEB2
Y = 526480.646
X = 830752.018
BK = N87°16'28"E
AH = N88°30'40"E

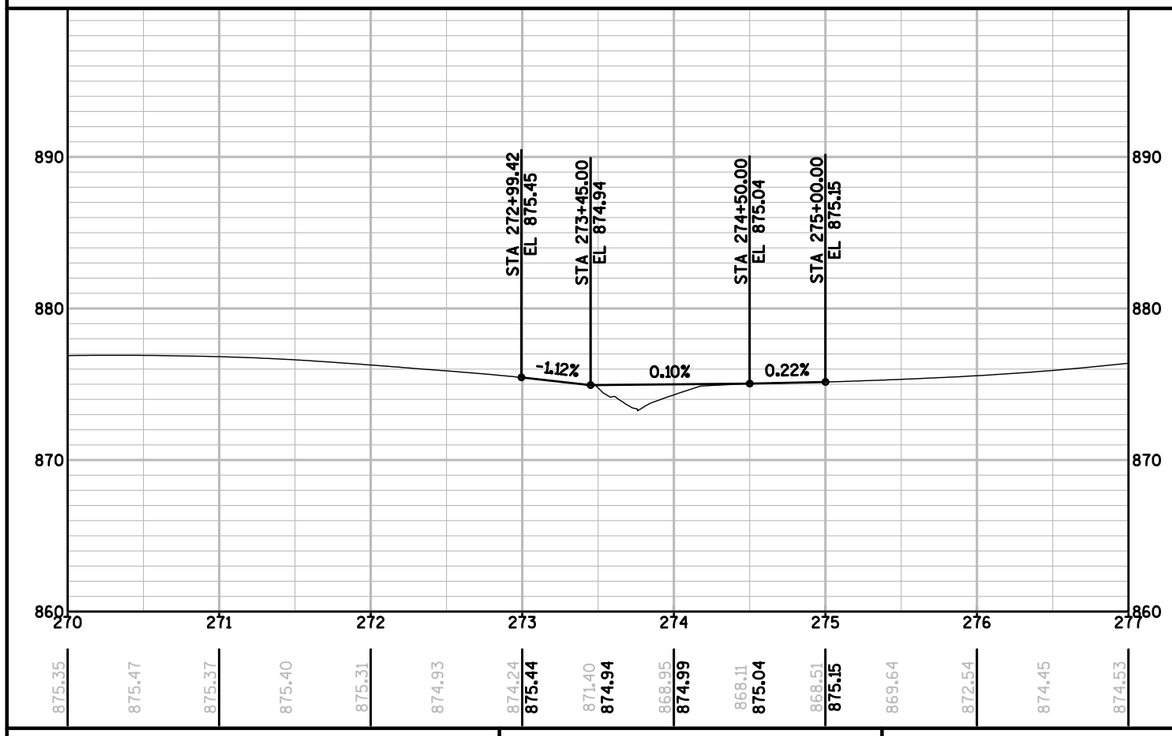
PI STA = 292+25.93TEB2
Y = 526482.500
X = 830823.356
DELTA = 15°28'53"
D = 10°54'49"
T = 71.36'
L = 141.86'
R = 525.00'
PC STA = 291+54.57TEB2
Y = 526480.646
X = 830752.018
PT STA = 292+96.42TEB2
Y = 526503.329
X = 830891.612
BK = N88°30'40"E
AH = N73°01'47"E

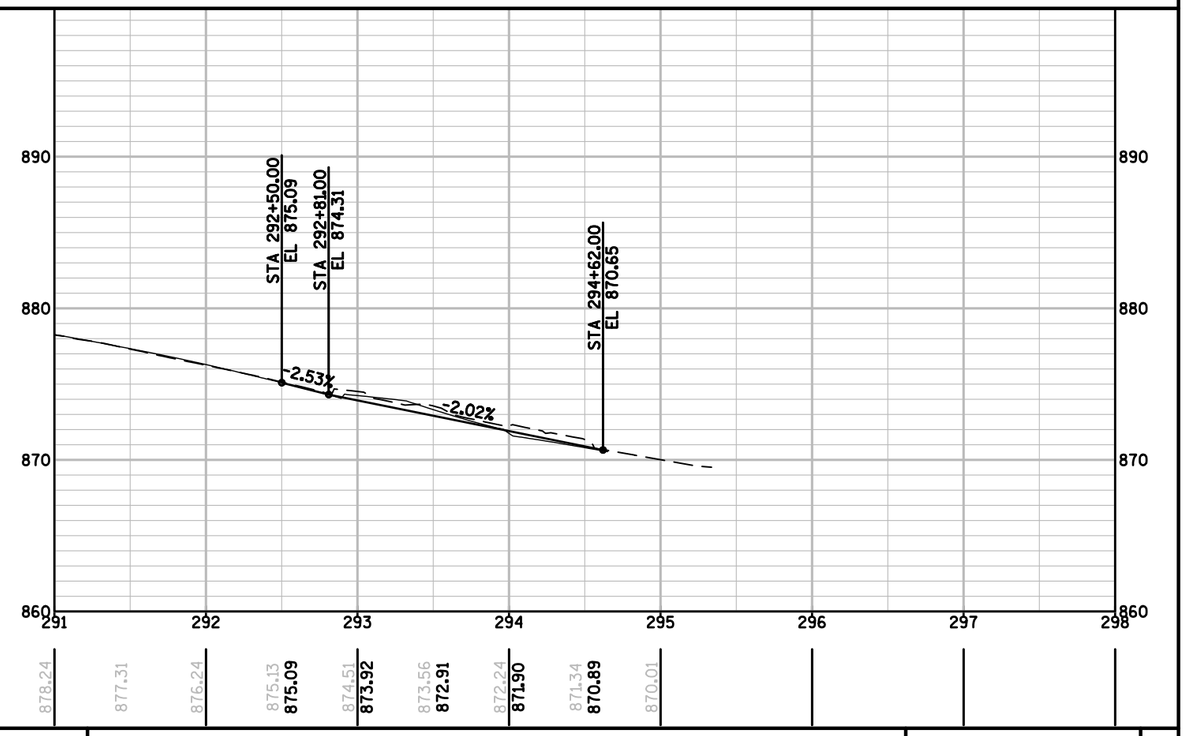
PI STA = 293+72.84TEB2
Y = 526525.634
X = 830964.704
DELTA = 16°33'49"
D = 10°54'49"
T = 76.42'
L = 151.77'
R = 525.00'
PC STA = 292+96.42TEB2
Y = 526503.329
X = 830891.612
PT STA = 294+48.20TEB2
Y = 526526.177
X = 831041.121
BK = N73°01'47"E
AH = N89°35'36"E

N



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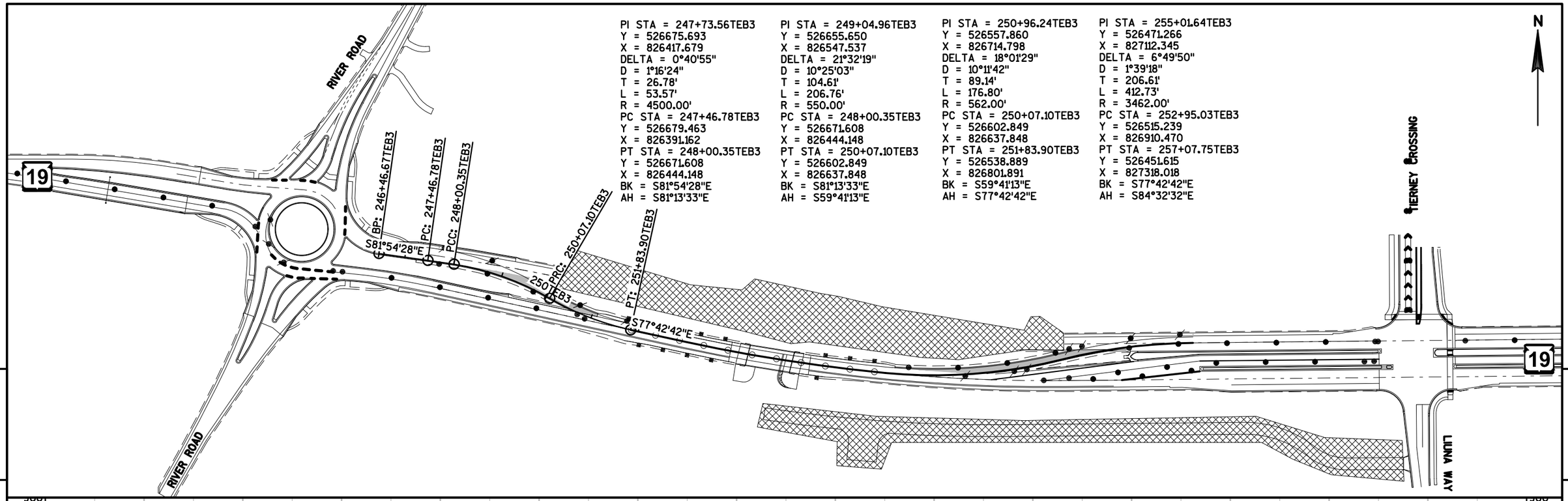
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 2A 'TEB2' LINE	SHEET 311	E

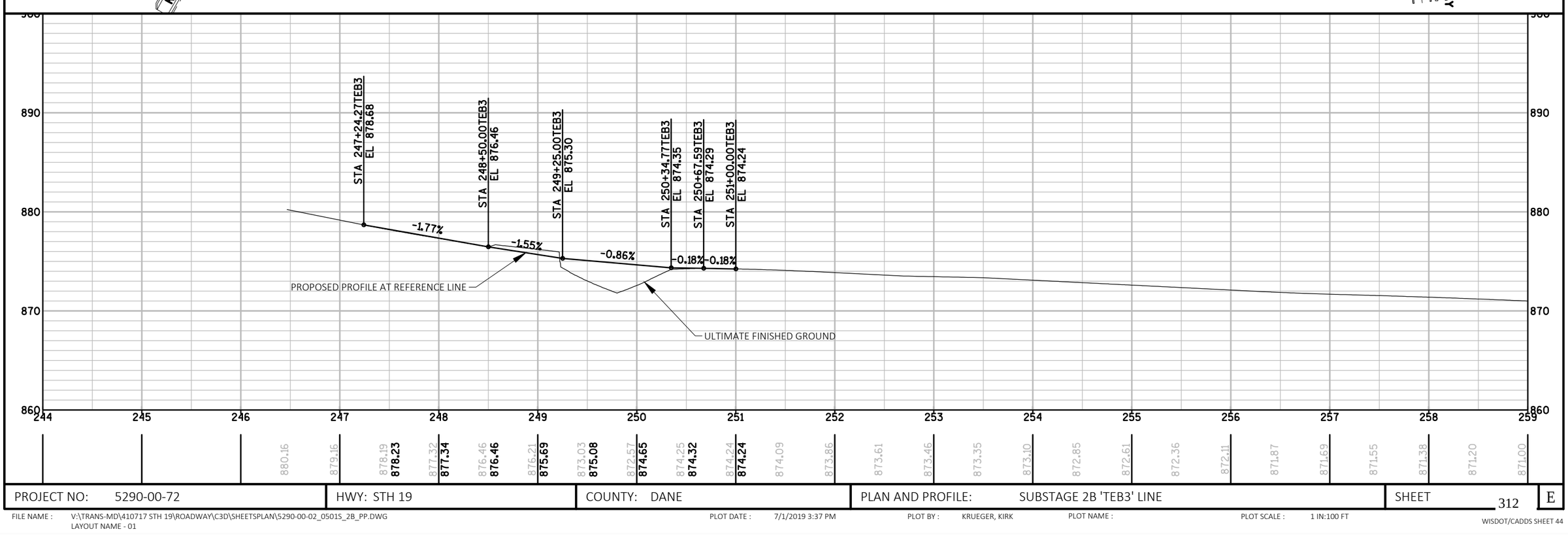
PI STA = 247+73.56TEB3
Y = 526675.693
X = 826417.679
DELTA = 0°40'55"
D = 1°16'24"
T = 26.78'
L = 53.57'
R = 4500.00'
PC STA = 247+46.78TEB3
Y = 526679.463
X = 826391.162
PT STA = 248+00.35TEB3
Y = 526671.608
X = 826444.148
BK = S81°54'28"E
AH = S81°13'33"E

PI STA = 249+04.96TEB3
Y = 526655.650
X = 826547.537
DELTA = 21°32'19"
D = 10°25'03"
T = 104.61'
L = 206.76'
R = 550.00'
PC STA = 248+00.35TEB3
Y = 526671.608
X = 826444.148
PT STA = 250+07.10TEB3
Y = 526602.849
X = 826637.848
BK = S81°13'33"E
AH = S59°41'13"E

PI STA = 250+96.24TEB3
Y = 526557.860
X = 826714.798
DELTA = 18°01'29"
D = 10°11'42"
T = 89.14'
L = 176.80'
R = 562.00'
PC STA = 250+07.10TEB3
Y = 526602.849
X = 826637.848
PT STA = 251+83.90TEB3
Y = 526538.889
X = 826801.891
BK = S59°41'13"E
AH = S77°42'42"E

PI STA = 255+01.64TEB3
Y = 526471.266
X = 827112.345
DELTA = 6°49'50"
D = 1°39'18"
T = 206.61'
L = 412.73'
R = 3462.00'
PC STA = 252+95.03TEB3
Y = 526515.239
X = 826910.470
PT STA = 257+07.75TEB3
Y = 526451.615
X = 827318.018
BK = S77°42'42"E
AH = S84°32'32"E





PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: SUBSTAGE 2B 'TEB3' LINE	SHEET 312 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501S_2B_PP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/1/2019 3:37 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

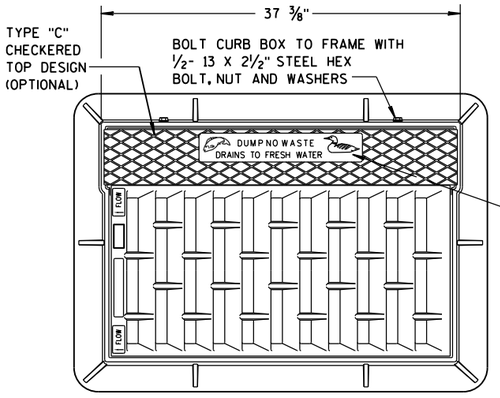
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
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
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-10	CONDUIT
09B04-11	PULL BOX
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-08	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
09C12-09B	CONCRETE BASE TYPE 13
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
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
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C18-07A	CONCRETE PAVEMENT JOINTING

6

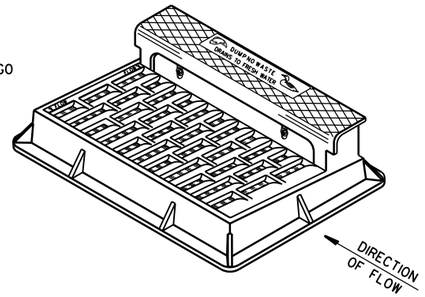
Standard Detail Drawing List

13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07E	CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
14B29-01	SAFETY EDGE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	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)
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
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14D	ROUNDABOUT ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C15-05	36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE
15C18-04	MEDIAN ISLAND MARKING
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-05B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-05C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C21-08	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-07	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
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
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-05	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-04A	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
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

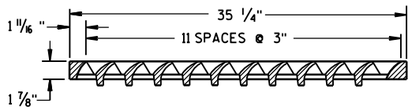
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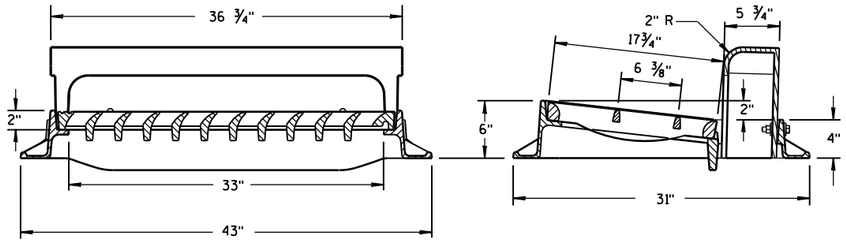


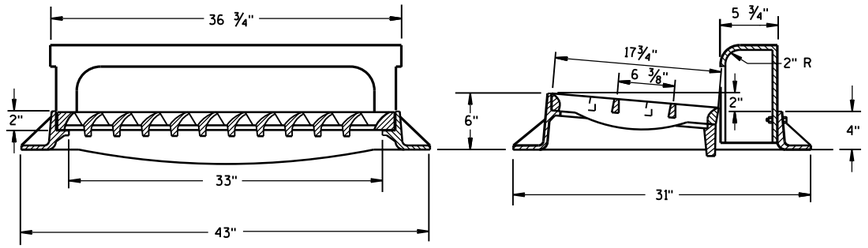
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

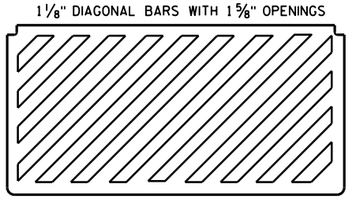






TYPE "H"

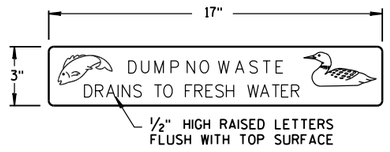
NOTE: EITHER CASTING IS ACCEPTABLE



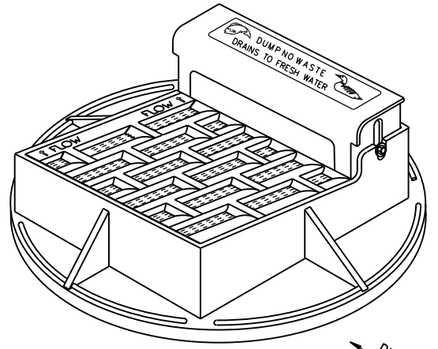
SPECIAL GRATE FOR TYPE "H" COVER

(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"

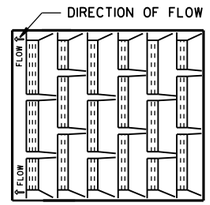
NOTE:
GRATE IS REVERSIBLE.

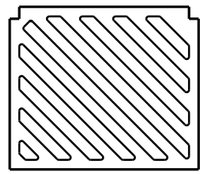
GENERAL NOTES

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.

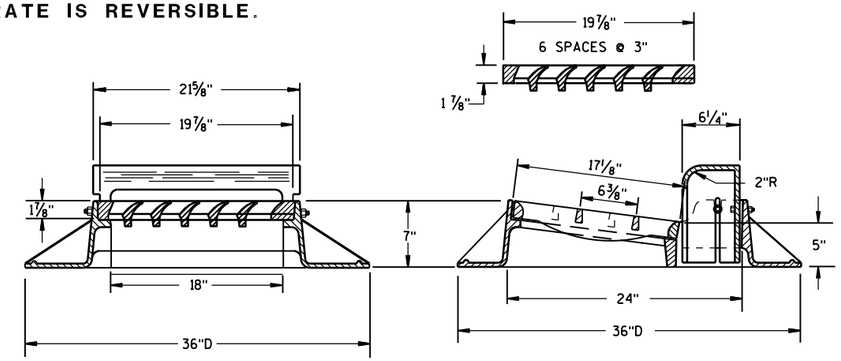




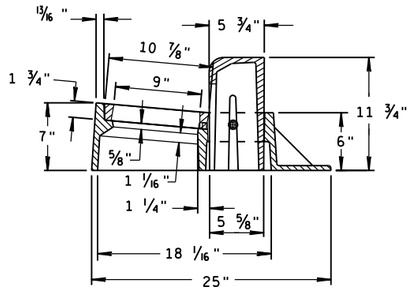
SPECIAL GRATE FOR TYPE "A" COVER

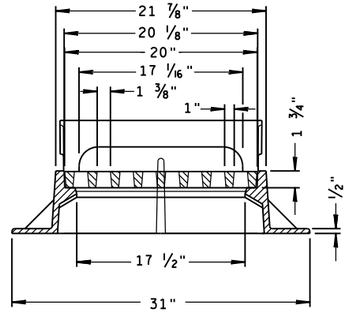
(MEASURES 19 3/4" X 17" X 1 7/8")

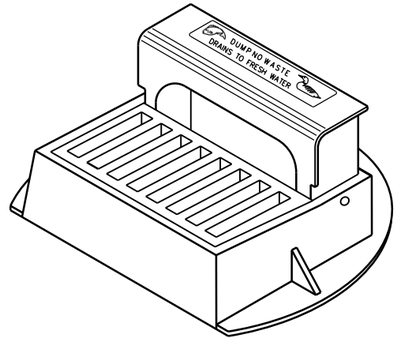
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

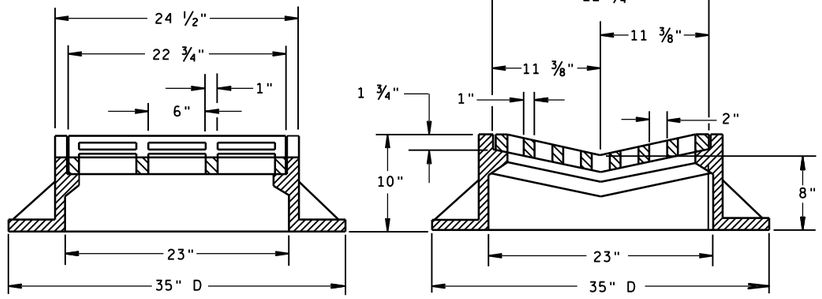
INLET COVERS
TYPE A, H, A-S, H-S & Z

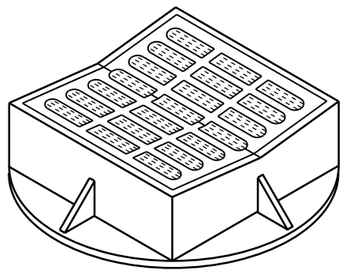
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

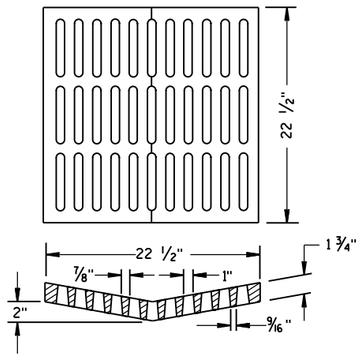
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S.D.D. 8 A 5-19a



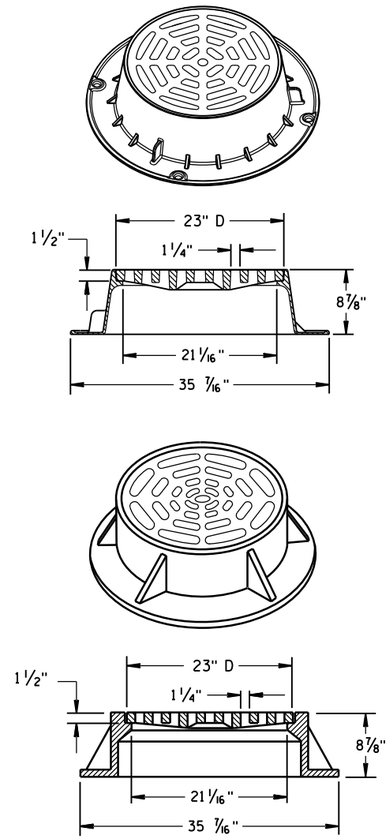


TYPE "B"



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"

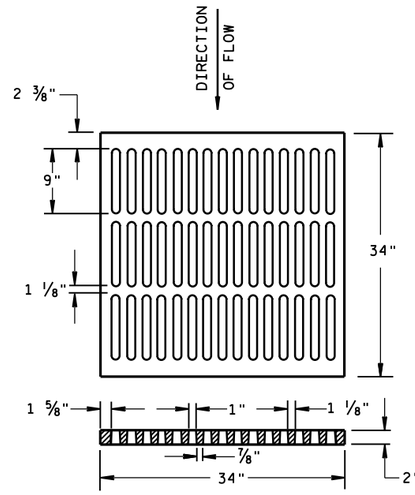
NOTE: EITHER CASTING IS ACCEPTABLE

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.

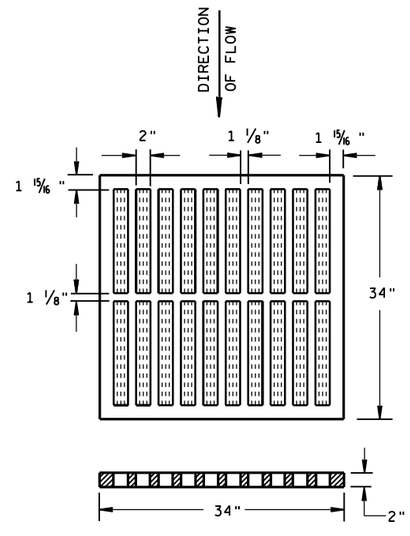
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



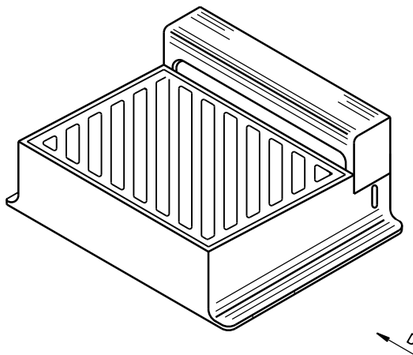
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

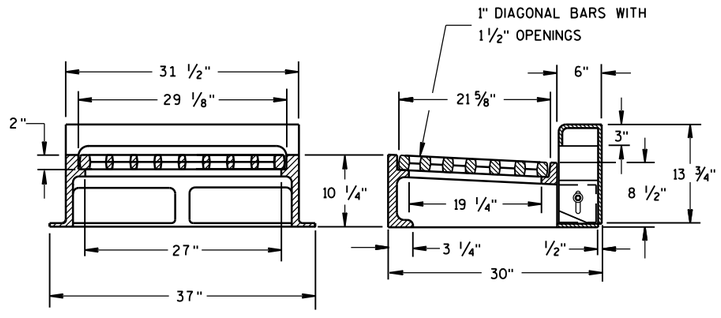


TYPE "MS"

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"

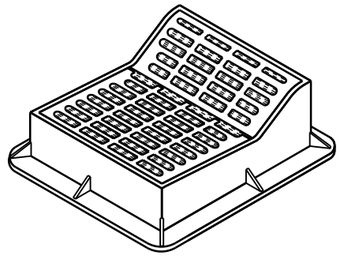
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

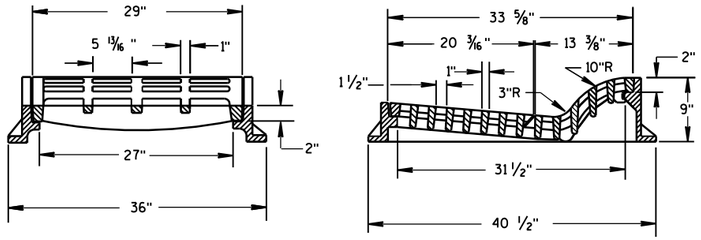
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

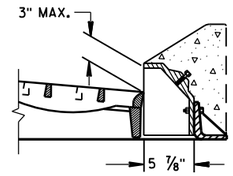
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

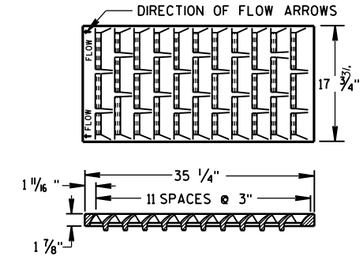
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

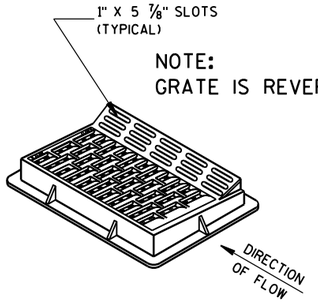
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

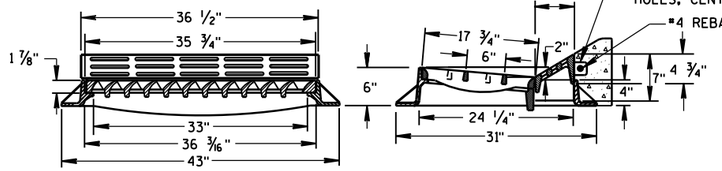
GENERAL NOTES

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DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



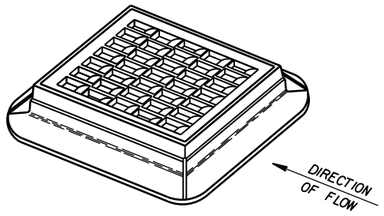


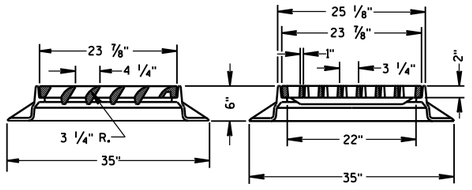


TYPE "HM"

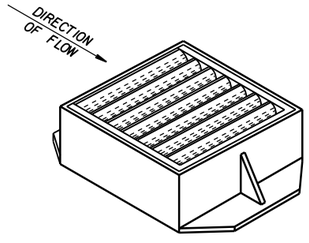
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

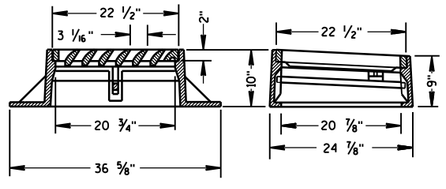
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



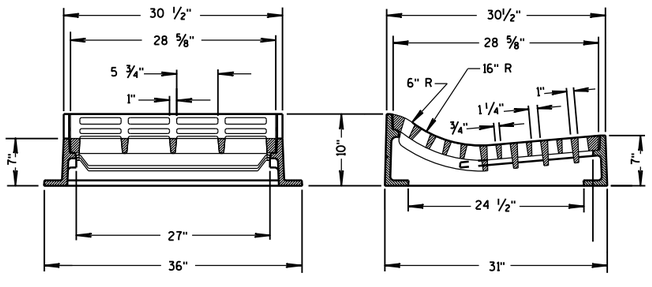


TYPE "S"



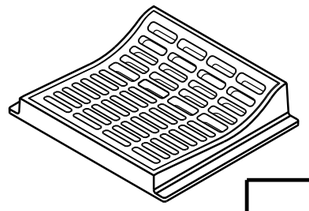


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

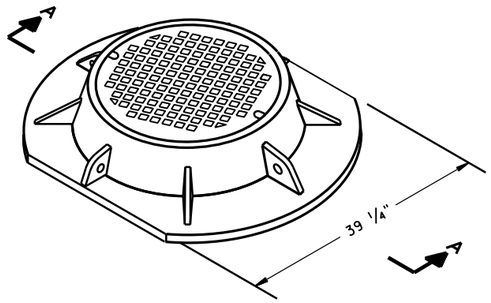
APPROVED
11/27/2013
DATE

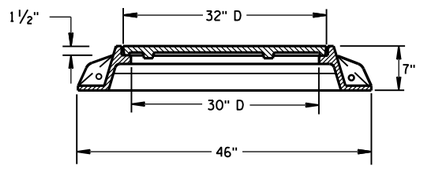
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

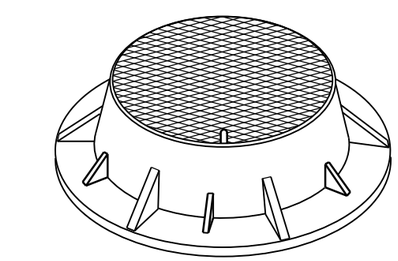
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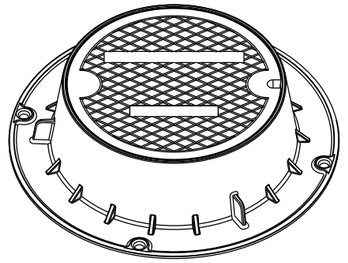
S.D.D. 8 A 5-19c

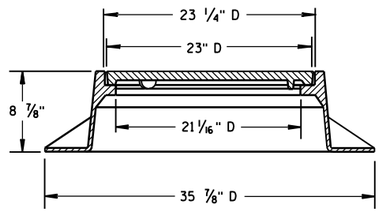


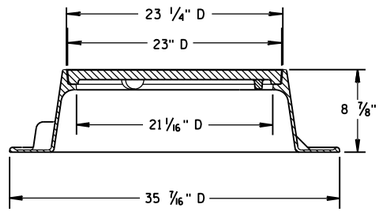


SECTION A-A
TYPE "K"









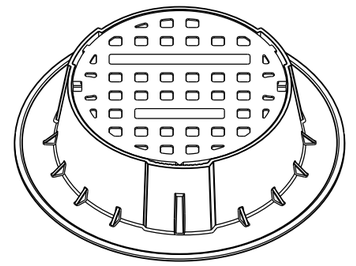
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

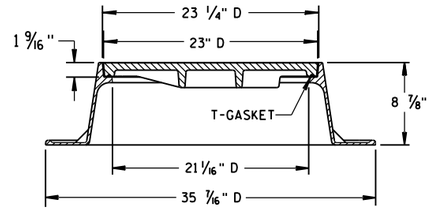
GENERAL NOTES

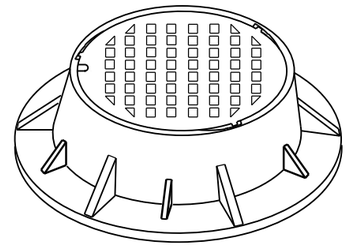
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

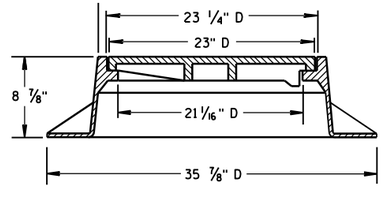
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

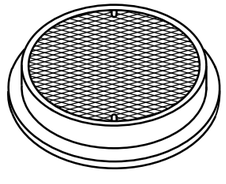


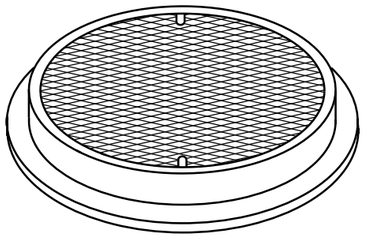


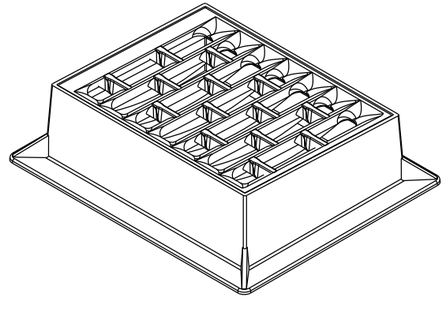


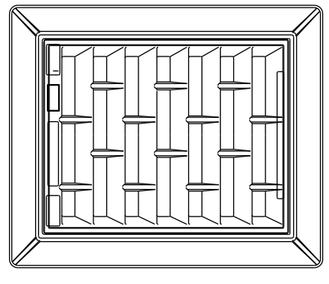


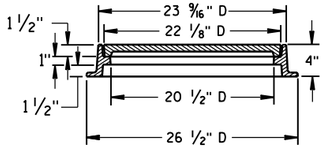
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



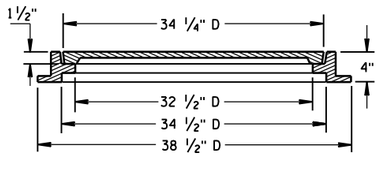




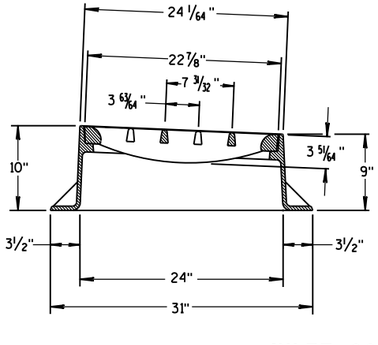


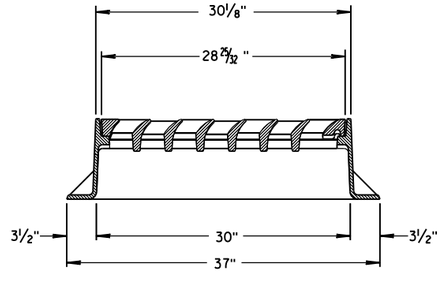


TYPE "L"



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

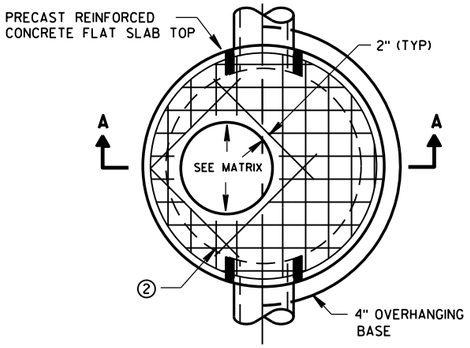
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

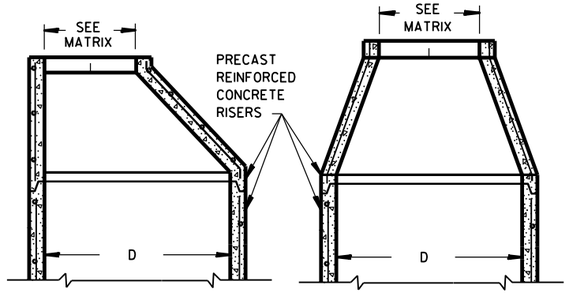
S.D.D. 8 A 5-19d

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S.D.D. 8 A 5-19d

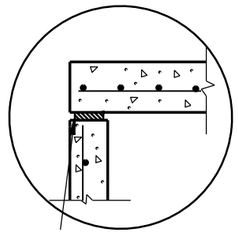


PLAN VIEW CIRCULAR OPENING

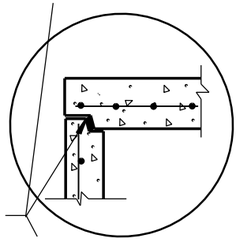


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

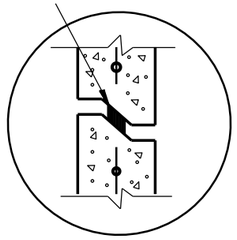


TOP WITH PLAIN END JOINT



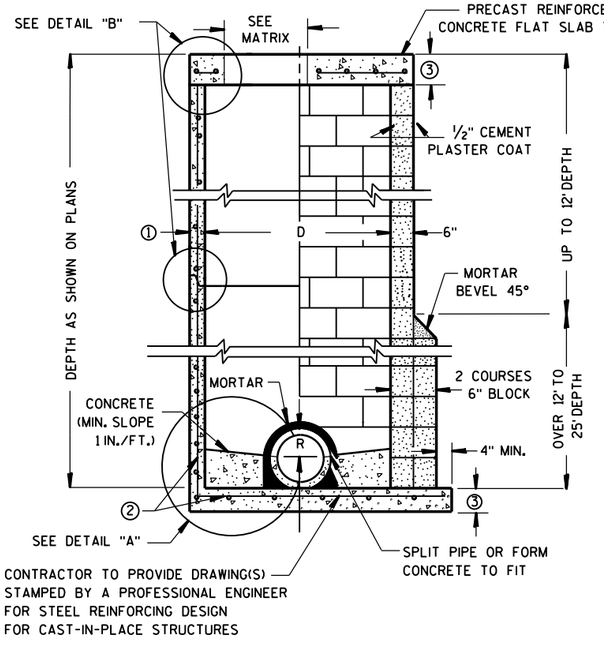
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



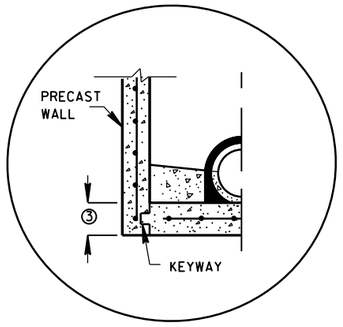
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

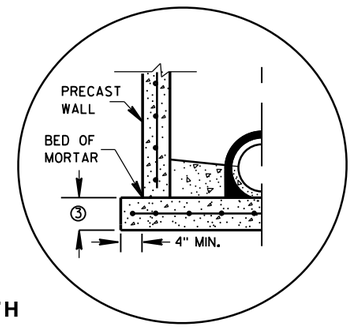


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

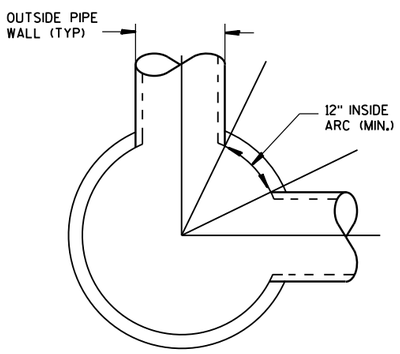


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



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 MANHOLE 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 CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED 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" 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

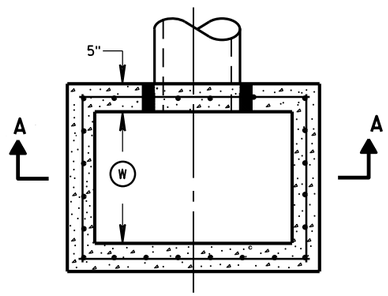
APPROVED

Sept., 2016
DATE

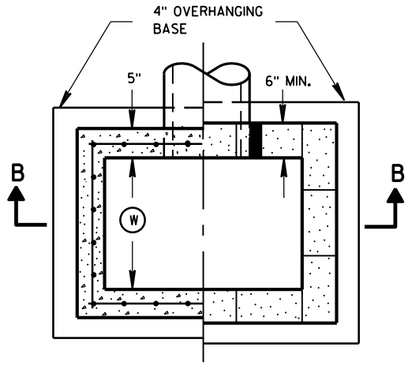
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

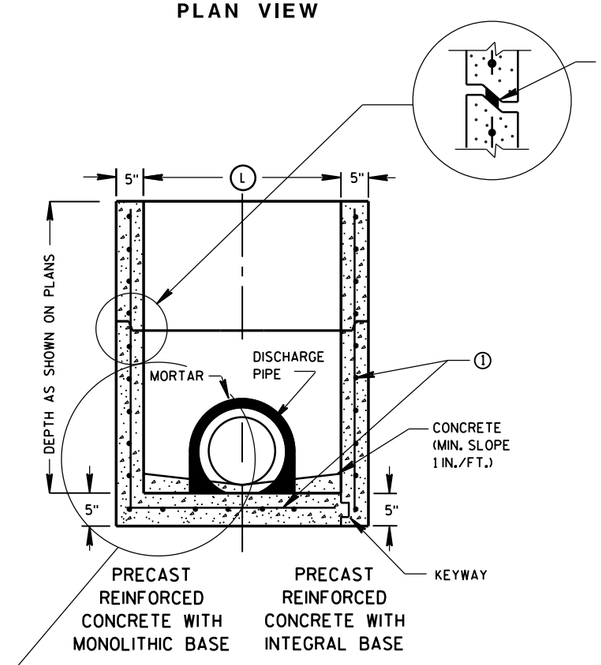
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S.D.D. 8 B 9-2



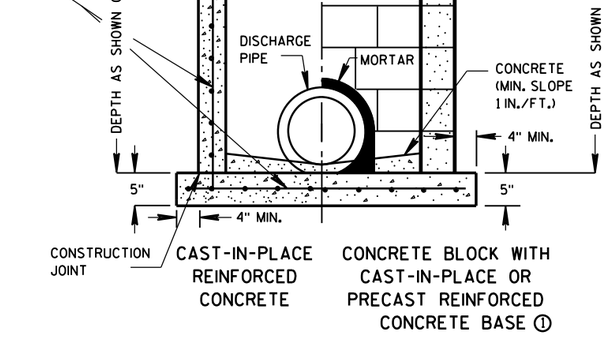
PLAN VIEW



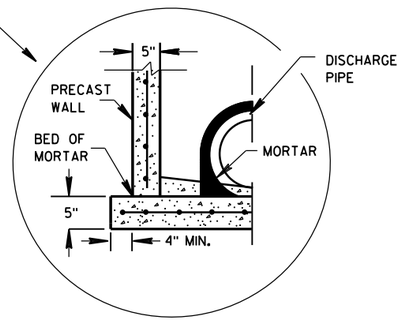
PLAN VIEW



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.

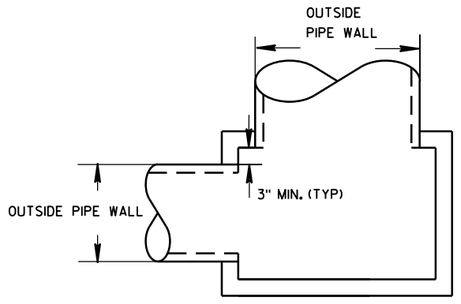
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

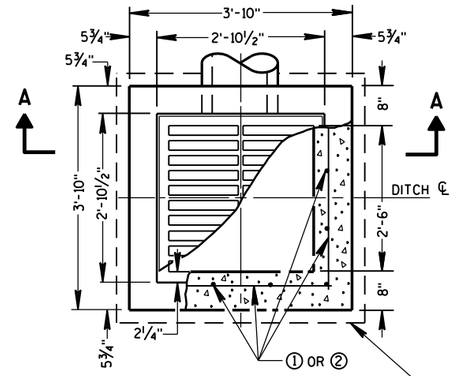
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

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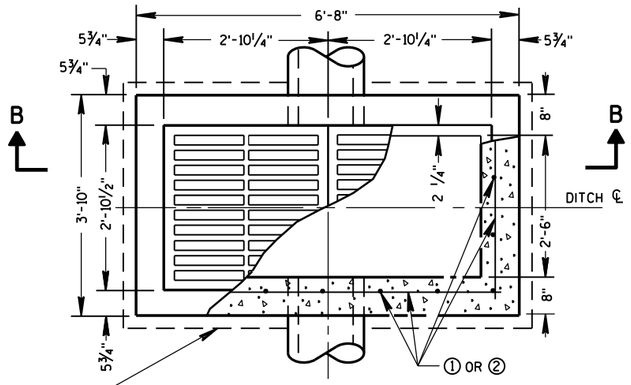
S.D.D. 8 C 7-2

6

S.D.D. 8 C 7-2

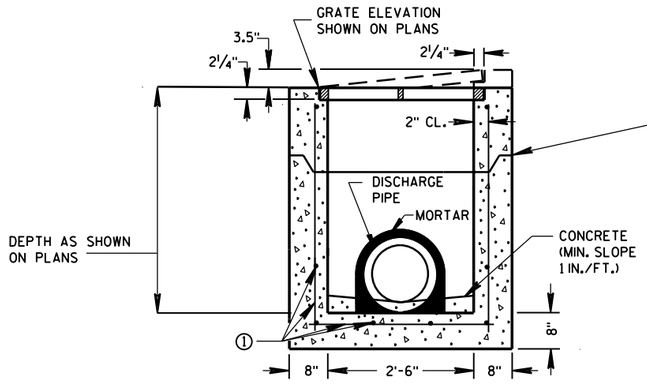


PLAN VIEW

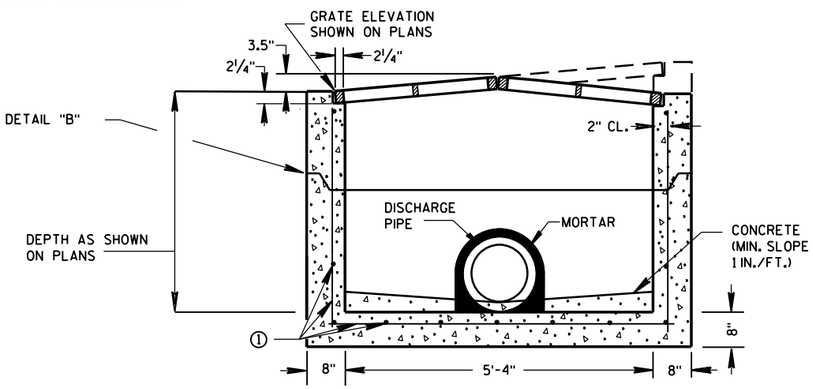


PLAN VIEW

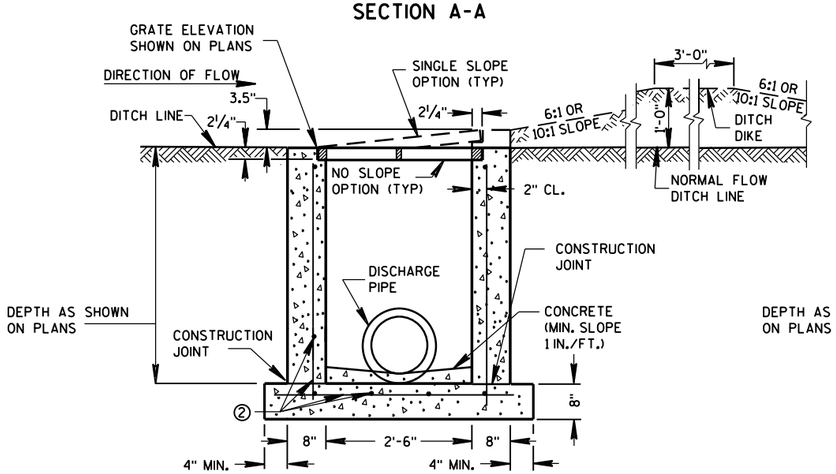
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

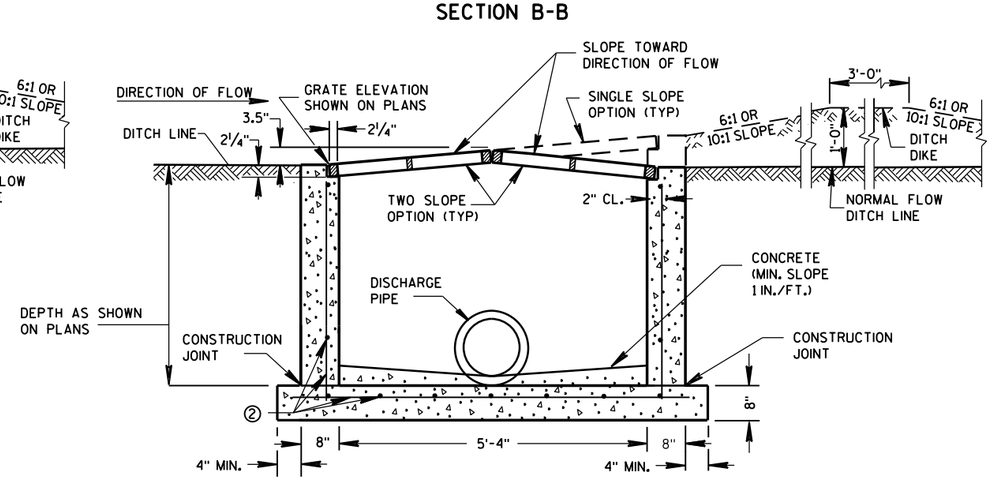


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

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 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, IG-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.

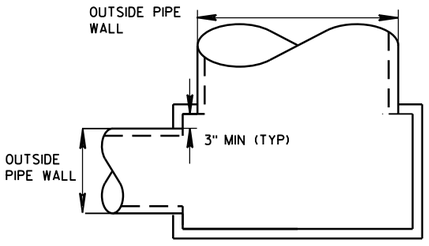
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

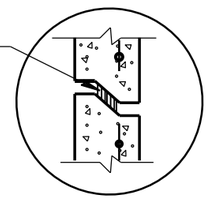
PIPE MATRIX

	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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

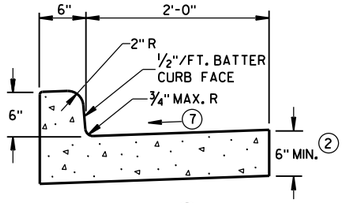
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

6

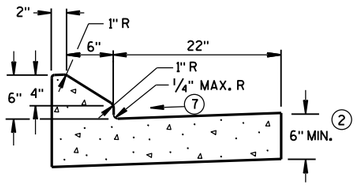
S.D.D. 8 C 8-2

6

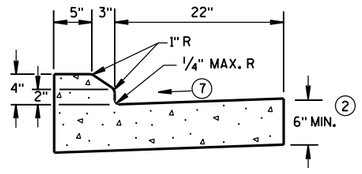
S.D.D. 8 C 8-2



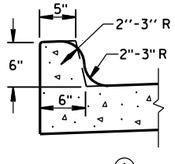
TYPES A (1) & D



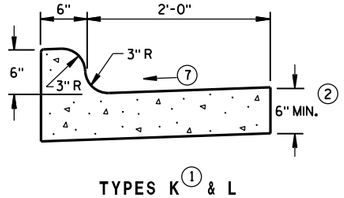
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

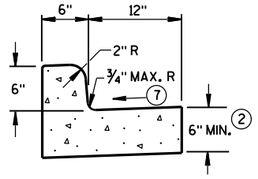


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



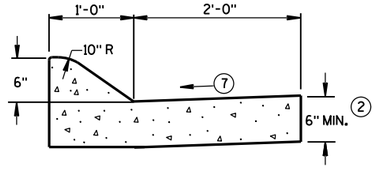
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

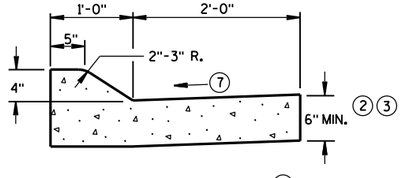


TYPES A (1) & D

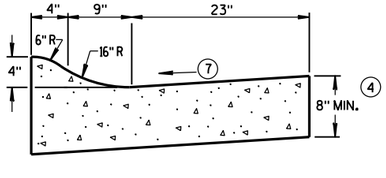
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

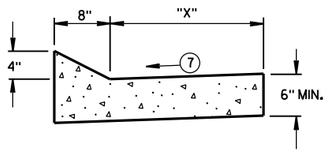


4" SLOPED CURB TYPES A (1) & D



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"

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.

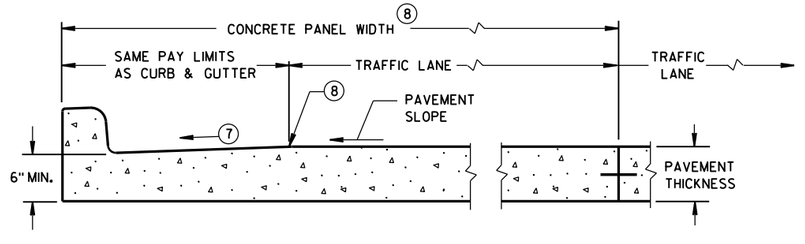
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(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.

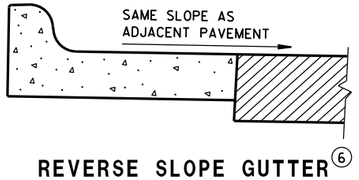
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

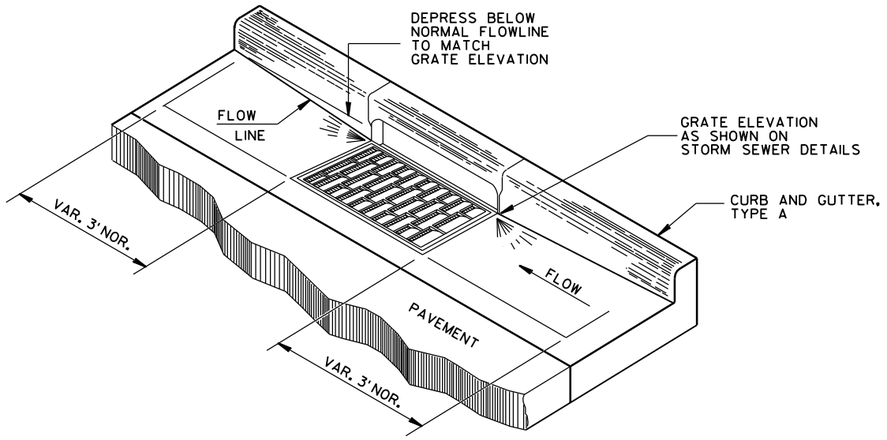
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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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.

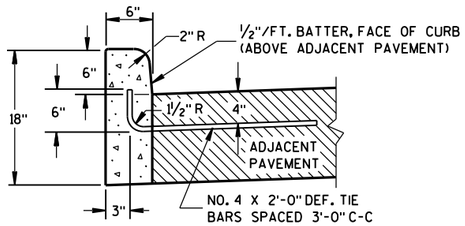
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

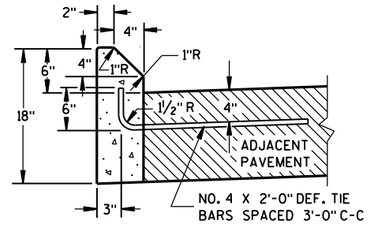
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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.

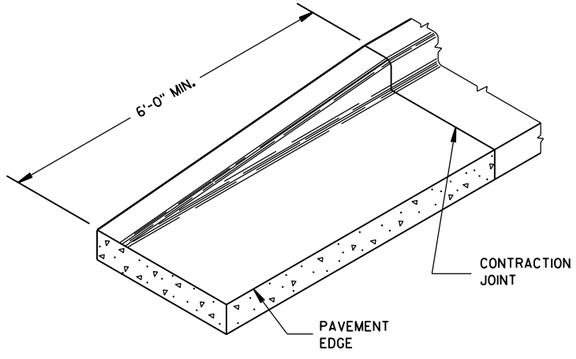


TYPES A(1) & D

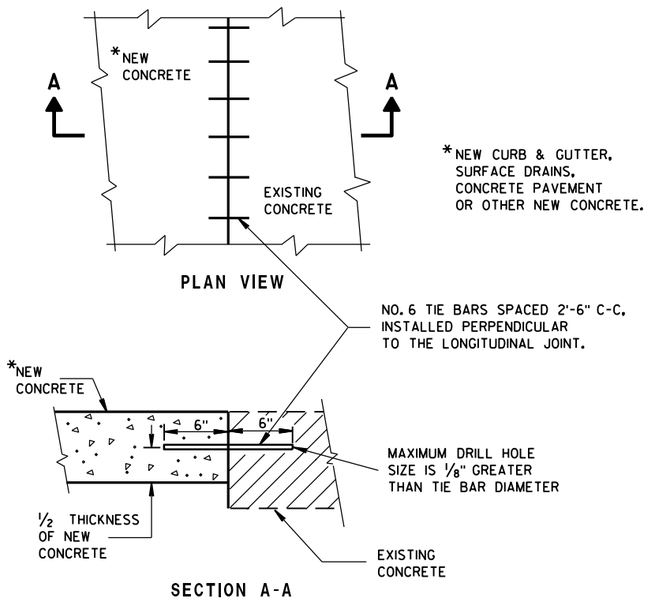


TYPES G(1) & J

CONCRETE CURB



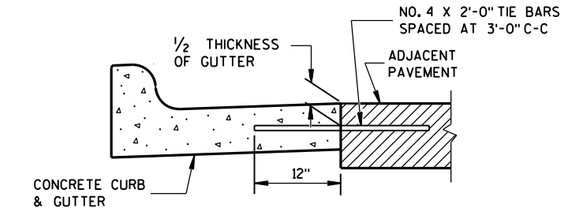
END SECTION CURB & GUTTER



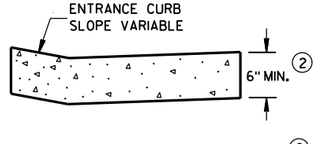
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

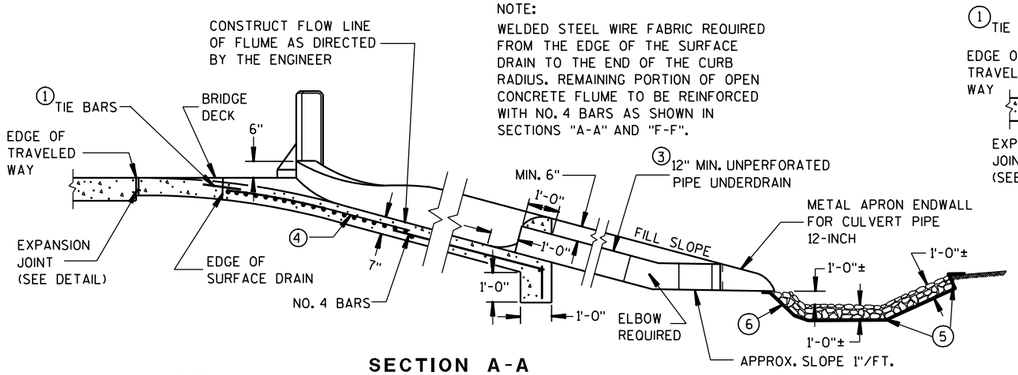
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

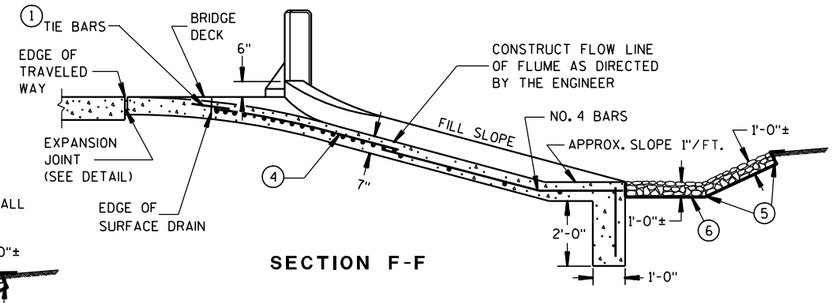
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
323 ENT
FHWA

6

S.D.D. 8 D 1-20b



SECTION A-A



SECTION F-F

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

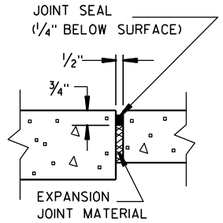
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

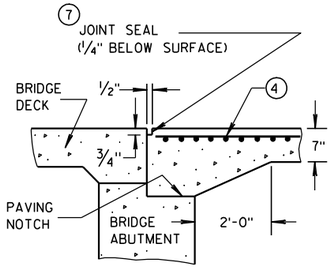
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

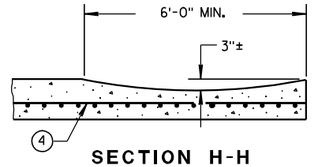
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



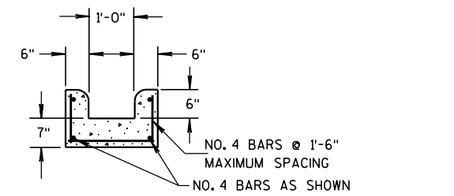
EXPANSION JOINT DETAIL



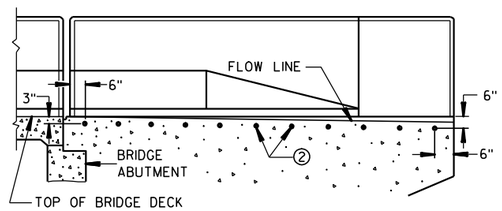
SECTION D-D



SECTION H-H

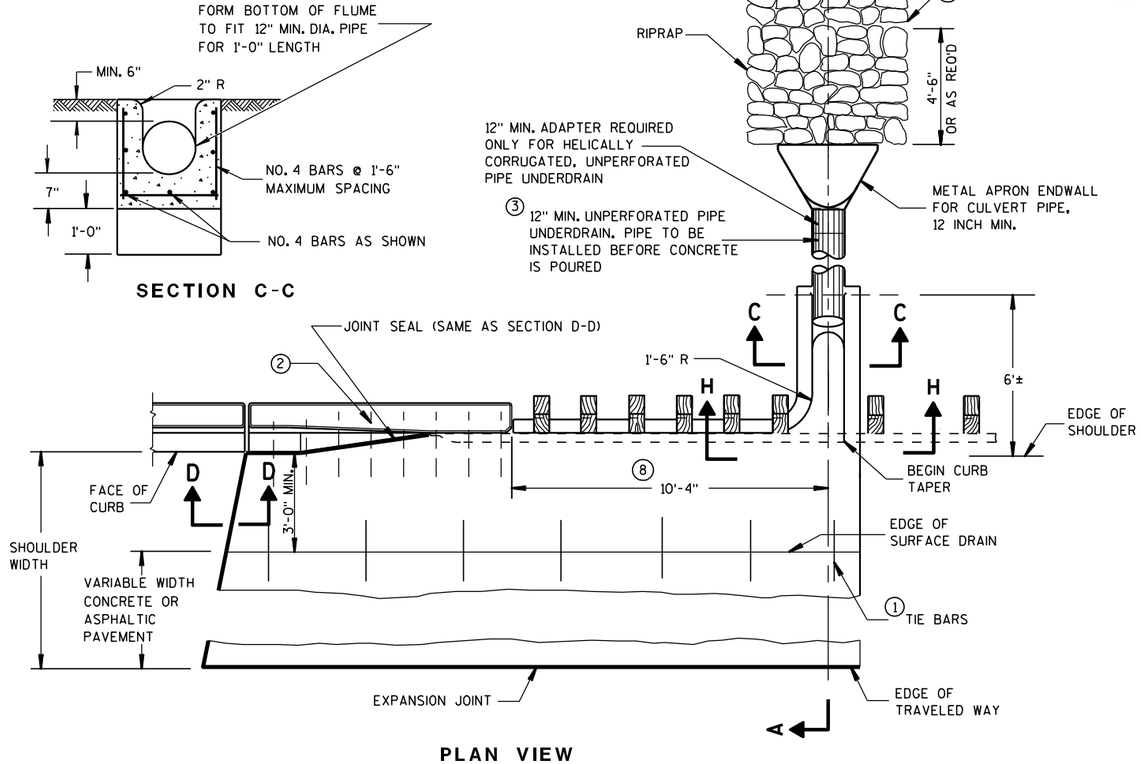


SECTION E-E

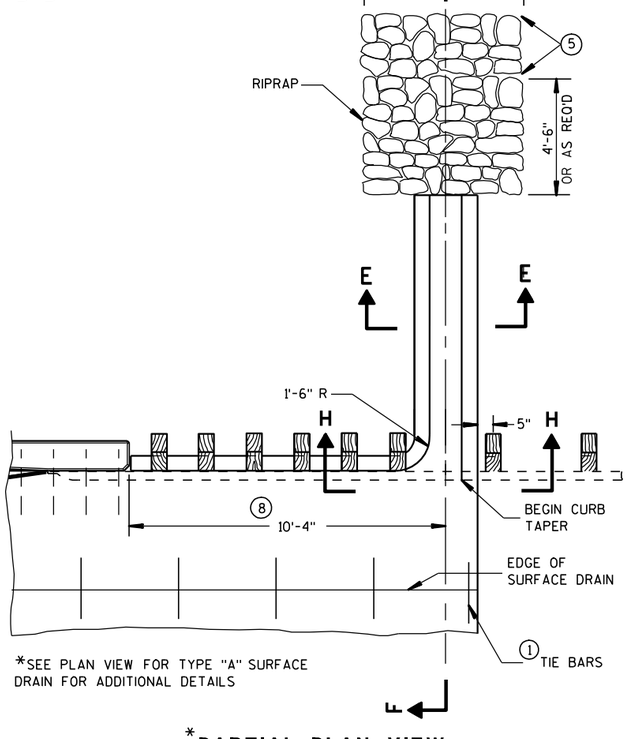


LOCATION OF TIE BARS IN WINGWALL

SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
324
FHWA

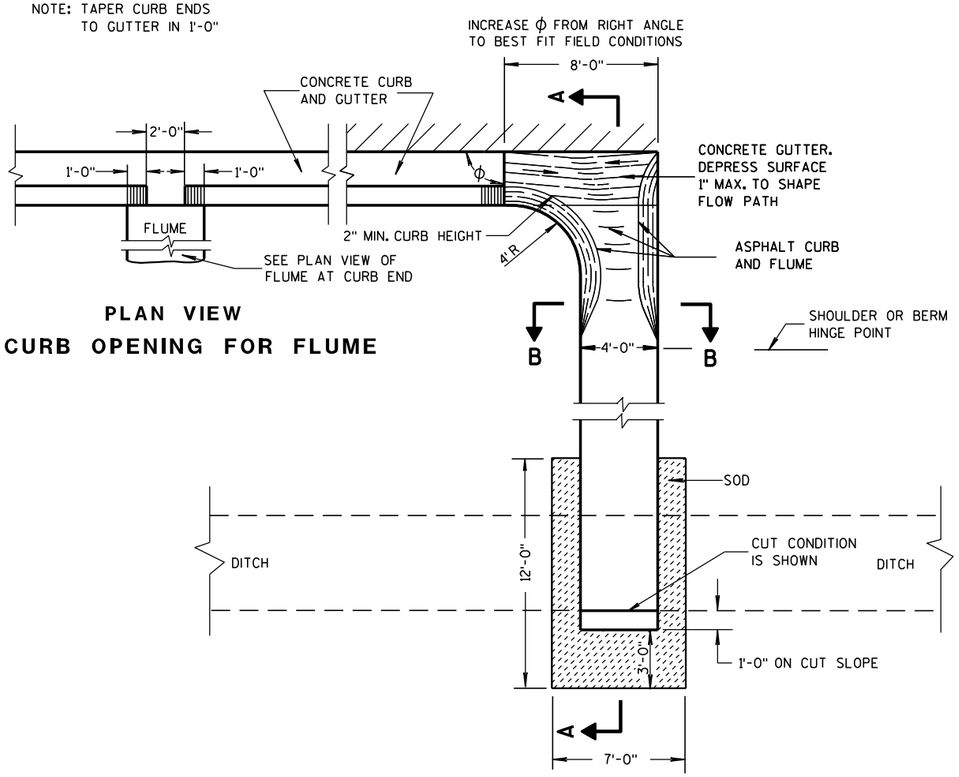
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S.D.D. 8 D 2-6

6

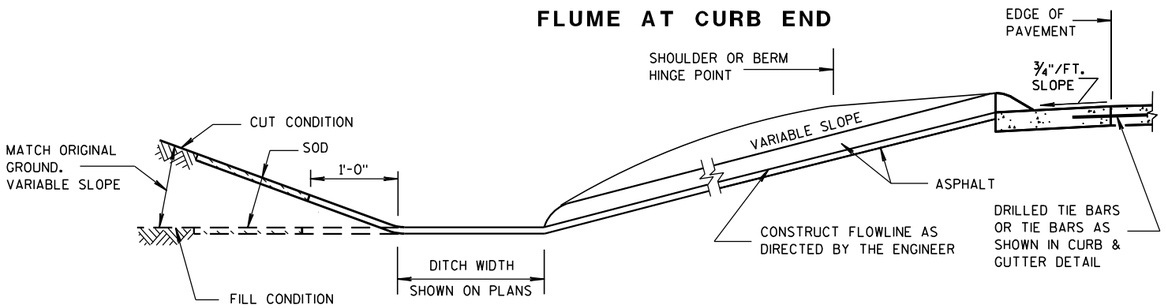
S.D.D. 8 D 2-6

ASPHALTIC FLUME

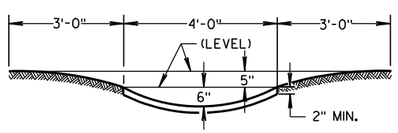


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

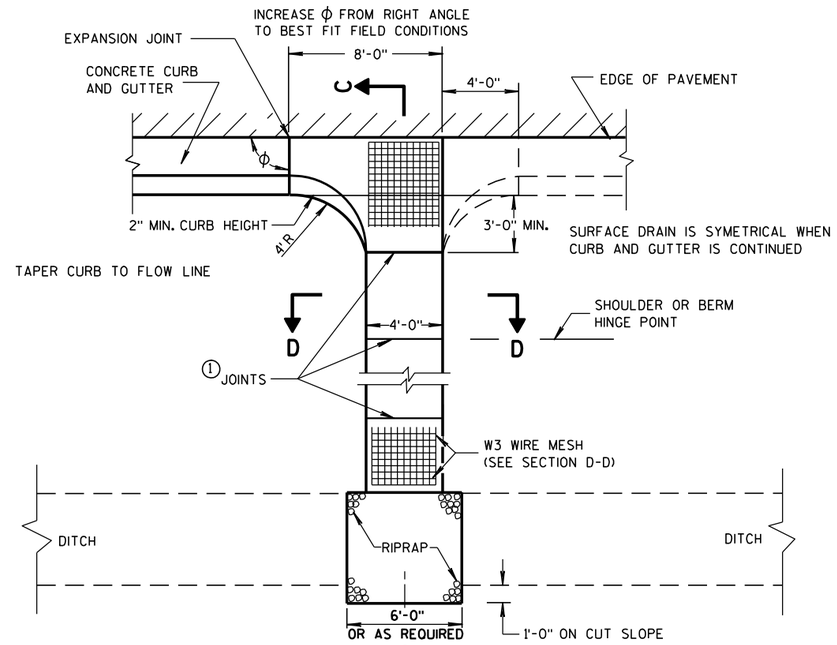
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

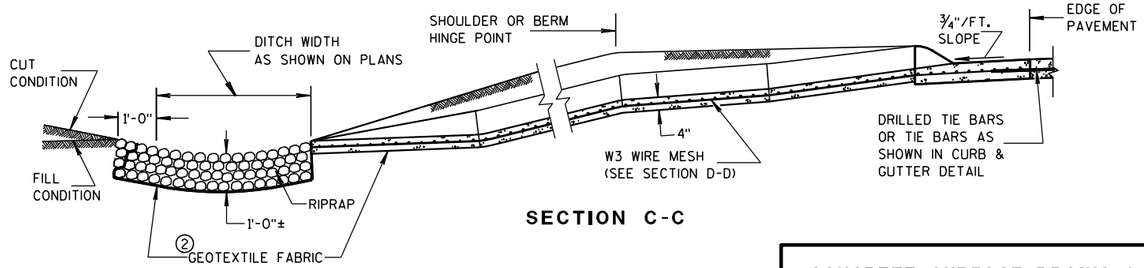
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

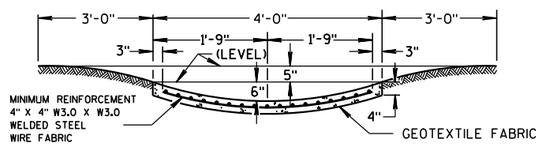
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

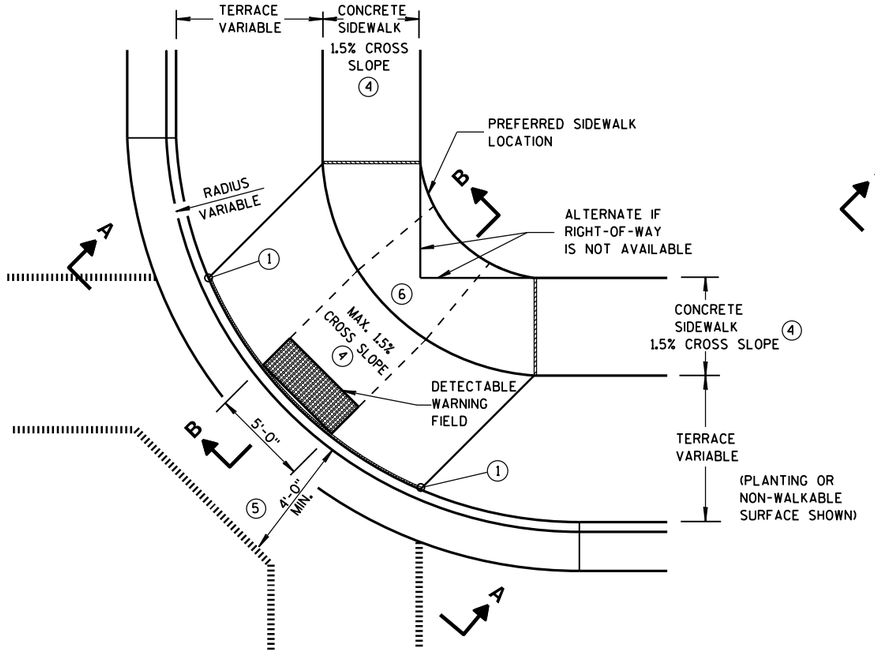
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
325
MENT
FHWA

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S.D.D. 8 D 4-5

6

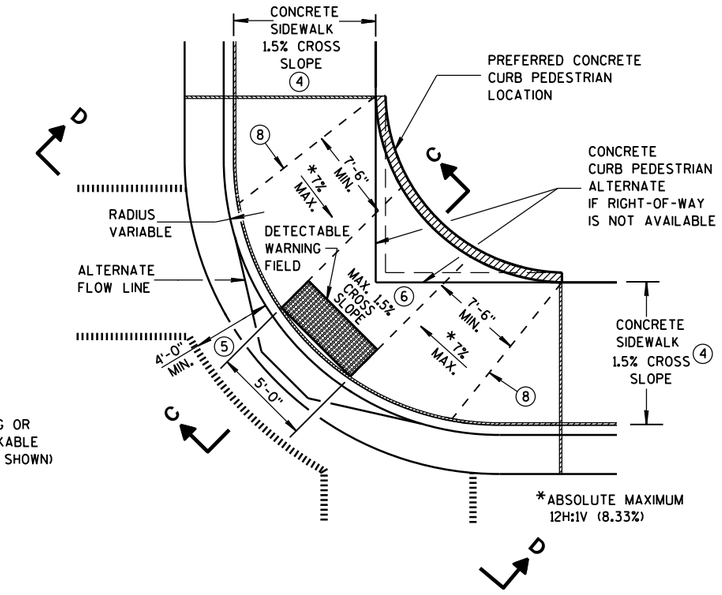
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

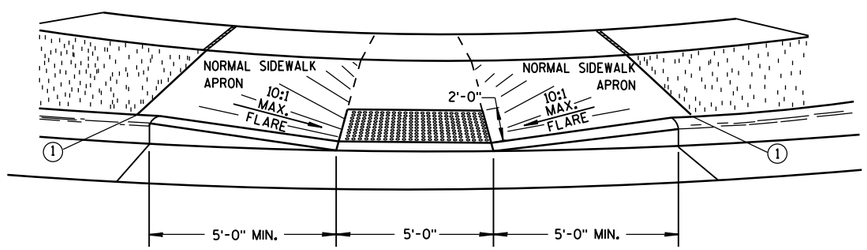
(CENTER OF CORNER RADIUS)



PLAN VIEW

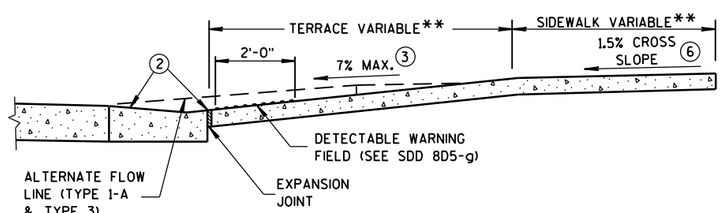
TYPE 1-A RAMP

(NO TERRACE)

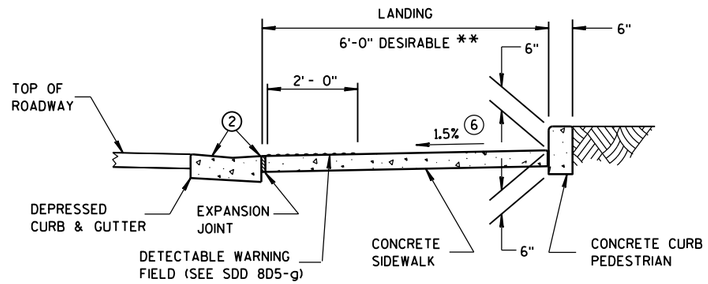


VIEW A-A

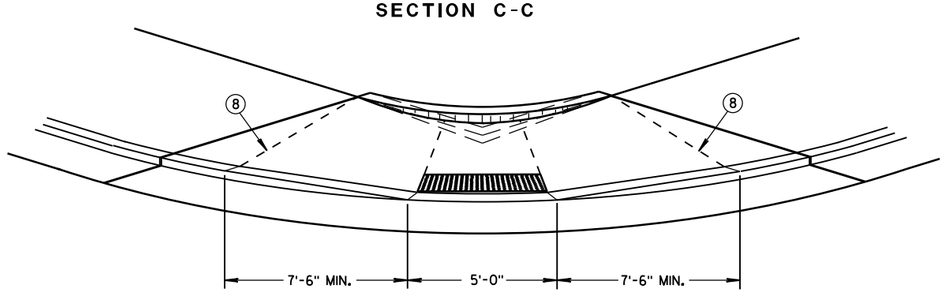
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD 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 LINEAL 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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

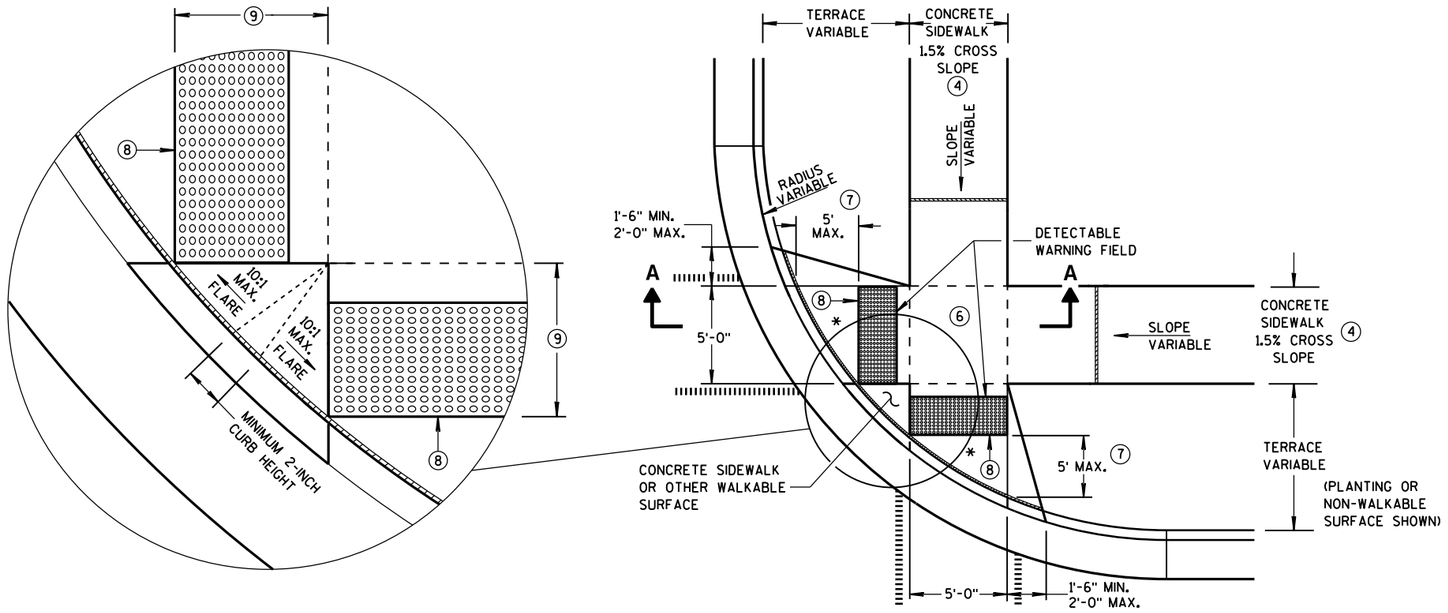
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-19a

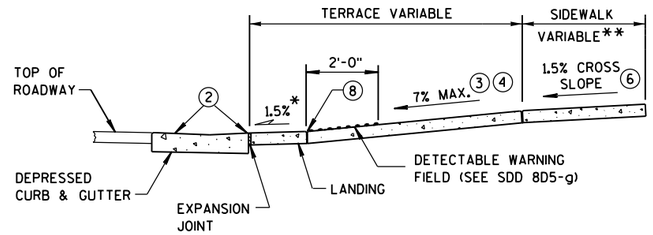


PLAN VIEW

TYPE 2 RAMP

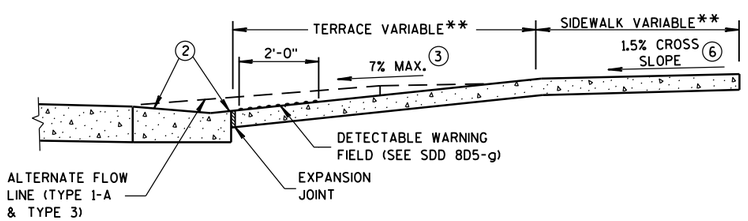
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

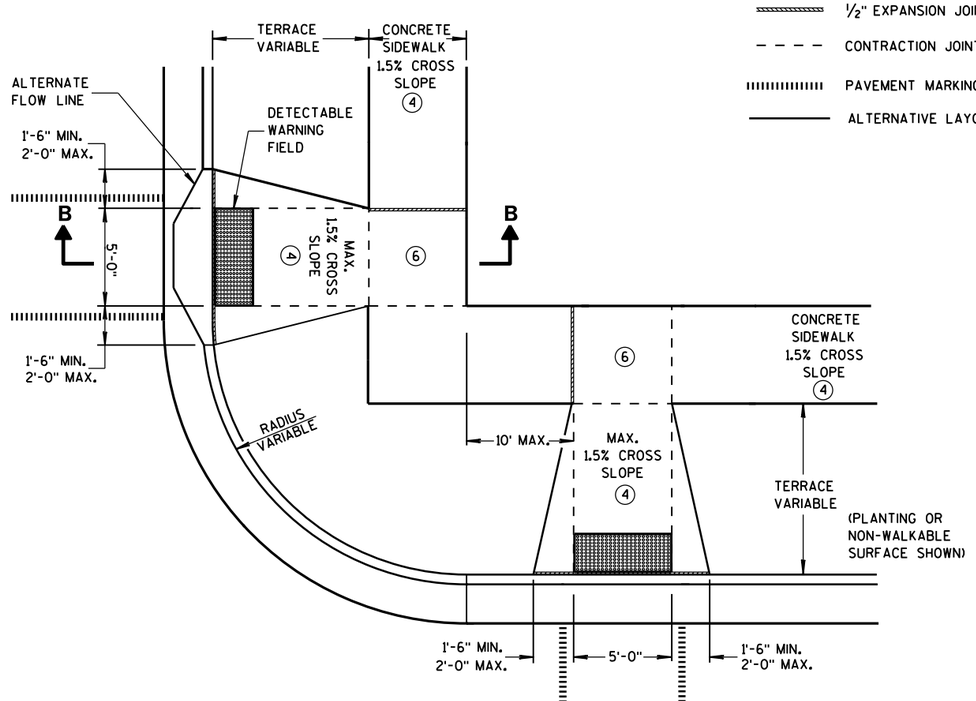
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS 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.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

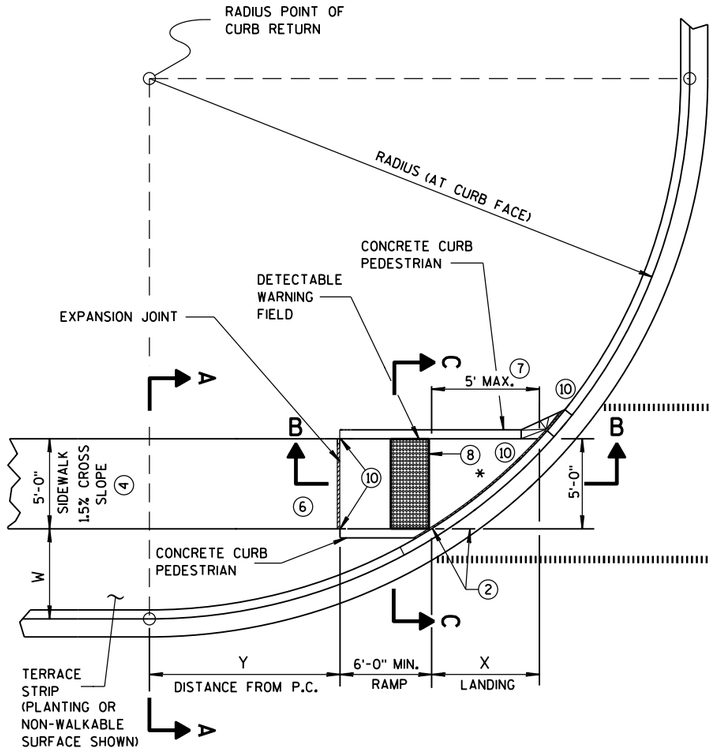
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

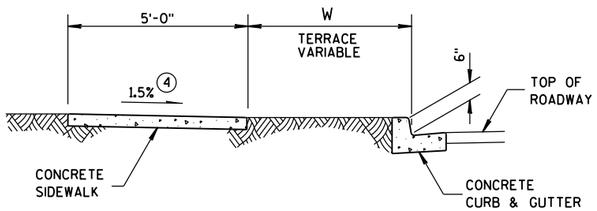
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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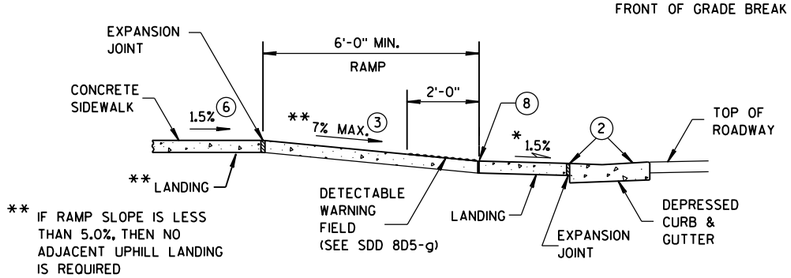
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



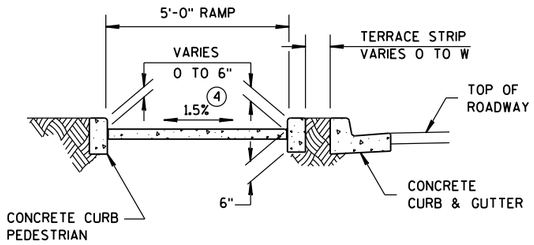
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR 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'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	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

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

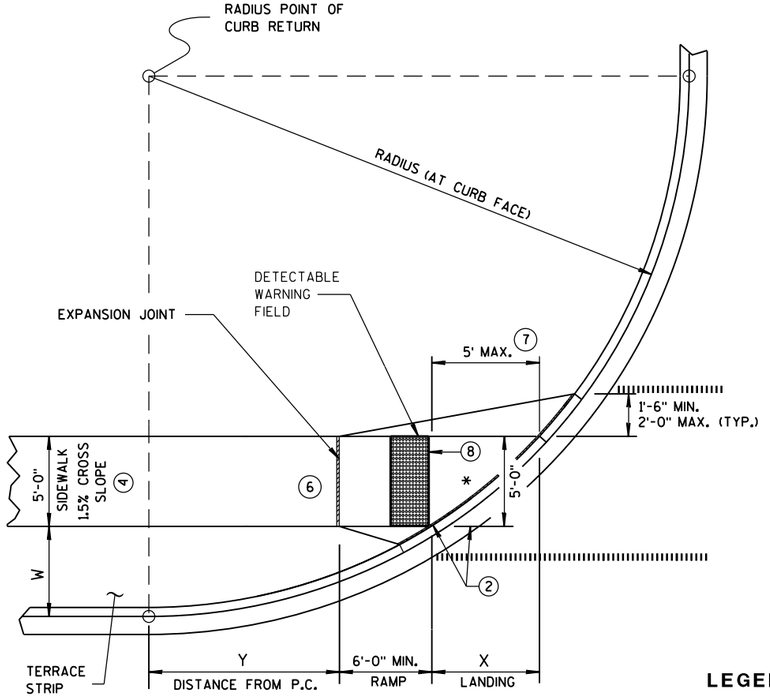
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

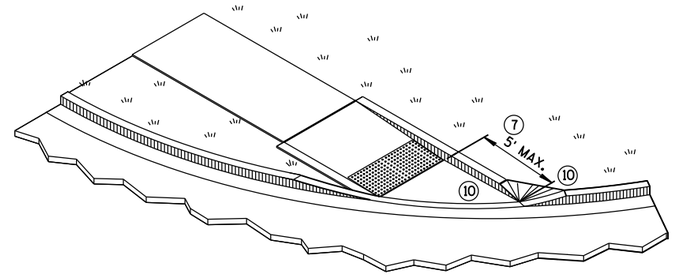
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

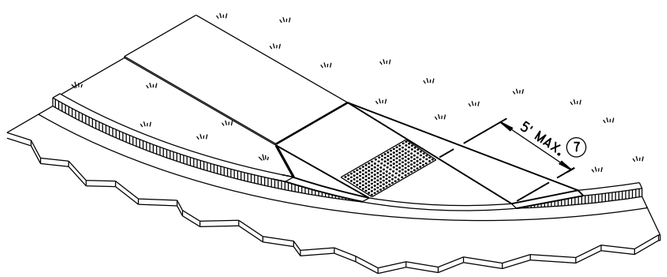
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

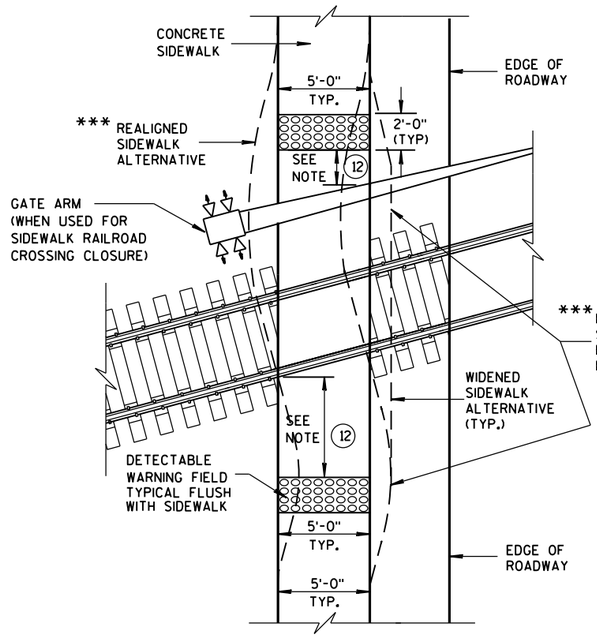
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

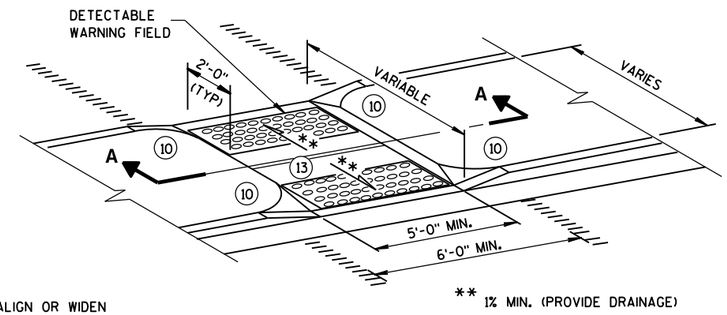
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S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 1/4-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) ABSOLUTE MAXIMUM 12H:1V (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.

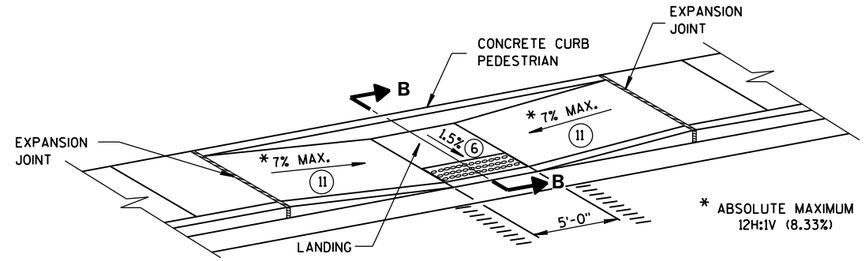
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

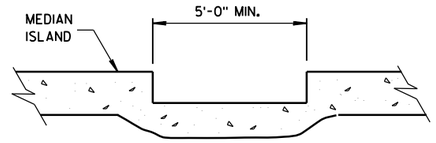
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

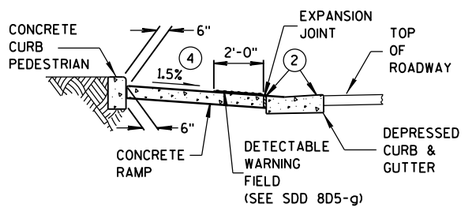
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

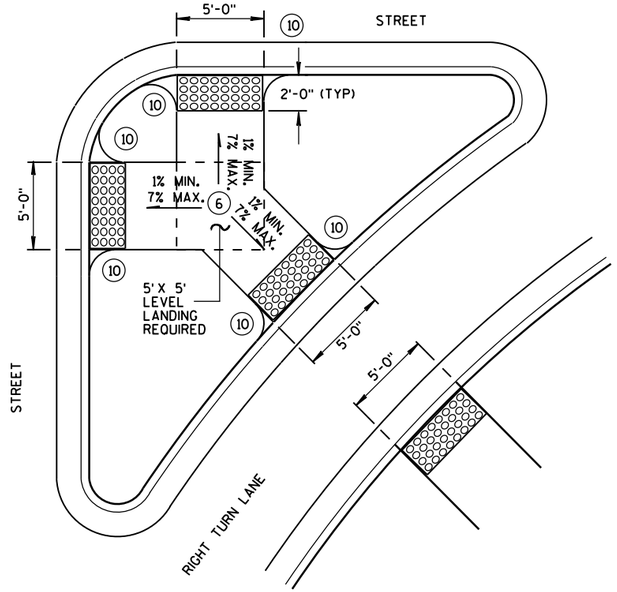


SECTION A-A

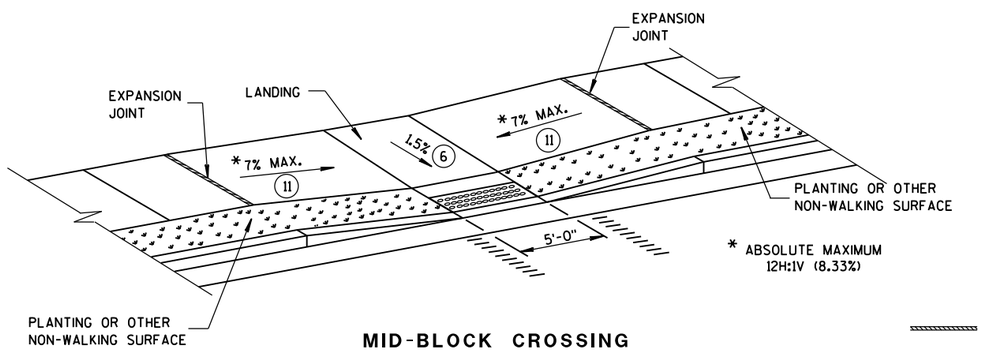


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

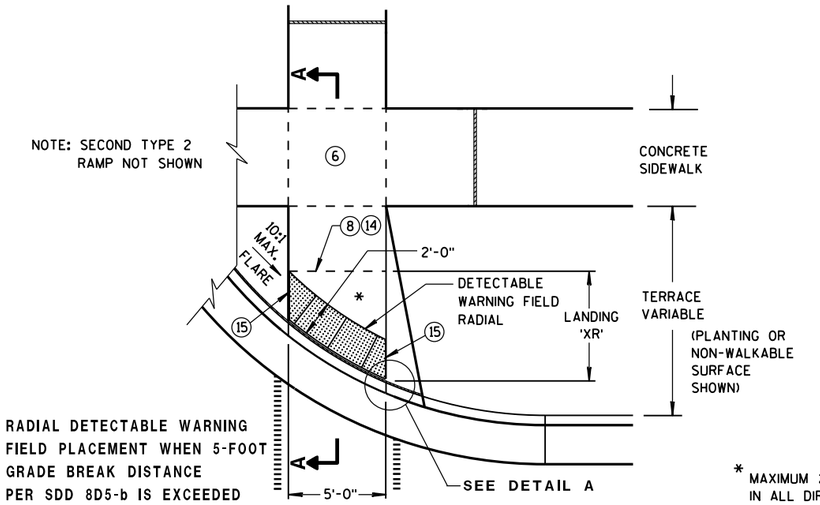
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-19e

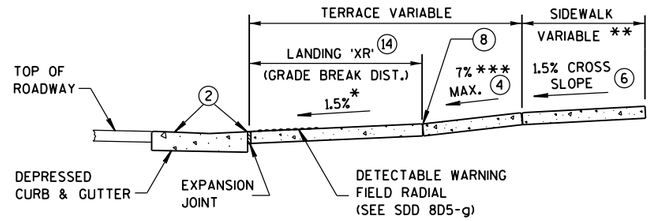


TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS (DWFs) 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 FIELD 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.

(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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

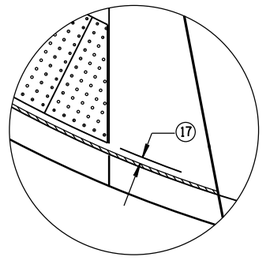
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

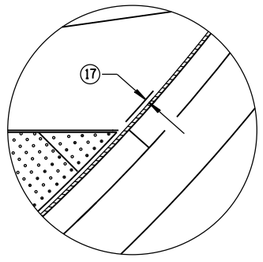
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(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.

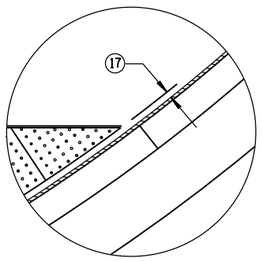
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



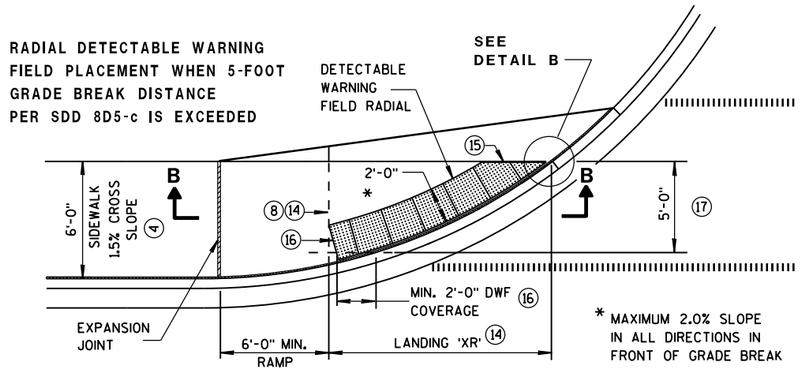
DETAIL A



DETAIL C

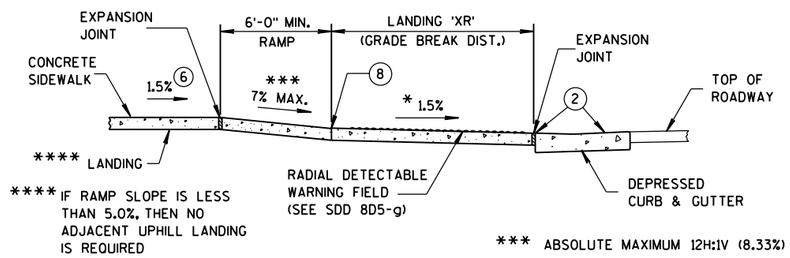


DETAIL B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

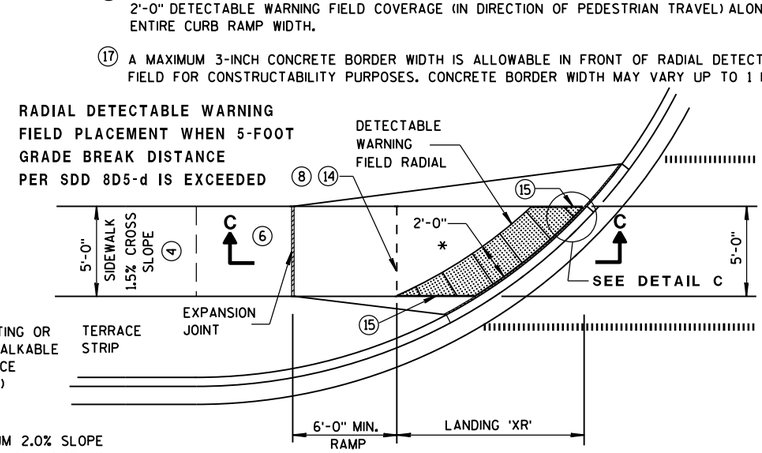
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

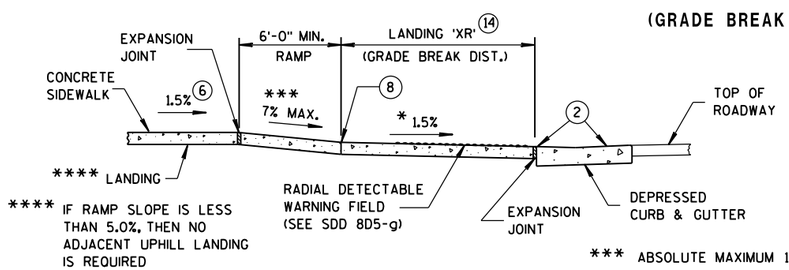
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 330

6

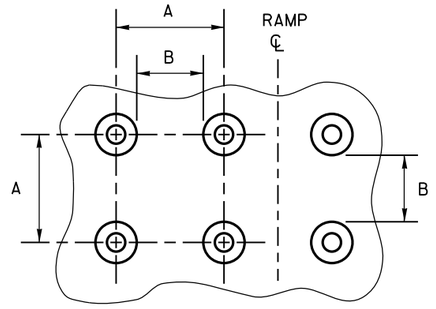
S.D.D. 8 D 5-19f

6

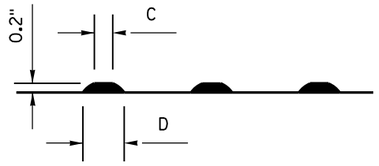
S.D.D. 8 D 5-19f

	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

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

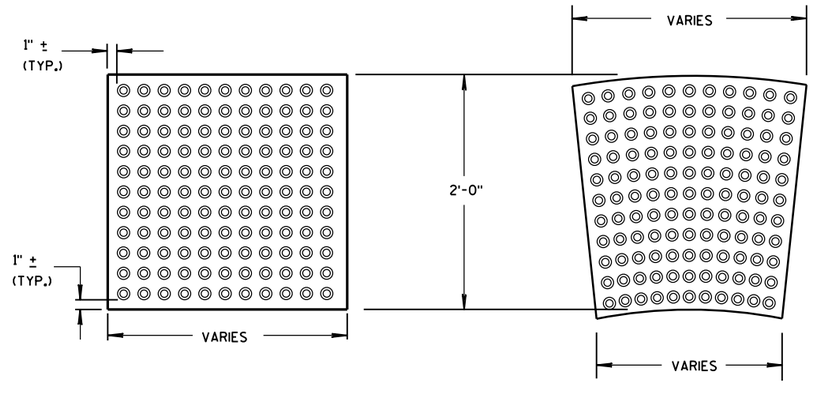
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

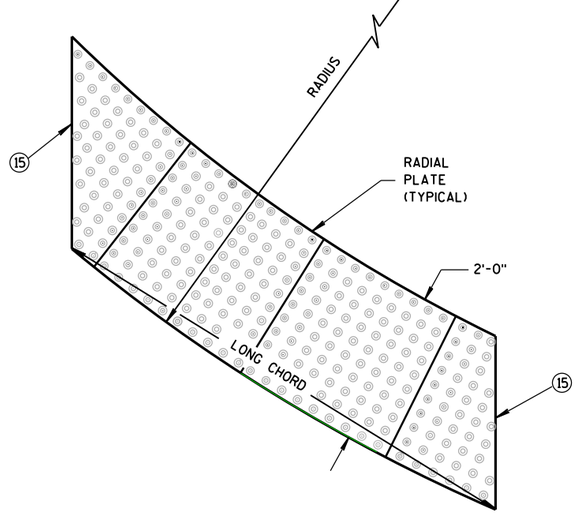


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

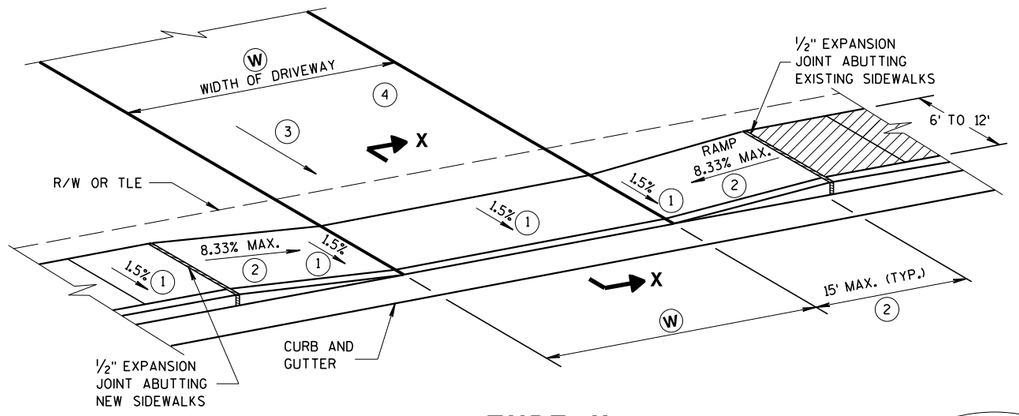
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

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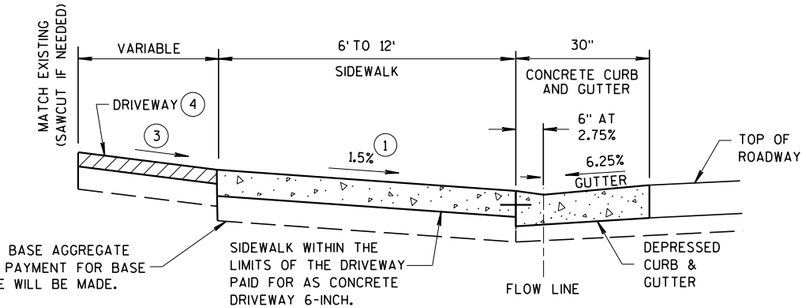
S.D.D. 8 D 5-19g

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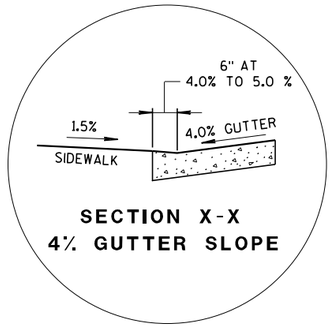
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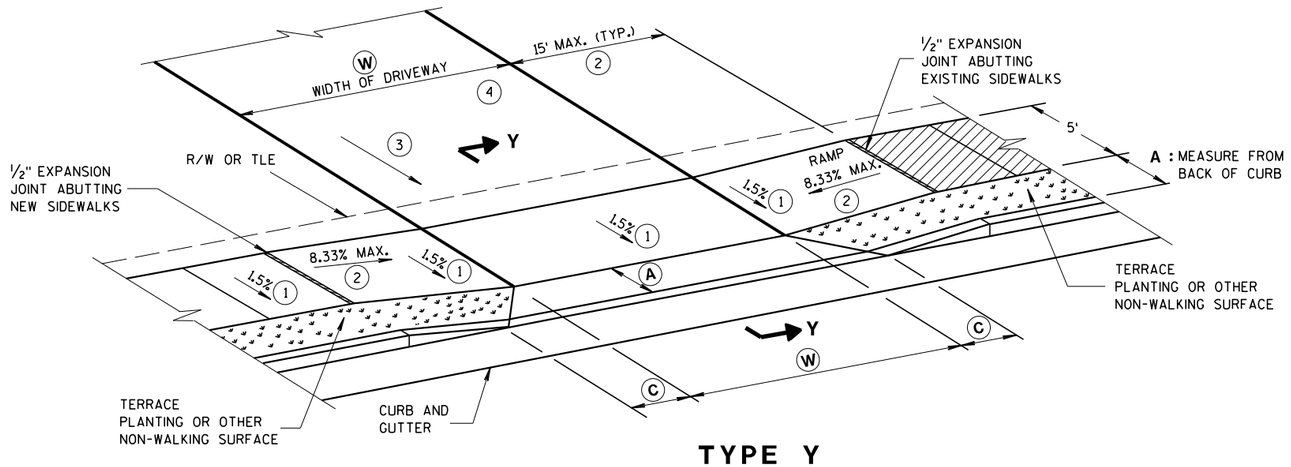
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W
12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE) 16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

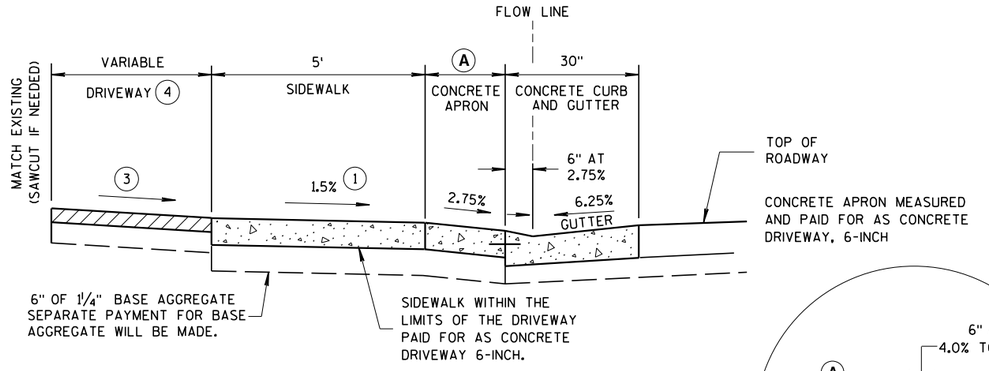
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

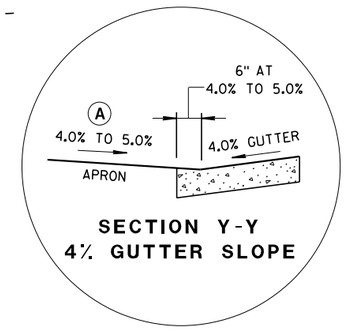
(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y



SECTION Y-Y
4% GUTTER SLOPE

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

TABLE Y

A FEET	C FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

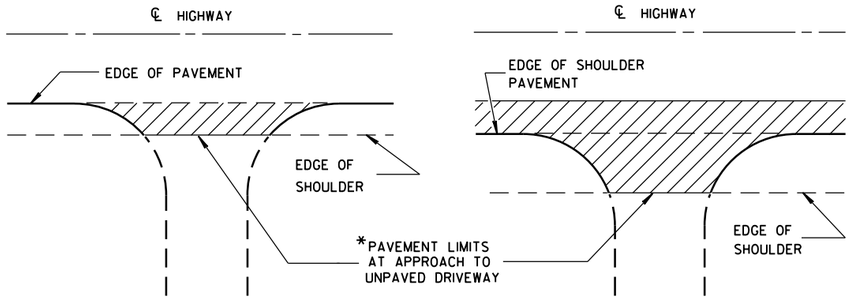
APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 8 D 18-2

6

S.D.D. 8 D 18-2

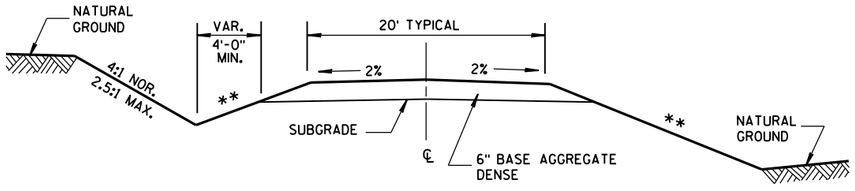


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)

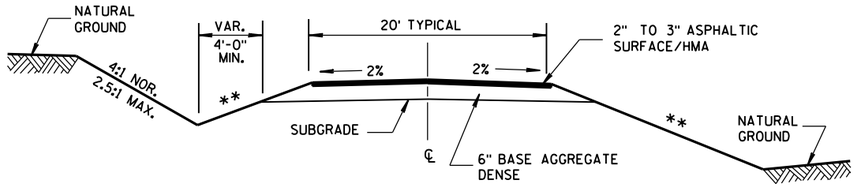


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

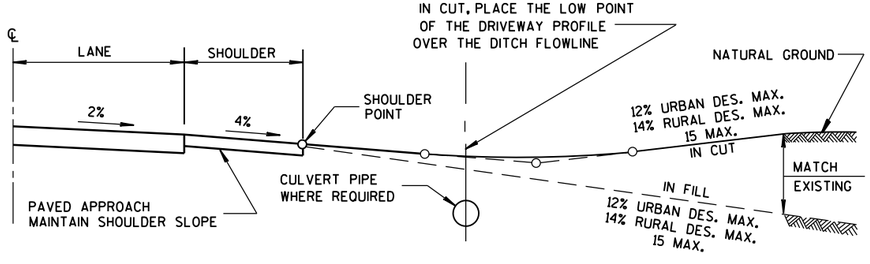
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



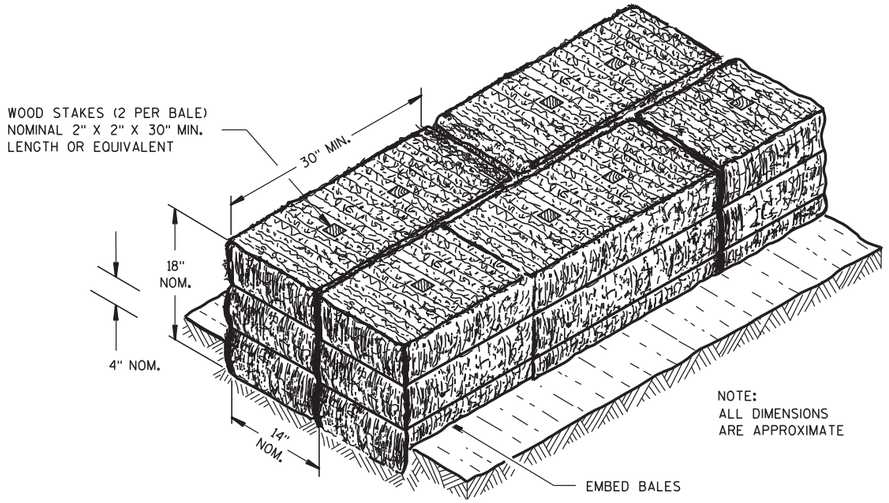
TYPICAL DRIVEWAY PROFILES

DRIVEWAYS WITHOUT CURB & GUTTER

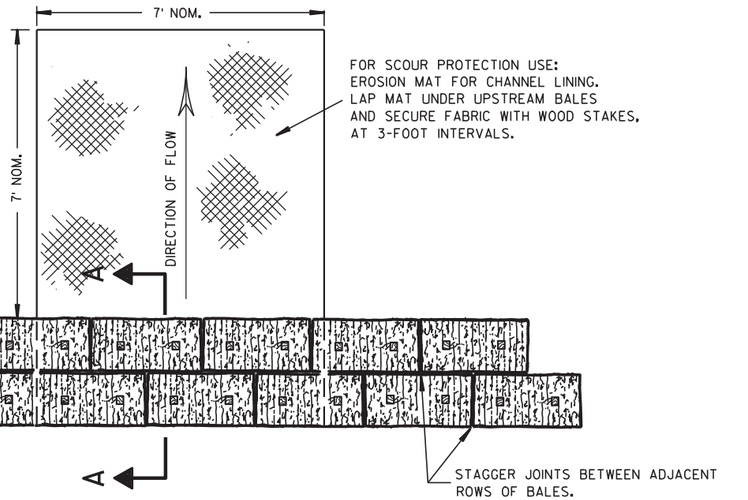
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

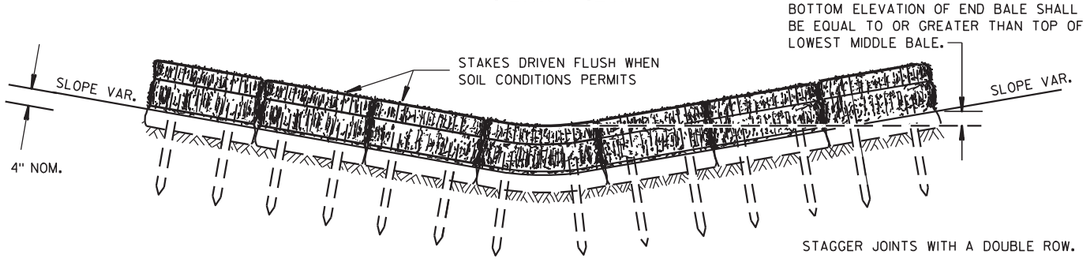
6 S.D.D. 8 D 21-1



SECTION A-A



PLAN VIEW



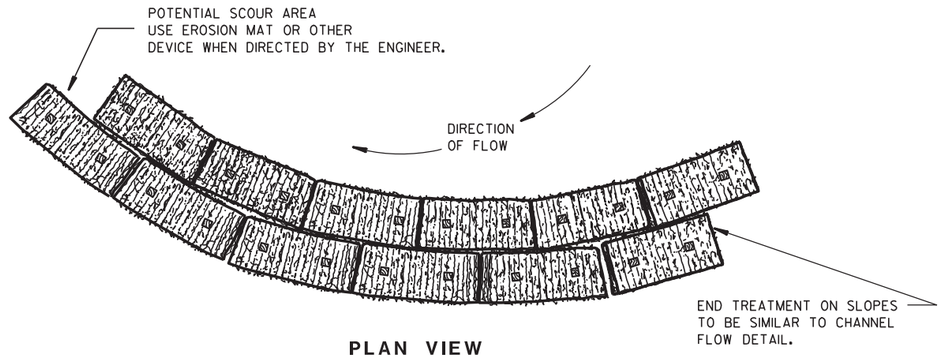
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

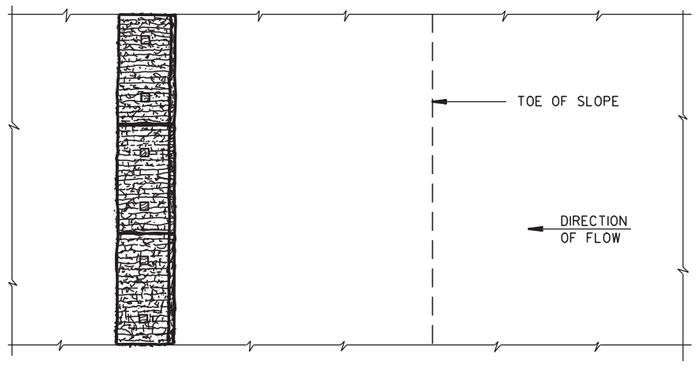
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

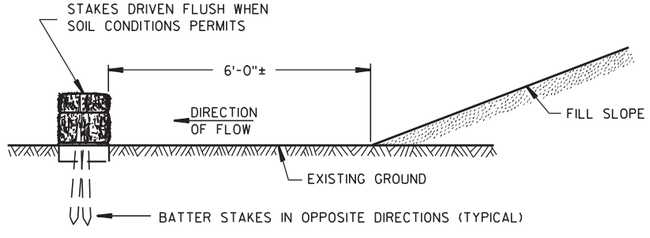


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

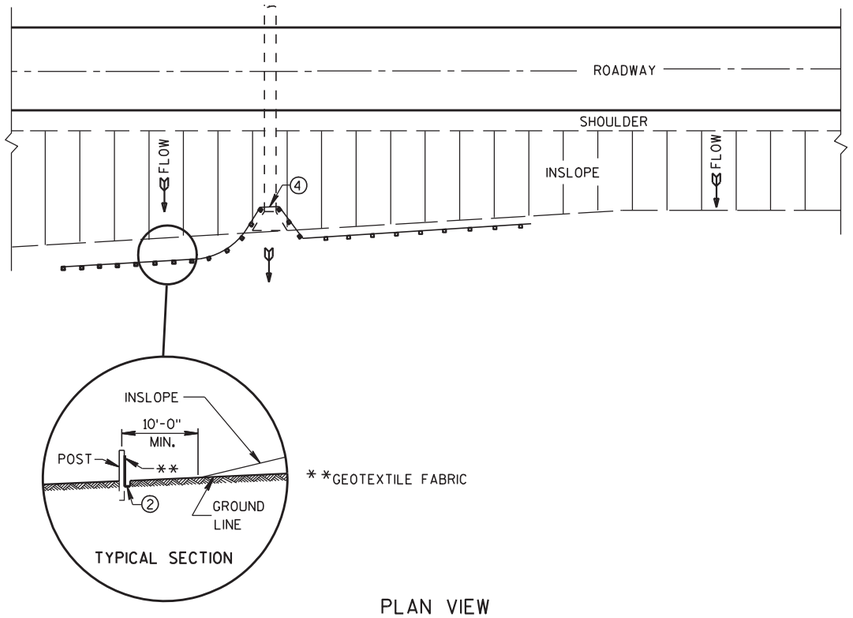
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

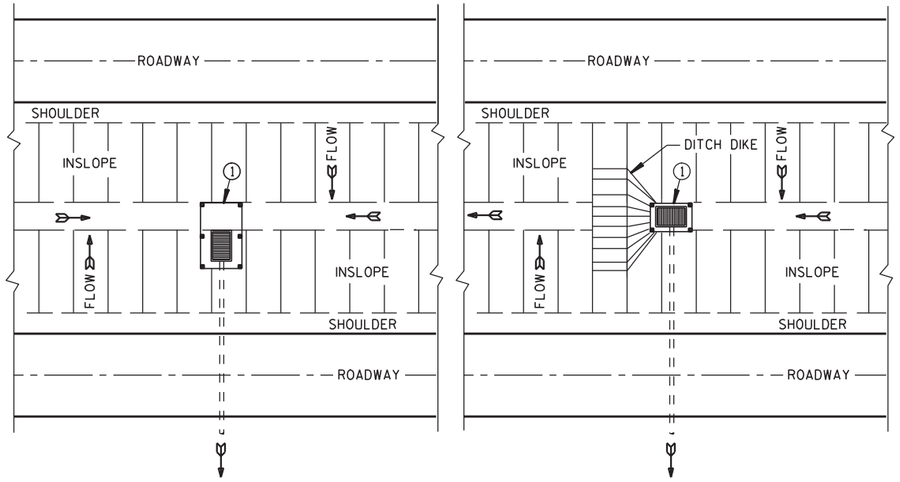
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



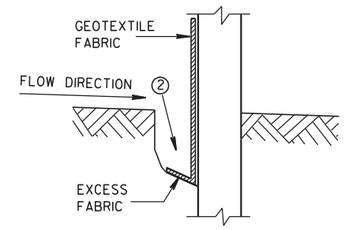
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

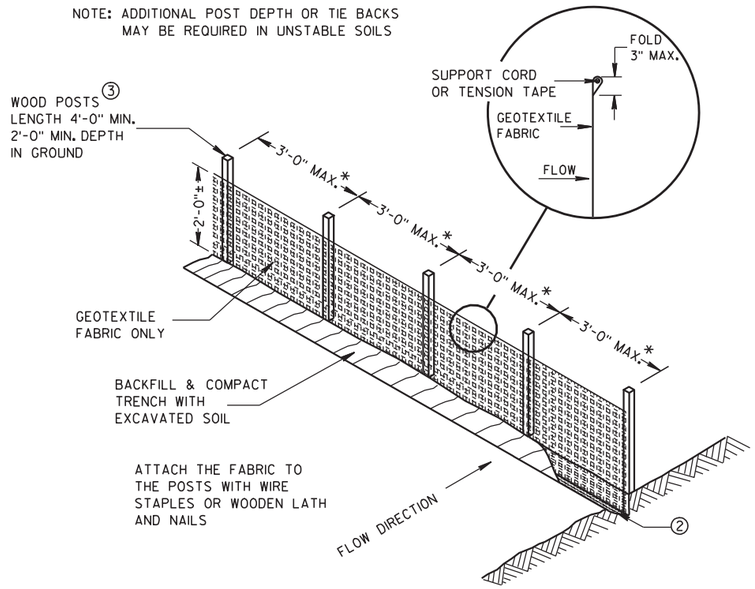
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

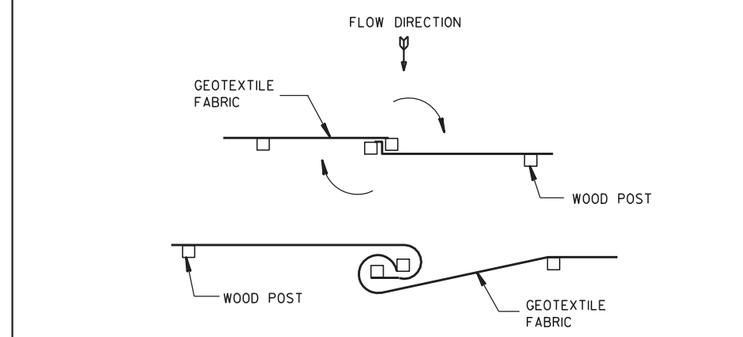


TRENCH DETAIL

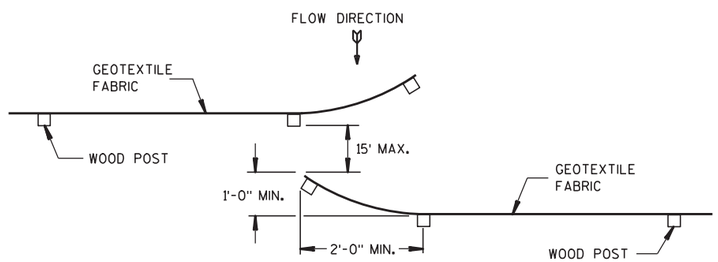


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

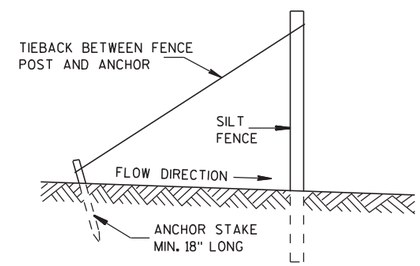


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

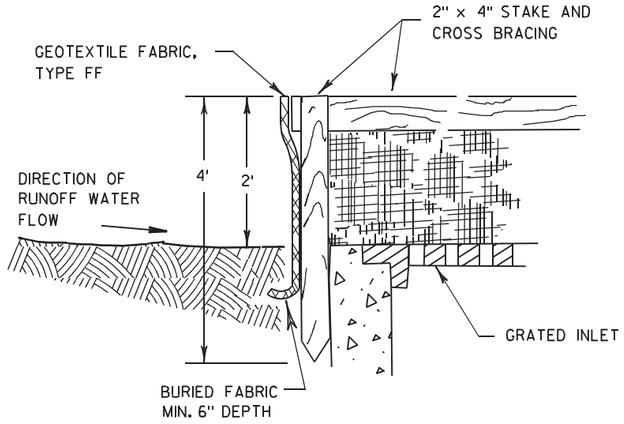
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

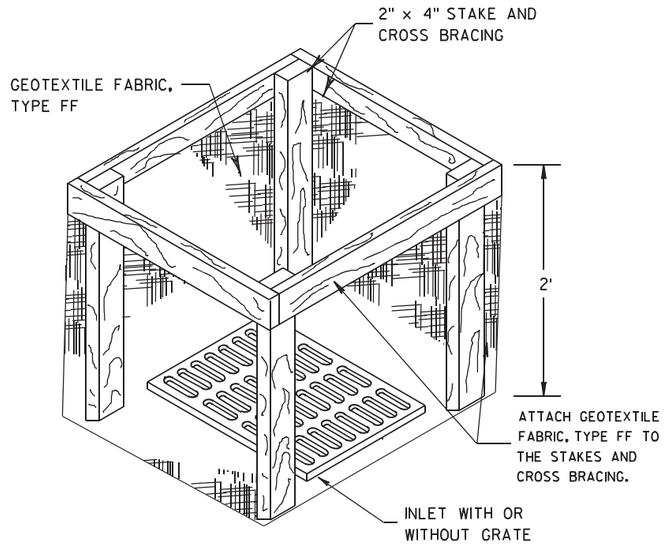
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S.D.D. 8 E 9-6

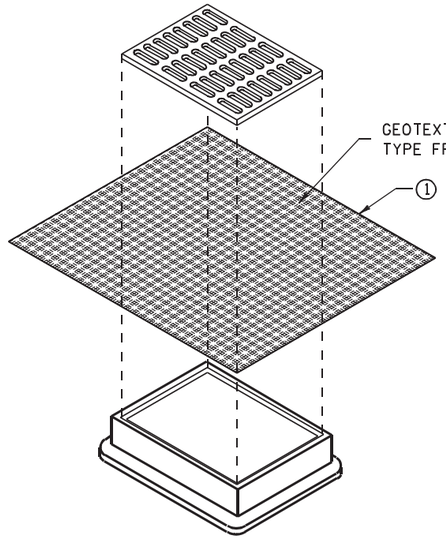
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S.D.D. 8 E 9-6



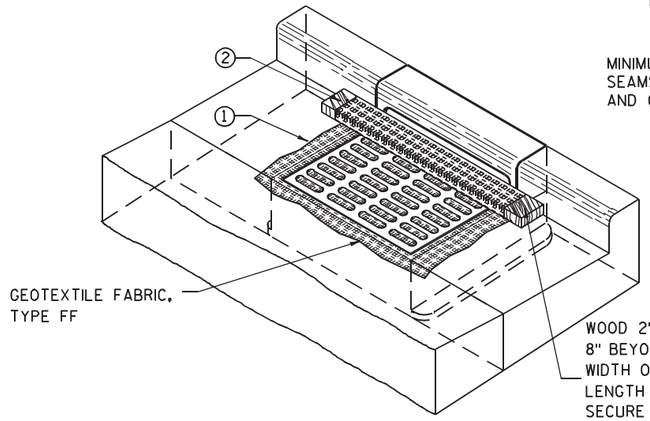


INLET PROTECTION, TYPE A

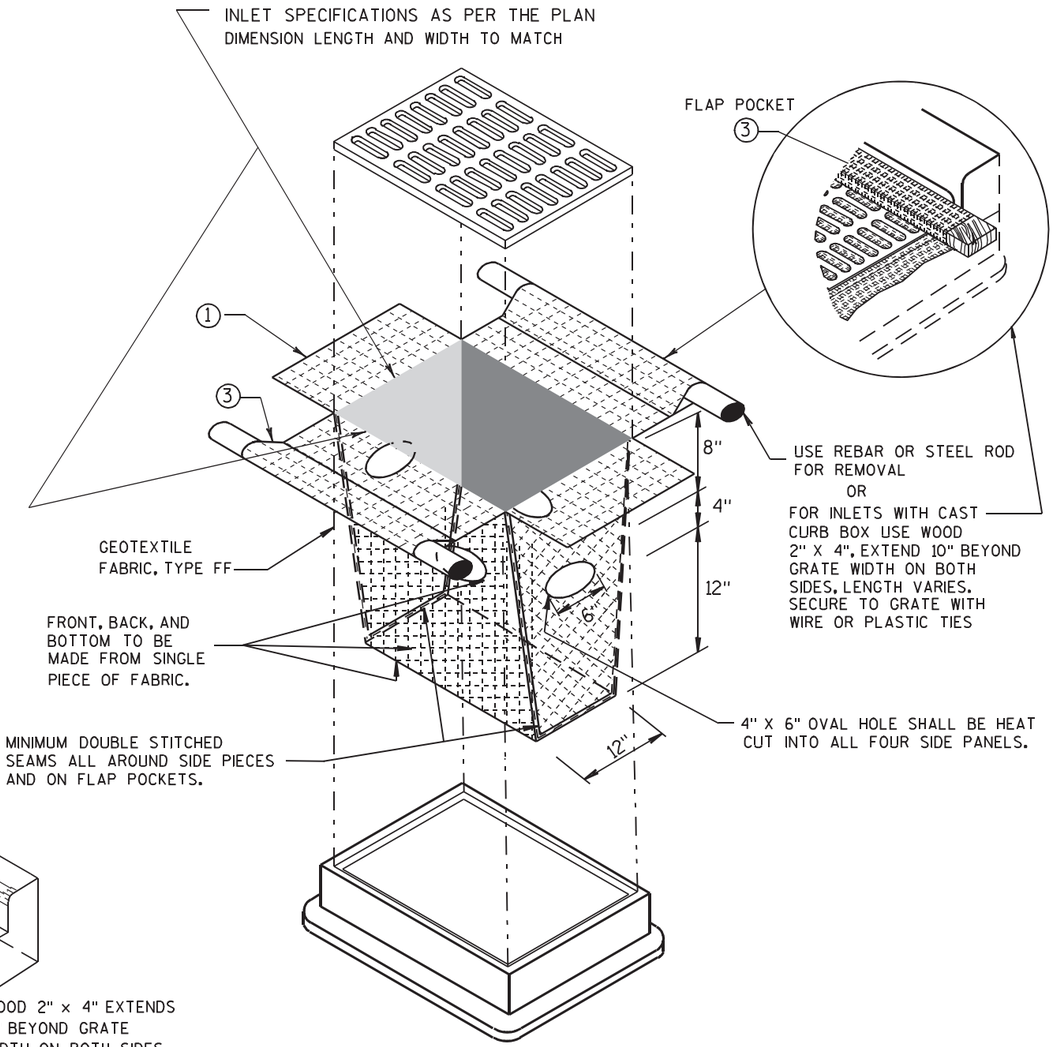


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

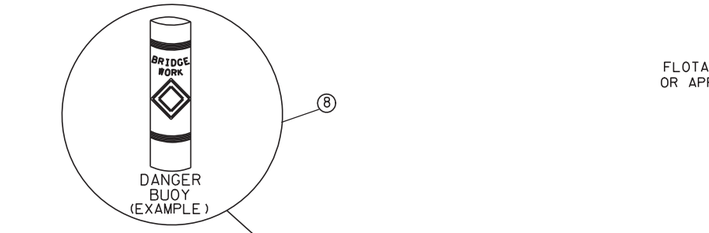
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

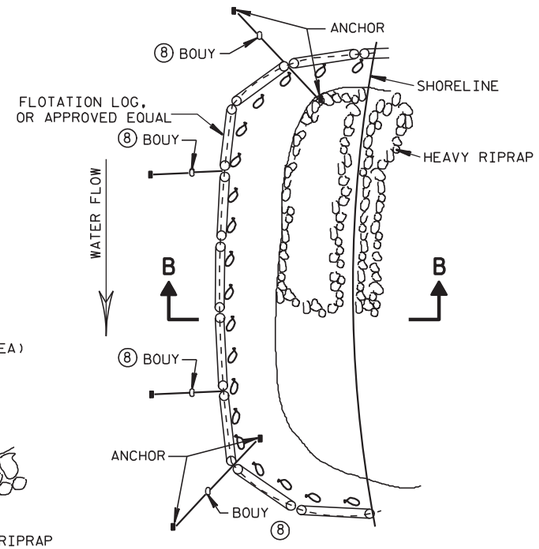
S.D.D. 8 E 10-2

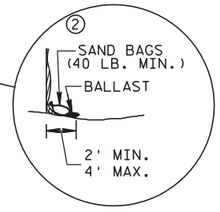
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S.D.D. 8 E 10-2

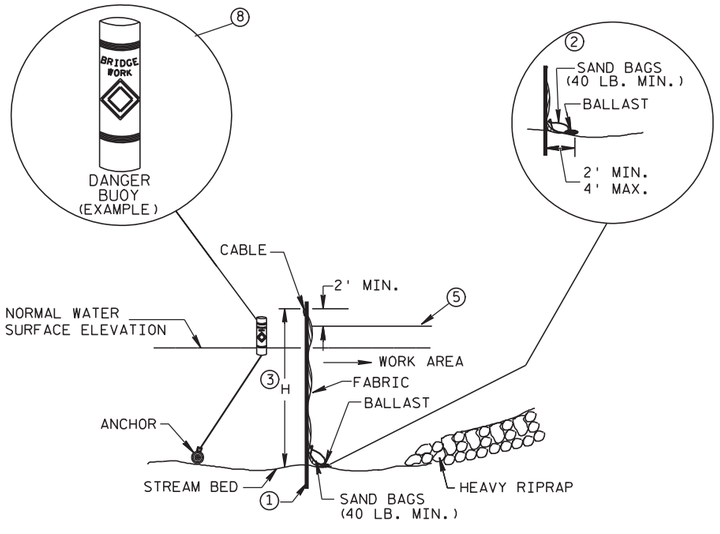


SECTION B-B

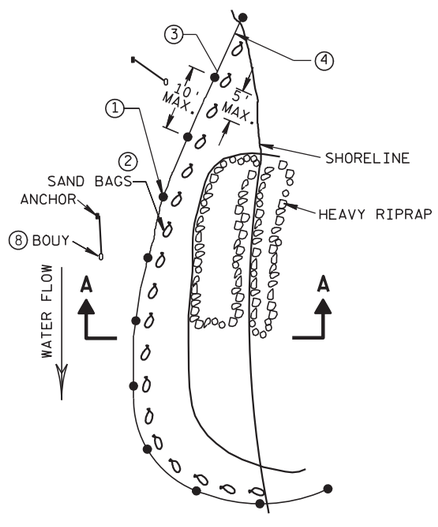




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

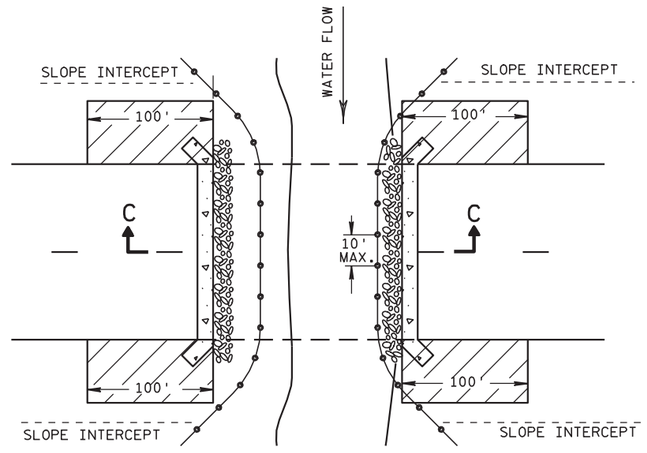
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

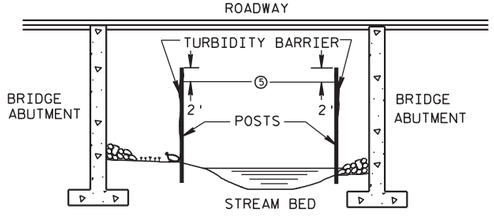
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



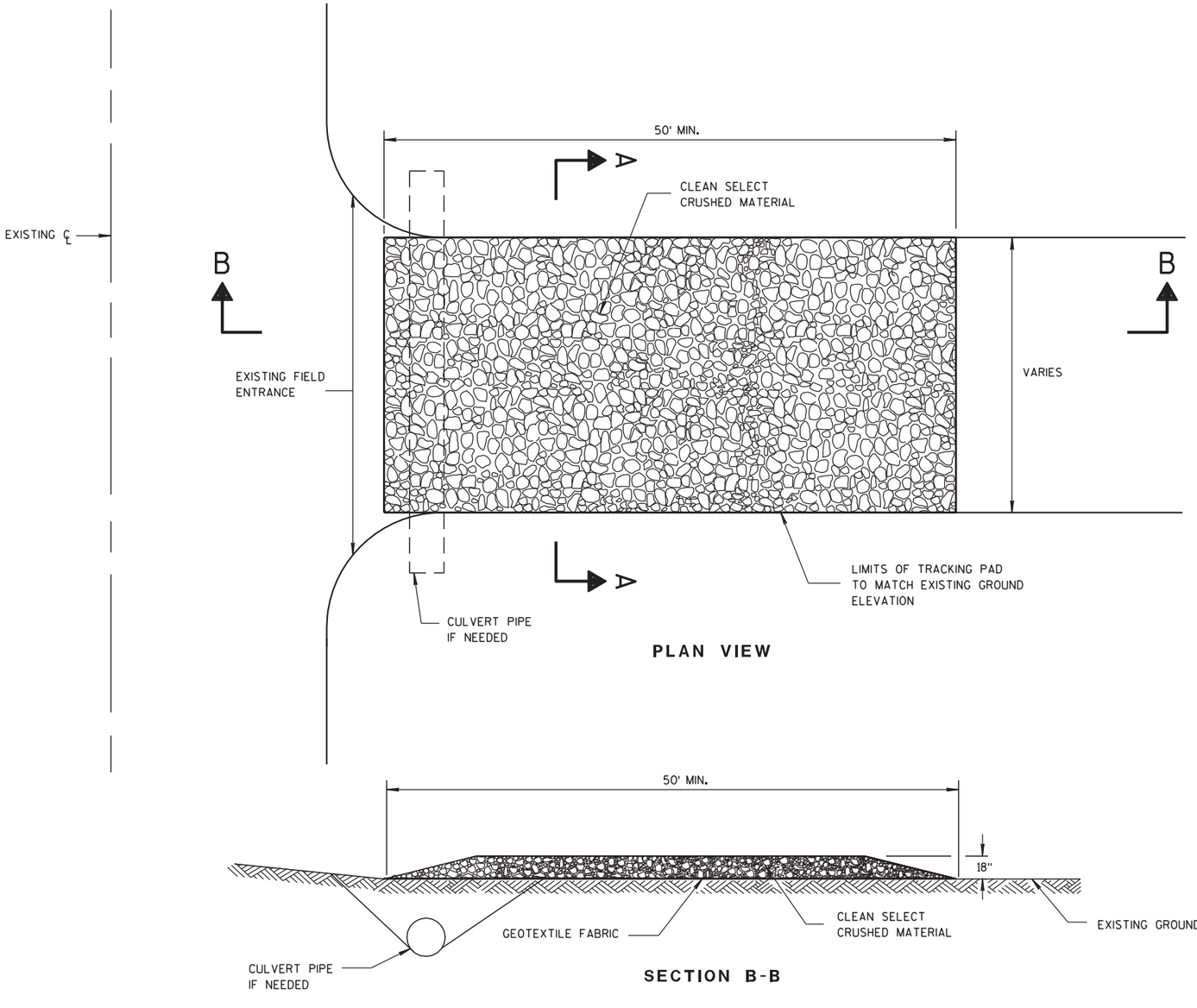
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

S.D.D. 8 E 11-2



PLAN VIEW

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

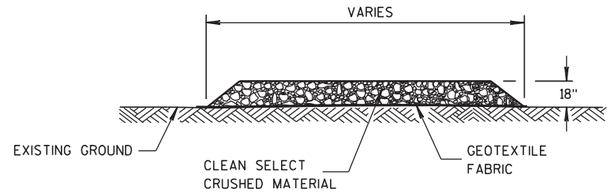
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zona ROADWAY STANDARDS ENGINEER
338	ENT

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S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

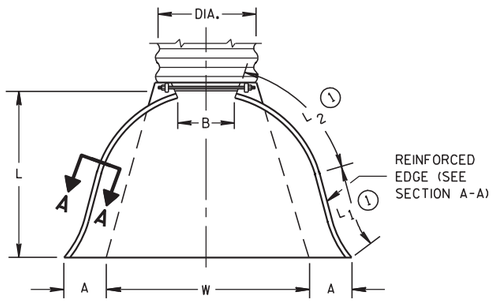
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

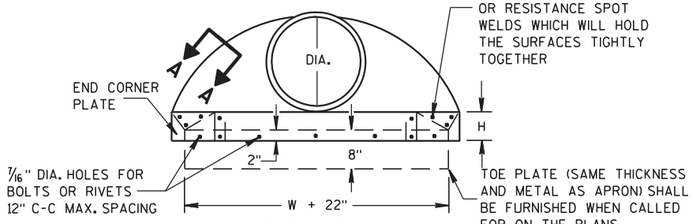
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 7/8	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

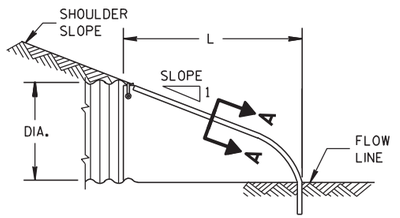
*MINIMUM
**MAXIMUM



PLAN VIEW

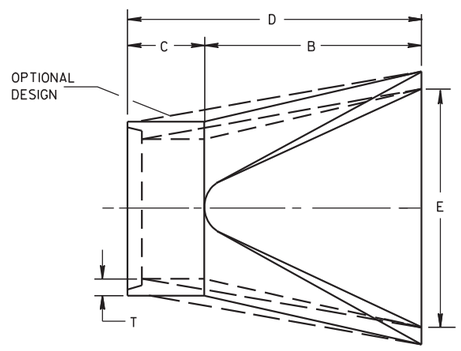


END VIEW

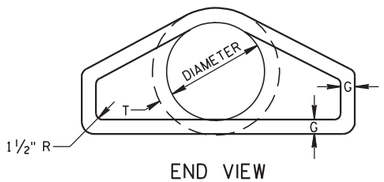


SIDE ELEVATION

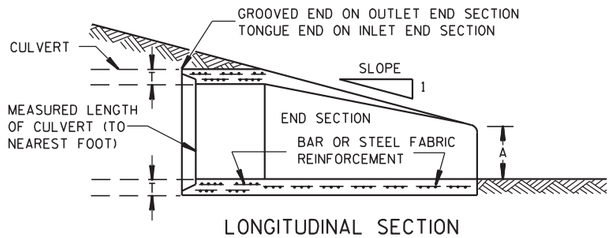
METAL ENDWALLS



PLAN

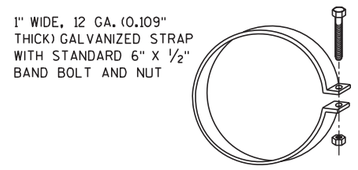


END VIEW



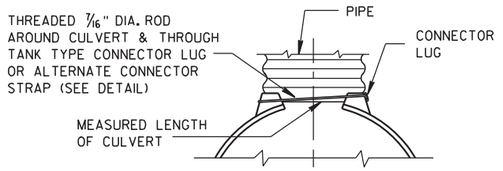
LONGITUDINAL SECTION

CONCRETE ENDWALLS

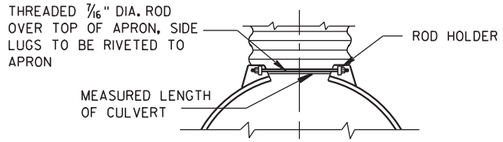


ALTERNATE FOR TYPE 1 CONNECTION

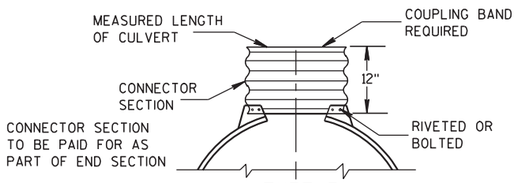
END SECTION CONNECTOR STRAP



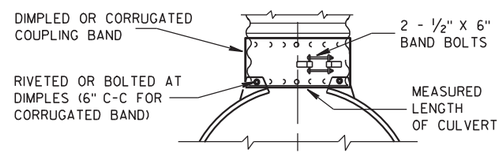
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

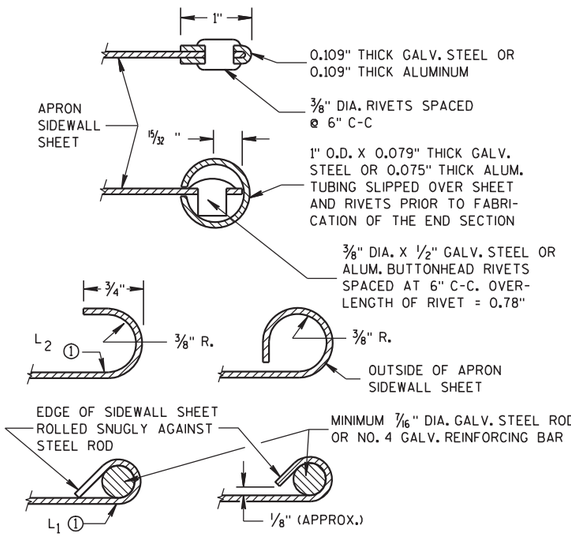
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

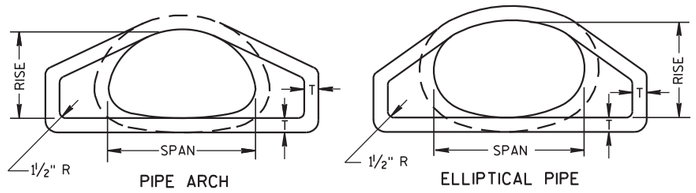
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

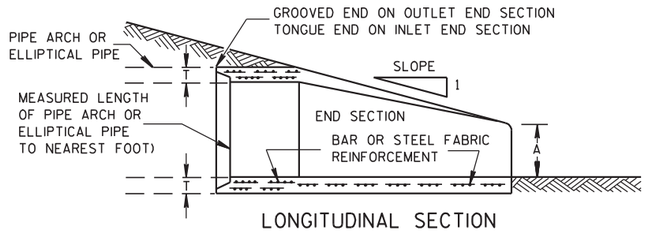
APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOP NEER
FHWA

339

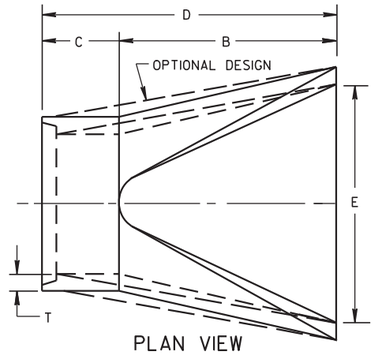
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END VIEW

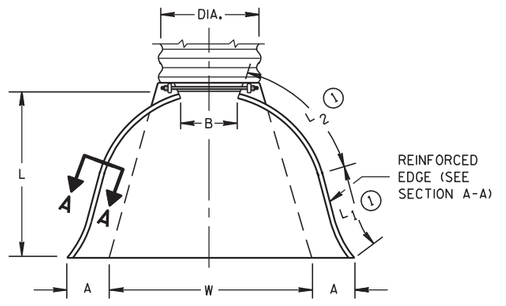


LONGITUDINAL SECTION

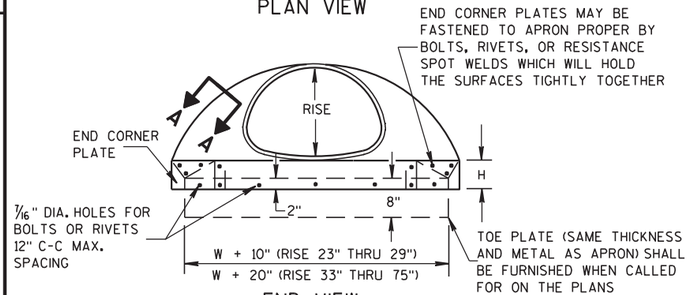


PLAN VIEW

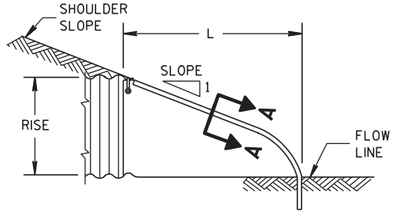
CONCRETE ENDWALLS



PLAN VIEW

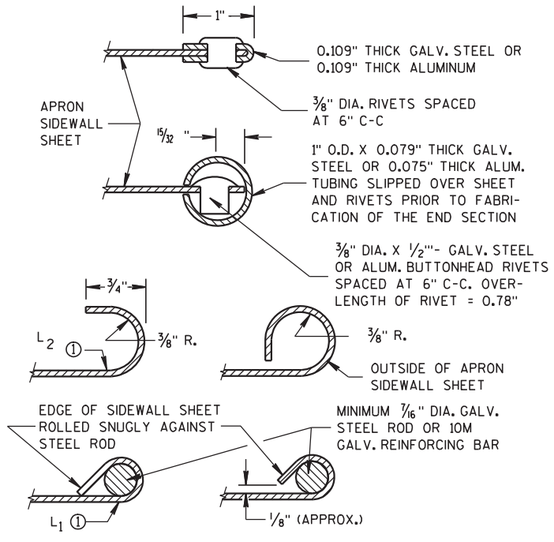


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

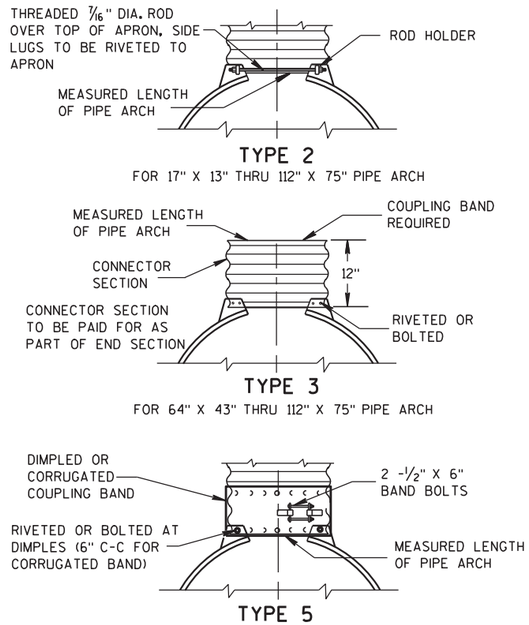
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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 APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

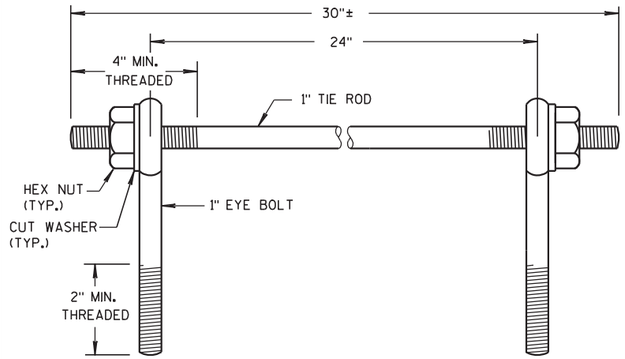
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

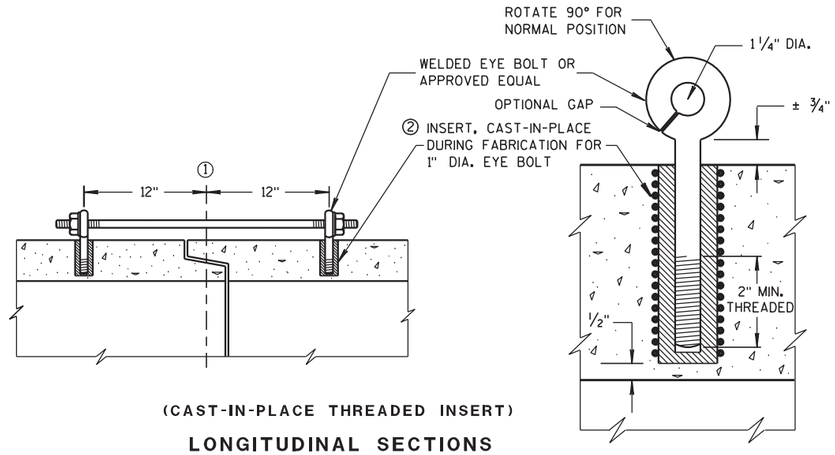
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

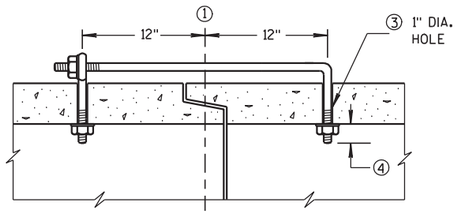
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

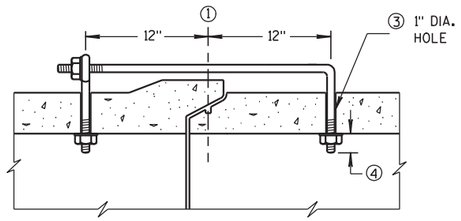
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

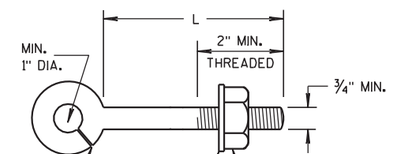


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

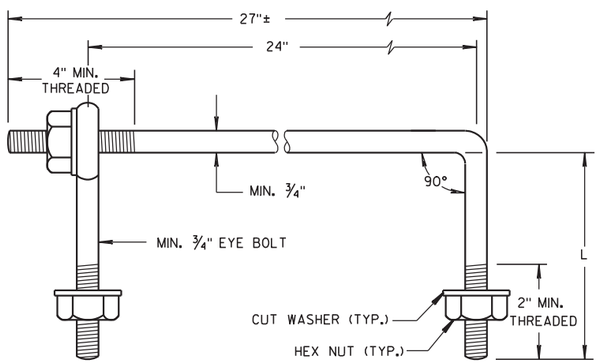
EYE BOLT DIMENSION TABLE

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"	



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

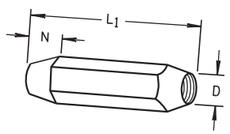
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

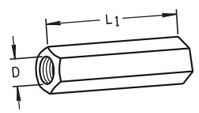
ADJUSTABLE TIE ROD TABLE

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 7/16

DIMENSIONS SHOWN ARE IN INCHES



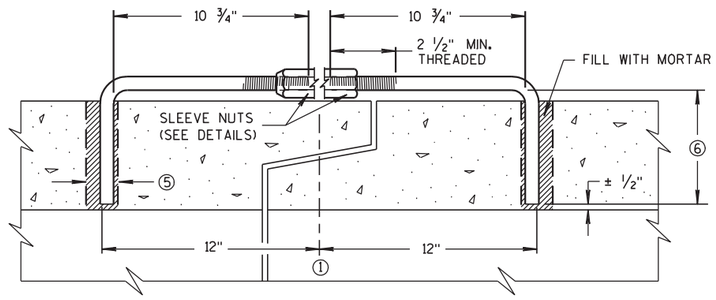
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PLAIN

RIGHT AND LEFT THREADS

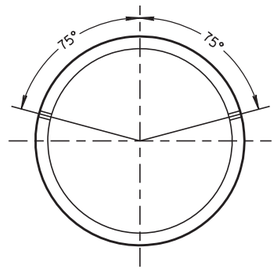
SLEEVE NUTS



LONGITUDINAL SECTION

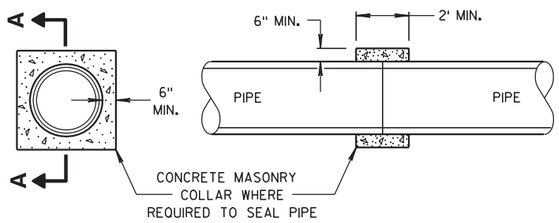
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

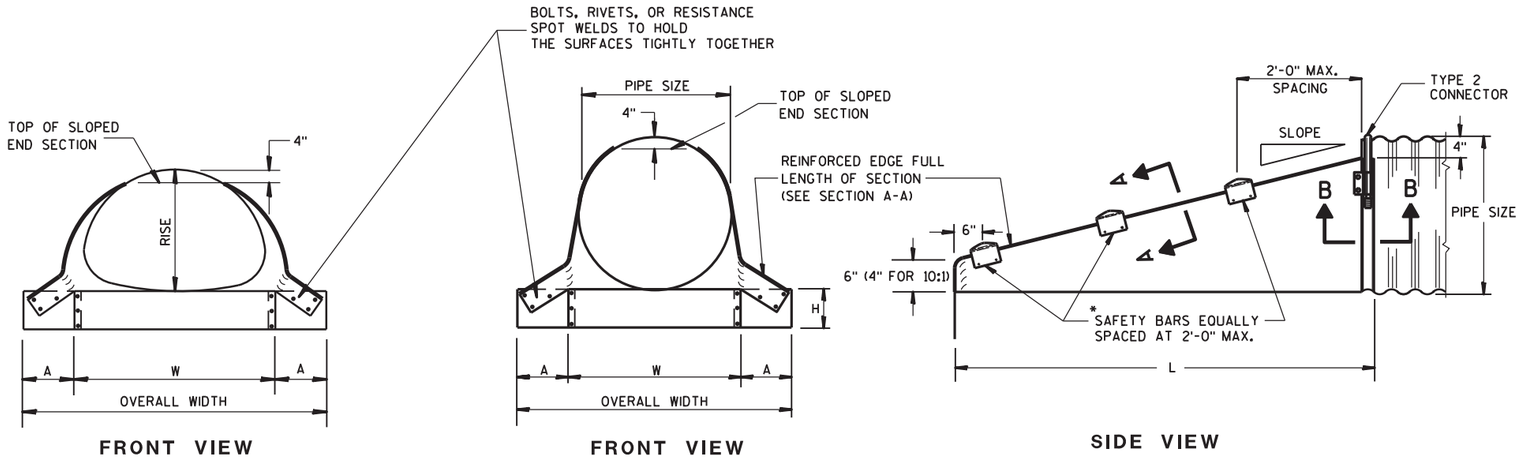
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
341
FHWA

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S.D.D. 8 F 4-7



FRONT VIEW

FRONT VIEW

SIDE VIEW

GENERAL NOTES

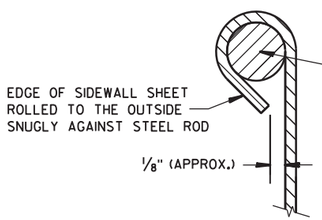
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

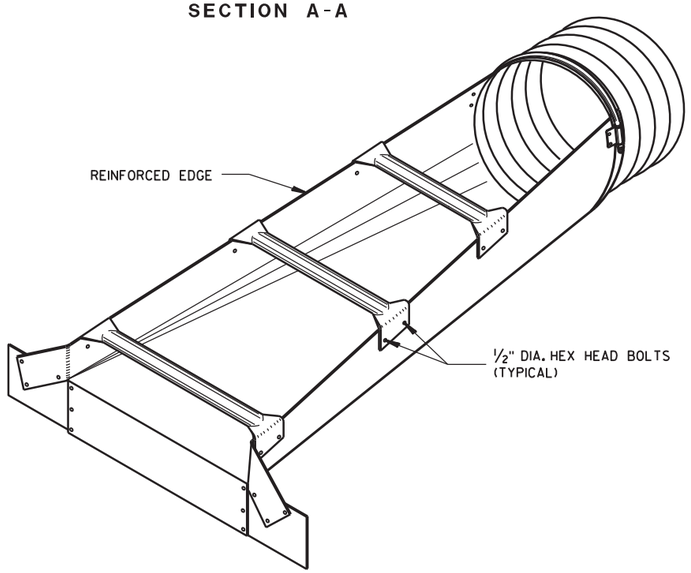
SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS

PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



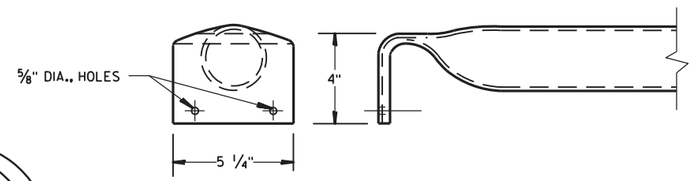
SECTION A-A



ISOMETRIC VIEW

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

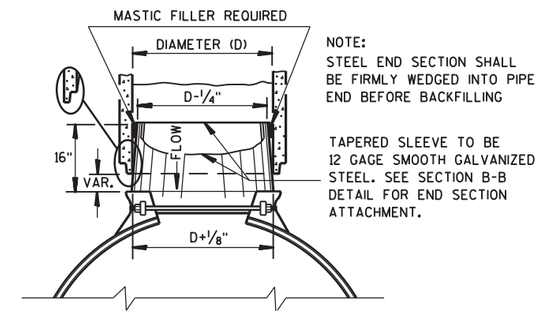


DETAIL OF SAFETY BAR

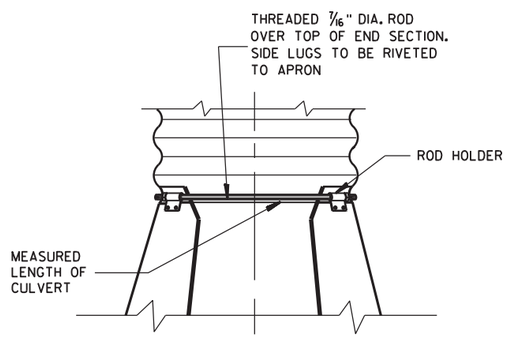
STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

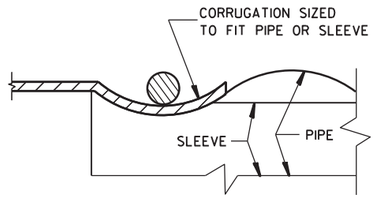
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2 CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

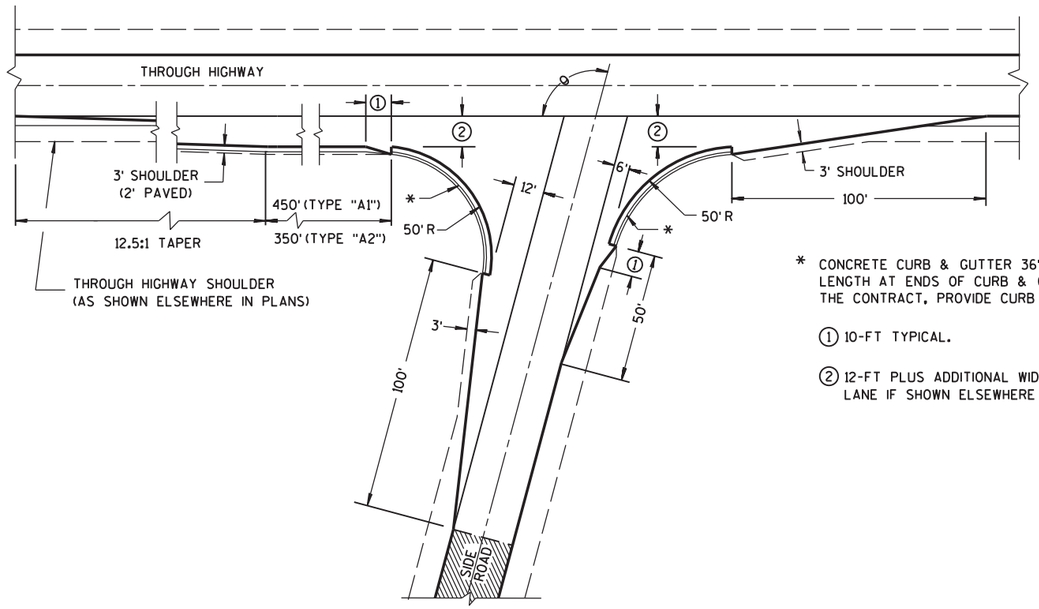
NT

6

S.D.D. 8 F 7-5

6

S.D.D. 8 F 7-5



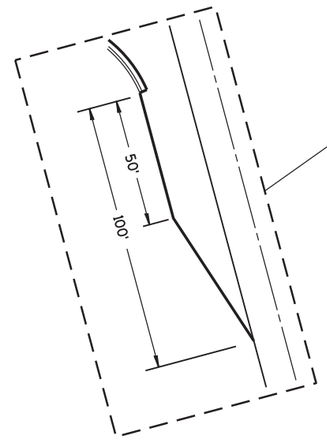
θ = MORE THAN 80°

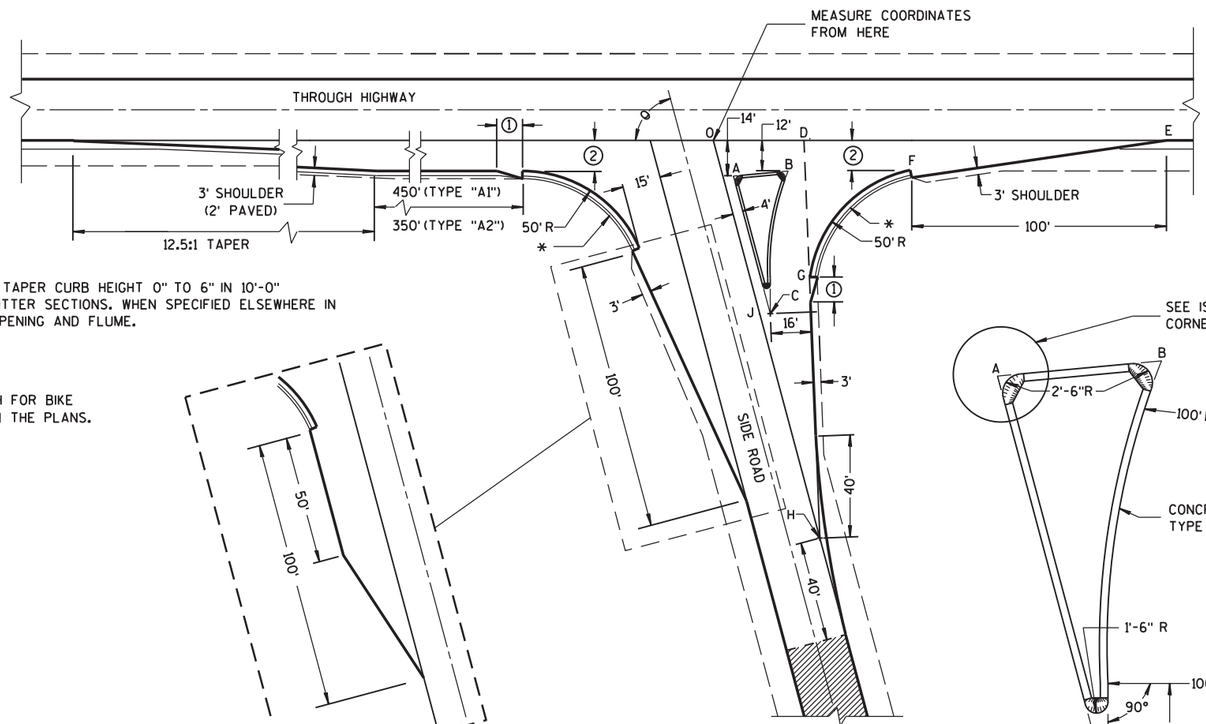
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

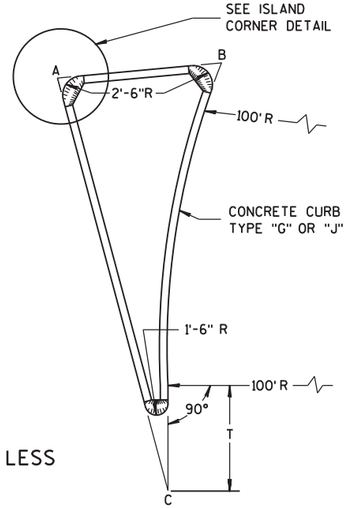
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

▨ EXISTING PAVED SURFACE

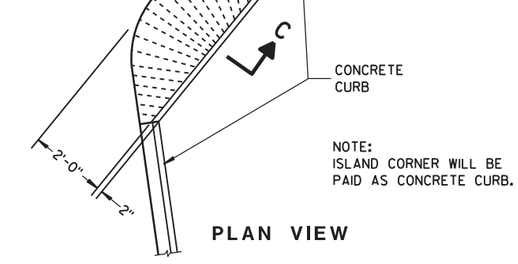




θ = ACUTE ANGLES 80° OR LESS

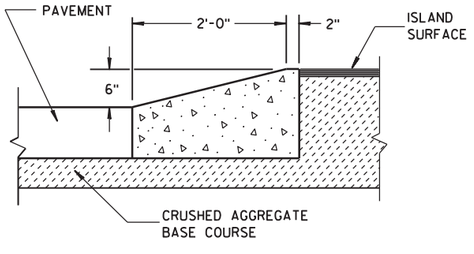


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

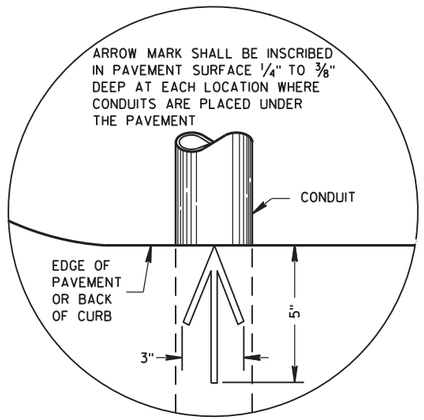
TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

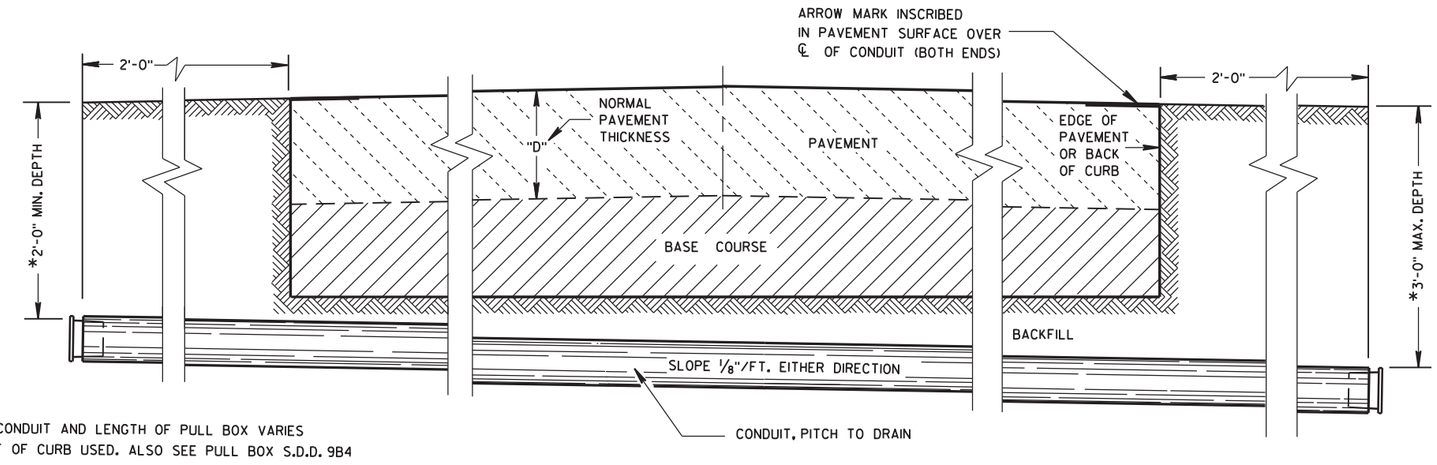
APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 9 A 1-13b



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 344
FHWA

6

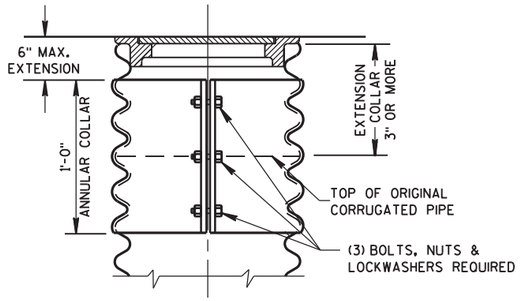
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

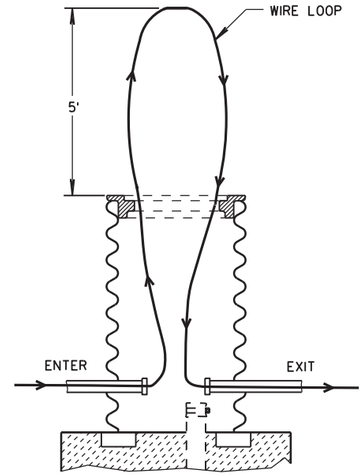
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

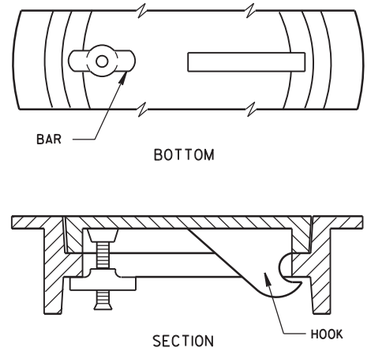
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

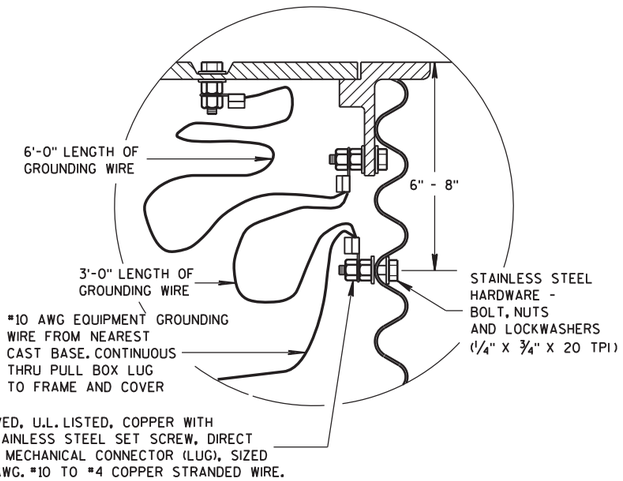


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

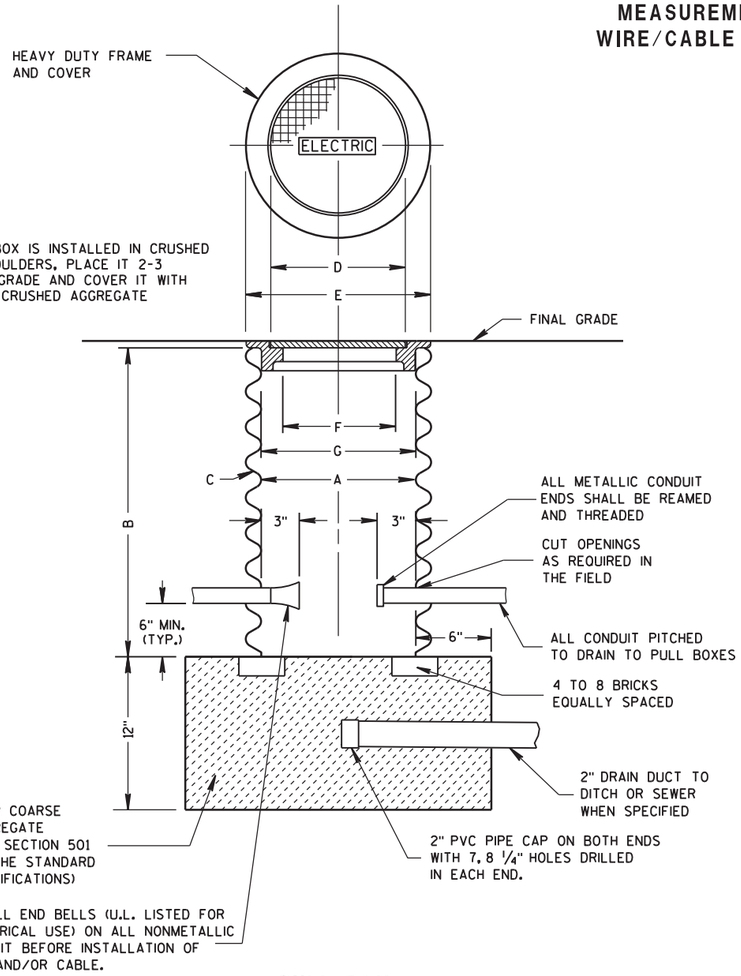


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

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.

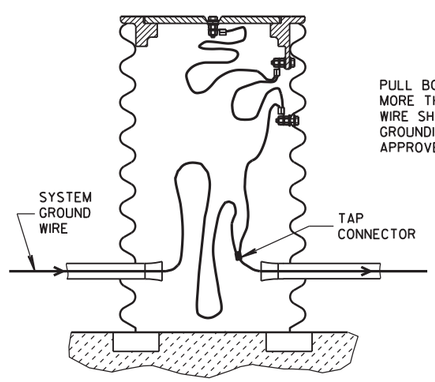
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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 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

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 345
FHWA

6

S.D.D. 9 B 4-11

6

S.D.D. 9 B 4-11

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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".

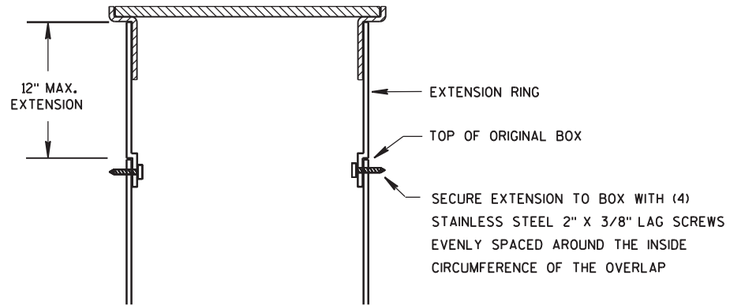
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

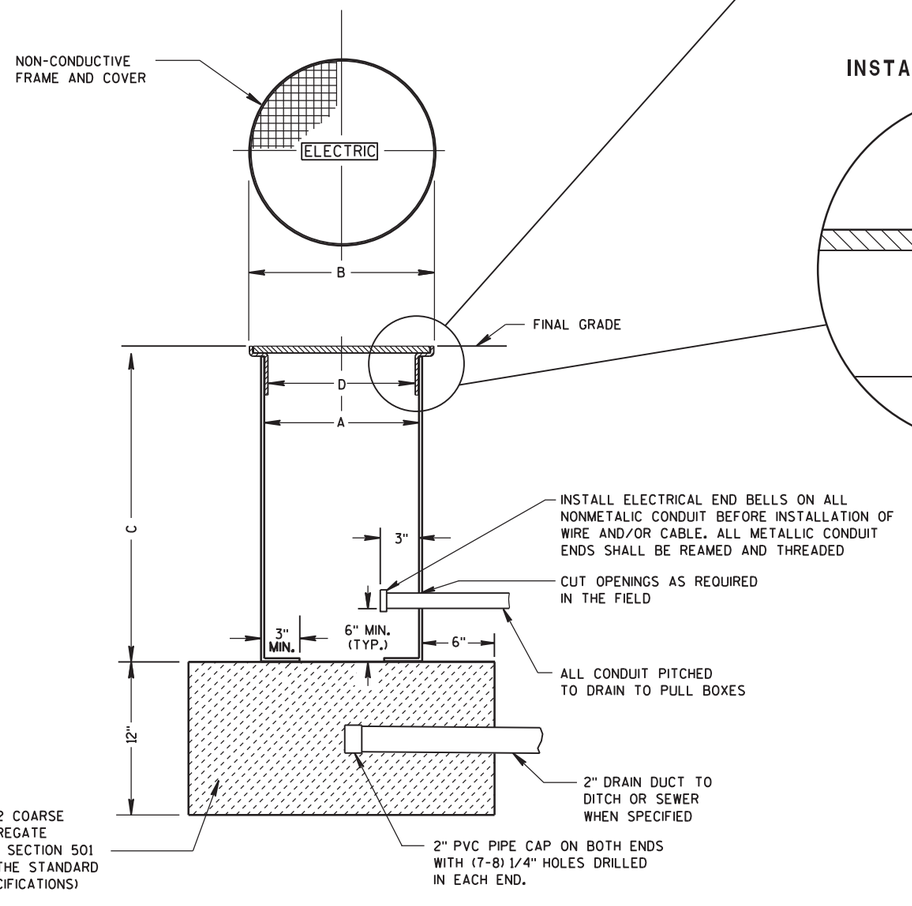
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

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

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

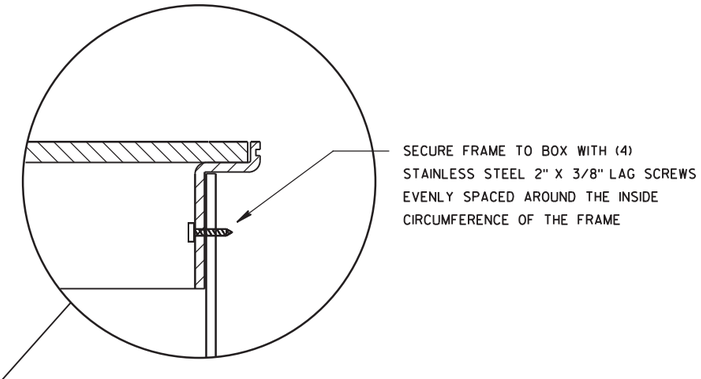


BOX EXTENSION

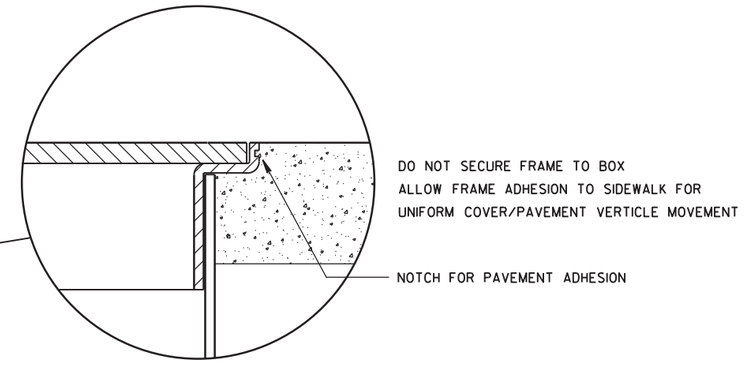


NON-CONDUCTIVE PULL BOX

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



PULL BOX NON-CONDUCTIVE

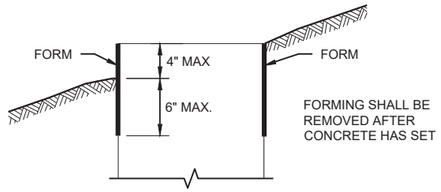
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 16-1

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 1, 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.

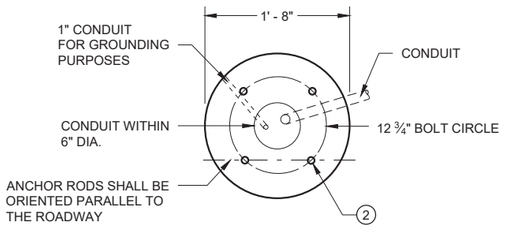
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

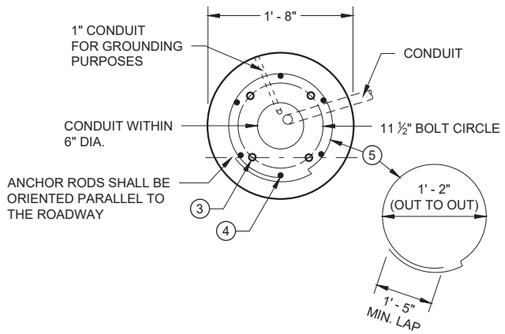
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

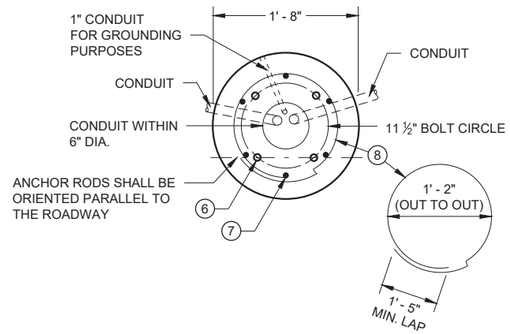
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

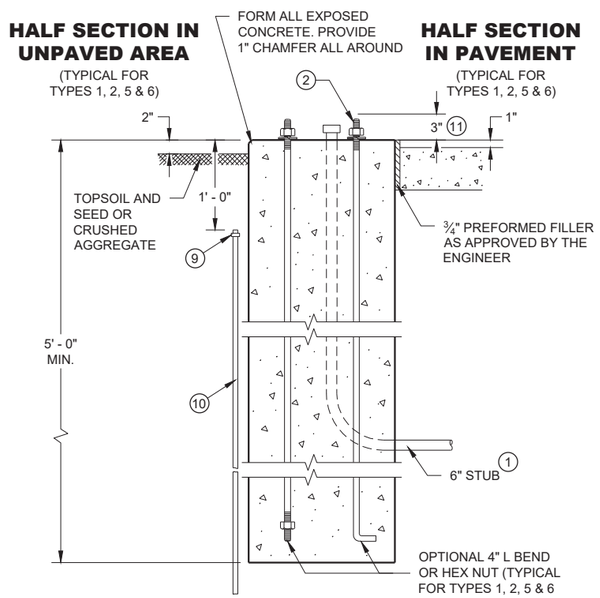
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

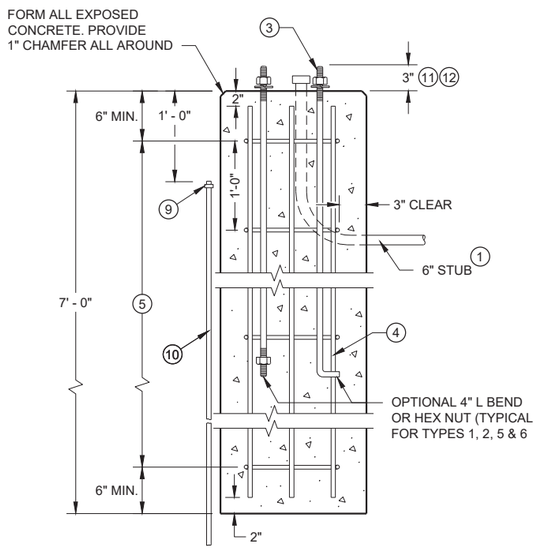




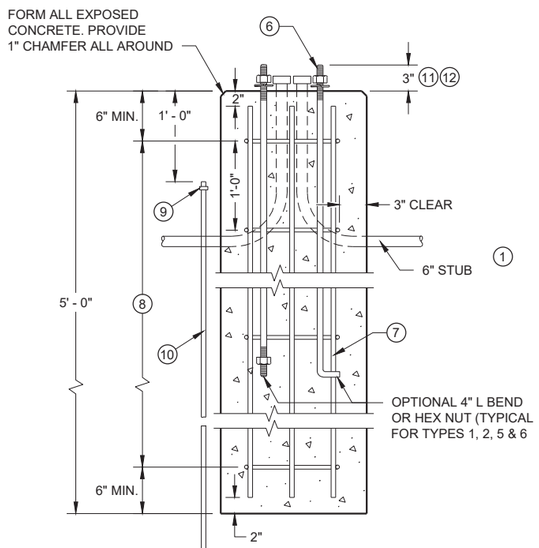




TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

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" USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 347

FHWA

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SDD 09C02 - 08

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.

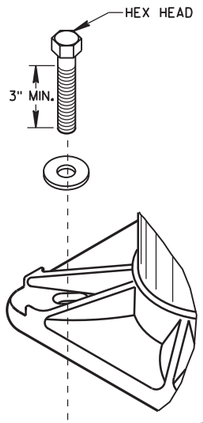
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

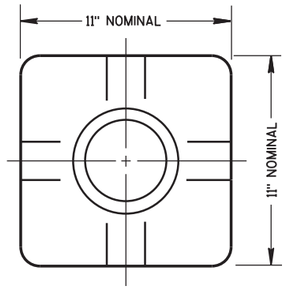
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

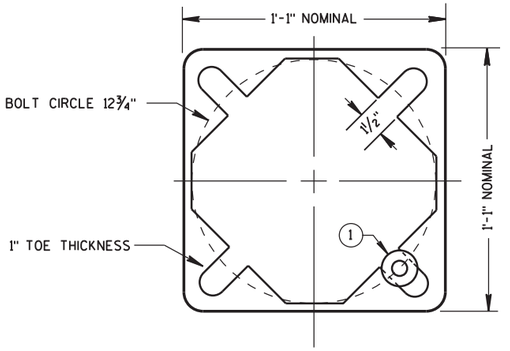
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

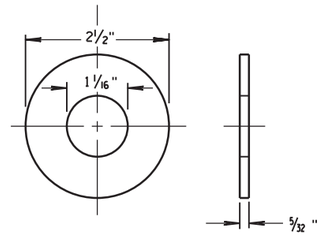




TOP VIEW
(PEDESTAL BASE)

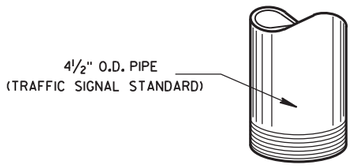


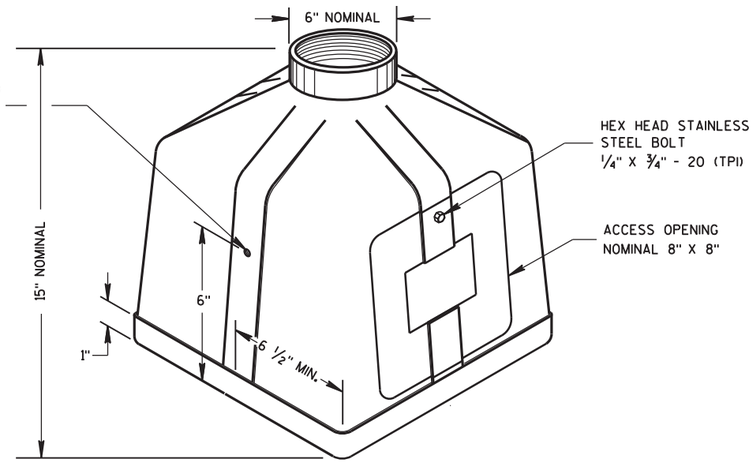
BOTTOM VIEW
(PEDESTAL BASE)



ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

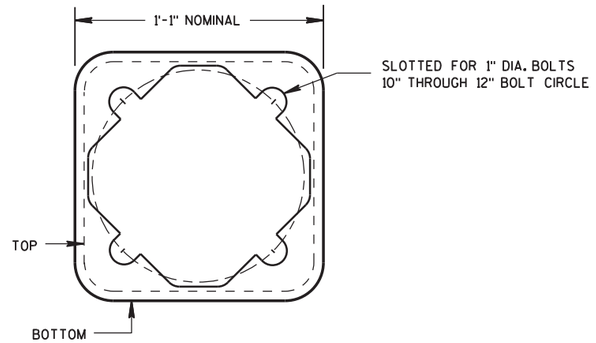
PEDESTAL BASE WASHER (1)



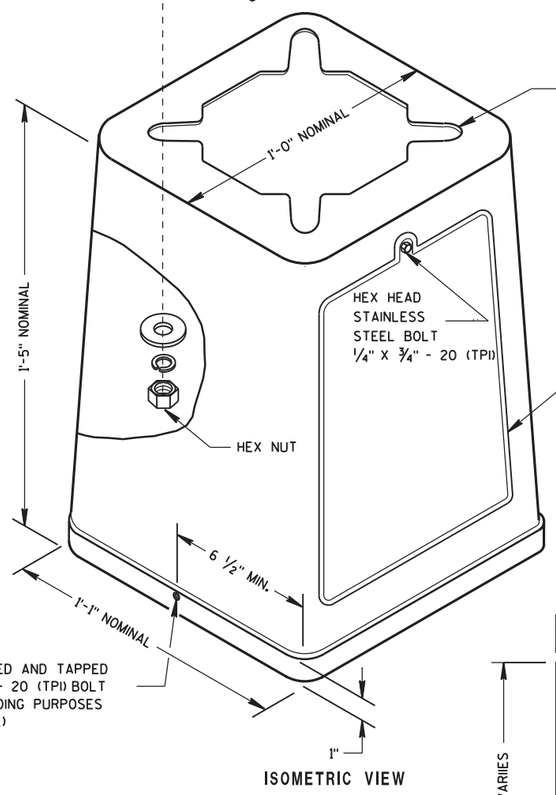


ISOMETRIC VIEW

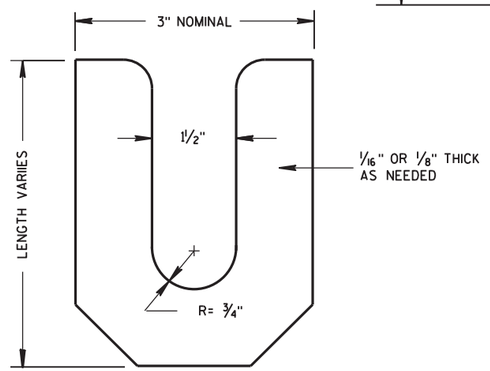
PEDESTAL BASE



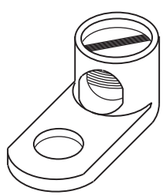
BOTTOM VIEW
(TRANSFORMER BASE)



ISOMETRIC VIEW



LEVELING SHIM



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

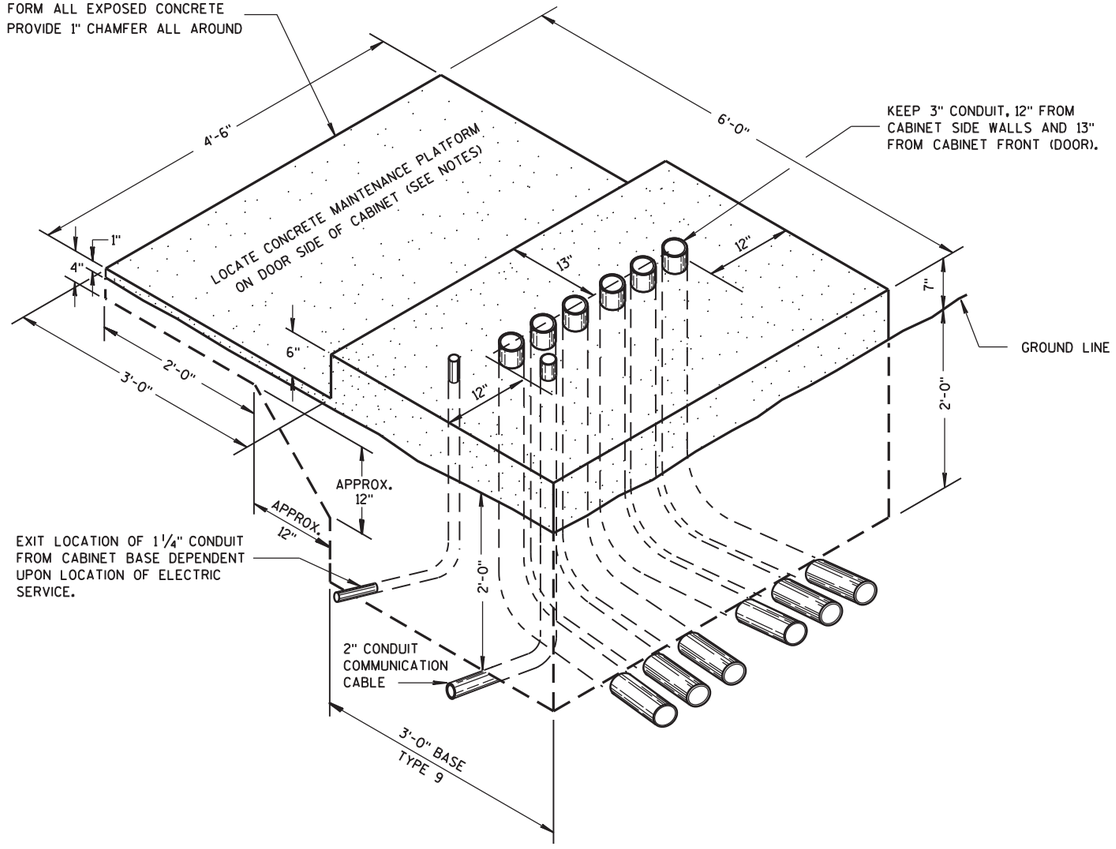
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

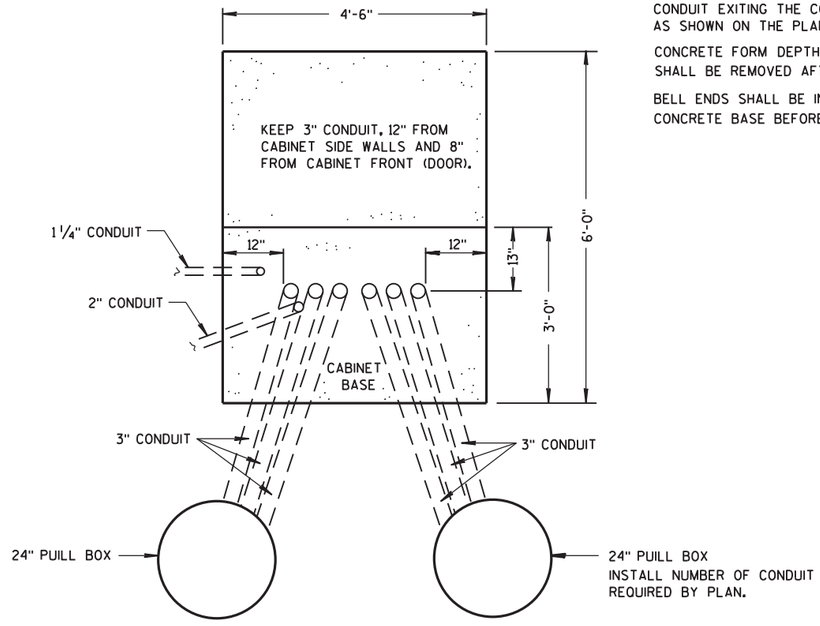
S.D.D. 9 C 3-4



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 349
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).

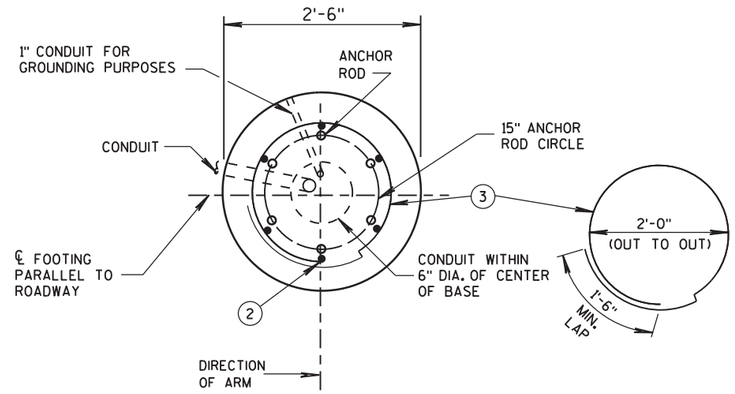
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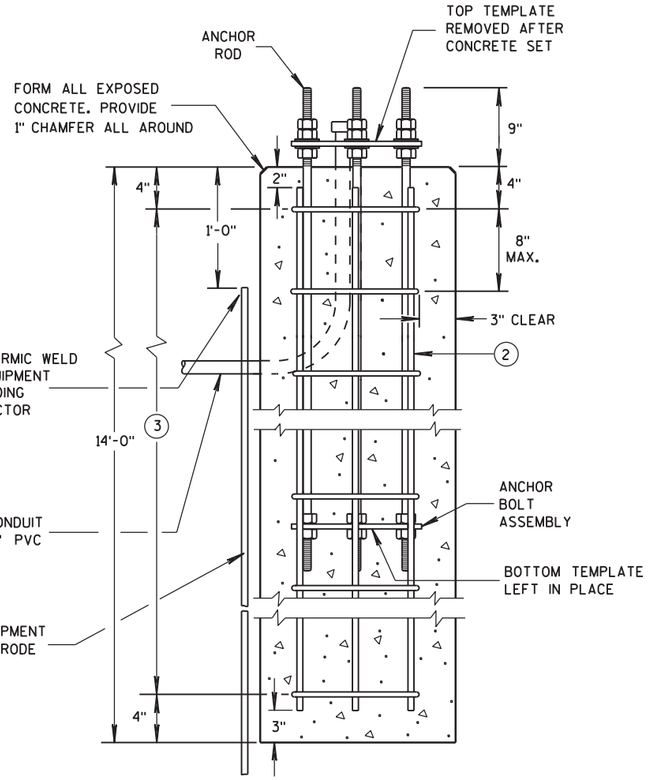
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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.

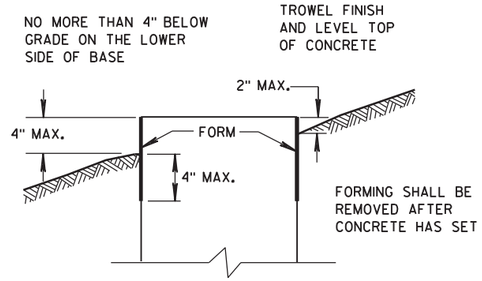




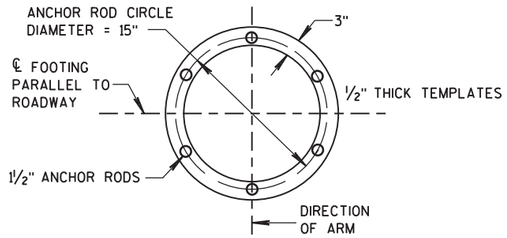
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

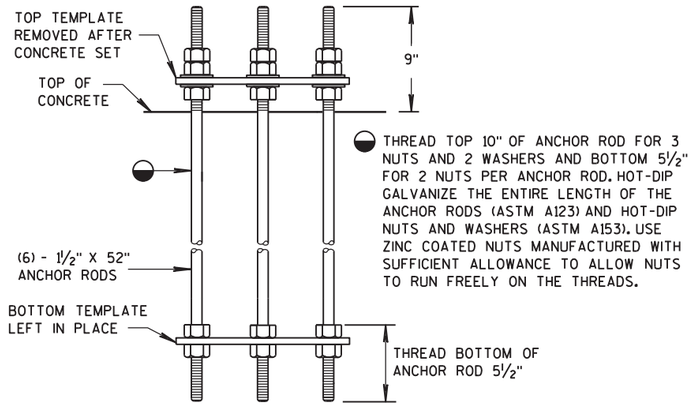
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

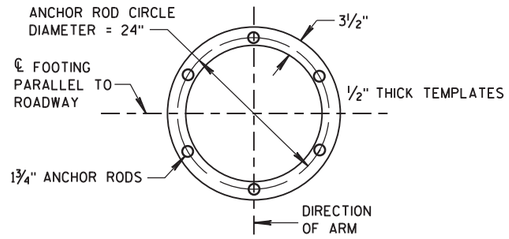
May 2017 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL 350

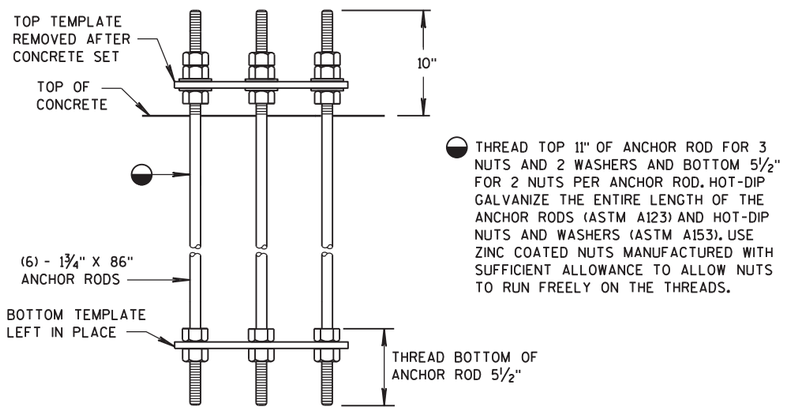
FHWA

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S.D.D. 9 C 11-10

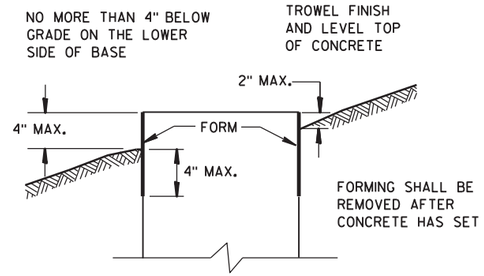


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

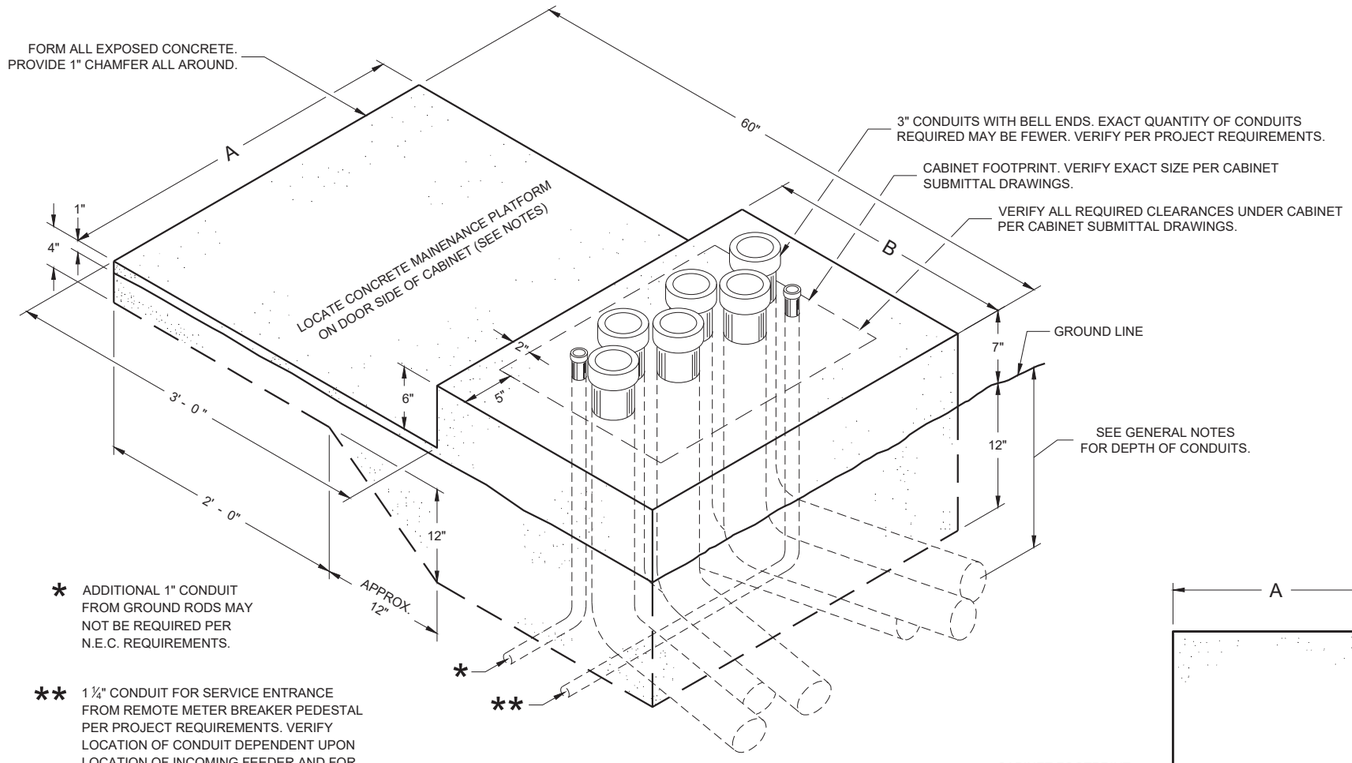
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL 351

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S.D.D. 9 C 12-9b

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S.D.D. 9 C 12-9b



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

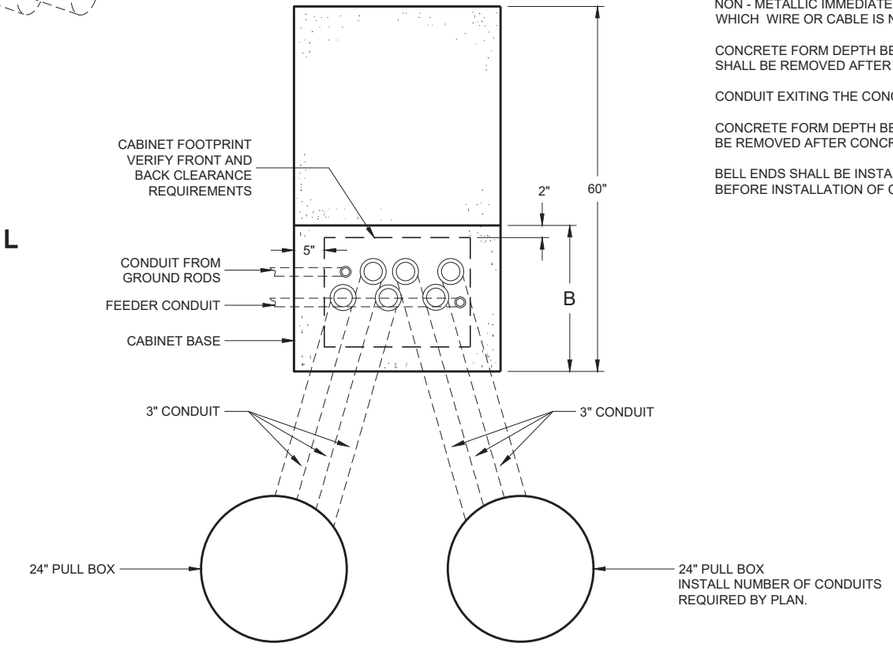
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC 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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES 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 NON - METALLIC 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 NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH 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 L

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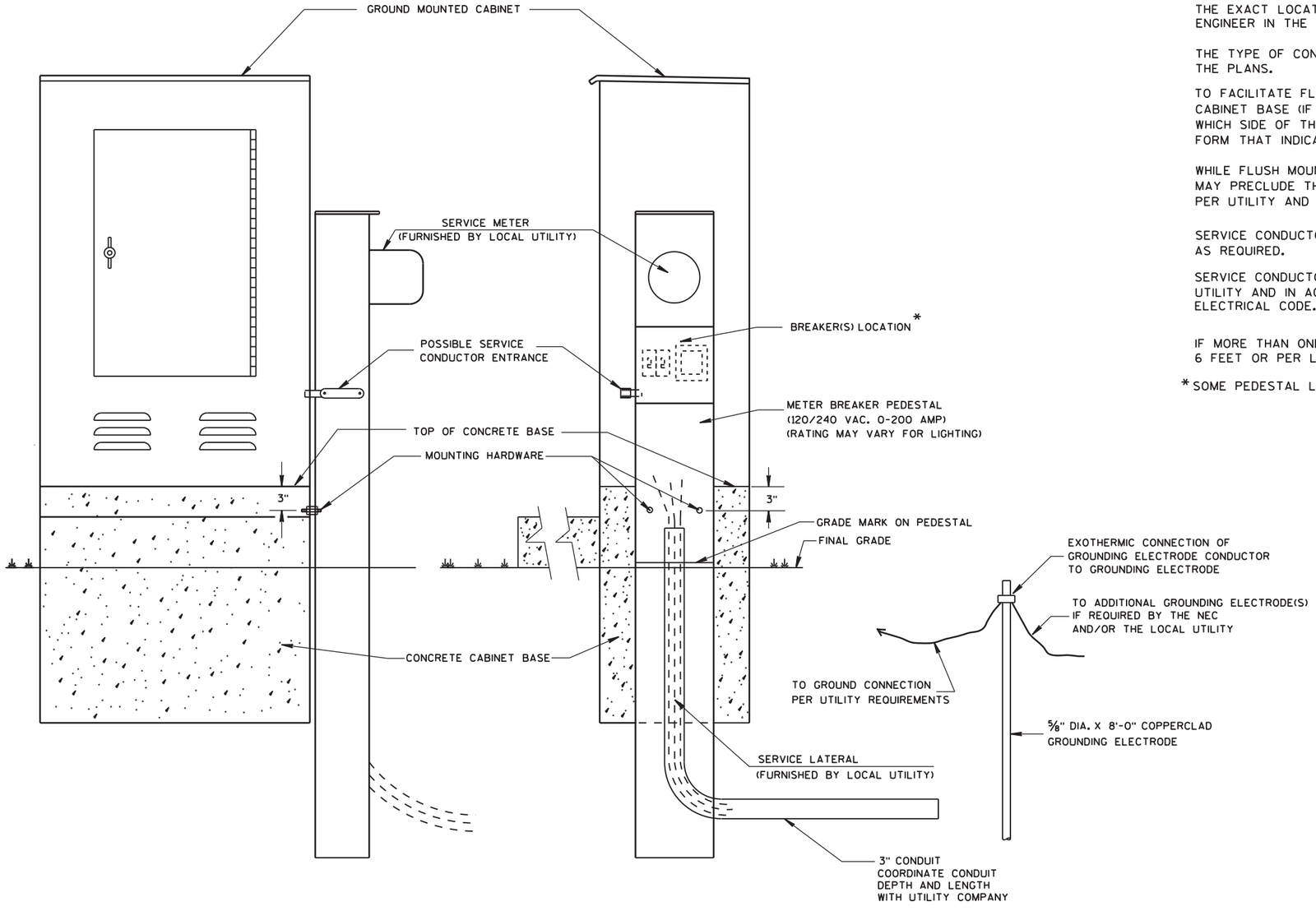
APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 352

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SDD 09C14 - 03



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.

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S.D.D. 9 D 1-5

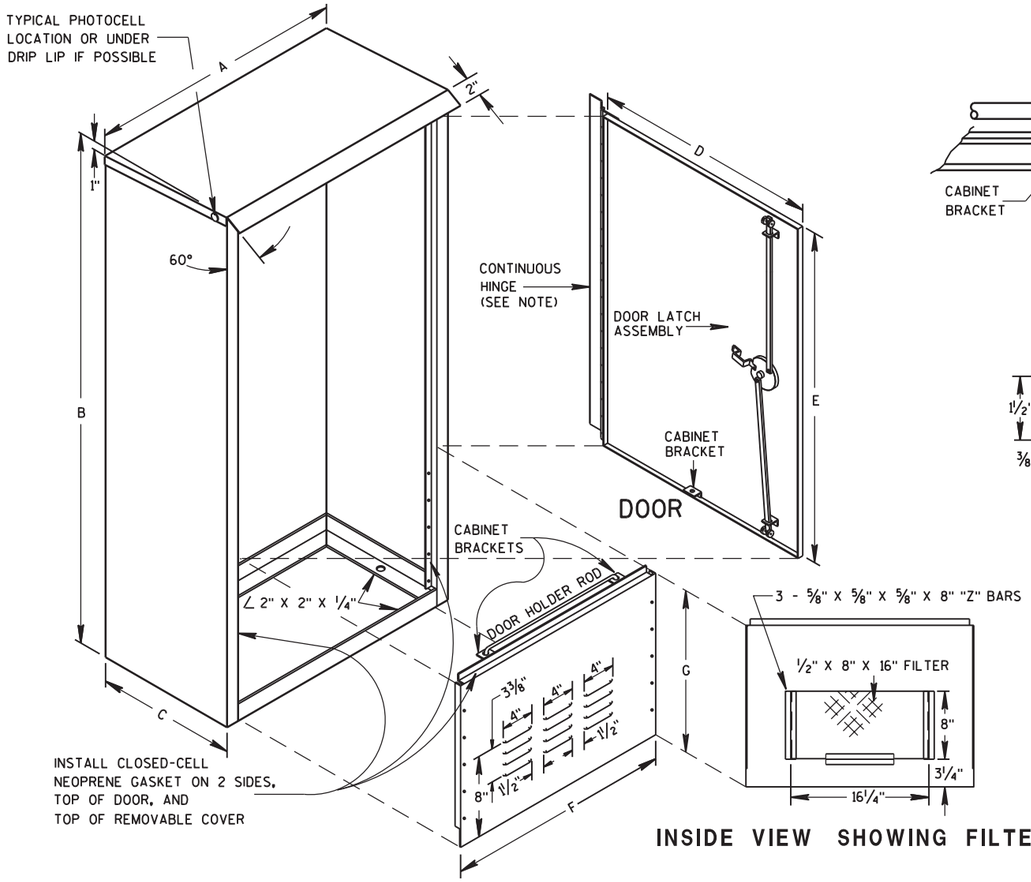
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

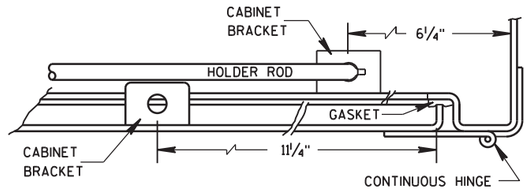
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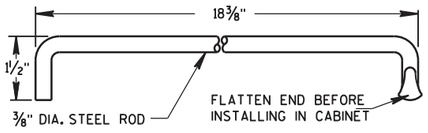


REMOVABLE COVER

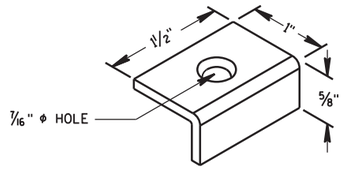
INSIDE VIEW SHOWING FILTER



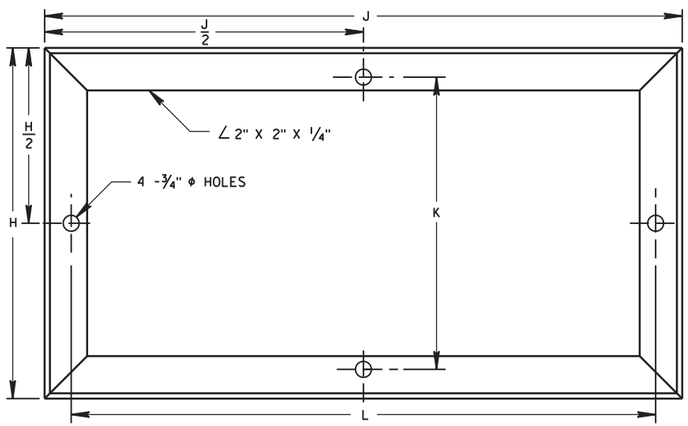
HINGE & DOOR HOLDER



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.

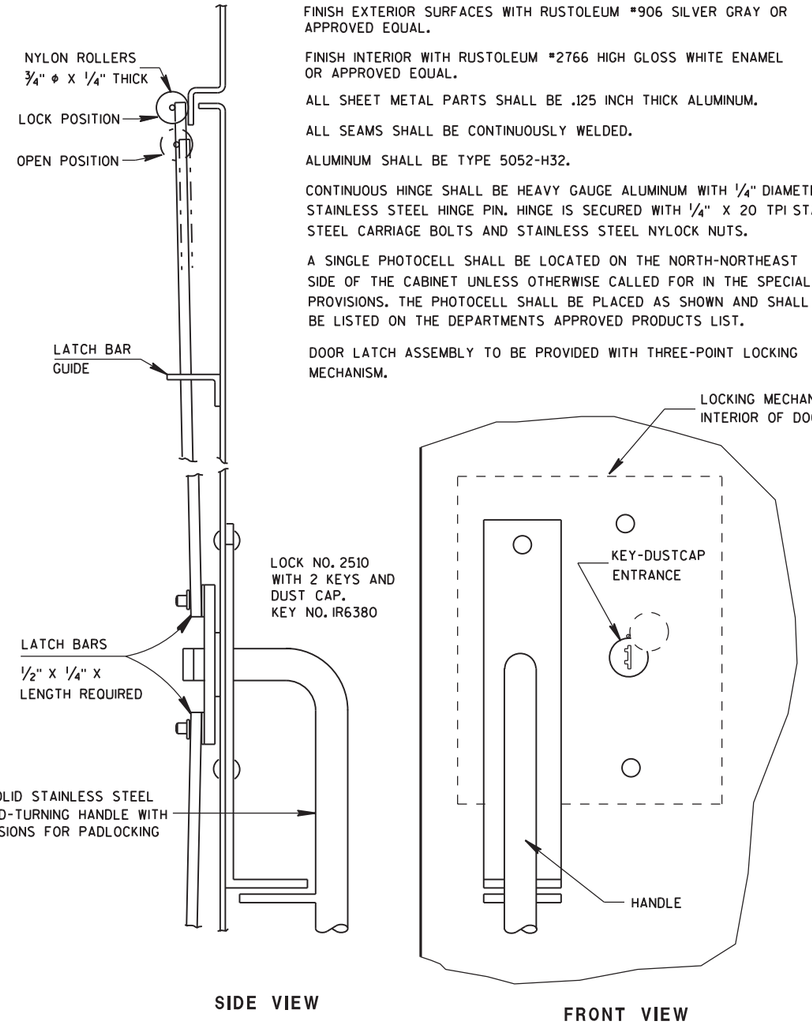
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

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.

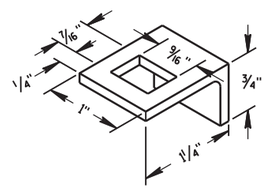
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

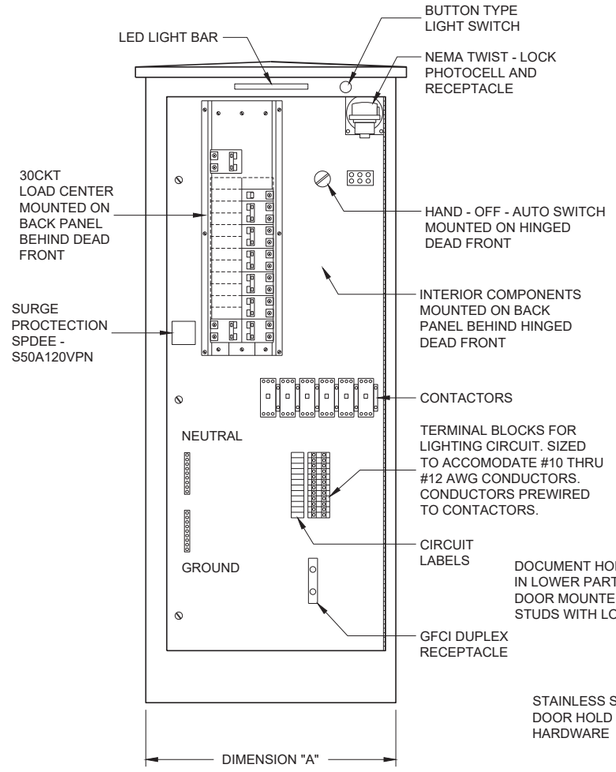
SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

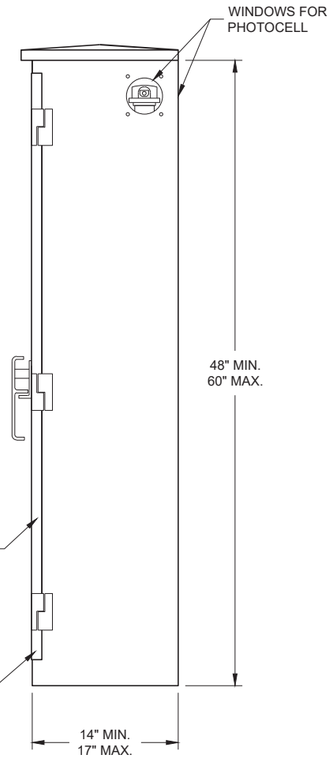
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S.D.D. 9 D 2-3

FRONT INTERIOR ELEVATION



SIDE VIEW



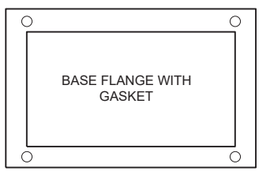
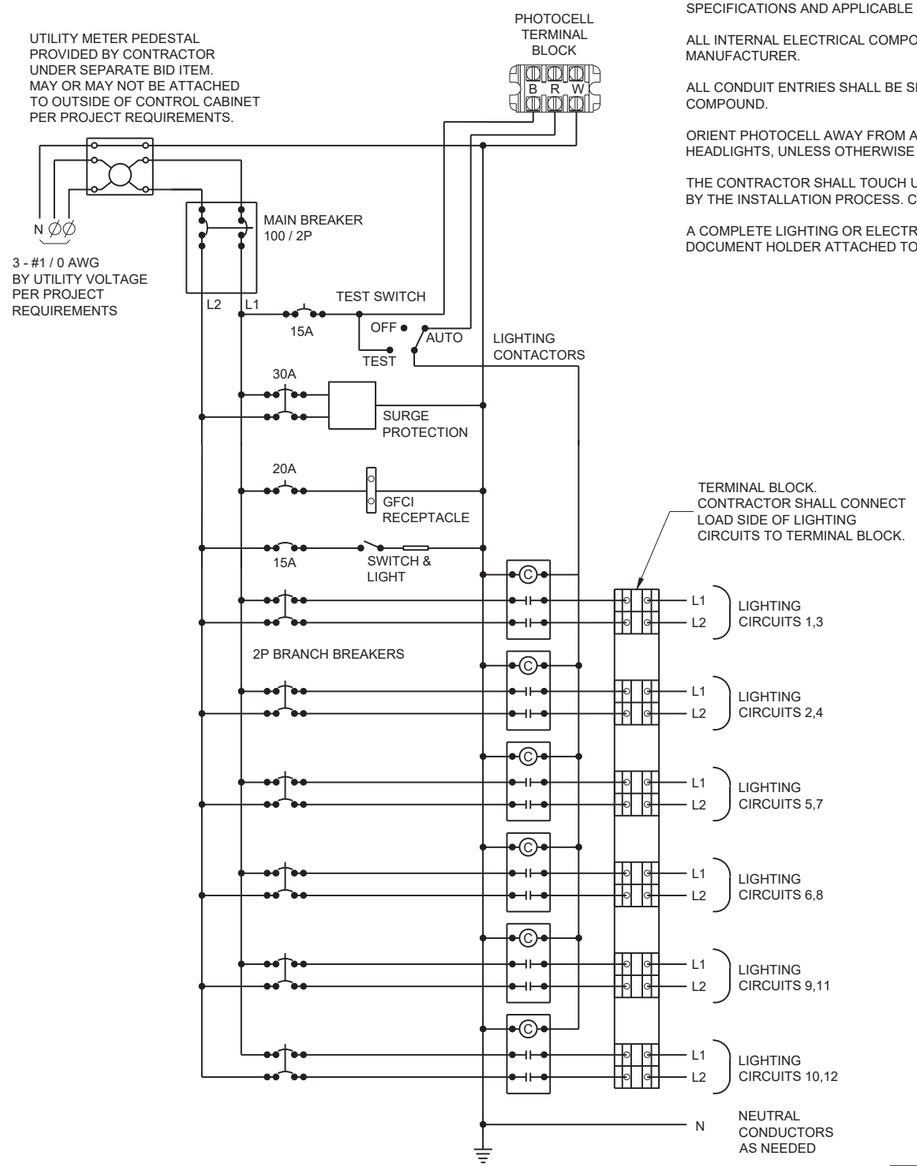


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET
120 / 240 VOLT

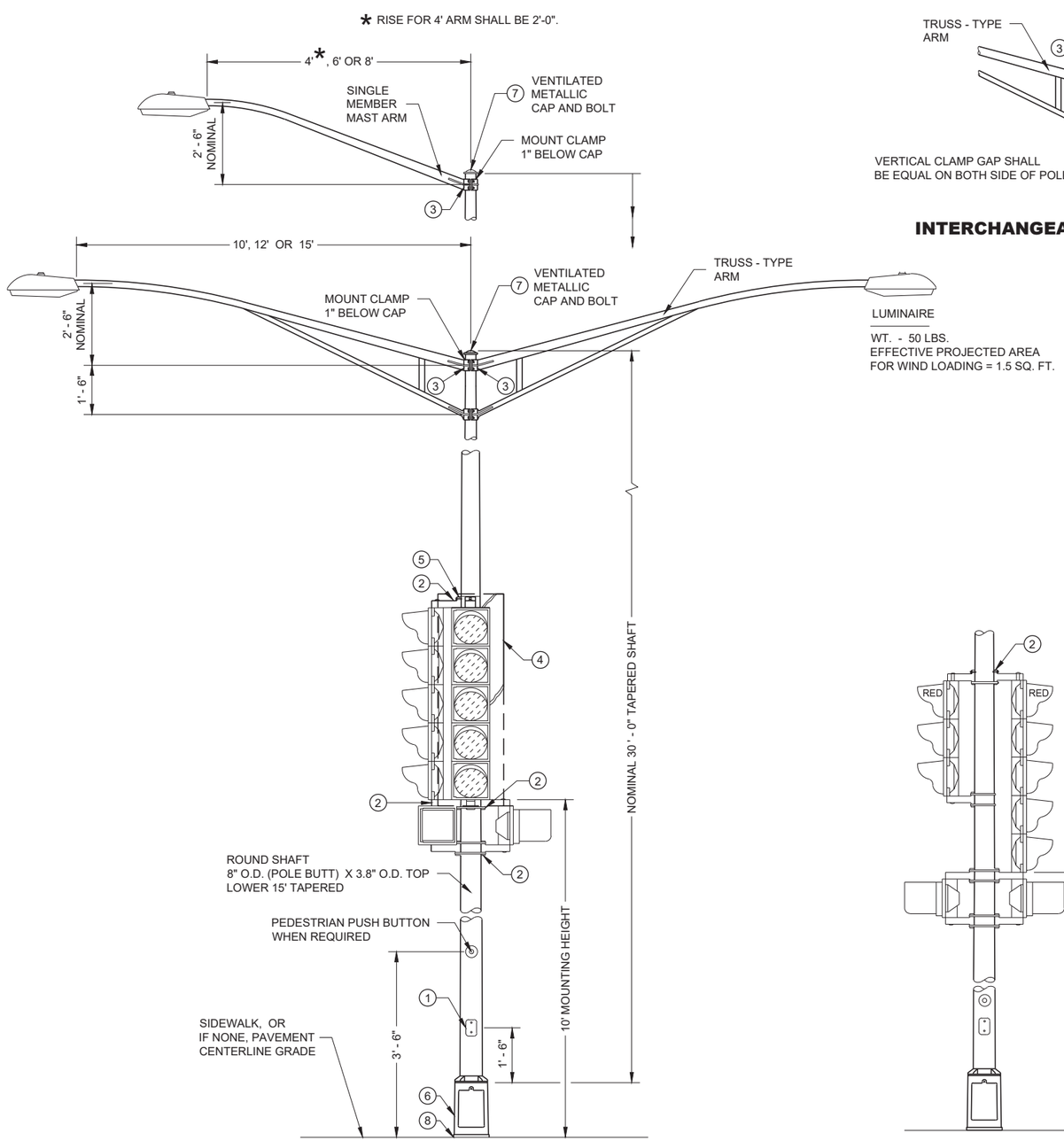
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

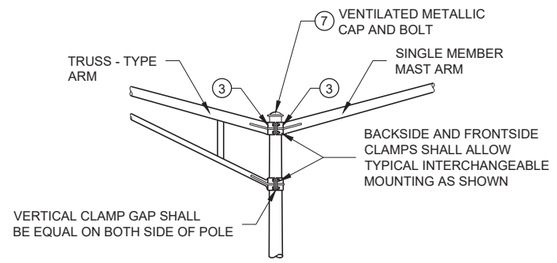
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 355

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SDD 09D04 - 03



(MAXIMUM LOAD)



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

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 ⅜ 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 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.

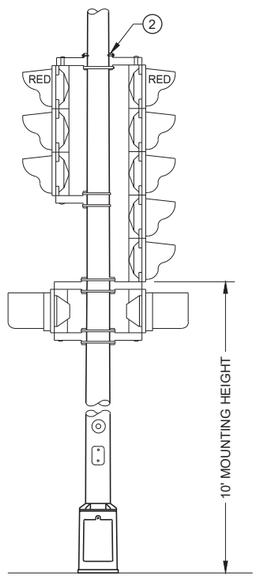
(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

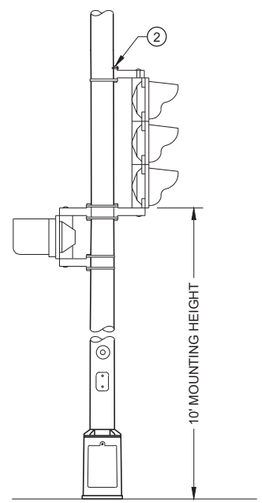
(7) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

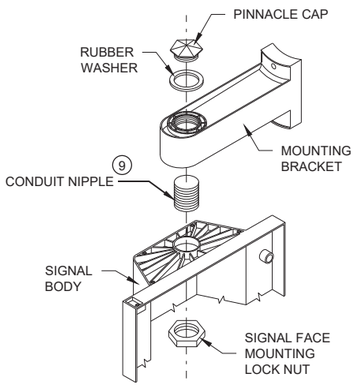
(9) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TYPE 4 POLE MOUNTING CONFIGURATION

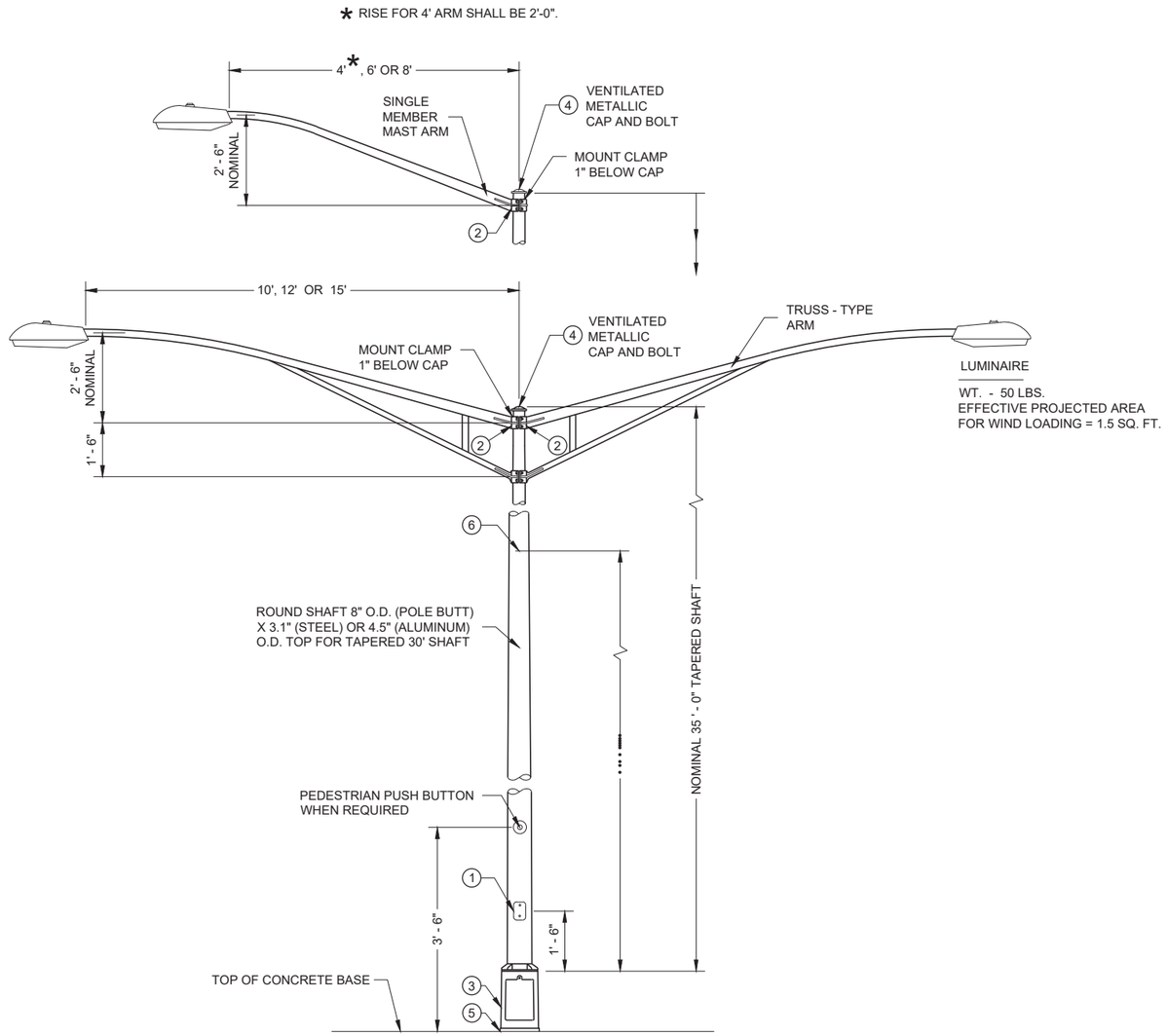
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 09E01 - 15c

SDD 09E01 - 15c



TYPE 6 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 6 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ 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.

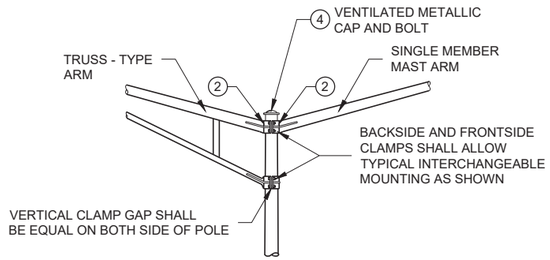
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



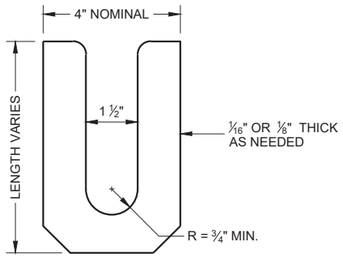
INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)

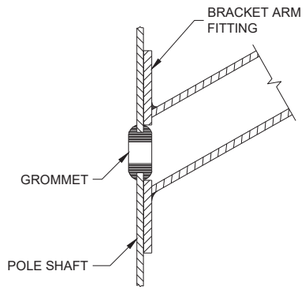
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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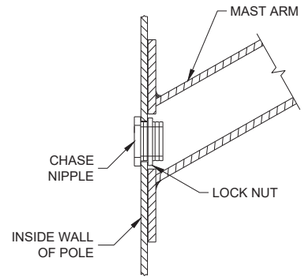
SDD 09E01 - 15e



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.

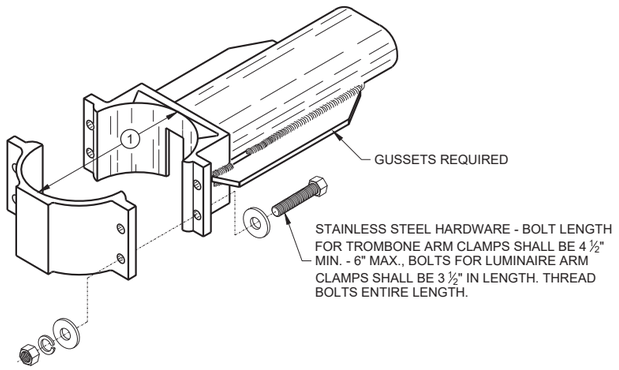
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

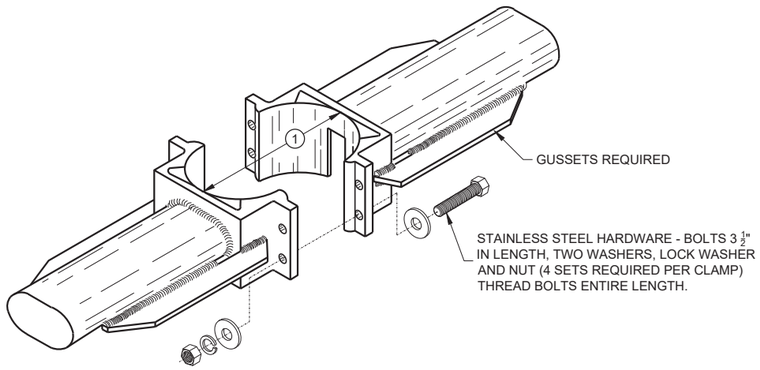
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

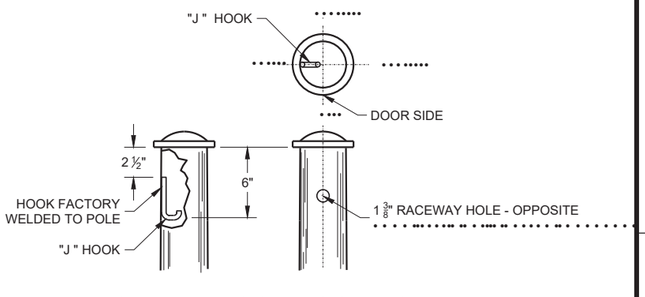
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



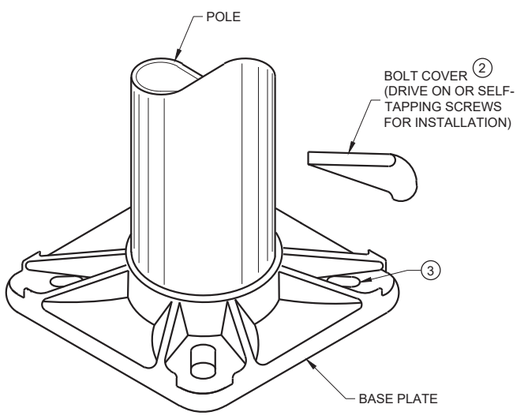
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



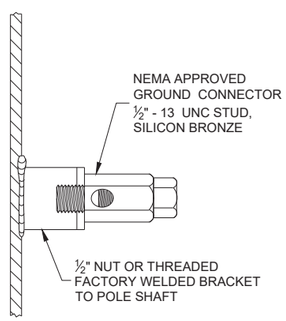
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

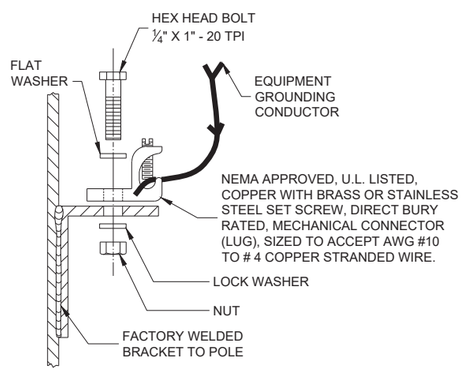


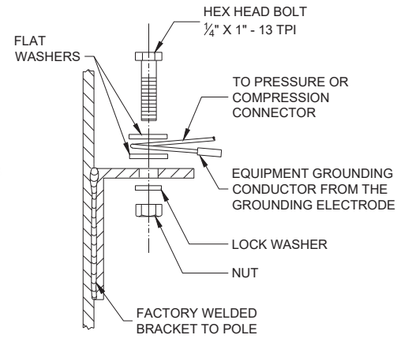
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
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November 2018
DATE
/S/ Ahmet Demirbilek
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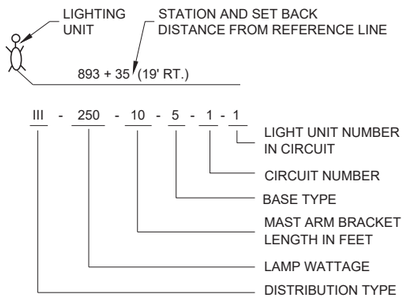
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GENERAL NOTES

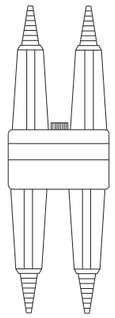
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.

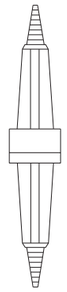
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



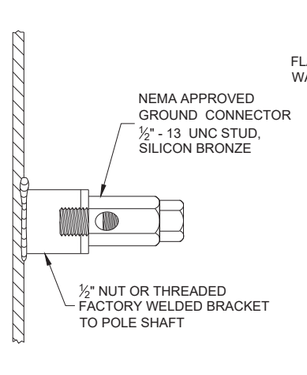
LIGHTING UNIT CODE
(TYPICAL)



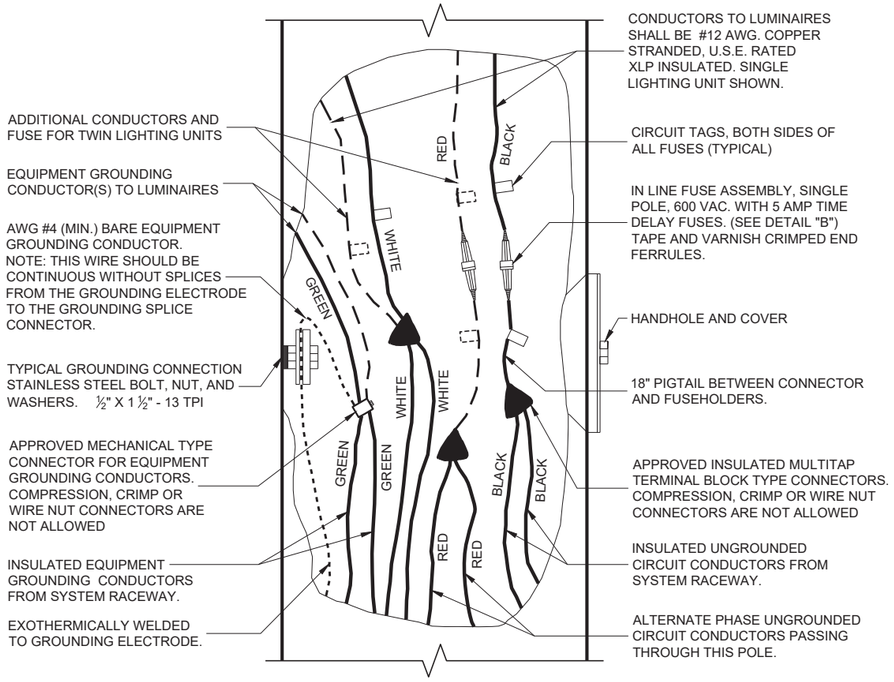
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



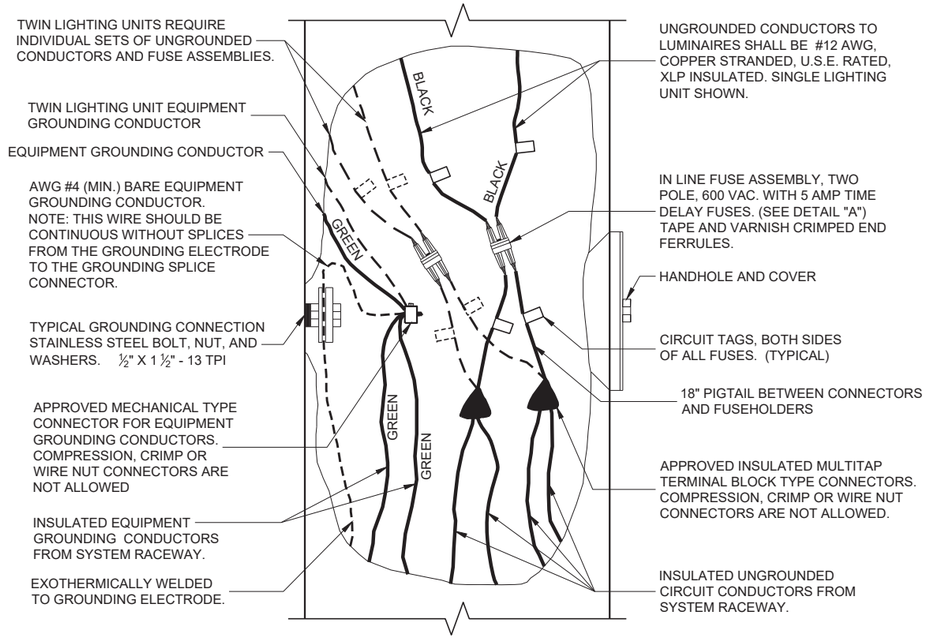
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



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

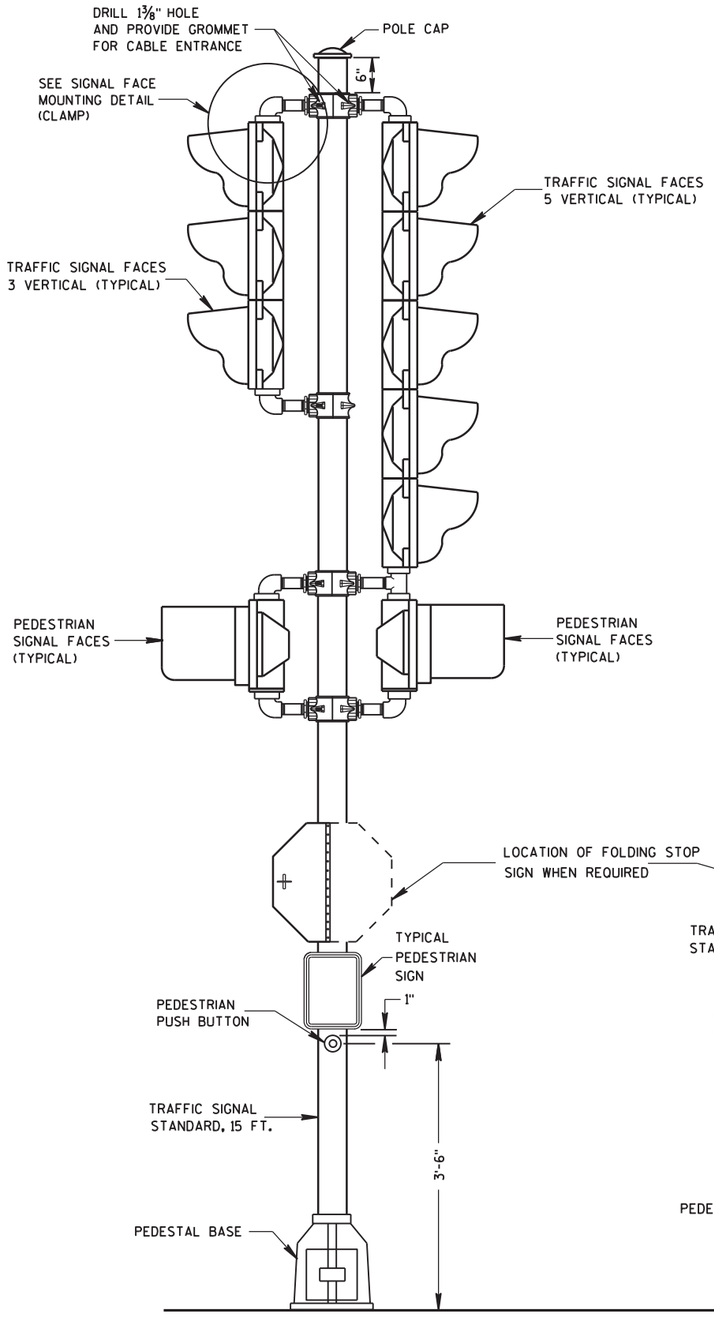
NON - FREEWAY LIGHTING UNIT POLE WIRING

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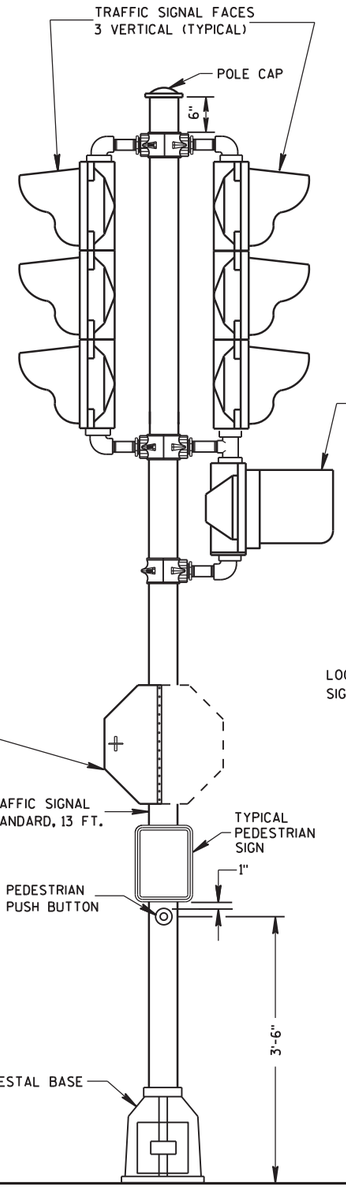
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November 2018
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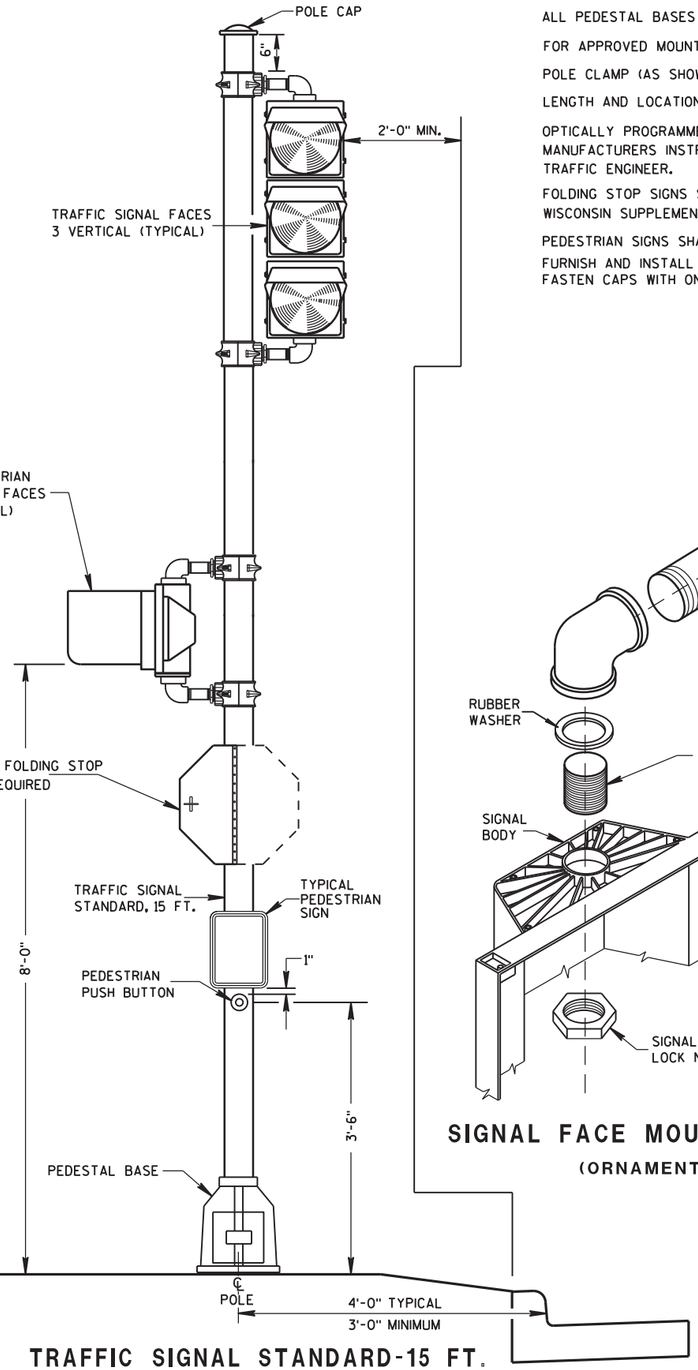
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TRAFFIC SIGNAL STANDARD-15 FT.



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.

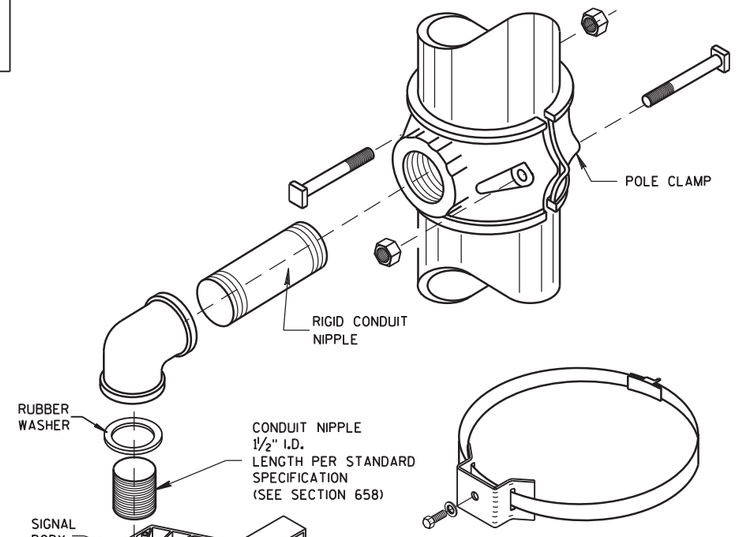
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

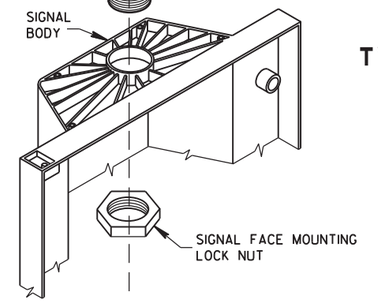
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

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)



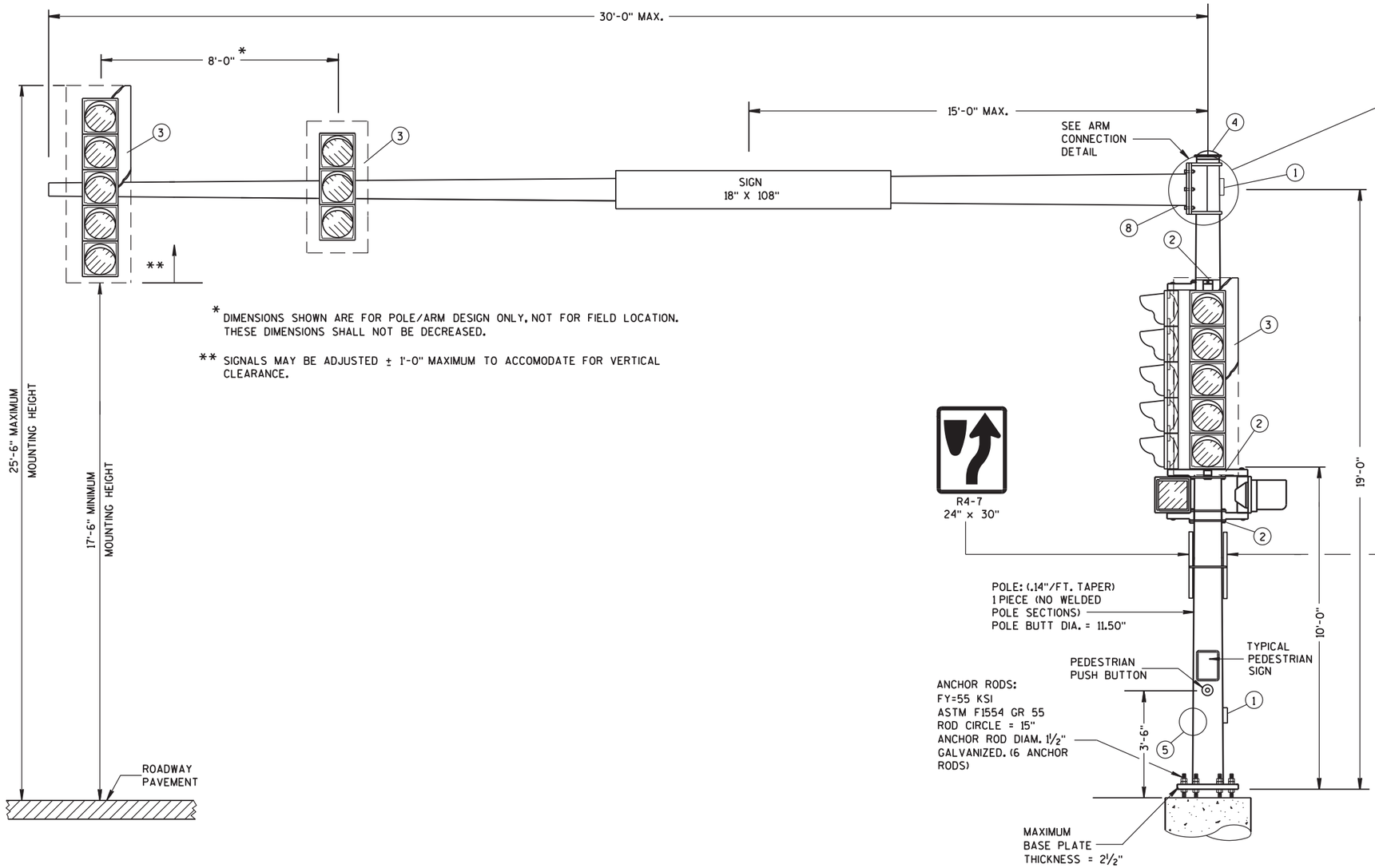
SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

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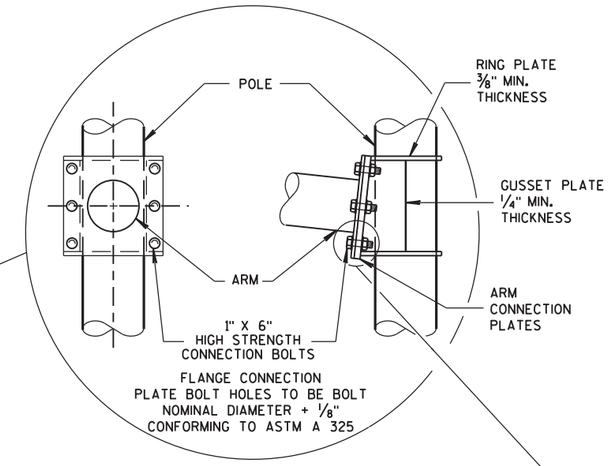
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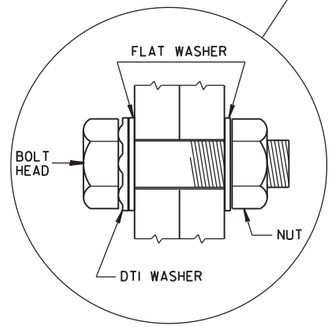


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

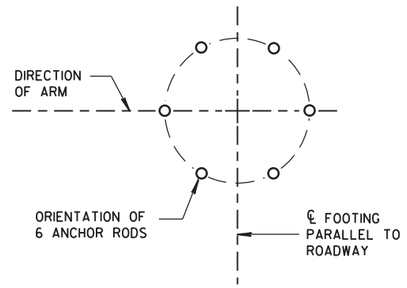
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

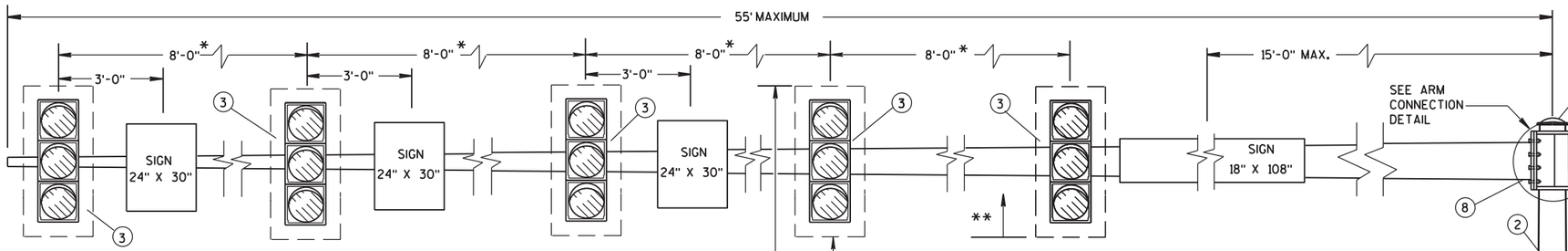
TYPE 9 POLE 15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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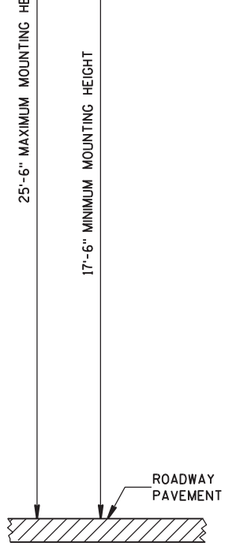
S.D.D. 9 E 8-8a

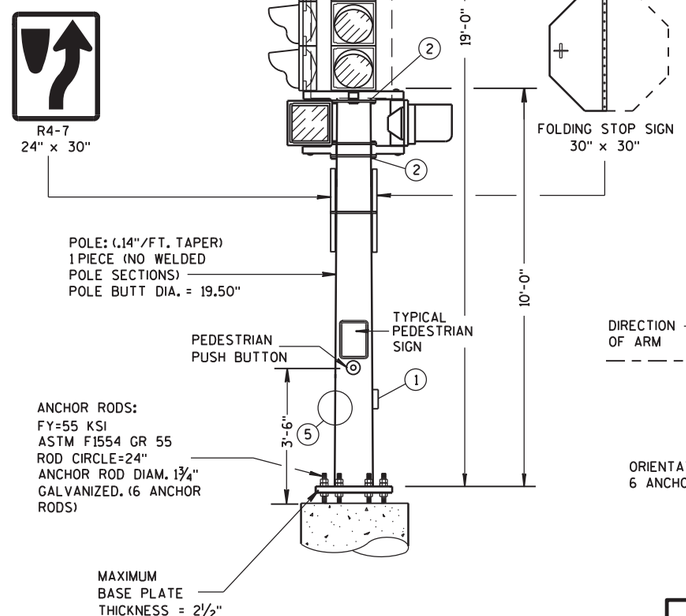
S.D.D. 9 E 8-8a

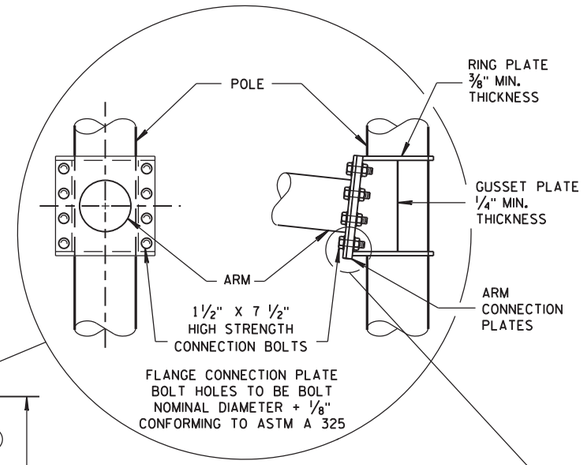


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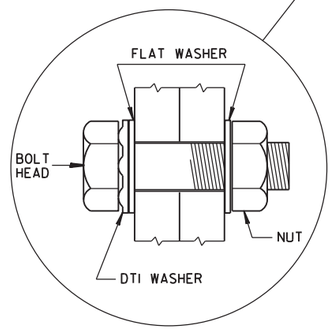
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



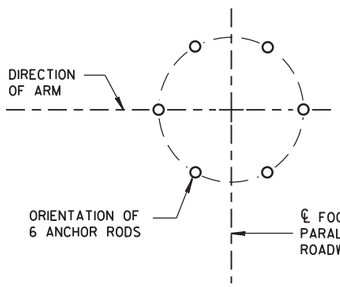




8 BOLT ARM CONNECTION DETAIL



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

APPROVED
May. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

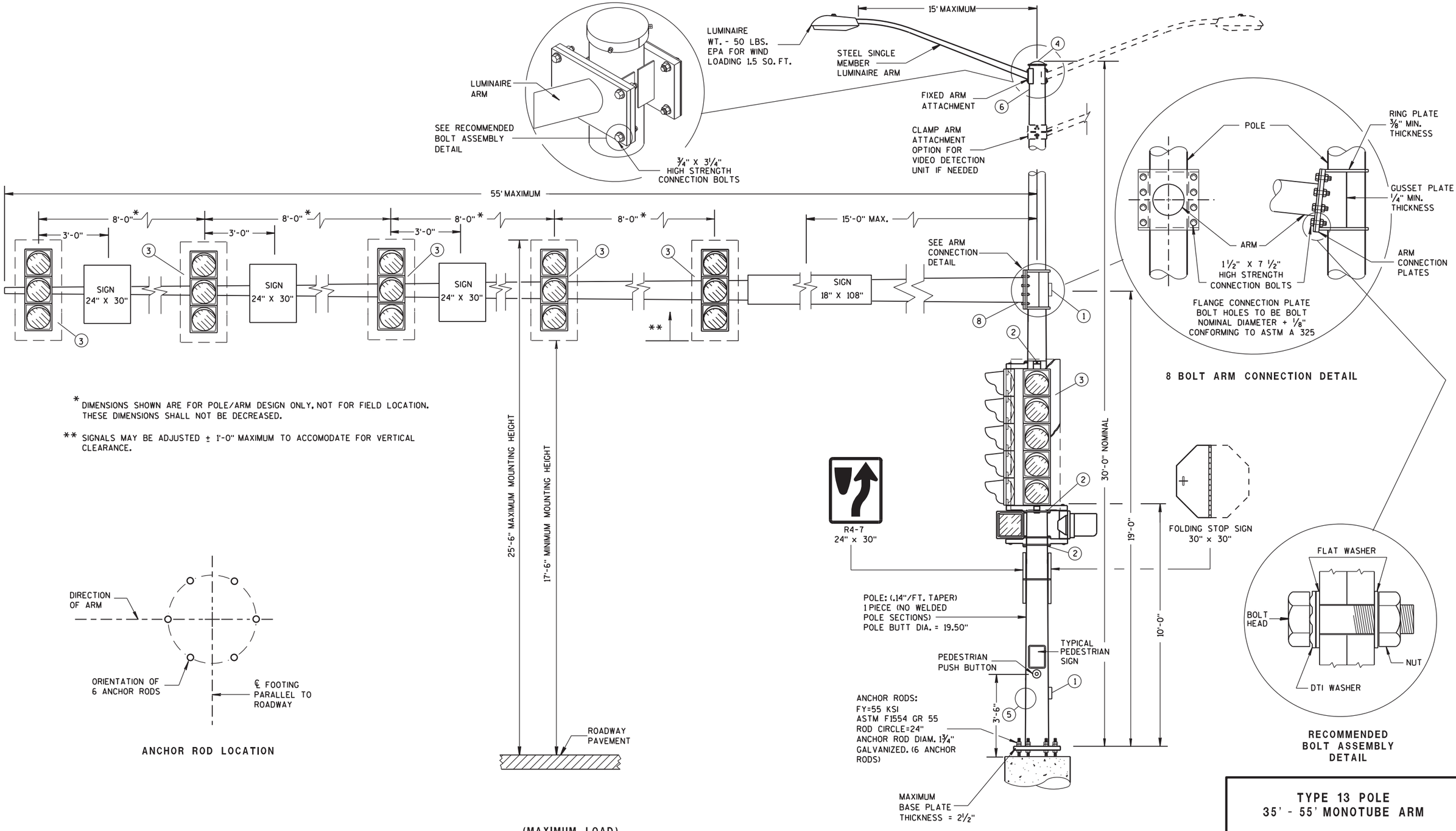
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S.D.D. 9 E 8-8c



* 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
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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.

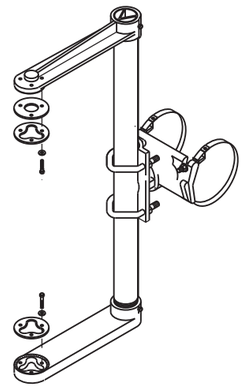
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

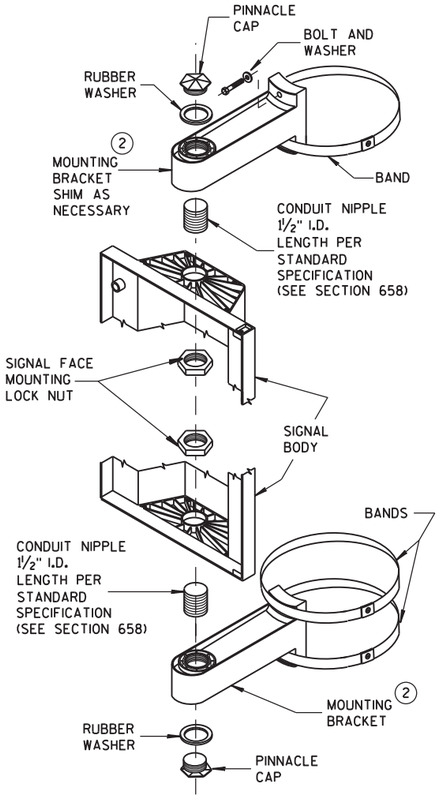
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

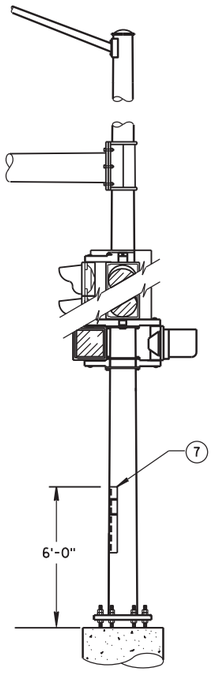


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

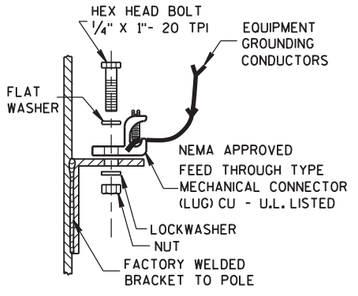
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

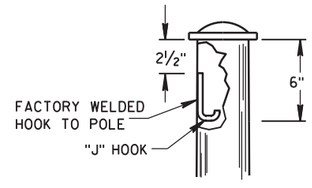


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



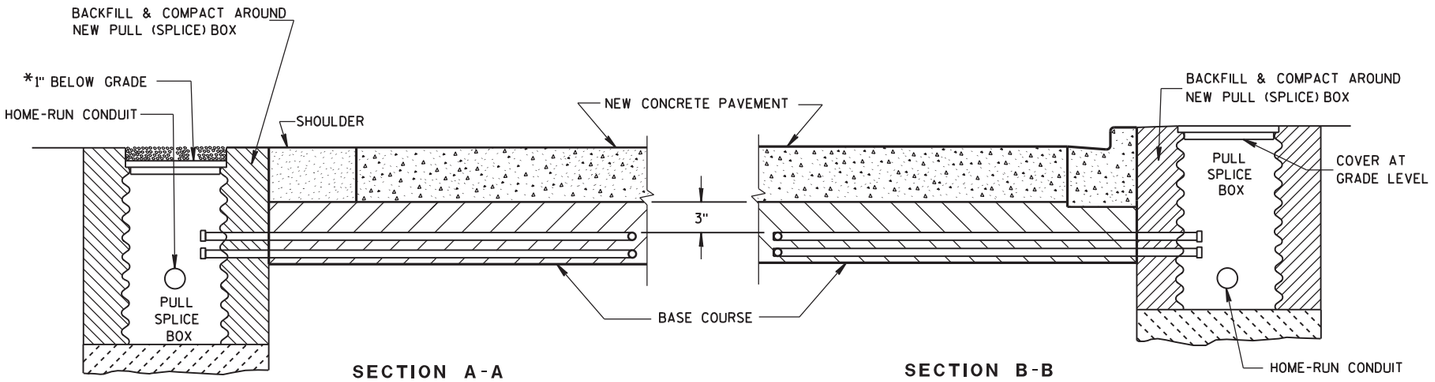
"J" HOOK WIRE SUPPORT (6)

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
FHWA

S.D.D. 9 E 8-8e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) 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.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

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 READINGS 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.

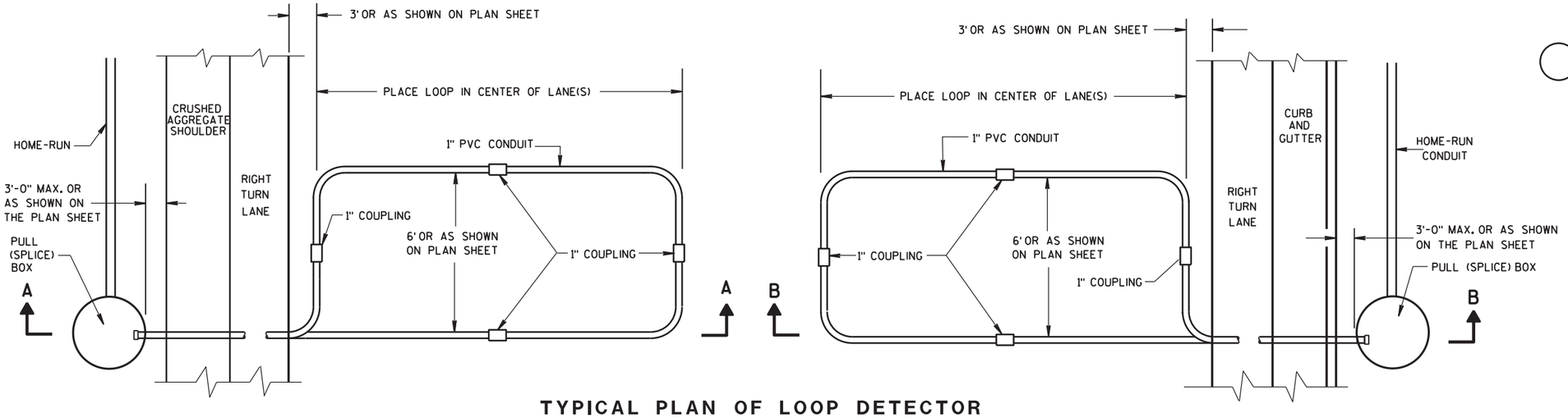
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

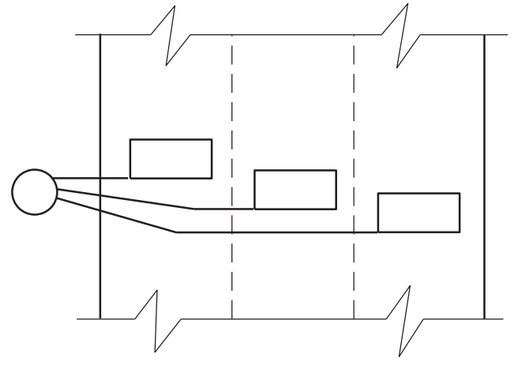
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

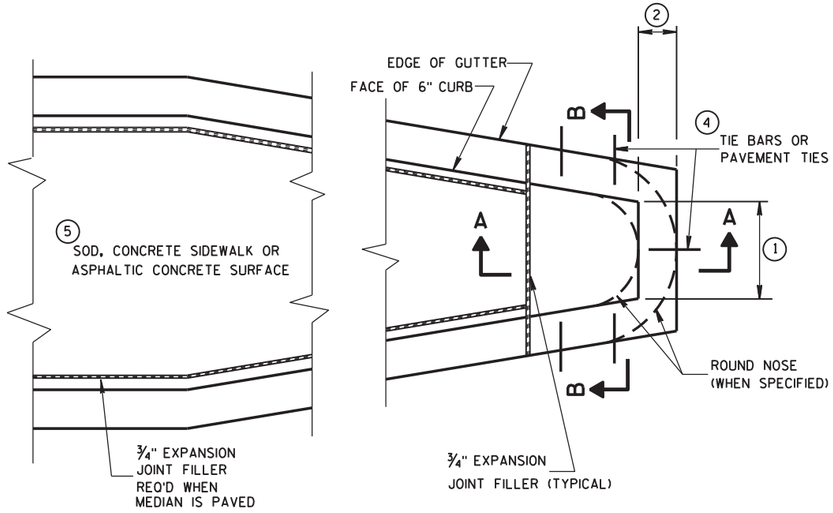


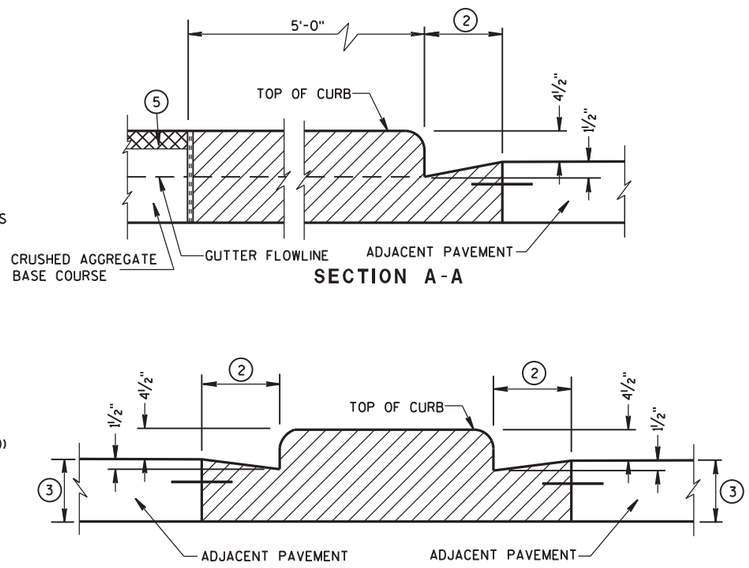
TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA





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.

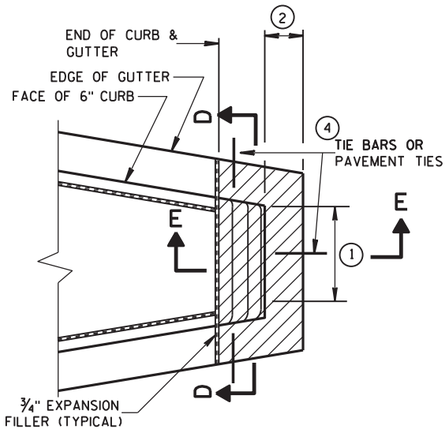
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

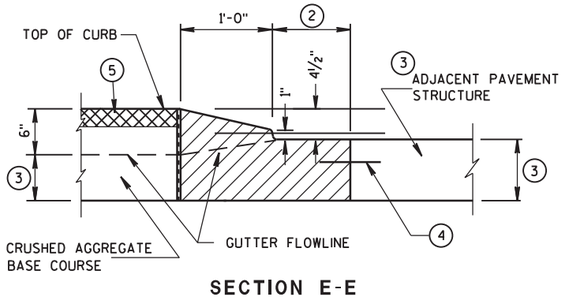
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

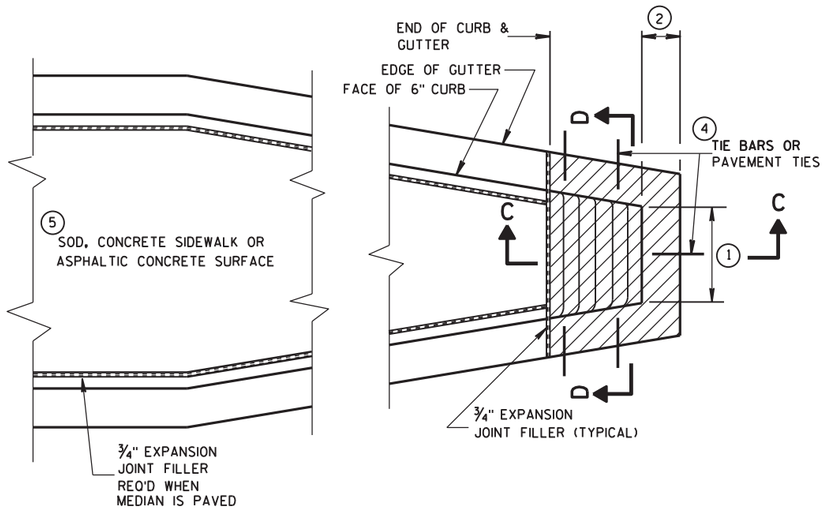
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

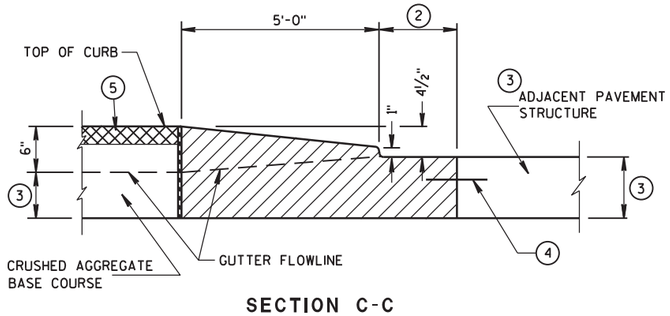




SECTION E-E

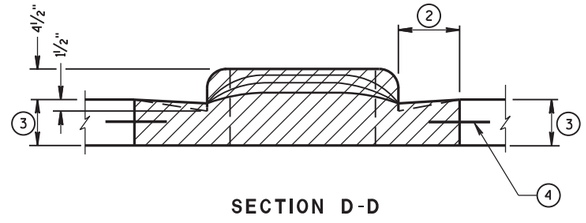
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

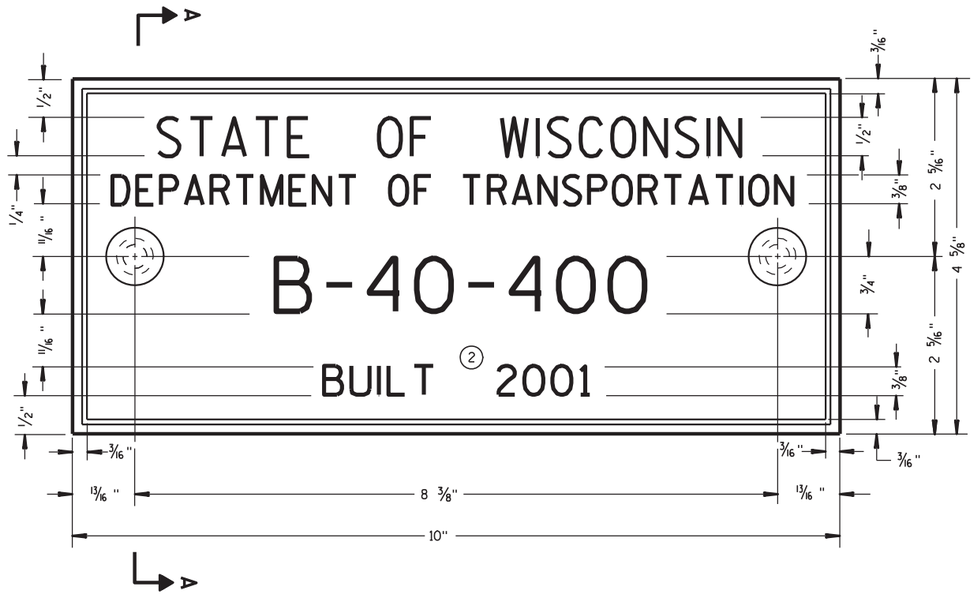
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

6

S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

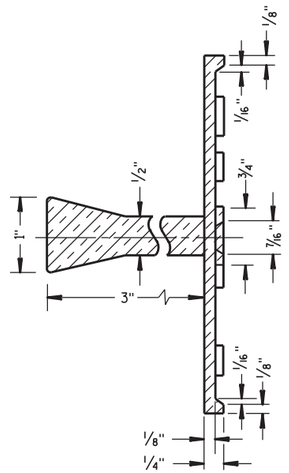
GENERAL NOTES

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.

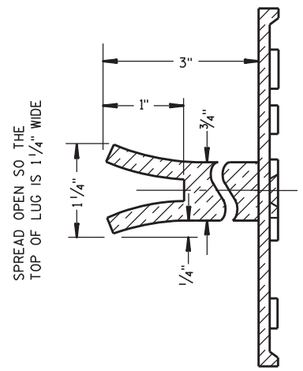
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

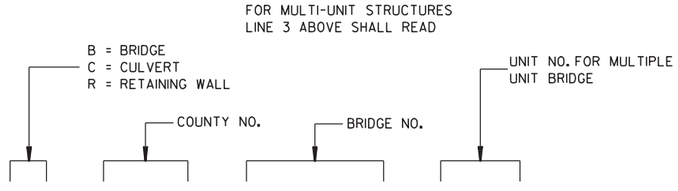
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



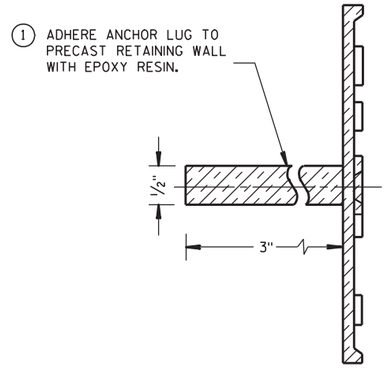
SECTION A-A



ALTERNATE LUG



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

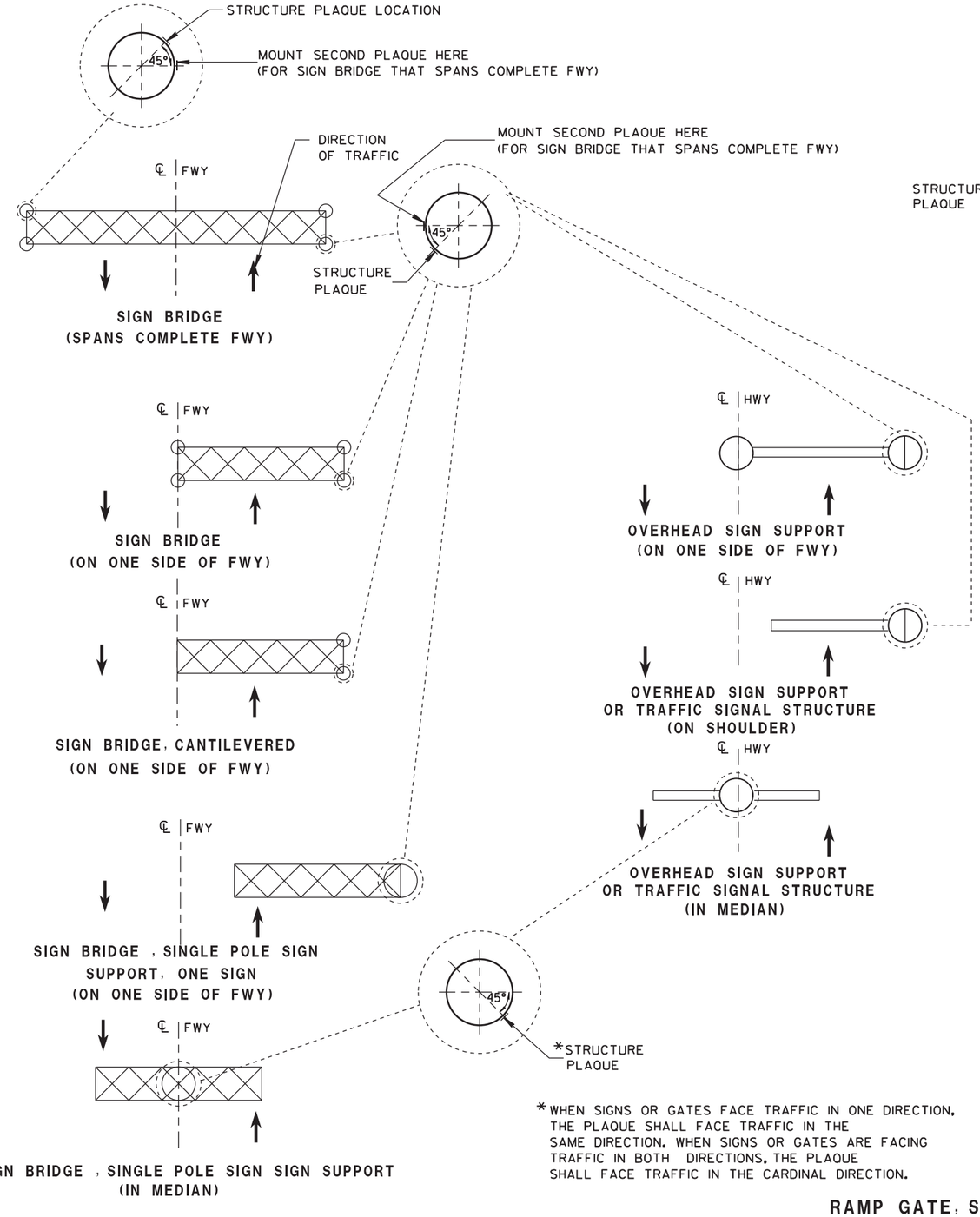
NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

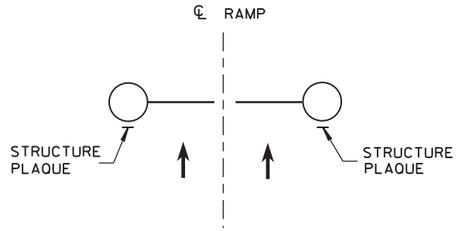
3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

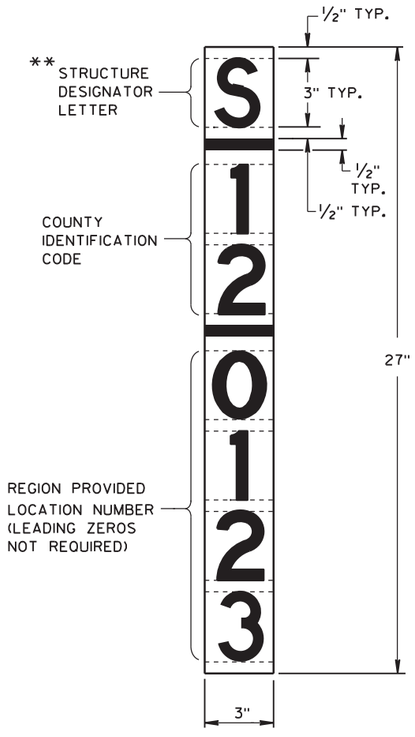


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

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.

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.

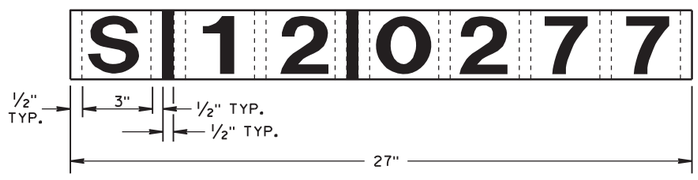
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

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

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

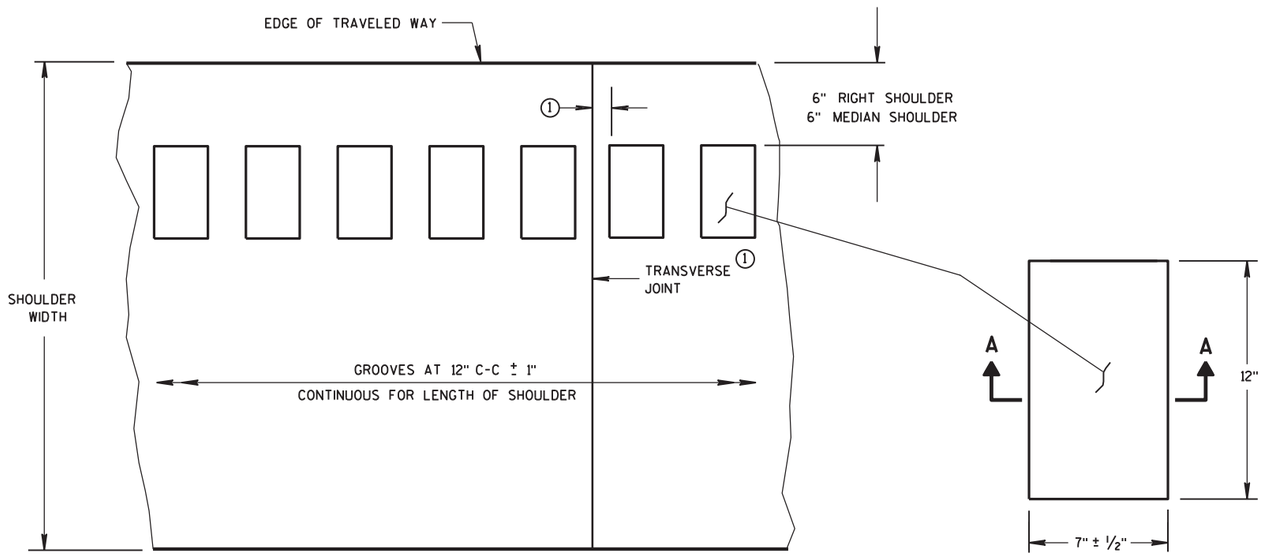
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

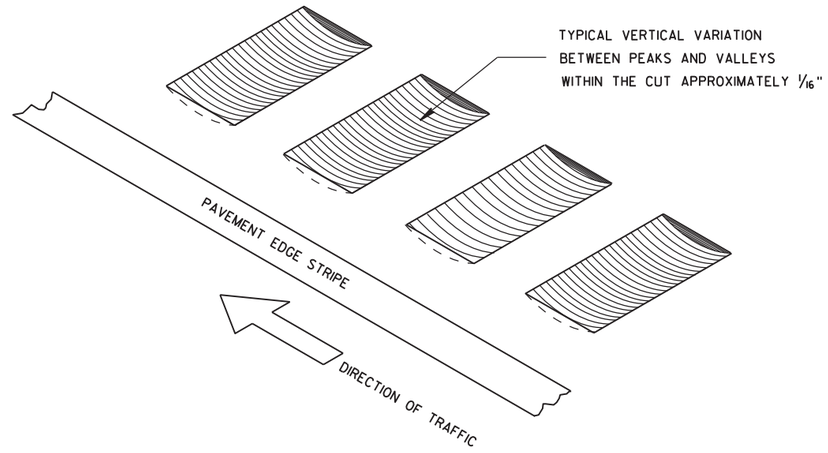
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

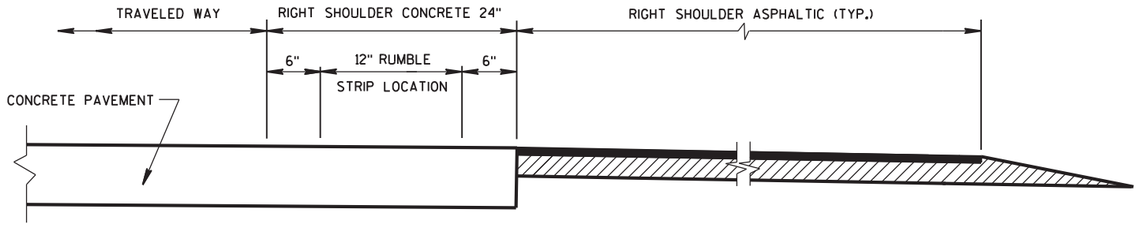
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

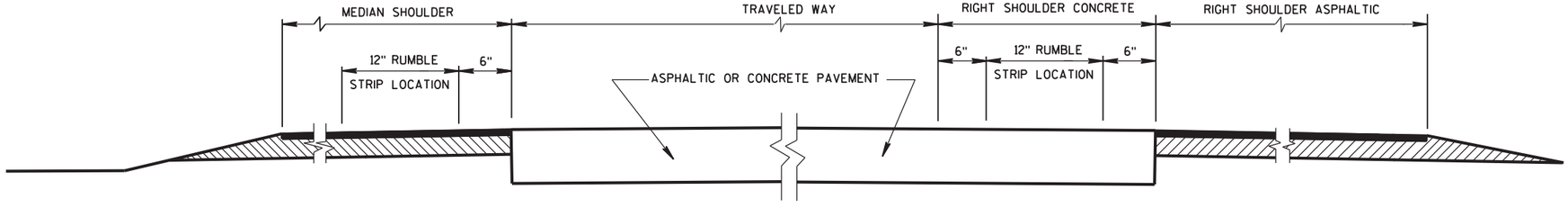
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



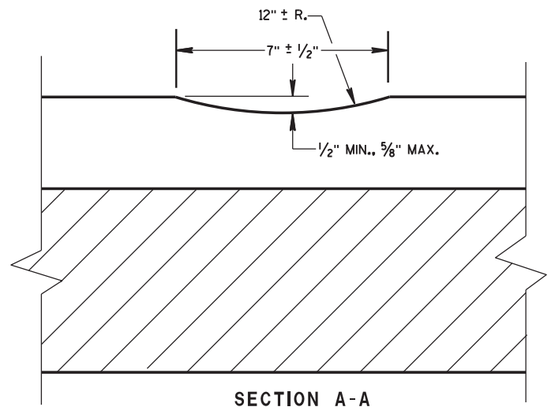
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

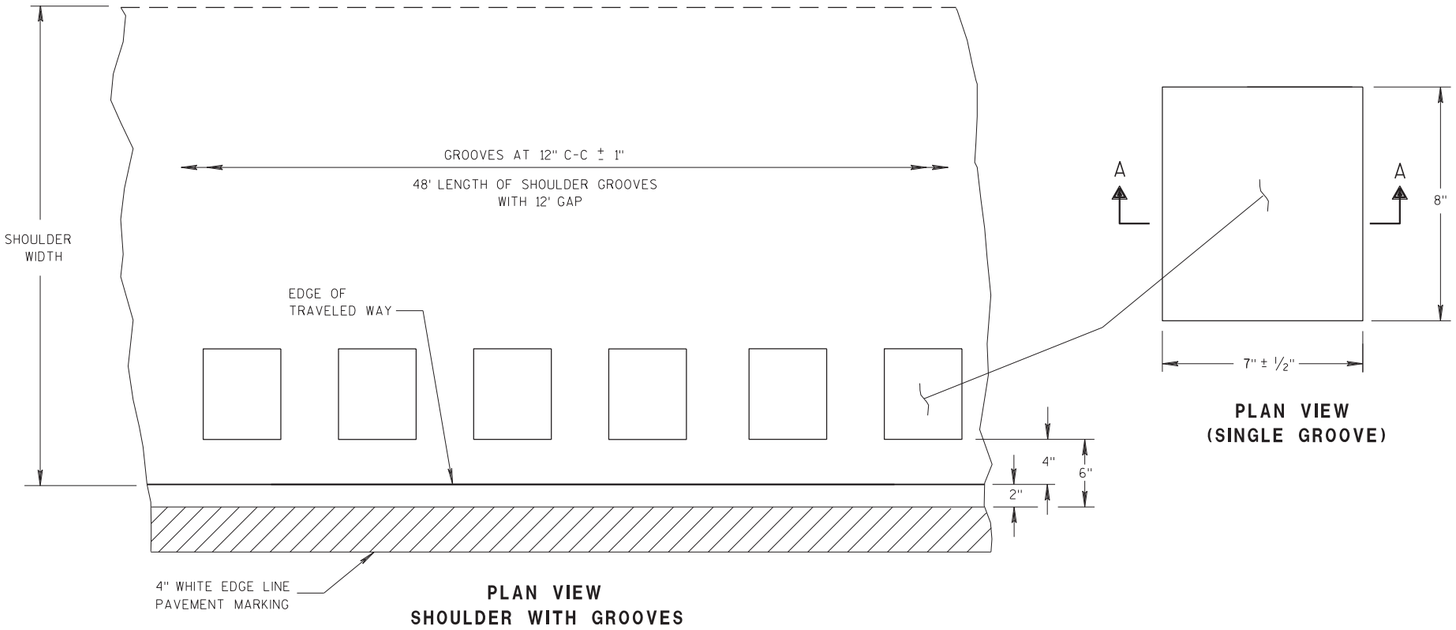
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



PLAN VIEW
SHOULDER WITH GROOVES

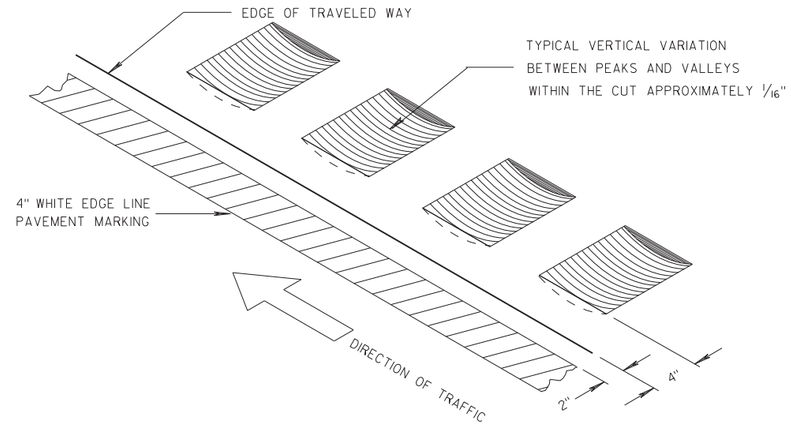
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

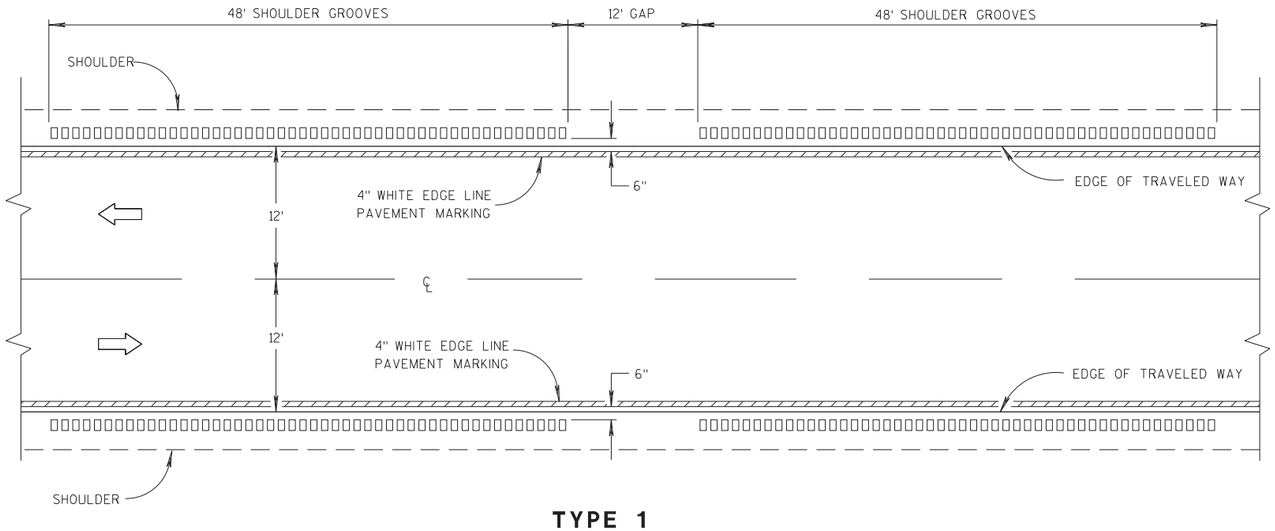
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

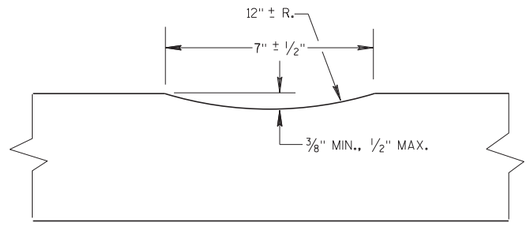


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

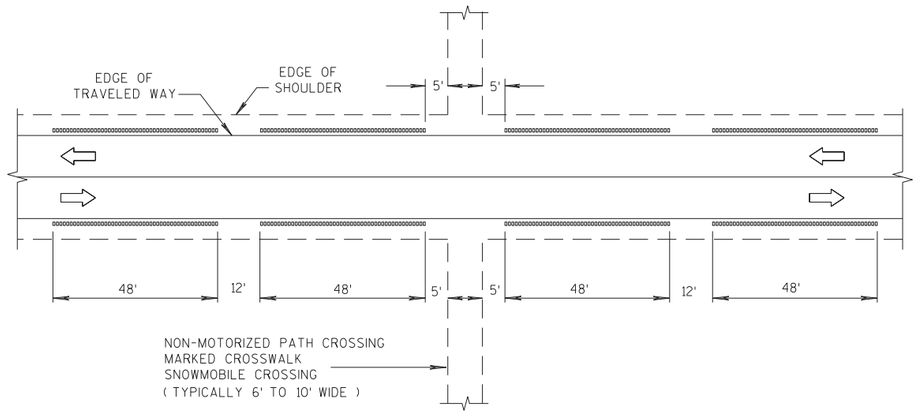
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT, 370

6

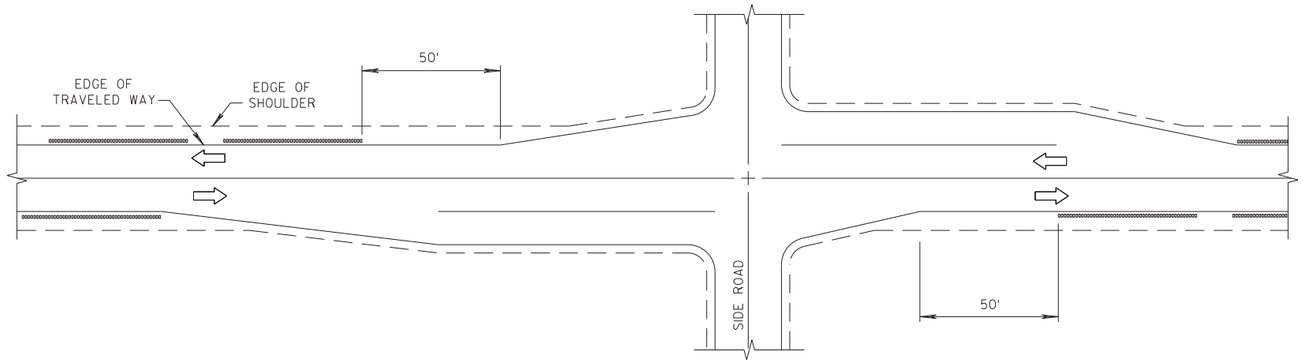
S.D.D. 13 A 10-2a

6

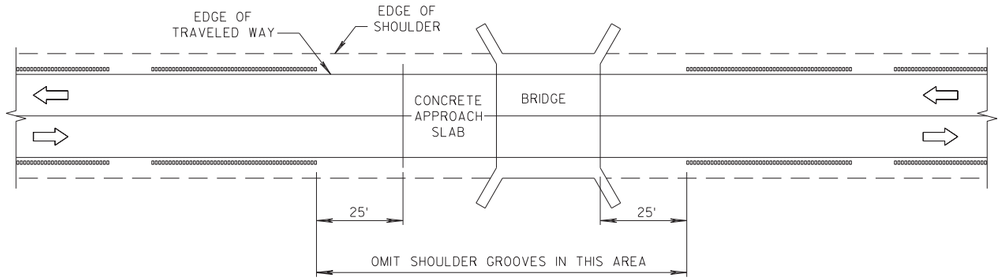
S.D.D. 13 A 10-2a



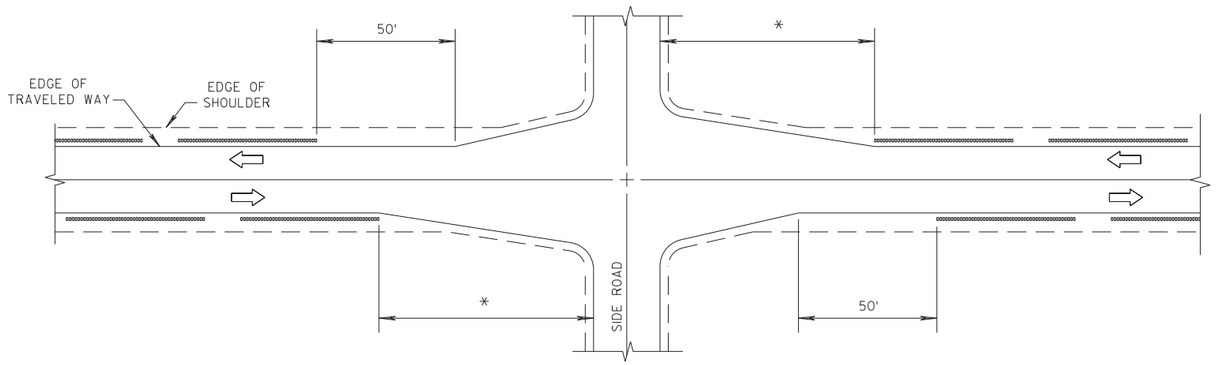
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT WITH RIGHT TURN LANE

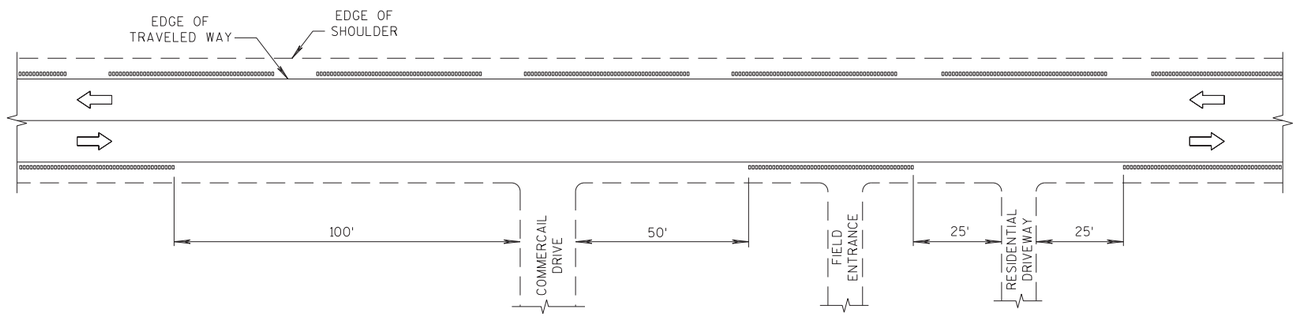


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

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GENERAL NOTES

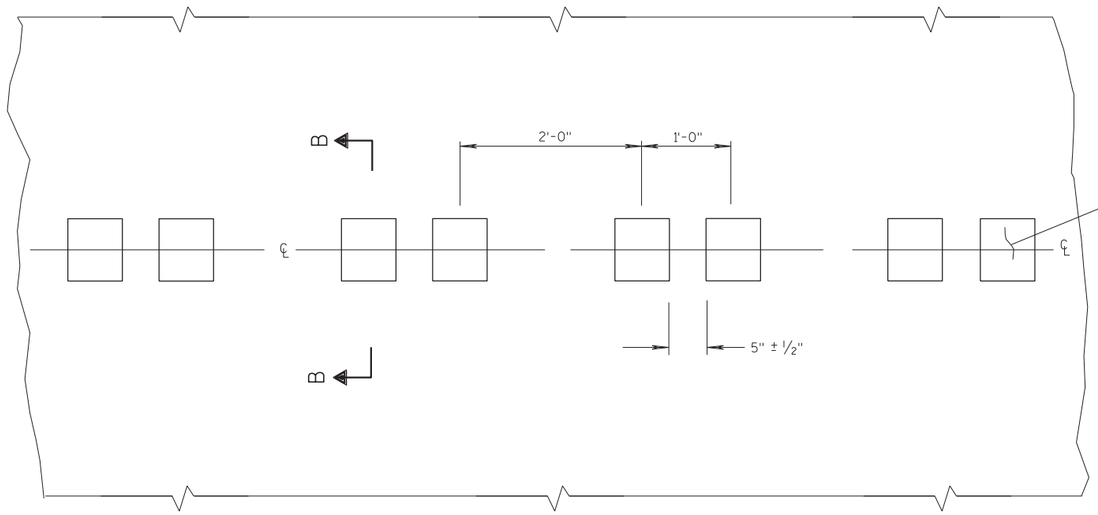
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

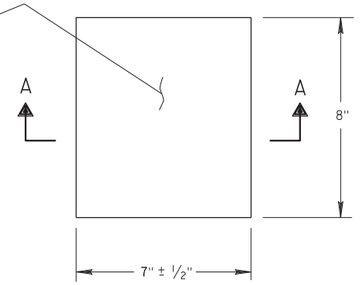
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

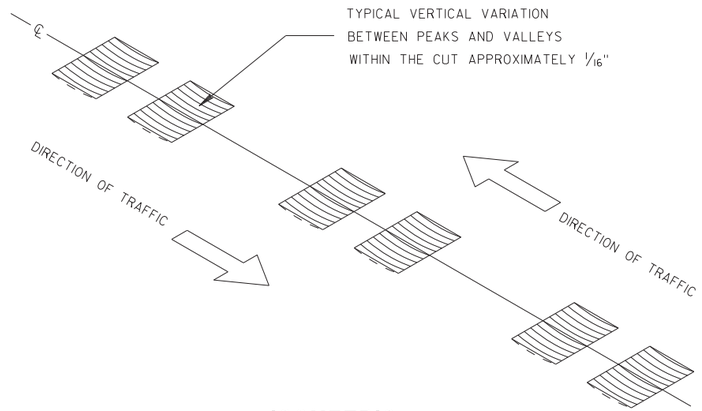


PLAN VIEW
CENTER LINE WITH GROOVES

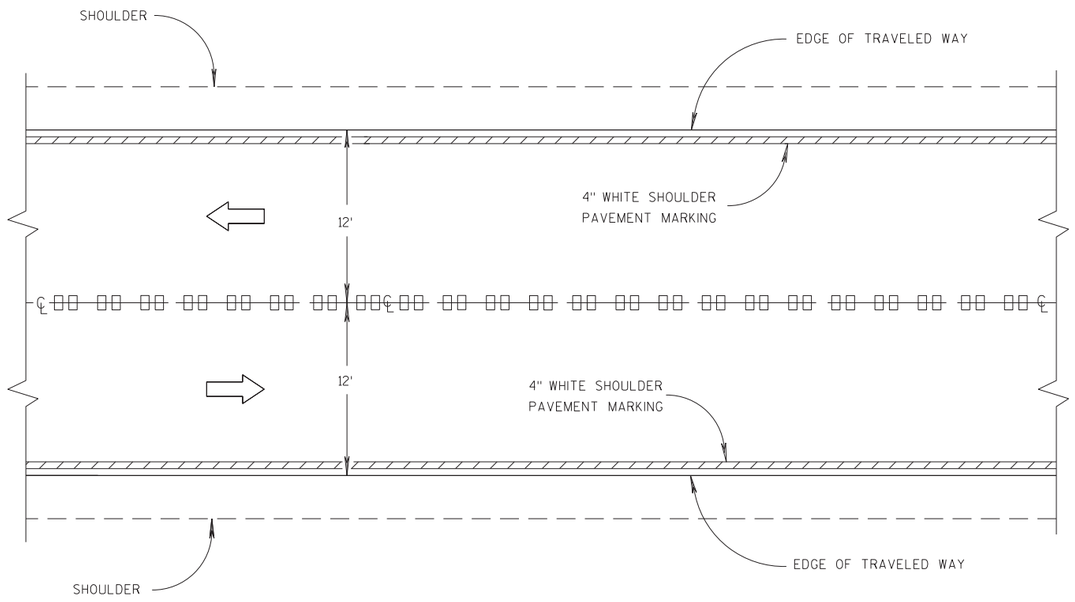


PLAN VIEW
(SINGLE GROOVE)

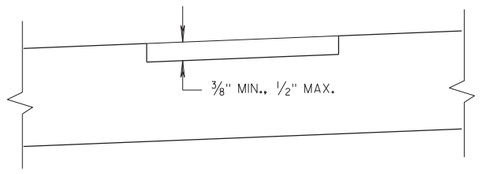
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



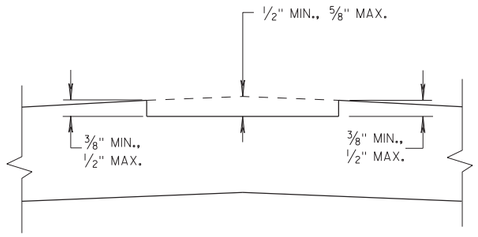
ISOMETRIC



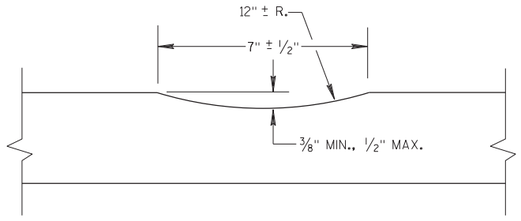
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

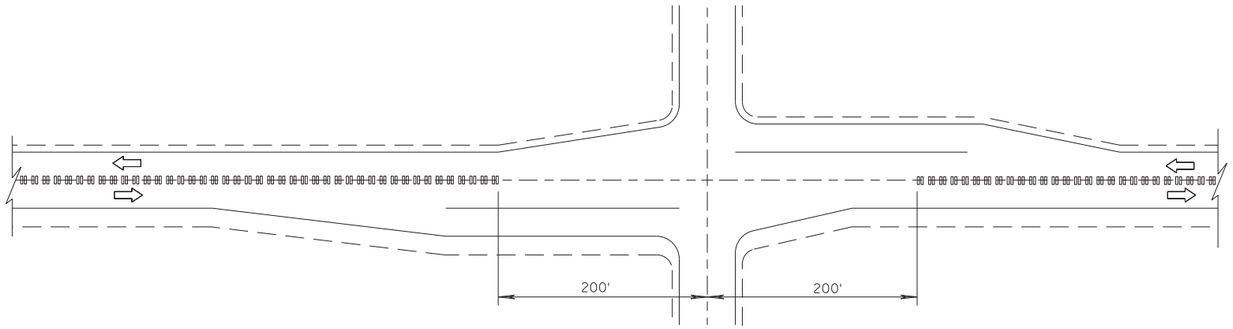
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DEPARTMENT OF TRANSPOR 372

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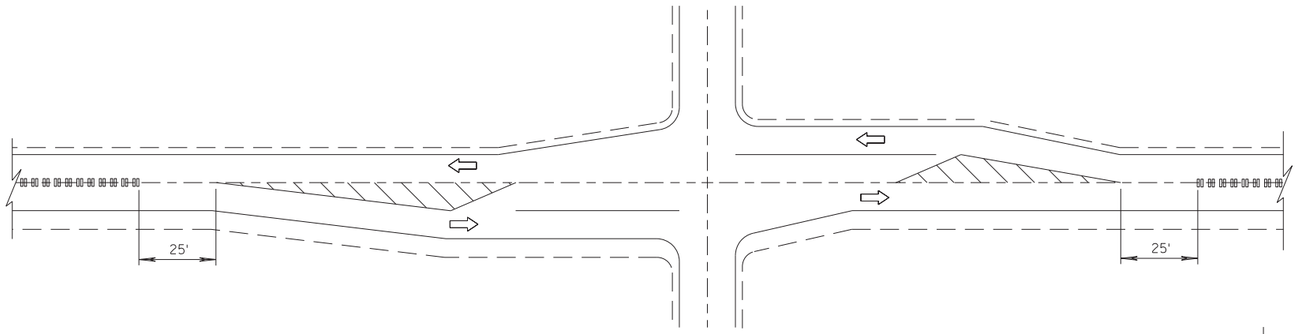
S.D.D. 13 A 11-3a

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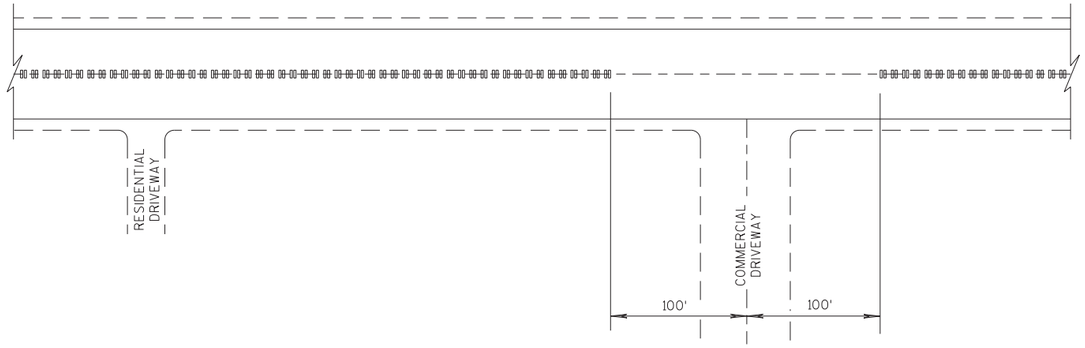
S.D.D. 13 A 11-3a



CENTER LINE GROOVES AT INTERSECTIONS

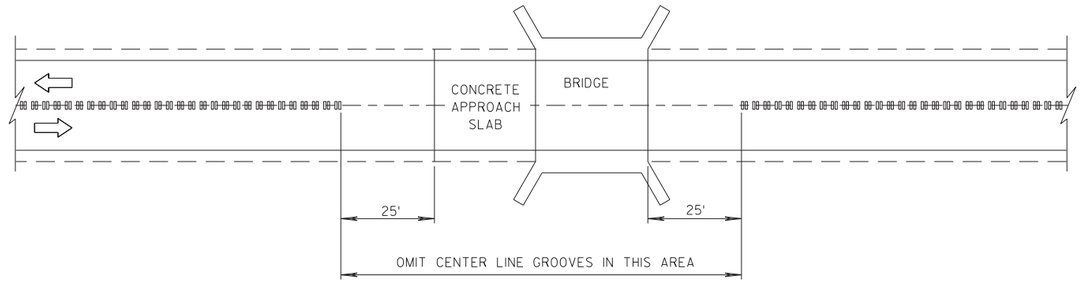


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

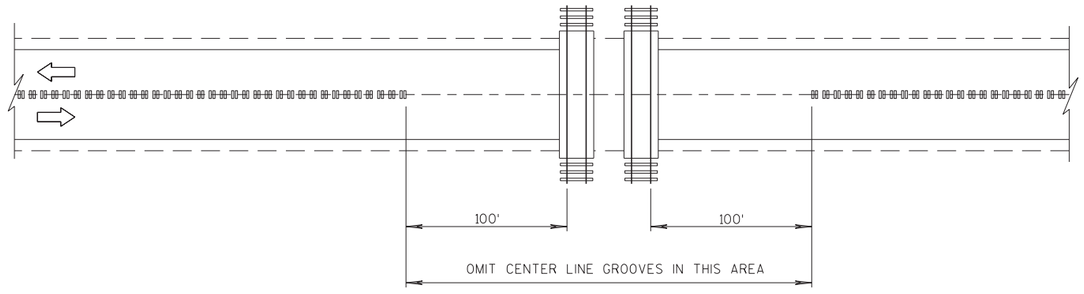


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney T
ROADWAY STANDARDS DE UNIT SUPERVISOR

IT

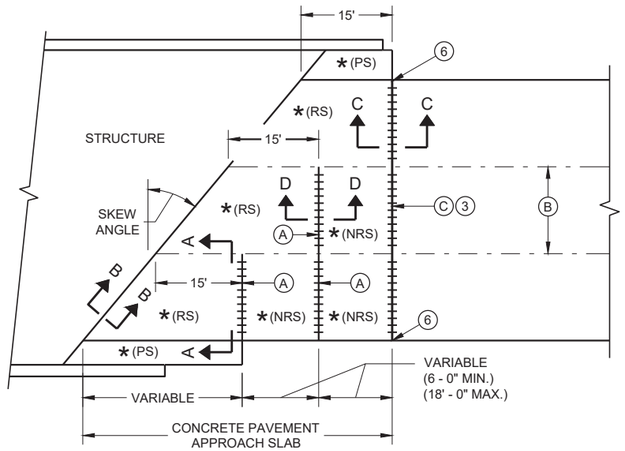
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S.D.D. 13 A 11-3b

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S.D.D. 13 A 11-3b



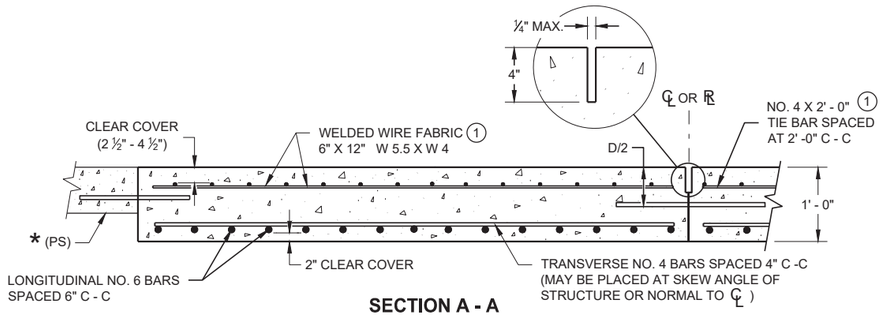
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

(RS) = REINFORCED CONCRETE SLAB

(PS) = PAVECD 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.

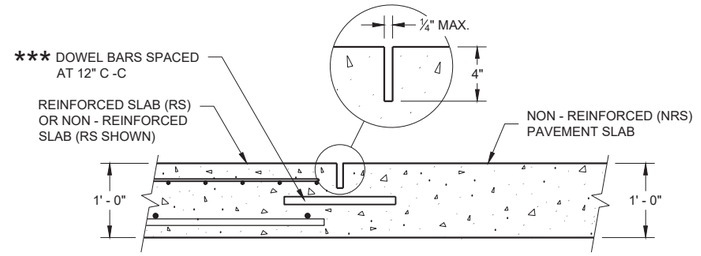
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

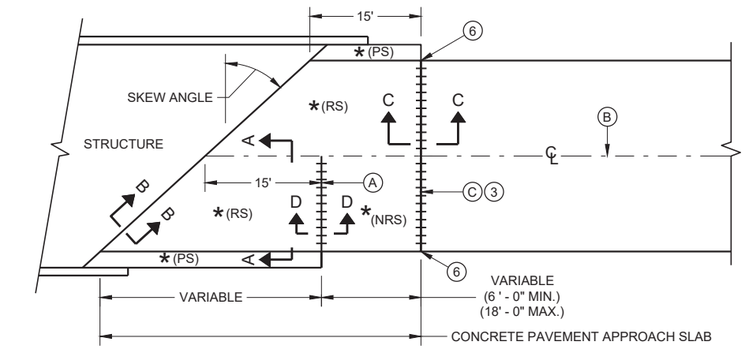
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

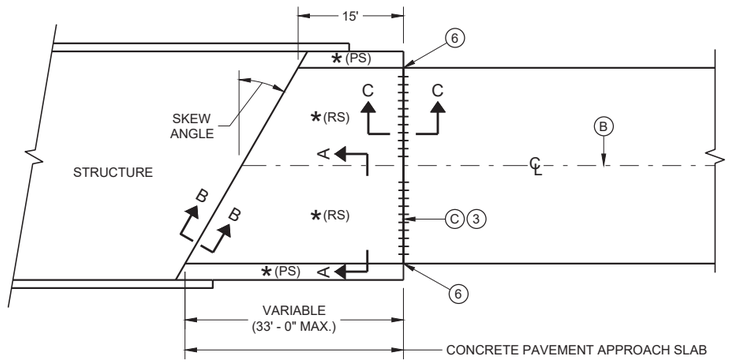
(C) 1 ½" EXPANSIONT JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.



SECTION D - D
CONTRACTION JOINT

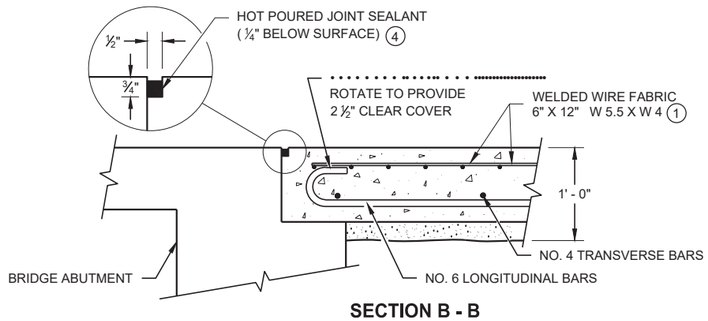


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

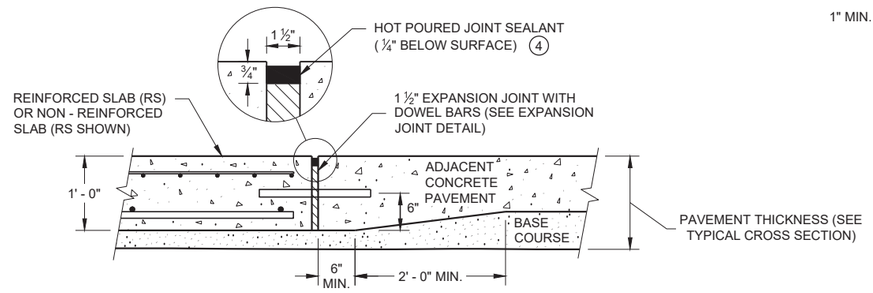


SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

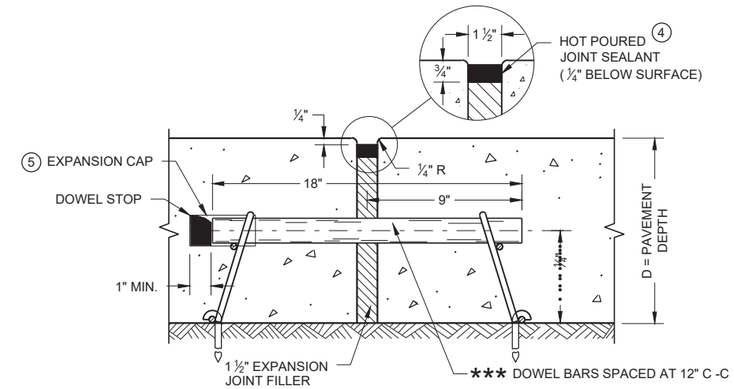
APPROACH SLAB AND ADJACENT PAVEMENT



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

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DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

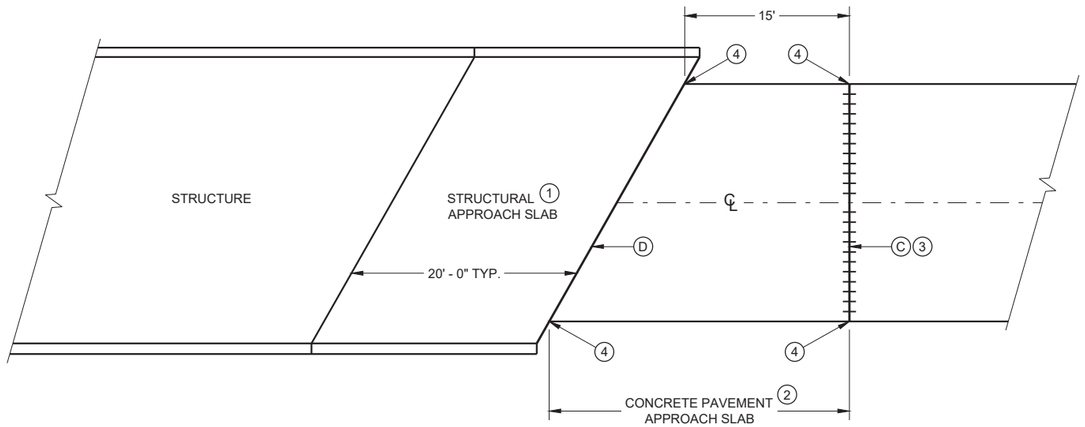
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13B02 - 09a

SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

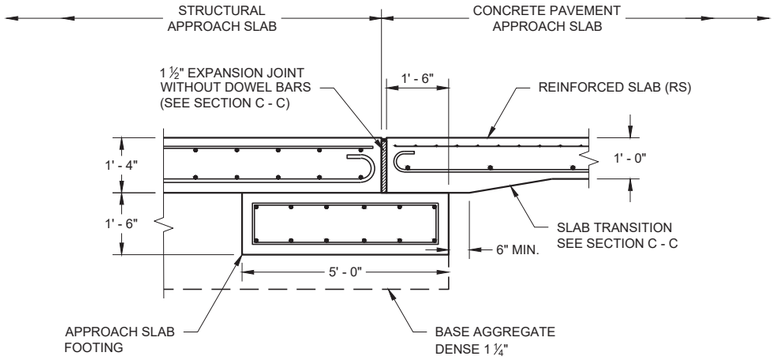
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSIONT JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
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APPROVED
November 2018
DATE
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PAVEMENT SUPERVIS

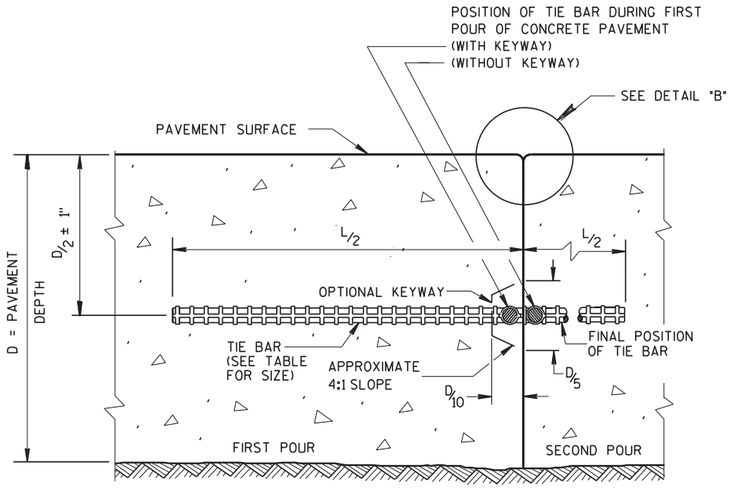
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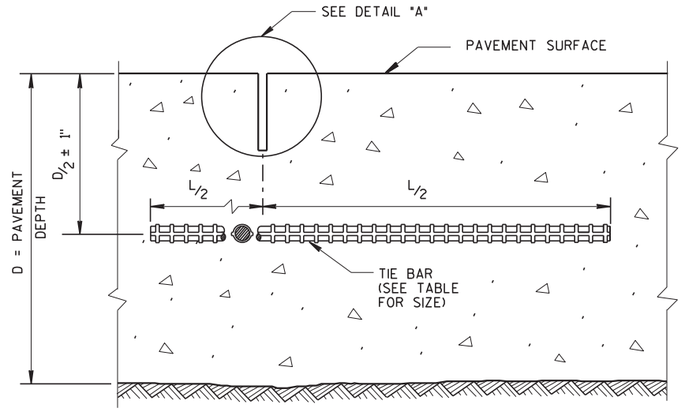
SDD 13B02 - 09b

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SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

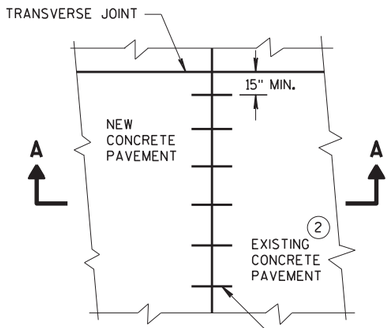
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

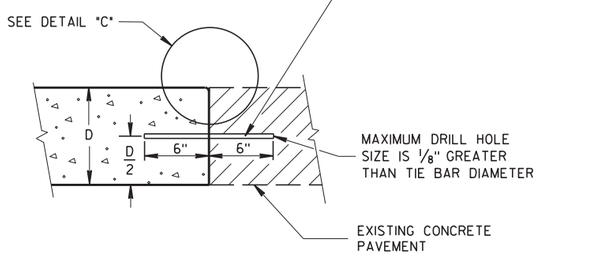
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

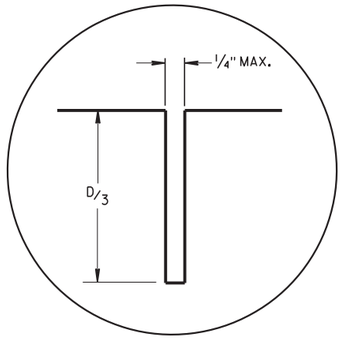
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



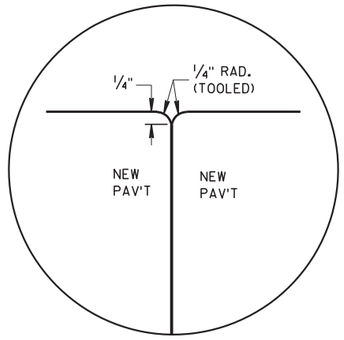
PLAN VIEW



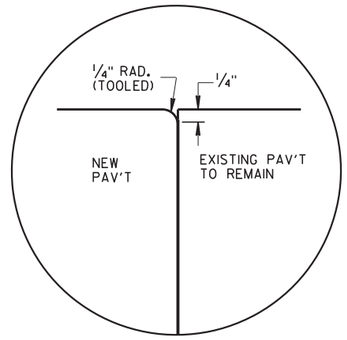
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



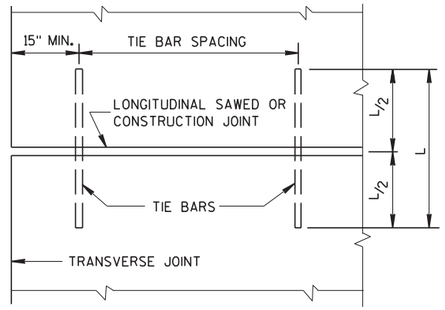
DETAIL "C"

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.



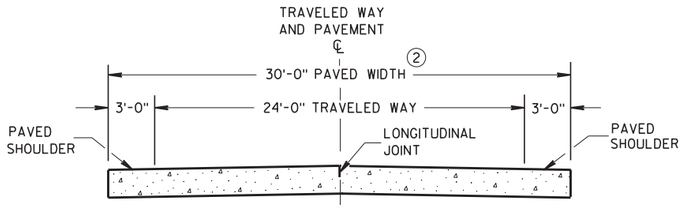
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

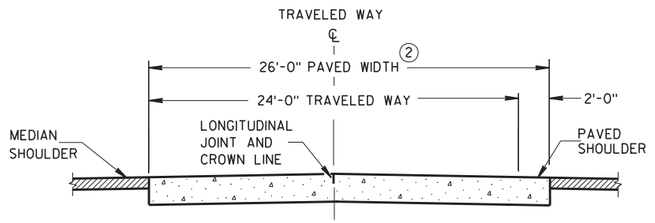
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

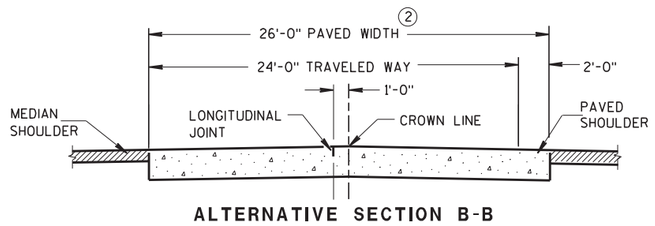
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S.D.D. 13 C 1-19



SECTION A-A ①
TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B
①
DIVIDED HIGHWAY

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 FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

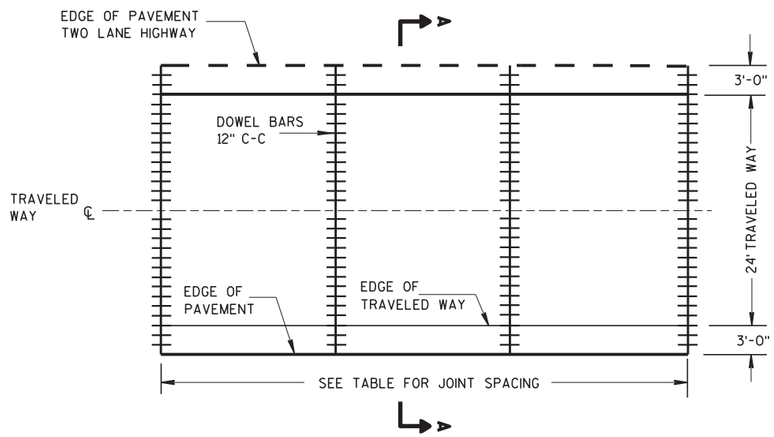
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

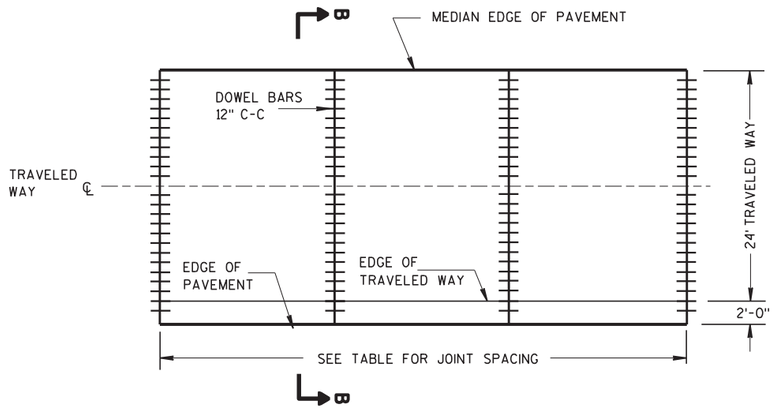
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

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'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



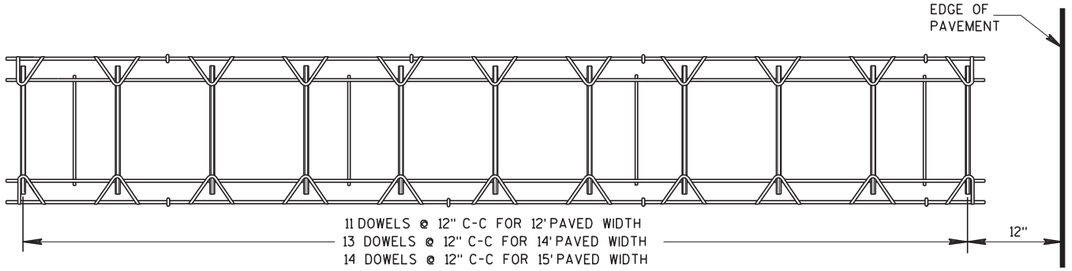
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 13 C 11-12a



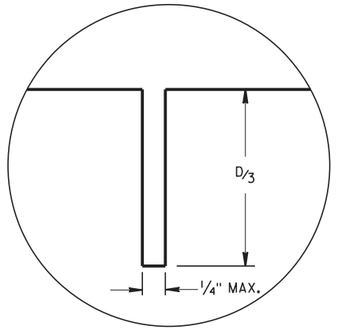
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

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.

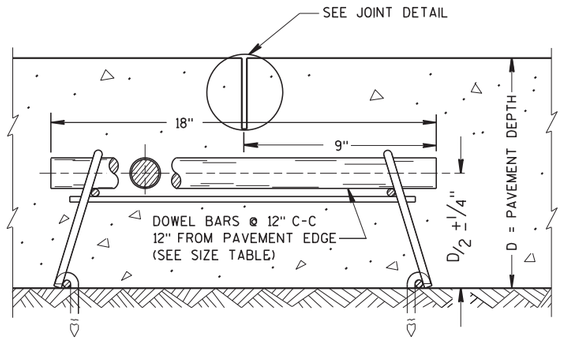
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

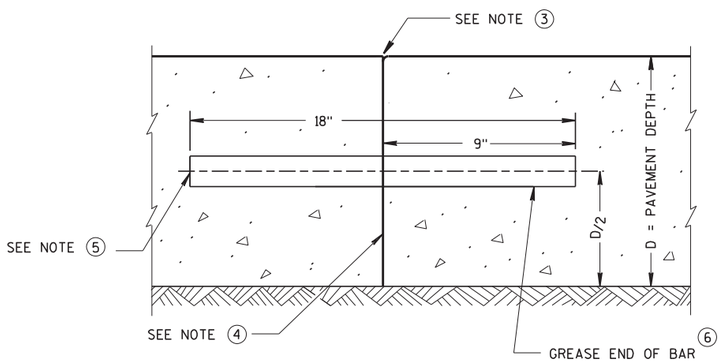
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

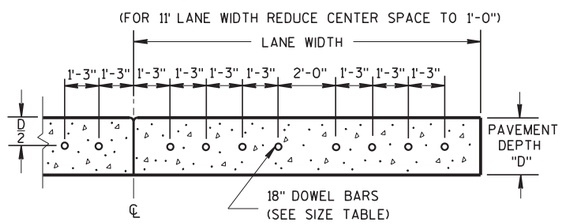
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



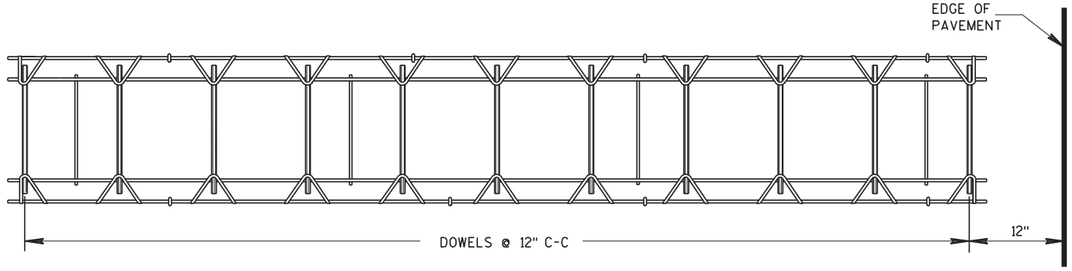
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
FHWA

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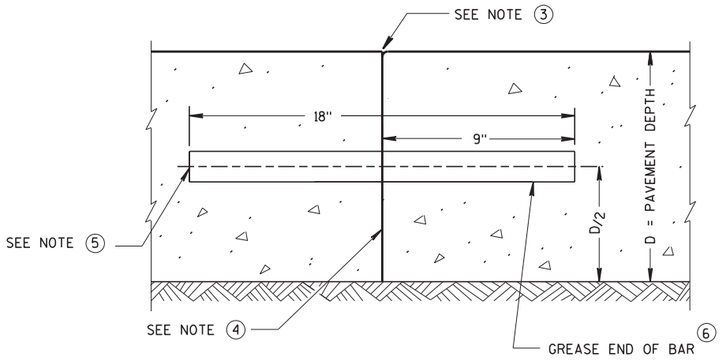


PLAN VIEW

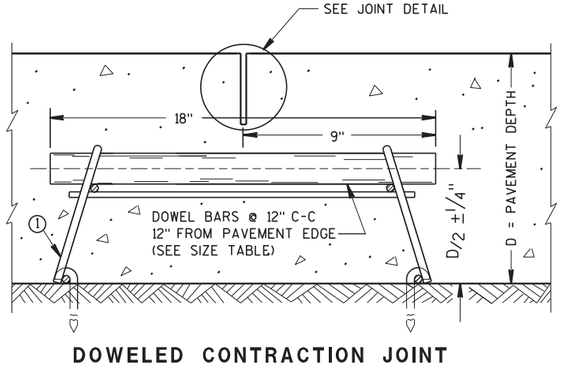


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



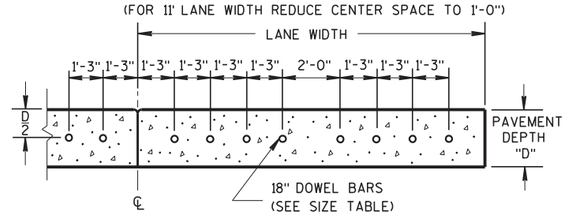
TRANSVERSE CONSTRUCTION JOINT



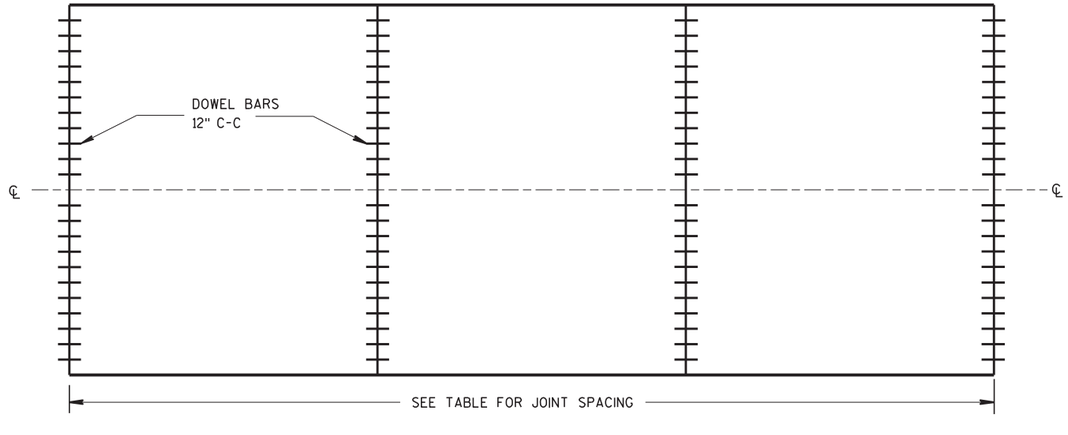
DOWELED CONTRACTION JOINT

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'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

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.

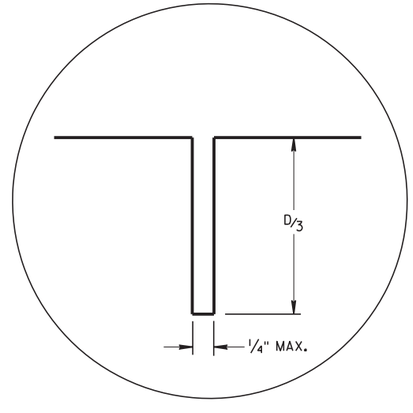
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
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GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

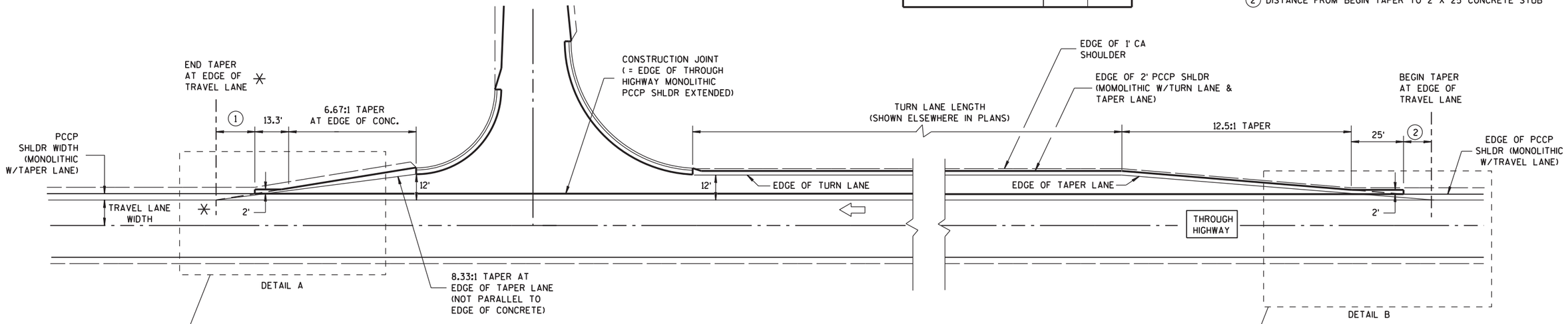
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

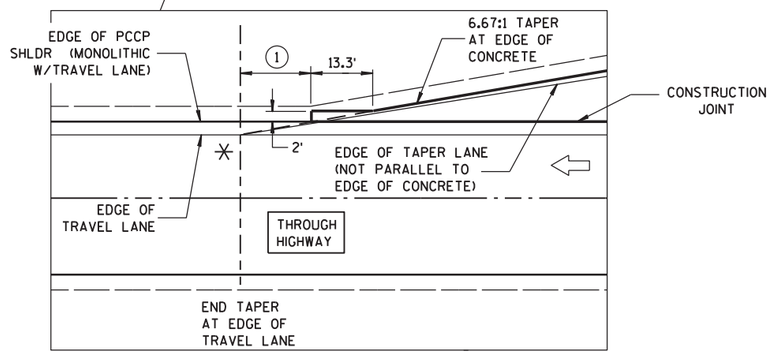
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

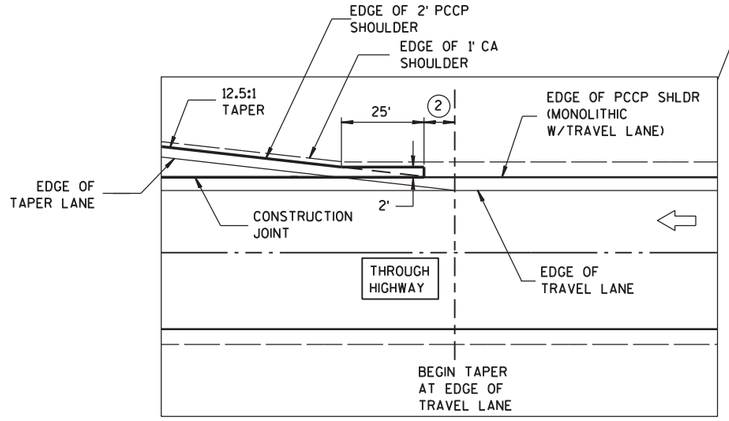
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET) (1)	DISTANCE (FEET) (2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

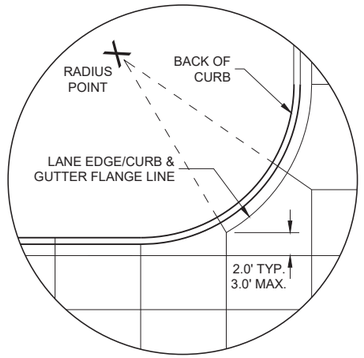
STATE OF WISCONSIN
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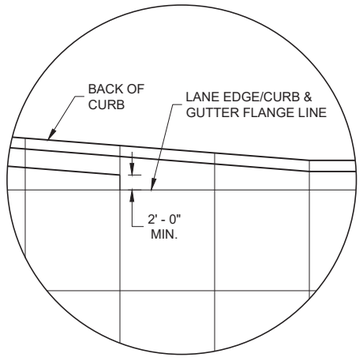
S.D.D. 13 C 16-2a

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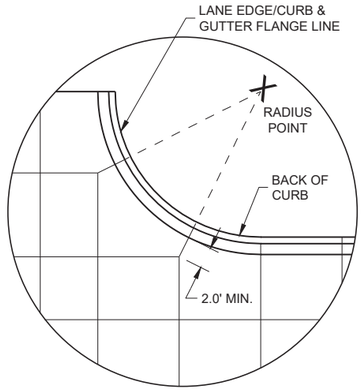
S.D.D. 13 C 16-2a



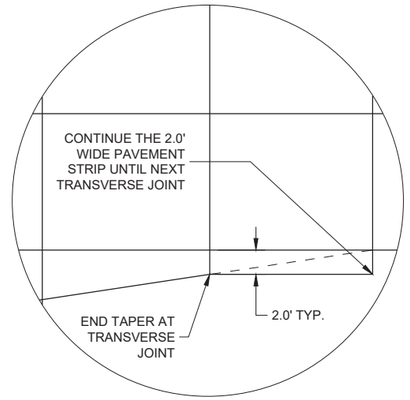
DETAIL "A"



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.

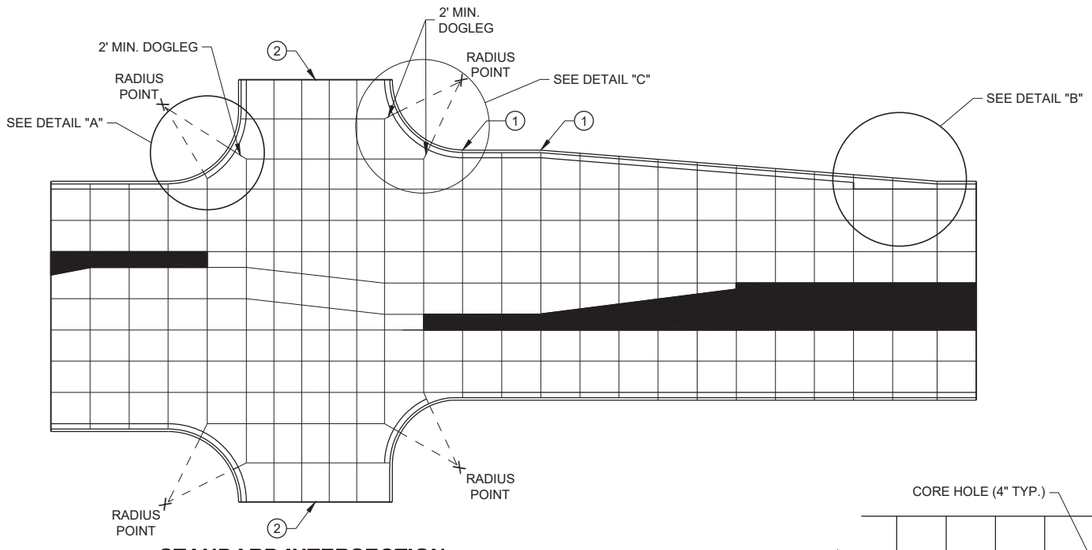
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

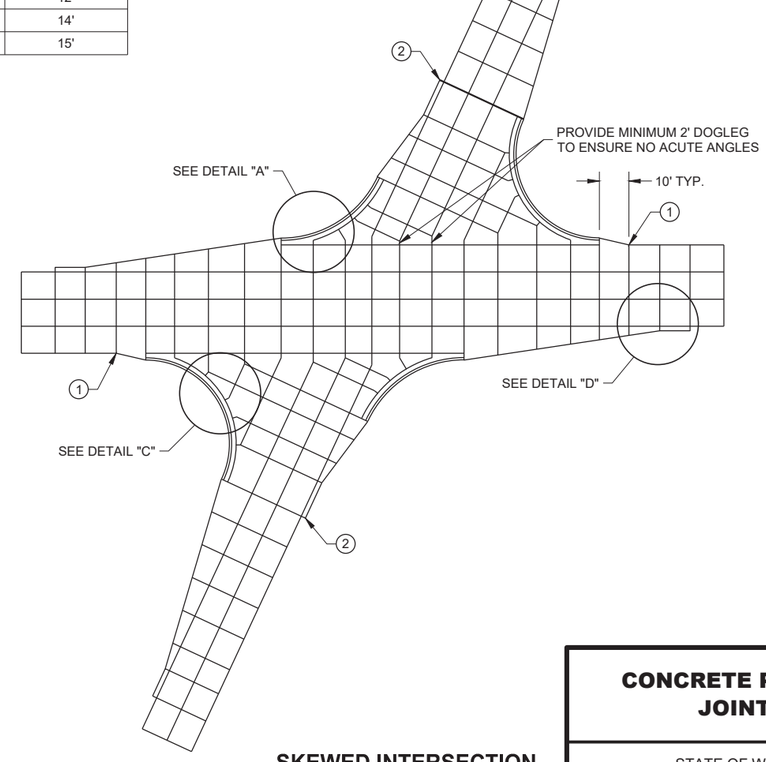
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



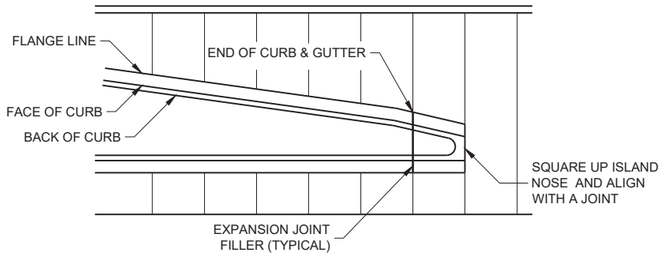
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

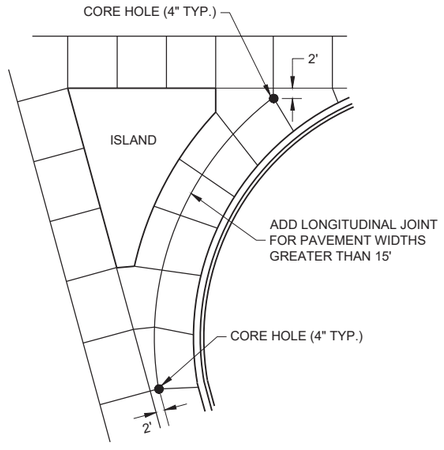
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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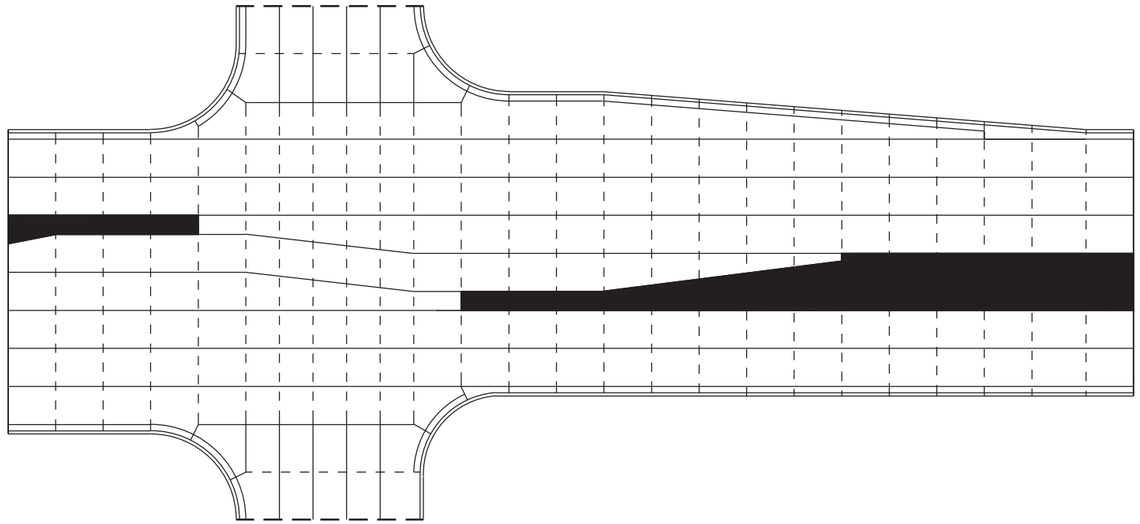
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

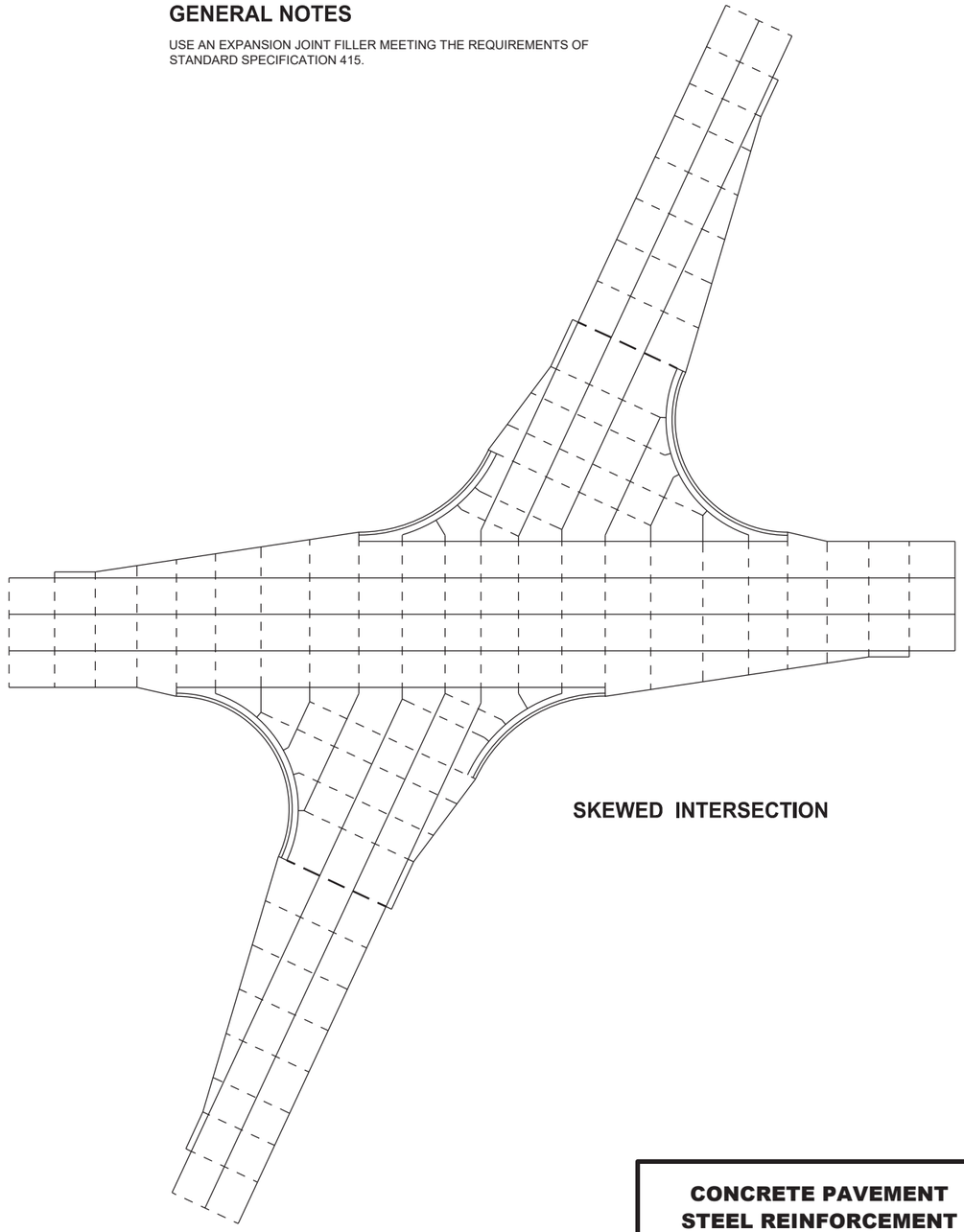
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

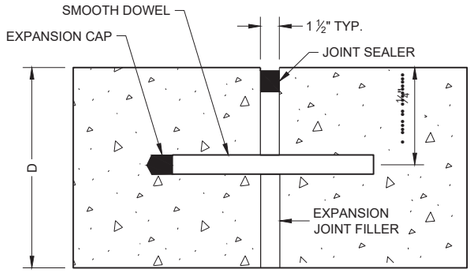
SDD 13C18 - 07b

CONCRETE PAVEMENT STEEL REINFORCEMENT

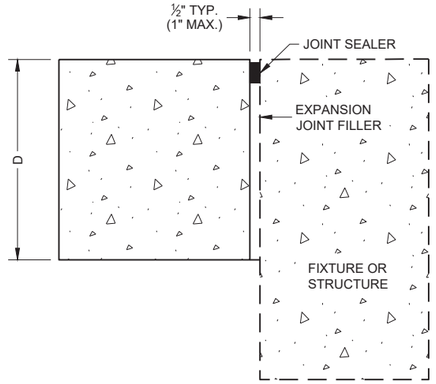
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SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

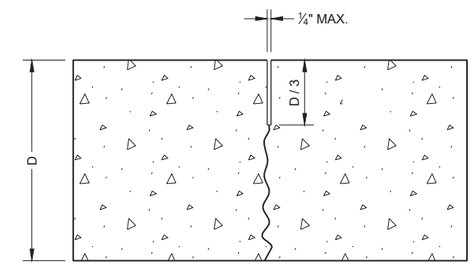
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
•• 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

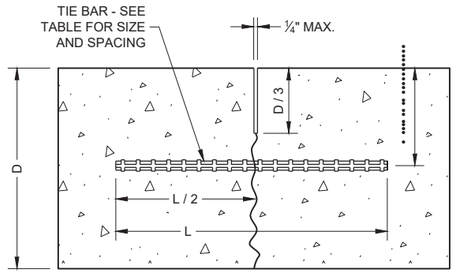
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

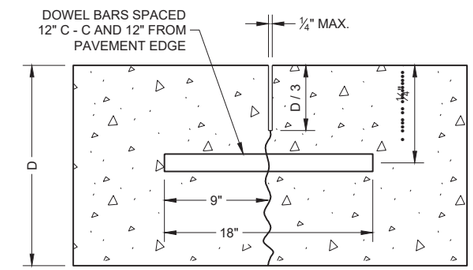
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM 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

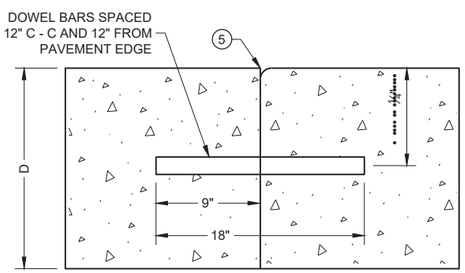


TIED LONGITUDINAL

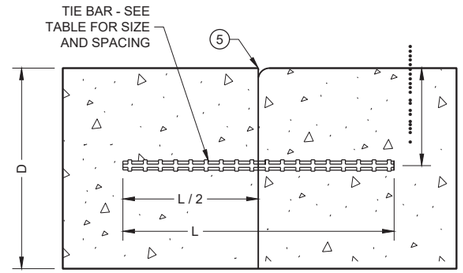


DOWELED TRANSVERSE

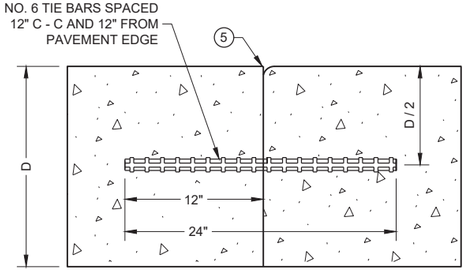
CONTRACTION JOINTS (2)



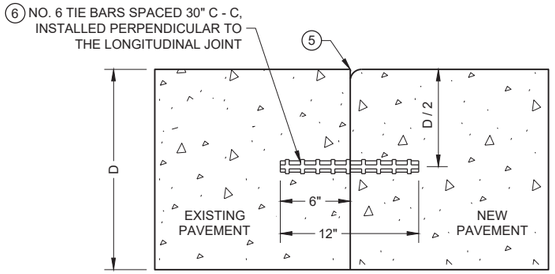
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

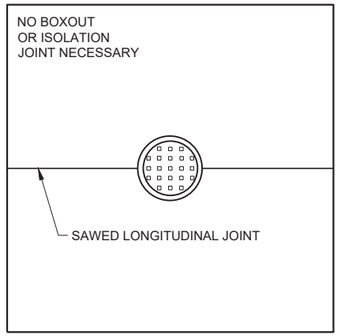
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

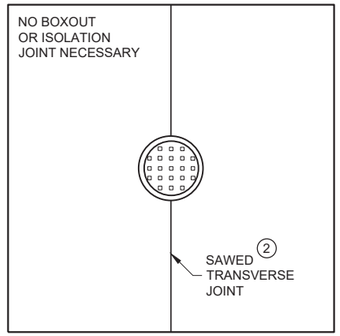
STATE OF WISCONSIN
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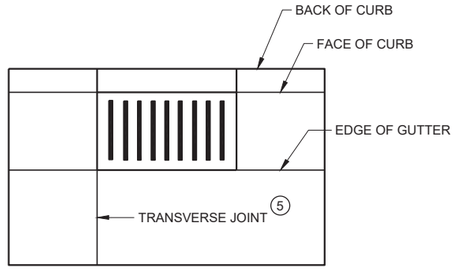
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



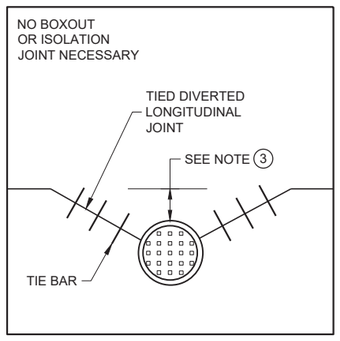
MANHOLE WITH TRANSVERSE JOINT



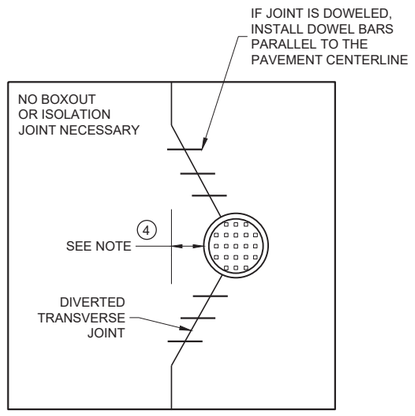
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

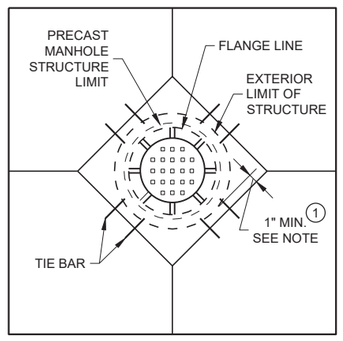
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF 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

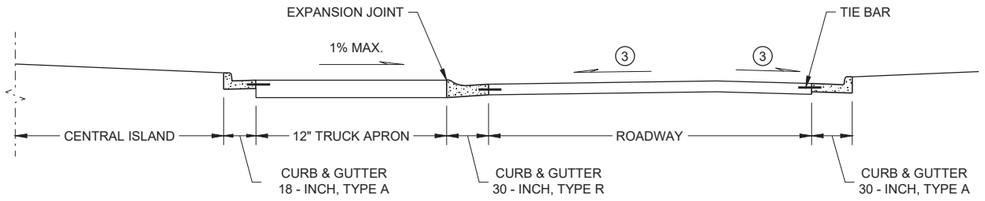
APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

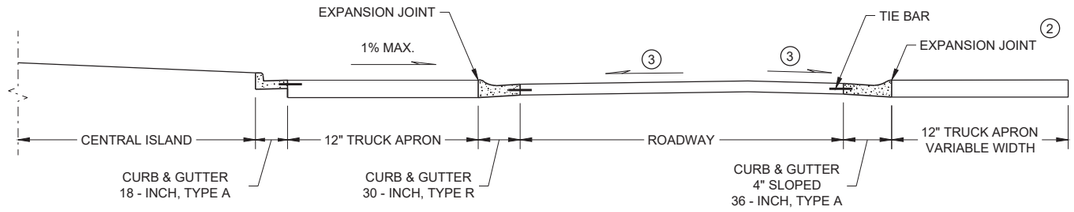
FHWA

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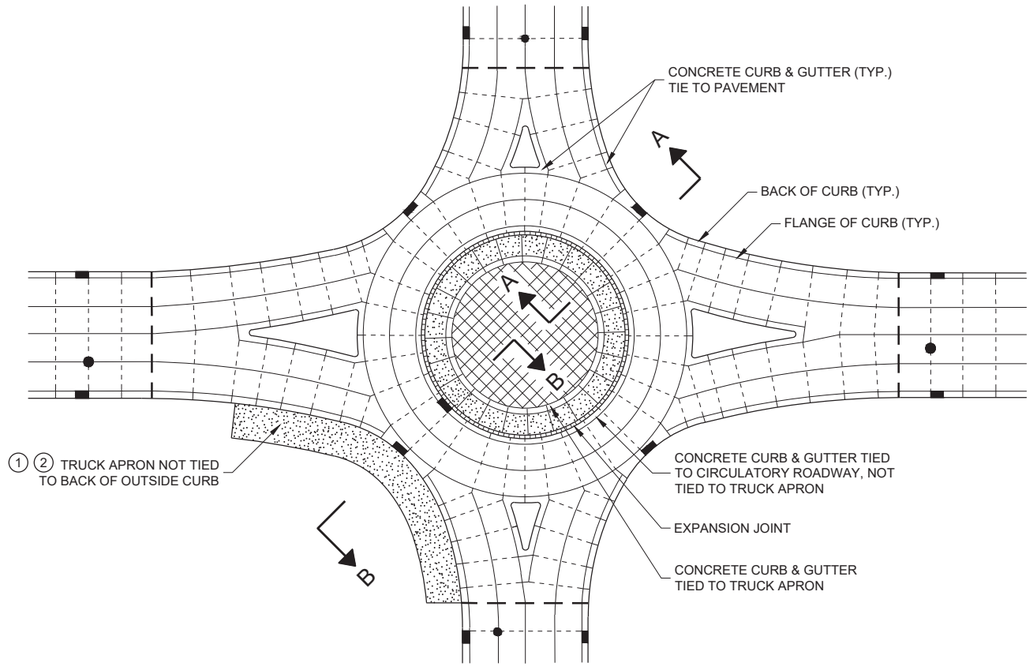
SDD13C18 - 07d
SDD13C18 - 07d



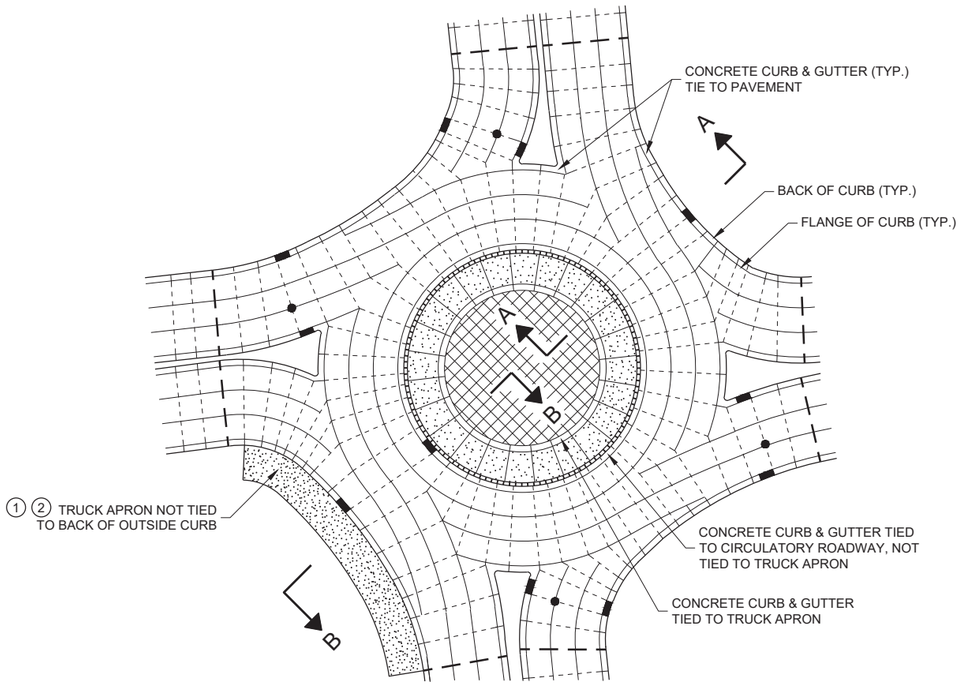
SECTION A - A



SECTION B - B



ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"

USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

(1) DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.

(2) TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.

(3) CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- TRUCK APRON
- CENTRAL ISLAND
- UTILITY STRUCTURES

CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

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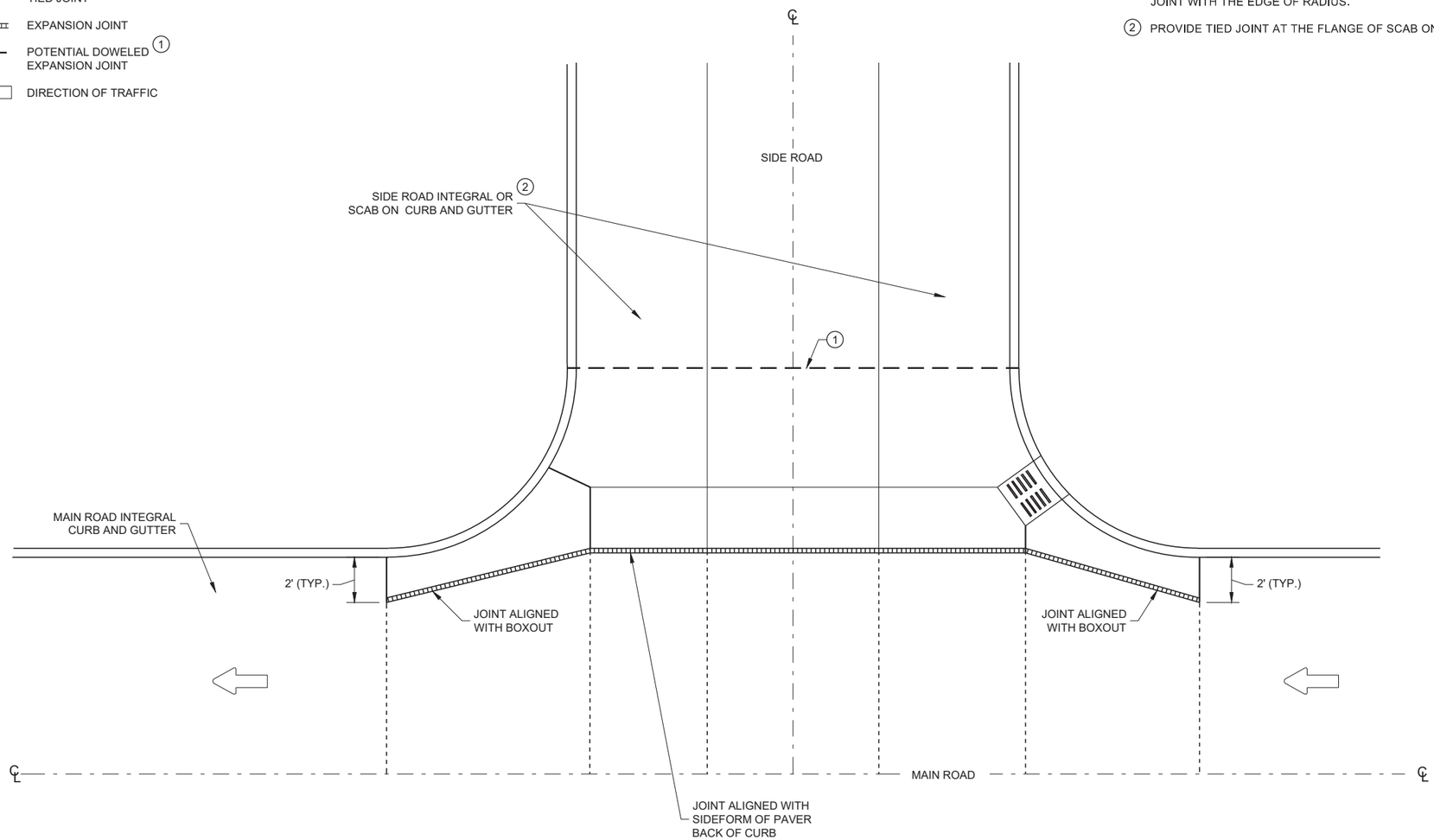
SDD 13C18 - 07e

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SDD 13C18 - 07e

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

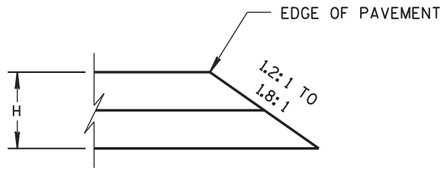
APPROVED
November 2018 — DATE
/S/ Peter Kemp P.E. — ROADWAY STANDARDS DEVE ENGINEER
386
FHWA

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SDD 13C18 - 07f

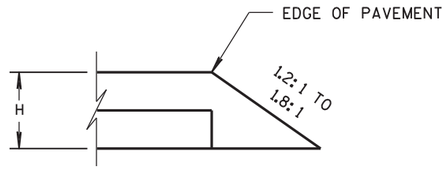
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SDD 13C18 - 07f



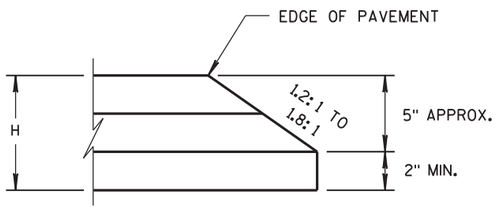
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



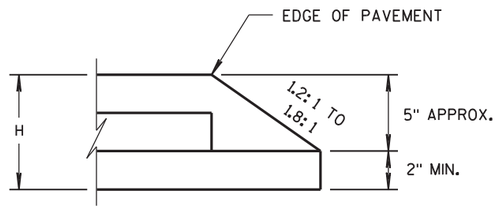
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

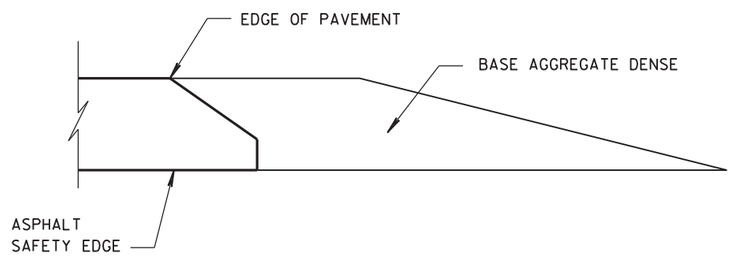
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(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.

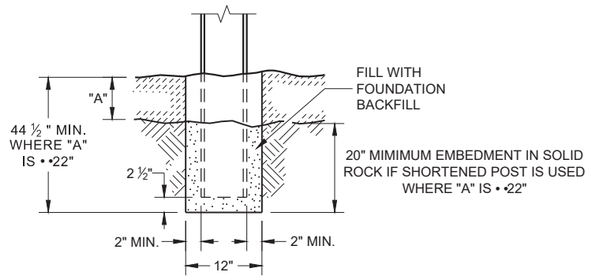
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

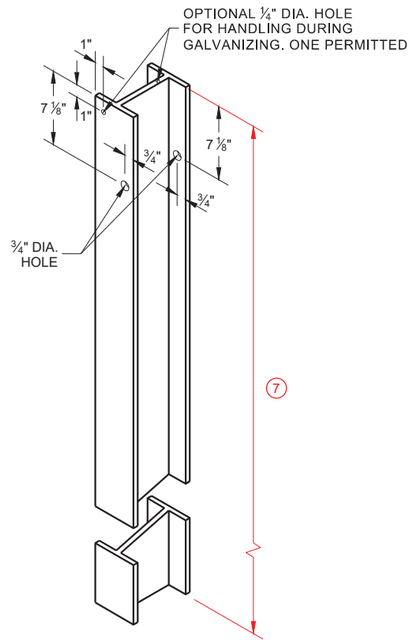
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

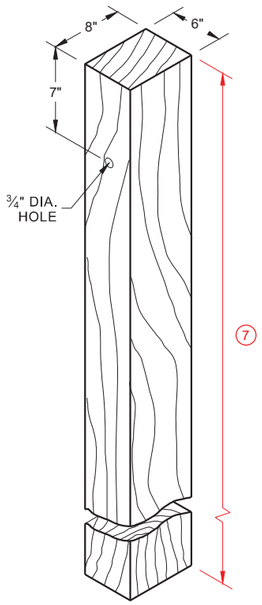
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



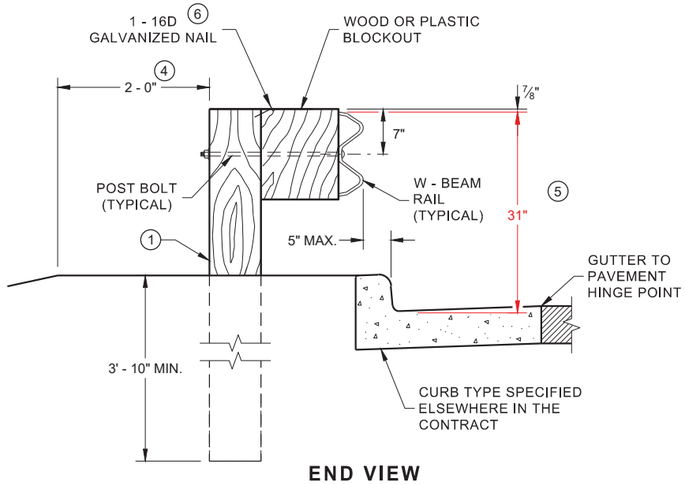
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



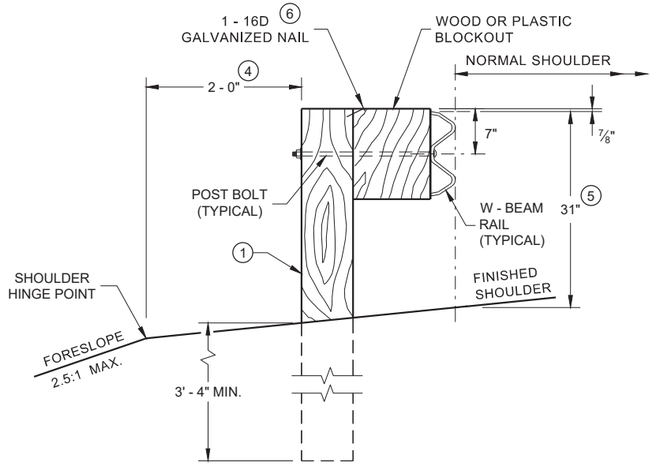
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



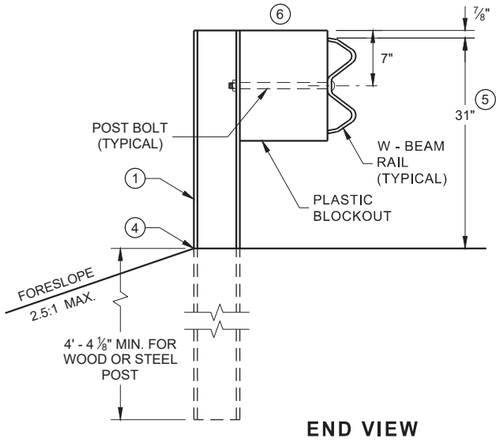
WOOD POST (6" X 8") NOMINAL (1)



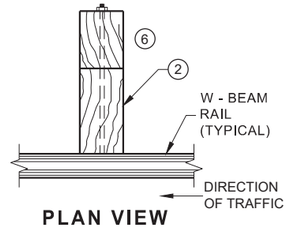
END VIEW
LOCATED ALONG A CURBED ROADWAY



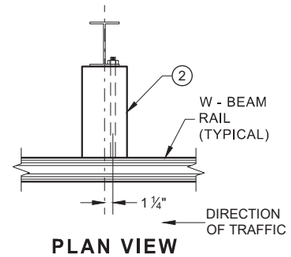
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



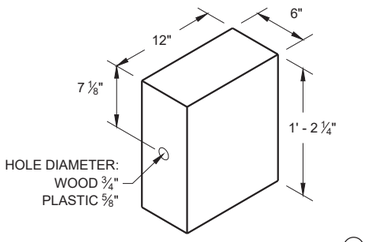
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

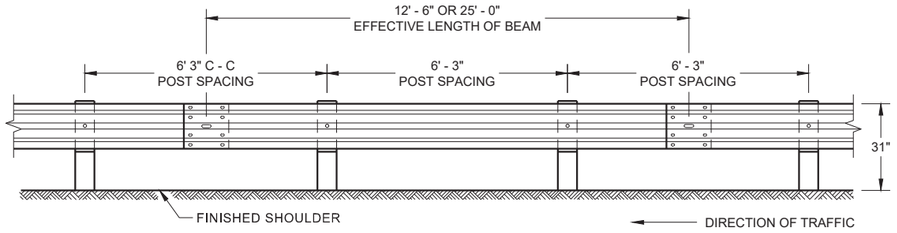
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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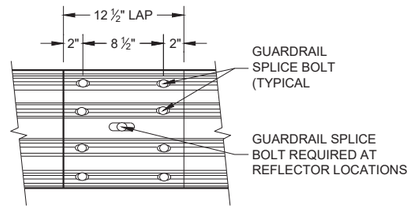
SDD 14B42 - 06a

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SDD 14B42 - 06a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

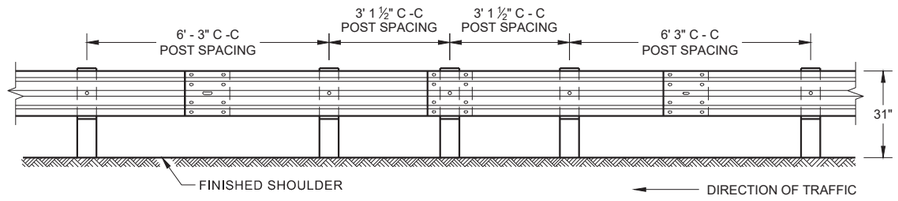
GENERAL NOTES

(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.

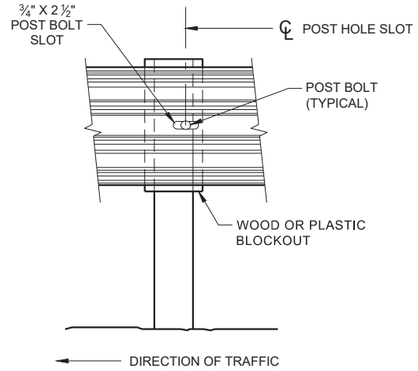
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

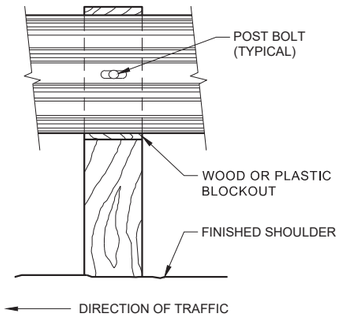
RECESSED (DR) HEAVY HEX NUT.



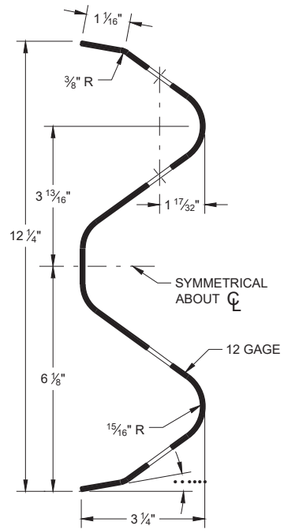
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



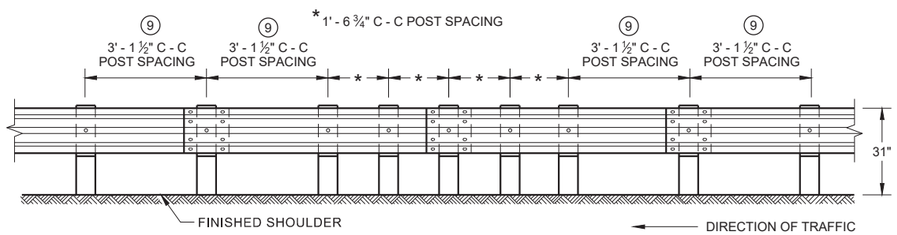
FRONT VIEW AT STEEL POST



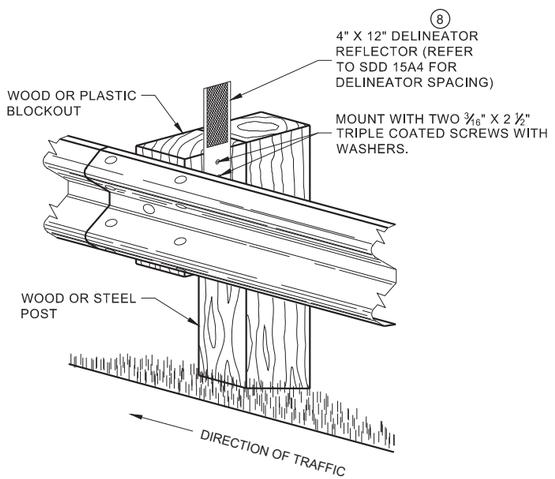
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)



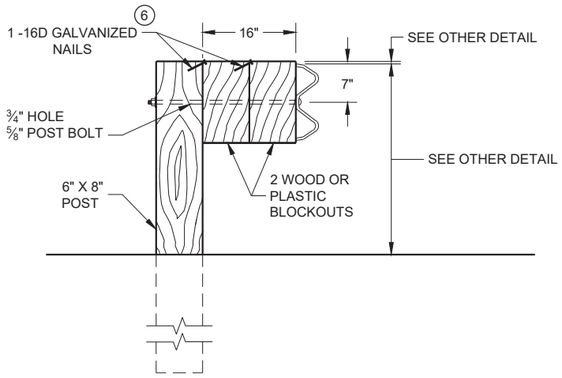
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

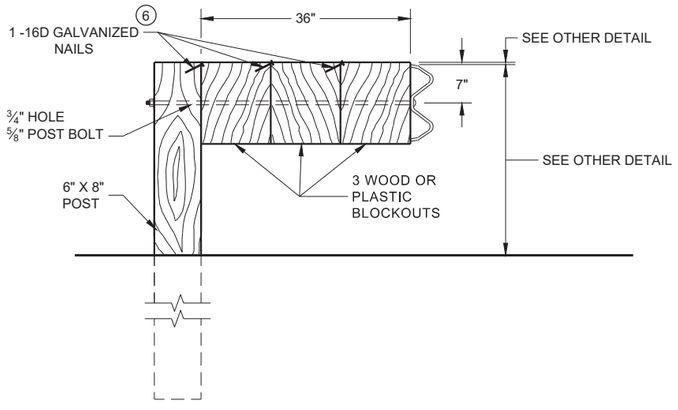
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SDD 14B42 - 06b



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.



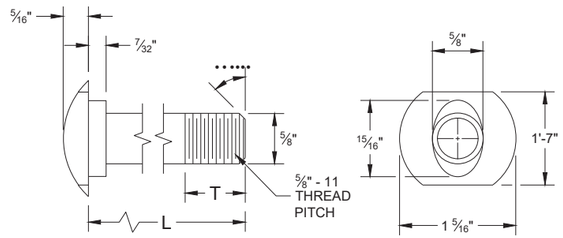
DETAIL FOR 36" BLOCKOUT DEPTH

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.

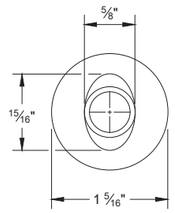
NOTE:

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.

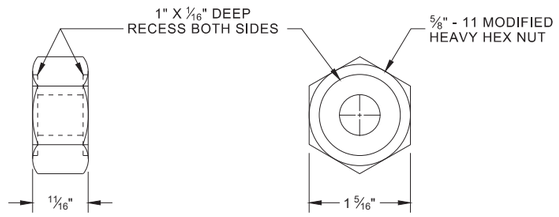


POST BOLT TABLE

L	T (MIN.)
•• •••••	•• •••••
2"	•• •••••
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

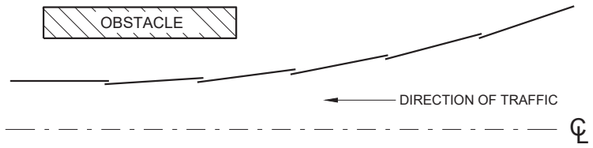


ALTERNATE BOLT HEAD

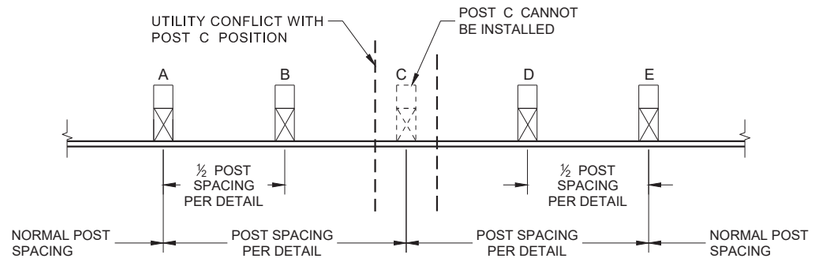


POST BOLT, SPLICE BOLT AND RECESS NUT

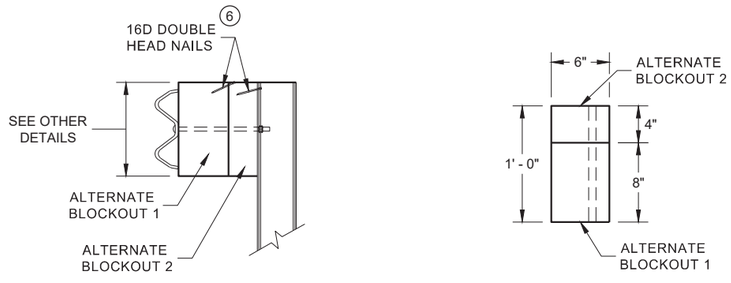
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
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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.

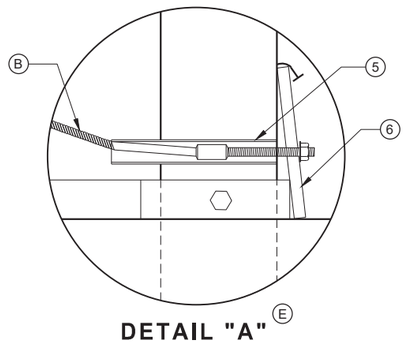
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

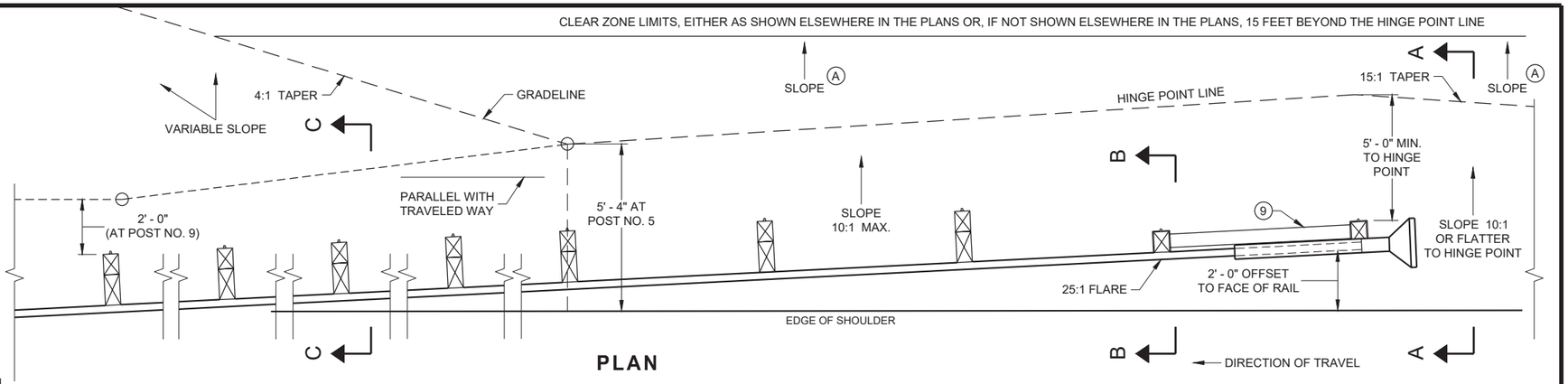
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

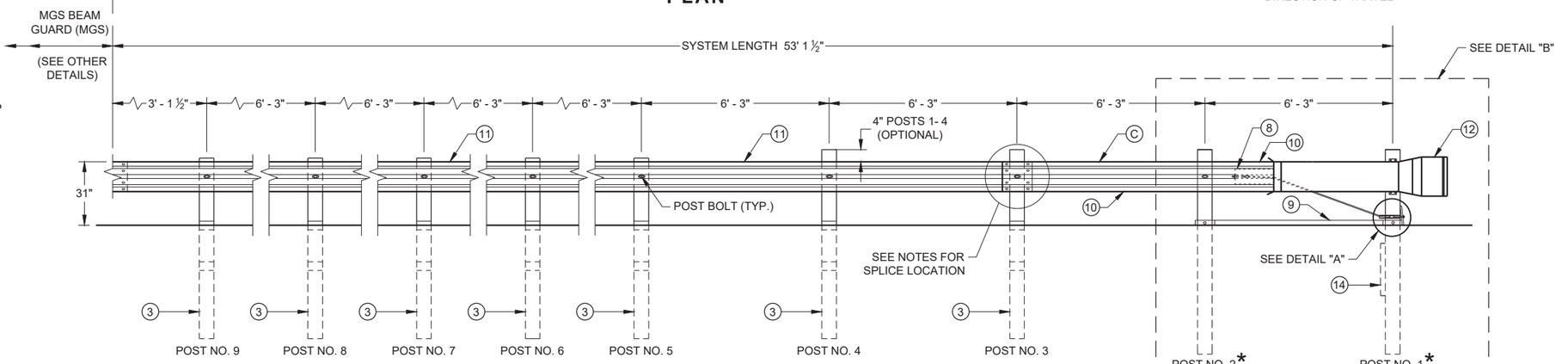
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



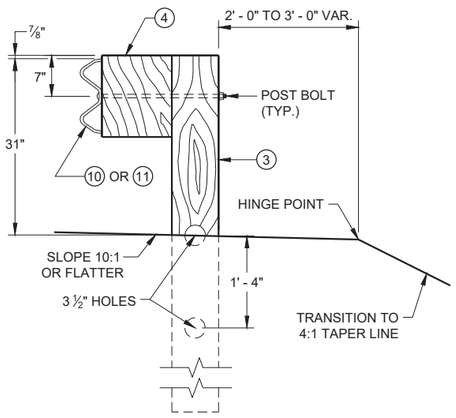
DETAIL "A" (E)



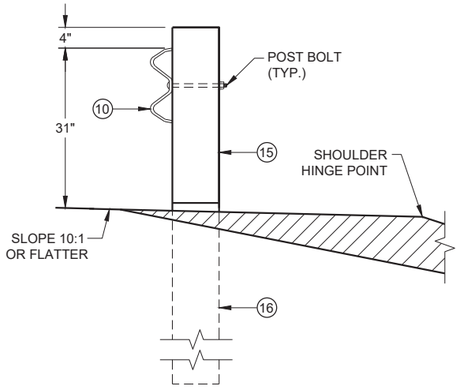
PLAN



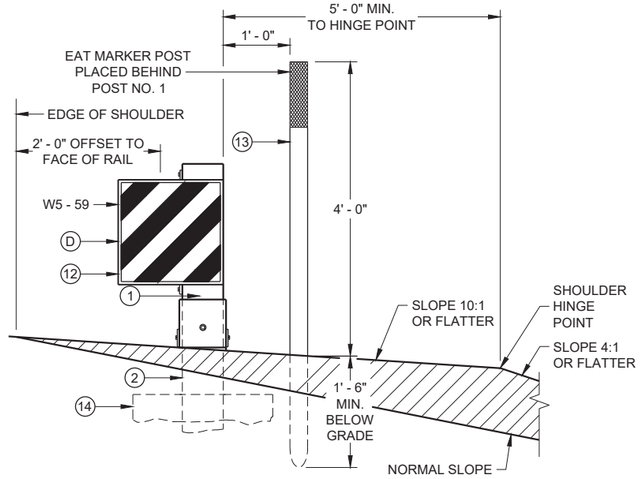
ELEVATION



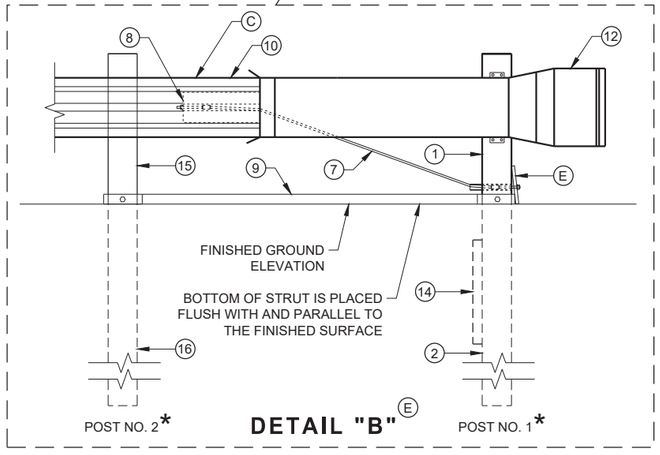
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



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)

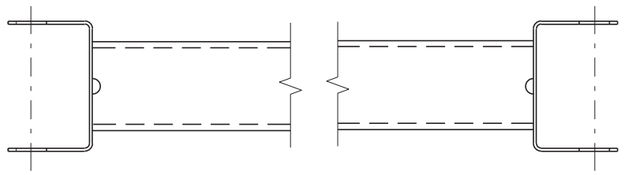
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

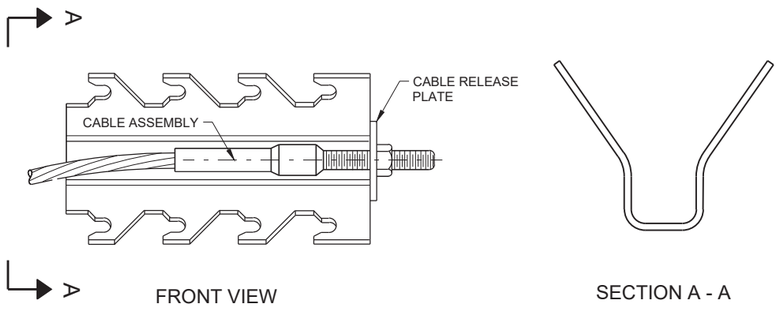
SDD 14B44 - 04a

BILL OF MATERIALS

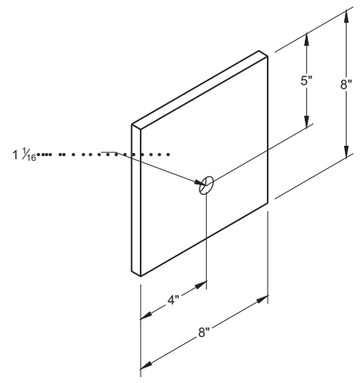
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO. 1 6" X 6" TUBE
2	LOWER POST NO. 1
3	WOOD CRT
4	WOOD BLOCKOUT
5	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL 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 GROUND STRUT (9) (E)



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

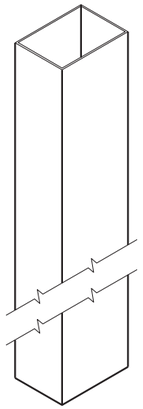
6

SDD 14B44 - 04b

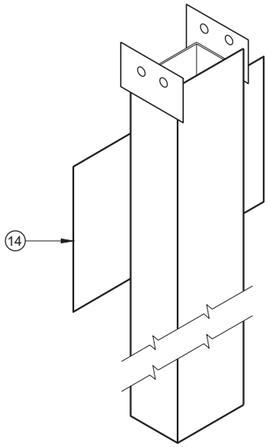
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

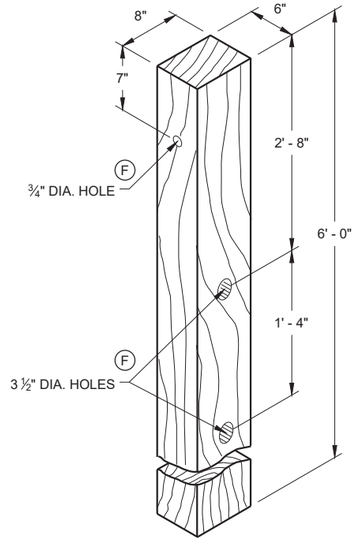
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA1 392



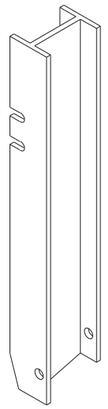
UPPER POST NO. 1 (1) (E)



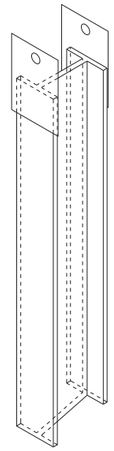
LOWER POST NO. 1 (2) (E)



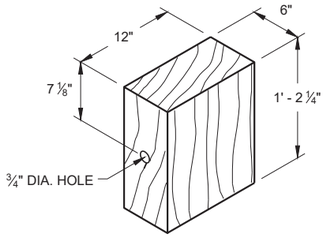
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



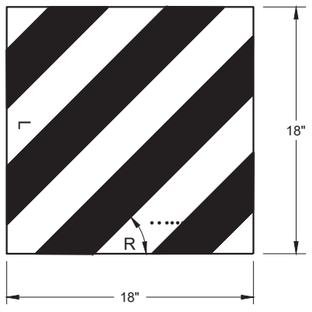
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

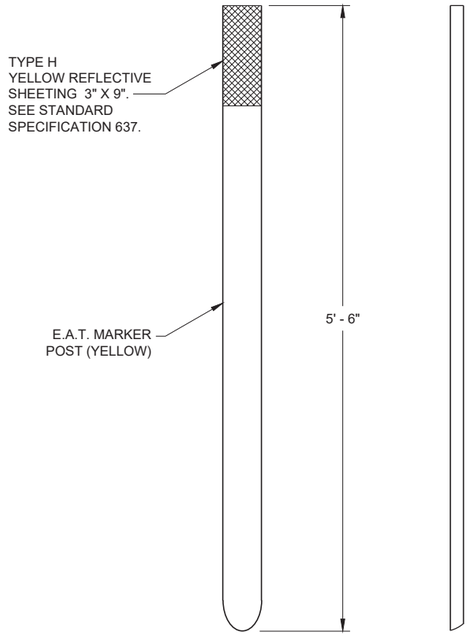


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



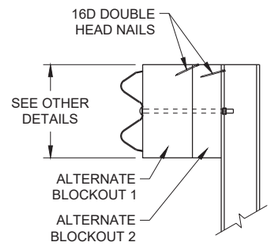
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

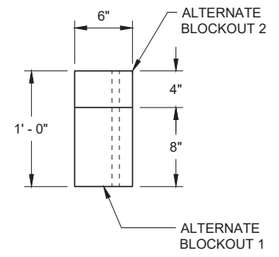


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

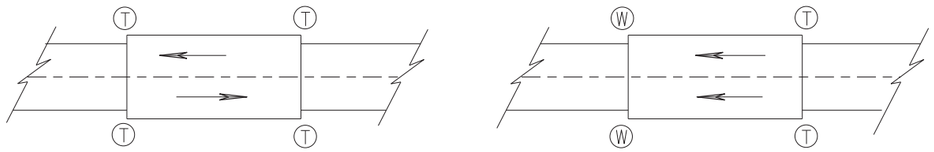
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

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.

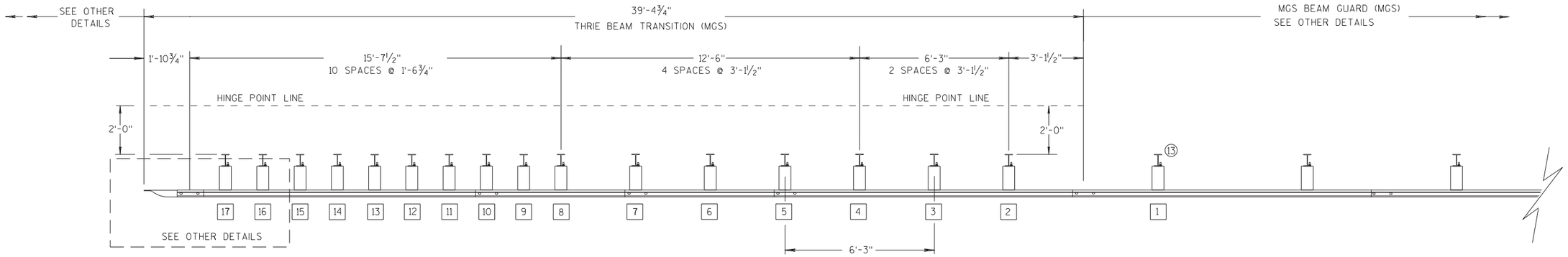
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

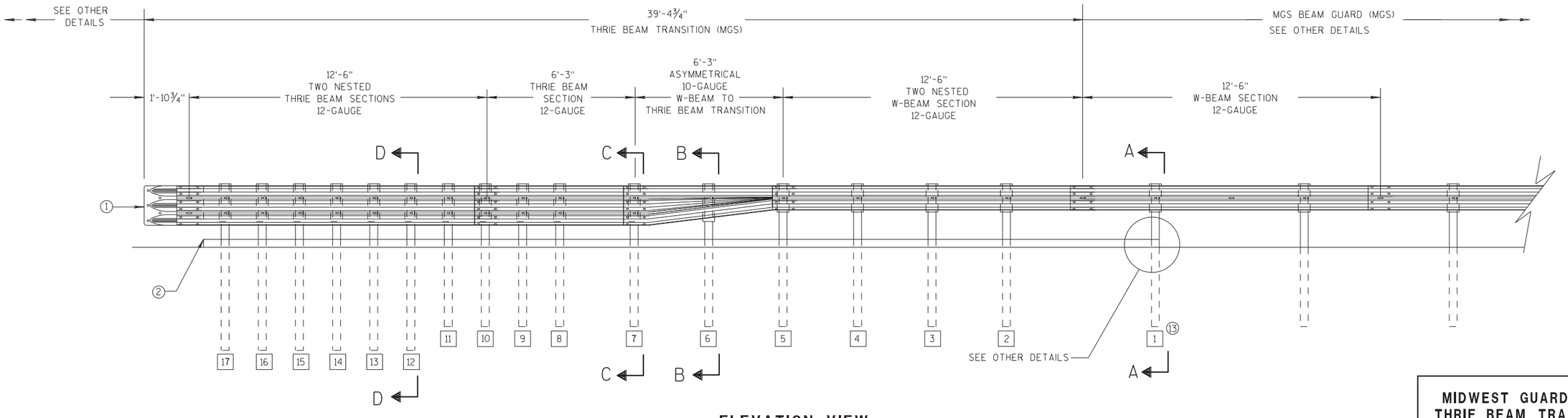
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOR 394

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

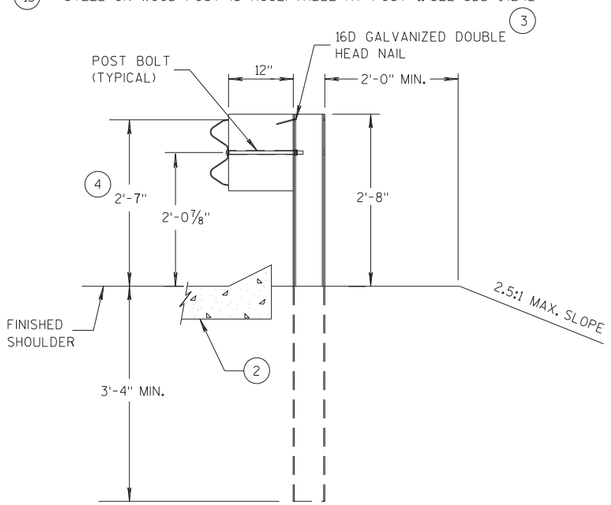
GENERAL NOTES

(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.

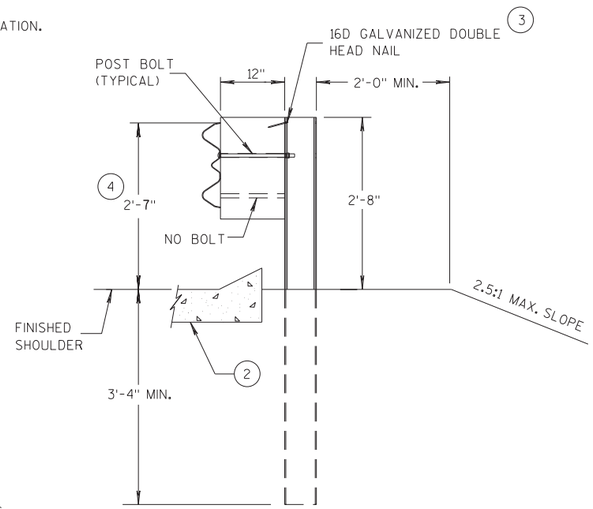
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



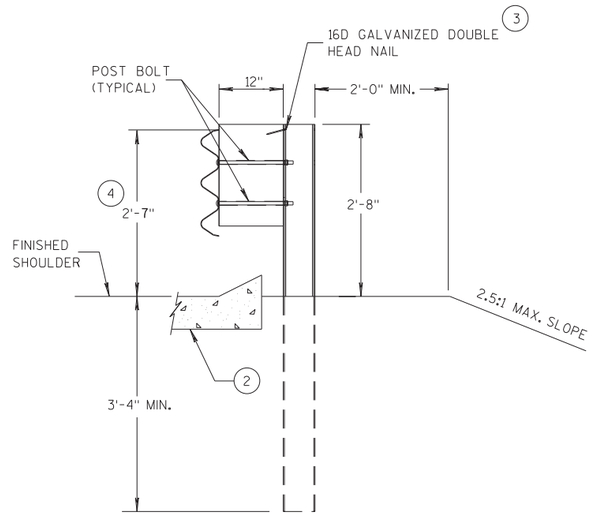
SECTION A-A (13)

POSTS 1-5



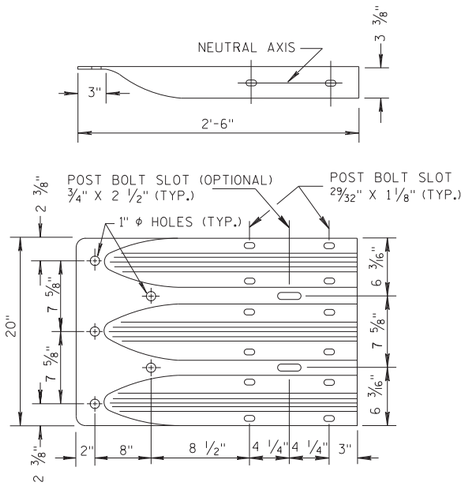
SECTION B-B

POST 6

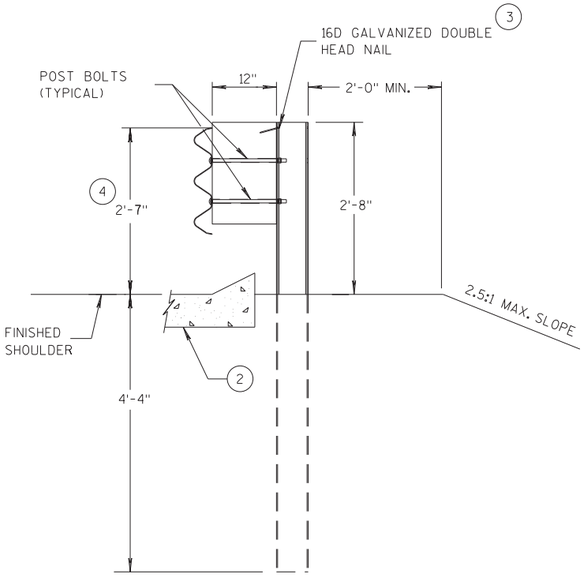


SECTION C-C

POSTS 7-11

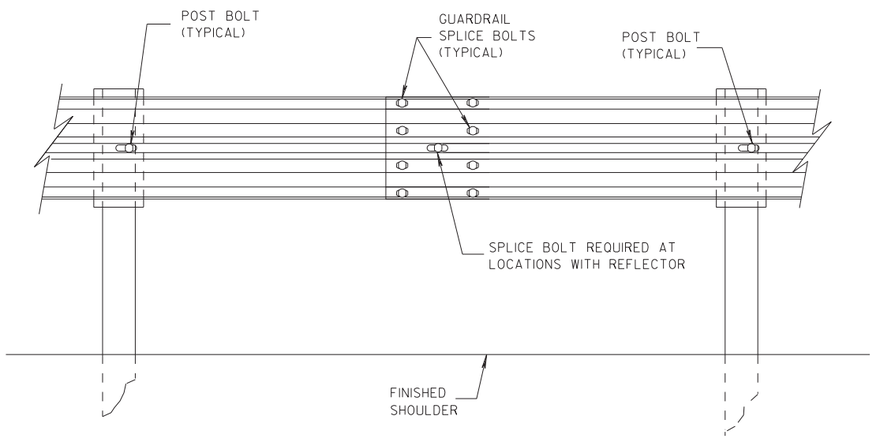


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

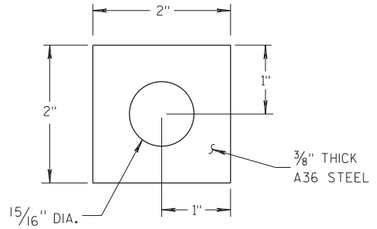
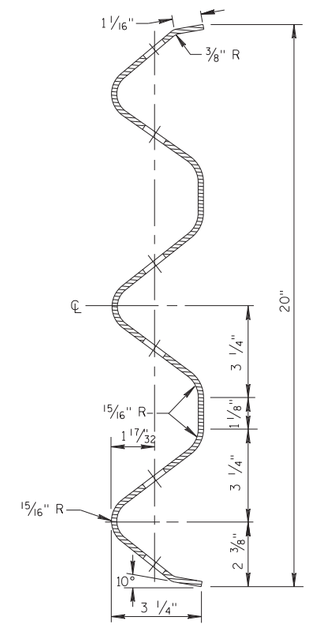


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

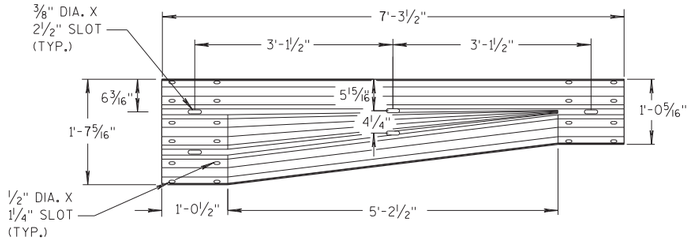
STATE OF WISCONSIN
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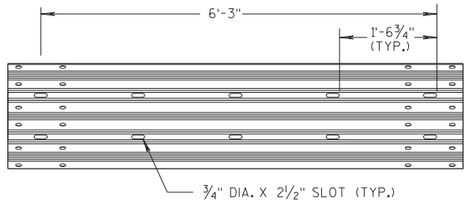
S.D.D. 14 B 45-5b

6

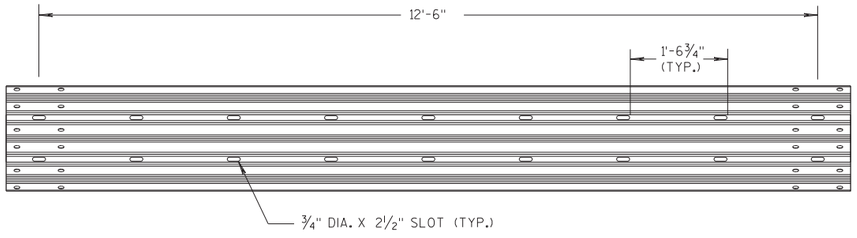
S.D.D. 14 B 45-5b



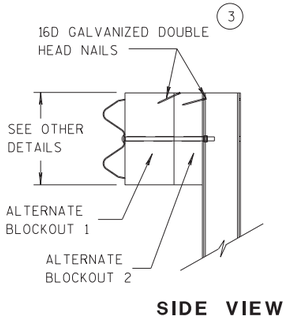
W-BEAM TO THRIE BEAM TRANSITION SECTION



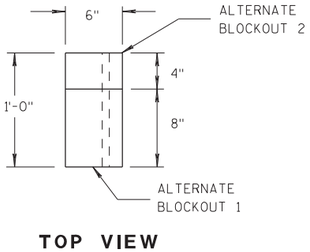
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

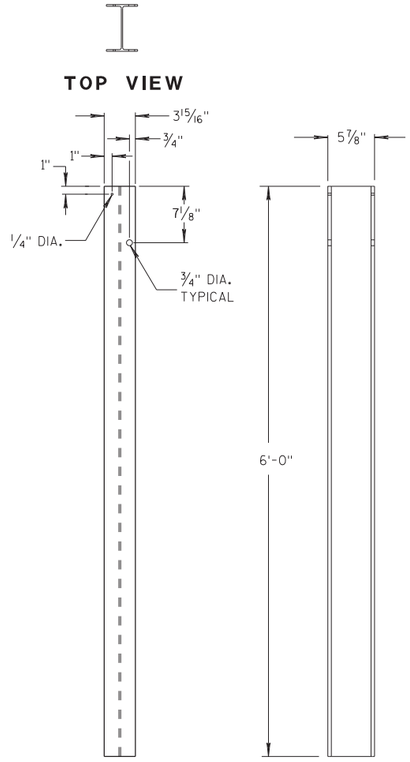


SIDE VIEW



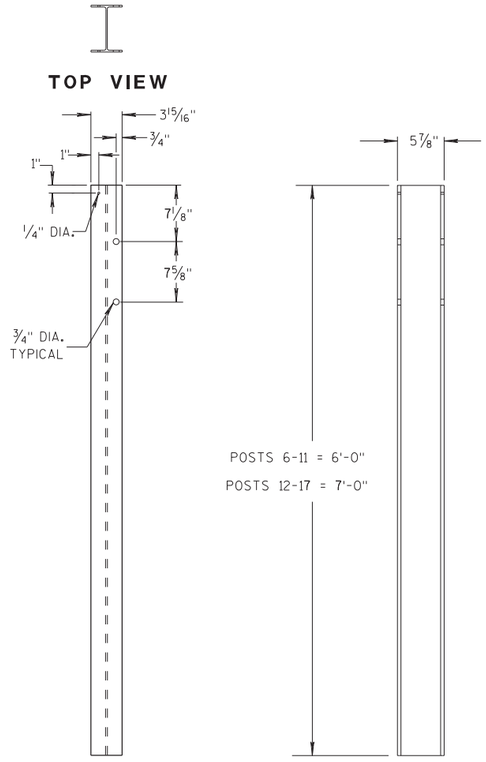
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



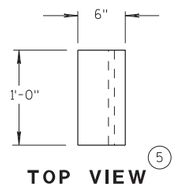
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

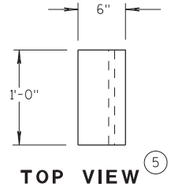


FRONT VIEW SIDE VIEW

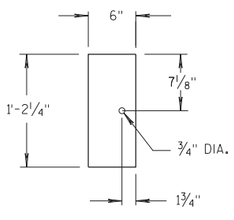
STEEL POSTS 6-17



TOP VIEW (5)

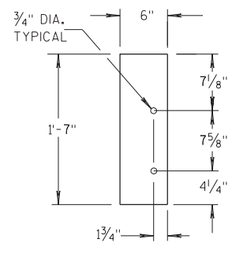


TOP VIEW (5)



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)

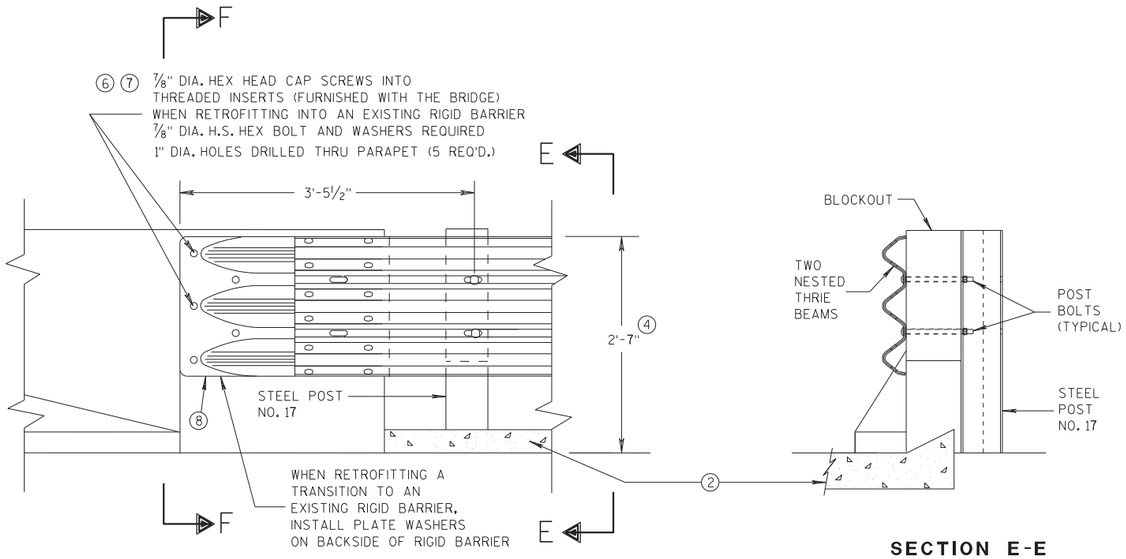
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF 396

6

S.D.D. 14 B 45-5c

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.

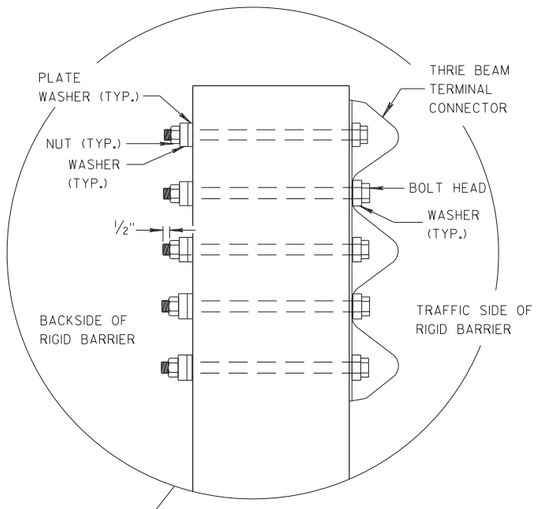
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

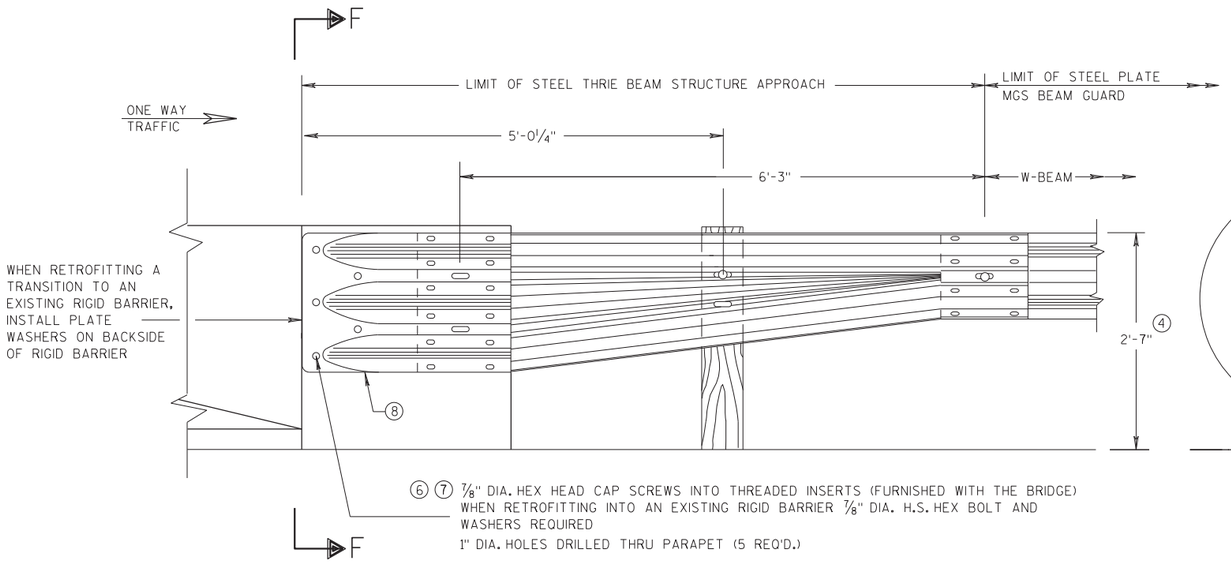
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

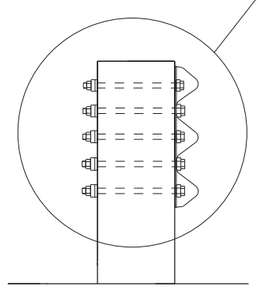
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

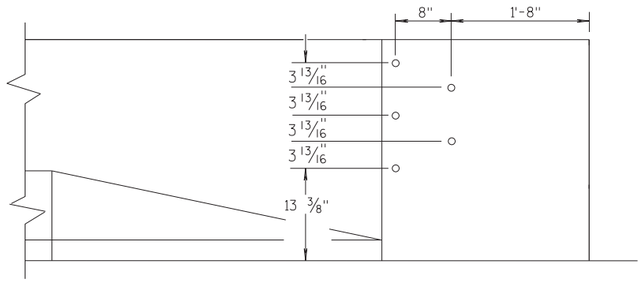




FRONT VIEW



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

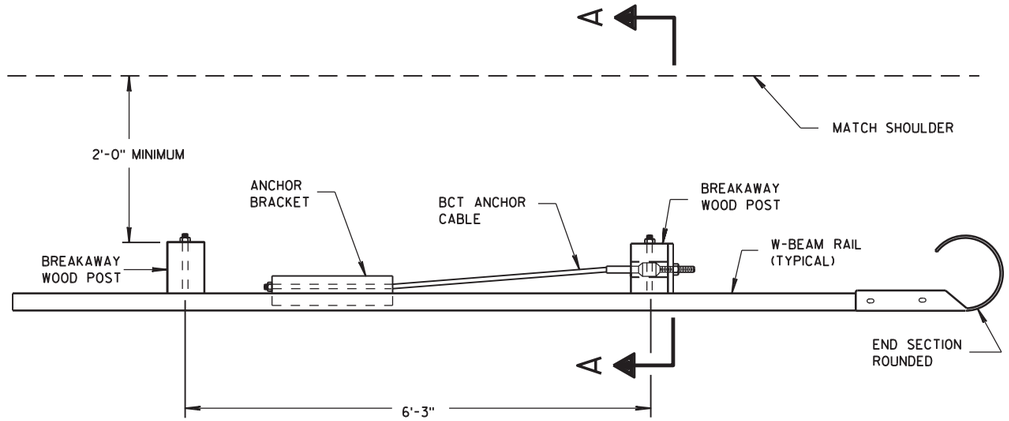
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

6

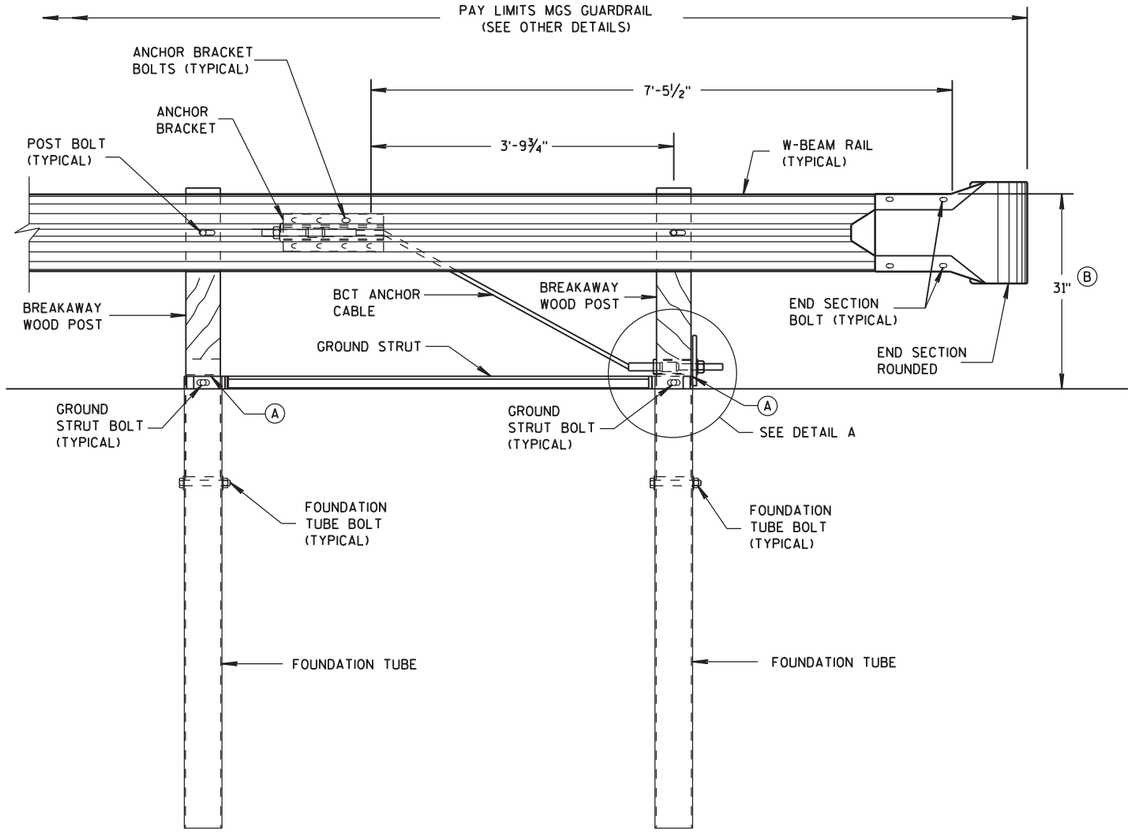
S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

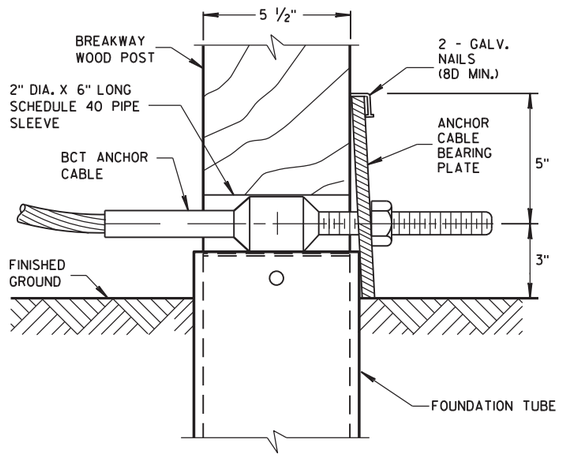


PLAN VIEW



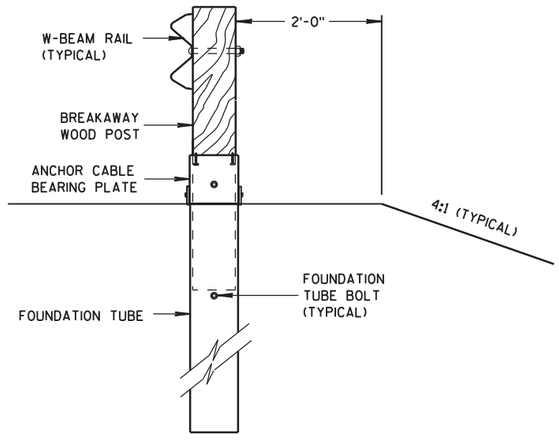
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

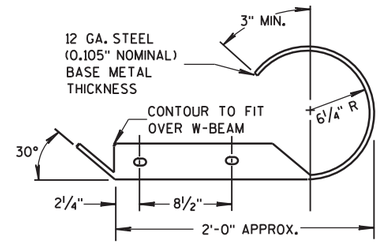
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

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.

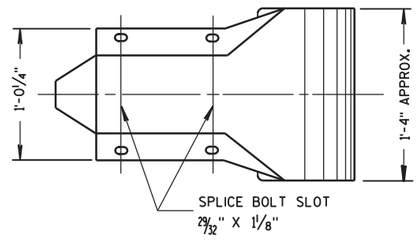
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(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".



PLAN VIEW



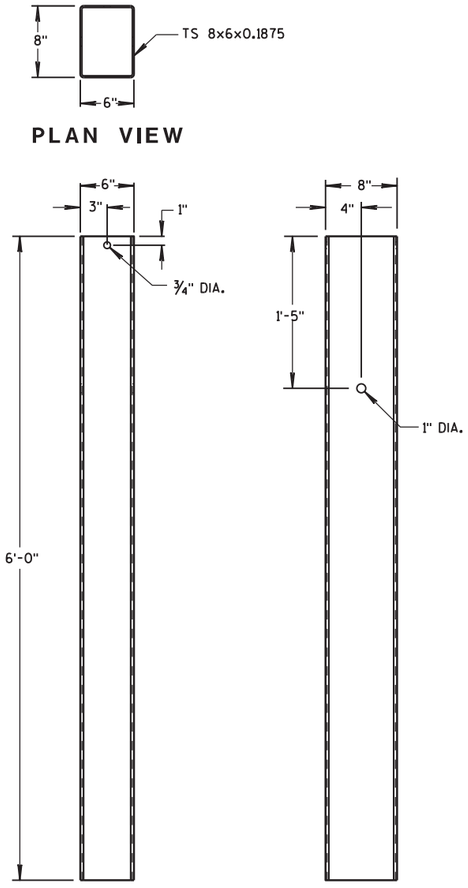
FRONT VIEW

W BEAM END
SECTION ROUNDED

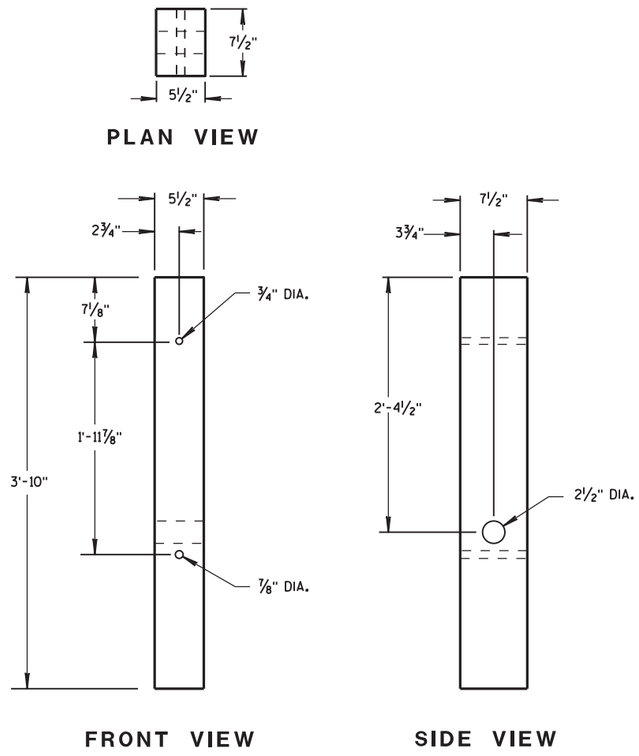
MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 47-2a



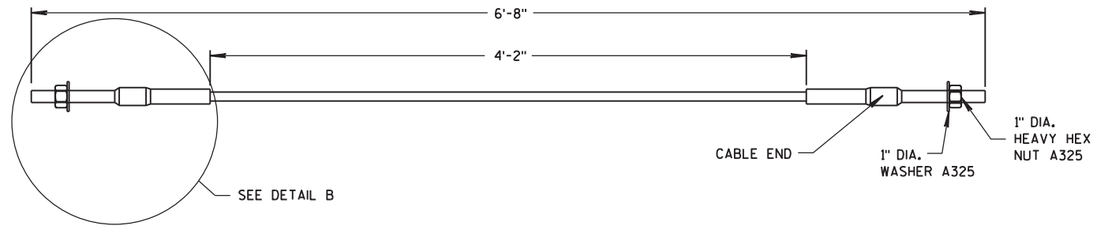
FOUNDATION TUBE



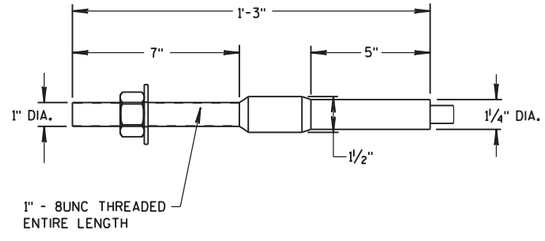
BREAKAWAY WOOD POST

GENERAL NOTES

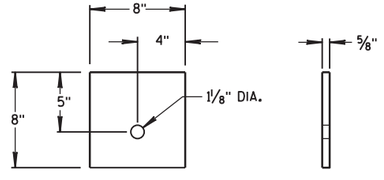
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



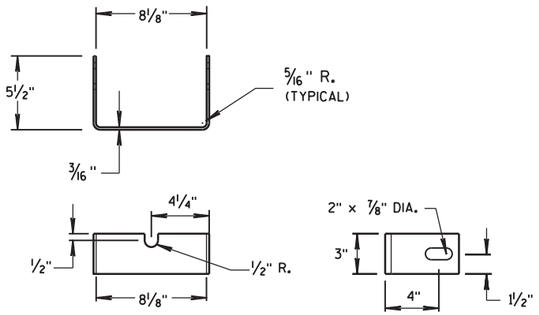
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

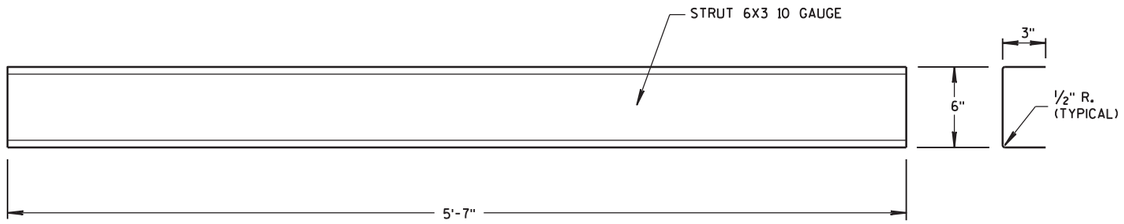
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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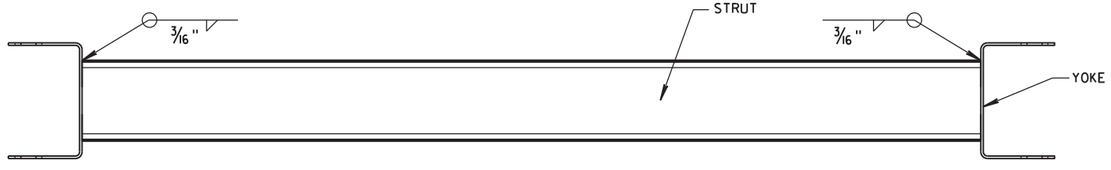
S.D.D. 14 B 47-2b



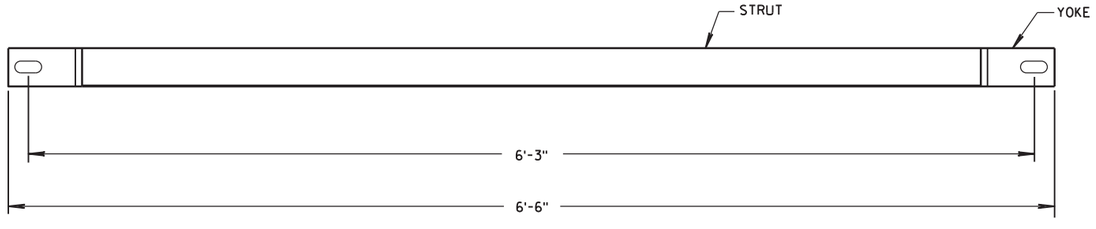
YOKE DETAIL



STRUT DETAIL

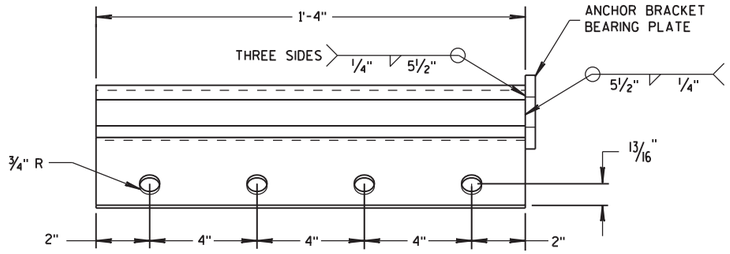


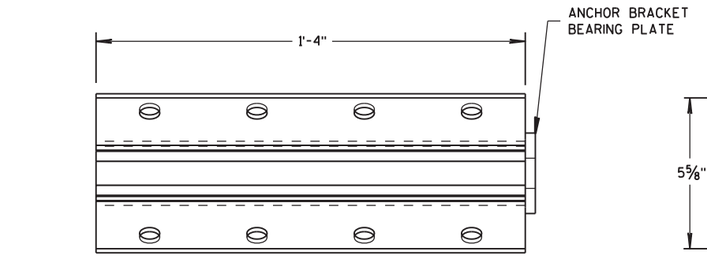
PLAN VIEW

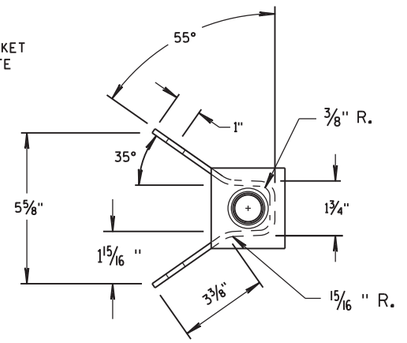


FRONT VIEW

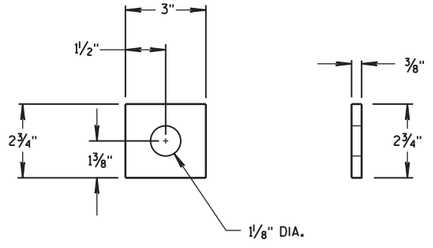
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

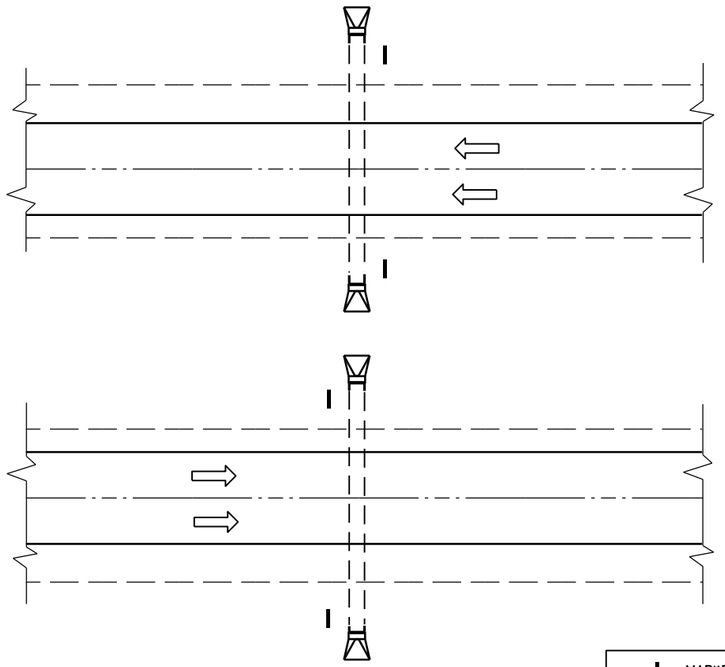
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
400
FHWA

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S.D.D. 14 B 47-2c

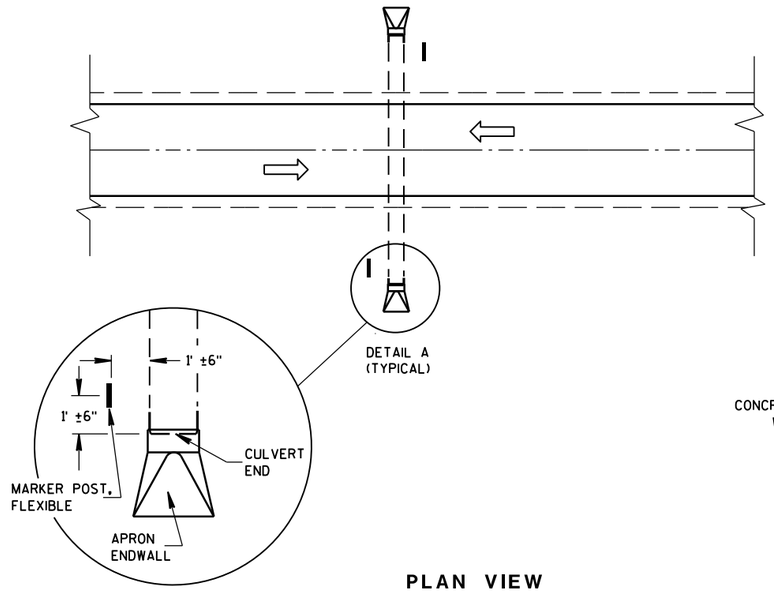
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S.D.D. 14 B 47-2c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

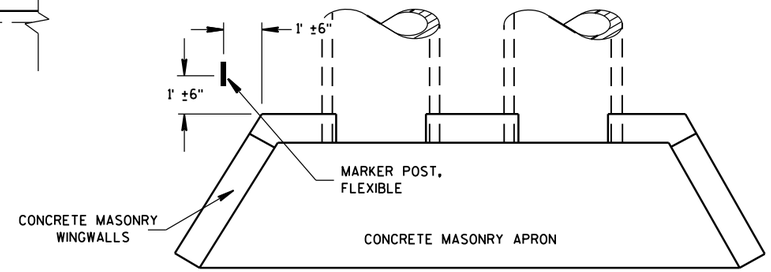
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

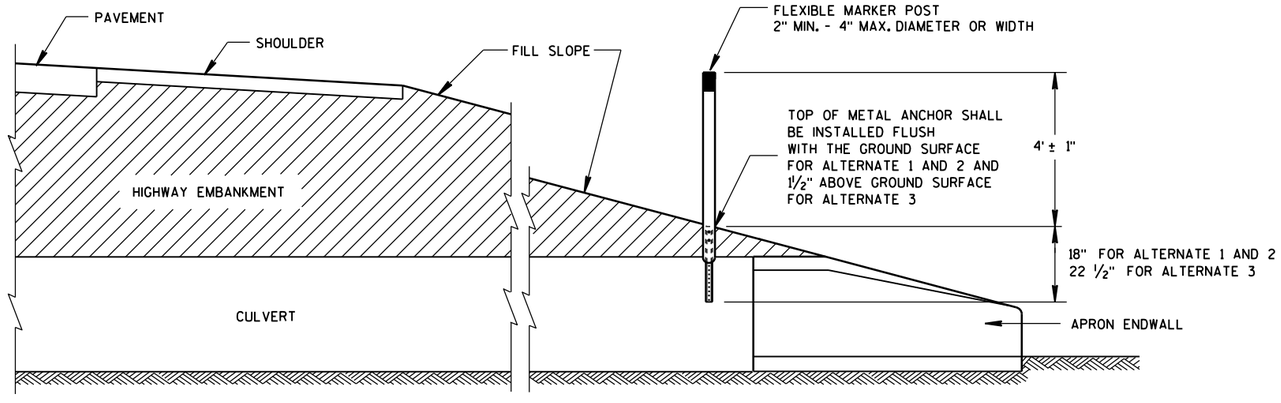
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

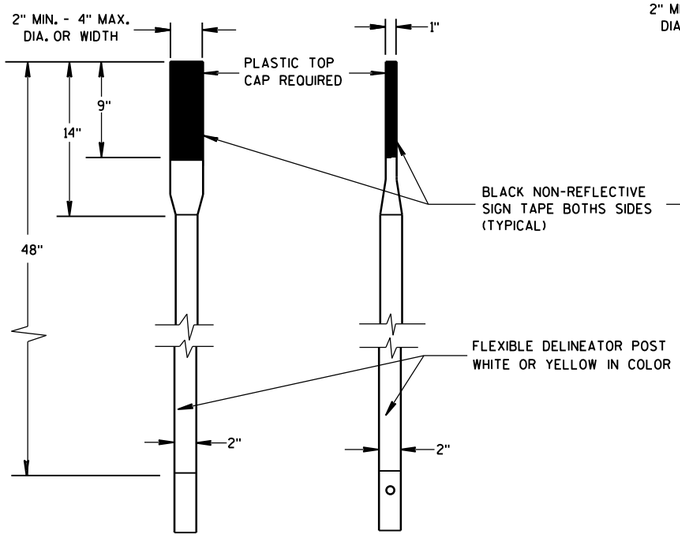
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

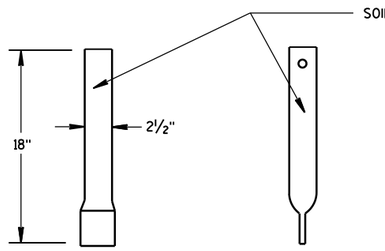
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S.D.D. 15 A 3-2a

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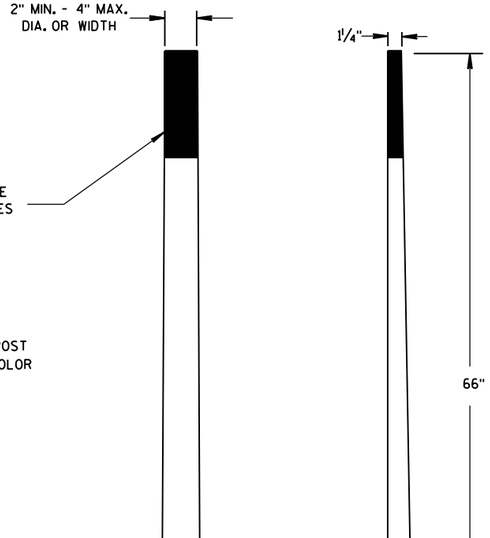
S.D.D. 15 A 3-2a





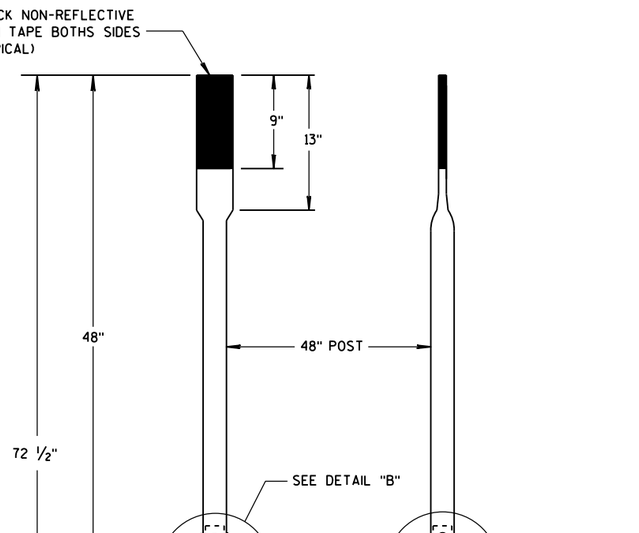
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

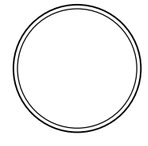
ALTERNATE 2



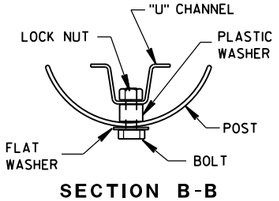
FRONT VIEW SIDE VIEW

ALTERNATE 3

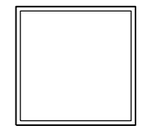
FLEXIBLE MARKER POSTS



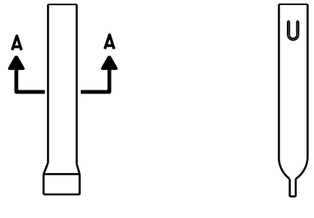
SECTION A-A



SECTION B-B

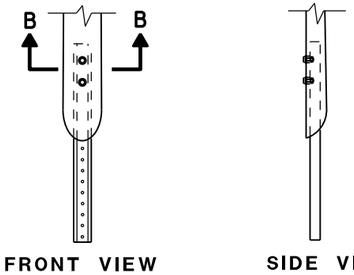


SECTION C-C



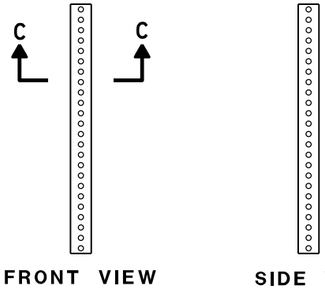
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

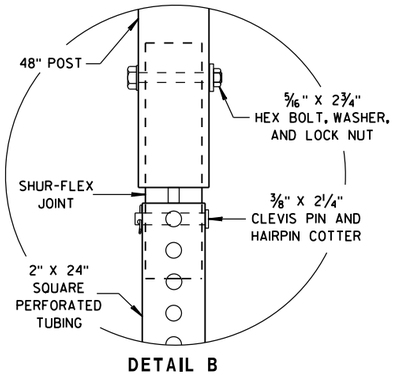
ALTERNATE 2



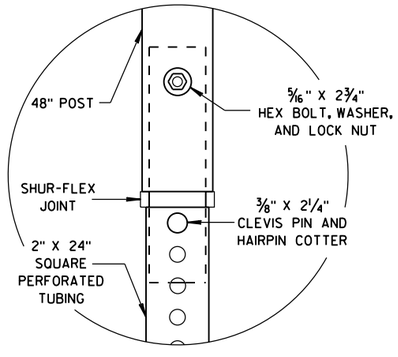
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

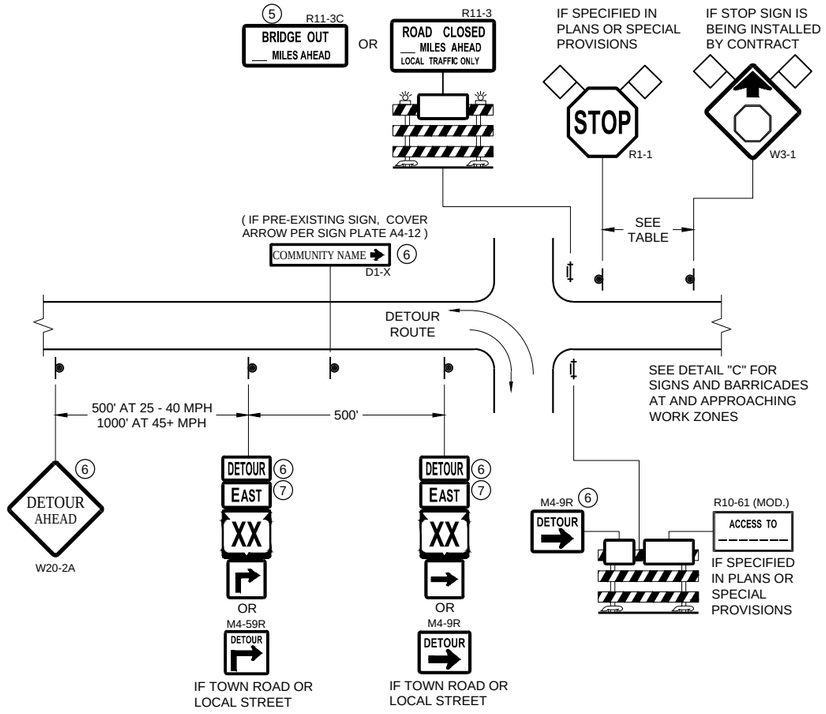
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

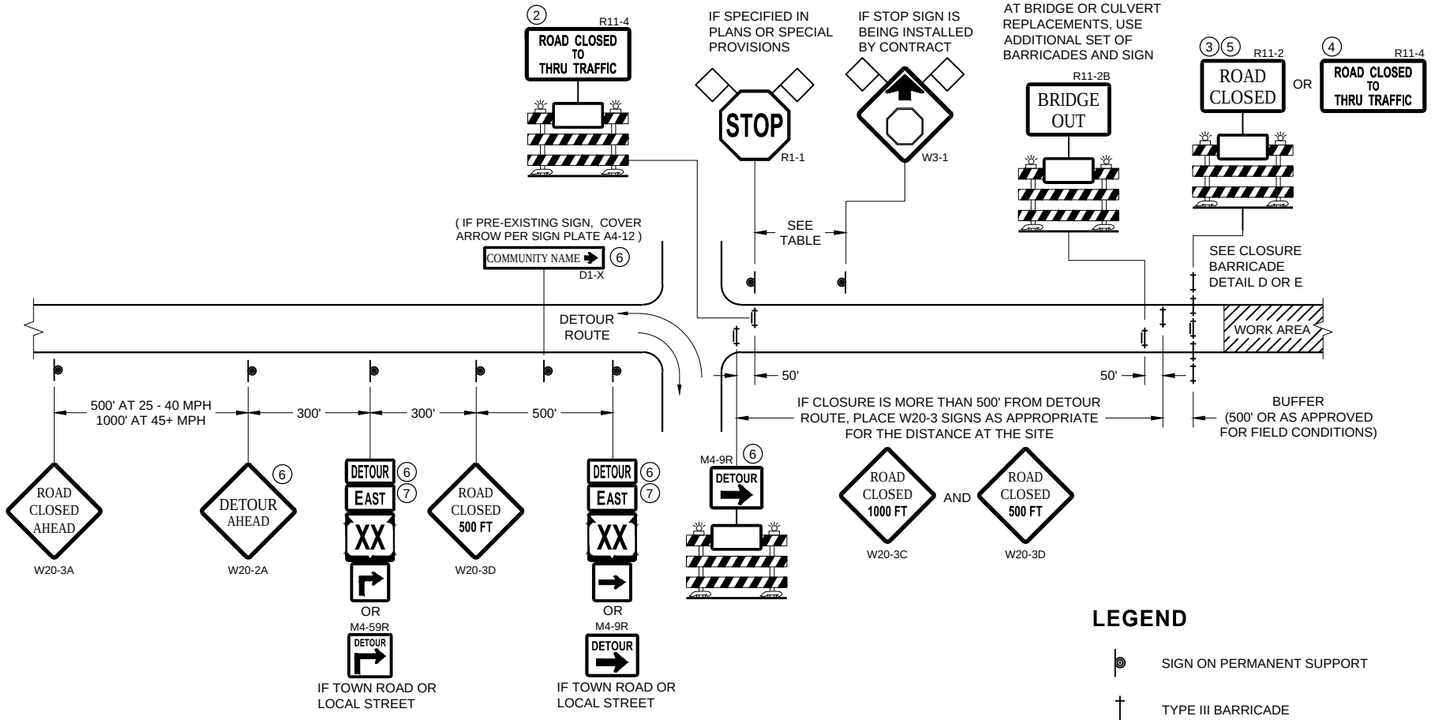
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S.D.D. 15 A 3-2b

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S.D.D. 15 A 3-2b



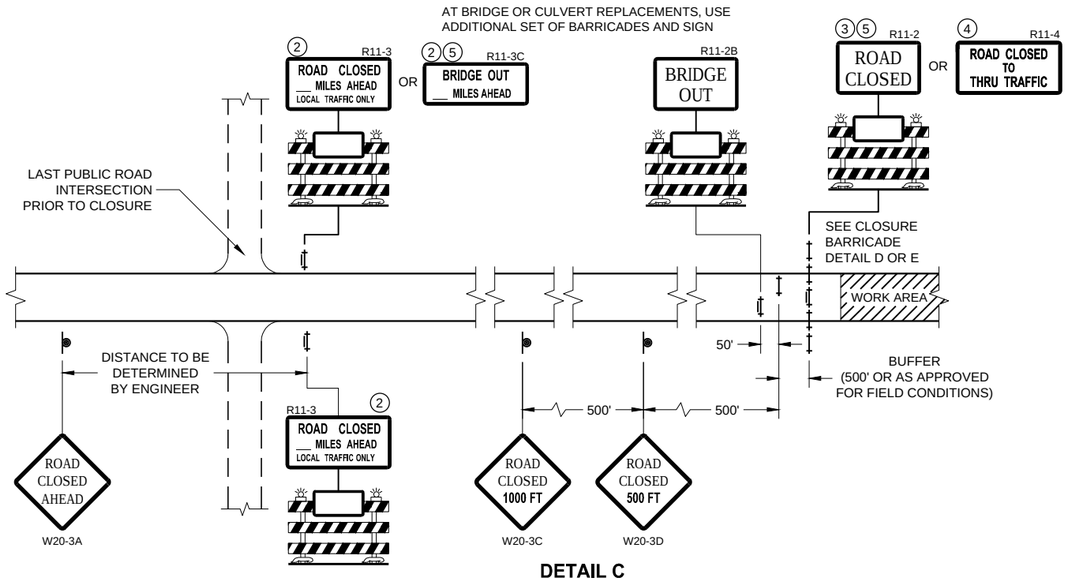


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

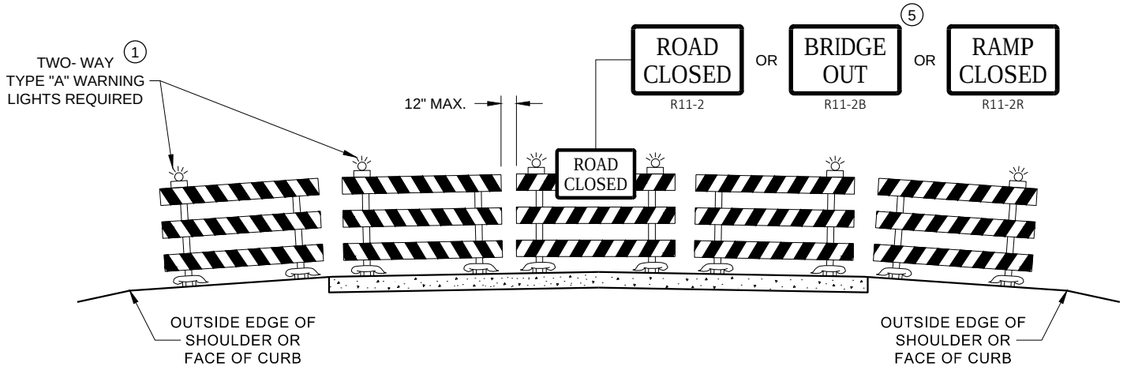
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

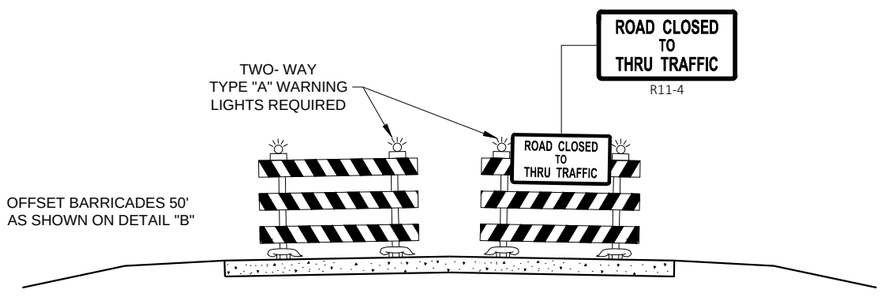
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SDD 15C02 - 07a



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.

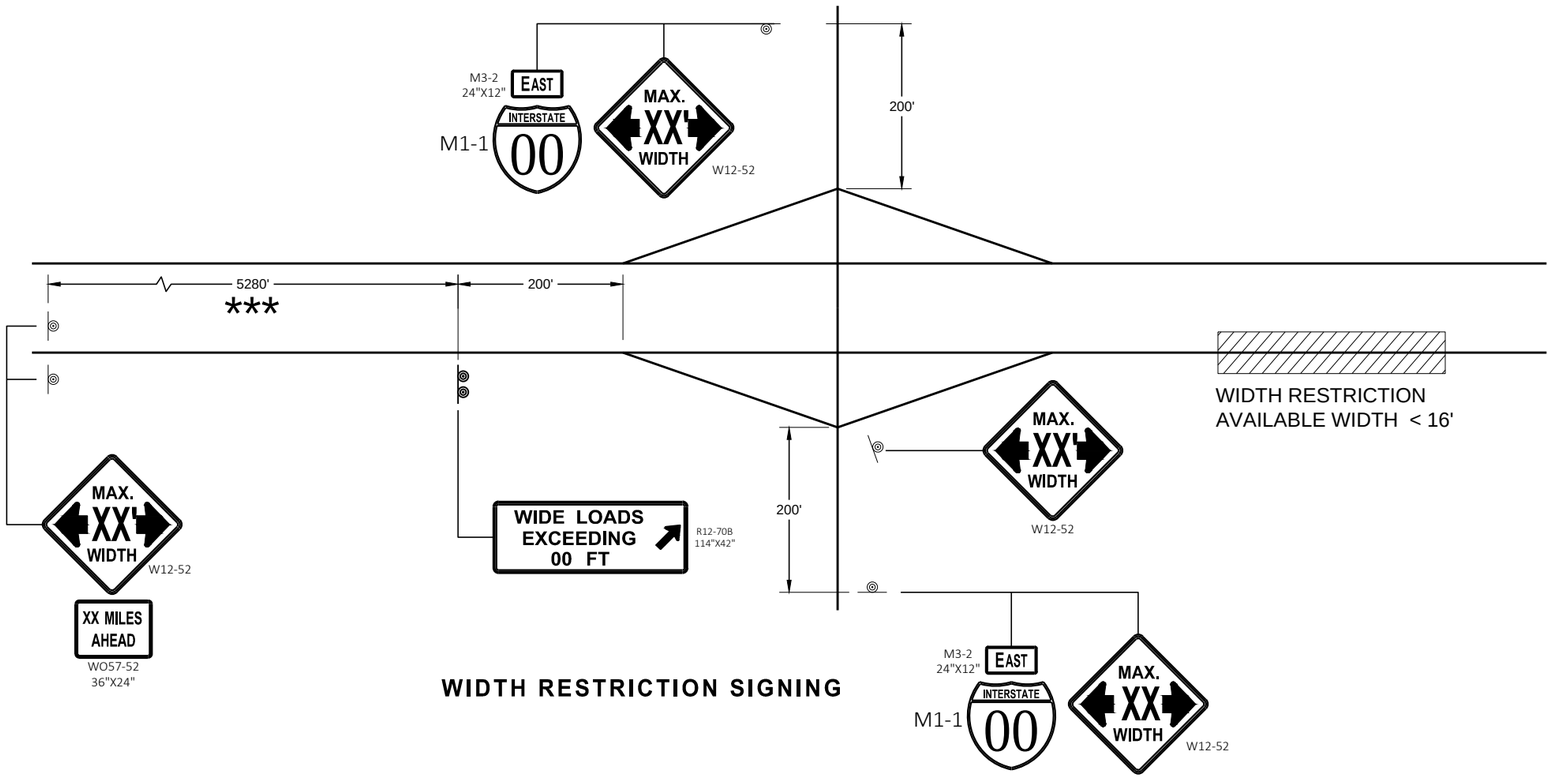
BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 07b



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

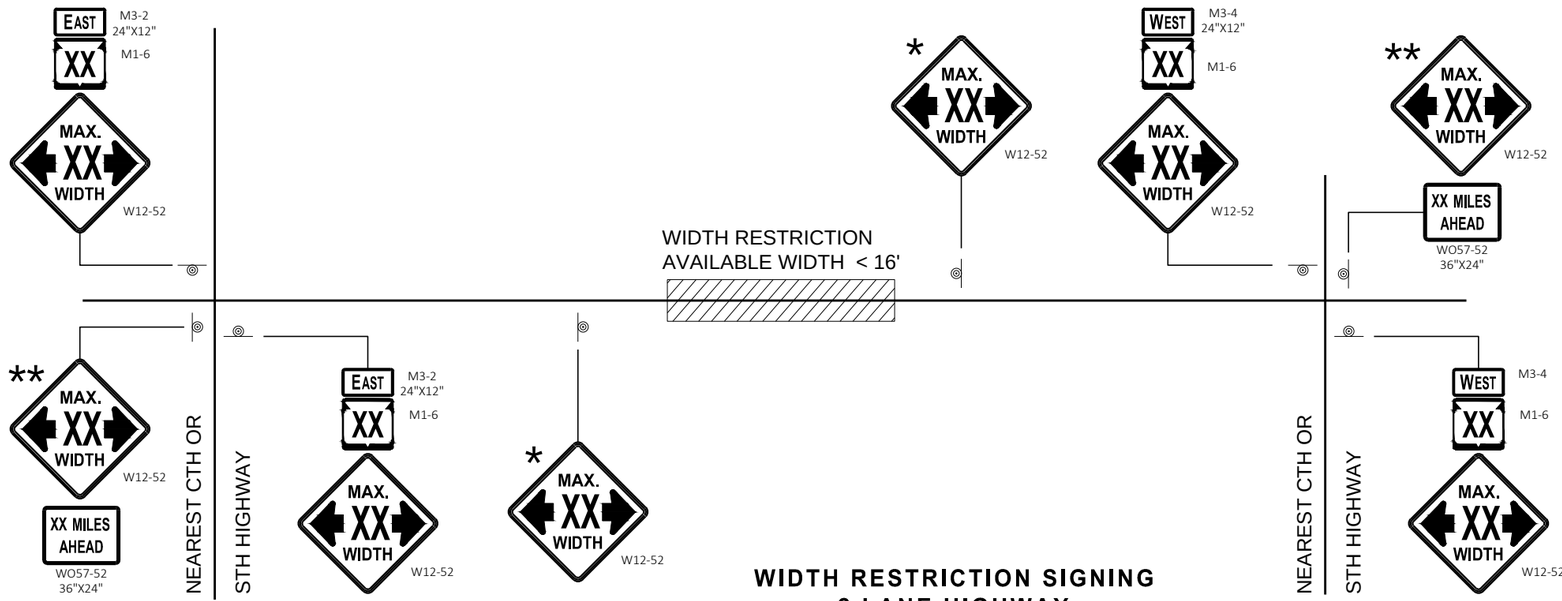
* PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

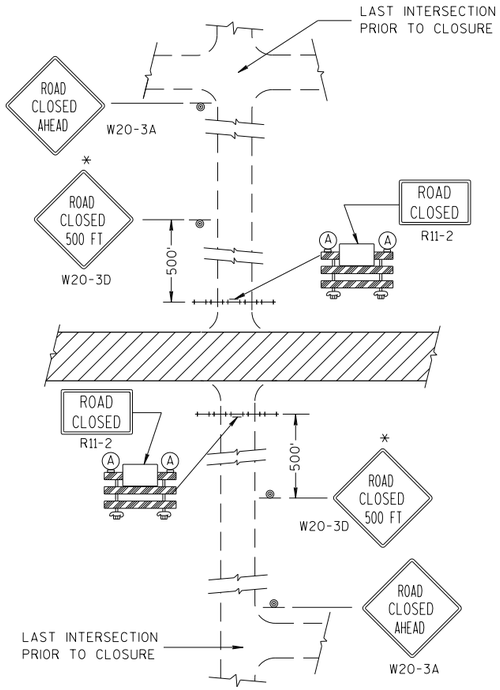
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

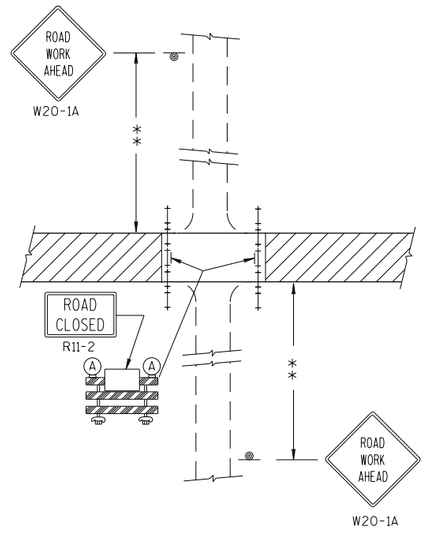
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SDD 15C02 - 07f



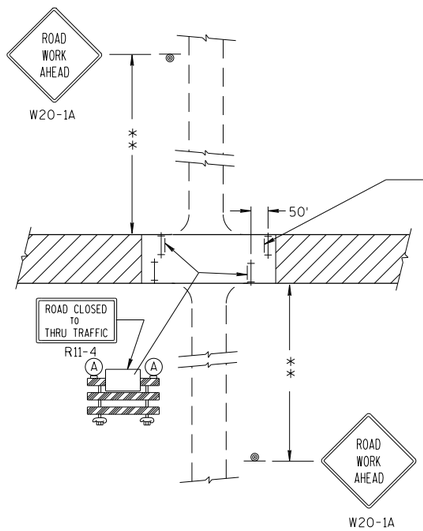
DETAIL 1

(NO ACCESS TO PROJECT)



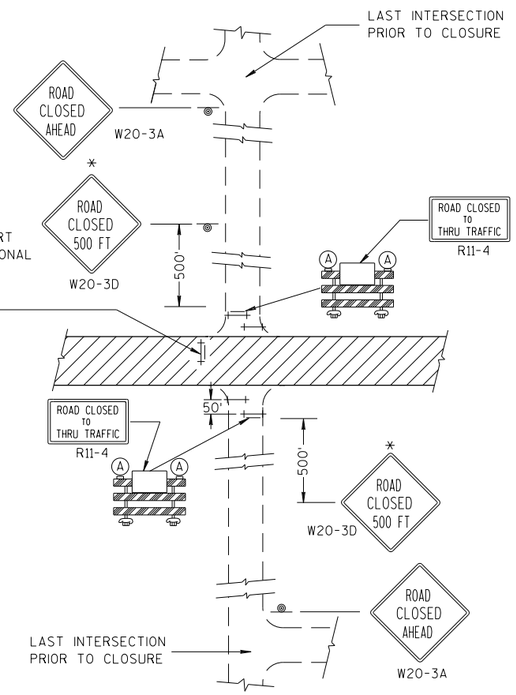
DETAIL 2

(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

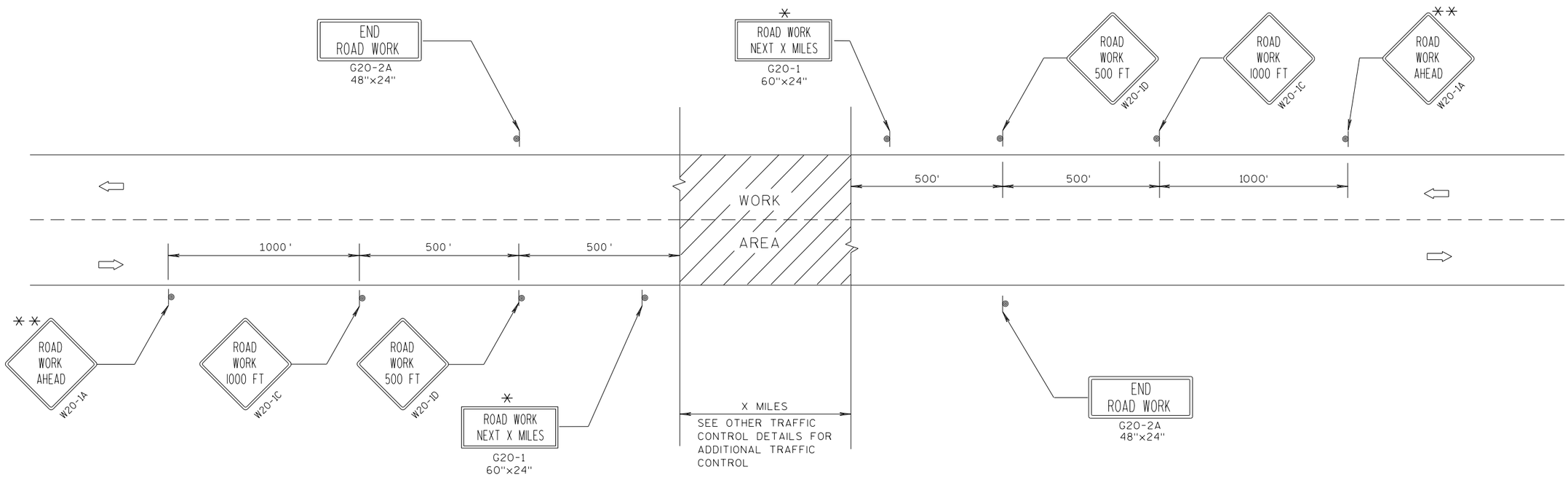
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S.D.D. 15 C 3-5

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S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

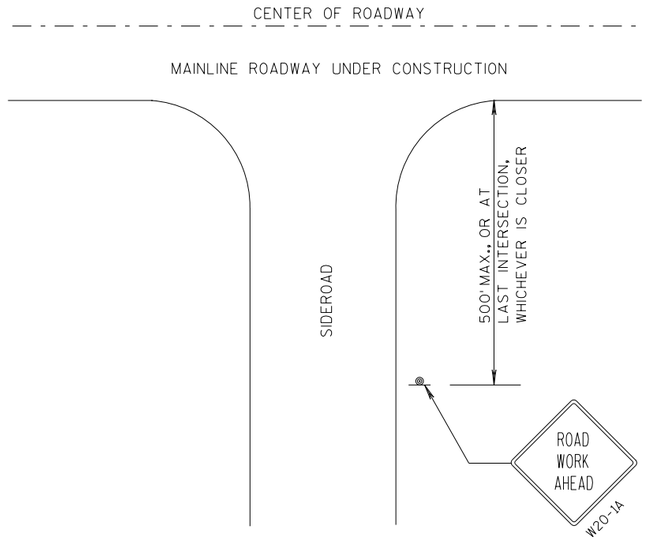
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

✳ OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

✳✳ PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
DATE

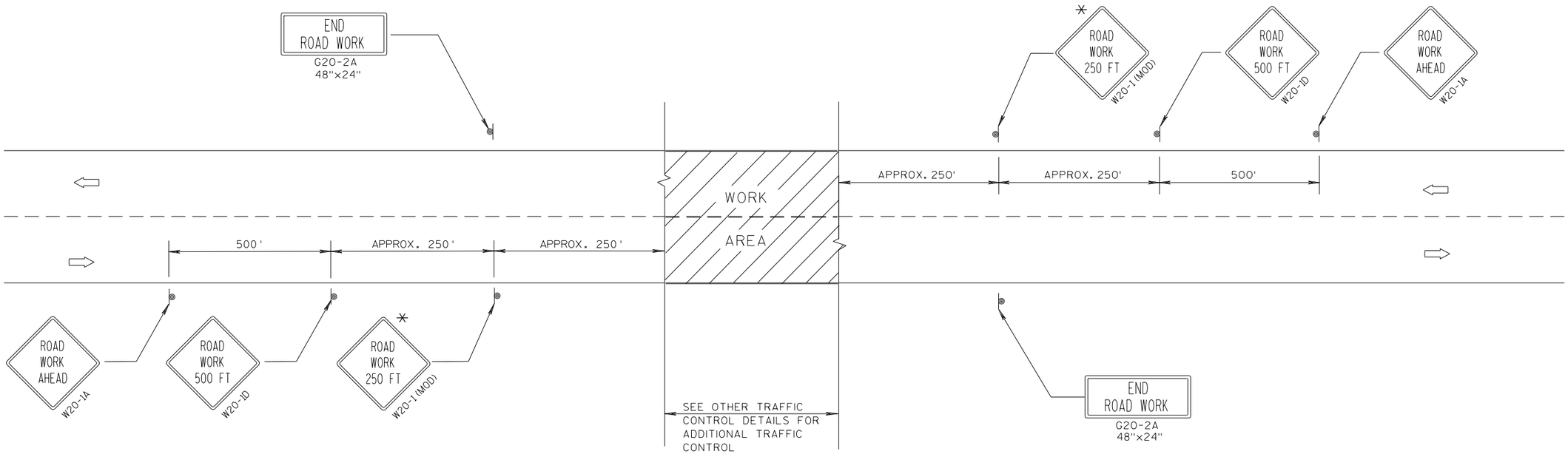
/S/ Andrew Heldtke
WORK ZONE ENGI

FHWA

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S.D.D. 15 C 4-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

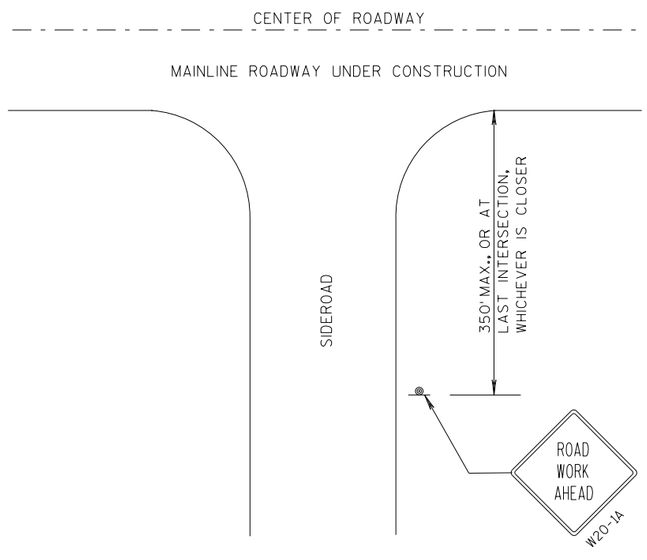
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
DATE

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WORK ZONE ENGI

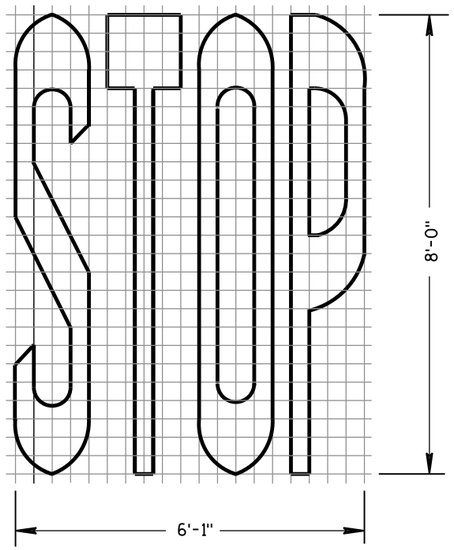
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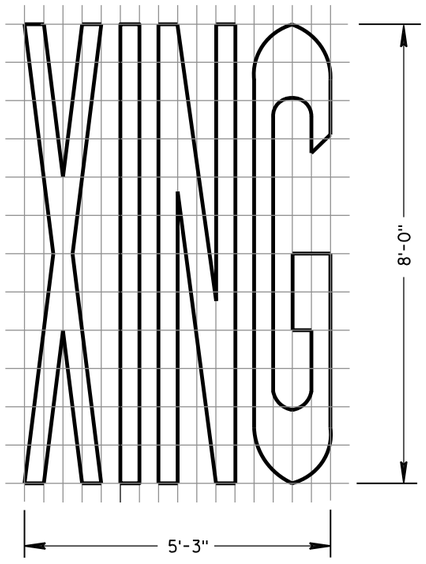
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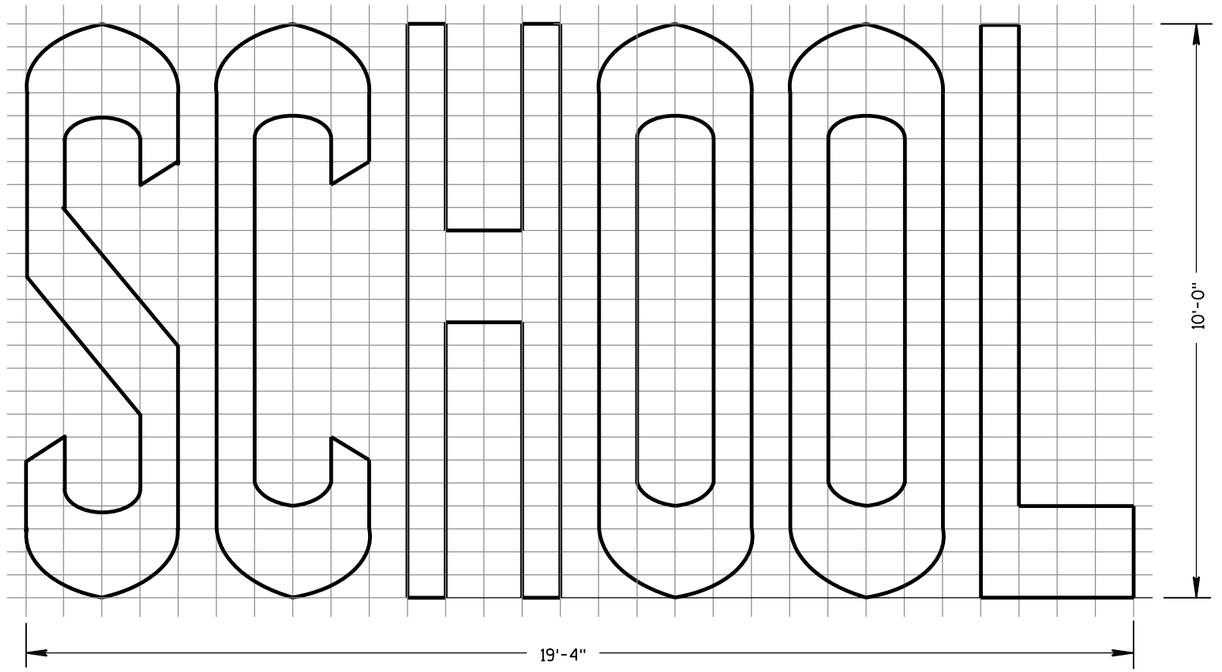
S.D.D. 15 C 5-5

GENERAL NOTES

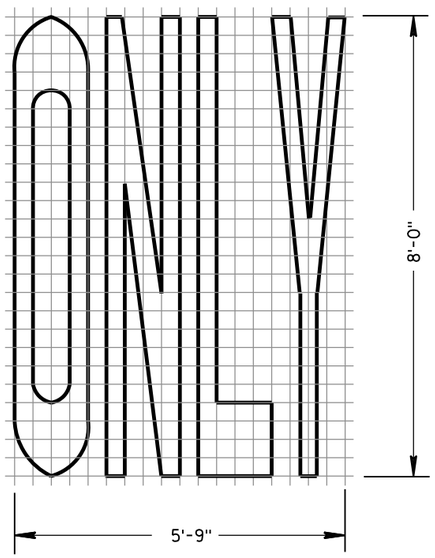
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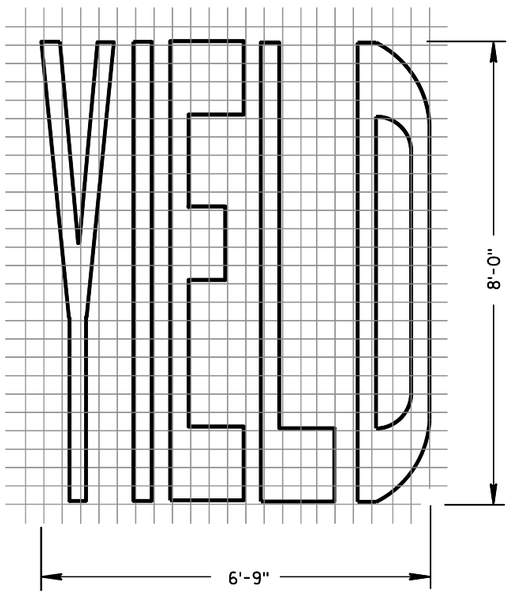


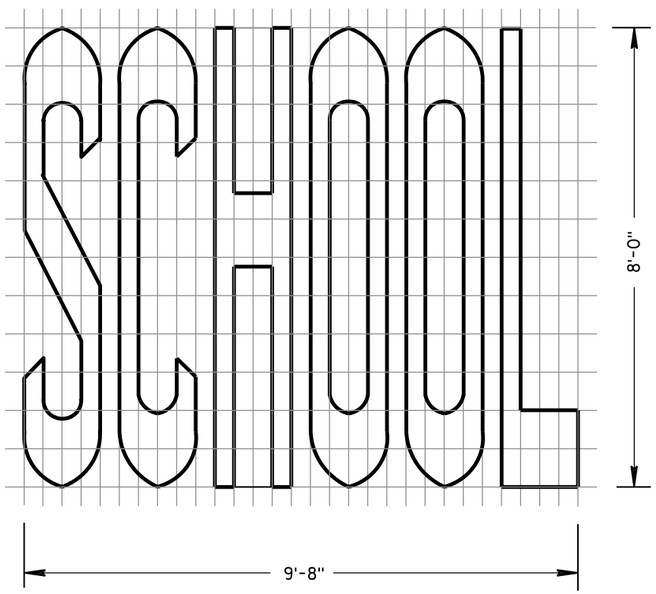




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
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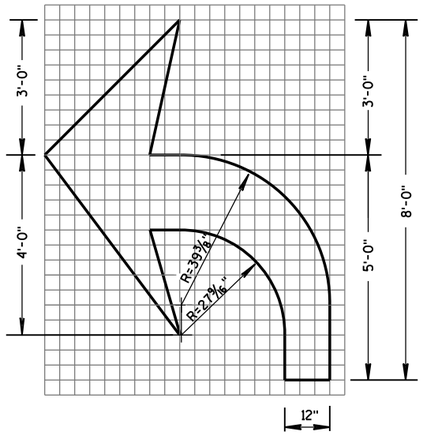
S.D.D. 15 C 7-14b

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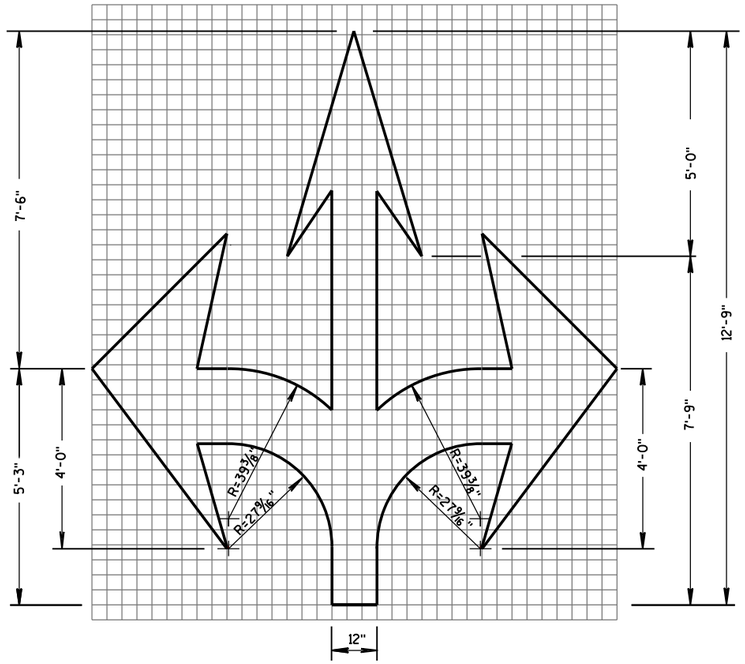
S.D.D. 15 C 7-14b

GENERAL NOTES

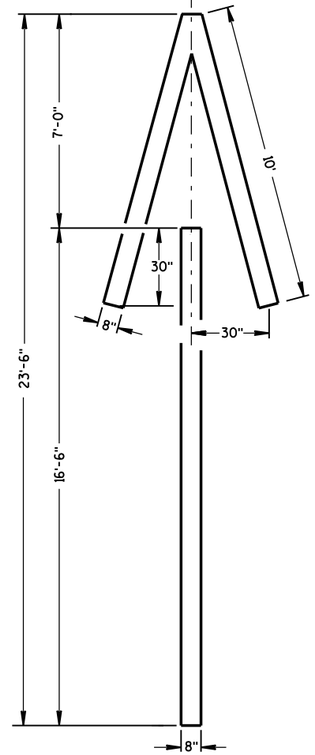
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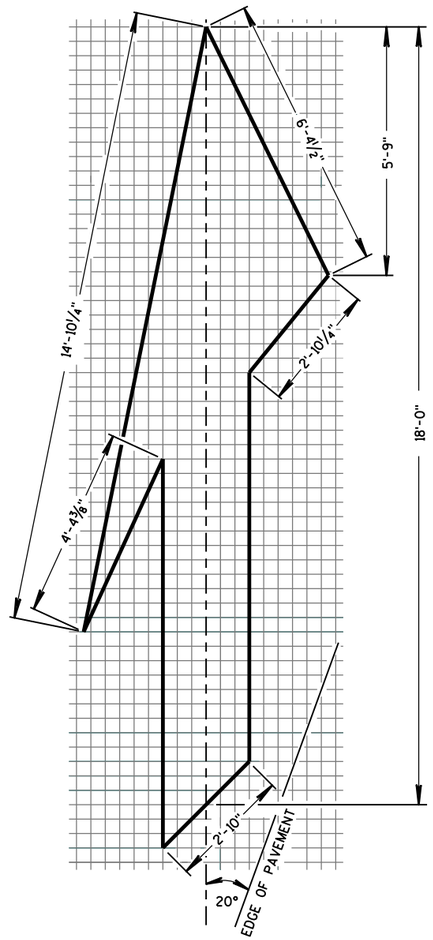
TYPE 2



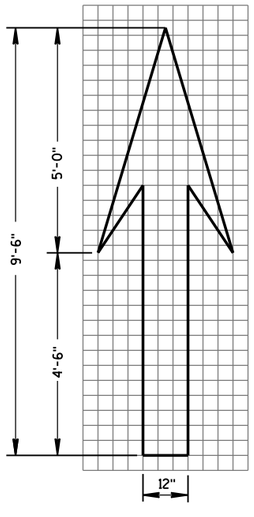
TYPE 6



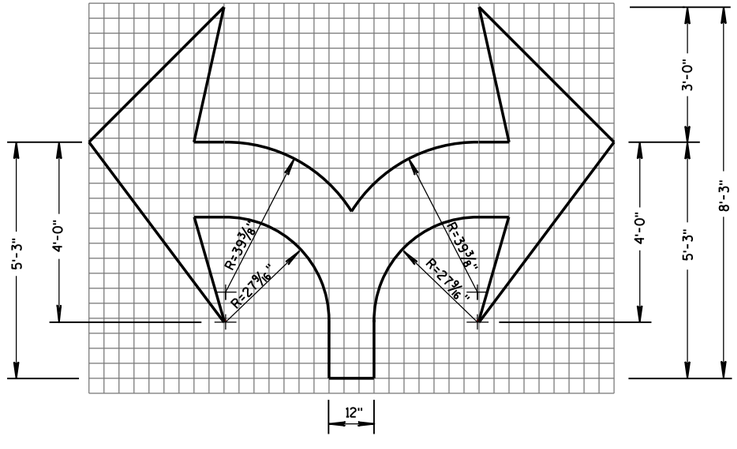
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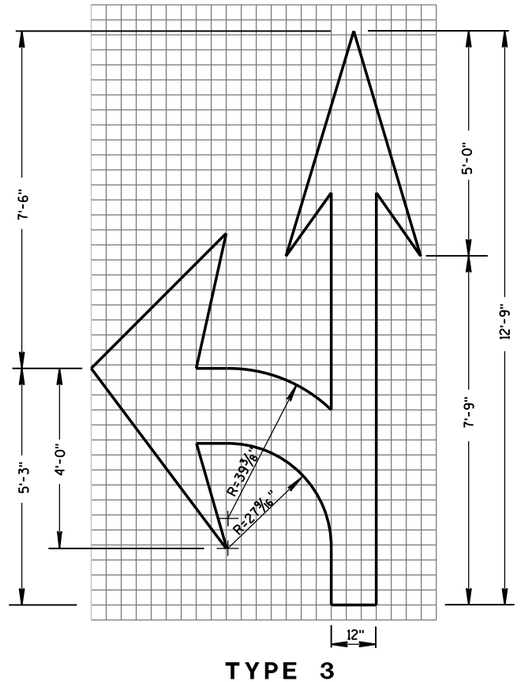
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER
FHWA

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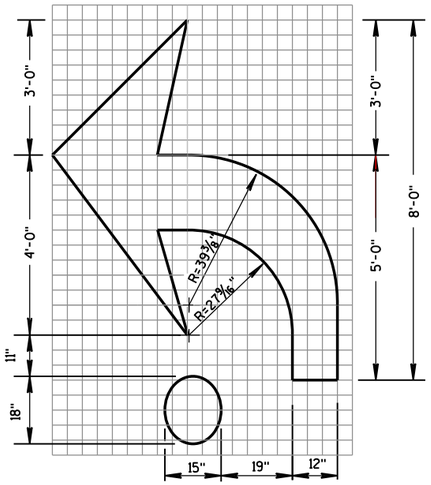
S.D.D. 15 C 7-14c

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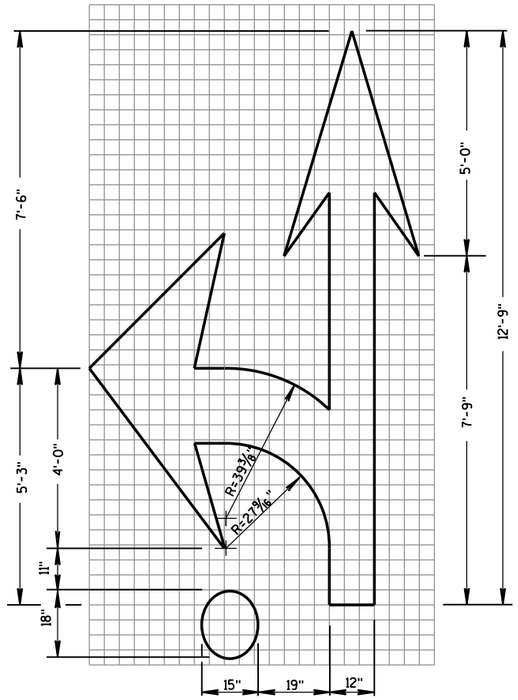
S.D.D. 15 C 7-14c

GENERAL NOTES

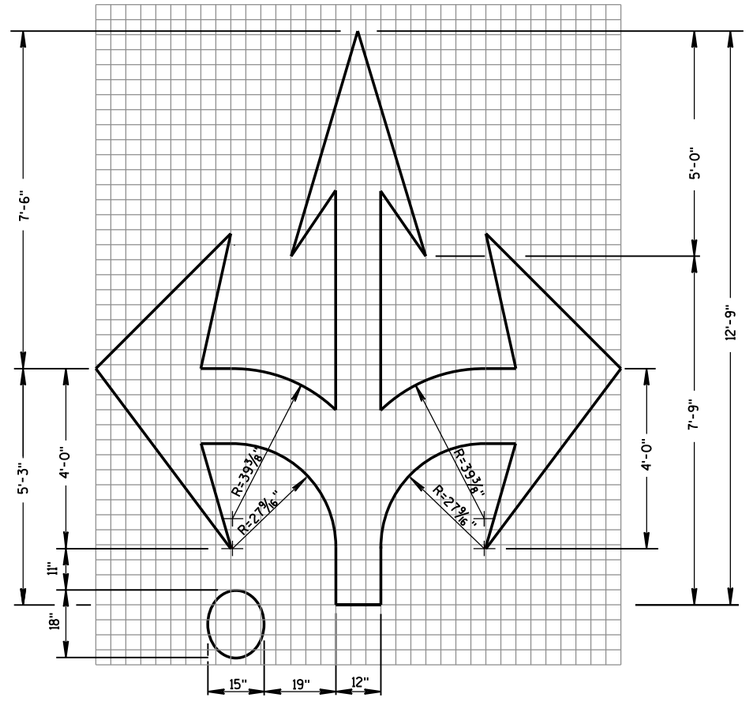
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



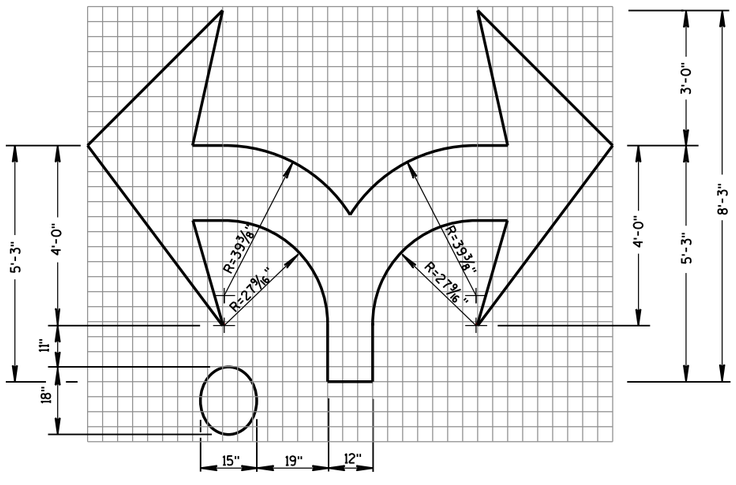
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

ROUNDABOUT ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

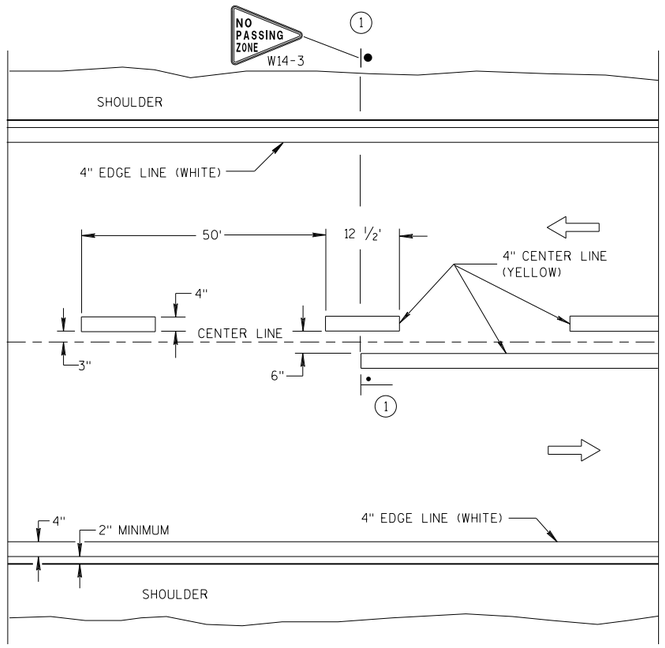
APPROVED
June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR NEER

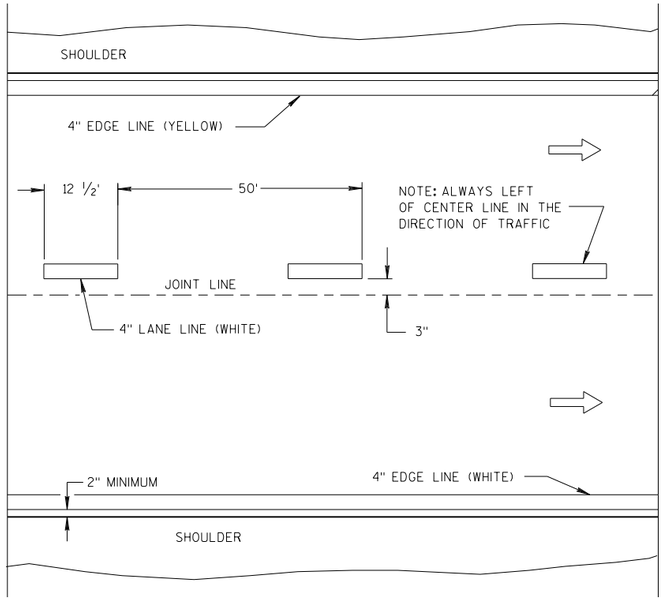
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S.D.D. 15 C 7-14d



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.

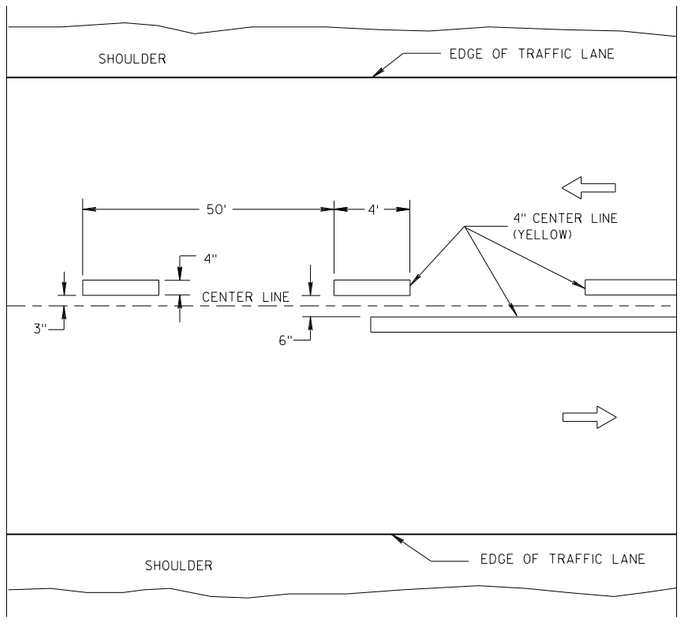
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

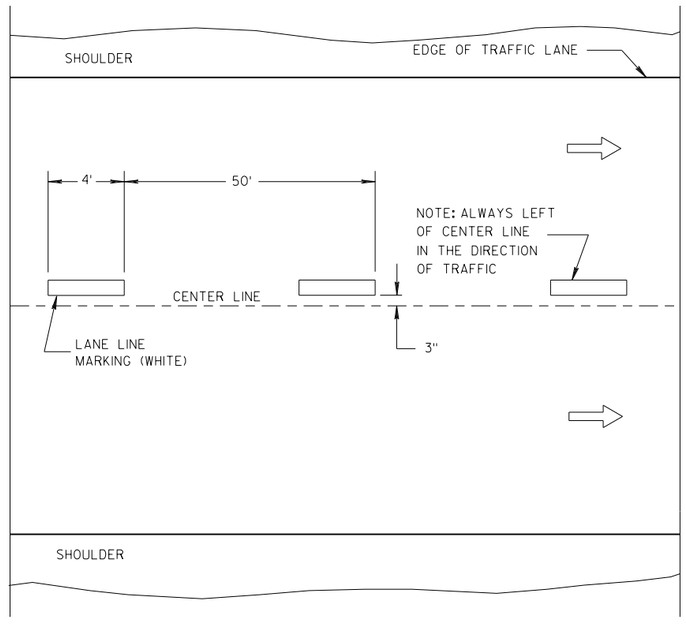
LEGEND

"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

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

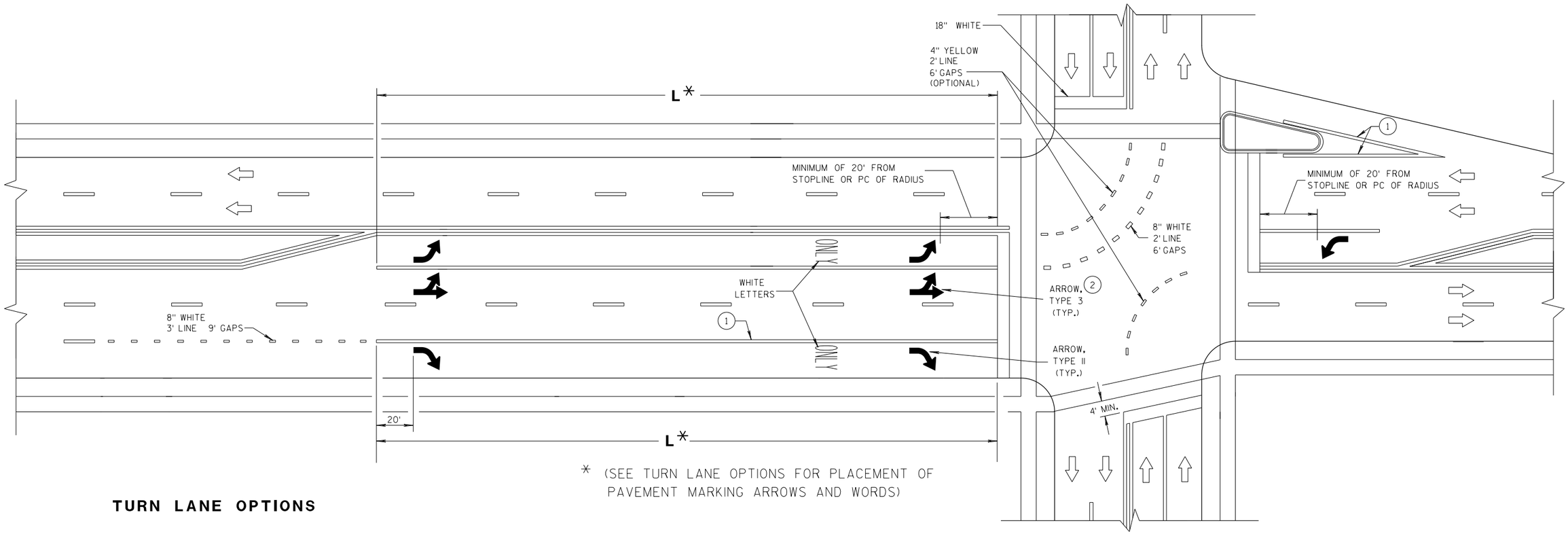
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S.D.D. 15 C 8-19a

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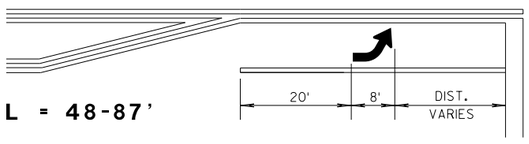
S.D.D. 15 C 8-19a



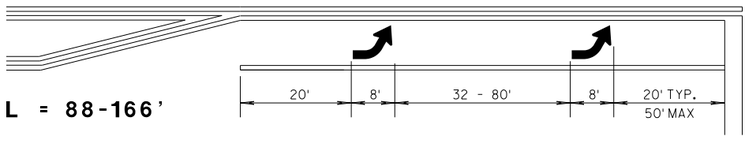
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

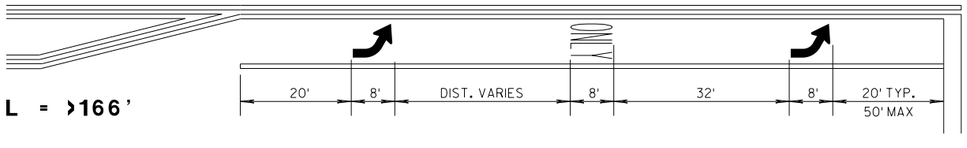
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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

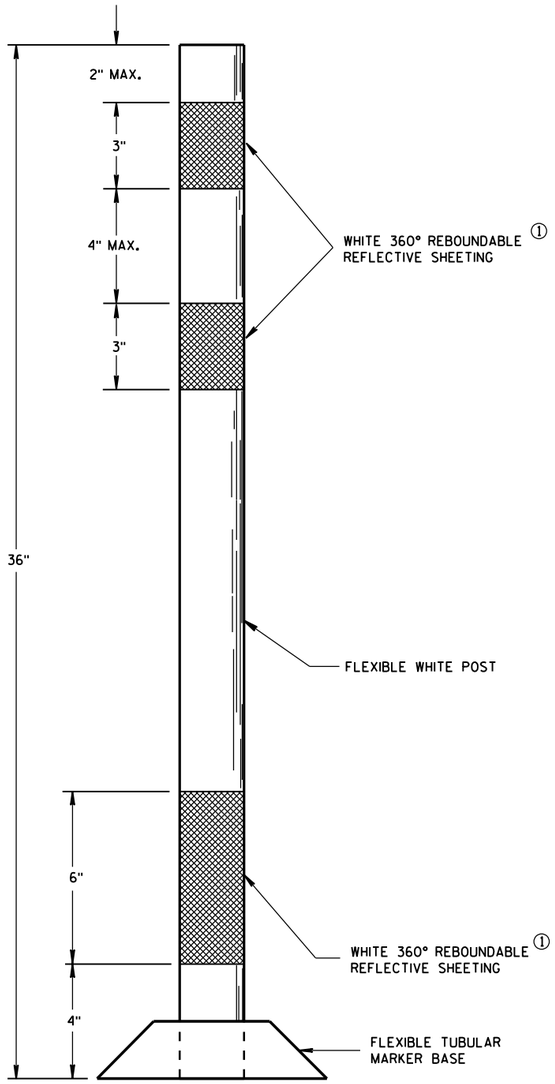
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

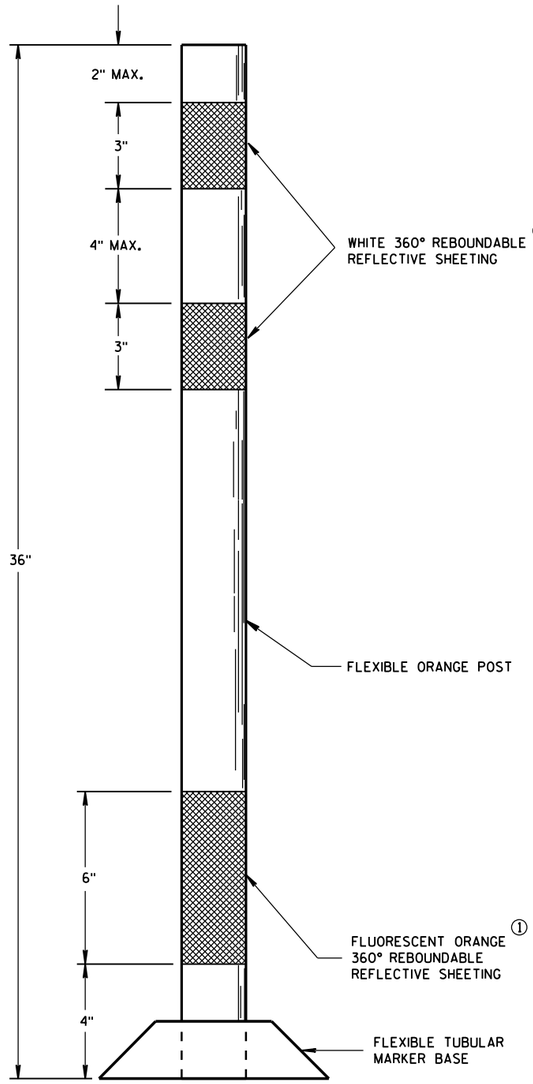
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

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S.D.D. 15 C 8-19c



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

S.D.D. 15 C 11-7a

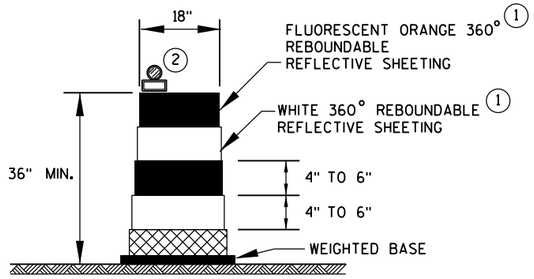
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

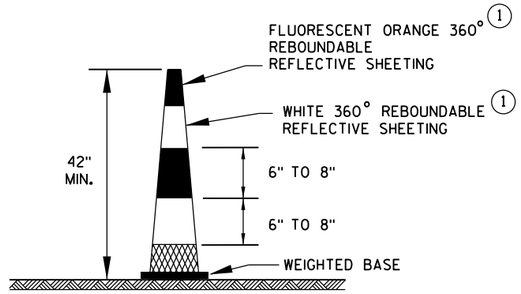
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FHWA

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S.D.D. 15 C 11-7a



DRUM

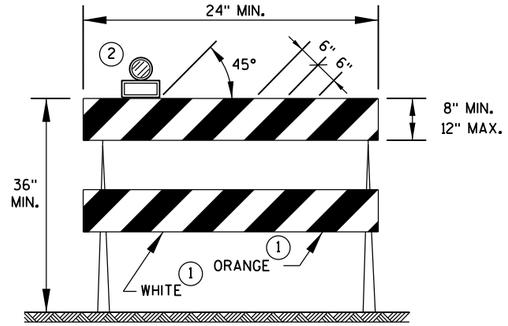


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

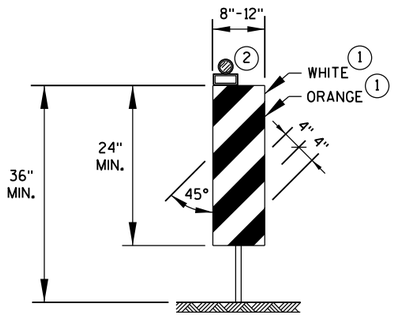
GENERAL NOTES

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.



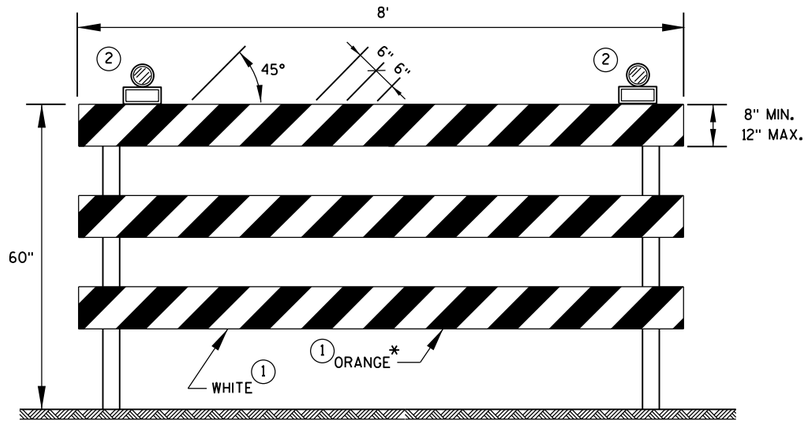
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 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

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S.D.D. 15 C 11-7b

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

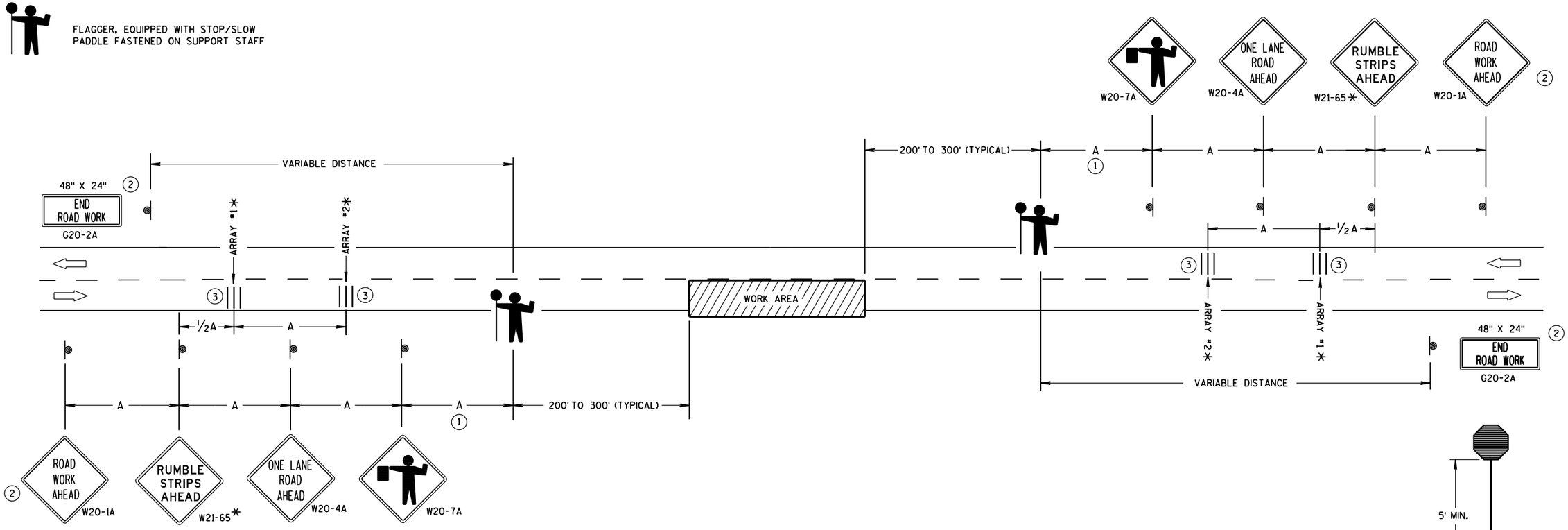
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

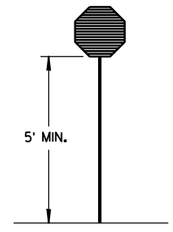


W03-4

USE OF THE "BE PREPARED TO STOP" 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



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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT 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.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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/S/ Andrew Heldtke — WORK ZONE ENG
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S.D.D. 15 C 12-6

GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) 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 BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

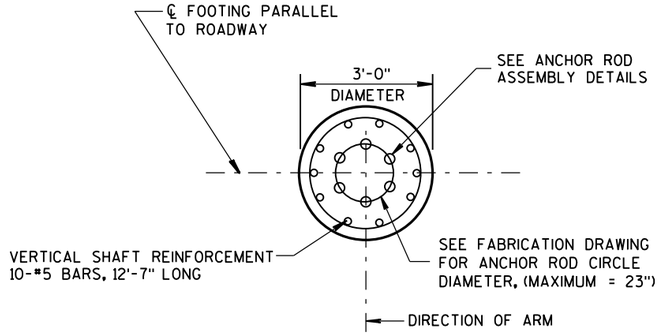
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH ¾" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

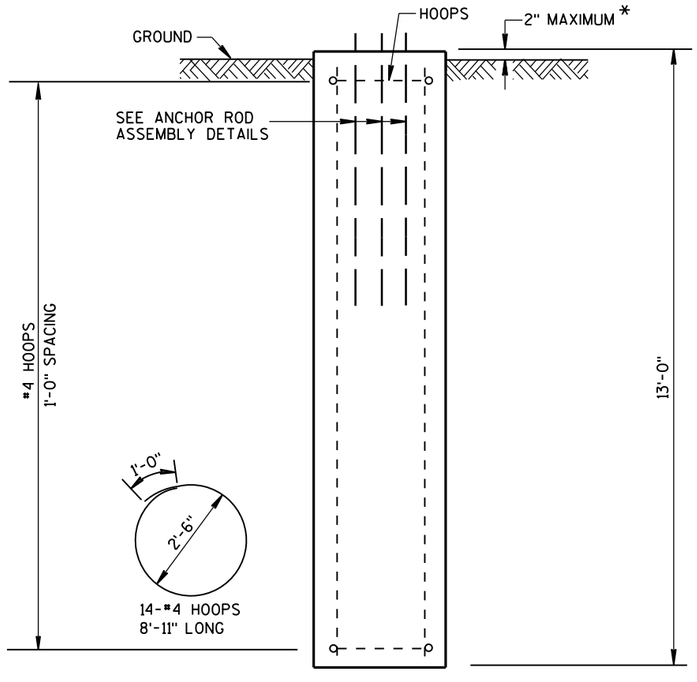
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

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	fy=55,000 p.s.i.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.	
PLATES, ASTM A709, GRADE 36	fy=36,000 p.s.i.

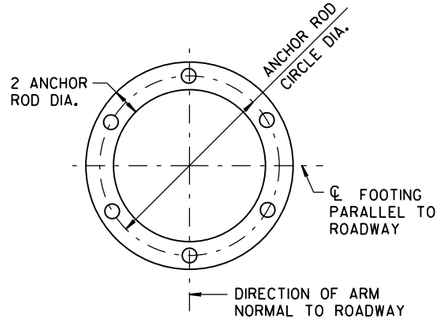
THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



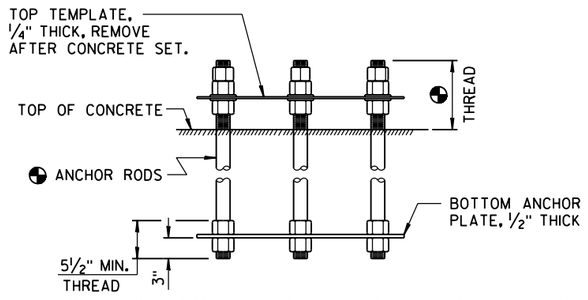
PLAN VIEW



ELEVATION VIEW



TOP TEMPLATE AND BOTTOM ANCHOR PLATE



ANCHOR ROD ASSEMBLY DETAILS

⊕ MINIMUM OF 6 ANCHOR RODS, EXACT NUMBER, SIZE, DIMENSION AND ORIENTATION AS SHOWN ON FABRICATION DRAWING.

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

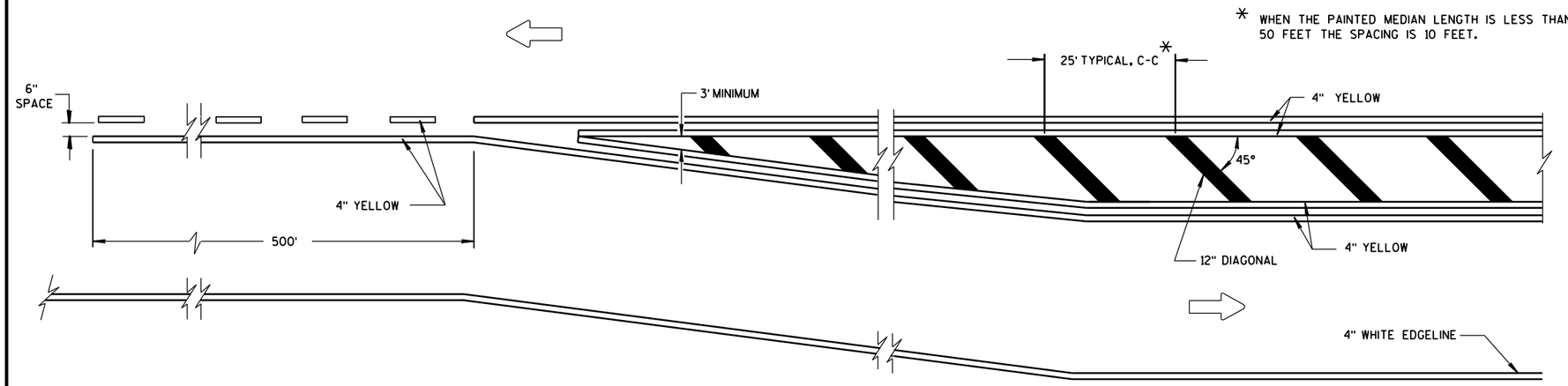
36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
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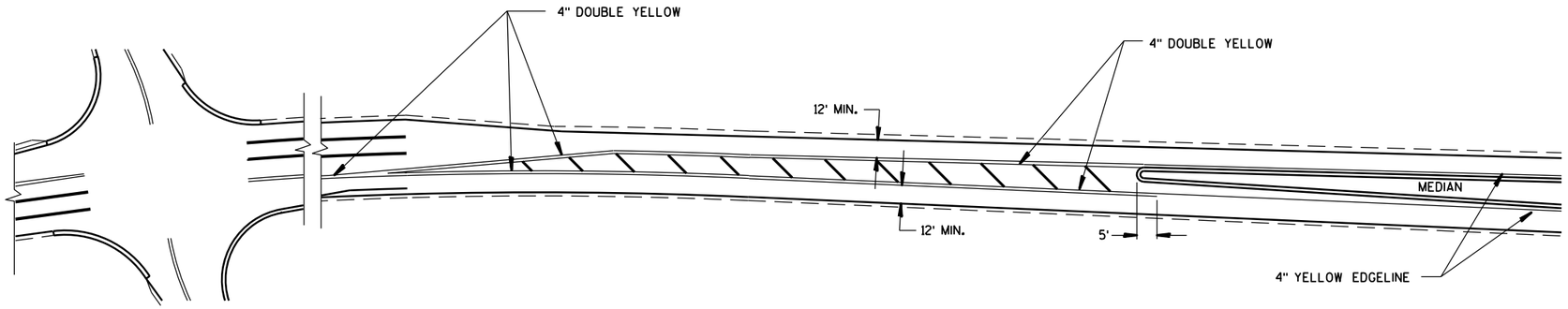


MEDIAN ISLAND DETAIL

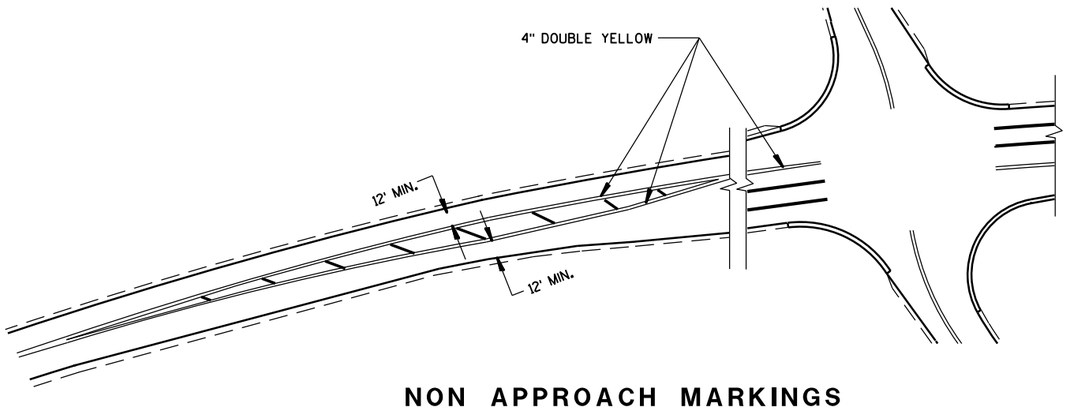
GENERAL NOTE

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

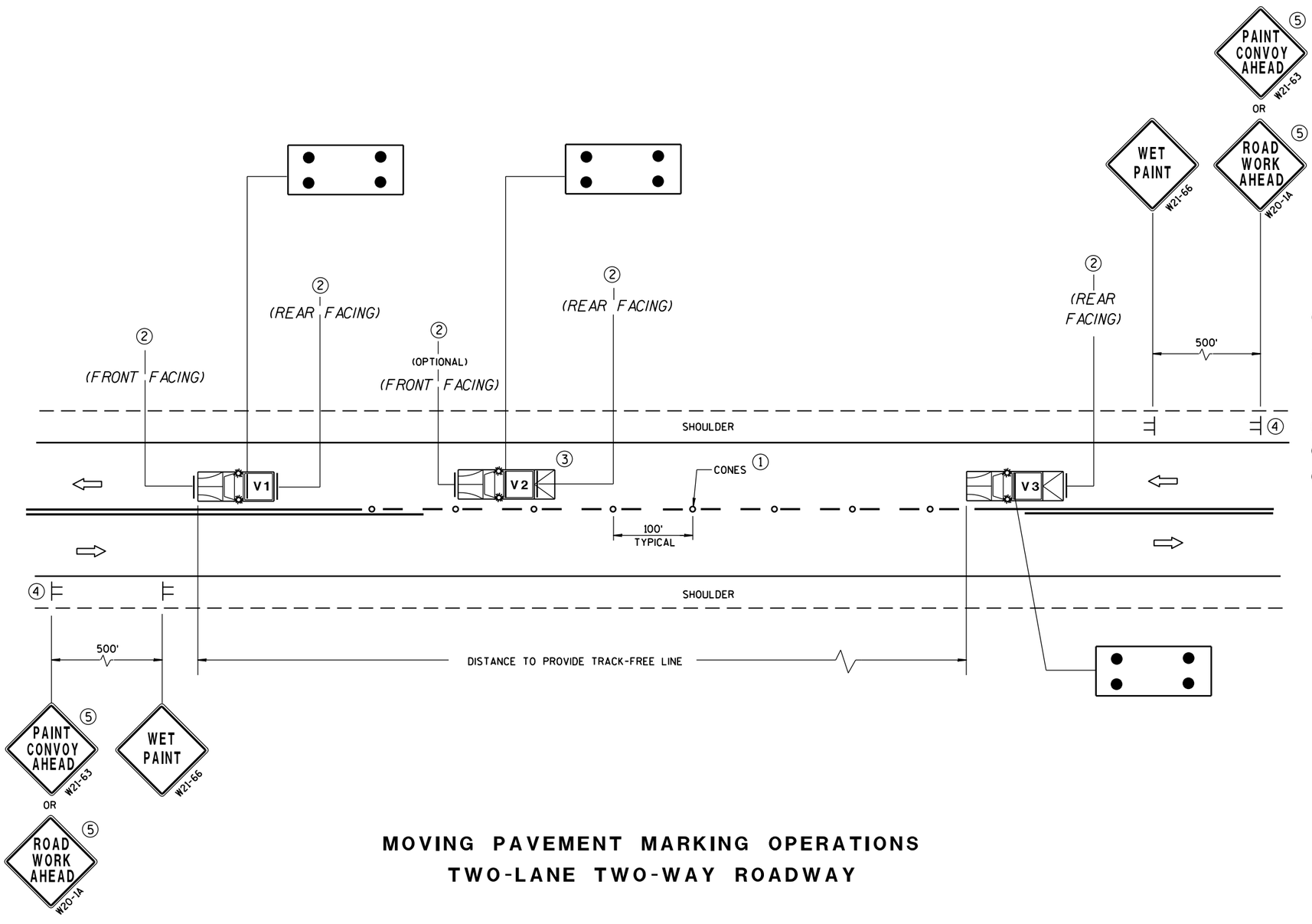
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE FHWA	/S/ Matthew Rauch STATE SIGNING AND MARK 418 EER

6

S.D.D. 15 C 18-4

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S.D.D. 15 C 18-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

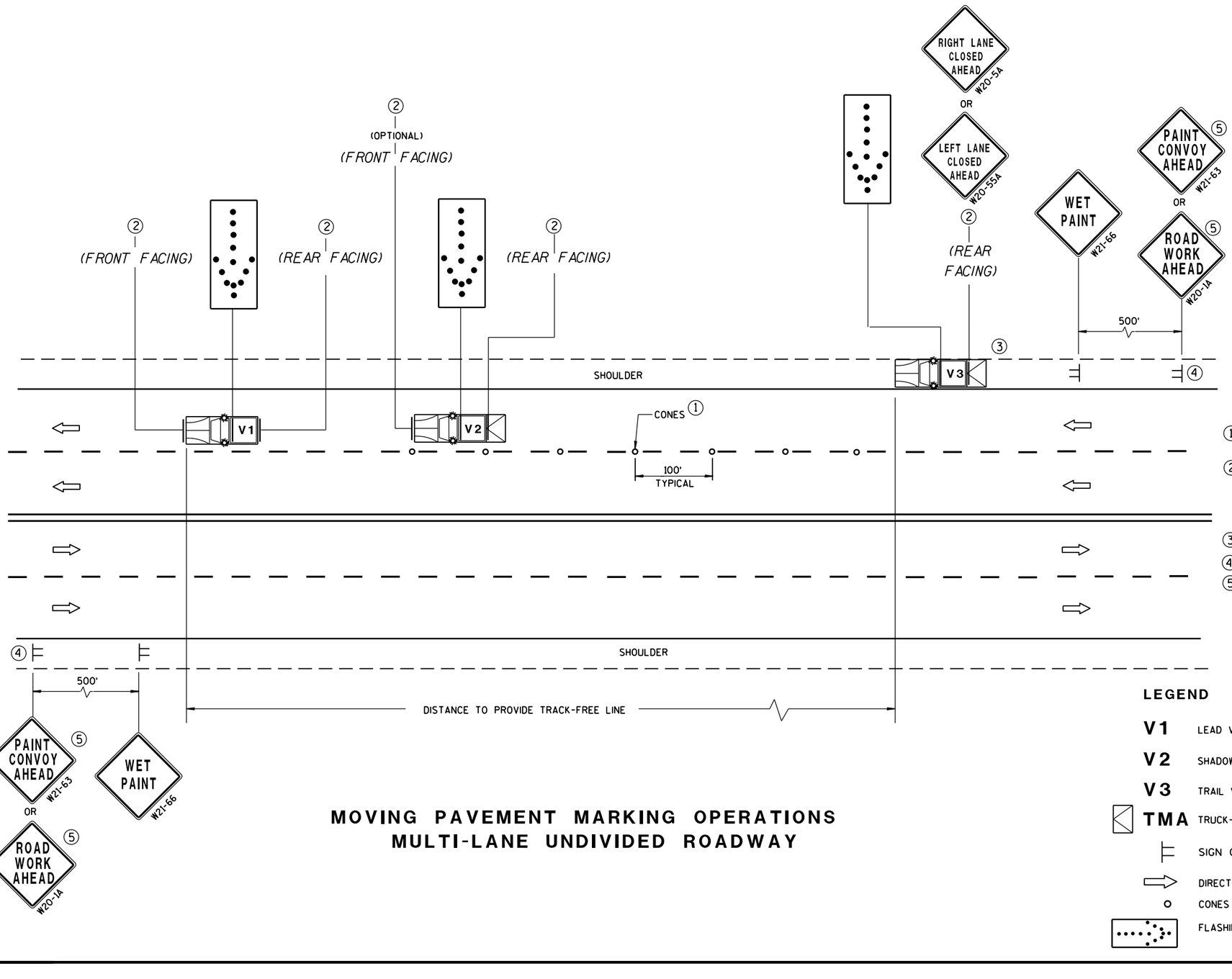
(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

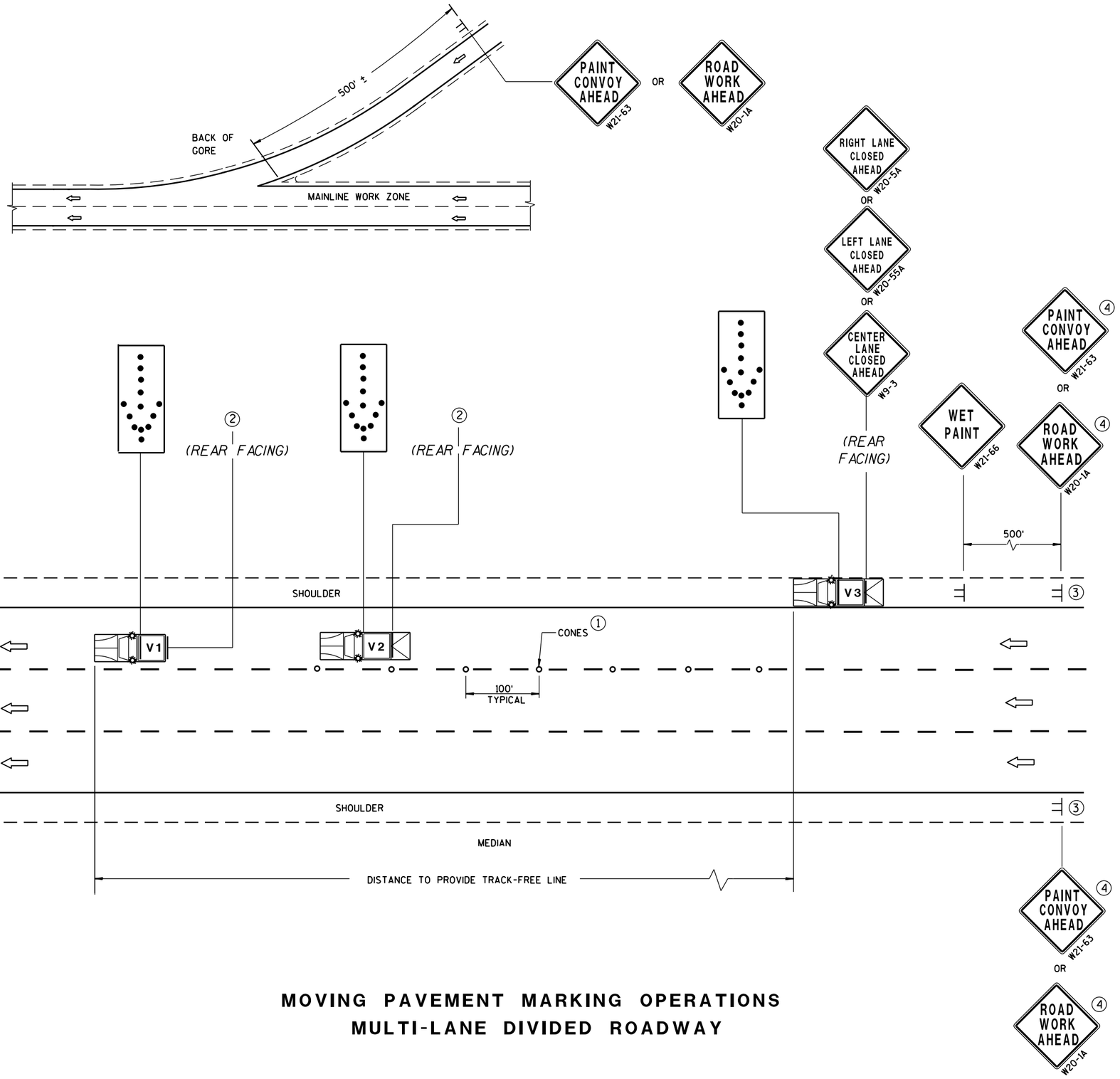
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGIN
FHWA

6

S.D.D. 15 C 19-5b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

④ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

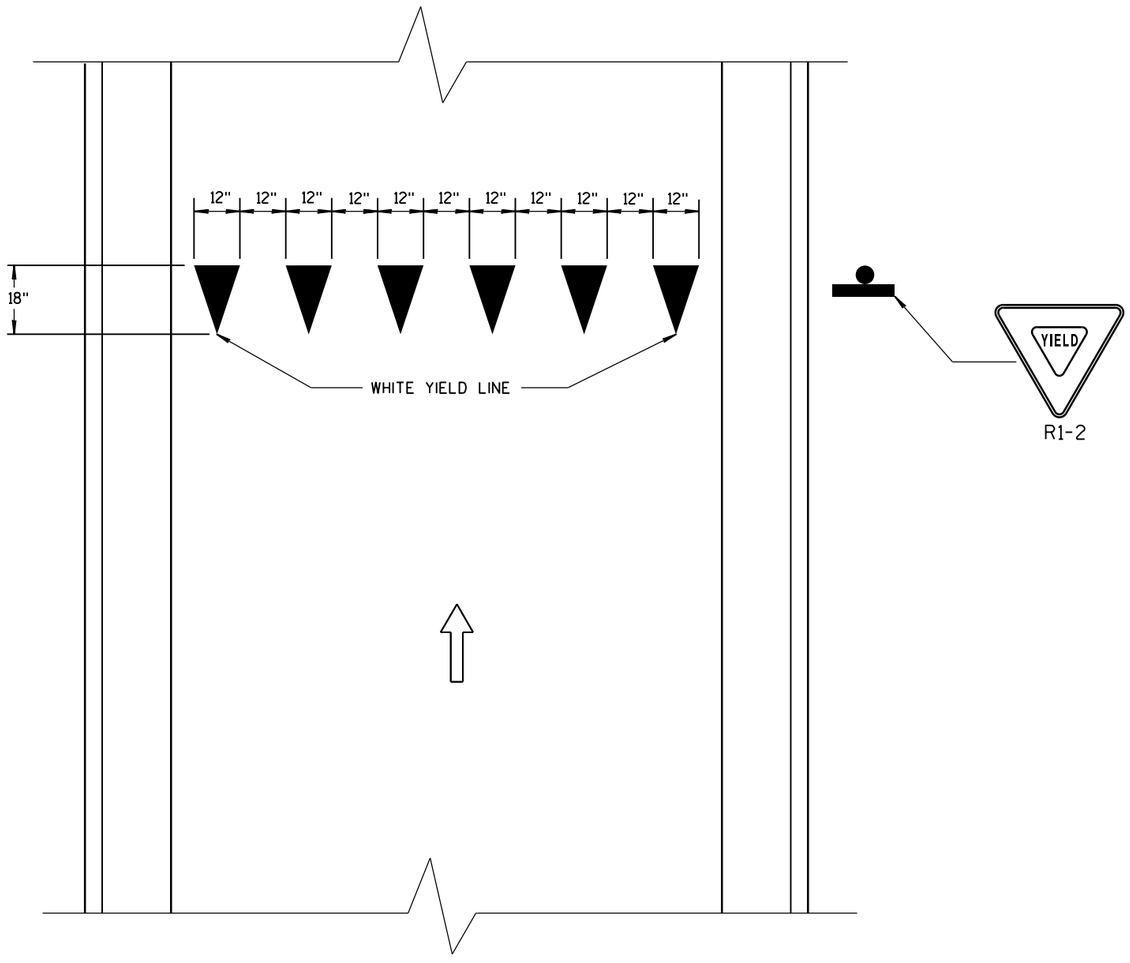
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 (DATE) /S/ Andrew Heldtke (WORK ZONE ENGR)
FHWA

6

S.D.D. 15 C 19-5c



R1-2



DIRECTION OF TRAVEL

YIELD LINE

6

6

S.D.D. 15 C 20-2

S.D.D. 15 C 20-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARI 422 IEER

FHWA

GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

(1) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

SYMBOLS

* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT

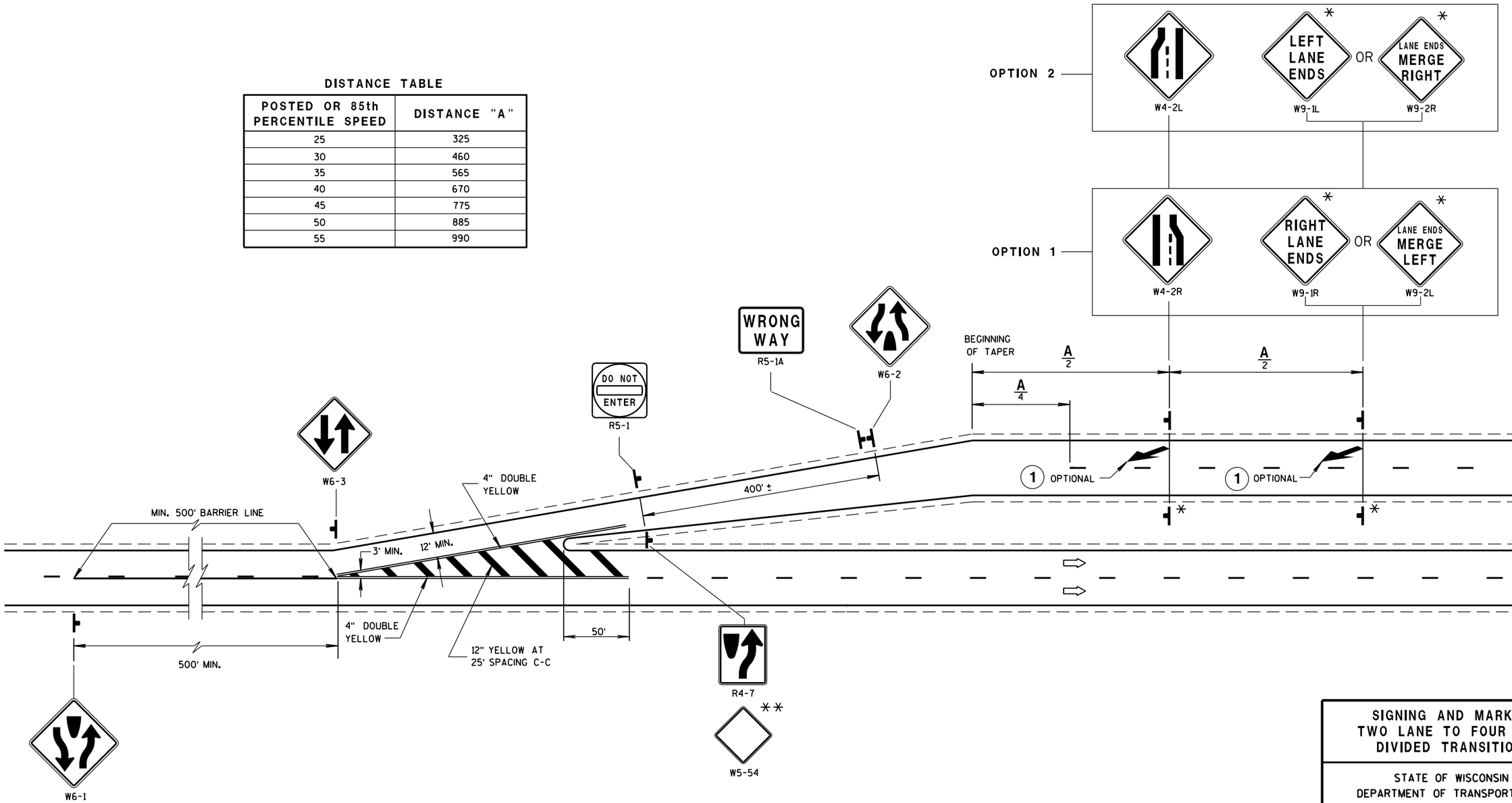
** IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	325
30	460
35	565
40	670
45	775
50	885
55	990



SIGNING AND MARKING
TWO LANE TO FOUR LANE
DIVIDED TRANSITIONS

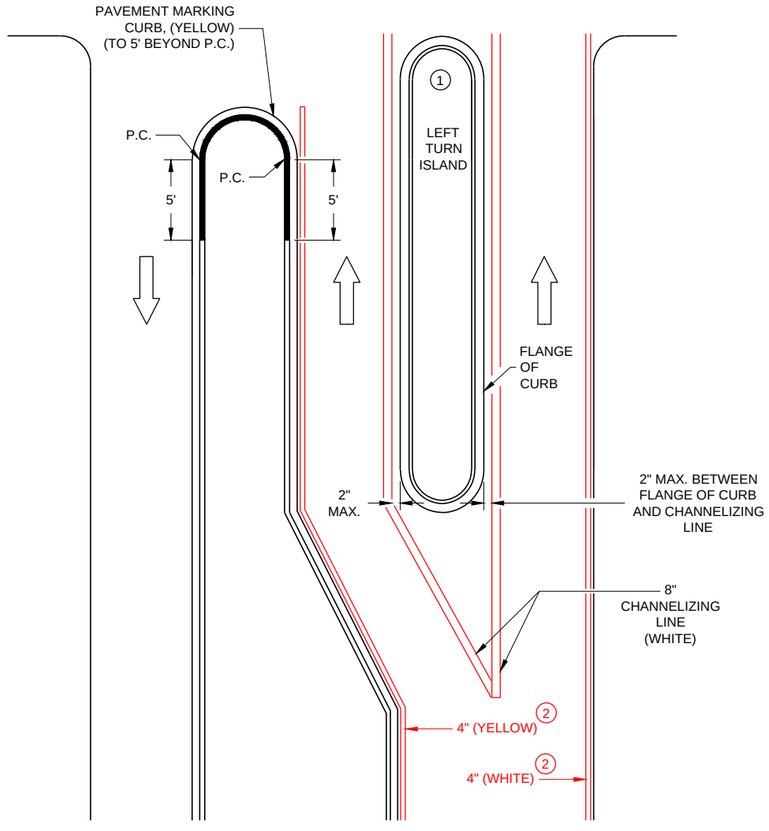
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

S.D.D. 15 C 21-8

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

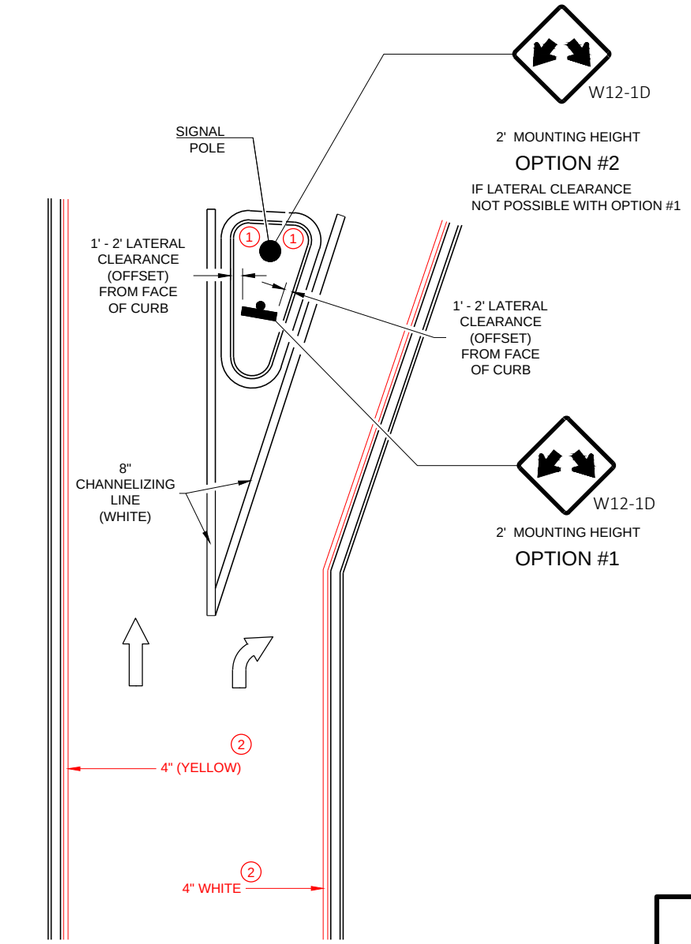
GENERAL NOTES

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

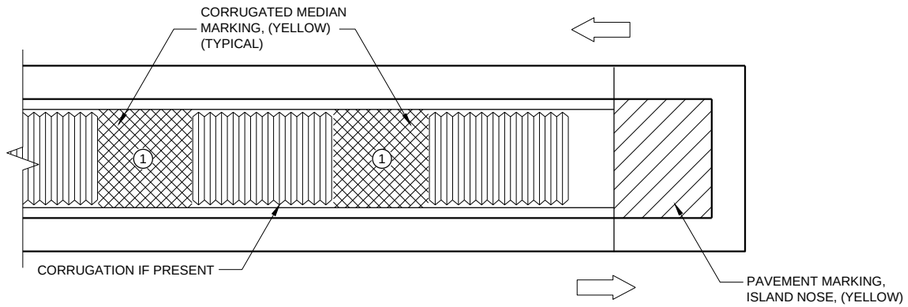
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

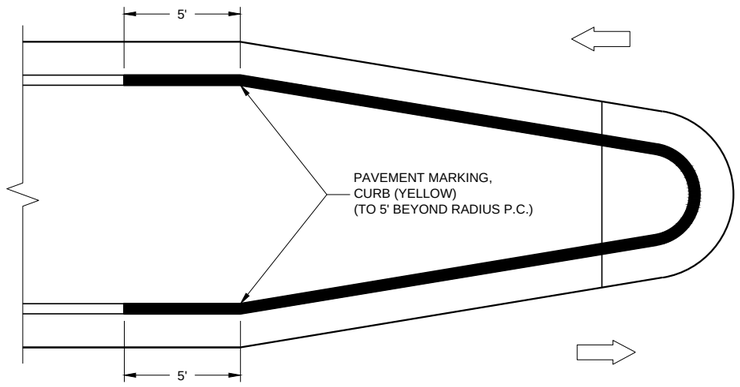
FHWA

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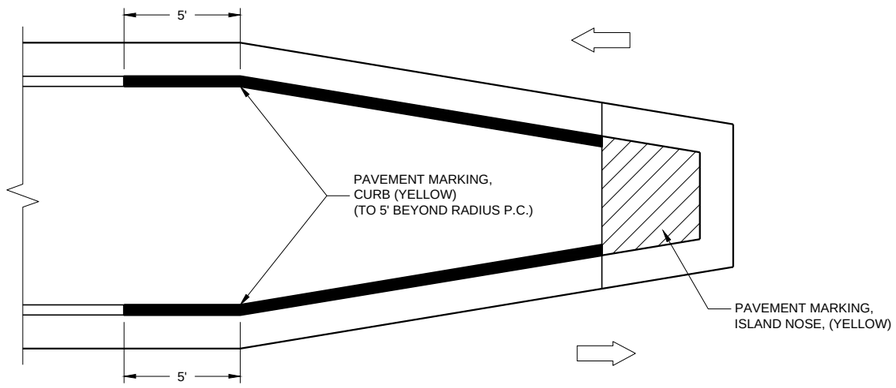
SDD 15C27 - 03a



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

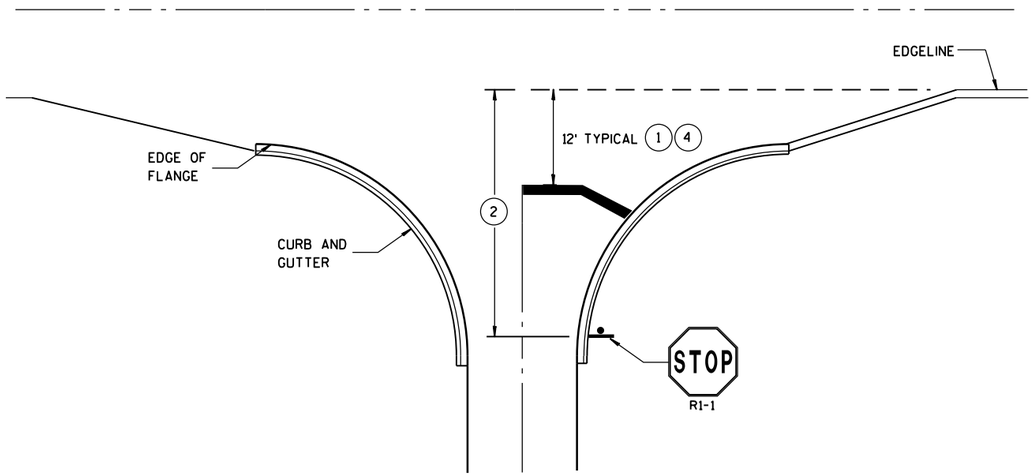
FHWA

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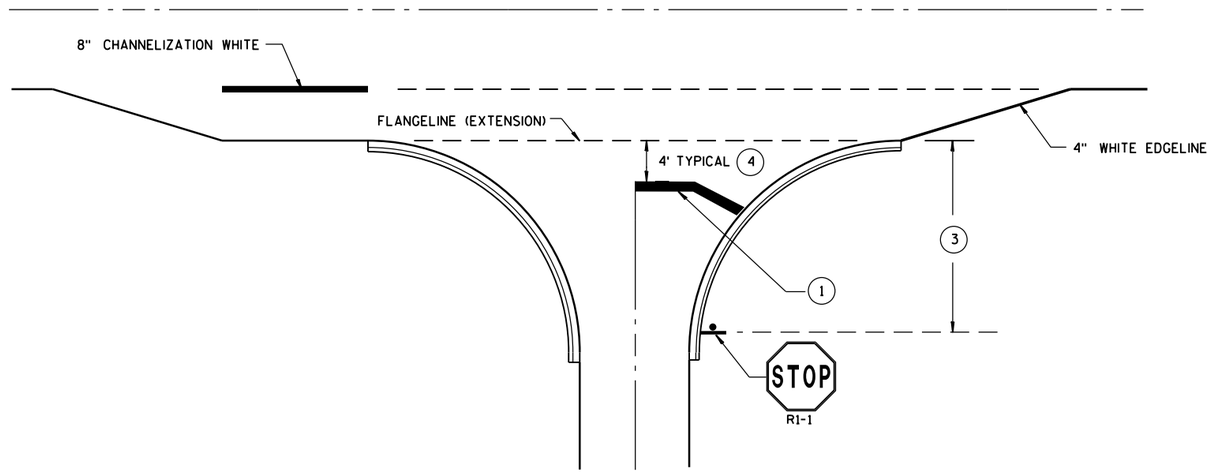
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SDD 15C27 - 03b

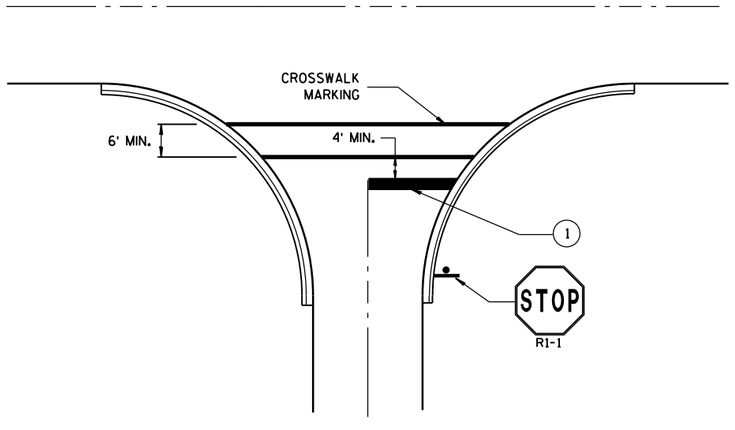
SDD15C27 - 03b



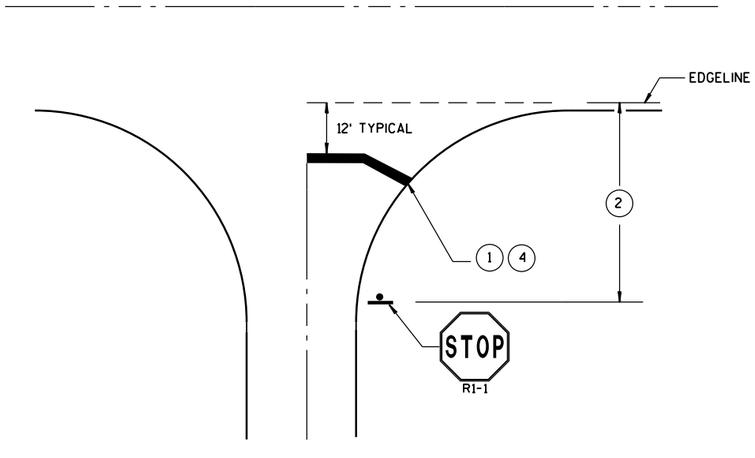
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

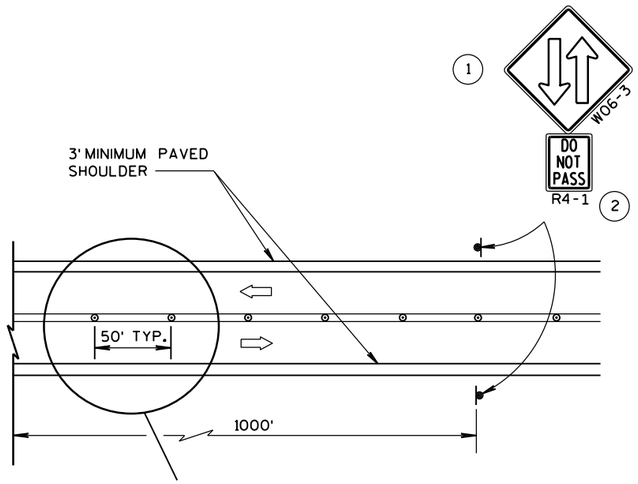
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

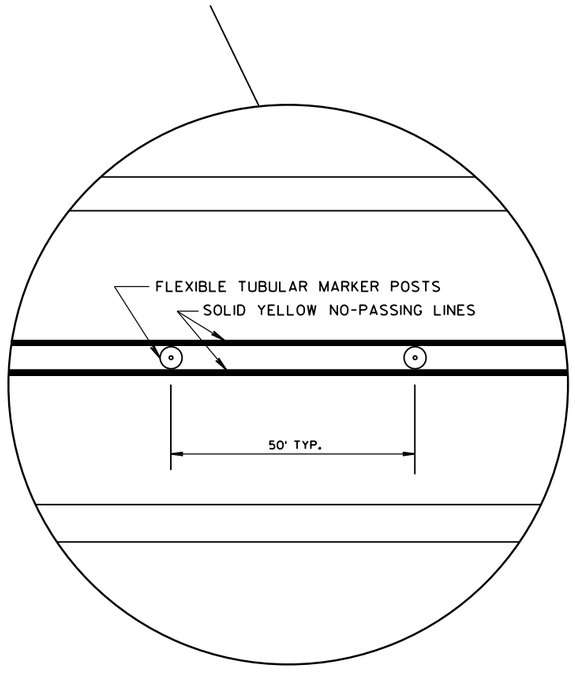
FHWA

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S.D.D. 15 C 33-3



TWO LANE, TWO WAY OPERATION



GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

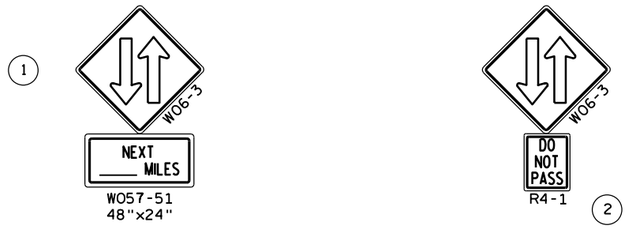
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

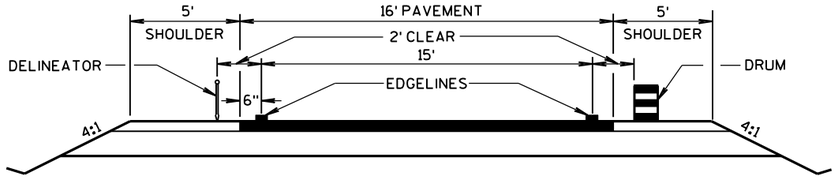
TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

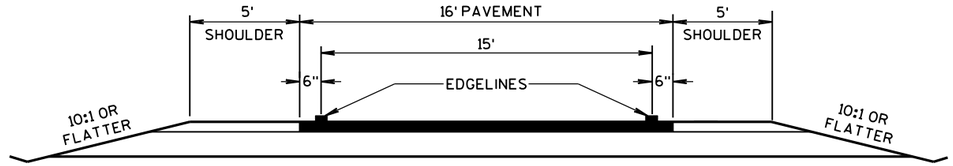
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S.D.D. 15 D 6-3



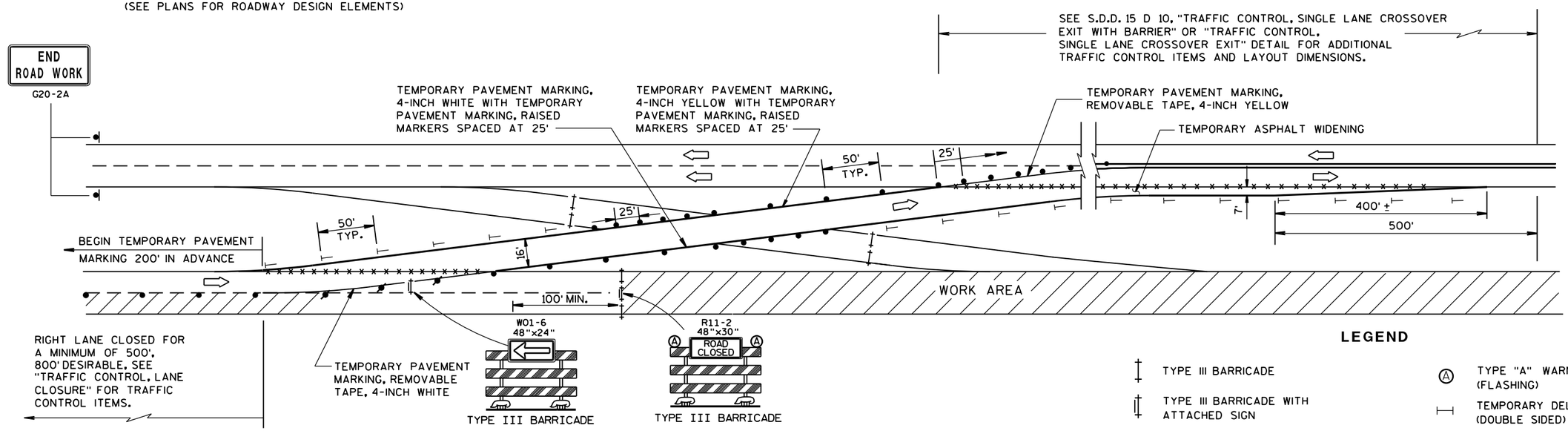
TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/ TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PERMANENT SUPPORT

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 PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

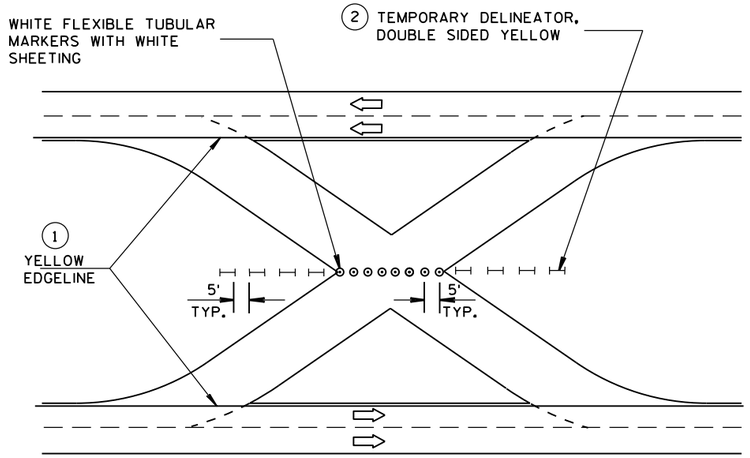
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

6

S.D.D. 15 D 11-7

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.

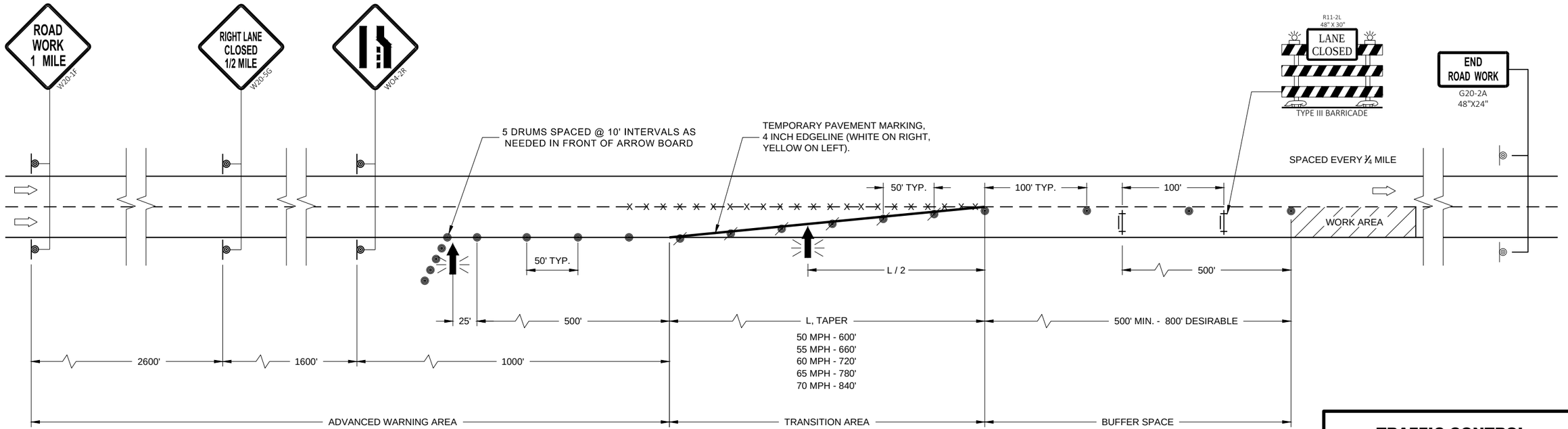
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 ENGINEE

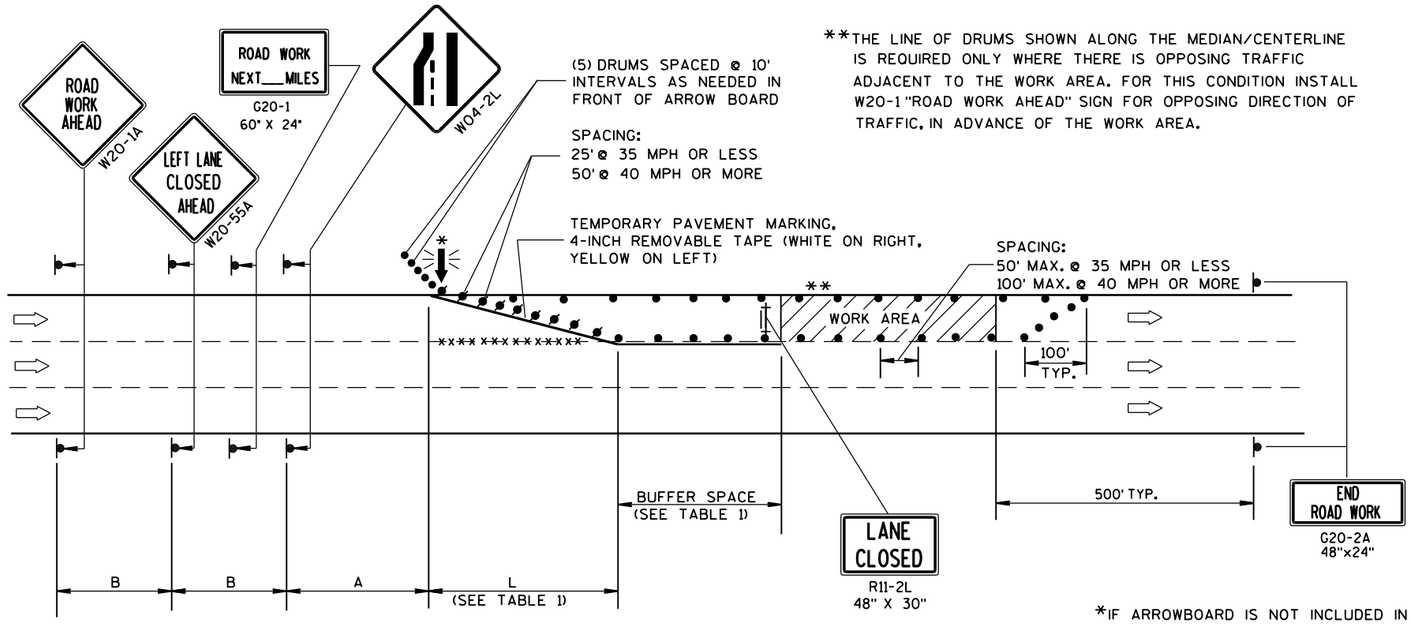
FHWA

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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"

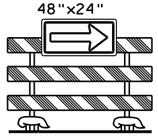


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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
FHWA

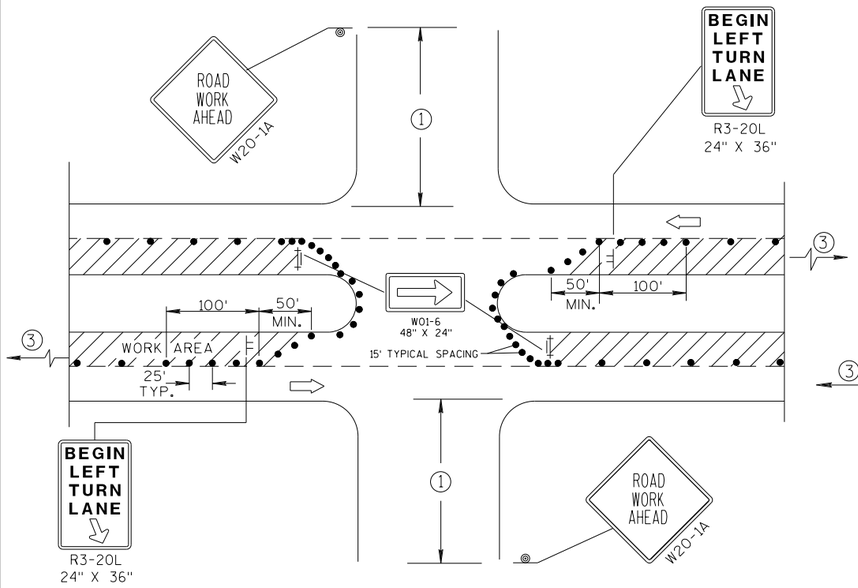
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

6

S.D.D. 15 D 20-4

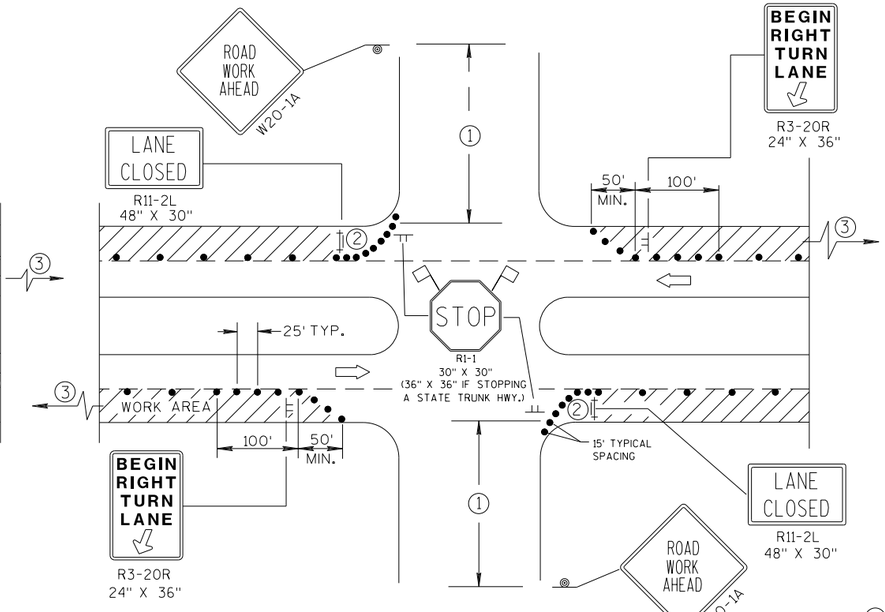
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S.D.D. 15 D 20-4



DETAIL A

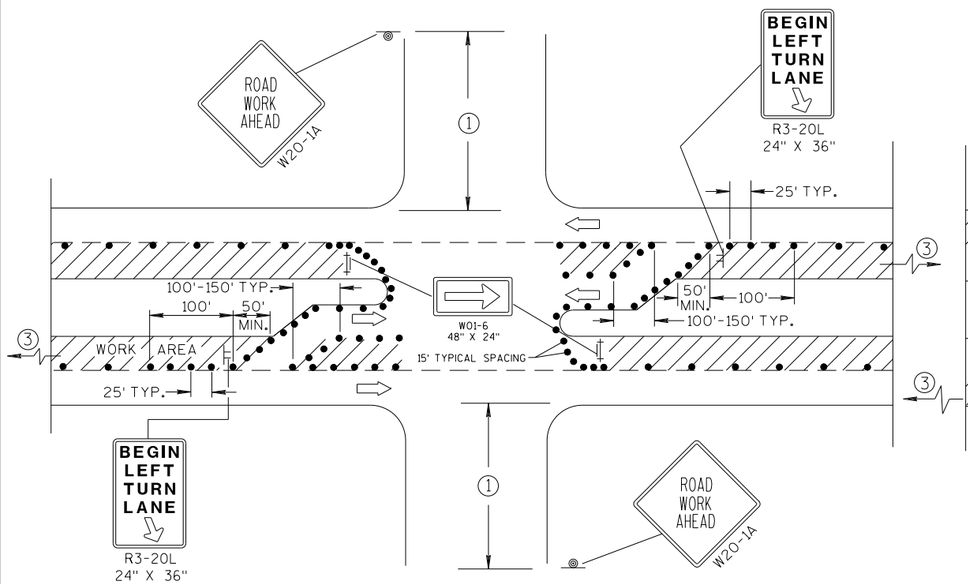
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING



DETAIL B

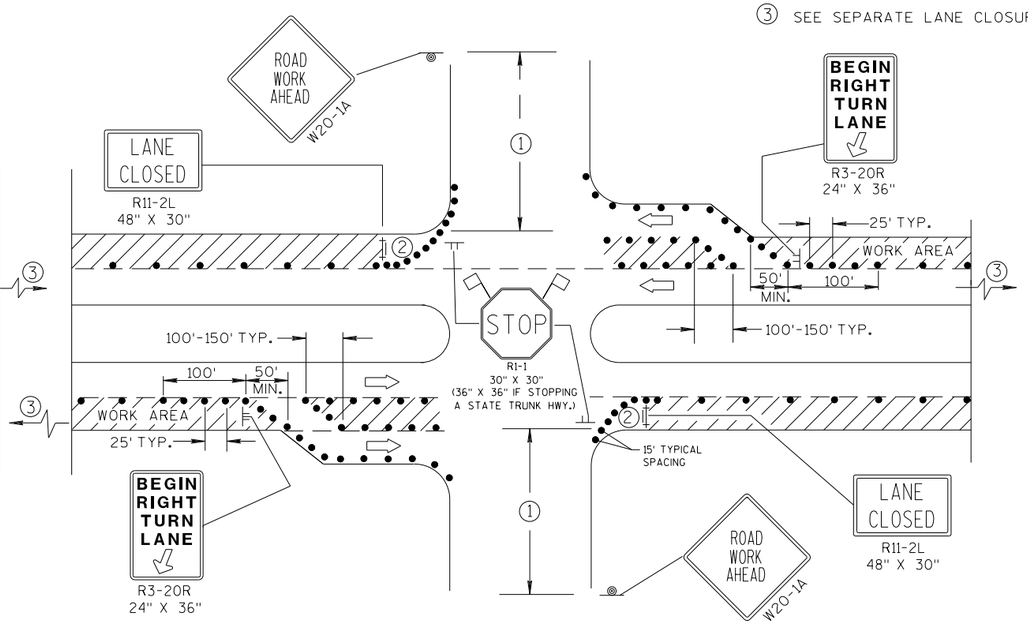
FOR RIGHT LANE CLOSURE AT INTERSECTION

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 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)

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.

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

6

S.D.D. 15 D 21-6

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

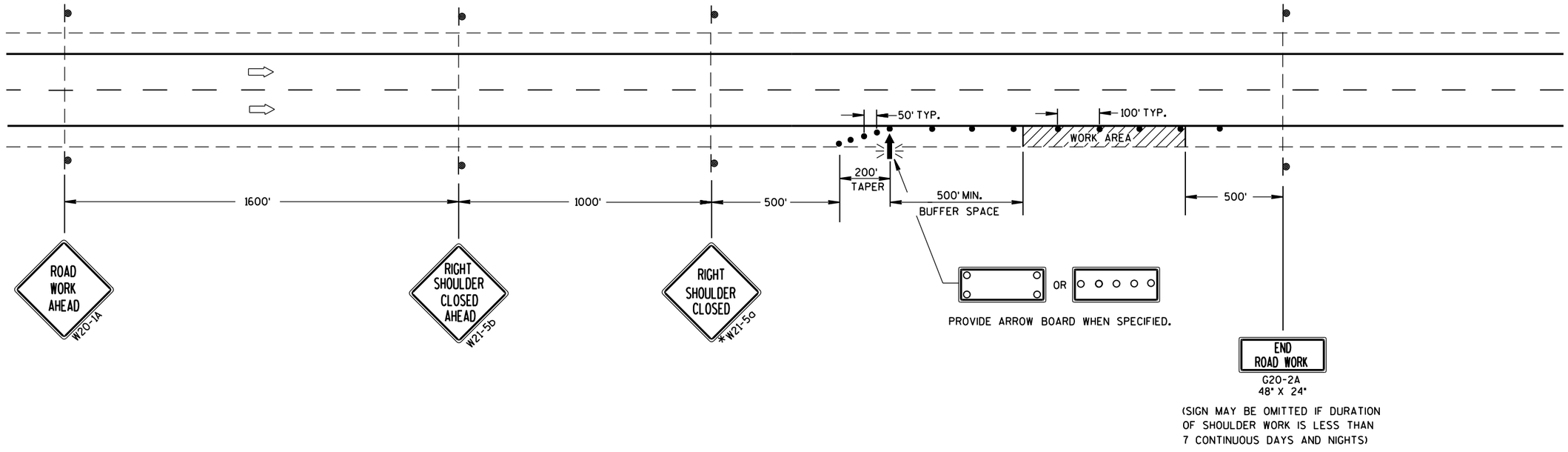
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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S.D.D. 15 D 27-3

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

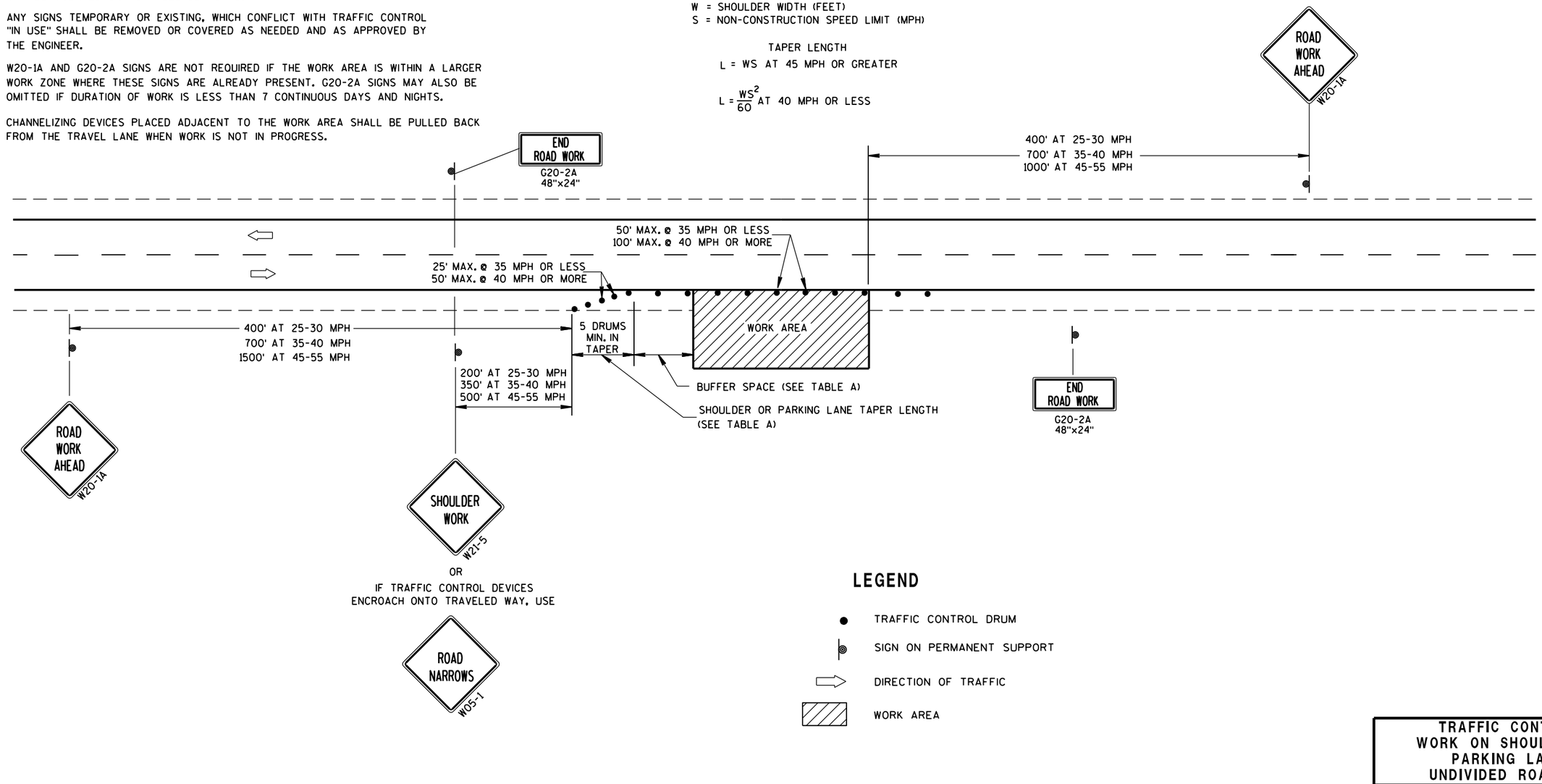
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

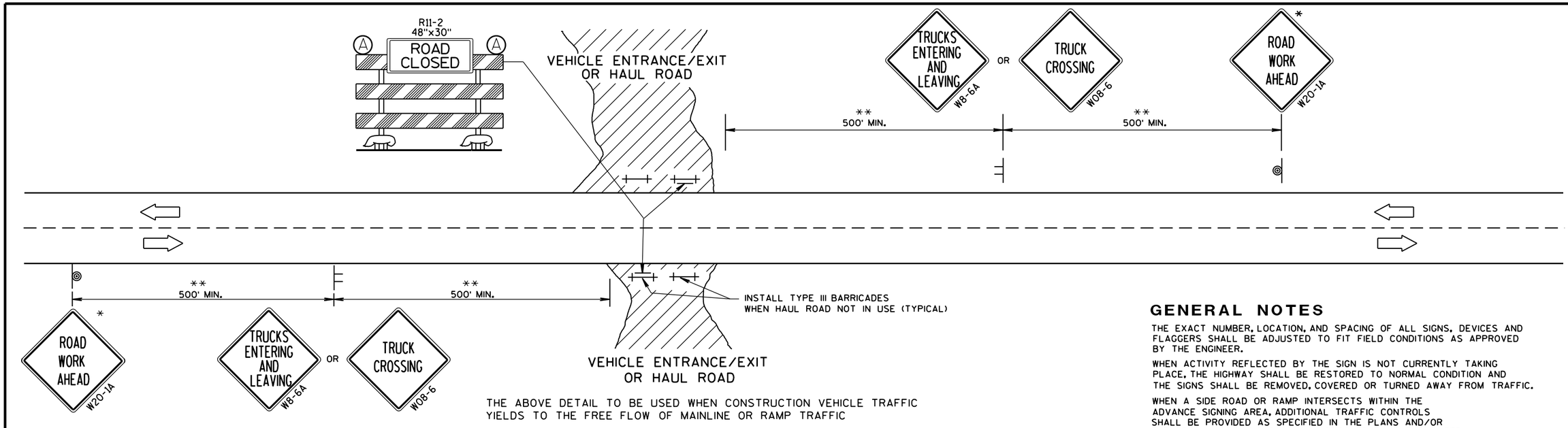
July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

FHWA

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S.D.D. 15 D 28-3



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES AND FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

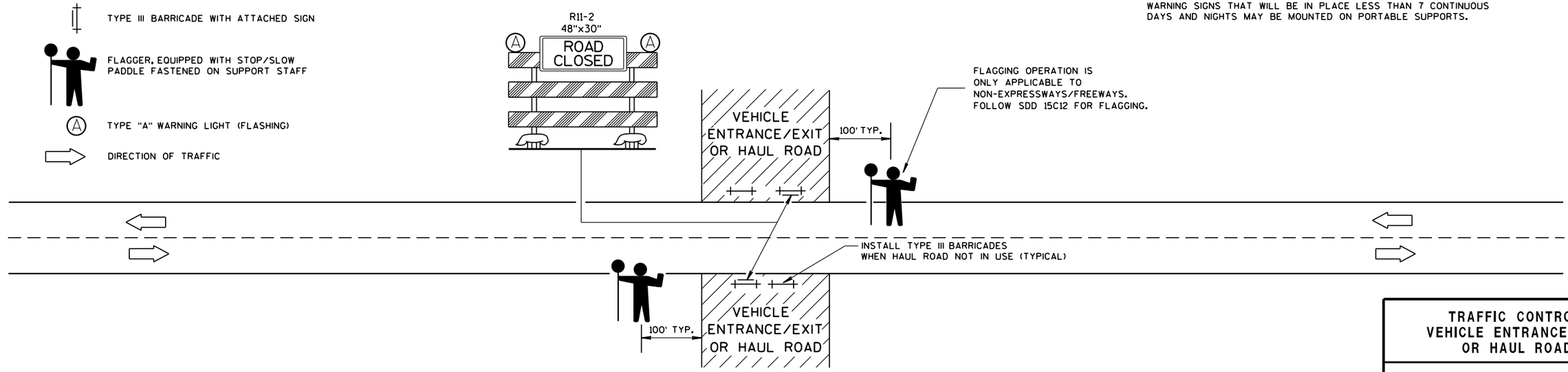
** 500 FEET SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FEET. FOR 25-30 MPH, USE 200 FEET. USE 1000 FEET/1500 FEET FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

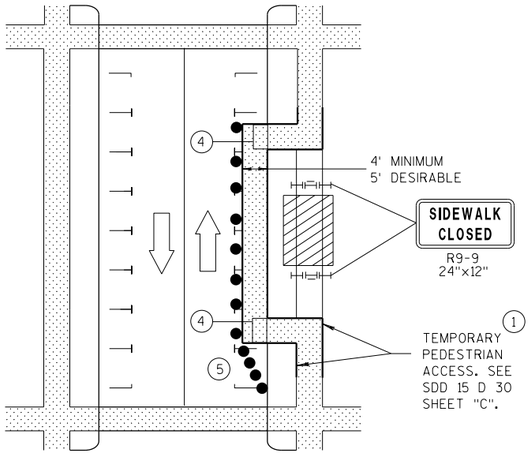
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S.D.D. 15 D 29-5

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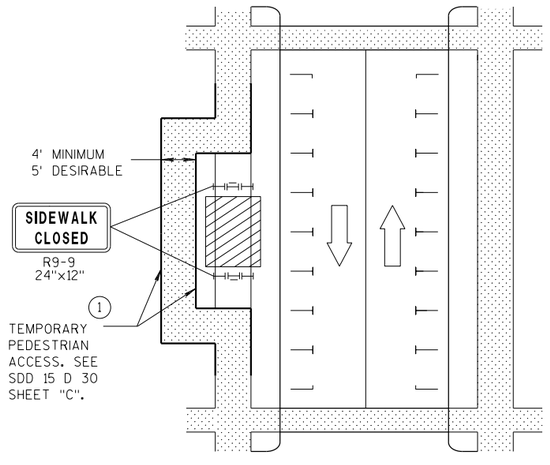
S.D.D. 15 D 29-5

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

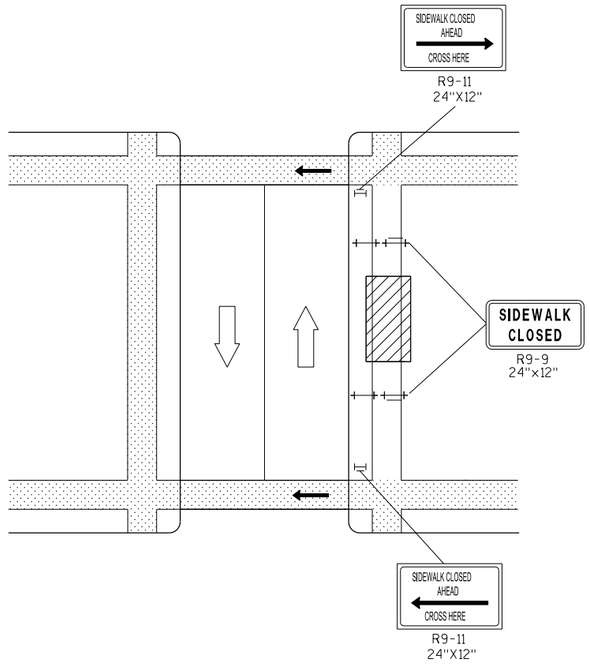


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

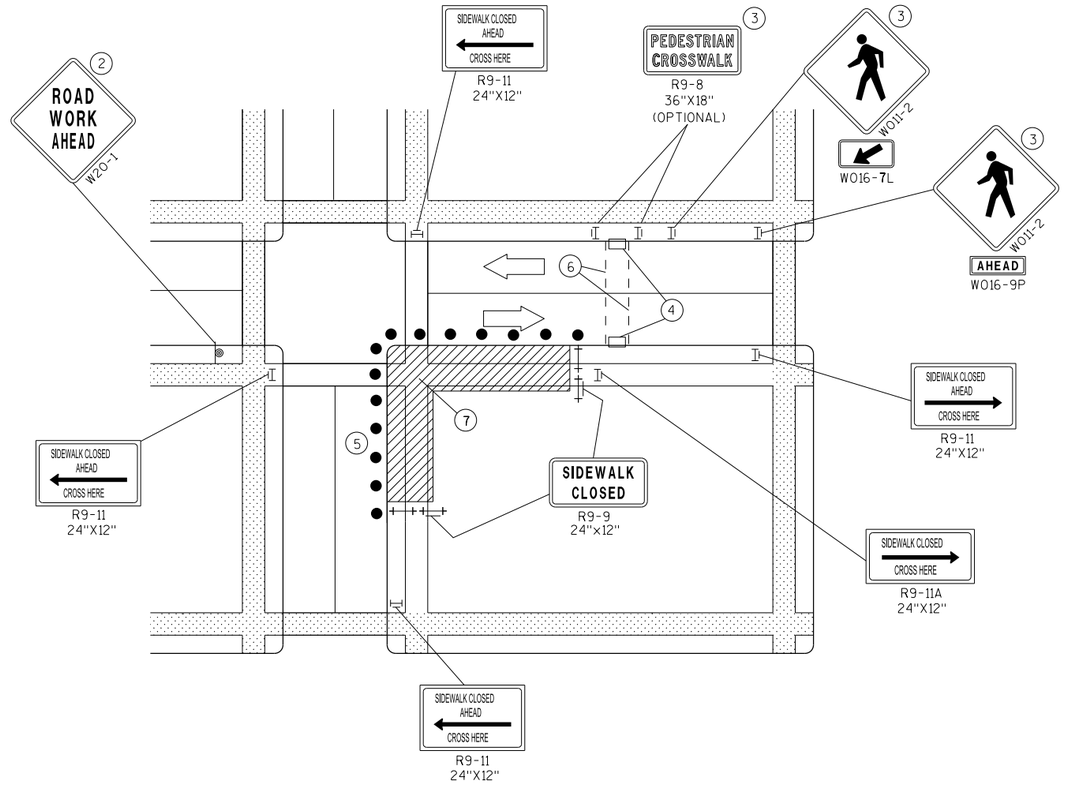
NOTE: LAYOUT SAME AS ABOVE.



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 NIGHTTIME 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 BETWEEN 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 W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 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.

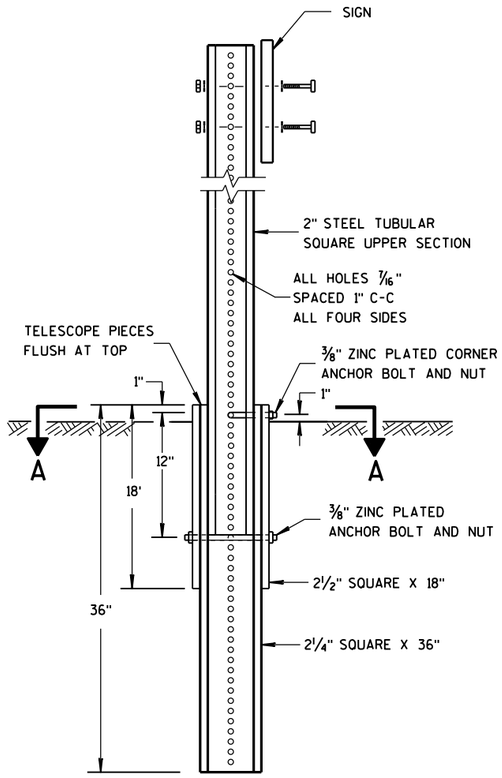
LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- 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)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

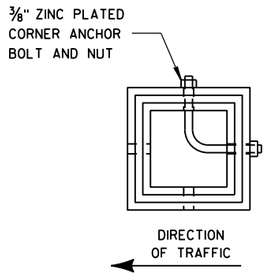
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

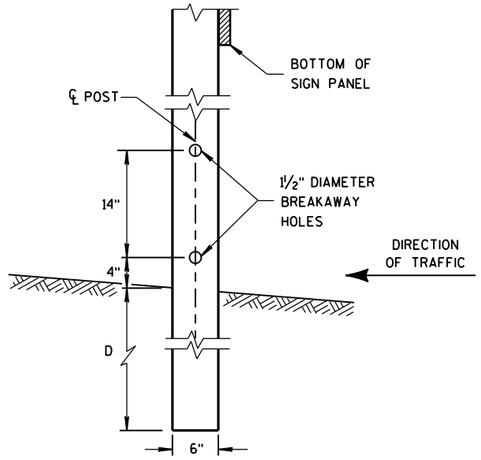
S.D.D. 15 D 30-4a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



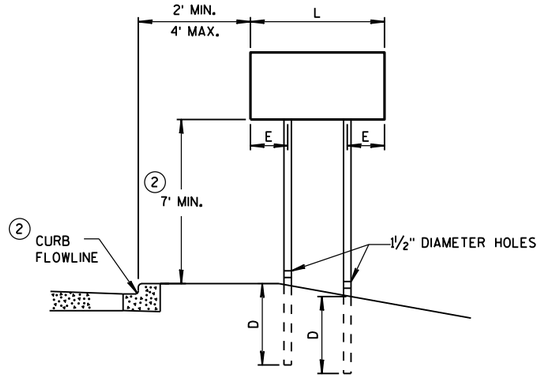
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

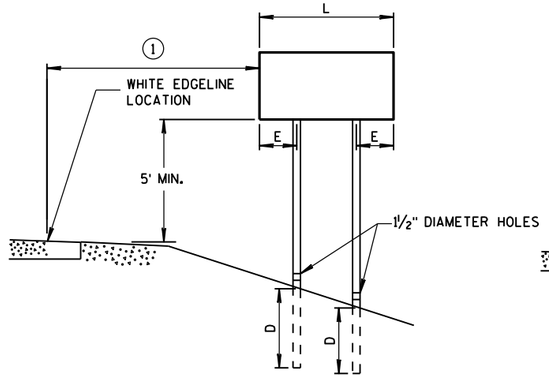
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

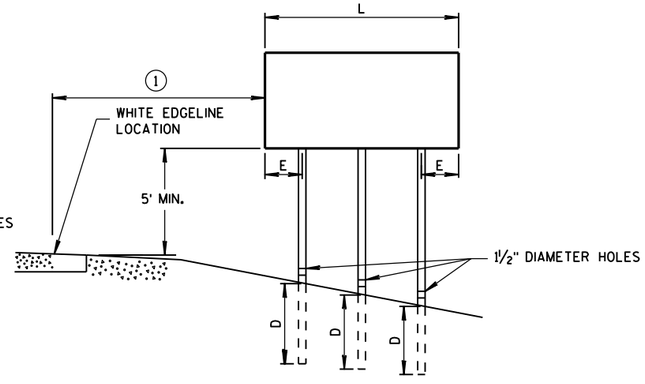
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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

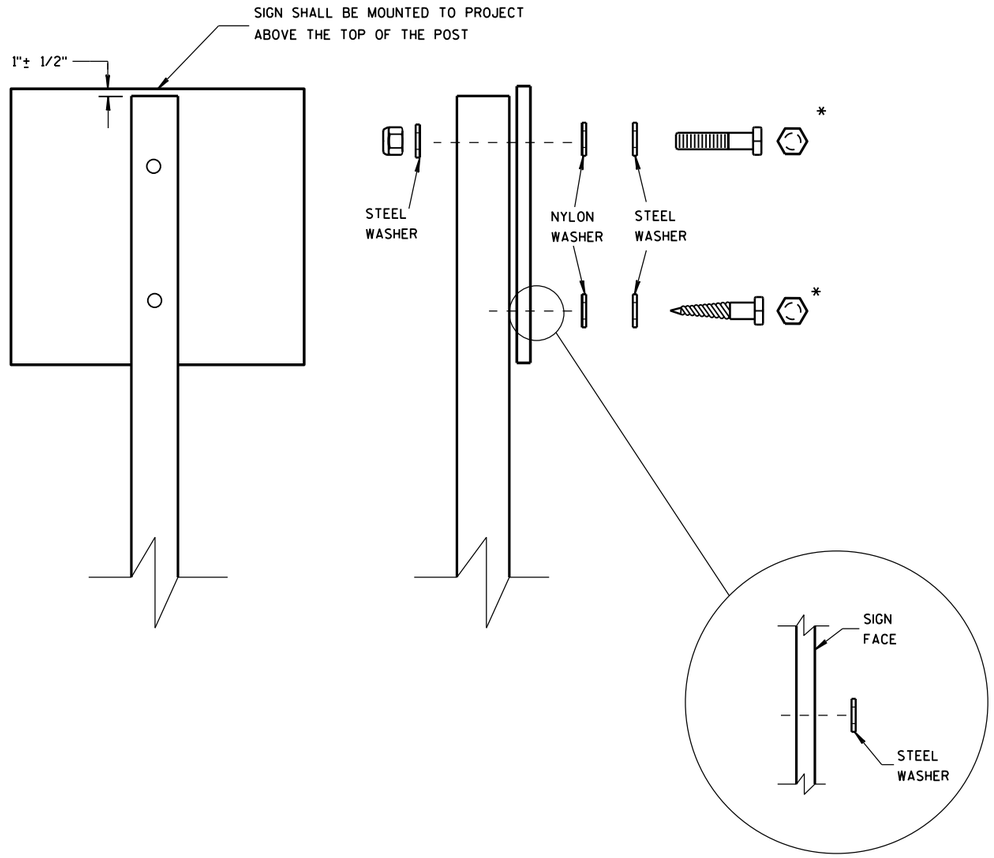
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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.

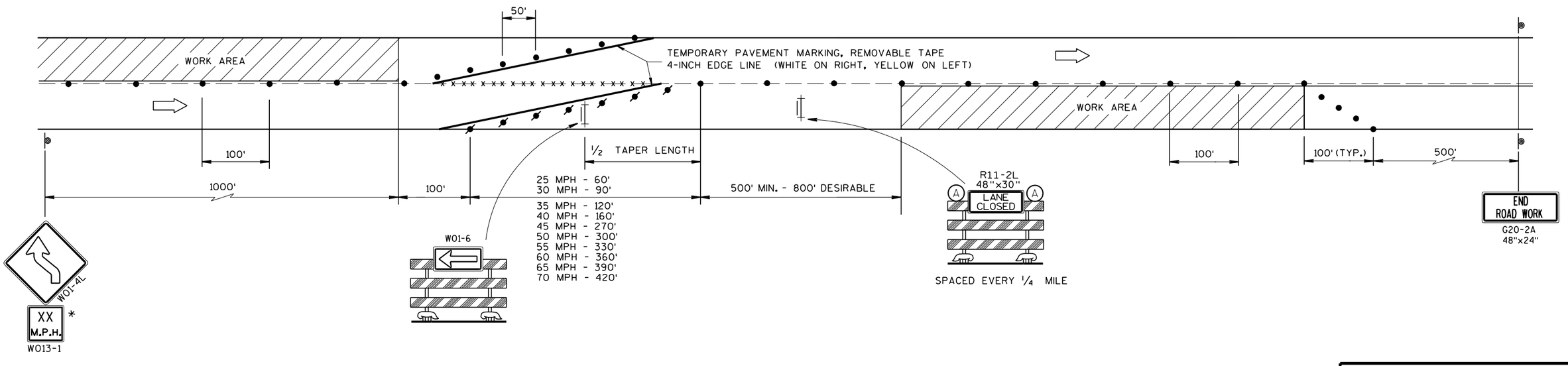
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

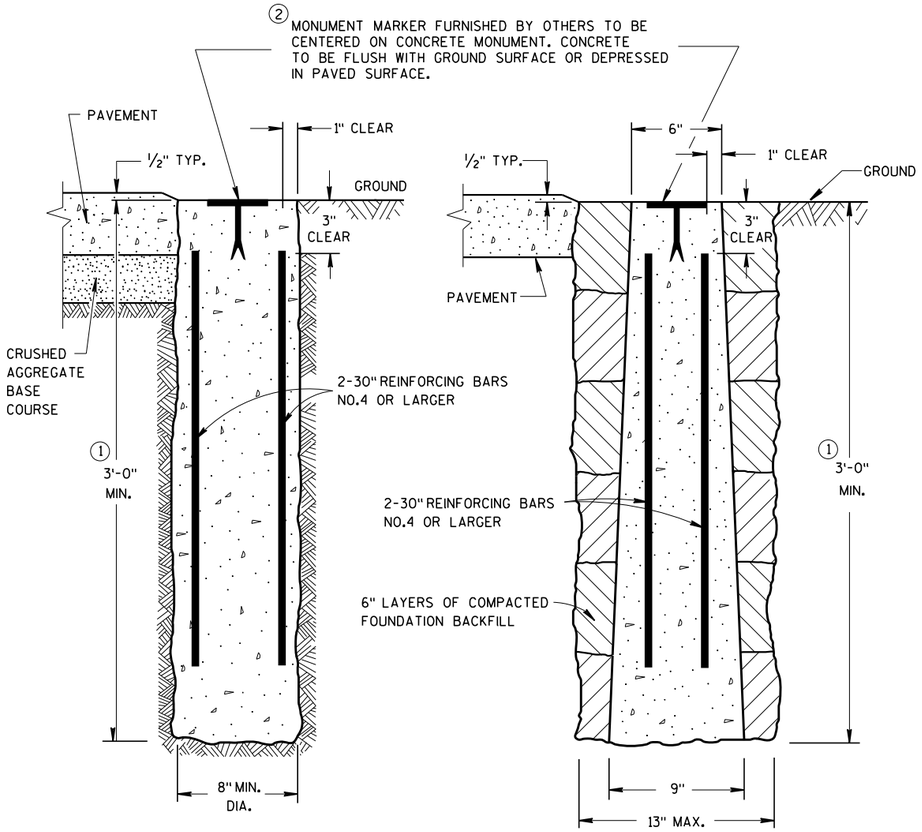
TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

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

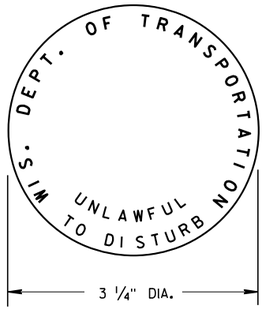


CAST-IN-PLACE

PRECAST

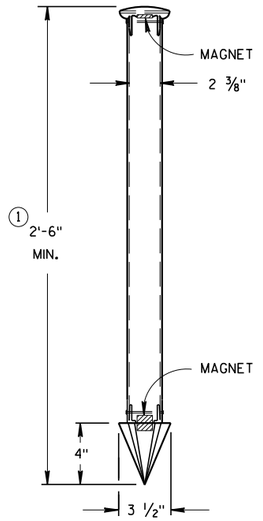
CONCRETE MONUMENTS

TYPE A



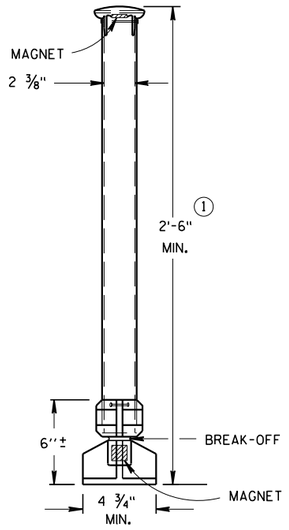
② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C", & "D"



TYPE C

DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

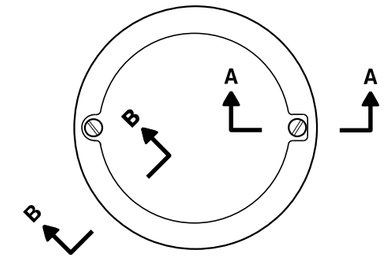
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

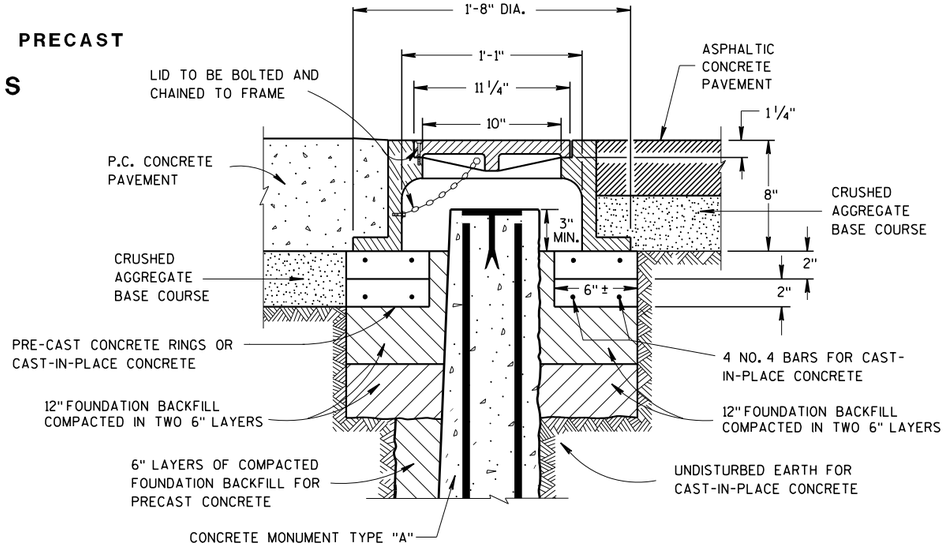
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

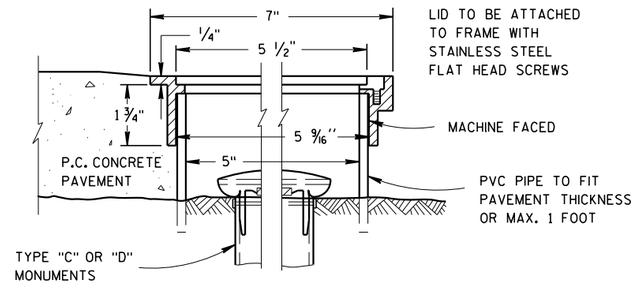


TOP VIEW



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. [illegible] — CHIEF SURVEYING AND M[illegible] ENGINEER
FHWA

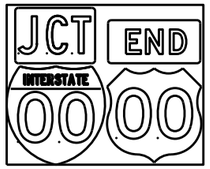
6

S.D.D. 16 A 1-7

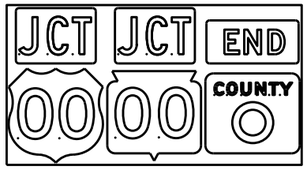
TYPICAL ASSEMBLIES



J1-1



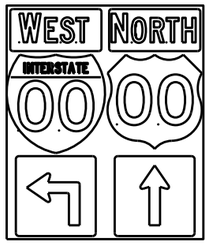
J1-2



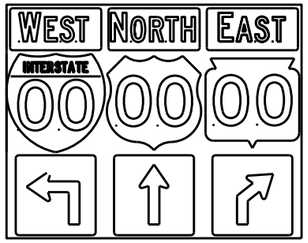
J1-3



J2-1



J2-2

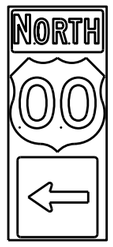


J2-3

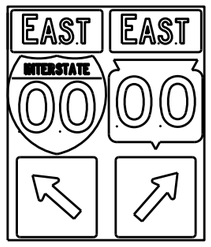


JV

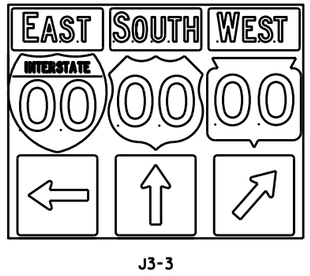
(Typical Vertical J-Assembly
See Note 10 and 11)



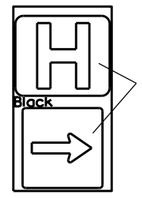
J3-1



J3-2



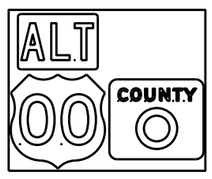
J3-3



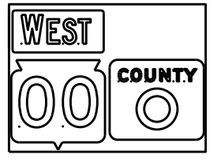
JH-1



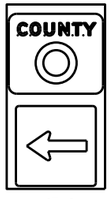
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

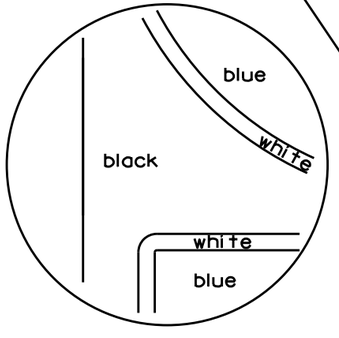


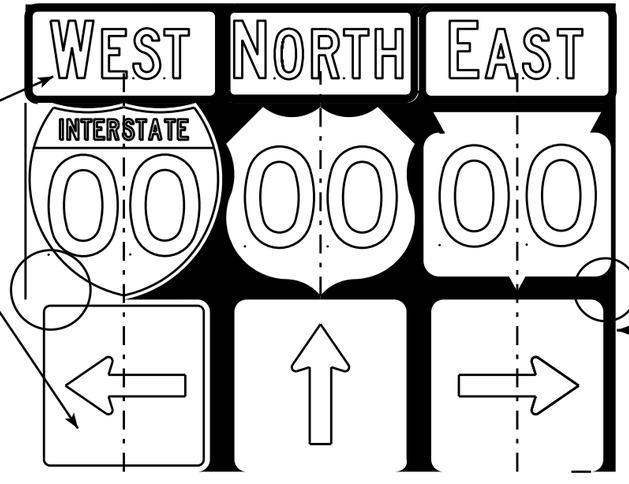
J23-1

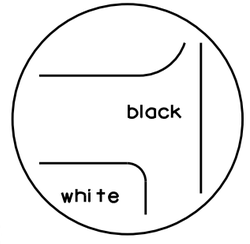


J22-1

[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

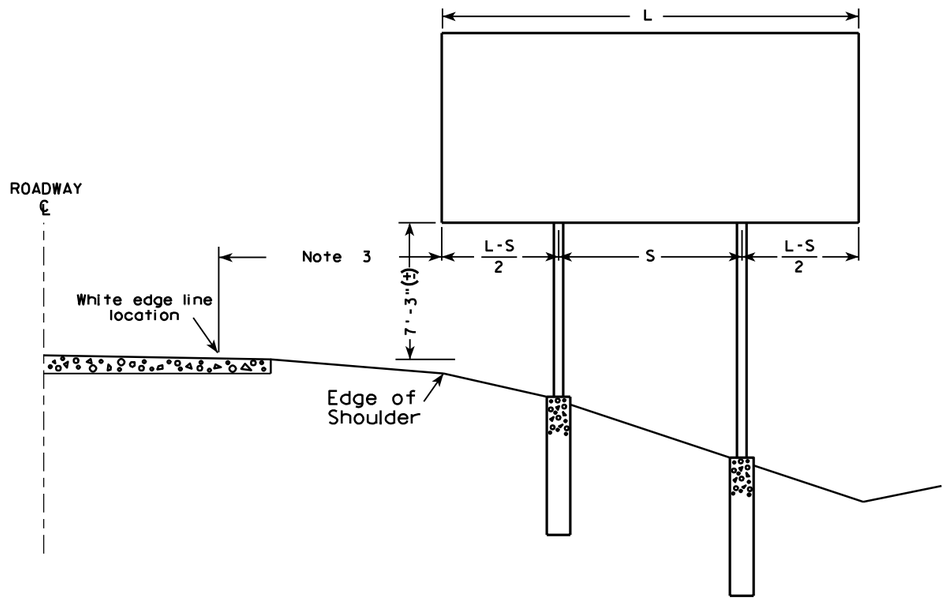
APPROVED Matthew R Rauch
for State Traffic Engineer

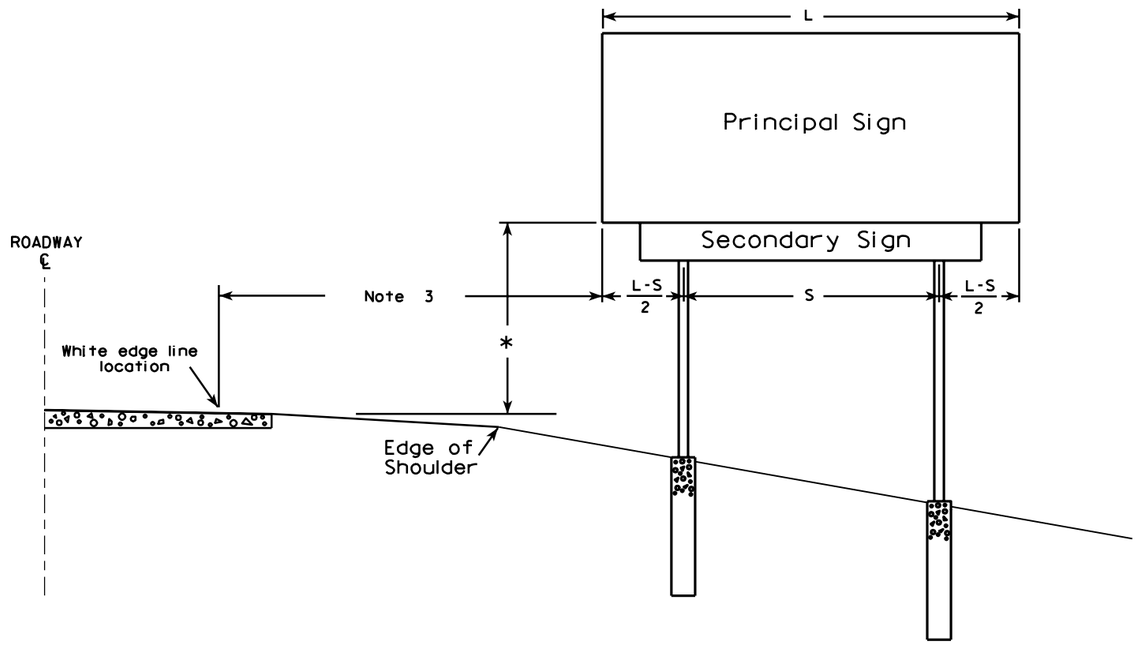
DATE 2/06/14 PL A2-1S.8

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





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

TYPICAL INSTALLATION
OF TYPE I SIGNS

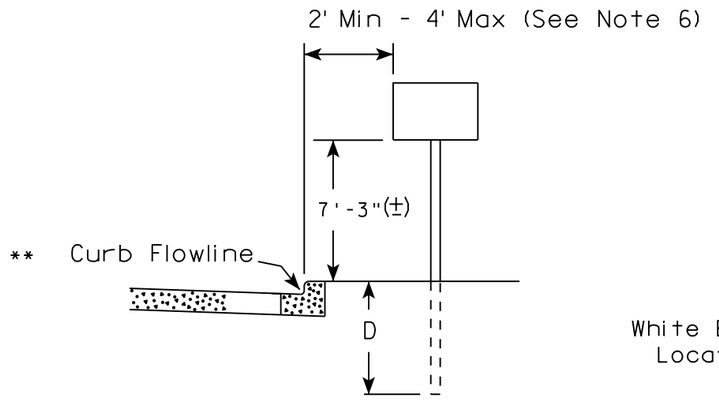
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

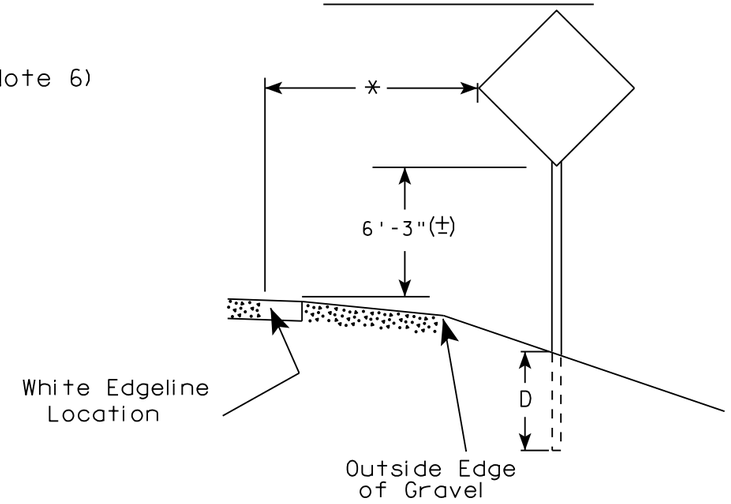
DATE 4/02/08 PLATE NO. A4-1.9

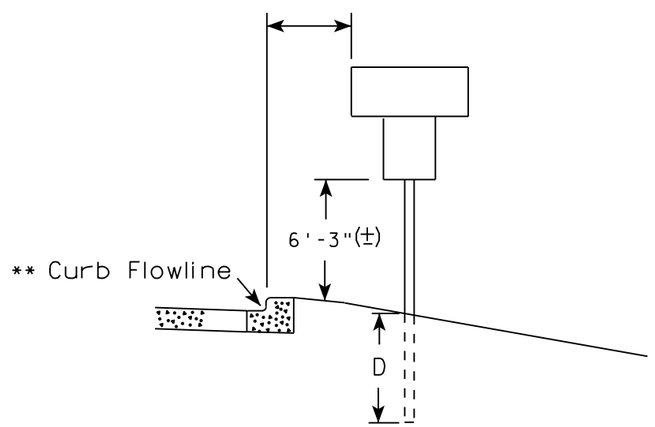
PROJECT NO:				SHEET NO: 441	E

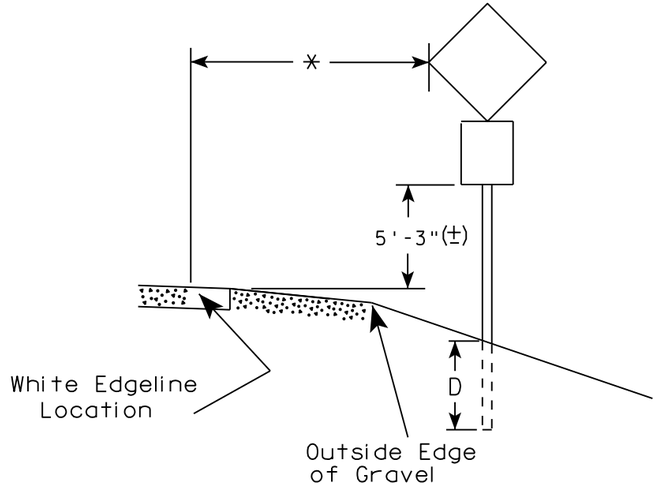
URBAN AREA



RURAL AREA (See Note 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. 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.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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" (±).

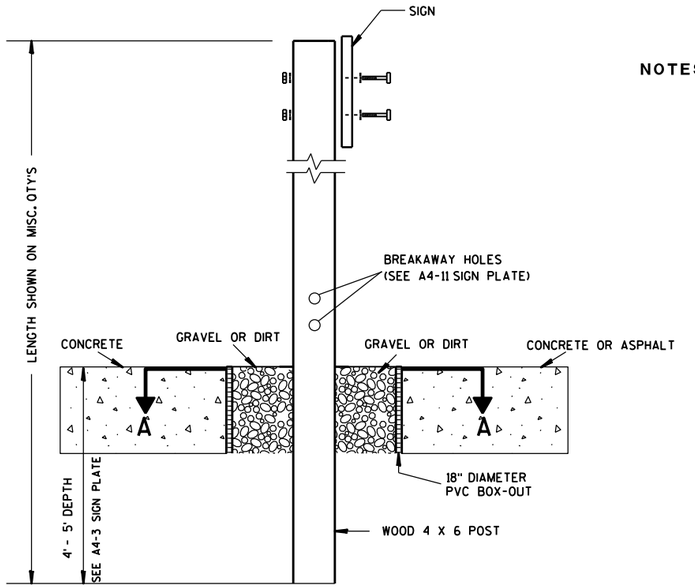
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

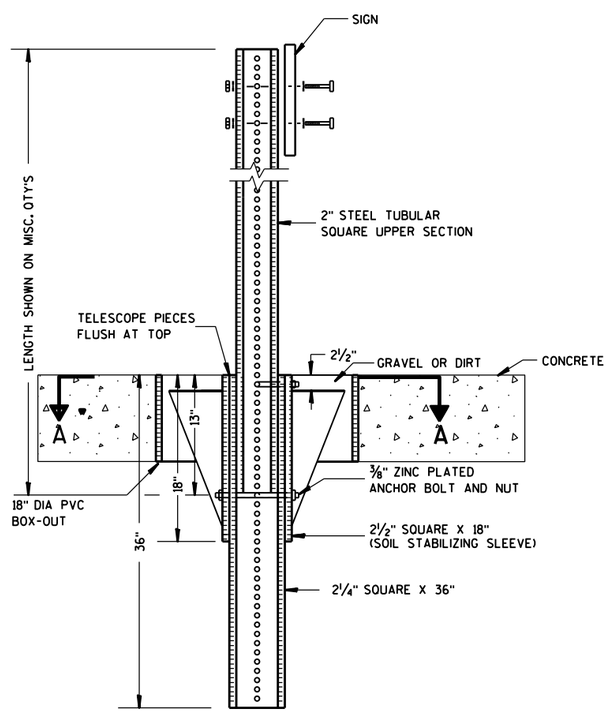
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 442	E



ELEVATION VIEW

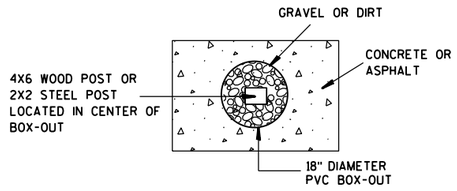
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

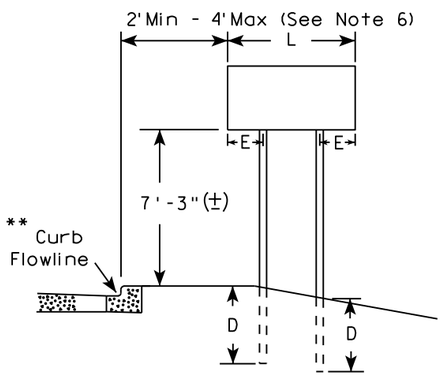
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

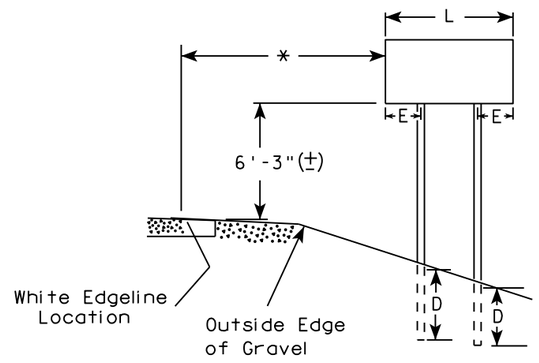
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

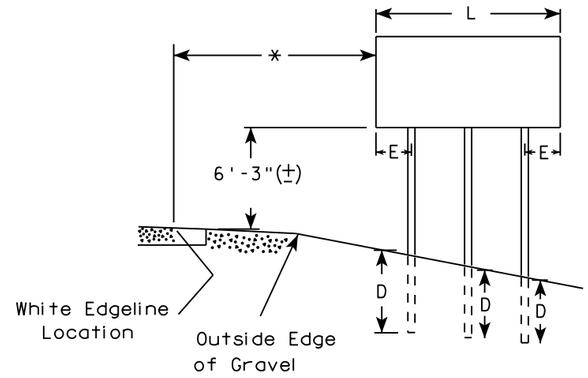
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

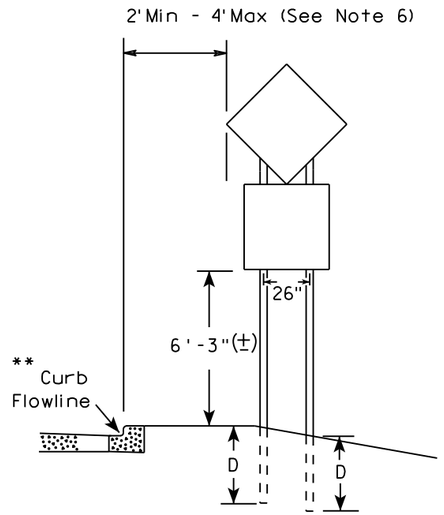
URBAN AREA



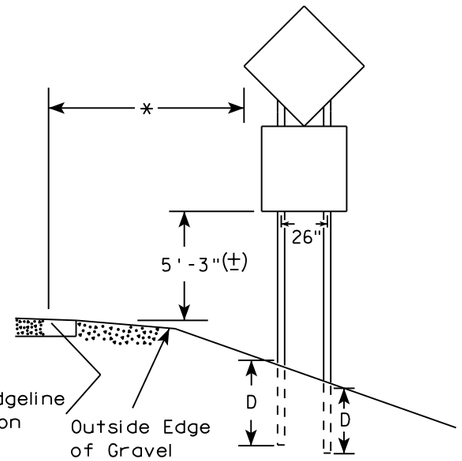
RURAL AREA (See Note 3)







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

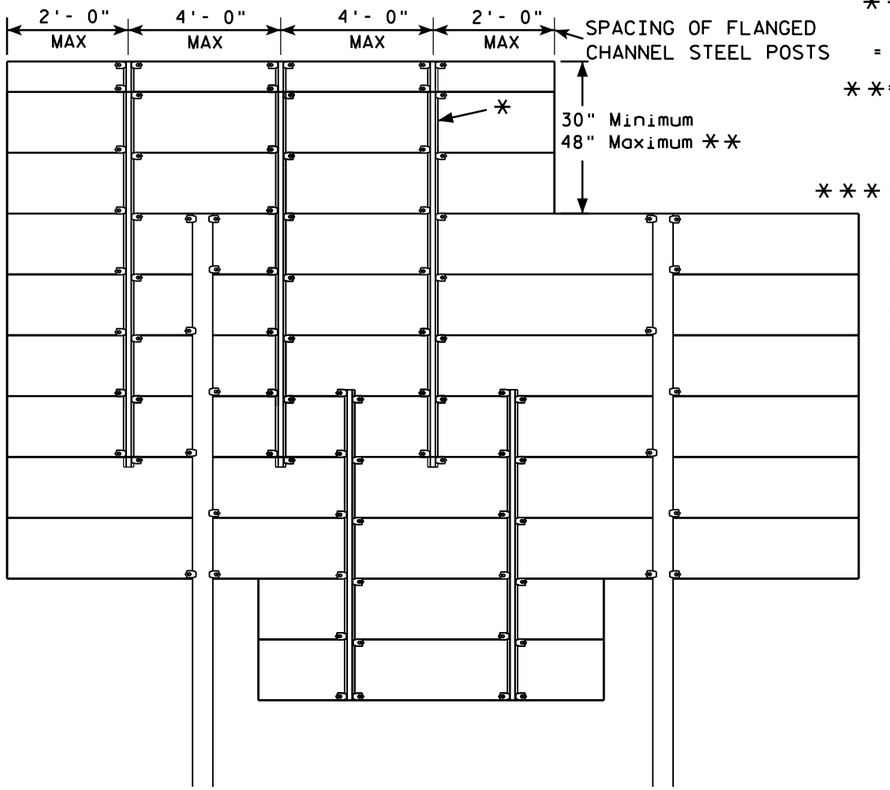
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 444	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 21-AUG-2017 15:54 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 108.188297:1.000000 WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

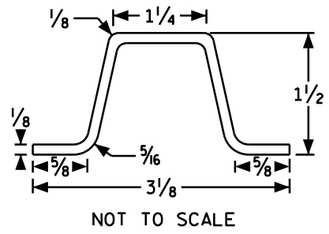


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

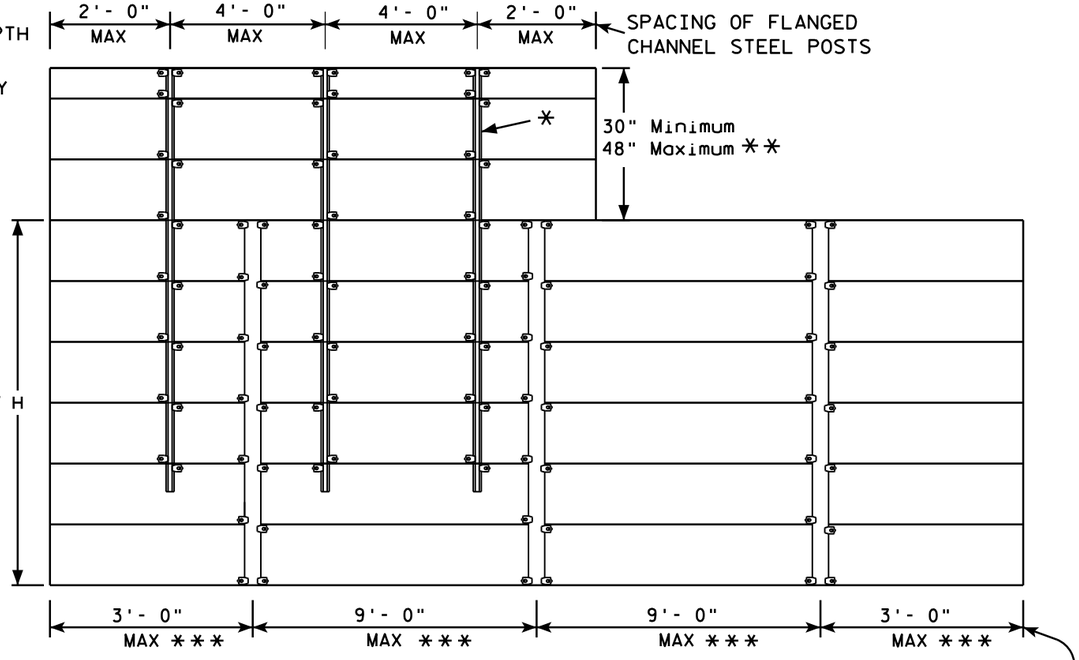
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

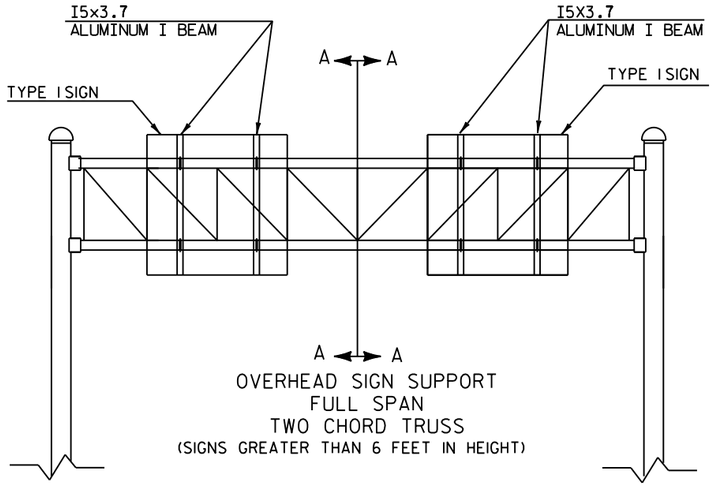
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

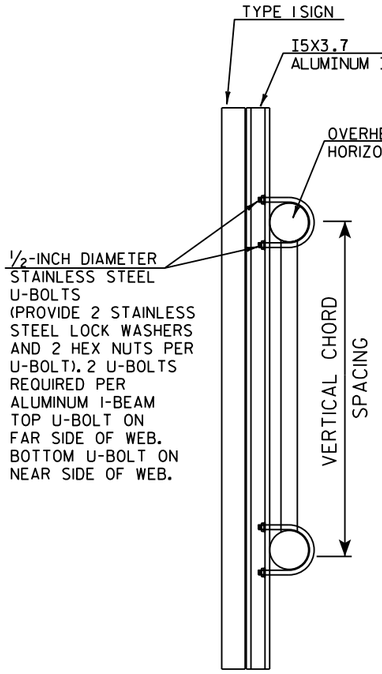
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 445 A4-6.12

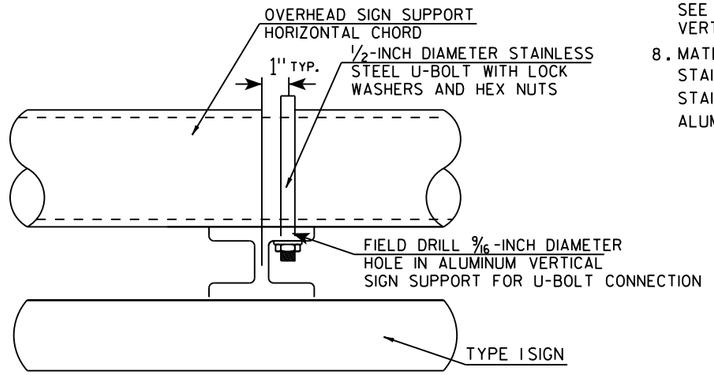
PROJECT NO:				SHEET NO:	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



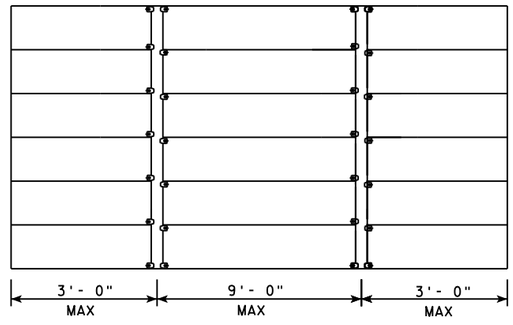
CUT SECTION A-A



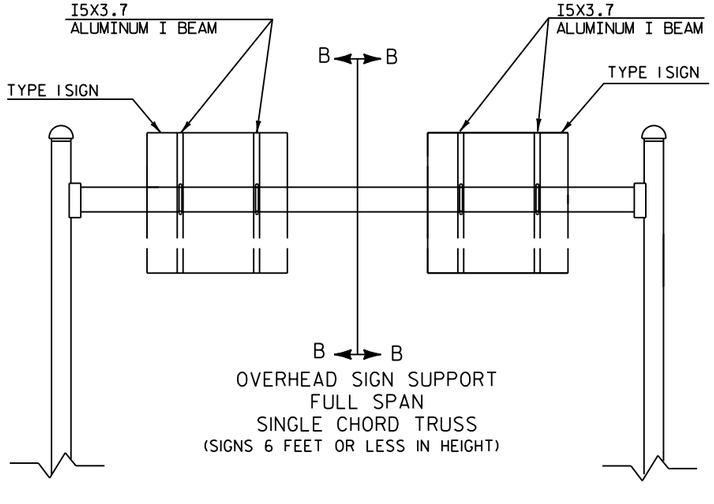
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

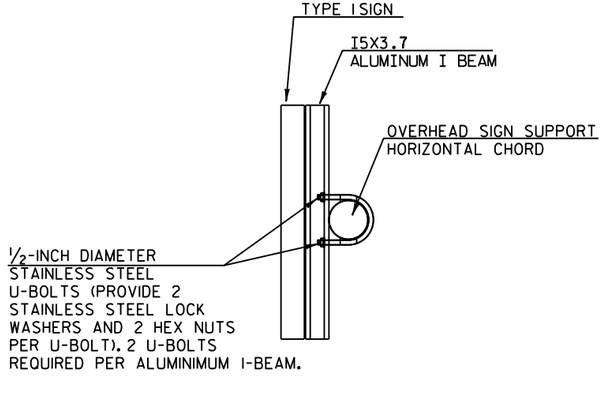
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



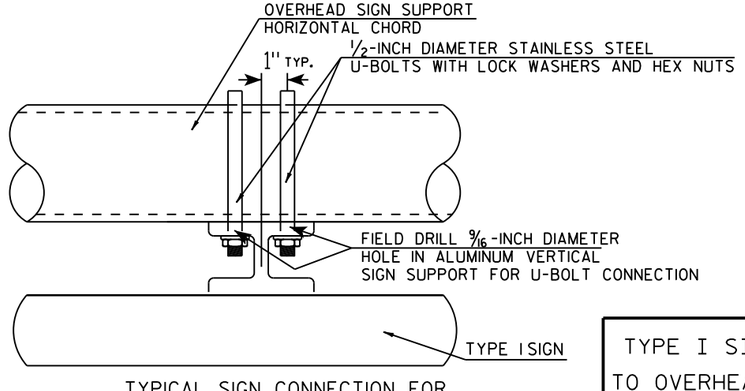
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

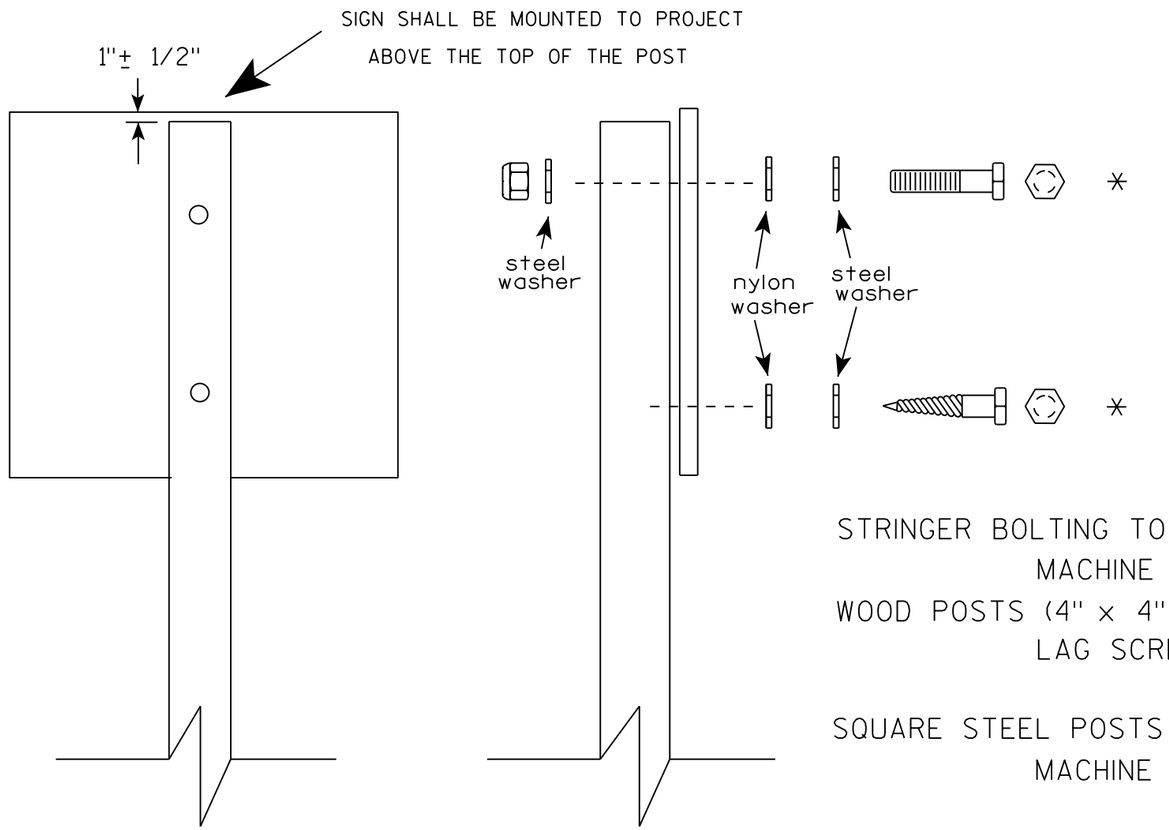
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000



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

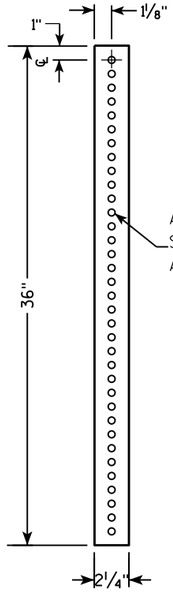
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

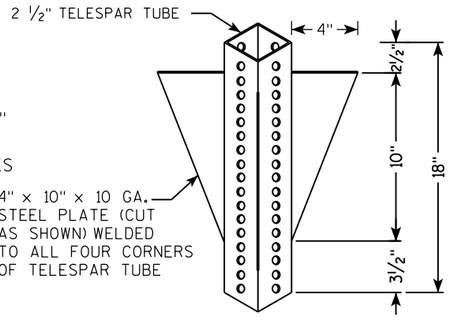
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

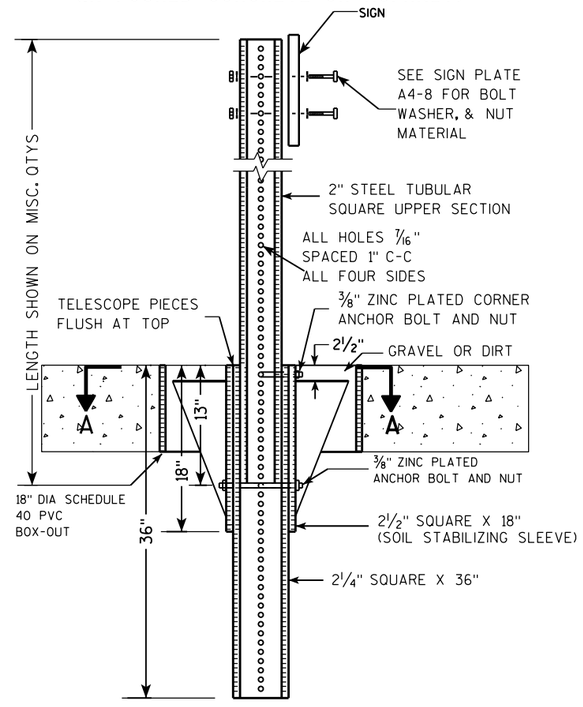
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



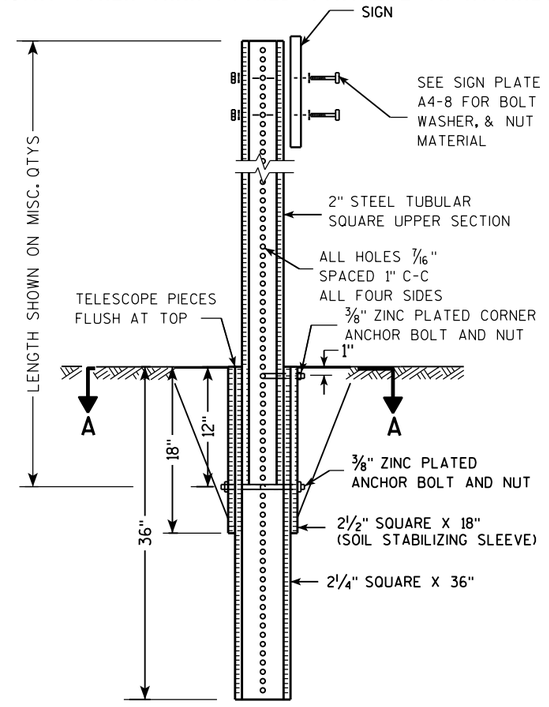
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

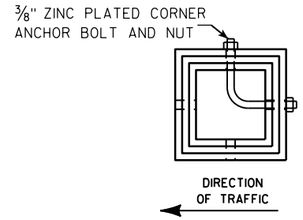


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

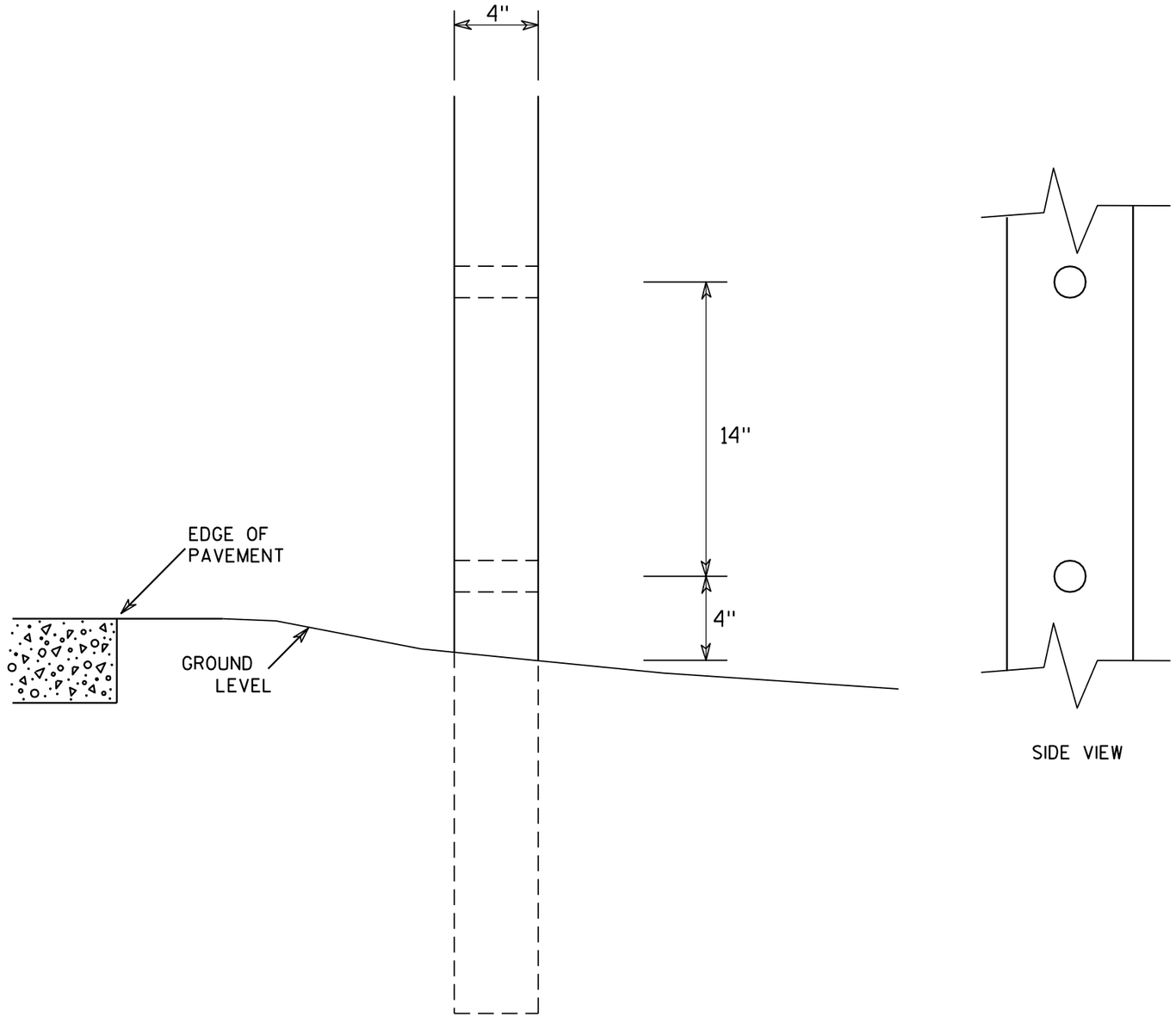
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 448 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

WISDOT/CADDS SHEET 42



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.

7

7

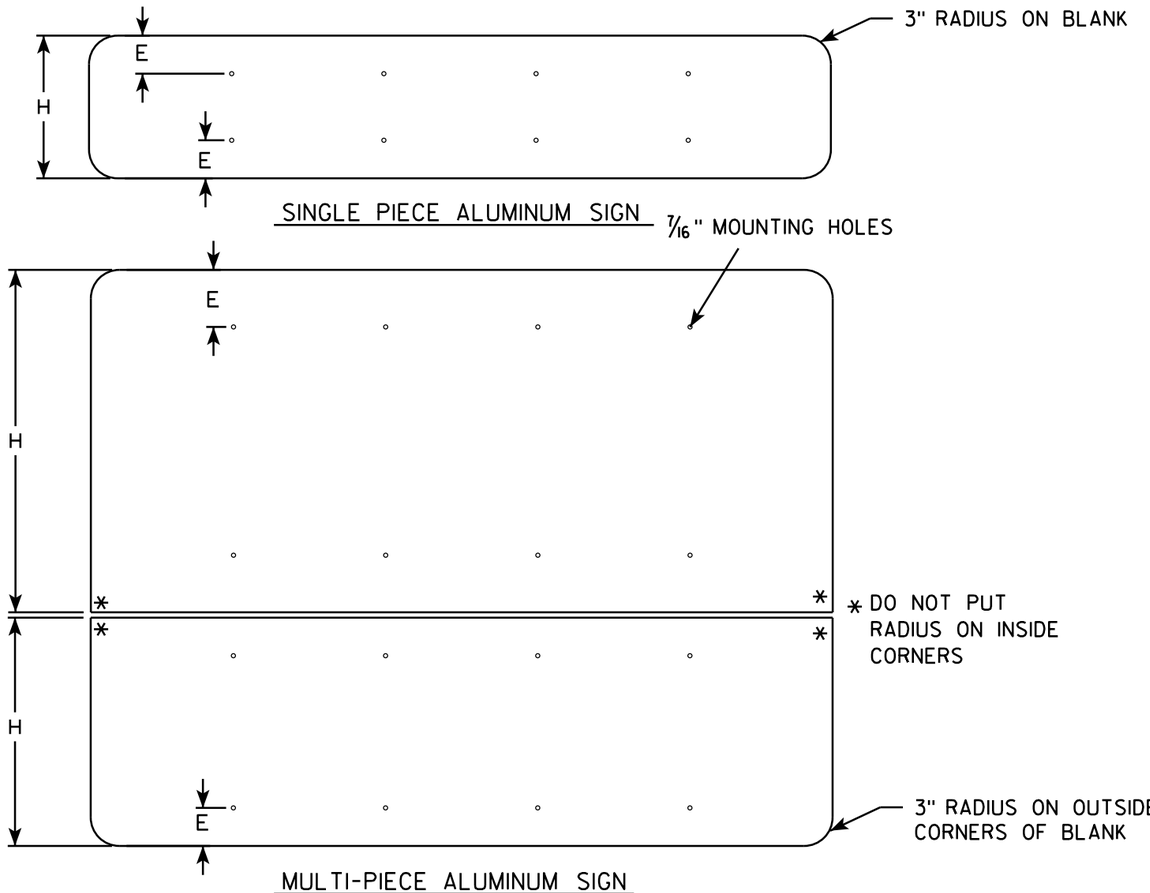
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

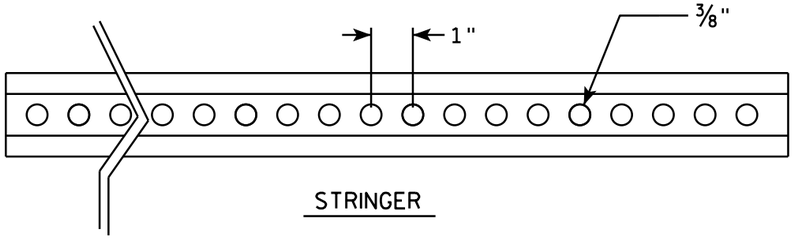
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 449	E

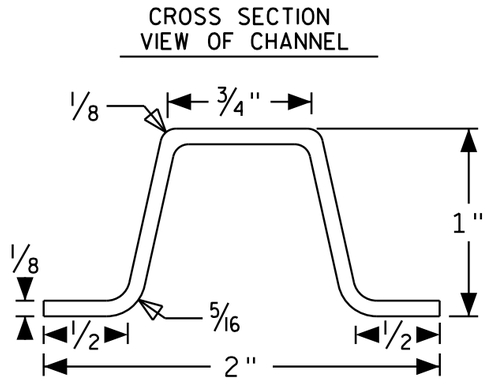


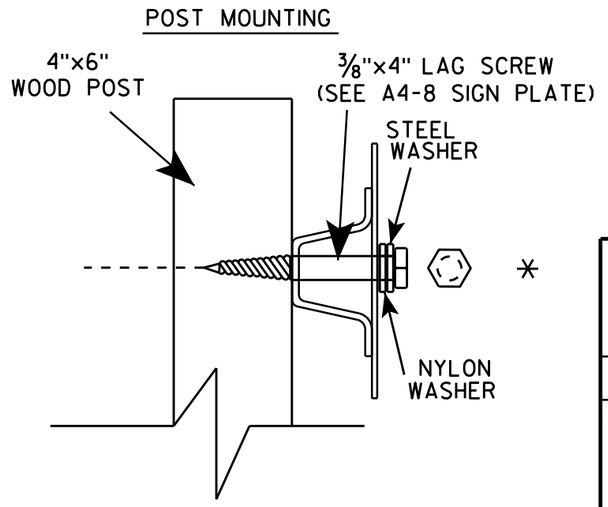
GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"







SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

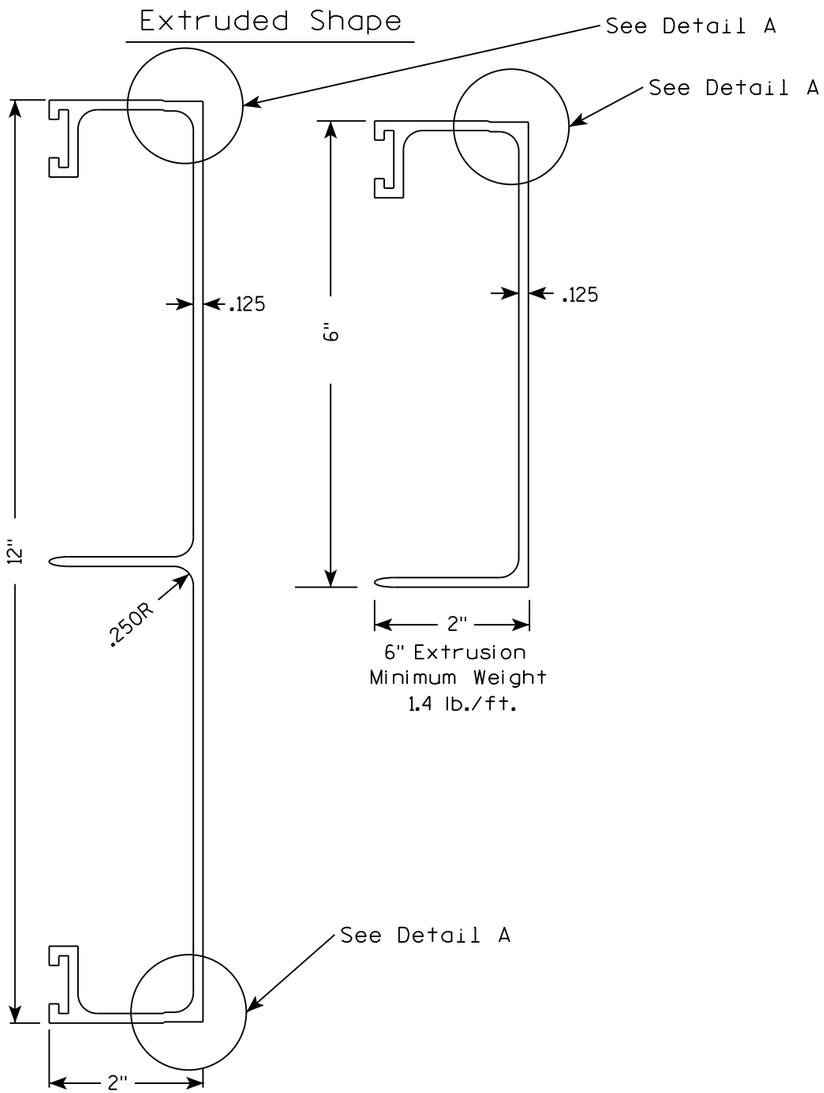
for State Traffic Engineer

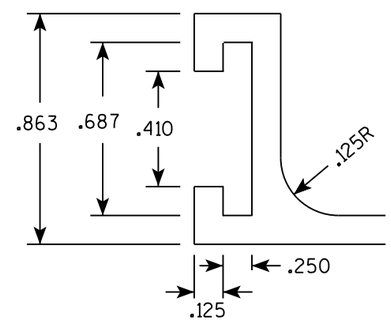
DATE 4/26/16 PLATE NO A4-18.1

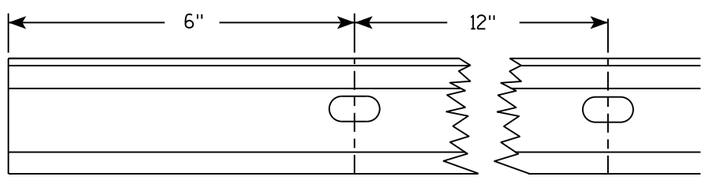
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







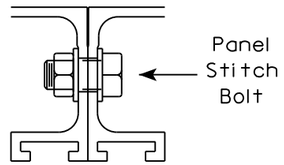
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

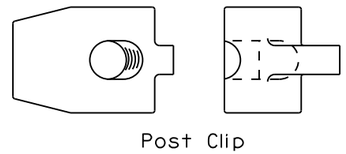
The hardware includes:

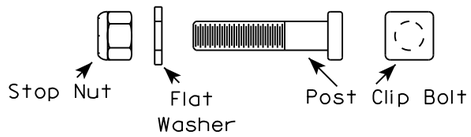
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

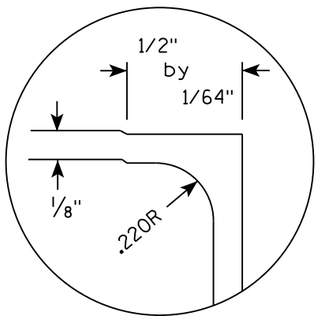
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

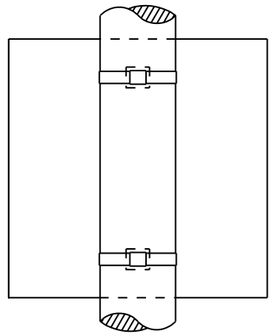
APPROVED Matthew R Rauch
for State Traffic Engineer

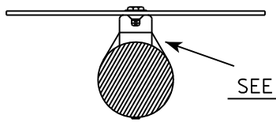
DATE 11/30/16 PLATE NO. A5-2.10

PROJECT NO:				SHEET NO: 451	E

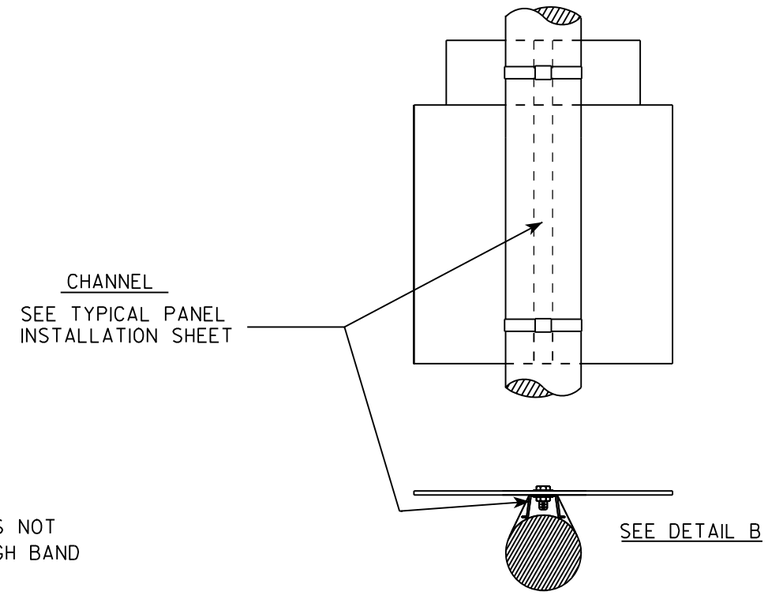
BANDING

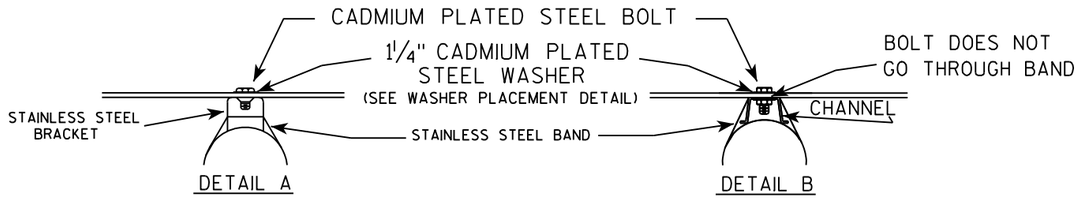
SINGLE SIGN



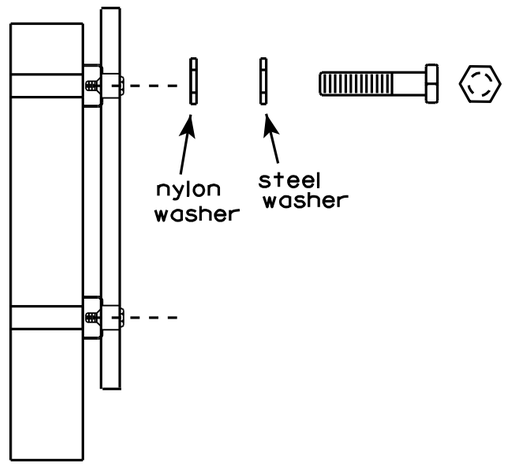


"J" ASSEMBLY





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.

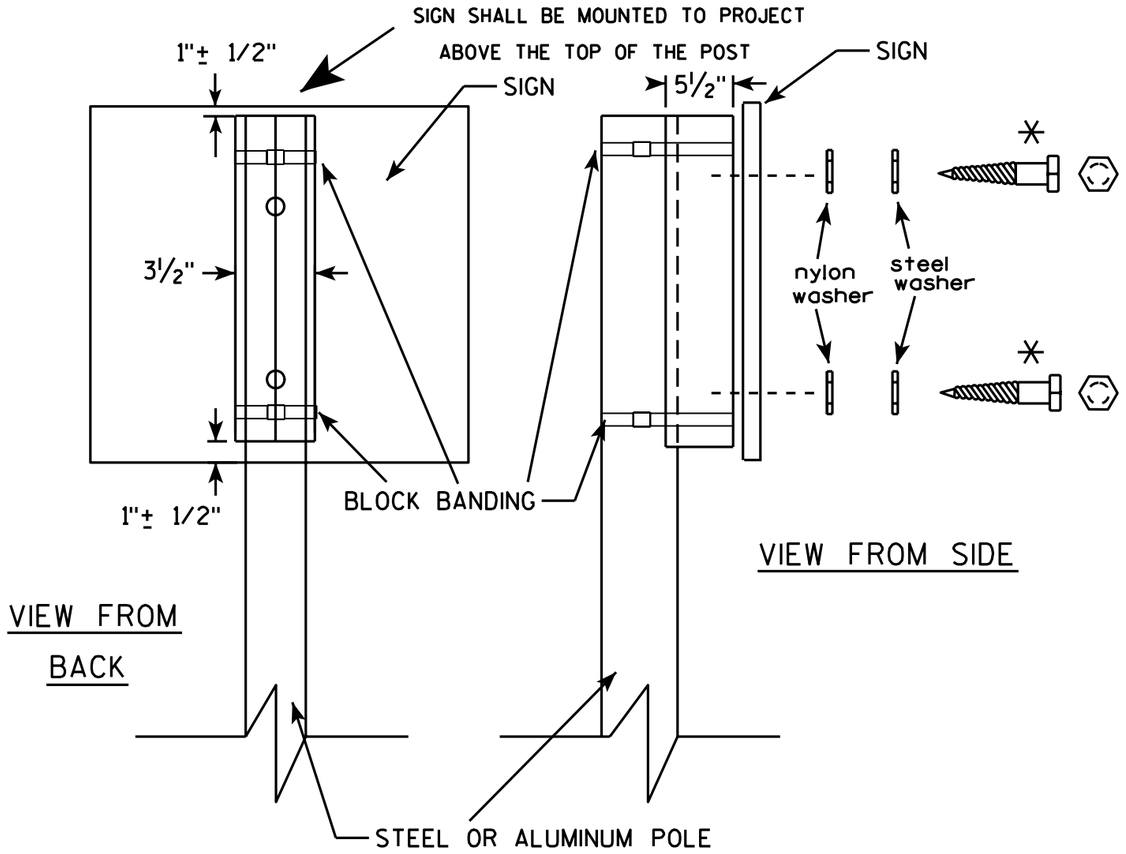
STANDARD SIGN
SIGN BANDING DETAILS

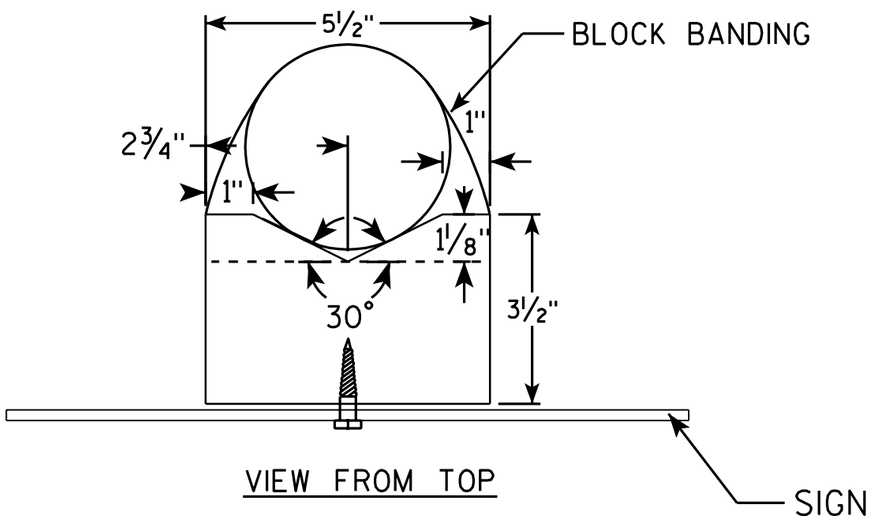
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 452	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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)

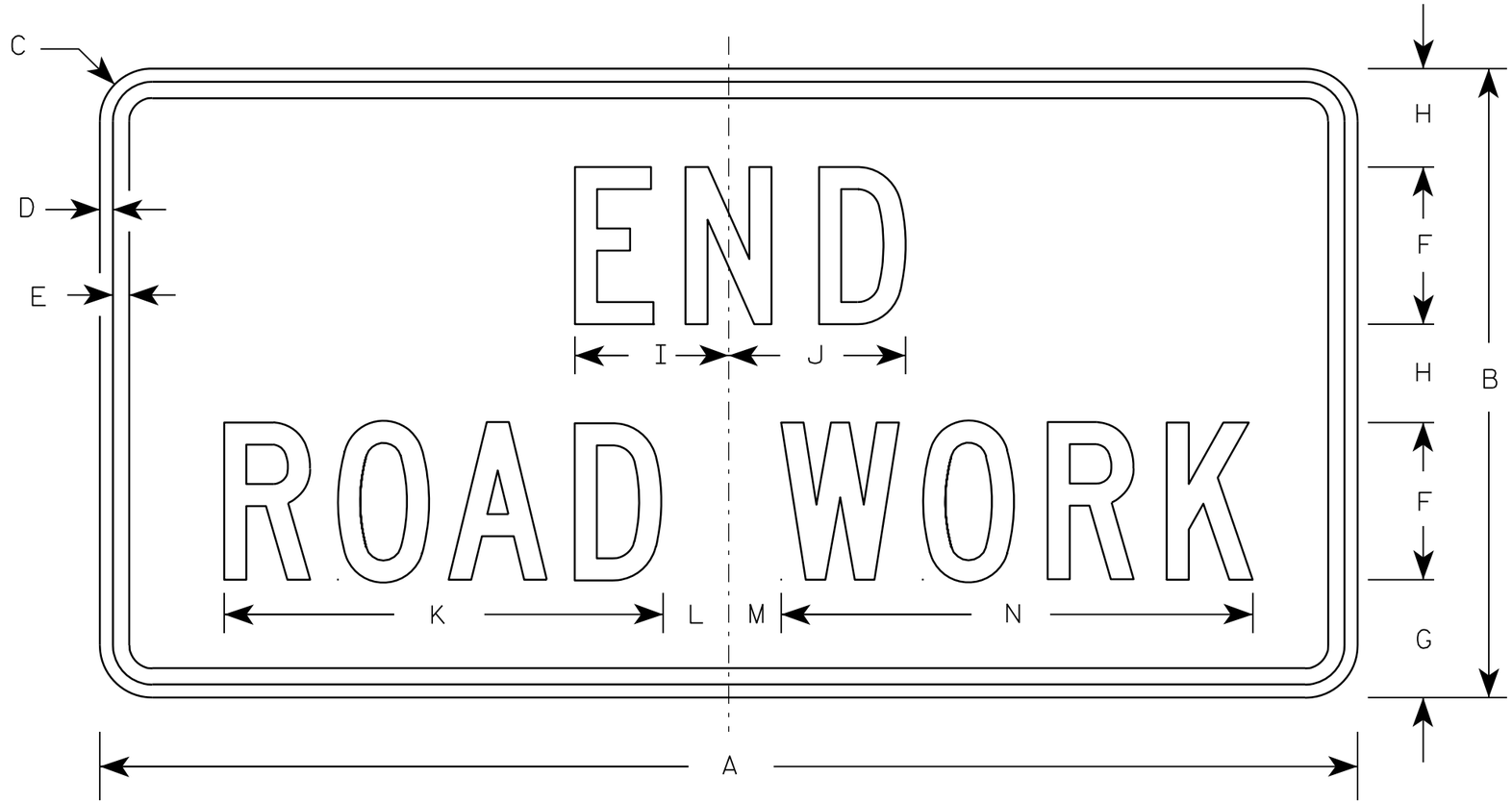
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 453 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

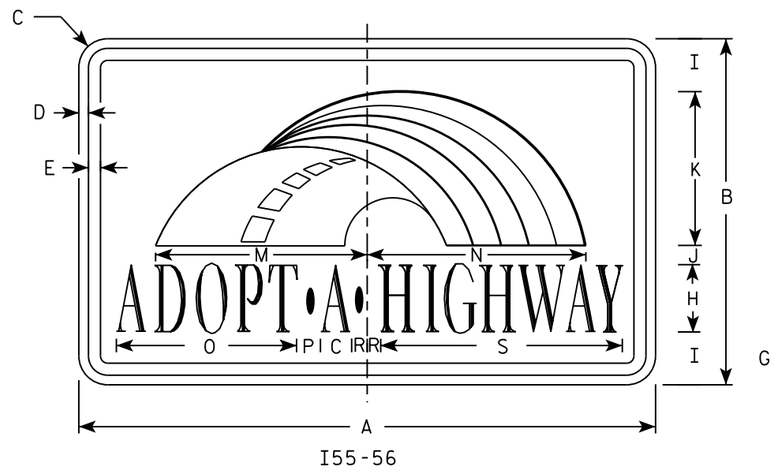
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

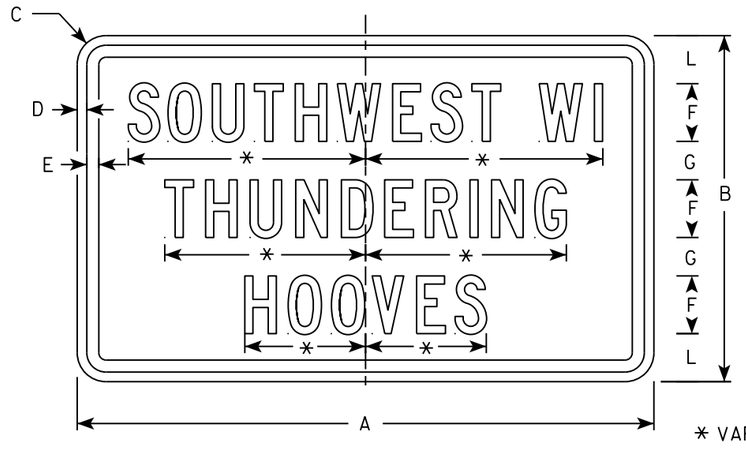
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 454	E



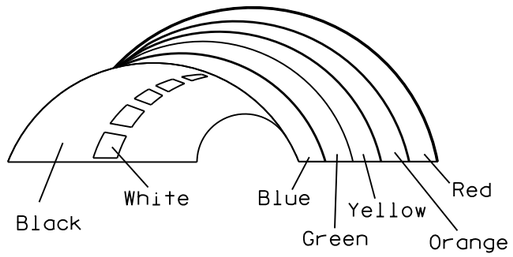
I55-56



I55-56P

* VARIES

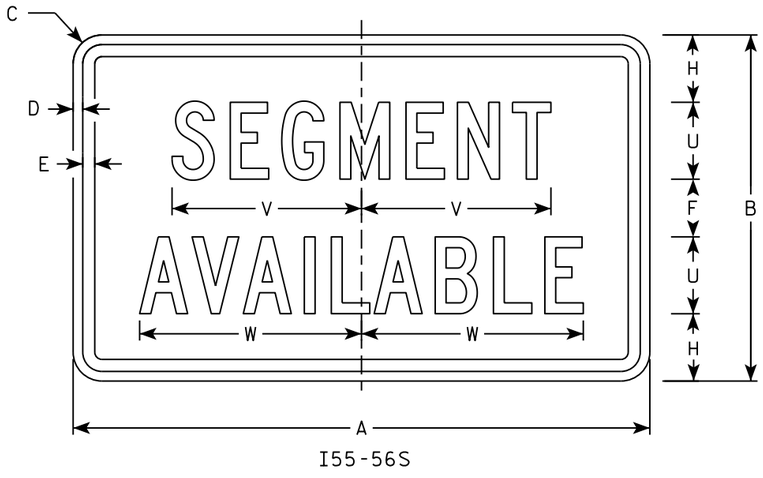
Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
   Adopt a Highway - Red
   All other Text - Blue
5. Adopt a Highway - Dutch 8011L
   All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



I55-56S

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	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

STANDARD SIGN
I55-56

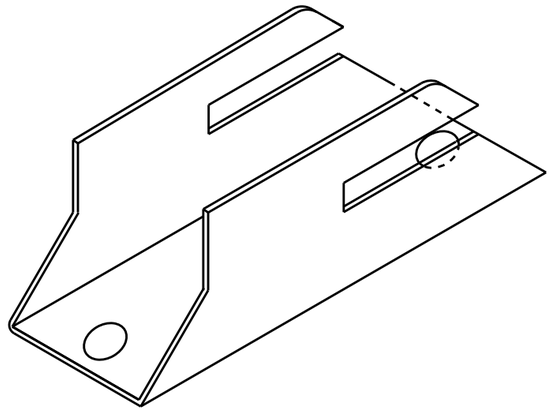
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

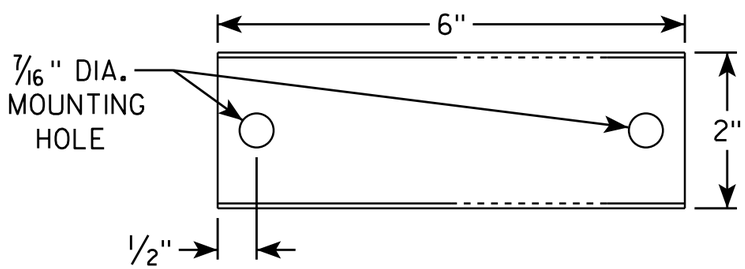
DATE 2/20/18 PLATE NO. I55-56.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 455 | E

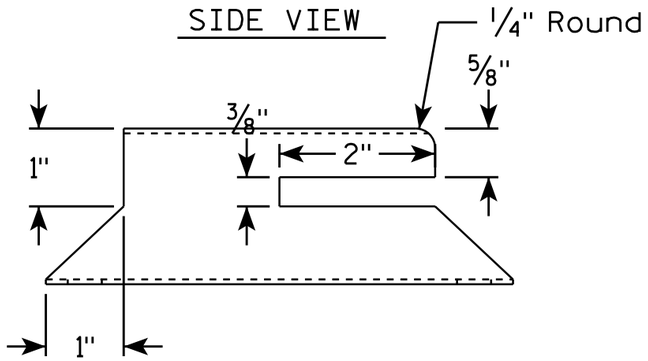
ISOMETRIC VIEW



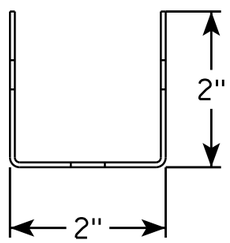
TOP VIEW



SIDE VIEW



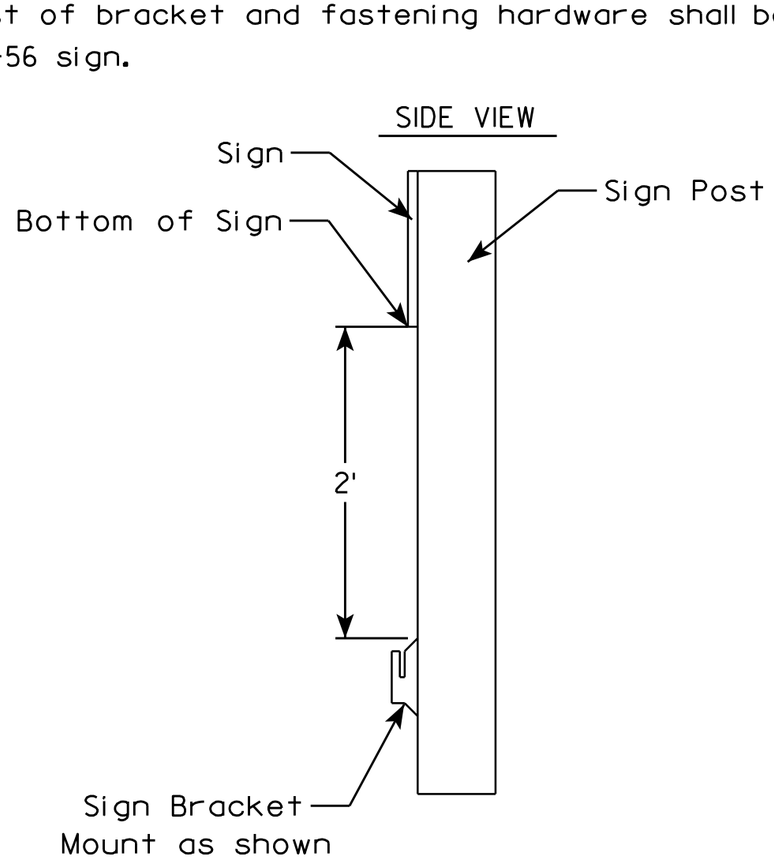
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



7

7

ROLLUP SIGN BRACKET
I55-56B

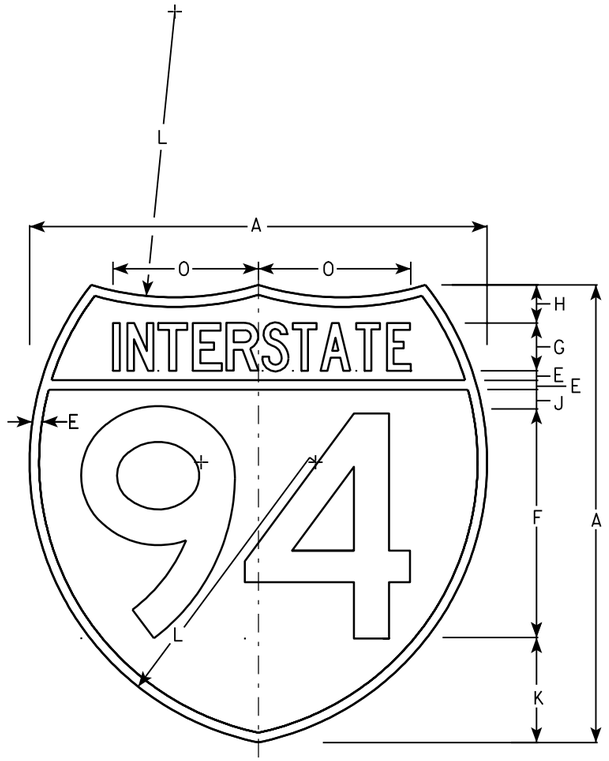
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

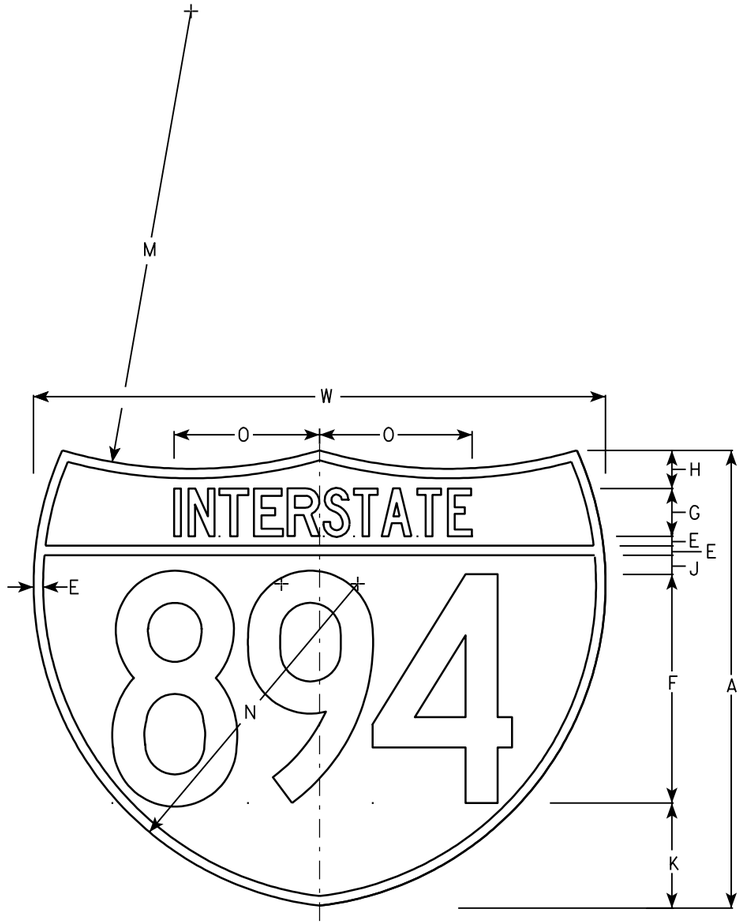
DATE 4/26/16 PLATE I55-56B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000 WISDOT/CADDS SHEET 42



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

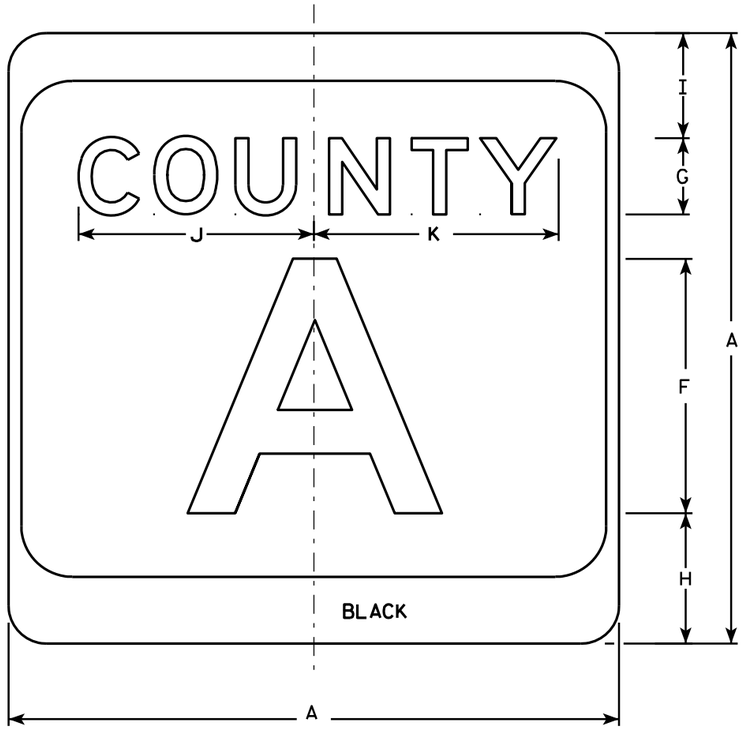
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

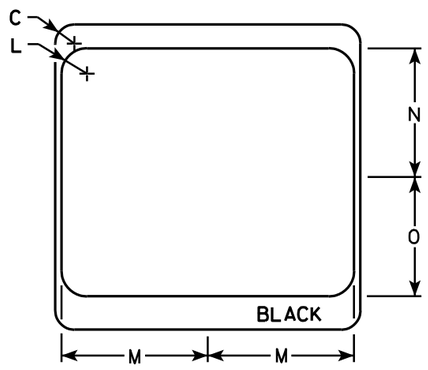
APPROVED Matthew R Rauch
for State Traffic Engineer

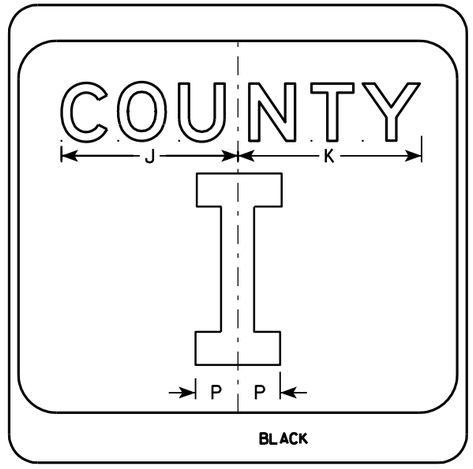
DATE 08/23/05 PLATE NO. M1-1.8

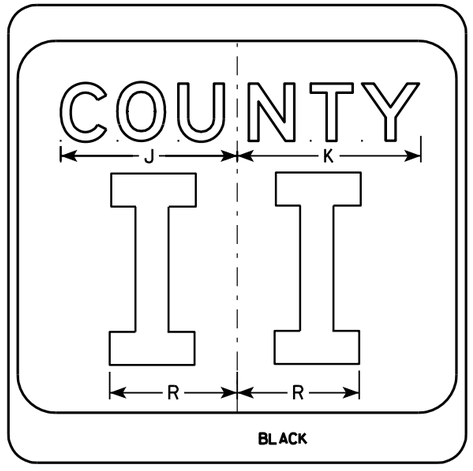
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 457	E



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

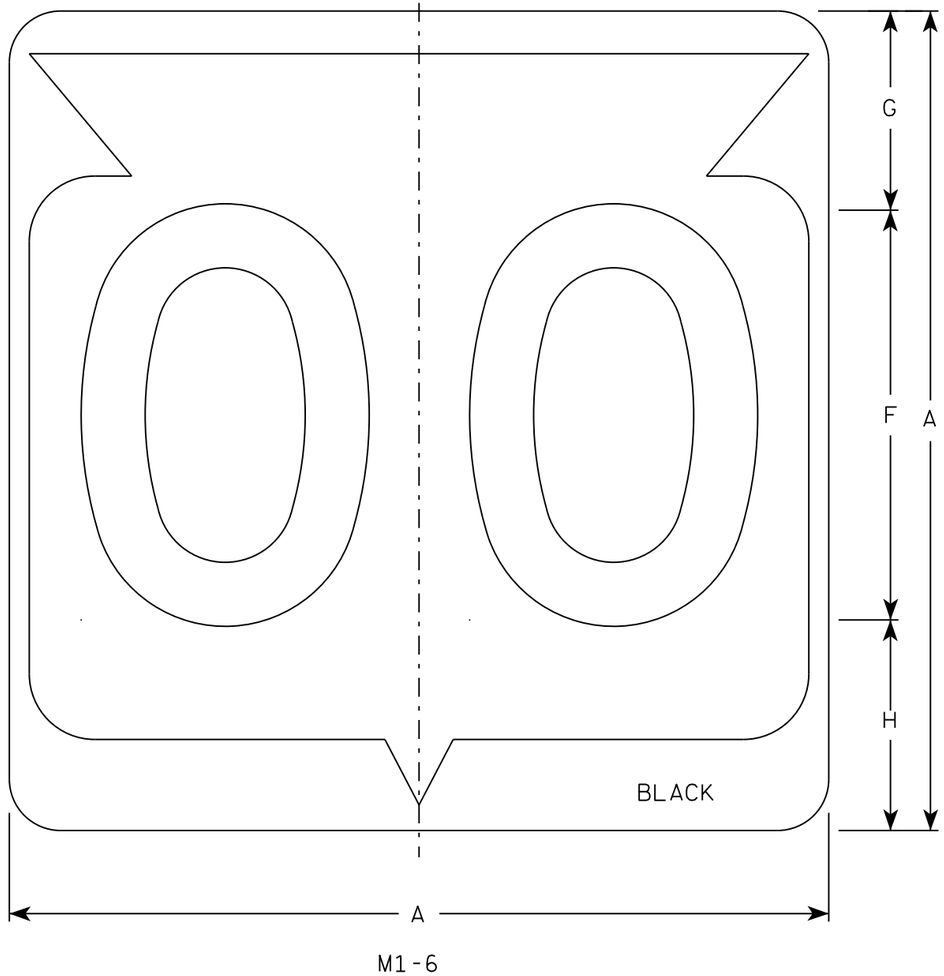
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

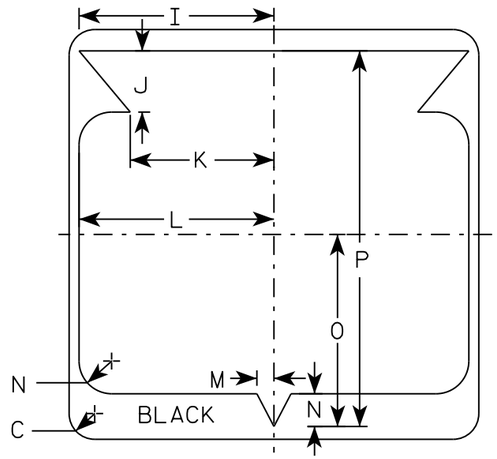
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 458 | E



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

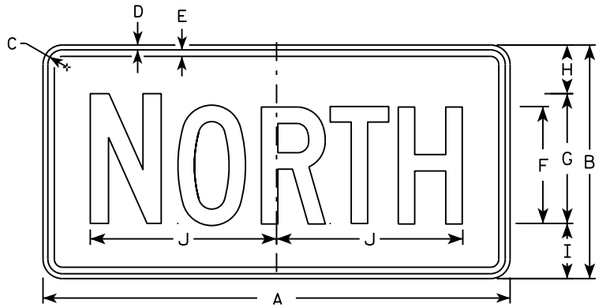
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

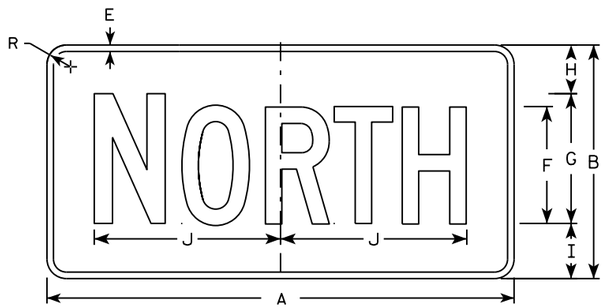
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 459 | E



M3-1
MM3-1
MP3-1



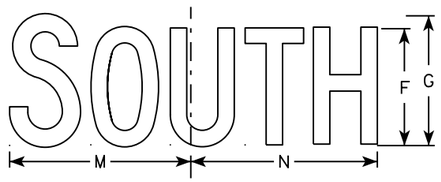
MB3-1
MK3-1
MN3-1



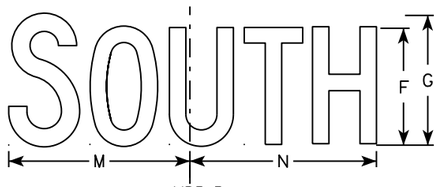
M3-2
MM3-2
MP3-2



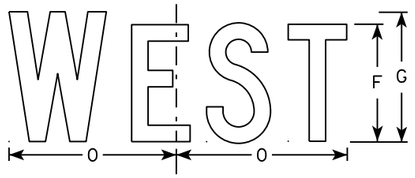
MB3-2
MK3-2
MN3-2



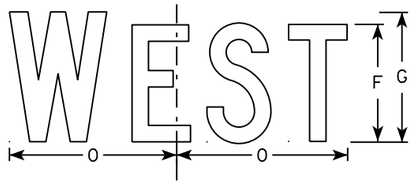
M3-3
MM3-3
MP3-3



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

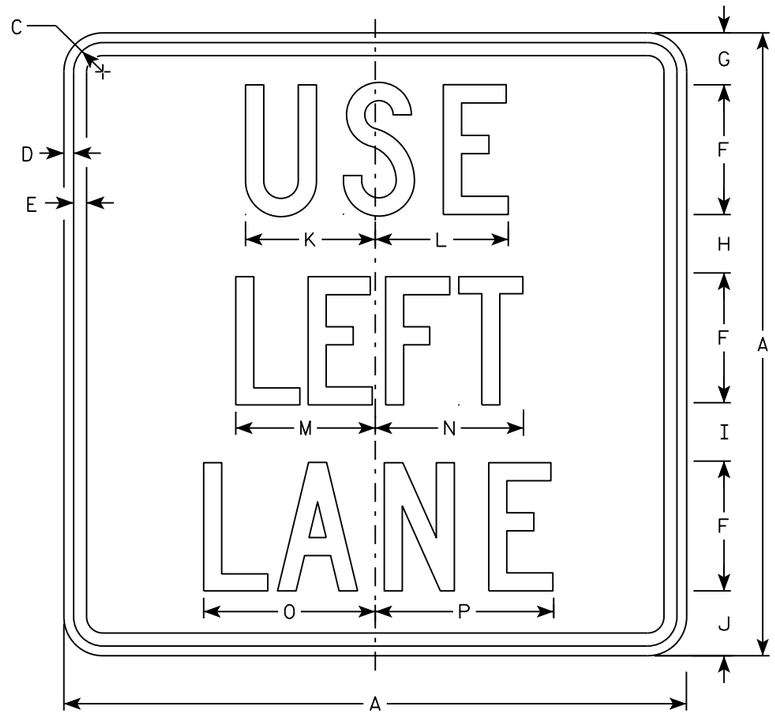
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

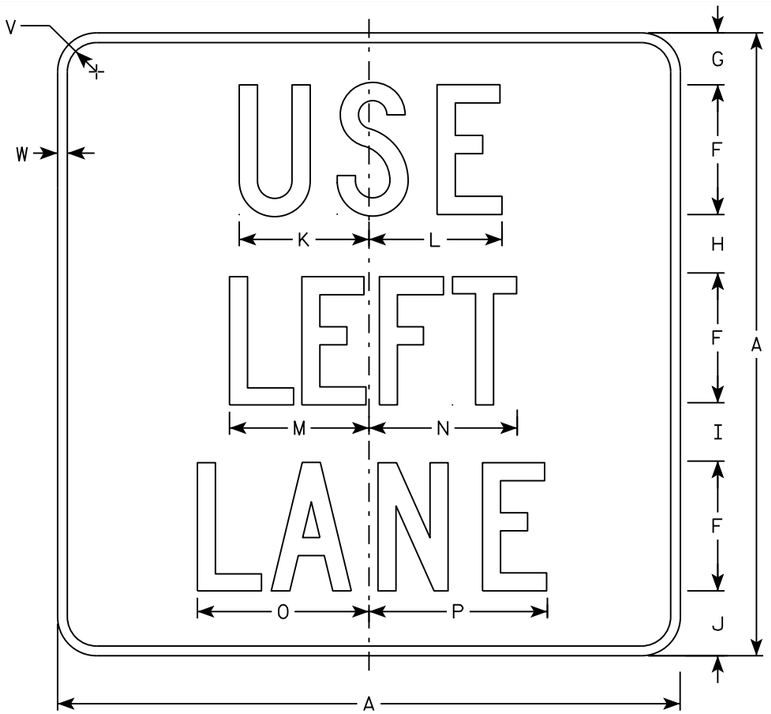
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-20L

A

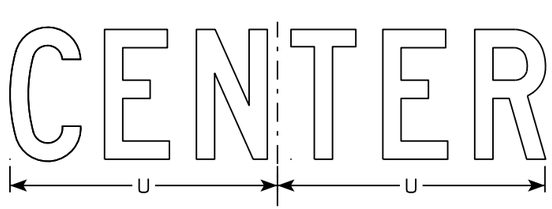
M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L

A

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
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. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 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	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

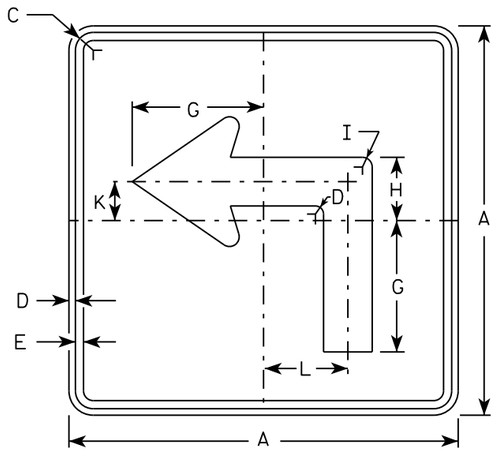
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

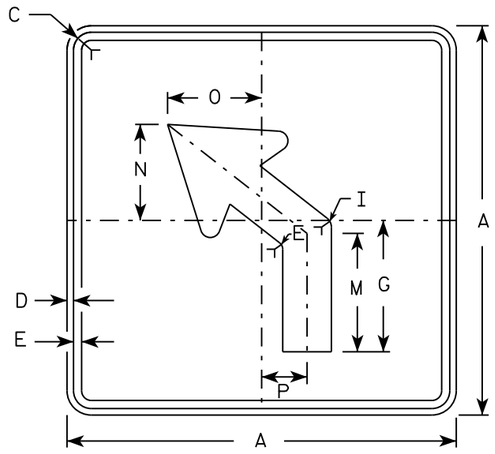
DATE 10/15/15 PLATE NO M4-20.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

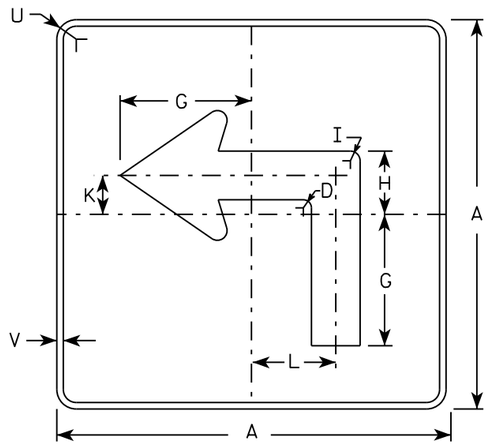
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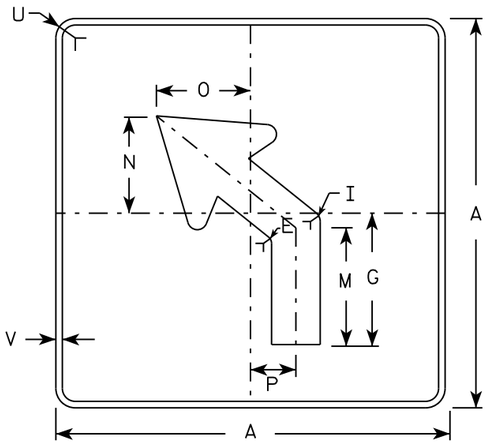
M5-1L
MM5-1L
MO5-1L
MP5-1L



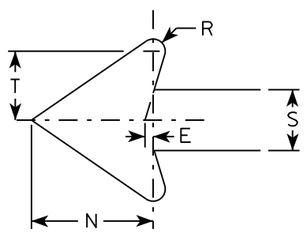
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

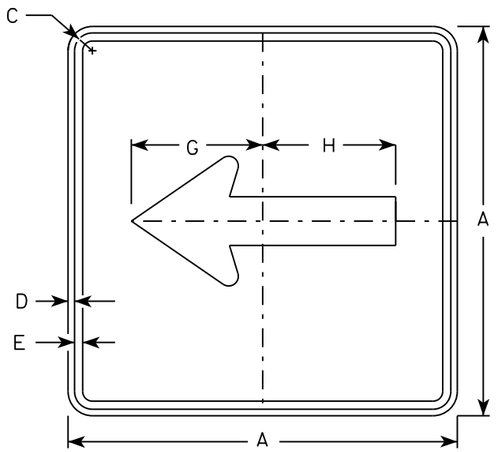
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

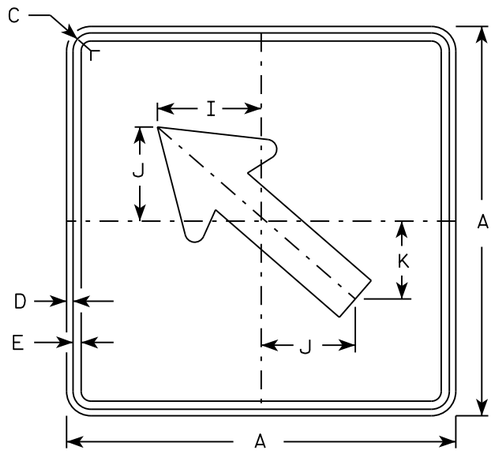
DATE 10/15/15 PLATE NO. M5-1.13

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



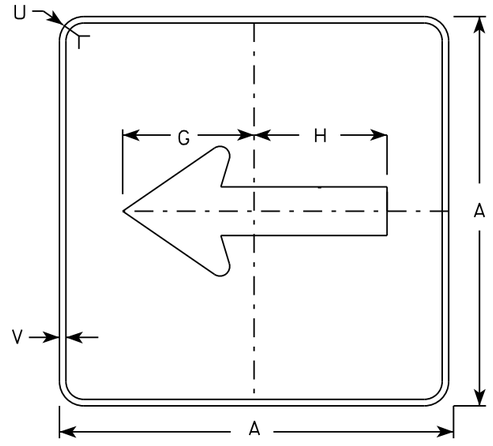
M6-1
MM6-1
MO6-1
MP6-1



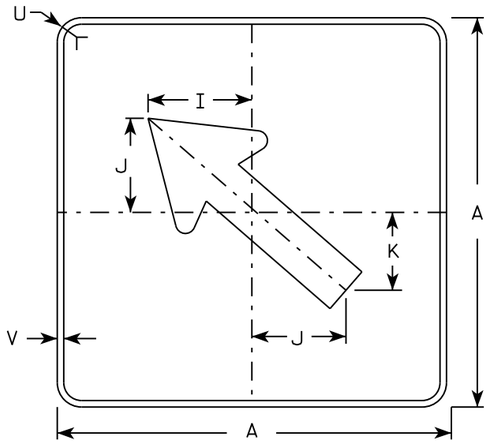
M6-2
MM6-2
MO6-2
MP6-2

NOTES

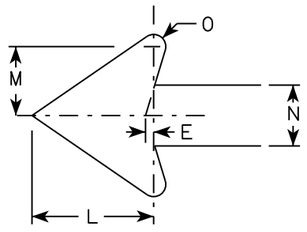
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

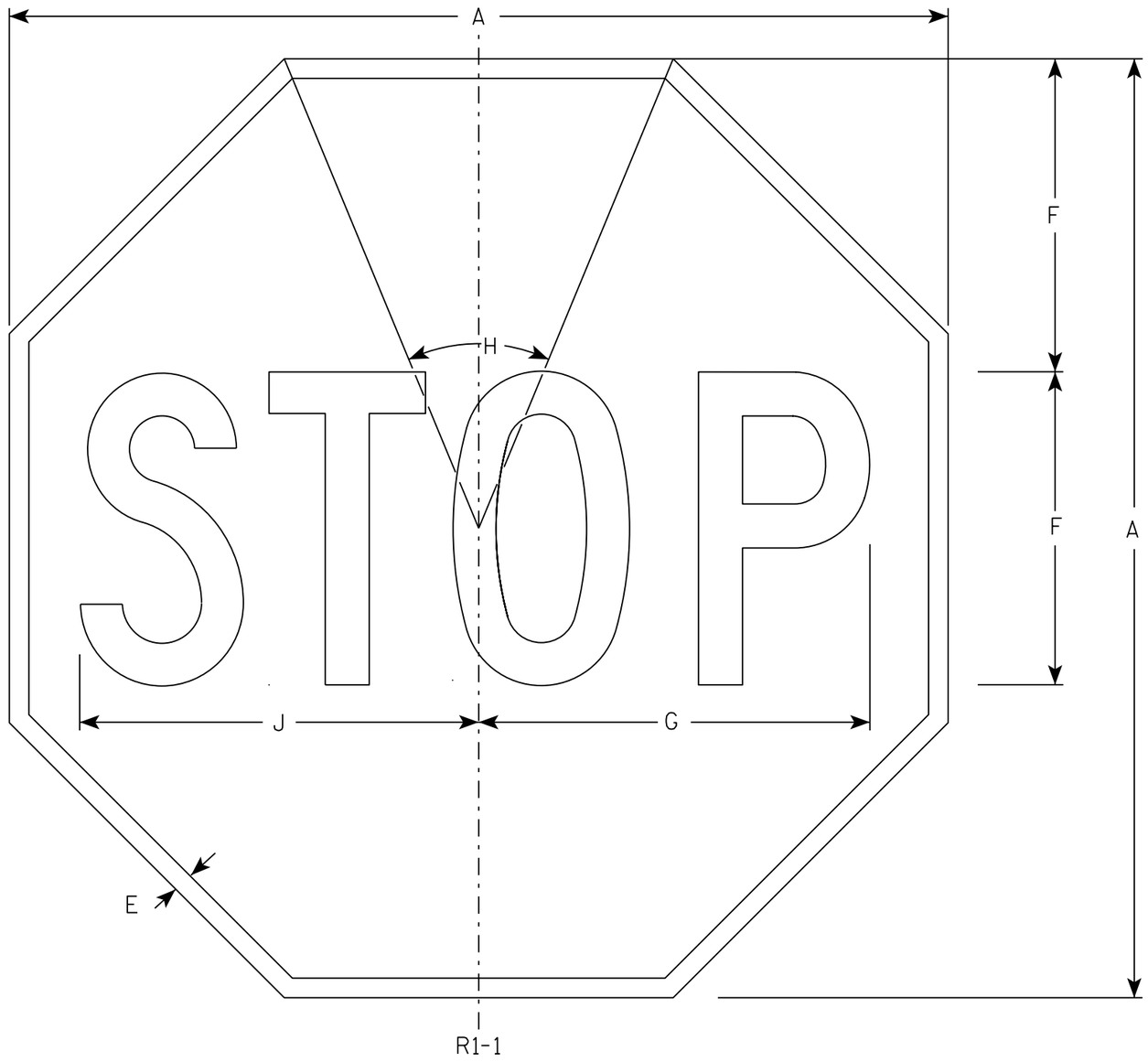
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 463 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



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

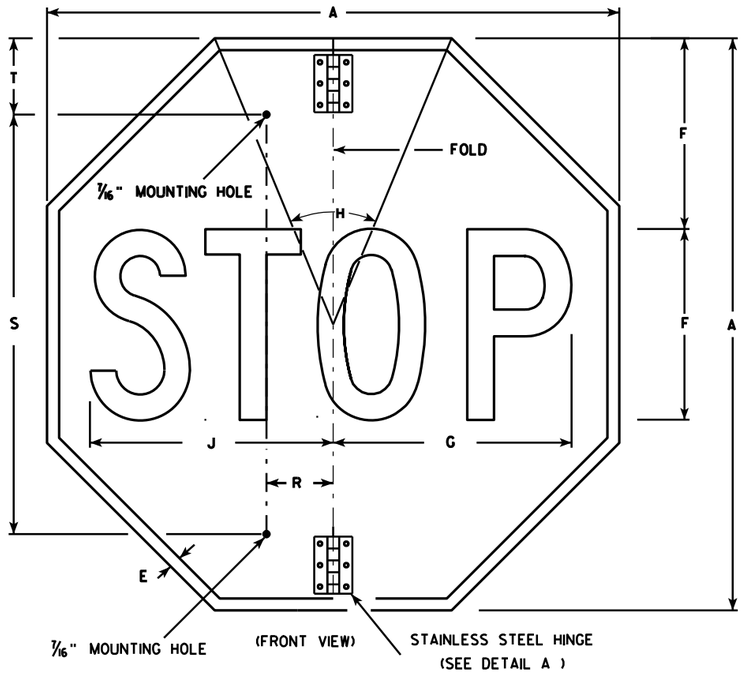
R1-1

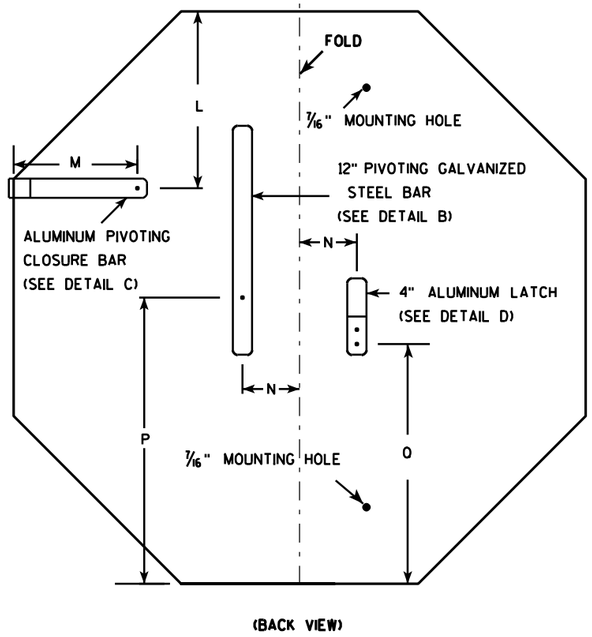
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

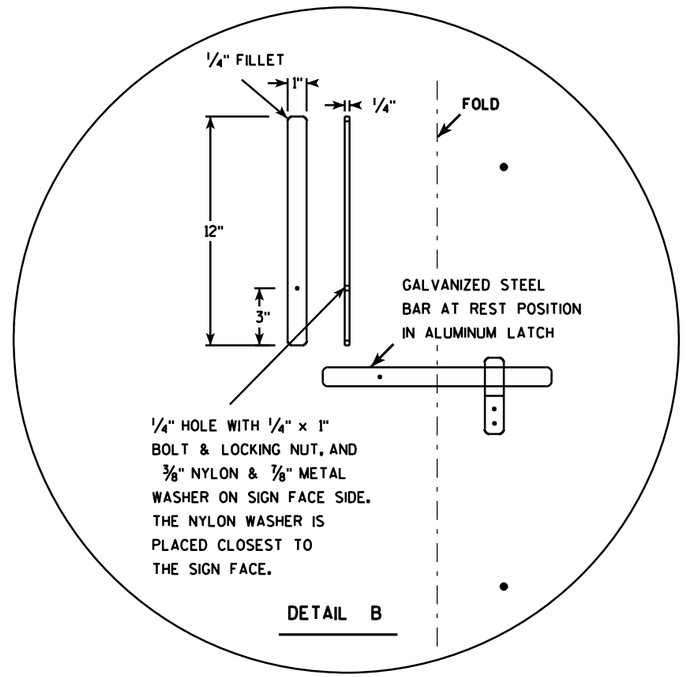
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 464	E



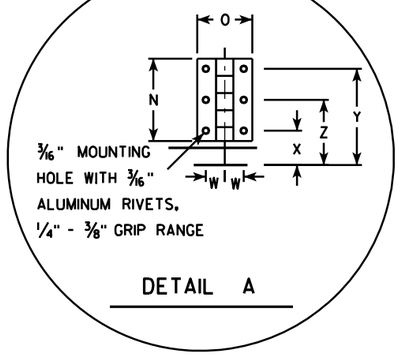


NOTES

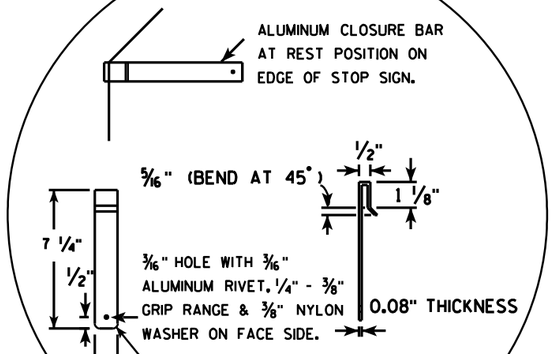
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



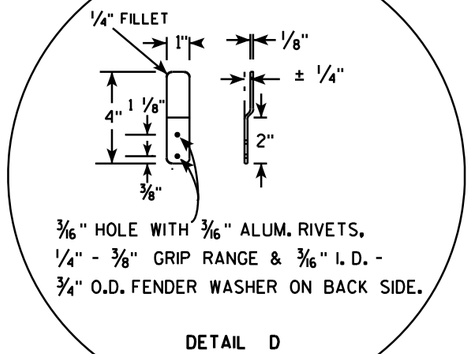
DETAIL B



DETAIL A



DETAIL C



DETAIL D

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

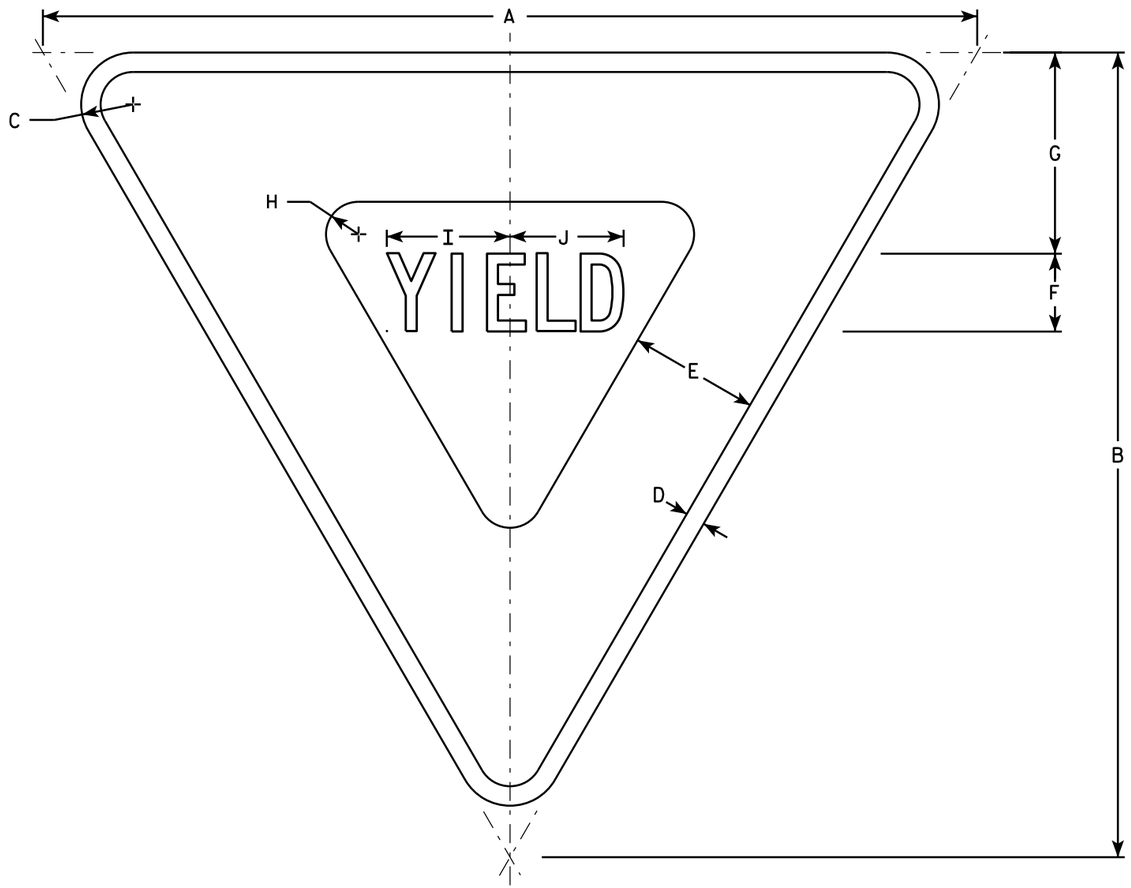
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 465 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



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

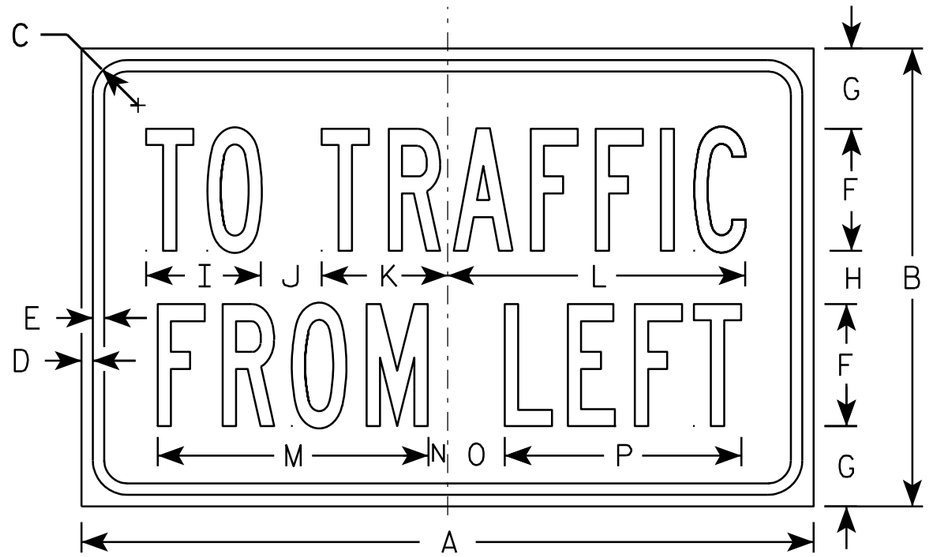
WISCONSIN DEPT OF TRANSPORTATION

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



R1-54

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 - B

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	15	1 1/8	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
2M	24	15	1 1/8	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
3																											
4																											
5																											

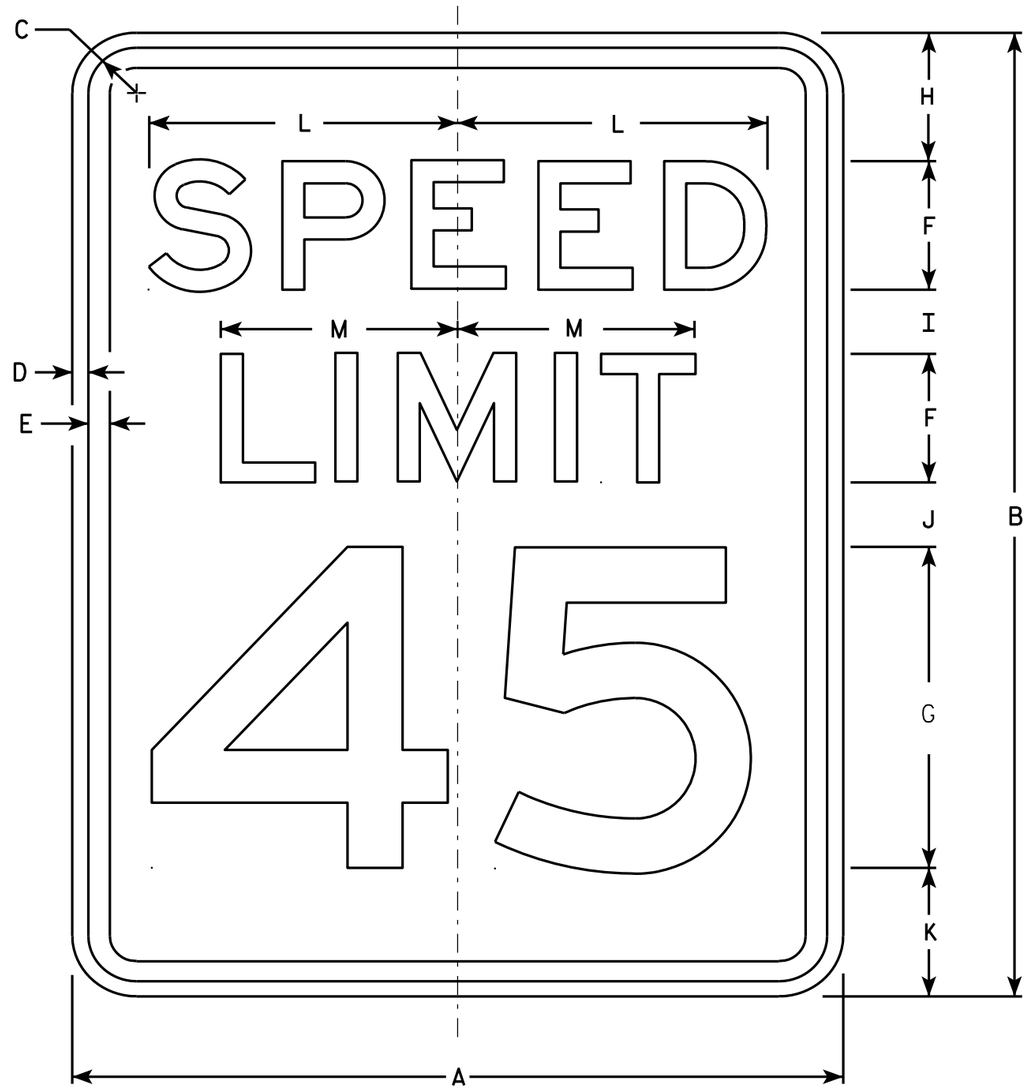
STANDARD SIGN
R1-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-54.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 467	E



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

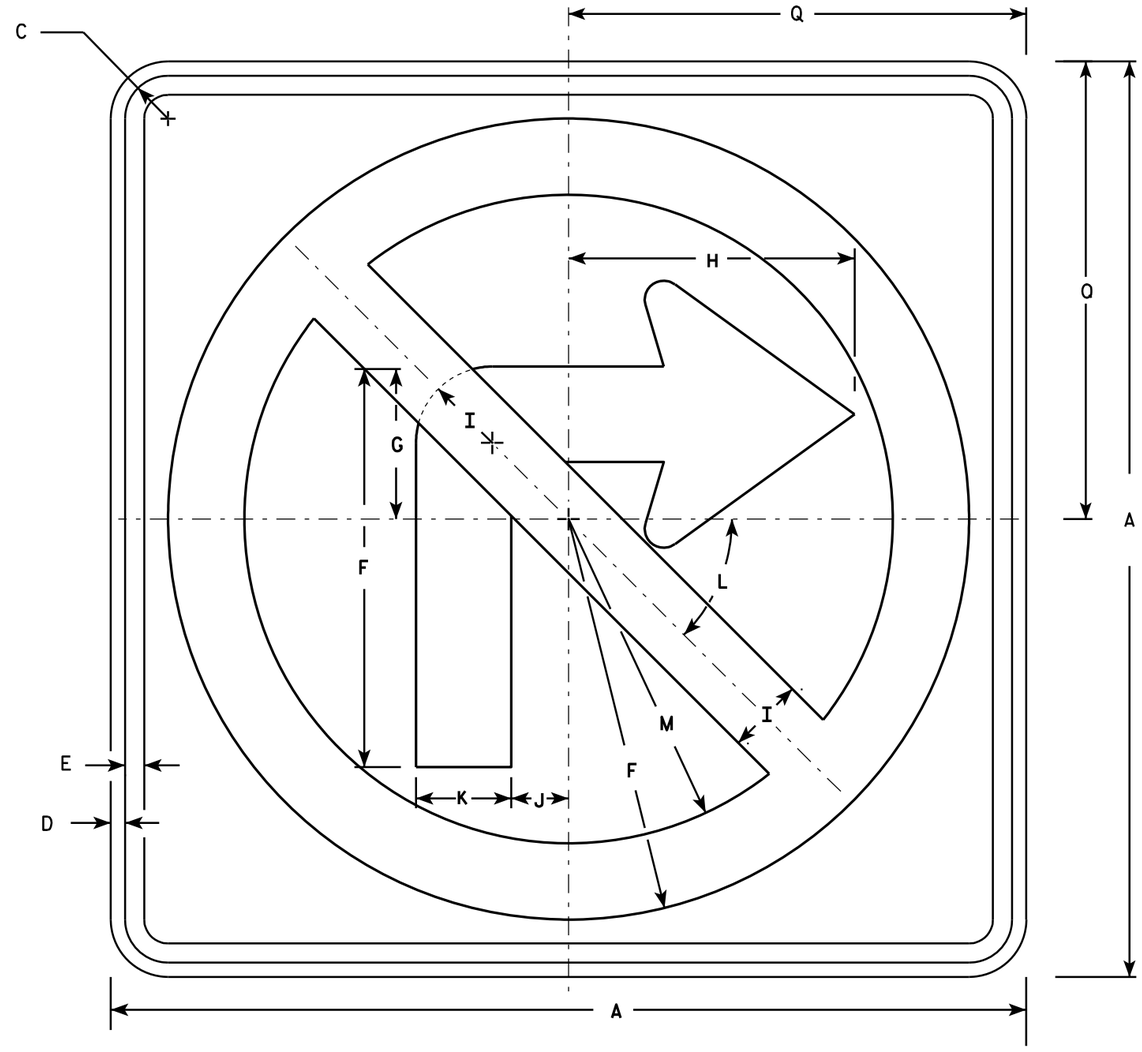
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

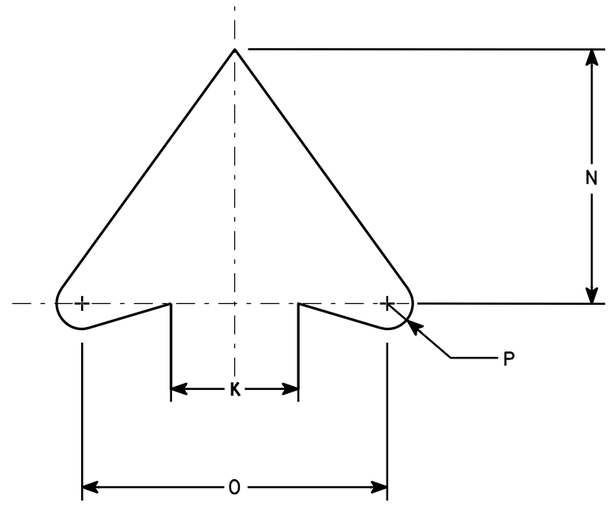
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 468	E



R3-1

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 - 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	12										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	12										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	18										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	18										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	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

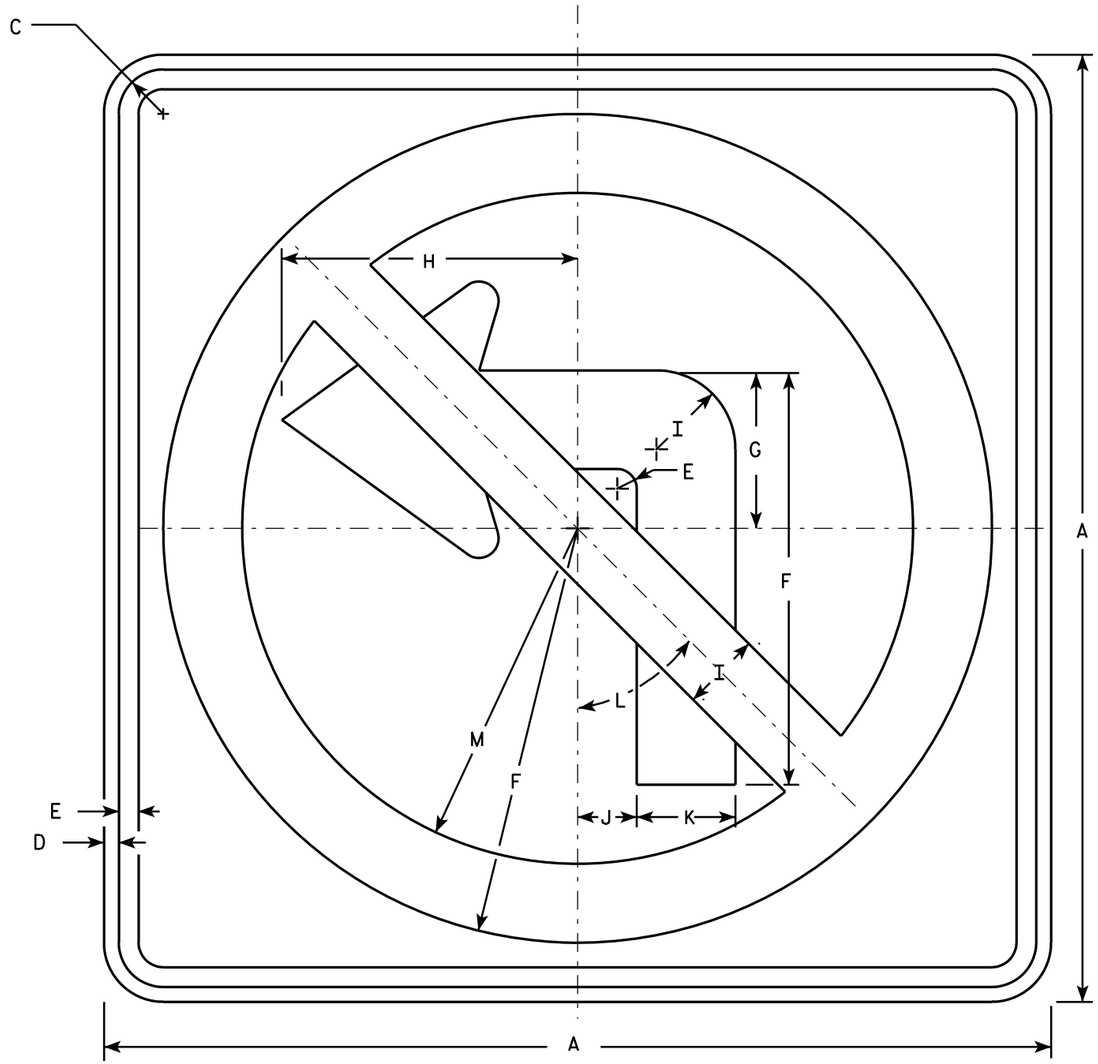
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

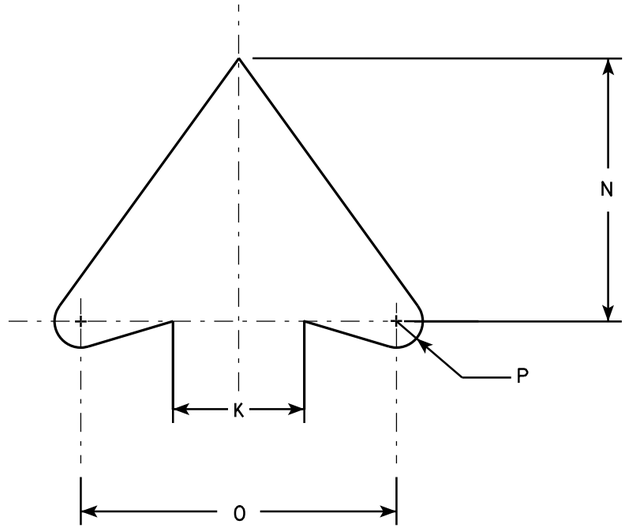
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 469	E



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

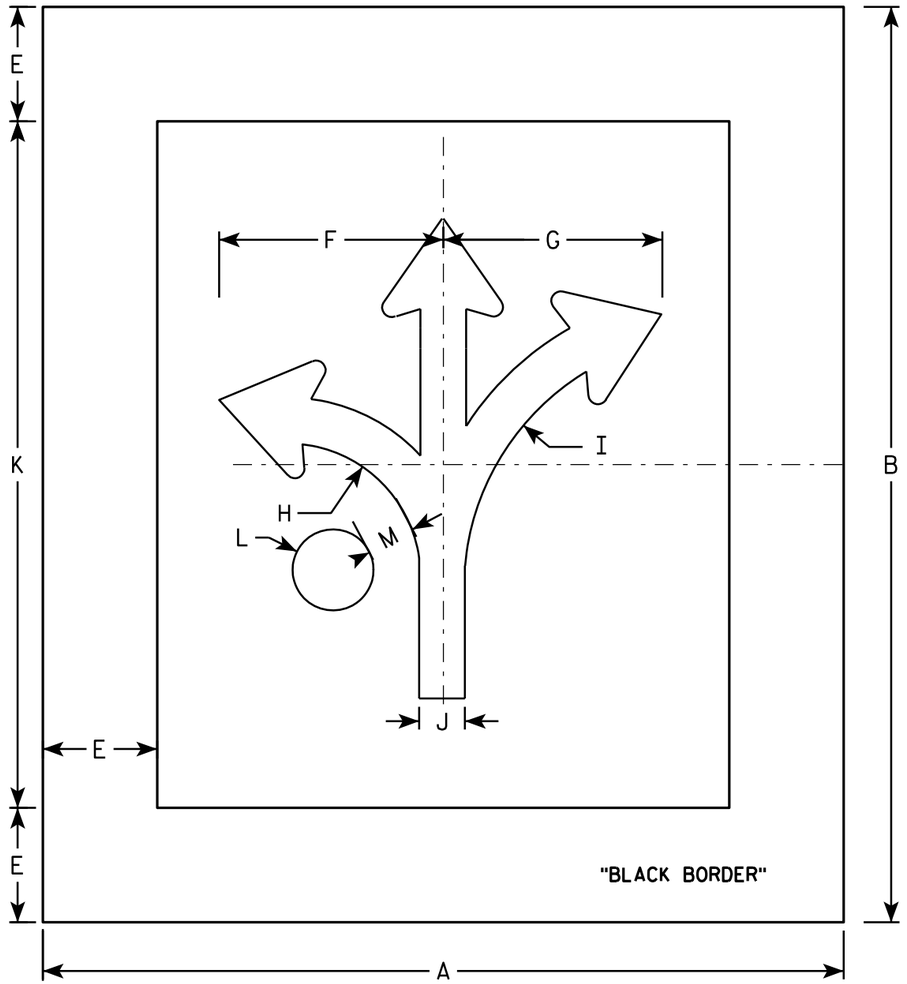
STANDARD SIGN
R3-2

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: 470	E



R3-6W

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. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. The 6" border is non-reflective 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																											
2S	42	48			6	11 3/4	11 1/2	7	13 1/4	2 3/8	36	4 1/4	2 1/2														14.0
2M	42	48			6	11 3/4	11 1/2	7	13 1/4	2 3/8	36	4 1/4	2 1/2														14.0
3																											
4																											
5																											

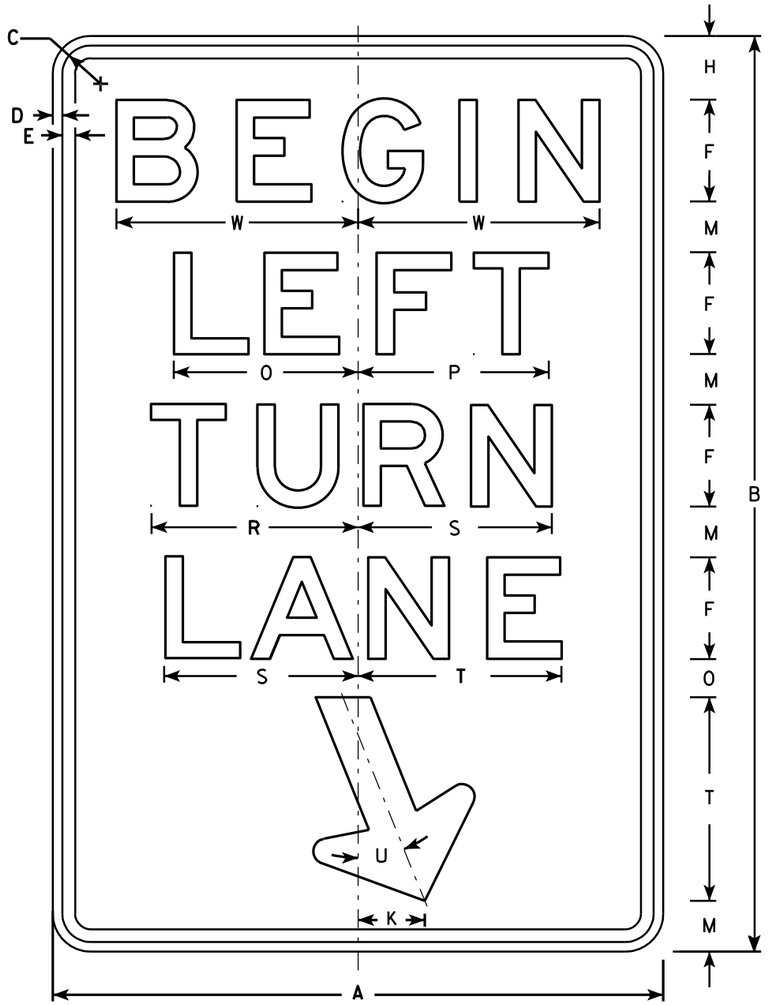
STANDARD SIGN
R3-6W

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-6W.2

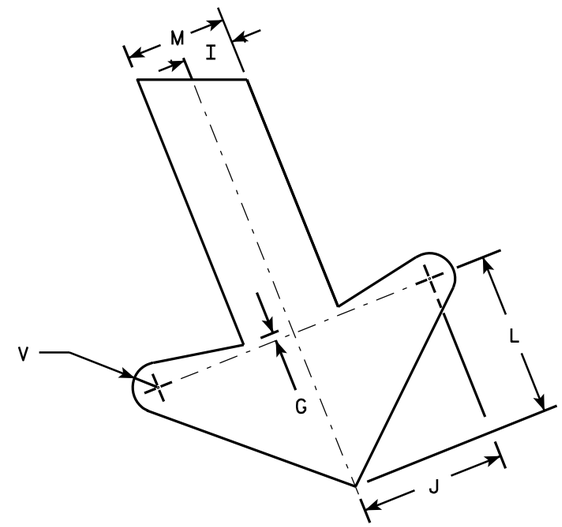
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 471	E



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																											

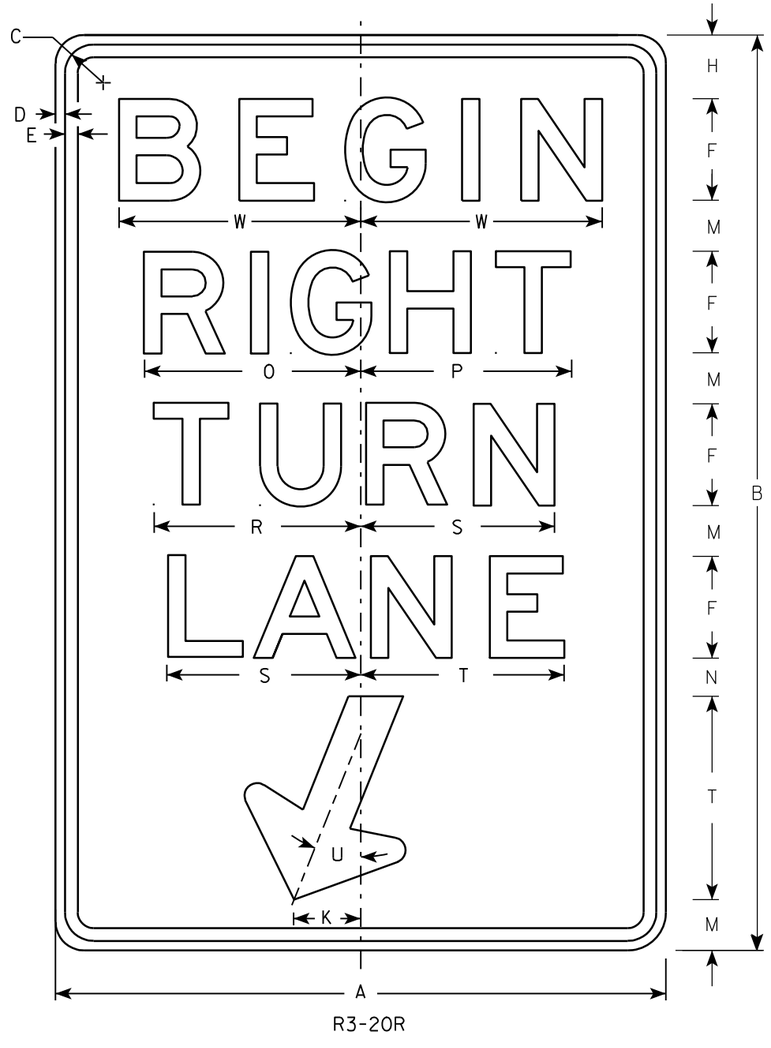
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

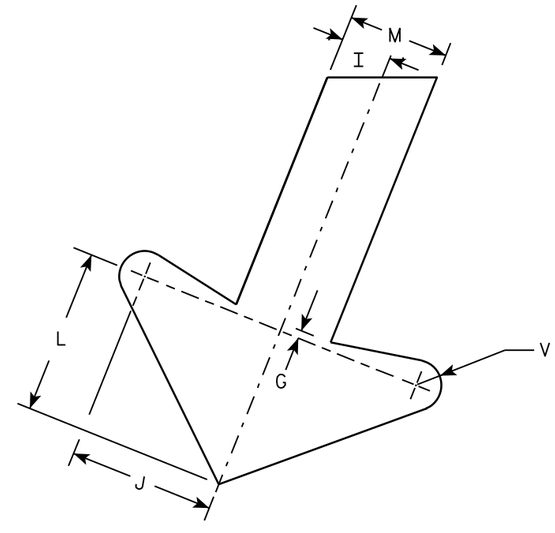
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 472 | E



R3-20R

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	8 1/2	8 1/4		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	8 1/2	8 1/4		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	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

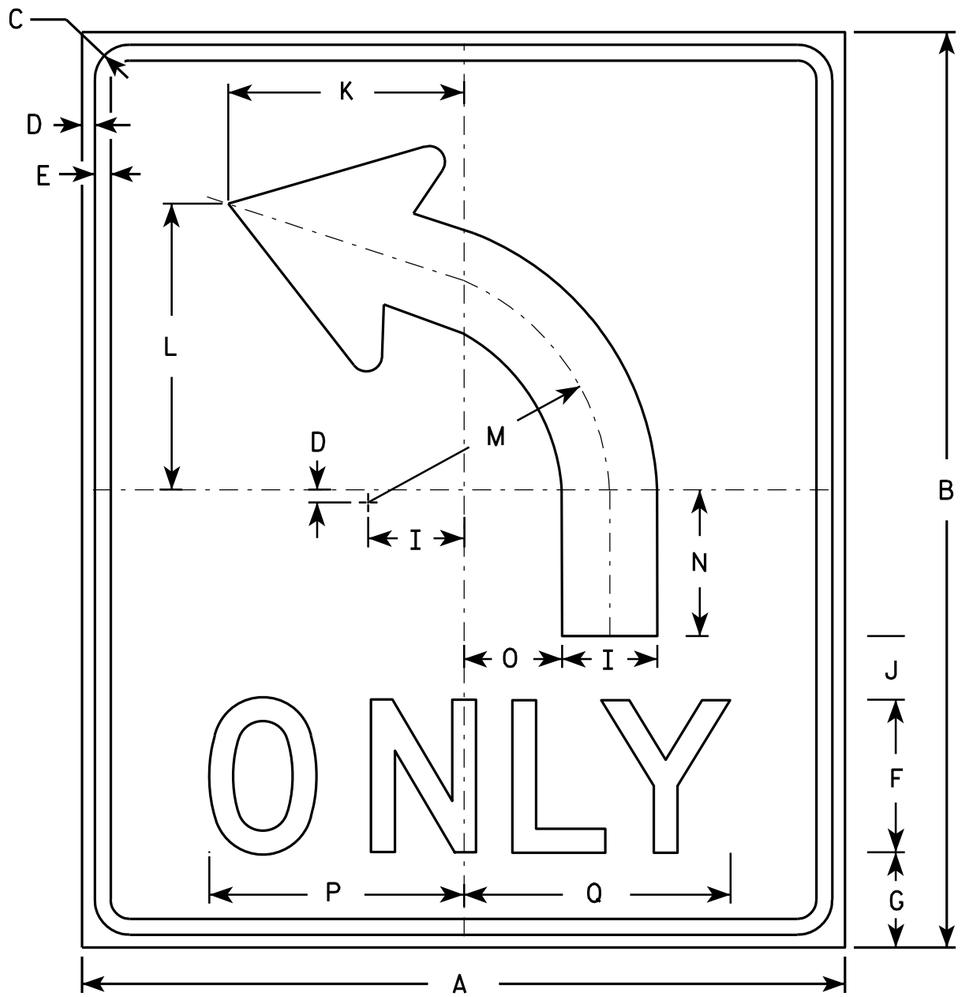
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

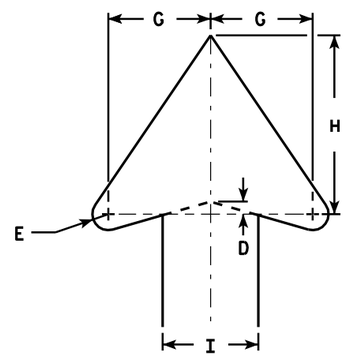
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 473 | E



R3-50L

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. R3-50R is the same as R3-50L except curved portion of arrow points right.



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	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

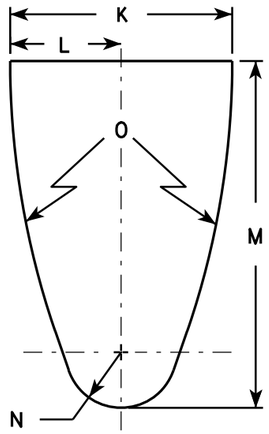
STANDARD SIGN
R3-50

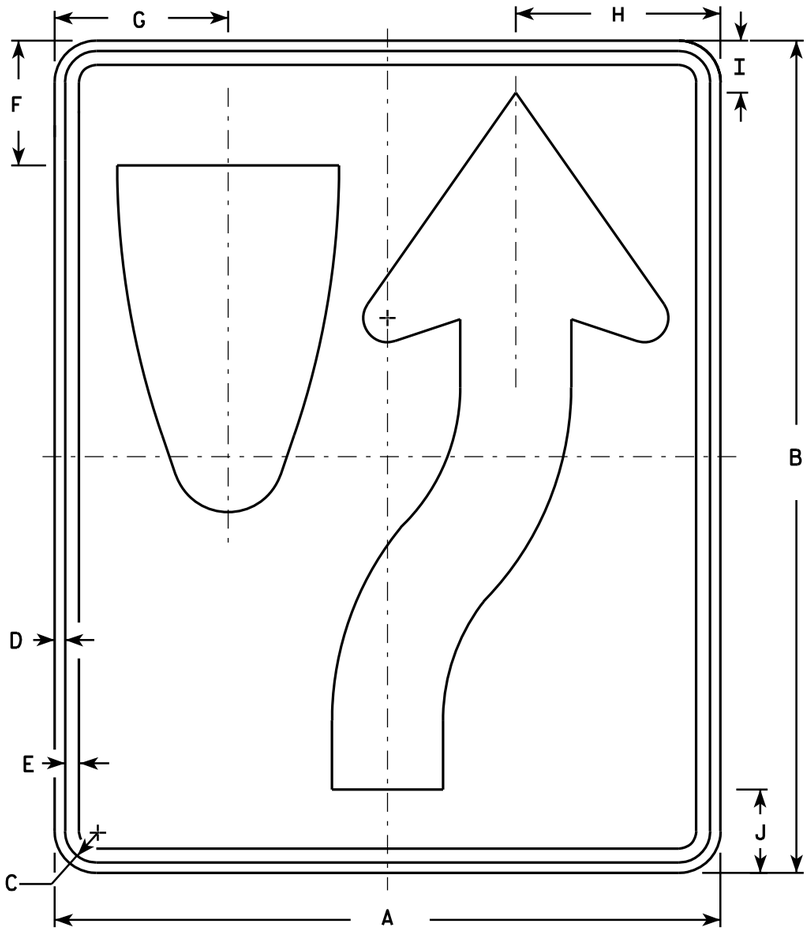
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 474 | E

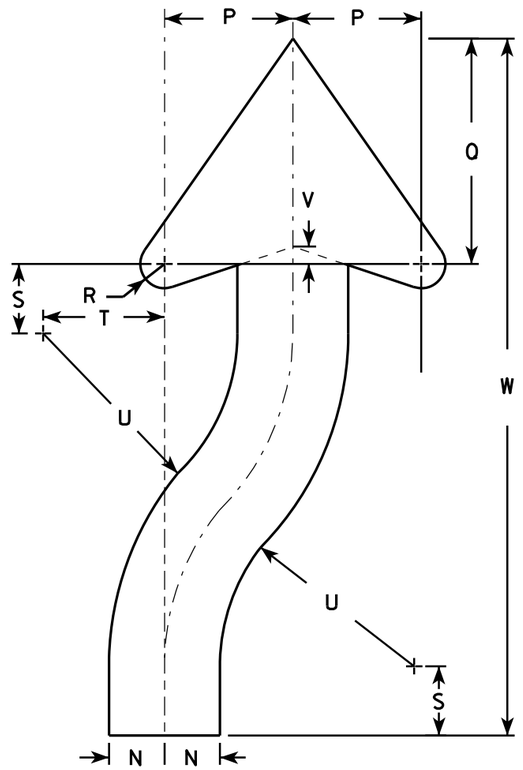




R4-7

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

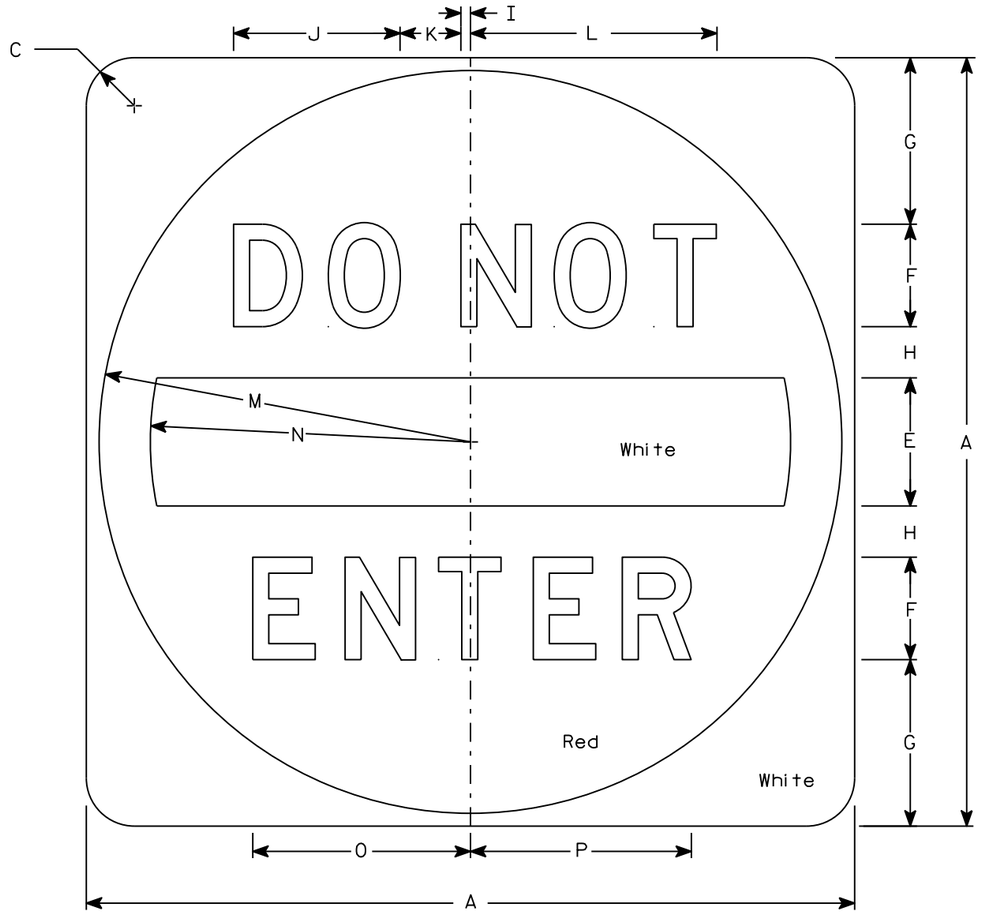
STANDARD SIGN
R4-7 & R4-8

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: 475	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

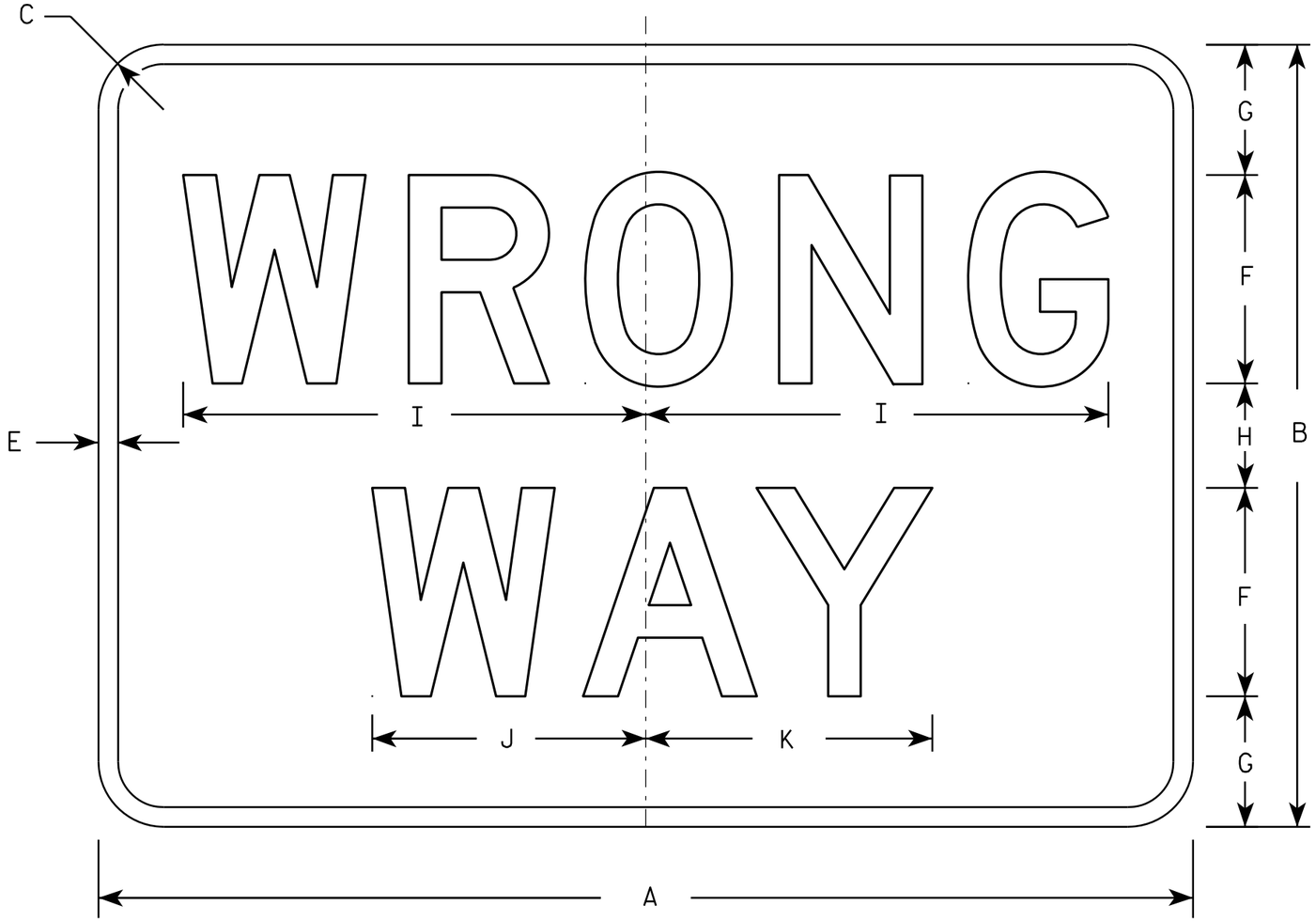
STANDARD SIGN
R5-1

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: 476 | E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

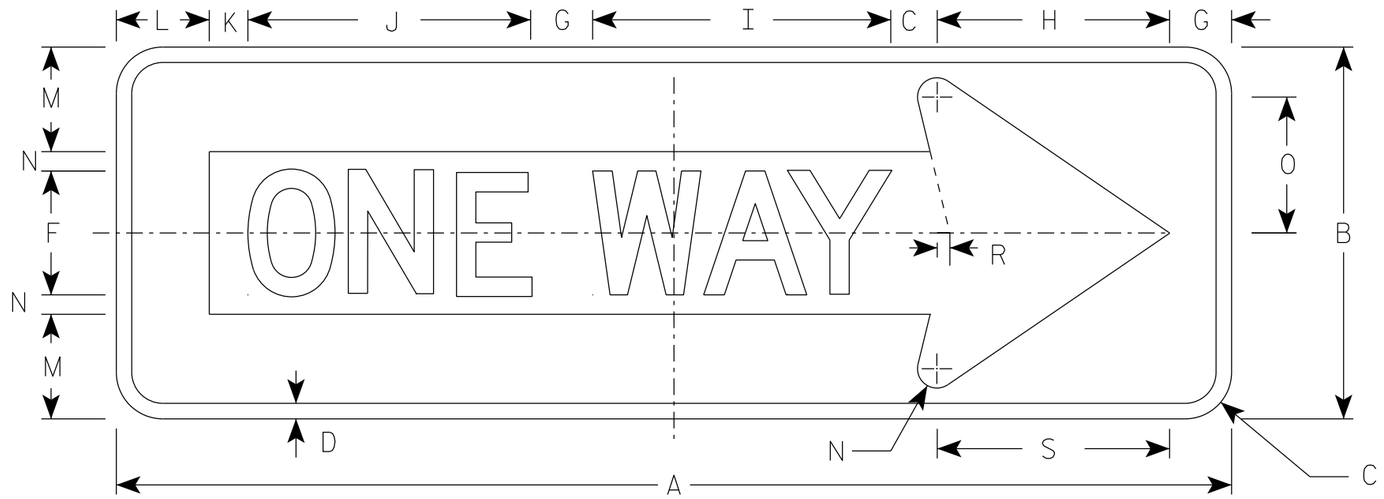
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

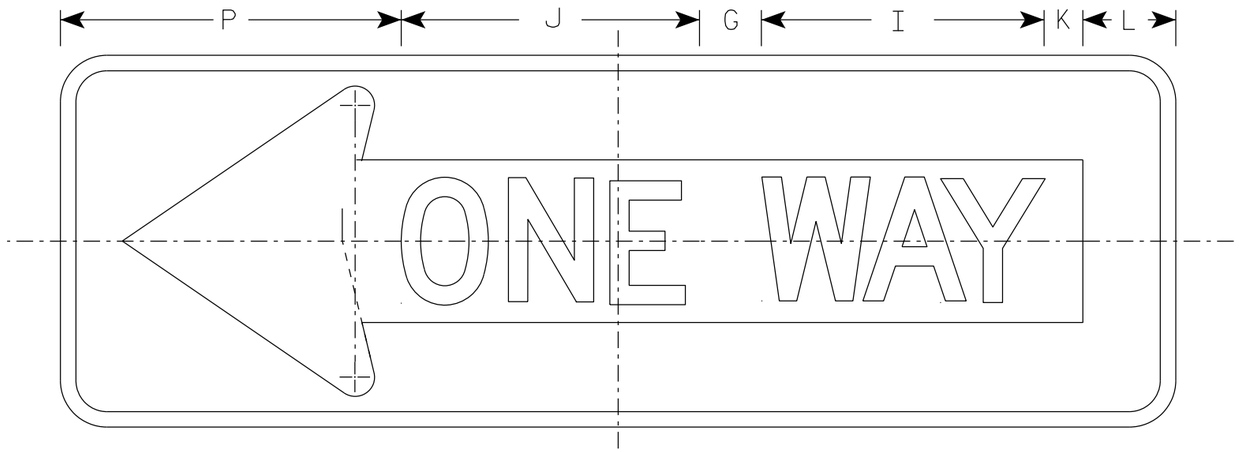
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 477 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

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	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

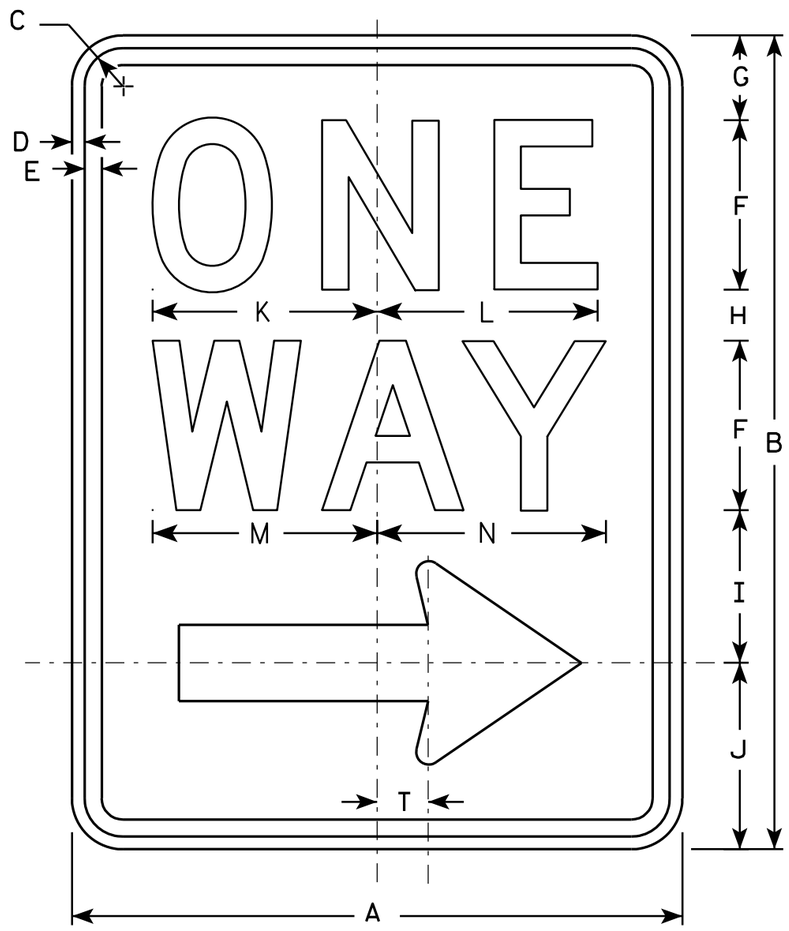
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

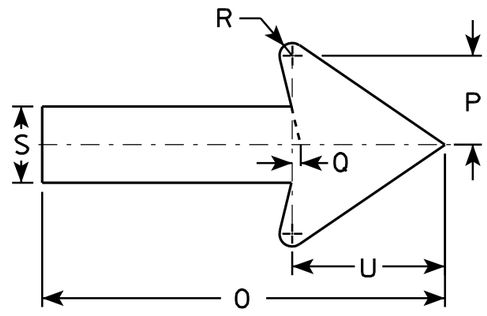
SHEET NO: 478 E



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																										

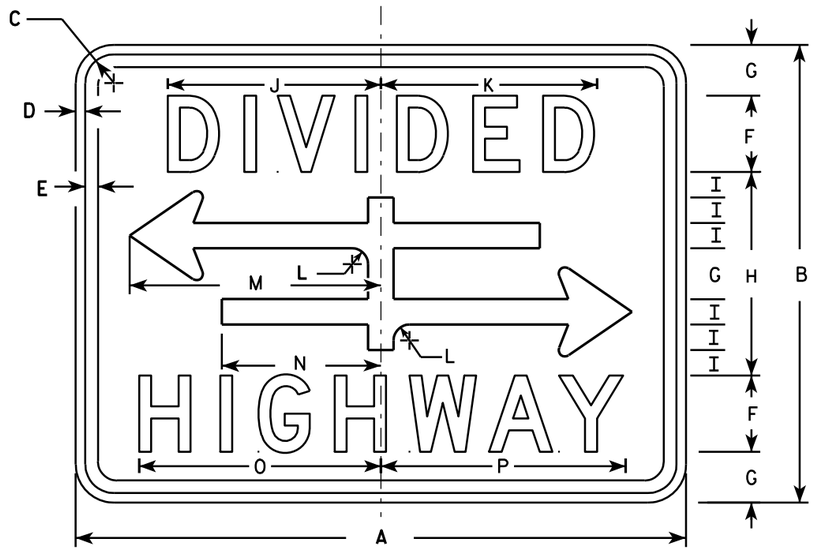
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

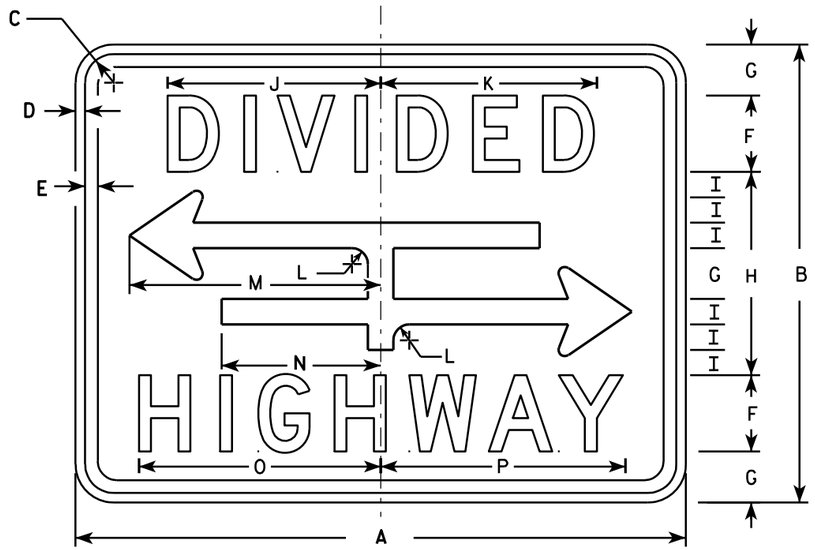
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 479	E



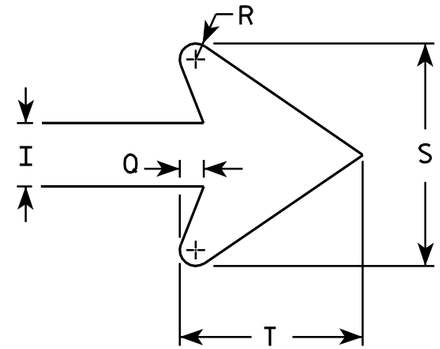
R6-3

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.



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

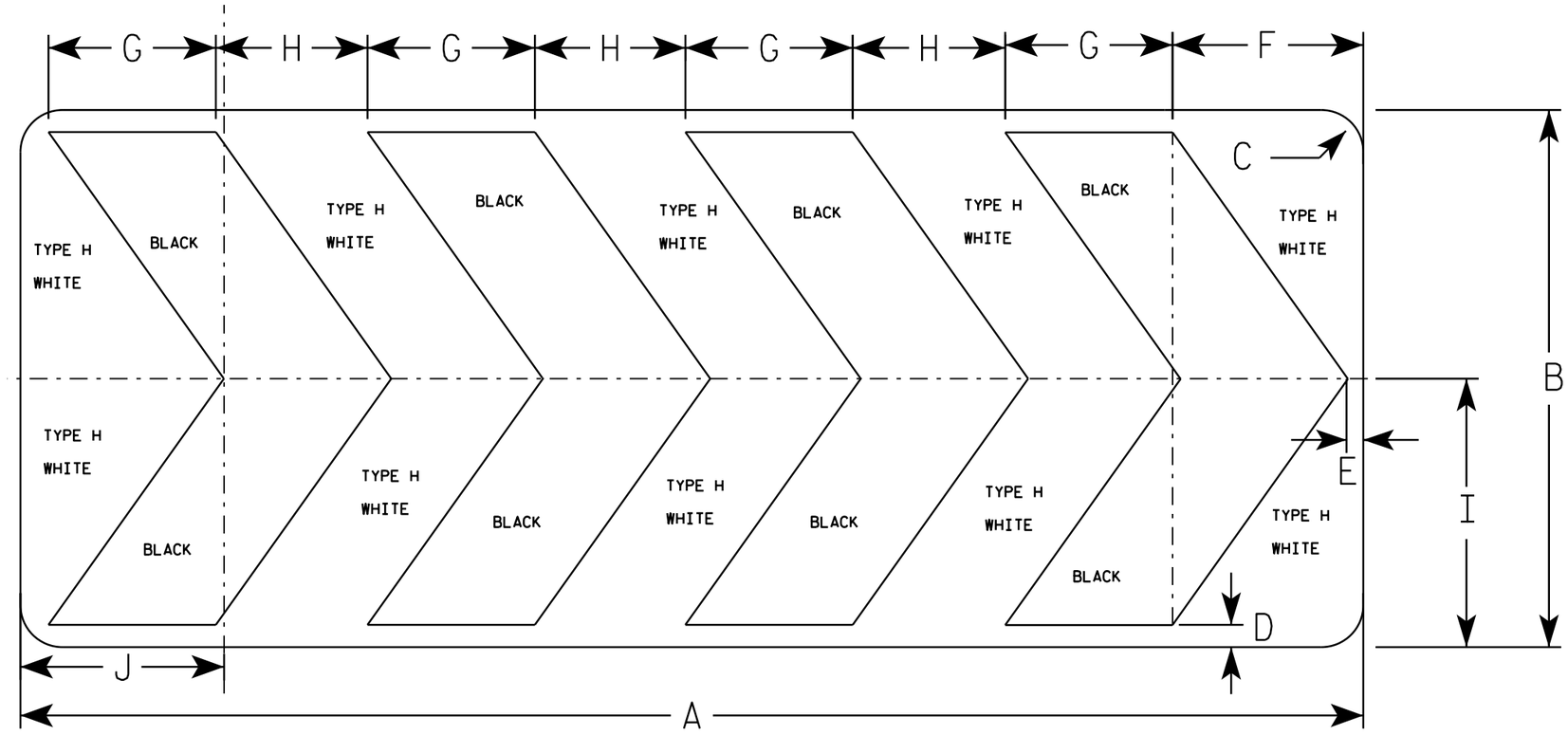
DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 480 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   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.



R6-4B

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	24	1 7/8	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
2M	60	24	1 7/8	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
3																											
4																											
5																											

STANDARD SIGN
R6-4B

WISCONSIN DEPT OF TRANSPORTATION

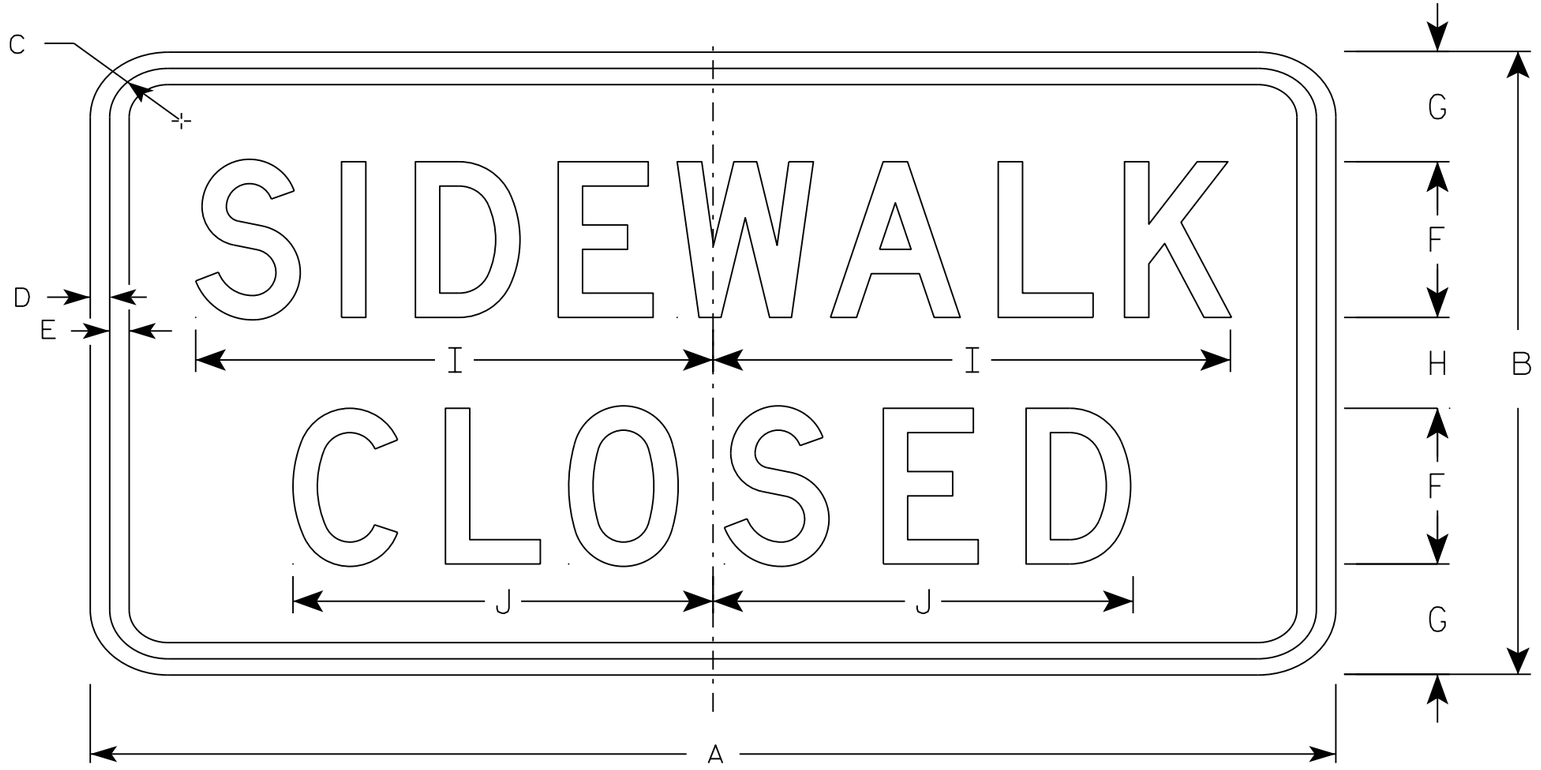
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/14 PLATE NO. R6-4.3

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R64B.DGN PLOT DATE : 21-AUG-2014 15:01 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



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

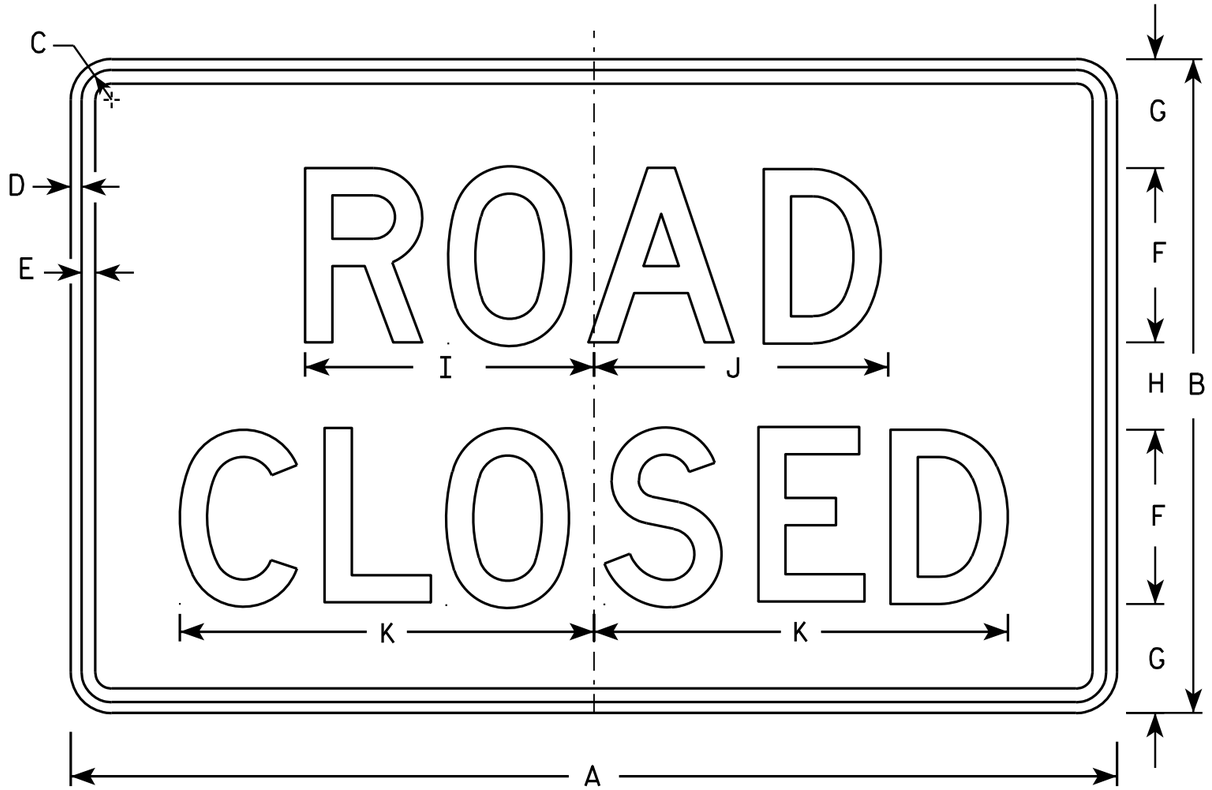
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 482 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

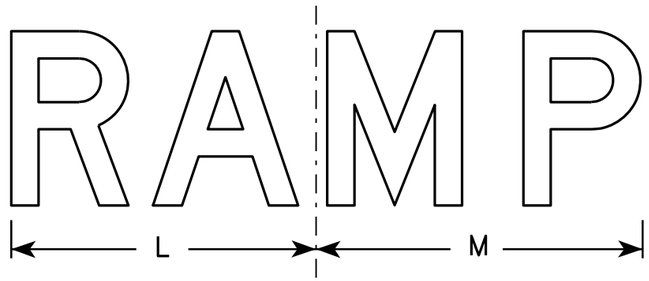
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



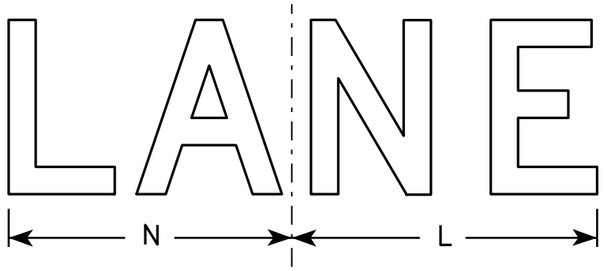
R11-2

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

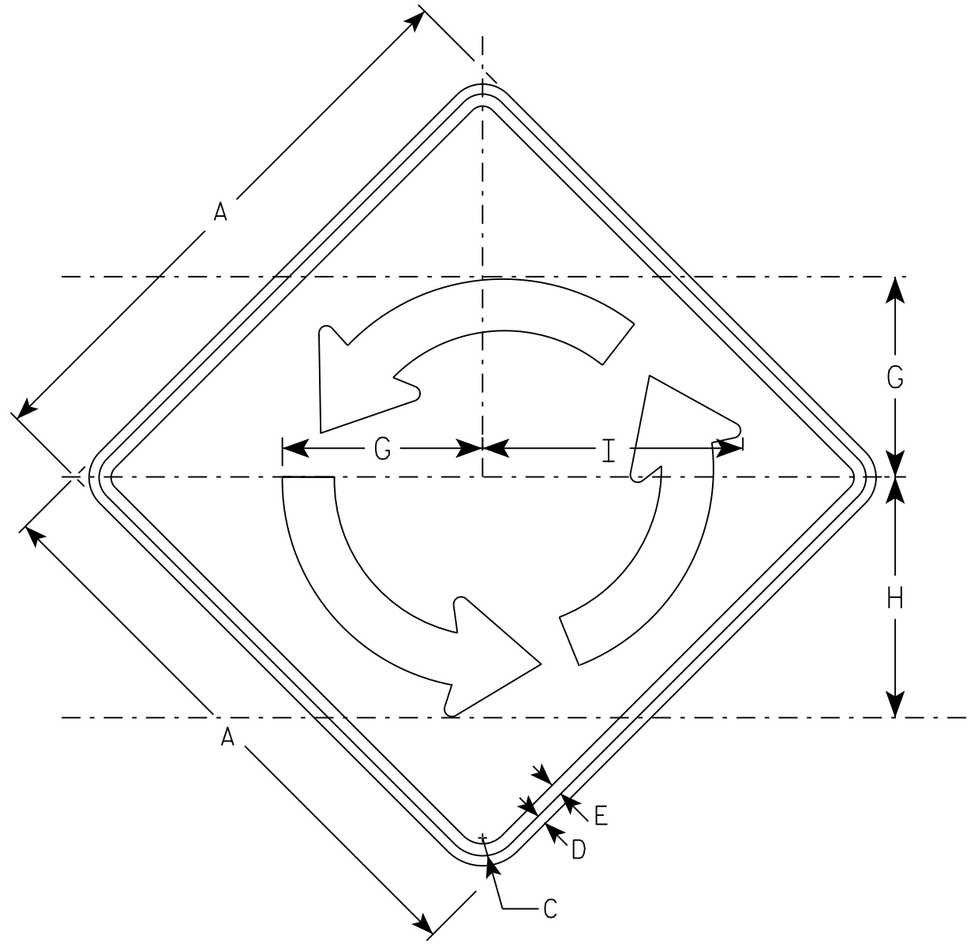
STANDARD SIGN
R11-2

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: 483 | E



W2-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - YELLOW
   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	Area sq. ft.
1																									
2S	30		1 3/8	1/2	5/8		10 3/8	12 1/2	13 1/2																6.25
2M	30		1 3/8	1/2	5/8		10 3/8	12 1/2	13 1/2																6.25
3	36		1 5/8	5/8	3/4		12 1/2	15	16 1/4																9.00
4	48		2 1/4	3/4	1		16 5/8	20	16 1/4																16.0
5																									

STANDARD SIGN
W2-6

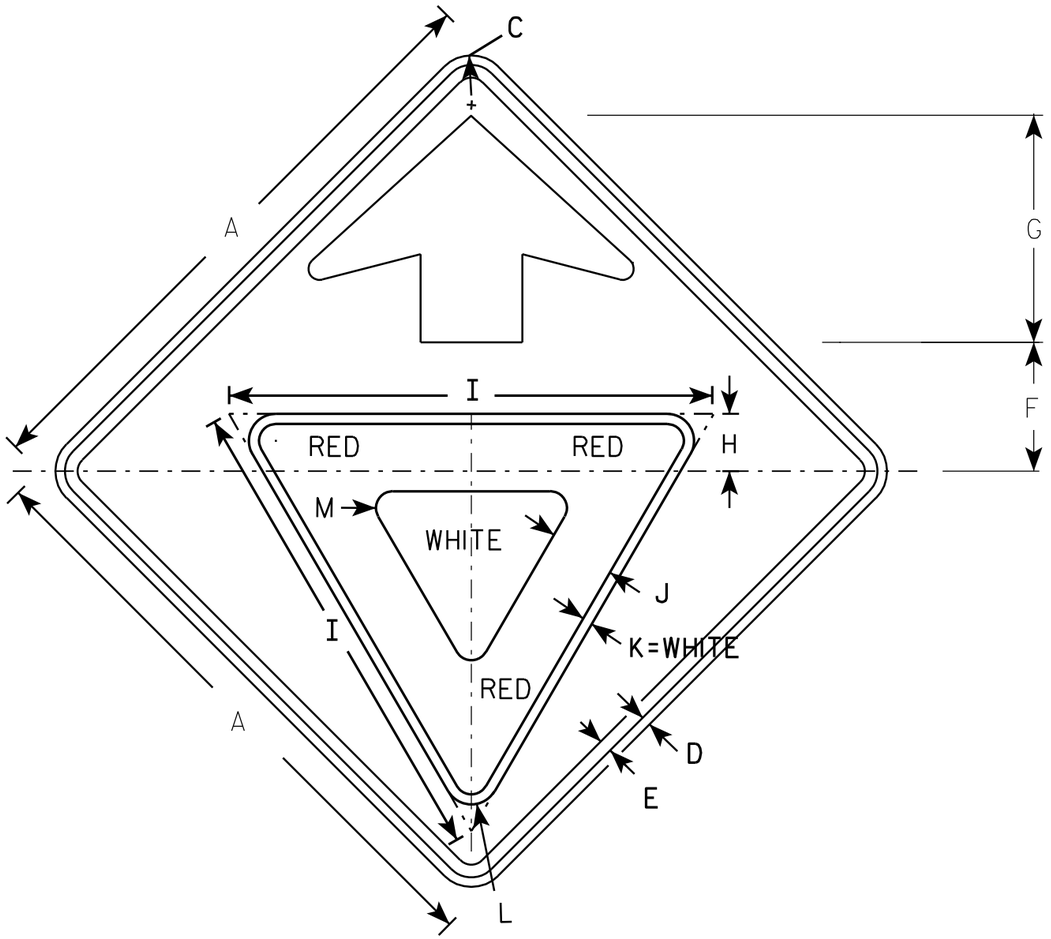
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. W2-6.6

PROJECT NO:

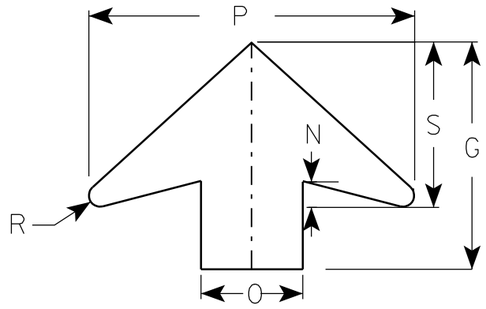
SHEET NO: 484 E



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield 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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

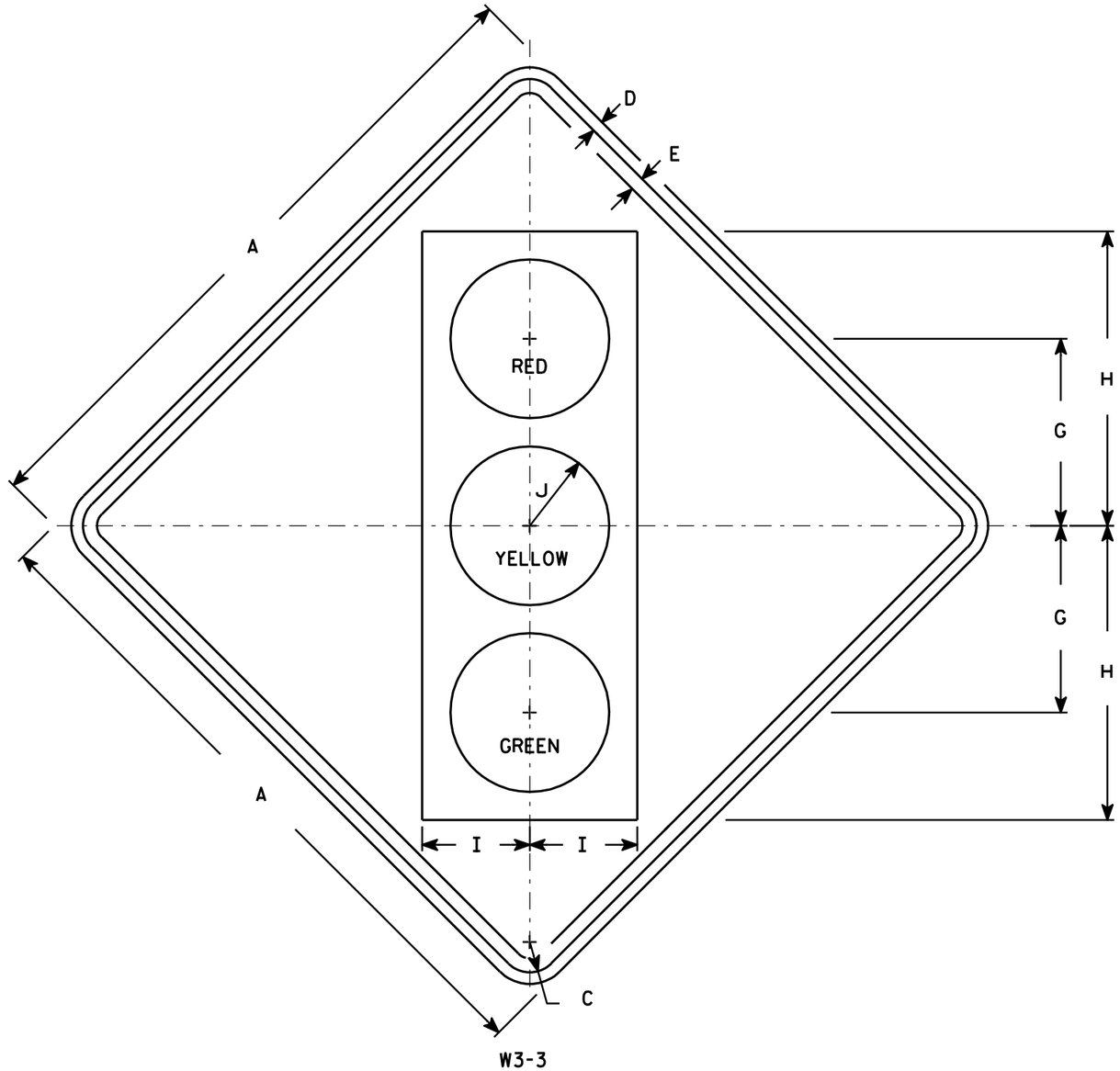
SHEET NO: 485 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W32.DGN PLOT DATE : 07-JUN-2010 13:03 PLOT BY : ditjph

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 - 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

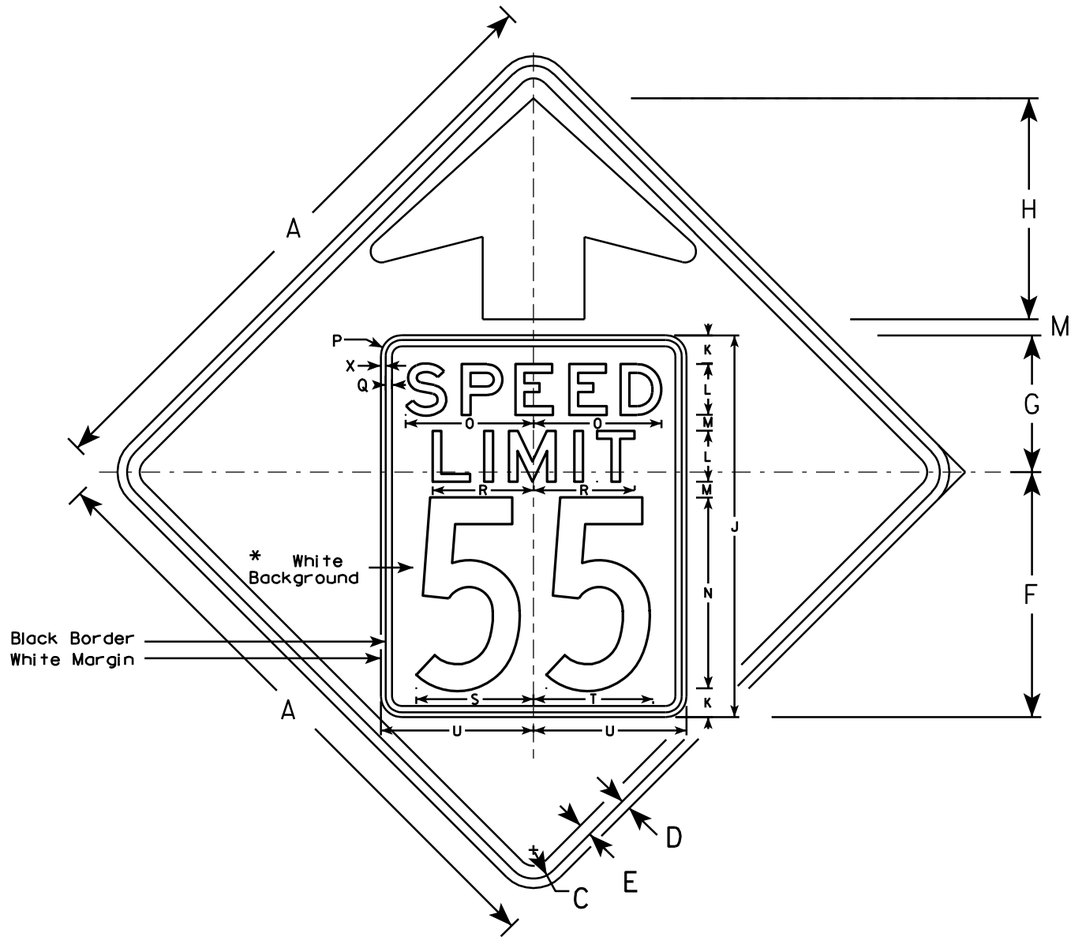
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 486 | E

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

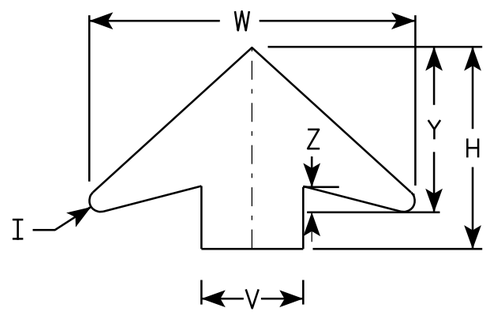


W3-5

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 - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

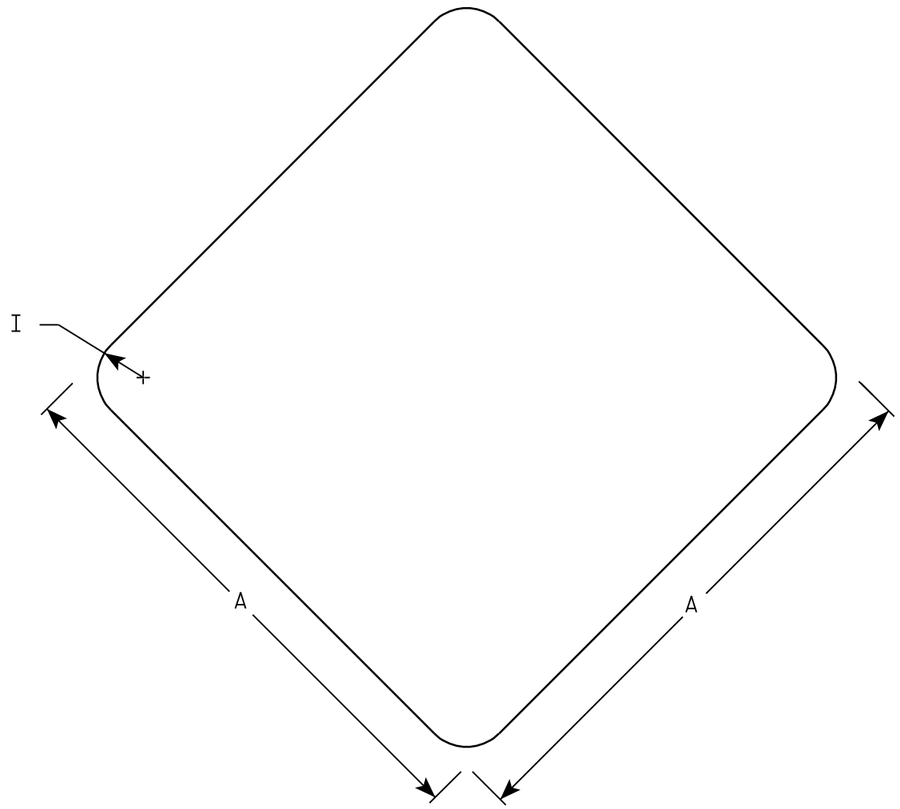
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 487 E



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

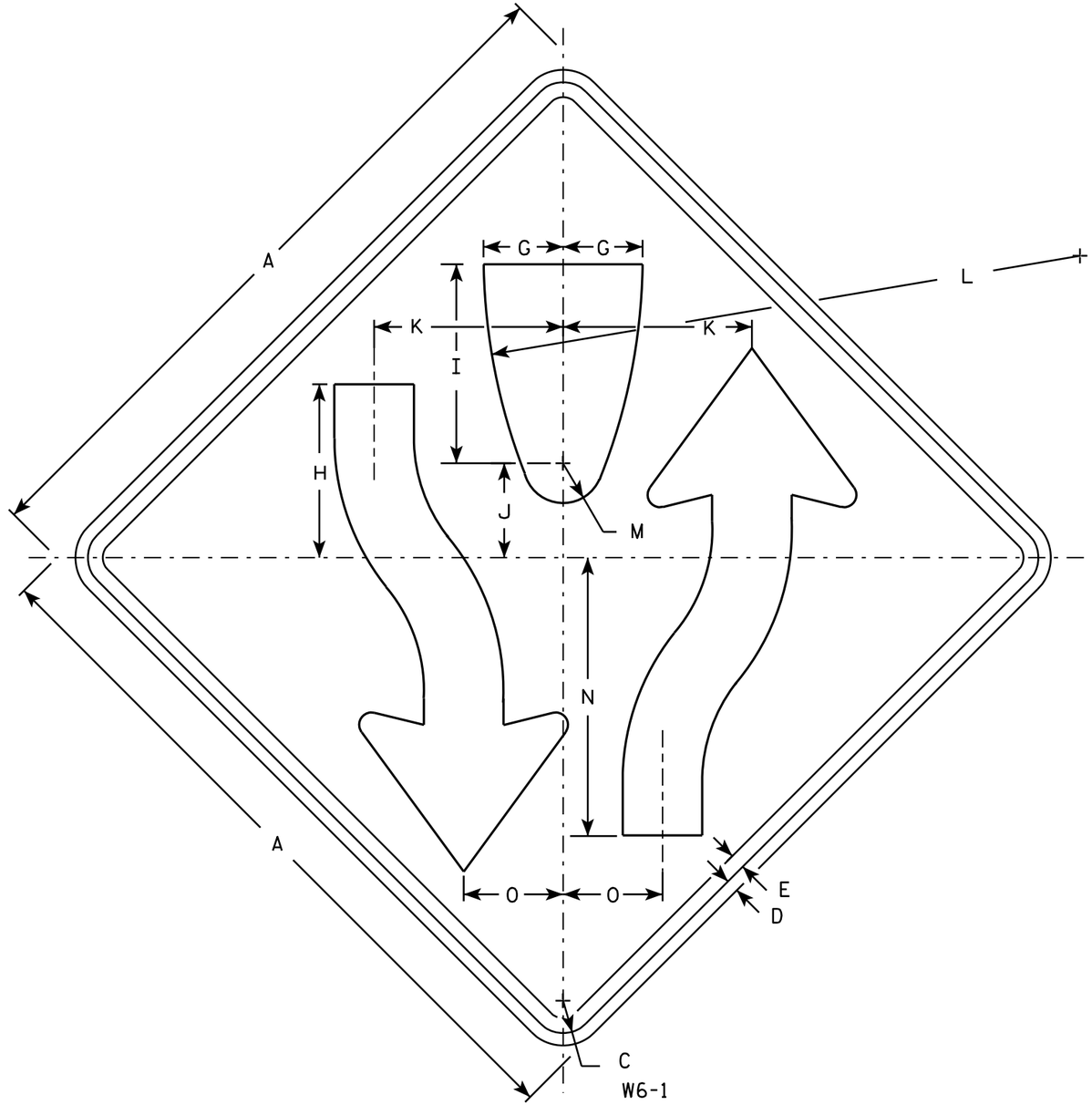
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

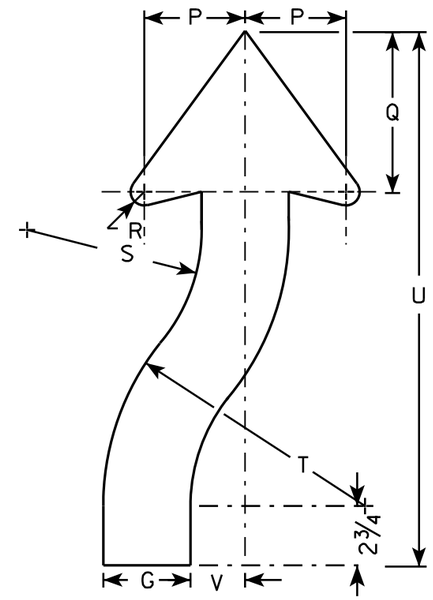
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 488 | 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 - 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. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

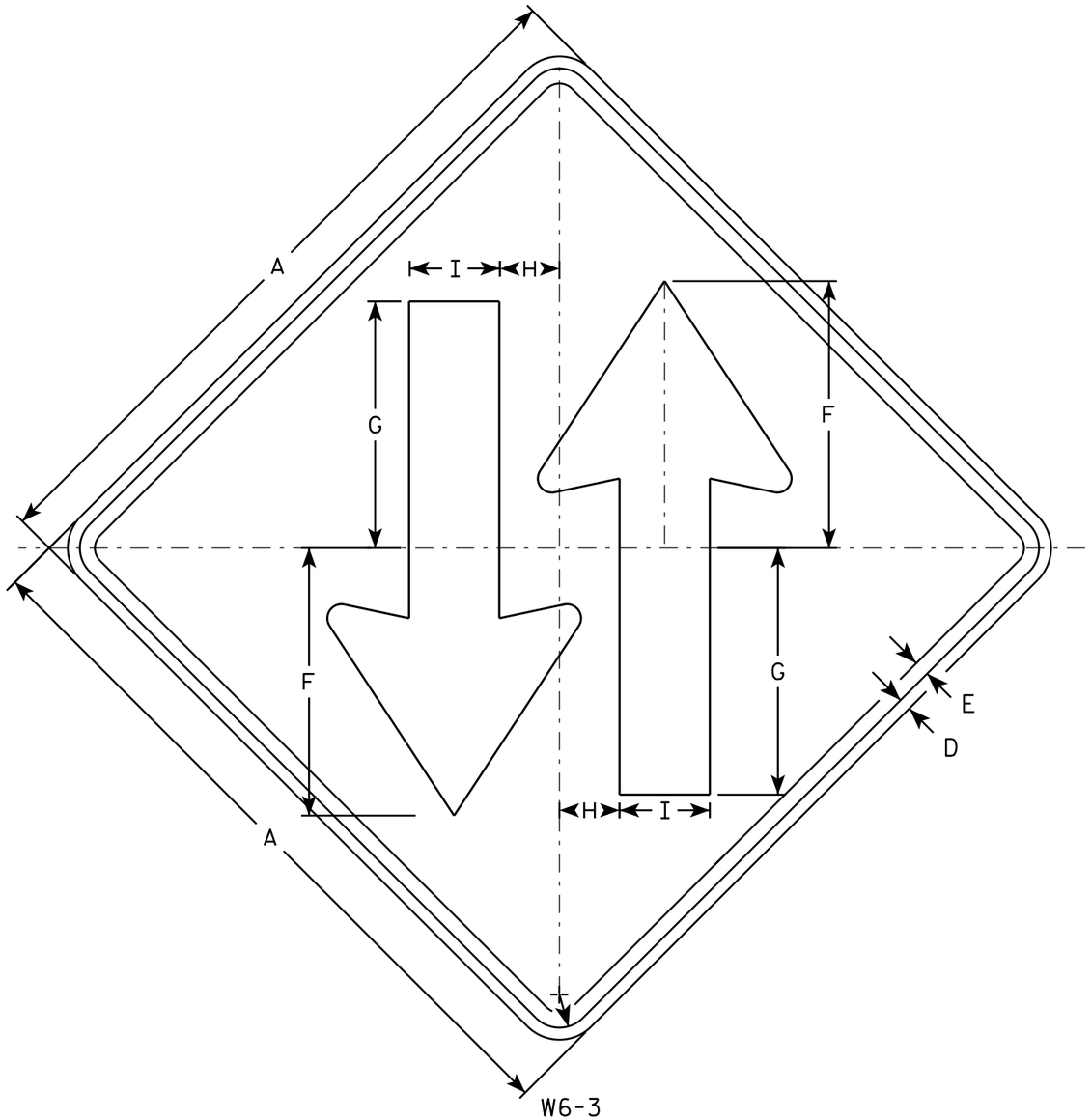
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 489	E

7

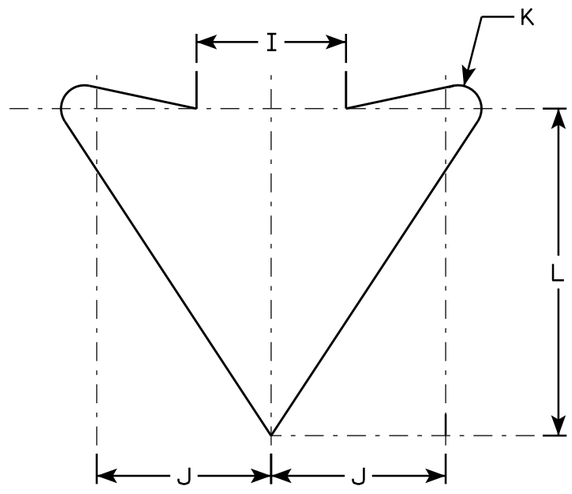
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W6-3

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.



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	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

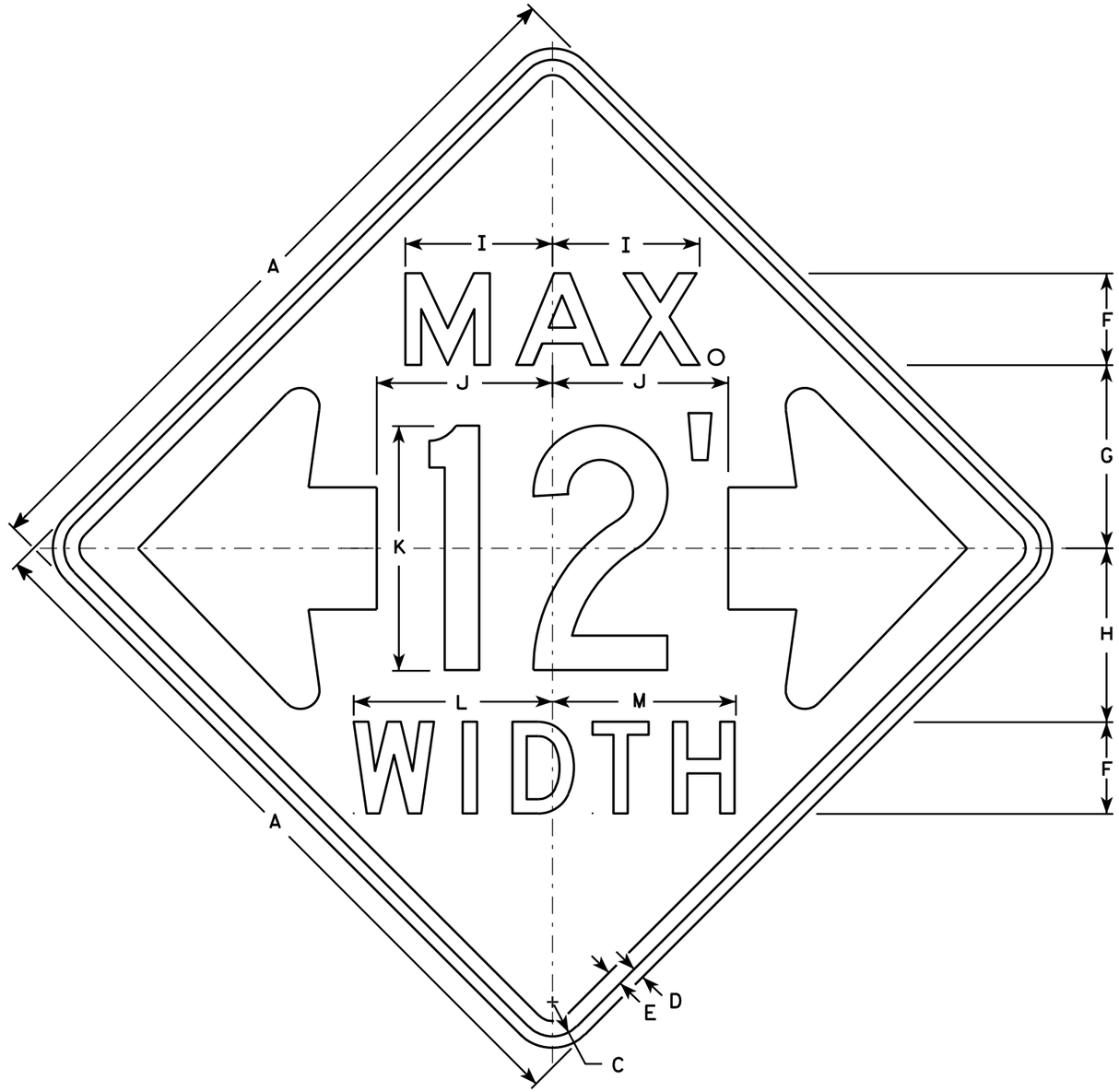
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

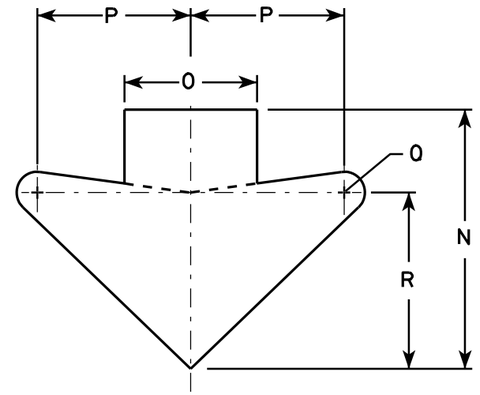
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W12-52

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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

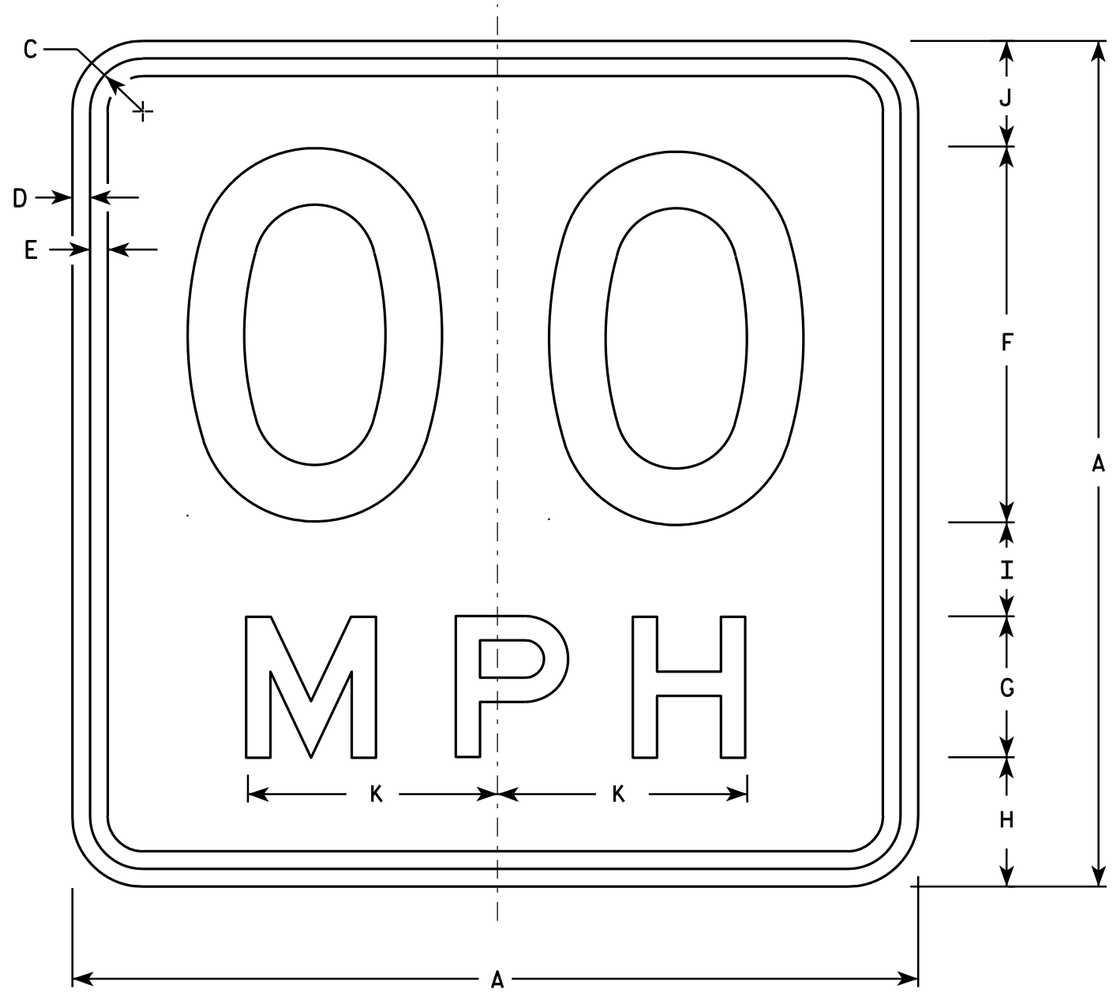
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 491 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 - 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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

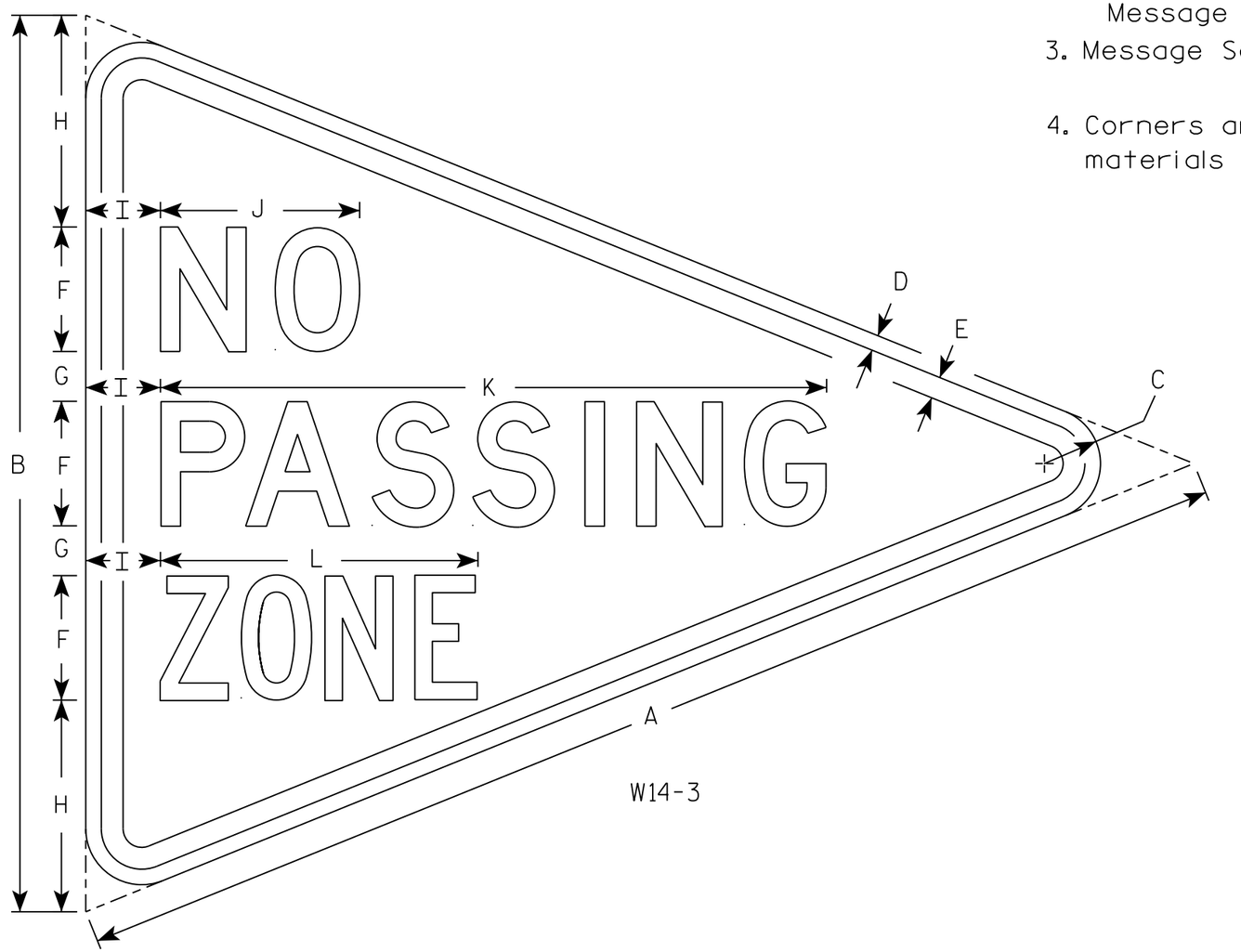
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 492 | E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



W14-3

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	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

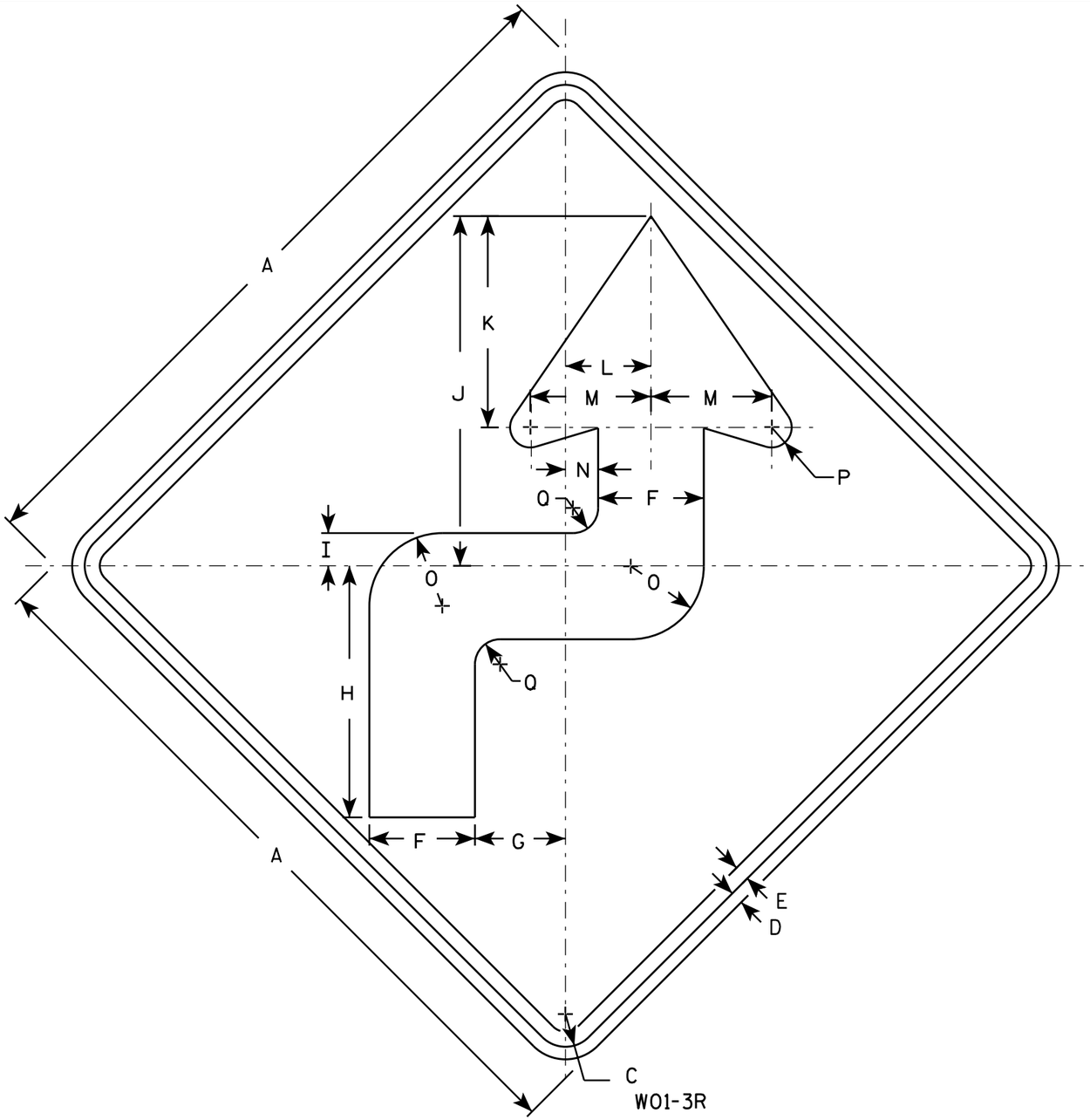
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 493 | 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 - 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. W01-3L is the same as W01-3R 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	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2S	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
2M	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
3	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
4	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

STANDARD SIGN
W01-3

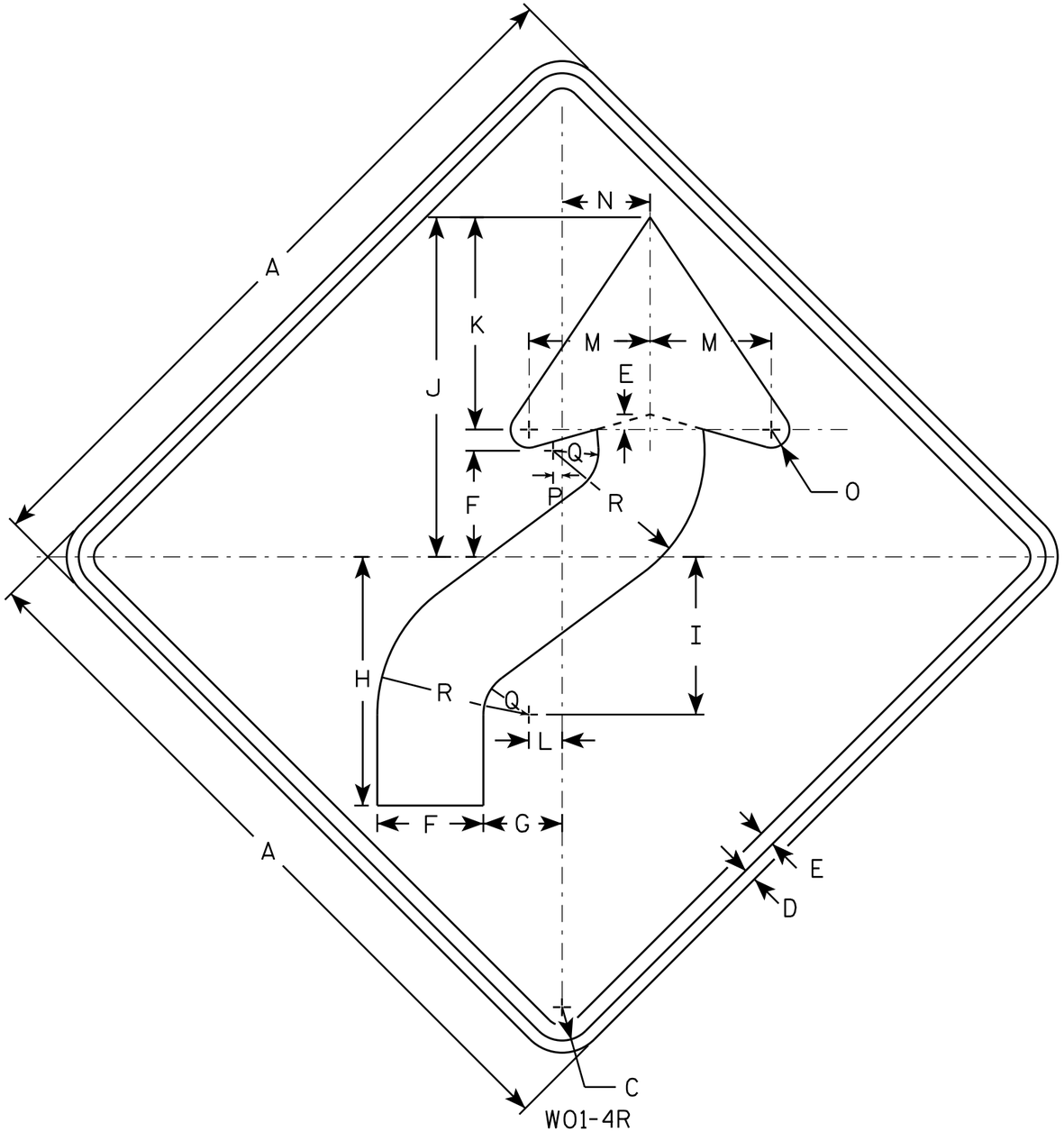
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W013.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.567217:1.000000
WISDOT/CADDS SHEET 42



W01-4R

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. W01-4L is the same as W01-4R 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	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

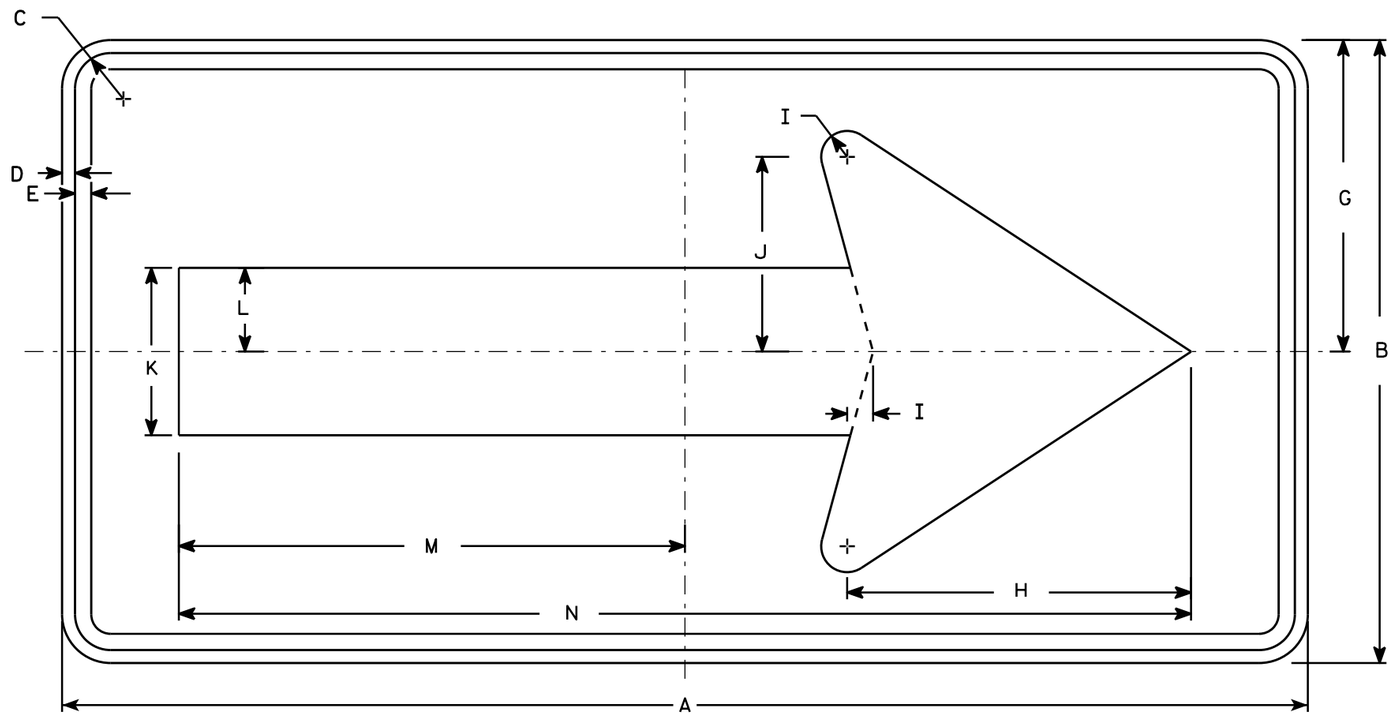
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
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

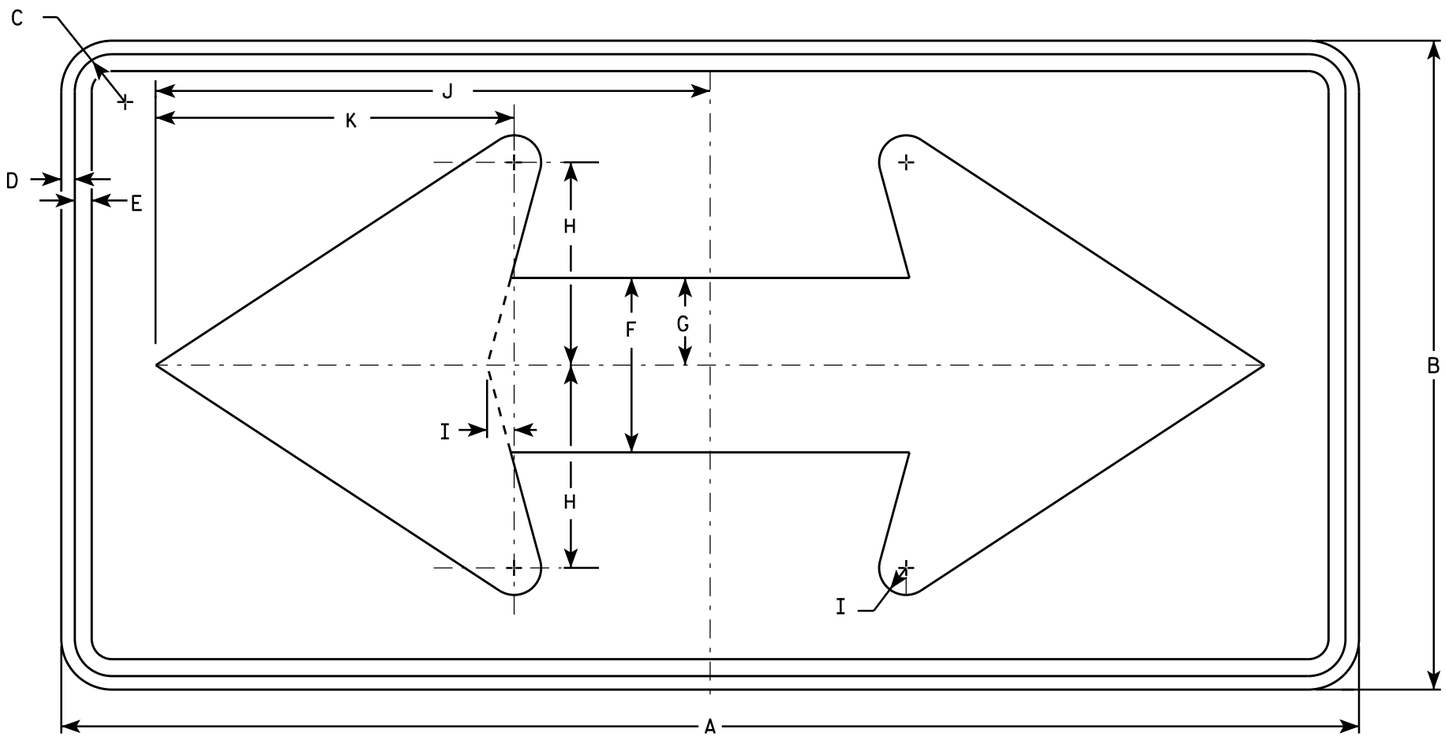
WISCONSIN DEPT OF TRANSPORTATION

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



W01-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

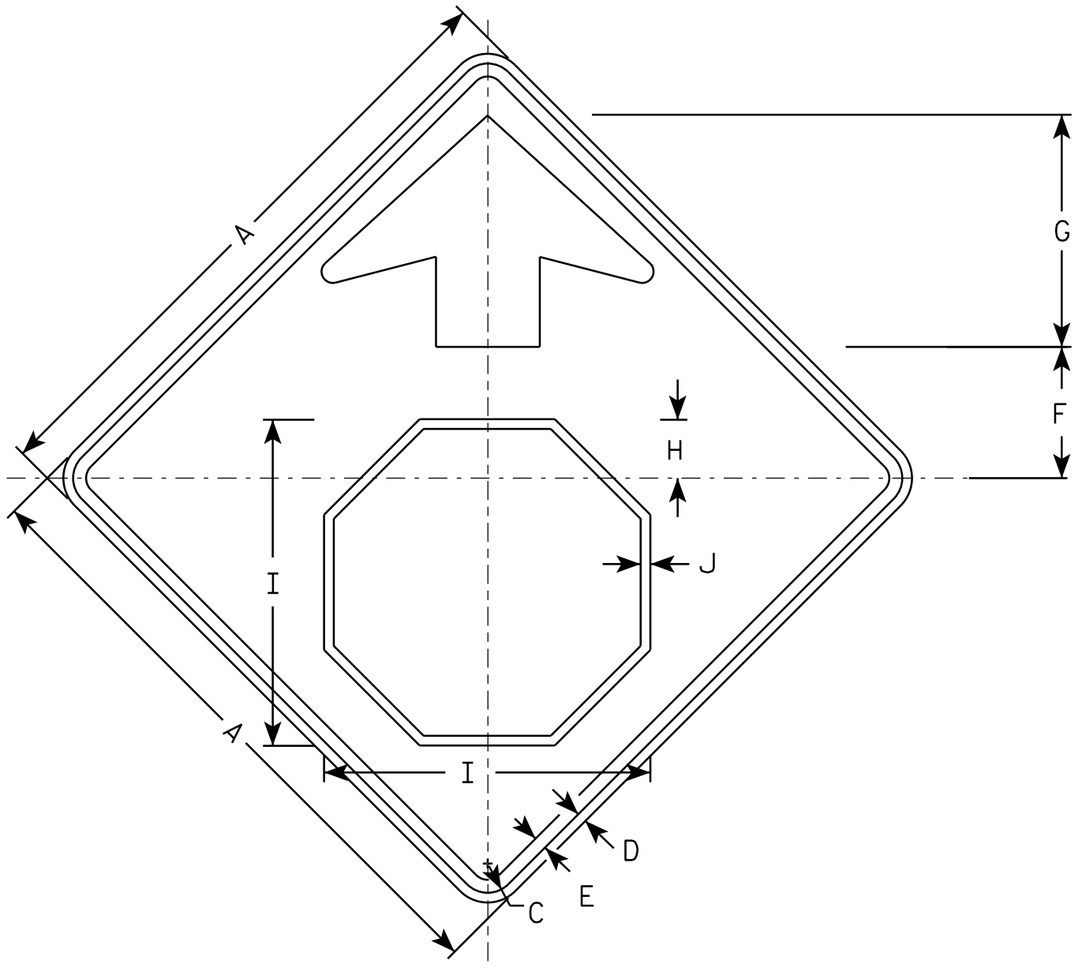
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1497 W01-7.1

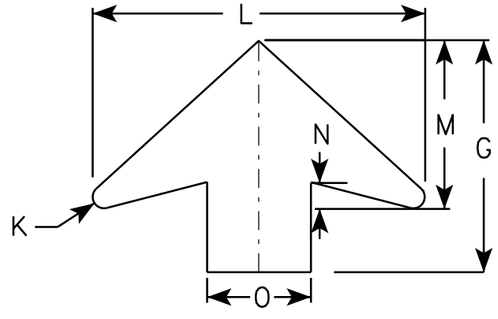
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



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

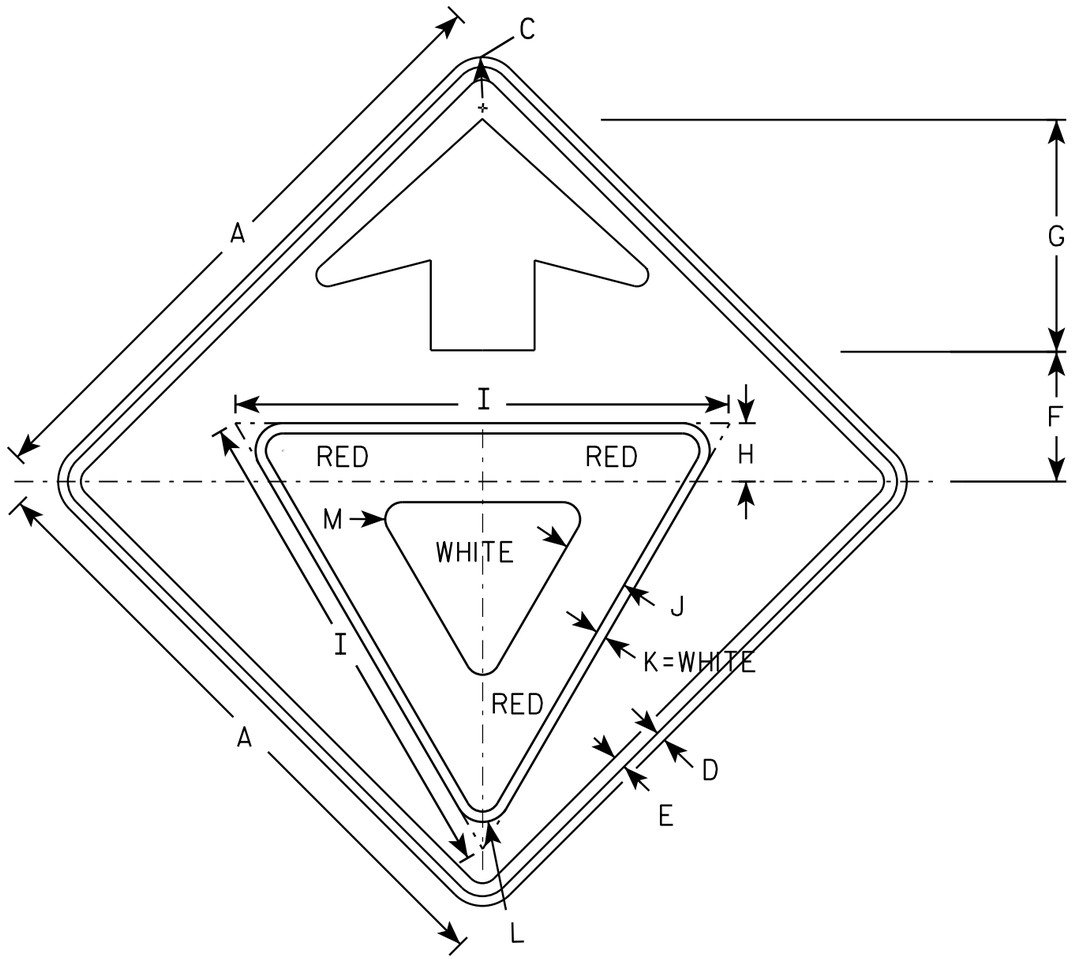
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 498 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

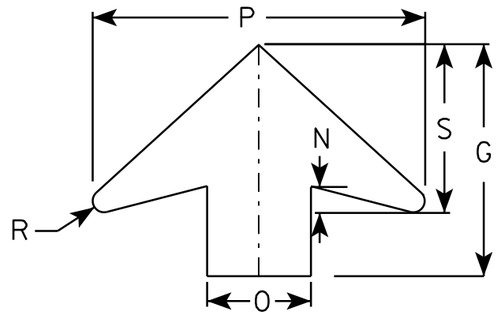
WISDOT/CADDS SHEET 42



W03-2

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
   Yield 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 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

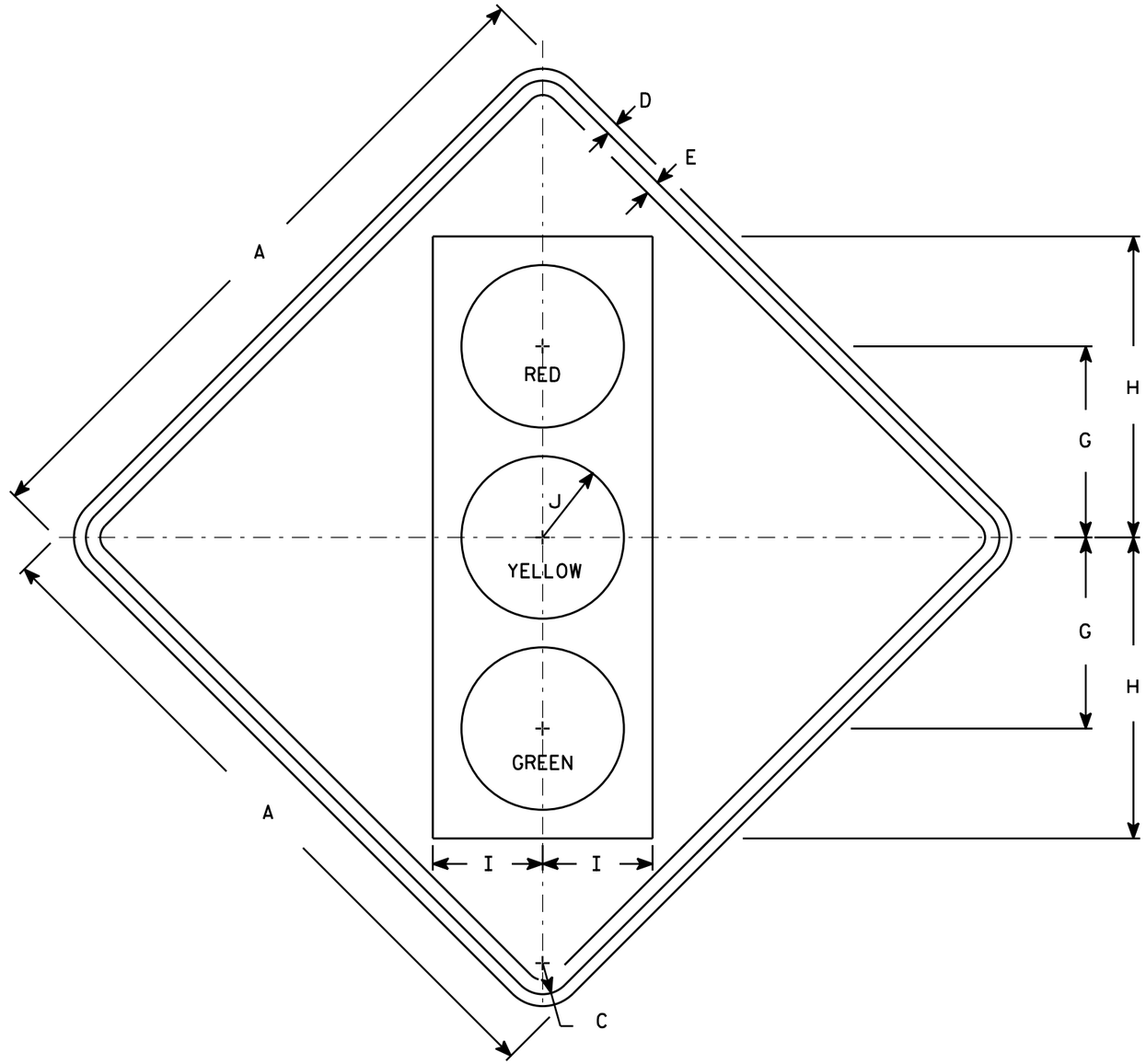
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W03-2.1

PROJECT NO:

SHEET NO: E



W03-3

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 - 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	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2S	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
2M	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
3	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
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

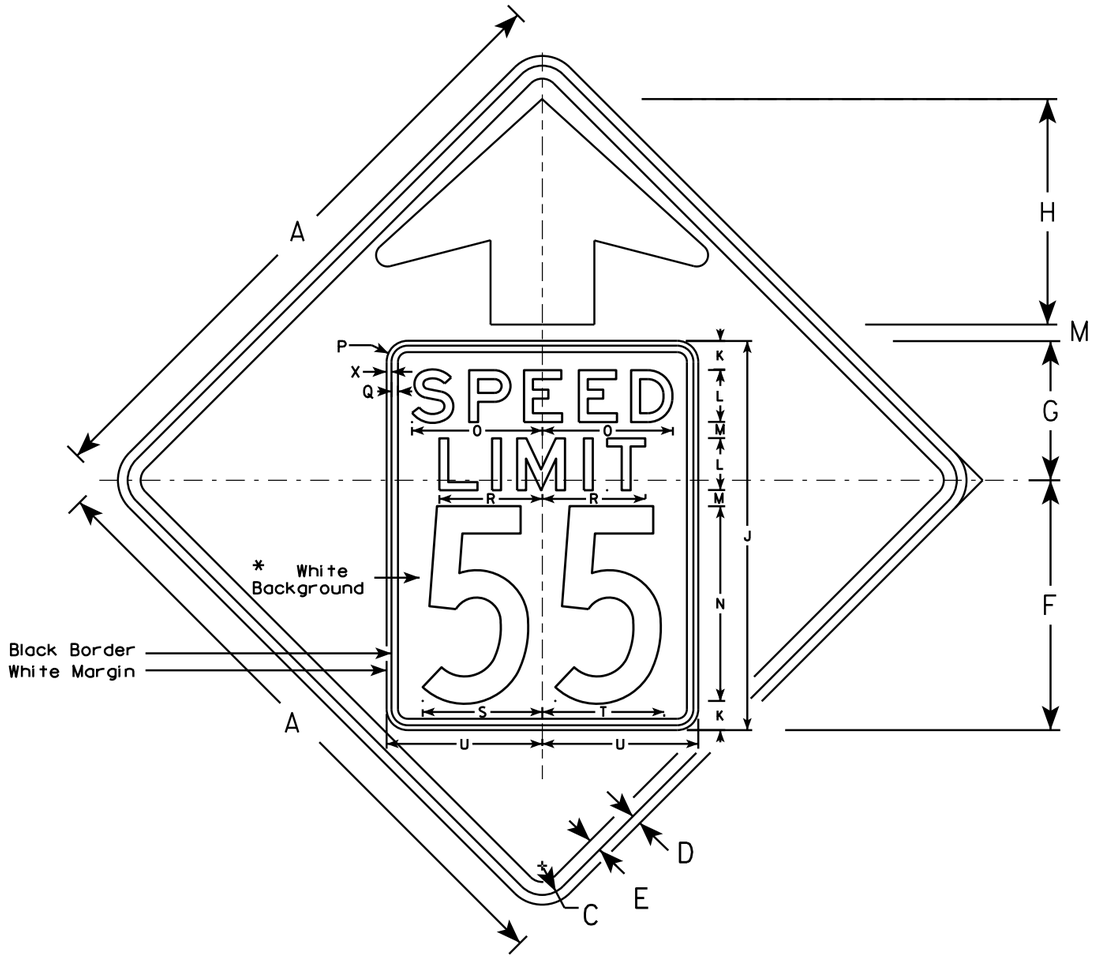
STANDARD SIGN
W03-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 500 W03-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

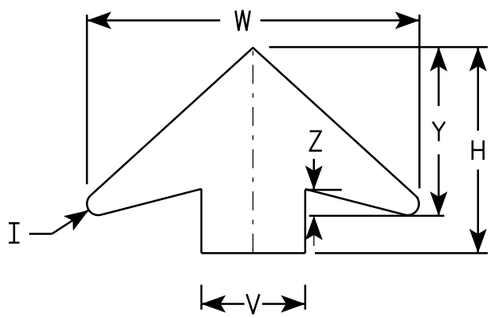


W03-5

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 for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

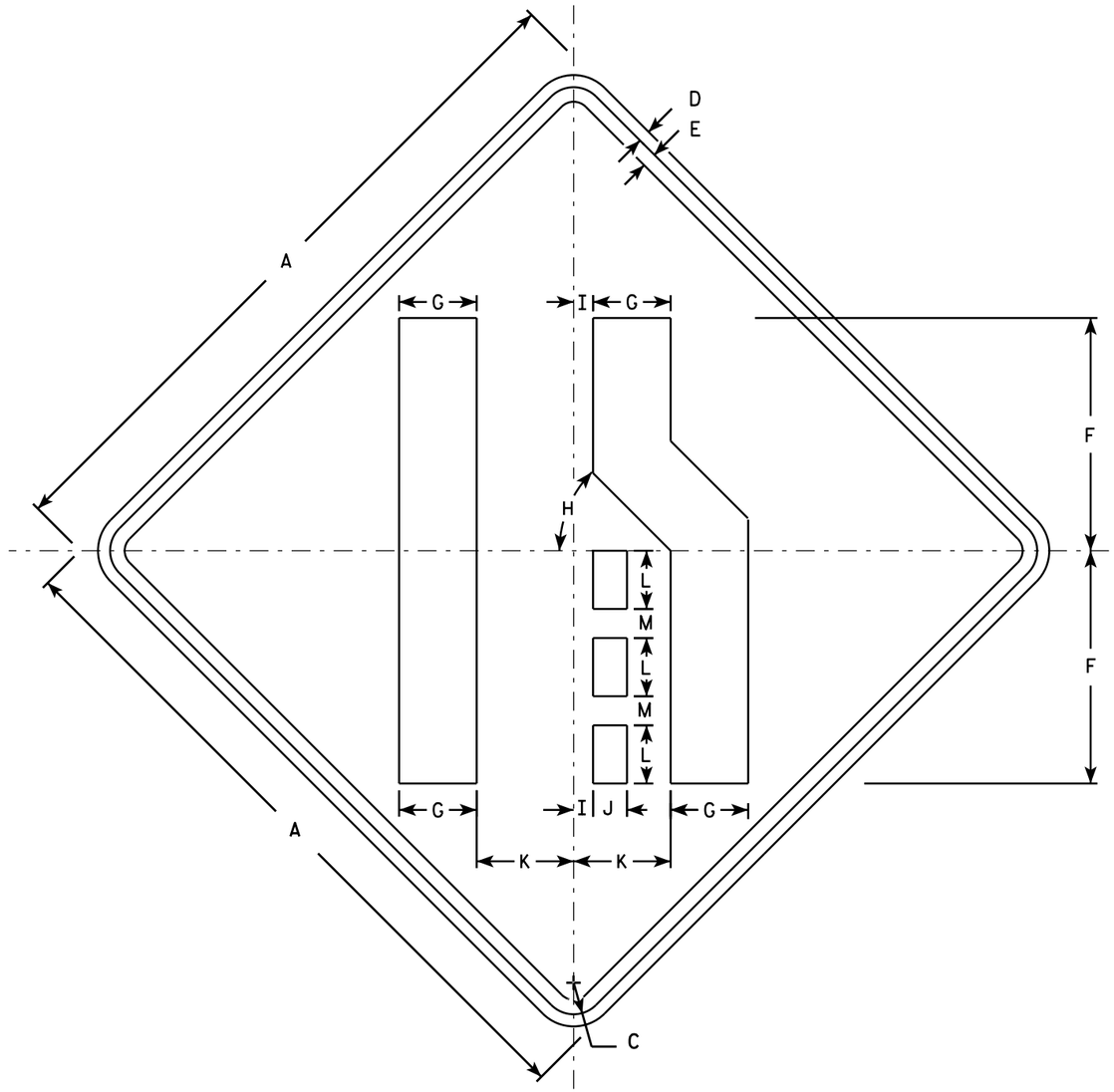
DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7 7



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

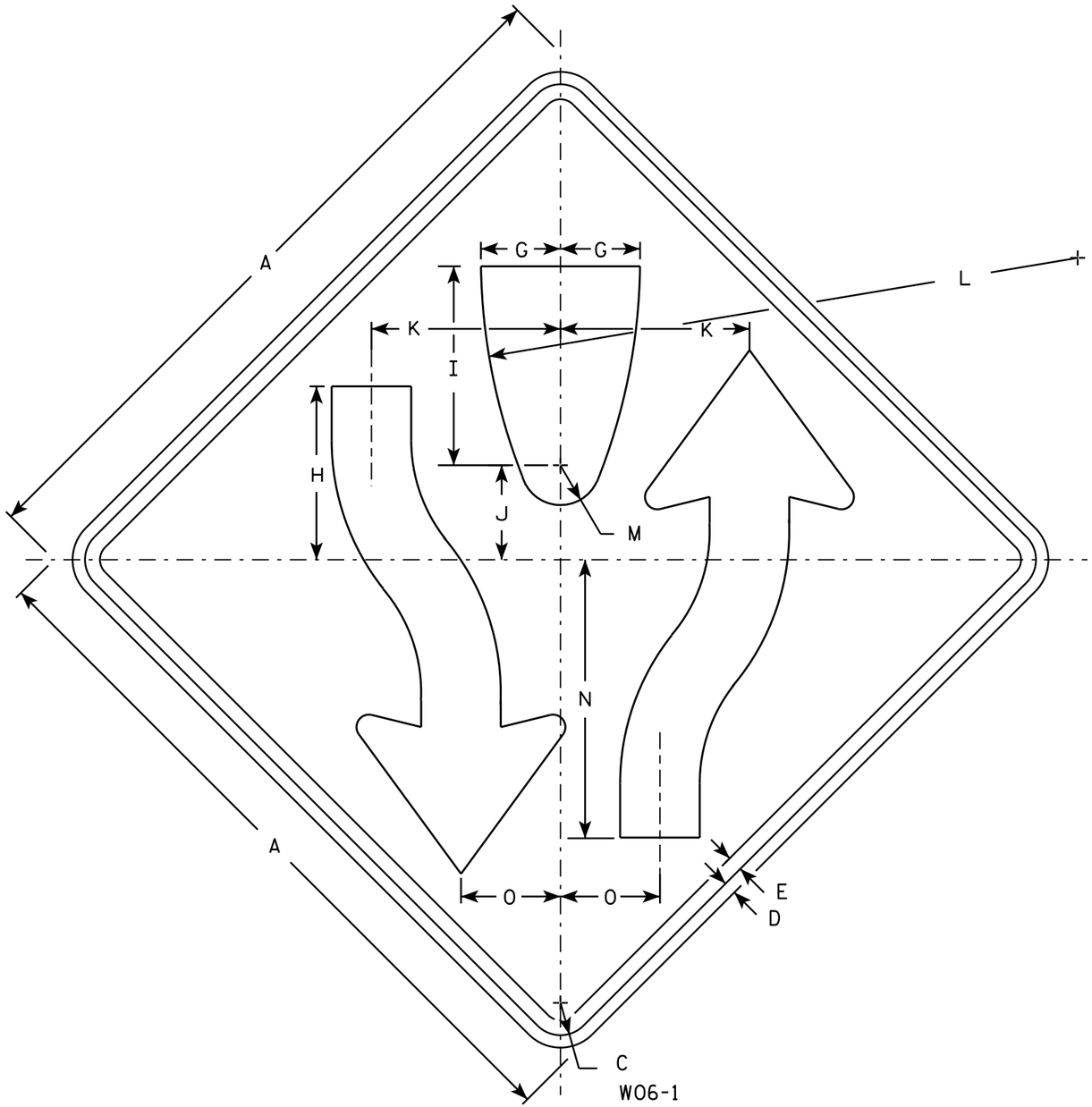
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 502 W04-2.1

PROJECT NO:

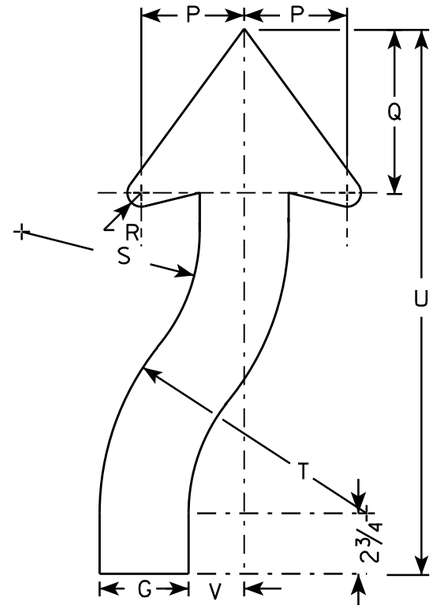
SHEET NO: E



W06-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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. W06-2 same as W06-1 but is rotated 180° when mounted.



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		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2S	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
2M	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
3	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

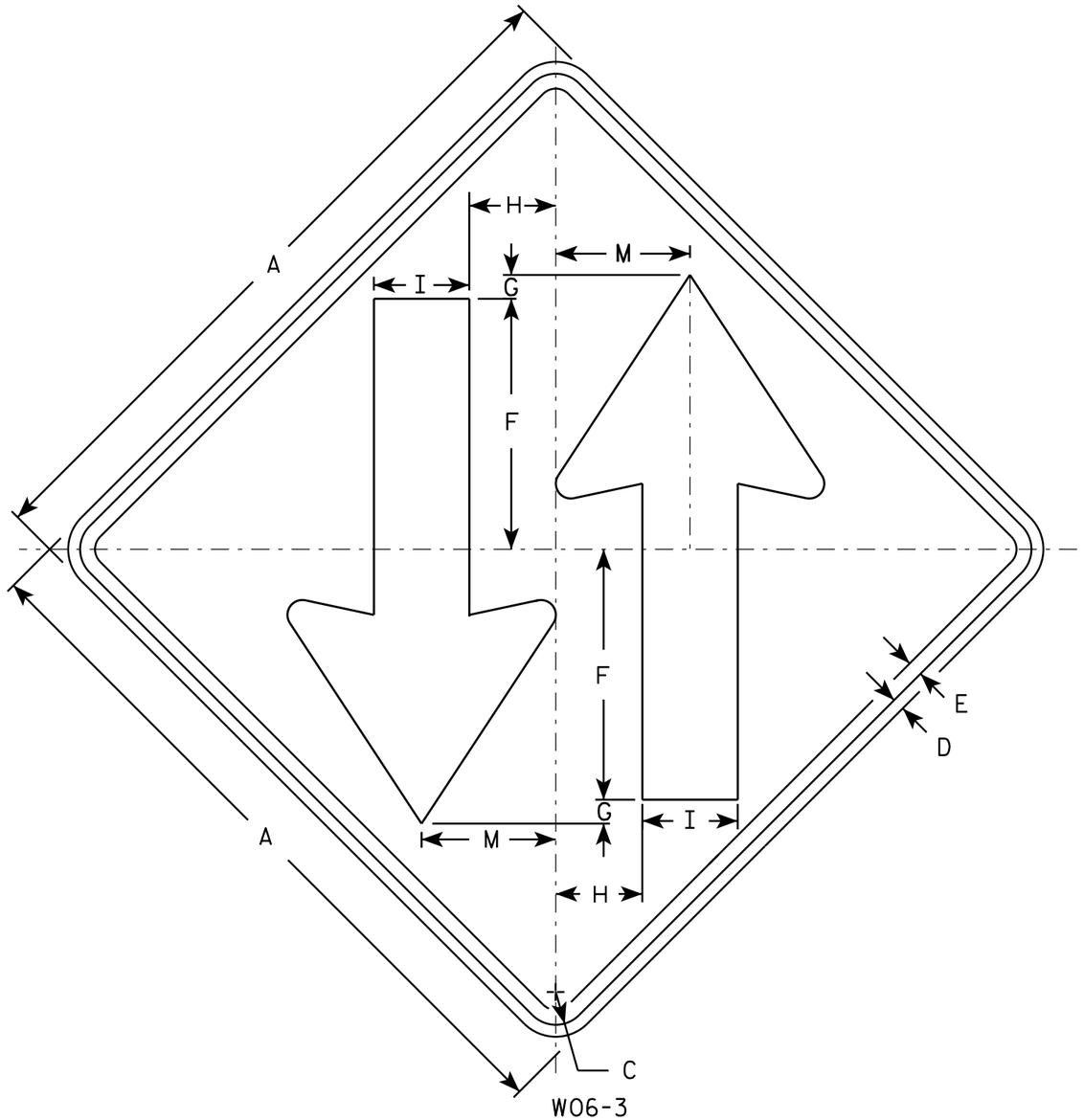
STANDARD SIGN
W06-1 & W06-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W06-1.1

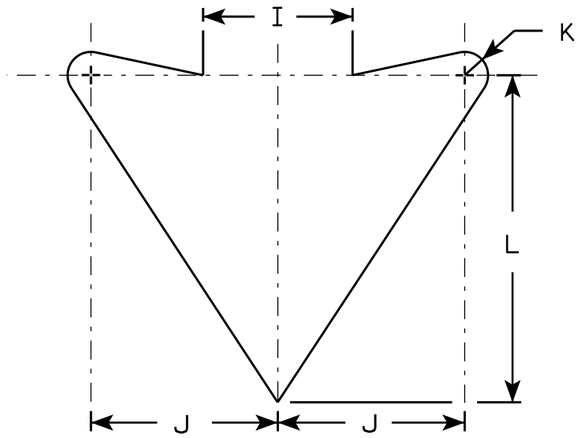
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W06-3

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.



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	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

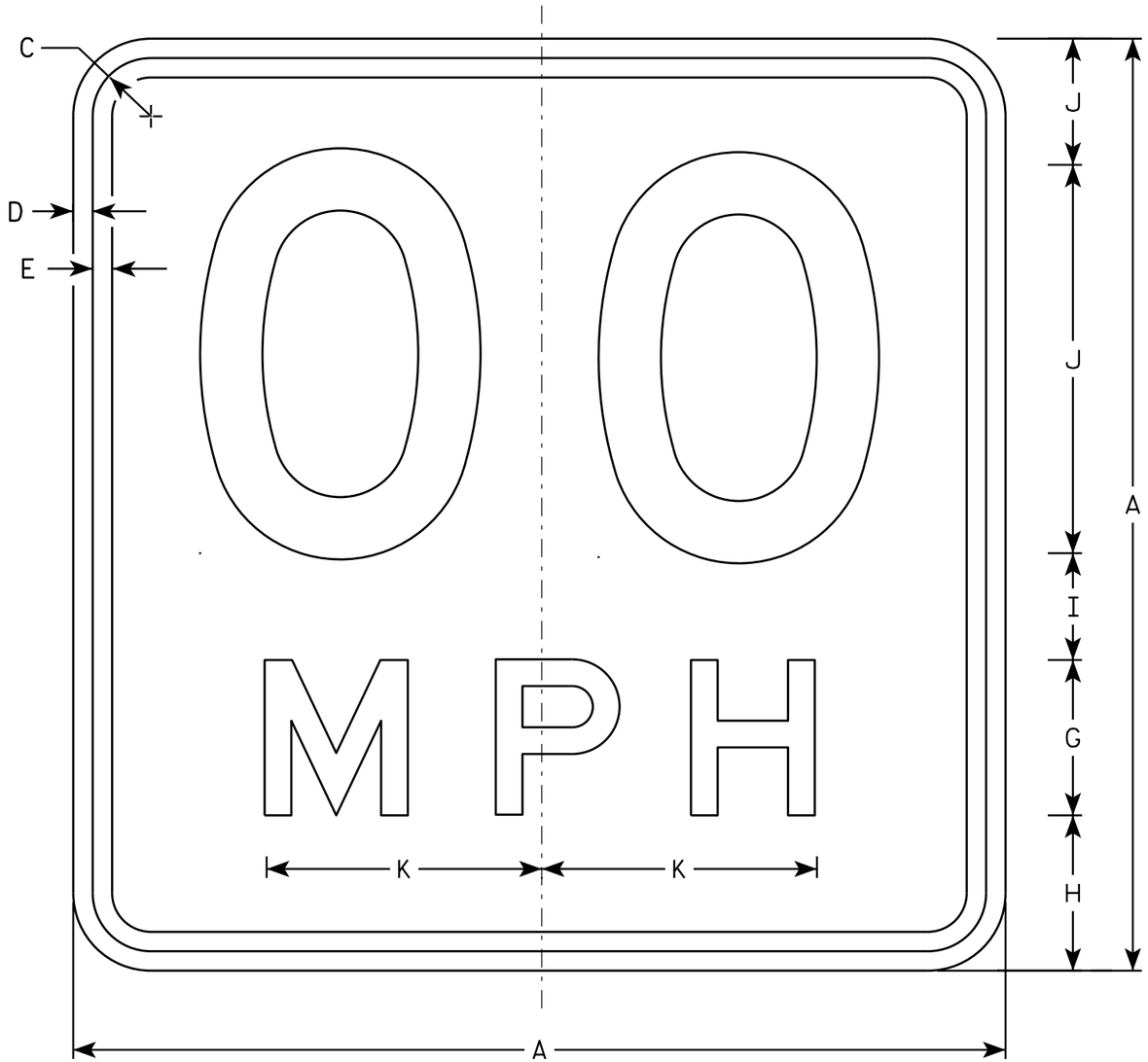
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 504 W06-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

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	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

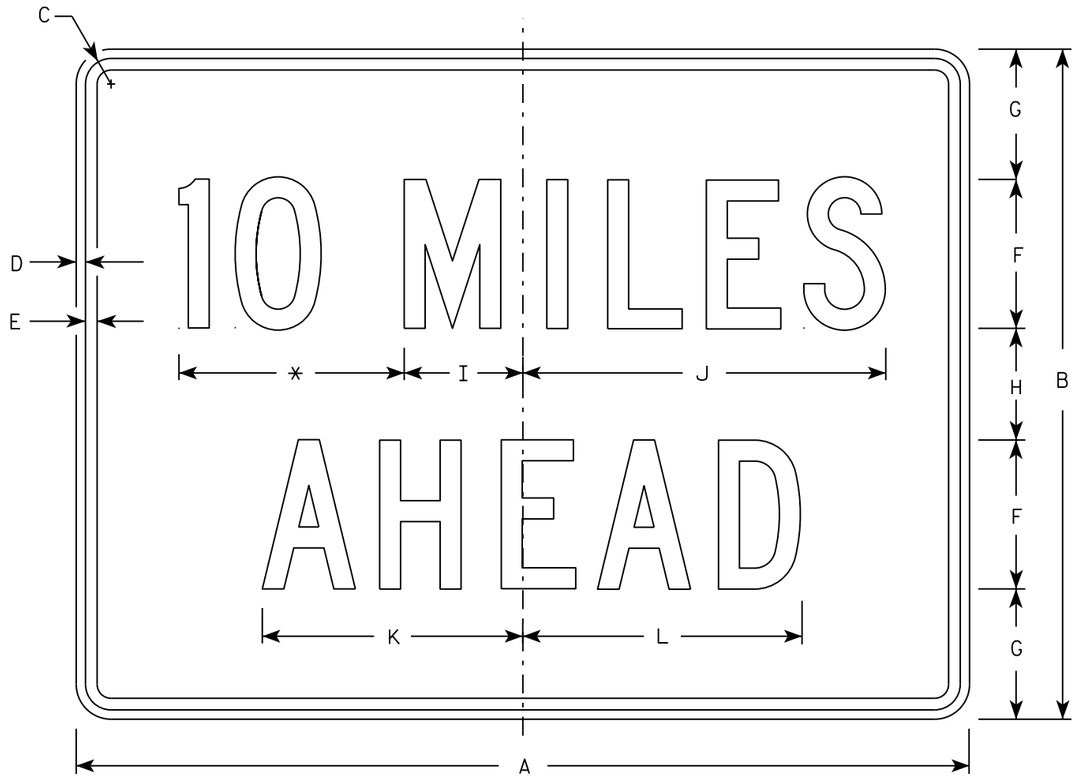
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

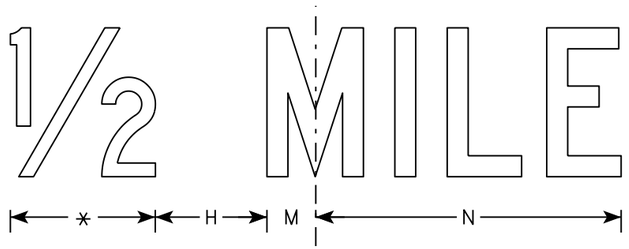
DATE 11/21/13 PLATE 505 W013-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42



W057-52



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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* 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	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

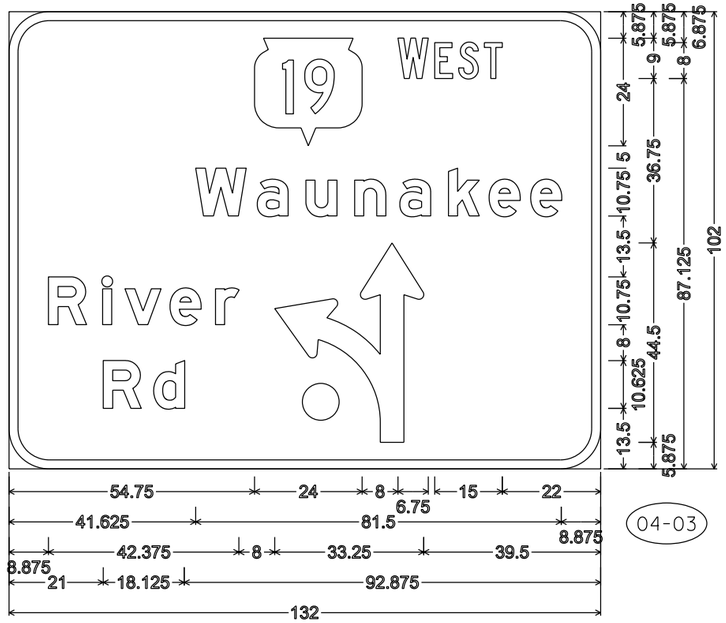
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

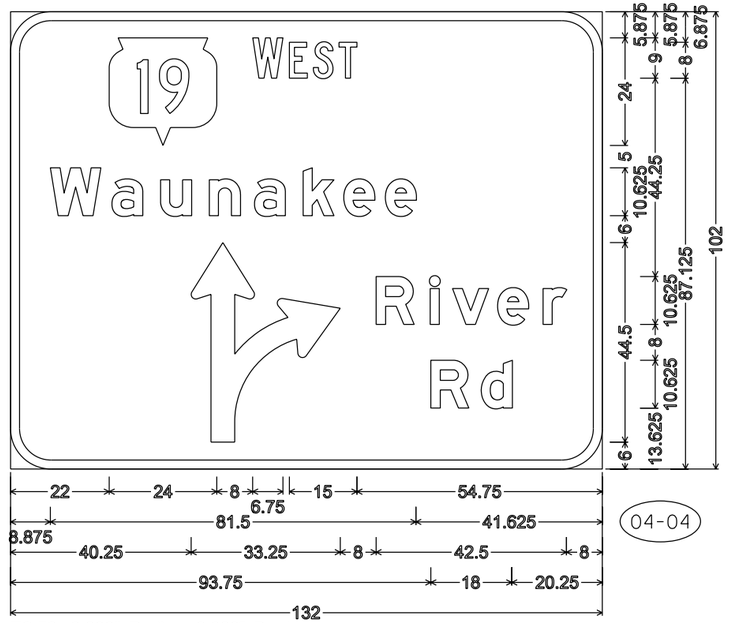
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 506	E



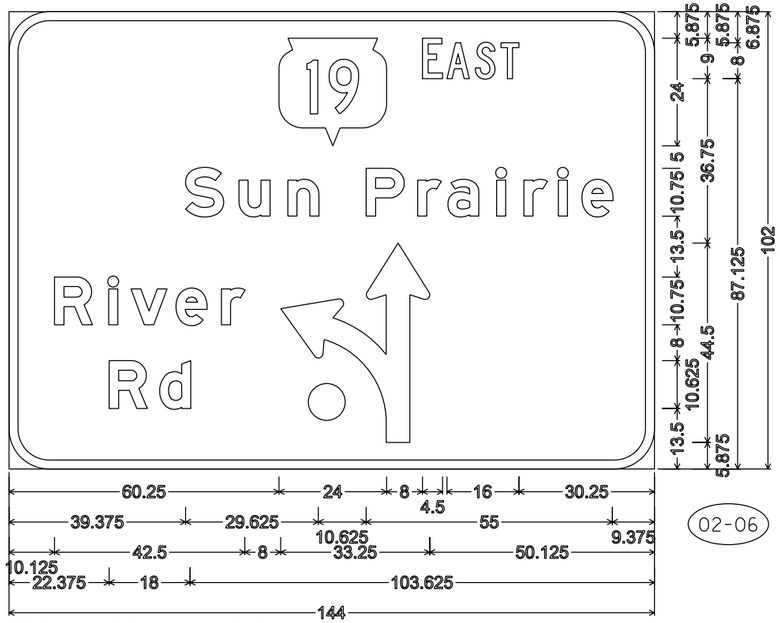
E6-52; 9.000" Radius, 2.000" Border,
"WEST" C



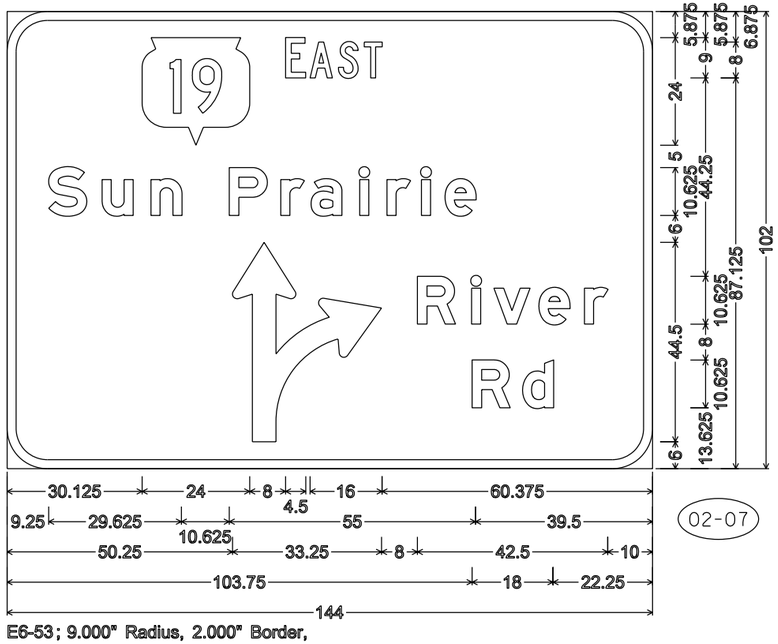
E6-53; 9.000" Radius, 2.000" Border,
"WEST" C

NOTES

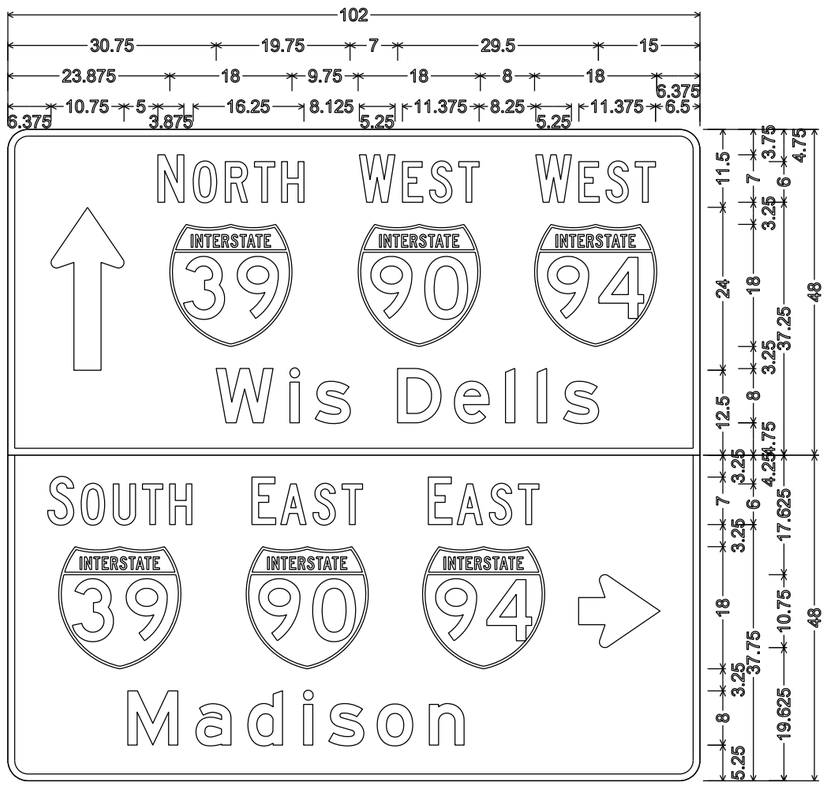
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



E6-52; 9.000" Radius, 2.000" Border,
"EAST" C

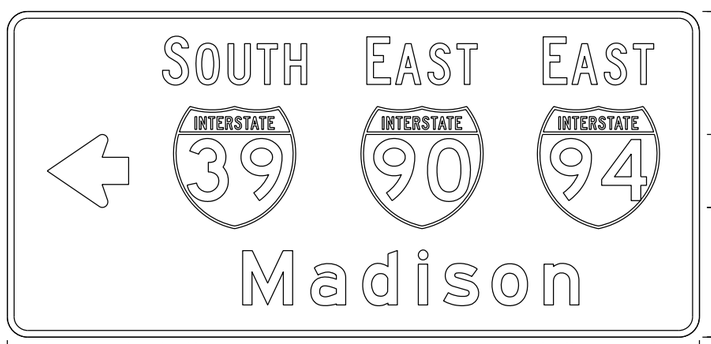


E6-53; 9.000" Radius, 2.000" Border,
"EAST" C



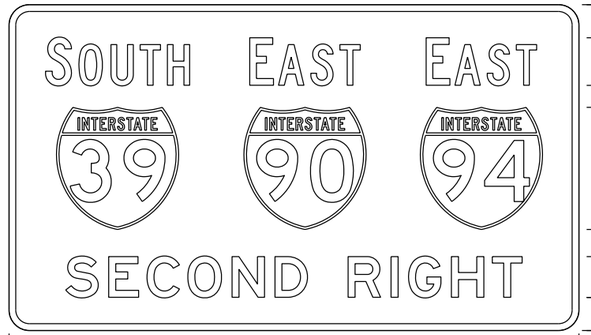
D1-71; 3.000" Radius, 1.000" Border,
"NORTH" C; "WEST" C; "WEST" C; "Wis" E; "Dells" E;
"SOUTH" C; "EAST" C; "EAST" C; "Madison" E

10-01



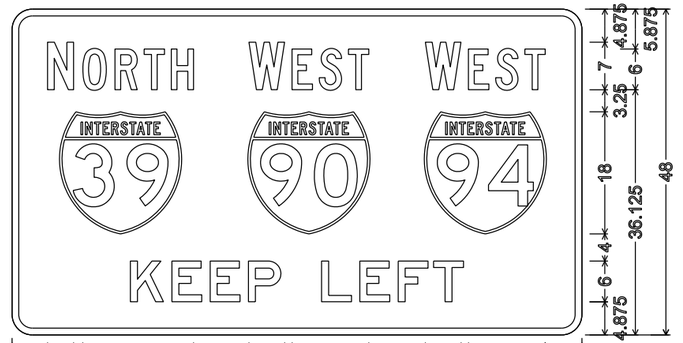
D1-70; 3.000" Radius, 1.000" Border,
"SOUTH" C; "EAST" C; "EAST" C; "Madison" E

10-02



D1-70; 3.000" Radius, 1.000" Border,
"SOUTH" C; "EAST" C; "EAST" C; "SECOND" E; "RIGHT" E

09-04



D1-70; 3.000" Radius, 1.000" Border,
"NORTH" C; "WEST" C; "WEST" C; "KEEP" E; "LEFT" E

09-03

NOTES

1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

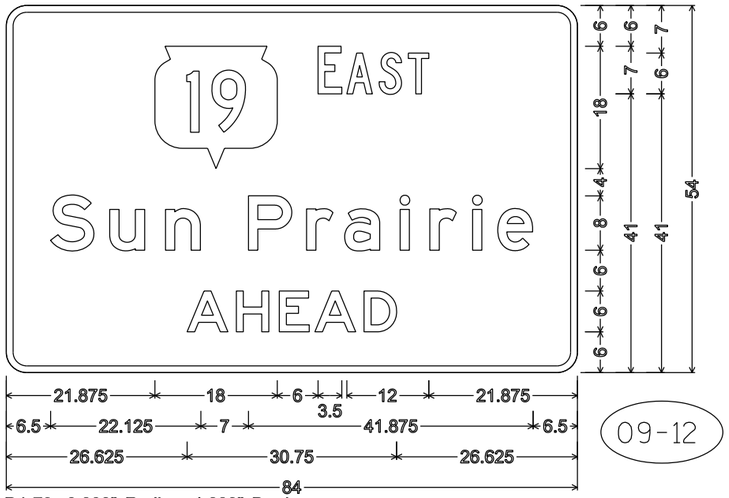
7

7

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING	SHEET NO: 508	E

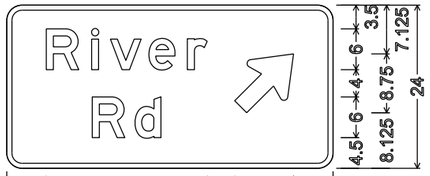
NOTES

1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



09-12

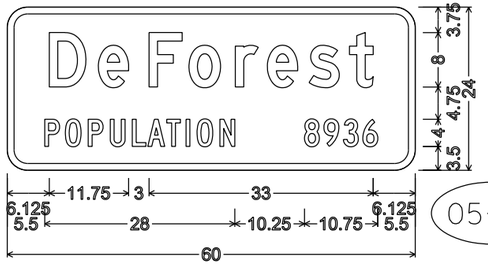
D1-70 ; 3.000" Radius, 1.000" Border,
"EAST" C; "Sun" E; "Prairie" E; "AHEAD" E



03-08

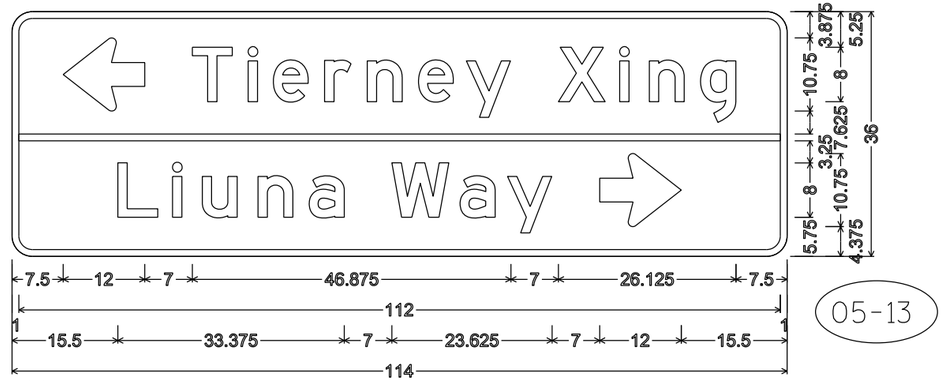
03-20

D1-2 ; 2.250" Radius, 0.750" Border,
"River" E; "Rd" E



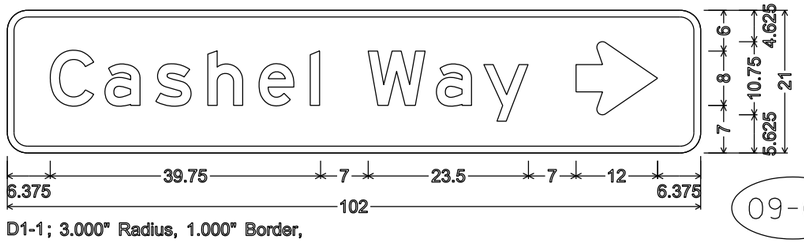
05-05

I2-3 ; 3.000" Radius, 1.000" Border,
"De" D; "Forest" D; "POPULATION" C; "8936" C



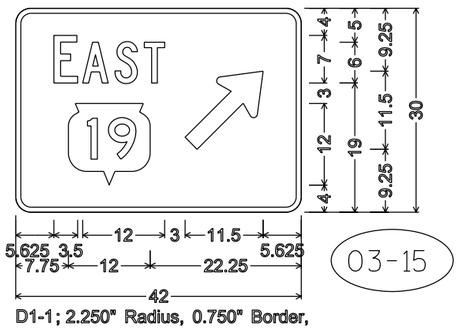
05-13

D1-2; 3.000" Radius, 1.000" Border,
"Tierney" E; "Xing" E; "Liuna" E; "Way" E



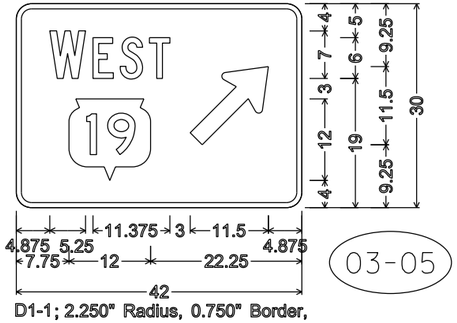
09-06

D1-1; 3.000" Radius, 1.000" Border,
"Cashel" E; "Way" E



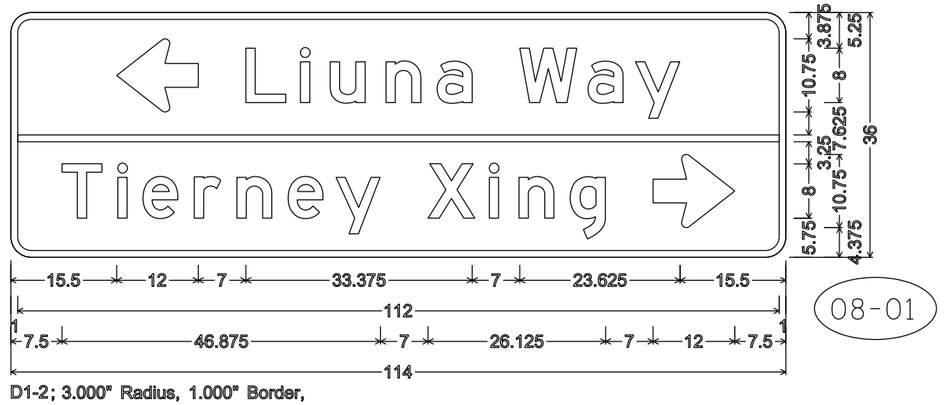
03-15

D1-1; 2.250" Radius, 0.750" Border,
"EAST" C



03-05

D1-1; 2.250" Radius, 0.750" Border,
"WEST" C

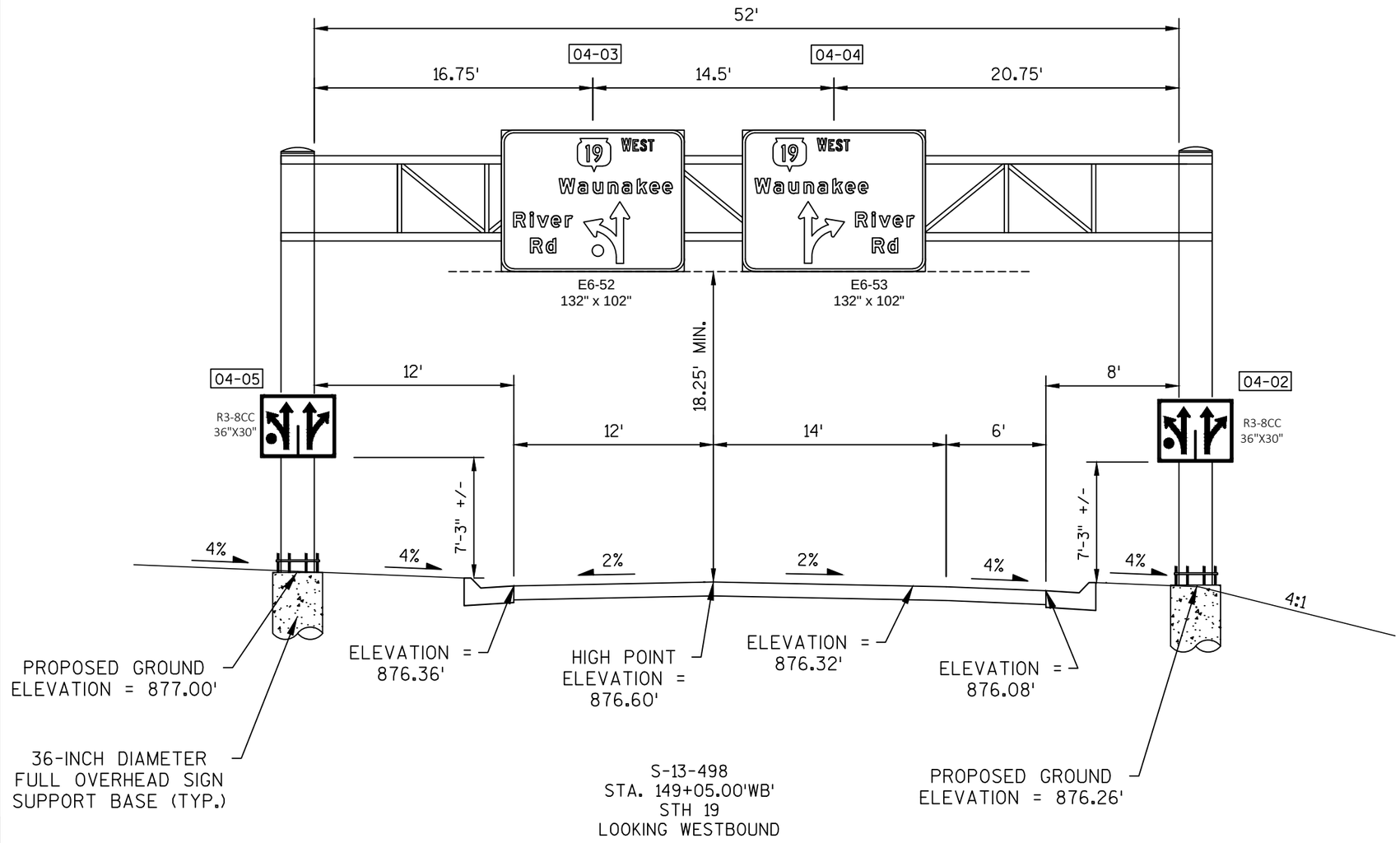


08-01

D1-2; 3.000" Radius, 1.000" Border,
"Liuna" E; "Way" E; "Tierney" E; "Xing" E

7

7



GENERAL NOTES

1) DRAWINGS NOT TO SCALE

2) DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE LATEST EDITION OF, AND SUPPLEMENTAL TO THE STATE OF WISCONSIN "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" AND AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS."

3) PROVIDE AN IDENTIFICATION PLAQUE FOR ALL OVERHEAD SIGN SUPPORTS, TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN SUPPORT".

4) SIZE THE ANCHOR BOLT/TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE FOOTING BASE SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.

5) PROVIDE DESIGN CALCULATIONS.

6) DESIGN WIND VELOCITIES SHALL BE PER WISDOT SPECS.

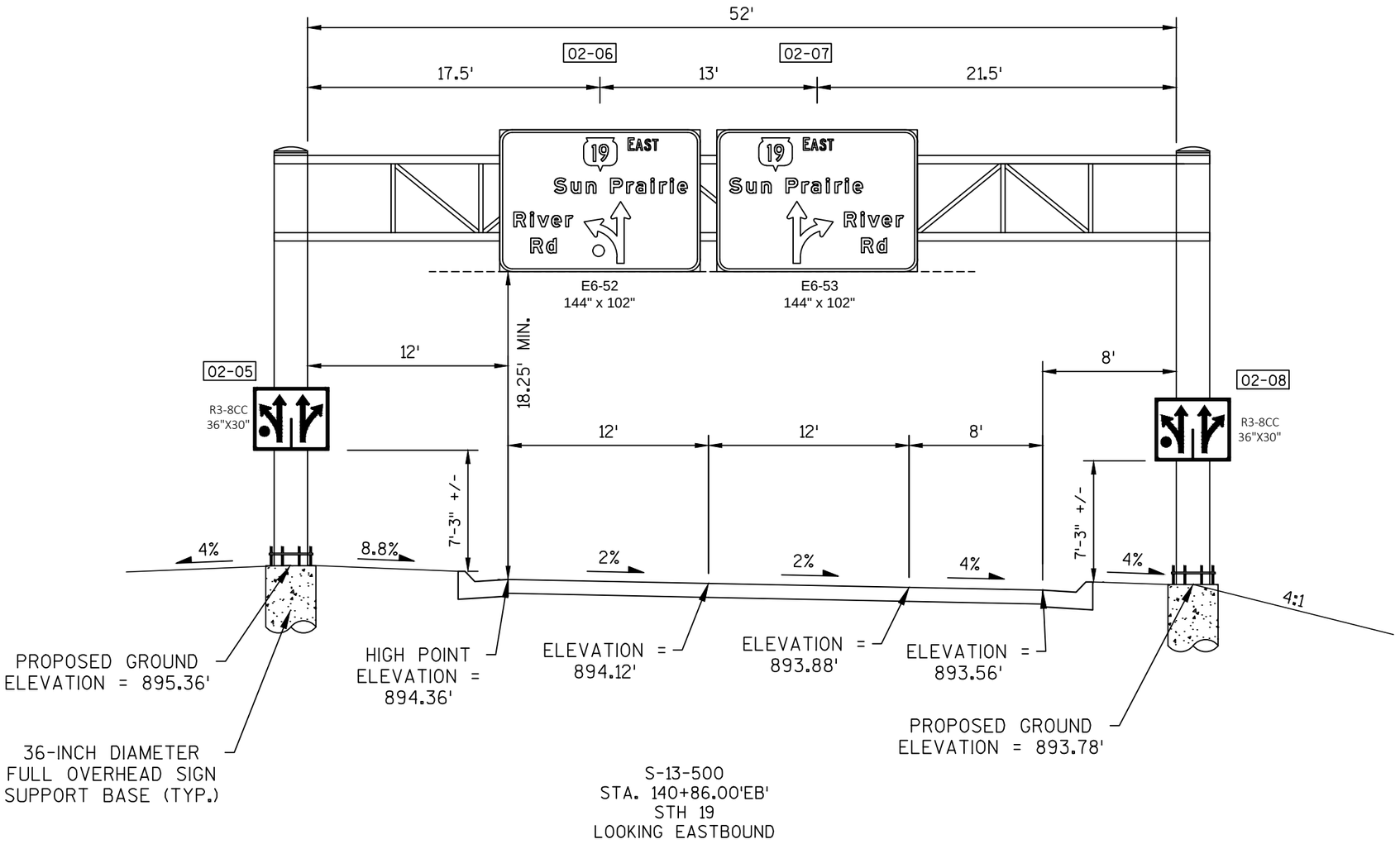
7) SIGNS OR BLANKS SHALL BE INSTALLED ON THE OVERHEAD SIGN SUPPORT AT THE TIME OF ERECTION. BLANKS, IF USED, SHALL BE OF THE SAME SIZE AND LOCATION AS PERMANENT SIGNS.

8) MINIMUM OF SIX (6) ANCHOR RODS SHALL BE USED PER STANDARD DETAIL DRAWING.

8

8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING STRUCTURE DETAILS	SHEET 510	E



S-13-500
STA. 140+86.00'EB'
STH 19
LOOKING EASTBOUND

GENERAL NOTES

1) DRAWINGS NOT TO SCALE

2) DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE LATEST EDITION OF, AND SUPPLEMENTAL TO THE STATE OF WISCONSIN "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" AND AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS."

3) PROVIDE AN IDENTIFICATION PLAQUE FOR ALL OVERHEAD SIGN SUPPORTS, TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN SUPPORT".

4) SIZE THE ANCHOR BOLT/TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE FOOTING BASE SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.

5) PROVIDE DESIGN CALCULATIONS.

6) DESIGN WIND VELOCITIES SHALL BE PER WISDOT SPECS.

7) SIGNS OR BLANKS SHALL BE INSTALLED ON THE OVERHEAD SIGN SUPPORT AT THE TIME OF ERECTION. BLANKS, IF USED, SHALL BE OF THE SAME SIZE AND LOCATION AS PERMANENT SIGNS.

8) MINIMUM OF SIX (6) ANCHOR RODS SHALL BE USED PER STANDARD DETAIL DRAWING.

8

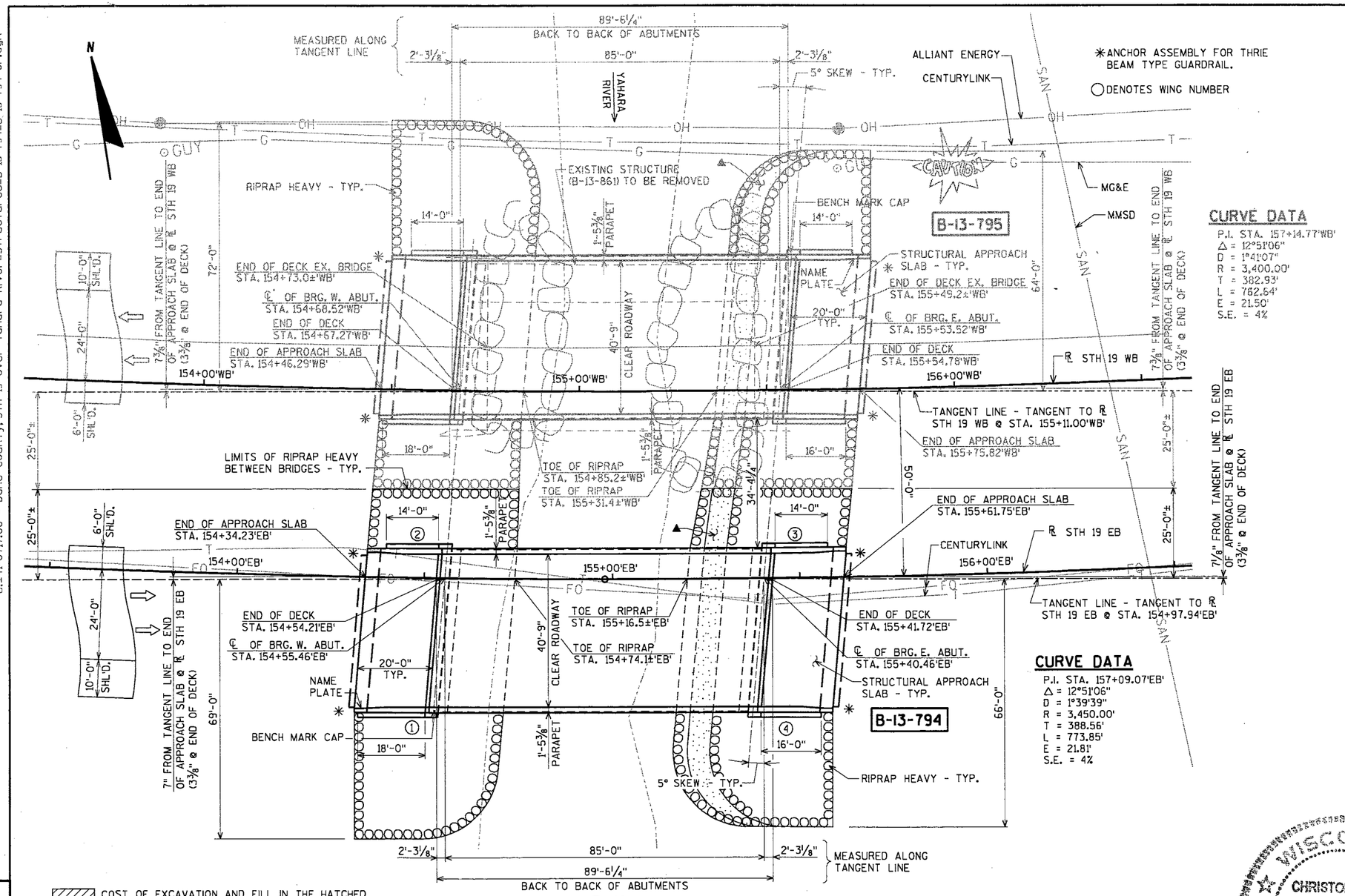
8

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PERMANENT SIGNING STRUCTURE DETAILS	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0800 SIGN STRUCTURES.DWG S-13-500
PLOT DATE : 4/29/2019 12:41 PM
PLOT BY : KRUEGER, KIRK
PLOT SCALE : 1 IN: 7.5 FT
WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

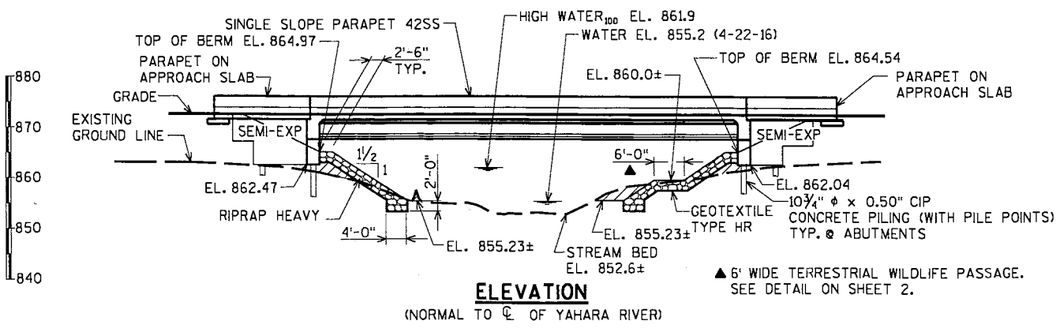
5290-00-72



PLAN

SINGLE SPAN - 45W-INCH PRESTRESSED CONCRETE GIRDER BRIDGE

COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-13-794".



ELEVATION

(NORMAL TO ℄ OF YAHARA RIVER)

▲ 6' WIDE TERRESTRIAL WILDLIFE PASSAGE. SEE DETAIL ON SHEET 2.

CURVE DATA

P.I. STA. 157+14.77'WB'
Δ = 12°51'06"
D = 1°41'07"
R = 3,400.00'
T = 382.93'
L = 762.64'
e = 21.50'
S.E. = 4%

CURVE DATA

P.I. STA. 157+09.07'EB'
Δ = 12°51'06"
D = 1°39'39"
R = 3,450.00'
T = 388.56'
L = 773.85'
E = 21.81'
S.E. = 4%

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION & DESIGN DATA
3. QUANTITES AND NOTES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT PILE LAYOUT
7. WEST ABUTMENT WING 1 DETAILS
8. WEST ABUTMENT WING 2 DETAILS
9. WEST ABUTMENT DETAILS AND BILL OF BARS
10. EAST ABUTMENT
11. EAST ABUTMENT PILE LAYOUT
12. EAST ABUTMENT WING 3 DETAILS
13. EAST ABUTMENT WING 4 DETAILS
14. EAST ABUTMENT DETAILS AND BILL OF BARS
15. 45W" PRESTRESSED GIRDER DETAILS
16. 45W" PRESTRESSED GIRDER DETAILS
17. STEEL DIAPHRAGM DETAILS
18. SUPERSTRUCTURE
19. SUPERSTRUCTURE PLAN
20. DECK STEEL LAYOUT
21. SUPERSTRUCTURE DETAILS
22. SUPERSTRUCTURE CORNER DETAILS
23. WEST STRUCTURAL APPROACH SLAB
24. EAST STRUCTURAL APPROACH SLAB
25. STRUCTURAL APPROACH SLAB DETAILS
26. SINGLE SLOPE PARAPET 42SS

FOR TYPICAL SECTION AND DESIGN DATA, SEE SHEET 2

WISCONSIN
CHRISTOPHER B. McMAHON
E-20454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
4/16/19

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 05/06/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-794

STH 19 EB OVER YAHARA RIVER

COUNTY	TOWN/~~CITY~~/VILLAGE
DANE	T WESPORT, V DEFOREST

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	ZSS	DESIGN CK'D.	JLB	DRAWN BY	CLS	PLANS CK'D.	CBM

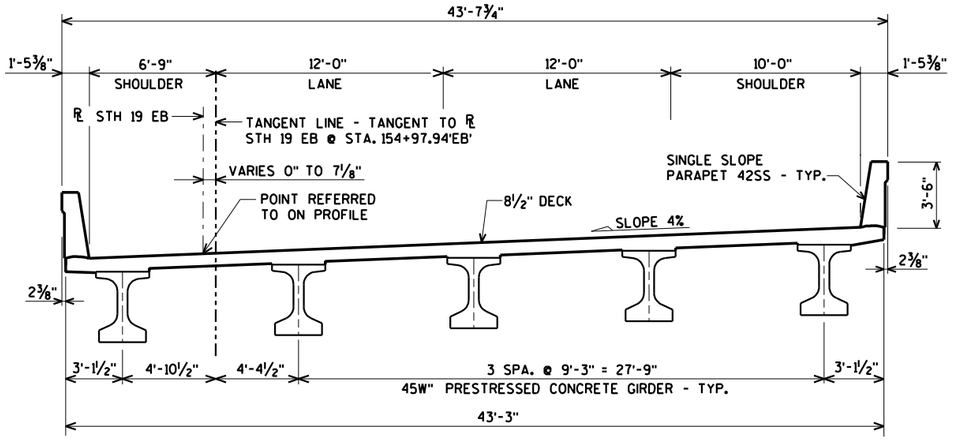
GENERAL PLAN

SHEET 512 OF 26

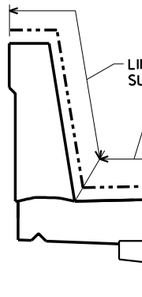
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DATE:
CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

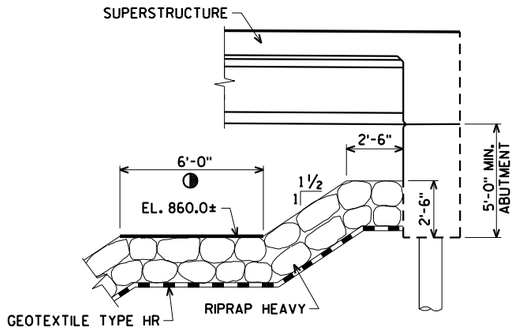
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TYPICAL CROSS SECTION THRU BRIDGE
(LOOKING EAST)



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAILS



TERRESTRIAL WILDLIFE PASSAGE DETAIL

◑ FILL VOIDS IN RIPRAP HEAVY WITH TRAFFIC BOND LIMESTONE SCREENINGS ⅜-INCH TO FULLY FILL ALL VOIDS AND LEAVE, ON AVERAGE, TWO INCHES ABOVE THE LOWEST ROCK POINTS WHERE THEY ABUT EACH OTHER. PROVIDE LEVEL SURFACE OF THE TERRESTRIAL WILDLIFE PASSAGE. TRAFFIC BOND LIMESTONE TO BE INCIDENTAL TO THE BID ITEM "RIPRAP HEAVY".

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.12
OPERATING RATING FACTOR: 1.70
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
	ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
STEEL PILING ASTM A252 (GRADE 3)		f_y =	45,000 p.s.i.
45W" PRESTRESSED GIRDER CONCRETE MASONRY		f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF		=	270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY	2 YEAR FREQUENCY
Q_{100} = 2,376 c.f.s.	Q_2 = 450 c.f.s.
VEL. = 8.5 f.p.s.	VEL. = 2.4 f.p.s.
HW_{100} = EL. 861.9	HW_2 = EL. 857.9
WATERWAY AREA = 279 sq. ft.	
DRAINAGE AREA = 43.1 sq. mi.	
ROADWAY OVERTOPPING = N/A	
SCOUR CRITICAL CODE = 8	
DATUM = NAVD88 (2007)	

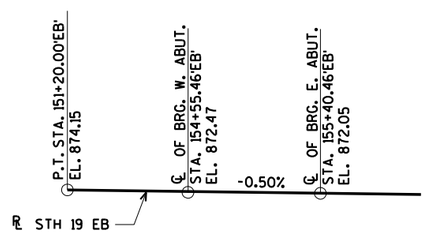
FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 10¾" ϕ x 0.50" CIP CONCRETE PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 40'-0" AT THE WEST ABUTMENT AND 35'-0" AT THE EAST ABUTMENT.

ǂ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = 18,500 (2020)
A.A.D.T. = 23,500 (2040)
R.D.S. = 60 M.P.H.



PROFILE GRADE LINE
(STH 19 EB)

BENCH MARK:
DISC ON SW WINGWALL
STA. 154+69'WB', 12' RT.
EL. 873.45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

TYPICAL SECTION & DESIGN DATA

SHEET 2 OF 26
513

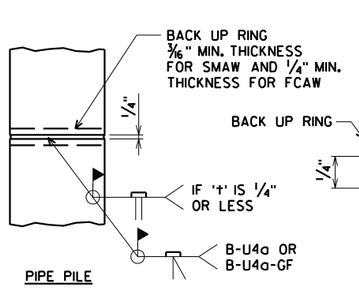
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TOTAL ESTIMATED QUANTITIES

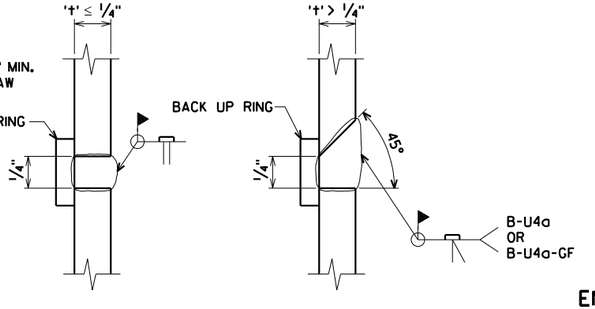
BID ITEM NUMBER	BID ITEMS	UNIT	W. STR. APR. SLAB	W. ABUT.	E. ABUT.	E. STR. APR. SLAB	SUPER.	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-794	LS	-----	-----	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	180	180	-----	-----	360
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	185	-----	-----	185	-----	370
502.0100	CONCRETE MASONRY BRIDGES	CY	60	55	53	60	182	410
502.3200	PROTECTIVE SURFACE TREATMENT	SY	90	-----	-----	90	420	600
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	20	90	130
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	-----	-----	-----	-----	430	430
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	3,390	3,170	-----	-----	6,560
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	10,450	1,990	1,740	10,450	28,490	53,120
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	730	-----	-----	730	-----	1,460
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	5	5	-----	-----	10
506.4000	STEEL DIAPHRAGMS B-13-794	EACH	-----	-----	-----	-----	8	8
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	12	12	-----	-----	24
550.0500	PILE POINTS	EACH	-----	13	13	-----	-----	26
● 550.2108	PILING CIP CONCRETE 10¾ X 0.50-INCH	LF	-----	520	455	-----	-----	975
606.0300	RIPRAP HEAVY	CY	-----	240	250	-----	-----	490
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	95	95	-----	-----	190
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-----	40	40	-----	-----	80
645.0120	GEOTEXTILE TYPE HR	SY	-----	430	450	-----	-----	880
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	-----	-----	½" & ¾"

● PILING TO BE ASTM A252 (GRADE 3) WITH A fy = 45,000 p.s.i.

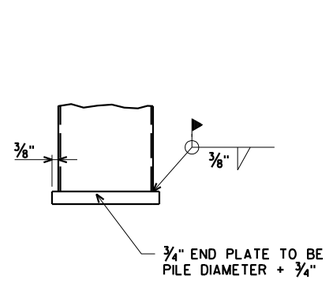


PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL



END PLATE DETAIL FOR CIP PILING

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 SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-794" SHALL BE THE EXISTING GROUNDLINE.

AT BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 2.

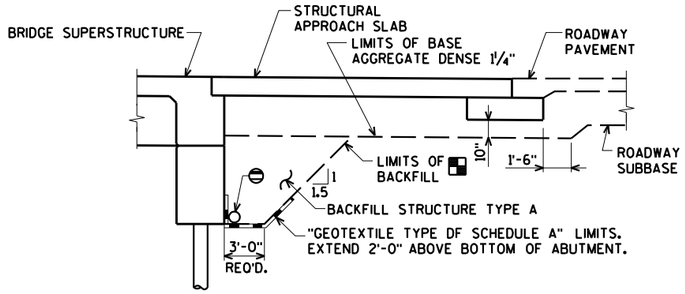
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.



BACKFILL STRUCTURE LIMITS

▪ 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 9.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

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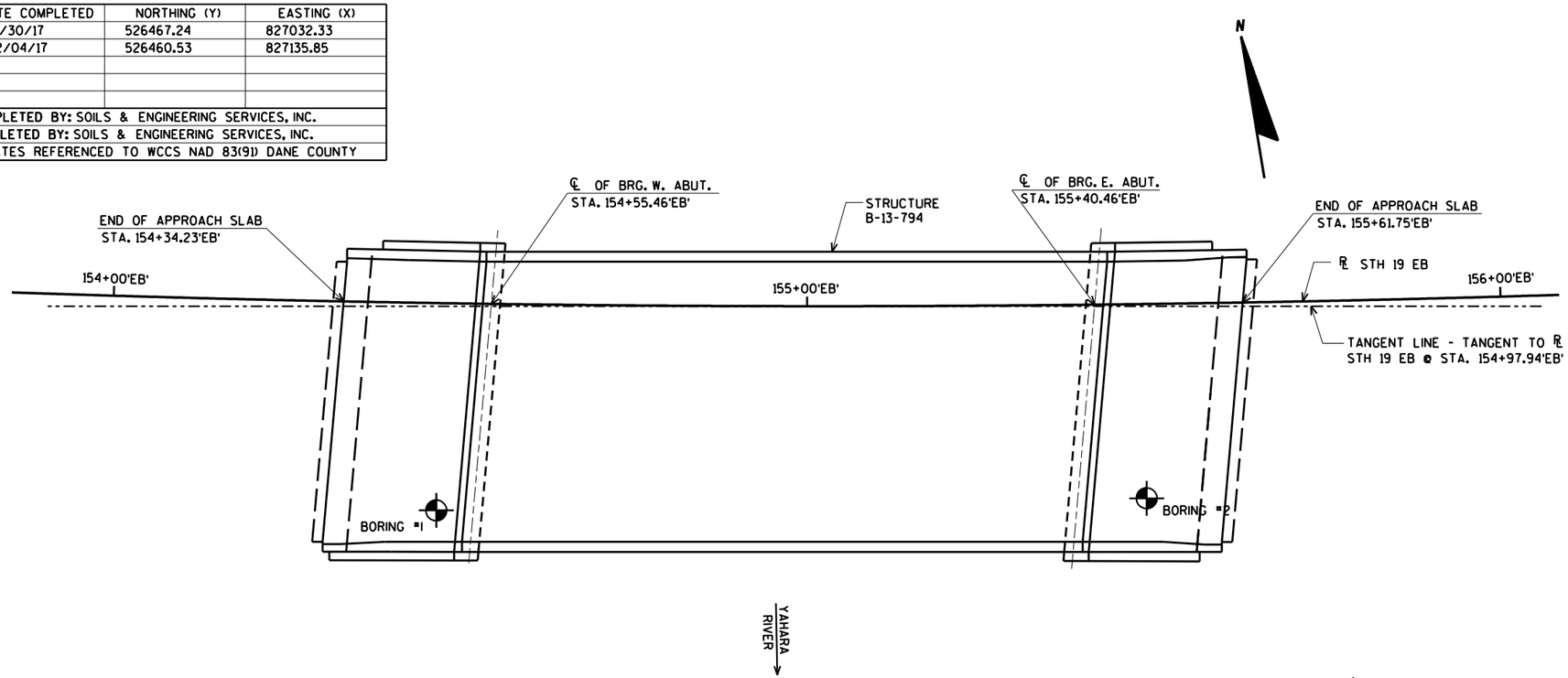
QUANTITIES AND NOTES

SHEET 3 OF 26
514

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/30/17	526467.24	827032.33
2	12/04/17	526460.53	827135.85
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



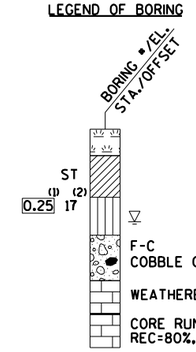
STATE PROJECT NUMBER

5290-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) 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-13-794

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SUBSURFACE EXPLORATION

SHEET 4 OF 26
515

8

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4/16/2019

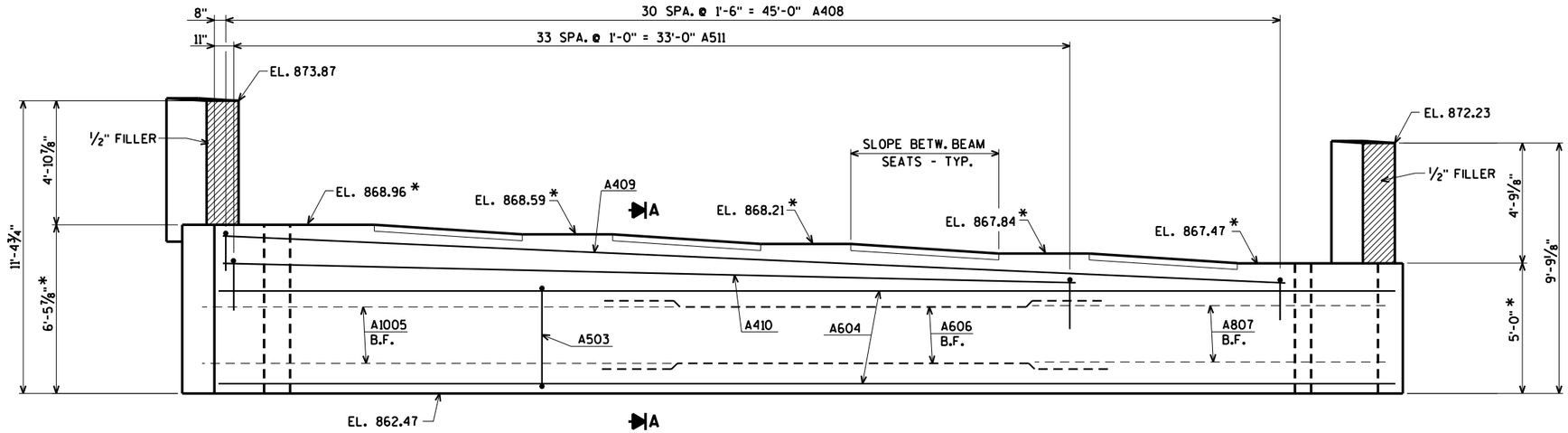
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NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

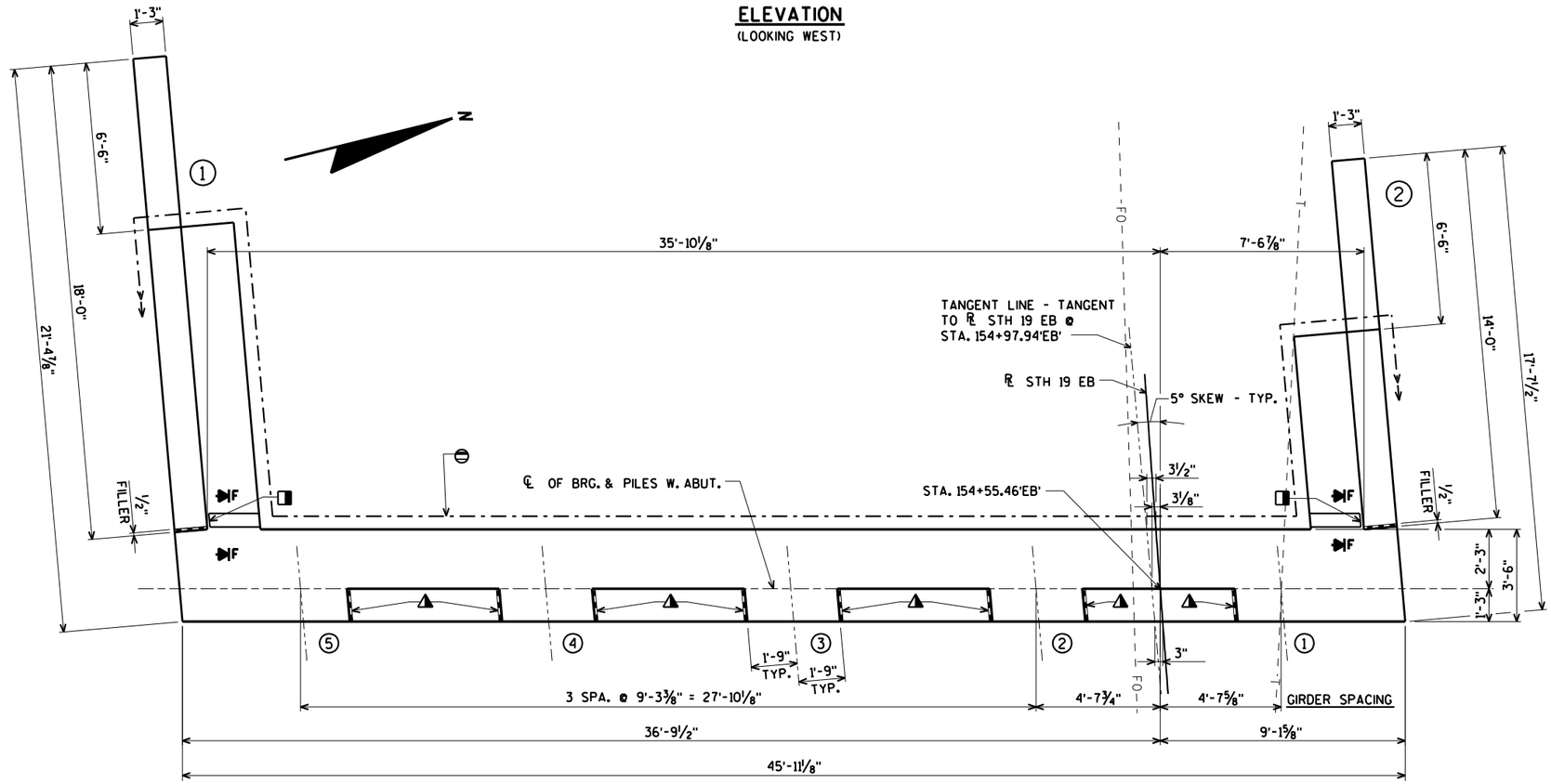
* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES W. ABUT.

STATE PROJECT NUMBER

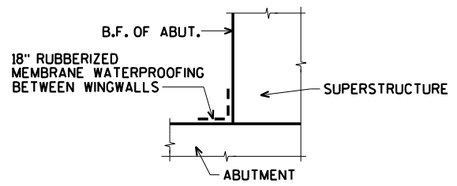
5290-00-72



ELEVATION
(LOOKING WEST)



PLAN



SECTION F

- 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-13-794

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WEST ABUTMENT

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516

8

8

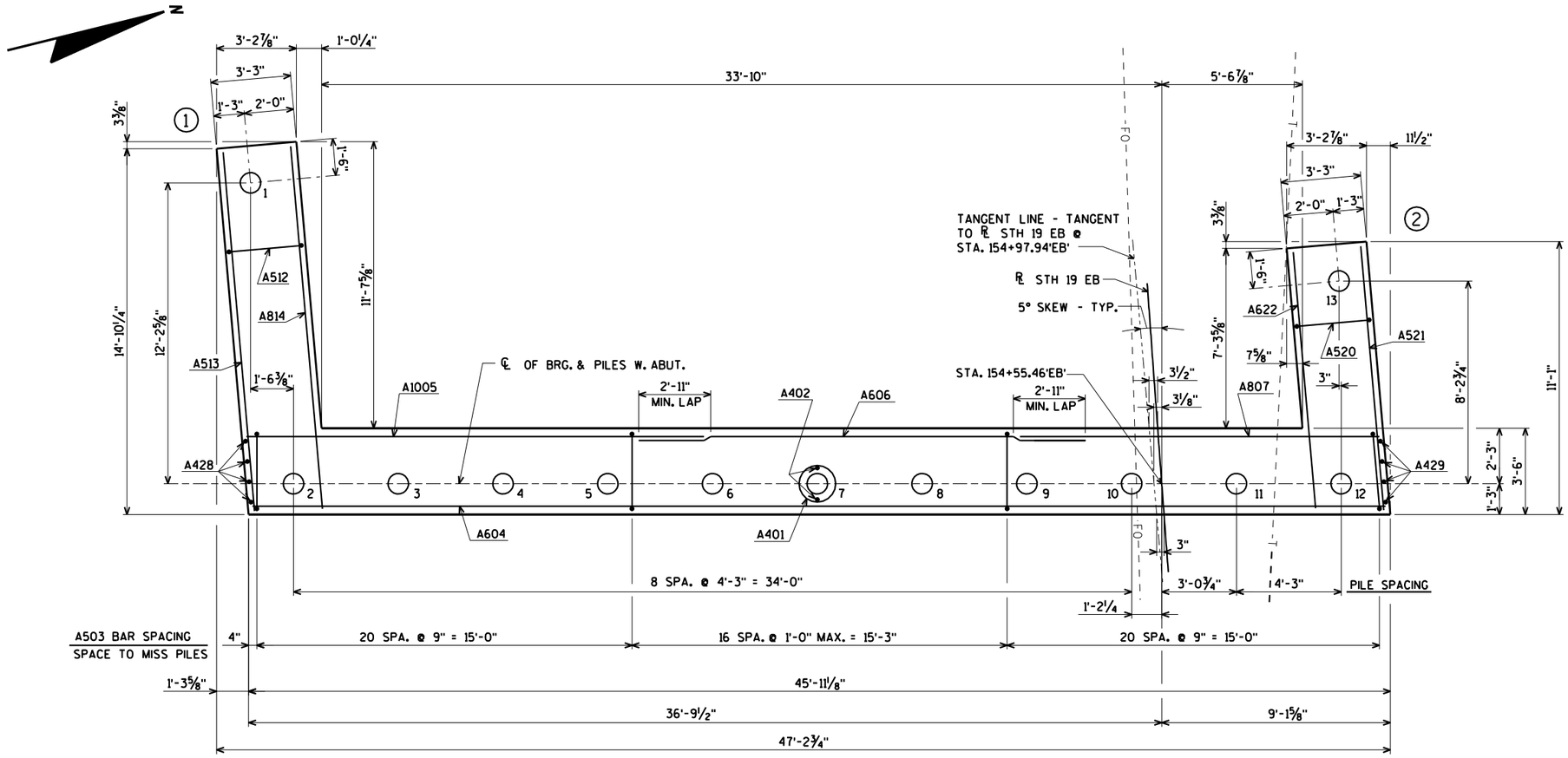
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4/16/2019

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PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 3.

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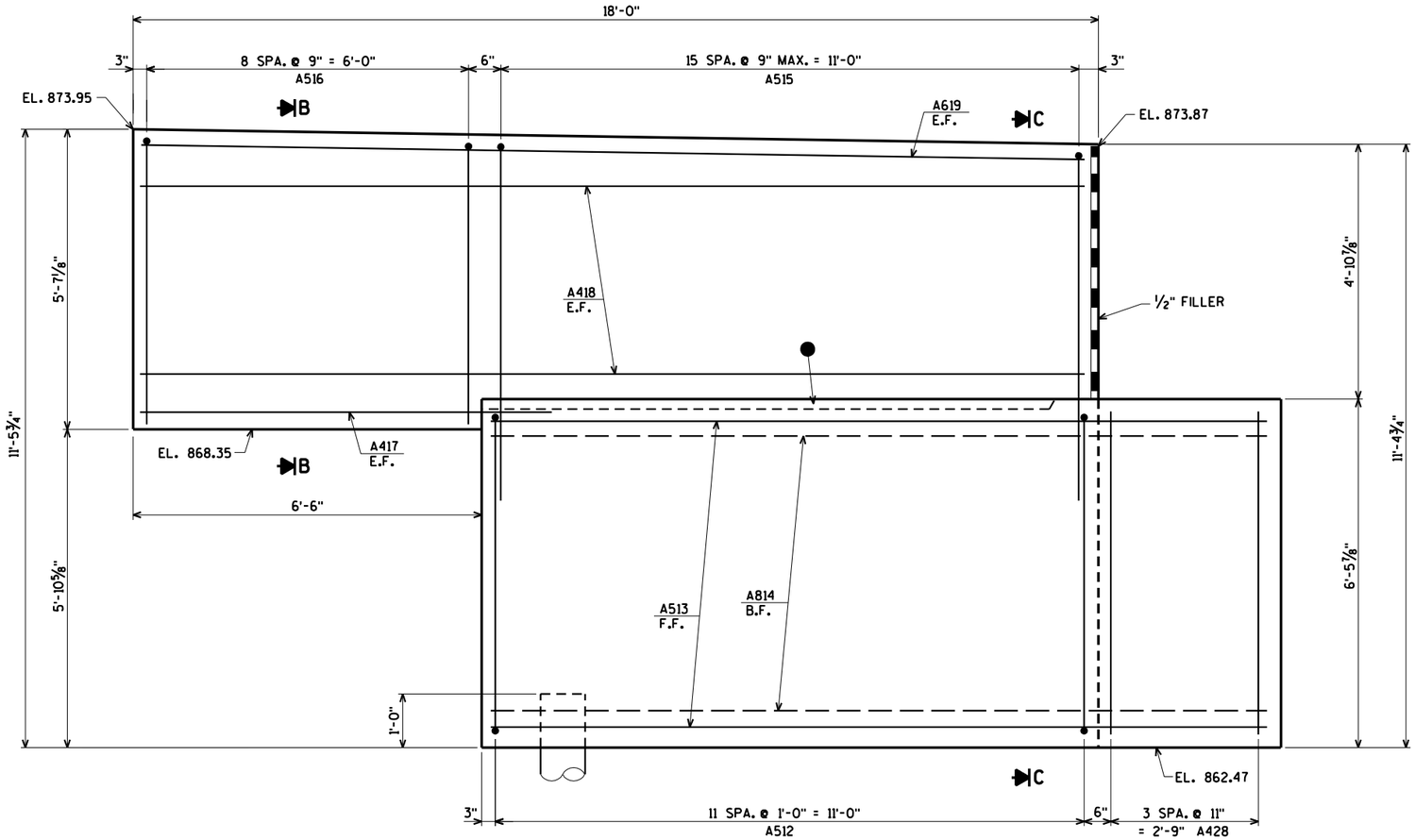
WEST ABUTMENT PILE LAYOUT

SHEET 6 OF 26
517

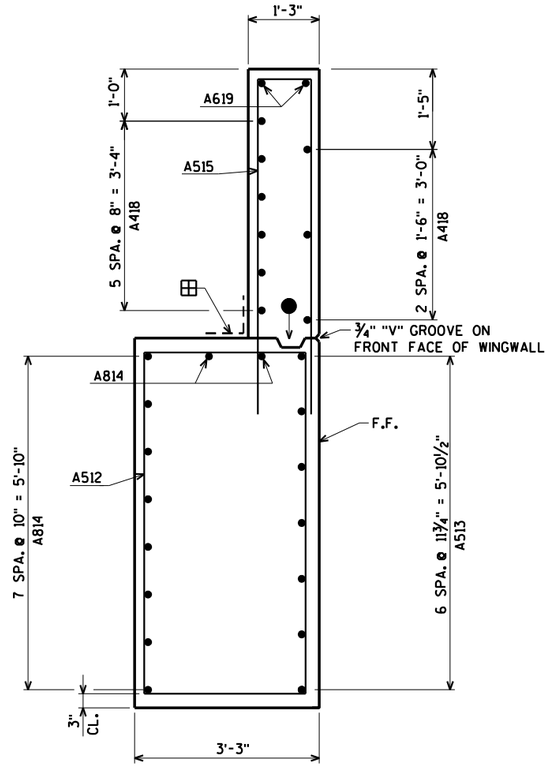
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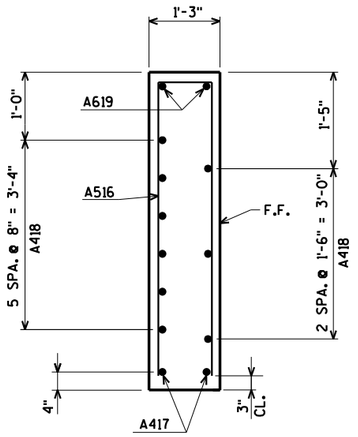
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ELEVATION - WING 1



SECTION C



SECTION B

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-13-794

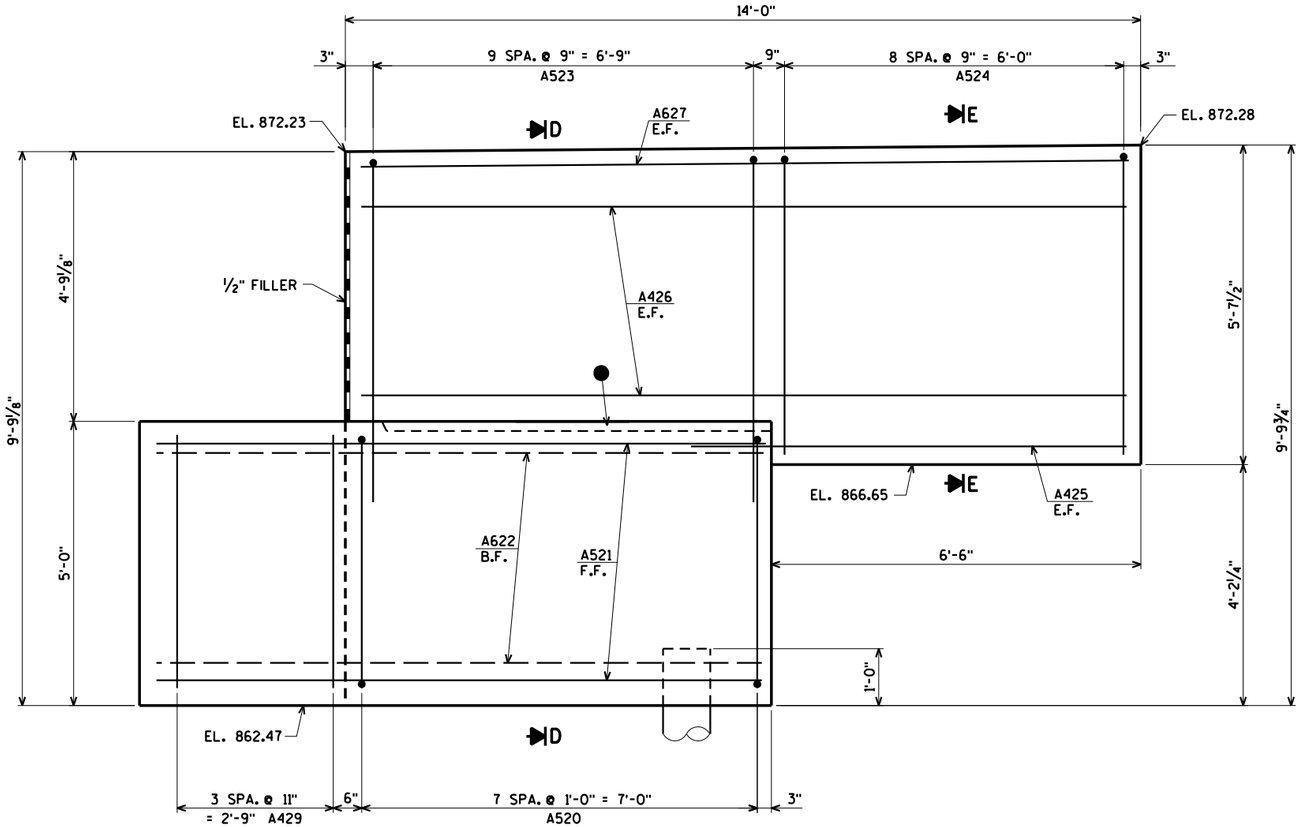
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WEST ABUTMENT
WING 1 DETAILS

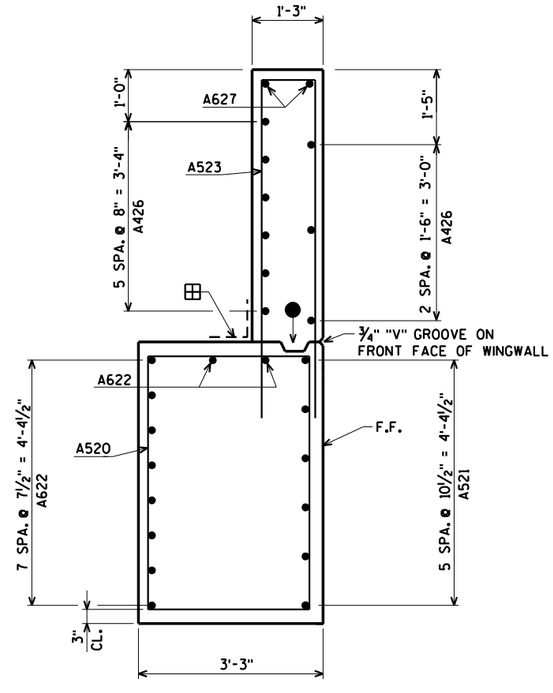
SHEET 7 OF 26
518

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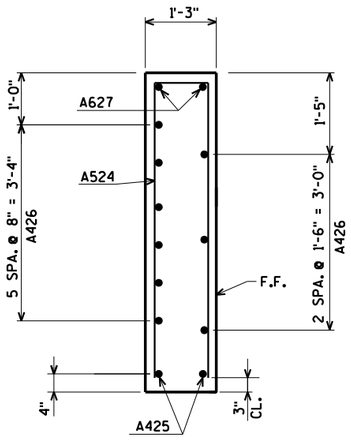
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U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-794\B-13-794 wa.dgn



ELEVATION - WING 2



SECTION D



SECTION E

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

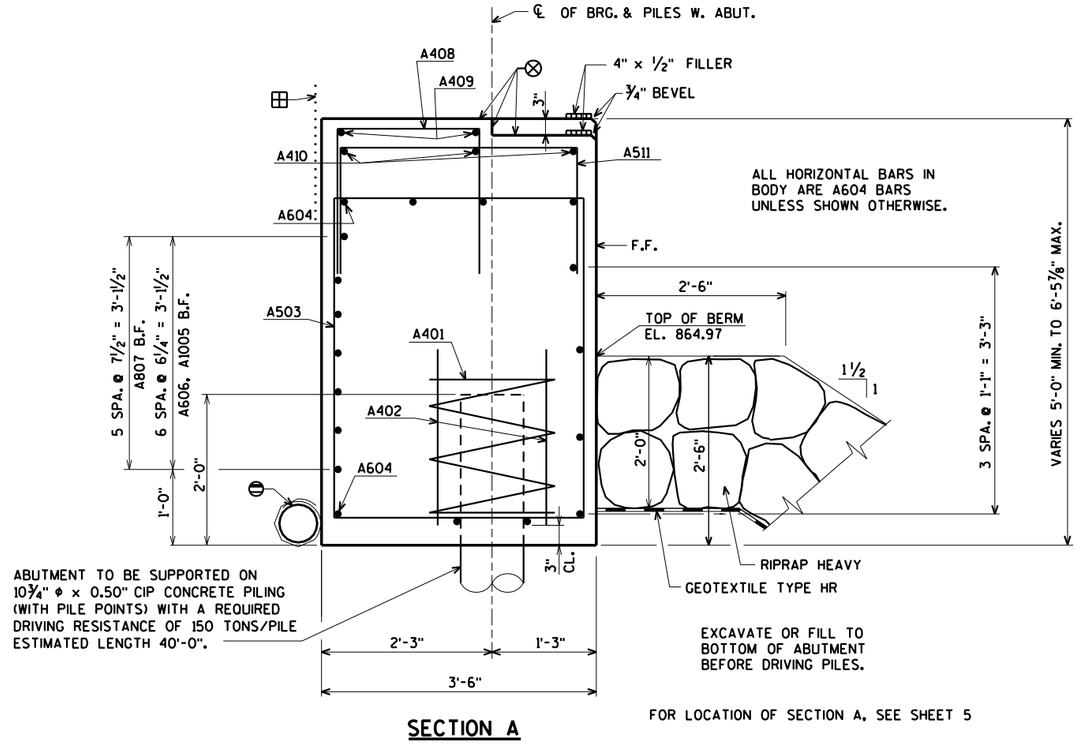
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WEST ABUTMENT
WING 2 DETAILS

SHEET 8 OF 26
519

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Eau Claire, WI 54701
www.AyresAssociates.com

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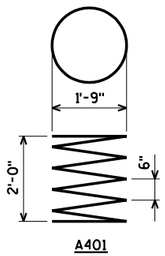
SECTION A

FOR LOCATION OF SECTION A, SEE SHEET 5

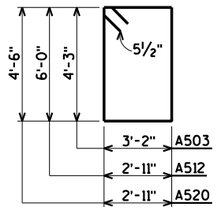
BILL OF BARS

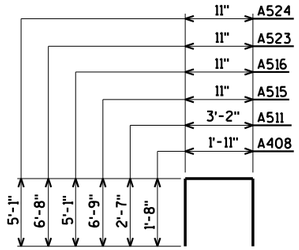
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,990# COATED 3,390# UNCOATED LOCATION
A401		11	28-0	X		BODY ℄ PILES
A402		22	2-3			BODY ℄ PILES
A503		57	15-4	X		BODY VERT.
A604		11	45-7			BODY HORIZ.
A1005		7	18-0			BODY HORIZ. B.F. ℄ WING 1
A606		7	19-5			BODY HORIZ. B.F.
A807		6	14-0			BODY HORIZ. B.F. ℄ WING 2
A408		31	5-1	X		BODY VERT.
A409		2	45-4			BODY HORIZ.
A410		3	33-4			BODY HORIZ.
A511		34	8-1	X		BODY VERT.
A512	X	12	18-5	X		WING 1 VERT.
A513	X	7	14-6			WING 1 HORIZ. F.F.
A814	X	10	14-6			WING 1 HORIZ. B.F.
A515	X	16	14-2	X		WING 1 VERT.
A516	X	9	10-10	X		WING 1 VERT.
A417	X	2	7-9			WING 1 HORIZ. E.F.
A418	X	9	17-8			WING 1 HORIZ. E.F.
A619	X	2	17-8			WING 1 HORIZ. TOP E.F.
A520	X	8	15-5	X		WING 2 VERT.
A521	X	6	10-8			WING 2 HORIZ. F.F.
A622	X	10	10-5			WING 2 HORIZ. B.F.
A523	X	10	14-0	X		WING 2 VERT.
A524	X	9	10-10	X		WING 2 VERT.
A425	X	2	7-9			WING 2 HORIZ. E.F.
A426	X	9	13-8			WING 2 HORIZ. E.F.
A627	X	2	13-8			WING 2 HORIZ. TOP E.F.
A428	X	4	6-0			BODY VERT. ℄ WING 1
A429	X	4	4-7			BODY VERT. ℄ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



A401





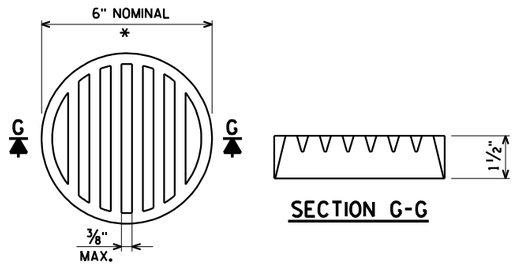
- ⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.
- ⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE



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 INCLUDED WITH 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 SCREEN 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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

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WEST ABUTMENT DETAILS AND BILL OF BARS

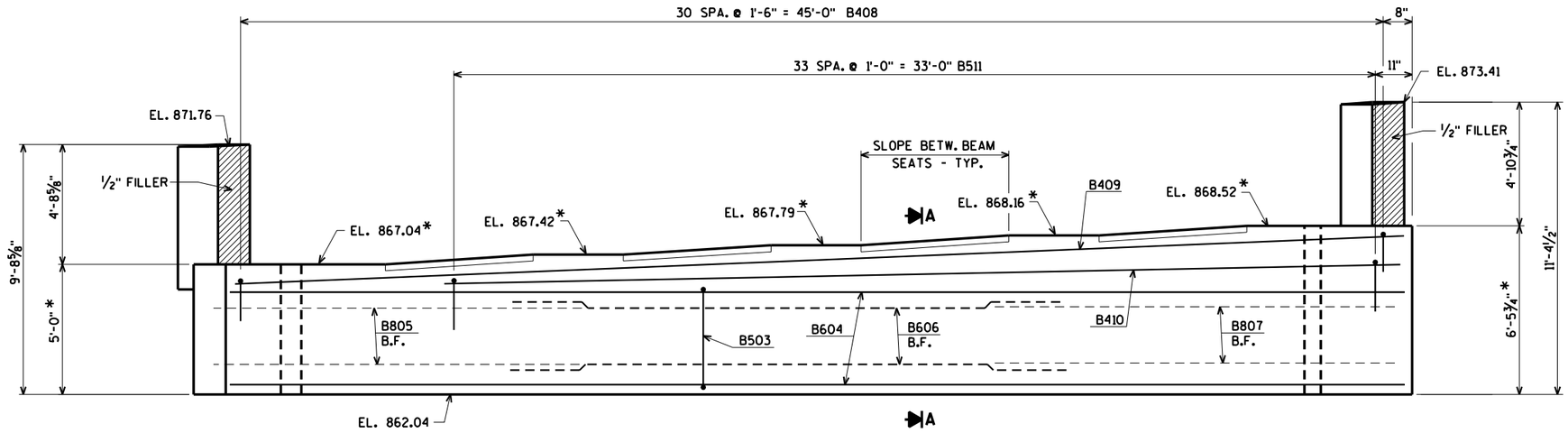
SHEET 9 OF 26
520

ORIGINAL PLANS PREPARED BY
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3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-794\B-13-794 wa.dgn
4/16/2019
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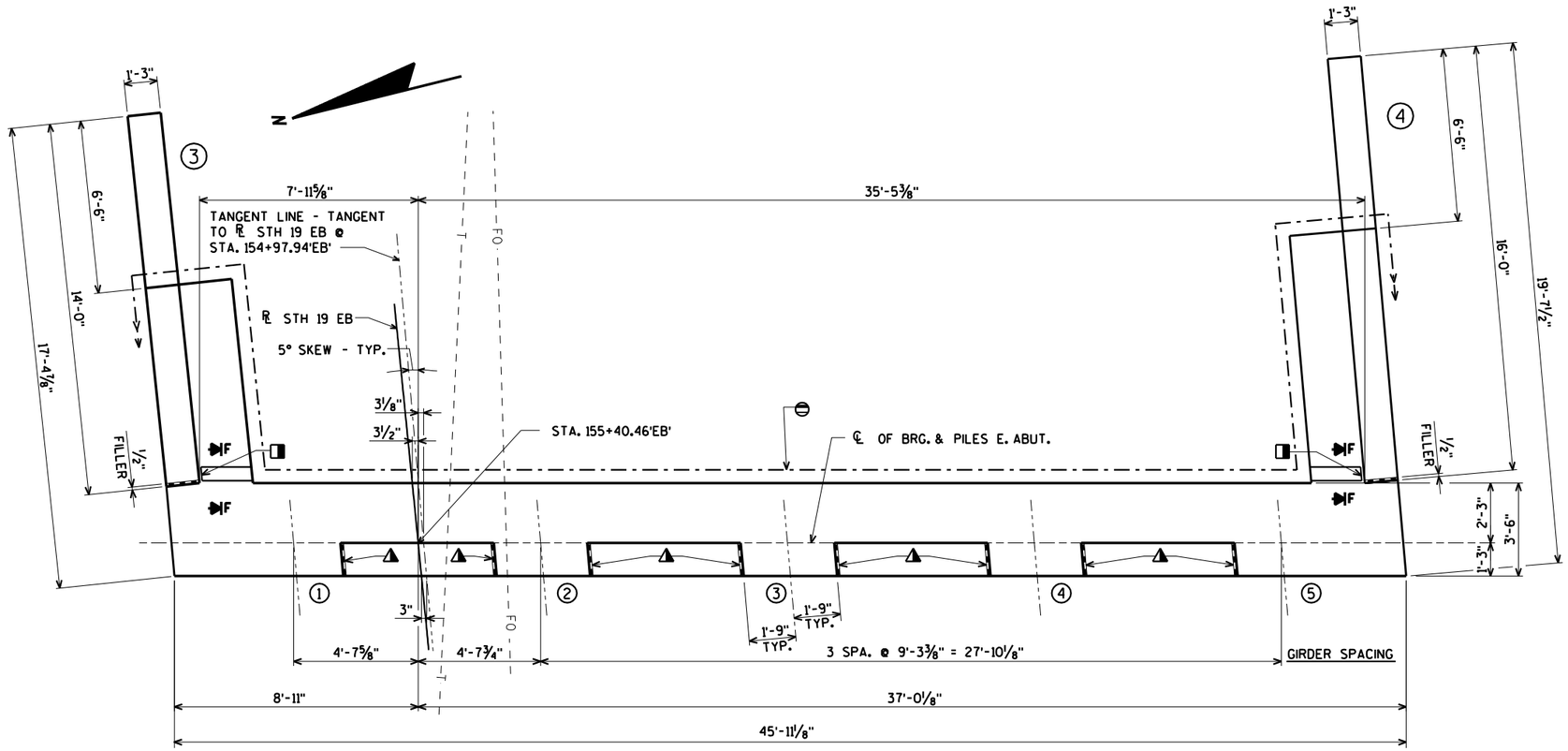
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES E. ABUT.

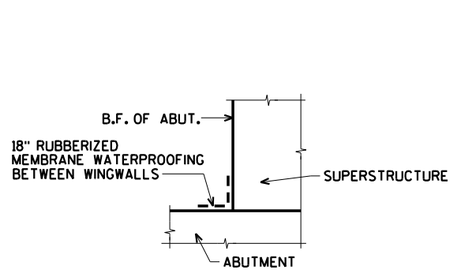


FOR SECTION A SEE SHEET 14

ELEVATION
(LOOKING EAST)



PLAN



SECTION F

- 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

EAST ABUTMENT

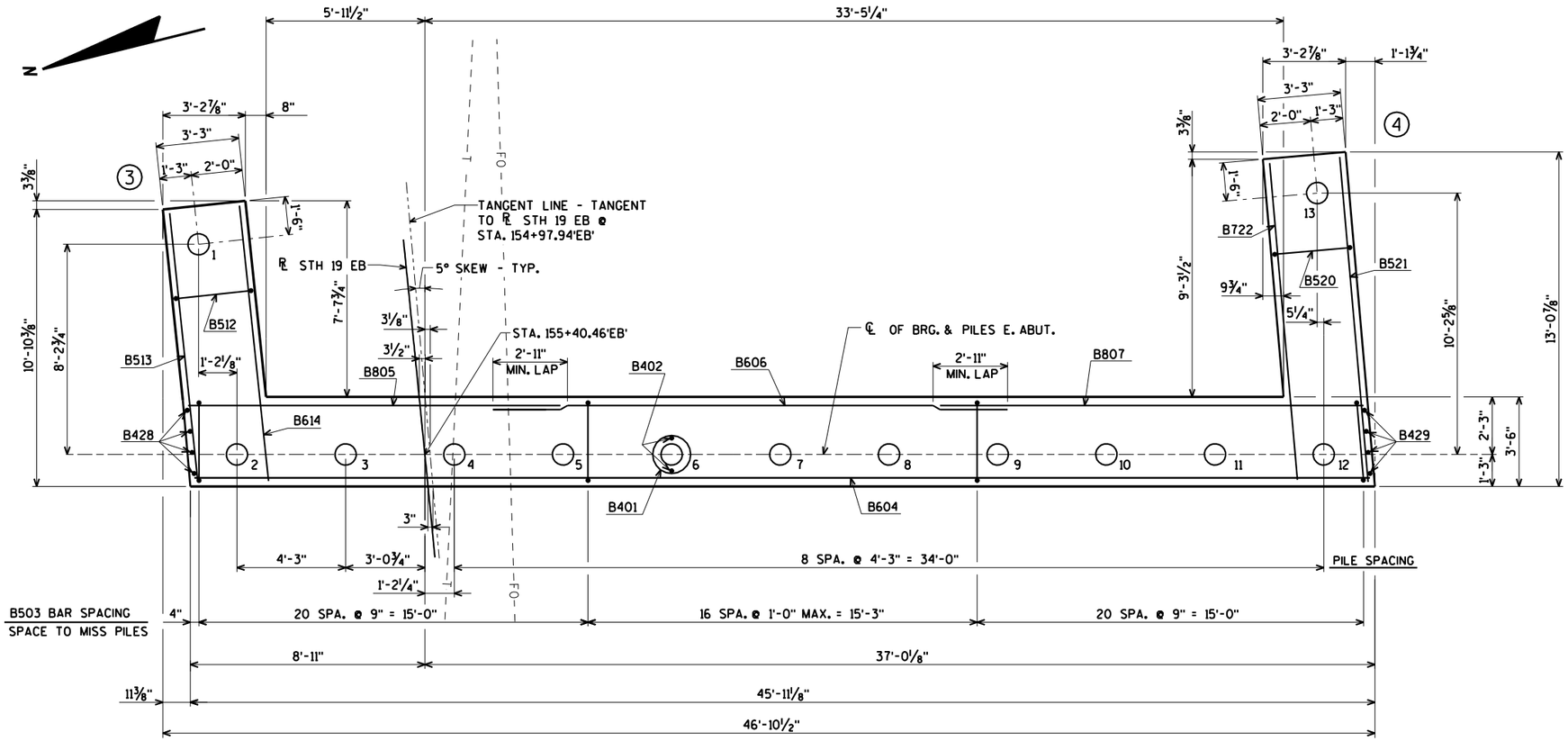
SHEET 10 OF 26
521

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STATE PROJECT NUMBER

5290-00-72



PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

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EAST ABUTMENT
PILE LAYOUT

SHEET 11 OF 26
522

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8

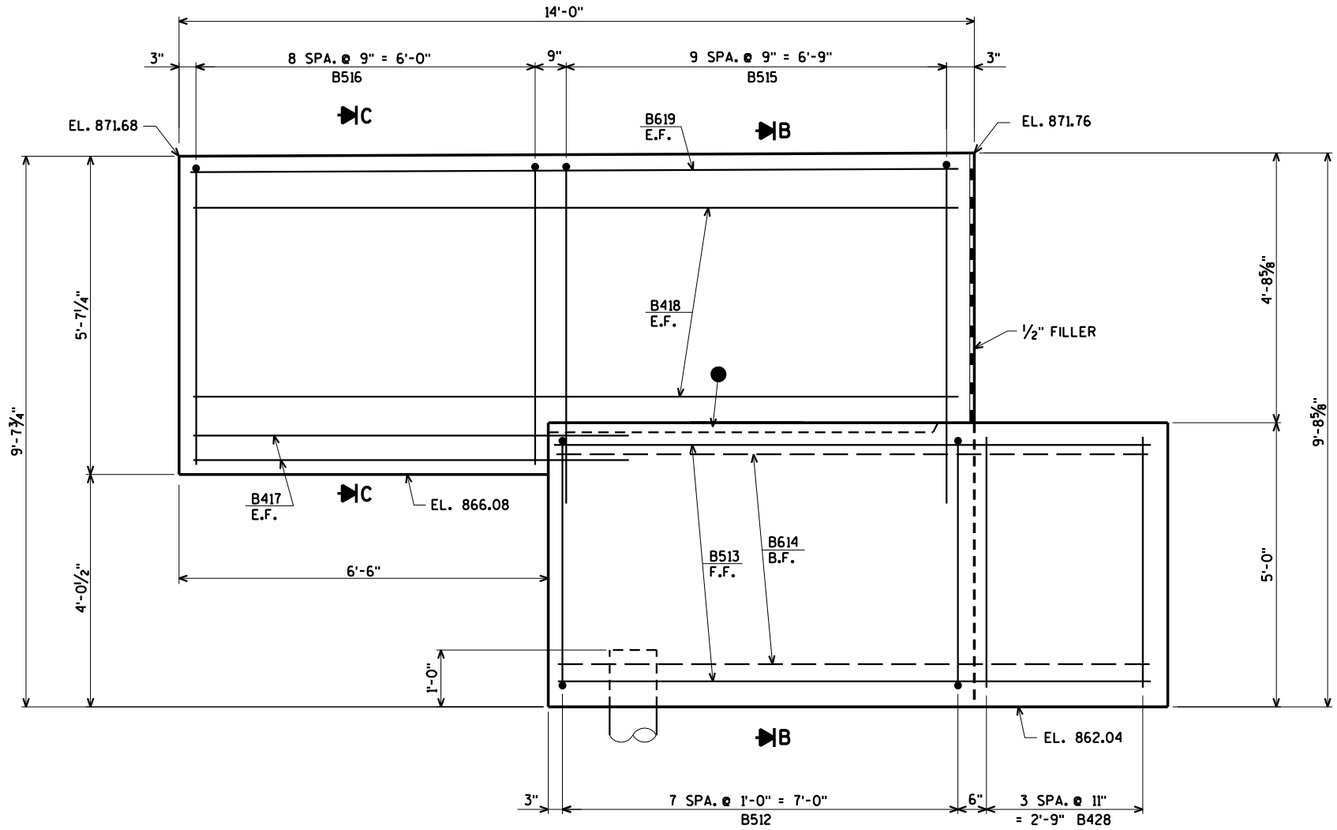
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2/23/2019

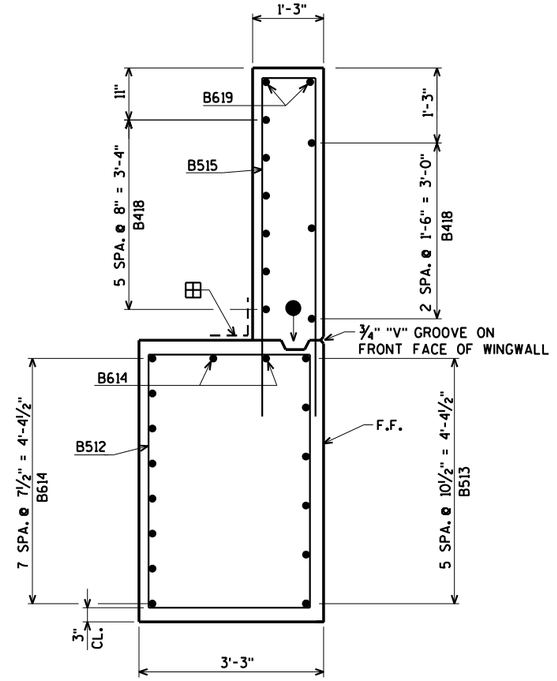
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STATE PROJECT NUMBER

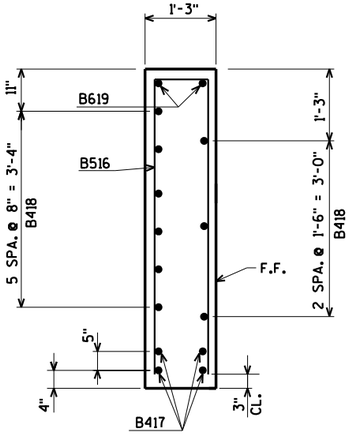
5290-00-72



ELEVATION - WING 3



SECTION B



SECTION C

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

EAST ABUTMENT
WING 3 DETAILS

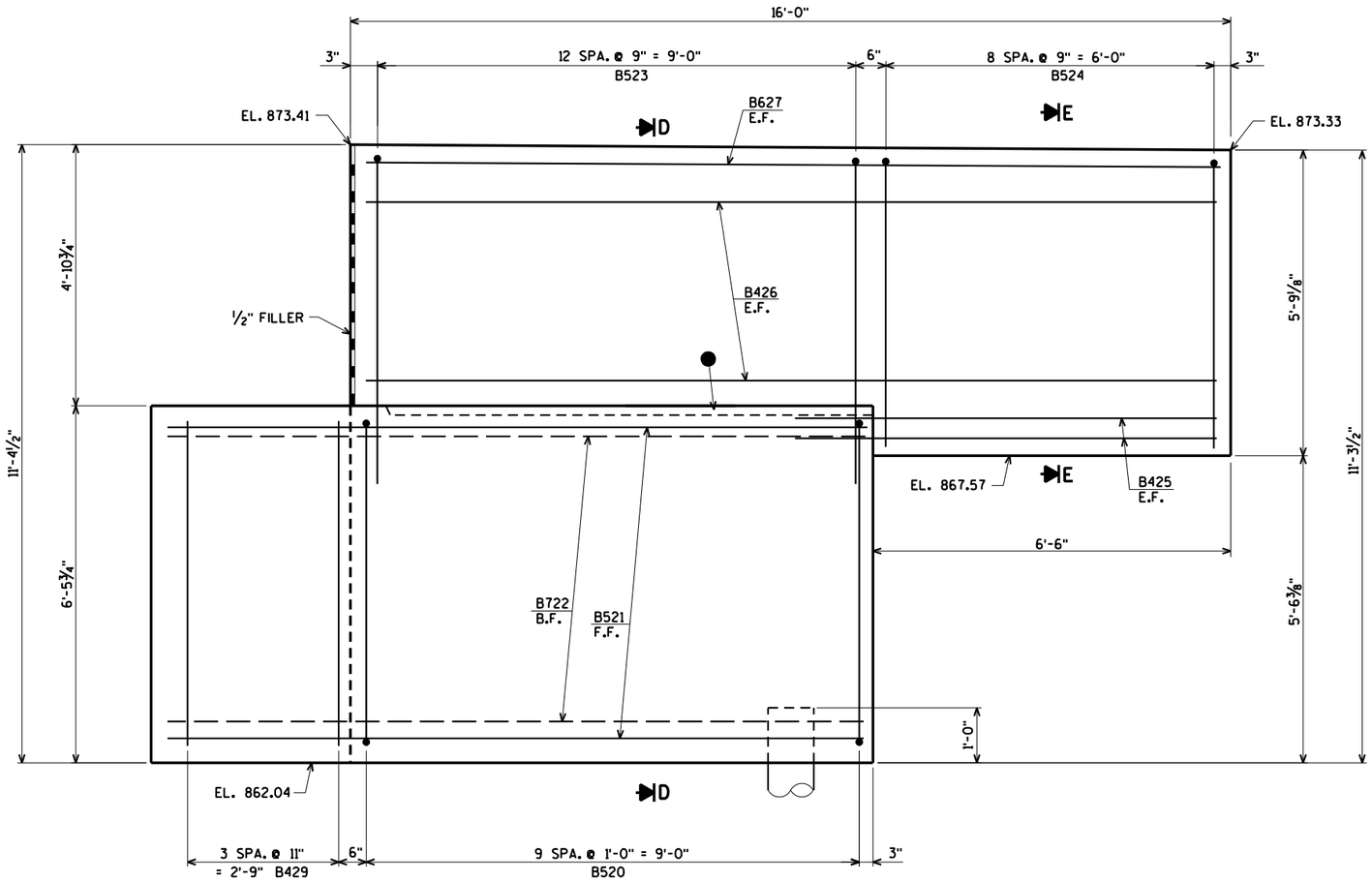
SHEET 12 OF 26
523

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
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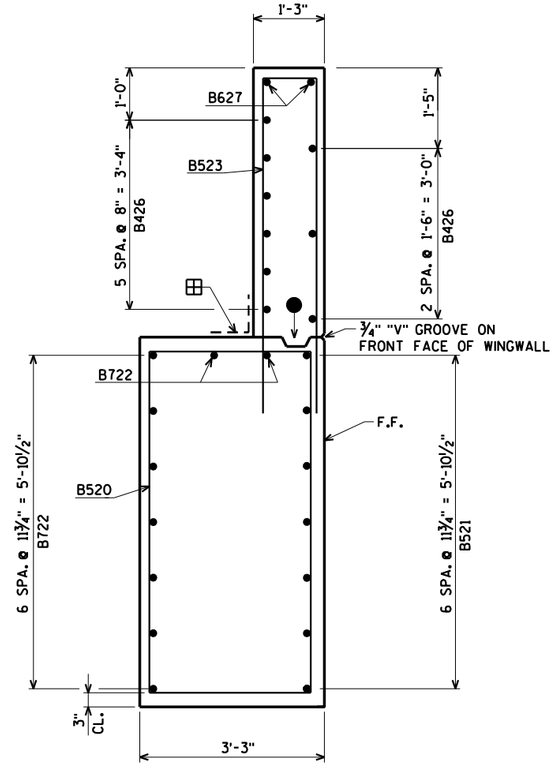
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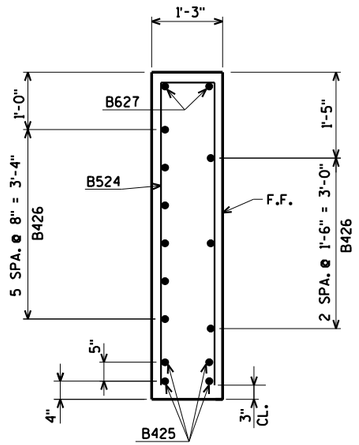
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ELEVATION - WING 4



SECTION D



SECTION E

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

EAST ABUTMENT
WING 4 DETAILS

SHEET 13 OF 26
524

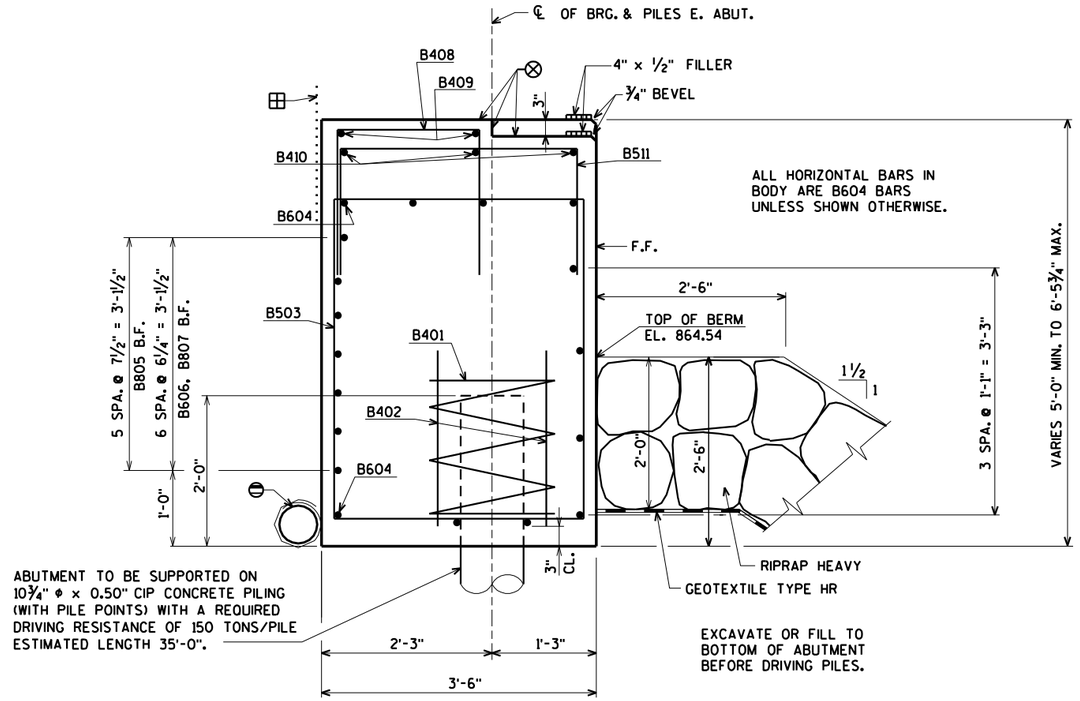
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STATE PROJECT NUMBER

5290-00-72



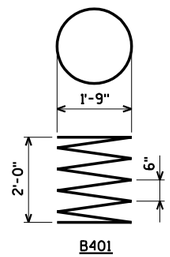
SECTION A

FOR LOCATION OF SECTION A, SEE SHEET 10

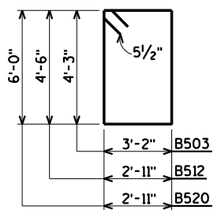
BILL OF BARS

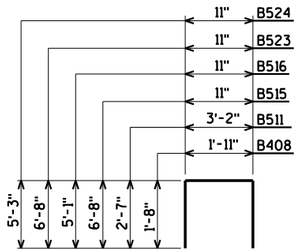
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,740# COATED 3,170# UNCOATED LOCATION
B401		11	28-0	X		BODY ℄ PILES
B402		22	2-3			BODY ℄ PILES
B503		57	15-4	X		BODY VERT.
B604		11	45-7			BODY HORIZ.
B805		6	14-0			BODY HORIZ. B.F. ℄ WING 3
B606		7	21-5			BODY HORIZ. B.F.
B807		7	16-0			BODY HORIZ. B.F. ℄ WING 4
B408		31	5-1	X		BODY VERT.
B409		2	45-4			BODY HORIZ.
B410		3	33-4			BODY HORIZ.
B511		34	8-1	X		BODY VERT.
B512	X	8	15-5	X		WING 3 VERT.
B513	X	6	10-6			WING 3 HORIZ. F.F.
B614	X	10	10-6			WING 3 HORIZ. B.F.
B515	X	10	14-0	X		WING 3 VERT.
B516	X	9	10-10	X		WING 3 VERT.
B417	X	4	7-9			WING 3 HORIZ. E.F.
B418	X	9	13-8			WING 3 HORIZ. E.F.
B619	X	2	13-8			WING 3 HORIZ. TOP E.F.
B520	X	10	18-5	X		WING 4 VERT.
B521	X	7	12-8			WING 4 HORIZ. F.F.
B722	X	9	12-5			WING 4 HORIZ. B.F.
B523	X	13	14-0	X		WING 4 VERT.
B524	X	9	11-2	X		WING 4 VERT.
B425	X	4	7-9			WING 4 HORIZ. E.F.
B426	X	9	15-8			WING 4 HORIZ. E.F.
B627	X	2	15-8			WING 4 HORIZ. TOP E.F.
B428	X	4	4-7			BODY VERT. ℄ WING 3
B429	X	4	6-0			BODY VERT. ℄ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



B401





⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL SHEET 9.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

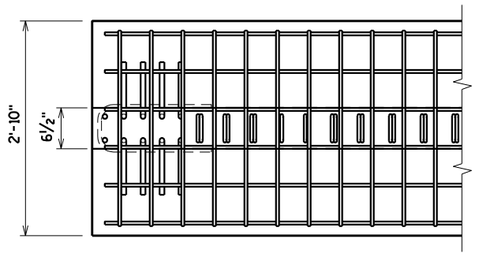
STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

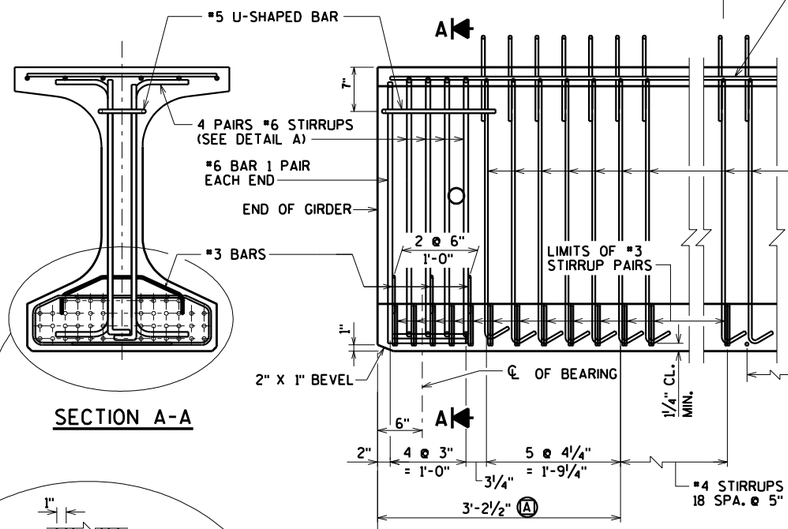
EAST ABUTMENT DETAILS AND BILL OF BARS

SHEET 14 OF 26
525

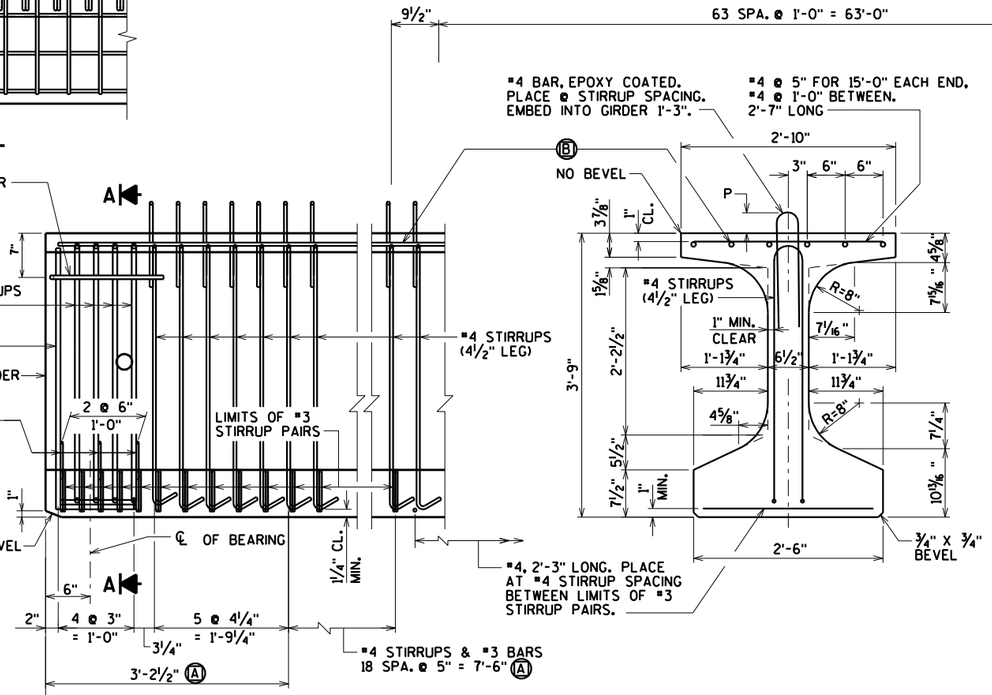
ORIGINAL PLANS PREPARED BY
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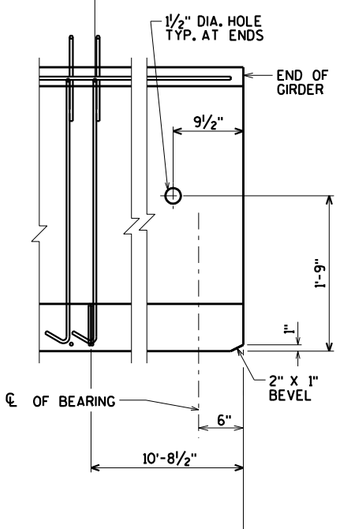


TOP FLANGE



SECTION A-A

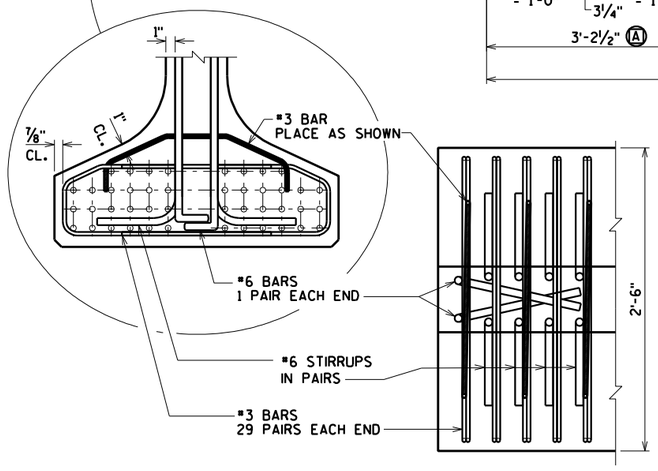




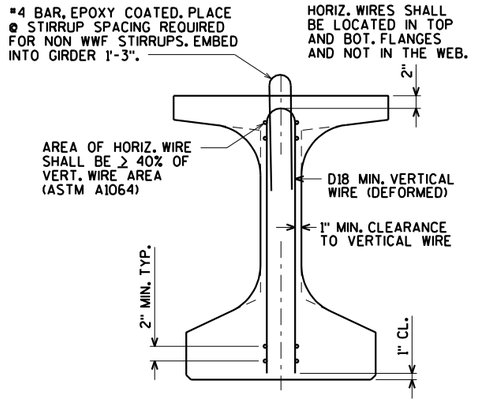
SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

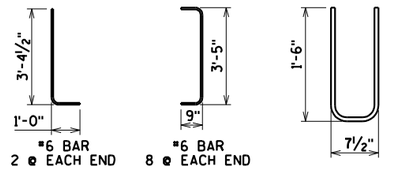
(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-11"

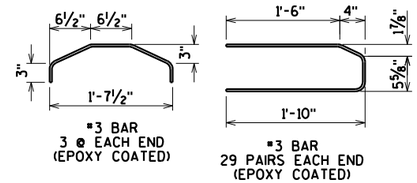


DETAIL A
BOTTOM FLANGE



SECTION THRU GIRDER
SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1 & 5	86'-0"	0.3	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.3	8,000	9"	8"	9"	0.6	26	6,400	40	13	16	4
1	2-4	86'-0"	0.4	0.7	1.0	1.2	1.2	1.2	1.0	0.7	0.4	8,000	9"	8"	9"	0.6	26	6,400	40	13	16	4

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO THE SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

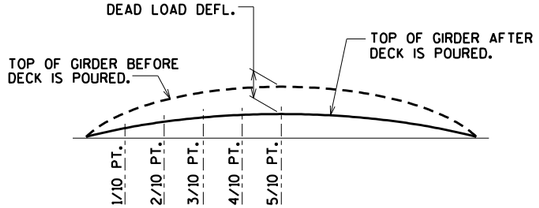
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45W" PRESTRESSED GIRDER DETAILS

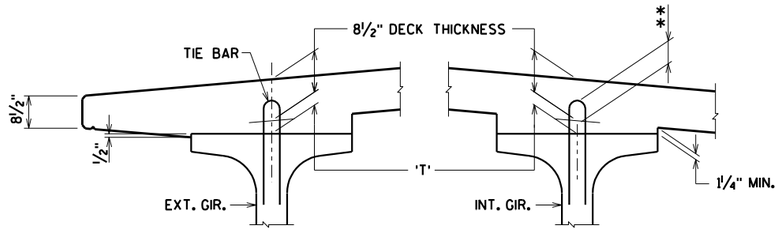
SHEET 15 OF 26
526

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DEAD LOAD DEFLECTION DIAGRAM



DECK HAUNCH DETAIL

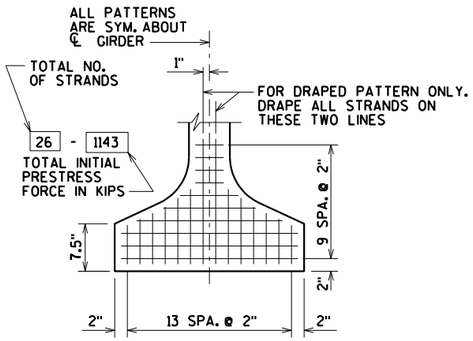
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

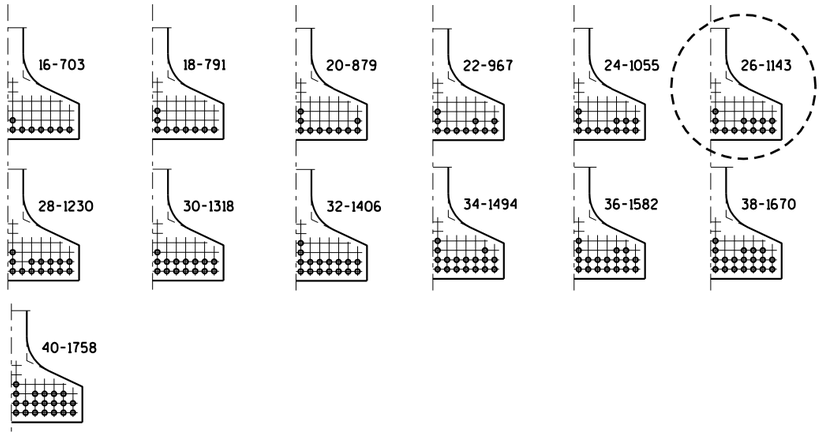
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

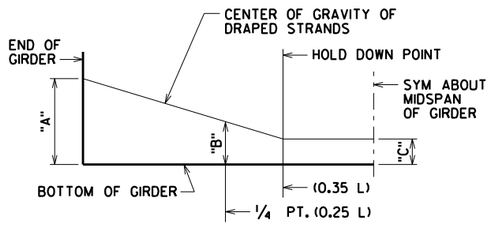


TYP. STRAND PATTERN



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



DRAPED STRAND PROFILE

THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.)
1	2.2

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS. THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STRUCTURE B-13-794

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45W" PRESTRESSED GIRDER DETAILS

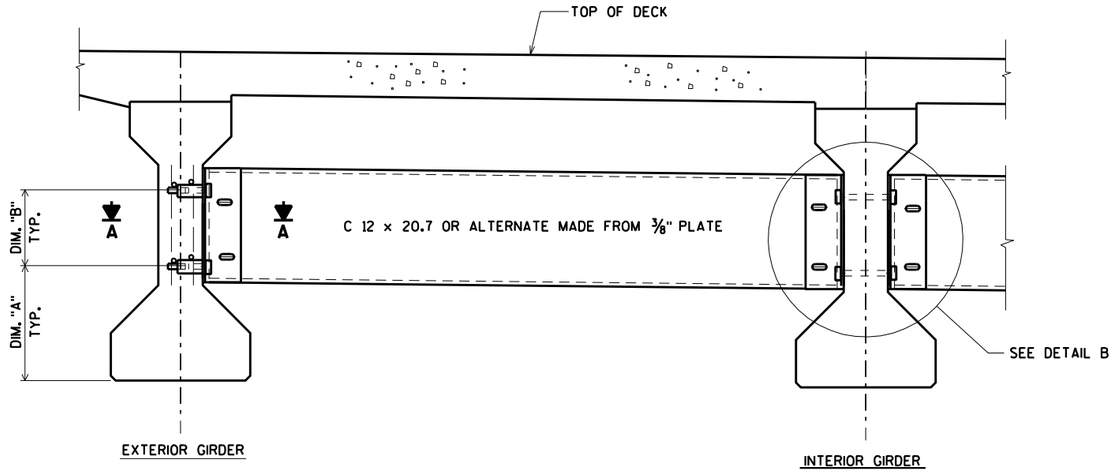
SHEET 16 OF 26
527

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TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	*DIM. "X"
45W"	1'-9⅛"	8⅞"	1'-0½"	2¾"



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-794", EACH.

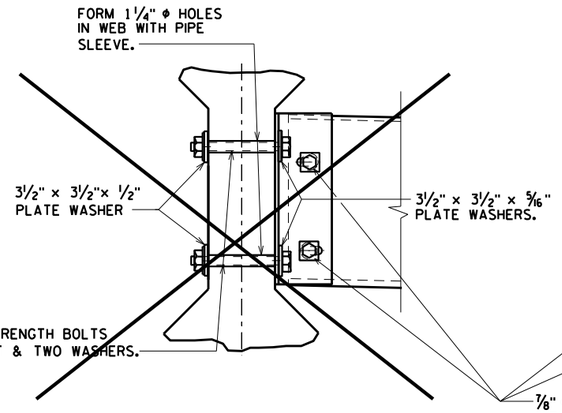
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

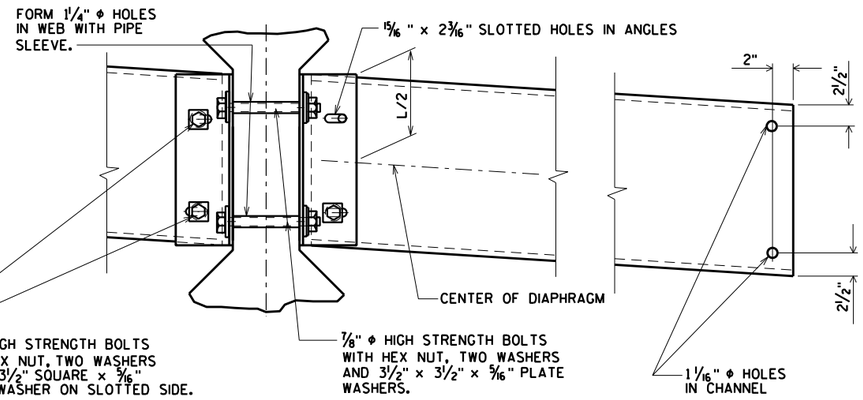
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

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.

FOR DIAPHRAGM SPACING SEE SHEET 19.

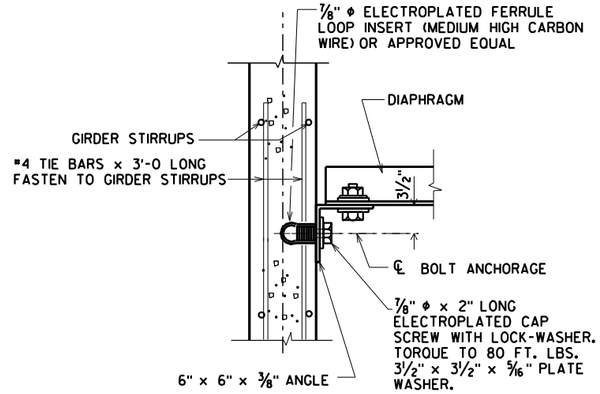


(FOR STAGGERED DIAPHRAGM)



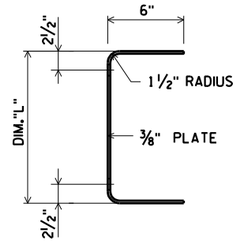
(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B

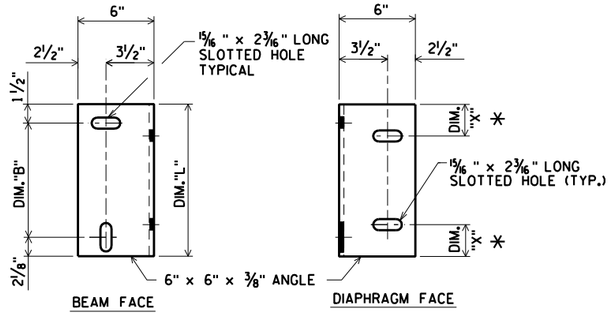


SECT. A-A

(FOR EXTERIOR ATTACHMENT)

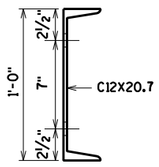


SECTION THRU ALTERNATE DIAPHRAGM



DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU DIAPHRAGM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

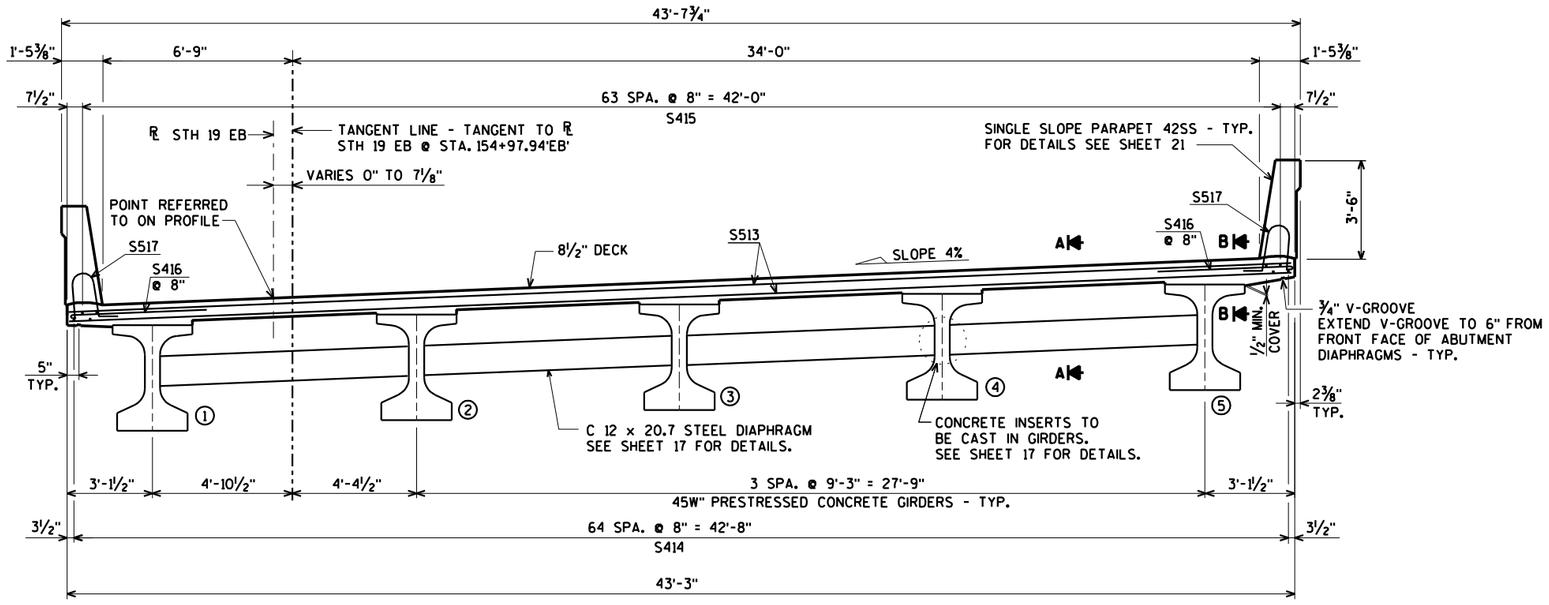
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STEEL DIAPHRAGM DETAILS

SHEET 17 OF 26
528

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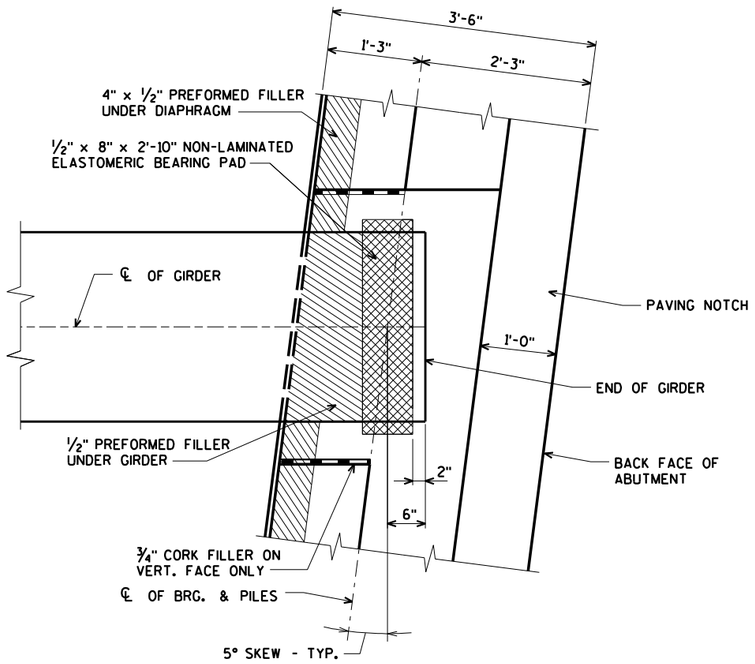
TYPICAL CROSS SECTION THRU BRIDGE

(LOOKING EAST)

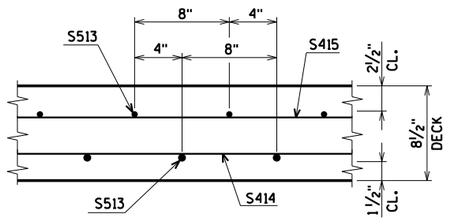
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	28,490# COATED LOCATION
S401	X	48	3-3	X		DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	16	5-5			DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	84	12-7	X		DIAPH. @ ABUT. VERT.
S504	X	20	10-9	X		DIAPH. @ ABUT. VERT.
S505	X	84	6-3	X		DIAPH. @ ABUT. VERT.
S606	X	12	45-7			DIAPH. @ ABUT. HORIZ.
S607	X	64	5-9			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	4	2-9			DIAPH. @ ABUT. HORIZ. @ CORNERS
S609	X	12	3-5			DIAPH. @ ABUT. HORIZ. @ CORNERS
S510	X	4	15-3	X		DIAPH. @ ABUT. VERT. CORNER WINGS 1 & 3
S511	X	4	15-7	X		DIAPH. @ ABUT. VERT. CORNER WINGS 2 & 4
S512	X	20	6-0			DIAPH. @ ABUT. HORIZ. THRU GDRS.
S513	X	261	43-0			DECK TRANS. TOP & BOT.
S414	X	195	30-3			DECK LONG. BOT.
S415	X	128	44-6			DECK LONG. TOP
S416	X	262	4-6	X		DECK TRANS. TOP @ EDGES
S517	X	262	4-5	X		DECK @ PARAPET
S518	X	262	6-8	X		PARAPET VERT.
S519	X	32	44-6			PARAPET HORIZ.

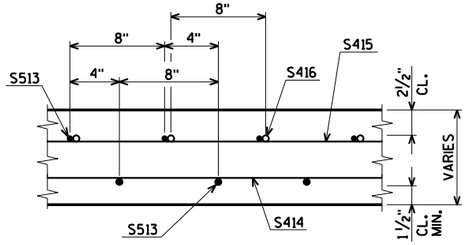
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



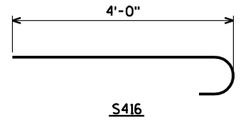
BEARING PAD DETAIL

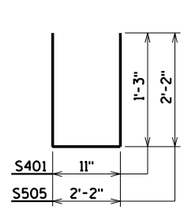


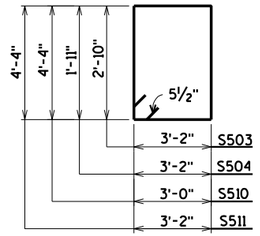
SECTION A

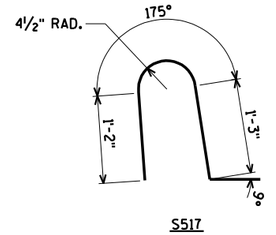


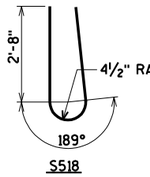
SECTION B











NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-13-794

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SUPERSTRUCTURE

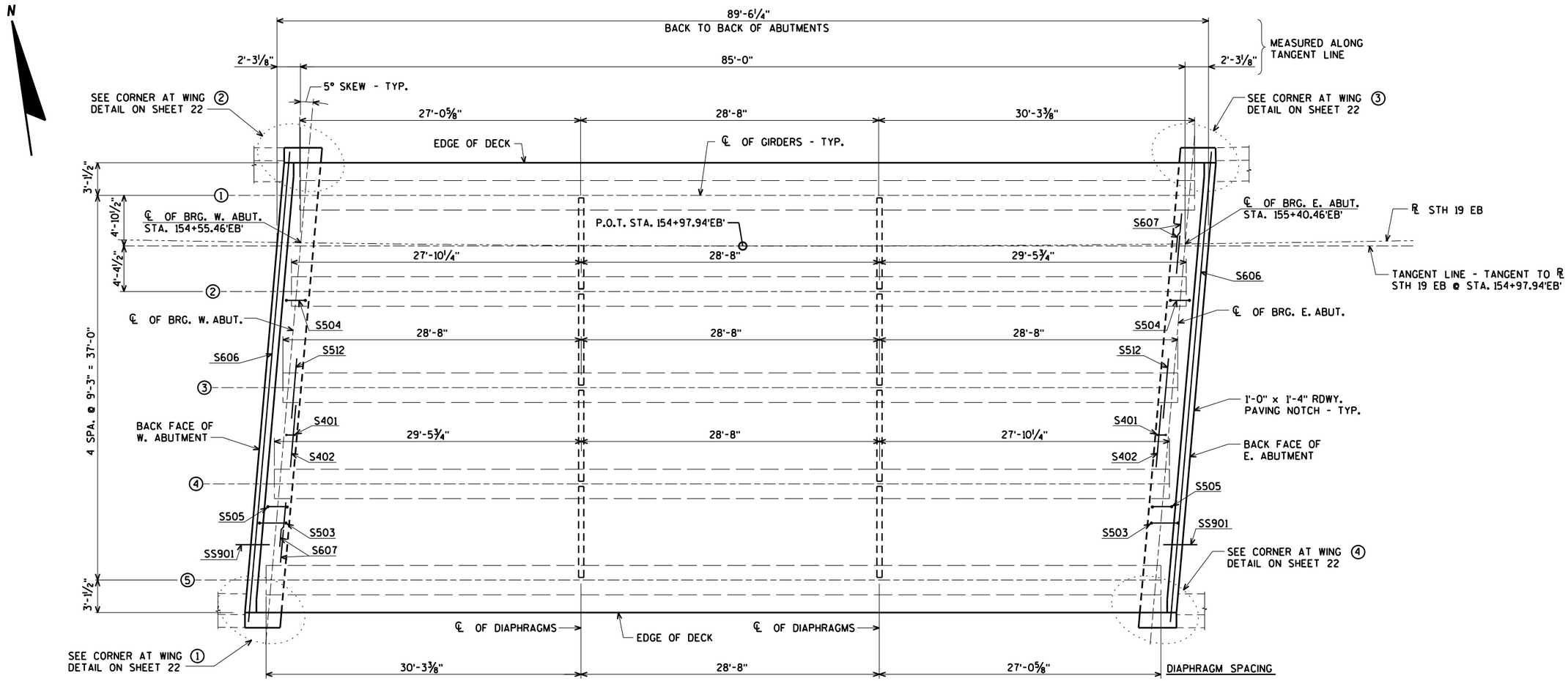
SHEET 18 OF 26
529

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2/25/2019
PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

5290-00-72



PLAN

TOP OF DECK ELEVATIONS

LOCATION	℄ OF BRG. W. 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 BRG. E. ABUT.
N. EDGE OF DECK	872.20	872.16	872.12	872.07	872.03	871.99	871.95	871.90	871.86	871.82	871.78
FACE OF N. PARAPET	872.20	872.16	872.12	872.07	872.03	871.99	871.95	871.90	871.86	871.82	871.78
GIRDER 1	872.29	872.24	872.19	872.15	872.11	872.06	872.02	871.98	871.94	871.90	871.86
℄ STH 19 EB	872.47	872.43	872.39	872.35	872.30	872.26	872.22	872.18	872.13	872.09	872.05
GIRDER 2	872.66	872.61	872.57	872.52	872.48	872.44	872.40	872.35	872.31	872.27	872.24
GIRDER 3	873.03	872.99	872.94	872.90	872.85	872.81	872.77	872.73	872.69	872.65	872.61
GIRDER 4	873.41	873.36	873.32	873.27	873.23	873.19	873.14	873.10	873.06	873.02	872.98
GIRDER 5	873.78	873.74	873.69	873.65	873.60	873.56	873.52	873.48	873.44	873.40	873.34
FACE OF S. PARAPET	873.85	873.80	873.76	873.72	873.68	873.63	873.59	873.55	873.51	873.47	873.43
S. EDGE OF DECK	873.85	873.80	873.76	873.72	873.68	873.63	873.59	873.55	873.51	873.47	873.43

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STRUCTURE B-13-794

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SUPERSTRUCTURE PLAN

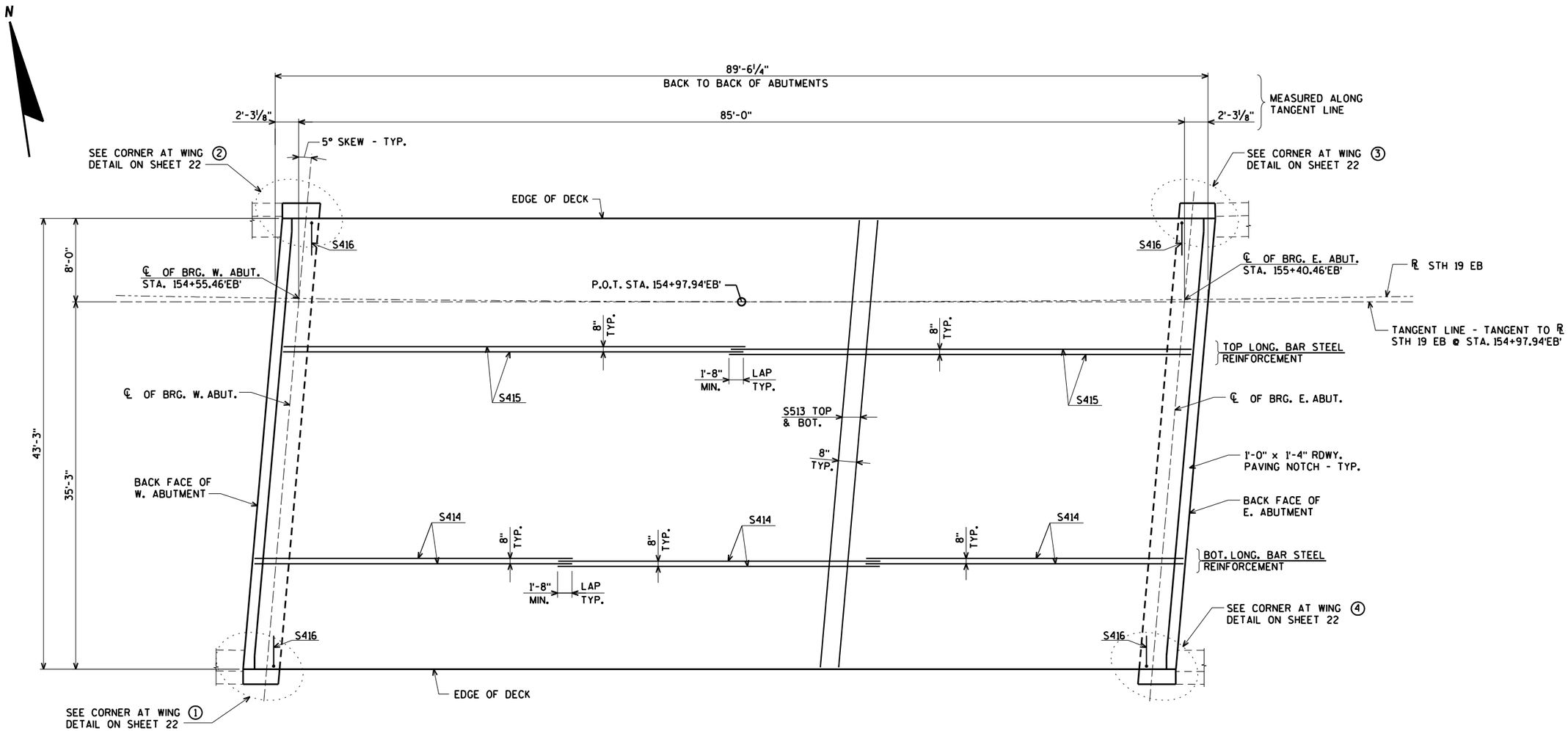
SHEET 19 OF 26
530

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DECK BAR STEEL LAYOUT

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8

8

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STRUCTURE B-13-794

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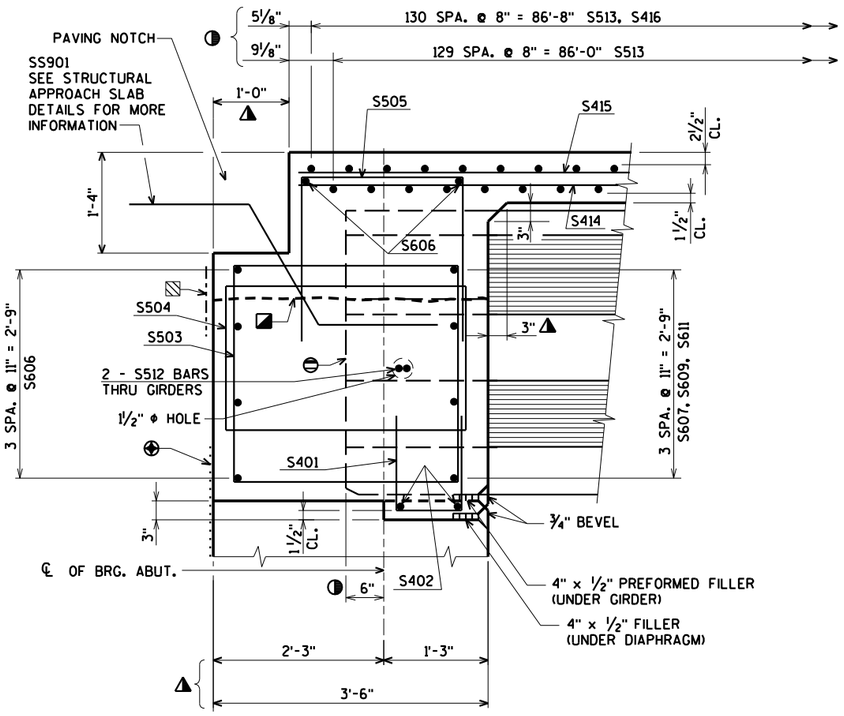
DECK STEEL LAYOUT

SHEET 20 OF 26
531

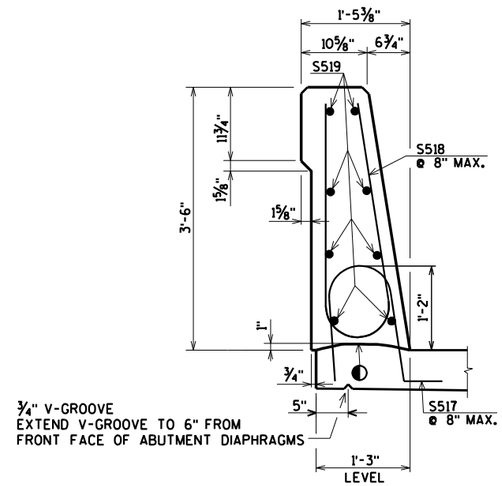
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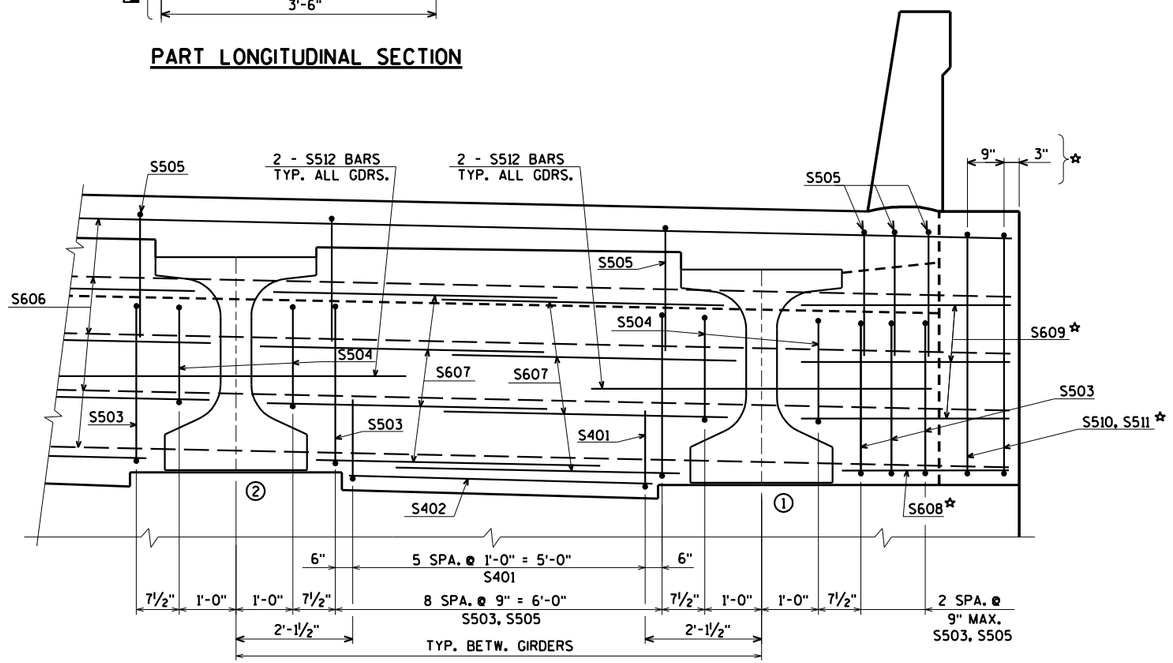


PART LONGITUDINAL SECTION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

(LOOKING WEST AT GIRDERS ① & ②. OTHER LOCATIONS SIMILAR)

☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 22

⊖ END OF GIRDER

⊕ 18" RUBBERIZED MEMBRANE WATERPROOFING

◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.

◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "CONCRETE MASONRY BRIDGES"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

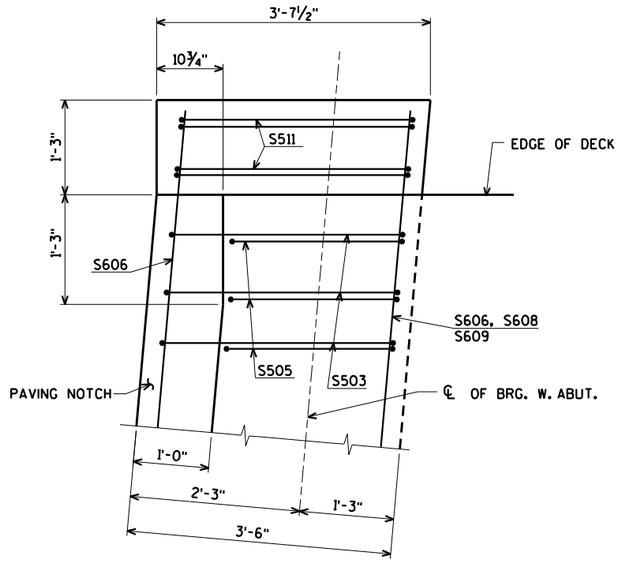
DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE DETAILS

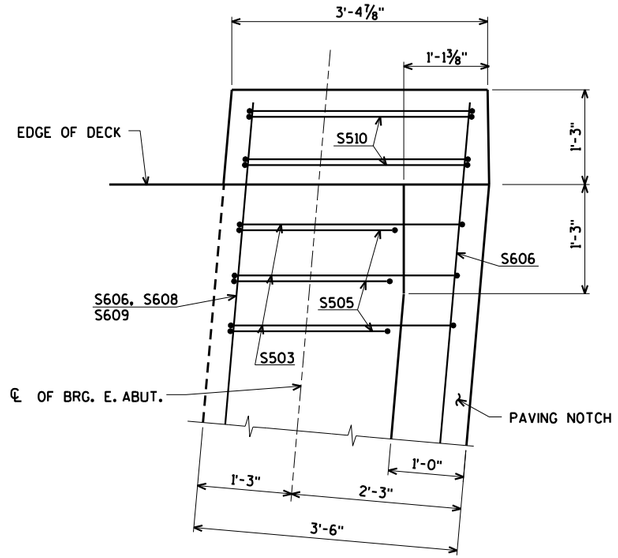
SHEET 21 OF 26
532

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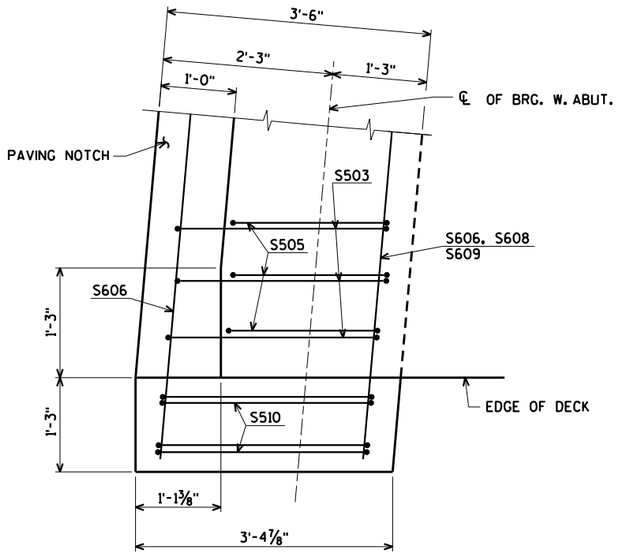
$PRFNAME$
U:±41-0717.00 - Dane County, STH 19 over Yahara River±Structures±B-13-794±B-13-794 sup.dgn



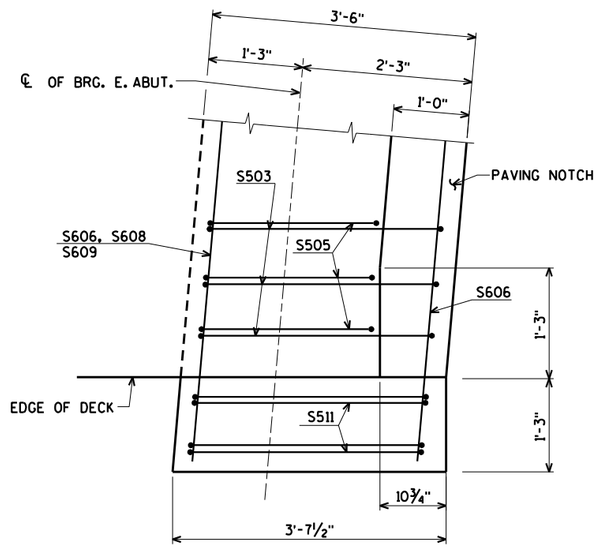
CORNER AT WING 2 DETAIL



CORNER AT WING 3 DETAIL



CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-13-794

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SUPERSTRUCTURE
CORNER DETAILS

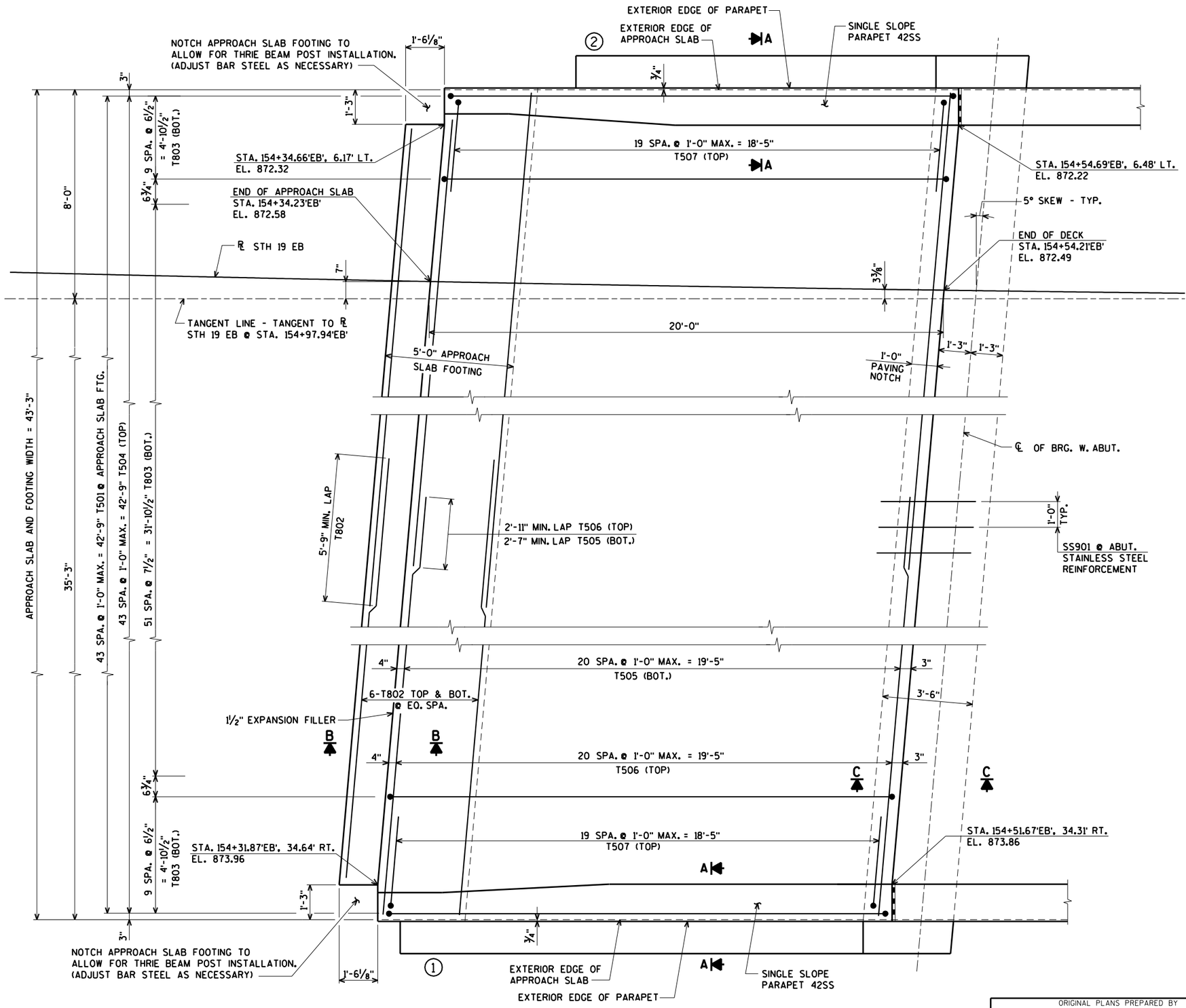
SHEET 22 OF 26
533

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STATE PROJECT NUMBER

5290-00-72



WEST APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 25

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D. CBM

WEST STRUCTURAL APPROACH SLAB

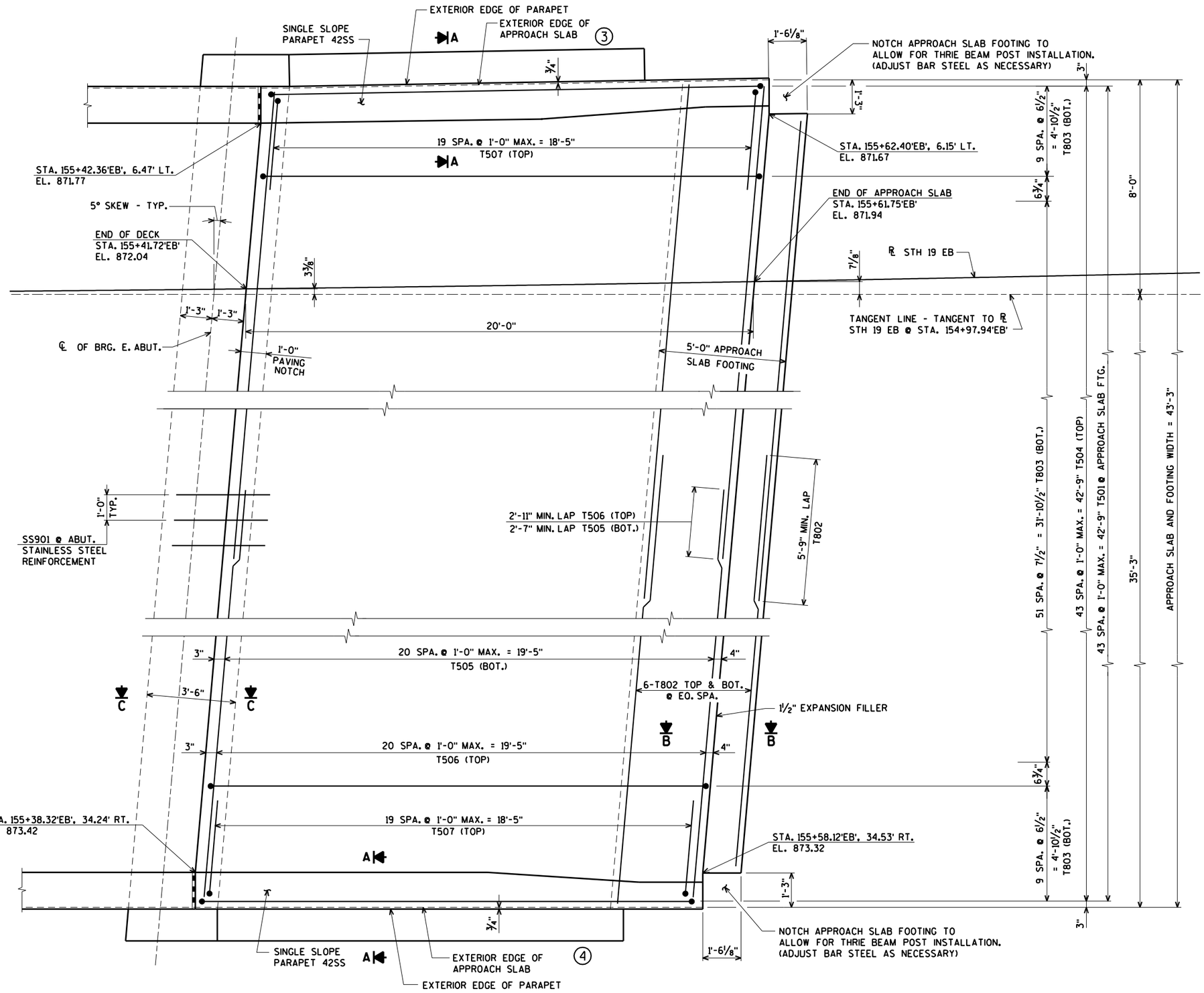
SHEET 23 OF 26
534

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2/23/2019
PENTABLE:BReau_shd_util.tbl

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8



EAST APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 25

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

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EAST STRUCTURAL APPROACH SLAB

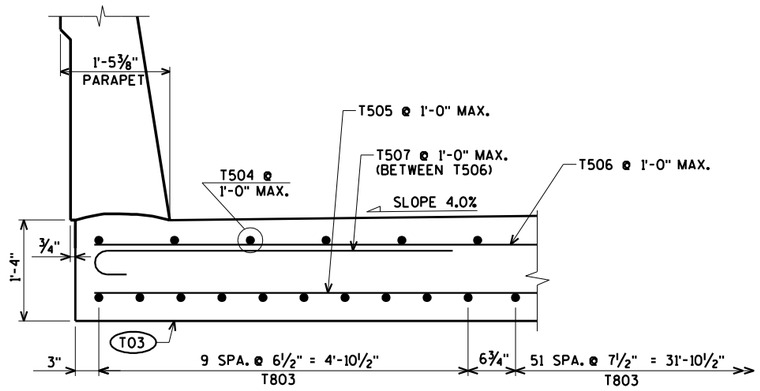
SHEET 24 OF 26
535

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2/23/2019
PENTABLE:BReau_shd_util.tbl

$PRFNAME$
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STATE PROJECT NUMBER
5290-00-72



SECTION A

(NORTH SIDE SHOWN, SOUTH SIDE SIMILAR)

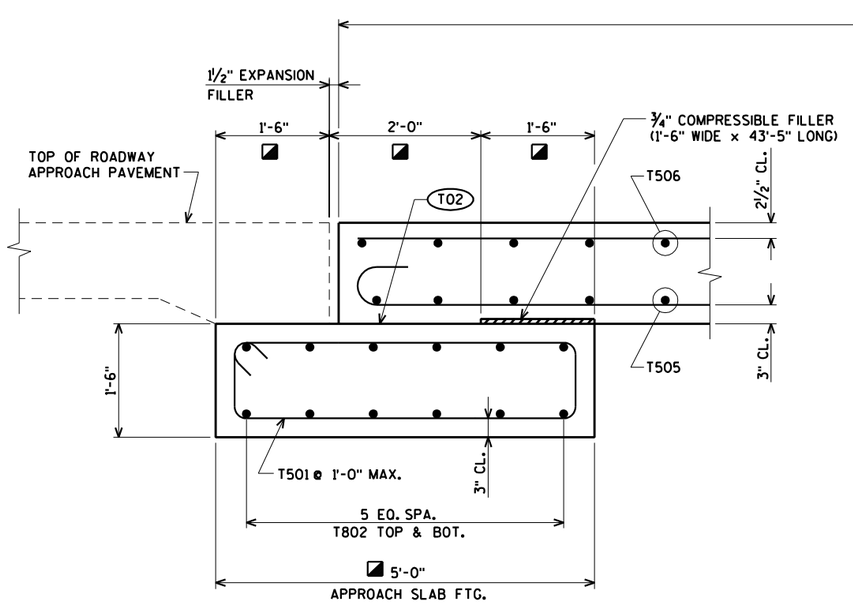
FOR LOCATIONS OF SECTIONS A, B, AND C, SEE SHEETS 23 & 24

BILL OF BARS

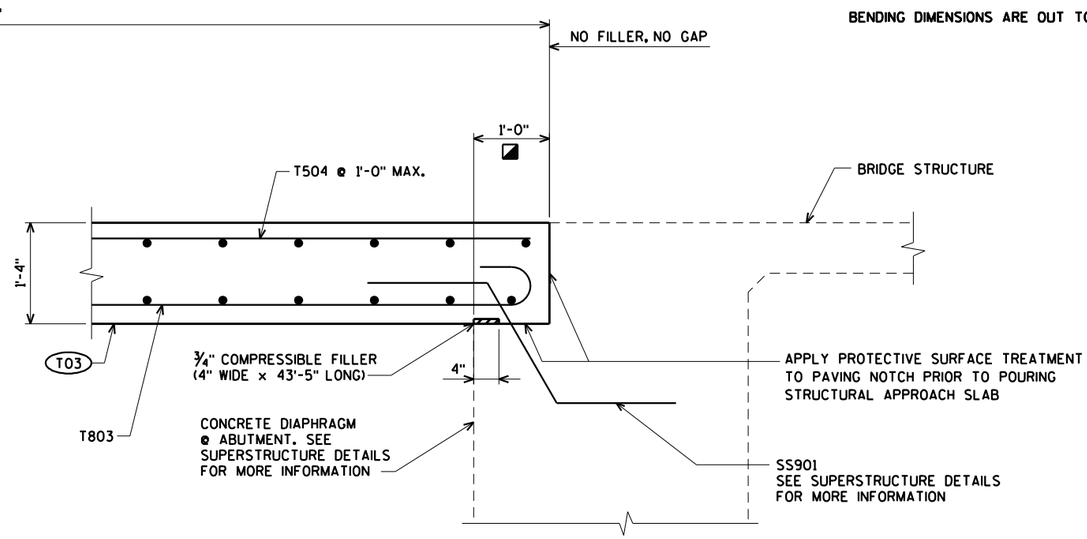
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	730# STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		43	5-0	X			CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	9,300# COATED (PER APPROACH SLAB) LOCATION
T501	X	44	12-2	X			APPROACH SLAB FTG. - STIRRUP
T802	X	24	24-5				APPROACH SLAB FTG. - TRANS.
T803	X	72	21-4	X			APPROACH SLAB - LONG. - BOT.
T504	X	44	19-6				APPROACH SLAB - LONG - TOP
T505	X	42	22-10				APPROACH SLAB - TRANS. - BOT.
T506	X	42	23-0				APPROACH SLAB - TRANS. - TOP
T507	X	40	4-1	X			APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

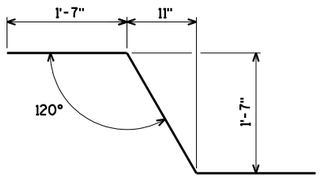
◪ MEASURED NORMAL TO ABUTMENT

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

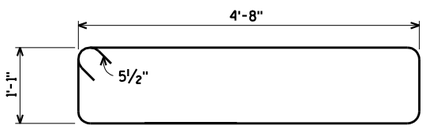
(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

POLYETHYLENE SHEETS ARE INCLUDED WITH "HPC MASONRY STRUCTURES".

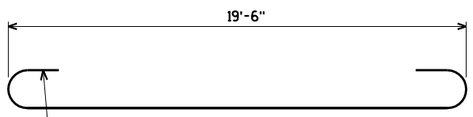
ALL STRUCTURAL APPROACH SLAB CONCRETE, PAID FOR UNDER "HPC MASONRY STRUCTURES".



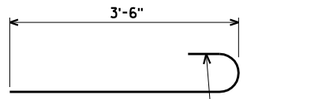
SS901



T501



T803



T507

NO.	DATE	REVISION	BY

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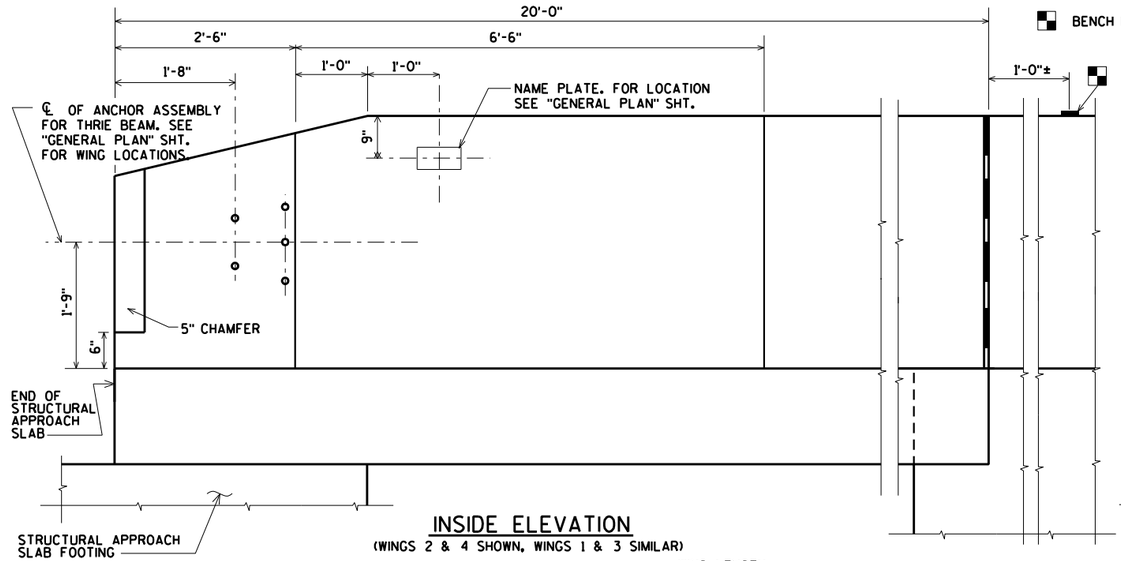
STRUCTURE B-13-794

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STRUCTURAL APPROACH SLAB DETAILS

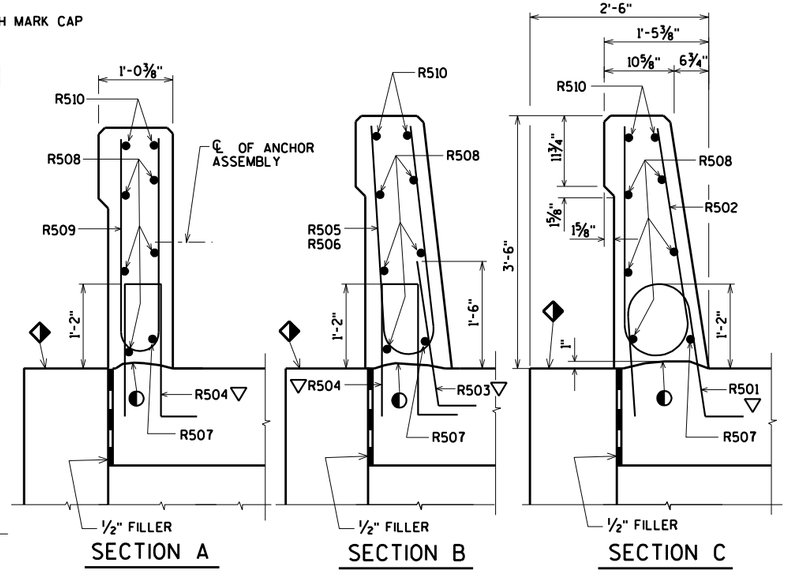
SHEET 25 OF 26
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INSIDE ELEVATION

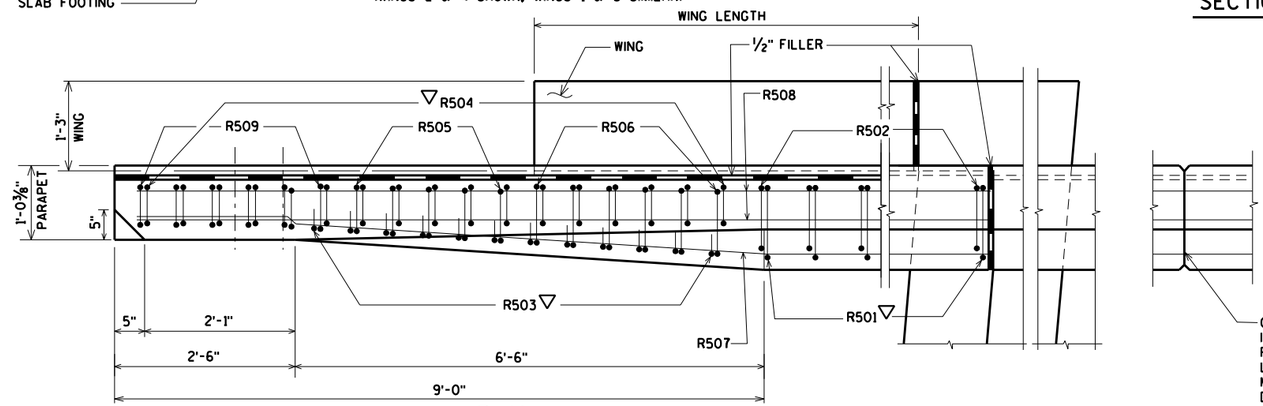
(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)



SECTION A

SECTION B

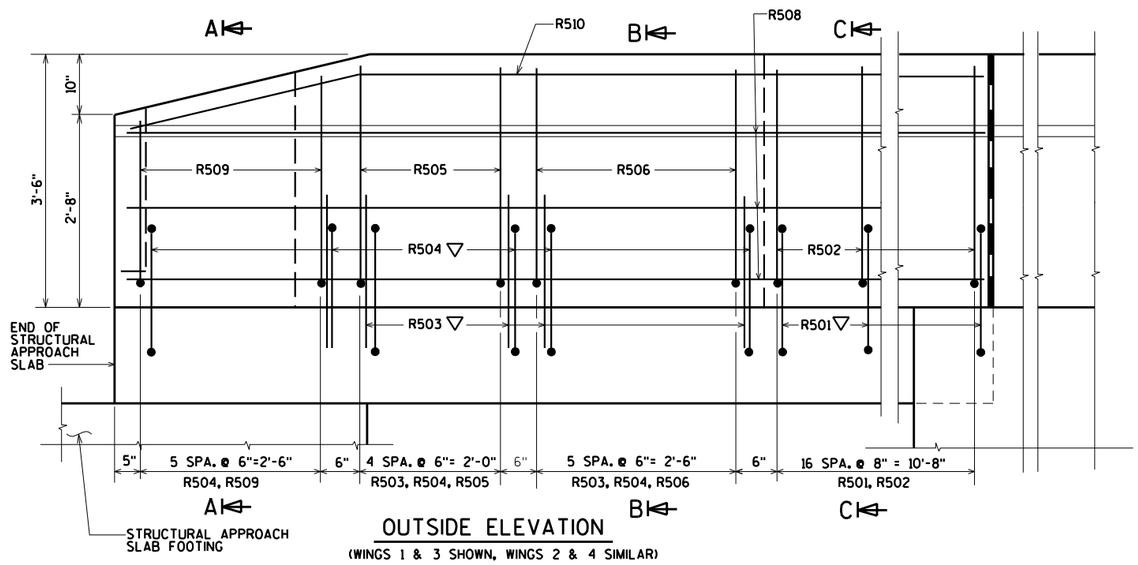
SECTION C



PLAN

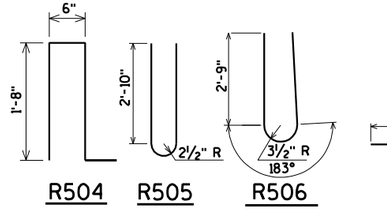
(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)

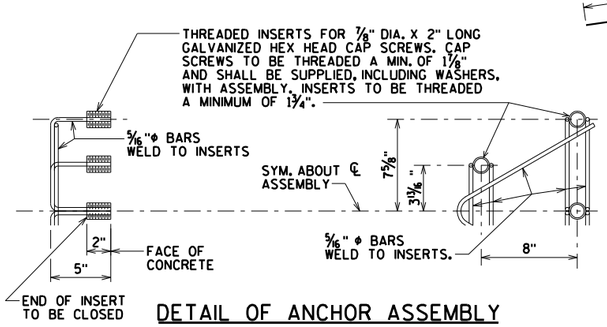
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION

(WINGS 1 & 3 SHOWN, WINGS 2 & 4 SIMILAR)





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.

STATE PROJECT NUMBER

5290-00-72

1,150* COATED WEST STRUCTURAL APPROACH SLAB
1,150* COATED EAST STRUCTURAL APPROACH SLAB

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

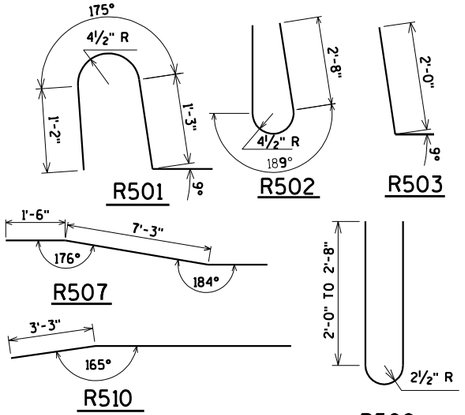
BAR MARK	COAT	WEST STRUCT. APPR. SLAB	EAST STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	4-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19-8	X		PARAPET HORIZ.
R508	X	10	10	19-8			PARAPET HORIZ.
R509	X	12	12	5-5	X	◭	PARAPET VERT.
R510	X	4	4	19-8	X		PARAPET HORIZ.

◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE

▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

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SINGLE SLOPE PARAPET 42SS

SHEET 26 OF 26
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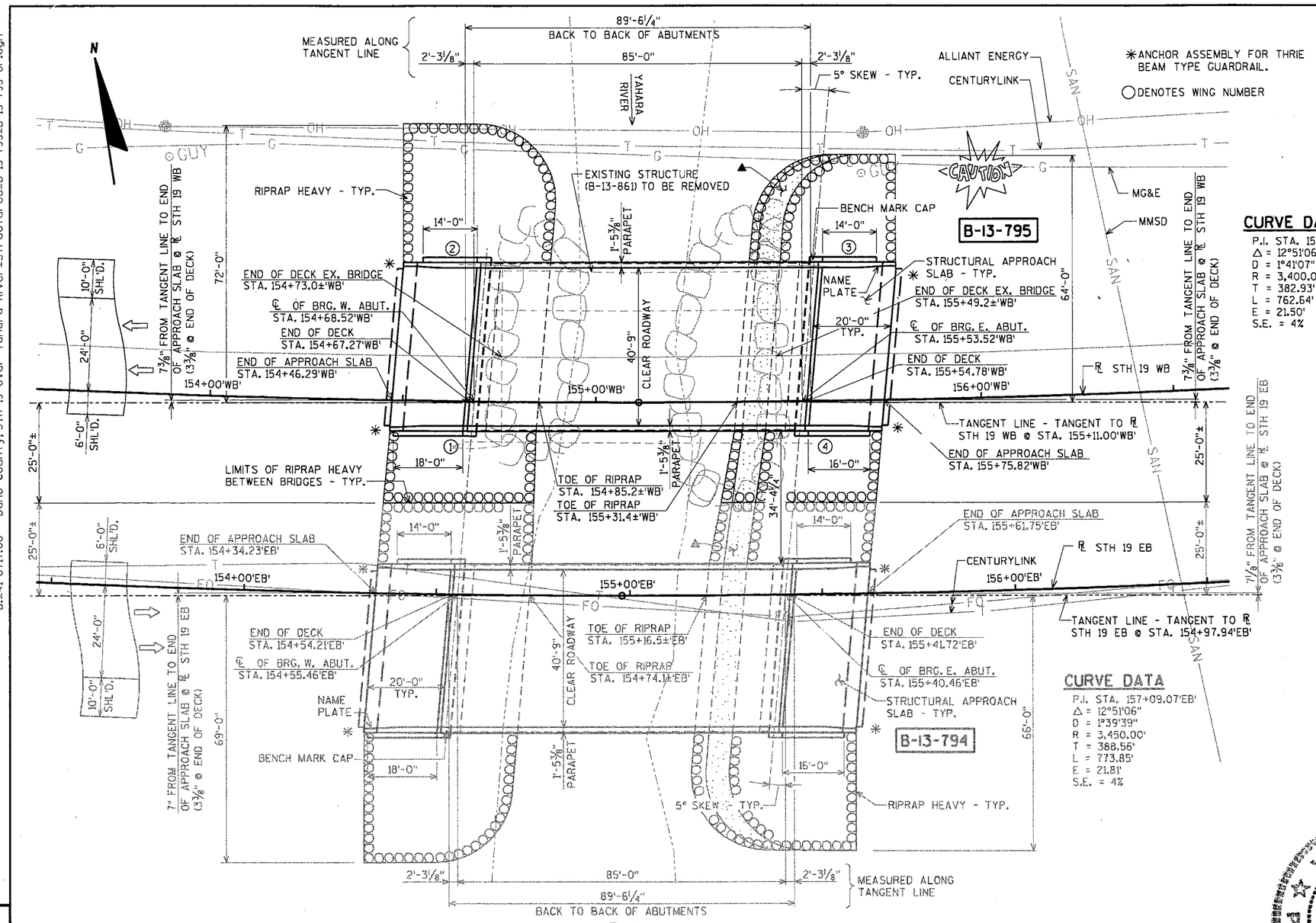
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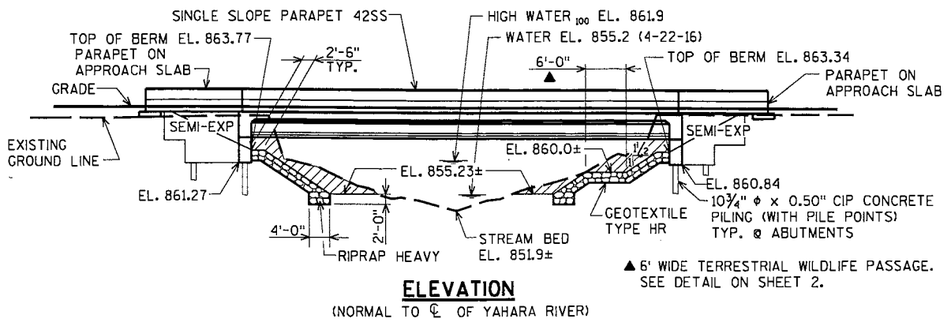
5290-00-72



PLAN

SINGLE SPAN - 45W-INCH PRESTRESSED CONCRETE GIRDER BRIDGE

▨ COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-13-795".



ELEVATION

(NORMAL TO ℄ OF YAHARA RIVER)

▲ 6' WIDE TERRESTRIAL WILDLIFE PASSAGE. SEE DETAIL ON SHEET 2.

CURVE DATA

P.I. STA. 157+14.77'WB'
Δ = 12°51'06"
D = 1°41'07"
R = 3,400.00'
T = 382.93'
L = 762.64'
E = 21.50'
S.E. = 4%

CURVE DATA

P.I. STA. 157+09.07'EB'
Δ = 12°51'06"
D = 1°39'39"
R = 3,450.00'
T = 388.56'
L = 773.85'
E = 21.81'
S.E. = 4%

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION & DESIGN DATA
3. QUANTITES AND NOTES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT PILE LAYOUT
7. WEST ABUTMENT WING 1 DETAILS
8. WEST ABUTMENT WING 2 DETAILS
9. WEST ABUTMENT DETAILS AND BILL OF BARS
10. EAST ABUTMENT
11. EAST ABUTMENT PILE LAYOUT
12. EAST ABUTMENT WING 3 DETAILS
13. EAST ABUTMENT WING 4 DETAILS
14. EAST ABUTMENT DETAILS AND BILL OF BARS
15. 45W" PRESTRESSED GIRDER DETAILS
16. 45W" PRESTRESSED GIRDER DETAILS
17. STEEL DIAPHRAGM DETAILS
18. SUPERSTRUCTURE
19. SUPERSTRUCTURE PLAN
20. DECK STEEL LAYOUT
21. SUPERSTRUCTURE DETAILS
22. SUPERSTRUCTURE CORNER DETAILS
23. WEST STRUCTURAL APPROACH SLAB
24. EAST STRUCTURAL APPROACH SLAB
25. STRUCTURAL APPROACH SLAB DETAILS
26. SINGLE SLOPE PARAPET 42SS

FOR TYPICAL SECTION AND DESIGN DATA, SEE SHEET 2

WISCONSIN
CHRISTOPHER B. McMAHON
E-28454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
4/16/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 05/06/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-795

STH 19 WB OVER YAHARA RIVER

COUNTY	TOWN/~~CITY~~/VILLAGE
DANE	T WESPORT, V DEFOREST

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ZSS	JLB	CLS	CBM

GENERAL PLAN

SHE 538 F 26

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U:±41-0717.00 - Dane County, STH 19 over Yahara River±Structures±B-13-795±B-13-795 GP.dgn

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

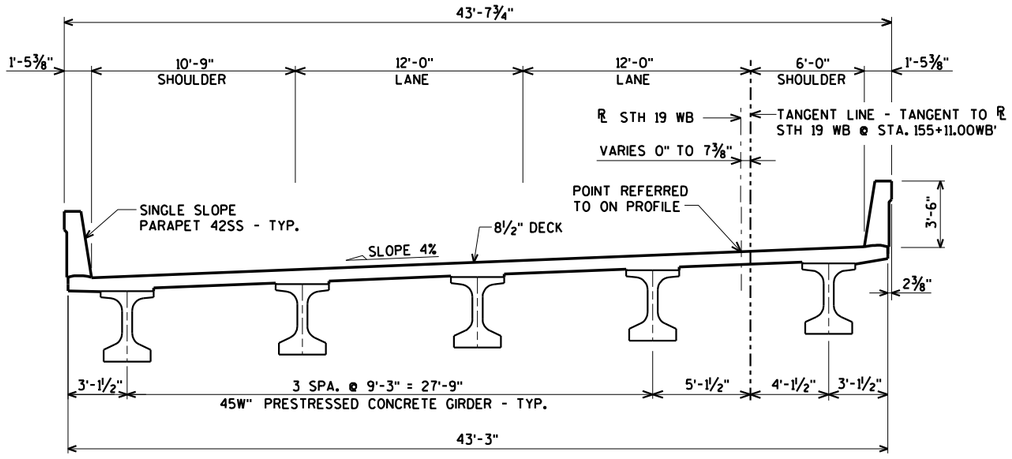
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4/16/2019

PENTABLE:BReau_shd_utfil.tbl

I.D.

DATE:



TYPICAL CROSS SECTION THRU BRIDGE

(LOOKING EAST)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.12
OPERATING RATING FACTOR: 1.70
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
	ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
STEEL PILING ASTM A252 (GRADE 3)		f_y =	45,000 p.s.i.
45W" PRESTRESSED GIRDER			
CONCRETE MASONRY		f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF		=	270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY	2 YEAR FREQUENCY
Q_{100} = 2,376 c.f.s.	Q_2 = 450 c.f.s.
VEL. = 6.5 f.p.s.	VEL. = 2.2 f.p.s.
HW_{100} = EL. 861.9	HW_2 = EL. 857.9

WATERWAY AREA = 368 sq. ft.
DRAINAGE AREA = 43.1 sq. mi.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2007)

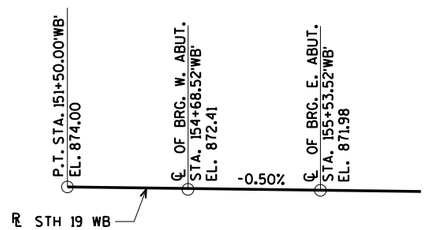
FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 10¾" ϕ x 0.50" CIP CONRETE (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 40'-0" AT BOTH ABUTMENTS.

‡ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

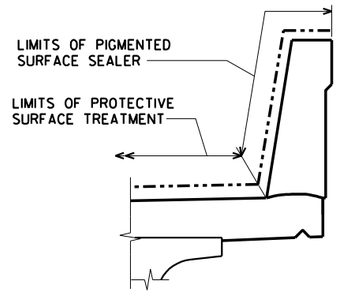
A.A.D.T. = 18,500 (2020)
A.A.D.T. = 23,500 (2040)
R.D.S. = 60 M.P.H.



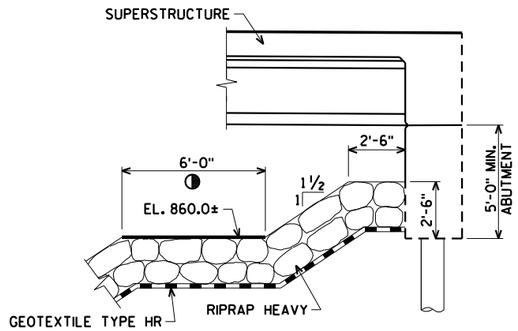
PROFILE GRADE LINE

(STH 19 WB)

BENCH MARK:
DISC ON SW WINGWALL
STA. 154+69'WB', 12' RT.
EL. 873.45



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAILS



TERRESTRIAL WILDLIFE PASSAGE DETAIL

◑ FILL VOIDS IN RIPRAP HEAVY WITH TRAFFIC BOND LIMESTONE SCREENINGS ⅜-INCH TO FULLY FILL ALL VOIDS AND LEAVE, ON AVERAGE, TWO INCHES ABOVE THE LOWEST ROCK POINTS WHERE THEY ABUT EACH OTHER. PROVIDE LEVEL SURFACE OF THE TERRESTRIAL WILDLIFE PASSAGE. TRAFFIC BOND LIMESTONE TO BE INCIDENTAL TO THE BID ITEM "RIPRAP HEAVY".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

TYPICAL SECTION & DESIGN DATA

SHEET 2 OF 26
539

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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4/17/2019

PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

5290-00-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. STR. APR. SLAB	W. ABUT.	E. ABUT.	E. STR. APR. SLAB	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 155+11'WB'	LS	-----	-----	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-795	LS	-----	-----	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	180	180	-----	-----	360
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	185	-----	-----	185	-----	370
502.0100	CONCRETE MASONRY BRIDGES	CY	60	55	53	60	182	410
502.3200	PROTECTIVE SURFACE TREATMENT	SY	90	-----	-----	90	420	600
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	20	90	130
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	-----	-----	-----	-----	430	430
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	3,390	3,170	-----	-----	6,560
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	10,450	1,990	1,740	10,450	28,490	53,120
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	730	-----	-----	730	-----	1,460
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	5	5	-----	-----	10
506.4000	STEEL DIAPHRAGMS B-13-795	EACH	-----	-----	-----	-----	8	8
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	12	12	-----	-----	24
550.0500	PILE POINTS	EACH	-----	13	13	-----	-----	26
● 550.2108	PILING CIP CONCRETE 10¾ X 0.50-INCH	LF	-----	520	520	-----	-----	1,040
606.0300	RIPRAP HEAVY	CY	-----	235	245	-----	-----	480
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	95	95	-----	-----	190
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-----	40	40	-----	-----	80
645.0120	GEOTEXTILE TYPE HR	SY	-----	425	435	-----	-----	860
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	-----	-----	½" & ¾"

● PILING TO BE ASTM A252 (GRADE 3) WITH A fy = 45,000 p.s.i.

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 SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-795" SHALL BE THE EXISTING GROUNDLINE.

EXISTING BRIDGE B-13-861, IS A TWO-SPAN CONCRETE HAUNCH SLAB BRIDGE WITH AN OVERALL LENGTH OF 77'-8" AND A CLEAR ROADWAY WIDTH OF 44'-0". THE EXISTING BRIDGE IS TO BE REMOVED BEFORE CONSTRUCTING B-13-795.

AT BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 2.

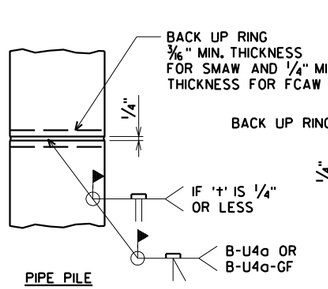
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

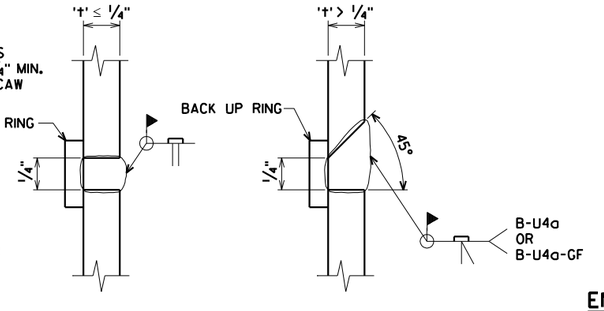
THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

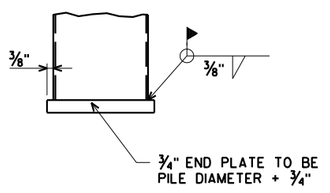


PILE SPLICE DETAIL

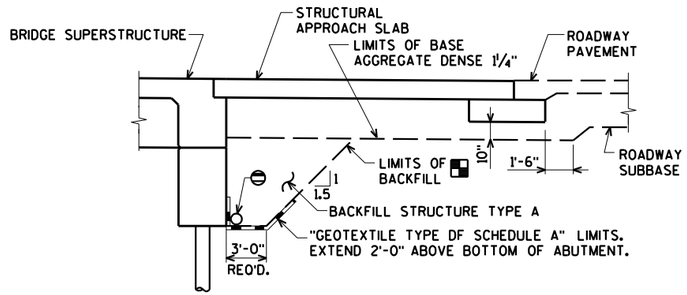
CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL



END PLATE DETAIL FOR CIP PILING



BACKFILL STRUCTURE LIMITS

▪ 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 9.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

QUANTITIES AND NOTES

SHEET 3 OF 26
540

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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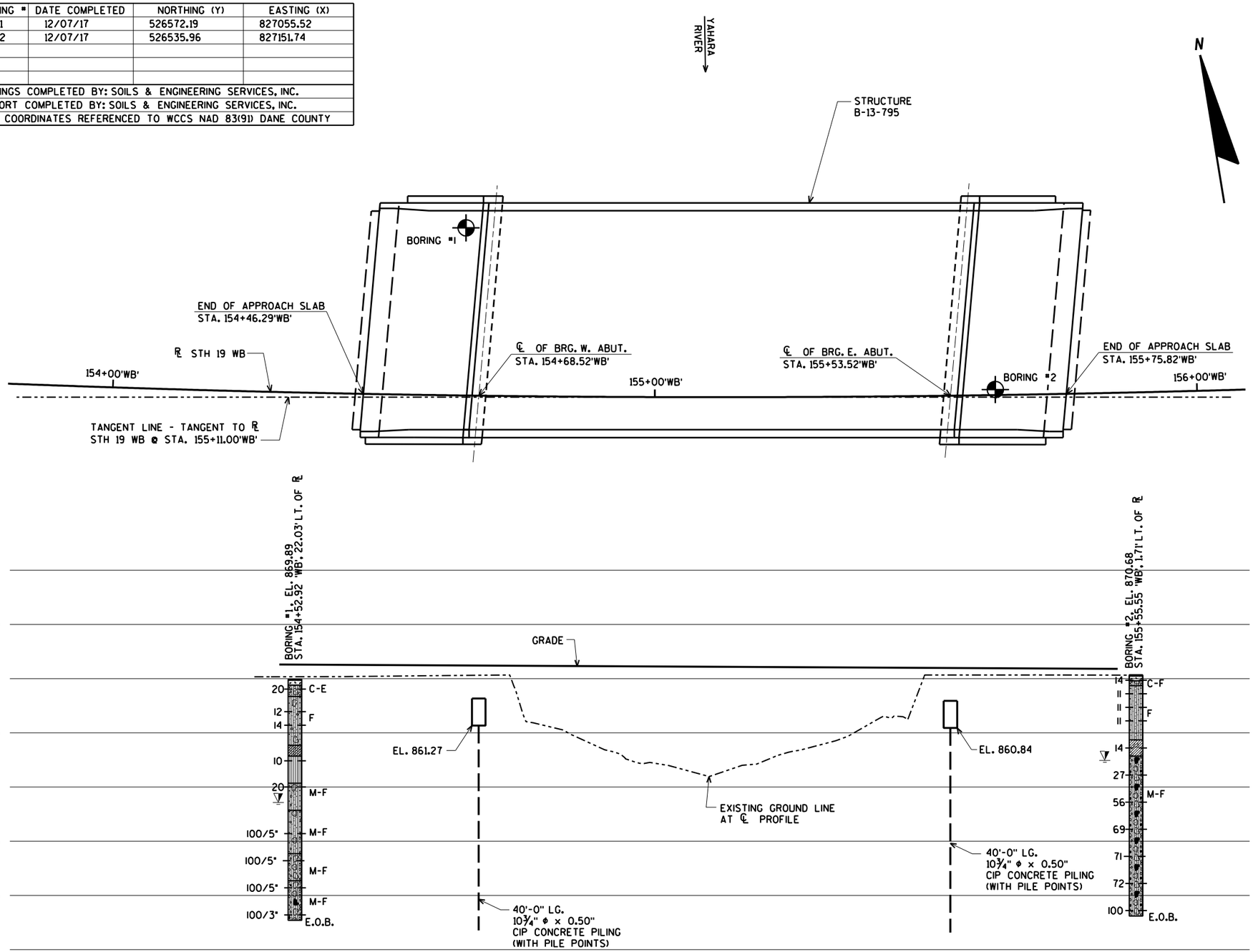
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PENTABLE:BReau_shd_util.tbl

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	12/07/17	526572.19	827055.52
2	12/07/17	526535.96	827151.74
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



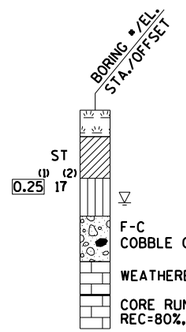
STATE PROJECT NUMBER

5290-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) 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-13-795

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SUBSURFACE EXPLORATION

SHEET 4 OF 26
541

8

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4/16/2019

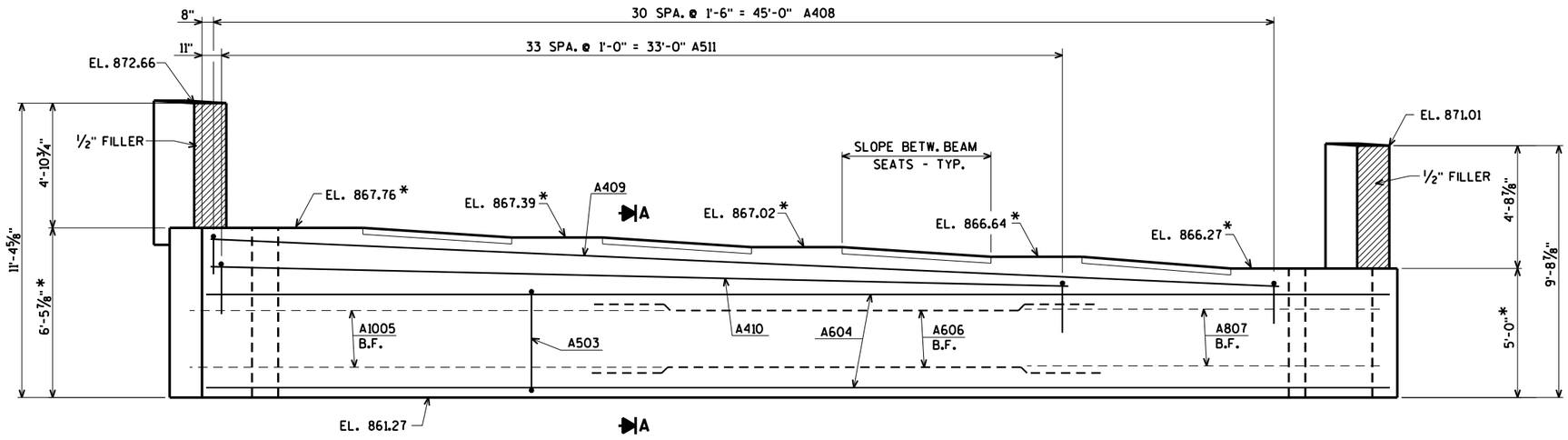
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NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES W. ABUT.

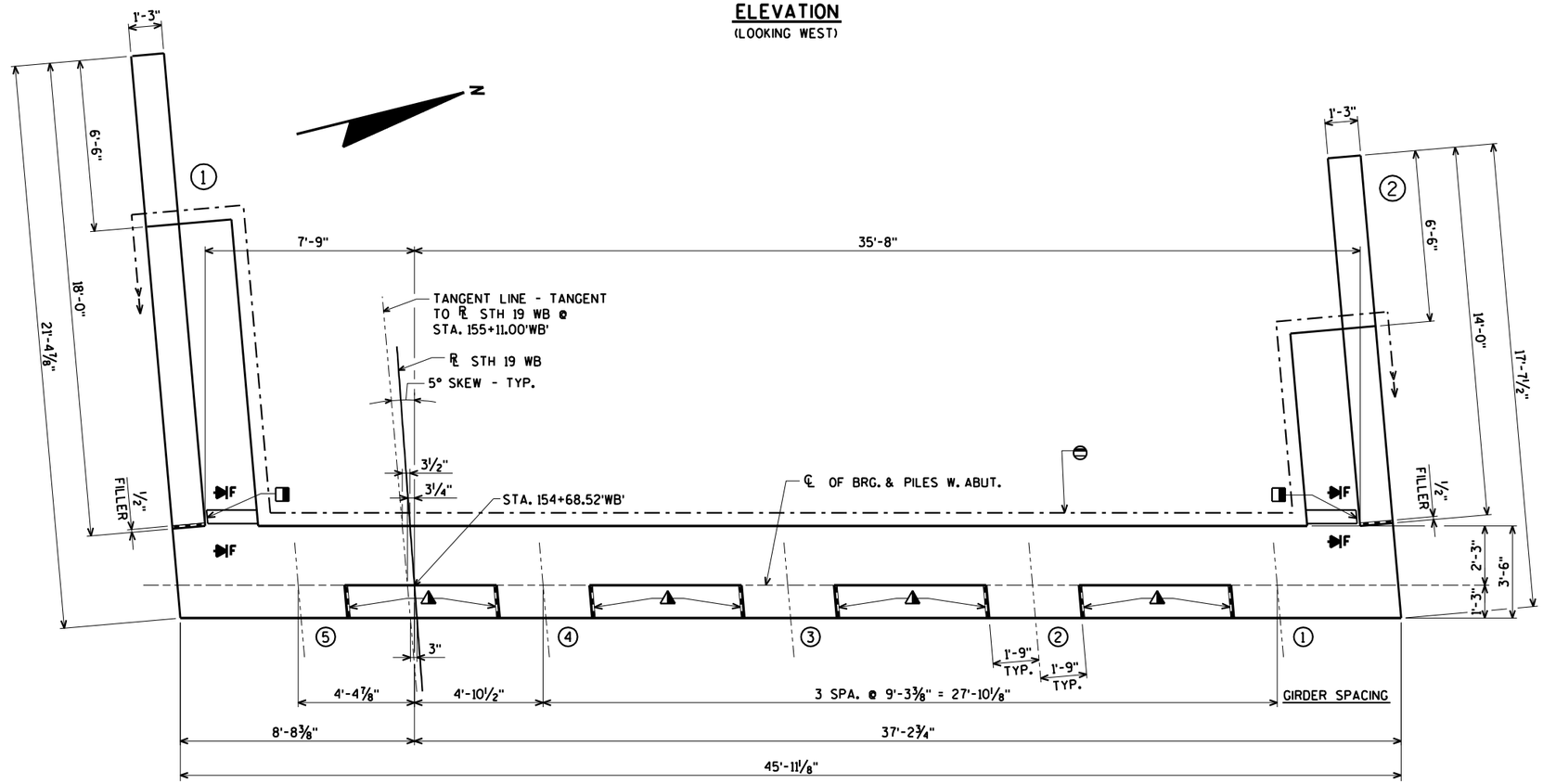
STATE PROJECT NUMBER

5290-00-72

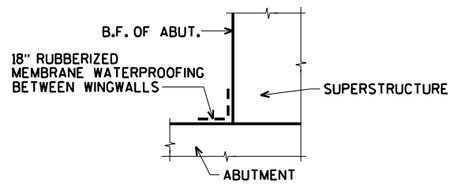


FOR SECTION A SEE SHEET 9

ELEVATION
(LOOKING WEST)



PLAN



SECTION F

- 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

WEST ABUTMENT

SHEET 5 OF 26
542

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www.AyresAssociates.com

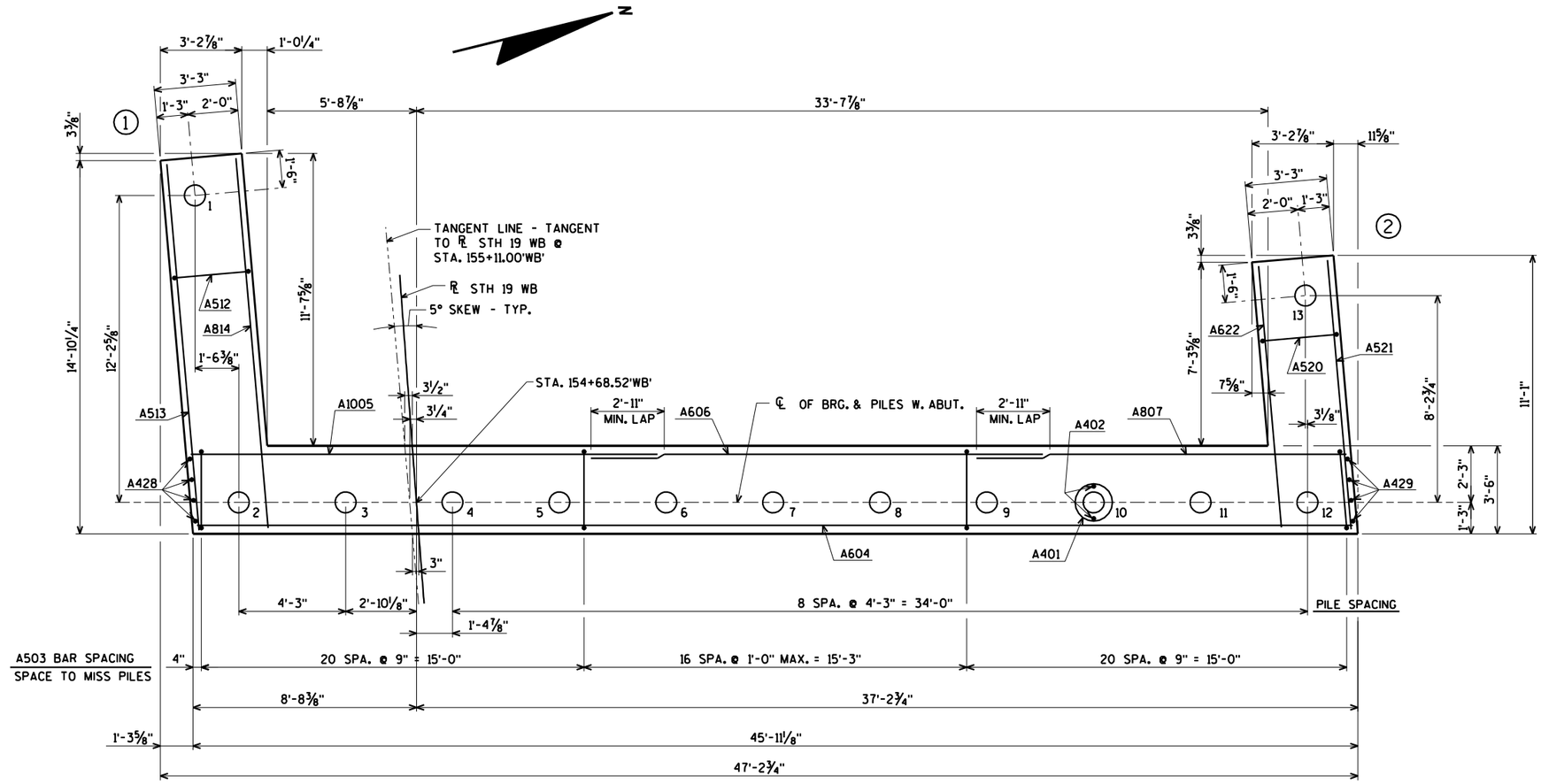
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4/16/2019

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PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

WEST ABUTMENT
PILE LAYOUT

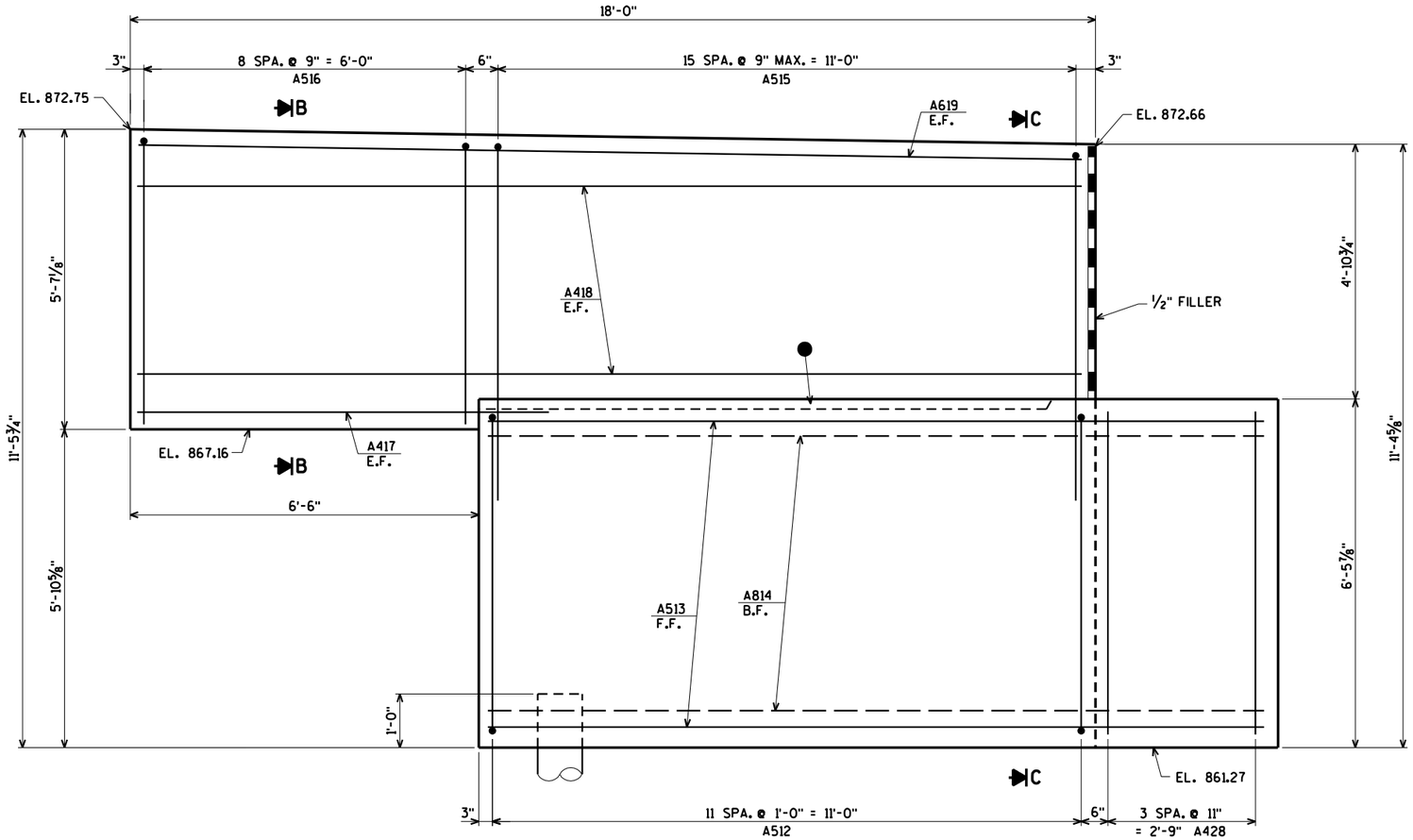
SHEET 6 OF 26
543

ORIGINAL PLANS PREPARED BY
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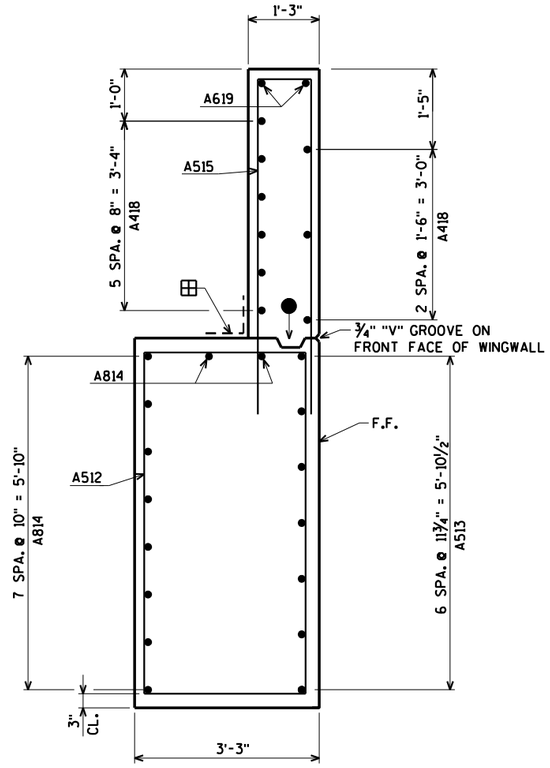
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STATE PROJECT NUMBER

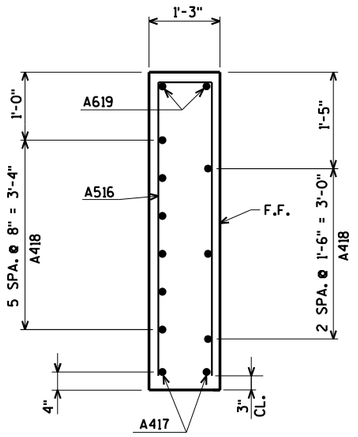
5290-00-72



ELEVATION - WING 1



SECTION C



SECTION B

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

WEST ABUTMENT WING 1 DETAILS

SHEET 7 OF 26
544

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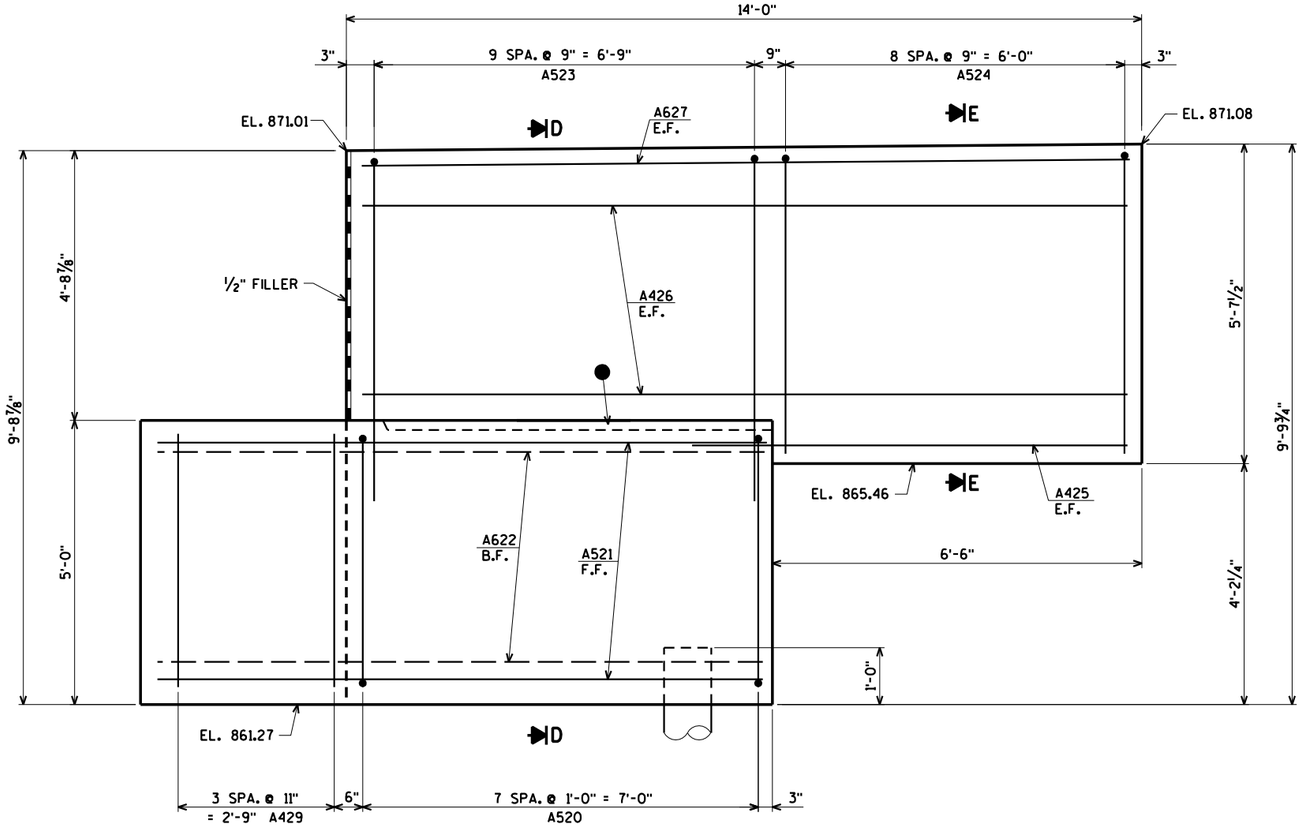
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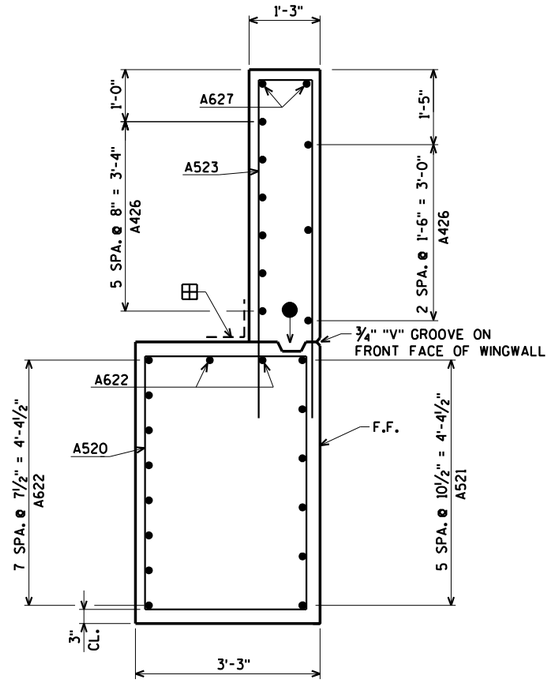
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4/16/2019

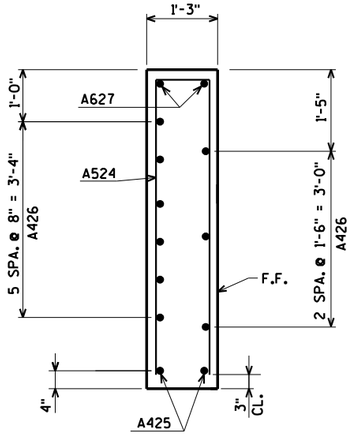
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ELEVATION - WING 2



SECTION D



SECTION E

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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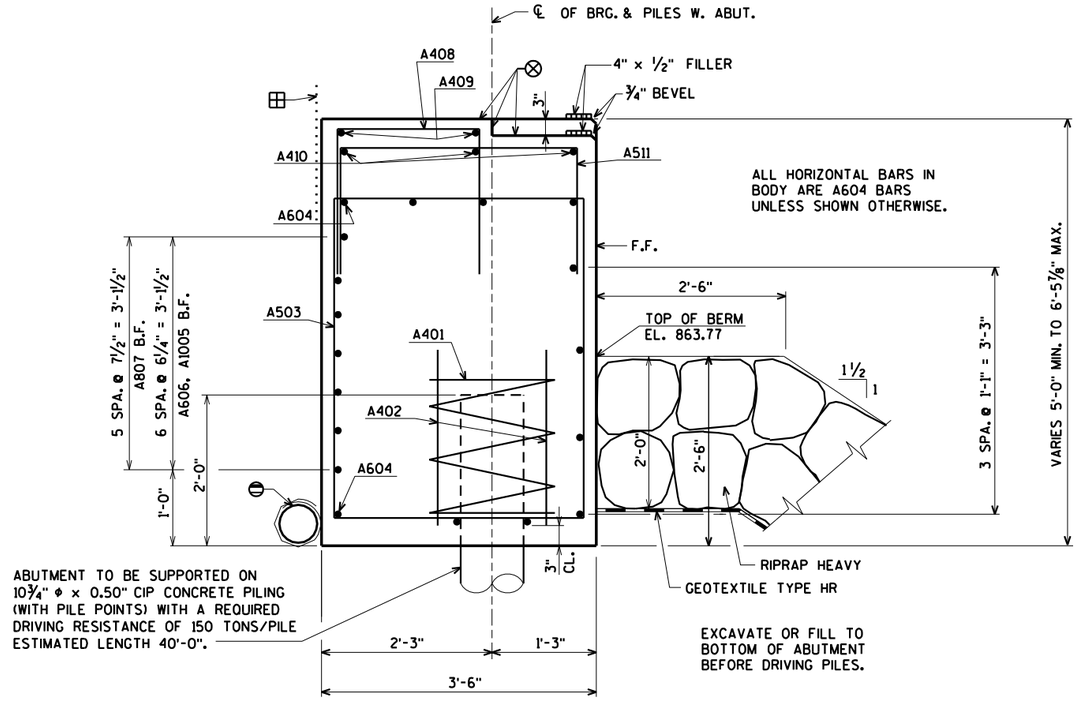
WEST ABUTMENT
WING 2 DETAILS

SHEET 8 OF 26
545

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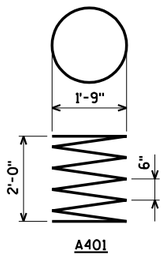
SECTION A

FOR LOCATION OF SECTION A, SEE SHEET 5

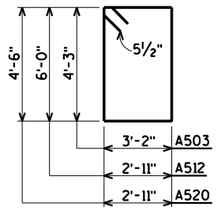
BILL OF BARS

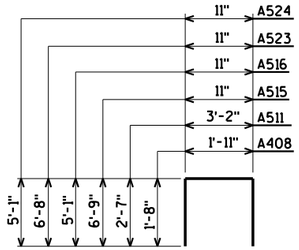
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.990" COATED 3.390" UNCOATED LOCATION
A401		11	28-0	X		BODY @ PILES
A402		22	2-3			BODY @ PILES
A503		57	15-4	X		BODY VERT.
A604		11	45-7			BODY HORIZ.
A1005		7	18-0			BODY HORIZ. B.F. @ WING 1
A606		7	19-5			BODY HORIZ. B.F.
A807		6	14-0			BODY HORIZ. B.F. @ WING 2
A408		31	5-1	X		BODY VERT.
A409		2	45-4			BODY HORIZ.
A410		3	33-4			BODY HORIZ.
A511		34	8-1	X		BODY VERT.
A512	X	12	18-5	X		WING 1 VERT.
A513	X	7	14-6			WING 1 HORIZ. F.F.
A814	X	10	14-6			WING 1 HORIZ. B.F.
A515	X	16	14-2	X		WING 1 VERT.
A516	X	9	10-10	X		WING 1 VERT.
A417	X	2	7-9			WING 1 HORIZ. E.F.
A418	X	9	17-8			WING 1 HORIZ. E.F.
A619	X	2	17-8			WING 1 HORIZ. TOP E.F.
A520	X	8	15-5	X		WING 2 VERT.
A521	X	6	10-8			WING 2 HORIZ. F.F.
A622	X	10	10-5			WING 2 HORIZ. B.F.
A523	X	10	14-0	X		WING 2 VERT.
A524	X	9	10-10	X		WING 2 VERT.
A425	X	2	7-9			WING 2 HORIZ. E.F.
A426	X	9	13-8			WING 2 HORIZ. E.F.
A627	X	2	13-8			WING 2 HORIZ. TOP E.F.
A428	X	4	6-0			BODY VERT. @ WING 1
A429	X	4	4-7			BODY VERT. @ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



A401





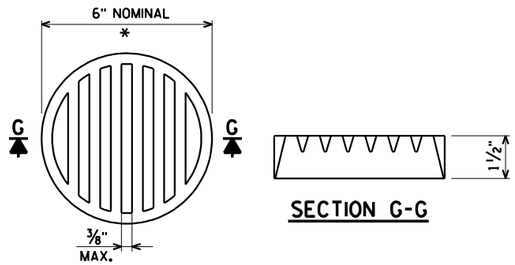
- ⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.
- ⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL
SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE



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 INCLUDED WITH 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 SCREEN 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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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WEST ABUTMENT DETAILS AND BILL OF BARS

SHEET 9 OF 26
546

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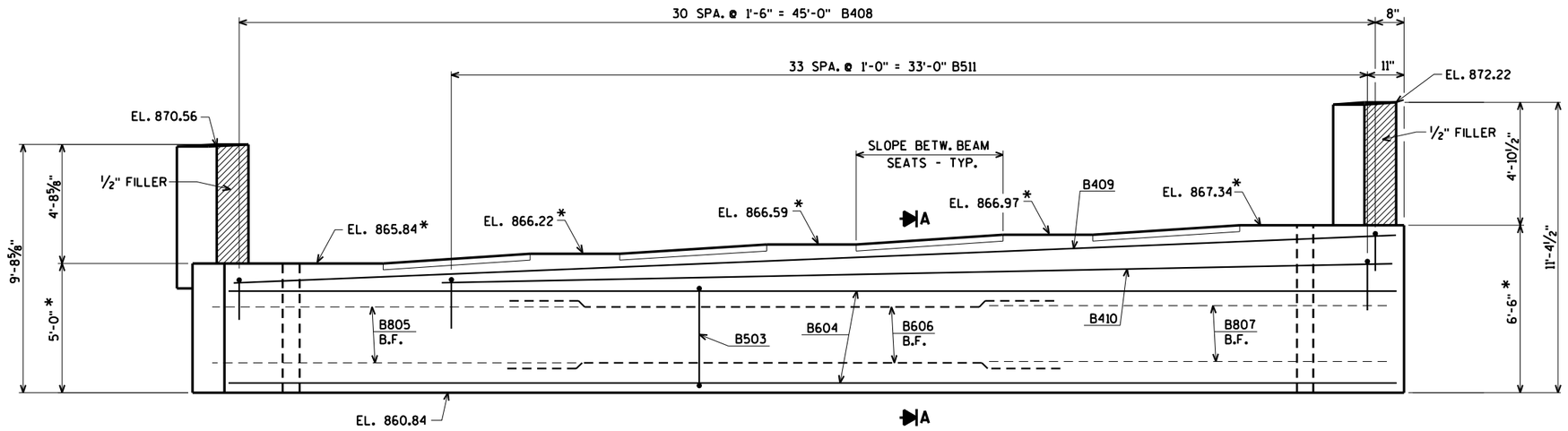
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NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES E. ABUT.

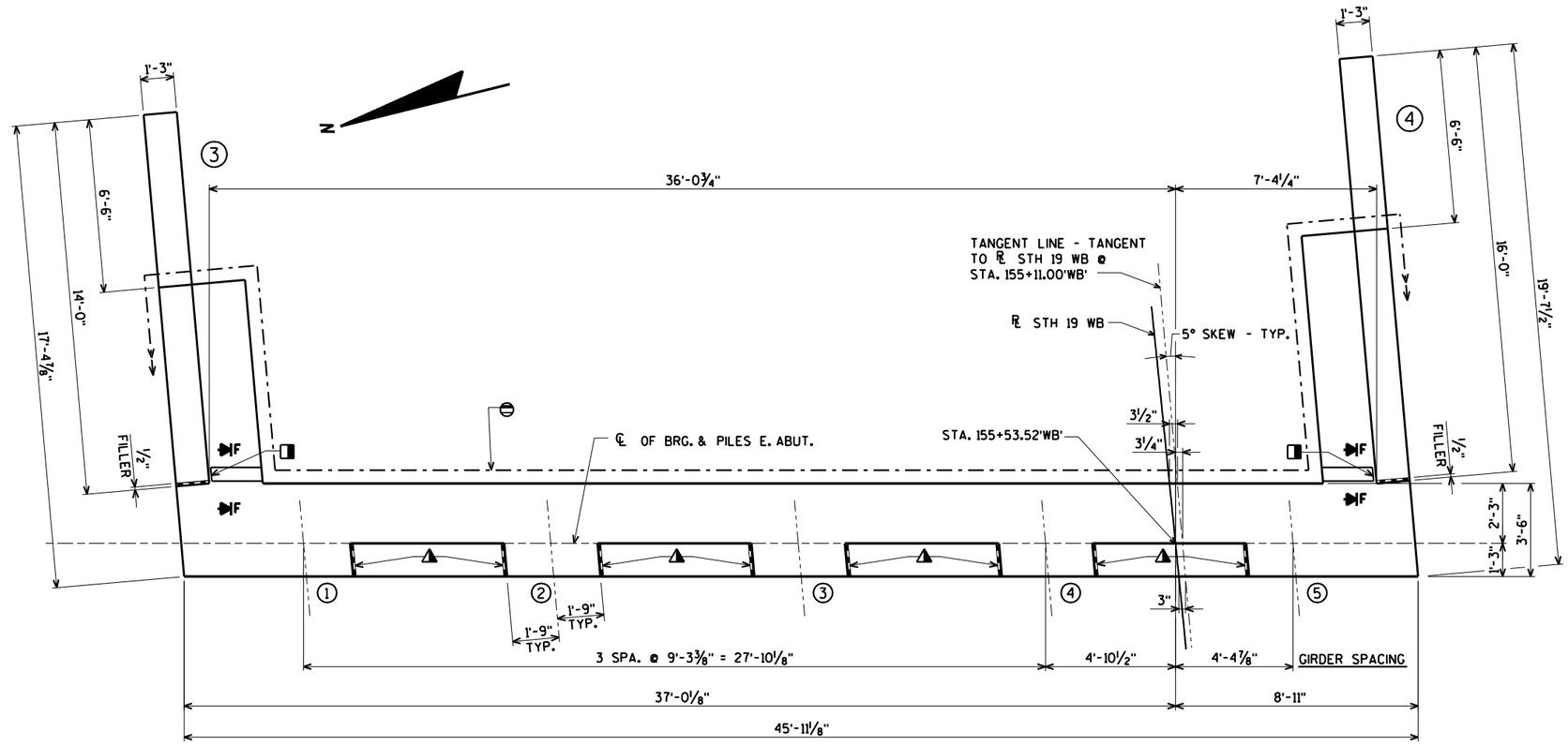
STATE PROJECT NUMBER

5290-00-72

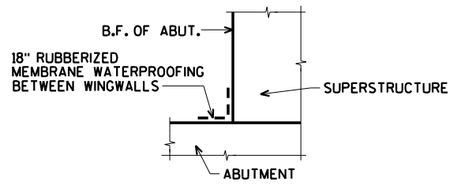


ELEVATION
(LOOKING EAST)

FOR SECTION A SEE SHEET 14



PLAN



SECTION F

- 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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EAST ABUTMENT

SHEET 10 OF 26
547

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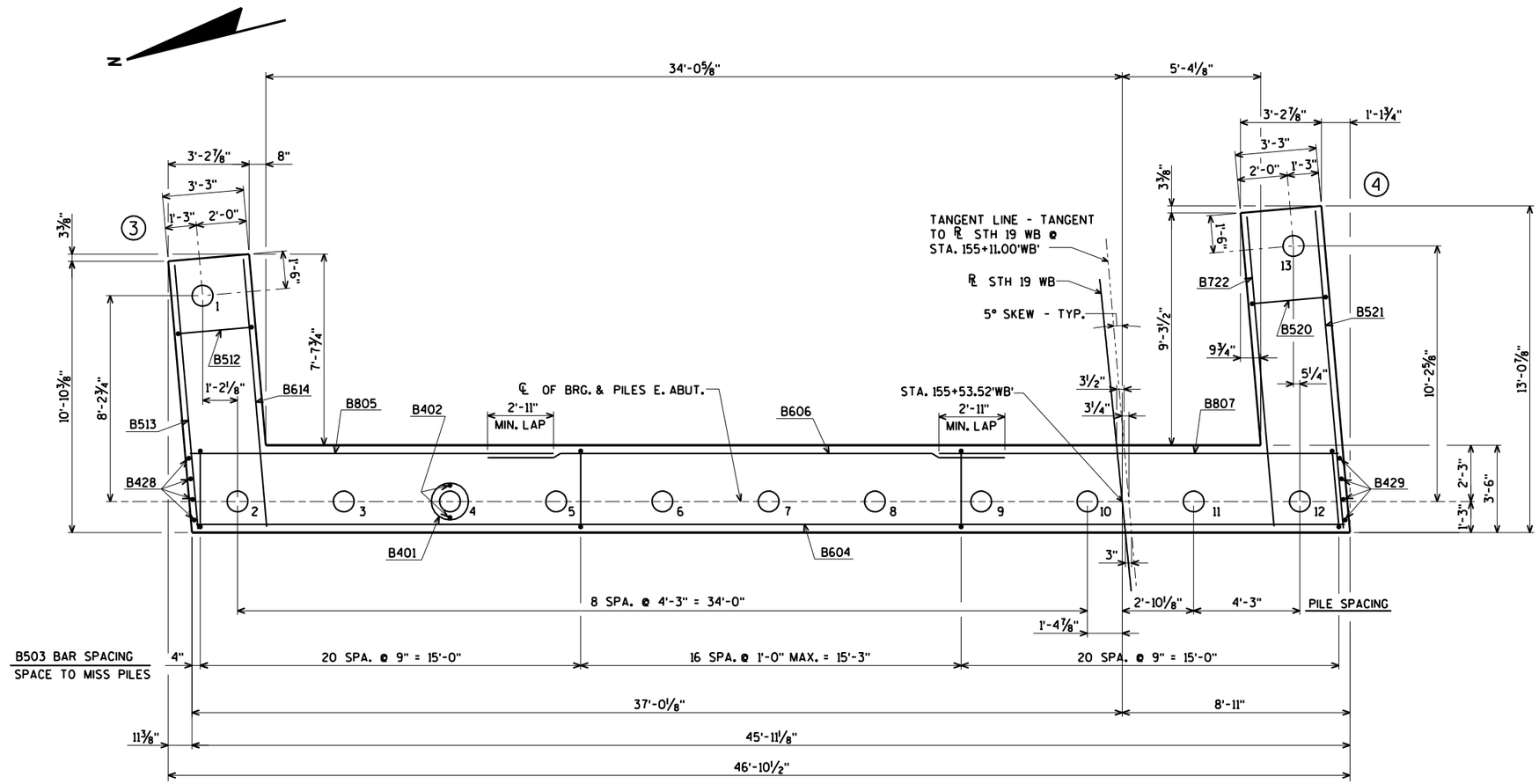
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PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 3.

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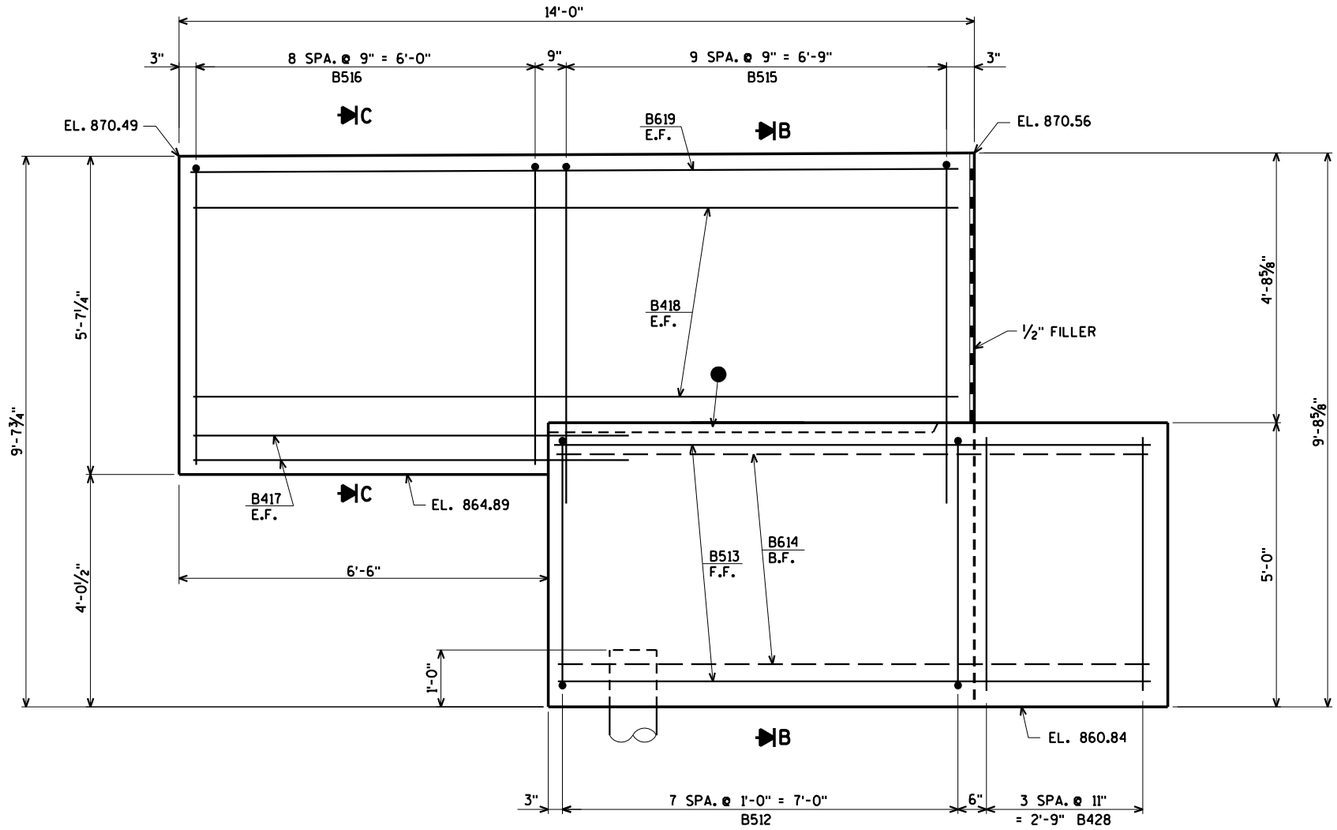
STRUCTURE B-13-795

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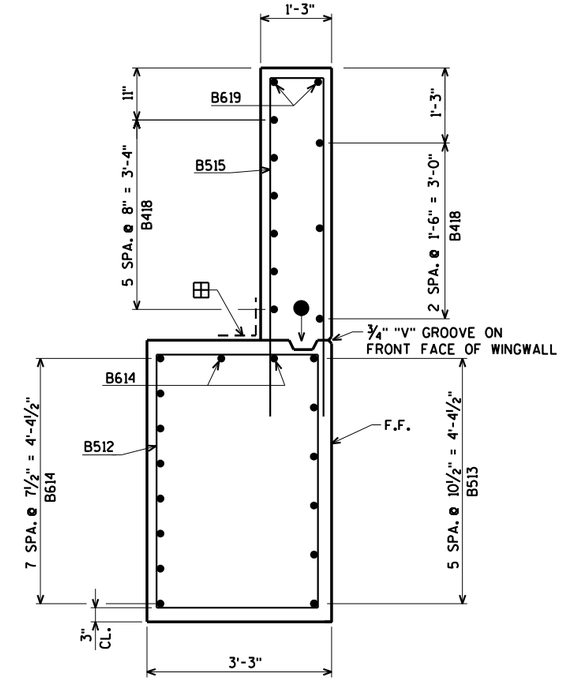
EAST ABUTMENT PILE LAYOUT

SHEET 11 OF 26
548

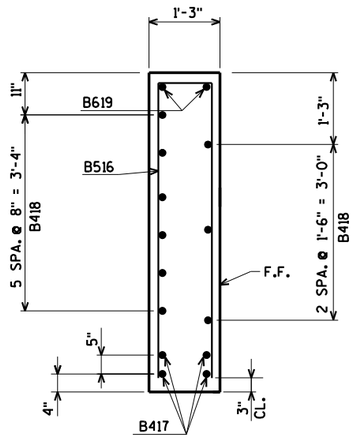
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ELEVATION - WING 3



SECTION B



SECTION C

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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EAST ABUTMENT
WING 3 DETAILS

SHEET 12 OF 26
549

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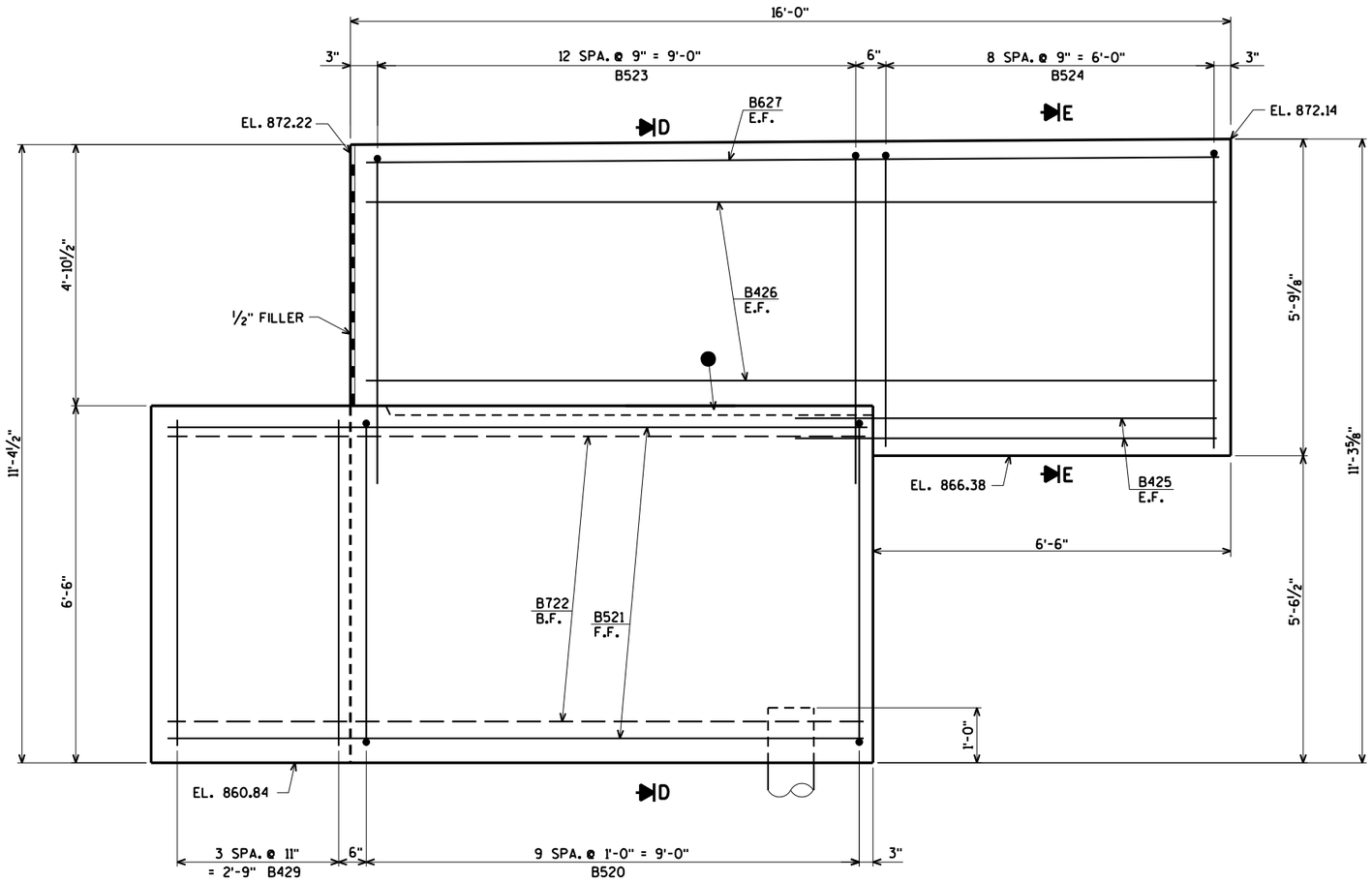
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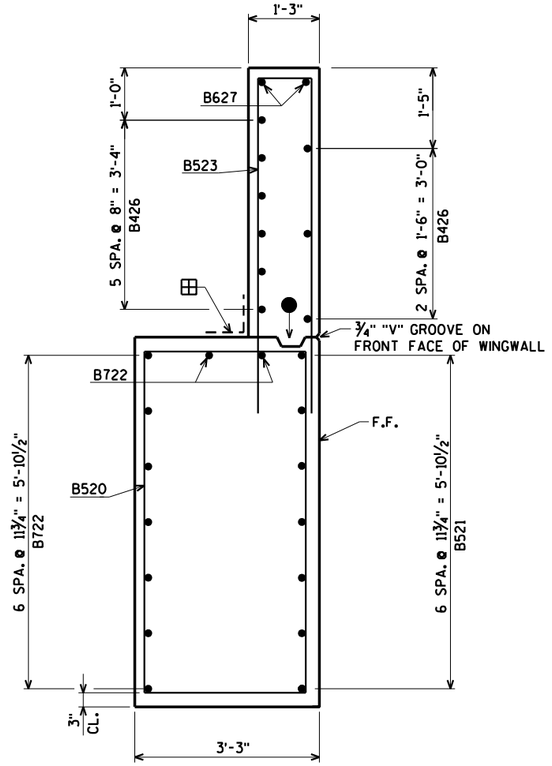
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STATE PROJECT NUMBER

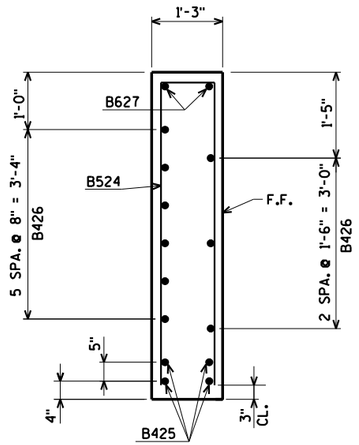
5290-00-72



ELEVATION - WING 4



SECTION D



SECTION E

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACK FACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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EAST ABUTMENT
WING 4 DETAILS

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550

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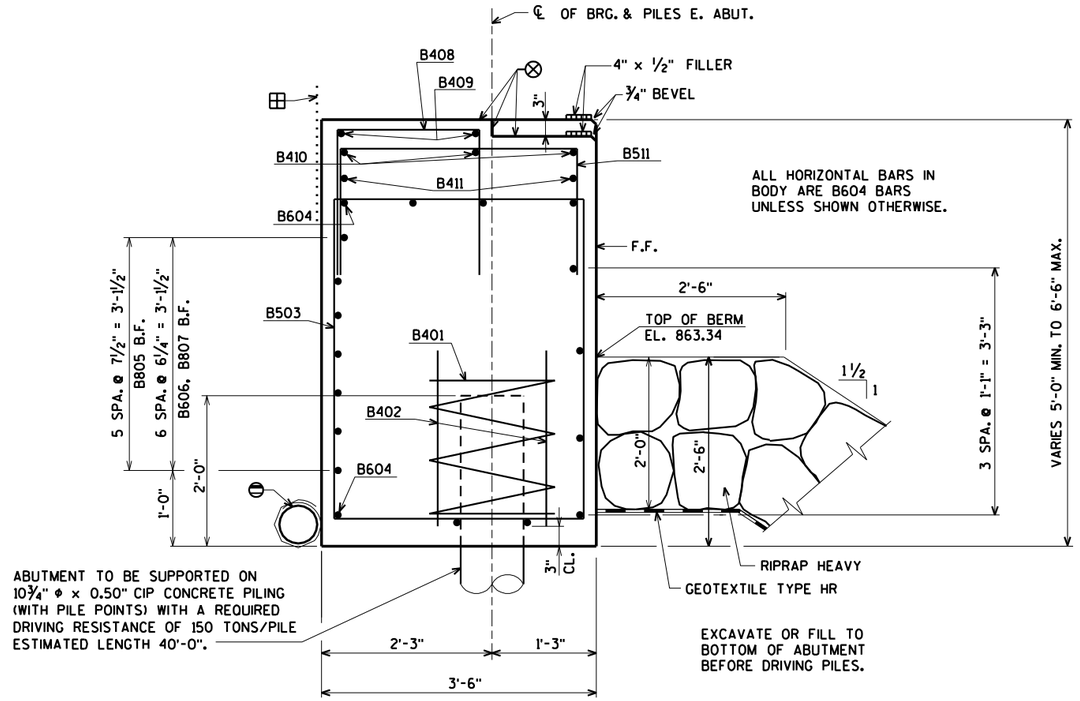
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4/16/2019

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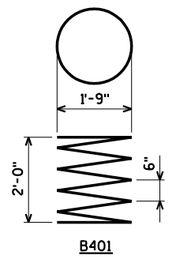
SECTION A

FOR LOCATION OF SECTION A, SEE SHEET 10

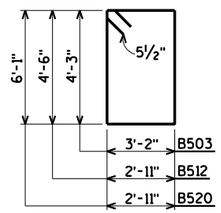
BILL OF BARS

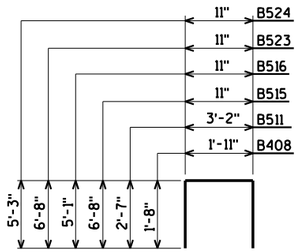
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,740# COATED 3,170# UNCOATED LOCATION
B401		11	28-0	X		BODY @ PILES
B402		22	2-3			BODY @ PILES
B503		57	15-4	X		BODY VERT.
B604		11	45-7			BODY HORIZ.
B805		6	14-0			BODY HORIZ. B.F. @ WING 3
B606		7	21-5			BODY HORIZ. B.F.
B807		7	16-0			BODY HORIZ. B.F. @ WING 4
B408		31	5-1	X		BODY VERT.
B409		2	45-4			BODY HORIZ.
B410		3	33-4			BODY HORIZ.
B511		34	8-1	X		BODY VERT.
B512	X	8	15-5	X		WING 3 VERT.
B513	X	6	10-6			WING 3 HORIZ. F.F.
B614	X	10	10-6			WING 3 HORIZ. B.F.
B515	X	10	14-0	X		WING 3 VERT.
B516	X	9	10-10	X		WING 3 VERT.
B417	X	4	7-9			WING 3 HORIZ. E.F.
B418	X	9	13-8			WING 3 HORIZ. E.F.
B619	X	2	13-8			WING 3 HORIZ. TOP E.F.
B520	X	10	18-7	X		WING 4 VERT.
B521	X	7	12-8			WING 4 HORIZ. F.F.
B722	X	9	12-5			WING 4 HORIZ. B.F.
B523	X	13	14-0	X		WING 4 VERT.
B524	X	9	11-2	X		WING 4 VERT.
B425	X	4	7-9			WING 4 HORIZ. E.F.
B426	X	9	15-8			WING 4 HORIZ. E.F.
B627	X	2	15-8			WING 4 HORIZ. TOP E.F.
B428	X	4	4-7			BODY VERT. @ WING 3
B429	X	4	6-1			BODY VERT. @ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



B401





@ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL SHEET 9.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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EAST ABUTMENT DETAILS AND BILL OF BARS

SHEET 14 OF 26
551

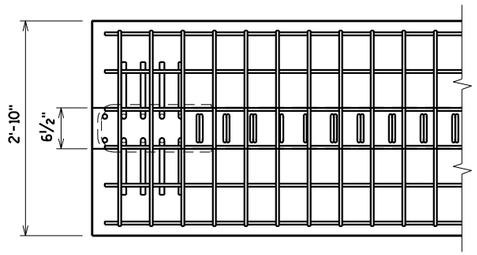
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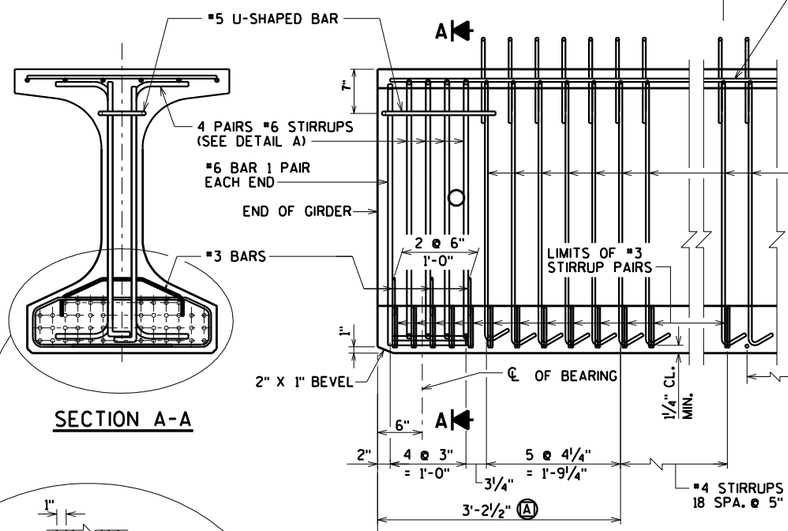
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TOP FLANGE

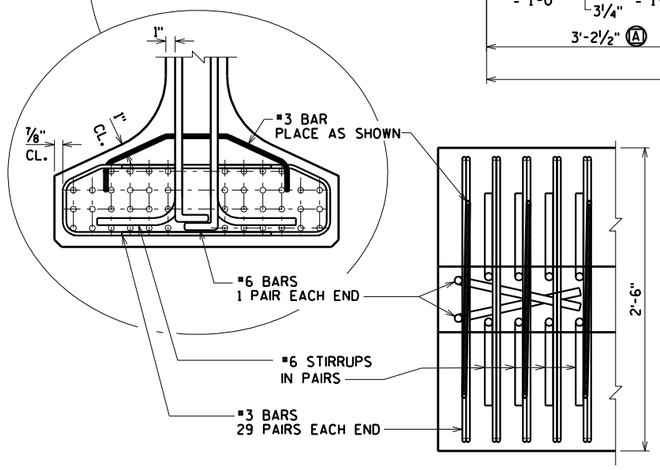


SECTION A-A

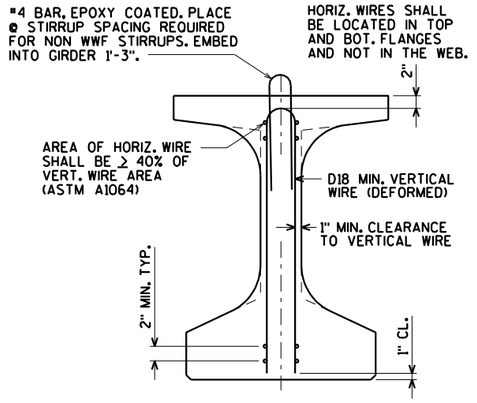
SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

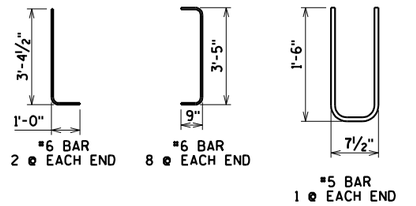
(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-11"



DETAIL A
BOTTOM FLANGE



SECTION THRU GIRDER
SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A1064 (FY = 70 KSI)



* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1 & 5	86'-0"	0.3	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.3	8,000	9"	8"	9"	0.6	26	6,400	40	13	16	4
1	2-4	86'-0"	0.4	0.7	1.0	1.2	1.2	1.2	1.0	0.7	0.4	8,000	9"	8"	9"	0.6	26	6,400	40	13	16	4

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO THE SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

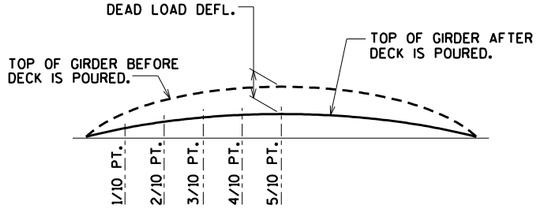
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45W" PRESTRESSED GIRDER DETAILS

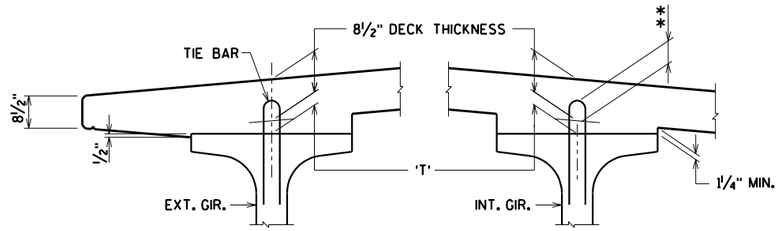
SHEET 15 OF 26
552

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DEAD LOAD DEFLECTION DIAGRAM



DECK HAUNCH DETAIL

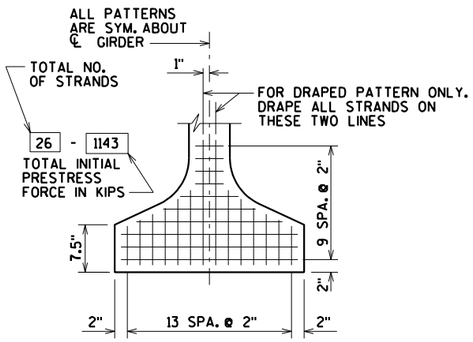
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

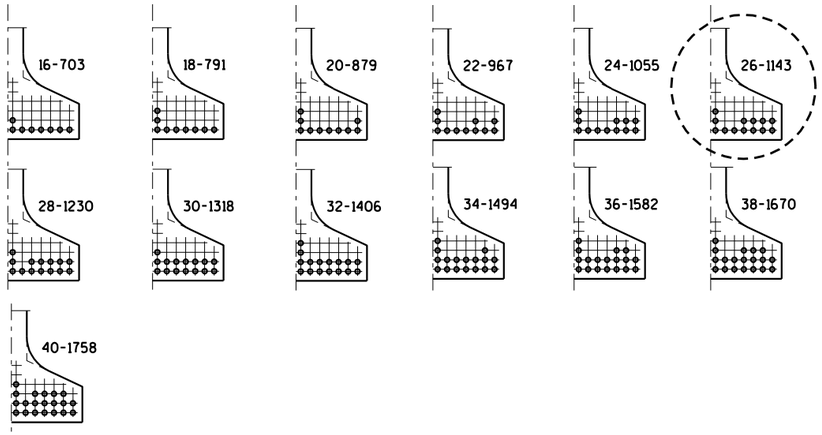
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

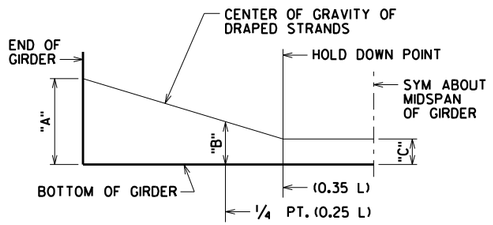


TYP. STRAND PATTERN



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



DRAPED STRAND PROFILE

THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.)
1	2.2

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS. THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STRUCTURE B-13-795

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45W" PRESTRESSED GIRDER DETAILS

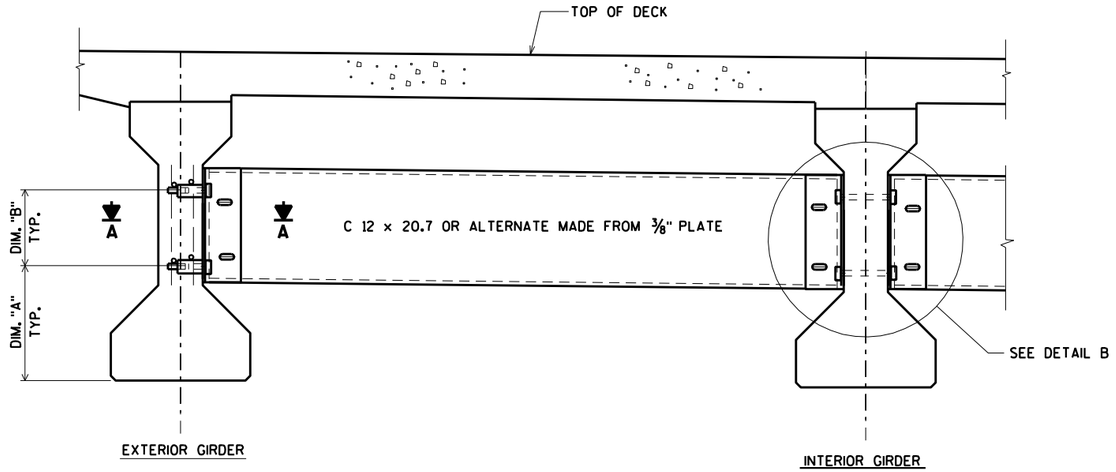
SHEET 16 OF 26
553

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TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	*DIM. "X"
45W"	1'-9⅛"	8⅞"	1'-0½"	2¾"



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-795", EACH.

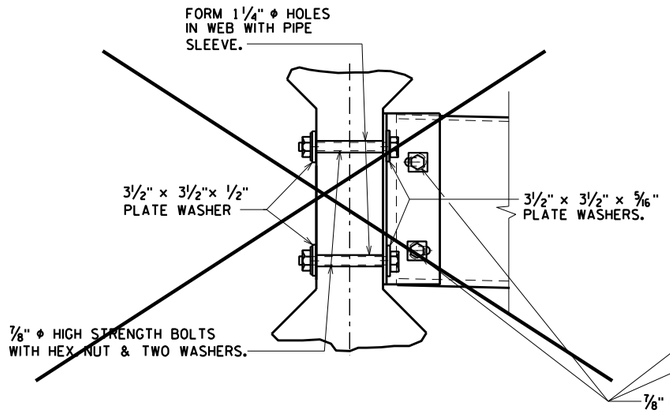
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

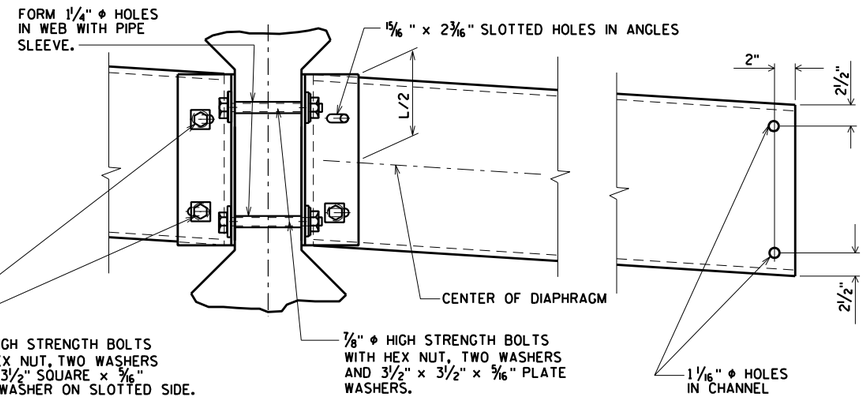
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

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.

FOR DIAPHRAGM SPACING SEE SHEET 19.

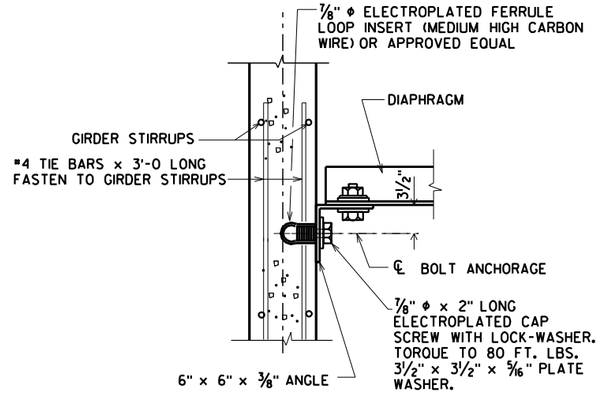


(FOR STAGGERED DIAPHRAGM)



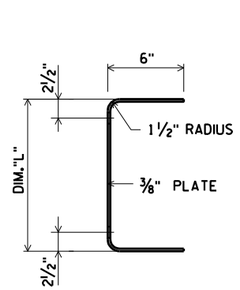
(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B

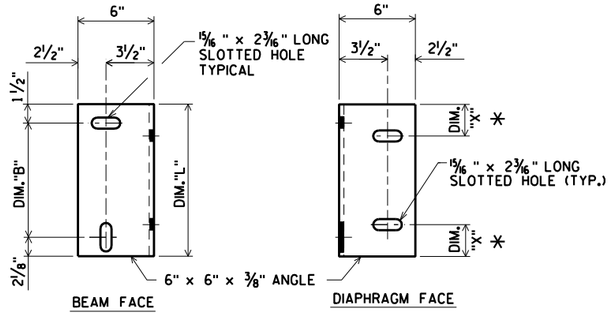


SECT. A-A

(FOR EXTERIOR ATTACHMENT)

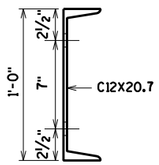


SECTION THRU ALTERNATE DIAPHRAGM



DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU DIAPHRAGM

NO.	DATE	REVISION	BY

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STRUCTURE B-13-795

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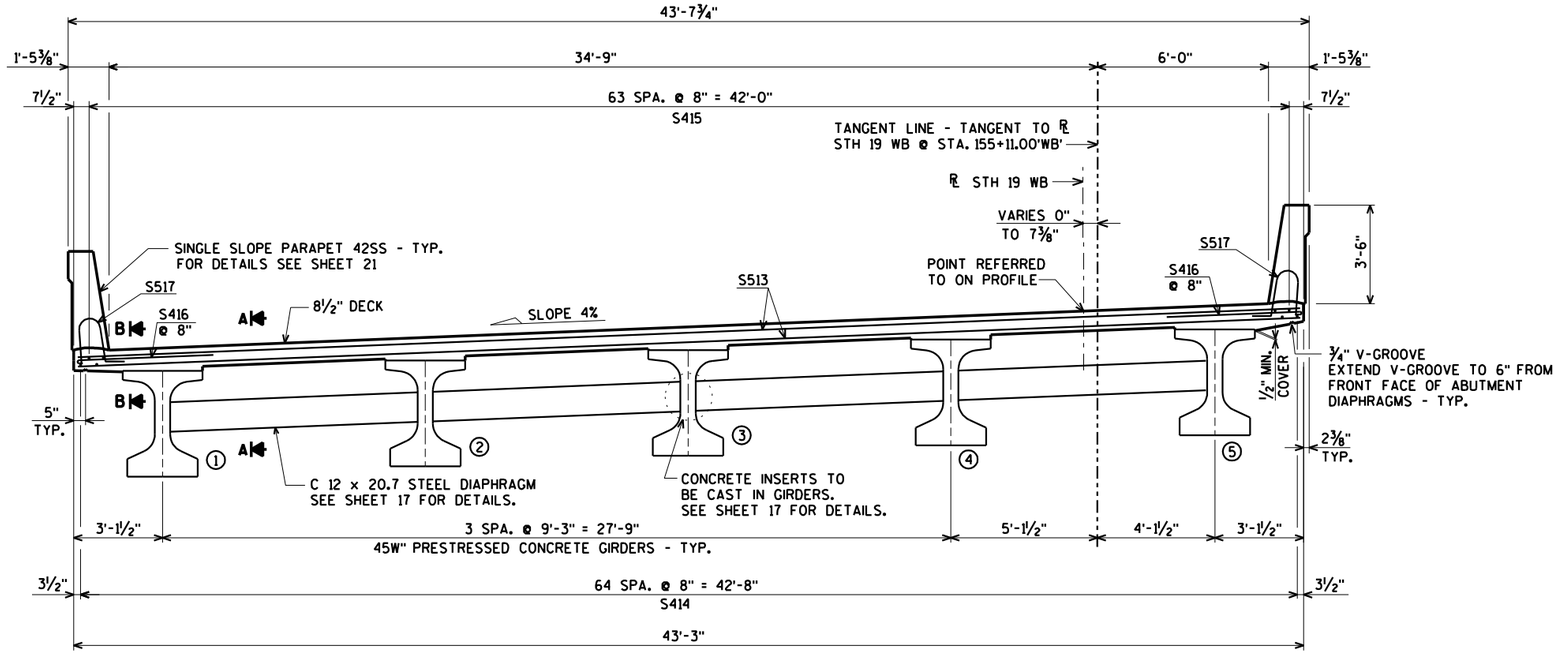
STEEL DIAPHRAGM DETAILS

SHEET 17 OF 26
554

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STATE PROJECT NUMBER
5290-00-72



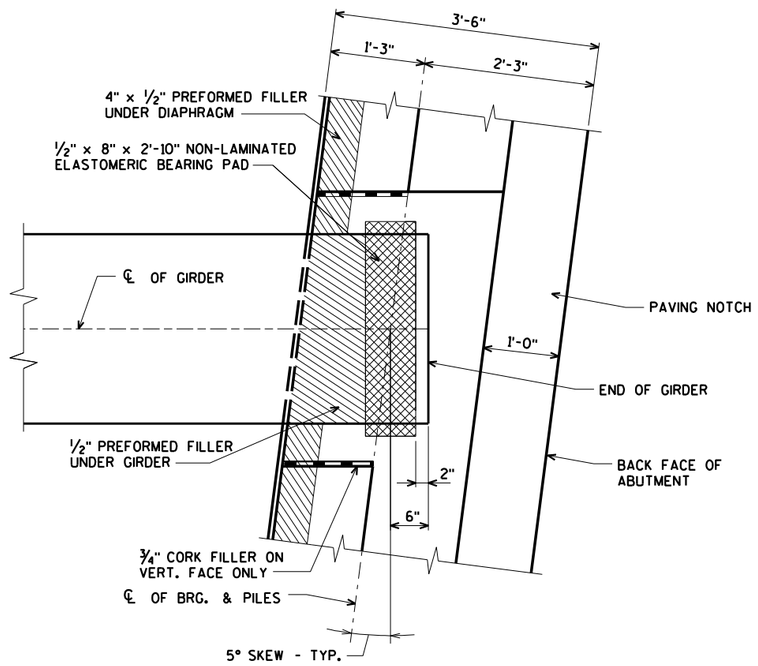
TYPICAL CROSS SECTION THRU BRIDGE

(LOOKING EAST)

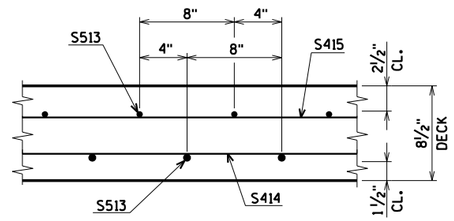
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	28,490# COATED LOCATION
S401	X	48	3-3	X			DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	16	5-5				DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	84	12-7	X			DIAPH. @ ABUT. VERT.
S504	X	20	10-9	X			DIAPH. @ ABUT. VERT.
S505	X	84	6-3	X			DIAPH. @ ABUT. VERT.
S606	X	12	45-7				DIAPH. @ ABUT. HORIZ.
S607	X	64	5-9				DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	4	2-9				DIAPH. @ ABUT. HORIZ. @ CORNERS
S609	X	12	3-5				DIAPH. @ ABUT. HORIZ. @ CORNERS
S510	X	4	15-3	X			DIAPH. @ ABUT. VERT. CORNER WINGS 1 & 3
S511	X	4	15-7	X			DIAPH. @ ABUT. VERT. CORNER WINGS 2 & 4
S512	X	20	6-0				DIAPH. @ ABUT. HORIZ. THRU GDRS.
S513	X	261	43-0				DECK TRANS. TOP & BOT.
S414	X	195	30-3				DECK LONG. BOT.
S415	X	128	44-6				DECK LONG. TOP
S416	X	262	4-6	X			DECK TRANS. TOP @ EDGES
S517	X	262	4-5	X			DECK @ PARAPET
S518	X	262	6-8	X			PARAPET VERT.
S519	X	32	44-6				PARAPET HORIZ.

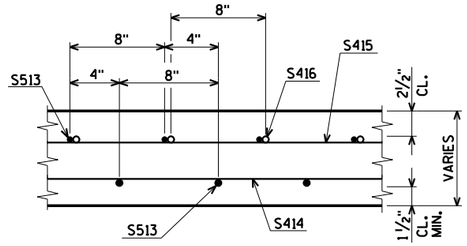
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



BEARING PAD DETAIL

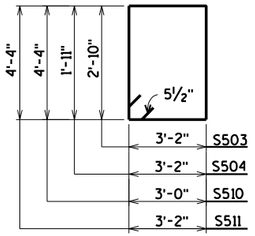


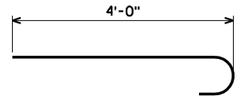
SECTION A

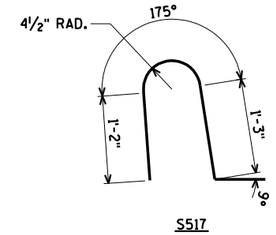


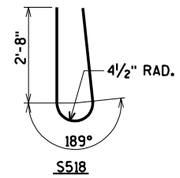
SECTION B











NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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SUPERSTRUCTURE

SHEET 18 OF 26
555

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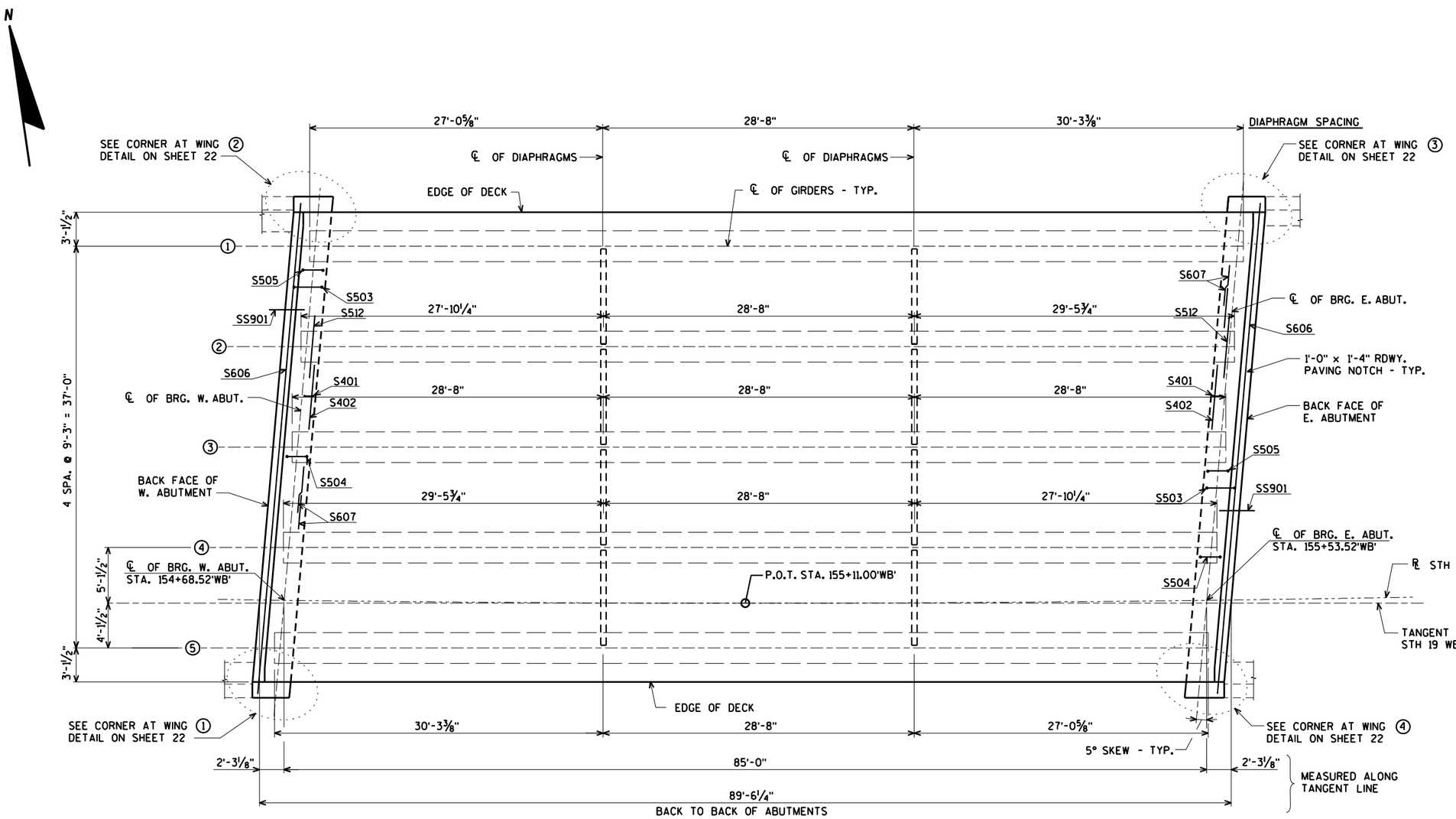
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3/5/2019

PENTABLE:BReau_shd_util.tbl



PLAN

TOP OF DECK ELEVATIONS

LOCATION	℄ OF BRG. W. 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 BRG. E. ABUT.
N. EDGE OF DECK	871.00	870.96	870.92	870.87	870.83	870.79	870.75	870.70	870.66	870.62	870.57
FACE OF N. PARAPET	871.00	870.96	870.92	870.87	870.83	870.79	870.75	870.70	870.66	870.62	870.57
GIRDER 1	871.09	871.04	871.00	870.95	870.91	870.87	870.82	870.78	870.74	870.70	870.66
GIRDER 2	871.46	871.42	871.37	871.33	871.28	871.24	871.20	871.16	871.12	871.08	871.04
GIRDER 3	871.84	871.79	871.75	871.70	871.66	871.62	871.57	871.53	871.49	871.45	871.41
GIRDER 4	872.21	872.16	872.12	872.07	872.03	871.99	871.95	871.91	871.86	871.82	871.79
℄ STH 19 WB	872.41	872.36	872.32	872.28	872.24	872.19	872.15	872.11	872.07	872.02	871.98
GIRDER 5	872.58	872.54	872.49	872.45	872.40	872.36	872.32	872.28	872.24	872.20	872.16
FACE OF S. PARAPET	872.65	872.61	872.57	872.52	872.48	872.44	872.40	872.35	872.31	872.27	872.23
S. EDGE OF DECK	872.65	872.61	872.57	872.52	872.48	872.44	872.40	872.35	872.31	872.27	872.23

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

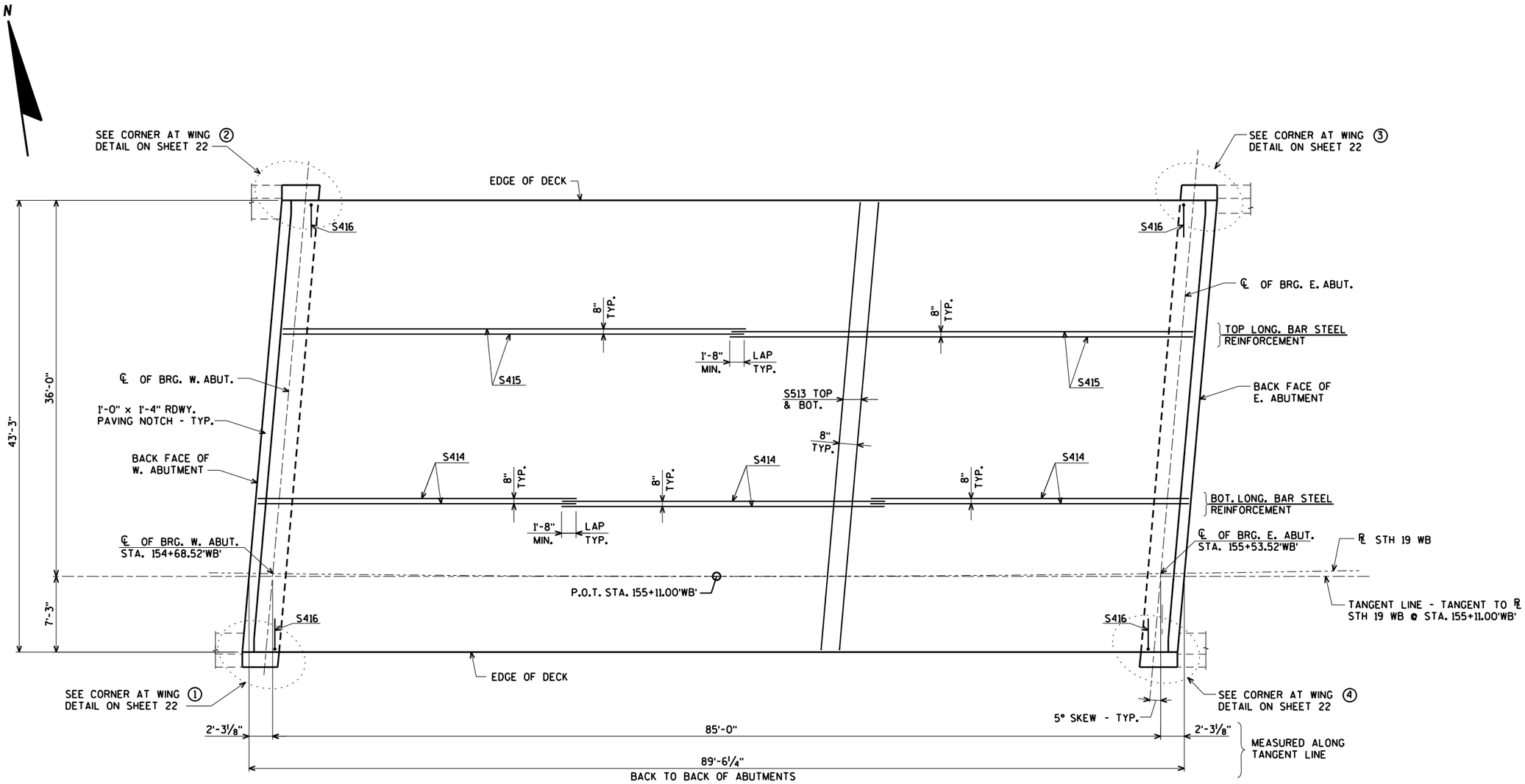
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SUPERSTRUCTURE PLAN

SHEET 19 OF 26
556

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DECK BAR STEEL LAYOUT

NO.	DATE	REVISION	BY

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STRUCTURE B-13-795

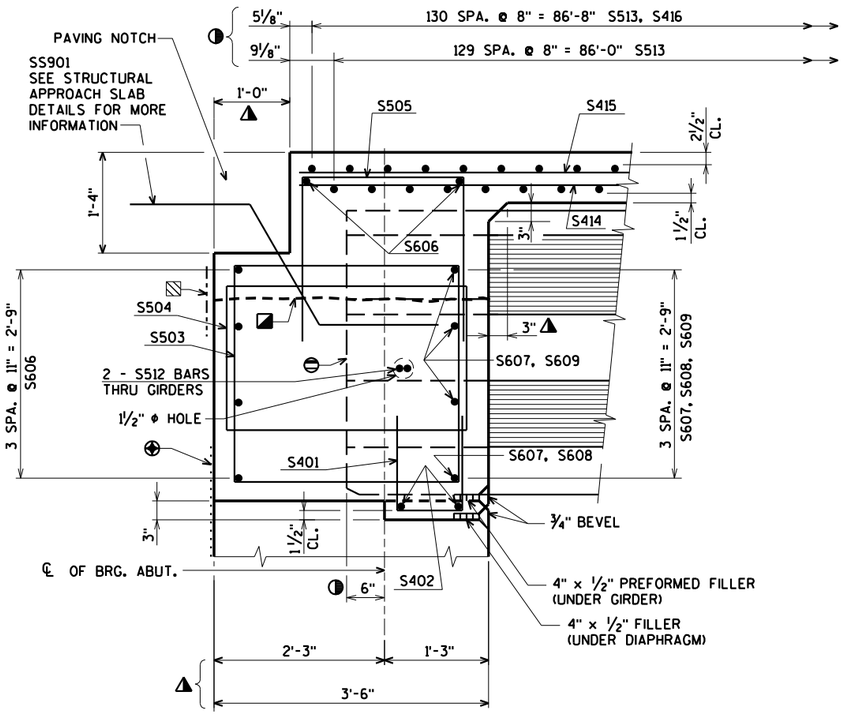
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DECK STEEL LAYOUT

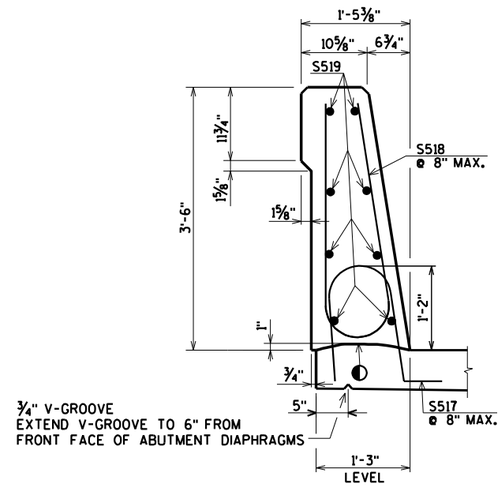
SHEET 20 OF 26
557

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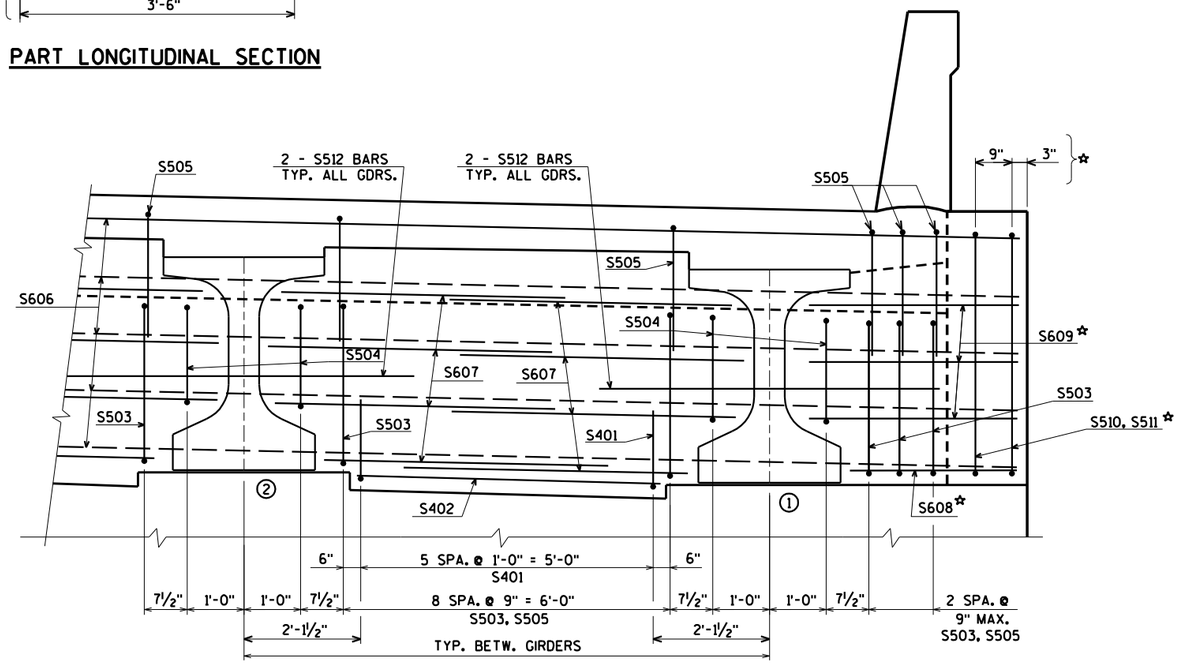


PART LONGITUDINAL SECTION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

(LOOKING WEST AT GIRDERS ① & ②. OTHER LOCATIONS SIMILAR)

☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 22

⊖ END OF GIRDER

⊕ 18" RUBBERIZED MEMBRANE WATERPROOFING

◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.

◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "CONCRETE MASONRY BRIDGES"

NO.	DATE	REVISION	BY

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STRUCTURE B-13-795

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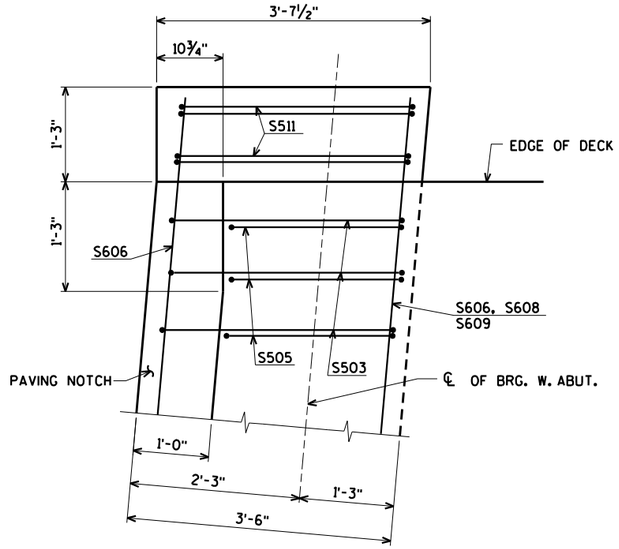
SUPERSTRUCTURE DETAILS

SHEET 21 OF 26
558

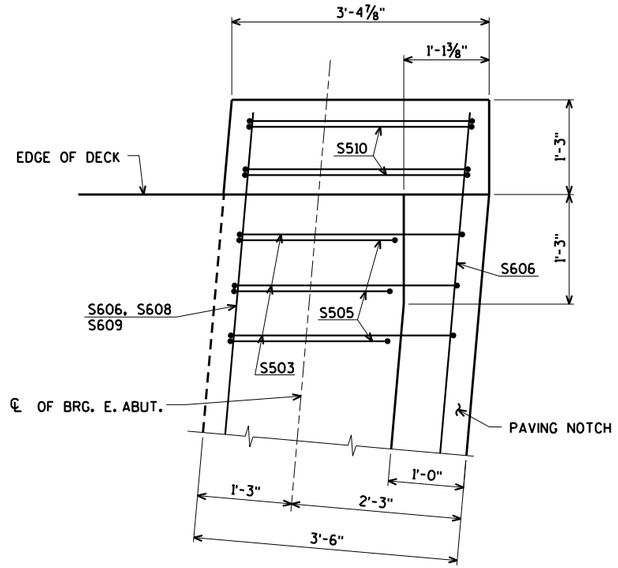
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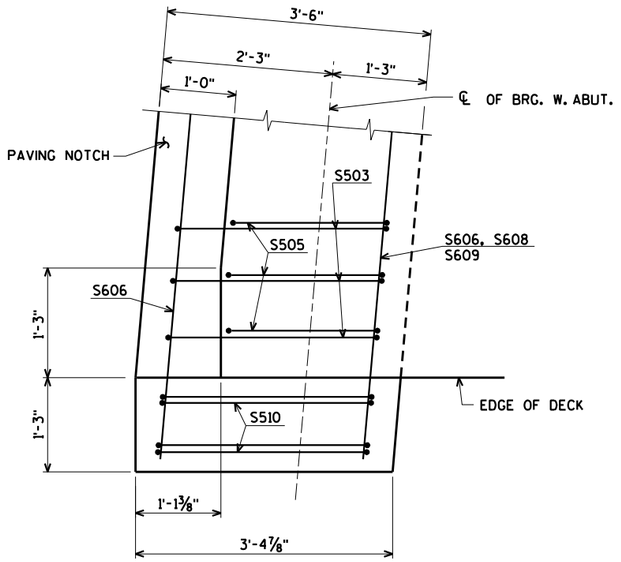
STATE PROJECT NUMBER
5290-00-72



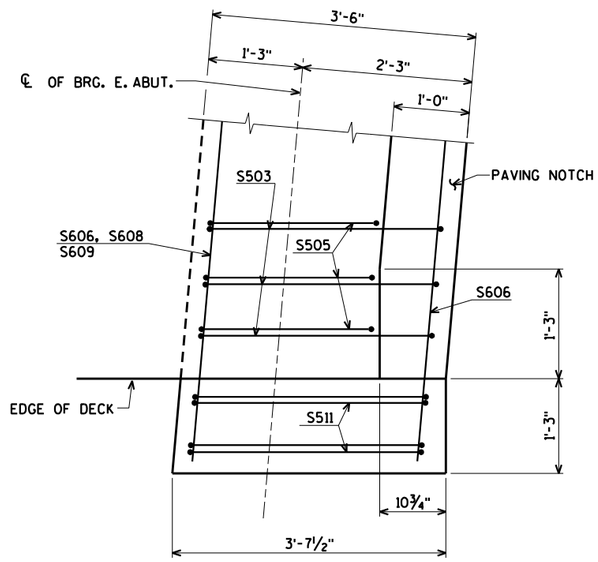
CORNER AT WING 2 DETAIL



CORNER AT WING 3 DETAIL



CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL

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8

8

NO.	DATE	REVISION	BY

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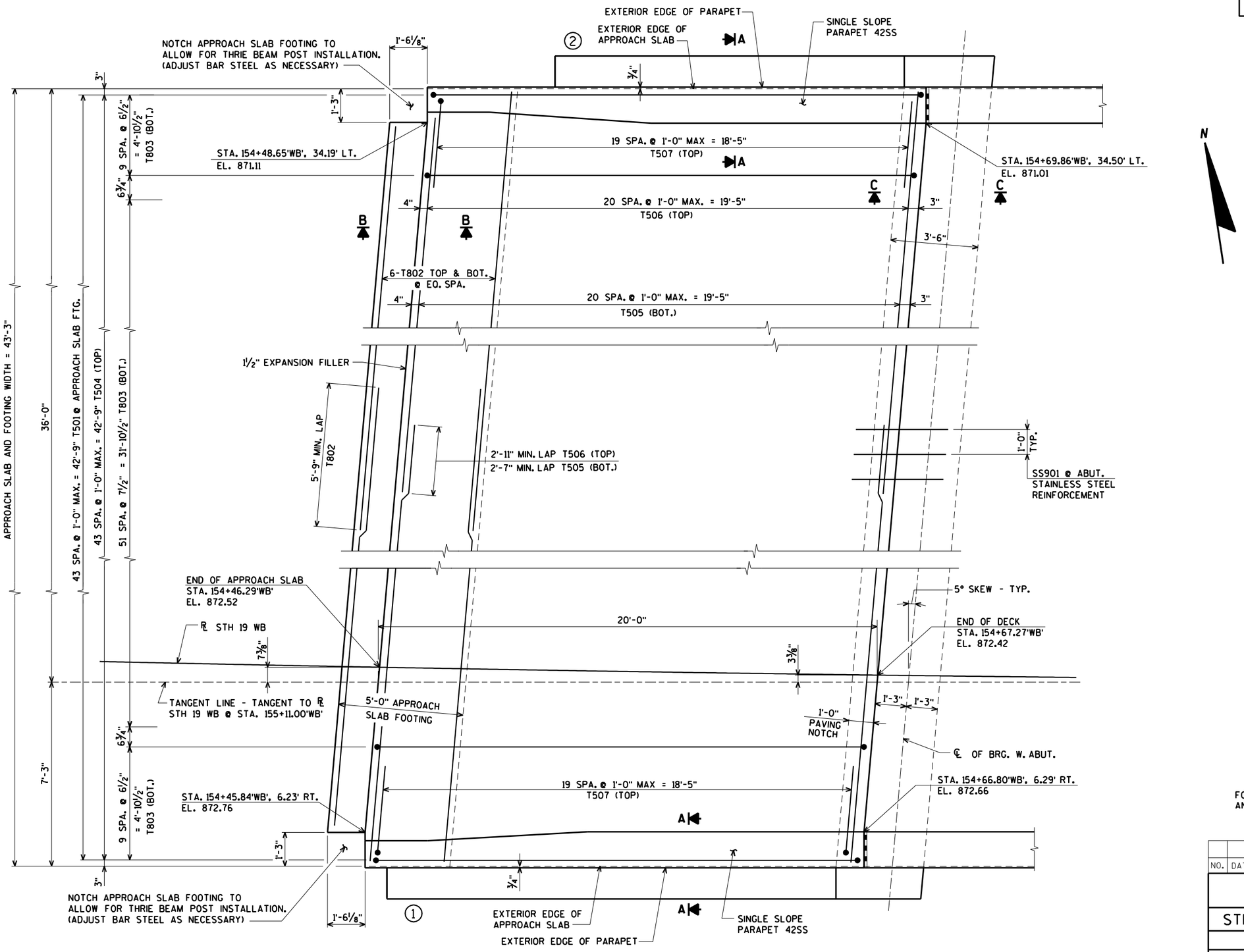
STRUCTURE B-13-795

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SUPERSTRUCTURE
CORNER DETAILS

SHEET 22 OF 26
559

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WEST APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 25

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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WEST STRUCTURAL APPROACH SLAB

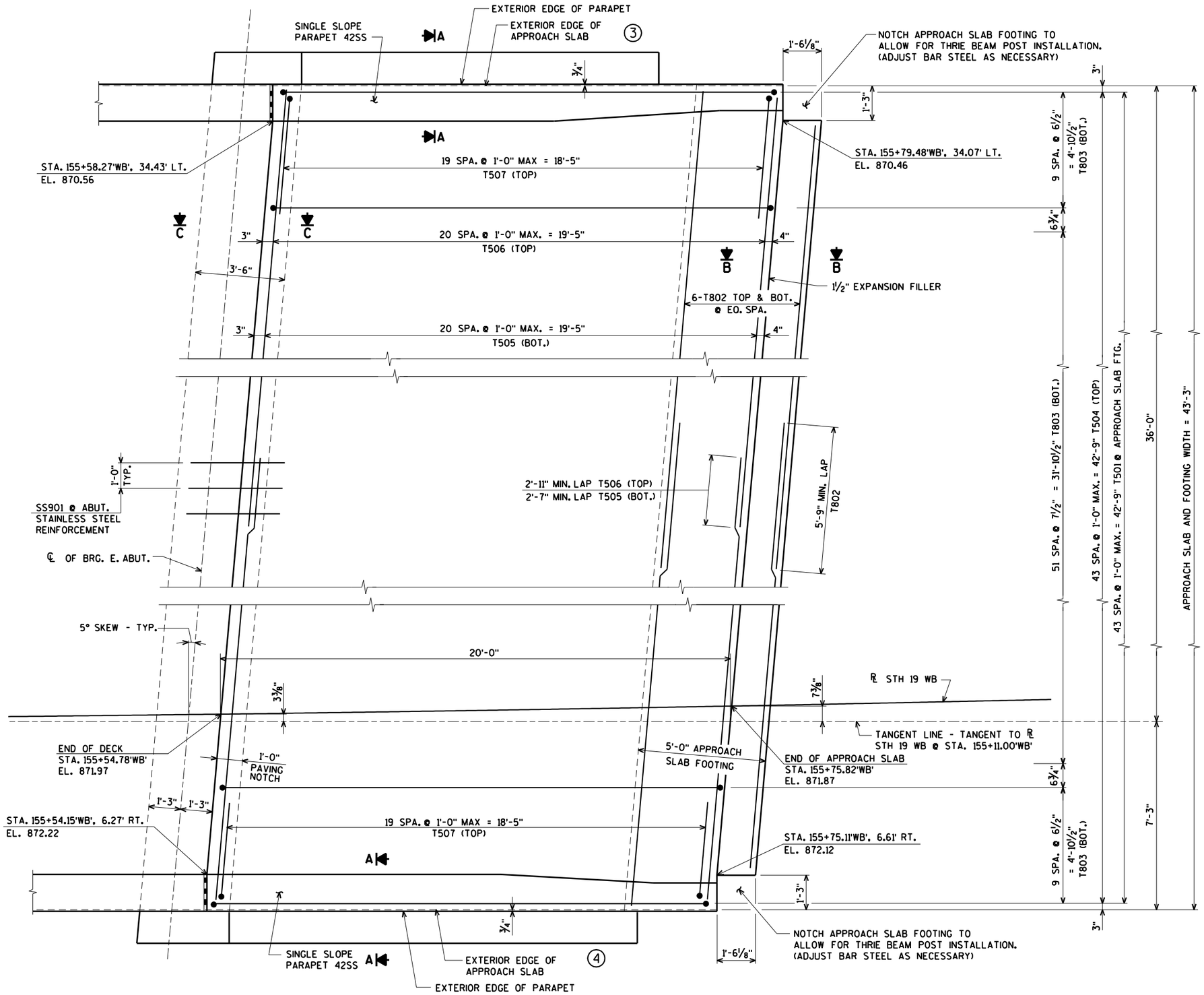
SHEET 23 OF 26
560

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STATE PROJECT NUMBER

5290-00-72



EAST APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 25

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

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EAST STRUCTURAL APPROACH SLAB

SHEET 24 OF 26
561

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$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-795\B-13-795 appr slab.dgn

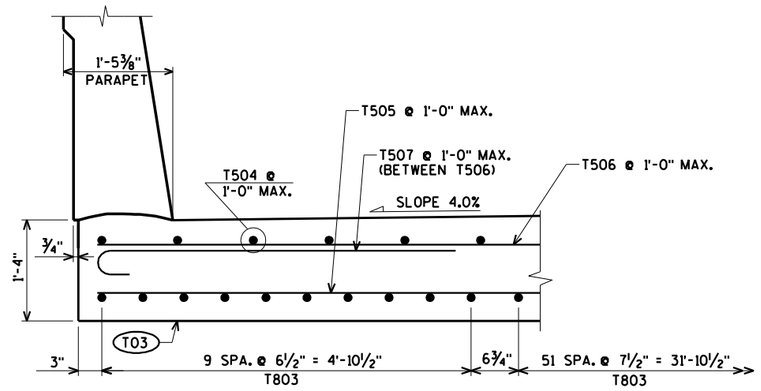
2/26/2019

PENTABLE:BReau_shd_util.tbl

8

8

STATE PROJECT NUMBER
5290-00-72



SECTION A

(NORTH SIDE SHOWN, SOUTH SIDE SIMILAR)

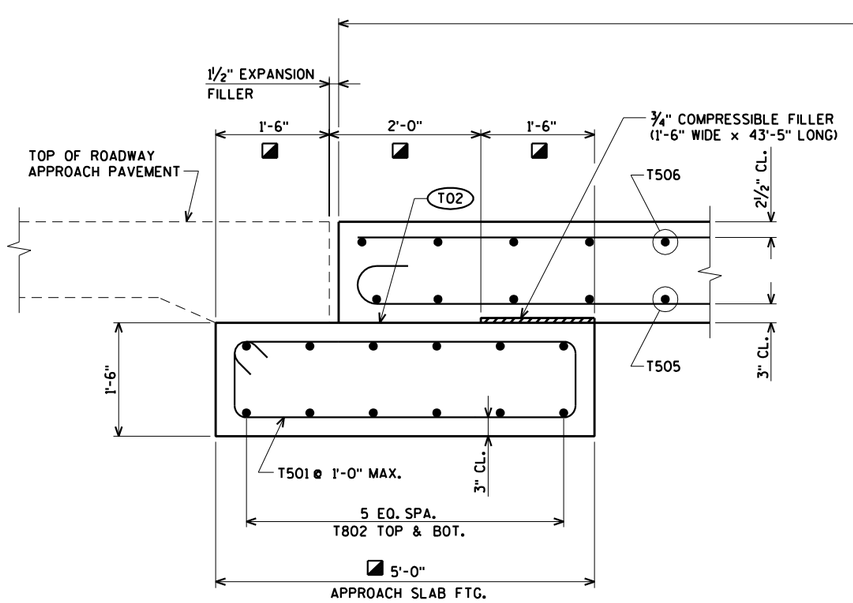
FOR LOCATIONS OF SECTIONS A, B, AND C, SEE SHEETS 23 & 24

BILL OF BARS

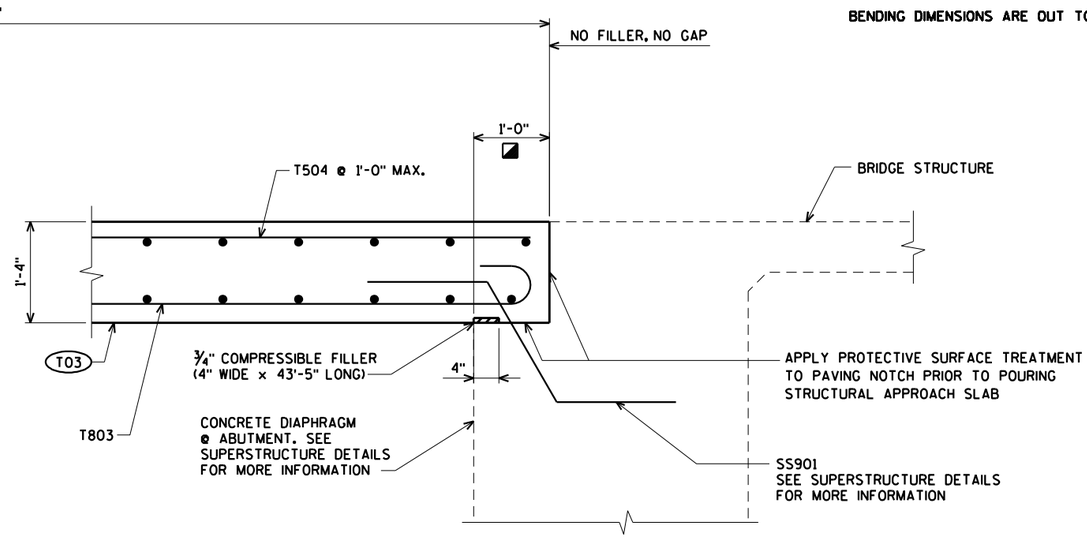
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	730# STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		43	5-0	X			CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	9,300# COATED (PER APPROACH SLAB) LOCATION
T501	X	44	12-2	X			APPROACH SLAB FTG. - STIRRUP
T802	X	24	24-5				APPROACH SLAB FTG. - TRANS.
T803	X	72	21-4	X			APPROACH SLAB - LONG. - BOT.
T504	X	44	19-6				APPROACH SLAB - LONG - TOP
T505	X	42	22-10				APPROACH SLAB - TRANS. - BOT.
T506	X	42	23-0				APPROACH SLAB - TRANS. - TOP
T507	X	40	4-1	X			APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

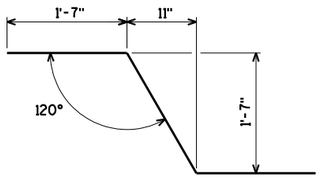
◪ MEASURED NORMAL TO ABUTMENT

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

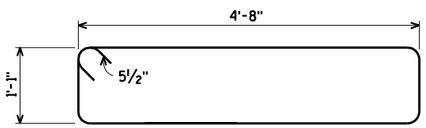
(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

POLYETHYLENE SHEETS ARE INCLUDED WITH "HPC MASONRY STRUCTURES".

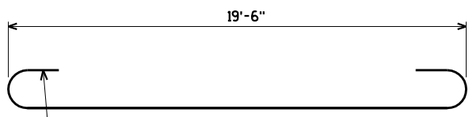
ALL STRUCTURAL APPROACH SLAB CONCRETE, PAID FOR UNDER "HPC MASONRY STRUCTURES".



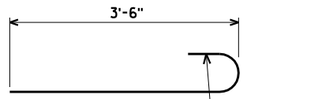
SS901



T501



T803



T507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

STRUCTURAL APPROACH SLAB DETAILS

SHEET 25 OF 26
562

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

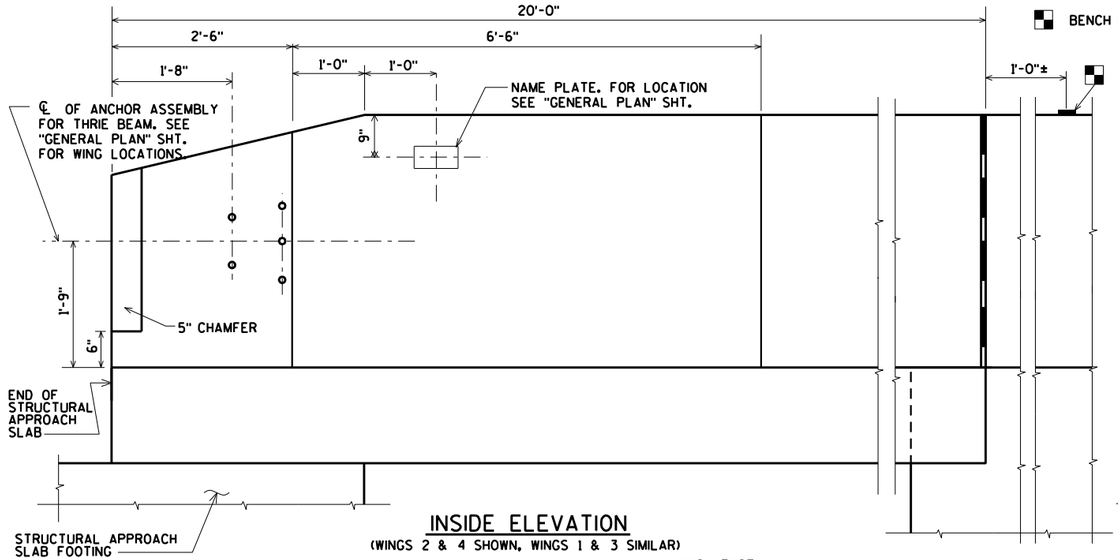
$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-795\B-13-795 appr slab.dgn
2/26/2019
PENTABLE:BReau_shd_util.tbl

$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-795\B-13-795 42ss para.dgn

STATE PROJECT NUMBER

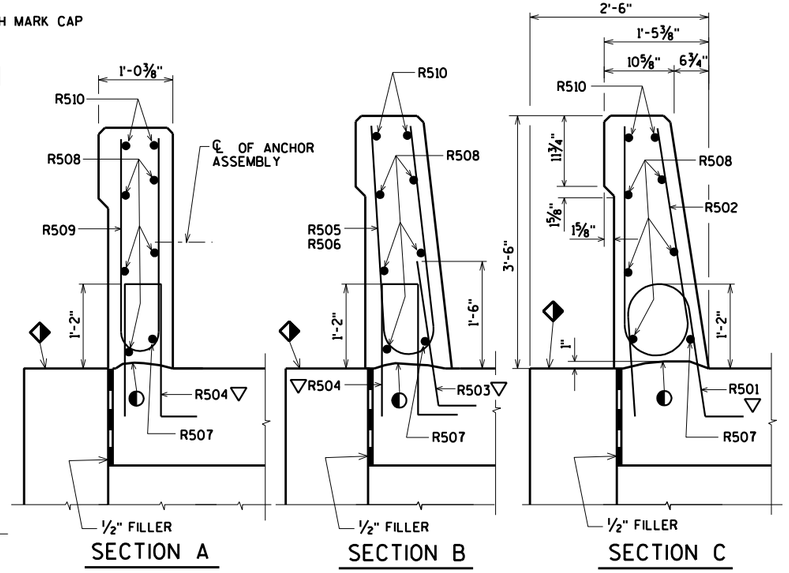
5290-00-72

1,150* COATED WEST STRUCTURAL APPROACH SLAB
1,150* COATED EAST STRUCTURAL APPROACH SLAB



INSIDE ELEVATION

(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)



SECTION A

SECTION B

SECTION C

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

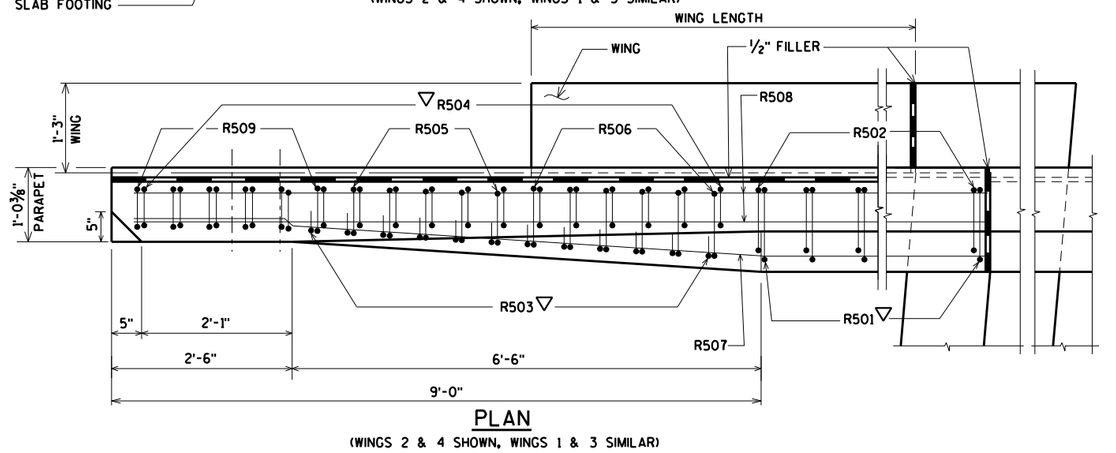
BAR MARK	COAT	WEST STRUCT. APPR. SLAB	EAST STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	4-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19-8	X		PARAPET HORIZ.
R508	X	10	10	19-8			PARAPET HORIZ.
R509	X	12	12	5-5	X	◭	PARAPET VERT.
R510	X	4	4	19-8	X		PARAPET HORIZ.

◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

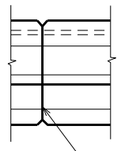
MARK	NO. REQD.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

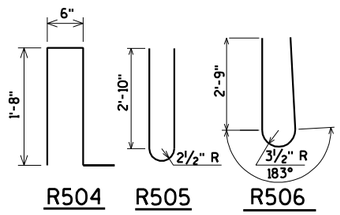


PLAN

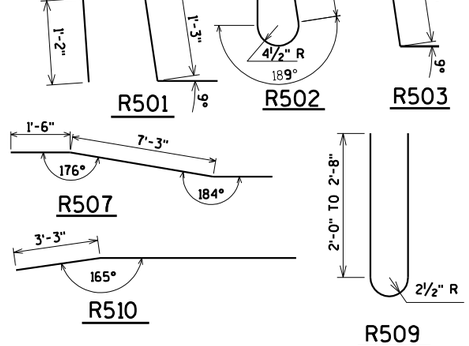
(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)

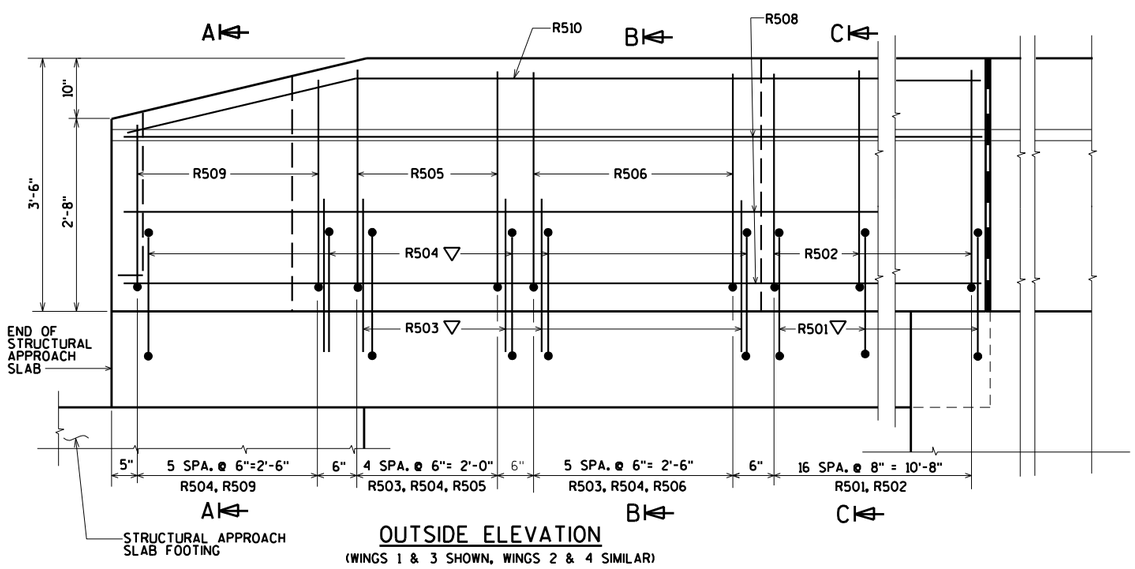


OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



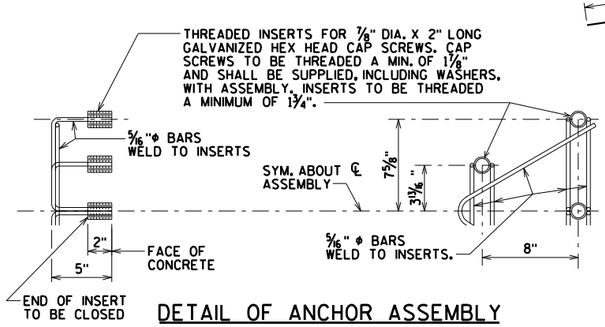
R504 R505 R506





OUTSIDE ELEVATION

(WINGS 1 & 3 SHOWN, WINGS 2 & 4 SIMILAR)



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.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE

▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS

SHEET 26 OF 26
563

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

PENTABLE:BReau_shd_util.tbl

8

PROJECT ID 5290-00-72

STH 19 WB/TEB1- Widening- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	232+00		9.29	0.0	0.0	0.0								
	232+50	50	11.15	0.0	0.0	0.0	19	0	0	0	19	0	0	19
	233+00	50	15.26	0.0	0.0	0.0	24	0	0	0	43	0	0	43
	233+50	50	21.9	0.0	0.75	0.0	34	0	1	0	77	1	0	76
	234+00	50	29.32	0.0	4.97	0.0	47	0	5	0	124	8	0	116
	234+50	50	66.06	0.0	3.8	0.0	88	0	8	0	212	18	0	194
	235+00	50	88.01	0.0	2.61	0.0	143	0	6	0	355	26	0	329
	235+50	50	94.04	0.0	4.99	0.0	169	0	7	0	524	35	0	489
	236+00	50	97.46	0.0	10.66	0.0	177	0	14	0	701	53	0	648
	236+50	50	152.97	0.0	8.72	0.0	232	0	18	0	933	77	0	856
	237+00	50	202.01	0.0	5.76	0.0	329	0	13	0	1262	94	0	1168
	237+50	50	184.85	0.0	9.58	0.0	358	0	14	0	1620	112	0	1508
	238+00	50	135.54	0.0	8.43	0.0	297	0	17	0	1917	134	0	1783
	238+50	50	120.43	0.0	10.31	0.0	237	0	17	0	2154	156	0	1998
	239+00	50	101.92	0.0	7.68	0.0	206	0	17	0	2360	178	0	2182
	239+50	50	98.51	0.0	6.49	0.0	186	0	13	0	2546	195	0	2351
	240+00	50	107.73	0.0	4.21	0.0	191	0	10	0	2737	208	0	2529
	240+50	50	131.94	0.0	4.8	0.0	222	0	8	0	2959	218	0	2741
	241+00	50	123.1	0.0	4.13	0.0	236	0	8	0	3195	229	0	2966
	241+50	50	98.25	0.0	7.66	0.0	205	0	11	0	3400	243	0	3157
	242+00	50	11.05	0.0	23.05	0.0	101	0	28	0	3501	280	0	3222
	242+50	50	26.23	0.0	70.48	0.0	35	0	87	0	3536	393	0	3143
	243+00	50	40.33	0.0	127.21	0.0	62	0	183	0	3598	631	0	2968
	243+50	50	37.54	0.0	121.36	0.0	72	0	230	0	3670	930	0	2741
	244+00	50	43.7	0.0	61.99	0.0	75	0	170	0	3745	1151	0	2595
	244+50	50	43.79	0.0	42.55	0.0	81	0	97	0	3826	1277	0	2549
	245+65	115	33.21	0.0	0.0	0.0	164	0	91	0	3990	1395	0	2595
	246+00	35	16.68	0.0	20.75	0.0	32	0	13	0	4022	1412	0	2610
	246+50	50	12.73	0.0	12.71	0.0	27	0	31	0	4049	1452	0	2597
	247+00	50	7.55	0.0	4.75	0.0	19	0	16	0	4068	1473	0	2595
	247+50	50	11.4	0.0	0.05	0.0	18	0	4	0	4086	1478	0	2608
	248+00	50	9.03	0.0	0.26	0.0	19	0	0	0	4105	1478	0	2627
							4105	0	1137	0				

PROJECT ID 5290-00-72

RIVER RD RNB/TRR- Widening- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	46+75		4.86	0.0	5.71	0.0								
	47+00	25	6.74	0.0	9.79	0.0	5	0	7	0	5	9	0	-4
	47+50	50	12.28	0.0	36.42	0.0	18	0	43	0	23	65	0	-42
	48+00	50	13.61	0.0	73.75	0.0	24	0	102	0	47	198	0	-151
	48+50	50	14.75	0.0	107.49	0.0	26	0	168	0	73	416	0	-343
	49+00	50	0.01	0.0	133.49	0.0	14	0	223	0	61	706	0	-619
	49+50	50	0.03	0.0	141.5	0.0	0	0	255	0	73	1037	0	-950
	50+00	50	0.04	0.0	146.09	0.0	0	0	266	0	73	1383	0	-1296
	50+50	50	0.0	0.0	160.49	0.0	0	0	284	0	73	1752	0	-1665
	51+00	50	0.0	0.0	167.07	0.0	0	0	303	0	73	2146	0	-2059
	51+50	50	0.0	0.0	151.35	0.0	0	0	295	0	73	2530	0	-2443
	52+00	50	0.0	0.0	155.44	0.0	0	0	284	0	73	2899	0	-2812
	52+50	50	0.0	0.0	149.97	0.0	0	0	283	0	73	3267	0	-3180
	53+00	50	0.0	0.0	168.33	0.0	0	0	295	0	73	3650	0	-3563
	53+50	50	0.0	0.0	199.88	0.0	0	0	341	0	73	4094	0	-4007
	54+00	50	0.0	0.0	232.2	0.0	0	0	400	0	73	4614	0	-4527
	54+50	50	0.0	0.0	246.72	0.0	0	0	443	0	73	5190	0	-5103
	55+00	50	0.0	0.0	245.26	0.0	0	0	456	0	73	5782	0	-5695
	55+50	50	0.0	0.0	199.8	0.0	0	0	412	0	73	6318	0	-6231
	56+00	50	36.1	0.0	10.46	0.0	33	0	195	0	106	6572	0	-6452
	56+50	50	0.0	0.0	0.0	0.0	33	0	10	0	139	6585	0	-6432
							153	0	5065	0				

PROJECT ID 5290-00-72
STH 19 EB- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	152+59		13.95	0.0	384.1	0.0								
	153+00	41	4.11	0.0	917.77	1158.18	14	0	988	879	14	1284	527	-585
	153+50	50	7.94	0.0	1016.09	1131.58	11	0	1791	2120	25	3613	1799	-1248
	154+00	50	6.32	0.0	1094.88	1062.08	13	0	1955	2031	38	6154	3018	-2193
	154+33	33	6.32	0.0	385.78	0.0	8	0	905	649	46	7331	3407	-2855
	154+56	23	0.0	0.0	0.0	0.0	3	0	164	0	49	7544	3407	-3065
	B-13-0794													
	155+62		0.0	0.0	385.78	0.0					49	7544	3407	-3065
	156+00	38	21.69	0.0	608.77	0.0	15	0	700	0	64	8454	3407	-3960
	156+50	50	38.4	0.0	371.9	0.0	56	0	908	0	120	9634	3407	-5085
	157+00	50	68.12	0.0	175.53	0.0	99	0	507	0	219	10293	3407	-5645
	157+50	50	138.08	0.0	54.97	0.0	191	0	213	0	410	10570	3407	-5731
	158+00	50	227.11	0.0	23.88	0.0	338	0	73	0	748	10665	3407	-5488
	158+50	50	243.33	0.0	20.9	0.0	436	0	41	0	1184	10719	3407	-5105
	159+00	50	201.02	0.0	26.3	0.0	411	0	44	0	1595	10776	3407	-4751
	159+50	50	121.2	0.0	45.84	0.0	298	0	67	0	1893	10863	3407	-4540

CONTINUED ON NEXT PAGE

PROJECT ID 5290-00-72
STH 19 EB*/LWS*- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	160+00	50	57.28	0.0	118.63	0.0	165	0	152	0	2058	11060	3407	-4573
	160+50	50	46.71	0.0	151.94	0.0	96	0	251	0	2154	11387	3407	-4803
	161+00	50	66.78	0.0	99.78	0.0	105	0	233	0	2259	11690	3407	-5001
	161+50	50	83.59	0.0	44.11	0.0	139	0	133	0	2398	11863	3407	-5035
	162+00	50	122.21	0.0	9.43	0.0	191	0	50	0	2589	11928	3407	-4909
	162+50	50	160.98	0.0	3.66	0.0	262	0	12	0	2851	11943	3407	-4662
	163+00	50	178.33	0.0	6.95	0.0	314	0	10	0	3165	11956	3407	-4361
	163+50	50	166.39	0.0	12.77	0.0	319	0	18	0	3484	11980	3407	-4066
	164+00	50	201.82	0.0	29.02	0.0	341	0	39	0	3825	12030	3407	-3776
	164+50	50	106.37	0.0	99.61	0.0	285	0	119	0	4110	12185	3407	-3645
	165+00	50	66.42	0.0	197.76	0.0	160	0	275	0	4270	12542	3407	-3843
	165+50	50	52.42	0.0	284.45	0.0	110	0	446	0	4380	13122	3407	-4313
	166+00	50	31.48	0.0	405.24	0.0	78	0	639	0	4458	13953	3407	-5065
	166+50	50	23.08	0.0	526.85	0.0	51	0	863	0	4509	15075	3407	-6136
	167+00	50	23.69	0.0	600.84	0.0	43	0	1044	0	4552	16432	3407	-7450
	167+50	50	23.63	0.0	230.33	0.0	44	0	770	0	4596	17433	3407	-8407
	168+00	50	47.46	33.9	0.33	0.0	66	31	214	0	4662	17711	3407	-8651
	168+50	50	41.75	0.0	0.0	0.0	83	31	0	0	4745	17711	3407	-8599
	169+00	50	230.92	0.0	445.03	0.0	252	0	412	0	4997	18247	3407	-8882
	169+50	50	153.53	0.0	485.8	0.0	356	0	862	0	5353	19367	3407	-9647
	170+00	50	96.35	0.0	523.38	0.0	231	0	934	0	5584	20582	3407	-10630
	170+50	50	58.65	0.0	557.68	0.0	144	0	1001	0	5728	21883	3407	-11787
	171+00	50	24.93	0.0	576.34	0.0	77	0	1050	0	5805	23248	3407	-13075
	171+50	50	1.82	0.0	577.55	0.0	25	0	1068	0	5830	24636	3407	-14439
	172+00	50	0.0	0.0	587.48	0.0	2	0	1079	0	5832	26039	3407	-15839
	172+50	50	0.0	0.0	562.69	0.0	0	0	1065	0	5832	27424	3407	-17224
	173+00	50	1.32	0.0	474.11	0.0	1	0	960	0	5833	28672	3407	-18471
	173+50	50	2.51	0.0	428.87	0.0	4	0	836	0	5837	29758	3407	-19554
	174+00	50	2.15	0.0	424.18	0.0	4	0	790	0	5841	30785	3407	-20577
	174+50	50	3.53	0.0	382.05	0.0	5	0	747	0	5846	31756	3407	-21543
	175+00	50	11.44	0.0	309.73	0.0	14	0	641	0	5860	32590	3407	-22362
	175+50	50	21.14	0.0	241.27	0.0	30	0	510	0	5890	33253	3407	-22995
	176+00	50	71.07	0.0	99.75	0.0	85	0	316	0	5975	33664	3407	-23321
	176+50	50	160.7	0.0	38.12	0.0	215	0	128	0	6190	33830	3407	-23272
	177+00	100	302.39	0.0	7.56	0.0	858	0	85	0	7048	33940	3407	-22525
	EB*/LWS*		-109846.92	0.0	0.0	0.0	-4068	0	0	0	2980	33940	3407	-26593
							2980	62	26108	5679				

*Subtracted portion of Cut that falls under CAT 0050

PROJECT ID 5290-00-72
LIUNA LWS- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	7+50		0.0	15.42	0.0	0.0								
	7+75	25	63.1	15.42	0.0	0.0	29	14	0	0	29	0	0	15
	8+00	25	71.88	15.42	15.59	0.0	62	14	7	0	91	9	0	54
	8+25	25	66.14	15.42	32.22	0.0	64	14	22	0	155	38	0	75
	8+50	25	35.17	15.42	217.22	0.0	47	14	115	0	202	187	0	-41
	8+75	25	7.0	15.42	219.45	0.0	20	14	202	0	222	450	0	-298
	9+00	25	156.92	15.42	252.97	0.0	76	14	219	0	298	735	0	-521
	9+25	25	77.63	15.42	317.4	0.0	109	14	264	0	407	1078	0	-769
	9+35	10	23.66	15.42	494.68	0.0	19	6	150	0	426	1273	0	-951
							426	104	979	0				

PROJECT ID 5290-00-72

YAHARA-RIVER-ACCESS- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	154+60		0.0	0.0	0.0	0.0								
	155+00	40	34.54	0.0	0.0	0.0	26	0	0	0	26	0	0	26
	155+50	50	4.72	0.0	0.0	0.0	36	0	0	0	62	0	0	62
	156+00	50	0.57	0.0	16.83	0.0	5	0	16	0	67	21	0	46
	156+50	50	1.22	0.0	46.37	0.0	2	0	59	0	69	98	0	-29
	156+70	20	0.0	0.0	129.38	0.0	0	0	65	0	69	182	0	-113
	157+00	30	11.87	0.0	120.52	0.0	7	0	139	0	76	363	0	-287
	157+50	50	29.42	0.0	39	0.0	38	0	148	0	114	555	0	-441
	158+00	50	47.13	0.0	17.56	0.0	71	0	52	0	185	623	0	-438
	158+50	50	43.74	0.0	19.69	0.0	84	0	34	0	269	667	0	-398
	159+00	50	39.93	0.0	24.76	0.0	77	0	41	0	346	720	0	-374
	159+50	50	24.79	0.0	47.48	0.0	60	0	67	0	406	807	0	-401
	160+00	50	11.07	0.0	89.22	0.0	33	0	127	0	439	972	0	-533
	160+50	50	13.49	0.0	80.47	0.0	23	0	157	0	462	1177	0	-715
	161+00	50	24.29	0.0	61.98	0.0	35	0	132	0	497	1348	0	-851
	161+50	50	39.2	0.0	37.61	0.0	59	0	92	0	556	1468	0	-912
	162+00	50	53.92	0.0	29.15	0.0	86	0	62	0	642	1548	0	-906
	162+50	50	68.48	0.0	24.91	0.0	113	0	50	0	755	1613	0	-858
	163+00	50	74.72	0.0	33.27	0.0	133	0	54	0	888	1684	0	-796
	163+50	50	65.88	0.0	29.7	0.0	130	0	58	0	1018	1759	0	-741
	164+00	50	0.0	0.0	28.9	0.0	61	0	54	0	1079	1829	0	-750
	164+50	50	0.0	0.0	57.98	0.0	0	0	80	0	1079	1933	0	-854
	165+00	50	0.0	0.0	70.7	0.0	0	0	119	0	1079	2088	0	-1009
	165+50	50	0.02	0.0	64.39	0.0	0	0	125	0	1079	2250	0	-1171
	166+00	50	0.0	0.0	77.41	0.0	0	0	131	0	1079	2421	0	-1342
	166+50	50	0.0	0.0	104.02	0.0	0	0	168	0	1079	2639	0	-1560
	167+00	50	0.0	0.0	137.83	0.0	0	0	224	0	1079	2930	0	-1851
	167+50	50	0.08	0.0	106.02	0.0	0	0	226	0	1079	3224	0	-2145
	167+80	30	0.0	0.0	88.66	0.0	0	0	108	0	1079	3364	0	-2285
							1079	0.0	2588	0				

PROJECT ID 5290-00-72

Temporary Median Crossovers TEB1 and EB*/LWS*- Substage 1A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Expanded Fill	Reduced Marsh in Fill	
							Note 1				1.00 Note 1	1.30 Note 2	0.60 Note 3	Note 4
0050	256+50		1.8	0.0	0.0	0.0								
	257+00	50	4.2	0.0	0.0	0.0	6	0	0	0	6	0	0	6
	257+50	50	11.9	0.0	0.0	0.0	15	0	0	0	21	0	0	21
	258+00	50	24.5	0.0	0.0	0.0	34	0	0	0	55	0	0	55
	258+50	50	35.3	0.0	0.0	0.0	55	0	0	0	110	0	0	110
	259+00	50	7.8	0.0	0.0	0.0	40	0	0	0	150	0	0	150
	259+50	50	0.0	0.0	67.6	0.0	7	0	63	0	157	82	0	75
	260+00	50	0.0	0.0	2.9	0.0	0	0	65	0	157	166	0	-9
	260+50	50	0.0	1.0	20.6	0.0	0	0	22	0	157	195	0	-38
	260+90	40	0.0	2.0	0.0	0.0	0	0	15	0	157	215	0	-58
	273+35		9.1	0.0	0.0	0.0								
	273+50	15	23.4	0.0	0.0	0.0	9	0	0	0	166	215	0	-49
	274+00	65	11.1	0.0	52.8	0.0	41	0	64	0	207	298	0	-91
	274+50	50	11.2	0.0	67.0	0.0	21	0	111	0	228	442	0	-214
	275+00	50	21.0	0.0	61.9	0.0	30	0	119	0	258	597	0	-339
	275+50	50	20.7	0.0	42.2	0.0	39	0	96	0	297	722	0	-425
	276+00	50	19.6	0.0	37.5	0.0	37	0	74	0	334	818	0	-484
	276+50	50	31.0	0.0	7.9	0.0	47	0	42	0	381	872	0	-491
	277+00	50	22.9	0.0	0.0	0.0	50	0	7	0	431	881	0	-450
	277+50	50	10.5	0.0	0.0	0.0	31	0	0	0	462	881	0	-419
	278+00	50	3.7	0.0	0.0	0.0	13	0	0	0	475	881	0	-406
	278+39	39	2.3	0.0	0.0	0.0	4	0	0	0	479	881	0	-402
	EB*/LWS*		109846.9	0.0	0.0	0.0	4068	0	0	0	4547	881	0	3666
							4547	0	678	0				

* Added portion of Cut from CAT 0010 computations that falls under CAT 0050.

PROJECT ID 5290-00-72
STH 19 EB- Substage 1C

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Expanded Fill	Reduced Marsh in Fill	
							Note 1				1.00 Note 1	1.30 Note 2	0.60 Note 3	Note 4
0010	134+50		0.0	24.0	0.0	0.0								
	135+00	50	90.59	17.0	0.0	0.0	84	38	0	0	84	0	0	46
	135+50	50	91.81	17.0	0.0	0.0	169	31	0	0	253	0	0	184
	136+00	50	93.22	17.0	0.0	0.0	171	31	0	0	424	0	0	324
	136+50	50	92.98	17.0	0.0	0.0	172	31	0	0	596	0	0	465
	137+00	50	89.71	17.0	0.0	0.0	169	31	0	0	765	0	0	603
	137+50	50	84.7	17.0	0.46	0.0	161	31	0	0	926	0	0	733
	138+00	50	83.84	17.0	1.9	0.0	156	31	2	0	1082	3	0	855
	138+50	50	85.2	17.0	2.08	0.0	157	31	4	0	1239	8	0	976
	139+00	50	93.05	17.0	3.2	0.0	165	31	5	0	1404	14	0	1104
	139+50	50	116.82	17.0	3.38	0.0	194	31	6	0	1598	22	0	1259
	140+00	50	119.13	17.0	22.79	0.0	218	31	24	0	1816	53	0	1415
	140+50	50	119.37	23.0	19.58	0.0	221	37	39	0	2037	104	0	1548
	141+00	50	120.69	24.0	23.18	0.0	222	44	40	0	2259	156	0	1674
	141+50	50	116.33	26.9	22.81	0.0	219	47	43	0	2478	212	0	1790
	142+00	50	109.5	27.5	9.88	0.0	209	50	30	0	2687	251	0	1910
	142+50	50	106.45	29.3	15.92	0.0	200	53	24	0	2887	282	0	2026
	143+00	50	121.81	29.5	29.3	0.0	211	54	42	0	3098	337	0	2128
	ROUNDABOUT		-	-	-	0.0	387	310	1957	0	3485	2881	0	-340
							3485	943	2216	0				

PROJECT ID 5290-00-72
STH 19 EB- Substage 1C

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Expanded Fill	Reduced Marsh in Fill	
							Note 1				1.00 Note 1	1.30 Note 2	0.60 Note 3	Note 4
0010	146+50		14.26	0.0	613.4	0.0								
	147+00	50	18.71	0.0	467.1	0.0	31	0	1000	0	31	1300	0	-1269
	147+50	50	18.9	0.0	387.61	0.0	35	0	791	0	66	2328	0	-2262
	148+00	50	20.83	0.0	341.15	0.0	37	0	675	0	103	3206	0	-3103
	148+50	50	26.16	0.0	309.12	0.0	44	0	602	0	147	3988	0	-3841
	149+00	50	27.87	0.0	285.06	0.0	50	0	550	0	197	4703	0	-4506
	149+50	50	23.38	0.0	269.82	0.0	47	0	514	0	244	5372	0	-5128
	150+00	50	24.62	0.0	221.35	0.0	44	0	455	0	288	5963	0	-5675
	150+50	50	22.17	0.0	204.96	0.0	43	0	395	0	331	6477	0	-6146
	151+00	50	29.06	0.0	183.39	0.0	47	0	360	0	378	6945	0	-6567
	151+50	50	32.8	0.0	179.32	0.0	57	0	336	0	435	7381	0	-6946
	151+57	7	32.1	0.0	182.21	0.0	8	0	46	0	443	7441	0	-6998
	151+82	25	26.35	0.0	203.56	0.0	27	0	180	0	470	7675	0	-7205
	152+00	18	22.99	0.0	234.96	0.0	16	0	146	0	486	7865	0	-7379
	152+07	7	22.48	0.0	247.14	0.0	6	0	62	0	492	7946	0	-7454
	152+09	2	22.78	0.0	250.32	0.0	2	0	18	0	494	7969	0	-7475
	152+34	25	26.36	0.0	307.76	0.0	23	0	258	0	517	8304	0	-7787
	152+50	16	29.75	0.0	341.61	0.0	17	0	192	0	534	8554	0	-8020
	152+59	9	13.95	0.0	384.1	0.0	7	0	121	0	541	8711	0	-8170
							541	0	6701	0				

PROJECT ID 5290-00-72
STH 19 EB/TEB2- Widening- Substage 1C

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	Mass Ordinate
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	231+40		9.28	0.0	0.0	0.0								
	231+50	10	9.7	0.0	0.0	0.0	4	0	0	0	4	0	0	4
	232+00	50	12.83	0.0	0.0	0.0	21	0	0	0	25	0	0	25
	232+50	50	20.93	0.0	0.0	0.0	31	0	0	0	56	0	0	56
	233+00	50	27.59	0.0	1.78	0.0	45	0	2	0	101	3	0	98
	233+50	50	30.77	0.0	16.69	0.0	54	0	17	0	155	25	0	130
	234+00	50	33.35	0.0	15.39	0.0	59	0	30	0	214	64	0	150
	234+50	50	33.17	0.0	6.00	0.0	62	0	20	0	276	90	0	186
	235+00	50	55.91	0.0	0.0	0.0	82	0	6	0	358	98	0	261
	235+50	50	42.32	0.0	5.90	0.0	91	0	5	0	449	104	0	345
	236+00	50	38.47	0.0	9.02	0.0	75	0	14	0	524	122	0	402
	236+50	50	39	0.0	9.58	0.0	72	0	17	0	596	144	0	452
	237+00	50	40.91	0.0	4.57	0.0	74	0	13	0	670	161	0	509
	237+50	50	42.08	0.0	1.38	0.0	77	0	6	0	747	169	0	578
	238+00	50	39.59	0.0	0.0	0.0	76	0	1	0	823	170	0	653
	238+50	50	38.87	0.0	0.0	0.0	73	0	0	0	896	170	0	726
	239+00	50	40.03	0.0	0.0	0.0	73	0	0	0	969	170	0	799
	239+50	50	35.63	0.0	0.0	0.0	70	0	0	0	1039	170	0	869
	240+00	50	35.32	0.0	0.0	0.0	66	0	0	0	1105	170	0	935
	240+50	50	43.08	0.0	0.0	0.0	73	0	0	0	1178	170	0	1008
	241+00	50	48.47	0.0	0.0	0.0	85	0	0	0	1263	170	0	1093
	241+50	50	54.22	0.0	0.0	0.0	95	0	0	0	1358	170	0	1188
	242+00	50	58.79	0.0	0.0	0.0	105	0	0	0	1463	170	0	1293
	242+50	50	68.44	0.0	2.30	0.0	118	0	2	0	1581	173	0	1408
	243+00	50	77.93	0.0	6.15	0.0	136	0	8	0	1717	183	0	1534
	243+50	50	93.19	0.0	22.63	0.0	158	0	27	0	1875	218	0	1657
	244+00	50	0.0	0.0	120.02	0.0	86	0	132	0	1961	390	0	1571
							1961	0	300	0				

PROJECT ID 5290-00-72

River Rd-RSB South of RAB Substage 1C

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	Mass Ordinate
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	50+00		88.14	9.3	0.0	0.0								
	50+50	50	96.87	9.3	0.0	0.0	171	17	0	0	171	0	0	154
	51+00	50	83.28	9.3	0.0	0.0	167	17	0	0	338	0	0	304
	51+50	50	80.66	9.3	0.0	0.0	152	17	0	0	490	0	0	439
	52+00	50	76.62	9.3	0.0	0.0	146	17	0	0	636	0	0	568
	52+50	50	77.05	9.3	0.31	0.0	142	17	0	0	778	0	0	693
	53+00	50	100.28	13.4	6.13	0.0	164	21	6	0	942	8	0	828
	53+50	50	95.73	13.4	20.03	0.0	181	25	24	0	1123	39	0	953
	54+00	50	105.14	13.4	46.71	0.0	186	25	62	0	1309	120	0	1033
	54+25	25	118.15	13.4	78.16	0.0	103	12	58	0	1412	195	0	1049
	54+50	25	123.94	13.4	133.07	0.0	112	12	98	0	1524	322	0	1022
	54+85	35	154.69	15.2	207.34	0.0	181	19	221	0	1705	610	0	896
							1705	199	469	0				

PROJECT ID 5290-00-72

STH 19 WB Substage 1C - CONTINUED

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	160+00		111.81	23.8	6.12	0.0								
	160+36	36	169.86	23.8	0.0	0.0	188	32	4	0	188	5	0	151
	160+50	14	129.91	23.8	1.51	0.0	78	12	0	0	266	5	0	217
	161+00	50	87.09	23.8	3.38	0.0	201	44	5	0	467	12	0	367
	161+50	50	91.21	23.8	2.32	0.0	165	44	5	0	632	18	0	482
	162+00	50	98.36	23.8	0.72	0.0	176	44	3	0	808	22	0	610
	162+50	50	98.08	23.8	12.84	0.0	182	44	13	0	990	39	0	731
	163+00	50	92.38	23.8	8.8	0.0	176	44	20	0	1166	65	0	837
	163+50	50	99.4	23.8	3.82	0.0	178	44	12	0	1344	81	0	955
	164+00	50	112.92	23.8	1.4	0.0	197	44	5	0	1541	87	0	1102
	164+50	50	118.4	25.3	0.8	0.0	214	45	2	0	1755	90	0	1268
	165+00	50	120.13	26.2	0.06	0.0	221	48	1	0	1976	91	0	1440
	165+50	50	135.19	27.7	0.0	0.0	236	50	0	0	2212	91	0	1626
	166+00	50	137.92	28.1	0.0	0.0	253	52	0	0	2465	91	0	1827
	166+50	50	165.03	28.1	0.0	0.0	281	52	0	0	2746	91	0	2056
	167+00	50	202.67	28.1	0.0	0.0	340	52	0	0	3086	91	0	2344
	167+50	50	98.7	28.6	0.0	0.0	279	52	0	0	3365	91	0	2571
	168+00	50	98.17	28.6	0.0	0.0	182	53	0	0	3547	91	0	2700
	168+50	50	81.83	28.3	0.0	0.0	167	53	0	0	3714	91	0	2814
	169+00	50	99.89	26.2	100.34	0.0	168	50	93	0	3882	212	0	2811
	169+50	50	96.34	24.1	102.17	0.0	182	47	188	0	4064	456	0	2702
	170+00	50	86.2	23.8	114.78	0.0	169	44	201	0	4233	718	0	2565
	170+50	50	74.72	23.8	109.48	0.0	149	44	208	0	4382	988	0	2400
	171+00	50	70.24	23.8	117.35	0.0	134	44	210	0	4516	1261	0	2217
	171+50	50	61.95	23.8	106.16	0.0	122	44	207	0	4638	1530	0	2026
	172+00	50	69.38	23.8	103.11	0.0	122	44	194	0	4760	1782	0	1852
	172+50	50	79.27	23.8	80.49	0.0	138	44	170	0	4898	2003	0	1725
	173+00	50	77.27	23.8	67.65	0.0	145	44	137	0	5043	2181	0	1648
	173+50	50	86.74	23.8	68.61	0.0	152	44	126	0	5195	2345	0	1592
	174+00	50	94.82	23.8	24.61	0.0	168	44	86	0	5363	2457	0	1604
	174+50	50	108.57	23.8	21.15	0.0	188	44	42	0	5551	2512	0	1693
	175+00	50	110.31	23.8	18.16	0.0	203	44	36	0	5754	2558	0	1806
							5754	1390	1968	0				

PROJECT ID 5290-00-72

STH 19 EB Substage 1C - CONTINUED

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	177+00		302.39	0.0	7.56	0.0								
	177+50	50	271.34	0.0	54.08	0.0	531	0	57	0	531	74	0	457
	178+00	50	248.21	0.0	65.55	0.0	481	0	111	0	1012	218	0	794
	178+50	50	231.02	0.0	67.96	0.0	444	0	124	0	1456	380	0	1076
	179+00	50	234.62	0.0	70	0.0	431	0	128	0	1887	546	0	1341
	179+50	50	221.25	0.0	50	0.0	422	0	111	0	2309	690	0	1619
	180+00	50	488.47	0.0	30.48	0.0	657	0	75	0	2966	788	0	2178
	180+50	50	686.88	0.0	28.4	0.0	1088	0	55	0	4054	859	0	3195
	181+00	50	381.51	0.0	21.18	0.0	989	0	46	0	5043	919	0	4124
	181+50	50	288.93	0.0	18.97	0.0	621	0	37	0	5664	967	0	4697
	182+00	50	311.06	0.0	9.52	0.0	556	0	26	0	6220	1001	0	5219
	182+50	50	338.03	0.0	8.46	0.0	601	0	17	0	6821	1023	0	5798
	183+00	50	400.07	0.0	1.06	0.0	683	0	9	0	7504	1035	0	6469
	183+50	50	404.19	0.0	0.0	0.0	745	0	1	0	8249	1036	0	7213
	184+00	50	408.69	0.0	0.0	0.0	753	0	0	0	9002	1036	0	7966
	184+50	50	353.11	0.0	0.0	0.0	705	0	0	0	9707	1036	0	8671
	185+00	50	282.34	0.0	0.0	0.0	588	0	0	0	10295	1036	0	9259
	185+50	50	273.9	0.0	0.0	0.0	515	0	0	0	10810	1036	0	9774
	186+00	50	325.14	0.0	0.0	0.0	555	0	0	0	11365	1036	0	10329
	186+50	50	258.24	0.0	2.31	0.0	540	0	2	0	11905	1039	0	10866
	187+00	50	251.62	0.0	22.84	0.0	472	0	23	0	12377	1069	0	11308
							12377	0	822	0				

PROJECT ID 5290-00-72

Tierney-TC Substage 1C - CONTINUED

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	Mass Ordinate
							Note 1				Note 1	Note 2	Note 3	Note 4
0050	302+36		0.0	0.0	0.0	0.0								
	302+85	49	143.66	0.0	260.76	0.0	130	0	237	0	130	308	0	-178
	303+00	15	163.94	0.0	180.47	0.0	85	0	123	0	215	468	0	-253
	303+25	25	206.2	0.0	137.35	0.0	171	0	147	0	386	659	0	-273
	303+50	25	168.25	0.0	63.02	0.0	173	0	93	0	559	780	0	-221
	303+75	25	185.92	0.0	5.94	0.0	164	0	32	0	723	822	0	-99
	304+00	25	127.3	0.0	13.32	0.0	145	0	9	0	868	833	0	35
	304+10	10	143.31	0.0	17.39	0.0	50	0	6	0	918	841	0	77
	304+25	15	92.39	0.0	6.41	0.0	65	0	7	0	983	850	0	133
	304+37	12	91.15	0.0	0.19	0.0	41	0	1	0	1024	852	0	173
							1024	0	655	0				

PROJECT ID 5290-00-72

River Rd-RNB* South of RAB Substage 1D

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	46+50		0.0	0.8	0.0	0.0								
	47+00	50	0.0	1.4	0.0	0.0	0	2	0	0	0	0	0	-2
	47+50	50	0.0	3.7	0.0	0.0	0	5	0	0	0	0	0	-7
	48+00	50	0.0	7.5	0.0	0.0	0	10	0	0	0	0	0	-17
	48+50	50	0.0	11.0	0.0	0.0	0	17	0	0	0	0	0	-34
	49+00	50	0.0	8.7	0.0	0.0	0	18	0	0	0	0	0	-52
	49+50	50	0.0	8.7	0.0	0.0	0	16	0	0	0	0	0	-68
	49+95	45	293.74	8.7	0.0	0.0	245	14	0	0	245	0	0	163
	50+00	5	241.02	8.7	0.0	0.0	50	2	0	0	295	0	0	211
	50+50	50	252.58	8.7	0.0	0.0	457	16	0	0	752	0	0	652
	51+00	50	247.57	8.7	0.0	0.0	463	16	0	0	1215	0	0	1099
	51+50	50	223.97	8.7	0.0	0.0	437	16	0	0	1652	0	0	1520
	52+00	50	196.04	8.7	0.0	0.0	389	16	0	0	2041	0	0	1893
	52+50	50	141.44	8.7	2.94	0.0	312	16	3	0	2353	4	0	2185
	53+00	50	118.97	8.7	7.84	0.0	241	16	10	0	2594	17	0	2397
	53+50	50	77.0	8.7	37.61	0.0	181	16	42	0	2775	72	0	2508
	54+00	50	8.05	8.7	93.18	0.0	79	16	121	0	2854	229	0	2413
	54+25	25	9.94	8.7	244.87	0.0	8	8	157	0	2862	433	0	2209
	54+50	25	11.39	8.7	323.18	0.0	10	8	263	0	2872	775	0	1869
	ROUNDABOUT		-	-	-	0.0	237	0	1198	0	3109	2332	0	549
	Turn Lane RNB*		-	-	-	0.0	-122	0	0	0	2986	2332	0	427
							2986	228	1794	0				

* Subtracted portion of Cut that falls under CAT 0050

PROJECT ID 5290-00-72
STH 19 EB Substage 1D

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	146+10		8.58	0.0	772.44	0.0								
	146+50	40	14.26	0.0	613.4	0.0	17	0	1027	0	17	1335	0	-1318
	187+00		251.62	0.0	22.84	0.0					17	1335	0	-1318
	187+50	50	112.45	0.0	0.5	0.0	337	0	22	0	354	1364	0	-1010
	188+00	50	92.65	0.0	0.0	0.0	190	0	0	0	544	1364	0	-820
	188+50	50	183.91	0.0	22.86	0.0	256	0	21	0	800	1391	0	-591
	189+00	50	213.63	0.0	20.65	0.0	368	0	40	0	1168	1443	0	-275
	189+50	50	206.73	0.0	8.8	0.0	389	0	27	0	1557	1478	0	79
	190+00	50	146.74	3.3	6.21	0.0	327	3	14	0	1884	1496	0	385
	190+50	50	128.5	9.4	3.53	0.0	255	12	9	0	2139	1508	0	616
	191+00	50	142.67	15.0	9.89	0.0	251	23	12	0	2390	1524	0	828
	191+50	50	147.81	20.2	9.9	0.0	269	33	18	0	2659	1547	0	1041
	192+00	50	133.73	24.3	15.09	0.0	261	41	23	0	2920	1577	0	1231
	192+50	50	205.62	24.3	0.0	0.0	314	45	14	0	3234	1595	0	1482
	193+00	50	135.25	24.3	7.13	0.0	316	45	7	0	3550	1604	0	1744
	193+50	50	128.36	24.3	5.42	0.0	244	45	12	0	3794	1620	0	1927
	194+00	50	120.42	24.3	8.65	0.0	230	45	13	0	4024	1637	0	2095
	194+50	50	25.7	0.0	0.0	0.0	135	23	8	0	4159	1647	0	2197
	194+68	18	20.78	0.0	0.98	0.0	15	0	0	0	4174	1647	0	2212
							4174	315	1267	0				

PROJECT ID 5290-00-72
Liuna Way-LES Substage 1D

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Expanded Fill	Reduced Marsh in Fill	
							Note 1				1.00 Note 1	1.30 Note 2	0.60 Note 3	Note 4
0010	8+75		0.0	0.0	0.0	0.0								
	8+86	11	63.41	13.8	0.0	0.0	13	3	0	0	13	0	0	10
	9+00	14	60.84	13.8	0.93	0.0	21	5	0	0	34	0	0	26
	9+25	25	122.33	13.8	0.0	0.0	85	13	0	0	119	0	0	98
	9+50	25	404.76	13.8	0.0	0.0	244	13	0	0	363	0	0	329
							363	34	0	0				

PROJECT ID 5290-00-72
RNB*-Substage 1D

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Expanded Fill	Reduced Marsh in Fill	
							Note 1				1.00 Note 1	1.30 Note 2	0.60 Note 3	Note 4
0050	Turn Lane RNB*		3301.5	0.0	0.0	0.0	122	0	0	0	122	0	0	122
							122	0	0	0				

* Added portion of Cut from CAT 0010 computations that falls under CAT 0050.

PROJECT ID 5290-00-72

Temporary Median Crossovers TEB2- Substage 1E.

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Fill Marsh 1.25	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2		Note 3	Note 4
0050	256+50		0.4	0.4	0.0	0.0									
	257+00	50	0.8	0.8	0.0	0.0	1	1	0	0	1	0	0	0	0
	257+50	50	4.6	2.1	0.0	0.0	5	3	0	0	6	0	0	0	2
	258+00	50	8.8	4.3	0.0	0.0	12	6	0	0	18	0	0	0	8
	258+50	50	15.9	7.6	0.0	0.0	23	11	0	0	41	0	0	0	20
	259+00	50	26.2	9.6	0.0	0.0	39	16	0	0	80	0	0	0	43
	259+50	50	8.2	10.3	0.0	0.0	32	18	0	0	112	0	0	0	57
	260+00	50	5.3	6.1	0.0	0.0	12	15	0	0	124	0	0	0	54
	260+50	50	5.3	2.4	11.5	0.0	10	8	11	0	134	14	0	0	42
	261+00	50	26.4	0.0	0.0	0.0	29	2	11	0	163	29	0	0	54
	261+50	50	18.5	0.0	0.0	0.0	42	0	0	0	205	29	0	0	96
	262+00	50	0.0	0.0	0.0	0.0	17	0	0	0	222	29	0	0	113
	272+50		0.0	0.0	0.0	0.0	0	0	0	0	222	29	0	0	113
	273+00	50	31.9	0.0	0.0	0.0	30	0	0	0	252	29	0	0	143
	273+50	50	35.9	1.6	0.0	0.0	63	1	0	0	315	29	0	0	205
	273+75	25	2.2	2.9	0.0	0.0	18	2	0	0	333	29	0	0	221
	274+00	25	17.9	4.2	0.0	0.0	9	3	0	0	342	29	0	0	227
	274+50	50	4.7	6.5	0.0	0.0	21	10	0	0	363	29	0	0	238
	275+00	50	2.3	9.0	0.0	0.0	6	14	0	0	369	29	0	0	230
	275+50	50	1.0	12.4	0.0	0.0	3	20	0	0	372	29	0	0	213
	276+00	50	0.0	12.5	0.0	0.0	1	23	0	0	373	29	0	0	191
	276+50	50	0.0	7.8	0.0	0.0	0	19	0	0	373	29	0	0	172
	277+00	50	0.0	4.4	0.0	0.0	0	11	0	0	373	29	0	0	161
	277+50	50	0.0	2.0	0.0	0.0	0	6	0	0	373	29	0	0	155
	278+00	50	0.0	0.7	0.0	0.0	0	3	0	0	373	29	0	0	152
	278+50	50	0.0	0.0	0.0	0.0	0	1	0	0	373	29	0	0	151
							373	193	22	0					

PROJECT ID 5290-00-72

Temporary Median Crossovers TEB2- Substage 1E

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Fill Marsh 1.25	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2		Note 3	Note 4
0010	292+00		0.0	0.0	0.0	0.0									
	292+50	50	2.3	0.0	0.0	0.0	2	0	0	0	2	0	0	0	2
	293+00	50	29.3	0.0	0.0	0.0	29	0	0	0	31	0	0	0	31
	293+50	50	28.2	0.0	0.0	0.0	53	0	0	0	84	0	0	0	84
	294+00	50	15.0	0.0	0.0	0.0	40	0	0	0	124	0	0	0	124
	294+50	50	11.0	0.0	0.0	0.0	24	0	0	0	148	0	0	0	148
	294+64	14	11.5	0.0	0.0	0.0	6	0	0	0	154	0	0	0	154
							154	0	0	0					

PROJECT ID 5290-00-72
STH 19 WB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Mass Ordinate Note 4
0010	132+50		0.0	1.3	0.0	0.0								
	133+00	50	0.0	2.0	0.0	0.0	0	3	0	0	0	0	0	-3
	133+50	50	0.0	3.9	0.0	0.0	0	5	0	0	0	0	0	-8
	134+00	50	0.0	6.4	0.0	0.0	0	10	0	0	0	0	0	-18
	134+50	50	0.0	8.3	0.0	0.0	0	14	0	0	0	0	0	-32
	135+00	50	84.42	21.0	43.66	0.0	78	27	40	0	78	52	0	-33
	135+50	50	118.62	19.9	44.38	0.0	188	38	82	0	266	159	0	10
	136+00	50	114.33	19.9	75.17	0.0	216	37	111	0	482	303	0	45
	136+50	50	106.37	19.9	100.84	0.0	204	37	163	0	686	515	0	0
	137+00	50	106.37	19.9	114.98	0.0	197	37	200	0	883	775	0	-100
	137+50	50	111.9	19.9	105.4	0.0	202	37	204	0	1085	1040	0	-200
	138+00	50	120.83	19.9	73.48	0.0	215	37	166	0	1300	1256	0	-238
	138+50	50	134.82	19.9	75.41	0.0	237	37	138	0	1537	1435	0	-217
	139+00	50	149.62	19.9	33.47	0.0	263	37	101	0	1800	1567	0	-123
	139+50	50	160.42	19.9	23.63	0.0	287	37	53	0	2087	1635	0	59
	140+00	50	166.66	19.9	0.0	0.0	303	37	22	0	2390	1664	0	296
	140+50	50	168.05	19.9	0.05	0.0	310	37	0	0	2700	1664	0	569
	141+00	50	166.51	19.9	0.0	0.0	310	37	0	0	3010	1664	0	842
	141+50	50	171.4	19.9	0.06	0.0	313	37	0	0	3323	1664	0	1118
	142+00	50	159.08	20.4	0.0	0.0	306	37	0	0	3629	1664	0	1387
	142+50	50	174.22	23.5	3.06	0.0	309	41	3	0	3938	1668	0	1651
	143+00	50	110.26	26.6	26.49	0.0	263	46	27	0	4201	1703	0	1833
	143+50	50	73.22	27.6	82.71	0.0	170	50	101	0	4371	1834	0	1822
	143+95	45	51.47	29.1	184.83	0.0	104	47	223	0	4475	2124	0	1589
	ROUNDABOUT		-	-	-	0.0	474	606	2396	0	4949	5238	0	-1658
							4949	1368	4030	0				

PROJECT ID 5290-00-72

River Rd-RSB* North of RAB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	Mass Ordinate
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	Turn Lane RSB* ROUNDABOUT		-23993.542	0.0	0	0.0	-889	0	0	0	-889	0	0	-889
	57+50		0.34	0.0	677.35	0.0								
	57+75	25	0.0	0.0	635.6	0.0	0	0	608	0	-889	790	0	-1679
	58+00	25	0.0	0.0	460.48	0.0	0	0	507	0	-889	1450	0	-2338
	58+50	50	0.0	0.0	302.42	0.0	0	0	706	0	-889	2367	0	-3256
	59+00	50	0.0	0.0	157.24	0.0	0	0	426	0	-889	2921	0	-3810
	59+50	50	0.0	0.0	108.28	0.0	0	0	246	0	-889	3241	0	-4130
	60+00	50	0.0	0.0	71.24	0.0	0	0	166	0	-889	3457	0	-4345
	60+50	50	0.0	0.0	35.32	0.0	0	0	99	0	-889	3585	0	-4474
	61+00	50	11.04	0.0	13	0.0	10	0	45	0	-879	3644	0	-4523
	61+50	50	27.57	0.0	7.23	0.0	36	0	19	0	-843	3669	0	-4511
							-843	0	2822	0				

* Subtracted portion of Cut that falls under CAT 0050

PROJECT ID 5290-00-72
River Rd-RNB North of RAB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	ROUNDABOUT						0	146	0	0	0	0	0	-146
	57+50		39.37	18.2	146.03	0.0	0	0	0	0	0	0	0	-146
	57+75	25	20.12	13.4	106.46	0.0	28	15	117	0	28	152	0	-286
	58+00	25	6.19	13.4	81.06	0.0	12	12	87	0	40	265	0	-399
	58+50	50	3.62	13.4	60.86	0.0	9	25	131	0	49	436	0	-585
	59+00	50	19.54	13.4	36.72	0.0	21	25	90	0	70	553	0	-706
	59+50	50	6.04	13.4	38.71	0.0	24	25	70	0	94	644	0	-798
	59+71	21	0.9	13.4	54.67	0.0	3	10	36	0	97	690	0	-852
	60+00	29	0.72	13.4	43.81	0.0	1	14	53	0	98	759	0	-934
	60+35	35	5.15	13.4	31.78	0.0	4	17	49	0	102	823	0	-1010
	60+50	15	5.7	13.4	30.56	0.0	3	7	17	0	105	845	0	-1036
	61+00	50	3.01	13.4	28.44	0.0	8	25	55	0	113	917	0	-1125
	61+50	50	12.14	9.3	17.33	0.0	14	21	42	0	127	971	0	-1187
	62+00	50	60.44	9.3	36.38	0.0	67	17	50	0	194	1036	0	-1202
	62+08	8	61.11	9.3	49.07	0.0	18	3	13	0	212	1053	0	-1203
	62+50	42	81.55	9.3	28.94	0.0	111	15	61	0	323	1132	0	-1187
	63+00	50	48.26	9.3	20.77	0.0	120	17	46	0	443	1192	0	-1144
	63+10	10	52.66	9.3	13.37	0.0	19	3	6	0	462	1200	0	-1135
							462	397	923	0				

PROJECT ID 5290-00-72
North of RAB-RiverPE_R Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut Note 1	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00 Note 1	Expanded Fill 1.30 Note 2	Reduced Marsh in Fill 0.60 Note 3	Note 4
0010	10+50		5.38	0.0	35.6	0.0								
	10+75	25	4.12	0.0	8.95	0.0	4	0	21	0	4	27	0	-23
	11+00	25	14.95	0.0	4.16	0.0	9	0	6	0	13	35	0	-22
	11+25	25	15.4	0.0	0.0	0.0	14	0	2	0	27	38	0	-11
	11+50	25	0.0	0.0	0.0	0.0	7	0	0	0	34	38	0	-4
							34	0	29	0				

PROJECT ID 5290-00-72
STH 19 WB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
	147+00		139.62	43.9	152.34	0.0								
	147+50	50	137.51	43.8	106.09	0.0	257	81	239	0	257	311	0	-135
	148+00	50	142.27	42.7	80.31	0.0	259	80	173	0	516	536	0	-181
	148+50	50	66.59	40.3	106.14	0.0	193	77	173	0	709	761	0	-290
	149+00	50	50.35	38.8	114.14	0.0	108	73	204	0	817	1026	0	-520
	149+50	50	32.42	38.0	121.61	0.0	77	71	218	0	894	1309	0	-797
	150+00	50	24.53	34.6	80.1	0.0	53	67	187	0	947	1552	0	-1054
	150+50	50	8.57	29.9	94.41	0.0	31	60	162	0	978	1763	0	-1294
	151+00	50	19.15	25.0	95.34	0.0	26	51	176	0	1004	1992	0	-1548
							1004	560	1532	0				

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PROJECT ID 5290-00-72
STH 19 WB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	175+00		110.31	23.8	36.4	0.0								
	175+50	50	92.79	23.8	31.19	0.0	188	44	63	0	188	82	0	62
	176+00	50	71.7	23.8	27.4	0.0	152	44	54	0	340	152	0	100
	176+50	50	54.57	23.8	30.81	0.0	117	44	54	0	457	222	0	103
	177+00	50	45.53	23.8	25.64	0.0	93	44	52	0	550	290	0	84
	177+50	50	29.43	23.8	34.16	0.0	69	44	55	0	526	361	0	38
	178+00	50	39.08	23.8	52.28	0.0	63	44	80	0	613	465	0	-47
	178+50	50	37.28	23.8	51.57	0.0	71	44	96	0	684	590	0	-145
	179+00	50	55.35	23.8	44.74	0.0	86	44	89	0	770	706	0	-219
	179+50	50	61.42	23.8	31.02	0.0	108	44	70	0	878	797	0	-246
	179+75	25	79.9	23.8	10.5	0.0	65	22	19	0	943	822	0	-228
	180+00	25	32.54	29.1	7.15	0.0	52	24	8	0	930	832	0	-210
	180+50	50	47.96	37.4	7.0	0.0	75	62	13	0	1005	849	0	-214
	181+00	50	64.98	38.8	2.36	0.0	105	71	9	0	1110	861	0	-192
	181+30	30	144.0	38.8	0.37	0.0	116	43	2	0	1226	863	0	-121
	181+50	20	144.47	38.8	0.24	0.0	107	29	0	0	1333	863	0	-43
	182+00	50	145.55	40.1	2.85	0.0	269	73	3	0	1602	867	0	149
	182+50	50	150.35	39.5	6.8	0.0	274	74	9	0	1876	879	0	337
	183+00	50	148.99	38.8	10.7	0.0	277	73	16	0	2153	900	0	520
	183+50	50	158.79	38.2	19.52	0.0	285	71	28	0	2438	936	0	698
	184+00	50	160.74	38.7	37.78	0.0	296	71	53	0	2172	948	0	854
	184+50	50	152.32	38.3	53.95	0.0	290	71	85	0	2462	1058	0	963
	185+00	50	167.05	37.5	37.61	0.0	296	70	85	0	2758	1169	0	1078
	185+50	50	193.39	38.2	8.16	0.0	334	70	42	0	3092	1223	0	1288
	186+00	50	231.67	36.1	0.0	0.0	394	69	8	0	3486	1234	0	1602
	186+50	50	277.37	30.7	0.0	0.0	471	62	0	0	3957	1234	0	2011
	187+00	50	293.12	32.6	0.0	0.0	528	59	0	0	4485	1234	0	2480
	187+50	50	302.64	38.5	0.0	0.0	552	66	0	0	5037	1234	0	2966
	188+00	50	290.76	59.2	0.0	0.0	549	90	0	0	5586	1234	0	3425
	188+50	50	287.66	50.7	0.0	0.0	536	102	0	0	6122	1234	0	3859
	189+00	50	288.79	39.9	0.0	0.0	534	84	0	0	6656	1234	0	4309
	189+50	50	285.12	46.3	0.0	0.0	531	80	0	0	7187	1234	0	4760

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PROJECT ID 5290-00-72
STH 19 WB Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	190+00	50	242.51	47.6	1.81	0.0	489	87	2	0	7676	1236	0	5160
	190+50	50	211.6	44.6	3.28	0.0	420	85	5	0	8096	1243	0	5488
	191+00	50	165.49	39.9	2.82	0.0	349	78	6	0	8445	1251	0	5751
	191+50	50	129.37	35.5	5.16	0.0	273	70	7	0	8718	1260	0	5945
	192+00	50	106.75	30.9	6.63	0.0	219	61	11	0	8937	1274	0	6089
	192+50	50	89.52	30.9	4.35	0.0	182	57	10	0	9119	1287	0	6201
	193+00	50	87.19	32.0	8.27	0.0	164	58	12	0	9283	1303	0	6291
	193+50	50	95.21	30.7	13.01	0.0	169	58	20	0	9452	1329	0	6376
	194+00	50	109.44	31.0	11.83	0.0	189	57	23	0	9641	1359	0	6478
	194+50	50	80.43	28.7	5.55	0.0	176	55	16	0	9817	1379	0	6579
	195+00	50	0.0	0.0	0.0	0.0	74	27	5	0	9891	1386	0	6619
							10587	2525	1110	0				

PROJECT ID 5290-00-72
Temporary Median Crossovers TEB3- Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	247+00		0.0	0.0	0.0	0.0								
	247+24	24	3.7	0.0	0.0	0.0	2	0	0	0	0	0	0	2
	247+50	26	3.7	0.0	0.0	0.0	4	0	0	0	0	0	0	6
	248+00	50	3.7	0.0	0.0	0.0	7	0	0	0	0	0	0	13
	248+50	50	6.1	0.0	0.0	0.0	9	0	0	0	0	0	0	22
	249+00	50	15.3	0.0	0.0	0.0	20	0	0	0	0	0	0	42
	249+50	50	3.7	0.0	11.1	0.0	18	0	10	0	0	0	0	47
	249+75	25	0.0	0.0	25.9	0.0	2	0	17	0	0	0	0	27
	250+00	25	3.1	0.0	8.2	0.0	1	0	16	0	0	0	0	7
	250+50	50	26.0	0.0	0.0	0.0	27	0	8	0	0	0	0	24
	251+00	50	15.0	0.0	11.5	0.0	38	0	11	0	0	0	0	47
	251+10	10	12.5	0.0	0.0	0.0	5	0	2	0	0	0	0	50
							133	0	64	0				

PROJECT ID 5290-00-72

Cashel Way and RSB*- CW Substage 2A

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0050	10+50		179.58	104.2	34.89									
	10+75	25	118.11	29.6	90.85	0.0	138	62	58	0	138	75	0	1
	11+00	25	127.1	20.6	2.9	0.0	114	23	43	0	252	131	0	36
	11+18	18	90.05	17.5	1.16	0.0	72	13	1	0	324	133	0	93
	Turn Lane RSB*	1	23993.54	0.0	0.0	0.0	889	0	0	0	1213	133	0	982
							1213	98	102	0				

* Added portion of Cut from CAT 0010 computations that falls under CAT 0050.

PROJECT ID 5290-00-72
STH 19 WB SUBSTAGE 2B

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	151+00		19.15	28.1	95.34	0.0								
	151+50	50	32.72	20.9	112.34	0.0	48	45	192	0	48	250	0	-247
	152+00	50	18.24	20.9	124.39	0.0	47	39	219	0	95	535	0	-524
	152+50	50	8.29	20.9	146.63	0.0	25	39	251	0	120	861	0	-864
	153+00	50	5.3	20.9	173.67	0.0	13	39	297	0	133	1247	0	-1276
	153+50	50	37.26	20.9	163.91	0.0	39	39	313	0	172	1653	0	-1682
	154+00	50	40.73	20.9	148.1	0.0	72	39	289	0	244	2029	0	-2025
	154+46	46	0.0	20.9	112.34	0.0	35	36	222	0	279	2317	0	-2314
	B-13-0795		0.0	0.0	676.9	0.0	0	0	0	0	279	2317	0	-2314
	155+75		0.0	22.8	251.51	0.0	0	0	0	0	279	2317	0	-2314
	156+00	25	45.45	22.8	251.51	0.0	21	21	233	0	300	2620	0	-2617
	156+50	50	61.63	22.8	157.32	0.0	99	42	379	0	399	3112	0	-3052
	157+00	50	75.02	22.8	78.55	0.0	127	42	218	0	526	3396	0	-3251
	157+50	50	107.29	22.8	16.22	0.0	169	42	88	0	695	3510	0	-3238
	157+58	8	117.33	22.8	14.1	0.0	33	7	4	0	728	3516	0	-3218
	157+83	25	151.34	22.8	13.22	0.0	124	21	13	0	852	3532	0	-3131
	157+89	6	152.47	22.8	13.68	0.0	34	5	3	0	886	3536	0	-3106
	158+00	11	153.82	22.8	14.26	0.0	62	9	6	0	948	3543	0	-3060
	158+08	8	155.49	22.8	13.88	0.0	46	7	4	0	994	3549	0	-3027
	158+14	6	155.14	22.8	13.62	0.0	35	5	3	0	1029	3553	0	-3001
	158+39	25	154.84	22.8	14.0	0.0	144	21	13	0	1173	3569	0	-2894
	158+50	11	153.91	22.8	12.72	0.0	63	9	5	0	1236	3577	0	-2848
	159+00	50	153.15	22.8	9.13	0.0	284	42	20	0	1520	3603	0	-2632
	159+50	50	116.34	22.8	9.18	0.0	250	42	17	0	1770	3625	0	-2446
	160+00	50	111.81	22.8	6.12	0.0	211	42	14	0	1981	3643	0	-2295
							1981	633	2803	0				

PROJECT ID 5290-00-72

Temporary Median Crossovers TEB2- Substage 2B

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2	Note 3	Note 4
0010	292+00		0.0	0.0	0.0	0.0								
	292+50	50	2.3	2.3	2.5	0.0	2	2	2	0	2	3	0	-3
	293+00	50	29.3	5.3	32.3	0.0	29	7	32	0	31	44	0	-22
	293+50	50	28.2	5.1	31.1	0.0	53	10	59	0	84	121	0	-56
	294+00	50	15.0	2.7	16.5	0.0	40	7	44	0	124	178	0	-80
	294+50	50	11.0	2.0	12.1	0.0	24	4	27	0	148	213	0	-95
	294+64	14	11.5	2.1	12.7	0.0	6	1	6	0	154	221	0	-98
							154	31	170	0				

PROJECT ID 5290-00-72

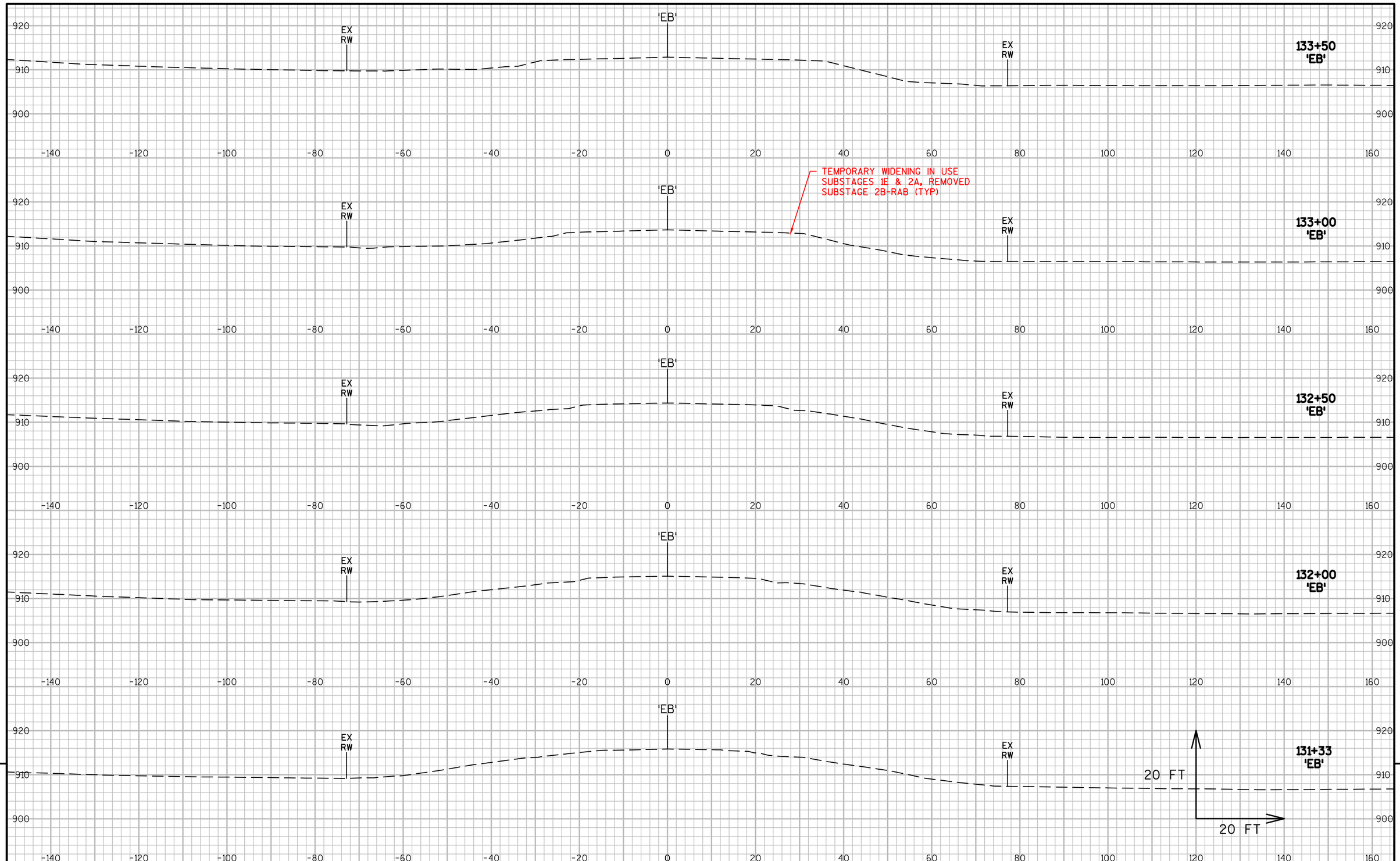
Temporary Median Crossovers TEB3- Substage 2C

Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Fill Marsh 1.25	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2		Note 3	Note 4
0010	247+00		0.0	0.0	0.0	0.0									
	247+24	24	3.7	0.7	0.0	0.0	2	0	0	0	2	0	0	0	2
	247+50	26	3.7	0.7	0.0	0.0	4	1	0	0	6	0	0	0	5
	248+00	50	3.7	0.7	0.0	0.0	7	1	0	0	13	0	0	0	11
	248+50	50	6.1	1.3	0.0	0.0	9	2	0	0	22	0	0	0	18
	249+00	50	15.3	3.3	0.0	0.0	20	4	0	0	42	0	0	0	34
	249+50	50	3.7	6.7	11.1	0.0	18	9	10	0	60	13	0	0	30
	249+75	25	0.0	5.8	25.9	0.0	2	6	17	0	62	35	0	0	4
	250+00	25	3.1	5.8	8.2	0.0	1	5	16	0	63	56	0	0	-21
	250+50	50	26.0	5.4	0.0	0.0	27	10	8	0	90	66	0	0	-14
	251+00	50	15.0	2.7	11.5	0.0	38	8	11	0	128	81	0	0	1
	251+10	10	12.5	2.3	0.0	0.0	5	1	2	0	133	83	0	0	3
							133	47	64	0					

PROJECT ID 5290-00-72

Temporary Median Crossovers TEB2- Substage 2C

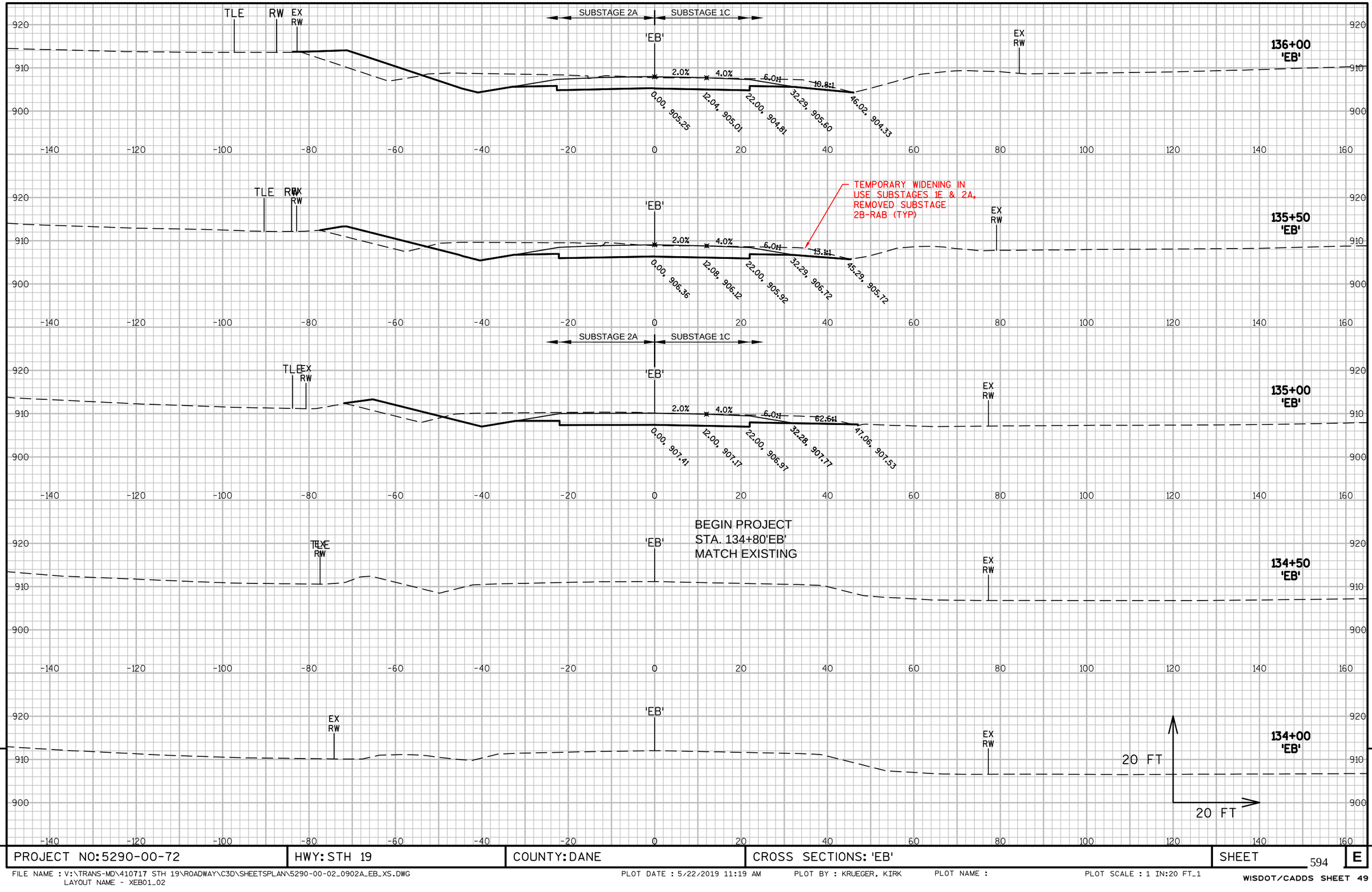
Category	Station	Distance	Area (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut	Unusable Pavement Material	Fill	Marsh Excavation	Cut 1.00	Expanded Fill 1.30	Reduced Fill Marsh 1.25	Reduced Marsh in Fill 0.60	
							Note 1				Note 1	Note 2		Note 3	Note 4
0050	256+50		0.4	0.4	0.0	0.0									
	257+00	50	0.8	0.8	0.0	0.0	1	1	0	0	1	0	0	0	0
	257+50	50	4.6	2.1	0.0	0.0	5	3	0	0	6	0	0	0	2
	258+00	50	8.8	4.3	0.0	0.0	12	6	0	0	18	0	0	0	8
	258+50	50	15.9	7.6	0.0	0.0	23	11	0	0	41	0	0	0	20
	259+00	50	26.2	9.6	0.0	0.0	39	16	0	0	80	0	0	0	43
	259+50	50	8.2	10.3	0.0	0.0	32	18	0	0	112	0	0	0	57
	260+00	50	5.3	6.1	0.0	0.0	12	15	0	0	124	0	0	0	54
	260+50	50	5.3	2.4	11.5	0.0	10	8	11	0	134	14	0	0	42
	261+00	50	26.4	0.0	0.0	0.0	29	2	11	0	163	29	0	0	54
	261+50	50	18.5	0.0	0.0	0.0	42	0	0	0	205	29	0	0	96
	262+00	50	0.0	0.0	0.0	0.0	17	0	0	0	222	29	0	0	113
							222	80	22	0					



9

9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 593	E

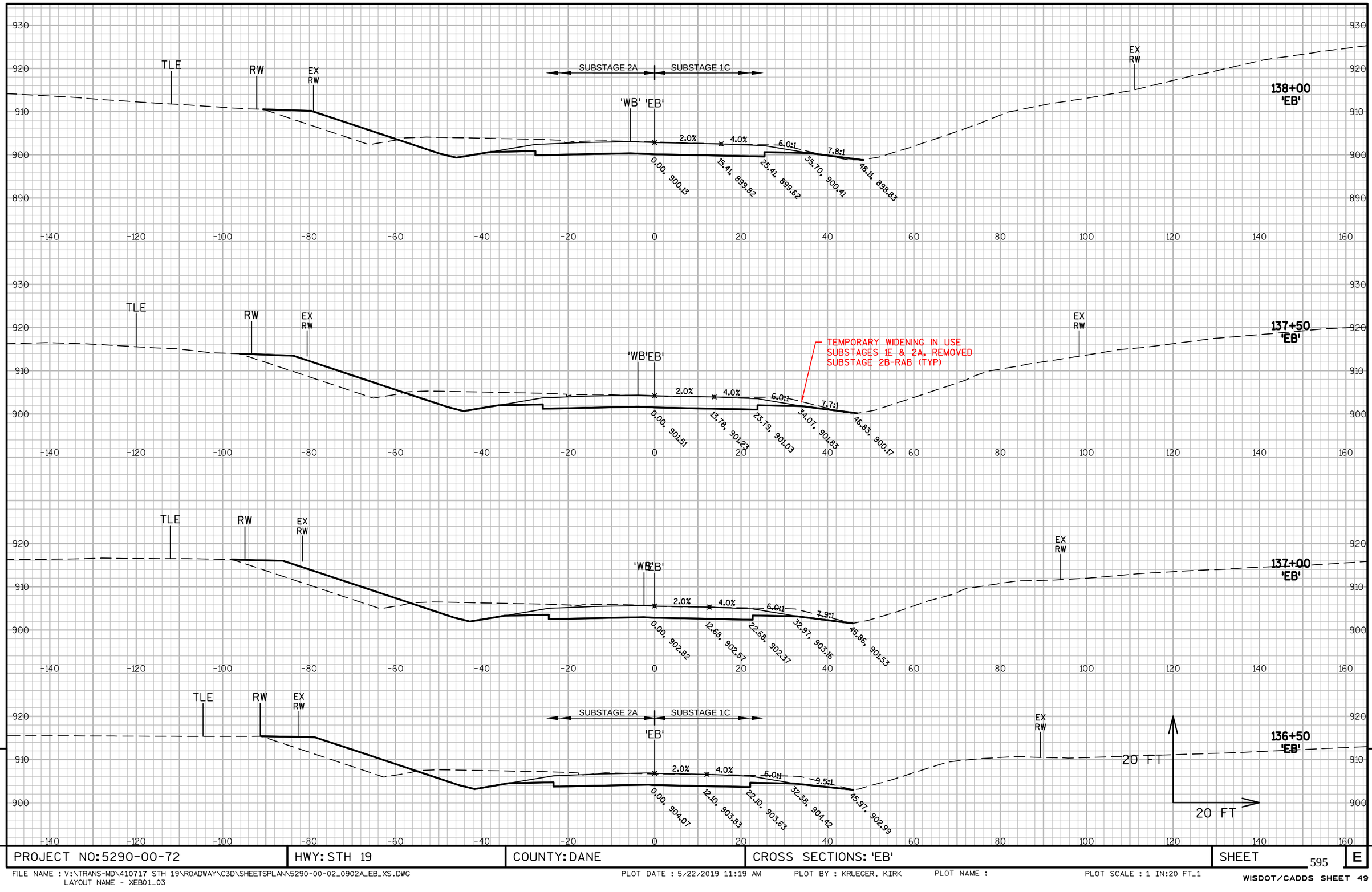


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 594 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB01_02

PLOT DATE : 5/22/2019 11:19 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

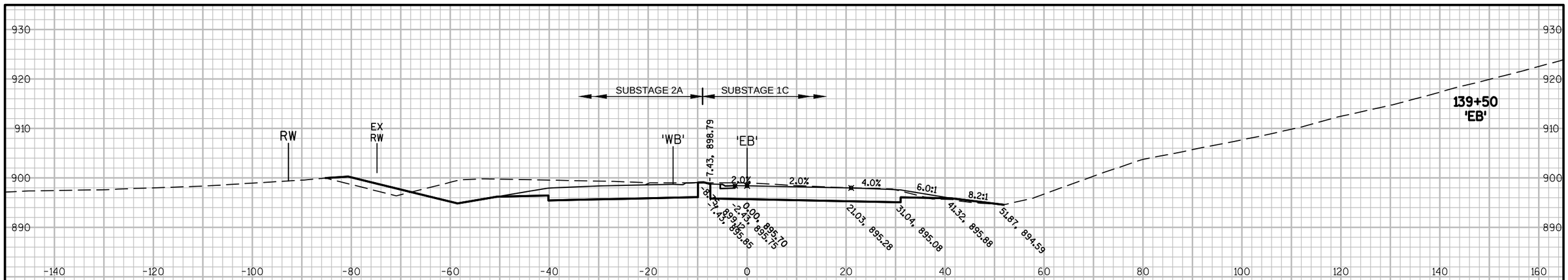
WISDOT/CADDS SHEET 49

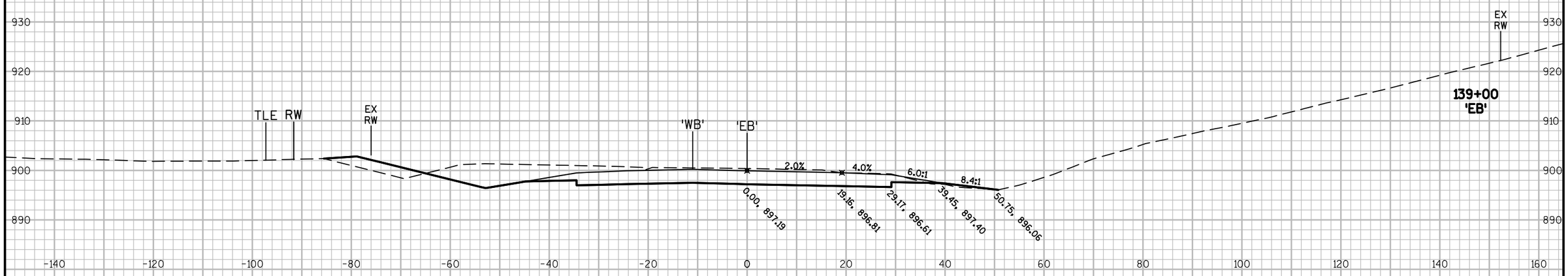


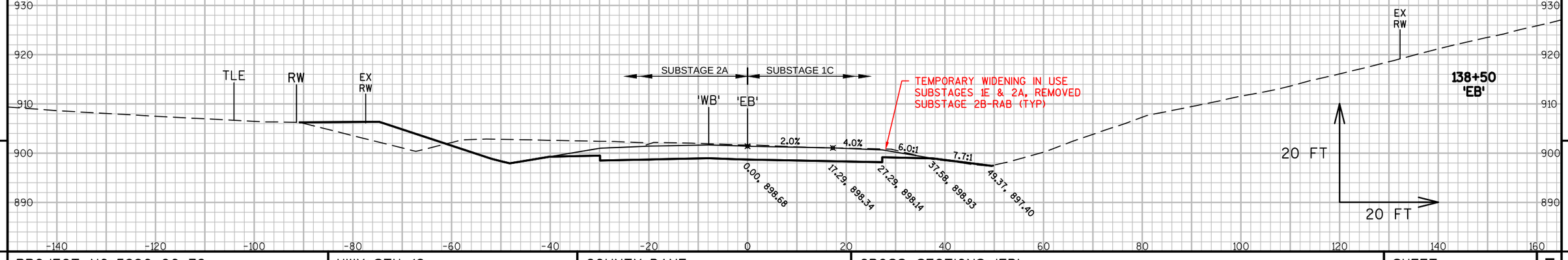
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 595	E



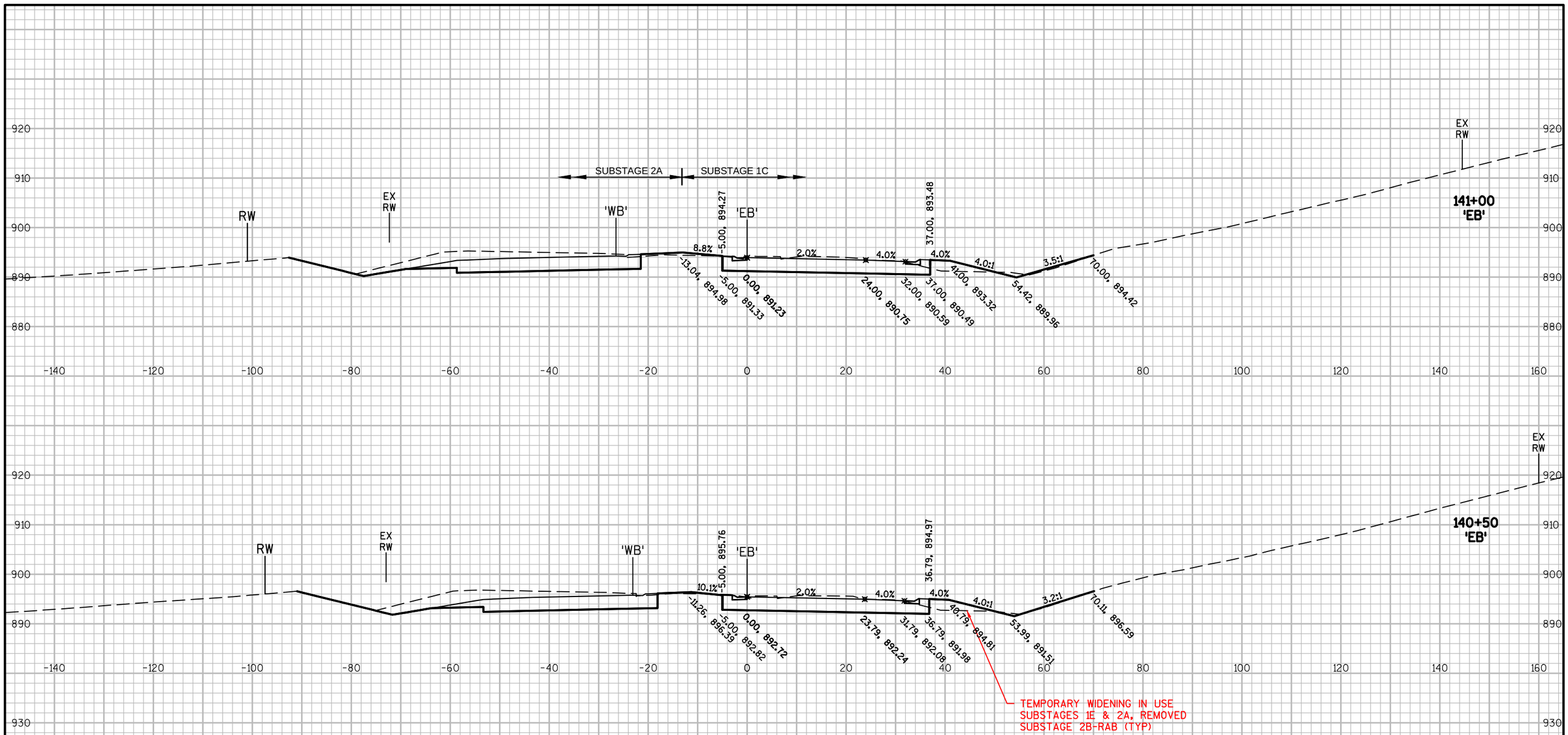




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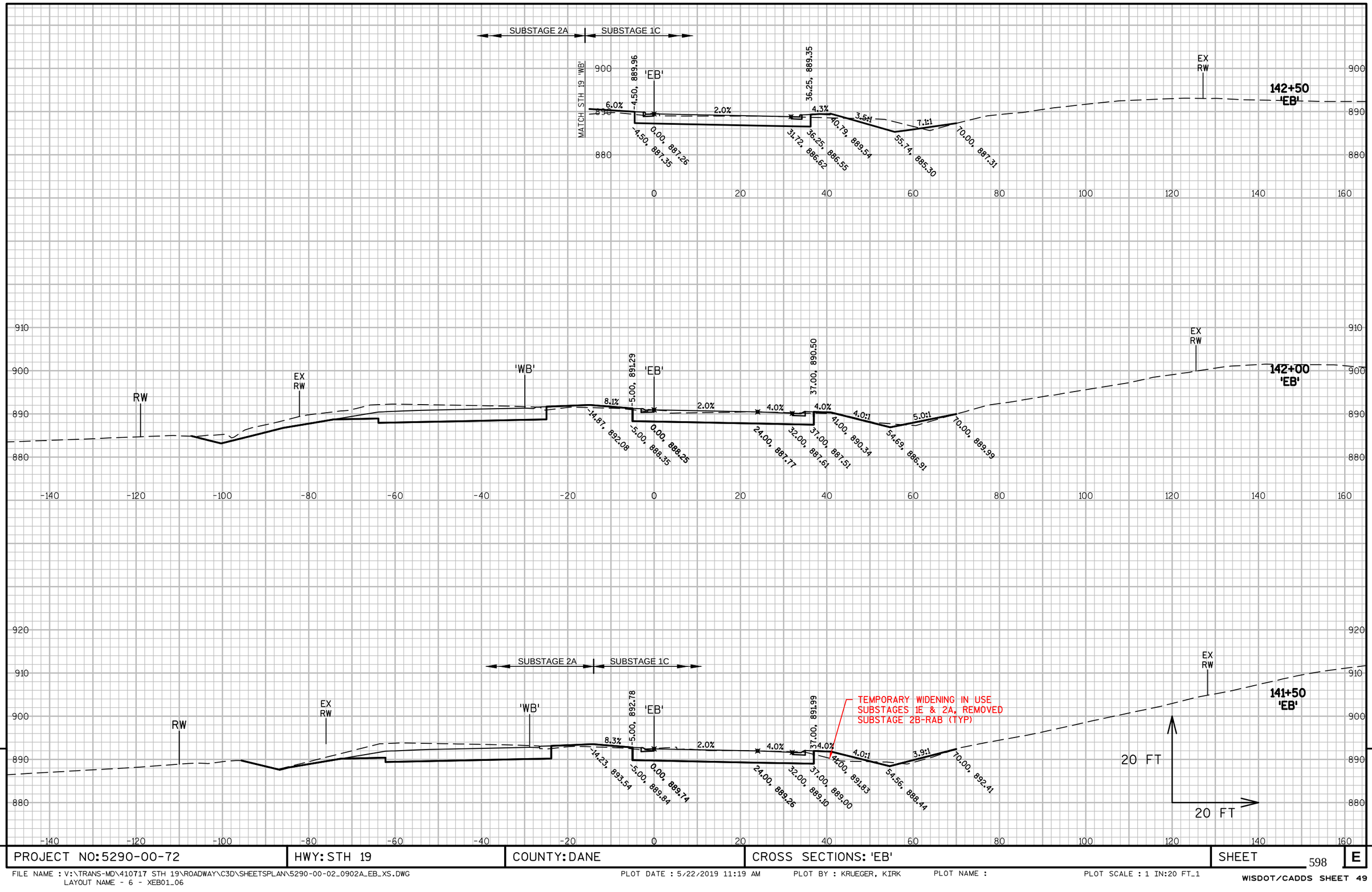
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 596	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 597	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB01_05
PLOT DATE : 5/22/2019 11:19 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

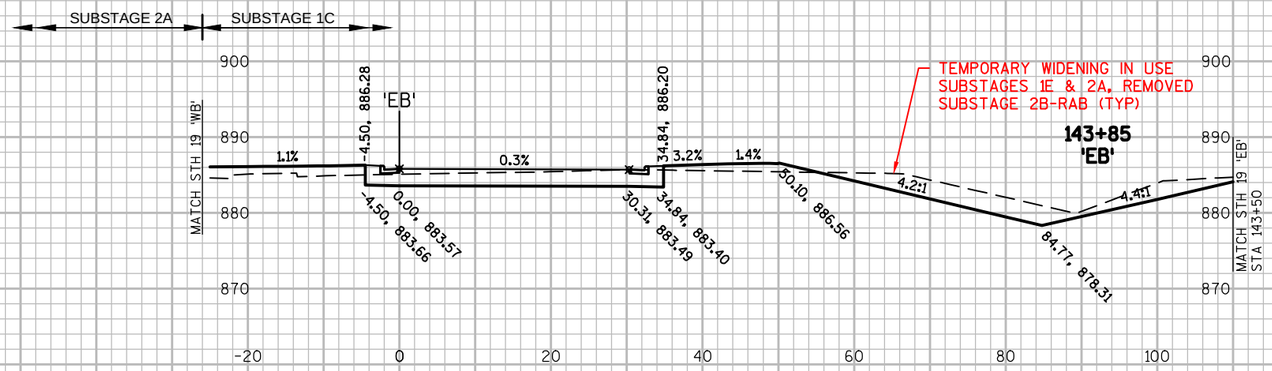


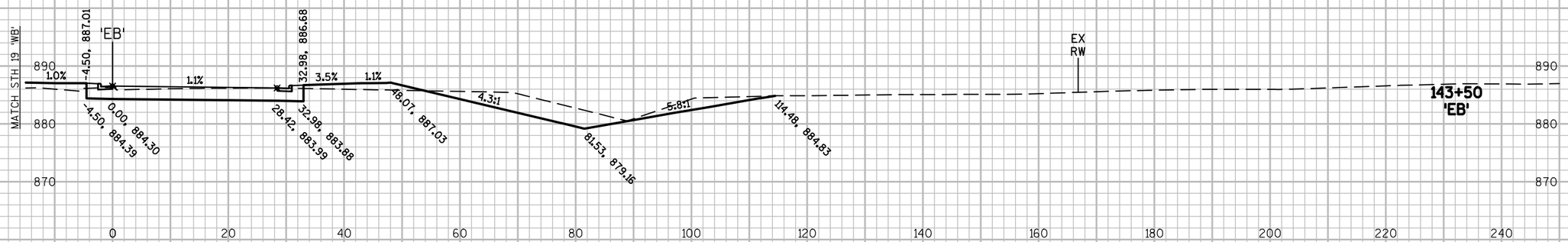
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 598	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - 6 - XEB01_06

PLOT DATE : 5/22/2019 11:19 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



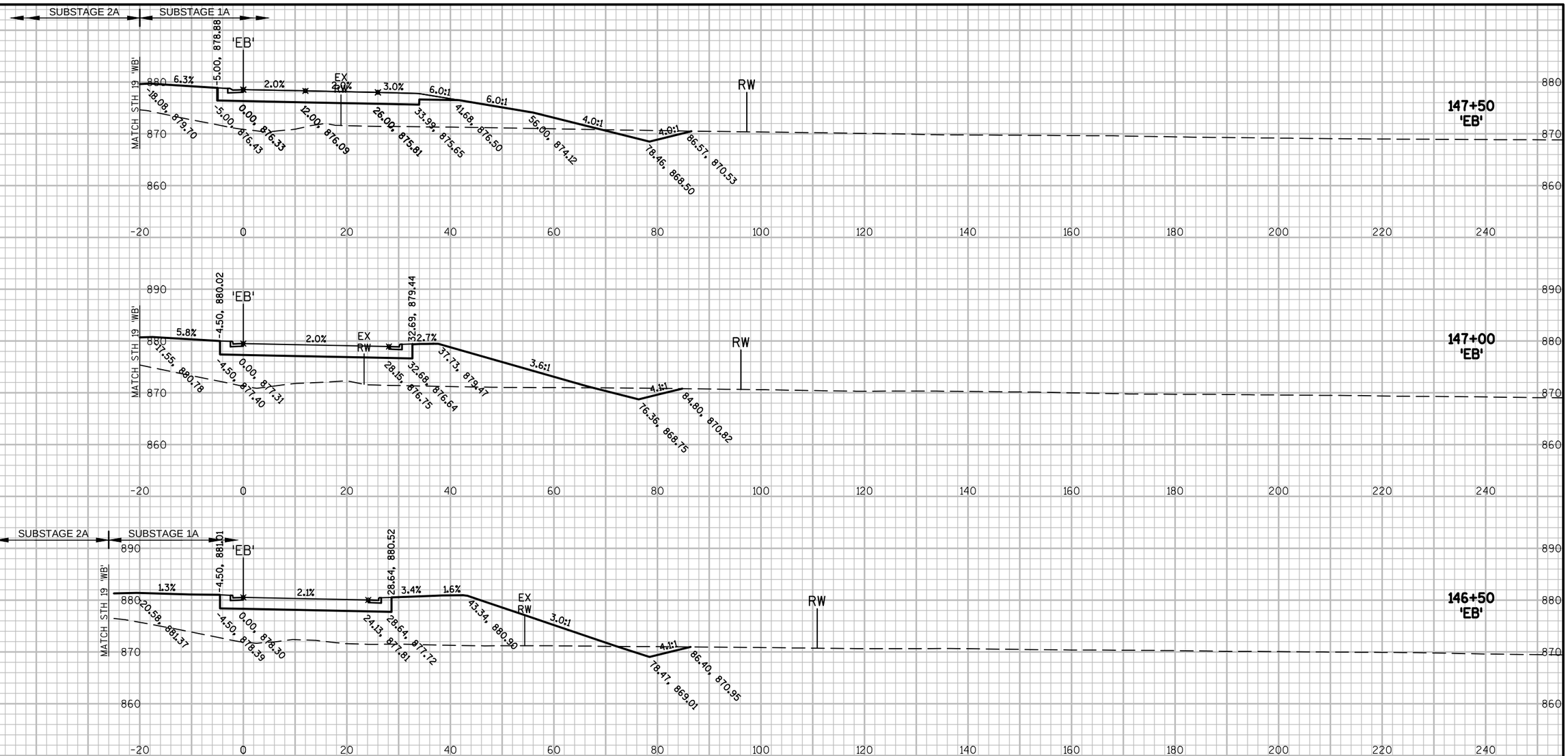




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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 599	E



9

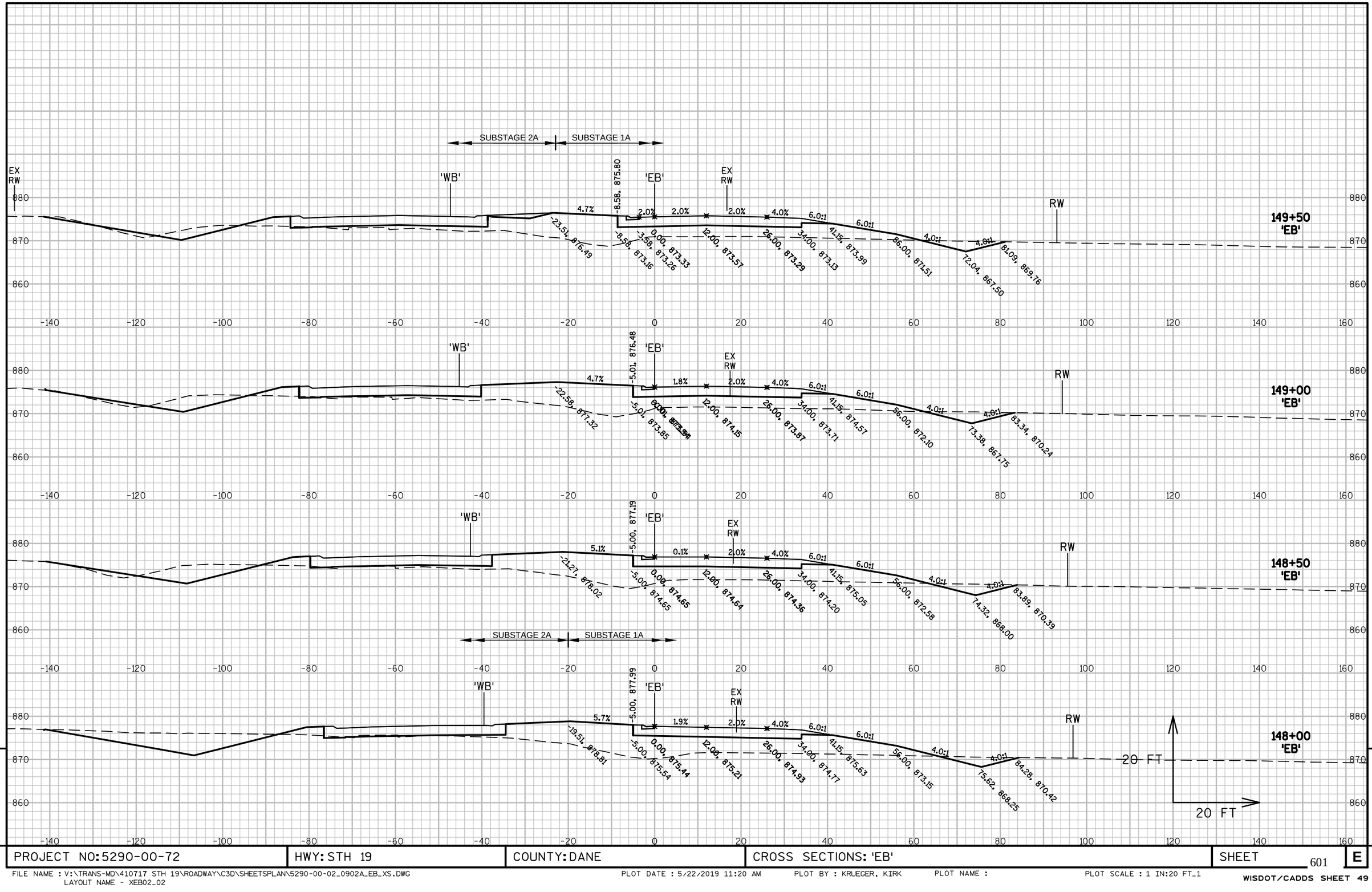
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 600	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_01

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

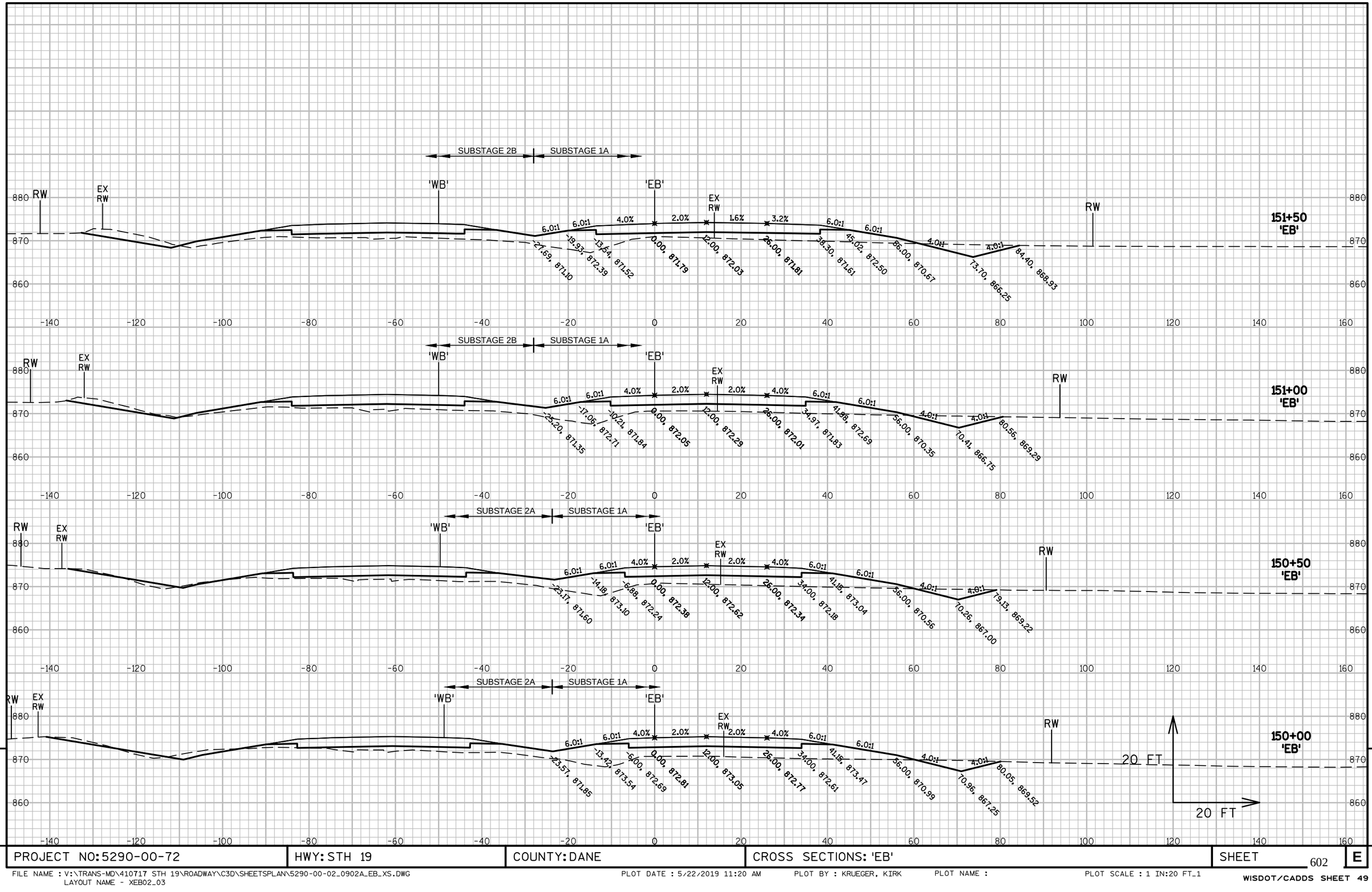
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 601	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_02

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

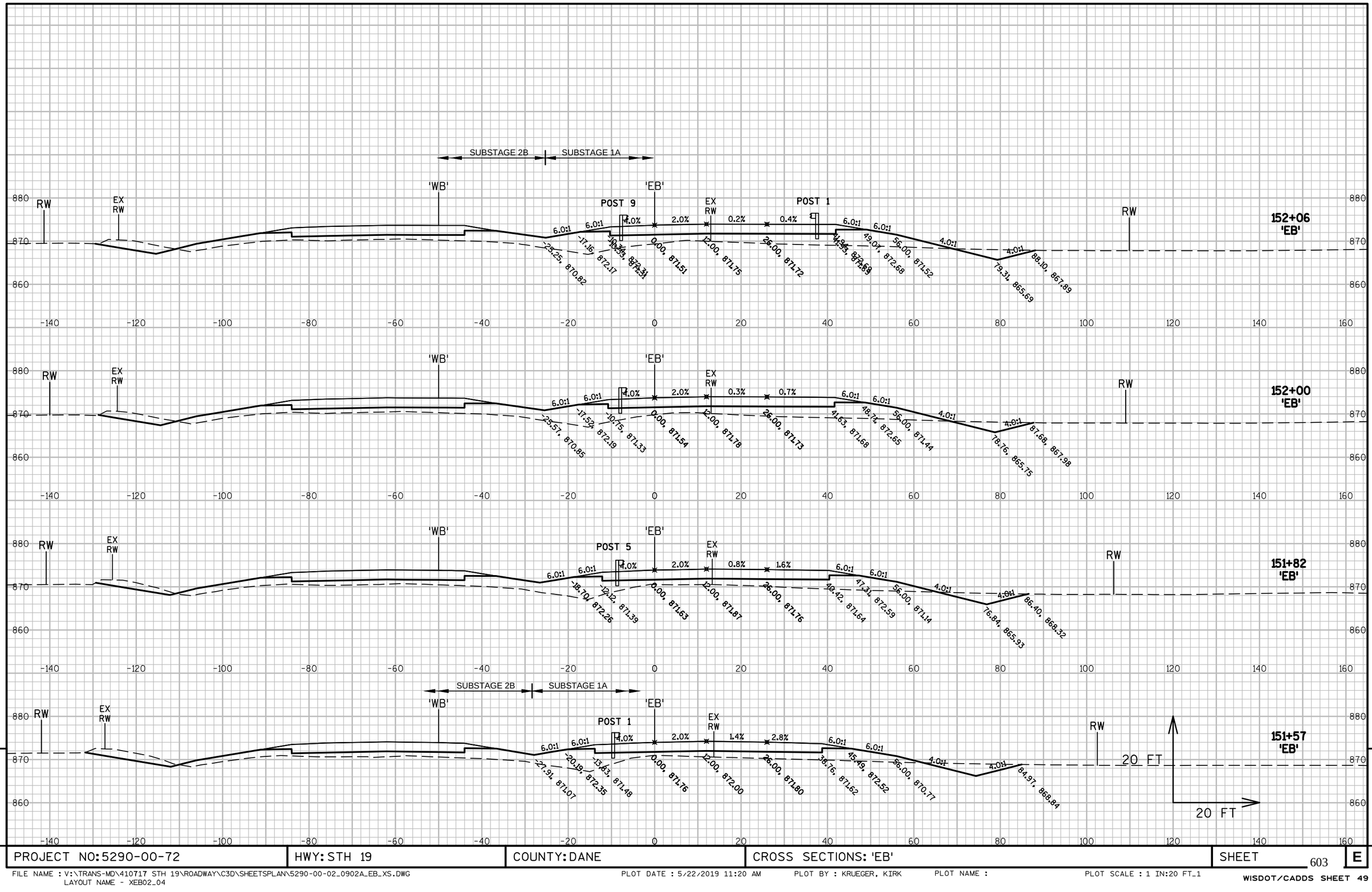


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 602	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_03

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

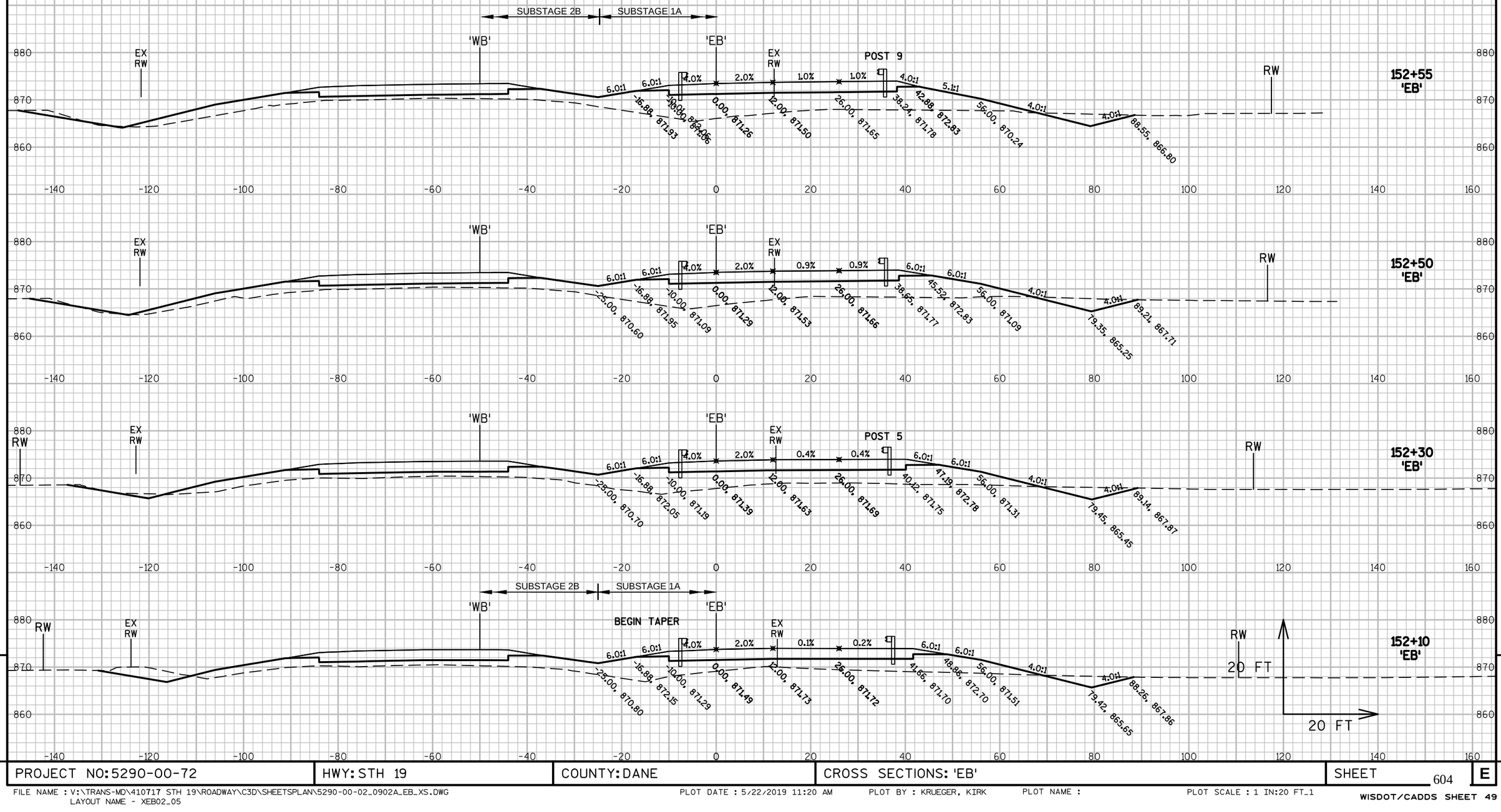
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 603	E

9

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_04

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

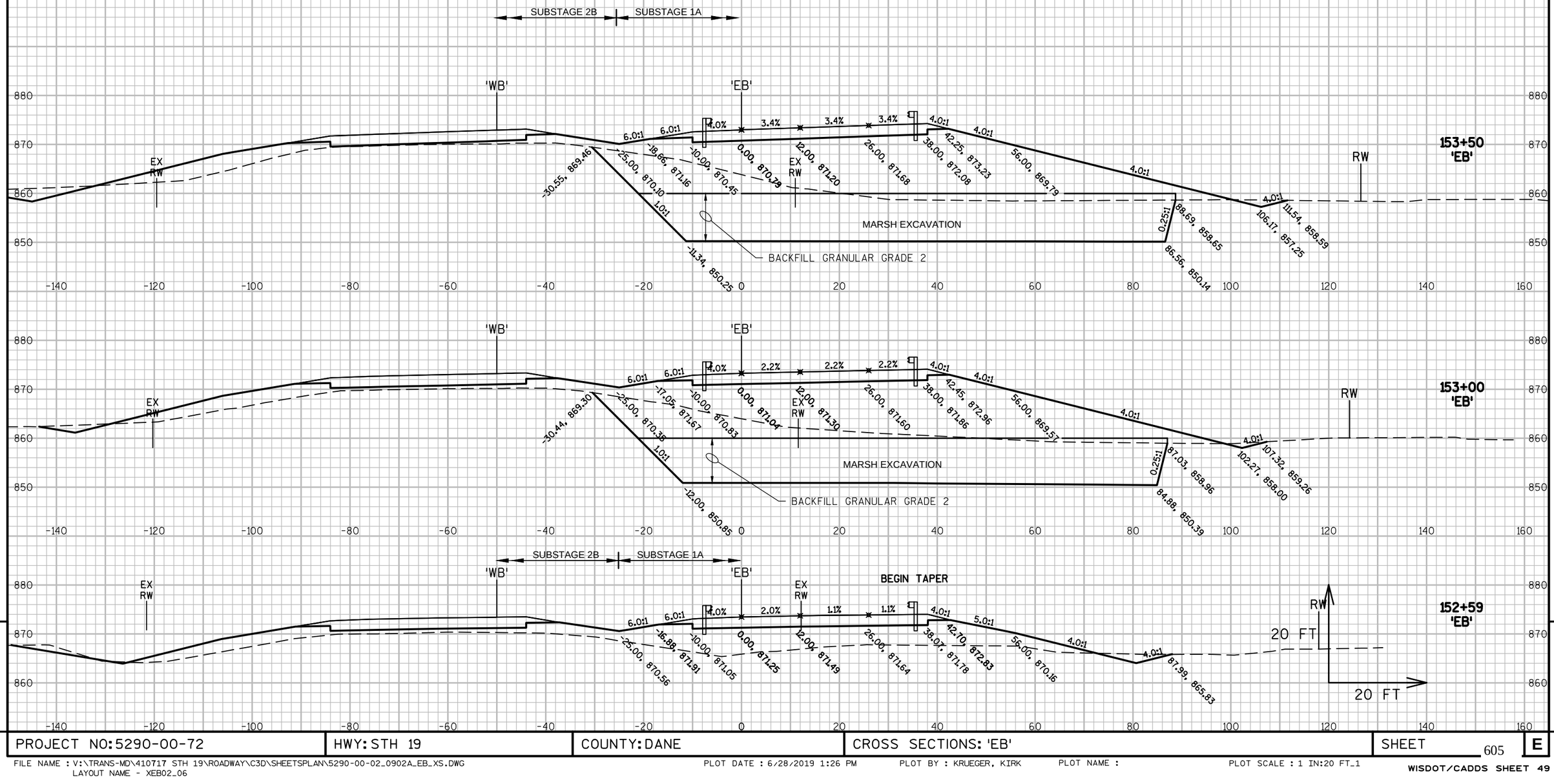
WISDOT/CADDS SHEET 49



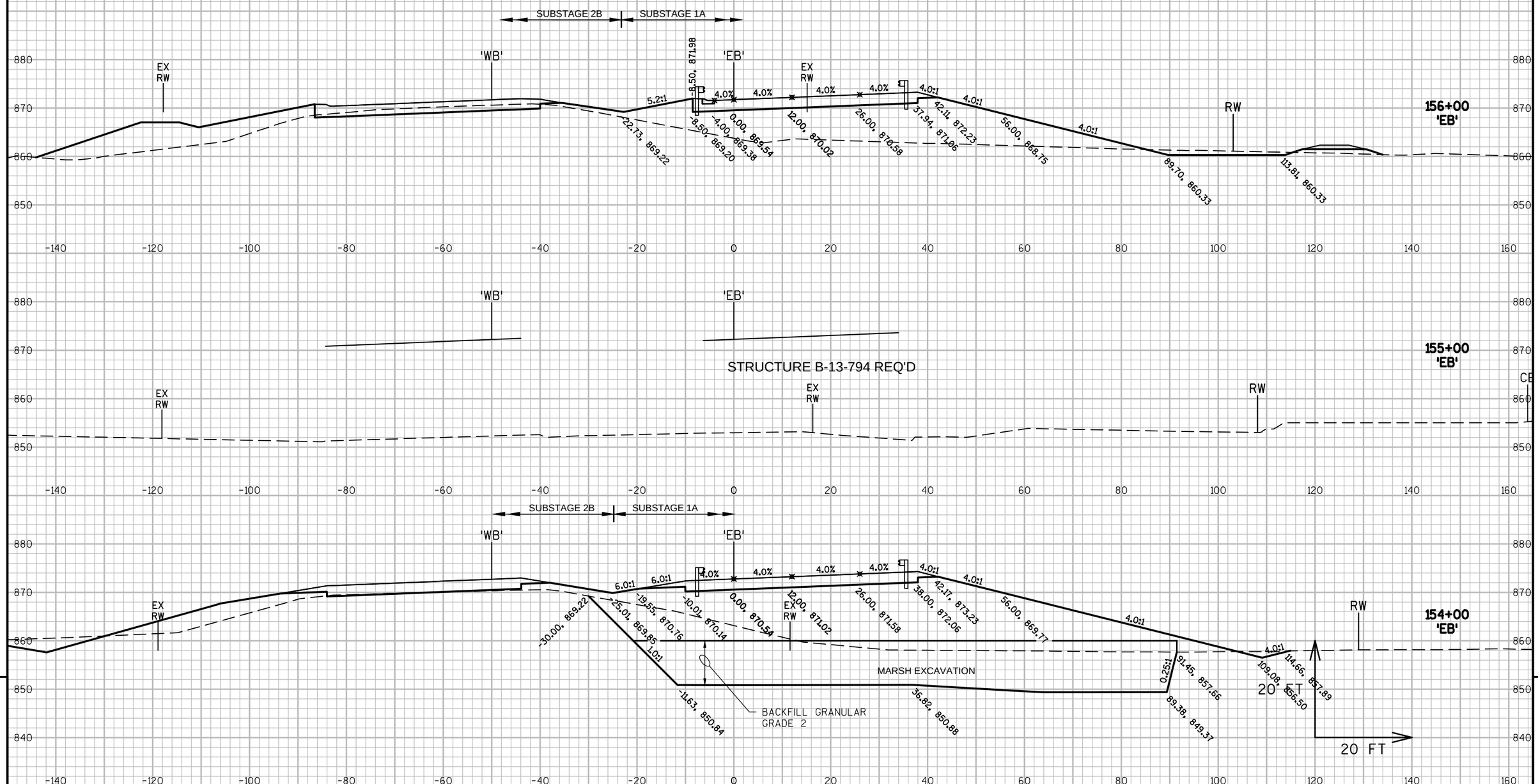
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 604	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 605	E

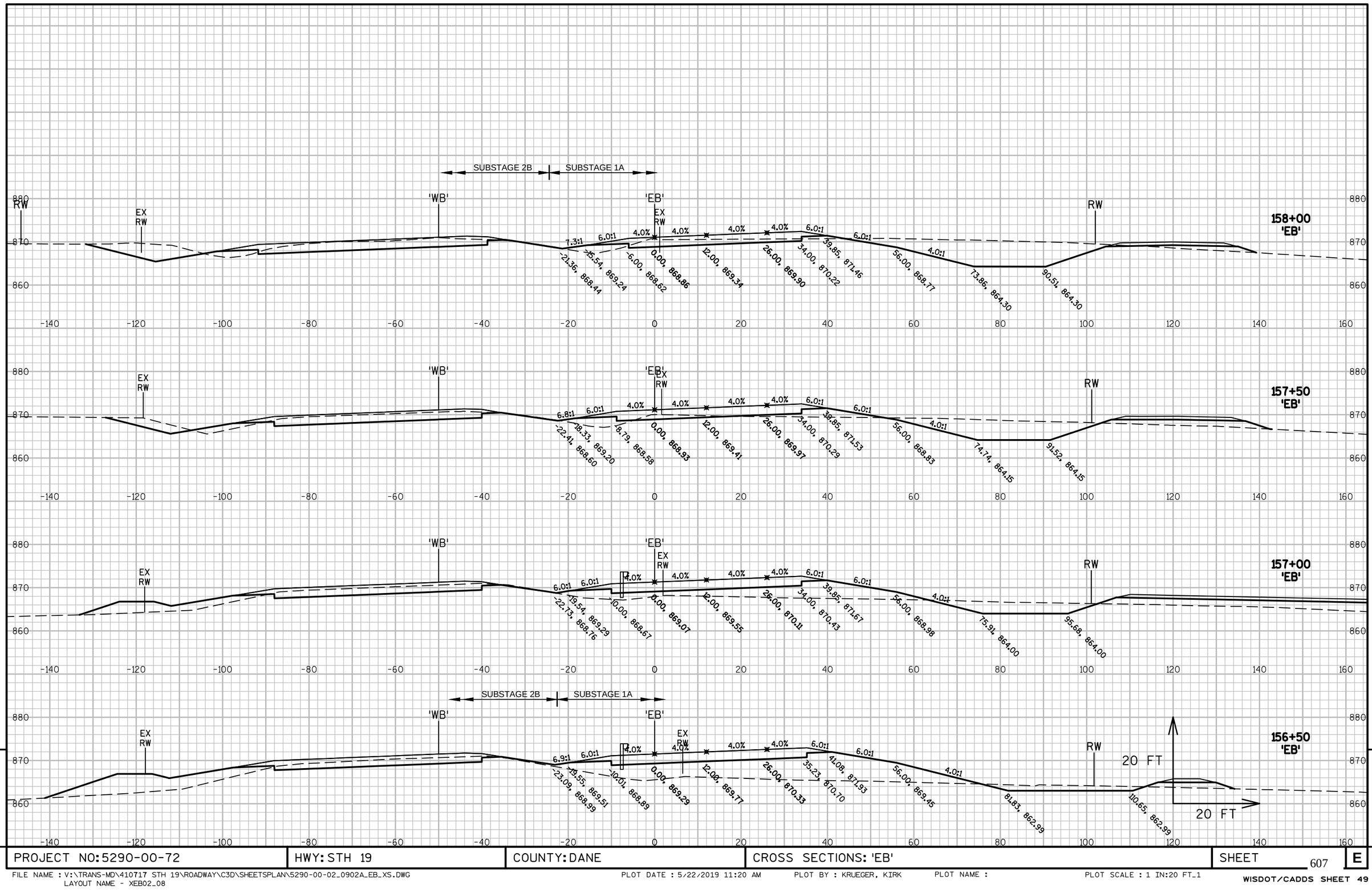


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 606 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_07

PLOT DATE : 6/28/2019 1:26 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

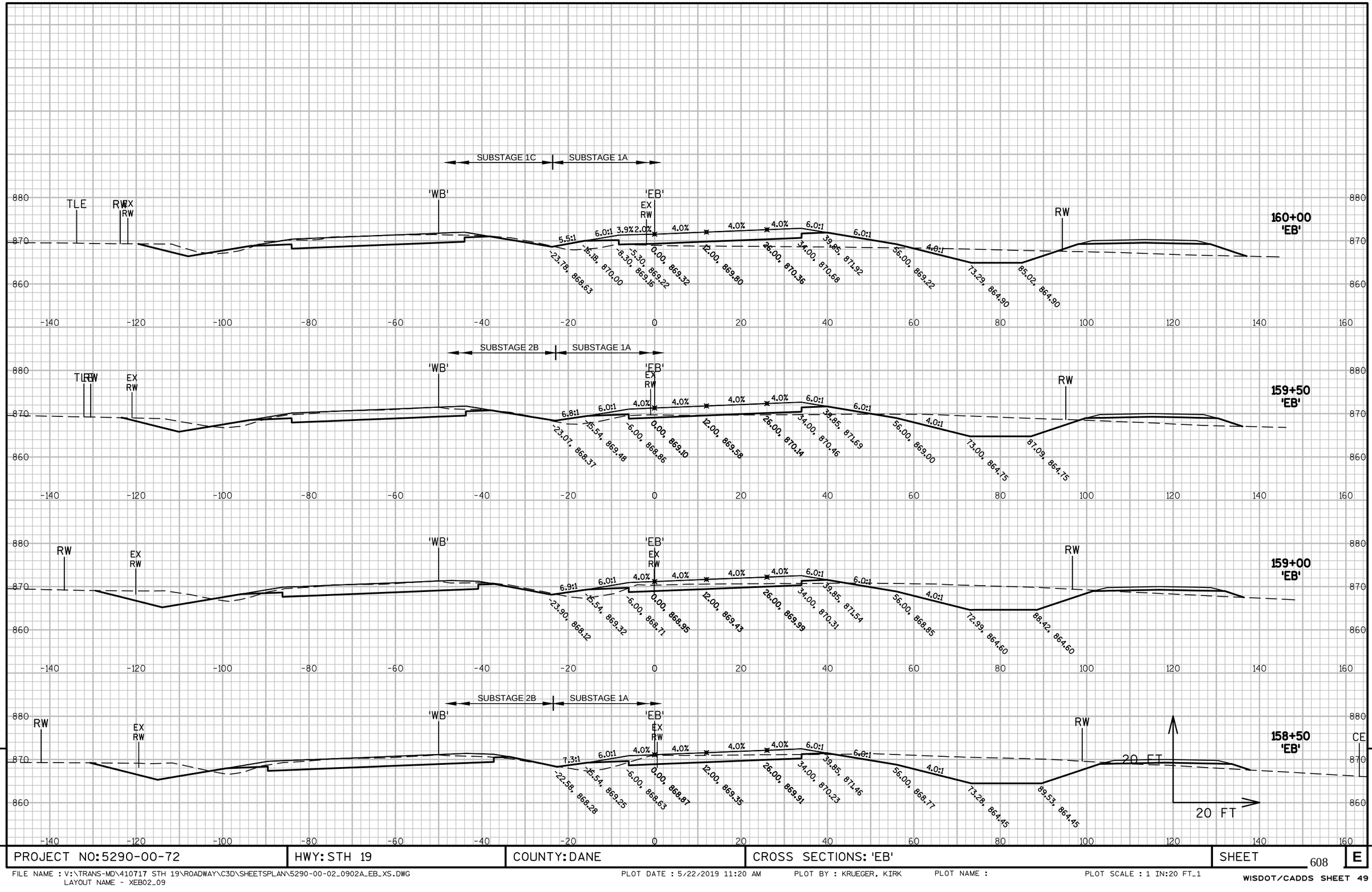


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 607	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_08

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

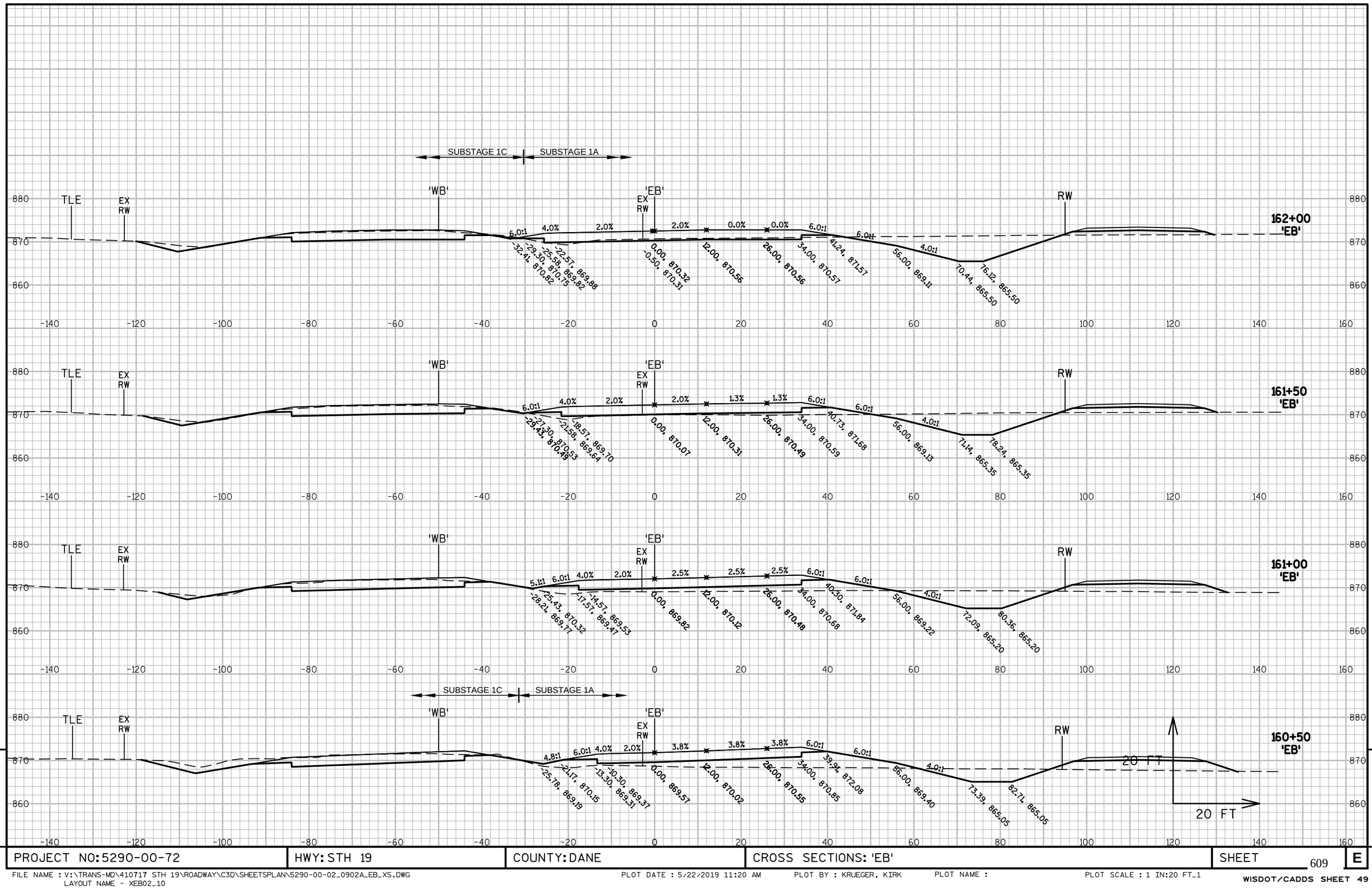
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 608	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_09

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

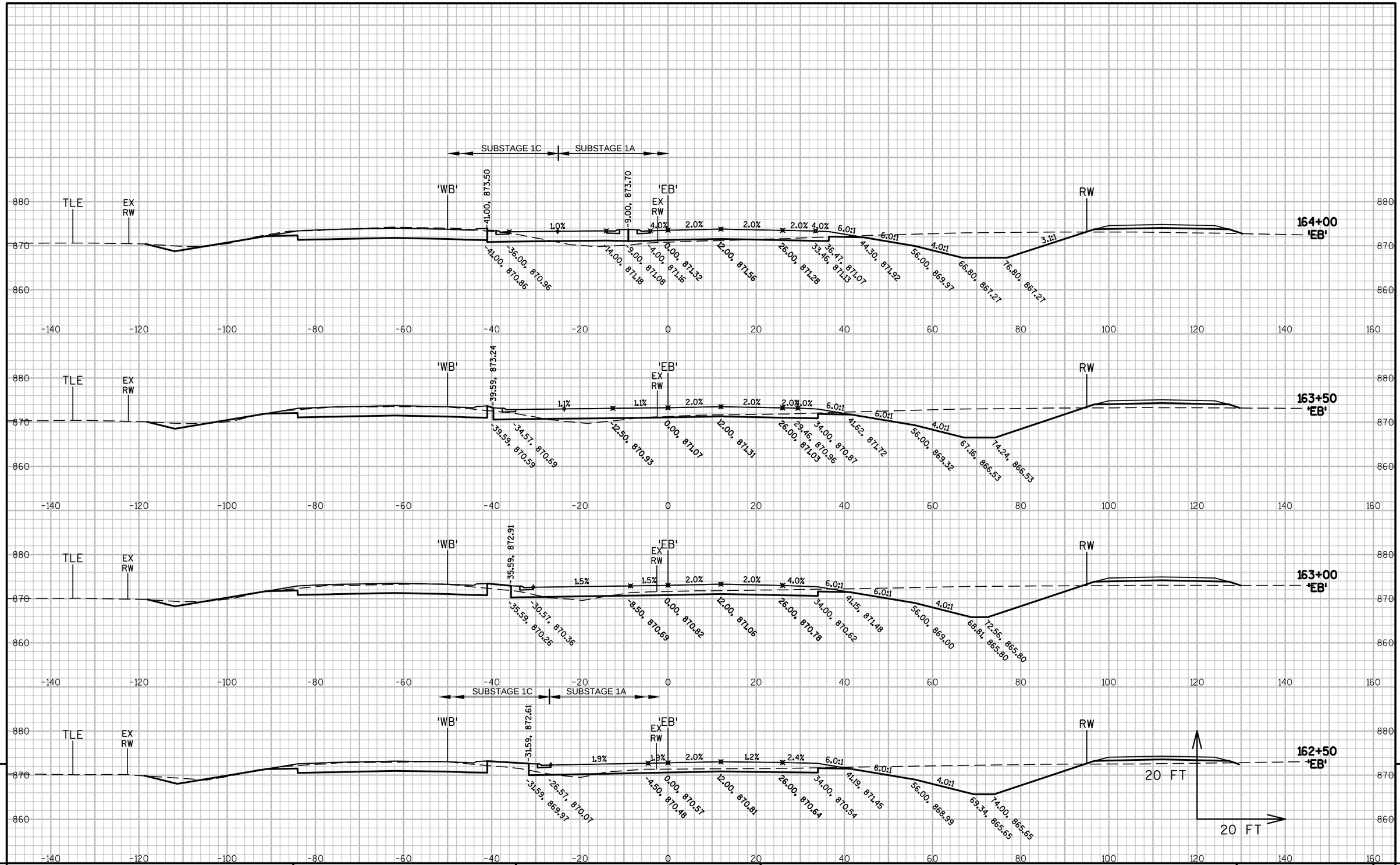
WISDOT/CADDS SHEET 49



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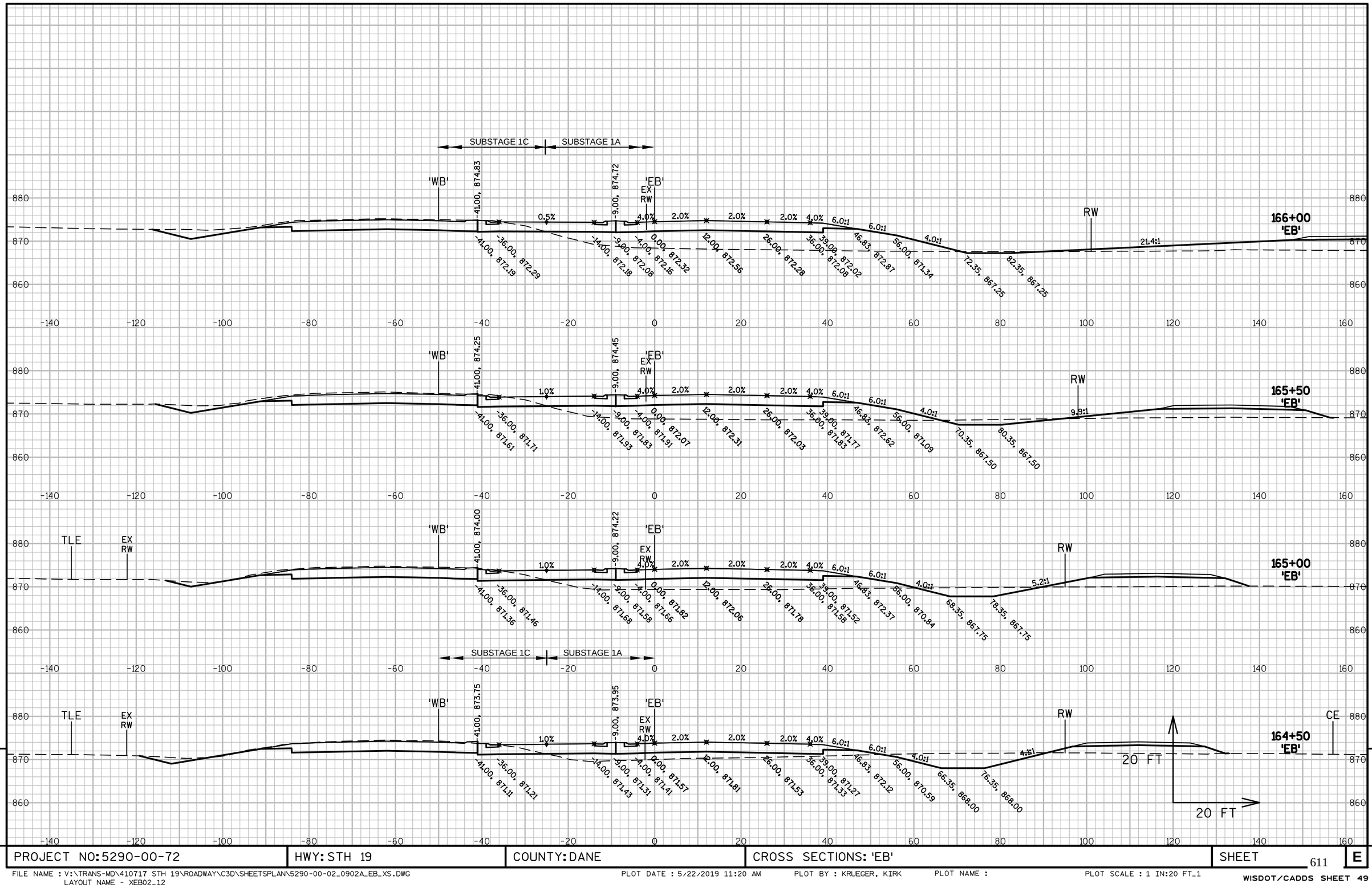
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 609	E

9



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 610	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_11
PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49



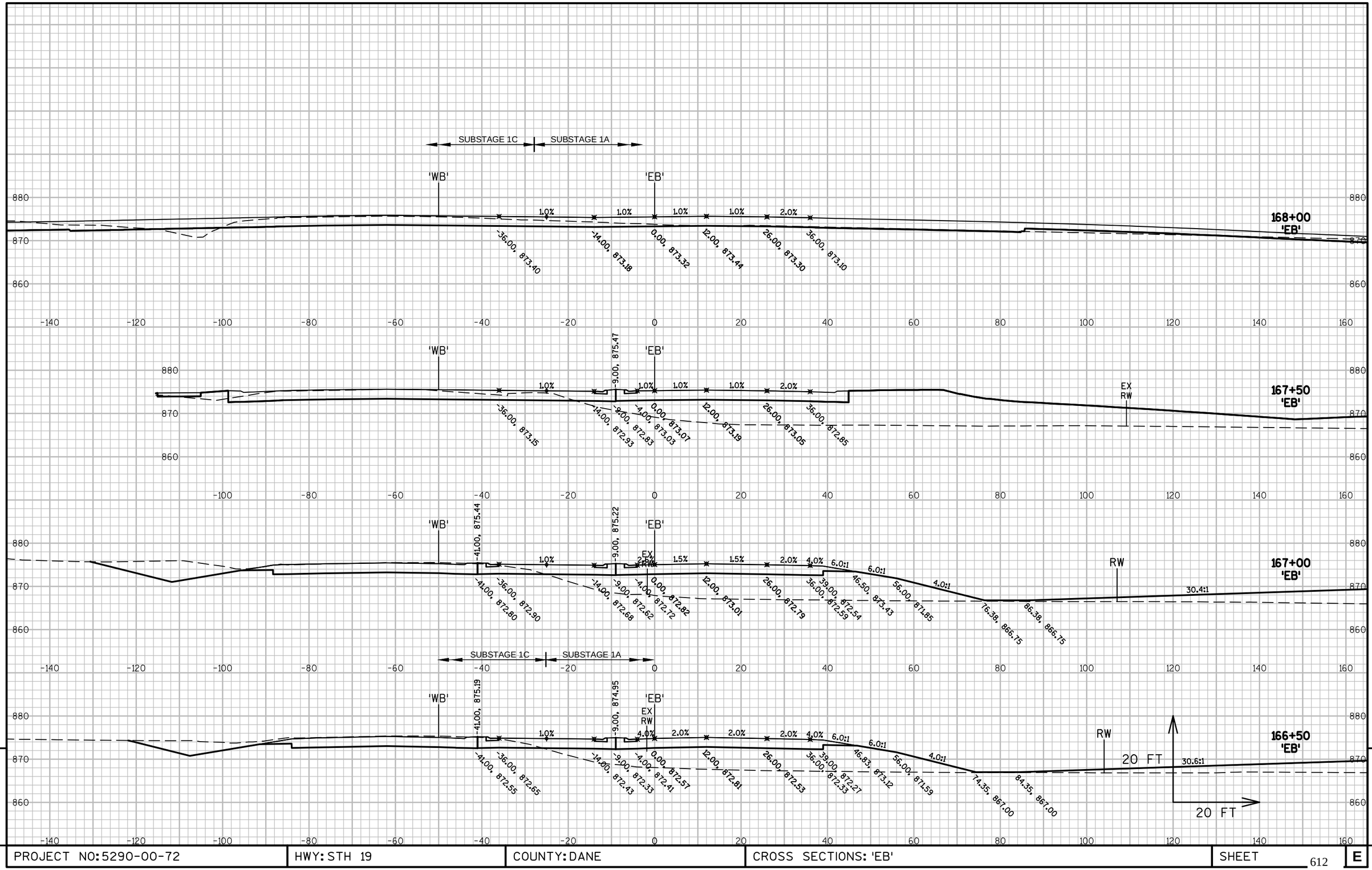
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET	E

611

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_12

PLOT DATE : 5/22/2019 11:20 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

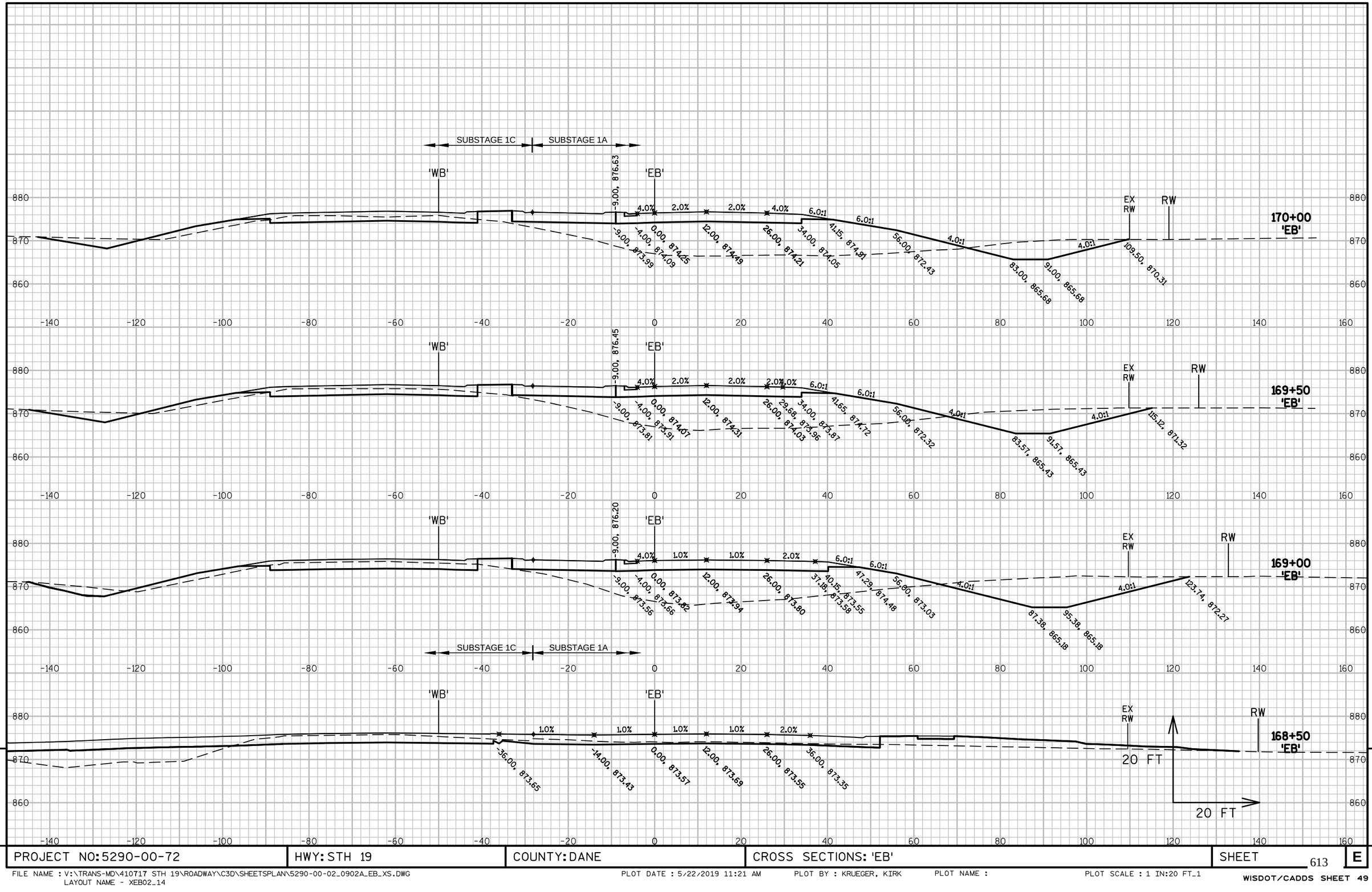
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 612	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_13

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

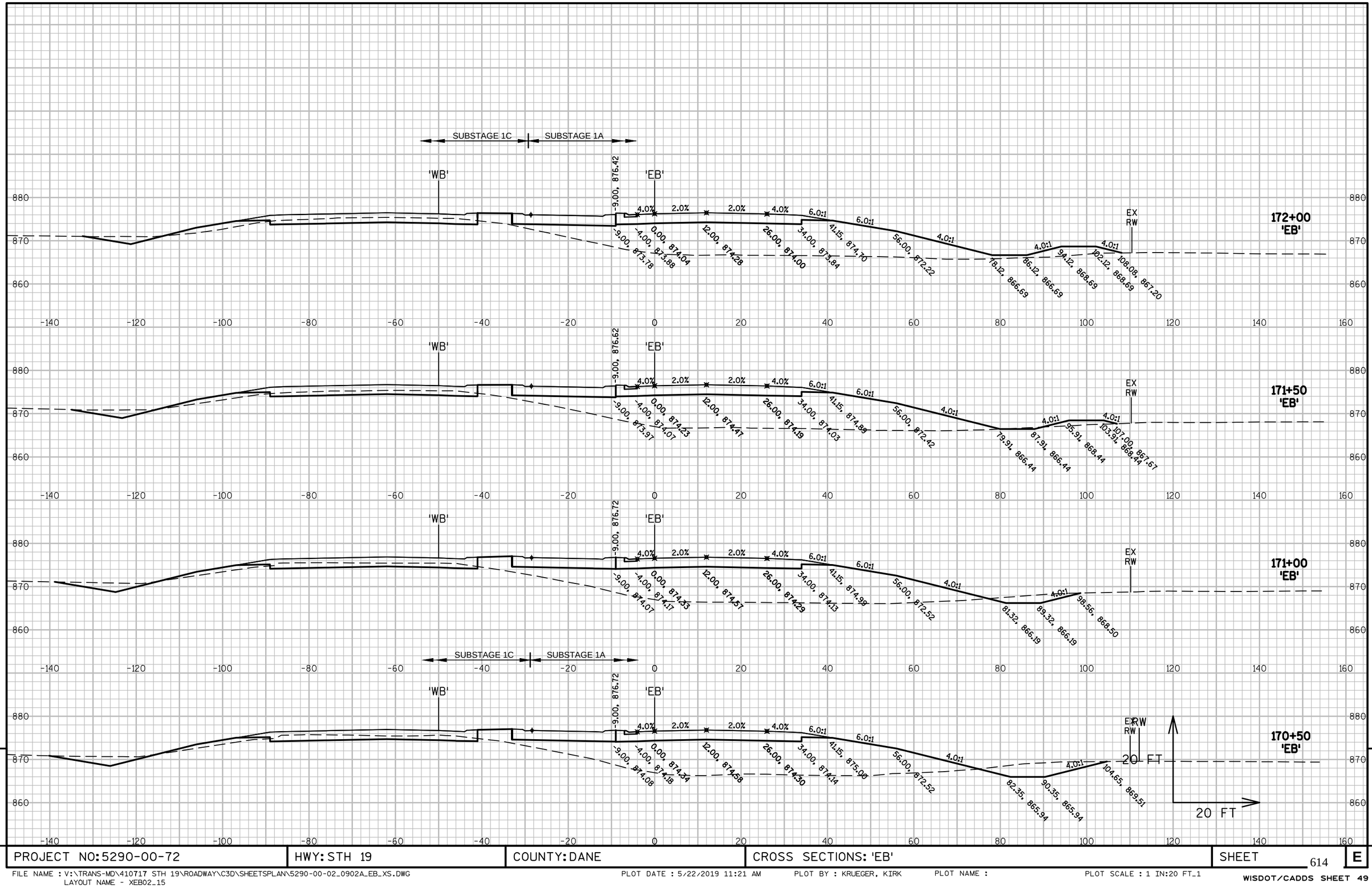
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 613	E

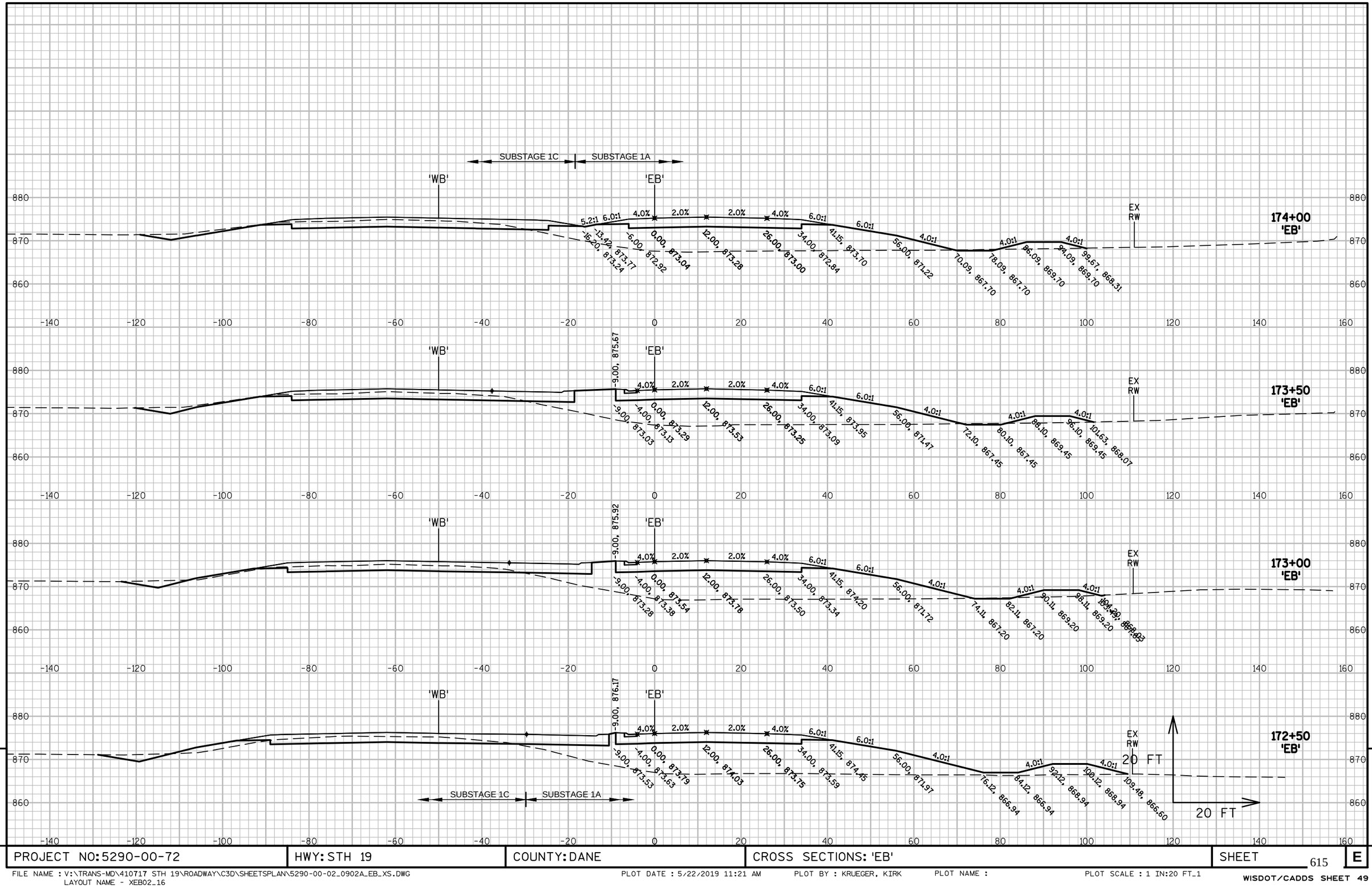


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 614	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_15

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

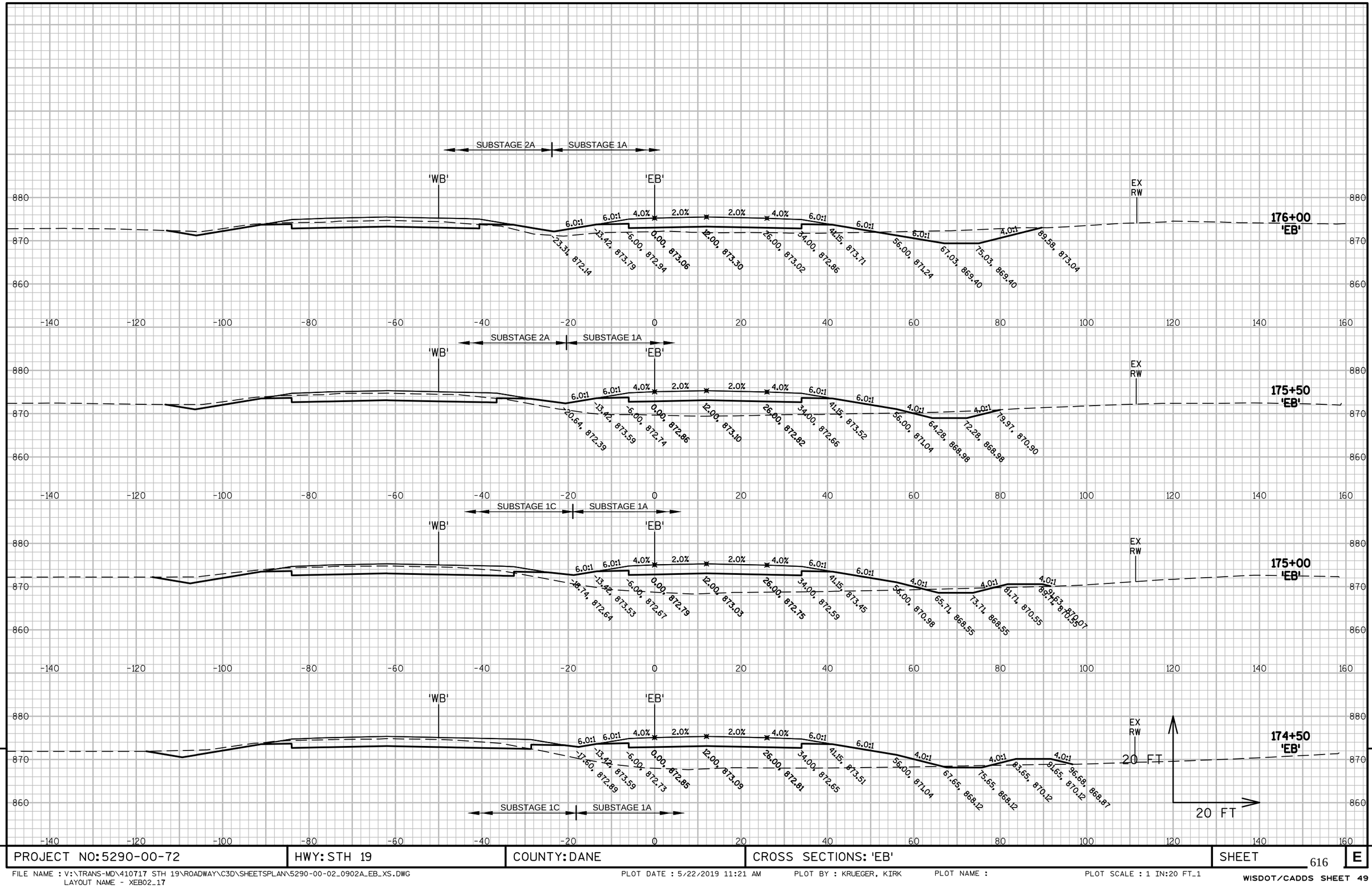
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 615	E

9

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_16

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

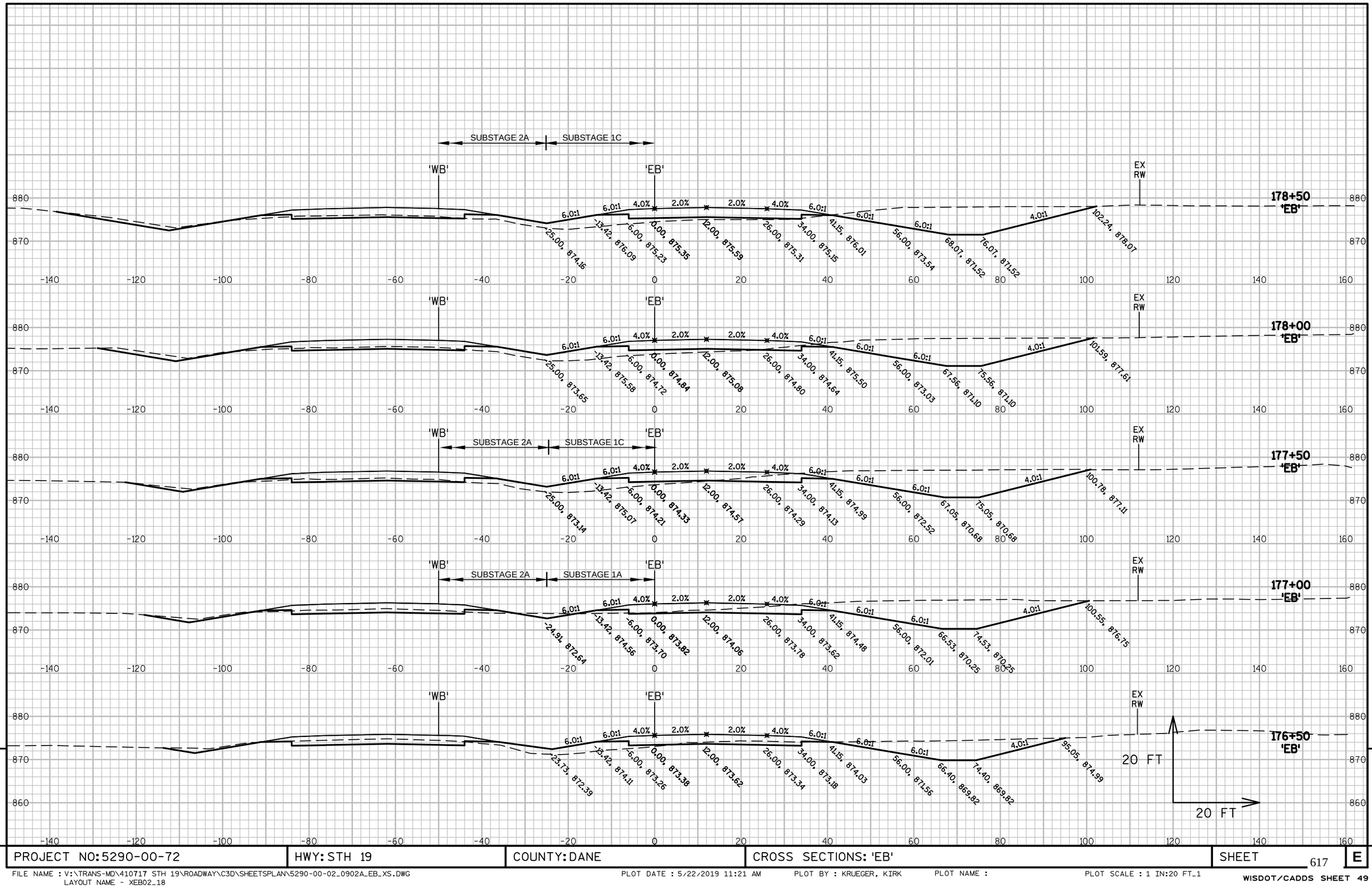
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 616	E

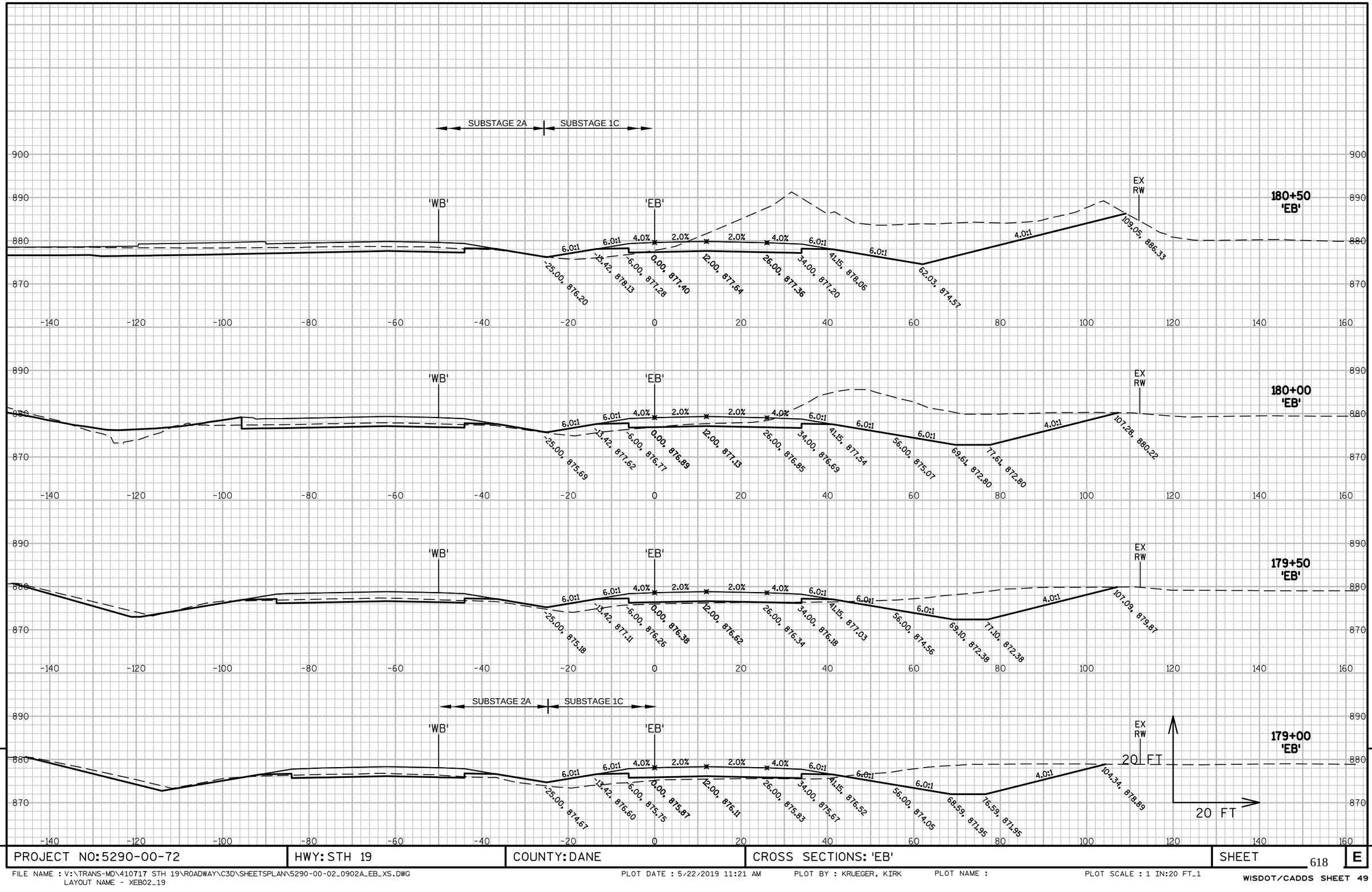


9

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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 617	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_18
PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

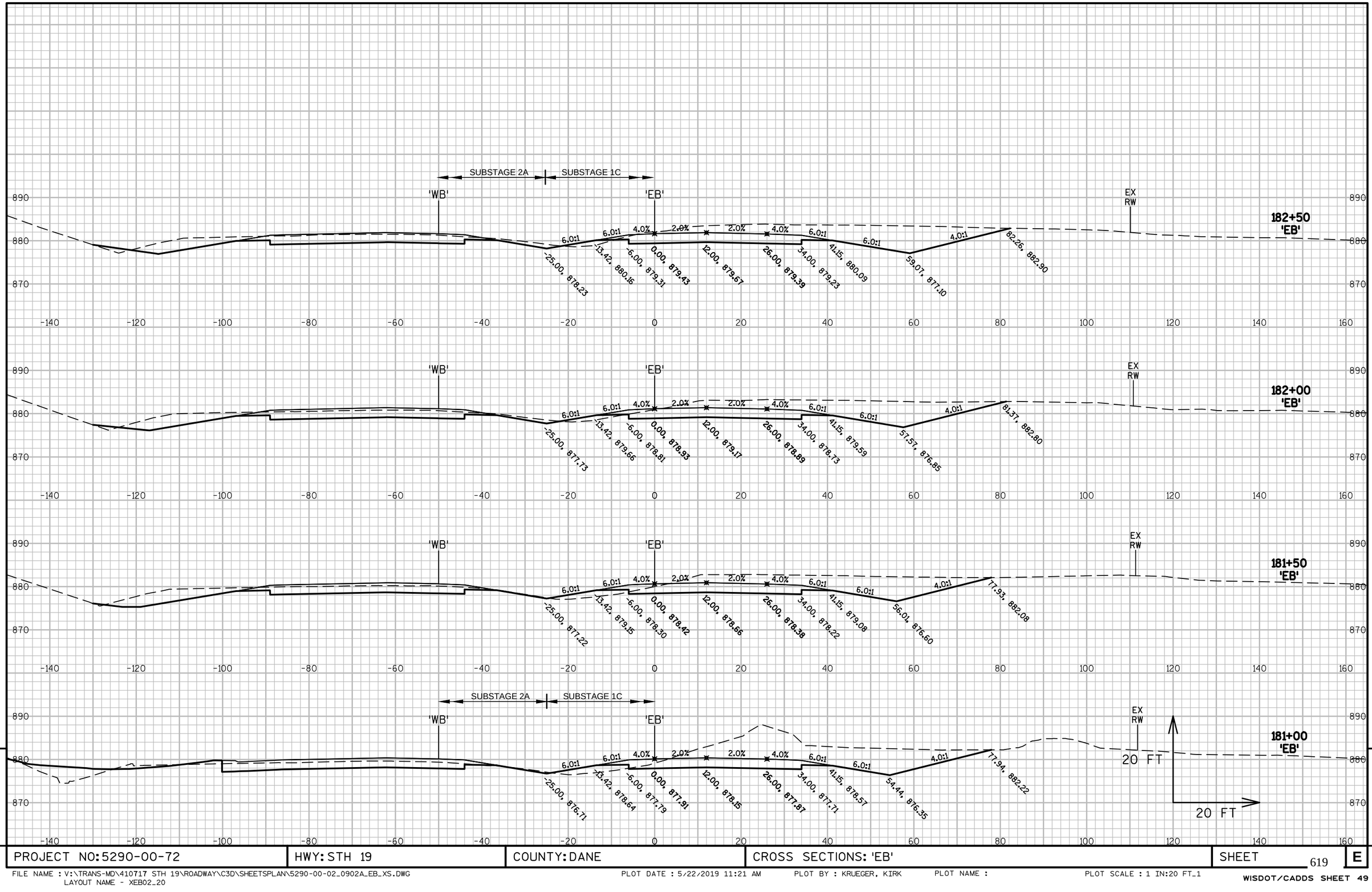


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 618	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_19

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

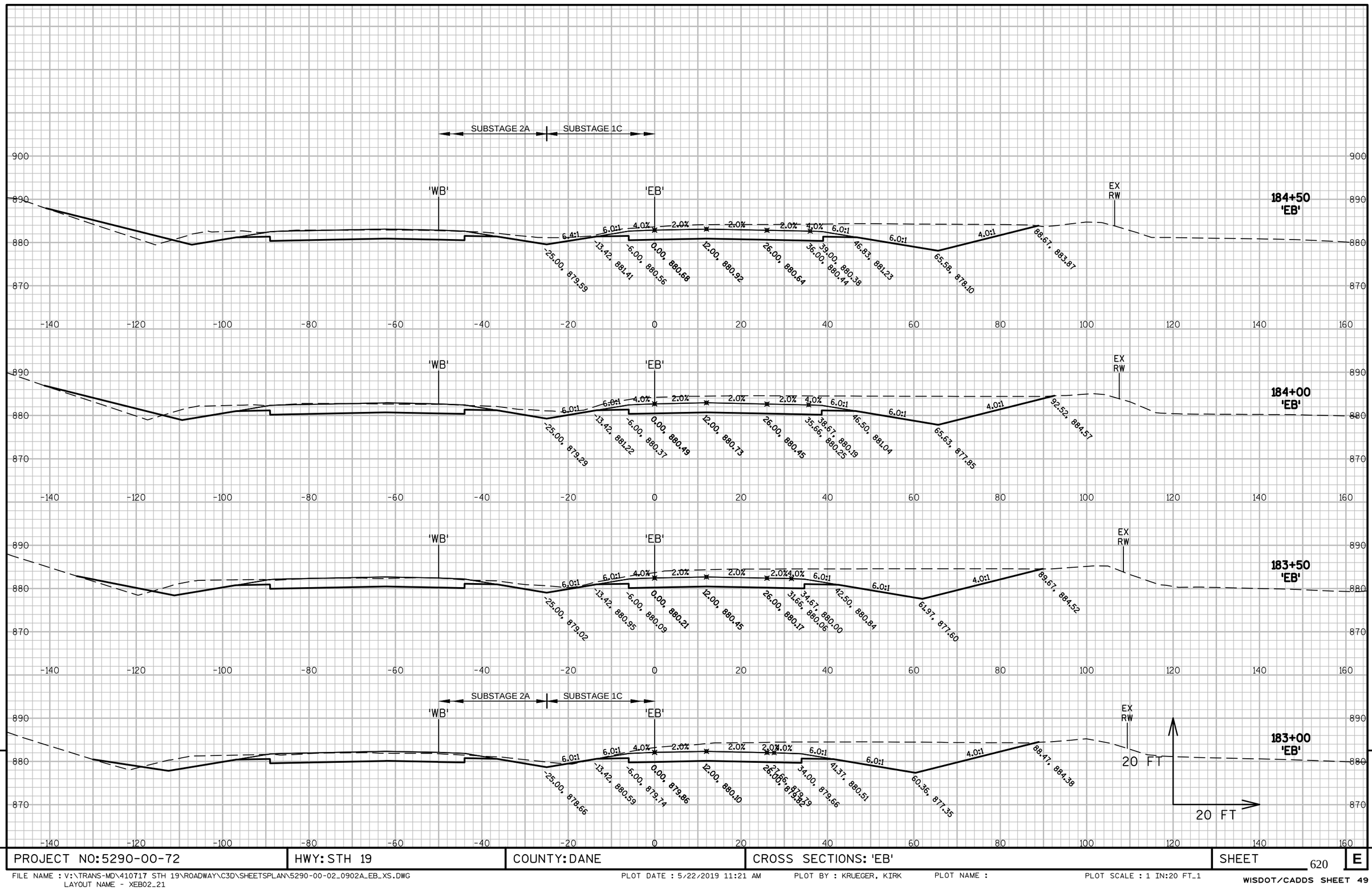
WISDOT/CADDS SHEET 49



9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 619	E

9

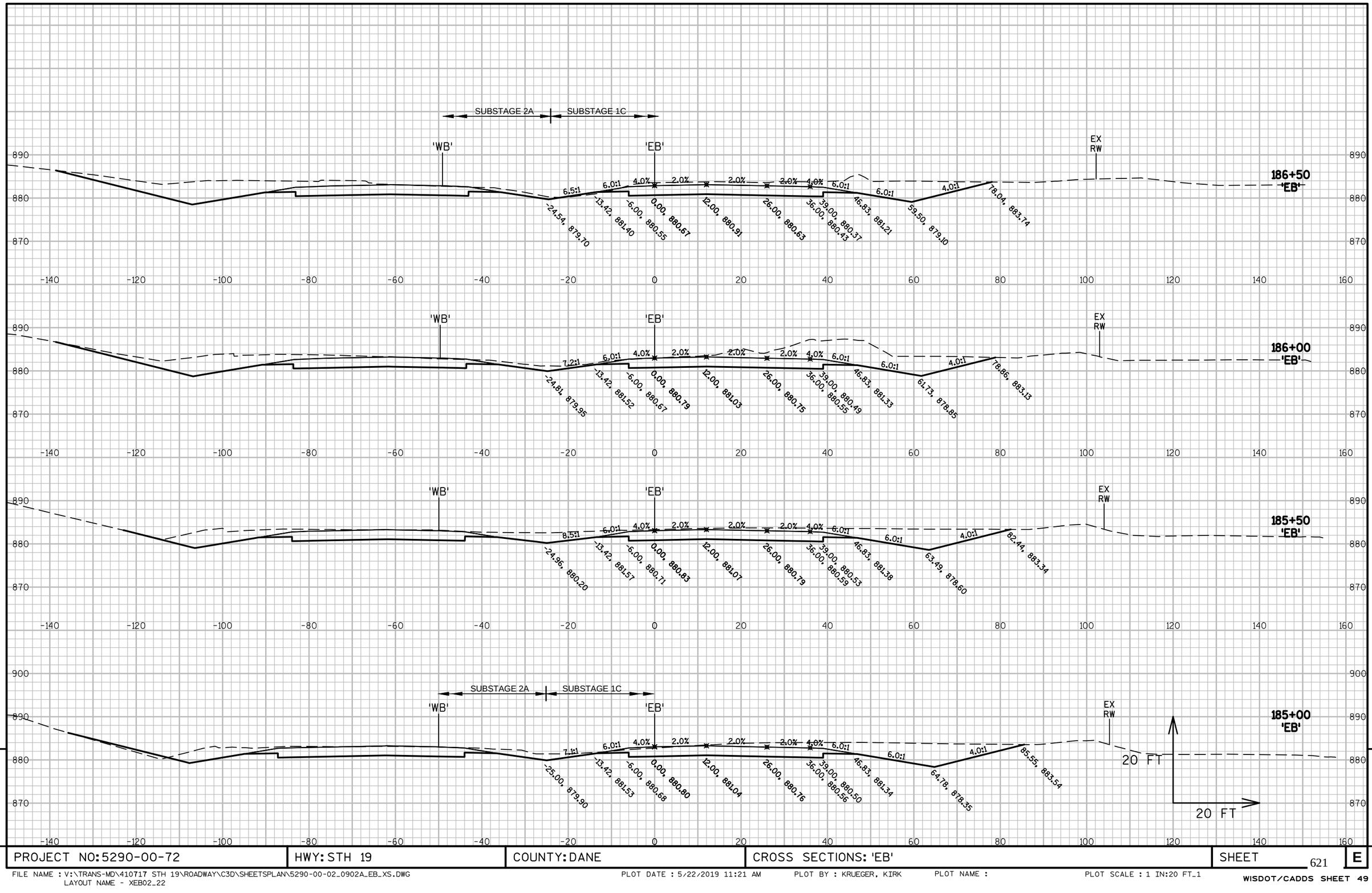


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 620	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_21

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

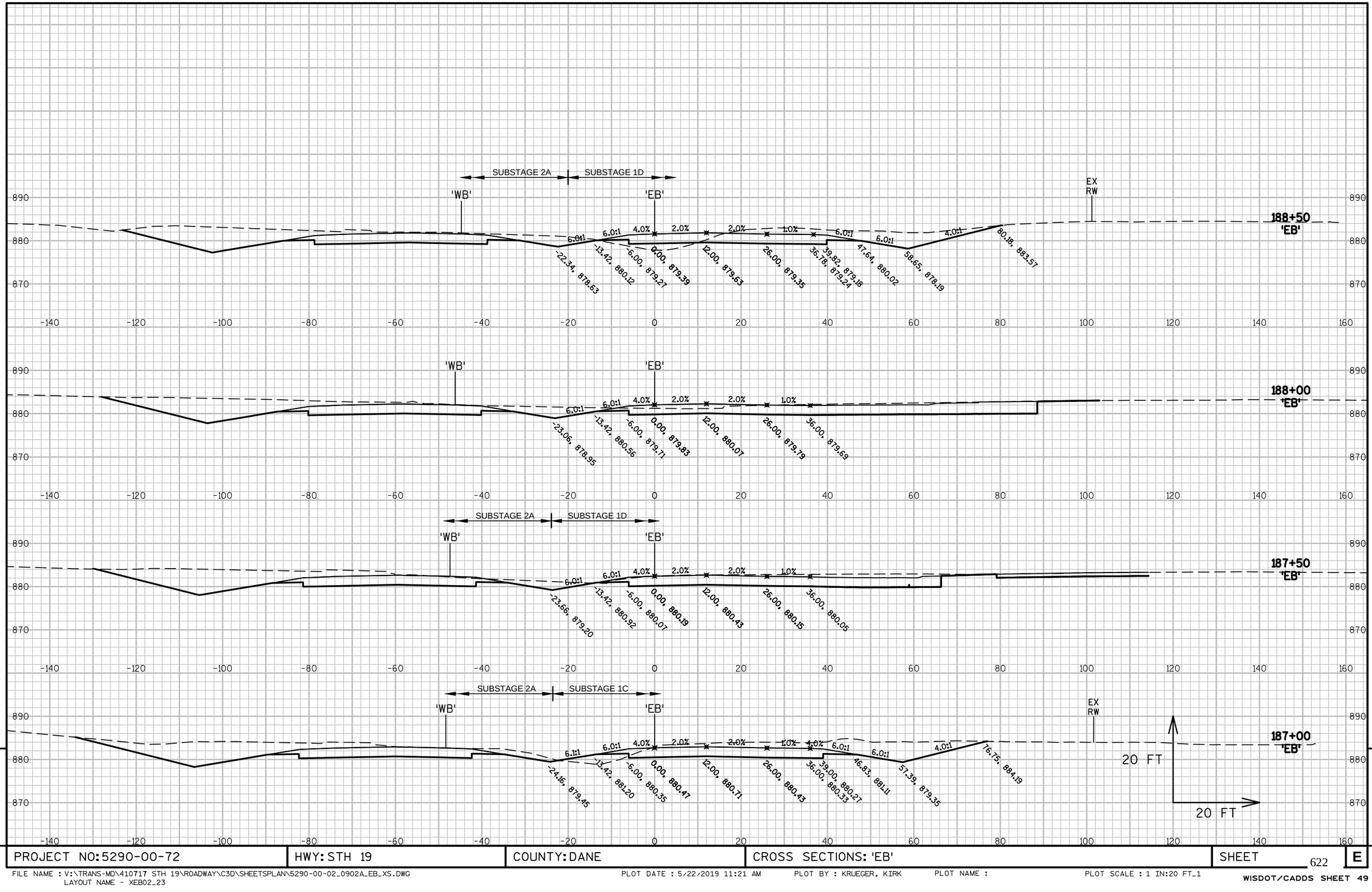
WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 621	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_22
PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

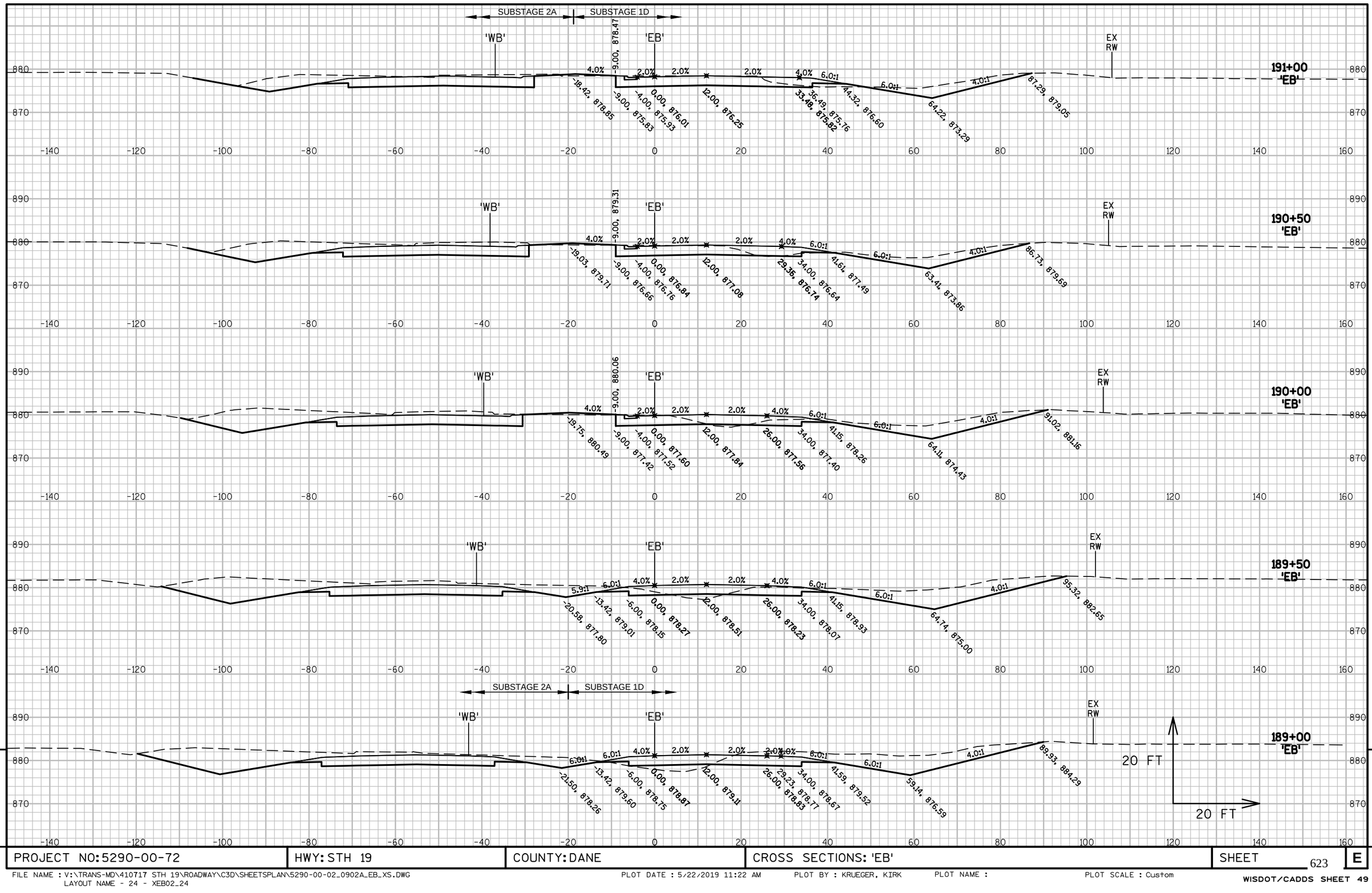


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 622	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_23

PLOT DATE : 5/22/2019 11:21 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

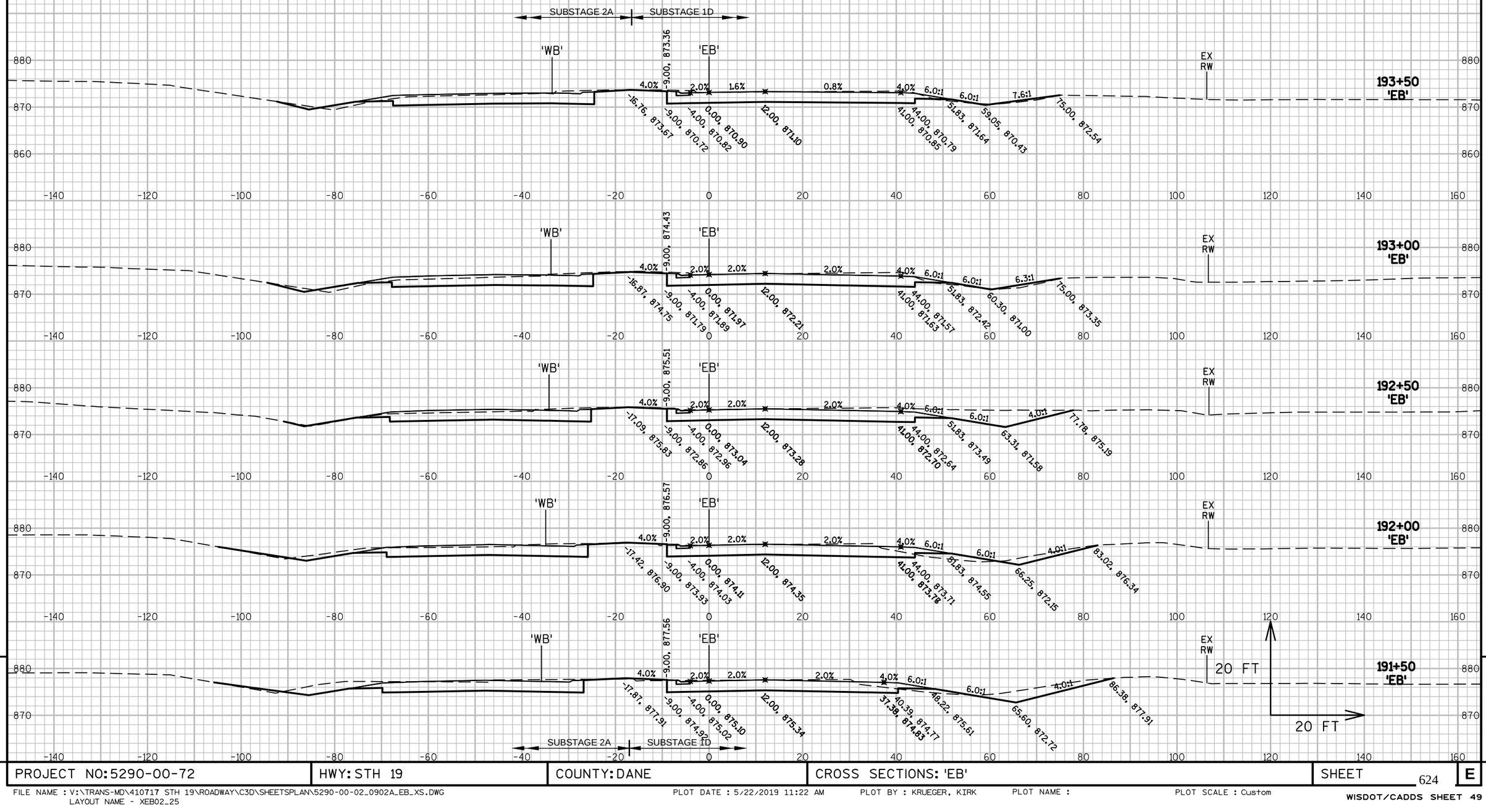
WISDOT/CADDS SHEET 49



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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 623	E



9

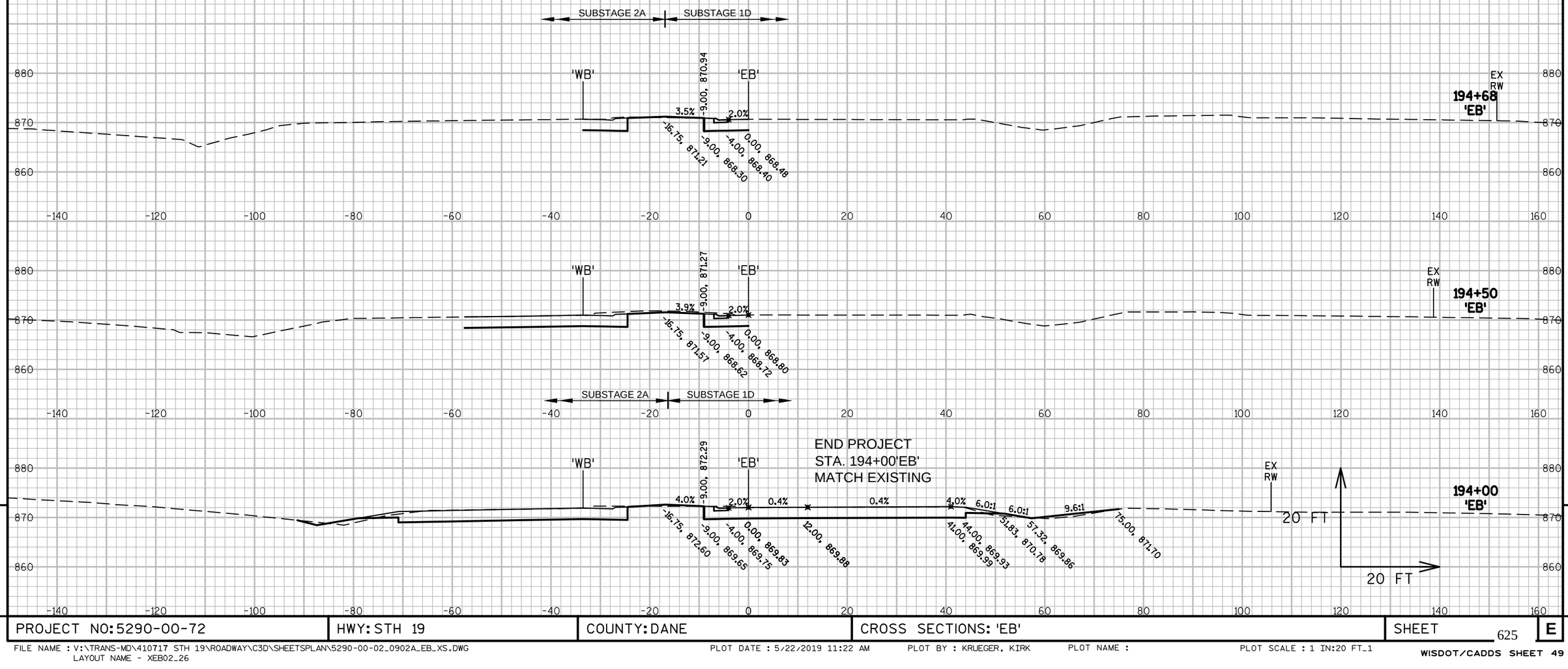
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 624	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_25

PLOT DATE : 5/22/2019 11:22 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 49

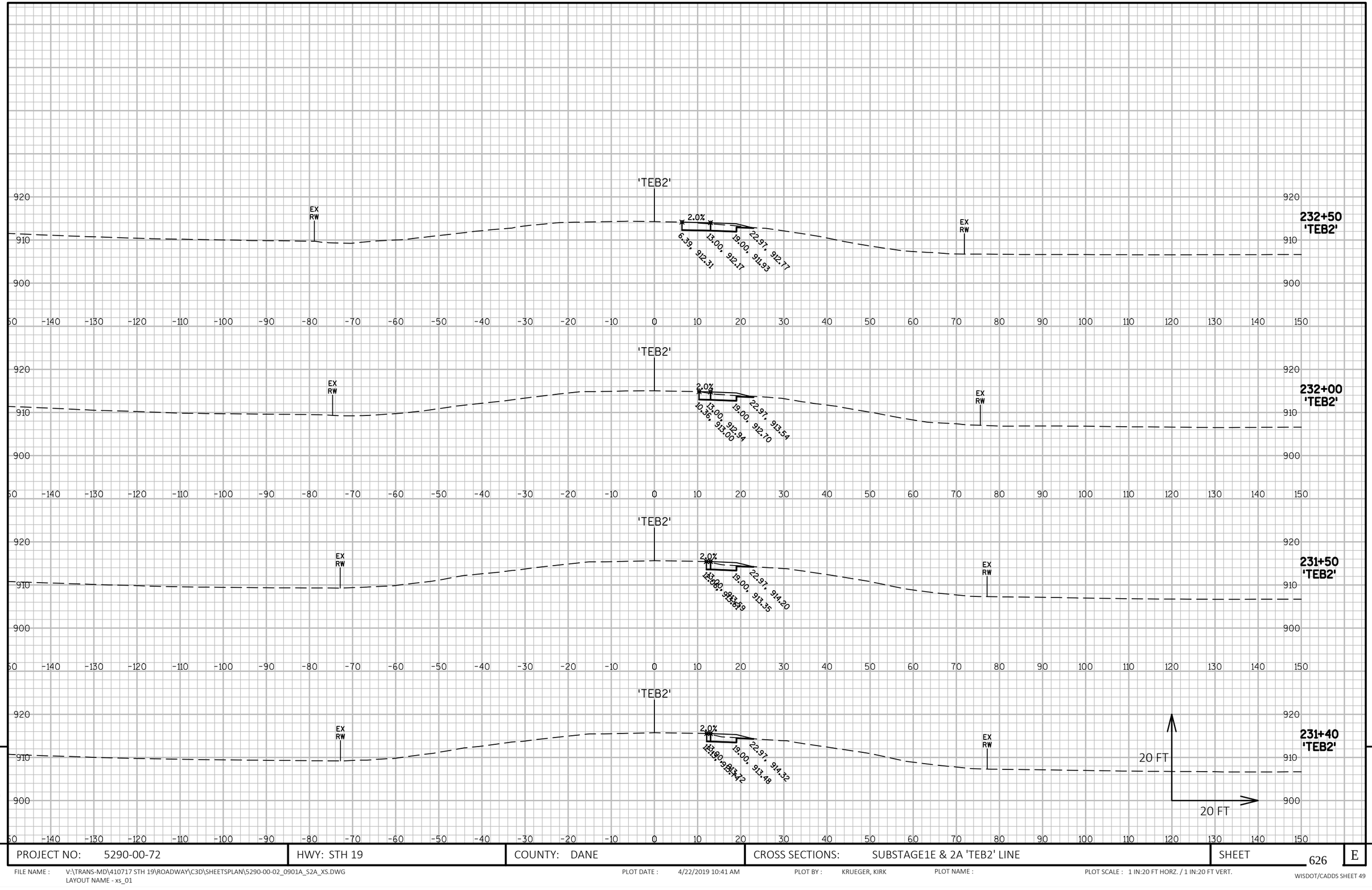


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'EB'	SHEET 625	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902A_EB_XS.DWG
LAYOUT NAME - XEB02_26

PLOT DATE : 5/22/2019 11:22 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



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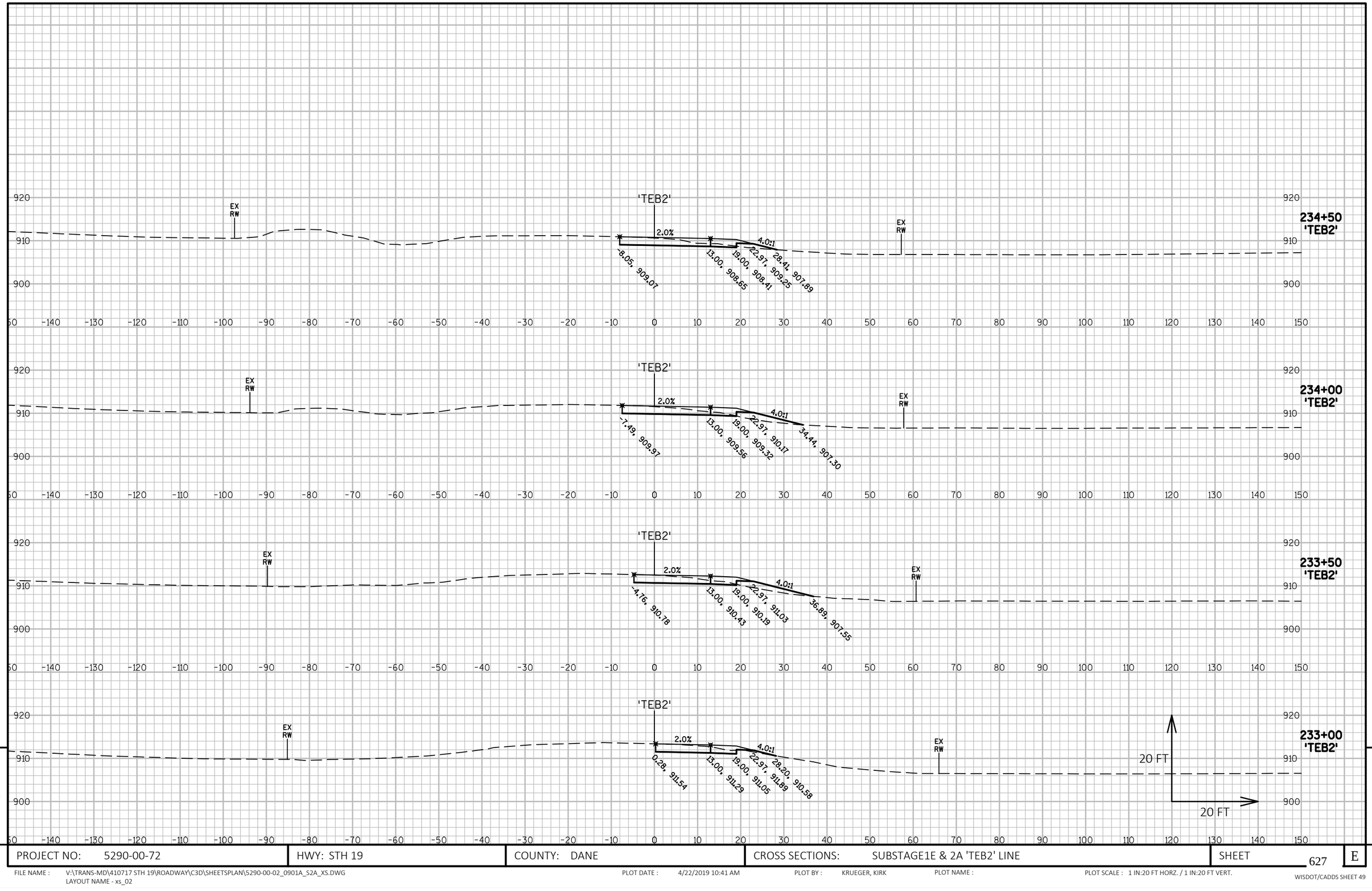
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 626	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_01

PLOT DATE : 4/22/2019 10:41 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

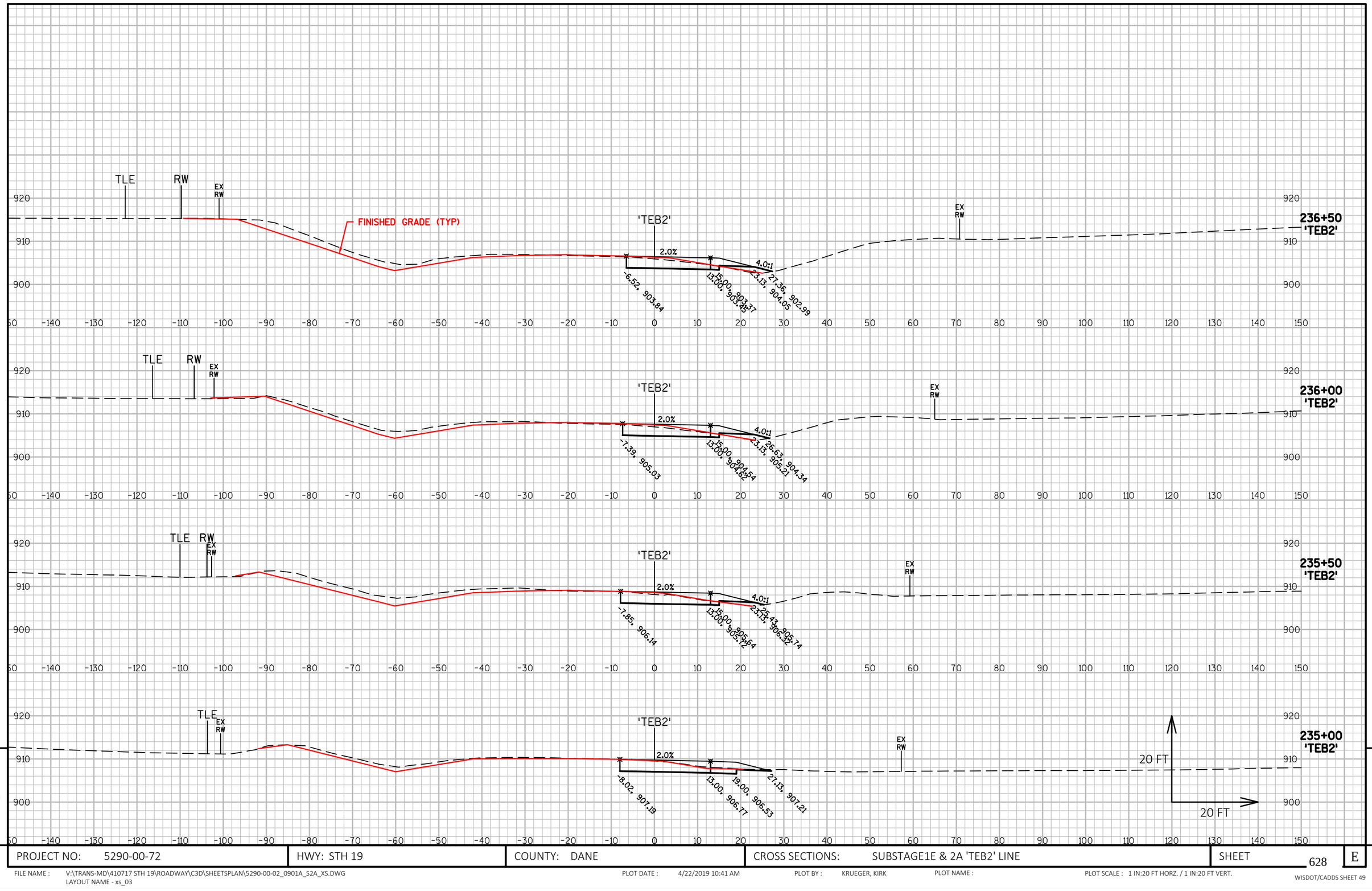


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 627	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_02

PLOT DATE : 4/22/2019 10:41 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

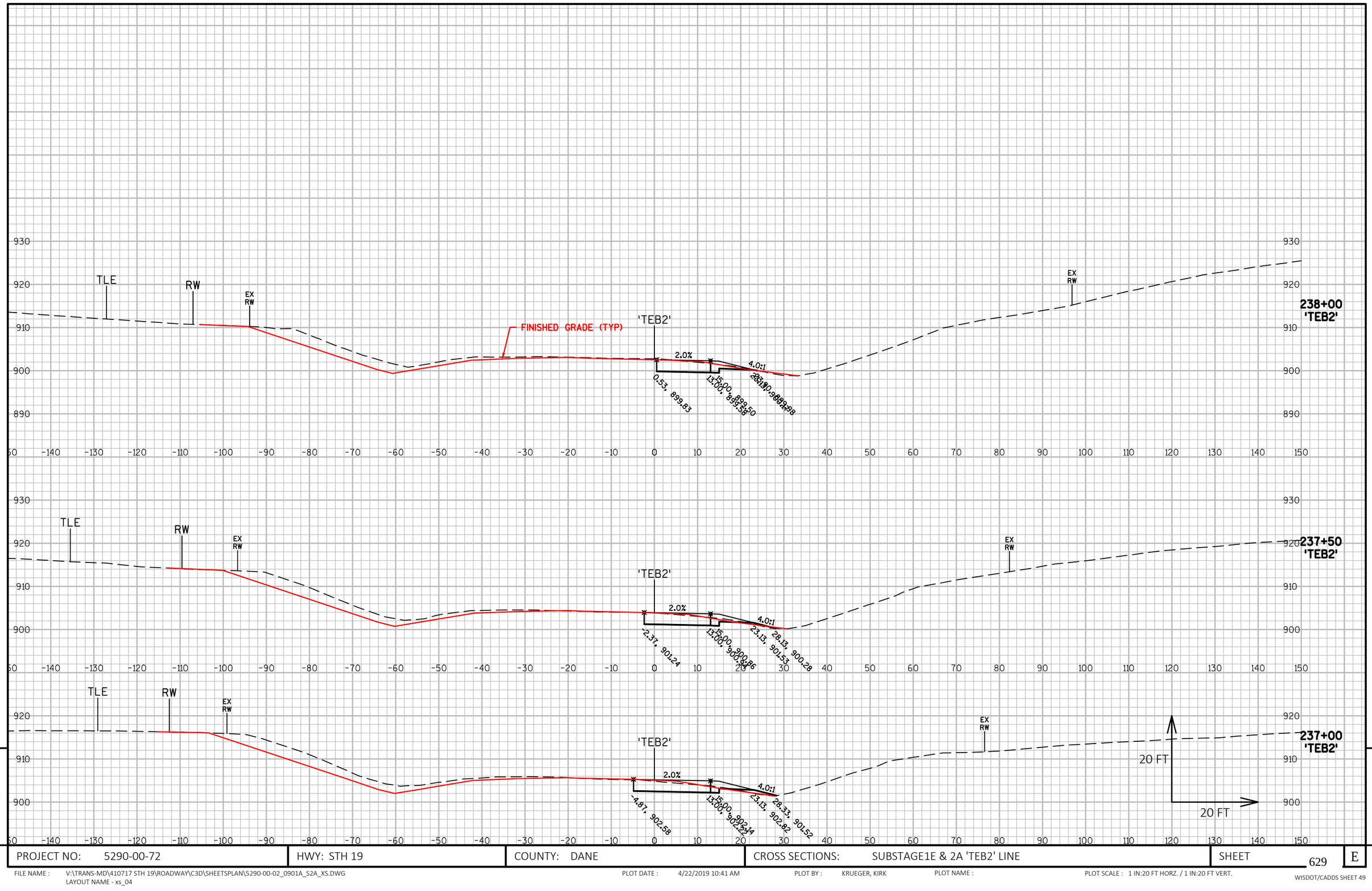


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 628 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_03

PLOT DATE : 4/22/2019 10:41 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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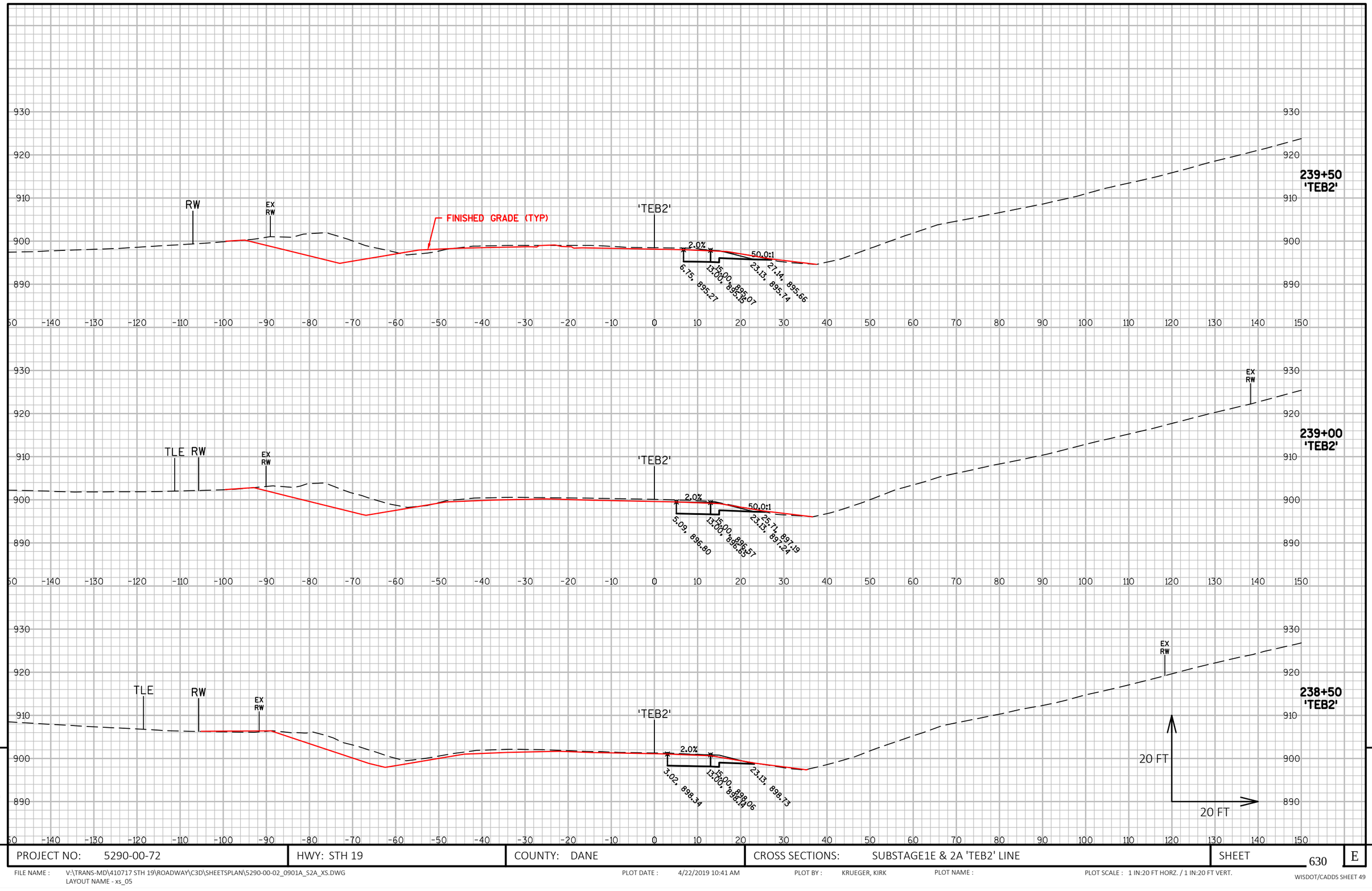
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 629	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_04

PLOT DATE : 4/22/2019 10:41 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



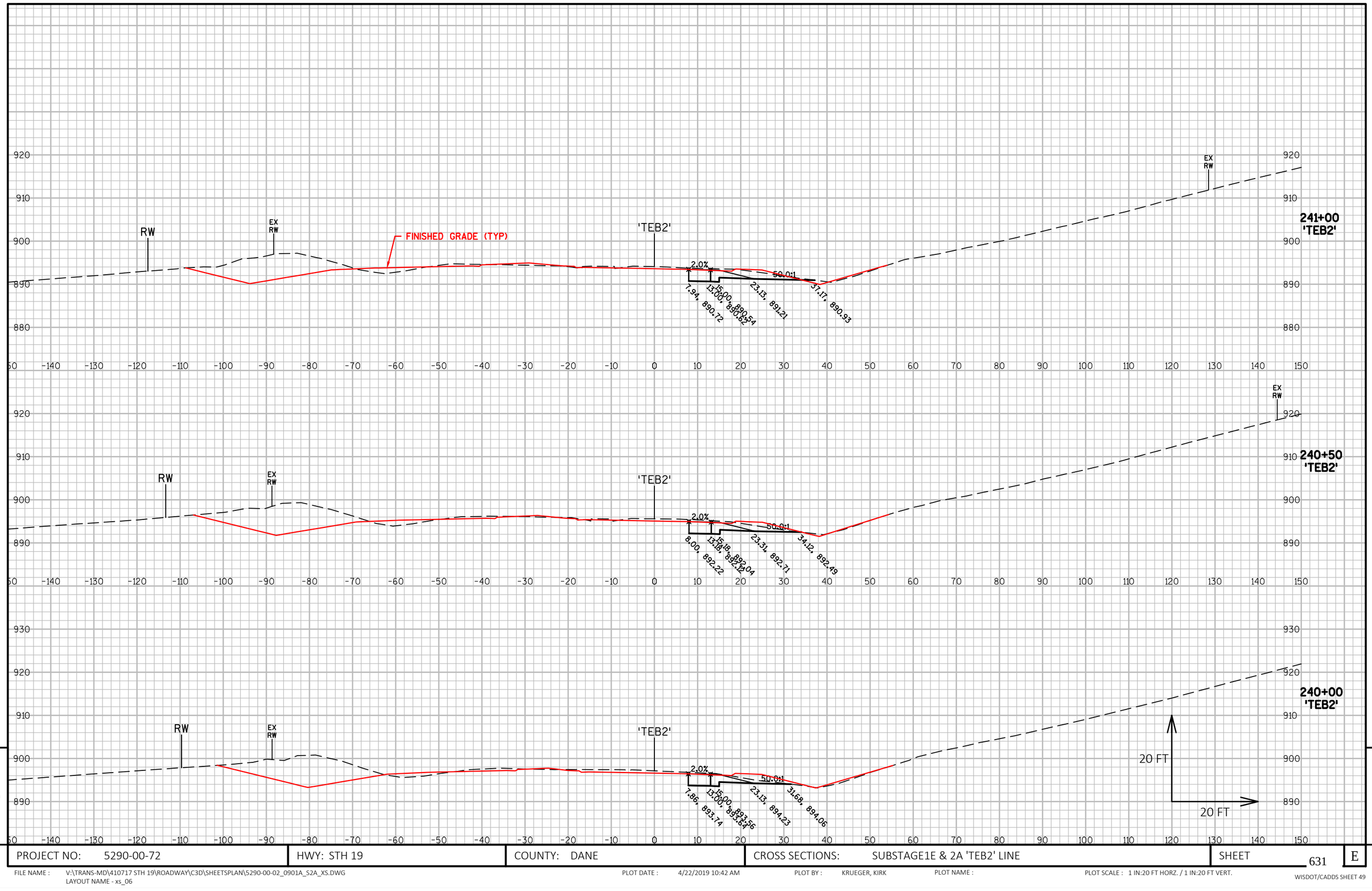
9 9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 630	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_05

PLOT DATE : 4/22/2019 10:41 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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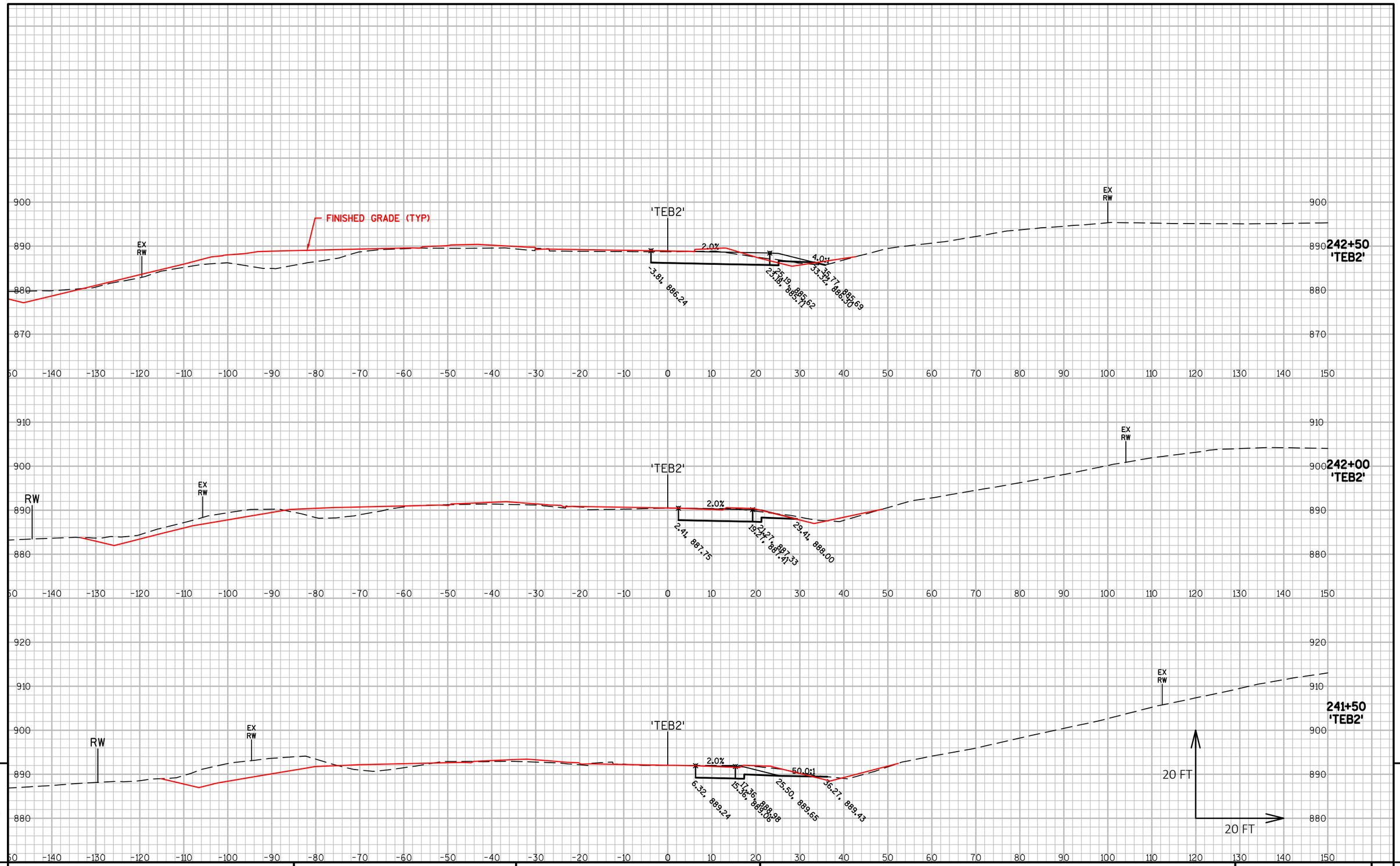
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 631	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_06

PLOT DATE : 4/22/2019 10:42 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

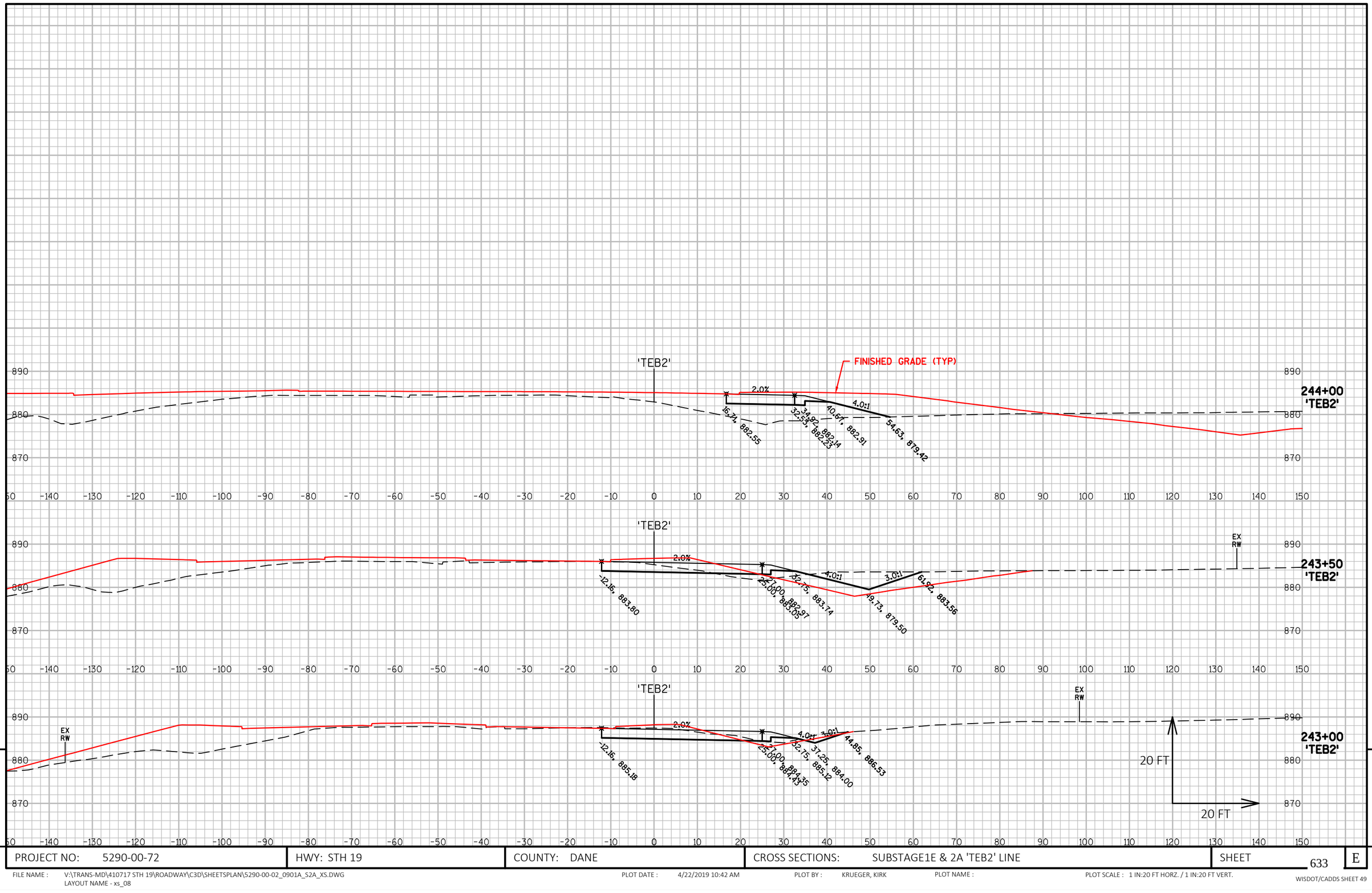


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 632 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_07

PLOT DATE : 4/22/2019 10:42 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

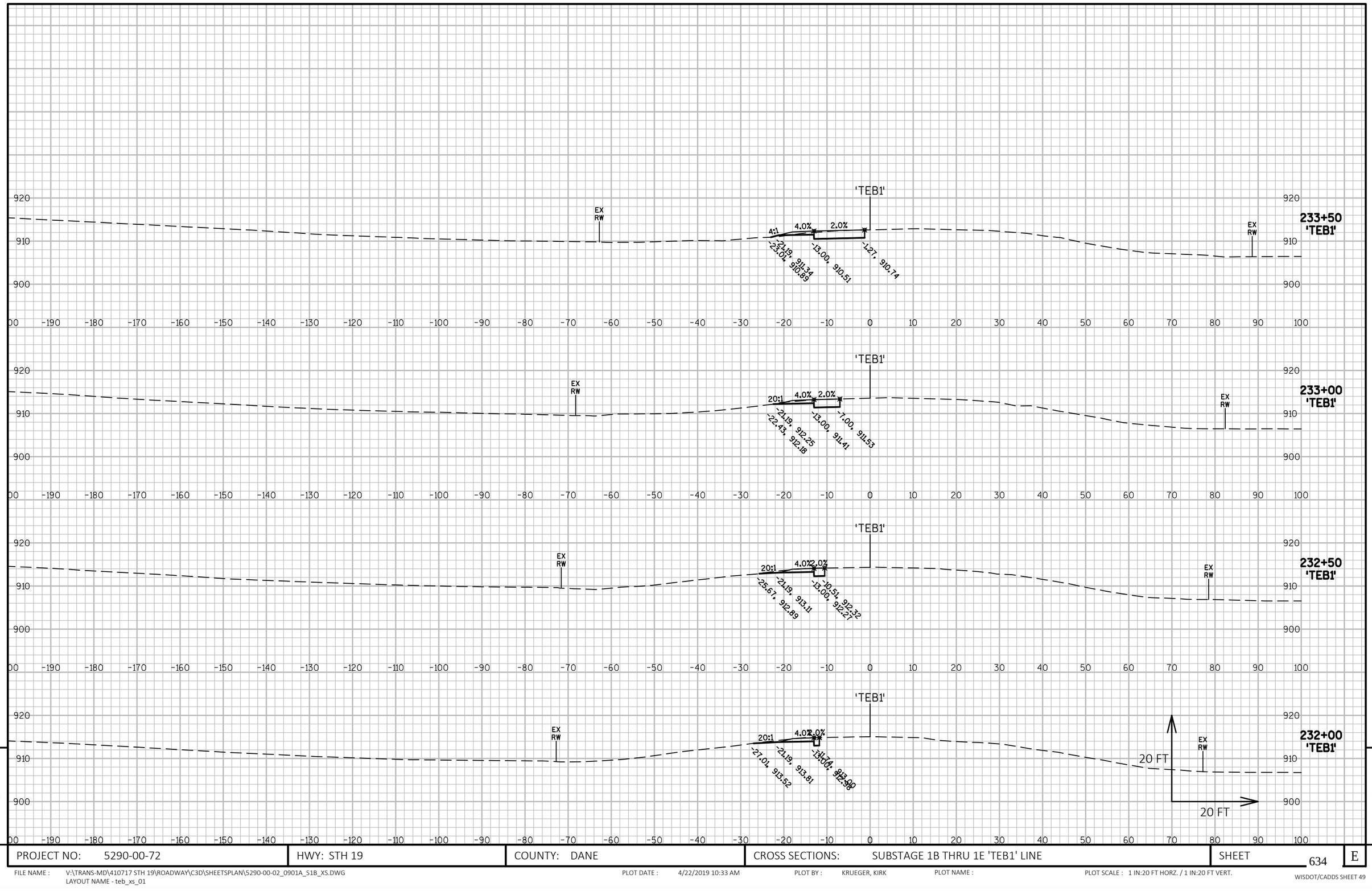


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE1E & 2A 'TEB2' LINE	SHEET 633	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S2A_XS.DWG
LAYOUT NAME - xs_08

PLOT DATE : 4/22/2019 10:42 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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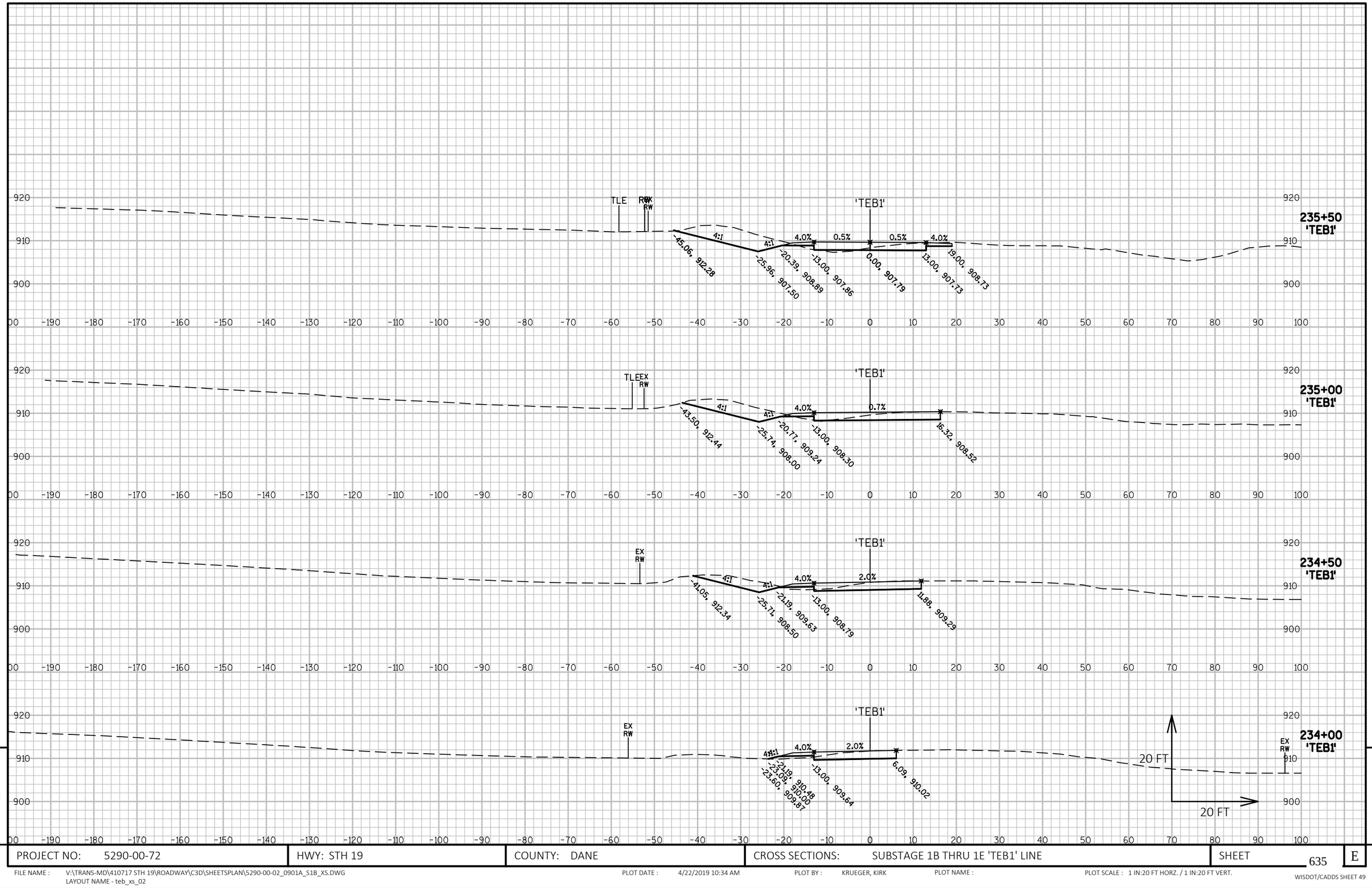
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 634	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_01

PLOT DATE : 4/22/2019 10:33 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

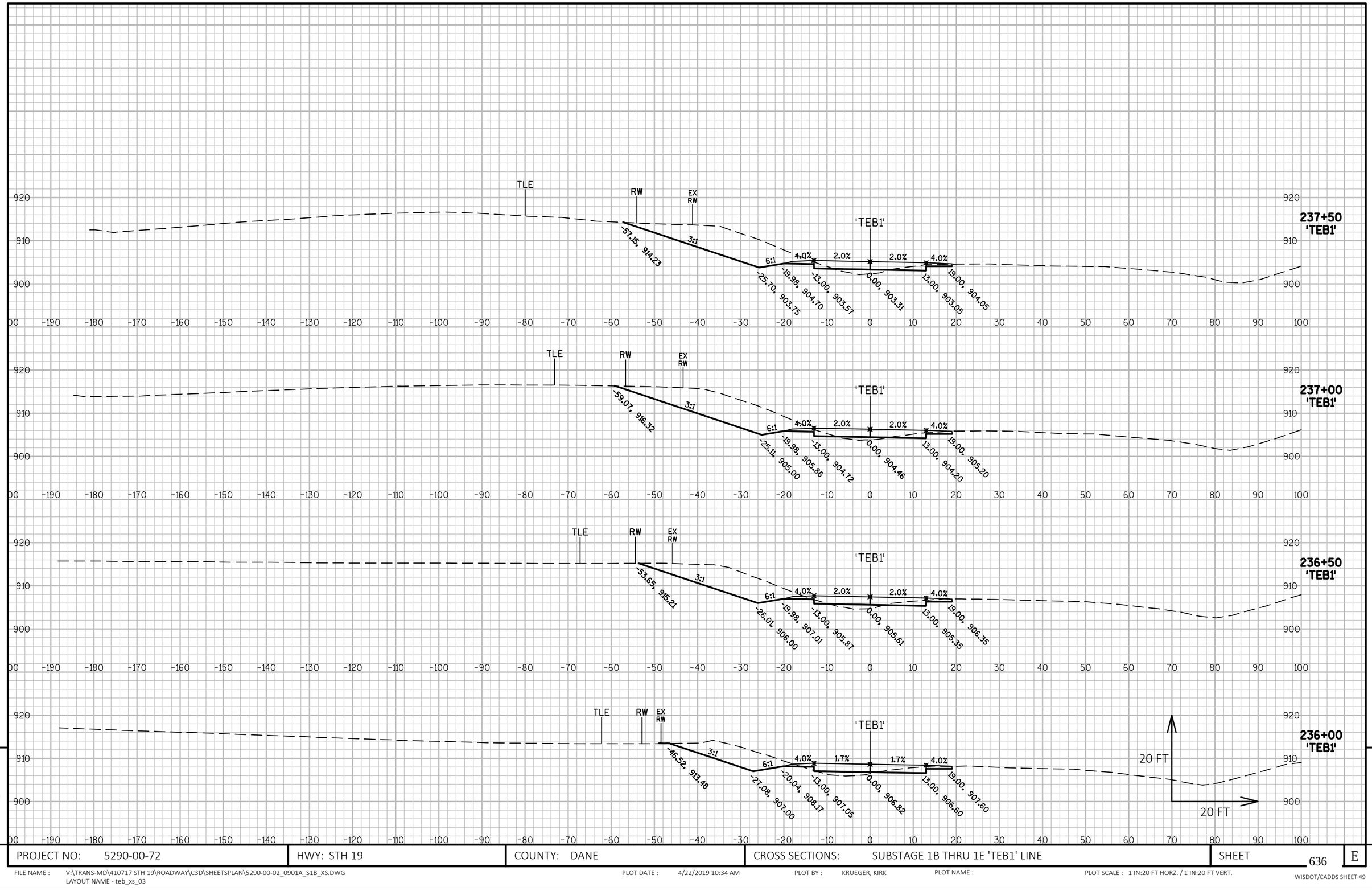


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 635	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_02

PLOT DATE : 4/22/2019 10:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

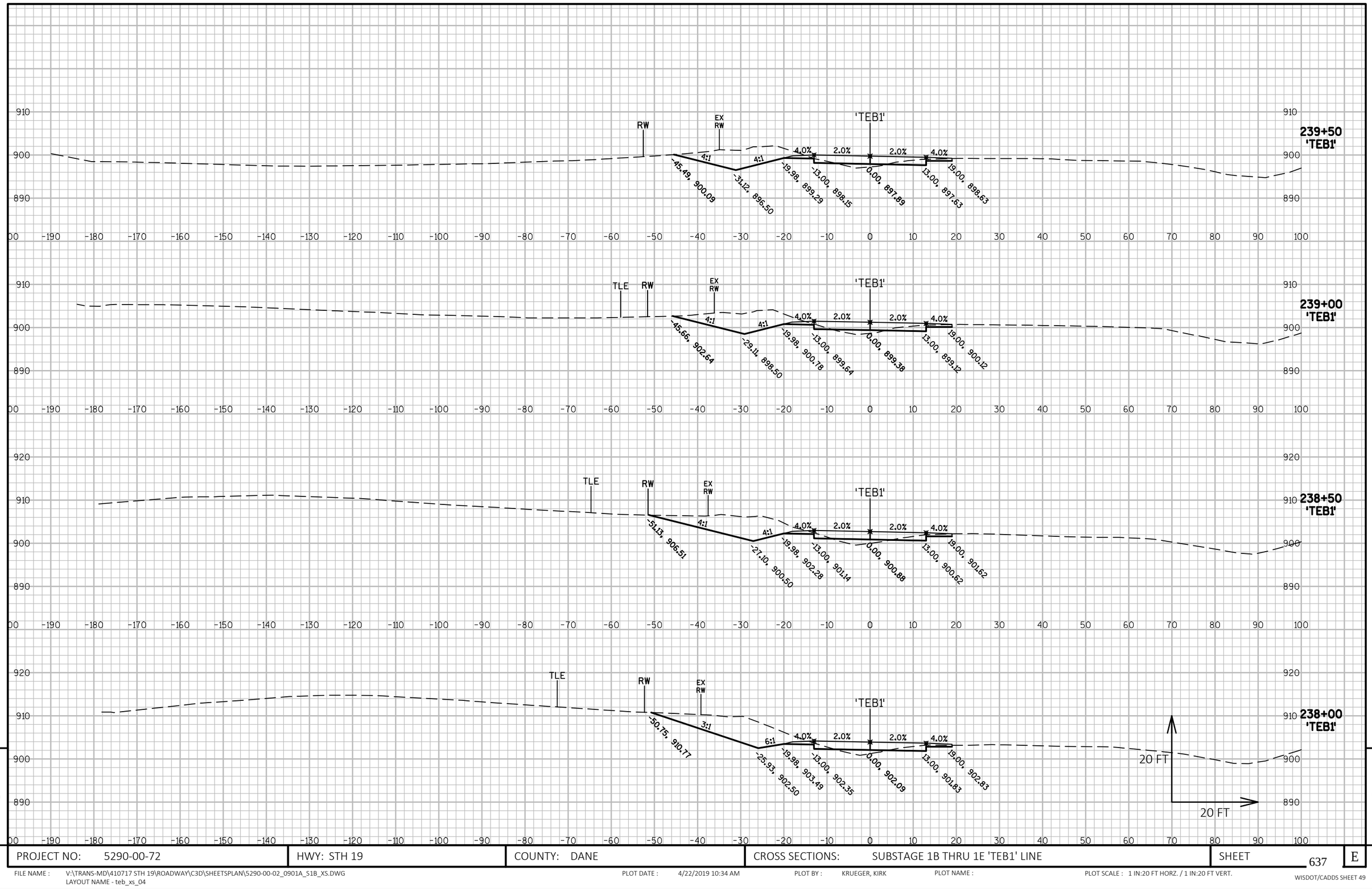


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 636	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_03
PLOT DATE : 4/22/2019 10:34 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49

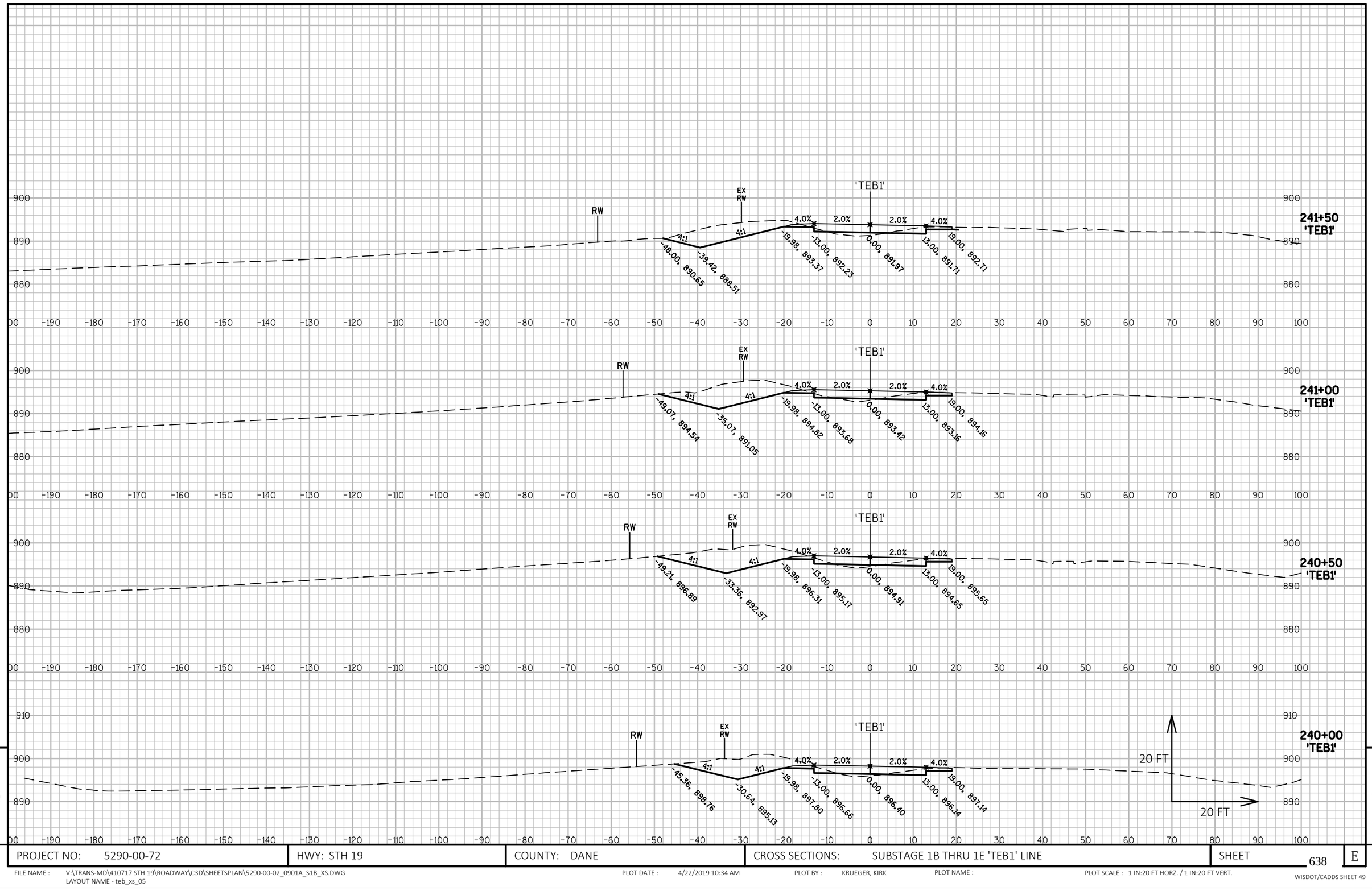


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 637	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_04

PLOT DATE : 4/22/2019 10:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

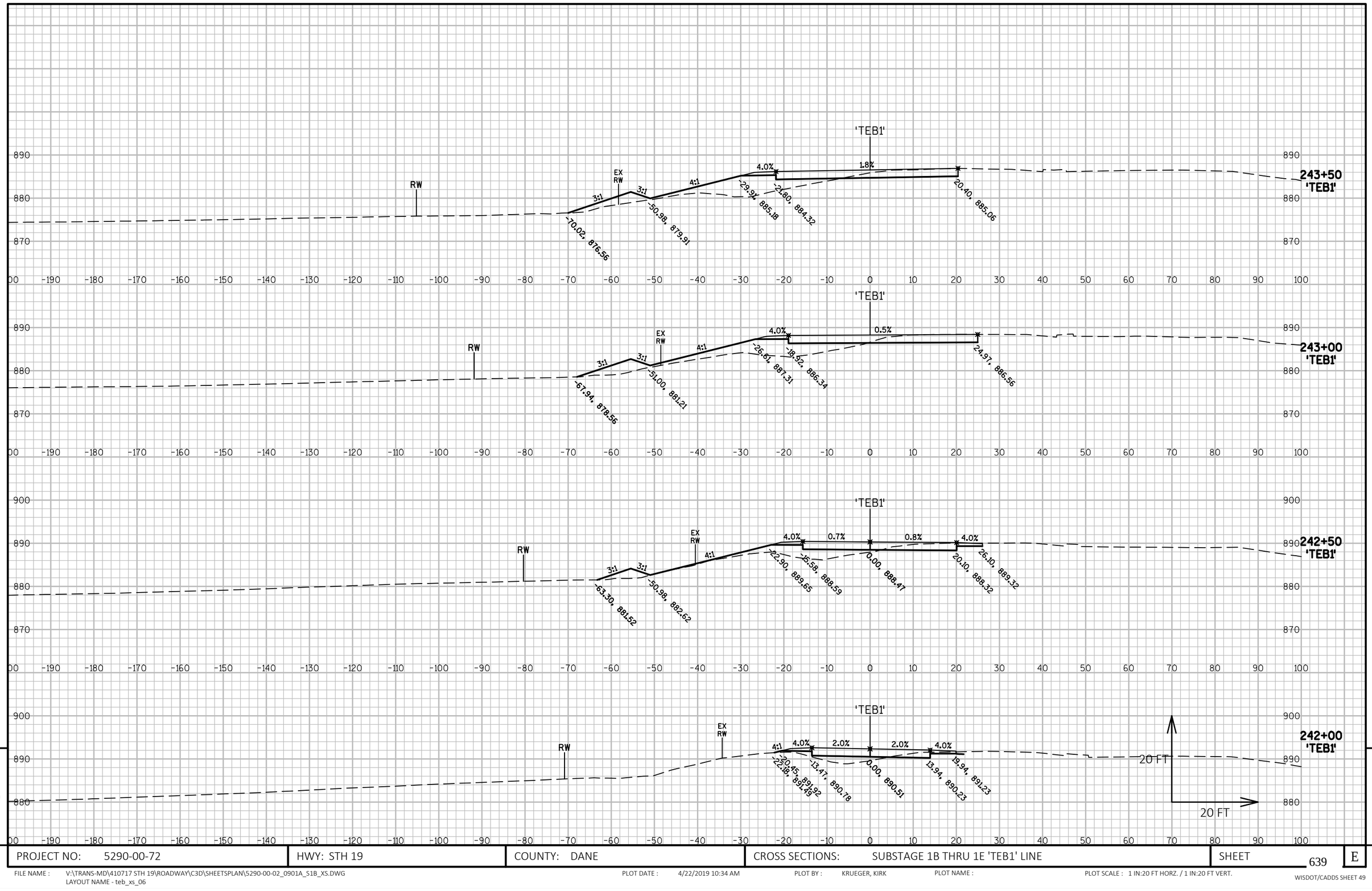


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 638	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_05

PLOT DATE : 4/22/2019 10:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

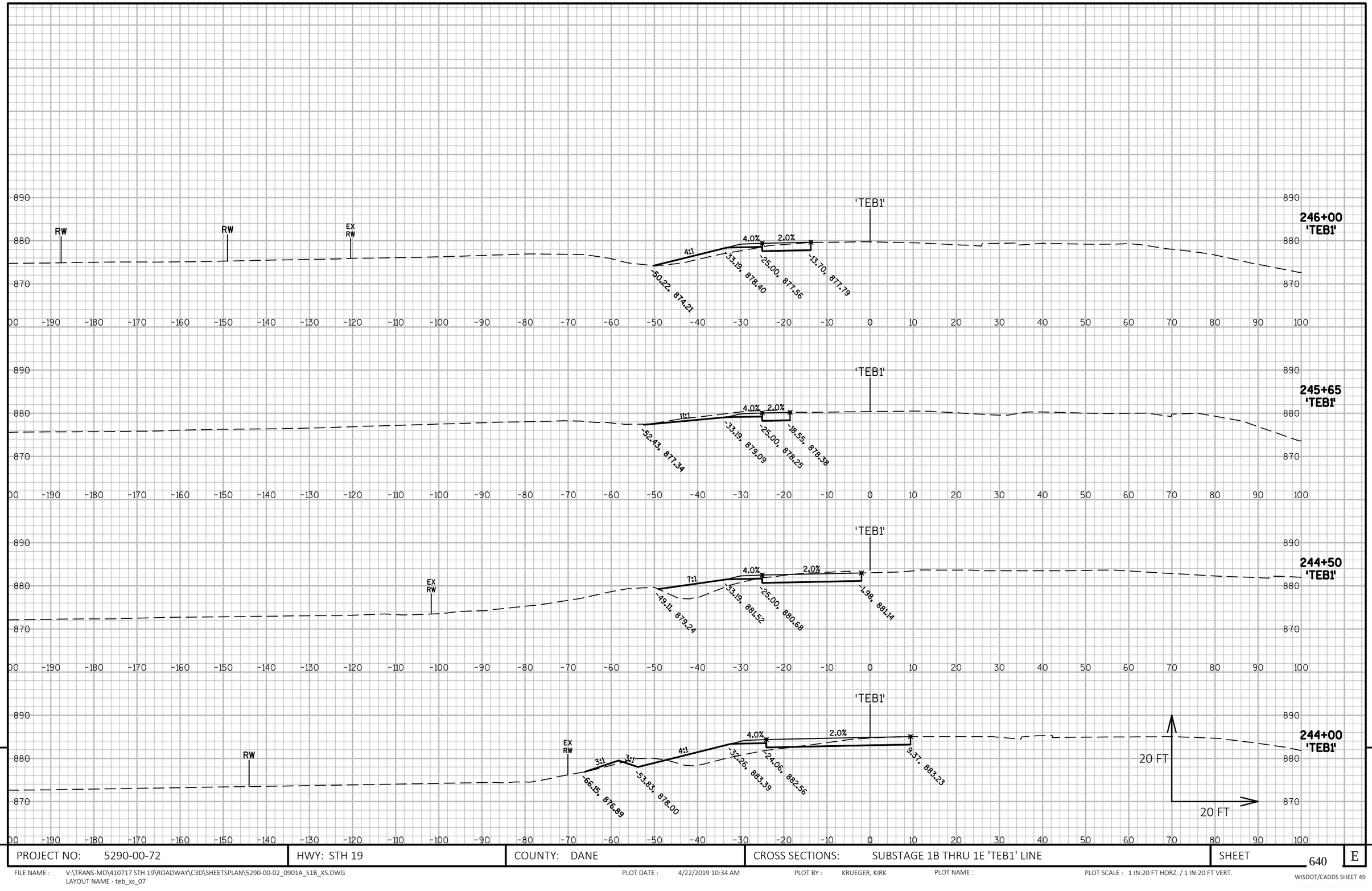


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 639 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_06

PLOT DATE : 4/22/2019 10:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



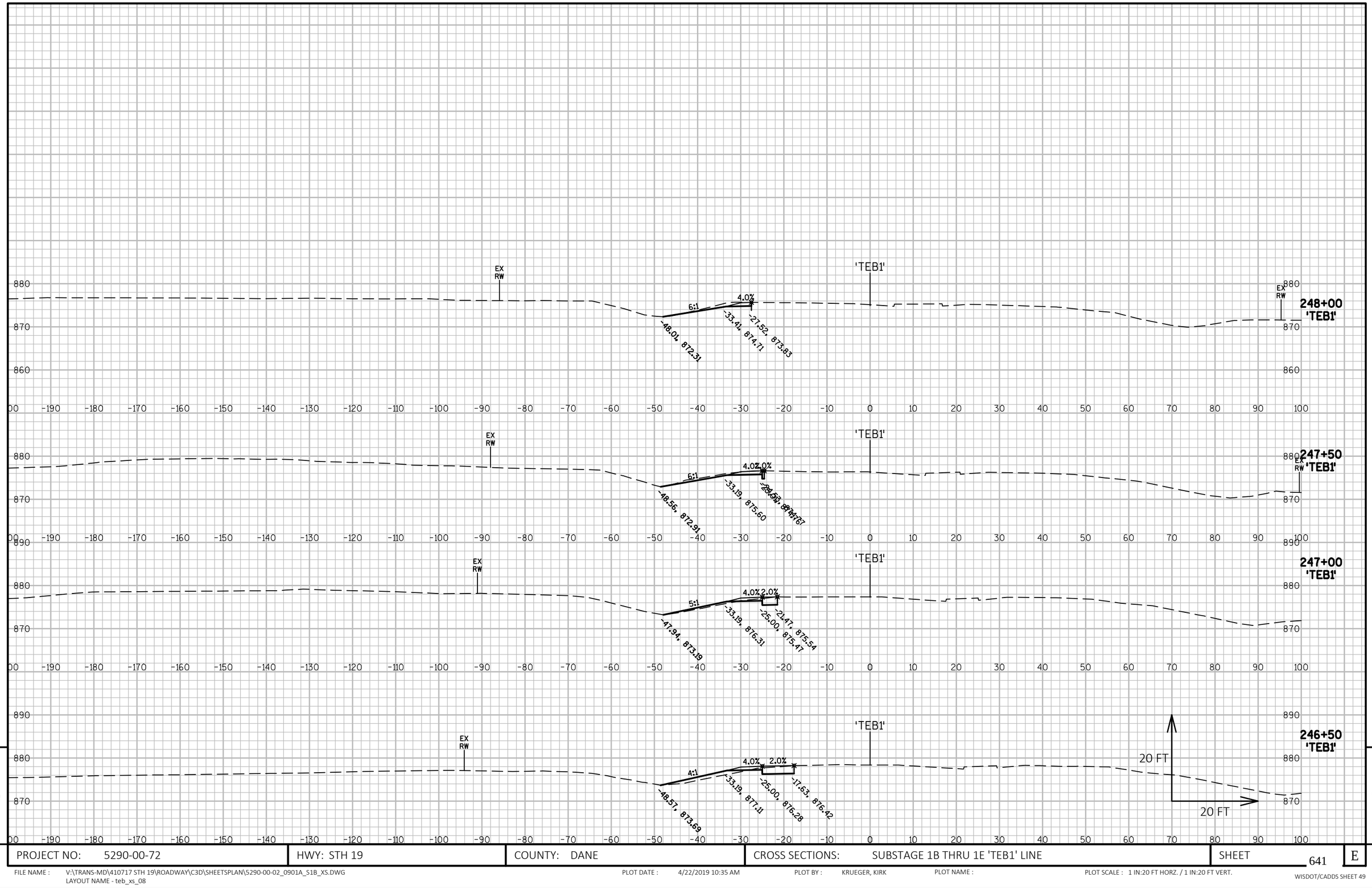
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 640	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_07

PLOT DATE : 4/22/2019 10:34 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

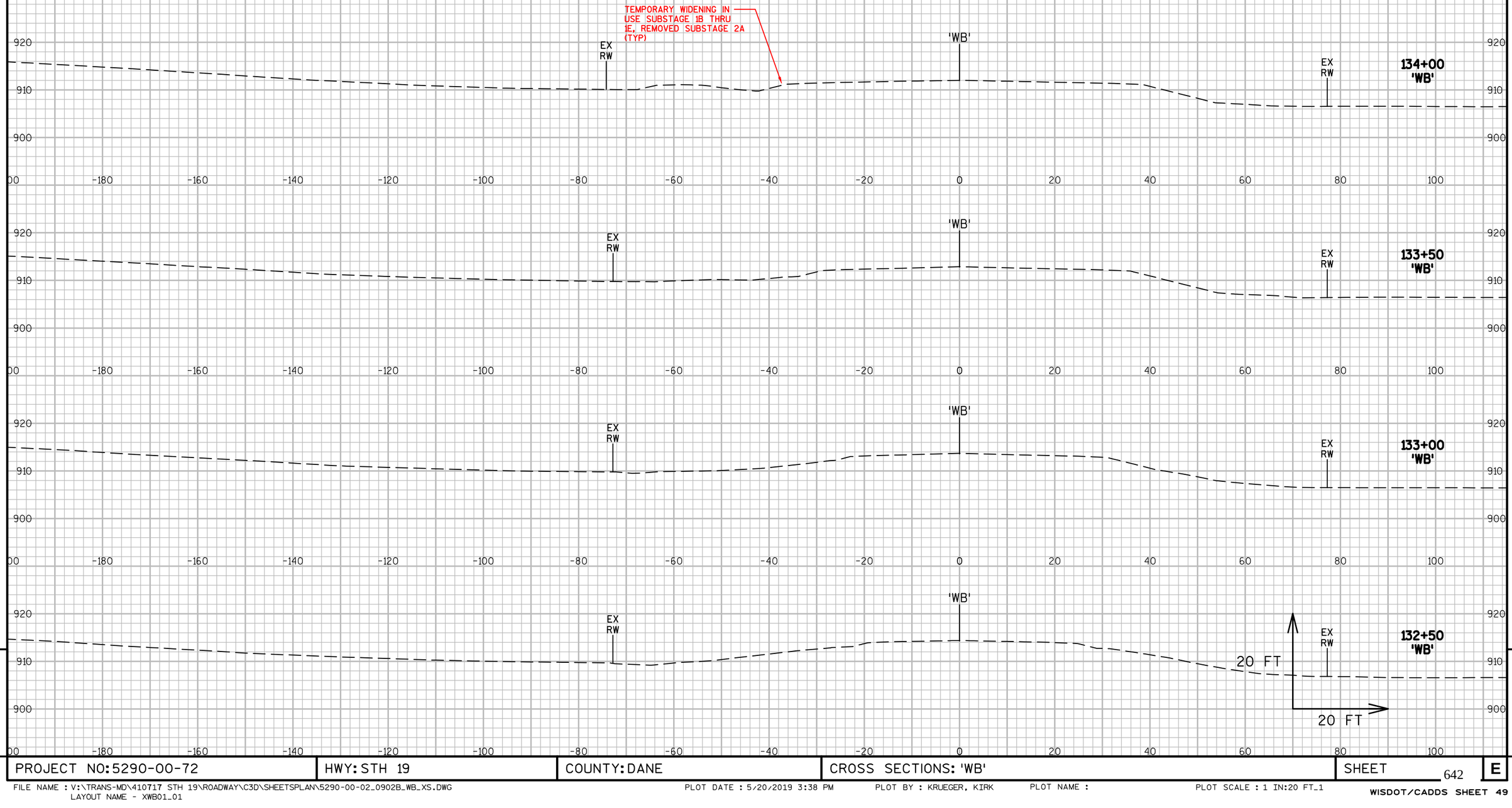
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TEB1' LINE	SHEET 641	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - teb_xs_08

PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

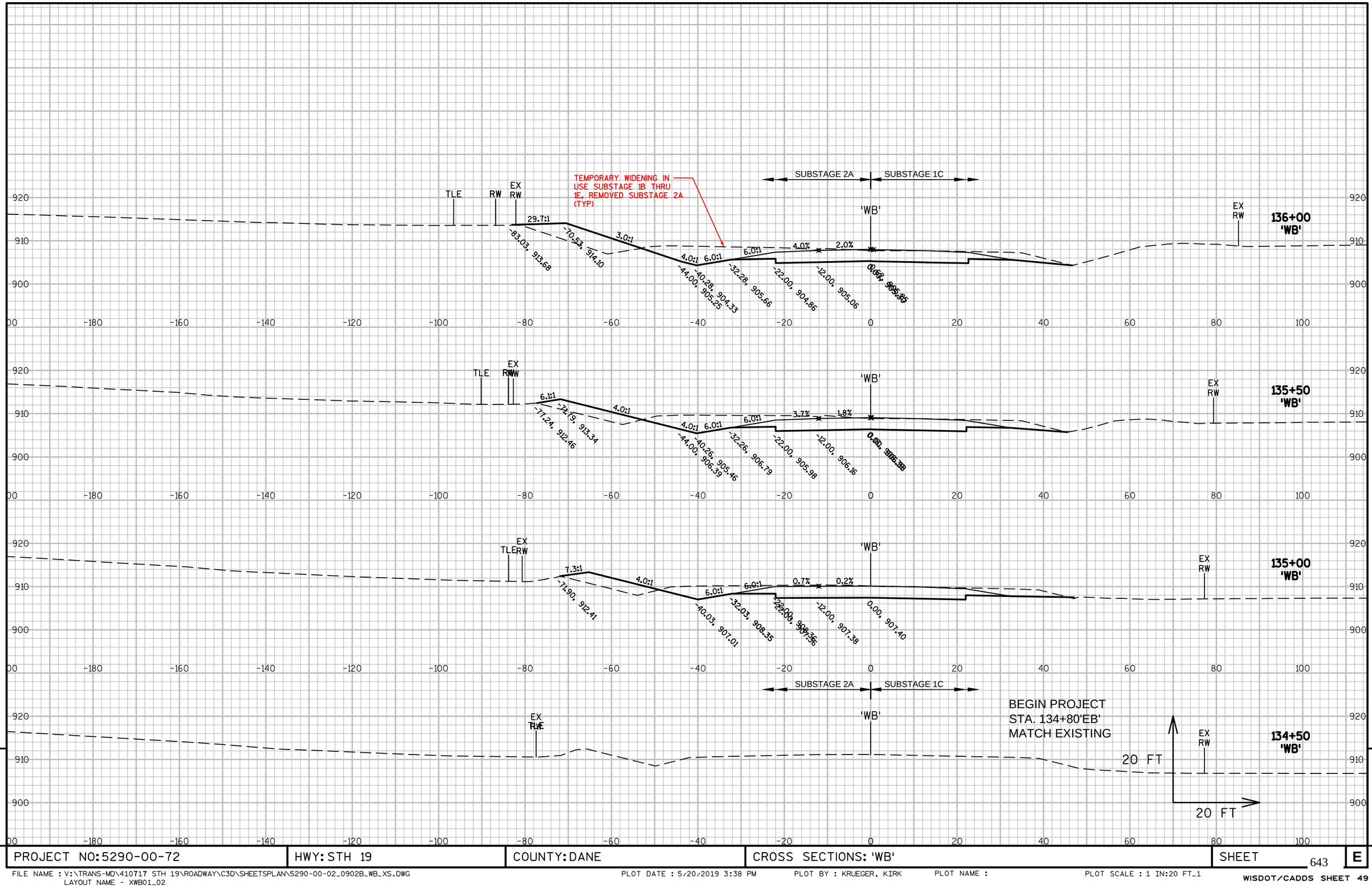
TEMPORARY WIDENING IN USE SUBSTAGE 1B THRU 1E, REMOVED SUBSTAGE 2A (TYP)



9

9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 642	E



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PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 643	E

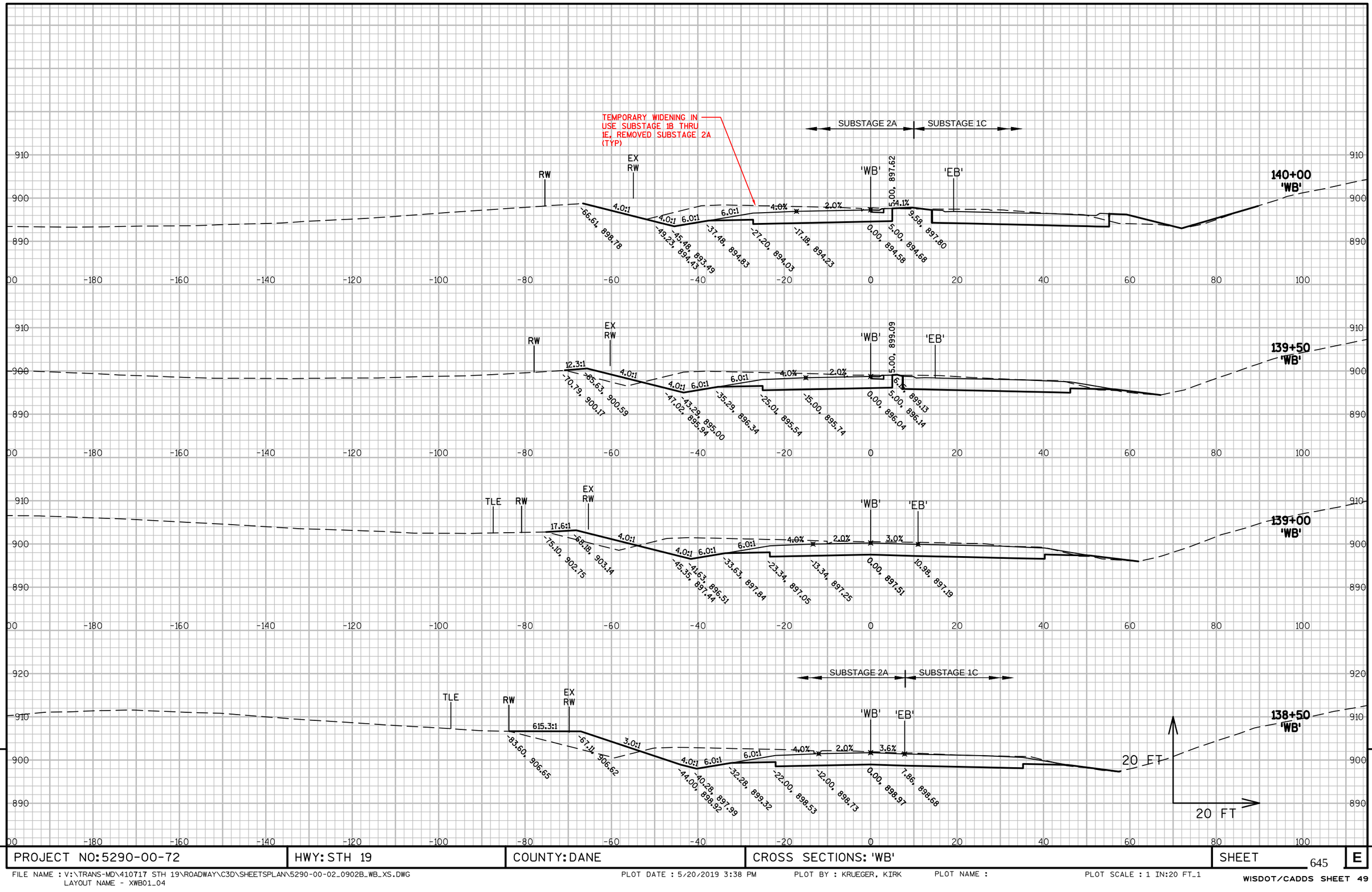
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 644	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB01_03

PLOT DATE : 5/20/2019 3:38 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

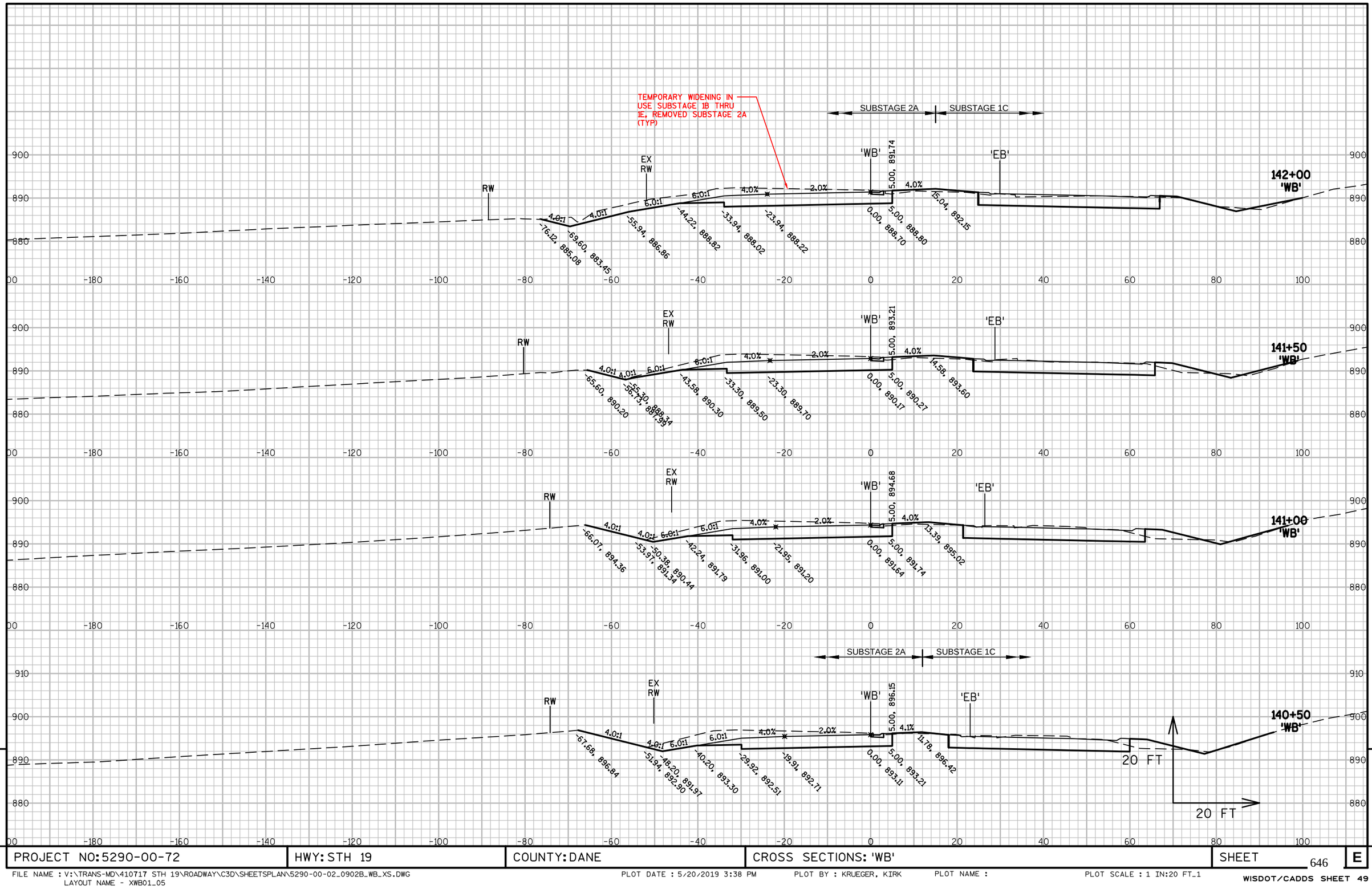


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 645	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB01_04

PLOT DATE : 5/20/2019 3:38 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

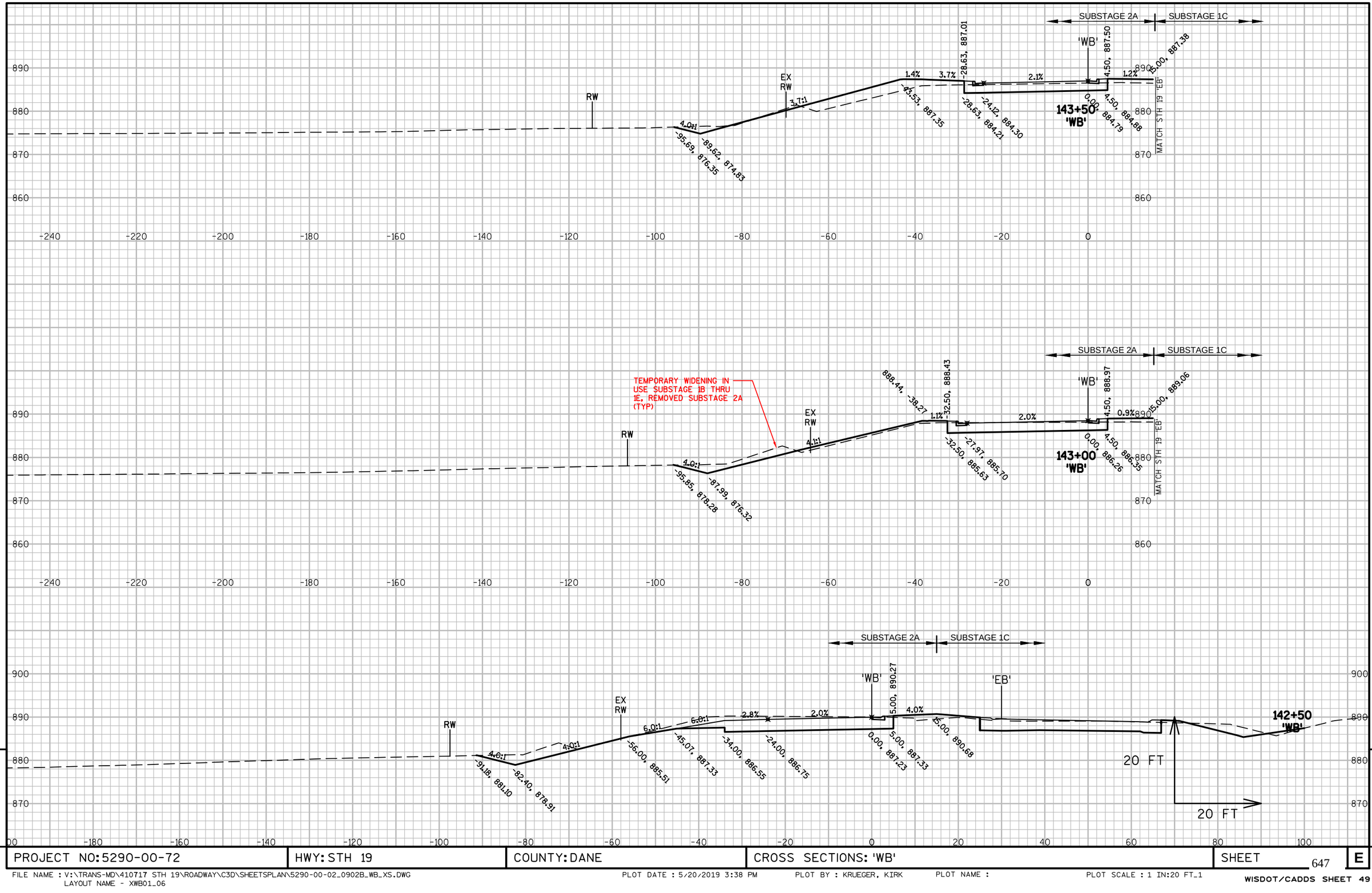


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 646	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB01_05

PLOT DATE : 5/20/2019 3:38 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

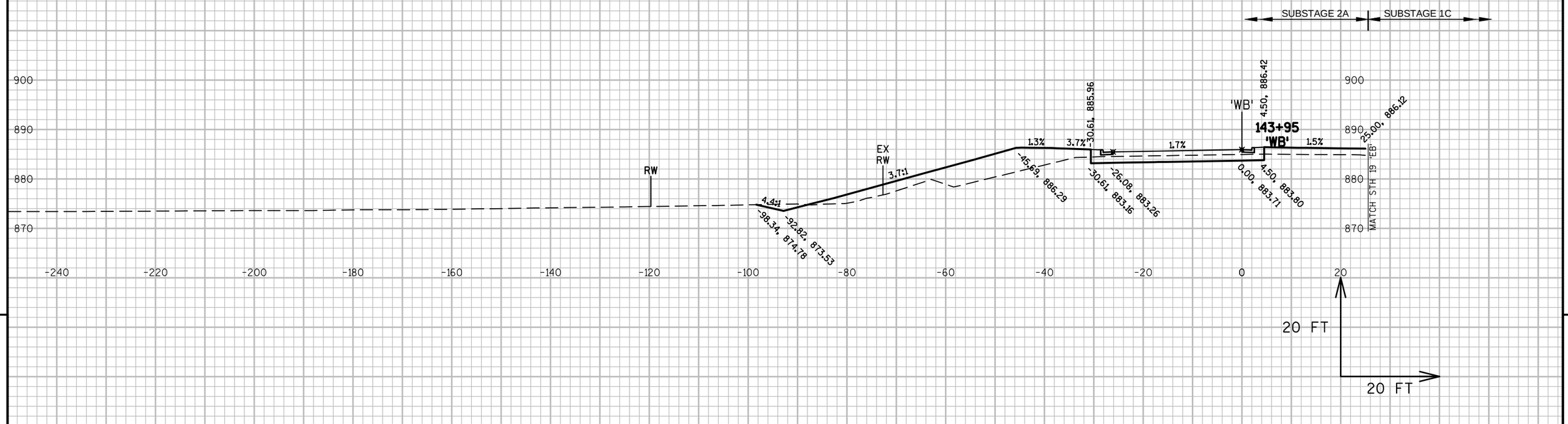


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 647	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB01_06
PLOT DATE : 5/20/2019 3:38 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT_1



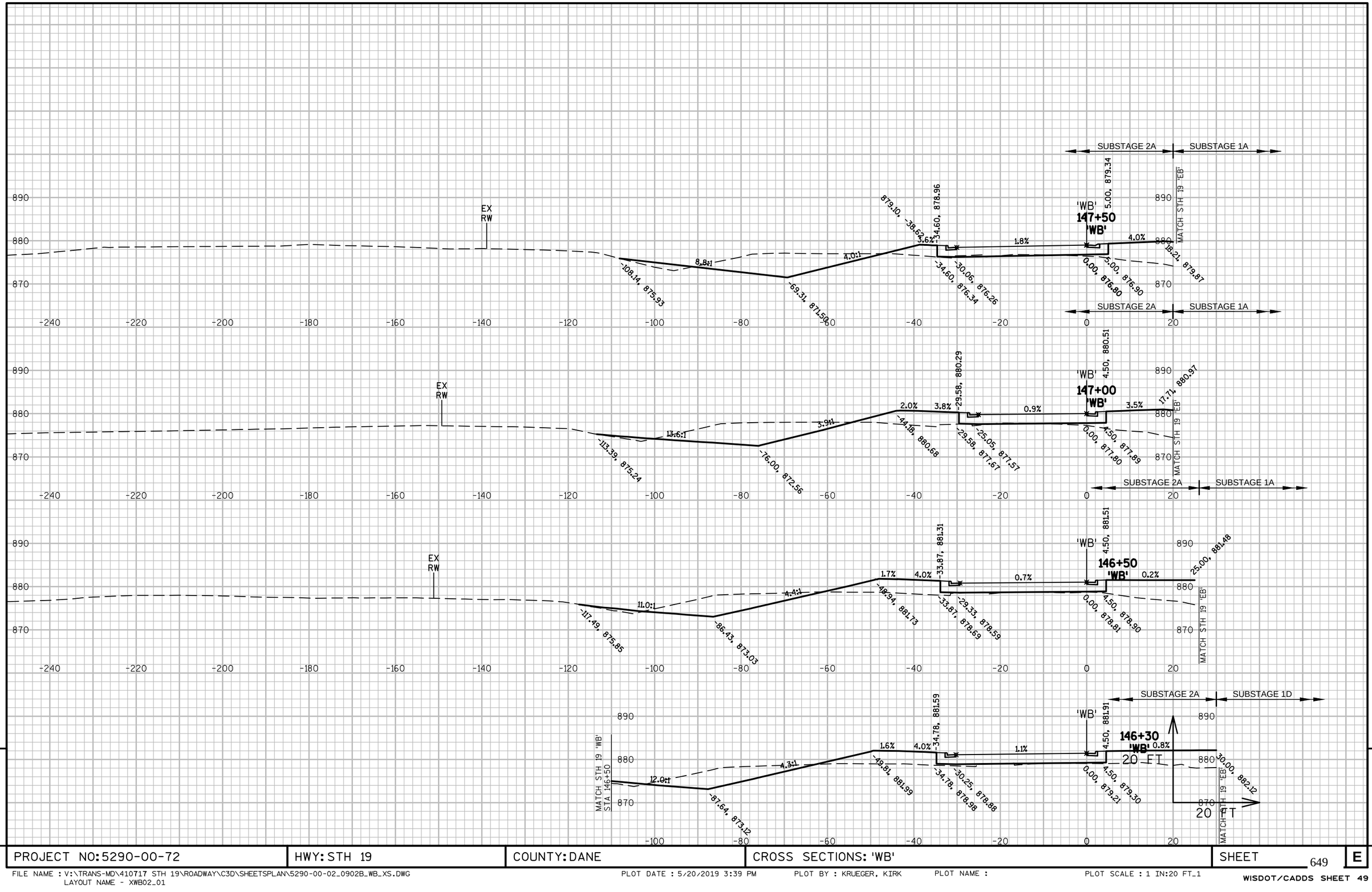
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 648	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB01_07

PLOT DATE : 5/20/2019 3:38 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1



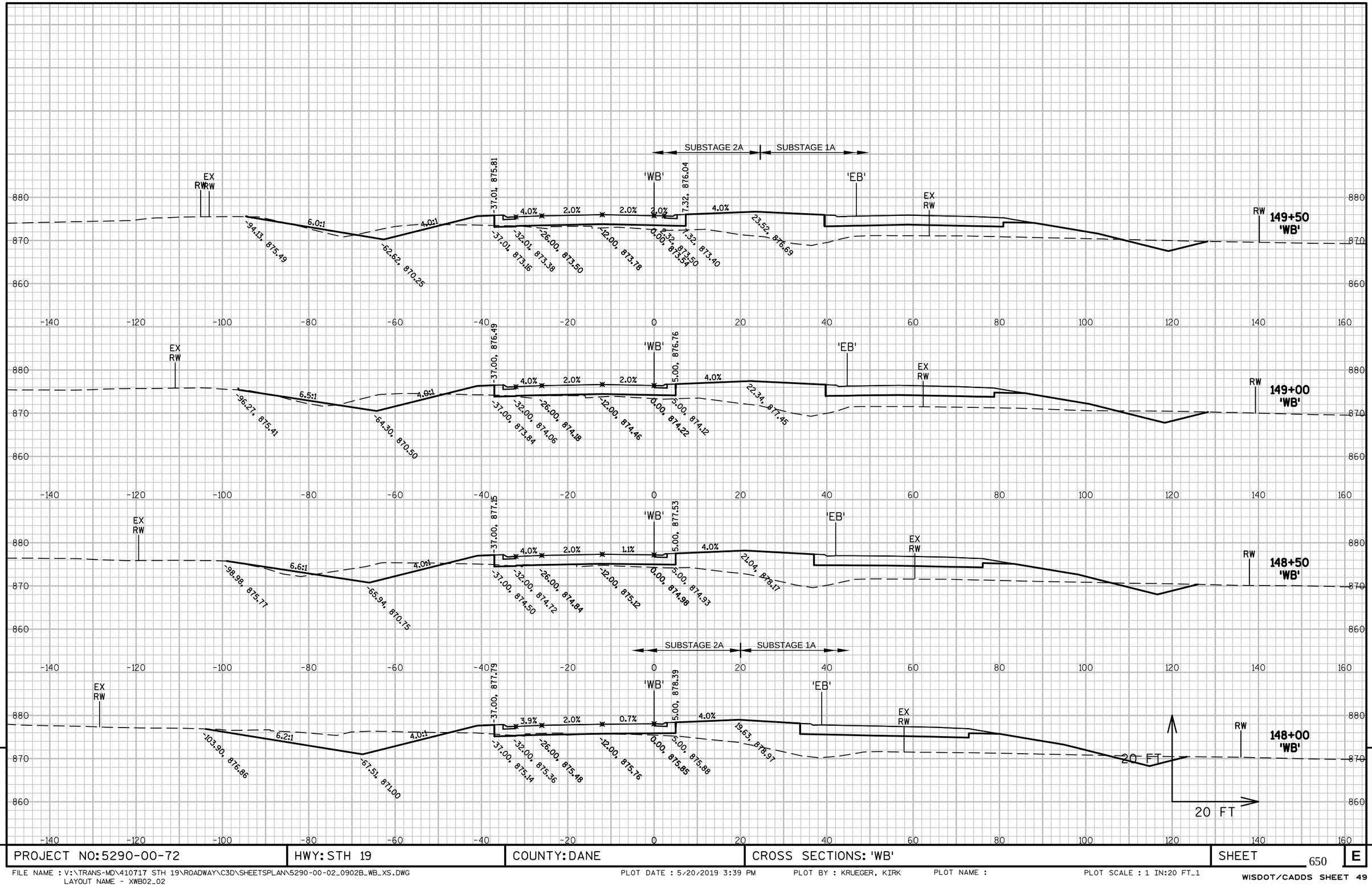
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9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 649	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_01

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

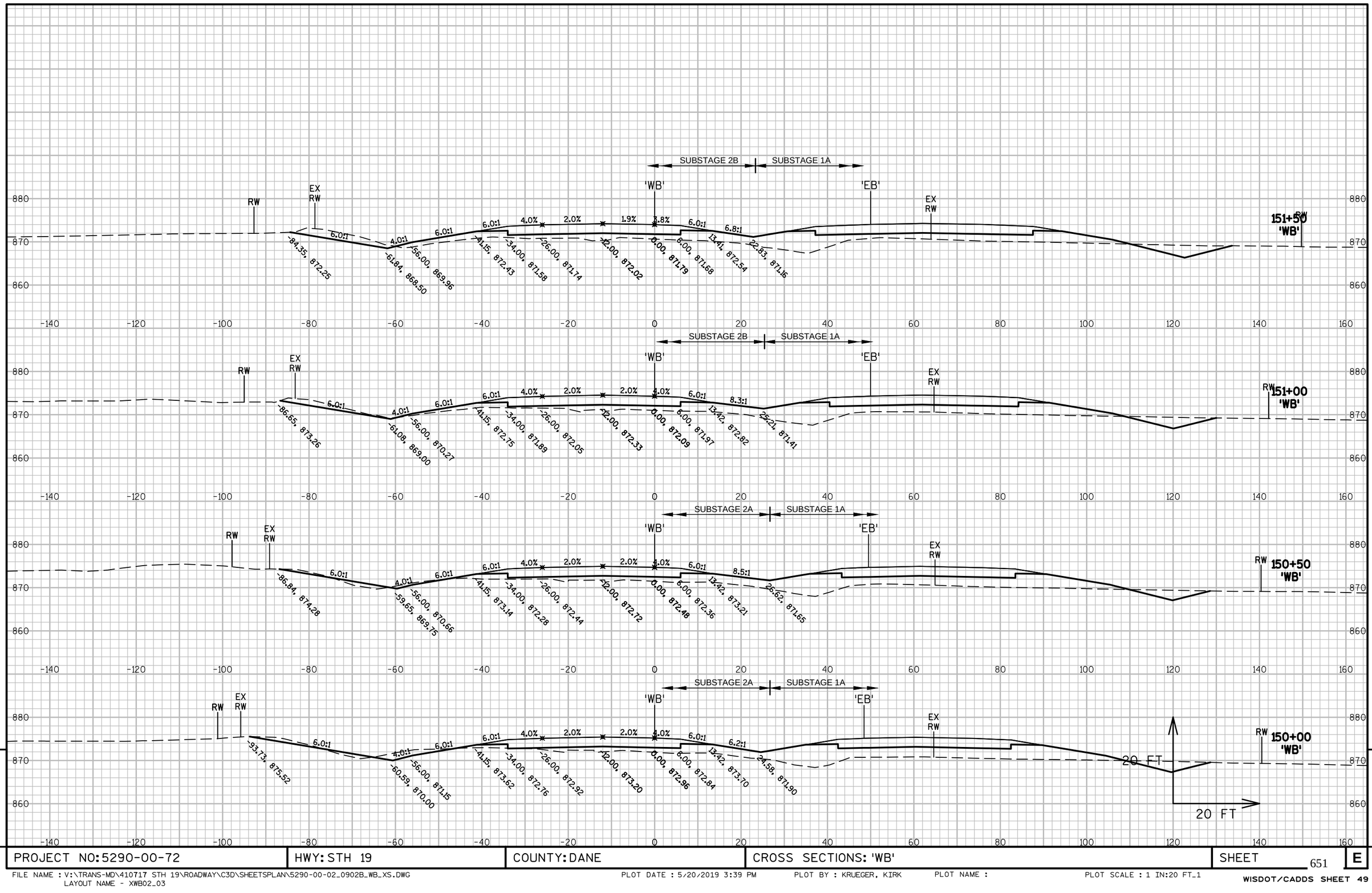


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 650	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_02

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

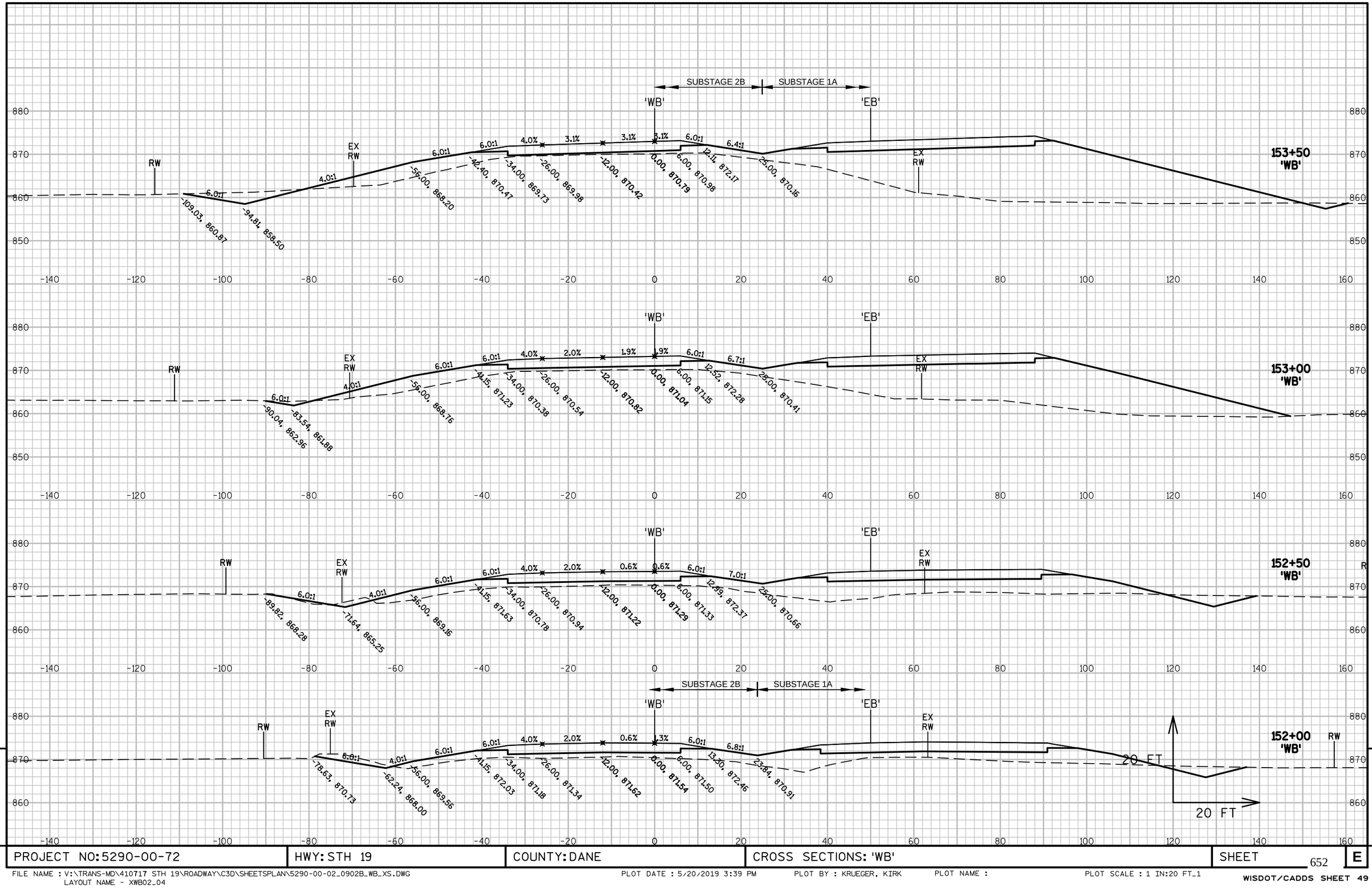


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 651	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_03

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

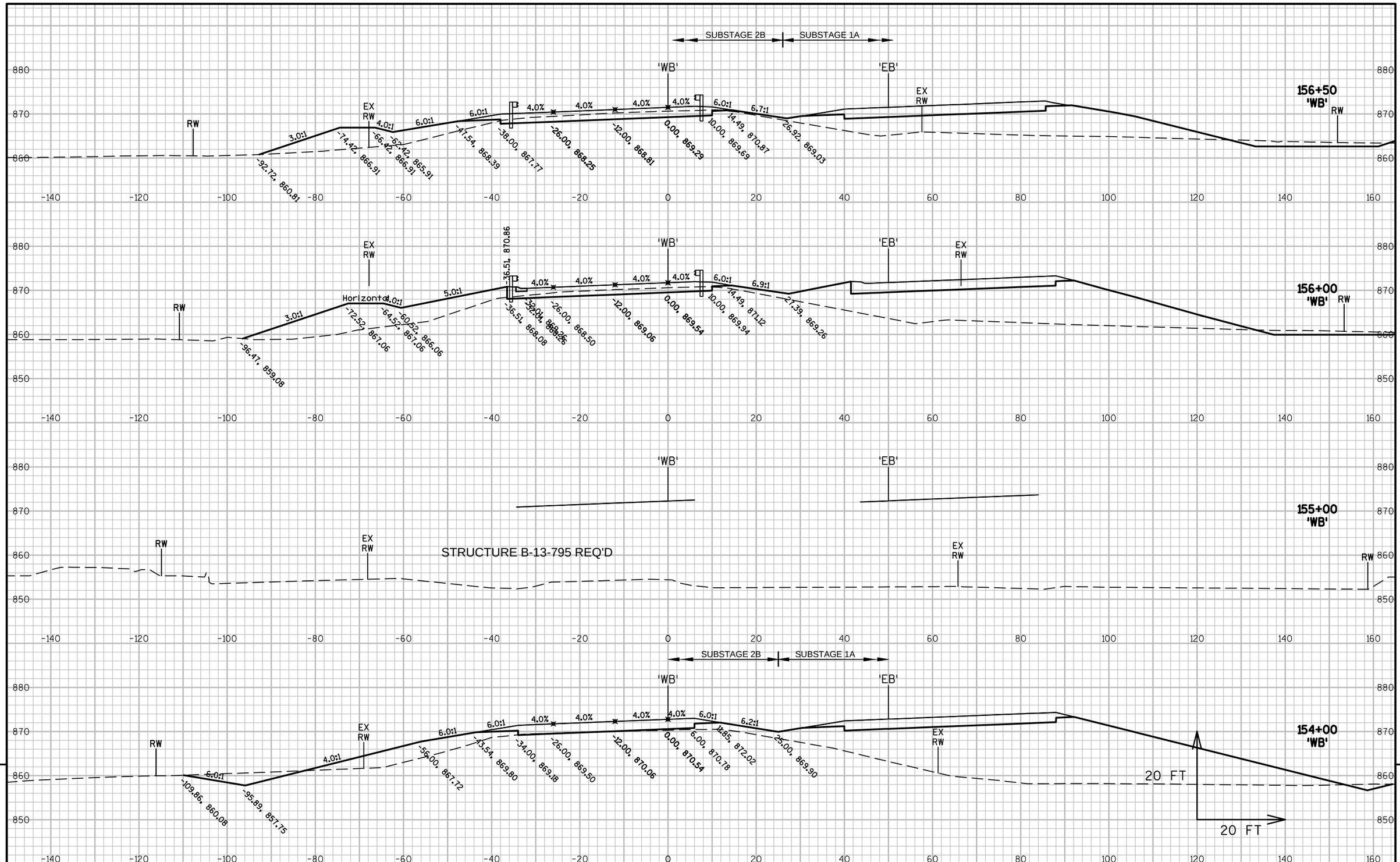
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 652	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_04

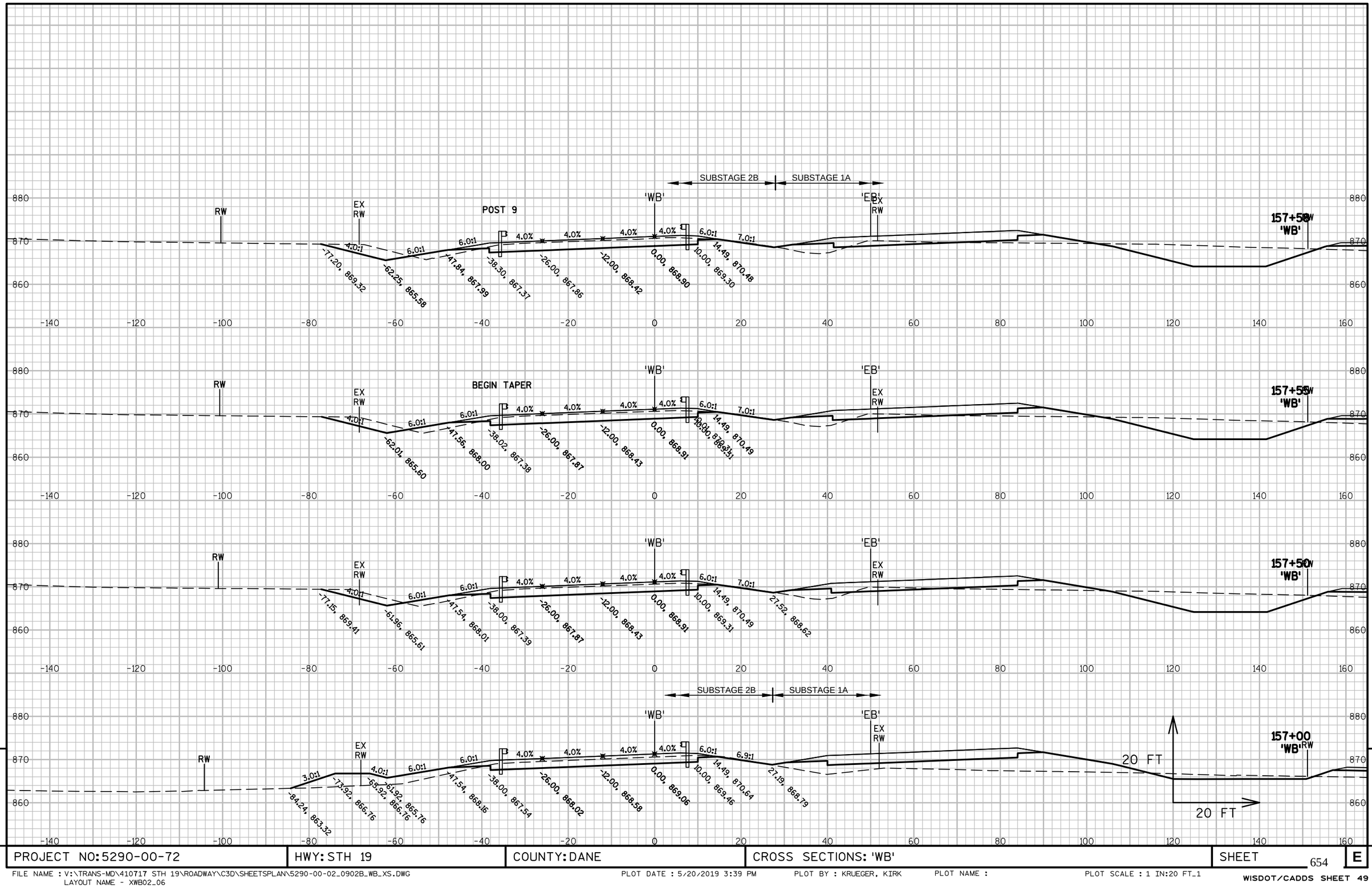
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 653	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_05
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

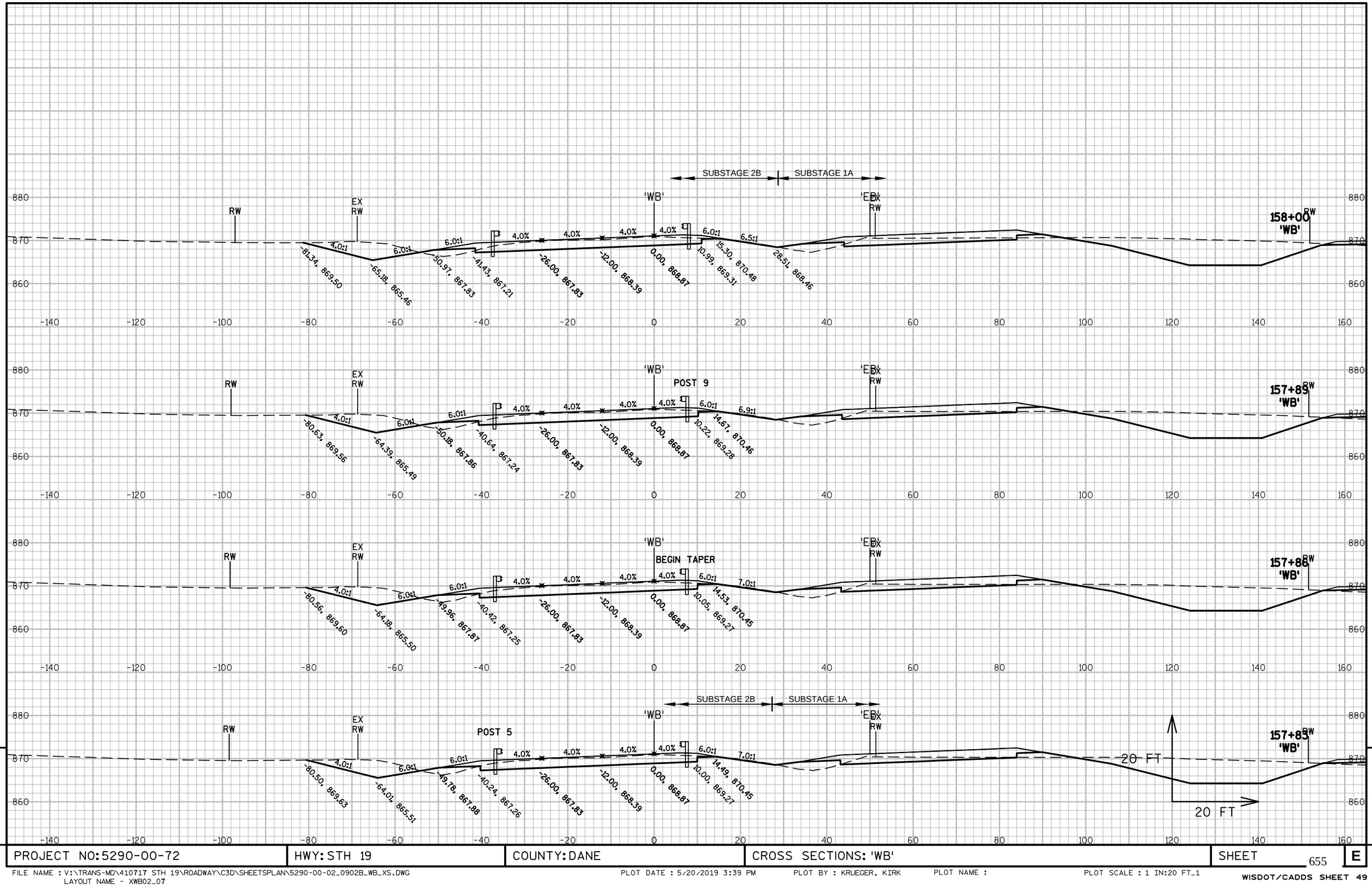


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 654	E

9

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_06
PLOT DATE : 5/20/2019 3:39 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

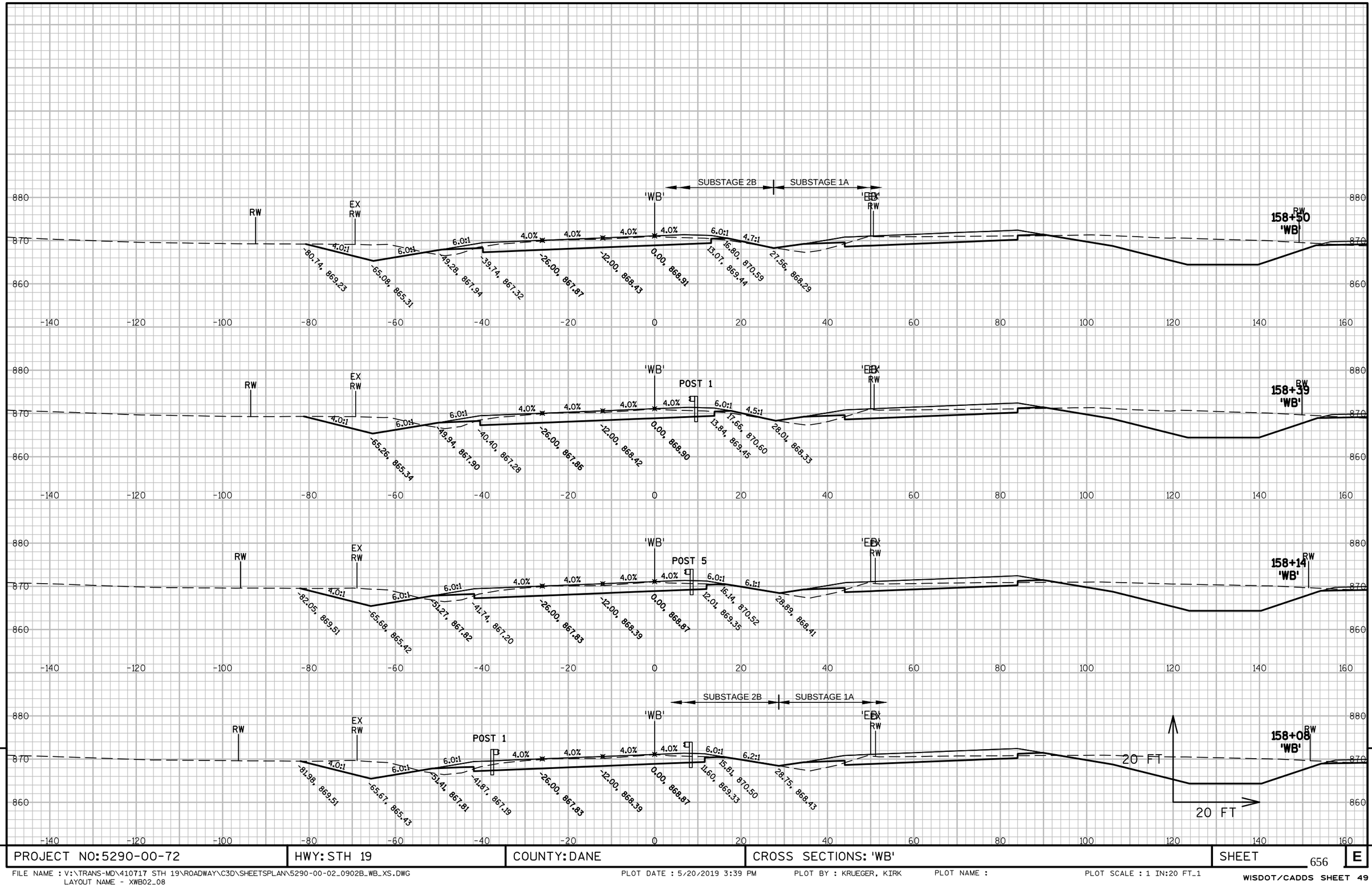


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 655	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_07

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



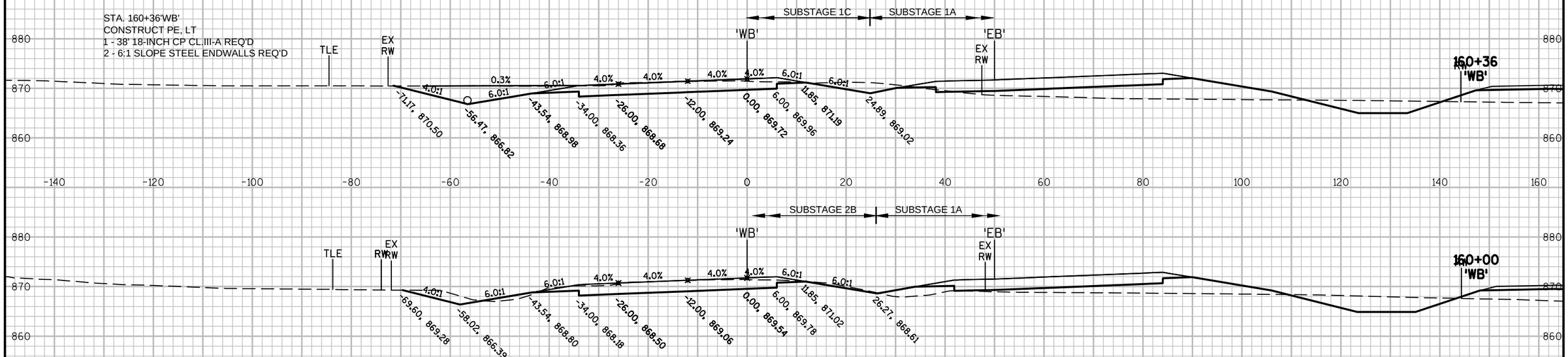
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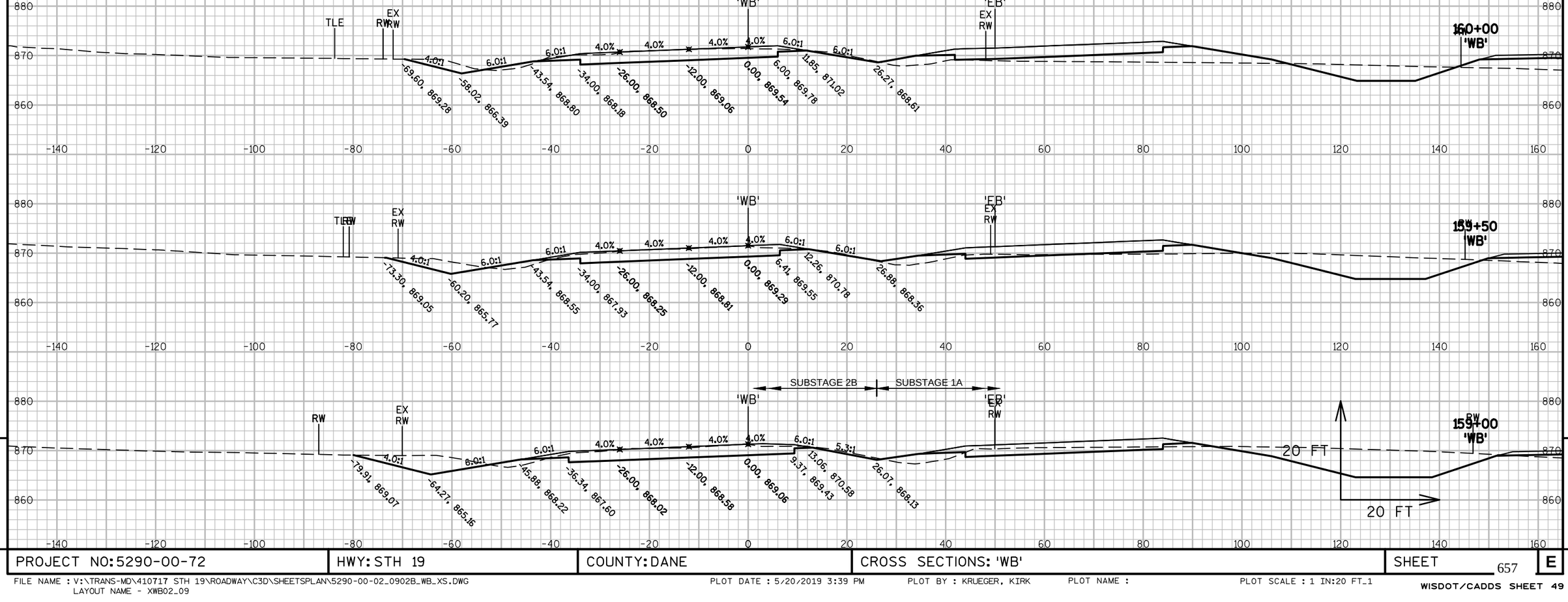
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 656	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_08
PLOT DATE : 5/20/2019 3:39 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT_1

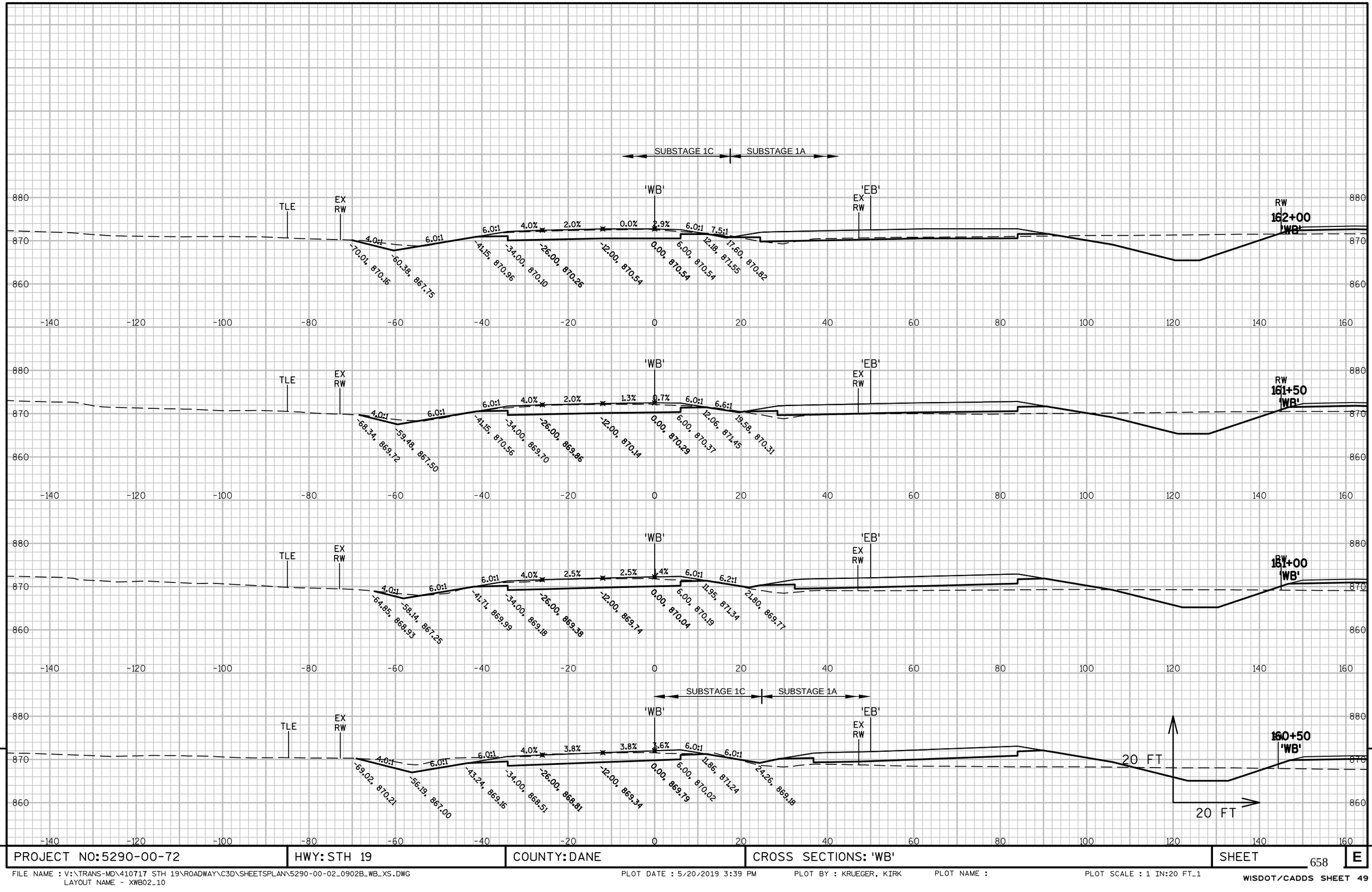
STA. 160+36'WB'
CONSTRUCT PE, LT
1 - 38' 18-INCH CP CL.III-A REQ'D
2 - 6:1 SLOPE STEEL ENDWALLS REQ'D





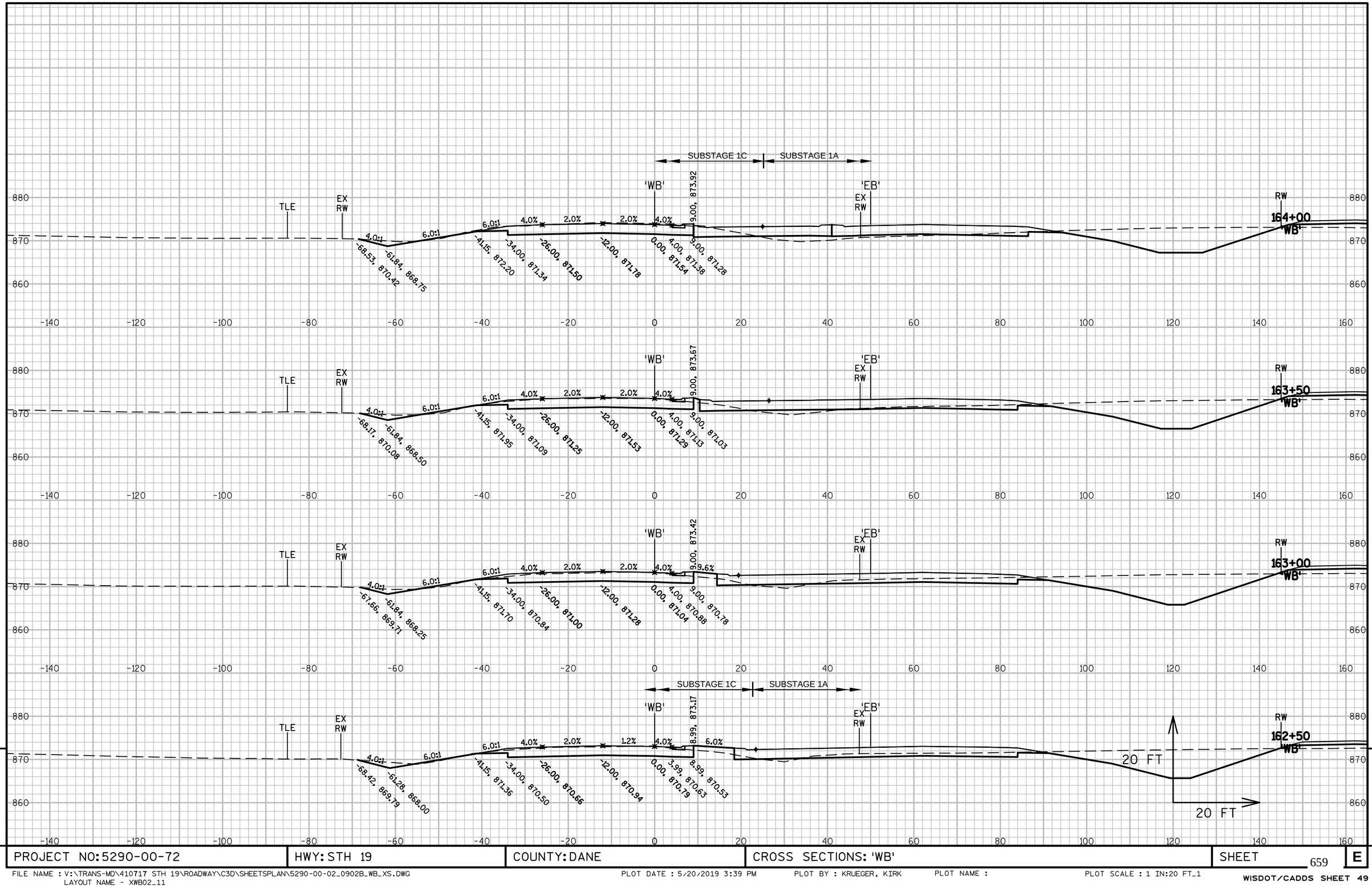
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 657	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_09
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 658	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_10
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

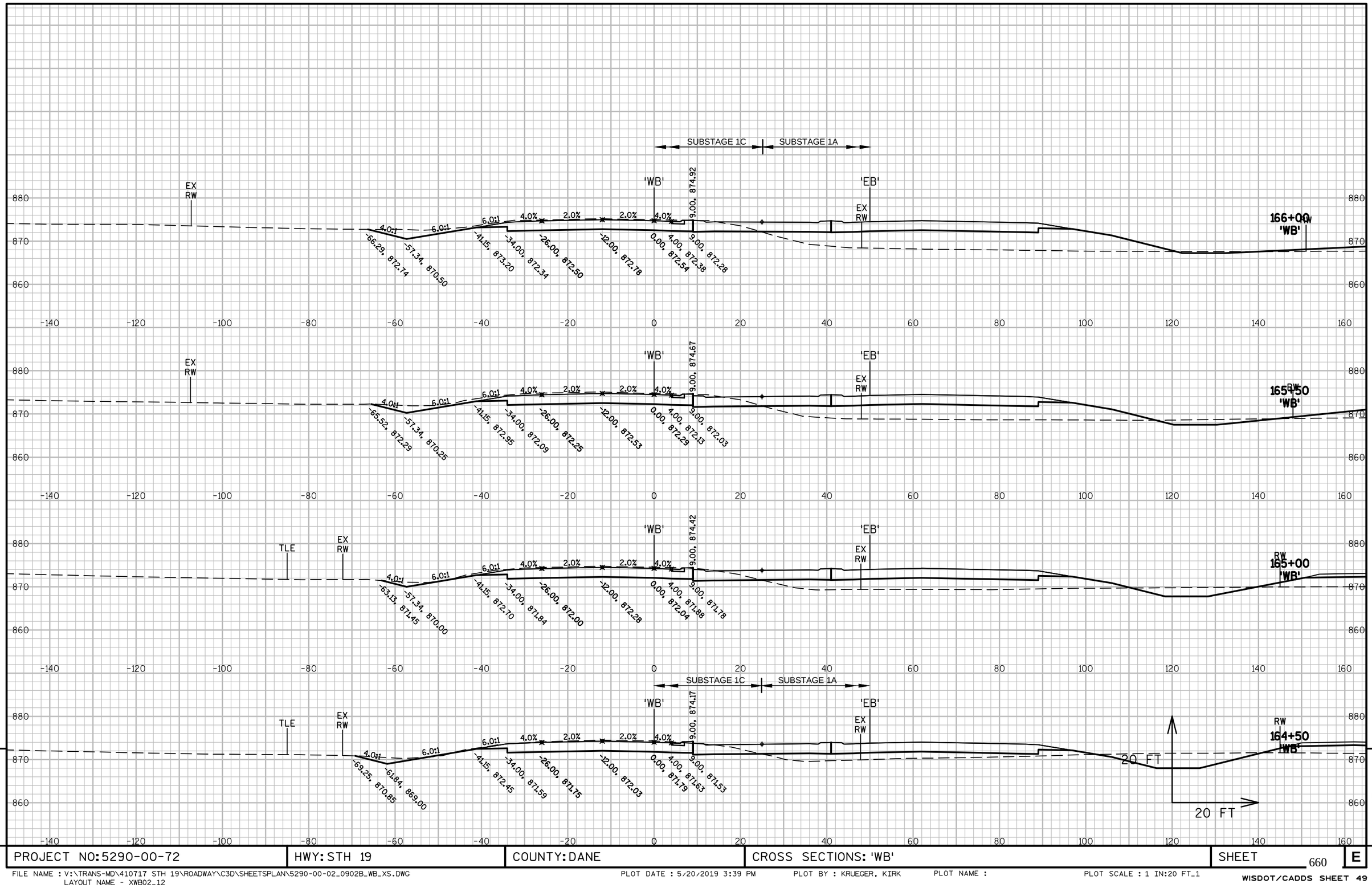


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9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 659	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_11
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

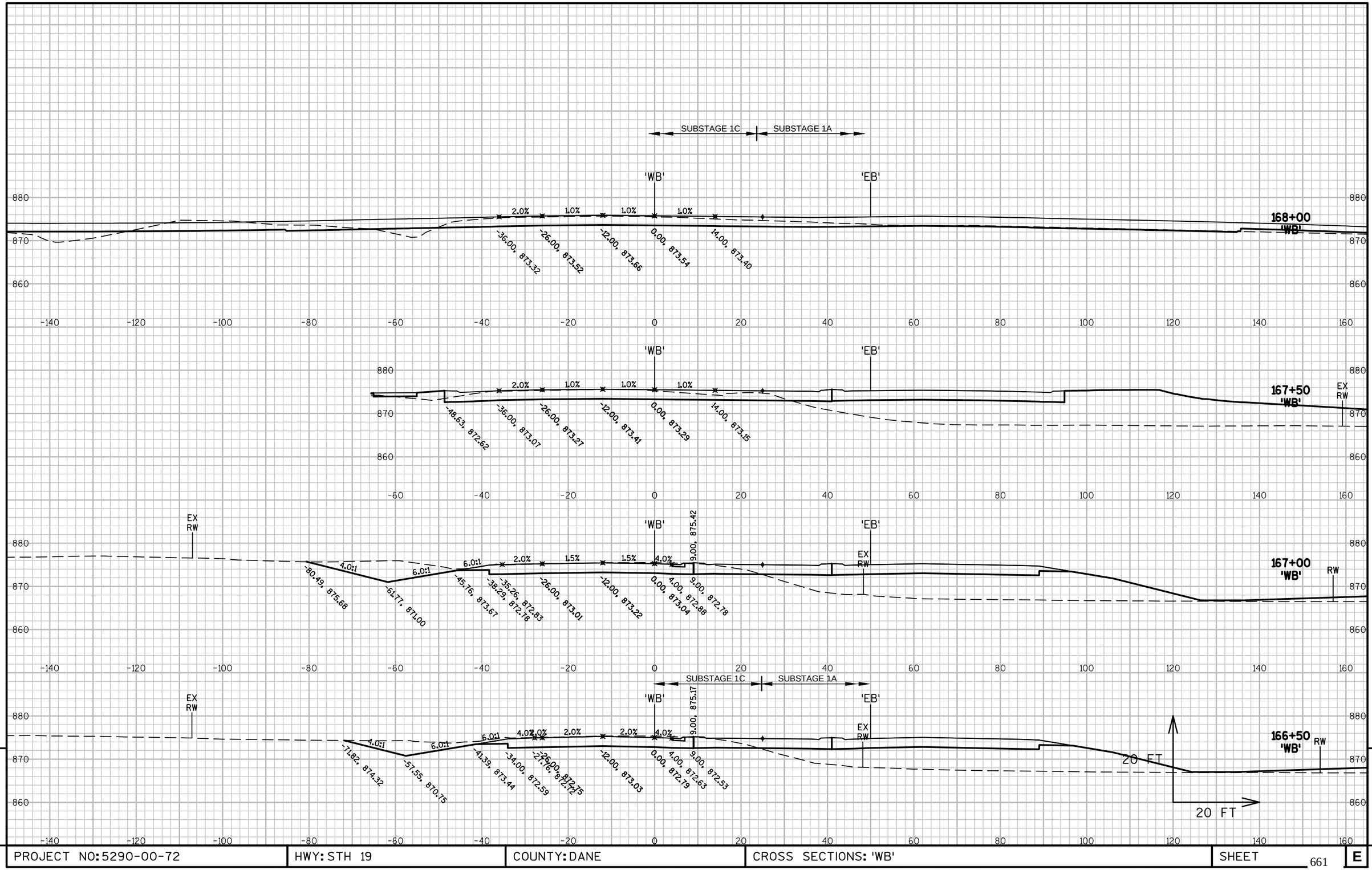


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 660	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_12

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

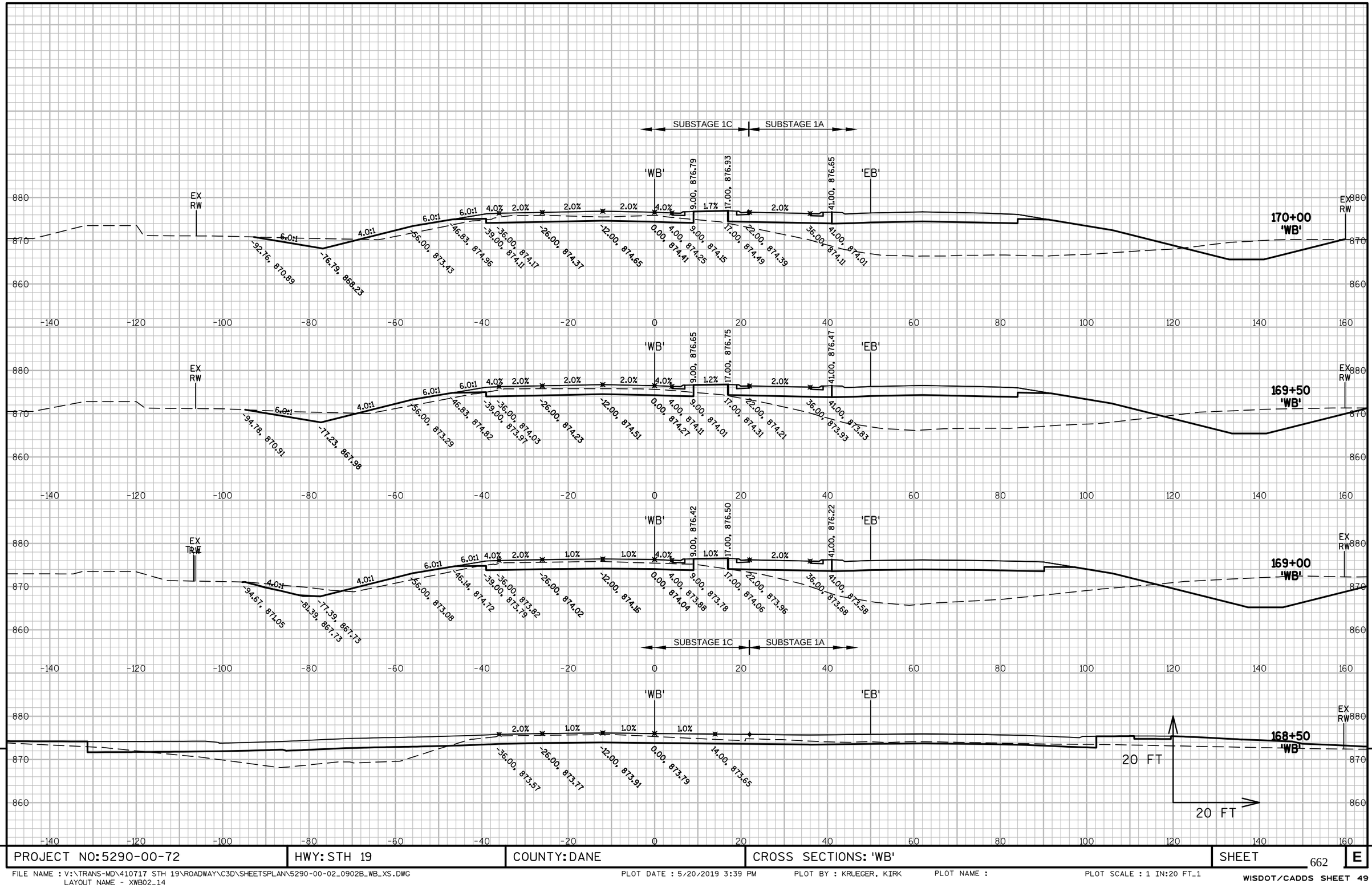
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 661	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_13

PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

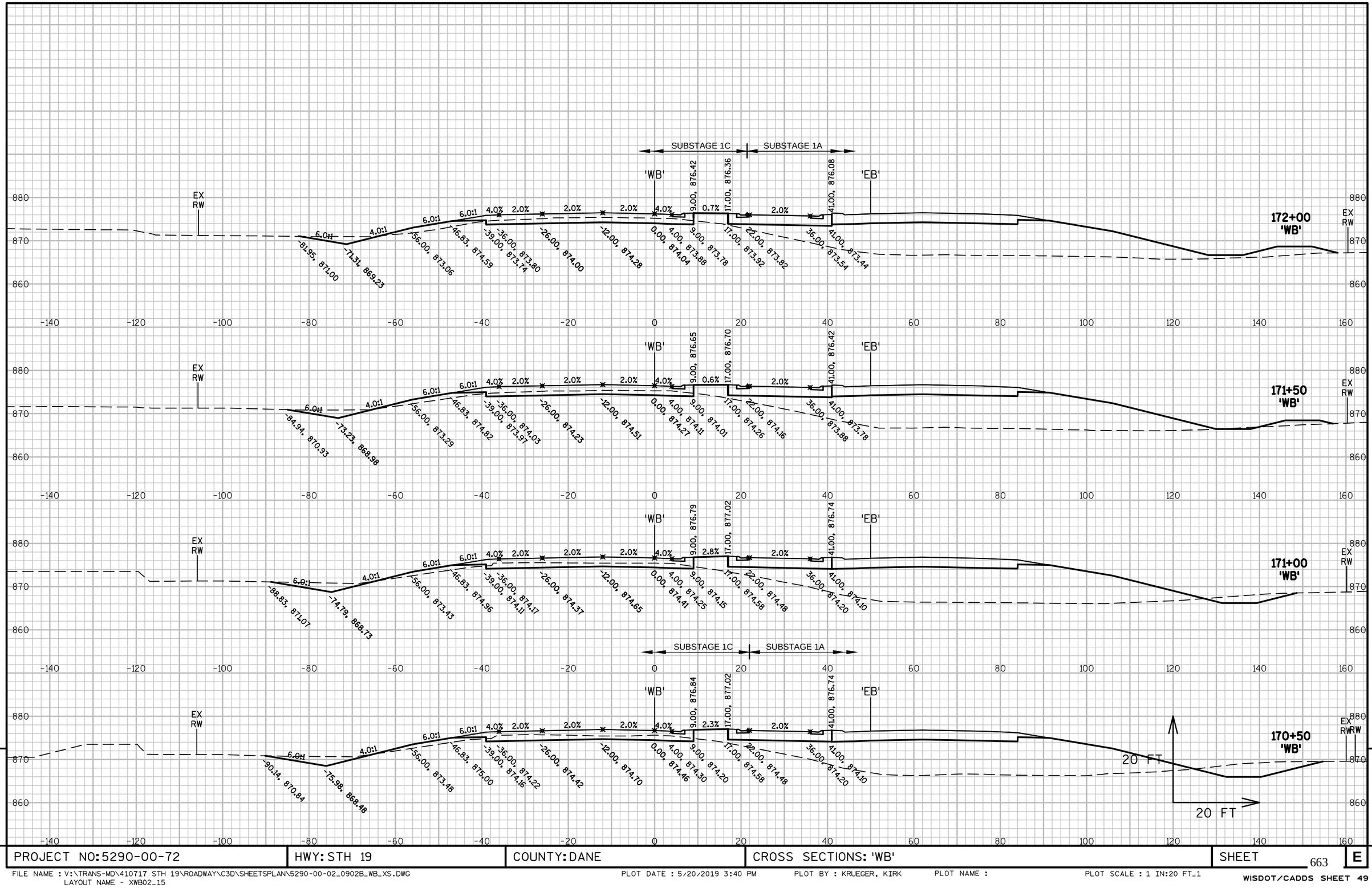


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 662	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_14
PLOT DATE : 5/20/2019 3:39 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49



9

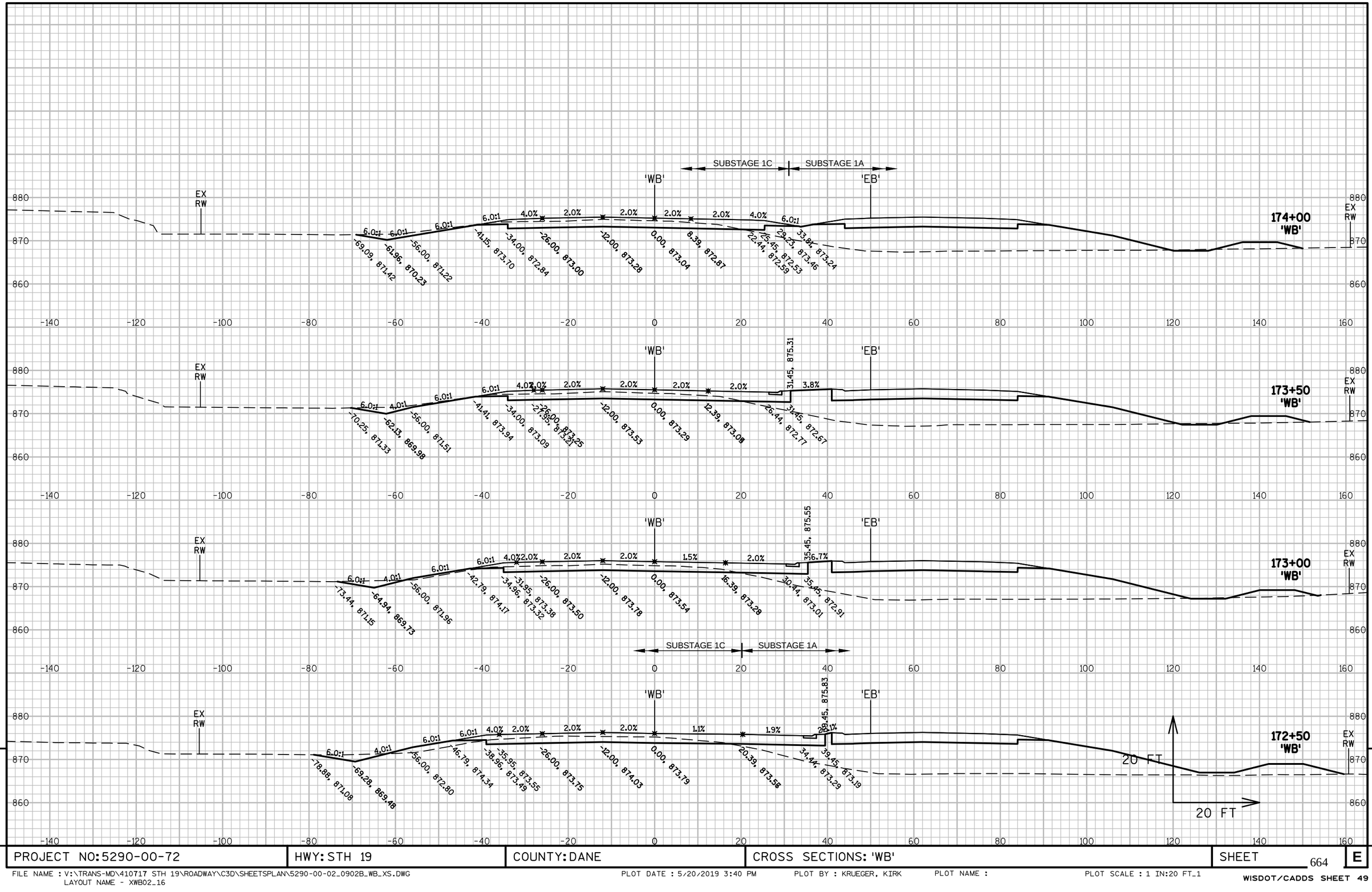
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 663	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_15

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



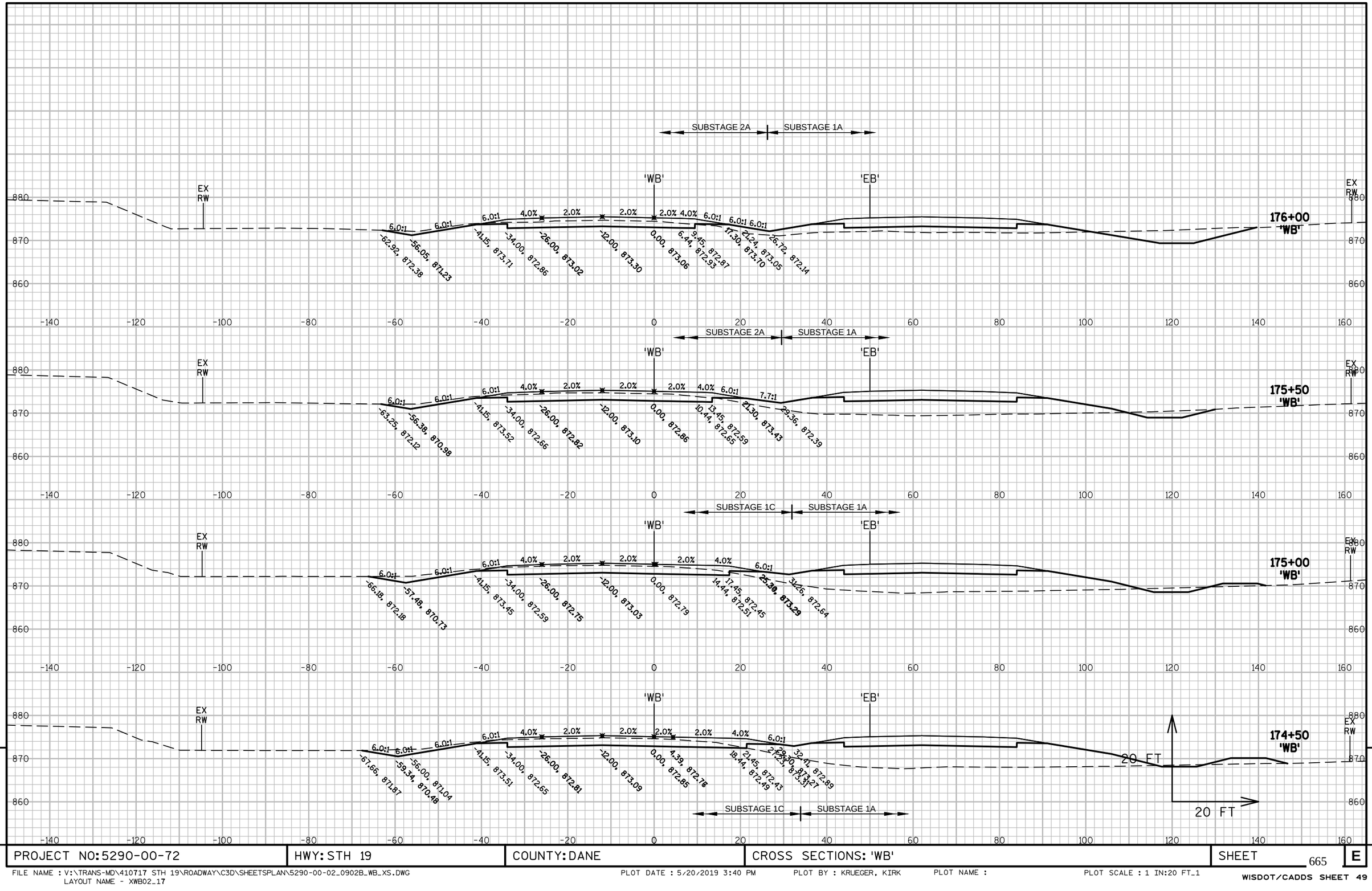
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 664	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_16

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

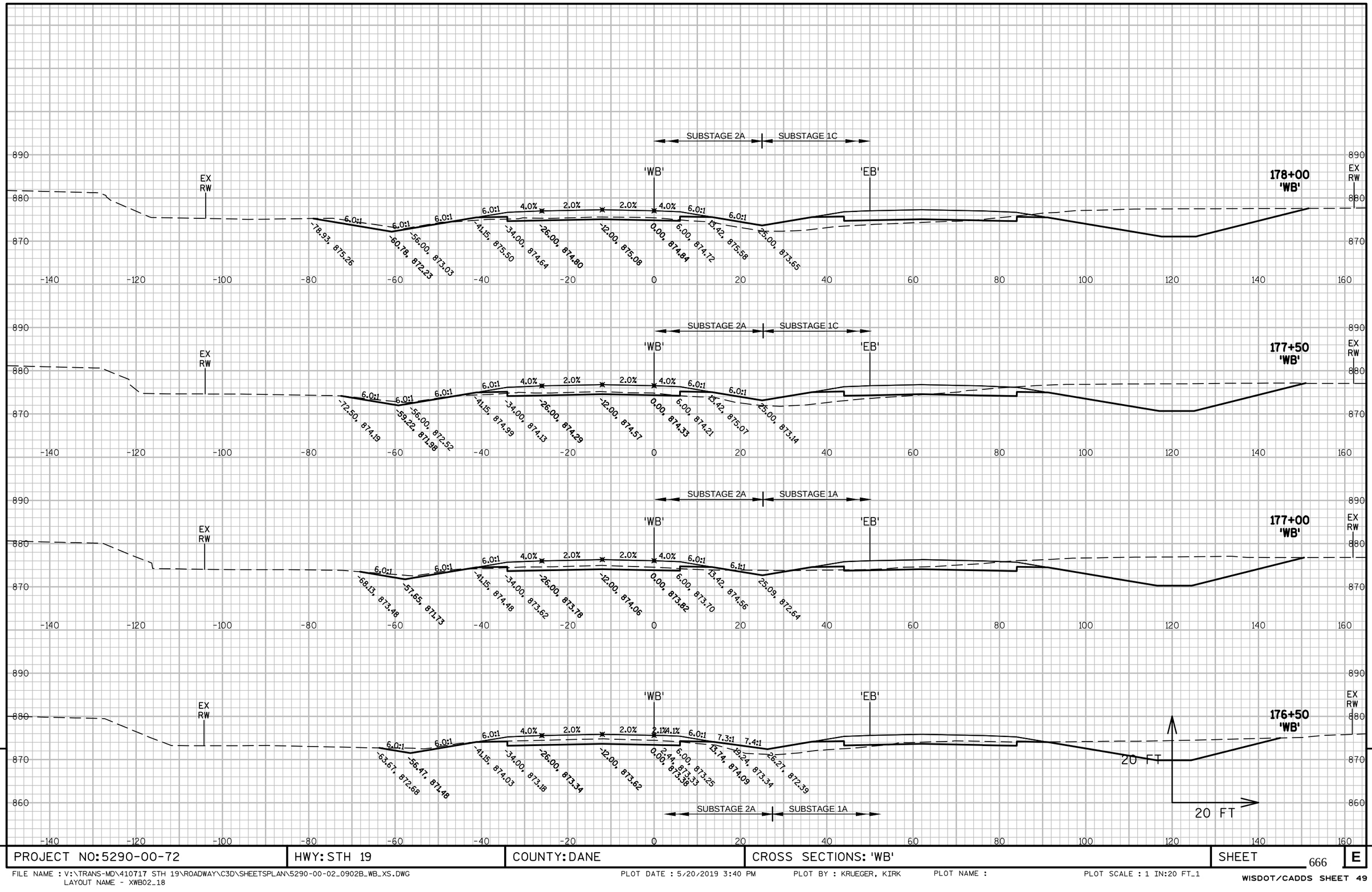
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 665	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_17

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

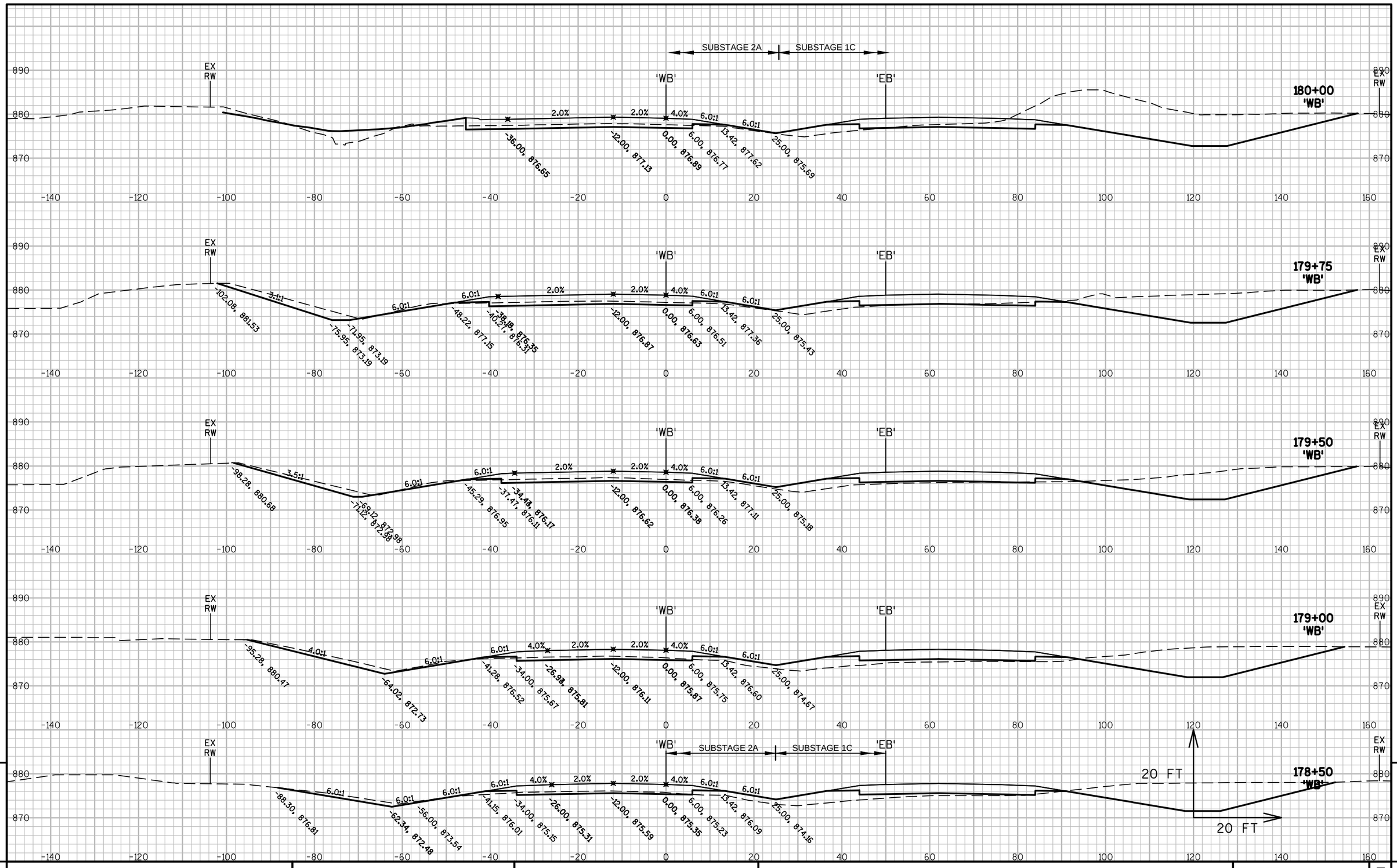


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9

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 666	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_18
PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1
WISDOT/CADDS SHEET 49

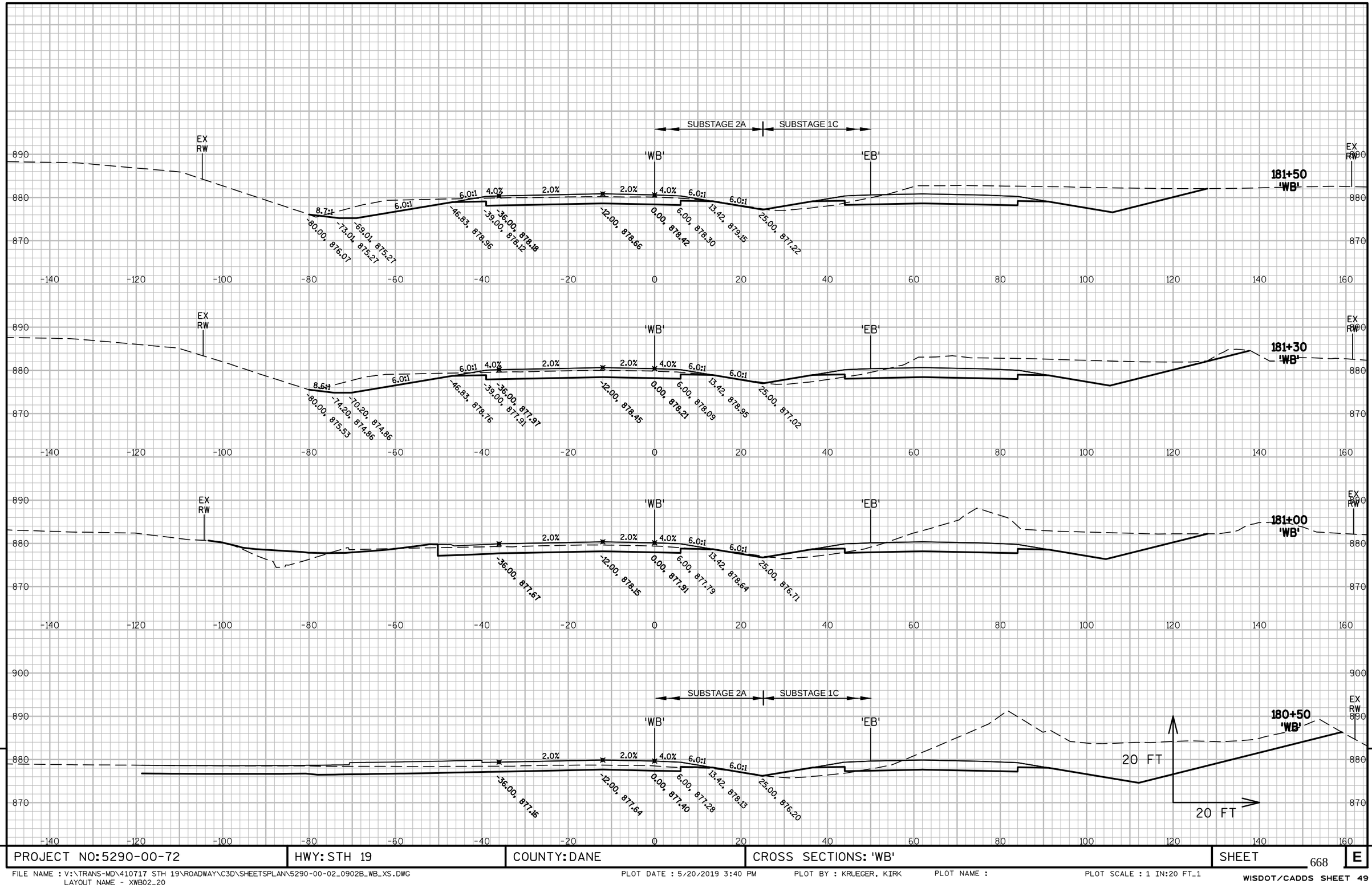


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 667	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_19

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

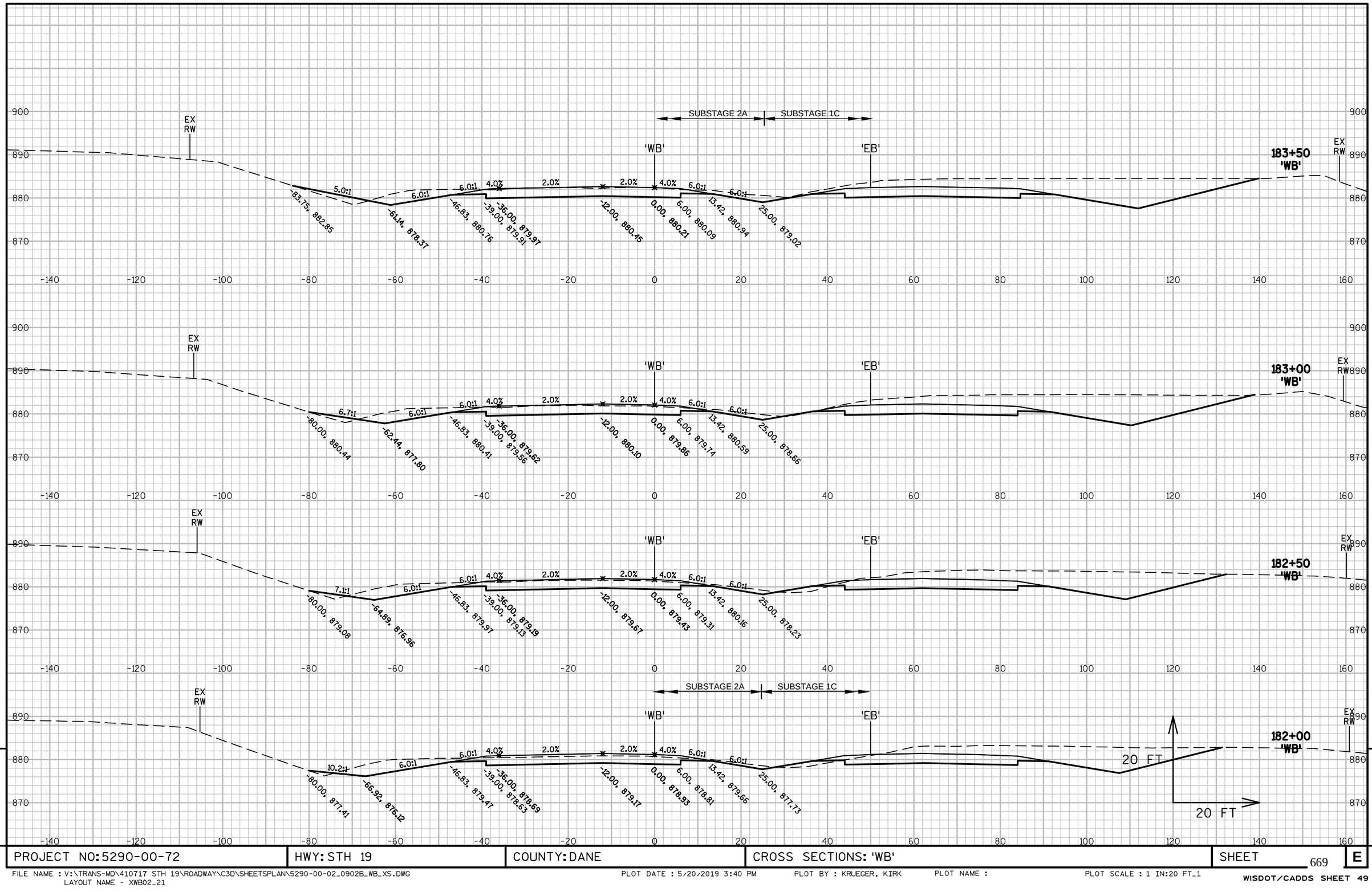


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 668 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_20

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

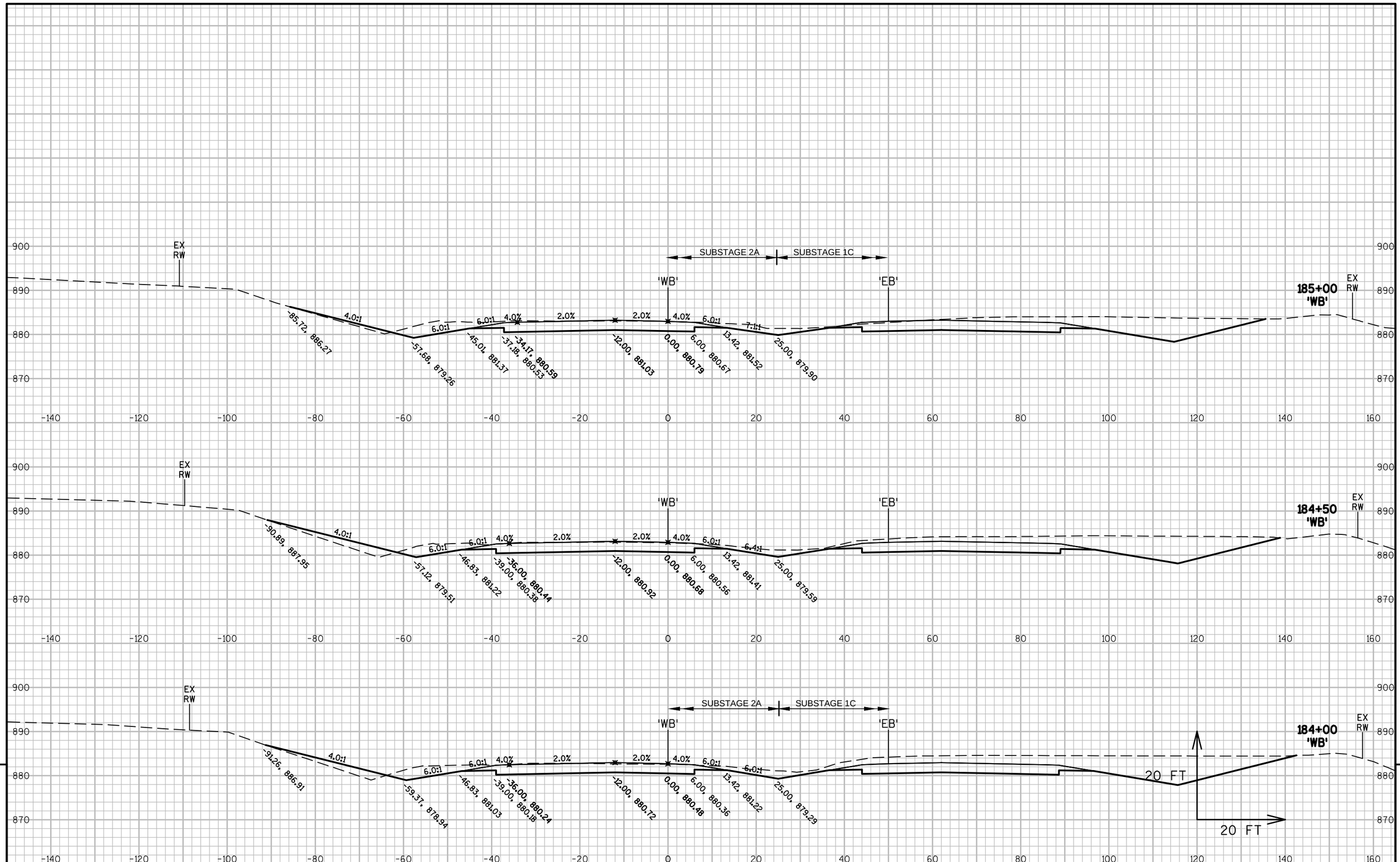


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 669	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_21

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



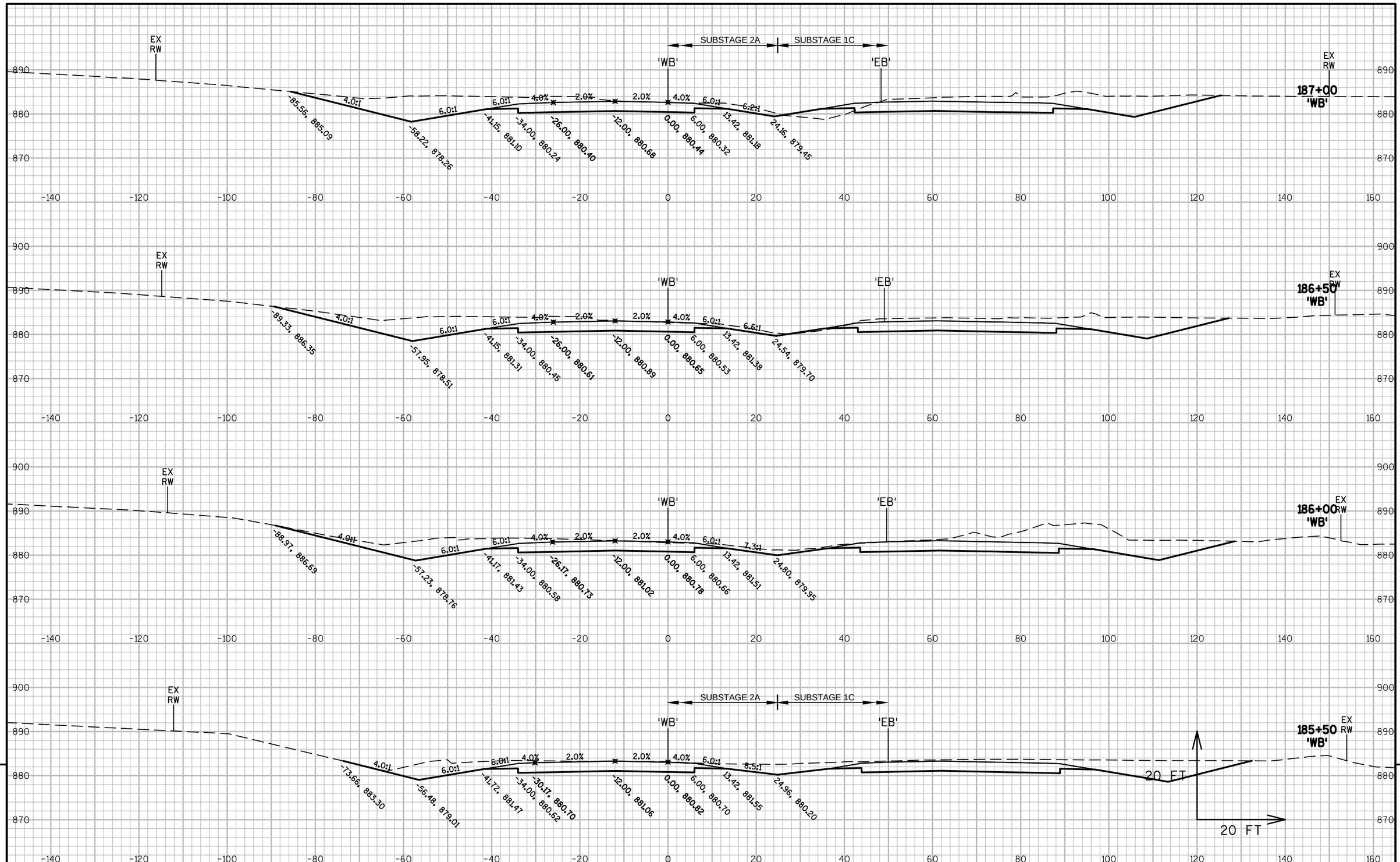
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 670	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_22

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

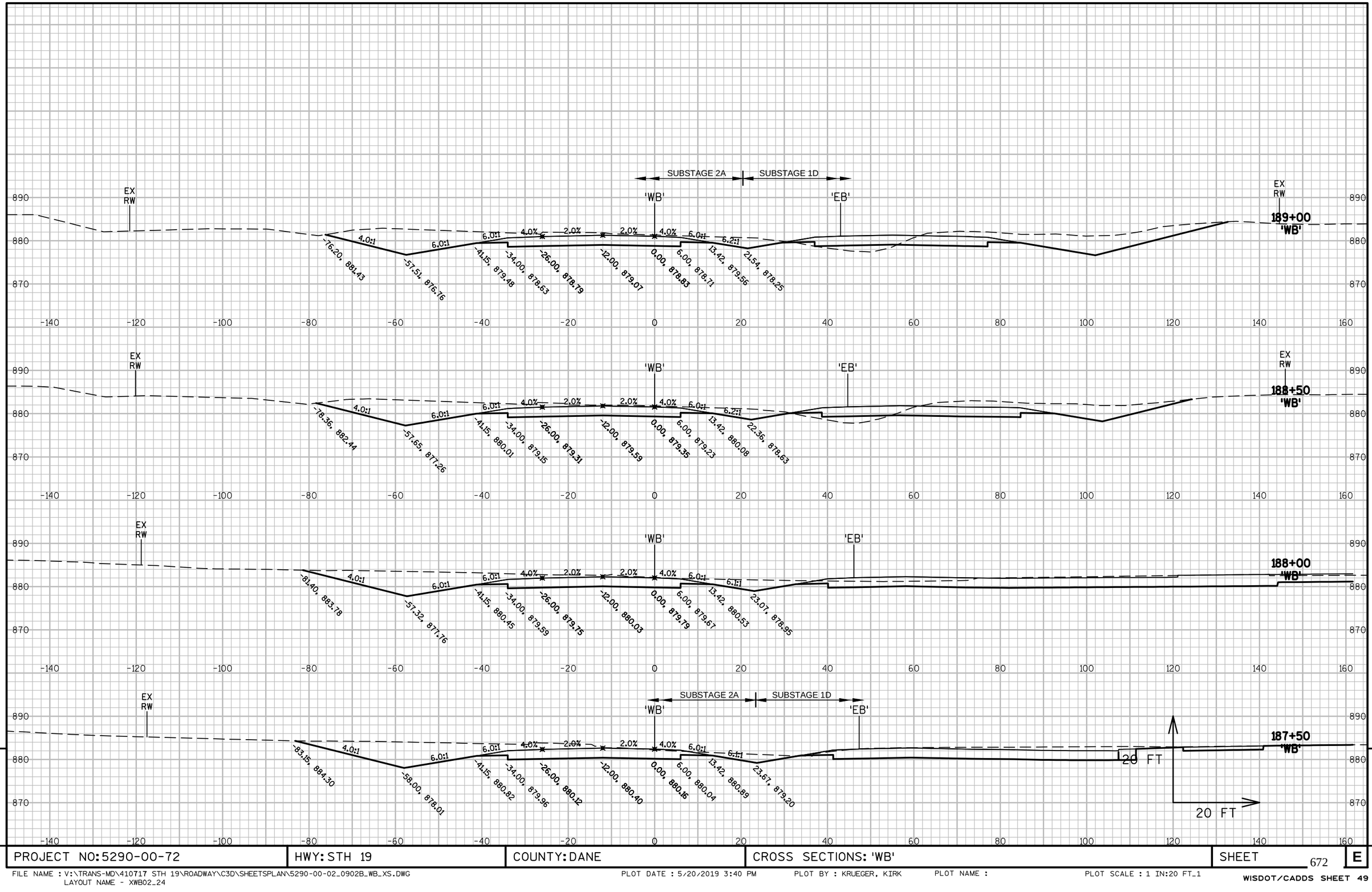
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 671	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_23

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

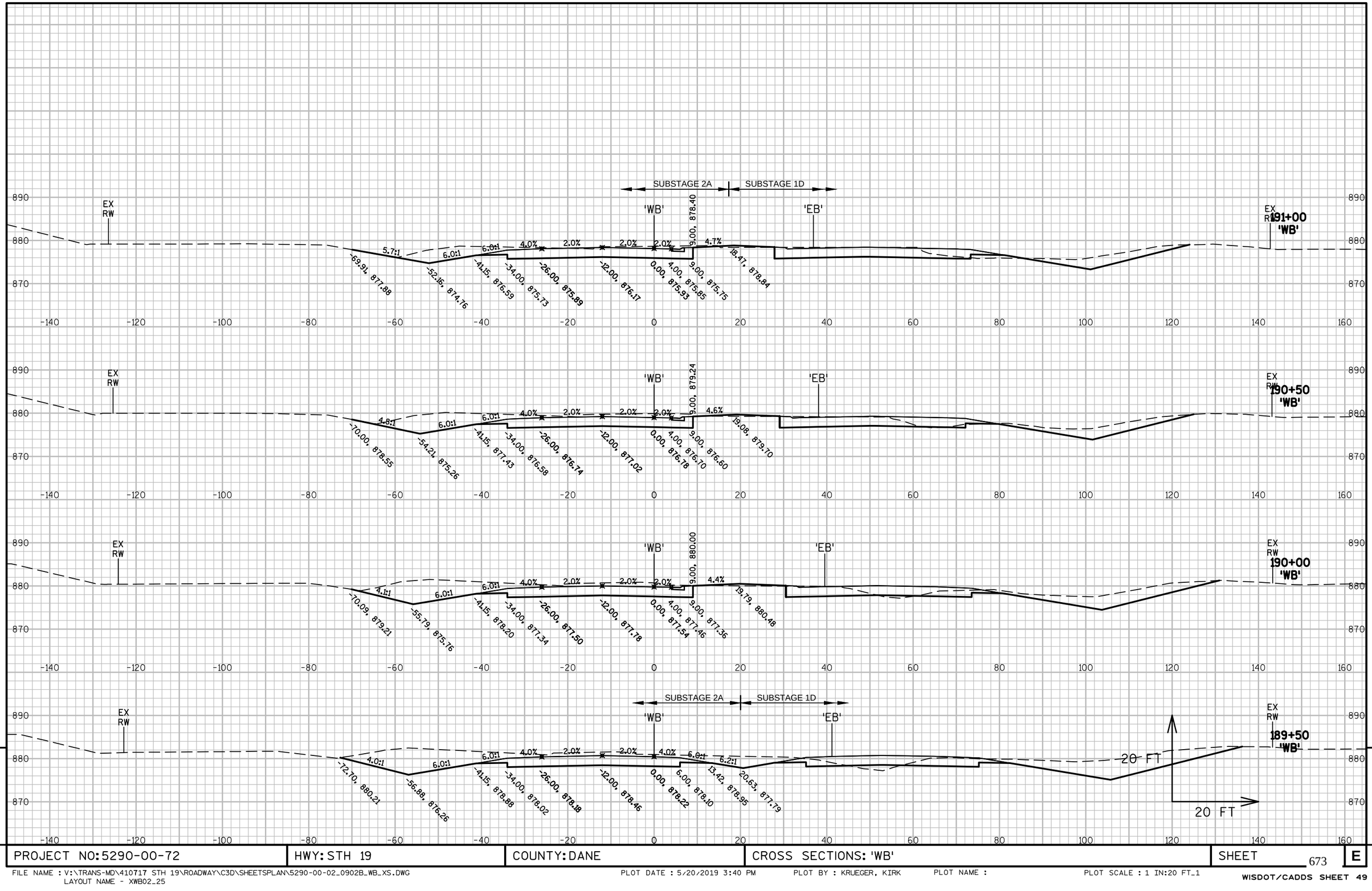


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 672	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_24

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



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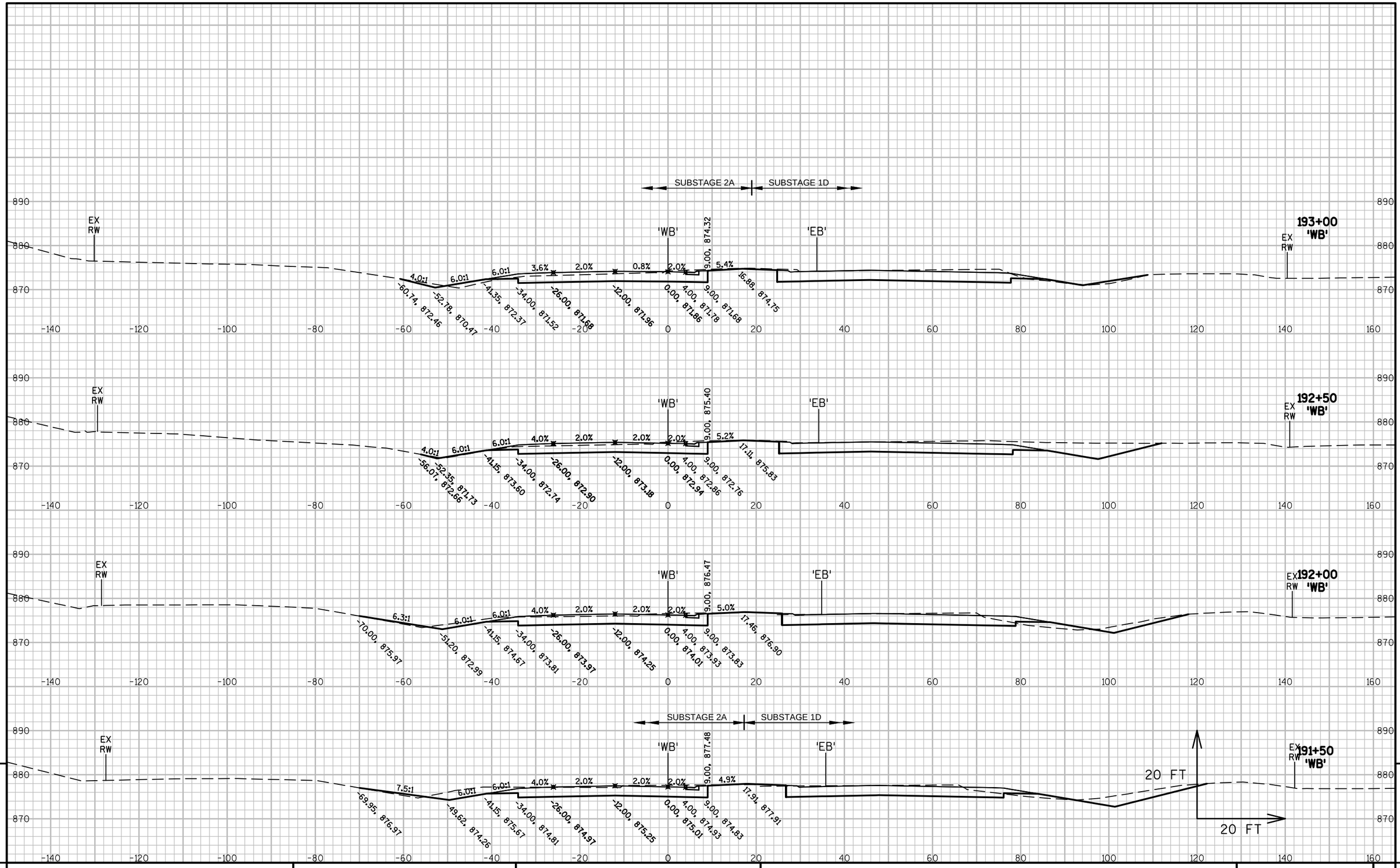
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 673	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_25

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



9

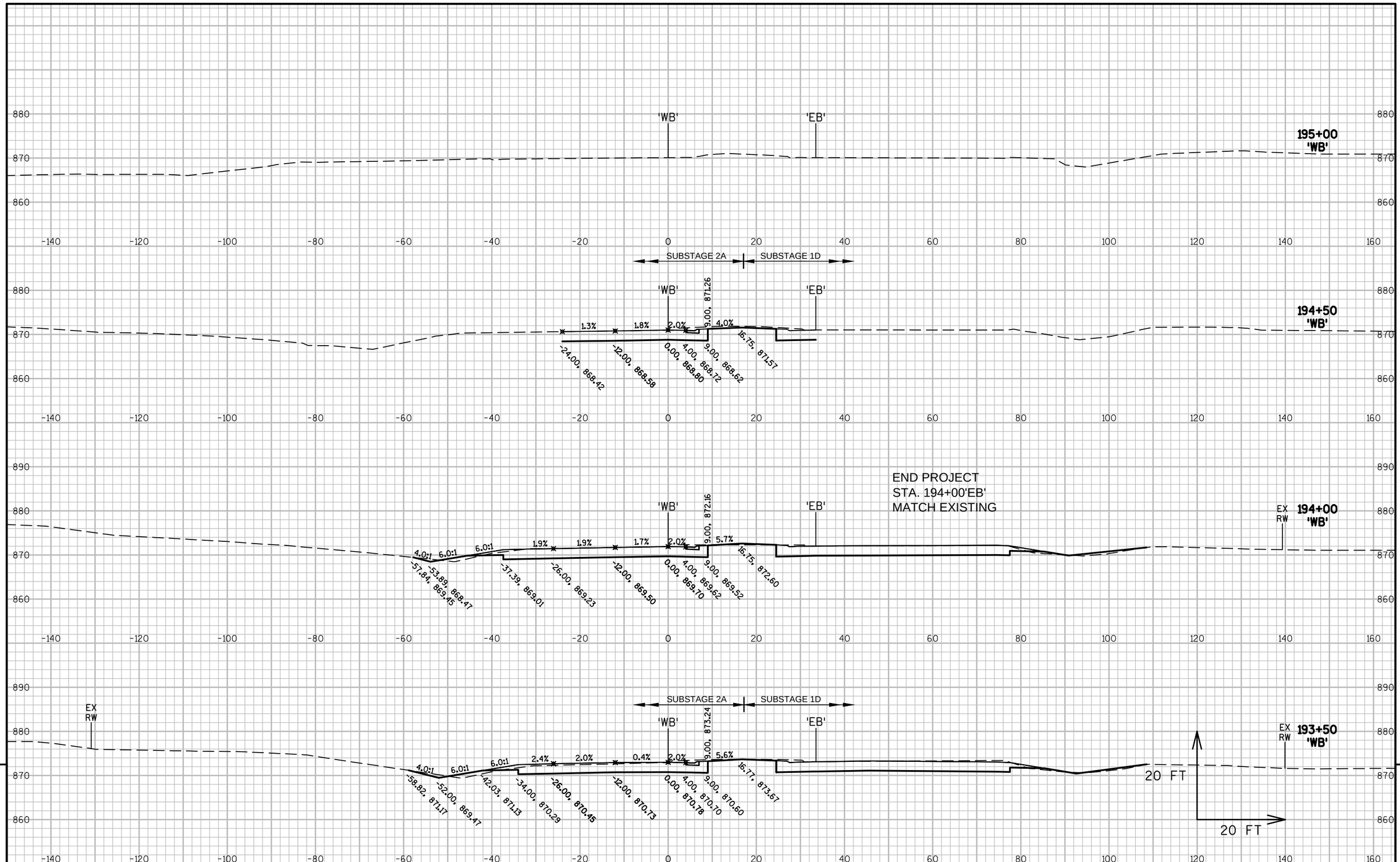
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 674	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_26

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49



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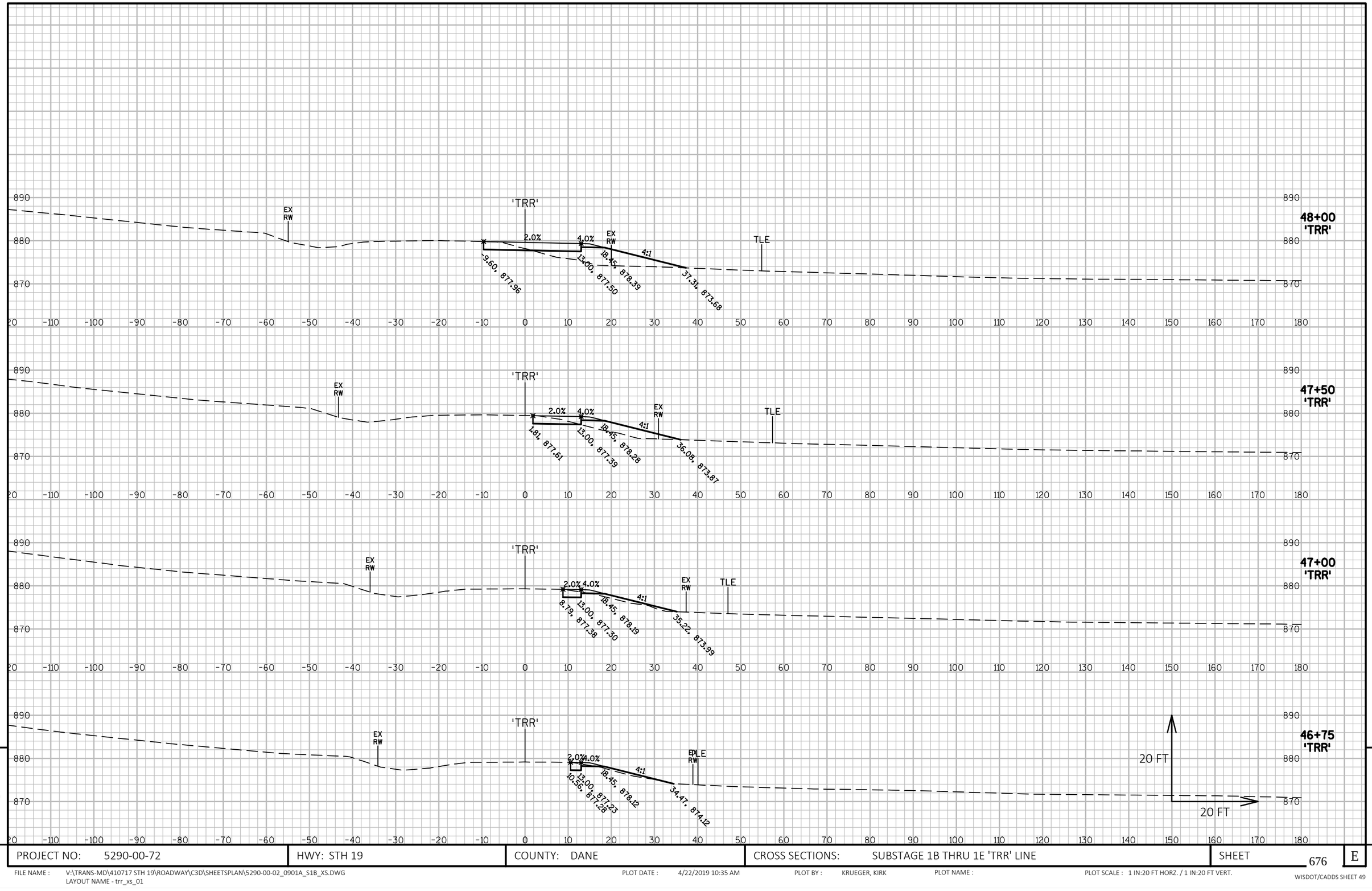
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: 'WB'	SHEET 675	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902B_WB_XS.DWG
LAYOUT NAME - XWB02_27

PLOT DATE : 5/20/2019 3:40 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_1

WISDOT/CADDS SHEET 49

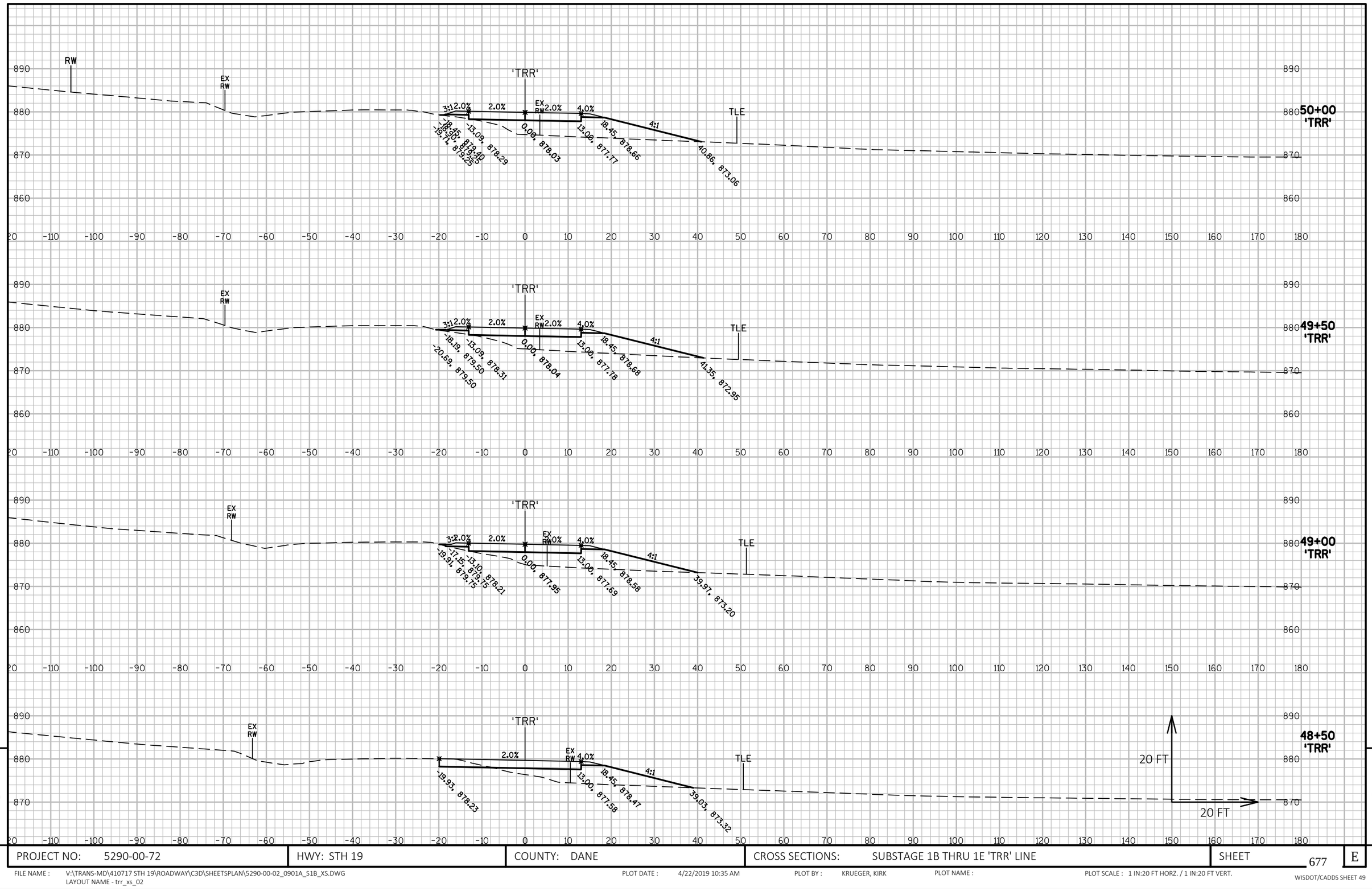


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 676	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_01

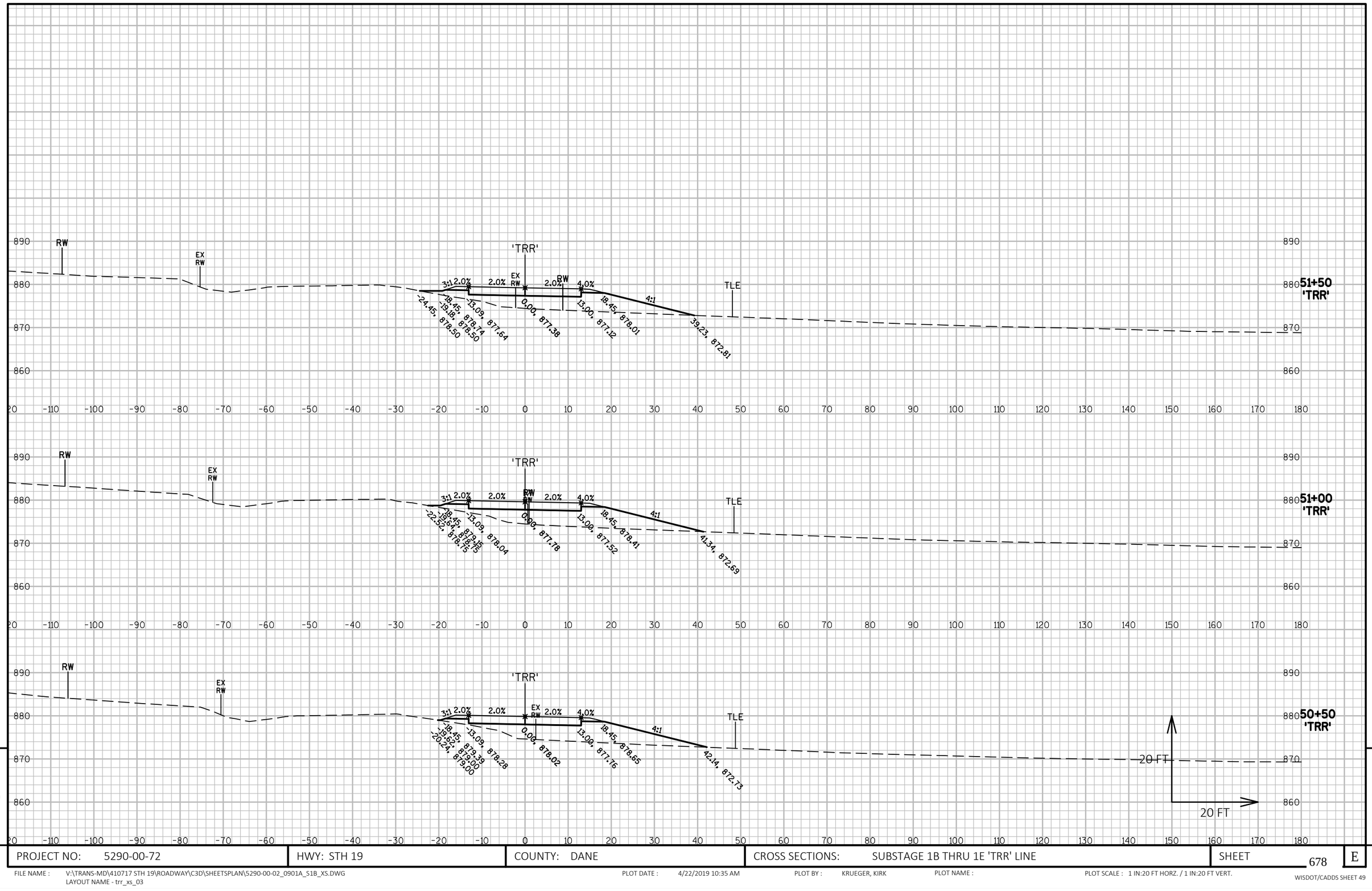
PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 677 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_02
PLOT DATE : 4/22/2019 10:35 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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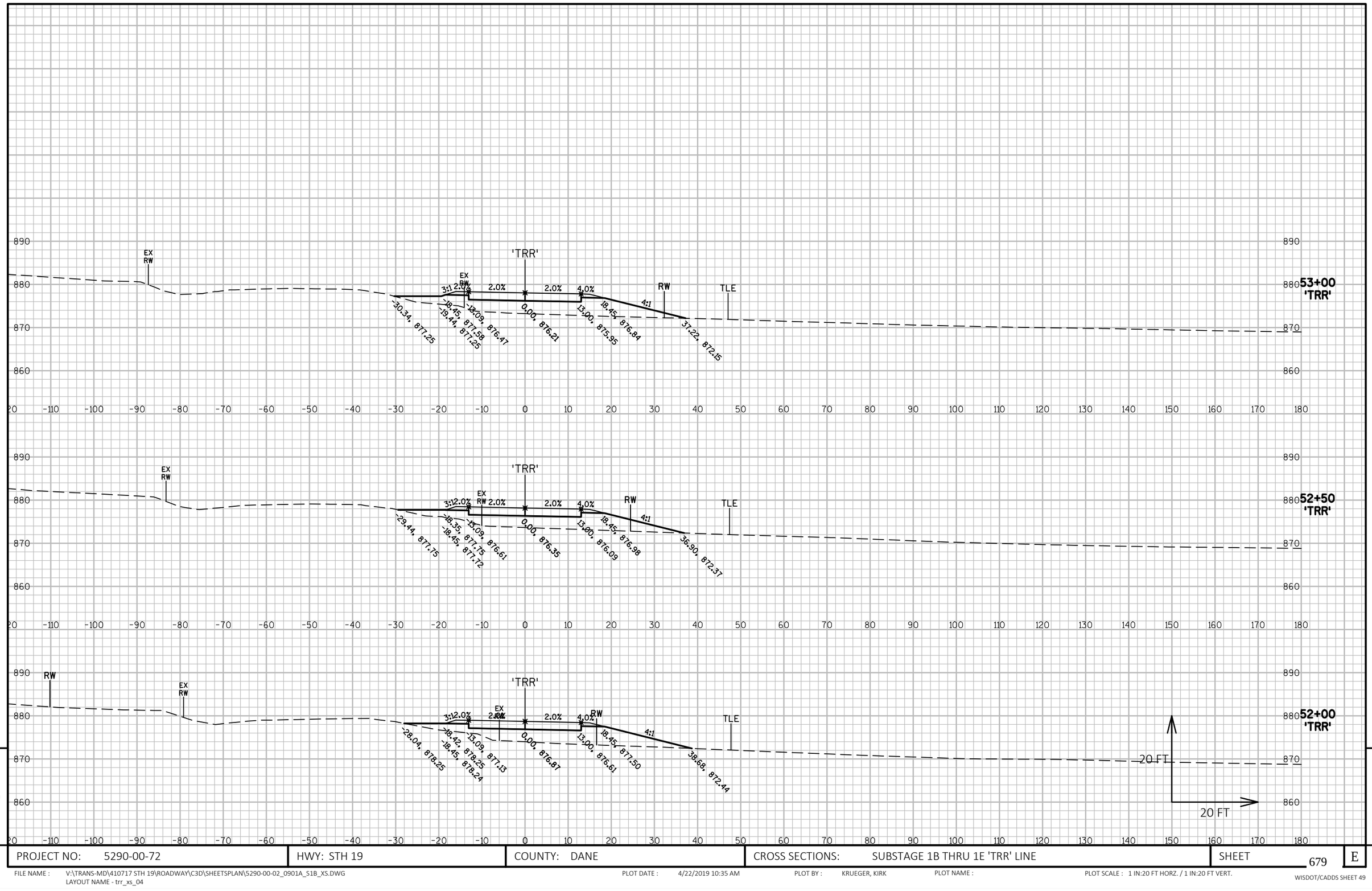
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 678	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_03

PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

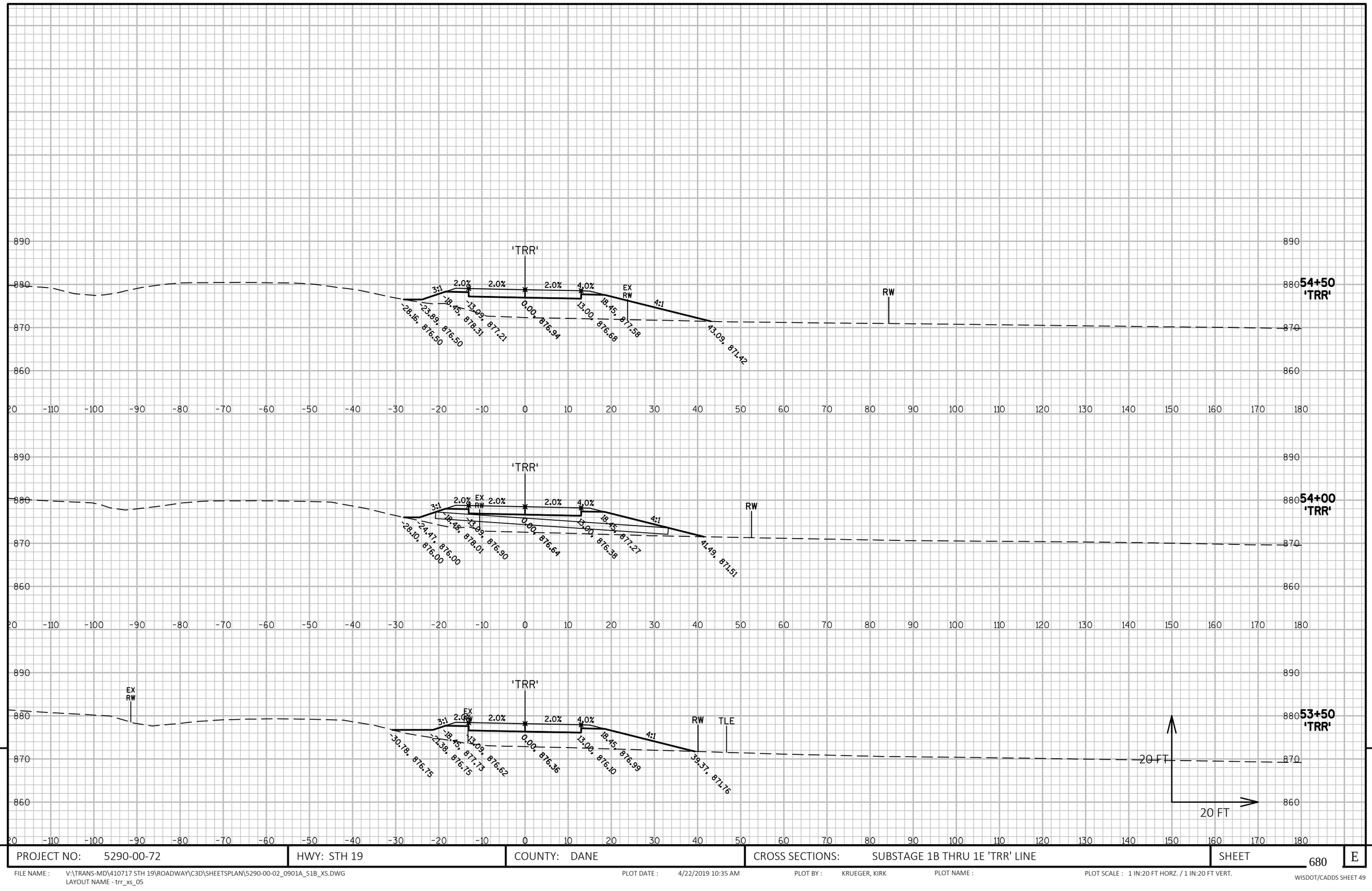
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 679	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_04

PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

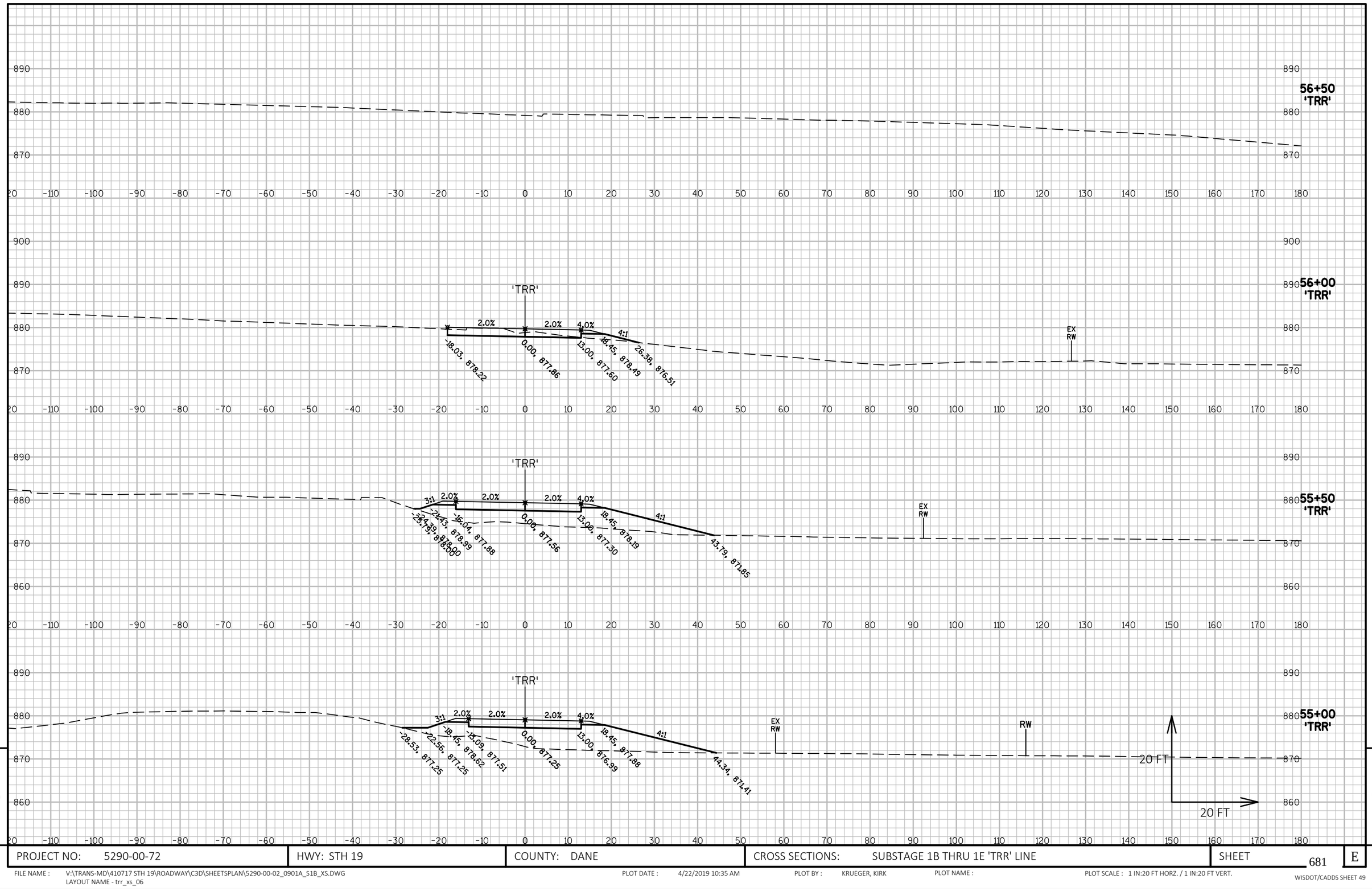


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 680 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_05

PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

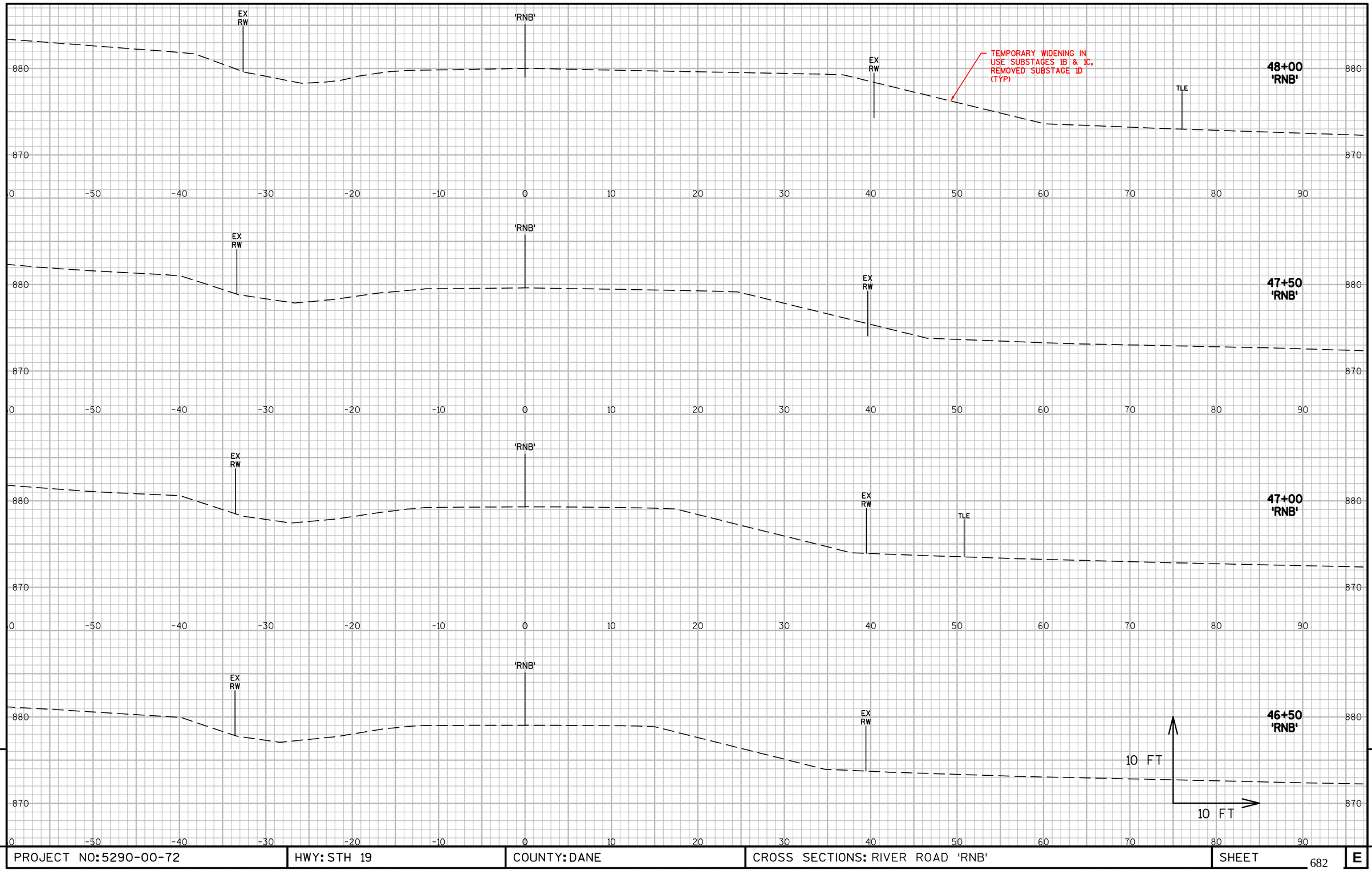


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: SUBSTAGE 1B THRU 1E 'TRR' LINE	SHEET 681	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0901A_S1B_XS.DWG
LAYOUT NAME - trr_xs_06

PLOT DATE : 4/22/2019 10:35 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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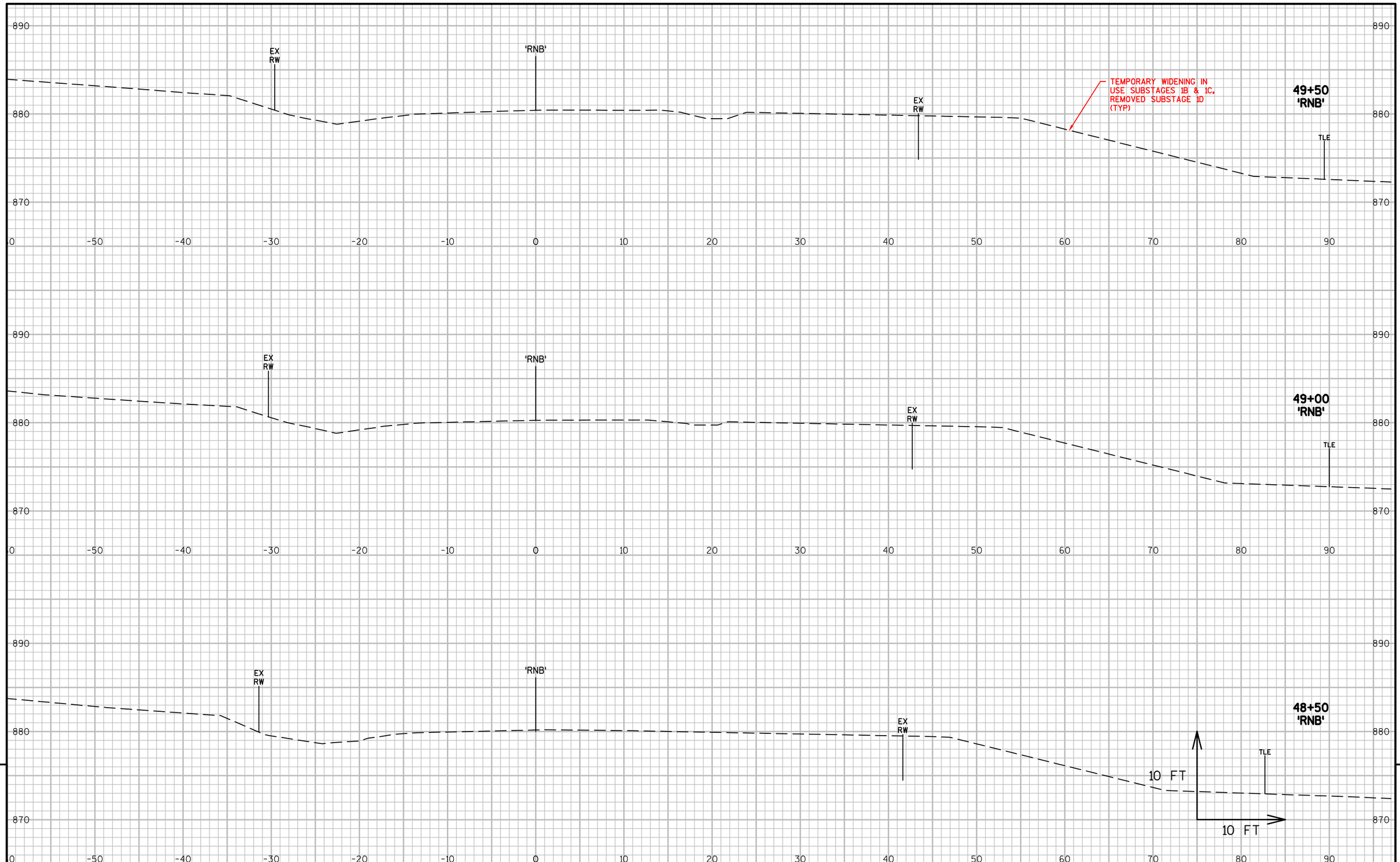
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 682 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-S_X01

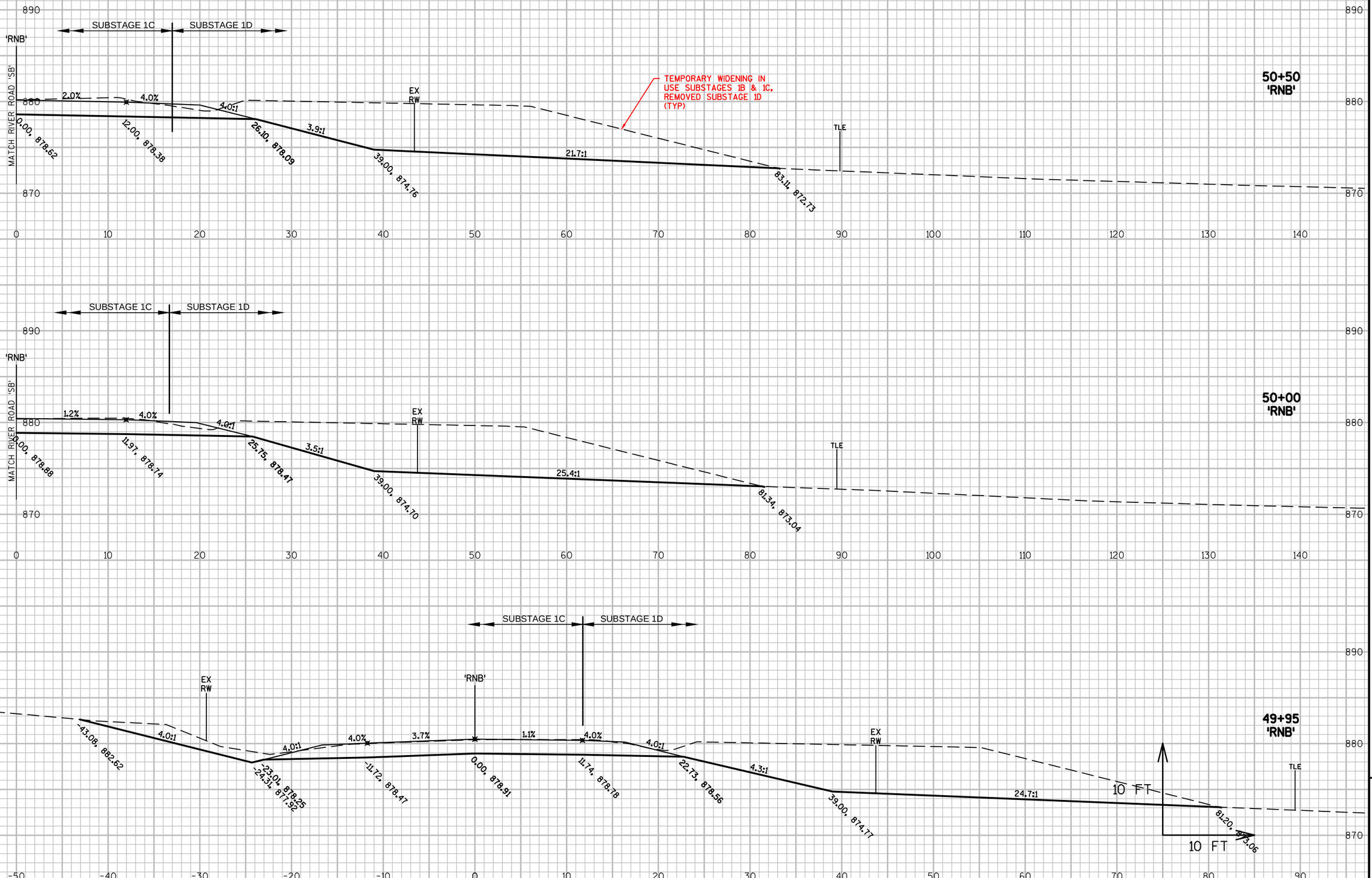
PLOT DATE : 4/25/2019 1:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9	PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 683 E

9



9

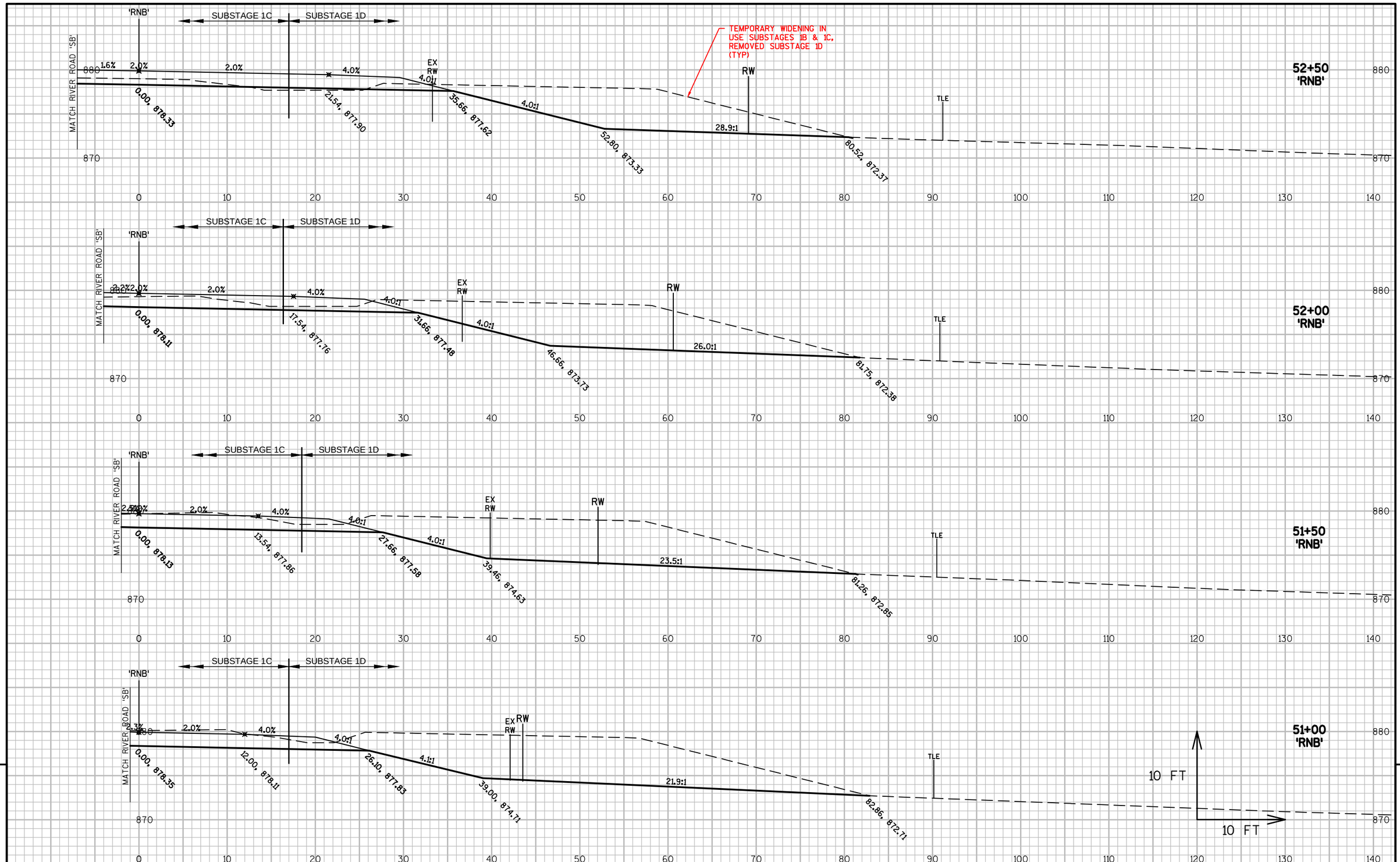
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 684	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-S_X03

PLOT DATE : 4/25/2019 1:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

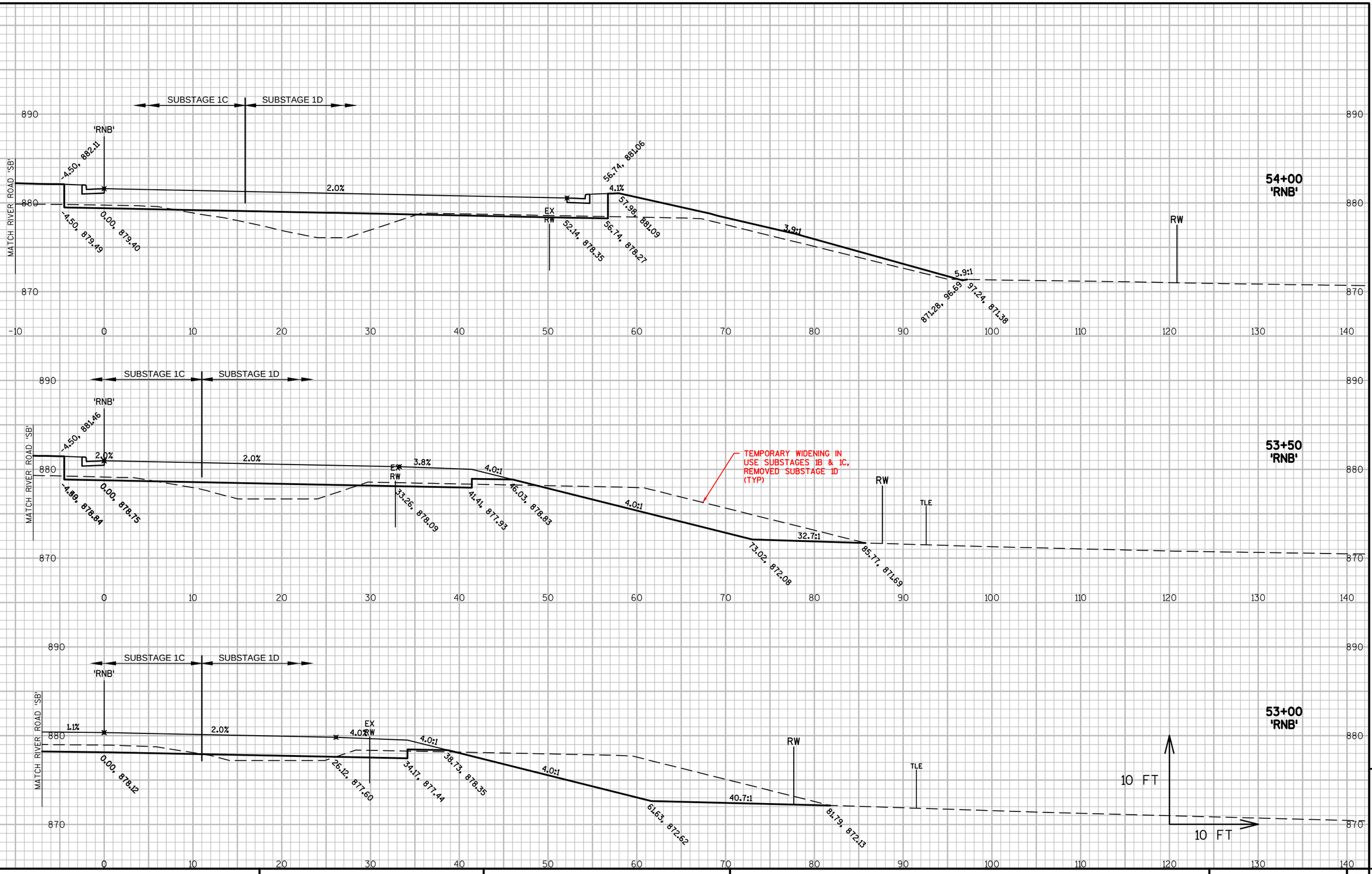


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 685	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-S_X04
PLOT DATE : 4/25/2019 1:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49



9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 686	E

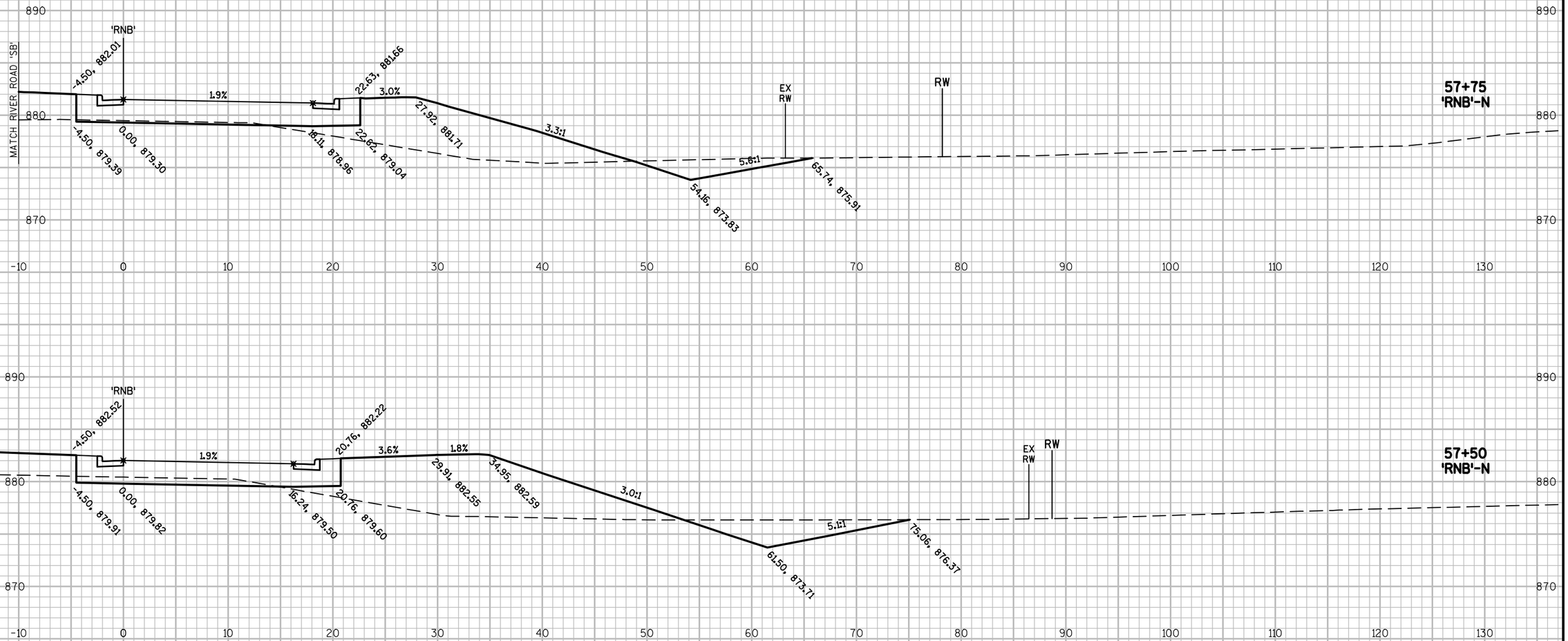
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-S_X05
PLOT DATE : 4/25/2019 1:10 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 687	E

9

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-S_X06

PLOT DATE : 4/25/2019 1:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

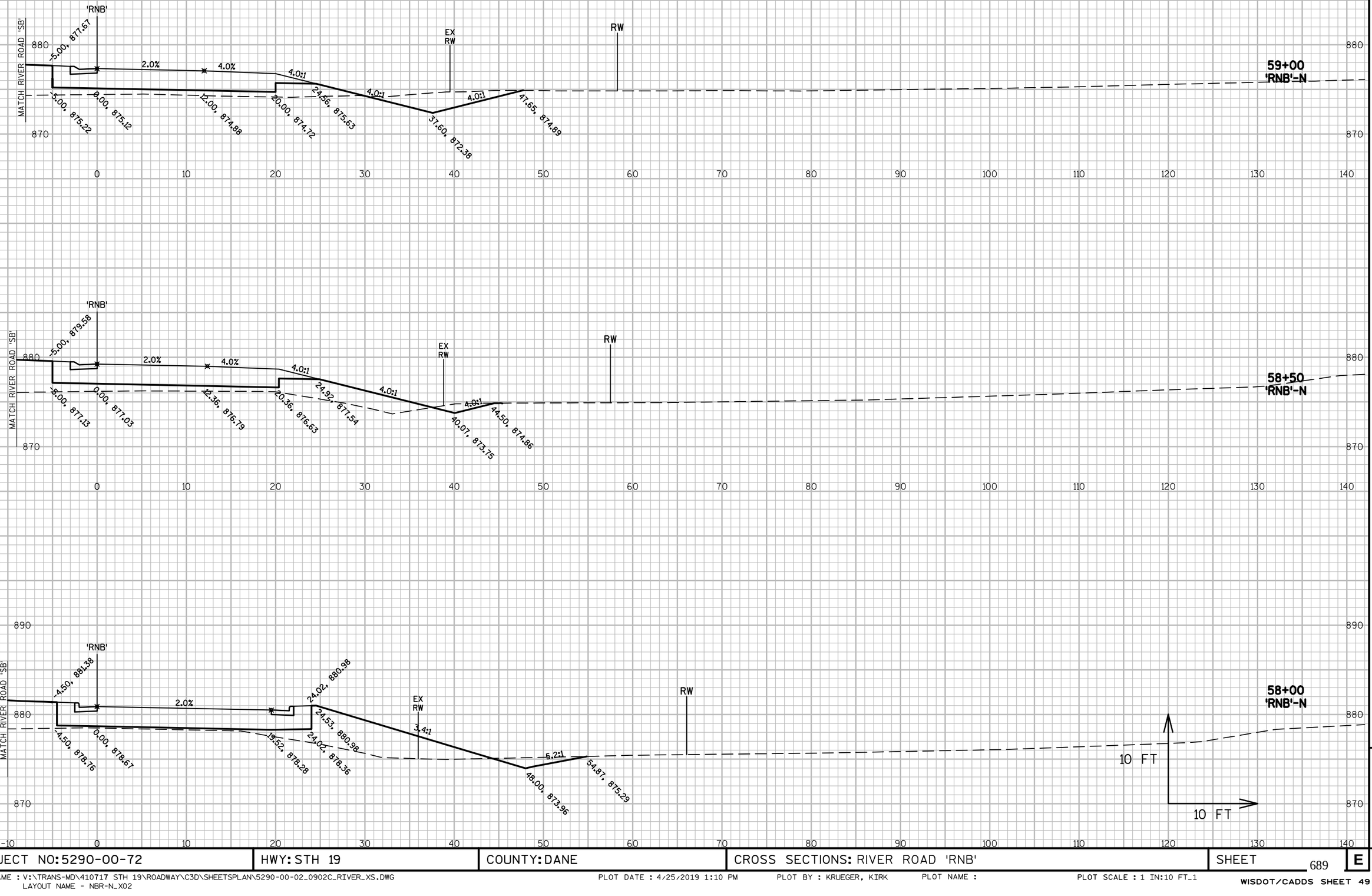




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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 688	E



9

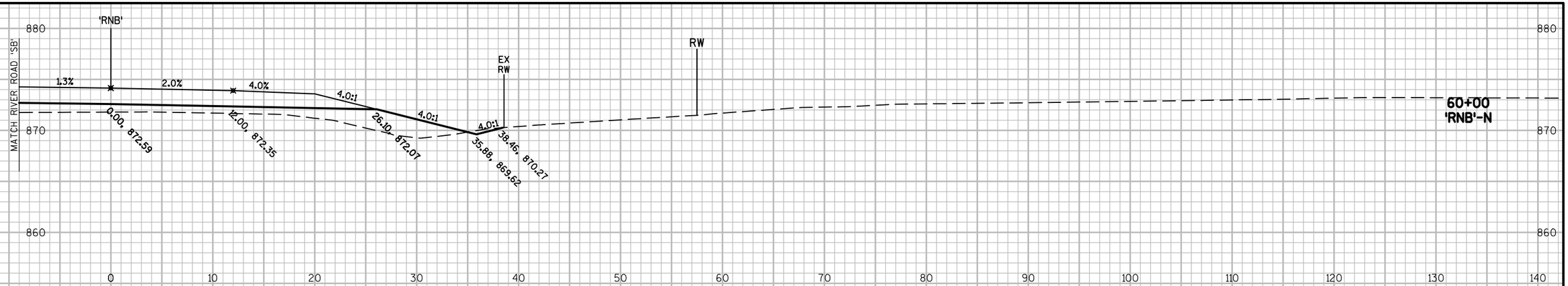
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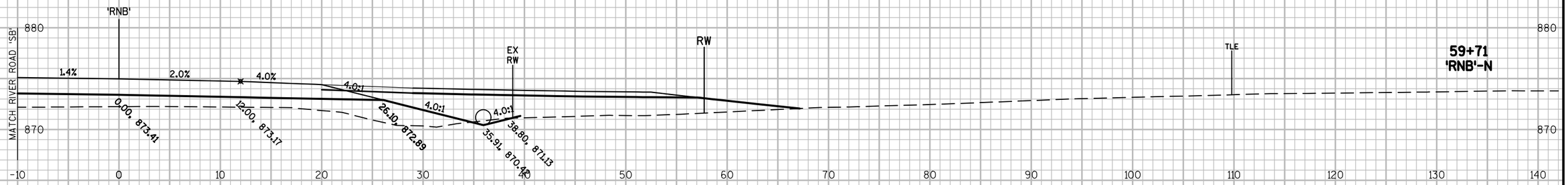
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 689	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-N_X02

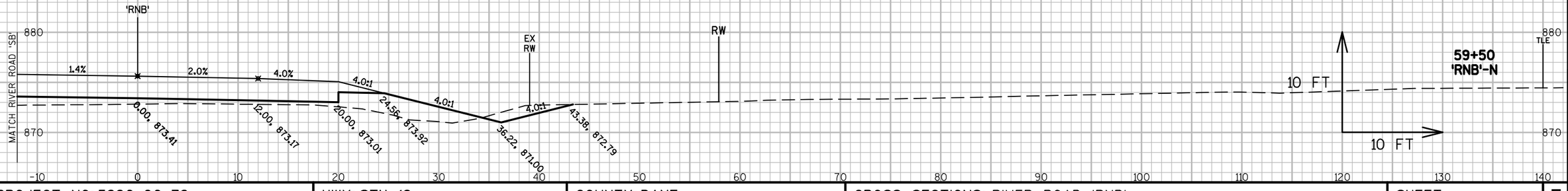
PLOT DATE : 4/25/2019 1:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49





STA. 59+72'RNB'
CONSTRUCT PE RT
1 - 28' 18-INCH CP CL.III-A REQ'D
2 - APRON ENDWALLS REQ'D



9

9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 690	E

STA. 60+34'RNB'
CONSTRUCT PE RT
1 - 28' 18-INCH CP CL.III-A REQ'D
2 - APRON ENDWALLS REQ'D

9

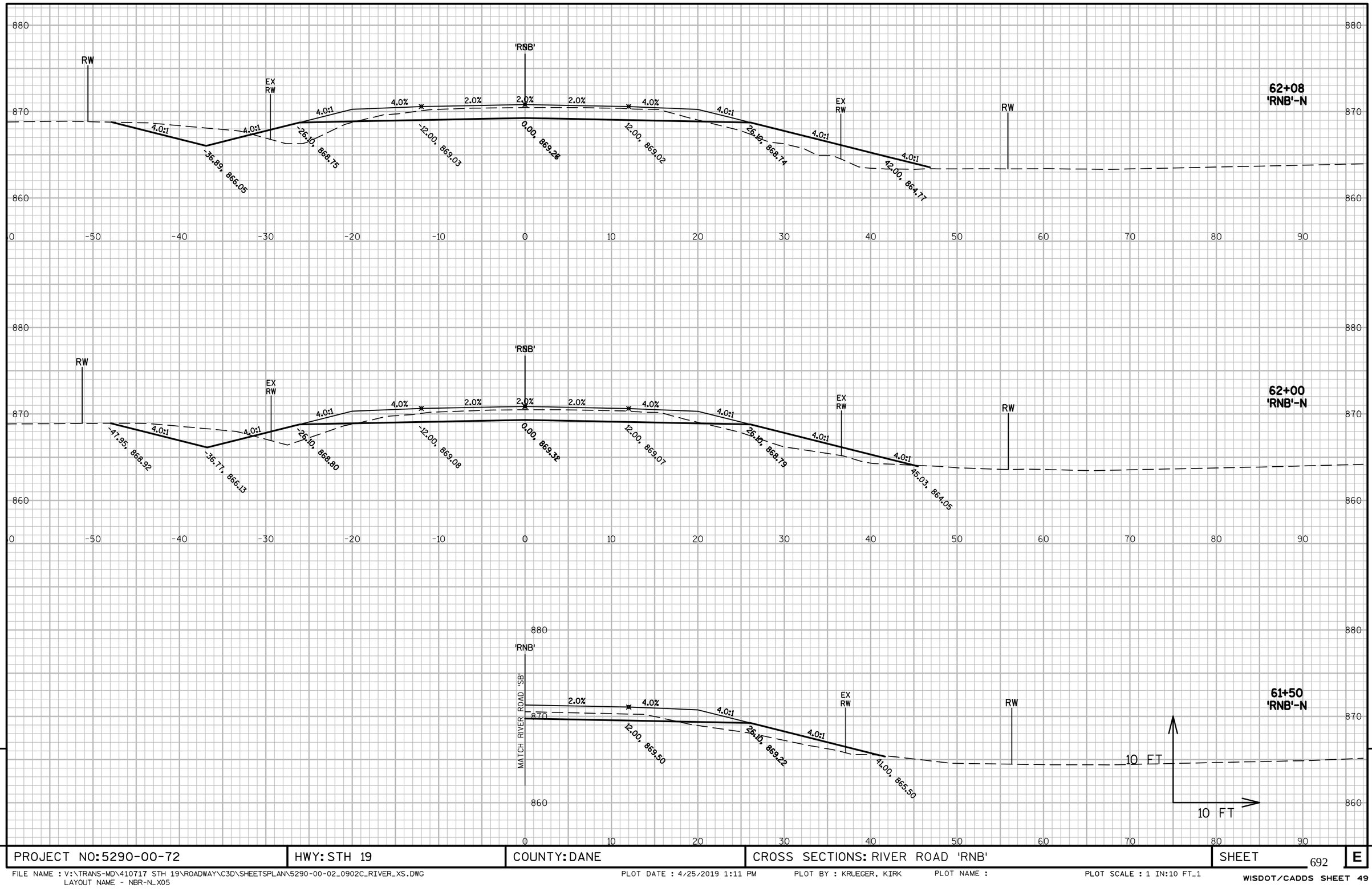
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 691	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-N_X04

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

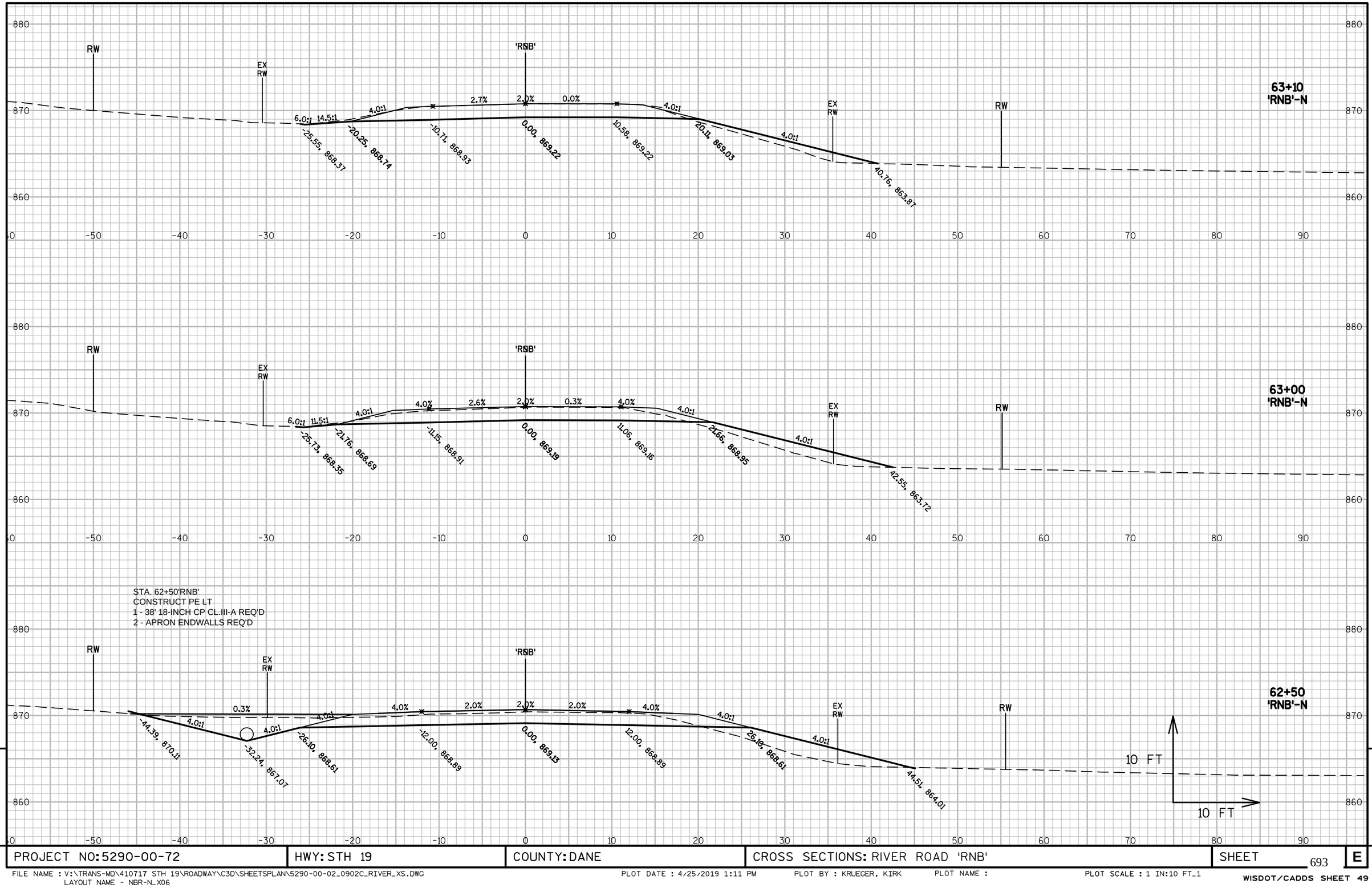


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 692	E

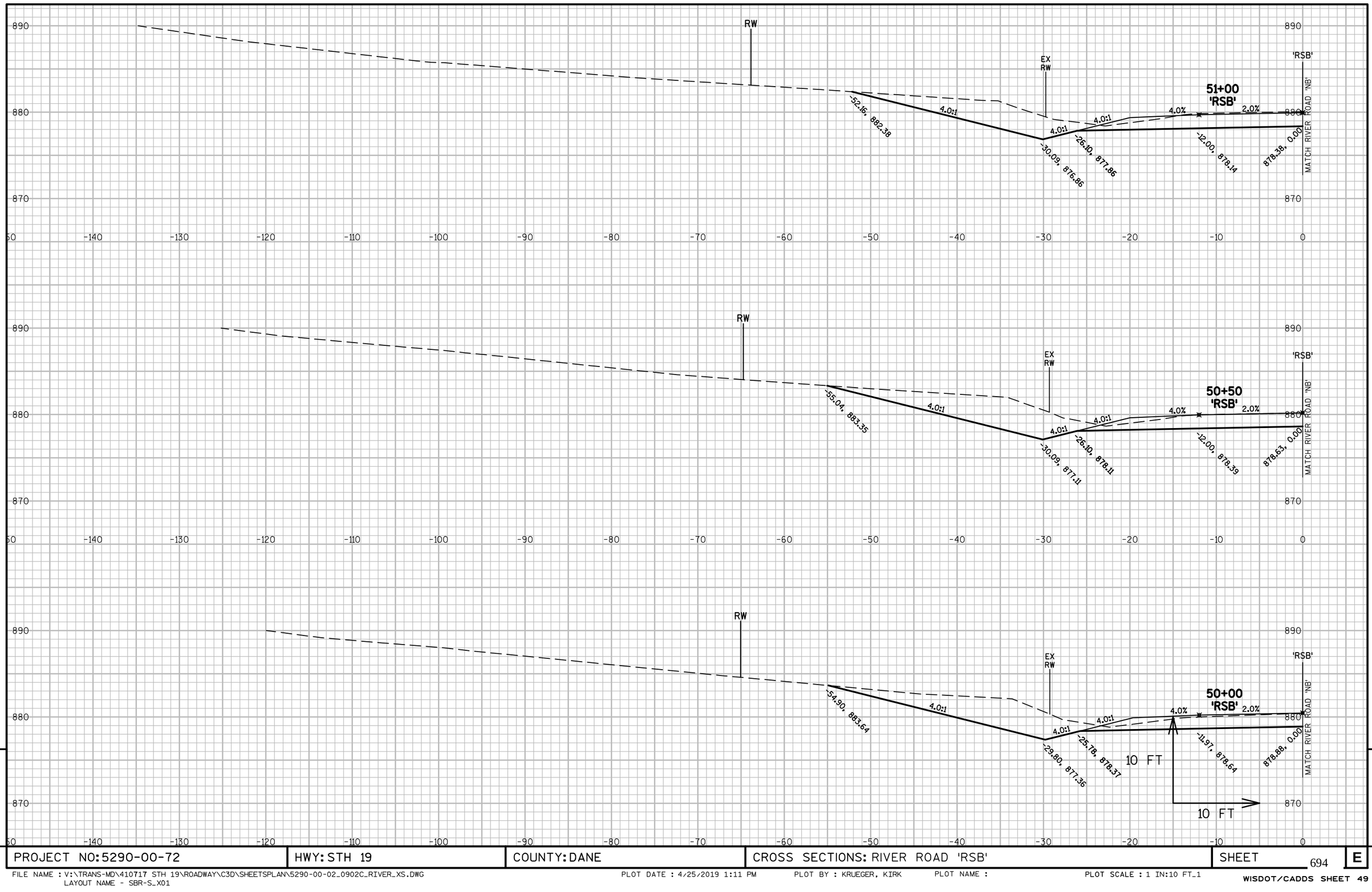
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FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - NBR-N_X05
PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49



9

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RNB'	SHEET 693	E

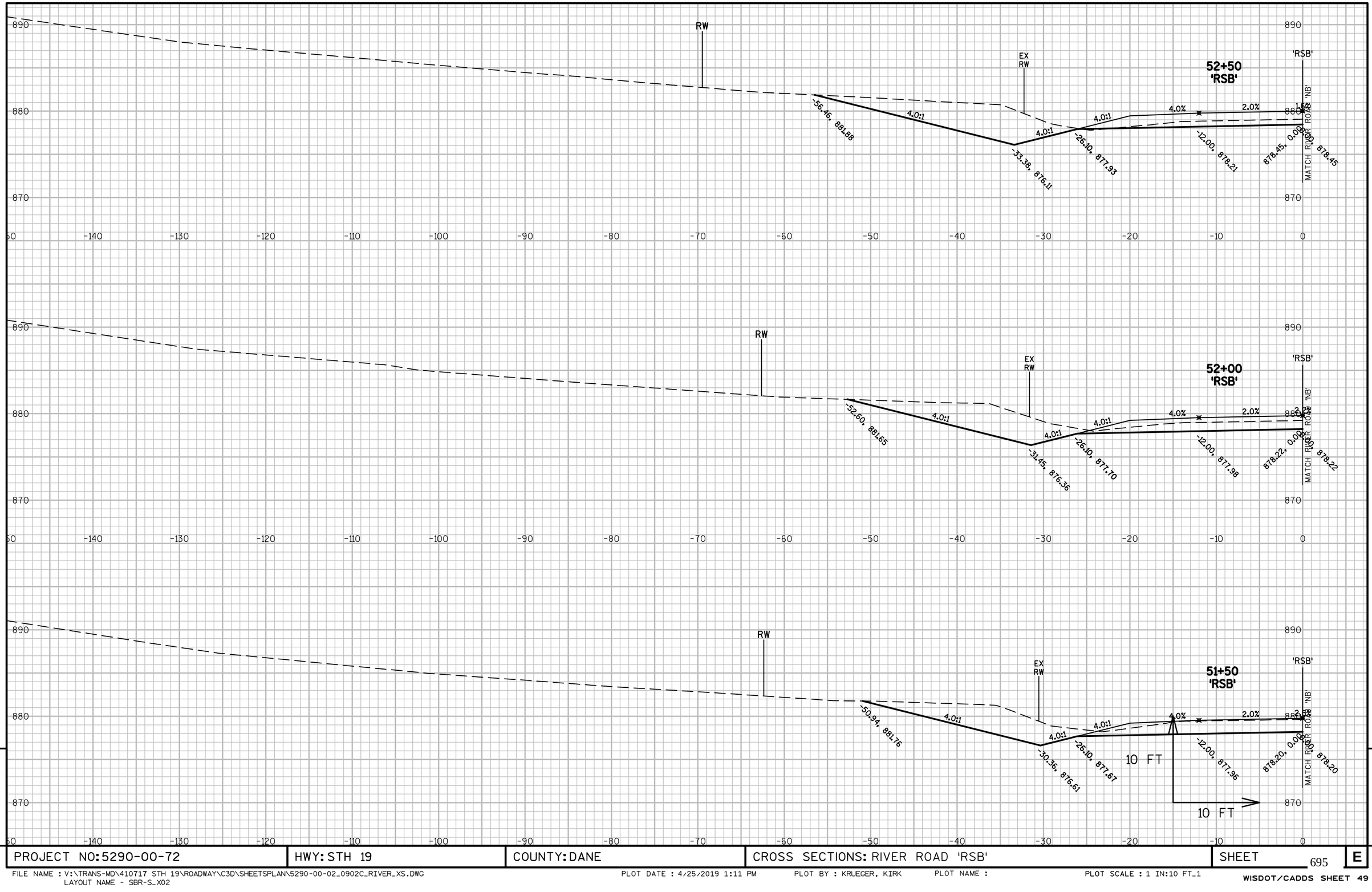


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 694	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-S_X01

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

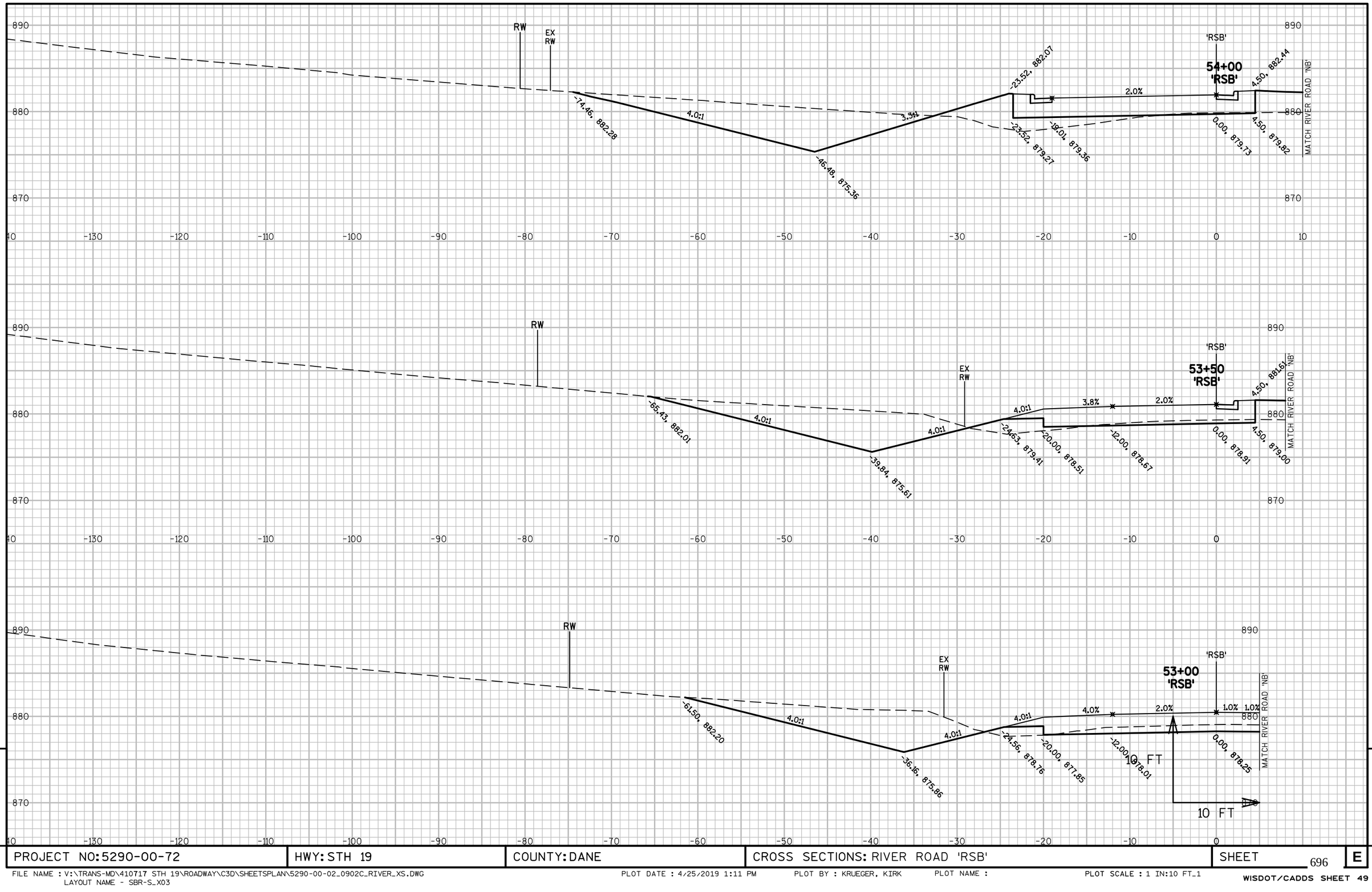
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 695	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-S_X02

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

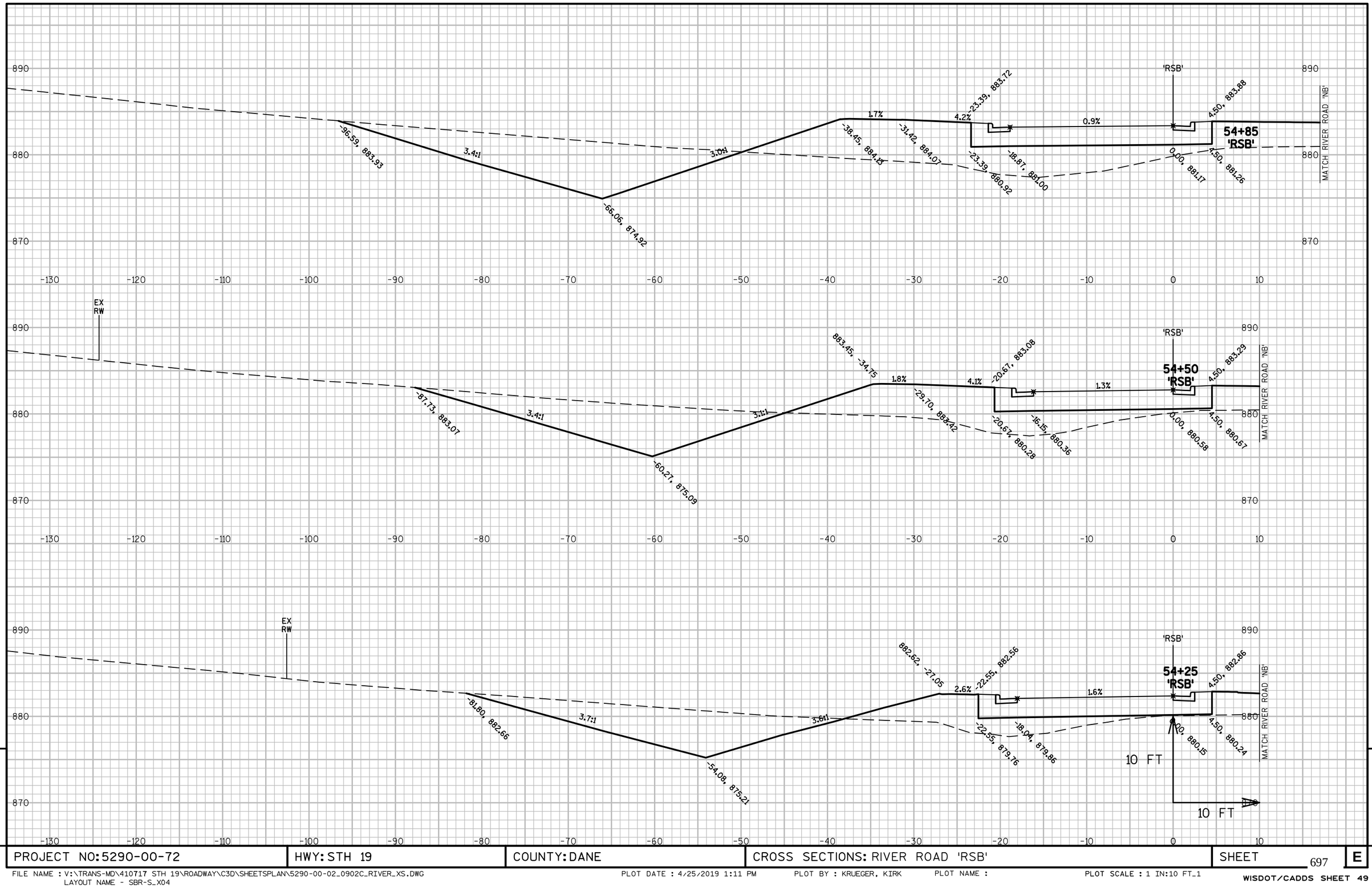


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PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 696	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-S_X03
PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49

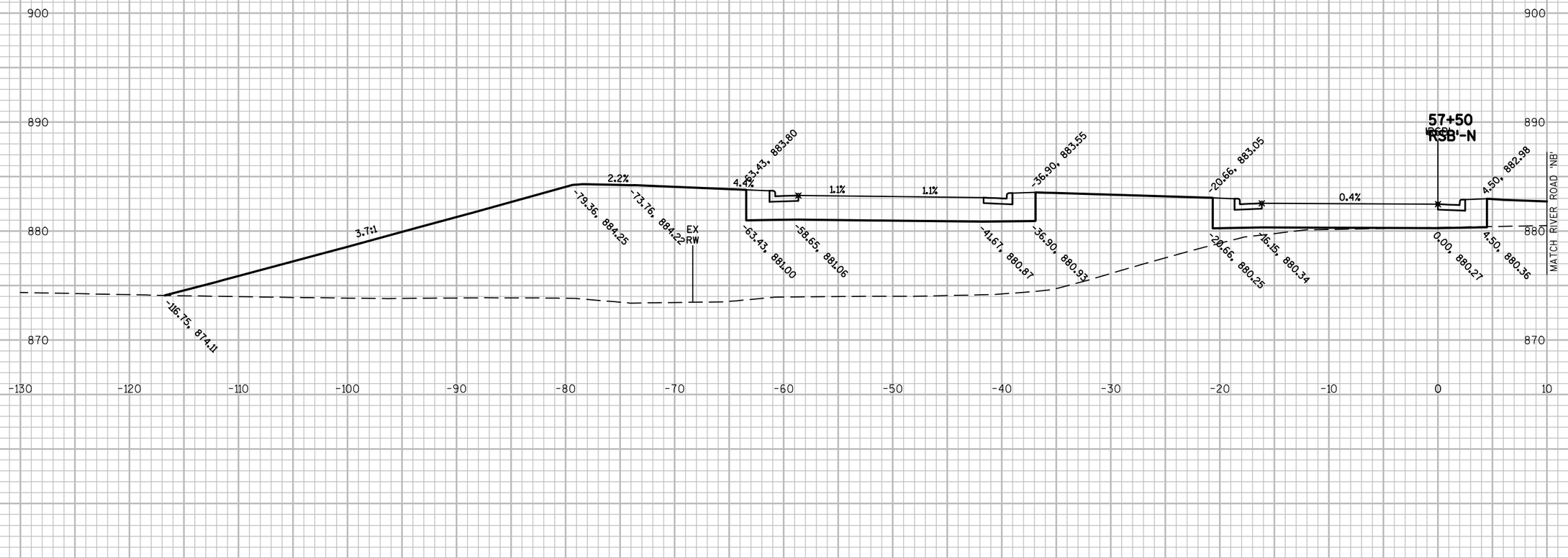


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 697	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-S_X04

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

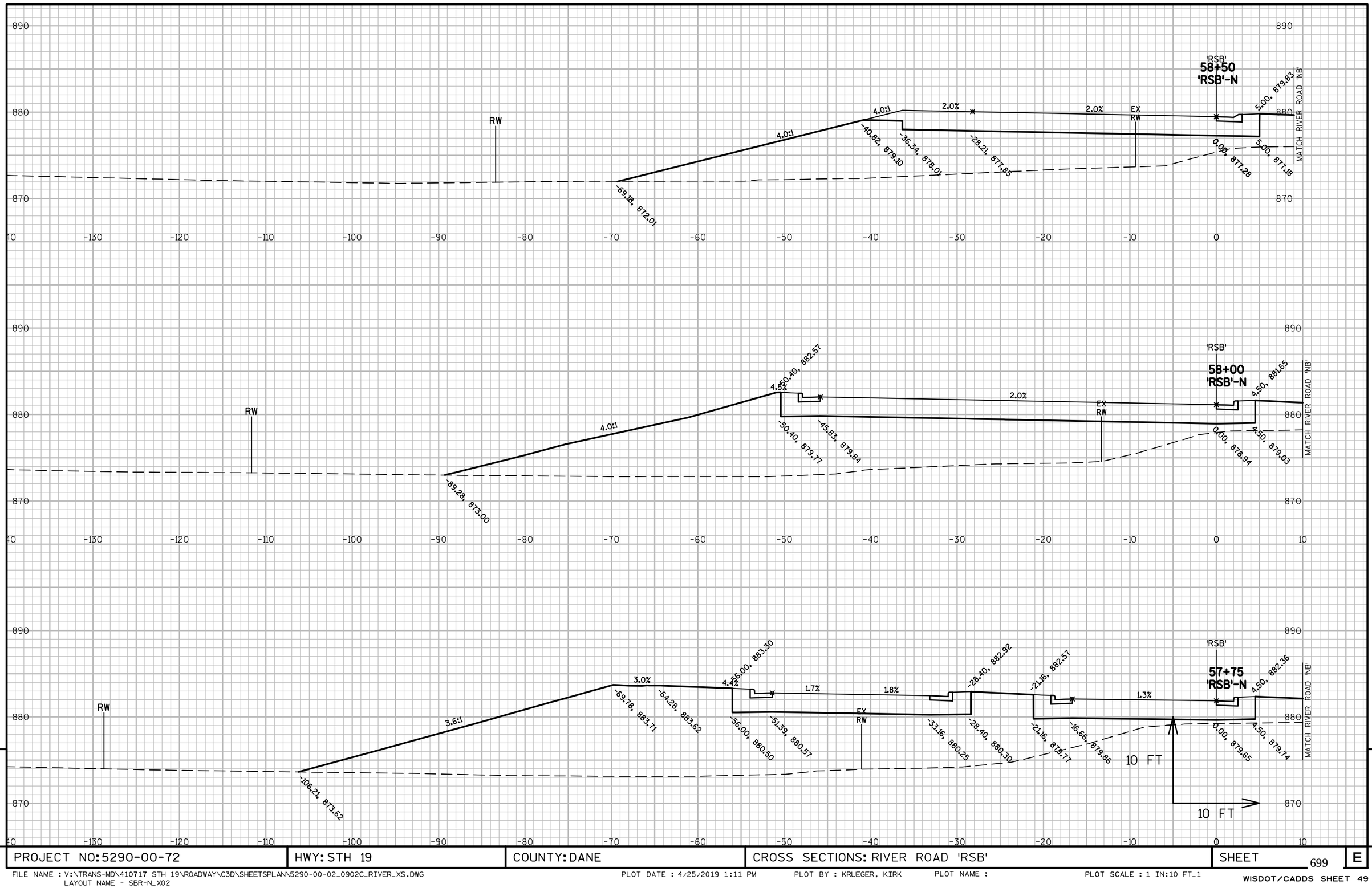


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 698	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-N_X01

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 699	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-N_X02

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

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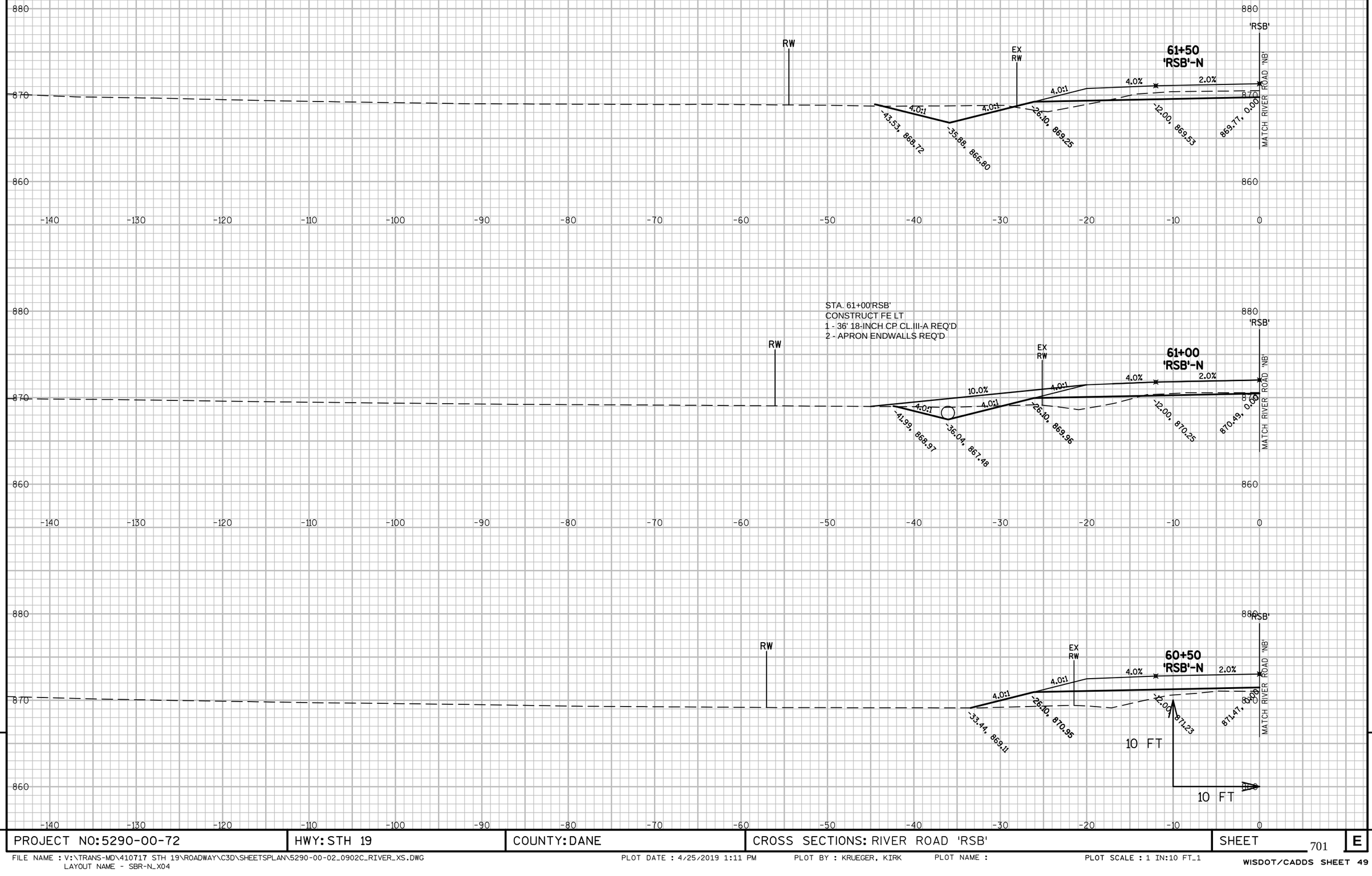
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 700	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-N_X03

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

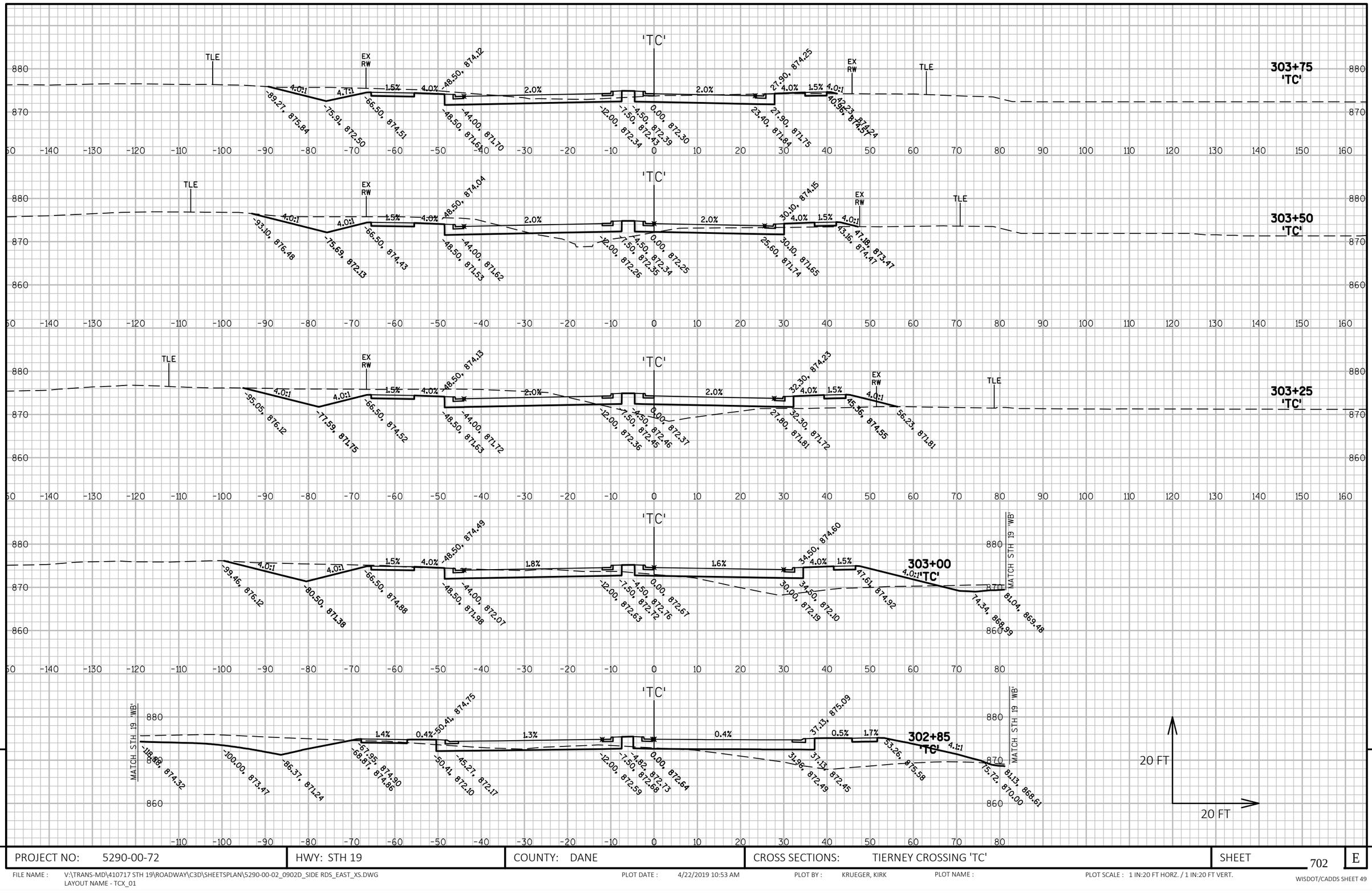
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PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER ROAD 'RSB'	SHEET 701	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - SBR-N_X04

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

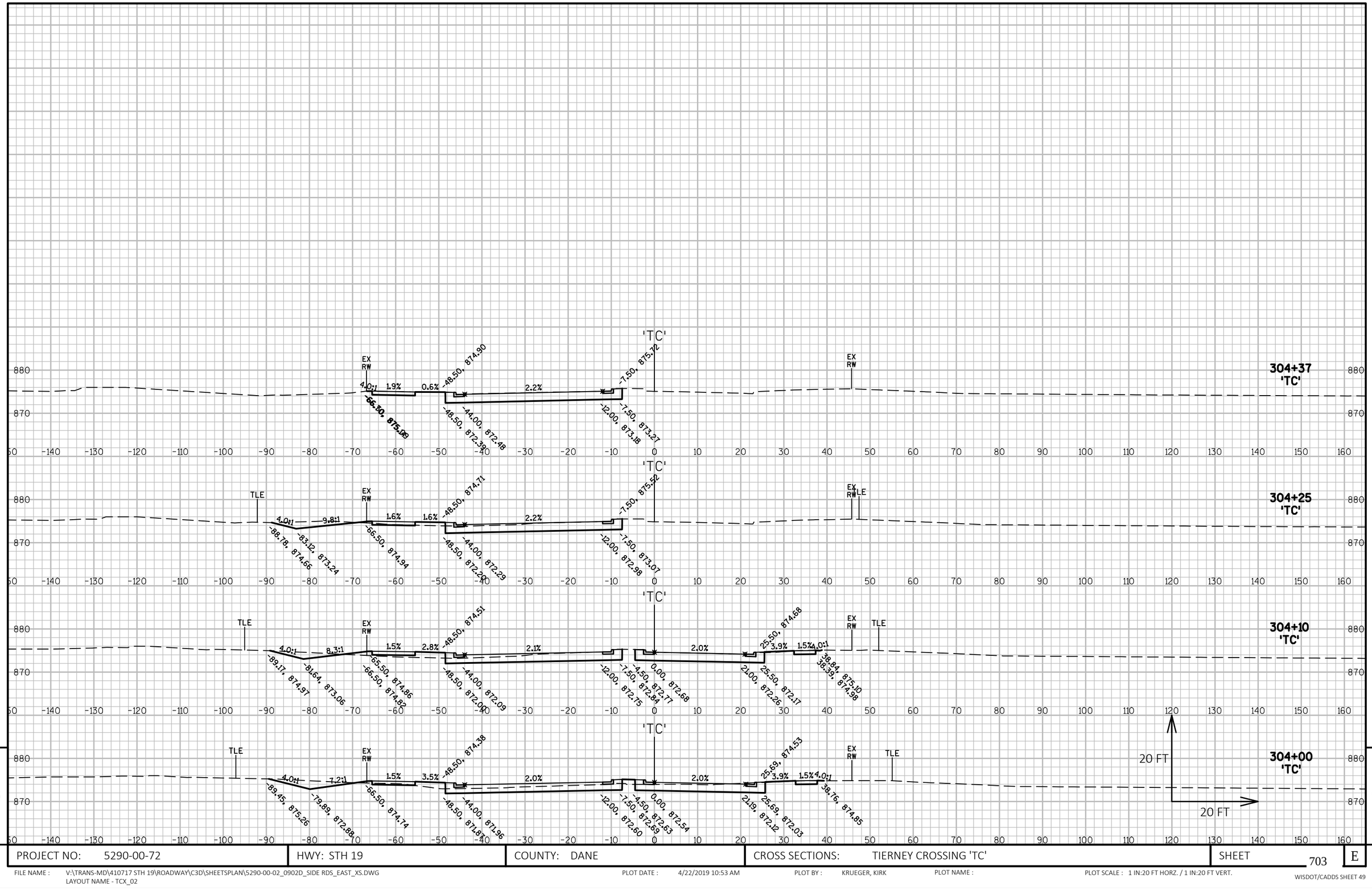


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: TIERNEY CROSSING 'TC'	SHEET 702	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - TCX_01

PLOT DATE : 4/22/2019 10:53 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

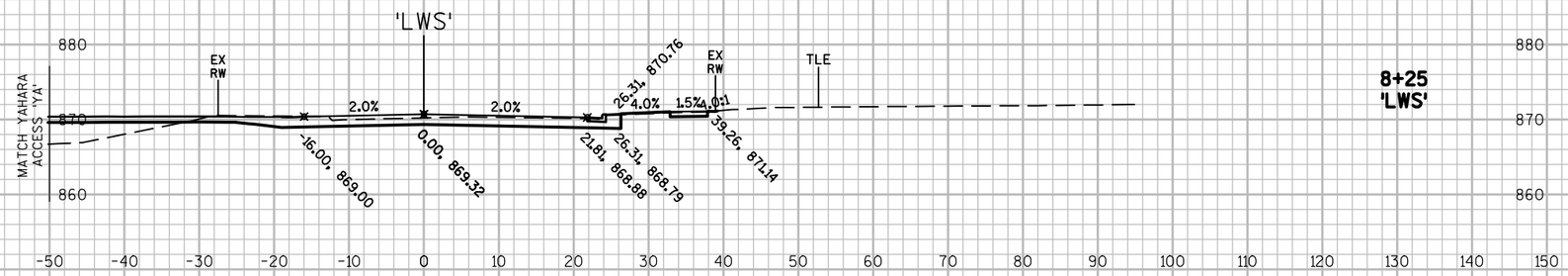


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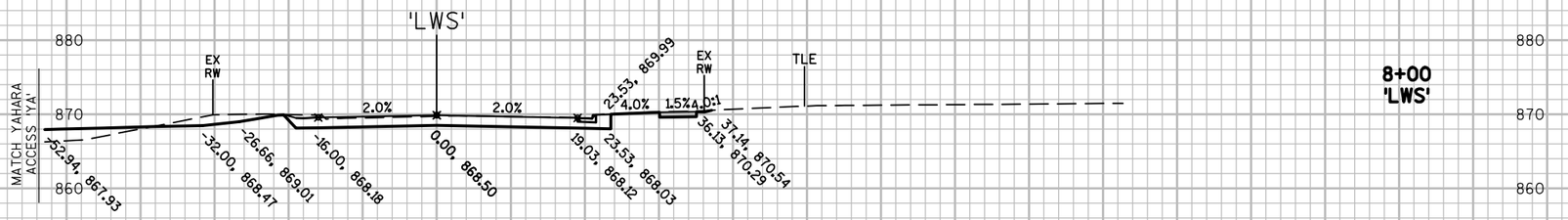
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: TIERNEY CROSSING 'TC'	SHEET 703	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - TCX_02

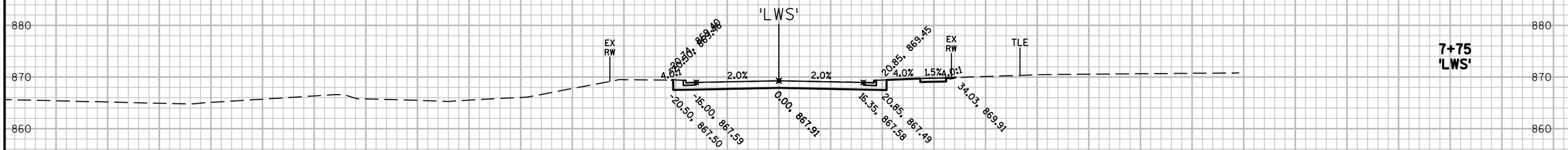
PLOT DATE : 4/22/2019 10:53 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



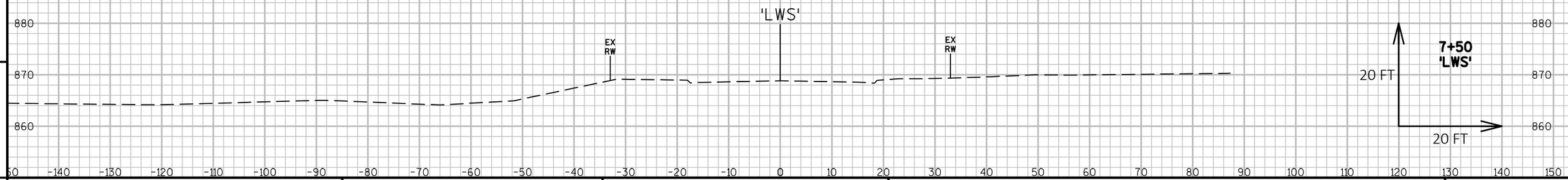
8+25
'LWS'



8+00
'LWS'



7+75
'LWS'



7+50
'LWS'

20 FT

20 FT

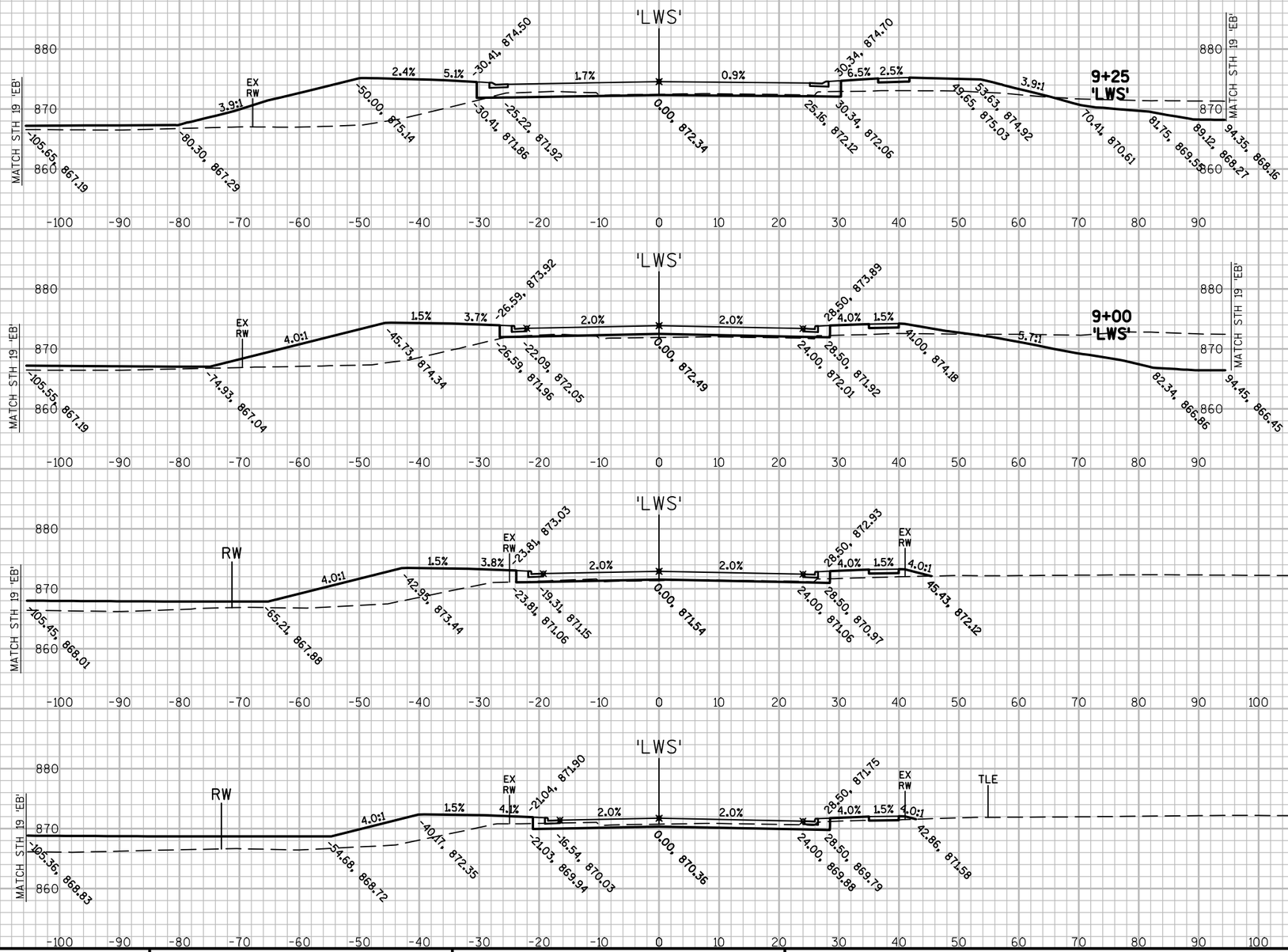
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: LIUNA WAY 'LWS'	SHEET 704	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - LWSX_01

PLOT DATE : 4/22/2019 10:53 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

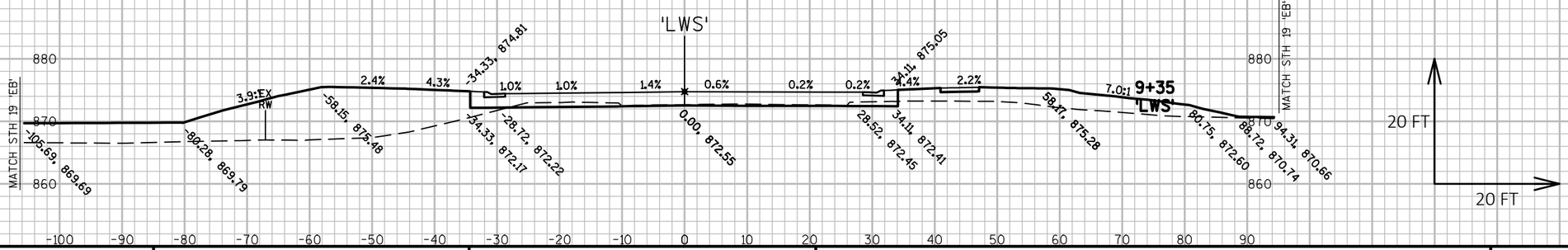


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: LIUNA WAY 'LWS'	SHEET 705 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - LWSX_02

PLOT DATE : 4/22/2019 10:54 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

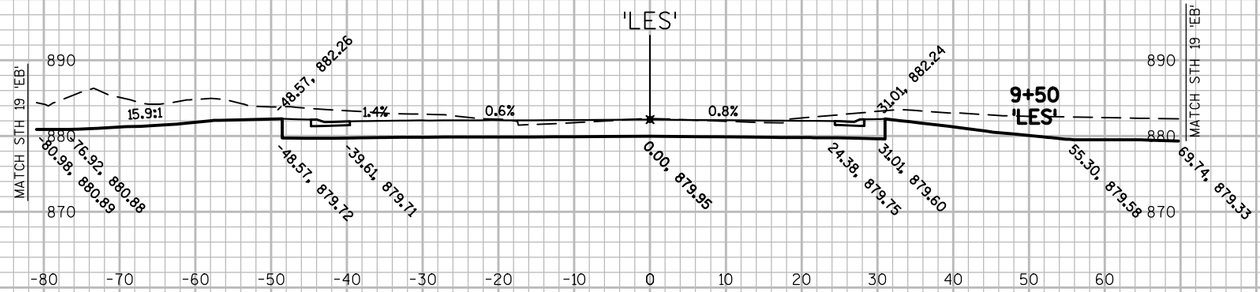


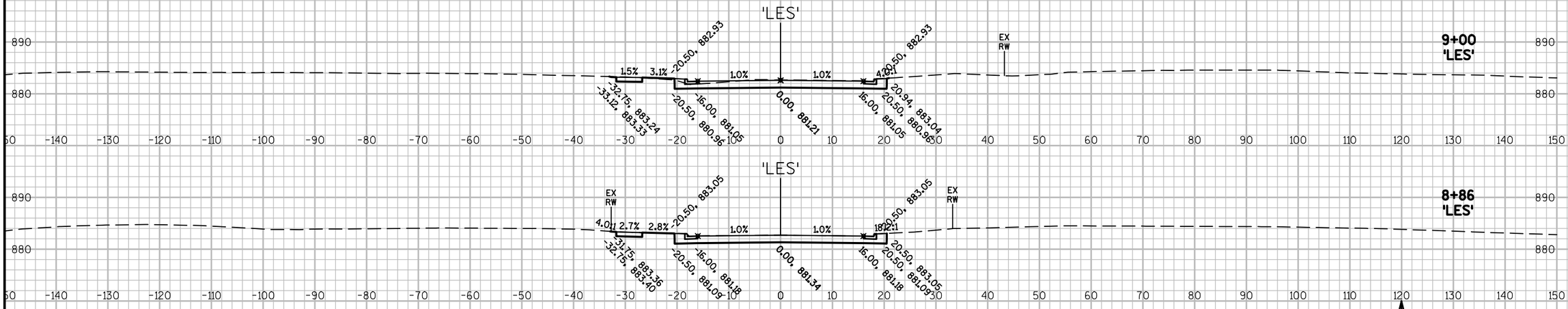
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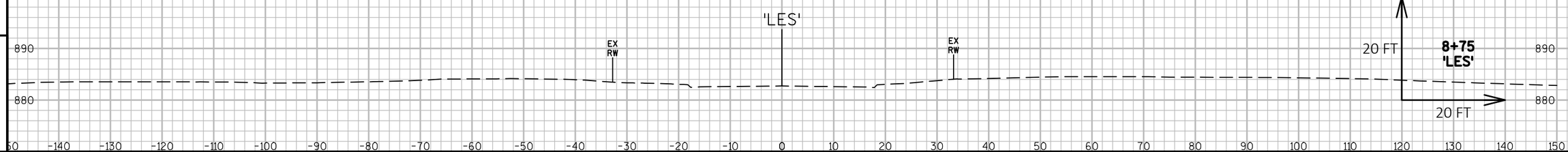
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: LIUNA WAY 'LWS'	SHEET 706	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - LWSX_03

PLOT DATE : 4/22/2019 10:54 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.







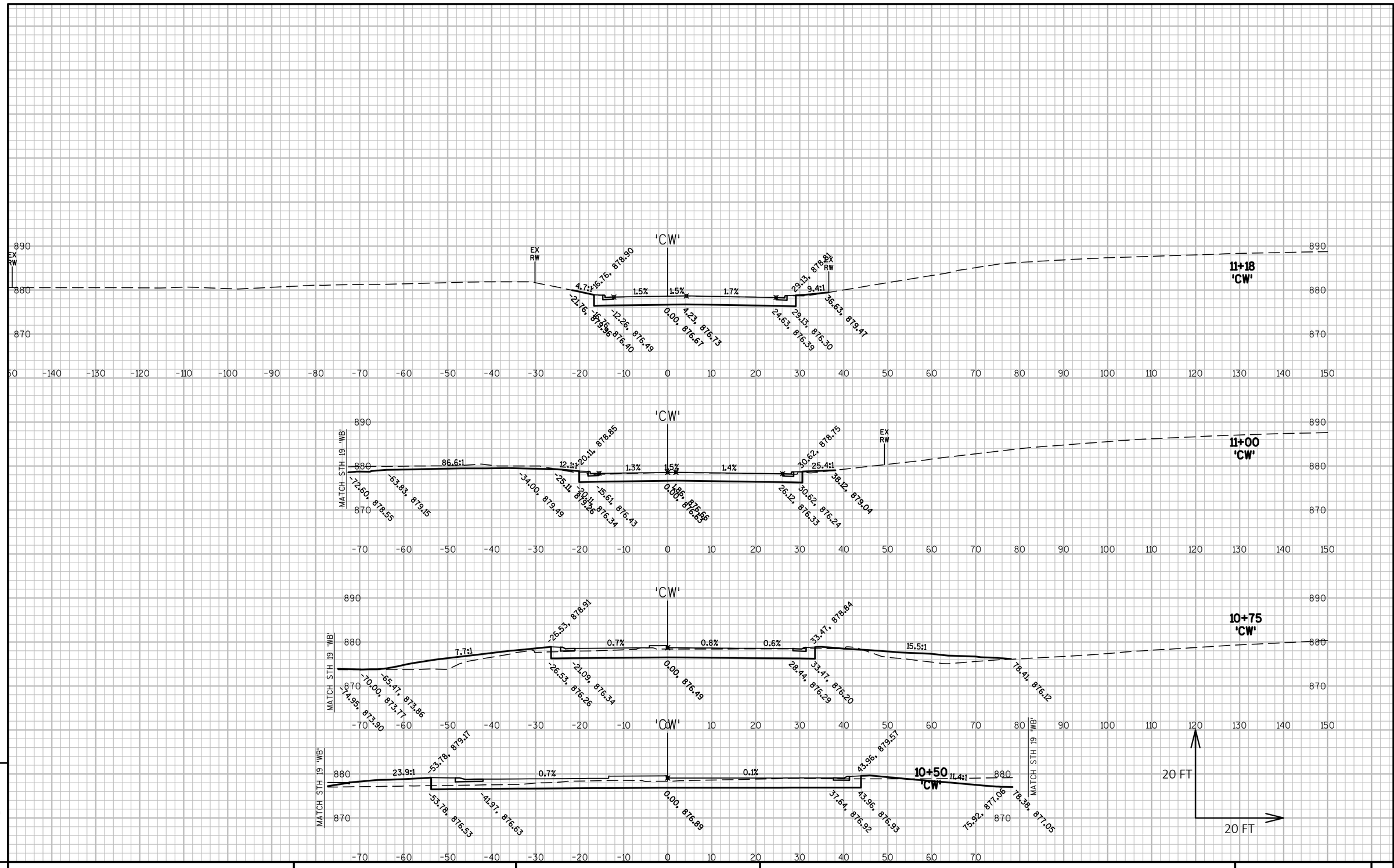
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: LIUNA WAY 'LES'	SHEET 707	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - LESX_01

PLOT DATE : 4/30/2019 2:22 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

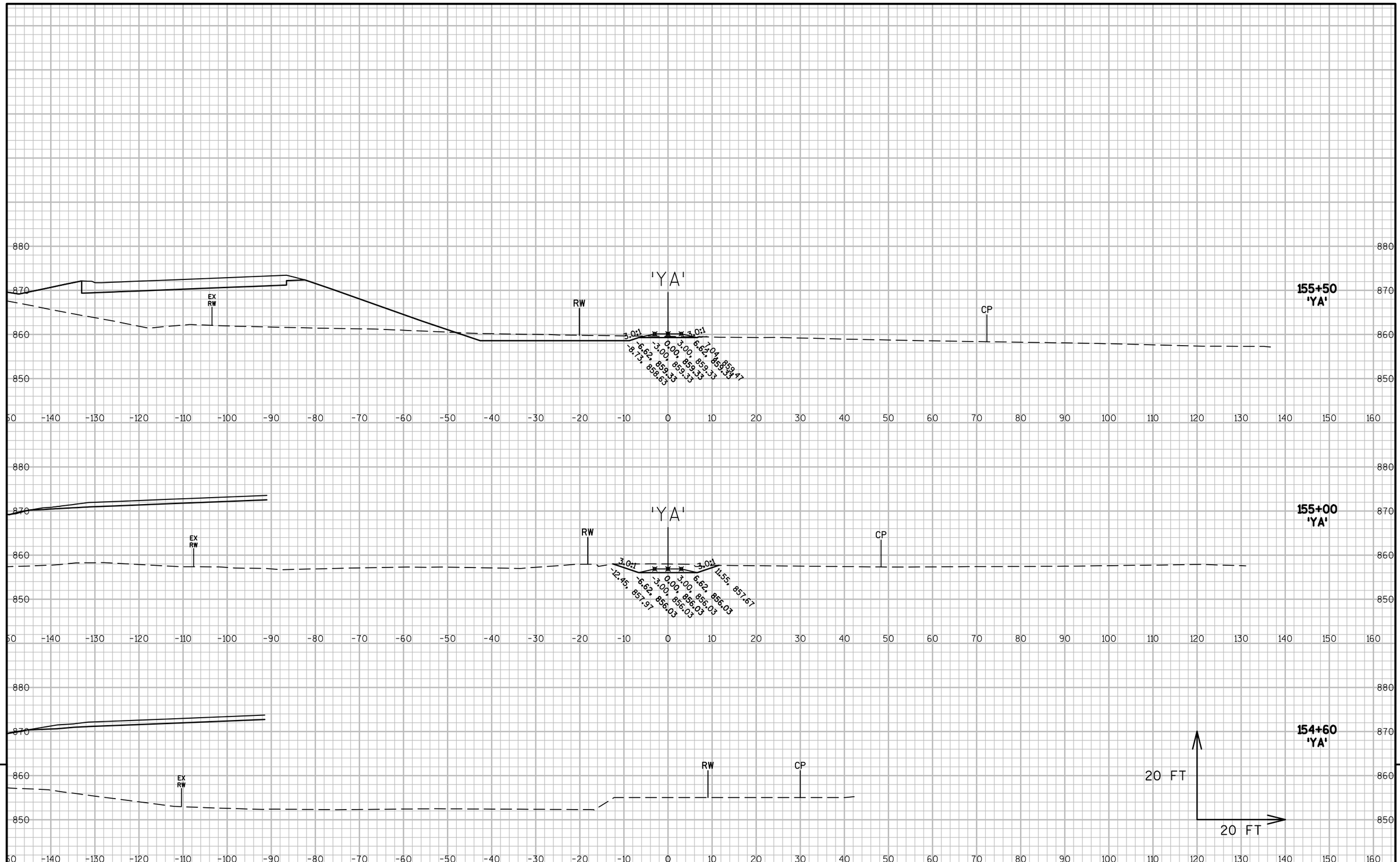


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: CASHEL WAY 'CW'	SHEET 708 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902D_SIDE RDS_EAST_XS.DWG
LAYOUT NAME - CWX_01

PLOT DATE : 4/30/2019 2:24 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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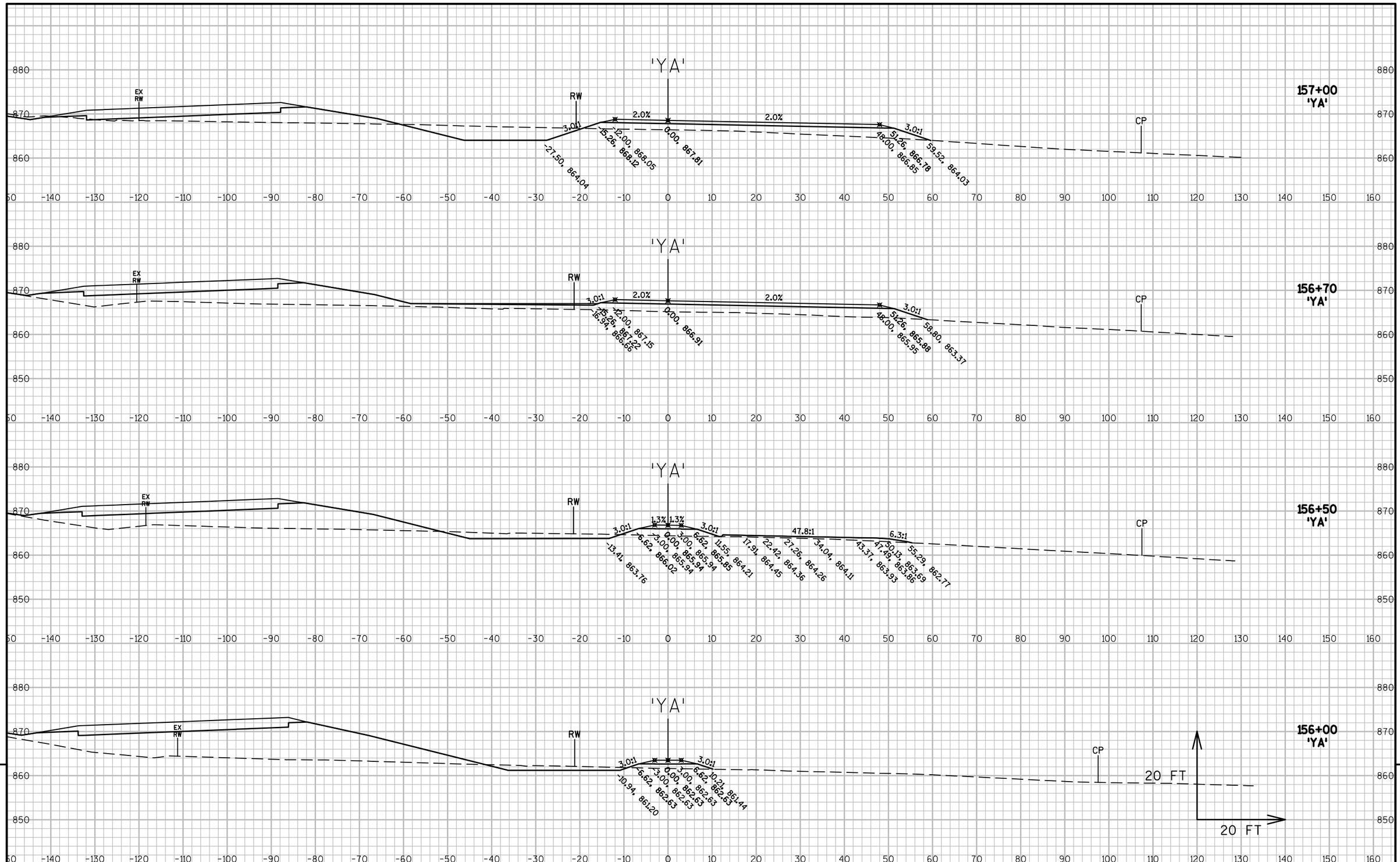
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 709	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_01

PLOT DATE : 5/1/2019 7:51 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_2

WISDOT/CADDS SHEET 49

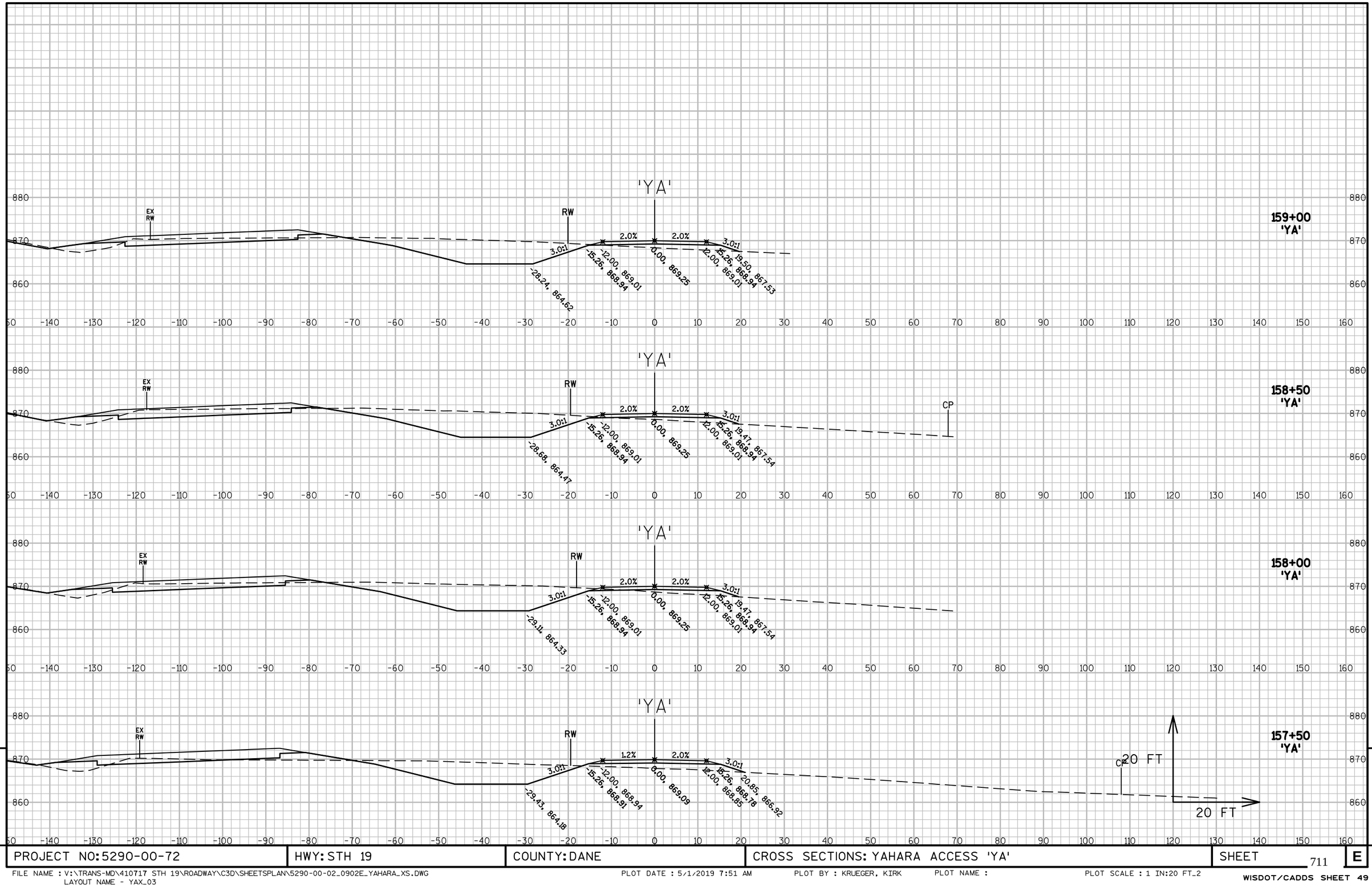


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 710 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_02

PLOT DATE : 5/1/2019 7:51 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_2

WISDOT/CADDS SHEET 49



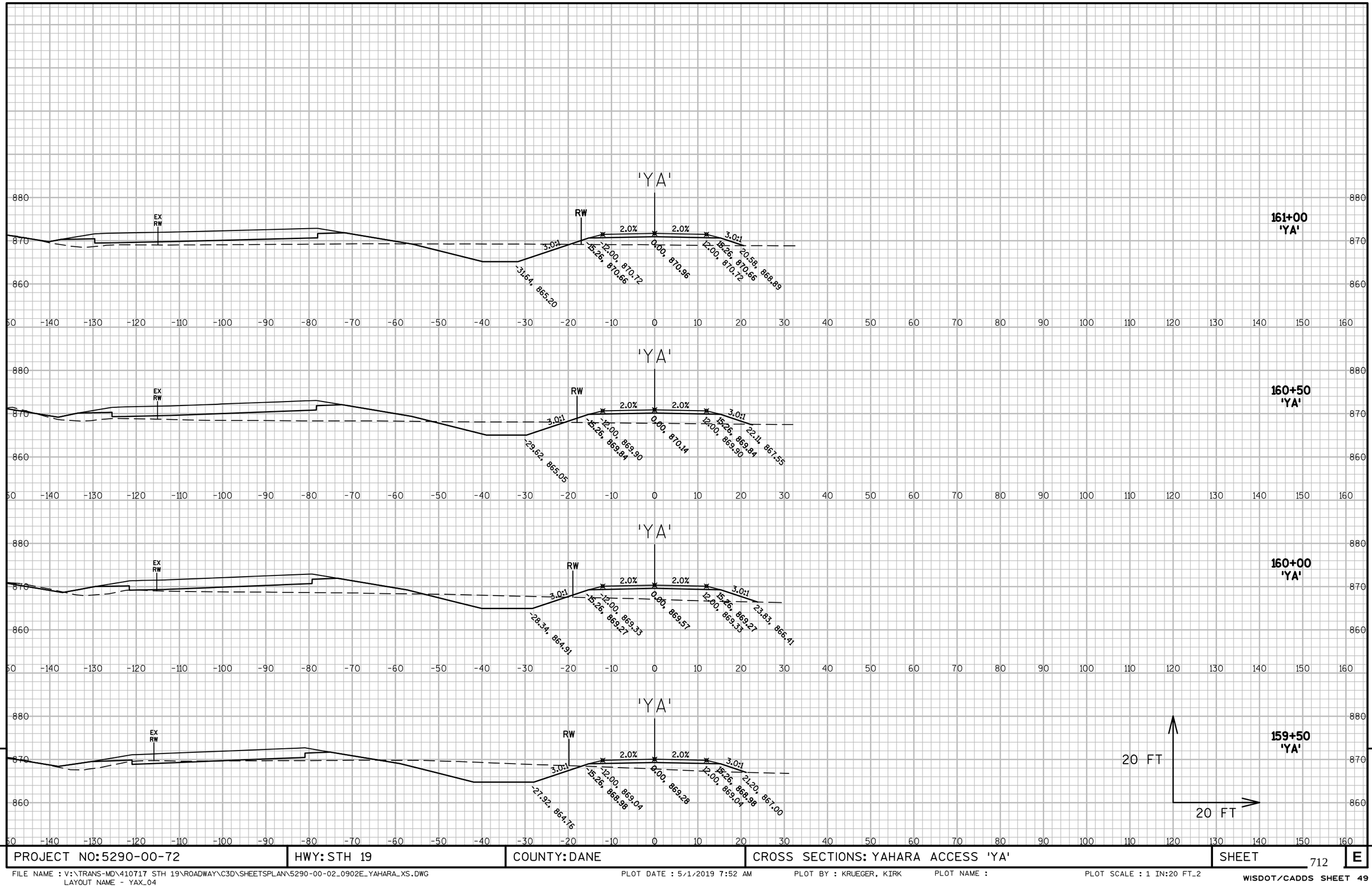
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 711	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_03

PLOT DATE : 5/1/2019 7:51 AM | PLOT BY : KRUEGER, KIRK | PLOT NAME : | PLOT SCALE : 1 IN:20 FT_2

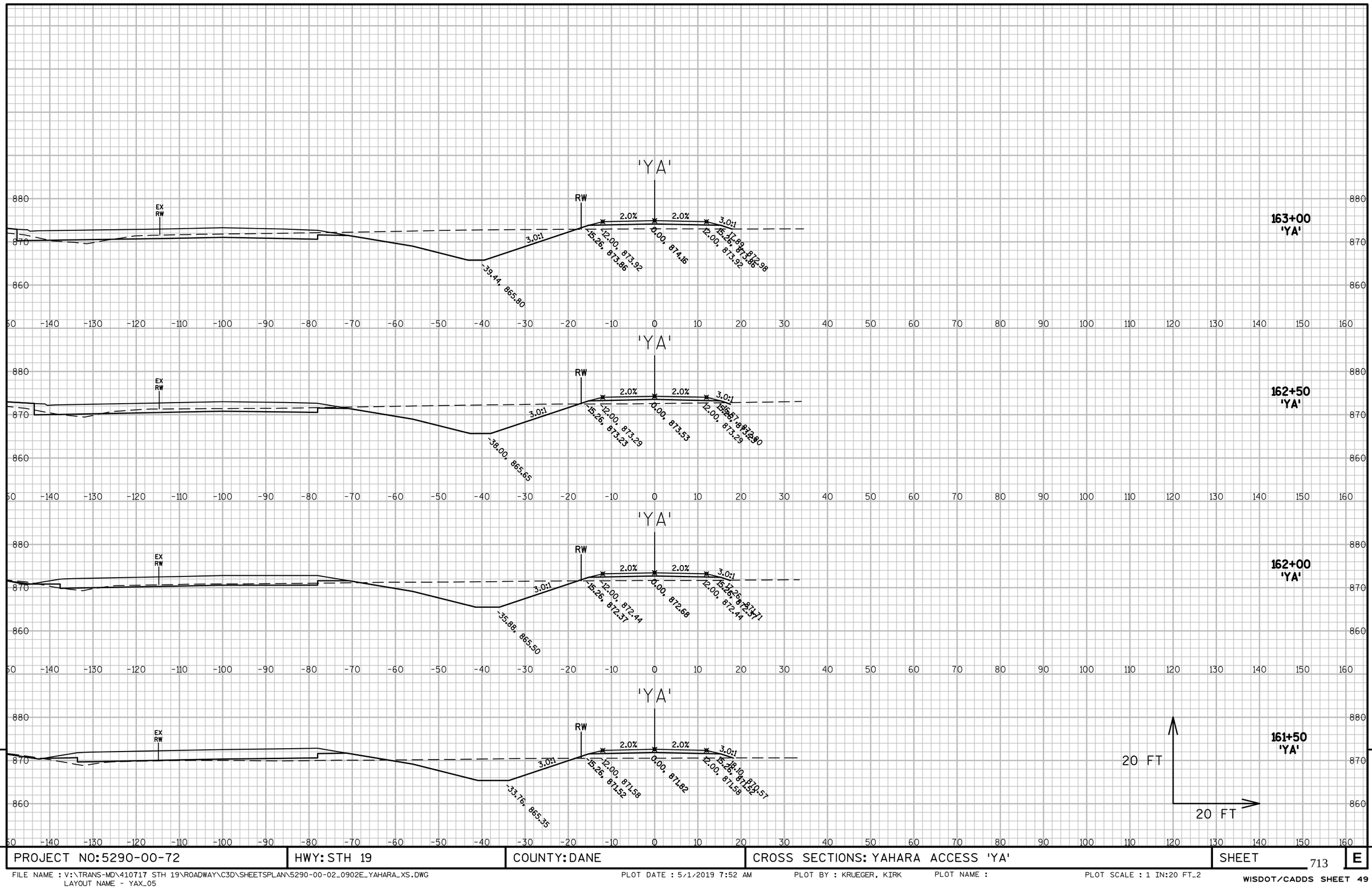


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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 712	E

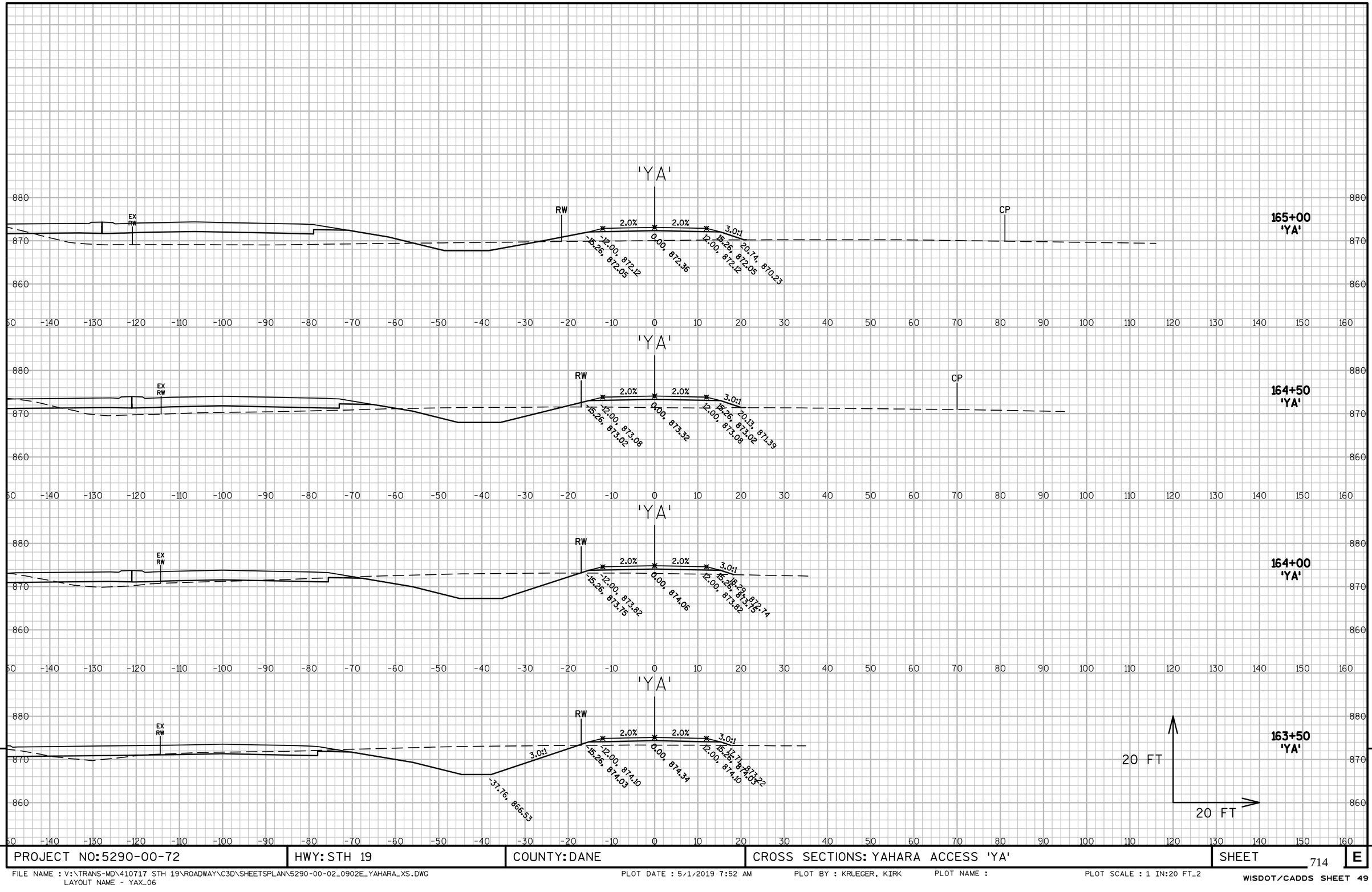
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_04
PLOT DATE : 5/1/2019 7:52 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT_2
WISDOT/CADDS SHEET 49



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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 713	E



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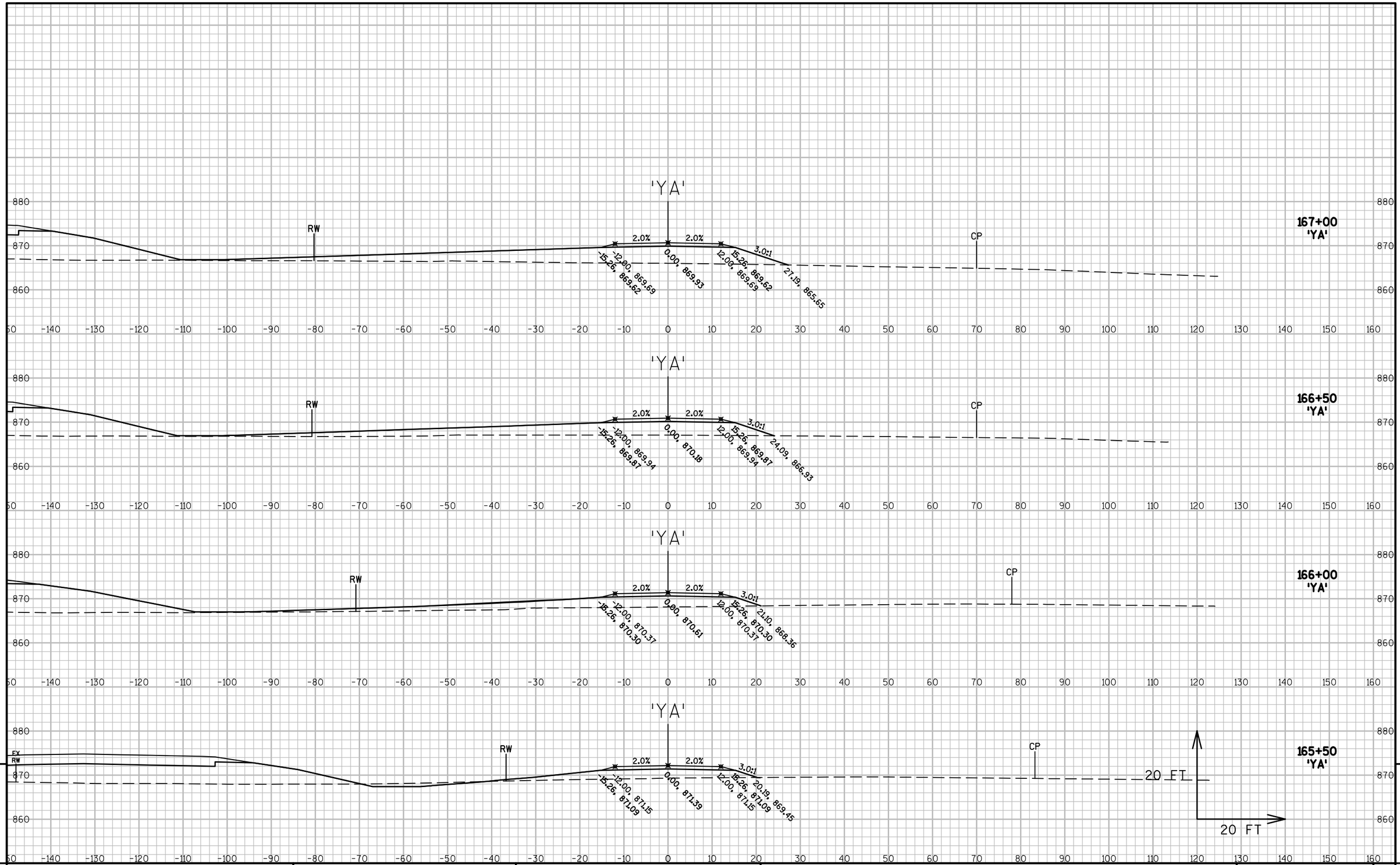
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 714	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_06

PLOT DATE : 5/1/2019 7:52 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_2

WISDOT/CADDS SHEET 49

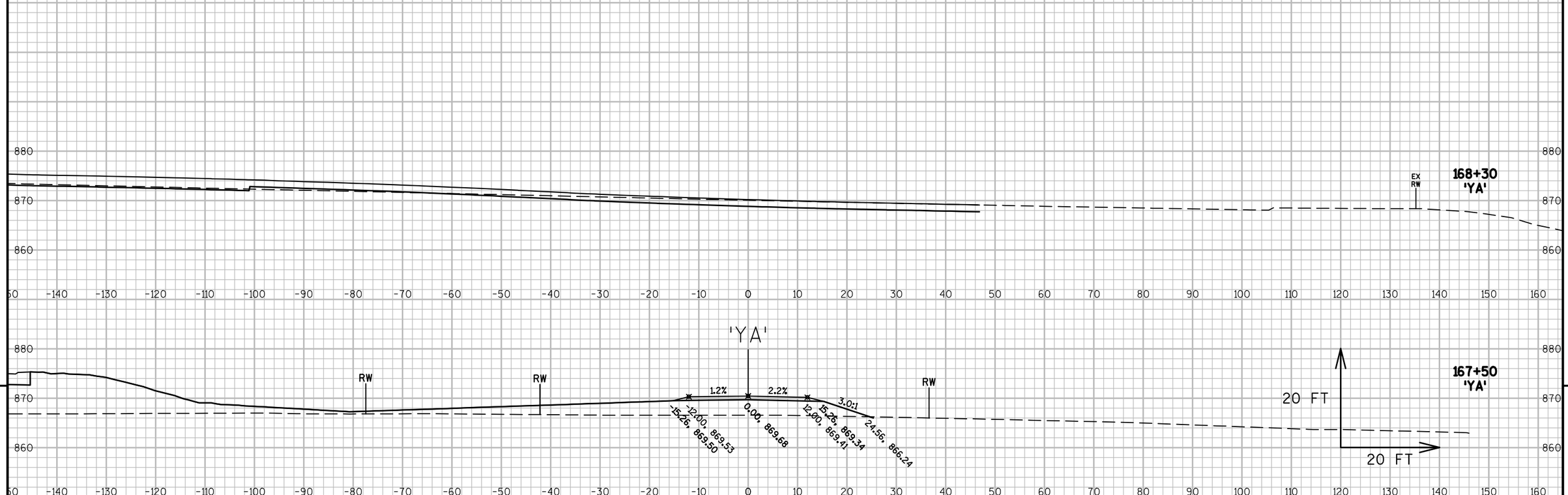


PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 715	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_07

PLOT DATE : 5/1/2019 7:52 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_2

WISDOT/CADDS SHEET 49



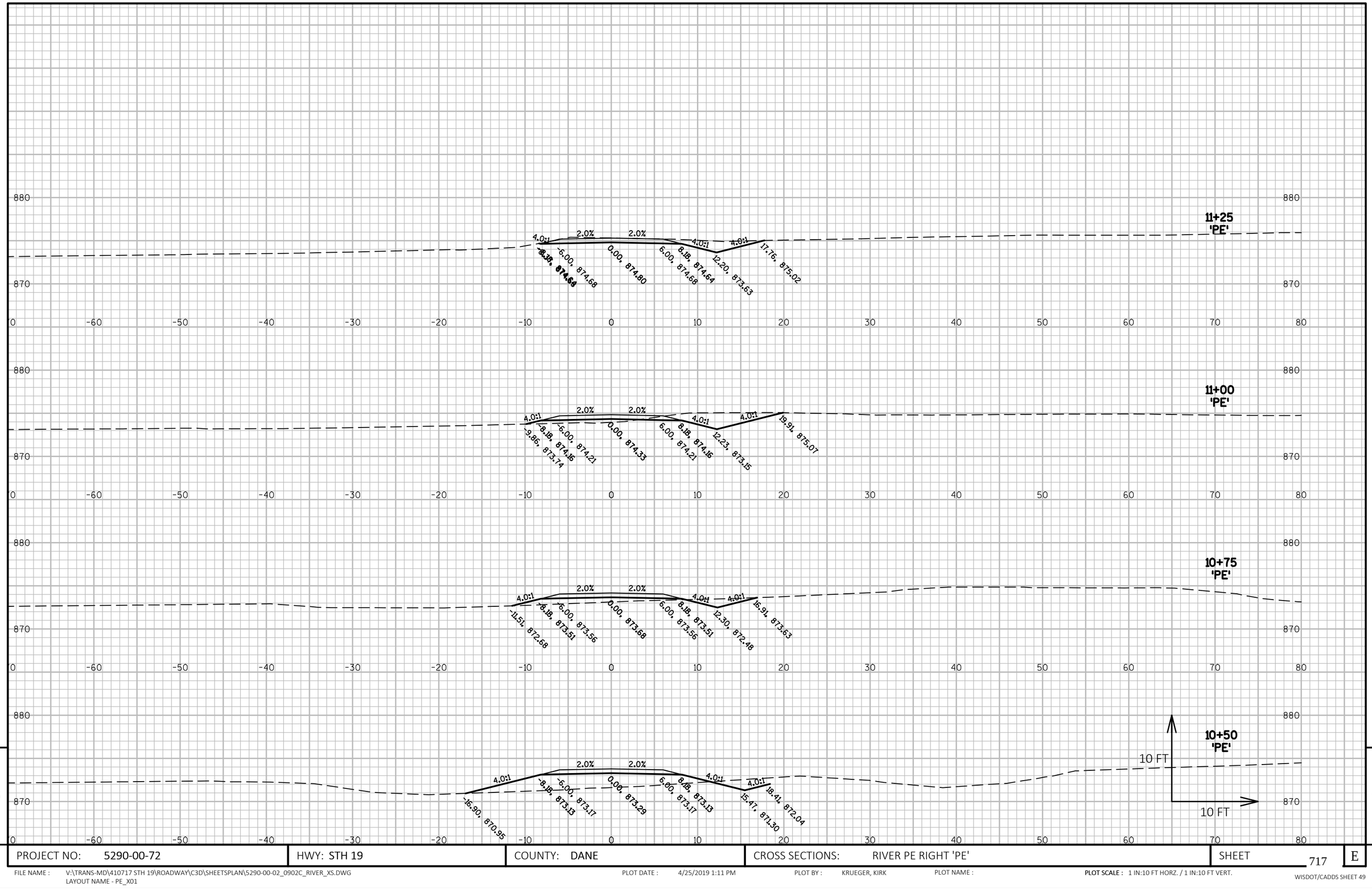
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PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: YAHARA ACCESS 'YA'	SHEET 716 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902E_YAHARA_XS.DWG
LAYOUT NAME - YAX_08

PLOT DATE : 5/1/2019 7:52 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:20 FT_2

WISDOT/CADDS SHEET 49



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: RIVER PE RIGHT 'PE'	SHEET 717 E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0902C_RIVER_XS.DWG
LAYOUT NAME - PE_X01

PLOT DATE : 4/25/2019 1:11 PM PLOT BY : KRUEGER, KIRK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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