

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502.0100	CONCRETE MASONRY BRIDGES	CY	
502.3210	PIGMENTED SURFACE SEALER	SY	
502.4106	ADHESIVE ANCHORS 3/4-INCH	EACH	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	
509.1500	CONCRETE SURFACE REPAIR	SF	
NON-BID ITEMS			
	PREFORMED JOINT FILLER	SIZE	
	POLYETHYLENE SHEETING		

ALL BID ITEMS ARE CATEGORY XXXX

LEGEND

- TRAFFIC DIRECTION
- LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 2/12/2019.
 - ☆ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 2" HMA ASPHALT OVERLAY ON USH 12
 - ▲ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 4" HMA ASPHALT OVERLAY ON USH 12

1078 PLANS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 359-2300

NO.	DATE	REVISION	BY
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ORIGINAL PLANS PREPARED BY

HNTB (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-83

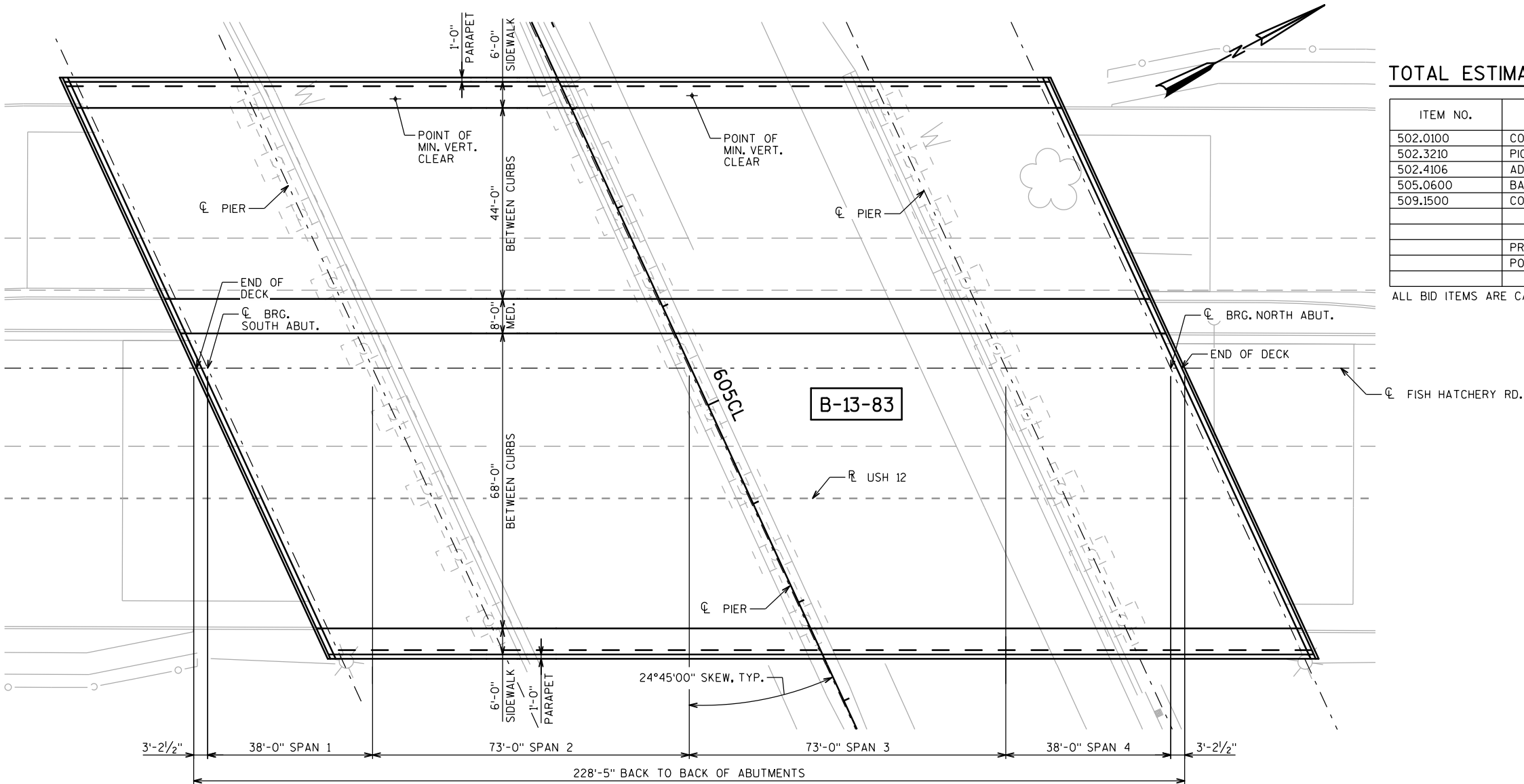
FISH HATCHERY RD OVER USH 12 & 18

COUNTY DANE TOWN/CITY/VILLAGE MADISON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY JTE DESIGN CK'D. BY JTE PLANS CK'D.

SHEET 1 OF 4



PLAN

4-SPAN - STEEL GIRDERS

LIST OF DRAWINGS

- GENERAL PLAN, ELEVATION & QUANTITIES
- GENERAL NOTES & 56-INCH CONCRETE INTEGRAL BARRIER
- INTEGRAL BARRIER DETAILS

DESIGN DATA

MATERIAL PROPERTIES
CONCRETE MASONRY f'c = 4,000 psi
BAR STEEL REINFORCEMENT fy = 60,000 psi

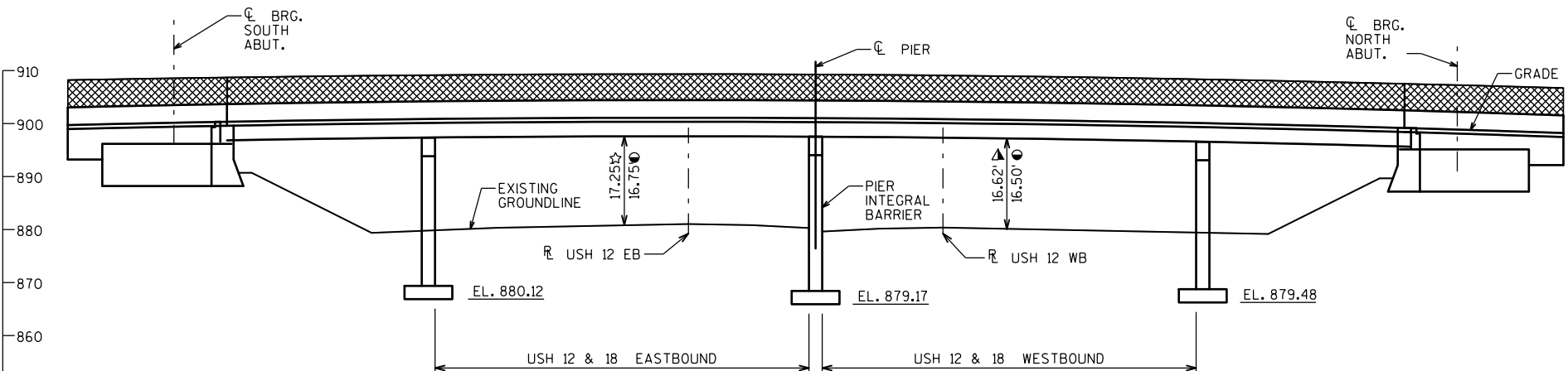
TRAFFIC DATA

USH 12/18 EB & WB

A.D.T. = 118,500 (2017)
R.D.S. = 60 MPH

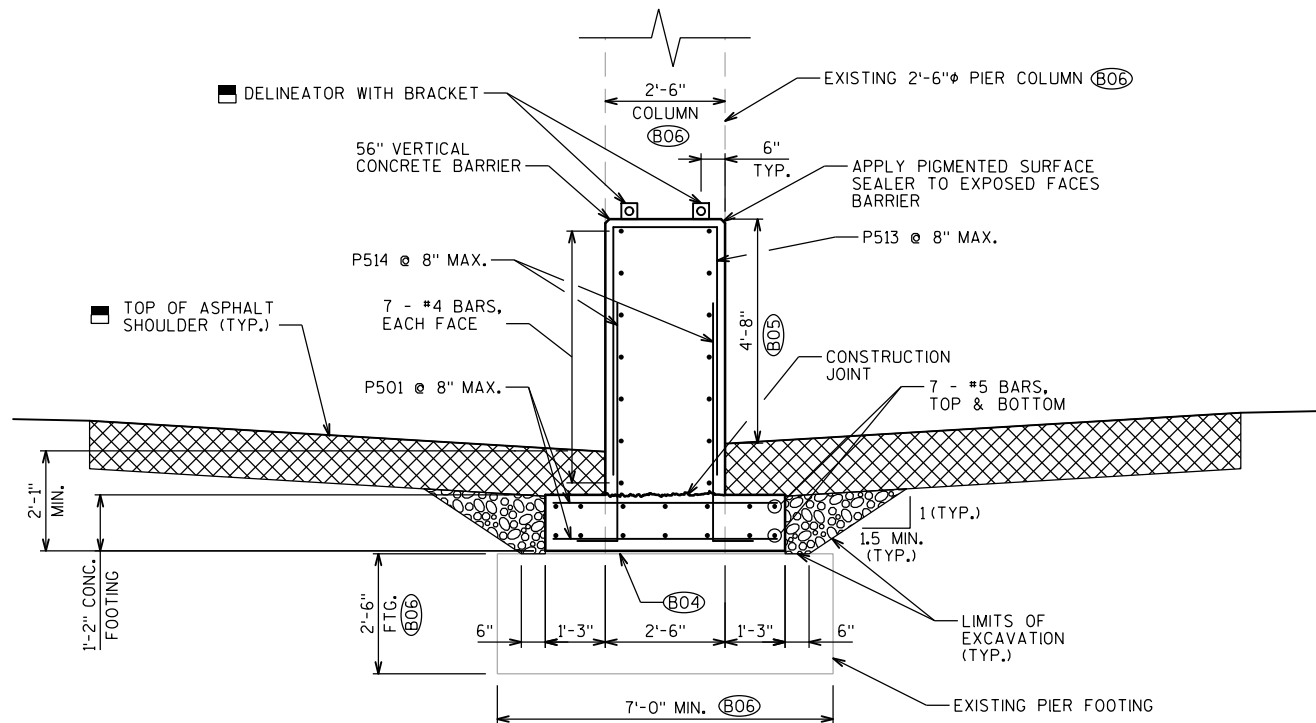
SOUTH TOWNE DR.

A.D.T. = 50,700 (2009)
R.D.S. = 45 MPH



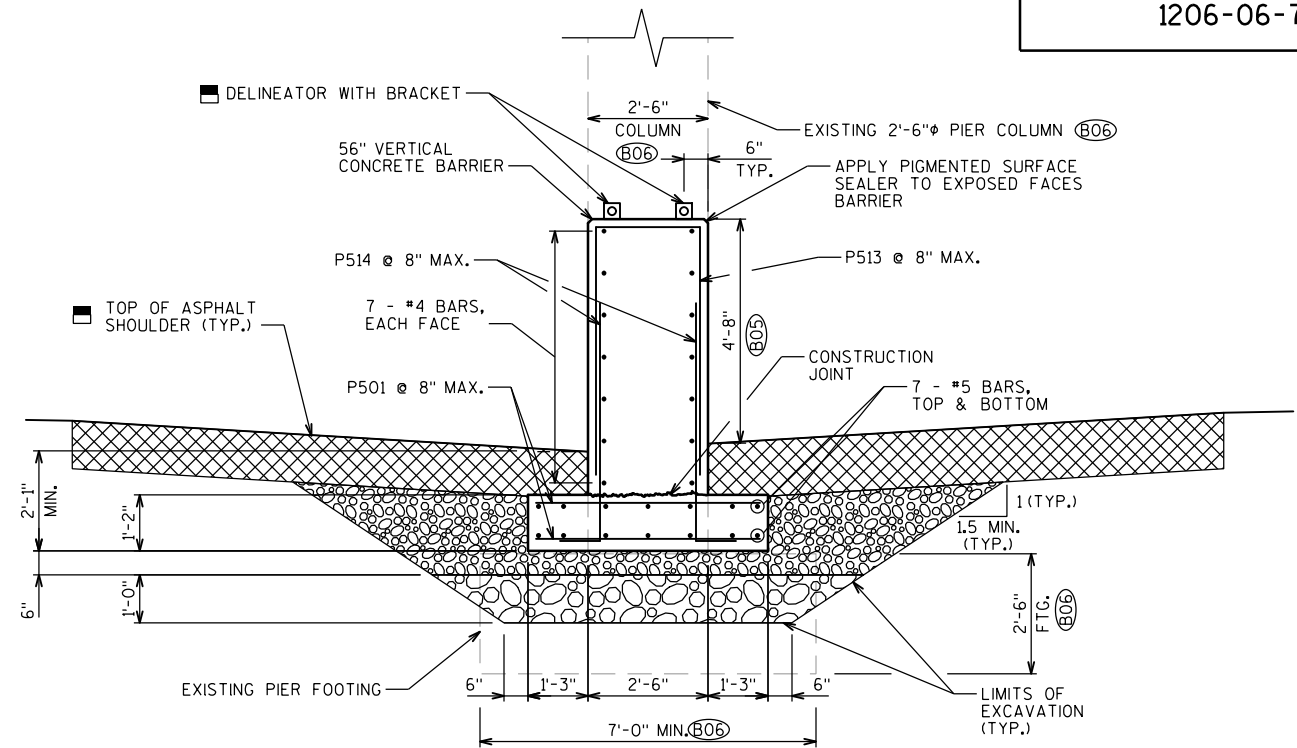
ELEVATION

(LOOKING WEST)



SECTION A-A

BETWEEN COLUMNS OVER EXISTING FOOTING



SECTION B-B

BETWEEN COLUMNS AND FOOTINGS

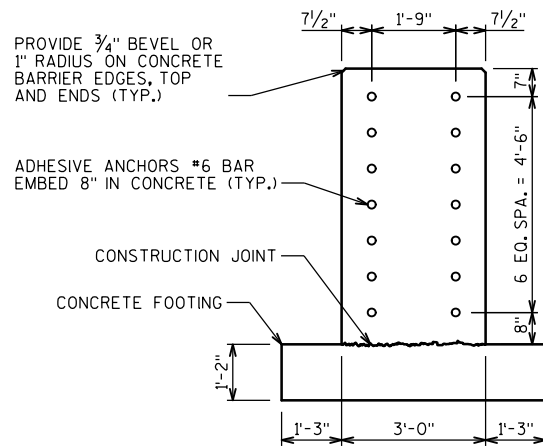
LEGEND

- ▲ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED GRANULAR MATERIAL.
- NOT A BRIDGE PAY ITEM, SEE ROADWAY PLANS.
- (B01) PLACE 1/2" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)
- (B04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE TOP OF THE EXISTING PIER FOOTING BEFORE PLACING THE BARRIER FOOTING (TYP.)
- (B05) 4'-8" FROM WB SHOULDER TOP OF SHOULDER.
- (B06) DIMENSION BASED UPON EXISTING BRIDGE PLANS.

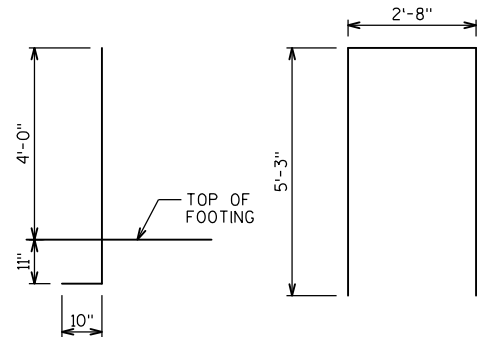
10" OF CONCRETE WITH HMA OVERLAY. REFER TO ROADWAY PLANS. ■

BASE AGGREGATE DENSE 1 1/4" ■

SELECT CRUSHED MATERIAL ▲ ■



ADHESIVE ANCHOR LAYOUT



P522

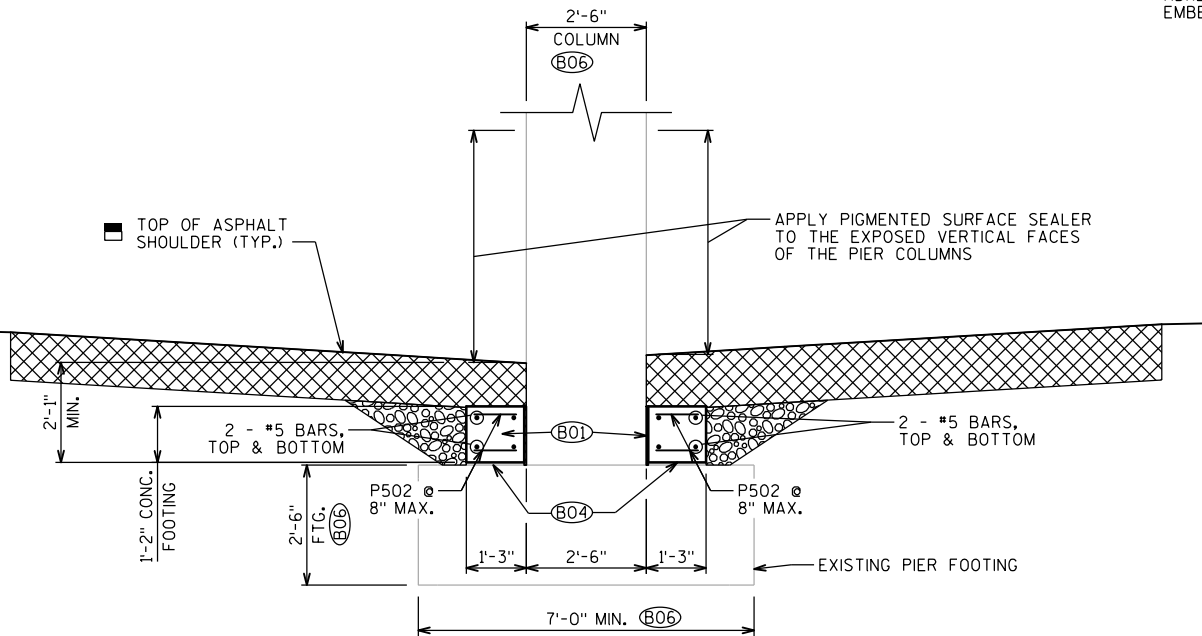
P521

BAR BENDING DIAGRAM

BAR DIMENSIONS ARE OUT TO OUT OF BAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
P501	X	158	5'-1"			FOOTING - TRANSVERSE
P502	X	96	0'-10"			FOOTING - TRANSVERSE AT COLUMN
P503	X	16	10'-2"			FOOTING - LONGITUDINAL
P504	X	32	29'-6"			FOOTING - LONGITUDINAL
P505	X	8	8'-9"			FOOTING - LONGITUDINAL
P506	X	24	21'-5"			FOOTING - LONGITUDINAL BETWEEN COLUMNS
P507	X	6	3'-7"			FOOTING - LONGITUDINAL BETWEEN PIERS
P508	X	12	4'-7"			FOOTING - LONGITUDINAL ENDS
P410	X	56	21'-5"			BARRIER - LONGITUDINAL BETWEEN COLUMNS
P411	X	14	3'-7"			BARRIER - LONGITUDINAL BETWEEN PIERS
P412	X	28	4'-7"			BARRIER - LONGITUDINAL ENDS
P513	X	158	12'-11"	X		BARRIER - STIRRUP
P514	X	316	5'-8"	X		BENT BAR FOOTING TO BARRIER
P615	X	168	3'-2"			ADHESIVE ANCHORS



SECTION C-C

THRU COLUMN

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-13-83			
DRAWN BY JTE		PLANS CKD.	
INTEGRAL BARRIER DETAILS			SHEET 4 OF 3

ITEM NO.	BID ITEM	UNIT	TOTAL
502.0100	CONCRETE MASONRY BRIDGES	CY	
502.3210	PIGMENTED SURFACE SEALER	SY	
502.4106	ADHESIVE ANCHORS 3/4-INCH	EACH	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	
509.1500	CONCRETE SURFACE REPAIR	SF	
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	
	PLOYETHELYNE SHEETS		

LEGEND



- LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 2/12/2019.
- ☆ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 2" HMA ASPHALT OVERLAY ON USH 12
- ▲ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 4" HMA ASPHALT OVERLAY ON USH 12

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 359-2300

1. GENERAL PLAN, ELEVATION & QUANTITIES
2. GENERAL NOTES & 56-INCH CONCRETE INTEGRAL BARRIER
3. INTEGRAL BARRIER DETAILS

MATERIAL PROPERTIES

CONCRETE MASONRY	$f'_c = 4,000$ psi
BAR STEEL REINFORCEMENT	$f_y = 60,000$ psi

USH 12/18 EB & WB

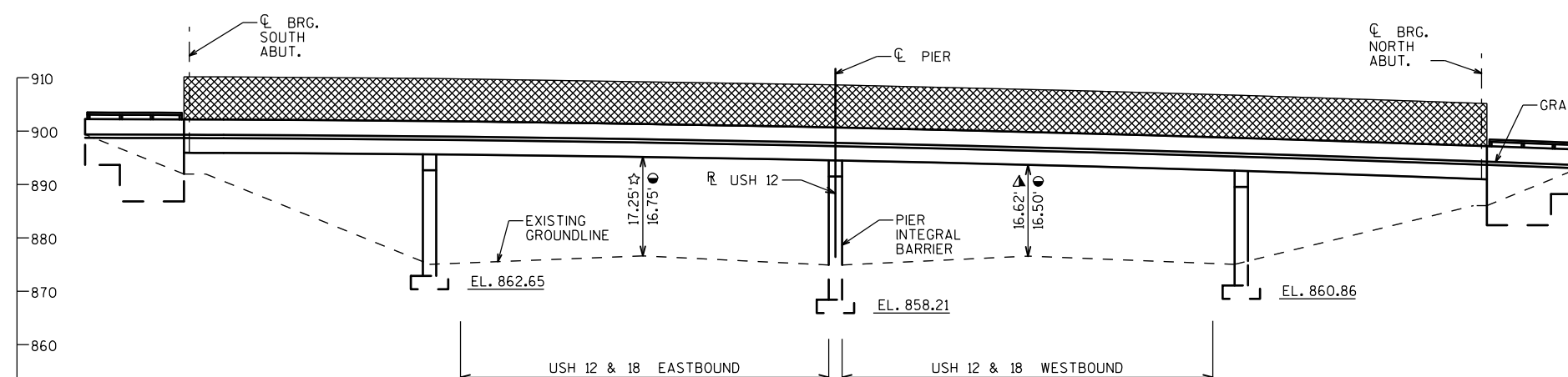
A.D.T. = 118,500 (2017)
R.D.S. = 60 MPH

SOUTH TOWNE DR.

A.D.T. = 50,700 (2009)
R.D.S. = 45 MPH



4-SPAN - 33" STEEL GIRDERS



ELEVATION

(LOOKING WEST)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURE SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

ALL EXISTING COLUMNS EXCEPT COLUMN 4 HAVE EXISTING FIBER WRAP REPAIRS. REMOVE THE EXISTING ROADWAY BARRIERS ADJACENT TO PIER COLUMNS. COMPLETE ANY NEEDED CONCRETE SURFACE REPAIRS TO COLUMN 4 AND THEN FIBER WRAP THE COLUMN TO THE LIMITS AS SHOWN ON THIS PLAN SHEET. PRIOR TO PLACING THE INTEGRAL BARRIER, COMPLETE ANY ADDITIONAL CONCRETE SURFACE REPAIRS AND EXTEND THE FIBER WRAP REPAIR LIMITS ON THE OTHER COLUMNS IF THEY DO NOT EXTEND TO PROPOSED FINISHED GRADE. IF ADDITIONAL FIBER WRAPPING IS REQUIRED, EXTEND THE LIMITS TO 1'-0" MINIMUM BELOW PROPOSED FINISHED GRADE.

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES FOR THESE BID ITEMS ARE APPROXIMATE.

- FIBER WRAP REINFORCING NON-STRUCTURAL

"CONCRETE SURFACE REPAIR" AREAS AS SHOWN ON IN THE QUANTITIES TABLE ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

APPLY "PIGMENTED SURFACE SEALER" TO THE EXPOSED FACES OF THE NEW INTEGRAL CONCRETE BARRIER AND TO THE EXPOSED VERTICAL FACES OF THE PIER COLUMNS FROM THE TOP OF THE INTEGRAL BARRIER TO THE TOP OF THE SHOULDER.

UNDER THE BID ITEM "ADHESIVE ANCHOR 3/4-INCH" ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

COORDINATE PLACEMENT OF DELINEATORS AND BRACKETS WITH ROADWAY. DELINEATORS AND BRACKETS TO BE INCLUDED WITH ROADWAY BID ITEMS AND TO BE SPACED AT 50'-0" MAX. PLACEMENT TO BE OFFSET A MINIMUM OF 10'-0" FROM THE EDGE OF PIER COLUMNS.

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

BARRIER AND FOOTING SHALL CONSIST OF CAST IN PLACE CONSTRUCTION. NO JOINTS SHALL BE ALLOWED IN THE BARRIER. CONSTRUCTION JOINTS WILL ONLY BE ALLOWED IN THE FOOTING AT LOCATIONS SHOWN IN THE "PLAN VIEW".

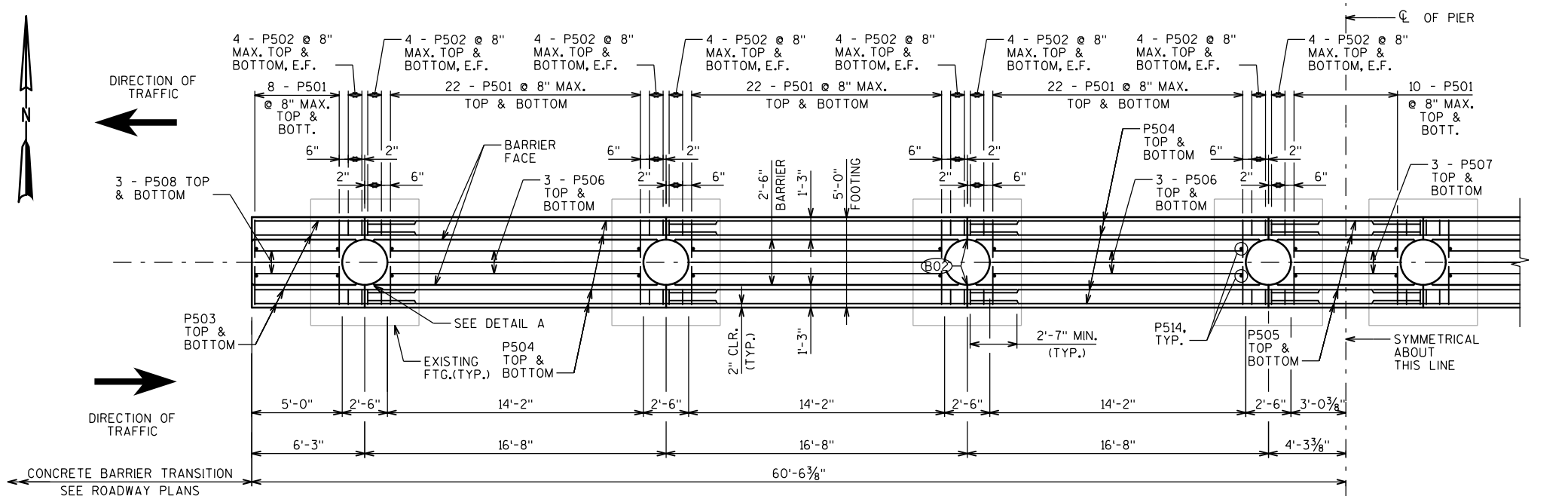
DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

ALL REINFORCEMENT SHALL BE EPOXY-COATED.

USE 2-INCH MINIMUM BAR CLEARANCE, EXCEPT AT FOOTINGS PROVIDE 3-INCH BAR CLEARANCE FROM BOTTOM OF FOOTING TO BOTTOM TRANSVERSE REINFORCEMENT.

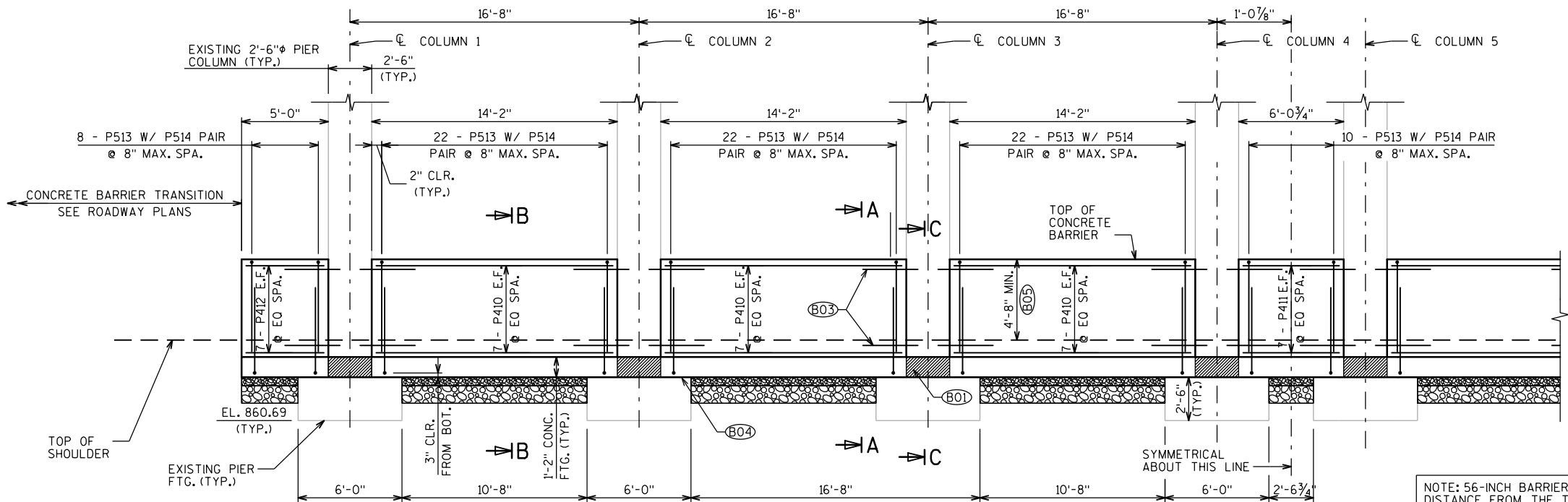
PROVIDE 3/4-INCH BEVEL OR 1-INCH RADIUS ON BARRIER EDGES, TOP AND ENDS.

BASED UPON EXISTING STRUCTURE PLANS, THE EXISTING TOP OF PIER FOOTING IS APPROXIMATELY THE PROPOSED BOTTOM OF BARRIER FOOTING ELEVATION. USE THE EXISTING TOP OF PIER FOOTING ELEVATION AS THE BOTTOM OF BARRIER FOOTING ELEVATION.



PLAN

(SHOWING FOOTING REINFORCEMENT ONLY)



ELEVATION

(WEST PIER, LOOKING NORTH SHOWN)

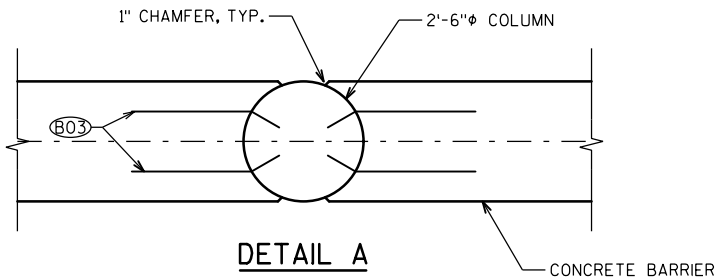
NOTE: 56-INCH BARRIER REFERS TO THE DISTANCE FROM THE TOP OF THE SHOULDER TO THE TOP OF THE BARRIER.

LEGEND

- E.F. EACH FACE
- (B01) PLACE 1/2" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)
- (B02) OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG C.L. OF COLUMN. IF USED LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.
- (B03) ADHESIVE ANCHORS NO. 6 BARS, EMBED 8" IN CONCRETE (TYP.)
- (B04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE TOP OF THE EXISTING PIER FOOTING BEFORE PLACING THE BARRIER FOOTING (TYP.)

LEGEND CONT.

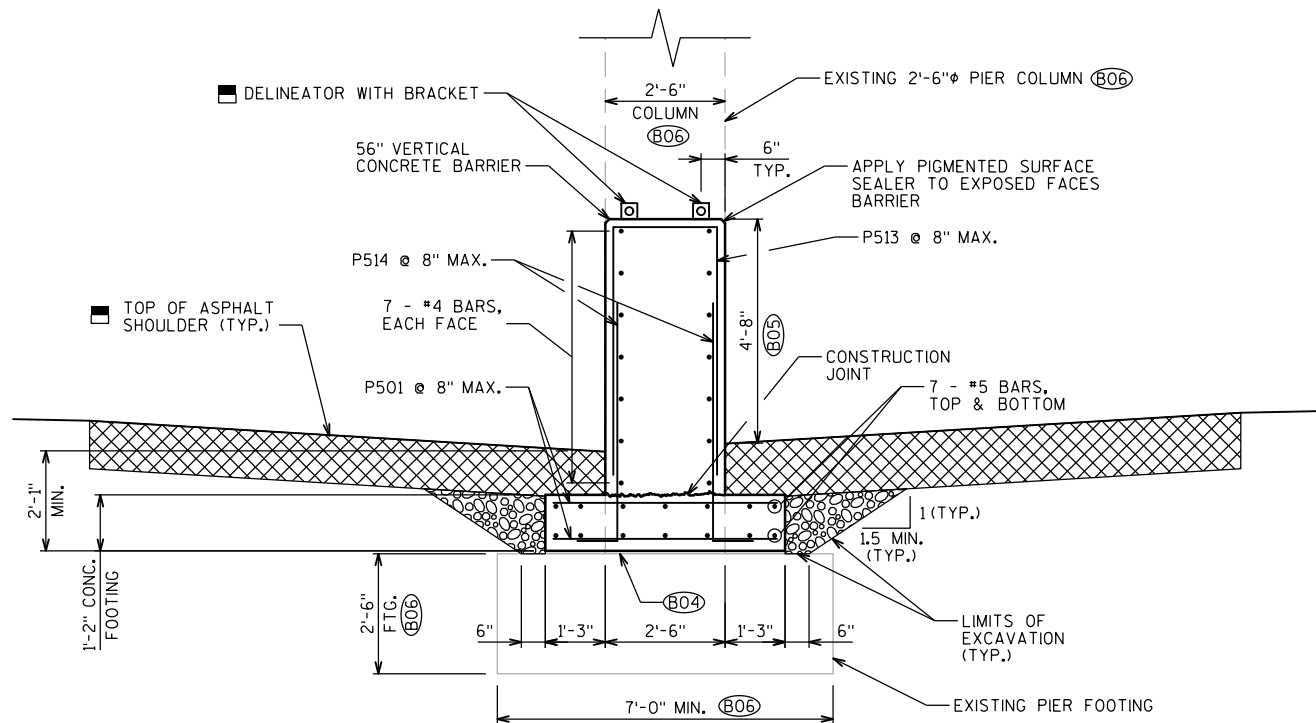
- (B05) 4'-8" FROM TOP OF SHOULDER WB
- BASE AGGREGATE DENSE 1 1/4"
- SELECT CRUSHED MATERIAL



DETAIL A

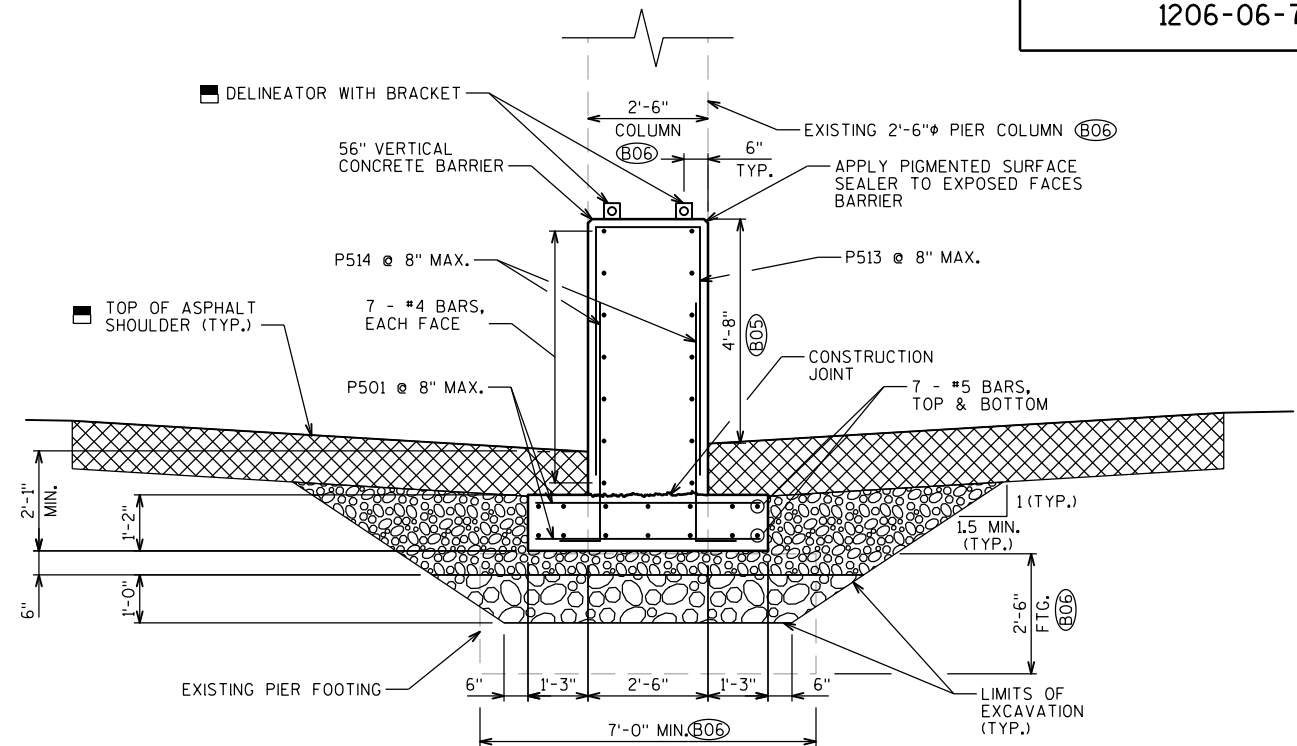
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-13-310			
DRAWN BY JTE		PLANS CKD. HDA	
GENERAL NOTES & 56-INCH CONCRETE INTEGRAL BARRIER			SHEET 2 OF 3



SECTION A-A

BETWEEN COLUMNS OVER EXISTING FOOTING



SECTION B-B

BETWEEN COLUMNS AND FOOTINGS

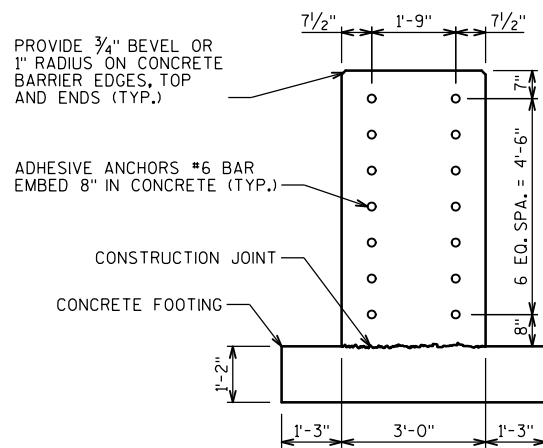
LEGEND

- ▲ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED GRANULAR MATERIAL.
- NOT A BRIDGE PAY ITEM, SEE ROADWAY PLANS.
- (B01) PLACE 1/2" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)
- (B04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE TOP OF THE EXISTING PIER FOOTING BEFORE PLACING THE BARRIER FOOTING (TYP.)
- (B05) 4'-8" FROM WB SHOULDER TOP OF SHOULDER.
- (B06) DIMENSION BASED UPON EXISTING BRIDGE PLANS.

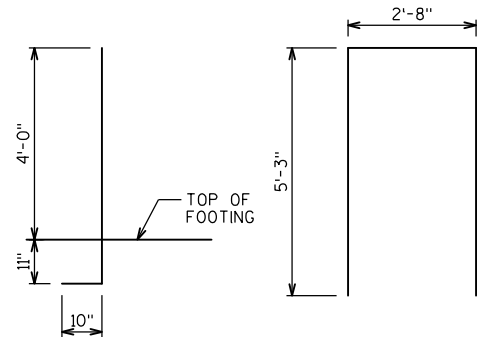
10" OF CONCRETE WITH HMA OVERLAY. REFER TO ROADWAY PLANS. ■

BASE AGGREGATE DENSE 1 1/4" ■

SELECT CRUSHED MATERIAL ▲ ■



ADHESIVE ANCHOR LAYOUT



P514

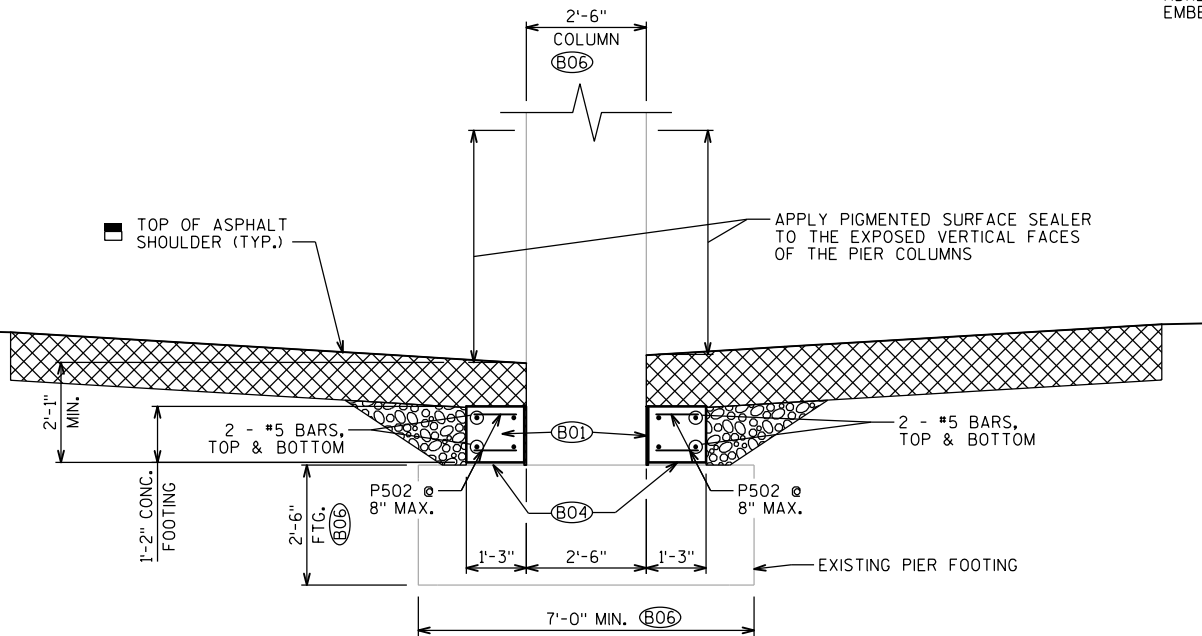
P513

BAR BENDING DIAGRAM

BAR DIMENSIONS ARE OUT TO OUT OF BAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
P501	X	158	5'-1"			FOOTING - TRANSVERSE
P502	X	96	0'-10"			FOOTING - TRANSVERSE AT COLUMN
P503	X	16	10'-2"			FOOTING - LONGITUDINAL
P504	X	32	29'-6"			FOOTING - LONGITUDINAL
P505	X	8	8'-9"			FOOTING - LONGITUDINAL
P506	X	24	21'-5"			FOOTING - LONGITUDINAL BETWEEN COLUMNS
P507	X	6	3'-7"			FOOTING - LONGITUDINAL BETWEEN PIERS
P508	X	12	4'-7"			FOOTING - LONGITUDINAL ENDS
P410	X	56	21'-5"			BARRIER - LONGITUDINAL BETWEEN COLUMNS
P411	X	14	3'-7"			BARRIER - LONGITUDINAL BETWEEN PIERS
P412	X	28	4'-7"			BARRIER - LONGITUDINAL ENDS
P513	X	158	12'-11"	X		BARRIER - STIRRUP
P514	X	316	5'-8"	X		BENT BAR FOOTING TO BARRIER
P615	X	168	3'-2"			ADHESIVE ANCHORS

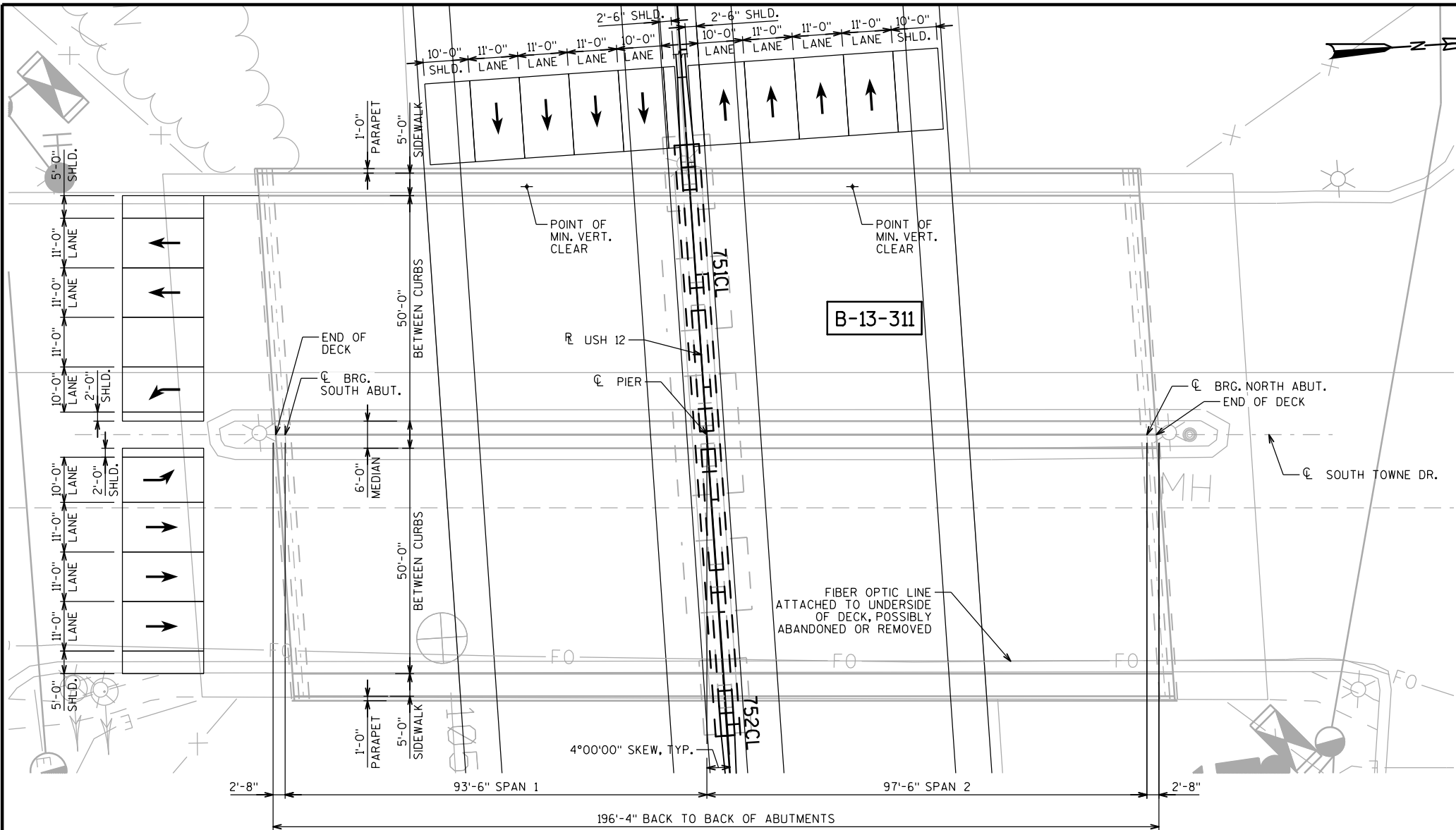


SECTION C-C

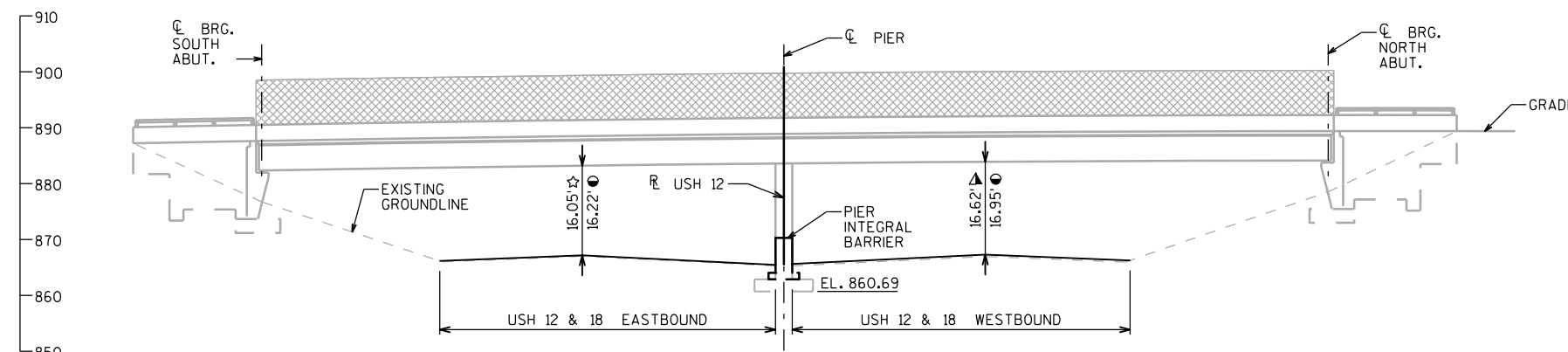
THRU COLUMN

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-13-310			
DRAWN BY JTE		PLANS CKD. HDA	
INTEGRAL BARRIER DETAILS			SHEET 3 OF 3



PLAN
2 SPAN - 54" PRESTRESSED GIRDERS
MEDIAN PIER INTEGRAL BARRIER



ELEVATION
(LOOKING WEST)

1078 PLANS

STATE PROJECT NUMBER
1206-06-79

LIST OF DRAWINGS

1. GENERAL PLAN, ELEVATION & QUANTITIES
2. GENERAL NOTES & 56-INCH CONCRETE INTEGRAL BARRIER
3. INTEGRAL BARRIER DETAILS

DESIGN DATA

MATERIAL PROPERTIES
CONCRETE MASONRY f'c = 4,000 psi
BAR STEEL REINFORCEMENT fy = 60,000 psi

TRAFFIC DATA

USH 12/18 EB & WB

A.D.T. = 138,000 (2018)
R.D.S. = 60 MPH

SOUTH TOWNE DR.

A.D.T. = 20,000 (2018)
R.D.S. = 45 MPH

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502.0100	CONCRETE MASONRY BRIDGES	CY	91
502.3210	PIGMENTED SURFACE SEALER	SY	172
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	168
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	9,640
509.1500	CONCRETE SURFACE REPAIR	SF	10
SPV.0165.01	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	140
	PREFORMED JOINT FILLER NON-BID ITEMS	SIZE	1/2"
	POLYETHYLENE SHEETING		

ALL ITEMS ARE CATEGORY 0120

LEGEND

- ➔ TRAFFIC DIRECTION
- LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 2/12/2019.
- ☆ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 2" HMA ASPHALT OVERLAY ON USH 12
- ▲ LOCATION PER EXISTING PLANS AND REVISED MINIMUM CLEARANCE RESULTING FROM 4" HMA ASPHALT OVERLAY ON USH 12

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 359-2300

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB (414) 359-2300			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-13-311			
SOUTH TOWNE DR. OVER USH 12/18			
COUNTY	DANE	CITY	MONONA
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JTE/EAJ	DESIGN CK'D.	HDA
DRAWN BY	JTE/EAJ	PLANS CK'D.	HDA
GENERAL PLAN, ELEVATION & QUANTITIES			SHEET 1 OF 3

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURE SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

ALL EXISTING COLUMNS EXCEPT COLUMN 4 HAVE EXISTING FIBER WRAP REPAIRS. REMOVE THE EXISTING ROADWAY BARRIERS ADJACENT TO PIER COLUMNS. COMPLETE ANY NEEDED CONCRETE SURFACE REPAIRS TO COLUMN 4 AND THEN FIBER WRAP THE COLUMN TO THE LIMITS AS SHOWN ON THIS PLAN SHEET. PRIOR TO PLACING THE INTEGRAL BARRIER, COMPLETE ANY ADDITIONAL CONCRETE SURFACE REPAIRS AND EXTEND THE FIBER WRAP REPAIR LIMITS ON THE OTHER COLUMNS IF THEY DO NOT EXTEND TO PROPOSED FINISHED GRADE. IF ADDITIONAL FIBER WRAPPING IS REQUIRED, EXTEND THE LIMITS TO 1'-0" MINIMUM BELOW PROPOSED FINISHED GRADE.

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES FOR THESE BID ITEMS ARE APPROXIMATE.

- FIBER WRAP REINFORCING NON-STRUCTURAL

"CONCRETE SURFACE REPAIR" AREAS AS SHOWN ON IN THE QUANTITIES TABLE ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

APPLY "PIGMENTED SURFACE SEALER" TO THE EXPOSED FACES OF THE NEW INTEGRAL CONCRETE BARRIER AND TO THE EXPOSED VERTICAL FACES OF THE PIER COLUMNS FROM THE TOP OF THE INTEGRAL BARRIER TO THE TOP OF THE SHOULDER.

UNDER THE BID ITEM "ADHESIVE ANCHOR 3/4-INCH" ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

COORDINATE PLACEMENT OF DELINEATORS AND BRACKETS WITH ROADWAY. DELINEATORS AND BRACKETS INCLUDED WITH ROADWAY BID ITEMS AND TO BE SPACED AT 50'-0" MAX. PLACEMENT TO BE OFFSET A MINIMUM OF 10'-0" FROM THE EDGE OF PIER COLUMNS.

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

BARRIER AND FOOTING SHALL CONSIST OF CAST IN PLACE CONSTRUCTION. NO JOINTS SHALL BE ALLOWED IN THE BARRIER. CONSTRUCTION JOINTS WILL ONLY BE ALLOWED IN THE FOOTING AT LOCATIONS SHOWN IN THE "PLAN VIEW".

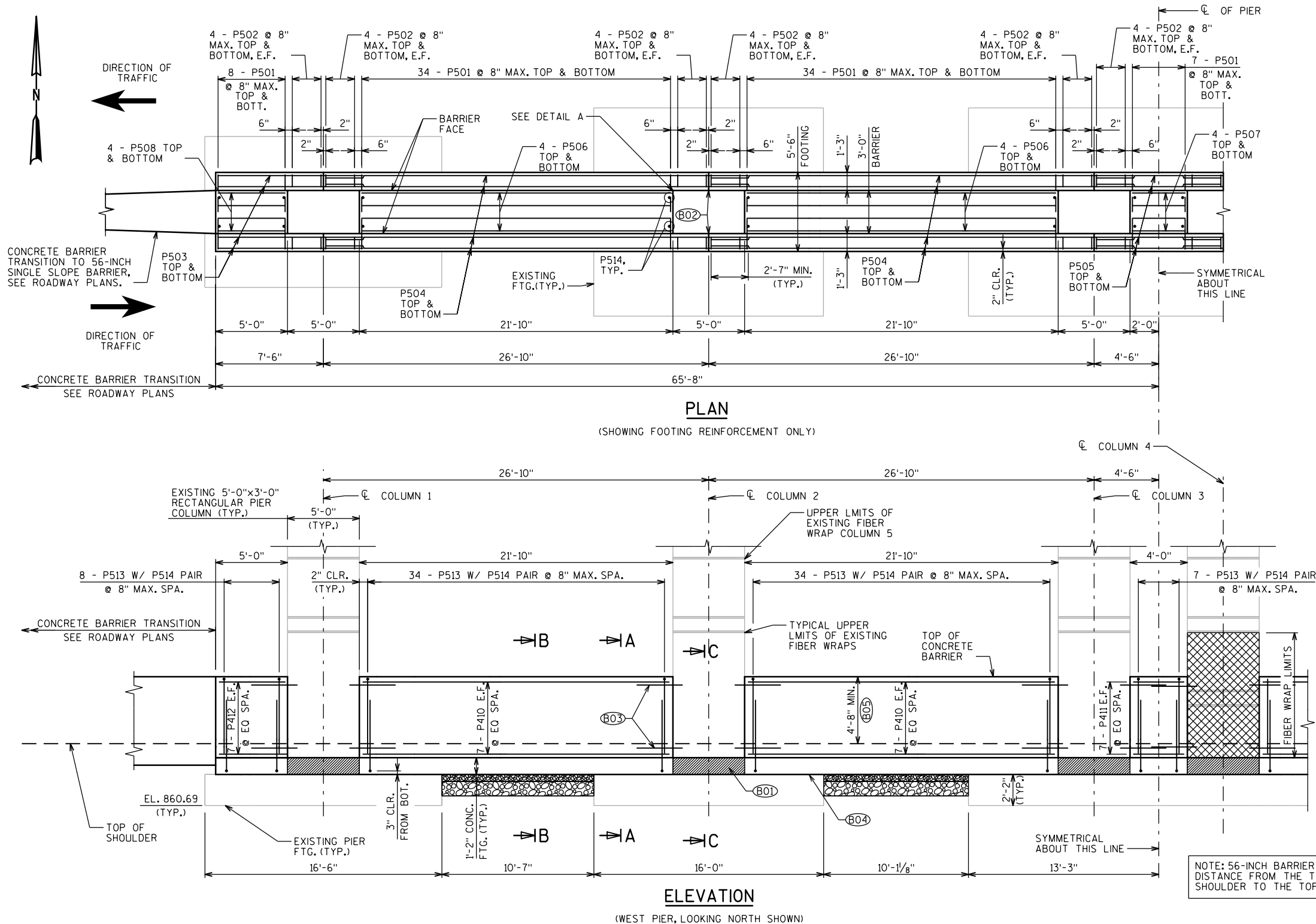
DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

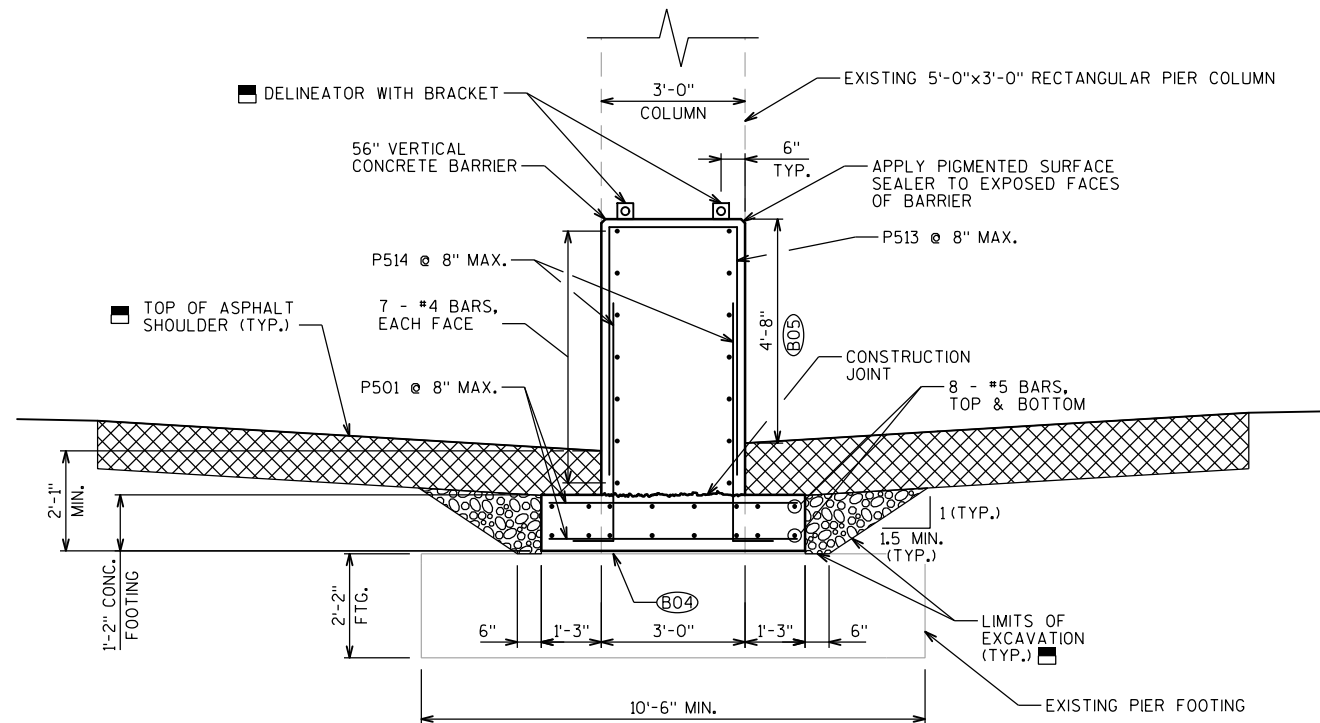
ALL REINFORCEMENT SHALL BE EPOXY-COATED.

USE 2-INCH MINIMUM BAR CLEARANCE, EXCEPT AT FOOTINGS PROVIDE 3-INCH BAR CLEARANCE FROM BOTTOM OF FOOTING TO BOTTOM TRANSVERSE REINFORCEMENT.

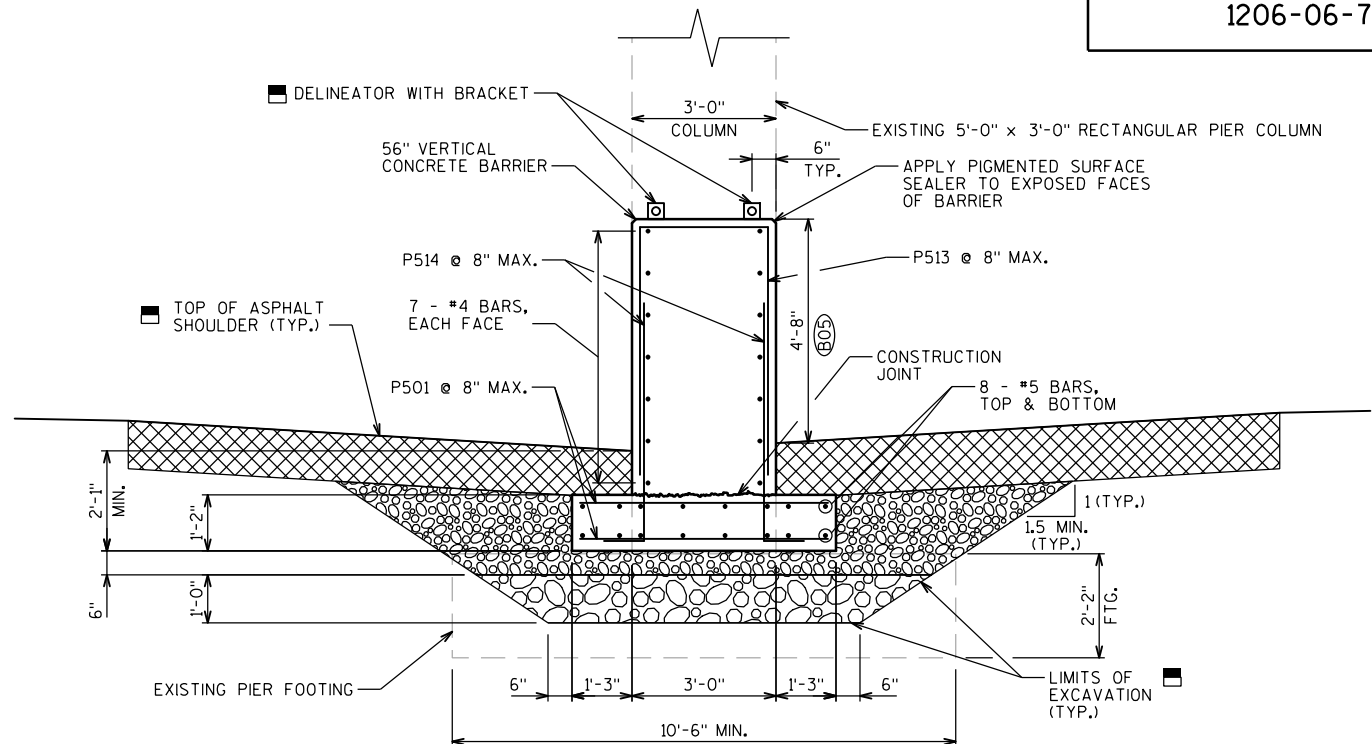
PROVIDE 3/4-INCH BEVEL OR 1-INCH RADIUS ON BARRIER EDGES, TOP AND ENDS.

BASED UPON EXISTING STRUCTURE PLANS, THE EXISTING TOP OF PIER FOOTING IS APPROXIMATELY THE PROPOSED BOTTOM OF BARRIER FOOTING ELEVATION. USE THE EXISTING TOP OF PIER FOOTING ELEVATION AS THE BOTTOM OF BARRIER FOOTING ELEVATION.

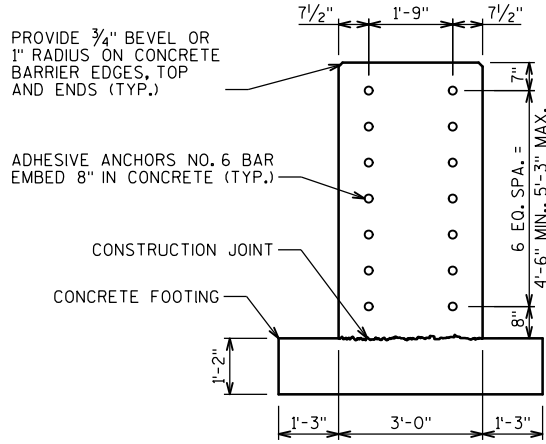




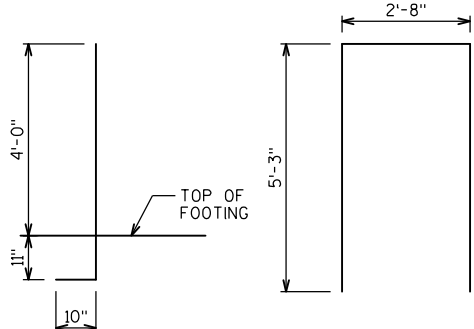
SECTION A-A
BETWEEN COLUMNS OVER EXISTING FOOTING



SECTION B-B
BETWEEN COLUMNS AND FOOTINGS



ADHESIVE ANCHOR LAYOUT



P514 P513

BAR BENDING DIAGRAM

BAR DIMENSIONS ARE OUT TO OUT OF BAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
P501	X	318	5'-1"			FOOTING - TRANSVERSE
P502	X	192	0'-10"			FOOTING - TRANSVERSE AT COLUMN
P503	X	16	10'-1"			FOOTING - LONGITUDINAL
P504	X	32	29'-5"			FOOTING - LONGITUDINAL
P505	X	8	8'-7"			FOOTING - LONGITUDINAL
P506	X	32	21'-5"			FOOTING - LONGITUDINAL BETWEEN COLUMNS
P507	X	8	3'-7"			FOOTING - LONGITUDINAL BETWEEN PIERS
P508	X	16	4'-7"			FOOTING - LONGITUDINAL ENDS
P410	X	56	21'-5"			BARRIER - LONGITUDINAL BETWEEN COLUMNS
P411	X	14	3'-7"			BARRIER - LONGITUDINAL BETWEEN PIERS
P412	X	28	4'-7"			BARRIER - LONGITUDINAL ENDS
P513	X	159	12'-11"	X		BARRIER - STIRRUP
P514	X	318	5'-8"	X		BENT BAR FOOTING TO BARRIER
P615	X	168	3'-2"			ADHESIVE ANCHORS

LEGEND

- ▲ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED GRANULAR MATERIAL.
- NOT A BRIDGE PAY ITEM, SEE ROADWAY PLANS.
- (B01) PLACE 1/2" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)
- (B04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE TOP OF THE EXISTING PIER FOOTING BEFORE PLACING THE BARRIER FOOTING (TYP.)
- (B05) 4'-8" FROM WB SHOULDER TOP OF SHOULDER.

- 10" OF CONCRETE WITH HMA OVERLAY. REFER TO ROADWAY PLANS.
- BASE AGGREGATE DENSE 1/4"
- SELECT CRUSHED MATERIAL ▲ ■

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-13-311			
DRAWN BY JTE/EAJ		PLANS CK'D. HDA	
INTEGRAL BARRIER DETAILS			SHEET 3 OF 3

DESIGN DATA

SIGN STR	ACTUAL SIGN AREA		ACTUAL SIGN HEIGHT	
	TYPE 1	DMS	TYPE 1	DMS
S-13-2003	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2004	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-20XX	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2005	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-20XX	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2006	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2008	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2009	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-2010	XXX SF	XXX SF	X'-XX"	X'-XX"
S-13-20XX	91.0 SF	60.0 SF	6'-6"	6'-0"

DESIGN STRUCTURES IN THIS GROUP OF STRUCTURES ARE DESIGNED FOR THE DESIGN SIGN LOADING

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1	1.0	0.0
LOAD CASE 2	0.0	1.0
LOAD CASE 3	0.75	0.75

LOAD COMBINATIONS

STRENGTH I: 1.25 DC + 1.6 LL

EXTREME I (MAX DC): 1.1 DC + 1.0 W + 1.0 ICE

EXTERME I (MIN DC): 0.9 DC + 1.0 W

SERVICE I: 1.0 DC + 1.0 W

FATIGUE I: 1.0 NWG (NATURAL WIND GUST VIBRATION)

1.0 TrG (TRUCK INDUCED GUST VIBRATION)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),DANE COUNTY ZONE,NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-XXXX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS,ALL H.S.BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS,IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS, IF USED SHALL BE THE SAME SIZE AND LOCATION AS PERMANENT SIGNS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE.THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE.PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED,SHALL BE INCIDENTAL TO THE BID ITEM "FOUNDATION DRILLING".

TRAFFIC VOLUME

A.D.T. (2036) = 139,650-164,190
R.D.S. = 60 MPH

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE MASONRY-----f'c = 3,500 psi

HIGH STRENGTH STEEL
REINFORCEMENT, GRADE 60----- fy = 60,000 psi

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36----- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C----- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325----- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55----- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-13-2003
3. GENERAL LAYOUT S-13-2004
4. GENERAL LAYOUT S-13-20XX
5. GENERAL LAYOUT S-13-2005
6. GENERAL LAYOUT S-13-2005
7. GENERAL LAYOUT S-13-2006
8. GENERAL LAYOUT S-13-2008
9. GENERAL LAYOUT S-13-2009
10. GENERAL LAYOUT S-13-2010
11. GENERAL LAYOUT S-13-20XX
12. OSS 2-CHORD TRUSS BUTTERFLY SPAN DETAILS
13. OSS 2-CHORD TRUSS BUTTERFLY SPAN ELECTRICAL DETAILS
14. OSS 2-CHORD TRUSS BUTTERFLY SPAN FOUNDATION DETAILS

DETAILS AND
FINAL SHEET
COUNT TO BE
PROVIDED AT
FINAL DESIGN

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-13-2003	S-13-2004	S-13-20XX	S-13-2005	S-13-200X	S-13-2006	S-13-2008	S-13-2009	S-13-2010	S-13-20XX
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--	--	--	--	--	--
531.00XX	FOUNDATION DRILLING 36-INCH	LF	--	--	--	--	--	--	--	--	--	--
531.1000	ANCILLARY STRUCTURES CONCRETE MASONRY	CY	--	--	--	--	--	--	--	--	--	--
531.2400	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS	LB	--	--	--	--	--	--	--	--	--	--
531.2600	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED	LB	--	--	--	--	--	--	--	--	--	--
531.60XX	ANCHOR ASSEMBLIES X-INCH	EA	--	--	--	--	--	--	--	--	--	--
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	--	--	--	--	--	--	--	--	--	--
653.XXXX	JUNCTION BOXES (SIZE)	EA	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2003	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2004	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-20XX	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2005	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-20XX	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2006	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2008	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2009	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-2010	LF	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-20XX	LF	--	--	--	--	--	--	--	--	--	--

1078 PLANS

THE DESIGNER CERTIFIES THAT THE SIGN STRUCTURE GEOMETRY AND STANDARD FOUNDATION CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER

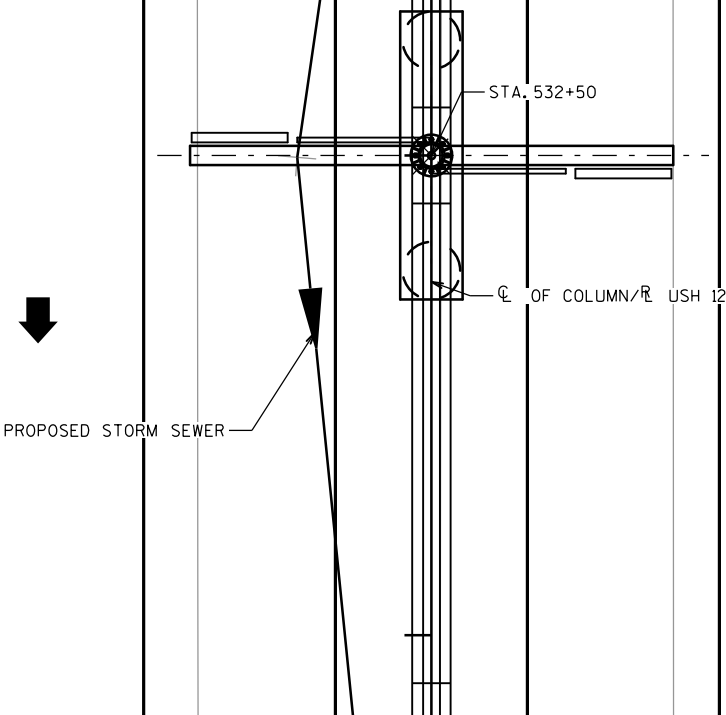
1206-06-79

STRUCTURE DESIGN CONTACTS

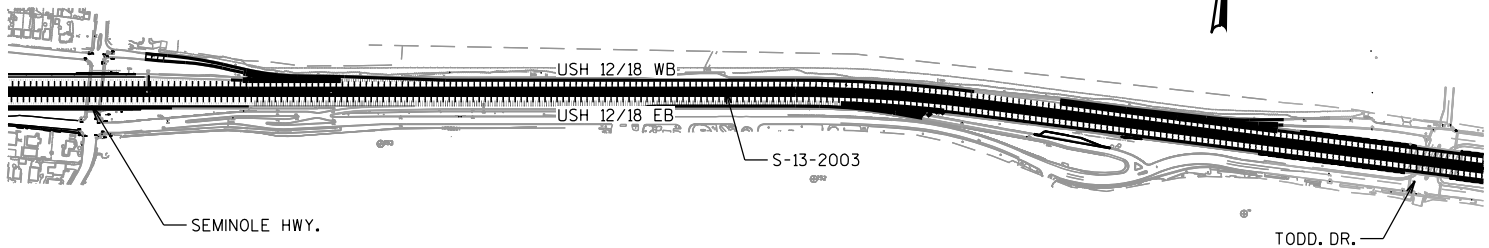
BUREAU OF STRUCTURES:
SUPERVISOR:
AARON BONK (608) 261-0261

CONSULTANT:
PAT CASHIN (414) 359-2300

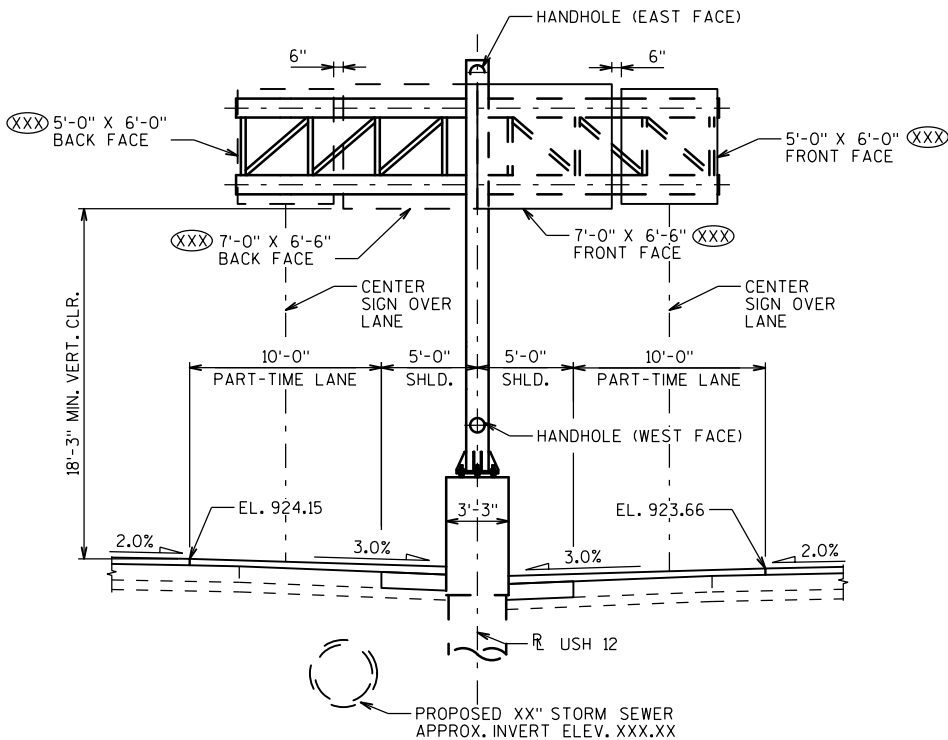
NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB (414) 359-2300			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____		CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____	
OSS 2-CHORD TRUSS BUTTERFLY DPTSU PLANS			
BUTTERFLY DPTSU SIGN STRUCTRES USH 12/18 EB&WB			
COUNTY DANE		CITY OR TOWN MADISON	
DESIGN SPEC. AASHTO LRFDLTS-1 W/INTERIMS			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
GENERAL NOTES & DESIGN DATA			SHEET 1 OF 11



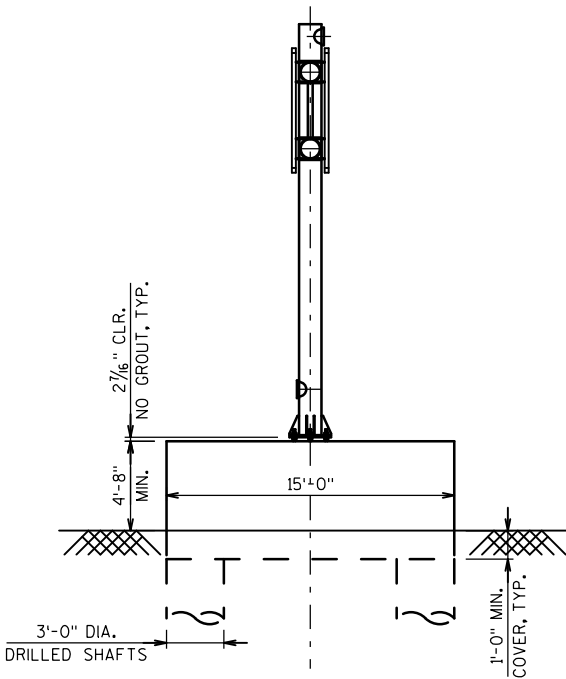
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 532+50 USH 12
(LOOKING EAST)



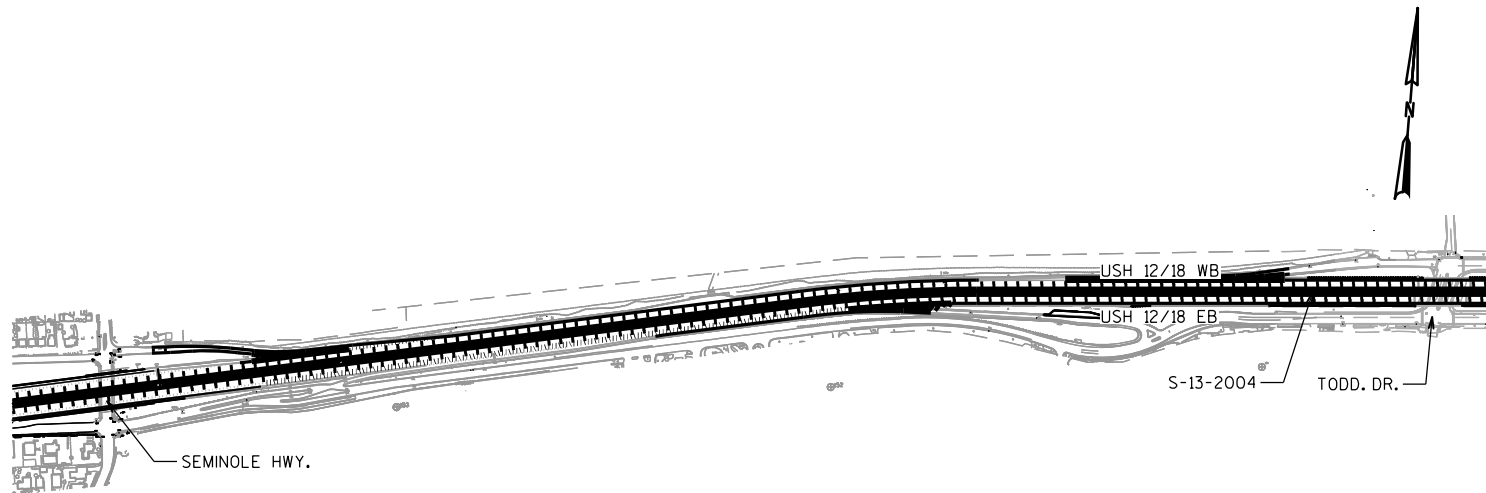
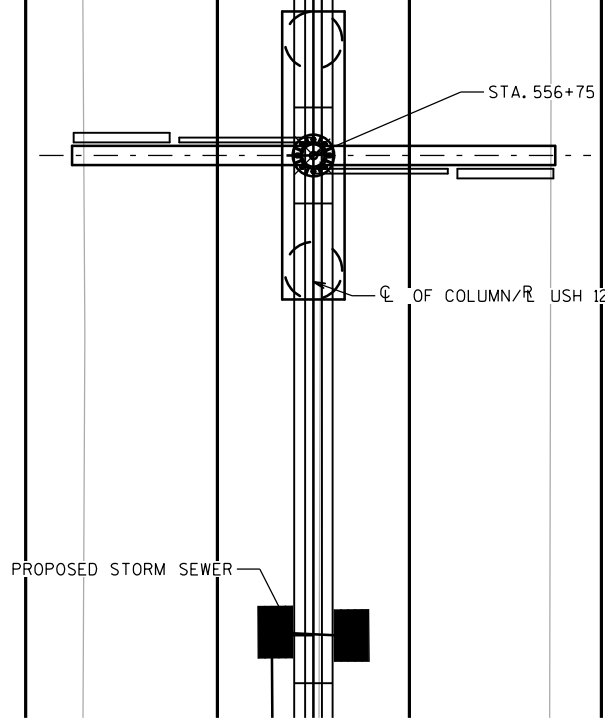
SIDE VIEW
(LOOKING NORTH)

LEGEND

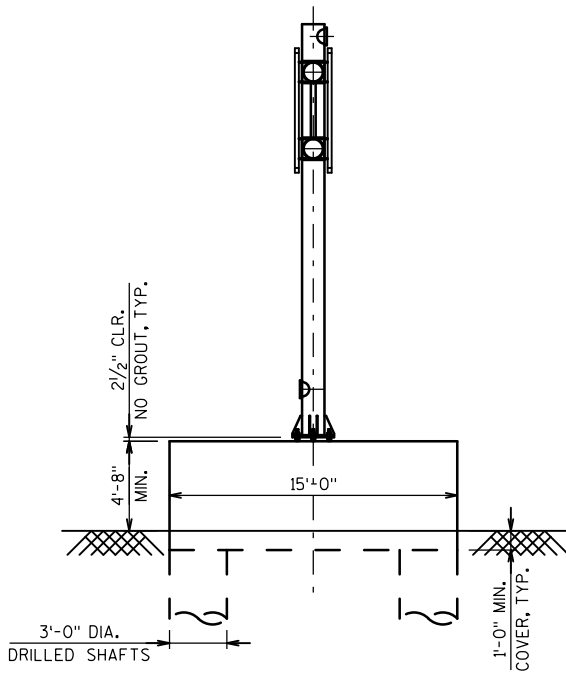
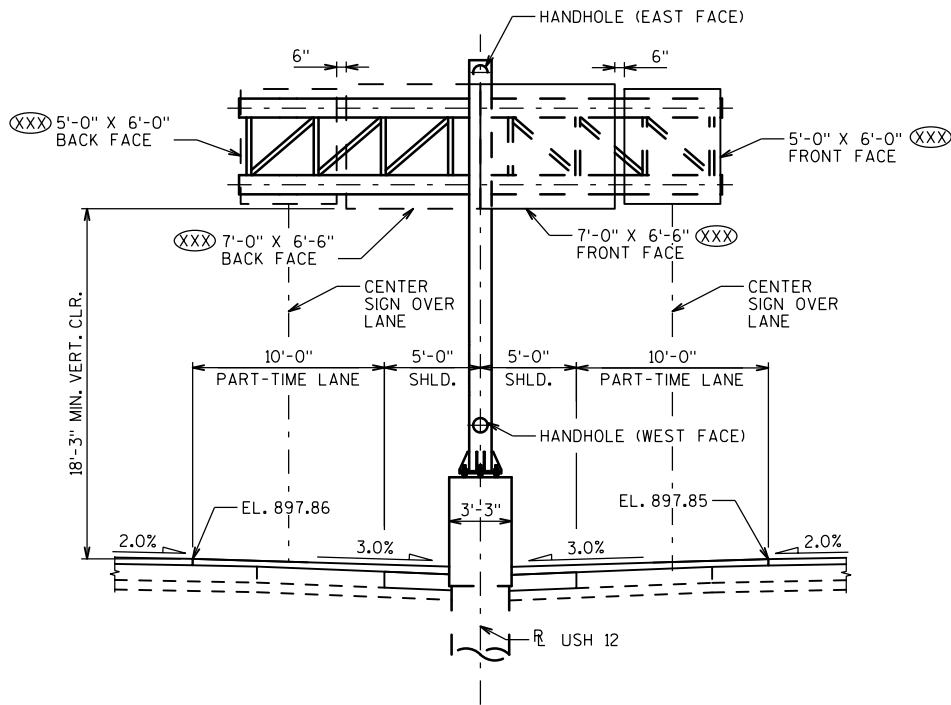
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2003			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2003			SHEET 2 OF 11



LOCATION MAP

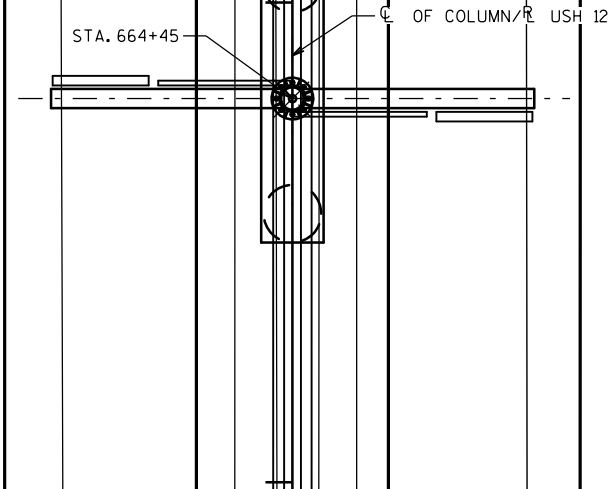


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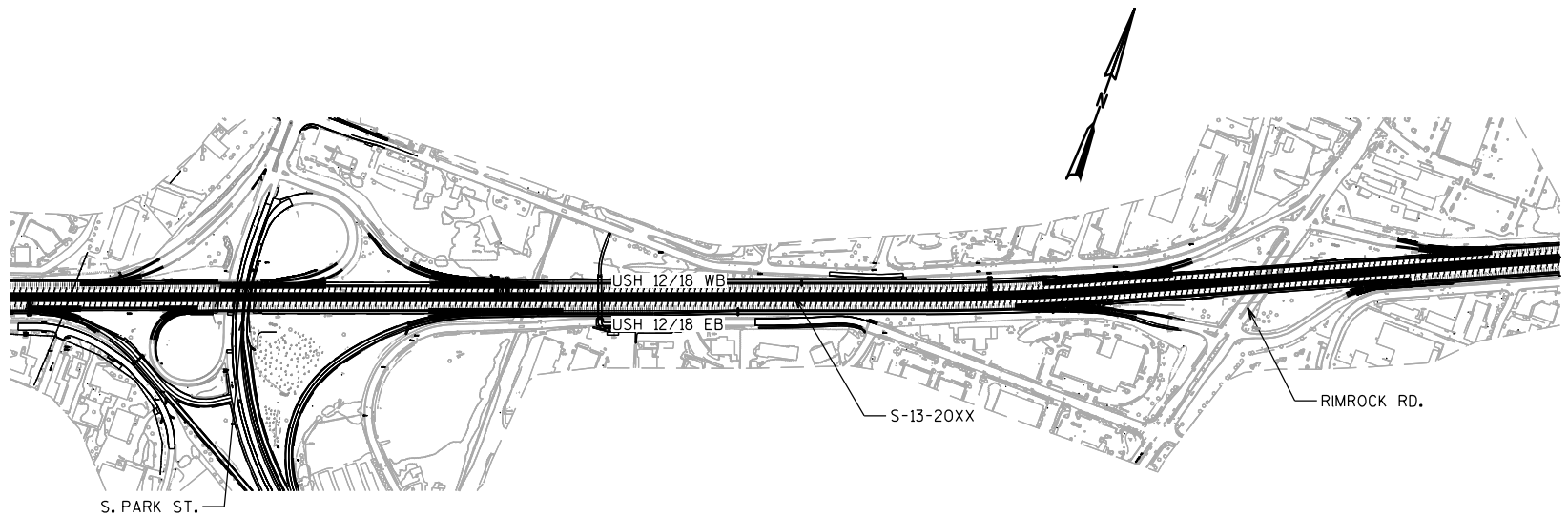
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1078 PLANS

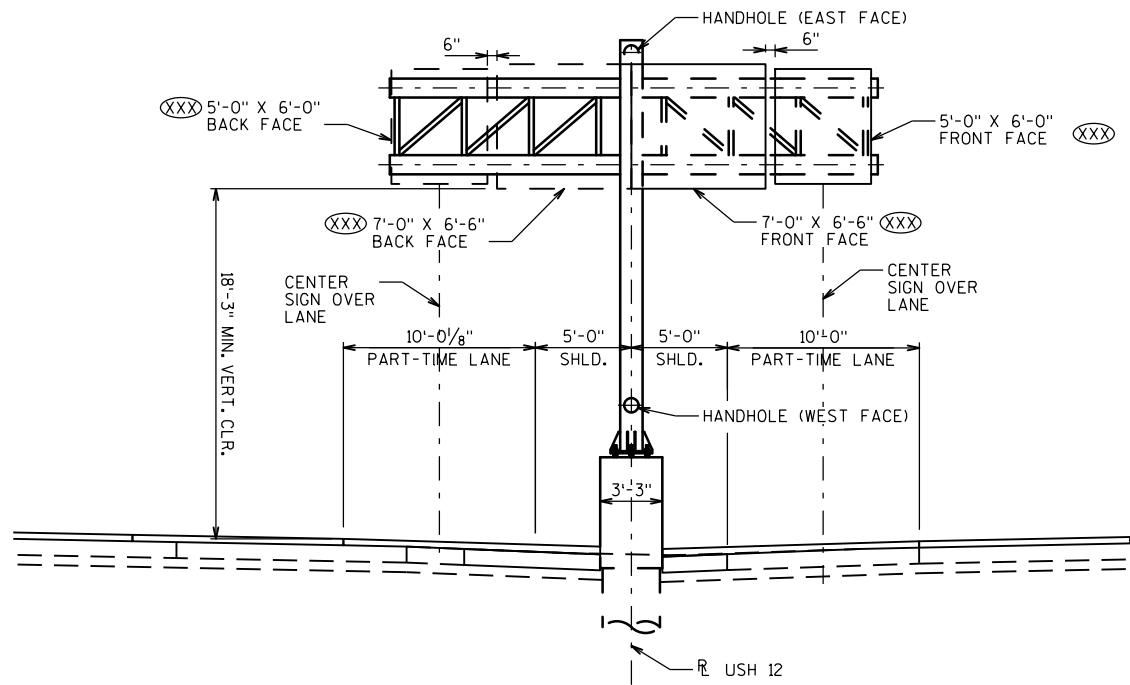
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2004			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2004			SHEET 3 OF 11



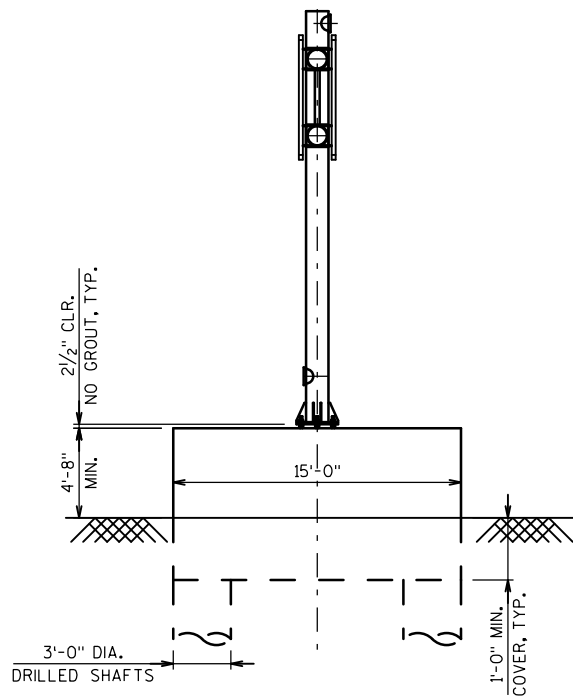
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 664+45 U.S. 12
(LOOKING EAST)



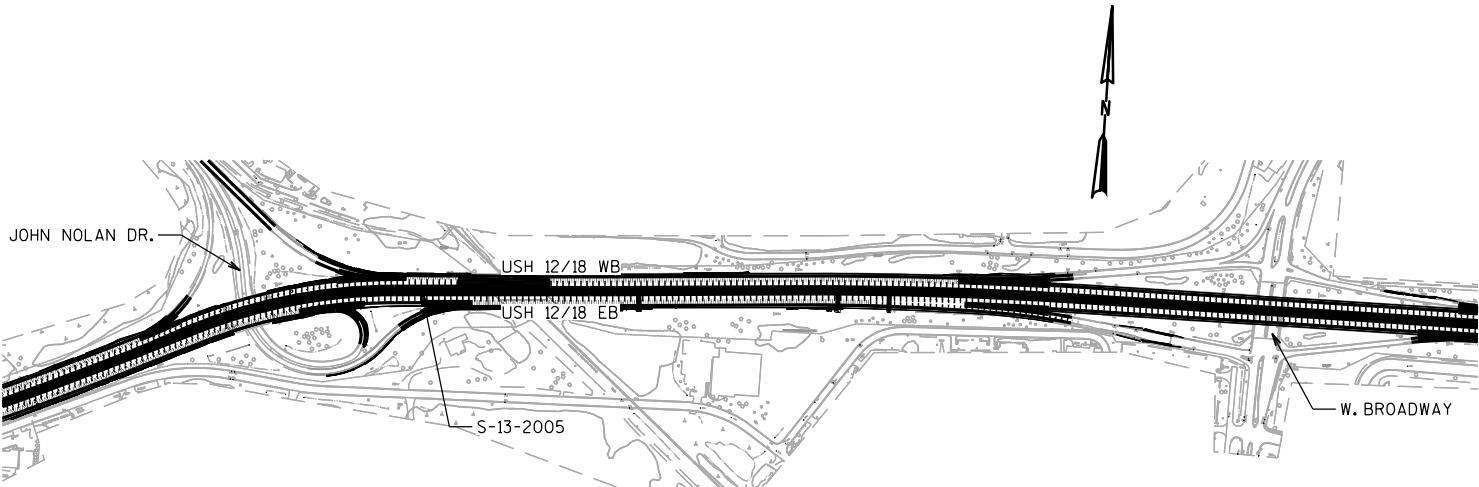
SIDE VIEW
(LOOKING NORTH)

LEGEND

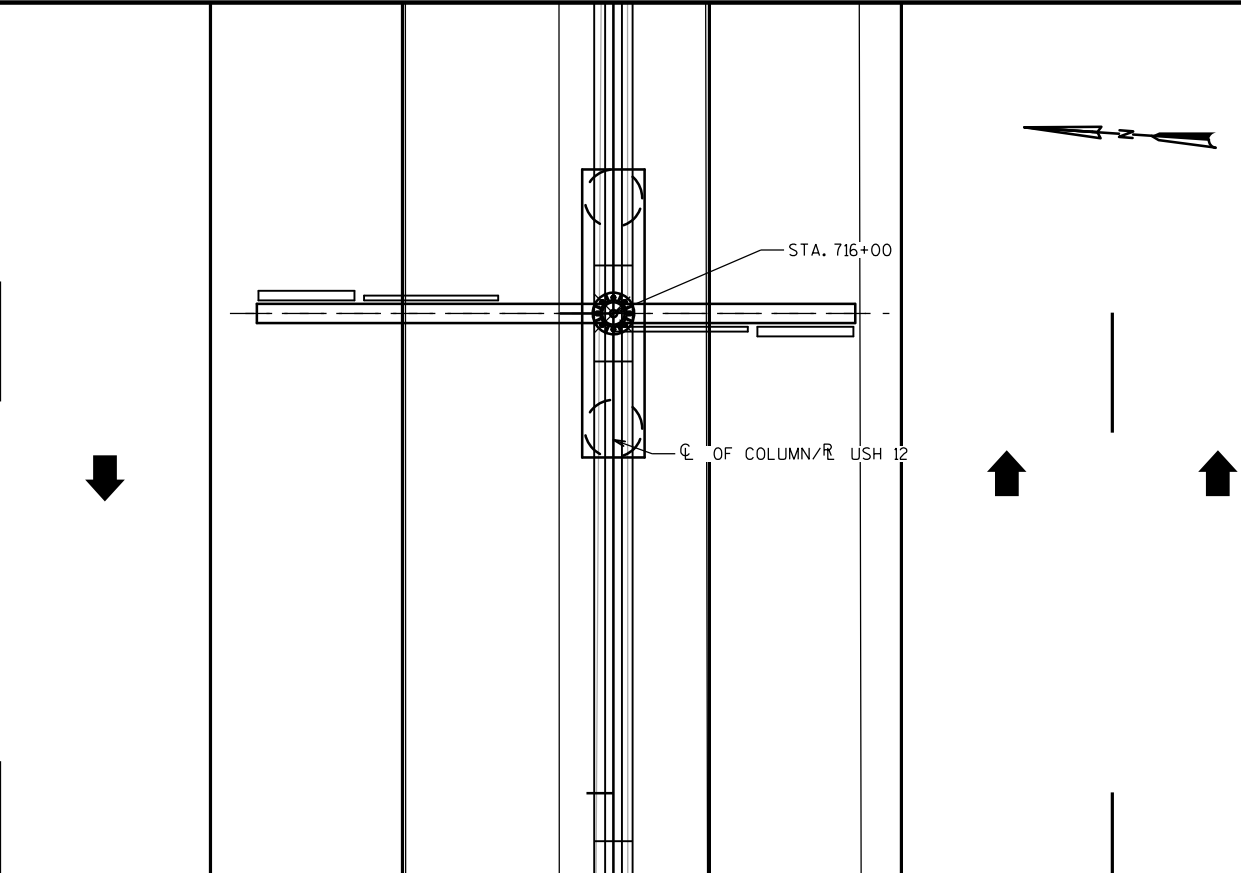
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1078 PLANS

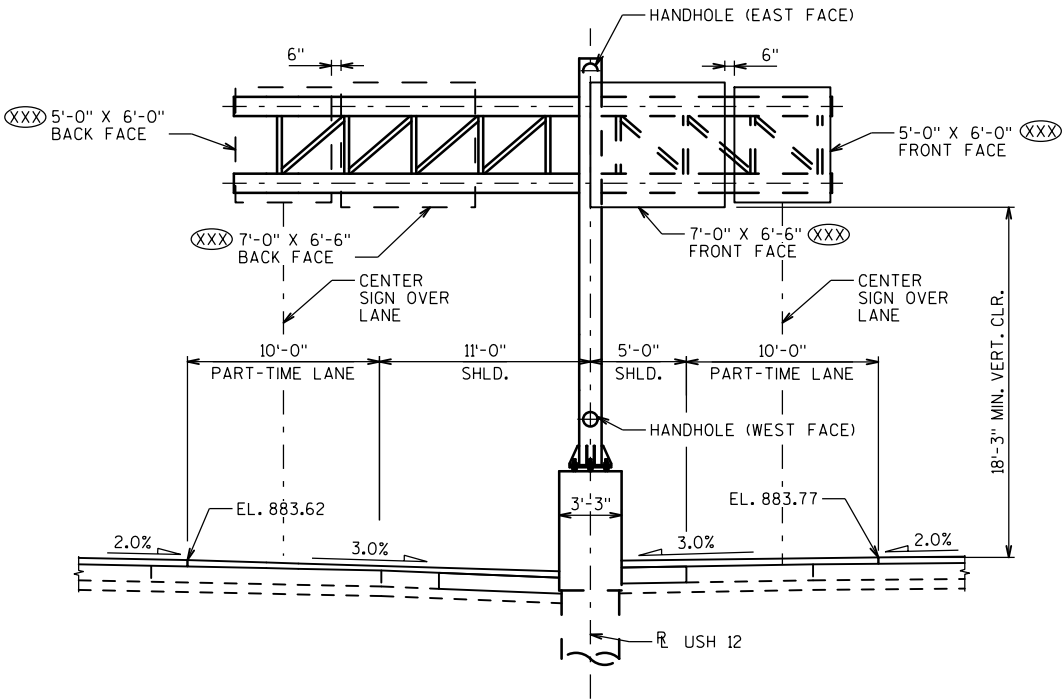
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX			SHEET 4 OF 11



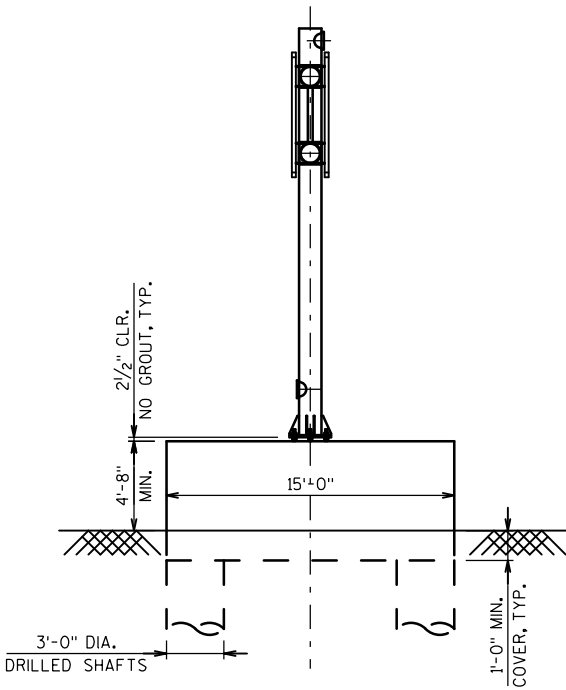
LOCATION MAP



PLAN
(LOOKING UP STATION)



ELEVATION
STA. 716+00 USH 12
(LOOKING EAST)



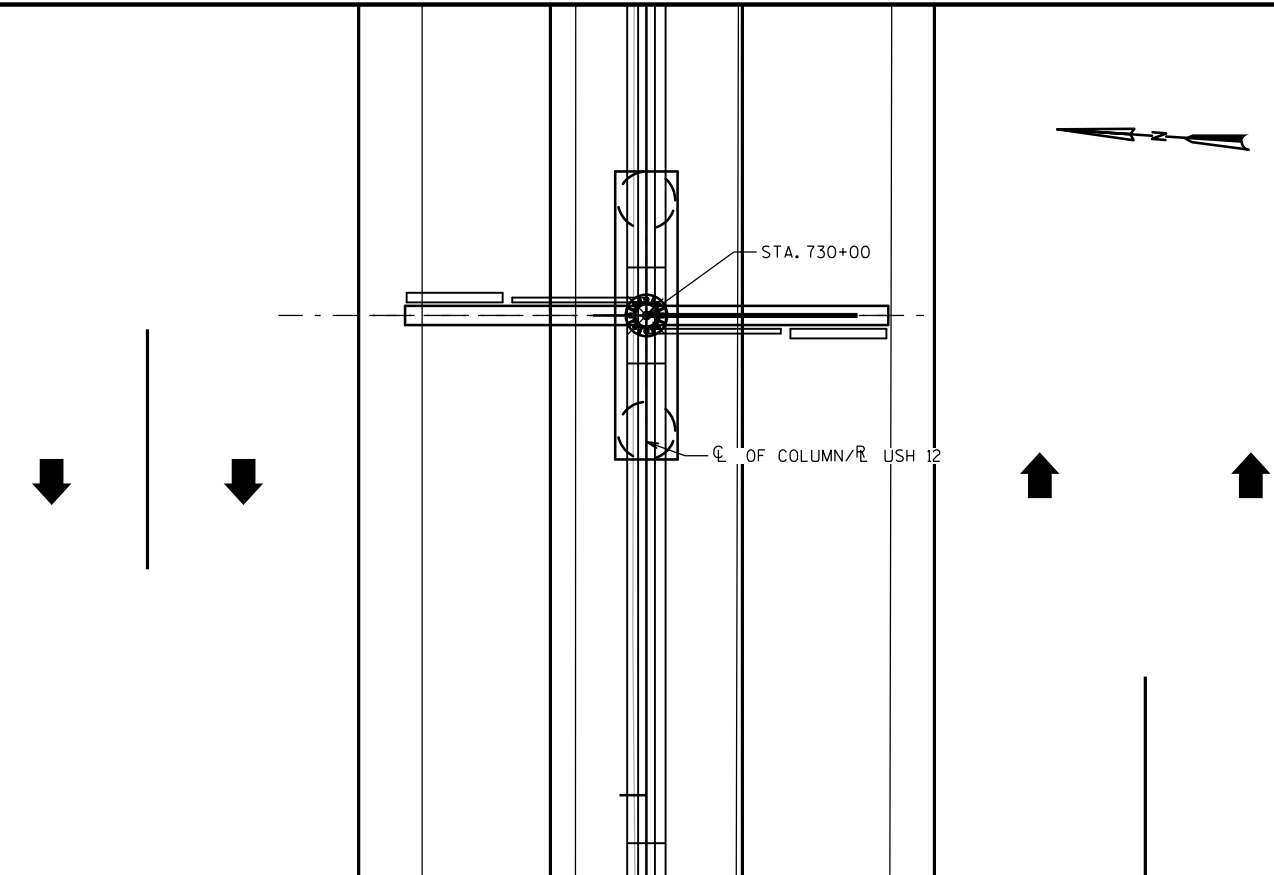
SIDE VIEW
(LOOKING NORTH)

LEGEND

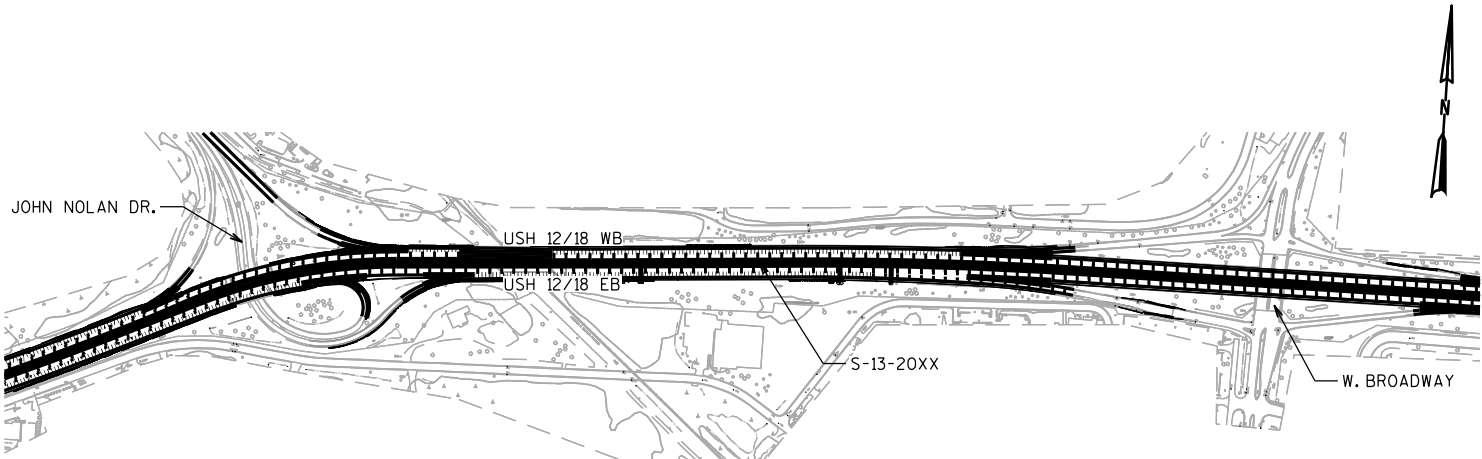
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1078 PLANS

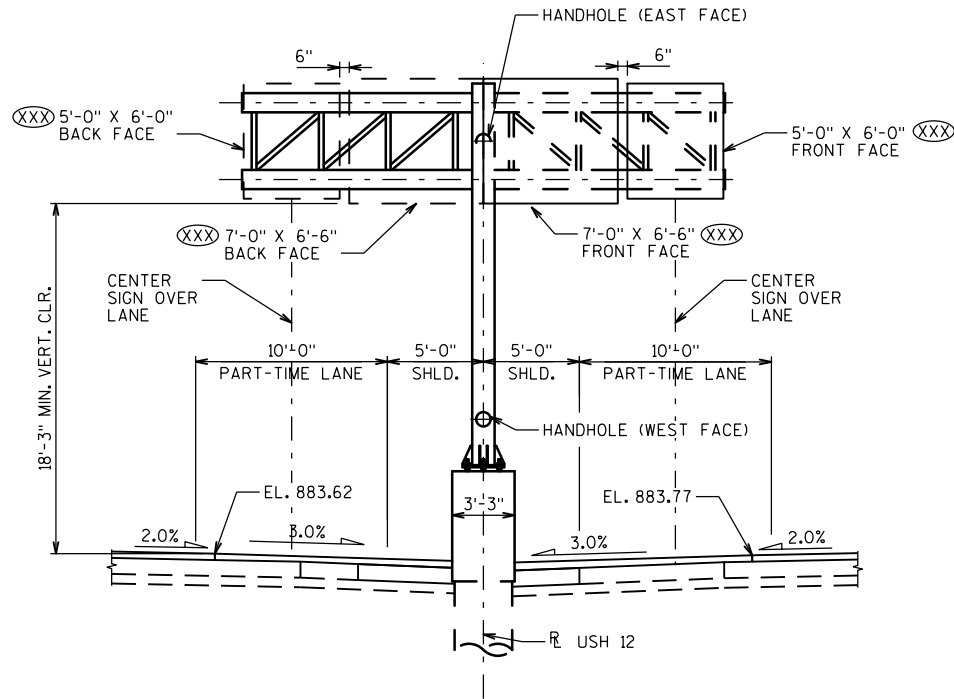
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2005			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2005			SHEET 5 OF 11



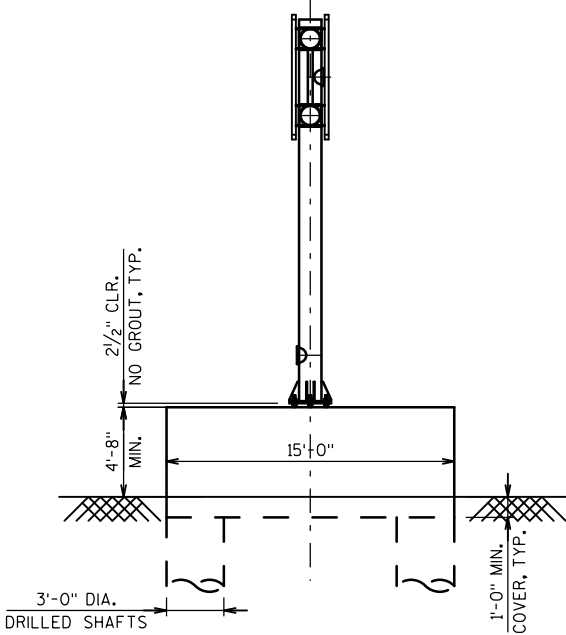
PLAN
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LOCATION MAP



ELEVATION
STA. 730+00 USH 12
(LOOKING EAST)



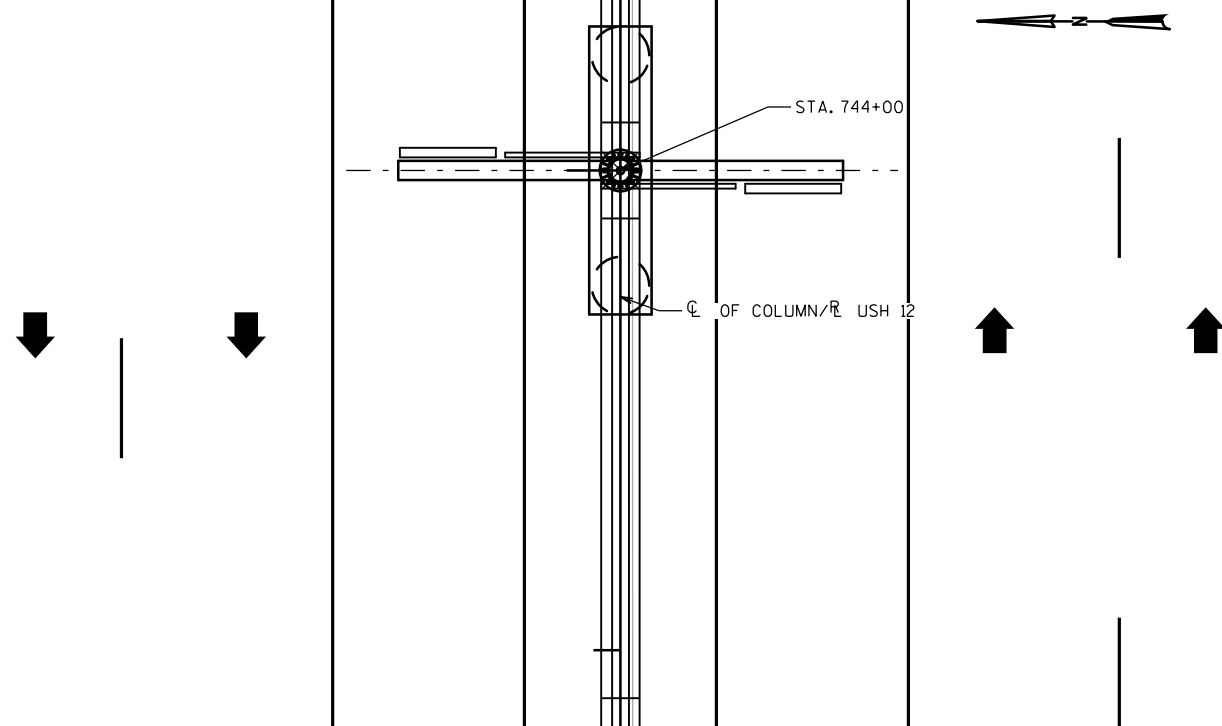
SIDE VIEW
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LEGEND

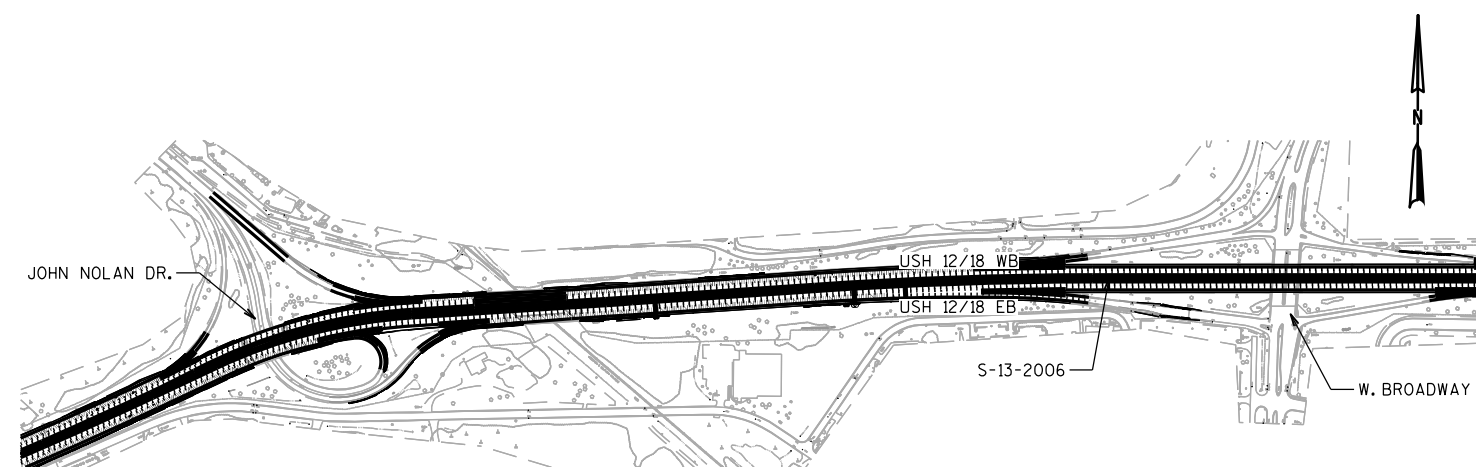
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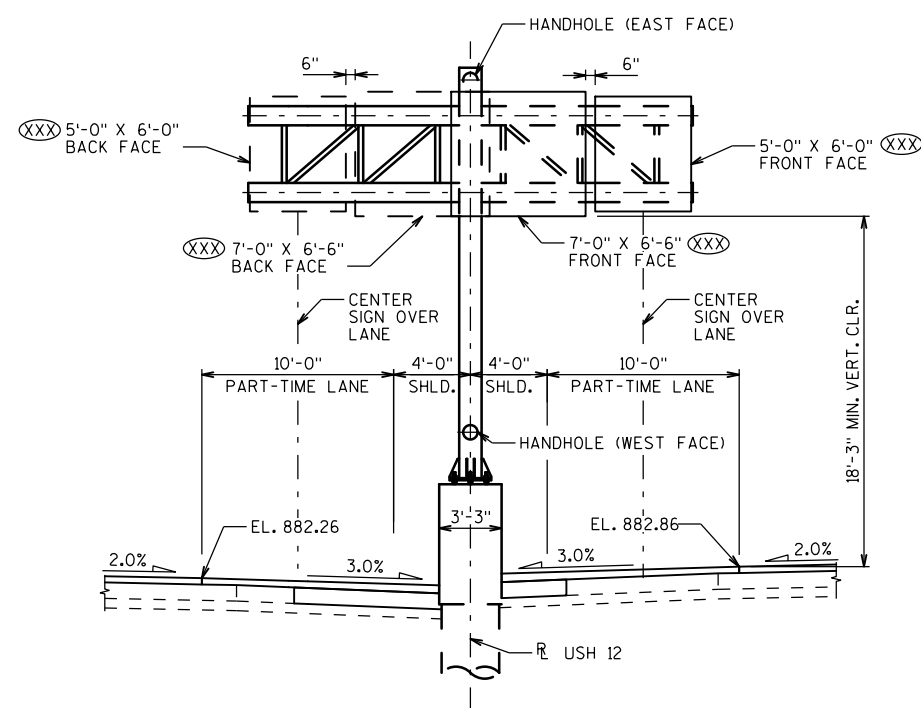
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX			SHEET 6 OF 11



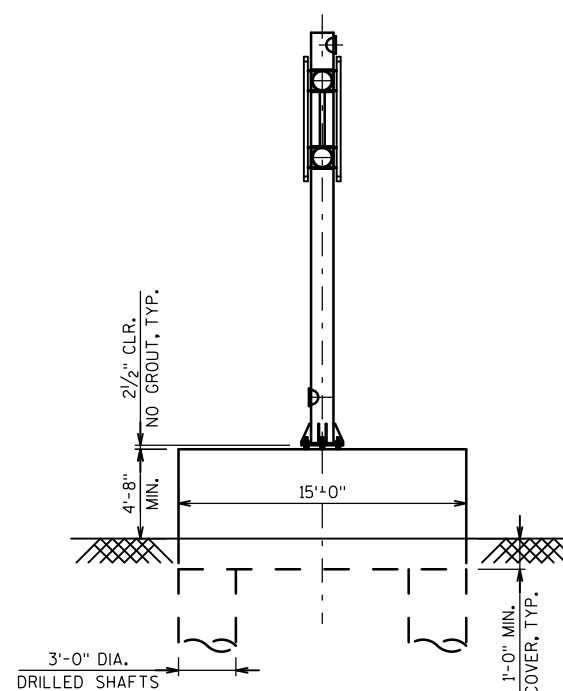
PLAN
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LOCATION MAP



ELEVATION
STA. 744+00 USH 1
(LOOKING EAST)

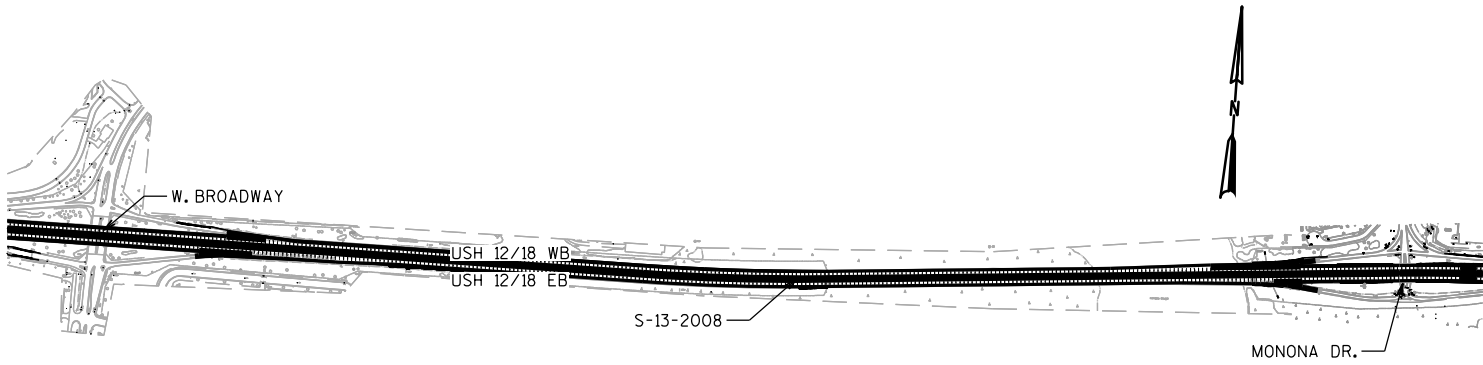


SIDE VIEW
(LOOKING NORTH)

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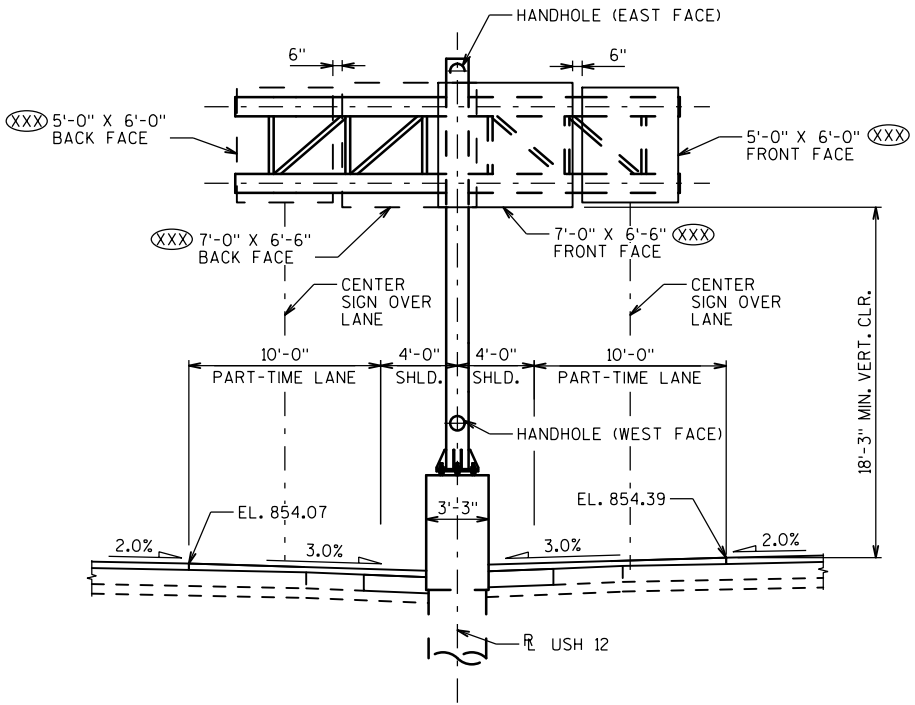
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2006			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-2006		SHEET 7 OF	

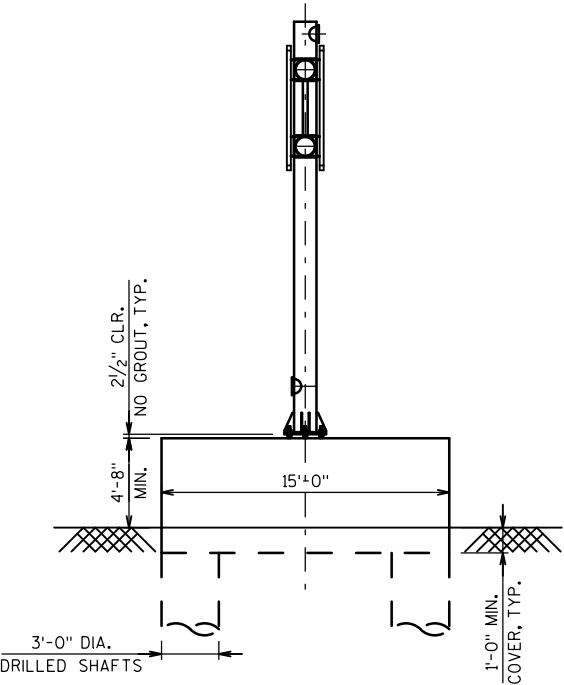


LOCATION MAP

PLAN
(LOOKING UP STATION)



ELEVATION
STA. 794+40 USH 12
(LOOKING EAST)



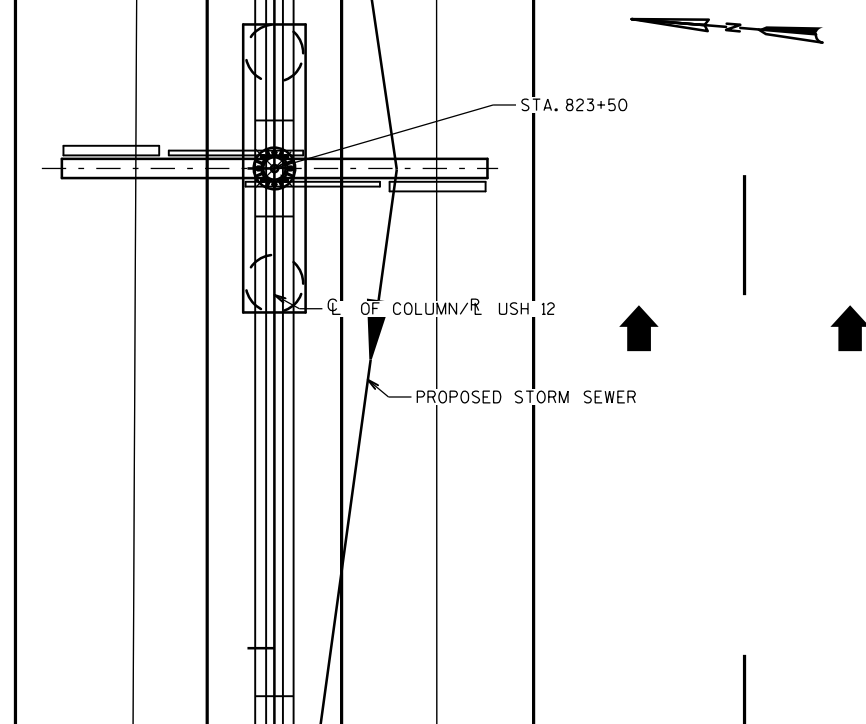
SIDE VIEW
(LOOKING NORTH)

LEGEND

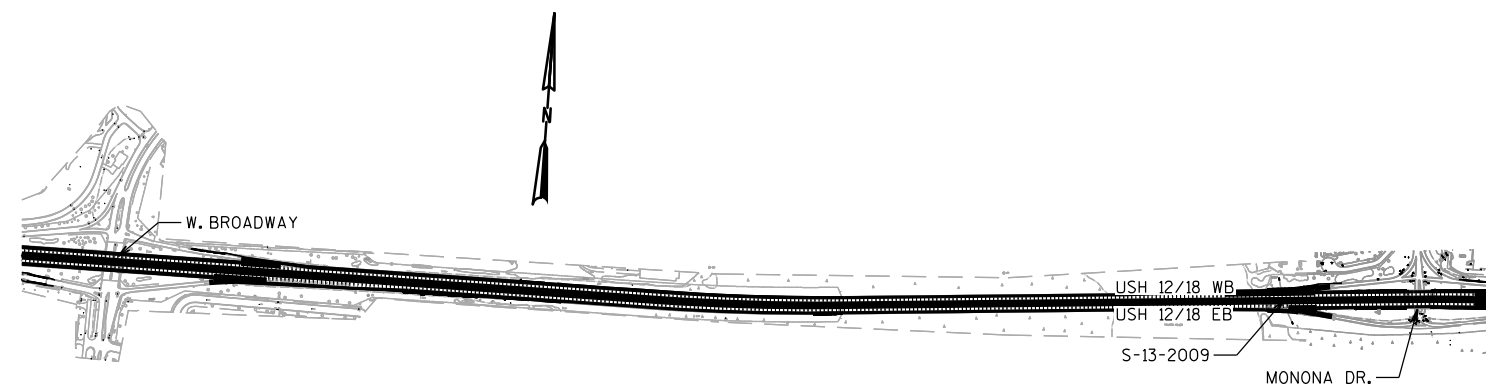
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1078 PLANS

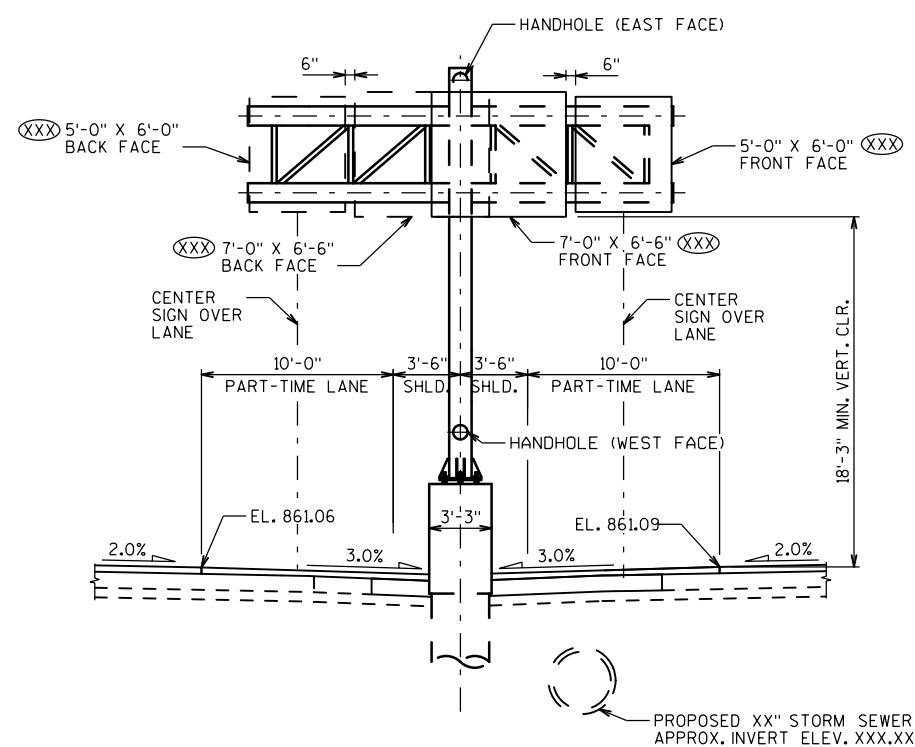
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2008			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2008			SHEET 8 OF 11



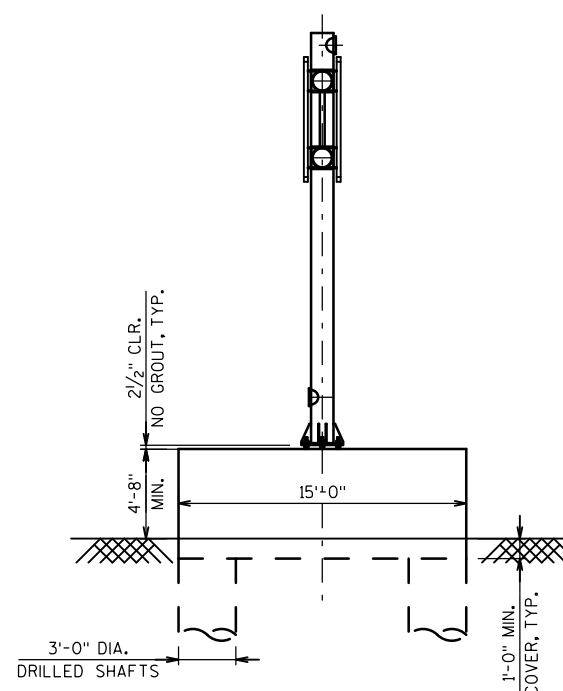
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 823+50 USH 1
(LOOKING EAST)



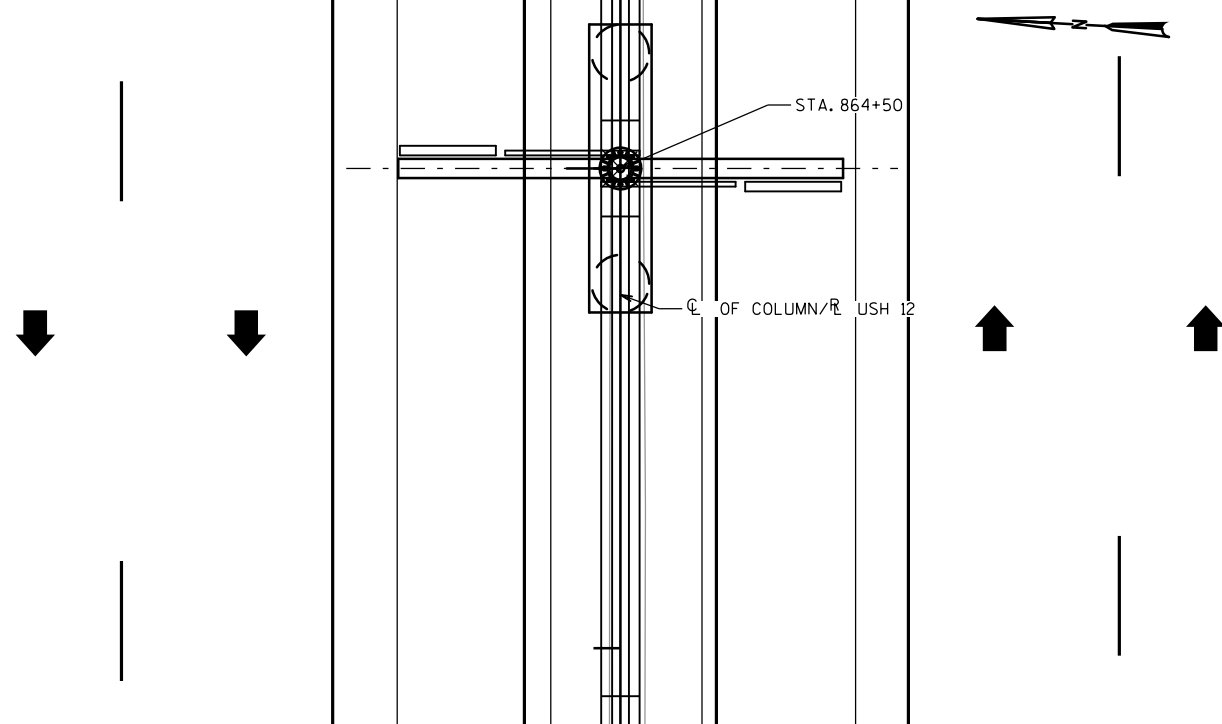
SIDE VIEW
(LOOKING NORTH)

LEGEND

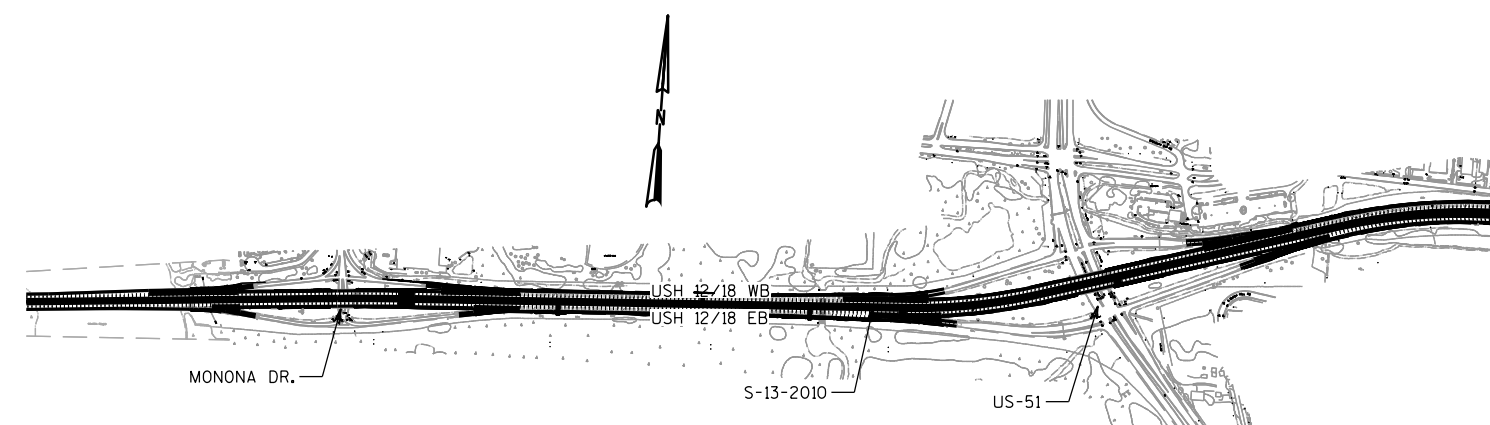
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

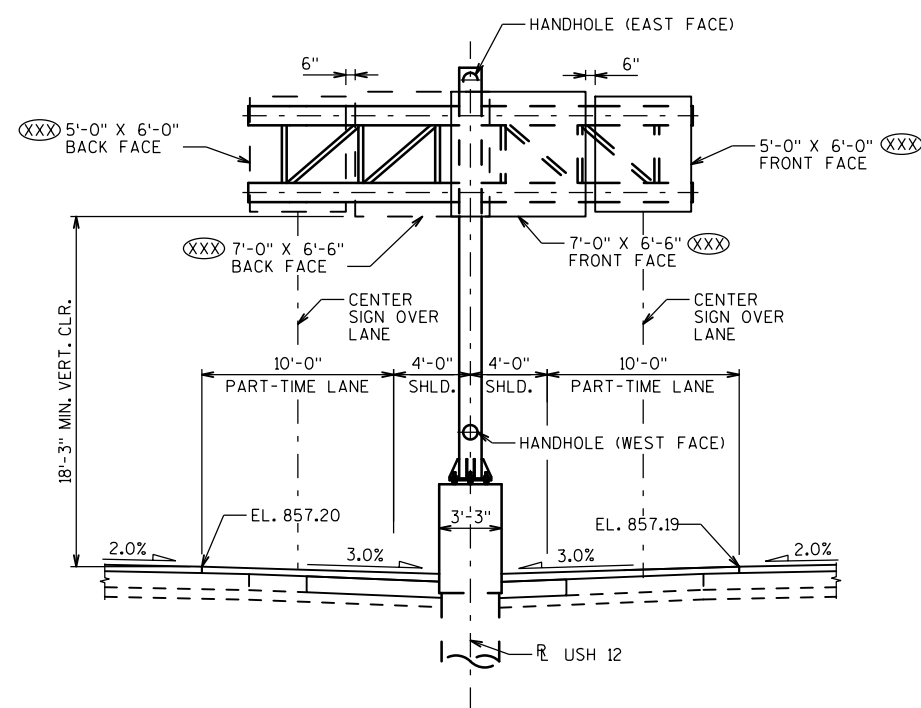
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2009			
		DRAWN BY	PLANS C'K'D.
GENERAL LAYOUT S-13-2009		SHEET 9 OF	



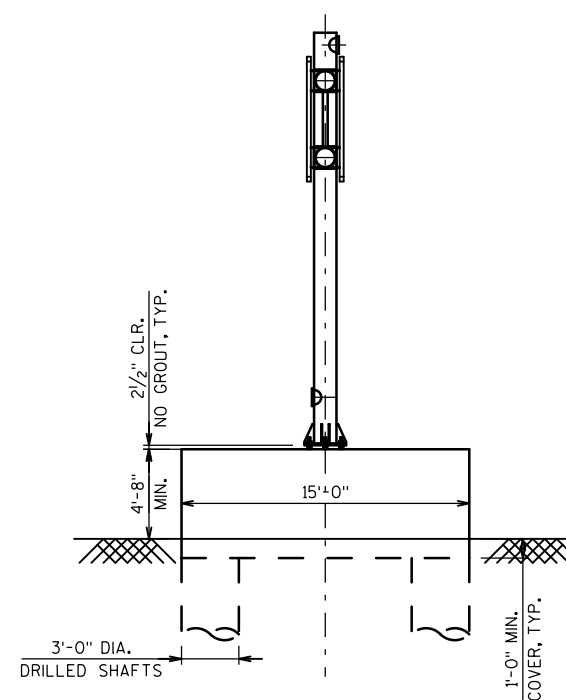
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 864+50 USH 1
(LOOKING EAST)



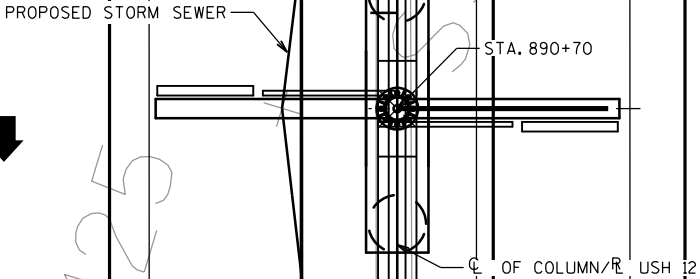
SIDE VIEW
(LOOKING NORTH)

LEGEND

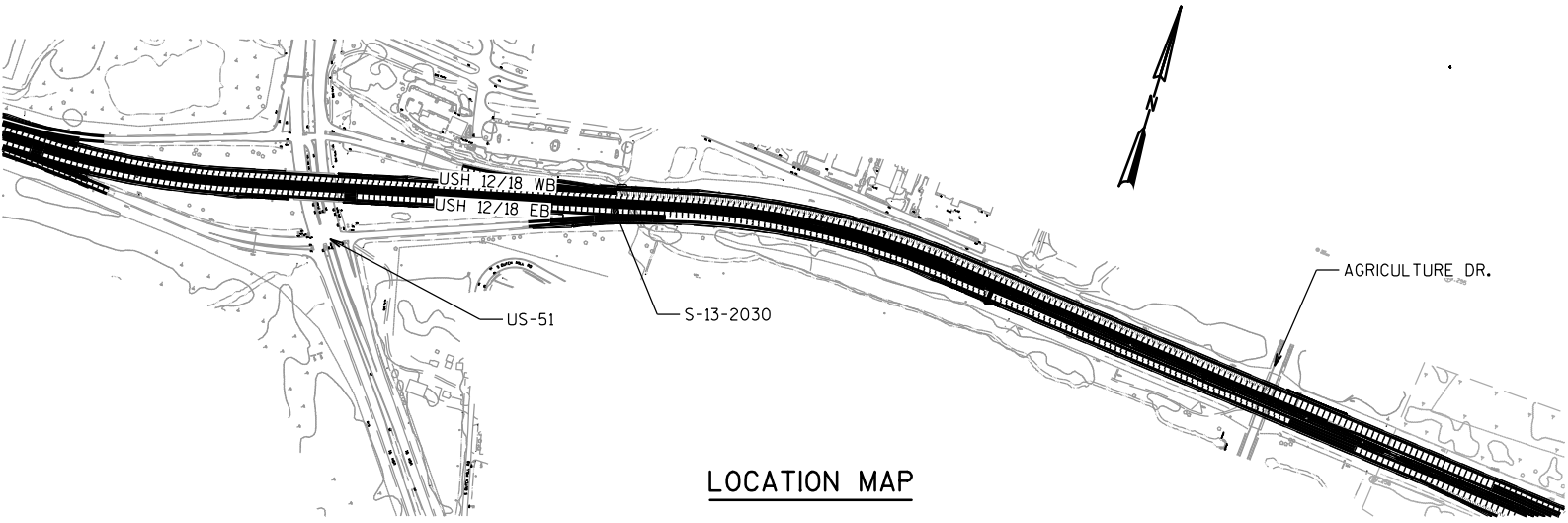
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1078 PLANS

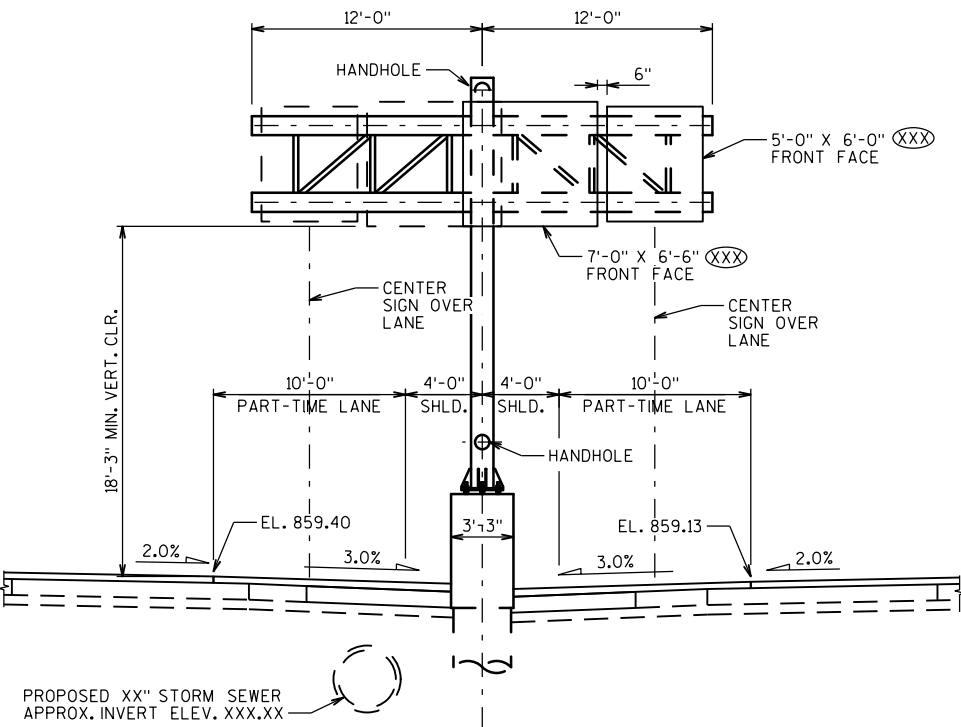
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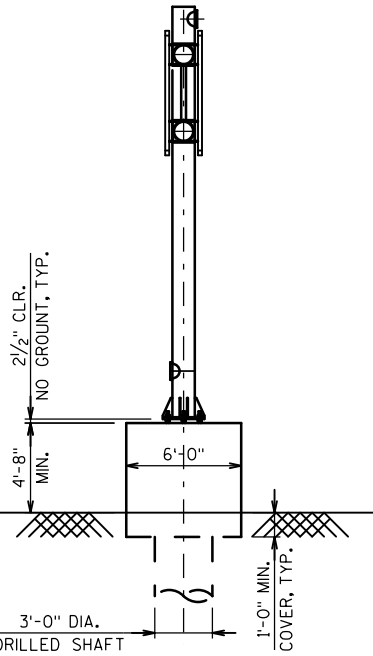
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 890+70 USH 12
(LOOKING EAST)



SIDE VIEW
(LOOKING NORTH)

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2030			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2030			SHEET 11 OF 11

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-13-529	S-13-530	S-13-531	S-13-532	S-13-533	S-13-534	S-13-535	S-13-536	S-13-537	S-13-538	S-13-539	S-13-540	S-13-541
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--	--	--	--	--	--	--	--	--
531.00XX	FOUNDATION DRILLING 36-INCH	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
531.1000	ANCILLARY STRUCTURES CONCRETE MASONRY	CY	--	--	--	--	--	--	--	--	--	--	--	--	--
531.2400	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS	LB	--	--	--	--	--	--	--	--	--	--	--	--	--
531.2600	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED	LB	--	--	--	--	--	--	--	--	--	--	--	--	--
531.60XX	ANCHOR ASSEMBLIES X-INCH	EA	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-529	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-530	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-531	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-532	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-533	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-534	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-535	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-536	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-537	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-538	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-539	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-540	LF	--	--	--	--	--	--	--	--	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-541	LF	--	--	--	--	--	--	--	--	--	--	--	--	--

DESIGN DATA

SIGN STR	ACTUAL SIGN AREA TYPE 1	ACTUAL SIGN HEIGHT TYPE 1
S-13-529	XXX SF	X'-XX"
S-13-530	XXX SF	X'-XX"
S-13-531	XXX SF	X'-XX"
S-13-532	XXX SF	X'-XX"
S-13-533	XXX SF	X'-XX"
S-13-534	XXX SF	X'-XX"
S-13-535	XXX SF	X'-XX"
S-13-536	XXX SF	X'-XX"
S-13-537	XXX SF	X'-XX"
S-13-538	XXX SF	X'-XX"
S-13-539	XXX SF	X'-XX"
S-13-540	XXX SF	X'-XX"
S-13-541	XXX SF	X'-XX"
DESIGN SIGN	XXX SF	X'-XX"

ALL STRUCTURES IN THIS GROUP OF STRUCTURES ARE DESIGNED FOR THE DESIGN SIGN LOADING

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD - WT.OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 120 MPH (3-SEC.GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1	1.0	0.0
LOAD CASE 2	0.0	1.0
LOAD CASE 3	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TrG (TRUCK INDUCED GUST VIBRATION)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),DANE COUNTY ZONE,NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS BUTTERFLY S-13-XXXX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S.BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS, IF USED SHALL BE THE SAME SIZE AND LOCATION AS PERMANENT SIGNS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "FOUNDATION DRILLING".

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-13-529
3. GENERAL LAYOUT S-13-530
4. GENERAL LAYOUT S-13-531
5. GENERAL LAYOUT S-13-532
6. GENERAL LAYOUT S-13-533
7. GENERAL LAYOUT S-13-534
8. GENERAL LAYOUT S-13-535
9. GENERAL LAYOUT S-13-536
10. GENERAL LAYOUT S-13-537
11. GENERAL LAYOUT S-13-538
12. GENERAL LAYOUT S-13-539
13. GENERAL LAYOUT S-13-540
14. GENERAL LAYOUT S-13-541
15. OSS 2-CHORD TRUSS BUTTERFLY SPAN DETAILS
16. OSS 2-CHORD TRUSS BUTTERFLY SPAN ELECTRICAL DETAILS
17. OSS 2-CHORD TRUSS BUTTERFLY SPAN FOUNDATION DETAILS

DETAILS AND FINAL SHEET COUNT TO BE PROVIDED AT FINAL DESIGN

1078 PLANS

THE DESIGNER CERTIFIES THAT THE SIGN STRUCTURE GEOMETRY AND STANDARD FOUNDATION CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER

1206-06-79

TRAFFIC VOLUME

A.D.T. (2036) = 139,650-164,190
R.D.S. = 60 MPH

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE MASONRY-----f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60----- fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36----- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C----- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325----- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55----- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

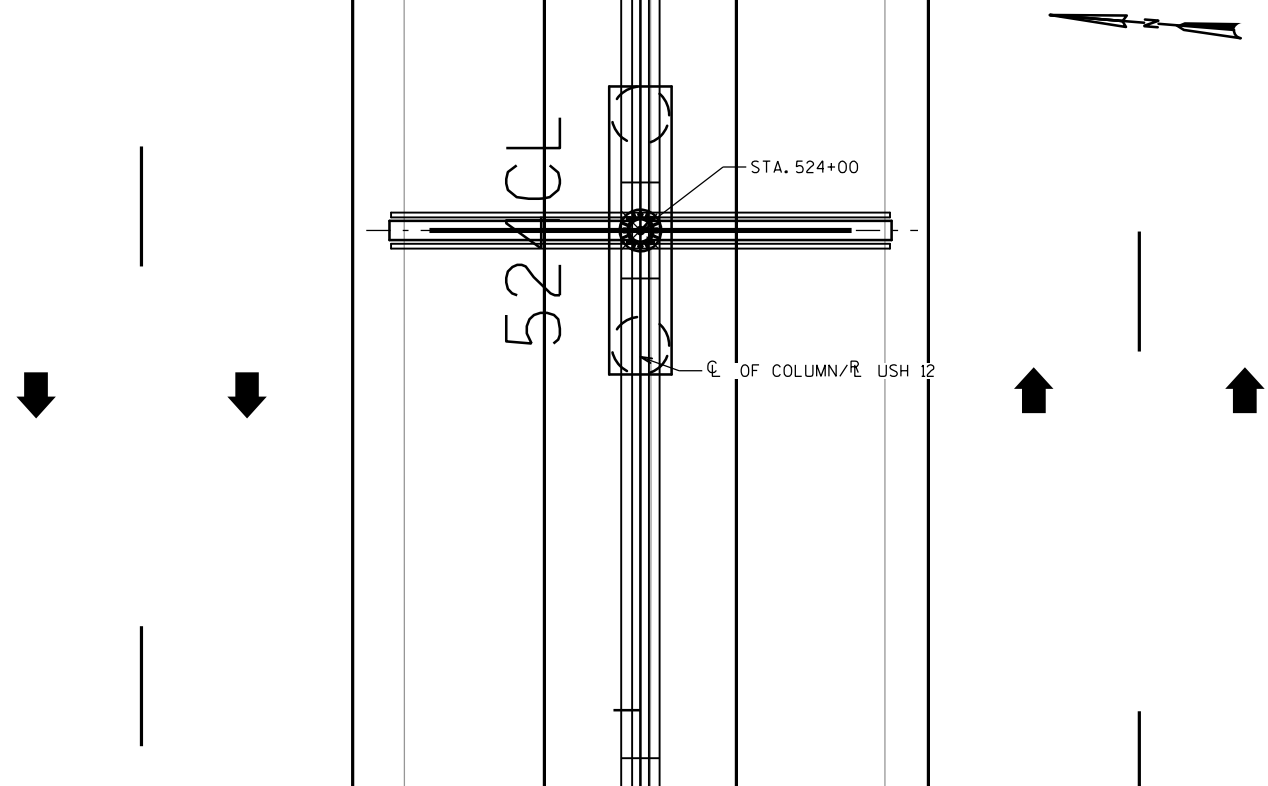
WASHERS FOR ANCHOR RODS - ASTM F436

STRUCTURE DESIGN CONTACTS

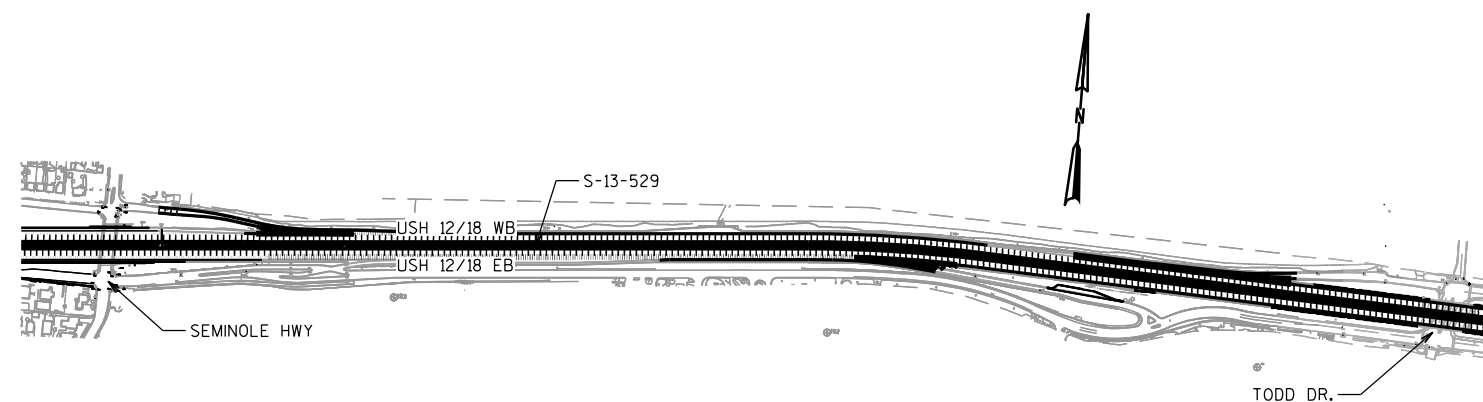
BUREAU OF STRUCTURES:
SUPERVISOR:
AARON BONK (608) 261-0261

CONSULTANT:
PAT CASHIN (414) 359-2300

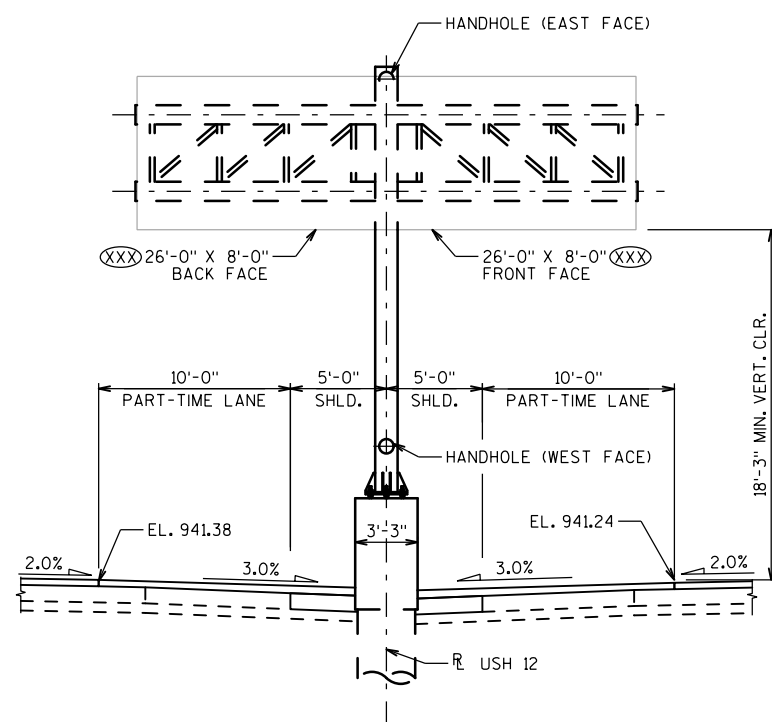
NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB (414) 359-2300			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
OSS 2-CHORD TRUSS BUTTERFLY STATIC SIGN PLANS			
BUTTERFLY STATIC SIGN STRUCTRES USH 12/18 EB&WB			
COUNTY		CITY OR TOWN	
DANE		MADISON	
DESIGN SPEC. AASHTO LRFD LTS-1 W/INTERIMS			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
GENERAL NOTES & DESIGN DATA			SHEET 1 OF 14



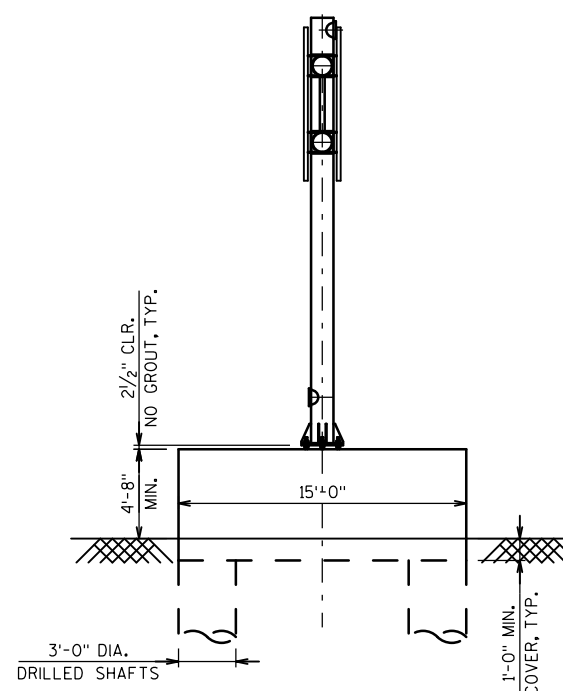
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 524+00 USH 1
(LOOKING EAST)



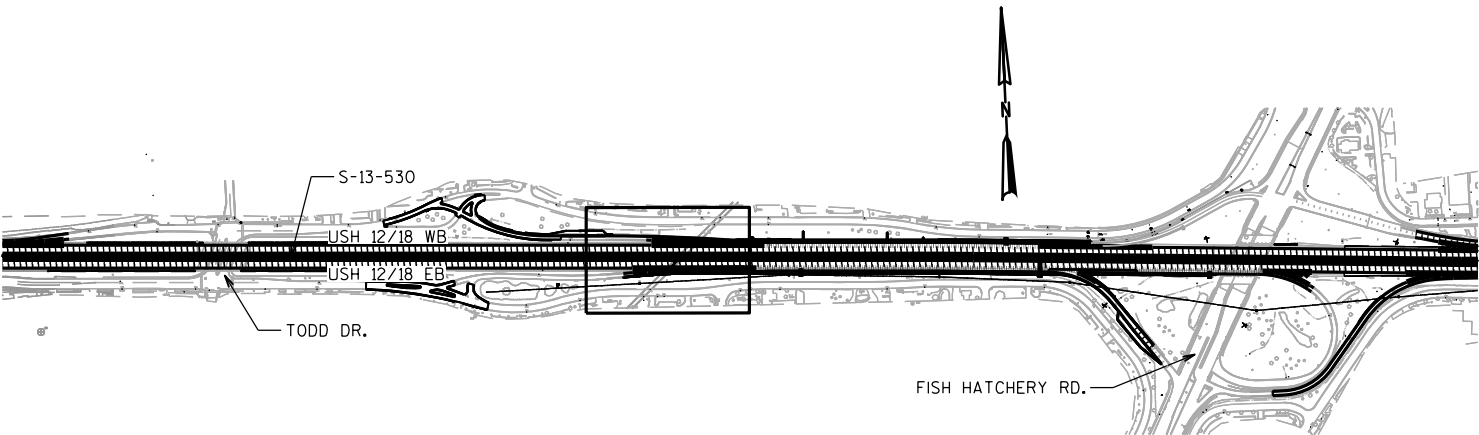
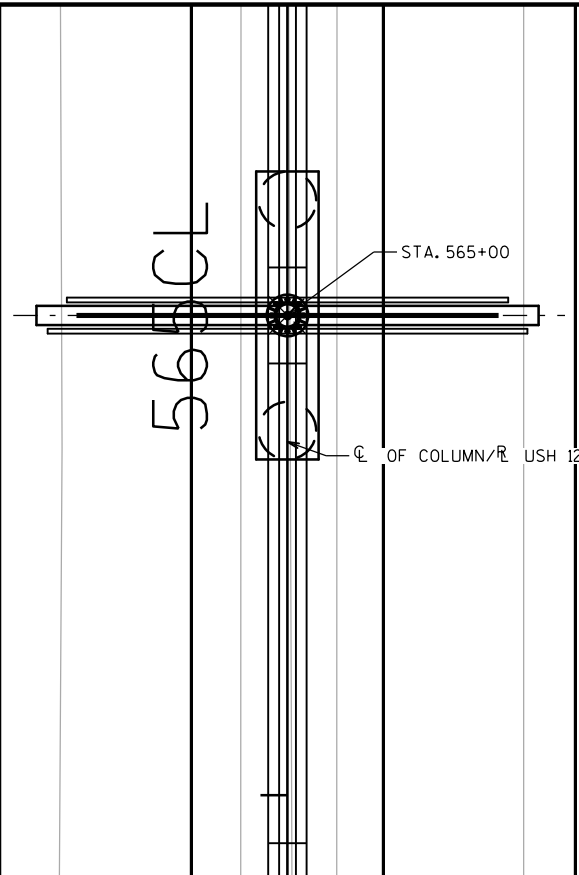
SIDE VIEW
(LOOKING NORTH)

LEGEND

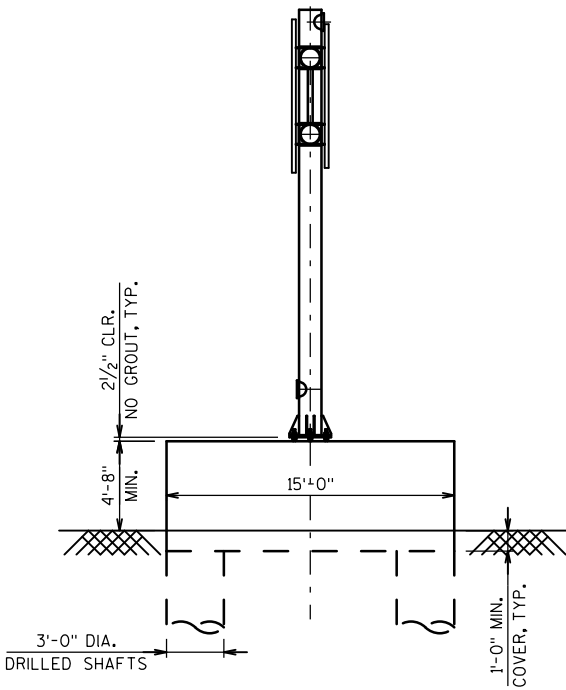
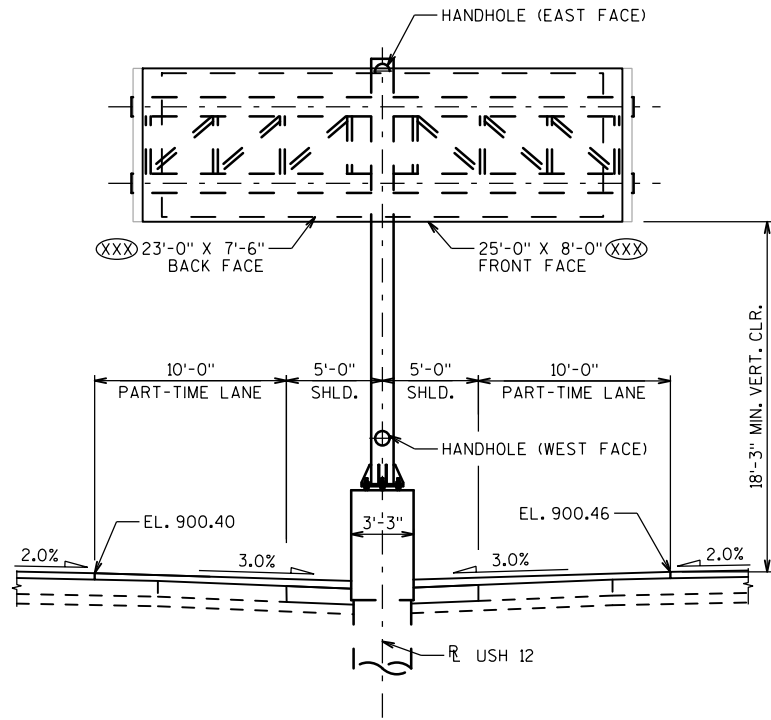
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-529			
		DRAWN BY	PLANS C'K'D.
GENERAL LAYOUT S-13-529		SHEET 2 OF 1	



LOCATION MAP

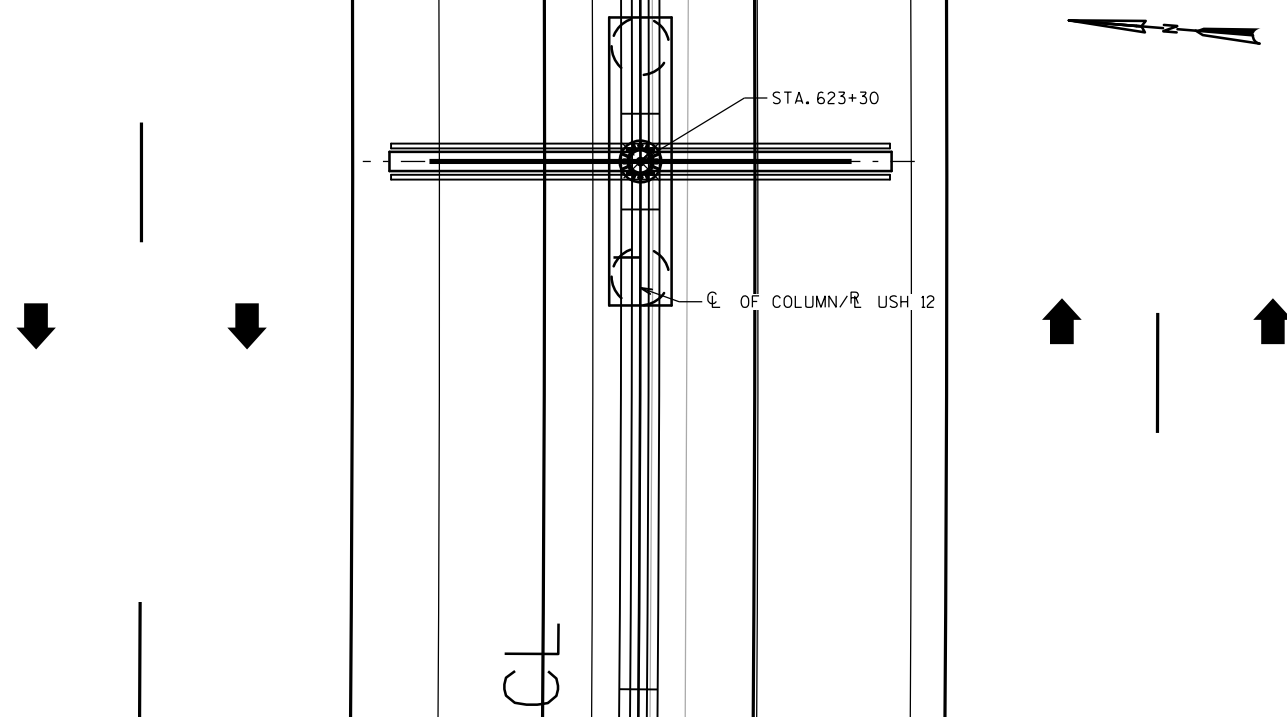


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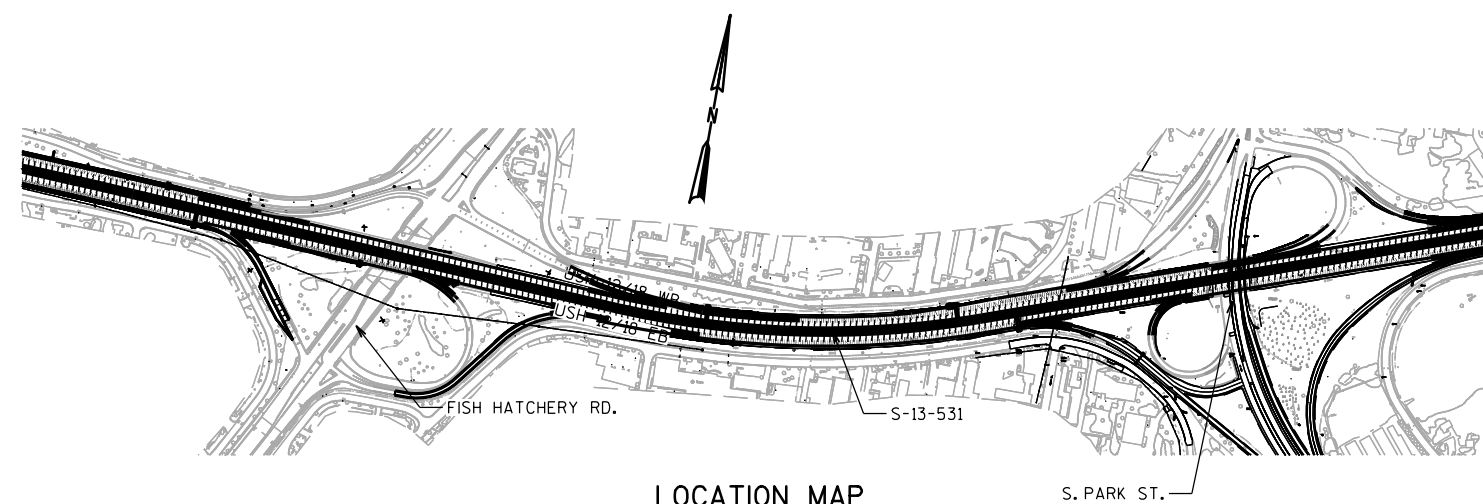
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

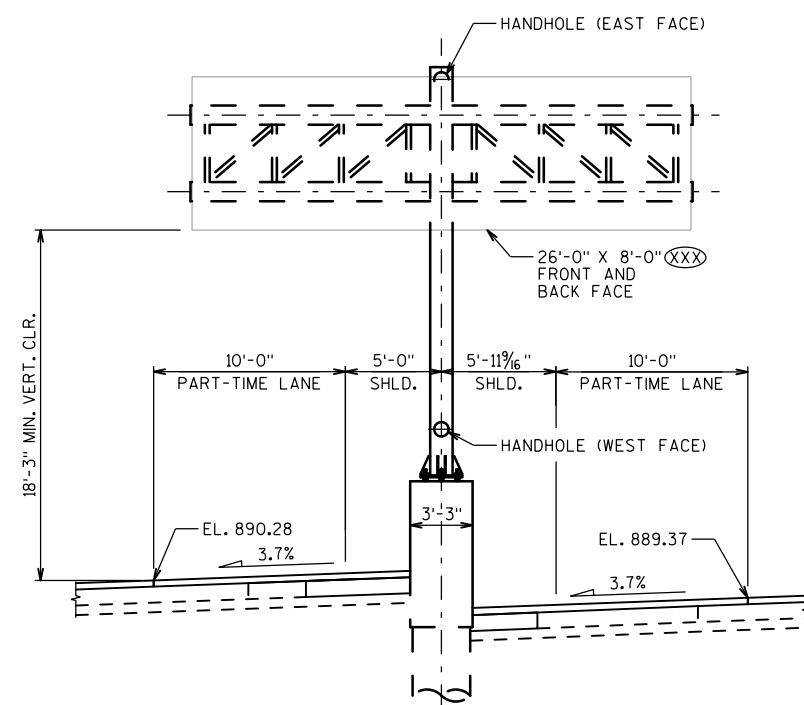
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S-13-530			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-530			SHEET 3 OF 14



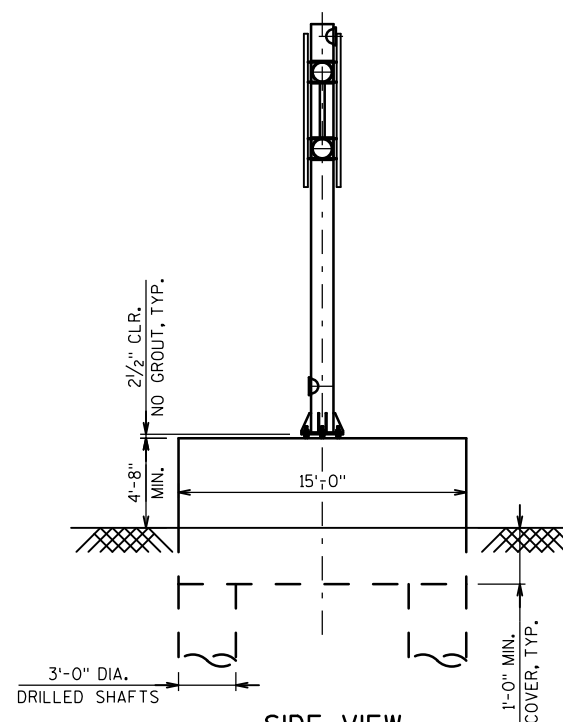
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 623+30 USH 1
(LOOKING EAST)



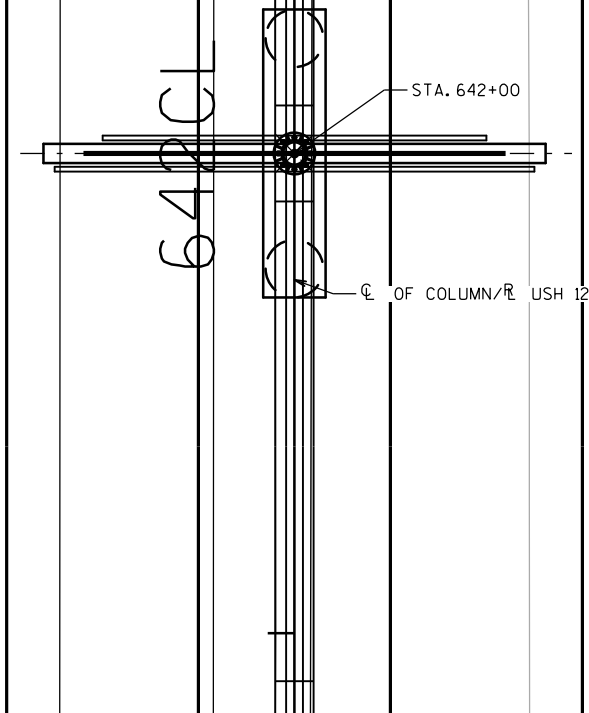
SIDE VIEW
(LOOKING NORTH)

LEGEND

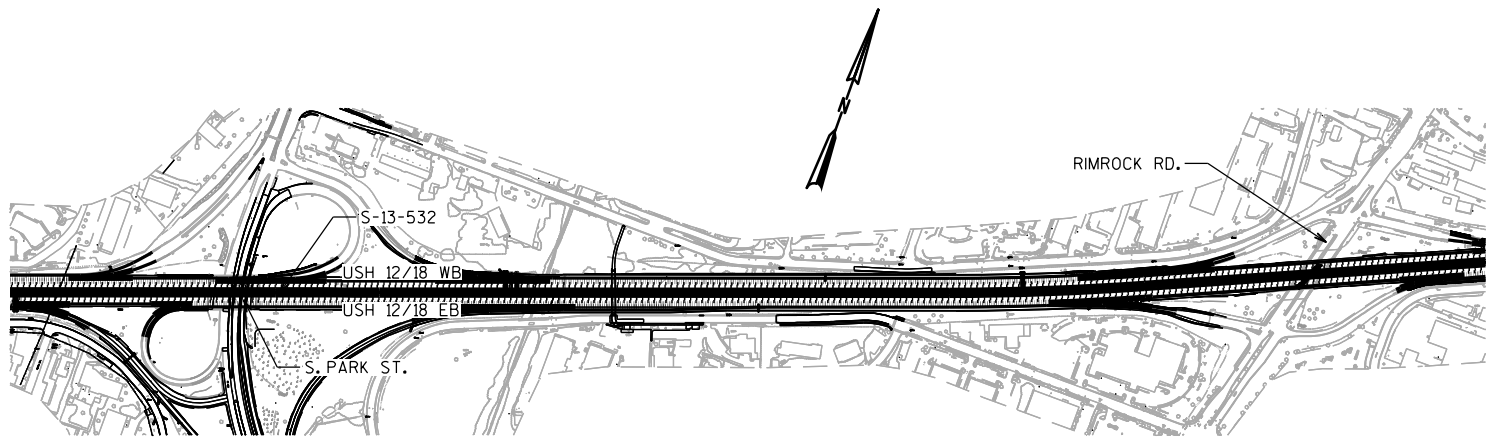
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1078 PLANS

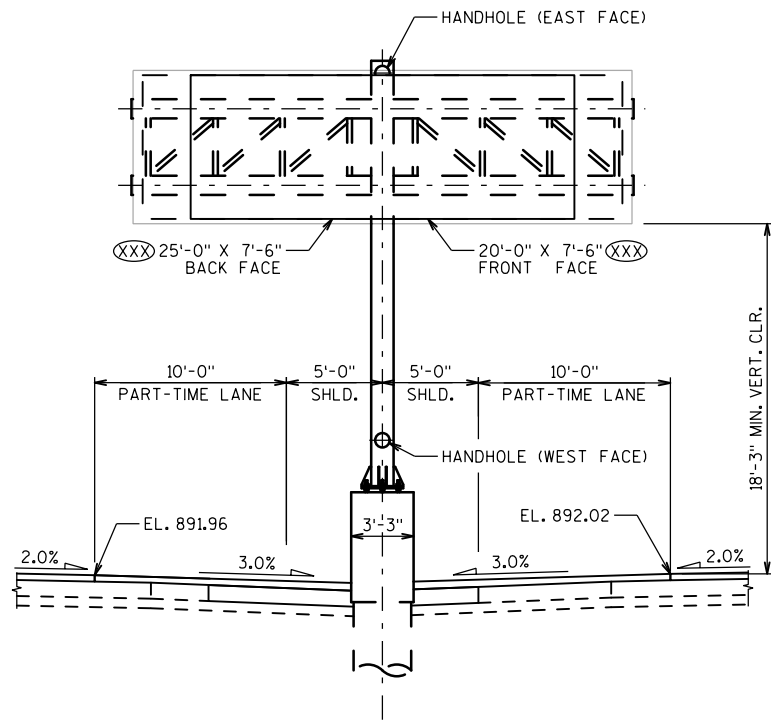
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-531			
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GENERAL LAYOUT S-13-531		SHEET 4 OF 1	



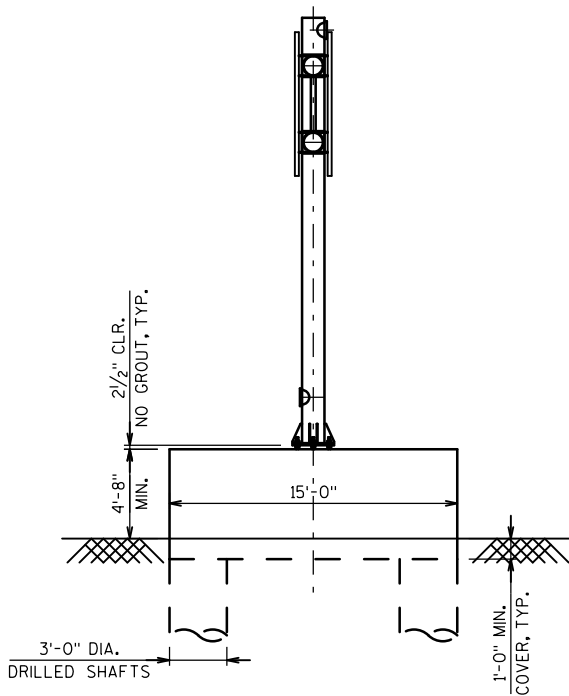
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 642+00 USH 12
(LOOKING EAST)



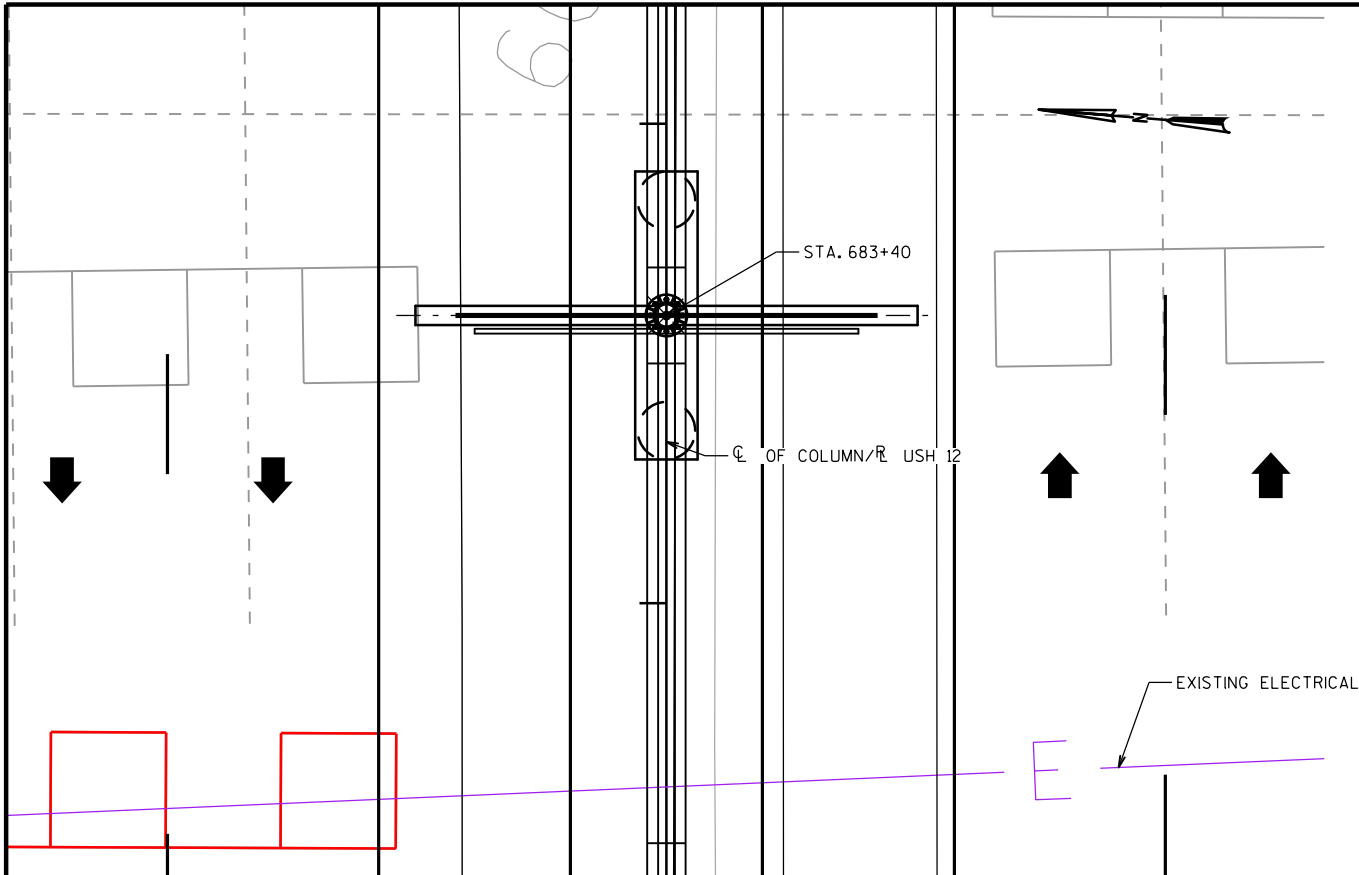
SIDE VIEW
(LOOKING NORTH)

LEGEND

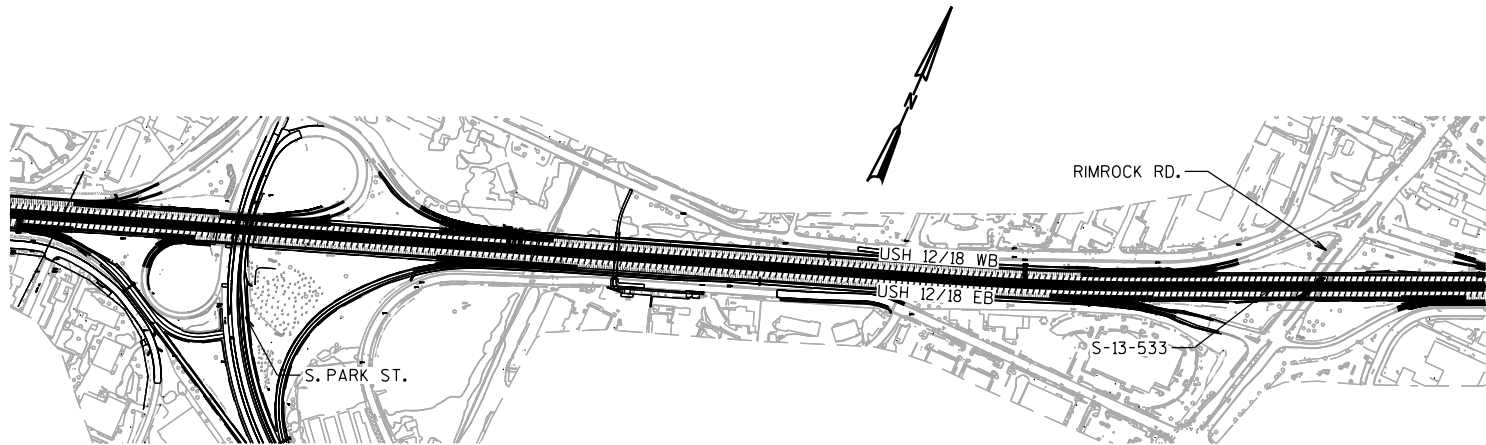
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1078 PLANS

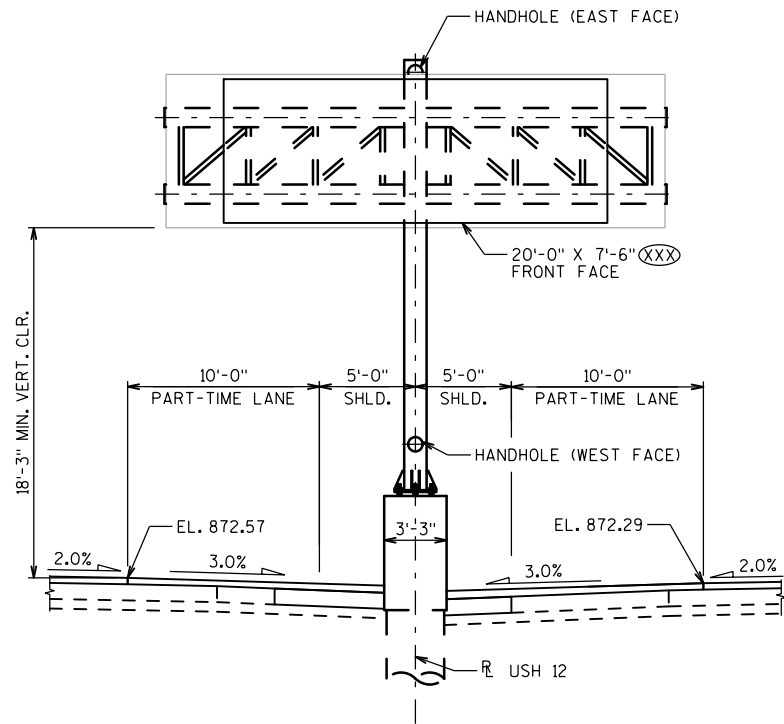
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-532			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-532			SHEET 5 OF 14



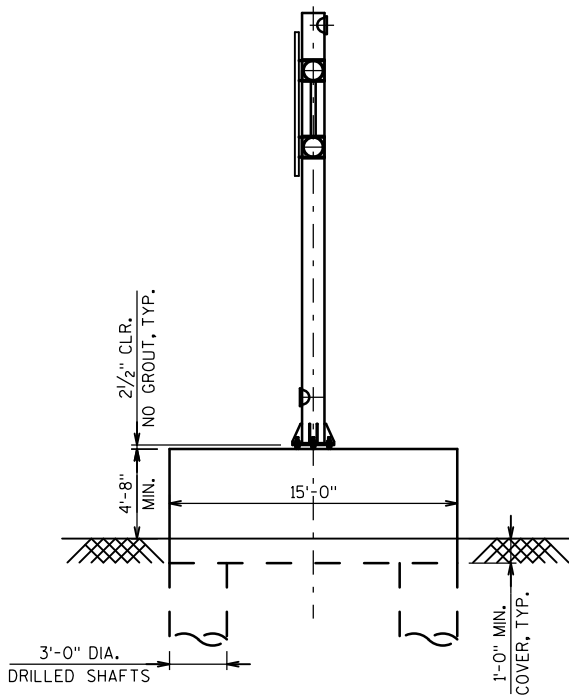
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 683+40 USH 12
(LOOKING EAST)



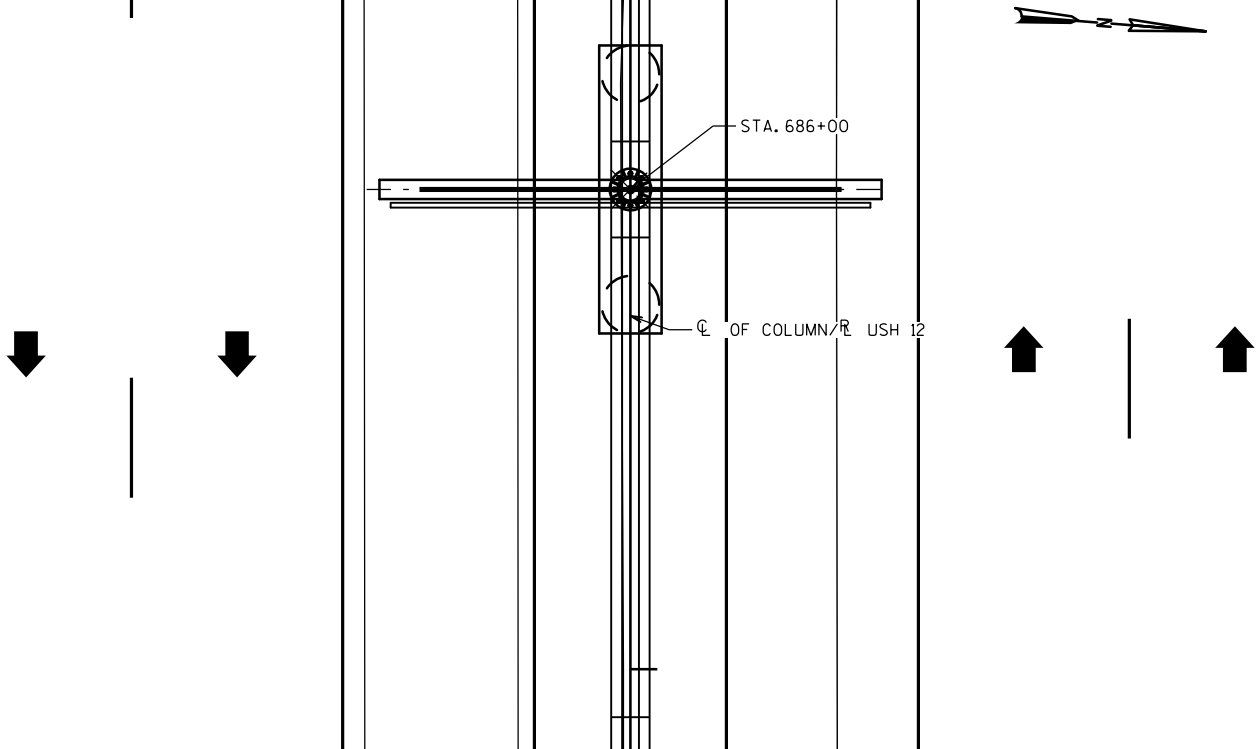
SIDE VIEW
(LOOKING NORTH)

LEGEND

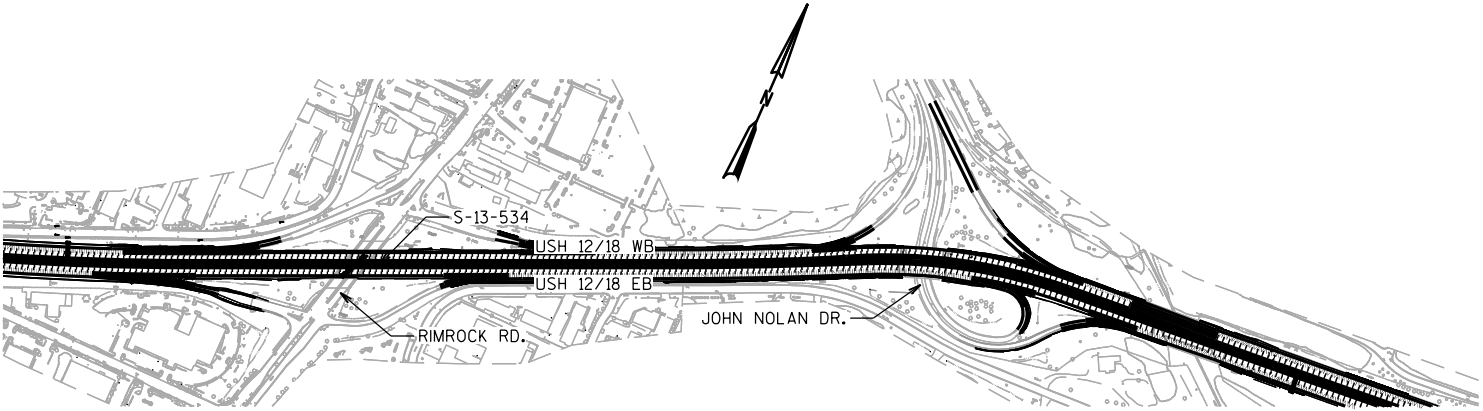
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

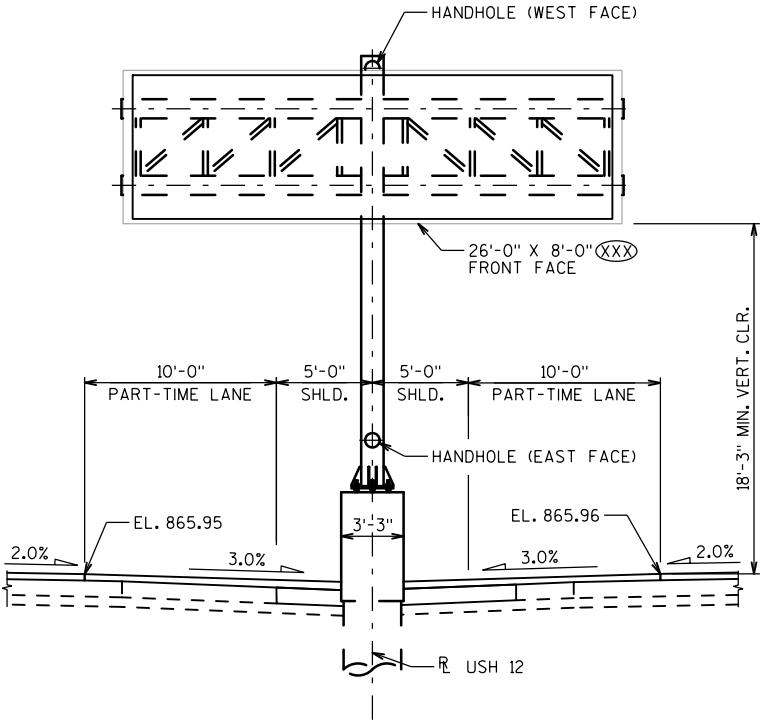
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-533			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-533			SHEET 6 OF 14



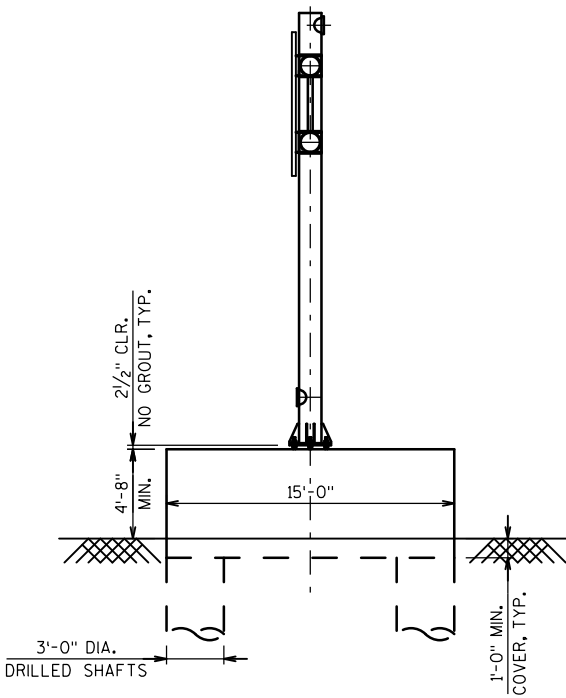
PLAN
(LOOKING DOWN STATION)



LOCATION MAP



ELEVATION
STA. 686+00 USH 12
(LOOKING WEST)



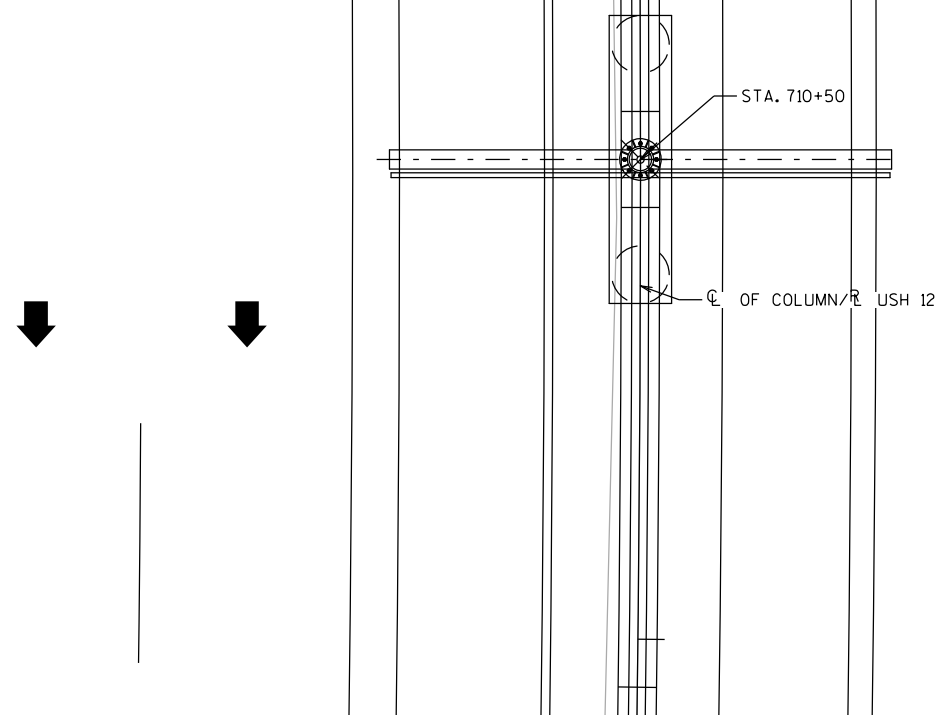
SIDE VIEW
(LOOKING SOUTH)

LEGEND

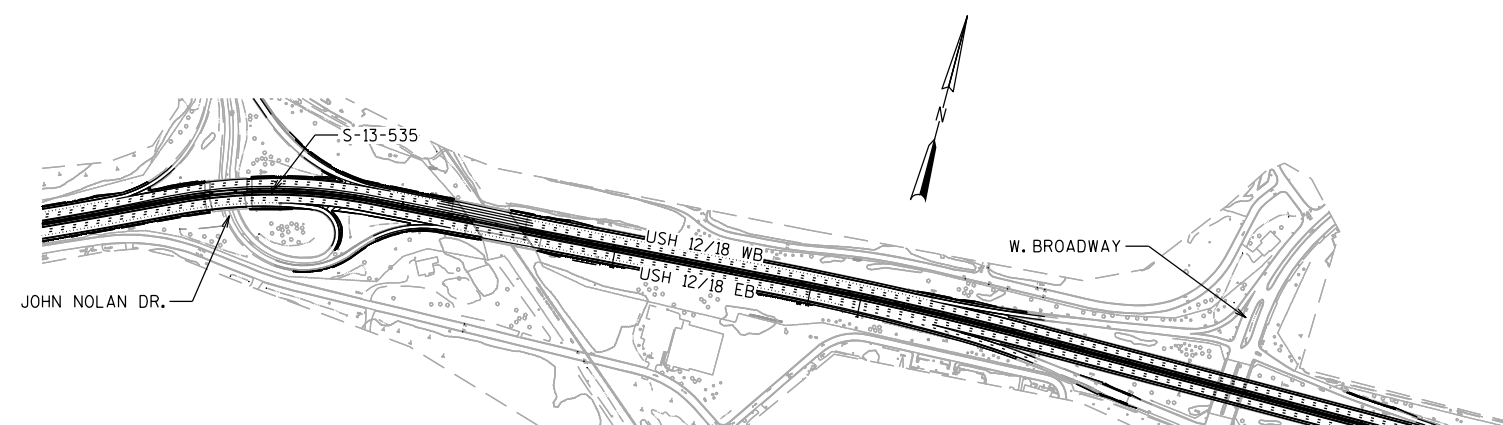
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

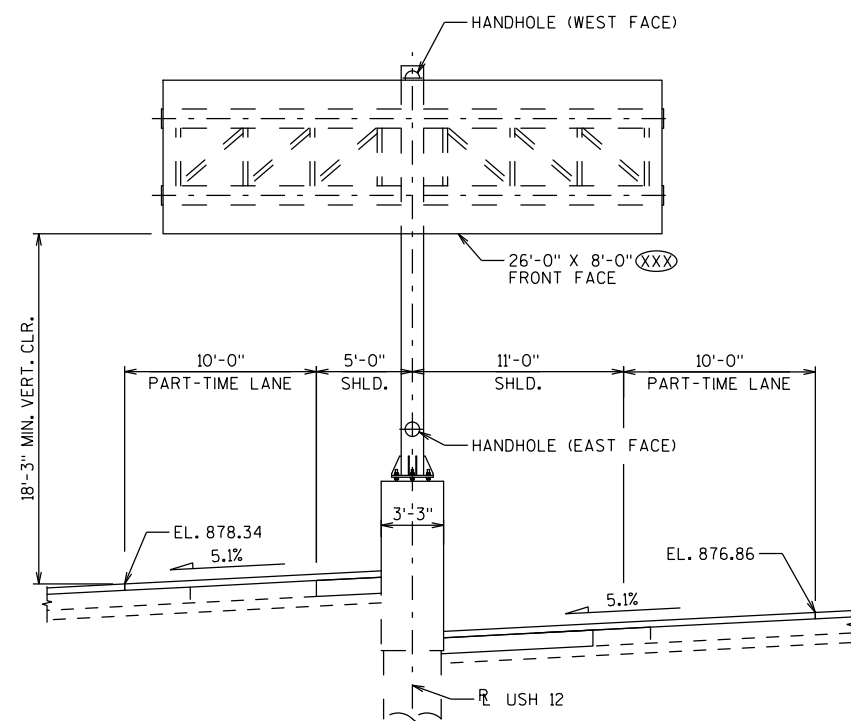
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-534			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-534			SHEET 7 OF 14



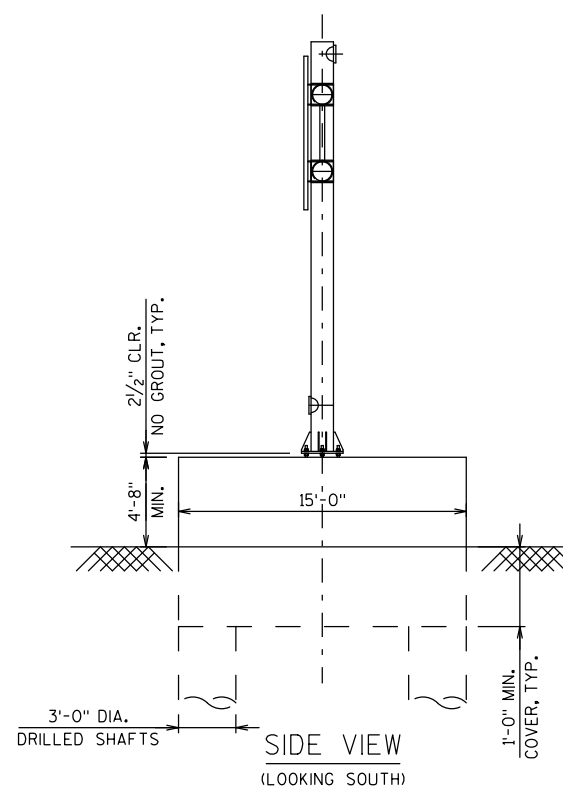
PLAN
(LOOKING DOWN STATION)



LOCATION MAP



ELEVATION
STA. 710+50 USH 12
(LOOKING WEST)

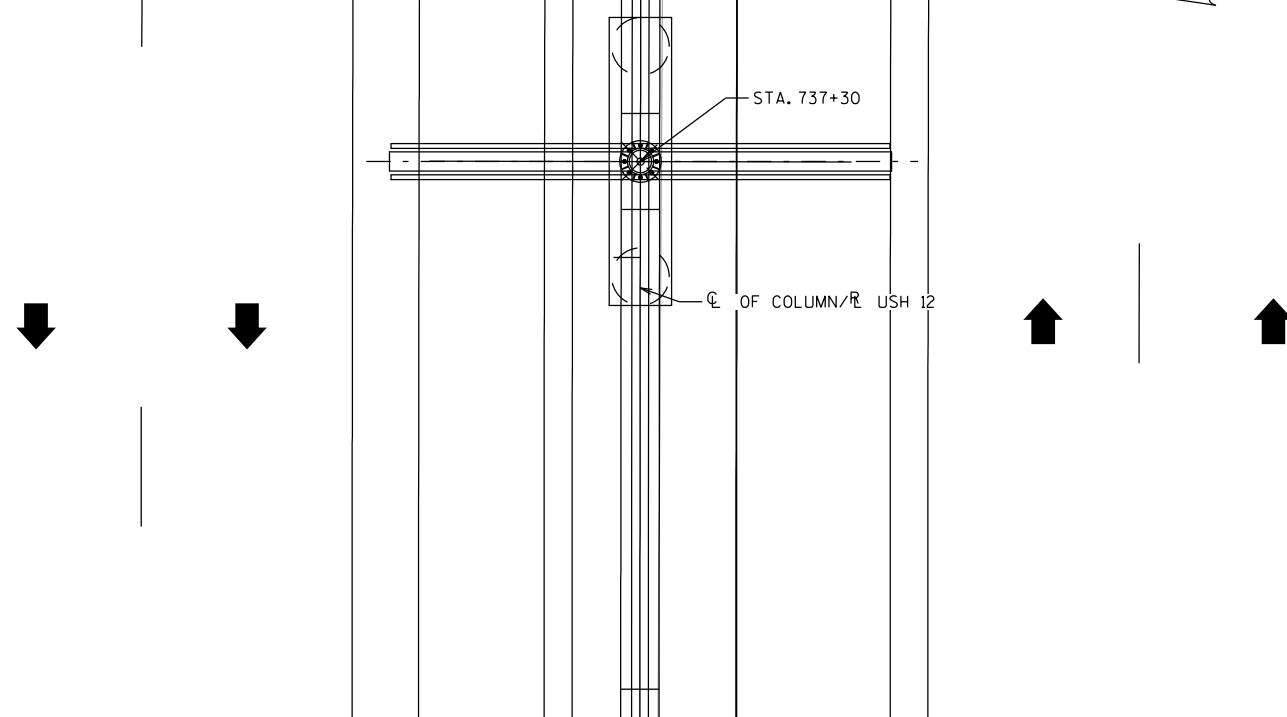


LEGEND

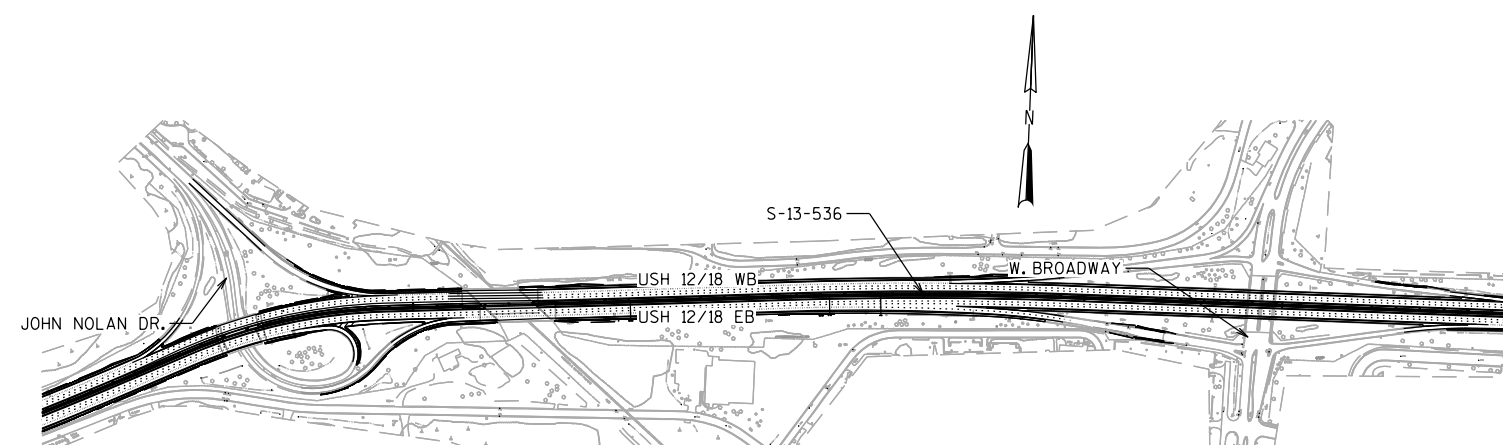
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

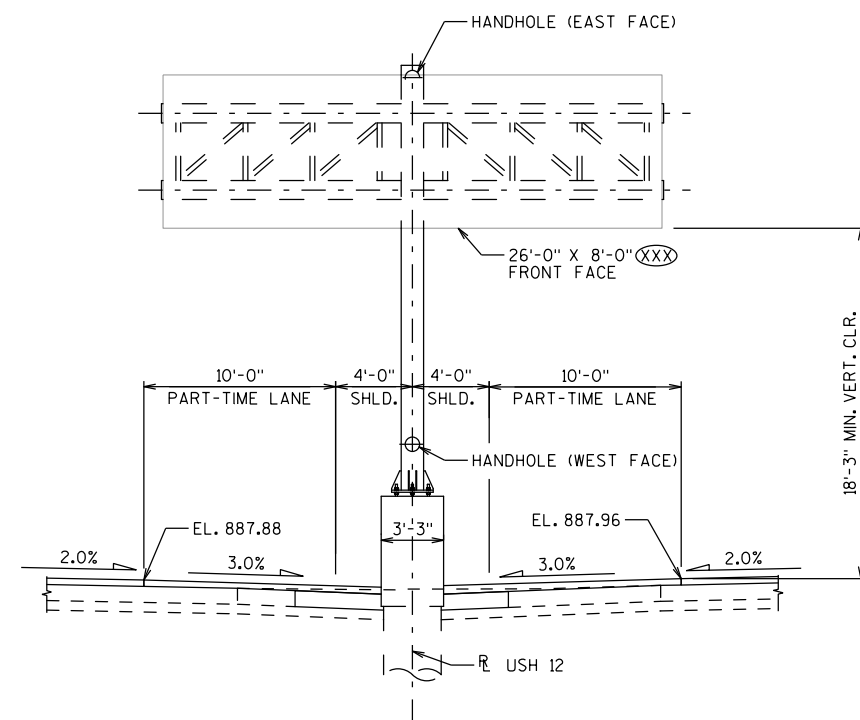
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-535			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-535		SHEET 8 OF 1	



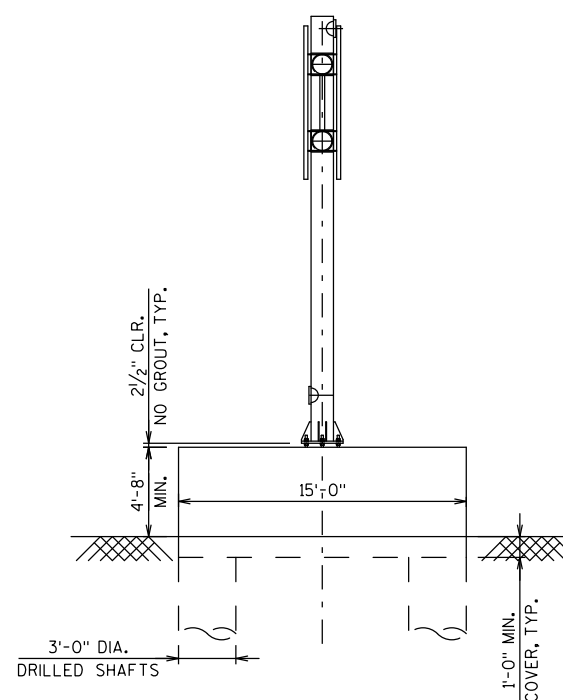
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 737+30 USH 12
(LOOKING EAST)



SIDE VIEW

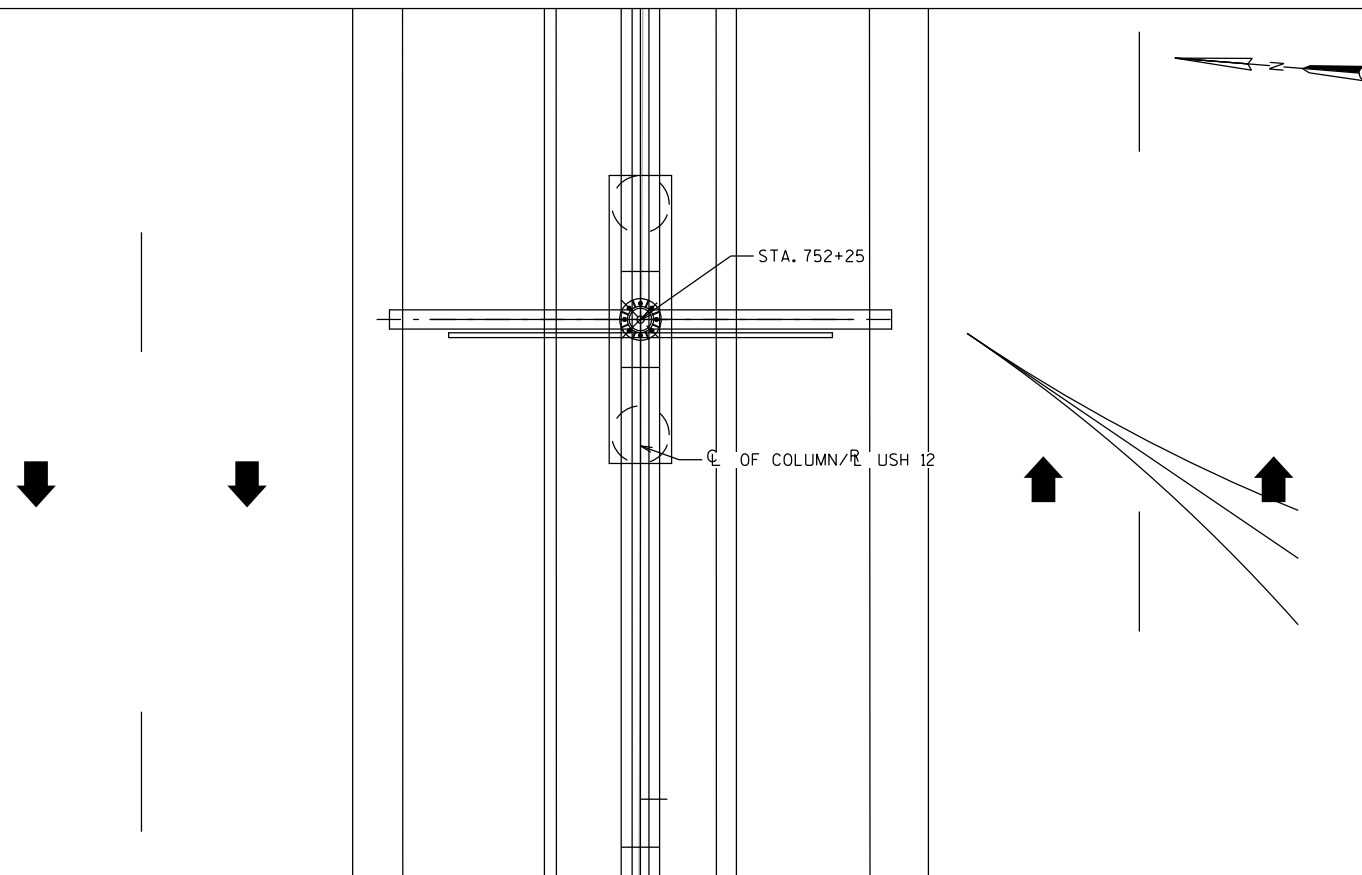
(LOOKING SOUTH)

LEGEND

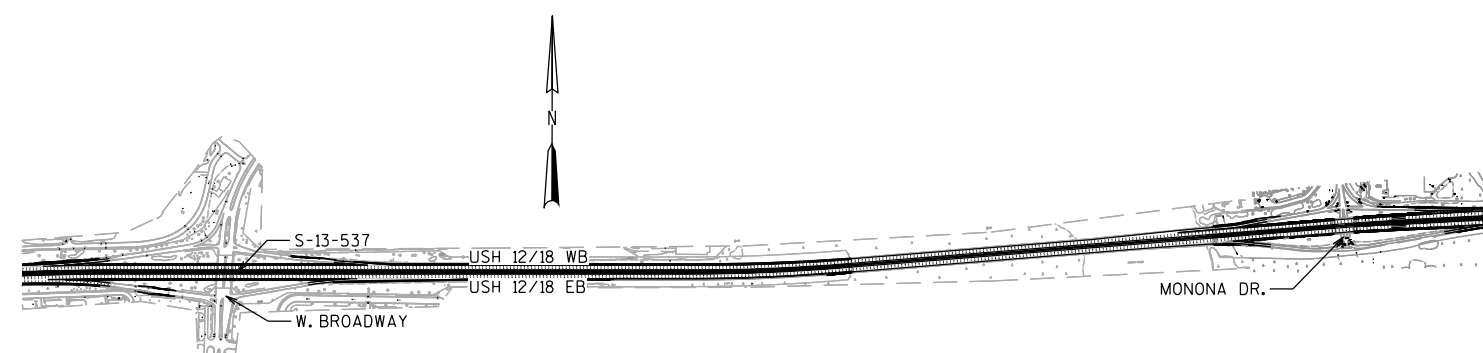
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1078 PLANS

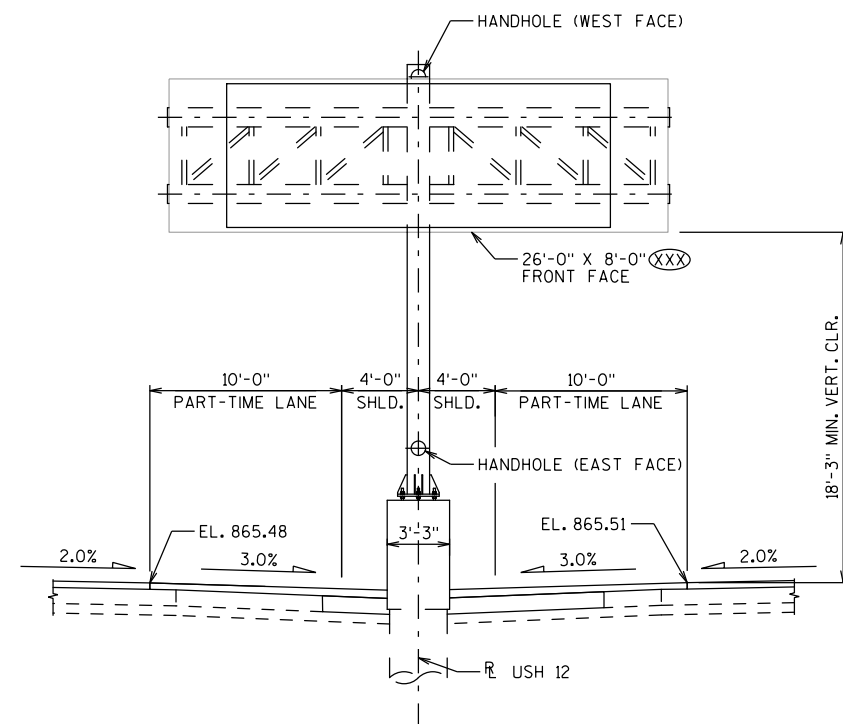
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-536			
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GENERAL LAYOUT S-13-536		SHEET 9 OF 1	



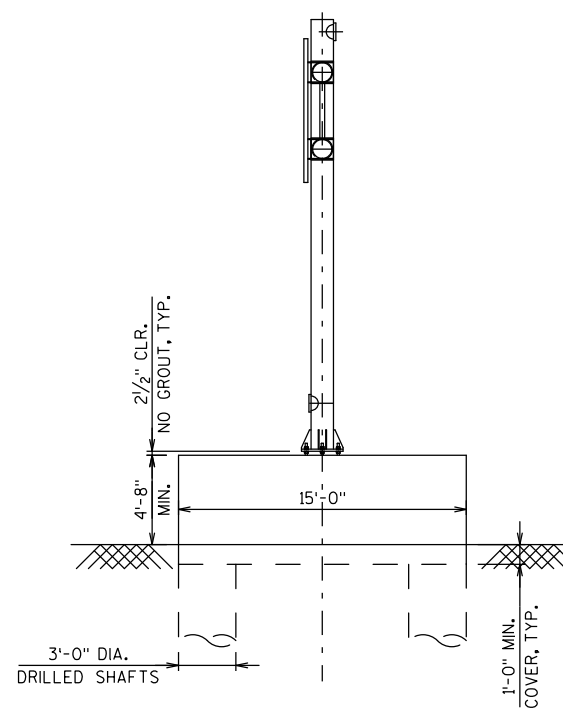
PLAN
(LOOKING DOWN STATION)



LOCATION MAP



ELEVATION
STA. 752+25 USH 12
(LOOKING WEST)



SIDE VIEW

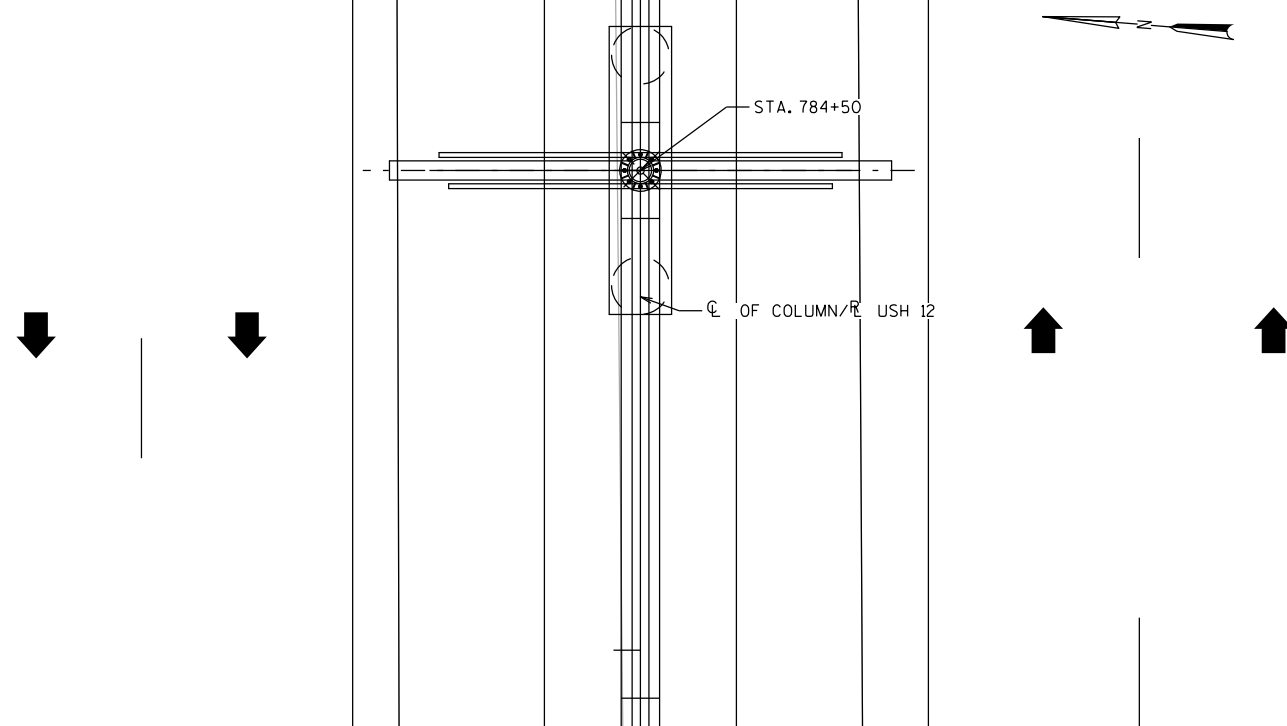
(LOOKING SOUTH)

LEGEND

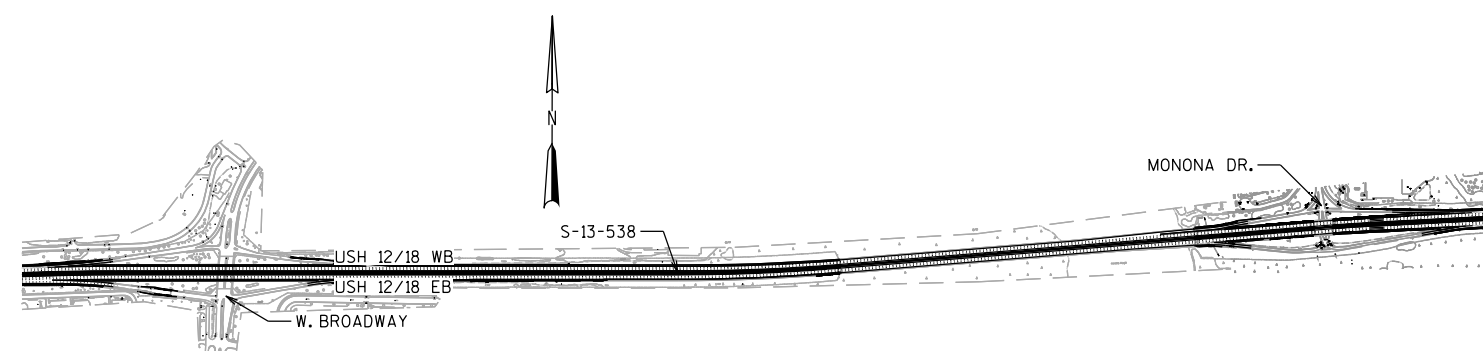
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1078 PLANS

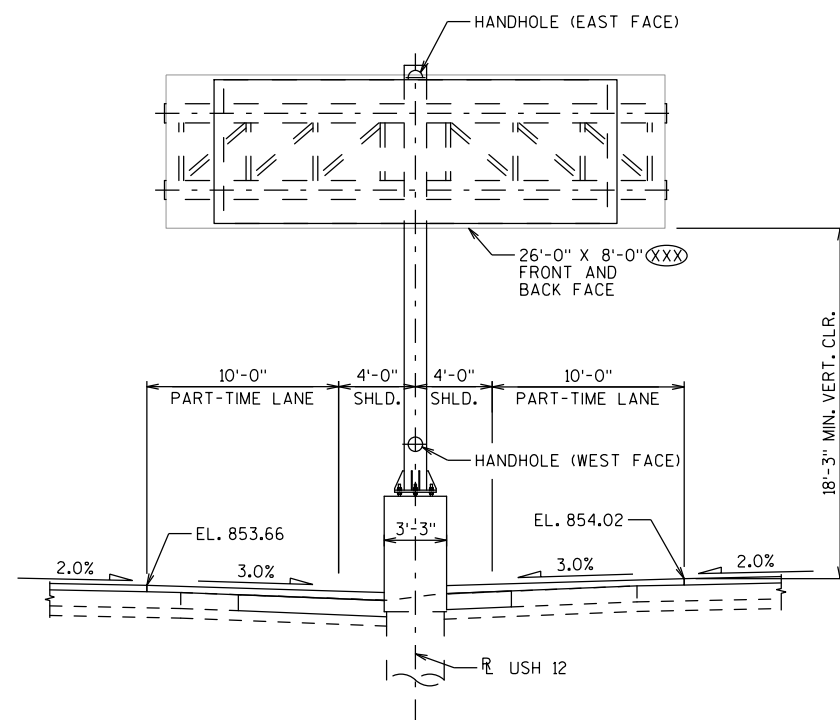
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-537			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-537		SHEET 10 OF 1	



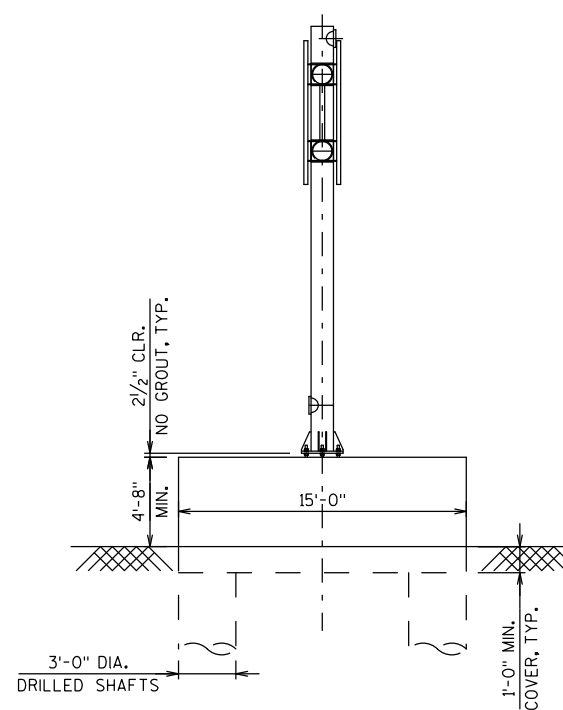
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 784+50 USH 12
(LOOKING EAST)



SIDE VIEW

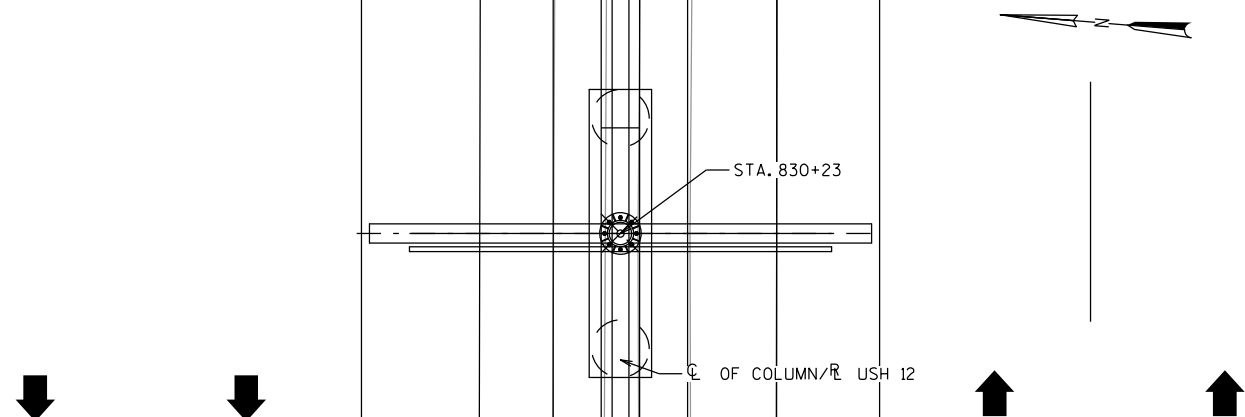
(LOOKING NORTH)

LEGEND

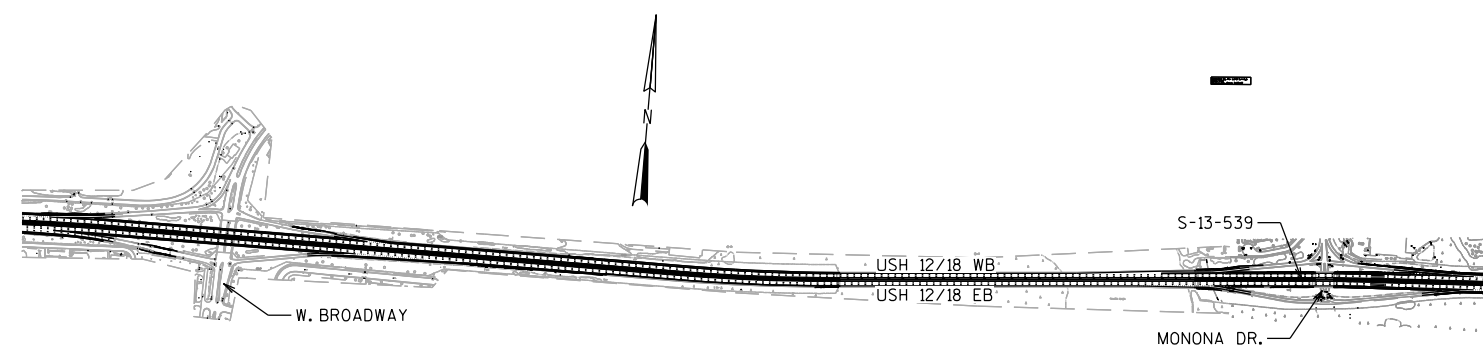
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1078 PLANS

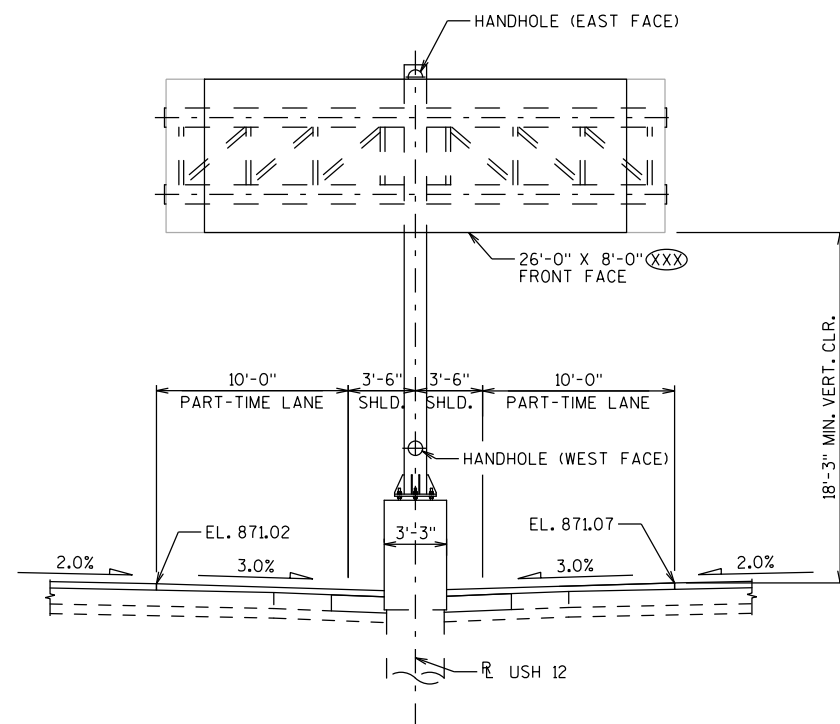
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-538			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-538		SHEET 11 OF 1	



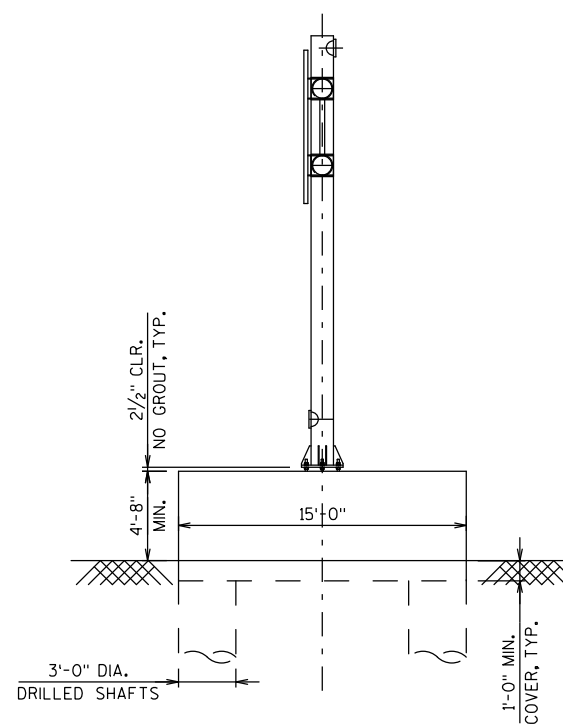
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 830+23 USH 12
(LOOKING EAST)



SIDE VIEW

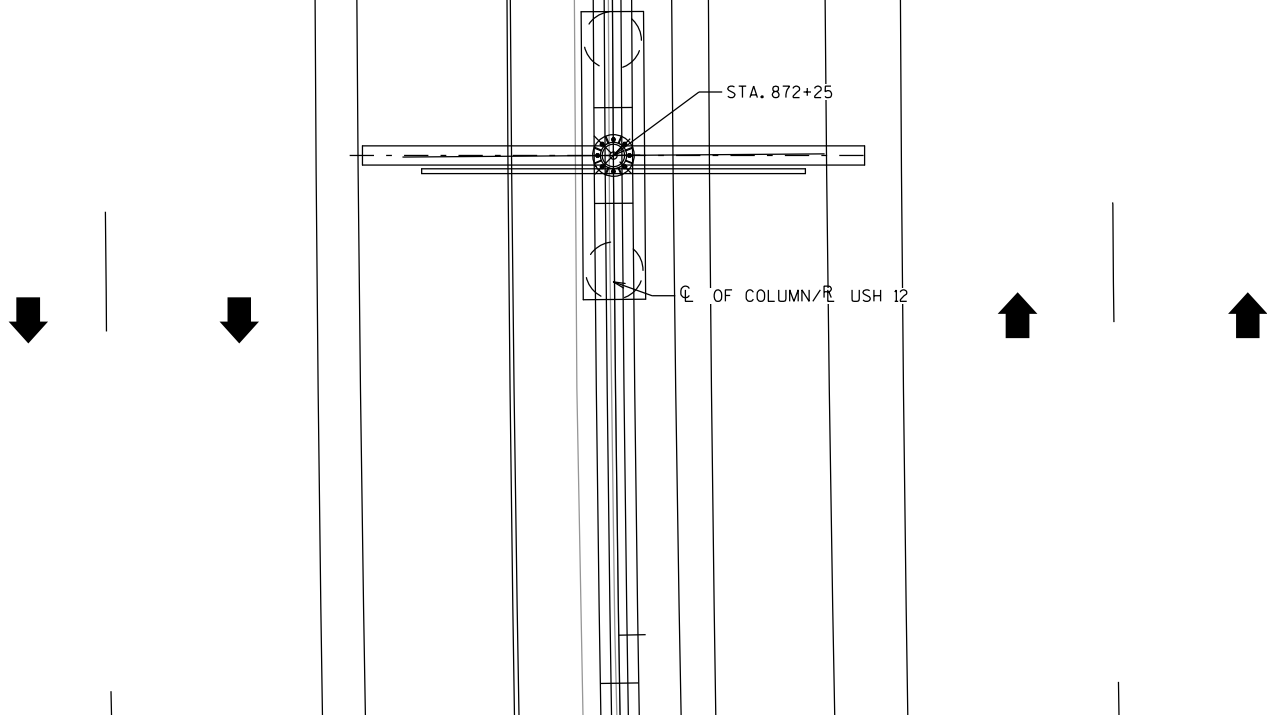
(LOOKING NORTH)

LEGEND

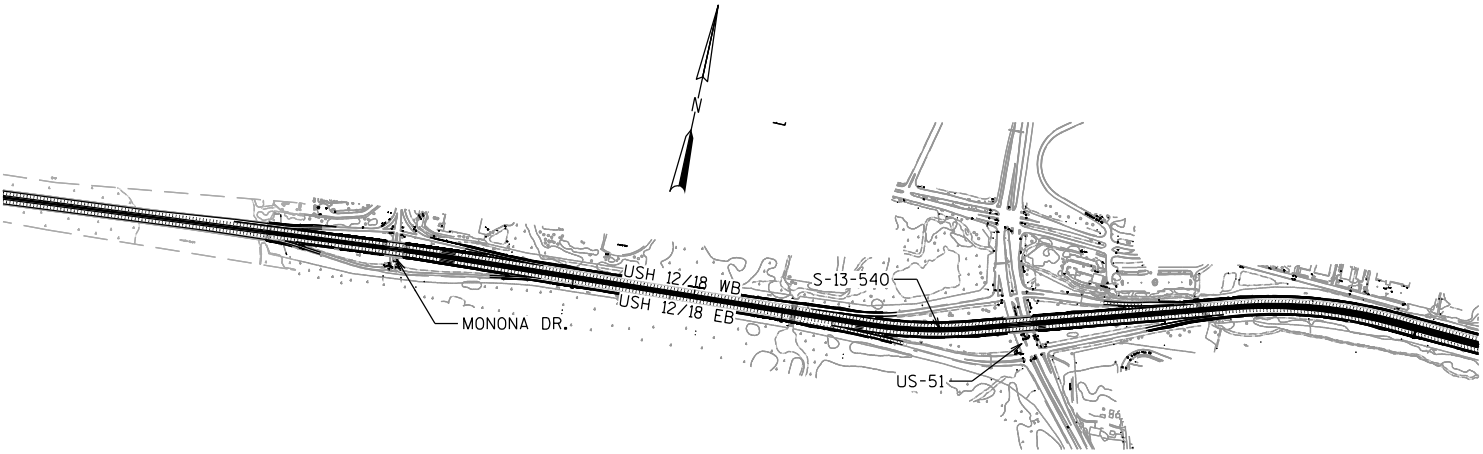
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1078 PLANS

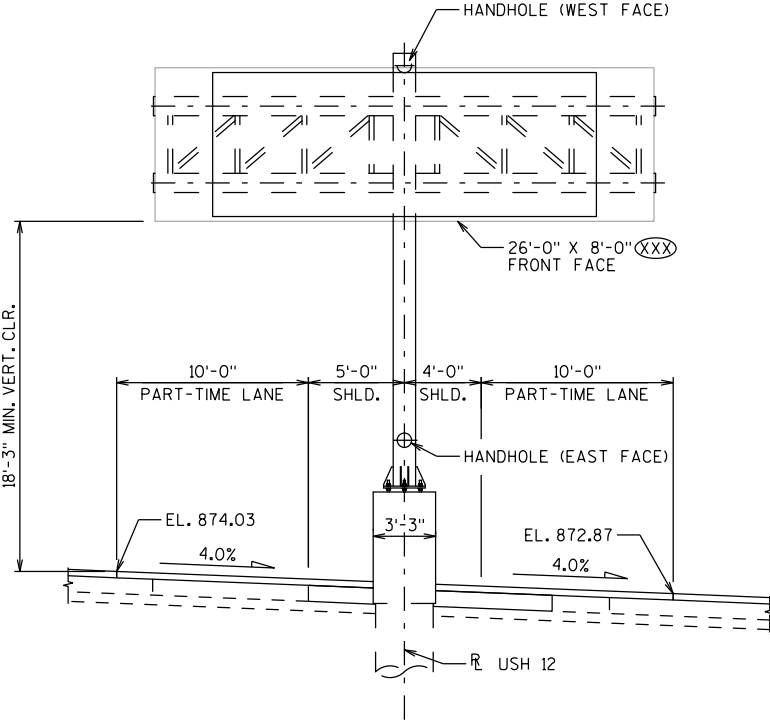
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-539			
		DRAWN BY	PLANS CK'D.
S-13-539 LAYOUT		SHEET 12 OF 1	



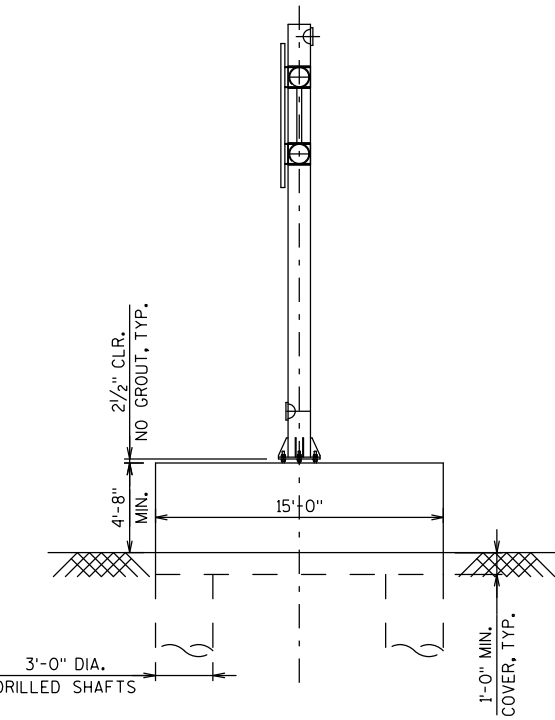
PLAN
(LOOKING DOWN STATION)



LOCATION MAP



ELEVATION
STA. 872+25 USH 12
(LOOKING WEST)



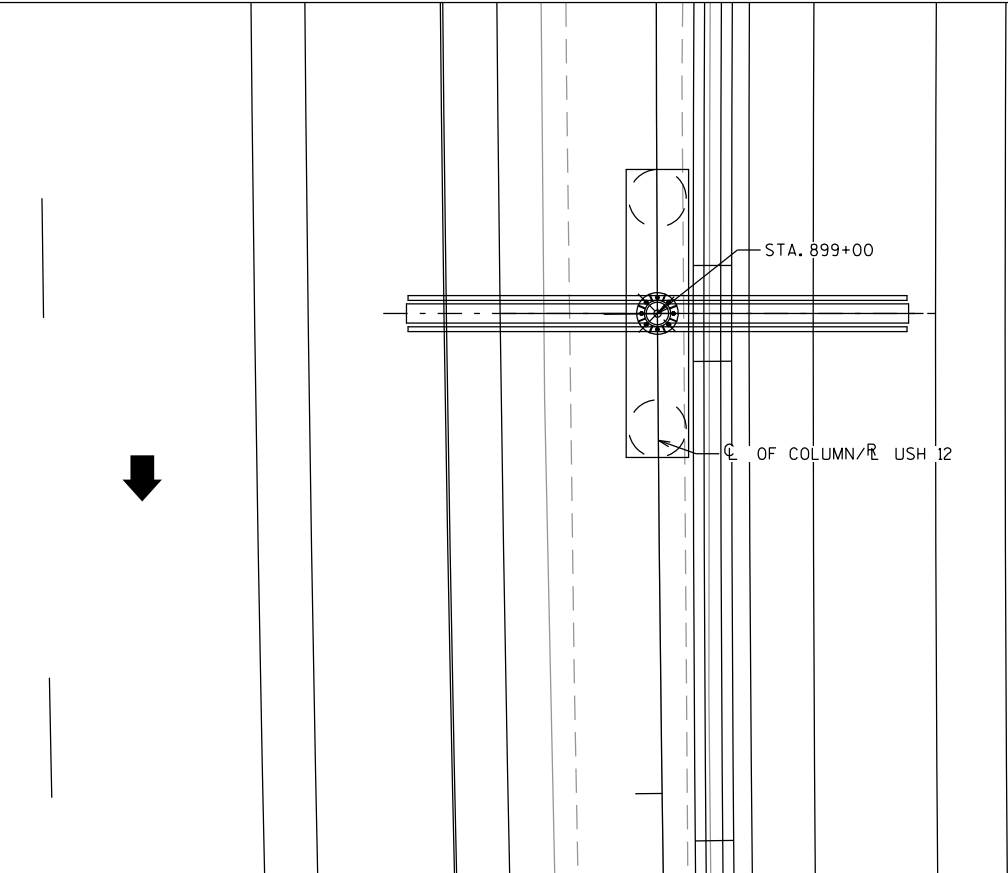
SIDE VIEW
(LOOKING SOUTH)

LEGEND

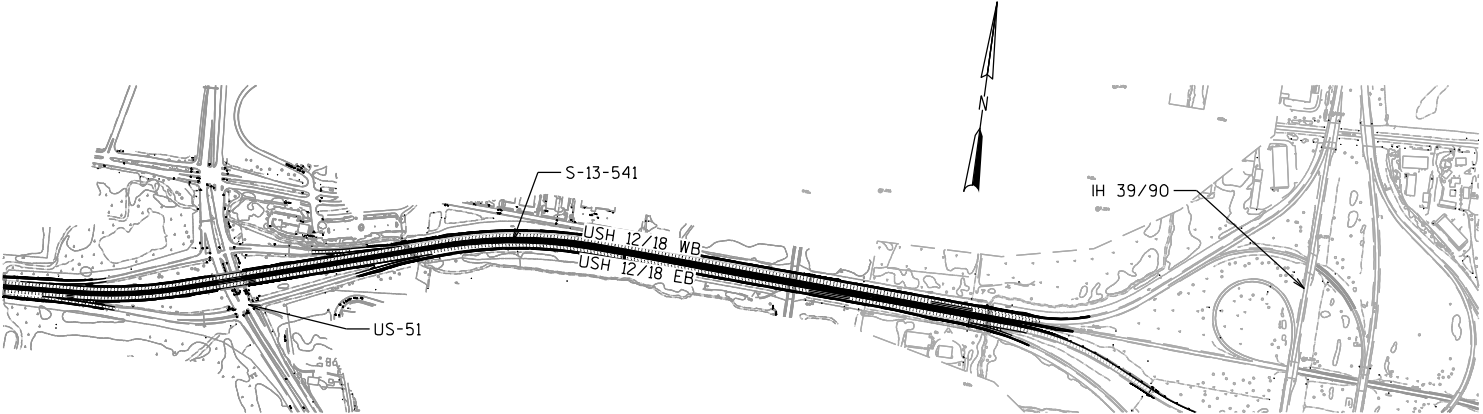
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

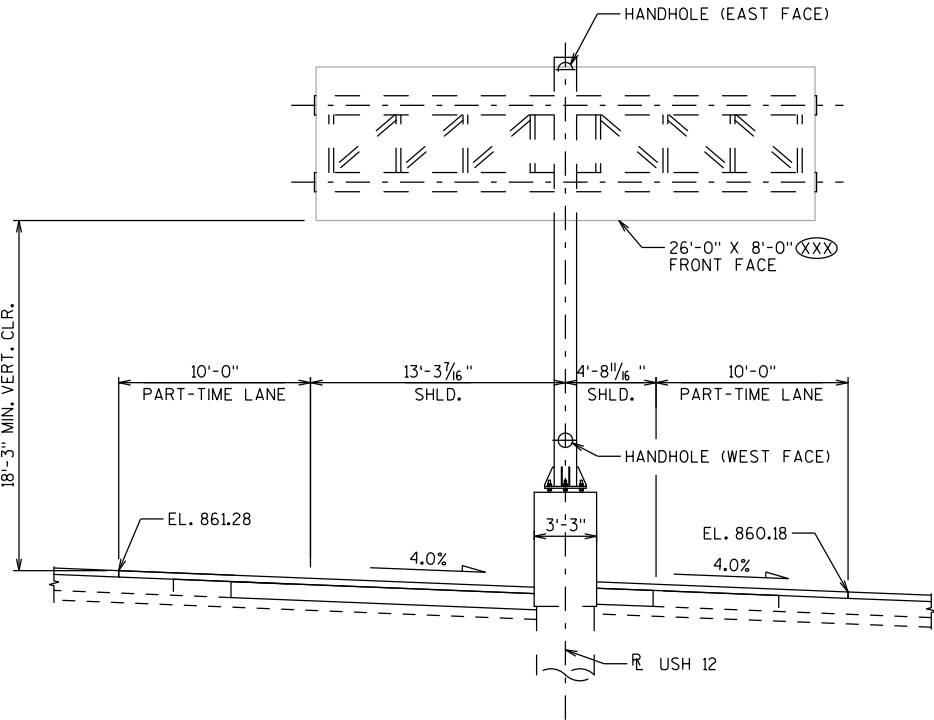
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-540			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-540			SHEET 13 OF 14



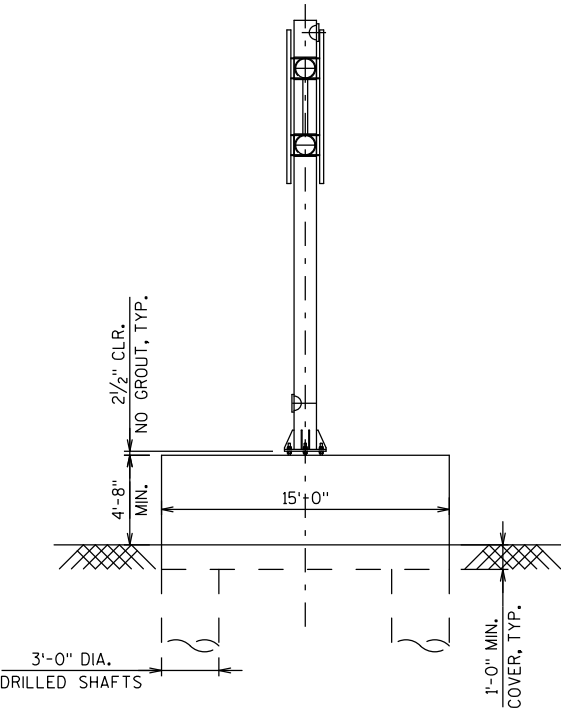
PLAN
(LOOKING UP STATION)



LOCATION MAP



ELEVATION
STA. 899+00 USH 12
(LOOKING EAST)



SIDE VIEW
(LOOKING NORTH)

LEGEND
XXX SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-541			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-541			SHEET 14 OF 14

DESIGN DATA

SIGN STR	ACTUAL SIGN AREA		ACTUAL SIGN HEIGHT		FND TYPE
	TYPE 1	DMS	TYPE 1	DMS	
S-13-2011	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2012	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2013	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2014	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2015	XXX SF	XXX SF	X'-X"	X'-X"	C4
S-13-20XX	XXX SF	XXX SF	X'-X"	X'-X"	C4
S-13-20XX	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2016	XXX SF	XXX SF	X'-X"	X'-X"	C4
S-13-20XX	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2017	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2018	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2019	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2020	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2021	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2022	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2024	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2025	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2026	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2028	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2029	XXX SF	XXX SF	X'-X"	X'-X"	C4 MODIFIED
S-13-2031	XXX SF	XXX SF	X'-X"	X'-X"	C4
DESIGN SIGN	45.5 SF	30 SF	6'-6"	6'-0"	

ALL STRUCTURES IN THIS GROUP OF STRUCTURES ARE DESIGNED FOR THE DESIGN SIGN LOADING

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS,LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

THE FOLLOWING INFORMATION SHALL BE USED IN THE DESIGN:
DEAD LOAD - WT.OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 115 MPH (3-SEC.GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1	1.0	0.0
LOAD CASE 2	0.0	1.0
LOAD CASE 3	0.75	0.75

LOAD COMBINATIONS
STRENGTH I: 1.25 DC + 1.6 LL
EXTREME I (MAX DC): 1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC): 0.9 DC + 1.0 W
SERVICE I: 1.0 DC + 1.0 W
FATIGUE I: 1.0 NWG (NATURAL WIND GUST VIBRATION)
1.0 TrG (TRUCK INDUCED GUST VIBRATION)
1.0 GVV (GALLOPING INDUCED VIBRATION) - CANTILEVER ONLY

STANDARD FOUNDATIONS ARE DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

MATERIAL PROPERTIES

CONCRETE MASONRY-----f'c = 3,500 psi

HIGH STRENGTH STEEL
REINFORCEMENT, GRADE 60 -----fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 -----fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55-----fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS),OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS)AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),DANE COUNTY ZONE,NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 2 CHORD TRUSS CANTILEVER S-13-XXXX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

ALL H.S.BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

CONNECTIONS CAN EITHER BE WELDED OR BOLTED CONNECTIONS. IF WELDED CONNECTIONS ARE USED, THE MONOTUBE OR 2-CHORD TRUSS UNIT SHALL BE GALVANIZED AS ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. FOR FULL SPAN OR CANTILEVER 2-CHORD TRUSSES,BLANKS SHALL BE 1/4 THE LENGTH OF THE SPAN,2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS,AND SHALL BE CENTERED ON THE SPAN. FOR FULL SPAN OR CANTILEVER MONOTUBES,BLANKS SHALL BE 1/4 THE LENGTH OF THE SPAN,4'-0" IN HEIGHT, AND SHALL BE CENTERED ON THE SPAN.SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE.THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE.PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED,SHALL BE INCIDENTAL TO THE BID ITEM "FOUNDATION DRILLING".

TRAFFIC VOLUME

A.D.T. (2036) = 139,650-164,190
R.D.S. = 60 MPH

LIST OF DRAWINGS

- GENERAL NOTES & DESIGN DATA
- QUANTITES
- GENERAL LAYOUT S-13-2011
- GENERAL LAYOUT S-13-2012
- GENERAL LAYOUT S-13-2013
- GENERAL LAYOUT S-13-2014
- GENERAL LAYOUT S-13-2015
- GENERAL LAYOUT S-13-20XX
- GENERAL LAYOUT S-13-20XX
- GENERAL LAYOUT S-13-2016
- GENERAL LAYOUT S-13-20XX
- GENERAL LAYOUT S-13-2017
- GENERAL LAYOUT S-13-2018
- GENERAL LAYOUT S-13-2019
- GENERAL LAYOUT S-13-2020
- GENERAL LAYOUT S-13-2021
- GENERAL LAYOUT S-13-2022
- GENERAL LAYOUT S-13-2024
- GENERAL LAYOUT S-13-2025
- GENERAL LAYOUT S-13-2026
- GENERAL LAYOUT S-13-2028
- GENERAL LAYOUT S-13-2029
- GENERAL LAYOUT S-13-2031
- MODIFIED 2-CHORD TRUSS FOUNDATION

LIST OF OSS STANDARD DESIGN DRAWINGS

25. I. OSS MONOTUBE & 2-CHORD TRUSS STANDARD FOUNDATIONS

STATE PROJECT NUMBER

1206-06-79

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
SUPERVISOR:
AARON BONK (608) 261-0261

CONSULTANT:
PAT CASHIN (414) 359-2300

1078 PLANS

THE DESIGNER CERTIFIES THAT THE SIGN STRUCTURE GEOMETRY AND STANDARD FOUNDATION CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

ORIGINAL PLANS PREPARED BY

HNTB (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

2 CHORD TRUSS PLANS

CANTILEVER DPTSU SIGN STRUCTRES USH 12/18 EB&WB

COUNTY DANE CITY OR TOWN MADISON

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

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

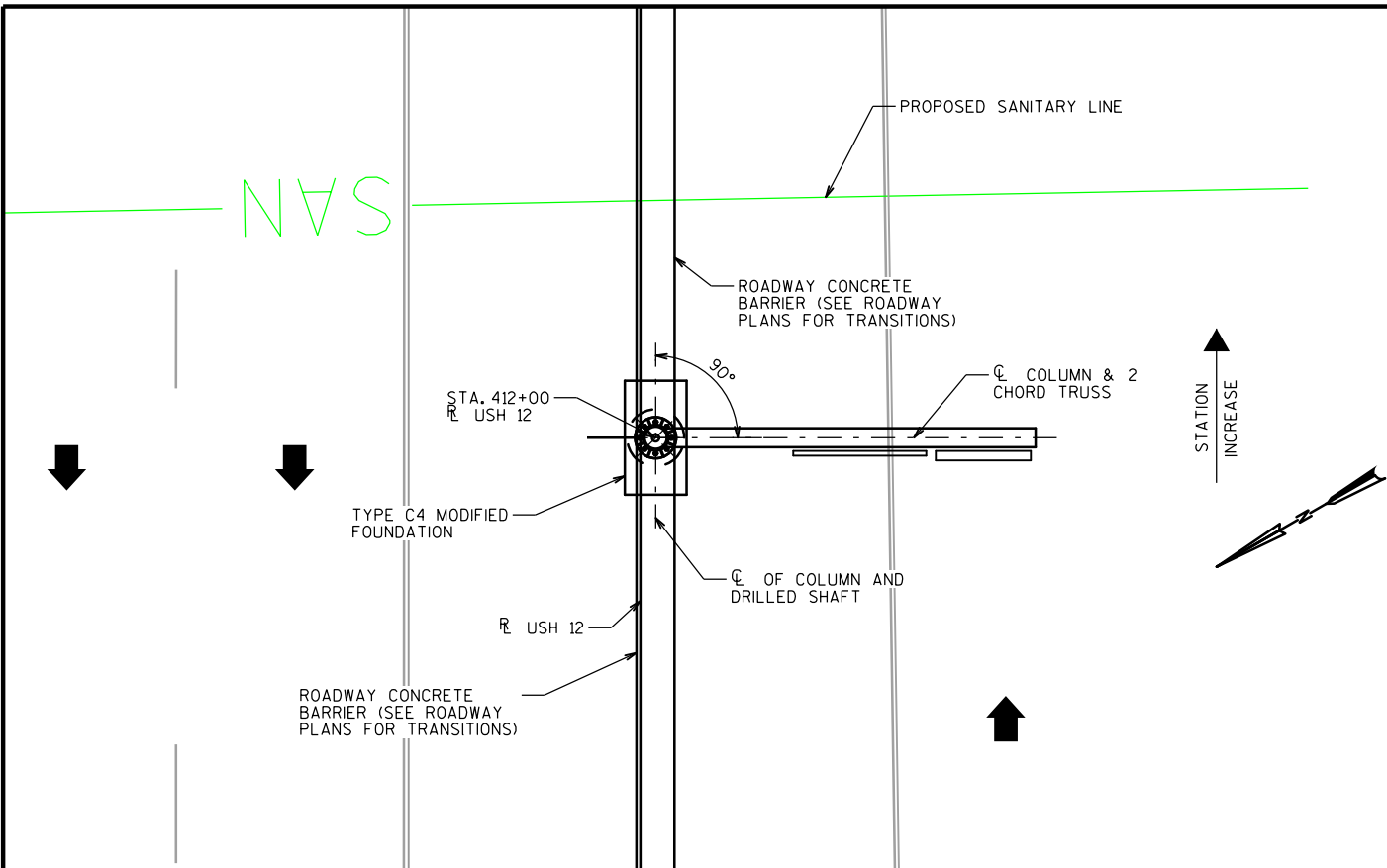
GENERAL NOTES
& DESIGN DATA

SHEET 1 OF 25

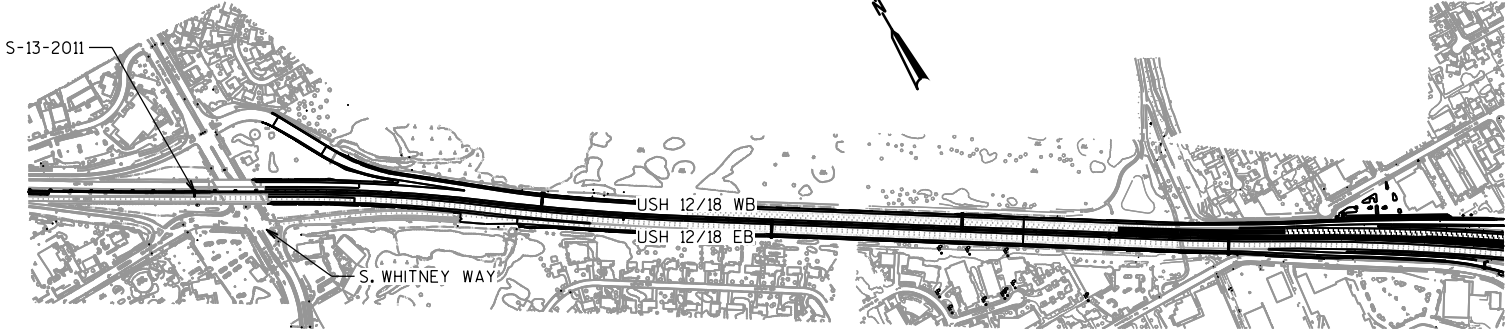
TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	S-13-2011	S-13-2012	S-13-2013	S-13-2014	S-13-2015	S-13-20XX	S-13-20XX	S-13-2016	S-13-20XX	S-13-2017	S-13-2018	S-13-2019	S-13-2020	S-13-2021	S-13-2022	S-13-2024	S-13-2025	S-13-2026	S-13-2028	S-13-2029	S-13-2031
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
531.0036	FOUNDATION DRILLING 36-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
531.1000	ANCILLARY STRUCTURES CONCRETE MASONRY	CY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
531.2400	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS	LB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
531.2600	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED	LB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
531.6050	ANCHOR ASSEMBLIES 2-INCH	EA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2011	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2012	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2013	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2014	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2015	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-20XX	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-20XX	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2016	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-20XX	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2017	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2018	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2019	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2020	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2021	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2022	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2024	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2025	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2026	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2028	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2029	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
532.0300.XX	OVERHEAD SIGN STRUCTURE 2-CHORD TRUSS CANTILEVER S-13-2031	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
653.XXXX	JUNCTION BOXES (SIZE)	EA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
2 CHORD TRUSS PLANS			
DRAWN BY		PLANS CK'D.	
QUANTITES			SHEET 2 OF 25



PLAN



LOCATION MAP

NOTES

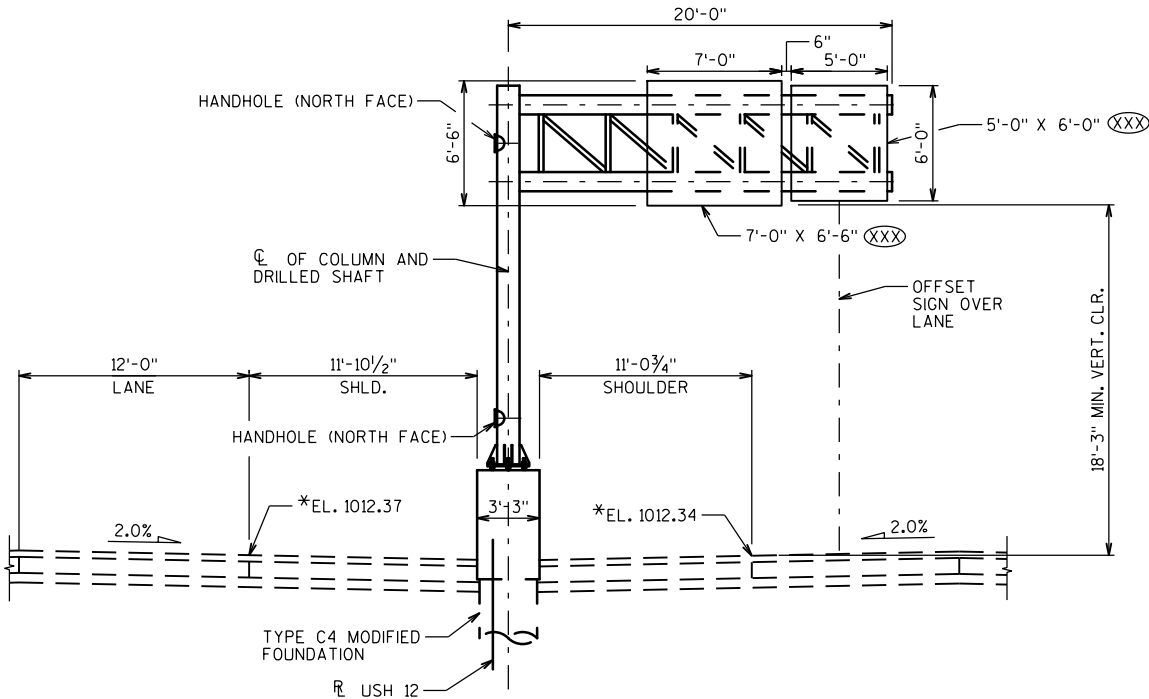
POINT OF MIN. VERTICAL CLEARANCE
STA. 412+00.00, 13.0' RT., EL. 1012.34

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
*ELEVATIONS GIVEN ALONG C. OF 2-CHORD TRUSS

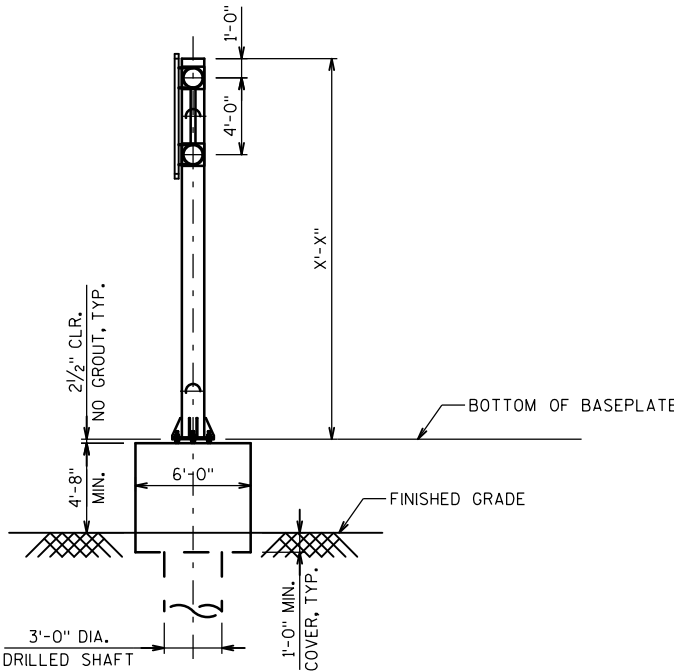
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2011			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2011			SHEET 3 OF 25



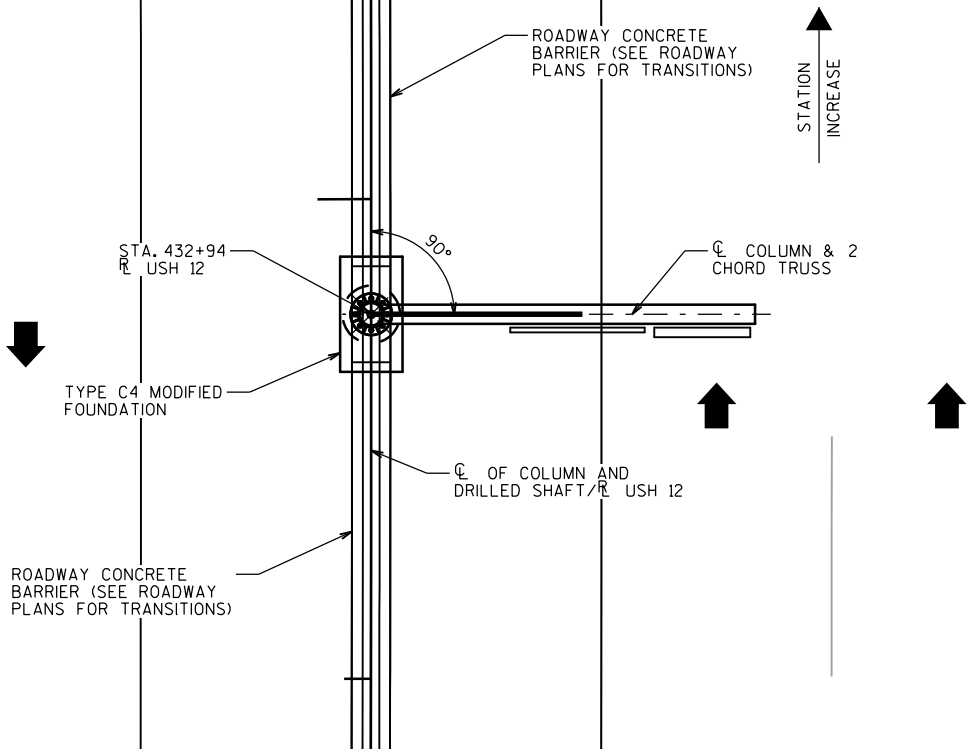
ELEVATION

STA. 412+00 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)

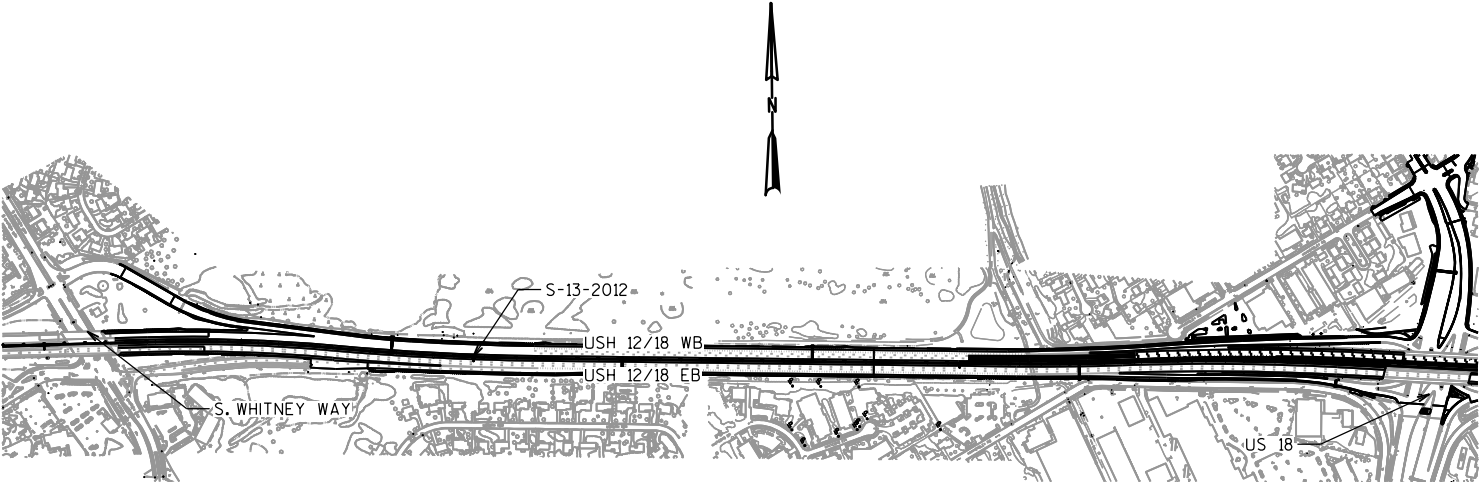


SIDE VIEW

(LOOKING NORTH)



PLAN



LOCATION MAP

NOTES

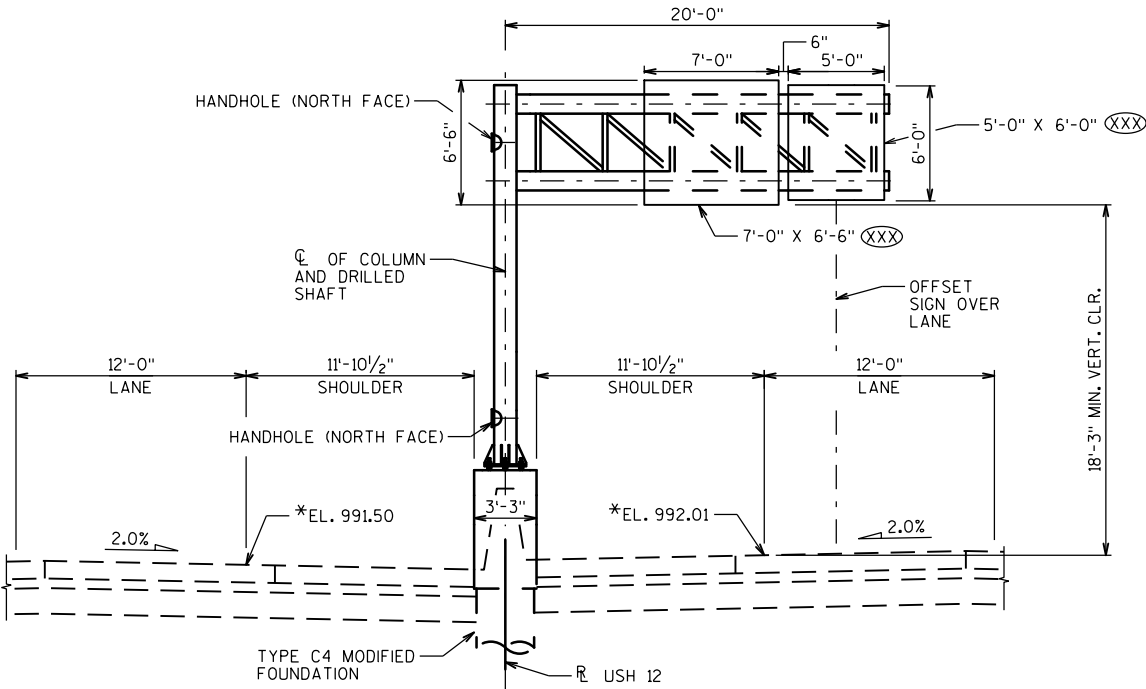
POINT OF MIN. VERTICAL CLEARANCE
STA. 432+94.00, 13.5' RT., EL. 992.01

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

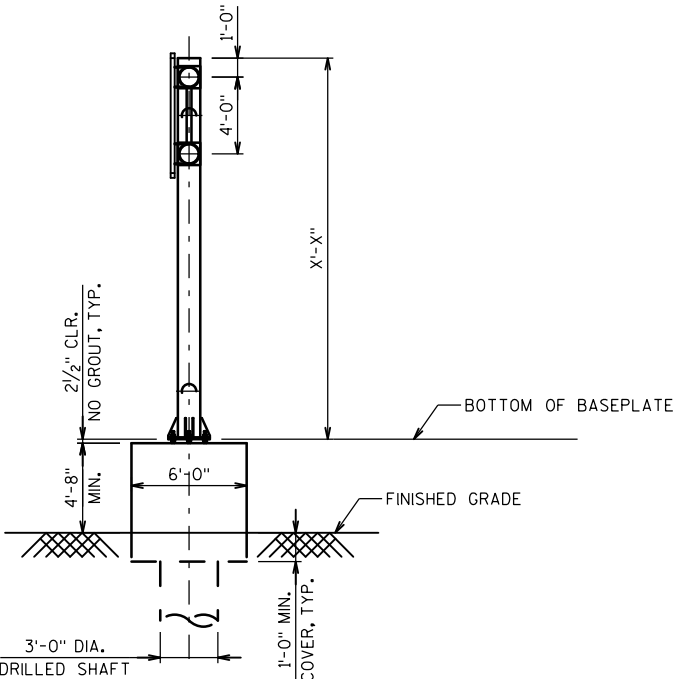
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2012			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2012			SHEET 4 OF 25



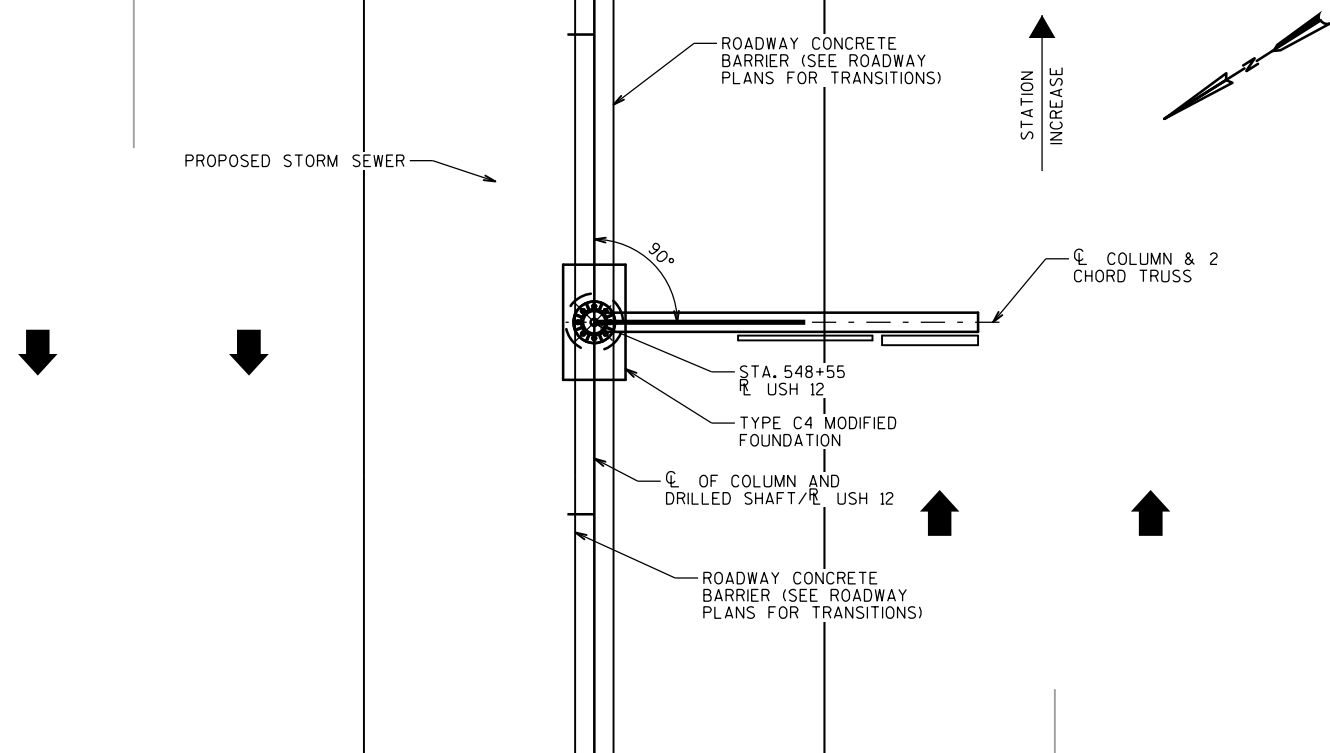
ELEVATION

STA. 432+94 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)

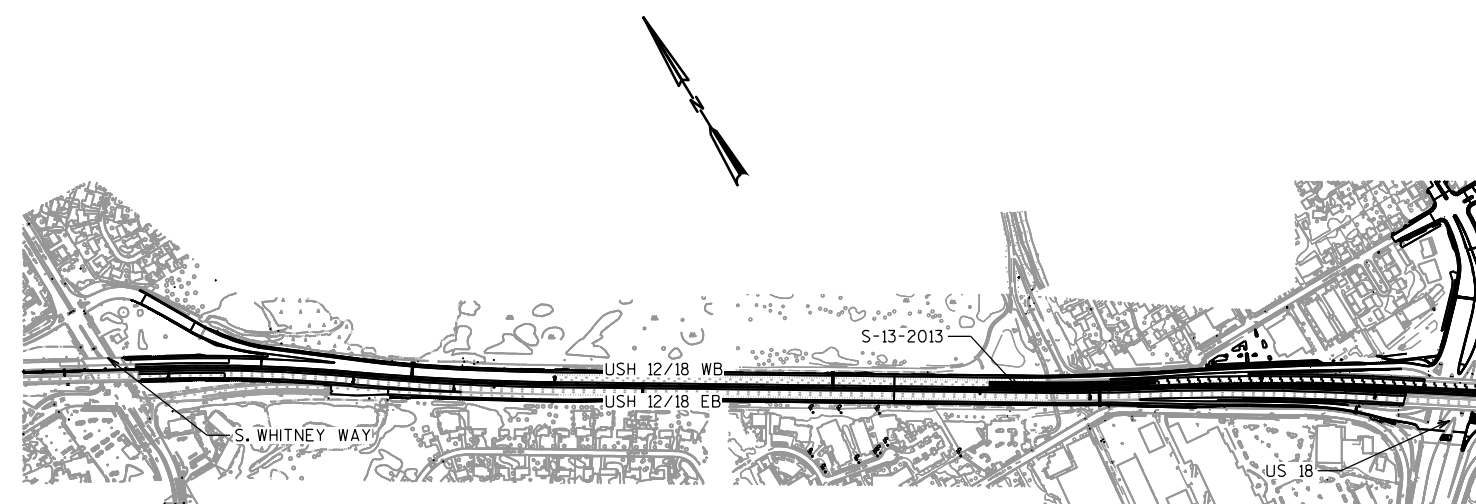


SIDE VIEW

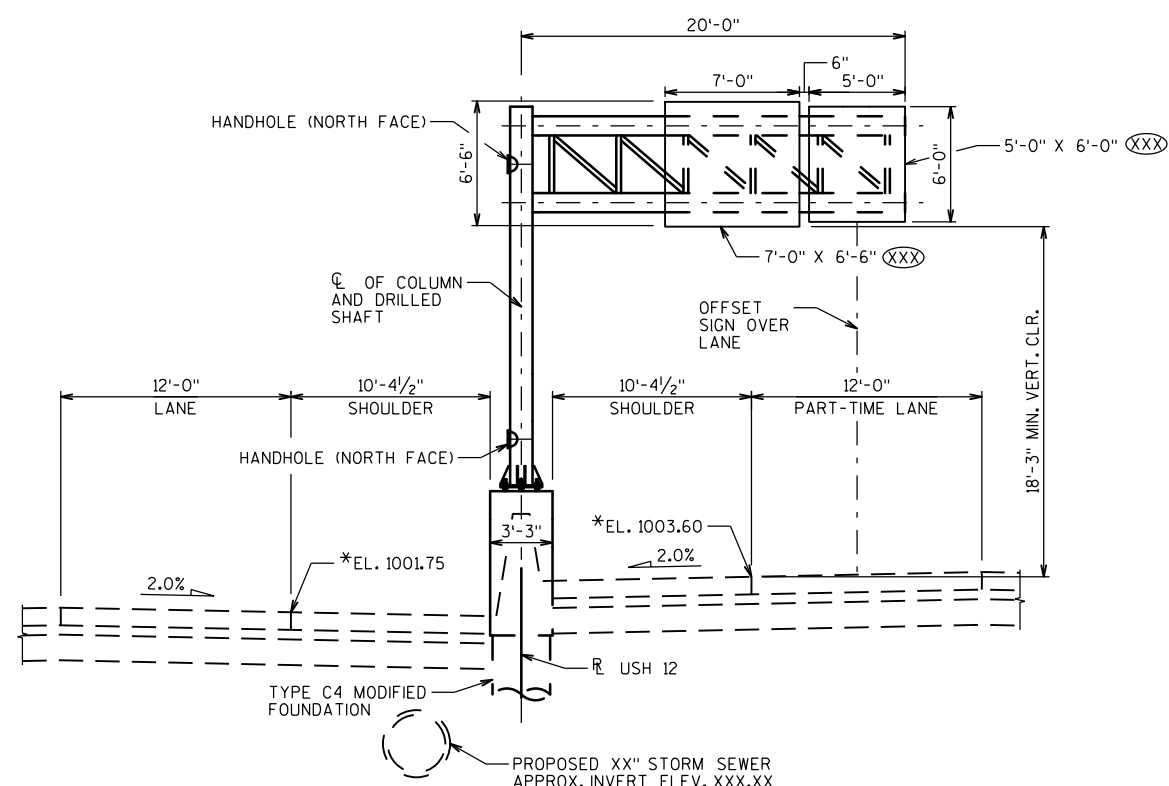
(LOOKING NORTH)



PLAN

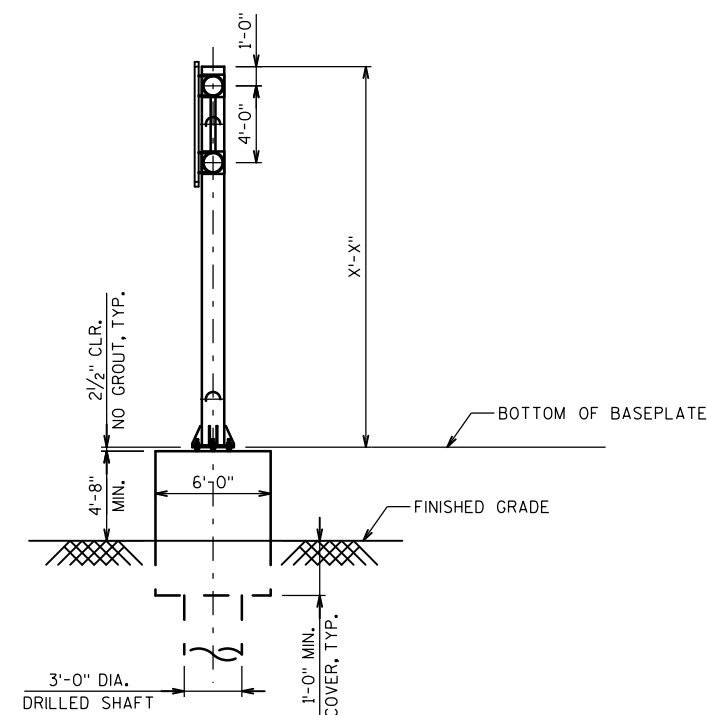


LOCATION MAP



ELEVATION

STA. 458+55 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 458+55.00, 12.0' RT., EL. 1003.60

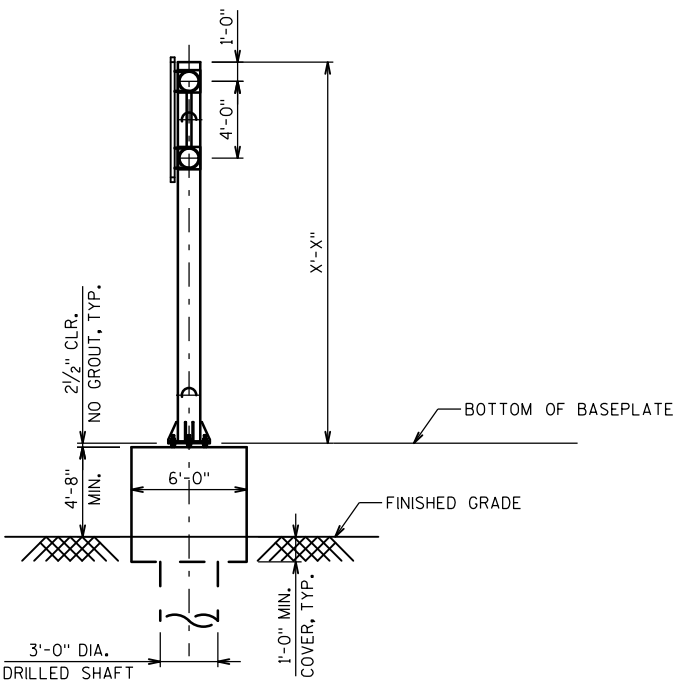
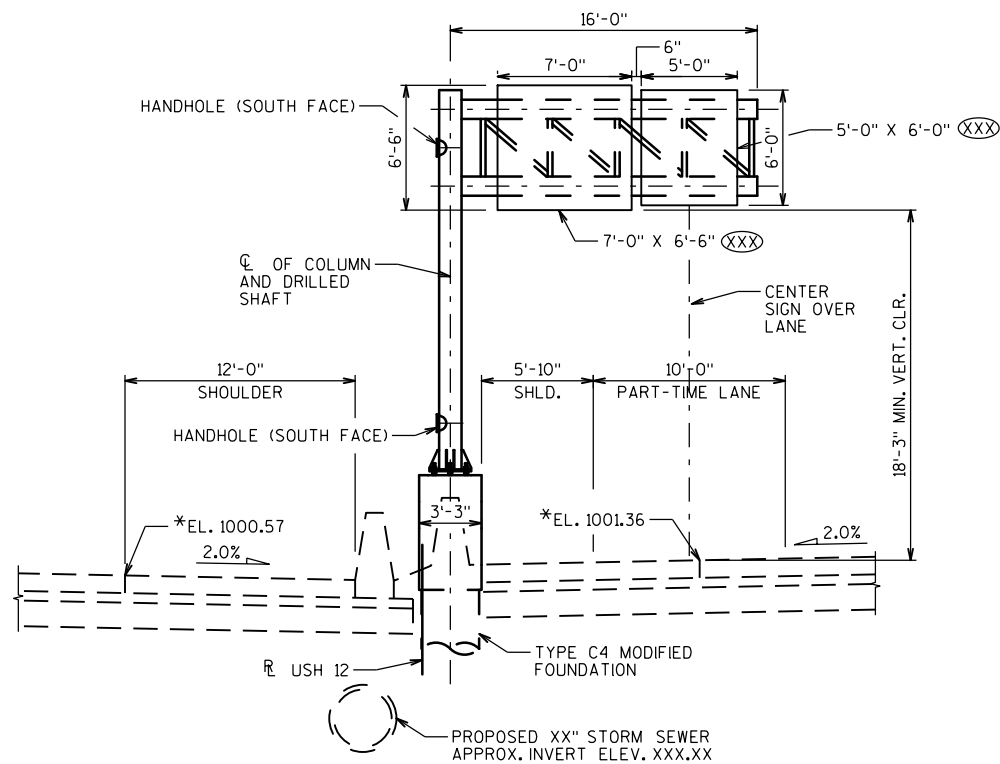
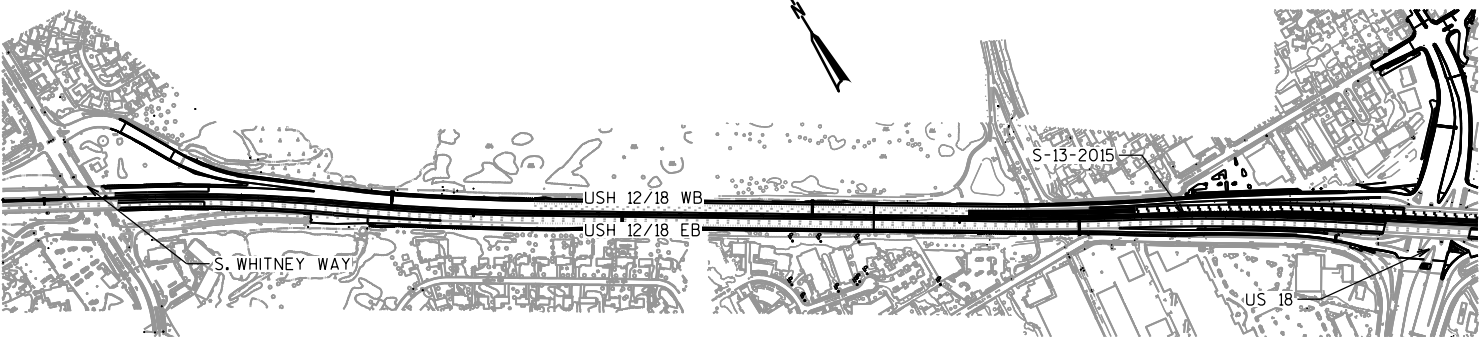
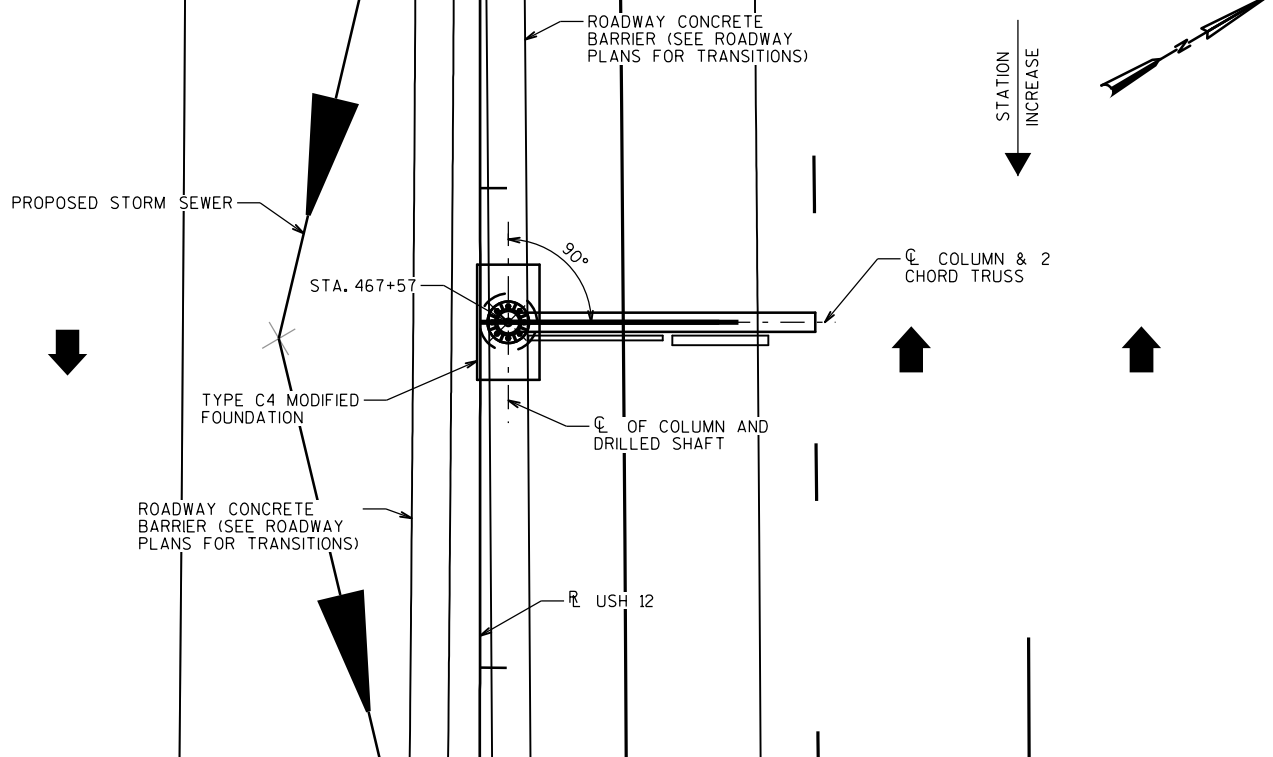
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

*ELEVATIONS GIVEN ALONG $\mathcal{C}$ OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2013			
		DRAWN BY	PLANS C'KD.
GENERAL LAYOUT S-13-2013		SHEET 5 OF 2	



NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 467+57.00, 14.5' RT., EL. 1001.36

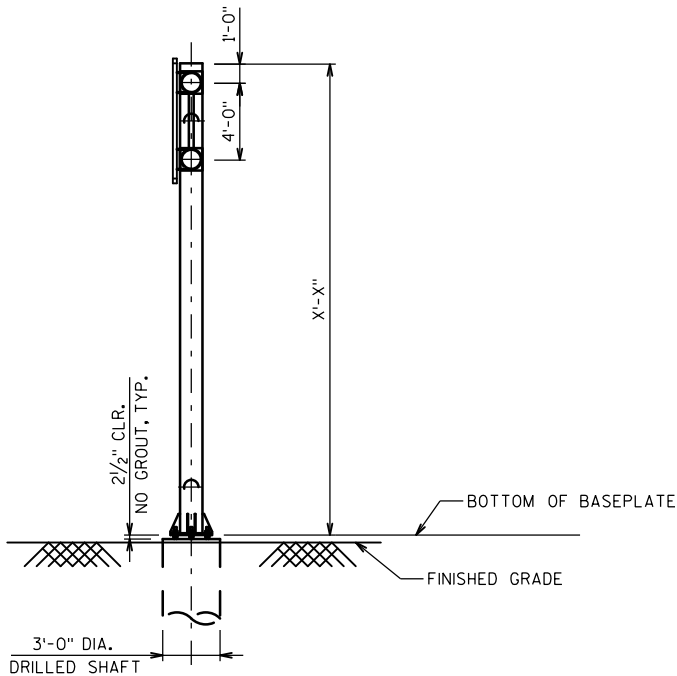
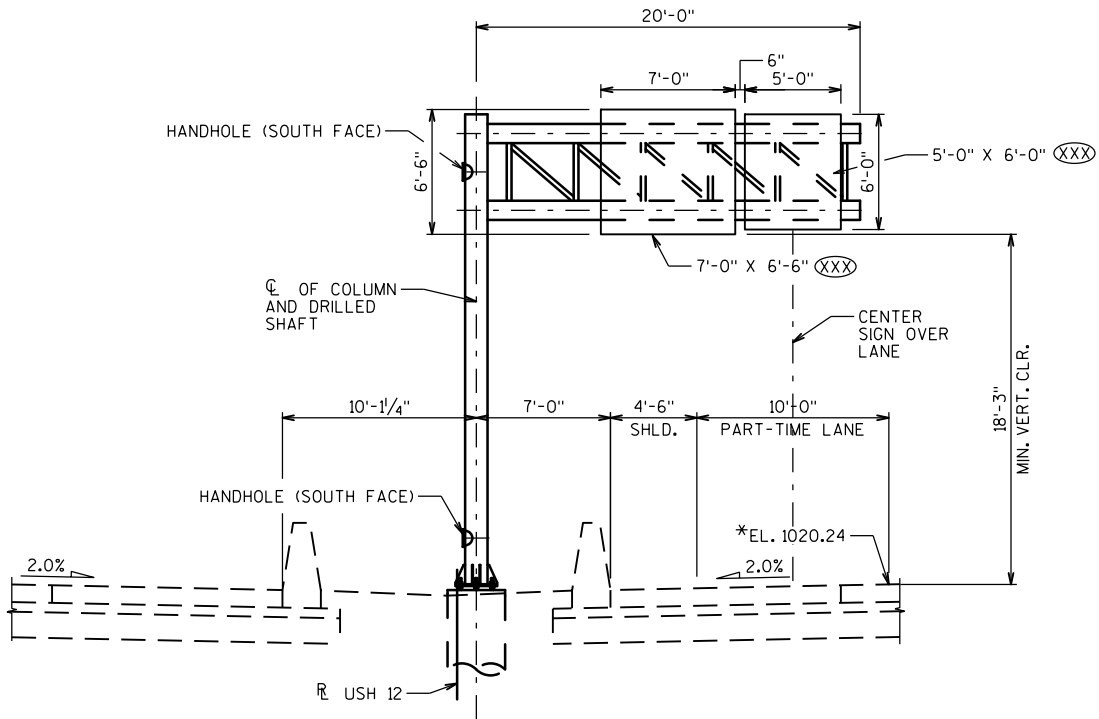
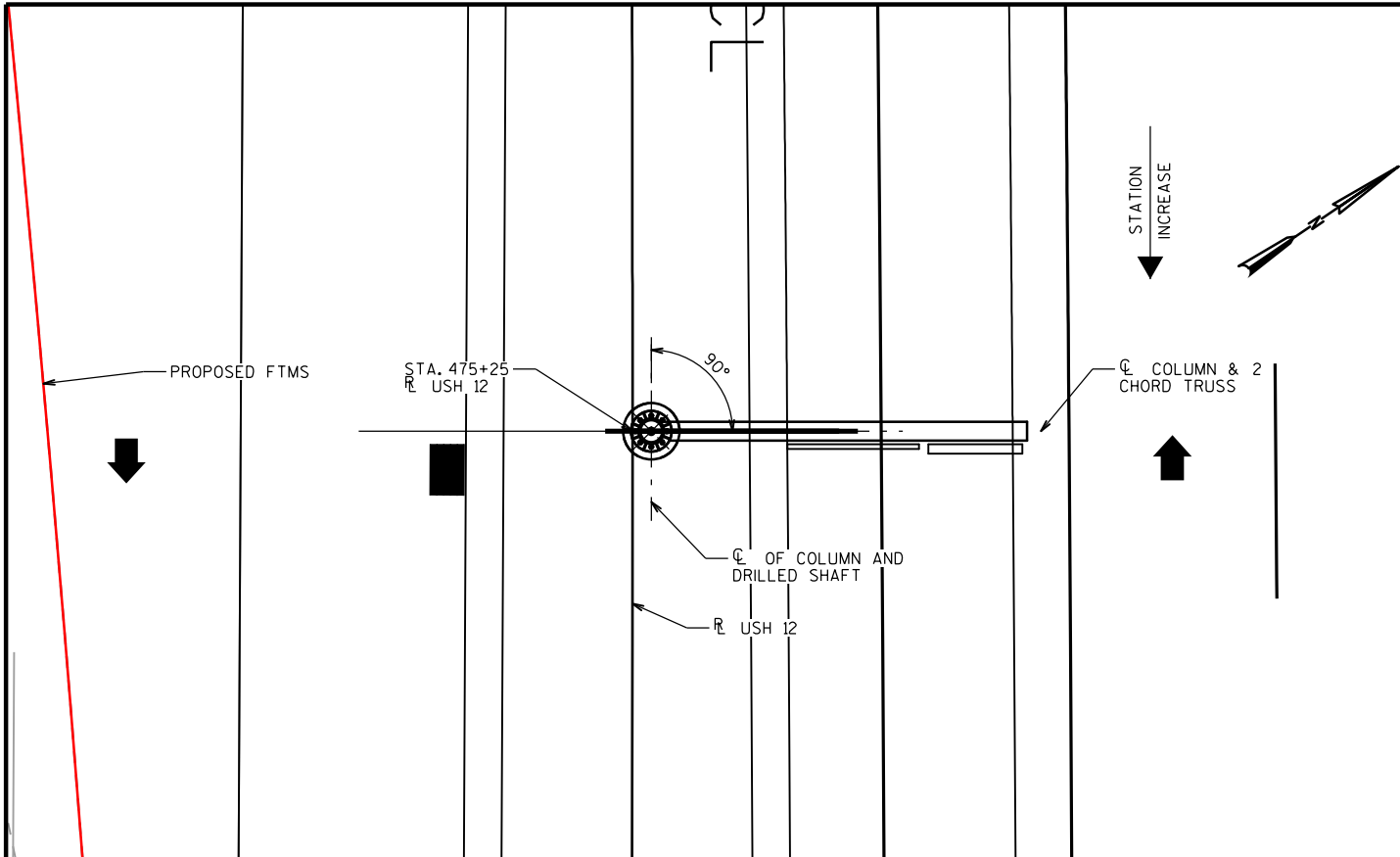
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2014			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2014			SHEET 6 OF 25



NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 475+25.00, 20.2' RT., EL. 1020.24

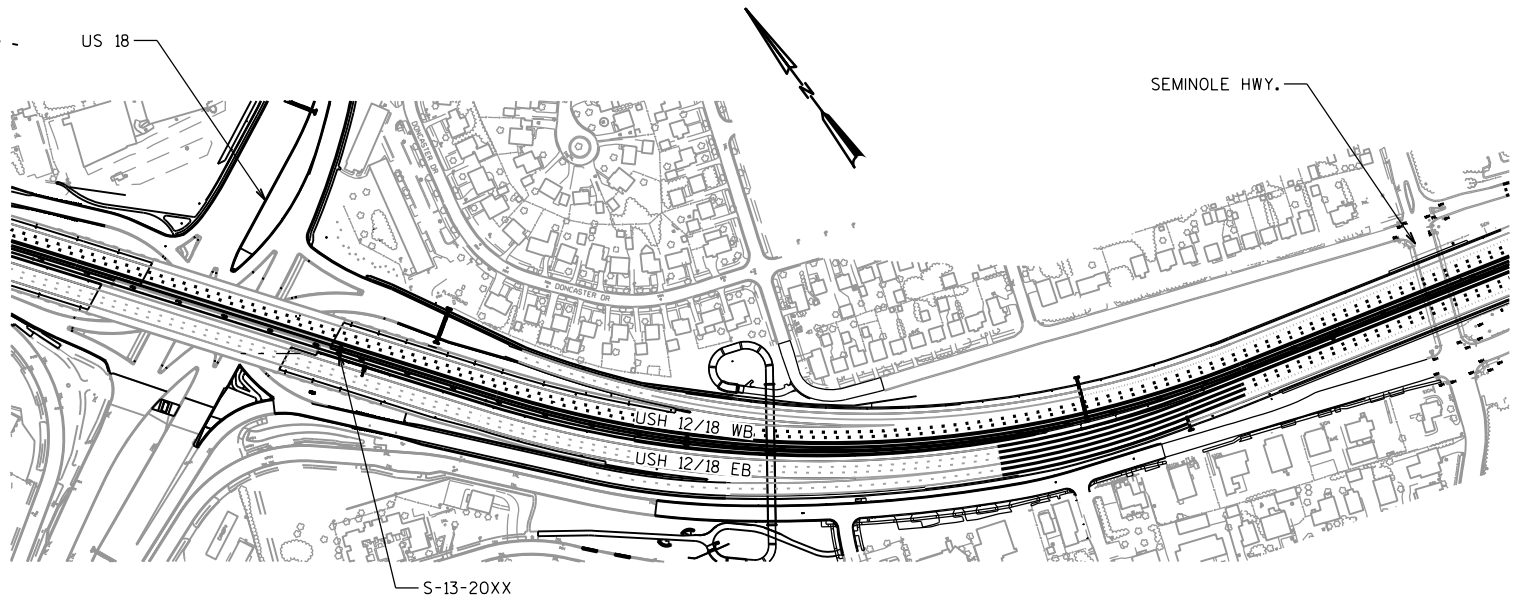
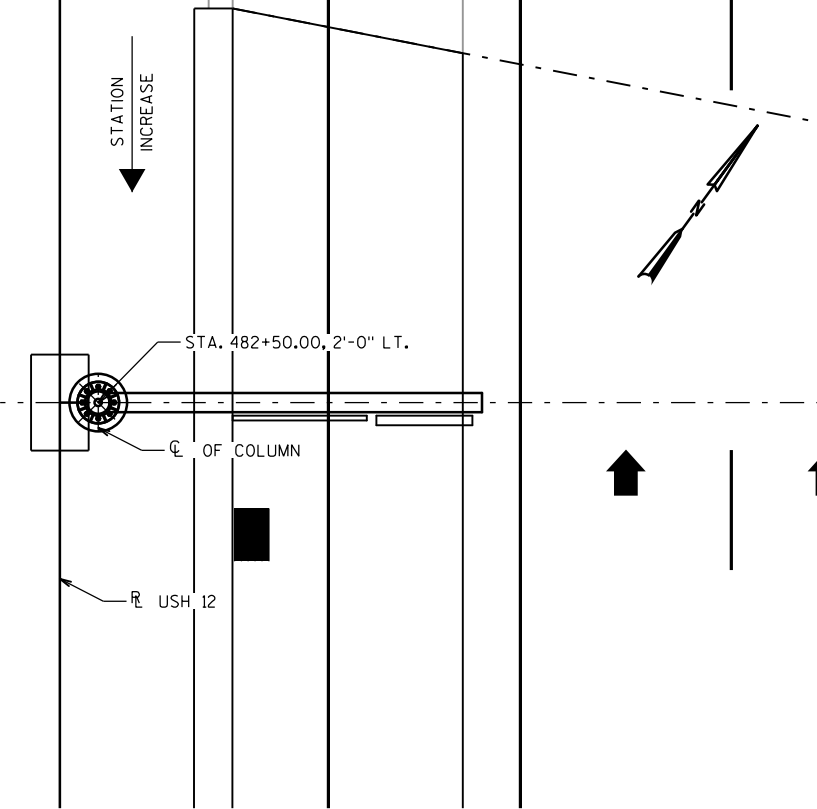
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

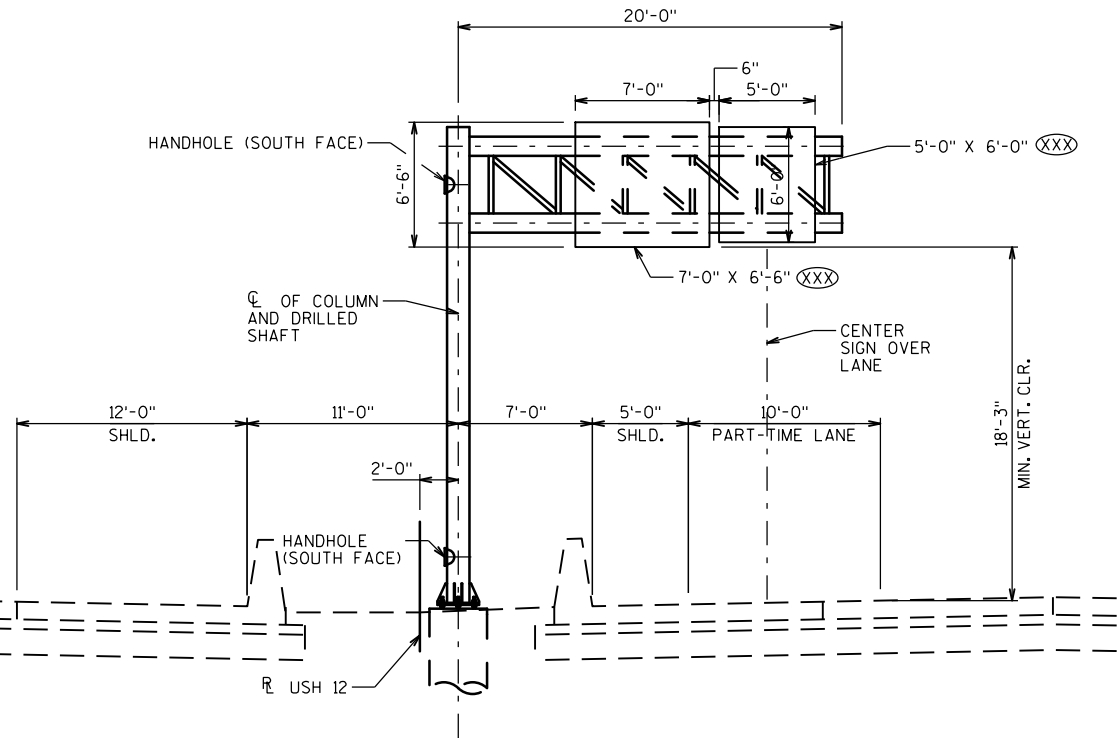
*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2015			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2015			SHEET 7 OF 25

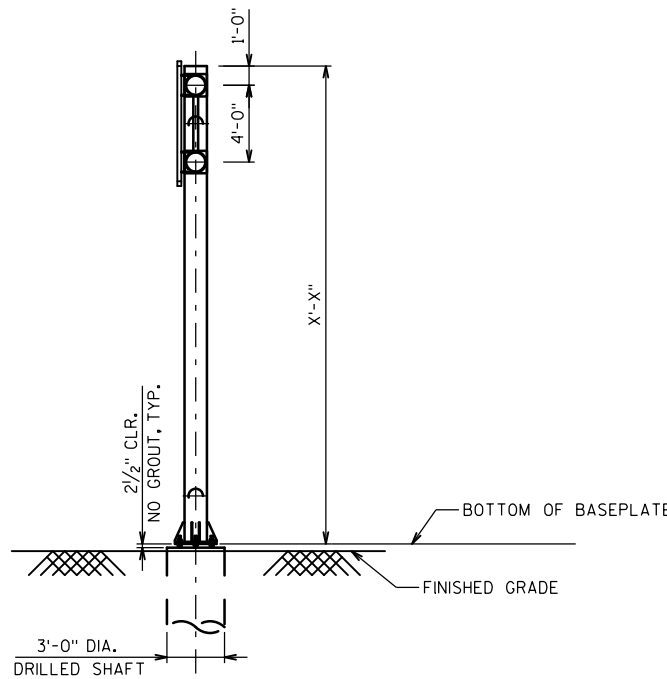


LOCATION MAP



ELEVATION

STA. 475+25 USH 12
(LOOKING DOWNSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX			SHEET 8 OF 25

STA. 483+10, 8.0' RT.
R USH 12

483CL

CL OF COLUMN

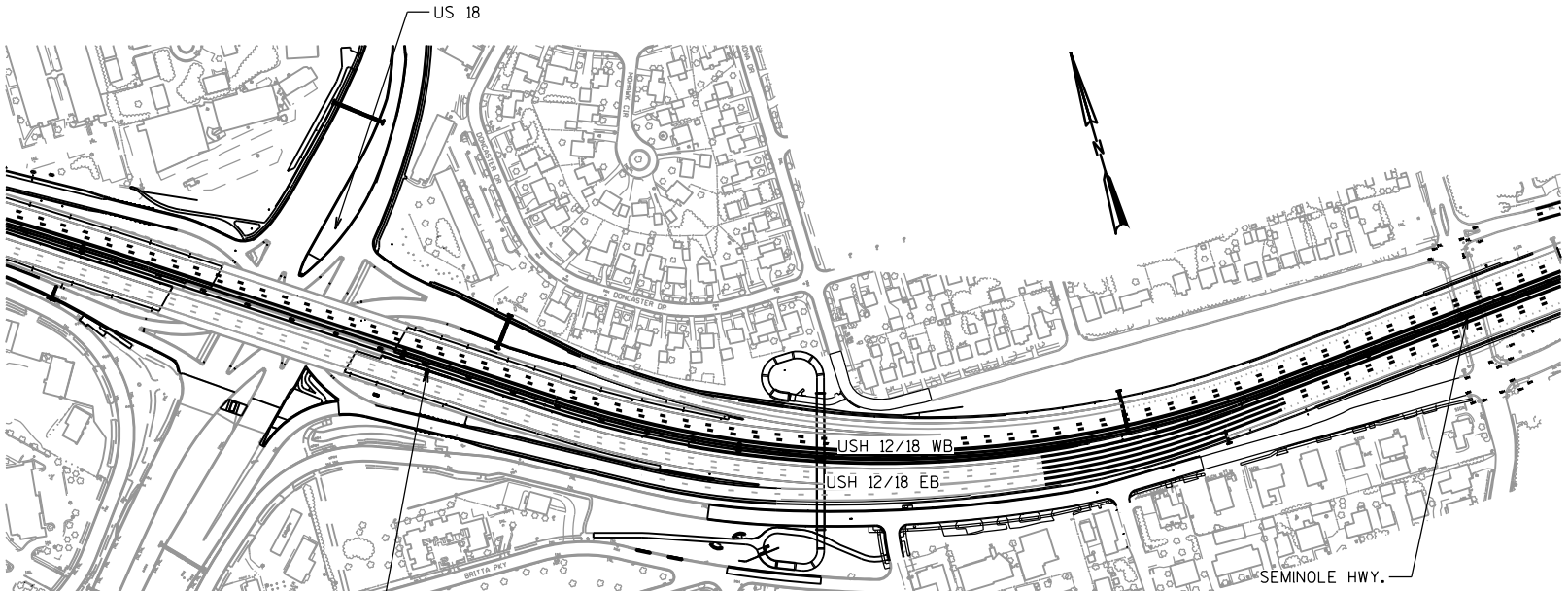
R USH 12

STATION
INCREASE

PLAN

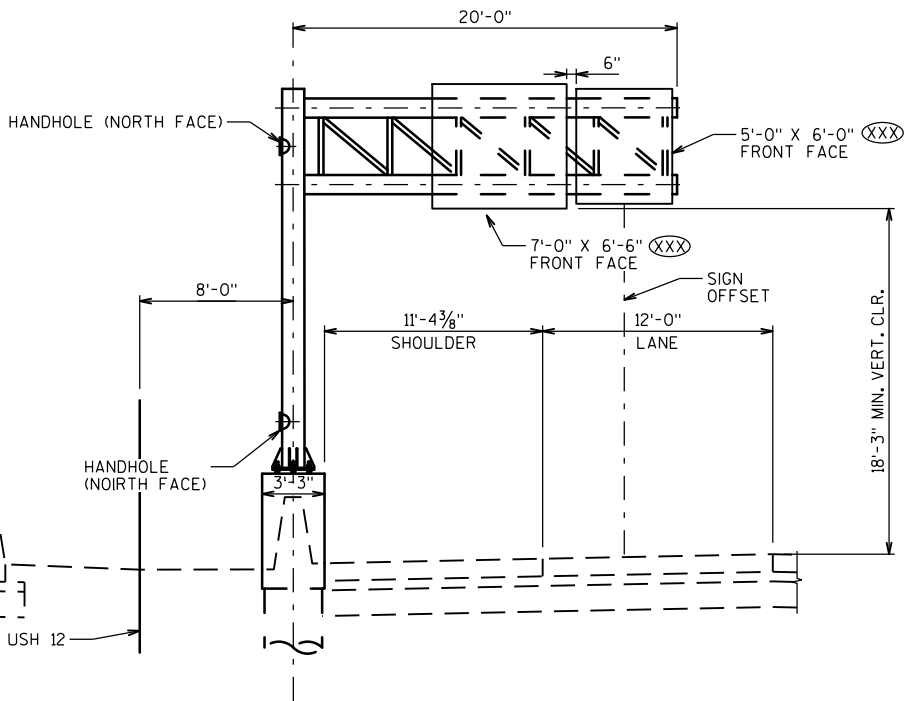
(LOOKING UP STATION)

WATER LINE



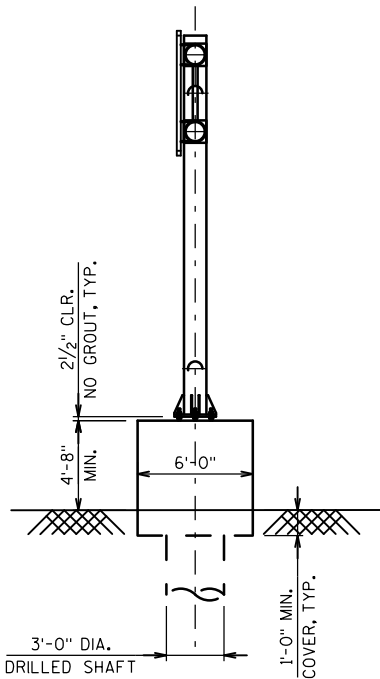
LOCATION MAP

S-13-20XX



ELEVATION

STA. 482+10 USH 12
(LOOKING EAST)



SIDE VIEW

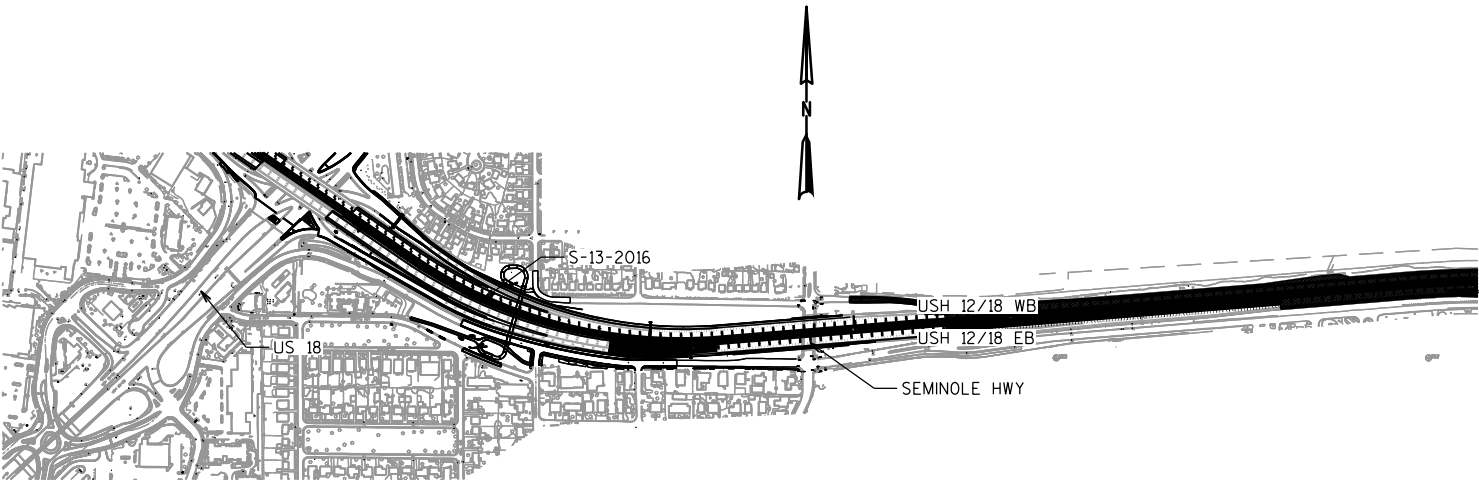
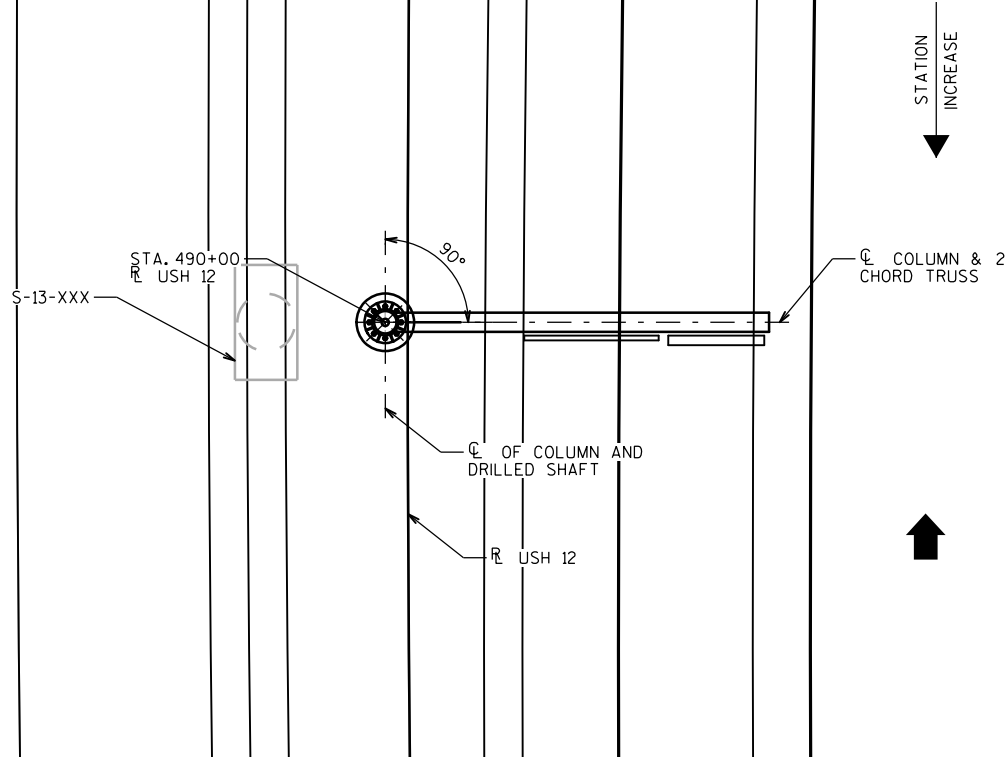
(LOOKING NORTH)

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX			SHEET 9 OF 25



LOCATION MAP

NOTES

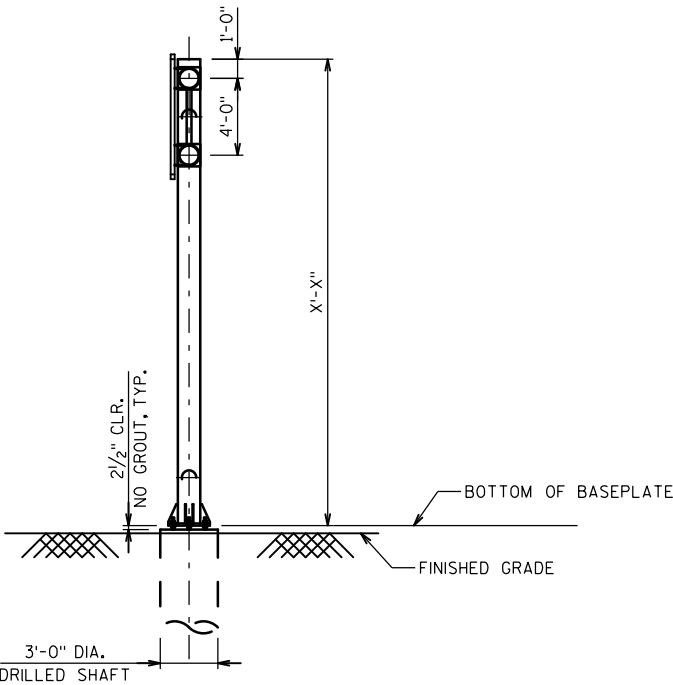
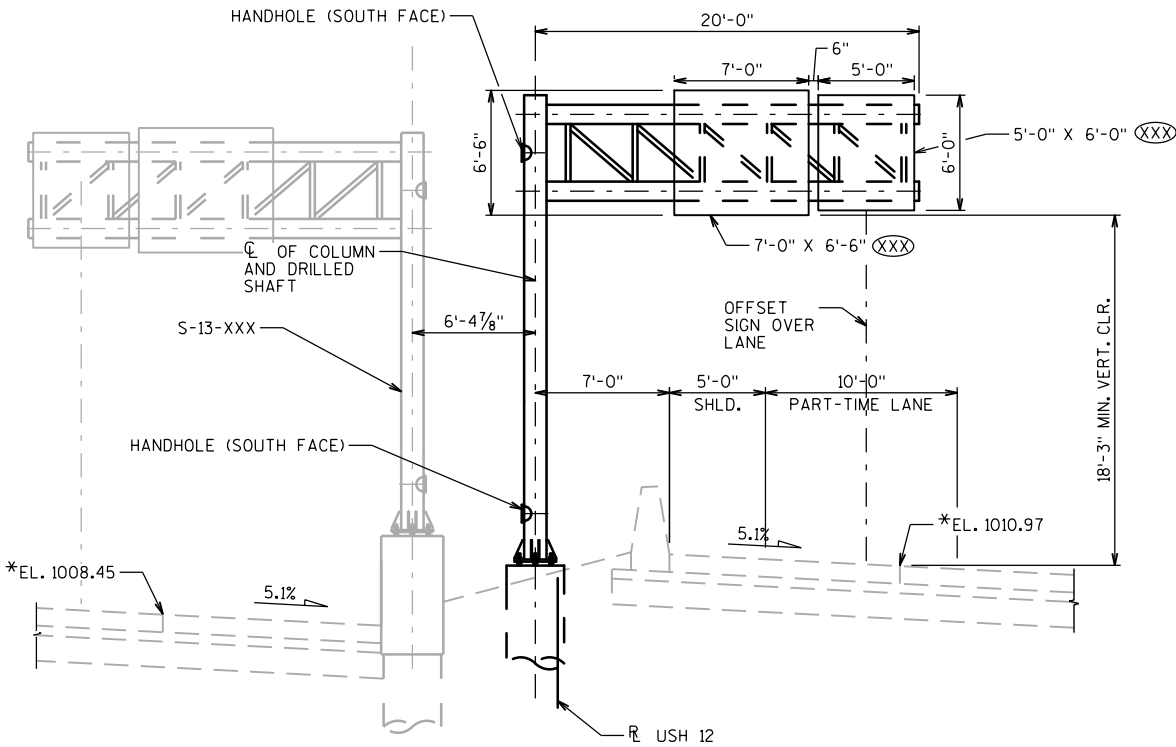
POINT OF MIN. VERTICAL CLEARANCE
STA. 490+00.00, 18.0' RT., EL. 1010.97

LEGEND

- (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
- *ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

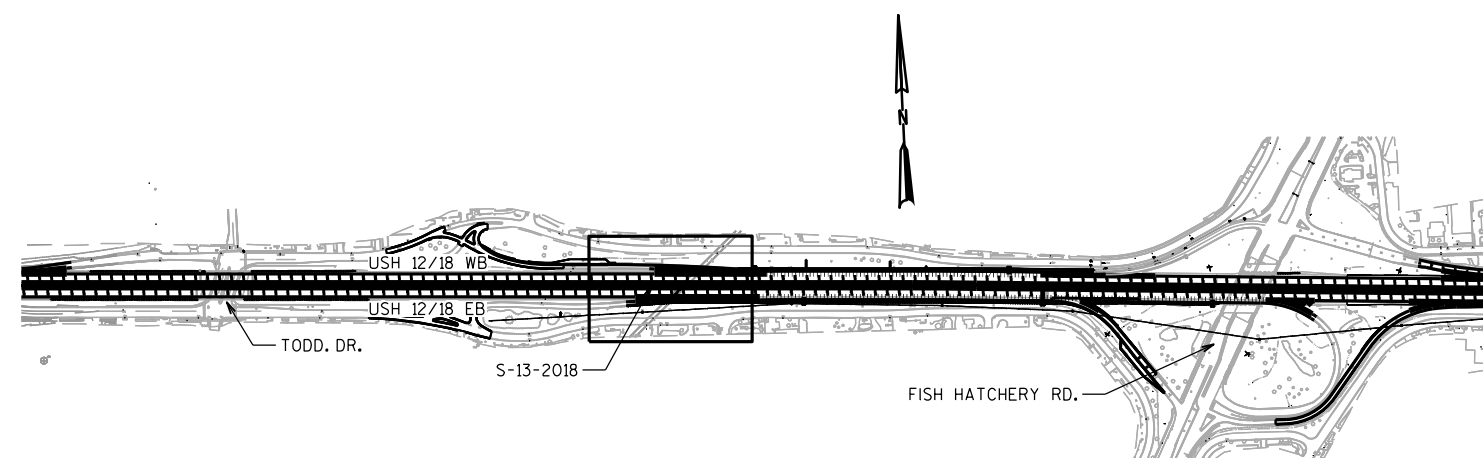
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2016			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2016			SHEET 10 OF 25



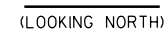
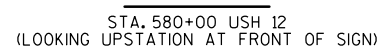


SIDE VIEW

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX		SHEET 11 OF 21	

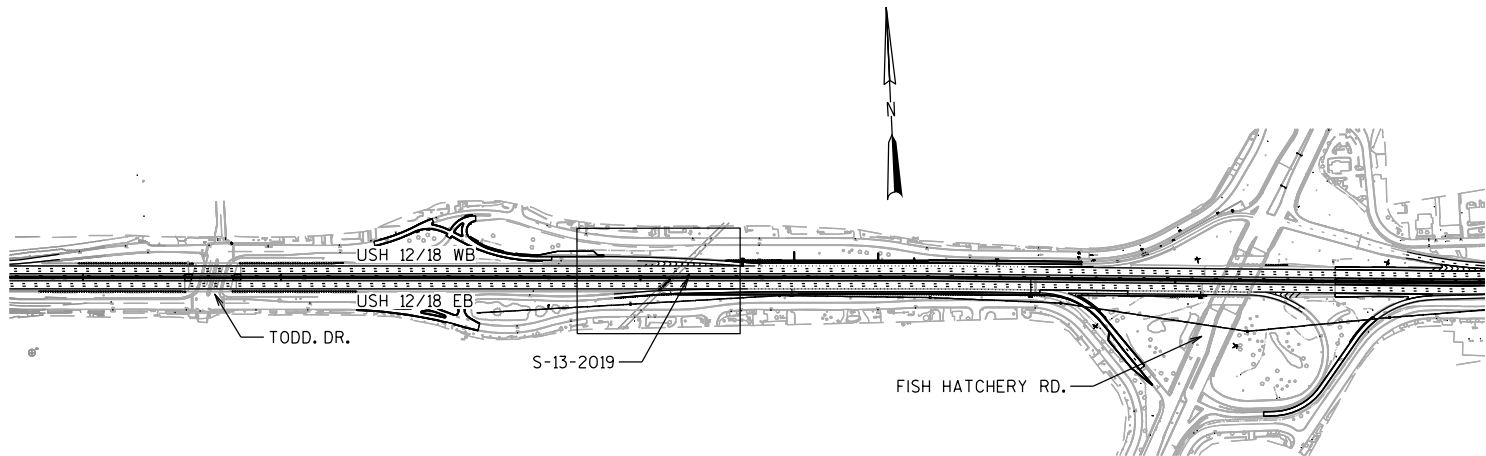
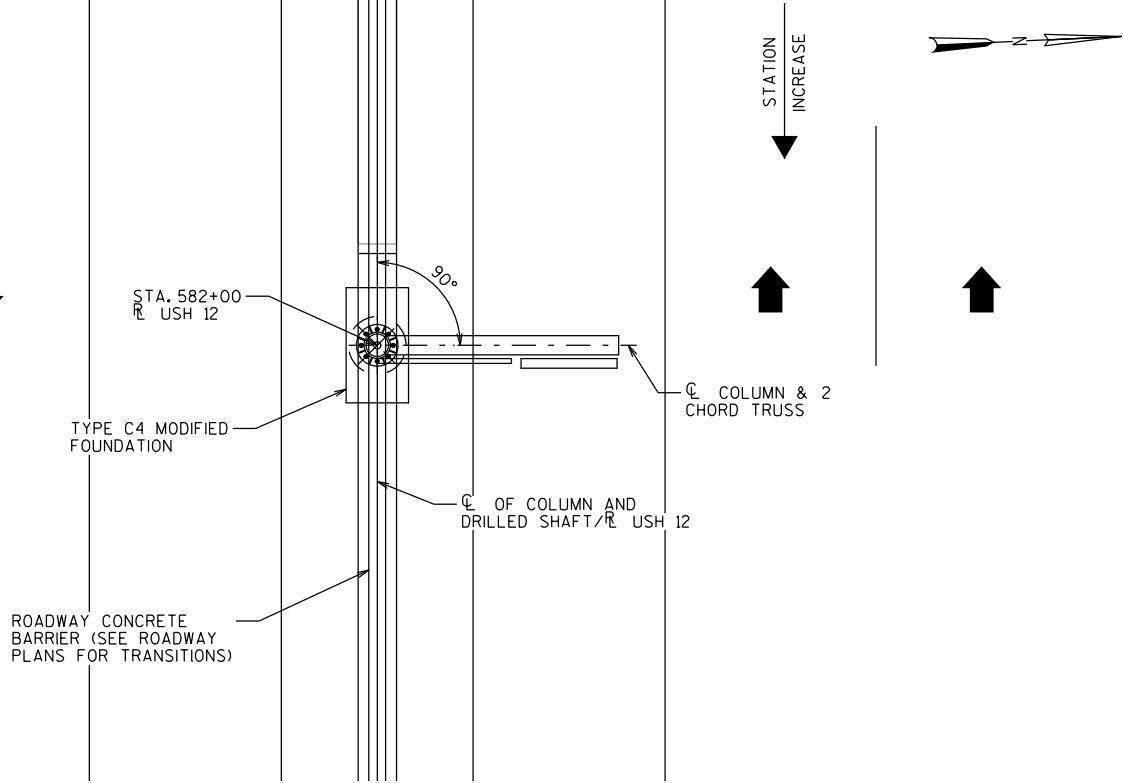


LOCATION MAP



1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2018			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-2018		SHEET 13 OF 21	



NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 582+00.00, 15.0' RT., EL. 896.75

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2019			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2019			SHEET 14 OF 25

PLOT SCALE : 10:1

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

STA. 602+30
R/L USH 12

TYPE C4 MODIFIED
FOUNDATION

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

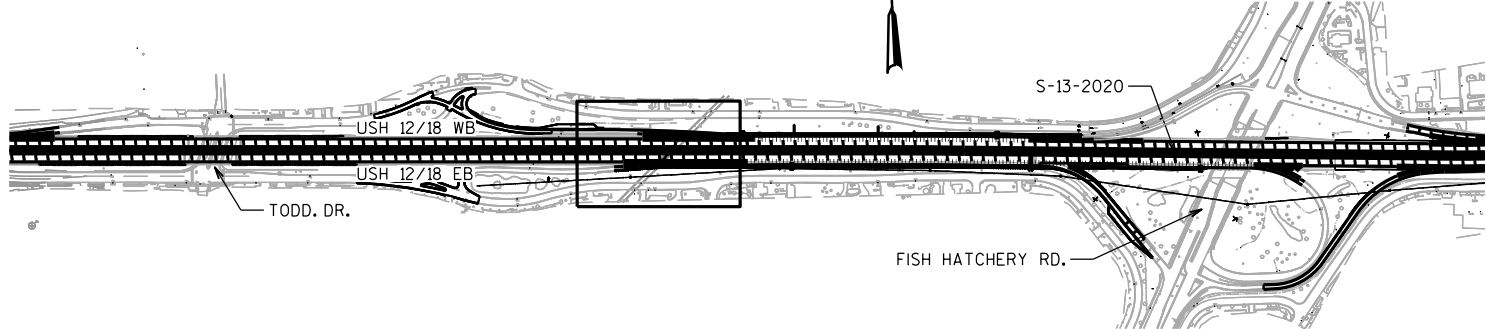
PLAN

CL COLUMN &
CHORD TRUSS

CL OF COLUMN AND
DRILLED SHAFT/R/L USH 12

PROPOSED FTMS

STATION
INCREASE



LOCATION MAP

NOTES

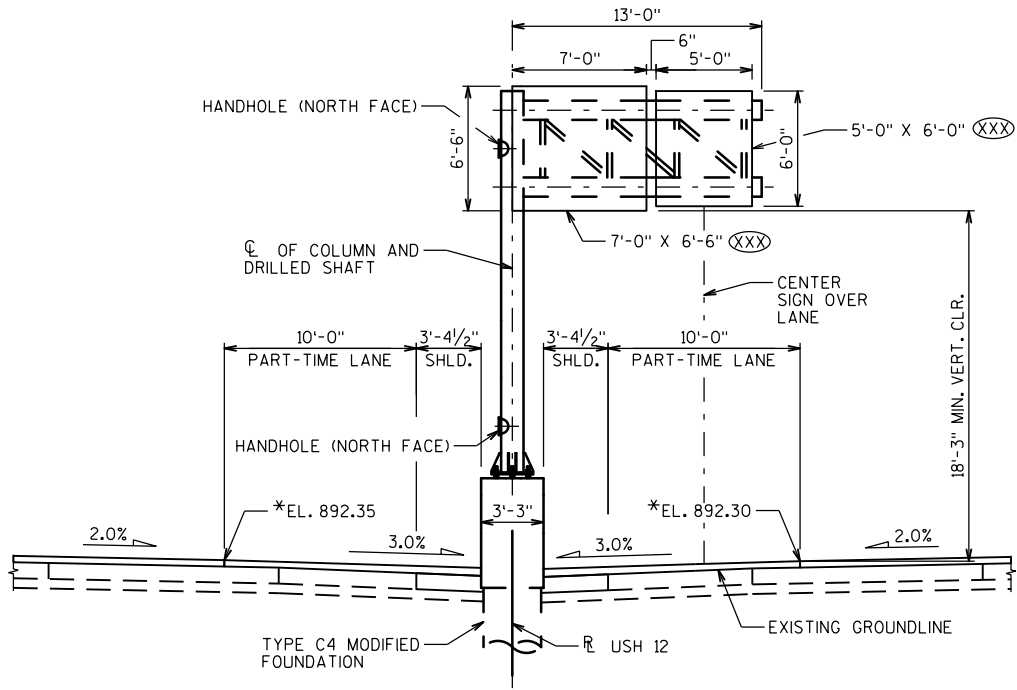
POINT OF MIN. VERTICAL CLEARANCE
STA. 602+30.00, 15.0' RT., EL. 892.30

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

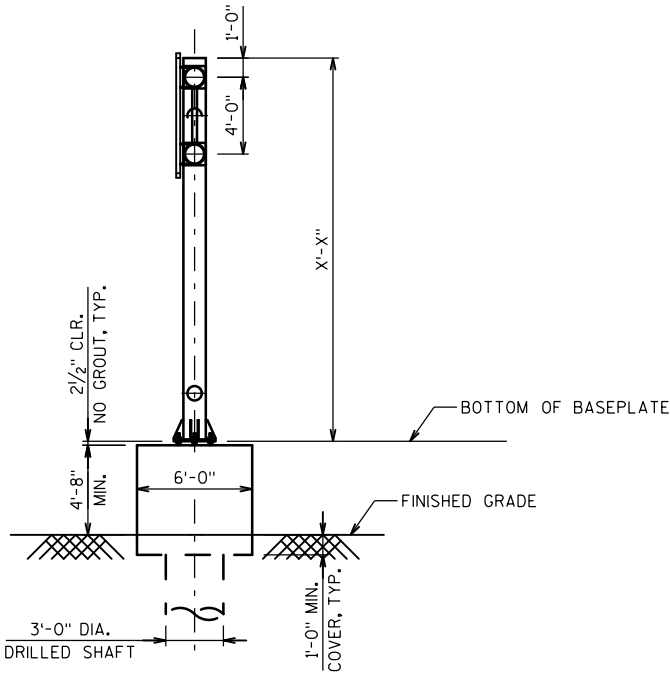
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2020			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2020			SHEET 15 OF 25



ELEVATION

STA. 602+30 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

STA. 608+00
R USH 12

TYPE C4 MODIFIED
FOUNDATION

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

STATION
INCREASE

CL COLUMN & 2
CHORD TRUSS

CL OF COLUMN AND
DRILLED SHAFT/R USH 12

PLAN

FISH HATCHERY RD.

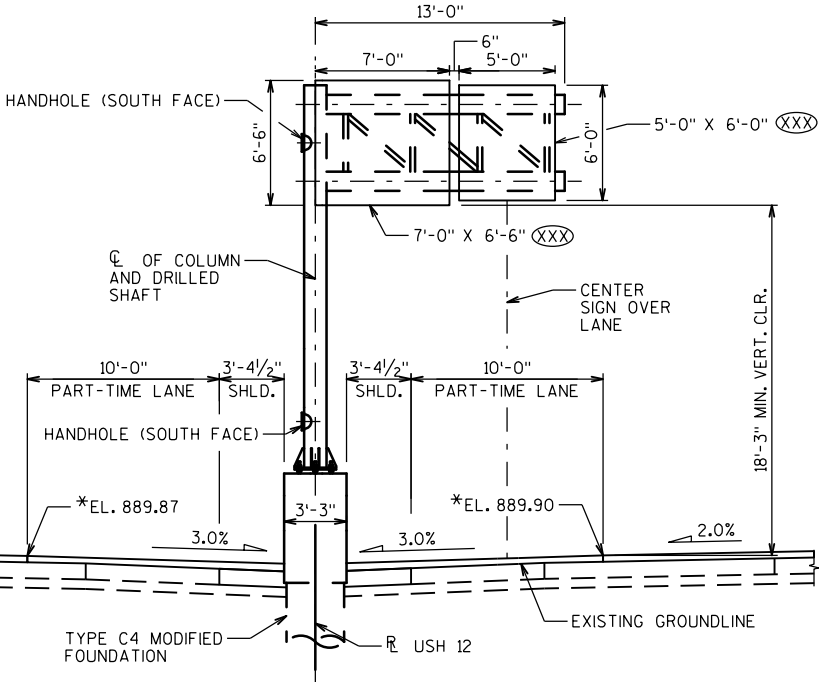
12/18 WB

USH 12/18 EB

S-13-2021

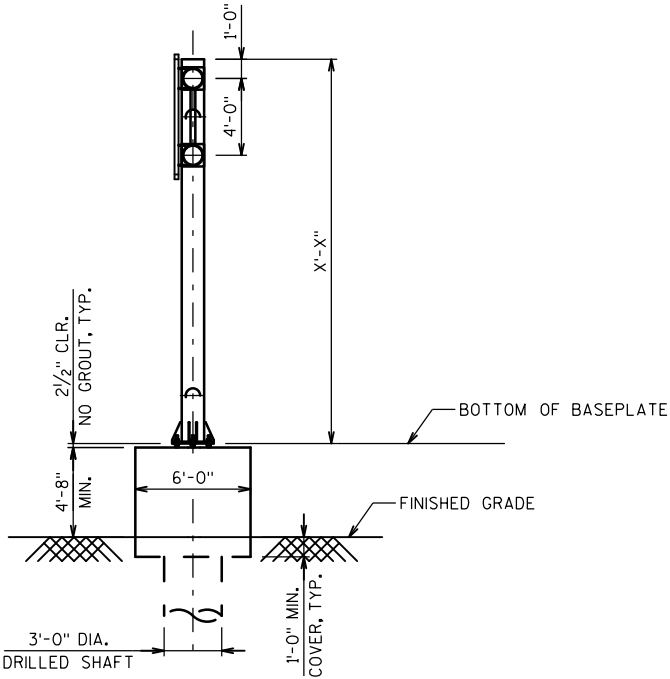
S. PARK ST.

LOCATION MAP



ELEVATION

STA. 608+00 USH 12
(LOOKING DOWNSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING SOUTH)

NOTES

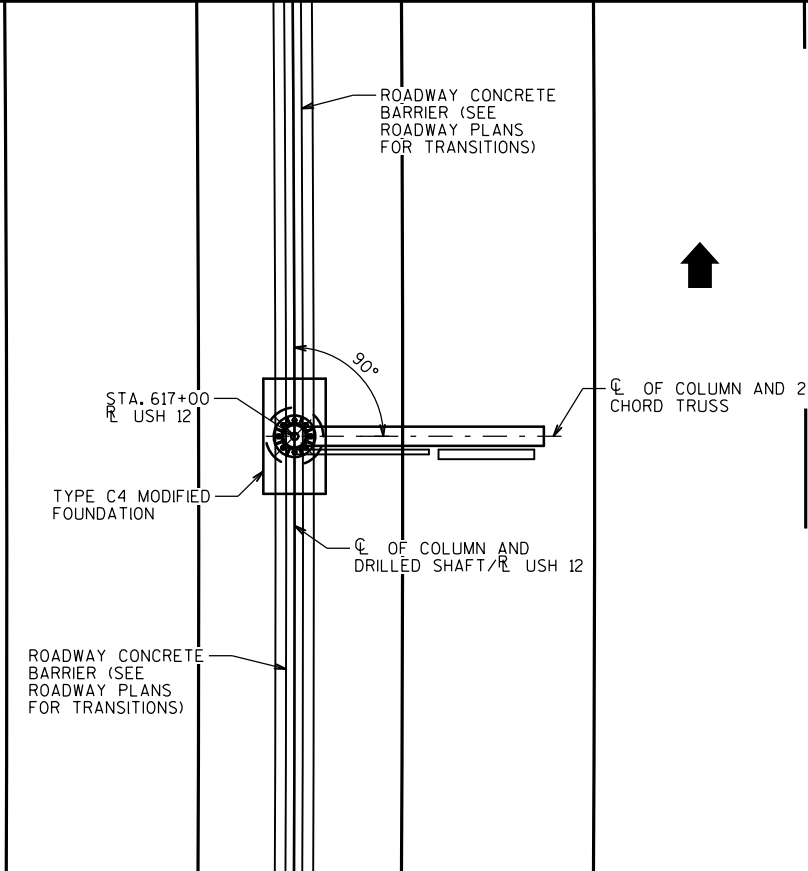
POINT OF MIN. VERTICAL CLEARANCE
STA. 608+00.00, 15.0' RT., EL. 889.90

LEGEND

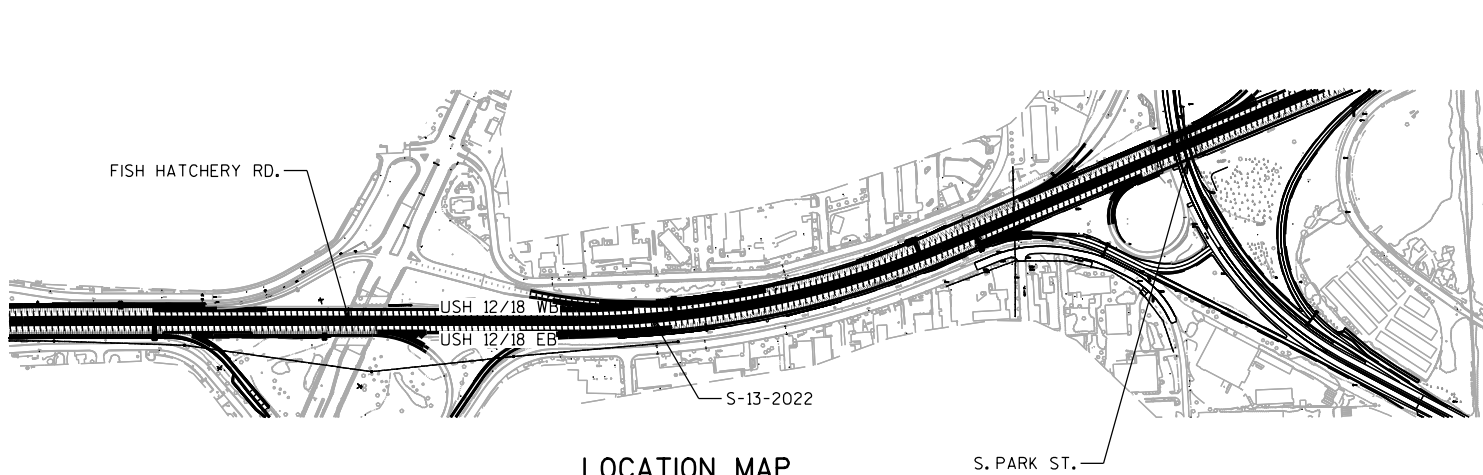
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

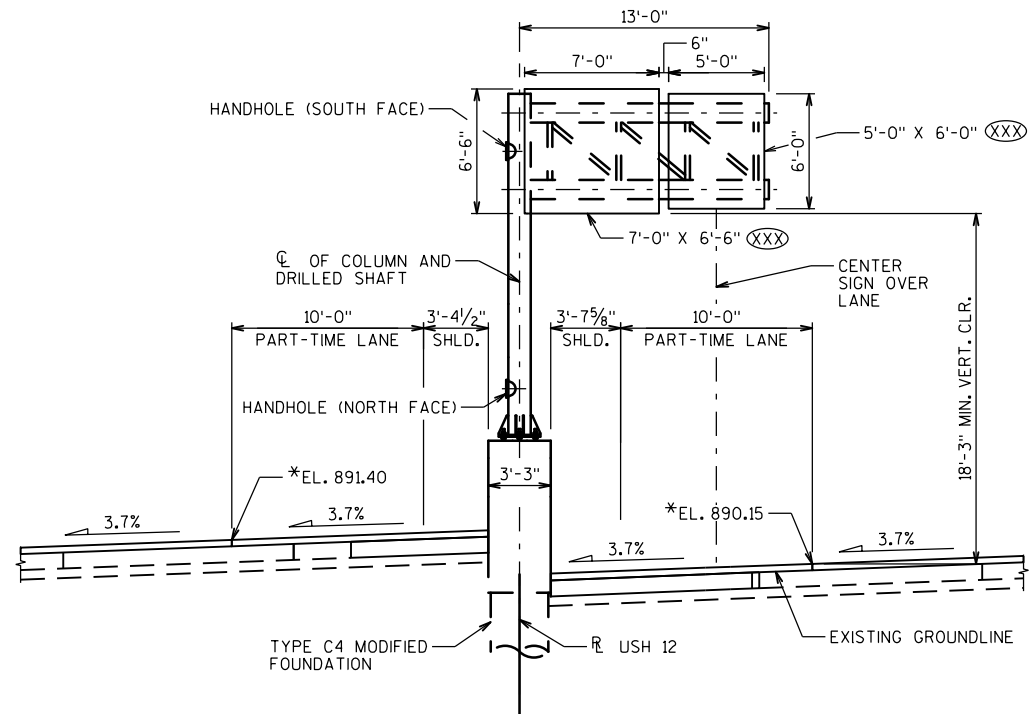
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2021			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2021			SHEET 16 OF 25



PLAN

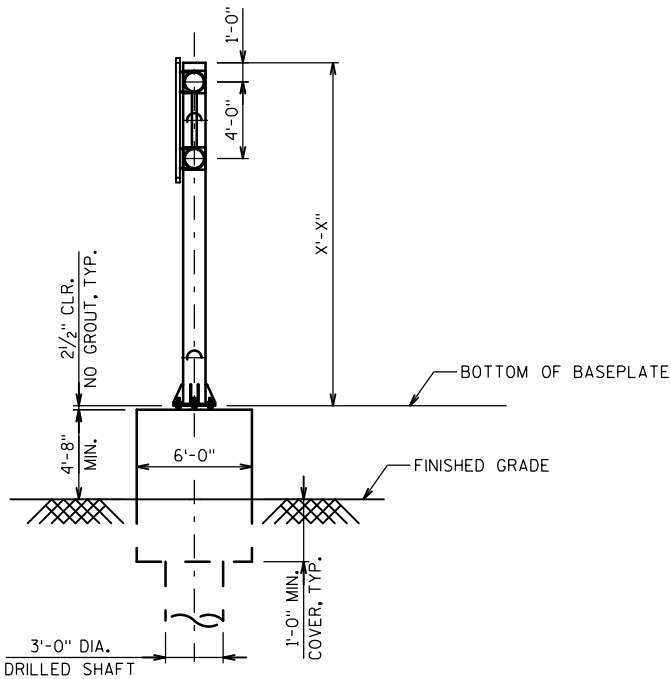


LOCATION MAP



ELEVATION

STA. 617+00 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 615+00.00, 15.3' RT., EL. 890.15

LEGEND

- (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
- *ELEVATIONS GIVEN ALONG ℄ OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2022			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2022			SHEET 17 OF 25

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

STATION
INCREASE

PROPOSED STORM SEWER

STA. 678+00
R/L USH 12

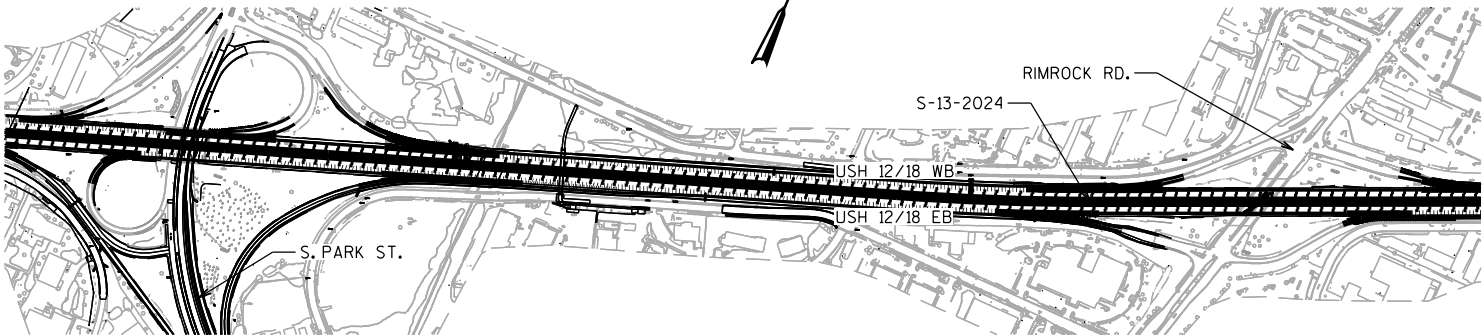
TYPE C4 MODIFIED
FOUNDATION

CL COLUMN & 2
CHORD TRUSS

CL OF COLUMN AND
DRILLED SHAFT/R/L USH 12

ROADWAY CONCRETE
BARRIER (SEE ROADWAY
PLANS FOR TRANSITIONS)

PLAN



LOCATION MAP

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 678+00.00, 15' RT., EL. 886.12

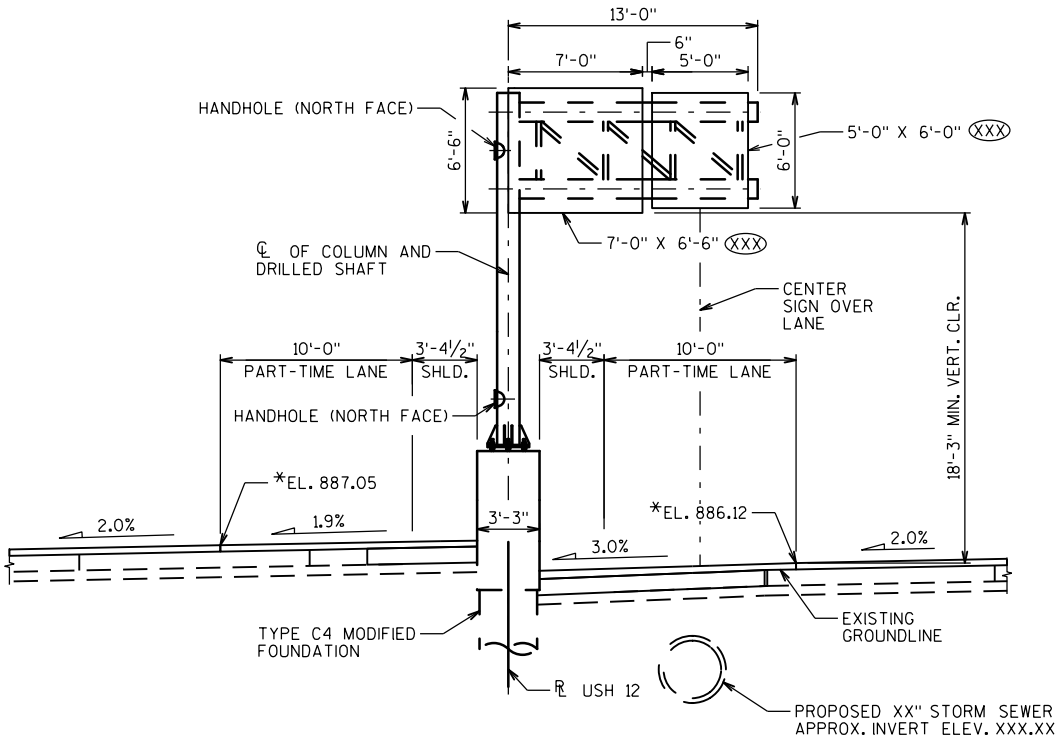
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

*ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

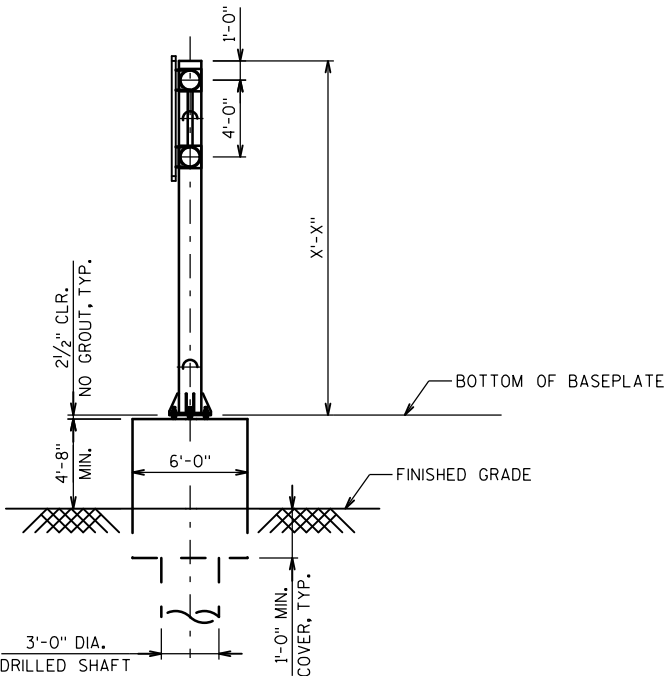
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2024			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2024			SHEET 18 OF 25



ELEVATION

STA. 678+00 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)



STA. 692+50 USH 12
(LOOKING DOWNSTATION AT FRONT OF SIGN)



(LOOKING SOUTH)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 692+50.00, 15.0' RT., EL. 856.49

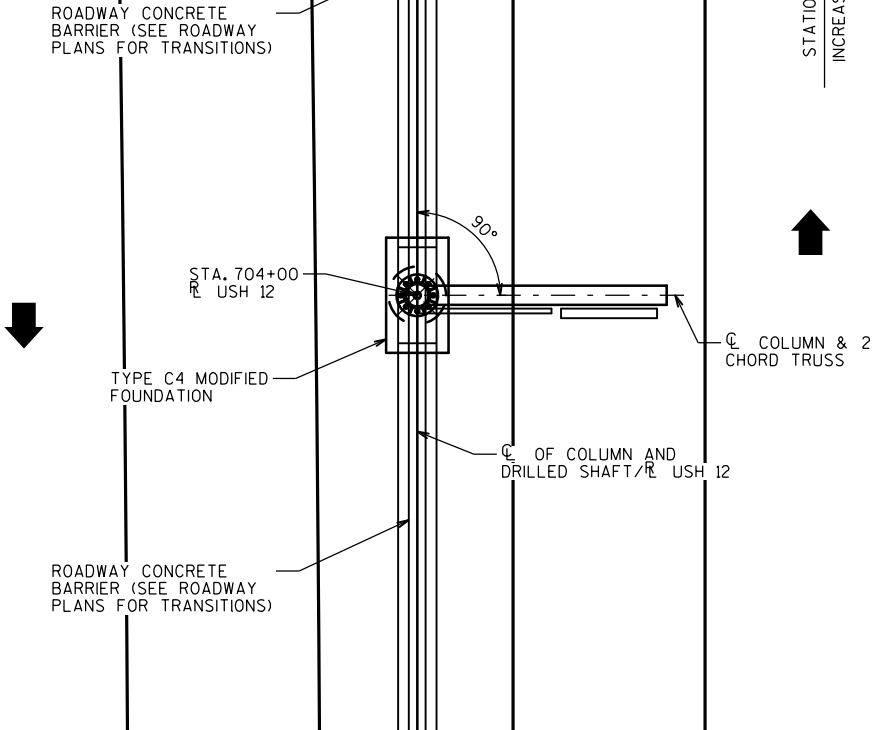
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

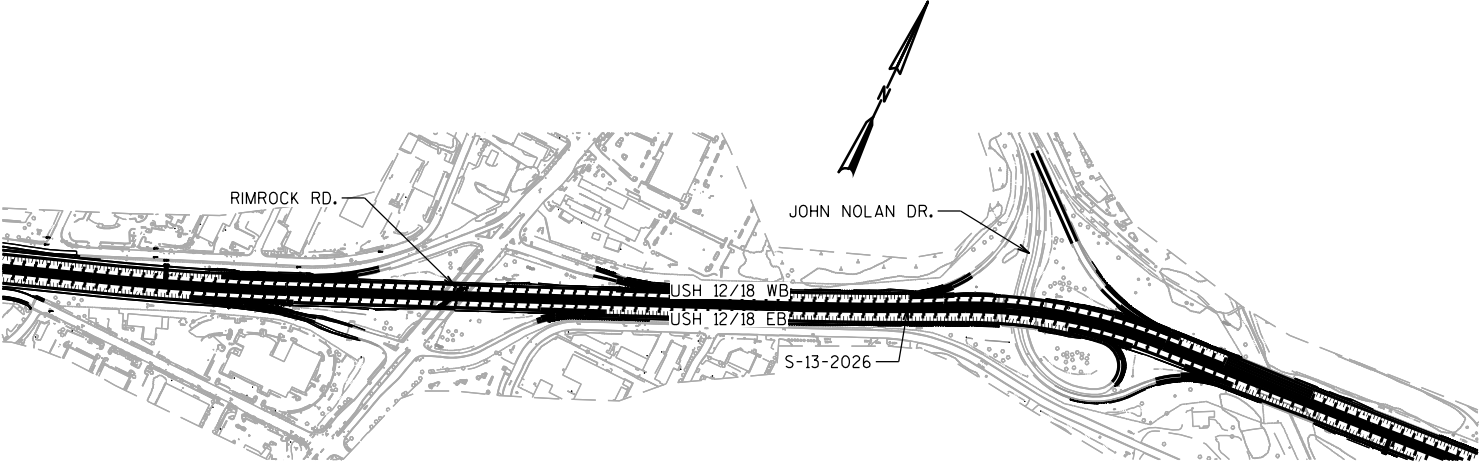
*ELEVATIONS GIVEN ALONG $\mathcal{C}$ OF 2-CHORD TRUSS

1078 PLANS

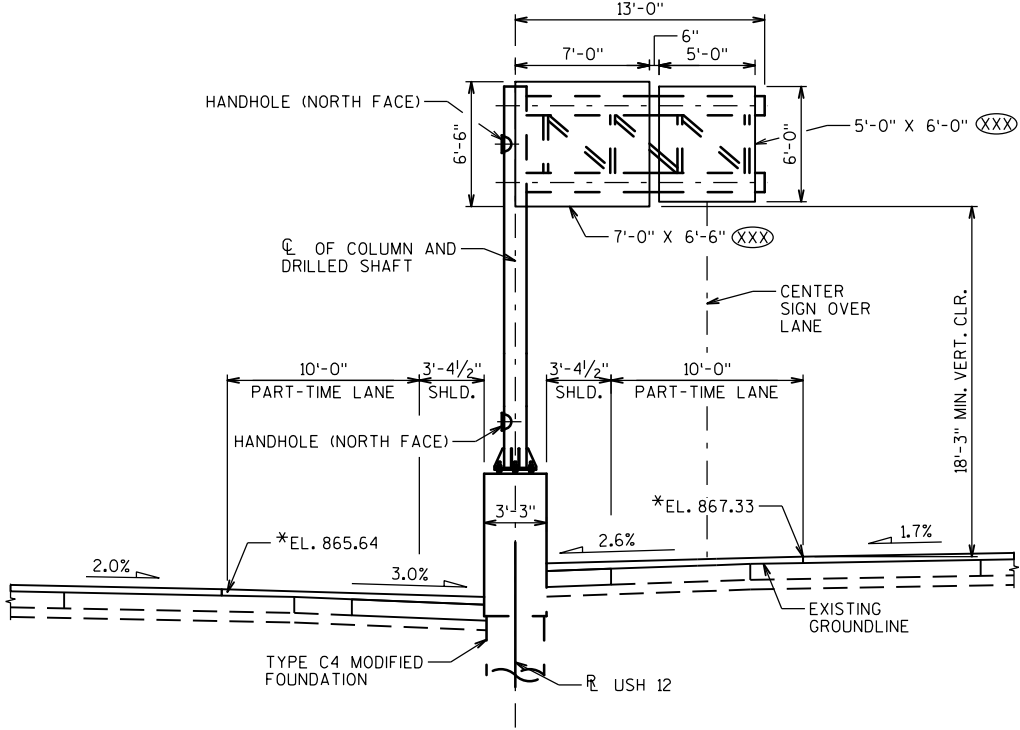
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2025			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-2025		SHEET 19 OF 25	



PLAN

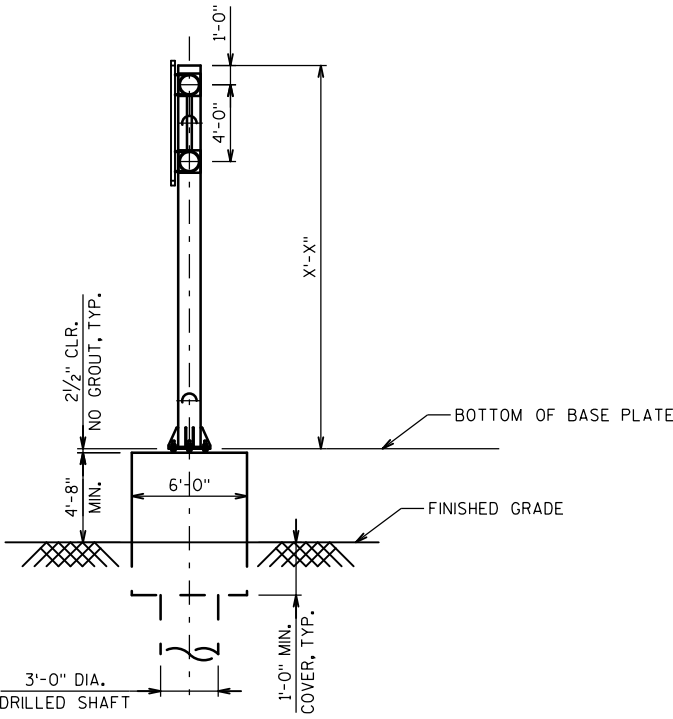


LOCATION MAP



ELEVATION

STA. 704+00 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

NOTES

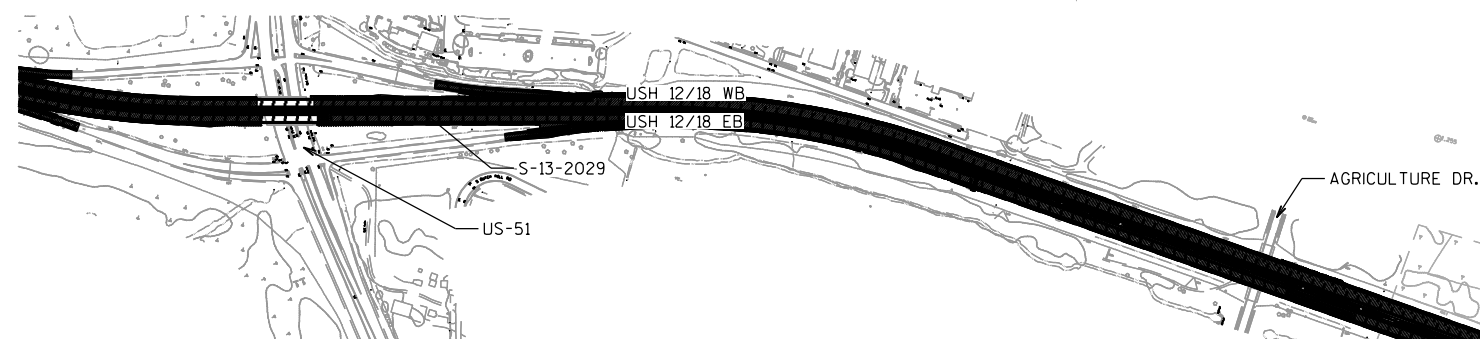
POINT OF MIN. VERTICAL CLEARANCE
STA. 704+00.00, 15.0' RT., EL. 867.33

LEGEND

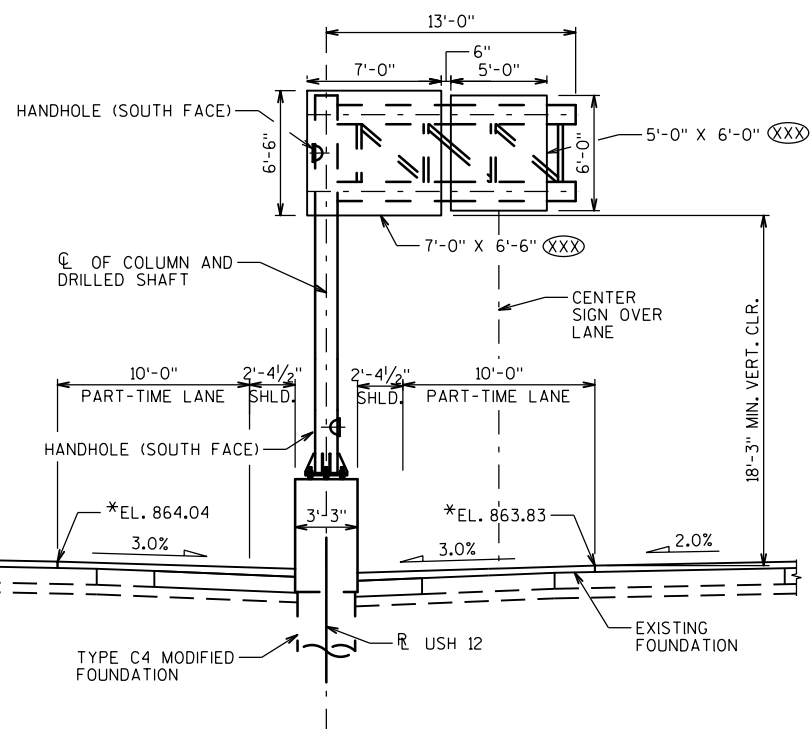
- (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)
- *ELEVATIONS GIVEN ALONG CL OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2026			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2026			SHEET 20 OF 25

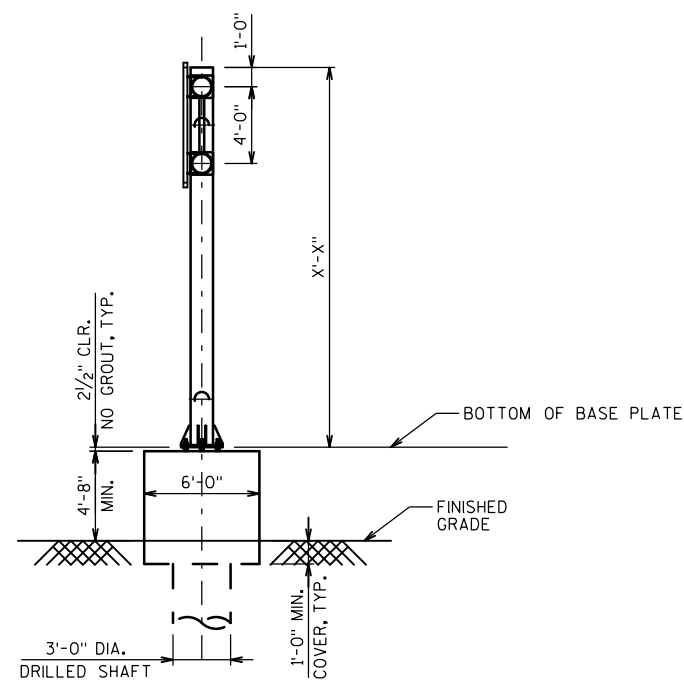


LOCATION MAP



ELEVATION

STA. 883+75 USH 12
(LOOKING DOWNSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING SOUTH)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 883+75.00, 14.0' RT., EL. 864.04

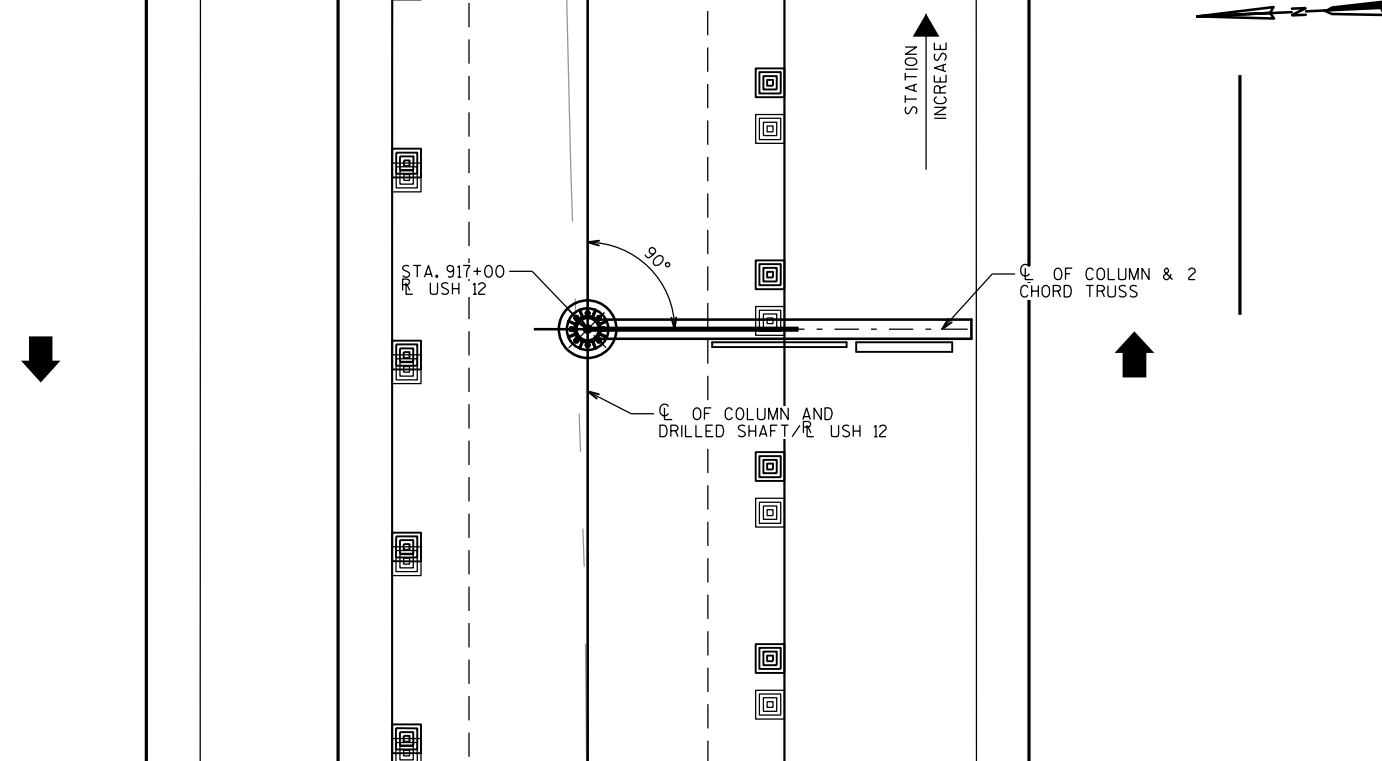
LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

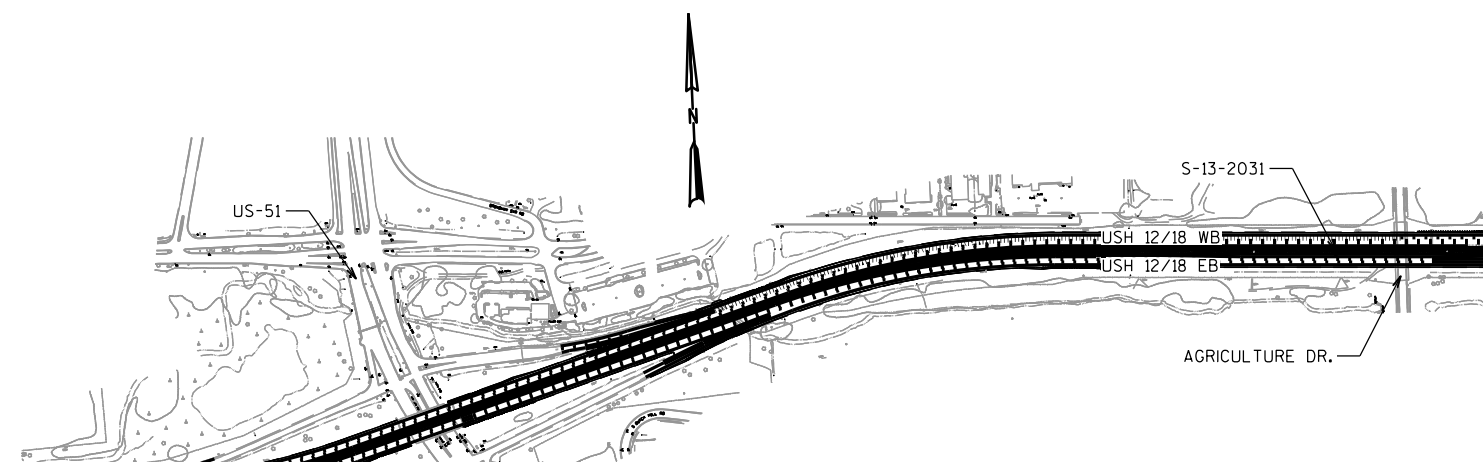
*ELEVATIONS GIVEN ALONG C OF 2-CHORD TRUSS

1078 PLANS

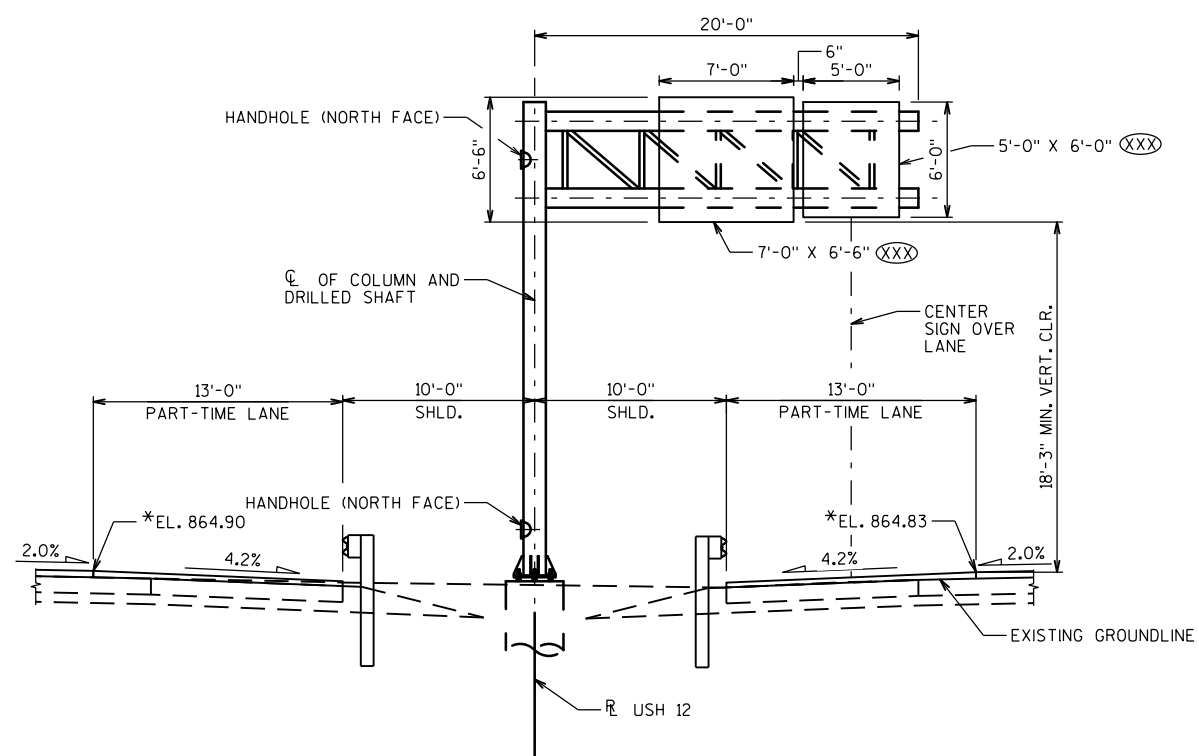
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2029			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-2029		SHEET 22 OF 2	



PLAN

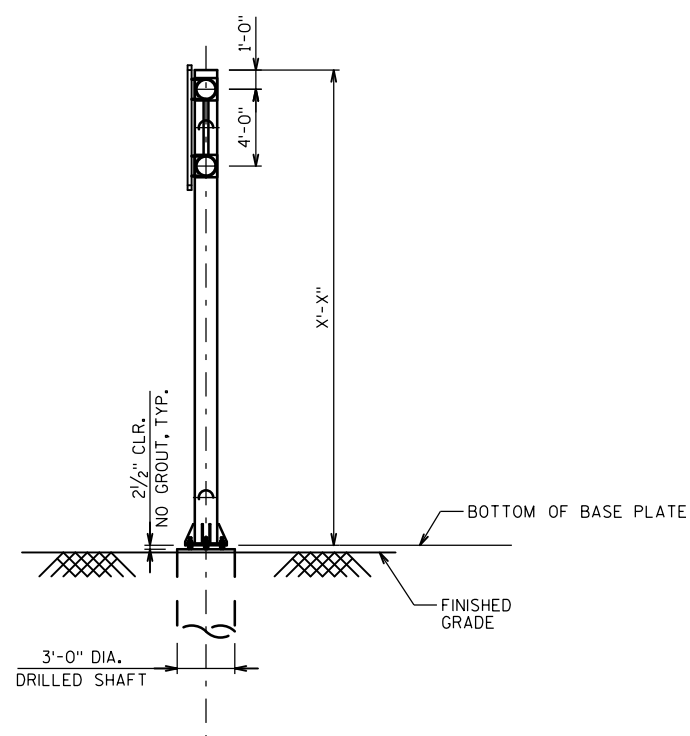


LOCATION MAP



ELEVATION

STA. 917+00 USH 12
(LOOKING UPSTATION AT FRONT OF SIGN)



SIDE VIEW

(LOOKING NORTH)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 883+75.00, 14.0' RT., EL. 864.04

LEGEND

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

*ELEVATIONS GIVEN ALONG $\mathcal{C}$ OF 2-CHORD TRUSS

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2031			
		DRAWN BY	PLANS C'D.
GENERAL LAYOUT S-13-2031		SHEET 23 OF 2	

FOUNDATION SELECTION TABLE

STRUCTURE ☆ TYPE	STANDARD FOUNDATION TYPE
CANTILEVER MONOTUBE TYPE 1	C3
CANTILEVER MONOTUBE TYPE 2	C3
CANTILEVER MONOTUBE TYPE 3	C6
CANTILEVER MONOTUBE TYPE 4	C7
FULL SPAN MONOTUBE TYPE 1	C1
FULL SPAN MONOTUBE TYPE 2	C2
CANTILEVER 2-CHORD TYPE 1	C4
CANTILEVER 2-CHORD TYPE 2	C6
CANTILEVER 2-CHORD TYPE 3	C8
CANTILEVER 2-CHORD TYPE 4	C9
CANTILEVER 2-CHORD DMS	C4
FULL SPAN 2-CHORD TYPE 1	C3
FULL SPAN 2-CHORD TYPE 2	C5
FULL SPAN 2-CHORD TYPE 3	C6
FULL SPAN 2-CHORD TYPE 4	C7
FULL SPAN 2-CHORD DMS	C3

☆ STRUCTURE TYPE SELECTED PER WISDOT FACILITIES
DEVELOPMENT MANUAL SECTION 11-55-20

NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS - FOUNDATIONS

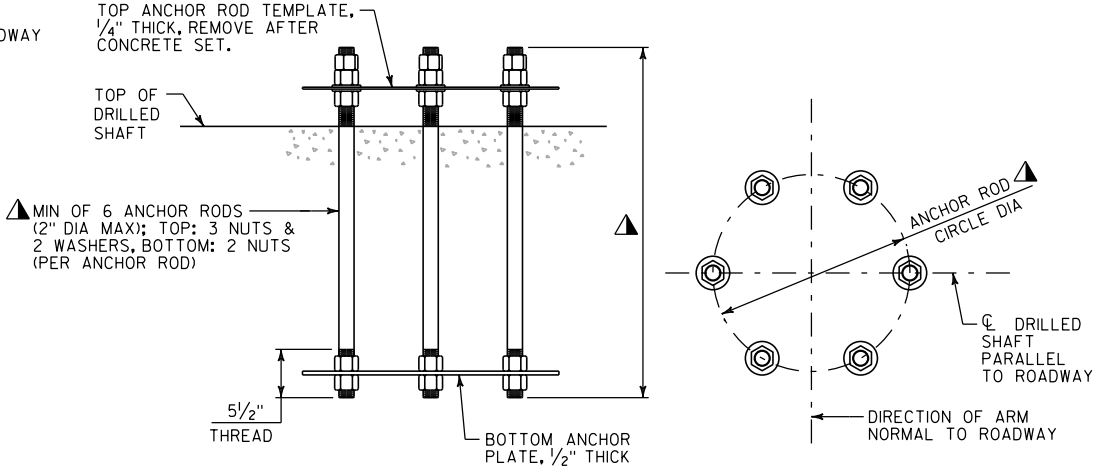
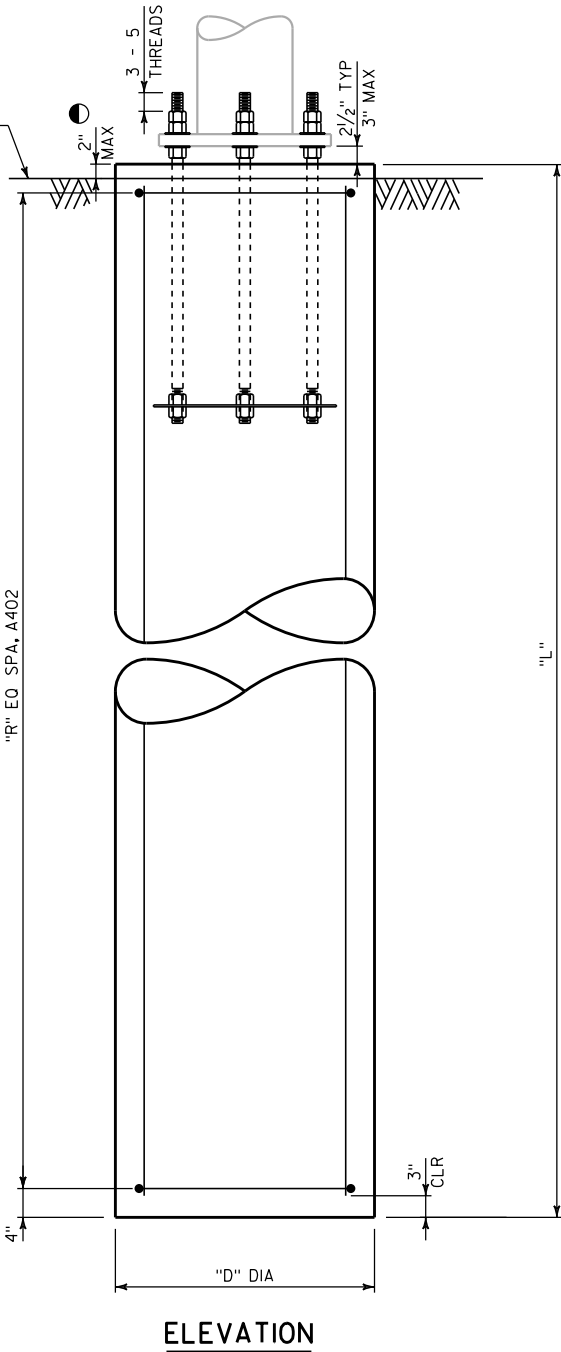
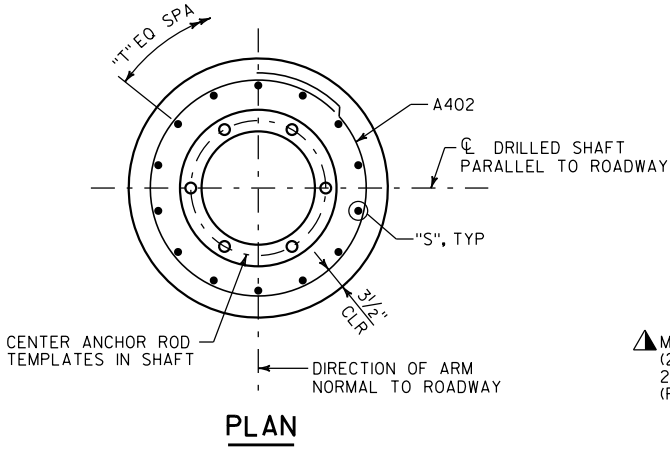
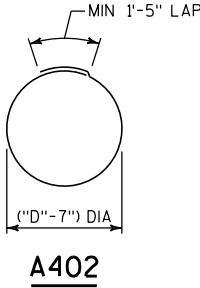
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
STD FOUNDATION TYPE C1					
A801		6	11'-7"		DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C2					
A801		10	12'-7"		DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C3					
A801		10	16'-7"		DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C4					
A801		14	17'-7"		DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C5					
A801		14	19'-7"		DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C6					
A901		14	17'-7"		DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C7					
A901		14	22'-7"		DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C8					
A1001		14	22'-7"		DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X	DRILLED SHAFT - HORIZONTAL
STD FOUNDATION TYPE C9					
A1001		14	27'-7"		DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X	DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	ANCILLARY STRUCTURES CONCRETE MASONRY (CY)	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)
C1	2	240	12
C2	3	410	13
C3	4	530	17
C4	5	770	18
C5	6	860	20
C6	7	970	18
C7	9	1,240	23
C8	11	1,560	23
C9	13	1,900	28

FOUNDATION & REINFORCING DATA

STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
C1	2'-0"	12'-0"	12	A801	6	12"
C2	2'-6"	13'-0"	13	A801	10	17"
C3	2'-6"	17'-0"	17	A801	10	17"
C4	3'-0"	18'-0"	18	A801	14	22"
C5	3'-0"	20'-0"	20	A801	14	22"
C6	3'-6"	18'-0"	18	A901	14	28"
C7	3'-6"	23'-0"	23	A901	14	28"
C8	4'-0"	23'-0"	23	A1001	14	34"
C9	4'-0"	28'-0"	28	A1001	14	34"

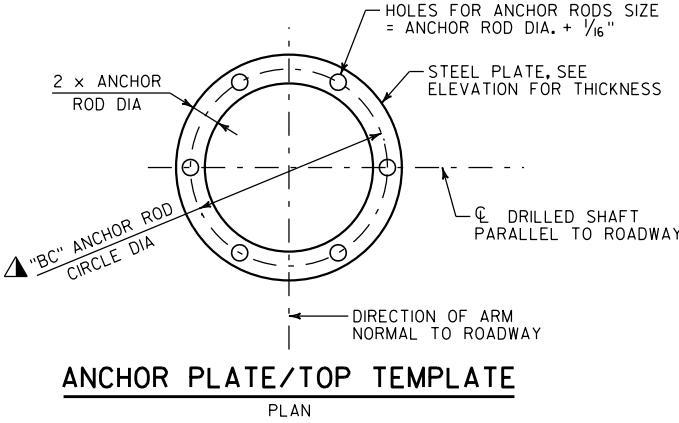


ELEVATION

PLAN

ANCHOR ROD ASSEMBLY DETAILS

▲ EXACT NUMBER, DIAMETER, LENGTH & ORIENTATION
AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIDGILY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

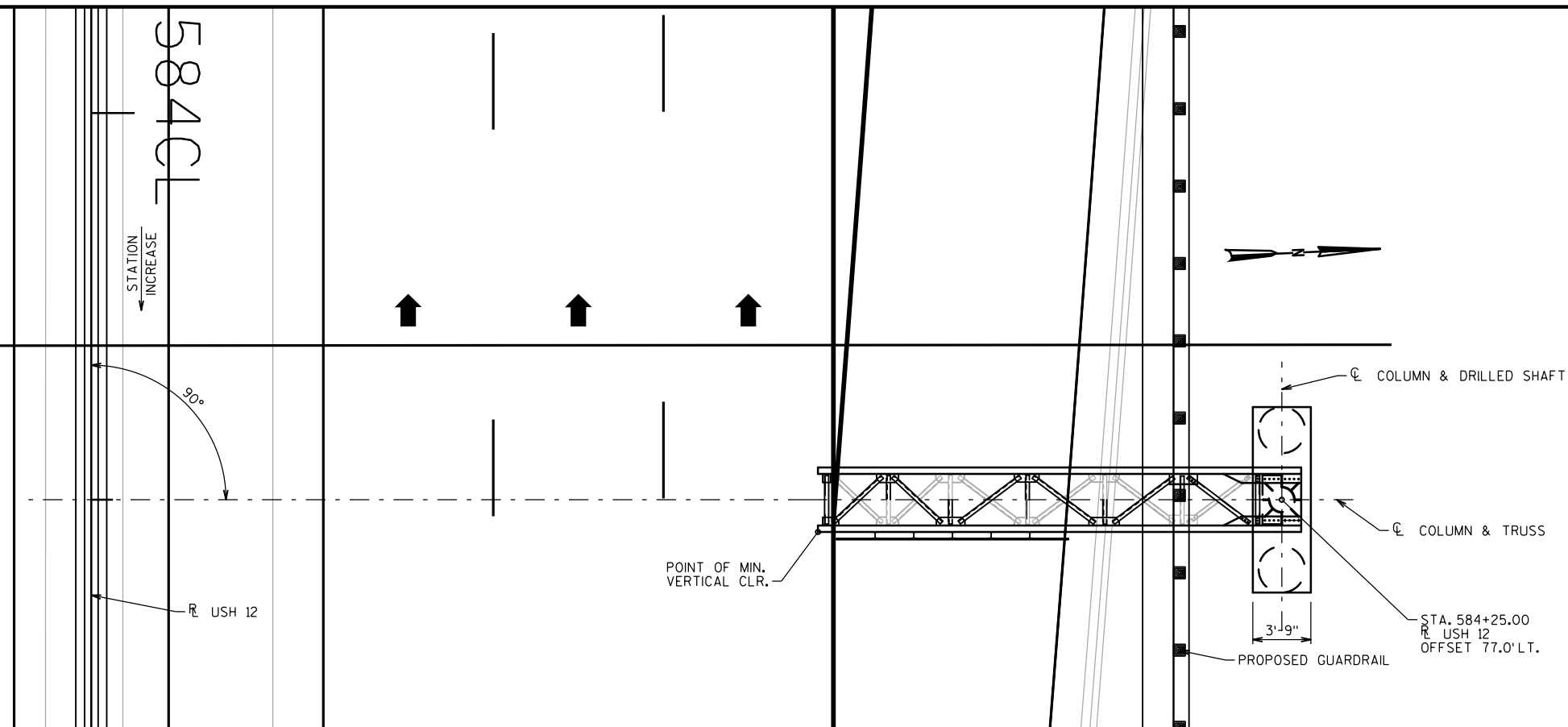
● FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS MONOTUBE & 2-CHORD TRUSS STANDARD FOUNDATIONS			SHEET 1 OF 1

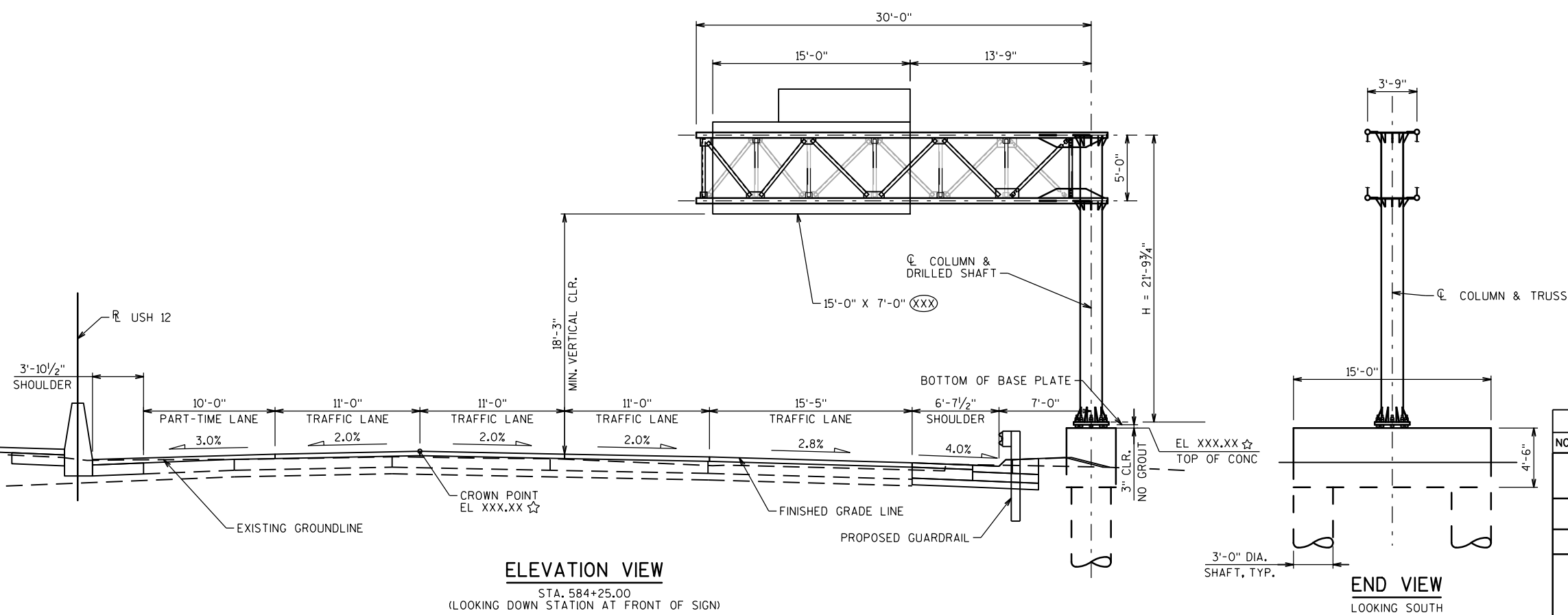
SCALE: 3/323333:1

☆ ELEVATIONS GIVEN ALONG C TRUSS
 (XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

POINT OF MIN VERTICAL CLEARANCE
STA XXX+XX.XX, XX.XX' RT.
EL XXX.XX



PLAN VIEW



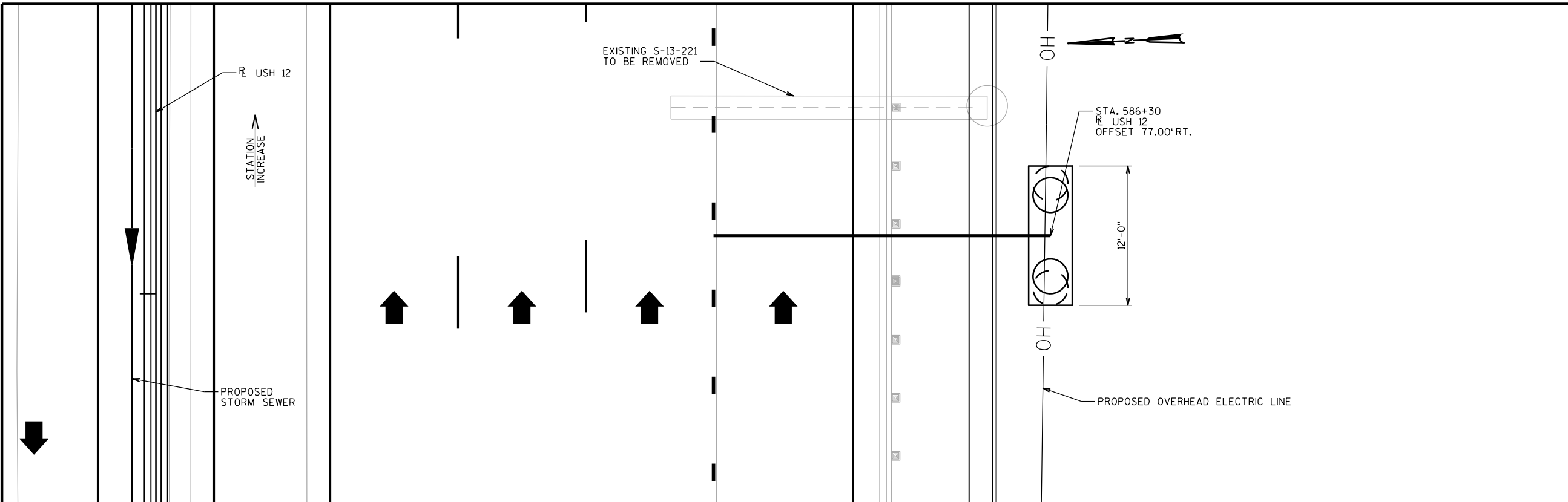
ELEVATION VIEW

STA. 584+25.00
(LOOKING DOWN STATION AT FRONT OF SIGN)

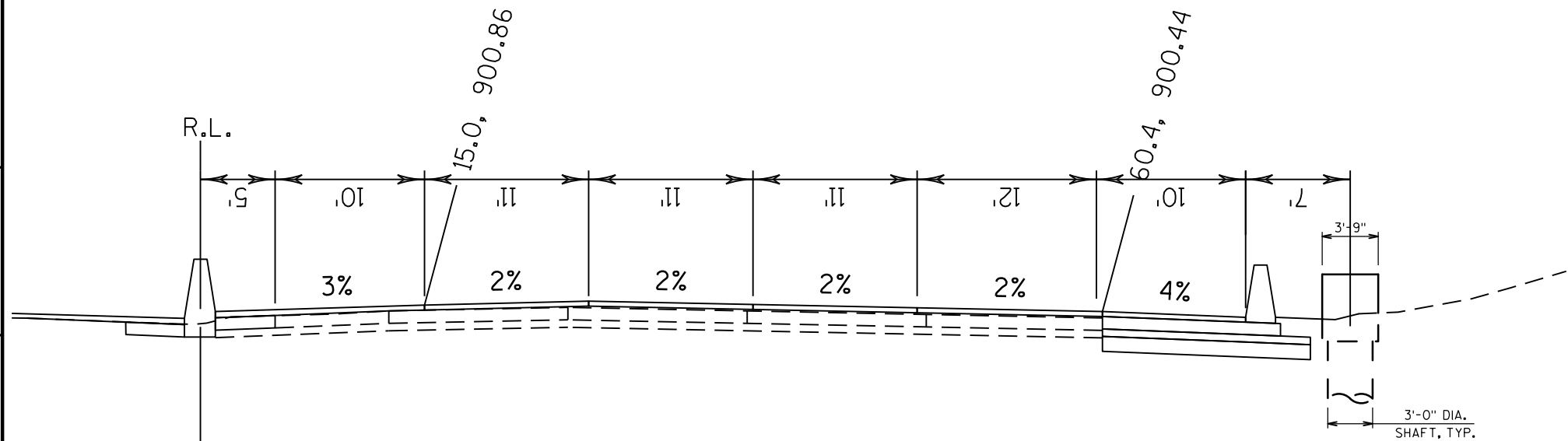
END VIEW
LOOKING SOUTH

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-542			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-542		SHEET 2 OF 1	



PLAN



ELEVATION

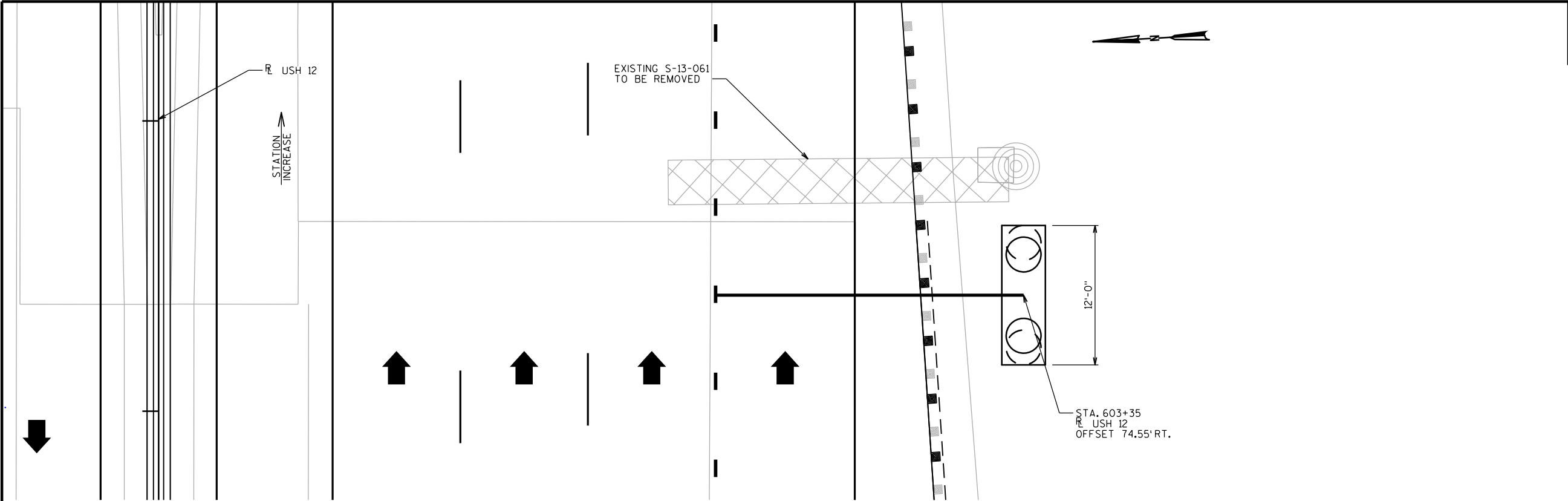
STATE PROJECT NUMBER
1206-06-79

1078 PLANS

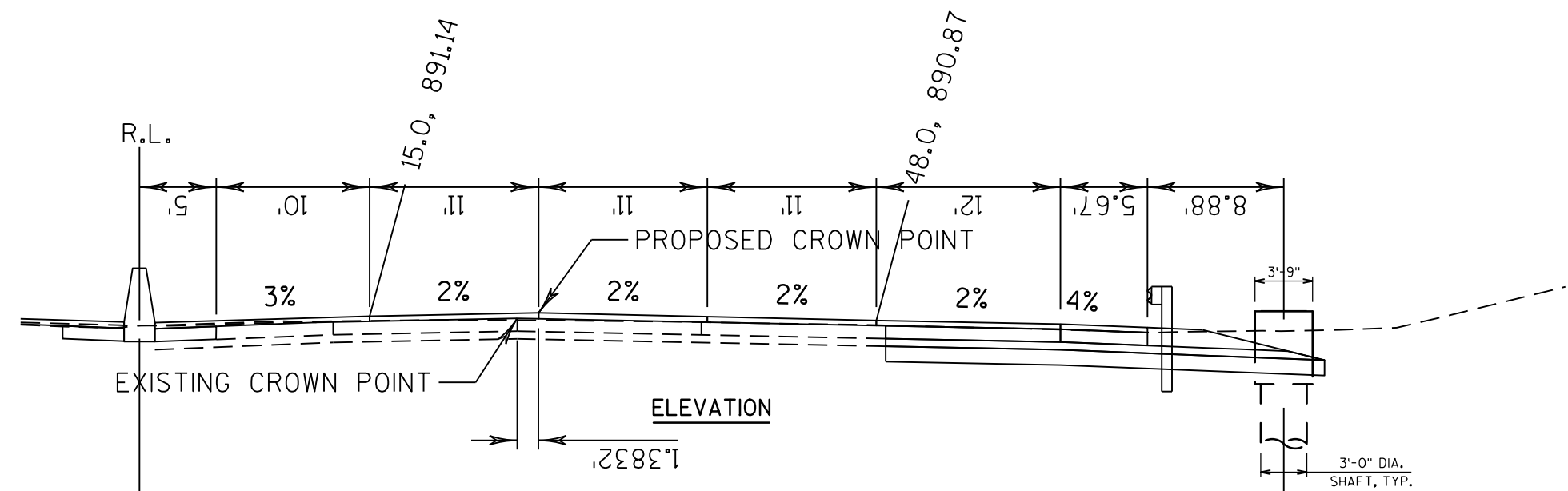
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-543			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-543			SHEET 3 OF 13



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-544			
DRAWN BY		PLANS C'D.	
GENERAL LAYOUT S-13-544		SHEET 4 OF 1	

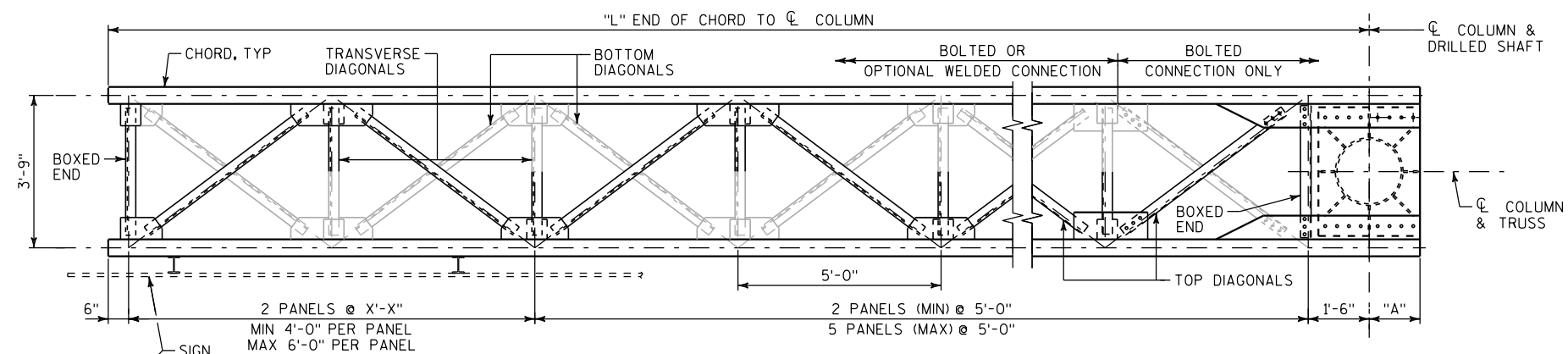


STATE PROJECT NUMBER
1206-06-79

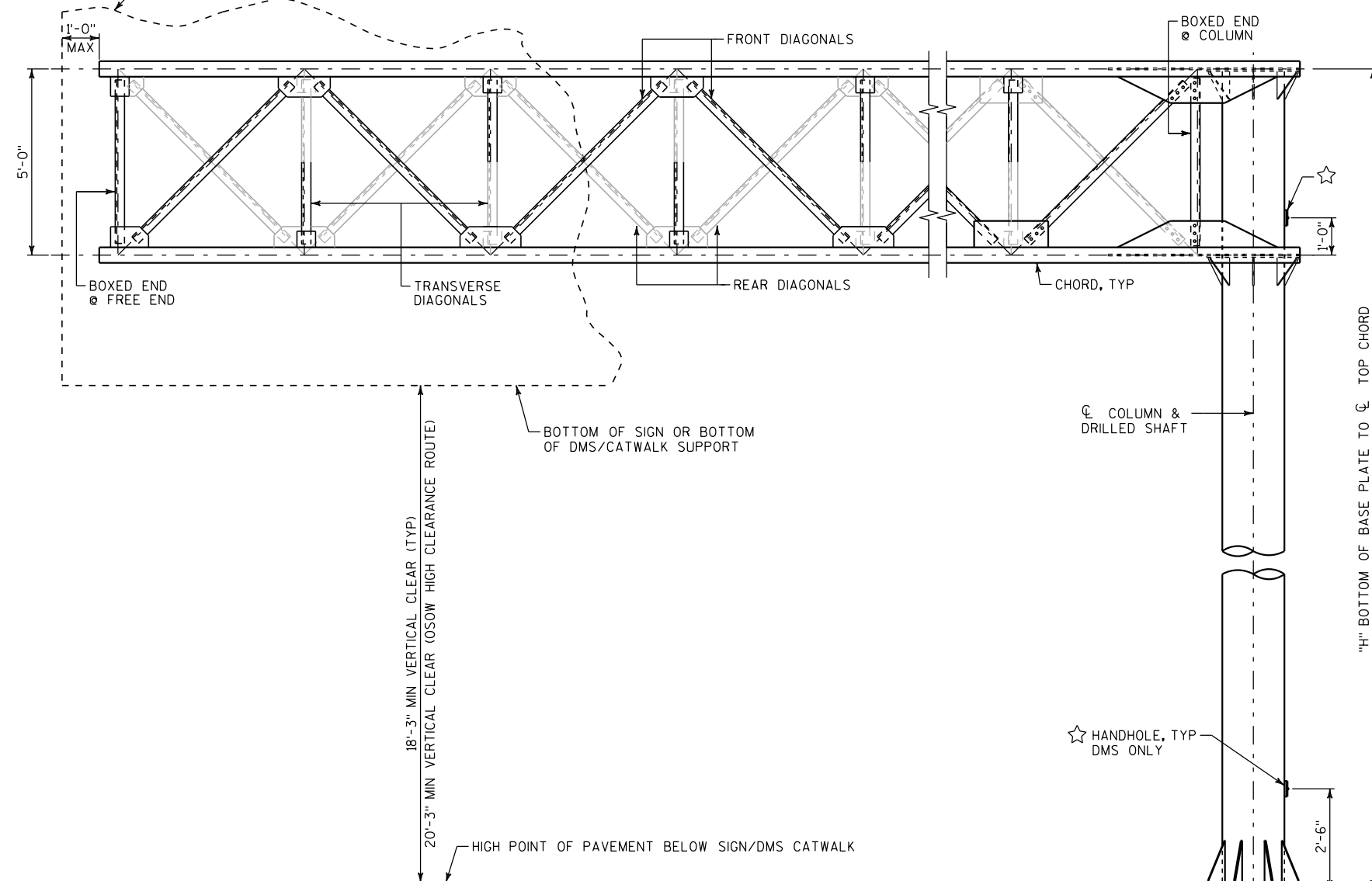


1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-545			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-545			SHEET 5 OF 13



PLAN

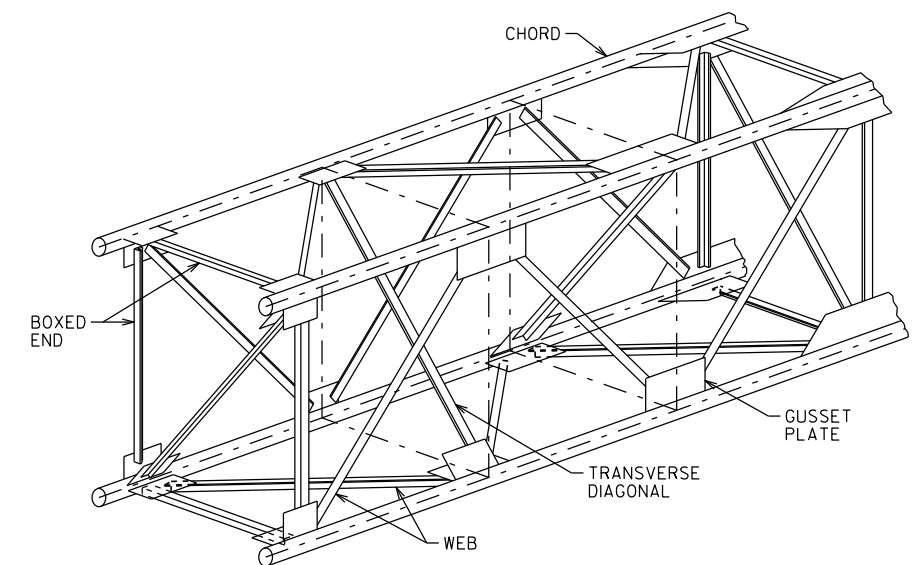


ELEVATION

ELEVATION
LOOKING AT F.F. OF TRUSS

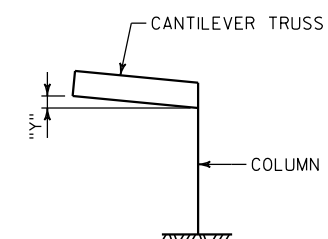
CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN. AREA (FT ²)	DMS AREA (FT ²)	MAXIMUM SPAN "L"	MAXIMUM COL. HEIGHT "H"	DIM "A"	COLUMN OUTER DIA. X THK	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
1	264	114	30'-0"	30'-0"	1'-3"	20.00" x 0.500"	5.000" x 0.375"	L3x3x ¹ / ₄	L3x3x ¹ / ₄	L3x3x ¹ / ₄
2	240	114	38'-0"	30'-0"	1'-5"	24.00" x 0.500"	5.563" x 0.375"	L3x3x ⁵ / ₁₆	L3x3x ¹ / ₄	L3x3x ¹ / ₄



TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO
BE MAINTAINED WHEN ASSEMBLING TRUSSES.



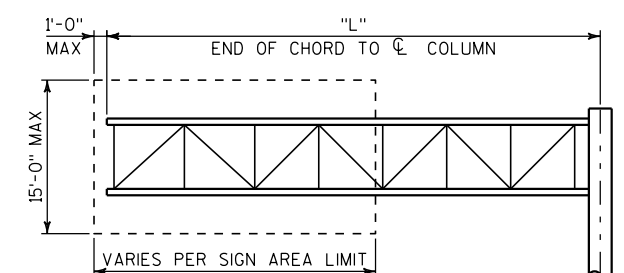
CAMBER DIAGRAM

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS AS SHOWN. DO NOT RAKE VERTICAL COLUMN BY ADJUSTMENT OF LEVELING NUTS.

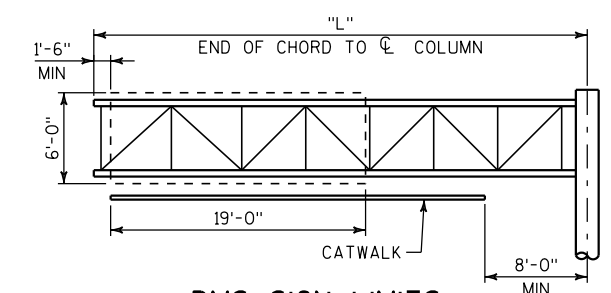
CAMBER VALUES

DIM		"Y" (IN)			
"H" \ "L"	30'		38'		
	TYPE	DMS	TYPE	DMS	
22'	2 1/4"	3 1/2"	2 5/8"	4 1/4"	
24'	2 3/8"	3 3/8"	2 7/8"	4 1/2"	
26'	2 1/2"	4 1/8"	3 3/8"	4 7/8"	
28'	2 3/4"	4 1/2"	3 3/4"	5 1/4"	
30'	2 7/8"	4 3/4"	3 1/2"	5 1/2"	

INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.



TYPE 1 SIGN LIMITS

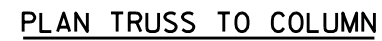


DMS SIGN LIMITS

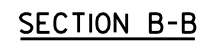
2,500 LB MAX DMS WEIGHT, INCLUDES
DMS VERTICAL SUPPORT MEMBERS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER		SHEET I OF VIII	

SCALE: 4:1



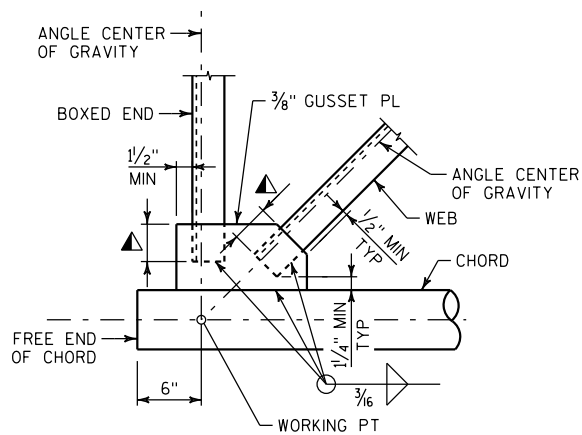
STANDARD DESIGN TYPE	"A"	"B"	"C"
1	1'-3"	2'-6"	3 SPA @ 3/2"
2	1'-4 1/2"	2'-9"	4 SPA @ 3"



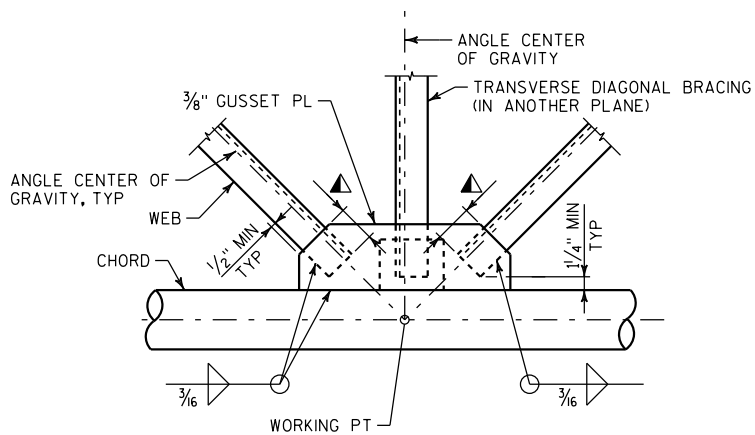
(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)



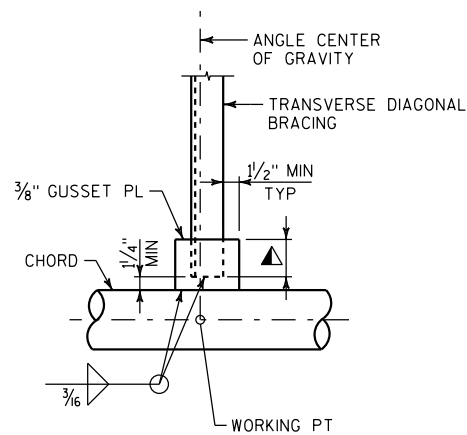
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER DETAILS (1 OF 3)		SHEET II OF VIII	



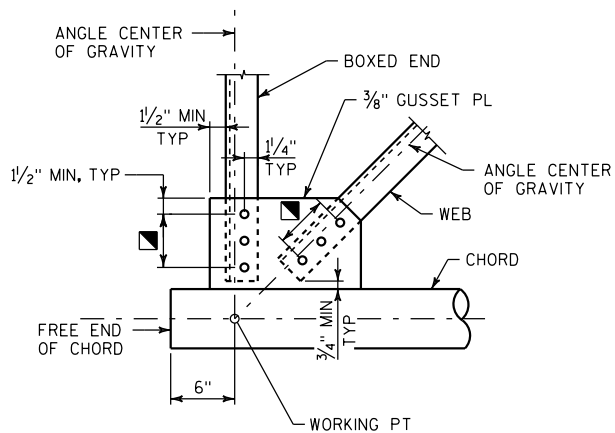
WELDED BOXED END CONNECTION



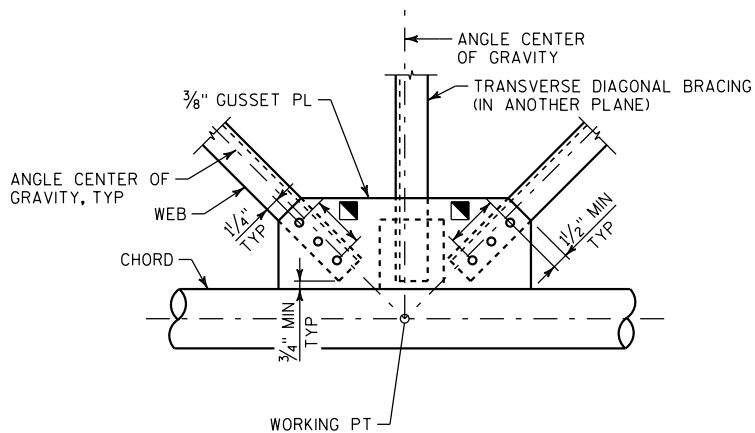
WELDED PANEL CONNECTION



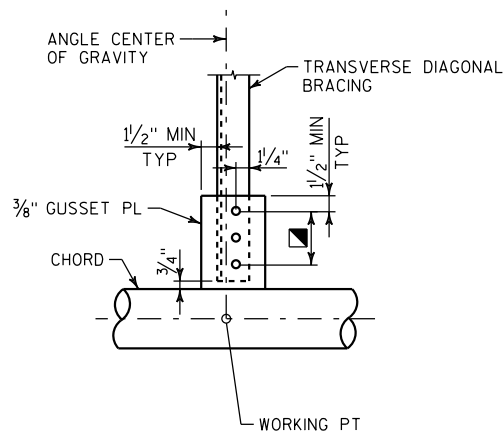
WELDED INTERIOR DIAGONAL CONNECTION



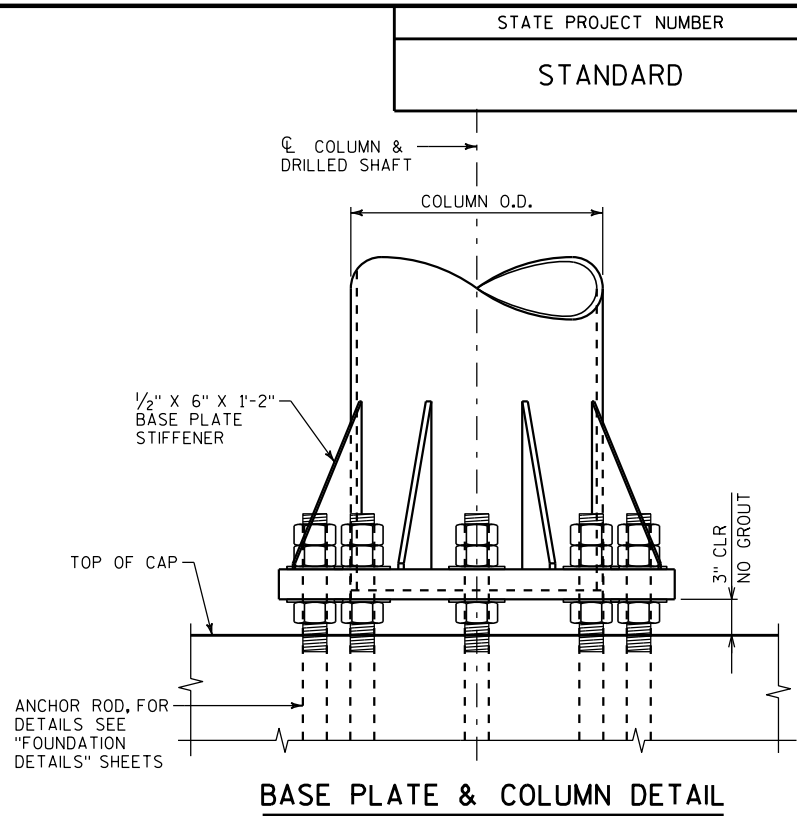
BOLTED BOXED END CONNECTION



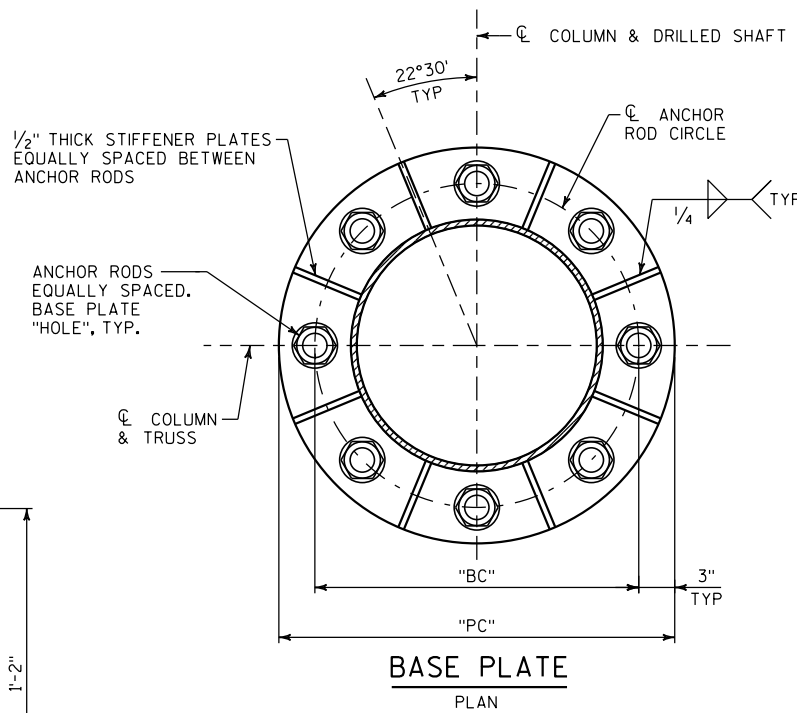
BOLTED PANEL CONNECTION



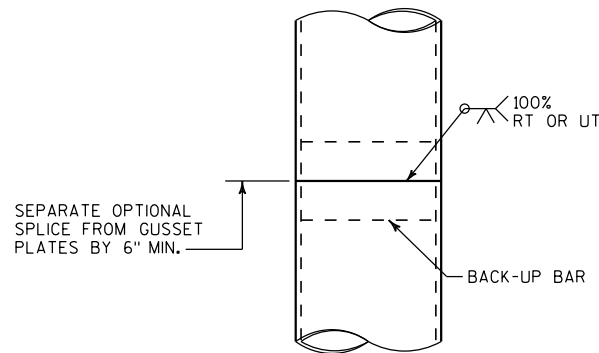
BOLTED INTERIOR DIAGONAL CONNECTION



BASE PLATE & COLUMN DETAIL



BASE PLATE PLAN



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

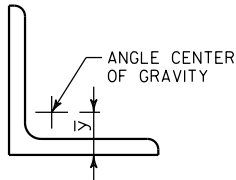
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG LENGTH	NO. OF BOLTS
1	3" MIN	3
2	3" MIN	3

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2 1/2"

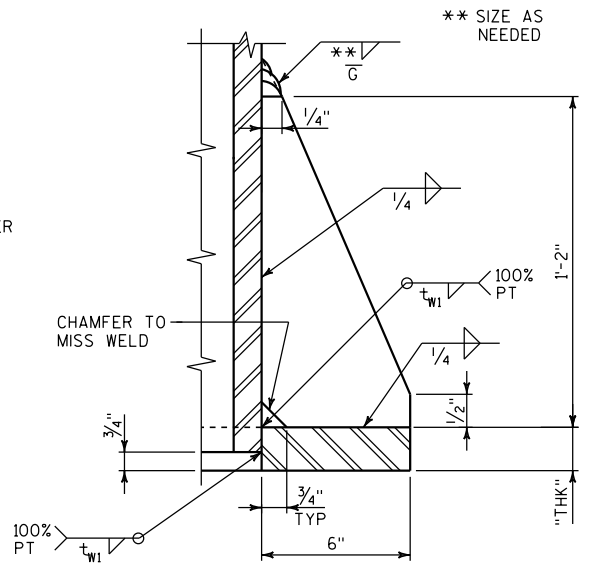
ANGLE DATA

ANGLE SIZE	$\bar{y}$
L3x3x1/4	0.836"
L3x3x5/16	0.860"



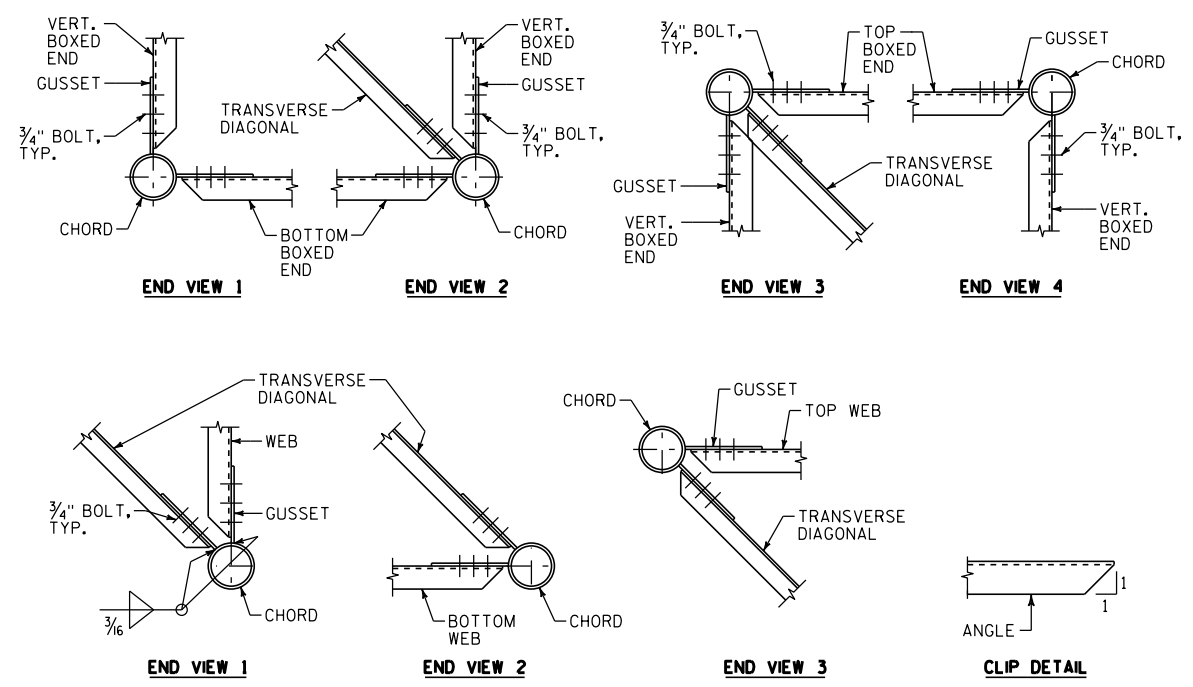
CANTILEVER 4-CHORD COLUMN DATA TABLE

STANDARD DESIGN TYPE	COLUMN OUTER DIA x THK	BASE PLATE				
		"t _{w1} "	"HOLE"	"THK"	"BC"	"PC"
1	20.00" x 0.500"	5/16"	2 1/4"	2"	2'-2"	2'-8"
2	24.00" x 0.500"	5/16"	2 1/4"	2 1/2"	2'-6"	3'-0"



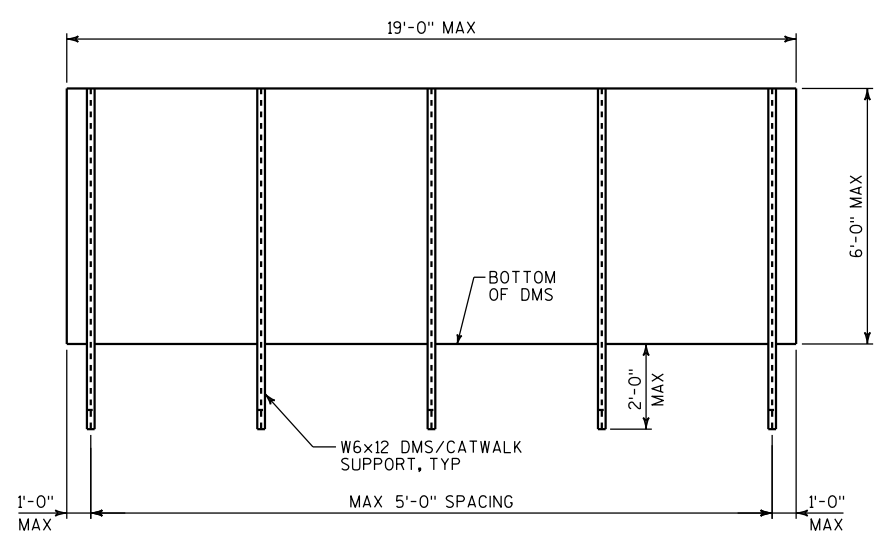
BASE PLATE STIFFENER DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER DETAILS (2 OF 3)		SHEET III OF VIII	



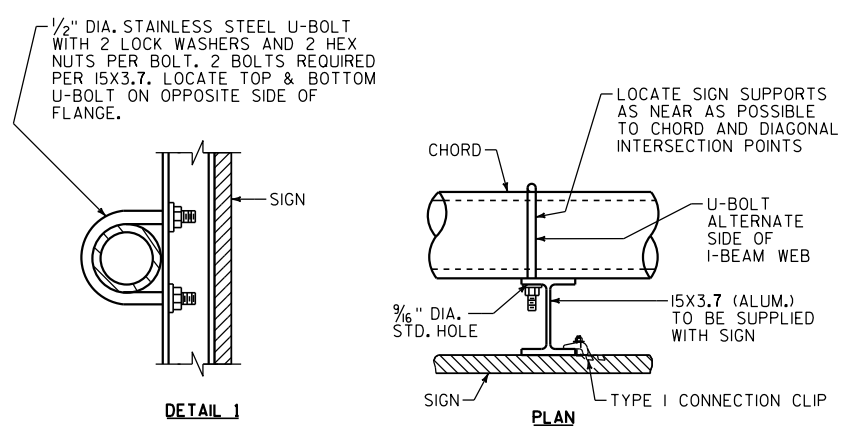
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR



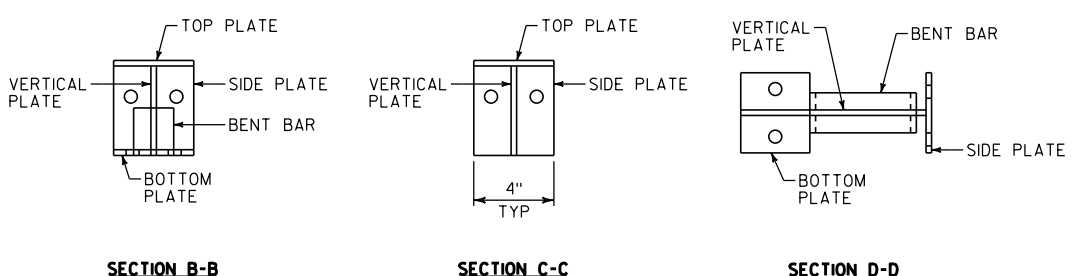
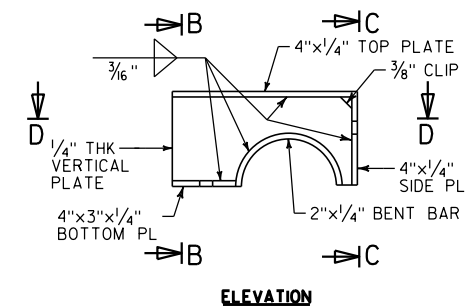
DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



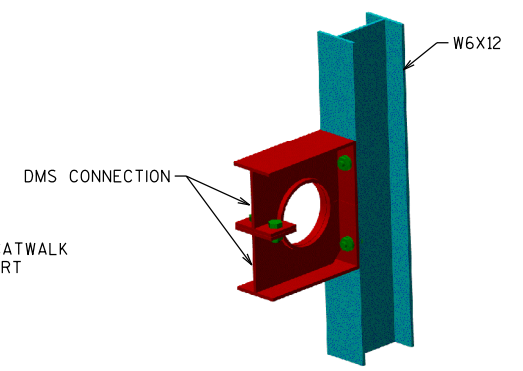
TYPICAL SIGN CONNECTION

USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS



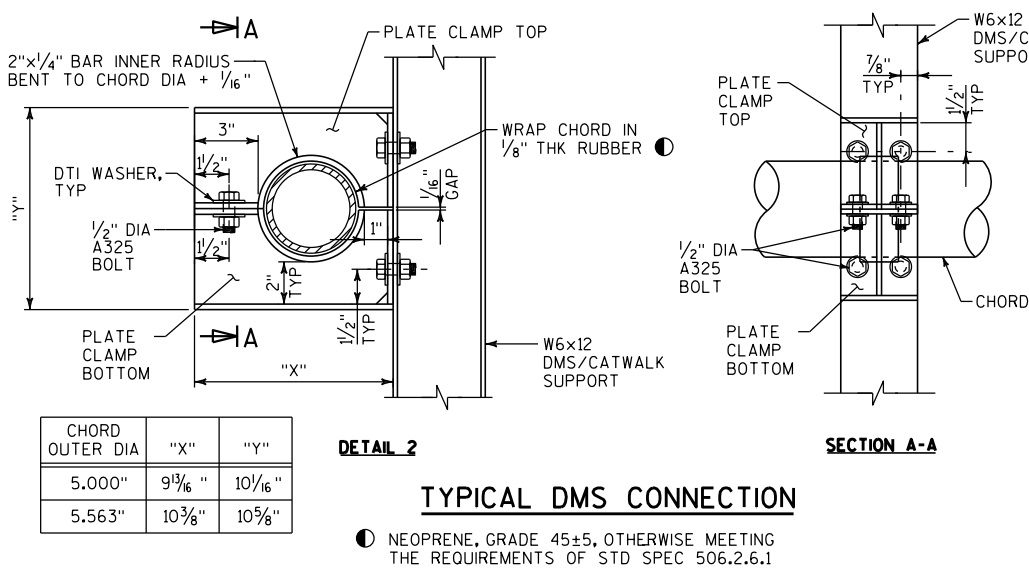
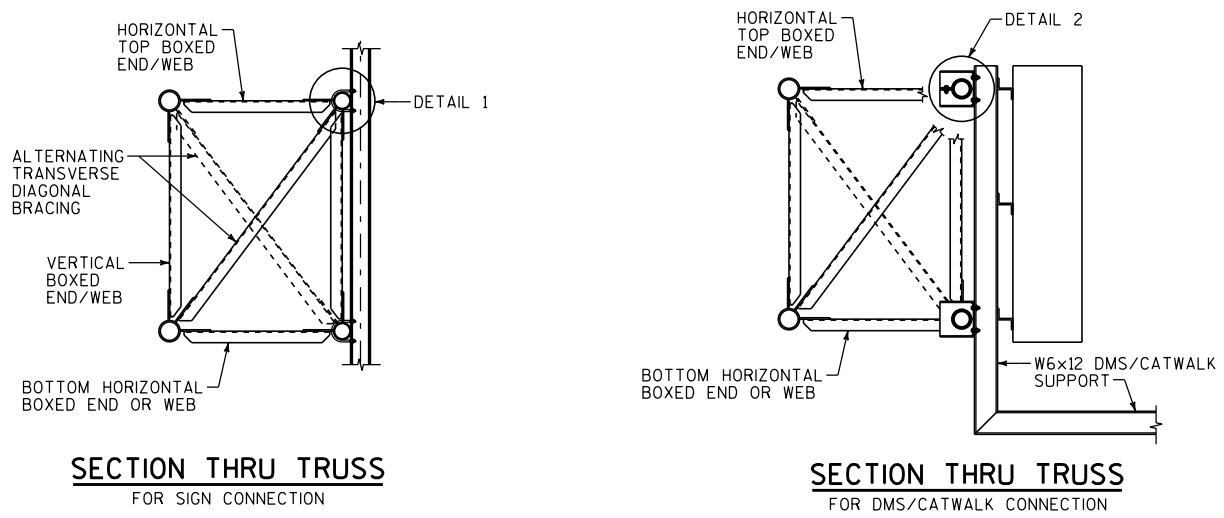
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

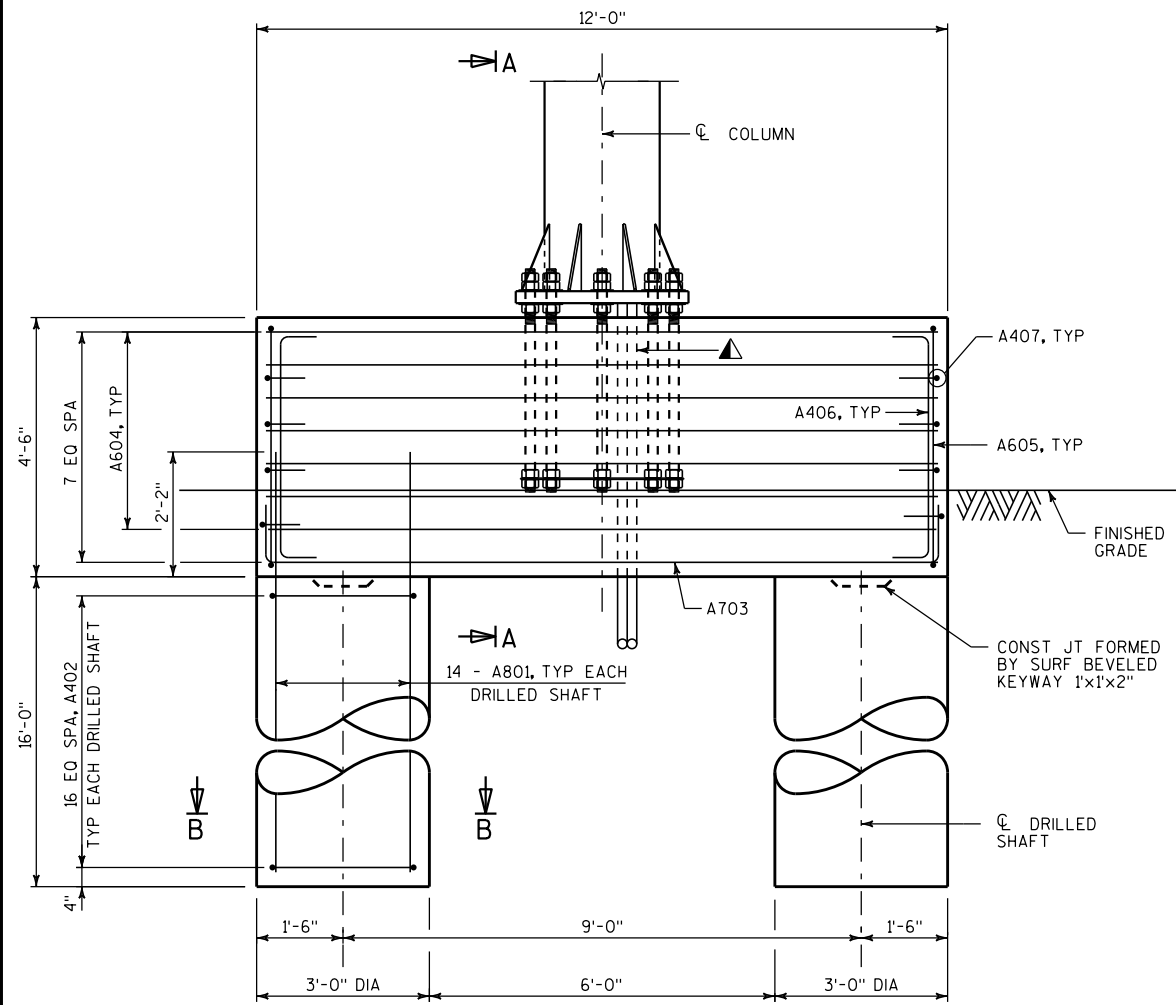


TYPICAL DMS CONNECTION

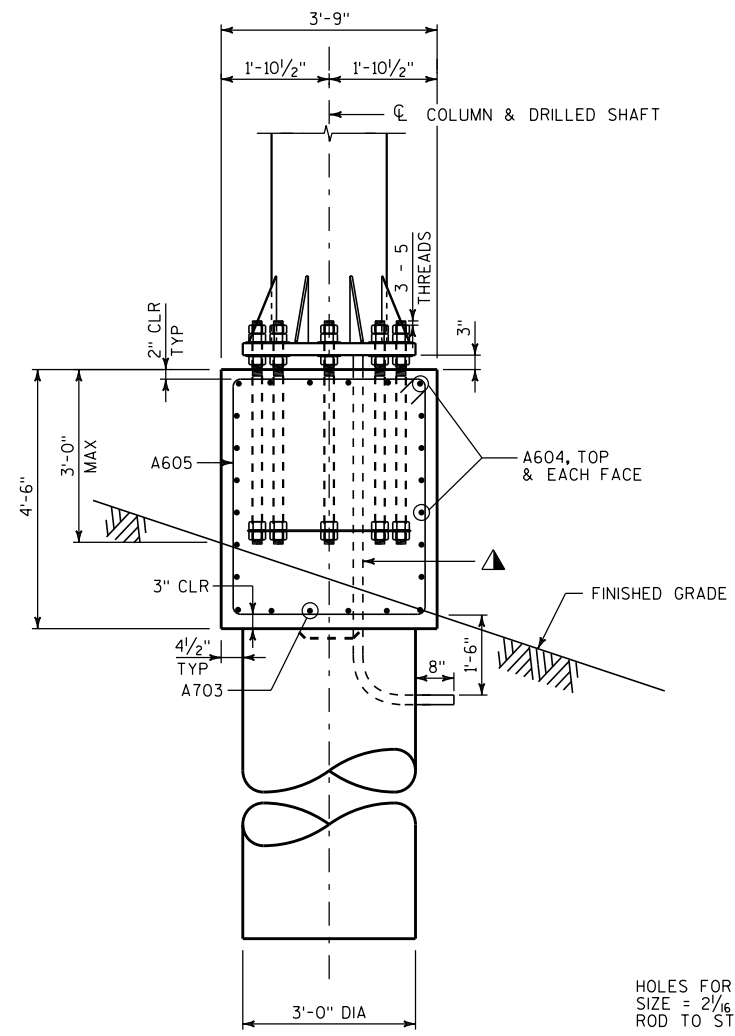
NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1

CHORD OUTER DIA	"X"	"Y"
5.000"	9 3/16"	10 1/16"
5.563"	10 3/8"	10 5/8"

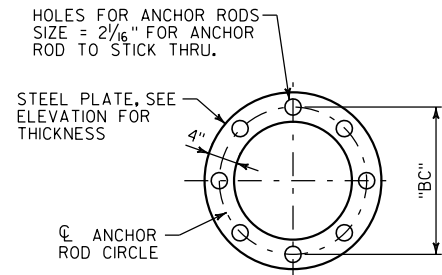
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER DETAILS (3 OF 3)		SHEET IV OF VIII	



ELEVATION

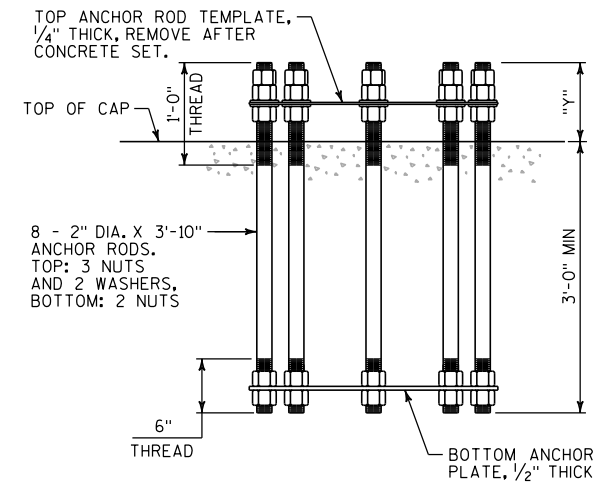
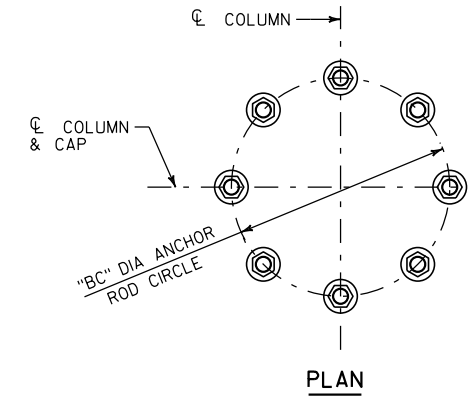


SECTION A-A



ANCHOR PLATE/TOP TEMPLATE

PLAN



ELEVATION

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
8 ANCHOR RODS REQ'D PER ASSEMBLY

ANCHOR PLATE DATA

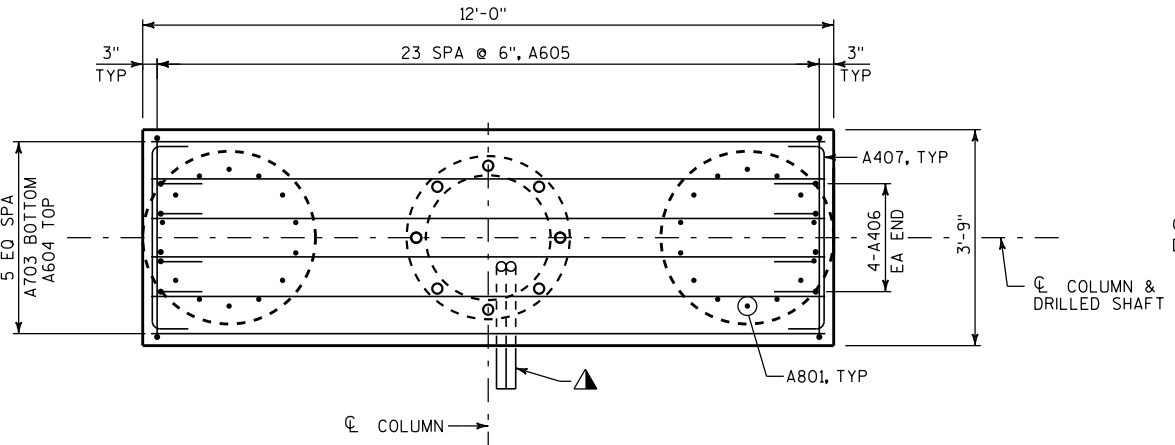
STD DESIGN TRUSS	DIMENSIONS	
	"BC"	"Y"
1	2'-2"	10"
2	2'-6"	10 1/2"

NOTES

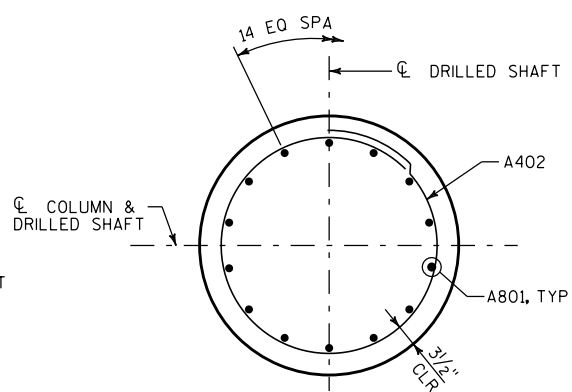
CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

LEGEND

▲ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE BID ITEM "ANCILLARY STRUCTURES CONCRETE MASONRY".



PLAN



SECTION B-B

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER FOUNDATION DETAILS (1 OF 2)		SHEET V OF VIII	

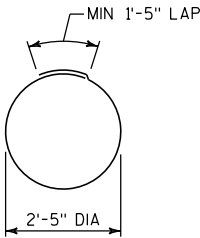
NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS - STANDARD DESIGN TRUSS 1 OR 2

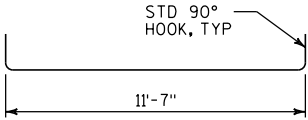
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A801		28	18'-2"		DRILLED FOOTING - VERTICAL
A402		34	9'-0"	X	DRILLED FOOTING - HORIZONTAL
A703	X	6	13'-7"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X	FOOTING - STIRRUP
A406	X	8	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	8	3'-11"	X	FOOTING - HORIZONTAL - EACH END

ESTIMATED QUANTITIES - FOUNDATION

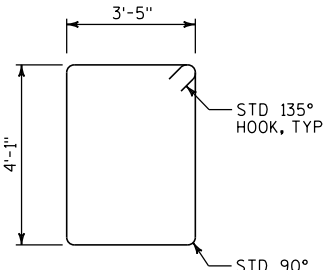
STANDARD DESIGN TRUSS	ANCILLARY STRUCTURES CONCRETE MASONRY (CY)	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS (LBS)	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 2-INCH (EACH)	FOUNDATION DRILLING (LF)
1, 2	16	1,570	1,110	1	32



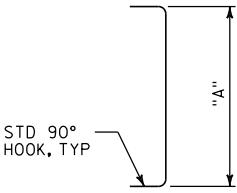
A402



A703



A605



A406, A407

BAR MARK	"A"
A406	3'-11 1/2"
A407	3'-3 1/2"

BAR BENDING DIAGRAMS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
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OSS 4-CHORD TRUSS CANTILEVER FOUNDATION DETAILS (2 OF 2)		SHEET VI OF VIII	

W6x12 DMS/CATWALK SUPPORT, HORIZONTAL SPACING = 5'-0" MAX WHEN SUPPORTING DMS, HORIZONTAL SPACING = 8'-0" MAX OTHERWISE

DYNAMIC MESSAGE SIGN, CENTER VERTICALLY ON 4-CHORD TRUSS

DMS/CATWALK CONNECTION, FOR DETAILS SEE SHEET IV

1'-6" MAX DMS WIDTH

5'-8" ALUM RAILING

SAFETY CHAIN

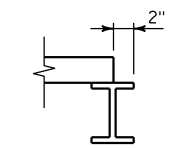
BACK RAIL 1 3/4" O.D. X 3/16" ALUM RAILING MIN WITH 3/8" DIA U-BOLT, WASHERS, & LOCKNUTS (STAINLESS STEEL). PLACE BACK RAILS AT THE SAME HEIGHT AS RAILS ON FRONT RAILING AND RUN FROM START OF CATWALK TO EDGE OF DMS.

VERTICAL CLEARANCE MEASURED TO THE BOTTOM OF CATWALK

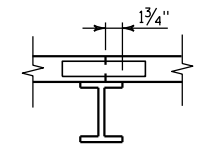
SEE DETAIL 1 ON THIS SHEET

GALV STEEL CATWALK CRATING WITH ANTI-SKID SURFACE AND TOE & HEEL SIDE PLATES

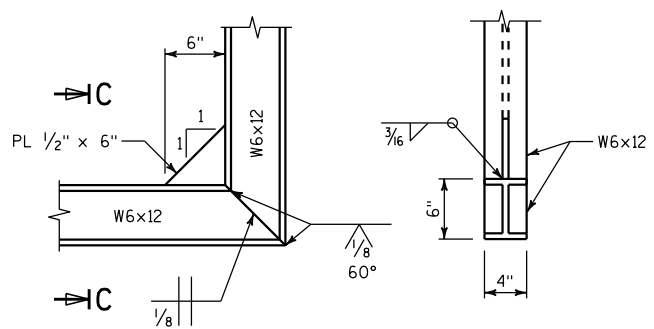
SECTION THRU WALKWAY



CATWALK TERMINATION DETAIL

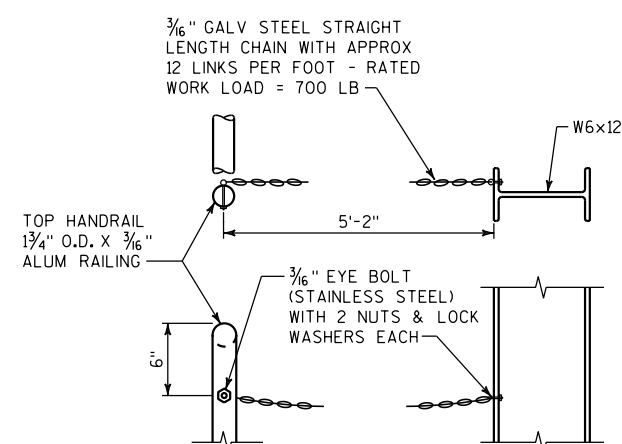


CATWALK SPLICE LOCATION DETAIL



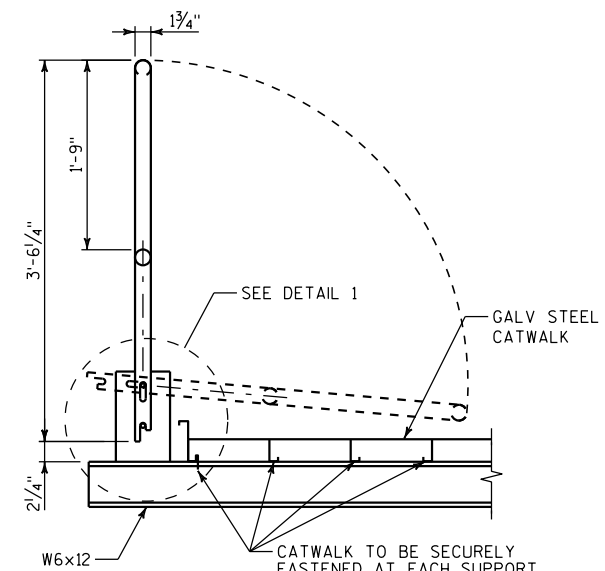
BRACKET DETAIL

SECTION C-C

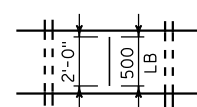


SAFETY CHAIN DETAIL

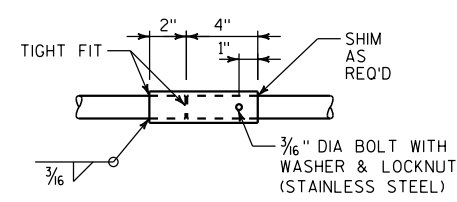
(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)



RAIL POST DETAIL

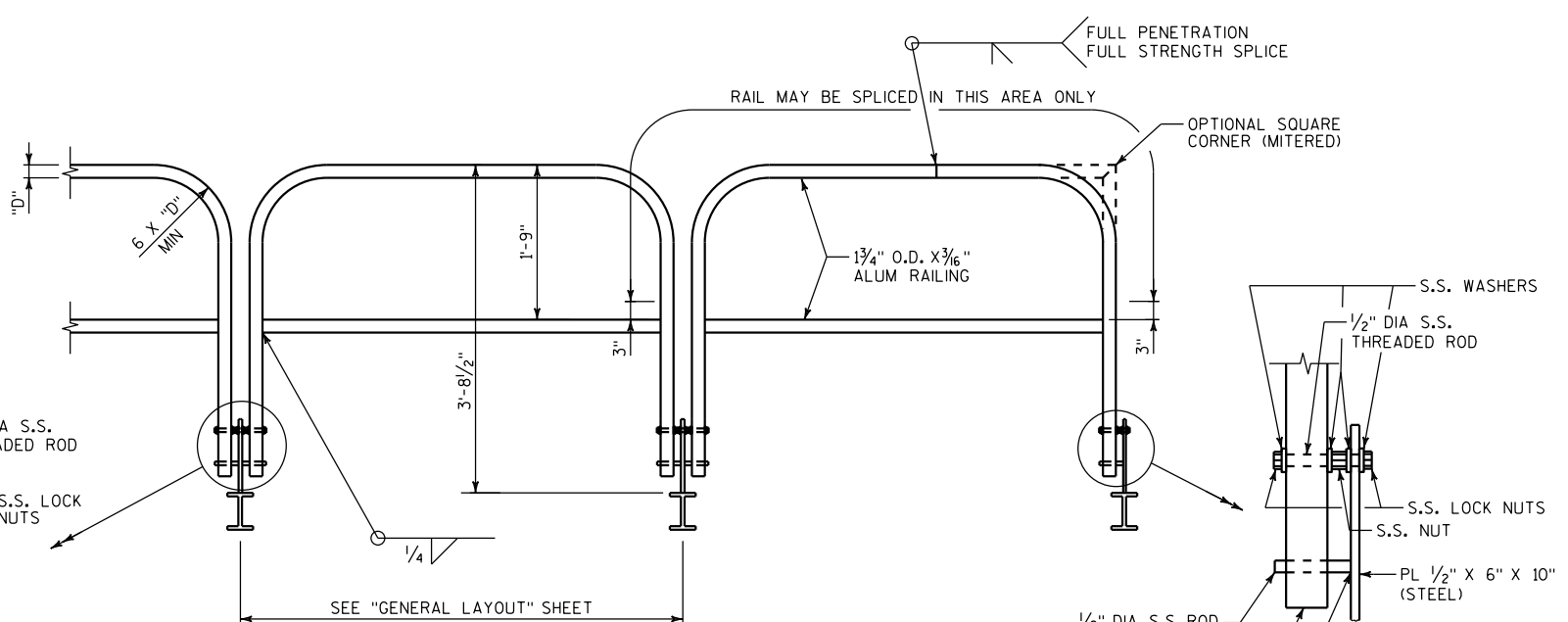


NOTE: CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

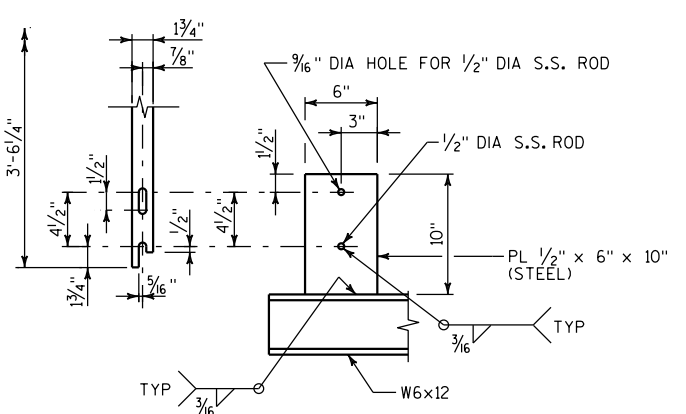


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



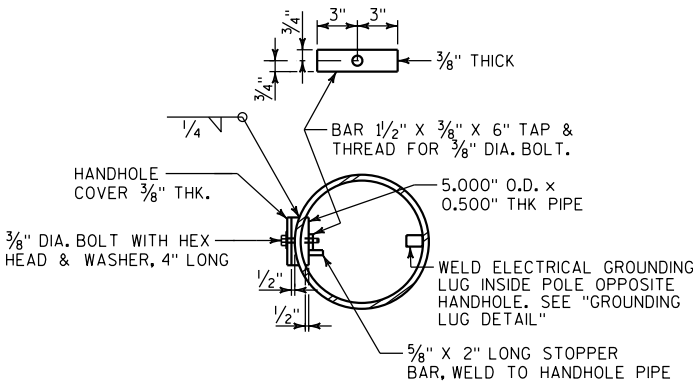
TYPICAL FRONT RAILING DETAILS



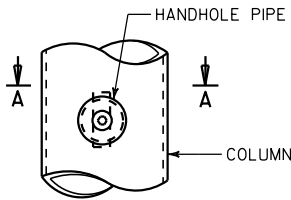
DETAIL 1

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER CATWALK DETAILS			SHEET VII OF VIII

SCALE: 10:1



SECTION A-A

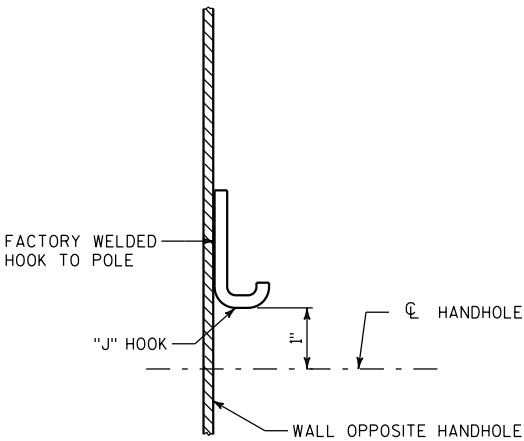


HANDHOLE DETAILS

HANDHOLE NOTES

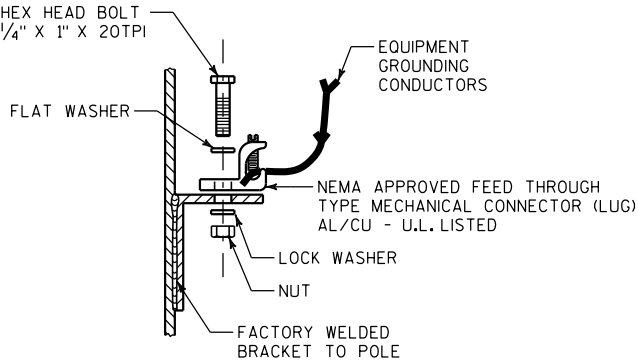
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.



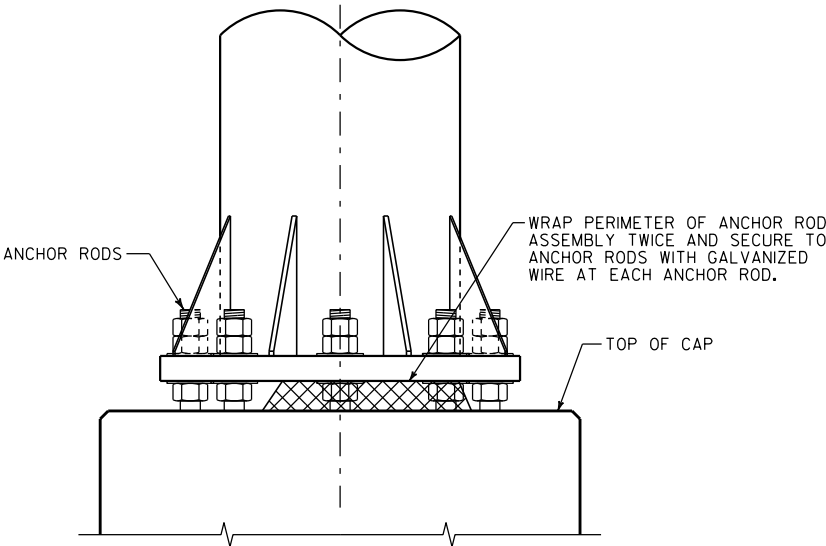
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS CANTILEVER ELECTRICAL DETAILS		SHEET VIII OF VIII	

SCALE: 4:1

TOTAL ESTIMATED QUANTITES

BID ITEM NO.	BID ITEMS	UNIT	S-13-546	S-13-547	S-13-548	S-13-5XX	S-13-549	S-13-550	S-13-5XX	S-13-551	S-13-552	S-13-553
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--	--	--	--	--	--
531.00XX	FOUNDATION DRILLING 36-INCH	LF	--	--	--	--	--	--	--	--	--	--
531.1000	ANCILLARY STRUCTURES CONCRETE MASONRY	CY	--	--	--	--	--	--	--	--	--	--
531.2400	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS	LB	--	--	--	--	--	--	--	--	--	--
531.2600	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED	LB	--	--	--	--	--	--	--	--	--	--
531.6030	ANCHOR ASSEMBLIES 1½-INCH	EA	--	--	--	--	--	--	--	--	--	--
531.6040	ANCHOR ASSEMBLIES 1¾-INCH	EA	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-546	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-547	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-548	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-5XX	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-549	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-550	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-5XX	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-551	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-552	LF	--	--	--	--	--	--	--	--	--	--
532.0400.XXX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-553	LF	--	--	--	--	--	--	--	--	--	--
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	--	--	--	--	--	--	--	--	--	--
653.XXXX	JUNCTION BOXES (SIZE)	EA	--	--	--	--	--	--	--	--	--	--

DESIGN DATA

SIGN STR	ACTUAL SIGN AREA		ACTUAL SIGN HEIGHT		FND TYPE
	TYPE 1	DMS	TYPE 1	DMS	
S-13-546	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-547	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-548	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-5XX	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-549	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-550	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-XXX	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-551	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-552	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-553	XXX SF	XXX SF	X'-X"	X'-X"	--
DESIGN SIGN	XXX SF	XXX SF	X'-X"	X'-X"	

ALL STRUCTURES IN THIS GROUP OF STRUCTURES ARE DESIGNED FOR THE DESIGN SIGN LOADING

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1	1.0	0.0
LOAD CASE 2	0.0	1.0
LOAD CASE 3	0.75	0.75

LOAD COMBINATIONS
STRENGTH I: 1.25 DC + 1.6 LL
EXTREME I (MAX DC): 1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC): 0.9 DC + 1.0 W
SERVICE I: 1.0 DC + 1.0 W
FATIGUE I: 1.0 NWG (NATURAL WIND GUST VIBRATION)
1.0 TrG (TRUCK INDUCED GUST VIBRATION)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),DANE COUNTY ZONE,NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-XXX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

IF REQUIRED, CATWALKS SHALL BE INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN S-13-XXX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S.BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS,IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE BRIDGE SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "FOUNDATION DRILLING".

TRAFFIC VOLUME

A.D.T. (2036) = 139,650-164,190
R.D.S. = 60 MPH

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE MASONRY-----f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60-----fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36-----fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C-----fy = 46,000 psi

HIGH STRENGTH BOLTS - A325-----fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55-----fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

LIST OF DRAWINGS

- GENERAL NOTES & DESIGN DATA
- GENERAL LAYOUT S-13-546
- GENERAL LAYOUT S-13-547
- GENERAL LAYOUT S-13-548
- GENERAL LAYOUT S-13-5XX
- GENERAL LAYOUT S-13-549
- GENERAL LAYOUT S-13-550
- GENERAL LAYOUT S-13-5XX
- GENERAL LAYOUT S-13-551
- GENERAL LAYOUT S-13-552
- GENERAL LAYOUT S-13-553
- OSS 4 -CHORD TRUSS FULL SPAN FOUNDATION MODIFICATION DETAILS

LIST OF OSS STANDARD DESIGN DRAWINGS

- I. OSS 4-CHORD TRUSS FULL SPAN TRUSS DETAILS
- II. OSS 4-CHORD TRUSS FULL SPAN COLUMN DETAILS
- III. OSS 4-CHORD TRUSS FULL SPAN CONNECTION DETAILS (1 OF 2)
- IV. OSS 4-CHORD TRUSS FULL SPAN CONNECTION DETAILS (2 OF 2)
- V. OSS 4-CHORD TRUSS FULL SPAN FOUNDATION DETAILS (1 OF 2)
- VI. OSS 4 -CHORD TRUSS FULL SPAN FOUNDATION DETAILS (2 OF 2)
- VII. OSS 4-CHORD TRUSS CANTILEVER CATWALK DETAILS
- VIII. OSS 4-CHORD TRUSS CANTILEVER ELECTRICAL DETAILS

THE DESIGNER CERTIFIES THAT THE SIGN STRUCTURE GEOMETRY AND STANDARD FOUNDATION CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER

1206-06-79

1078 PLANS

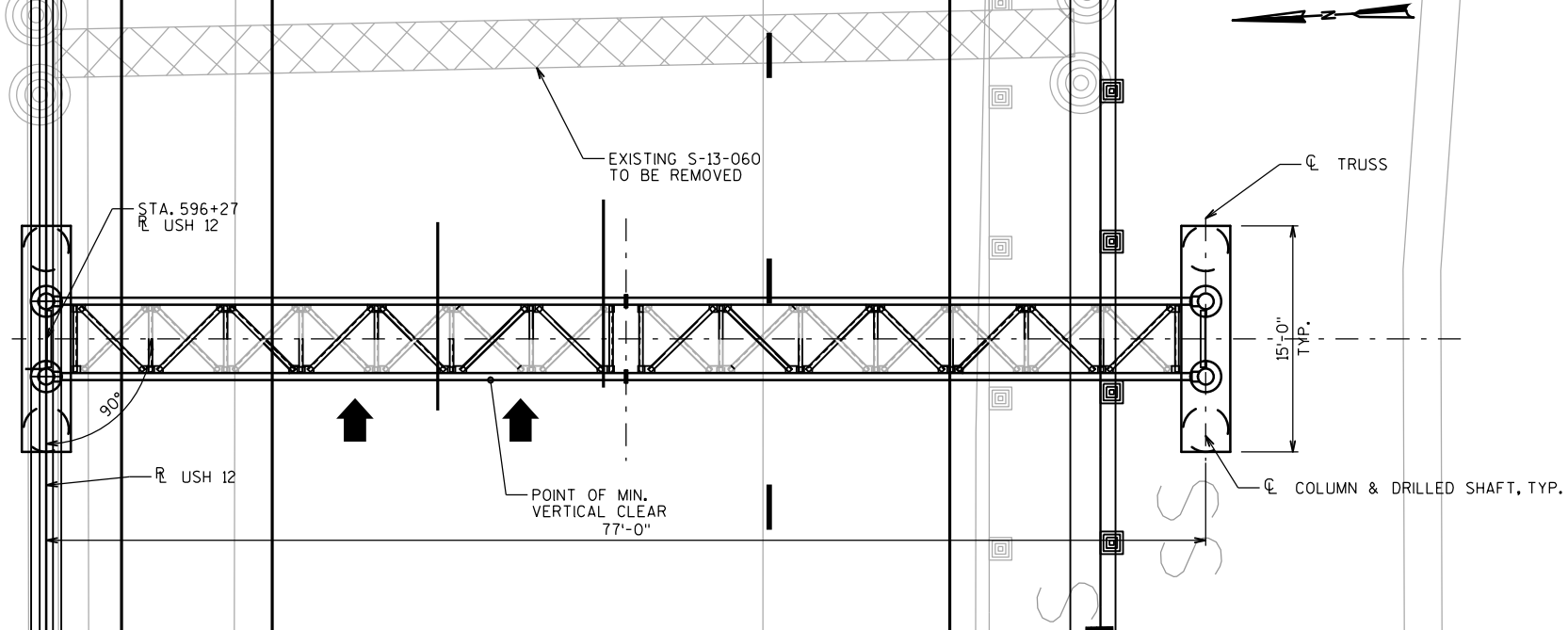
STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
SUPERVISOR:
AARON BONK (608) 261-0261

CONSULTANT:
PAT CASHIN (414) 359-2300

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB (414) 359-2300			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____		DATE _____	
CHIEF STRUCTURES DESIGN ENGINEER			
OSS 4-CHORD TRUSS FULL SPAN PLANS			
FULL SPAN SIGN STRUCTRES USH 12/18 EB&WB			
COUNTY DANE		CITY OR TOWN MADISON	
DESIGN SPEC. AASHTO LRFD LTS-1 W/INTERIMS			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
GENERAL NOTES & DESIGN DATA			SHEET 1 OF 20

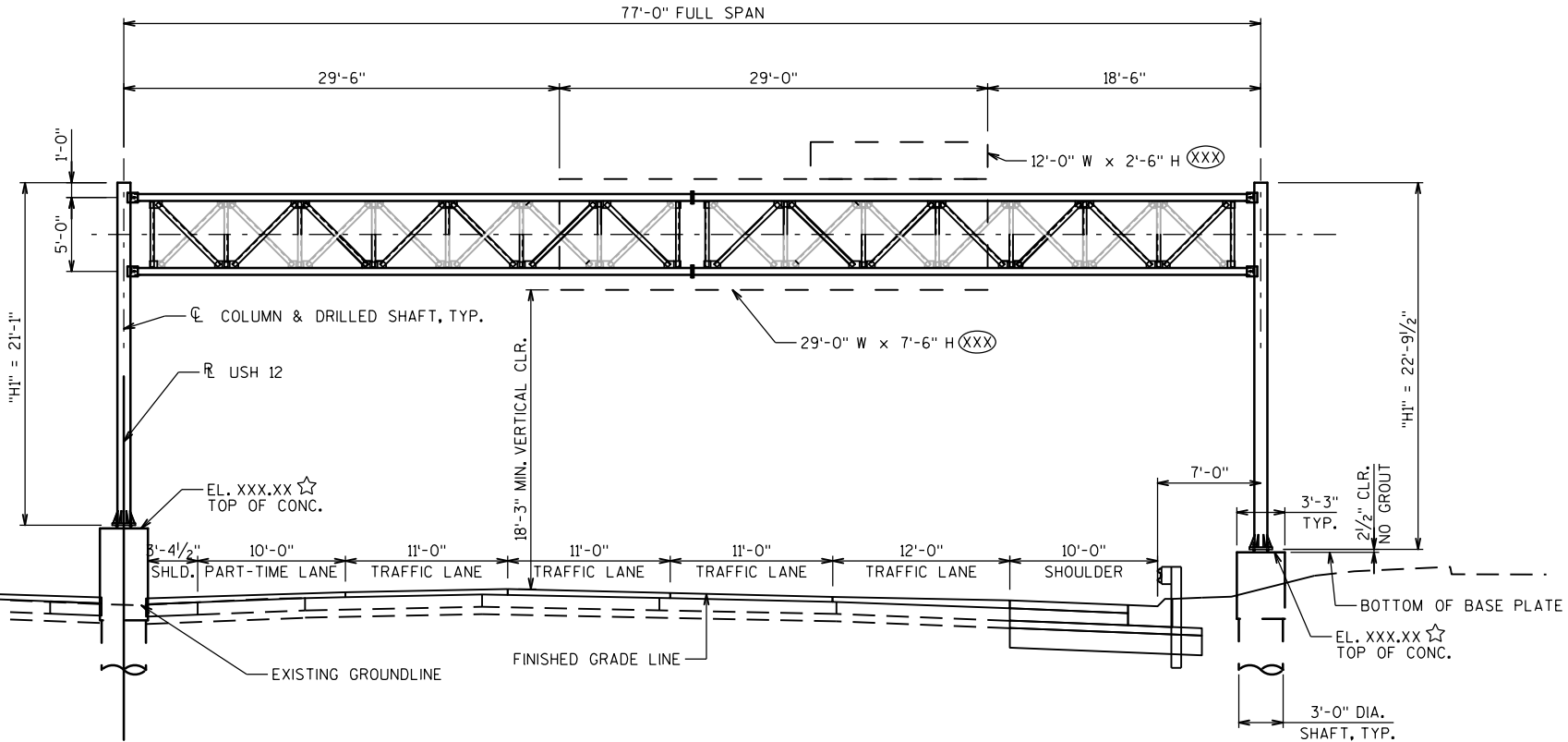
STATION
INCREASE



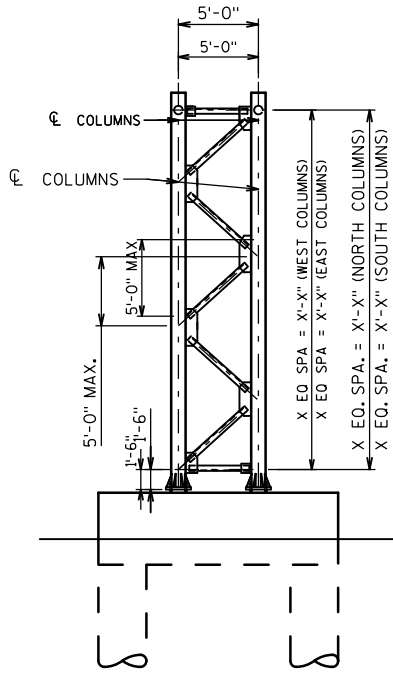
PLAN TITLE
TITLE NOTE
TITLE NOTE

NOTE
POINT OF MIN VERTICAL CLEARANCE
STA 597+27.00, 26.00' RT.
EL XXX.XX

LEGEND
☆ ELEVATIONS GIVEN ALONG CL TRUSS
(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)



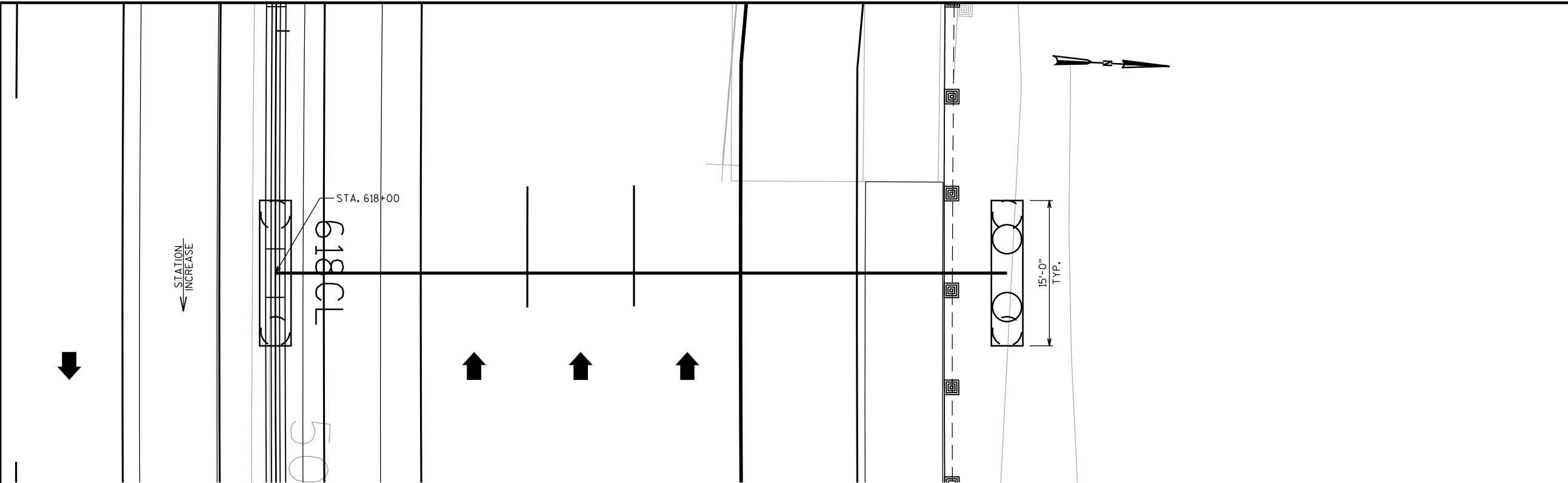
ELEVATION
STA. 596+27
(LOOKING UPSTATION AT FRONT OF SIGN)



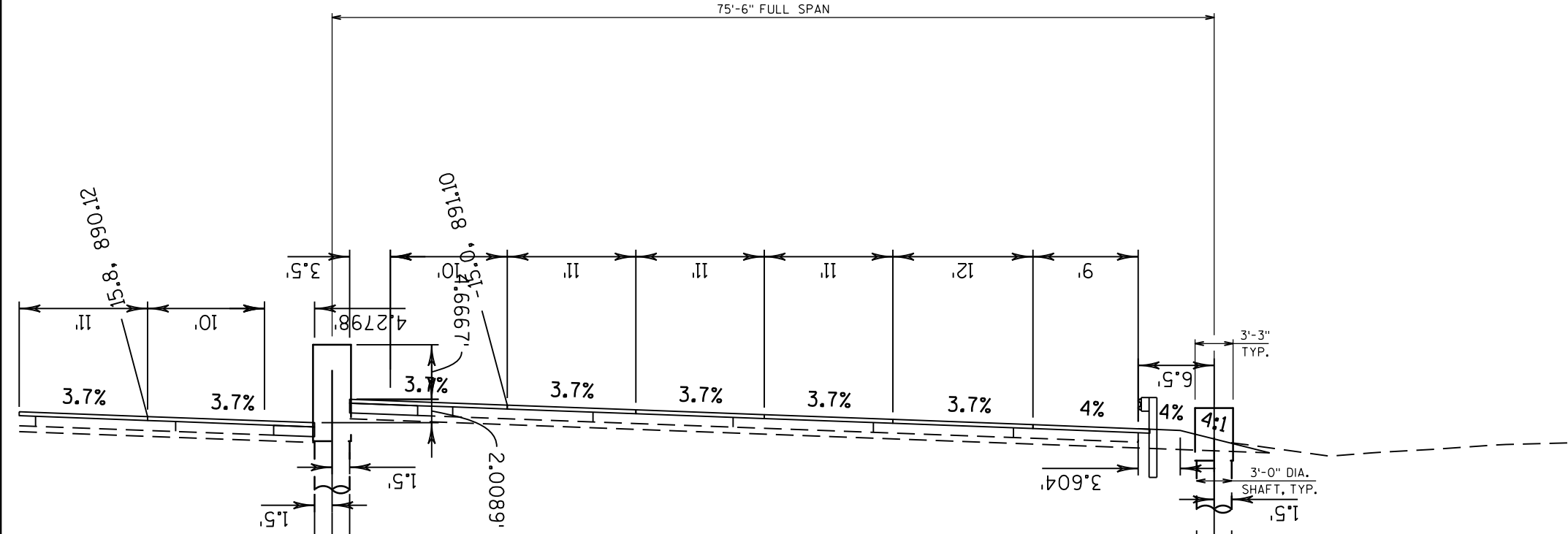
END VIEW
LOOKING NORTH

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-546			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-546			SHEET 2 OF 20



PLAN

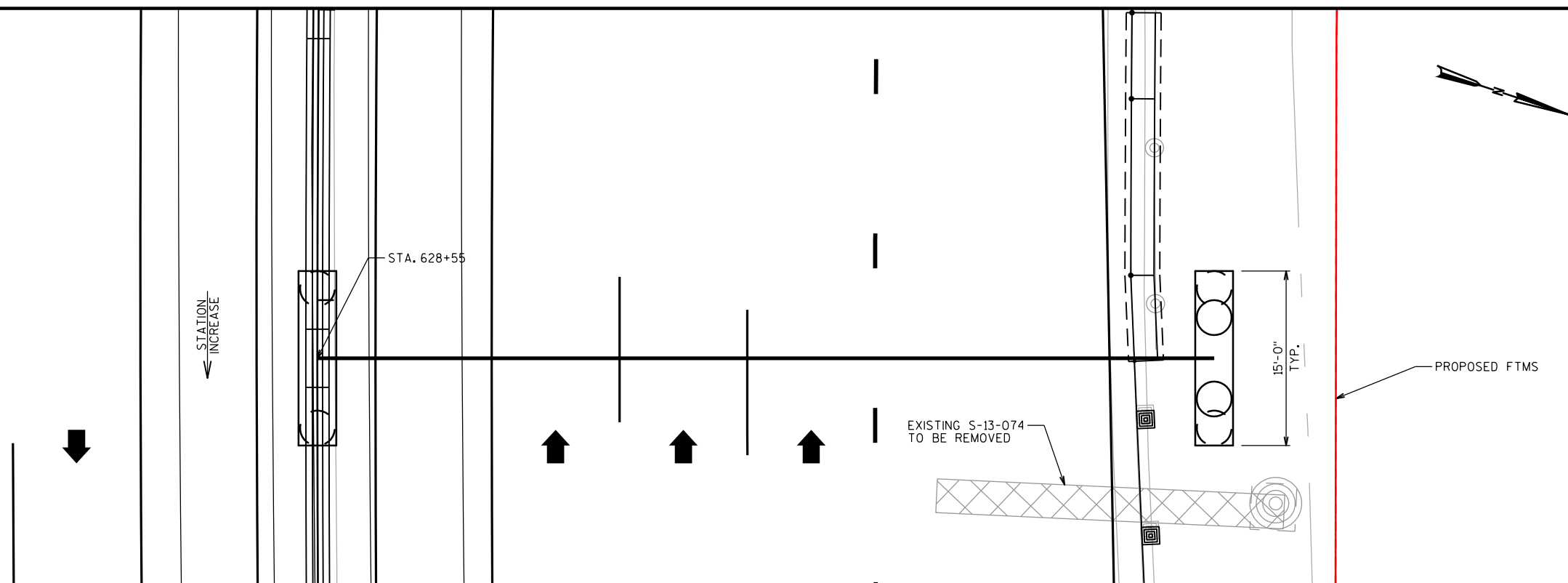


ELEVATION

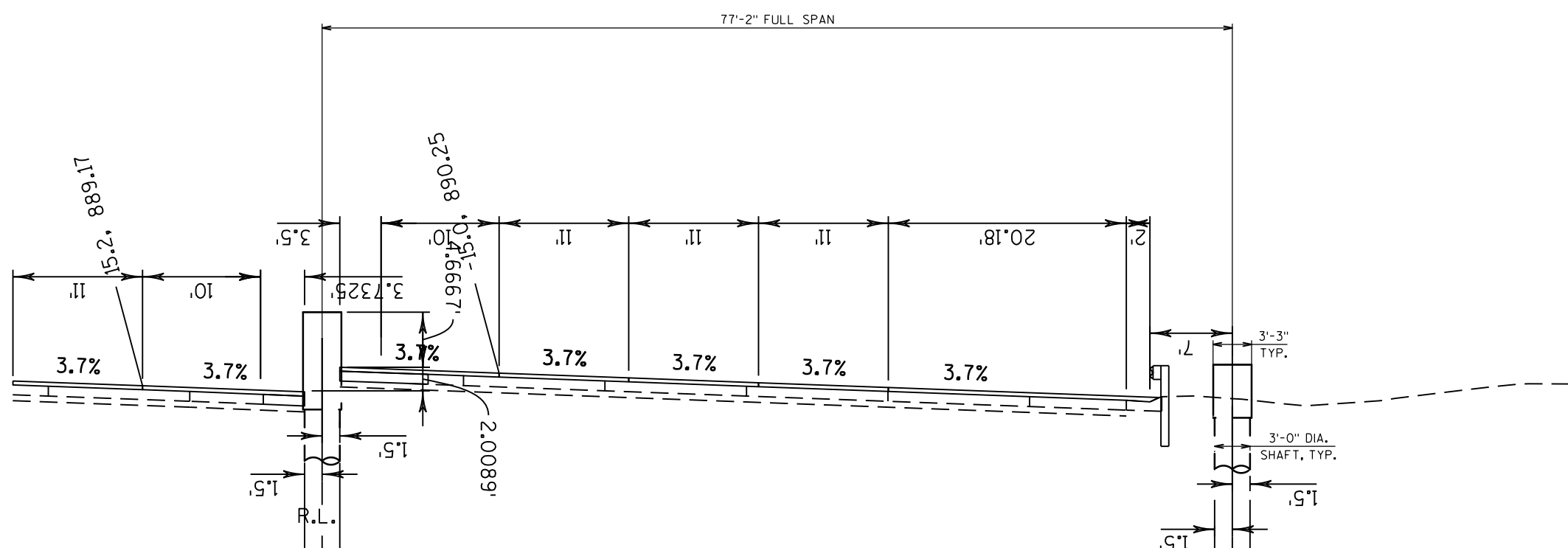
STATE PROJECT NUMBER
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-547			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-547			SHEET 3 OF 20

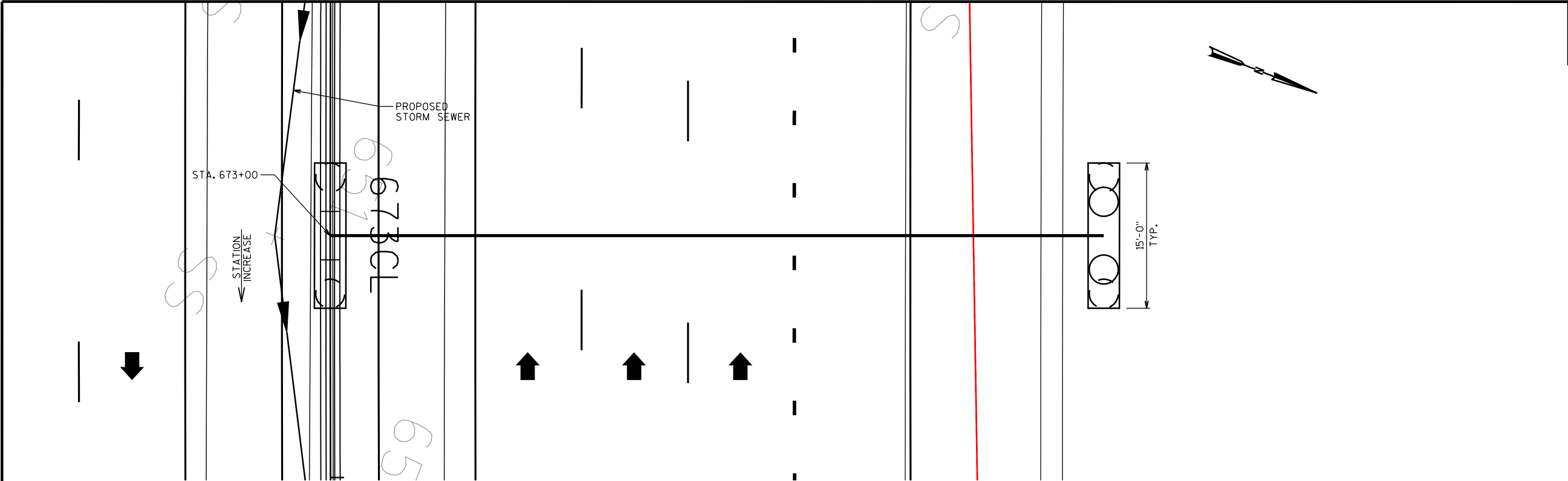


PLAN

ELEVATION

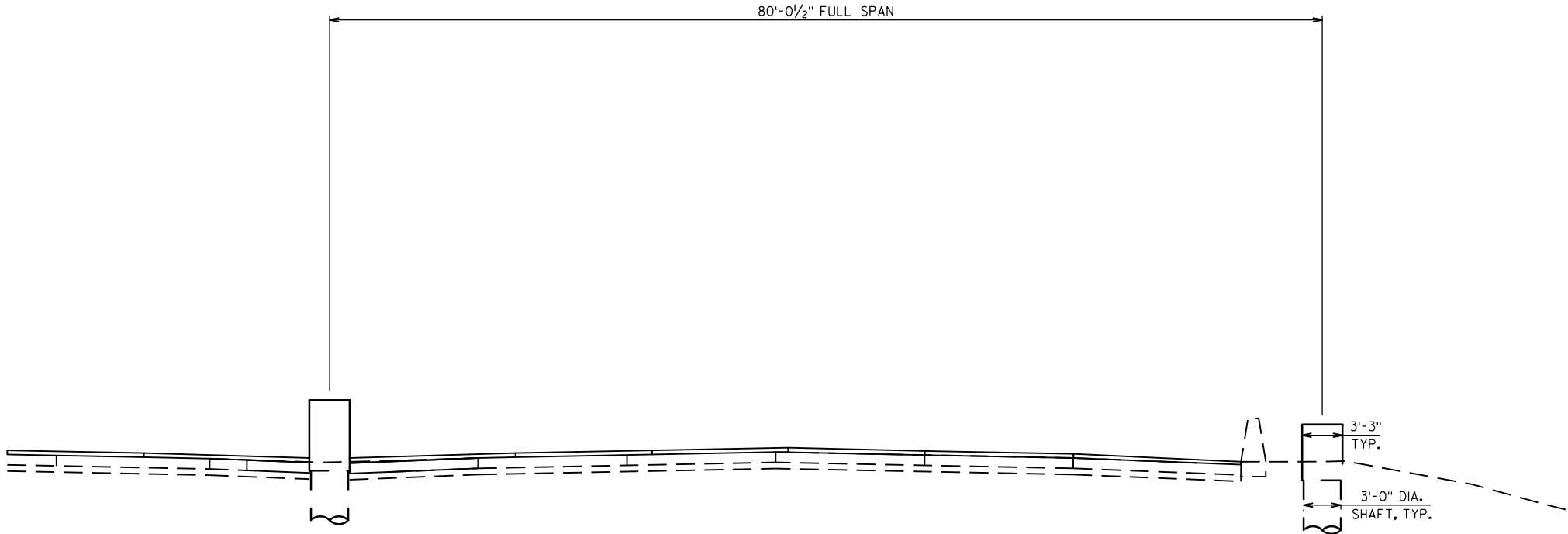
1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-548			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-548		SHEET 4 OF 2	



PLAN

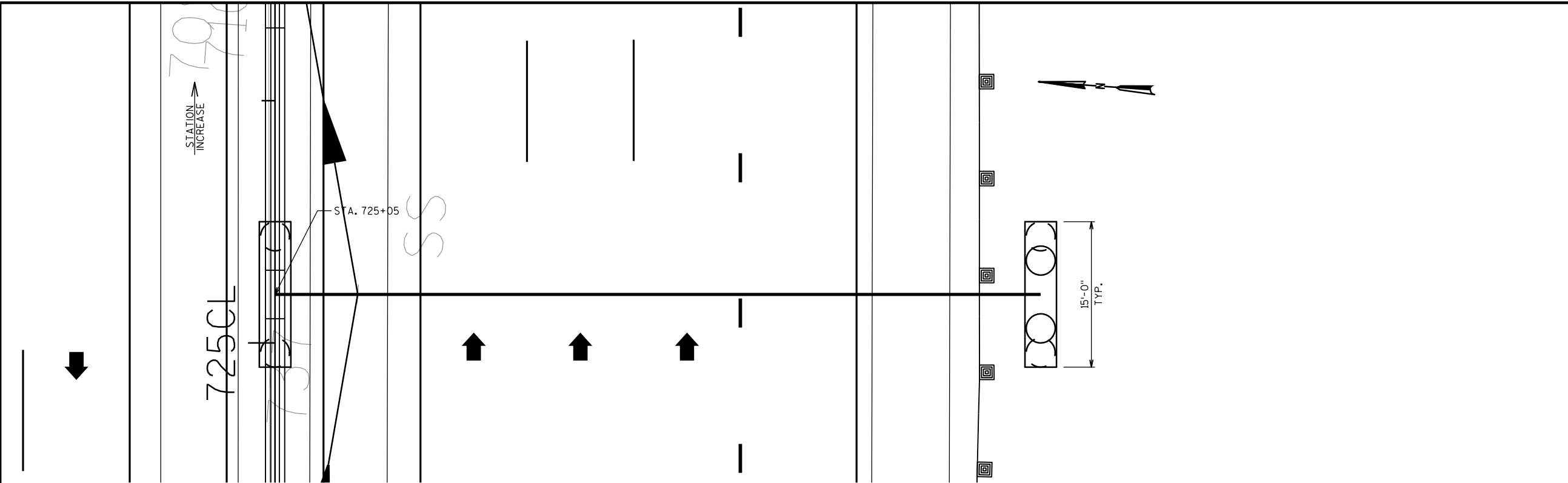
STATE PROJECT NUMBER
1206-06-79



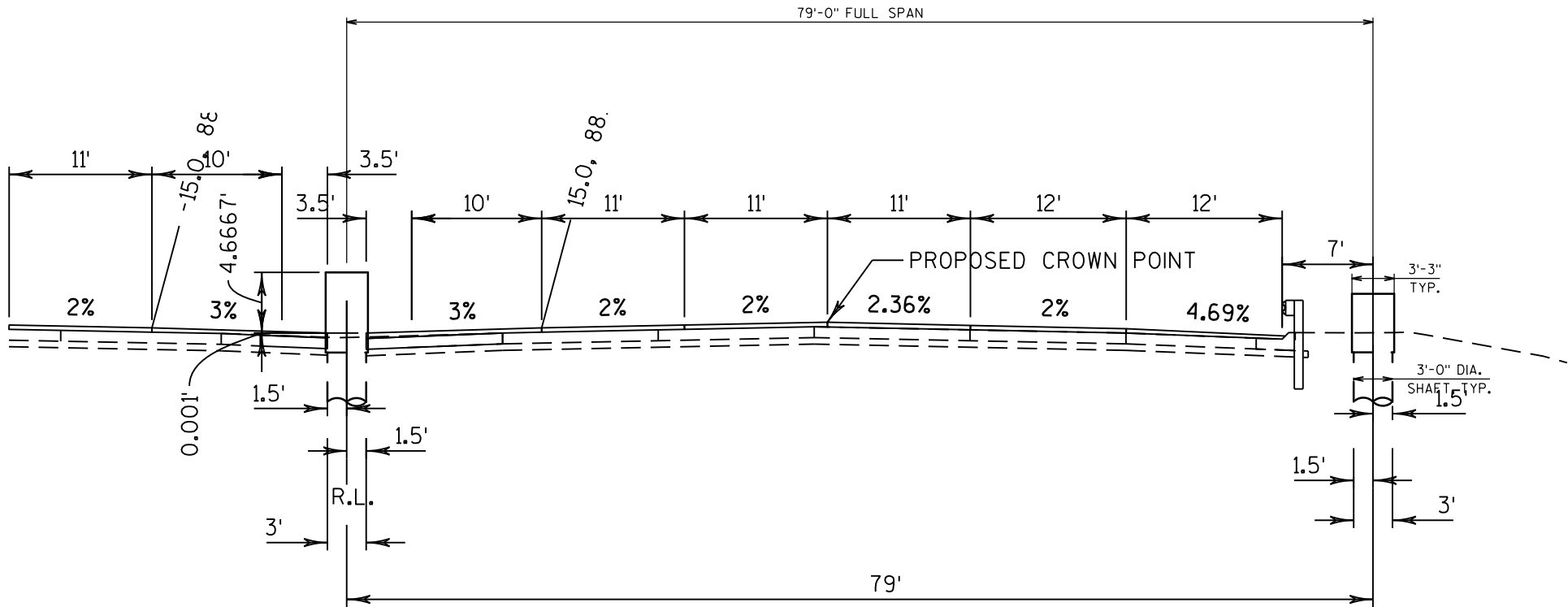
ELEVATION

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-5XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-5XX			SHEET 5 OF 20



PLAN



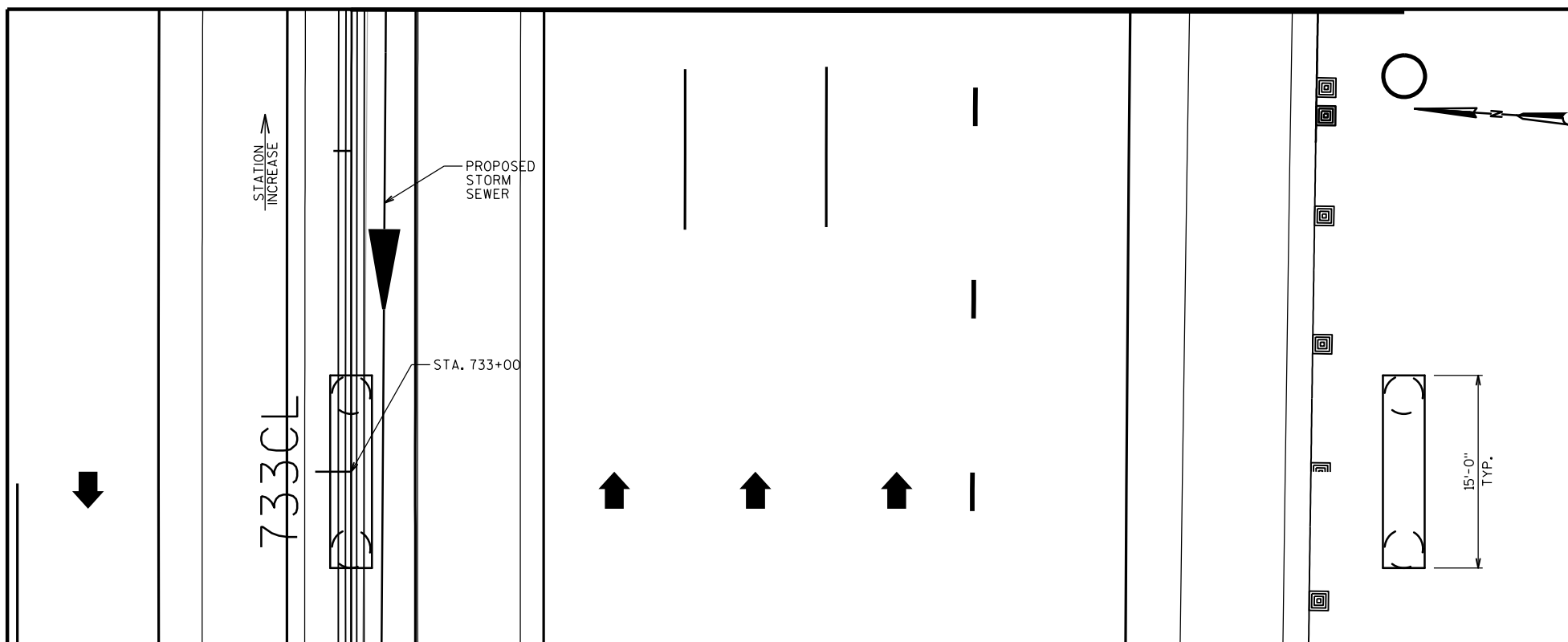
ELEVATION

STATE PROJECT NUMBER

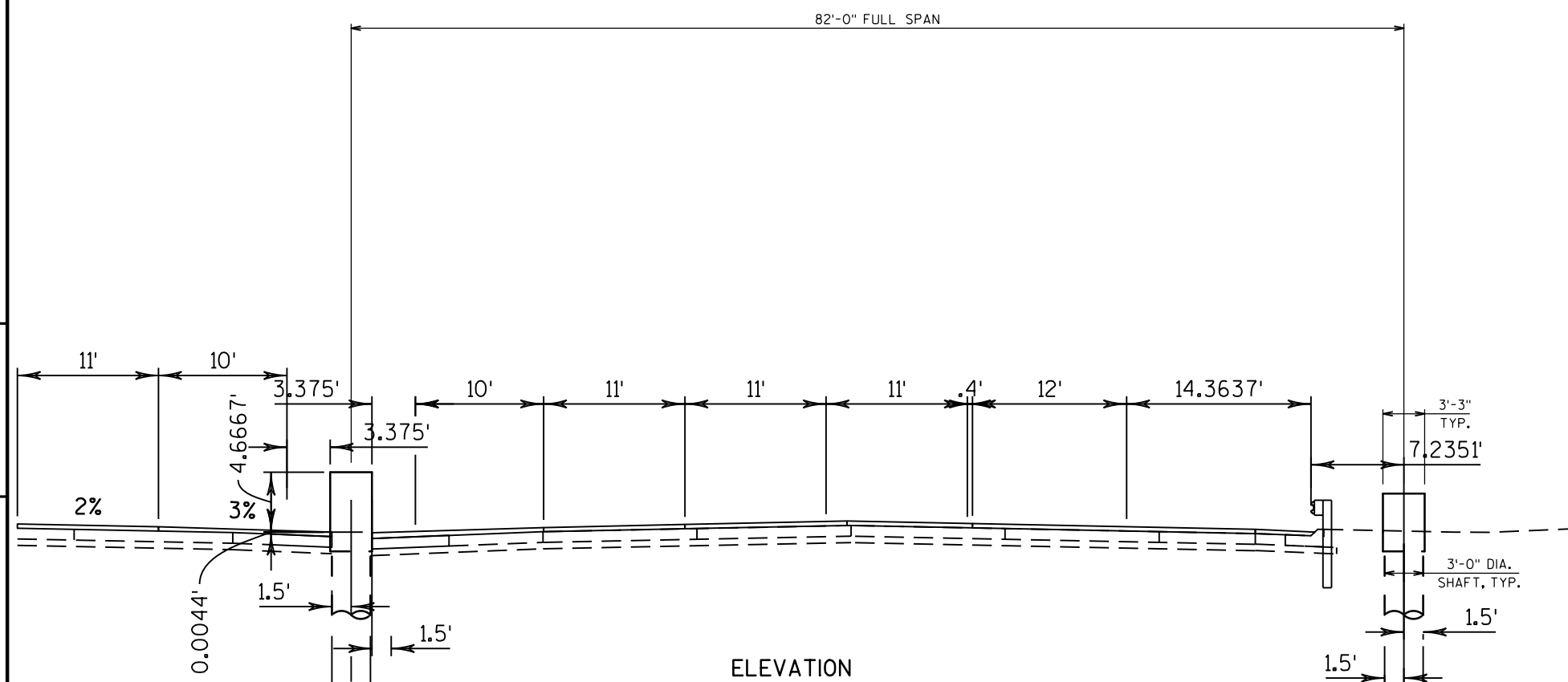
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-549			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-549			SHEET 6 OF 20



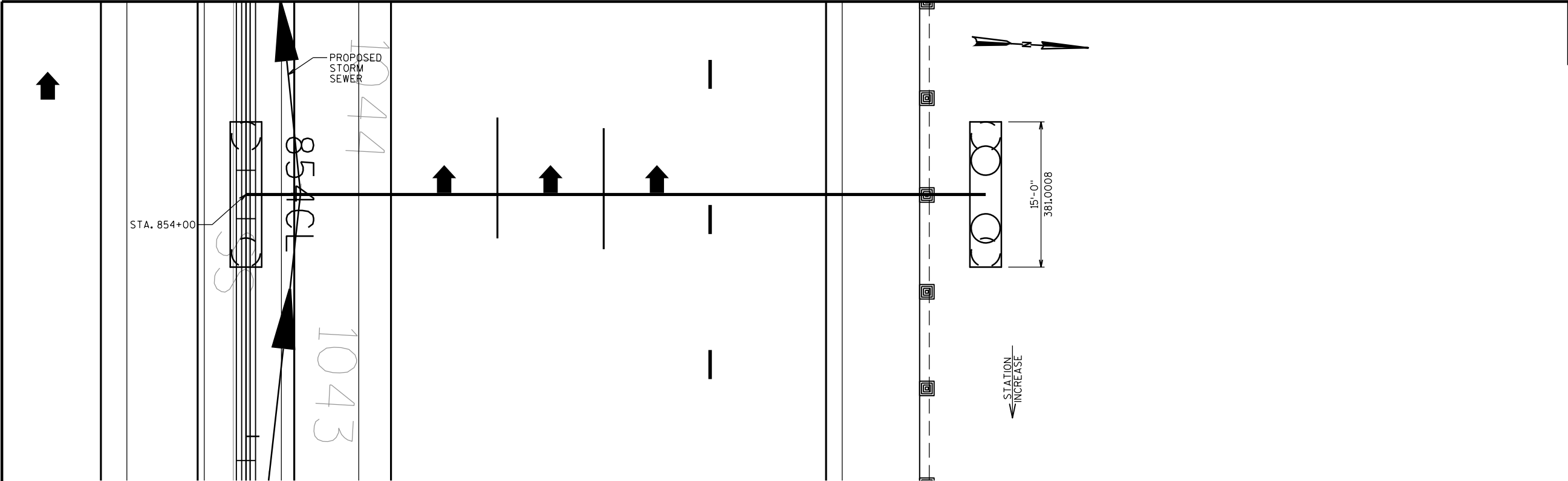
PLAN



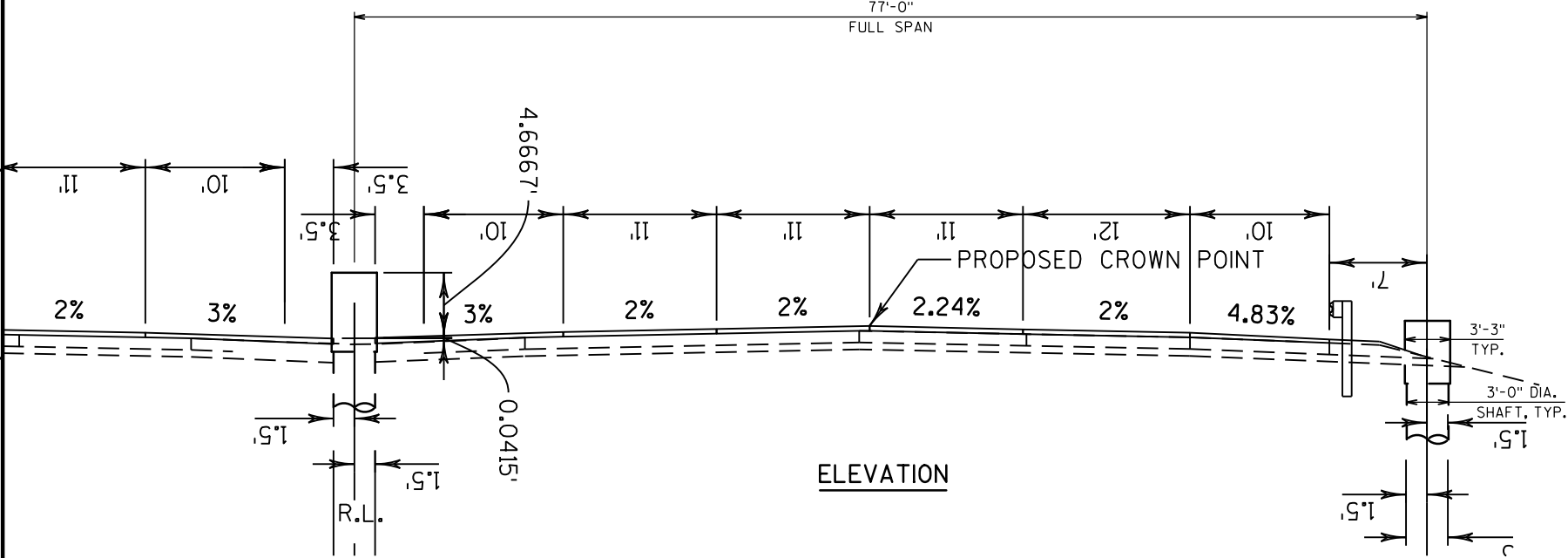
ELEVATION

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-550			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-550		SHEET 7 OF 2	



PLAN

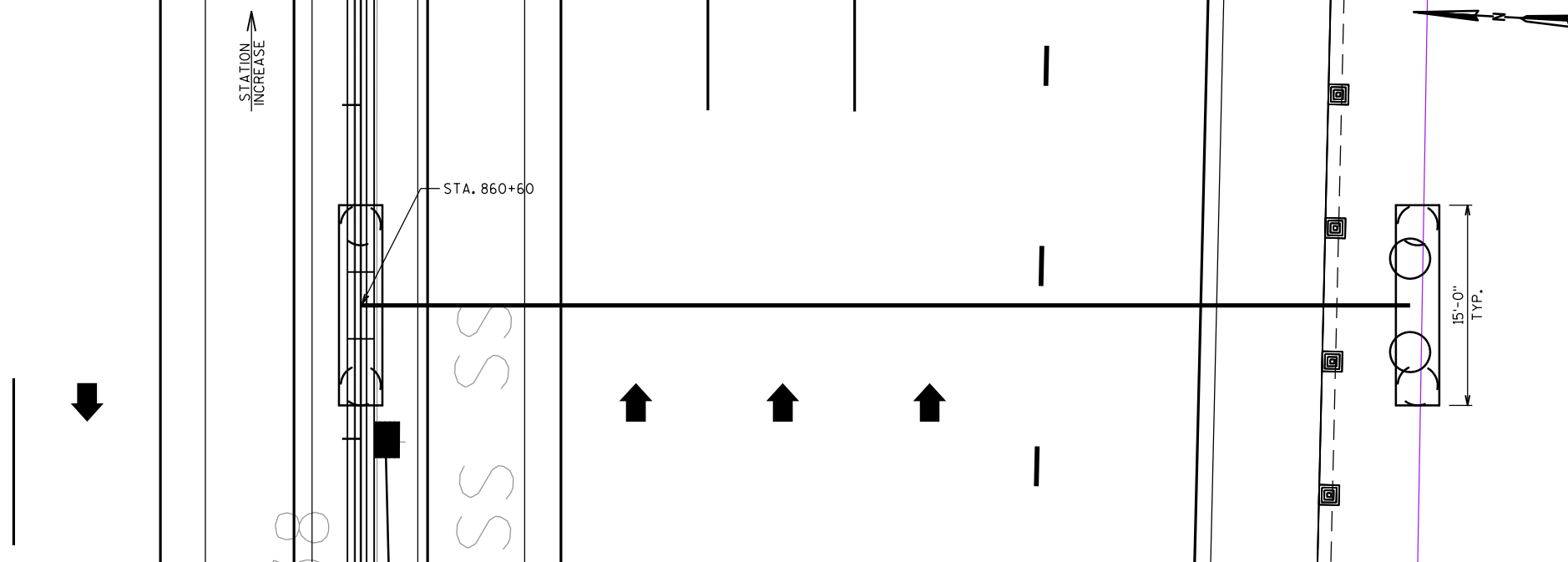


ELEVATION

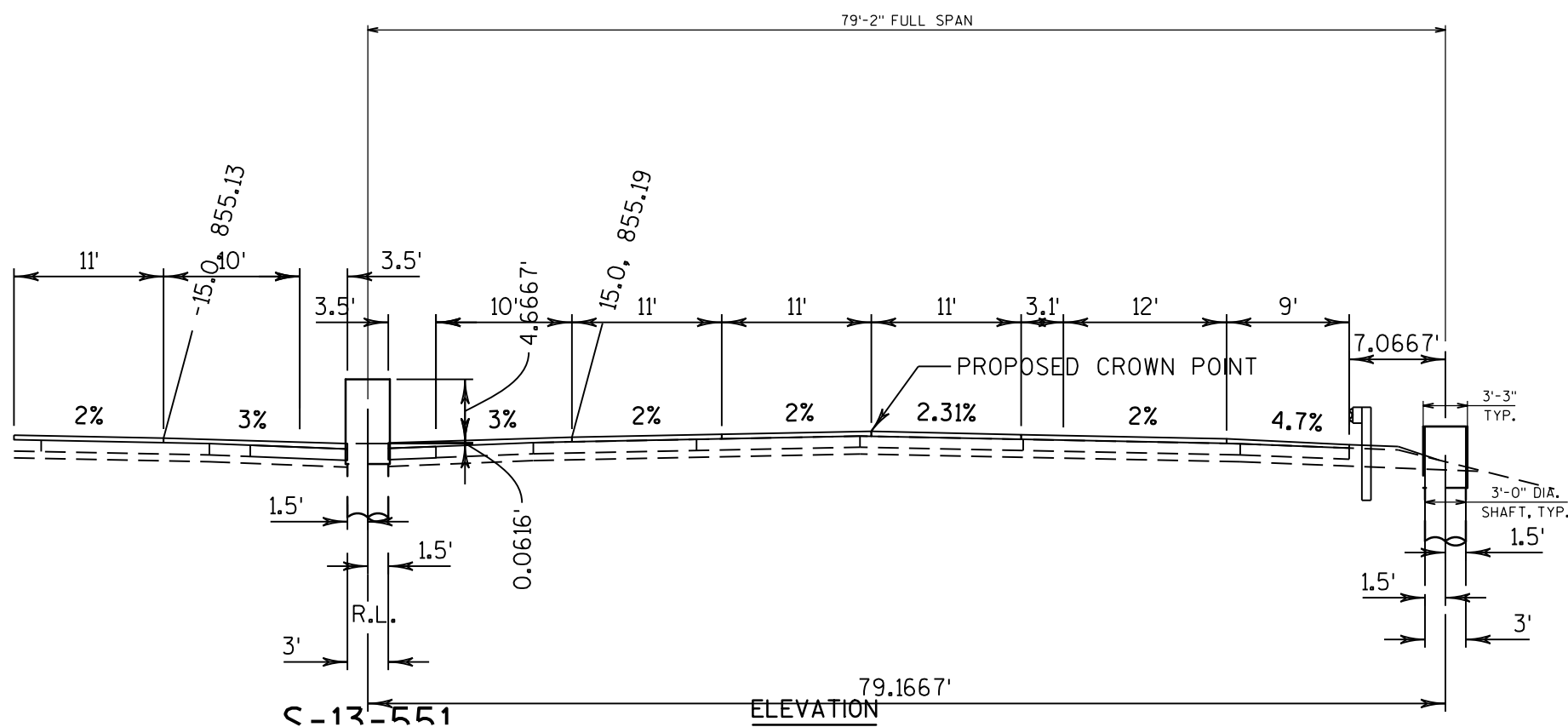
STATE PROJECT NUMBER
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-XXX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-XXX			SHEET 8 OF 20

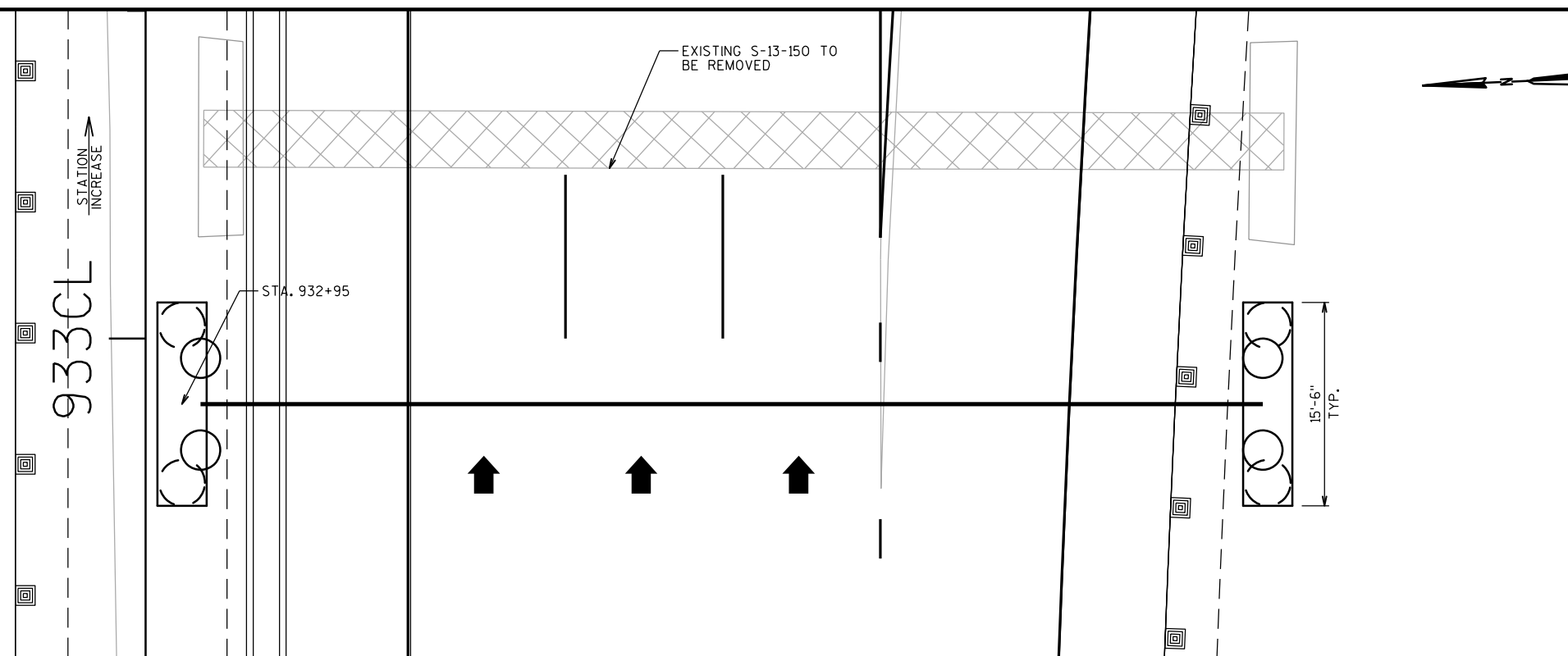


PLAN

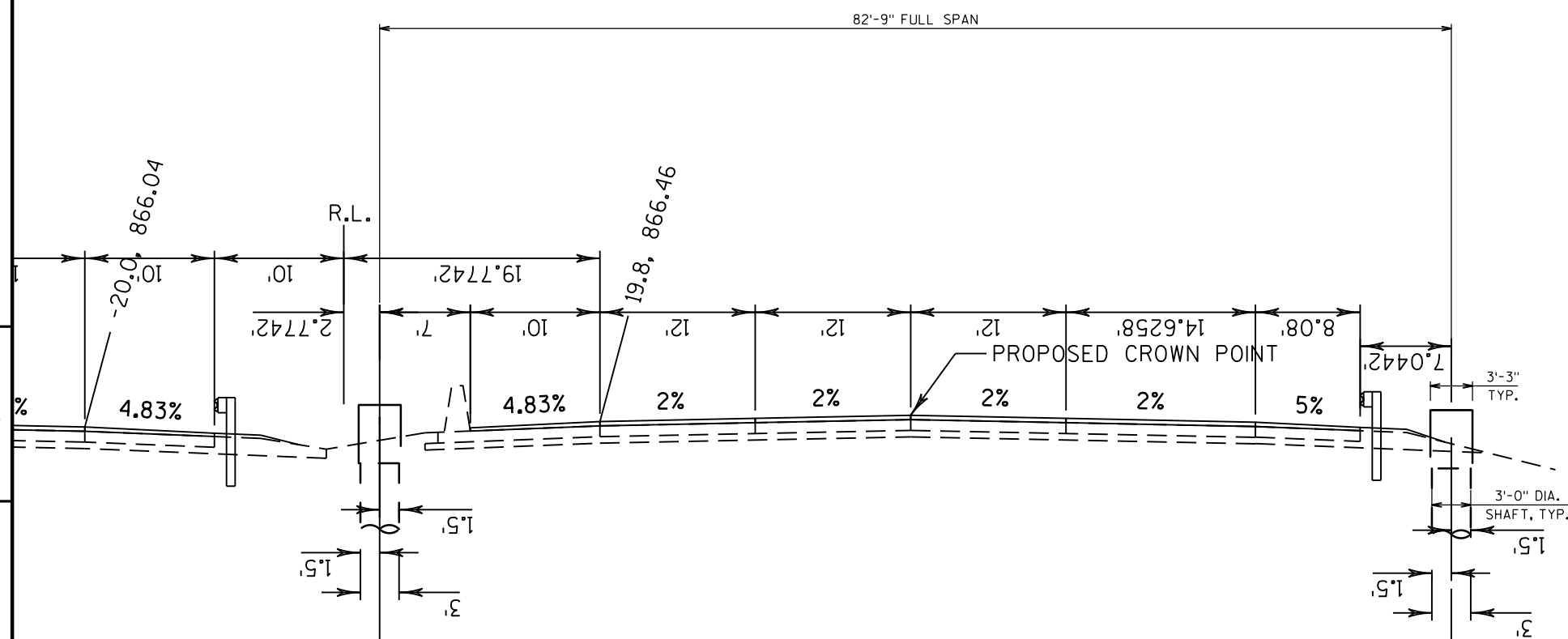


1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-551			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-551		SHEET 9 OF 2	

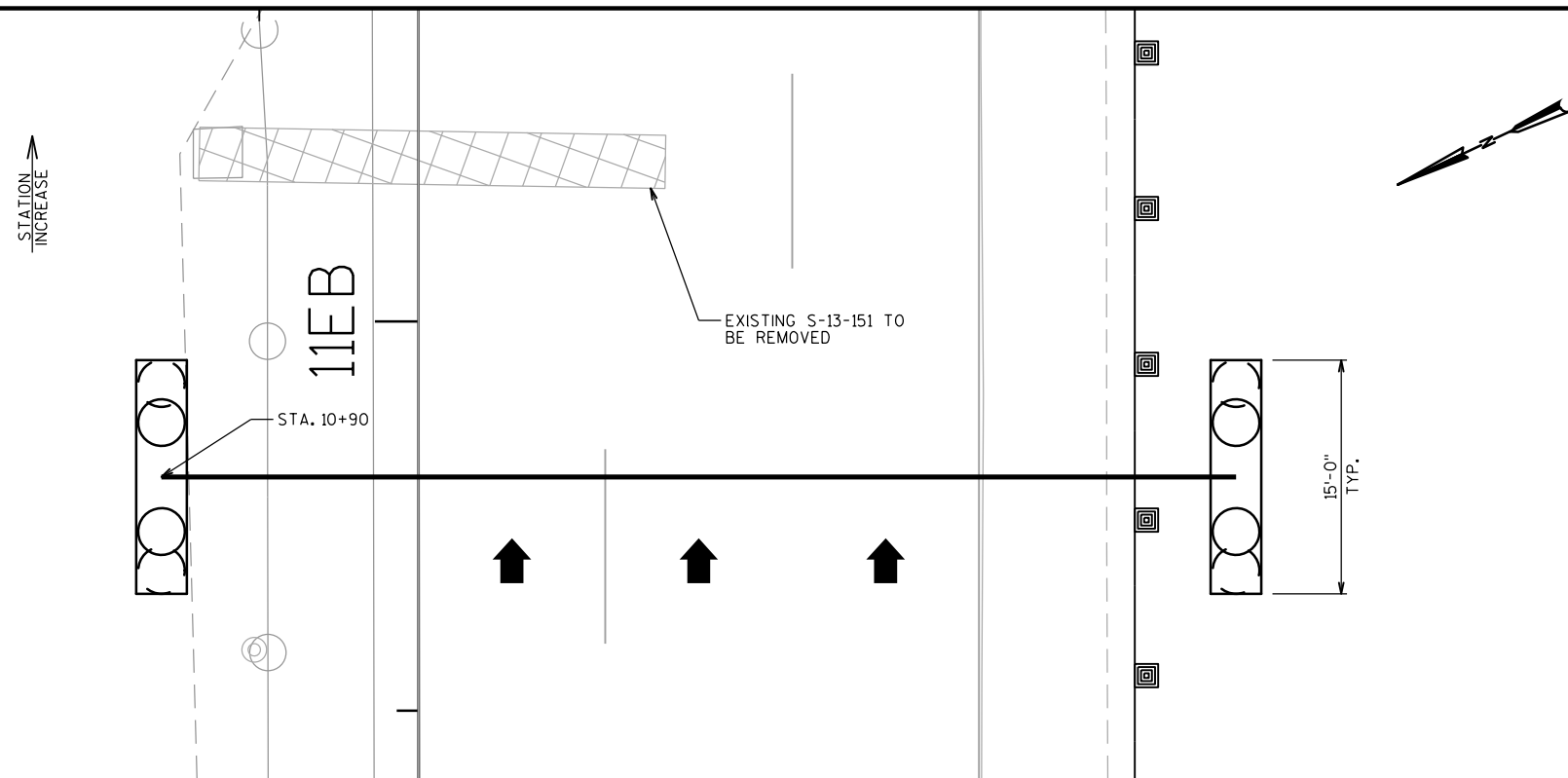


PLAN

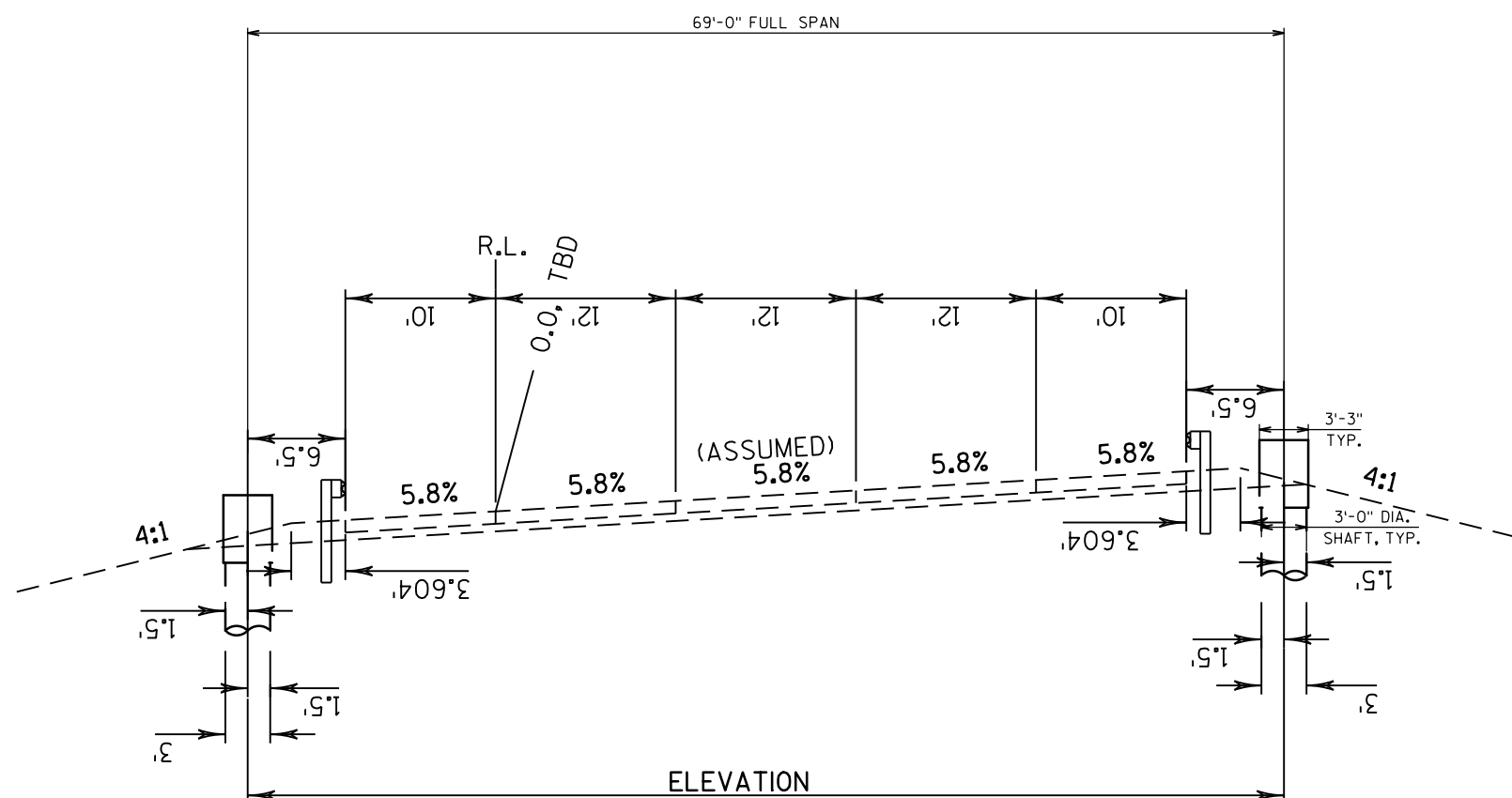
ELEVATION

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-552			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-552		SHEET 10 OF 2	



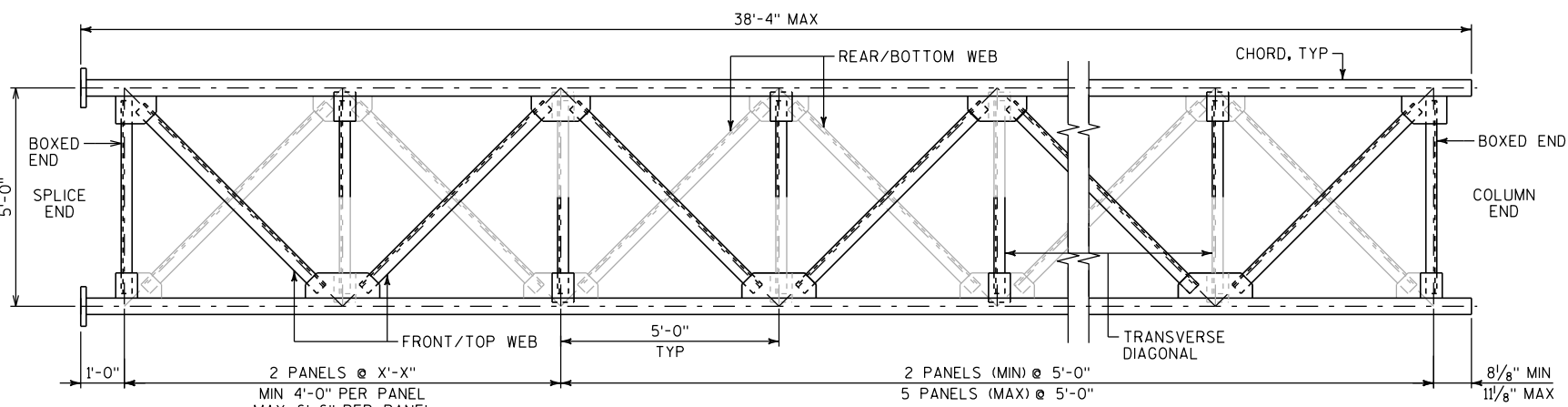
PLAN



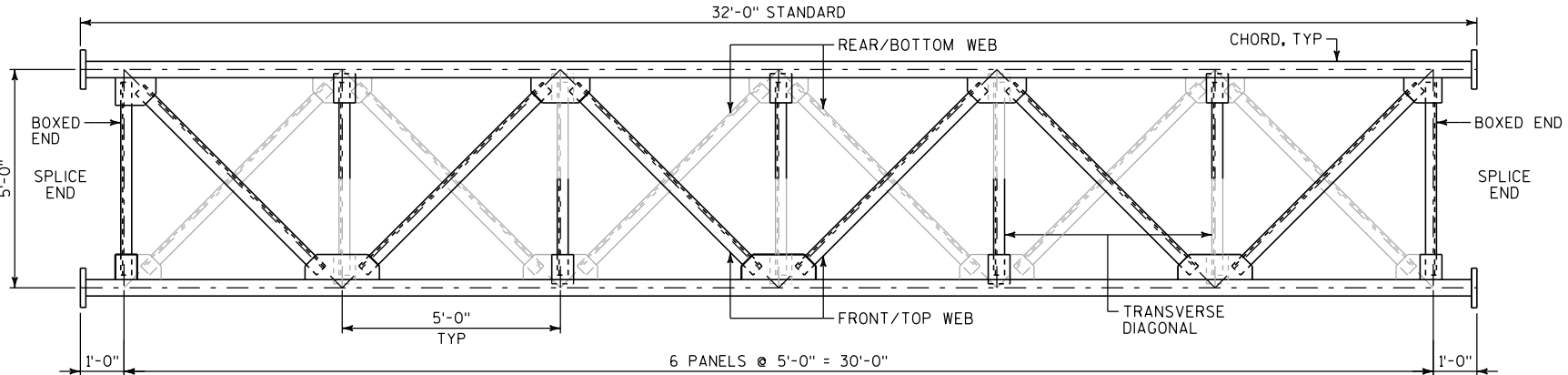
ELEVATION

1078 PLANS

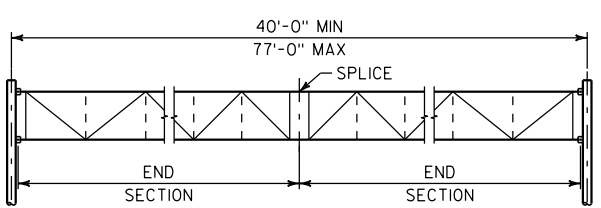
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-553			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-553		SHEET 11 OF 2	



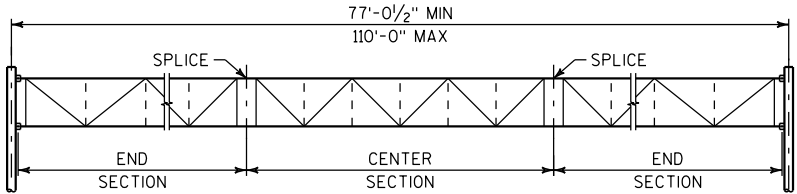
END TRUSS SECTION
LOOKING AT F.F./TOP OF TRUSS



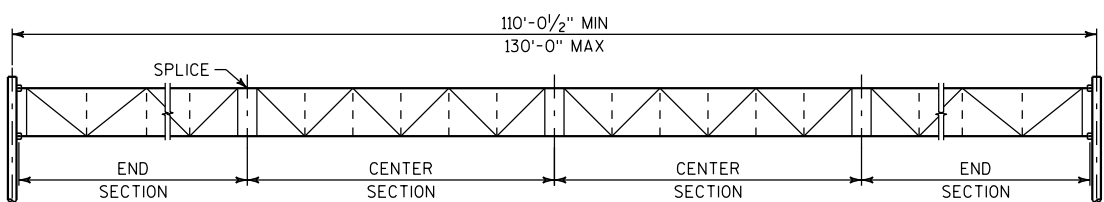
CENTER TRUSS SECTION
LOOKING AT F.F./TOP OF TRUSS



2 SECTION TRUSS



3 SECTION TRUSS



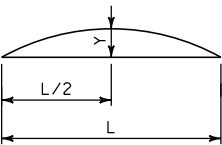
4 SECTION TRUSS

TRUSS CONFIGURATIONS

TRUSS SYMMETRICAL ABOUT C OF SPAN

INTERPOLATE FOR
VALUES NOT SHOWN

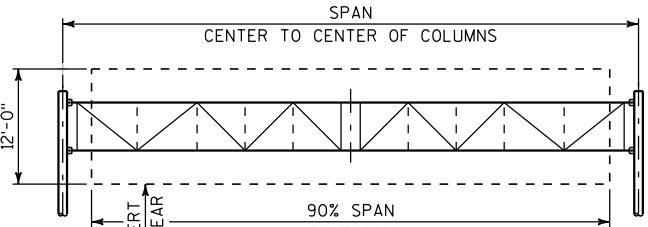
SPAN L	CAMBER VALUES	
	TYPE I	DMS
60'-0"	1"	1 1/4"
82'-0"	1 1/2"	1 7/8"
102'-0"	2 1/8"	2 5/8"
114'-0"	2 5/8"	3 1/4"
130'-0"	3 1/4"	4"



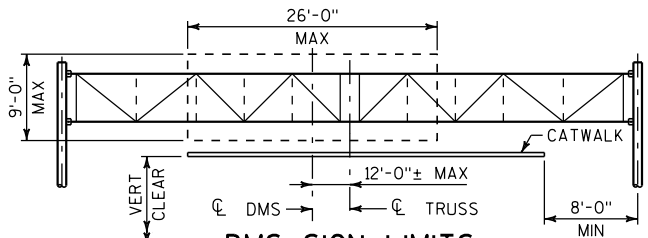
INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.

CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING
FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS
TO CREATE CAMBER SHALL NOT BE ALLOWED.



TYPE 1 SIGN LIMITS

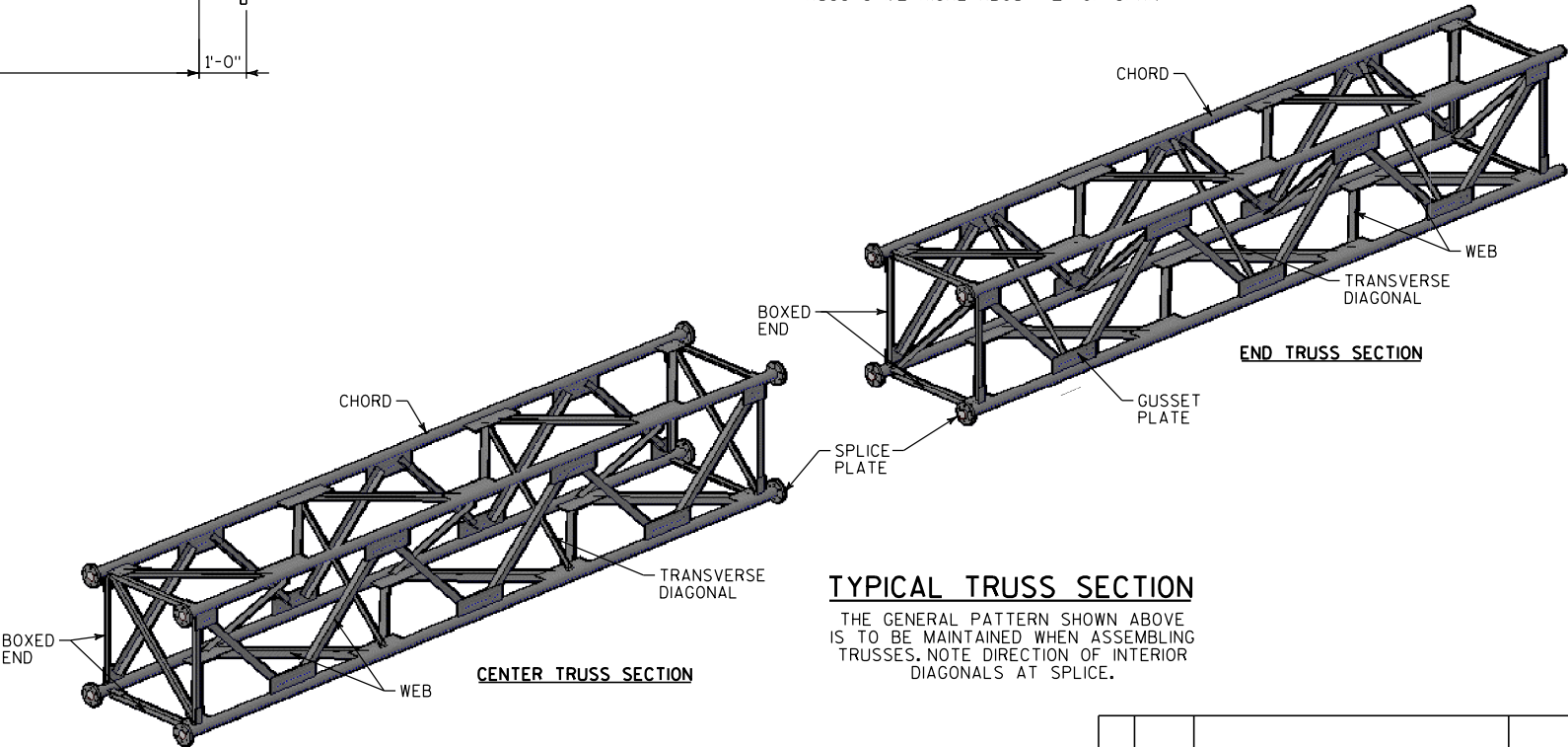


DMS SIGN LIMITS

4,500 LB MAX DMS WEIGHT, INCLUDES
DMS VERTICAL SUPPORT MEMBERS

FULL SPAN 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT ²)	DMS AREA (FT ²)	MAXIMUM SPAN RANGE	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK	SPLICE PLATE OUTER DIA. X THK	CHORD SPLICE NO. 3/4" BOLTS
A	648	234	60'-0"	5.000" x 0.250"	L3/2x3 1/2x5/16	L3x3x1/4	L3x3x1/4	11" x 1 1/2"	8
B	885	234	82'-0"	5.563" x 0.375"	L3/2x3 1/2x3/8	L3x3x1/4	L3x3x1/4	11 5/8" x 1 1/2"	8
C	1102	234	102'-0"	5.563" x 0.500"	L4x4x3/8	L3x3x1/4	L3x3x1/4	11 5/8" x 1 1/2"	8
D	1232	234	114'-0"	6.625" x 0.375"	L4x4x1/16	L3x3x1/4	L3x3x1/4	1'-0 5/8" x 1 1/2"	8
E	1404	234	130'-0"	6.625" x 0.500"	L4x4x1/2	L3x3x1/4	L3x3x1/4	1'-0 5/8" x 1 1/2"	8

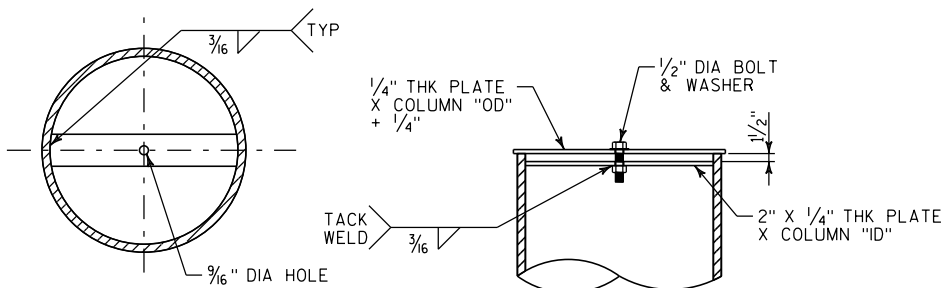


TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE
IS TO BE MAINTAINED WHEN ASSEMBLING
TRUSSES. NOTE DIRECTION OF INTERIOR
DIAGONALS AT SPLICE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS FULL SPAN TRUSS DETAILS		SHEET I OF VIII	

SCALE: 4:1



TOWER CAP DETAIL



STANDARD DESIGN TYPE	MAXIMUM COLUMN HEIGHT	COLUMN DIA × THK	WEB W × D × THK	STIFFENER W × D × THK	BASE PLATE					TOWER SADDLE CONNECTION			
					"T _{W1} "	"HOLE"	"THK"	"BC"	"PC"	"T _{W2} "	"THK"	"PS"	"PD"
A	31'-0"	12.75" × 0.250"	L3½×3½×¾	6" × 12" × ½"	⅝"	1⅞"	2"	1'-6¾"	2'-0¾"	¼"	⅜"	5⅜"	3¼"
B	31'-0"	12.75" × 0.375"	L4×4×¾	6" × 12" × ½"	⅝"	1⅞"	2"	1'-6¾"	2'-0¾"	¼"	⅜"	5¾"	3⅞"
C	31'-0"	12.75" × 0.500"	L4×4×½	6" × 12" × ½"	⅝"	2⅞"	2"	1'-6¾"	2'-0¾"	¼"	⅞"	5¾"	3⅞"
D	31'-0"	14.00" × 0.500"	L5×5×⅞	6" × 12" × ½"	⅝"	2⅞"	2"	1'-8"	2'-2"	¼"	⅞"	6⅞"	4⅞"
E	31'-0"	16.00" × 0.500"	L5×5×½	6" × 12" × ½"	⅝"	2⅞"	2"	1'-10"	2'-4"	¼"	⅞"	6⅞"	4⅞"

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AT COLUMN ADJACENT TO DMS. SEE "ELECTRICAL DETAILS" SHEET

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS FULL SPAN COLUMN DETAILS		SHEET II OF VIII	

SCALE: 4:1

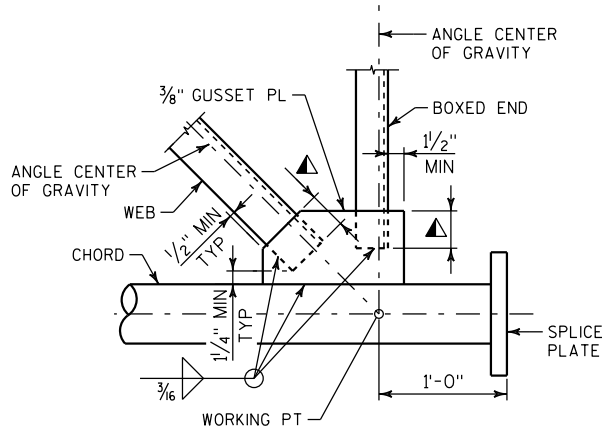
NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

MEMBER CONNECTION DATA

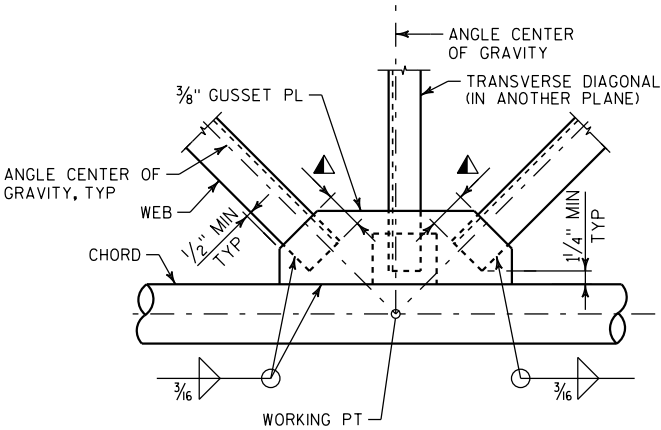
STANDARD DESIGN TYPE	WELD LEG LENGTH		NO. OF BOLTS	
	▲	●	■	☆
A	3" MIN	4" MIN	3	3
B	3 1/2" MIN	6" MIN	3	3
C	3 1/2" MIN	6" MIN	3	3
D	4" MIN	6 1/4" MIN	3	4
E	4 1/2" MIN	7 1/4" MIN	3	4

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2 1/2"

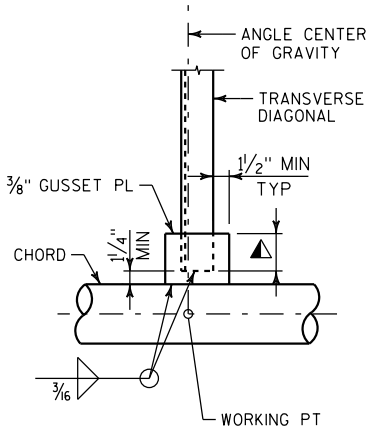


WELDED BOXED END CONNECTION

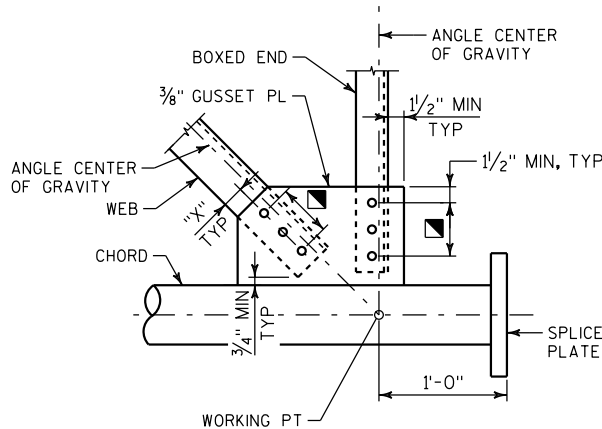
CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



WELDED PANEL CONNECTION

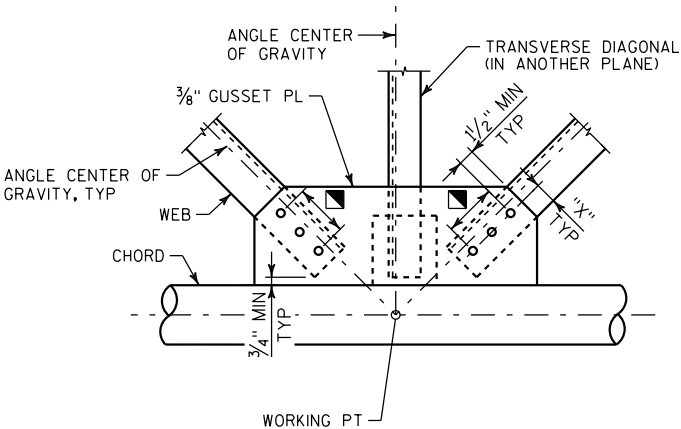


WELDED TRANSVERSE DIAGONAL CONNECTION

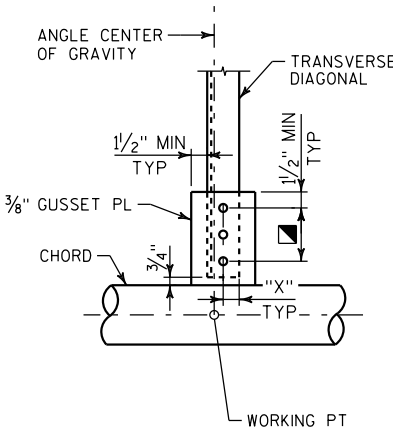


BOLTED BOXED END CONNECTION

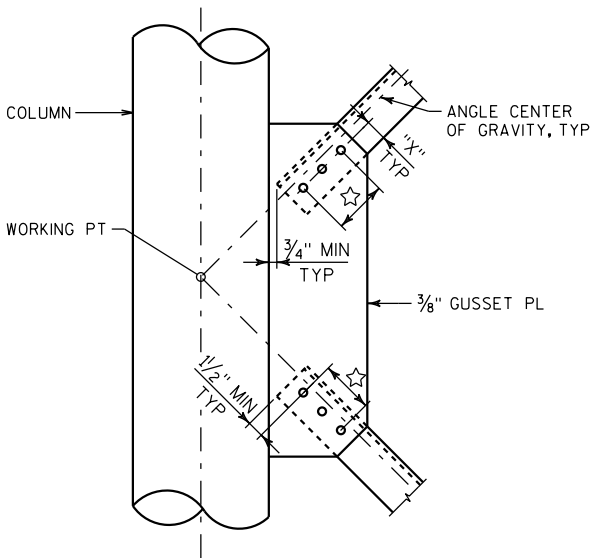
CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



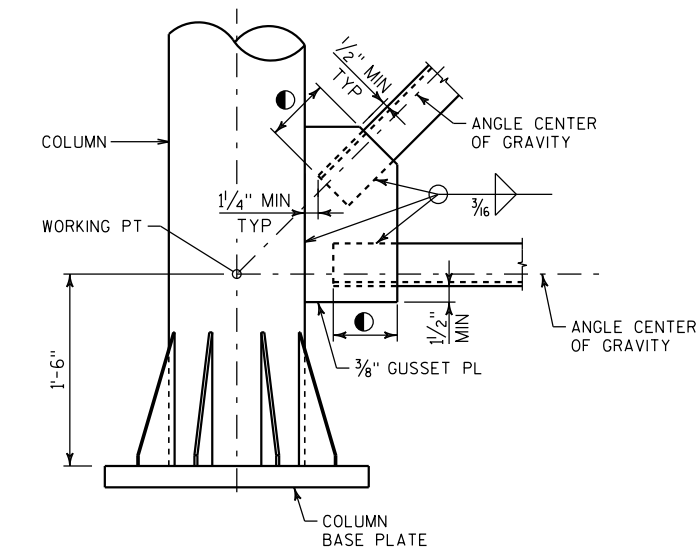
BOLTED PANEL CONNECTION



BOLTED TRANSVERSE DIAGONAL CONNECTION

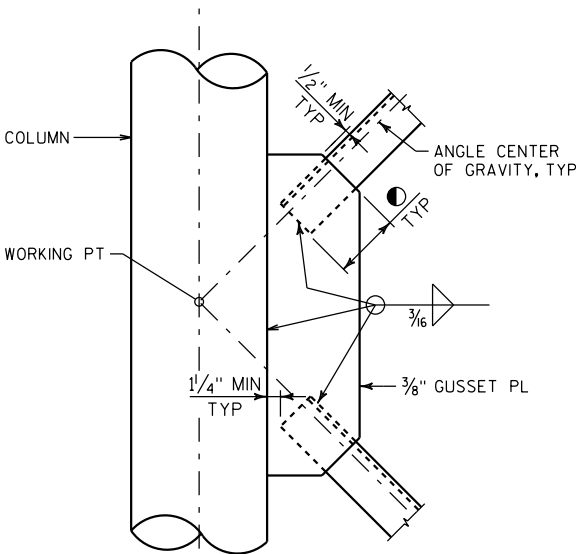


BOLTED COLUMN WEB CONNECTION

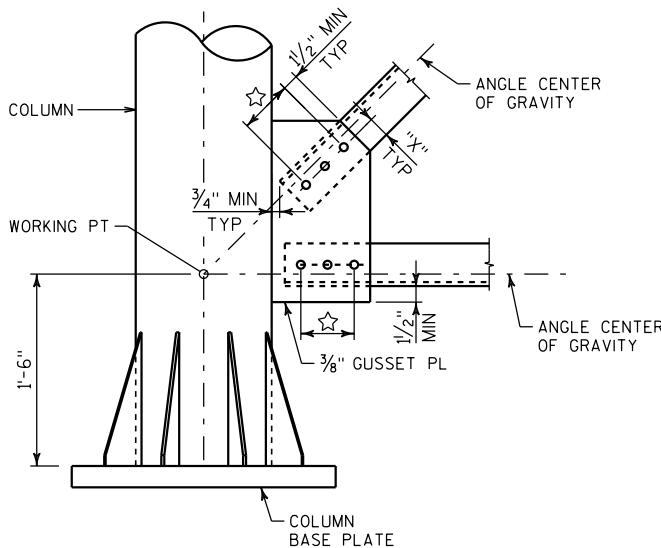


WELDED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR



WELDED COLUMN WEB CONNECTION

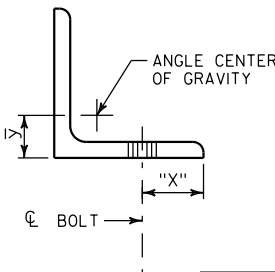


BOLTED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

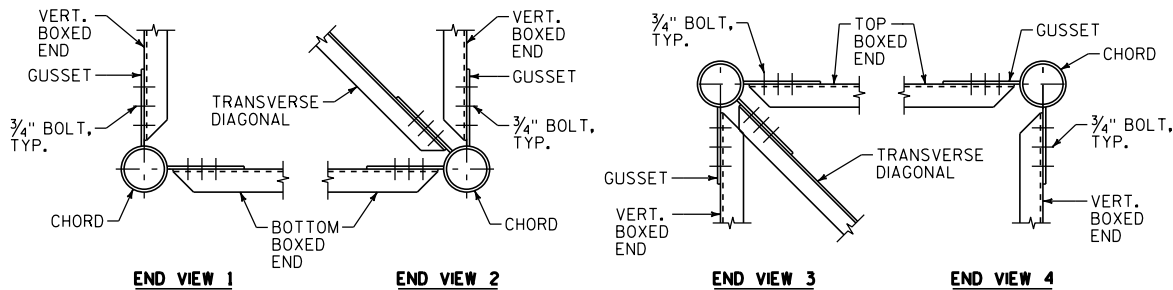
ANGLE DATA

ANGLE SIZE	$\bar{y}$	"X"
L3x3x1/4	0.836"	1/4"
L3 1/2x3 1/2x3/16	0.979"	1/2"
L3 1/2x3 1/2x3/8	1.00"	1/2"
L4x4x3/8	1.13"	1/2"
L4x4x7/16	1.15"	1/2"
L4x4x1/2	1.18"	1/2"
L5x5x7/16	1.40"	2"
L5x5x1/2	1.42"	2"



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS FULL SPAN CONNECTION DETAILS (1 OF 2)		SHEET III OF VIII	

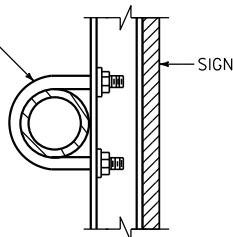
SCALE: 3/1



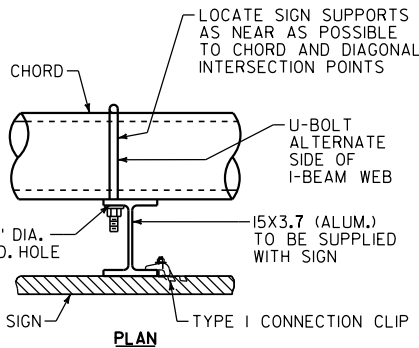
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR

1/2" DIA. STAINLESS STEEL U-BOLT WITH 2 LOCK WASHERS AND 2 HEX NUTS PER BOLT. 2 BOLTS REQUIRED PER 15X3.7. LOCATE TOP & BOTTOM U-BOLT ON OPPOSITE SIDE OF FLANGE.



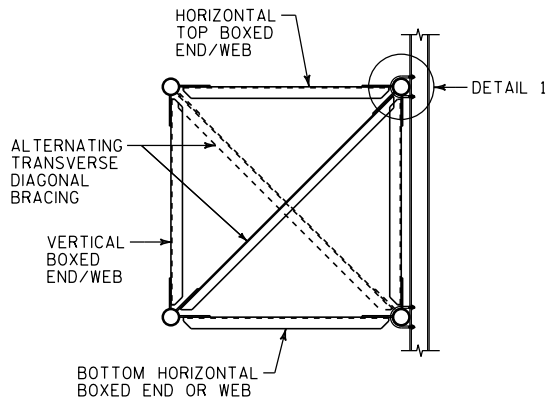
DETAIL 1



PLAN

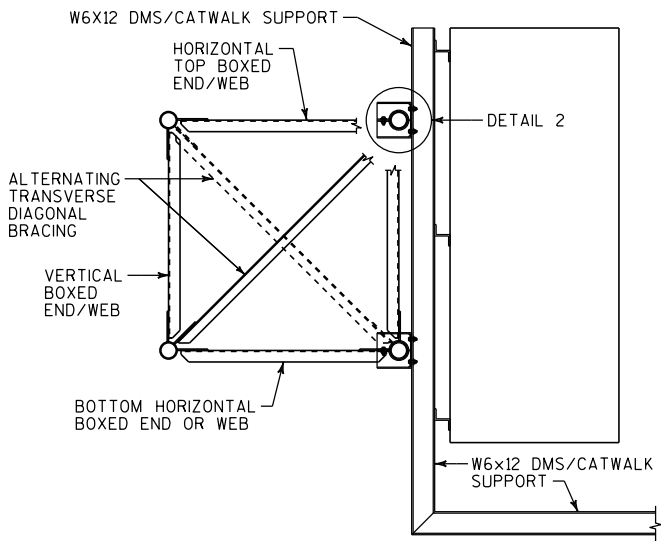
TYPICAL SIGN CONNECTION

USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS



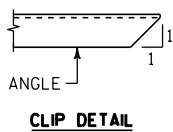
SECTION THRU TRUSS

FOR SIGN CONNECTION

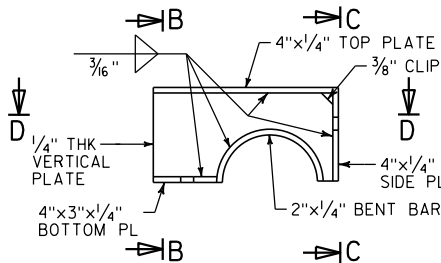


SECTION THRU TRUSS

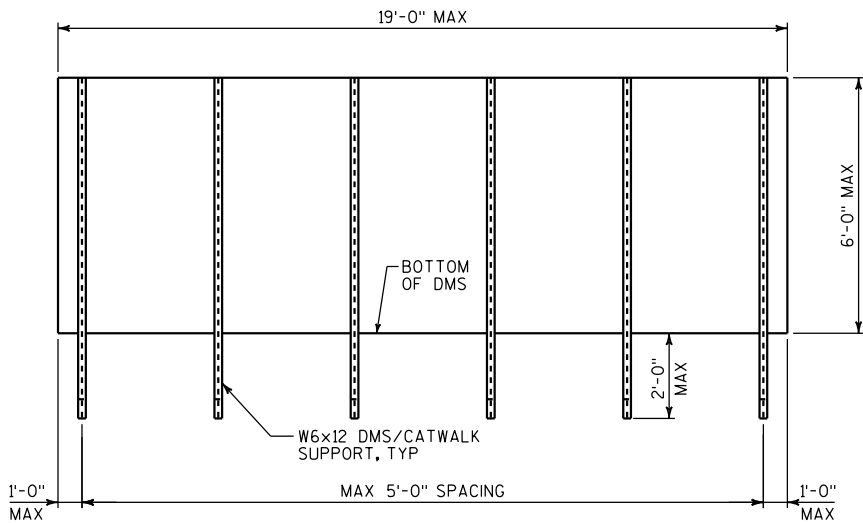
FOR DMS/CATWALK CONNECTION



CLIP DETAIL

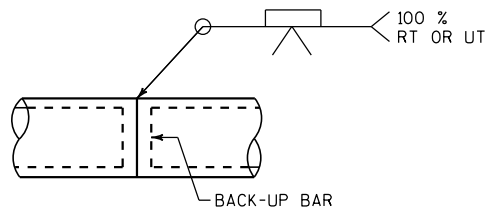


ELEVATION

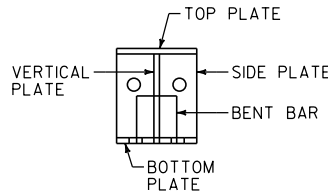


DMS MOUNTING POST SPACING DETAIL

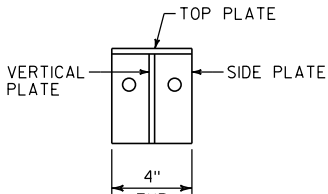
POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



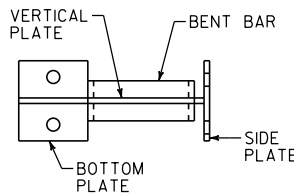
CHORD SPLICE



SECTION B-B



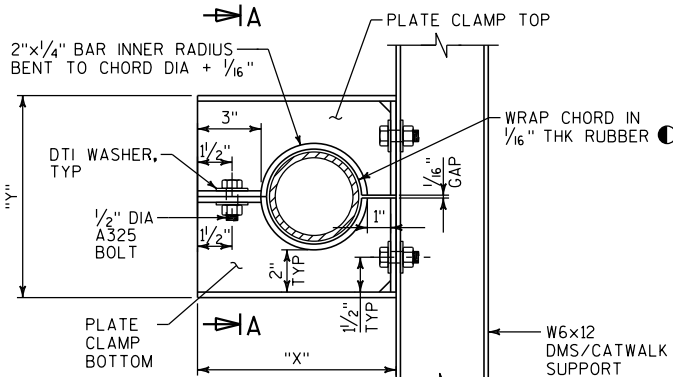
SECTION C-C



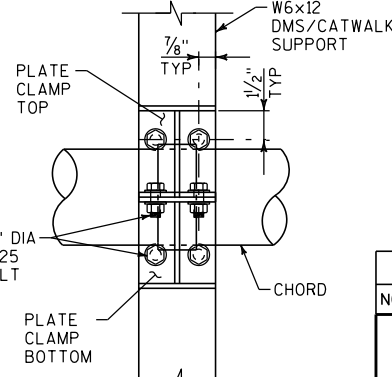
SECTION D-D

DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



DETAIL 2

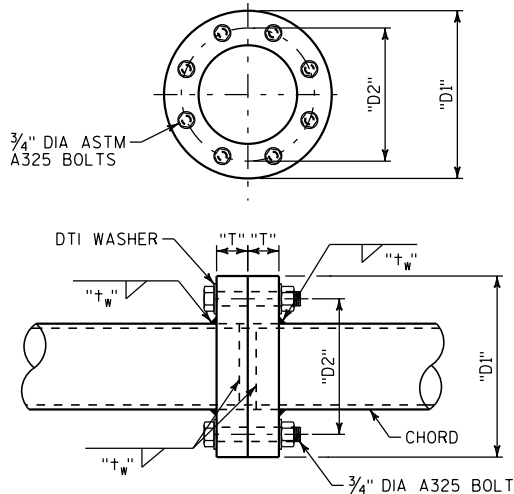


SECTION A-A

TYPICAL DMS CONNECTION

NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1

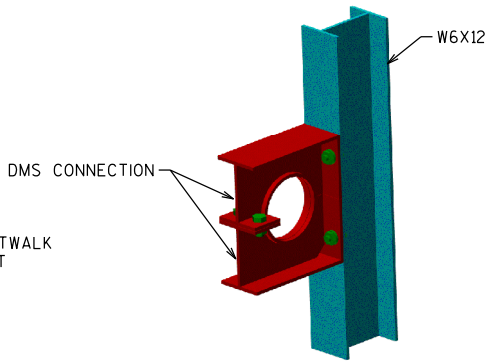
CHORD OUTER DIA	"X"	"Y"
5.000"	9 3/16 "	10 1/16 "
5.563"	10 3/8 "	10 5/8 "
6.625"	11 1/8 "	11 1/16 "



CHORD SPLICE PLATE DETAIL

CHORD SPLICE CONNECTION DATA

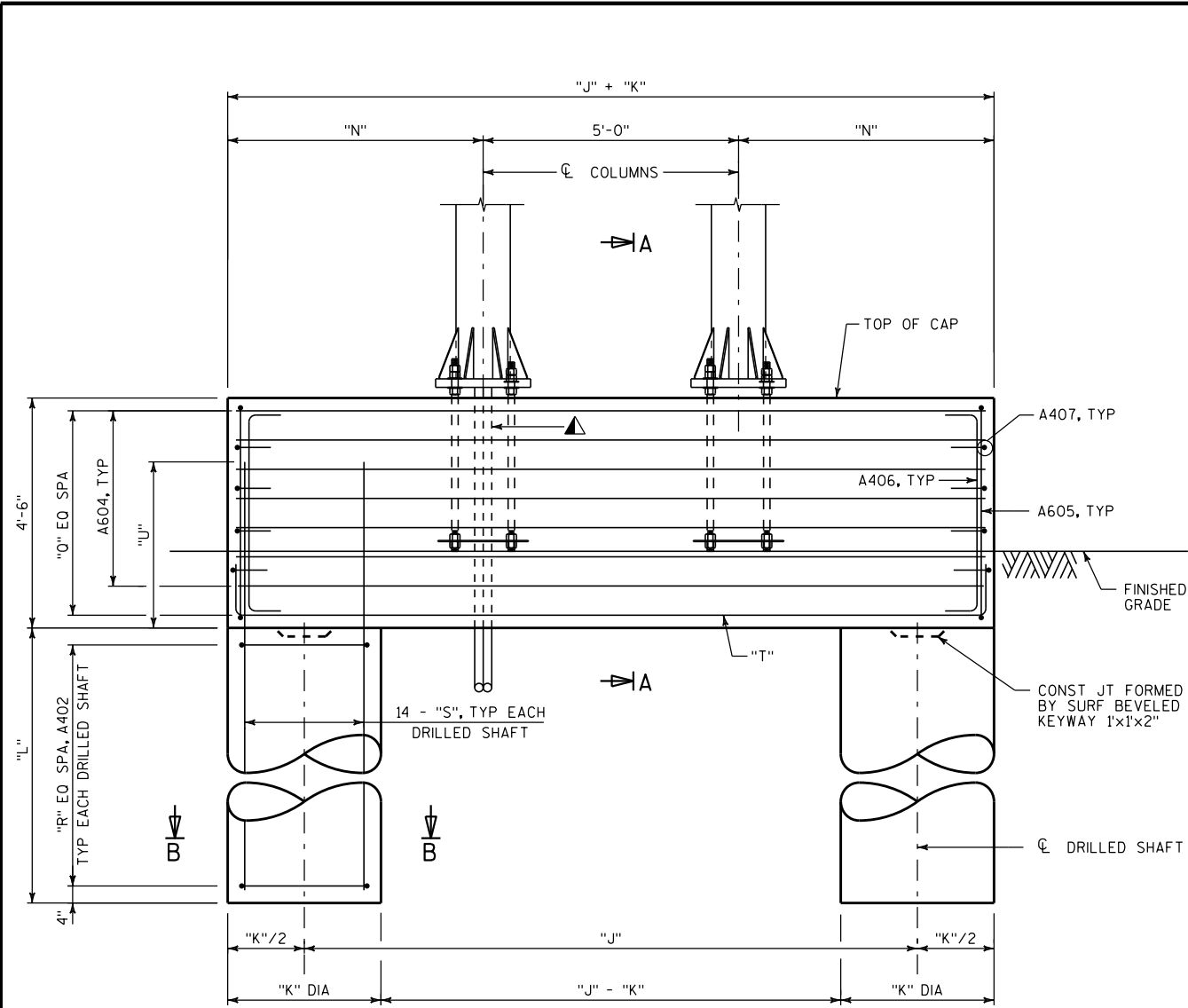
STANDARD DESIGN TRUSS	"D1"	"D2"	"T"	"W"	# OF BOLTS
A	11"	8"	1 1/2"	5/16 "	8
B	11 5/8 "	8 5/8 "	1 1/2"	5/16 "	8
C	11 5/8 "	8 5/8 "	1 1/2"	3/8 "	8
D	1'-0 5/8 "	9 5/8 "	1 1/2"	3/8 "	8
E	1'-0 5/8 "	9 5/8 "	1 1/2"	3/8 "	8



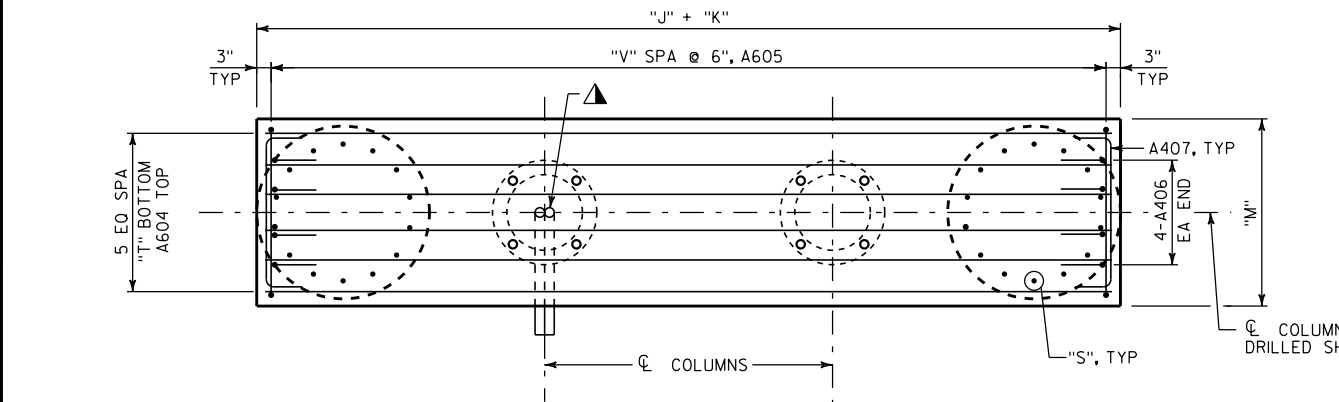
3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

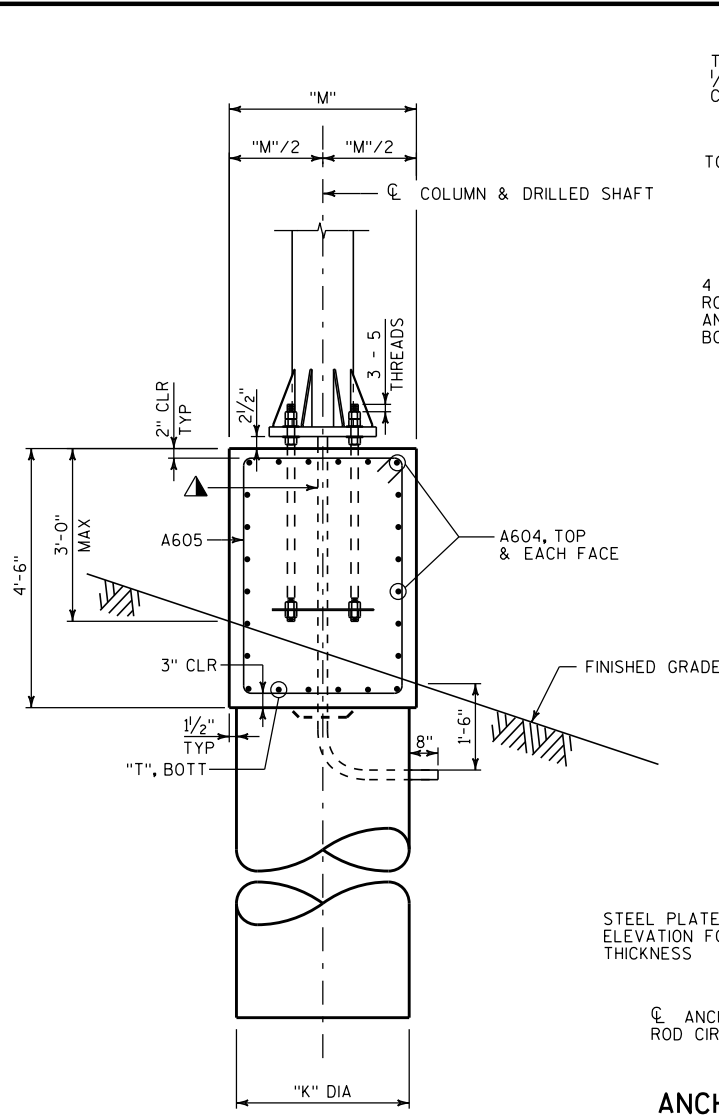
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STANDARD			
JAN 2020			
OSS 4-CHORD TRUSS FULL SPAN CONNECTION DETAILS (2 OF 2)			SHEET IV OF VIII



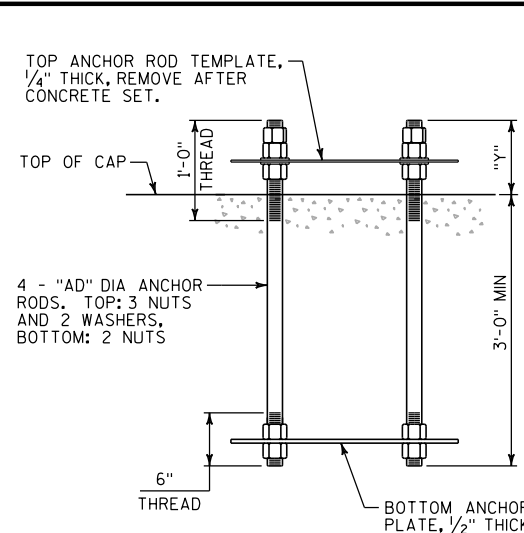
ELEVATION



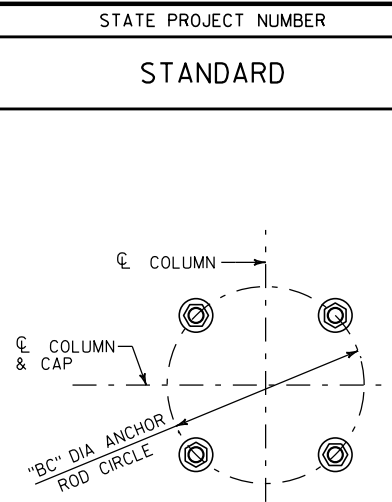
PLAN



SECTION A-A



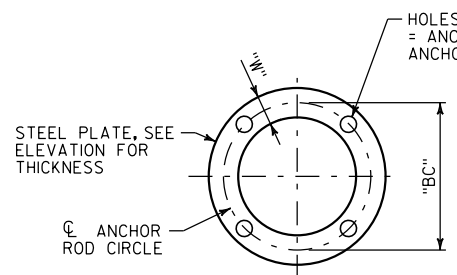
ELEVATION



PLAN

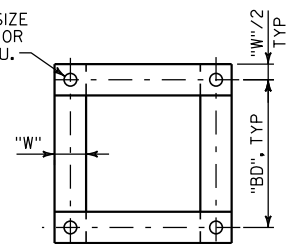
ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
4 ANCHOR RODS REQ'D PER ASSEMBLY



ANCHOR PLATE/TOP TEMPLATE

PLAN



ANCHOR PLATE/TOP TEMPLATE

PLAN

FOUNDATION, REINFORCING & ANCHOR PLATE DATA

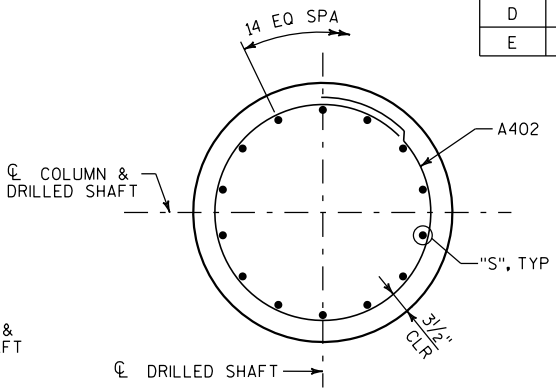
STD DESIGN TRUSS	FOUNDATION DIMENSIONS										ANCHOR PLATE DIMENSIONS					
	"J"	"K"	"L"	"M"	"N"	"O"	"R"	"S"	"T"	"U"	"V"	"AD"	"BC"	"BD"	"W"	"Y"
A	9'-0"	3'-0"	19'-0"	3'-3"	3'-6"	7	19	A801	A603	2'-2"	17	1½"	1'-6¾"	1'-1¼"	3"	8½"
B	12'-0"	3'-0"	22'-0"	3'-3"	5'-0"	7	22	A801	A603	2'-2"	23	1½"	1'-6¾"	1'-1¼"	3"	8½"
C	12'-0"	3'-6"	23'-0"	3'-9"	5'-3"	7	23	A901	A703	2'-9"	23	1¾"	1'-6¾"	1'-1¼"	3½"	9"
D	15'-0"	3'-6"	23'-0"	3'-9"	6'-9"	7	29	A901	A703	2'-9"	29	1¾"	1'-8"	1'-2½"	3½"	9"
E	15'-0"	4'-0"	23'-0"	4'-3"	7'-0"	8	23	A1001	A703	3'-5"	29	1¾"	1'-10"	1'-3⅝"	3½"	9"

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

LEGEND

▲ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE BID ITEM "ANCILLARY STRUCTURES CONCRETE MASONRY".



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

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SHEET V OF VIII			

NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS - STANDARD DESIGN TRUSS A

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A801		56	24'-2"		DRILLED FOOTING - VERTICAL
A402		76	9'-0"	X	DRILLED FOOTING - HORIZONTAL
A603	X	12	13'-3"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	36	11'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	48	14'-10"	X	FOOTING - STIRRUP
A406	X	16	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	16	3'-5"	X	FOOTING - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TRUSS B

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A801		56	24'-2"		DRILLED FOOTING - VERTICAL
A402		88	9'-0"	X	DRILLED FOOTING - HORIZONTAL
A603	X	12	16'-3"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	36	14'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	60	14'-10"	X	FOOTING - STIRRUP
A406	X	16	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	16	3'-5"	X	FOOTING - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TRUSS C

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A901		56	25'-9"		DRILLED FOOTING - VERTICAL
A402		92	10'-6"	X	DRILLED FOOTING - HORIZONTAL
A703	X	12	17'-1"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	36	15'-2"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	62	15'-10"	X	FOOTING - STIRRUP
A406	X	16	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	16	3'-11"	X	FOOTING - HORIZONTAL - EACH END

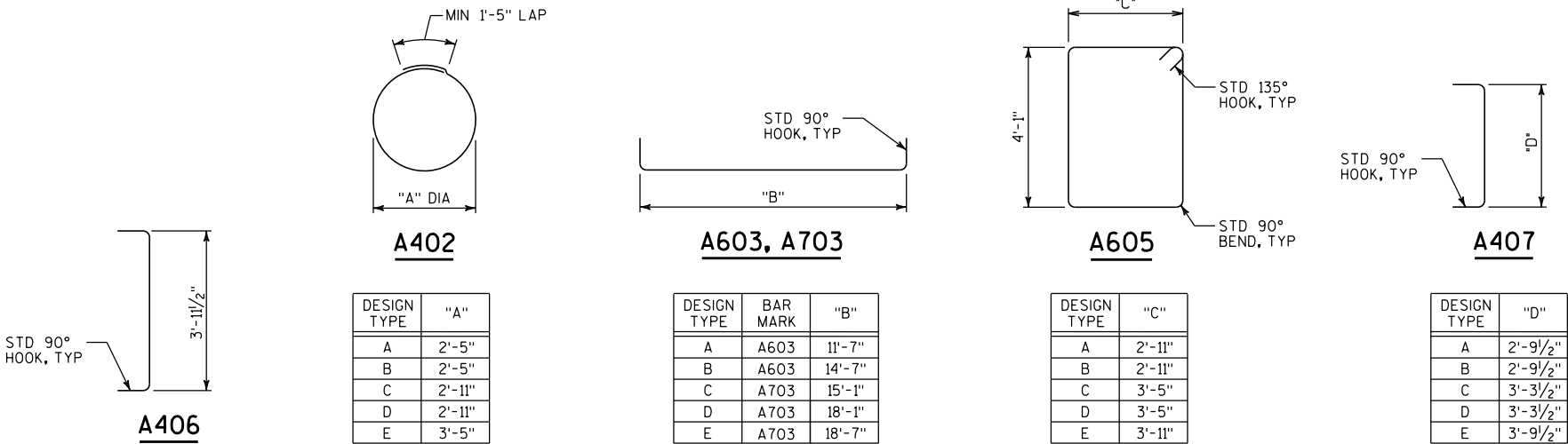
BILL OF BARS - STANDARD DESIGN TRUSS D

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A901		56	25'-9"		DRILLED FOOTING - VERTICAL
A402		92	10'-6"	X	DRILLED FOOTING - HORIZONTAL
A703	X	12	20'-1"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	36	18'-2"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	74	15'-10"	X	FOOTING - STIRRUP
A406	X	16	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	16	3'-11"	X	FOOTING - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TRUSS E

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A1001		56	26'-5"		DRILLED FOOTING - VERTICAL
A402		92	12'-1"	X	DRILLED FOOTING - HORIZONTAL
A703	X	12	20'-7"	X	FOOTING - LONGITUDINAL - BOTTOM
A604	X	40	18'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A605	X	76	16'-10"	X	FOOTING - STIRRUP
A406	X	16	4'-7"	X	FOOTING - VERTICAL - EACH END
A407	X	16	4'-5"	X	FOOTING - HORIZONTAL - EACH END

STATE PROJECT NUMBER
STANDARD



BAR BENDING DIAGRAMS

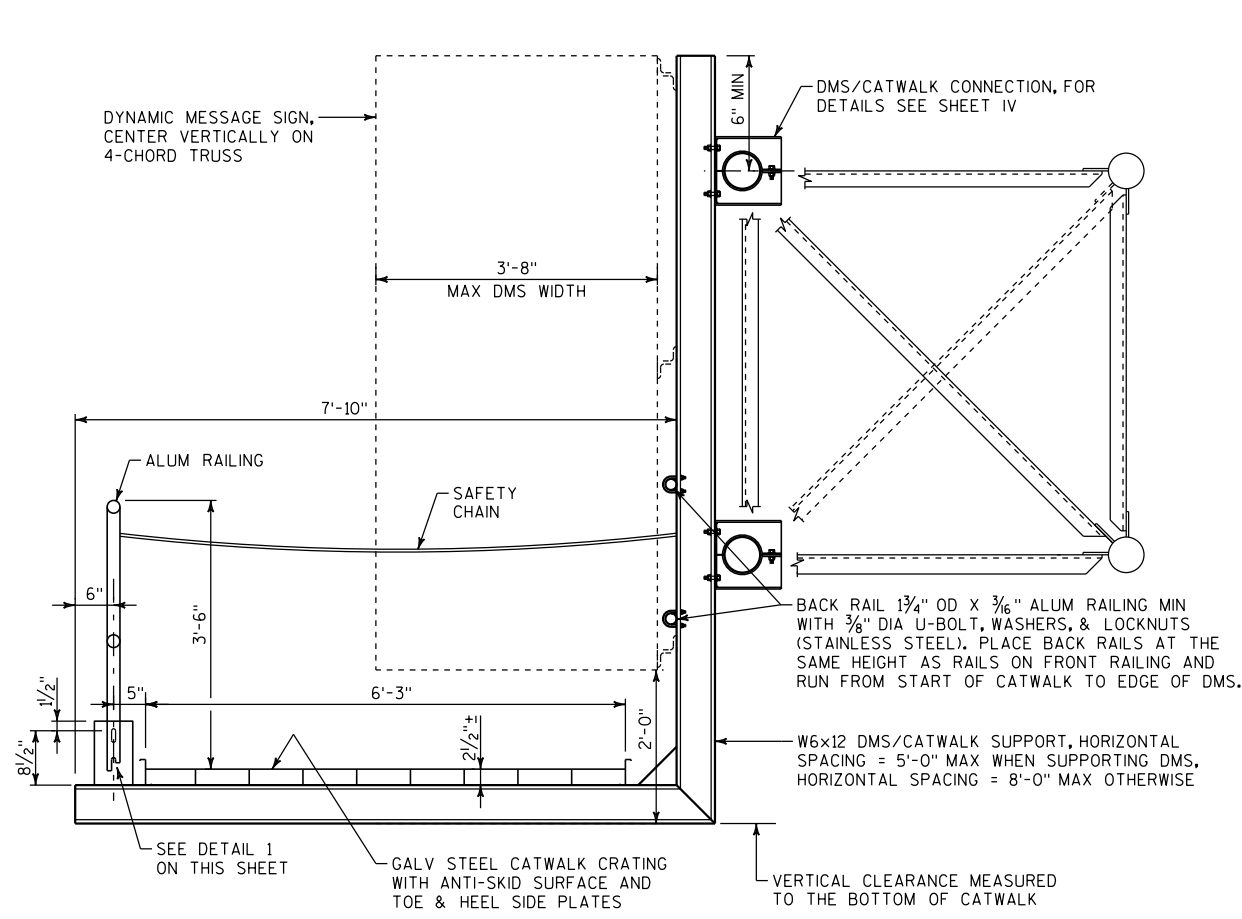
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ESTIMATED QUANTITIES - FOUNDATION

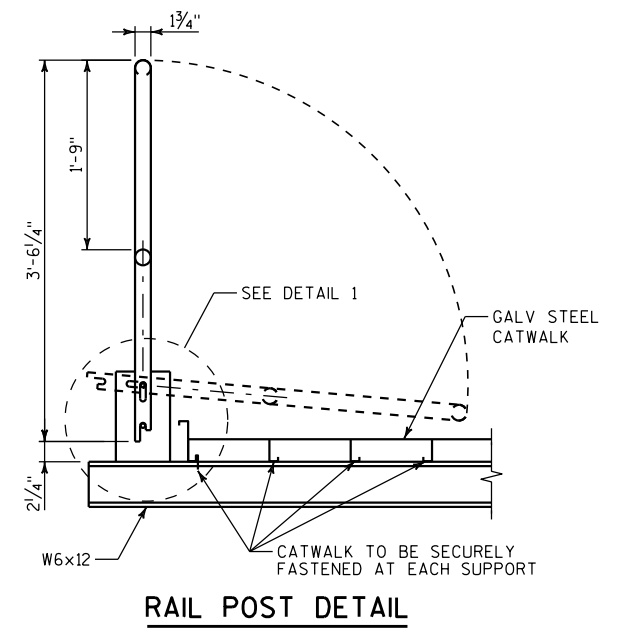
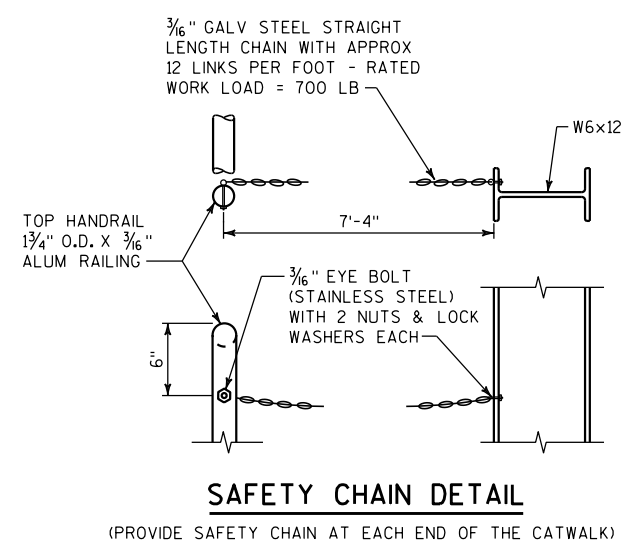
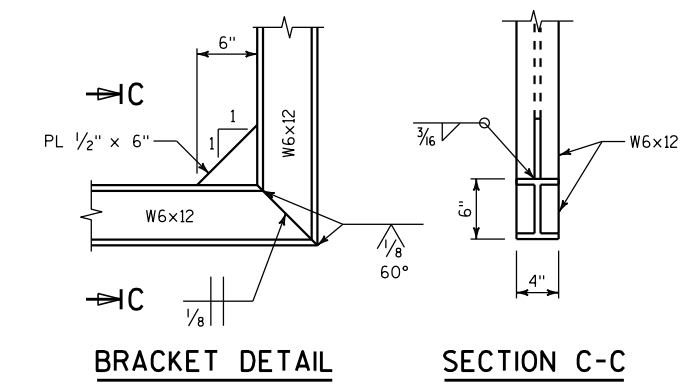
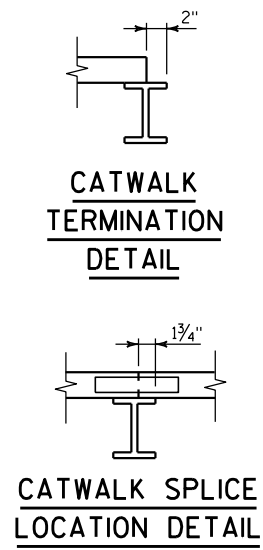
STANDARD DESIGN TRUSS	ANCILLARY STRUCTURES CONCRETE MASONRY (CY)	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS (LBS)	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 1/2-INCH (EACH)	ANCHOR ASSEMBLY 1 3/4-INCH (EACH)	FOUNDATION DRILLNG (LF)
A	33	4,080	2,030	4	----	76
B	40	4,150	2,510	4	----	88
C	53	5,550	2,810	----	4	92
D	56	5,550	3,330	----	4	92
E	70	7,110	3,650	----	4	92

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OSS 4-CHORD TRUSS FULL SPAN FOUNDATION DETAILS (2 OF 2)		SHEET VI OF VIII	

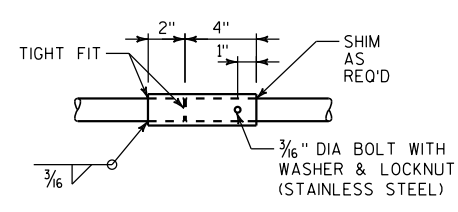
SCALE: 1:1



SECTION THRU WALKWAY

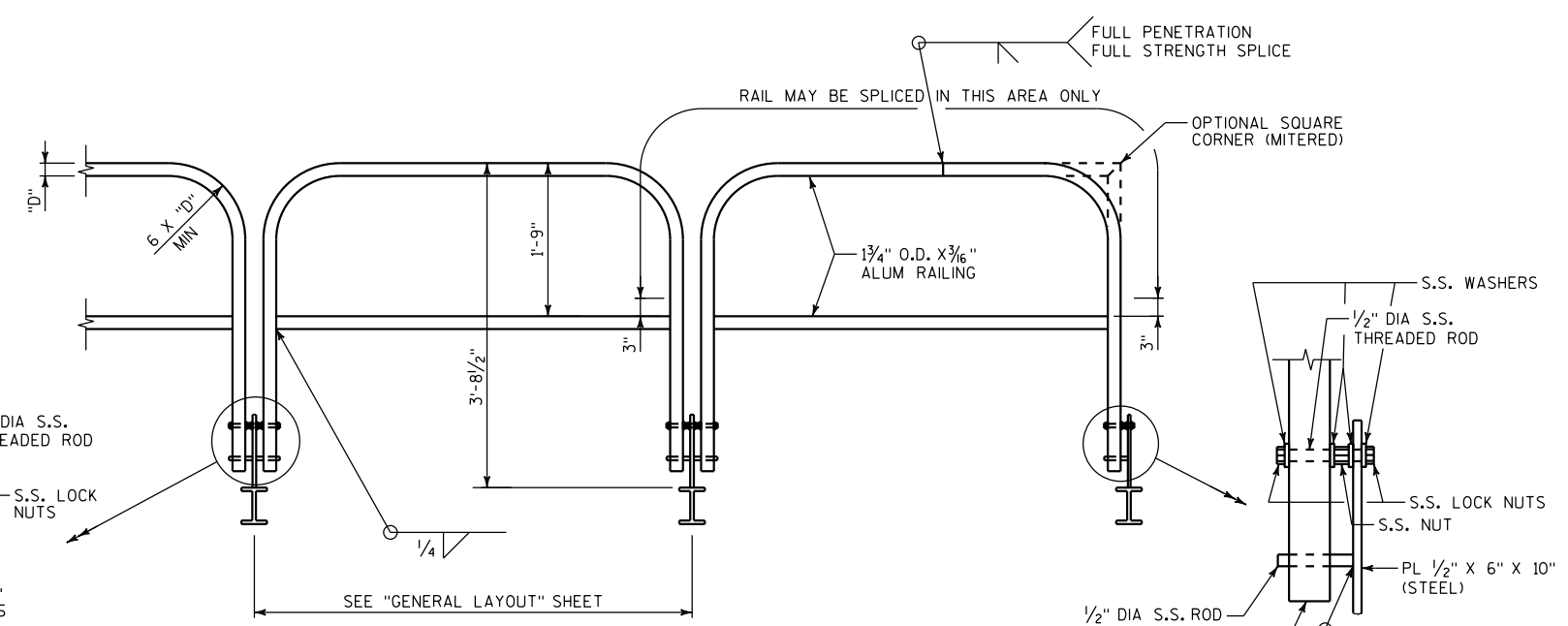


NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

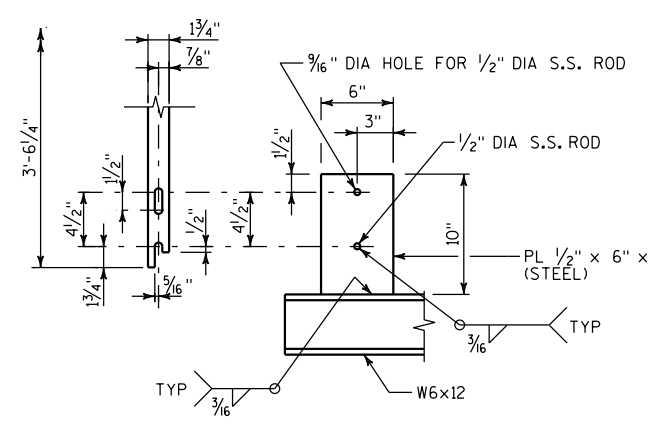


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



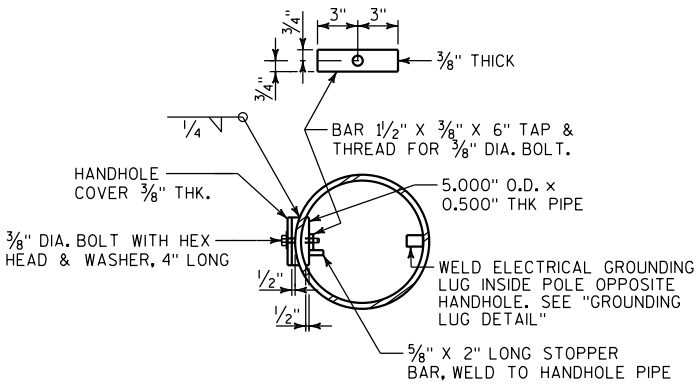
TYPICAL FRONT RAILING DETAILS



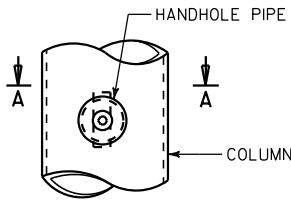
DETAIL 1

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
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OSS 4-CHORD TRUSS FULL SPAN CATWALK DETAILS			SHEET VII OF VIII

SCALE: 10:1



SECTION A-A

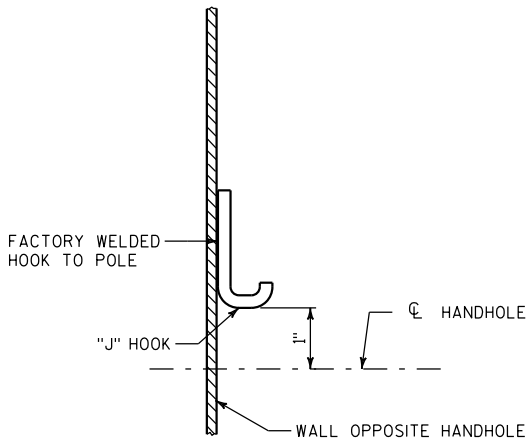


HANDHOLE DETAILS

HANDHOLE NOTES

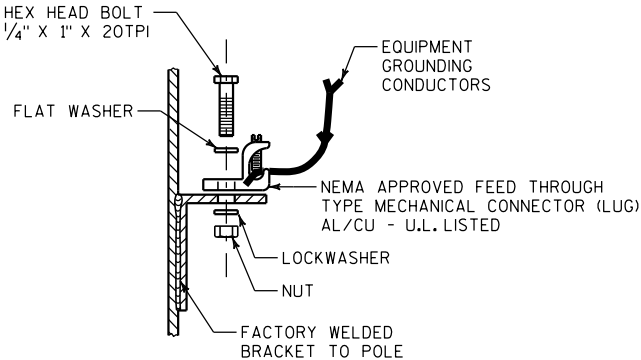
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.



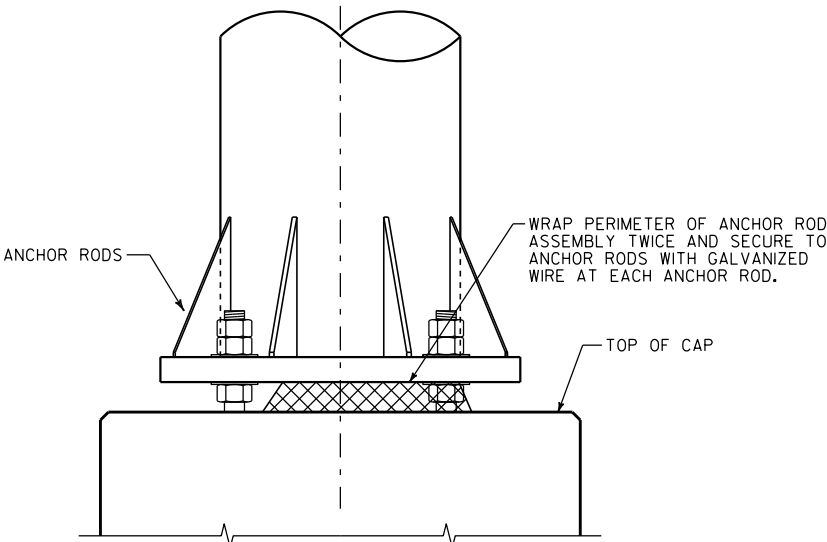
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

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OSS 4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS		SHEET VIII OF VIII	

SCALE: 4:1

DESIGN DATA

SIGN STR	ACTUAL SIGN AREA		ACTUAL SIGN HEIGHT		FND TYPE
	TYPE 1	DMS	TYPE 1	DMS	
S-13-2033	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-2034	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-20XX	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-2035	XXX SF	XXX SF	X'-X"	X'-X"	--
S-13-2036	XXX SF	XXX SF	X'-X"	X'-X"	--
DESIGN SIGN	XXX SF	XXX SF	X'-X"	X'-X"	--

ALL STRUCTURES IN THIS GROUP OF STRUCTURES ARE DESIGNED FOR THE DESIGN SIGN LOADING

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1	1.0	0.0
LOAD CASE 2	0.0	1.0
LOAD CASE 3	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TrG (TRUCK INDUCED GUST VIBRATION)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),DANE COUNTY ZONE,NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-20XX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

IF REQUIRED,CATWALKS SHALL BE INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-20XX" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S.BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS,IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D11.

SEE SIGN PLATE NO.A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE BRIDGE OR CANTILEVER SPAN,2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS,AND SHALL BE CENTERED ON THE BRIDGE OR CANTILEVER SPAN. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND STORM SEWER IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AND STORM SEWER AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE.Permanent casing made from steel or corrugated metal pipe may be used in lieu of temporary casing. Temporary/permanent casing,if used,shall be incidental to the bid item "Foundation Drilling".

TRAFFIC VOLUME

A.D.T. (2036) = 139,650-164,190
R.D.S. = 60 MPH

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS),OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE MASONRY-----.f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60----- fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36----- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C-- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325----- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55----- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-13-2033
3. GENERAL LAYOUT S-13-2034
4. GENERAL LAYOUT S-13-20XX
5. GENERAL LAYOUT S-13-2035
6. GENERAL LAYOUT S-13-2036

THE DESIGNER CERTIFIES THAT THE SIGN STRUCTURE GEOMETRY AND STANDARD FOUNDATION CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

STATE PROJECT NUMBER

1206-06-79

1078 PLANS

STRUCTURE DESIGN CONTACTS

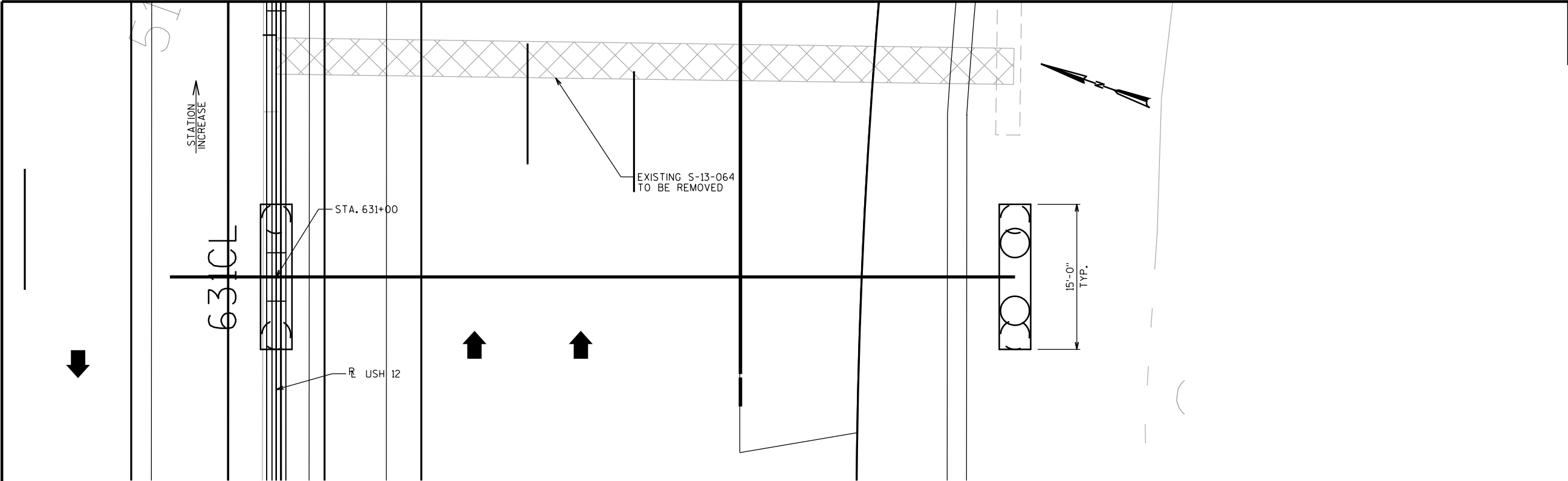
BUREAU OF STRUCTURES:
SUPERVISOR:
AARON BONK (608) 261-0261

CONSULTANT:
PAT CASHIN (414) 359-2300

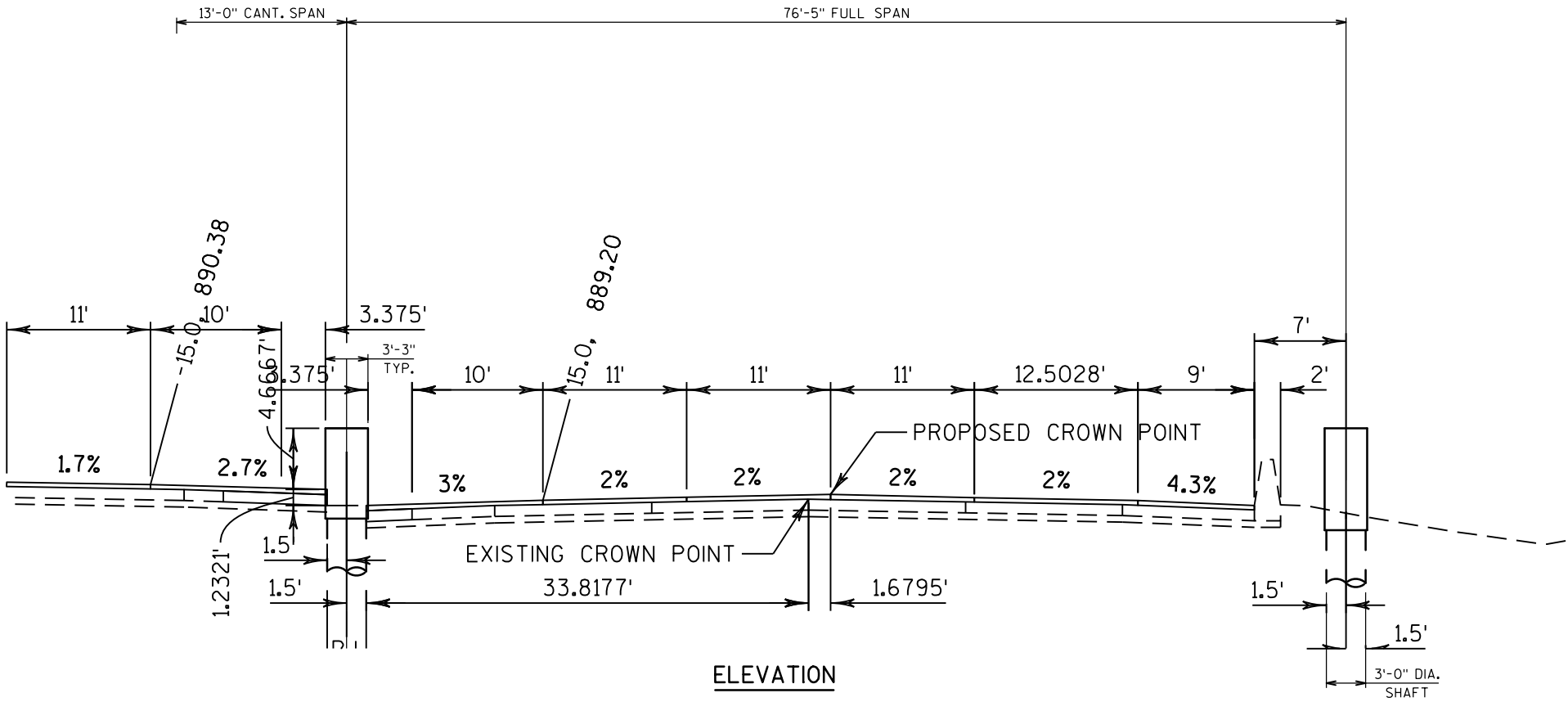
NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB(414) 359-2300			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
OSS 4-CHORD TRUSS FULL SPAN WITH CANTILEVER PLANS			
FULL SPAN SIGN STRUCTRES USH 12/18 EB&WB			
COUNTY DANE		CITY OR TOWN MADISON	
DESIGN SPEC. AASHTO LRFDLTS-1 W/INTERIMS			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
GENERAL NOTES & DESIGN DATA			SHEET 1 OF 6

TOTAL ESTIMATED QUANTITES

BID ITEM NO.	BID ITEMS	UNIT	S-13-2033	S-13-2034	S-13-20XX	S-13-2035	S-13-2036
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--
531.00XX	FOUNDATION DRILLING 36-INCH	LF	--	--	--	--	--
531.00XX	FOUNDATION DRILLING 42-INCH	LF	--	--	--	--	--
531.1000	ANCILLARY STRUCTURES CONCRETE MASONRY	CY	--	--	--	--	--
531.2400	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS	LB	--	--	--	--	--
531.2600	ANCILLARY STRUCTURES STEEL REINFORCEMENT HS COATED	LB	--	--	--	--	--
531.60XX	ANCHOR ASSEMBLIES X-INCH	EA	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-2033	LF	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-2034	LF	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-20XX	LF	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-2035	LF	--	--	--	--	--
SPV.0090.XX	OVERHEAD SIGN STRUCTURE 4-CHORD TRUSS FULL SPAN WITH CANTILEVER S-13-2036	LF	--	--	--	--	--
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	--	--	--	--	--
653.XXXX	JUNCTION BOXES (SIZE)	EA	--	--	--	--	--



PLAN



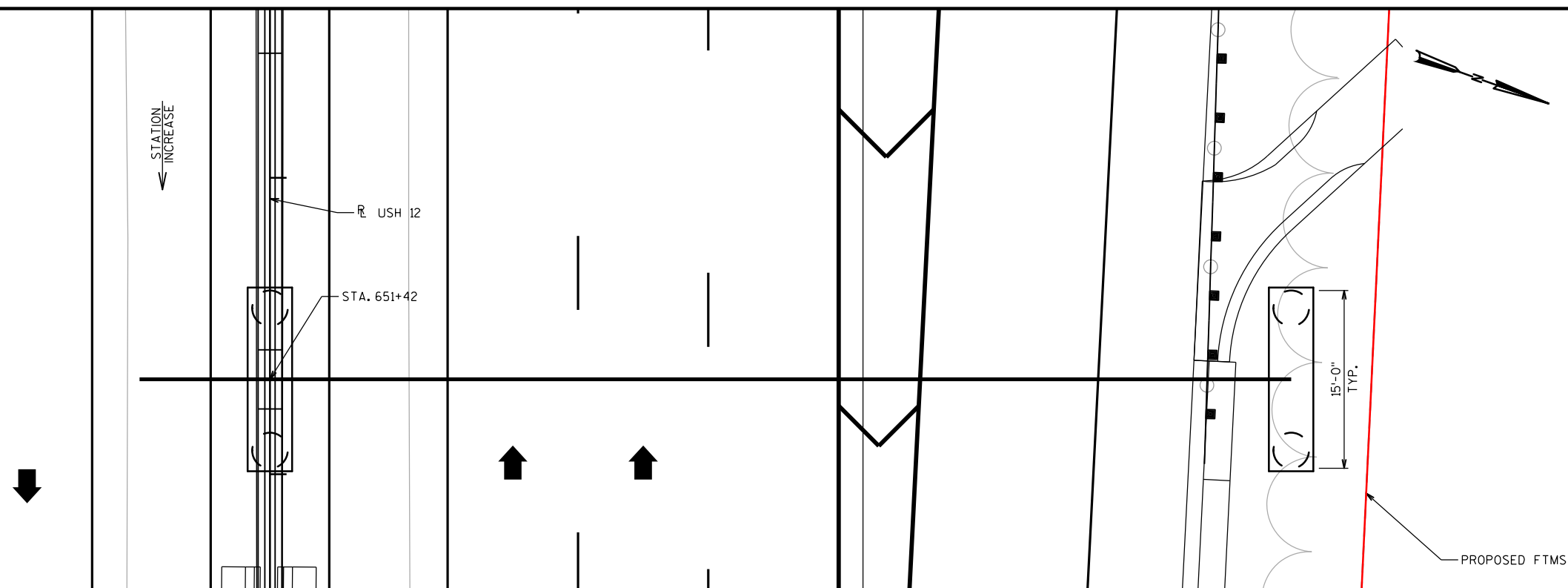
ELEVATION

STATE PROJECT NUMBER

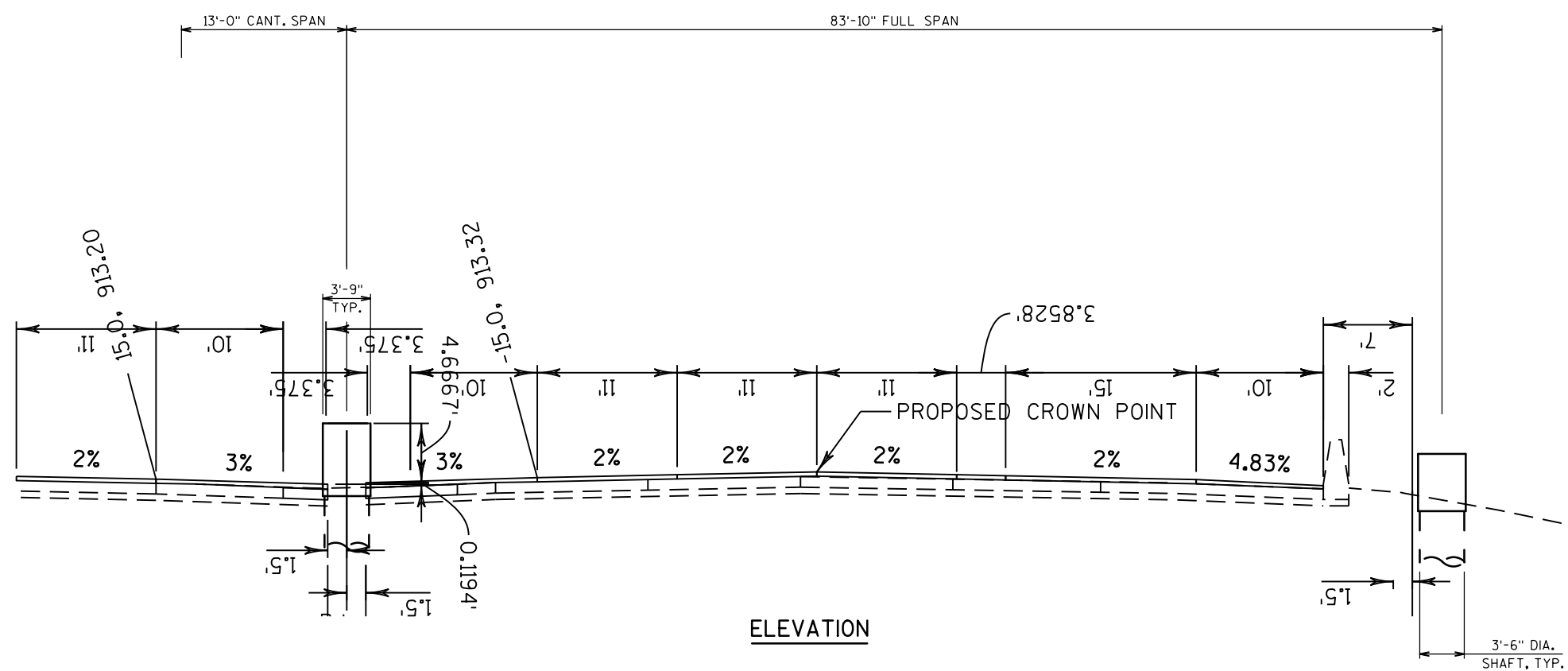
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2033			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2033			SHEET 2 OF 6



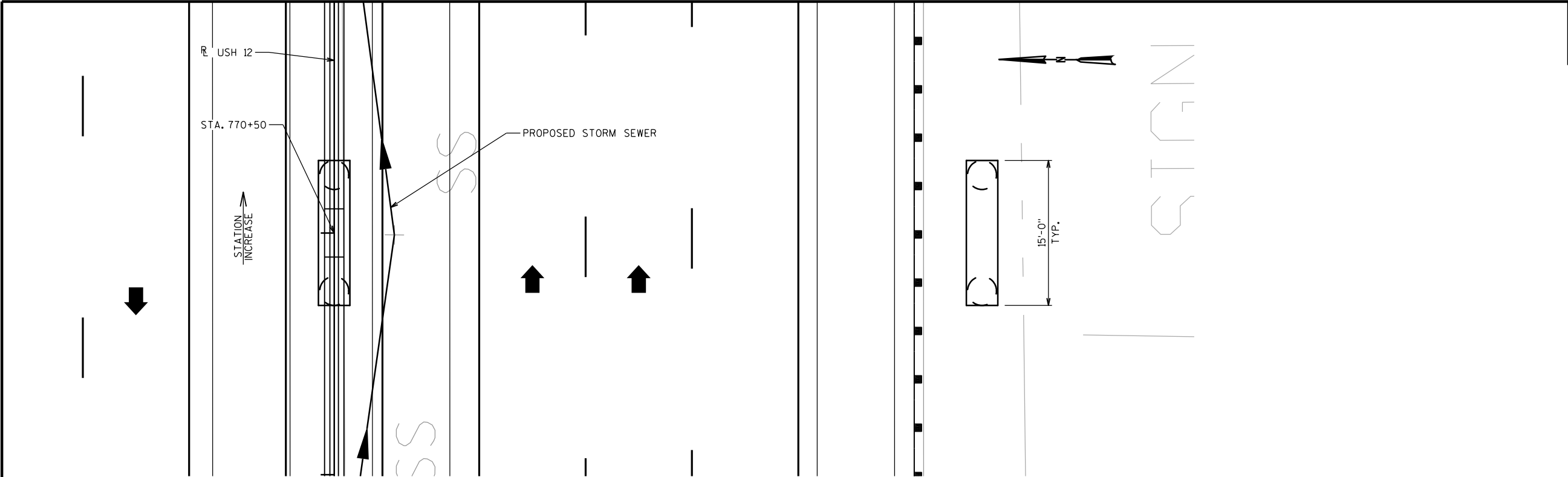
PLAN



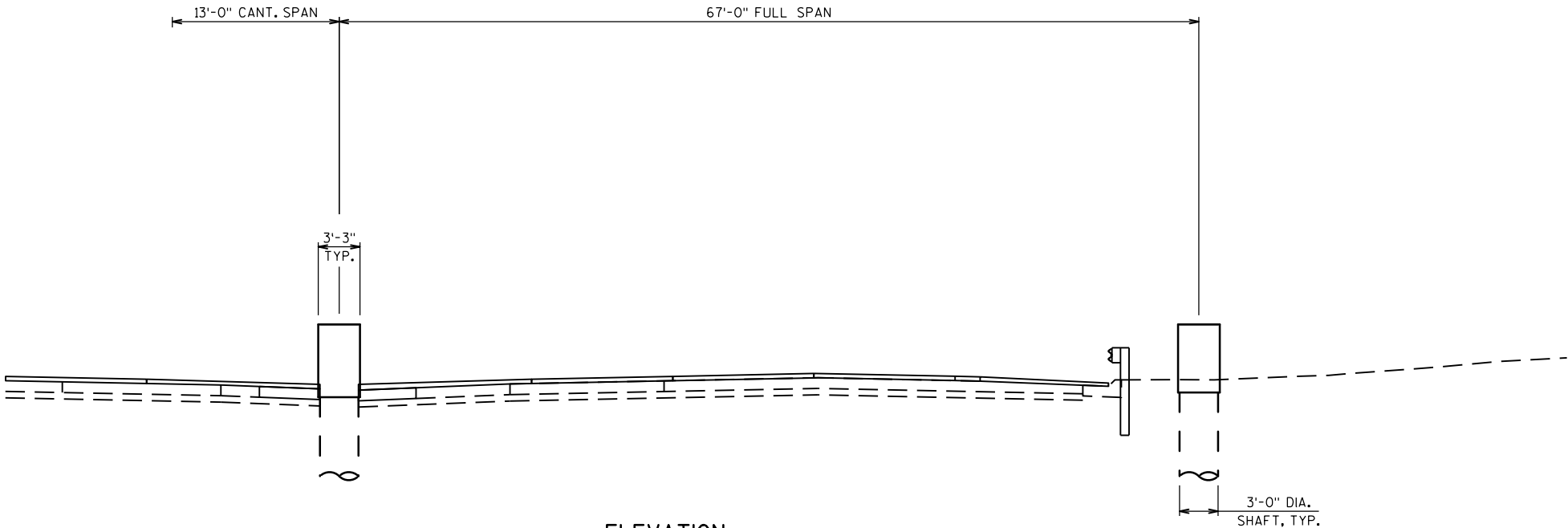
ELEVATION

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2034			
		DRAWN BY	PLANS CK'D.
GENERAL LAYOUT S-13-2034		SHEET 3 OF 6	



PLAN

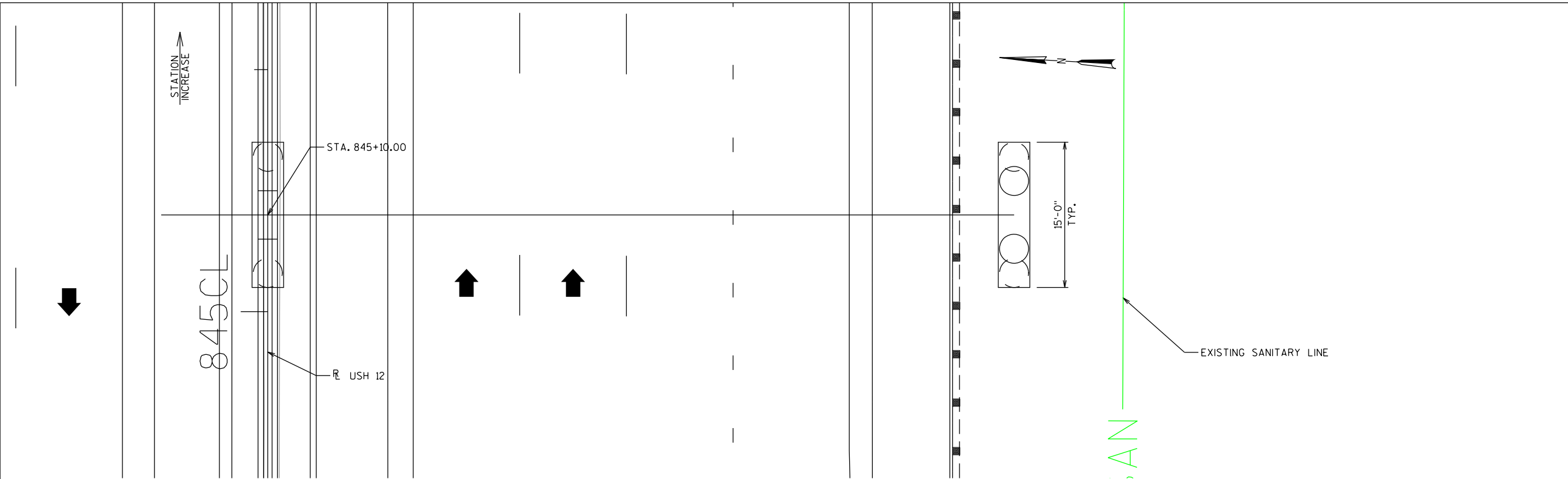


ELEVATION

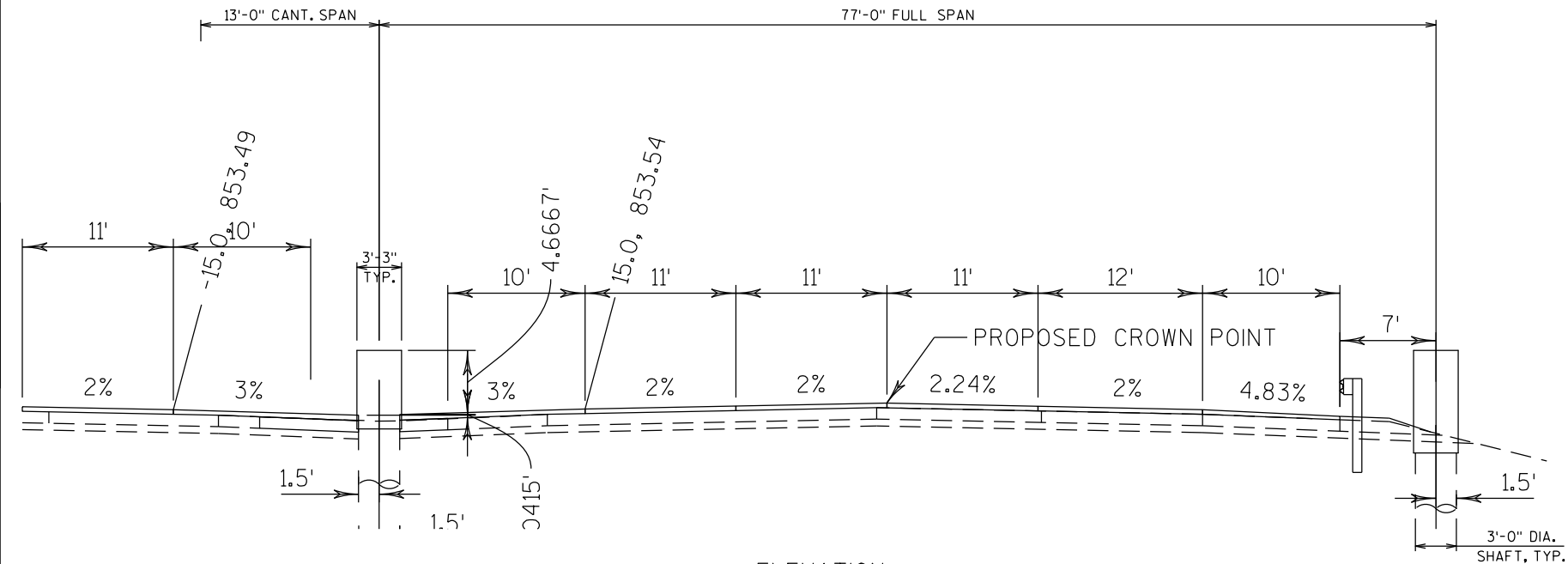
STATE PROJECT NUMBER
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-20XX			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-20XX			SHEET 4 OF 6



PLAN



ELEVATION

STATE PROJECT NUMBER
1206-06-79

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2035			
DRAWN BY		PLANS CK'D.	
GENERAL LAYOUT S-13-2035			SHEET 5 OF 6

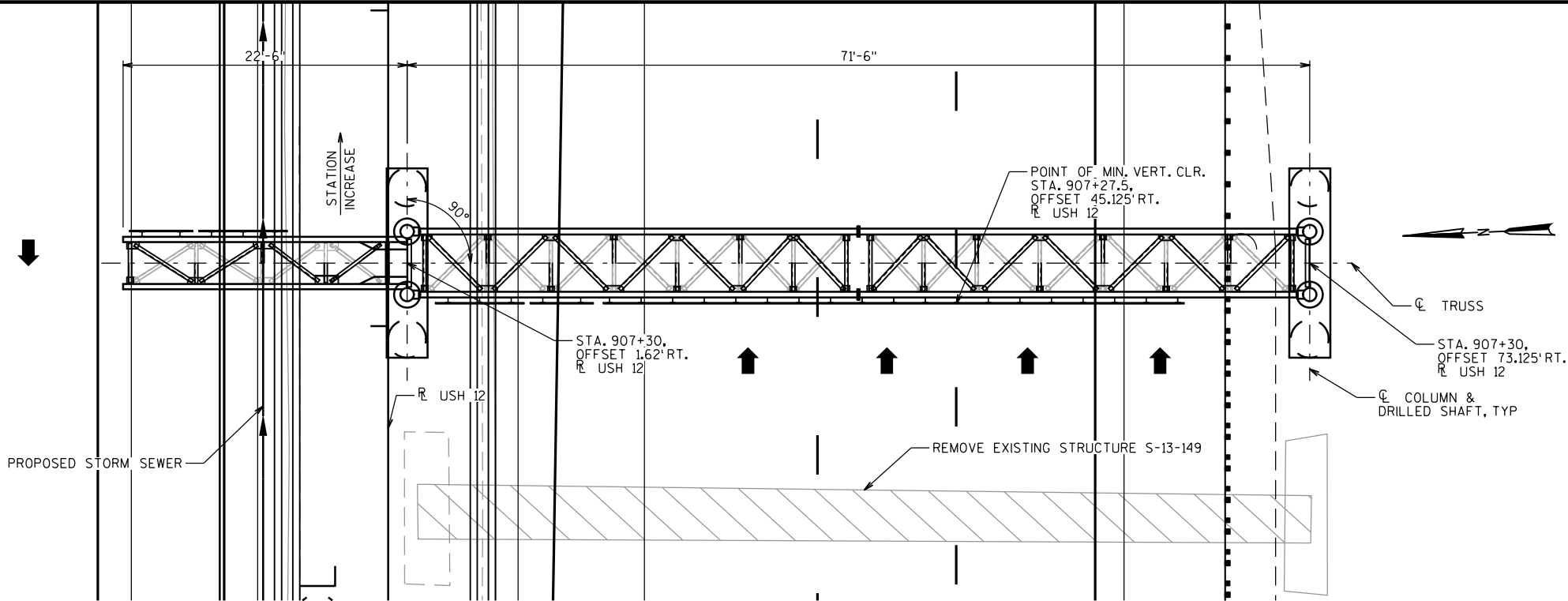
NOTE

POINT OF MIN VERTICAL CLEARANCE
STA XXX+XX.XX, XX.XX' (LEFT/RIGHT)
EL XXX.XX

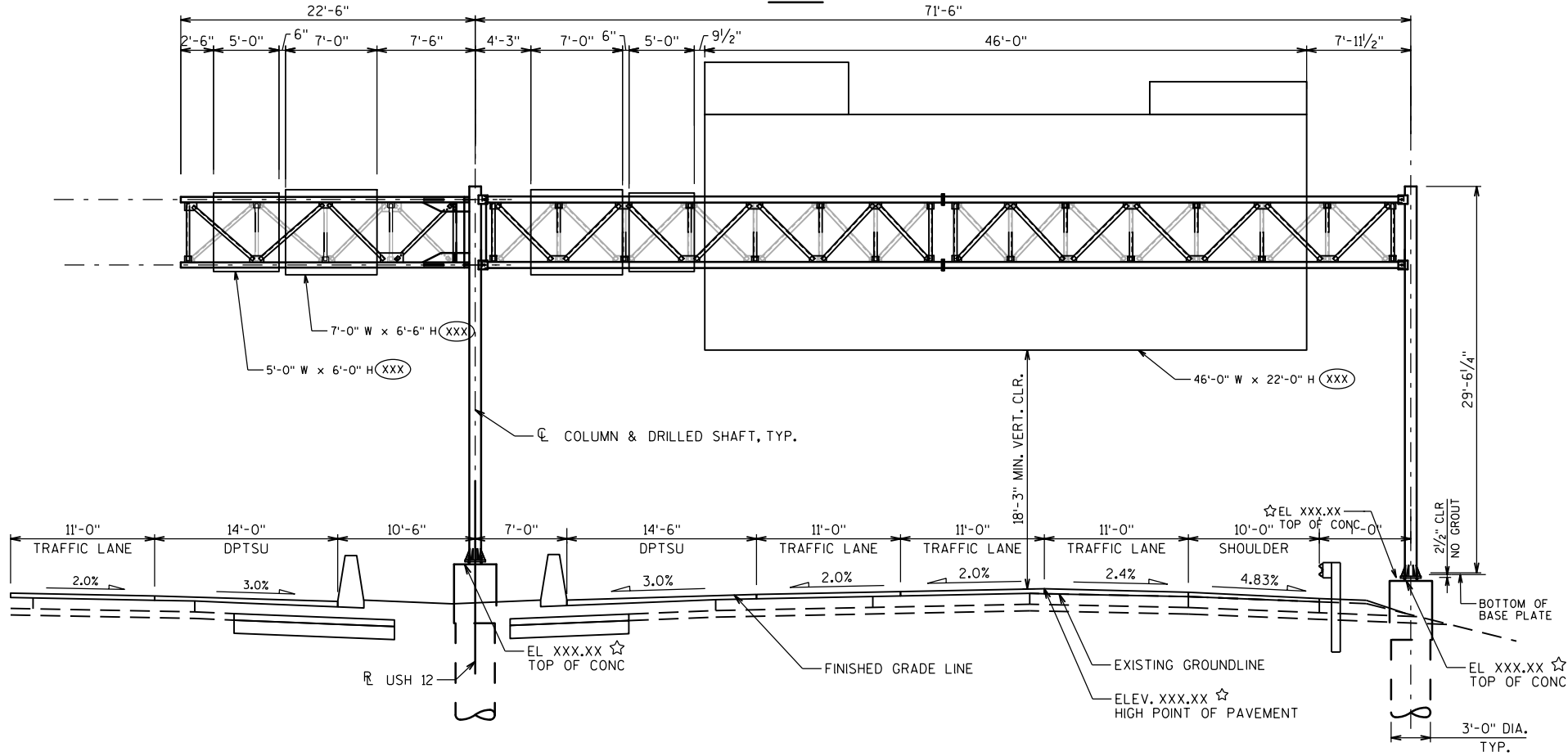
LEGEND

☆ ELEVATIONS GIVEN ALONG CL TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

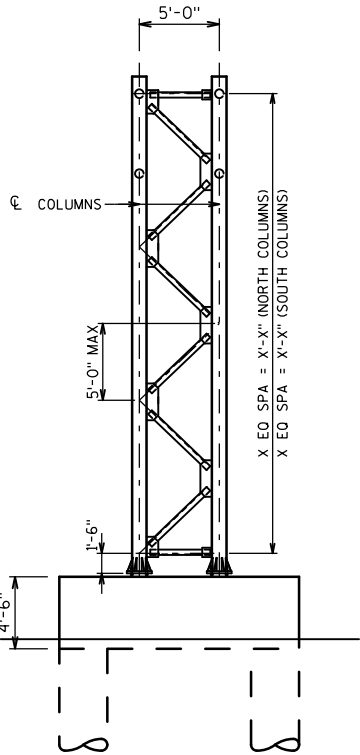


PLAN



ELEVATION

STA 907+30
(LOOKING UPSTATION AT FRONT OF SIGN)



END VIEW
LOOKING NORTH

1078 PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
S-13-2036			
DRAWN BY		NNM	PLANS CK'D.
GENERAL LAYOUT S-13-2036			SHEET 6 OF 6