WKE

NOVEMBER 2019

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes erosion control)
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 = 240

PROJECT ID: 3190-08-70

COUNTY: WALWORTH

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3190-08-70	WISC 2019688	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LAKE GENEVA - EAST TROY

N SIDE OF COMO CRK BRIDGE TO STH 36

STH 120
WALWORTH COUNTY

STATE PROJECT NUMBER
3190-08-70

19

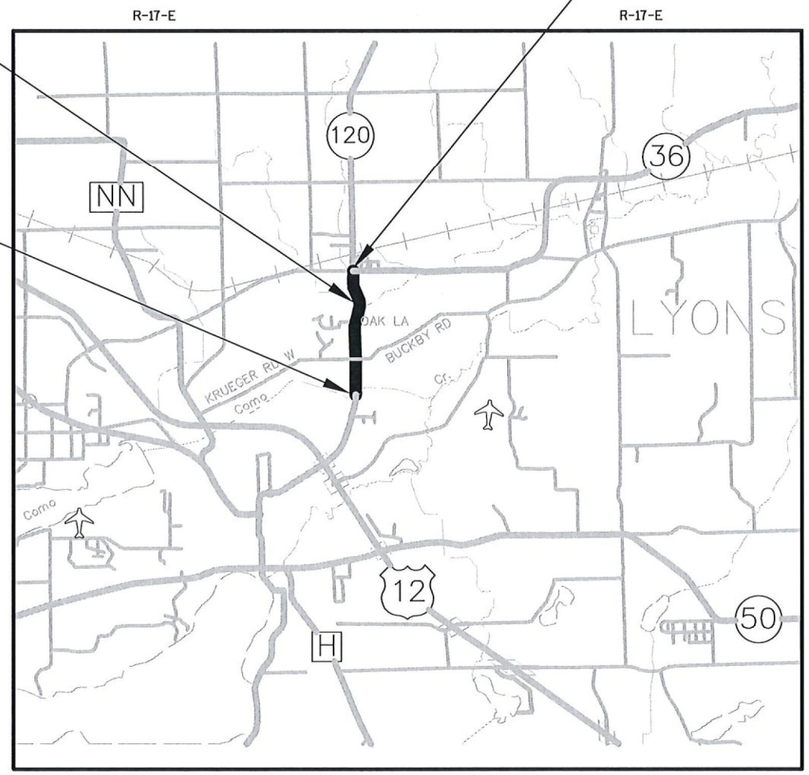
DESIGN DESIGNATION

A.A.D.T.(2015)	=	6200
A.A.D.T.(2035)	=	7400
D.H.V.	=	4.0%
D.D.	=	63/37
T.	=	6.0%
DESIGN SPEED	=	55 MPH
ESALS	=	980,000

STRUCTURE B-64-81
STH 120 OVER ORE CREEK

BEGIN PROJECT 3190-08-70
STA 158+80
Y = 346,764.42
X = 797,429.15

END PROJECT 3190-08-70
STA 230+65.45



CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

LAYOUT
SCALE 0 1

TOTAL NET LENGTH OF CENTERLINE = 1.361 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WALWORTH COUNTY, 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 NAVD88(2012).

ORIGINAL PLANS PREPARED BY

WISCONSIN
ANNE M. HOLZEM
E-43226
SHEBOYGAN, WI
PROFESSIONAL ENGINEER

4-22-19 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	TERRA TEC ENGINEERING, LLC
Designer	DONOHUE & ASSOCIATES, INC
Project Manager	GARY METZER
Regional Examiner	WisDOT
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 22APR2019 (Signature)

E

2

UTILITY CONTACTS

NICKOLAS BELTZ
ALLIANT ENERGY - ELECTRICITY
400B KOOPMAN LANE
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NICKOLASBELTZ@ALLIANTENERGY.COM

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RONALD GLENDENNING
WE ENERGIES - GAS/PETROLEUM
500 S 116TH ST
WEST ALLIS, WI 53214
(414) 333-1556
RONALD.GLENDENNING@WE-ENERGIES.COM

CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE, COUNTY, or TOWN LINE	———	ACCESS POINT/ DRIVEWAY CONNECTION	AP
SECTION LINE	———	ACCESS RIGHTS	AR
QUARTER LINE	———	ACRES	AC.
SIXTEENTH LINE	———	AND OTHERS	ET.AL.
PROPOSED REFERENCE LINE	———	CENTERLINE	C/L
PROPOSED R/W LINE	———	CERTIFIED SURVEY MAP	CSM
EXISTING H.E. LINE	———	DOCUMENT	DOC.
PROPERTY LINE	——·——	HIGHWAY EASEMENT	H.E.
EASEMENT LINE	———	LAND CONTRACT	LC
CORPORATE LIMITS	———	MONUMENT	MON.
EXISTING CENTERLINE	——·——	PAGE	P.
LOT & TIE LINES	——·——	PERMANENT LIMITED EASEMENT	PLE
UTILITIES (TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC)	——FO—— (TYPE)	PROPERTY LINE	PL
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	◆◆◆◆◆	RECORDED AS	(100')
NO ACCESS (BY ACQUISTION)	|||||||	REFERENCE LINE	R/L
NO ACCESS (BY STATUTORY AUTHORITY)	●●●●●●●	REMAINING	REM.
FEE (HATCH VARIES)		RIGHT-OF-WAY	R/W
TEMPORARY LIMITED EASEMENT		SECTION	SEC.
PERMANENT LIMITED EASEMENT		SQUARE FEET	SQ.FT.
PARCEL NUMBER	102	STATION	STA.
UTILITY PARCEL NUMBER	92	TEMPORARY LIMITED EASEMENT	TLE
SIGN NUMBER (OFF PREMISE)	21-1	VOLUME	V.
BUILDING			
FOUND IRON PIPE/PIN	LS (1" UNLESS NOTED)		
R/W MONUMENT	○ ●(SET)		
R/W STANDARD	△ ▲(SET)		
SIGN	|SIGN		
SECTION CORNER SYMBOL			

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

	NON COMPENSABLE	COMPENSABLE
POWER POLE	○	●
TELEPHONE POLE	⌀	⌀
TELEPHONE PEDESTAL	⌑	⌑

GENERAL NOTES:

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (JOHN WASHBURN) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY SECTION CORNER MONUMENT.

CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL DISTURBED AREAS WITHIN THE SLOPE INTERCEPTS SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER AND MULCH/EMAT AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. ANY OTHER DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED AND MULCHED AT THE CONTRACTORS EXPENSE.

ALL ITEMS LOCATED IN TEMPORARY LIMITED EASEMENT AREA, AT GROUND LEVEL, WILL BE REPLACED IN KIND UNLESS NOTED OTHERWISE IN PLANS.

THE EXACT LOCATION AND WIDTHS OF PRIVATE AND COMMERCIAL DRIVEWAYS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE REPLACED IN KIND.

ALL DISTANCES ARE GROUND DISTANCES. TIES ARE HORIZONTAL UNLESS SHOWN OTHERWISE.

TREES DESIGNATED FOR REMOVAL ARE SHOWN ON THE PLANS. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE CONTROL SURVEY CONDUCTED FOR THIS PROJECT MET THIRD ORDER CONTROL SURVEY SPECIFICATIONS.

EXCAVATION BELOW SUBGRADE (EBS) LOCATIONS ARE NOT SHOWN ON THE CROSS SECTIONS. IF EBS IS DETERMINED NECESSARY BY THE ENGINEER IN THE FIELD IT SHALL BE MEASURED AND PAID FOR AS EXCAVATION COMMON. BACKFILL EBS AREAS WITH SELECT CRUSHED MATERIAL. LATERAL TRANSITIONS OUT OF EBS AREAS SHALL BE AT A 5:1 SLOPE.

EROSION CONTROL BMP'S ARE SHOWN ON THE EROSION CONTROL SHEETS AND IN THE SUMMARY OF MISCELLANEOUS QUANTITIES. BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER IN THE FIELD. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

HMA PAVEMENT

- LOWER LAYER 3-INCH HMA PAVEMENT 3 LT 58-28 S
- UPPER LAYER 2-INCH HMA PAVEMENT 4 LT 58-28 S

UTILITY

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

ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
CURB RAMP DETAILS
EROSION CONTROL PLAN
PERMANENT SIGNING
TRAFFIC CONTROL
ALIGNMENT LAYOUT
ALIGNMENT LAYOUT SURVEY CONTROL

2

DNR CONTACT

CRAIG WEBSTER
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141 NW BARSTOW STREET
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WAUKESHA, WI 53188
(262) 574-2141
CRAIG.WEBSTER@WISCONSIN.GOV

WISDOT PROJECT MANAGER CONTACT

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141 NW BARSTOW STREET
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SEWRPC CONTACT

JOHN WASHBURN
SOUTHEASTERN WISCONCIN REGIONAL PLANNING COMMISSION
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WAUKESHA, WI 53187-1607
PHONE: (262) 953-4295
FAX: (262 953-4295
EMAIL: JWASHBURN@SEWRPC.ORG

DESIGNER CONTACT

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3311 WEEDEN CREEK ROAD
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AHOLZEM@DONOHUE-ASSOCIATES.COM

2

N

PT: 154+72.09

COMO CREEK

IMPROVEMENTS
- TURN LANE TO CHURCH
- BY-PASS LANE

INTERSECTION IMPROVEMENTS
- TYPE B1 INTERSECTION

KRUEGER ROAD

PI: 178+93.44

BP: 7+00.00

PI: 187+17.77

PC: 195+57.52

OAK LANE

BP: 11+50.00

PT: 200+68.02

PC: 202+73.30

PT: 215+19.70

PC: 217+83.59

PT: 222+56.94

PI: 223+68.01

STH 36

155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230

PI: 9+97.57

EP: 13+00.00

BUCKBY ROAD

INTERSECTION IMPROVEMENTS
- TYPE B1 INTERSECTION
- BY-PASS LANE

EP: 15+01.51

ORE CREEK

IMPROVEMENTS
- GUARDRAIL REPLACEMENT
- INLET REPAIR
- EPOXY OVERLAY

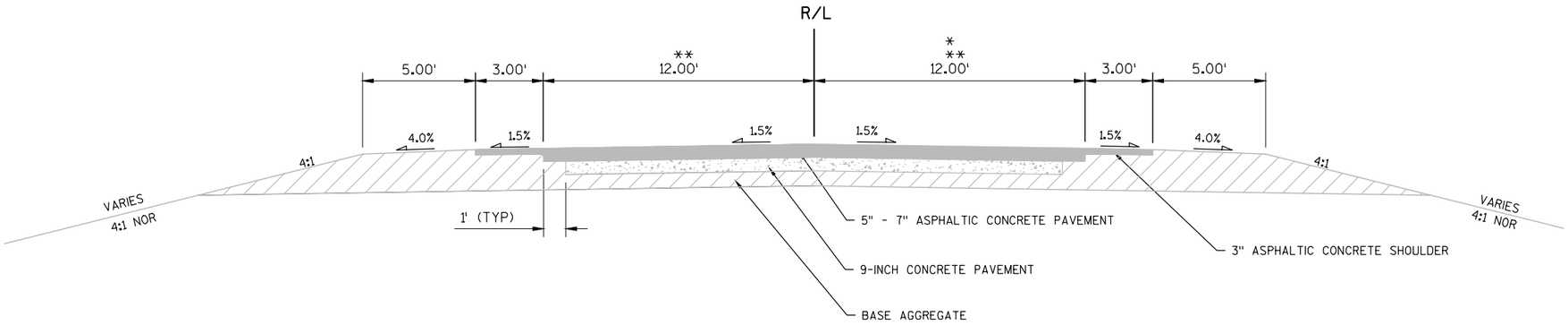
BEGIN PROJECT
STATION 158+80

END PROJECT
STATION 230+65.45

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\020201_PO.DWG PLOT DATE : 8/16/2019 12:56 PM PLOT BY : GRUNWALD, BEN PLOT NAME : ----------

2



EXISTING TYPICAL SECTION STH 120

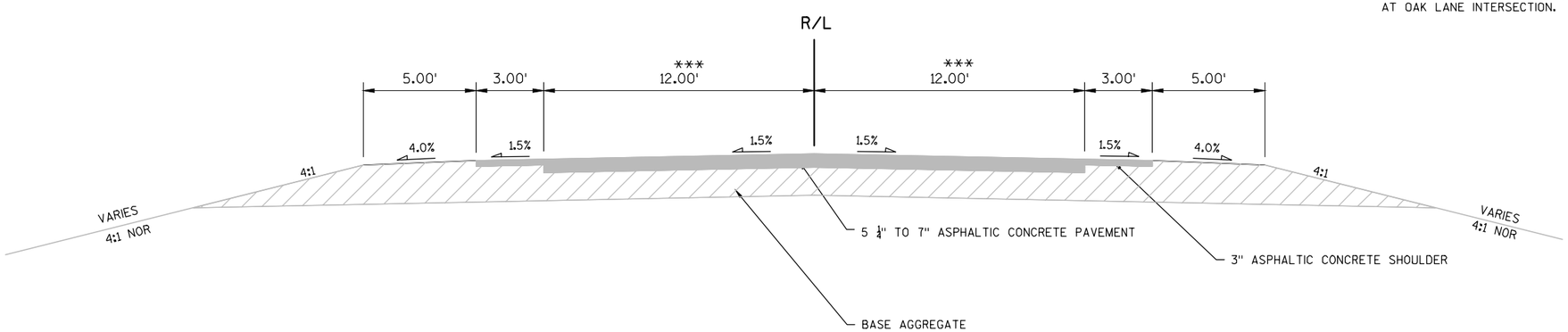
STA 159+80 TO STA 193+00
STA 215+00 TO STA 227+00

NOTES:

* WIDTH VARIES FOR BYPASS LANE
22' FROM STA 159+80 TO STA 161+00
TAPER FROM 22' TO 12' FROM STA 161+00 TO STA 163+50
12' FROM STA 163+60 TO STA 193+00

** WIDTHS VARY FROM 12' TO 20' FOR INTERSECTION TAPERS AT BUCKLEY ROAD/KRUEGER RD INTERSECTION.

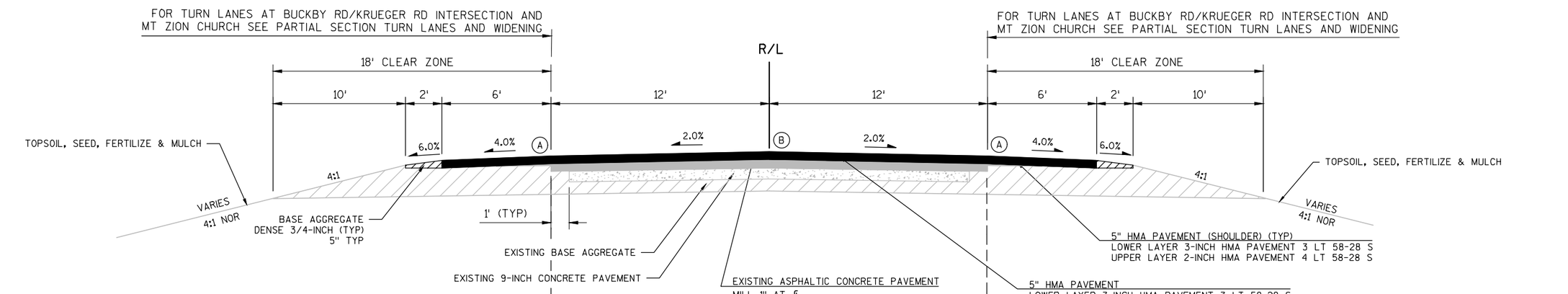
*** WIDTHS VARY FROM 12' TO 20' FOR INTERSECTION TAPERS AT OAK LANE INTERSECTION.



EXISTING TYPICAL SECTION STH 120

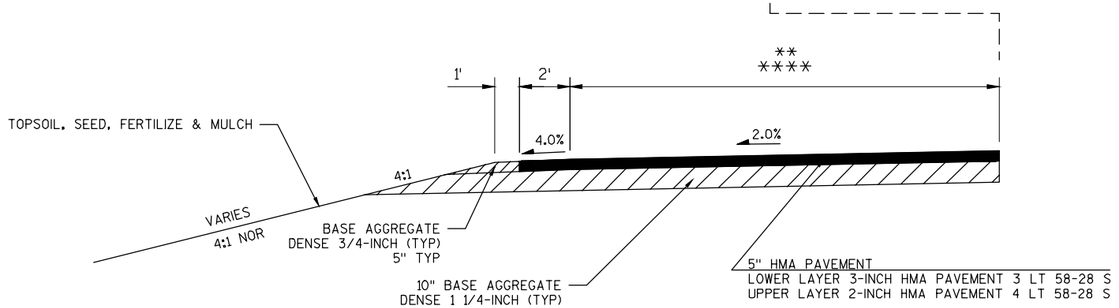
STA 193+00 TO STA 215+00

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	TYPICAL SECTIONS - EXISTING	SHEET 4	E



FINISHED TYPICAL SECTION STH 120

STA 158+80 TO STA 193+00
STA 215+00 TO STA 227+00

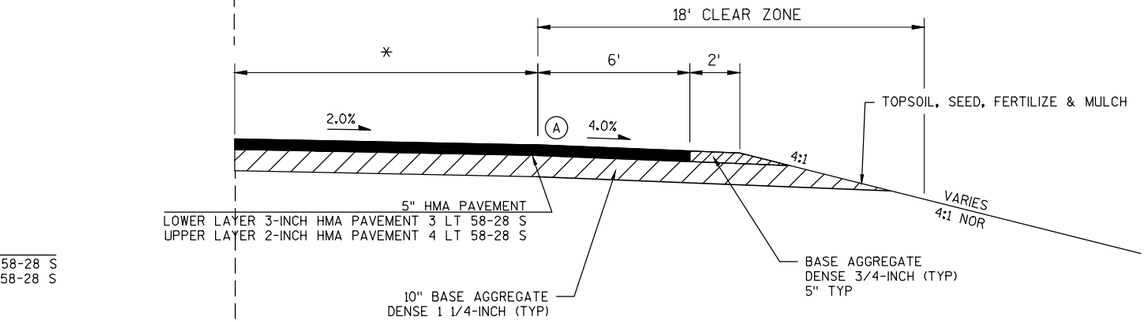


FINISHED TYPICAL SECTION RIGHT TURN LANE - KRUEGER RD

STA 175+15.55 TO STA 181+58.00
**** WIDTH VARIES FOR RIGHT TURN LANE
TAPERS FROM 0' AT STA. 175+15.55 TO 12' AT STA. 176+15.55
12' FROM STA 176+15.55 TO STA 180+45.50
TAPERS FROM 12' AT STA 180+45.50 TO 0' AT STA 181+58.00

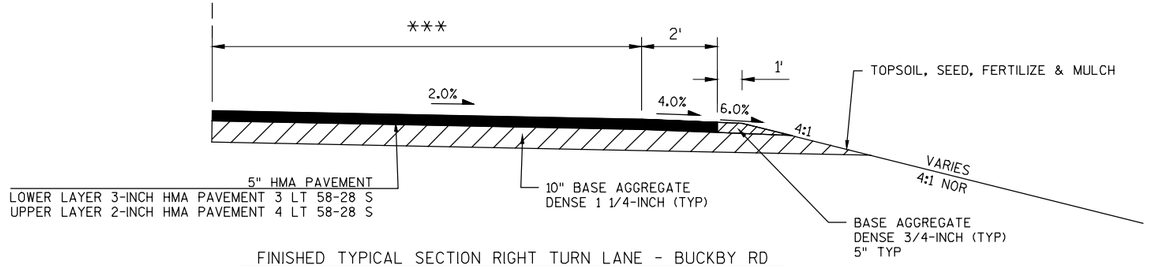
FINISHED TYPICAL SECTION RIGHT TURN LANE - MT. ZION CHURCH

STA 158+80.00 TO STA 164+97.00
** WIDTH VARIES FOR RIGHT TURN LANE
TAPERS FROM 0' AT STA 158+80.00 TO 12' AT STA 159+80.00
12' FROM STA 159+80.00 TO STA 162+84.50
TAPERS FROM 12' AT STA 162+84.50 TO 0' AT STA 164+97.00



FINISHED TYPICAL SECTION BYPASS LANE - MT. ZION CHURCH

STA 158+80.00 TO STA 165+00.00
* WIDTH VARIES FOR BYPASS LANE
12' FROM STA 158+80.00 TO STA 161+25.00
TAPERS FROM 12' AT STA 161+25.00 TO 0' AT STA 165+00.00



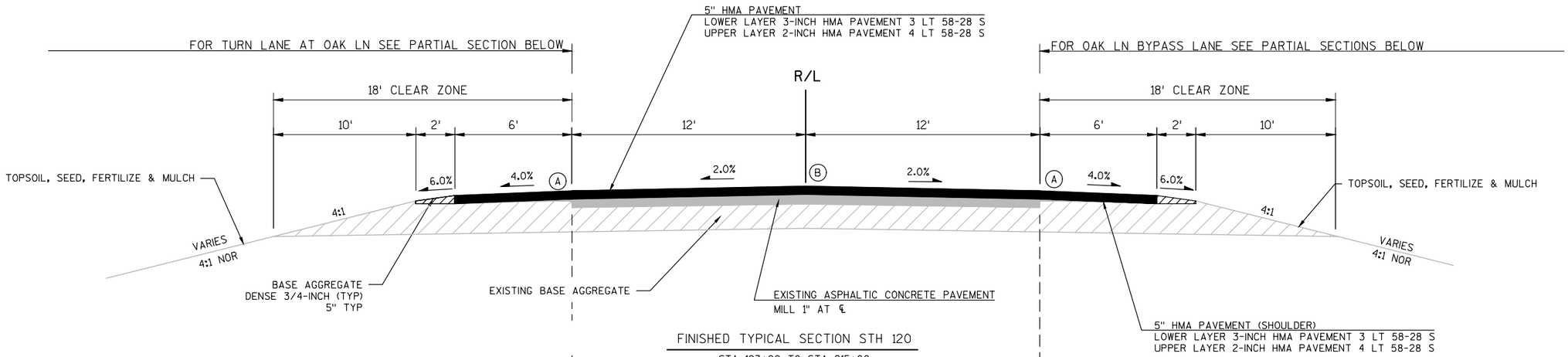
FINISHED TYPICAL SECTION RIGHT TURN LANE - BUCKBY RD

STA 170+82.50 TO STA 178+25.15
*** WIDTH VARIES FOR RIGHT TURN LANE
TAPERS FROM 0' AT STA 170+82.50 TO 17' AT STA 172+95.00
17' FROM STA. 172+95.00 TO STA. 175+95.00
TAPERS FROM 12' AT STA. 177+25.15 TO 0' AT STA. 178+25.15

(A) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL

(B) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL

SEE STANDARD DETAIL DRAWINGS AND MISCELLANEOUS QUANTITIES FOR LOCATIONS.



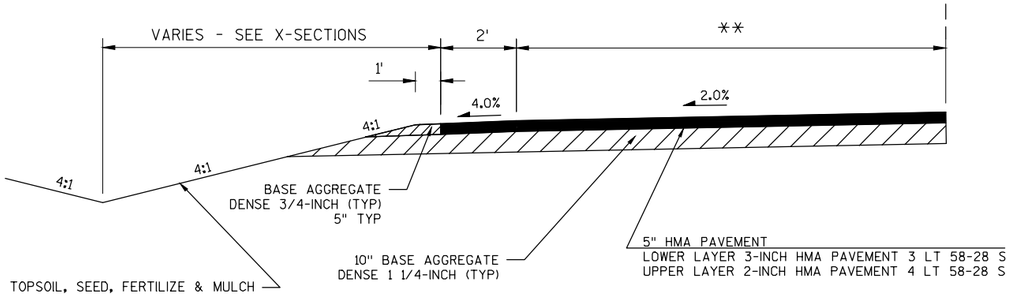
FINISHED TYPICAL SECTION STH 120

STA 193+00 TO STA 215+00

(A) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL

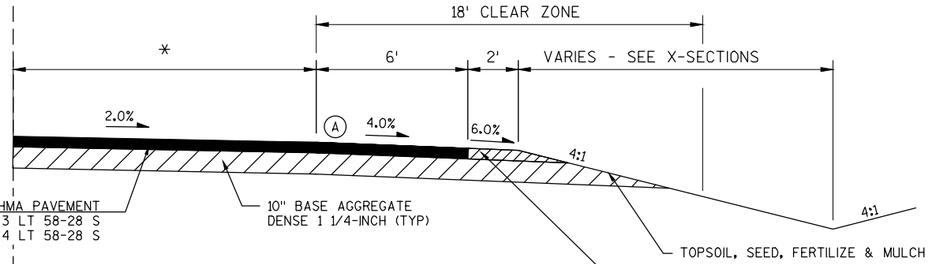
(B) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL

SEE STANDARD DETAIL DRAWINGS AND MISCELLANEOUS QUANTITIES FOR LOCATIONS.



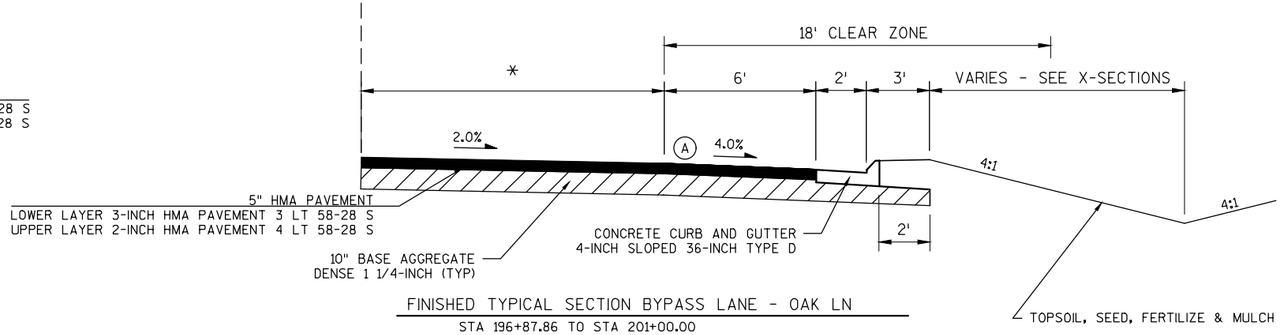
FINISHED TYPICAL SECTION RIGHT TURN LANE - OAK LN

STA 196+72.55 TO STA 202+94.35
** WIDTH VARIES FOR RIGHT TURN LANE
TAPERS FROM 0' AT STA. 196+72.55 TO 10' AT STA. 197+72.55
17' FROM STA. 198+81.85 TO STA. 200+81.85
TAPERS FROM 17' AT STA 200+81.85 TO 0' AT STA 202+94.35



FINISHED TYPICAL SECTION BYPASS LANE - OAK LN

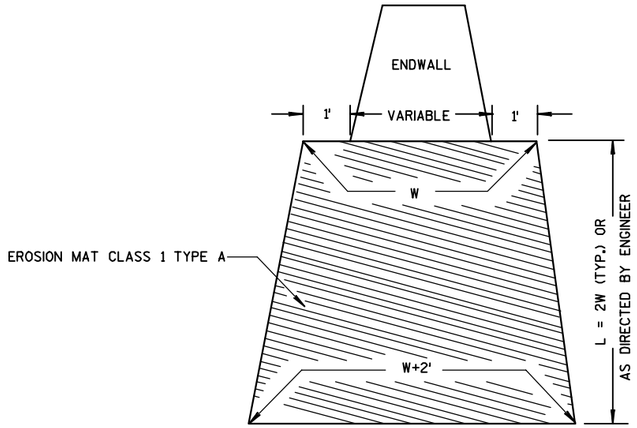
STA 194+70.86 TO STA 196+87.86 AND STA. 201+00.00 TO STA. 202+65.55
* WIDTH VARIES FOR BYPASS LANE
TAPERS FROM 0' AT STA 194+70.86 TO 12' AT STA 196+87.86
TAPERS FROM 6.2' AT STA 201+00.00 TO 0' AT STA 202+65.55



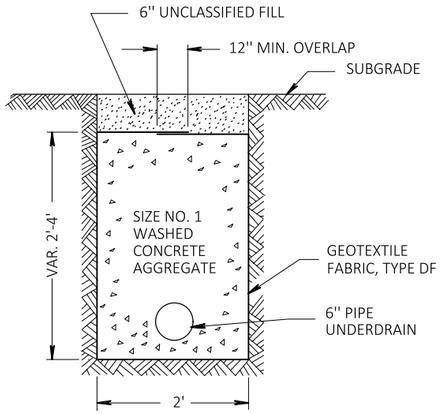
FINISHED TYPICAL SECTION BYPASS LANE - OAK LN

STA 196+87.86 TO STA 201+00.00
* WIDTH VARIES FOR BYPASS LANE
12' FROM STA 196+87.86 TO STA 199+40.55
TAPERS FROM 12' AT STA 199+40.55 TO 6.2' AT STA. 201+00.00

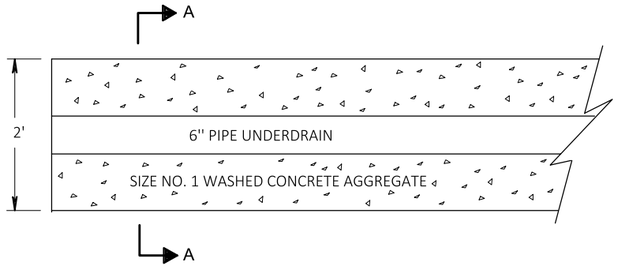
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	TYPICAL SECTIONS - FINISHED	SHEET 6	E



EROSION MAT TREATMENT AT CULVERTS

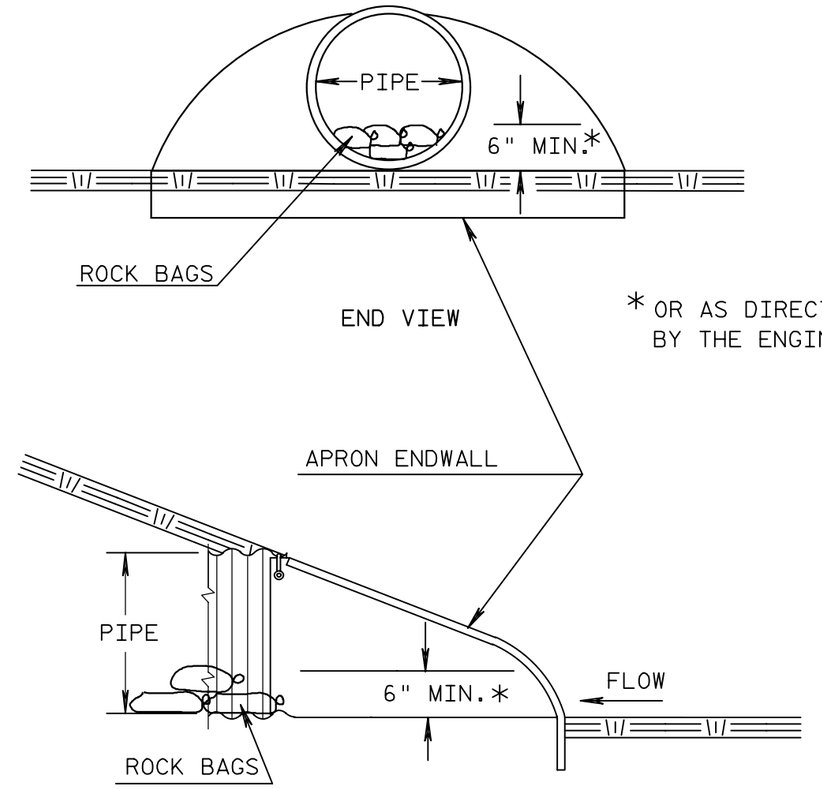


SECTION A-A
(WITH PIPE UNDERDRAIN)

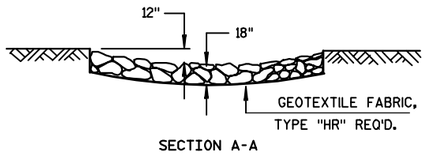


PLAN VIEW

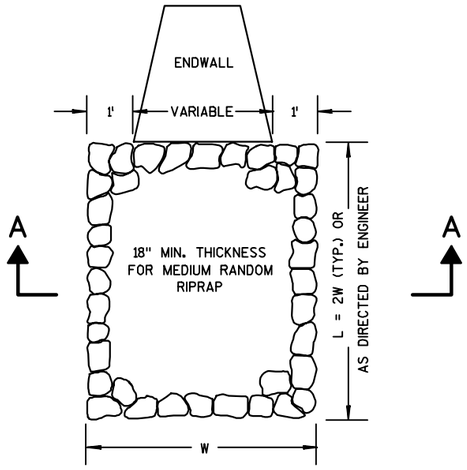
FRENCH DRAIN DETAIL



SIDE VIEW



SECTION A-A

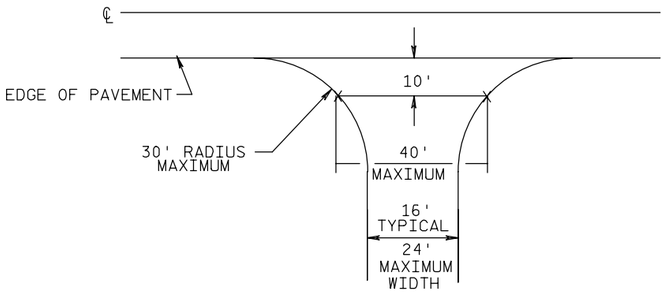


MEDIUM RANDOM RIPRAP TREATMENT AT CULVERTS

CULVERT PIPE DITCH CHECK

ESTIMATED BAG SIZE = 18" X 12" X 6"

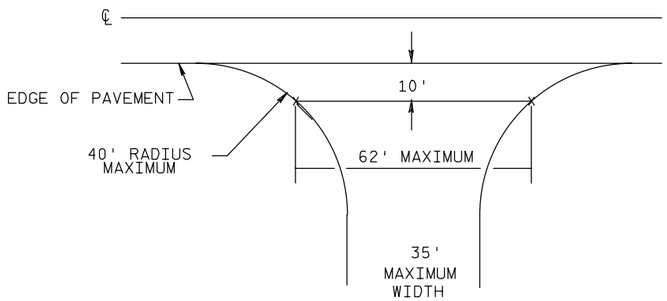
PIPE SIZE	# ROCK BAGS
12"	1
15"	2
18"	2
21"	3
14"X23"	3
24"	3
27"	4
30"	5
19"X30"	5
36"	7
24"X38"	8
42"	8
29"X45"	10
48"	10
34'X53"	10
38'X60"	13
60"	13
66"	15
53"X83"	19



TYPICAL DRIVEWAY DETAIL

(NON-COMMERCIAL RURAL)

C.E.

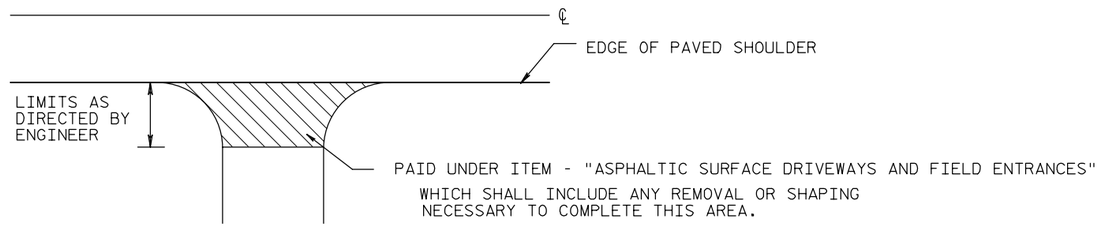


TYPICAL DRIVEWAY DETAIL

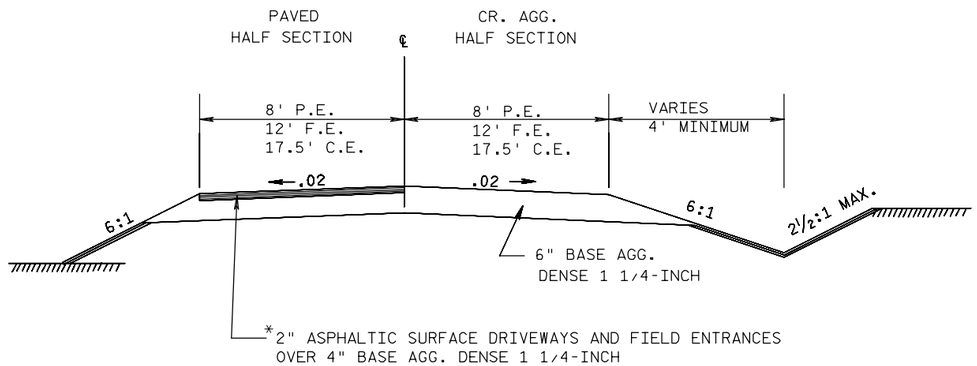
(COMMERCIAL RURAL)

P.E.
F.E.

RURAL DRIVEWAY DETAIL - ASPHALT



ANY ADDITIONAL BASE AGG. DENSE REQ'D. SHALL BE PAID
UNDER ITEM - "BASE AGGREGATE DENSE 1 1/4-INCH"



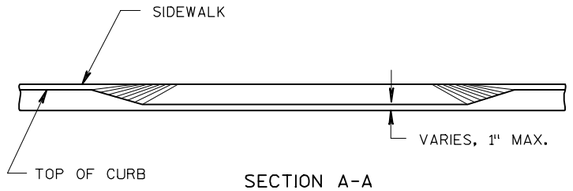
*OR MATCH EXIST.
ASPH. DEPTH

TYPICAL SECTION
FOR PRIVATE ENTRANCES

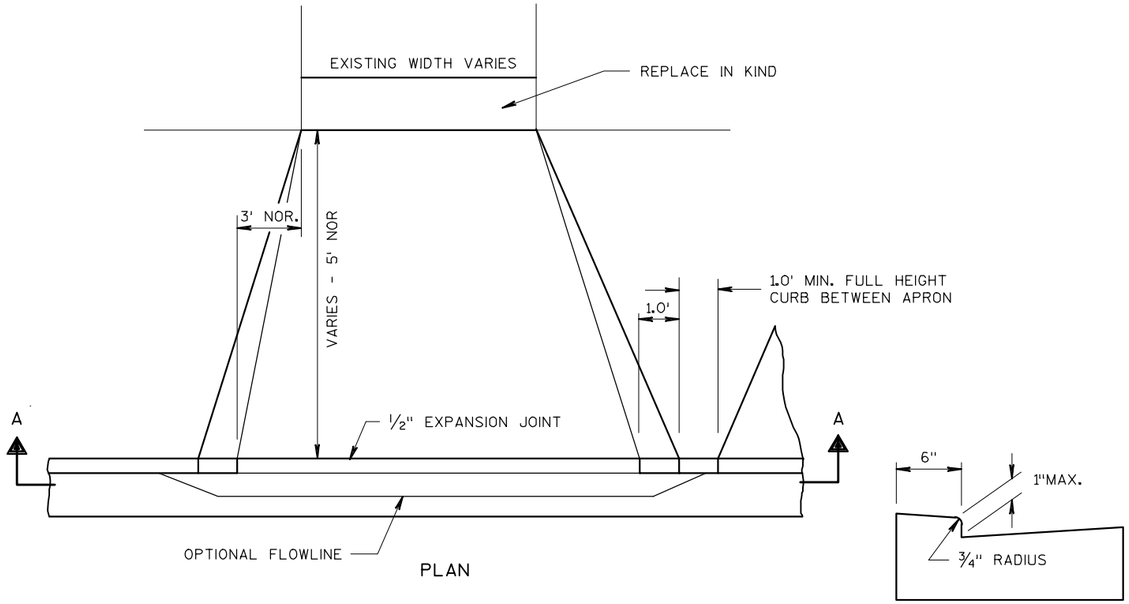
NOTE:

PAVE DRIVEWAYS THAT ARE CURRENTLY PAVED OR THAT HAVE GRADES STEEPER THAN 8%. PLACE LOW POINT OF DRIVEWAY PROFILE OVER DITCH FLOW LINE.

2



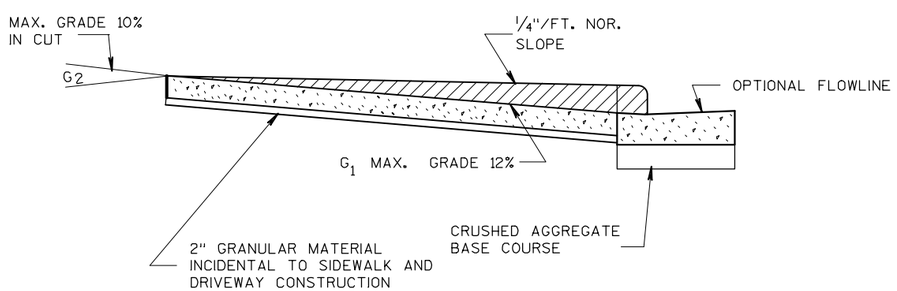
SECTION A-A



PLAN

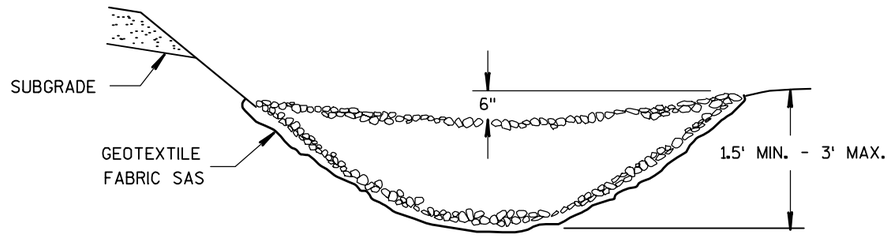
OPTIONAL METHOD FOR CONCRETE GUTTER

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G_1 & G_2 EXTENDED IN FILLS, MAX. 15%

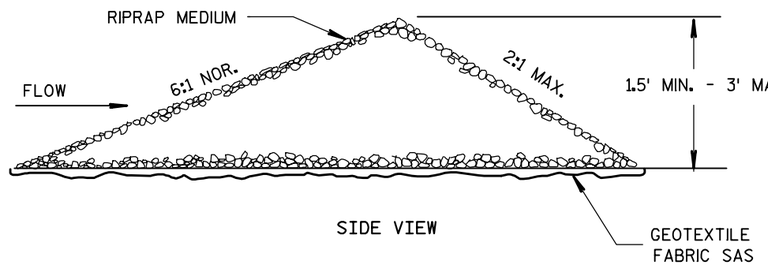


PROFILE

URBAN DRIVEWAY DETAIL

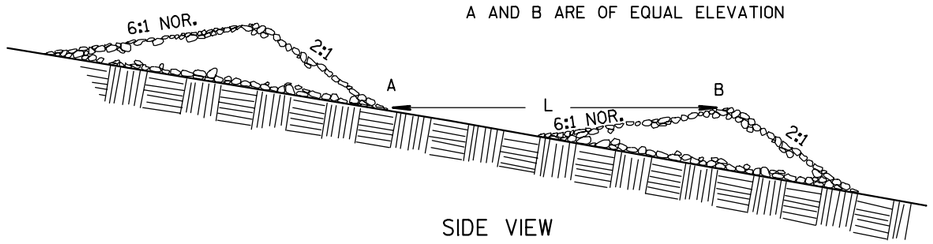


CROSS SECTIONAL VIEW



SIDE VIEW

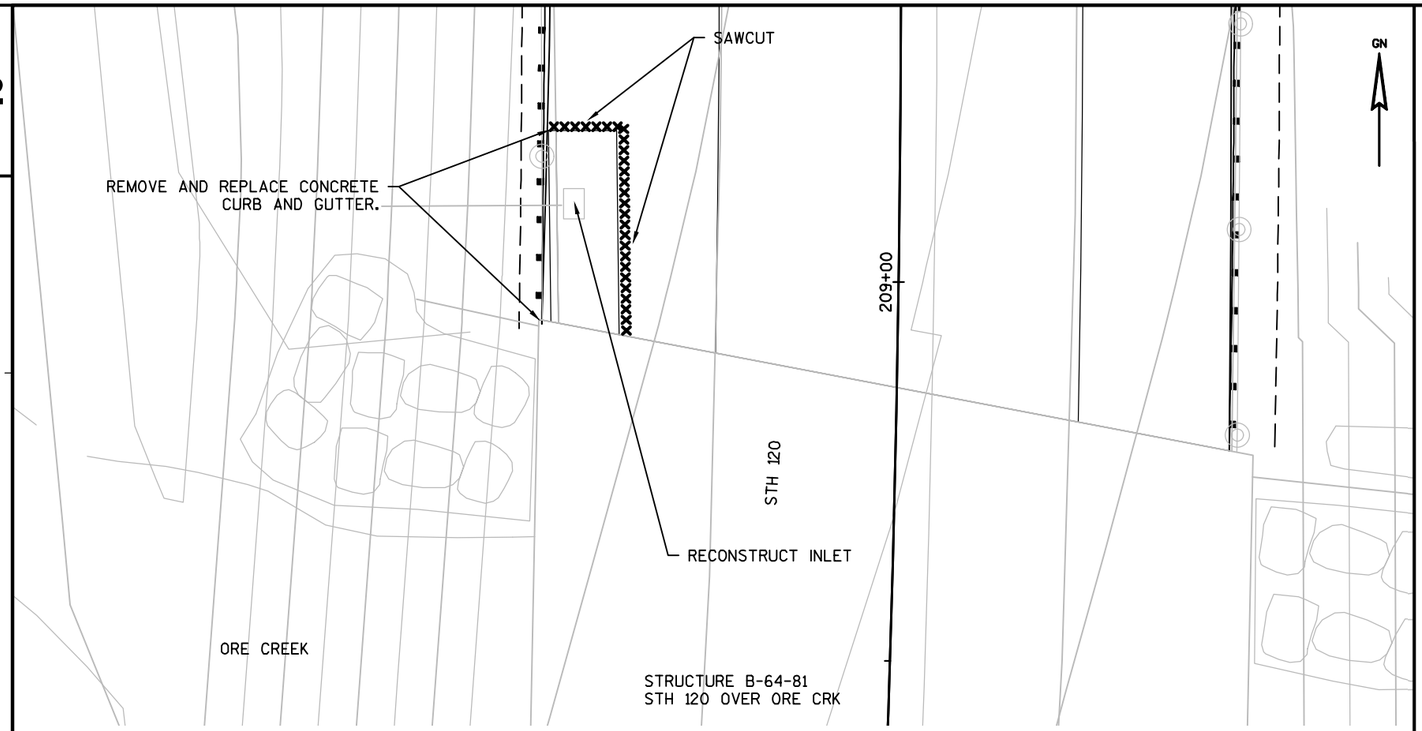
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

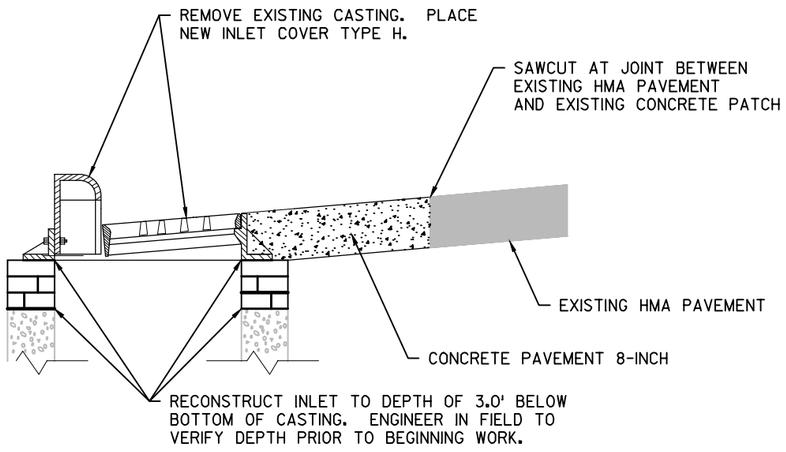


SIDE VIEW

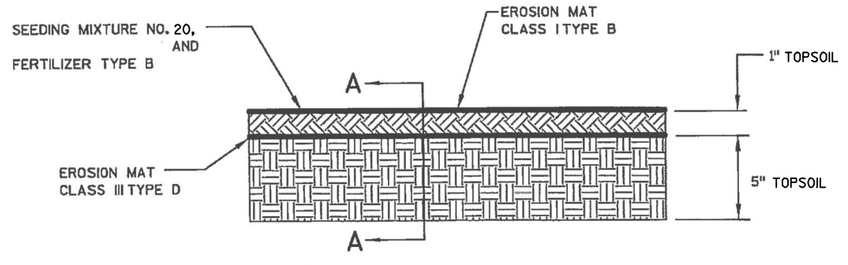
PERMANENT STONE DITCH CHECK

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CONSTRUCTION DETAILS	SHEET 9	E





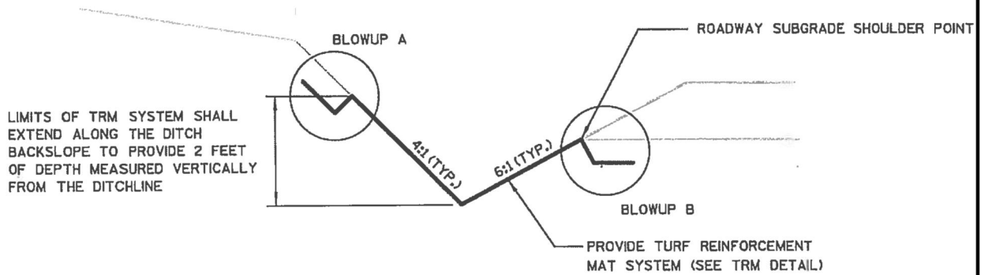
INLET RECONSTRUCTION DETAIL



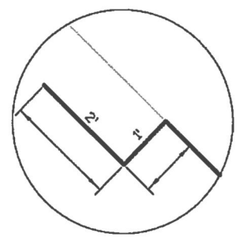
NO SCALE

TURF REINFORCEMENT MAT (TRM) SYSTEM

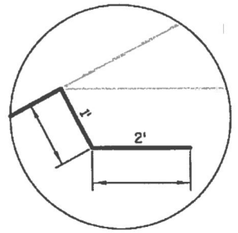
CROSS SECTION VIEW



TRM PLACEMENT LIMITS



BLOWUP A



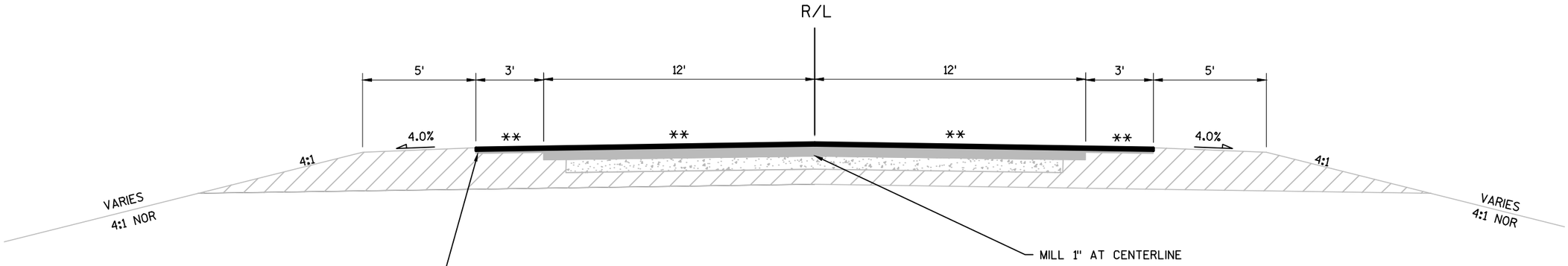
BLOWUP B

NO SCALE

TURF REINFORCEMENT MAT (TRM) SYSTEM

SEE EROSION CONTROL AND MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS

2



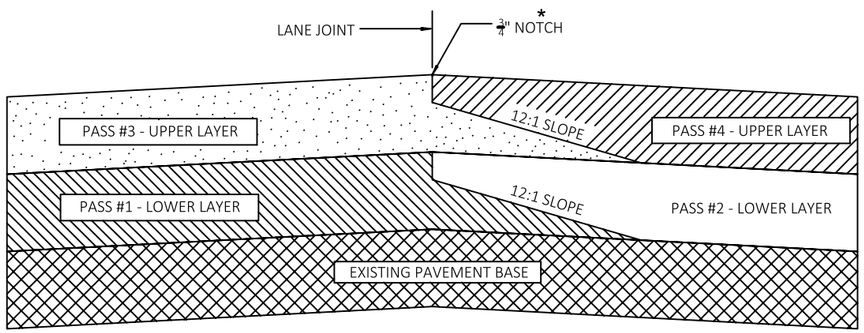
** = EXISTING CROSS SLOPE IS 1.5%. CORRECT SLOPE AND MILL AT 2% CROSS SLOPE TO CENTERLINE. MILL MINIMUM 1" DEPTH AT CENTERLINE. MILL DEPTH AT SHOULDER WILL VARY.

CORRECT CROSS SLOPES IN ALL AREAS THAT ARE NOT SUPERELEVATED.

IN HORIZONTAL CURVES THAT HAVE SUPERELEVATION, MILL THE ENTIRE PAVEMENT 1" AT THE EXISTING CROSS SLOPE.

CROSS SLOPE CORRECTION DETAIL

STA 158+80 TO STA 231+34.10



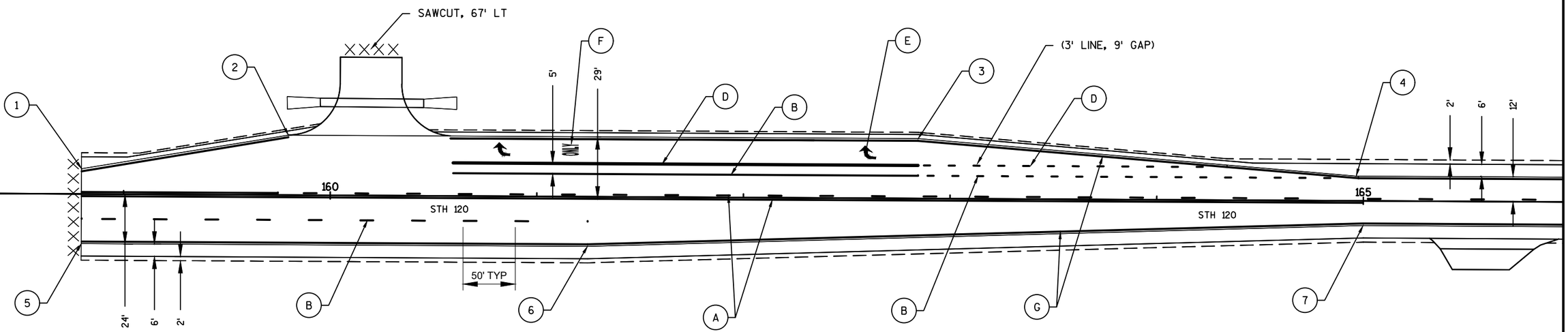
(LOWER AND UPPER LAYERS)

TYPICAL PAVEMENT CROSS SECTIONS OF TAPERED AND NOTCHED LONGITUDINAL JOINTS

*NOTE: NOTCHED WEDGE SHOULD NOT BE MILLED OUT BETWEEN LAYERS

NOTES

SEE SECTION 648.3.2 OF THE STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION ON LOCATING NO-PASSING ZONES.



POINT TABLE			
PT #	DESCRIPTION	STATION	OFFSET
1	ANGLE POINT	158+80.00	-12
2	ANGLE POINT	159+80.00	-29
3	ANGLE POINT	162+85.00	-29
4	ANGLE POINT	164+97.50	-12
5	ANGLE POINT	158+80.00	24
6	ANGLE POINT	161+25.00	24
7	ANGLE POINT	165+00.00	12

PAVEMENT MARKING LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (WHITE)
- (C) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (D) MARKING LINE EPOXY 8-INCH (WHITE)
- (E) MARKING ARROW EPOXY (WHITE)
- (F) MARKING WORD EPOXY (WHITE)
- (G) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	INTERSECTION DETAILS AND PAVEMENT MARKING - MT ZION CHURCH	SHEET 12	E

RADIUS INFORMATION

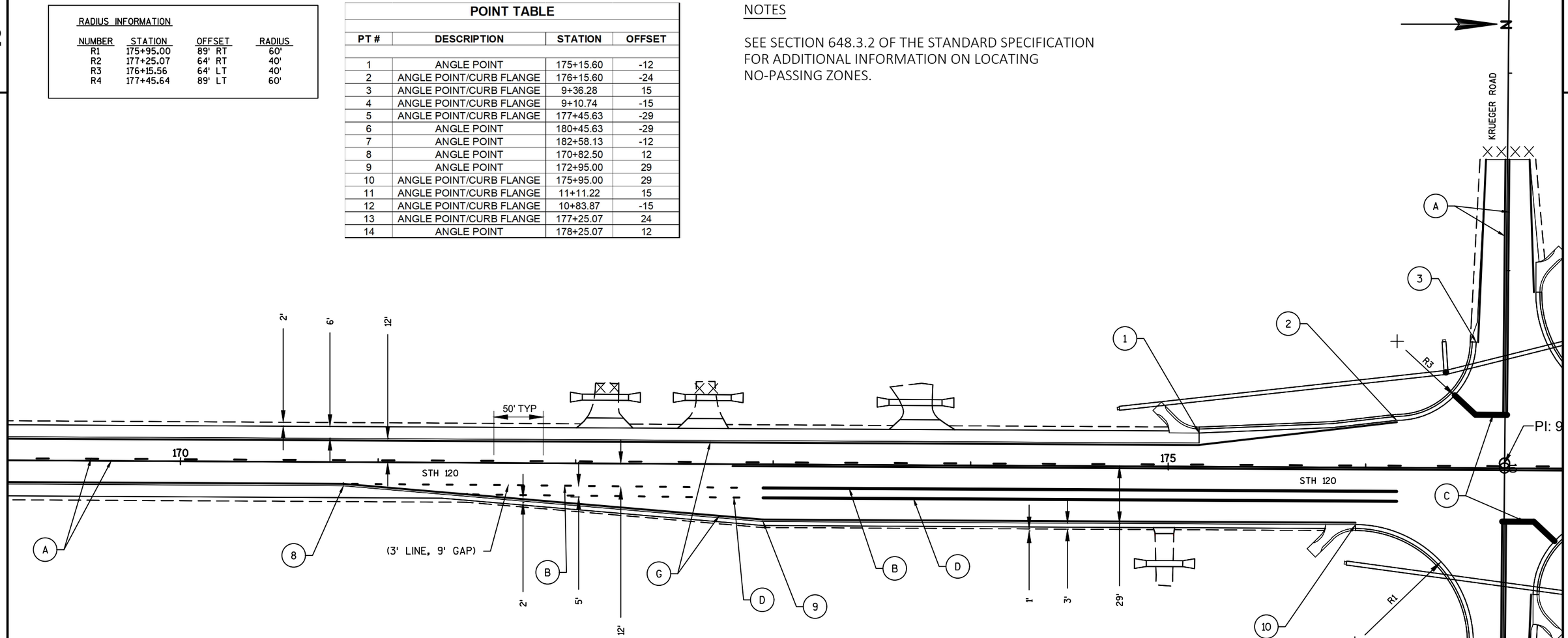
NUMBER	STATION	OFFSET	RADIUS
R1	175+95.00	89' RT	60'
R2	177+25.07	64' RT	40'
R3	176+15.56	64' LT	40'
R4	177+45.64	89' LT	60'

POINT TABLE

PT #	DESCRIPTION	STATION	OFFSET
1	ANGLE POINT	175+15.60	-12
2	ANGLE POINT/CURB FLANGE	176+15.60	-24
3	ANGLE POINT/CURB FLANGE	9+36.28	15
4	ANGLE POINT/CURB FLANGE	9+10.74	-15
5	ANGLE POINT/CURB FLANGE	177+45.63	-29
6	ANGLE POINT	180+45.63	-29
7	ANGLE POINT	182+58.13	-12
8	ANGLE POINT	170+82.50	12
9	ANGLE POINT	172+95.00	29
10	ANGLE POINT/CURB FLANGE	175+95.00	29
11	ANGLE POINT/CURB FLANGE	11+11.22	15
12	ANGLE POINT/CURB FLANGE	10+83.87	-15
13	ANGLE POINT/CURB FLANGE	177+25.07	24
14	ANGLE POINT	178+25.07	12

NOTES

SEE SECTION 648.3.2 OF THE STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION ON LOCATING NO-PASSING ZONES.



PAVEMENT MARKING LEGEND

(A) MARKING LINE EPOXY 4-INCH (YELLOW)

(B) MARKING LINE EPOXY 4-INCH (WHITE)

(C) MARKING STOP LINE EPOXY 18-INCH (WHITE)

(D) MARKING LINE EPOXY 8-INCH (WHITE)

(E) MARKING ARROW EPOXY (WHITE)

(F) MARKING WORD EPOXY (WHITE)

(G) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	INTERSECTION DETAILS AND PAVEMENT MARKING	SHEET 13	E

RADIUS INFORMATION

NUMBER	STATION	OFFSET	RADIUS
R1	175+95.00	89' RT	60'
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R4	177+45.64	89' LT	60'

POINT TABLE

PT #	DESCRIPTION	STATION	OFFSET
1	ANGLE POINT	175+15.60	-12
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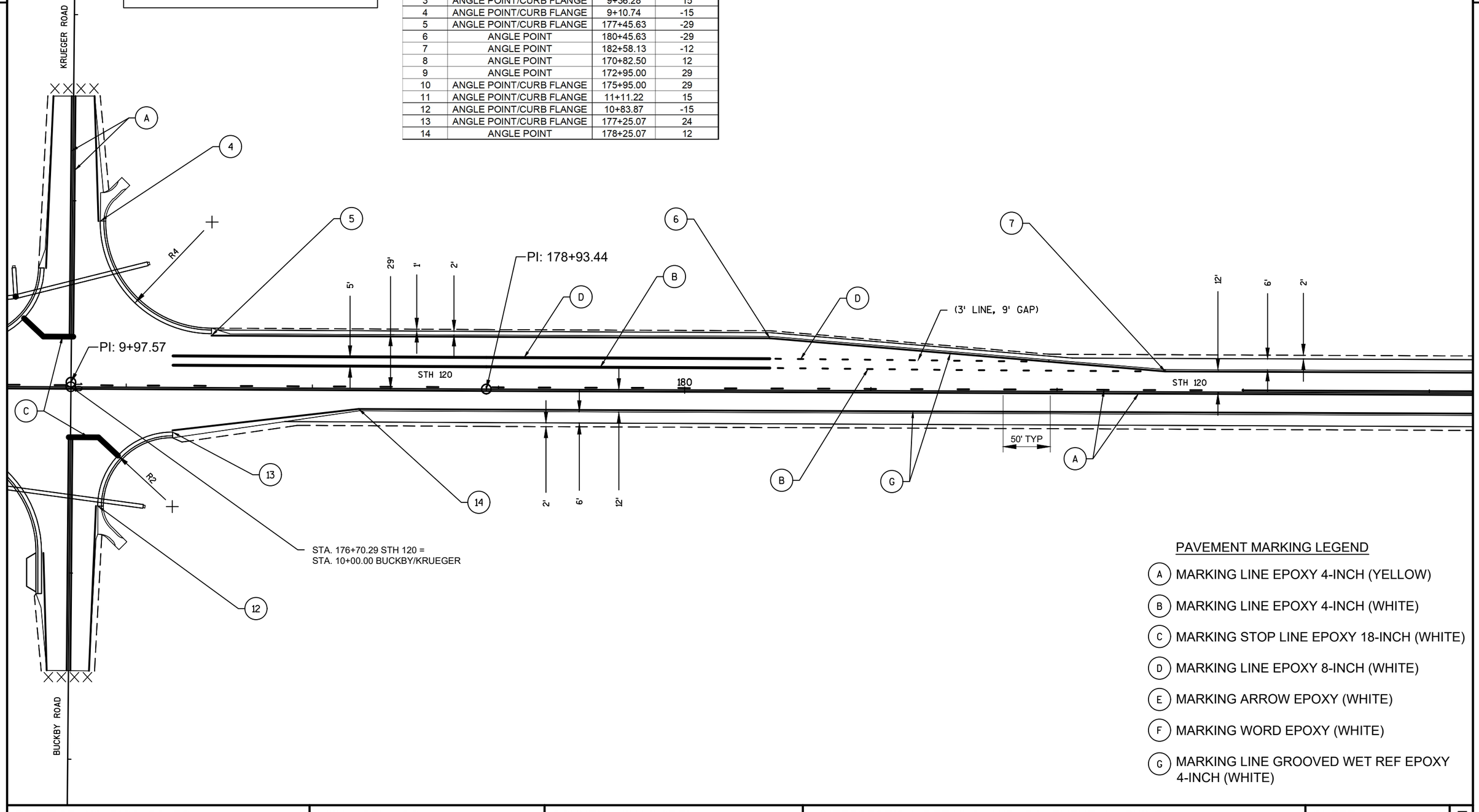
4	ANGLE POINT/CURB FLANGE	9+10.74	-15
5	ANGLE POINT/CURB FLANGE	177+45.63	-29
6	ANGLE POINT	180+45.63	-29
7	ANGLE POINT	182+58.13	-12
8	ANGLE POINT	170+82.50	12
9	ANGLE POINT	172+95.00	29
10	ANGLE POINT/CURB FLANGE	175+95.00	29
11	ANGLE POINT/CURB FLANGE	11+11.22	15
12	ANGLE POINT/CURB FLANGE	10+83.87	-15
13	ANGLE POINT/CURB FLANGE	177+25.07	24
14	ANGLE POINT	178+25.07	12

NOTES

SEE SECTION 648.3.2 OF THE STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION ON LOCATING NO-PASSING ZONES.

N



PAVEMENT MARKING LEGEND

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- (F) MARKING WORD EPOXY (WHITE)
- (G) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	INTERSECTION DETAILS AND PAVEMENT MARKING	SHEET 14	E

2

PAVEMENT MARKING LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (WHITE)
- (C) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (D) MARKING LINE EPOXY 8-INCH (WHITE)
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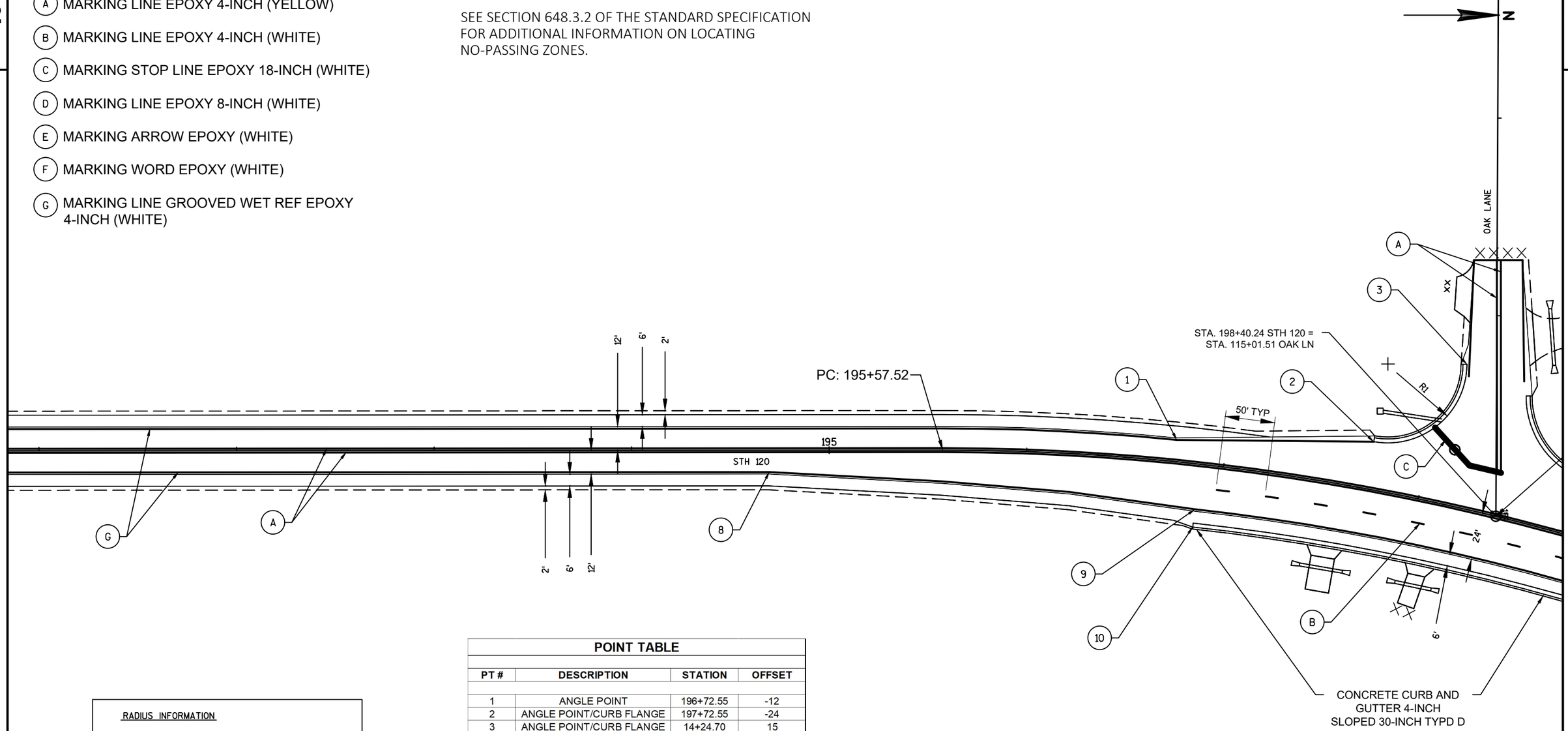
- (F) MARKING WORD EPOXY (WHITE)
- (G) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

NOTES

SEE SECTION 648.3.2 OF THE STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION ON LOCATING NO-PASSING ZONES.



RADIUS INFORMATION

NUMBER	STATION	OFFSET	RADIUS
R1	197+72.55	64' LT	40'
R2	198+81.85	74' LT	45'

POINT TABLE

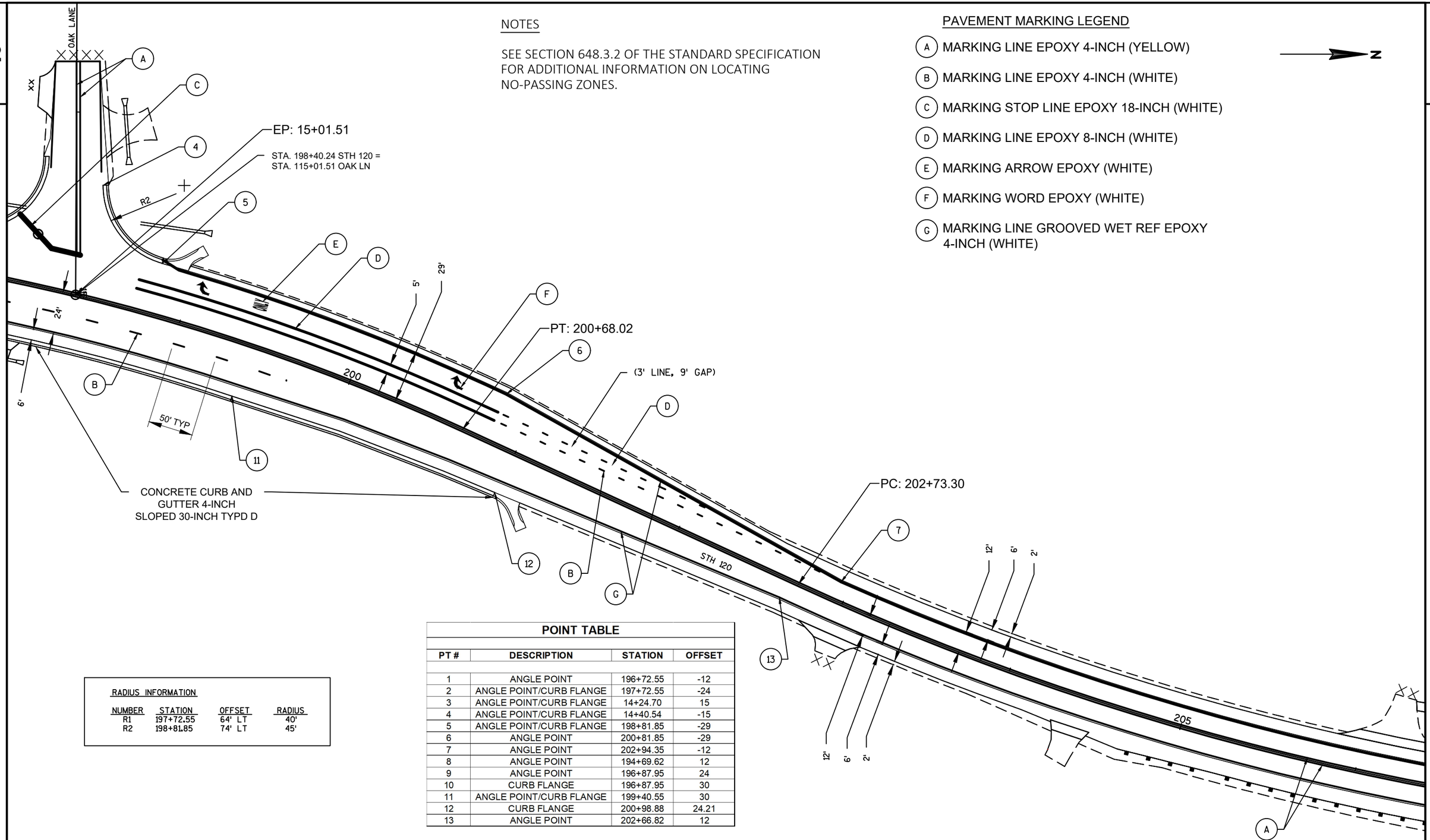
PT #	DESCRIPTION	STATION	OFFSET
1	ANGLE POINT	196+72.55	-12
2	ANGLE POINT/CURB FLANGE	197+72.55	-24
3	ANGLE POINT/CURB FLANGE	14+24.70	15
4	ANGLE POINT/CURB FLANGE	14+40.54	-15
5	ANGLE POINT/CURB FLANGE	198+81.85	-29
6	ANGLE POINT	200+81.85	-29
7	ANGLE POINT	202+94.35	-12
8	ANGLE POINT	194+69.62	12
9	ANGLE POINT	196+87.95	24
10	CURB FLANGE	196+87.95	30
11	ANGLE POINT/CURB FLANGE	199+40.55	30
12	CURB FLANGE	200+98.88	24.21
13	ANGLE POINT	202+66.82	12

NOTES

SEE SECTION 648.3.2 OF THE STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION ON LOCATING NO-PASSING ZONES.

PAVEMENT MARKING LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (WHITE)
- (C) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (D) MARKING LINE EPOXY 8-INCH (WHITE)
- (E) MARKING ARROW EPOXY (WHITE)
- (F) MARKING WORD EPOXY (WHITE)
- (G) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)



RADIUS INFORMATION

NUMBER	STATION	OFFSET	RADIUS
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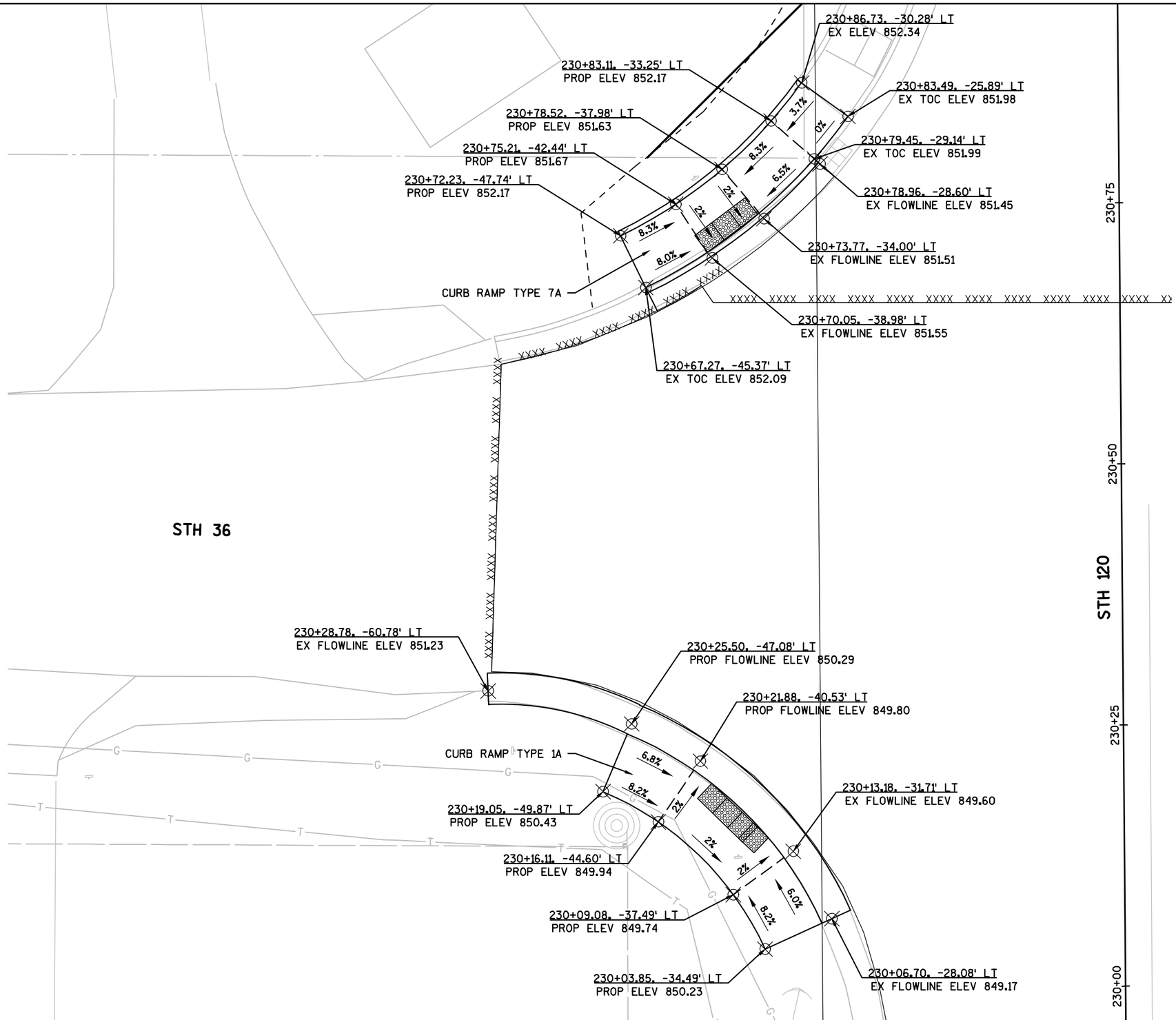
2	ANGLE POINT/CURB FLANGE	197+72.55	-24
3	ANGLE POINT/CURB FLANGE	14+24.70	15
4	ANGLE POINT/CURB FLANGE	14+40.54	-15
5	ANGLE POINT/CURB FLANGE	198+81.85	-29
6	ANGLE POINT	200+81.85	-29
7	ANGLE POINT	202+94.35	-12
8	ANGLE POINT	194+69.62	12
9	ANGLE POINT	196+87.95	24
10	CURB FLANGE	196+87.95	30
11	ANGLE POINT/CURB FLANGE	199+40.55	30
12	CURB FLANGE	200+98.88	24.21
13	ANGLE POINT	202+66.82	12

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	INTERSECTION DETAILS AND PAVEMENT MARKING - OAK LN	SHEET 16	E

2



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CURB RAMP DETAILS	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\021210_PD.DWG PLOT DATE : 8/16/2019 1:52 PM PLOT BY : GRUNWALD, BEN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

N

STH 36

230+50

230+25

230+00

229+75

STH 120

230+28.30, 24.89' RT
EX FLOWLINE ELEV 850.00

230+28.56, 29.89' RT
EX FLOWLINE ELEV 849.86

230+19.32, 24.90' RT
PROP ELEV 849.59

4.9%

4.0%

230+19.32, 29.90' RT
PROP ELEV 849.49

230+19.32, 15.22' RT
EX FLOWLINE ELEV 849.71

1.3%

230+17.61, 29.90' RT
PROP ELEV 849.46

230+14.33, 15.30' RT
EX FLOWLINE ELEV 849.59

1.0%

6.8%

CURB RAMP TYPE 6

6.7%

230+14.38, 24.90' RT
PROP ELEV 849.49

230+11.36, 35.71' RT
EX FLOWLINE ELEV 848.89

230+14.32, 26.12' RT
PROP ELEV 849.47

230+07.93, 32.07' RT
EX FLOWLINE ELEV 848.89

229+94.94, 50.98' RT
EX FLOWLINE ELEV 847.23

229+91.42, 47.35' RT
EX FLOWLINE ELEV 847.18

4.1%

3.9%

229+88.90, 56.50' RT
EX ELEV 846.90

CURB RAMP TYPE 3

229+85.47, 52.87' RT
EX ELEV 846.88

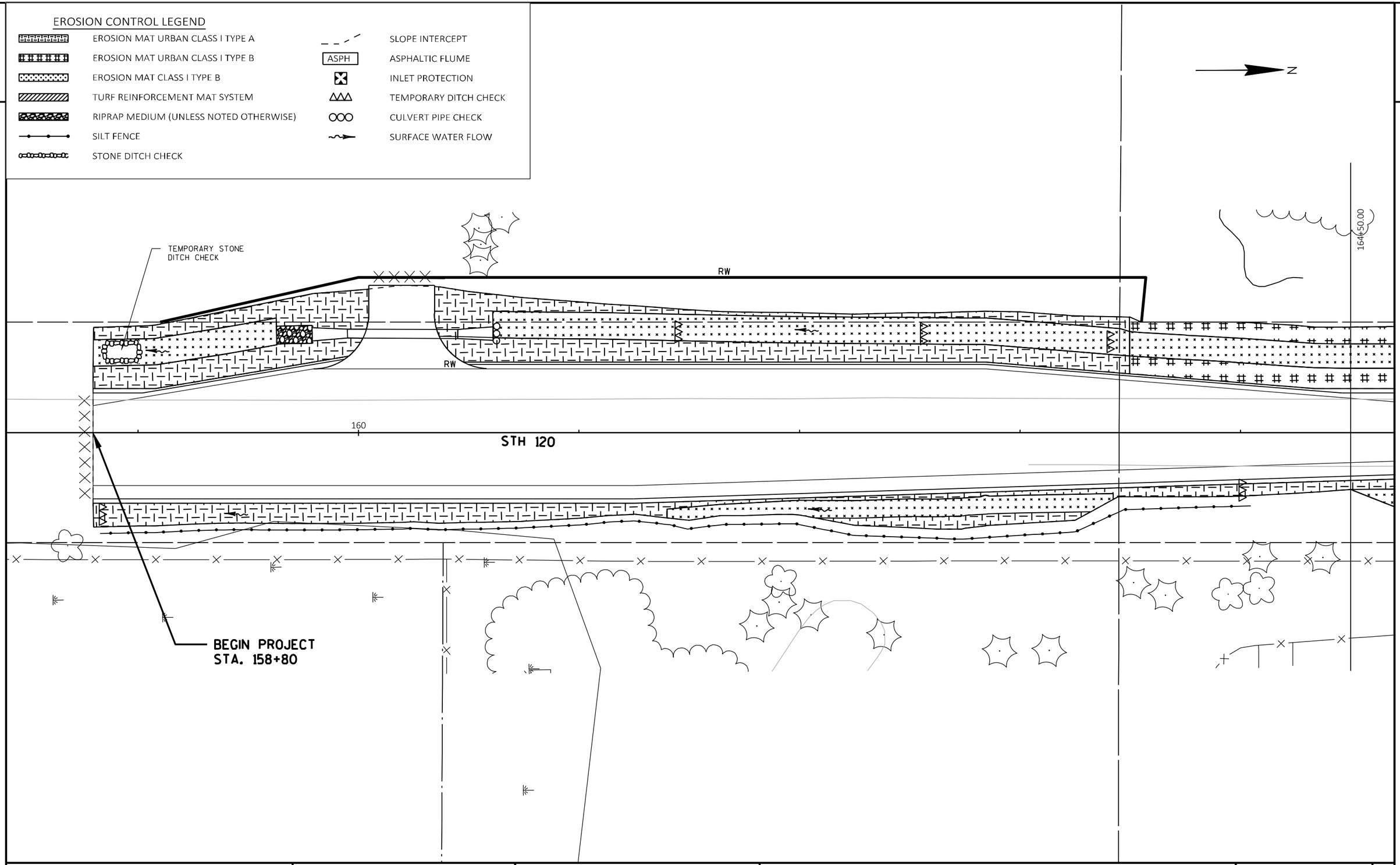
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CURB RAMP DETAILS	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\021210_PD.DWG PLOT DATE : 8/16/2019 1:52 PM PLOT BY : GRUNWALD, BEN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME (ASPH)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 19	E

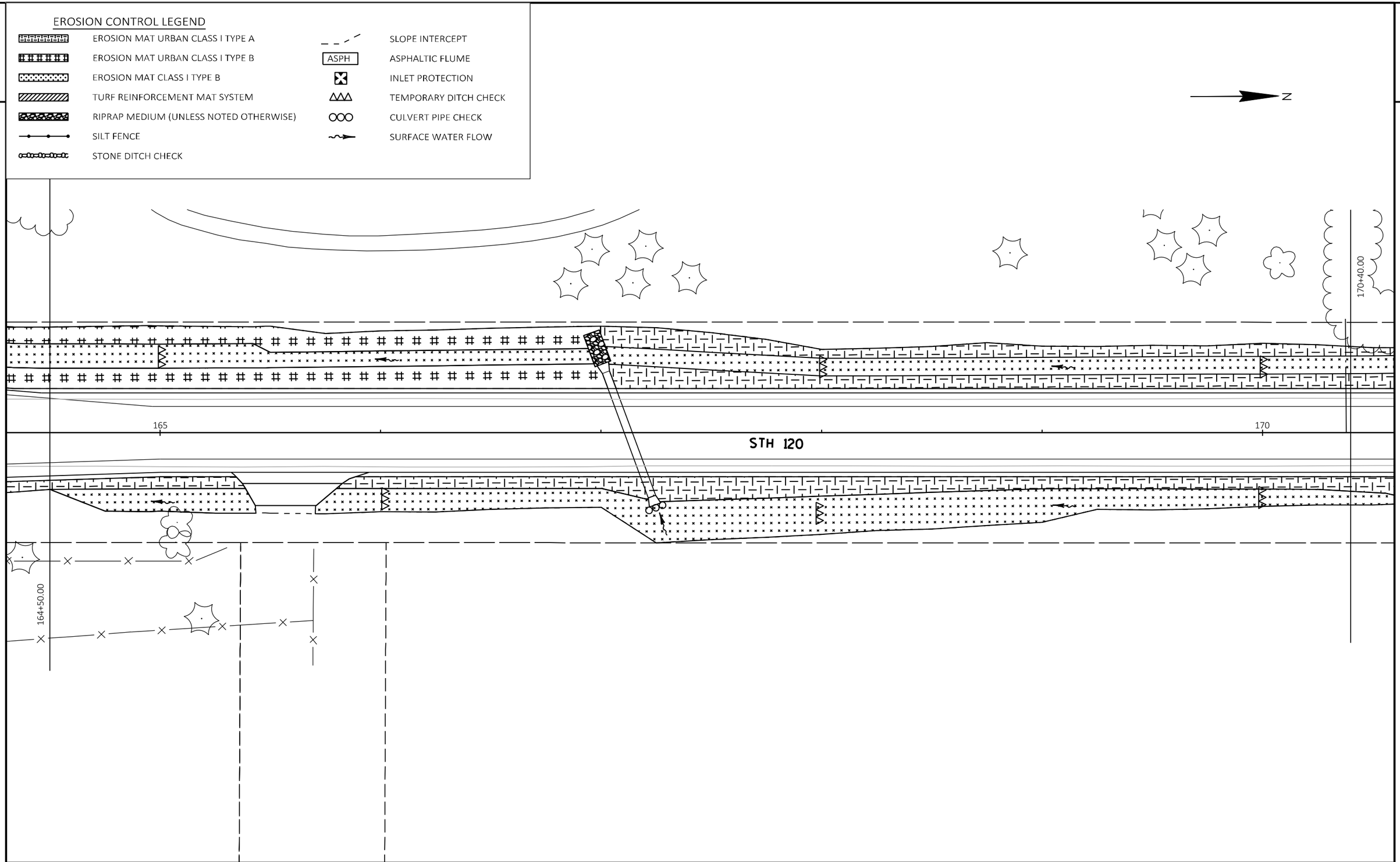
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME (ASPH)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 20	E

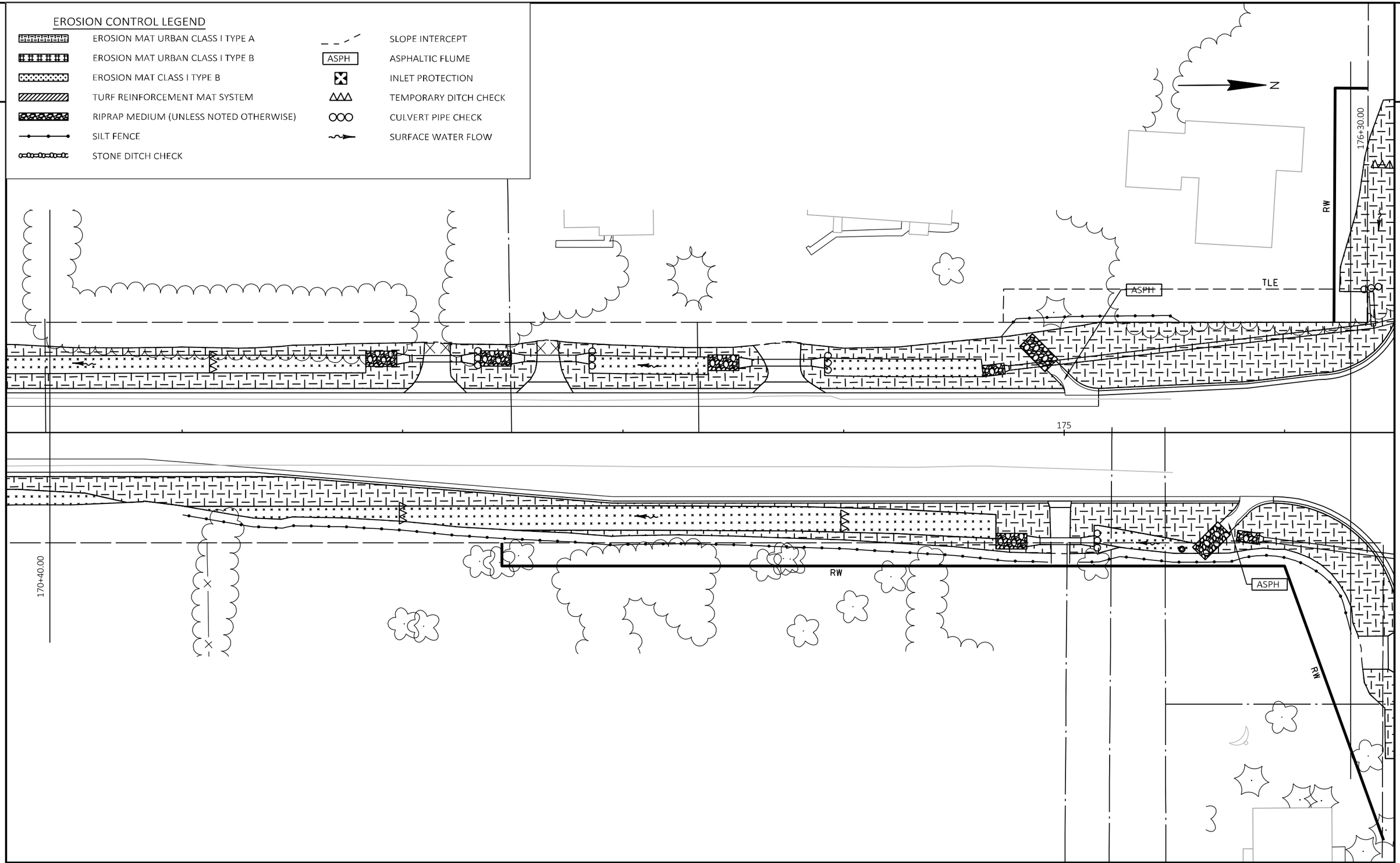
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022002-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

EROSION MAT URBAN CLASS I TYPE A	SLOPE INTERCEPT
EROSION MAT URBAN CLASS I TYPE B	ASPHALTIC FLUME
EROSION MAT CLASS I TYPE B	INLET PROTECTION
TURF REINFORCEMENT MAT SYSTEM	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)	CULVERT PIPE CHECK
SILT FENCE	SURFACE WATER FLOW
STONE DITCH CHECK	



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 21 E

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

ASPH

KRUEGER RD

RW

RUINS

182+20.00

PI: 9+97.57

STA. 176+70.29 STH 120 =
STA. 10+00.00 BUCKBY/KRUEGER

PI: 8+96.44

180

STH 120

TLE

ASPH

BUCKBY RD

175+00.00

RW

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 22	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022004-ec

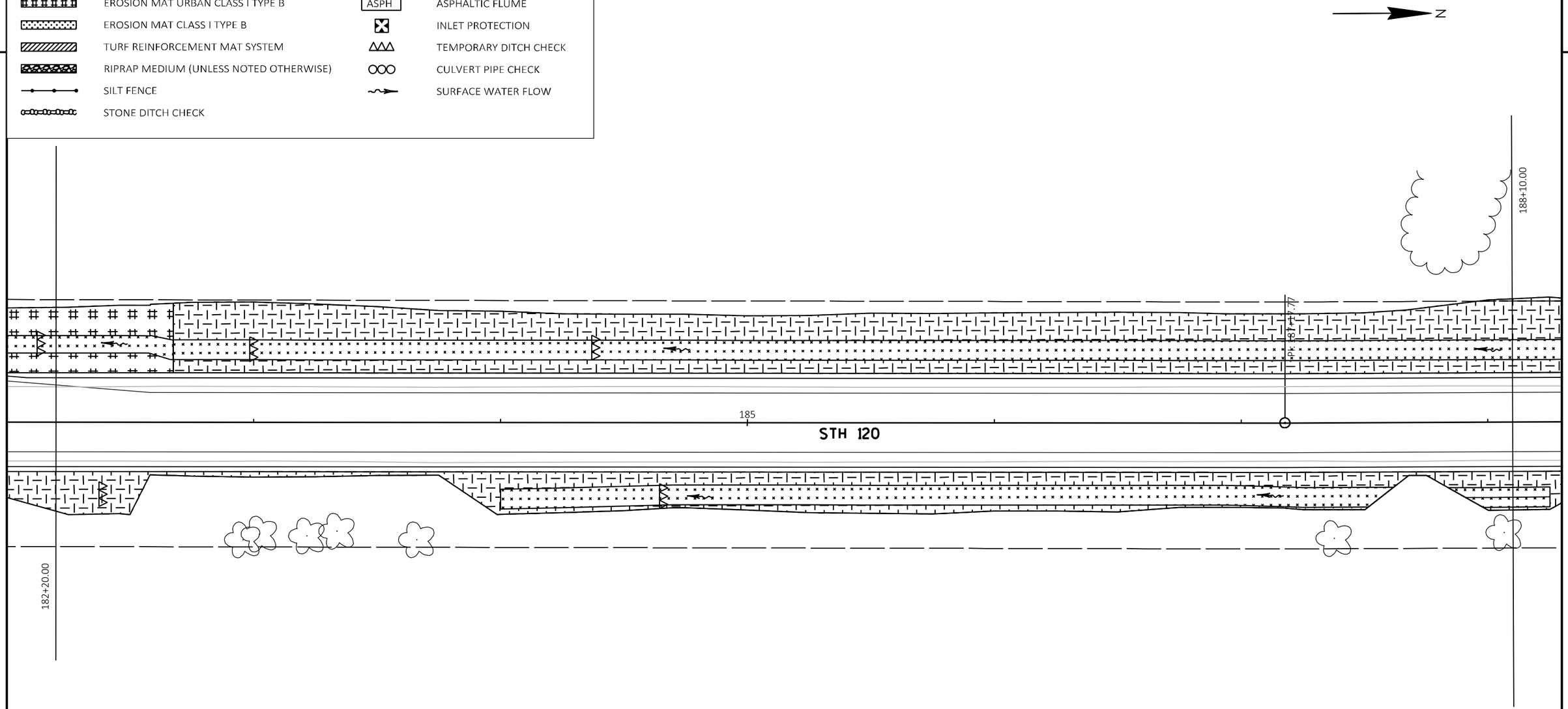
PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EROSION CONTROL LEGEND

EROSION MAT URBAN CLASS I TYPE A	SLOPE INTERCEPT
EROSION MAT URBAN CLASS I TYPE B	ASPHALTIC FLUME
EROSION MAT CLASS I TYPE B	INLET PROTECTION
TURF REINFORCEMENT MAT SYSTEM	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)	CULVERT PIPE CHECK
SILT FENCE	SURFACE WATER FLOW
STONE DITCH CHECK	



2

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 23	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022005-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EROSION CONTROL LEGEND

EROSION MAT URBAN CLASS I TYPE A	SLOPE INTERCEPT
EROSION MAT URBAN CLASS I TYPE B	ASPHALTIC FLUME (ASPH)
EROSION MAT CLASS I TYPE B	INLET PROTECTION
TURF REINFORCEMENT MAT SYSTEM	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)	CULVERT PIPE CHECK
SILT FENCE	SURFACE WATER FLOW
STONE DITCH CHECK	

N

194+00.00

190

STH 120

188+10.00

2

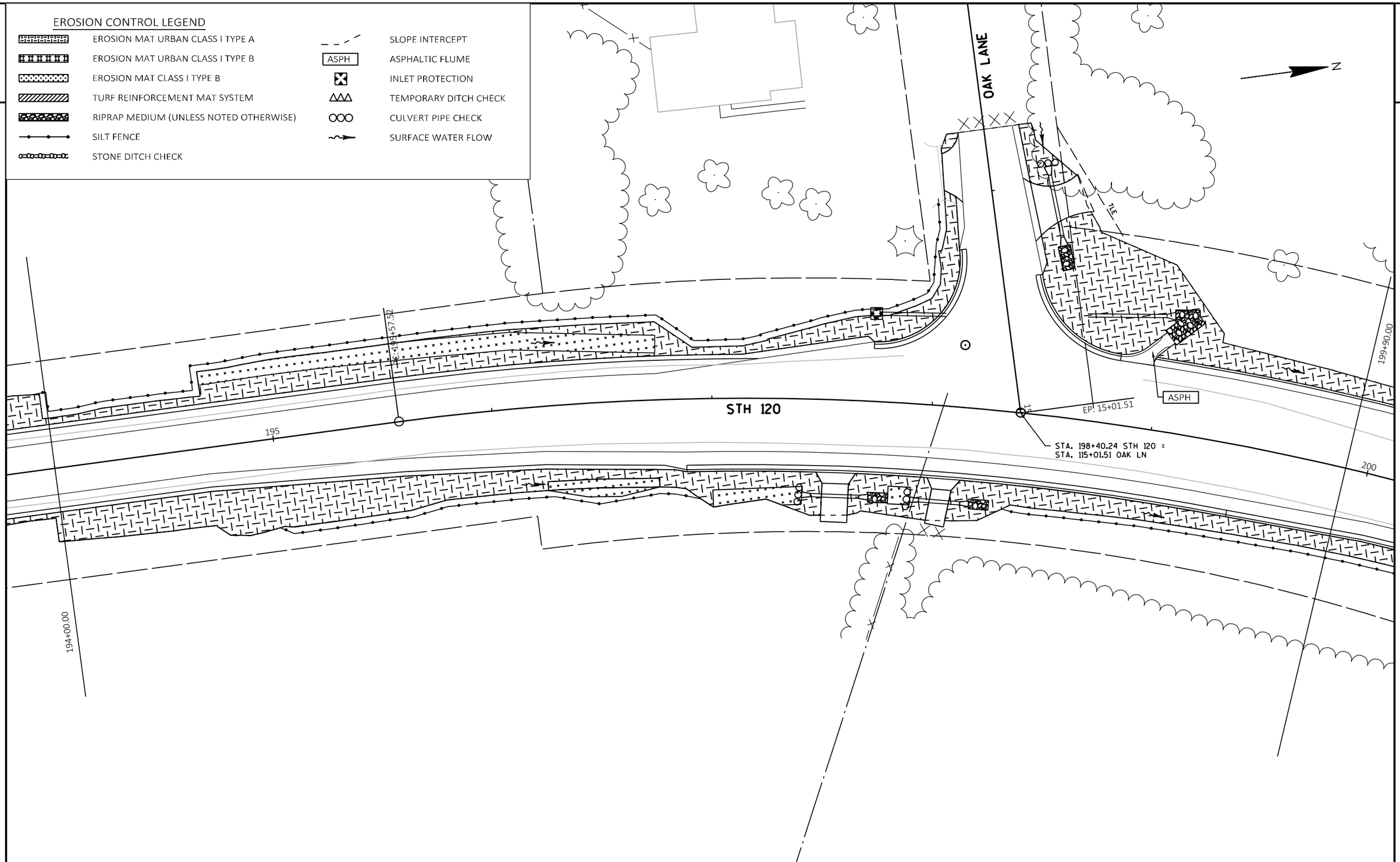
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 24	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022006-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



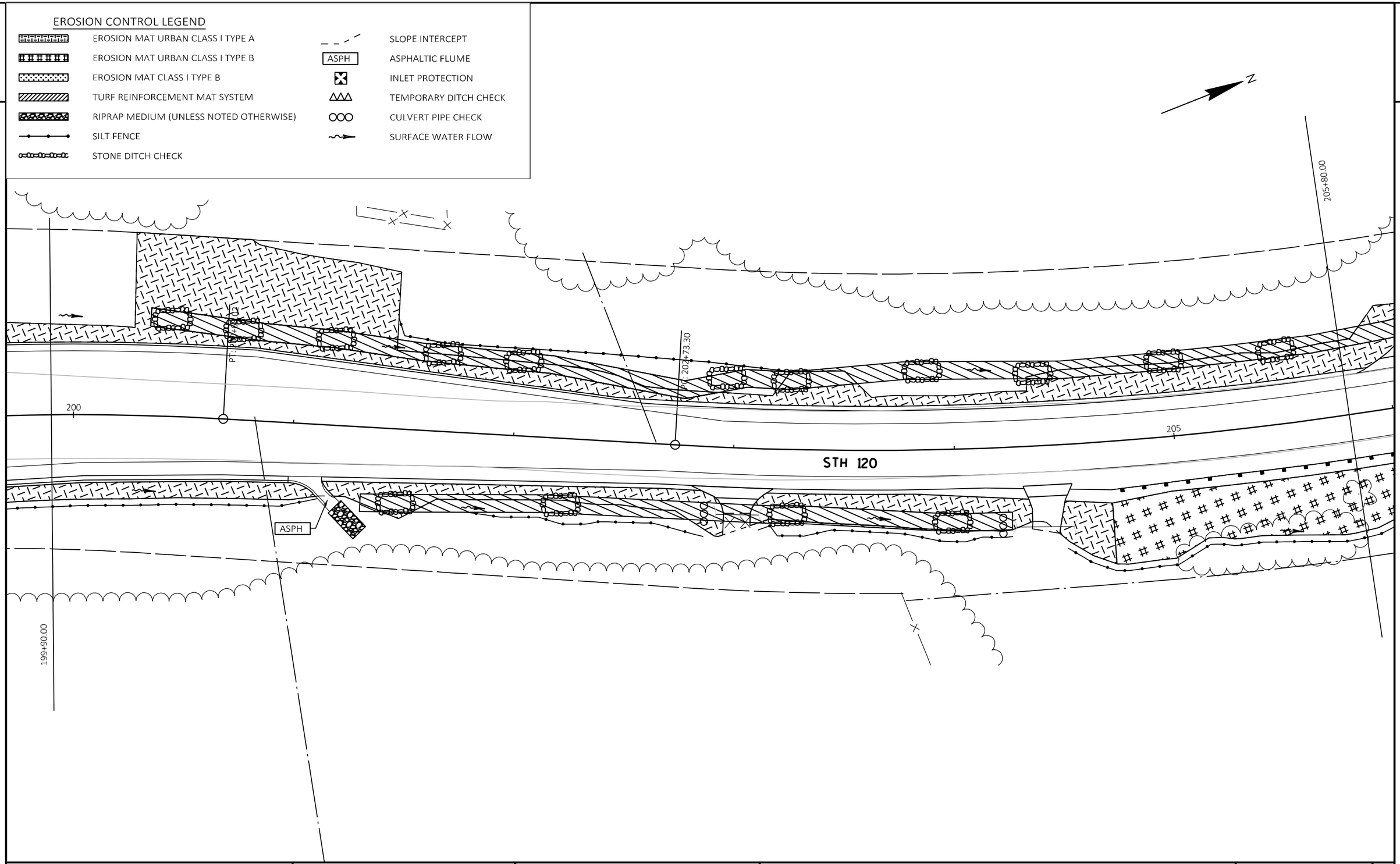
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 25	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022007-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 26	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022008-ec

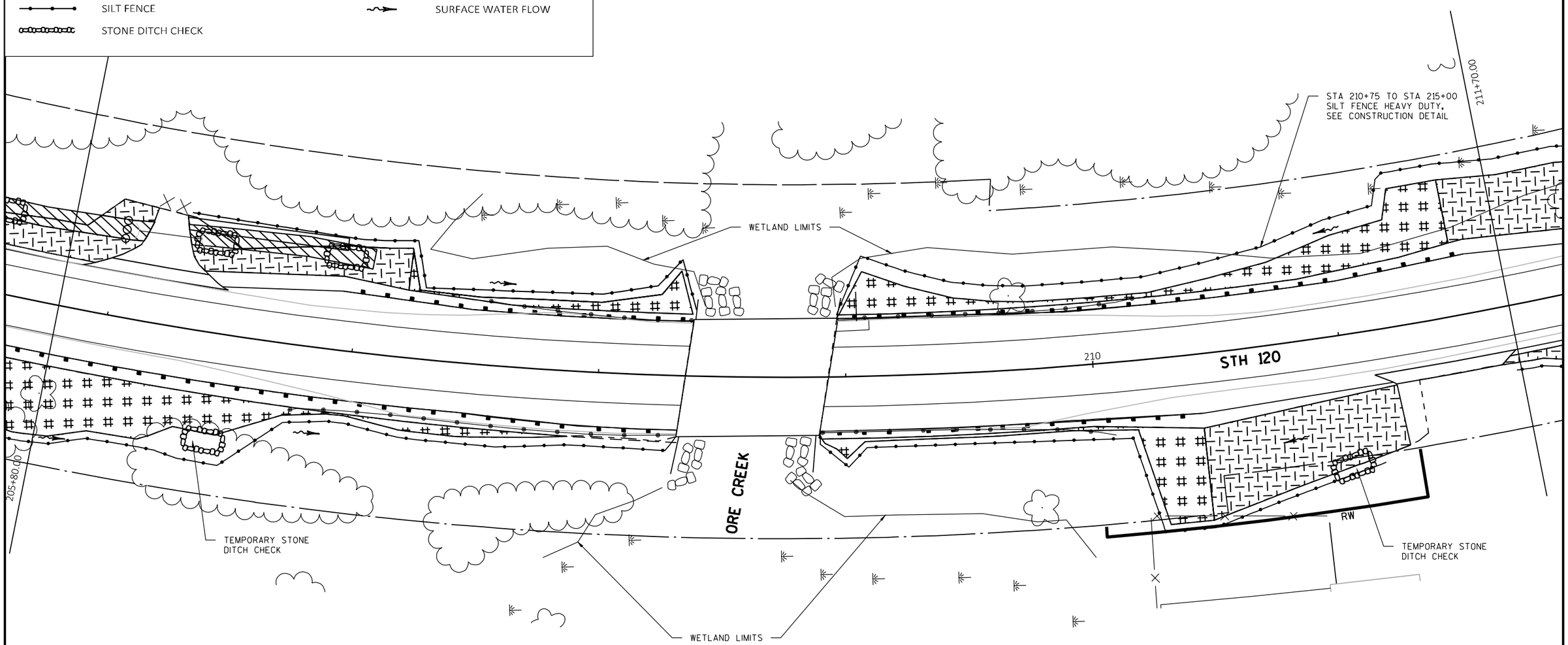
PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EROSION CONTROL LEGEND

EROSION MAT URBAN CLASS I TYPE A	SLOPE INTERCEPT
EROSION MAT URBAN CLASS I TYPE B	ASPHALTIC FLUME
EROSION MAT CLASS I TYPE B	INLET PROTECTION
TURF REINFORCEMENT MAT SYSTEM	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)	CULVERT PIPE CHECK
SILT FENCE	SURFACE WATER FLOW
STONE DITCH CHECK	



2

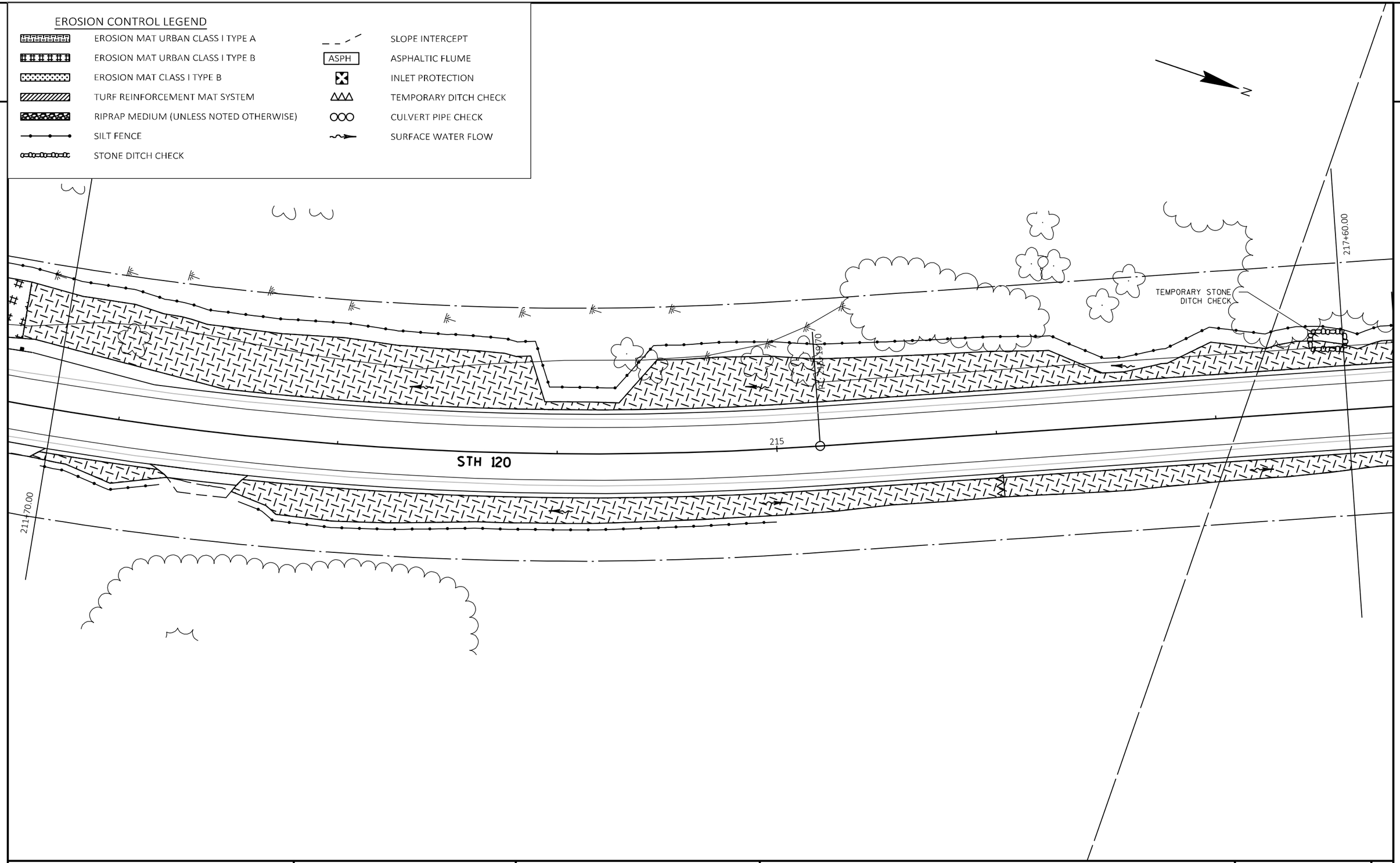
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 27	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022009-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME (ASPH)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 28	E

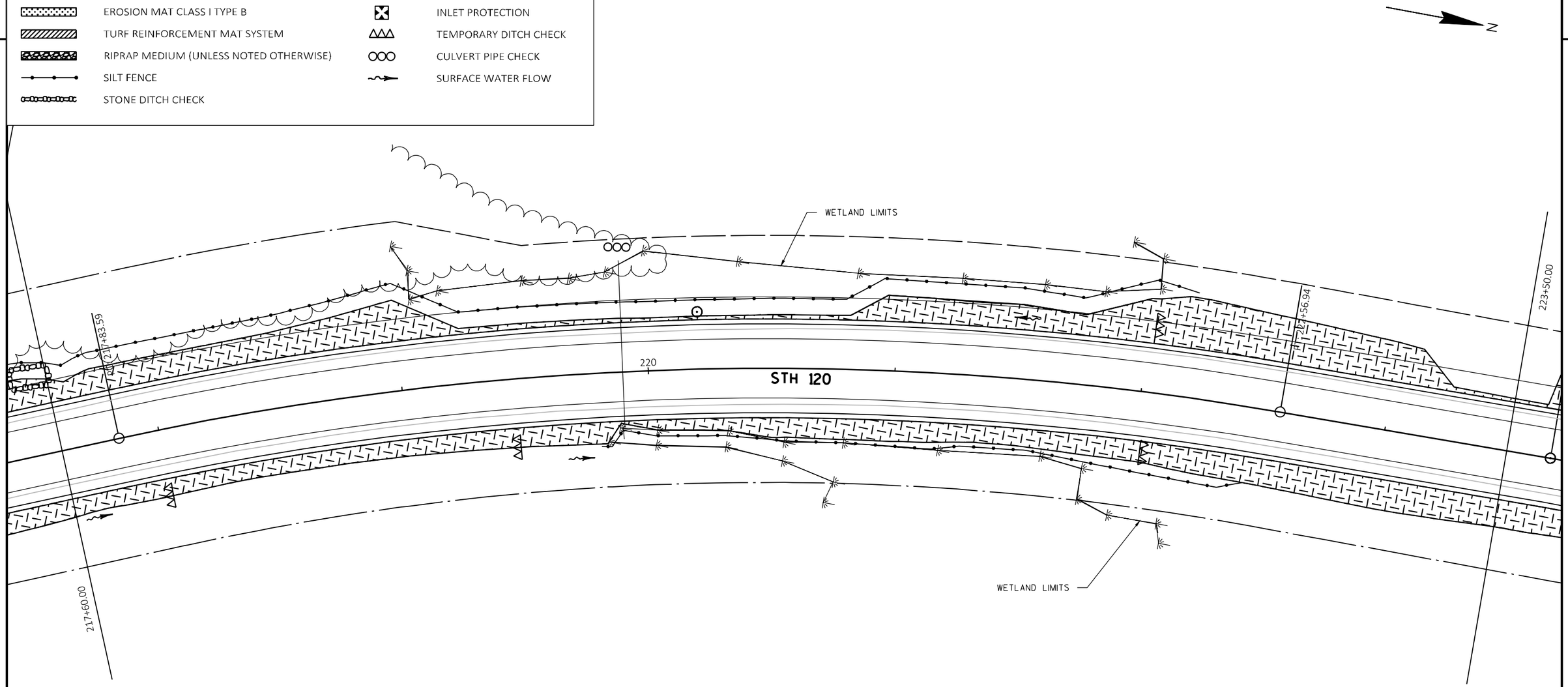
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 0220010-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME (ASPH)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 29	E

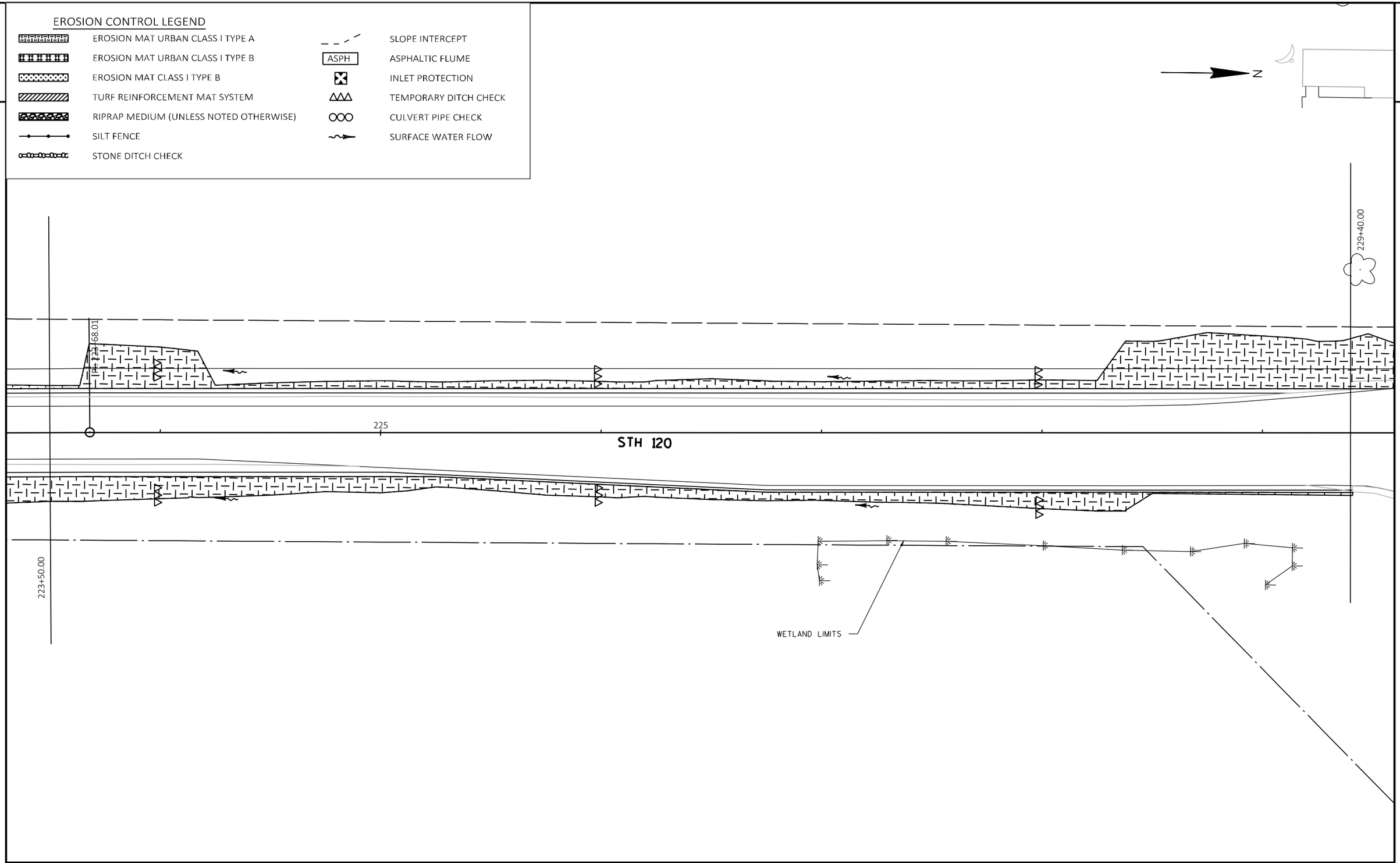
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 0220011-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EROSION CONTROL LEGEND

EROSION MAT URBAN CLASS I TYPE A	SLOPE INTERCEPT
EROSION MAT URBAN CLASS I TYPE B	ASPHALTIC FLUME (ASPH)
EROSION MAT CLASS I TYPE B	INLET PROTECTION
TURF REINFORCEMENT MAT SYSTEM	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)	CULVERT PIPE CHECK
SILT FENCE	SURFACE WATER FLOW
STONE DITCH CHECK	



2

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 30	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 0220012-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

STH 120

230

229+40.00

EP: 232+71.01

RW

WETLAND LIMITS

END PROJECT
STA. 230+65.45

STH 36

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN	SHEET 31	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 0220013-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- TURF REINFORCEMENT MAT SYSTEM
- RIPRAP MEDIUM (UNLESS NOTED OTHERWISE)
- SILT FENCE
- STONE DITCH CHECK
- SLOPE INTERCEPT
- ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

2

2

N

STH 120

KRUEGER RD

BUCKBY RD

BP: 7+00.00

EP: 13+00.00

PI: 9+97.57

RW

TLE

ASPH

STA. 176+70.29 STH 120 =
STA. 10+00.00 BUCKBY/KRUEGER

175

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	EROSION CONTROL PLAN: KRUEGER RD / BUCKBY RD	SHEET 32	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 0220014-ec

PLOT DATE : 8/16/2019 1:34 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

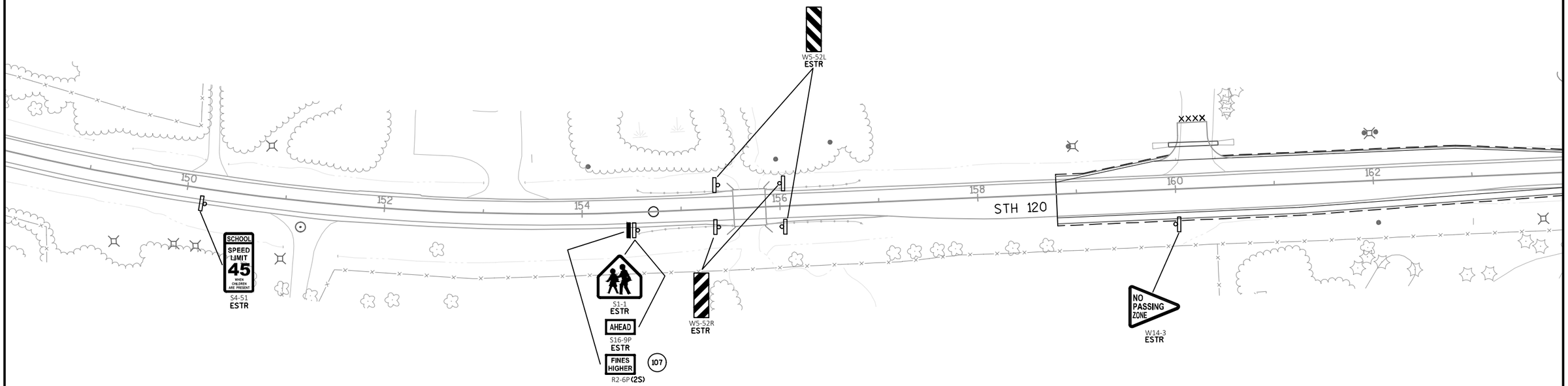
2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

2



TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTY(S)	PHONE*
• DENNIS NEWTON	MILWAUKEE, RACINE	414-750-0257
• JENNY BUCKETT	KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
• CHUCK SALDIVAR	WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

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

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

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.

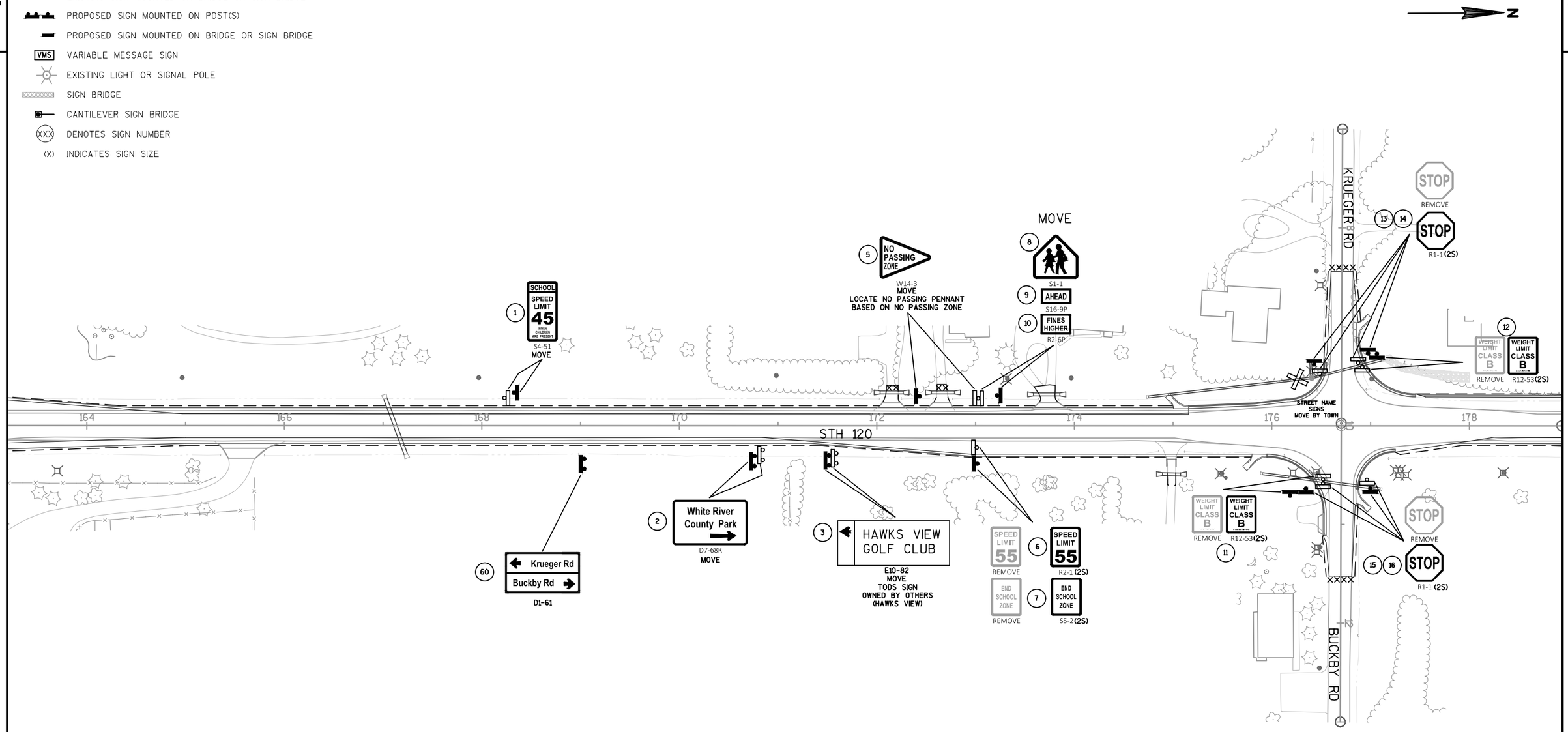
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 33	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



SHEET 2 OF 6

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 34	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

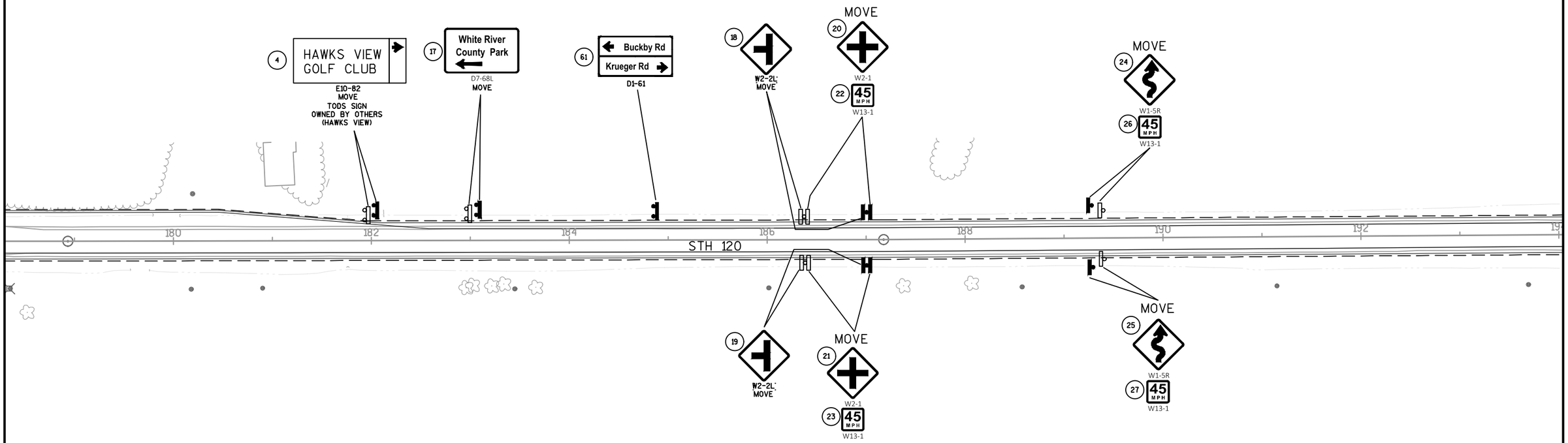
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N



SHEET 3 OF 6

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 35	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023203_PS

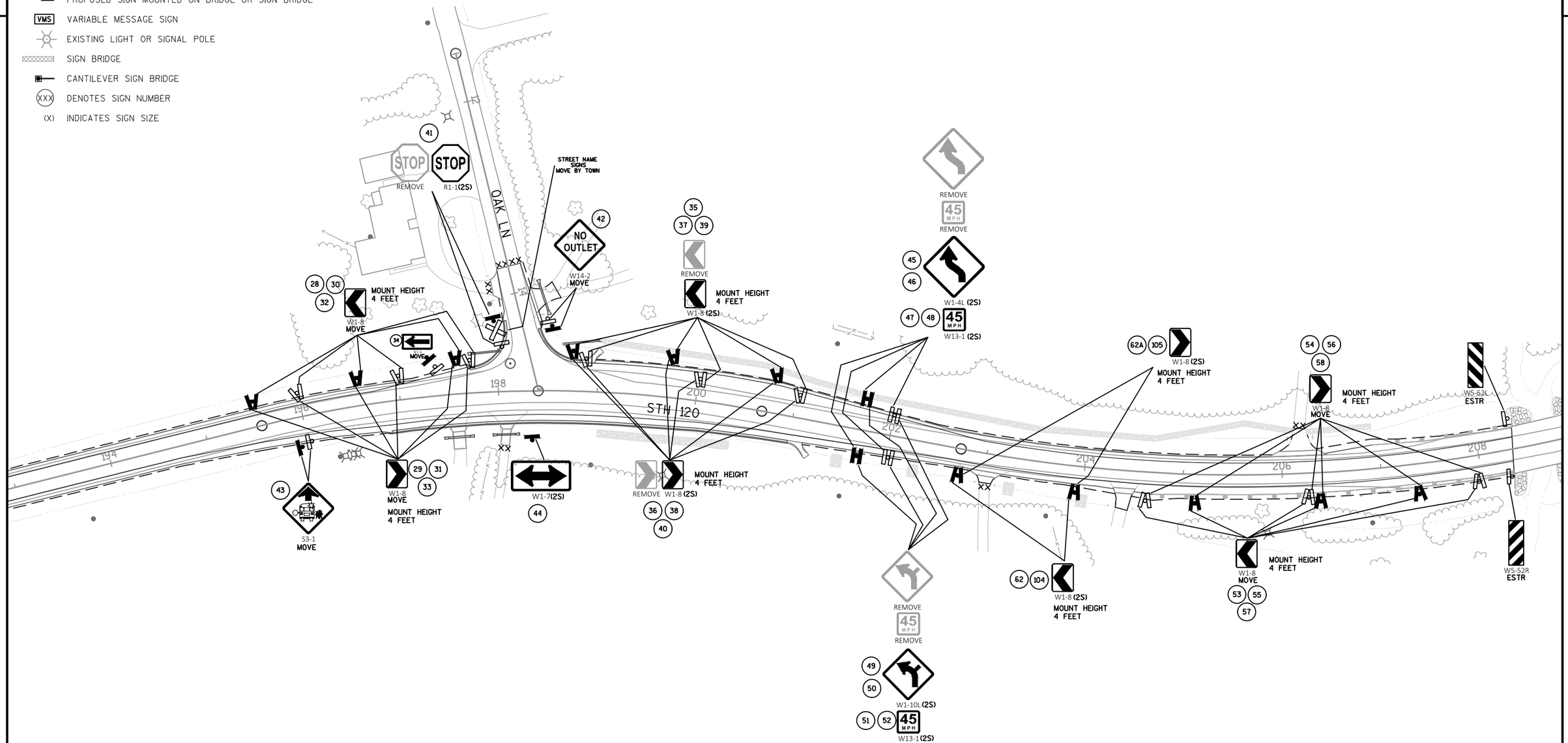
PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE



SHEET 4 OF 6

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 36	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023204_PS

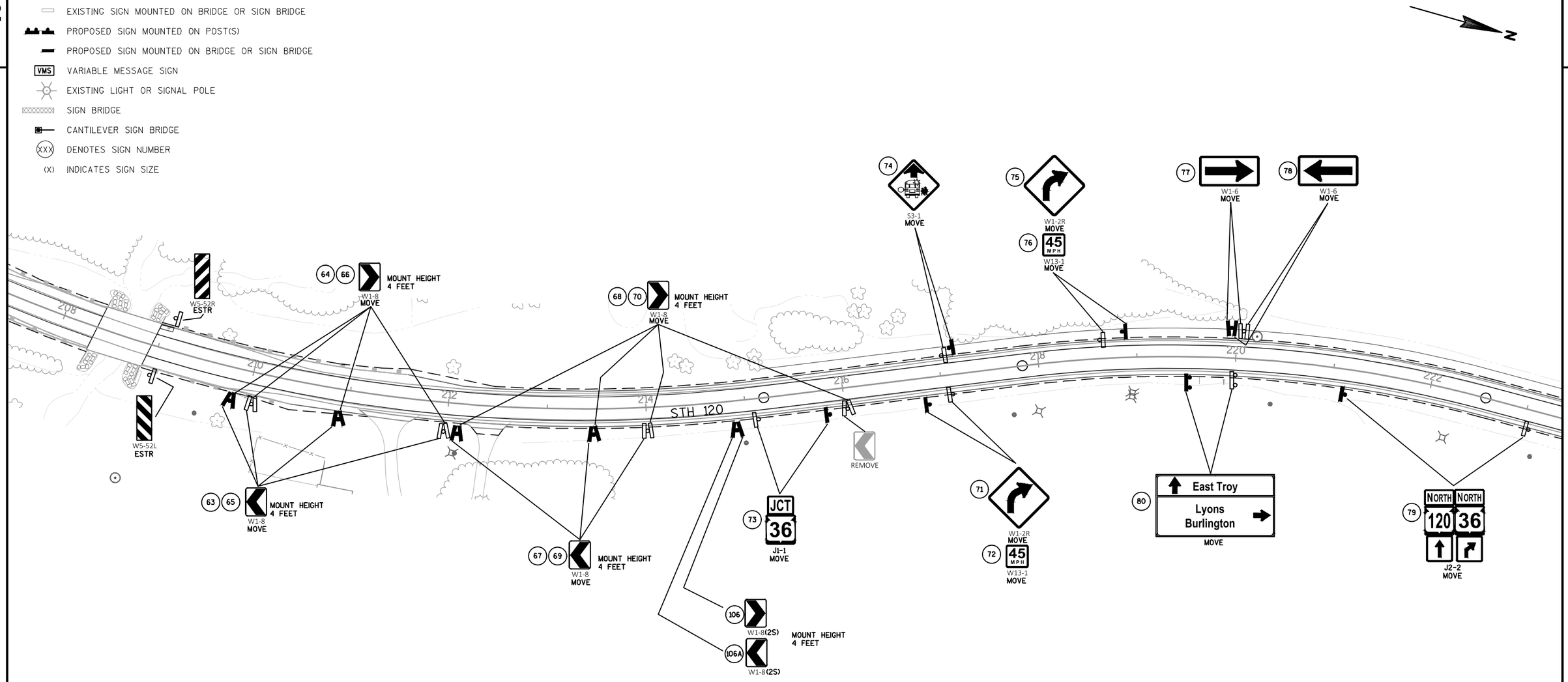
PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



2

SHEET 5 OF 6

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 37	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE

N

2

STH 120

STH 36

SPRINGFIELD RD

MT ZION CHURCH

89 WEIGHT LIMIT 40 TONS — 40 TON BRIDGE 1 1/2 MILES AHEAD — REMOVE

95 SOUTH — REMOVE

93 SPEED LIMIT 55 — R2-1 — MOVE

94 SOUTH 120 — J4-1 (2S) M3-3 M1-6

Lake Geneva 3 — D2-1 — MOVE

REMOVE POLE

STOP — ALL WAY — REMOVE

96 STOP — R1-1(2S) — ALL WAY — 97 R1-3P(2S)

98 STOP — R1-1(2S) — ALL WAY — 99 R1-3P(2S)

100 STOP — R1-1(2S) — ALL WAY — 101 R1-3P(2S)

NORTH 36 — ESTR

ESTR STOP — R1-1 — ALL WAY — R1-3P

Lake Geneva
Lyons Burlington
ESTR

STREET NAME SIGNS MOVE BY TOWN

81 W3-1 MOVE

83 91 W1-5R — MOVE

84 92 45 MPH — W13-1

82 Springfield UNINCORPORATED — I2-3 — MOVE

85 FINES DOUBLE IN WORK ZONES — REMOVE

86 NORTH 36 — REMOVE

86A NORTH 36 — J3-1 (2S) M3-1 M1-6 M6-1

87 YIELD — REMOVE — R1-2(2S)

88 DO NOT ENTER — REMOVE — R5-1(2S)

STOP — REMOVE

102 STOP — R1-1(2S) — ALL WAY — 103 R1-3P(2S)

NORTH 36 — ESTR

NORTH 120 — ESTR

NO PARKING ANY TIME — R7-1D — ESTR

ESTR STOP — R1-1 — ALL WAY — R1-3P

SOUTH 120 — ESTR

NORTH 120 — ESTR

SHEET 6 OF 6

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 38	E

FILE NAME : N:\PDS\C3D\CAD\31908000\SIGN\023201_PS_14-16.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 5/13/2019 12:51 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

GENERAL NOTES

1. TRAFFIC CONTROL SIGNING WAS DESIGNED TO CONFORM WITH THE GENERAL GUIDANCE PROVIDED IN THE FOLLOWINGS SDD'S:
- "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- "TRAFFIC CONTROL, LANE CLOSURE"

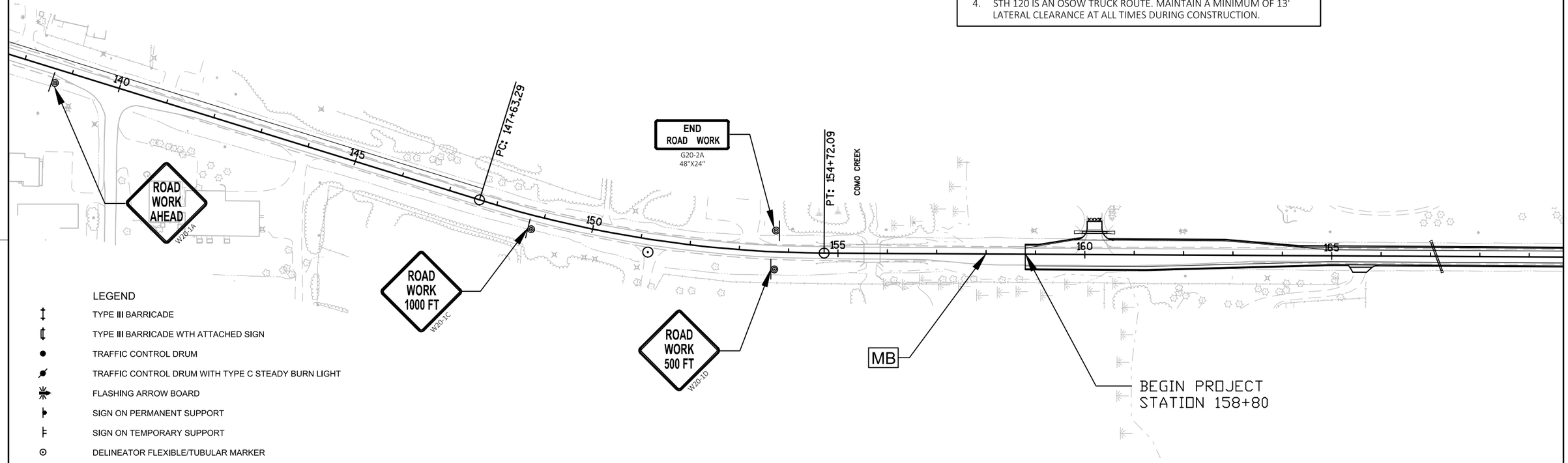
THE GENERAL NOTES WRITTEN WITHIN THESE SDDS APPLY TO THIS PROJECT, AND SHOULD BE CONSIDERED AS AN ADDITION TO THE ONES LISTED HERE.

2. TRAFFIC CONTROL FOR FLAGGING OPERATIONS WILL TAKE PLACE DURING THE MILL AND OVERLAY OPERATION

3. TRAFFIC CONTROL FOR SINGLE LANE CLOSURES WILL TAKE PLACE AT THE STRUCTURE OVER ORE CREEK DURING THE BEAMGUARD INSTALLATION AND EPOXY OVERLAY, AND DURING THE CONSTRUCTION OF RIGHT TURN LANES.

4. STH 120 IS AN OSOW TRUCK ROUTE. MAINTAIN A MINIMUM OF 13' LATERAL CLEARANCE AT ALL TIMES DURING CONSTRUCTION.

N



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	TRAFFIC CONTROL	SHEET 39	E

GENERAL NOTES

1. TRAFFIC CONTROL SIGNING WAS DESIGNED TO CONFORM WITH THE GENERAL GUIDANCE PROVIDED IN THE FOLLOWINGS SDD'S:
- "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- "TRAFFIC CONTROL, LANE CLOSURE"

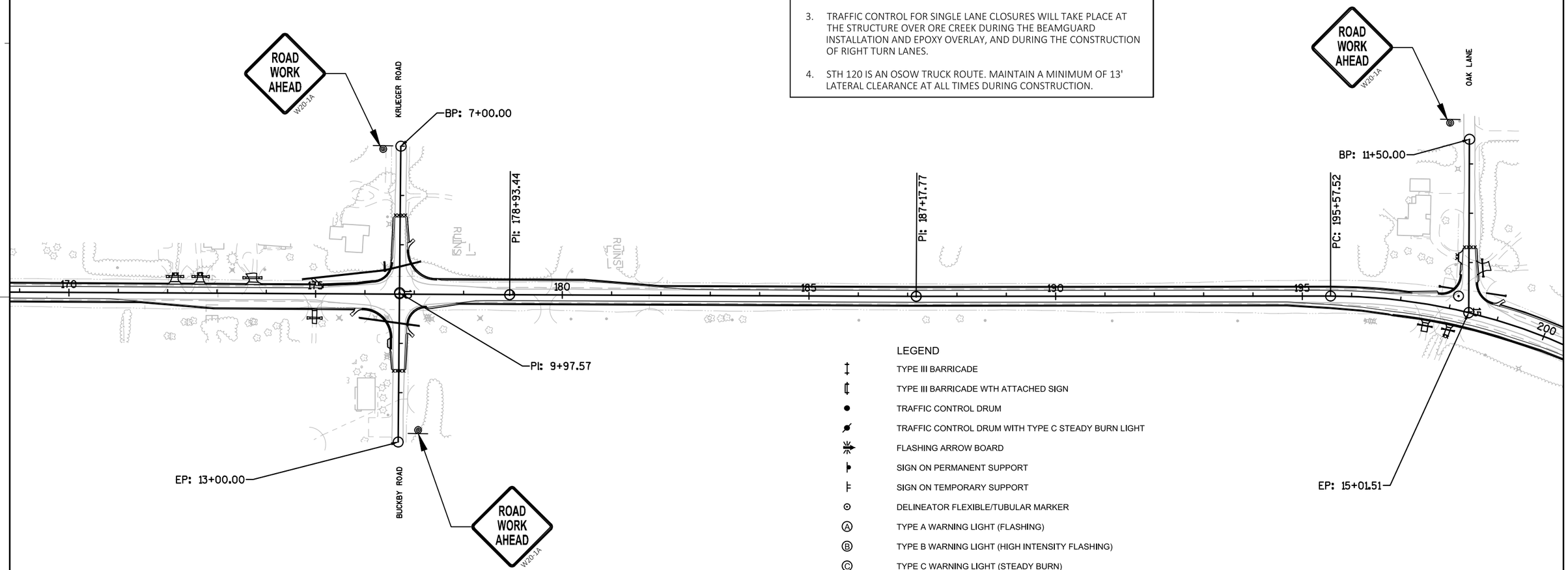
THE GENERAL NOTES WRITTEN WITHIN THESE SDDS APPLY TO THIS PROJECT, AND SHOULD BE CONSIDERED AS AN ADDITION TO THE ONES LISTED HERE.

2. TRAFFIC CONTROL FOR FLAGGING OPERATIONS WILL TAKE PLACE DURING THE MILL AND OVERLAY OPERATION

3. TRAFFIC CONTROL FOR SINGLE LANE CLOSURES WILL TAKE PLACE AT THE STRUCTURE OVER ORE CREEK DURING THE BEAMGUARD INSTALLATION AND EPOXY OVERLAY, AND DURING THE CONSTRUCTION OF RIGHT TURN LANES.

4. STH 120 IS AN OSOW TRUCK ROUTE. MAINTAIN A MINIMUM OF 13' LATERAL CLEARANCE AT ALL TIMES DURING CONSTRUCTION.

N

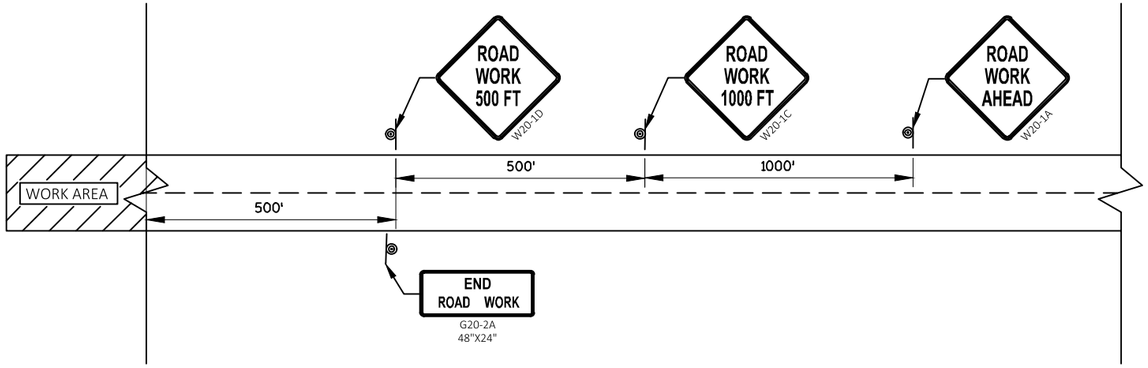


LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TYPE A WARNING LIGHT (FLASHING)
- TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	TRAFFIC CONTROL	SHEET 40	E

A



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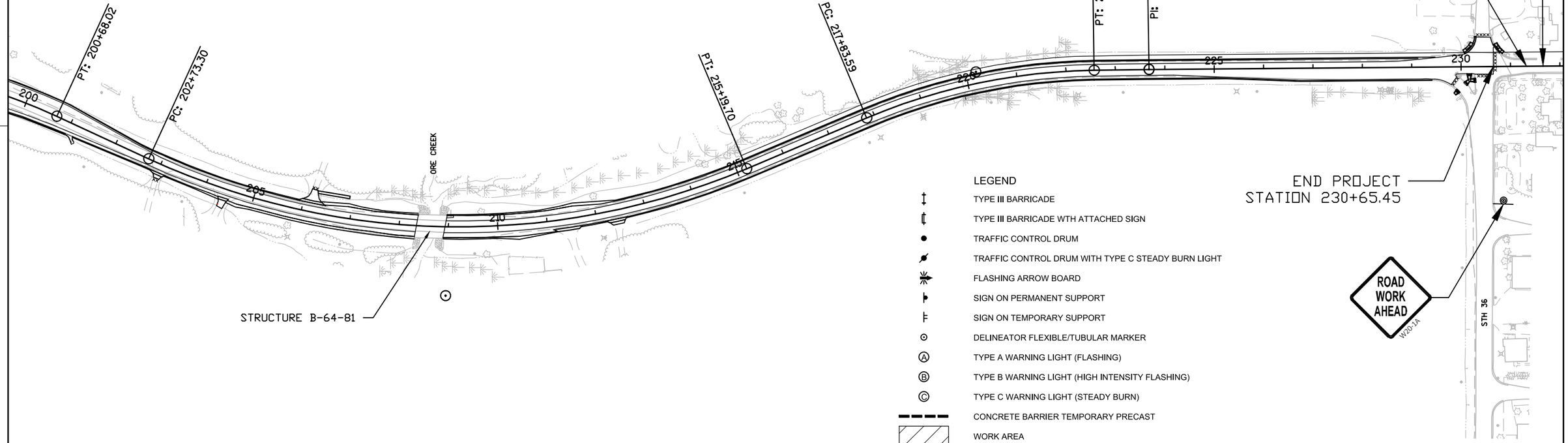
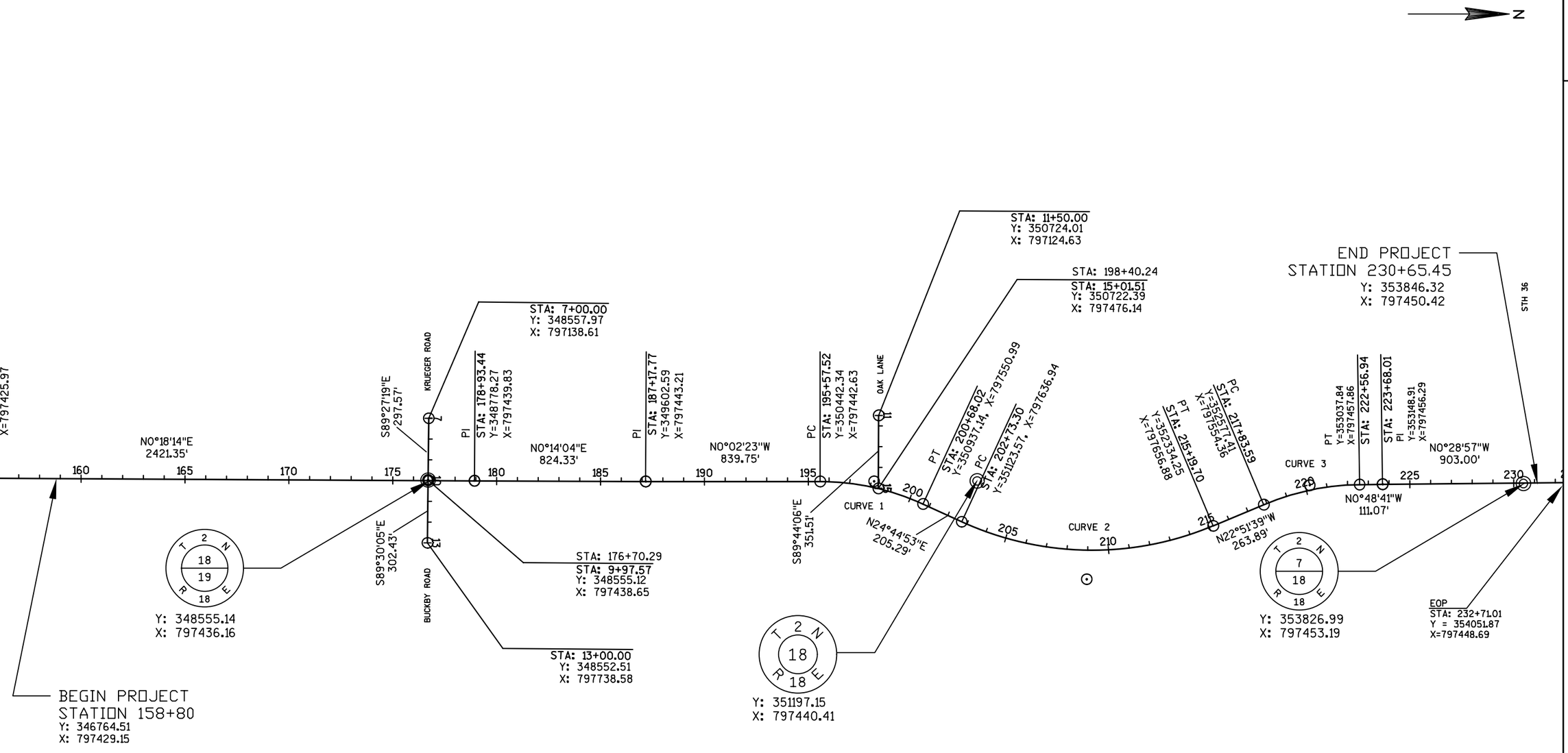


LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	TRAFFIC CONTROL	SHEET 41	E



CURVE 1

PI STA = 198+16.83
Y = 350701.645
X = 797442.445
DELTA = 24°47'15"
D = 4°51'20"
T = 259.31'
L = 510.50'
R = 1180.00'
PC STA = 195+57.52
PT STA = 200+68.02
SE = 0.06 FT/FT

CURVE 2

PI STA = 209+35.02
Y = 351724.510
X = 797913.949
DELTA = 47°36'32"
D = 3°49'11"
T = 661.72'
L = 1246.40'
R = 1500.00'
PC STA = 202+73.30
PT STA = 215+19.70
SE = 0.06 FT/FT

CURVE 3

PI STA = 220+23.23
Y = 352798.229
X = 797461.257
DELTA = 22°02'58"
D = 4°39'29"
T = 239.64'
L = 473.35'
R = 1230.00'
PC STA = 217+83.59
PT STA = 222+56.94
SE = 0.06 FT/FT

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	ALIGNMENT LAYOUT	SHEET 42	E

N

BM 101
FENO MONUMENT WITH
ALUM. CAP
STA. 158+32.17, 41.71' LT
N: 346717.251
E: 797387.188
EL: 831.56

159
158
STH 120

N

BM 102
FENO MONUMENT WITH
ALUM. CAP
STA. 174+12.14, 36.28' LT
N: 348297.165
E: 797401.002
EL: 846.21

175
174
STH 120

N

BM 103
FENO MONUMENT WITH
ALUM. CAP
STA. 187+70.20, 37.57' LT
N: 349654.998
E: 797405.597
EL: 884.10

PI: 187+17.77

188
187
STH 120

2

N

BM 104
FENO MONUMENT WITH
ALUM. CAP
STA. 198+65.54, 76.35' LT
N: 350766.553
E: 797408.612
EL: 891.61

199
198
STH 120
OAK LANE

N

BM 105
WISDOT ALUM CAP, NE ABUTMENT
STH 120 BRIDGE OVER ORE
CREEK, STAMPED 846.77
STA. 208+87.84, 24.09' RT
N: 351717.609
E: 797798.416
EL: 846.64

209
208
STH 120

N

BM 106
FENO MONUMENT WITH
ALUM. CAP
STA. 230+78.03, 68.43' LT
N: 353858.320
E: 797381.882
EL: 852.52

231
230
STH 120
STH 36

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	ALIGNMENT LAYOUT SURVEY CONTROL	SHEET 43	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\027220_AD.DWG
LAYOUT NAME - 027220_ad
PLOT DATE : 4/19/2019 2:54 PM
PLOT BY : BREMER, SAM
PLOT NAME :
PLOT SCALE : ##########

3190-08-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0100	Removing Small Pipe Culverts	EACH	7.000	7.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	77.000	77.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	23,171.000	23,171.000
0012	204.0165	Removing Guardrail	LF	481.000	481.000
0014	204.9090.S	Removing (item description) 01. French Drains	LF	30.000	30.000
0016	204.9105.S	Removing (item description) 01. Inlet Structure	LS	1.000	1.000
0018	205.0100	Excavation Common	CY	5,986.000	5,986.000
0020	213.0100	Finishing Roadway (project) 01. 3190-08-70	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	848.000	848.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,395.000	3,395.000
0026	305.0500	Shaping Shoulders	STA	148.000	148.000
0028	310.0115	Base Aggregate Open-Graded	CY	2.000	2.000
0030	371.1000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	TON	3,111.000	3,111.000
0032	416.0160	Concrete Driveway 6-Inch	SY	25.000	25.000
0034	455.0605	Tack Coat	GAL	3,916.000	3,916.000
0036	460.2000	Incentive Density HMA Pavement	DOL	4,450.000	4,450.000
0038	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	7,185.000	7,185.000
0040	460.5223	HMA Pavement 3 LT 58-28 S	TON	5,744.000	5,744.000
0042	460.5224	HMA Pavement 4 LT 58-28 S	TON	3,829.000	3,829.000
0044	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	40.000	40.000
0046	465.0315	Asphaltic Flumes	SY	100.000	100.000
0048	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	7,956.000	7,956.000
0050	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	6,184.000	6,184.000
0052	509.5100.S	Polymer Overlay	SY	288.000	288.000
0054	520.3324	Culvert Pipe Class III-A 24-Inch	LF	120.000	120.000
0056	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	7.000	7.000
0058	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	142.000	142.000
0060	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0062	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	93.000	93.000
0064	522.2324	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	75.000	75.000
0066	522.2329	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	LF	50.000	50.000
0068	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	8.000	8.000
0070	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000

3190-08-70

Line	Item	Item Description	Unit	Total	Qty
0072	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0074	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	89.000	89.000
0076	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	950.000	950.000
0078	602.0405	Concrete Sidewalk 4-Inch	SF	720.000	720.000
0080	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	94.000	94.000
0082	606.0200	Riprap Medium	CY	97.000	97.000
0084	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	260.000	260.000
0086	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0088	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0090	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0092	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0094	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0096	612.0106	Pipe Underdrain 6-Inch	LF	30.000	30.000
0098	614.2300	MGS Guardrail 3	LF	450.000	450.000
0100	614.2330	MGS Guardrail 3 K	LF	100.000	100.000
0102	614.2500	MGS Thrie Beam Transition	LF	158.000	158.000
0104	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0106	618.0100	Maintenance And Repair of Haul Roads (project) 01. 3190-08-70	EACH	1.000	1.000
0108	619.1000	Mobilization	EACH	1.000	1.000
0110	624.0100	Water	MGAL	588.000	588.000
0112	625.0100	Topsoil	SY	24,930.000	24,930.000
0114	627.0200	Mulching	SY	24,930.000	24,930.000
0116	628.1504	Silt Fence	LF	7,385.000	7,385.000
0118	628.1520	Silt Fence Maintenance	LF	7,385.000	7,385.000
0120	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0122	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0124	628.2004	Erosion Mat Class I Type B	SY	6,330.000	6,330.000
0126	628.2006	Erosion Mat Urban Class I Type A	SY	15,690.000	15,690.000
0128	628.2008	Erosion Mat Urban Class I Type B	SY	4,640.000	4,640.000
0130	628.2039	Erosion Mat Class III Type D	SY	1,060.000	1,060.000
0132	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0134	628.7504	Temporary Ditch Checks	LF	360.000	360.000
0136	628.7515.S	Stone or Rock Ditch Checks	CY	154.000	154.000
0138	628.7555	Culvert Pipe Checks	EACH	85.000	85.000
0140	629.0210	Fertilizer Type B	CWT	16.000	16.000
0142	630.0120	Seeding Mixture No. 20	LB	672.000	672.000
0144	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	68.000	68.000

Line	Item	Item Description	Unit	Total	Qty
0146	637.2210	Signs Type II Reflective H	SF	128.120	128.120
0148	637.2230	Signs Type II Reflective F	SF	90.000	90.000
0150	638.2102	Moving Signs Type II	EACH	36.000	36.000
0152	638.2602	Removing Signs Type II	EACH	22.000	22.000
0154	638.3000	Removing Small Sign Supports	EACH	63.000	63.000
0156	642.5201	Field Office Type C	EACH	1.000	1.000
0158	643.0300	Traffic Control Drums	DAY	11,240.000	11,240.000
0160	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0162	643.0420	Traffic Control Barricades Type III	DAY	285.000	285.000
0164	643.0715	Traffic Control Warning Lights Type C	DAY	4,210.000	4,210.000
0166	643.0800	Traffic Control Arrow Boards	DAY	285.000	285.000
0168	643.0900	Traffic Control Signs	DAY	1,620.000	1,620.000
0170	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0172	643.5000	Traffic Control	EACH	1.000	1.000
0174	645.0111	Geotextile Type DF Schedule A	SY	19.000	19.000
0176	645.0120	Geotextile Type HR	SY	189.000	189.000
0178	645.0130	Geotextile Type R	SY	713.000	713.000
0180	645.0140	Geotextile Type SAS	SY	100.000	100.000
0182	646.1020	Marking Line Epoxy 4-Inch	LF	14,681.000	14,681.000
0184	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	13,915.000	13,915.000
0186	646.3020	Marking Line Epoxy 8-Inch	LF	1,158.000	1,158.000
0188	646.5020	Marking Arrow Epoxy	EACH	4.000	4.000
0190	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0192	646.6120	Marking Stop Line Epoxy 18-Inch	LF	102.000	102.000
0194	648.0100	Locating No-Passing Zones	MI	1.360	1.360
0196	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	2,800.000	2,800.000
0198	650.4500	Construction Staking Subgrade	LF	2,400.000	2,400.000
0200	650.5000	Construction Staking Base	LF	2,400.000	2,400.000
0202	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	850.000	850.000
0204	650.6000	Construction Staking Pipe Culverts	EACH	8.000	8.000
0206	650.8000	Construction Staking Resurfacing Reference	LF	6,720.000	6,720.000
0208	650.9910	Construction Staking Supplemental Control (project) 01. 3190-08-70	LS	1.000	1.000
0210	650.9920	Construction Staking Slope Stakes	LF	7,515.000	7,515.000
0212	690.0150	Sawing Asphalt	LF	450.000	450.000
0214	740.0440	Incentive IRI Ride	DOL	5,444.000	5,444.000
0216	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
0218	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	500.000	500.000
0220	SPV.0060	Special 01. Section Corner Monuments	EACH	20.000	20.000

3

EARTHWORK SUMMARY TABLE

Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	208.0100 Borrow	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.20				
1	158+80 - 230+65.45	STH 120	5,595	0	0	5,595	90	108	5,487	5,487	0	
2	113+71.87 - 115+01.51	Oak Lane	124	0	0	124	0	0	124	124	0	
3	8+45.78 - 11+52.19	Buckby/Krueger	267	0	0	267	0	0	267	267	0	
Grand Total			5,986	0	0	5,986	90	108	5,878	5,878	0	
Total Common Exc			5,986									

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Select Borrow material.

(4) Salvaged/Unusable Pavement Material

(5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(13) Expanded Fill Factor = 1.2

Expanded Fill = (Unexpanded Fill) * Fill Factor

(14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

REMOVING PAVEMENT AND ASPHALTIC SURFACE SUMMARY

MAINLINE STATION	TO	MAINLINE STATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
158+80	-	158+80	12	-	BEGIN PROJECT
158+80	-	176+71	-	5532	
176+71	-	198+41	-	6111	
198+41	-	208+35	-	2707	
208+35	-	208+35	9	-	SOUTH END OF BRIDGE
208+93	-	208+93	9	-	NORTH END OF BRIDGE
208+93	-	228+38	-	5517	
228+38	-	231+34	-	1877	
231+34	-	230+65	32	-	END PROJECT
SIDE ROADS					
8+49	-	8+49	5	-	KRUEGER ROAD
8+49	-	9+75	-	383	KRUEGER ROAD
8+87	-	8+87	6	-	OAK LANE
8+87	-	10+00	-	470	OAK LANE
10+26	-	11+47	-	409	BUCKBY ROAD
11+47	-	11+47	5	-	BUCKBY ROAD
DRIVEWAYS					
160+20	-	160+20	-	17	
172+15	-	172+15	-	17	
172+65	-	172+65	-	12	
198+05	-	198+05	-	44	
203+00	-	203+00	-	23	
206+20	-	206+20	-	52	
TOTALS			**77**	**23171**	

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

CLEARING AND GRUBBING SUMMARY

MAINLINE STATION	TO	MAINLINE STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
158+80	-	230+65	---	6	6
TOTALS				**6**	**6**

FINISHING ROADWAY PROJECT

MAINLINE STATION	TO	MAINLINE STATION	LOCATION	213.0100 01. FINISHING ROADWAY PROJECT I.D. 3190-08-70. EACH
158+80	-	230+65	---	1
TOTALS				**1**

MISCELLANEOUS REMOVAL SUMMARY

MAINLINE STATION	TO	MAINLINE STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.9090.S.01 REMOVING FRENCH DRAINS LF	204.9105.S.02 REMOVING INLET STRUCTURE LUMP SUM	*638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
176+20	-	176+20	RT	---	---	1	---	BUCKBY ROAD
176+28	-	176+28	RT	---	---	---	1	BUCKBY ROAD
176+46	-	176+96	LT	1	---	---	---	KRUEGER ROAD
176+13	-	177+18	RT	1	---	---	---	BUCKBY ROAD
181+77	-	181+77	RT	1	---	---	---	EXTEND CMCP
197+43	-	197+73	RT	1	---	---	---	DRIVEWAY
197+87	-	198+29	RT	1	---	---	---	DRIVEWAY
12+25	-	12+25	LT	1	---	---	---	BUCKBY ROAD
13+97	-	14+27	LT	1	---	---	---	OAK LANE
113+97	-	113+97	LT	---	14	---	---	OAK LANE
114+27	-	114+27	LT	---	16	---	---	OAK LANE
TOTALS				**7**	**30**	**1**	**1**	

*FOR INFORMATION ONLY, QUANTITY IS INCLUDED IN TYPE II PERMANENT SIGNING QUANTITIES

3

REMOVING GUARDRAIL SUMMARY

MAINLINE STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	REMARKS
207+54	-	208+38	LT	83	
208+97	-	210+20	LT	120	
206+77	-	208+32	RT	158	
208+89	-	210+07	RT	120	
TOTALS				**481**	

BEAM GUARD ITEMS

STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3K LF	614.2500 MGS GUARDRAIL THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
204+70	-	208+32	RT	225.0	50.0	39.4	1
206+93	-	208+38	LT	50.0	0.0	39.4	1
208+89	-	210+42	RT	62.5	0.0	39.4	1
208+97	-	211+56	LT	112.5	50.0	39.4	1
TOTALS				**450**	**100**	**158**	**4**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

BASE AGGREGATE ITEMS

MAINLINE STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TONS	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TONS	371.1000.S QMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION TONS	305.0500 SHAPING SHOULDERS STA	*624.0100 WATER MGAL	REMARKS
158+80	-	176+50	LT & RT	-	1001	1001	36	10.1	PAVEMENT
158+80	-	176+50	LT & RT	33	61	61	-	-	SHOULDER
158+80	-	176+50	LT & RT	31	241	241	-	-	4:1 SLOPE
158+80	-	176+50	LT & RT	-	202	202	-	-	CURB & GUTTER
176+50	-	198+00	LT & RT	-	870	870	43	8.7	PAVEMENT
176+50	-	198+00	LT & RT	16	87	87	-	-	SHOULDER
176+50	-	198+00	LT & RT	15	113	113	-	-	4:1 SLOPE
176+50	-	198+00	LT & RT	244	-	-	-	-	SHOULDER
198+00	-	208+40	LT & RT	-	412	412	21	4.2	PAVEMENT
198+00	-	208+40	LT & RT	15	27	27	-	-	SHOULDER
198+00	-	208+40	LT & RT	13	98	98	-	-	4:1 SLOPE
198+00	-	208+40	LT & RT	131	-	-	-	-	SHOULDER
208+40	-	230+65	LT & RT	290	-	-	45	-	SHOULDER
SIDE ROADS									
8+49	-	9+16	LT	2	-	-	0.5	0.1	KRUEGER
8+49	-	9+16	LT	-	11	-	-	0.2	KRUEGER
8+49	-	9+76	LT	-	59	-	-	0.6	KRUEGER
8+87	-	9+48	LT	2	-	-	0.5	0.1	OAK
8+87	-	9+48	LT	-	10	-	-	0.2	OAK
8+87	-	10+17	LT	-	21	-	-	0.3	OAK
10+64	-	11+47	LT	2	-	-	0.5	0.1	BUCKBY
10+24	-	11+47	LT	-	27	-	-	0.3	BUCKBY
10+64	-	11+47	LT	-	14	-	-	0.2	BUCKBY
8+49	-	9+36	RT	3	-	-	0.5	0.1	KRUEGER
8+49	-	9+36	RT	-	14	-	-	0.2	KRUEGER
8+49	-	9+76	RT	-	30	-	-	0.3	KRUEGER
8+87	-	9+46	RT	2	-	-	0.5	0.1	OAK
8+87	-	9+46	RT	-	9	-	-	0.1	OAK
8+87	-	9+86	RT	-	26	-	-	0.3	OAK
10+85	-	11+47	RT	2	-	-	0.5	0.1	BUCKBY
10+24	-	11+47	RT	-	52	-	-	0.6	BUCKBY
10+84	-	11+47	RT	-	11	-	-	0.2	BUCKBY
DRIVEWAYS									
165+50	-	165+50	RT	8	-	-	-	0.1	
173+75	-	173+75	LT	0.02	-	-	-	0.1	
175+00	-	175+00	RT	4	-	-	-	0.1	
197+55	-	197+55	RT	0.2	-	-	-	0.1	
204+40	-	204+40	RT	31	-	-	-	0.4	
211+45	-	211+45	RT	1	-	-	-	0.1	
212+40	-	212+40	RT	3	-	-	-	0.1	
TOTALS				**848**	**3395**	**3111**	**148**	**28**	

*QUANTITY LISTED ELSEWHERE IN PLANS

ASPHALT ITEMS

MAINLINE STATION	TO	MAINLINE STATION	LOCATION	460.5223 HMA PAVEMENT 3 LT 58-28 S TONS	460.5224 HMA PAVEMENT 4 LT 58-28 S TONS	455.0605 TACK COAT GAL	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TONS	465.0315 ASPHALTIC FLUMES SY	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	REMARKS
158+80	-	176+71	-	1506	1004	1026	-	-	1700	1491	
160+20	-	160+20	LT	-	-	-	3	-	-	-	
172+15	-	172+15	LT	-	-	-	3	-	-	-	
172+65	-	172+65	LT	-	-	-	2	-	-	-	
176+71	-	198+49	-	1617	1078	1114	-	-	2660	1778	
198+05	-	198+05	RT	-	-	-	7	-	-	-	
198+49	-	208+36	-	796	531	527	-	-	1024	877	
203+00	-	203+00	RT	-	-	-	4	-	-	-	
206+20	-	206+20	LT	-	-	-	9	-	-	-	
208+96	-	230+65	-	1573	1048	1053	-	-	2572	2038	
SIDE ROADS											
8+49	-	9+76	-	89	59	64	-	33	-	-	KRUEGER
9+05	-	9+05	RT	-	-	-	6	17	-	-	OAK
9+25	-	9+25	LT	-	-	-	6	17	-	-	OAK
10+24	-	11+47	-	93	62	68	-	33	-	-	BUCKBY
8+87	-	10+02	-	71	47	63	-	-	-	-	OAK
TOTALS				**5744**	**3829**	**3916**	**40**	**100**	**7956**	**6184**	

REHEATING HMA PAVEMENT JOINTS

MAINLINE STATION	TO	MAINLINE STATION	LOCATION	460.4100.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF
158+80	-	230+65	---	7185
TOTALS				**7185**

CONCRETE DRIVEWAY ITEMS

MAINLINE STATION	TO	MAINLINE STATION	OFFSET	416.0160 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
197+47	-	197+67	35' RT	8	
198+00	-	198+16	35' RT	7	
SIDE ROADS					
10+89	-	11+10	20' RT	10	BUCKBY
TOTALS				**25**	

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

DRAINAGE ITEMS

STATION	LOCATION	DESCRIIPTION	520.3324 CULVERT PIPE CLASS III-A 24-INCH LF	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	522.2319 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH LF	522.2324 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH LF	522.2329 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH LF	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	522.2624 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH EACH	522.2629 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH EACH	611.0642 INLET COVERS TYPE MS EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	THICKNESS (INCHES) STEEL	THICKNESS (INCHES) ALUMINUM	REMARKS
MAINLINE																
160+15	LT	DRIVEWAY	-	-	-	-	50	-	-	-	2	-	-	-	-	
167+12	CL	CROSS CULVERT	-	-	-	75	-	-	-	2	-	-	-	-	-	
172+20	LT	DRIVEWAY	-	-	24	-	-	-	2	-	-	-	-	-	-	
172+60	LT	DRIVEWAY	-	-	24	-	-	-	2	-	-	-	-	-	-	
173+80	LT	DRIVEWAY	-	-	26	-	-	-	2	-	-	-	-	-	-	
175+00	RT	DRIVEWAY	-	-	19	-	-	-	2	-	-	-	-	-	-	
197+50	RT	DRIVEWAY	-	22	-	-	-	2	-	-	-	-	0.064	-		
198+10	RT	DRIVEWAY	-	18	-	-	-	2	-	-	-	-	0.064	-		
197+88	LT	CROSS CULVERT	-	30	-	-	-	-	-	-	-	1	1	0.064	-	
198+80	LT	CROSS CULVERT	-	36	-	-	-	1	-	-	-	-	-	0.064	-	
14+10	LT	DRIVEWAY	-	28	-	-	-	2	-	-	-	-	-	0.064	-	
219+90	CL	CROSS CULVERT	-	8	-	-	-	-	-	-	-	-	-	0.064	-	
10+59	CL	CROSS CULVERT	120	-	-	-	-	-	-	-	-	-	-	0.064	0.075	
TOTALS			**120**	**142**	**93**	**75**	**50**	**7**	**8**	**2**	**2**	**1**	**1**			

3

FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	DESCRIPTION	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONRETE 24-INCH EACH	608.0324 STORM SEWER PIPE REINFORCED CONRETE CLASS III 24-INCH LF	611.0430 RECONSTRUCTING INLETS EA	611.0530 MANHOLE COVERS TYPE J EACH	611.2006 MANHOLES 6-FT DIAMETER EACH
176+40.5	48.8' LT	174+75	29.5' LT	DISCHARGE PIPE	1	167	-	1	1
9+36.4	33.3' RT	176+40.5	48.8' LT	KRUEGER PIPE	1	16	-	-	-
177+05	65' LT	176+40.5	48.8' LT	KRUEGER X-CULVERT	1	77	-	-	-
208+97	22' LT	209+10	22' LT	-	-	-	1	-	-
TOTALS					**3**	**260**	**1**	**1**	**1**

PIPE UNDERDRAIN

STATION	TO	STATION	LOCATION	310.0115 BASE AGGREGATE OPEN-GRADED CY	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
MAINLINE						
114+10	-	114+10	7202 OAK LANE	2	30	19
TOTALS				**2**	**30**	**19**

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CONCRETE CURB AND GUTTER ITEMS

MAINLINE STATION	TO	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF
175+95	-	175+95	SE CORNER	---	114
176+15	-	176+15	SW CORNER	---	160
177+25	-	177+25	NE CORNER	---	60
177+46	-	177+46	NW CORNER	---	92
196+88	-	201+00	LF	---	401
197+74	-	197+74	SW CORNER	---	67
199+02	-	199+02	NW CORNER	---	56
229+89	-	229+89	53' RT	10	---
230+17	-	230+17	27' RT	27	---
230+17	-	230+17	39' LT	30	---
230+76	-	230+76	36' LT	22	---
TOTALS				**89**	**950**

CONCRETE SIDEWALK ITEMS

MAINLINE STATION	TO	STATION	OFFSET	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
229+89	-	229+89	53' RT	75	13
230+17	-	230+17	27' RT	210	38
230+17	-	230+17	39' LT	235	25
230+76	-	230+76	36' LT	200	19
TOTALS				**720**	**94**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

MOBILIZATION

MAINLINE STATION	TO	STATION	LOCATION	619.1000 MOBILIZATION EACH
158+80	-	230+65	---	1
TOTALS				**1**

FIELD OFFICE

MAINLINE STATION	TO	STATION	LOCATION	642.5201 FIELD OFFICE TYPE C EACH
158+80	-	230+65	---	1
TOTALS				**1**

SECTION CORNERS

MAINLINE STATION	TO	STATION	LOCATION	SPV.0060.01 SECTION CORNER MONUMENTS EACH
158+80	-	230+65	---	20
TOTALS				**20**

HAUL ROADS

MAINLINE STATION	TO	STATION	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS PROJECT 3190-08-70 EACH
158+80	-	230+65	---	1
TOTALS				**1**

3

TRAFFIC CONTROL

LOCATION	DAYS	ITEM NO. 643.0300 TRAFFIC CONTROL DRUMS EACH	DAYS	ITEM NO. 643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LUMP SUM	ITEM NO. 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	DAYS	ITEM NO. 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	ITEM NO. 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	ITEM NO. 643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	ITEM NO. 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	DAYS	ITEM NO. 643.5000 TRAFFIC CONTROL EACH	ITEM NO. 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF
158+80 - 230+65.45	70	--	--	1	--	--	--	--	--	--	10	700	--	--	--	--
158+80 - 176+50	70	40	2,800	--	1	70	15	1,050	1	70	4	280	1	7	--	700
176+50 - 198+00	70	40	2,800	--	1	70	15	1,050	1	70	3	210	--	--	--	700
198+00 - 208+40	70	40	2,800	--	1	70	15	1,050	1	70	--	--	--	--	--	700
208+40 - 230+00	70	40	2,800	--	1	70	15	1,050	1	70	6	420	1	7	--	700
UNDISTRIBUTED	---	---	40	--	---	5	---	10	---	5	---	10	---	---	1	---
TOTALS			**11240**	**1**		**285**		**4210**		**285**		**1620**		**14**	**1**	**2,800**

3

PAVEMENT MARKING ITEMS

START STATION	END STATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	REMARKS
158+80	176+70	2623	716	3692	561	2	1	30	
176+70	198+41	4084	449	4271	346	---	---	72	
198+41	208+35	1990	266	1945	251	2	1	---	
208+35	208+93	116	---	116	---	---	---	---	
208+93	228+38	4274	163	3891	---	---	---	---	
TOTALS		**13087**	**1594**	**13915**	**1158**	**4**	**2**	**102**	
		14681							

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EROSION CONTROL ITEMS

STATION	TO	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	*624.0100 WATER MGAL	625.0100 TOPSOILS SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2039 EROSION MAT CLASS III TYPE D SY	628.7515.S STONE OR ROCK DITCH CHECKS CY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEED MIXTURE NO. 20 LBS	645.0120 GEOTEXTILE TYPE HR SY	645.0140 GEOTEXTILE TYPE SAS SY
158+80	-	176+50	LT	40	103	4600	1400	2490	700	---	1	2.9	124.0	---	---
158+80	-	176+50	RT	16	66	2920	1330	1600	0	---	---	1.9	78.6	---	---
176+50	-	198+00	LT	8	135	6000	1880	2700	1940	210	5	3.8	161.9	---	101
176+50	-	198+00	RT	10	71	3180	870	2400	270	---	---	2.0	85.6	---	---
198+00	-	208+40	LT	13	48	2120	580	1560	230	580	99	1.4	57.2	189	613
198+00	-	208+40	RT	10	31	1370	270	570	630	270	37	0.9	36.8	---	---
208+40	-	230+00	LT	---	62	2780	---	2530	540	---	6	1.8	74.8	---	---
208+40	-	230+00	RT	---	44	1960	---	1840	330	---	6	1.3	52.8	---	---
TOTALS				**97**	**560**	**24930**	**6330**	**15690**	**4640**	**1060**	**154**	**16**	**672**	**189**	**713**

*QUANTITY LISTED ELSEWHERE IN PLANS

TEMPORARY EROSION CONTROL

STATION	TO	STATION	LOCATION	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
158+80	-	176+50	LT	4600	90	90	---	44	33
158+80	-	176+50	RT	2920	1065	1065	---	44	8
176+50	-	198+00	LT	6000	630	630	1	82	4
176+50	-	198+00	RT	3180	555	555	---	33	---
198+00	-	208+40	LT	2120	430	430	---	---	10
198+00	-	208+40	RT	1370	910	910	---	---	6
208+40	-	230+00	LT	2780	1385	1385	---	31	7
208+40	-	230+00	RT	1960	840	840	---	54	---
UNDISTRIBUTED				---	1480	1480	---	72	17
TOTALS				**24930**	**7385**	**7385**	**1**	**360**	**85**

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EROSION CONTROL MOBILIZATIONS

STATION	TO	STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
158+80	-	230+00	6	5
TOTALS			**6**	**5**

CONSTRUCTION STAKING

				650.4500 CONSTRUCTION STAKING SUBGRADE	650.5000 CONSTRUCTION STAKING BASE	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB AND GUTTER	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LINE	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL PROJECT 3190-08-70	650.9920 CONSTRUCTION STAKING SLOPE STAKES
MAINLINE										
STATION	TO	STATION	LOCATION	LF	LF	LF	EACH	LF	LS	LF
158+80	-	230+65	---	2400	2400	850	8	6720	1	7515
TOTALS				**2400**	**2400**	**850**	**8**	**6720**	**1**	**7515**

SAWING ITEMS

MAINLINE	690.0150 SAWING ASPHALT LF
STATION	LF
158+80	52
208+35	46
208+93	44
230+65	150
SIDE ROADS	
8+44	23
11+52	23
13+72	25
DRIVEWAYS	
160+20	30
172+15	12
172+65	10
198+05	9
203+03	13
206+20	13
TOTALS	**450**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

POLYMER OVERLAY

				509.5100.S POLYMER OVERLAY
MAINLINE				
STATION	TO	STATION	LOCATION	SY
208+28	-	208+85	STRUCTURE B-64-81	288
CATEGORY 0020				
TOTALS				**288**

LOCATING NO PASSING ZONES

				648.0100 LOCATING NO PASSING ZONES
MAINLINE				
STATION	TO	STATION	LOCATION	MI
158+80	-	230+65	---	1.36
TOTALS				**1.36**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	S4-51	SPEED LIMIT 45								1	1		1		SHEET 2 OF 6
2	D7-68R	WHITE RIVER COUNTY PARK [RA]								2	2		1		
3	E10-82	HAWKS VIEW GOLF CLUB											1		OWNED BY OTHERS (HAWKS VIEW)
4	E10-82	HAWKS VIEW GOLF CLUB											1		OWNED BY OTHERS (HAWKS VIEW)
5	W14-3									1	1		1		SHEET 2 OF 6
6	R2-1 (2S)	SPEED LIMIT 55	24	X	30	5.000			1	1	1				
7	S5-2 (2S)		24	X	30	5.000								6	
8	S1-1										1		1		REMOVAL BY SIGN NO. 5
9	S16-9P													8	
10	R2-6P													8	
11	R12-53 (2S)	BY ORDER OF LYONS TOWN BOARD	24	X	30	5.000			1	2	1				
12	R12-53 (2S)	BY ORDER OF TOWN OF LYONS	24	X	30	5.000			1	1	1				
13	R1-1 (2S)		30	X	30	5.180			1	1	1				
14	R1-1 (2S)		30	X	30	5.180			1	1	1				
15	R1-1 (2S)		30	X	30	5.180			1	1	1				
16	R1-1 (2S)		30	X	30	5.180			1	1	1				
17	D7-68L	WHITE RIVER COUNTY PARK [LA]								2	2		1		SHEET 3 OF 6
18	W2-2L									1	1		1		
19	W2-2L									1	1		1		
20	W2-1													18	
21	W2-1													19	
22	W13-1	45 MPH												18	
23	W13-1	45 MPH												19	
24	W1-5									1	1		1		
25	W1-5									1	1		1		
26	W13-1	45 MPH												24	
27	W13-1	45 MPH												25	
28	W1-8									1	1		1		MOUNT HEIGHT 4 FEET; SHEET 4 OF 6
29	W1-8													28	MOUNT HEIGHT 4 FEET
30	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
31	W1-8													30	MOUNT HEIGHT 4 FEET
32	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
33	W1-8													32	MOUNT HEIGHT 4 FEET
34	W1-6									1	1		1		
35	W1-8 (2S)		18	X	24		3.000		1	1	1				MOUNT HEIGHT 4 FEET

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
36	W1-8 (2S)		18	X	24		3.000							35	MOUNT HEIGHT 4 FEET
37	W1-8 (2S)		18	X	24		3.000		1	1	1				MOUNT HEIGHT 4 FEET
38	W1-8 (2S)		18	X	24		3.000							37	MOUNT HEIGHT 4 FEET
39	W1-8 (2S)		18	X	24		3.000		1	1	1				MOUNT HEIGHT 4 FEET
40	W1-8 (2S)		18	X	24		3.000							39	MOUNT HEIGHT 4 FEET
41	R1-1 (2S)		30	X	30	5.180			1	1	1				
42	W14-2									1	1		1		
43	S3-1 (2S)		36	X	36		9.000		1	1	1				
44	W1-7 (2S)		48	X	24		8.000				1				
45	W1-4L (2S)		30	X	30		6.250		1	1	1				
46	W1-4L (2S)		30	X	30		6.250		1	1	1				
47	W13-1 (2S)	45 MPH	18	X	18		2.250							43	
48	W13-1 (2S)	45 MPH	18	X	18		2.250							44	
49	W1-10L (2S)		30	X	30		6.250							43	
50	W1-10L (2S)		30	X	30		6.250							44	
51	W13-1 (2S)	45 MPH	18	X	18		2.250							43	
52	W13-1 (2S)	45 MPH	18	X	18		2.250							44	
53	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
54	W1-8													51	MOUNT HEIGHT 4 FEET
55	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
56	W1-8													53	MOUNT HEIGHT 4 FEET
57	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
58	W1-8													55	MOUNT HEIGHT 4 FEET
59	NOT USED														
60	D1-2	[LA] KRUEGER RD / BUCKBY RD [RA]	78	X	30	16.250					2				SHEET 2 OF 6
61	D1-2	[LA] BUCKBY RD / KRUEGER RD [RA]	78	X	30	16.250					2				SHEET 3 OF 6
62	W1-8 (2S)		18	X	24		3.000				1				MOUNT HEIGHT 4 FEET; SHEET 4 OF 6
62A	W1-8 (2S)		18	X	24		3.000							62	MOUNT HEIGHT 4 FEET; SHEET 4 OF 6
63	W1-8									1	1		1		MOUNT HEIGHT 4 FEET; SHEET 5 OF 6
64	W1-8													61	MOUNT HEIGHT 4 FEET
65	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
66	W1-8													63	MOUNT HEIGHT 4 FEET
67	W1-8									1	1		1		MOUNT HEIGHT 4 FEET
68	W1-8													65	MOUNT HEIGHT 4 FEET
69	W1-8									1	1		1		MOUNT HEIGHT 4 FEET

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	**637.2210** SIGNS TYPE II REFLC H [SF]	**637.2230** SIGNS TYPE II REFLC F [SF]	**637.2215** SIGNS TYPE II REFLC H FOLDING [SF]	**638.2602** REM SIGNS TYPE II [EA]	**638.3000** REM SMALL SIGN SUPPORTS [EA]	**634.0618** WOOD POSTS 4" X 6" X 18' [EA]	**634.0816** POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	**638.2102** MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
70	W1-8													67	MOUNT HEIGHT 4 FEET
71	W1-2R									1	1		1		
72	W13-1	45 MPH												69	
73	J1-1									1	1		1		
	M2-1														
	M1-6	STH 36													
74	S3-1									1	1		1		
75	W1-2R									1	1		1		
76	W13-1	45 MPH												75	
77	W1-6									1	1		1		
78	W1-6													77	
79	J2-2									1	1		1		
	M3-1														
	M1-6	STH 120													
	M6-1														
	M3-1														
	M1-6	STH 36													
	M5-2R														
80	D1-3	EAST TROY/ LYONS BURLINGTON								2	2		1		
81	W3-1									1	1		1		SHEET 6 OF 6
82	I2-3	SPRINGFIELD UNINCORPORATED								2	2		1		
83	W1-5									1	1		1		
84	W13-1	45 MPH												83	
85	W21-61								1	1					
86	J3-1								1	1					
	M3-1														
	M1-6	STH 36													
	M6-1														
86A	J3-2 (2S)		24	X	57	9.500					1				
	not used														
	not used														
	not used														
	M3-1		24	x	12										
	M1-6	STH 36	24	x	24										
	M6-1		21	x	21										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
87	R1-2 (2S)		36	X	31	3.875			1	1	1				
88	R5-1 (2S)		30	X	30	6.250								87	
89	R12-1	WEIGHT LIMIT 40 TONS ... WISDOT							1	1					REMOVES 40 TON BRIDGE...AHEAD SIGN
90	NOT USED														
91	W1-5									1	1		1		SHEET 6 OF 6
92	W13-1	45 MPH												83	
93	R2-1	SPEED LIMIT 55								2	1		1		
94	J4-1 (2S)		24	X	36	6.000				1	1				REMOVES SPARE POST
	M3-3		24	x	12										
	M1-6	STH 120	24	x	24										
95	D2-1	LAKE GENEVA 3								2	2		1		REMOVES M3-3 SIGN
96	R1-1 (2S)		30	X	30	5.180			1	1	1				
97	R1-3P (2S)		18	X	6	0.750								96	
98	R1-1 (2S)		30	X	30	5.180			1	1	1				
99	R1-3P (2S)		18	X	6	0.750								98	
100	R1-1 (2S)		30	X	30	5.180			1	1	1				REMOVES MT ZION CHURCH SIGN
101	R1-3P (2S)		18	X	6	0.750								100	
102	R1-1 (2S)		30	X	30	5.180			1	1	1				
103	R1-3P (2S)		18	X	9	1.125								102	
104	W1-8 (2S)		18	X	24		3.000				1				MOUNT HEIGHT 4 FEET; SHEET 4 OF 6
105	W1-8 (2S)		18	X	24		3.000							104	MOUNT HEIGHT 4 FEET; SHEET 4 OF 6
106	W1-8 (2S)		18	X	24		3.000				1				MOUNT HEIGHT 4 FEET; SHEET 5 OF 6
106A	W1-8 (2S)		18	X	24		3.000							106	MOUNT HEIGHT 4 FEET; SHEET 5 OF 6
107	R2-6P(2S)		24	X	18		3.000								SHEET 1 OF 6 . MOUNT UNDER EXISTING S
	TOTALS					128.120	90.000	0.000	22	63	68	0	36		

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
3190-08-20	4.01	7

PLAT OF RIGHT OF WAY REQUIRED FOR

STH 120
COMO CREEK - STH 36

LAKE GENEVA - EAST TROY — WALWORTH COUNTY

3190-08-70

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
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN (I-25)

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	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 INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WCCS), WALWORTH COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

N

END RELOCATION ORDER
STA. 232+71.01 (STH 120)

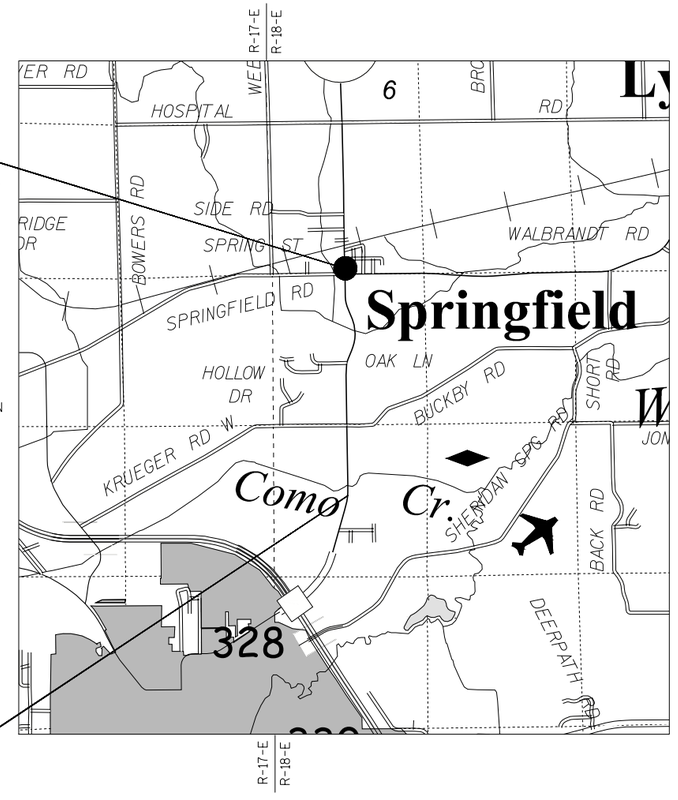
224.89' NORTH OF AND 4.51' WEST OF THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 18, T.2N., R.18E.

Y=354051.87
X=797448.69

BEGIN RELOCATION ORDER
STA. 154+72.09 (STH 120)

452.43' NORTH OF AND 4.85' EAST OF THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SECTION 19, T.2N., R.19E.

Y=346356.95
X=797426.99



LAYOUT

SCALE 0 SCALE
1" = 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 1.48 MI

WISCONSIN
ROBERT F. SCHMALZER
1760
COLGATE, WI
LAND SURVEYOR

ROBERT F. SCHMALZER, PLS 1760
DATE: DECEMBER 12, 2016

TERRATEC ENGINEERING, LLC.
W67 N222 EVERGREEN BLVD., STE. 205
CEDARBURG, WI 53012
Tel.: 262.377.9905 - Fax: 262.375.1958

REVISION DATE
07/03/17
08/23/17 NC
02/05/19 NC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE:_____ _____
(Signature)

SCHEDULE OF LANDS AND INTEREST

"OWNERS" NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO WISCONSIN DEPARTMENT OF TRANSPORTATION. AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES EXISTING PARCEL	AREA ACRES REQUIRED			TOTAL ACRES REMAINING	PLE ACRES REQUIRED	TLE ACRES REQUIRED
					NEW	EXISTING	TOTAL			
1 (3)	4.04	MIRIAM H. HOUCK	FEE/TLE	5.347 *	0.037	0.133	0.170	5.177	-	0.052
2	4.04	MT. ZION CHRISTIAN TEMPLE, INC.	FEE	14.998	0.166	-	0.166	14.832	-	-
3	4.04	STEVE KONTOYANNIS & CLEO KONTOYANNIS	FEE	10.000	0.059	0.467	0.526	9.474	-	-
4	4.04	ELLSWORTH E. KROHN JR. & AMELIA M. KROHN	FEE	1.838	0.005	0.024	0.029	1.809	-	-
5	4.04	ELLSWORTH E. KROHN JR. & AMELIA M. KROHN JOINT REVOCABLE TRUST	FEE	1.151 *	0.006	0.031	0.037	1.114	-	-
6	4.04	MT. FUGI DEVELOPMENT CORPORATION	FEE	0.351 *	0.072	0.190	0.262	0.089	-	-
7	4.04	ROBERT S. PETERS & ABBY J. PETERS	FEE	0.345	0.017	0.036	0.053	0.292	-	-
8 (2)	4.05	MARK J. POTTER	FEE/TLE	5.00	0.090	0.535	0.625	4.375	-	0.010
					-	-	-		-	-
10	4.05	MANEE GRETHE MARITAL TRUST	FEE	71.868	0.312	0.573	0.885	70.983	-	-
11	4.05	JOSEPH L. & MARILYN H. D'LUGOSA	TLE	2.656	-	-	-	2.656	-	0.013
					-	-	-		-	-
13	4.06	RICHARD A. ADAMS, TRUSTEE - RICHARD A. ADAMS SELF DECLARATION OF TRUST DATED JULY 24, 1996	FEE	105.957	0.041	0.165	0.206	105.751	-	-
14	4.07	RUTH A. VORPAGEL TRUST	FEE	14.160	0.003	-	0.003	14.157	-	-

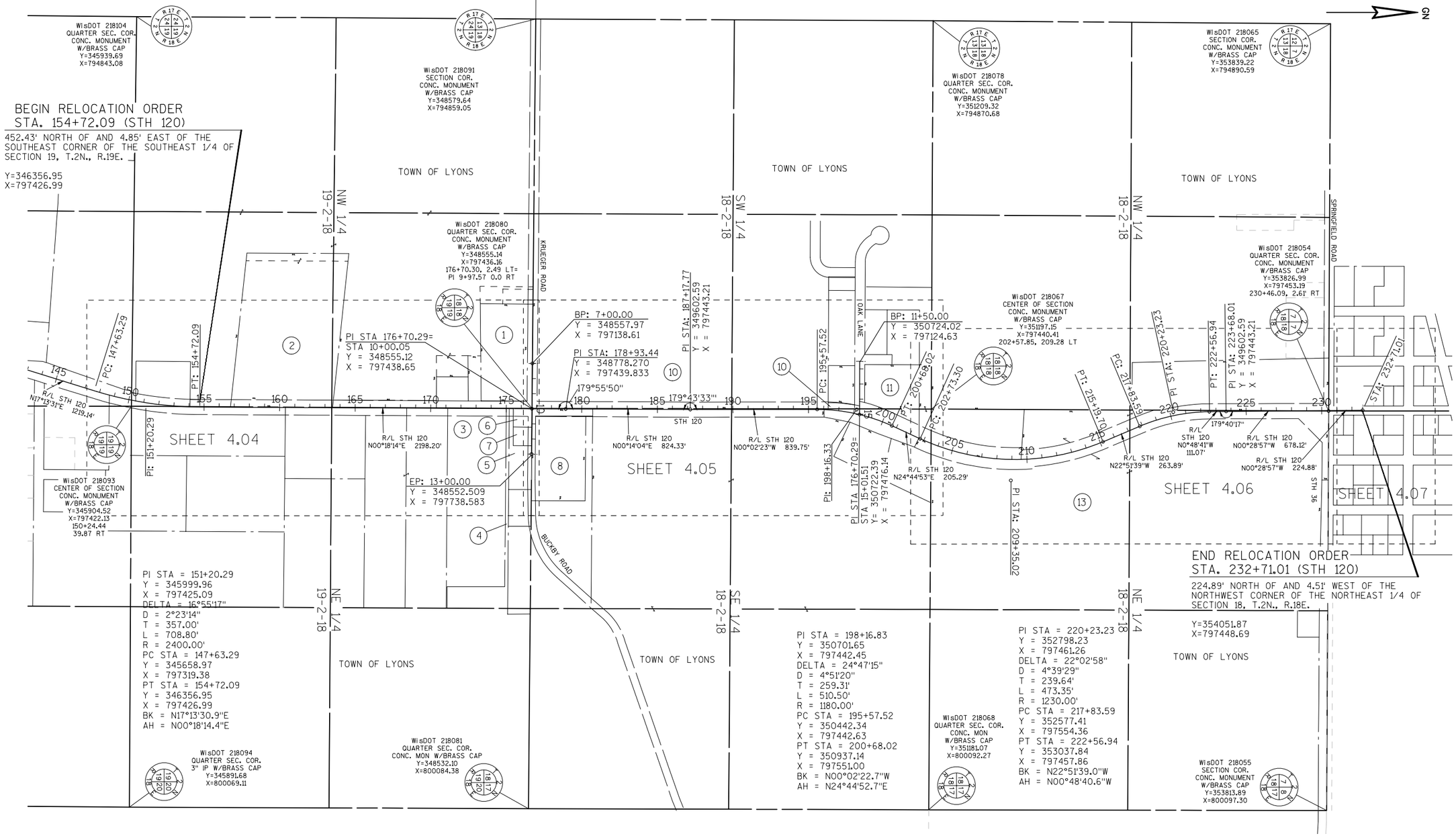
* COMPUTED ACREAGE

UTILITY NUMBER	SHEET NUMBER	OWNER	
90	4.04, 4.05, 4.06	AT&T OF WISCONSIN	RELEASE OF RIGHTS
91 (3)		ELIMINATED	

REVISION DATE 07/03/17 08/23/17 02/05/19	DATE: 01/17/2017 GRID FACTOR N/A	SCALE, FEET N/A	HWY: STH 120 COUNTY: WALWORTH	STATE R/W PROJECT NUMBER - 3190-08-20 CONSTRUCTION PROJECT NUMBER - 3190-08-70	PLAT SHEET 4.02 PS&E SHEET --61	E

FILE NAME : C:\CIVIL 3D PROJECTS\3190-08-00 STH 120\RW\RWSHEET 4.02.DWG PLOT DATE : 2/5/2019 7:51 AM PLOT BY : terratec PLOT NAME :

CONST. 3190-08-70 STH 120 R/W 3190-08-20-4.02



ALIGNMENT PLAN

REVISION DATE 07/03/17 NC 08/23/17 NC 02/05/19 NC	DATE: 01/11/2017 GRID FACTOR N/A	SCALE, FEET 0 N/A	HWY: STH 120 COUNTY: WALWORTH	STATE R/W PROJECT NUMBER - 3910-08-20 CONSTRUCTION PROJECT NUMBER - 3910-08-70	PLAT SHEET 4.03 PS&E SHEET --62 E

FILE NAME : C:\CIVIL 3D PROJECTS\3190-08-00 STH 120\RW\RWSHEET 4.03.DWG PLOT DATE : 2/5/2019 7:56 AM PLOT BY : terratec PLOT NAME :

CONST. 3190-08-70 STH 120 R/W 3190-08-20-4.03

UTILITY NUMBER	OWNER	PARCEL OCCUPIED	DOCUMENT
(90)	AT&T OF WISCONSIN (BURIED LINES & PEDESTAL) (PEDESTAL)	3, 4, 5, 7 6	#213271, VOL 523 P 814 #213572, VOL 524 P 394 NO RECOREDED EASEMENT

WisDOT 218092
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=345939.69
X=794843.08

BEGIN RELOCATION ORDER
STA. 154+72.09 (STH 120)
452.43' NORTH OF AND 4.85' EAST OF THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SECTION 19, T.2N., R.19E.
Y=346356.950
X=797426.986

CSM 4298
LOT 1

(2) MT. ZION CHRISTIAN TEMPLE, INC.
CSM 1625
LOT 1
DOC. NO. 152224

TOWN OF LYONS

WisDOT 218079
SECTION COR.
CONC. MONUMENT
W/BRASS CAP
Y=348579.64
X=794859.05

(1) DETAIL: PARCEL 1 TLE
TLE125 176+22.56 65.04'
TLE125 174+72.05 65.05'
TLE124 174+72.50 50.05'
PRW107 176+22.50 50.04'
15' 150' 15'
R/L STH 120 N00°18'14"E
W. LINE NW 1/4 19-2-18 S0°18'12"W
NE COR. NW 1/4 19-2-18

WisDOT 218080
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=348555.14
X=797436.16
176+70.30, 2.49 LT=
PI 9+97.57 0.0 RT

BP: 7+00.00
Y = 348557.97
X = 797138.61

(1) HOUCK
CSM 2309
LOT 1
DOC. NO. 259154

N89°27'19"W 2577.23'
N. LINE NW 1/4
COR. TO COR.

KRUEGER ROAD
STA 176+70.29
33'
R/L = SEC. LINE
S00°32'41"W 33.00'
N00°32'41"E 15.00'

PRW108 PRW109 8+44 48', 33'
S0°18'12"W 15.00'
PRW107 176+22.50 50.04'
S89°27'19"E 47.55'
SEE DETAIL
EXRW110 176+37.50 50.04'
R/L STH 120
N00°18'14"E 223.15'

STA 150+17.26
N89° 13' 07"W 2579.29'
S. LINE NW 1/4
COR. TO COR.

PC: 147+63.29
R/L STH 120
N17°13'31"E 129.14'

PT: 154+72.09
COMO CREEK
PRW103 160+00 70.47'
PRW102 159+10 50.15'
N12°25'03"W 92.27'
N89°41'46"W 47.68'
N 00°18'12" E 357.18'
S0°18'28"W 445.12'
68'
163+57.18 70.47' PRW104
S83°55'08"E 20.45'
163+55.12 50.12' EXRW106

SE-NW
19-2-18
NE-NW
19-2-18
CSM 4298
LOT 1

SLOPE INTERCEPT
890.37'
150 155 160 165 170 175
R/L STH 120
N00°18'14"E 2198.20'
425.30'
P/L=SEC. LINE
STH 120
S89°41'46"E
NO°18'12"E 2650.66'
W. LINE NE 1/4 COR. TO COR.

SLOPE INTERCEPT
NO°18'28"E 400.39'
355.00'
63'
100'
SEE DETAIL
PRW117 176+00 60.52'
S70°25'11"W 132.23'
PRW118 11+85 24.68'
PRW111 PRW112 172+45 49.94', 60.52'
N89°41'46"W 10.58'
16.5' EASEMENT
WISCONSIN BELL INC.
DOC. NO. 213271

PI STA 176+70.29=
STA 10+00.05
Y = 348555.12
X = 797438.65

QUESTIONABLE LOCATION
10' X 10' EASEMENT
WISCONSIN BELL INC.
DOC. NO. 213572

PI: 151+20.29

PI STA = 151+20.29
Y = 345999.96
X = 797425.09
DELTA = 16°55'17"
D = 2°23'14"
T = 357.00'
L = 708.80'
R = 2400.00'
PC STA = 147+63.29
Y = 345658.97
X = 797319.38
PT STA = 154+72.09
Y = 346356.95
X = 797426.99
DB = N17°13'30.9"E
DA = N00°18'14.4"E

WisDOT 218093
CENTER OF SECTION
CONC. MONUMENT
W/BRASS CAP
Y=345904.52
X=797422.13
150+24.44
39.87 RT

S89°43'08"E 2652.88'
S. LINE NE 1/4
COR. TO COR.

WisDOT 218094
QUARTER SEC. COR.
3" IP W/BRASS CAP
Y=345891.68
X=800069.11

SW-NE
19-2-18
NW-NE
19-2-18

COURSE TABLE		
PNT NO.	BEARING	DIST.
EXRW114-PRW113	S89°28'53"E	10.56'
PRW113-PRW112	S00°18'28"W	255.08'
EXRW111-EXRW114	N00°18'28"E	255.12'
EXRW116-PRW115	S89°30'05"E	10.56'
PRW115-PRW113	S00°18'12"W	20.01'
PRW113-EXRW114	N89°28'53"W	10.56'
EXRW114-EXRW116	N00°18'28"E	20.01'
EXRW120-PRW121	S89°52'57"E	10.56'
PRW121-PRW115	S00°18'12"W	26.32'
PRW115-EXRW116	N89°30'05"W	10.56'
EXRW116-EXRW120	N00°18'28"E	26.25'
PRW117-PRW121	S00°18'12"W	53.59'
PRW121-EXRW120	N89°52'57"W	10.56'
EXRW120-EXRW119	N00°18'28"E	99.01'
EXRW119-EXRW122	S89°31'19"E	71.47'
EXRW122-PRW123	S00°41'37"W	23.19'
PRW123-PRW117	S70°25'11"W	64.62'
EXRW122-EXRW118	S89°31'19"E	63.43'
EXRW118-PRW123	S70°25'11"W	67.62'
PRW123-EXRW122	N00°41'37"E	23.19'
PRW107-TLE124	S00°18'28"W	72.50'
TLE124-TLE125	N09°26'31"W	73.61'
TLE125-PRW107	S89°27'19"E	12.47'

TOWN OF LYONS

ROAD NAME	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 120	PROJECT: T 064-1(13)	100	1954
STH 120	TPP NO: 3190-00-20	VARIES	2016
BUCKY ROAD	CSM 1394 (1984)/SURVEYS	49.5	
KRUEGER ROAD	ROAD RECORDS-TOWN CONSTRUCTION REPORT FORM (1974)/SURVEYS	66	

(1) HOUCK
CSM 2309
LOT 1
DOC. NO. 259154

(2) MT. ZION CHRISTIAN TEMPLE, INC.
CSM 1625
LOT 1
DOC. NO. 152224

(3) KONTOYANNIS

(4) KROHN

(5) KROHN

(6) MT. FUGI DEVELOPMENT CORP.

(7) PETERS
EP: 13+00.00
Y = 348552.51
X = 797738.58

DETAIL
SCALE 1"=50'
NO°18'12"E
P/L=SEC. LINE
149.99'
124.09'
19.99' 25.90'
52.44' 52.44' 52.44'
99.01'
53.59'
124.00'
71.47'
64.62'
24.71'
61.62'
63.43'
63.35'
24.68'
176+37.50 50.04'
EXRW116 EXRW114 EXRW120 PRW121 PRW113 PRW115 PRW117 176+00 60.52' PRW123 11+21.50 47.90' PRW118 11+85 24.68' EXRW119 EXRW122
11+21.57 24.71'
(90) AT&T PEDESTAL NO RECORDED EASEMENT
(90) 16.5' EASEMENT WISCONSIN BELL INC. DOC. NO. 213271
P/L=SEC. LINE S89°30'05"E
(90) QUESTIONABLE LOCATION 10' X 10' EASEMENT WISCONSIN BELL INC. DOC. NO. 213572 PEDESTAL

WisDOT 218081
QUARTER SEC. COR.
CONC. MON
W/BRASS CAP
Y=348532.10
X=800084.38

S89°30'05"E 2648.31'
N. LINE NE 1/4
COR. TO COR.
(90) PEDESTAL

SEE SHEET 4.07 FOR COORDINATE TABLES

REVISION DATE	DATE: 01/11/2017	SCALE, FEET 0 100' 200'	HWY: STH 120	STATE R/W PROJECT NUMBER 3190-08-20	PLAT SHEET 4.04	
07/03/17 NC 08/23/17 02/05/19 NC	GRID FACTOR: N/A		COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER 3190-08-70	PS&E SHEET	E

FILE NAME : RWSHEET 4.04.DWG PLOT DATE : 2/5/2019 8:02 AM PLOT BY : terratec PLOT NAME :

CONST. 3190-08-70 STH 120 R/W 3190-08-20-4.04

UTILITY NUMBER	OWNER	PARCEL OCCUPIED	DOCUMENT
(90)	AT&T OF WISCONSIN (EASEMENT, PEDESTALS & BURIED LINES)	8	#670365, VOL 101 P 614 #213274, VOL 523 P 820
(91) (3)	ELIMINATED		

TOWN OF LYONS

PI STA = 198+16.83
Y = 350701.6
X = 797442.45
DELTA = 24°47'15"
D = 4°51'20"
T = 259.31'
L = 510.50'
R = 1180.00'
PC STA = 195+57.52
Y = 350442.34
X = 797442.63
PT STA = 200+68.02
Y = 350937.14
X = 797551.00
DB = N00°02'22.7"W
DA = N24°44'52.7"E

WisDOT 218079
SECTION COR.
CONC. MONUMENTW/BRASS CAP
Y=348579.64
X=794859.05

WisDOT 218066
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=351209.32
X=794870.68

WisDOT 218067
CENTER OF SECTION
CONC. MONUMENT
W/BRASS CAP
Y=351197.15
X=797440.41
202+57.85, 209.28 LT

WisDOT 218080
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=348555.14
X=797436.16
176+70.30, 2.49 LT=
PI 9+97.57 0.0 RT

WisDOT 218081
QUARTER SEC. COR.
CONC. MON W/BRASS CAP
Y=348532.10
X=800084.38

WisDOT 218068
QUARTER SEC. COR.
CONC. MON
W/BRASS CAP
Y=351181.07
X=800092.27

KRUEGER ROAD
BUCKY ROAD
OAK LANE
GRETHE
D'LUGOSA
MARK J. POTTER
SEE DETAIL
CSM 1394
LOT 1
DOC. NO. 108673
CSM 463
LOT 1

BP: 7+00.00
Y = 348557.97
X = 797138.61

PI STA: 178+93.44
Y = 348778.27
X = 797439.83

PI STA: 187+17.77
Y = 349602.59
X = 797443.21

SE-SW
18-2-18

NE-SW
18-2-18

NW-SE
18-2-18

SW-SE
18-2-18

R/L STH 120
N00°18'14"E 2198.20'

R/L STH 120
N00°14'04"E 824.33'185

R/L STH 120
N00°02'23"W 839.75'

R/L STH 120
N00°18'14"E 223.15'

STH 120

R/L OAK LANE
N89°44'06"W

N89°43'43"W
46.79'

N89°43'43"W
43.12'

N89° 43' 43"W 2569.75'
N. LINE SW 1/4
COR. TO COR.

C/L=N89°43'43"W

N89°32'41"E 15.00'
R/L = 33.00'
SEC. LINE

S89°27'19"E 28.83'

N45°13'11"E 69.65'

N11°24'27"E 96.83'

S89°45'56"E 10.18'

S89°45'56"E 49.82'

S00°18'28"W

179°43'33"

179°55'50"

N89°27'19"W 2577.23'
S. LINE SW 1/4
COR. TO COR.

N0°05'31"E 2642.01'
W. LINE SE 1/4 COR. TO COR.

N89°31'19"W 53.79'

N00°18'28"E 286.96'

S89°41'46"E 10.03'

S0°18'14"W 43.62'

N75°02'37"W 10.37'

S89°31'19"E 174.56'

S89°30'05"E 226.93'

N75°02'37"W 180.43'

S89°30'05"E 2648.31'
S. LINE SE 1/4
COR. TO COR.

S89° 39' 09"E 2651.91'
N. LINE SE 1/4 COR. TO COR.

N0°29'55"E 24.83'

SLOPE INTERCEPT

TLE SLOPES

EASEMENT
WISCONSIN TELEPHONE
COMPANY
DOC. NO. 670365

EASEMENT
WISCONSIN BELL INC.
DOC. NO. 213274

EASEMENT
WISCONSIN TELEPHONE COMPANY
DOC. NO. 595838

EASEMENT
WISCONSIN BELL INC.
DOC. NO. 213274

EASEMENT
WISCONSIN TELEPHONE COMPANY
DOC. NO. 670365

8+44
33', 48'
EXRW200 PRW201

8+72.83
48'
PRW202

177+68.14
77.85'
PRW203

180+35
78.66'
PRW204

181+30
59.90', 49.72'
PRW205 EXRW206

177+03.50
50.03'
EXRW199

176+94.89
49.97'

177+40
49.97'
PRW211 TLE212

177+81
49.97'& 60'
TLE213 TLE214

177+37.37
60'
TLE215

12+24.50
24.83'
PRW216

EXRW210

14+21.79
33.12'
TLE207

13+75
33.12'
TLE208

198+75
85.85'
TLE209

PC: 195+57.52

PT: 200+68.02

SEC: 202+73.30

CURVE #1
LCB= S15°19'14"W
R= 1035.37'
L= 24.16'
LCH= 24.16'

PI: 198+16.33

PI STA 176+70.29=
STA 15+01.51
Y= 350722.39
X = 797476.14

PI STA 176+70.29=
STA 10+00.05
Y = 348555.12
X = 797438.65

EP: 13+00.00
Y = 348552.51
X = 797738.58

DETAIL
SCALE 1"=50'

ROAD NAME	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 120	PROJECT: T 064-1(13)	100	1954
STH 120	PROJECT: T 064-1(7)	VARIES	1980
OAK LANE	DOCUMENT NO. 42812, VOL 226, PAGE 417	66	1979
BUCKY ROAD	CSM 1394 (1984)/SURVEYS	49.5	
KRUEGER ROAD	ROAD RECORDS-TOWN CONSTRUCTION REPORT FORM (1974)/SURVEYS	66	

SEE SHEET 4.07 FOR COORDINATE TABLES

REVISION DATE
07/03/17
08/23/17 NC
02/05/19

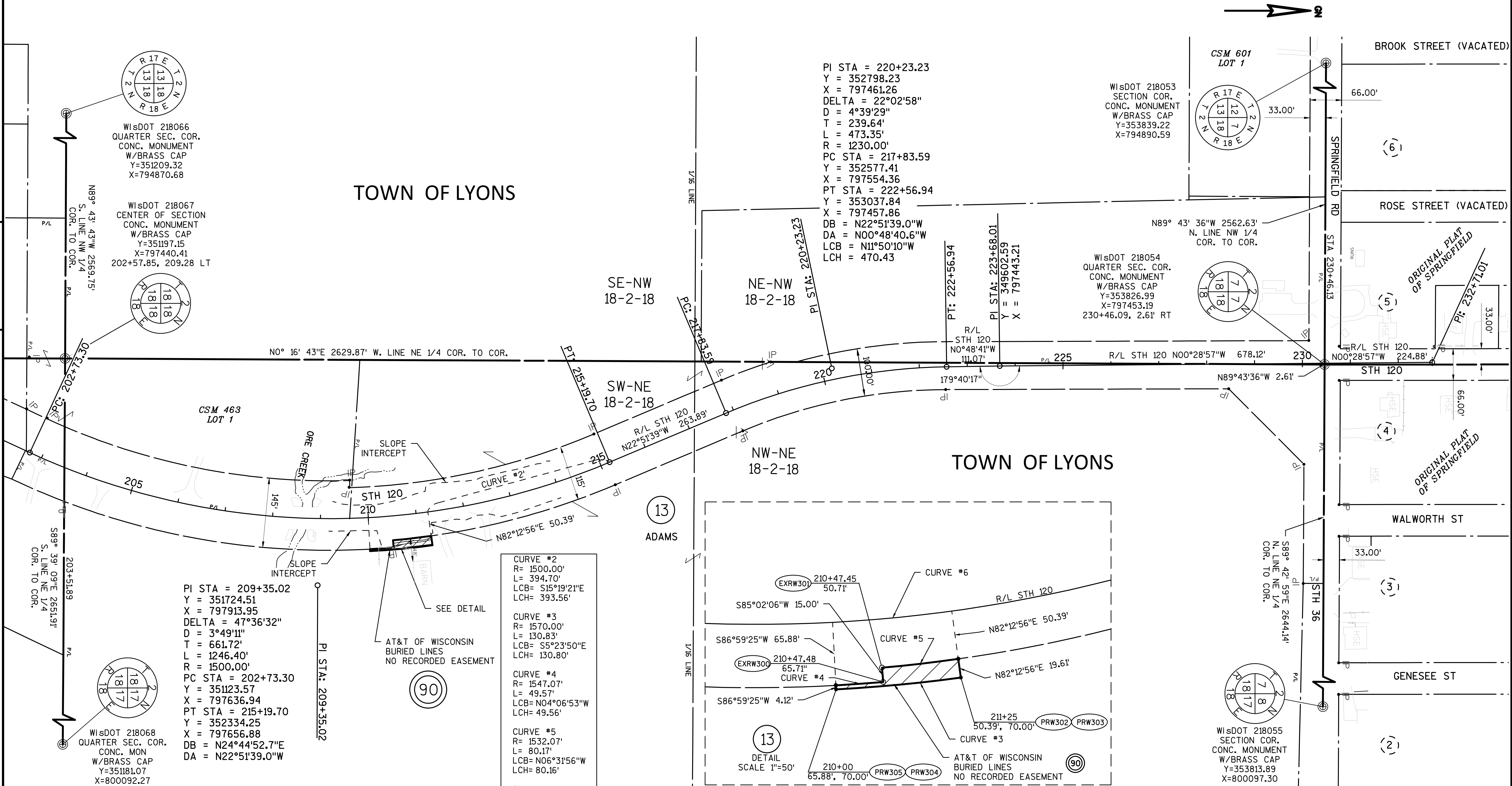
DATE: 01/17/2017
GRID FACTOR: N/A

SCALE, FEET
0 100 200

HWY: STH 120
COUNTY: WALWORTH

STATE R/W PROJECT NUMBER 3190-08-20
CONSTRUCTION PROJECT NUMBER 3190-08-70

PLAT SHEET 4.05
PS&E SHEET 64



4
TOWN OF LYONS
SE-NW
18-2-18
NE-NW
18-2-18
SW-NE
18-2-18
NW-NE
18-2-18
CSM 463
LOT 1
CSM 601
LOT 1
BROOK STREET (VACATED)
ROSE STREET (VACATED)
SPRINGFIELD RD
WALWORTH ST
GENESEE ST
STH 36
STH 120
ORIGINAL PLAT OF SPRINGFIELD
ORE CREEK
ADAMS
WIsDOT 218066
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=351209.32
X=794870.68
WIsDOT 218067
CENTER OF SECTION
CONC. MONUMENT
W/BRASS CAP
Y=351197.15
X=797440.41
202+57.85, 209.28 LT
WIsDOT 218068
QUARTER SEC. COR.
CONC. MON
W/BRASS CAP
Y=351181.07
X=800092.27
WIsDOT 218053
SECTION COR.
CONC. MONUMENT
W/BRASS CAP
Y=353839.22
X=794890.59
WIsDOT 218054
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=353826.99
X=797453.19
230+46.09, 2.61' RT
WIsDOT 218055
SECTION COR.
CONC. MONUMENT
W/BRASS CAP
Y=353813.89
X=800097.30
N89° 43' 43"W 2569.75' S. LINE NW 1/4 COR. TO COR.
N0° 16' 43"E 2629.87' W. LINE NE 1/4 COR. TO COR.
S89° 39' 09"E 2651.91' S. LINE NE 1/4 COR. TO COR.
N89° 43' 36"W 2562.63' N. LINE NW 1/4 COR. TO COR.
S89° 42' 59"E 2644.14' N. LINE NE 1/4 COR. TO COR.
R/L STH 120 N00°28'57"W 678.12'
R/L STH 120 N00°28'57"W 224.88'
R/L STH 120 N00°48'41"W 111.07'
R/L STH 120 N22°51'39"W 263.89'
N89°43'36"W 2.61'
179°40'17"
N82°12'56"E 50.39'
PI STA = 220+23.23
Y = 352798.23
X = 797461.26
DELTA = 22°02'58"
D = 4°39'29"
T = 239.64'
L = 473.35'
R = 1230.00'
PC STA = 217+83.59
Y = 352577.41
X = 797554.36
PT STA = 222+56.94
Y = 353037.84
X = 797457.86
DB = N22°51'39.0"W
DA = N00°48'40.6"W
LCB = N11°50'10"W
LCH = 470.43
PI STA: 220+23.23
PT: 222+56.94
PI STA: 223+68.01
Y = 349602.59
X = 797443.21
PC: 217+83.59
PT: 215+19.70
PC: 202+73.30
STA 230+46.13
PI: 232+71.01
203+51.89
PI STA = 209+35.02
Y = 351724.51
X = 797913.95
DELTA = 47°36'32"
D = 3°49'11"
T = 661.72'
L = 1246.40'
R = 1500.00'
PC STA = 202+73.30
Y = 351123.57
X = 797636.94
PT STA = 215+19.70
Y = 352334.25
X = 797656.88
DB = N24°44'52.7"E
DA = N22°51'39.0"W
PI STA: 209+35.02
CURVE #2
R= 1500.00'
L= 394.70'
LCB= S15°19'21"E
LCH= 393.56'
CURVE #3
R= 1570.00'
L= 130.83'
LCB= S5°23'50"E
LCH= 130.80'
CURVE #4
R= 1547.07'
L= 49.57'
LCB= N04°06'53"W
LCH= 49.56'
CURVE #5
R= 1532.07'
L= 80.17'
LCB= N06°31'56"W
LCH= 80.16'
CURVE #6
SLOPE INTERCEPT
SEE DETAIL
AT&T OF WISCONSIN
BURIED LINES
NO RECORDED EASEMENT
90
13
1/16 LINE
66.00'
33.00'
100.00'
145'
115'
205
210
215
220
225
230
EXRW301
210+47.45
50.71'
EXRW300
210+47.48
65.71'
S85°02'06"W 15.00'
S86°59'25"W 65.88'
S86°59'25"W 4.12'
N82°12'56"E 50.39'
N82°12'56"E 19.61'
211+25
50.39', 70.00'
PRW302
PRW303
210+00
65.88', 70.00'
PRW305
PRW304
R/L STH 120
DETAIL
SCALE 1"=50'

ROAD NAME	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 120	PROJECT: T 064-1(13)	100	1954
STH 36	PROJECT: T 064-1(12)	VARIES	1983
STH 36	DIVISION JOB NO. 3702	42	1928
STH 36	PLAT OF SPRINGFIELD	33	1855
SPRINGFIELD ROAD	PLAT OF SPRINGFIELD	33	1955

UTILITY NUMBER	OWNER	PARCEL OCCUPIED	DOCUMENT
90	AT&T OF WISCONSIN (BURIED LINES)	13	NO RECORDED EASEMENT

SEE SHEET 4.07 FOR COORDINATE TABLES

REVISION DATE
07/03/17 NC
08/23/17 NC
02/05/19 NC

DATE: 01/11/2017	SCALE, FEET 0 100 200	HWY: STH 120	STATE R/W PROJECT NUMBER 3190-08-20	PLAT SHEET 4.06
GRID FACTOR: N/A		COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER 3190-08-70	PS&E SHEET

E

FILE NAME : RWSHEET 4.06.DWG PLOT DATE : 2/5/2019 8:28 AM PLOT BY : terratec PLOT NAME :

CONST. 3190-08-70 STH 120 R/W 3190-08-20-4.06

TOWN OF LYONS

CSM 601
LOT 1

WisDOT 218053
SECTION COR.
CONC. MONUMENT
W/BRASS CAP
Y=353839.22
X=794890.59

33.00'

66.00'

SPRINGFIELD RD

STA 230+46.13

N89° 43' 36"W 2562.63'
S. LINE SW 1/4
COR. TO COR.

WisDOT 218054
QUARTER SEC. COR.
CONC. MONUMENT
W/BRASS CAP
Y=353826.99
X=797453.19
230+46.09, 2.61' RT

P/L 225

R/L STH 120 N00°28'57"W 678.12'

230

N89°43'36"W 2.61'

BROOK STREET (VACATED)

ORIGINAL PLAT OF SPRINGFIELD

HUDSON STREET (VACATED)

ROSE STREET (VACATED)

EASEMENT
AT&T
DOC.NO. 885658
DOC. NO. 155964

SEE DETAIL

PI: 232+71.01

33.00'

14
VORPAGEL

COMERCIAL STREET

TOWN OF LYONS

SE-SW
7-2-18

1/16 LINE

NO° 01' 48"W 2633.57' E. LINE SW 1/4 COR. TO COR.
STH 120

66.00'

R/L STH 120
N00°28'57"W 224.88

END RELOCATION ORDER
STA. 232+71.01 (STH 120)

224.89' NORTH OF AND 4.51' WEST OF THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 18, T.2N., R.18E.

Y=354051.87
X=797448.69

SW-SE
7-2-18

WisDOT 218041
CENTER OF SECTION
CONC. MONUMENT
W/BRASS CAP
Y=356460.56
X=797451.82

TOWN OF LYONS

WALWORTH ST

S89° 42' 59"E 2644.14'
S. LINE SE 1/4
COR. TO COR.

STH 36

33.00'

ORIGINAL PLAT OF SPRINGFIELD

GENESEE ST

TOWN OF LYONS

WisDOT 218055
SECTION COR.
CONC. MONUMENT
W/BRASS CAP
Y=353813.89
X=800097.30

14
DETAIL
SCALE 1"=50'

N89° 43' 36"W
S. LINE SW 1/4

42.31'

SPRINGFIELD RD

230+79.73
45.12'
PRW401

N45°07'18"E 21.15'

230+94.53
30.00'
PRW402

230+79.53
30.12'
EXRW400

230

NO° 01' 48"W
E. LINE SW 1/4

NO° 16' 24"W, 33.00'

R/L STH 120
N00°28'57"W

STH 120

COURSE TABLE		
PNT NO.	BEARING	DIST.
EXRW400-PRW401	N89°43'36"W	15.00'
PRW402-EXRW400	S00°01'48"E	15.00'

SHEET 4.04 R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
PT#	Y	X
PRW102	346795.12	797379.16
PRW103	346885.23	797359.32
PRW104	347242.40	797361.21
EXRW106	347240.23	797381.55
PRW107	348507.60	797388.36
PRW108	348508.60	797282.15
PRW109	348523.60	797282.29
EXRW110	348522.59	797388.44
PRW111	348129.57	797486.33
PRW112	348129.51	797496.91
PRW113	348384.59	797498.26
EXRW114	348384.69	797487.70
PRW115	348404.60	797498.37
EXRW116	348404.70	797487.81
PRW117	348484.51	797498.79
PRW118	348528.83	797623.38
EXRW119	348529.95	797488.48
EXRW120	348430.94	797487.95
PRW121	348430.92	797498.51
EXRW122	348529.36	797559.95
PRW123	348506.17	797559.67

SHEET 4.05 R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
PT#	Y	X
EXRW199	348588.59	797388.79
EXRW200	348589.60	797282.92
PRW201	348604.60	797283.06
PRW202	348604.32	797311.88
PRW203	348653.38	797361.32
PRW204	348920.15	797361.75
PRW205	349015.07	797380.90
EXRW206	349015.03	797391.08
TLE207	350755.88	797396.58
TLE208	350756.10	797349.78
TLE209	350779.18	797402.96
EXRW210	348579.45	797488.74
PRW211	348624.56	797488.99
TLE212	348624.56	797488.99
TLE213	348665.56	797489.21
TLE214	348665.51	797499.24
TLE215	348621.89	797499.00
PRW216	348578.00	797663.30

SHEET 4.06 R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
PT#	Y	X
EXRW300	351883.16	797834.86
EXRW301	351881.87	797819.92
PRW302	351961.50	797810.80
PRW303	351964.16	797830.23
PRW304	351833.94	797842.53
PRW305	351833.73	797838.42

SHEET 4.07 R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
PT#	Y	X
EXRW400	353860.14	797420.18
PRW401	353860.22	797405.18
PRW402	353875.14	797420.17

ROAD NAME	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 120	PROJECT: T 064-1(13)	100	1954
STH 36	PROJECT: T 064-1(12)	VARIES	1983
STH 36	DIVISION JOB NO. 3702	42	1928
STH 36	PLAT OF SPRINGFIELD	33	1855
SPRINGFIELD ROAD	PLAT OF SPRINGFIELD	33	1955

REVISION DATE
07/03/17 NC
08/23/17 NC
02/05/19 NC

DATE: 01/11/2017

GRID FACTOR: N/A

SCALE, FEET
0 100 200

HWY: STH 120

COUNTY: WALWORTH

STATE R/W PROJECT NUMBER 3190-08-20

CONSTRUCTION PROJECT NUMBER 3190-08-70

PLAT SHEET 4.07

PS&E SHEET 66

E

FILE NAME : RWSHEET 4.07.DWG

PLOT DATE : 2/5/2019 8:34 AM

PLOT BY : terratec

PLOT NAME :

CONST. 3190-08-70 STH 120 R/W 3190-08-20-4.07

N

5

5

PT: 154+72.09

NEW DRIVEWAY CULVERT 29"x45" CPHE

C.E.

SLOPE INTERCEPT

SHOULDER RUMBLE STRIP, SEE SDD "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING"

170+00.00

BUTT JOINT REQUIRED

RW

RIGHT TURN LANE

155

160

165

170

STH 120

BYPASS LANE

P.E.

COMO CREEK

NEW CULVERT PIPE 24"X38" CPHE

CENTERLINE RUMBLE STRIP, SEE SDD "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING"

170+00.00

BEGIN PROJECT STA. 158+80

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050101_PP.DWG PLOT DATE : 8/16/2019 12:58 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

N

166 LF STORM SEWER PIPE
REINFORCED CONCRETE CLASS III 24-INCH
STA. 176+40.5, 48.8' LT TO STA. 174+75, 29.5' LT
WITH 1 24-INCH ENDWALL

16 LF STORM SEWER PIPE
REINFORCED CONCRETE CLASS III 24-INCH
STA. 19+36.4, 33.3' RT TO STA. 176+40.5, 48.8' LT
WITH 1 24-INCH ENDWALL

SPECIAL CLEARING REQUIREMENTS
SEE SPECIAL PROVISIONS

67 LF STORM SEWER PIPE
REINFORCED CONCRETE CLASS III 24-INCH
STA. 177+05, 65' LT TO STA. 176+40.5, 48.8' LT
WITH 1 24-INCH ENDWALL

MAHOLES 6-FT DIAMETER
WITH TYPE J COVER
STA. 176+40.5, 48.8' LT

SHOULDER RUMBLE STRIP, SEE SDD
"2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING"

24 LF CPRCHE 19"X30"
WITH 2 19"X30" ENDWALLS

26 LF CPRCHE 19"X30"
WITH 2 19"X30" ENDWALLS

24 LF CPRCHE 19"X30"
WITH 2 19"X30" ENDWALLS

EXISTING R/W

ABANDON 18-INCH CMCP

CENTERLINE RUMBLE STRIP, SEE SDD
"2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING"

SLOPE INTERCEPT

FIELD VERIFY P.E. OR F.E.

19 LF CPRCHE 19"X30"
WITH 2 19"X30" ENDWALLS

STA 176+20, 67' RT
REMOVING INLET STRUCTURE

FIELD VERIFY
P.E. OR F.E.

STA. 176+70.29 STH 120 =
STA. 10+00.00 BUCKBY/KRUEGER

113 LF CULVERT PIPE CLASS III-A 24-INCH
WITH 2 24-INCH ENDWALLS

STA 176+28, 62' RT
REMOVING SMALL SIGN SUPPORT

STA 12+25
REMOVE 24-INCH CULVERT

KRUEGER RD

BUCKBY RD

STH 120

PI: 9+97.57

PI: 178+93.44

TLE

RW

P.E.

F.E.

170+00.00

185+00.00

110

175

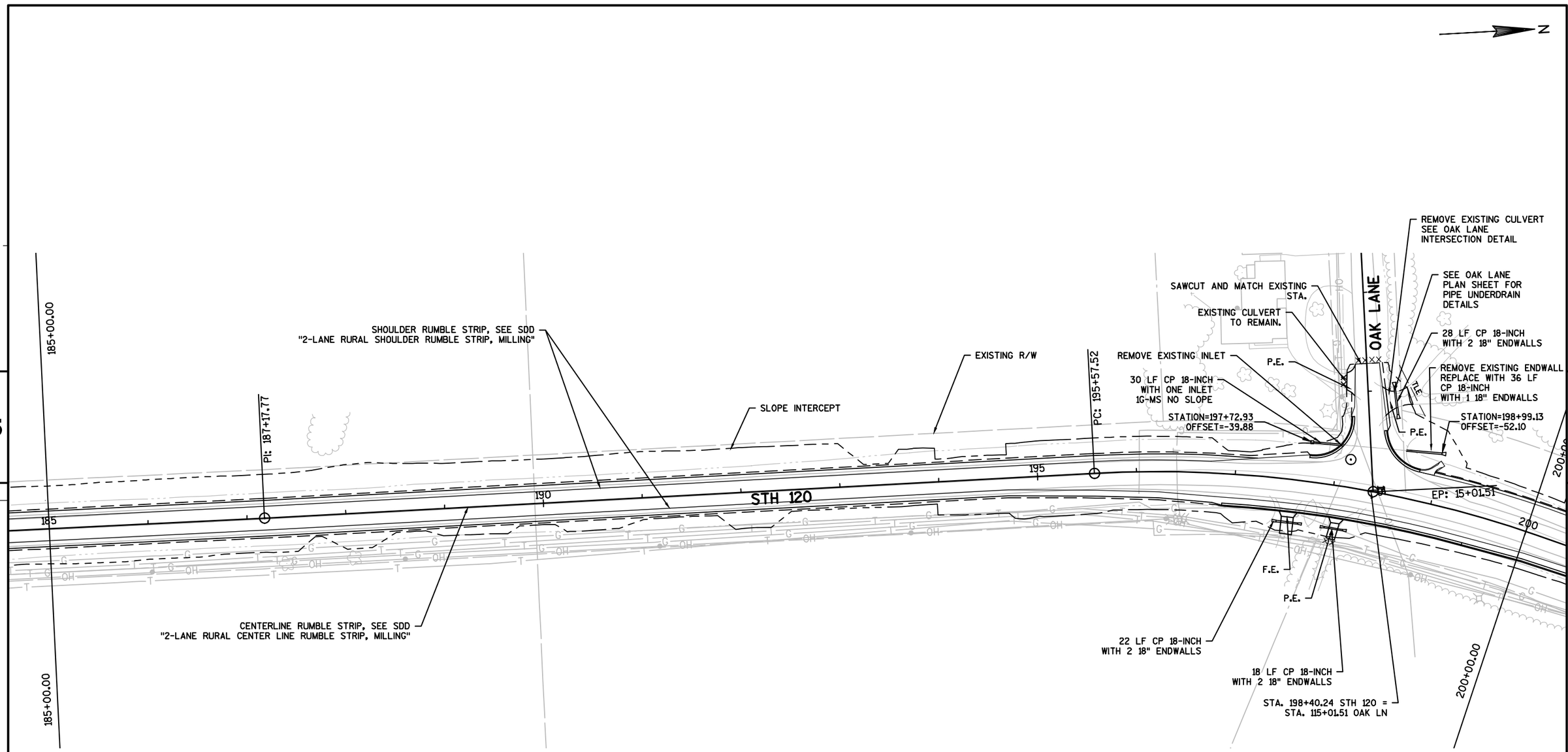
180

185

5

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050101_PP.DWG PLOT DATE : 8/16/2019 12:58 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



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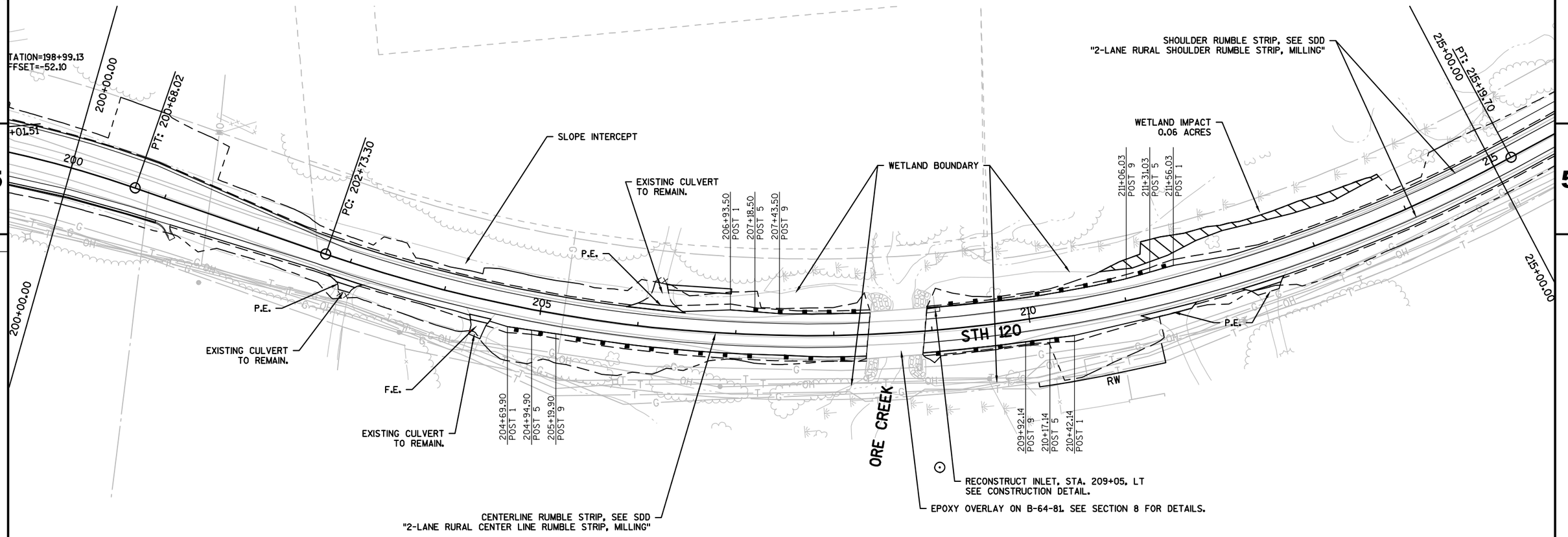
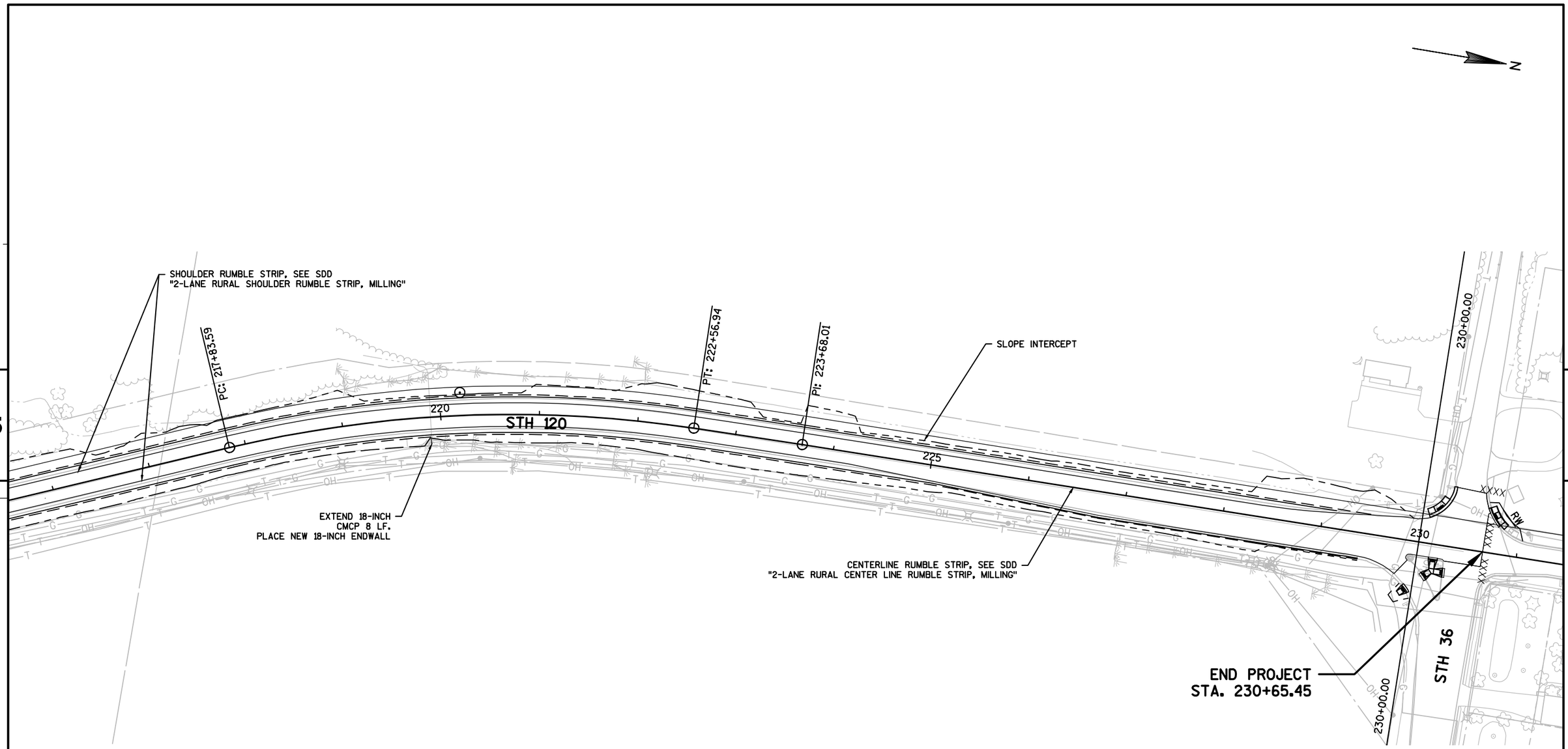
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050101_PP.DWG PLOT DATE : 8/16/2019 12:58 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050101_PP.DWG PLOT DATE : 8/16/2019 12:58 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



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5

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050101_PP.DWG PLOT DATE : 8/16/2019 12:58 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

N

PI: 178+93.44

STH 120

SLOPE INTERCEPT

STA. 176+70.29 STH 120 =
STA. 10+00.00 BUCKBY/KRUEGER

STA 12+25
REMOVE 24-INCH CULVERT

KRUEGER RD

BUCKBY RD

SAWCUT AND MATCH EXISTING
STA. 8+45.78

SAWCUT AND MATCH EXISTING
STA. 11+52.19

STA 176+20, 67' RT
REMOVING INLET STRUCTURE

STA 176+28, 62' RT
REMOVING SMALL SIGN SUPPORT

COORDINATE WITH PROPERTY OWNER WITH TREE REMOVALS.
AVOID IMPACTING THE ONE MAPLE TREE AND ONE CEDAR TREE
THAT IS LOCATED WITHIN THE FEE AREA. REMOVE IF NECESSARY.

COORDINATE WITH PROPERTY OWNER WITH TREE REMOVALS.
PROPERTY OWNER WOULD LIKE TO KEEP TREE TRUNKS
AND BRANCHES THAT ARE LARGER THAN 3-INCHES IN DIAMETER.
CUT TREES AND BRANCHES IN 6 TO 10 FOOT SECTIONS.

RUINS

look for ip

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: KRUEGER RD / BUCKBY RD	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050106_PP.DWG PLOT DATE : 8/16/2019 3:32 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

N

EXISTING FRENCH DRAIN ON BOTH SIDES OF DRIVEWAY.
FRENCH DRAIN SITS ABOVE EXISTING CULVERT.
INSTALL 6" PIPE UNDERDRAIN AT SAME TIME OF CULVERT REPLACEMENT.
SEE FRENCH DRAIN DETAIL.

SLOPE INTERCEPT

BP: 11+50.00

EP: 15+01.51

TLE

RW

OAK LN

OH

STA. 198+40.24 STH 120 =
STA. 115+01.51 OAK LN

STH 120

200

198

195

5

5

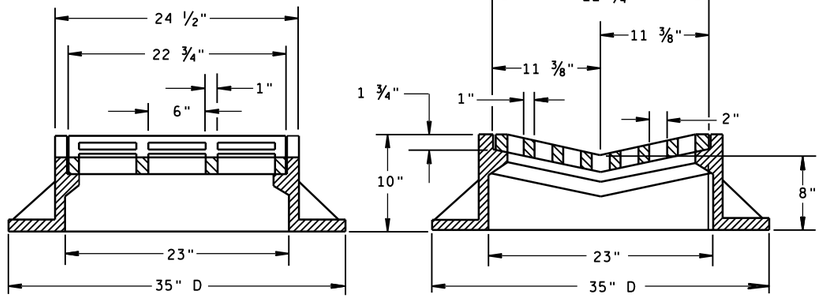
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PLAN: OAK LN	SHEET	E

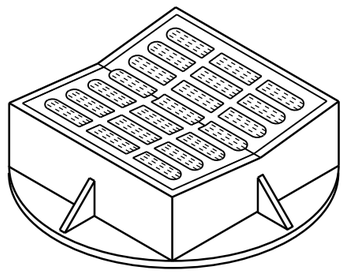
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\050107_PP.DWG PLOT DATE : 8/16/2019 1:05 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

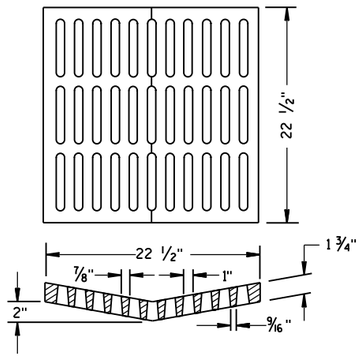
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
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
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
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
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	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
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15C35-03B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-03C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

6



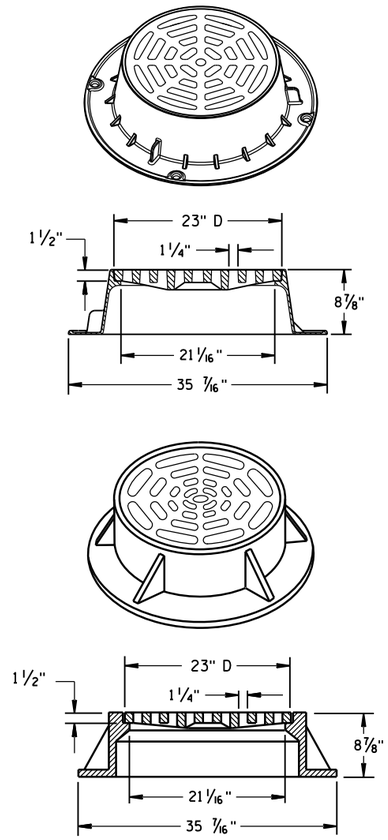


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

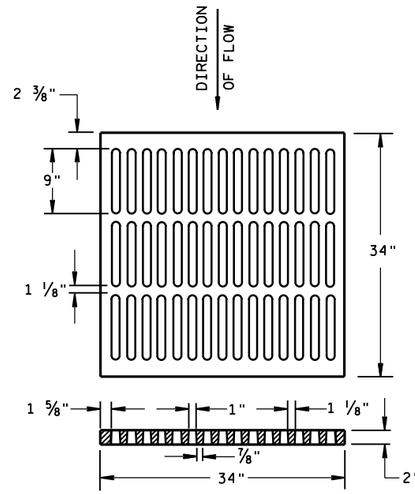
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

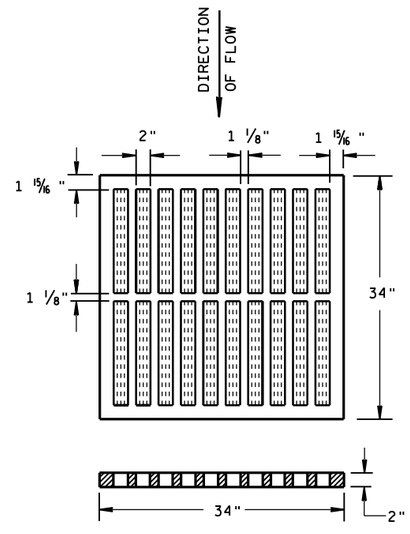
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



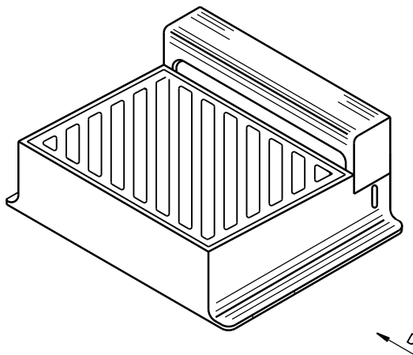
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

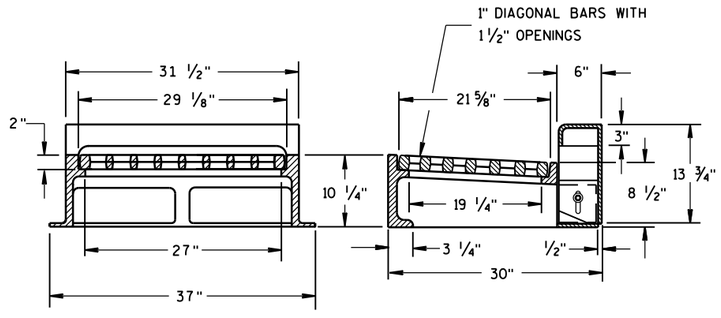


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

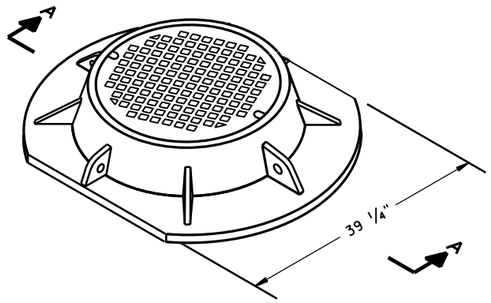
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

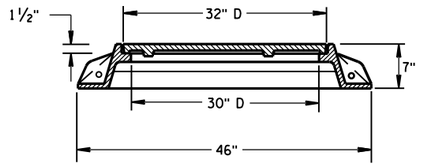
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

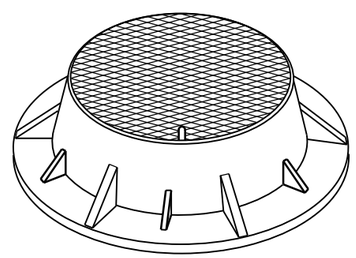
6

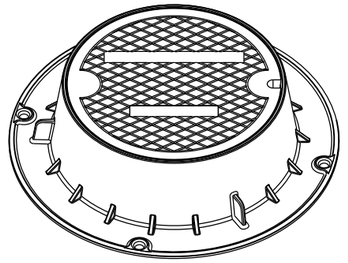
S.D.D. 8 A 5-19b

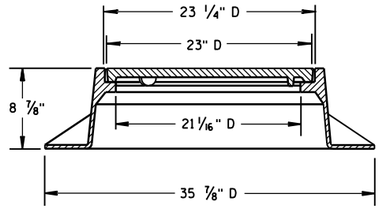


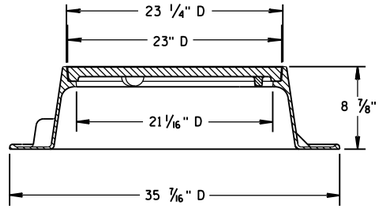


SECTION A-A
TYPE "K"









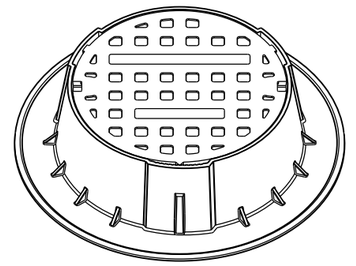
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

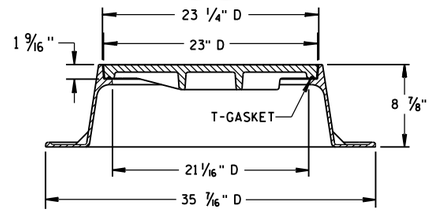
GENERAL NOTES

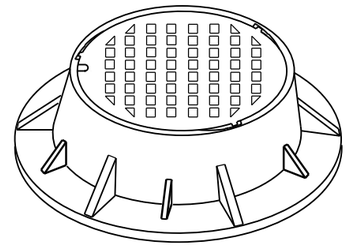
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

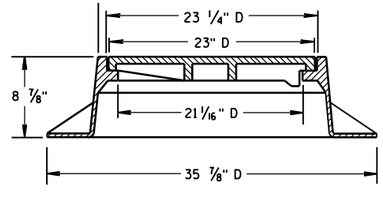
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

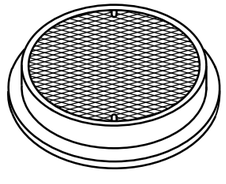


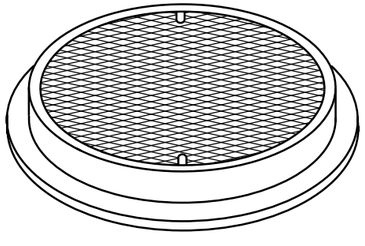


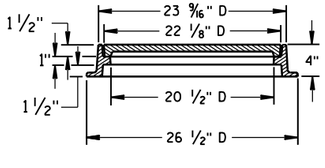




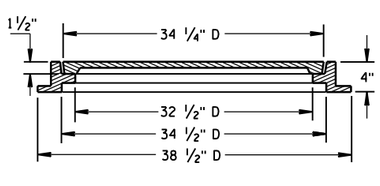
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



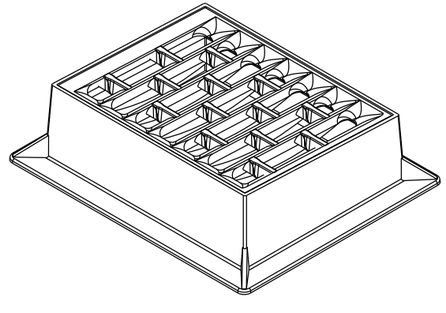


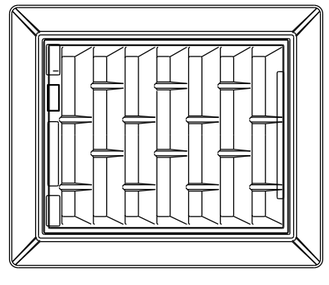


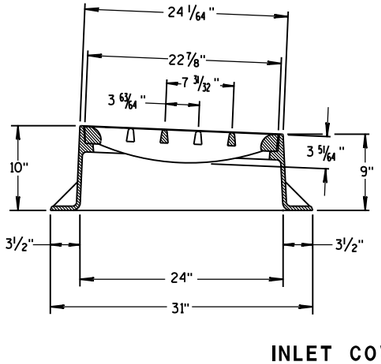
TYPE "L"

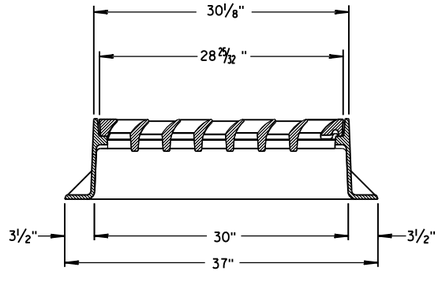


TYPE "M"









INLET COVER TYPE "BW"

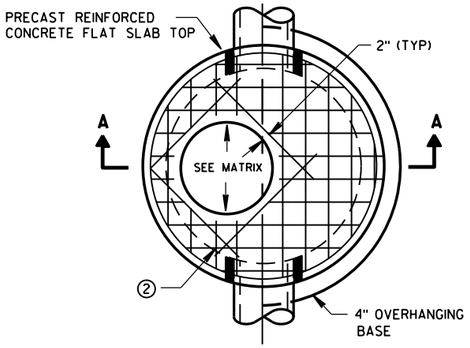
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

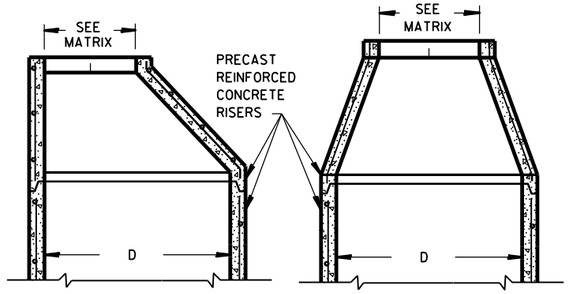
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 A 5-19d

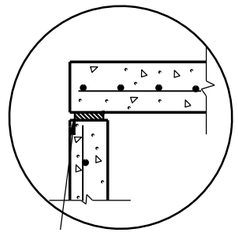


PLAN VIEW CIRCULAR OPENING

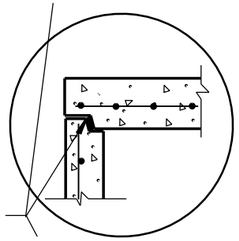


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

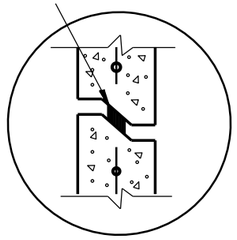


TOP WITH PLAIN END JOINT



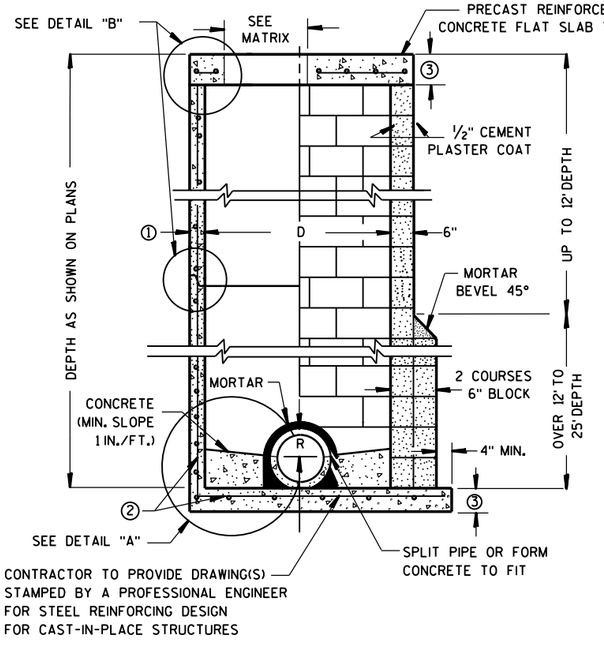
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



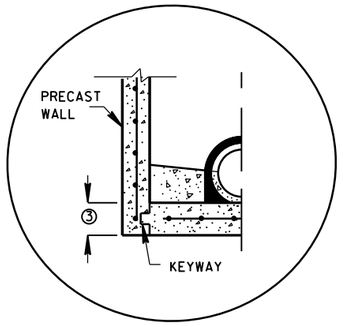
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

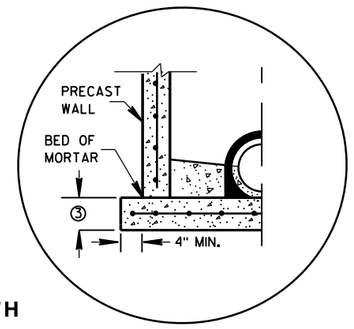


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

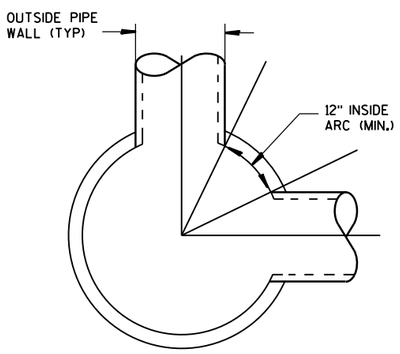


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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

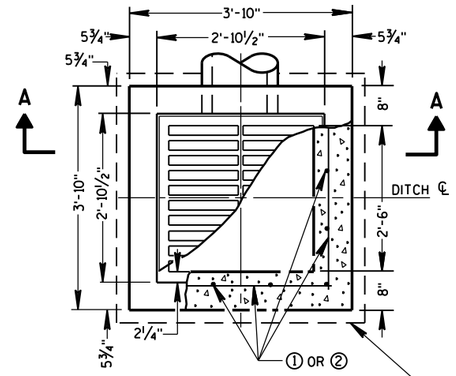
APPROVED

Sept., 2016
DATE

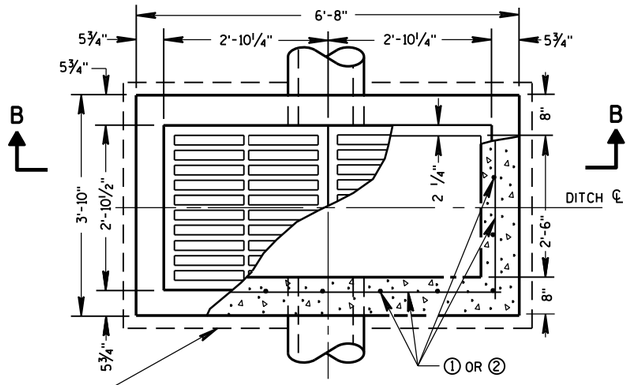
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

6
S.D.D. 8 B 9-2

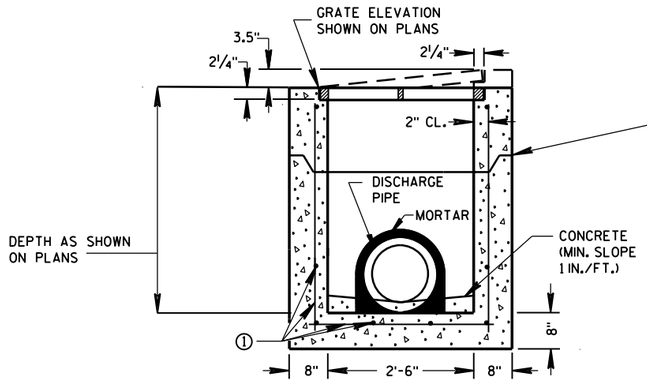


PLAN VIEW

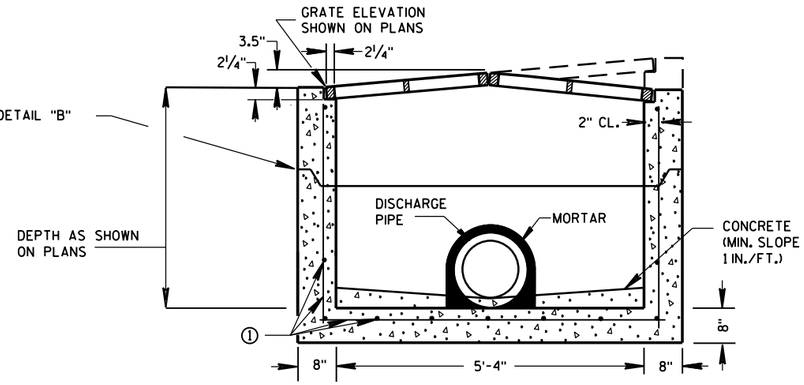


PLAN VIEW

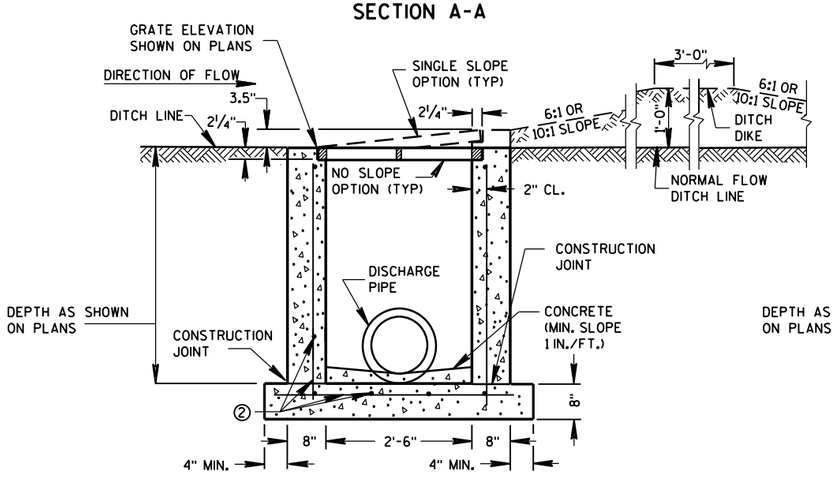
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



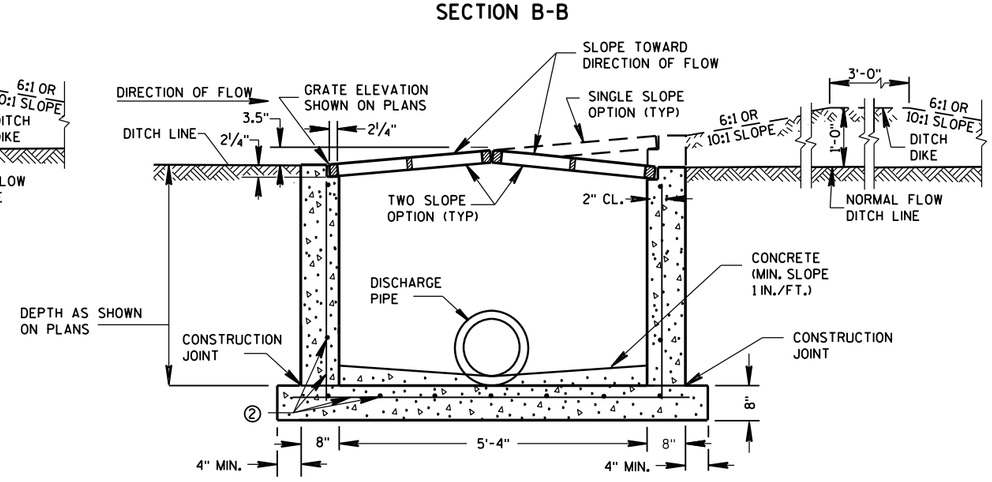
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

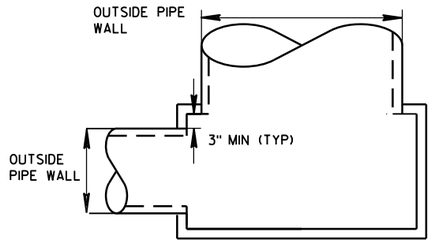
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

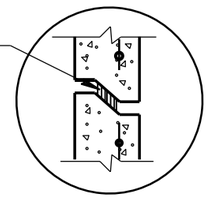
PIPE MATRIX

	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)



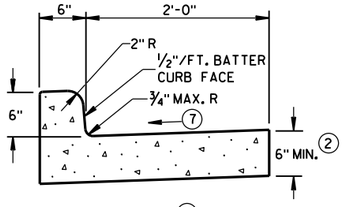
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

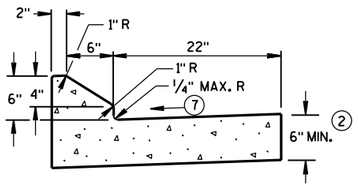
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

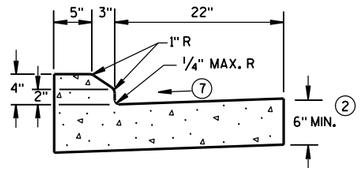
6
S.D.D. 8 C 8-2



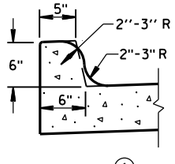
TYPES A (1) & D



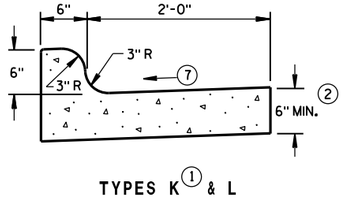
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

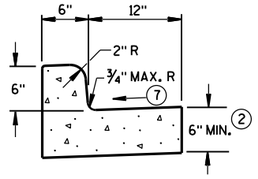


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



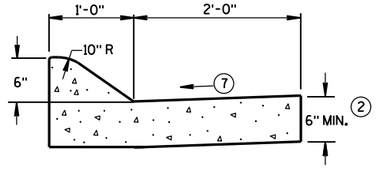
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

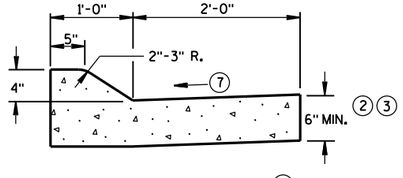


TYPES A (1) & D

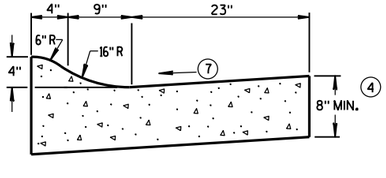
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

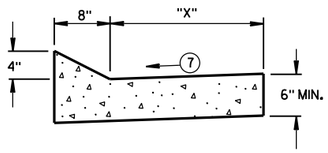


4" SLOPED CURB TYPES A (1) & D



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.

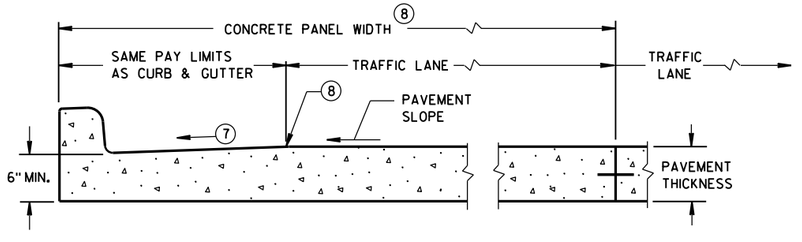
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(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.

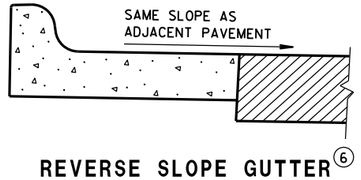
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

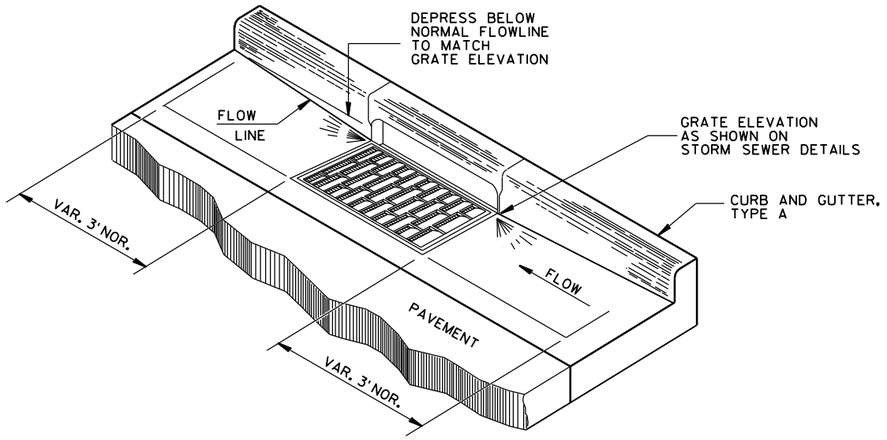


REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

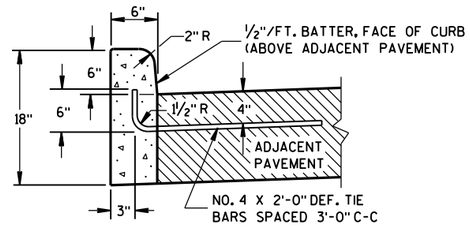
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

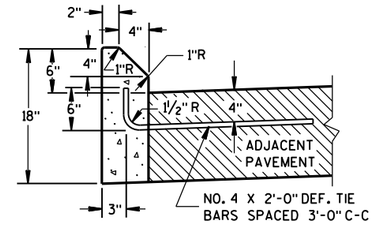
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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.

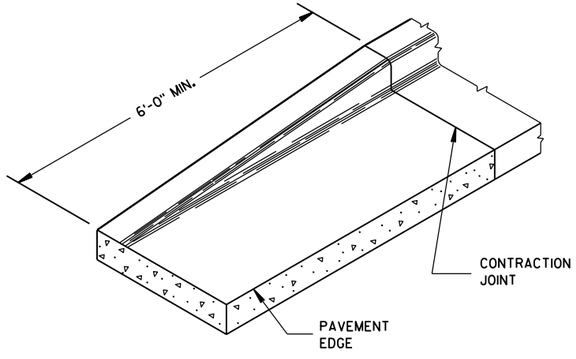


TYPES A(1) & D

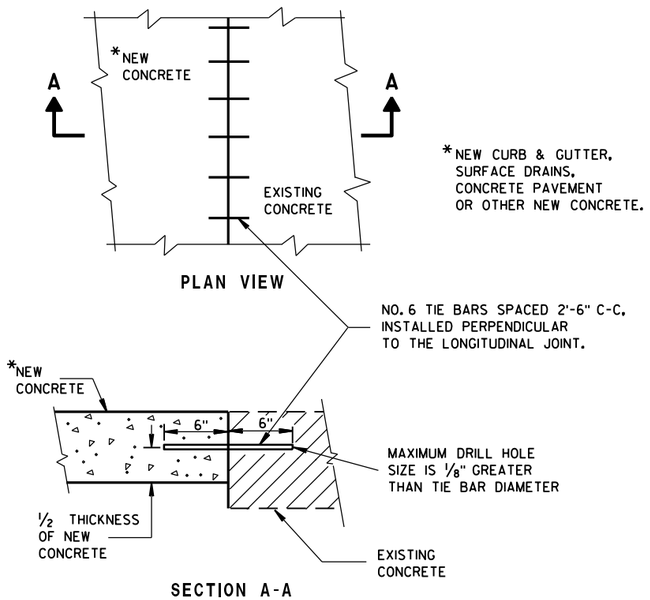


TYPES G(1) & J

CONCRETE CURB



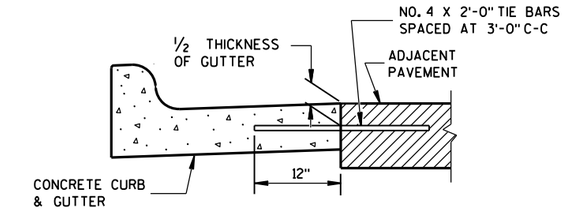
END SECTION CURB & GUTTER



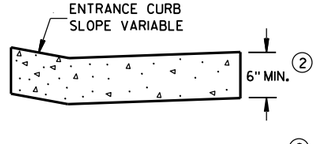
PLAN VIEW

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 80 UNIT SUPERVISOR — ENT
FHWA

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S.D.D. 8 D 1-20b

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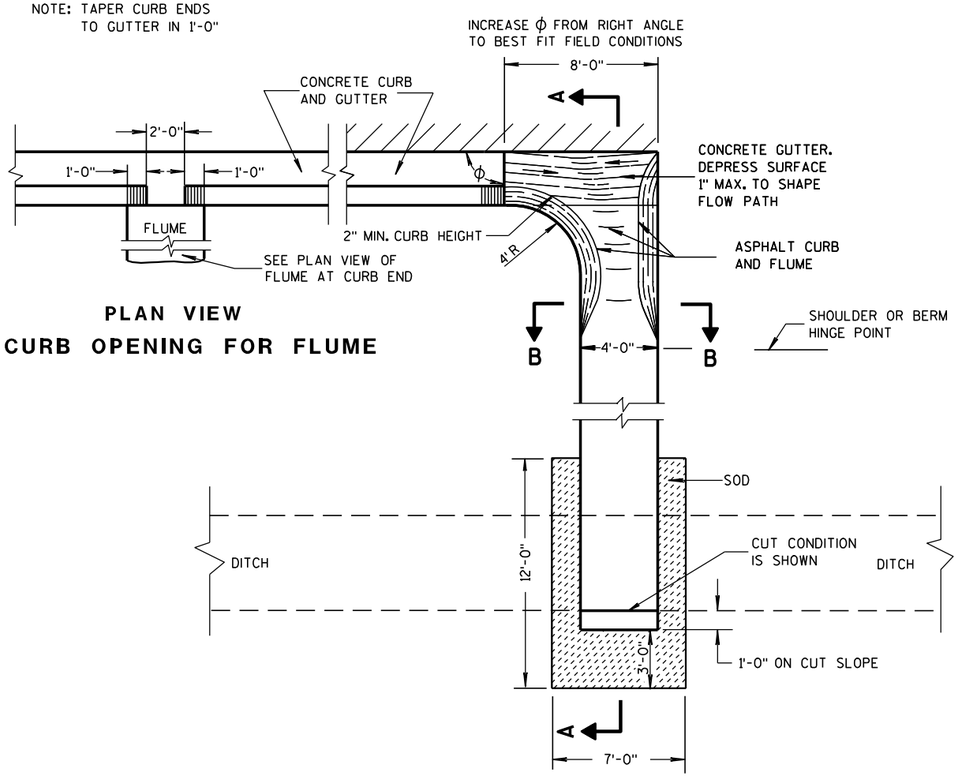
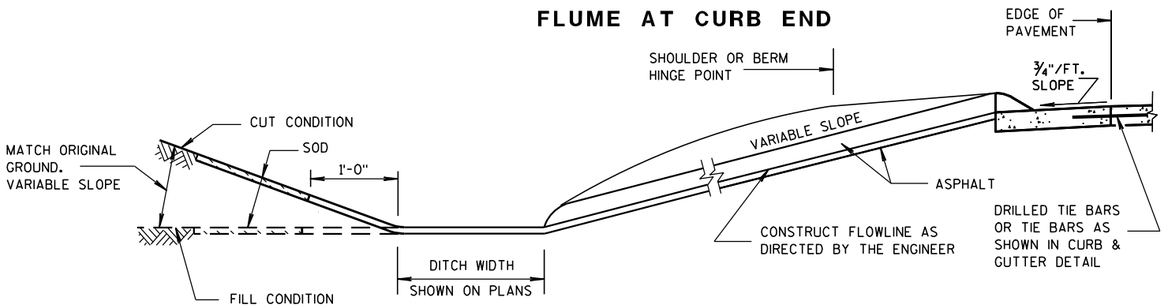
S.D.D. 8 D 1-20b

ASPHALTIC FLUME

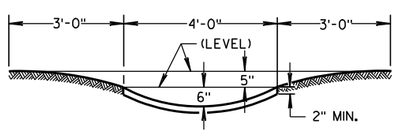


PLAN VIEW
CURB OPENING FOR FLUME

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.

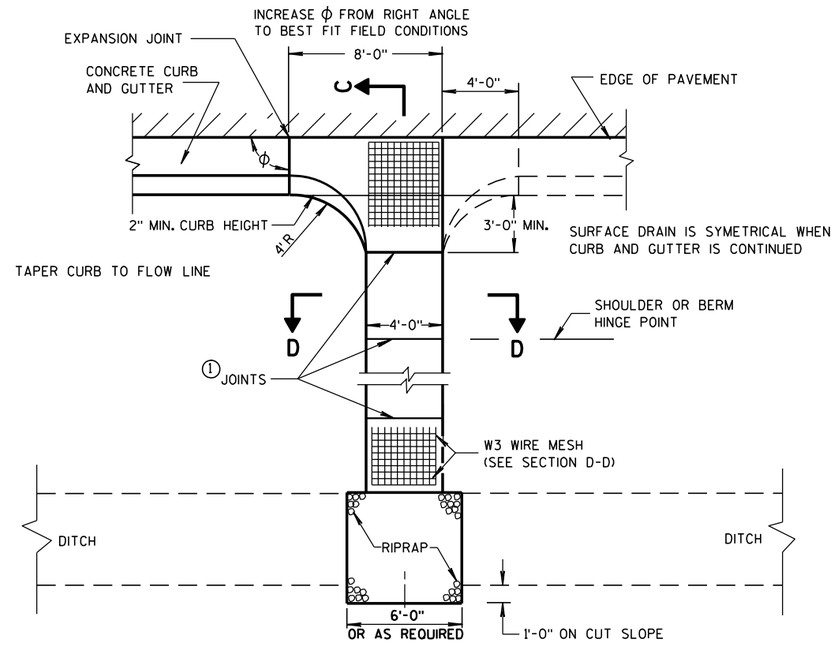
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

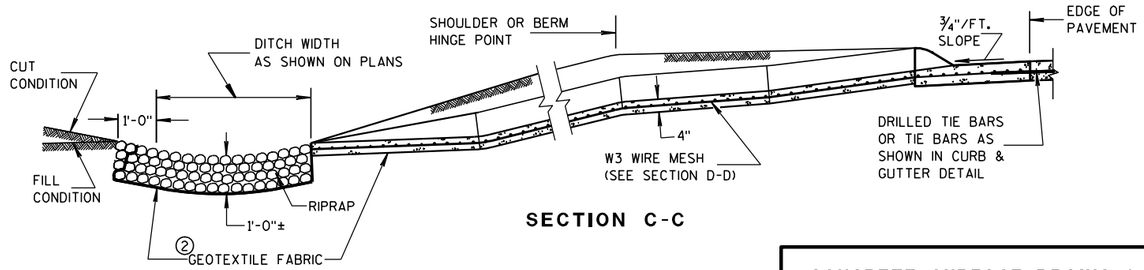
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

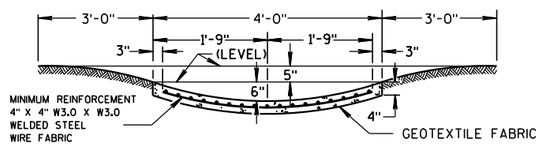
③ CONCRETE SURFACE DRAIN



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
MENT
FHWA

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S.D.D. 8 D 4-5

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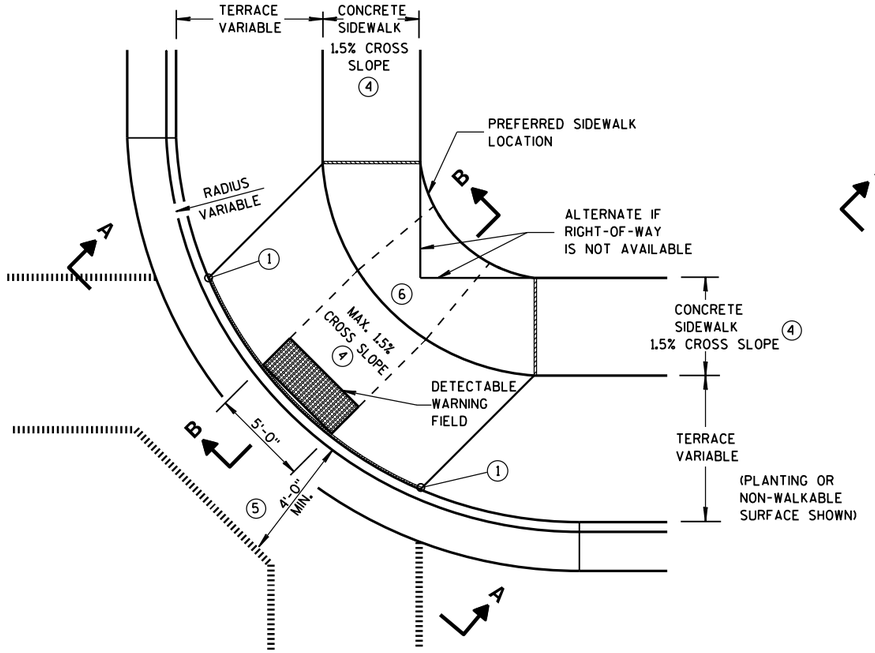
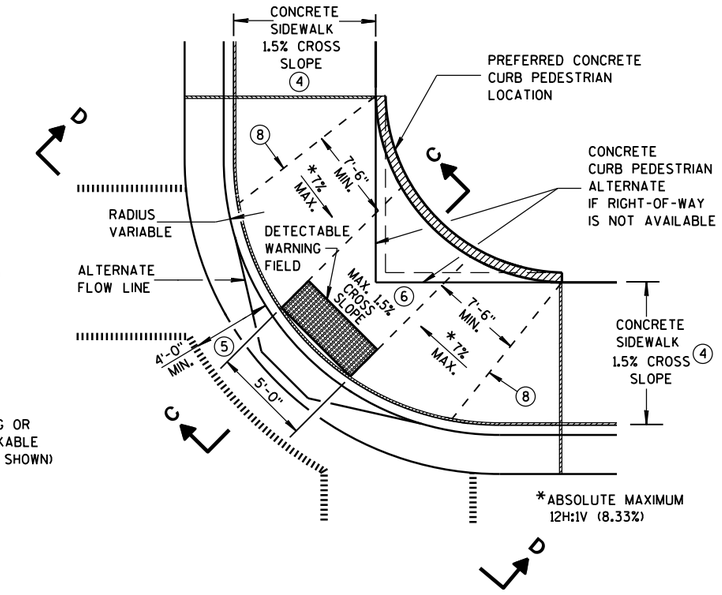
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

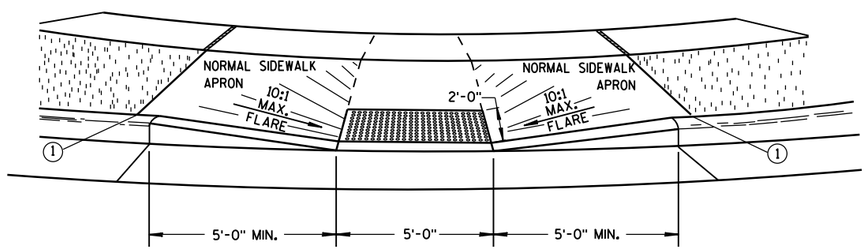
(CENTER OF CORNER RADIUS)



PLAN VIEW

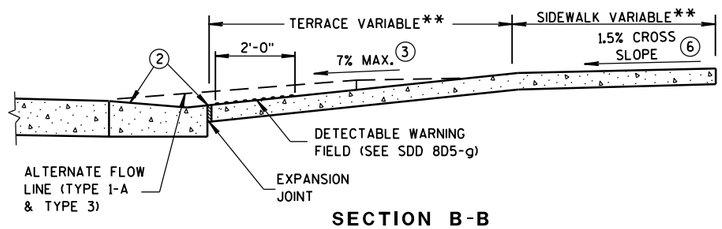
TYPE 1-A RAMP

(NO TERRACE)

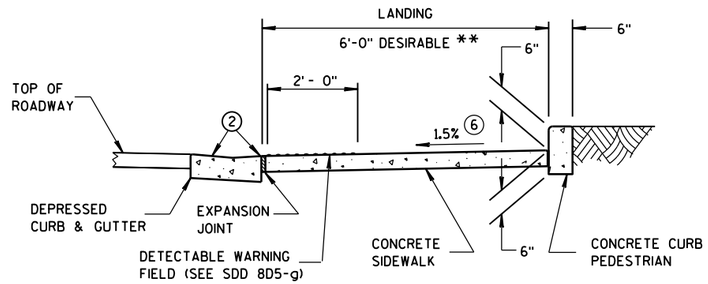


VIEW A-A

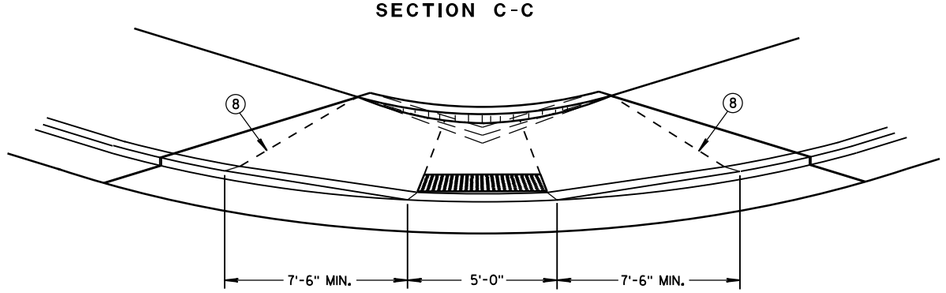
** WIDTH SHOWN ELSEWHERE IN THE PLANS



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

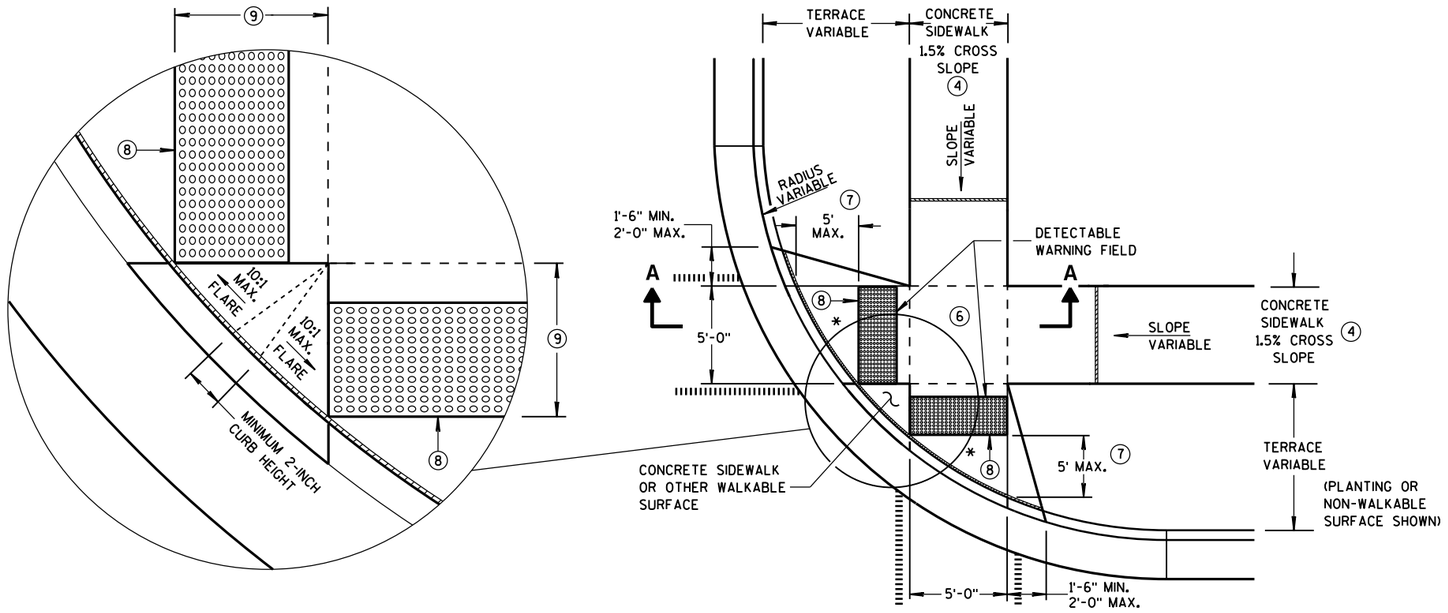
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

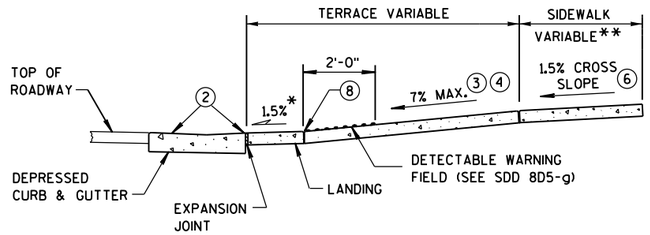
6

S.D.D. 8 D 5-19a



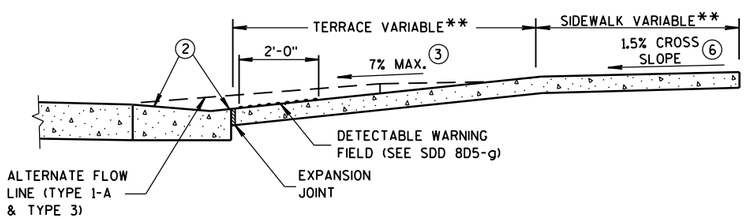
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* 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.

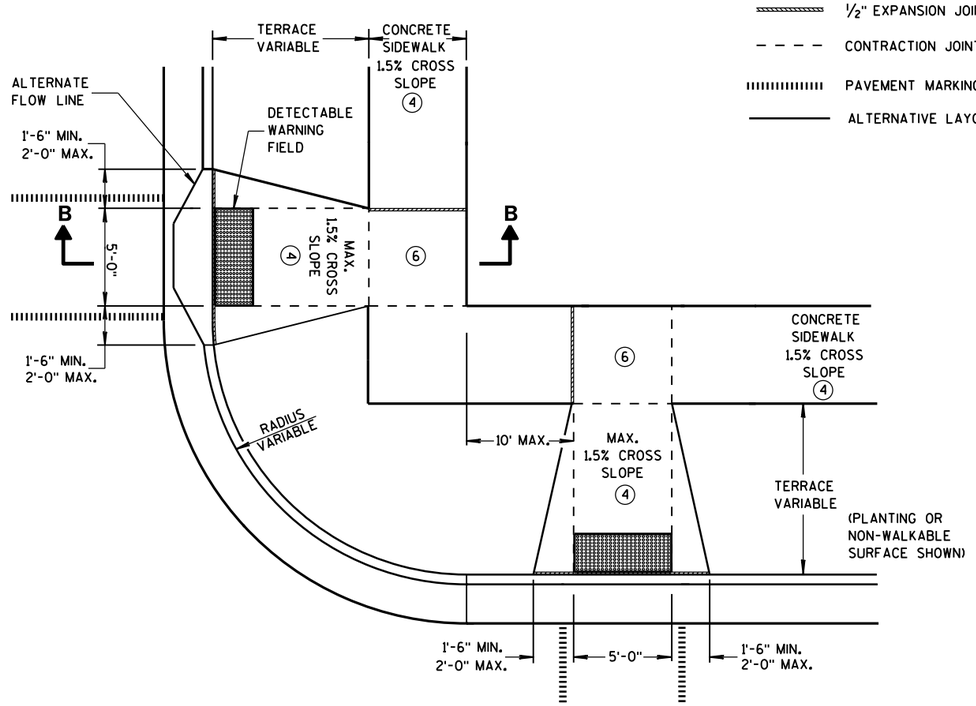
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(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



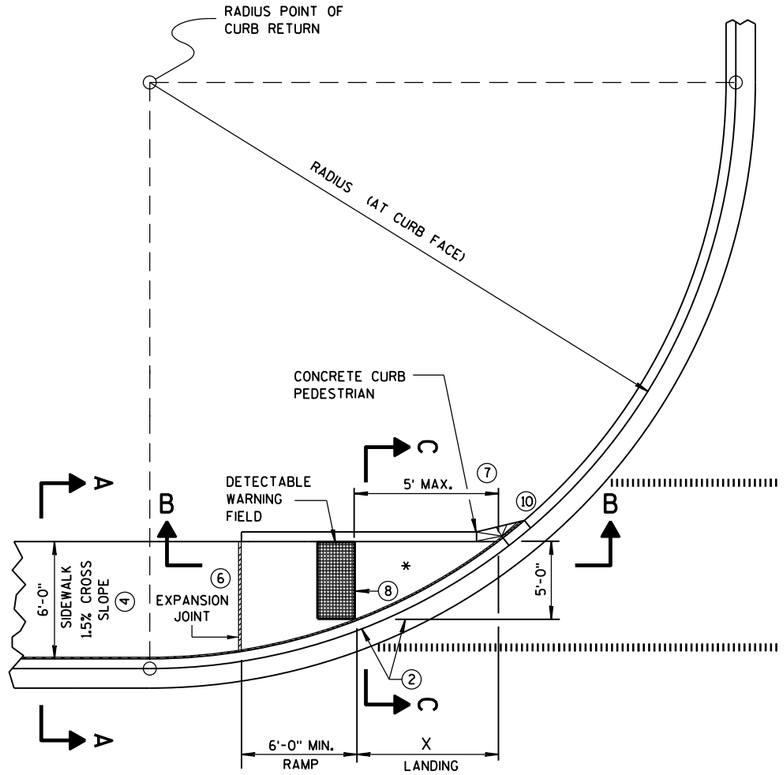
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

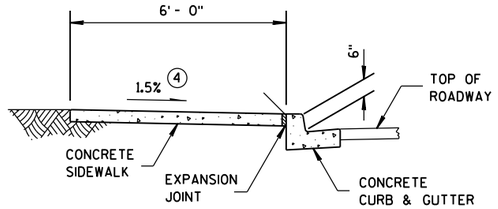
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

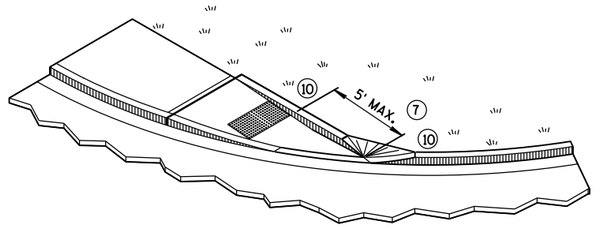
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

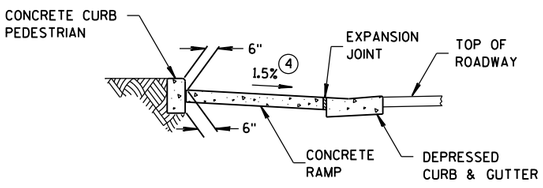
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

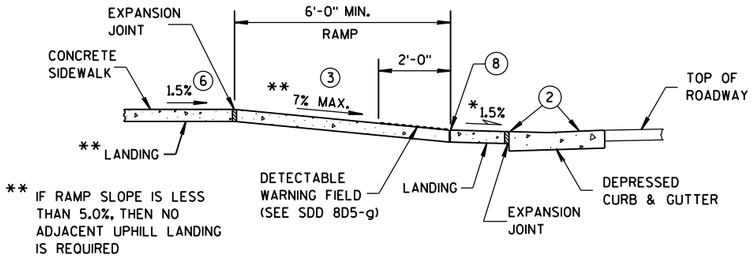


ISOMETRIC VIEW FOR TYPE 4A



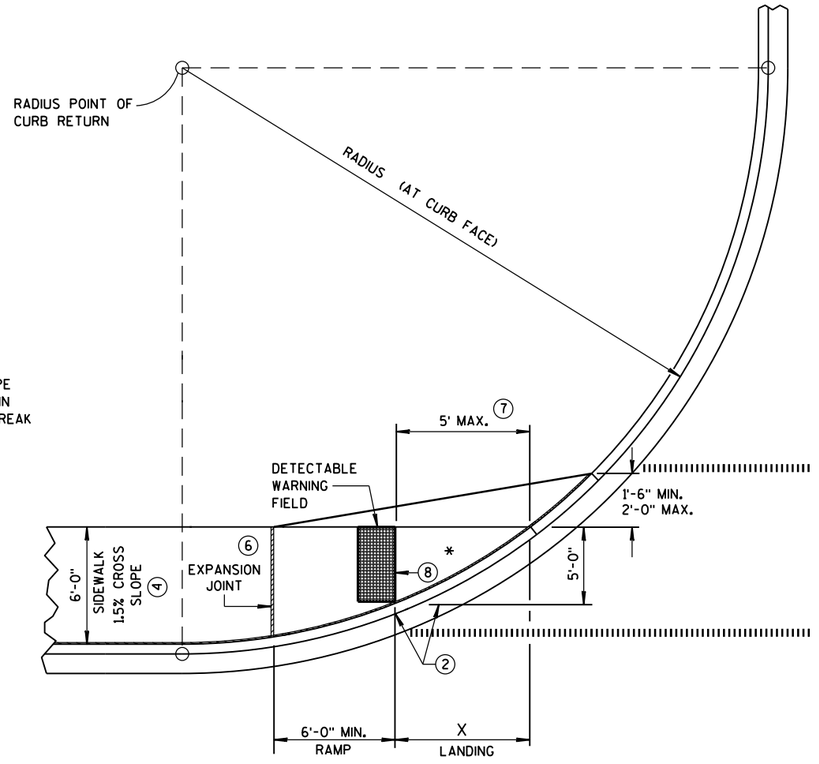
SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

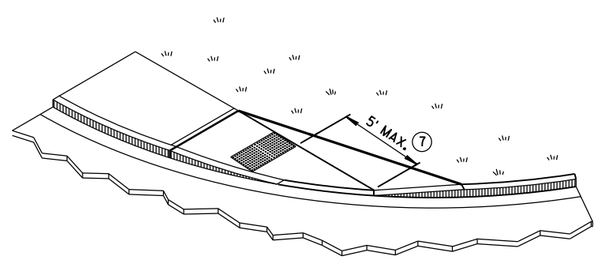


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

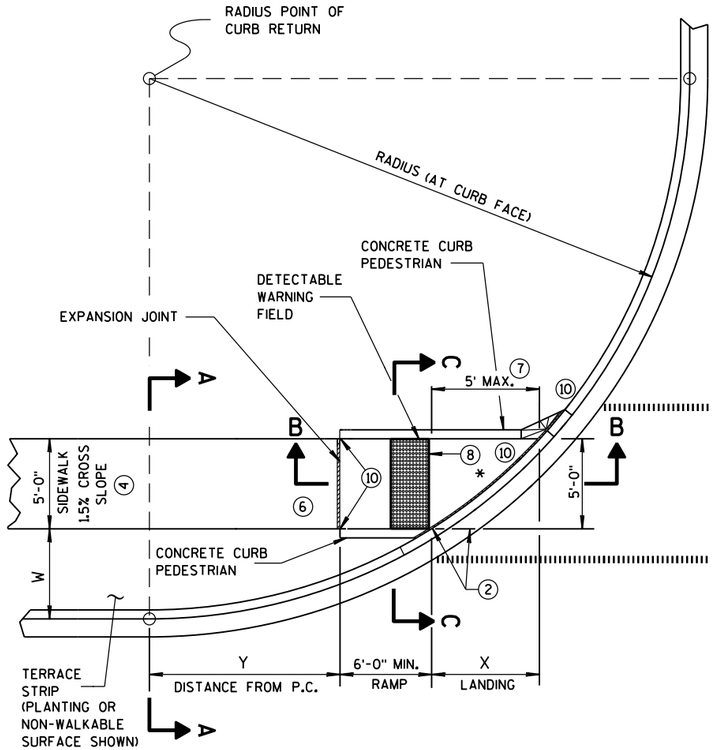
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

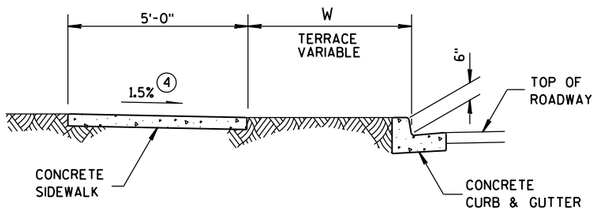
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

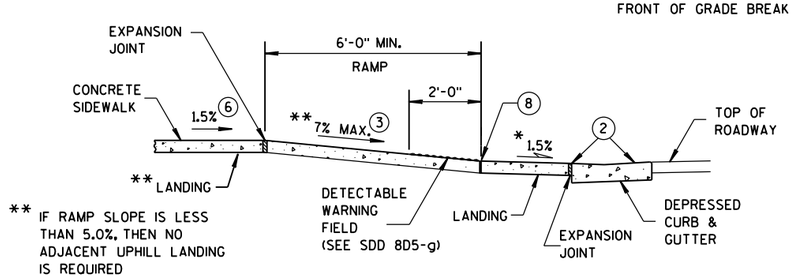
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B

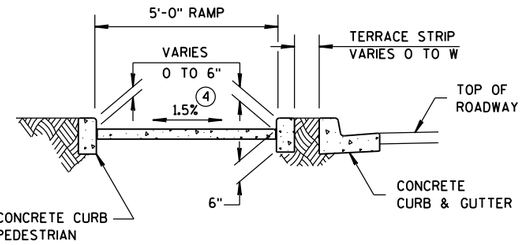


* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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.

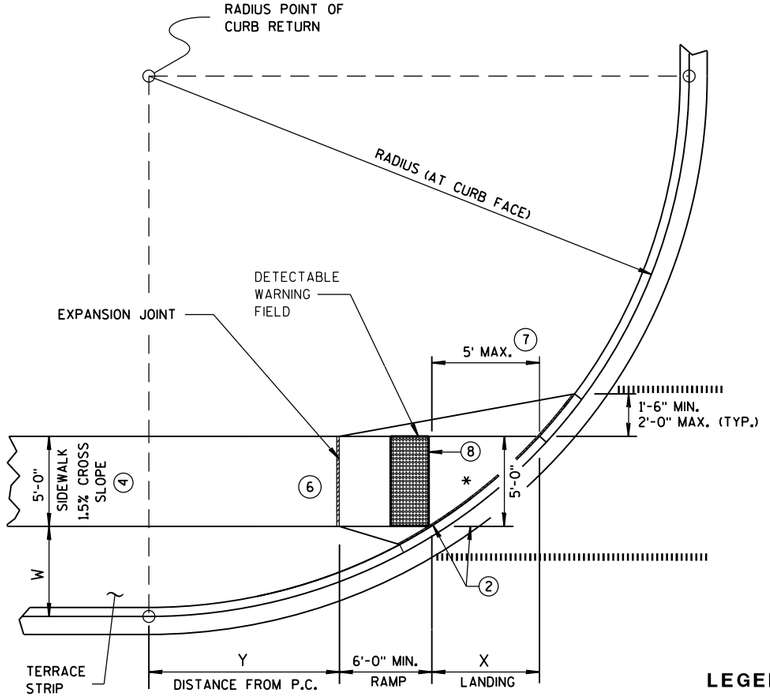
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

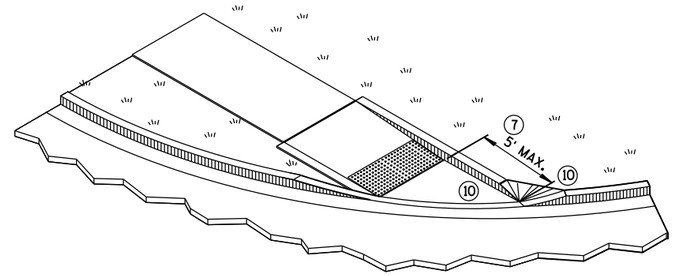
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

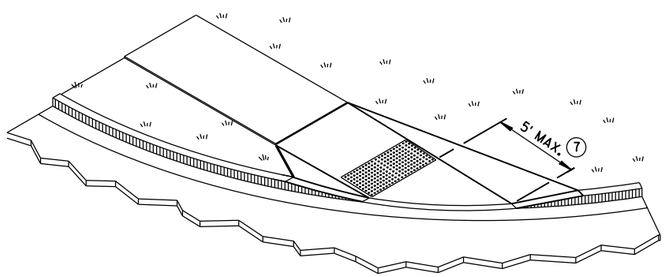
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



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

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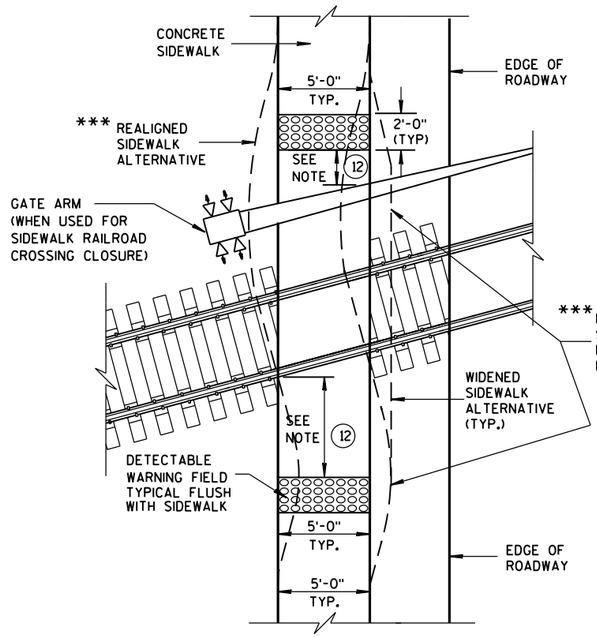
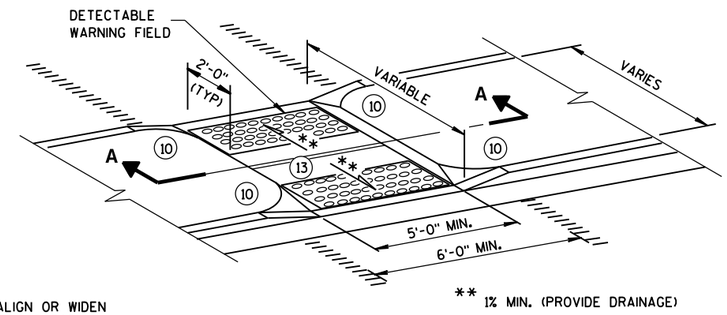
S.D.D. 8 D 5-19d



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.

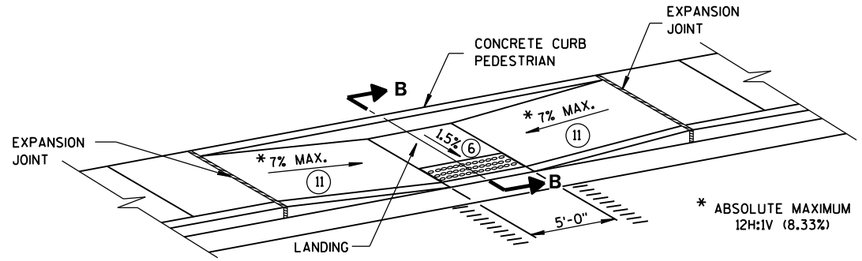
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

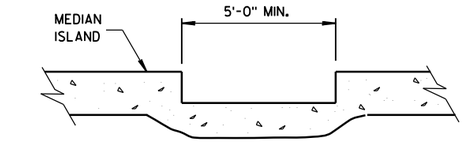
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

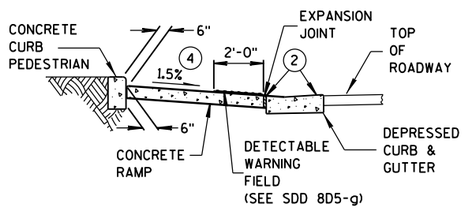
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

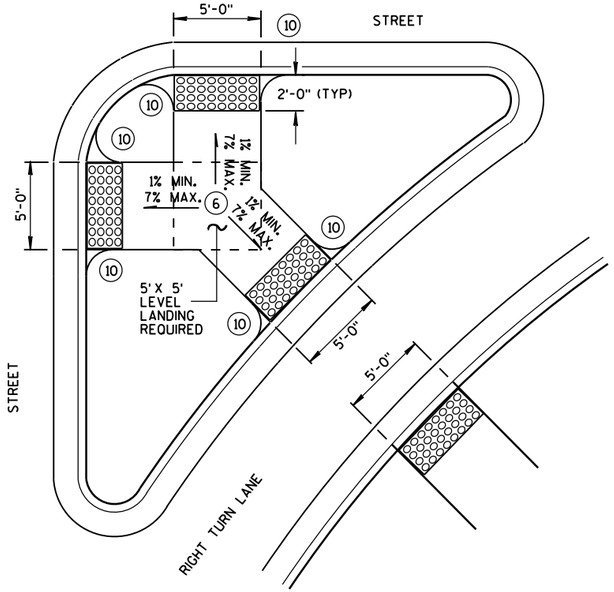


SECTION A-A

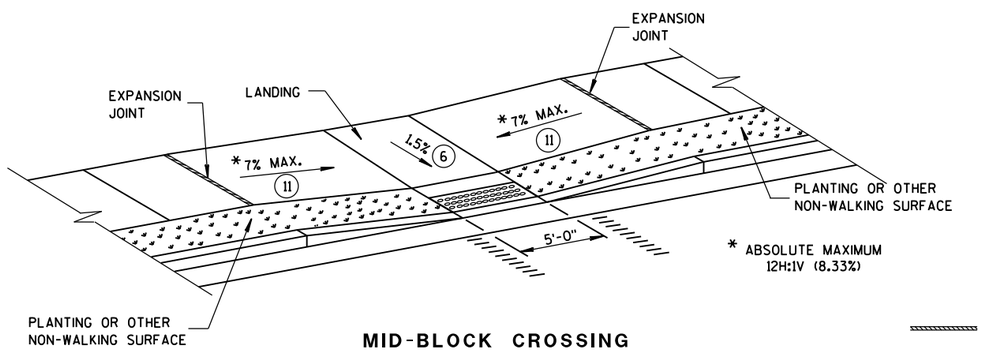


SECTION B-B

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

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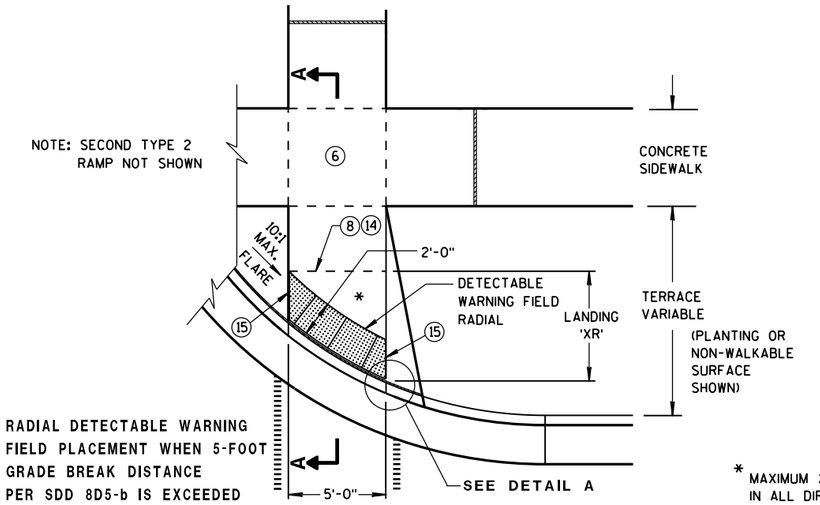
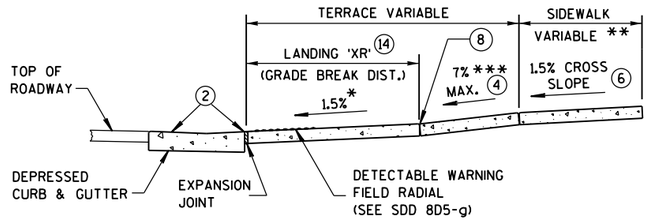


TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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.

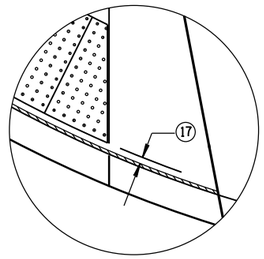
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

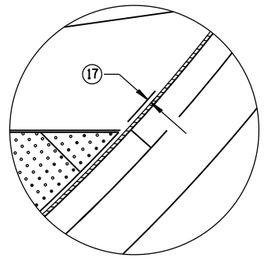
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(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.

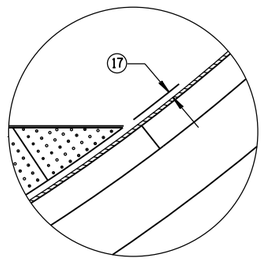
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



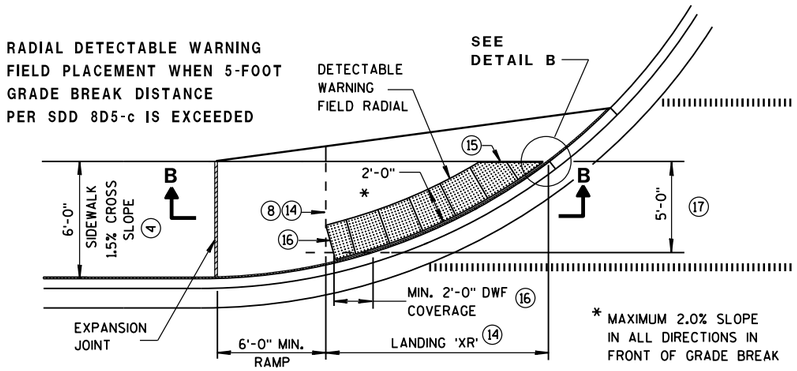
DETAIL A



DETAIL C

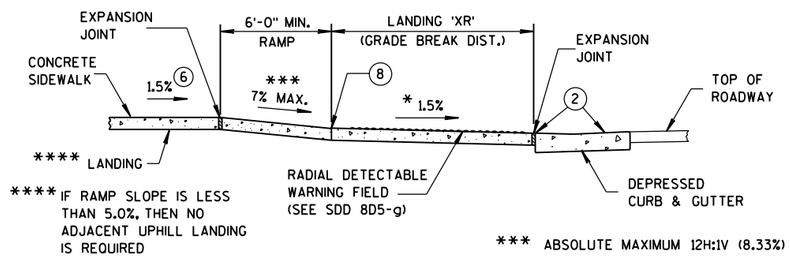


DETAIL B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

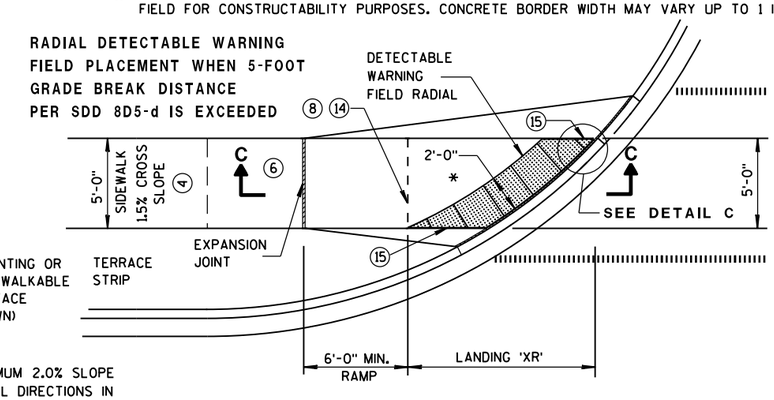
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

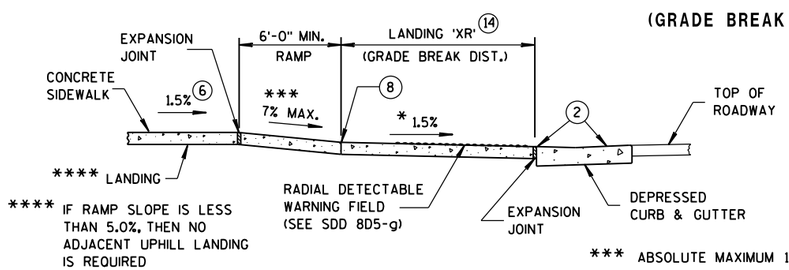
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

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 87

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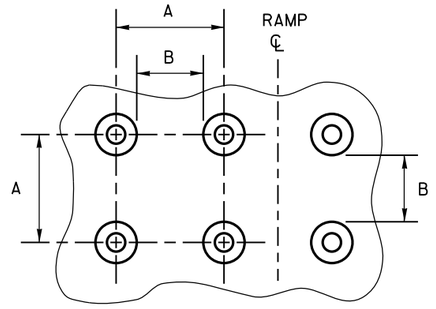
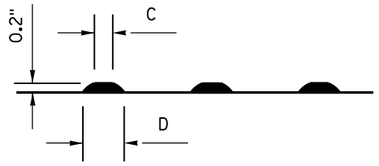
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* 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.

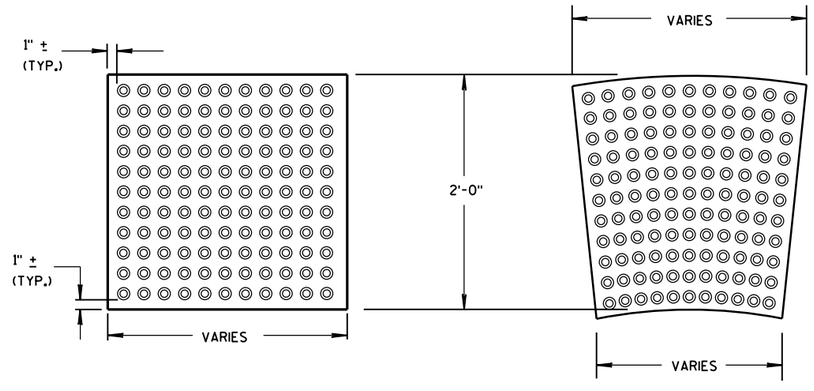
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

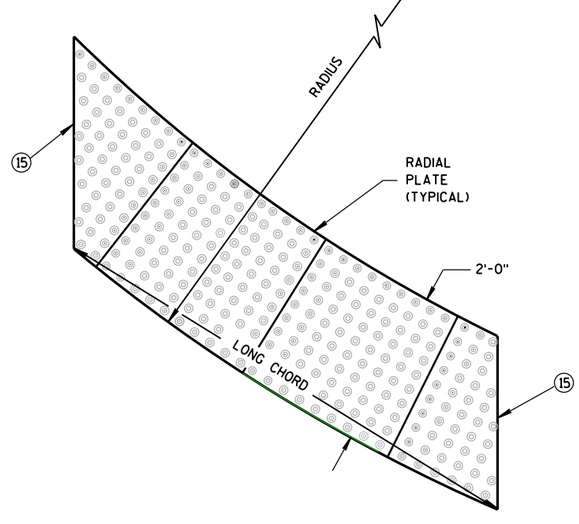


RECTANGULAR PLATES

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
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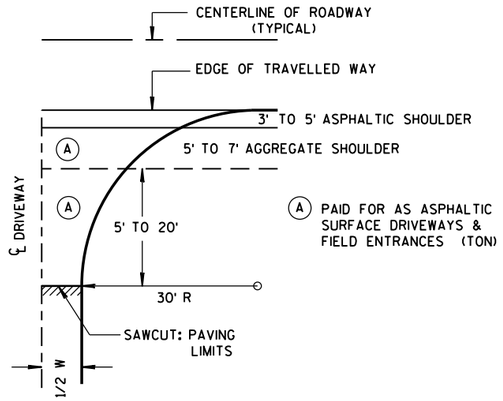
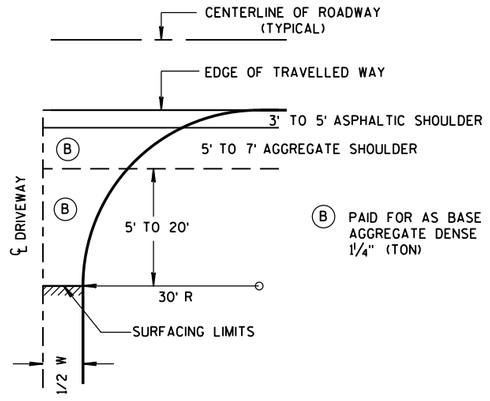


PLAN VIEW
HALF SECTION

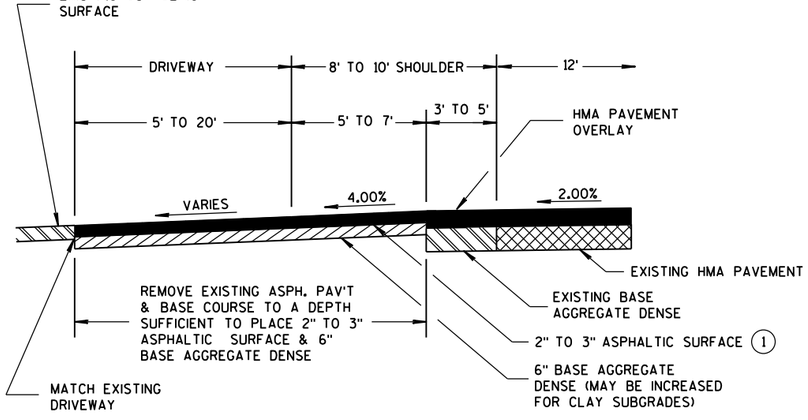
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

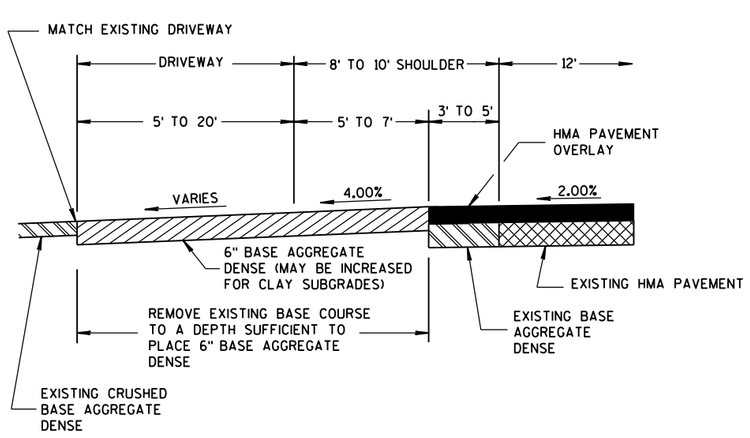
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

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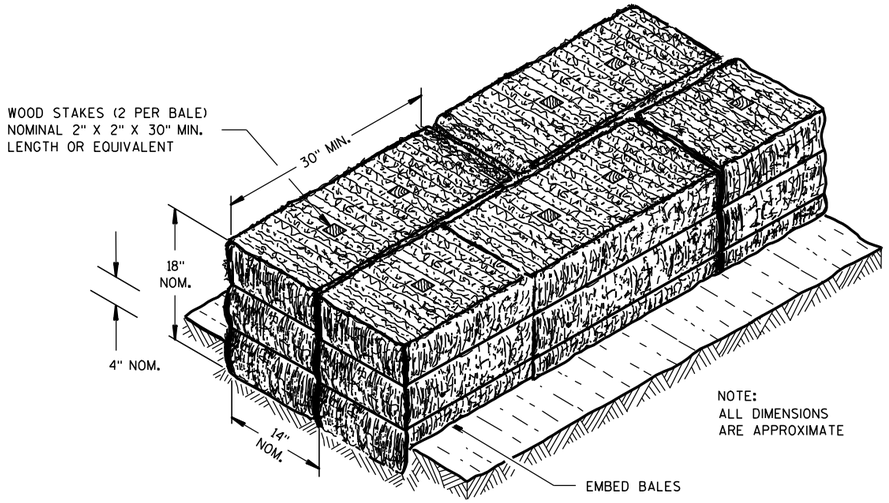
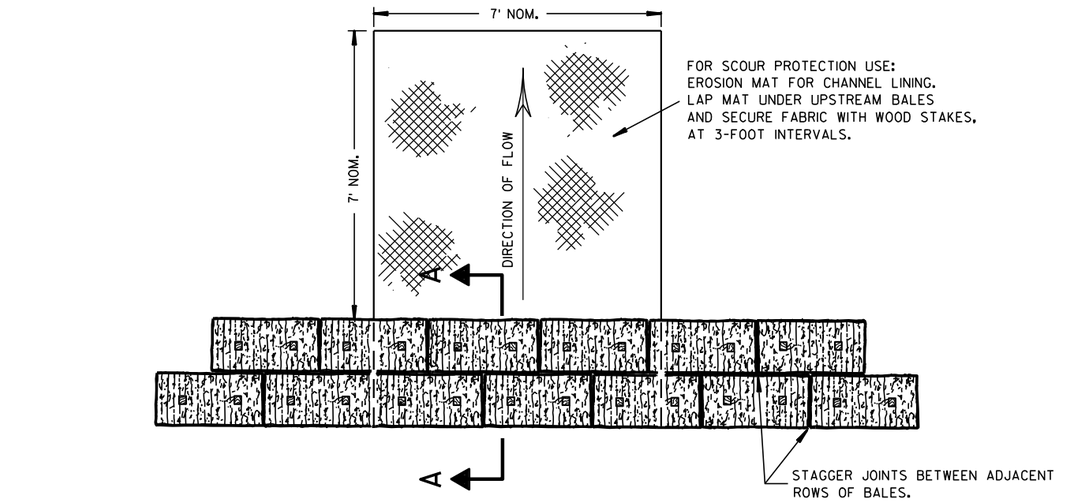
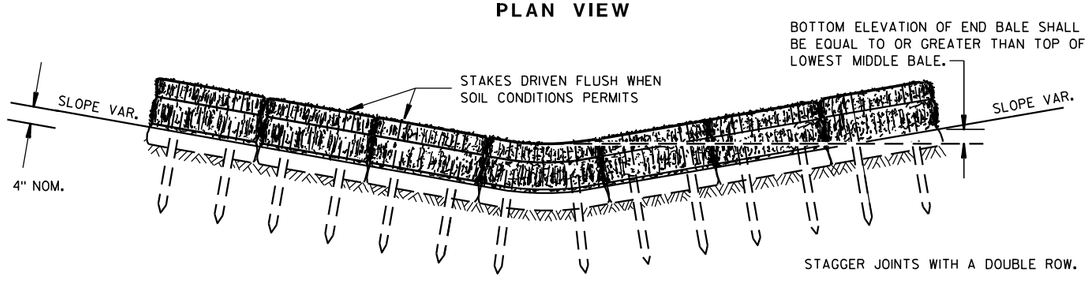


SECTION A-A



PLAN VIEW



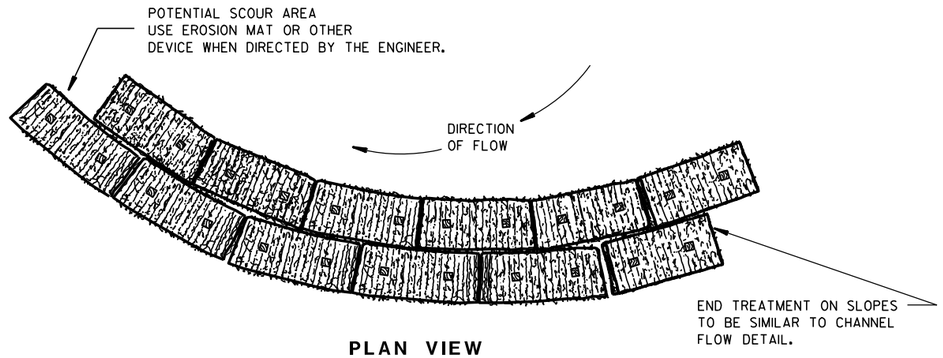
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

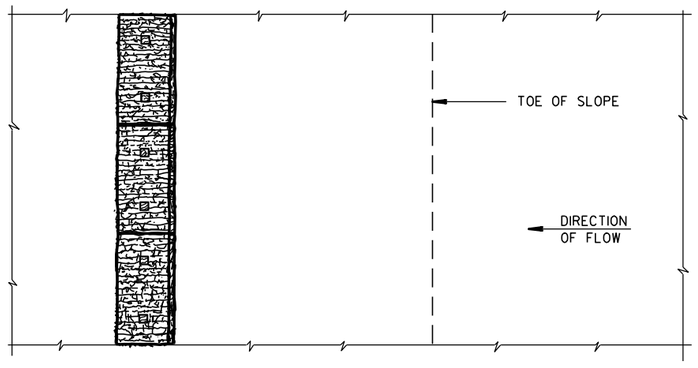
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

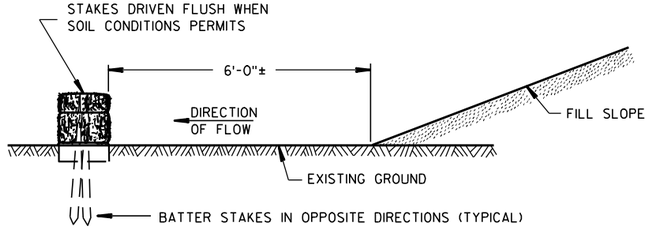


PLAN VIEW

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

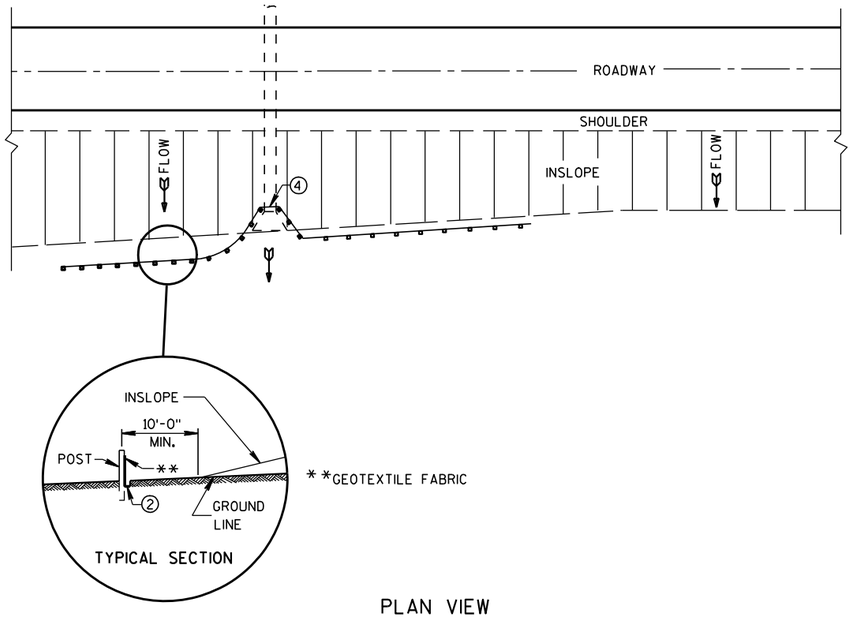
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

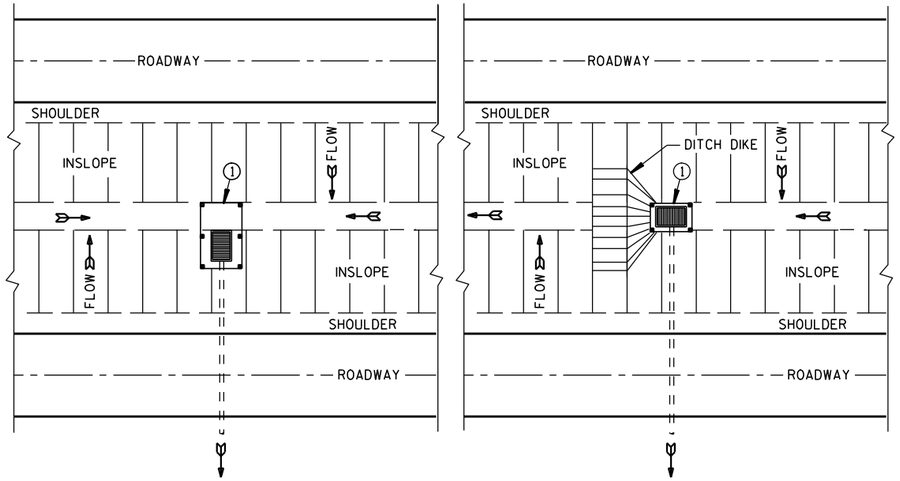
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

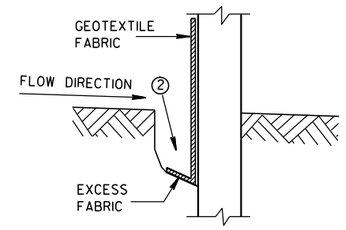
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

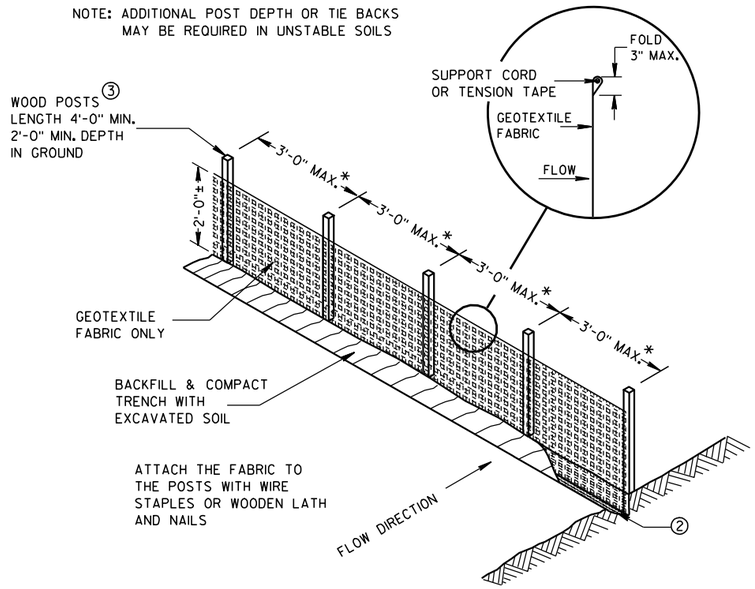
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

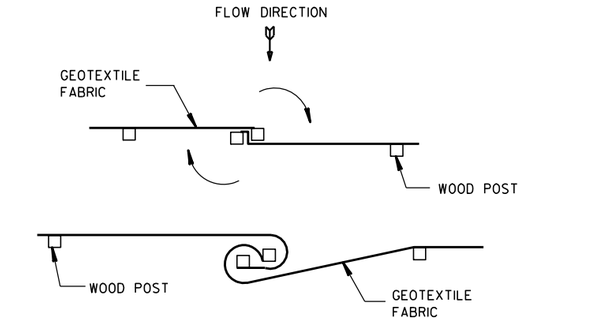
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



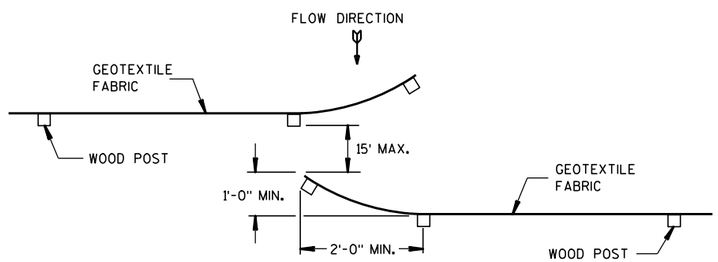
TRENCH DETAIL



SILT FENCE

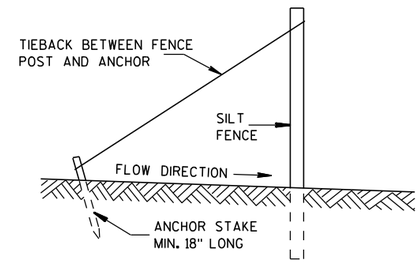


TWIST METHOD



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

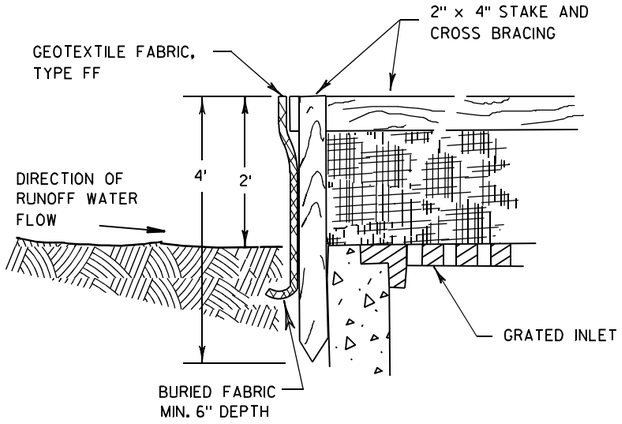
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

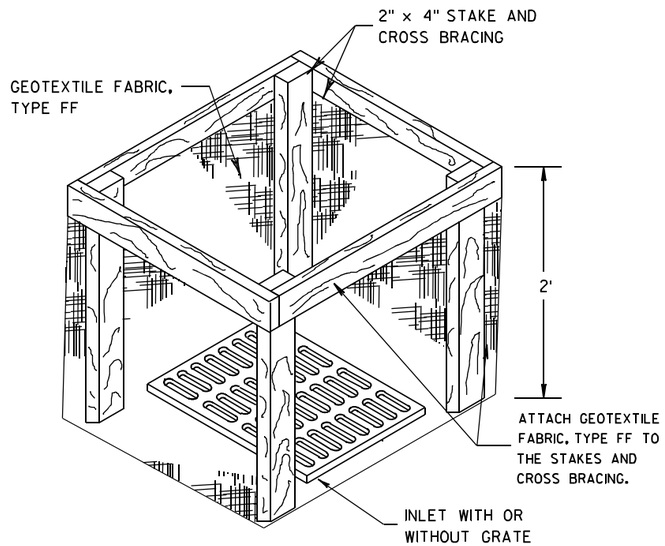
6

S.D.D. 8 E 9-6

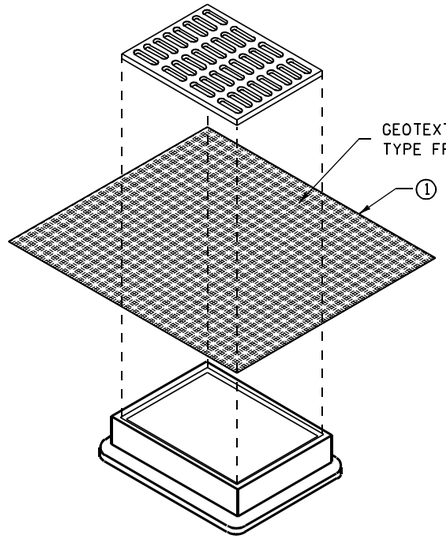
6

S.D.D. 8 E 9-6



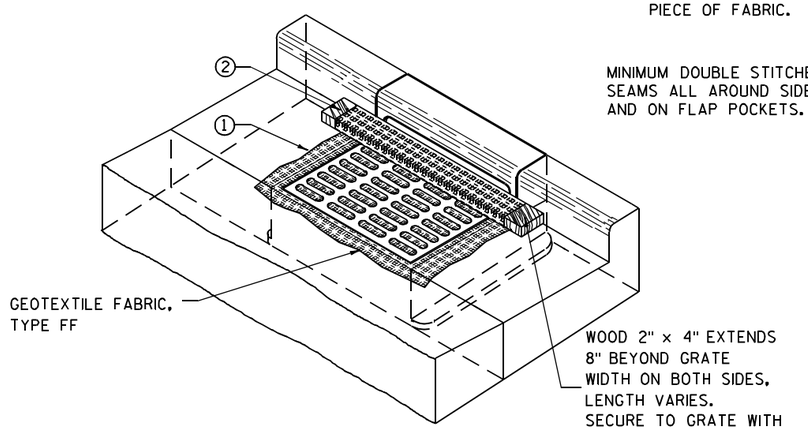


INLET PROTECTION, TYPE A

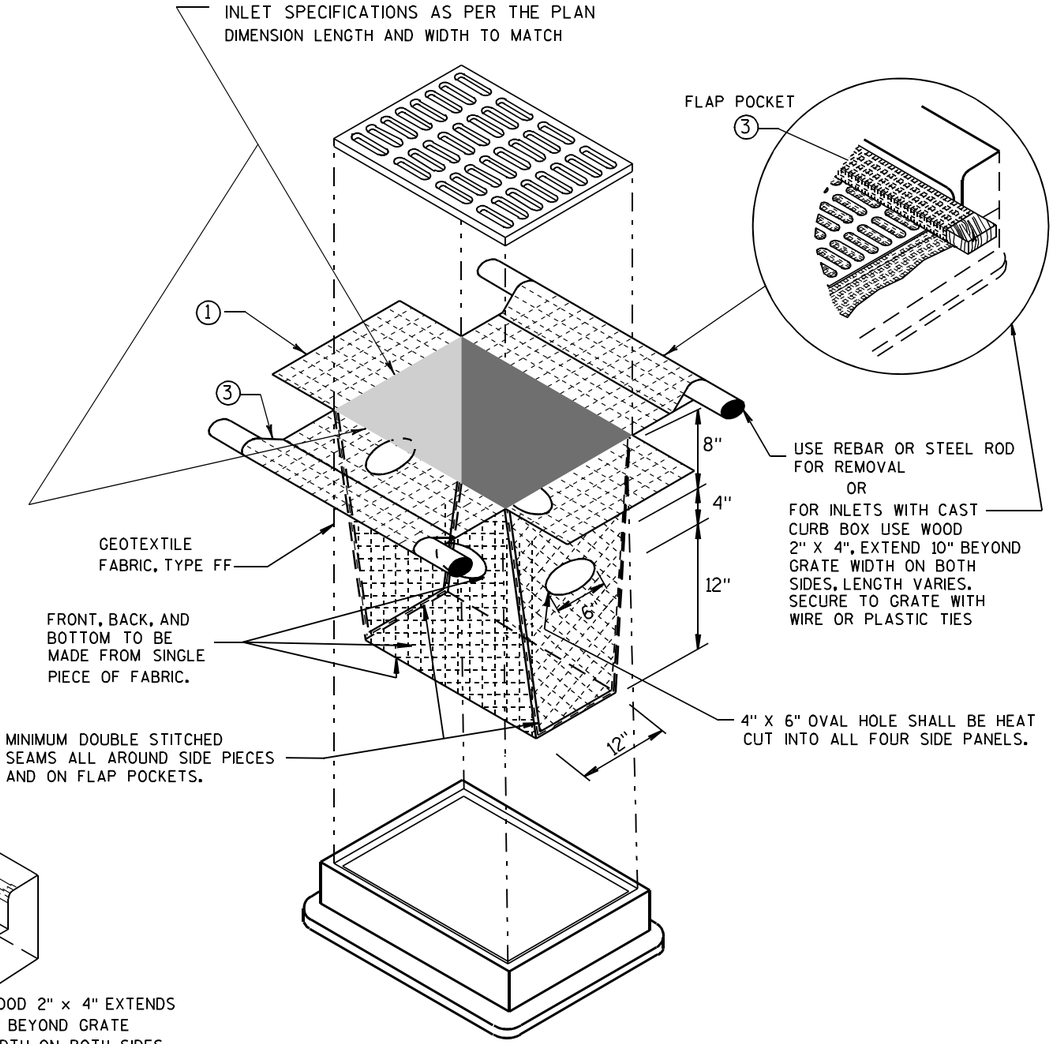


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

METAL APRON ENDWALLS

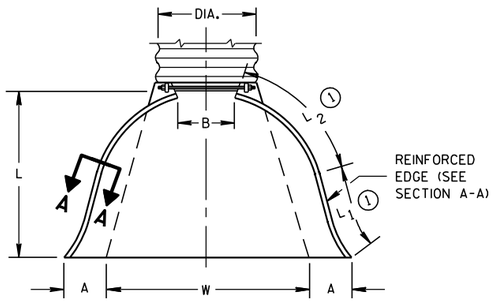
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

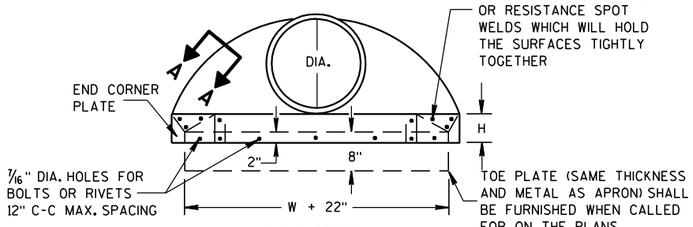
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

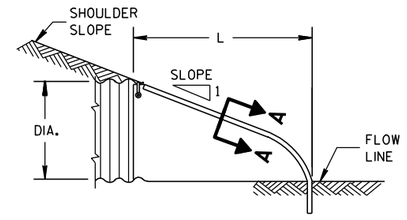
*MINIMUM
**MAXIMUM



PLAN VIEW

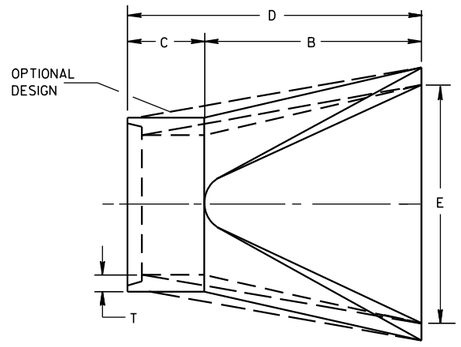


END VIEW

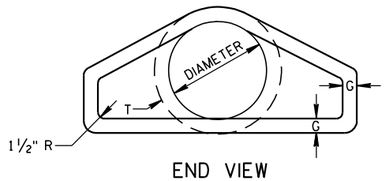


SIDE ELEVATION

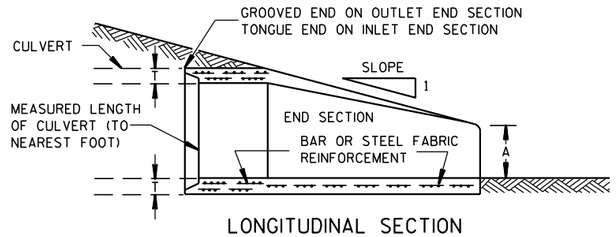
METAL ENDWALLS



PLAN

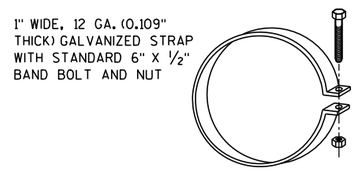


END VIEW



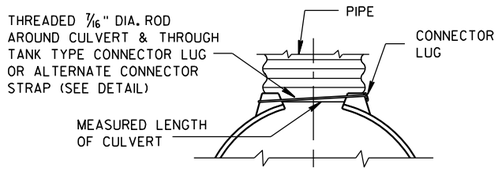
LONGITUDINAL SECTION

CONCRETE ENDWALLS

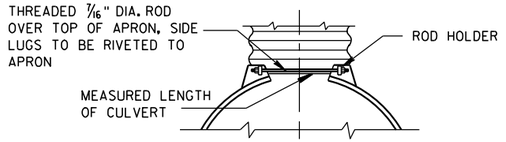


ALTERNATE FOR TYPE 1 CONNECTION

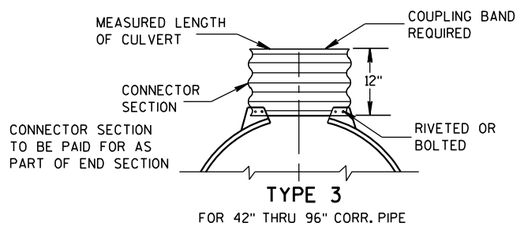
END SECTION CONNECTOR STRAP



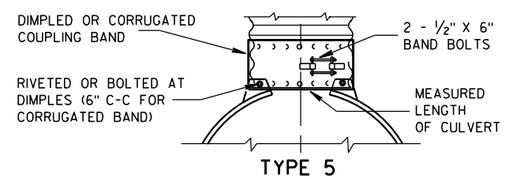
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

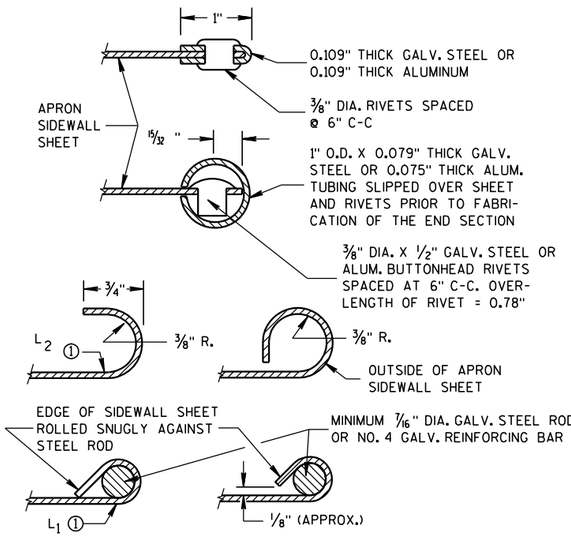
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

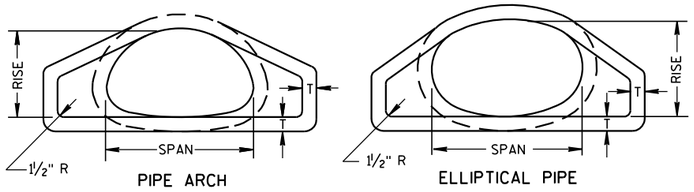
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

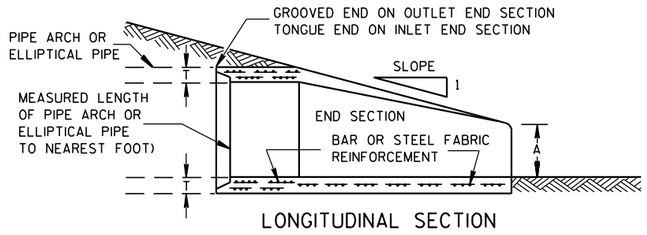
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

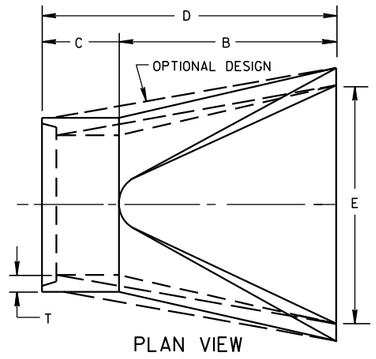
S.D.D. 8 F 1-11



END VIEW

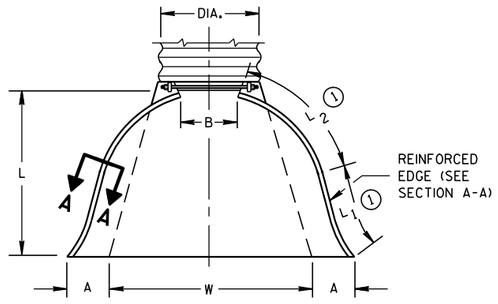


LONGITUDINAL SECTION

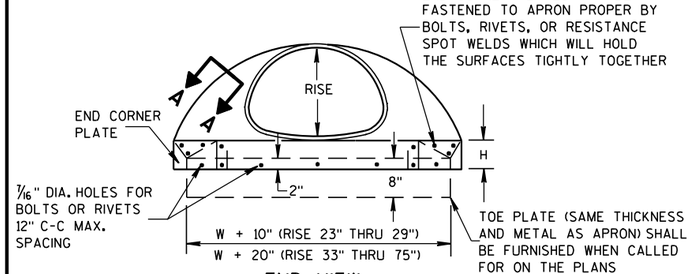


PLAN VIEW

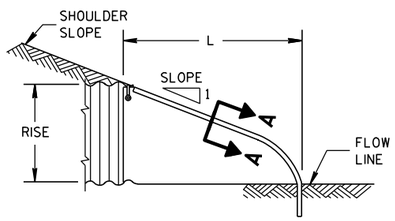
CONCRETE ENDWALLS



PLAN VIEW

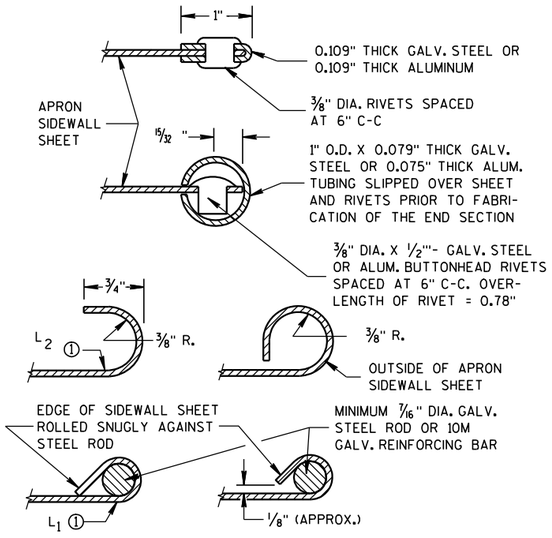


END VIEW



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

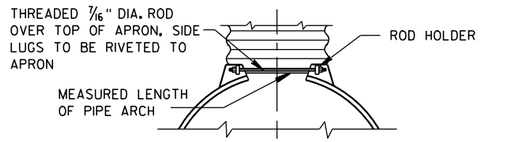
REINFORCED CONCRETE PIPE ARCH

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

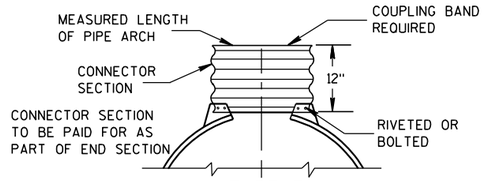
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



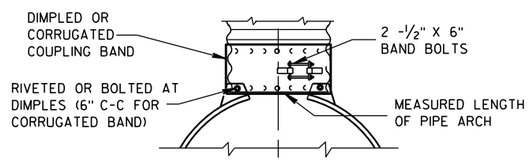
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

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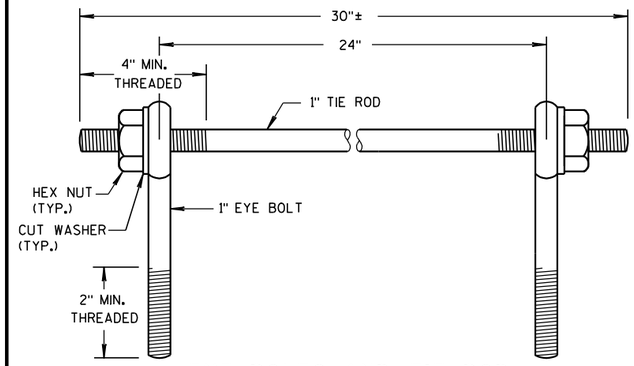
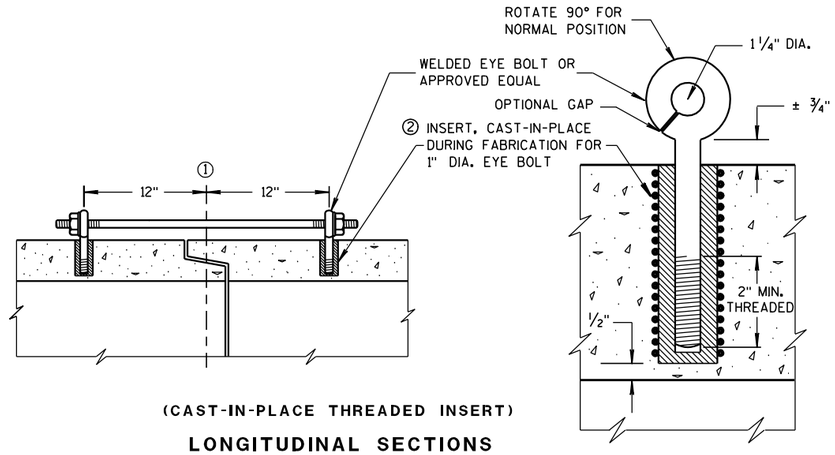


EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

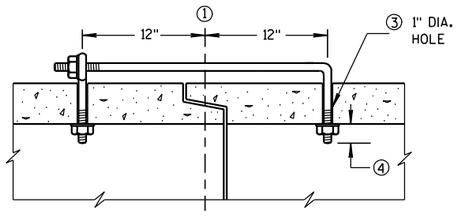
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

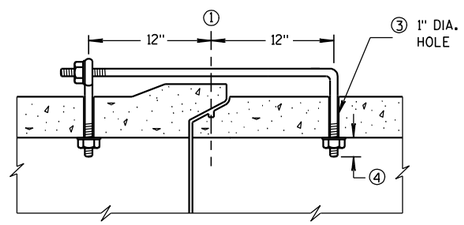
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

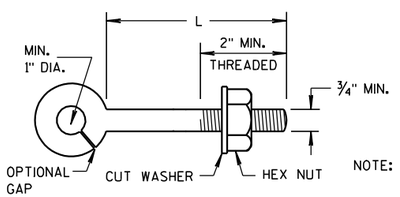


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

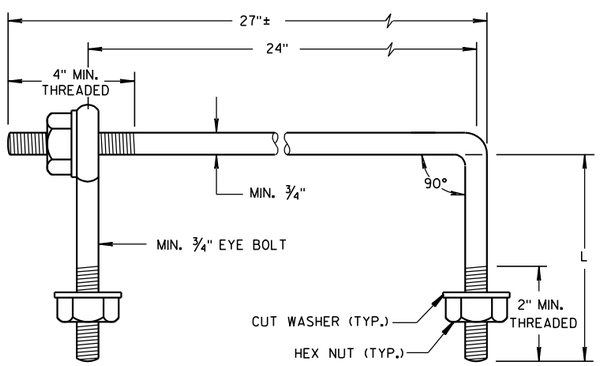
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

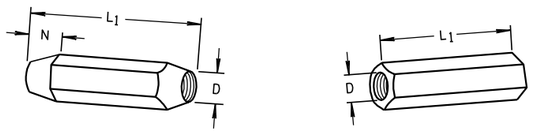
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

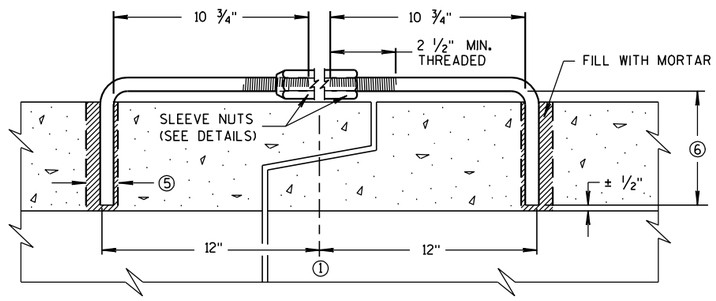
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

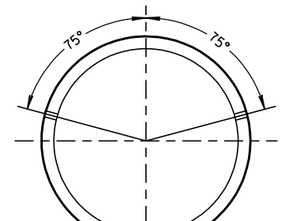
SLEEVE NUTS



LONGITUDINAL SECTION

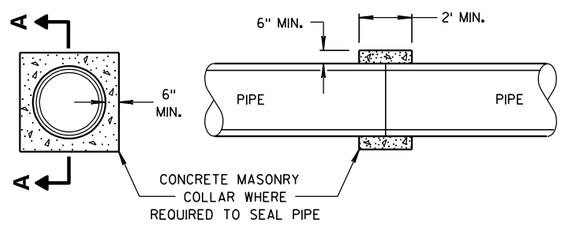
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
95 — 'MENT

FHWA

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S.D.D. 8 F 4-7

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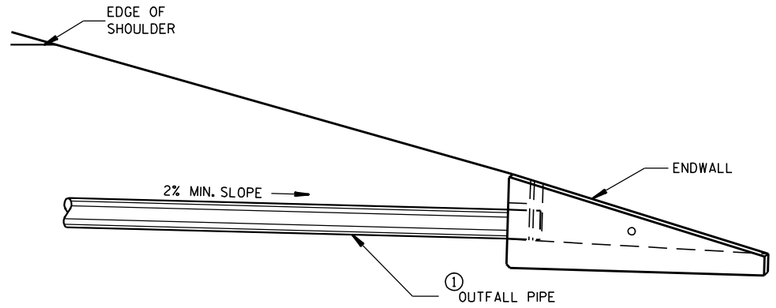
S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

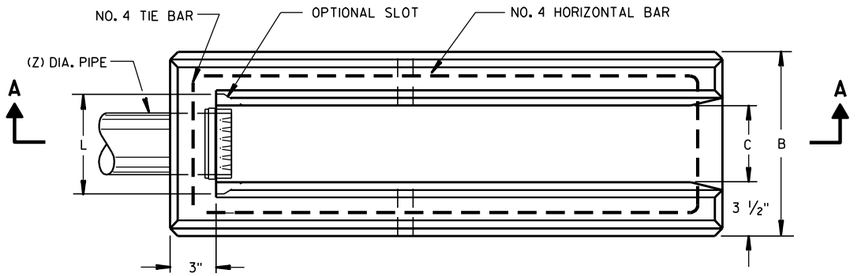
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

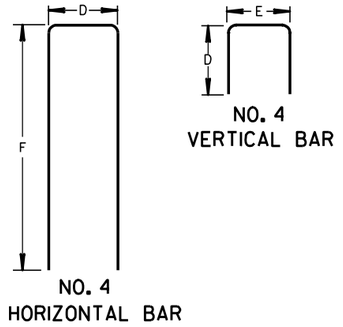
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

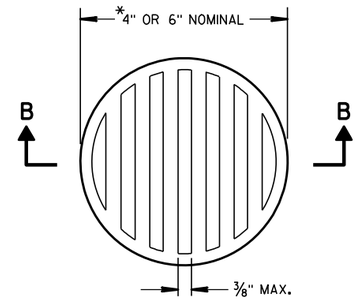
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

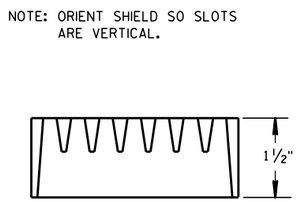


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

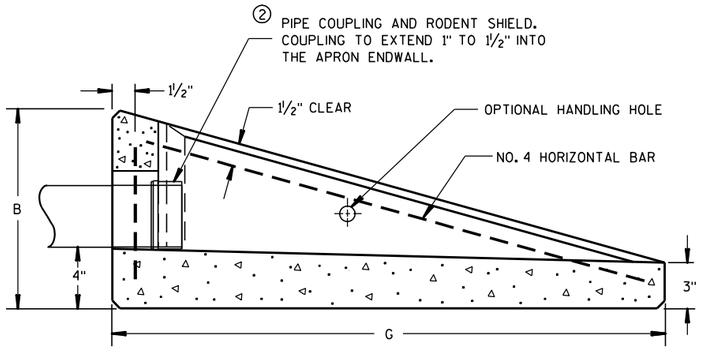




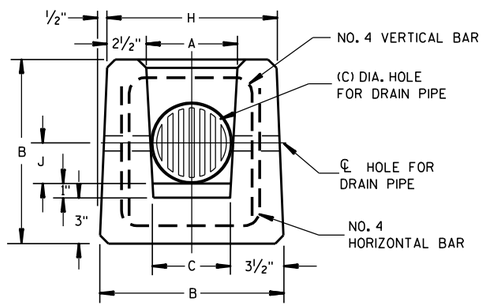
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

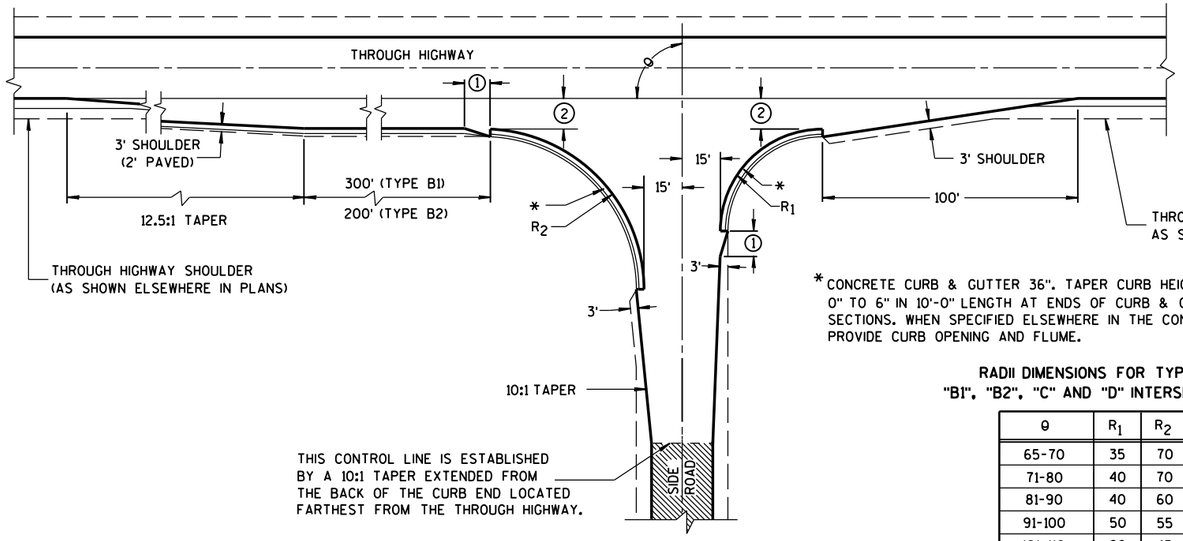
CONCRETE APRON ENDWALL FOR UNDERDRAIN

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 6-4

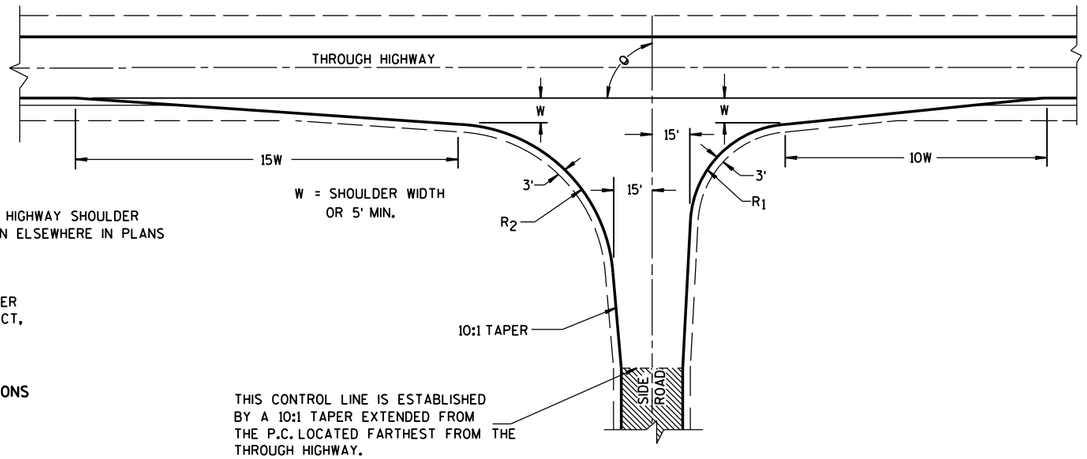


TYPE "B1" AND "B2"

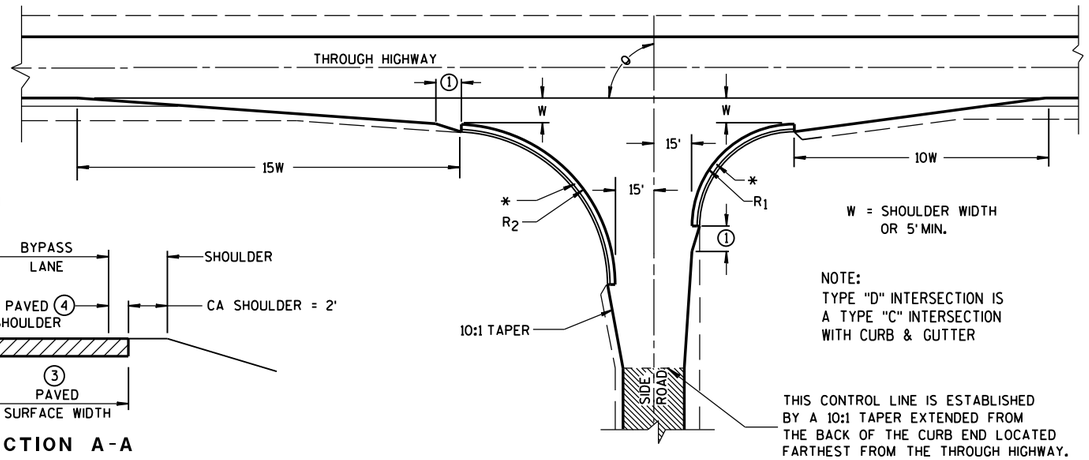
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

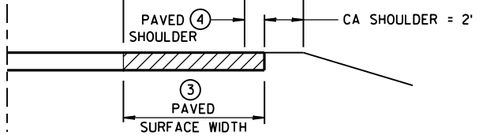
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

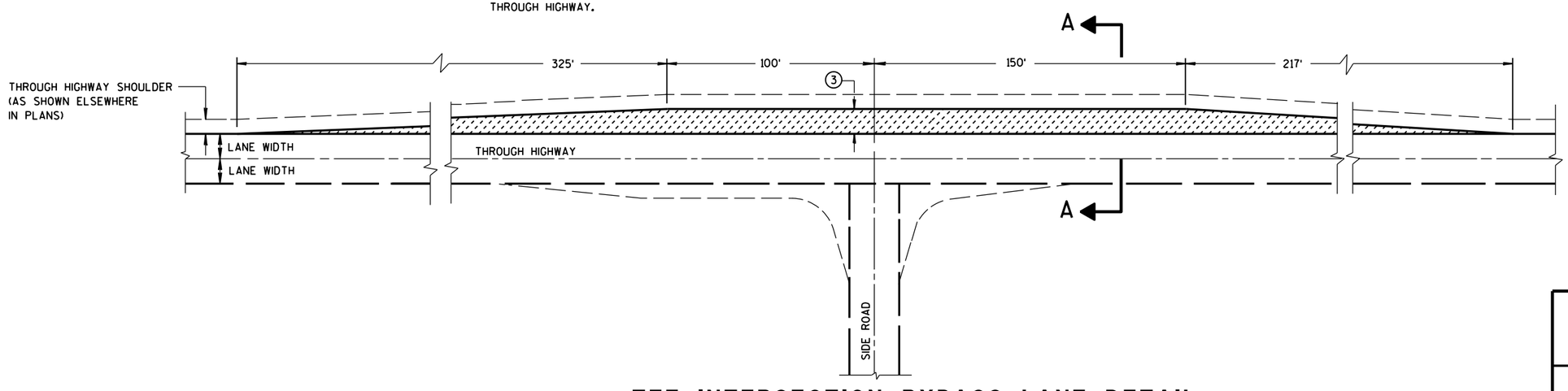
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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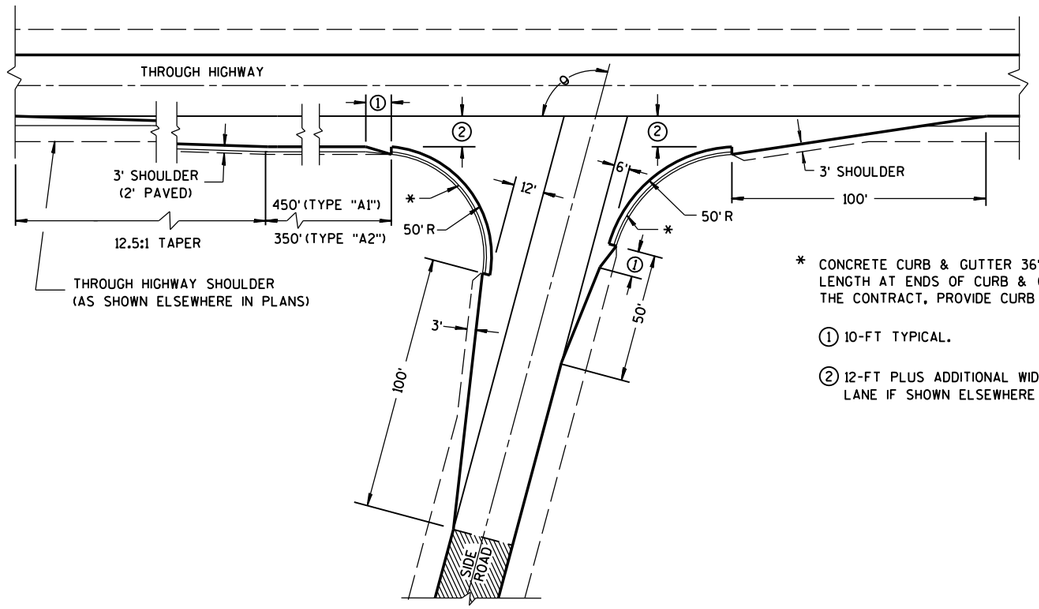
S.D.D. 9 A 1-13a



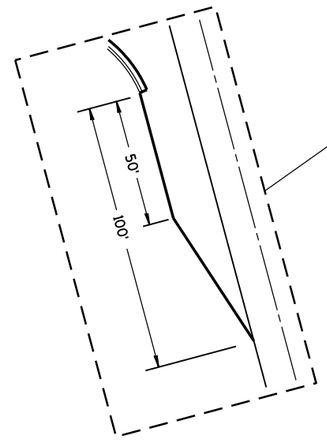
θ = MORE THAN 80°

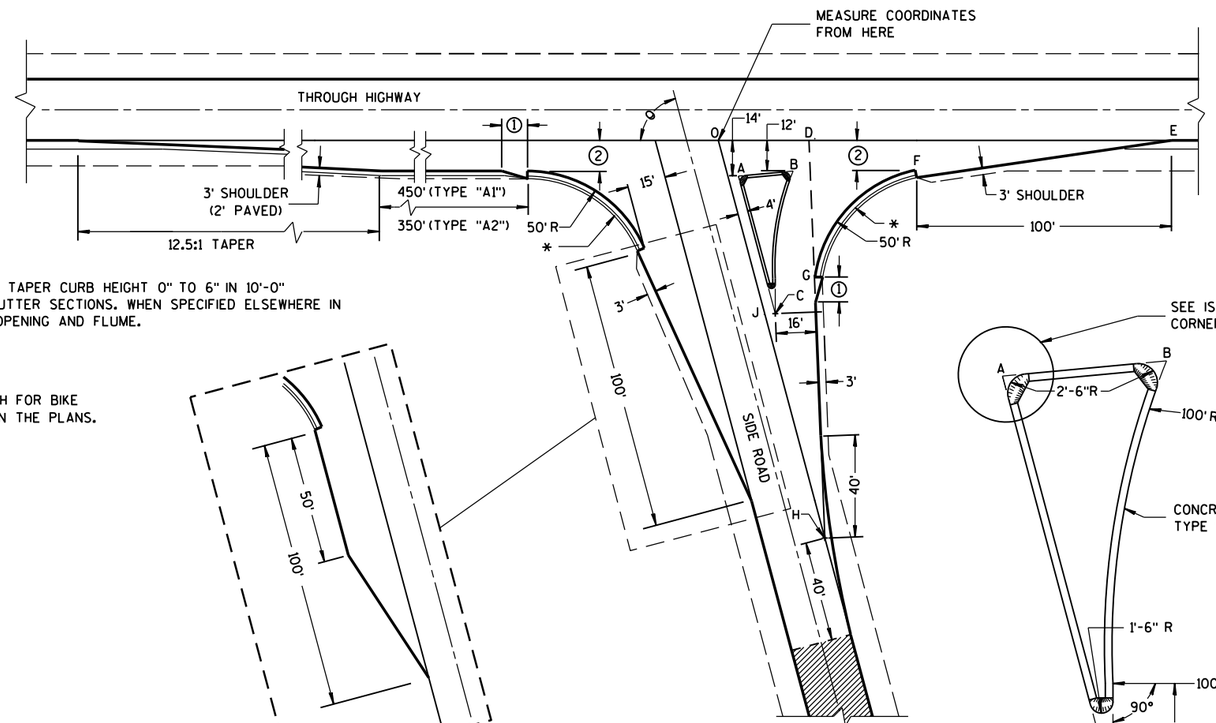
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

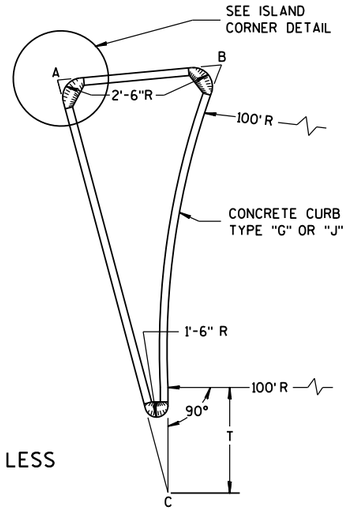
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE





θ = ACUTE ANGLES 80° OR LESS

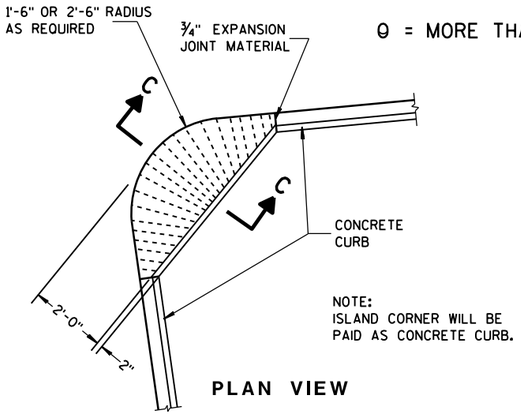


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

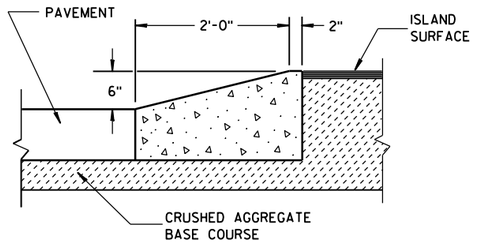
TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

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



PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

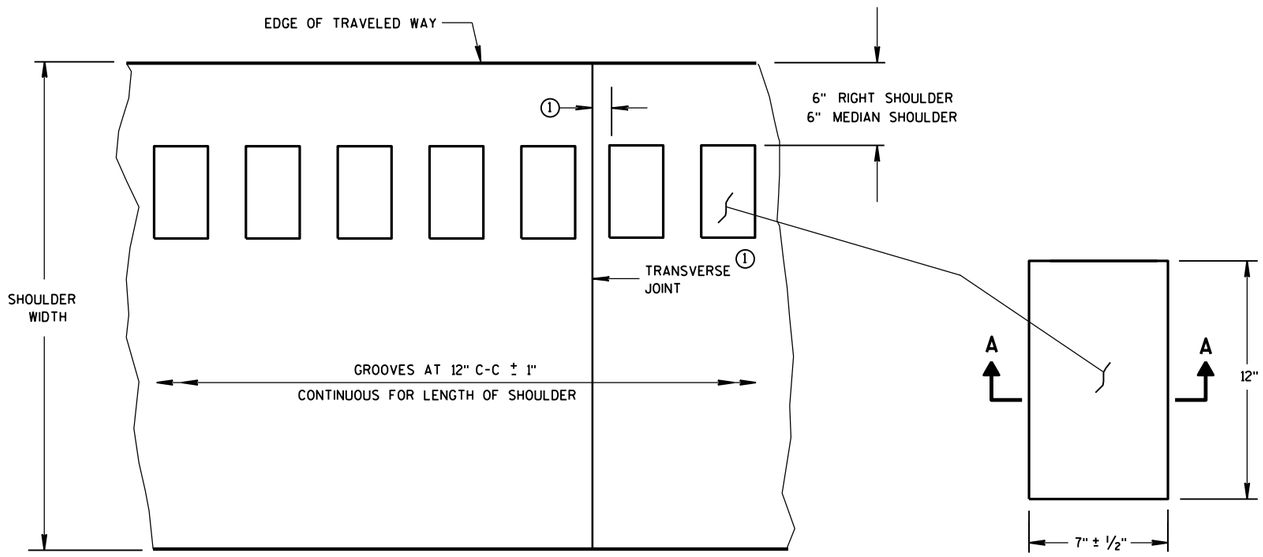
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

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

6 S.D.D. 9 A 1-13b



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

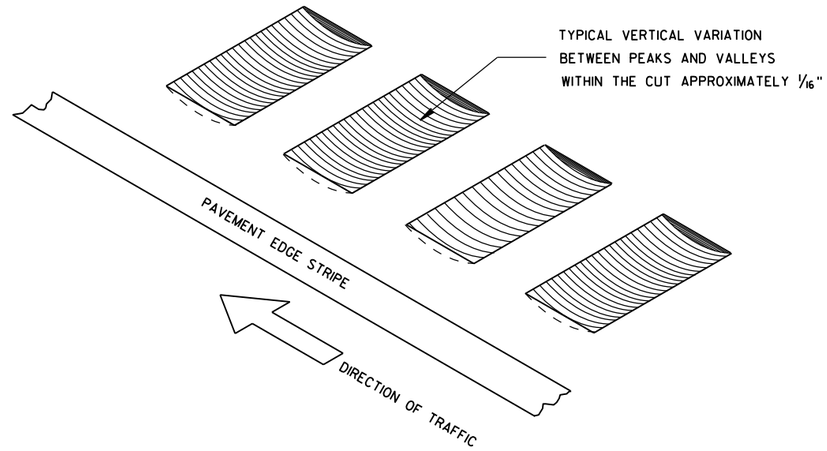
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

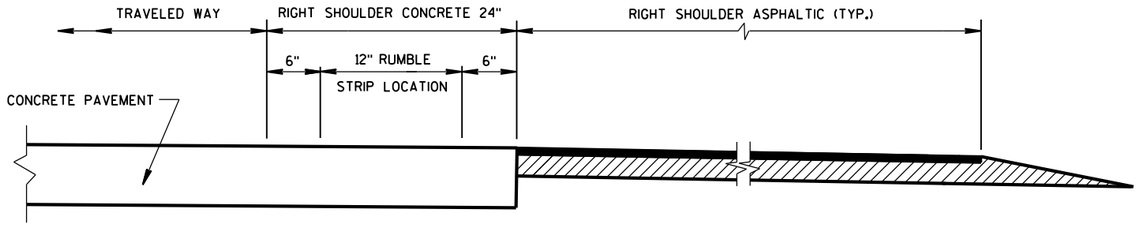
RUMBLE STRIPS ON EXPRESSWAYS

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.

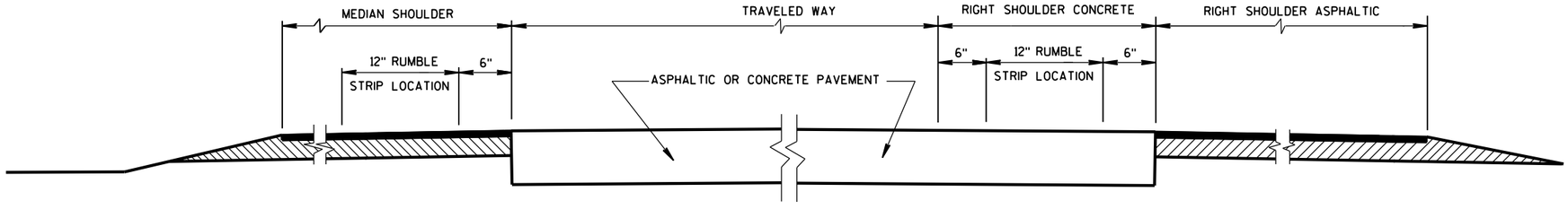
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



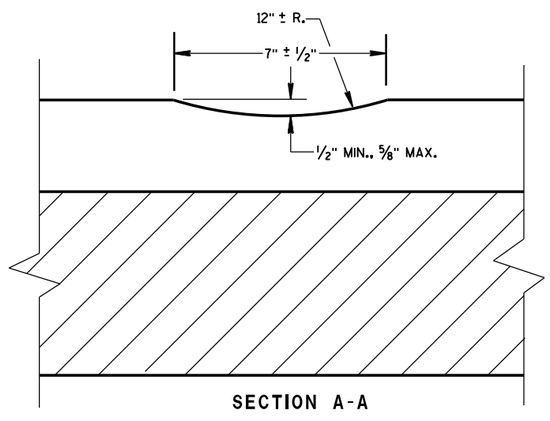
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

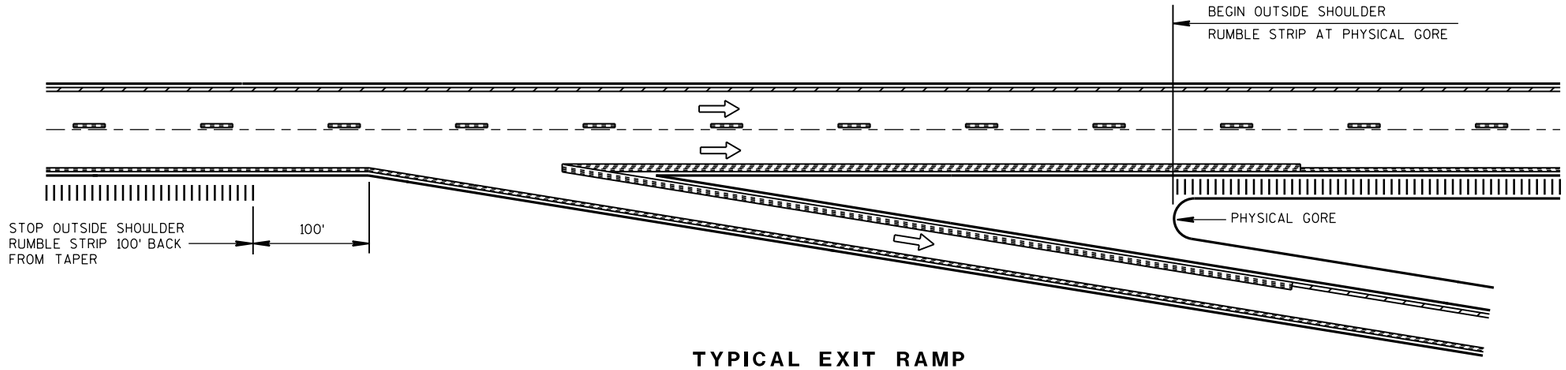
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



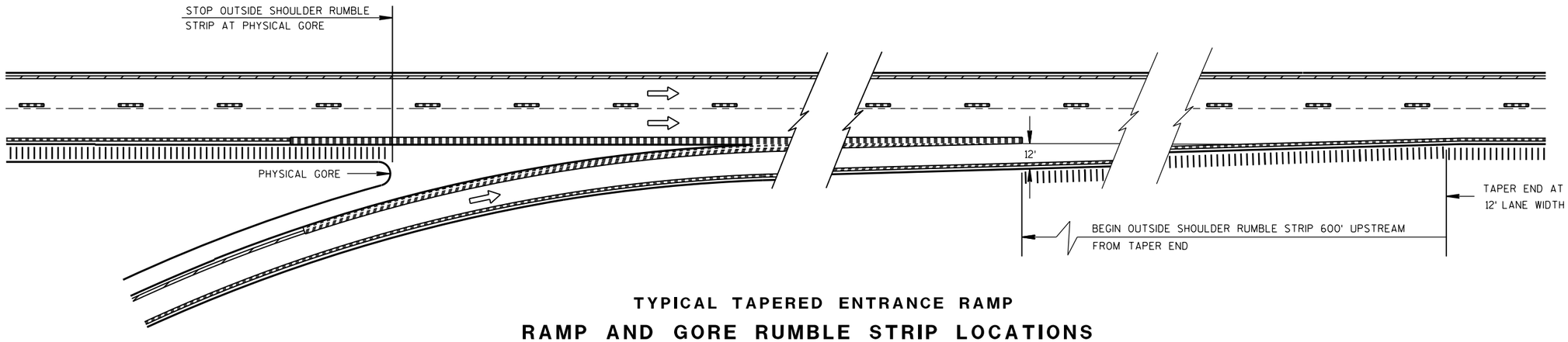
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

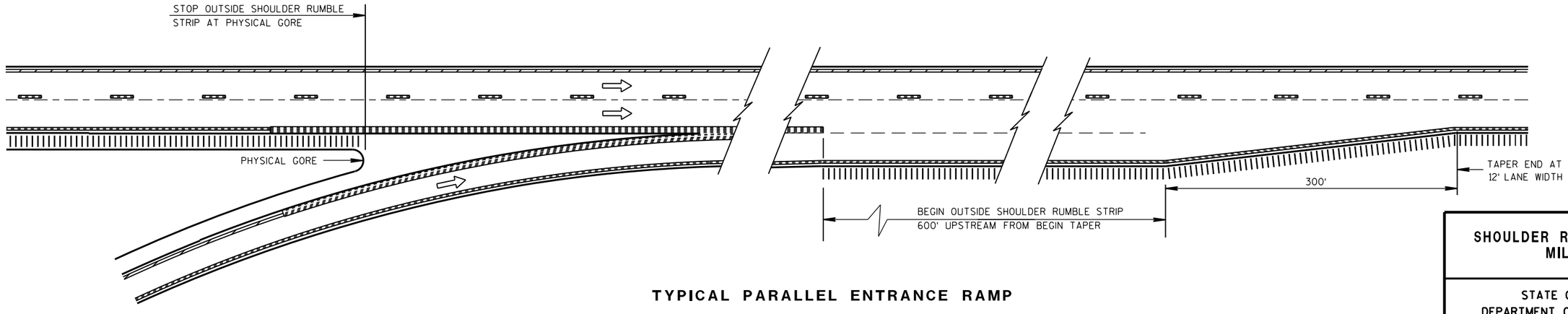
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

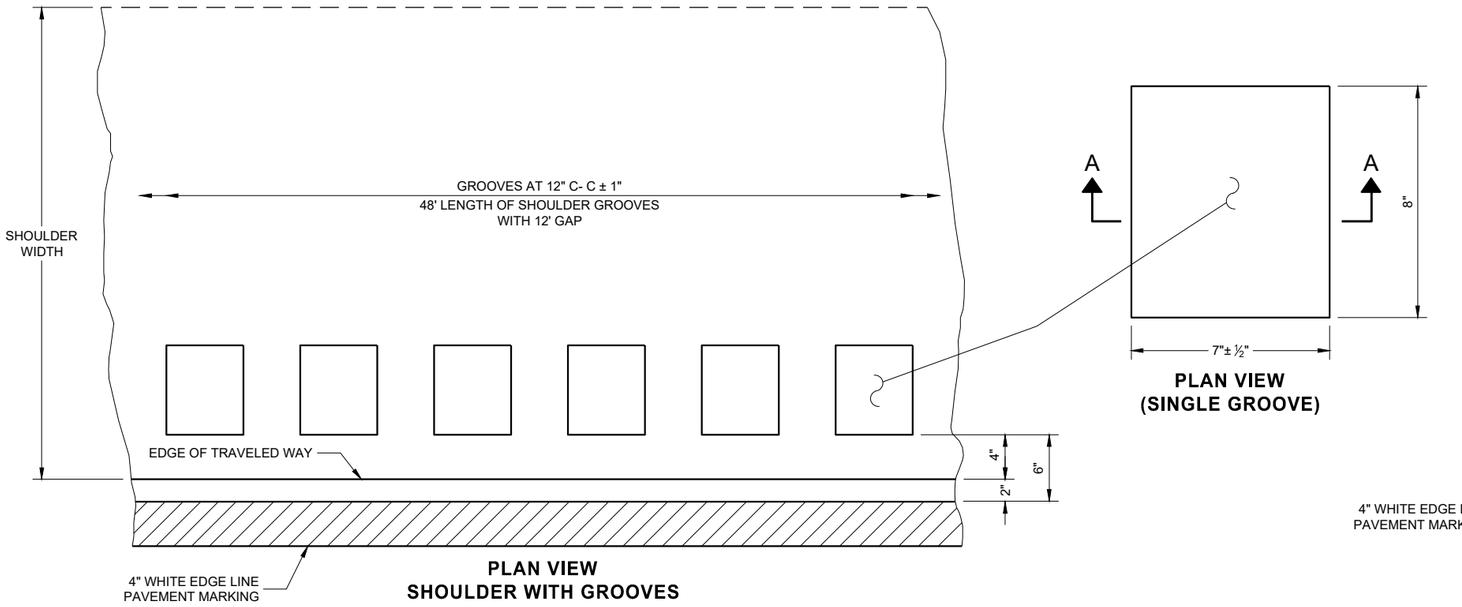
FHWA

6

S.D.D. 13 A 5-5b

6

S.D.D. 13 A 5-5b



PLAN VIEW
SHOULDER WITH GROOVES

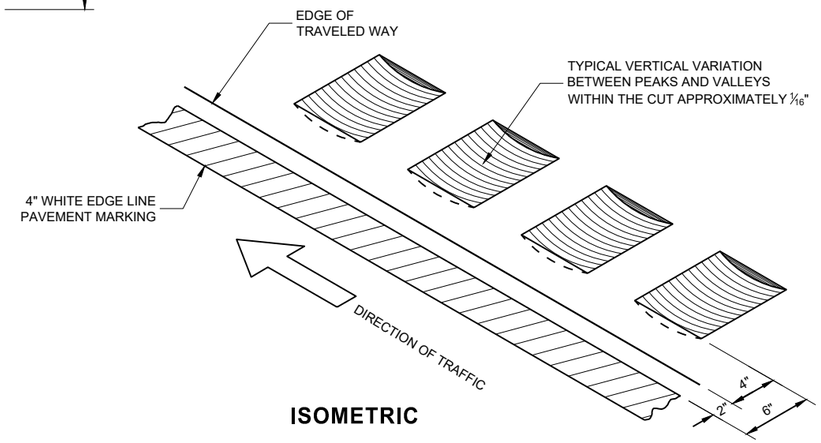
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

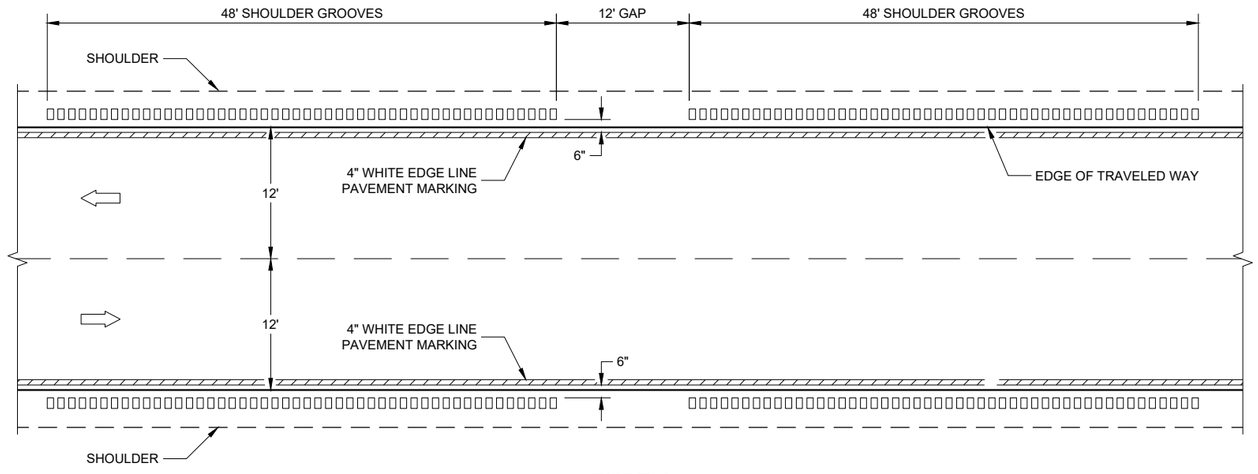
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

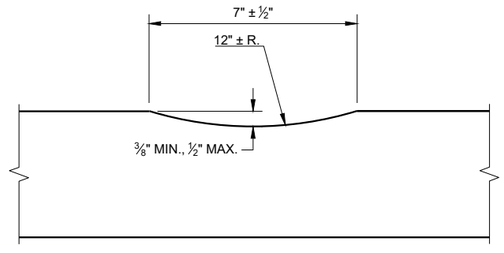


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

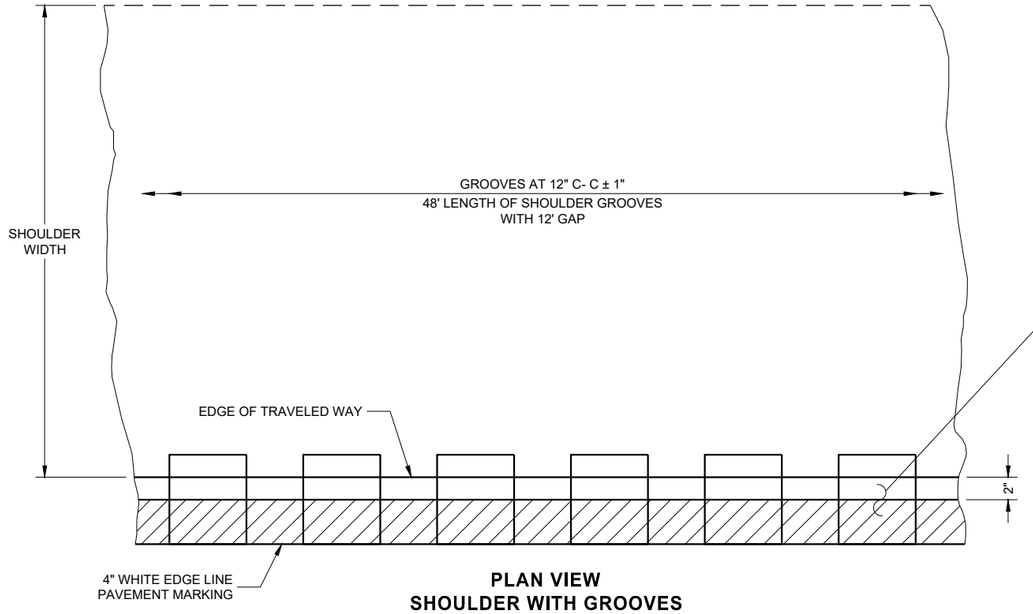
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

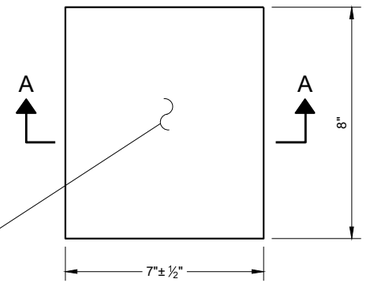
SDD 13A10 - 02a

6

SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



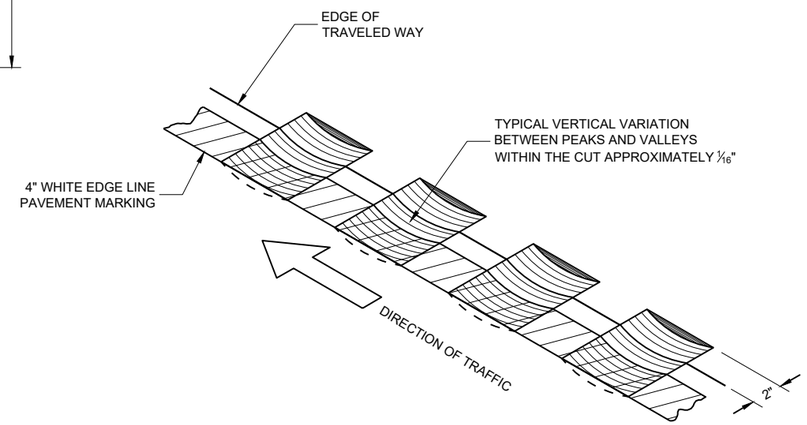
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

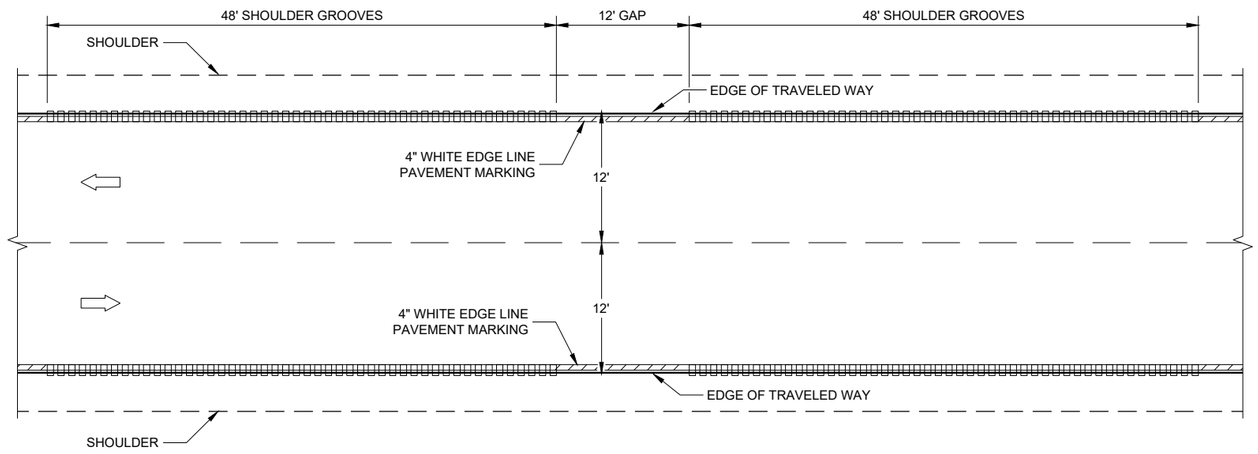
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

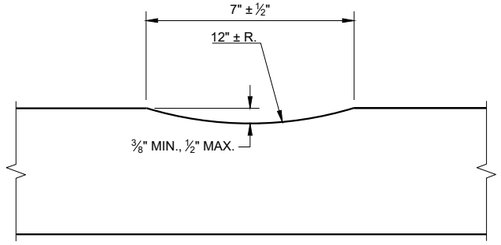


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

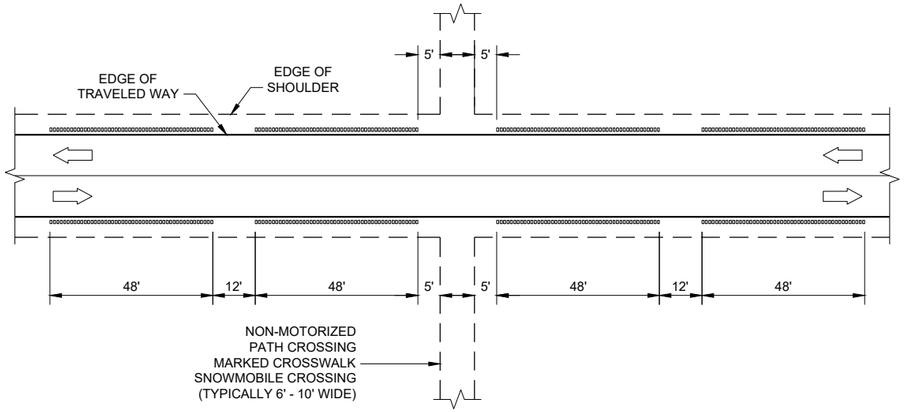
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

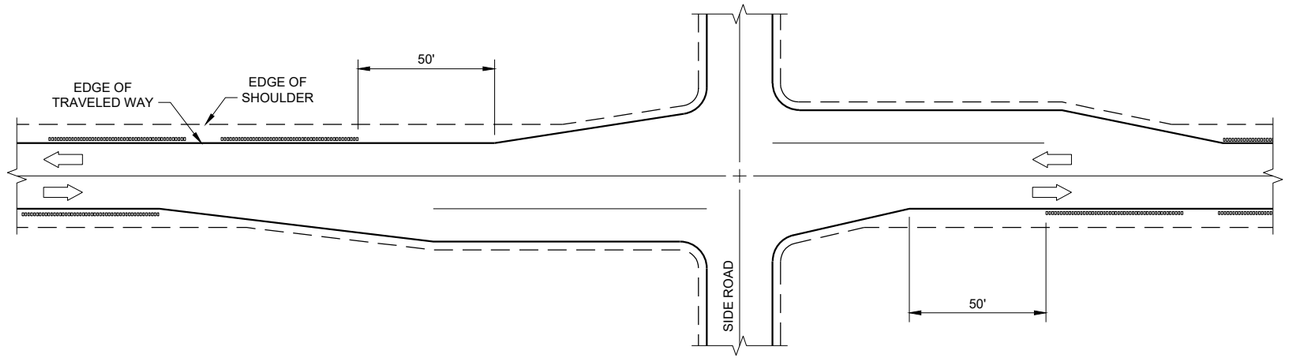
SDD 13A10 - 02b

6

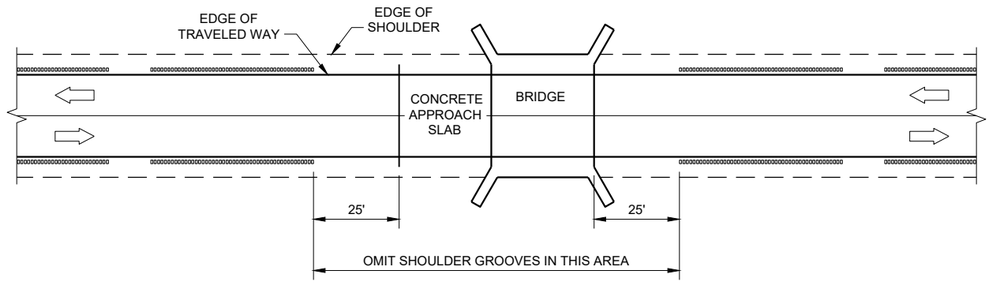
SDD13A10 - 02b



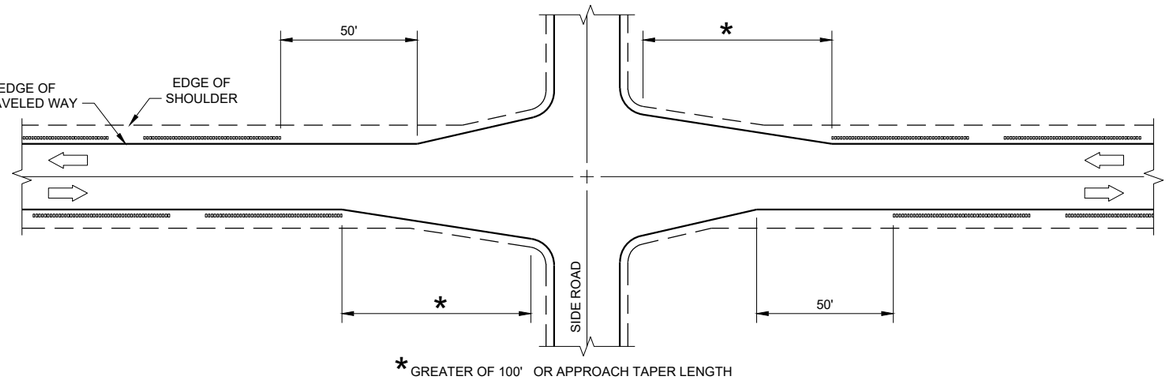
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

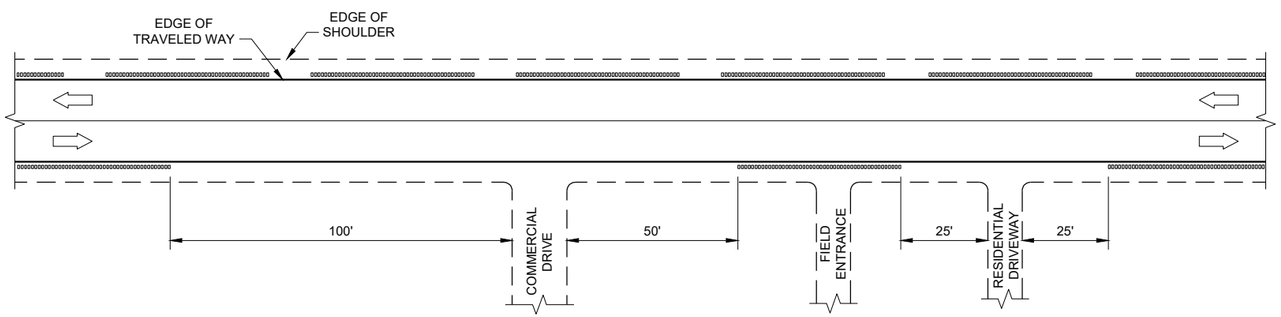


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

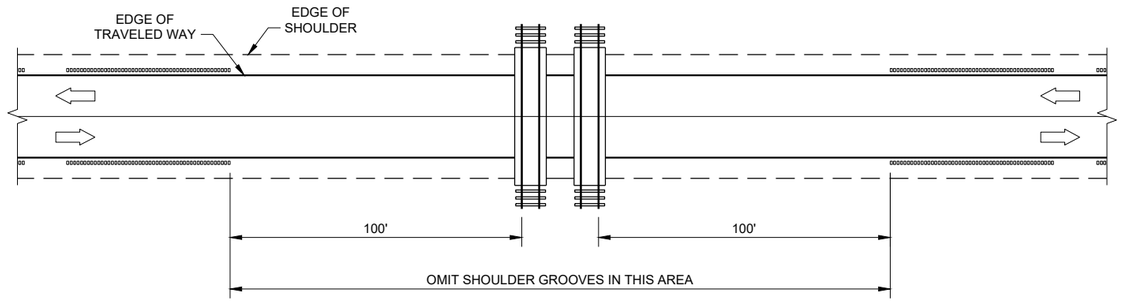
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

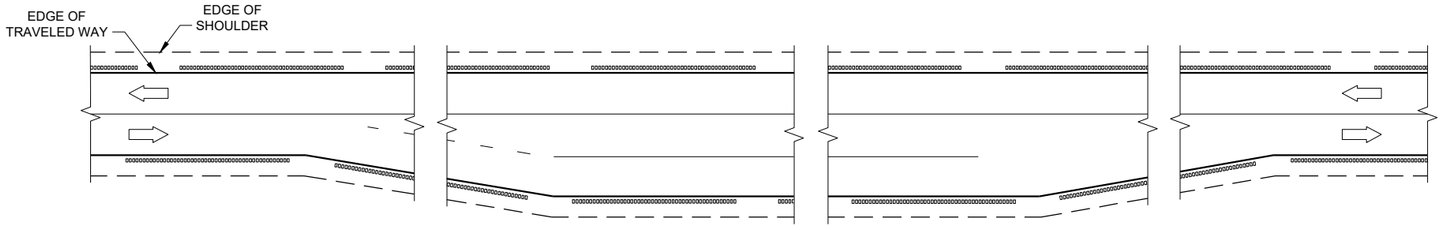
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

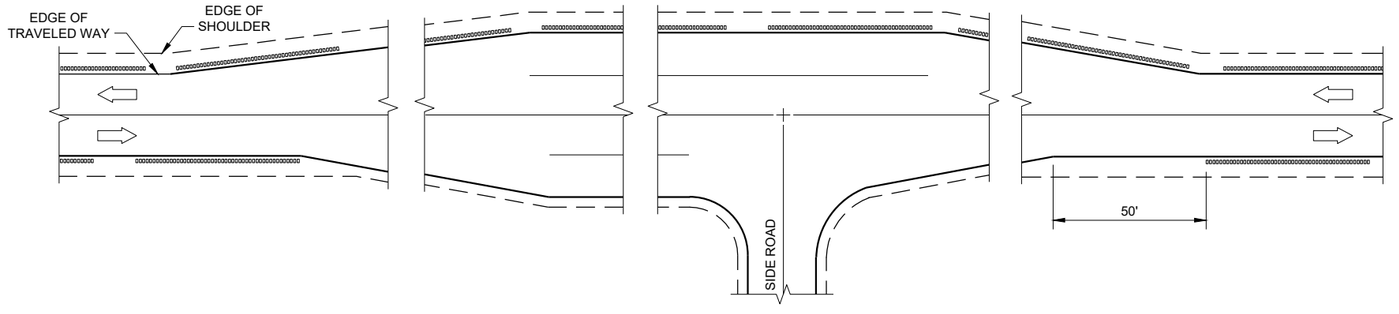
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

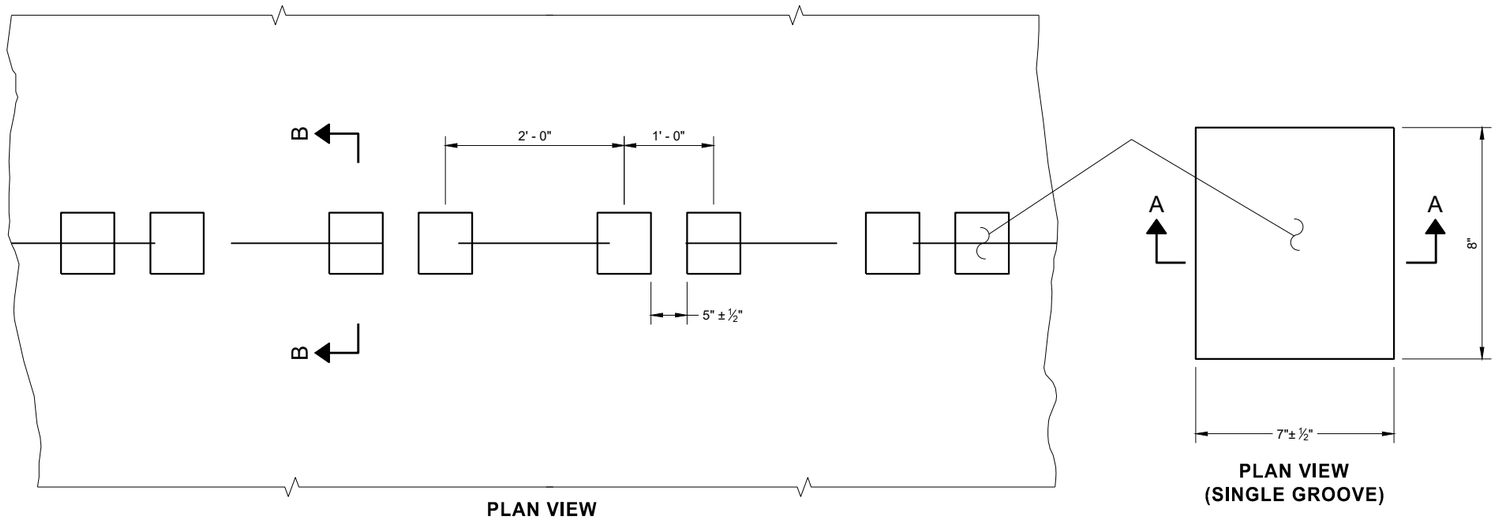
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

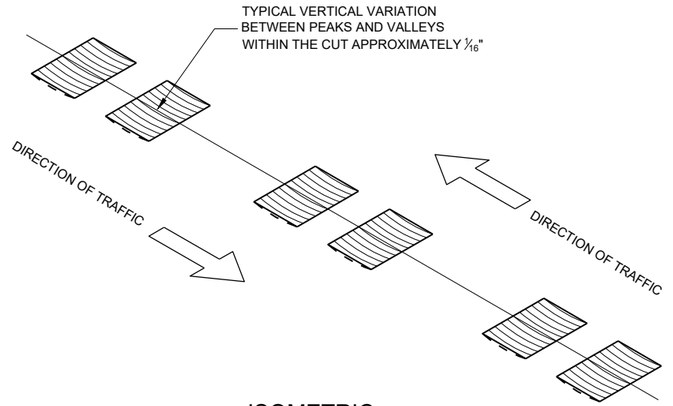
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

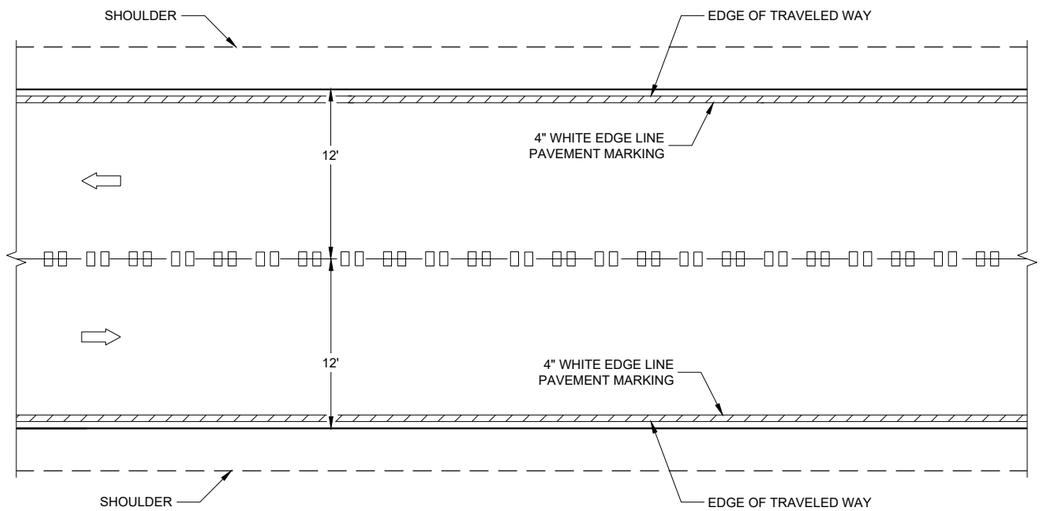
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

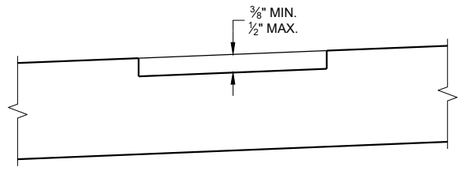
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



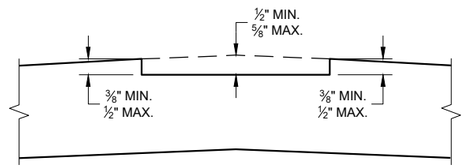
ISOMETRIC



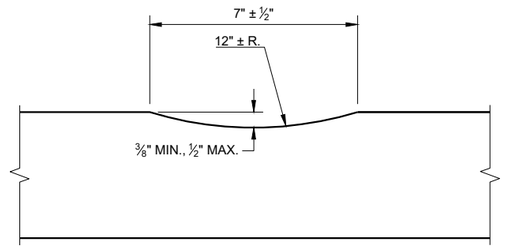
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

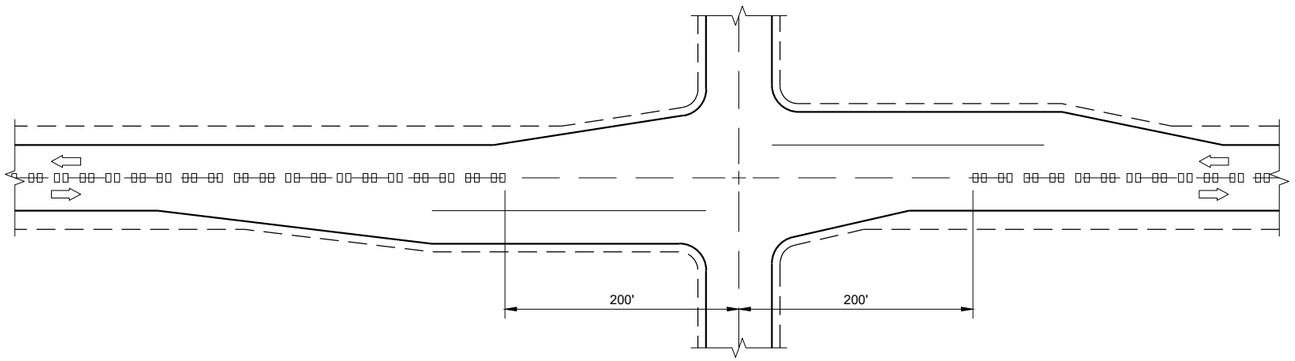
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

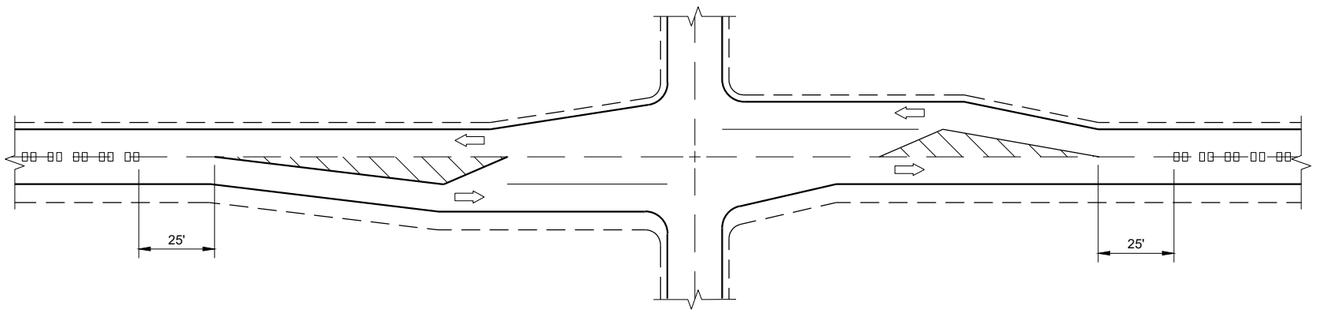
SDD 13A11 - 03a

6

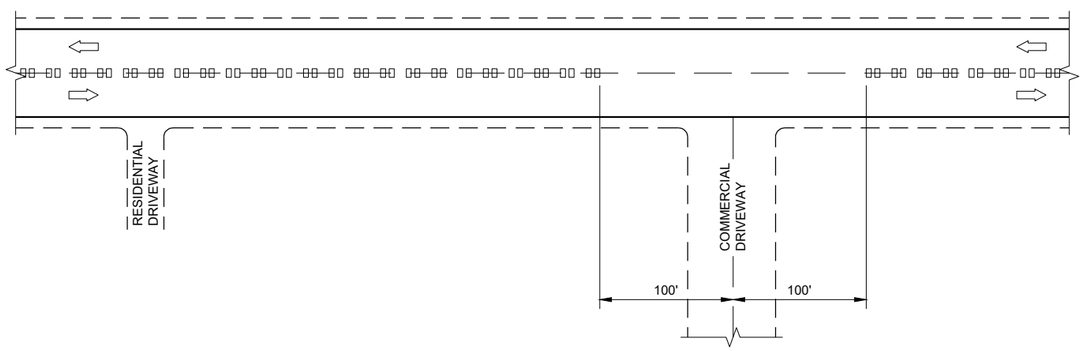
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



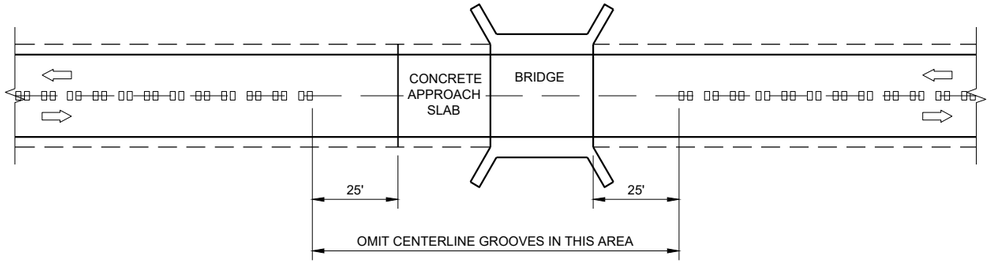
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



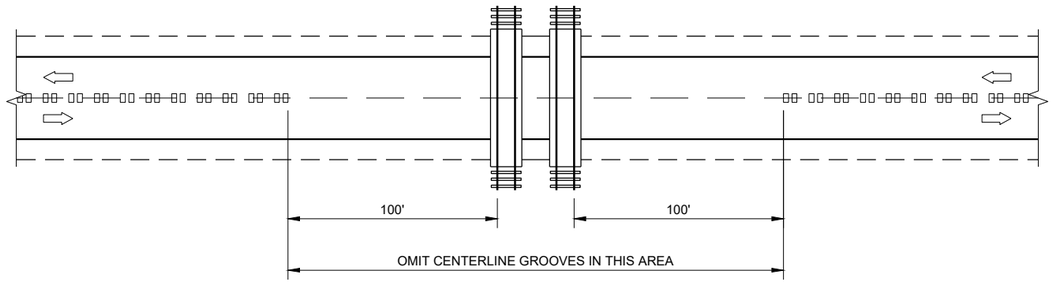
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 13A11 - 03b
SDD 13A11 - 03b

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

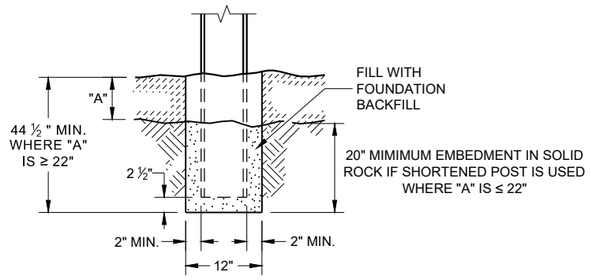
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

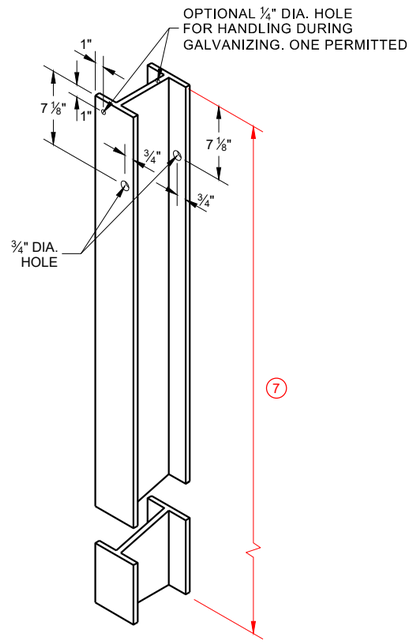
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

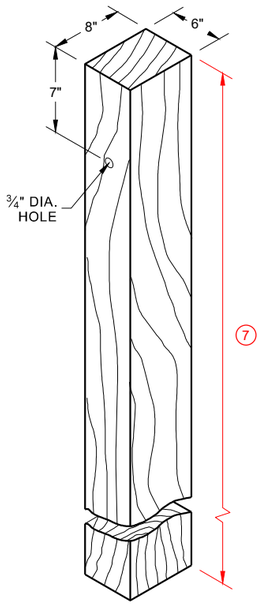
7. TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



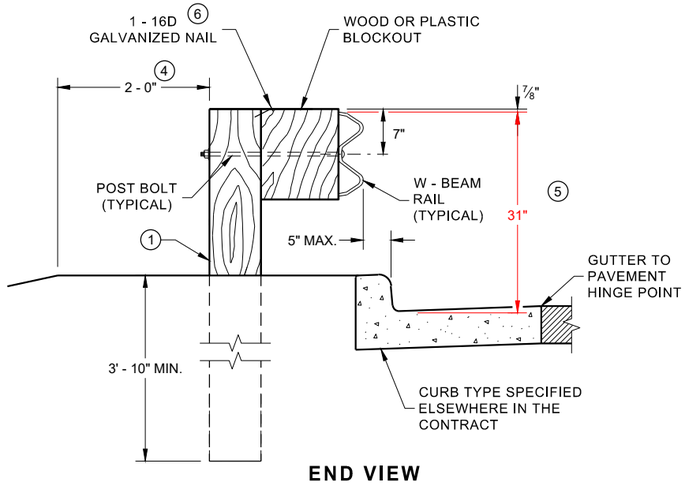
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



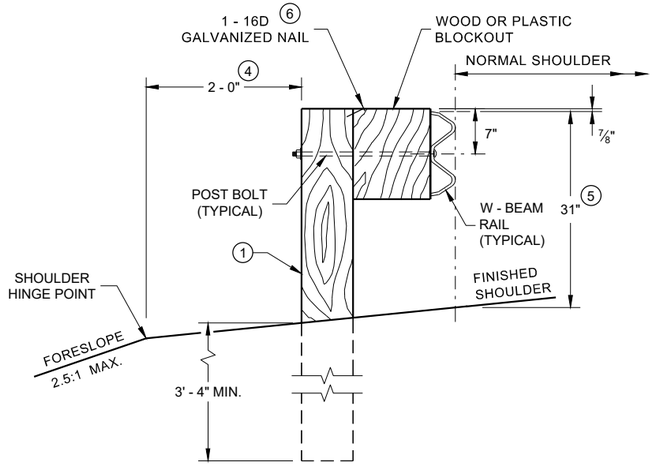
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



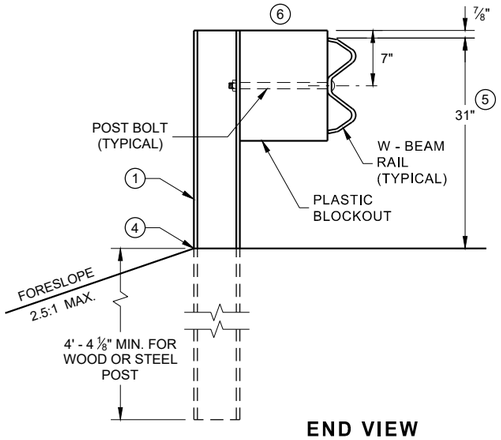
WOOD POST (6" X 8") NOMINAL (1)



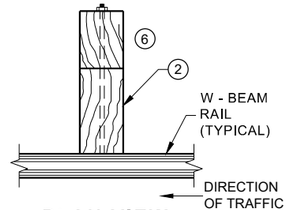
END VIEW
LOCATED ALONG A CURBED ROADWAY



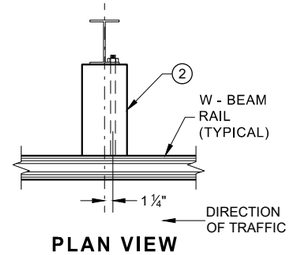
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



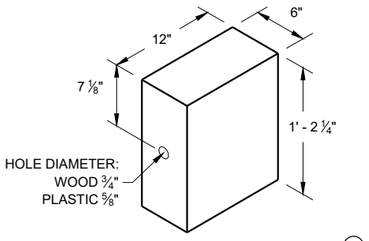
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



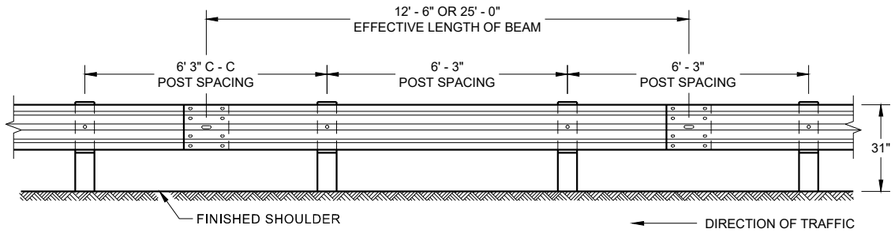
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

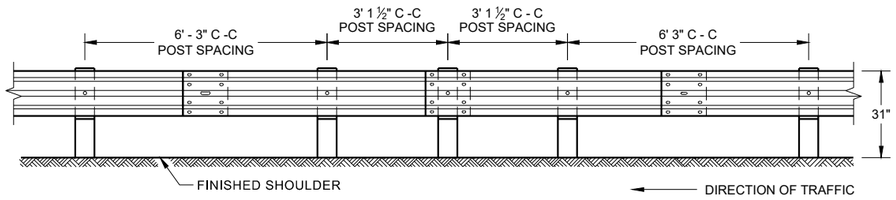
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 06a

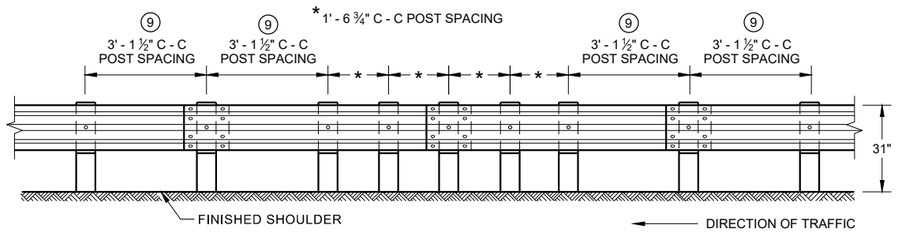
SDD 14B42 - 06a



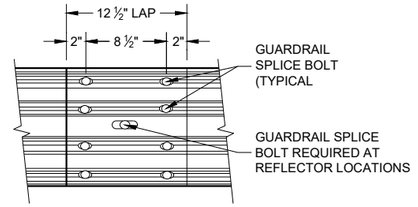
FRONT VIEW
POST SPACING STANDARD INSTALLATION



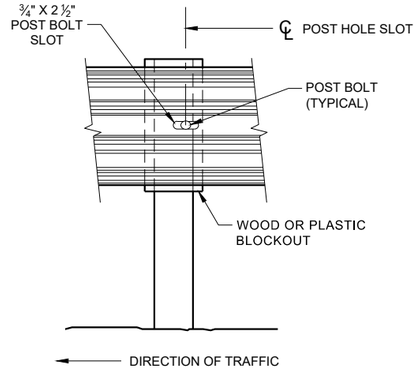
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



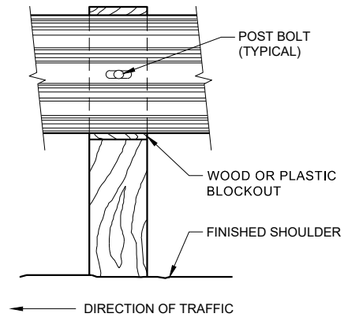
FRONT VIEW
QUARTER POST SPACING (QS)



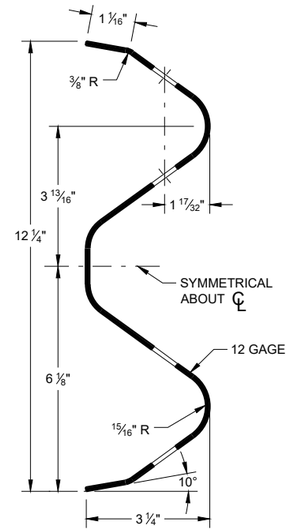
FRONT VIEW
MID-SPAN BEAM SPLICE



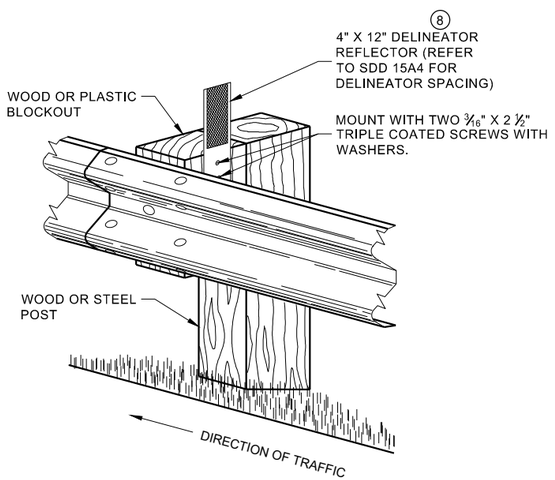
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

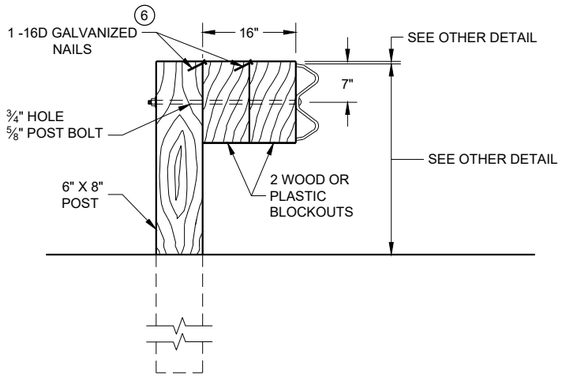
POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

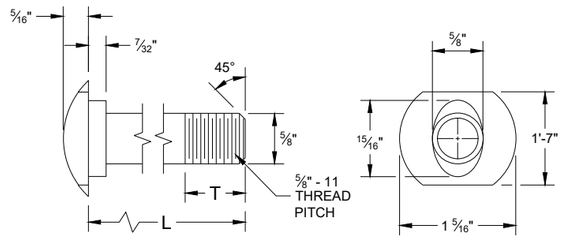


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

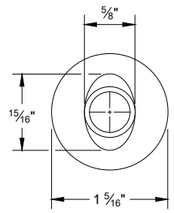
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

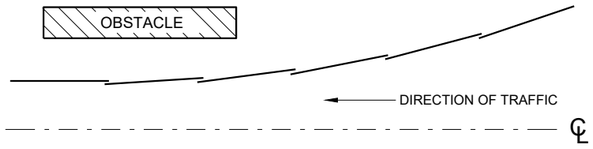


POST BOLT TABLE

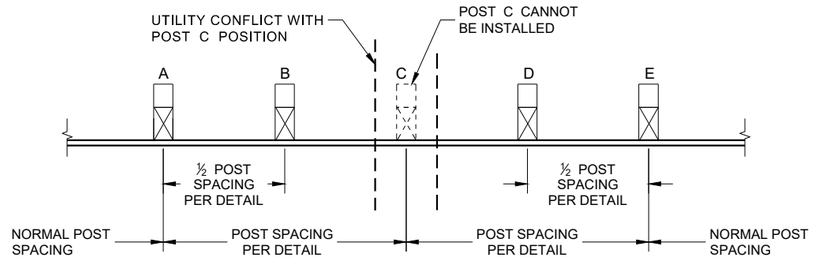
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



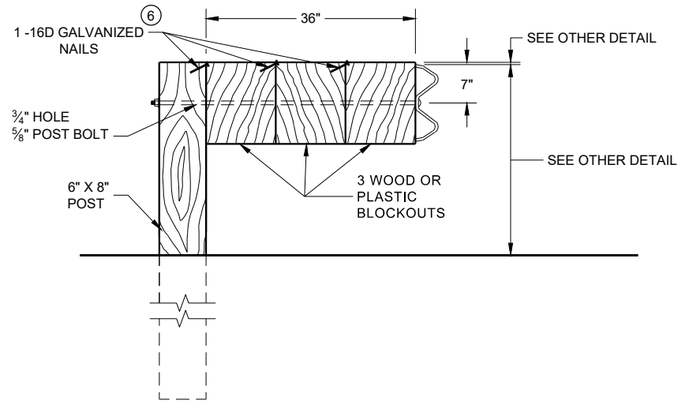
ALTERNATE BOLT HEAD



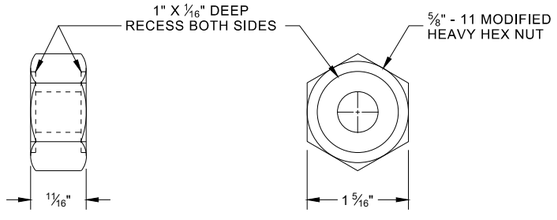
PLAN VIEW
BEAM LAPPING DETAIL



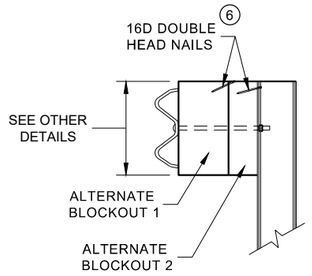
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



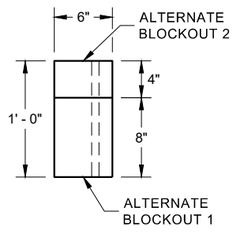
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

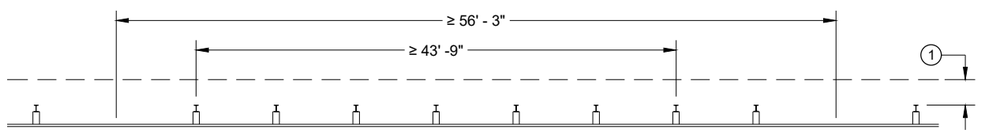
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

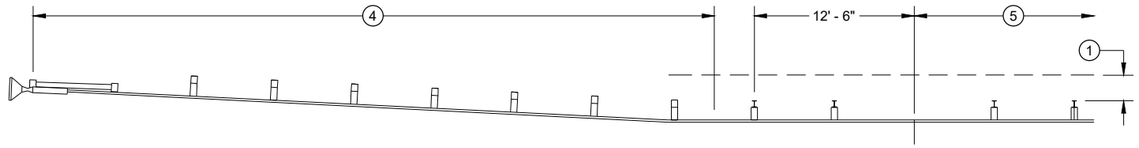
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

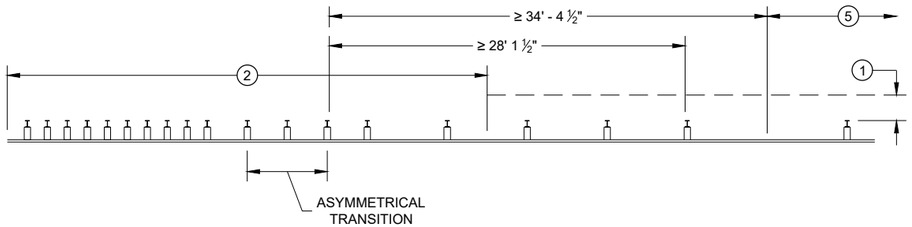
6
SDD 14B42 - 06c



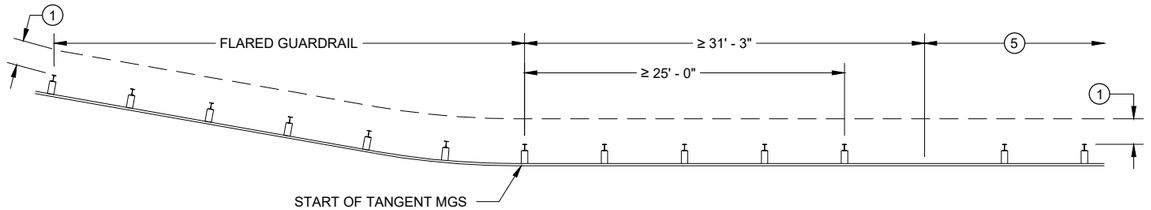
MISSING POST IN NORMAL BEAM GUARD RUN



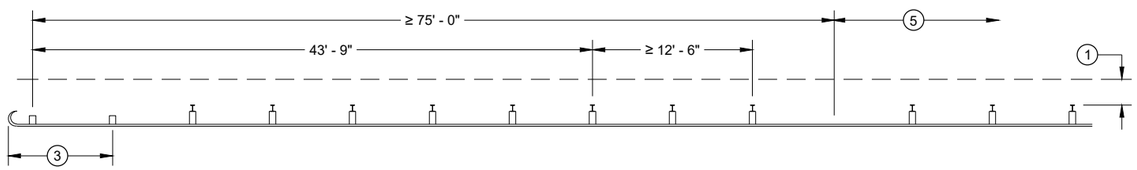
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



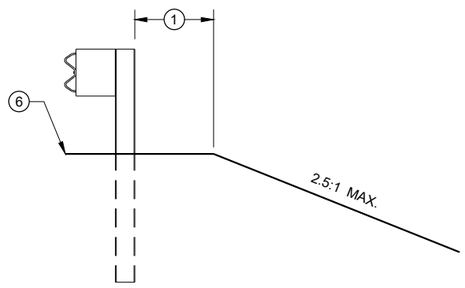
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

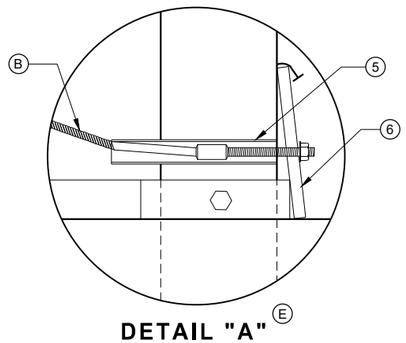
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

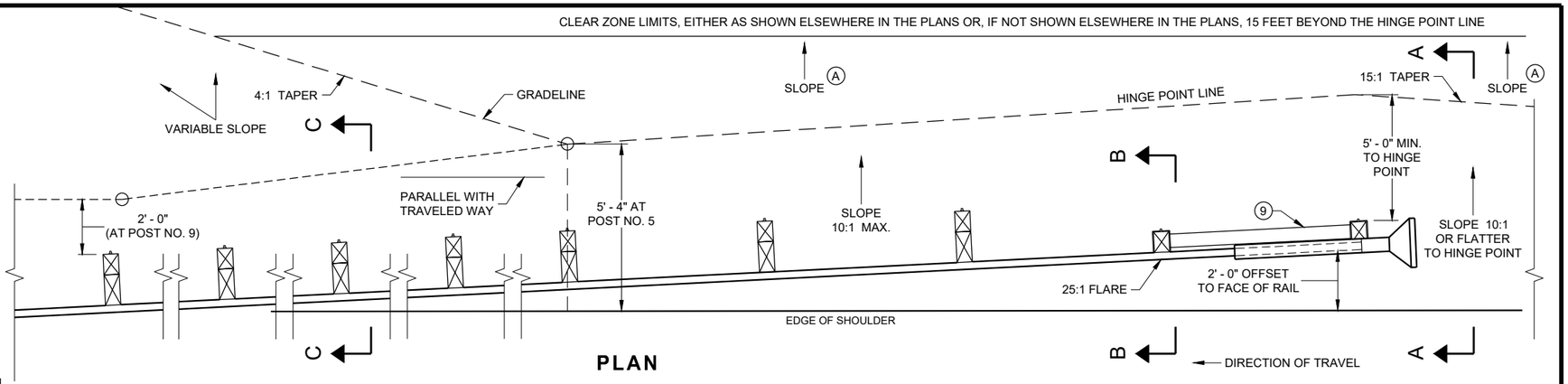
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

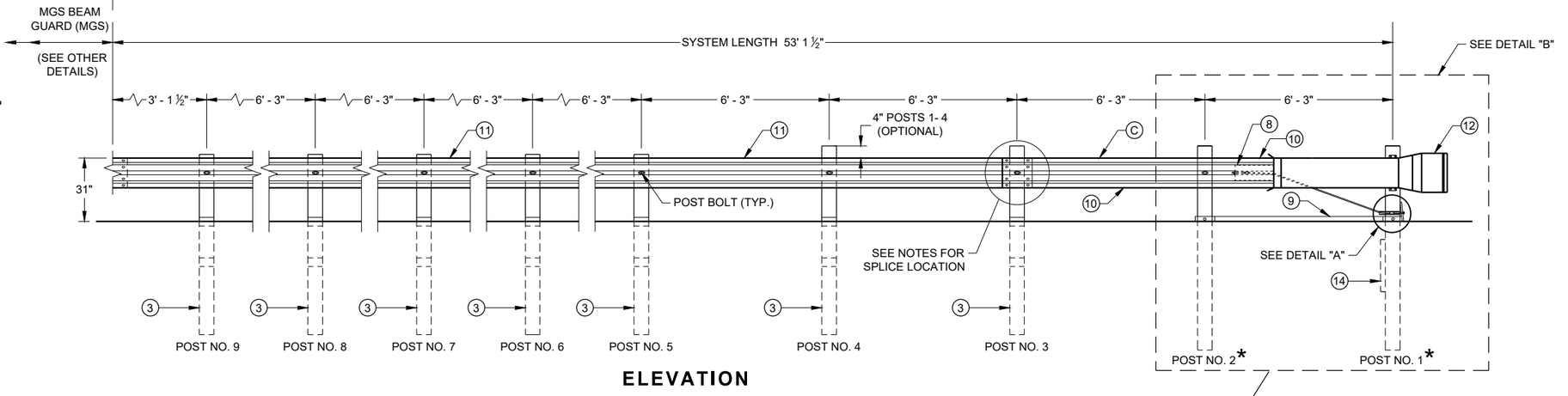
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



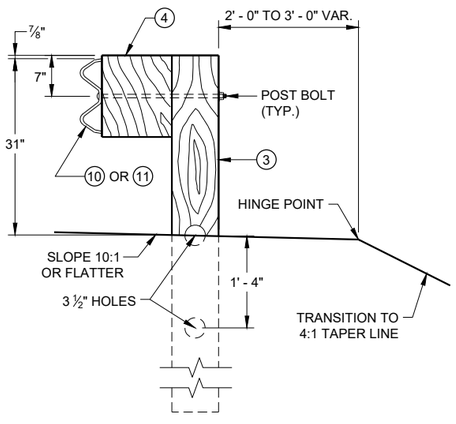
DETAIL "A" (E)



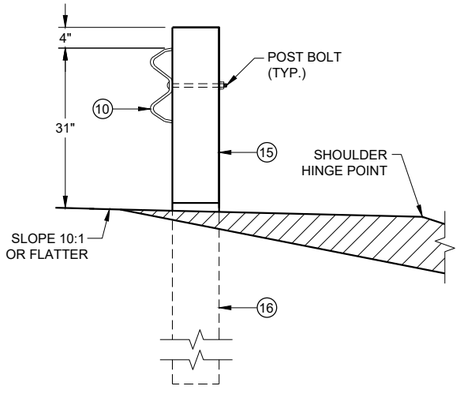
PLAN



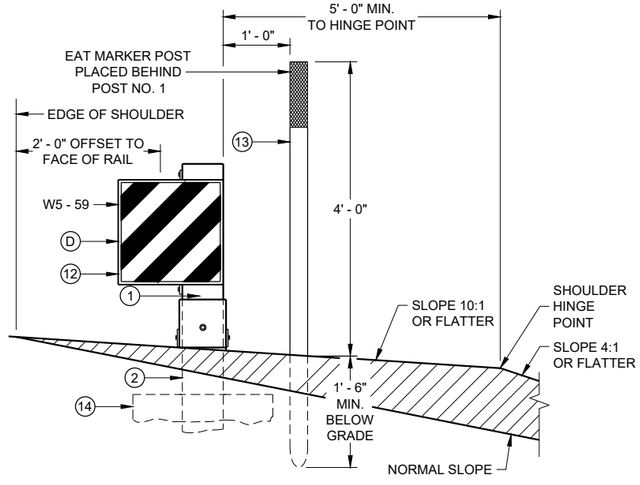
ELEVATION



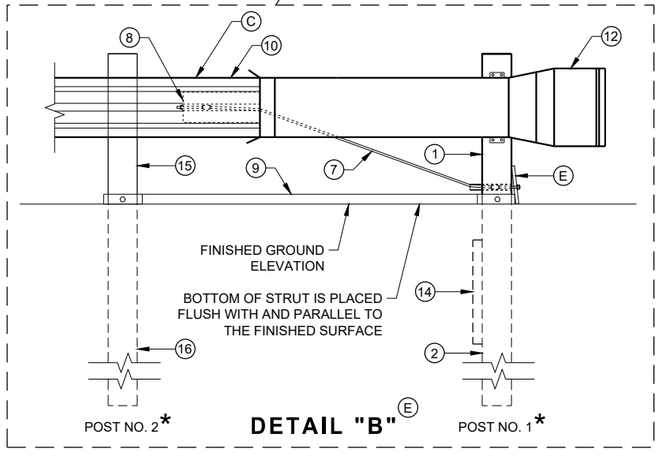
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

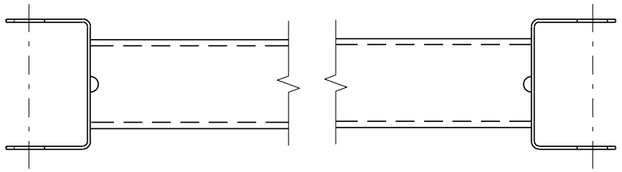


DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

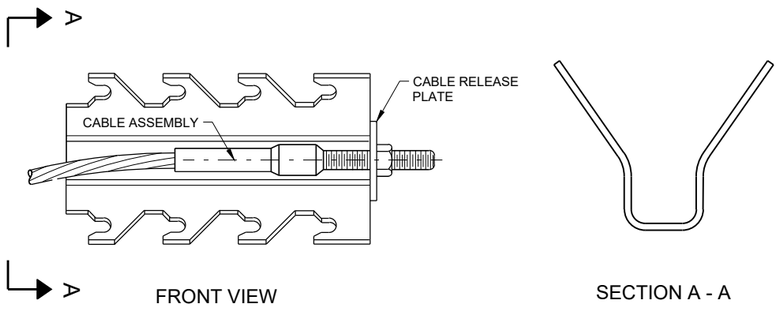
6
SDD 14B44 - 04a



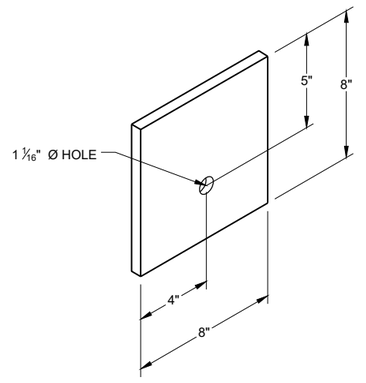
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

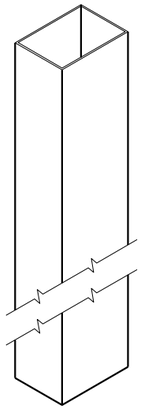
6

SDD 14B44 - 04b

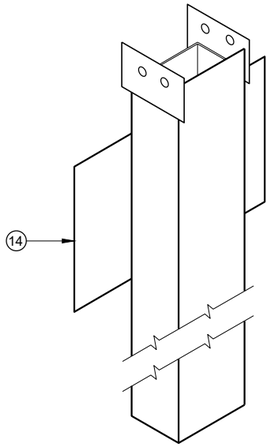
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



UPPER POST NO. 1 (1) (E)



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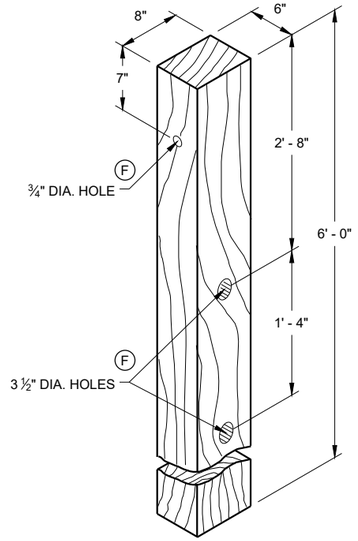
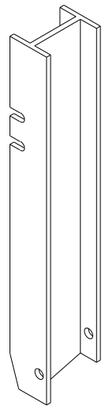


WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



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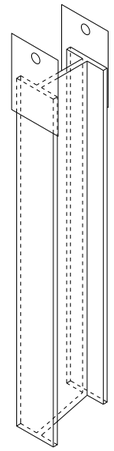

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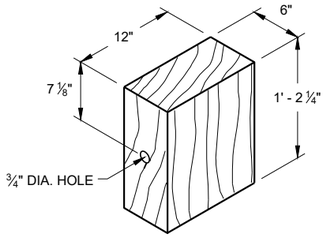
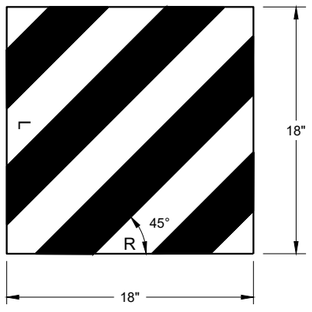
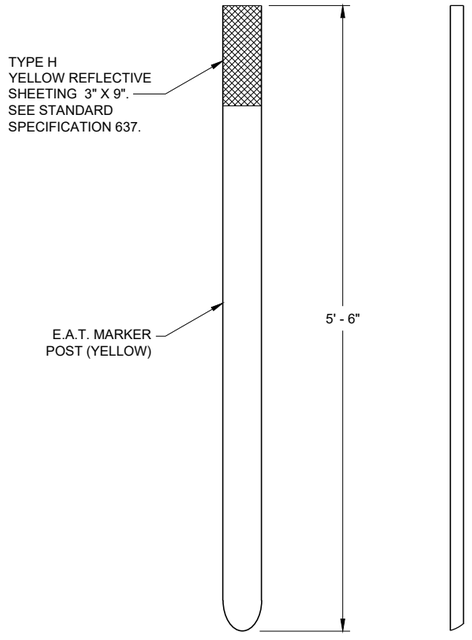


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



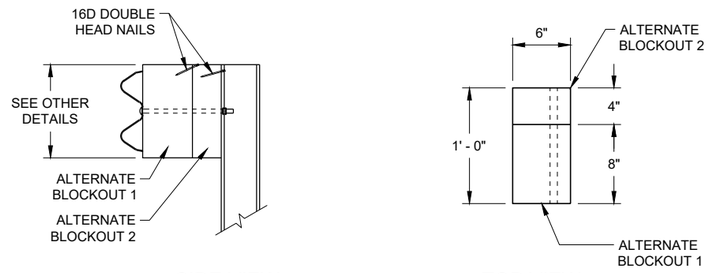
W5 - 59

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)

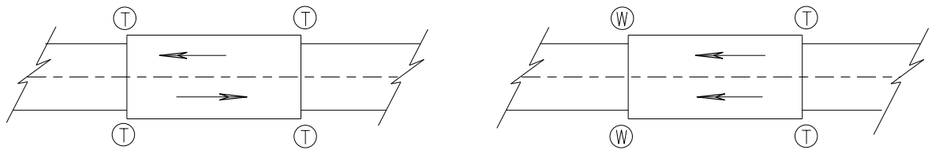
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

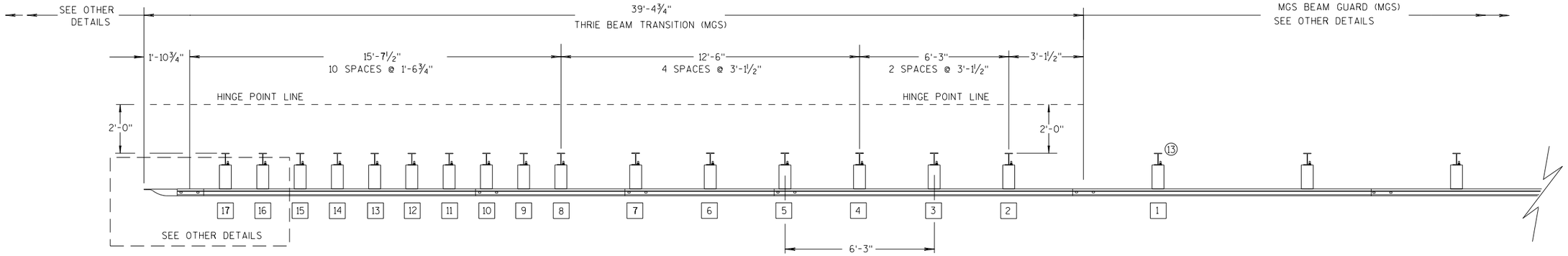
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

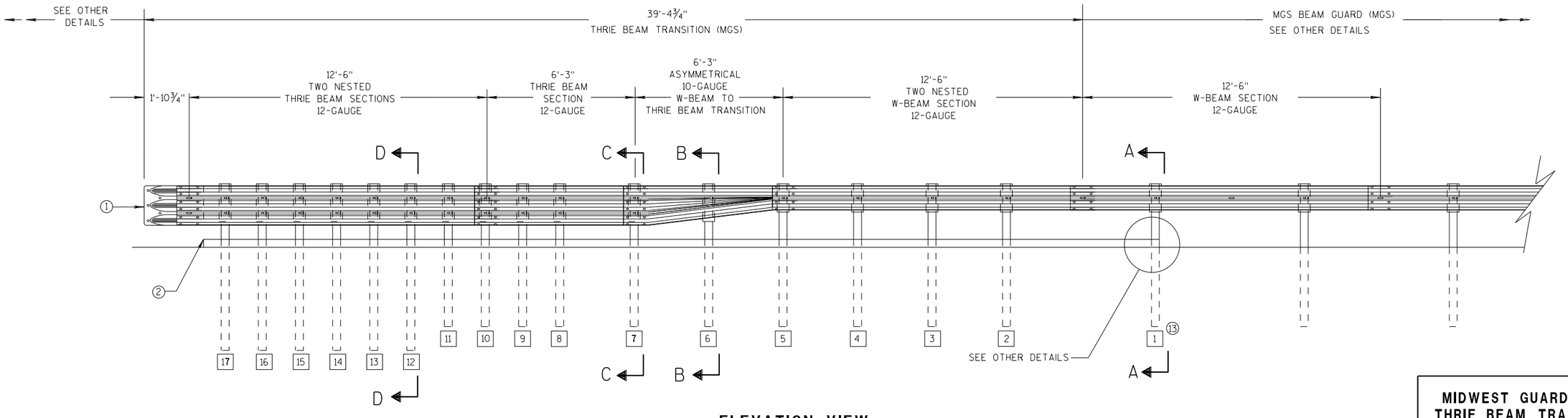
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

6

S.D.D. 14 B 45-5a

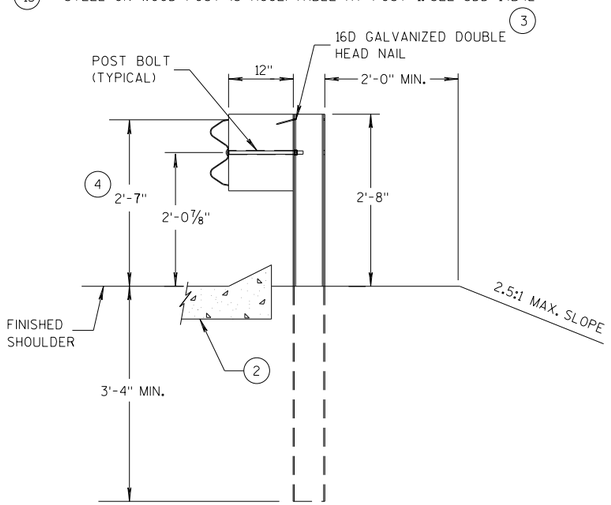
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

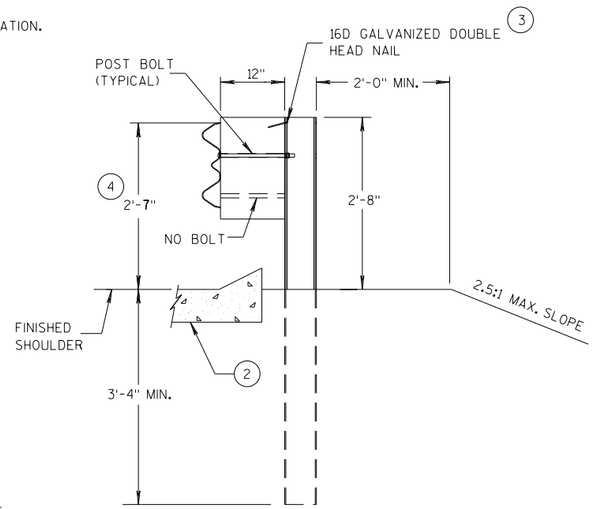
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



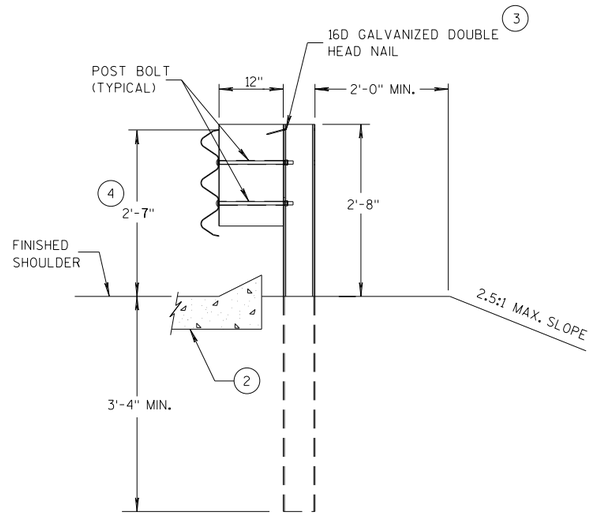
SECTION A-A (13)

POSTS 1-5



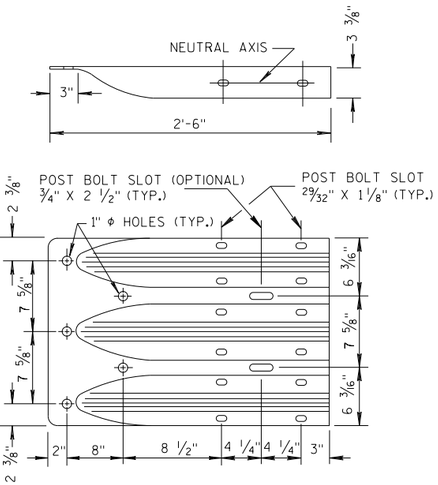
SECTION B-B

POST 6

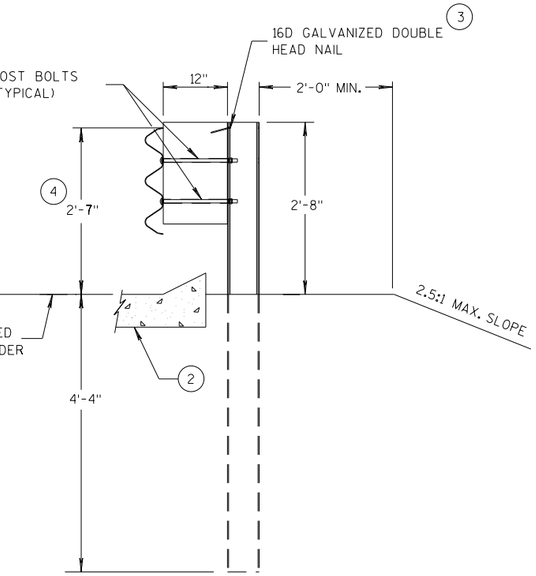


SECTION C-C

POSTS 7-11

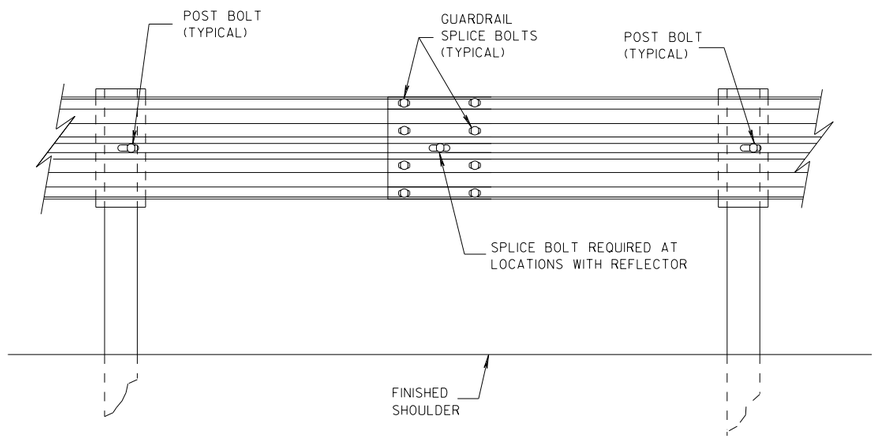


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

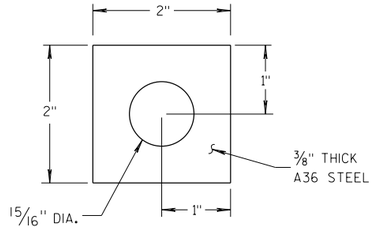
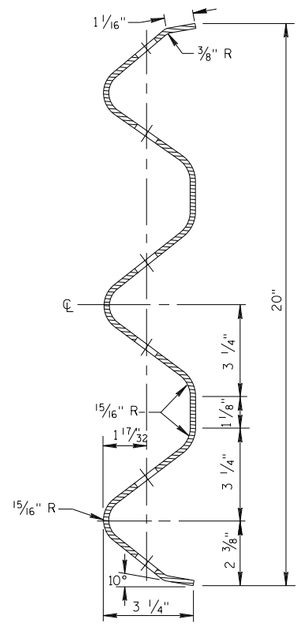


PLATE WASHER DETAIL



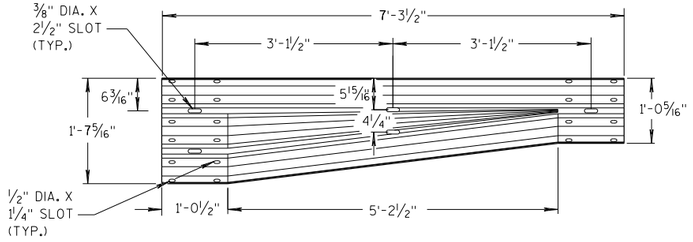
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

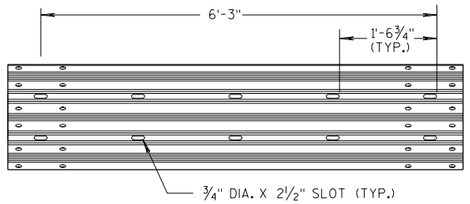
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

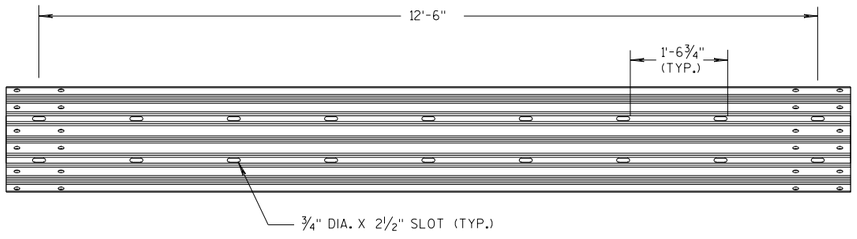
S.D.D. 14 B 45-5b



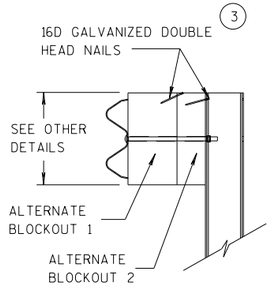
W-BEAM TO THRIE BEAM TRANSITION SECTION



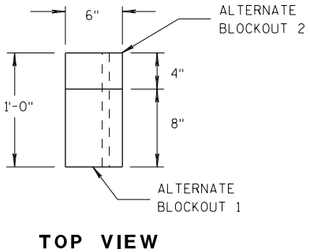
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

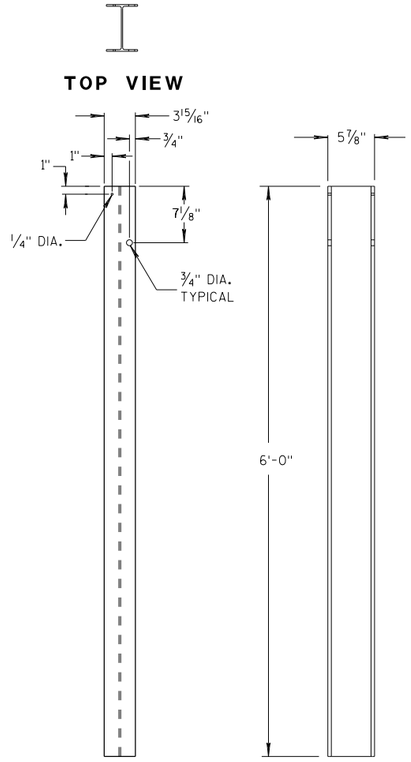


SIDE VIEW



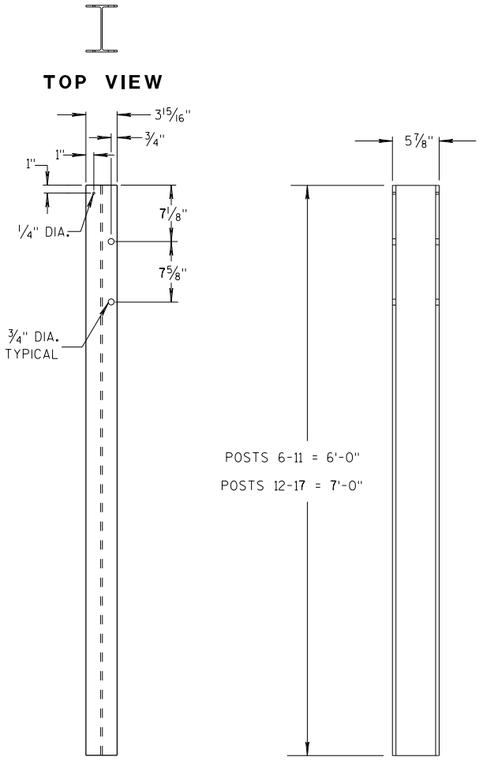
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



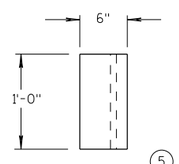
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

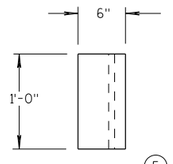


FRONT VIEW SIDE VIEW

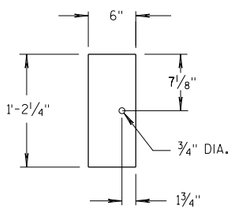
STEEL POSTS 6-17



TOP VIEW (5)

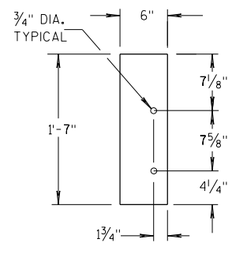


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

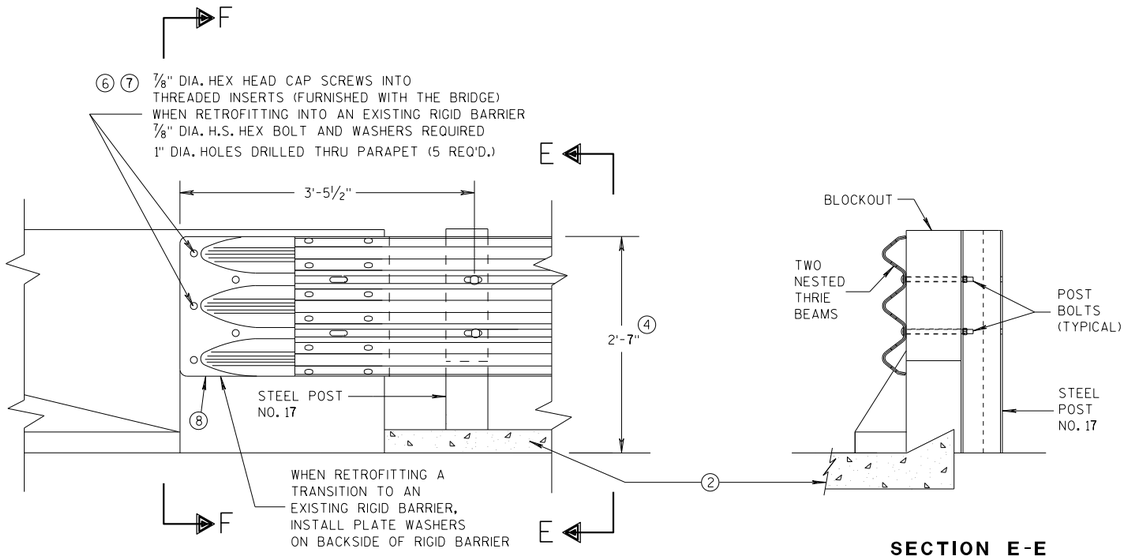
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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.

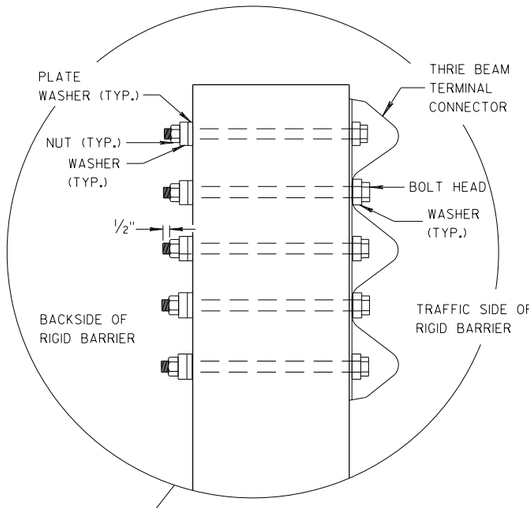
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

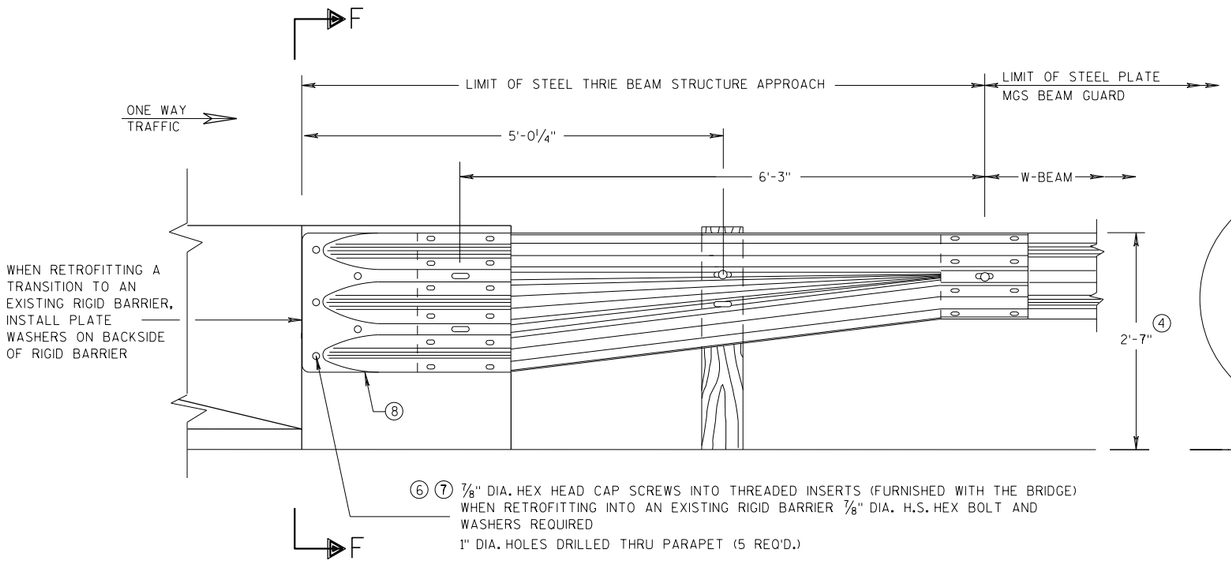
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

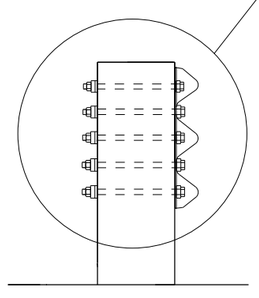
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

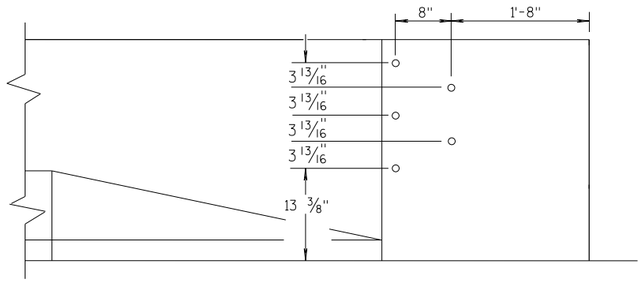




FRONT VIEW



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

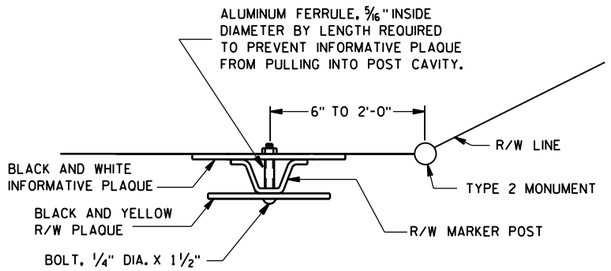
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVI NT
FHWA

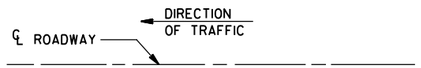
6

S.D.D. 14 B 45-5d

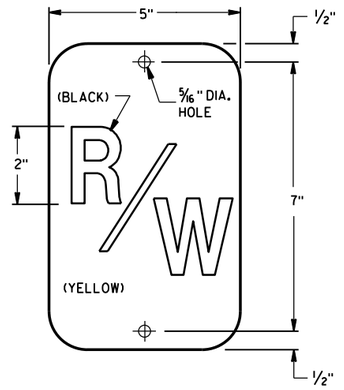
6

S.D.D. 14 B 45-5d



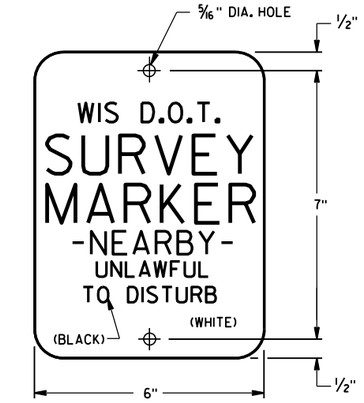


PLAN VIEW



R/W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

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

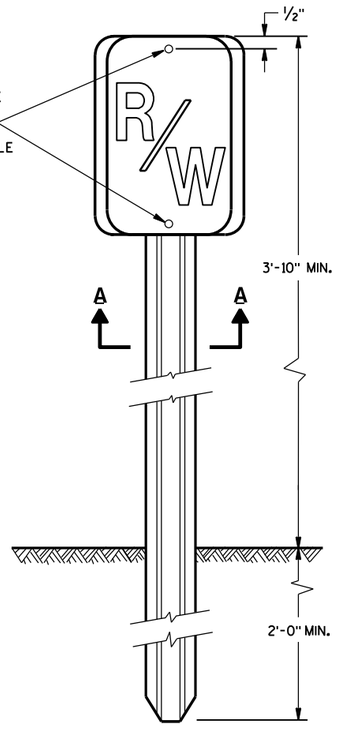
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

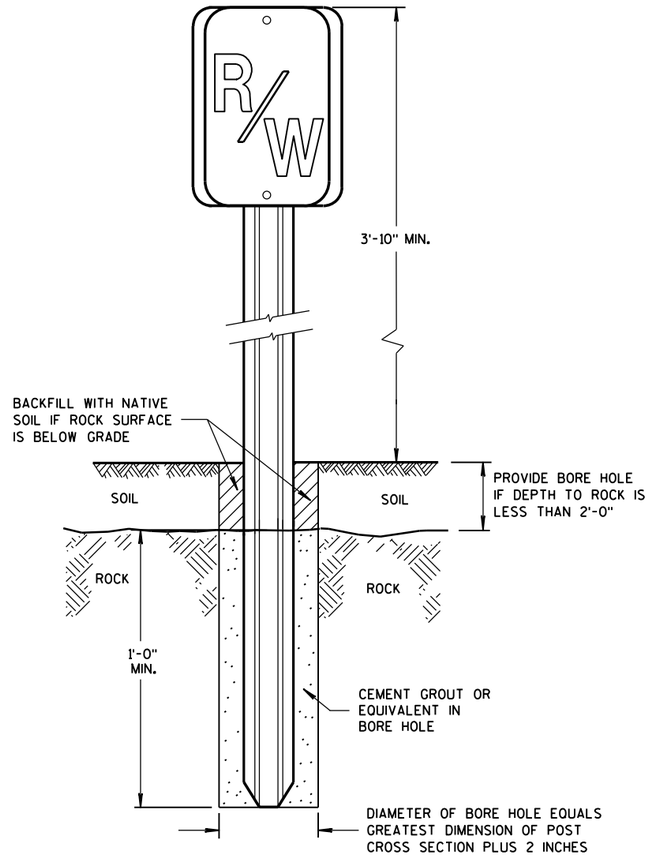
STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3'10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

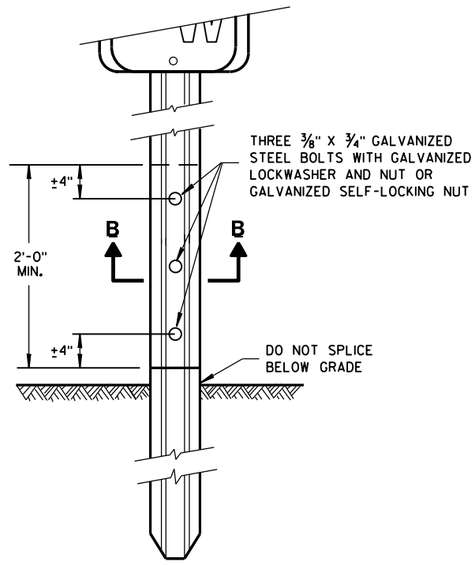
FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT. DEPENDING ON THE STABILITY OF THE ROCK.



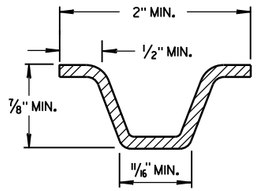
FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)

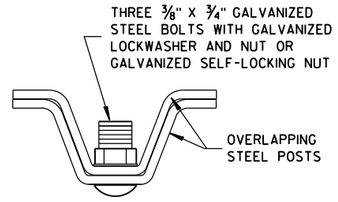


FRONT VIEW
SPLICE DETAIL



MIN. WEIGHT 1.12 LB./FT.

SECTION A-A



SECTION B-B

MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

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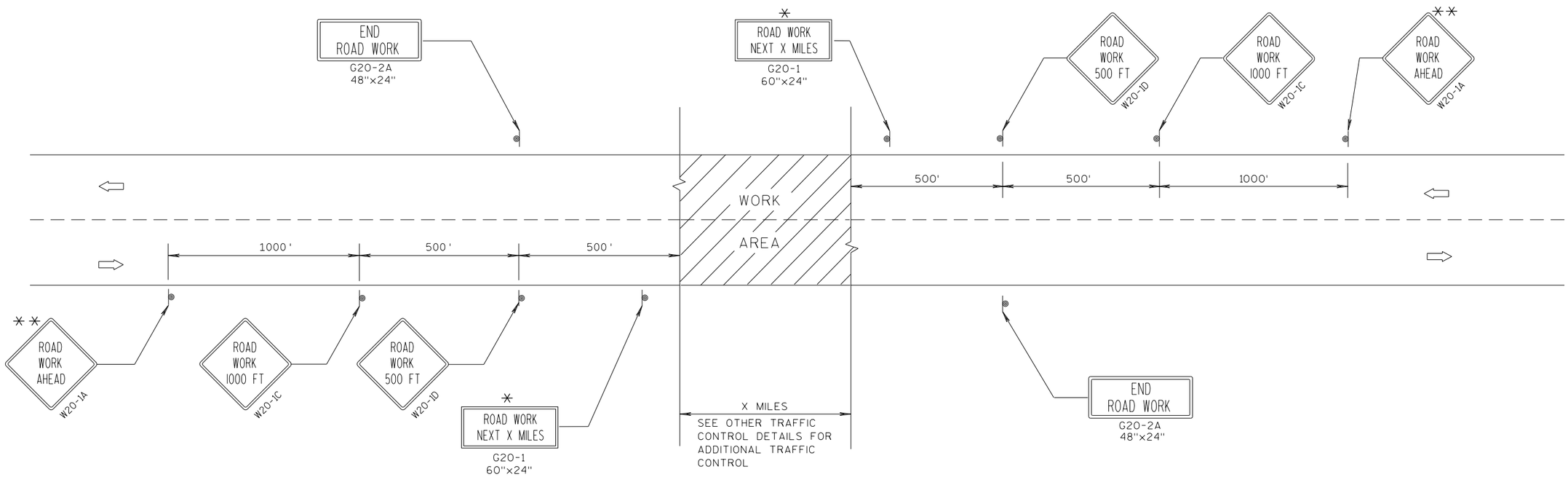
S.D.D. 15 A 1-13a

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.

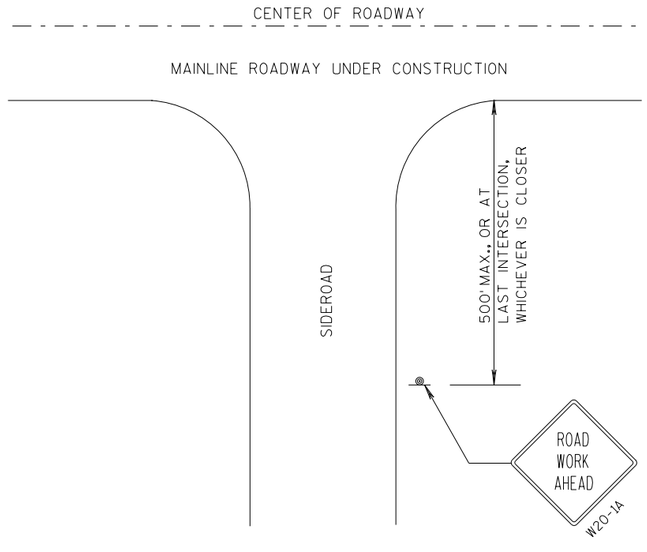
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

FHWA

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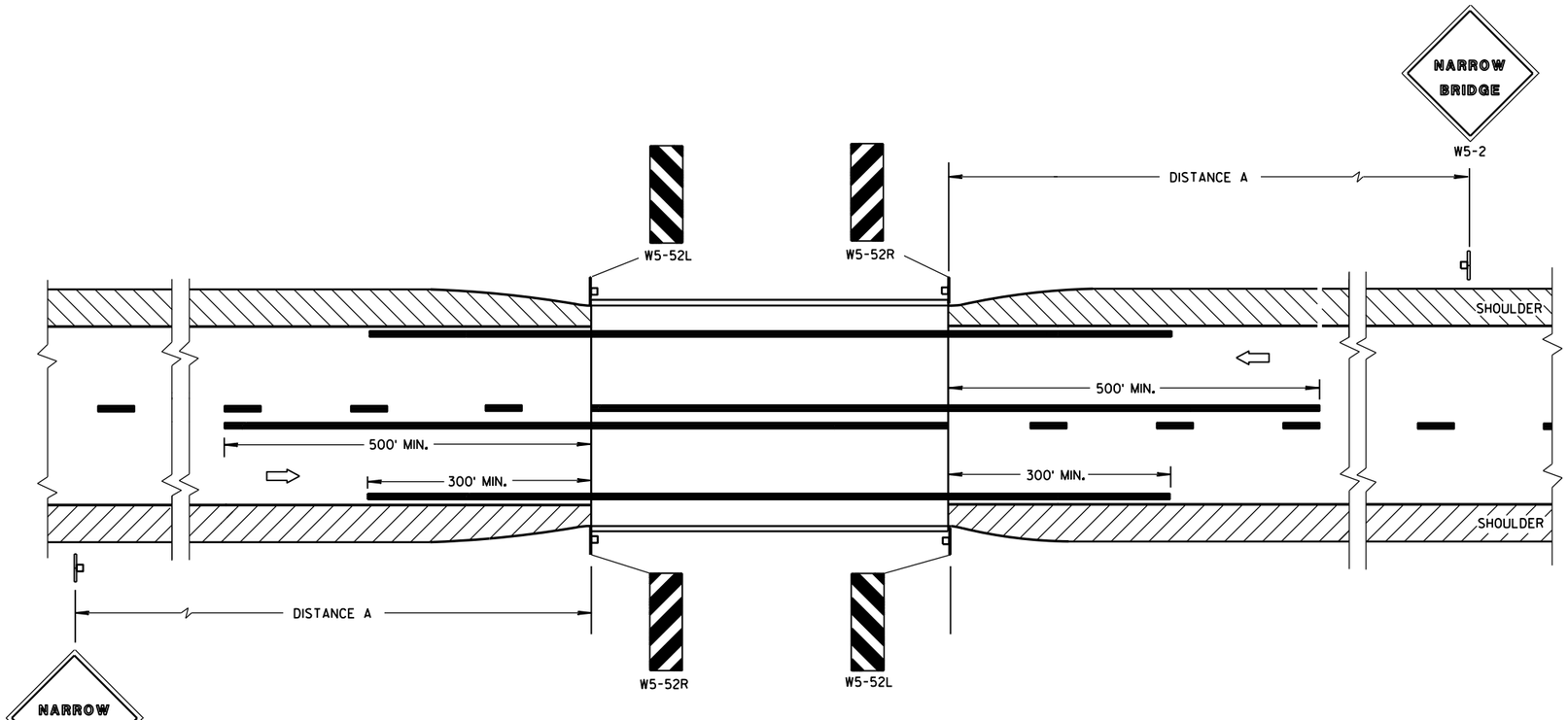
S.D.D. 15 C 4-5



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

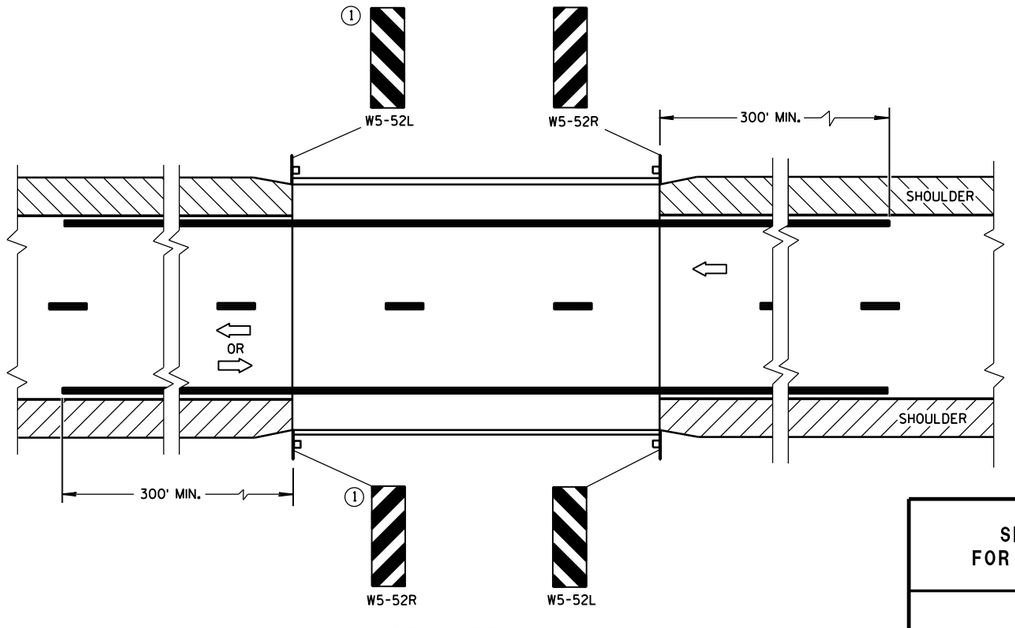
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...IEER
FHWA

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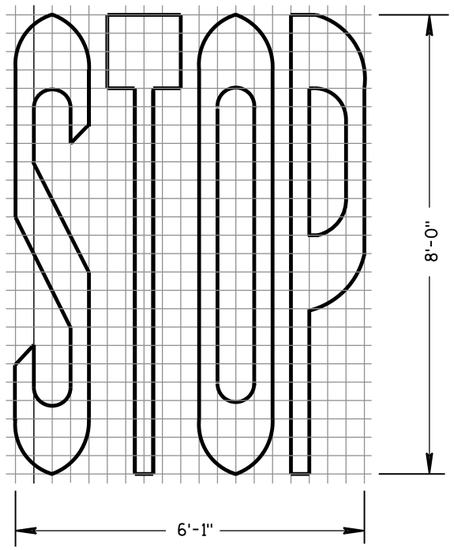
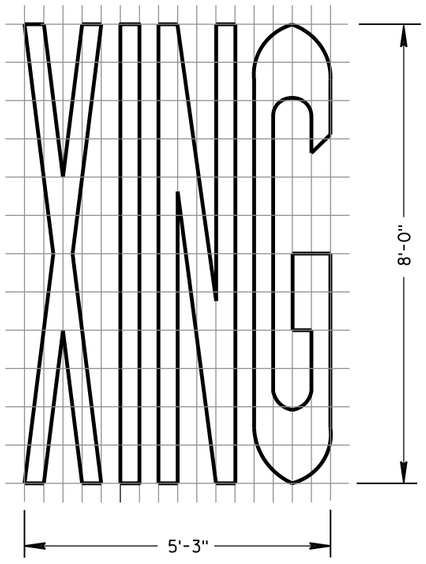
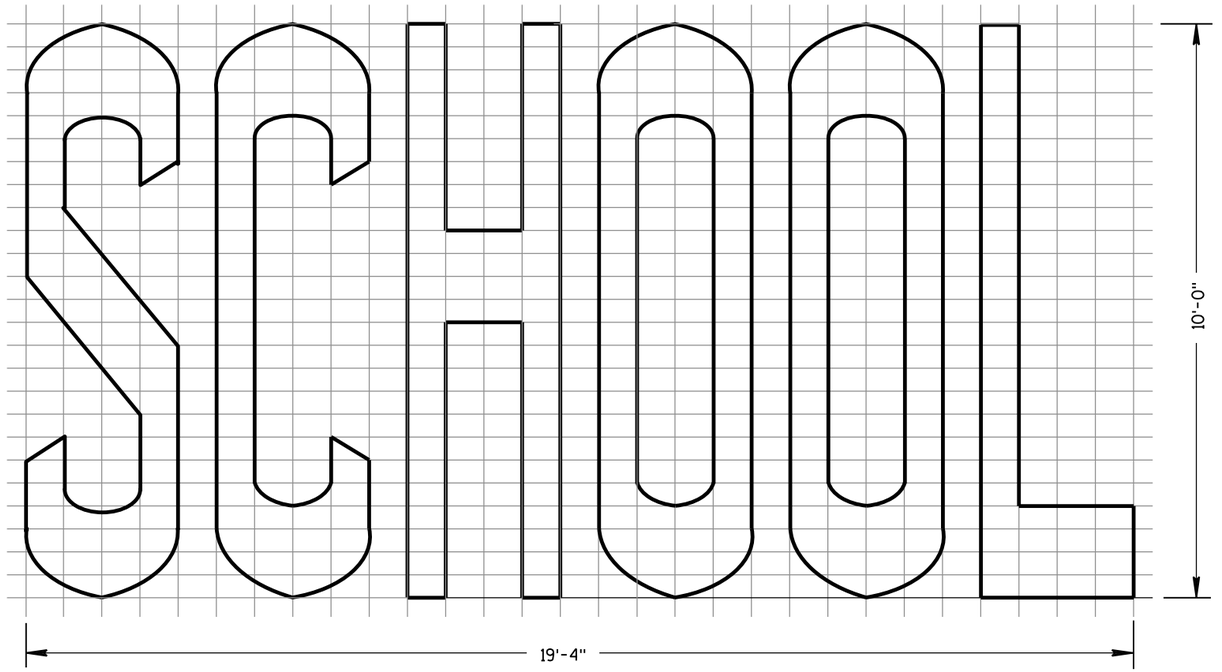
S.D.D. 15 C 6-9

GENERAL NOTES

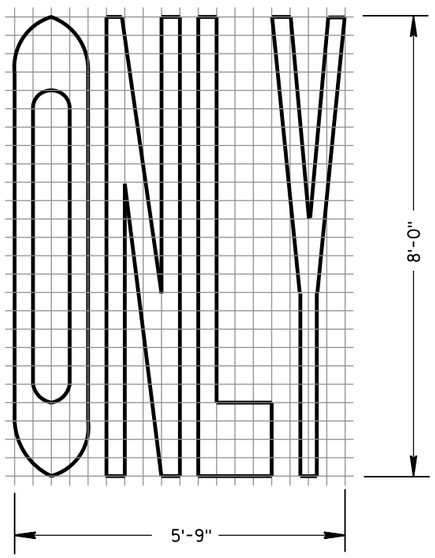
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

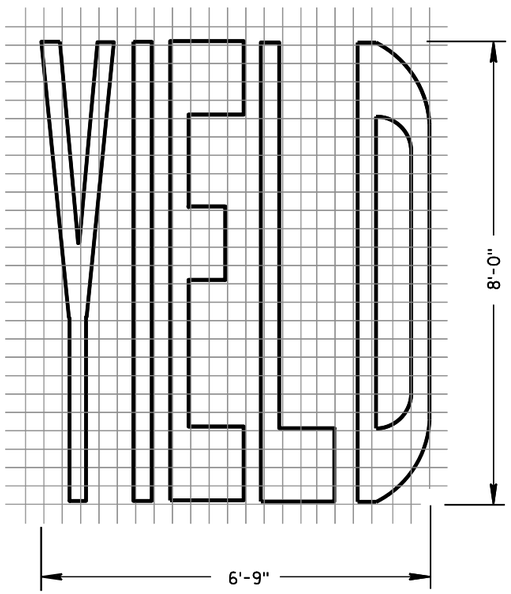


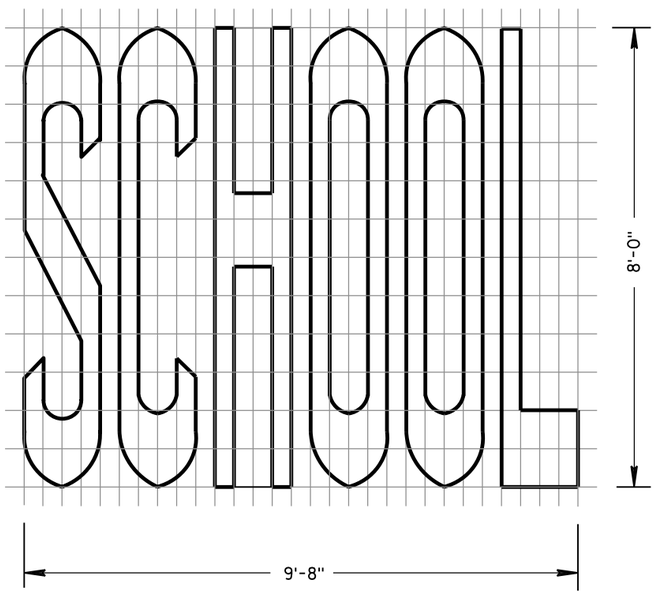




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARK ENGR

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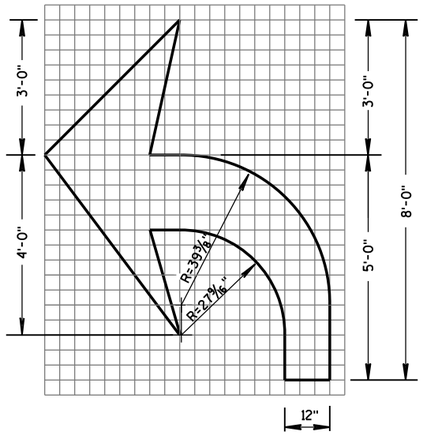
S.D.D. 15 C 7-14b

6

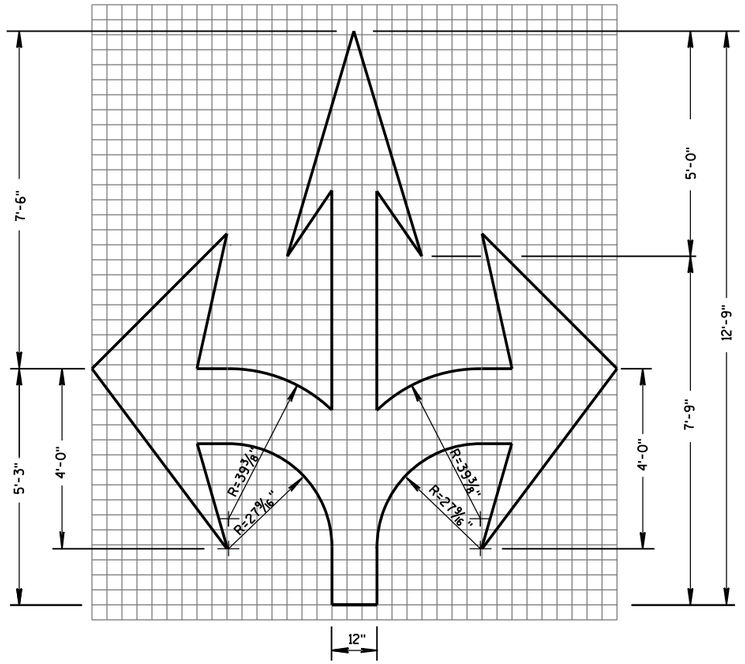
S.D.D. 15 C 7-14b

GENERAL NOTES

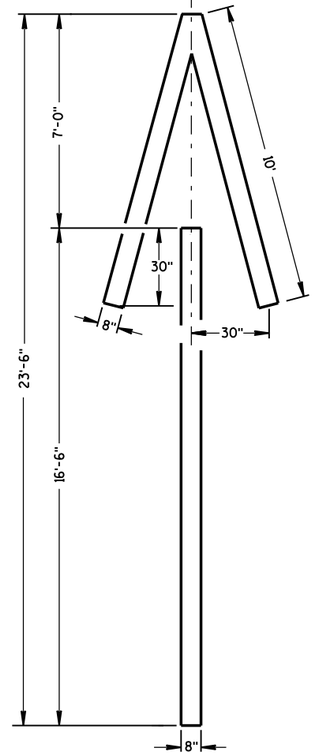
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



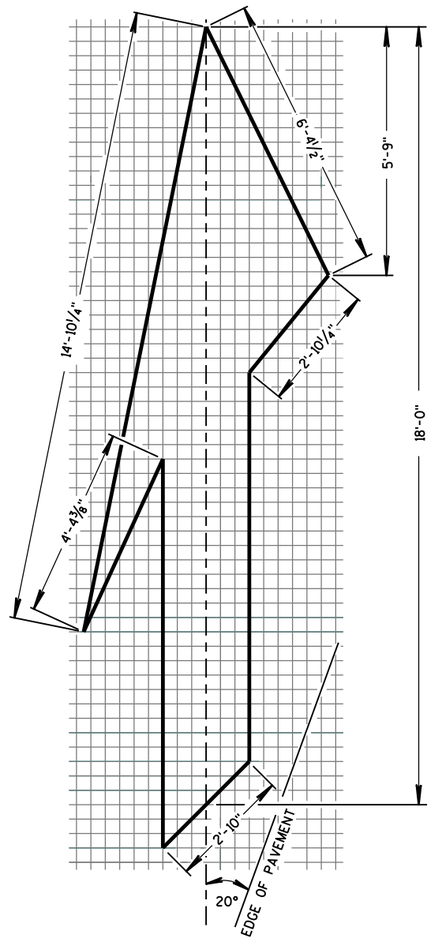
TYPE 2



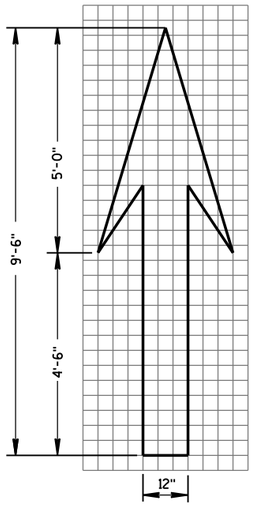
TYPE 6



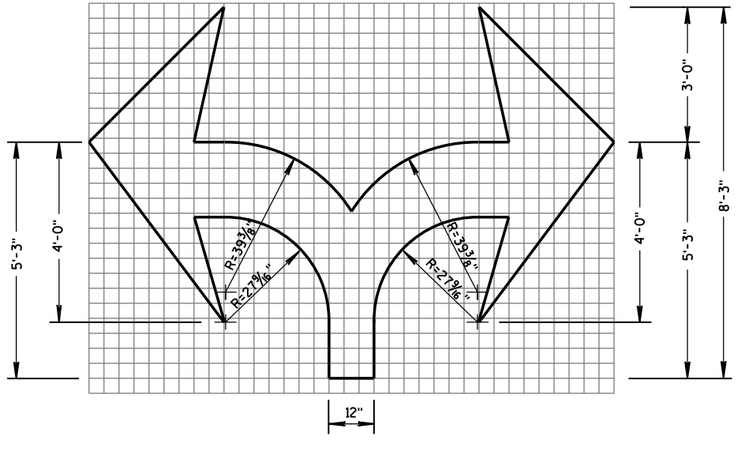
TYPE 4



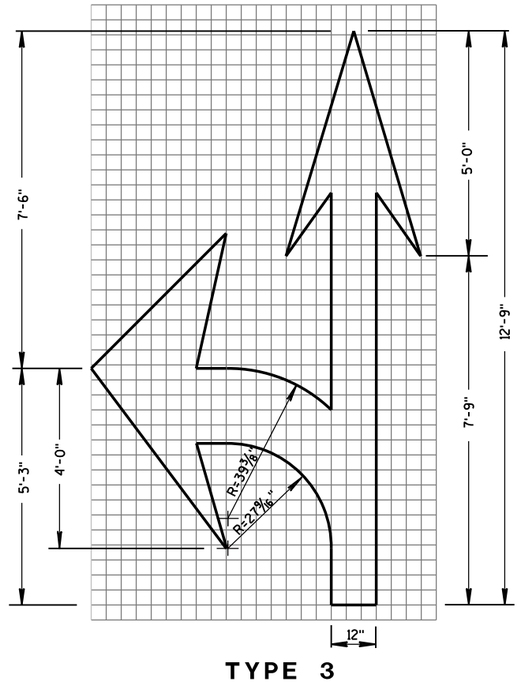
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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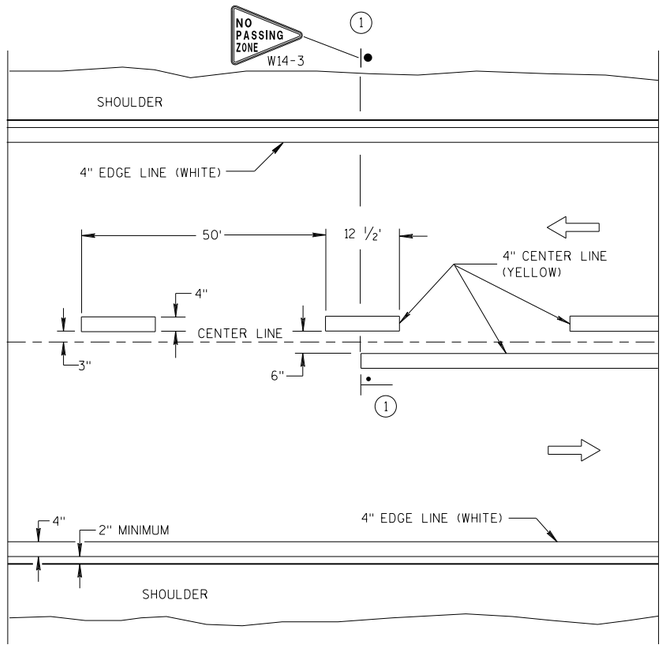
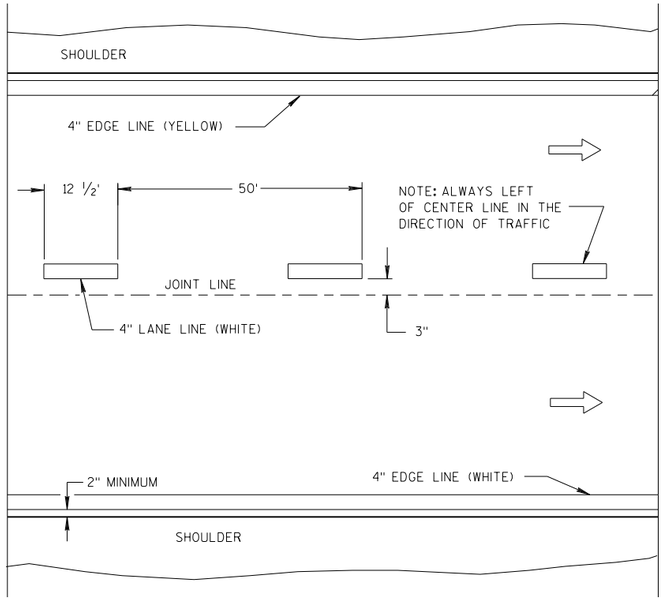
S.D.D. 15 C 7-14c

6

S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

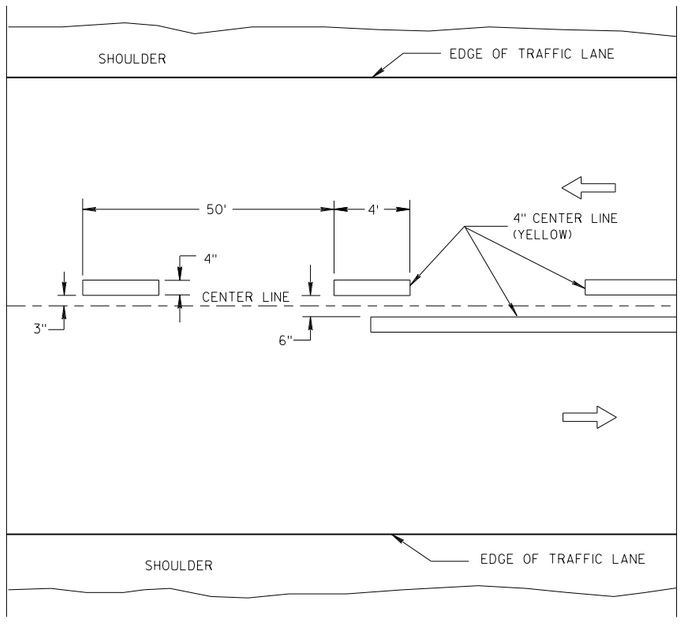
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

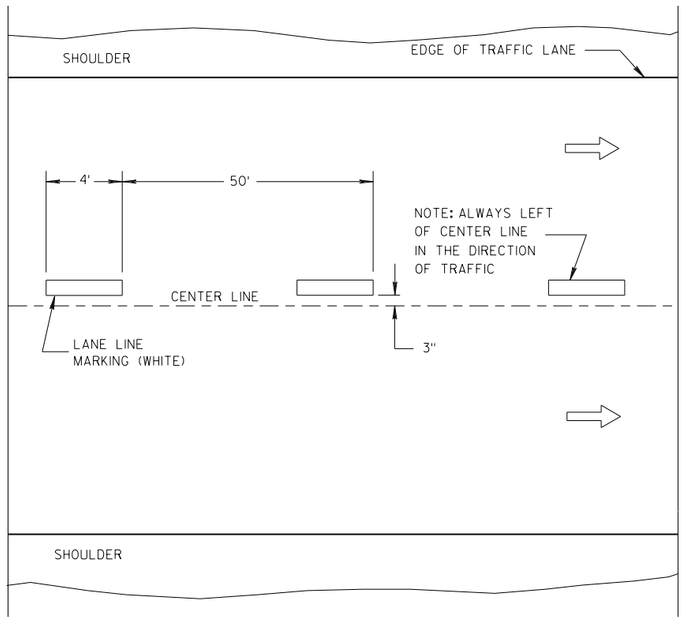
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

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S.D.D. 15 C 8-19a

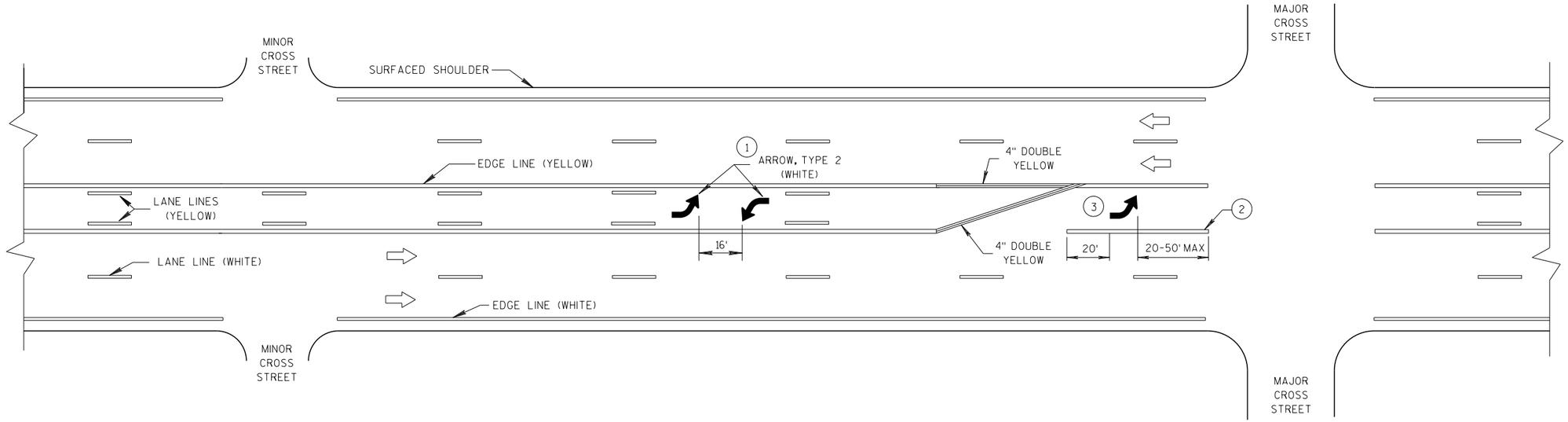
GENERAL NOTES

(1) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(2) 8" WHITE

(3) TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



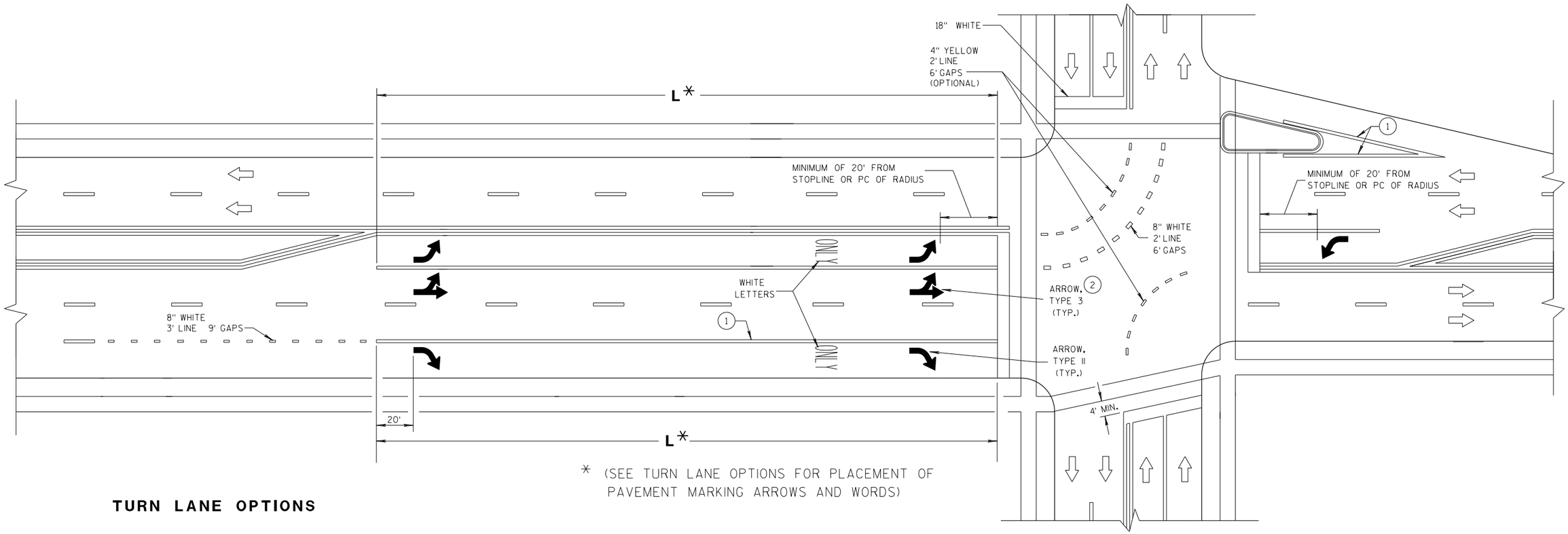
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

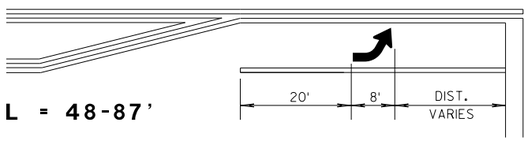
S.D.D. 15 C 8-19b



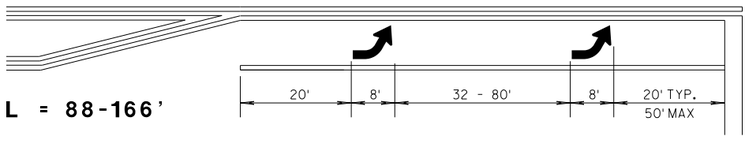
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

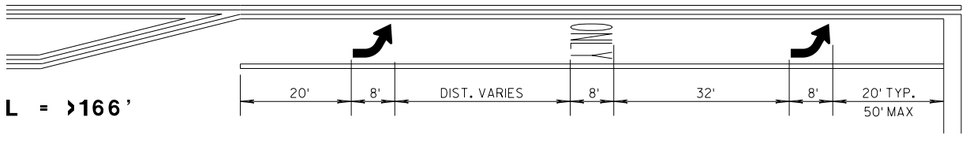
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

6

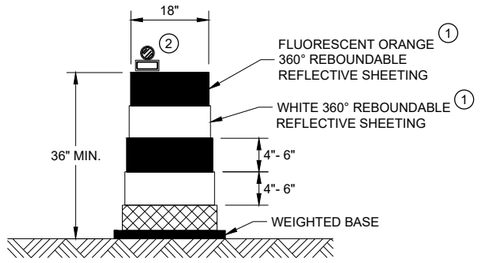
S.D.D. 15 C 8-19c

6

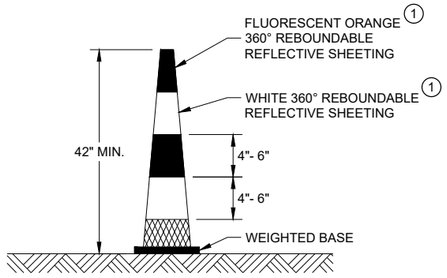
S.D.D. 15 C 8-19c

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

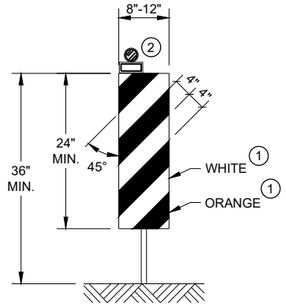


DRUM



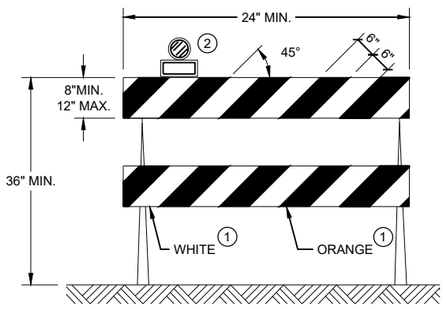
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



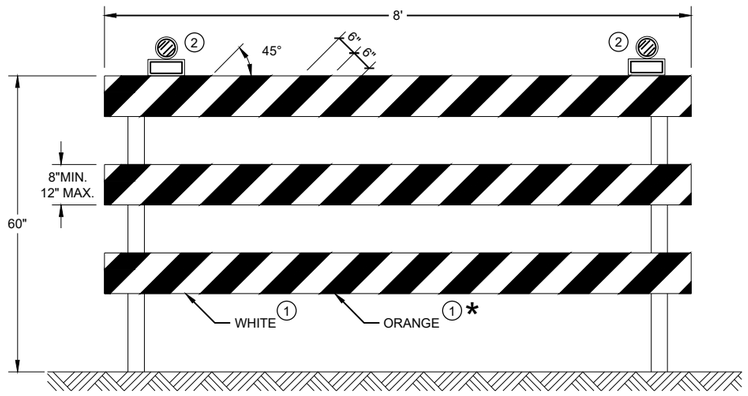
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 07b

6

SDD 15C11 - 07b

LEGEND

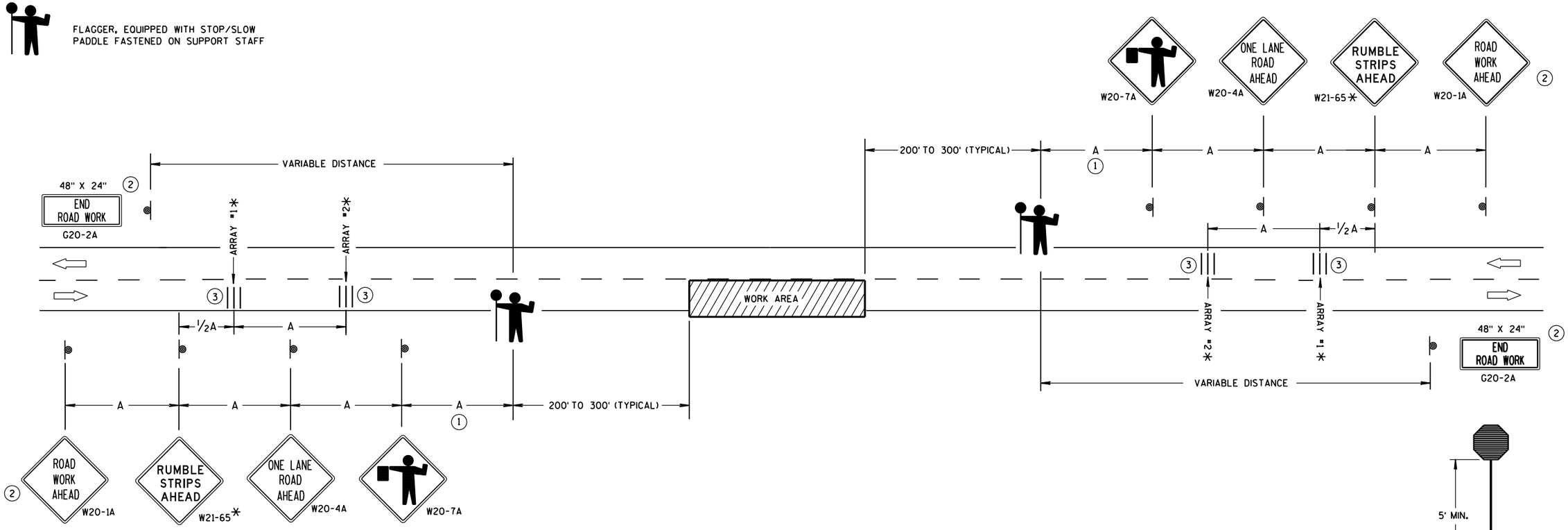
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

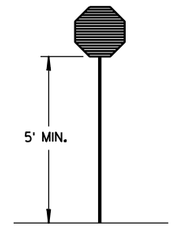
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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.





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

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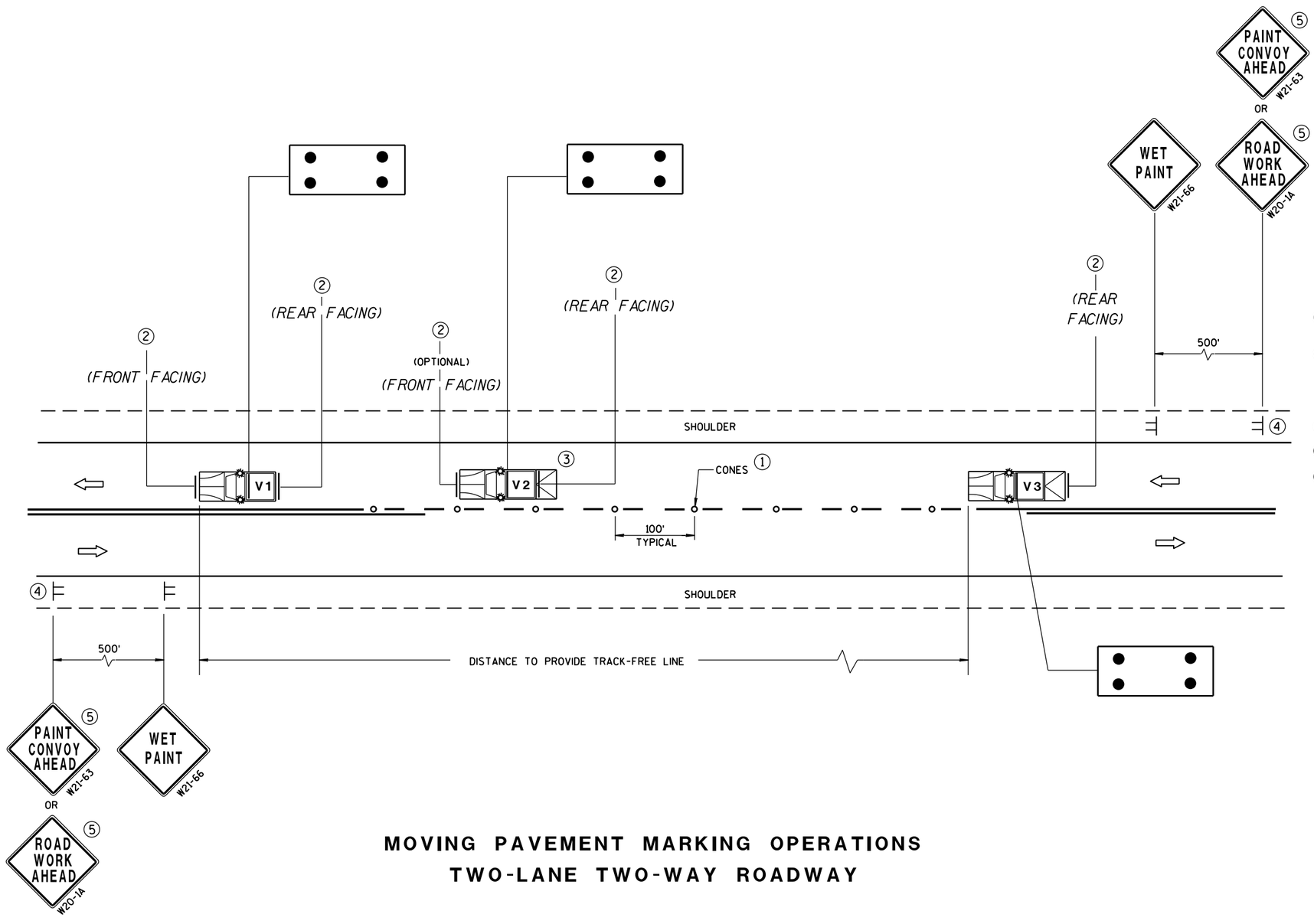
S.D.D. 15 C 12-6



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	

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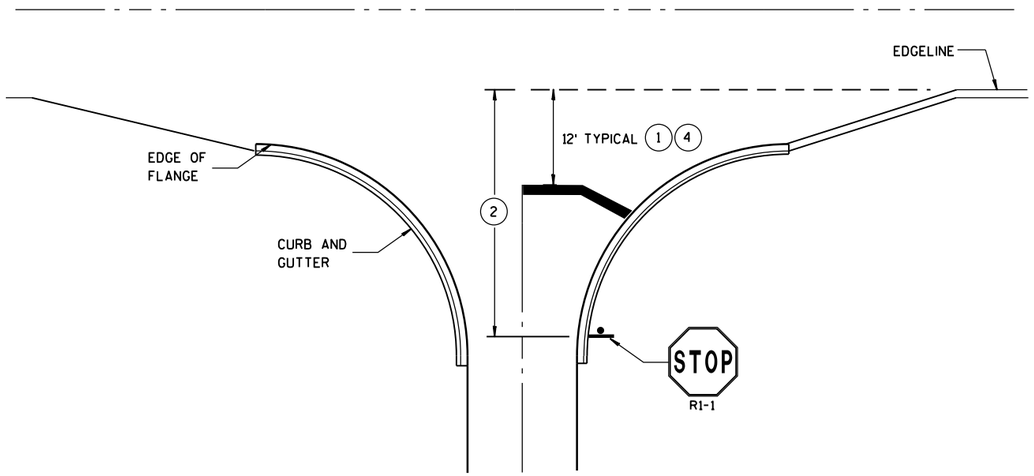
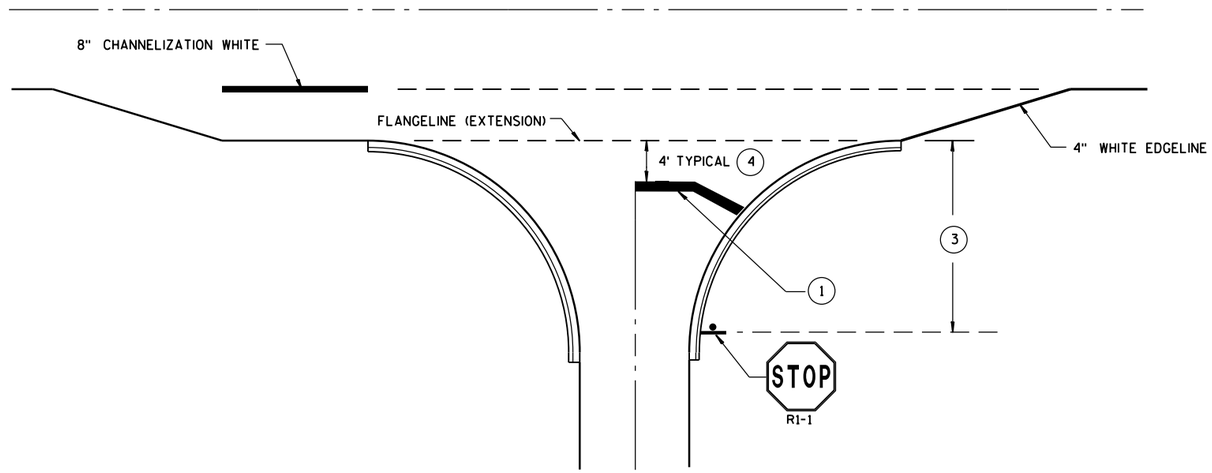
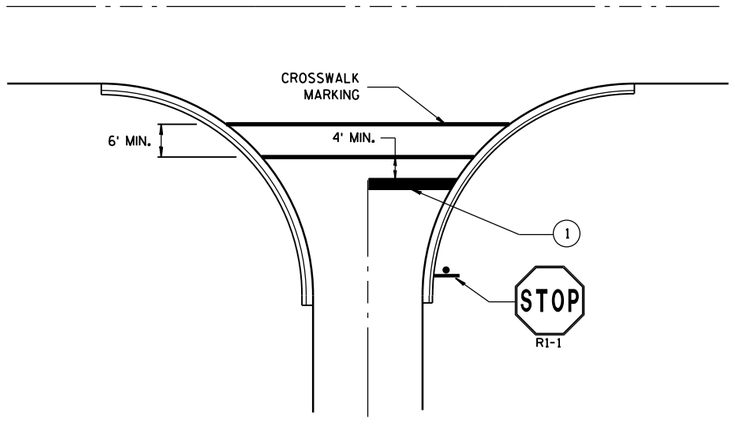
S.D.D. 15 C 19-5a



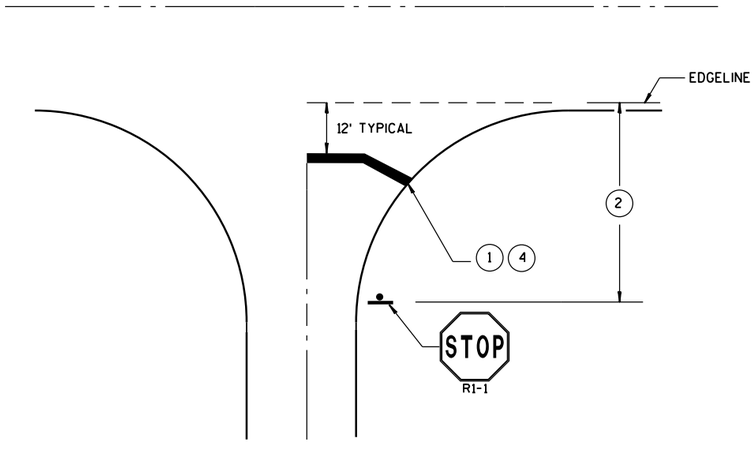
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

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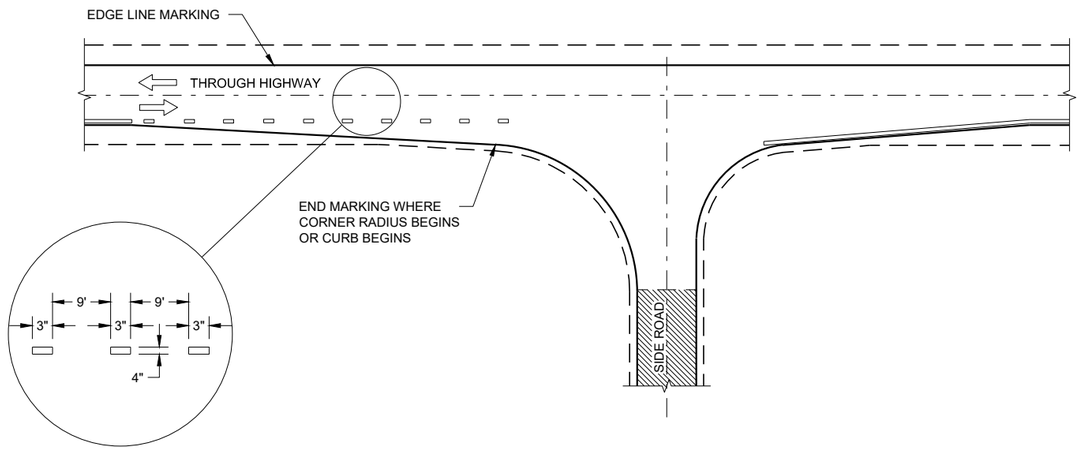
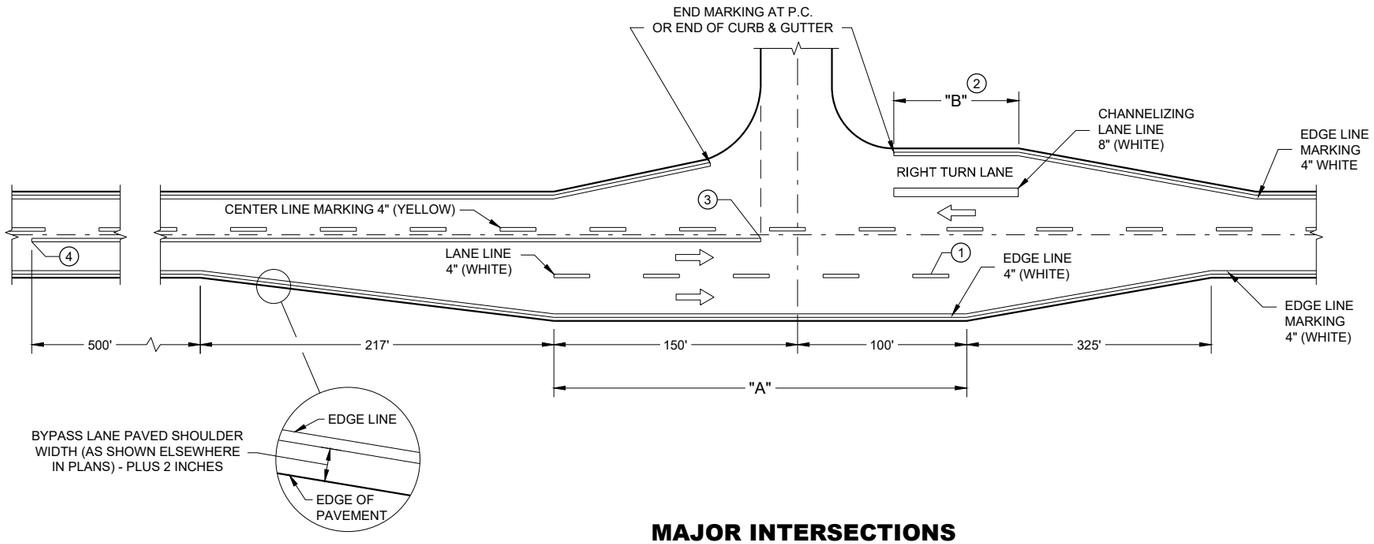


MINOR INTERSECTION



MAJOR INTERSECTIONS

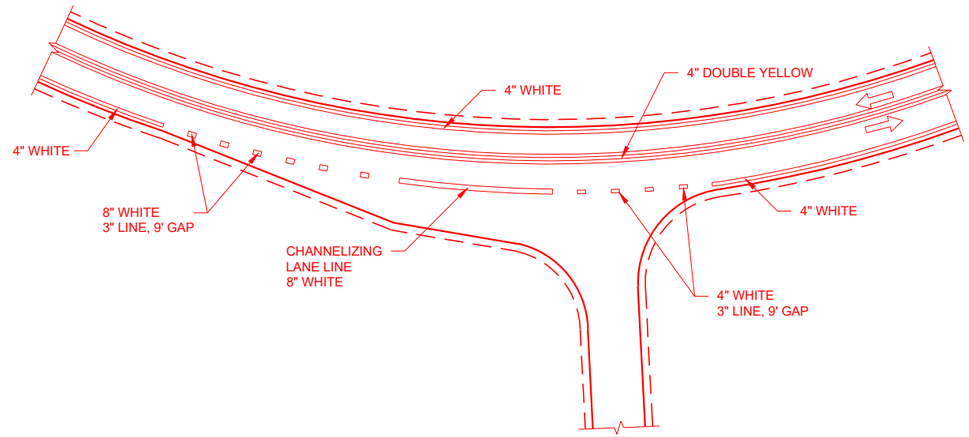
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

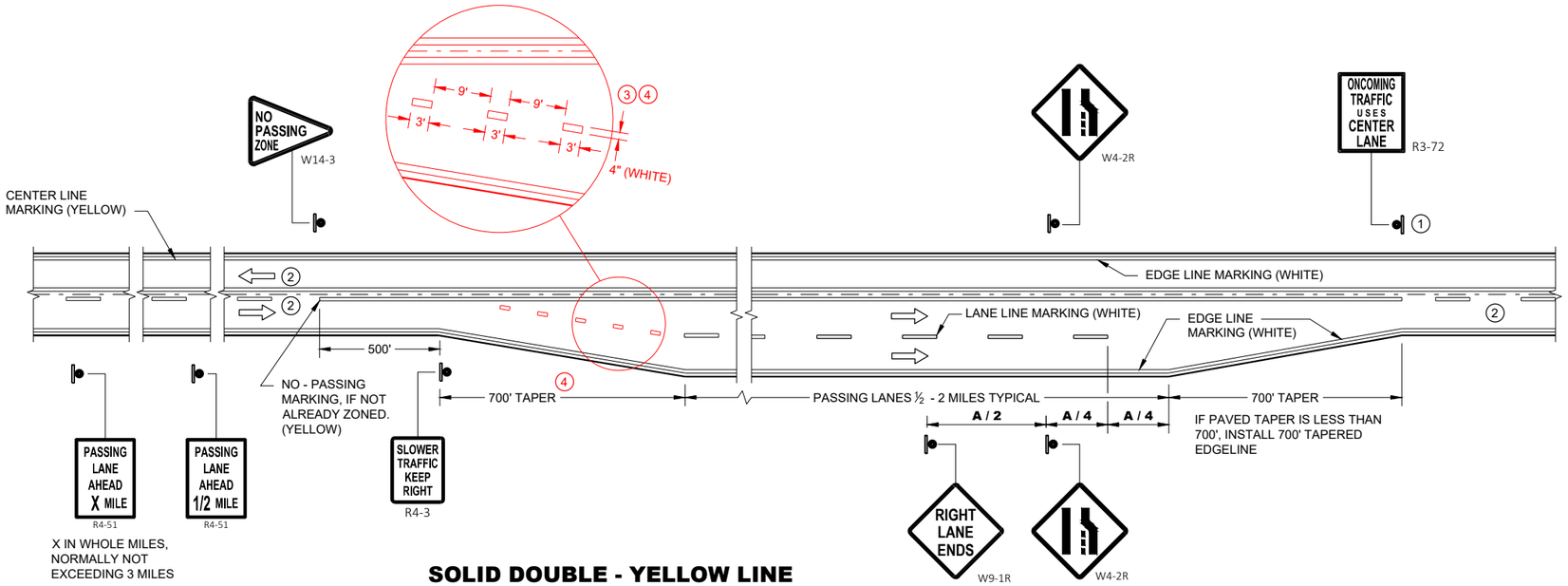
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

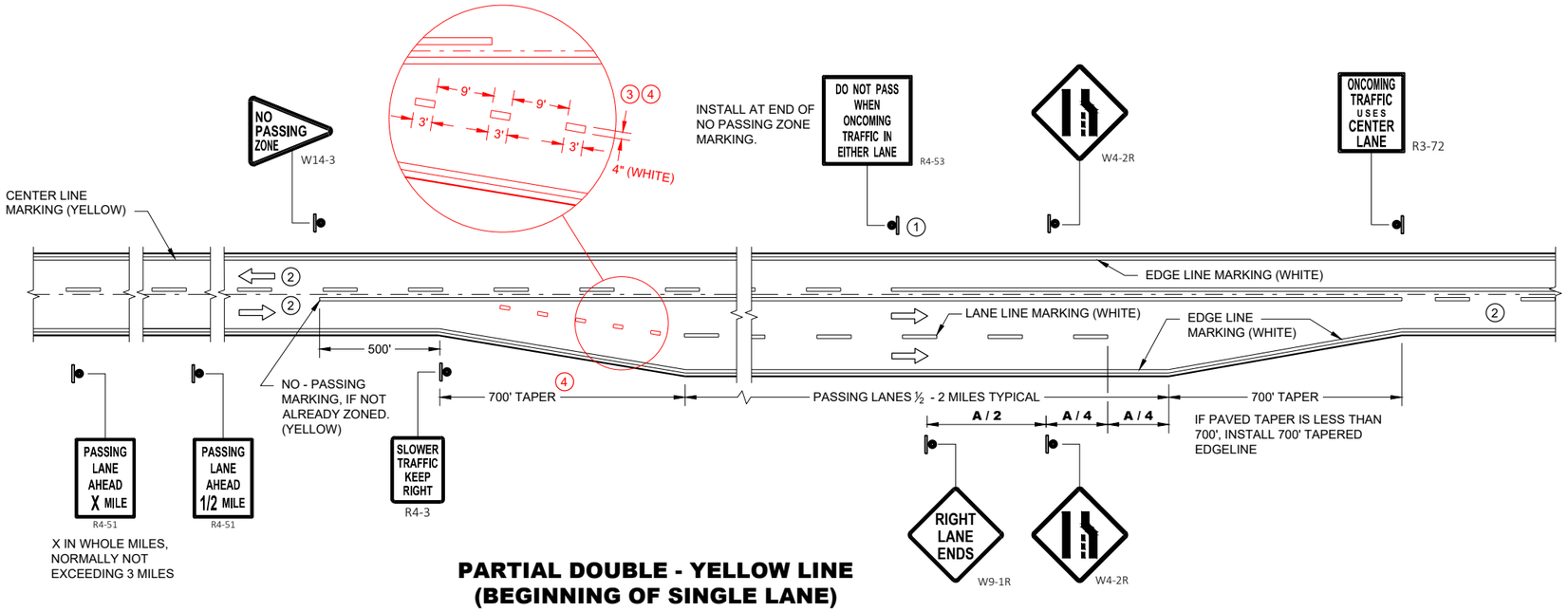


INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)



SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)



PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBLING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C35 - 03b

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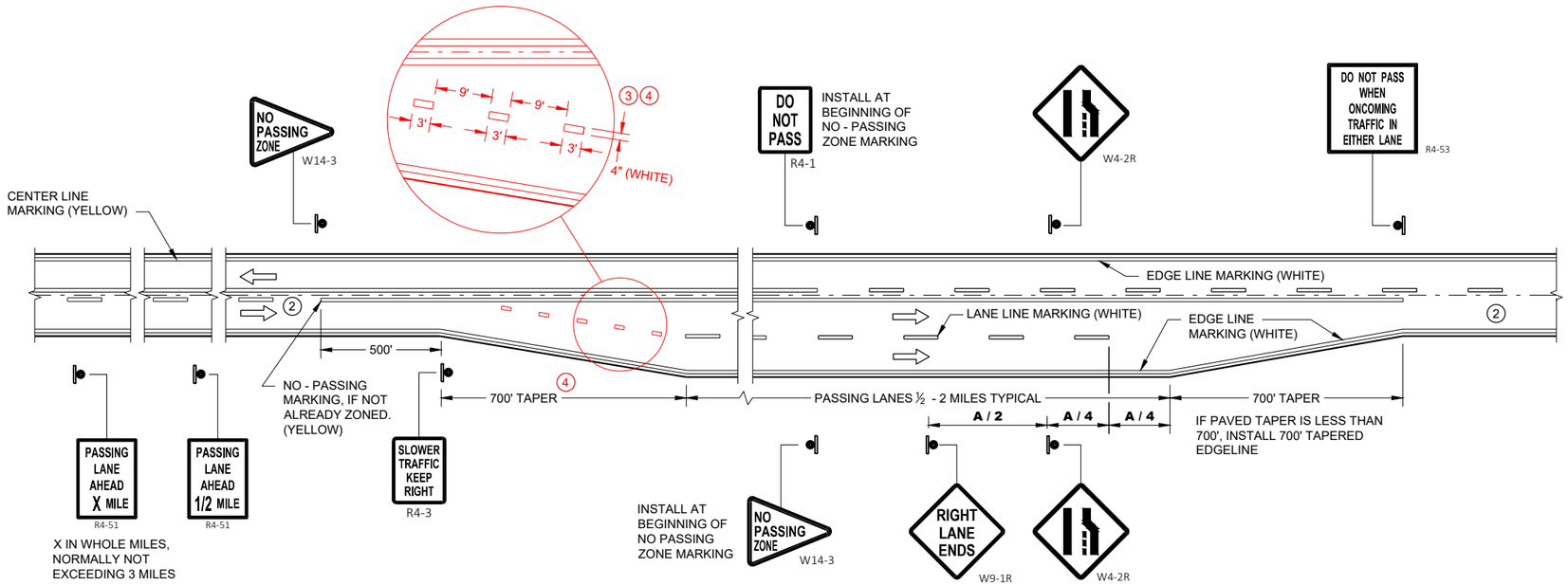
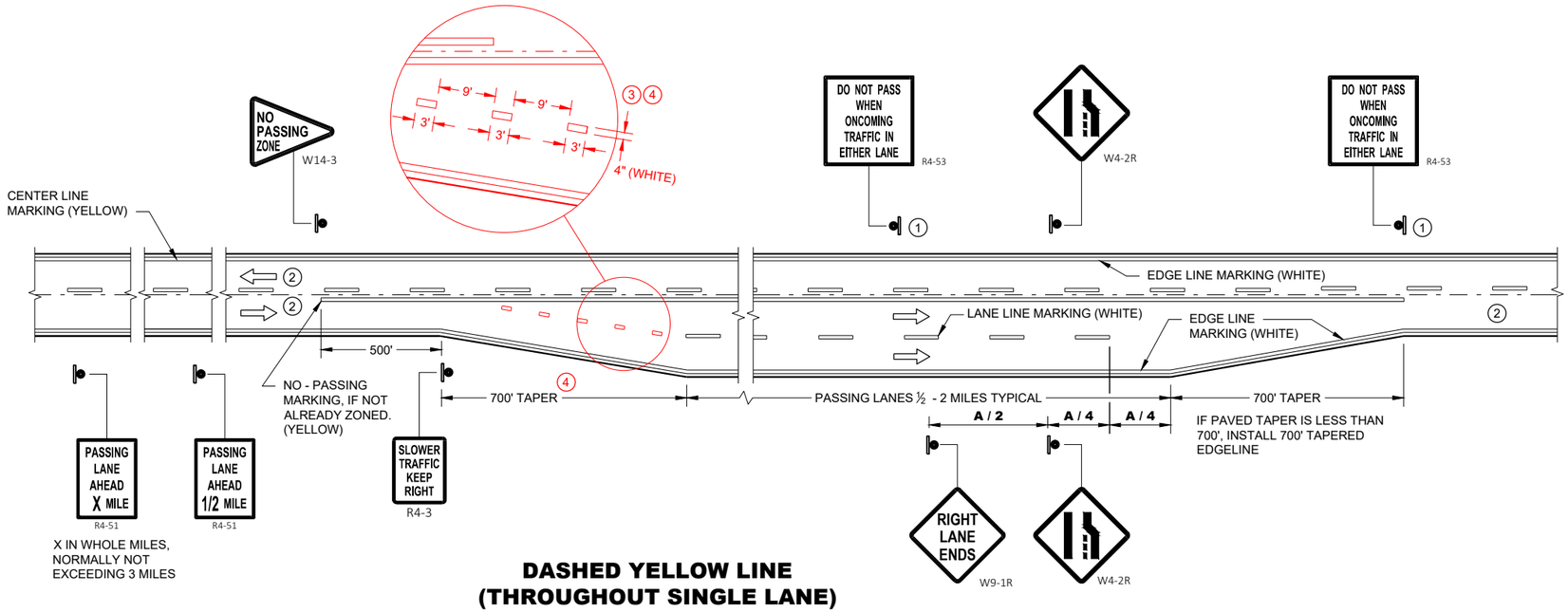


SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBLING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	850
55	950

PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

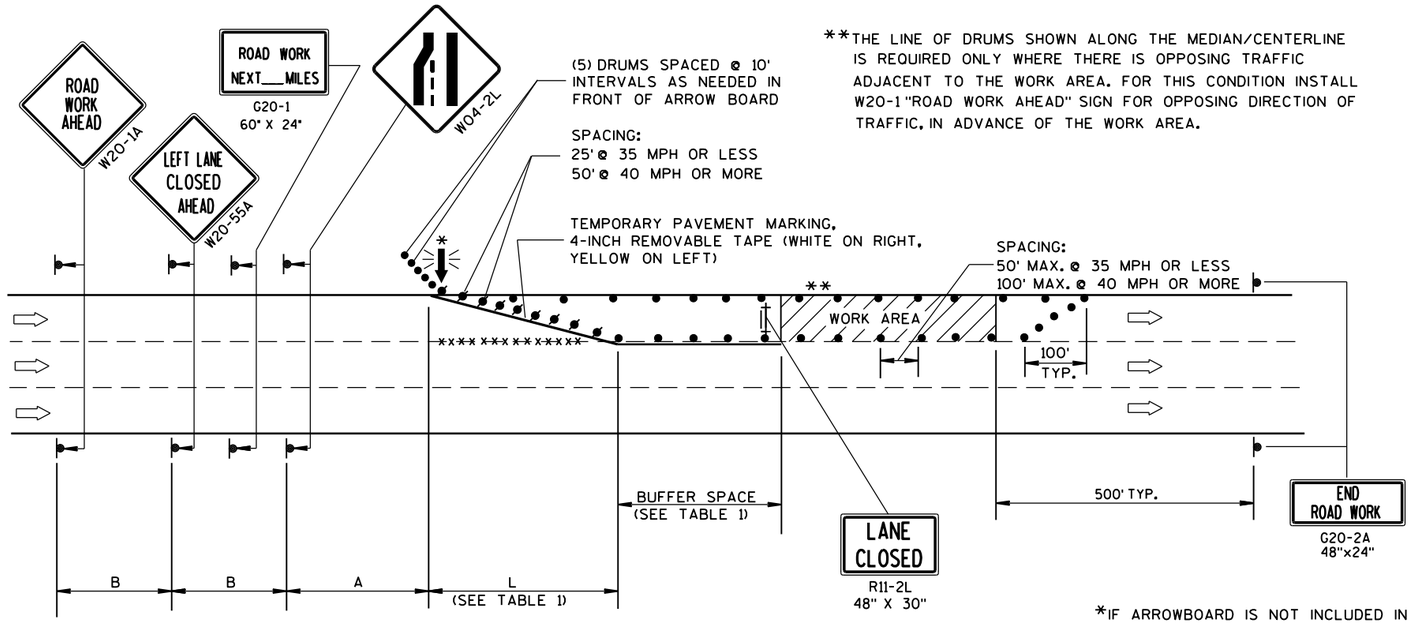
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
00-00-00 DATE
/S/ <AUTHOR> ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 15C35 - 03c

SDD 15C35 - 03c



**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"

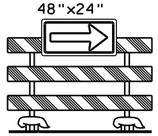


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

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S.D.D. 15 D 20-4

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S.D.D. 15 D 20-4

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
W / S	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 = WS² / 60 AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = 1/3L

GENERAL NOTES

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 THE REGIONAL TRAFFIC UNIT.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

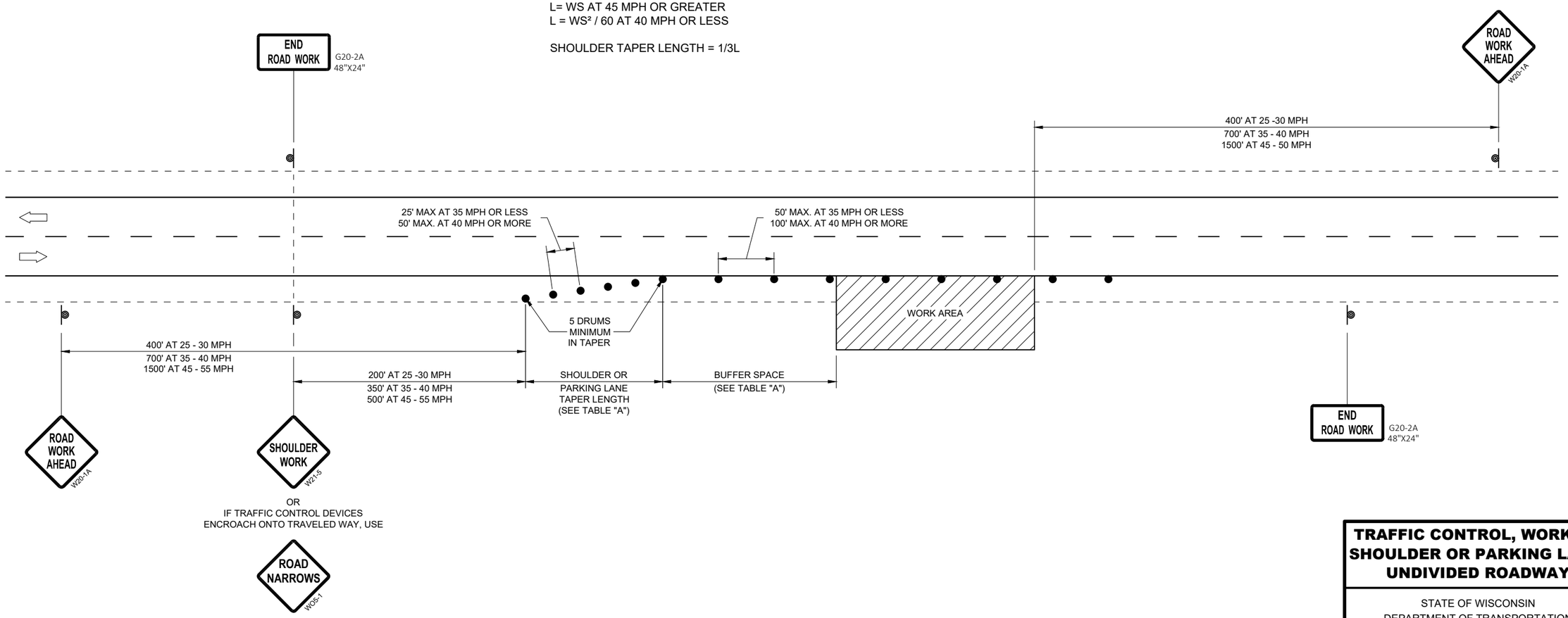
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY RESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

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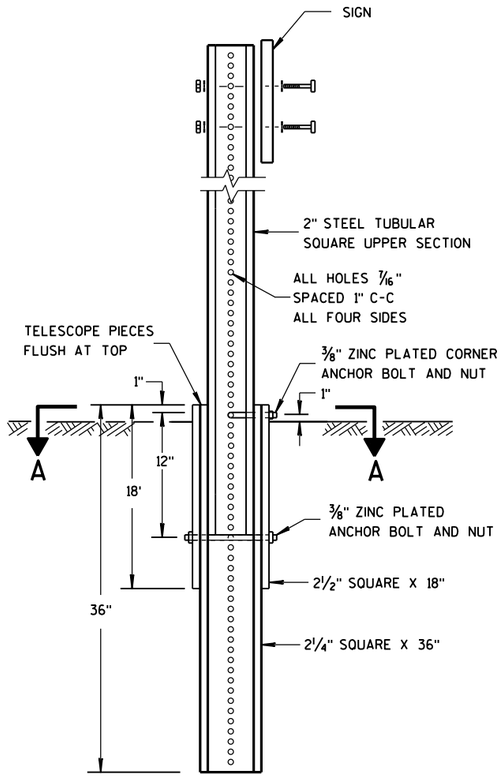
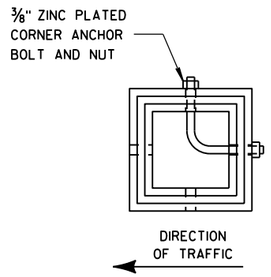
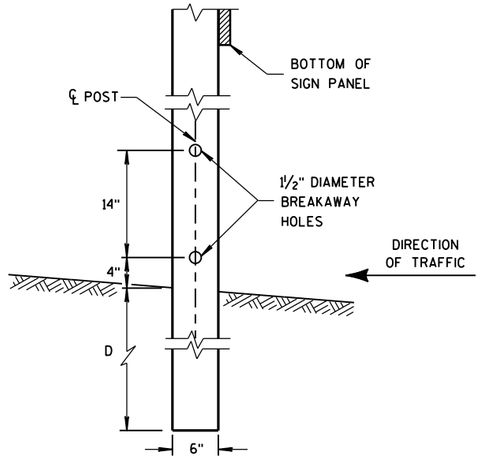


DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



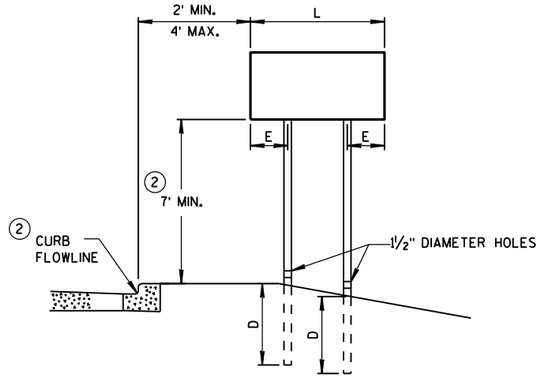
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

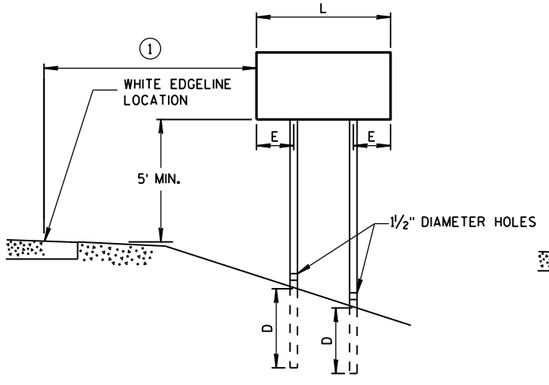
1. 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

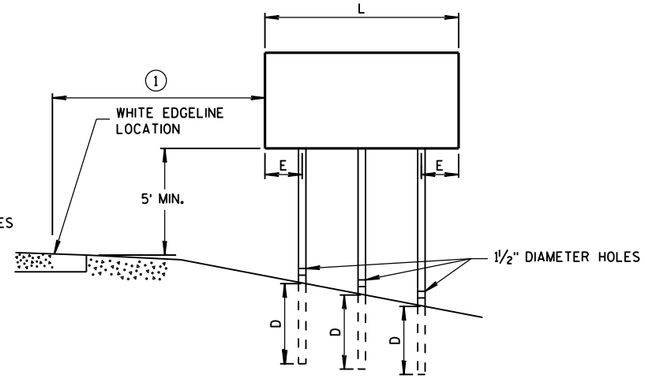
2. THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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

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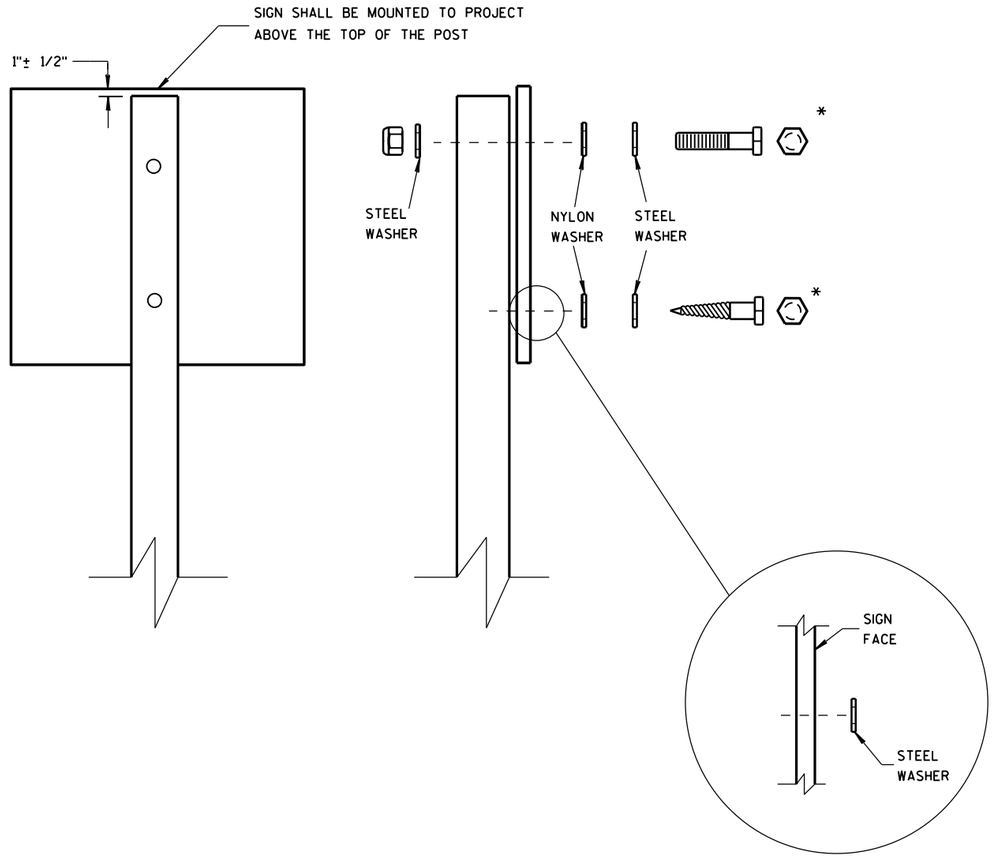
S.D.D. 15 D 38-2a



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.

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S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

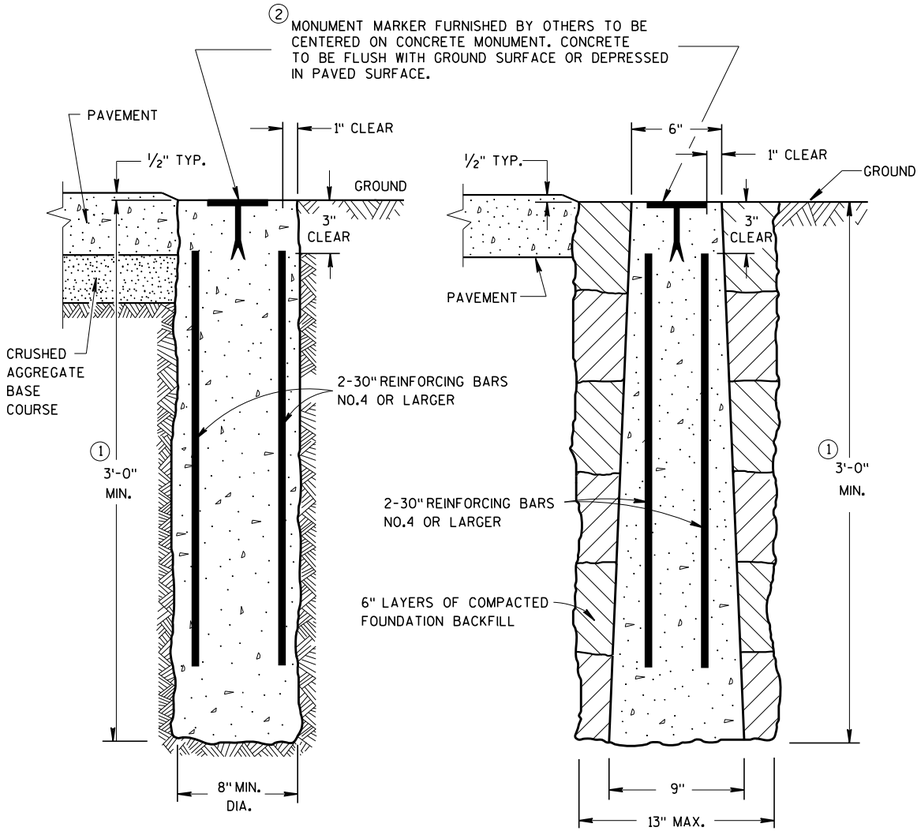
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

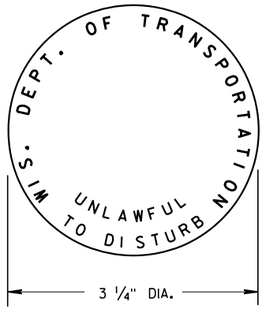


CAST-IN-PLACE

PRECAST

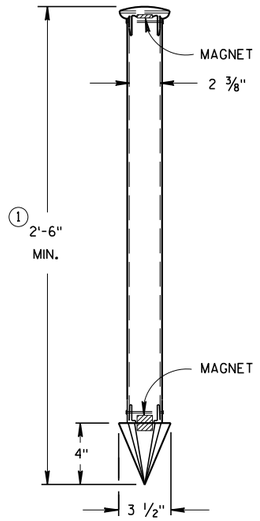
CONCRETE MONUMENTS

TYPE A



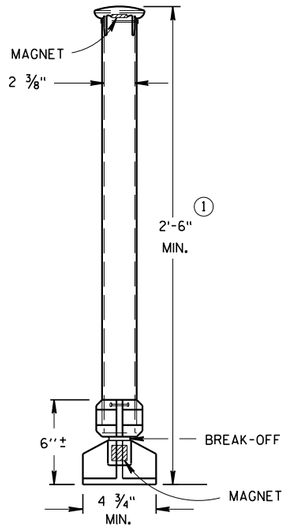
② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C", & "D"



TYPE C

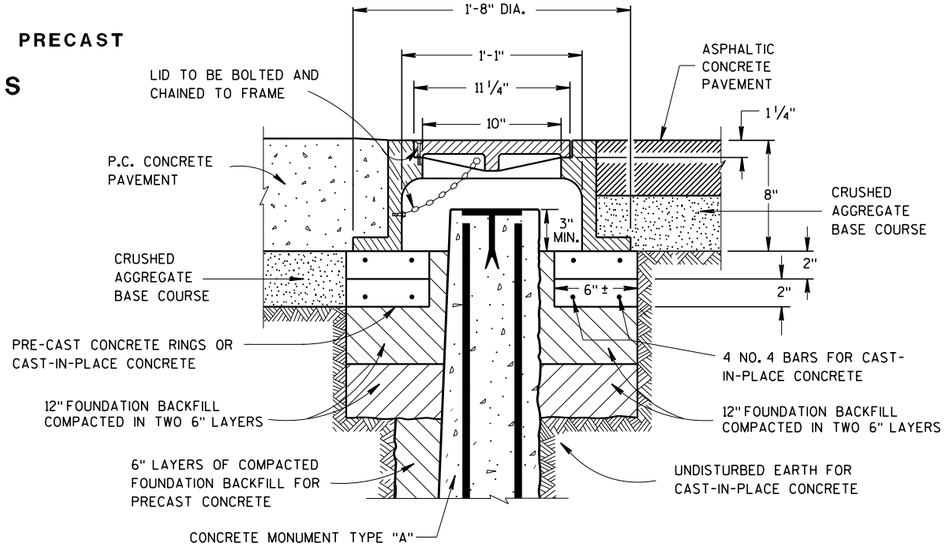
DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)

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.

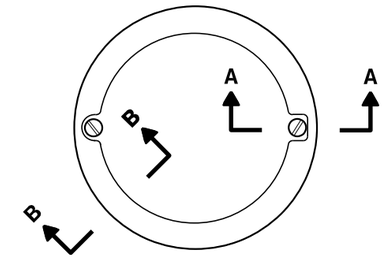
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

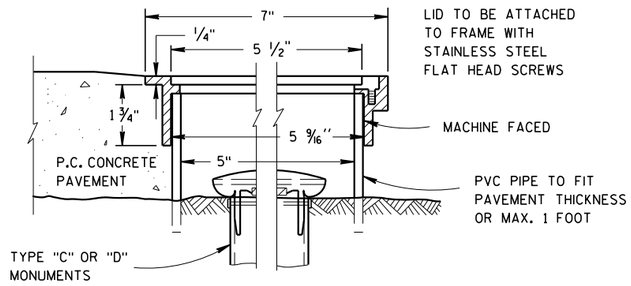
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

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



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

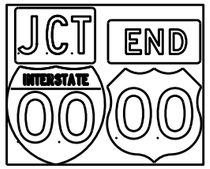
APPROVED
March 2018 — DATE
/S/ Raymond A. [illegible] — CHIEF SURVEYING AND M[illegible] ENGINEER
FHWA

6

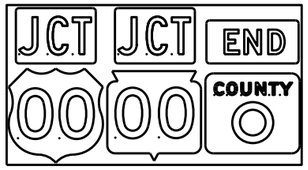
S.D.D. 16 A 1-7

TYPICAL ASSEMBLIES

J1-1

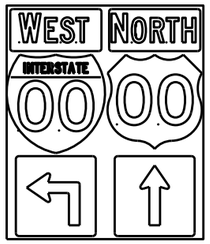


J1-2

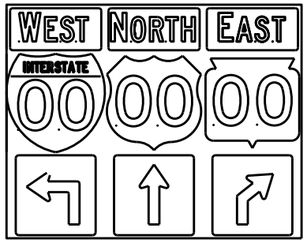


J1-3

J2-1



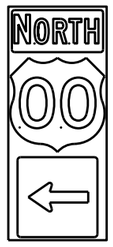
J2-2



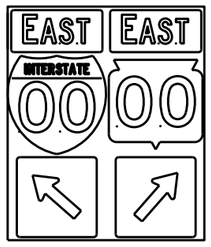
J2-3

JV

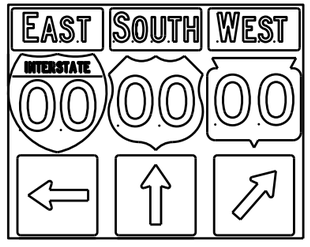
(Typical Vertical J-Assembly
See Note 10 and 11)



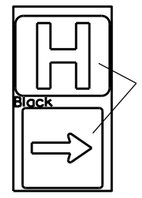
J3-1



J3-2

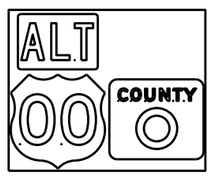


J3-3

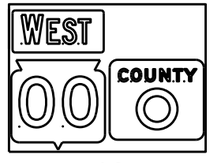


JH-1

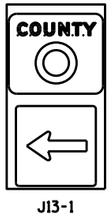
J4-1



J4-2



J4-2



J13-1

J12-1

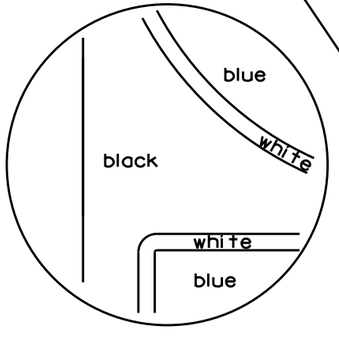
J32-1

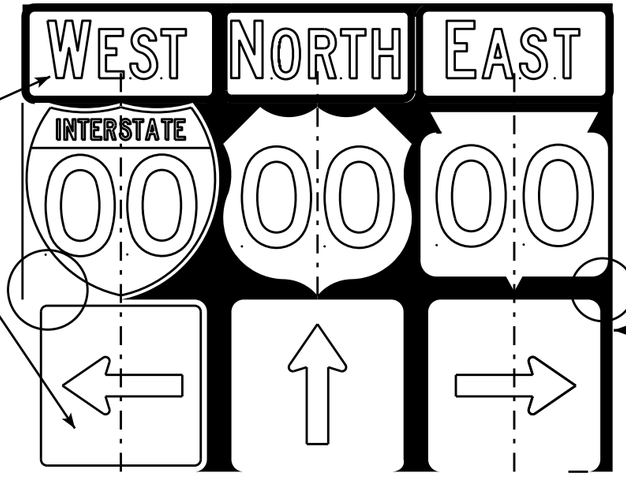
J33-1

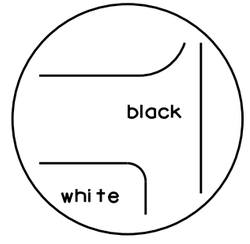
J23-1

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

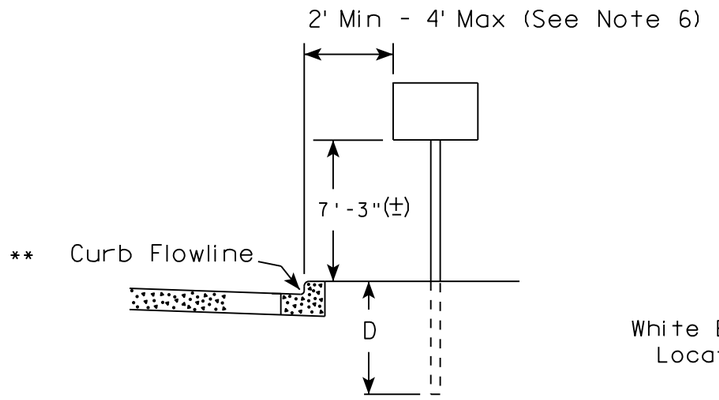
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

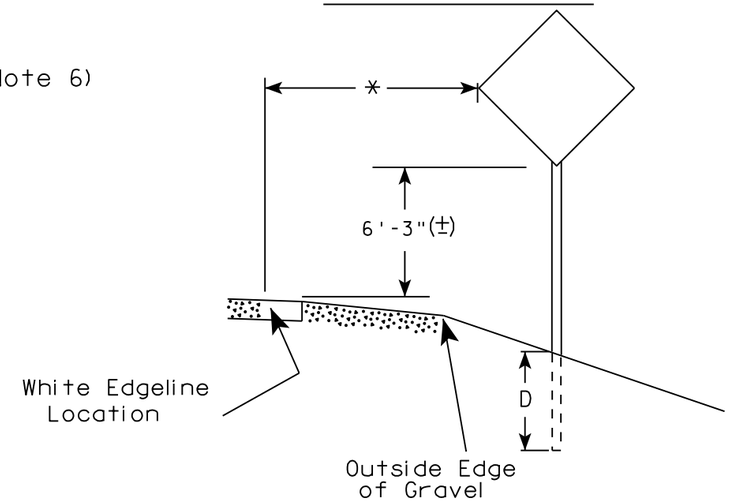
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

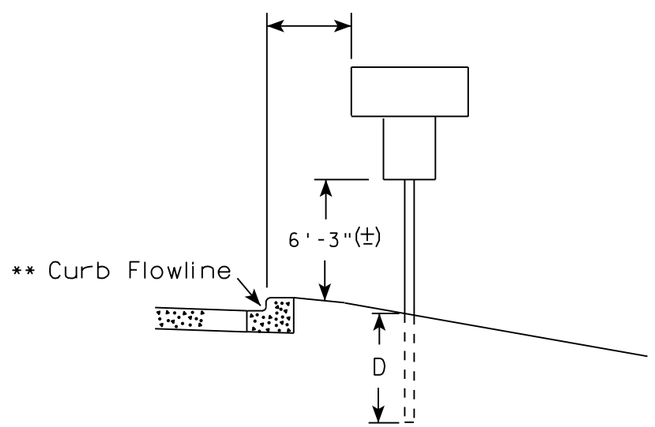
WISDOT/CADDS SHEET 42

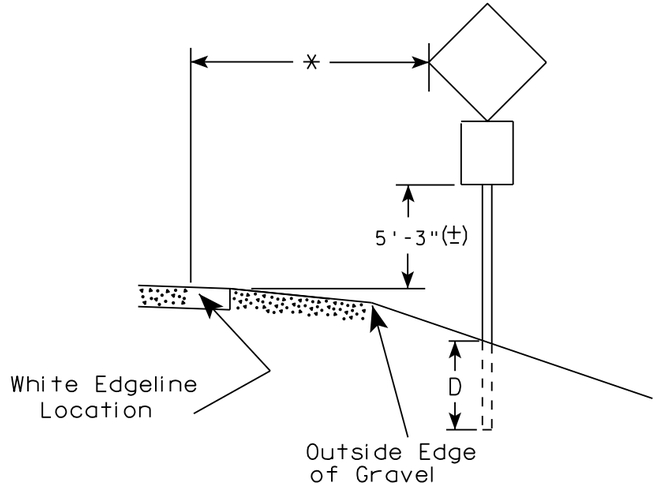
URBAN AREA



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

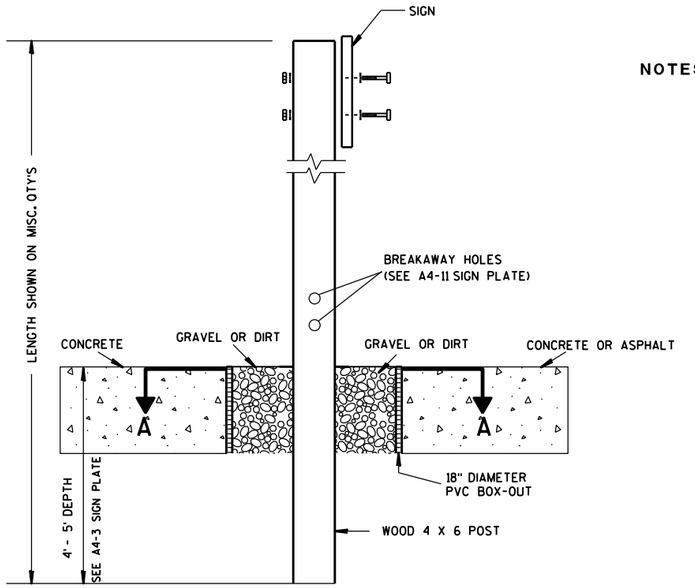
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7 7

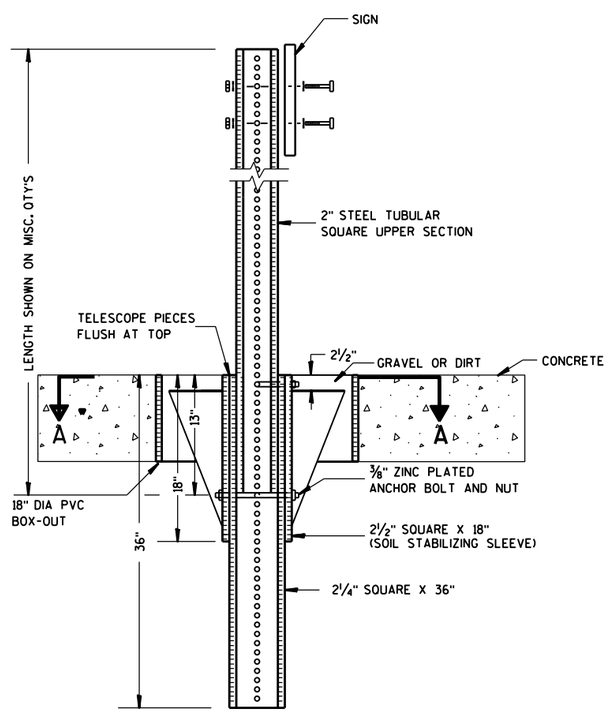
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 139	E



ELEVATION VIEW

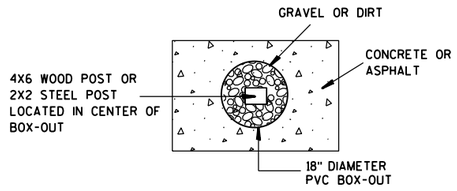
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

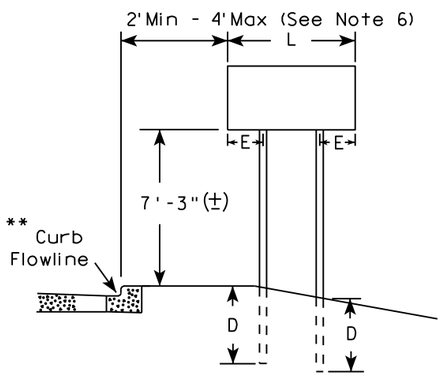
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

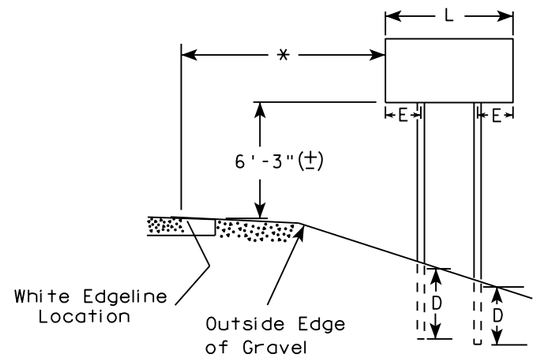
DATE 1/27/14 PLATE NO. A4-3B.1

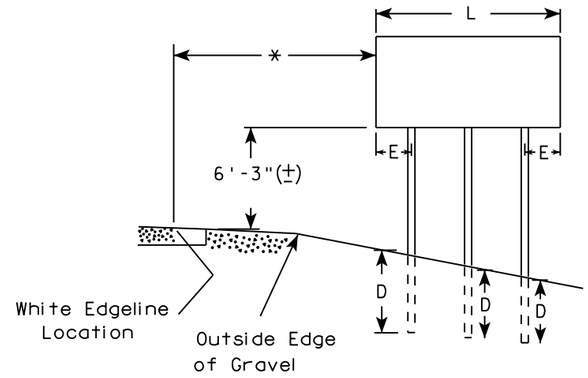
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

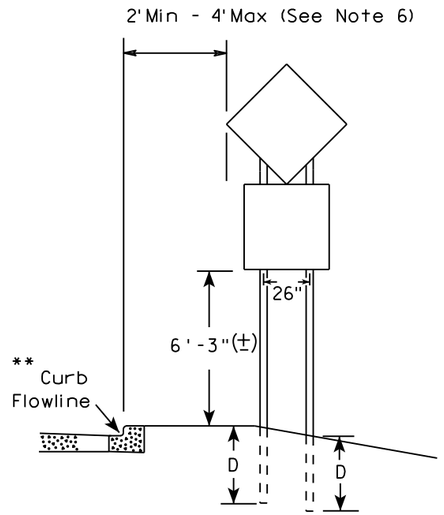
URBAN AREA



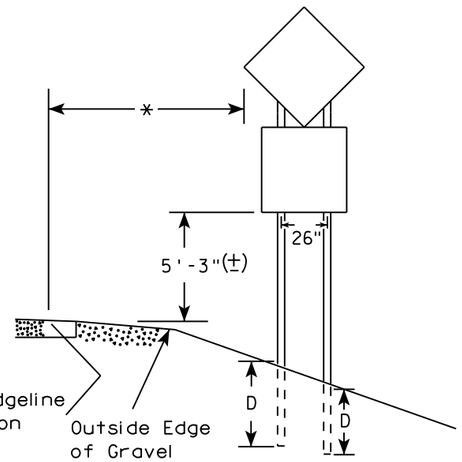
RURAL AREA (See Note 3)







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'

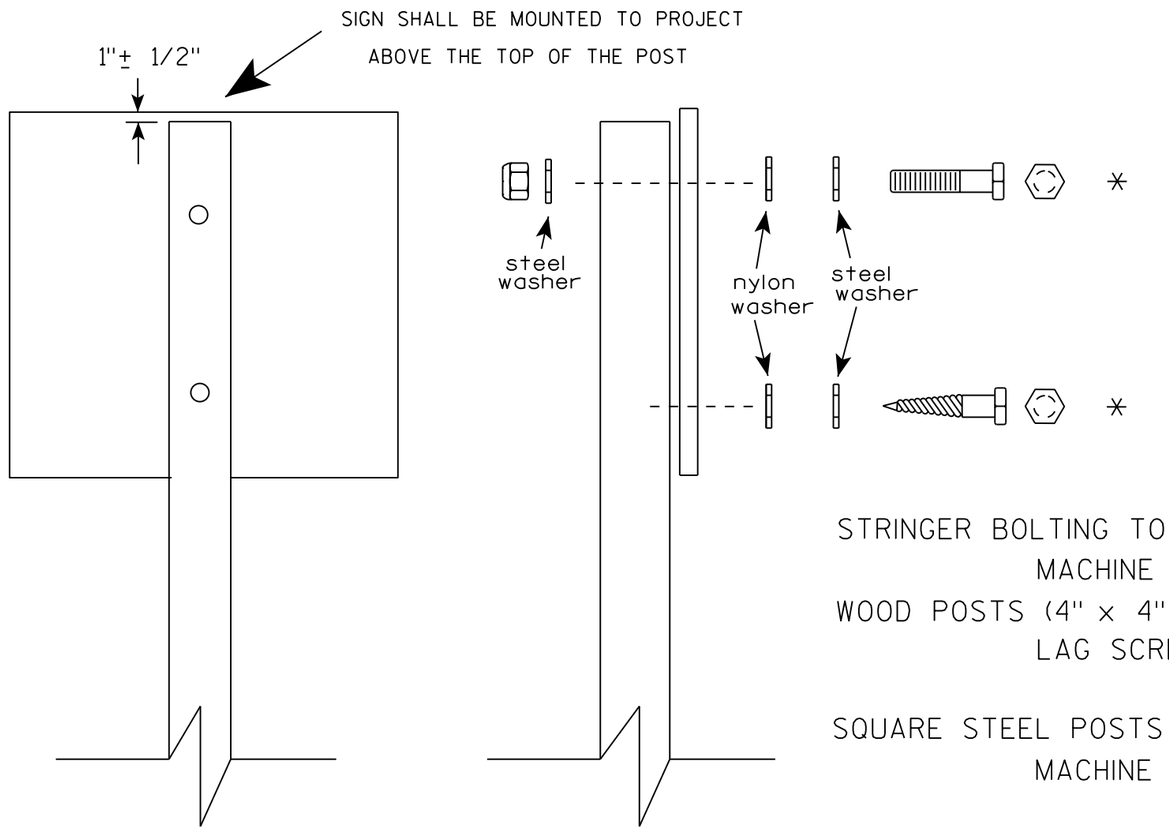
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 141	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

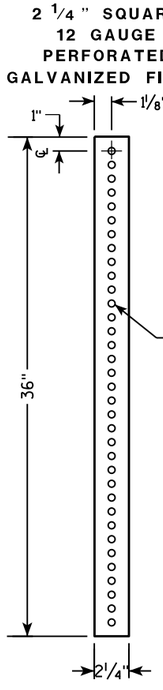
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

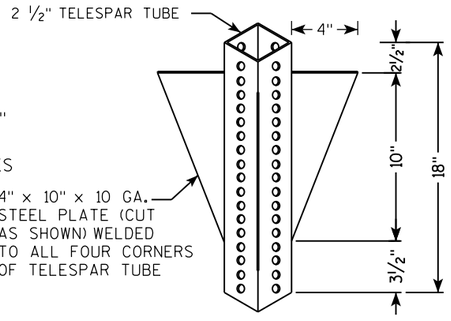
PROJECT NO: SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

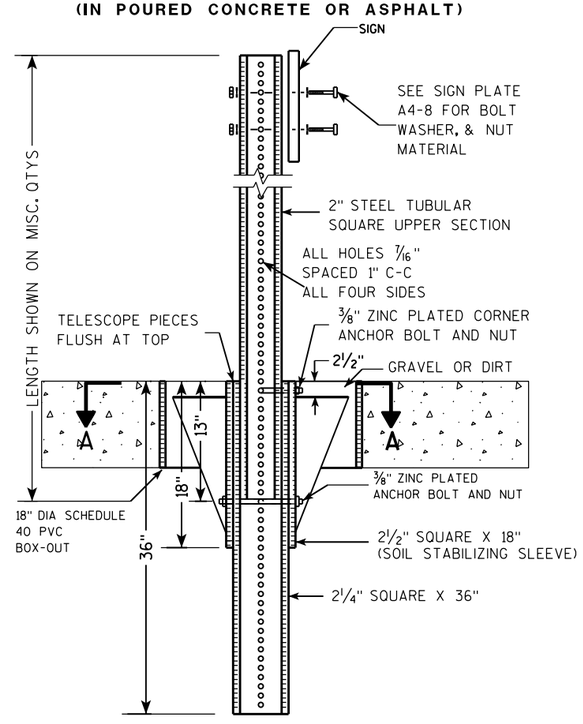
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



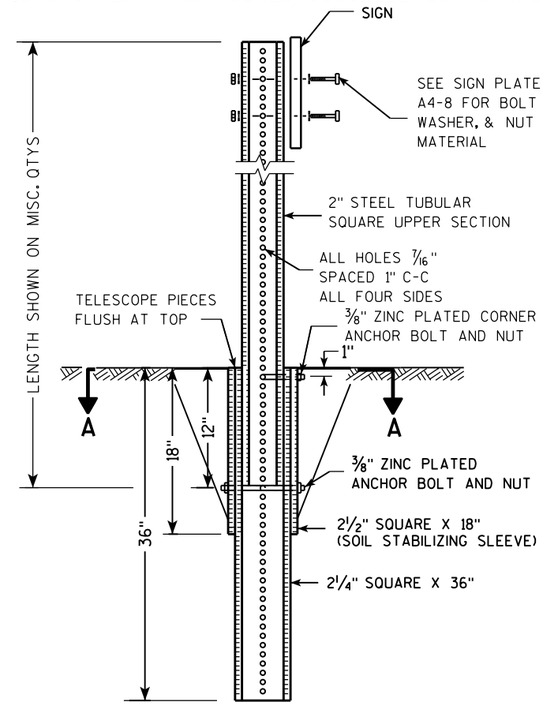
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

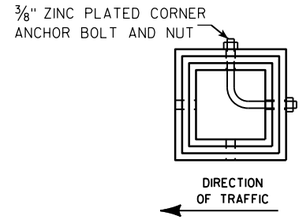


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

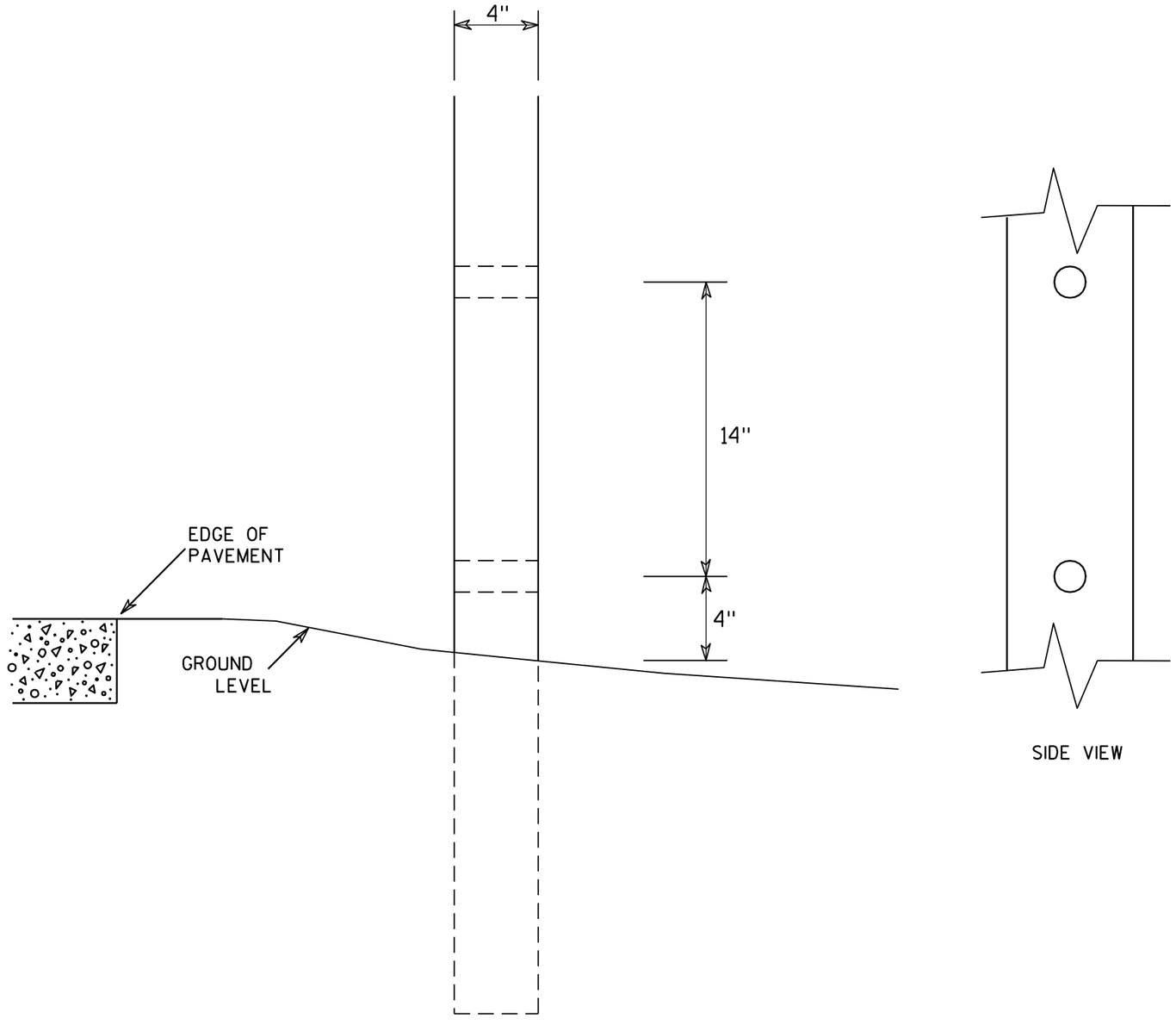
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 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

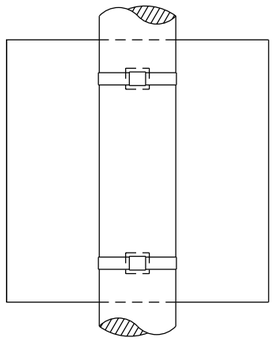
APPROVED Chester J Spang for State Traffic Engineer

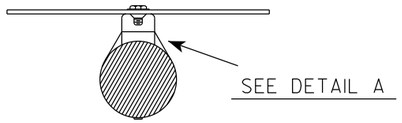
DATE 3/27/97 PLATE NO. A4-11.2

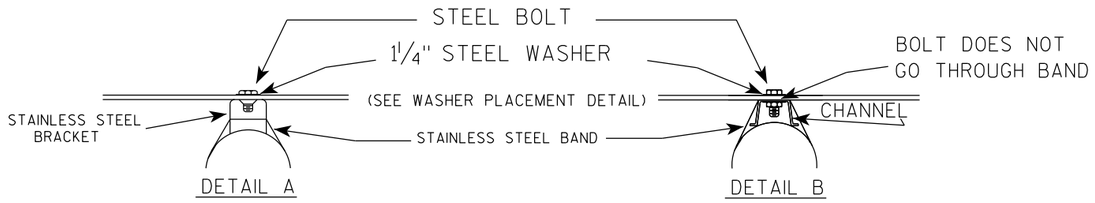
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 144	E

BANDING

SINGLE SIGN



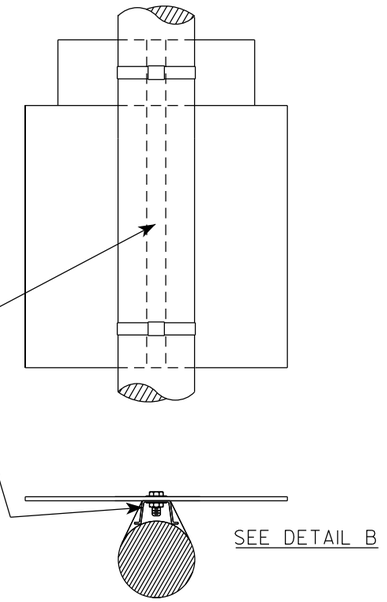




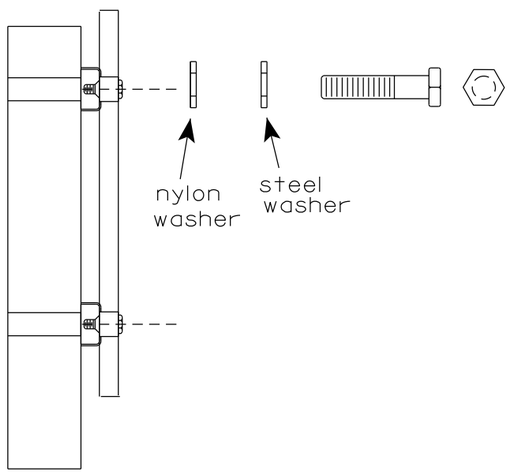
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

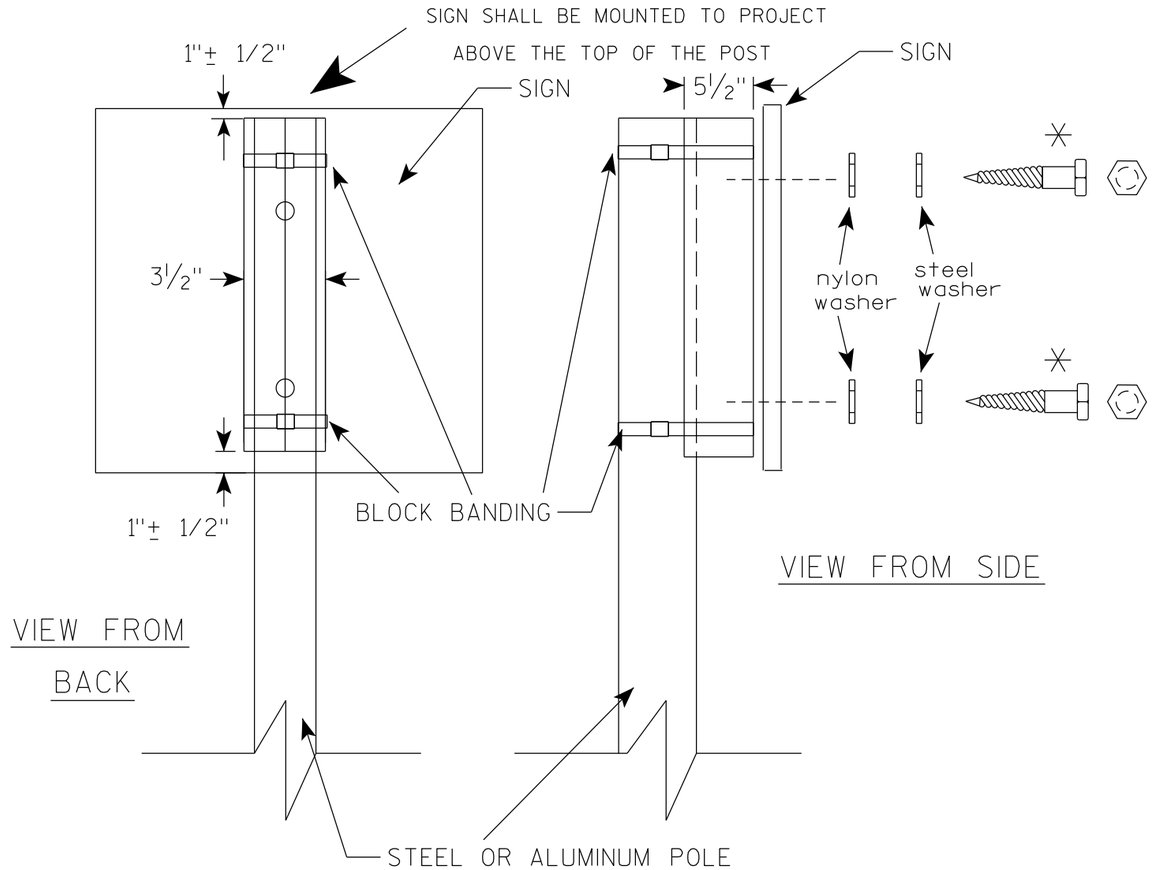
DATE 6/10/19 PLATE NO. A5-9.4

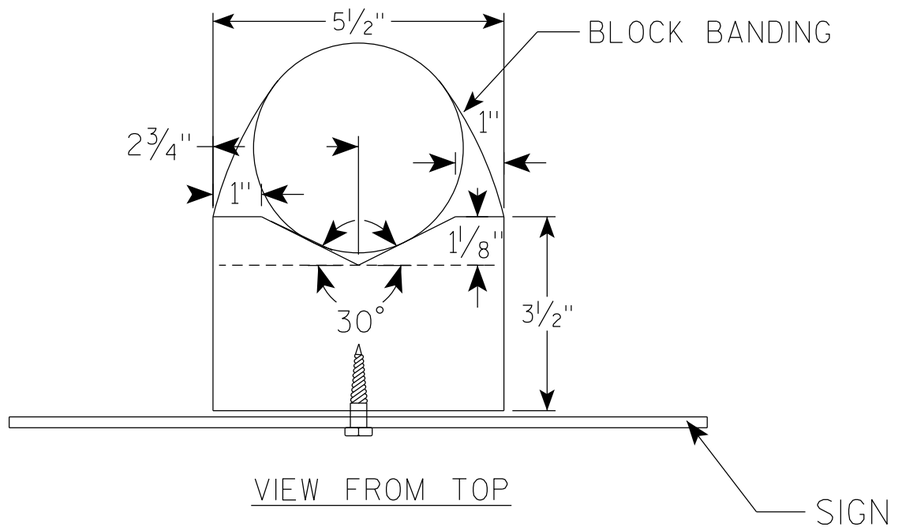
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 145	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

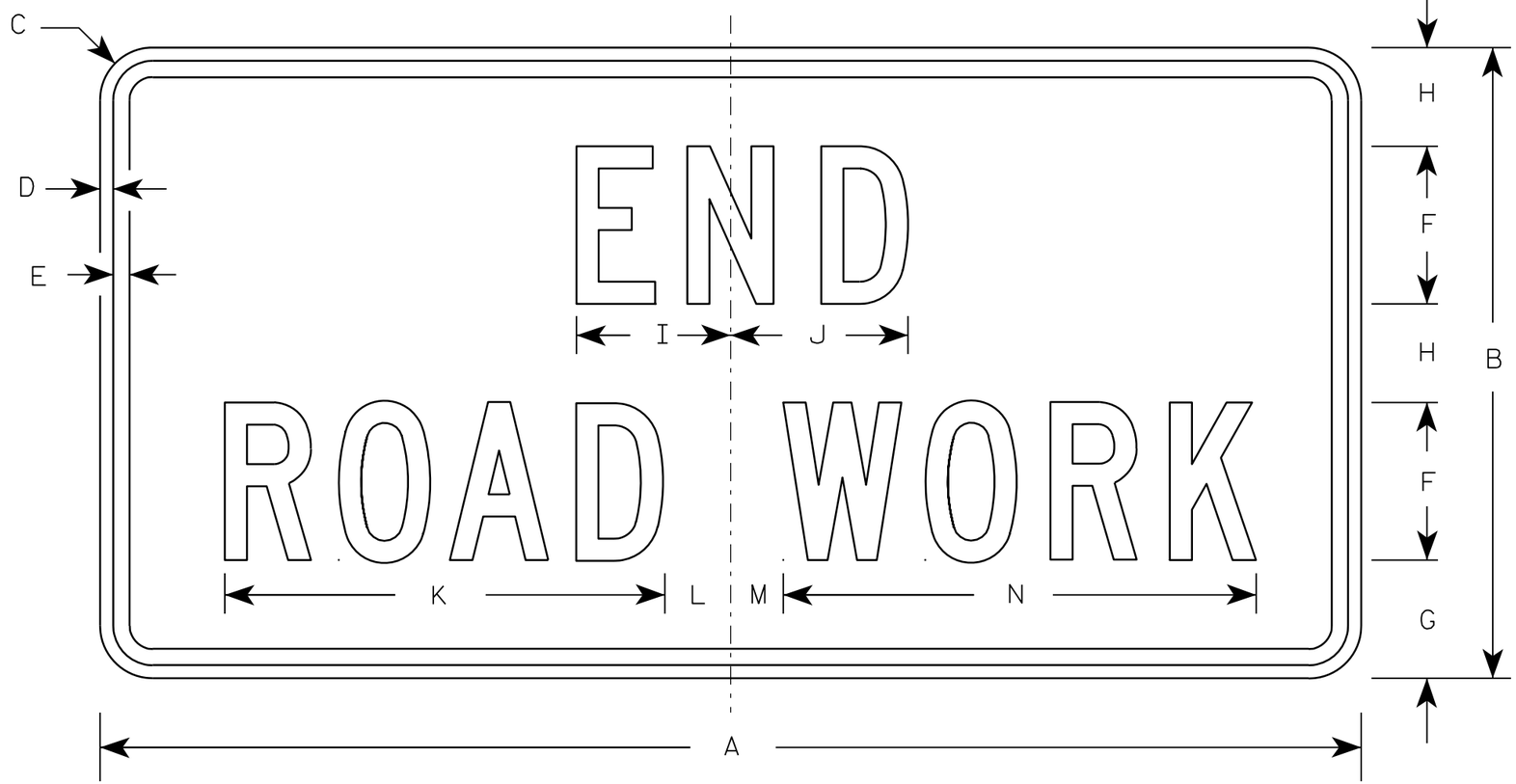
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 146 | 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

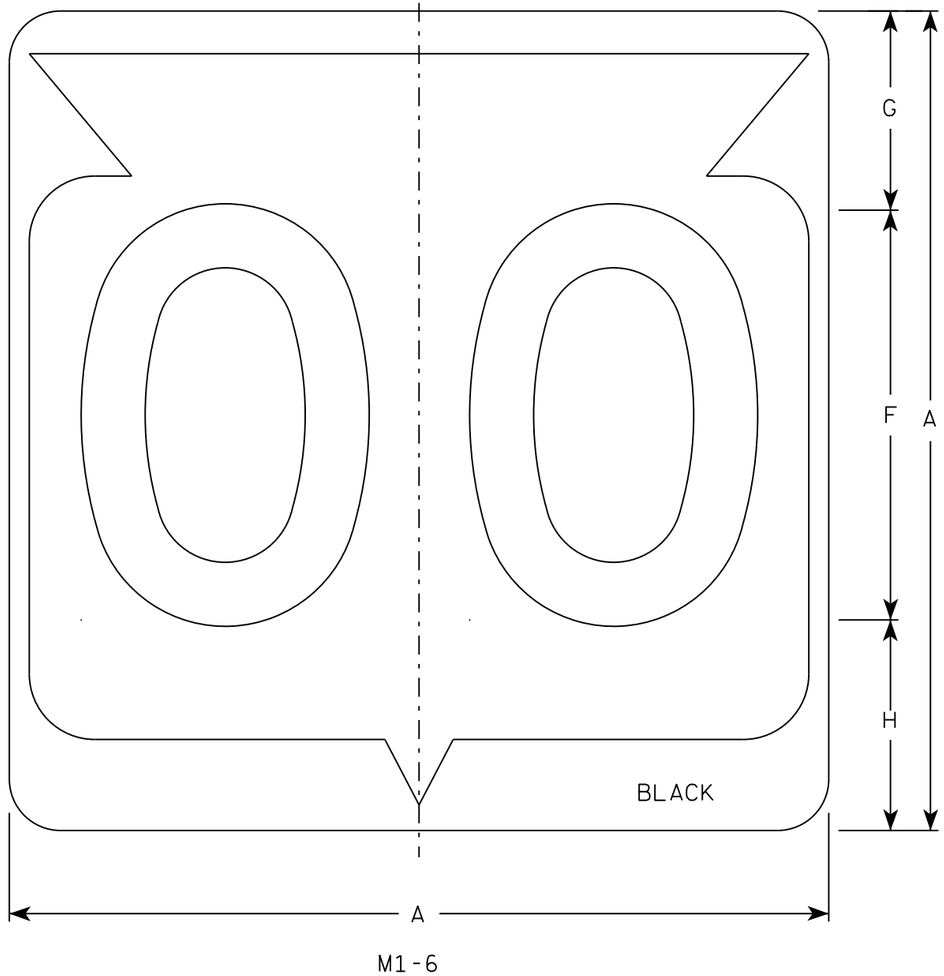
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

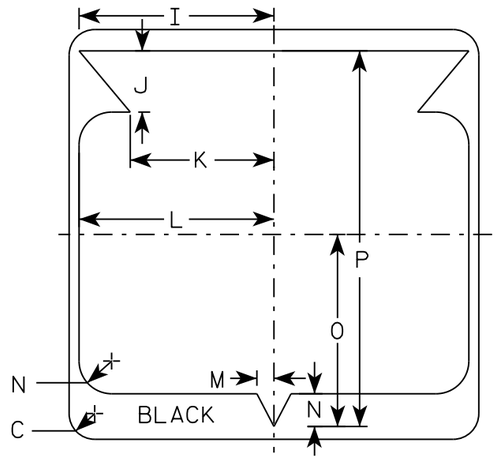
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E



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

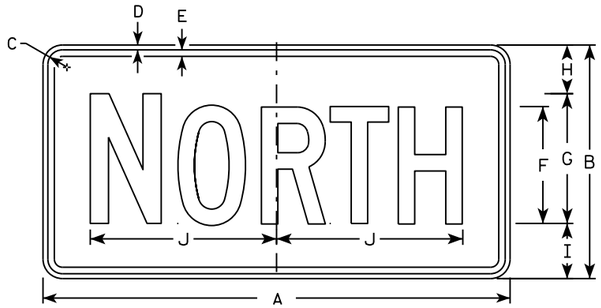
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

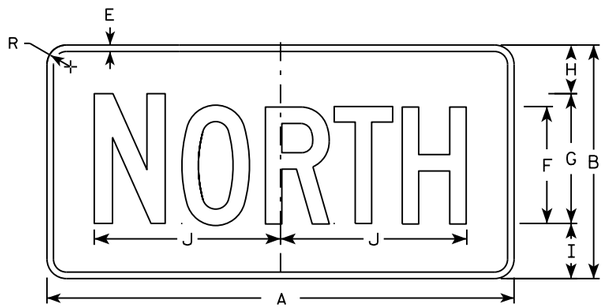
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 148	E



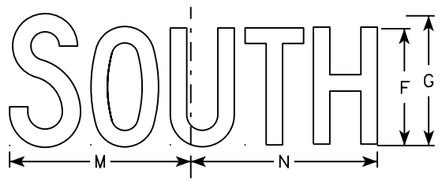
M3-1
MM3-1
MP3-1



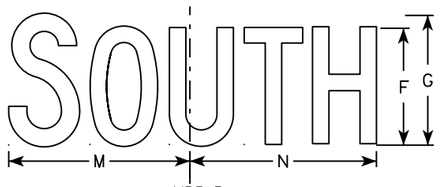
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

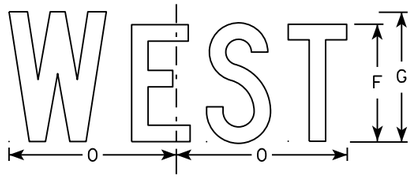
MB3-2
MK3-2
MN3-2



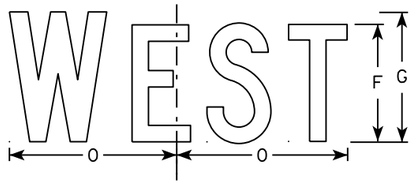
M3-3
MM3-3
MP3-3



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

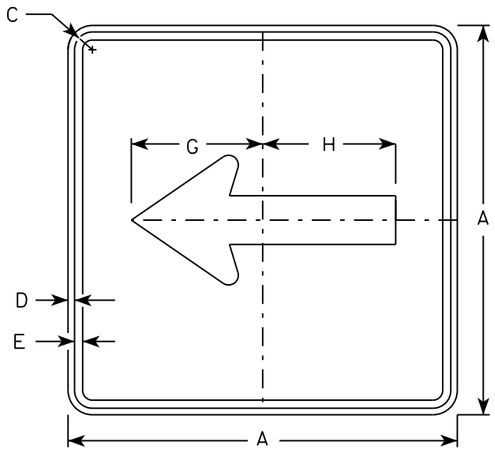
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

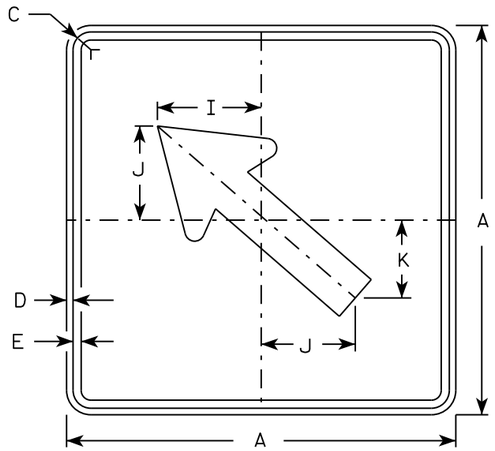
DATE 10/15/15 PLATE NO M3-1.14

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



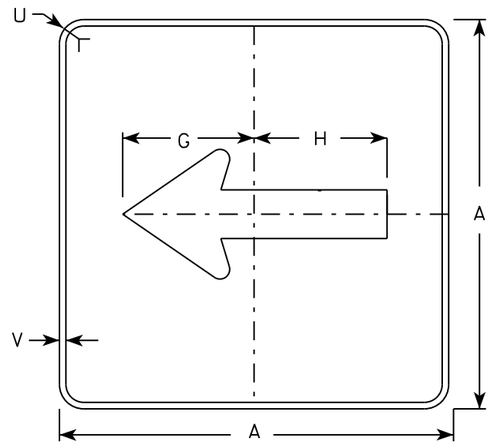
M6-1
MM6-1
MO6-1
MP6-1



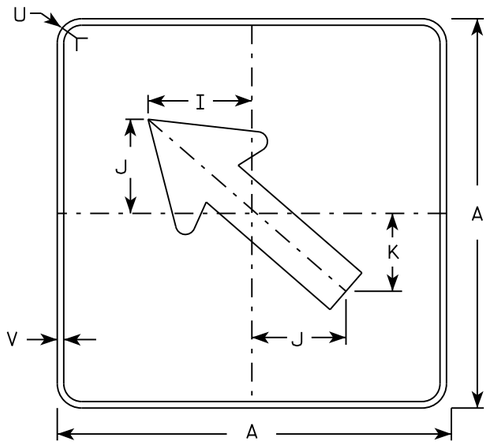
M6-2
MM6-2
MO6-2
MP6-2

NOTES

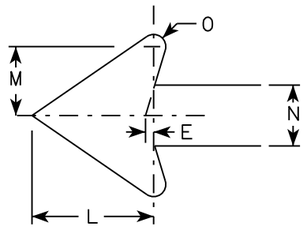
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

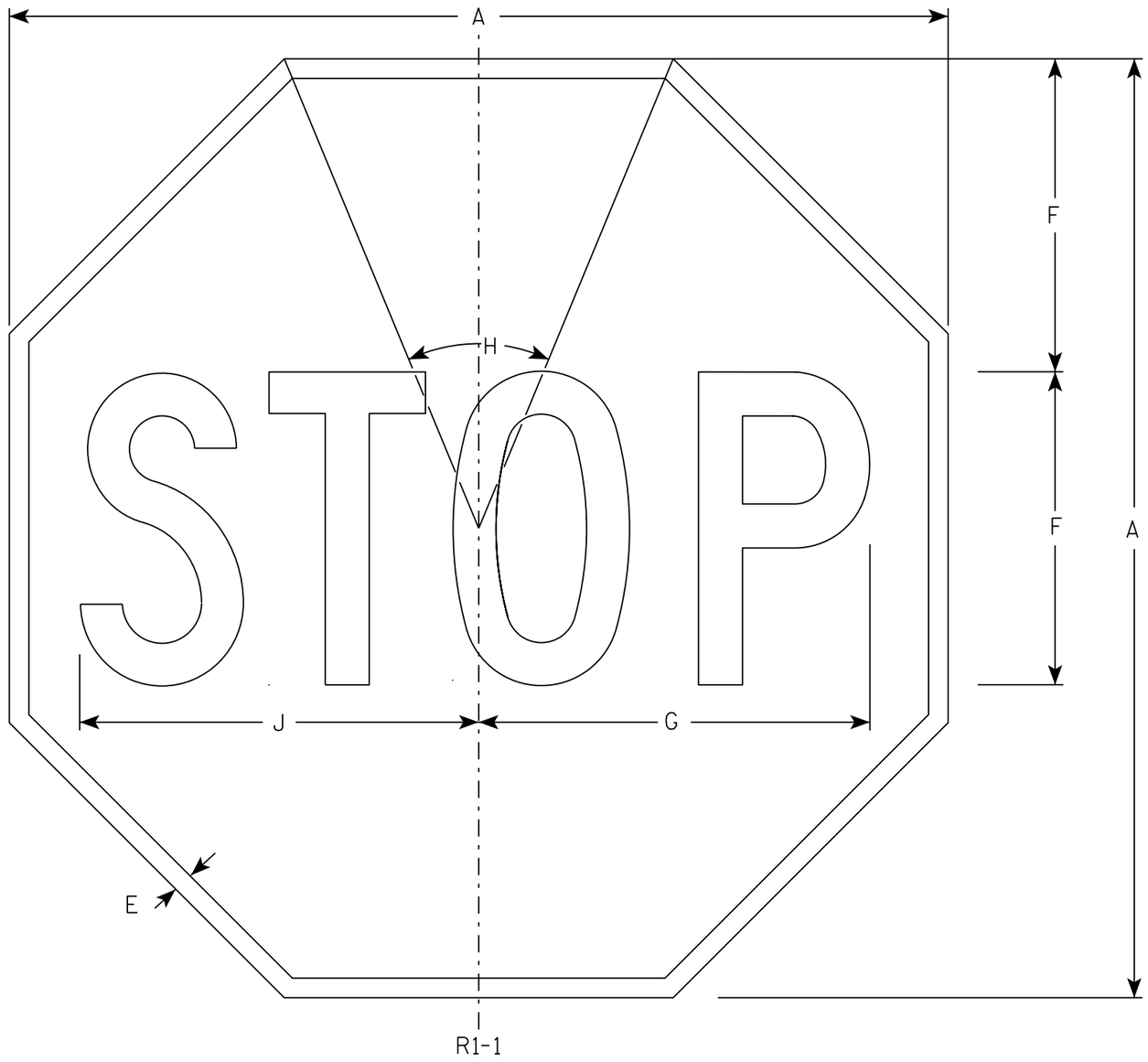
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 150 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

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

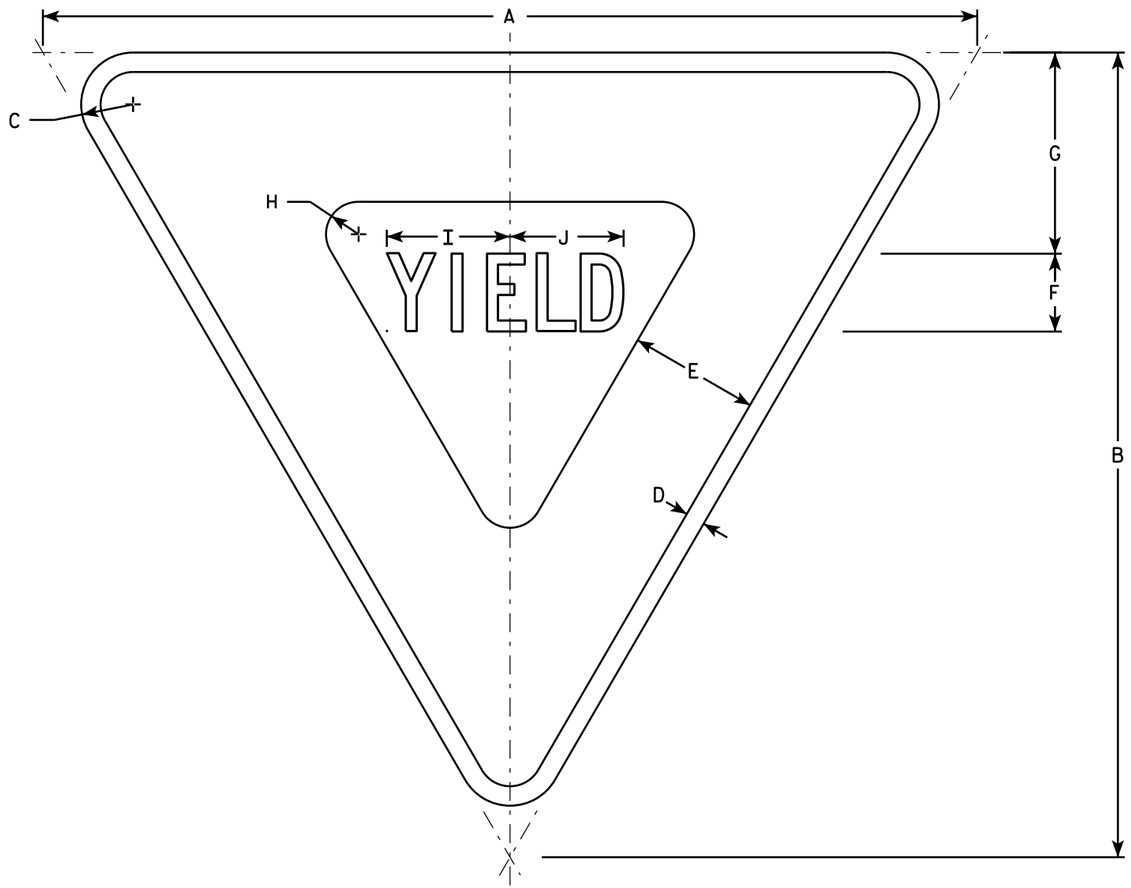
STANDARD SIGN
R1-1

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: 151	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

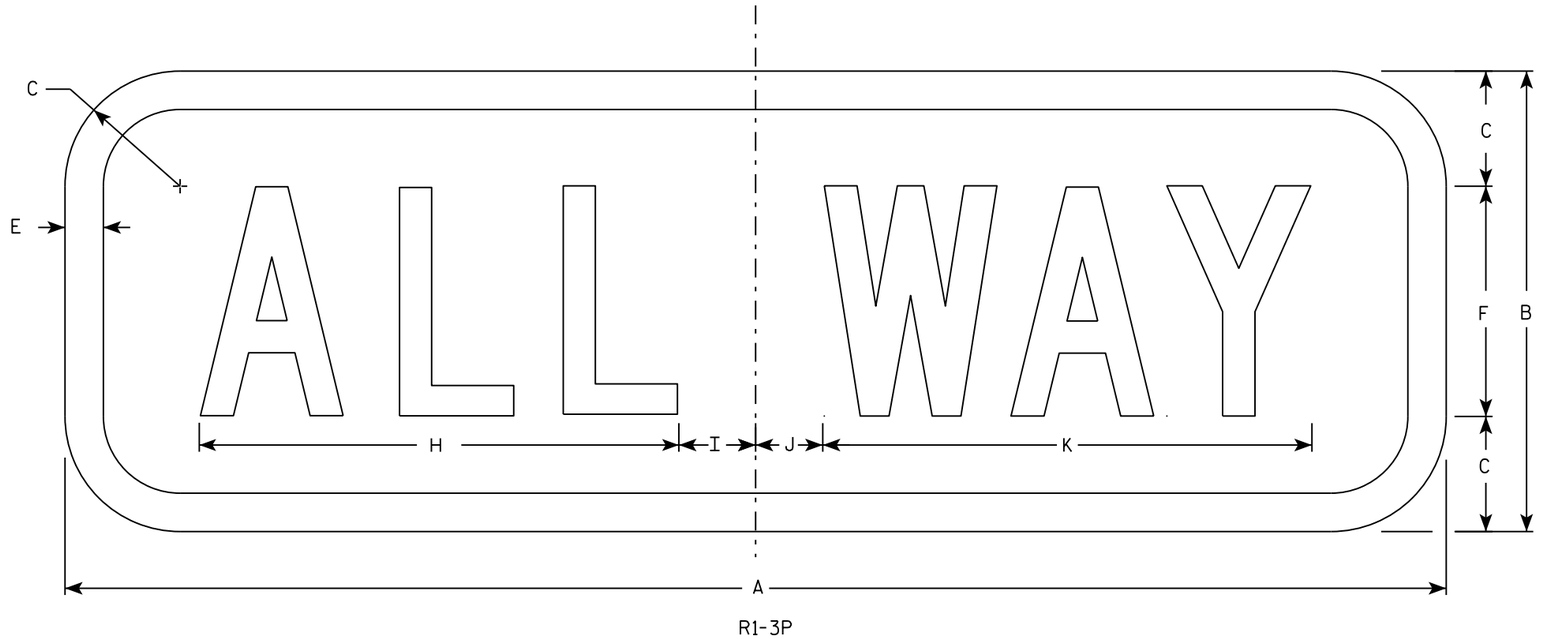
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R1-3P

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. For 30"x30" R1-1 use 18"x6" R1-3P sign
   For 36"x36" R1-1 use 24"x9" R1-3P sign
   For 48"x48" R1-1 use 30"x12" R1-3P sign

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	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

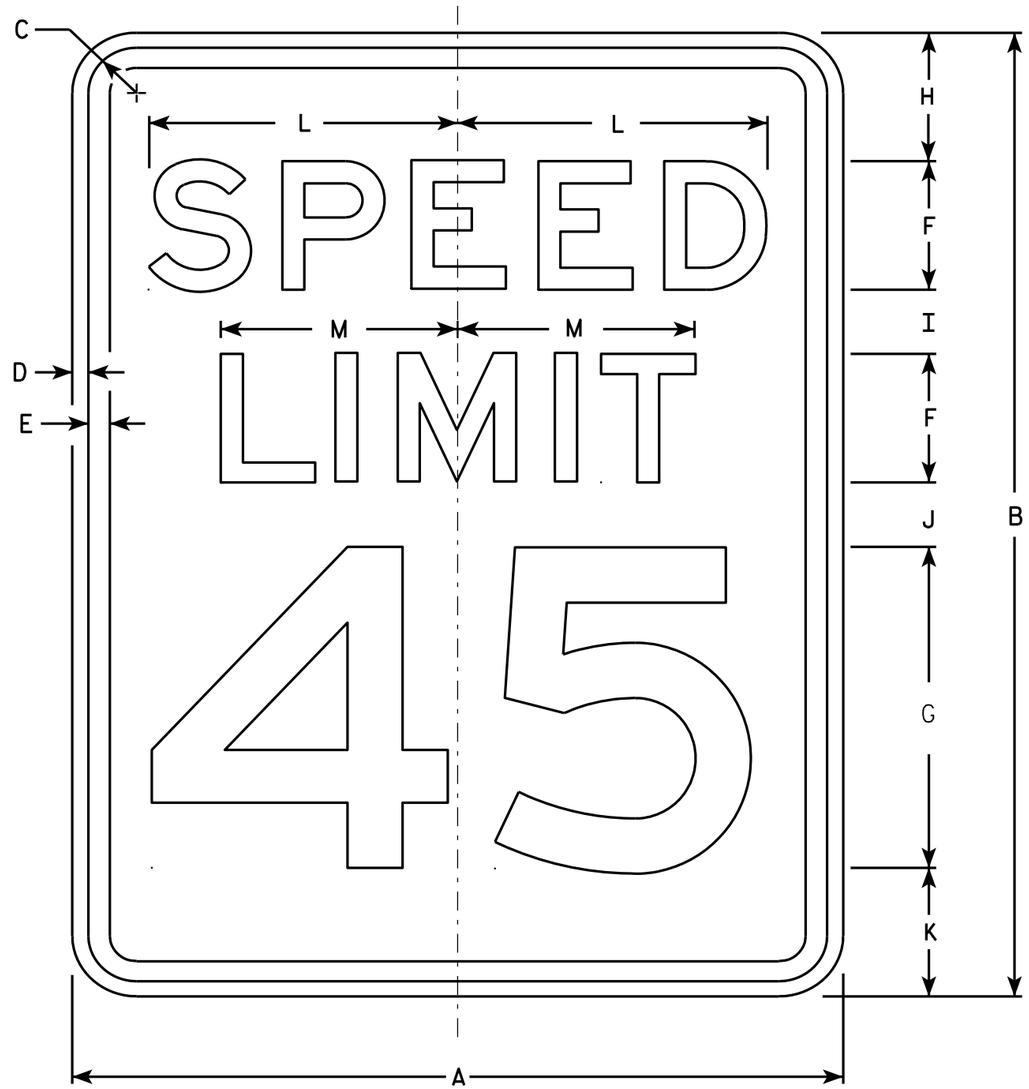
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R1-3P.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	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

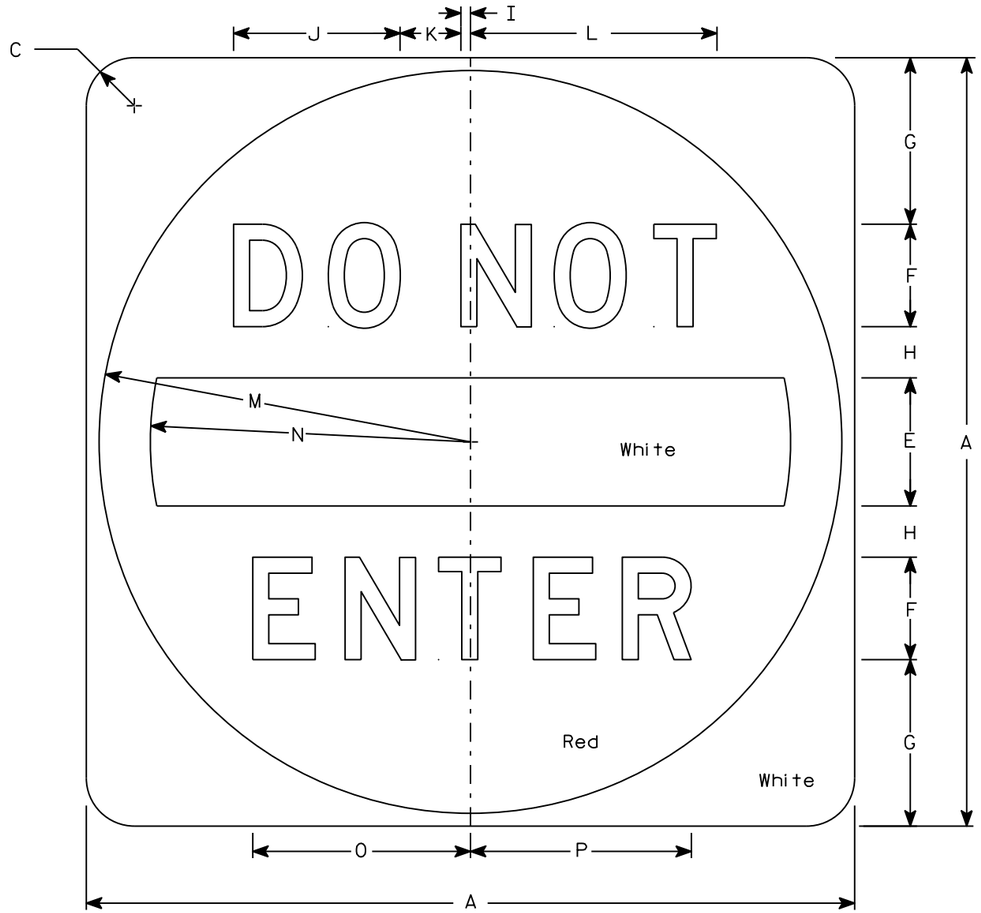
STANDARD SIGN
R2-1

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: 154	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

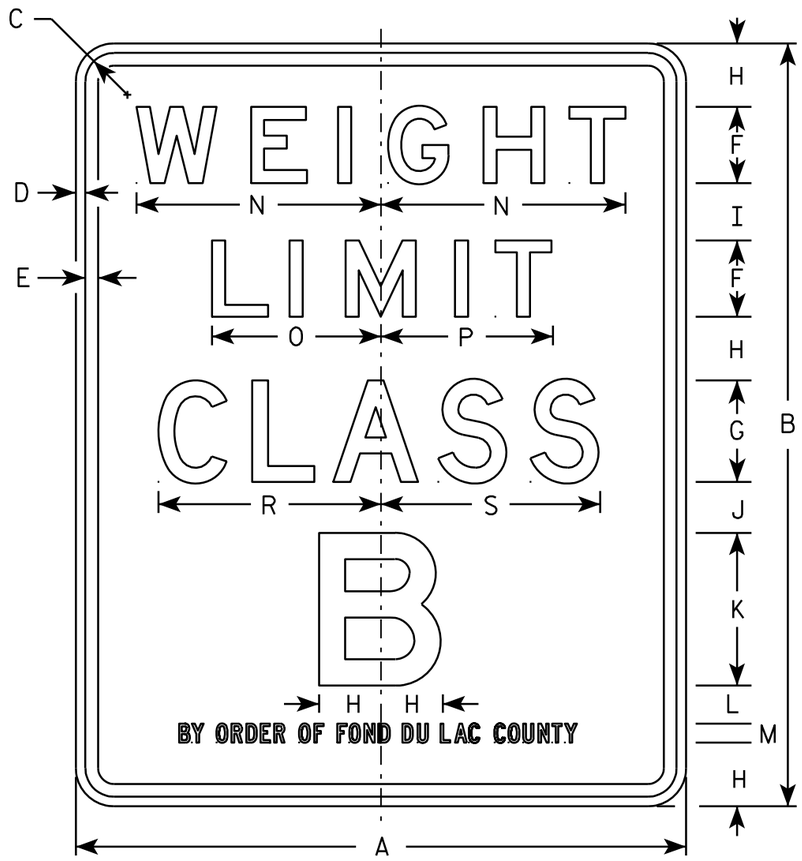
STANDARD SIGN
R5-1

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: 155 | E



R12-53

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 - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 2 & 4 are Series E.
   Line 3 is Series D.
   Line 5 is Series C.
6. Line 5 of the sign shall vary with the name of the maintaining authority.

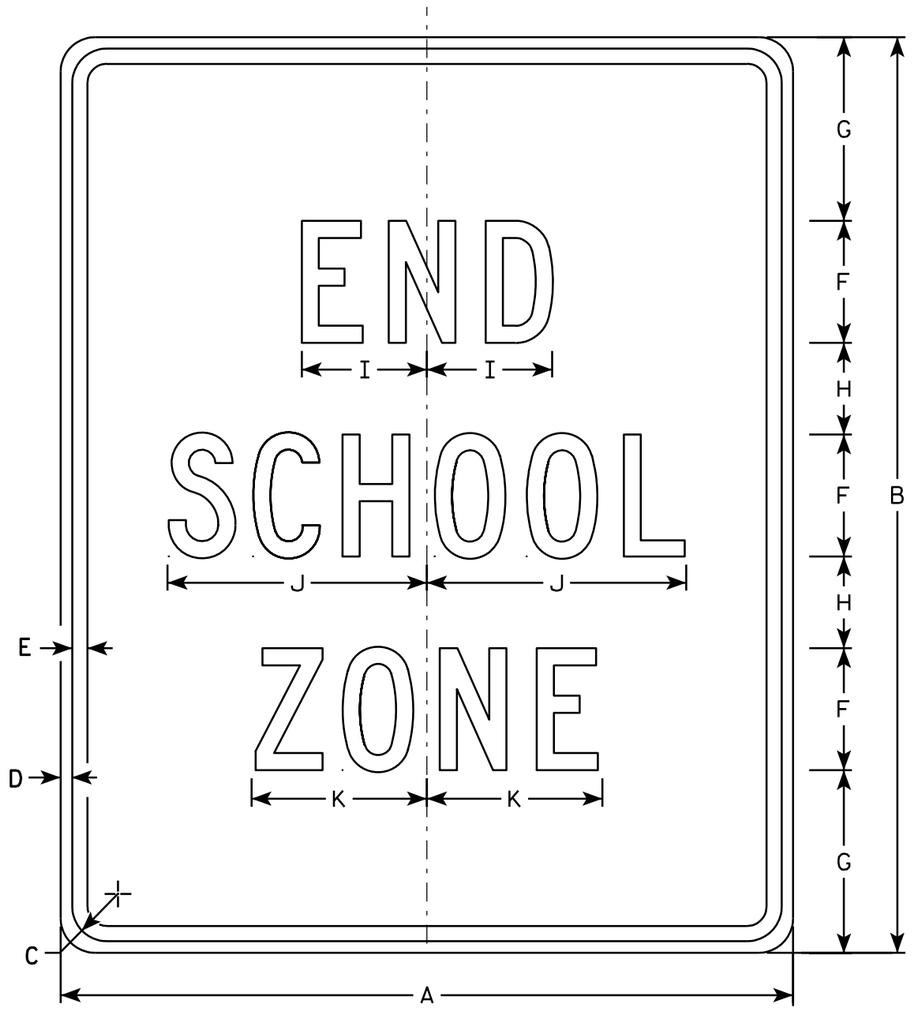
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	3	4	2 1/2	2 1/4	2	6	1 1/2	3/4	9 5/8	6 5/8	6 3/4		8 3/4	8 5/8								5.0
2M	24	30	1 1/8	3/8	1/2	3	4	2 1/2	2 1/4	2	6	1 1/2	3/4	9 5/8	6 5/8	6 3/4		8 3/4	8 5/8								5.0
3																											
4																											
5																											

STANDARD SIGN
R12-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R12-53.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 156 | E



S5-2

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 - 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	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

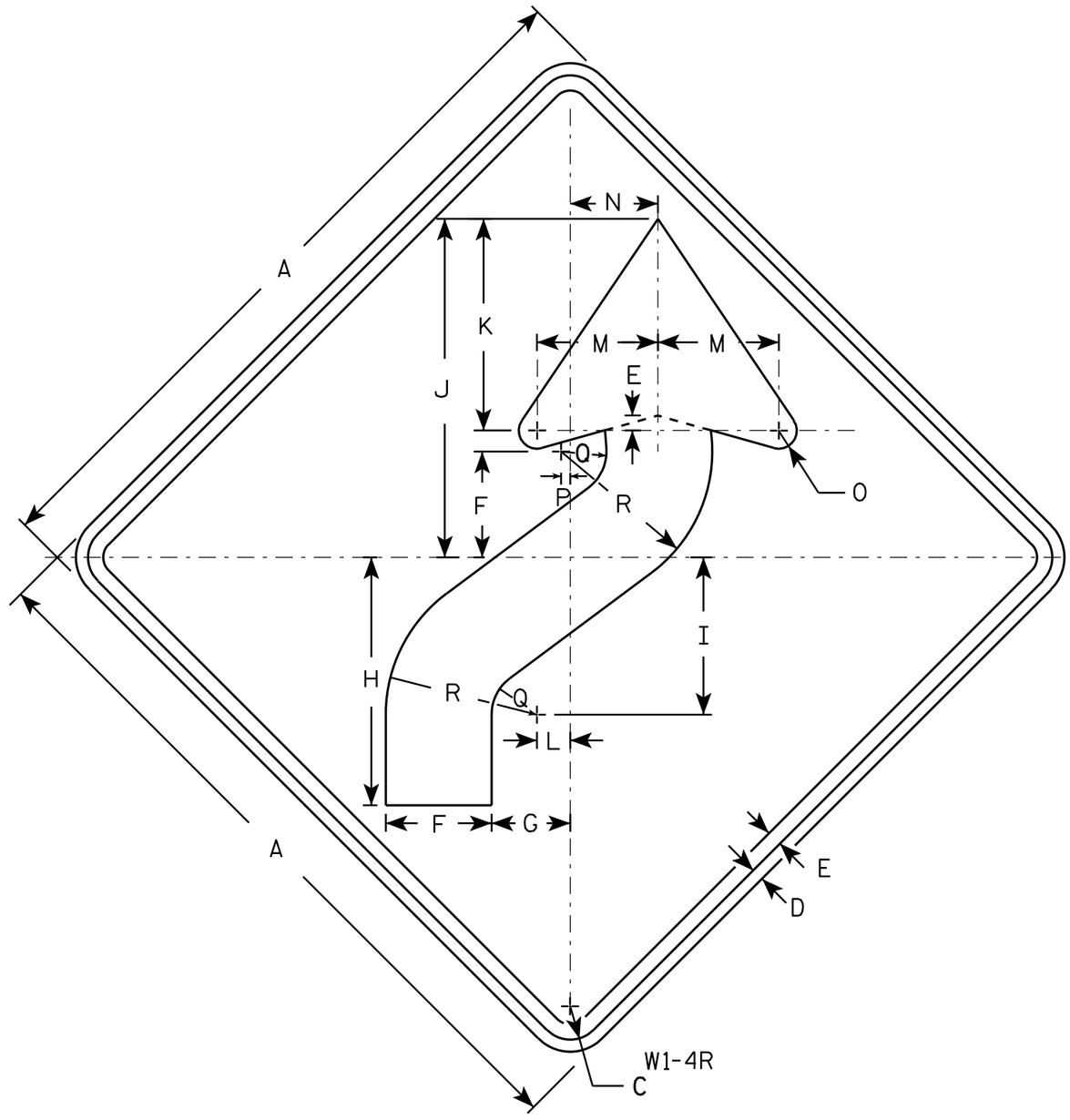
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 157 | 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. W1-4L is the same as W1-4R 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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	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
3	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
4	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
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

W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

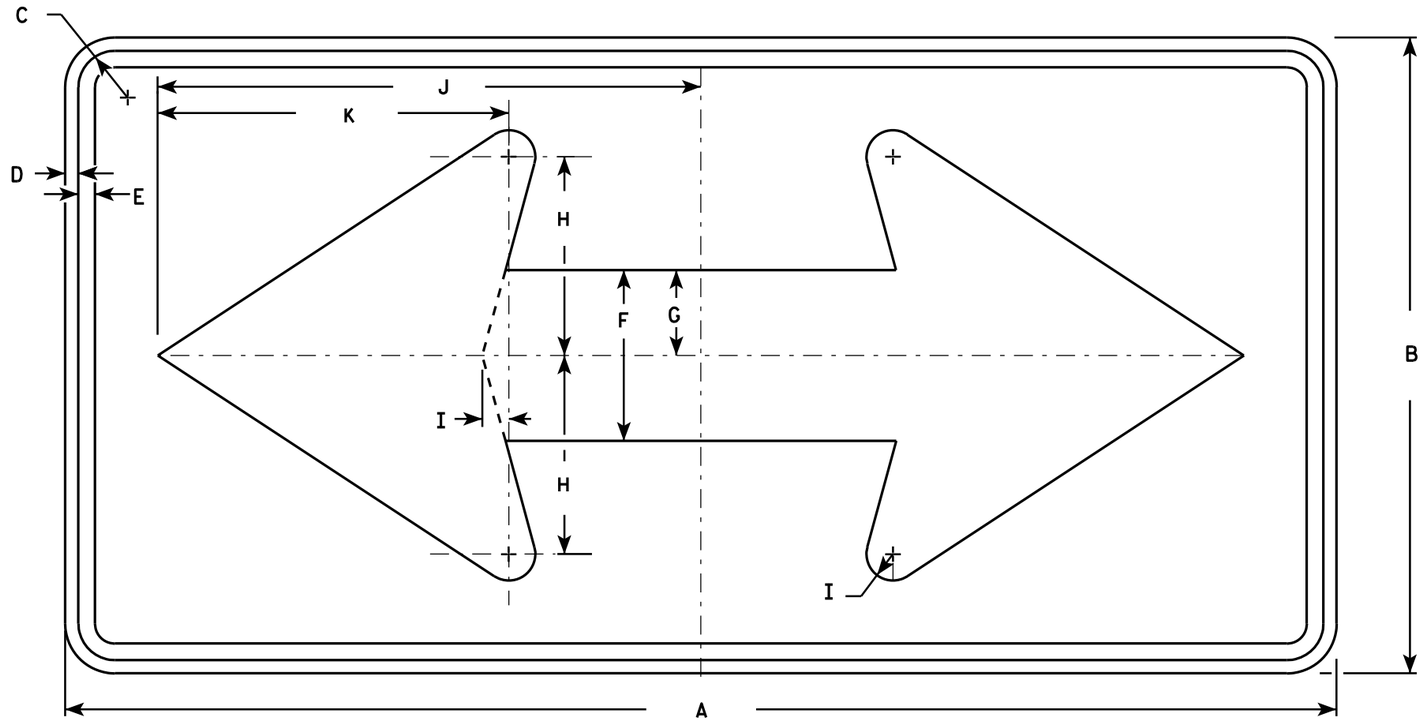
DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 158 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W14.DGN PLOT DATE : 17-MAY-2012 13:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.706180:1.000000

WISDOT/CADDS SHEET 42



W1-7

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 - 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	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
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	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

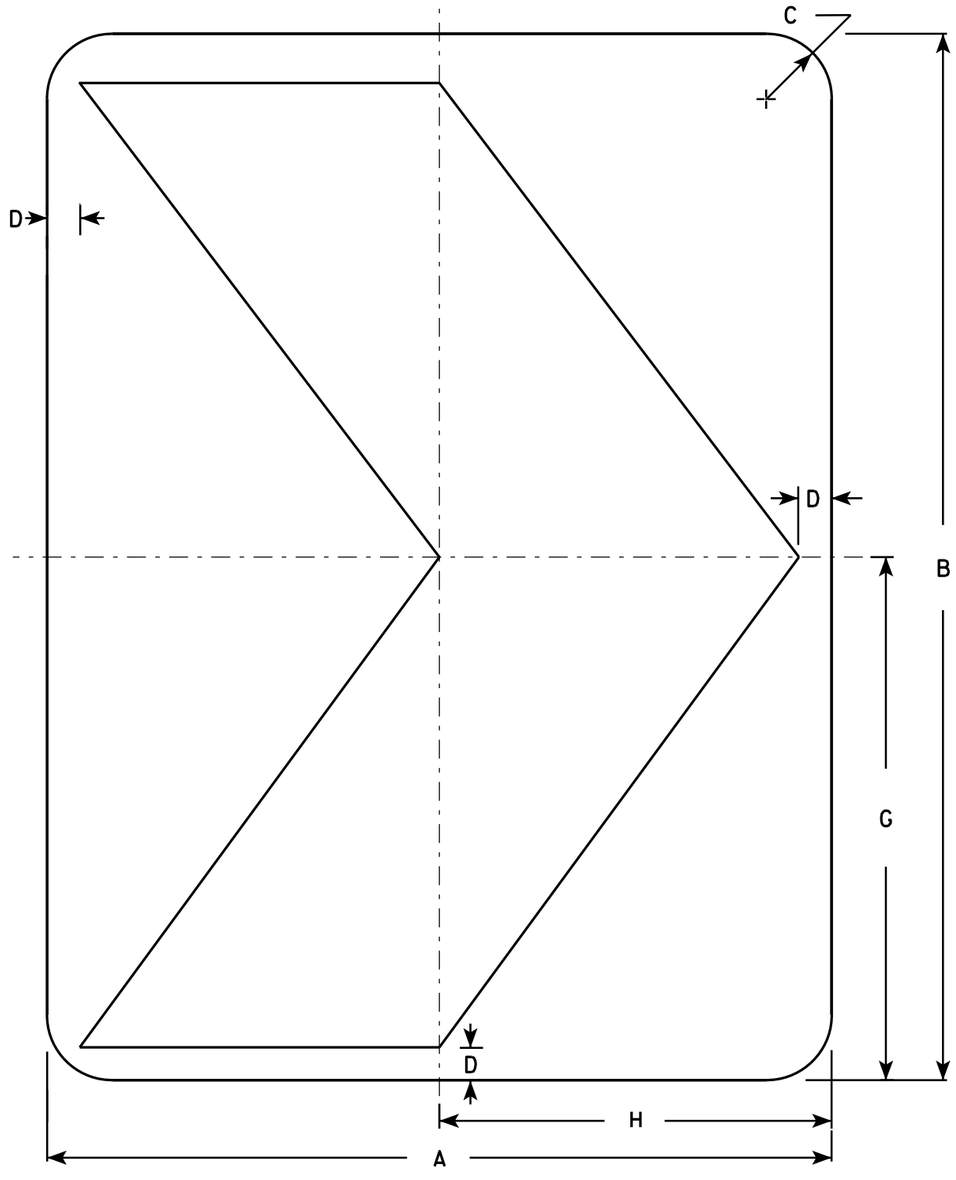
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 159 | 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.

W1-8

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	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

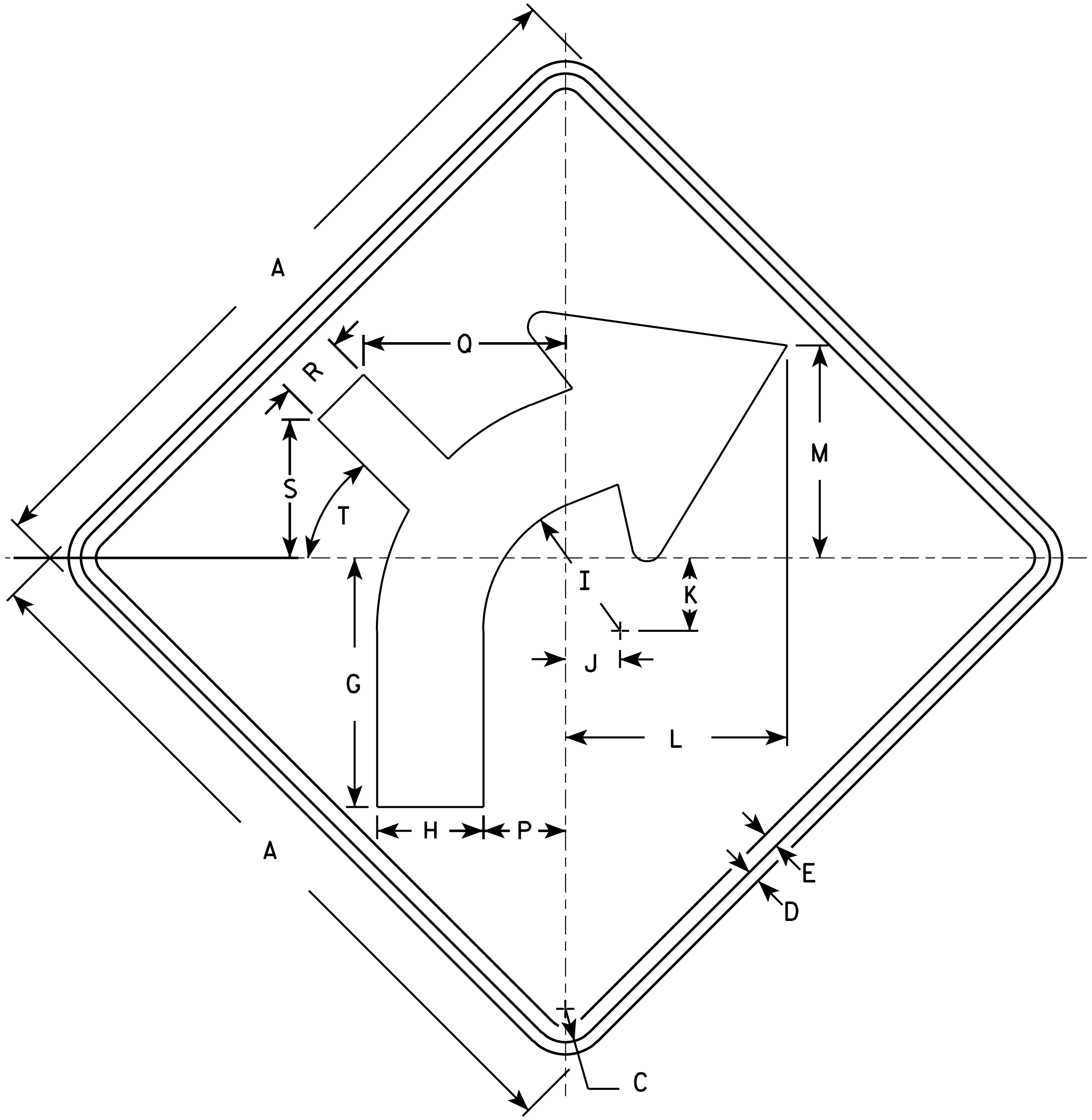
DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

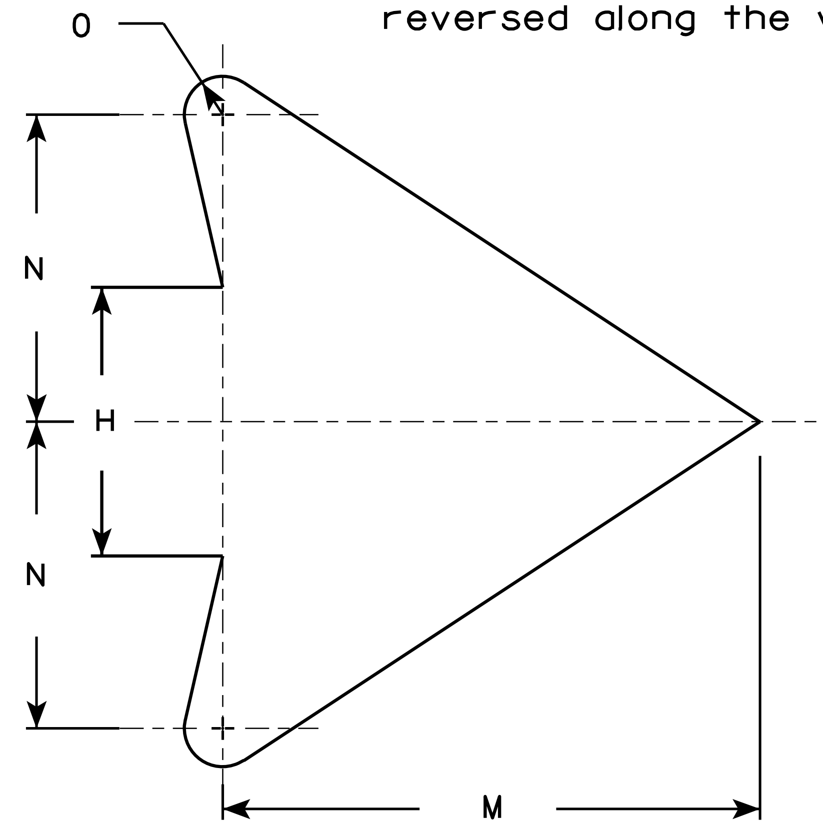
SHEET NO: 160 E

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. W1-10L is the same as W1-10R except the arrow is reversed along the vertical centerline.



W1-10R



ARROW DETAIL

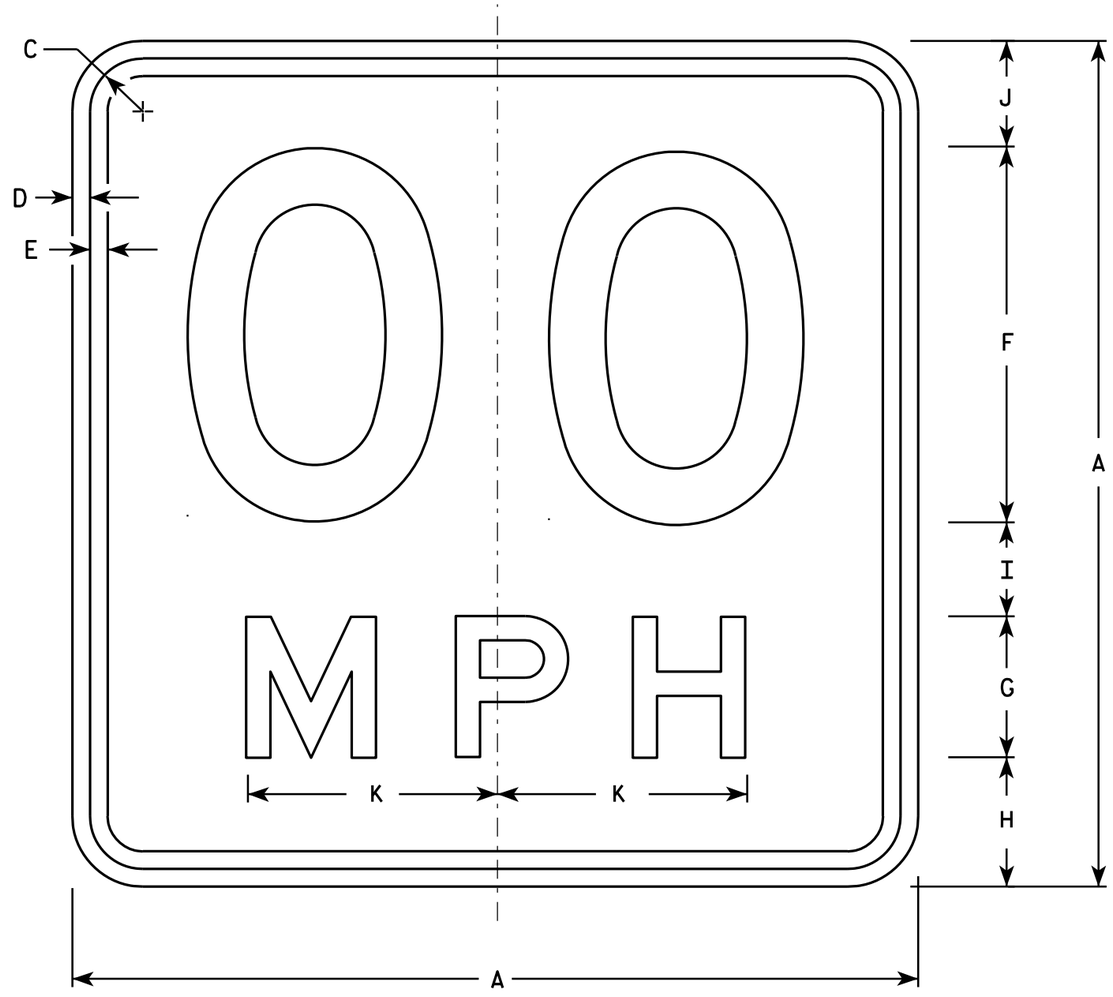
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2	2 5/8	6 5/8	2 1/8	4 1/2	45°							4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8	3 3/8	8 3/8	2 5/8	5 3/4	45°							6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1	5 3/8	13 1/4	4 1/4	9 1/8	45°							16.0

STANDARD SIGN
W1-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-10.3



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

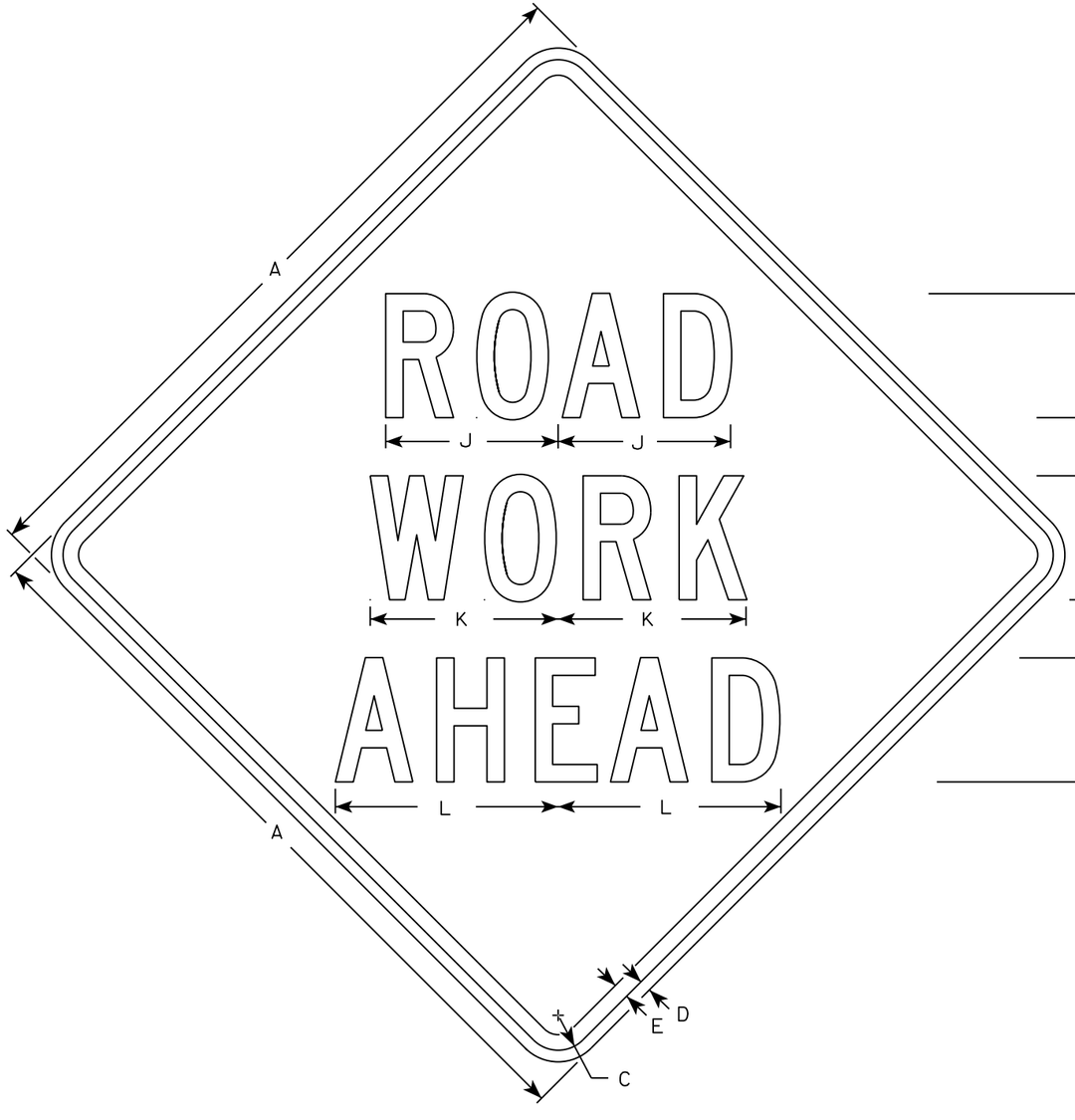
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

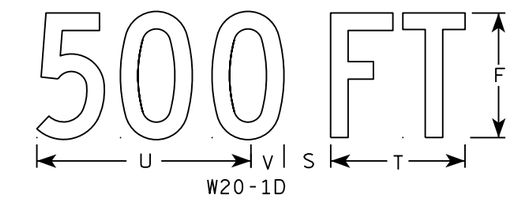
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

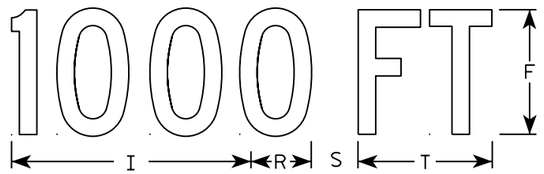
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 162 | E



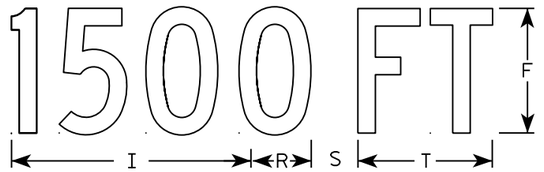
W20-1A



W20-1D

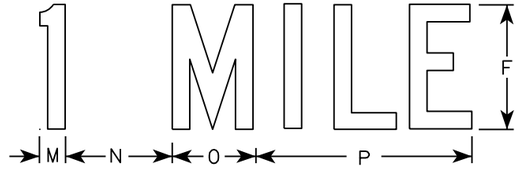


W20-1C

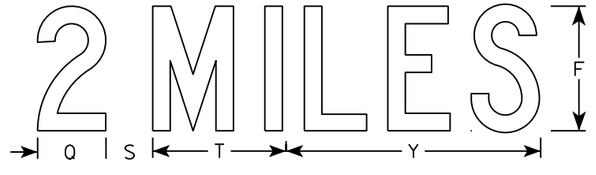


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

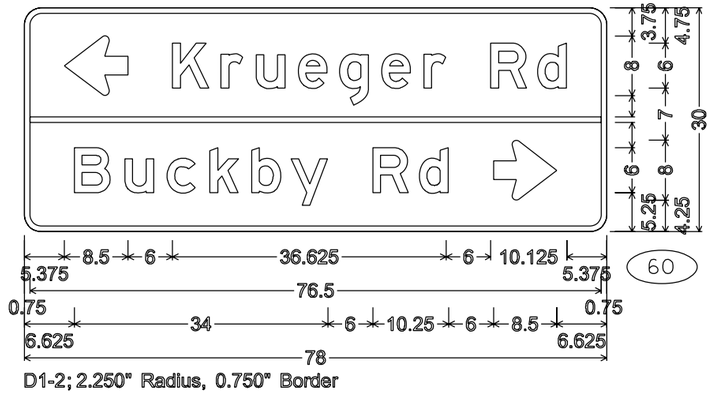
PROJECT NO:

SHEET NO: E

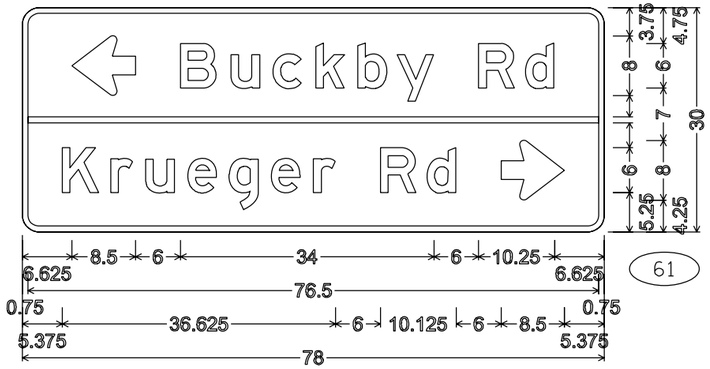
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-2; 2.250" Radius, 0.750" Border



D1-2; 2.250" Radius, 0.750" Border

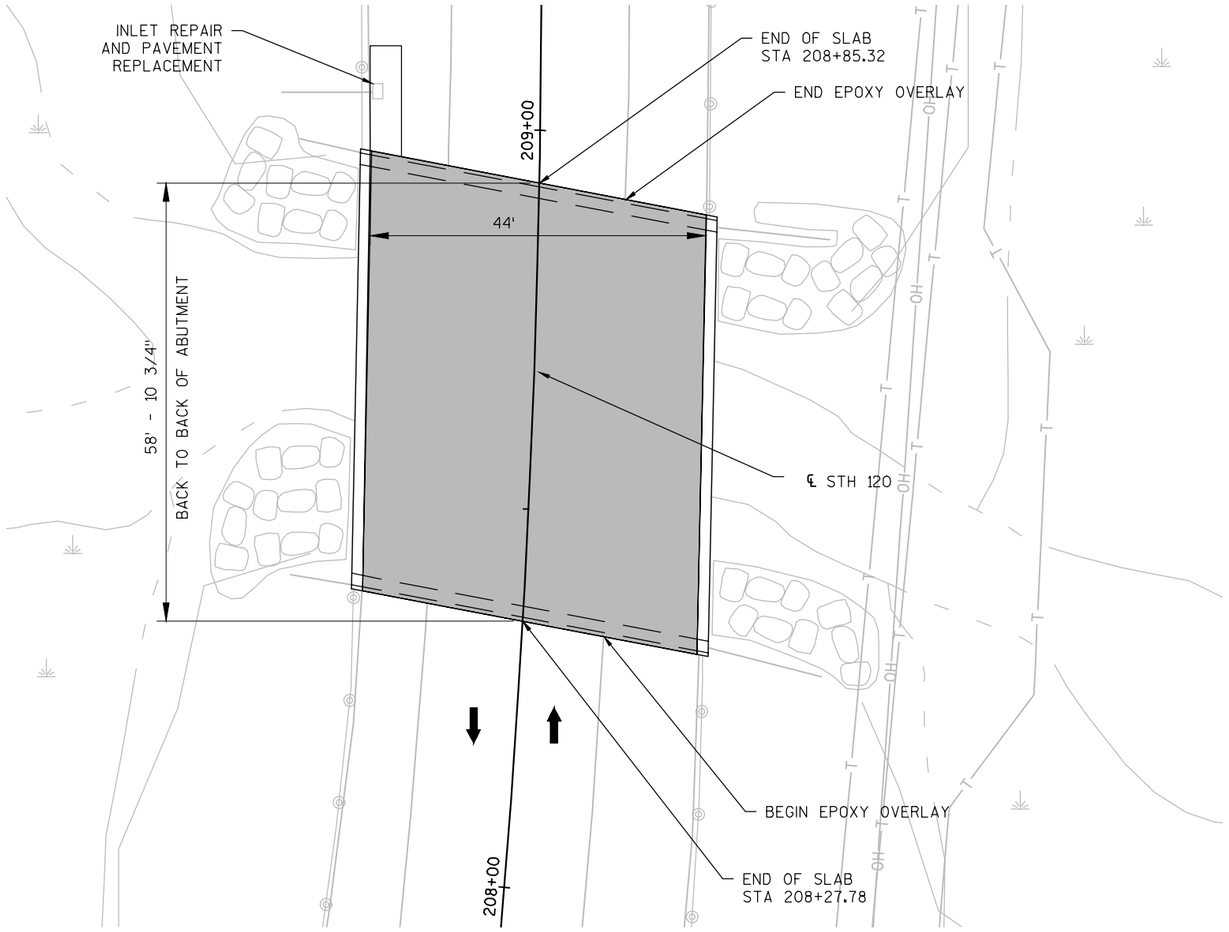
7

7

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET NO: 164	E

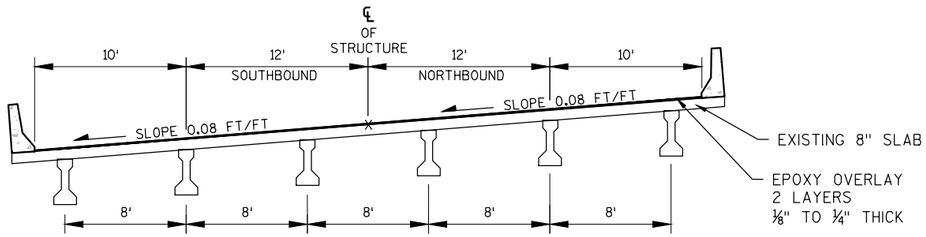
STATE PROJECT NUMBER

3190-08-70



PLAN

SINGLE SPAN - 36" PRESTRESSED GIRDERS



ELEVATION

LOOKING NORTH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

DESIGN DATA

LIVELOAD:
- DESIGN RATING: HS-20
- INVENTORY RATING: HS-22
- OPERATIONAL RATING: HS-38

ULTIMATE DESIGN STRESSES
- CONCRETE MASONRY SUBSTRUCTURE f'c: = 4000 PSI

TRAFFIC DATA
- ADT (2015) = 6200
- ADT (2035) = 7400
- DESIGN SPEED = 55 MPH

LIST OF DRAWINGS
1. EPOXY OVERLAY

TOTAL ESTIMATED QUANTITES

509.5100.S	POLYMER OVERLAY	288 SY

NO.	DATE	REVISION	BY

DONOHUE

3311 WEEDEN CREEK ROAD, SHEBOYGAN, WI, 53081 920-208-0296

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-81

STH 120 OVER ORE CREEK

COUNTY	TOWN/CITY/VILLAGE
WALWORTH	LYONS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY TJM	PLANS CK'D. RGL

EPOXY OVERLAY

SHEET 1 OF 1

165

I.D. 3190-08-70 DATE:

SCALE = 1 IN: 20 FT

8

8

STH 120
STA 158+80 - 181+96

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
158+79.814	37.72	0	0	0	0	0	0	0	0
159+00.000	38.02	28.31	28.31	0	0	28.31	28.31	0	28.31
159+30.682	46.36	47.94	47.94	0	0	76.26	76.26	0	76.26
159+48.111	45.06	29.51	29.51	0	0	105.76	105.76	0	105.76
160+00.000	50.09	91.43	91.43	0	0	197.19	197.19	0	197.19
160+05.707	50.09	10.59	10.59	0	0	207.77	207.77	0	207.77
160+20.000	50.09	26.51	26.51	0	0	234.29	234.29	0	234.29
160+50.000	48.24	54.62	54.62	0	0	288.91	288.91	0	288.91
161+00.000	50.08	91.04	91.04	0	0	379.95	379.95	0	379.95
161+50.000	58.27	100.33	100.33	0	0	480.28	480.28	0	480.28
162+00.000	56.63	106.4	106.4	0	0	586.68	586.68	0	586.68
162+50.000	44.2	93.36	93.36	0	0	680.04	680.04	0	680.04
163+00.000	45.21	82.79	82.79	0	0	762.83	762.83	0	762.83
163+50.000	40.25	79.13	79.13	0	0	841.96	841.96	0	841.96
164+00.000	40.99	75.22	75.22	0	0	917.18	917.18	0	917.18
164+50.000	36.6	71.84	71.84	0	0	989.02	989.02	0	989.02
165+00.000	10.33	43.45	43.45	0	0	1032.48	1032.48	0	1032.48
165+50.000	10.33	19.13	19.13	0	0	1051.6	1051.6	0	1051.6
166+00.000	10.33	19.13	19.13	0	0	1070.73	1070.73	0	1070.73
166+50.000	10.33	19.13	19.13	0	0	1089.86	1089.86	0	1089.86
167+00.000	10.33	19.13	19.13	0	0	1108.99	1108.99	0	1108.99
167+25.000	10.33	9.56	9.56	0	0	1118.55	1118.55	0	1118.55
167+50.000	10.33	9.56	9.56	0	0	1128.11	1128.11	0	1128.11
168+00.000	10.33	19.13	19.13	0	0	1147.24	1147.24	0	1147.24
168+50.000	10.33	19.13	19.13	0	0	1166.37	1166.37	0	1166.37
169+00.000	10.33	19.13	19.13	0	0	**1185.5**	1185.5	**0**	1185.5

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol.	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
171+50.000	23.16	0	0	0	0	0	0	0	0
172+00.000	19.14	39.16	39.16	0	0	39.16	39.16	0	39.16
172+15.000	28.36	13.19	13.19	0	0	52.36	52.36	0	52.36
172+65.000	32.36	56.22	56.22	0	0	108.58	108.58	0	108.58
172+95.003	34.75	37.29	37.29	0	0	145.87	145.87	0	145.87
173+00.000	23.88	5.43	5.43	0	0	151.29	151.29	0	151.29
173+75.000	34.75	81.43	81.43	0	0	232.72	232.72	0	232.72
174+00.000	34.75	32.18	32.18	0	0	264.9	264.9	0	264.9
174+50.000	34.75	64.35	64.35	0	0	329.25	329.25	0	329.25
175+00.000	23.88	54.29	54.29	0	0	383.53	383.53	0	383.53
175+15.605	60.82	24.48	24.48	0	0	408.01	408.01	0	408.01
175+50.000	35.06	61.07	61.07	0	0	469.08	469.08	0	469.08
175+83.190	71.24	65.34	65.34	0	0	534.42	534.42	0	534.42
175+95.046	89.03	35.19	35.19	0	0	569.61	569.61	0	569.61
176+00.000	62.63	13.91	13.91	6.72	0.62	583.52	583.52	0.62	582.91
176+70.289	38.87	132.11	132.11	0	8.74	715.64	715.64	9.36	706.28
177+00.000	100.68	76.78	76.78	0	0	792.42	792.42	9.36	783.06
177+45.640	45.43	123.49	123.49	43.41	36.69	915.91	915.91	46.05	869.86
178+00.000	41.18	87.18	87.18	0	43.7	1003.09	1003.09	89.75	913.34
178+50.000	34.75	70.31	70.31	0	0	1073.4	1073.4	89.75	983.65
179+00.000	34.75	64.35	64.35	0	0	1137.76	1137.76	89.75	1048
179+50.000	34.75	64.35	64.35	0	0	1202.11	1202.11	89.75	1112.36
180+00.000	23.88	54.29	54.29	0	0	1256.39	1256.39	89.75	1166.64
180+45.661	33.09	48.17	48.17	0	0	1304.56	1304.56	89.75	1214.81
181+00.000	30.41	63.9	63.9	0	0	1368.46	1368.46	89.75	1278.71
181+45.749	18.88	41.76	41.76	0	0	1410.22	1410.22	89.75	1320.46
181+76.765	24.27	24.78	24.78	0	0	1435	1435	89.75	1345.25
181+95.774	16.29	14.28	14.28	0	0	**1449.28**	1449.28	**89.75**	1359.53

9

9

PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	EARTHWORK QUANTITIES	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 090101_ew
PLOT DATE : 8/16/2019 2:06 PM
PLOT BY : GRUNWALD, BEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

STH 120
STA 182+00 - 194+50

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
182+00.000	16.42	0	0	0	0	0	0	0	0
182+50.000	22.66	36.19	36.19	0	0	36.19	36.19	0	36.19
183+00.000	10.33	30.55	30.55	0	0	66.74	66.74	0	66.74
183+50.000	10.33	19.13	19.13	0	0	85.87	85.87	0	85.87
184+00.000	10.33	19.13	19.13	0	0	104.99	104.99	0	104.99
184+50.000	10.33	19.13	19.13	0	0	124.12	124.12	0	124.12
185+00.000	10.33	19.13	19.13	0	0	143.25	143.25	0	143.25
185+50.000	10.33	19.13	19.13	0	0	162.38	162.38	0	162.38
186+00.000	10.33	19.13	19.13	0	0	181.5	181.5	0	181.5
186+50.000	10.33	19.13	19.13	0	0	200.63	200.63	0	200.63
187+00.000	10.33	19.13	19.13	0	0	219.76	219.76	0	219.76
187+50.000	10.33	19.13	19.13	0	0	238.89	238.89	0	238.89
188+00.000	10.33	19.13	19.13	0	0	258.02	258.02	0	258.02
188+50.000	10.33	19.13	19.13	0	0	277.14	277.14	0	277.14
189+00.000	10.33	19.13	19.13	0	0	296.27	296.27	0	296.27
189+50.000	10.33	19.13	19.13	0	0	315.4	315.4	0	315.4
190+00.000	10.33	19.13	19.13	0	0	334.53	334.53	0	334.53
190+50.000	10.33	19.13	19.13	0	0	353.65	353.65	0	353.65
191+00.000	10.33	19.13	19.13	0	0	372.78	372.78	0	372.78
191+50.000	10.33	19.13	19.13	0	0	391.91	391.91	0	391.91
192+00.000	10.33	19.13	19.13	0	0	411.04	411.04	0	411.04
192+50.000	10.33	19.13	19.13	0	0	430.16	430.16	0	430.16
193+00.000	10.33	19.13	19.13	0	0	449.29	449.29	0	449.29
193+50.000	10.33	19.13	19.13	0	0	468.42	468.42	0	468.42
194+00.000	10.33	19.13	19.13	0	0	487.55	487.55	0	487.55
194+50.000	10.33	19.13	19.13	0	0	**506.68**	506.68	**0**	506.68

9

9

PROJECT NO: 3190-08-00 | HWY: STH 120 | COUNTY: WALWORTH | EARTHWORK QUANTITIES | SHEET E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 090102_ew

PLOT DATE : 8/16/2019 2:06 PM PLOT BY : GRUNWALD, BEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

STH 120
STA 194+70 - 229+47

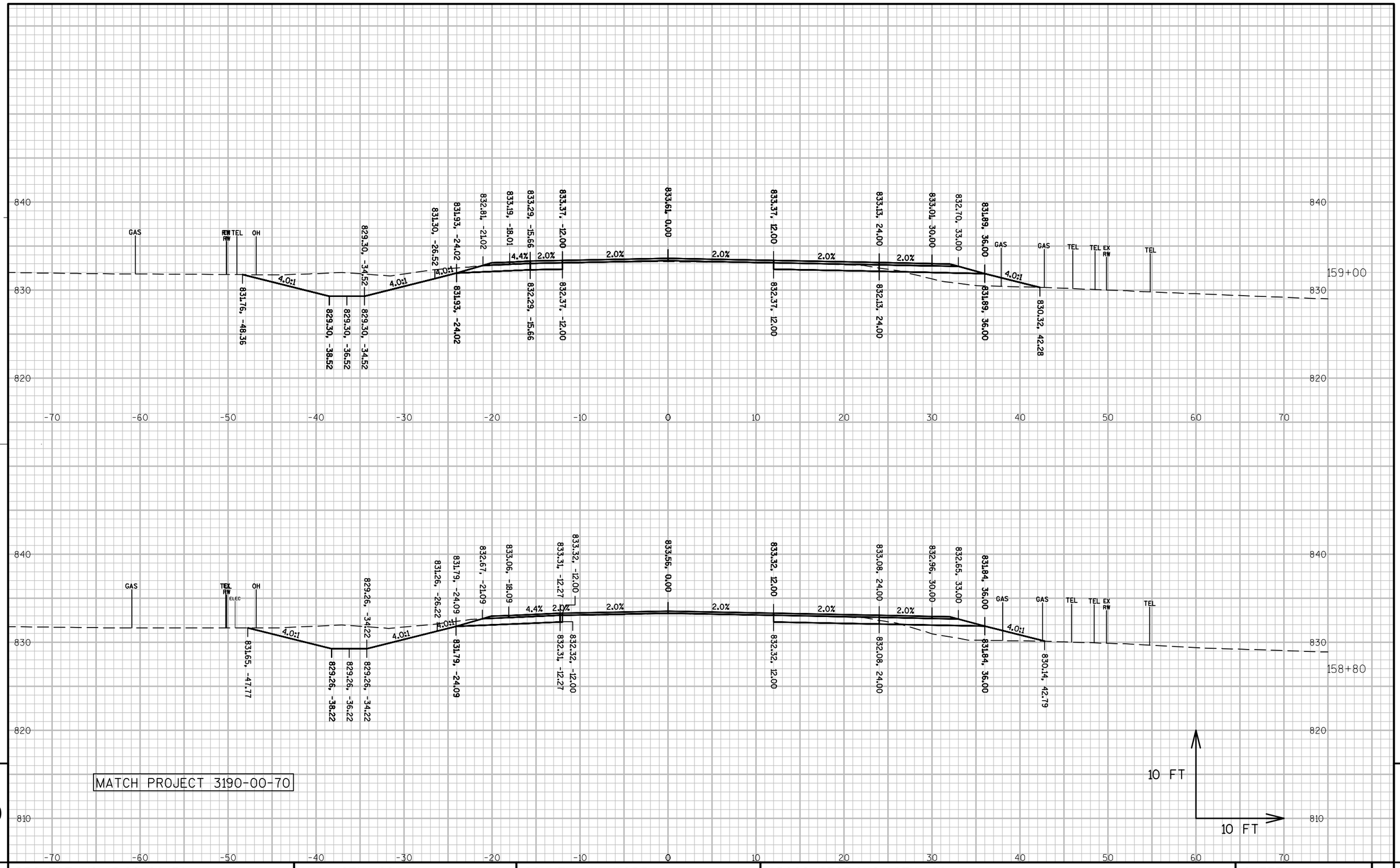
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
194+70.000	41.66	0	0	0	0	0	0	0	0
195+00.000	43.32	47.21	47.21	0	0	47.21	47.21	0	47.21
195+50.000	46.08	82.77	82.77	0	0	129.98	129.98	0	129.98
196+00.000	32.88	73.11	73.11	0	0	203.09	203.09	0	203.09
196+50.000	42.5	69.79	69.79	0	0	272.88	272.88	0	272.88
197+00.000	50.56	86.17	86.17	0	0	359.05	359.05	0	359.05
197+50.000	61.39	103.66	103.66	0	0	462.71	462.71	0	462.71
197+69.620	34.61	34.88	34.88	0	0	497.59	497.59	0	497.59
198+00.000	61.91	54.3	54.3	0	0	551.88	551.88	0	551.88
198+40.240	74.87	101.92	101.92	0	0	653.81	653.81	0	653.81
198+50.000	77.09	27.47	27.47	0	0	681.27	681.27	0	681.27
199+00.000	43.95	112.07	112.07	0	0	793.35	793.35	0	793.35
199+40.520	54.82	74.11	74.11	0	0	867.46	867.46	0	867.46
200+00.000	42.12	106.78	106.78	0	0	974.23	974.23	0	974.23
200+50.000	41.91	77.8	77.8	0	0	1052.04	1052.04	0	1052.04
201+00.000	45.78	81.2	81.2	0.18	0.16	1133.24	1133.24	0.16	1133.07
201+50.000	28.1	68.42	68.42	0	0.16	1201.65	1201.65	0.33	1201.33
202+00.000	34.45	57.92	57.92	0	0	1259.57	1259.57	0.33	1259.25
202+58.510	27.97	67.63	67.63	0	0	1327.21	1327.21	0.33	1326.88
203+00.000	13.9	32.17	32.17	0	0	1359.38	1359.38	0.33	1359.05
203+26.630	13.94	13.73	13.73	0	0	1373.11	1373.11	0.33	1372.78
204+00.000	13.94	37.88	37.88	0	0	1410.99	1410.99	0.33	1410.66
204+69.900	12.32	33.99	33.99	0	0	1444.98	1444.98	0.33	1444.66
204+96.100	11.49	11.56	11.56	0	0	1456.54	1456.54	0.33	1456.21
205+00.000	11.45	1.66	1.66	0	0	1458.19	1458.19	0.33	1457.87
205+22.330	11.51	9.5	9.5	0	0	1467.69	1467.69	0.33	1467.36
205+50.000	11.53	11.81	11.81	0	0	1479.5	1479.5	0.33	1479.17
206+00.000	11.53	21.35	21.35	0	0	1500.85	1500.85	0.33	1500.52
206+20.000	11.53	8.54	8.54	0	0	1509.39	1509.39	0.33	1509.06
206+50.000	12.99	13.62	13.62	0	0	1523.01	1523.01	0.33	1522.68
206+93.500	14.03	21.77	21.77	0	0	1544.77	1544.77	0.33	1544.45
207+00.000	13.88	3.36	3.36	0	0	1548.13	1548.13	0.33	1547.81
207+20.490	13.44	10.37	10.37	0	0	1558.5	1558.5	0.33	1558.17
207+47.430	12.73	13.06	13.06	0	0	1571.55	1571.55	0.33	1571.23
208+00.000	12.73	24.78	24.78	0	0	1596.34	1596.34	0.33	1596.01
208+99.655	12.73	46.98	46.98	0	0	1643.32	1643.32	0.33	1642.99
209+50.000	12.72	23.72	23.72	0	0	1667.04	1667.04	0.33	1666.71
209+89.950	12.73	18.83	18.83	0	0	1685.87	1685.87	0.33	1685.54
210+00.000	12.9	4.77	4.77	0	0	1690.64	1690.64	0.33	1690.31
210+16.000	13.25	7.75	7.75	0	0	1698.38	1698.38	0.33	1698.05
210+42.080	14.03	13.17	13.17	0	0	1711.55	1711.55	0.33	1711.23
210+99.667	13.62	29.48	29.48	0	0	1741.03	1741.03	0.33	1740.7
211+02.100	13.86	1.24	1.24	0	0	1742.27	1742.27	0.33	1741.94
211+28.980	14.21	13.97	13.97	0	0	1756.24	1756.24	0.33	1755.91
211+45.000	12.57	7.94	7.94	0	0	1764.18	1764.18	0.33	1763.86
211+55.960	12.83	5.16	5.16	0	0	1769.34	1769.34	0.33	1769.01
212+00.000	11.78	20.07	20.07	0	0	1789.41	1789.41	0.33	1789.08
212+40.000	10.54	16.53	16.53	0	0	1805.94	1805.94	0.33	1805.61
212+46.030	10.33	2.33	2.33	0	0	**1808.27**	1808.27	**0.33**	1807.94
212+50.000	10.33	0	0	0	0	0	0	0	0
213+00.000	10.33	19.13	19.13	0	0	19.13	19.13	0	19.13
213+50.000	10.33	19.13	19.13	0	0	38.26	38.26	0	38.26
214+00.000	10.33	19.13	19.13	0	0	57.38	57.38	0	57.38
214+50.000	10.33	19.13	19.13	0	0	76.51	76.51	0	76.51
215+00.000	10.33	19.13	19.13	0	0	95.64	95.64	0	95.64
215+50.000	10.33	19.13	19.13	0	0	114.77	114.77	0	114.77
216+00.000	10.33	19.13	19.13	0	0	133.89	133.89	0	133.89
216+50.000	10.33	19.13	19.13	0	0	153.02	153.02	0	153.02
217+00.000	10.33	19.13	19.13	0	0	172.15	172.15	0	172.15
217+50.000	10.33	19.13	19.13	0	0	191.28	191.28	0	191.28
218+00.000	10.33	19.13	19.13	0	0	210.4	210.4	0	210.4
218+50.000	10.33	19.13	19.13	0	0	229.53	229.53	0	229.53
219+00.000	10.33	19.13	19.13	0	0	248.66	248.66	0	248.66
219+50.000	10.33	19.13	19.13	0	0	267.79	267.79	0	267.79
220+00.000	10.33	19.13	19.13	0	0	286.92	286.92	0	286.92
220+50.000	10.33	19.13	19.13	0	0	306.04	306.04	0	306.04
221+00.000	10.33	19.13	19.13	0	0	325.17	325.17	0	325.17
221+50.000	10.33	19.13	19.13	0	0	344.3	344.3	0	344.3
222+00.000	10.33	19.13	19.13	0	0	363.43	363.43	0	363.43
222+50.000	10.33	19.13	19.13	0	0	382.55	382.55	0	382.55
223+00.000	10.33	19.13	19.13	0	0	401.68	401.68	0	401.68
223+50.000	10.33	19.13	19.13	0	0	420.81	420.81	0	420.81
224+00.000	10.33	19.13	19.13	0	0	439.94	439.94	0	439.94
224+50.000	10.33	19.13	19.13	0	0	459.06	459.06	0	459.06
225+00.000	10.33	19.13	19.13	0	0	478.19	478.19	0	478.19
225+50.000	10.62	19.4	19.4	0	0	497.59	497.59	0	497.59
226+00.000	11.21	20.21	20.21	0	0	517.8	517.8	0	517.8
226+50.000	11.79	21.29	21.29	0	0	539.1	539.1	0	539.1
227+00.000	12.08	22.1	22.1	0	0	561.2	561.2	0	561.2
227+50.000	12.08	22.37	22.37	0	0	583.56	583.56	0	583.56
228+00.000	12.08	22.37	22.37	0	0	605.93	605.93	0	605.93
228+50.000	9.63	20.11	20.11	0	0	626.04	626.04	0	626.04
229+00.000	5.29	13.82	13.82	0	0	639.86	639.86	0	639.86
229+47.892	0.4	5.05	5.05	0	0	**644.91**	644.91	**0**	644.91
Overall Mainline Totals						**5594.64**	5594.64	**90.08**	5504.56

OAK LANE
STA 13+72 - 14+67

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
13+71.923	7.74	0	0	0	0	0	0	0	0
14+00.000	18.53	13.66	13.66	0	0	13.66	13.66	0	13.66
14+11.858	19.29	8.31	8.31	0	0	21.97	21.97	0	21.97
14+25.000	24.69	10.7	10.7	0	0	32.67	32.67	0	32.67
14+50.000	61.23	39.78	39.78	0	0	72.45	72.45	0	72.45
14+66.590	105.83	51.33	51.33	0	0	**123.77**	123.77	**0**	123.77

KRUEGER RD & BUCKBY RD
STA 8+49 - 12+60

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
8+49.000	8.99	0	0	0	0	0	0	0	0
8+66.275	17.1	8.35	8.35	0	0	8.35	8.35	0	8.35
8+75.000	17.58	5.6	5.6	0	0	13.95	13.95	0	13.95
8+76.831	17.68	1.2	1.2	0	0	15.15	15.15	0	15.15
8+90.039	18.4	8.83	8.83	0	0	23.97	23.97	0	23.97
9+00.000	18.95	6.89	6.89	0	0	30.86	30.86	0	30.86
9+15.676	20	11.31	11.31	0	0	42.17	42.17	0	42.17
9+25.000	23.1	7.44	7.44	0	0	49.61	49.61	0	49.61
9+50.000	43.7	30.92	30.92	0	0	80.54	80.54	0	80.54
10+75.000	12.82	130.82	130.82	0	0	211.36	211.36	0	211.36
10+78.797	12.49	1.78	1.78	0	0	213.14	213.14	0	213.14
11+00.000	28.29	16.01	16.01	0	0	229.15	229.15	0	229.15
11+50.000	6.03	31.78	31.78	0	0	260.93	260.93	0	260.93
12+00.000	0	5.59	5.59	0	0	266.52	266.52	0	266.52
12+50.000	0	0	0	0	0	266.52	266.52	0	266.52
12+60.174	0	0	0	0	0	**266.52**	266.52	**0**	266.52



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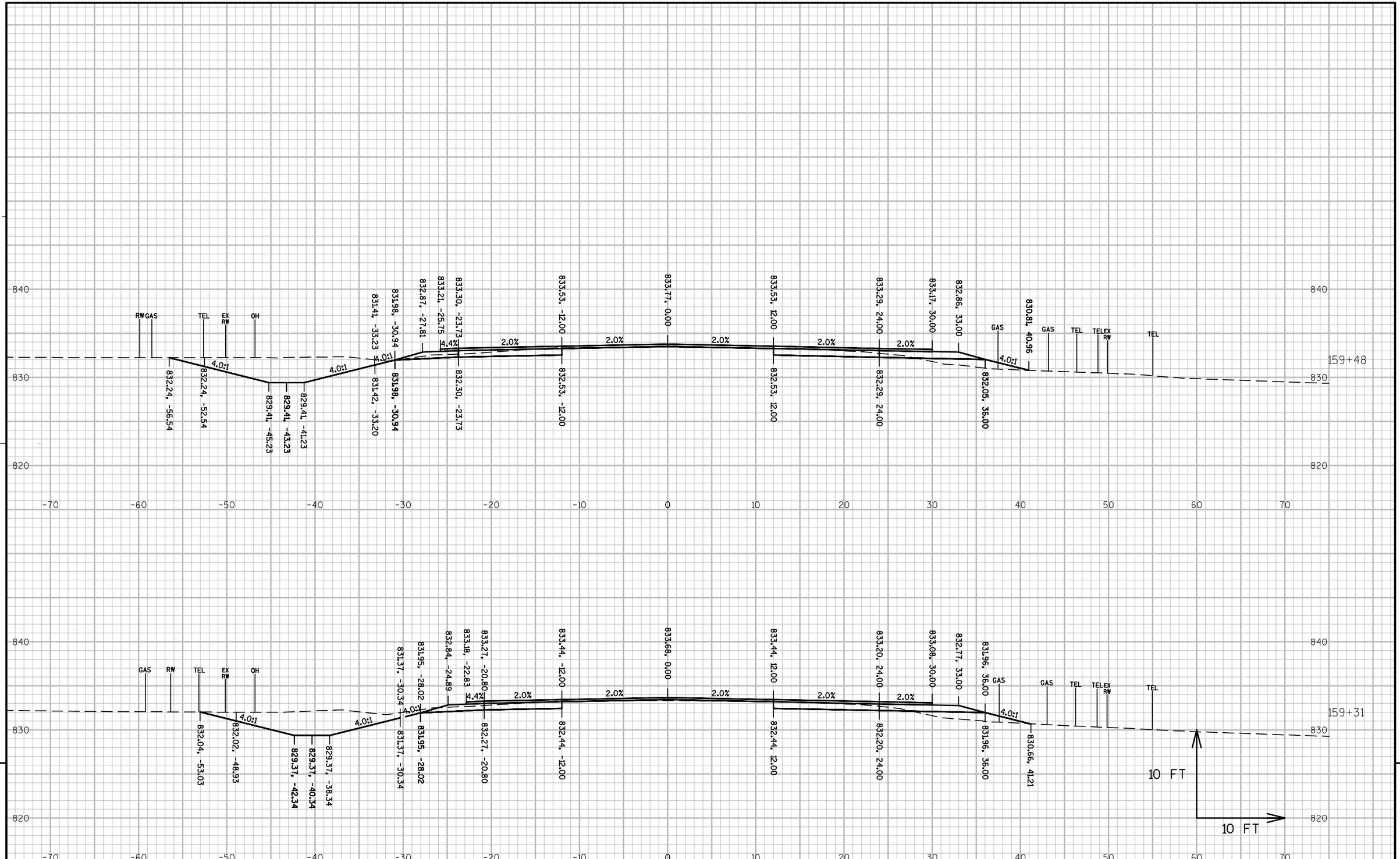
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 170	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 11:11 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

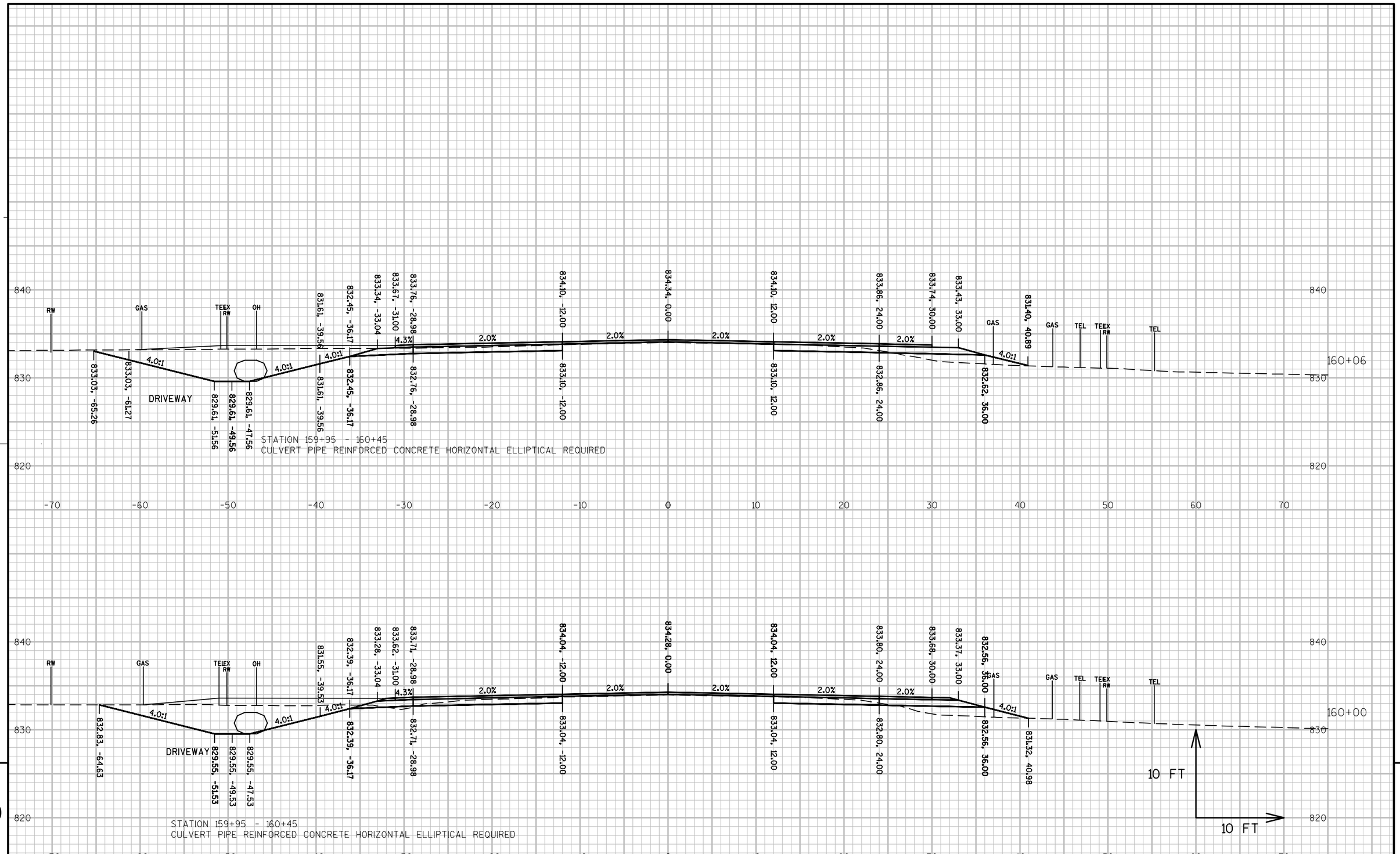


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 171	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (2)

PLOT DATE : 4/30/2019 11:11 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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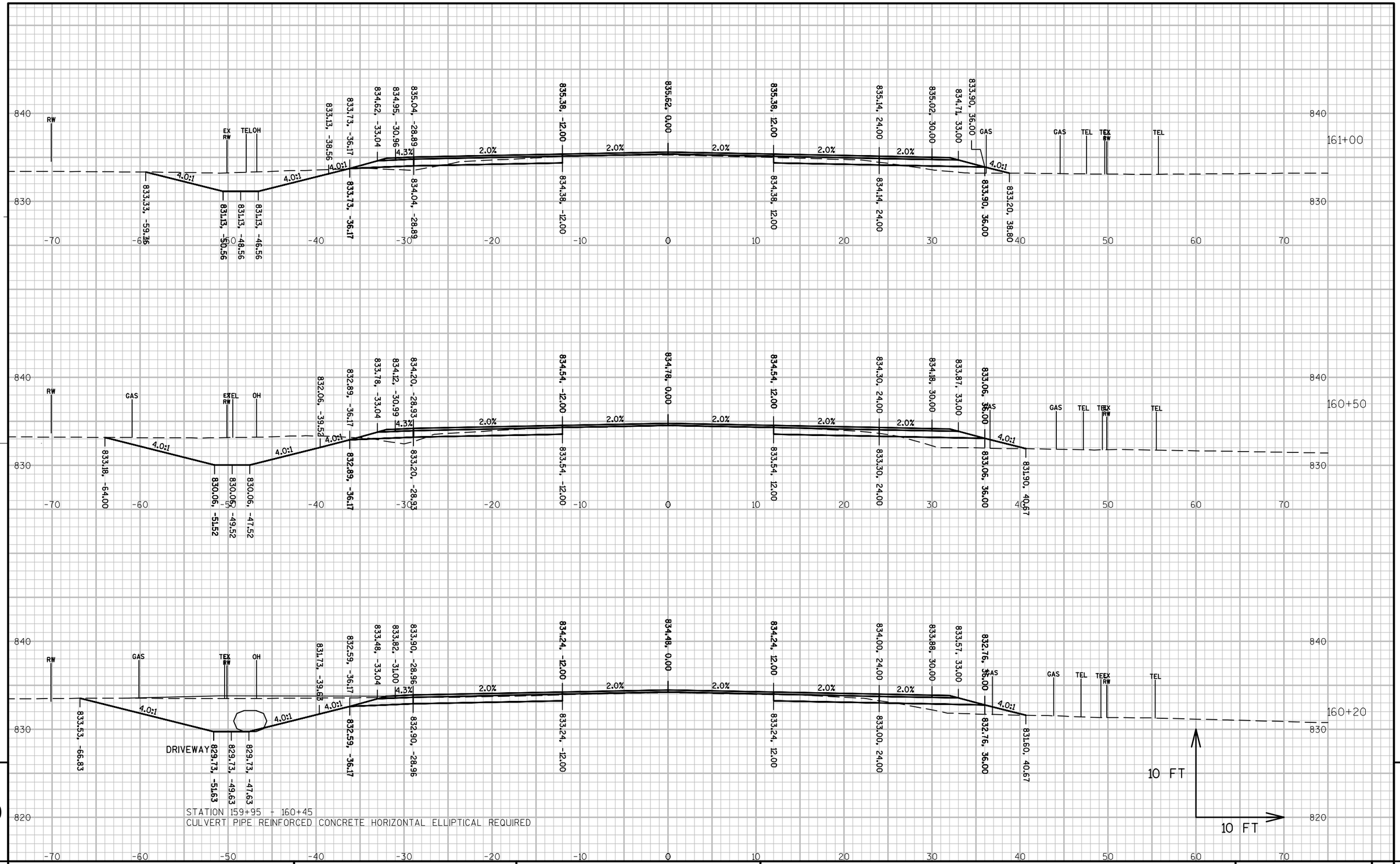
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (3)

PLOT DATE : 4/30/2019 11:11 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

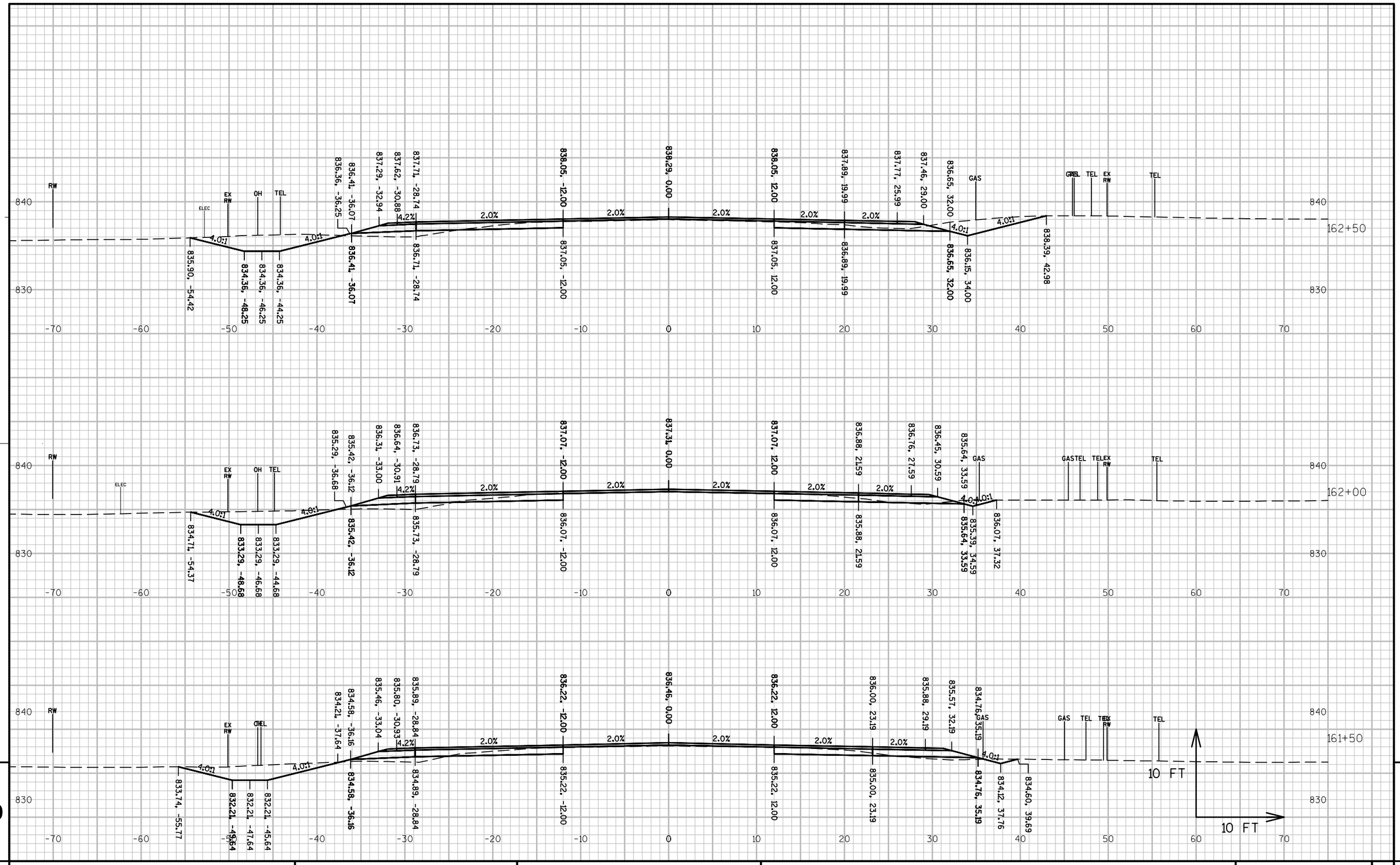


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET	
				173	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (4)

PLOT DATE : 4/30/2019 11:12 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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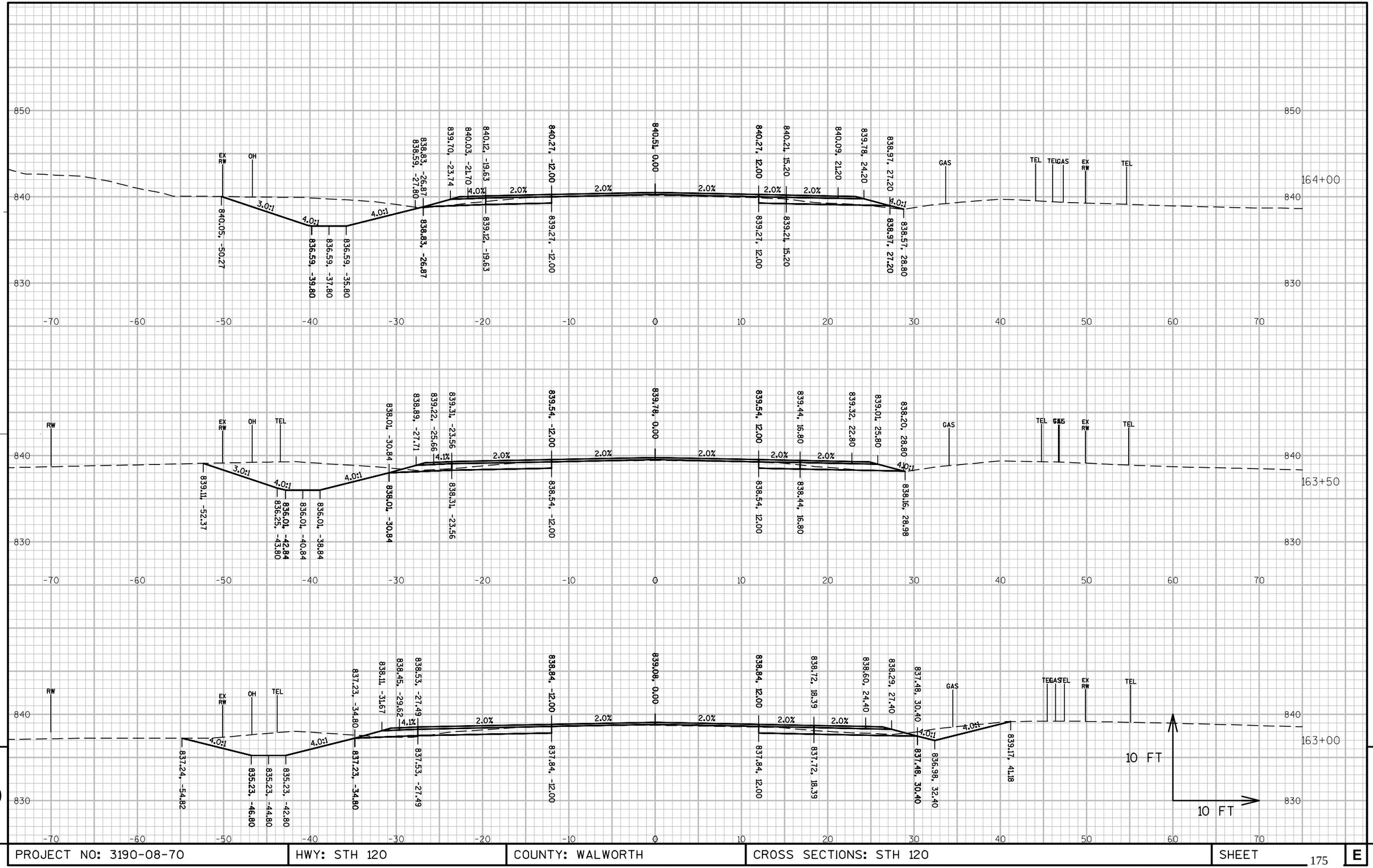
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 174	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (5)

PLOT DATE : 4/30/2019 11:12 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

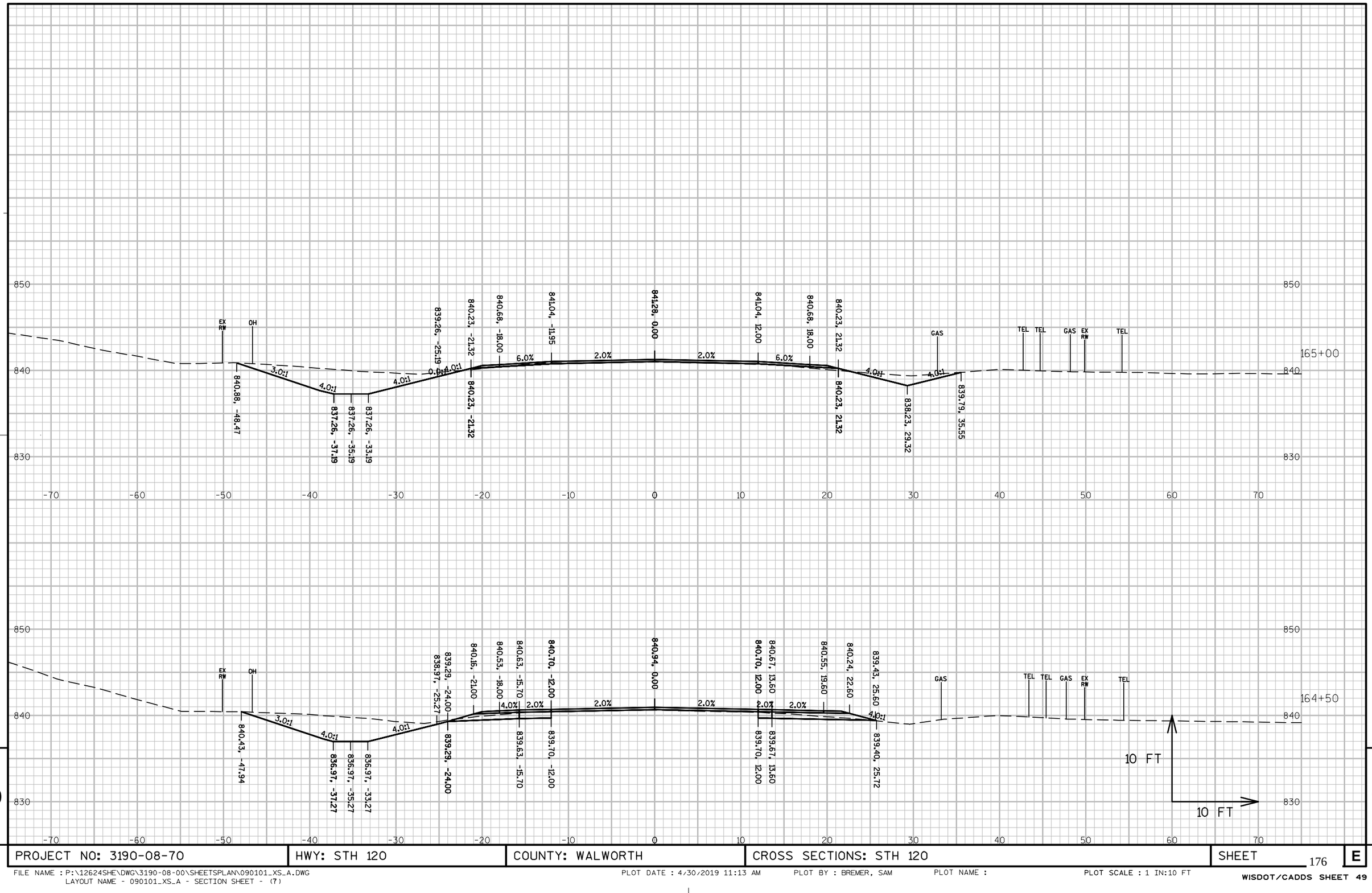


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 175	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (6)

PLOT DATE : 4/30/2019 11:13 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

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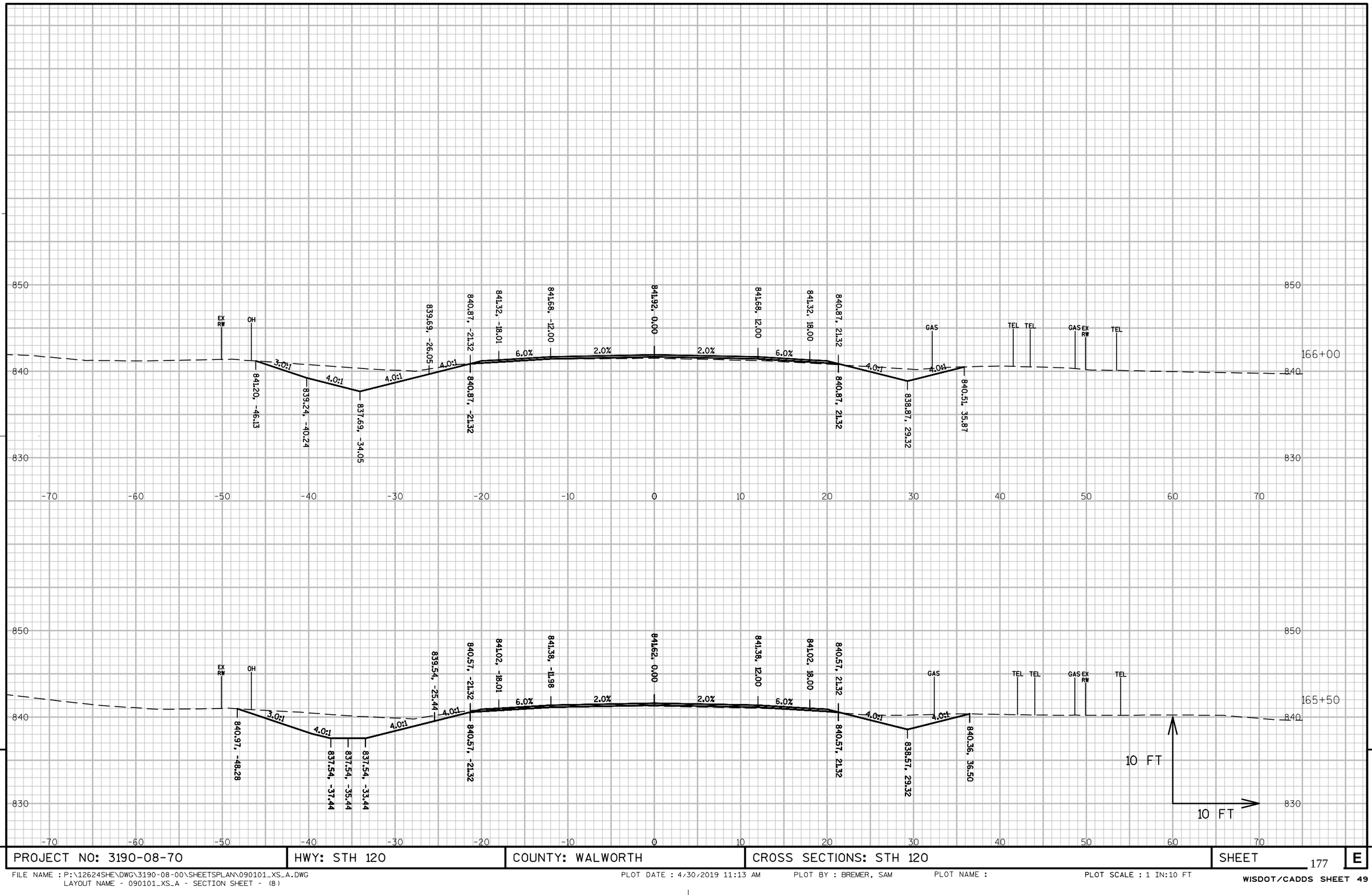
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 176	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (7)

PLOT DATE : 4/30/2019 11:13 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

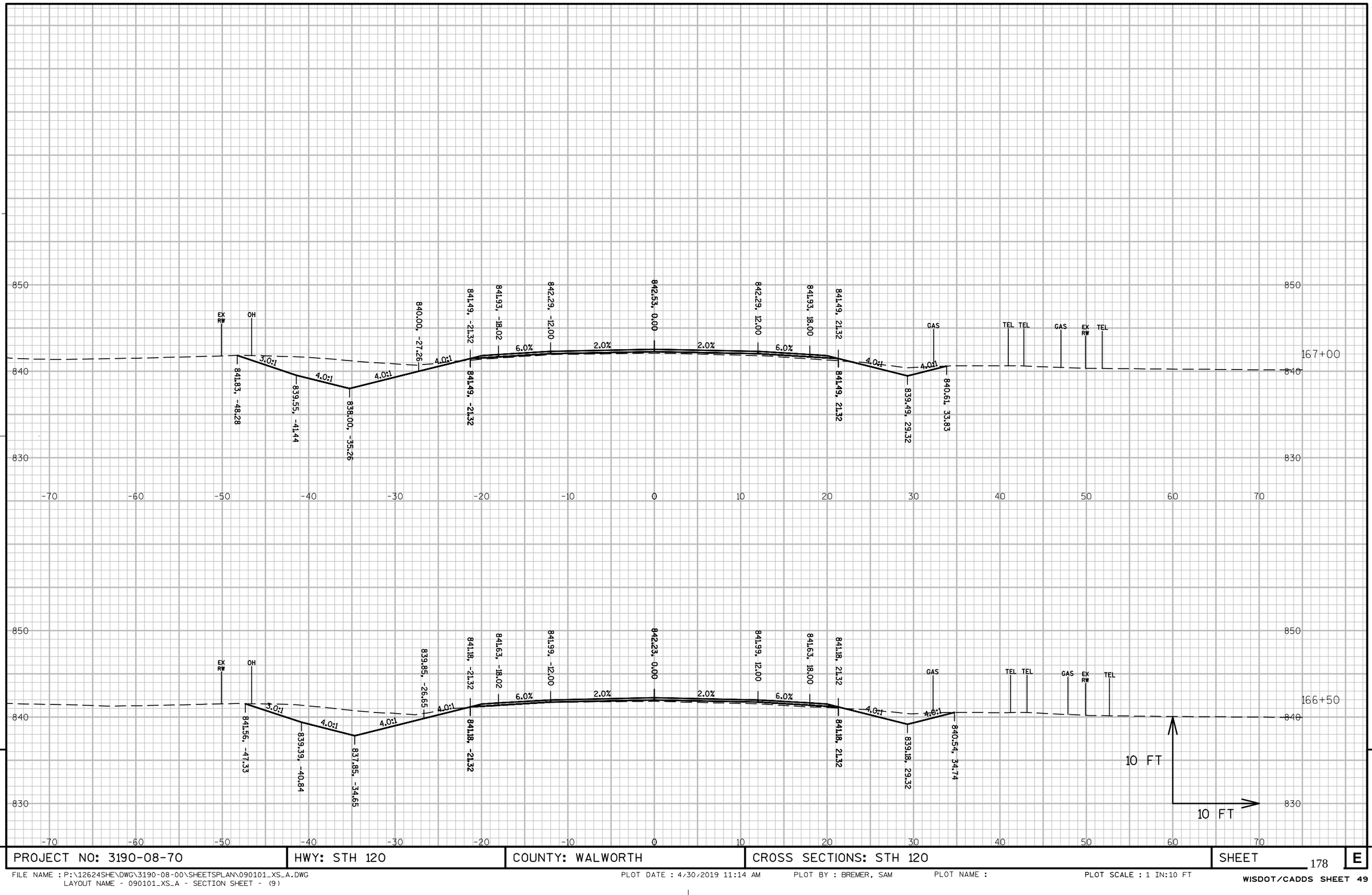
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 177	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (8)

PLOT DATE : 4/30/2019 11:13 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

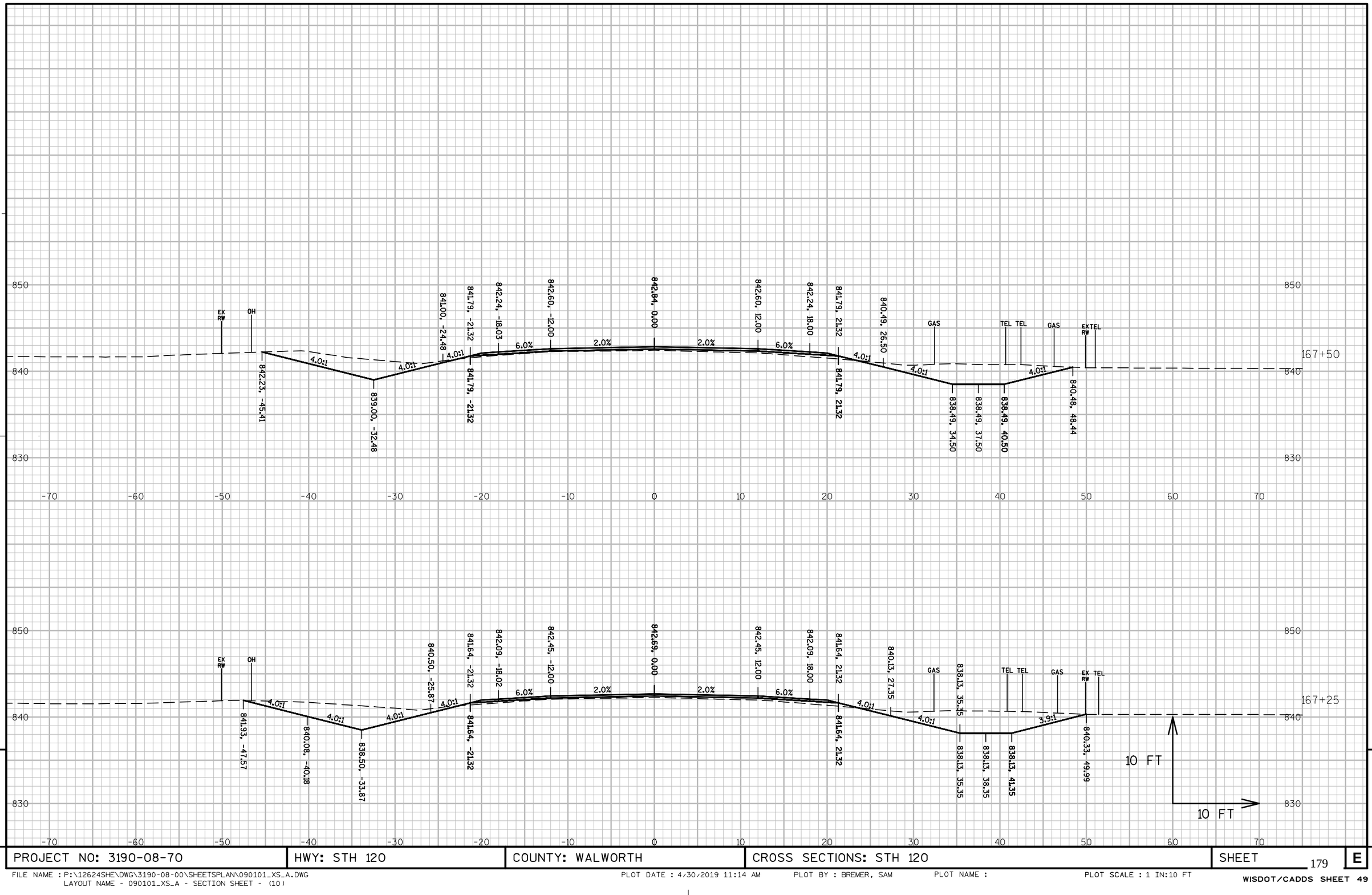


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 178	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (9)

PLOT DATE : 4/30/2019 11:14 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

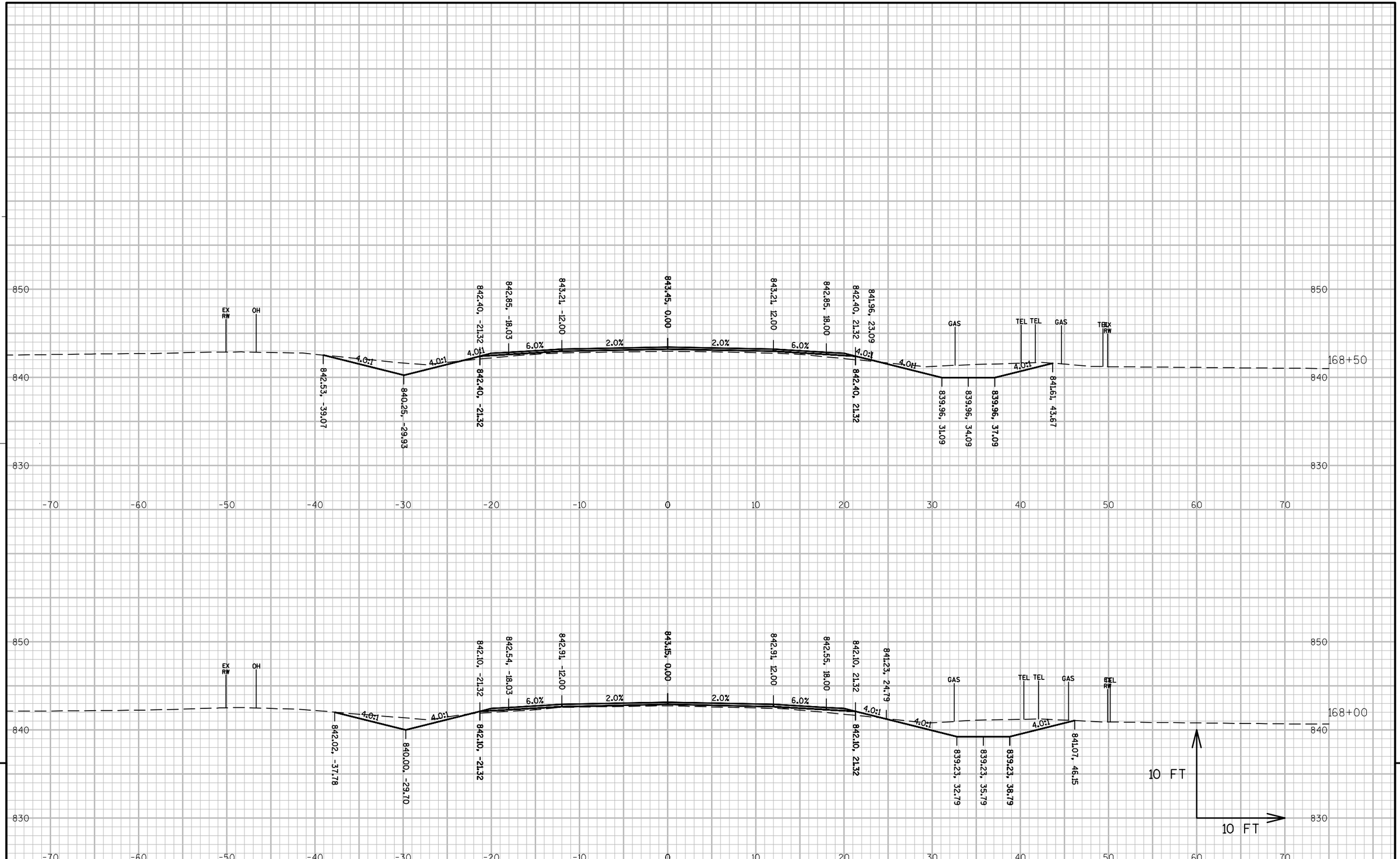


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 179	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (10)

PLOT DATE : 4/30/2019 11:14 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 180	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (11)

PLOT DATE : 4/30/2019 11:14 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

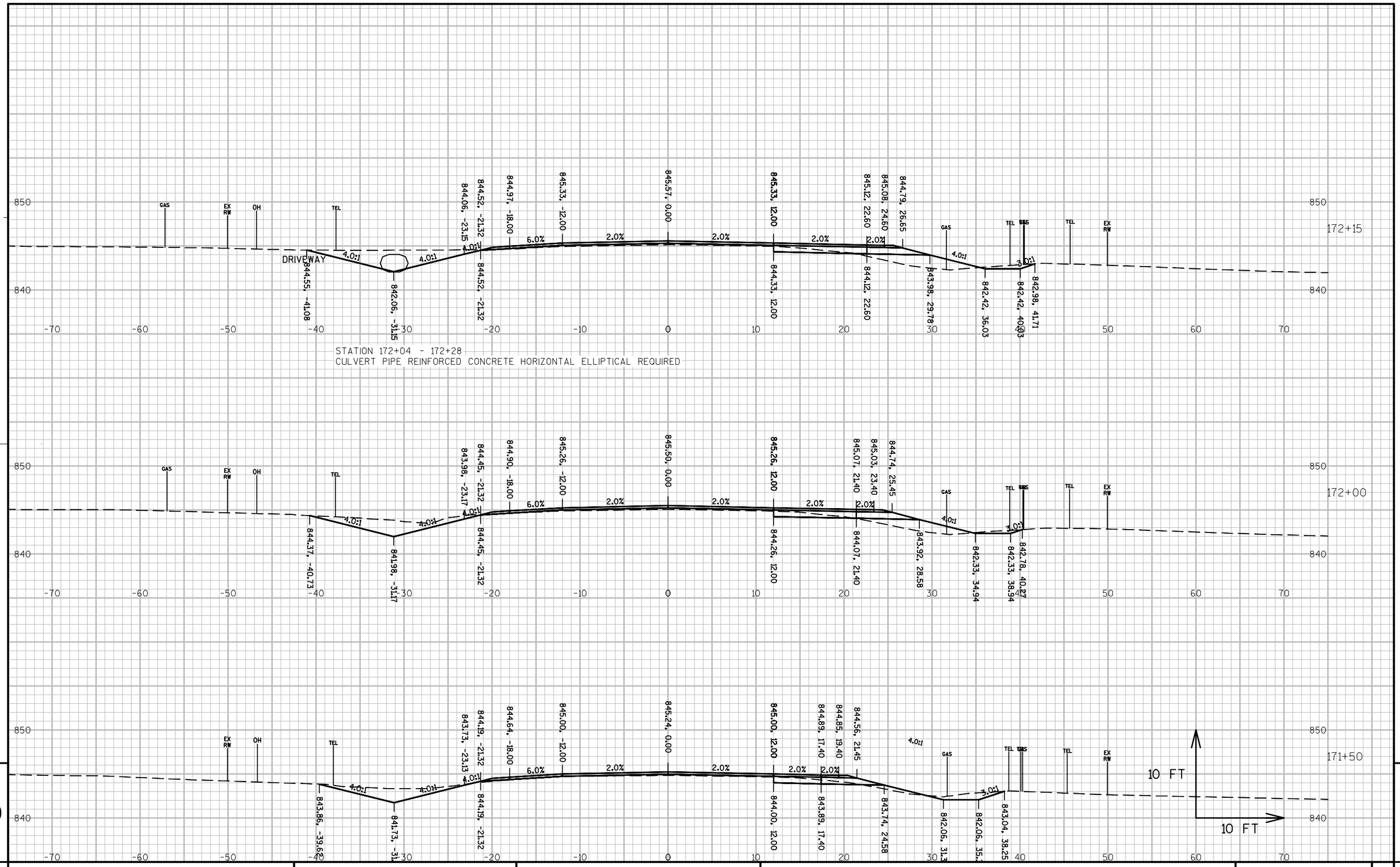
WISDOT/CADDS SHEET 49

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 181	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_A.DWG
LAYOUT NAME - 090101_XS_A - SECTION SHEET - (11)

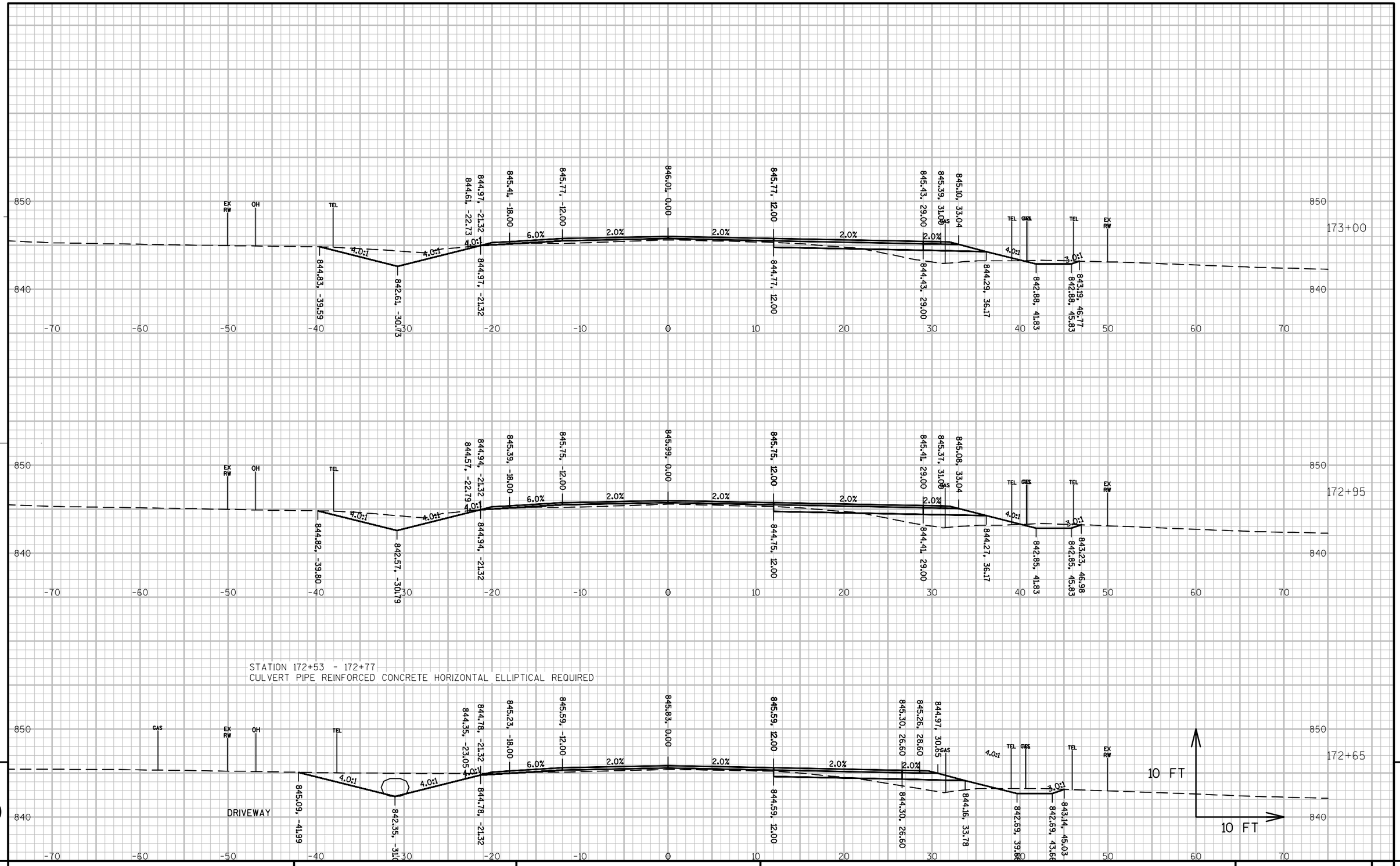
PLOT DATE : 4/30/2019 11:15 AM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



STATION 172+04 - 172+28
CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL REQUIRED

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 182	E

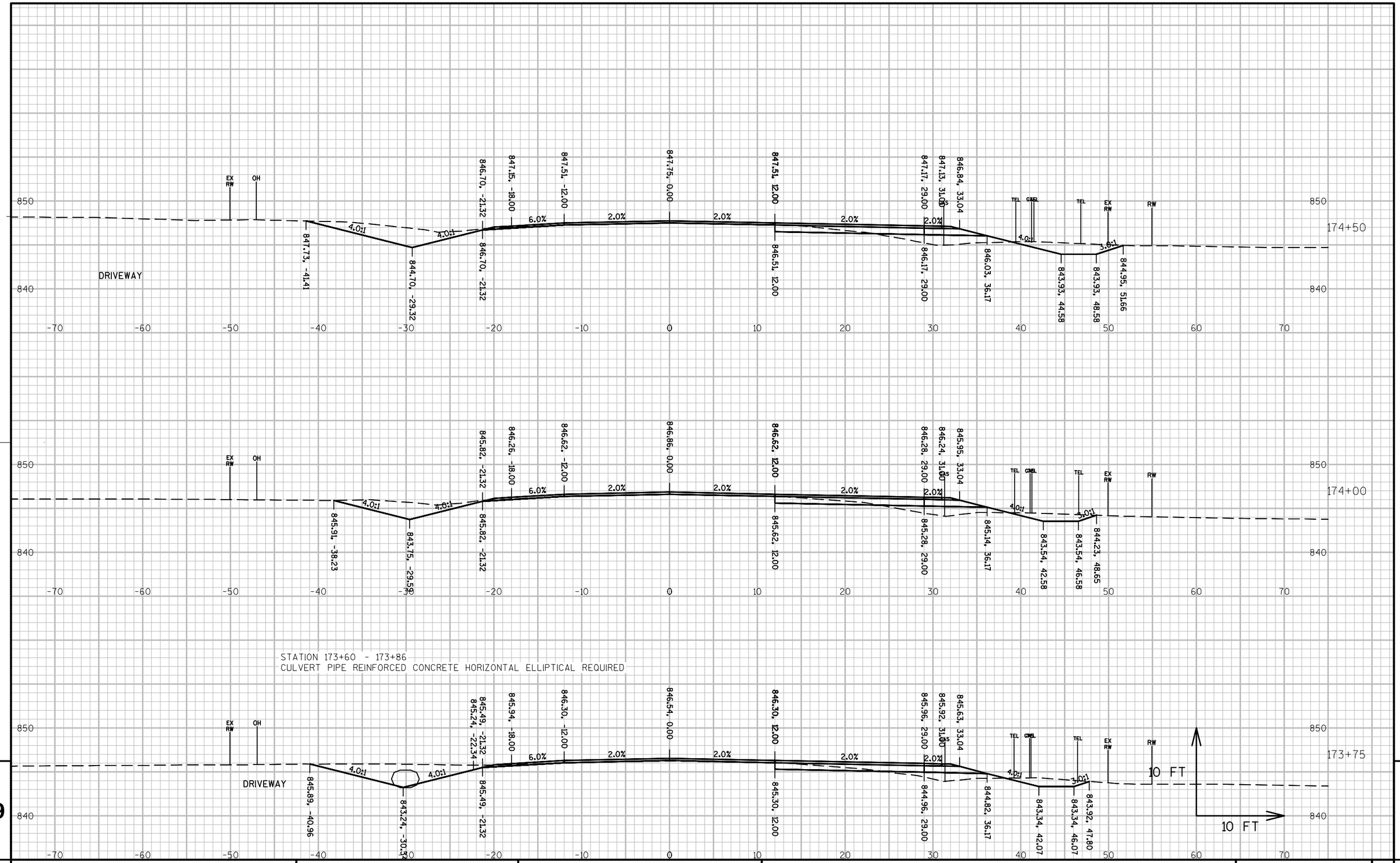


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 183	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (2)

PLOT DATE : 4/30/2019 12:02 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

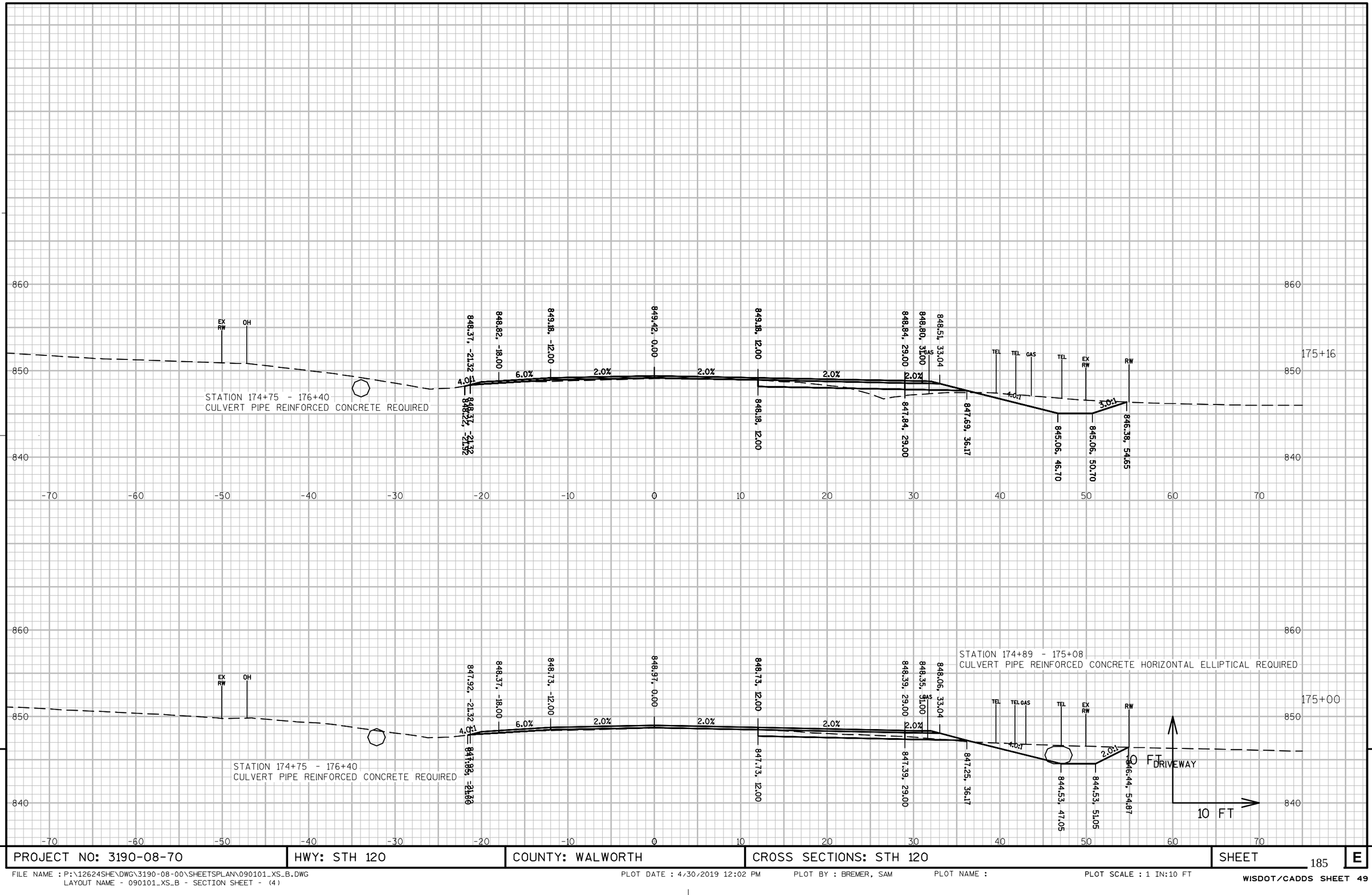


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 184	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (3)

PLOT DATE : 4/30/2019 12:02 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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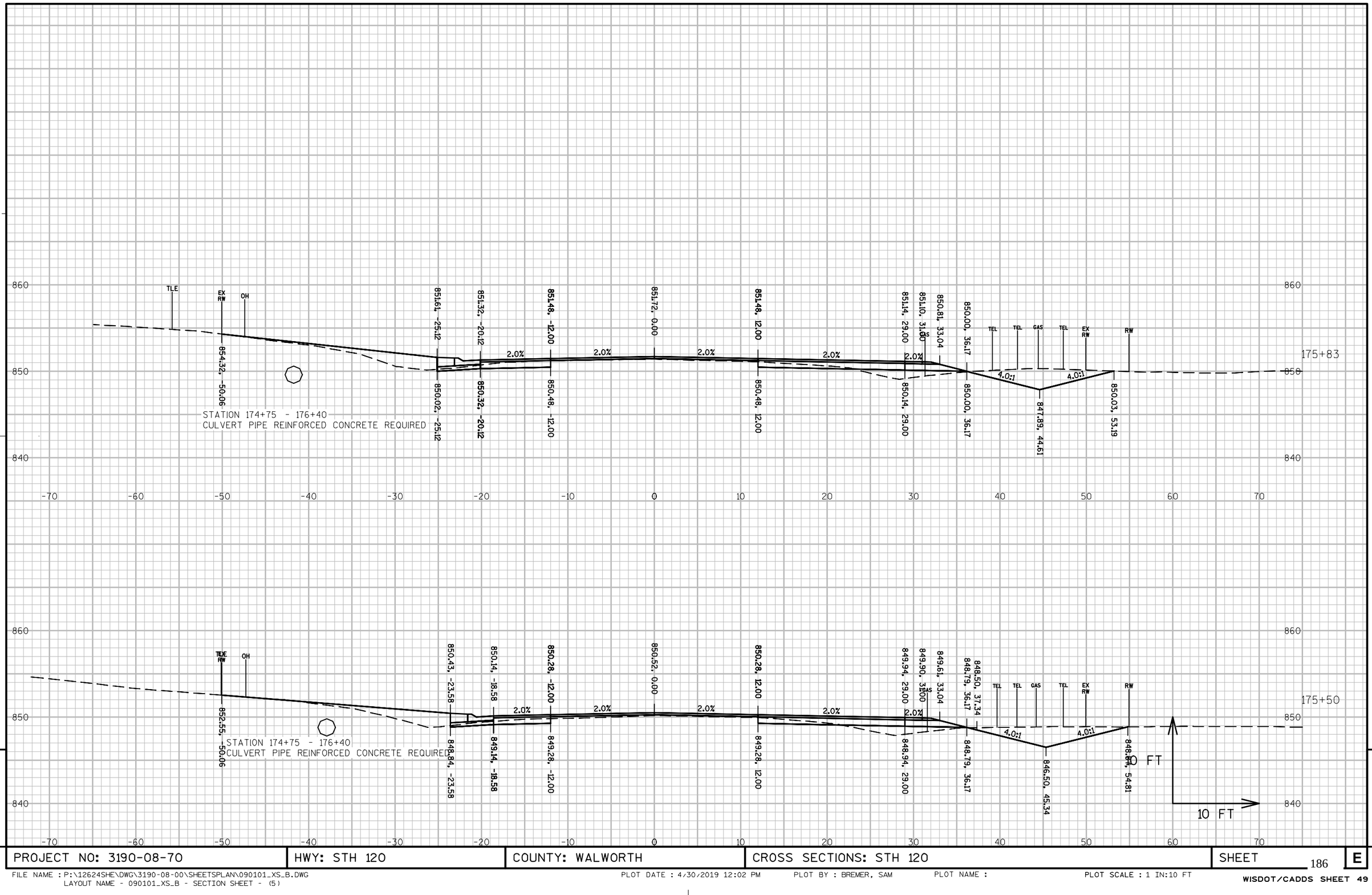
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 185	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (4)

PLOT DATE : 4/30/2019 12:02 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



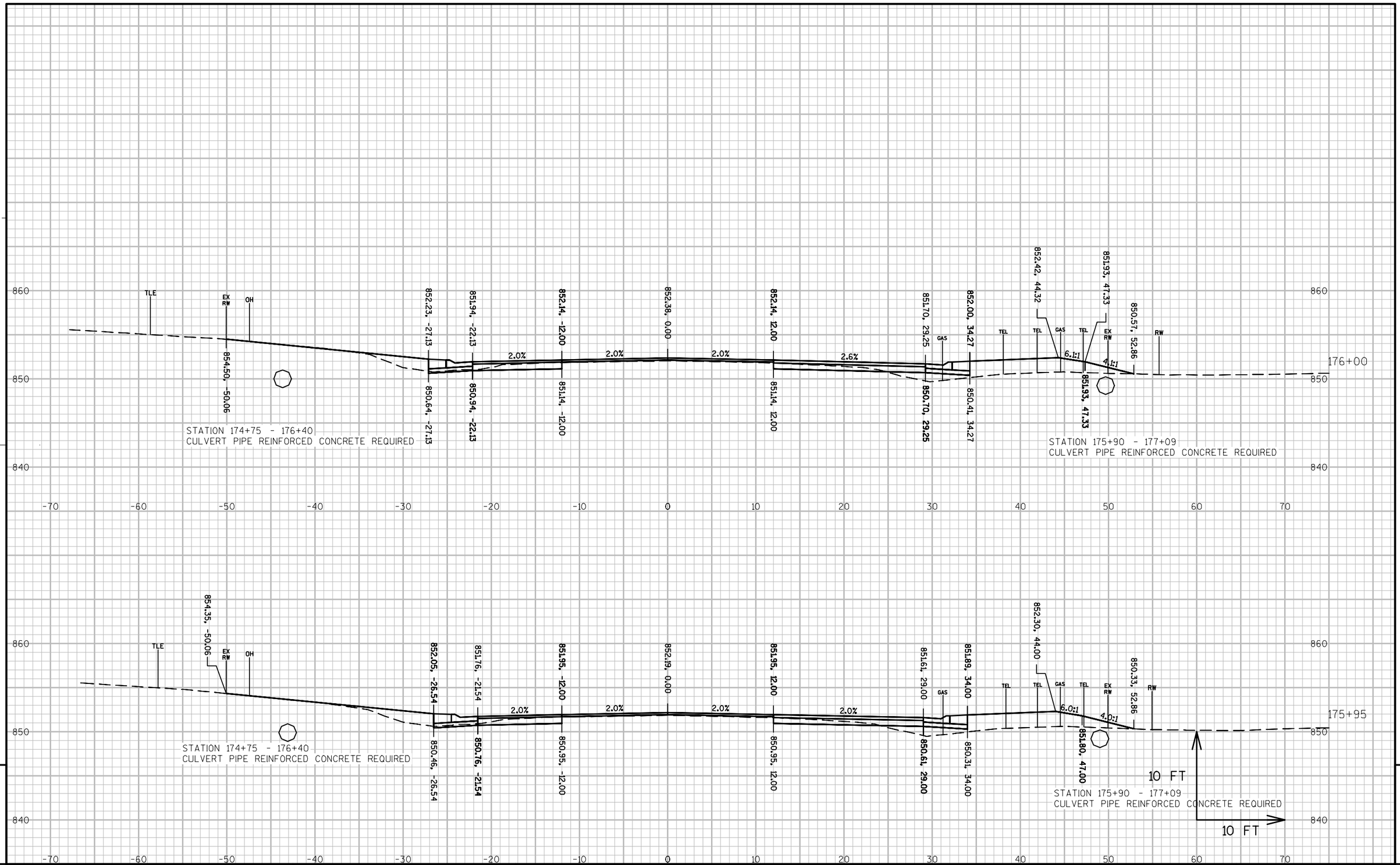
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 186	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (5)

PLOT DATE : 4/30/2019 12:02 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

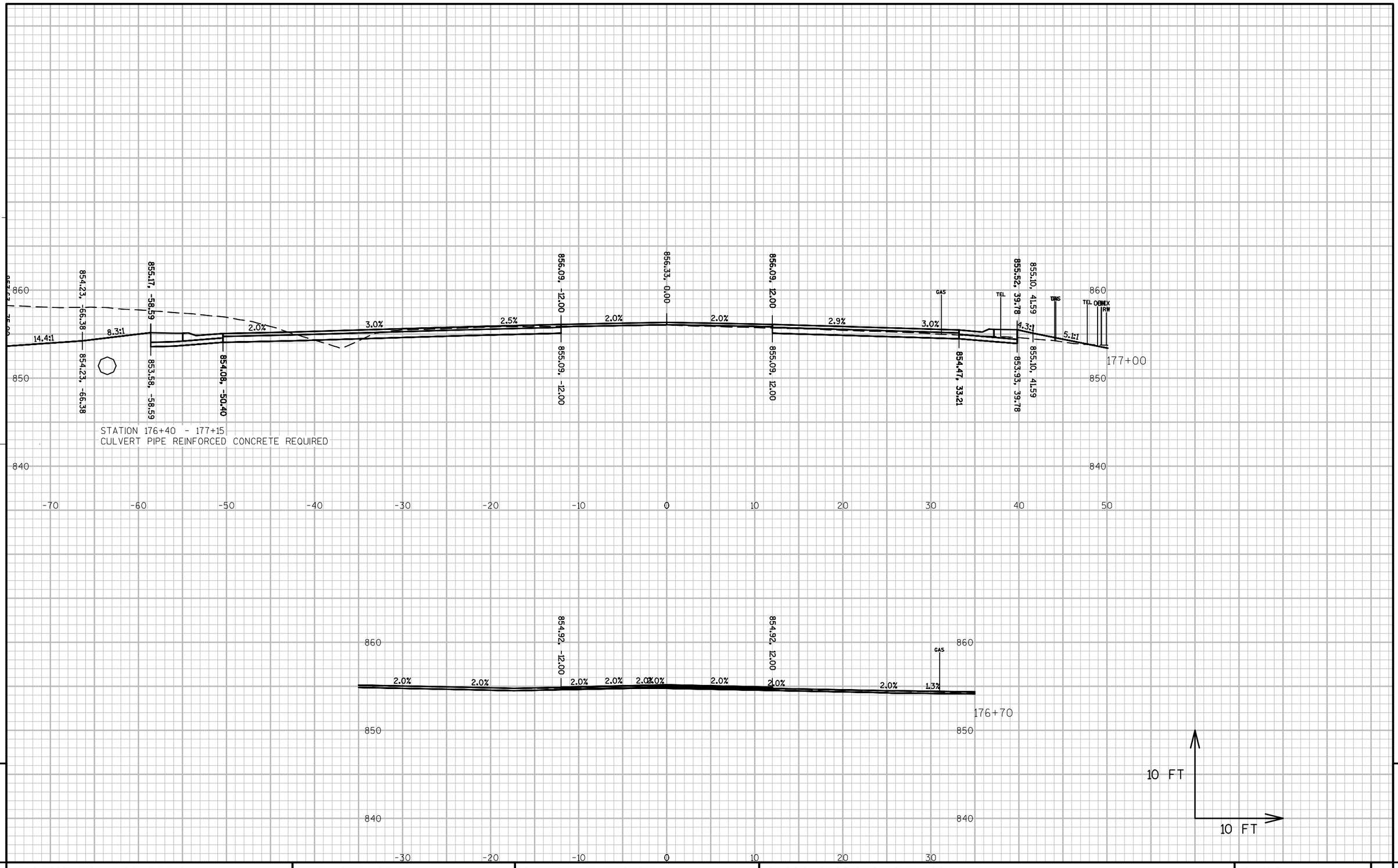


9

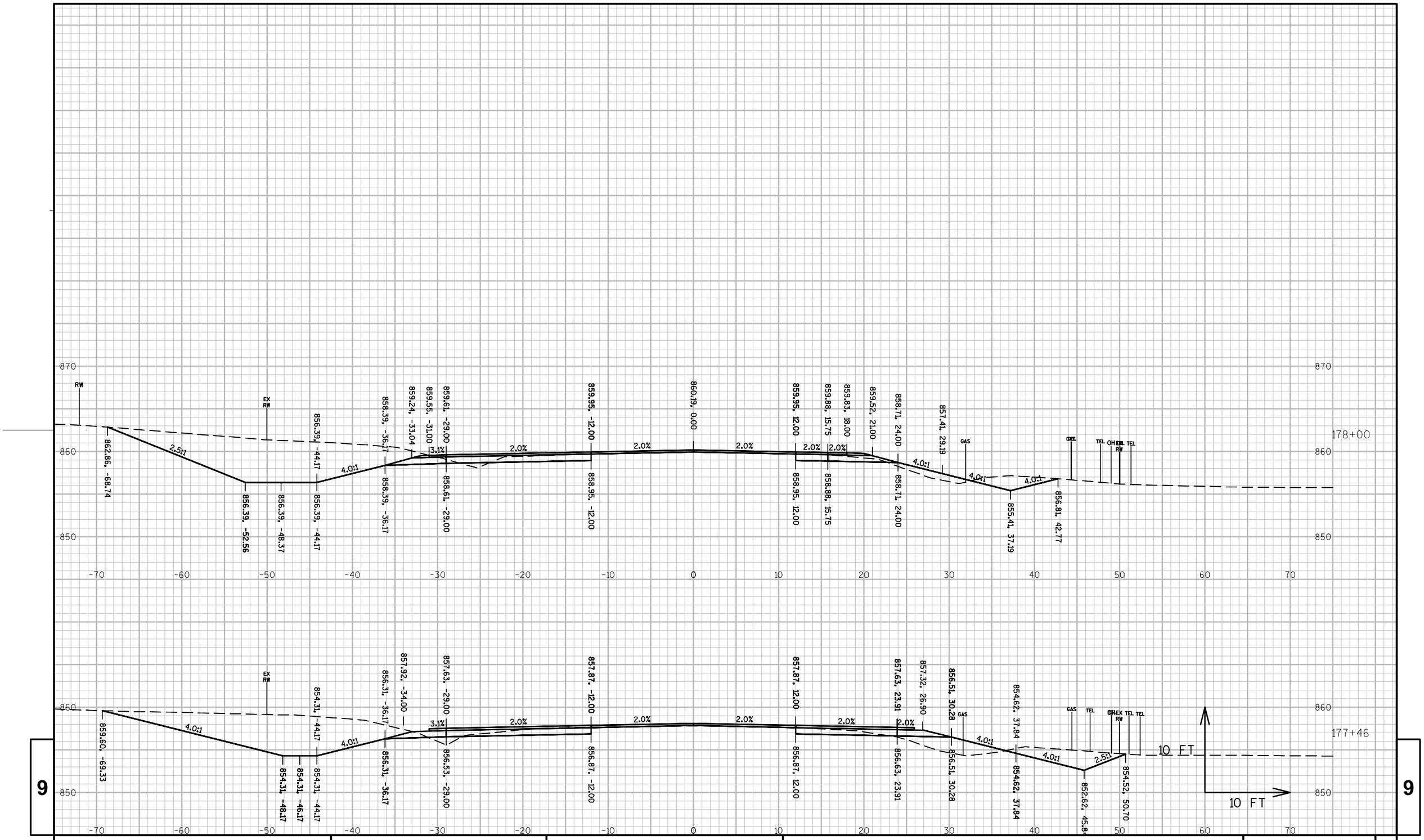
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 187	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (6)
PLOT DATE : 4/30/2019 12:03 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 188	E

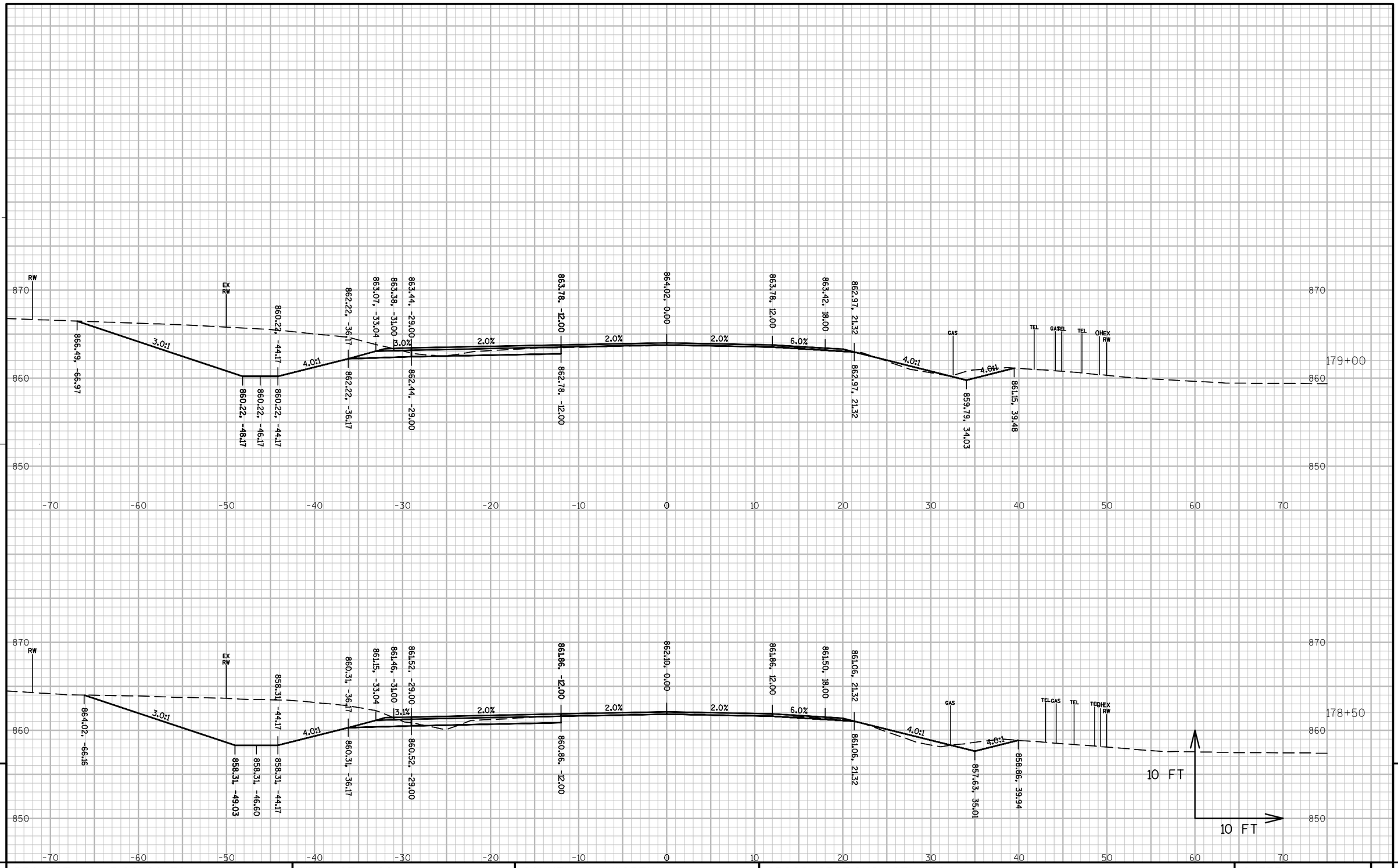


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 189	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (8)

PLOT DATE : 4/30/2019 12:03 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

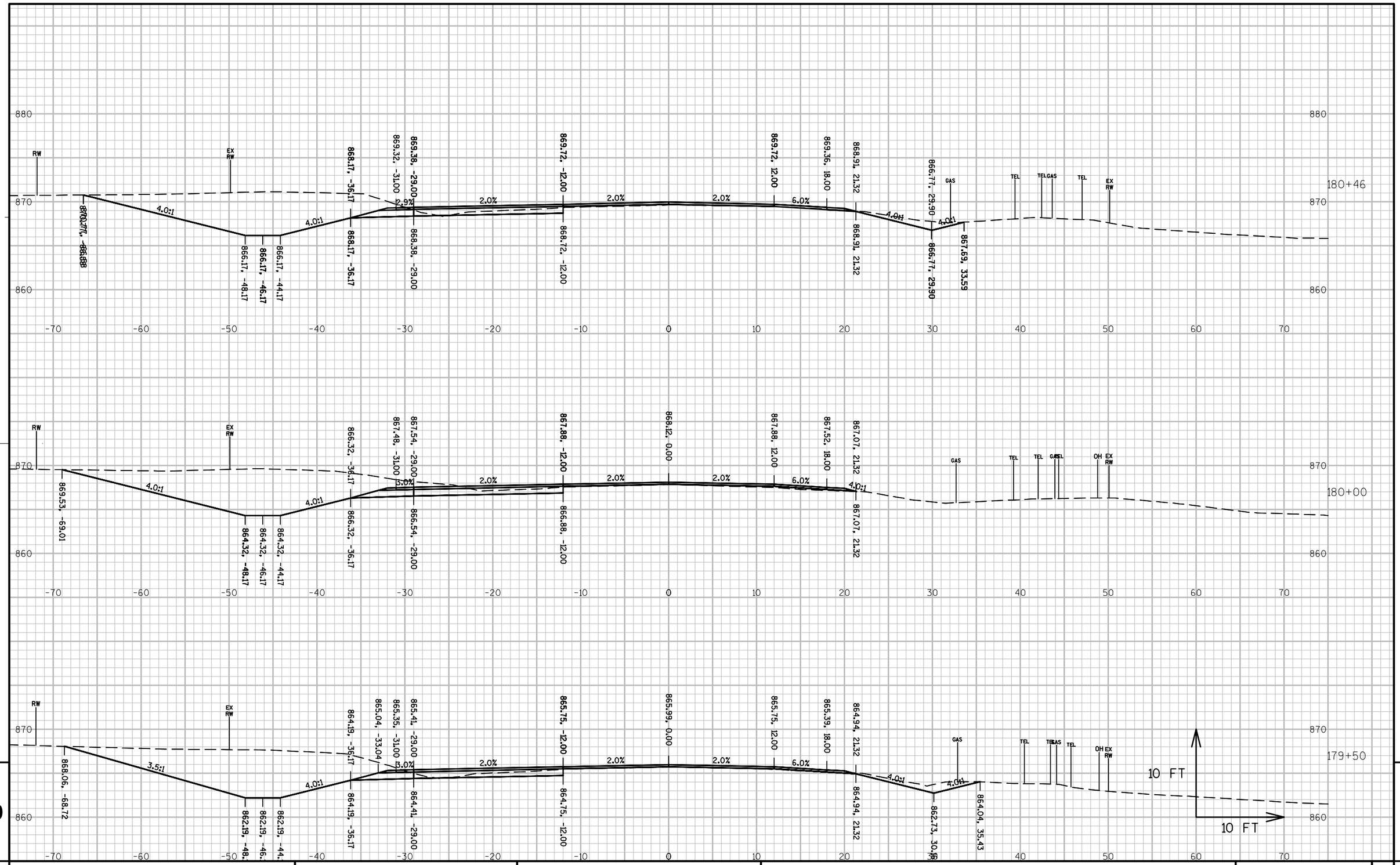


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 190	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (9)

PLOT DATE : 4/30/2019 12:03 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



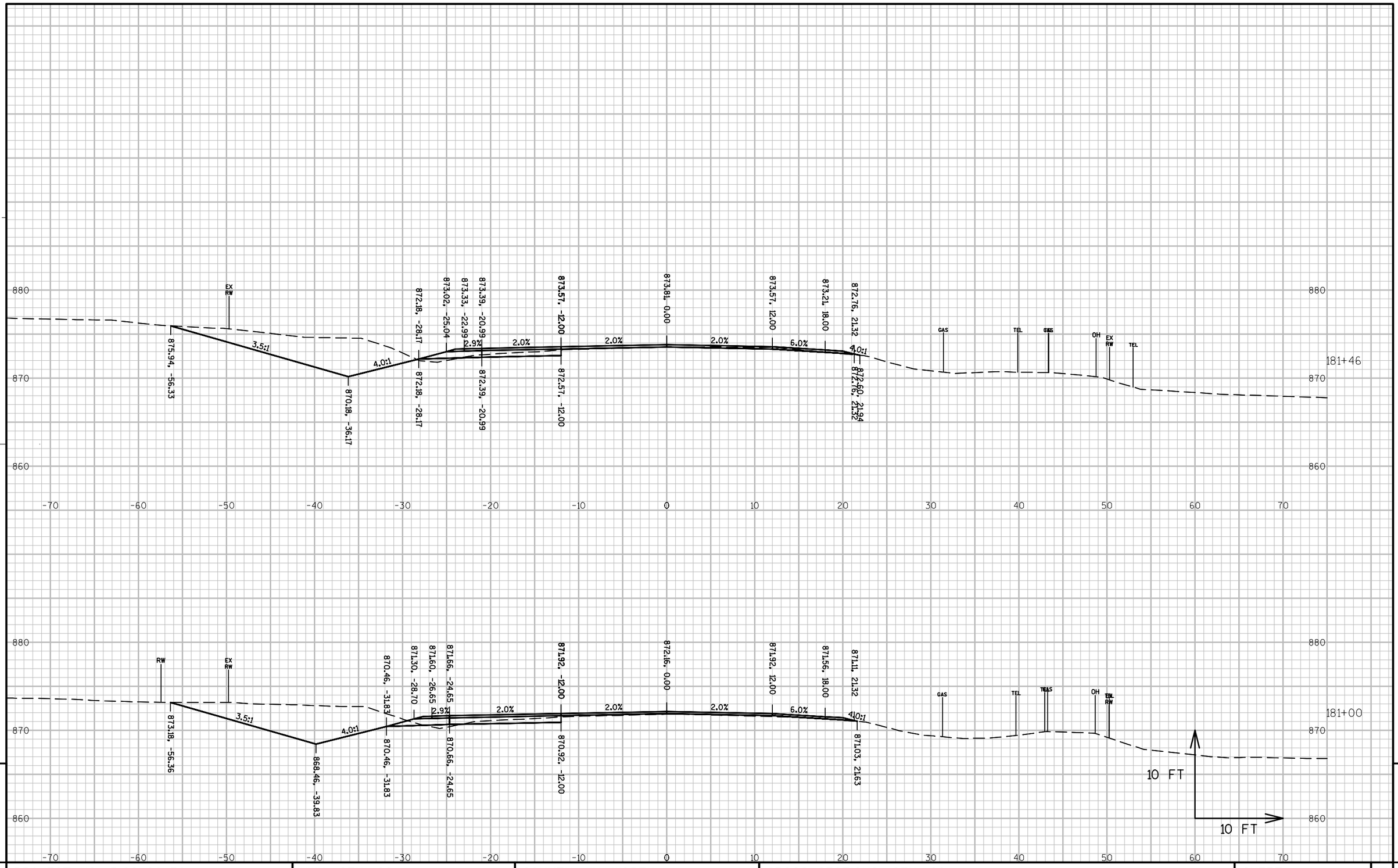
9

9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 191	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (10)

PLOT DATE : 4/30/2019 12:04 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

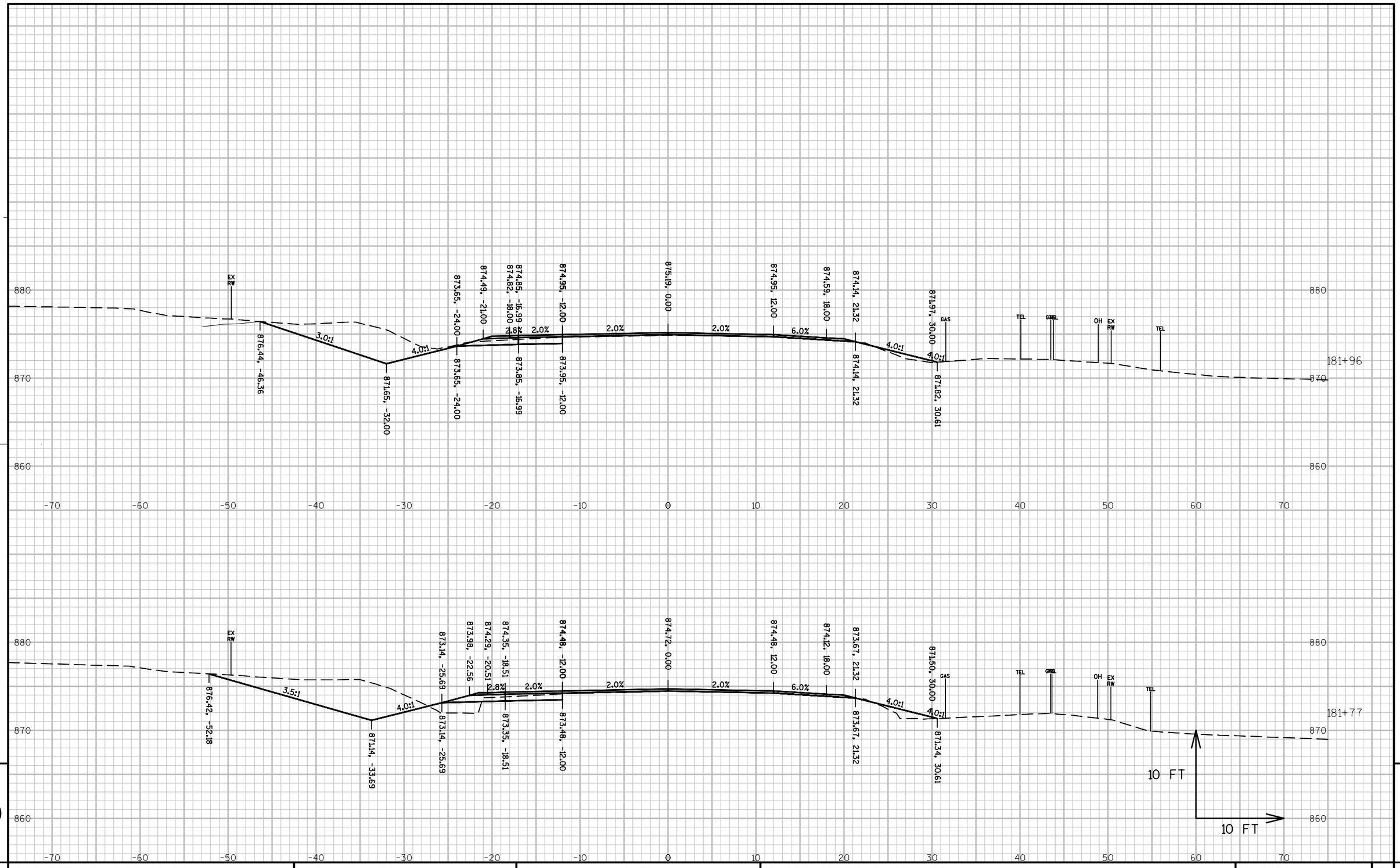


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 192	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (11)

PLOT DATE : 4/30/2019 12:04 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

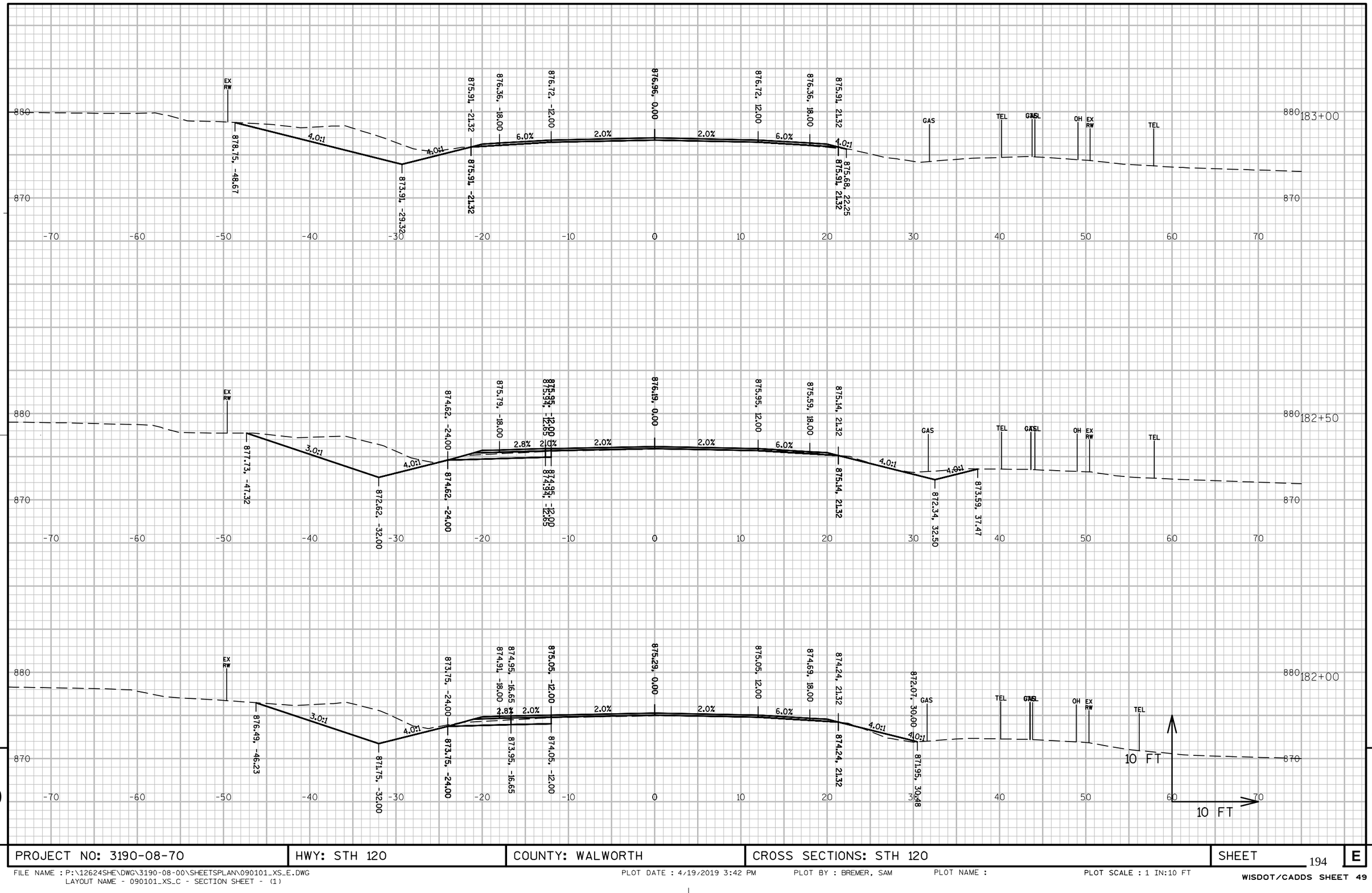
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 193	E

9

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_B.DWG
LAYOUT NAME - 090101_XS_B - SECTION SHEET - (12)

PLOT DATE : 4/30/2019 12:04 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

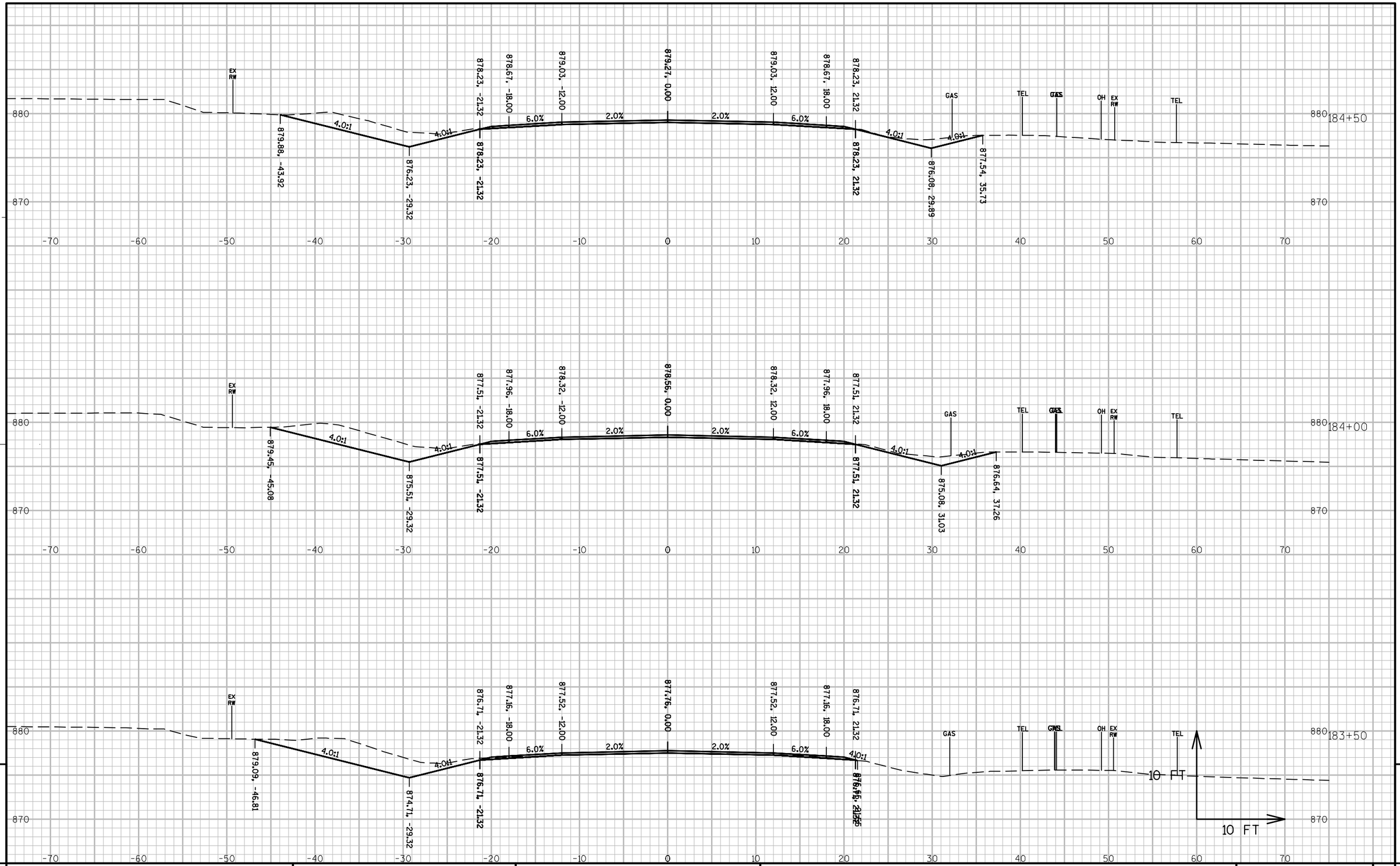


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 194	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:42 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

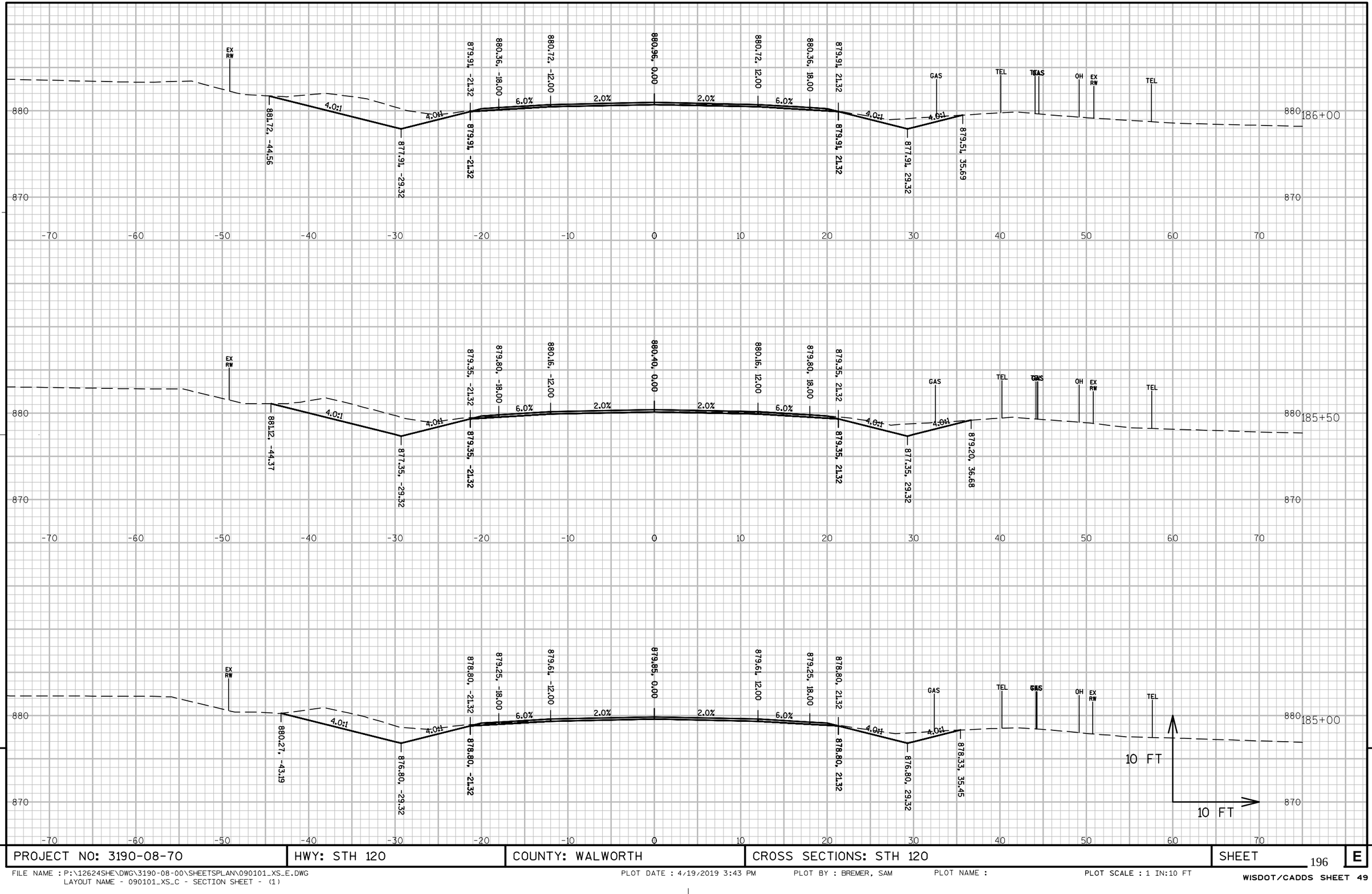


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 195	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:42 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

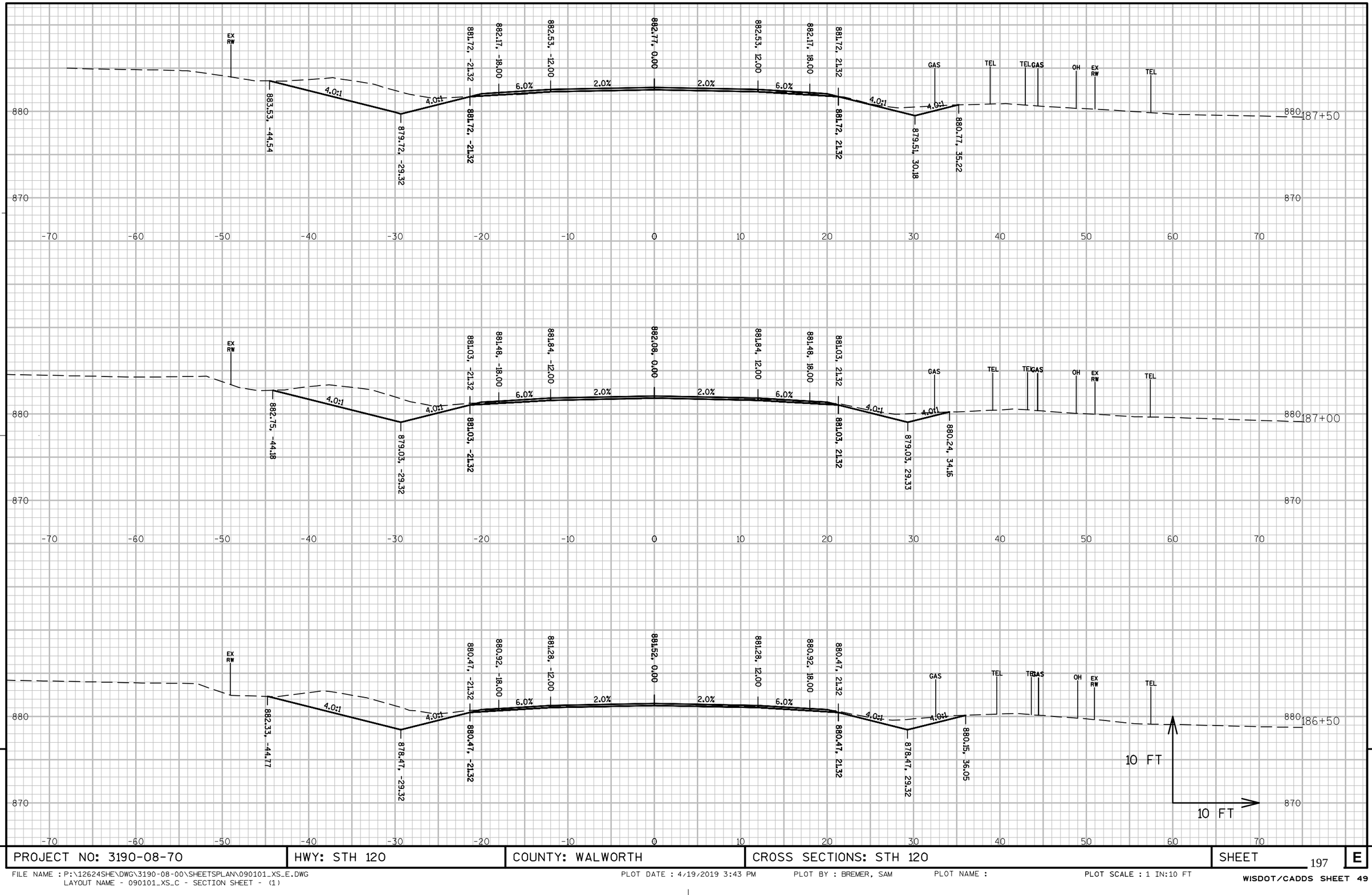


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 196	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:43 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

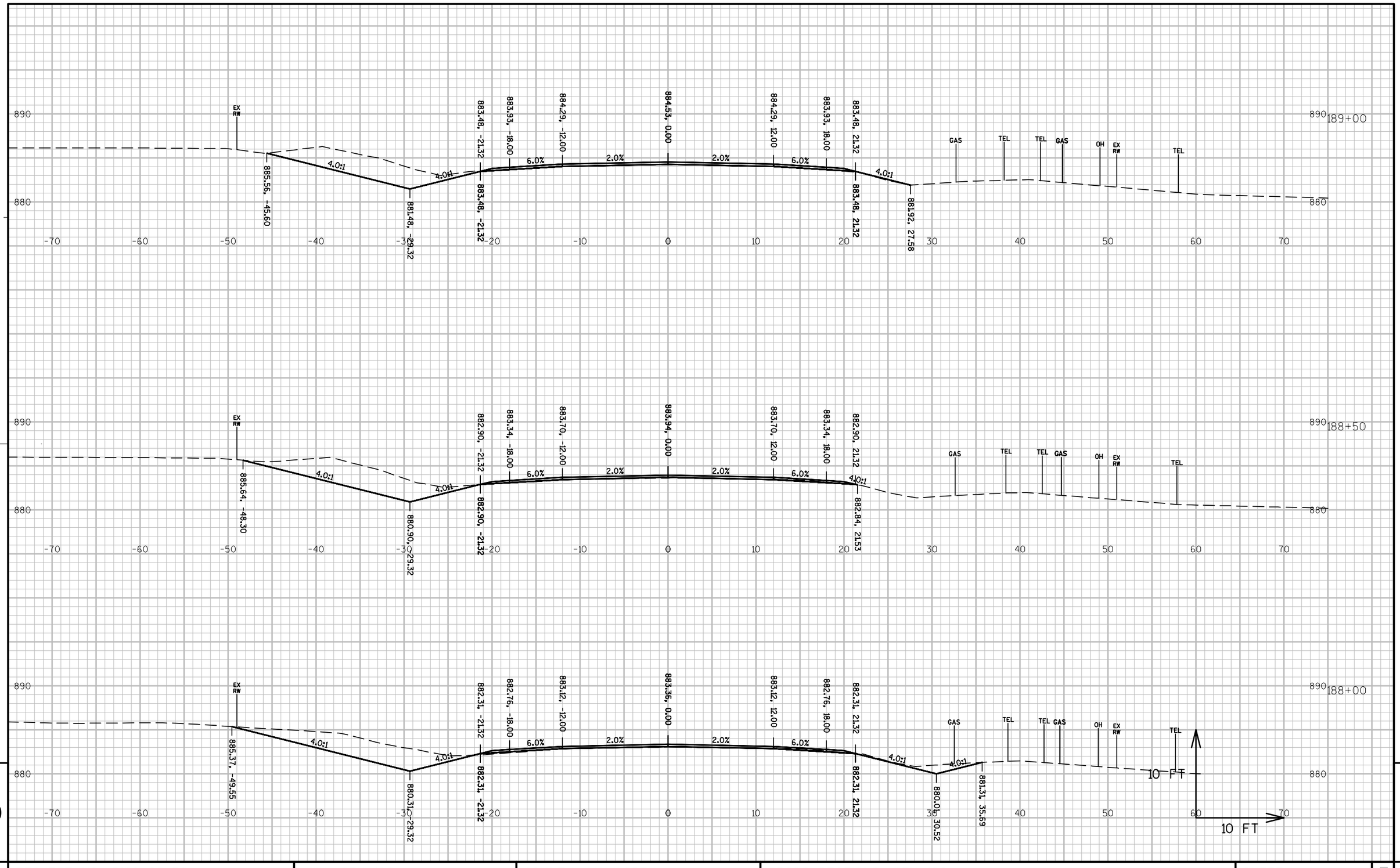
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 197	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:43 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



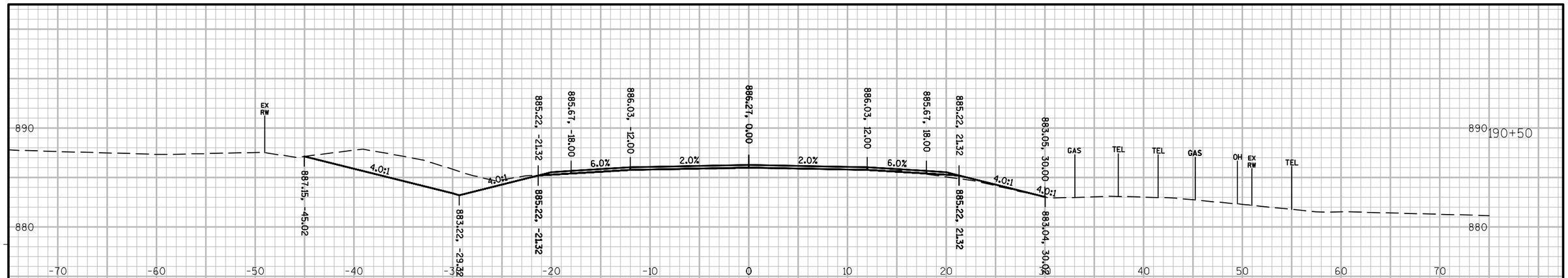
9 9

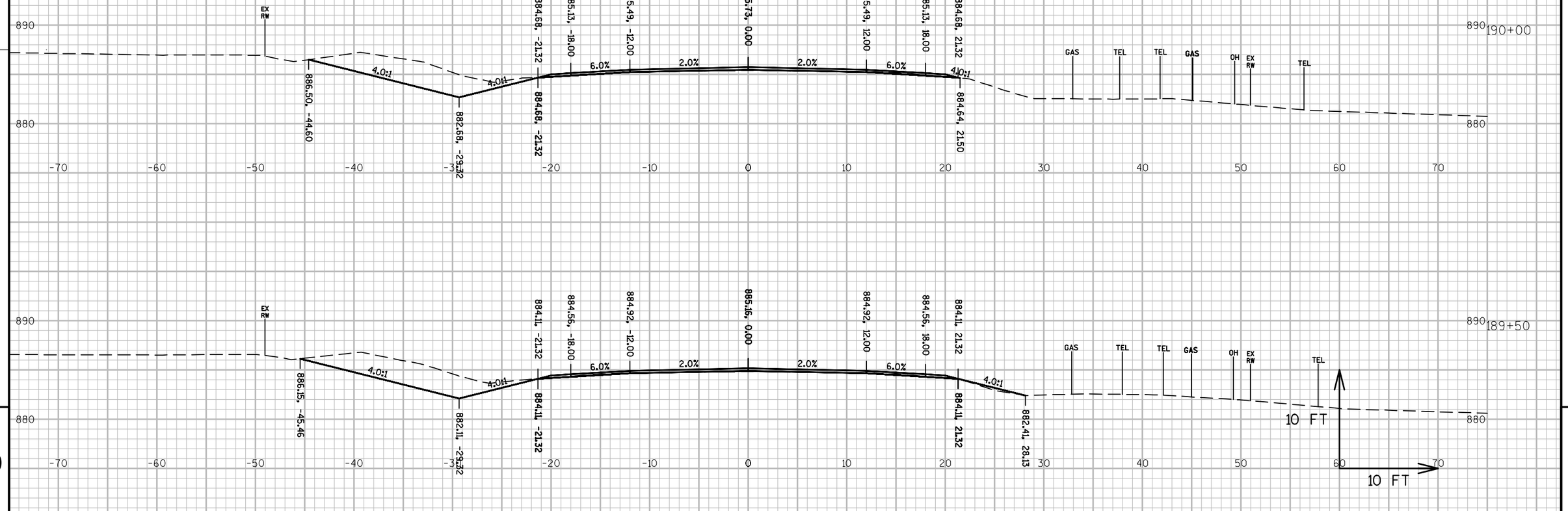
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 198	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:44 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49





9

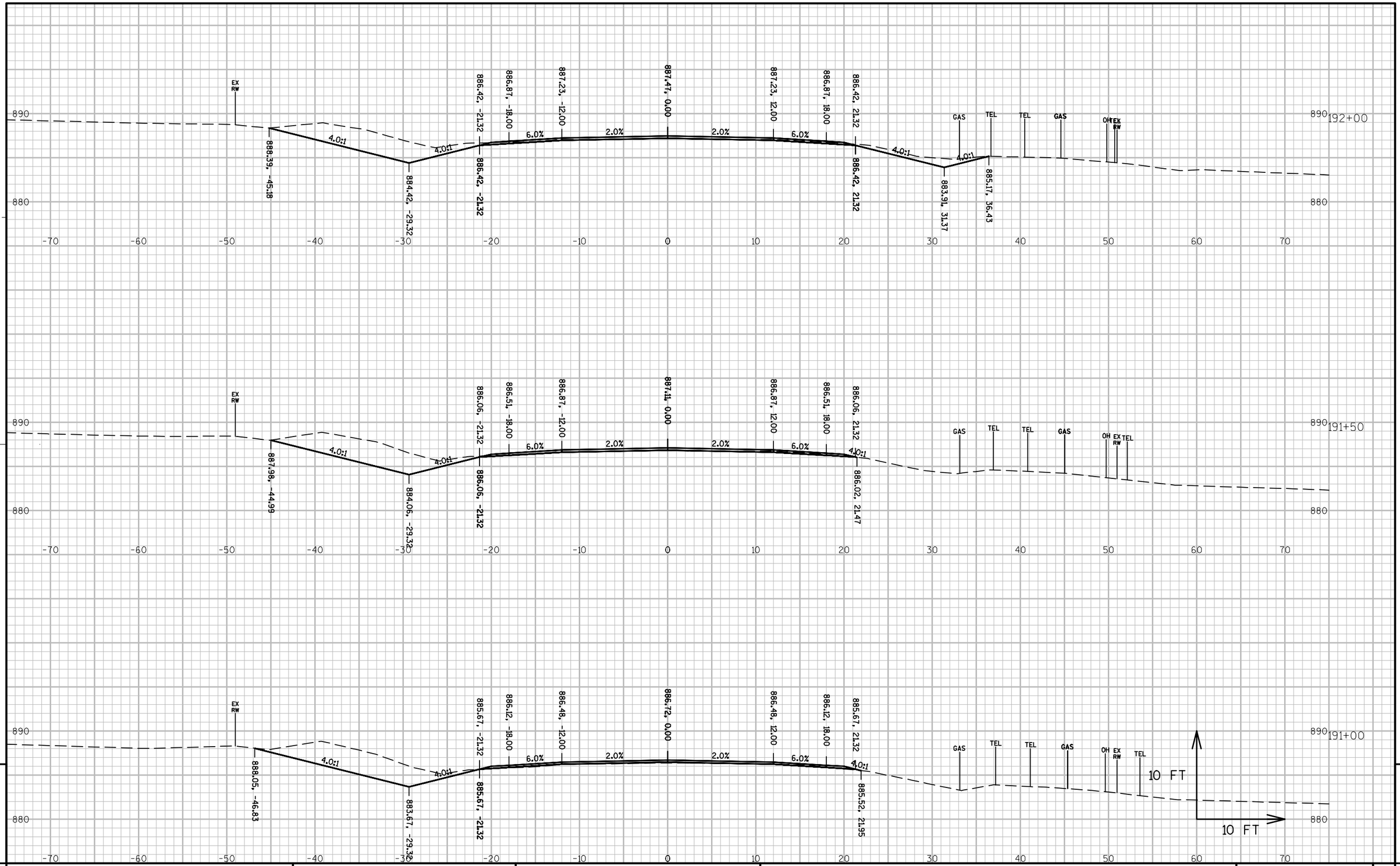
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 199	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:45 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

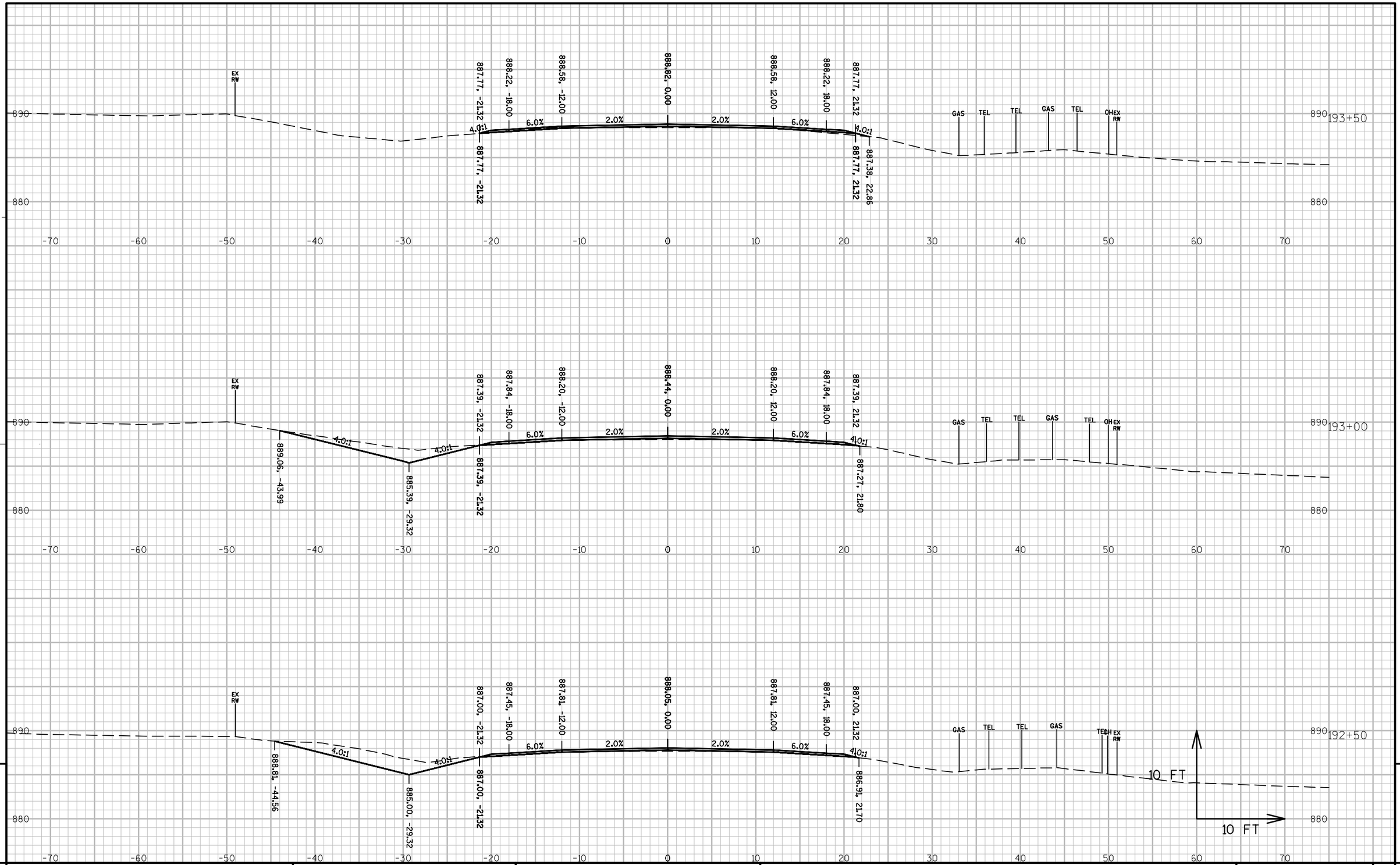


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 200	E

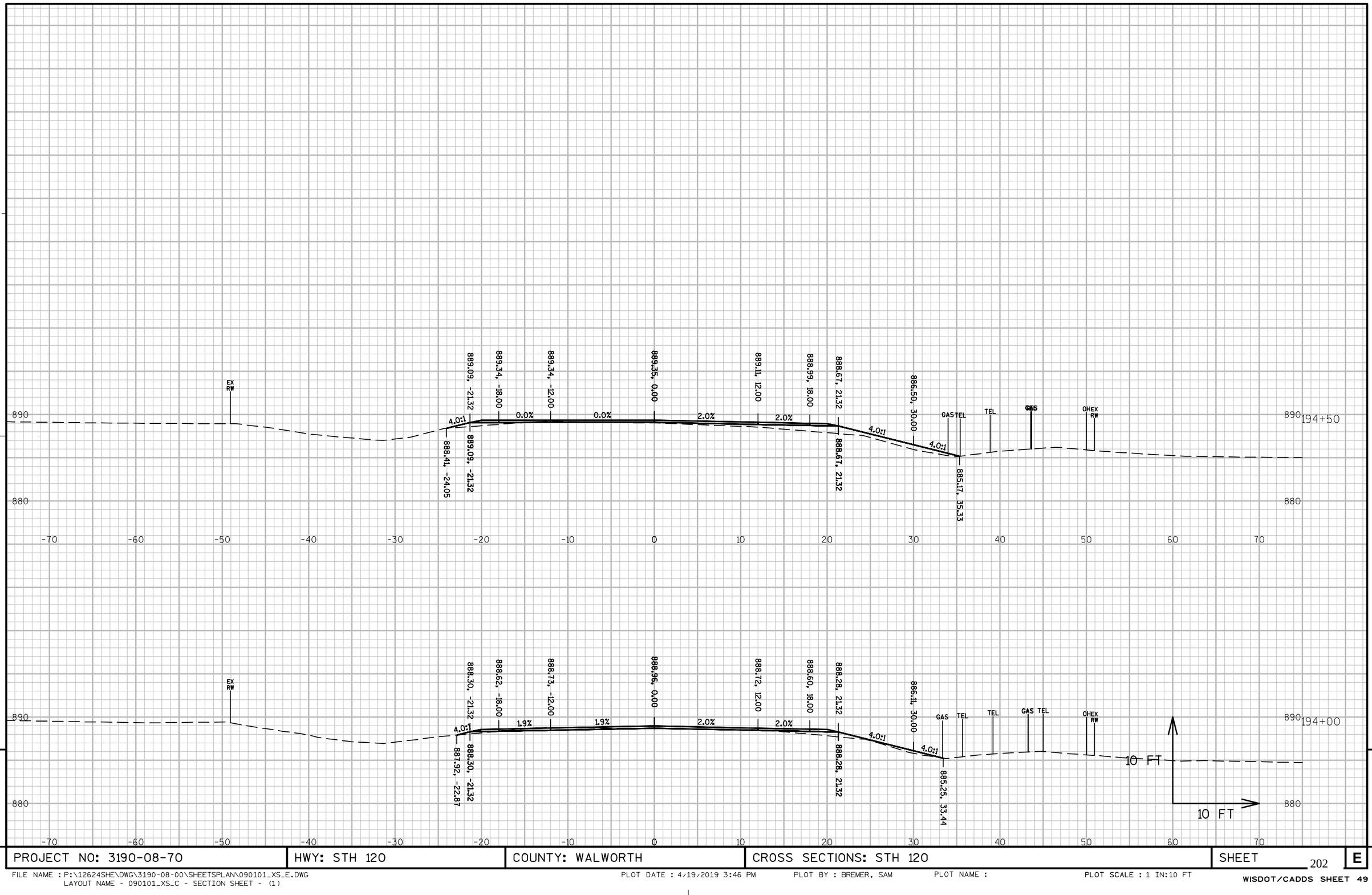
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:45 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 201	E



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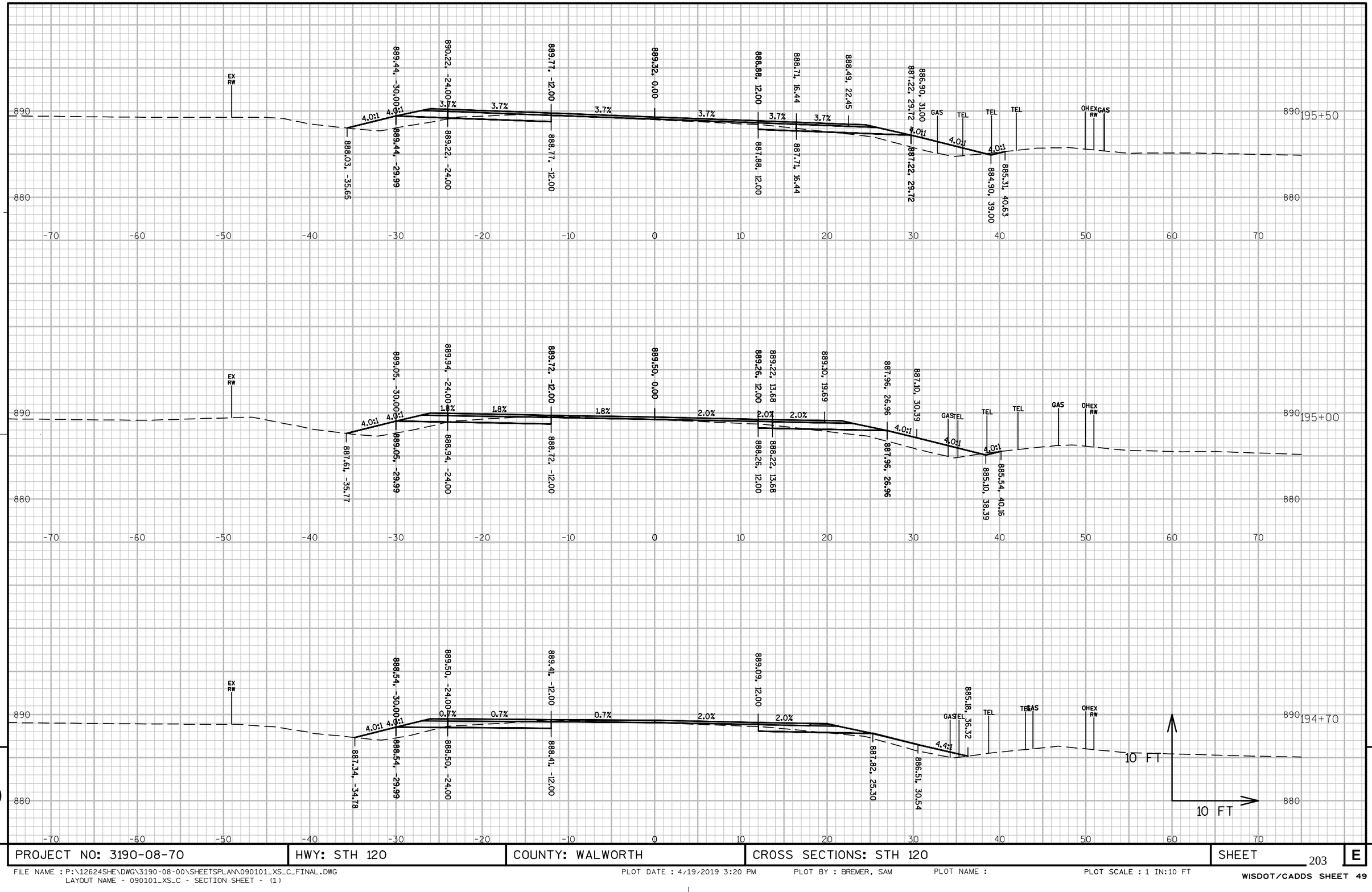
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 202	E

9

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_E.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:46 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

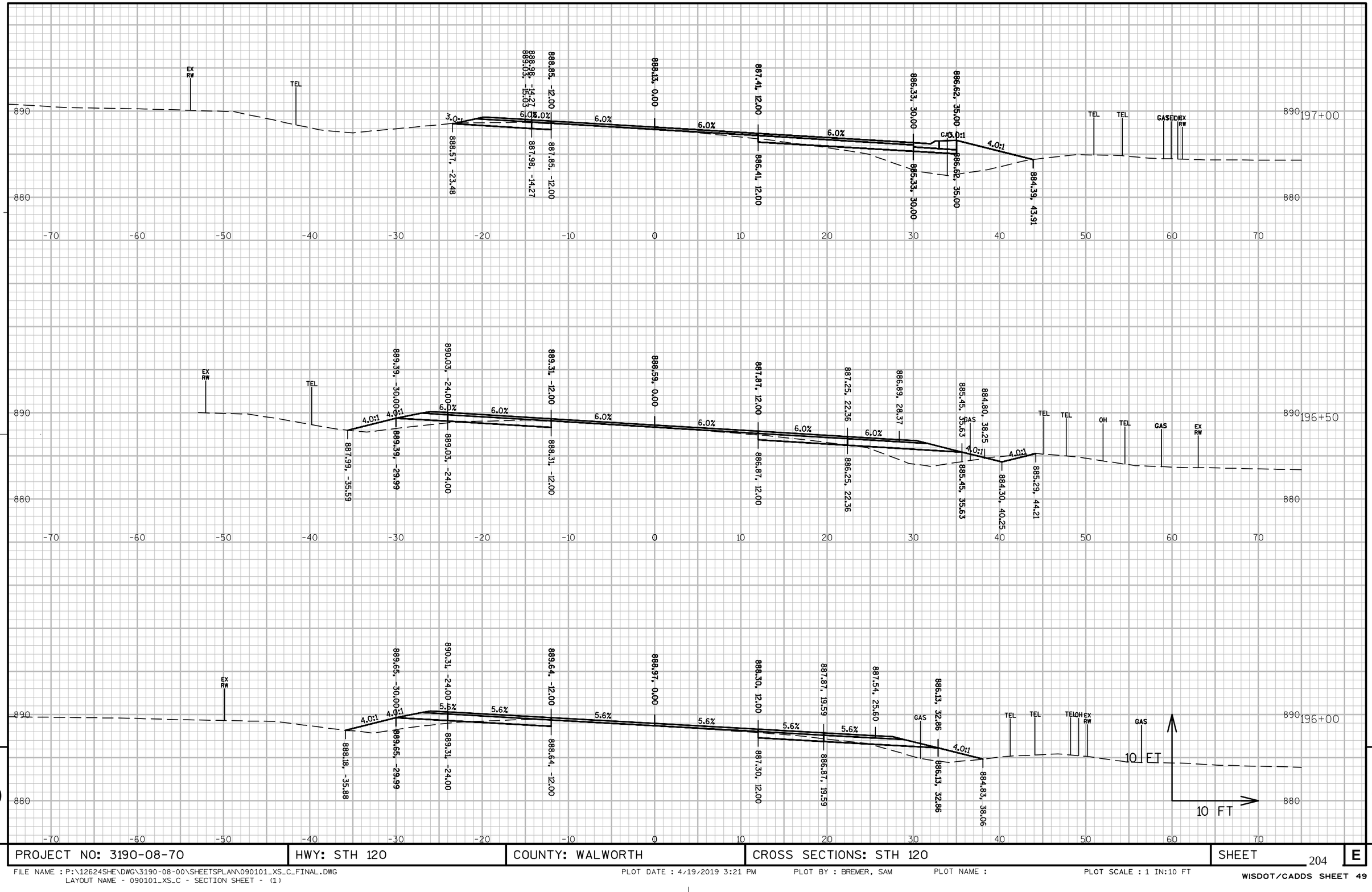


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 203	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:20 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



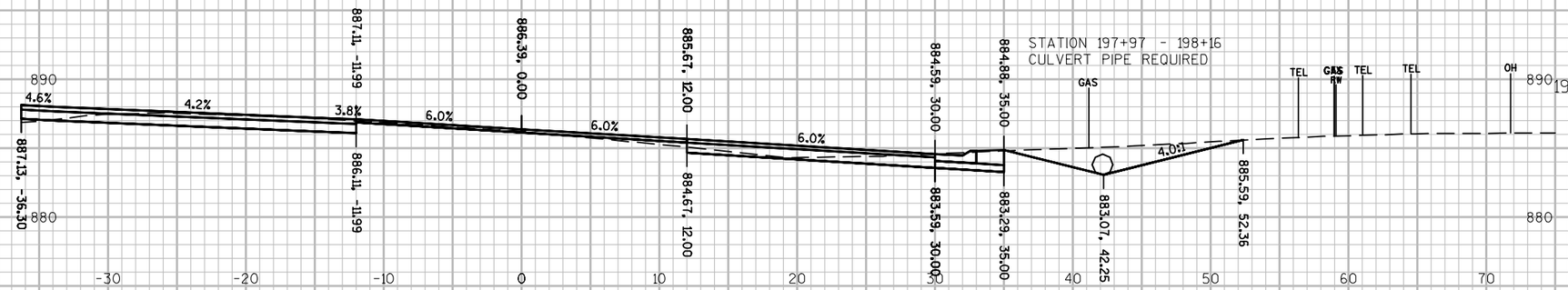
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 204	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

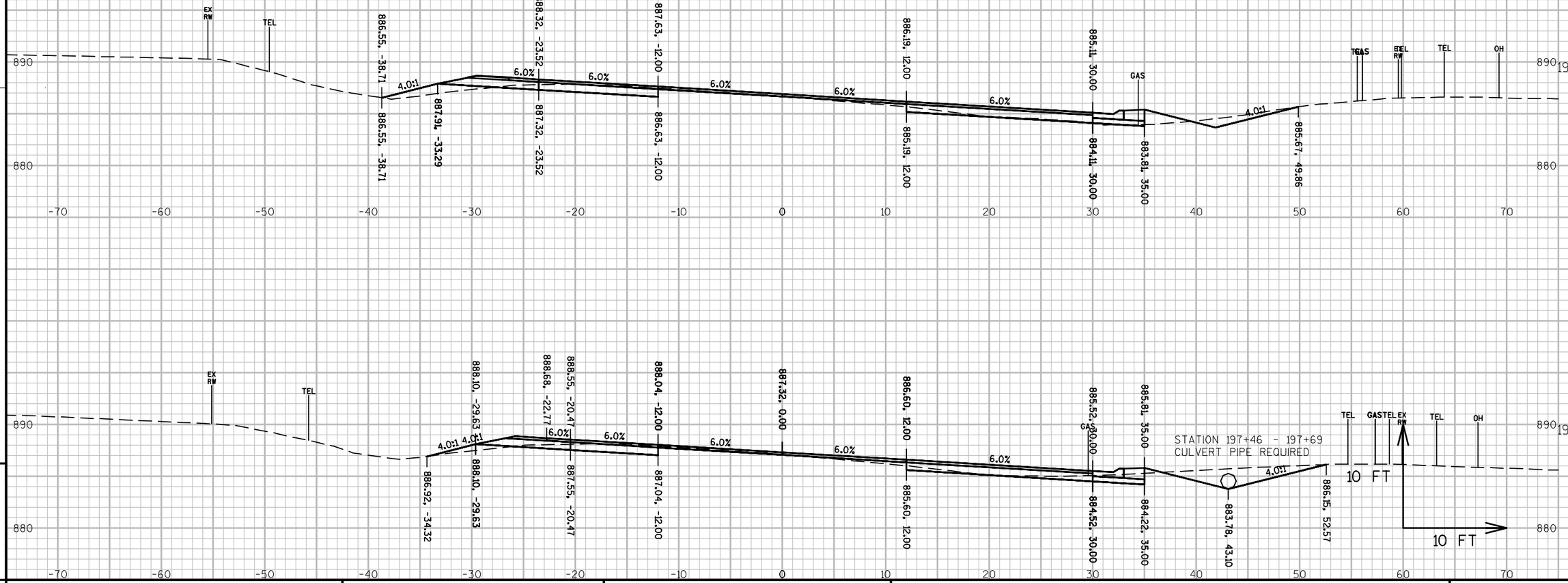
PLOT DATE : 4/19/2019 3:21 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

FOR CONTINUATION SEE CROSS SECTIONS AT OAK LANE



STATION 197+97 - 198+16
CULVERT PIPE REQUIRED



STATION 197+46 - 197+69
CULVERT PIPE REQUIRED

9

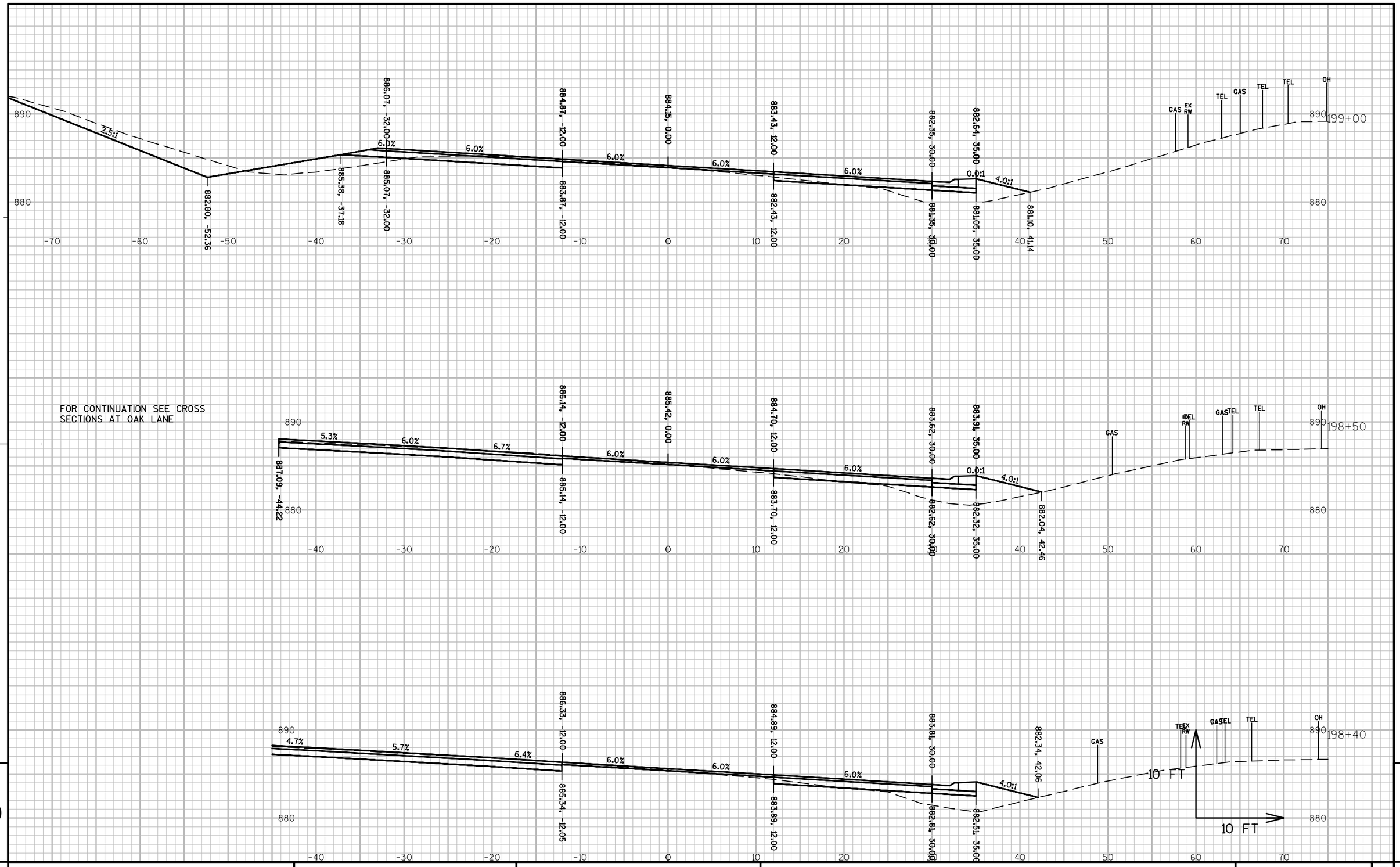
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET	E

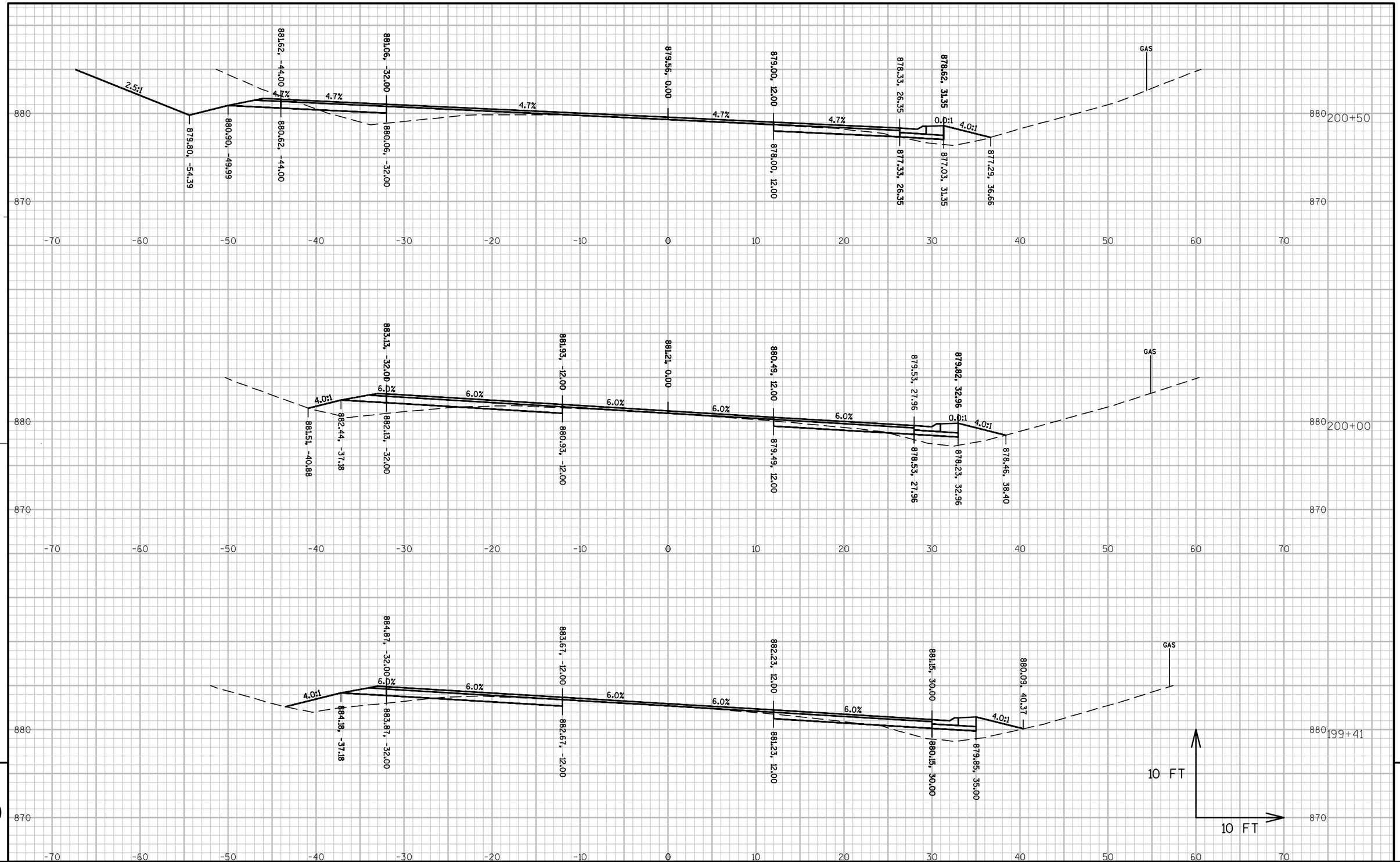
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:21 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 206	E



9

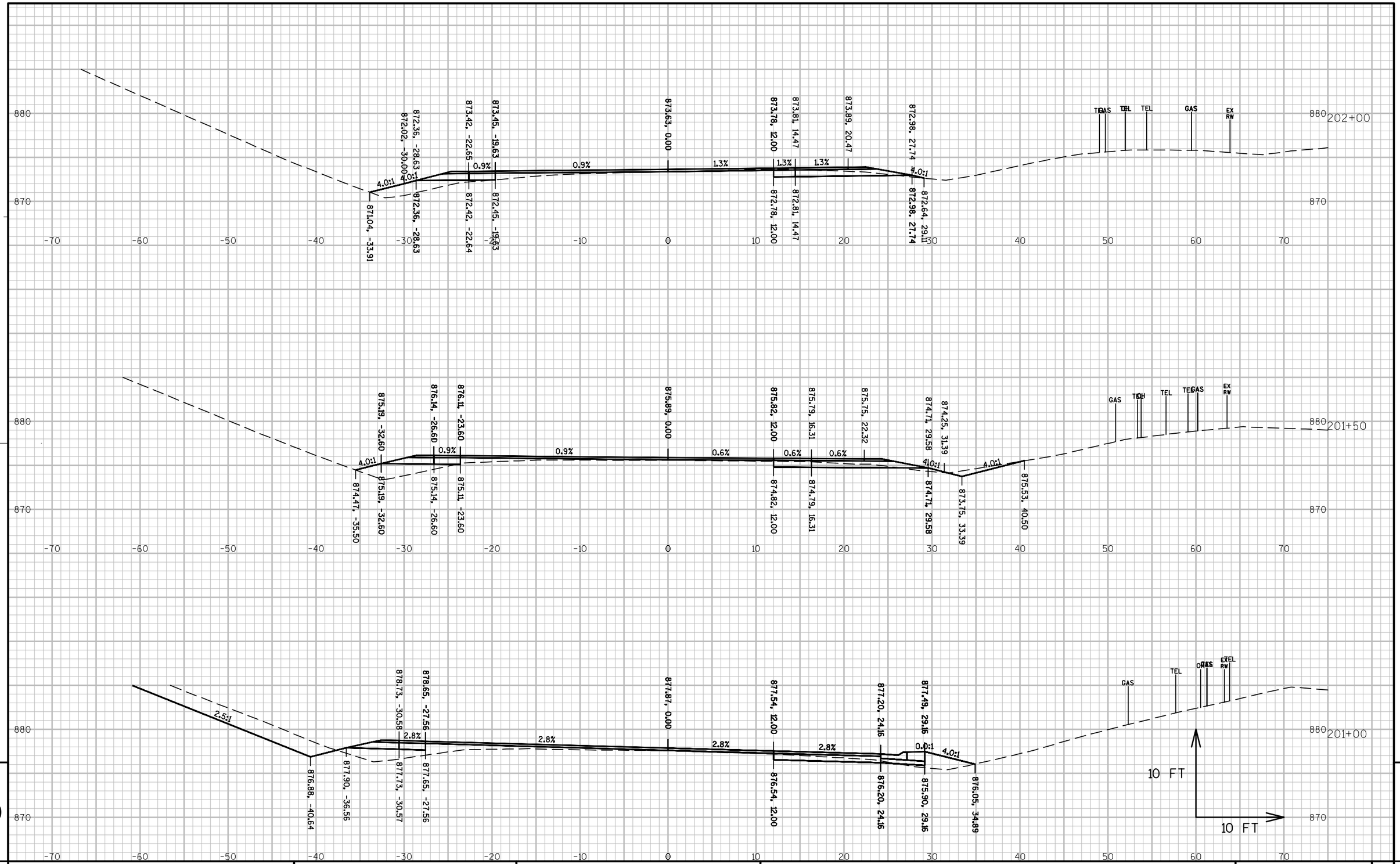
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 207	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:23 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

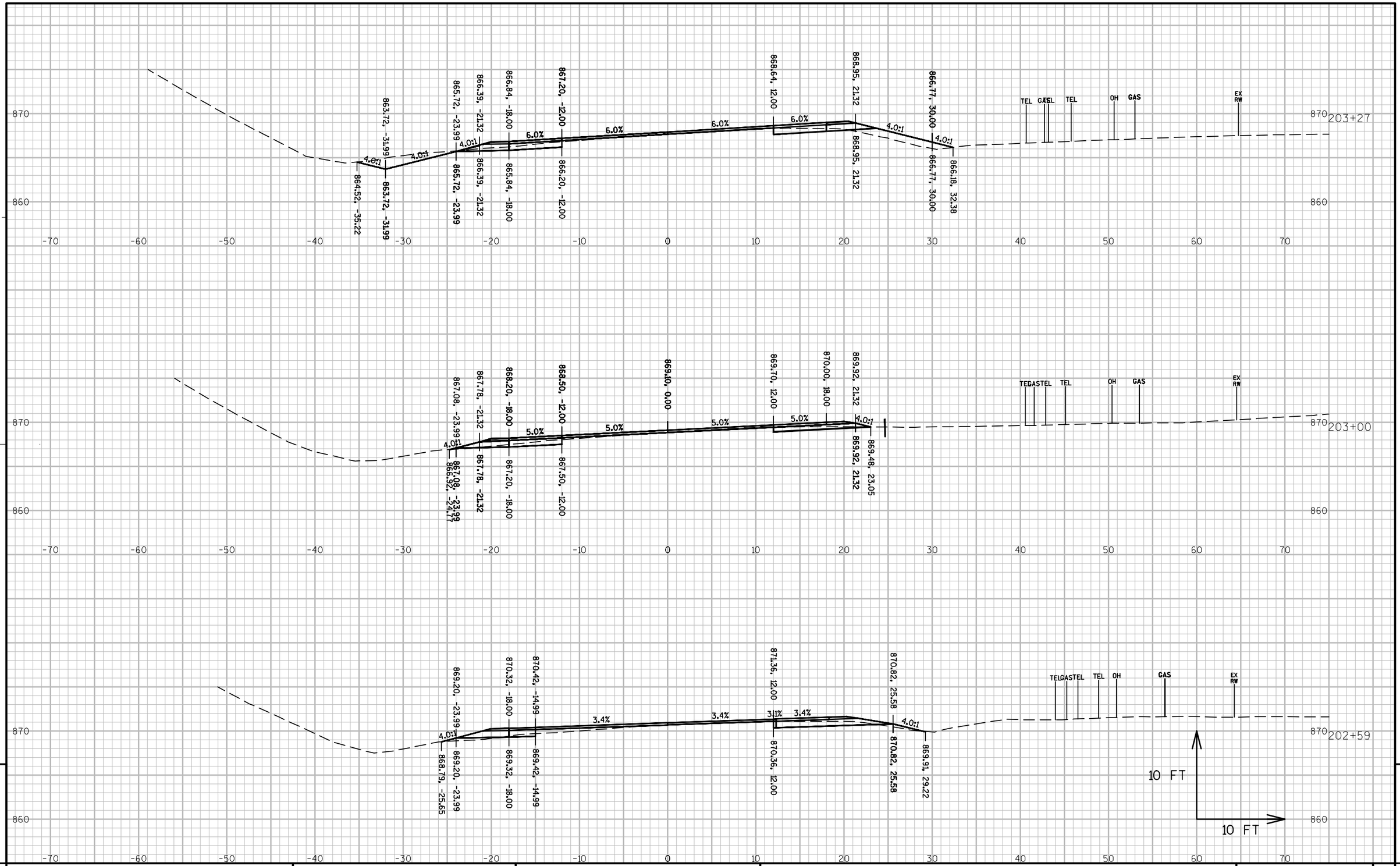


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 208	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:23 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

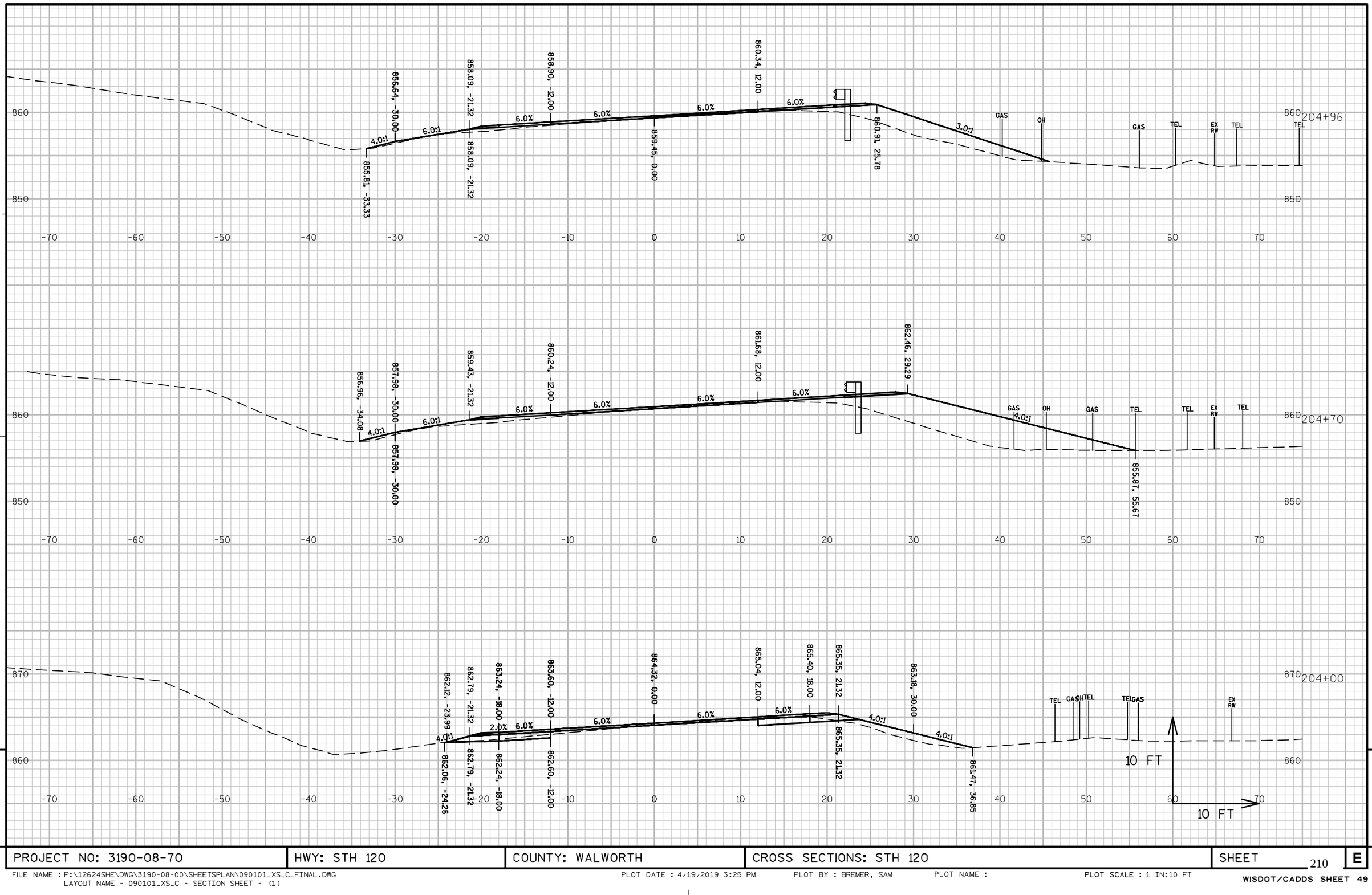


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 209	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:24 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

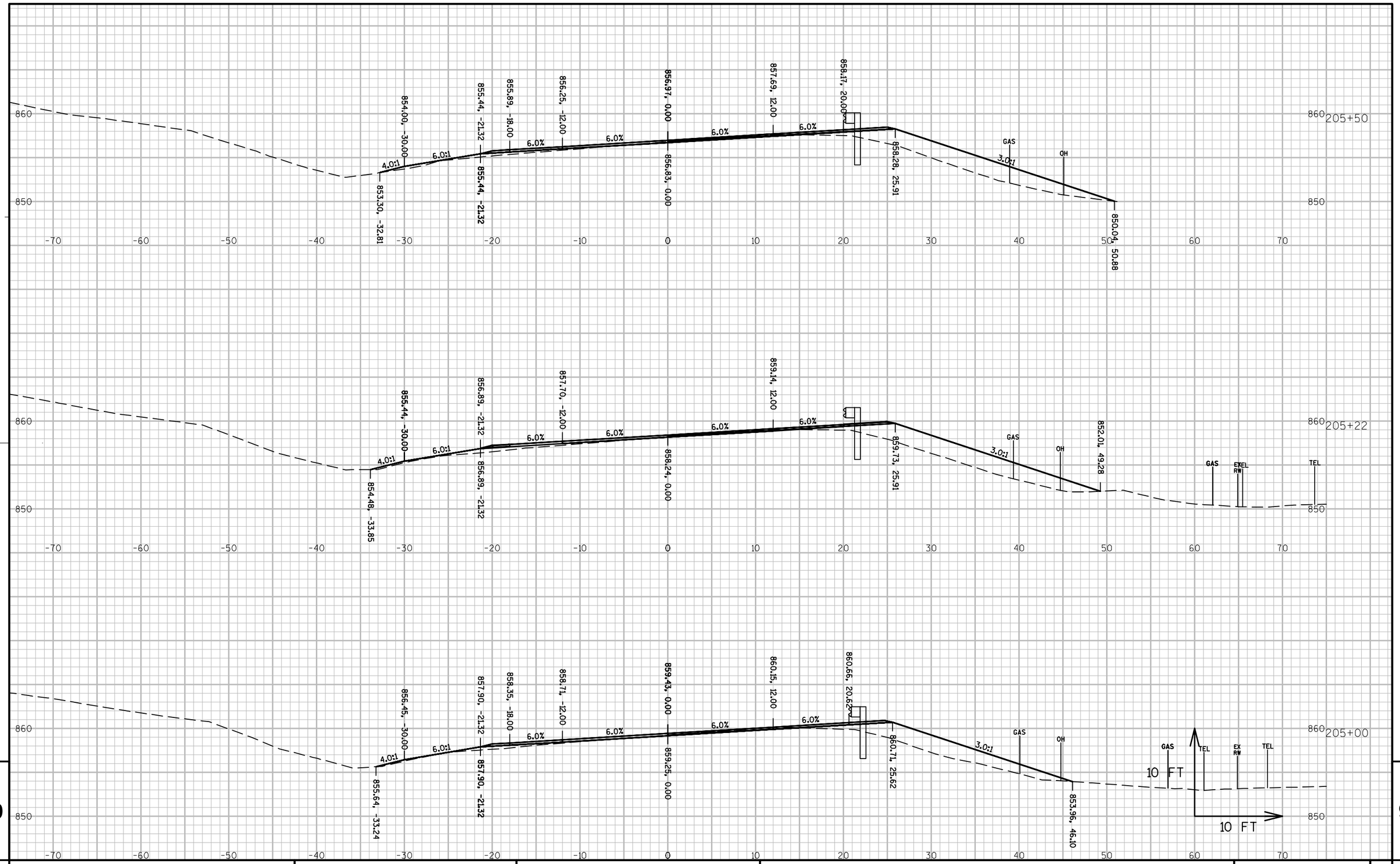


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 210	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:25 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

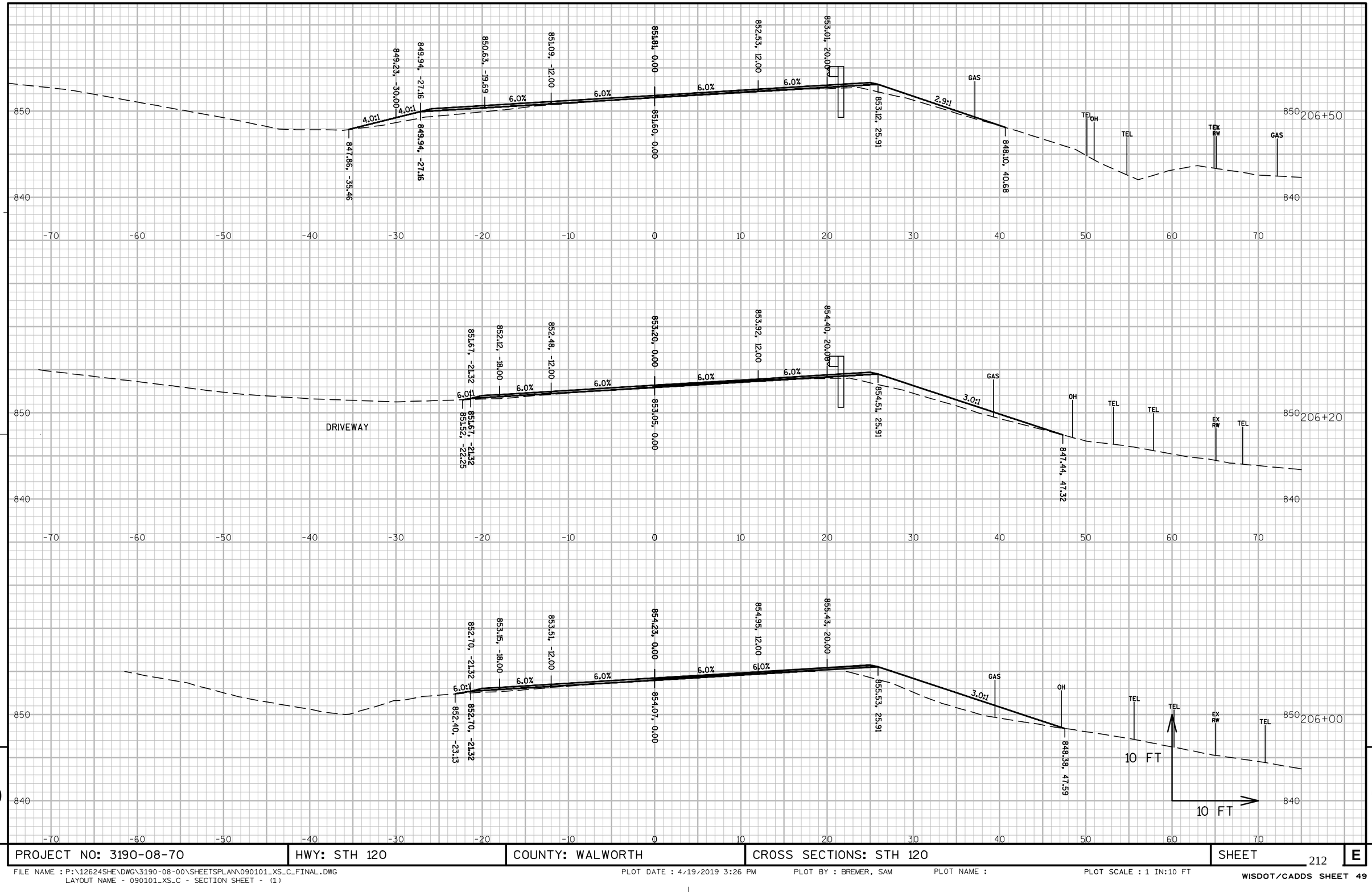
WISDOT/CADDS SHEET 49



9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 211	E

9



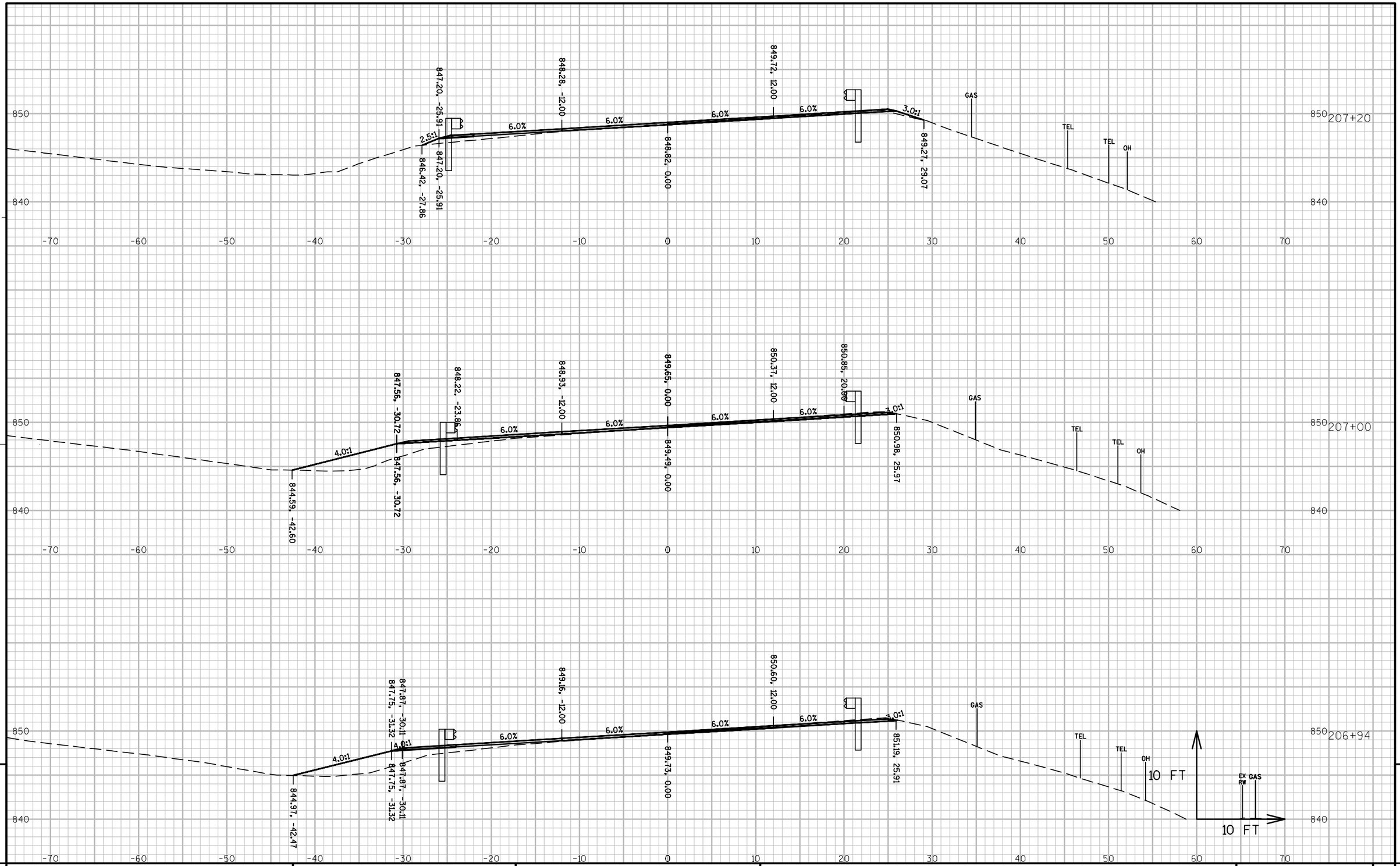
9

9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 212	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:26 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT



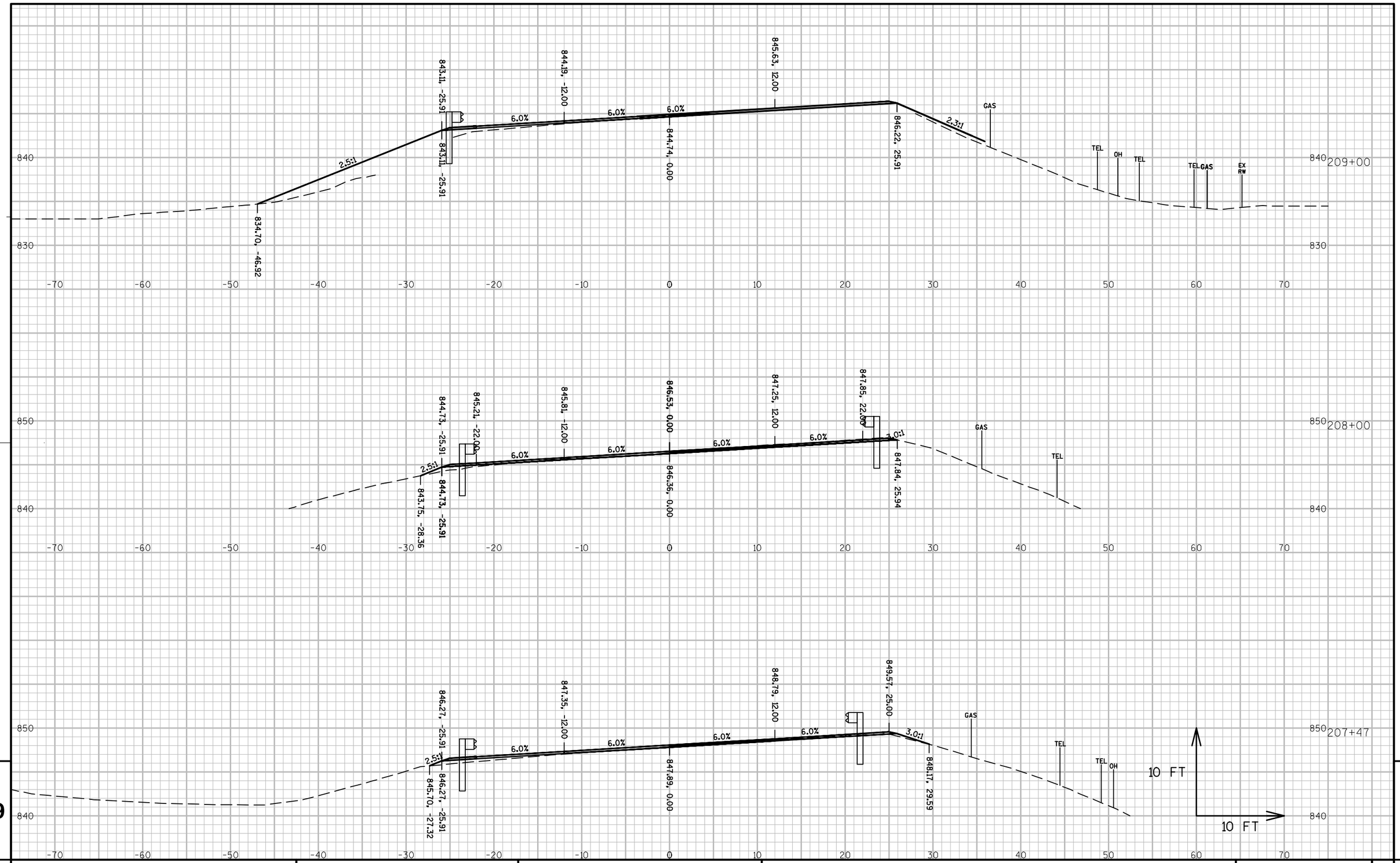
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 213	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:27 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

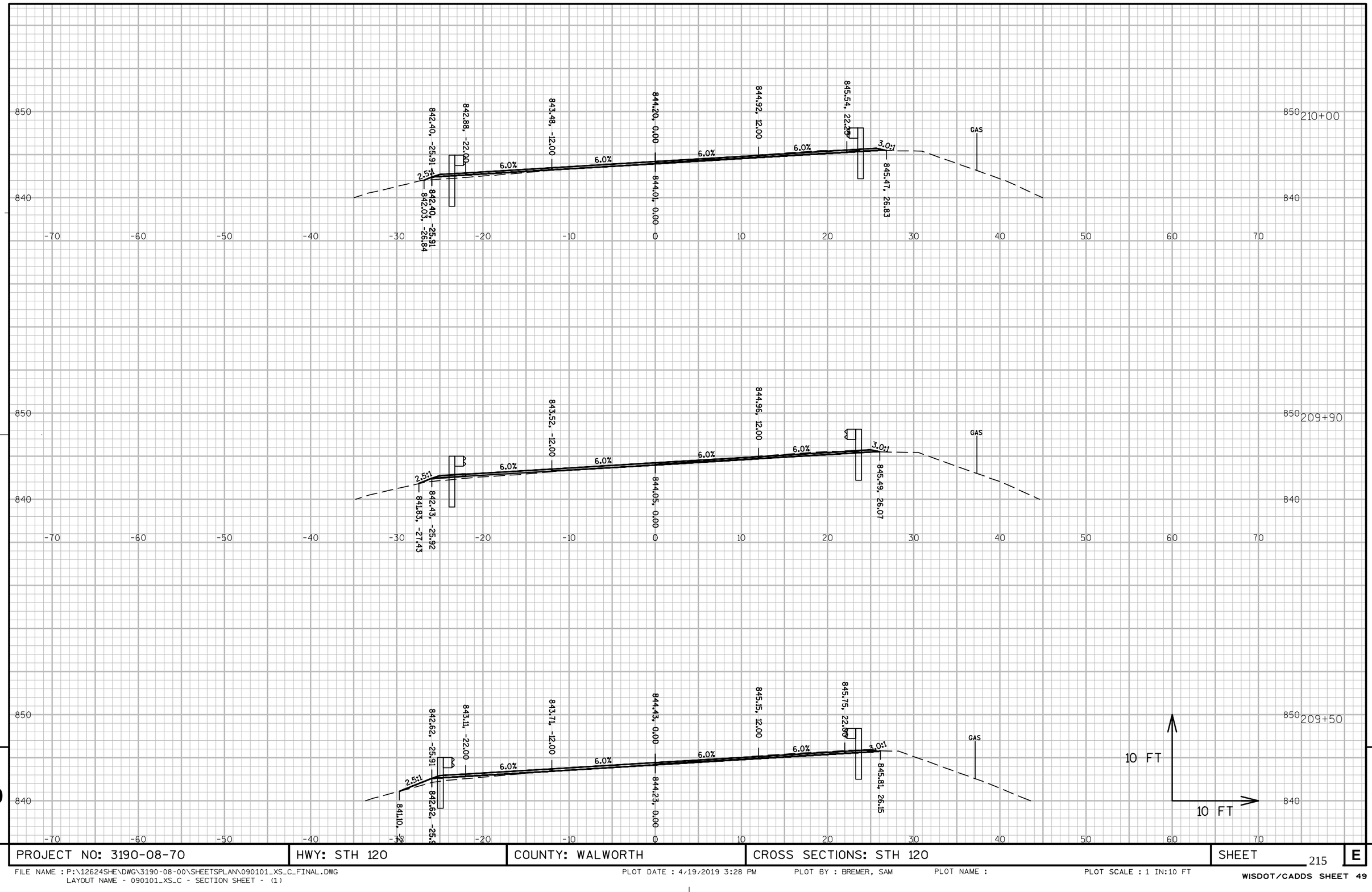


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 214	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:27 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

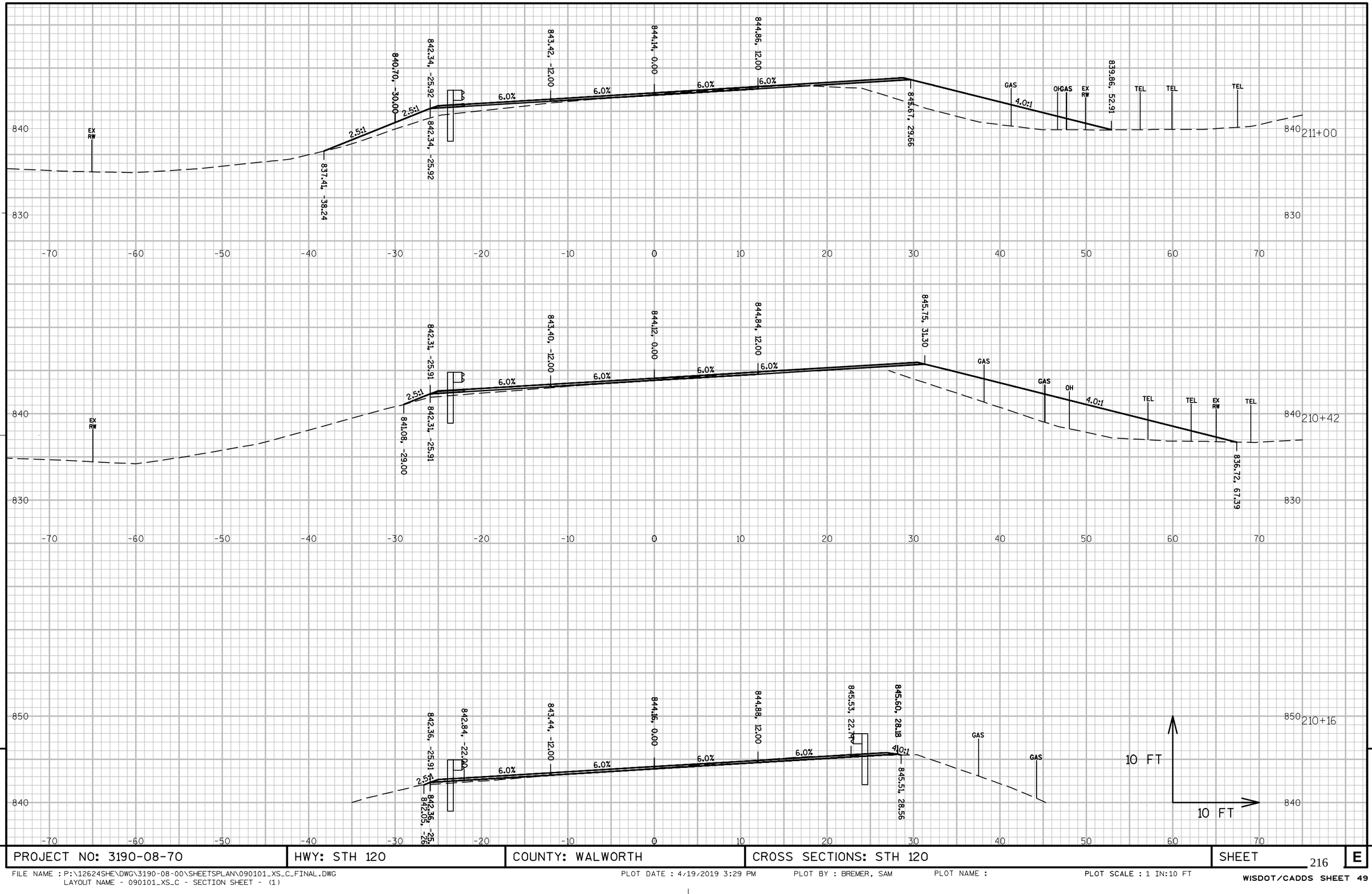
WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 215	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:28 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT



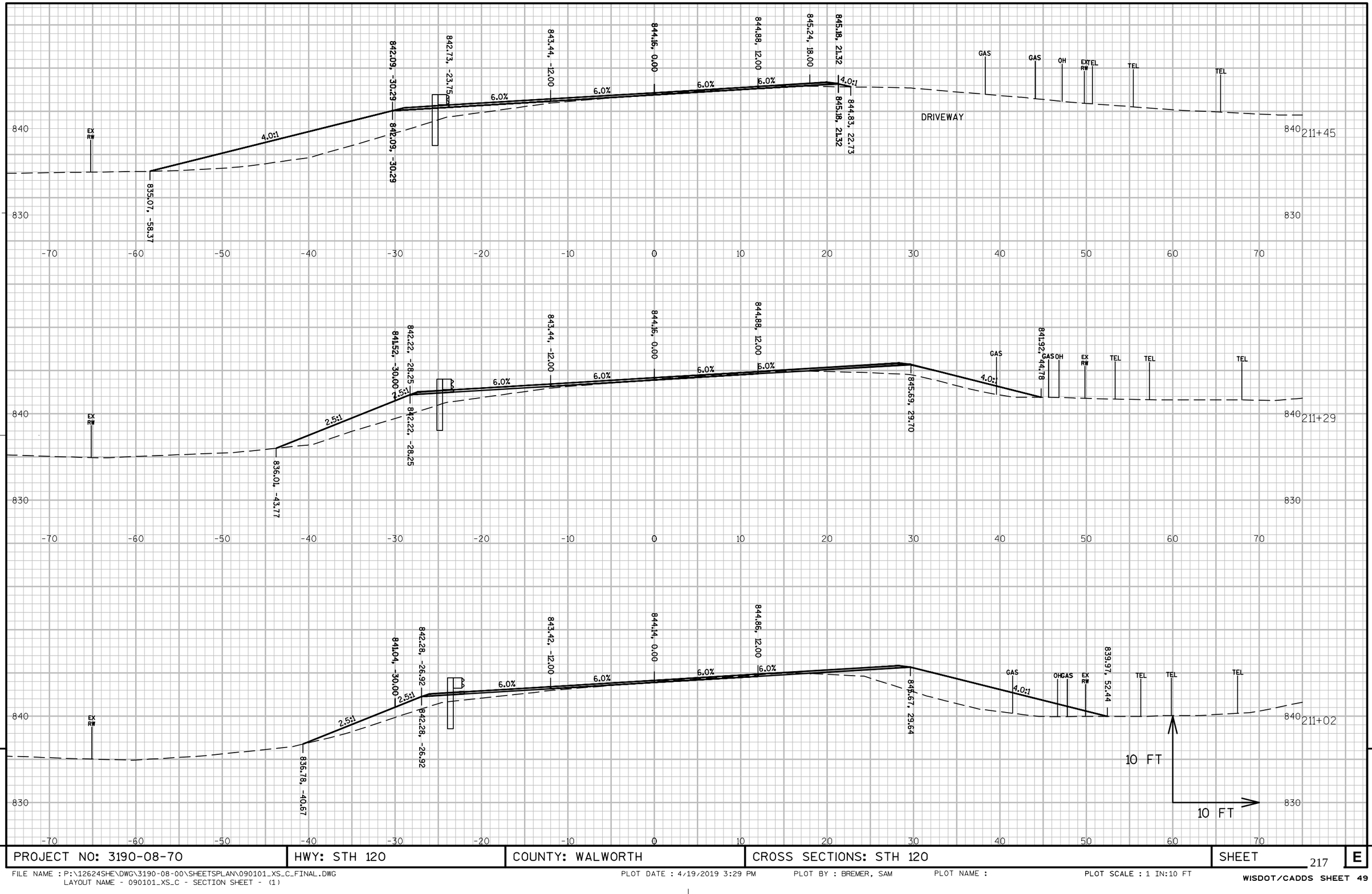
9 9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 216	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:29 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

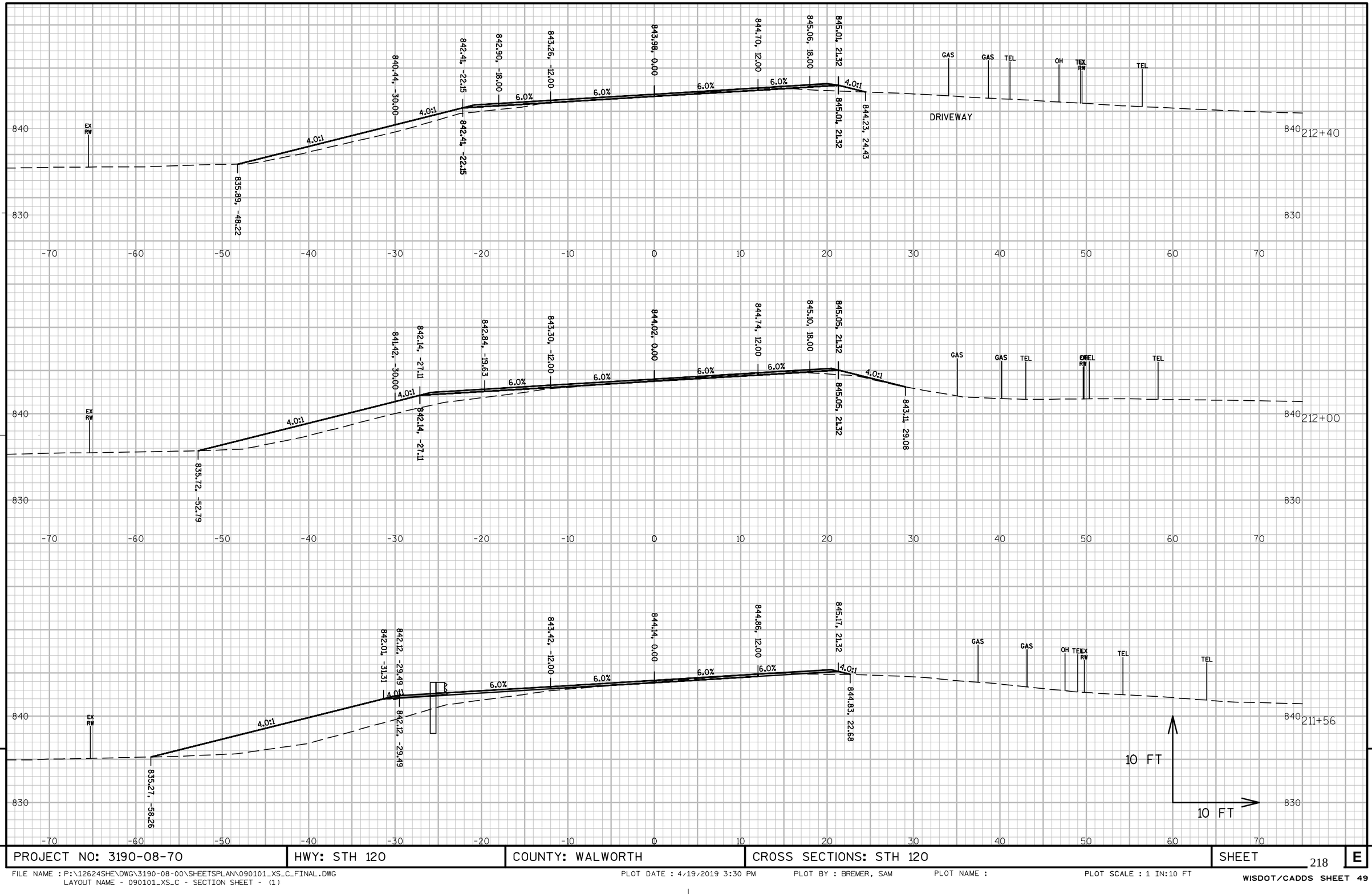
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 217	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:29 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



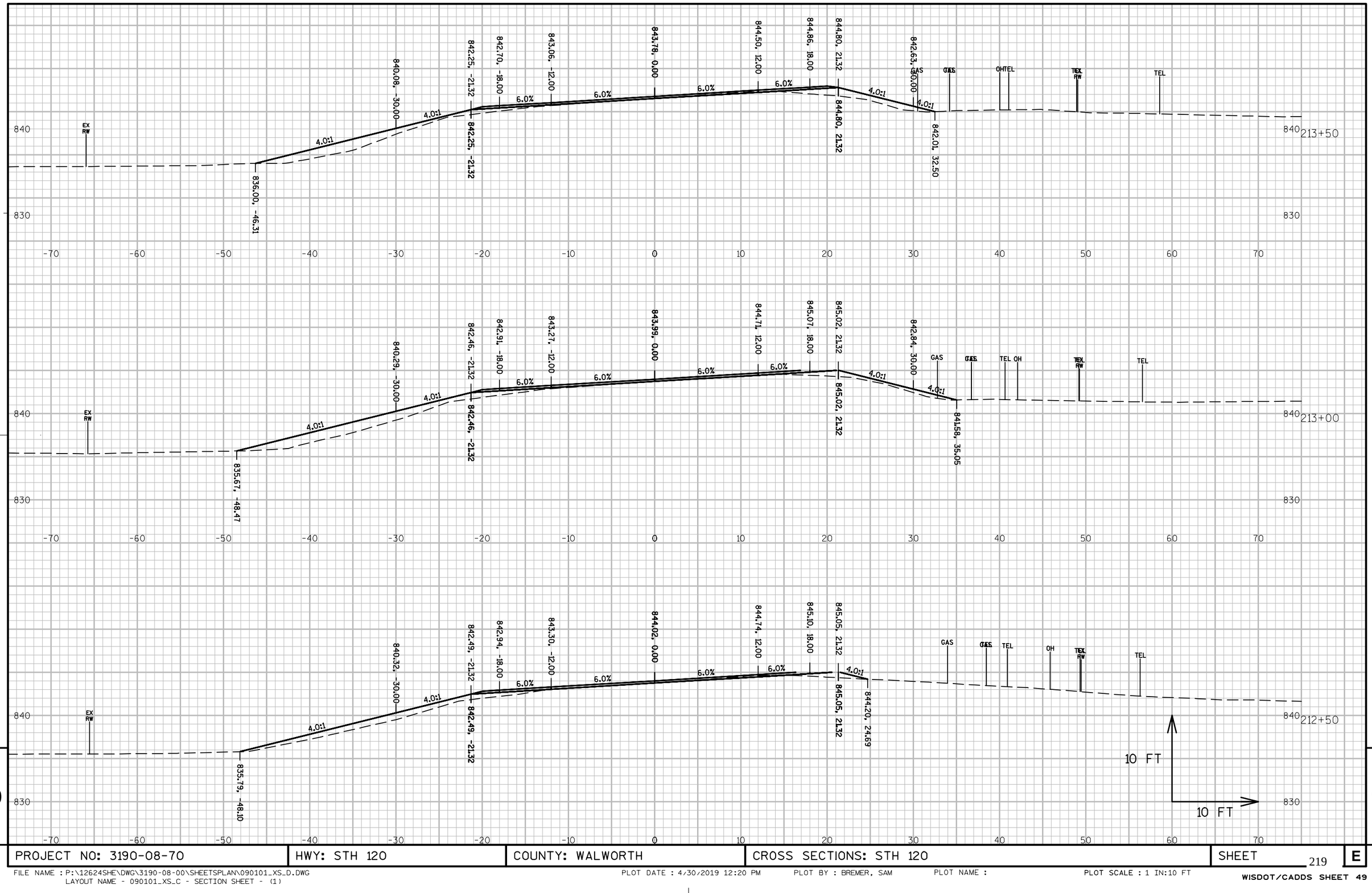
9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 218	E

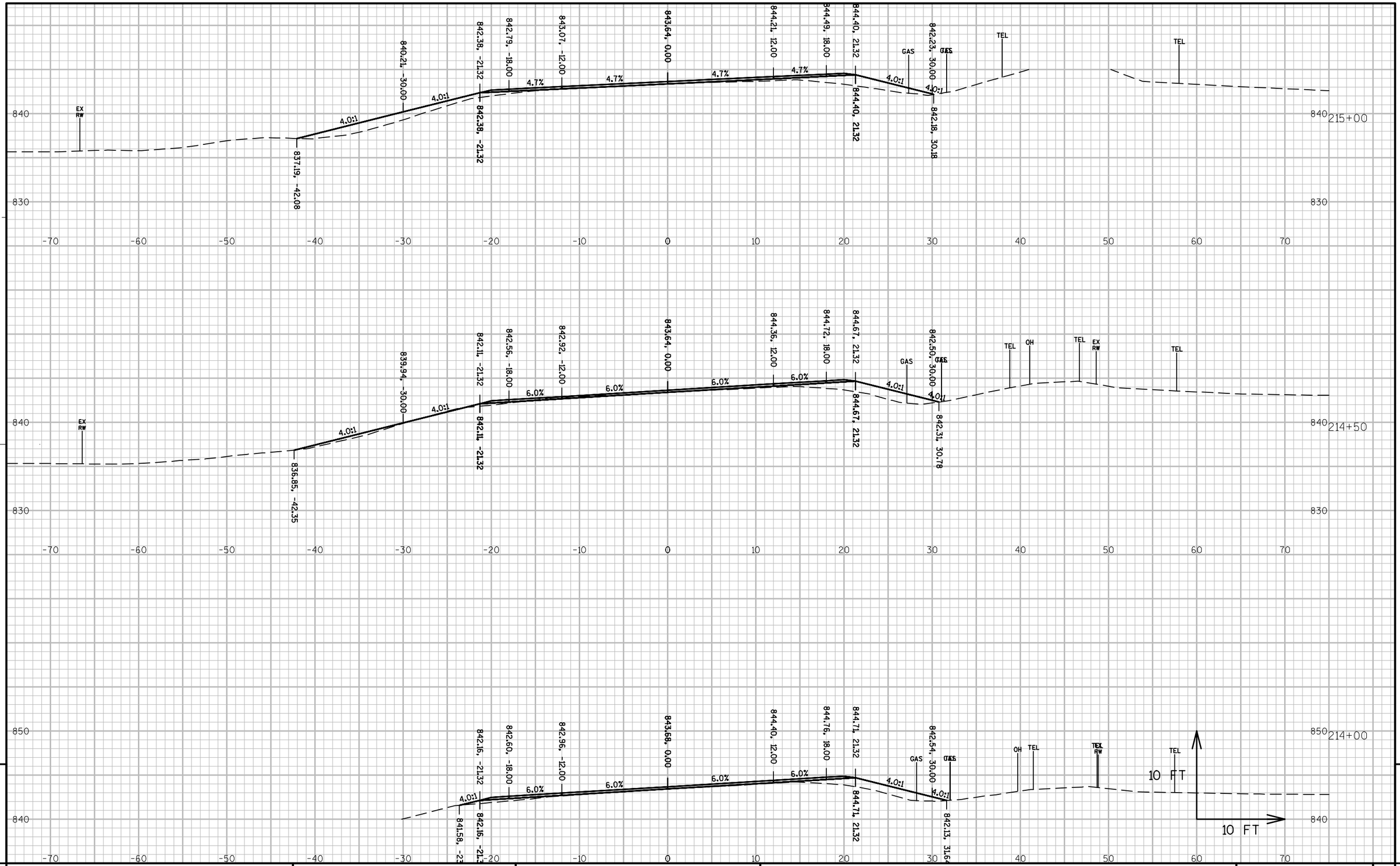
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_C_FINAL.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/19/2019 3:30 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 219	E

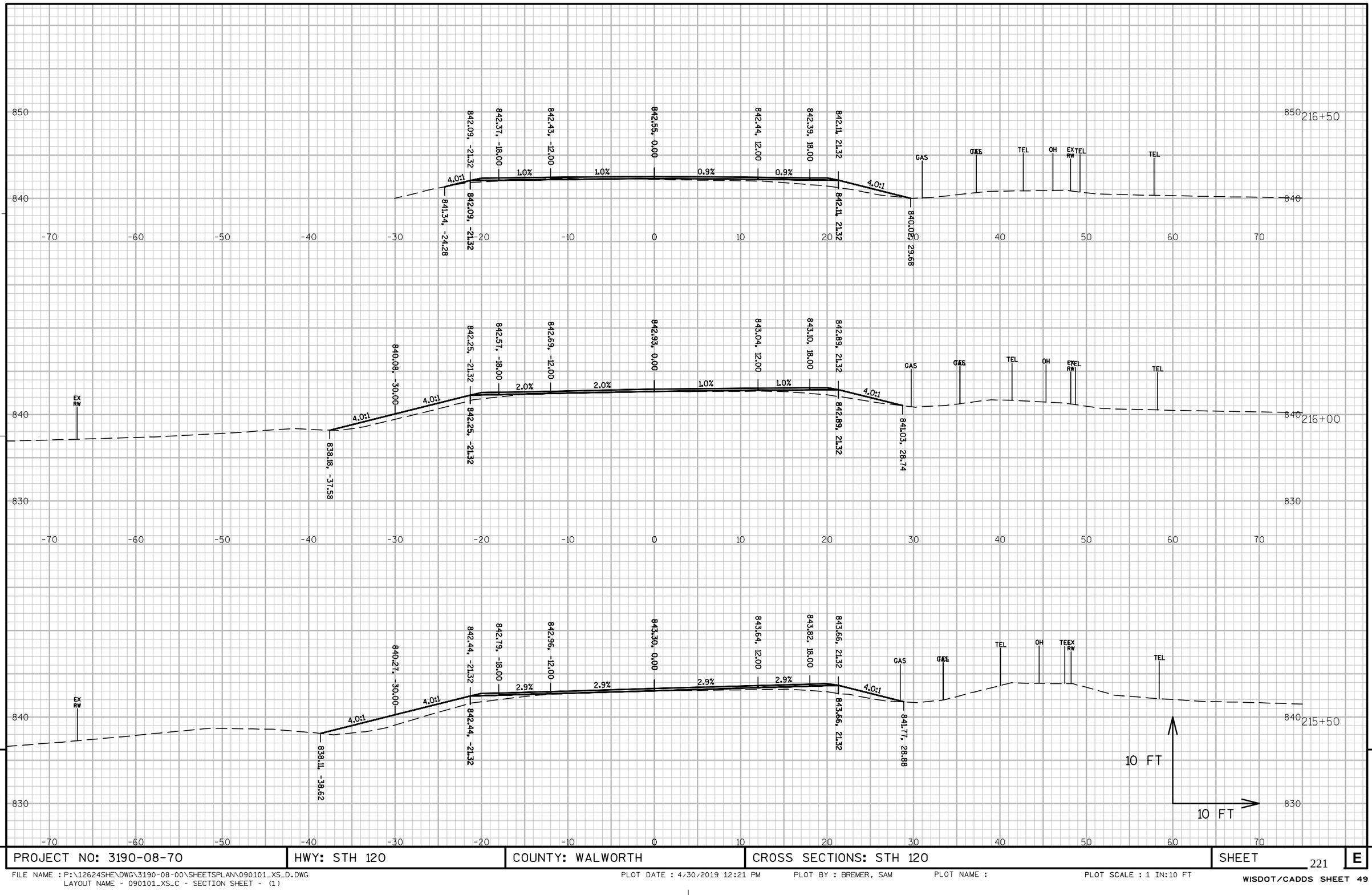


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 220	E

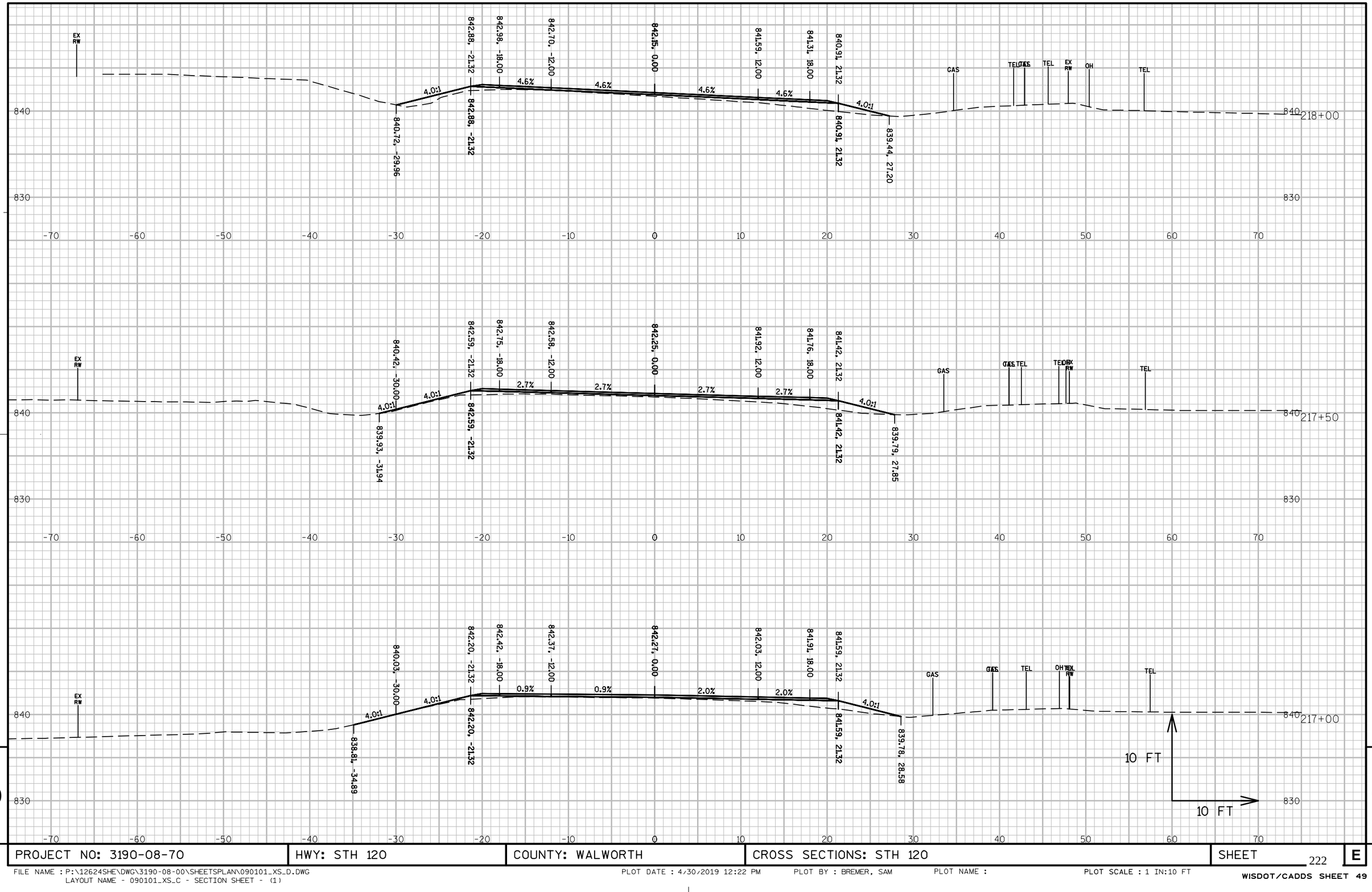
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:21 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 221	E

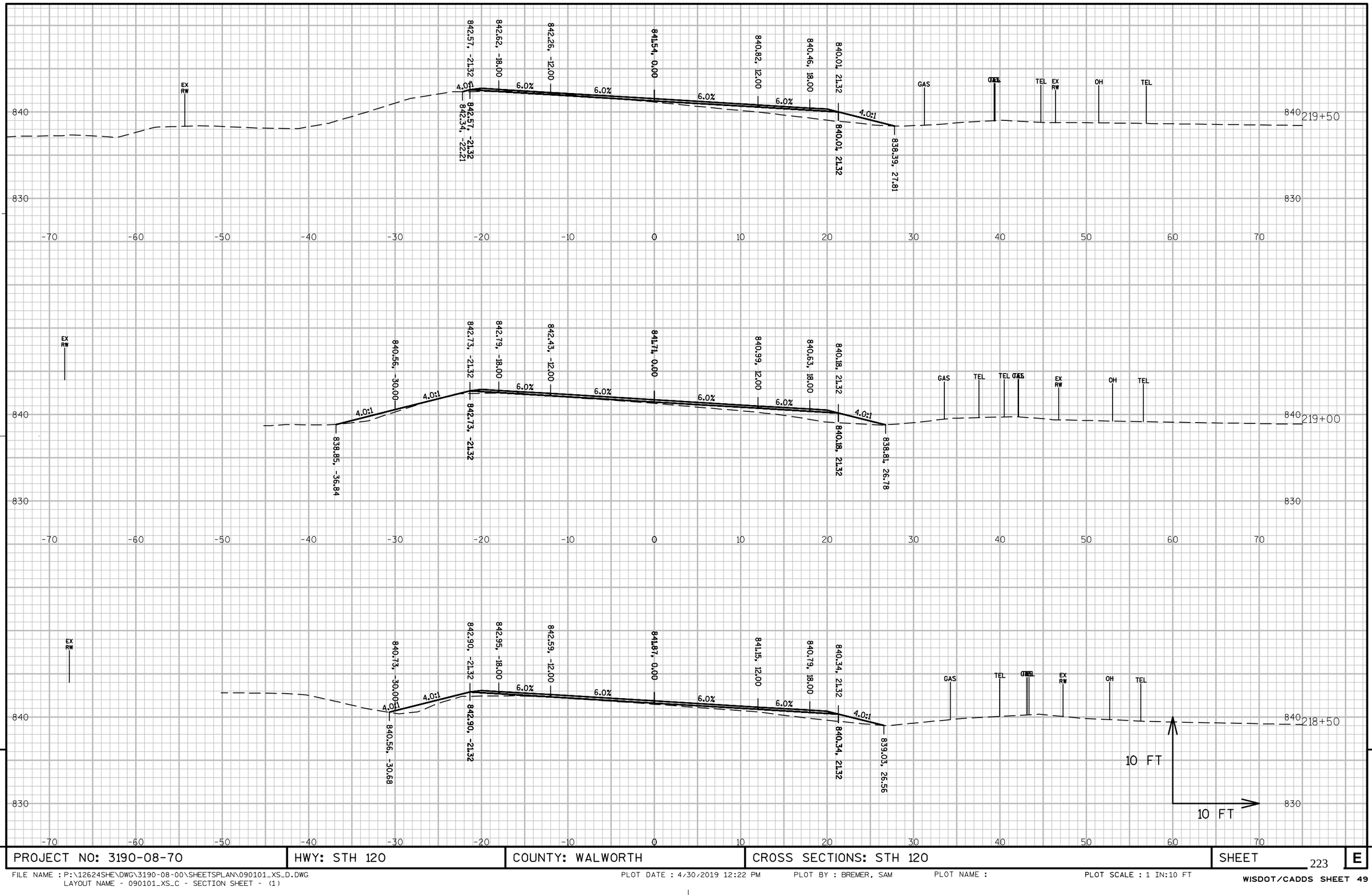


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 222	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:22 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

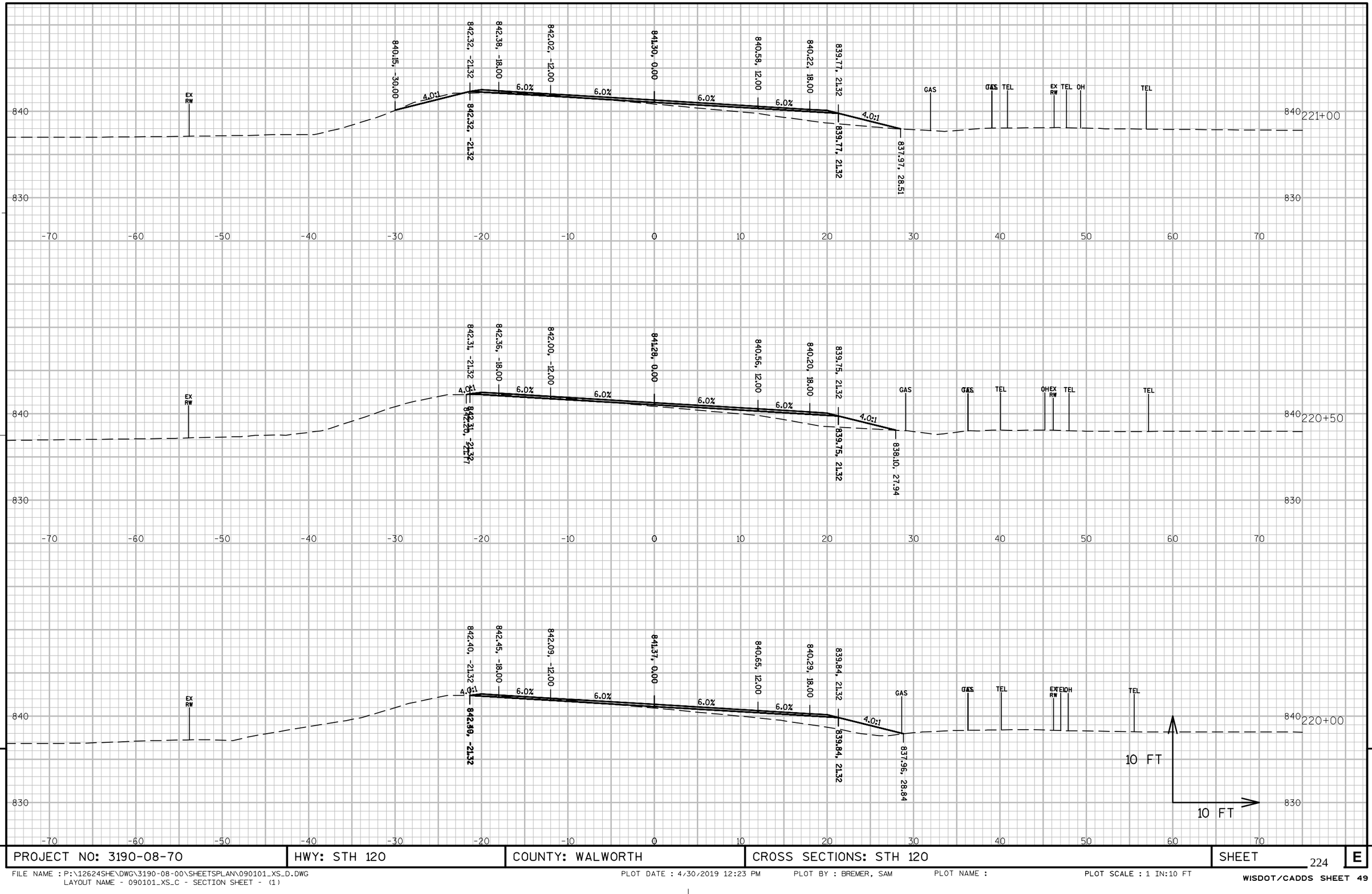


PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 223	E

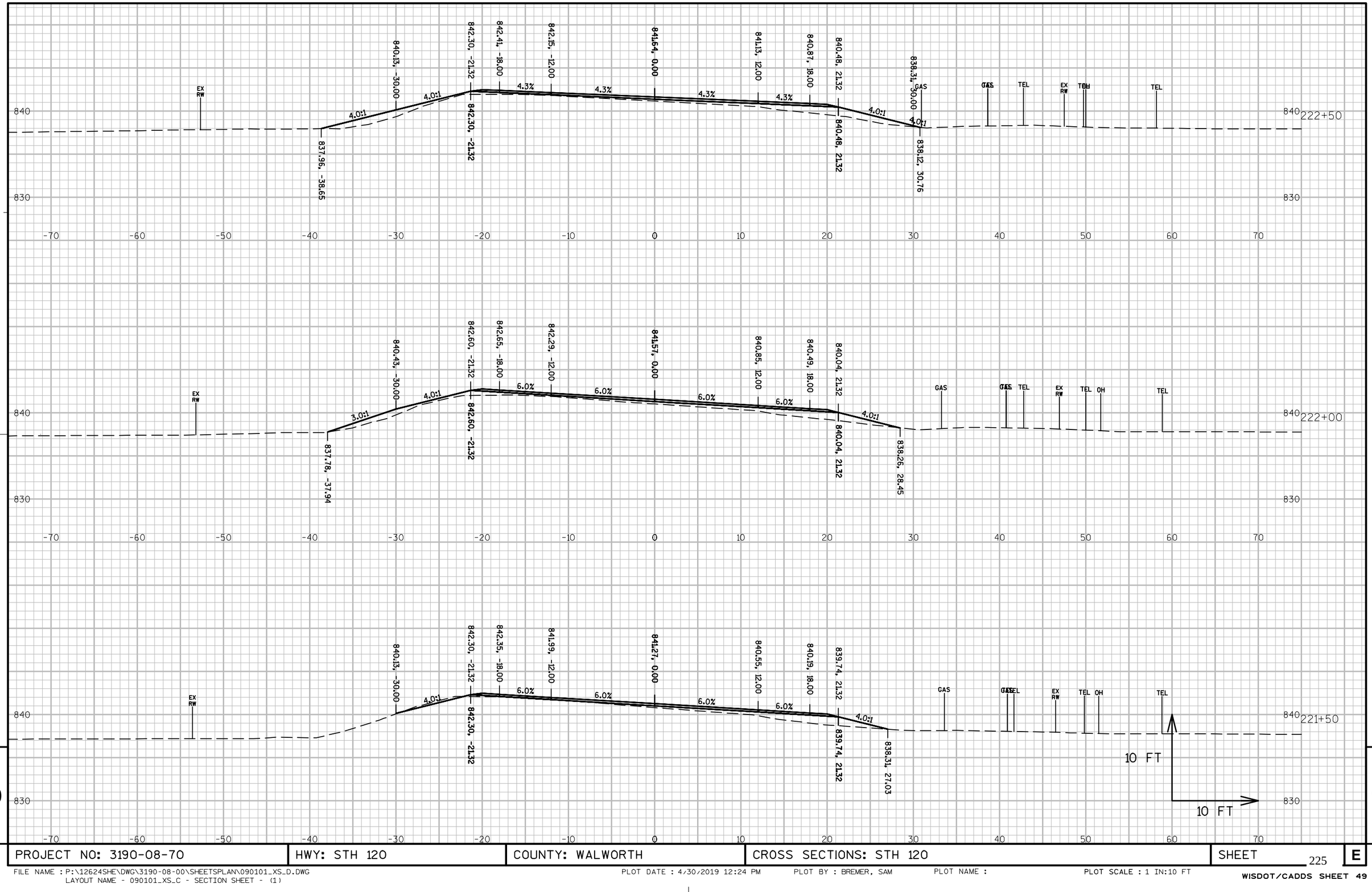
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:22 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 224	E



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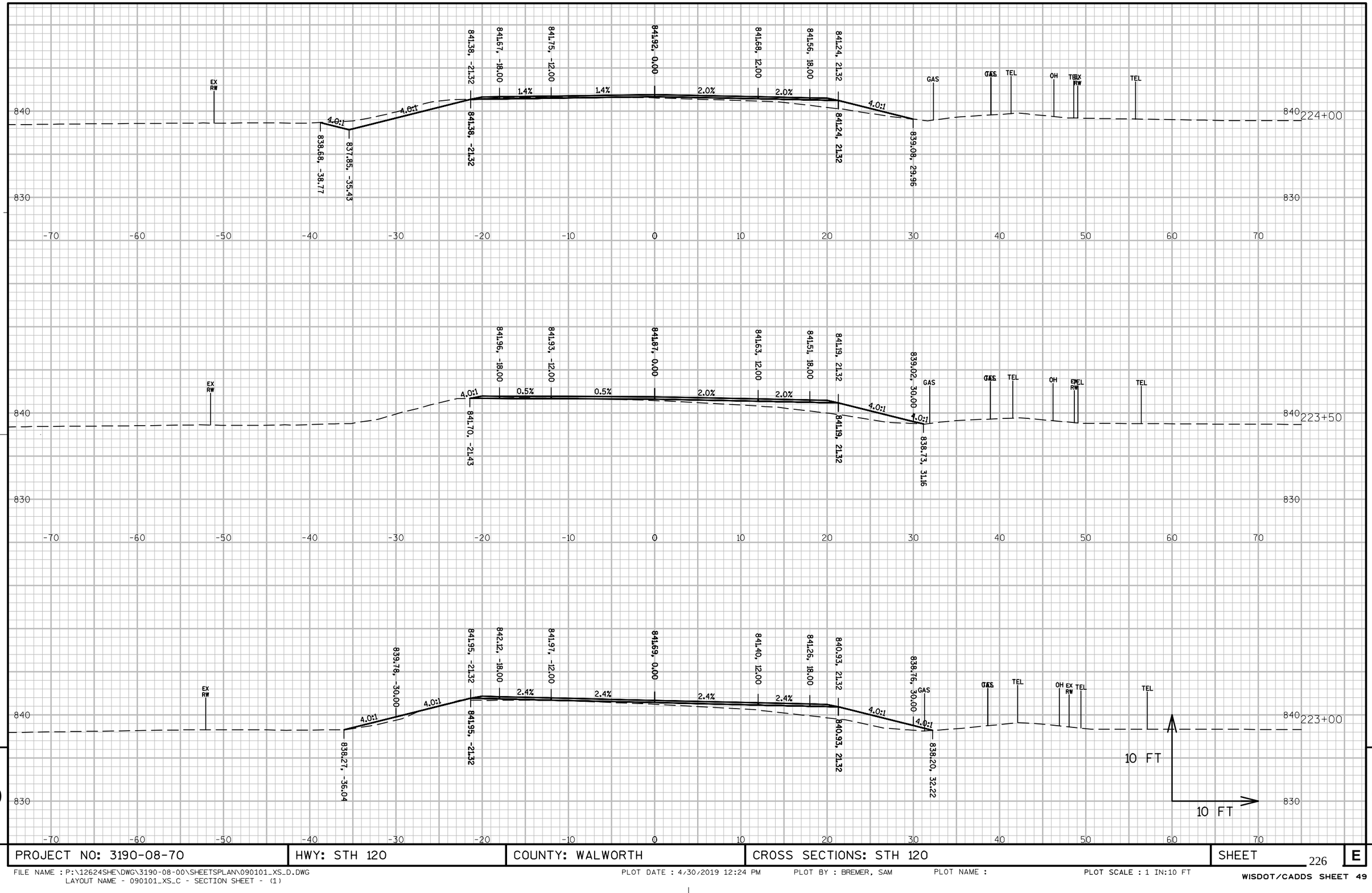
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 225	E

9

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)
PLOT DATE : 4/30/2019 12:24 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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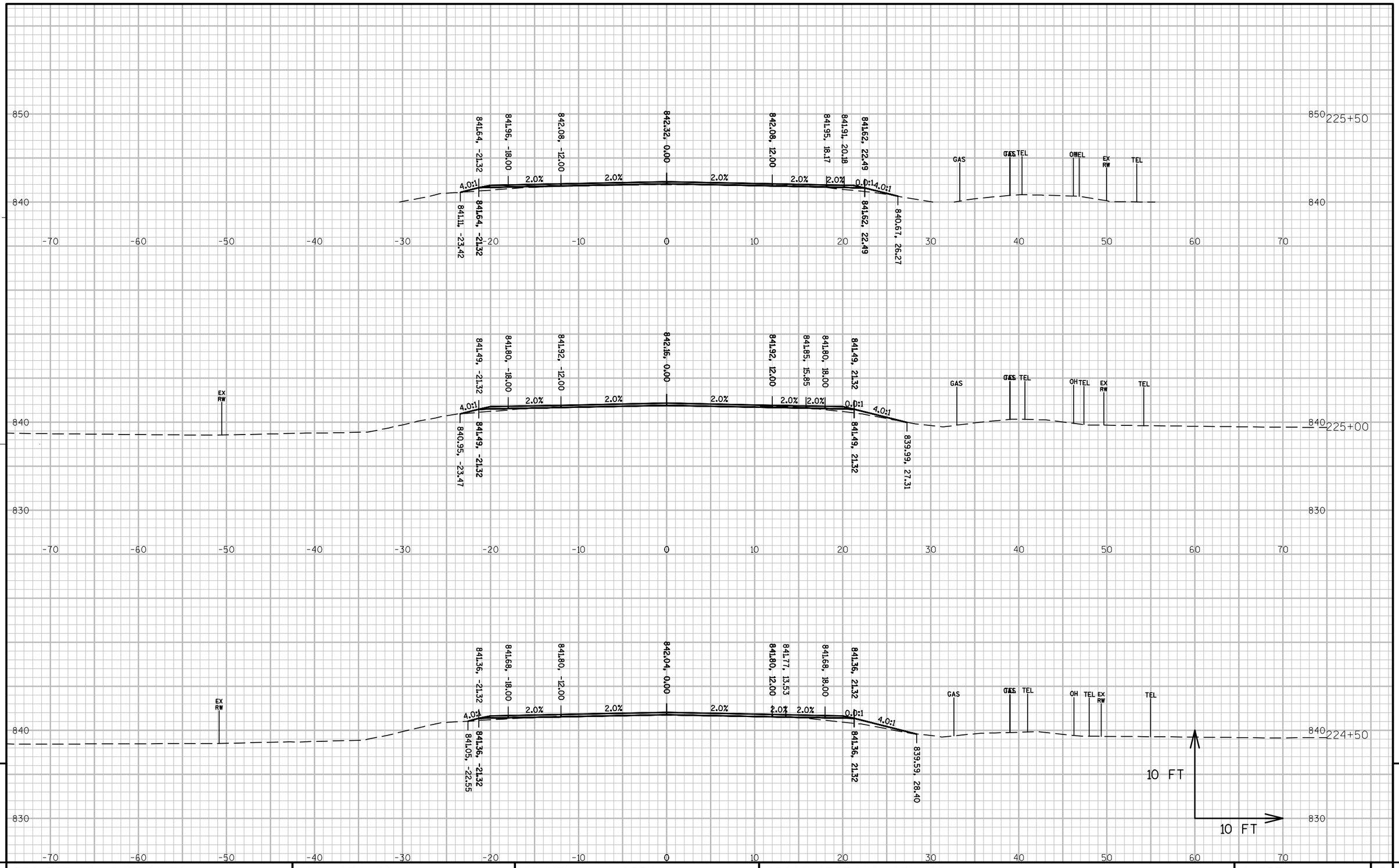
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 226	E

9

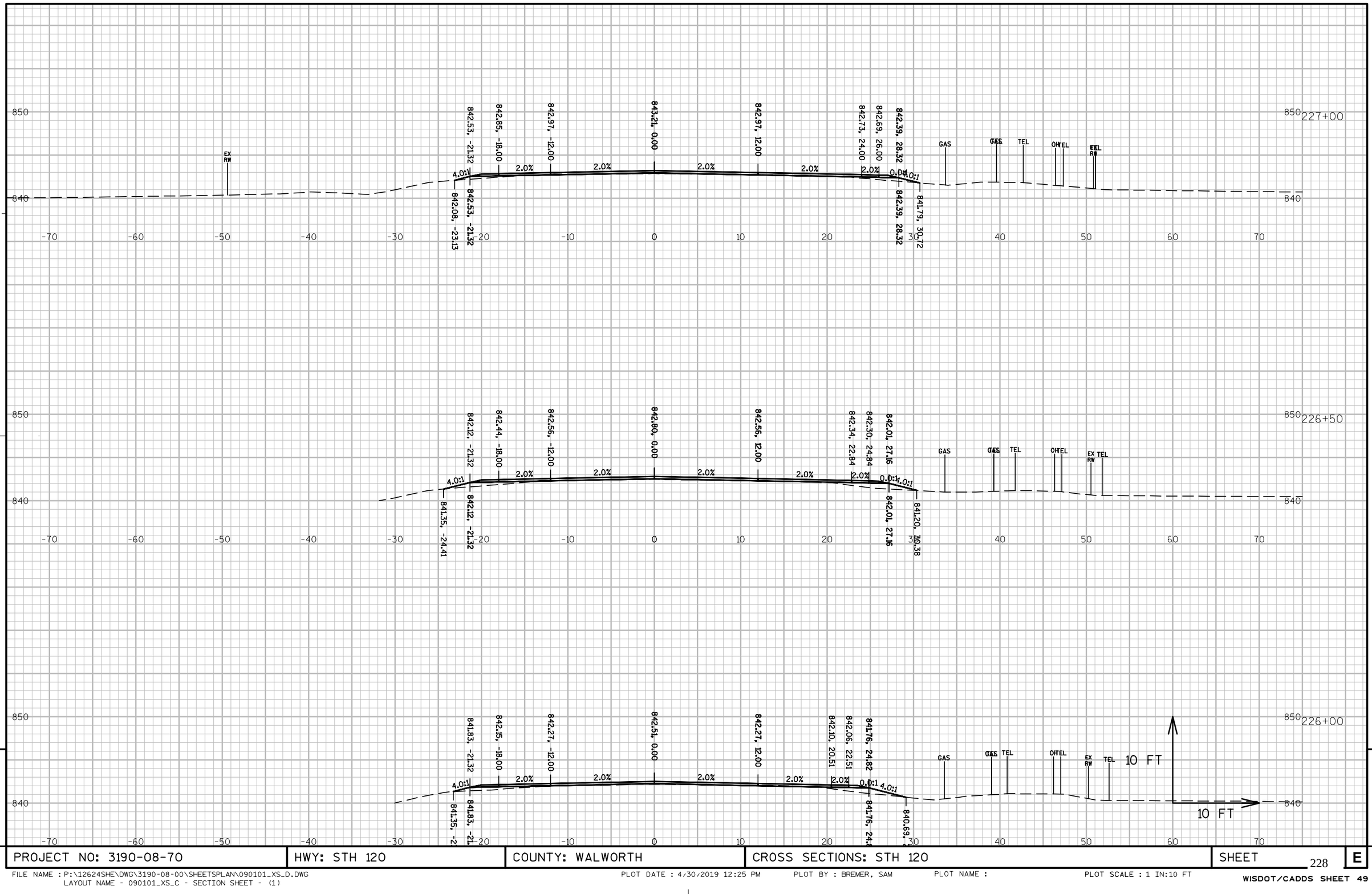
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:24 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 227	E



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9

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 228	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:25 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

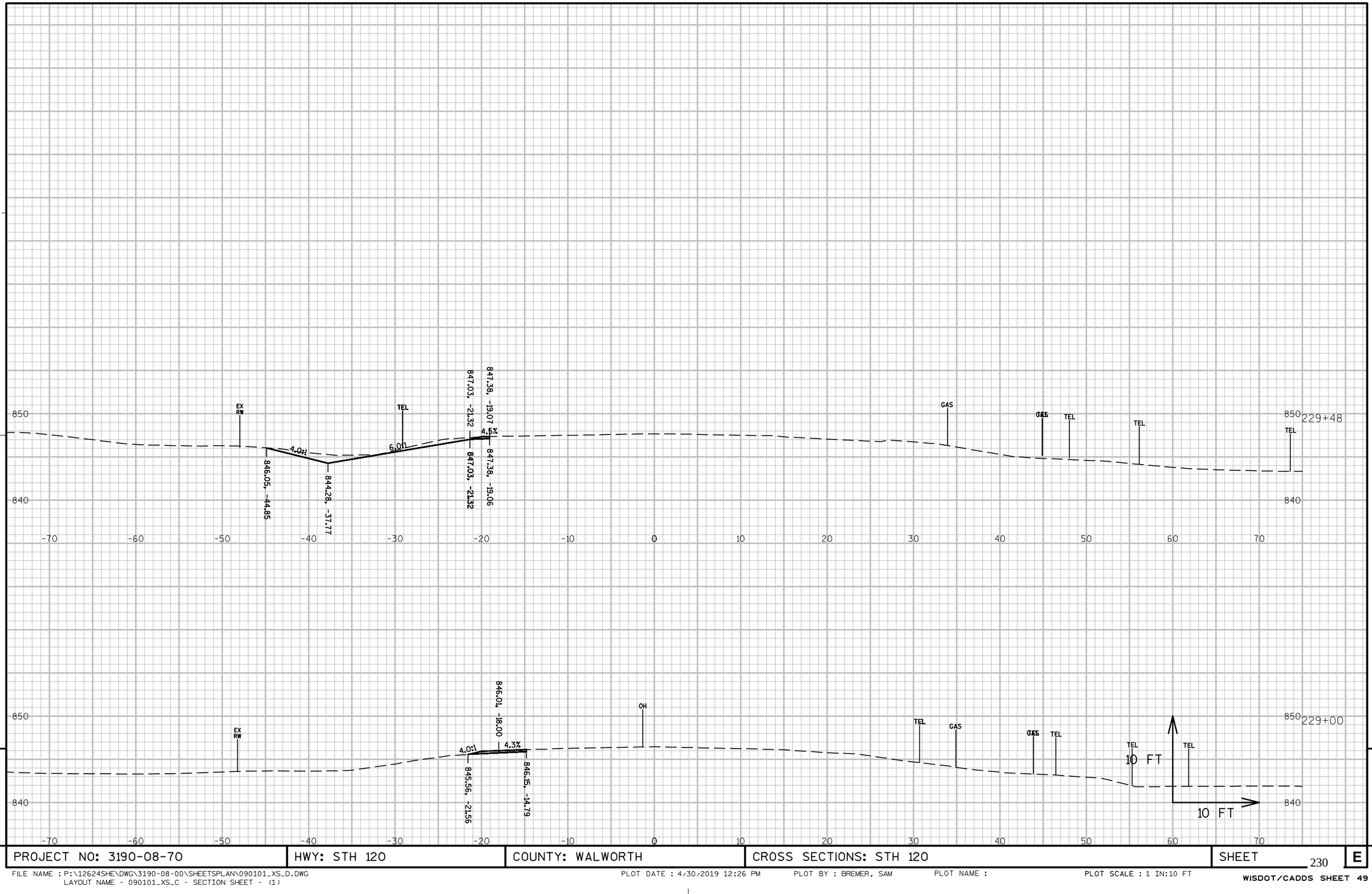
WISDOT/CADDS SHEET 49

PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 229	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:26 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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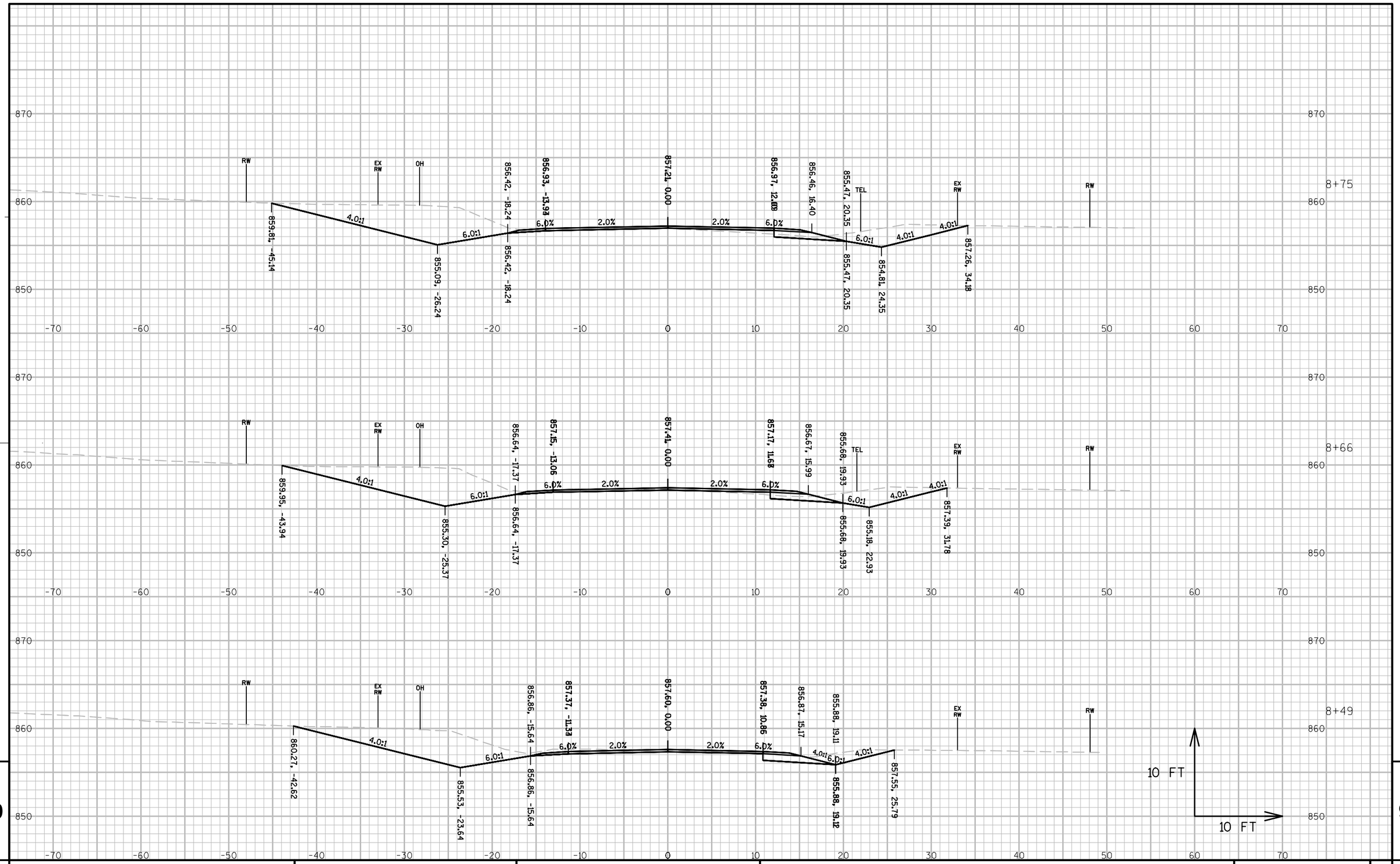
PROJECT NO: 3190-08-70	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: STH 120	SHEET 230	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090101_XS_D.DWG
LAYOUT NAME - 090101_XS_C - SECTION SHEET - (1)

PLOT DATE : 4/30/2019 12:26 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

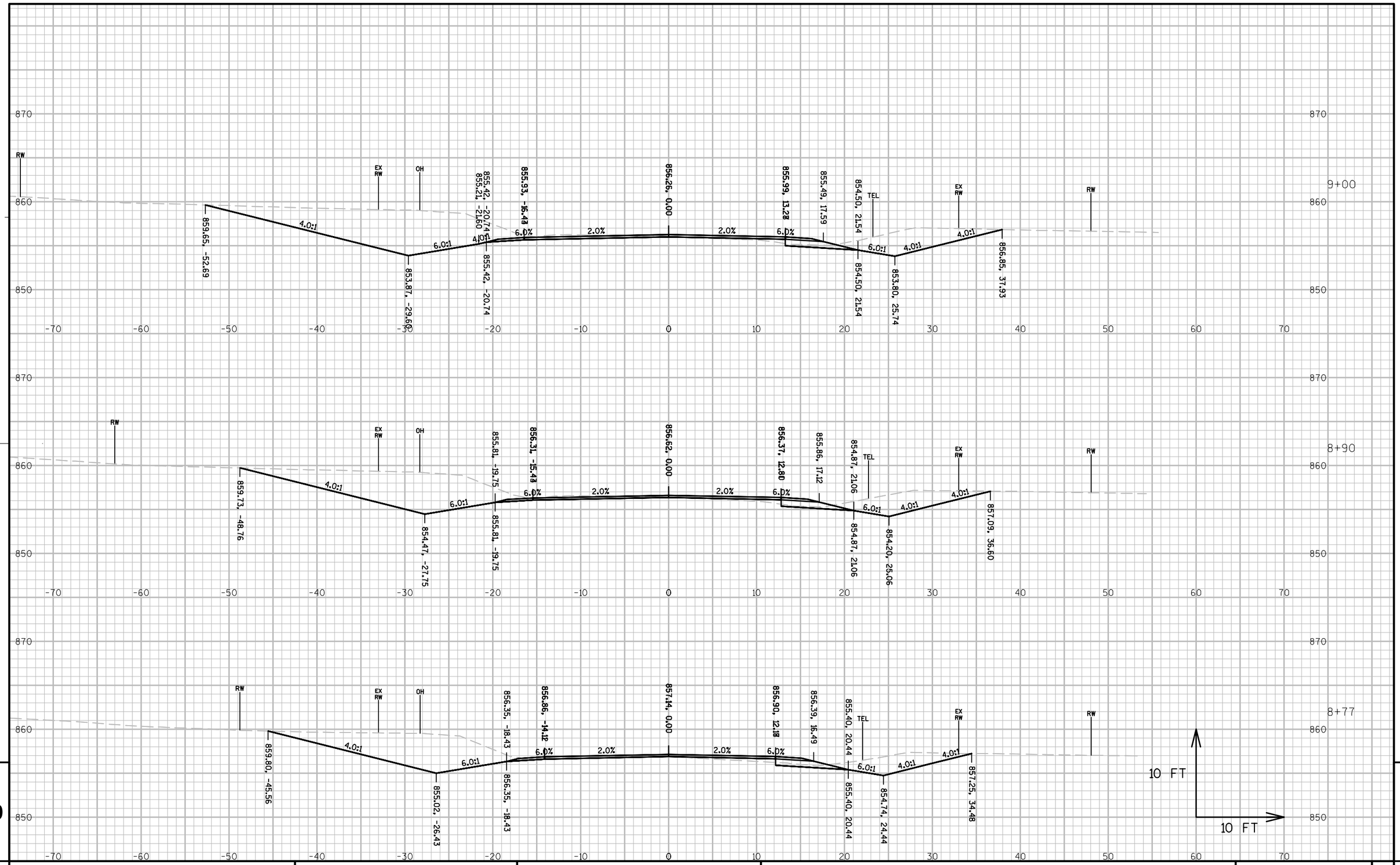


PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 231	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (107)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



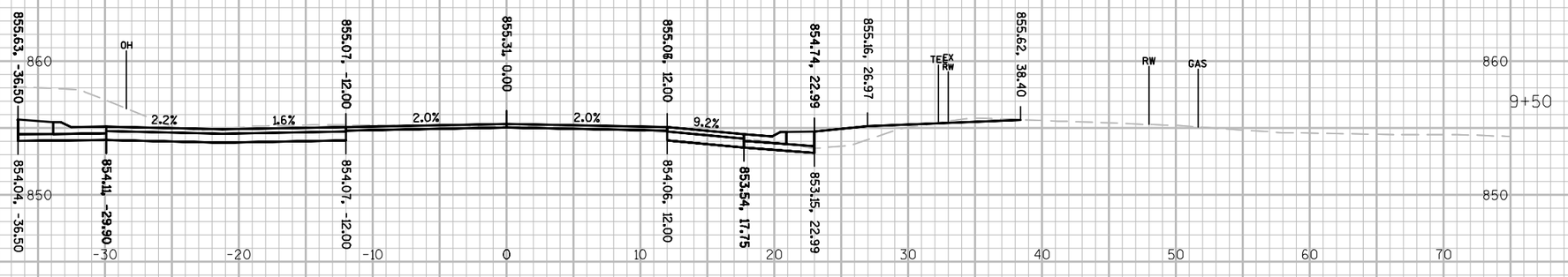
PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 232	E

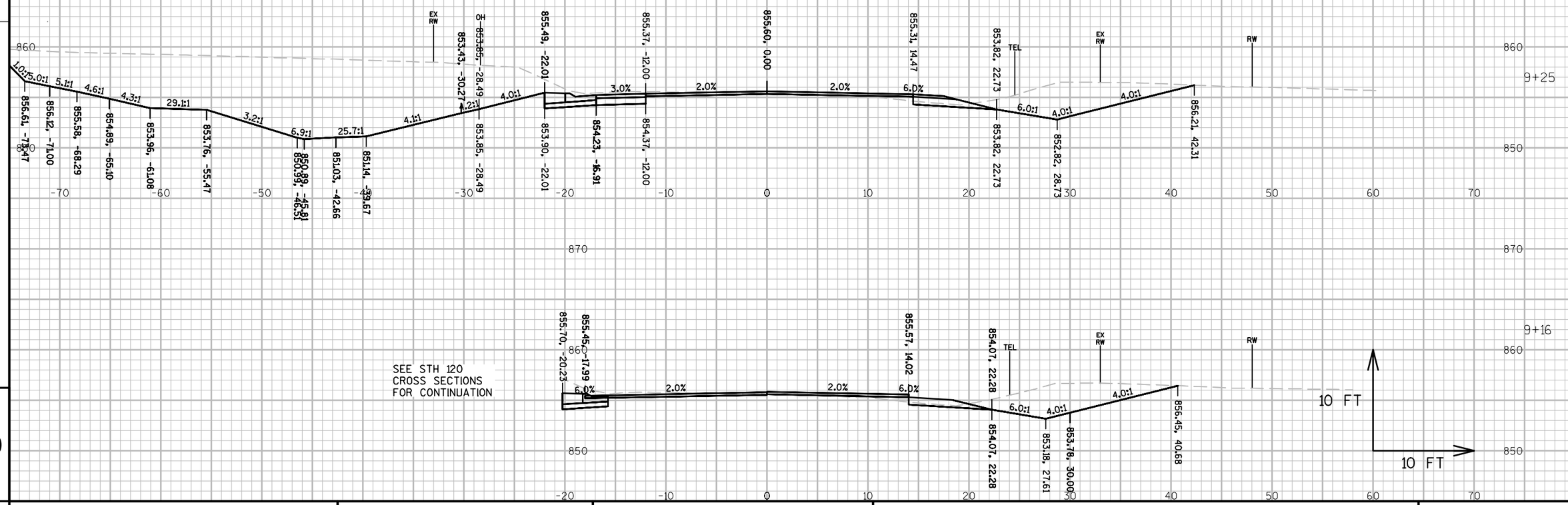
FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (108)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

SEE STH 120
CROSS SECTIONS
FOR CONTINUATION





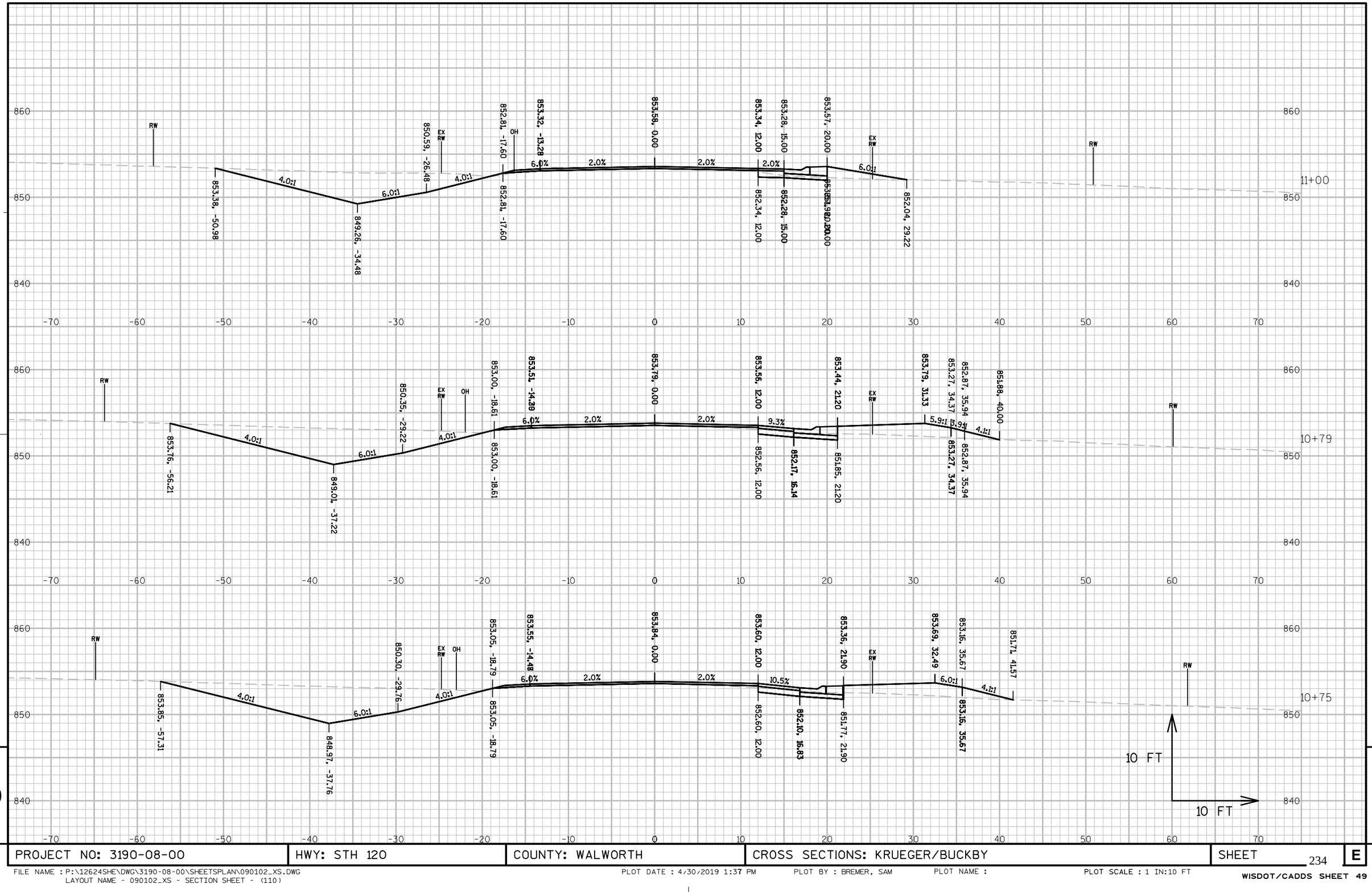
SEE STH 120
CROSS SECTIONS
FOR CONTINUATION

PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 233	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (109)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

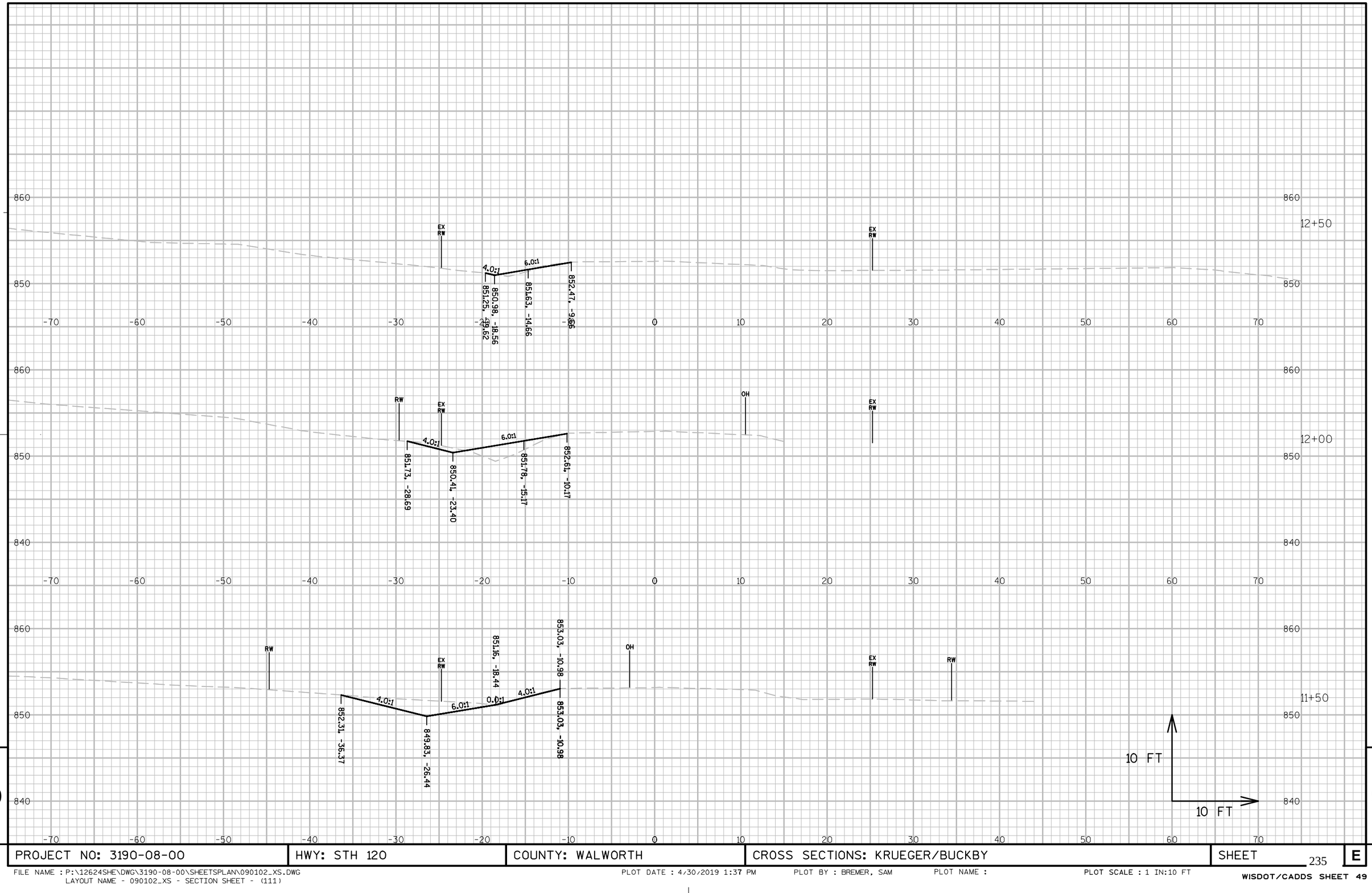


PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 234	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (110)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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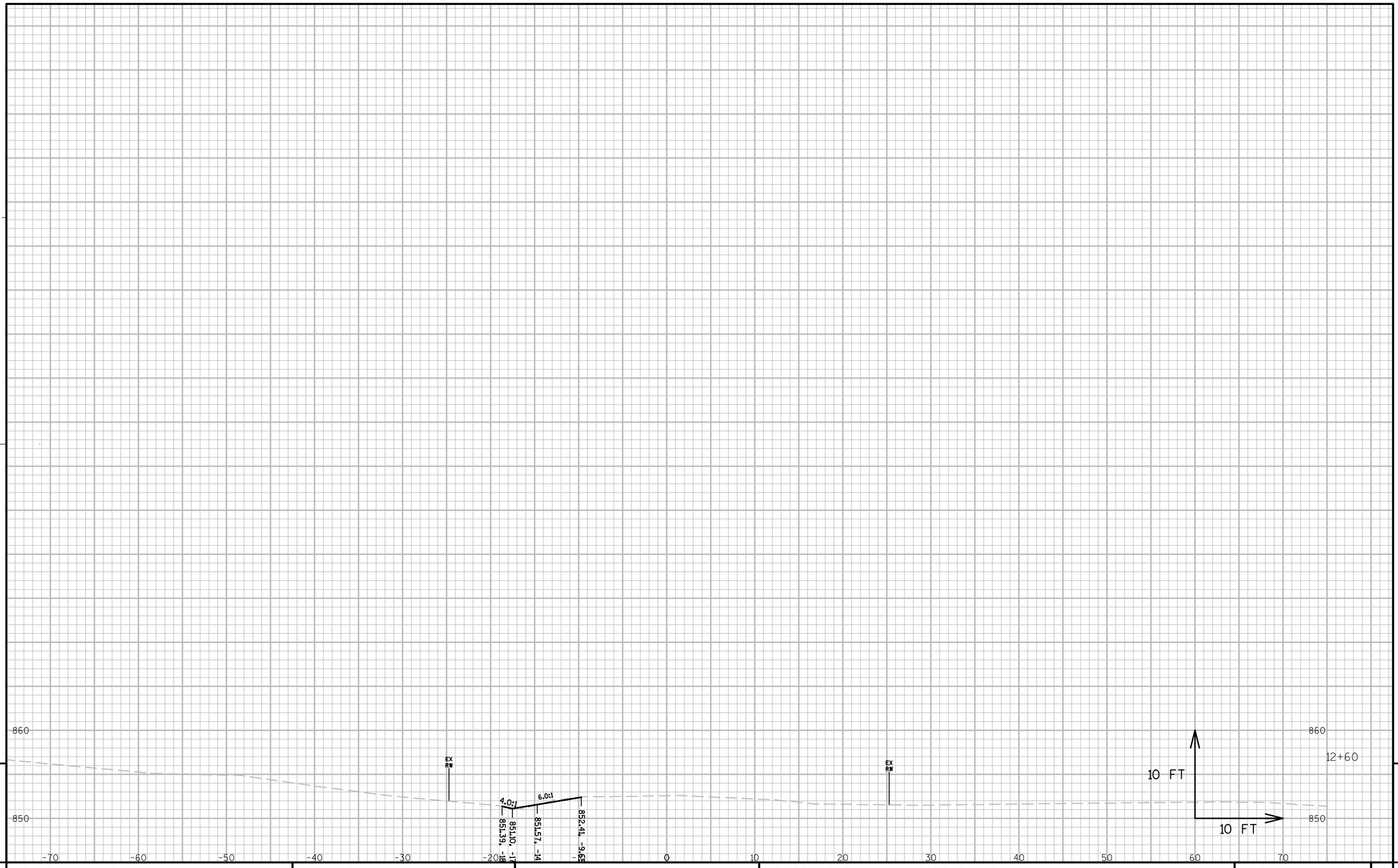
PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 235	E

9

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (111)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

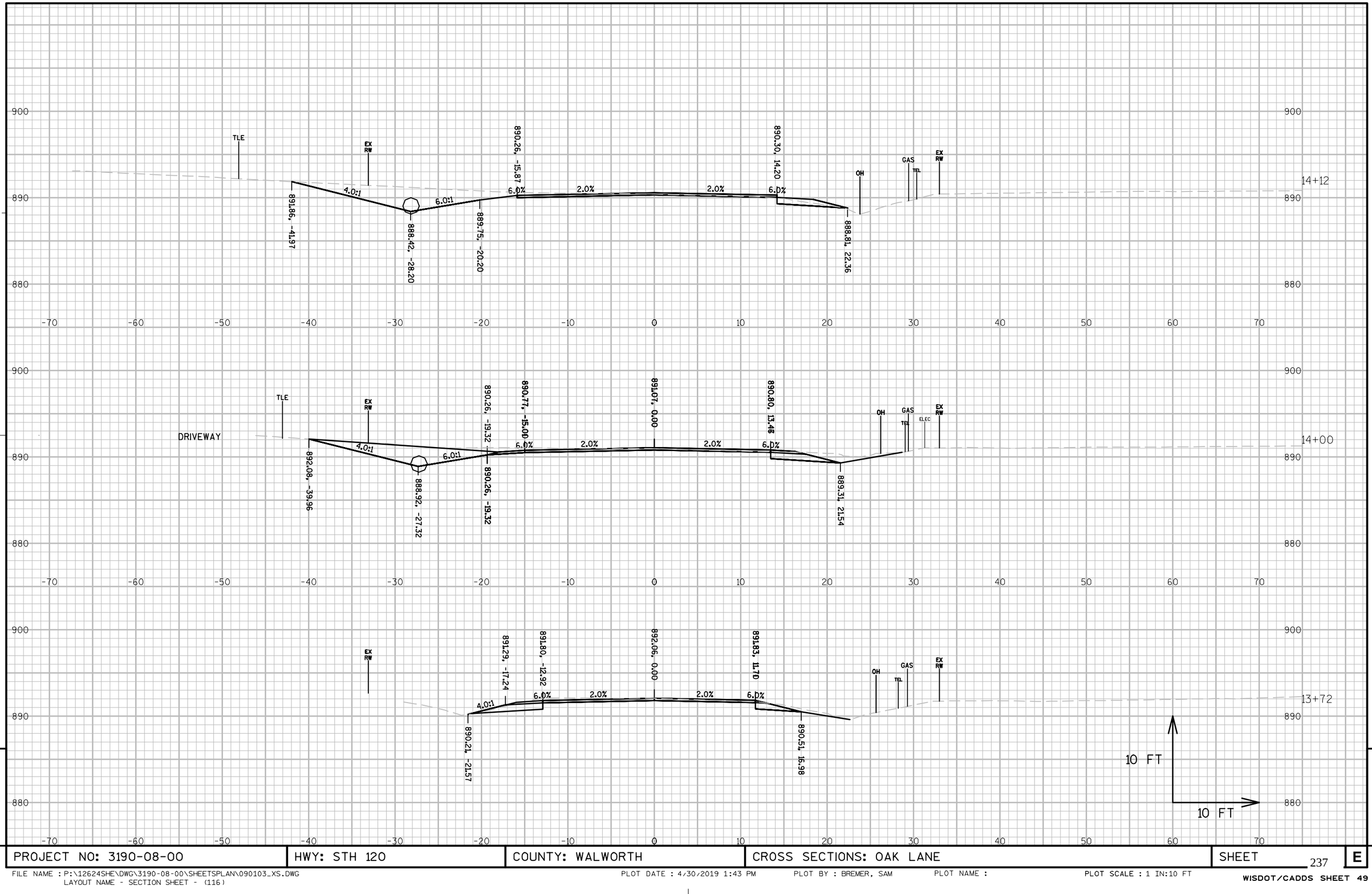
9

PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: KRUEGER/BUCKBY	SHEET 236	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 090102_XS - SECTION SHEET - (112)

PLOT DATE : 4/30/2019 1:37 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

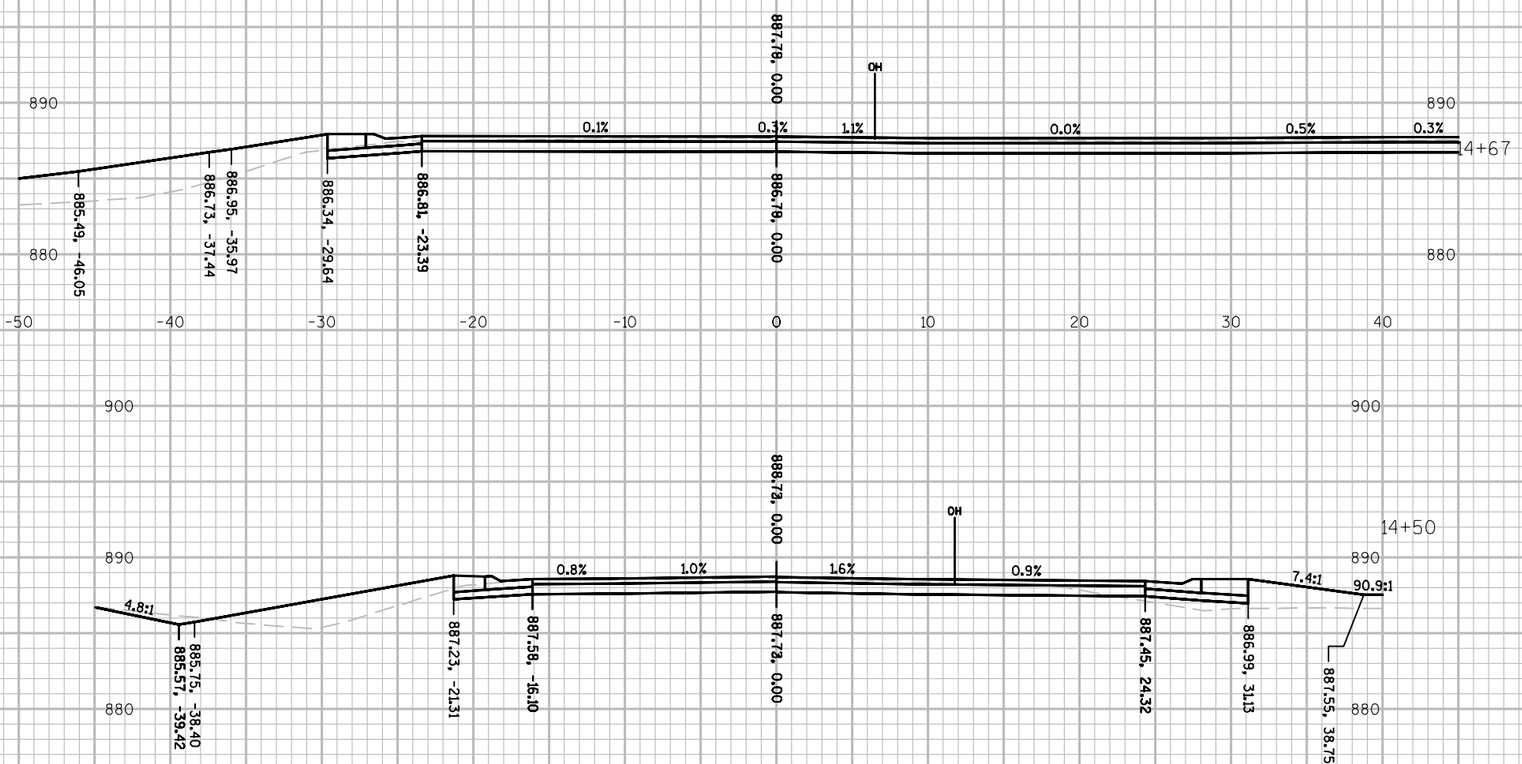


PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: OAK LANE	SHEET 237	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090103_XS.DWG
LAYOUT NAME - SECTION SHEET - (116)

PLOT DATE : 4/30/2019 1:43 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 3190-08-00	HWY: STH 120	COUNTY: WALWORTH	CROSS SECTIONS: OAK LANE	SHEET 238	E

FILE NAME : P:\12624SHE\DWG\3190-08-00\SHEETSPLAN\090103_XS.DWG
LAYOUT NAME - SECTION SHEET - (116)

PLOT DATE : 4/30/2019 1:43 PM PLOT BY : BREMER, SAM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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