

JUNE 08, 2021

1000-20-63

COUNTY:

SE REGION, MANITOWOC COUNTY, DANE COUNTY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

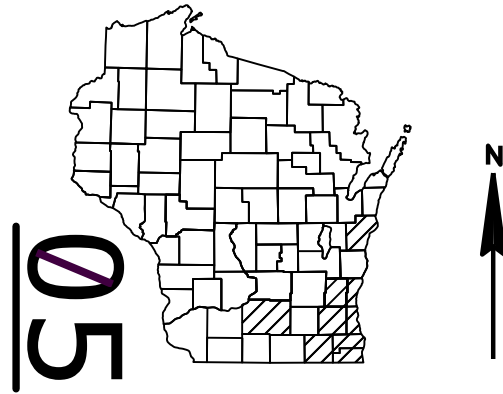
PLAN OF PROPOSED IMPROVEMENT

ANCILLARY STRUCT REHAB/REPLACE 2021 LOCATIONS ON STN PER ANNUAL PLAN VARIOUS HIGHWAYS STATEWIDE

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT

STATE PROJECT NUMBER

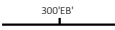
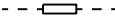
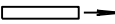
1000-20-63



A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

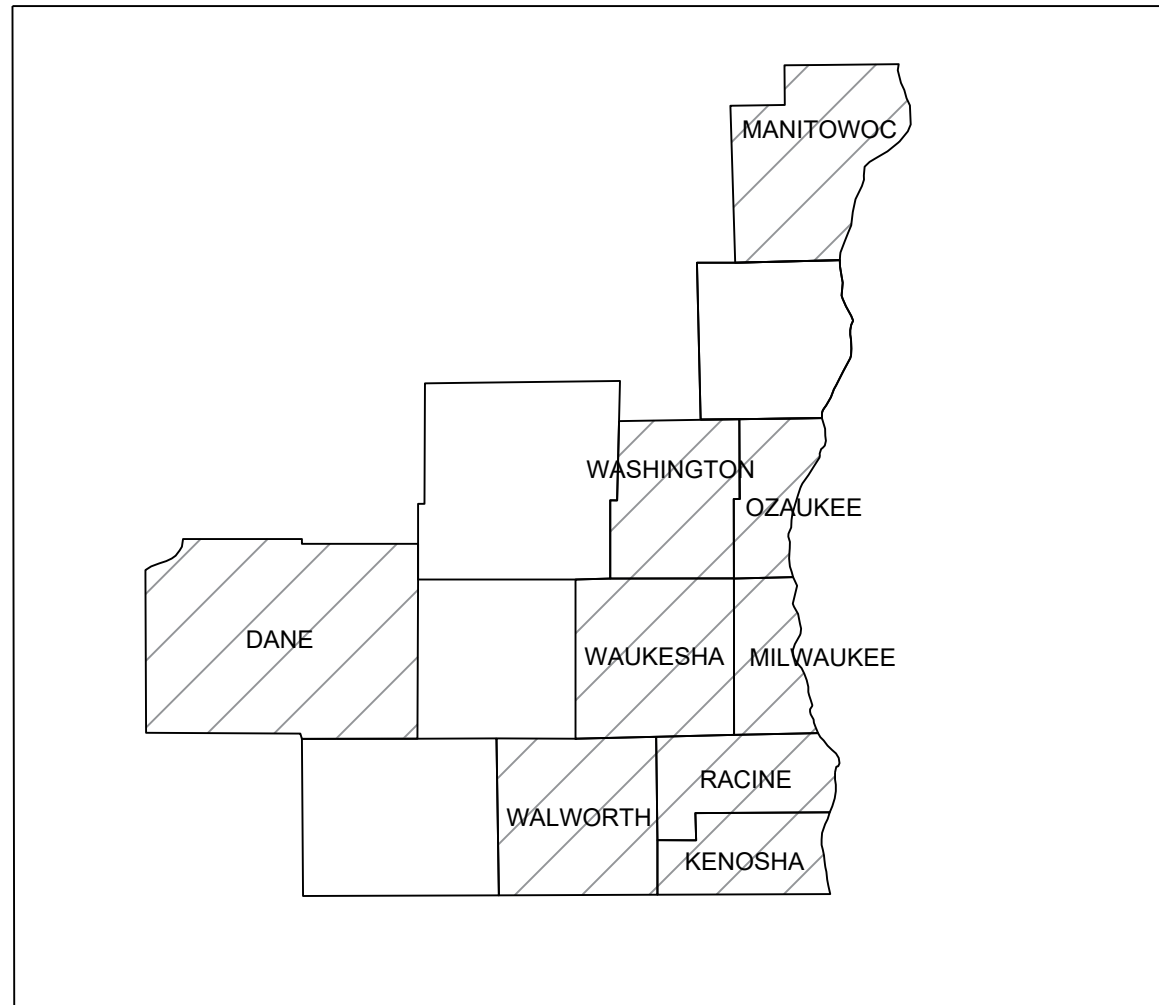
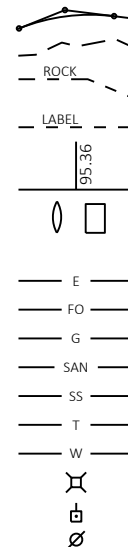
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



SCALE 0 LAYOUT

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	_____
Designer	WisDOT
Project Manager	FRANK PRITZLAFF, P.E.
Regional Examiner	_____
Regional Supervisor	MANOJOY NAG, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 07-30-2020 Frank J. Pritzlaff
(Signature)

—

FILE NAME : \\WKERTOVFILP01\N3PUBLIC\PDS\C3D\10002033\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 7/27/2020 4:19 PM

PLOT BY : TIRSKY, ANDREA FAYE

PLOT NAME :

HIGHWAY COMMISSIONER/ UTILITIES CONTACT LIST

(NOT ALL INCLUSIVE. CONTRACTOR RESPONSIBLE FOR ALL UTILITY COORDINATION AND LOCATING)

DANE COUNTY
GERALD MANDLI
2302 FISH HATCHERY RD
PO BOX 2495
MADISON, WI 53713-2495
609-266-4039
MANDLI@COUNTYOFDANE.COM

RACINE COUNTY
DAVID PROTT
14200 WASHINGTON AVE
STURTEVANT, WI 53177
262-886-8440
DAVID.PROTT@RACINECOUNTY.COM

KENOSHA COUNTY
CLEMENT ABONGWA
19600 75TH ST, SUITE 122-1
PO BOX 609
BRISTOL, WI 53104-0609
262-857-1870
CLEMENT.ABONGWA@KENOSHACOUNTY.ORG

WALWORTH COUNTY
BARRY PIERCE
W4097 COUNTY RD NN
PO BOX 1001
ELKHORN, WI 53121-1001
262-741-3799
BPIERCE@CO.WALWORTH.WI.US

MANITOWOC COUNTY
MARC HOLSEN
3500 STATE RD 310
MANITOWOC, WI 54220
920-683-4353
MARCHOLSEN@CO.MANITOWOC.WI.US

WASHINGTON COUNTY
SCOTT SCHMIDT
900 LANG ST
WEST BEND, WI 53090
262-335-6881
SCOTT.SCHMIDT@CO.WASHINGTON.WI.US

MILWAUKEE COUNTY
DONNA BROWN MARTIN
10320 W WATERTOWN PLANK RD
WAUWATOSA, WI 53226
414-257-5987
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WAUKESHA COUNTY
ALLISON BUSSLER
1320 PEWAUKEE RD
WAUKESHA, WI 53188
262-548-7740
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OZAUKEE COUNTY
JON EDGREN
410 S SPRING ST
PO BOX 994
PORT WASHINGTON, WI 53074-0994
262-284-8331
JEDGREN@CO.OZAUKEE.WI.US

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

GENERAL NOTES

THE LOCATION OF EXISTING OR PROPOSED UTILITIES AS NOTED ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. UTILITY SERVICES ARE NOT SHOWN.

STATE AGENCIES

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
JEFF MADSON
STE. 300
433 W ST PAUL AVE
MILWAUKEE, WI 53203-3007
414-225-3723
JEFFREY.MADSON@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING
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141 NW BARSTOW STREET
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ERIC.PEREA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
DERRIN WOLFORD
141 NW BARSTOW STREET
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WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION TOWER
MIKE ADAMS
RM 501
P.O. BOX 7986
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MICHAEL.ADAMS@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
PROJECT MANAGER
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WISCONSIN DEPARTMENT OF TRANSPORTATION
UTILITY ENGINEER
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141 NW BARSTOW STREET
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WISCONSIN DEPARTMENT OF NATURAL RESOURCES - DANE COUNTY
ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
608-228-7927
ERIC.HEGGELUND@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES - KENOSHA & RACINE COUNTY
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141 NW BARSTOW STREET
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262-623-0194
BENTON.STELZEL@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES - MANITOWOC COUNTY
MATT SCHAEVE
2984 SHAWANO AVE
GREEN BAY, WI 54313
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WISCONSIN DEPARTMENT OF NATURAL RESOURCES - MILWAUKEE, OZAUKEE, & WASHINGTON COUNTY
KRISTINA BETZOLD
2300 N. MARTIN LUTHER KING JR.
MILWAUKEE WI 53212
414-507-4946
KRISTINA.BETZOLD@WISCONSIN.GOV

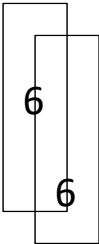
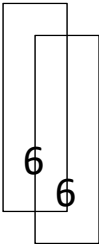
WISCONSIN DEPARTMENT OF NATURAL RESOURCES - WALWORTH & WAUKESHA COUNTY
CRAIG WEBSTER
141 NW BARSTOW STREET
WAUKESHA, WI 53188-3789
262-574-2141
414-303-3011
CRAIG.WEBSTER@ WISCONSIN.GOV

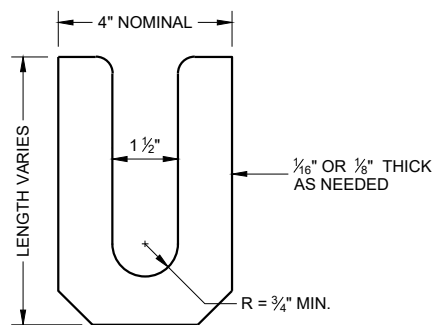
Estimate Of Quantities

1000-20-63					
Line	Item	Item Description	Unit	Total	Qty
0002	509.1500	Concrete Surface Repair	SF	15.000	15.000
0004	517.0600	Painting Epoxy System (structure) 01. S-13-0213	LS	1.000	1.000
0006	619.1000	Mobilization	EACH	1.000	1.000
0008	637.2210	Signs Type II Reflective H	SF	124.000	124.000
0010	637.2230	Signs Type II Reflective F	SF	20.000	20.000
0012	638.3155	Removing Overhead Sign Supports Full Span (structure) 01. S-36-0023	EACH	1.000	1.000
0014	643.5000	Traffic Control	EACH	1.000	1.000
0016	SPV.0060	Special 01. Tension Anchor Rods	EACH	62.000	62.000
0018	SPV.0060	Special 02. Remove Debris	EACH	1.000	1.000
0020	SPV.0060	Special 03. Rodent Screen	EACH	4.000	4.000
0022	SPV.0060	Special 04. Lower Structure	EACH	1.000	1.000
0024	SPV.0060	Special 05. Reinstall Truss	EACH	3.000	3.000
0026	SPV.0060	Special 06. Tension Structural Bolts	EACH	54.000	54.000
0028	SPV.0060	Special 07. Replace Truss Member	EACH	1.000	1.000
0030	SPV.0060	Special 08. Vertical Sign Support	EACH	10.000	10.000
0032	SPV.0060	Special 09. Sign Panel Connector	EACH	19.000	19.000
0034	SPV.0060	Special 10. Adjust Sign	EACH	1.000	1.000
0036	SPV.0060	Special 11. ID Plaque	EACH	23.000	23.000
0038	SPV.0060	Special 12. Misc. Attachments	EACH	4.000	4.000
0040	SPV.0060	Special 13. Handhole Cover	EACH	1.000	1.000
0042	SPV.0060	Special 14. Conduit Plug	EACH	4.000	4.000
0044	SPV.0060	Special 15. Post/End Cap	EACH	3.000	3.000
0046	SPV.0060	Special 16. Catwalk Repair	EACH	1.000	1.000
0048	SPV.0060	Special 17. Dished Washer	EACH	11.000	11.000
0050	SPV.0060	Special 18. Replace Signal Shroud	EACH	6.000	6.000
0052	SPV.0060	Special 19. Signal Mounting Hardware	EACH	48.000	48.000
0054	SPV.0060	Special 20. Adjust Signal	EACH	14.000	14.000

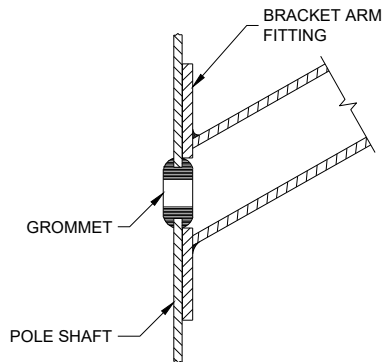
Standard Detail Drawing ListStandard Detail Drawing List

09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D12-08A	TRAFFIC CONTROL, LANE CLOSURE
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-05A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-05B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-05C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-06A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-06B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-04	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

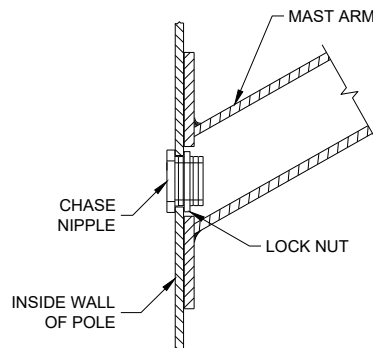




LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



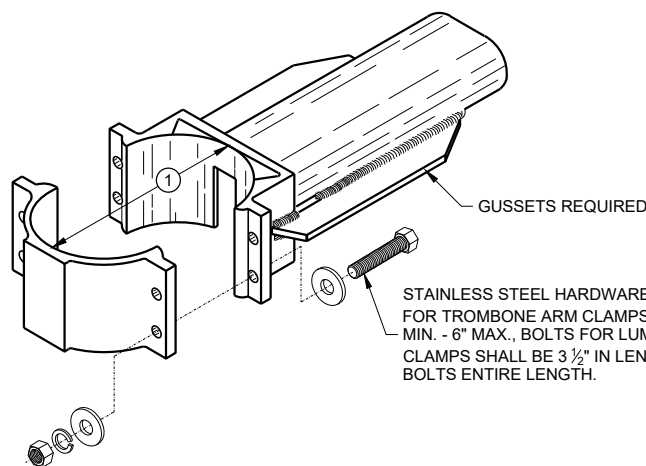
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

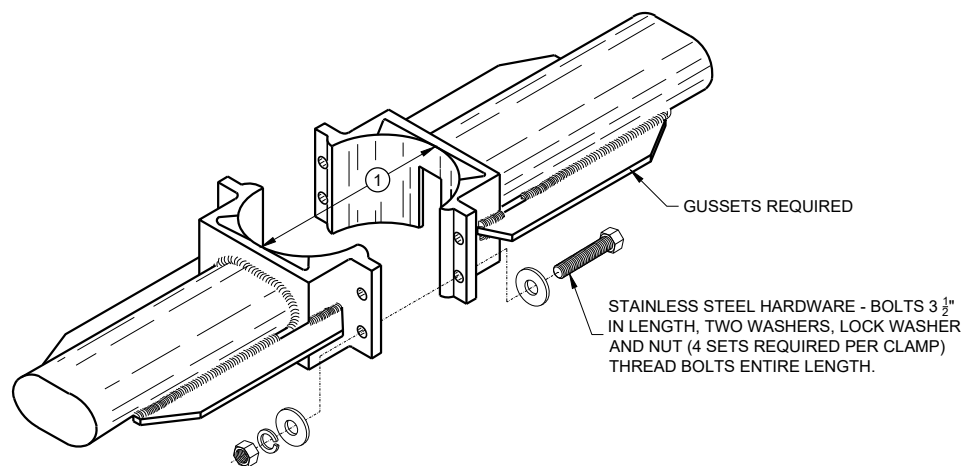
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- 1 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- 2 INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- 3 BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- 4 LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

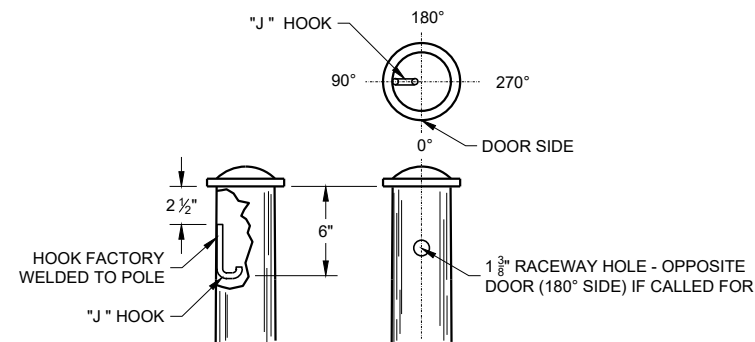
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



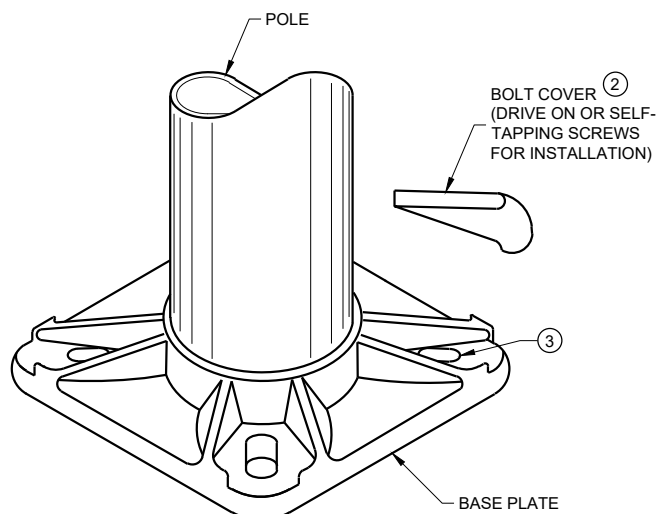
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



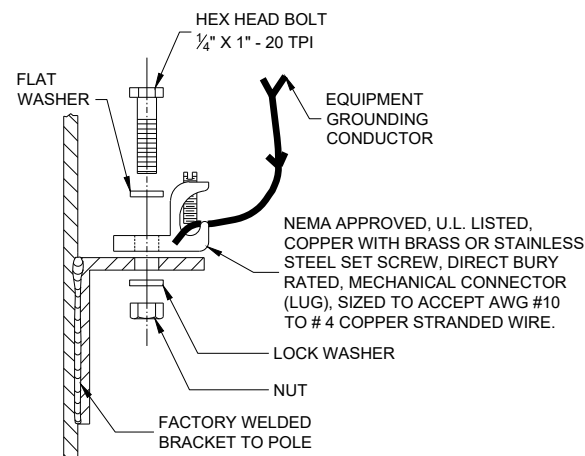
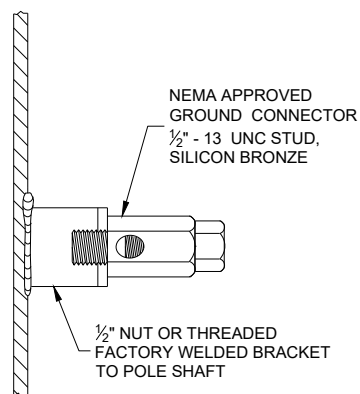
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



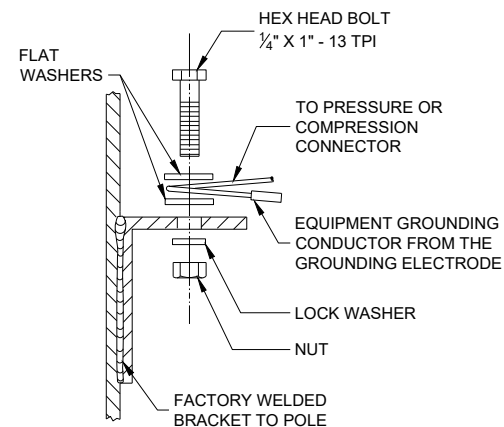
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

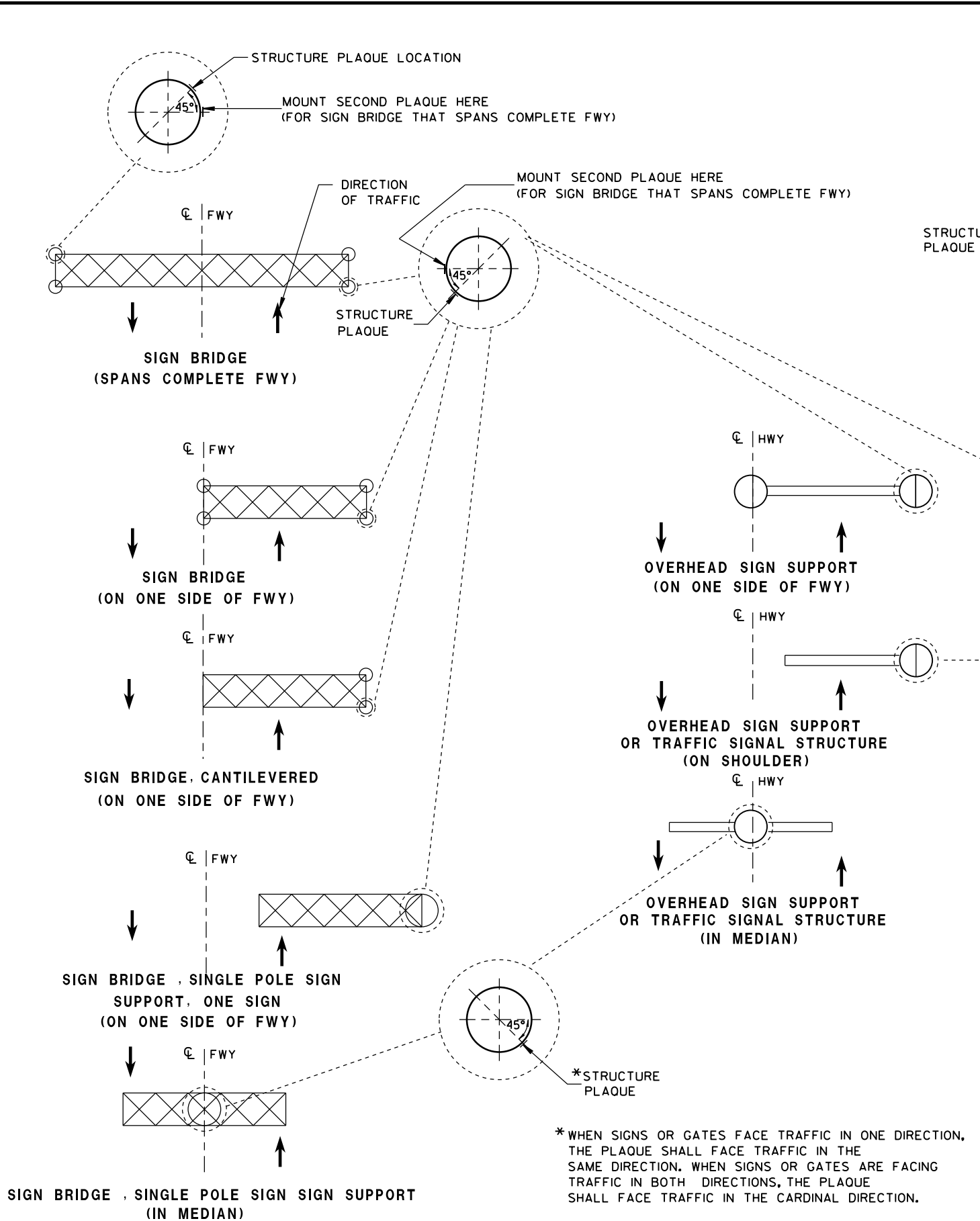


HARDWARE DETAILS FOR POLE MOUNTING

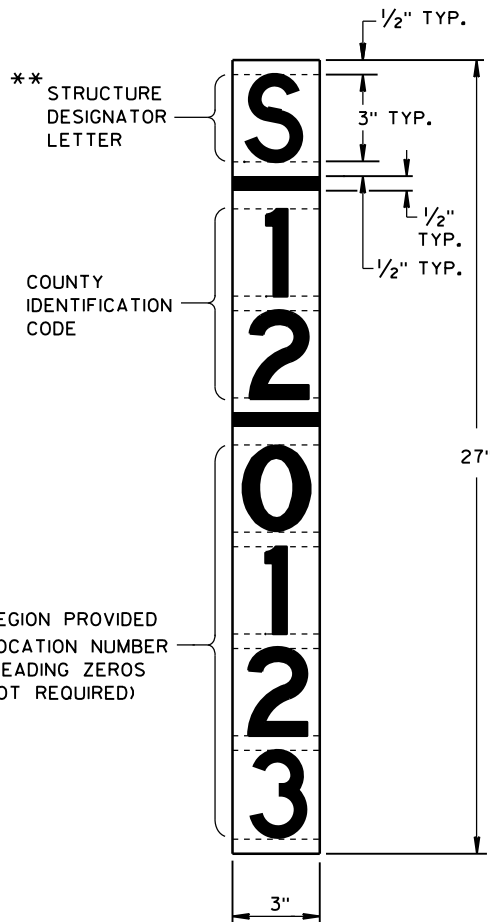
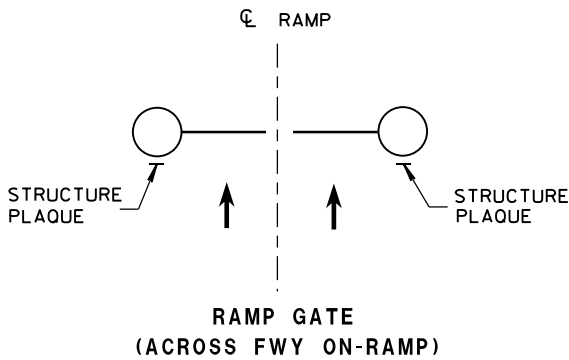
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

FHWA



LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD
SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL
STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN
SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN
EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION
PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION
AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS;
FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR
SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL
OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

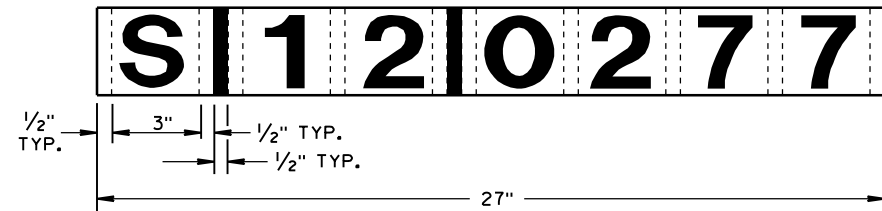
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE
MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE
SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN
THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN.
THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY
TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE
ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

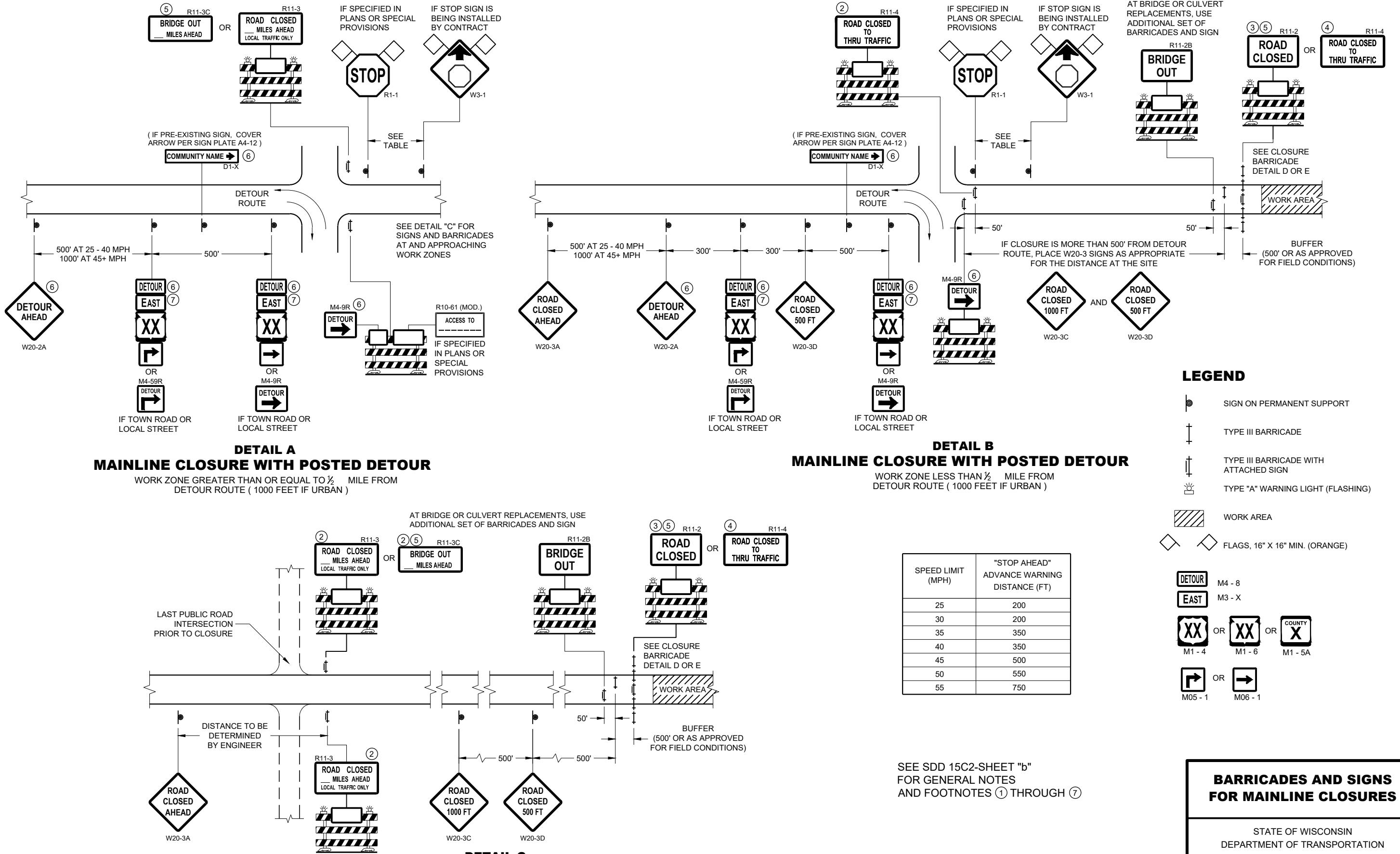
WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO
HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE,
STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES.
LETTER "S" UTILIZED FOR SIGN BRIDGES,
OVERHEAD SIGN SUPPORTS, AND TRAFFIC
SIGNALS.

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12/4/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

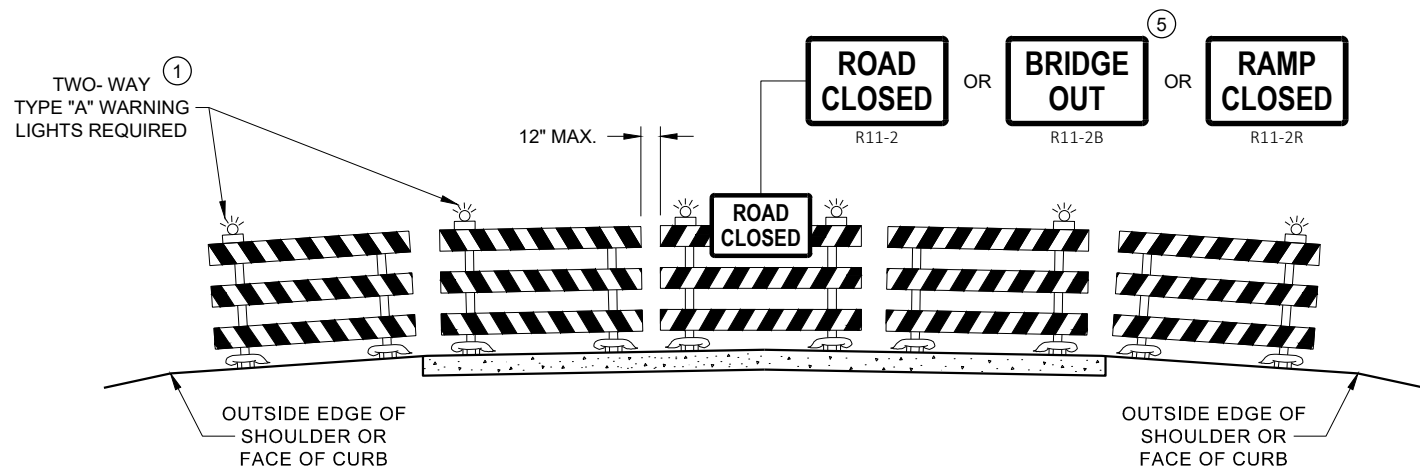


**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

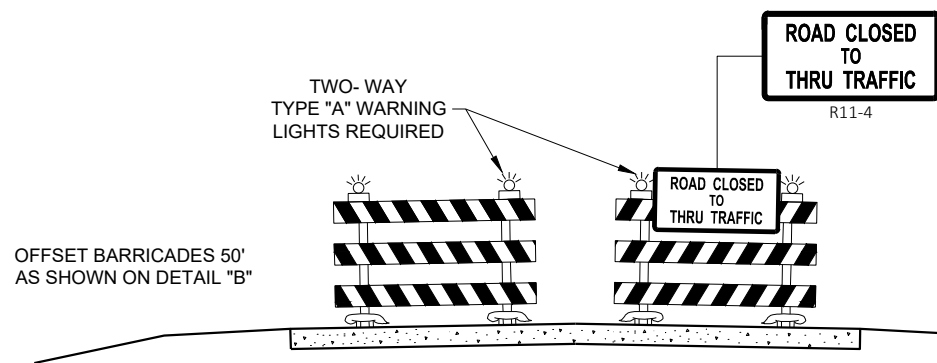
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

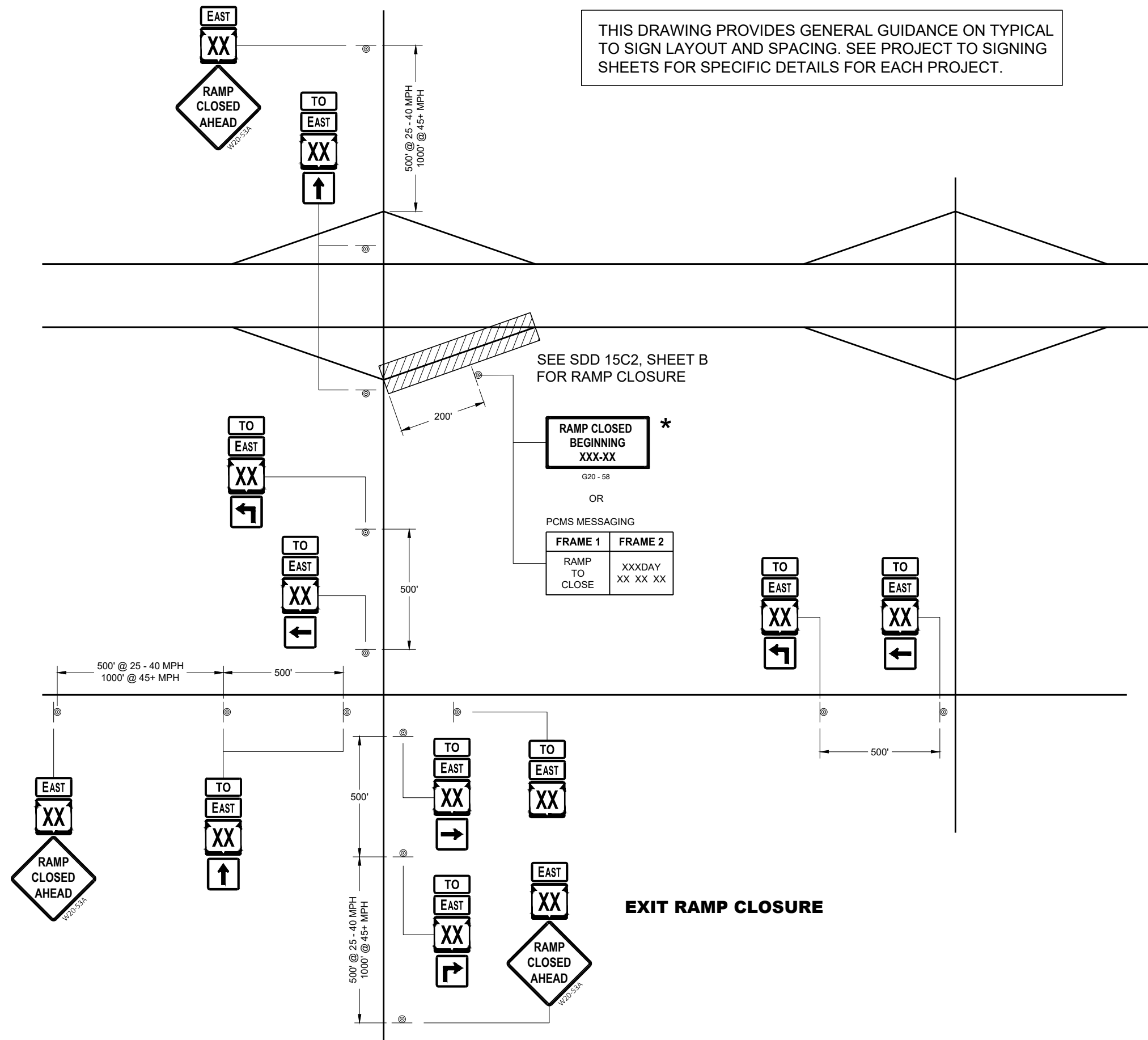
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

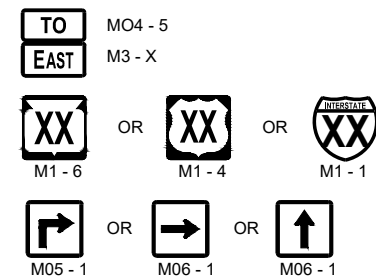
APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



LEGEND

⊙ SIGN ON PERMANENT SUPPORT



GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:

- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

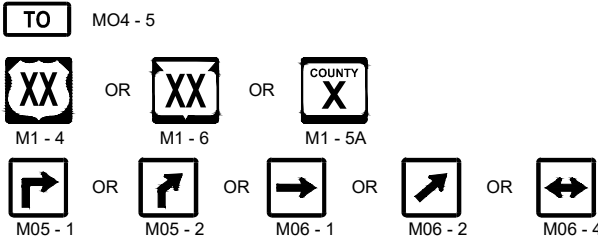
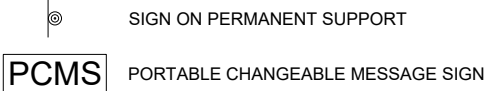
STATE OF WISCONSIN
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February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND



GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET. CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE

SIGN SIZES SHALL BE AS FOLLOW:
MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

- ① ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

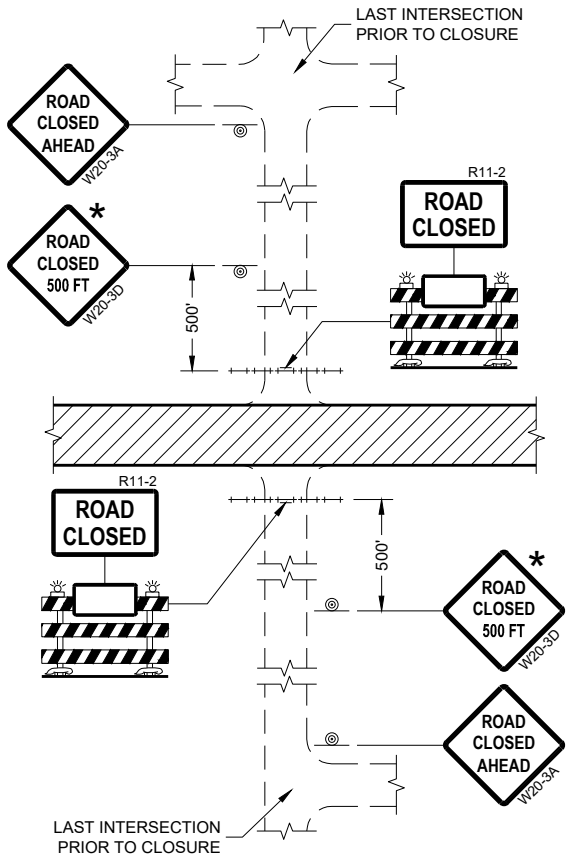
FHWA

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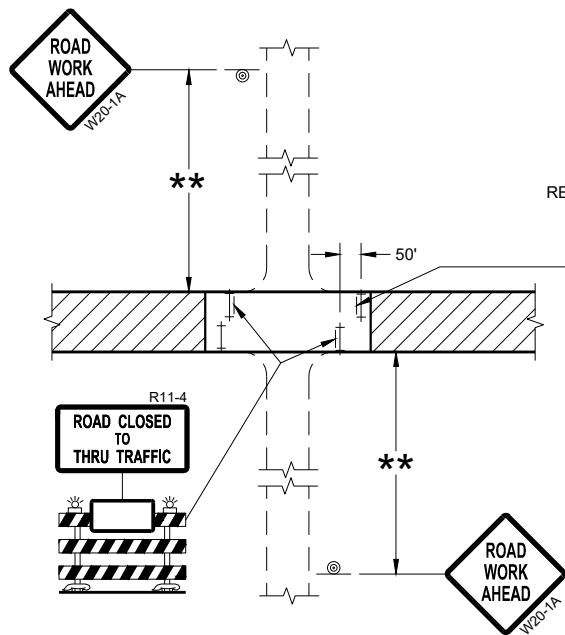
SDD 15C02 - 08e

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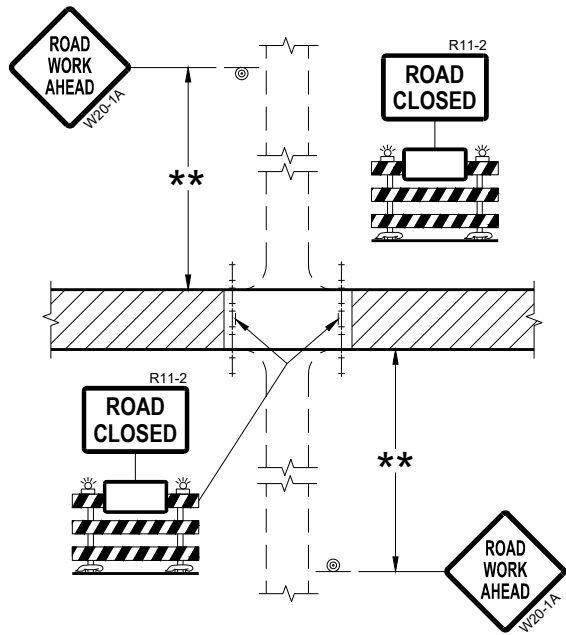
SDD15C02 - 08e



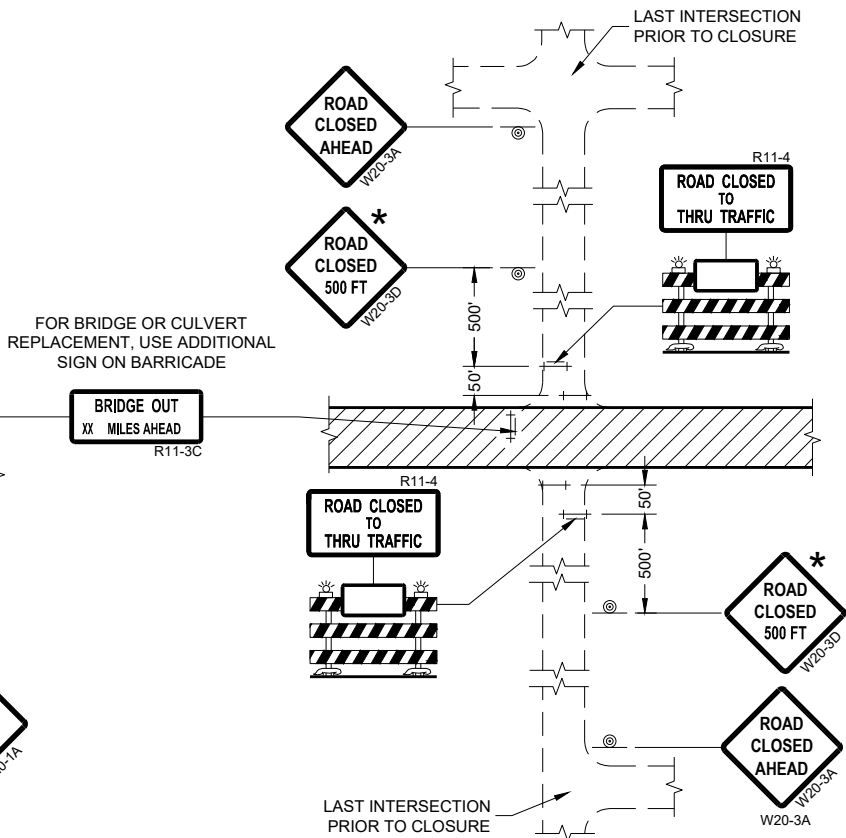
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

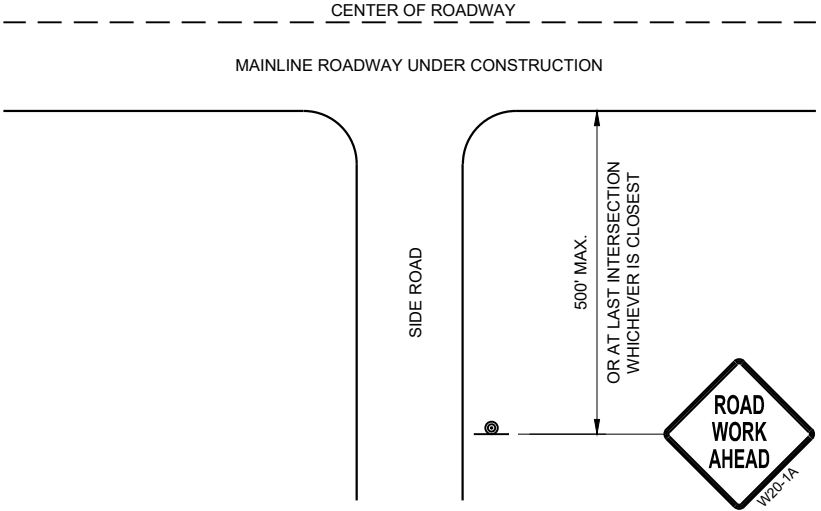
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

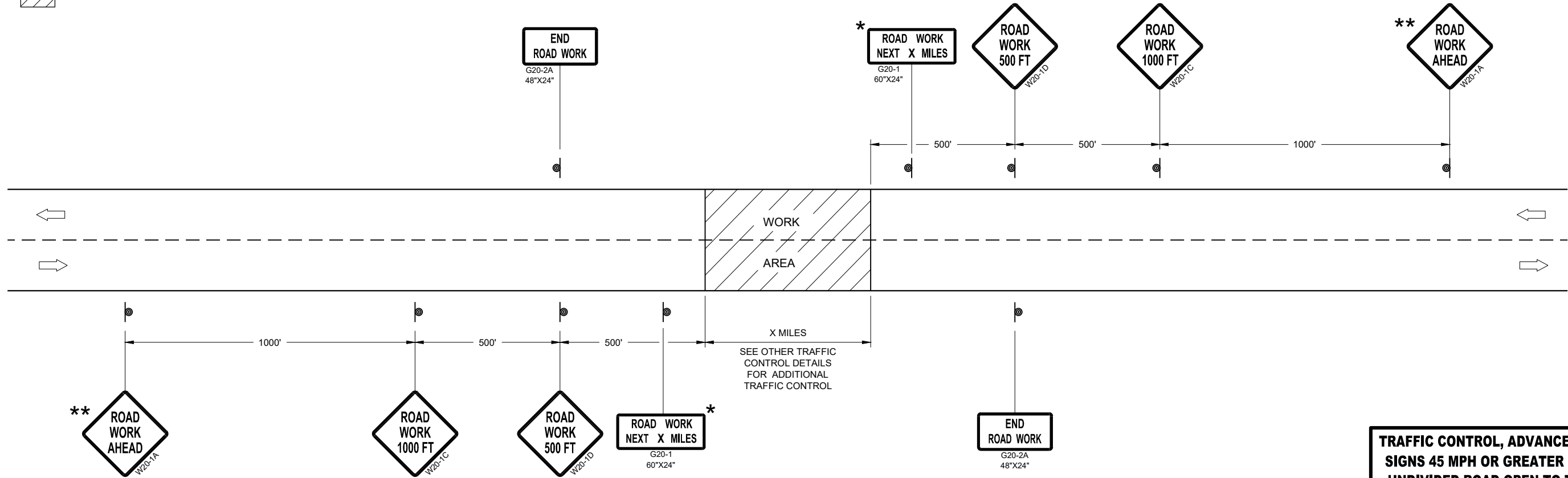
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

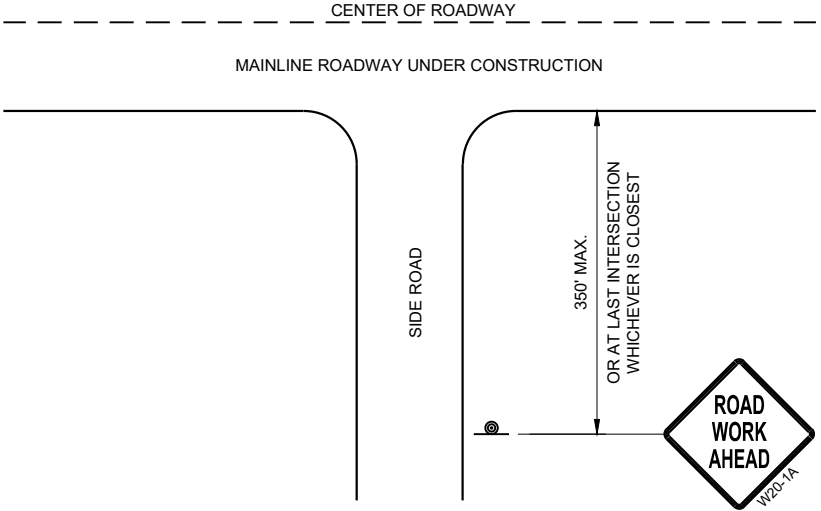
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

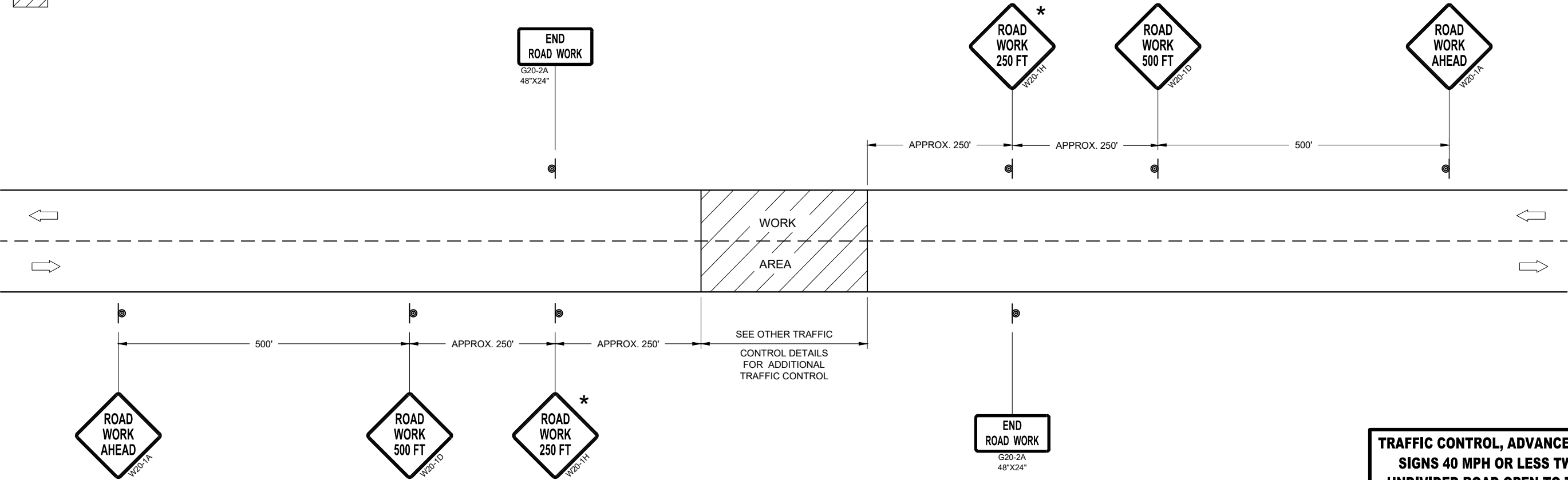
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

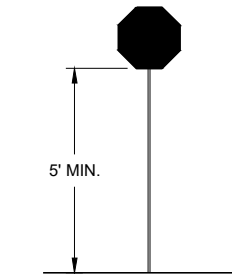
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



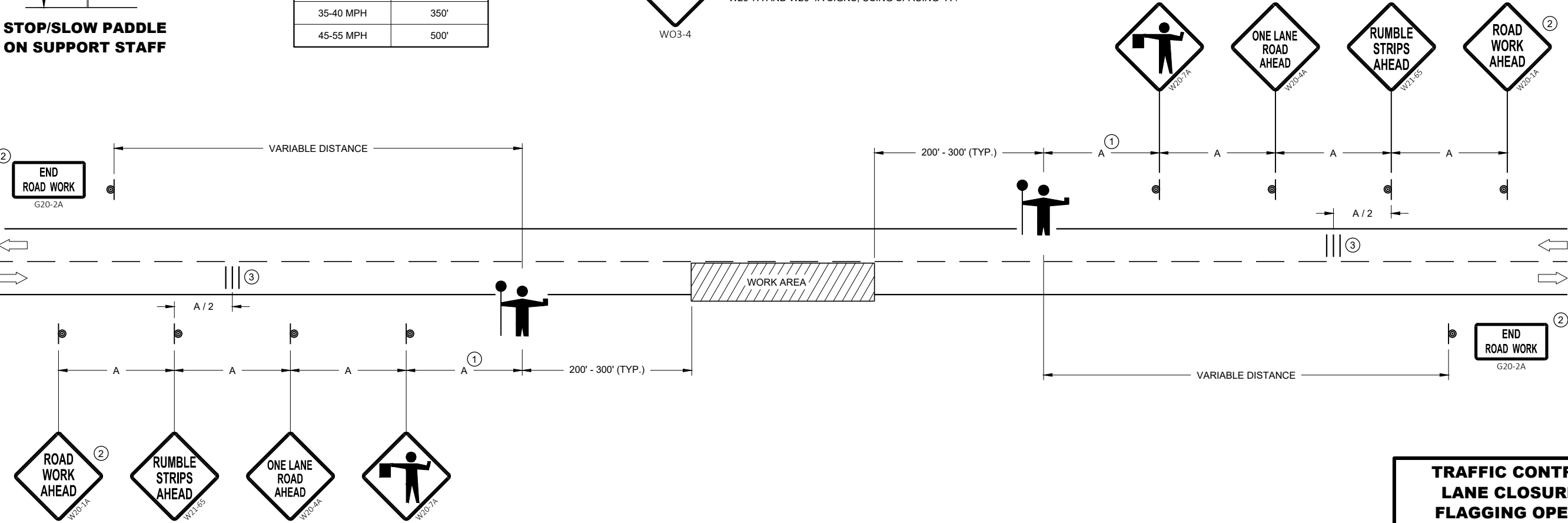
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

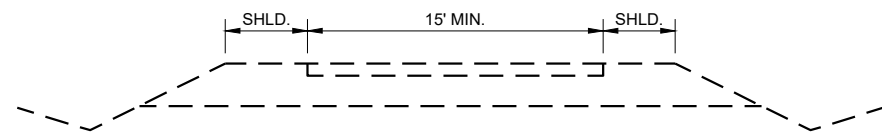
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

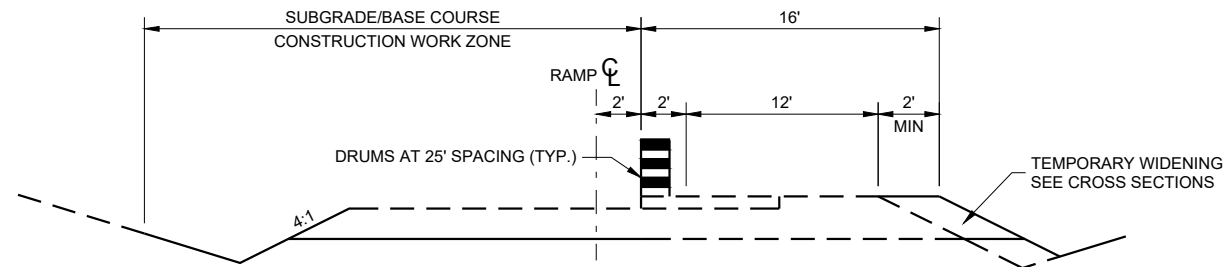


INITIAL RAMP - TYPICAL

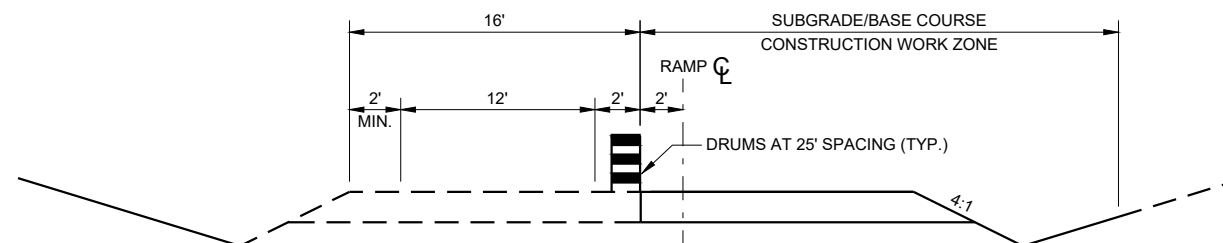
GENERAL NOTES

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

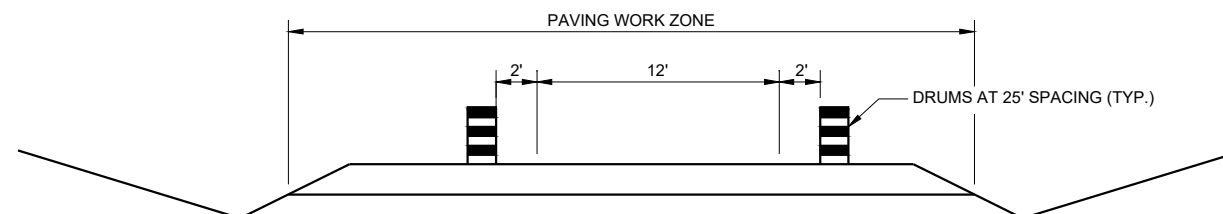
IN STATE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.



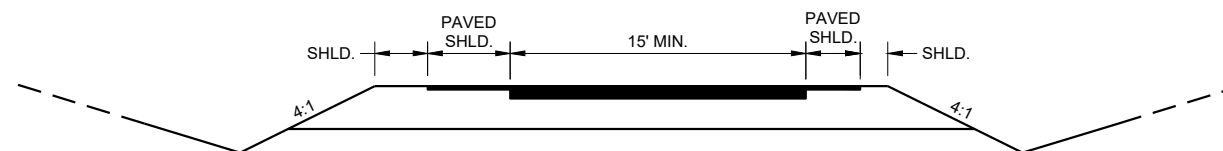
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 1994 DATE	/S/ Chester J. Spang DIRECTOR, OFFICE OF TRAFFIC
FHWA	

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

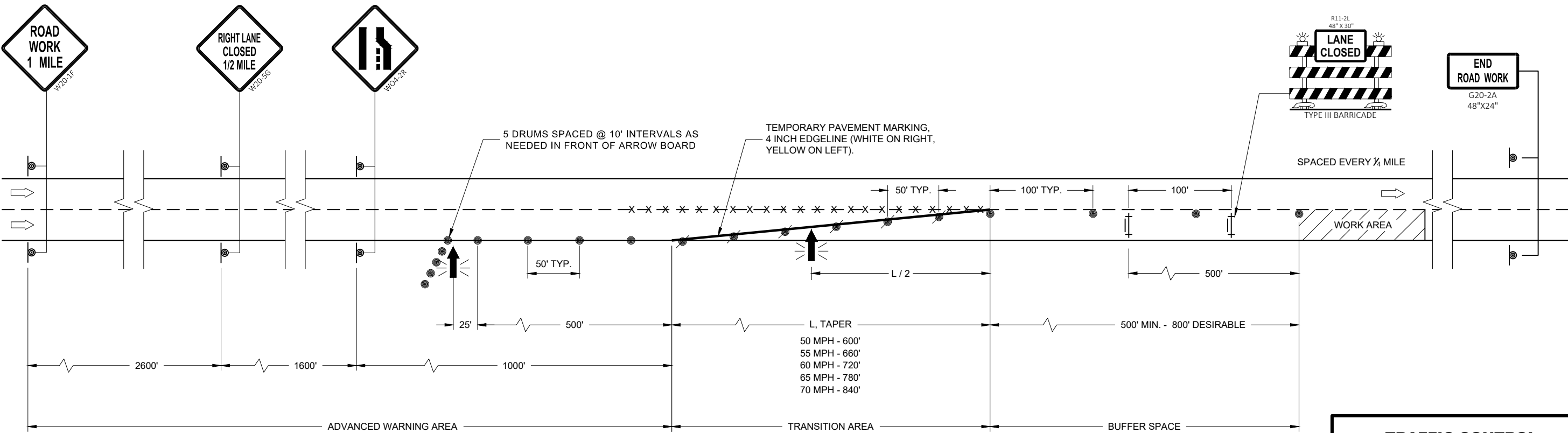
NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD

6



6

SDD 15D12 - 08a

SDD 15D12 - 08a

TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

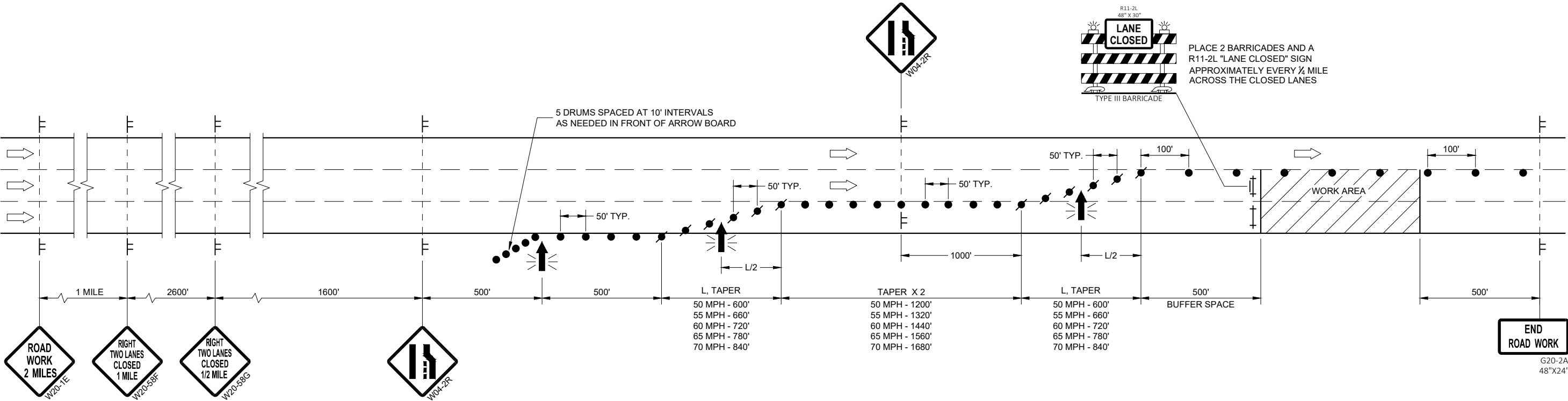
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

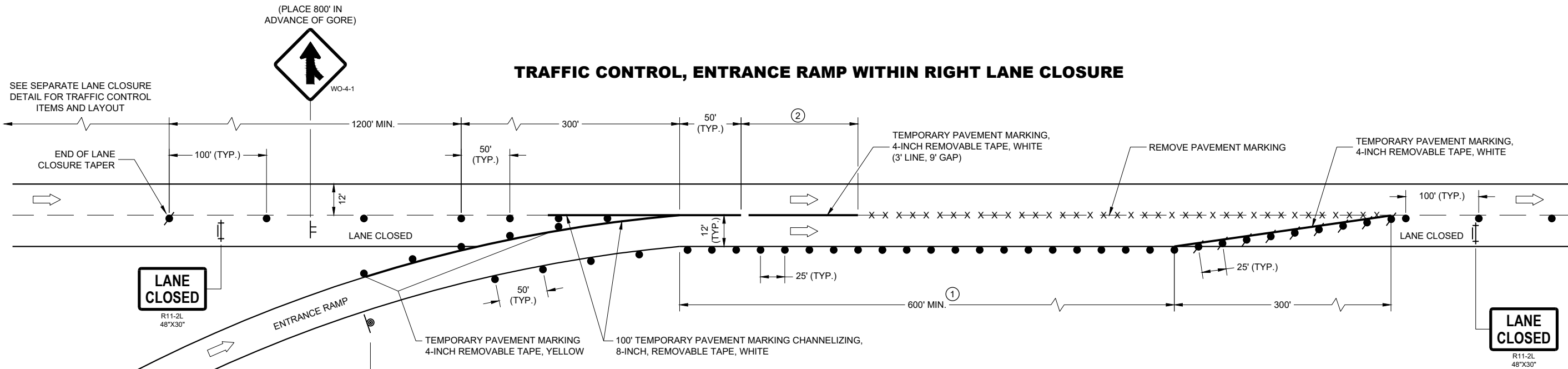
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- ② END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL EXIT RAMP

TRAFFIC CONTROL,
PARALLEL ENTRANCE RAMP
WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

- | | |
|---|--|
|  | SIGN ON PERMANENT SUPPORT |
|  | SIGN ON TEMPORARY SUPPORT |
|  | TRAFFIC CONTROL DRUM |
|  | TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT |
|  | REMOVING PAVEMENT MARKING (SEE GENERAL NOTES) |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | DIRECTION OF TRAFFIC |

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

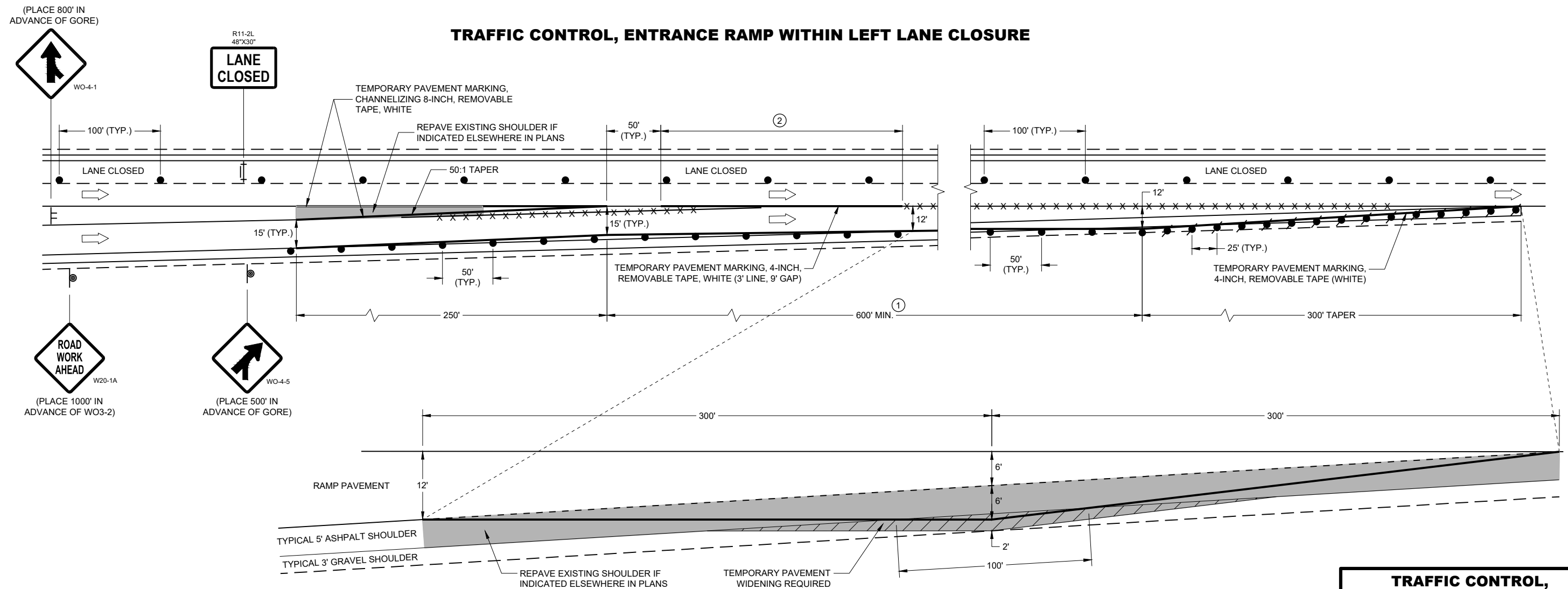
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REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS $\pm 2.2\%$.
- ② END TEMPORARY MARKING AT $\frac{1}{2}$ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY,
ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

**TRAFFIC CONTROL,
ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

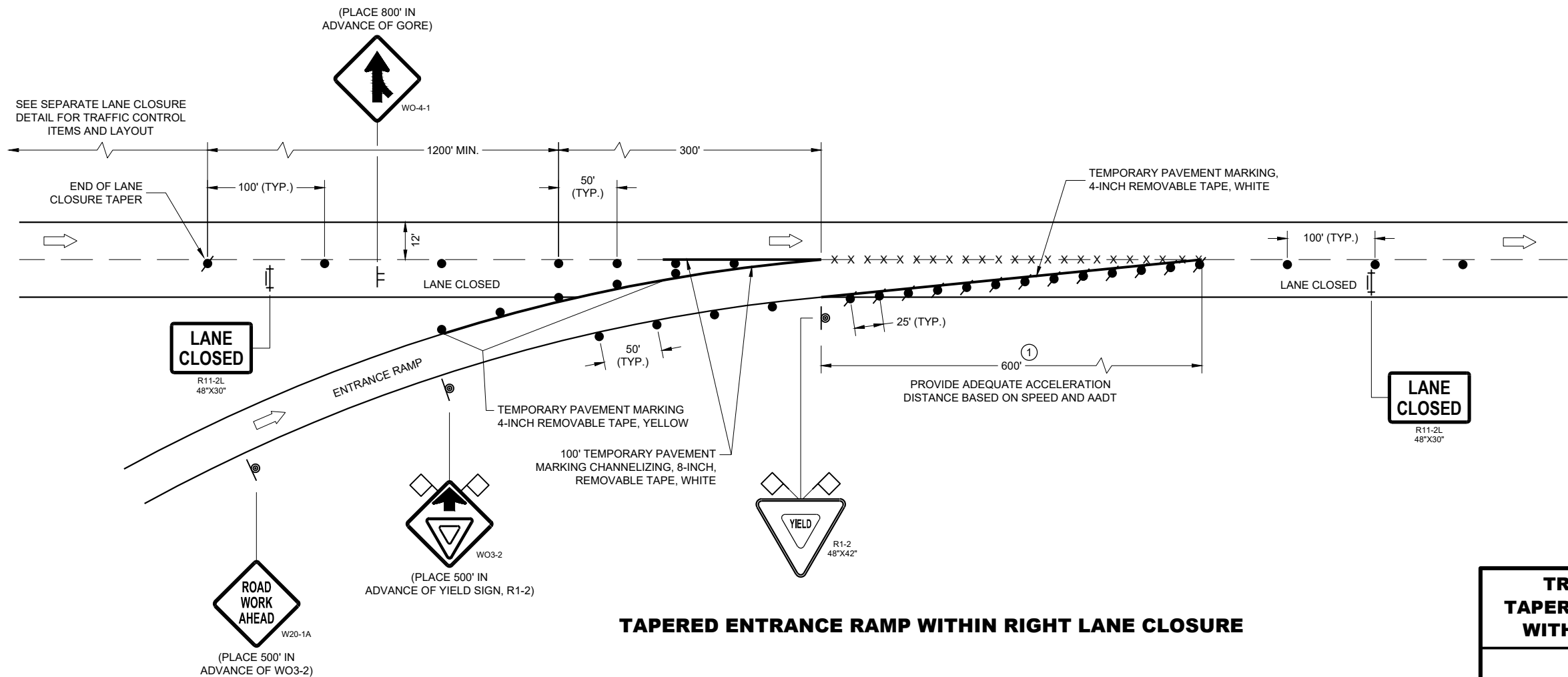
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" X 16" MIN., ORANGE
- DIRECTION OF TRAFFIC

GENERAL NOTES

- THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.
- YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.
- IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- ① CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE

**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

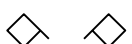
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

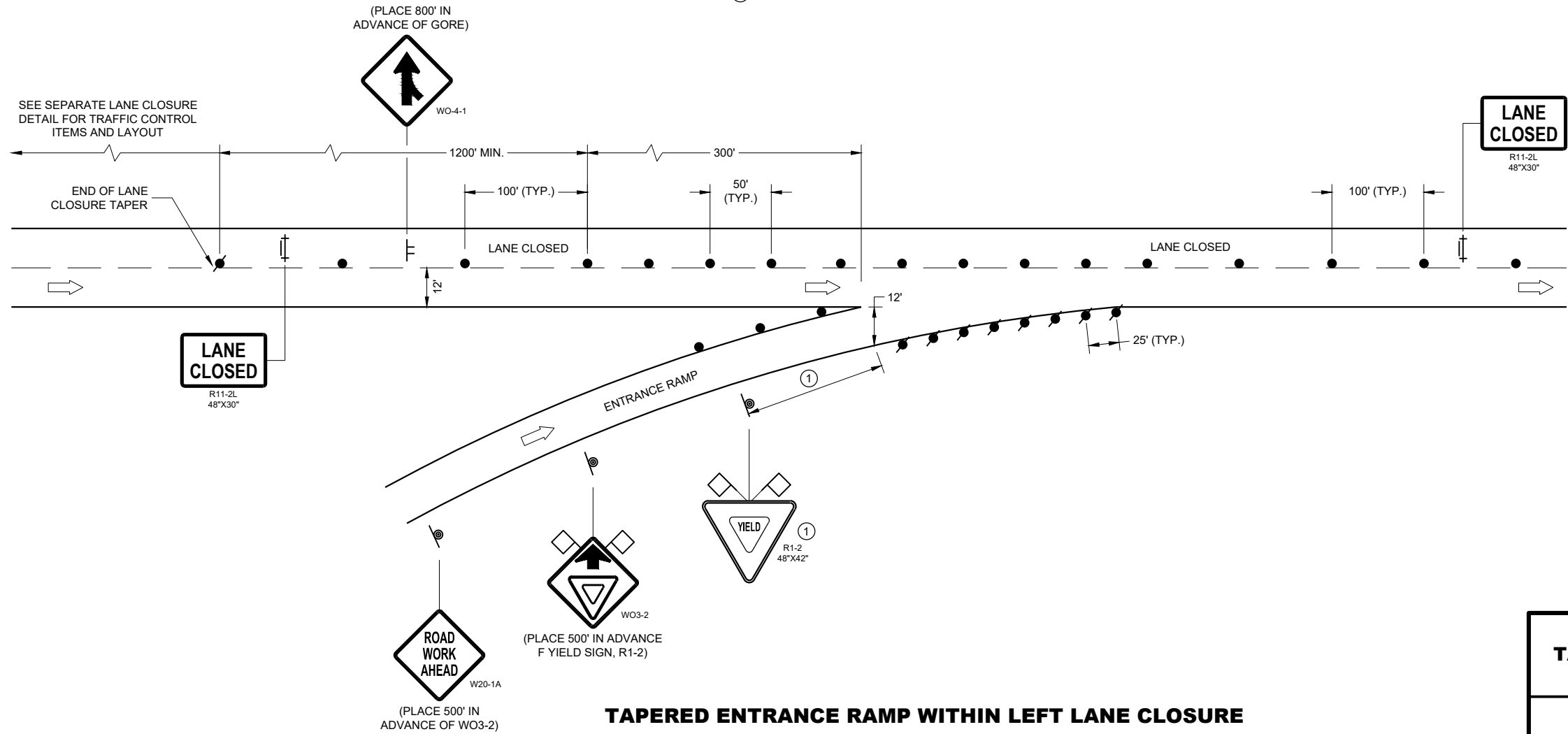
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

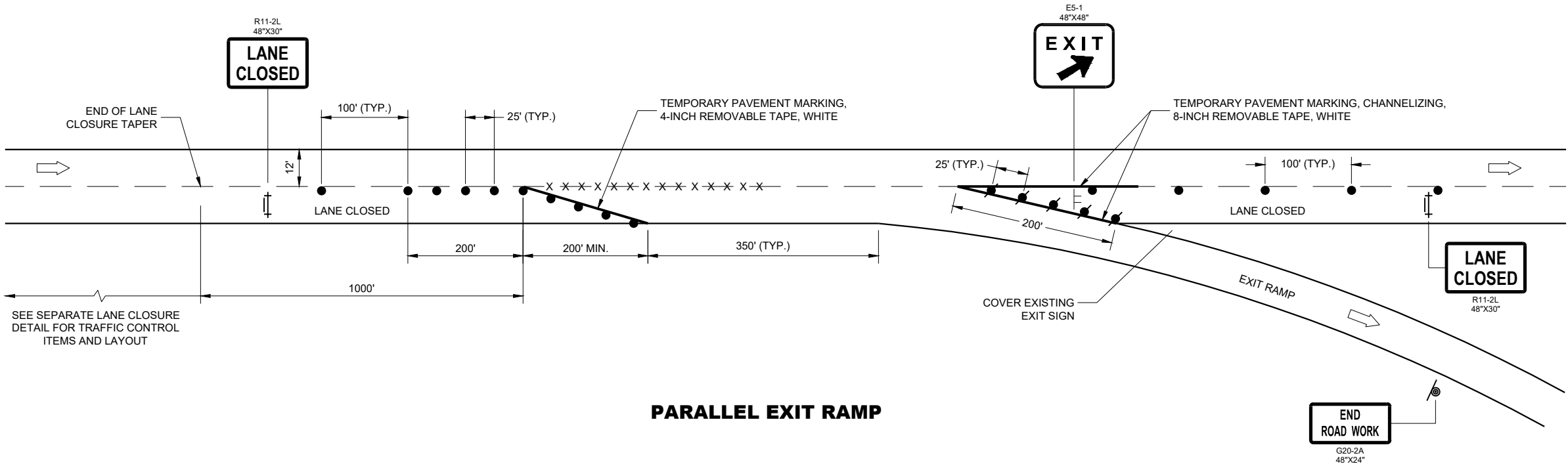
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

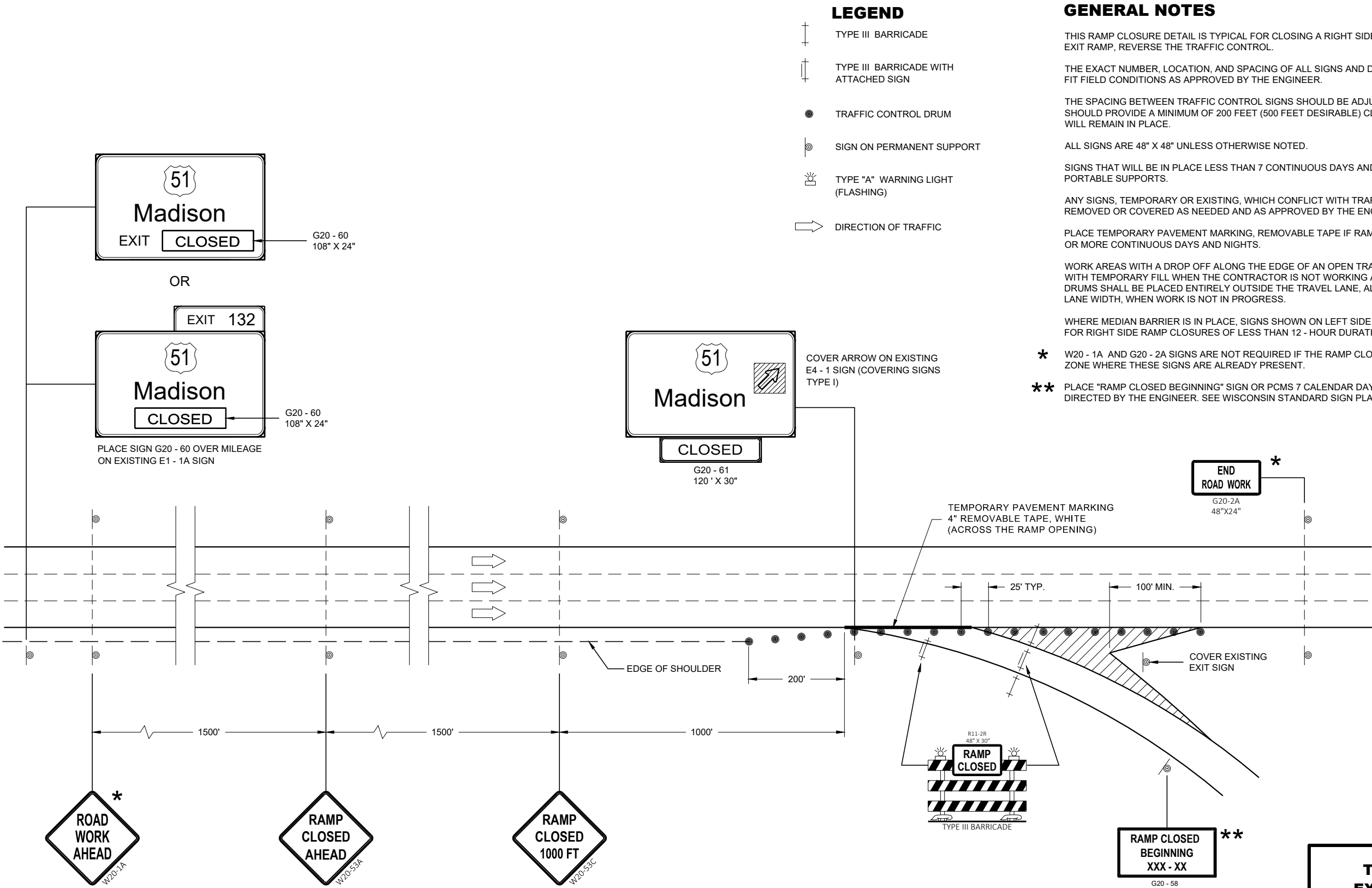


TRAFFIC CONTROL,
PARALLEL EXIT RAMP
WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

* W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

TRAFFIC CONTROL EXIT RAMP CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

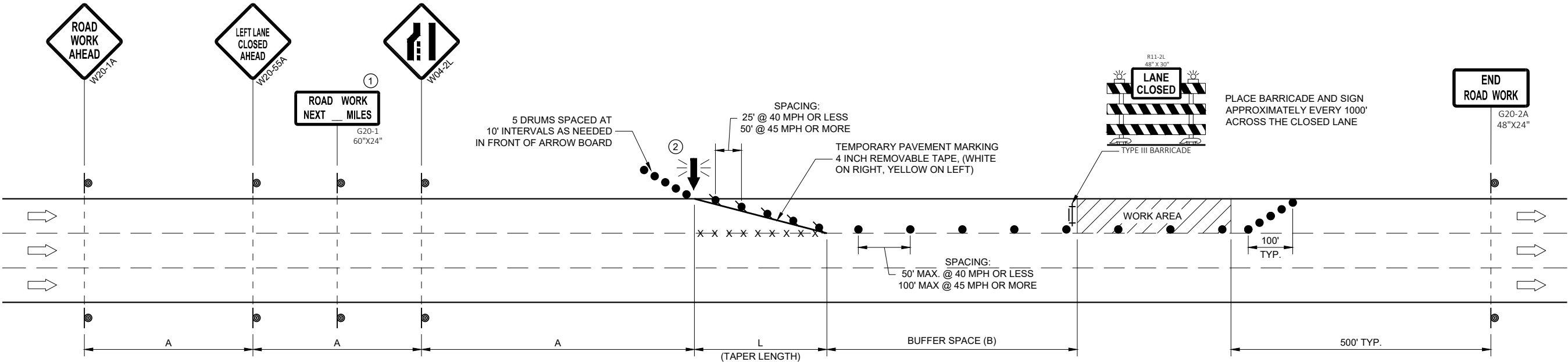
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

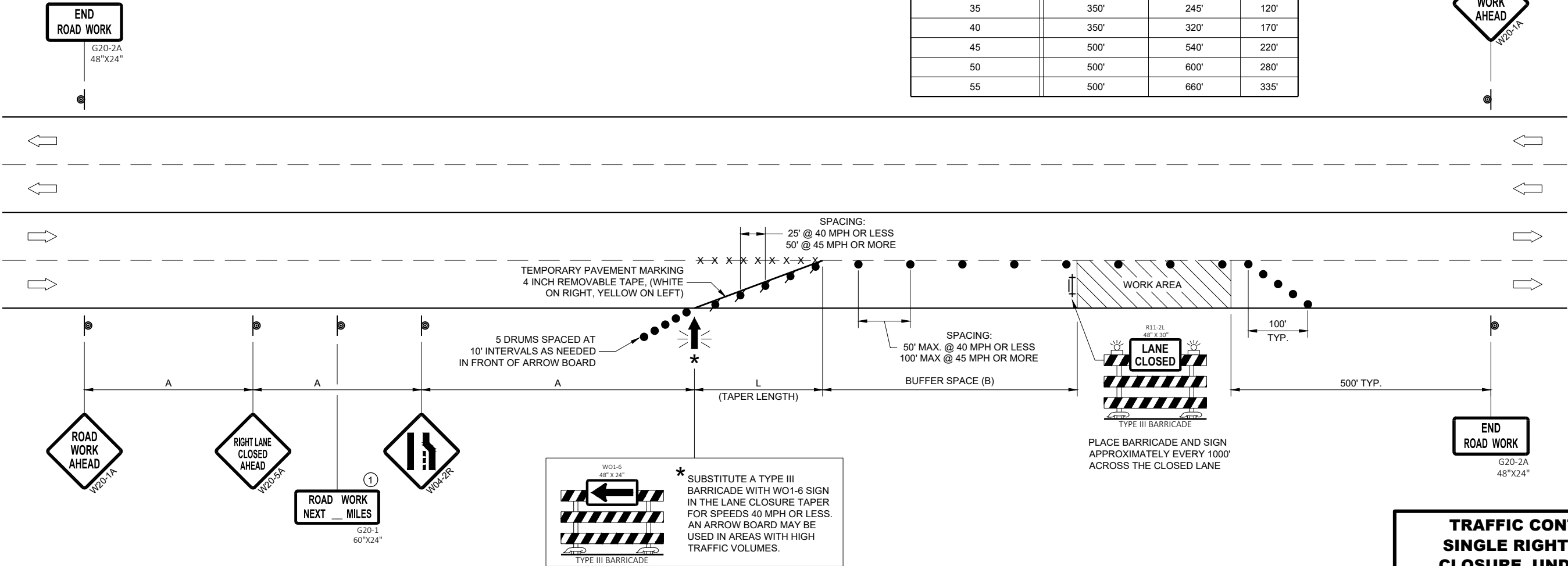
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.



**TRAFFIC CONTROL,
SINGLE RIGHT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

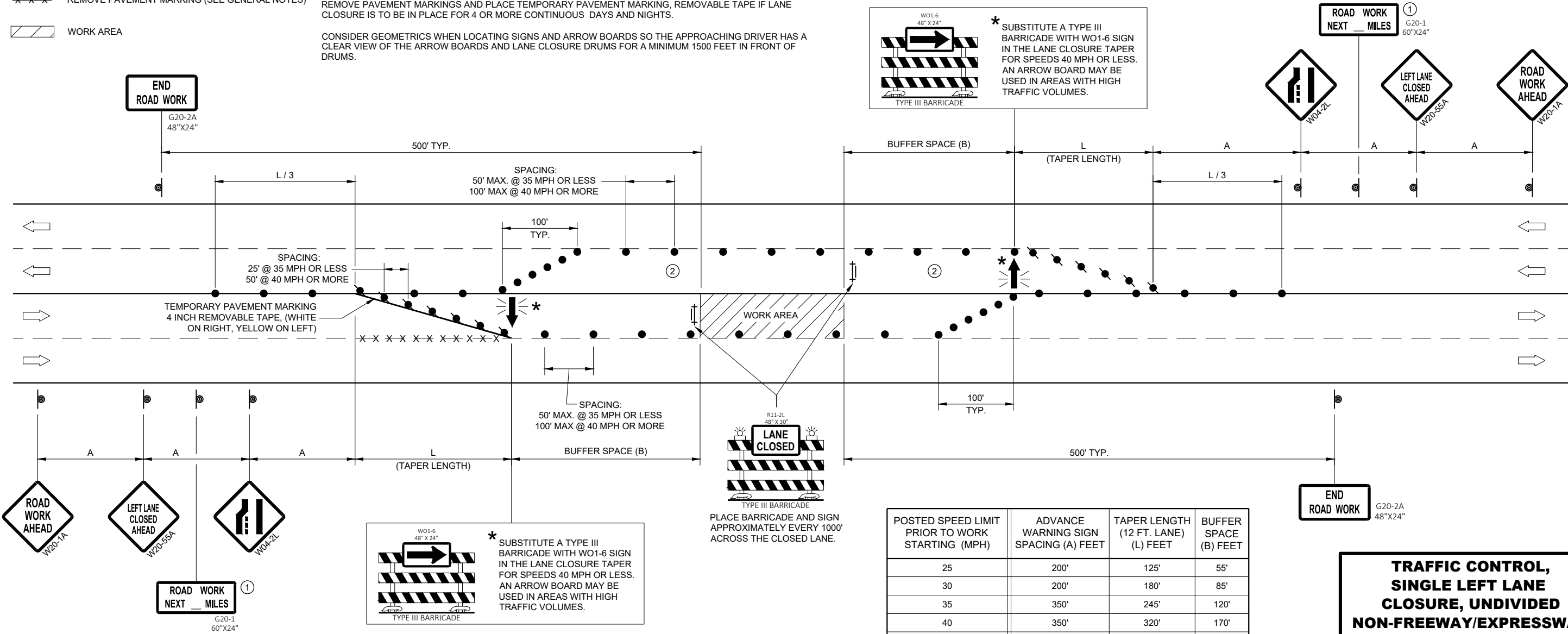
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

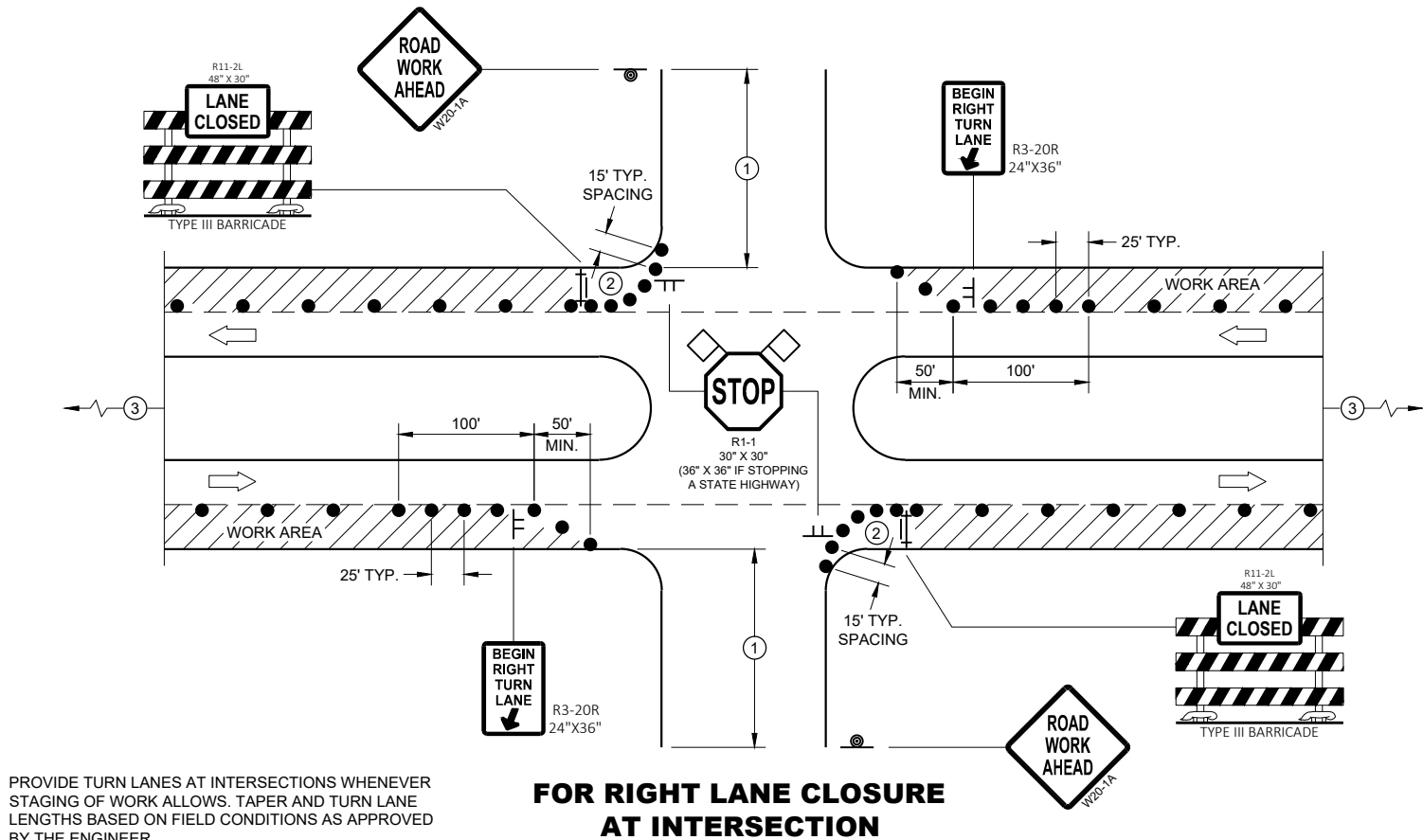
**TRAFFIC CONTROL,
SINGLE LEFT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA



GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

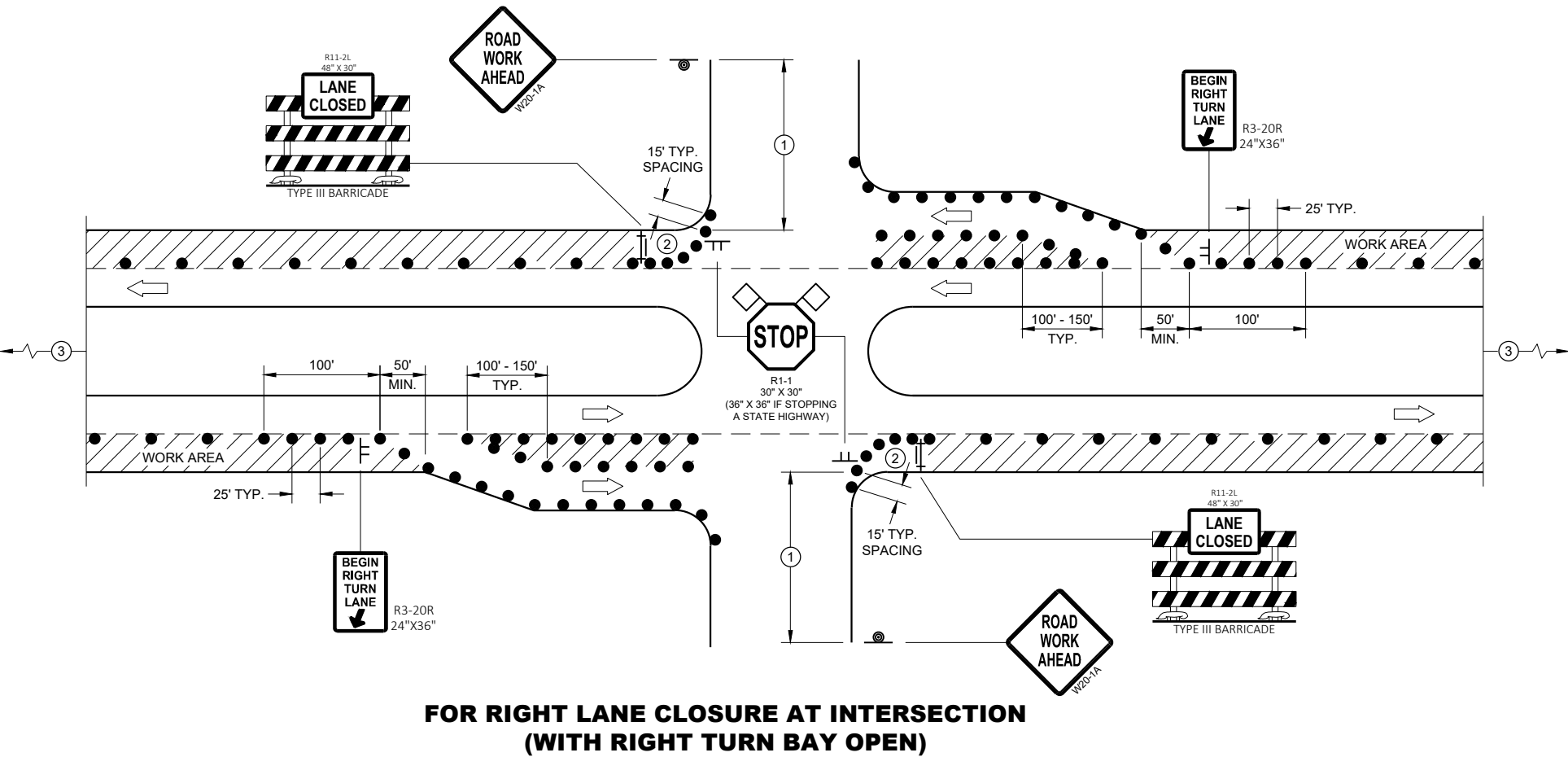
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

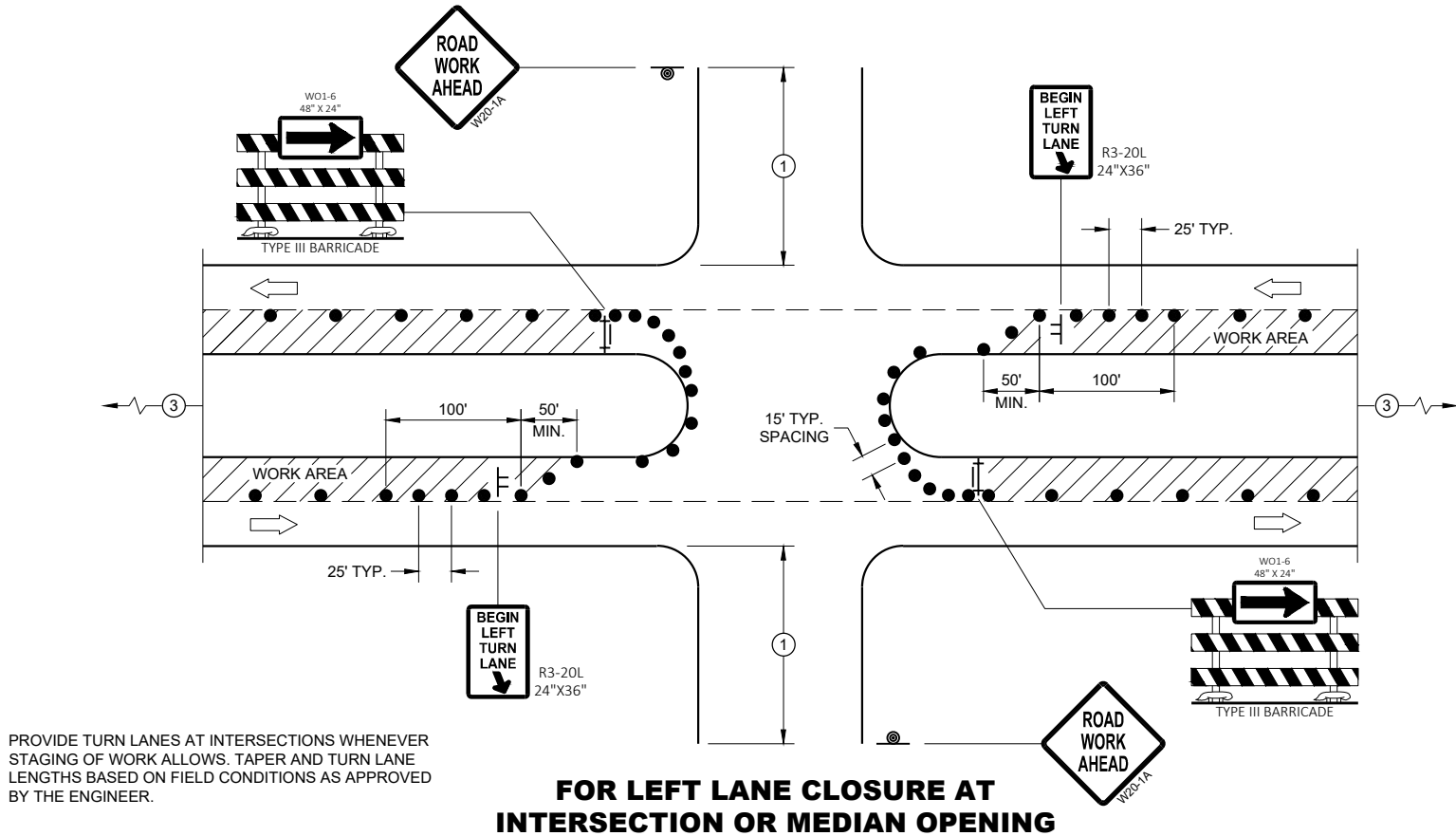
LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA



**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
RIGHT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

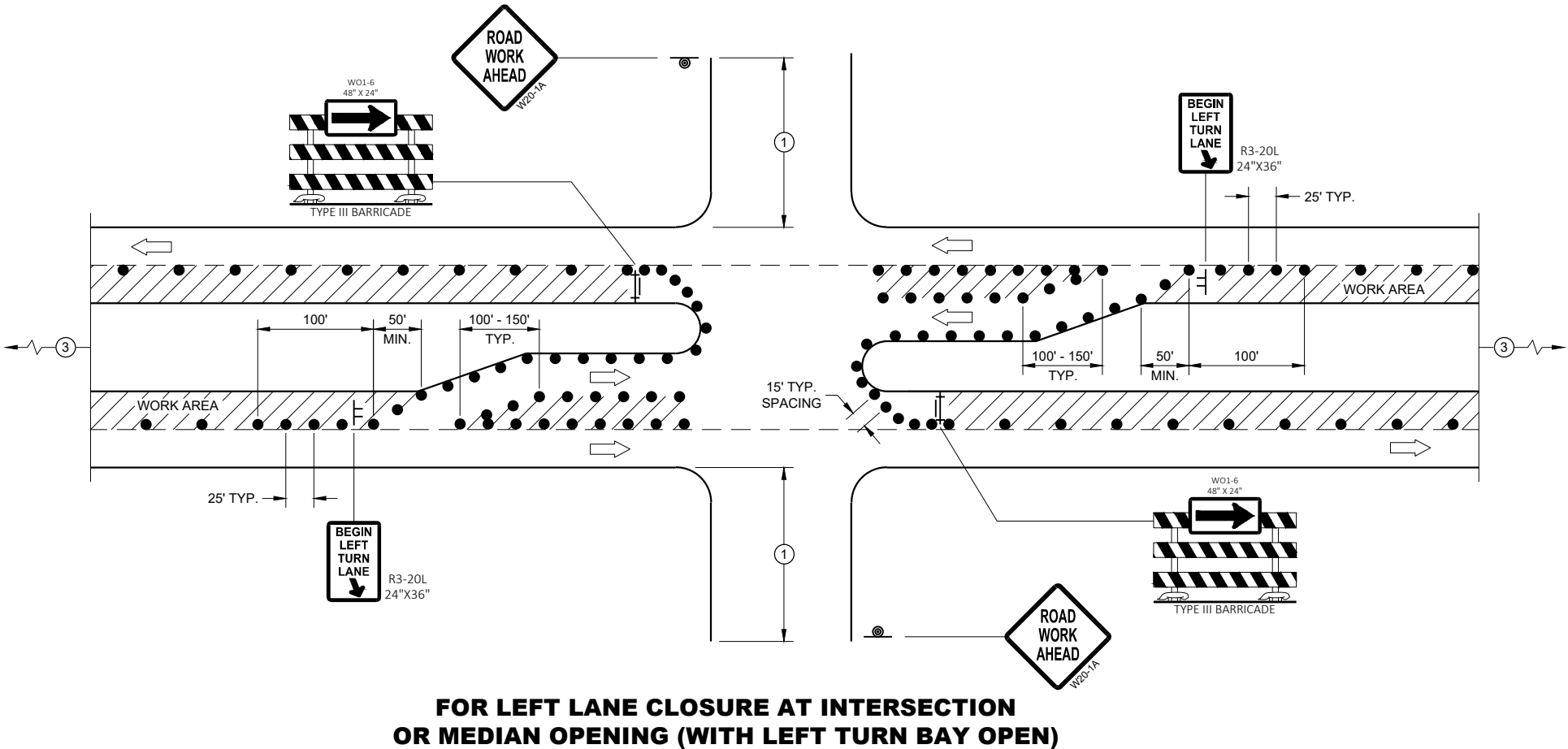
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

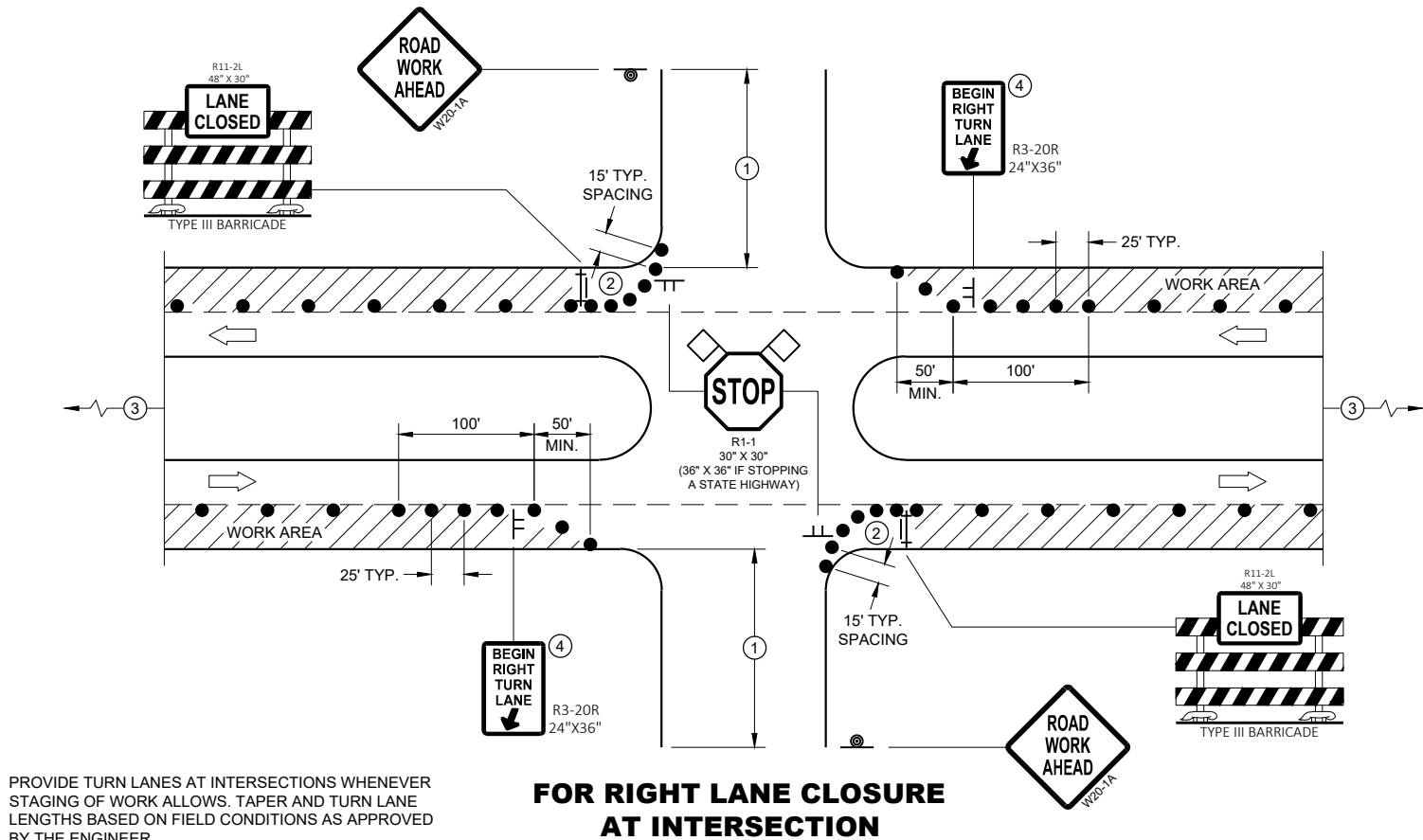
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- ◇ FLAGS, 16" X 16" MIN., ORANGE
- ▨ WORK AREA



TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

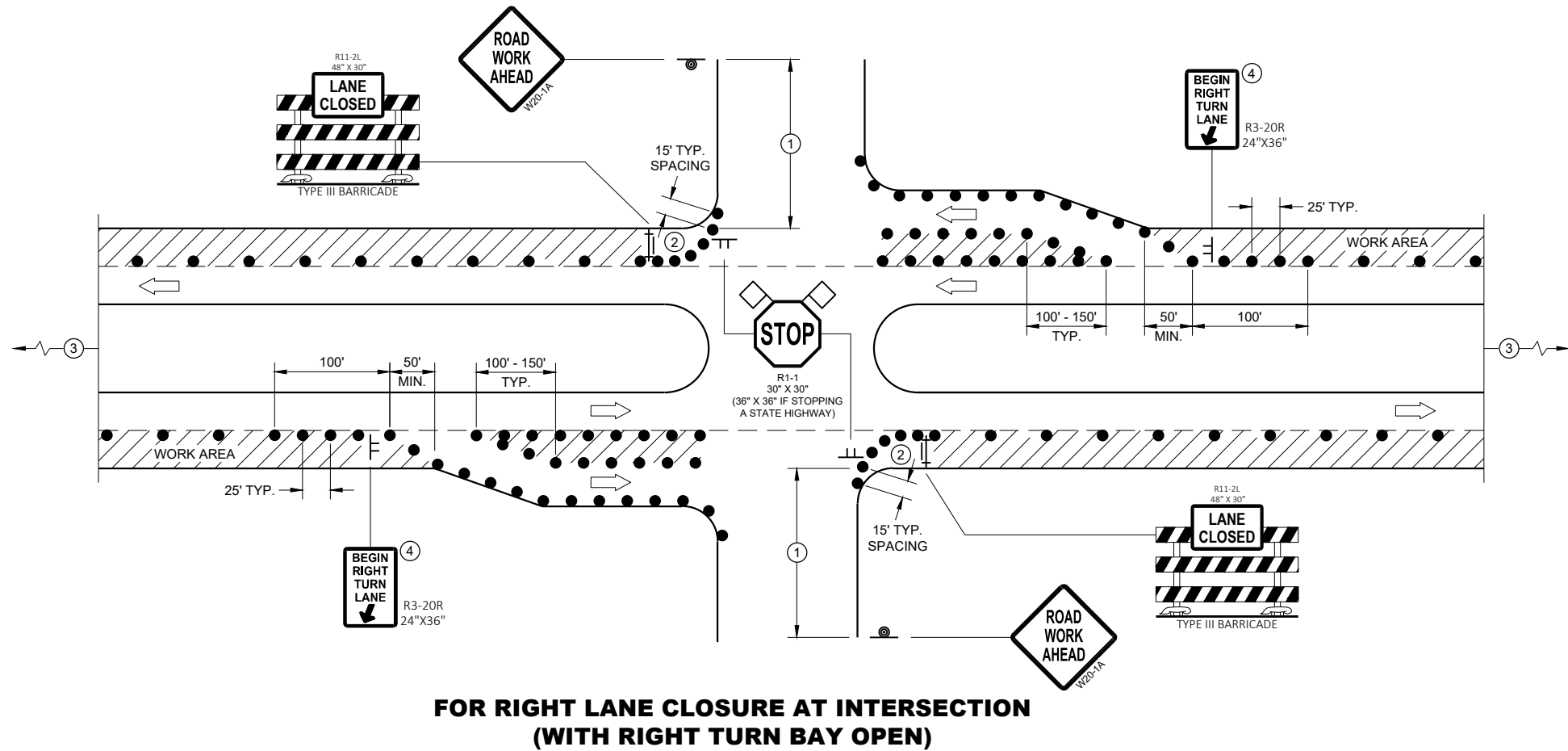
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



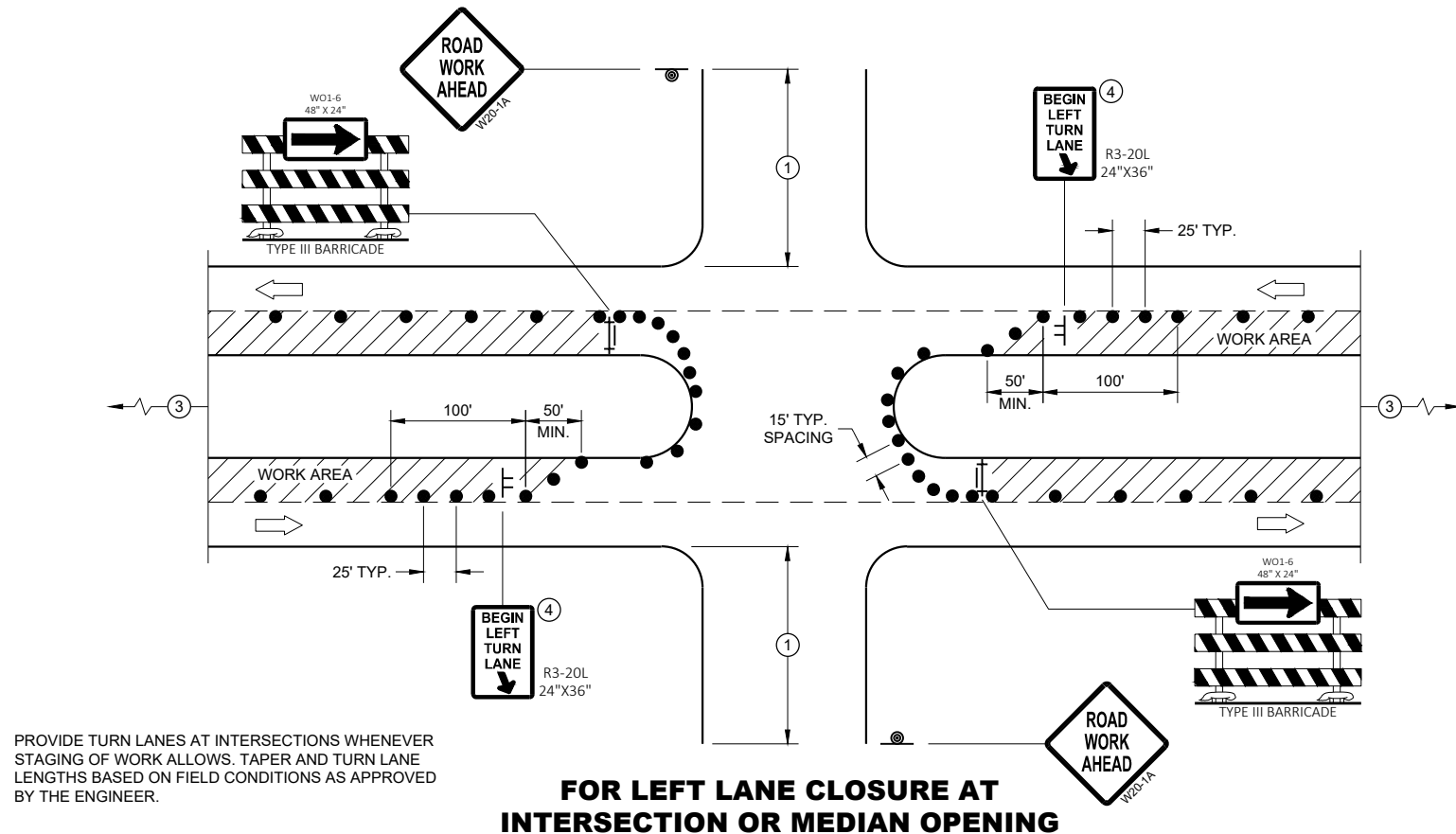
**FOR RIGHT LANE CLOSURE AT INTERSECTION
(WITH RIGHT TURN BAY OPEN)**

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
RIGHT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

- 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**FOR LEFT LANE CLOSURE AT INTERSECTION
OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)**

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
LEFT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

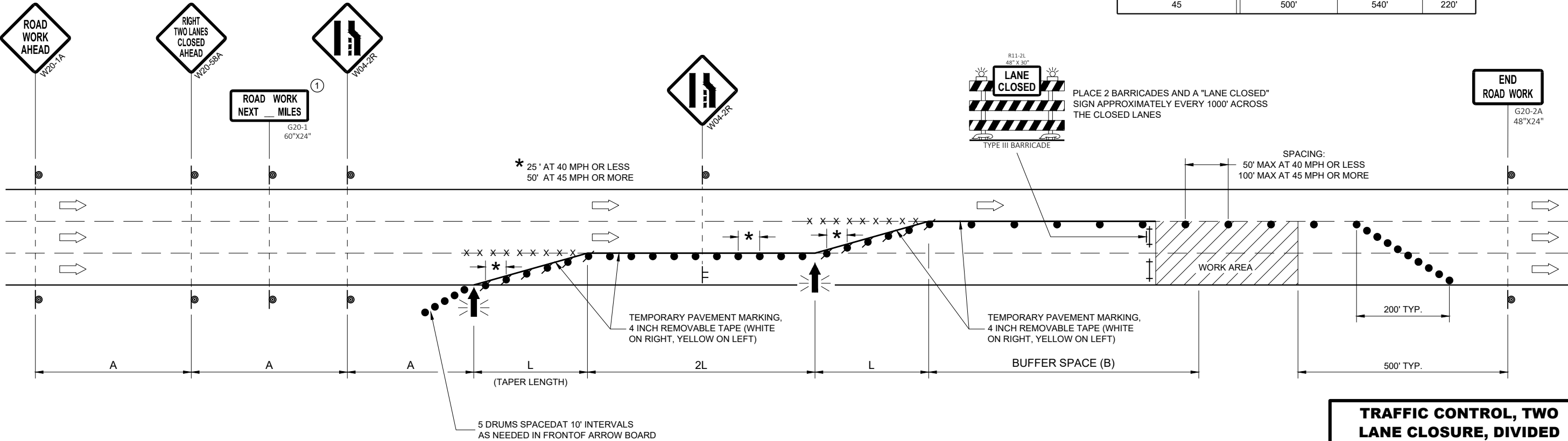
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

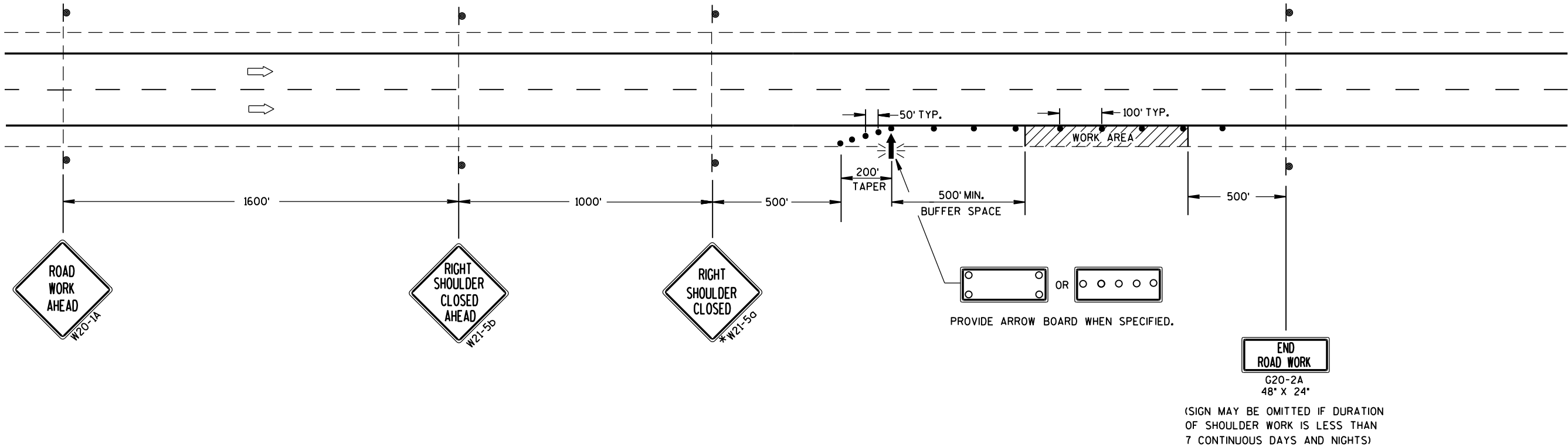
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

LEGEND

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

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

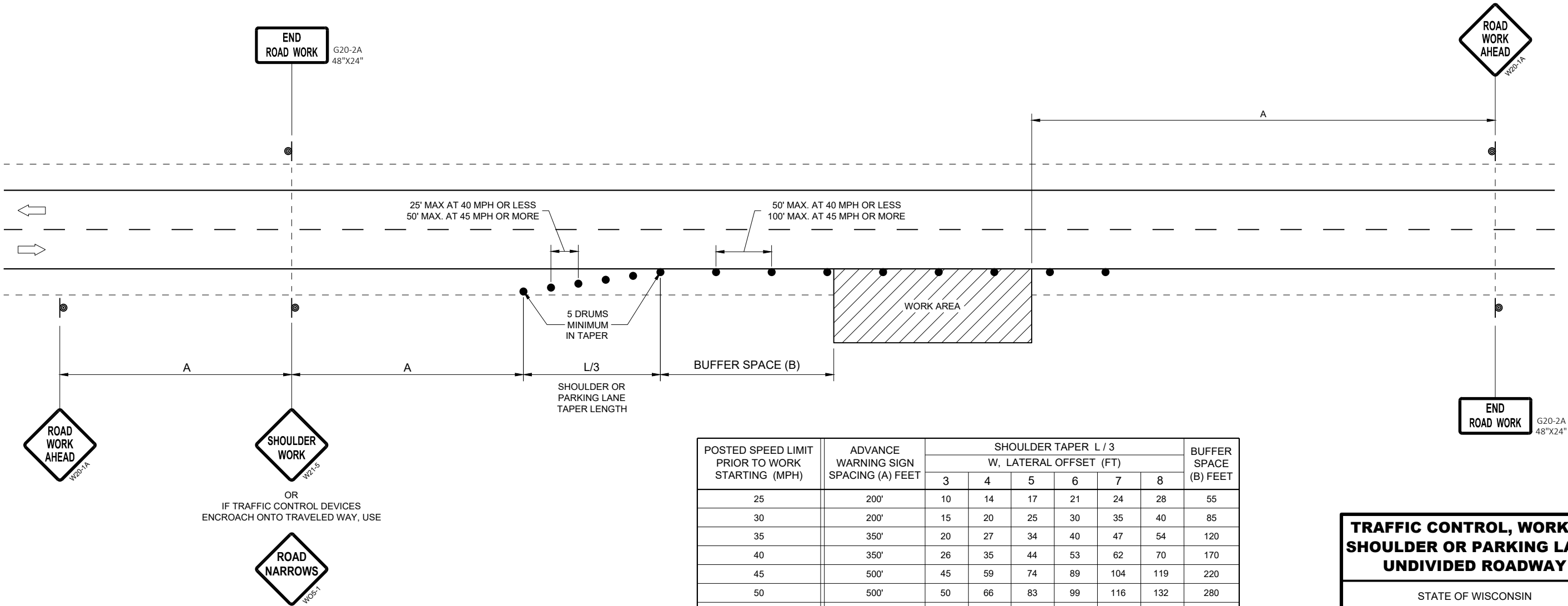
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SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

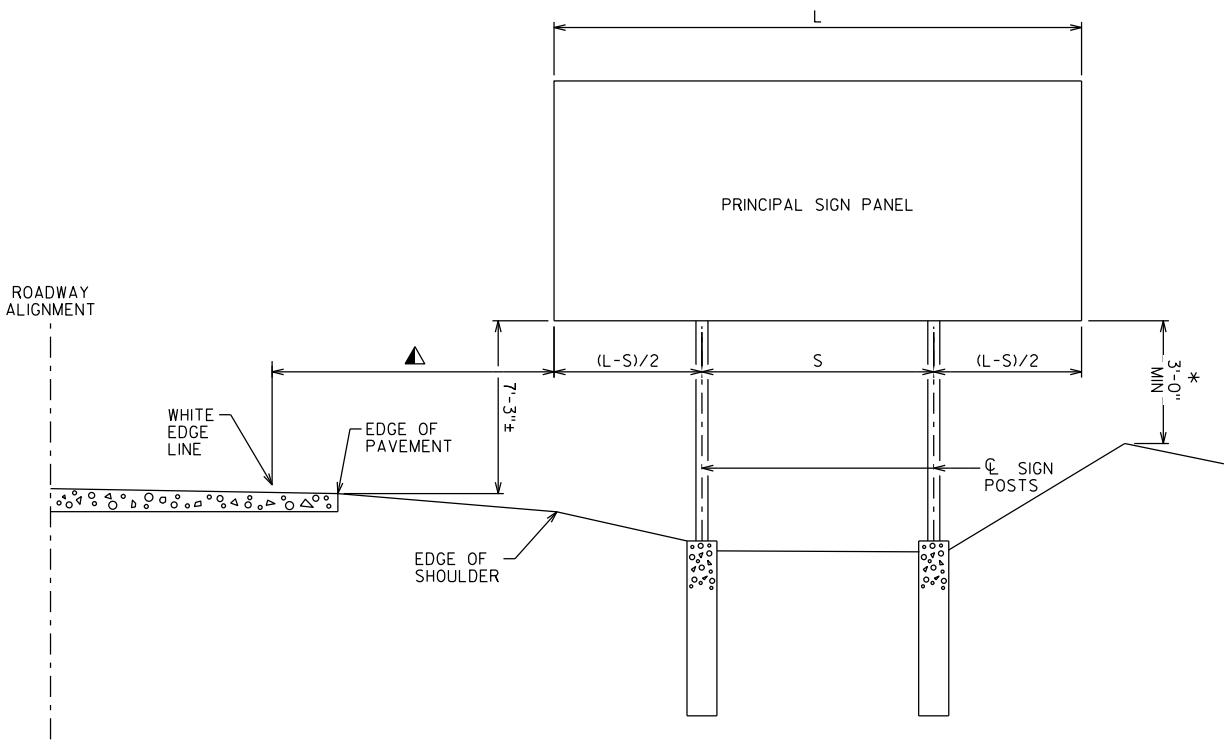
W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



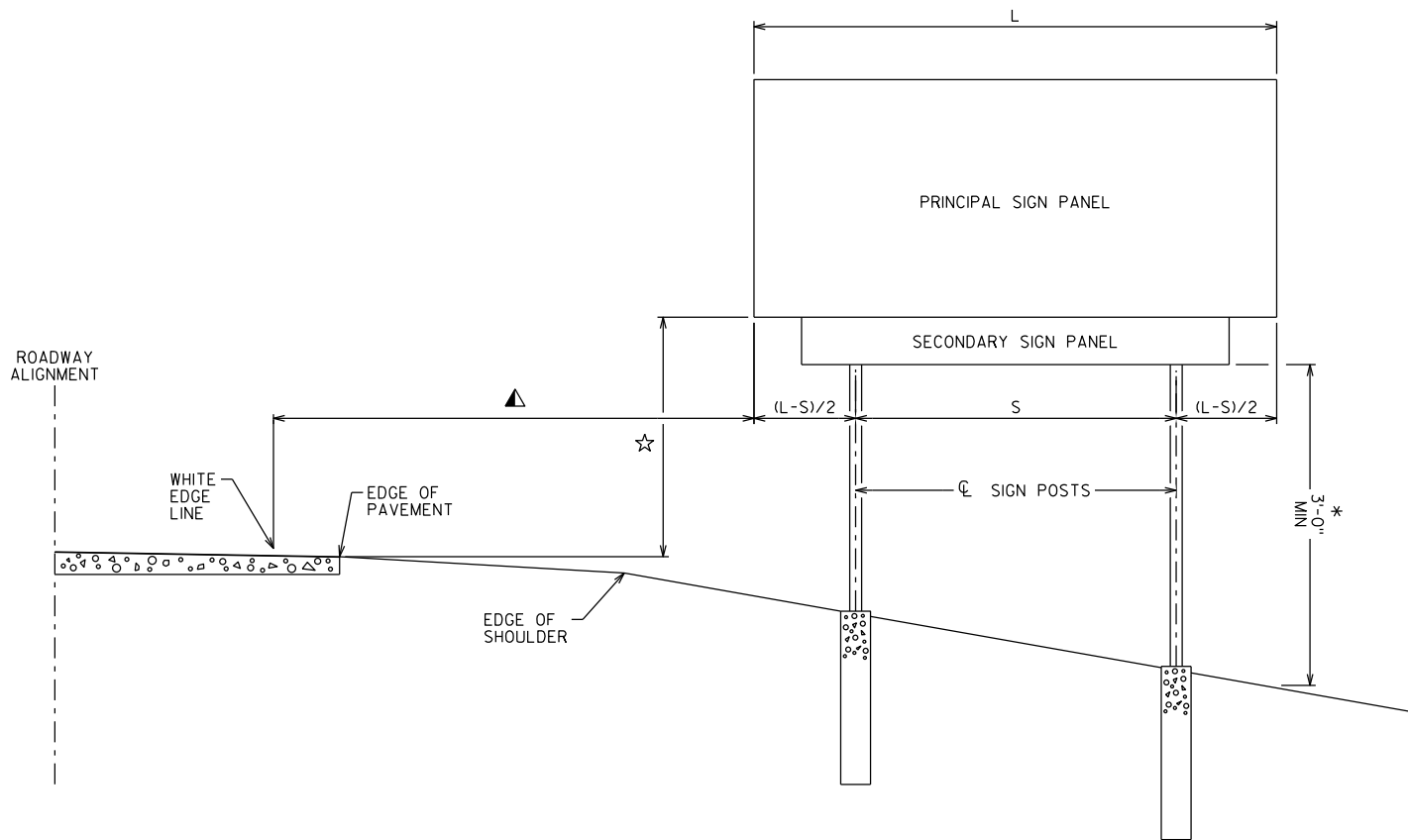
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

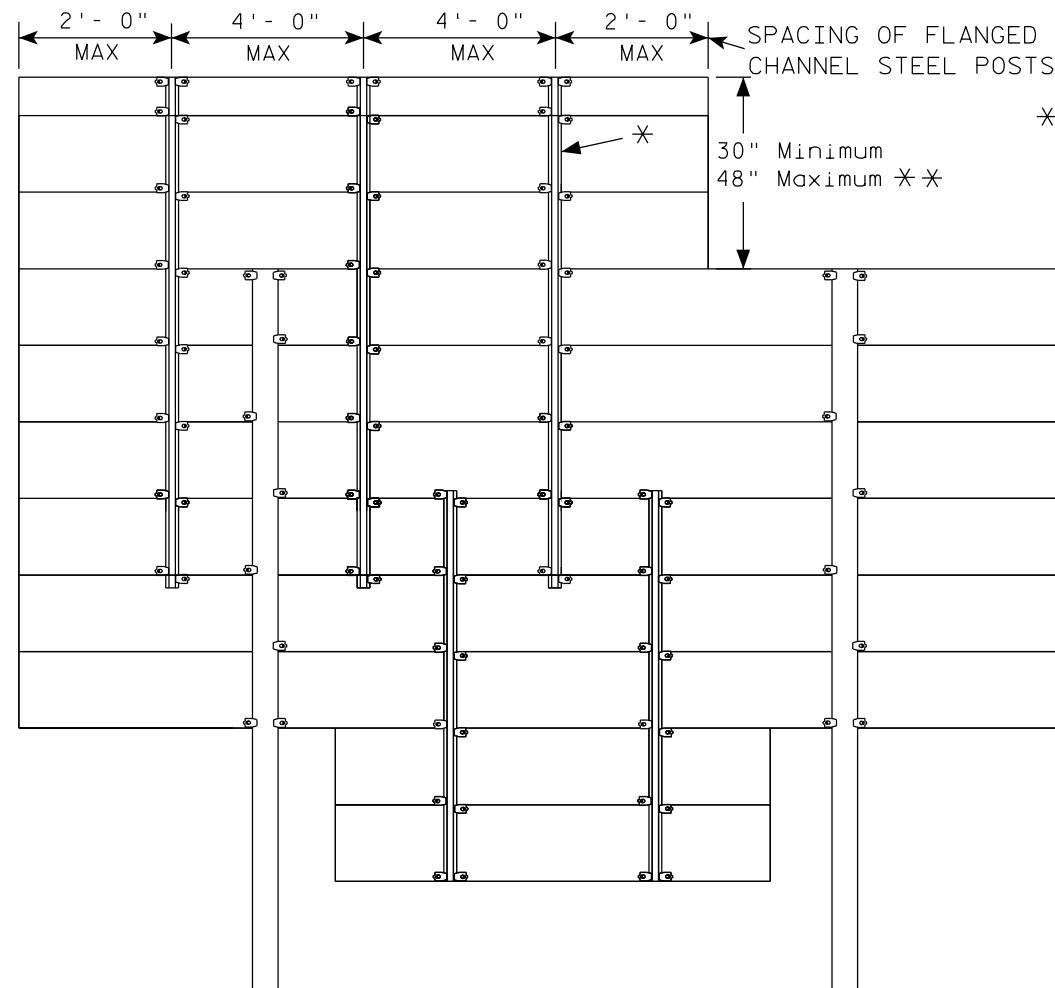
- FOR A 2-POST INSTALLATION, "S" EQUALS $3L/5$, BUT SHALL NOT BE LESS THAN 6'-0".
- FOR A 3-POST INSTALLATION, "S" EQUALS $5L/7$, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".
- ▲ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".
- THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".
- THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.
- ☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS, FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.
- * THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE BTO TYPE I SIGNS			
		DRAWN BY	PLANS CK'D.
TYPICAL TYPE I SIGN INSTALLATION			SHEET A4-1.10

GROUND MOUNTED SIGN



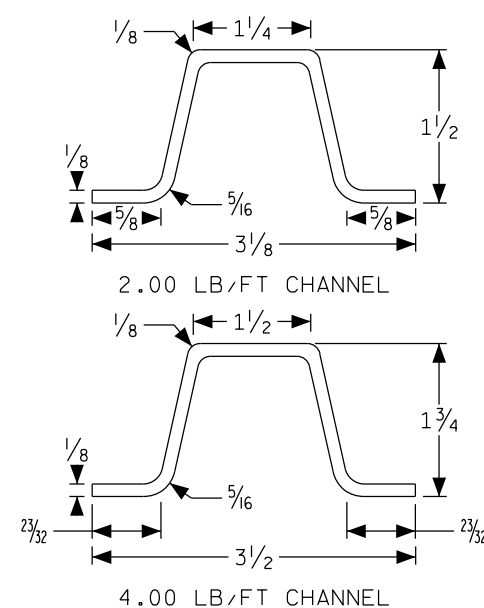
* = 2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

* * = FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

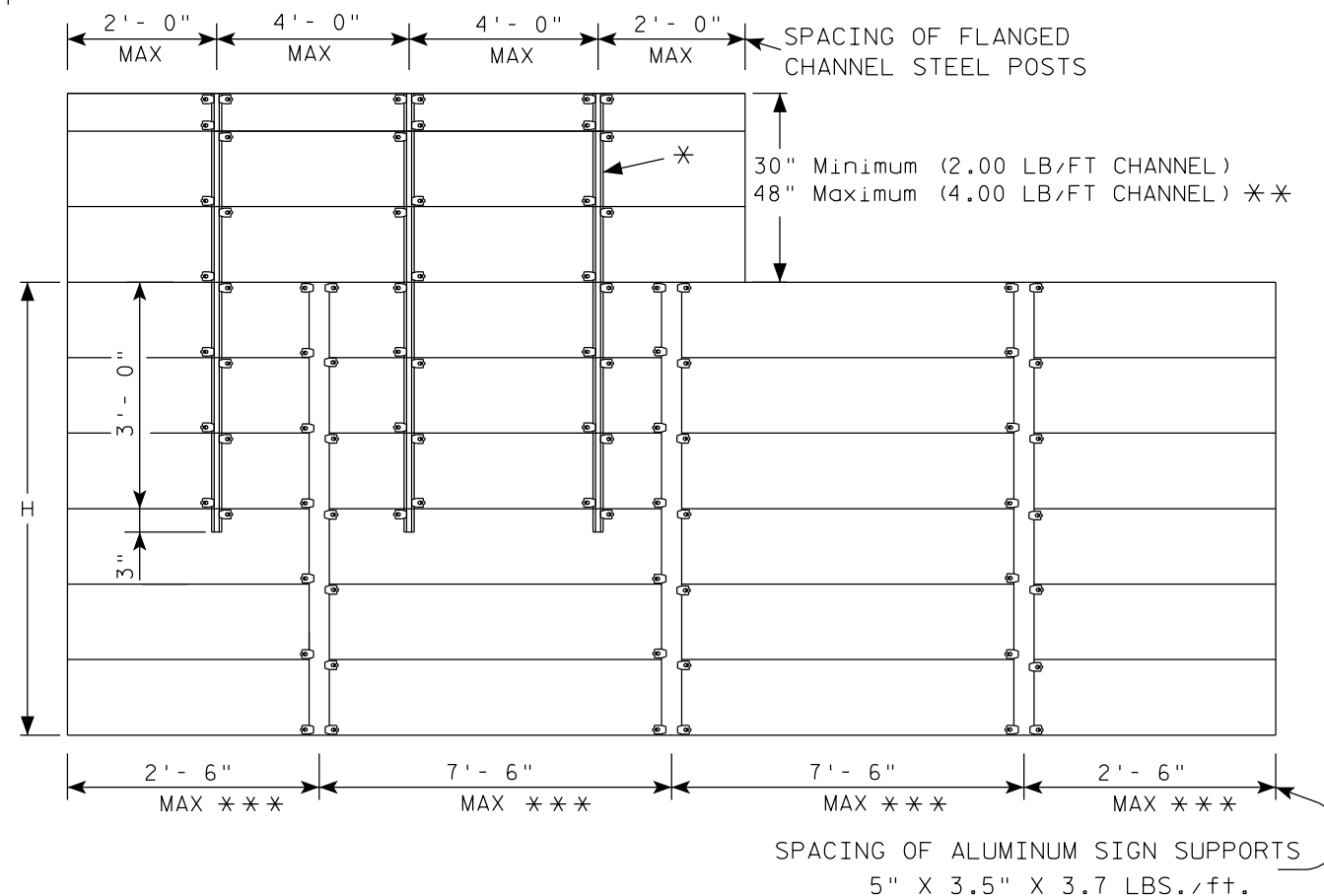
* * * THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE



SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:
 PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
 PANEL LENGTH 9'-0" - 12'-0" = 3 CHANNELS
 PANEL LENGTH 13'-0" OR MORE = 4 CHANNELS
 If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
 for State Traffic Engineer

DATE 1/07/20

PLATE NO. A4-6.12

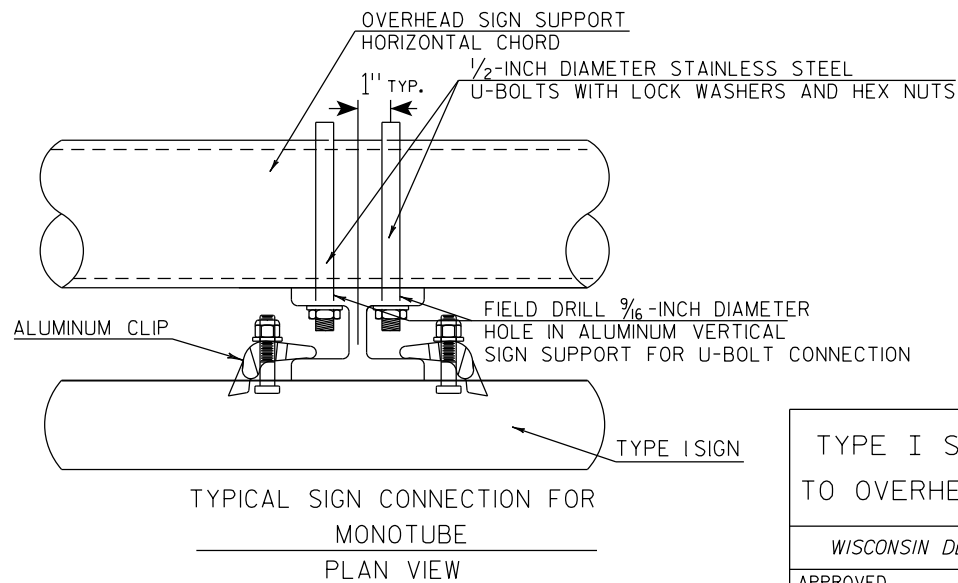
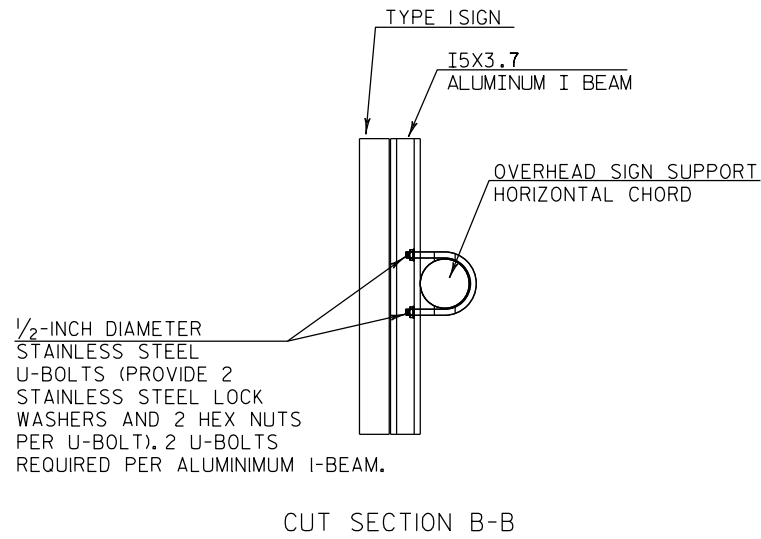
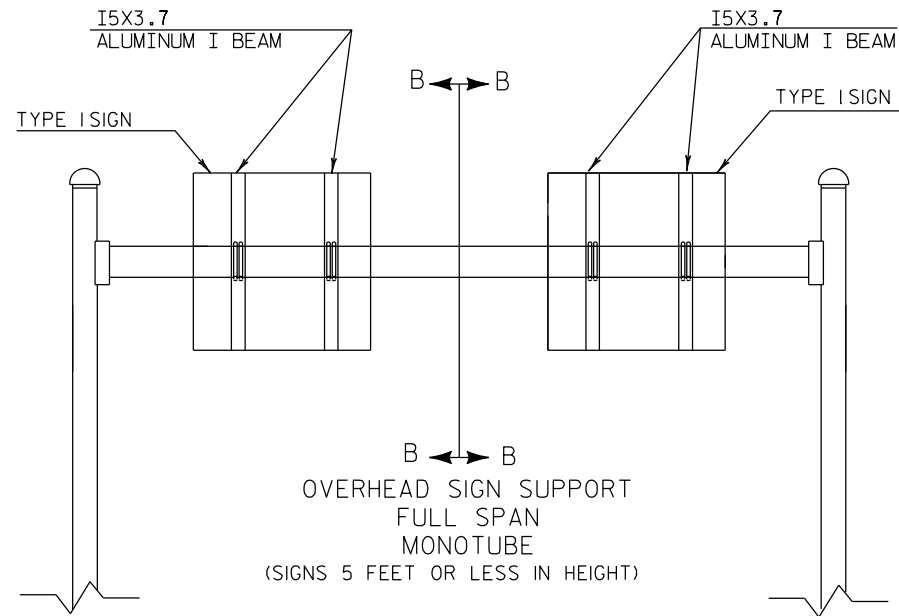
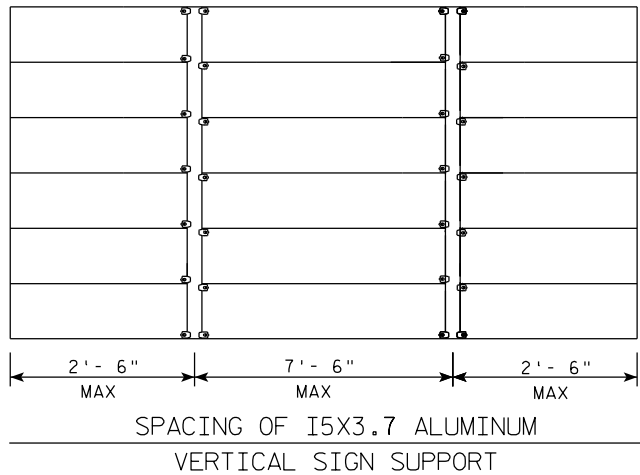
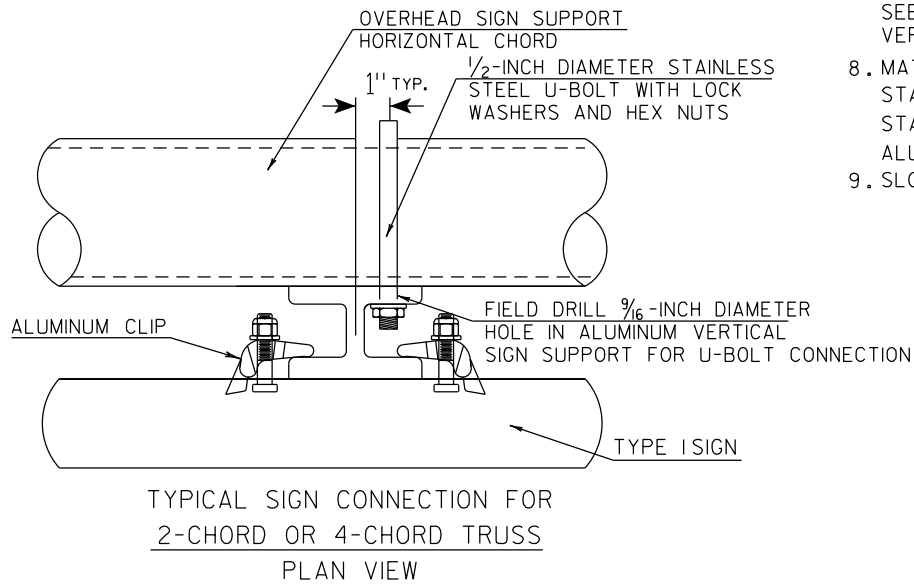
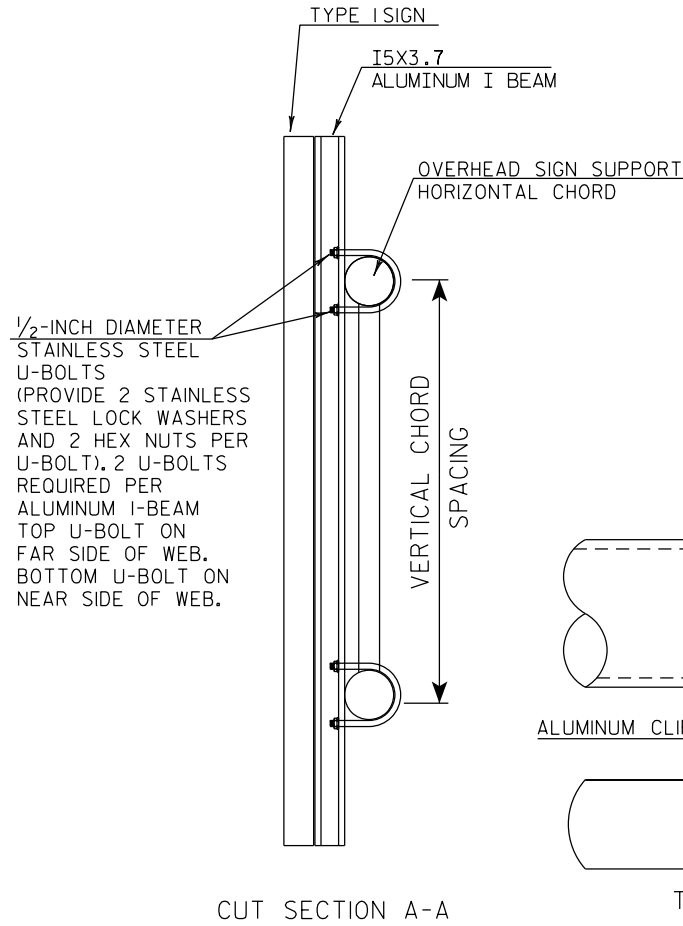
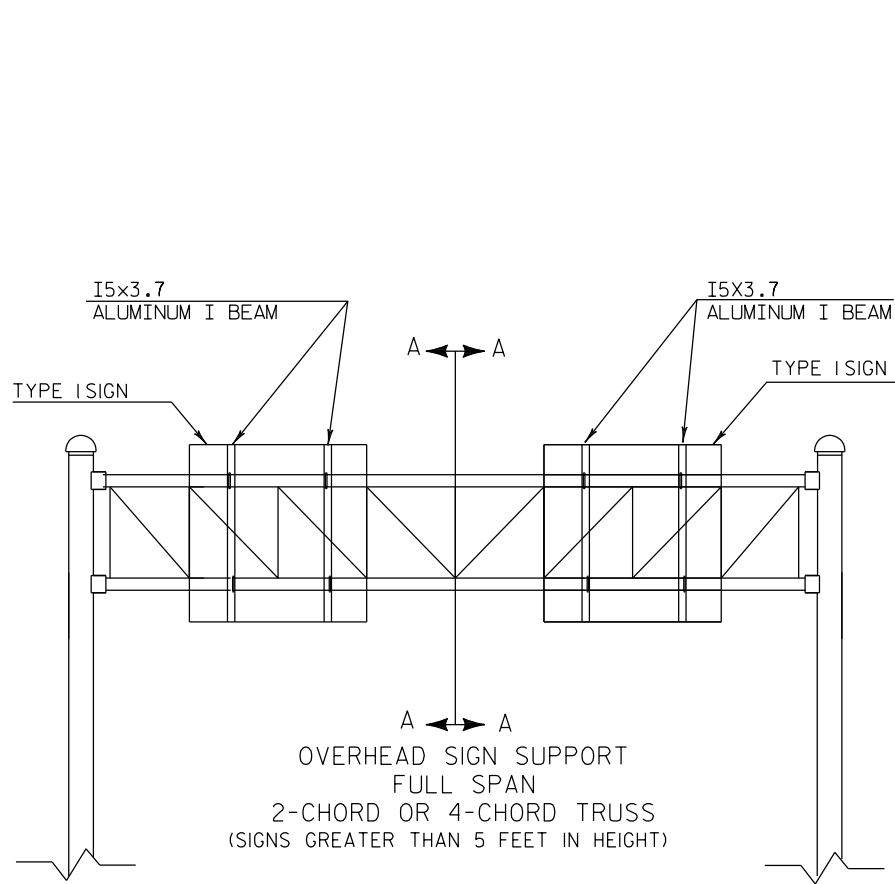
PROJECT NO:

SHEET NO:

E

GENERAL NOTES

1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
STAINLESS STEEL HEX NUTS ASTM A276.
ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
State Traffic Engineer

DATE 1/07/20

PLATE NO. A4-7A.1

PROJECT NO:

HWY:

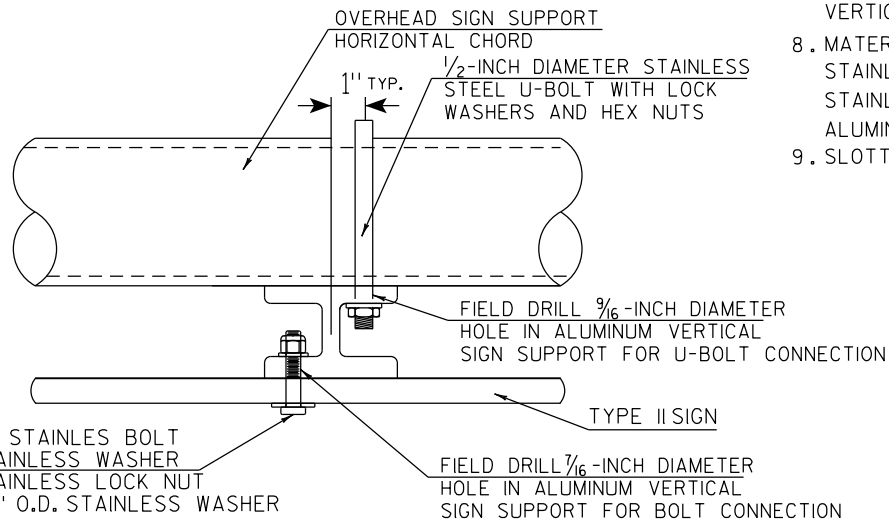
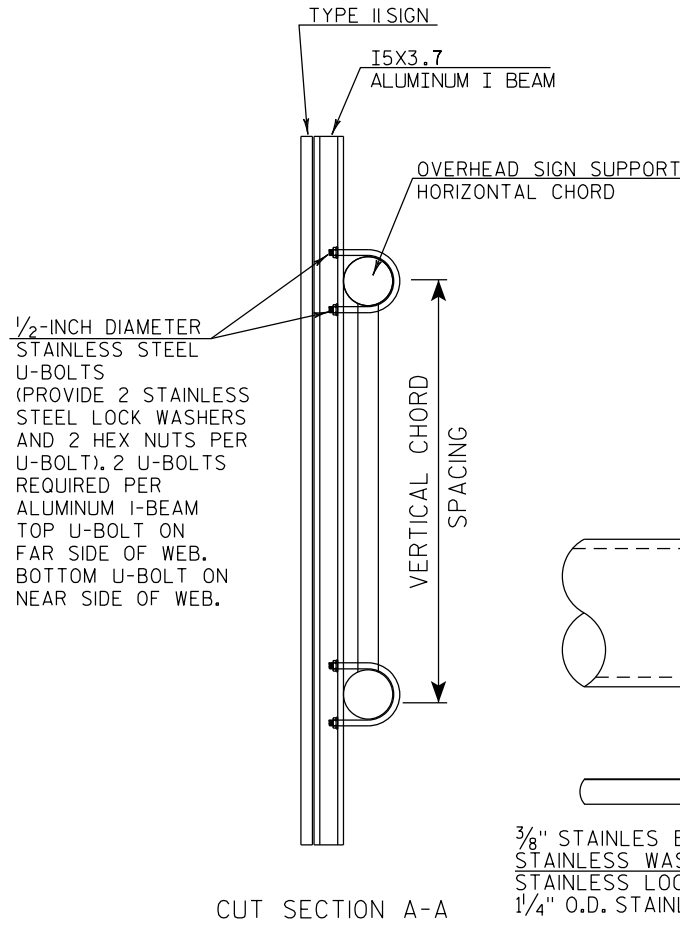
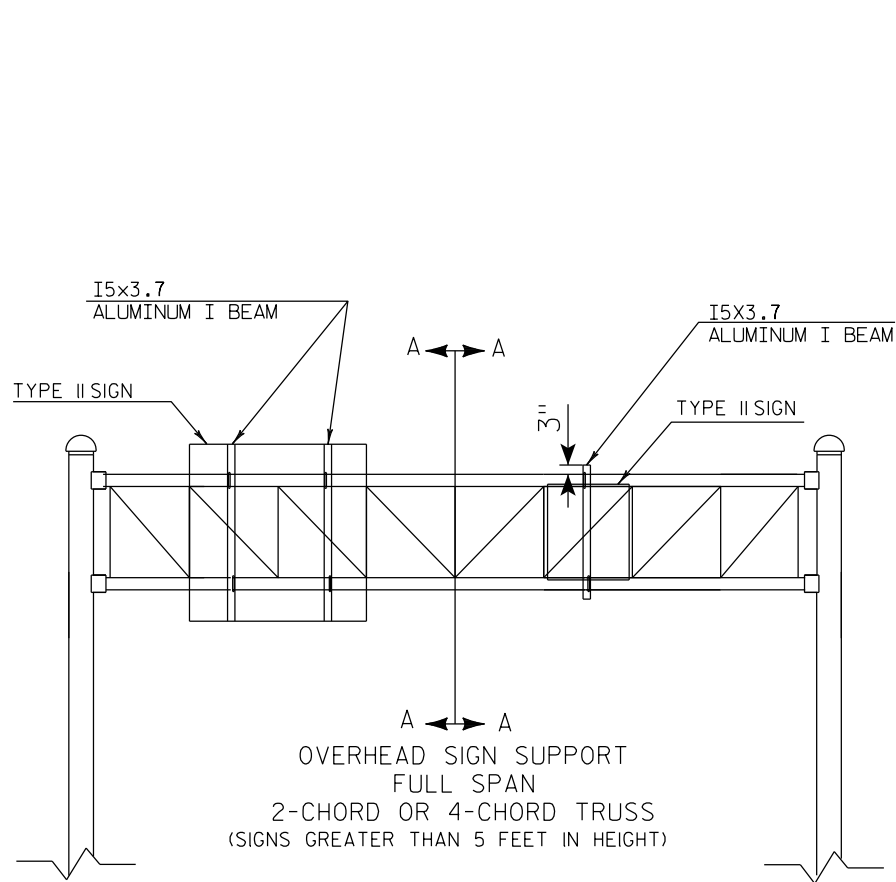
COUNTY:

SHEET NO:

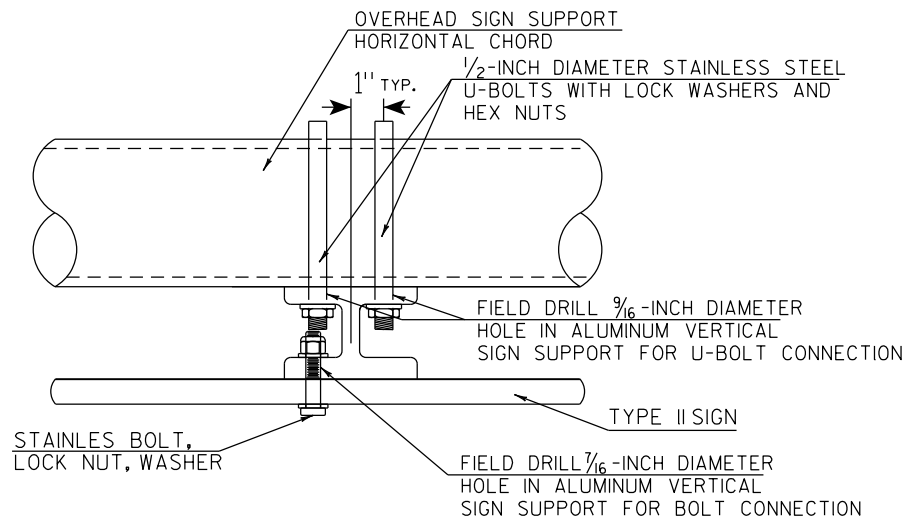
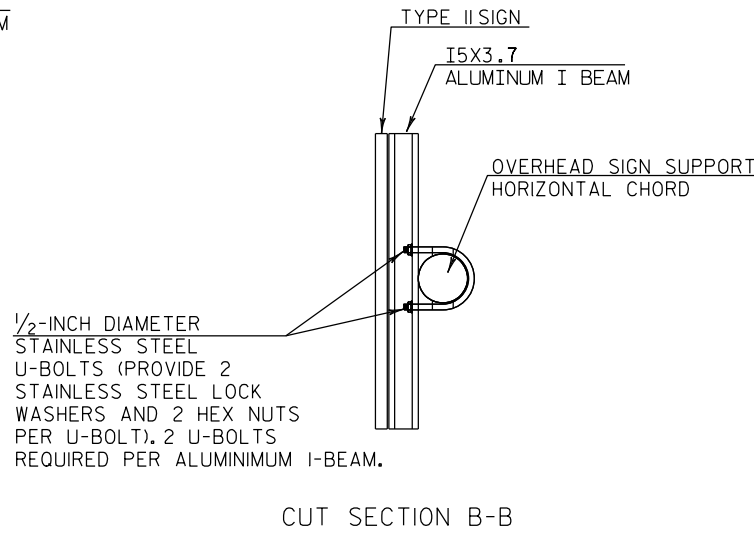
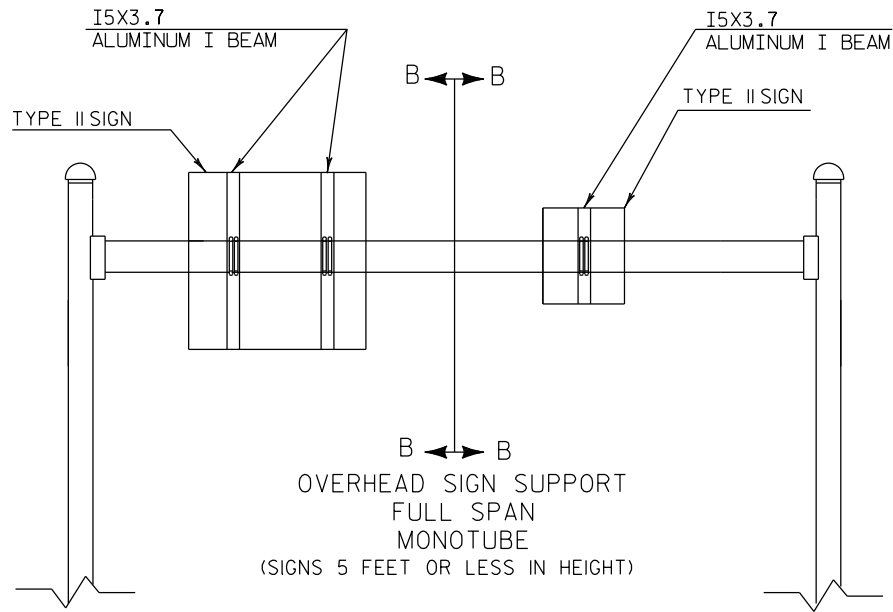
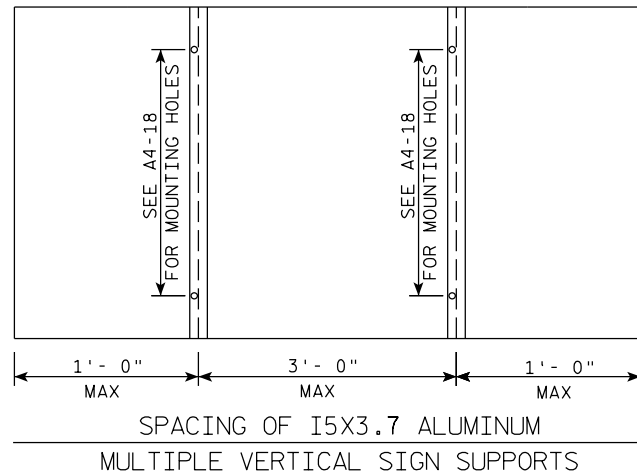
E

GENERAL NOTES

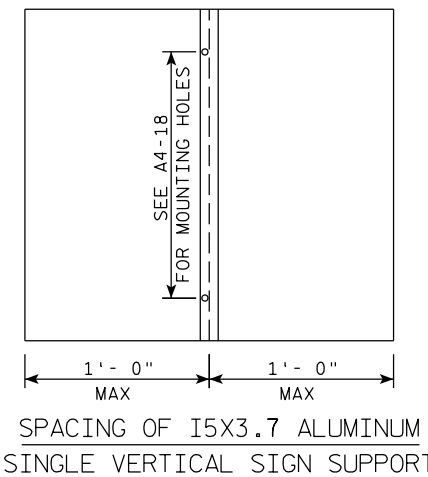
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
STAINLESS STEEL HEX NUTS ASTM A276.
ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

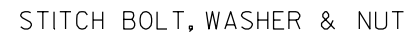
TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

Hardware



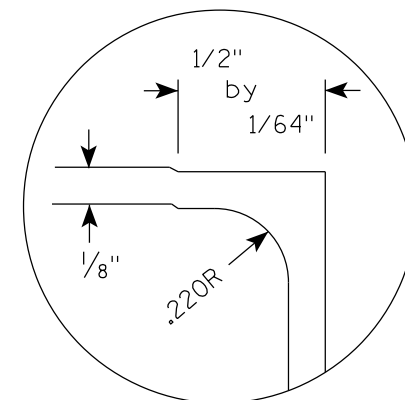
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



Stop nut shall be stainless steel.



1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

Diagram illustrating the reinforcement details for a beam-column joint. The beam has a width of 12 inches and a depth of 24 inches. The column has a width of 12 inches and a depth of 24 inches. The joint is 6 inches wide. Reinforcement includes top and bottom bars in the beam and column, and diagonal stirrups in the joint.

APPROVED Matthew R Rauch
For State Traffic Engineer
DATE 1/07/20 PLATE NO. A5-2.10

11

STATE PROJECT NUMBER
1000-20-63

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S130129	DANE	I-39/90/94 EB	I-39/90/94 EB AT USH 151NB EXIT	4 CHORD CANTILEVER TRUSS
S130213	DANE	USH 151 SB	USH 151 SB, 200 FT N OF USH 51	CANTILEVER MAST ARM
S300035	KENOSHA	IH 94 E	AT THE ILLINOIS STATE BORDER	4 CHORD FULL SPAN
S300401	KENOSHA	IH 41 N	JUST S OF CTH C	4 CHORD FULL SPAN
S360023	MANITOWOC	CUSTER ST	CUSTER ST JUST N OF USH 151	MONOTUBE FULL SPAN
S400018	MILWAUKEE	IH 41 S	1/2M N OF HALE INTERCHANGE	4 CHORD FULL SPAN
S400204	MILWAUKEE	IH 94 E	1/4M W OF 35TH ST	BUTTERFLY
S400269	MILWAUKEE	W HOWARD AVE	ON BRIDGE OVER STH 794	MONOTUBE FULL SPAN
S400331	MILWAUKEE	IH 794 W	1/2MILE S OF EXIT TO LINCOLN MEMORIAL DR.	4 CHORD FULL SPAN
S400338	MILWAUKEE	STH 175 N	1/4M S OF STATE ST	4 CHORD FULL SPAN
S400558	MILWAUKEE	IH 41 N	AT RAMP TO I-894 WB AT THE EXIT TO LAYTON AVE	4 CHORD FULL SPAN
S400567	MILWAUKEE	IH 41 S	1/4M N OF COLLEGE AVE	4 CHORD FULL SPAN
S400742	MILWAUKEE	IH 894 E	ENTRANCE RAMP FROM STH 241N	4 CHORD FULL SPAN
S400926	MILWAUKEE	CTH PP E	AT PORT WASHINGTON RD	2 CHORD FULL SPAN
S400982	MILWAUKEE	STH 100 W	JUST E OF 13TH ST	2 CHORD CANTILEVER TRUSS
S450201	OZAUKEE	STH 57 E	JUST W OF IH 43	2 CHORD FULL SPAN
S640201	WALWORTH	STH 50 E	1/2M E OF IH 43	CANTILEVER MAST ARM
S660201	WASHINGTON	W PARADISE DR E	AT THE RAMP TO USH 45 N	CANTILEVER MAST ARM
S660202	WASHINGTON	W PARADISE DR W	AT RAMP TO USH 45 S	CANTILEVER MAST ARM
S670215	WAUKESHA	CTH T N	JUST N OF IH 94	CANTILEVER MAST ARM
S670216	WAUKESHA	CTH T S	JUST S OF IH 94	CANTILEVER MAST ARM
S670947	WAUKESHA	USH 18 E	AT RAB WITH STH 83	2 CHORD FULL SPAN
S670948	WAUKESHA	STH 83 S	AT RAB WITH USH 18	2 CHORD FULL SPAN
S670949	WAUKESHA	USH 18 W	AT RAB WITH USH 83	2 CHORD FULL SPAN

1.	2021STATEWIDE SIGN REPAIR	66.	S-40-1516
2.	2021STATEWIDE SIGNAL REPAIR	67.	S-45-0201
3.	FOUNDATION DETAILS	68.	S-51-1141
4.	TRUSS DETAILS	69.	S-51-1142
5.	SUPERSTRUCTURE DETAILS	70.	S-51-1143
6.	SIGN PANEL DETAILS	71.	S-51-1144
7.	ELECTRICAL DETAILS	72.	S-51-1145
8.	CATWALK DETAILS	73.	S-51-1146
9.	SIGNAL DETAILS	74.	S-51-1149
10.	S-13-0129	75.	S-64-0201
11.	S-13-0213	76.	S-66-0201
12.	S-13-0534-0001	77.	S-66-0202
13.	S-13-0975-0001	78.	S-66-1108
14.	S-13-0975-0002	79.	S-67-0215
15.	S-13-0975-0003	80.	S-67-0216
16.	S-13-0975-0004	81.	S-67-0947
17.	S-13-1348-0001	82.	S-67-0948
18.	S-13-1348-0002	83.	S-67-0949
19.	S-30-0035	84.	S-67-1101
20.	S-30-0401	85.	S-67-1120
21.	S-30-1127	86.	S-67-1124
22.	S-30-1164	87.	S-67-1141
23.	S-30-1173	88.	S-67-1146
24.	S-30-1174	89.	S-67-1310
25.	S-36-0023	90.	S-67-1319
26.	S-40-0018	91.	S-67-1323
27.	S-40-0204	92.	S-67-1324
28.	S-40-0269	93.	S-67-1330
29.	S-40-0331	94.	S-67-1334
30.	S-40-0338	95.	S-67-1346
31.	S-40-0567	96.	S-67-1352
32.	S-40-0742	97.	S-67-1361

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND AS-BUILT CONDITIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR PROPOSED REPAIRS. PLANS AND SHOP DRAWINGS CAN BE FOUND IN THE HIGHWAY STRUCTURES INFORMATION SYSTEM (HSIS) DATABASE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH $\frac{3}{4}$ " DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

STRUCTURE DESIGN CONTACTS:

STEVEN DOOCY	(608) 261-6063
DOMINIQUE BECHLE	(608) 261-8205

NO.	DATE	REVISION		BY
		BUREAU OF STRUCTURES		
ACCEPTED				10/27/20 DMB
		CHIEF STRUCTURES DESIGN ENGINEER		DATE
2021 STATEWIDE SIGN AND SIGNAL REPAIRS				
COUNTY		VARIES	CITY	VARIES
DESIGN SPEC. N/A				
DESIGNED BY	SAD	DESIGNED CK'D.	SCL	DRAWN BY SCL/SAD PLANS CK'D. SAD
2021 STATEWIDE SIGN REPAIR			SHEET 1 OF 97	

SIGNAL REPAIR LOCATIONS

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S1305340001	DANE	COTTAGE GROVE RD EB	COTTAGE GROVE RD EB AT STH 51 RAMP	CANTILEVER MAST ARM
S1309750001	DANE	STH 19 WB	STH 19 WB JUST WEST OF USH 51	CANTILEVER MAST ARM
S1309750002	DANE	STH 19 WB	STH 19 WB JUST EAST OF USH 51	CANTILEVER MAST ARM
S1309750003	DANE	STH 19 EB	STH 19 EB JUST EAST OF USH 51	CANTILEVER MAST ARM
S1309750004	DANE	STH 19 WB	STH 19 WB JUST WEST OF USH 51	CANTILEVER MAST ARM
S1313480001	DANE	USH 51 NB	USH 51 NB AT I-39 NB OFF RAMP	CANTILEVER MAST ARM
S1313480002	DANE	USH 51 SB	USH 51 SB AT I39 NB RAMPS	CANTILEVER MAST ARM
S301127	KENOSHA	STH 50 E	JUST E OF CTH P	CANTILEVER MAST ARM
S301164	KENOSHA	STH 31 S	JUST S OF 78TH ST	CANTILEVER MAST ARM
S301173	KENOSHA	CTH 0 N	JUST N OF STH 50	CANTILEVER MAST ARM
S301174	KENOSHA	STH 50 E	JUST E OF CTH 0 (368TH AVE)	CANTILEVER MAST ARM
S401217	MILWAUKEE	STH 100 E	JUST E OF 107TH ST	CANTILEVER MAST ARM
S401220	MILWAUKEE	STH 100 E	JUST E OF 91ST ST	CANTILEVER MAST ARM
S401240	MILWAUKEE	51ST N	JUST N OF STH 100	CANTILEVER MAST ARM
S401241	MILWAUKEE	STH 100 E	JUST E OF 51ST ST	CANTILEVER MAST ARM
S401273	MILWAUKEE	STH 100 S	JUST S OF STH 190	CANTILEVER MAST ARM
S401274	MILWAUKEE	STH 190 W	JUST W OF STH 100	CANTILEVER MAST ARM
S401275	MILWAUKEE	STH 100 N	JUST N OF STH 190	CANTILEVER MAST ARM
S401386	MILWAUKEE	CTH EE W	JUST W OF STH 100	CANTILEVER MAST ARM
S401389	MILWAUKEE	STH 241 N	IN MEDIAN JUST N OF HOWARD AVE	CANTILEVER MAST ARM
S401391	MILWAUKEE	HOWARD AVE E	JUST E OF STH 241	CANTILEVER MAST ARM
S401392	MILWAUKEE	STH 241 S	JUST S OF HOWARD AVE	CANTILEVER MAST ARM
S401395	MILWAUKEE	IH 41 N	ENTRANCE RAMP FROM BURLEIGH RD	CANTILEVER MAST ARM
S401429	MILWAUKEE	RAWSON AVE E	IN MEDIAN AT STH 38	CANTILEVER MAST ARM
S401438	MILWAUKEE	GRANGE AVE E	JUST E OF STH 38	CANTILEVER MAST ARM
S401442	MILWAUKEE	SUSAN DR E	JUST E OF STH 38	CANTILEVER MAST ARM
S401448	MILWAUKEE	STH 100 N	JUST N OF COLDSRING RD	CANTILEVER MAST ARM
S401449	MILWAUKEE	W COLDSRING RD E	JUST E OF STH 100	CANTILEVER MAST ARM
S401459	MILWAUKEE	THEODORE TRECKER WAY E	JUST E OF STH 100	CANTILEVER MAST ARM
S401460	MILWAUKEE	STH 100 S	JUST S OF THEODORE TRECKER WAY	CANTILEVER MAST ARM
S401461	MILWAUKEE	S 92ND ST N	JUST N OF STH 59	CANTILEVER MAST ARM
S401462	MILWAUKEE	STH 59 E	JUST E OF S 92ND ST	CANTILEVER MAST ARM
S401463	MILWAUKEE	S 92ND ST S	JUST S OF STH 59	CANTILEVER MAST ARM
S401464	MILWAUKEE	STH 59 W	JUST W OF S 92ND ST	CANTILEVER MAST ARM
S401465	MILWAUKEE	STH 59 W	JUST W OF STH 181	CANTILEVER MAST ARM
S401468	MILWAUKEE	STH 181 S	JUST S OF STH 59	CANTILEVER MAST ARM
S401469	MILWAUKEE	STH 181 S	JUST S OF STATE FAIR PARK GATE 4	CANTILEVER MAST ARM
S401473	MILWAUKEE	W SCHLINGER AVE E	JUST E OF STH 181	CANTILEVER MAST ARM
S401476	MILWAUKEE	LINCOLN AVE W	JUST W OF IH 894	CANTILEVER MAST ARM
S401511	MILWAUKEE	USH 18 E	JUST E OF IH 41 N	CANTILEVER MAST ARM
S401513	MILWAUKEE	IH 41 N	ENTRANCE RAMP FROM USH 18	CANTILEVER MAST ARM
S401514	MILWAUKEE	USH 18 E	JUST E OF IH 41 S RAMPS	CANTILEVER MAST ARM
S401515	MILWAUKEE	IH 41 S	ENTRANCE RAMP FROM USH 18	CANTILEVER MAST ARM
S401516	MILWAUKEE	USH 18 W	JUST W OF IH 41 S RAMPS	CANTILEVER MAST ARM
S511141	RACINE	STH 32 N	JUST N OF STH 11	CANTILEVER MAST ARM
S511142	RACINE	STH 32 S	JUST S OF STH 11	CANTILEVER MAST ARM
S511143	RACINE	WISCONSIN ST S	JUST S OF STH 20	CANTILEVER MAST ARM
S511144	RACINE	STH 20 W	JUST W OF CTH H	CANTILEVER MAST ARM
S511145	RACINE	CTH H N	JUST W OF STH 20	CANTILEVER MAST ARM
S511146	RACINE	STH 20 E	JUST E OF WISCONSIN ST	CANTILEVER MAST ARM
S511149	RACINE	90TH ST N	JUST N OF STH 20	CANTILEVER MAST ARM
S661108	WASHINGTON	STH 167 E	JUST E OF EISENHOWER RD	CANTILEVER MAST ARM
S671101	WAUKESHA	STH 59 W	AT ARCADIAN AVE W AND STH 164	CANTILEVER MAST ARM
S671120	WAUKESHA	CTH 0 S	AT IH 94 W RAMPS	CANTILEVER MAST ARM
S671124	WAUKESHA	STH 164 S	JUST S OF IH 94 W ON RAMP	CANTILEVER MAST ARM
S671141	WAUKESHA	STH 100 E	JUST E OF STANLEY DR	CANTILEVER MAST ARM
S671146	WAUKESHA	STH 100 W	JUST W OF STH 100	CANTILEVER MAST ARM
S671310	WAUKESHA	WALMART ENTRANCE S	JUST S OF STH 59	CANTILEVER MAST ARM
S671319	WAUKESHA	PILGRIM RD S	JUST S OF IH 41 RAMPS	CANTILEVER MAST ARM

SIGNAL REPAIR LOCATIONS (CONTINUED)

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S671323	WAUKESHA	PILGRIM RD S	JUST S OF IH 41 N RAMPS	CANTILEVER MAST ARM
S671324	WAUKESHA	SUNSET DR E	JUST E OF STH 59	CANTILEVER MAST ARM
S671330	WAUKESHA	BROADWAY ST W	JUST W OF STH 164	CANTILEVER MAST ARM
S671334	WAUKESHA	STH 164 S	JUST SOUTH OF BROADWAY STREET	CANTILEVER MAST ARM
S671346	WAUKESHA	CTH 0 S	JUST S OF STH 59	CANTILEVER MAST ARM
S671352	WAUKESHA	SUNNYSLOPE RD S	JUST S OF STH 59	CANTILEVER MAST ARM
S671361	WAUKESHA	DISCOVERY DR S	JUST S OF USH 18	CANTILEVER MAST ARM

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		DRAWN BY	SCL PLANS CK'D. SAD
2021 STATEWIDE SIGNAL REPAIR		SHEET 2	

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TABLE OF ESTIMATED QUANTITIES FOR FOUNDATIONS **

STRUCTURE ID	509.1500 CONCRETE SURFACE REPAIR (EA)	517.0600 PAINTING EPOXY SYSTEM (STRUCTURE) (LS)	SPV.0060.01 TENSION ANCHOR RODS (EA)	SPV.0060.02 REMOVE DEBRIS (EA)	SPV.0060.03 RODENT SCREEN (EA)
S130213	8	1			
S300035			16		
S300401			16		
S400018	1				
S400338	6		8		
S401386					1
S401460			6		
S401465					1
S401511			6		1
S401515			6		
S450201				1	
S671101			4		1
TOTAL	15	1	62	1	4

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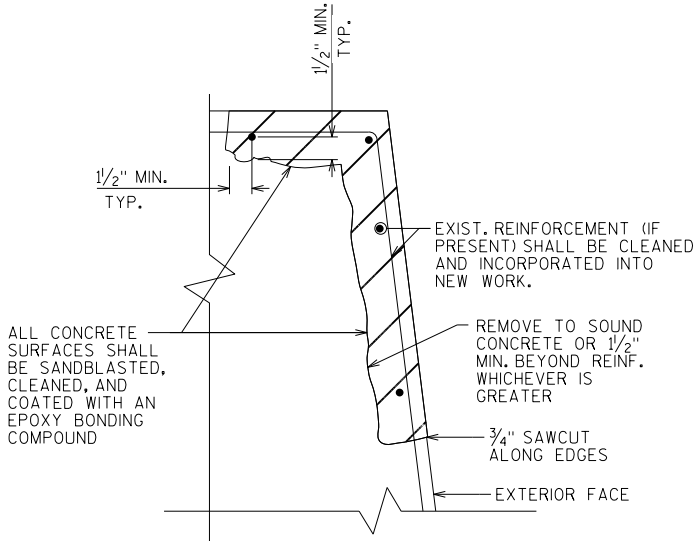
FOUNDATION NOTES

THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.

THE CONTRACTOR SHALL FIELD VERIFY DIMENSION OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.

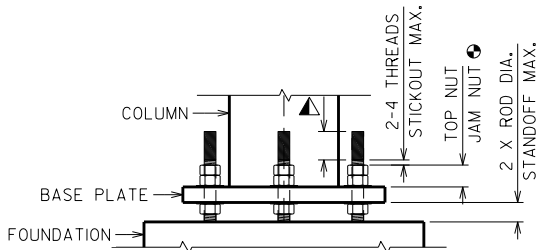
EXISTING GEOMETRY BASED OFF FIELD OBSERVATIONS AND INSPECTIONS. CONTRACTOR TO FIELD VERIFY PRIOR TO FABRICATION AND/OR ORDERING MATERIALS FOR ANCHOR BOLT REPAIR.

THE ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE COLD GALVANIZED WITH ZINC RICH PAINT IN ACCORDANCE TO THE SPECIFICATIONS.



CONCRETE SURFACE REPAIR

TYPICAL DETAILS, ACTUAL LOCATIONS AS DIRECTED BY FIELD ENGINEER AND AS NOTED ON PLANS.

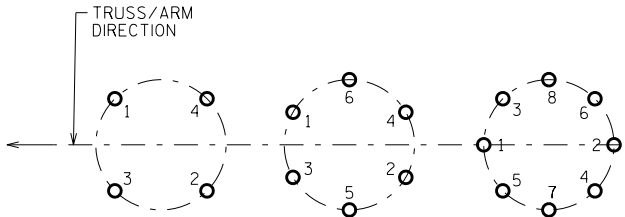


ANCHOR ROD TENSIONING DETAIL

JAM NUT REQUIRED UNLESS EXISTING STICKOUT IS INADEQUATE TO MEET REQUIREMENTS SHOWN.

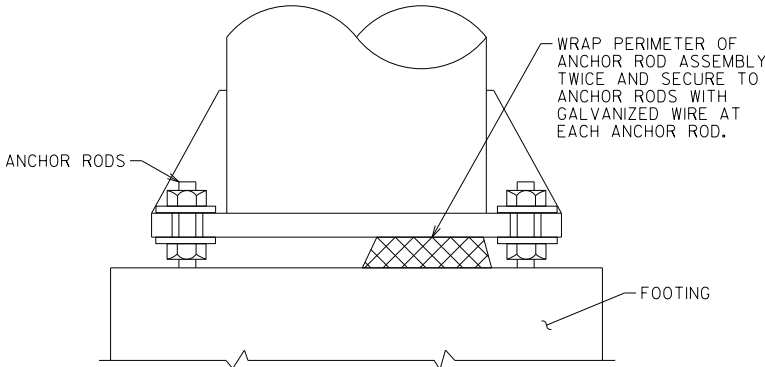
REMOVE AND DISPOSE OF EXISTING LOCK WASHERS (IF PRESENT) BEFORE RE-TENSIONING ANCHORS.

USE A CUT OFF WHEEL TO REMOVE EXCESS ROD STICKOUT TO THE DIMENSION SHOWN. CUT ANCHOR SHOULD BE FLAT AND SMOOTH, THREADS SHOULD BE DEBURRED SO THE NUT CAN RUN SMOOTHLY ON AND OFF THE END OF THE ROD. APPLY GALVANIZING TO CUT ENDS OF RODS PER SPECIAL PROVISIONS.



TYPICAL ANCHOR PATTERNS

ROD #1 LOCATED @ OF STRUCTURE UNDER ARM/TRUSS



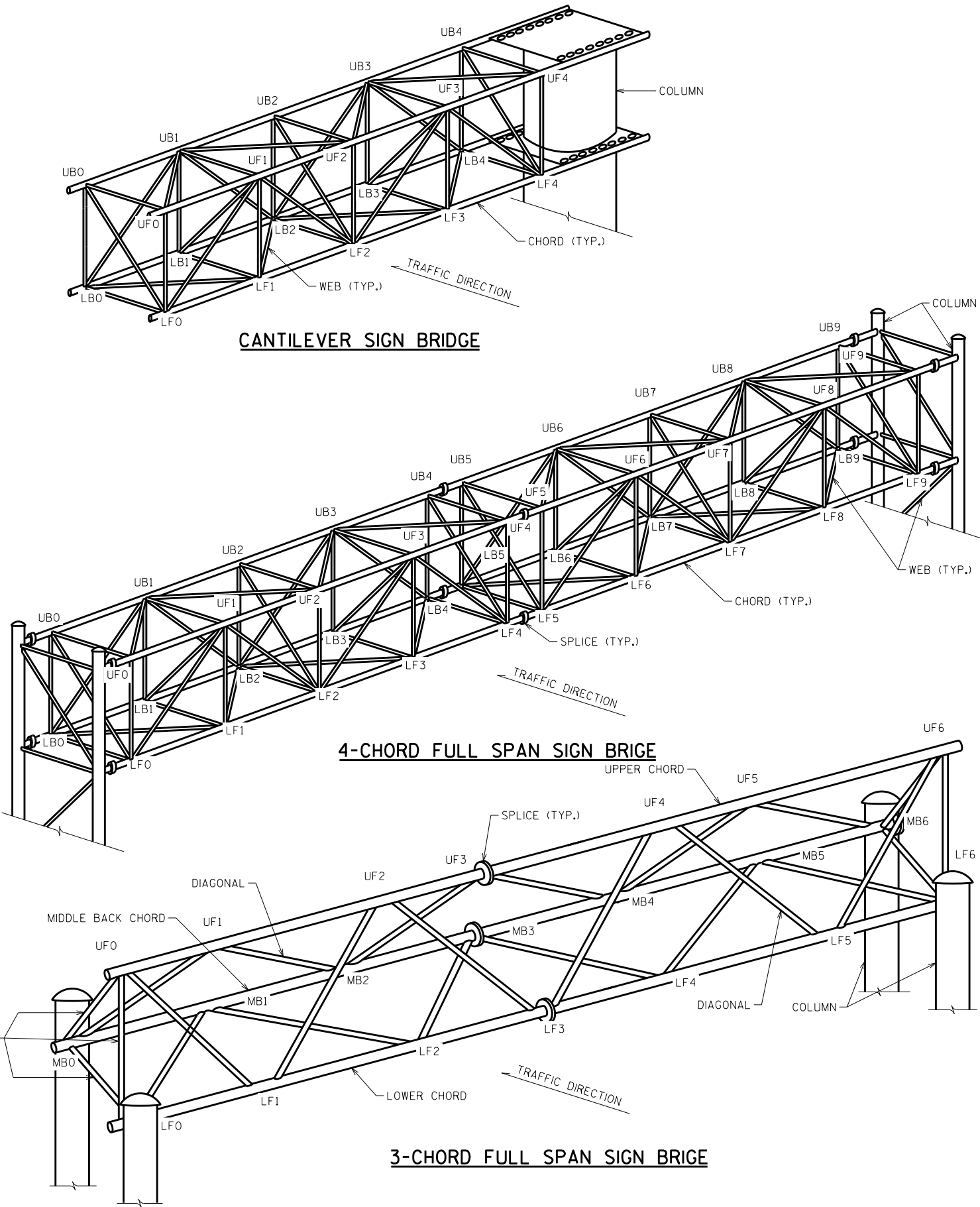
REPLACE RODENT SCREEN

REQUIRED ON ALL STRUCTURES WITH ELECTRICAL EQUIPMENT.

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FOUNDATION DETAILS		SHEET 3	

TRUSS NOTES:

- 1. WHEN A FULL SPAN SIGN BRIDGE IS OVER BOTH DIRECTIONS AND SIGNS ARE ON STRUCTURE FOR BOTH DIRECTIONS, THEN NORTHBOUND AND EASTBOUND GOVERN THE NUMBERING SYSTEM.
- 2. THE CANTILEVER SIGN BRIDGE NUMBERING SYSTEM ALWAYS COUNTS UP FROM LEFT TO RIGHT REGARDLESS OF COLUMN LOCATION.
- 3. TYPICAL SIGN BRIDGE CONFIGURATION FOR INFORMATION ONLY.



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TRUSS DETAILS			SHEET 4	

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TABLE OF ESTIMATED QUANTITIES FOR STRUCTURAL CONNECTIONS **

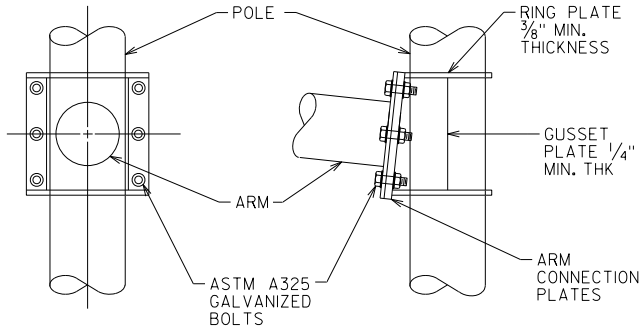
	638.3155	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	SPV.0060.08	SPV.0060.09
STRUCTURE ID	REMOVING OVERHEAD SIGN SUPPORTS FULL SPAN (EA)	LOWER STRUCTURE (EA)	REINSTALL TRUSS (EA)	TENSION STRUCTURAL BOLTS (EA)	REPLACE TRUSS MEMBER (EA)	VERTICAL SIGN SUPPORT (EA)	SIGN PANEL CONNECTOR (EA)
S130129				3			
S130213						2	
S300035				12	1		2
S360023	1						
S400269		1				1	
S400331				4			
S400742							17
S400926				12			
S400982				8			
S401465				1			
S401468				1			
S401469				6			
S401470				6			
S450201						4	
S640201				1			
S661108						1	
S670216						2	
S670947			1				
S670948			1				
S670949			1				
TOTAL	1	1	3	54	1	10	19

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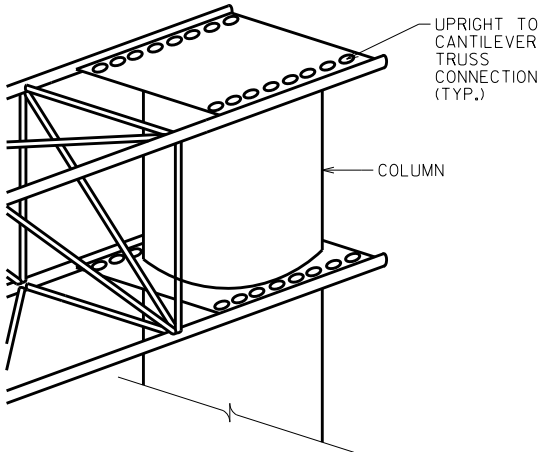
SUPERSTRUCTURE NOTES:

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
 - ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
 - HEX NUTS ASTM F594
 - WASHERS ASTM A240ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" ϕ AND 12% FOR 3/4" ϕ AND SMALLER.
4. REPLACE MISSING BOLTS ON TOWER CAPS WITH A STAINLESS STEEL BOLT.



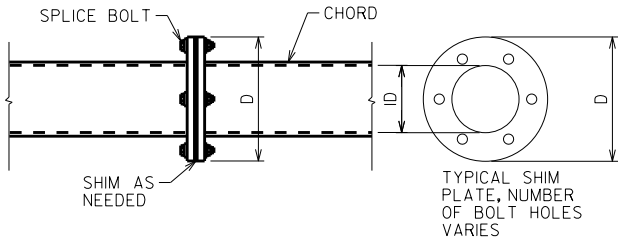
POST TO MAST ARM CONNECTION

6 BOLT ARRANGEMENT SHOWN
OTHER BOLT ARRANGEMENTS SIMILAR



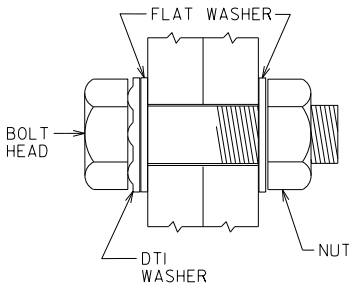
CANTIEVER SIGN BRIDGE

POST TO TRUSS CONNECTION DETAIL

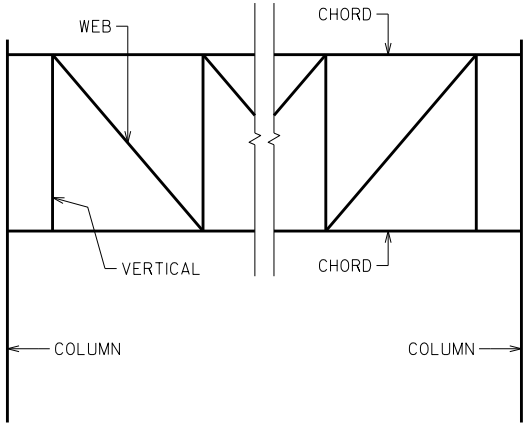


SPLICE CONNECTION BOLT DETAIL

IF GAP IS PRESENT PRIOR TO TENSIONING CONNECTION, SHIM USING 1/16TH GALVANIZED PLATES CUT TO MATCH OUTER DIAMETER OF SPLICE PLATES.



RECOMMENDED BOLT ASSEMBLY DETAIL



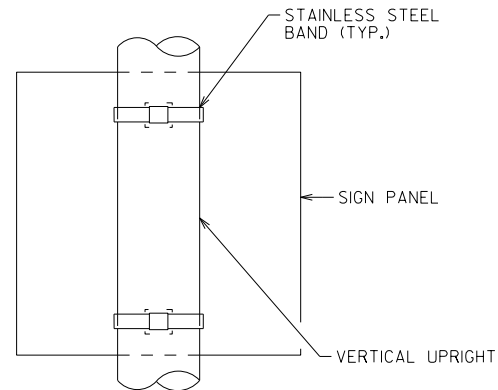
TWO CHORD TRUSS ORIENTATION

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		DRAWN BY SCL	PLANS CK'D. SAD
SUPERSTRUCTURE DETAILS		SHEET 5	

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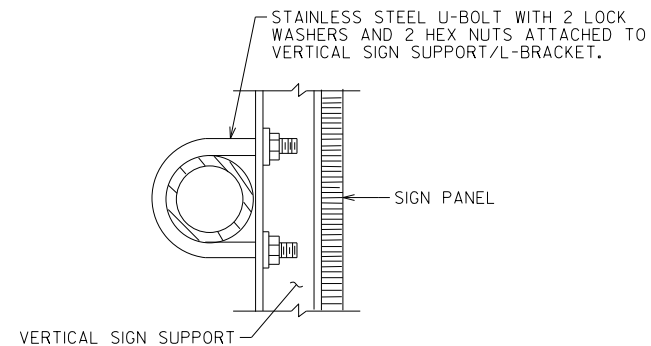
TABLE OF ESTIMATED QUANTITIES FOR SIGNS **

STRUCTURE ID	637.2210	637.2230	SPV.0060.10	SPV.0060.11
	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE F (SF)	ADJUST SIGN (EA)	ID PLAQUE (EA)
S130213				1
S1309750001				1
S1309750002				1
S1309750003				1
S1309750004				1
S1313480001				1
S1313480002				1
S301127				1
S400204		20		
S400567	20			
S401274			1	
S401395				1
S401429	6			
S401459				1
S401460				1
S401461				1
S401462				1
S401463				1
S401464				1
S401465				1
S401468				1
S401469				1
S401470				1
S401473				1
S640201	28			
S660201	28			
S660202	28			
S670215	14			
S670948				1
S671101				1
S671310				1
TOTAL	124	20	1	23



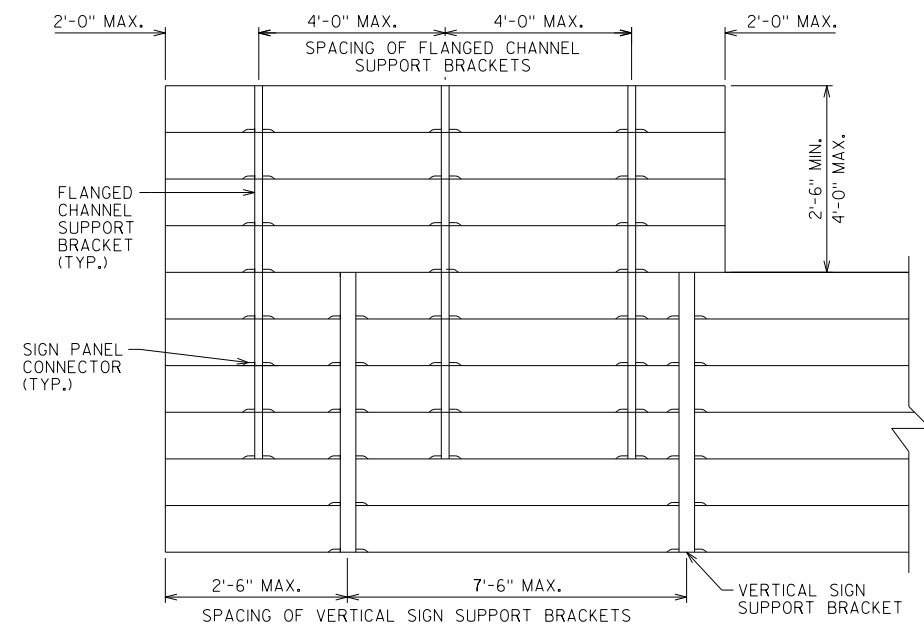
TYPE-II SIGN TO VERTICAL UPRIGHT DETAIL

REFER TO SIGN PLATE MANUAL FOR DETAILS (SIGN BANDING DETAILS)



U-BOLT DETAIL

VERIFY CHORD DIAMETER TO ENSURE U-BOLT FITS FIRMLY



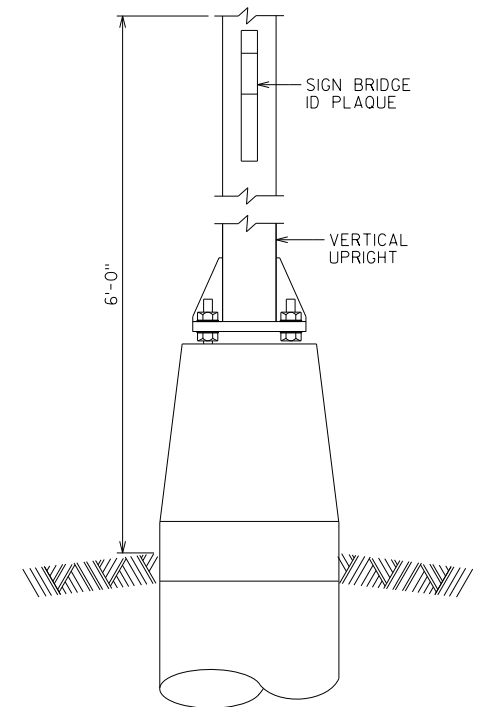
FLANGED CHANNEL SUPPORT/VERTICAL SIGN SUPPORT BRACKET DETAILS

SIGN PANEL NOTES:

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK. SHOP DRAWINGS CAN BE FOUND IN THE HIGHWAY STRUCTURE INFORMATION SYSTEM (HSIS) DATABASE.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
 - ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
 - HEX NUTS ASTM 594
 - WASHERS ASTM A240ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" DIA. AND 12% FOR 3/4" DIA. AND SMALLER.

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SIGN BRIDGE ID PLAQUE

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DRAWN BY		SCL	PLANS CK'D. SAD
SIGN PANEL DETAILS		SHEET 6	

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STATE PROJECT NUMBER

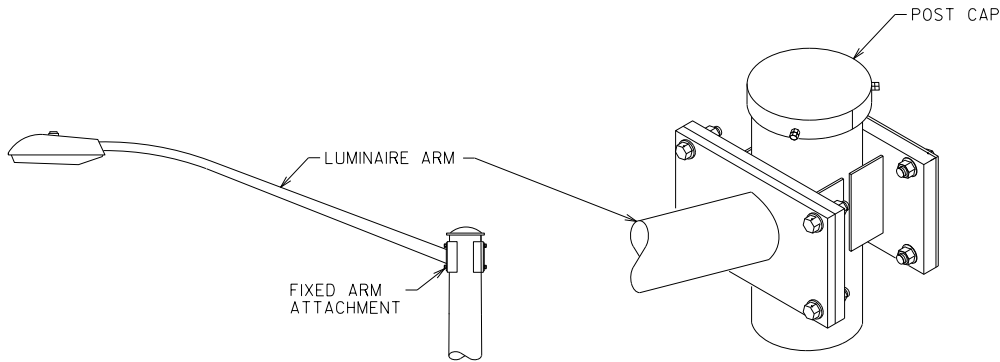
1000-20-63

TABLE OF ESTIMATED QUANTITIES FOR ELECTRICAL **

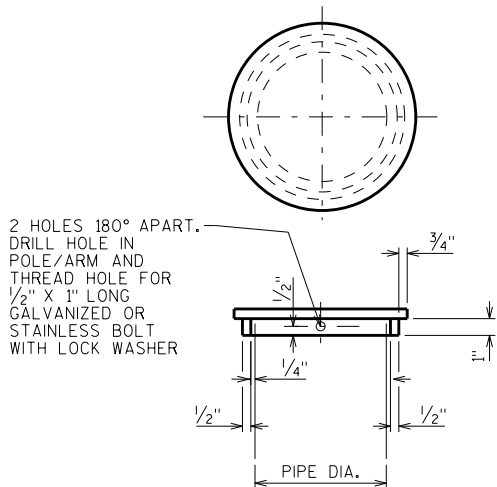
STRUCTURE ID	SPV.0060.12 MISC. ATTACHMENTS (EA)	SPV.0060.13 HANDHOLE COVER (EA)	SPV.0060.14 CONDUIT PLUG (EA)	SPV.0060.15 POST /END CAP (EA)
S300035			2	
S400338			1	
S401220	1			
S401391	1			
S401442				1
S401465		1	1	
S401513	1			1
S511149				1
S671146	1			
TOTAL	4	1	4	3

ELECTRICAL NOTES:

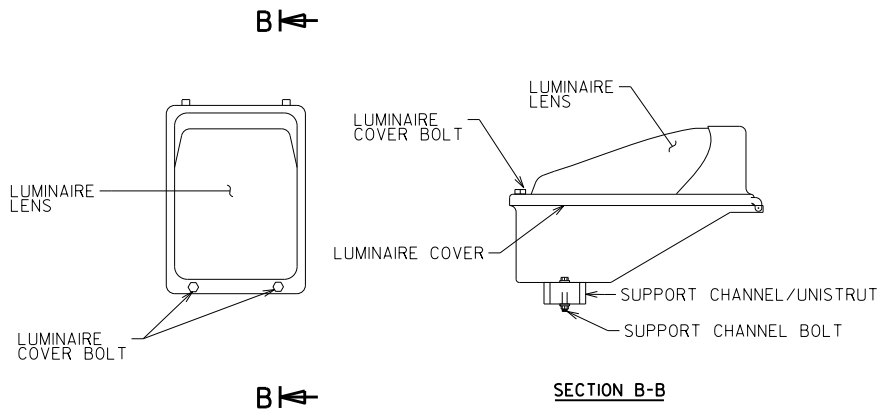
1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
 - HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
 - HEX NUTS ASTM F594
 - WASHERS ASTM A240ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" ϕ AND 12% FOR 3/4" ϕ AND SMALLER.
4. THE CONTRACTOR SHALL USE ANTI-SIEZE COMPOUND ON ELECTRICAL HANDHOLE COVER BOLTS, JUNCTION BOX BOLTS, LUMINAIRE COVER BOLTS, AND CONDUIT PLUGS PER SECTION 651.3.1(5) OF THE WISDOT STANDARD SPECIFICATION.
5. CAP ALL EXPOSED WIRES AND CLOSE THE JUNCTION BOX.
6. REPLACE THE JUNCTION BOX BOLT WITH A STAINLESS STEEL BOLT.



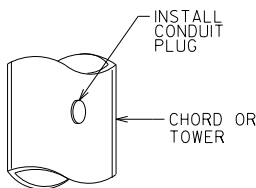
POST TO LUMINAIRE ARM CONNECTION
WIRING TO RUN INSIDE LUMINAIRE ARM



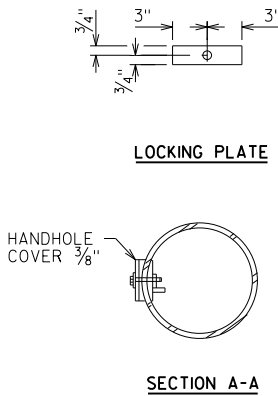
POST/END CAP DETAIL



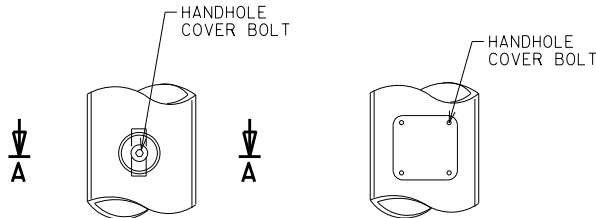
TYPICAL LUMINAIRE DETAILS



CONDUIT PLUG DETAIL



SECTION A-A



HANDHOLE DETAILS

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DRAWN BY		SCL	PLANS CK'D. SAD
ELECTRICAL DETAILS		SHEET 7	

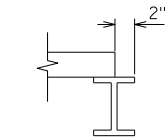
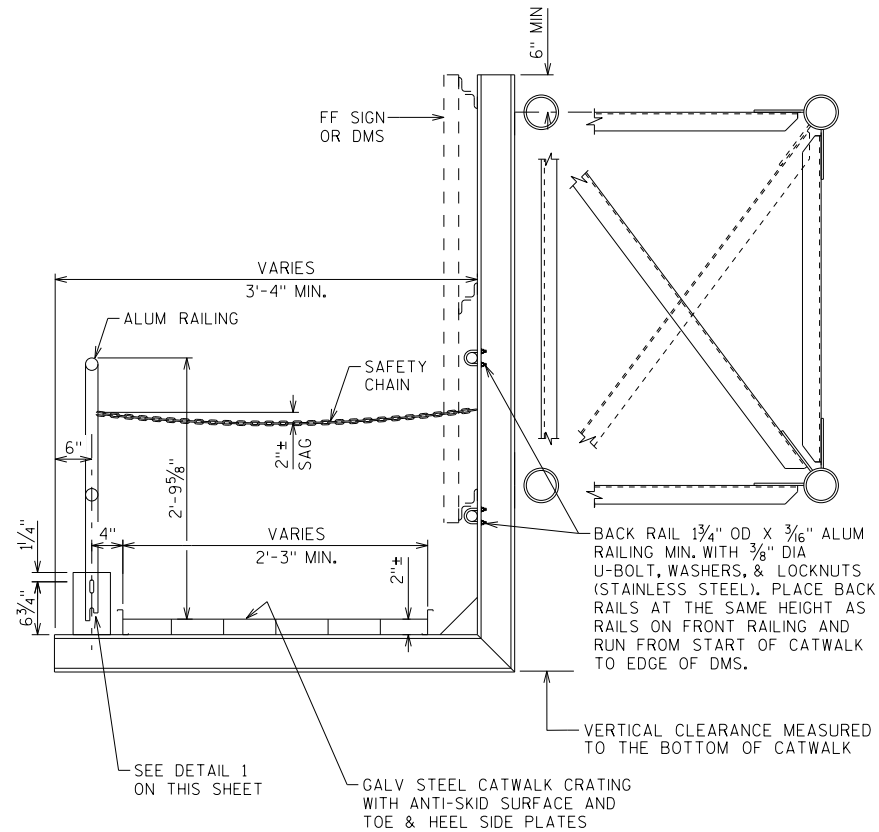
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TABLE OF ESTIMATED QUANTITIES FOR CATWALKS**

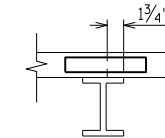
STRUCTURE ID	SPV.0060.16 CATWALK REPAIR (EA)
S400018	1
TOTAL	1

STATE PROJECT NUMBER

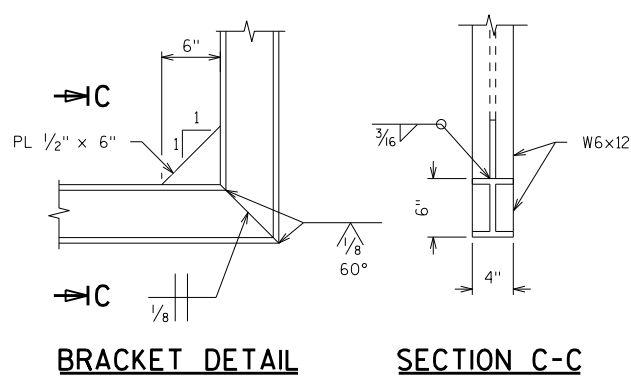
1000-20-63



CATWALK
TERMINATION
DETAIL

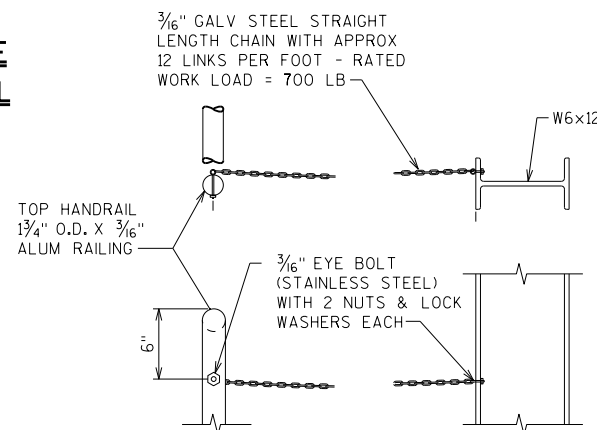


CATWALK SPLICE
LOCATION DETAIL



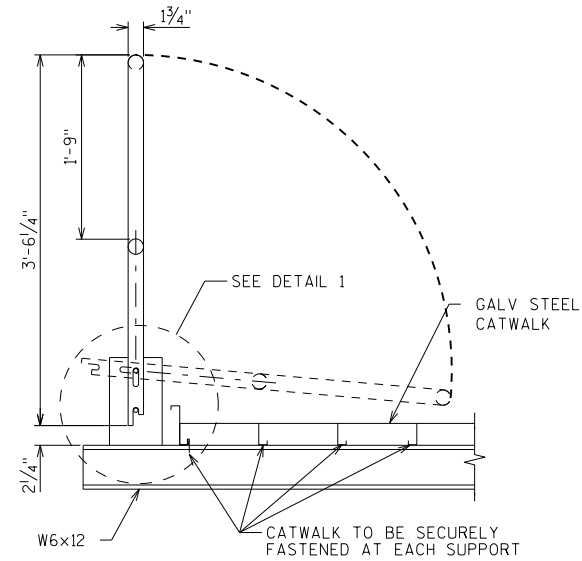
BRACKET DETAIL

SECTION C-C

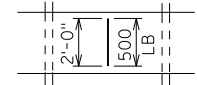


SAFETY CHAIN DETAIL

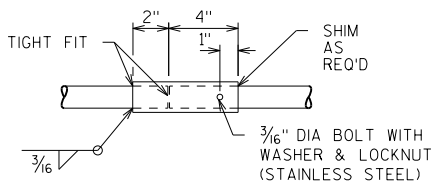
(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)



RAIL POST DETAIL



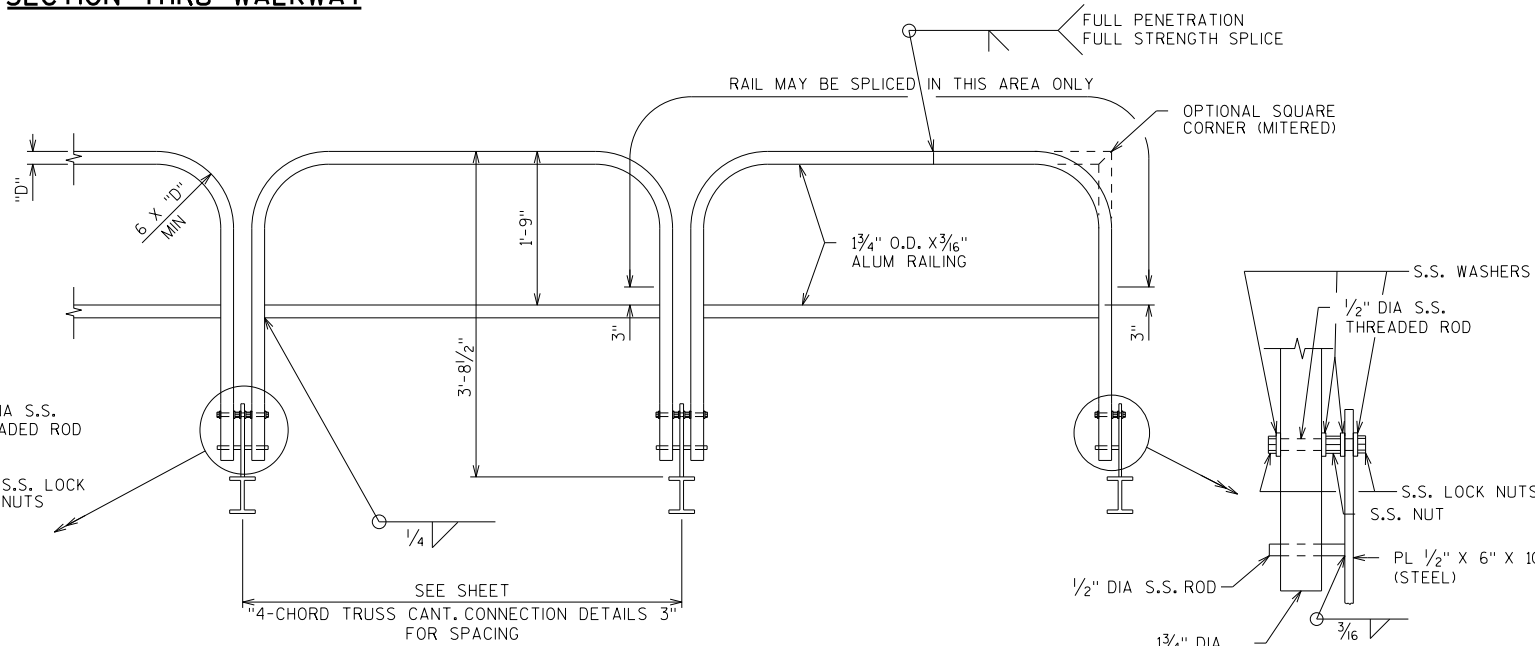
NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.



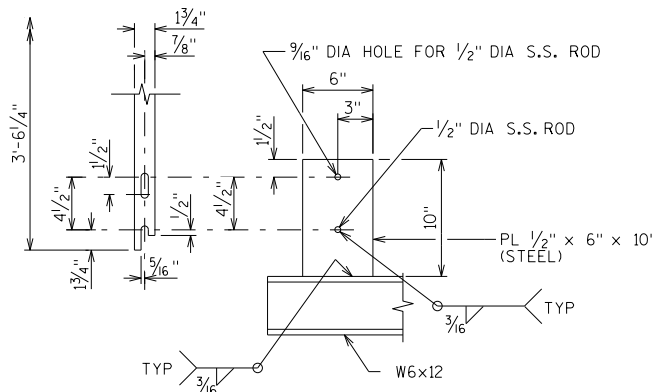
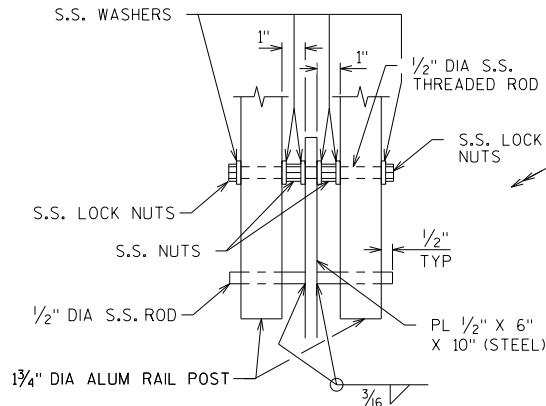
BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"

SECTION THRU WALKWAY



TYPICAL FRONT RAILING DETAILS



DETAIL 1

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DRAWN BY		SCL	PLANS CK'D. SAD
CATWALK DETAILS		SHEET 8	

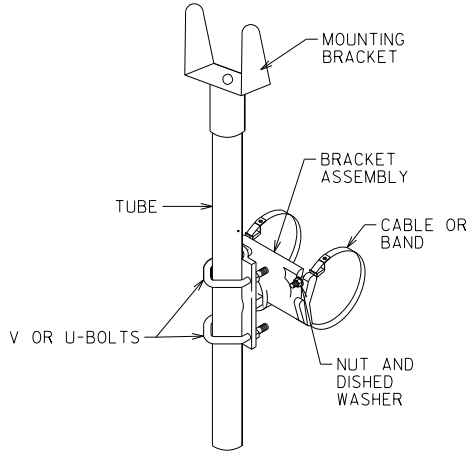
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TABLE OF ESTIMATED QUANTITIES FOR SIGNALS **

	SPV.0060.17	SPV.0060.18	SPV.0060.19	SPV.0060.20
STRUCTURE ID	DISHED WASHER (EA)	REPLACE SIGNAL SHROUD (EA)	SIGNAL MOUNTING HARDWARE (EA)	ADJUST SIGNAL (EA)
S1305340001			1	
S1309750001				2
S1309750002		1		1
S1309750003		1		1
S1309750004		1		
S1313480001				1
S1313480002		2		
S300401	1			
S301127	1			
S301164			1	
S301173	1			
S301174				2
S401217	1			
S401240			1	
S401241			2	
S401273			1	
S401274			1	
S401275			2	
S401386			2	
S401389			1	1
S401392			1	
S401395			1	
S401429			1	
S401442			2	
S401448			1	
S401449	1			
S401459			1	
S401460			1	
S401461			2	
S401462			1	
S401463			3	
S401464			2	
S401465			1	
S401473			1	
S401511			1	
S401514			2	
S401515			1	1
S401516			2	
S511141			1	
S511142			1	
S511143			1	
S511144			1	
S511145			3	
S511146			1	
S511149			1	
S671101	3			
S671120	1			
S671124		1		

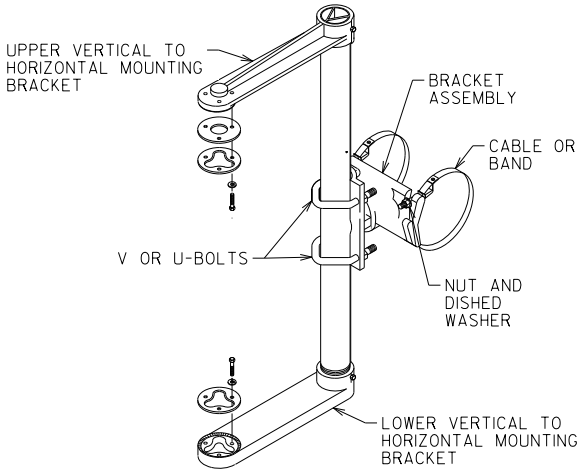
TABLE OF ESTIMATED QUANTITIES FOR SIGNALS (CONTINUED)

	SPV.0060.17	SPV.0060.18	SPV.0060.19	SPV.0060.20
STRUCTURE ID	DISHED WASHER (EA)	REPLACE SIGNAL SHROUD (EA)	SIGNAL MOUNTING HARDWARE (EA)	ADJUST SIGNAL (EA)
S671141				1
S671310			1	
S671319			1	
S671323			1	
S671324	1			1
S671330	1			
S671334			1	
S671346				1
S671352				1
S671361				1
TOTAL	11	6	48	14



CAMERA MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

BRACKET ASSEMBLY SHOWN AS EXAMPLE, NEW BRACKETS SHOULD CONFORM TO APL FOR SIGNAL MOUNTING HARDWARE



SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

BRACKET ASSEMBLY SHOWN AS EXAMPLE, NEW BRACKETS SHOULD CONFORM TO APL FOR SIGNAL MOUNTING HARDWARE

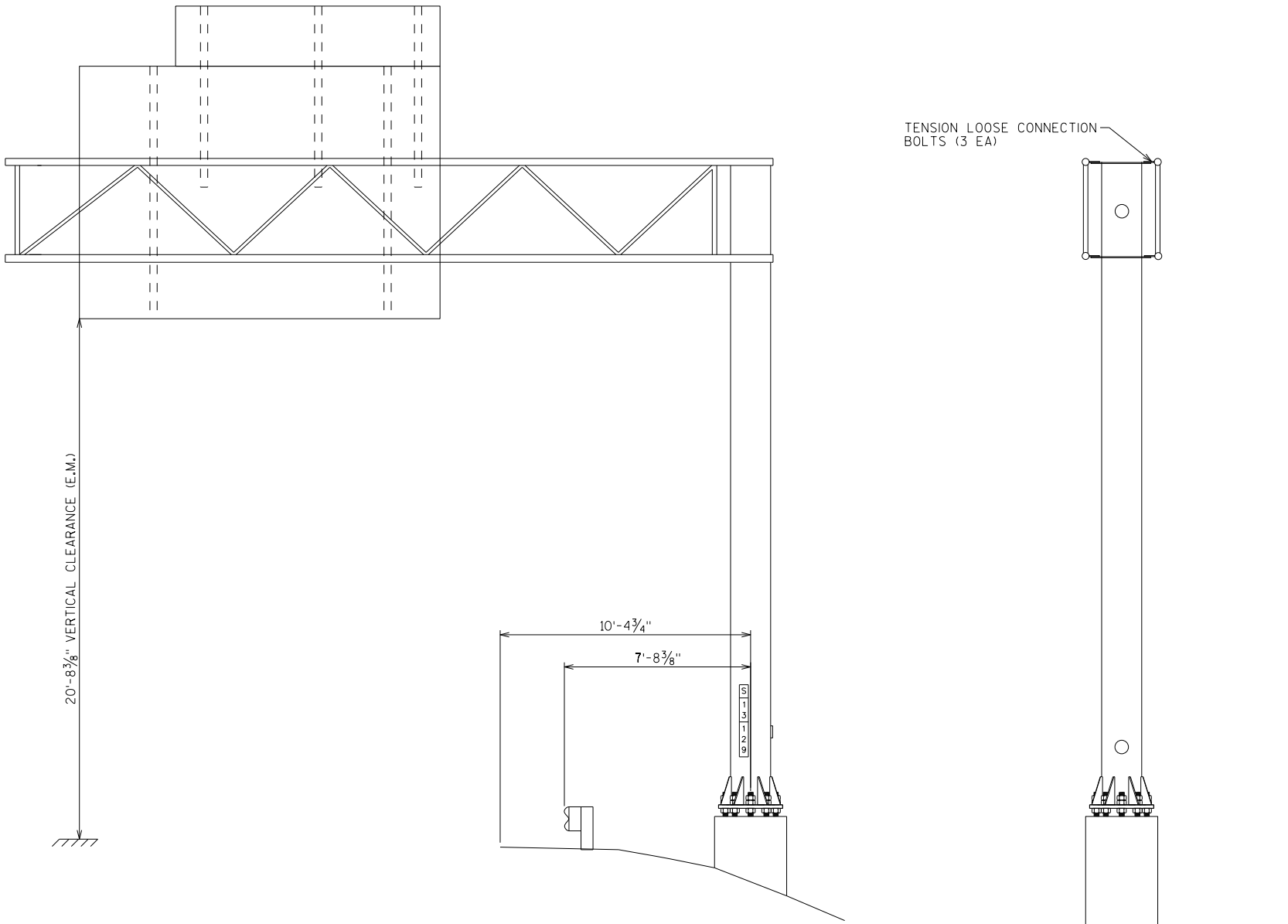
SIGNAL NOTES:

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
-ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
-HEX NUTS ASTM 594
-WASHERS ASTM A240
ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" DIA. AND 12% FOR 3/4" DIA. AND SMALLER.

STATE PROJECT NUMBER

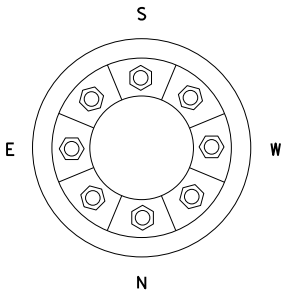
1000-20-63

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
SIGNAL DETAILS		SHEET 9	



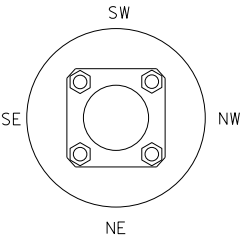
LOOKING SOUTH

LOOKING EAST



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	3	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-13-0129		SHEET 10	



CLEAN AND PAINT BASE PLATE AND
BOTTOM 8'-0" OF POLE WITH DARK
GREEN RAL 6009 (80% - 90% GLOSS)

LOOKING NORTHWEST

INSTALL STRUCTURE ID PLAQUE

REPAIR CONCRETE CURB

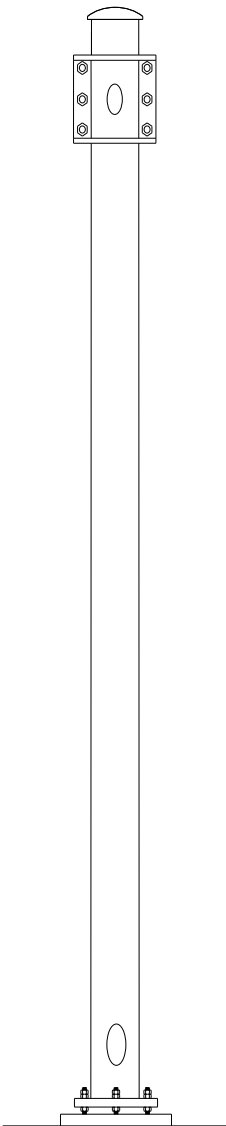
REPLACE TYPE-II SIGN CONNECTION
ASSEMBLY WITH I-BEAM AND
U-BOLTS PER SIGN PLATE MANUAL
A4-7B

19'-23/8" VERTICAL CLEARANCE (E.M.)

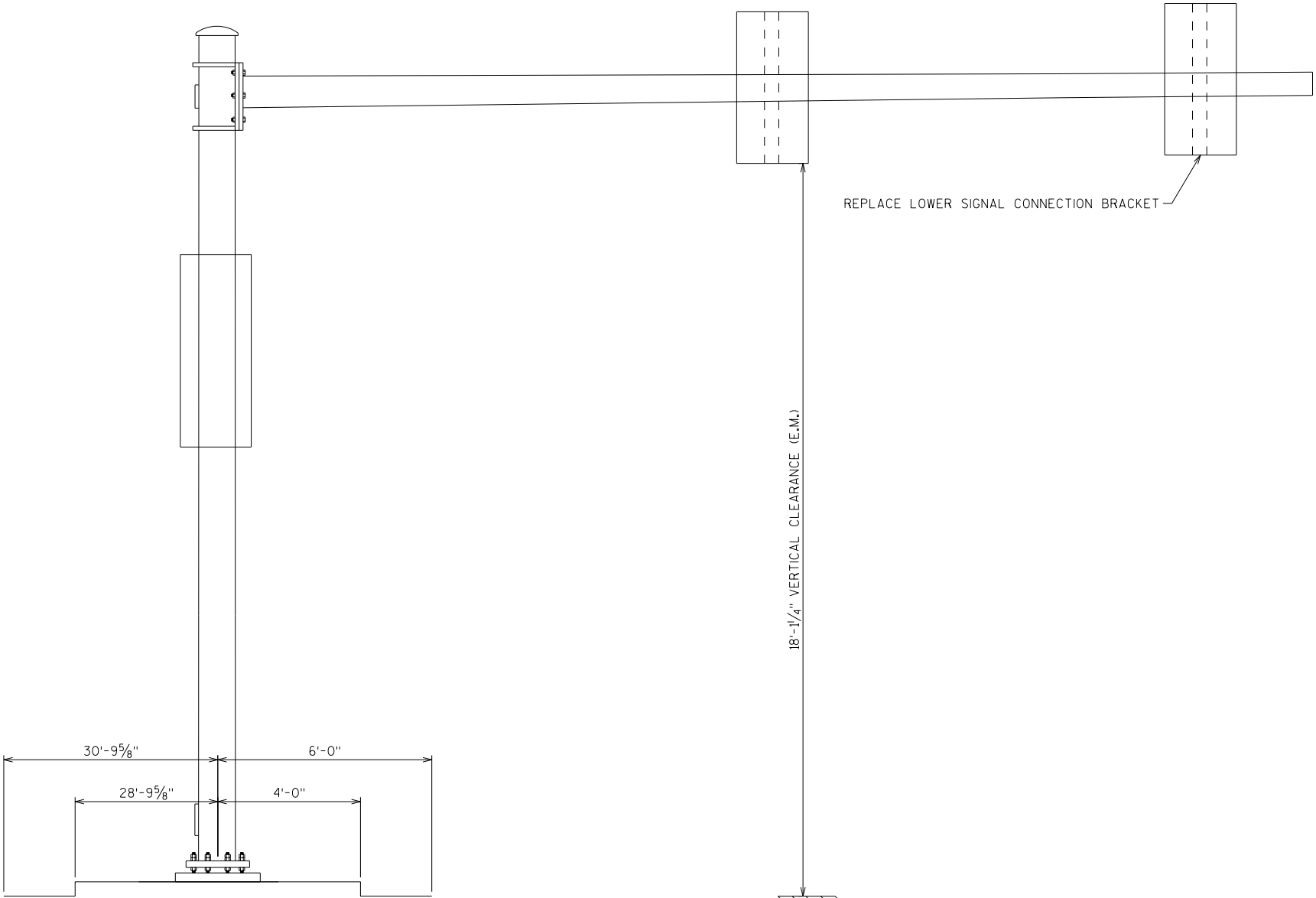
LOOKING SOUTHWEST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
509.1500	CONCRETE SURFACE REPAIR	8	SF	3
517.0600	PAINTING EPOXY SYSTEM (S-13-213)	1	LS	NA
SPV.0060.08	VERTICAL SIGN SUPPORT	2	EA	6
SPV.0060.11	ID PLAQUE	1	EA	6

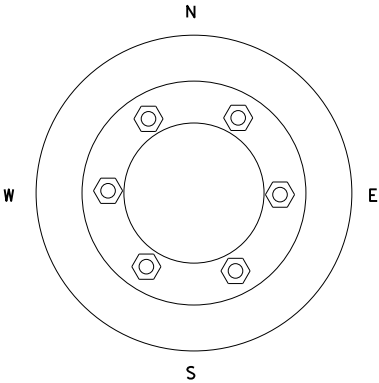
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-13-0213		SHEET 11	



LOOKING EAST

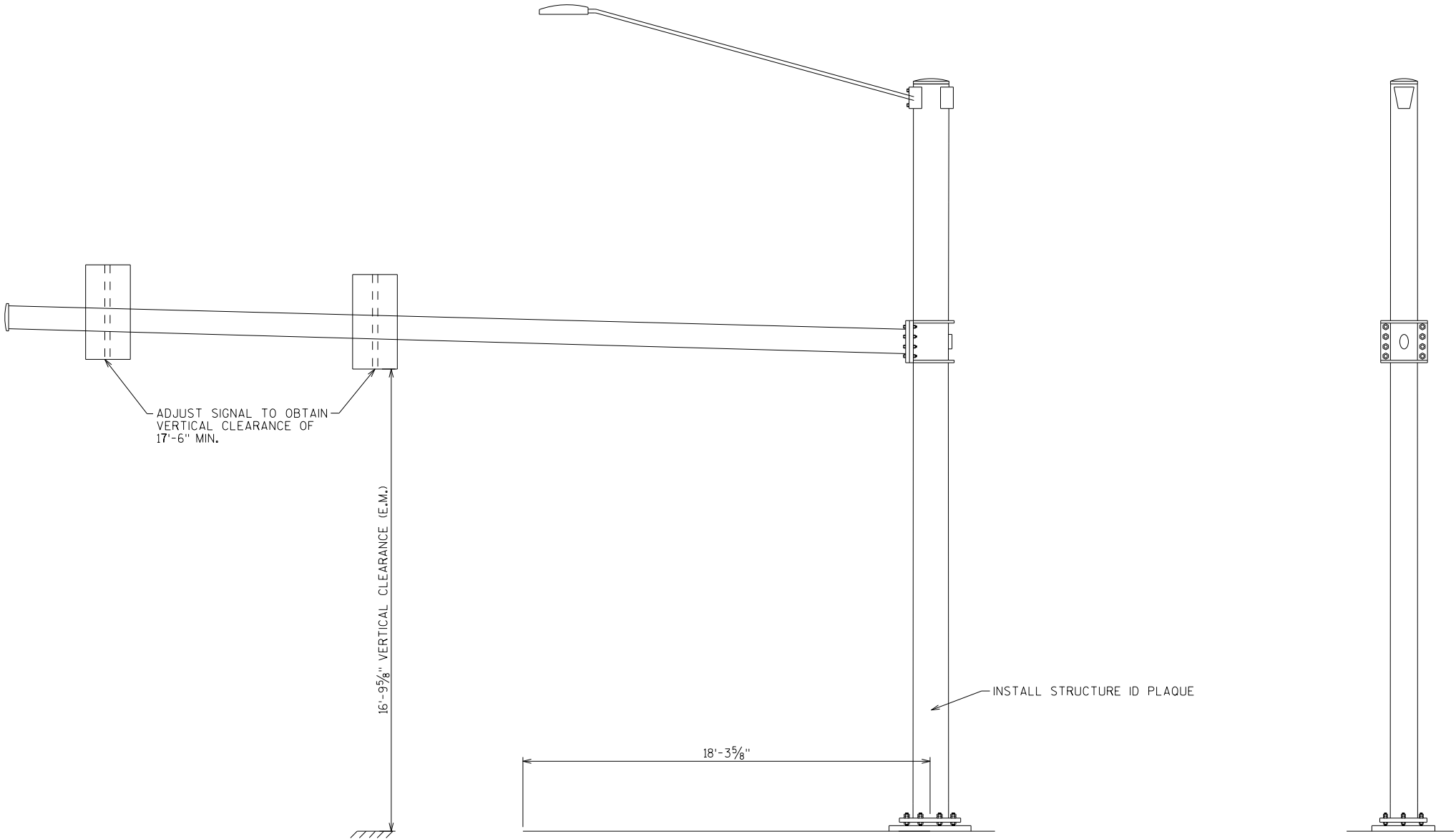


LOOKING NORTH



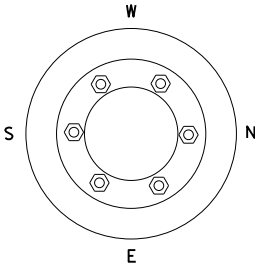
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-13-0534-0001		SHEET 12	



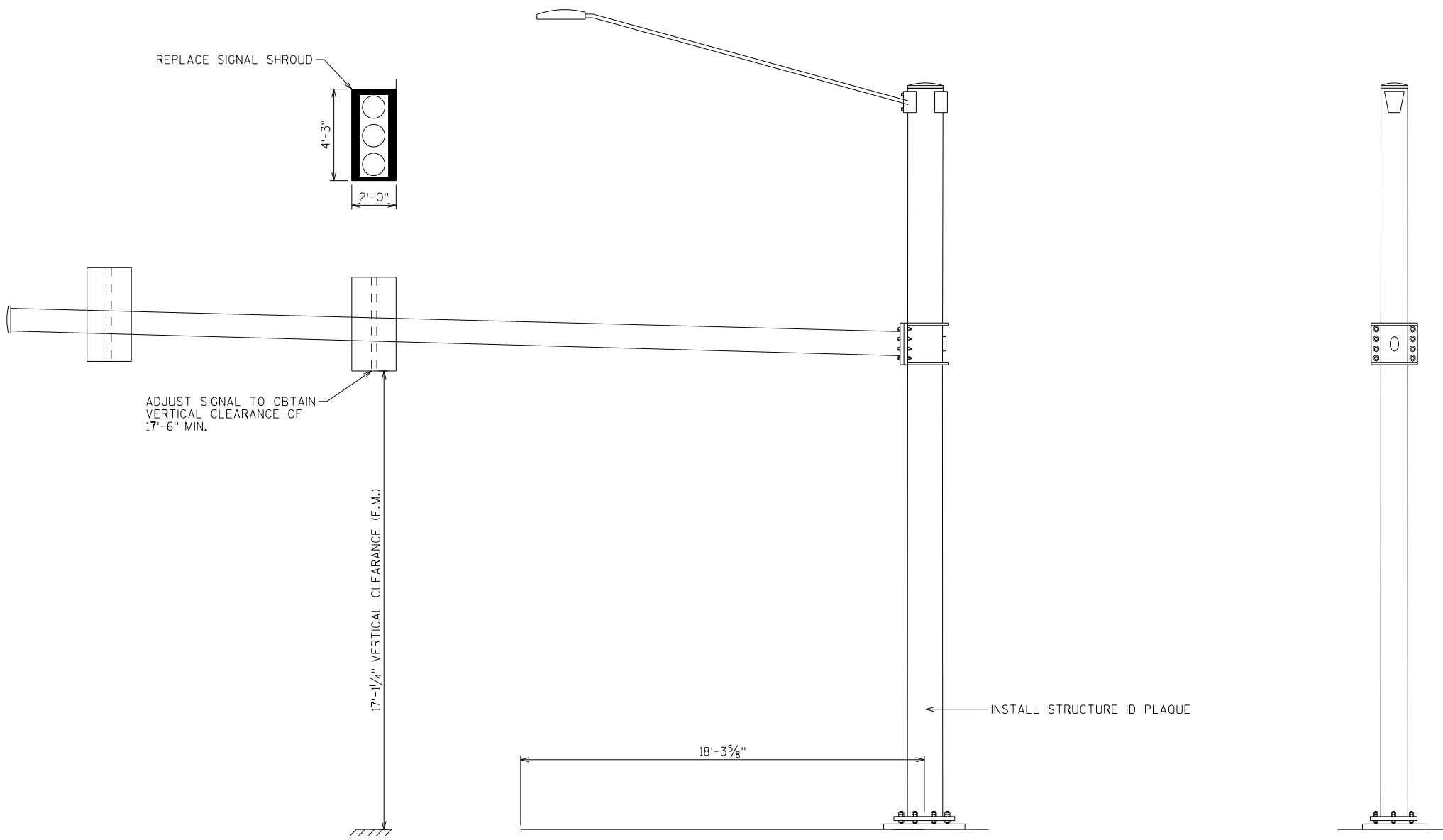
LOOKING EAST

LOOKING NORTH



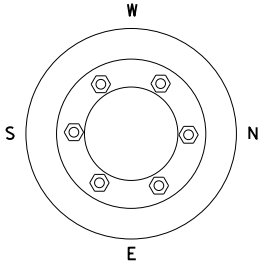
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.20	ADJUST SIGNAL	2	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-13-0975-0001			SHEET 13



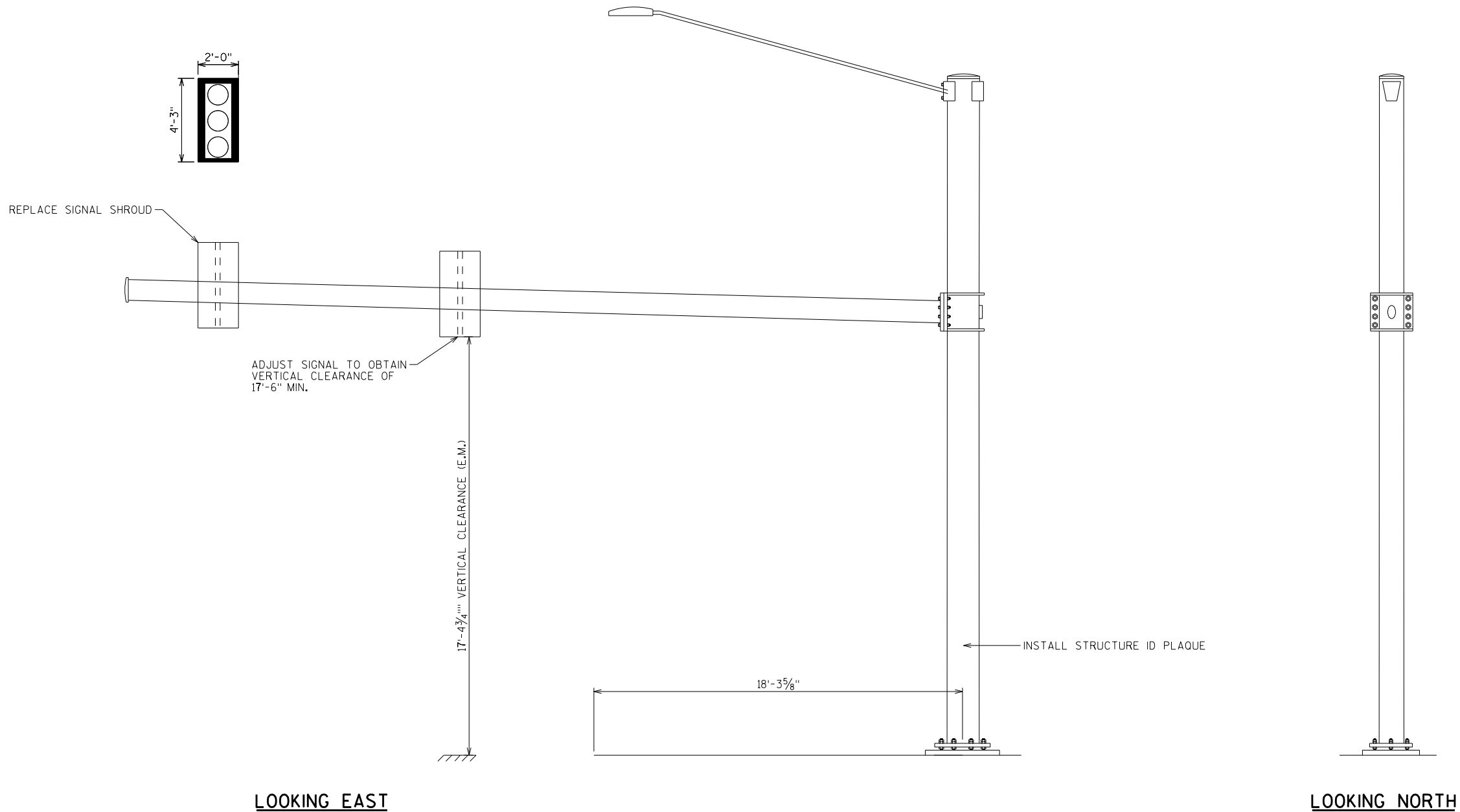
LOOKING WEST

LOOKING SOUTH



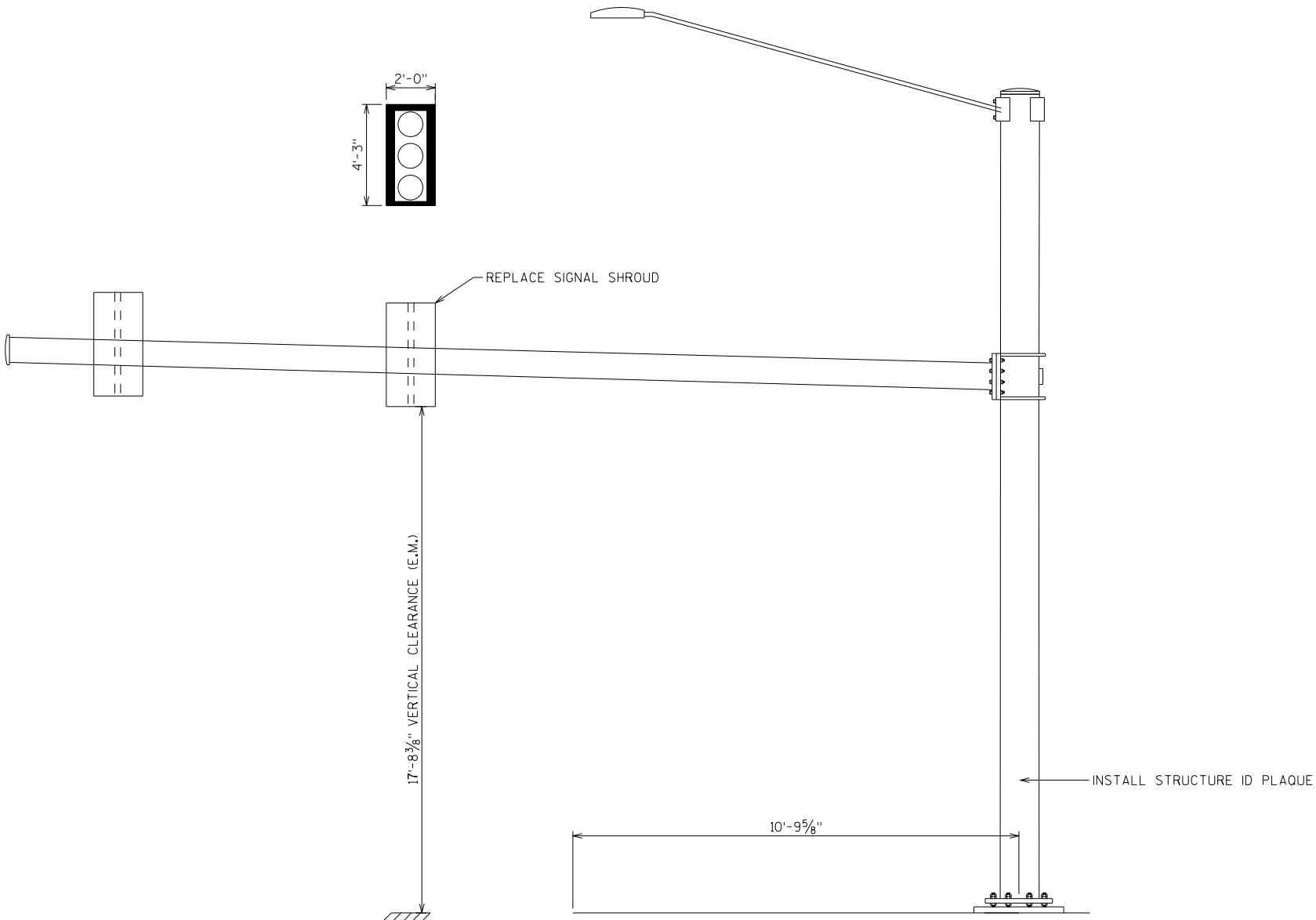
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.18	REPLACE SIGNAL SHROUD	1	EA	NA
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-13-0975-0002			SHEET 14



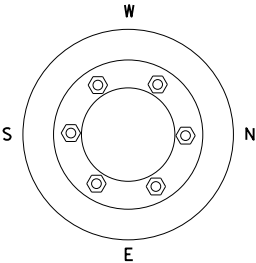
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.18	REPLACE SIGNAL SHROUD	1	EA	NA
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-13-0975-0003		SHEET 15	



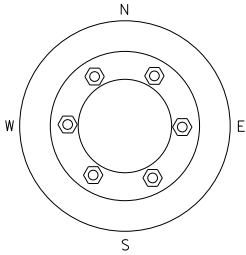
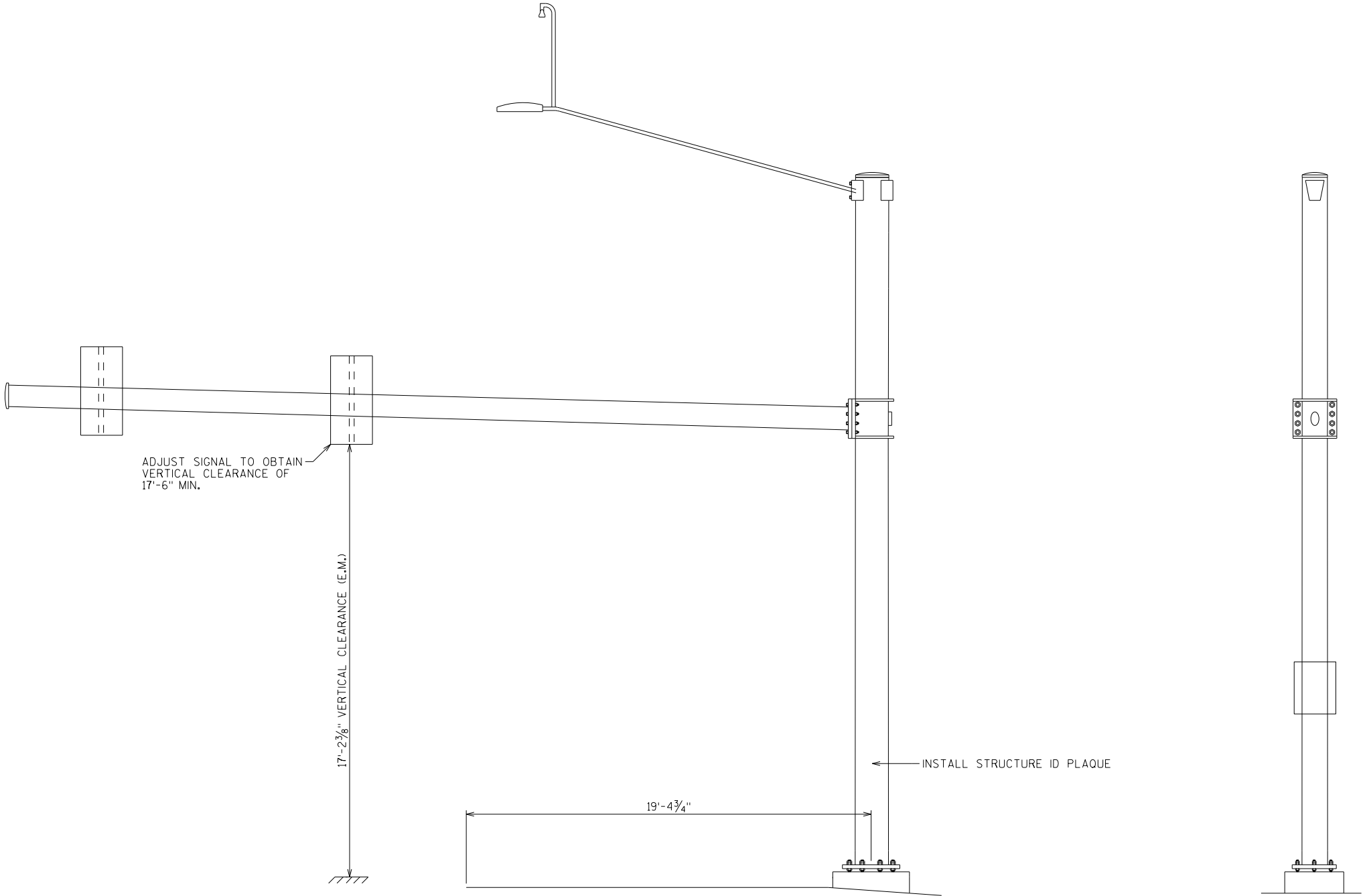
LOOKING WEST

LOOKING SOUTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.18	REPLACE SIGNAL SHROUD	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-13-0975-0004		SCL	SHEET 16



LOOKING NORTH

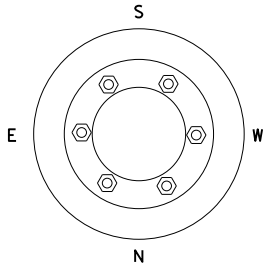
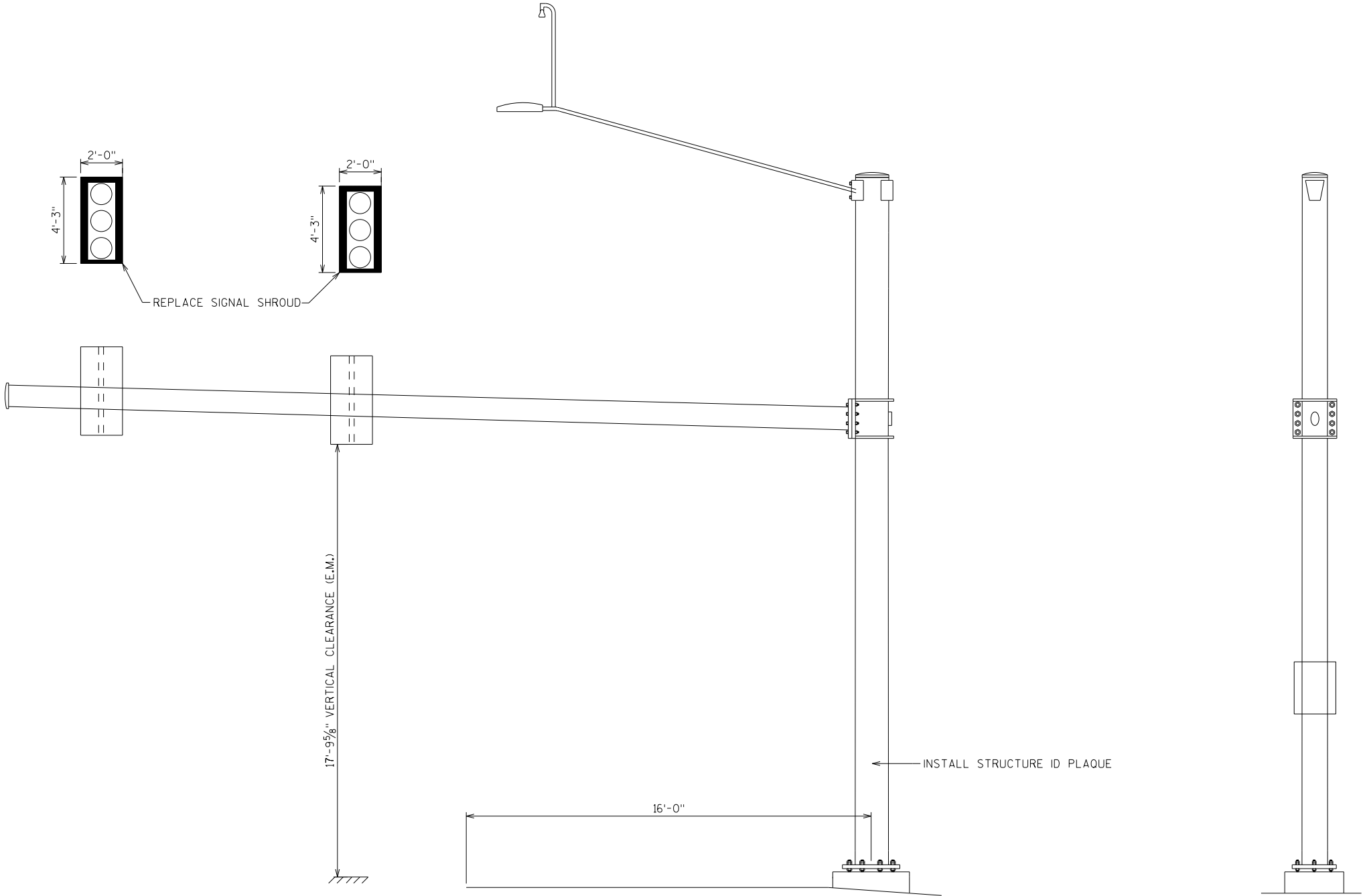
LOOKING WEST

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-13-1348-0001		SCL	SHEET 17

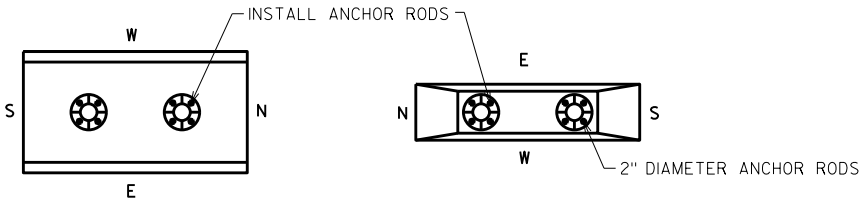
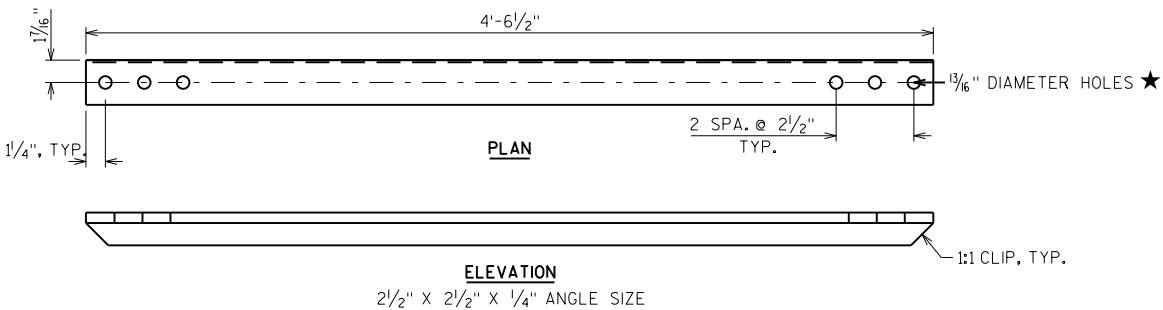
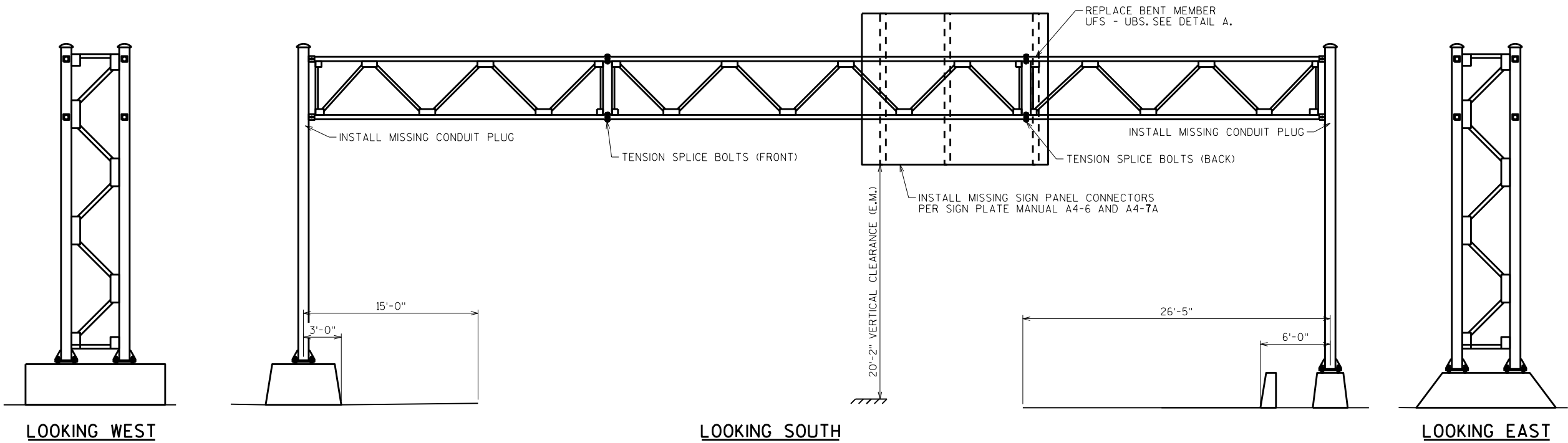


LOOKING SOUTH

LOOKING EAST

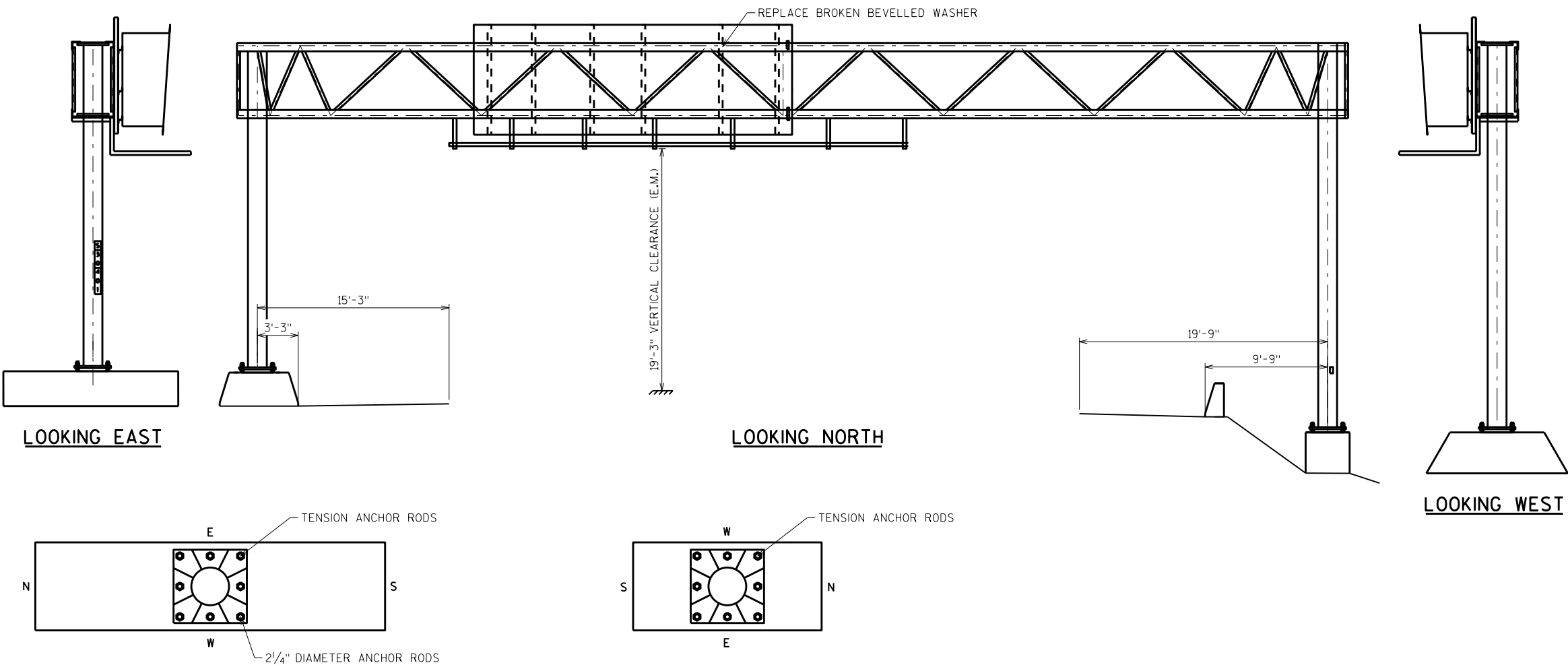
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.18	REPLACE SIGNAL SHROUD	2	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-13-1348-0002		SCL	SHEET 18



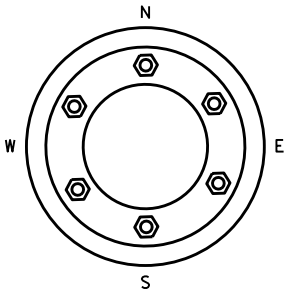
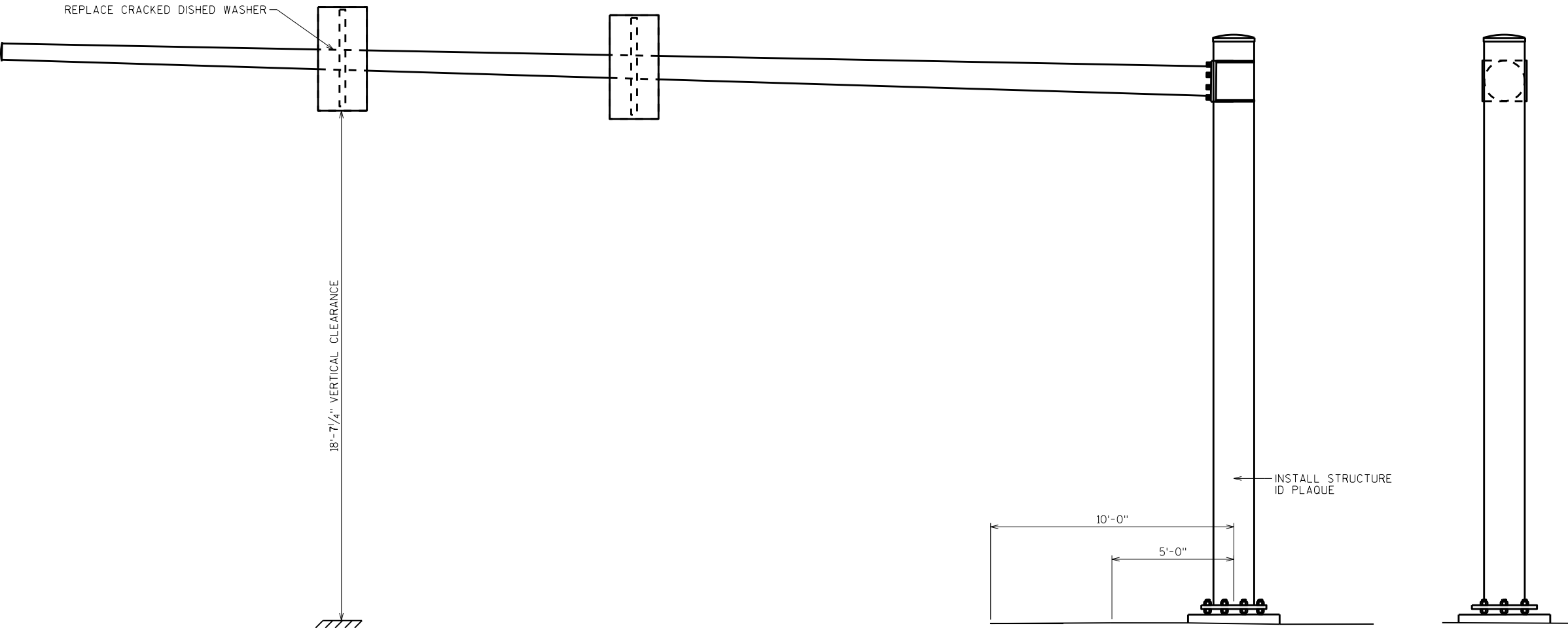
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	16	EA	3
SPV.0060.06	TENSION STRUCTURAL BOLTS	12	EA	5
SPV.0060.07	REPLACE TRUSS MEMBER	1	EA	4/5
SPV.0060.09	SIGN PANEL CONNECTOR	2	EA	6
SPV.0060.14	CONDUIT PLUG	2	EA	7

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-30-0035		SHEET 19	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	16	EA	3
SPV.0060.06	TENSION STRUCTURAL BOLT	1	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-30-0401		SHEET 20	

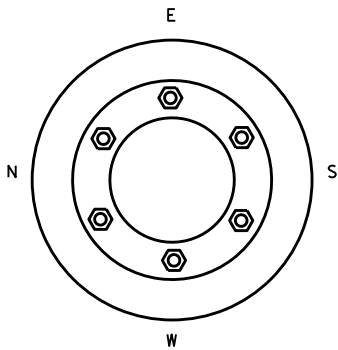
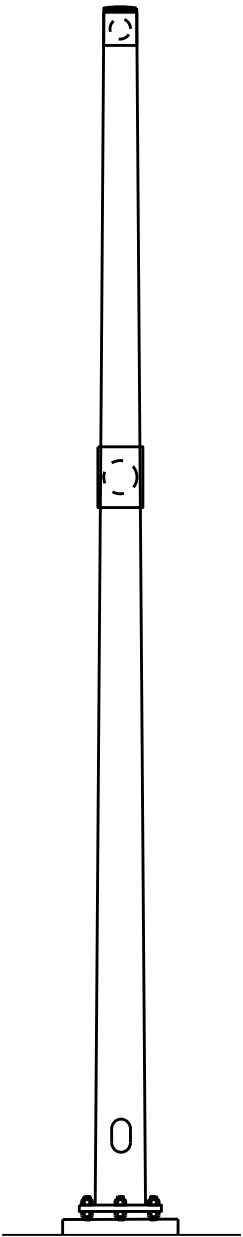
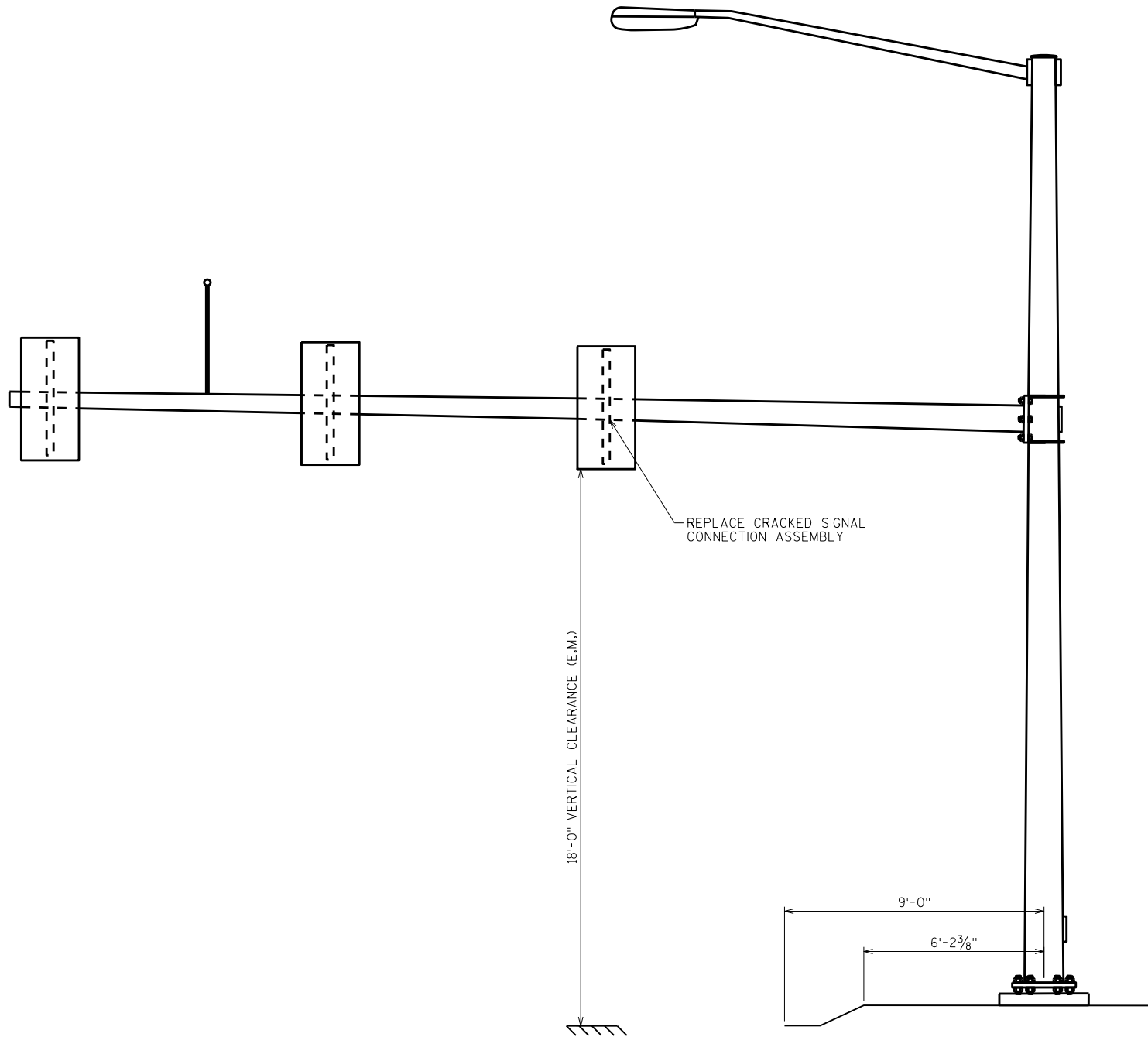


LOOKING EAST

LOOKING NORTH

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.17	DISHED WASHER	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-30-1127		SHEET 21	

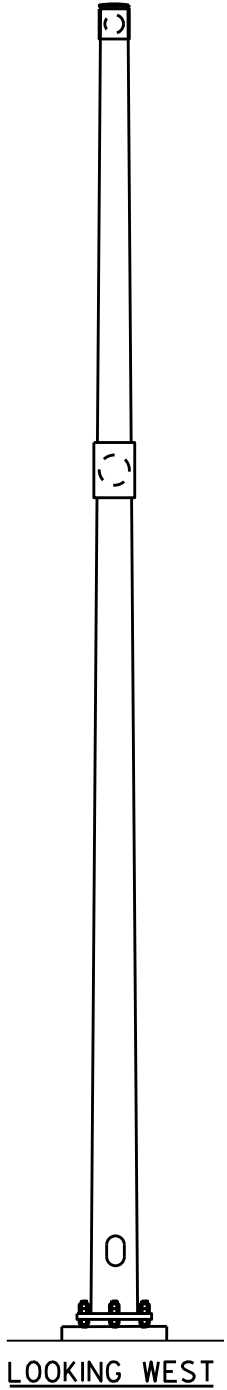
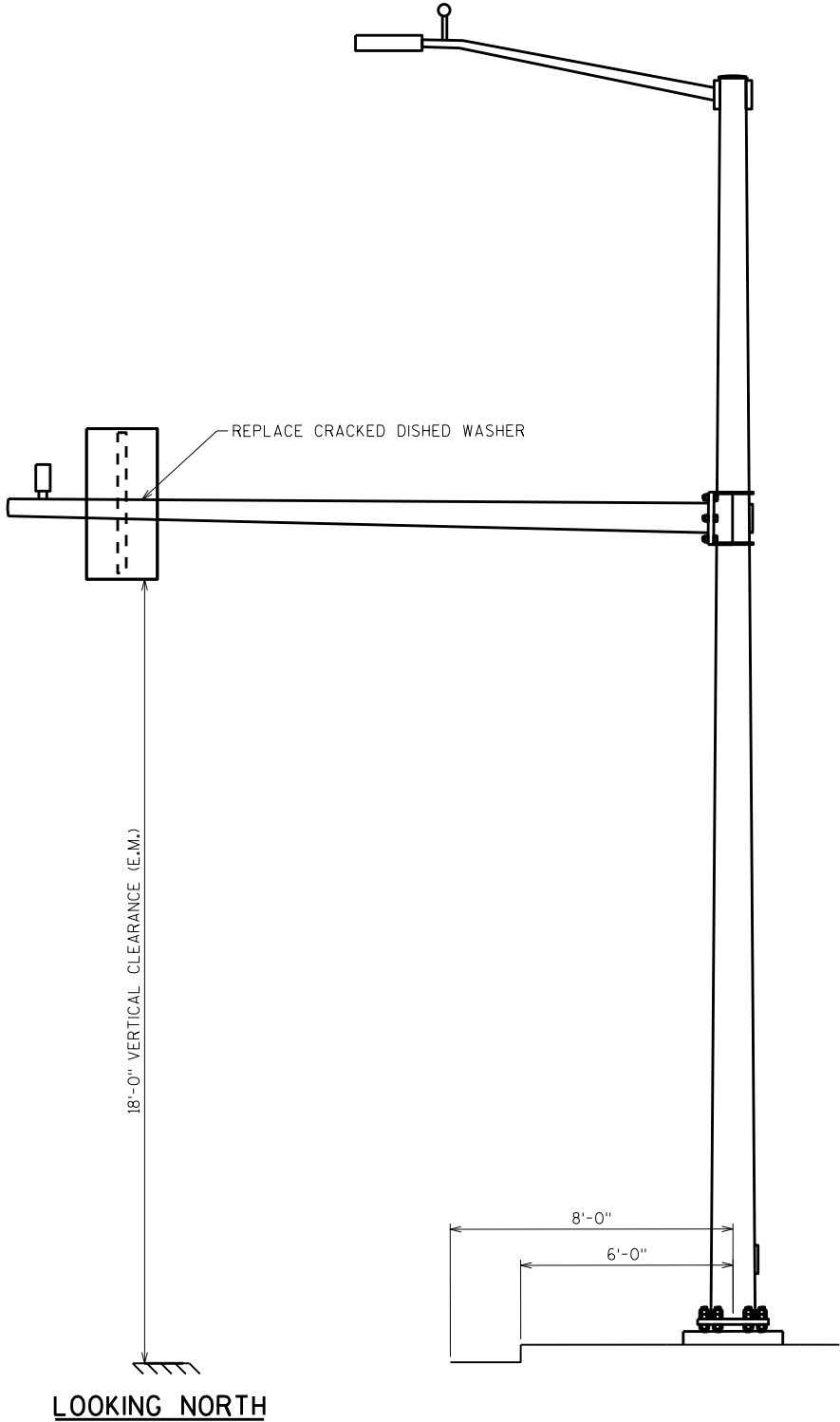
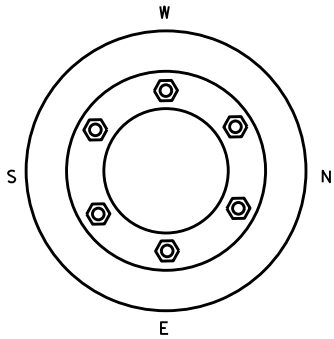


LOOKING SOUTH

LOOKING EAST

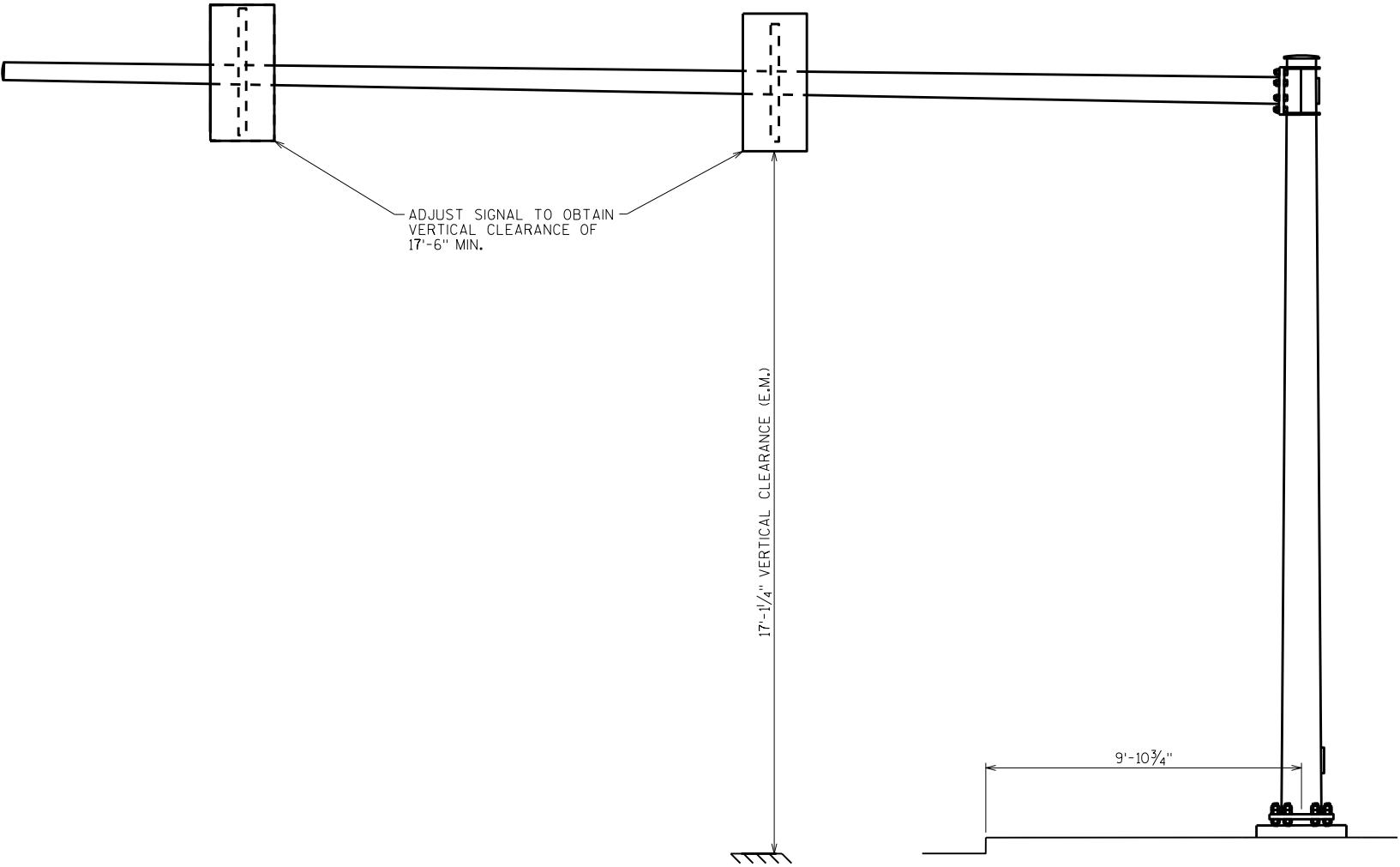
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-30-1164		SHEET 22	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9

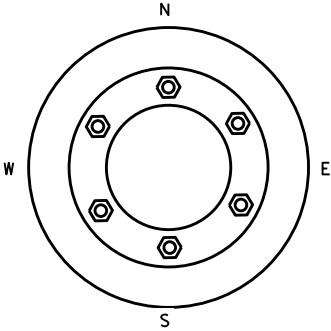
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-30-1173		SHEET 23	



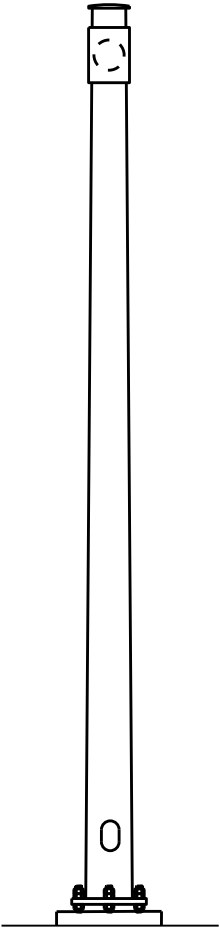
ADJUST SIGNAL TO OBTAIN
VERTICAL CLEARANCE OF
17'-6\"/>

17'-1 1/4\"/>

9'-10 3/4\"/>



LOOKING EAST



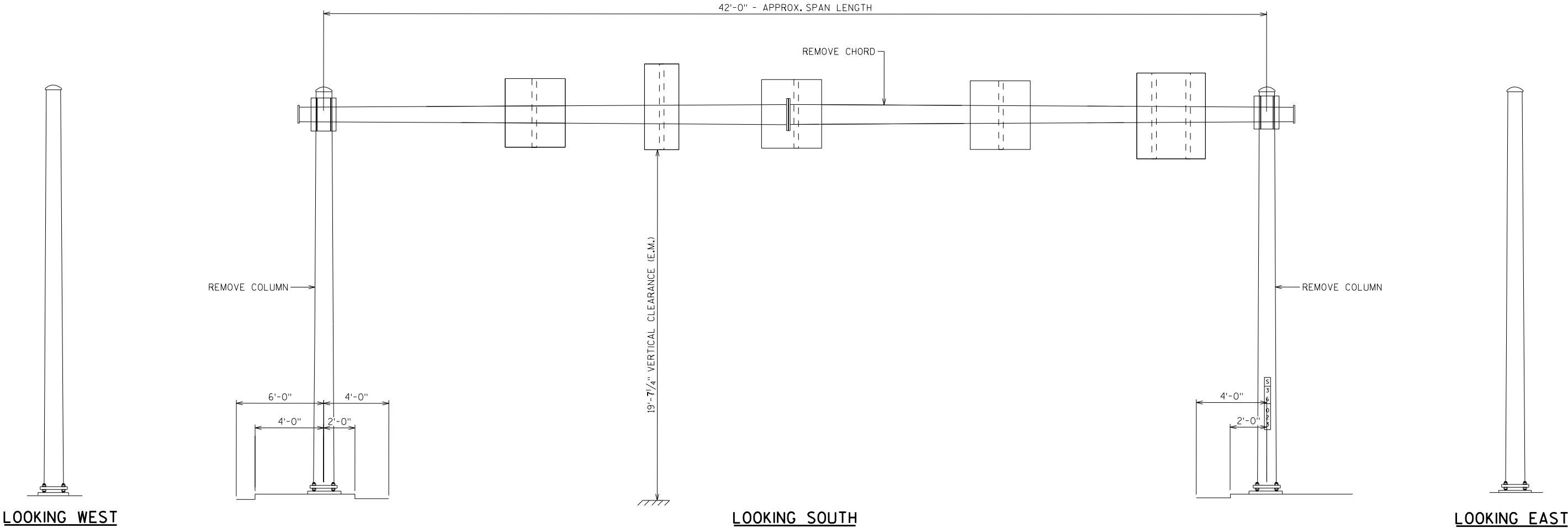
LOOKING NORTH

8

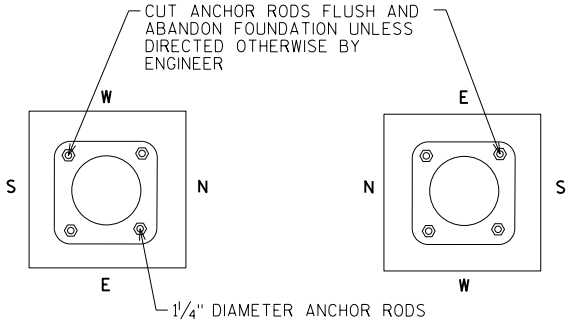
8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.20	ADJUST SIGNAL	2	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-30-1174		SCL	SHEET 24

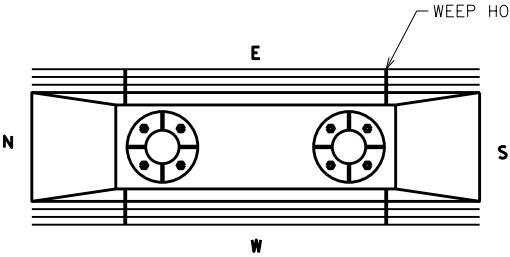
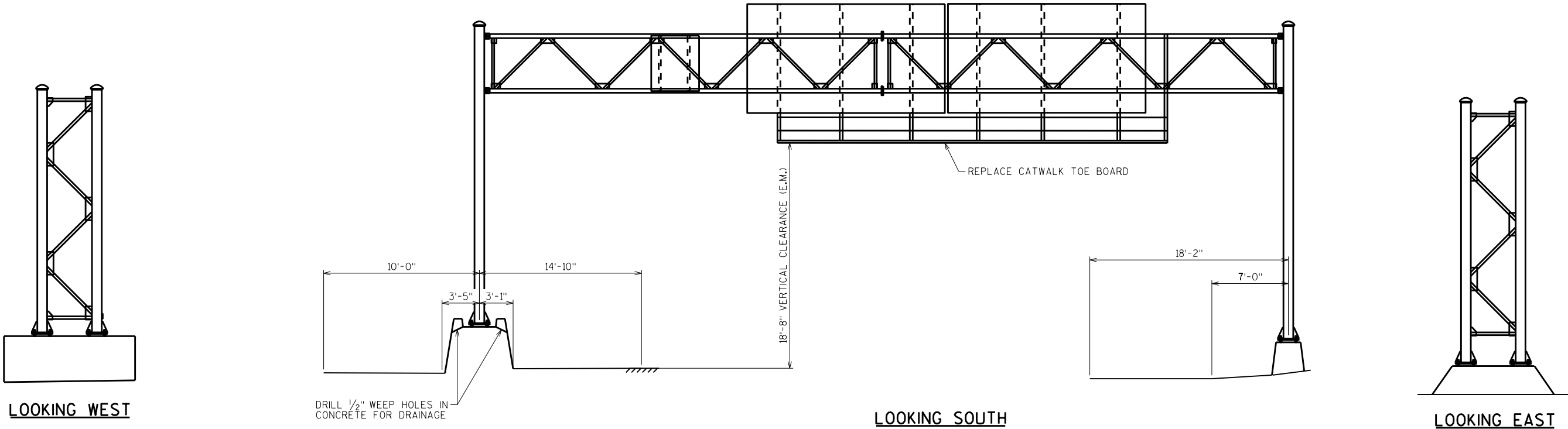


APPROX. STRUCTURE WEIGHT
CHORD = 400 LBS
COLUMN = 200 LBS EA

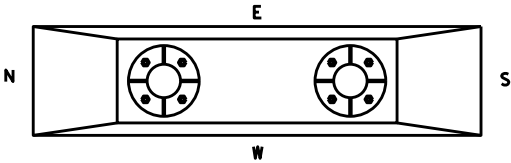


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
638.3155	REMOVING OVERHEAD SIGN SUPPORTS FULL SPAN (S-36-23)	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-36-0023		SHEET 25	



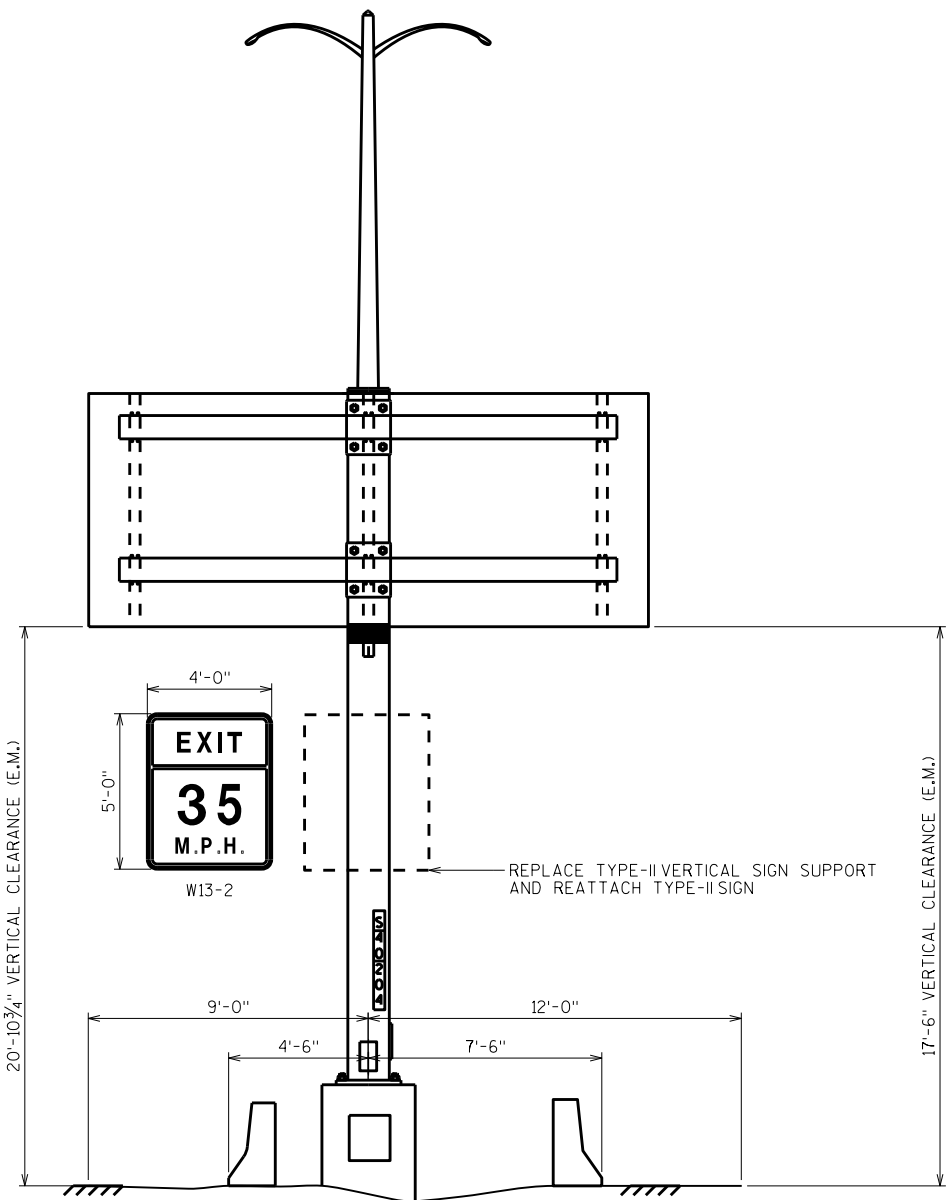
EAST FOUNDATION



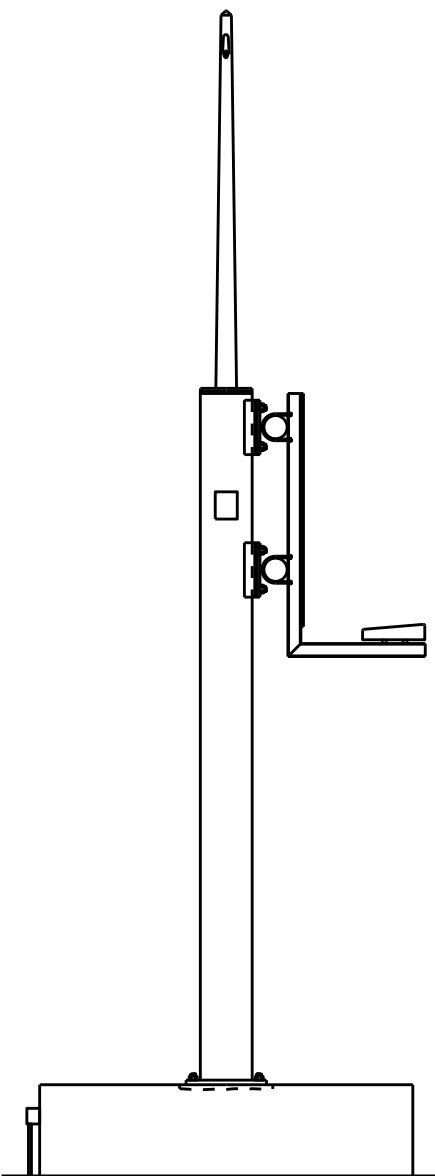
WEST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
509.1500	CONCRETE SURFACE REPAIR	1	SF	3
SPV.0060.16	CATWALK REPAIR	1	EA	8

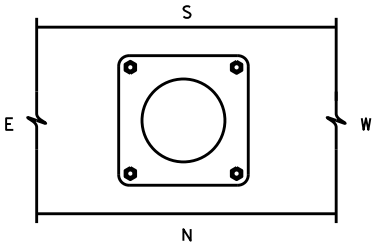
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-0018		SHEET 26	



LOOKING EAST



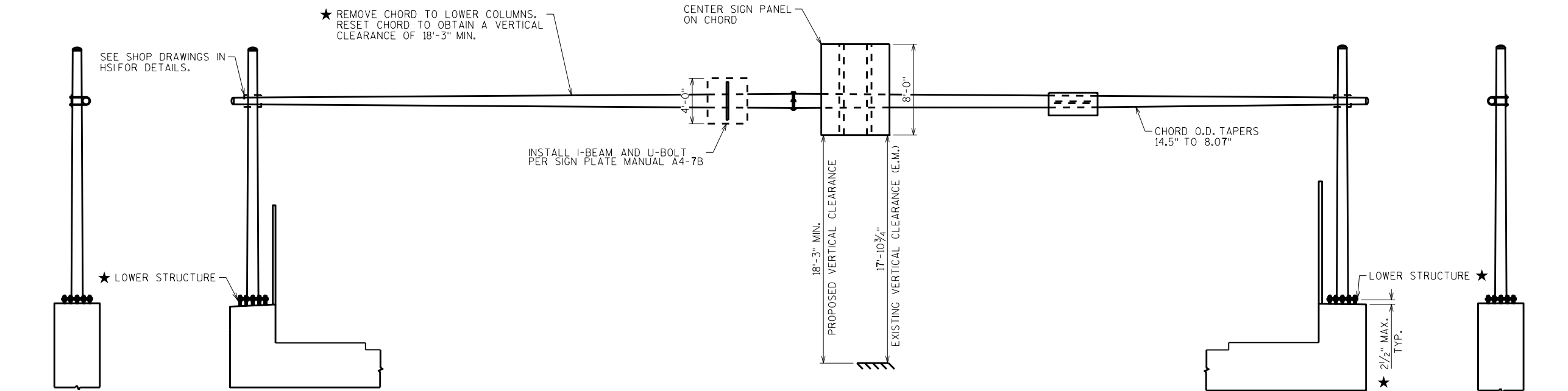
LOOKING SOUTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2230	SIGNS TYPE II REFLECTIVE F	20	SF	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D.
S-40-0204		SCL	SAD
		SHEET 27	

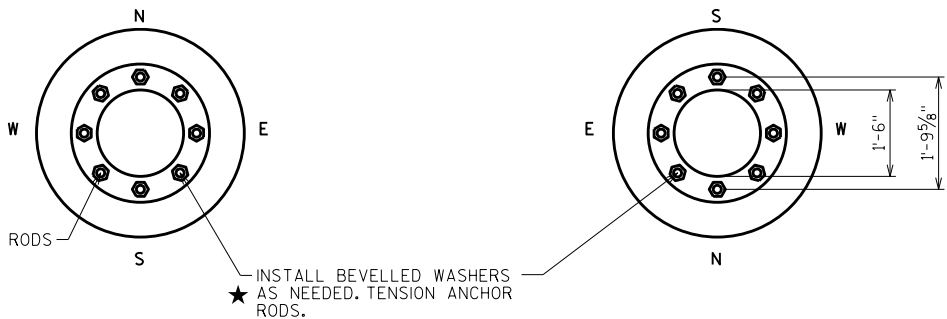
★ REMOVE CHORD AND COLUMNS AND RESET.
2 1/2" STANDOFF MAX. AT ANCHORS FROM
TOP OF CONCRETE TO BOTTOM OF BASE
PLATE. BEVELLED WASHERS ARE TO BE
USED IF ANCHORS ARE NOT PLUMB.



LOOKING NORTH

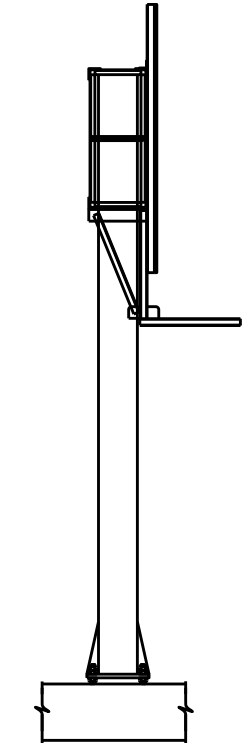
LOOKING WEST

LOOKING SOUTH

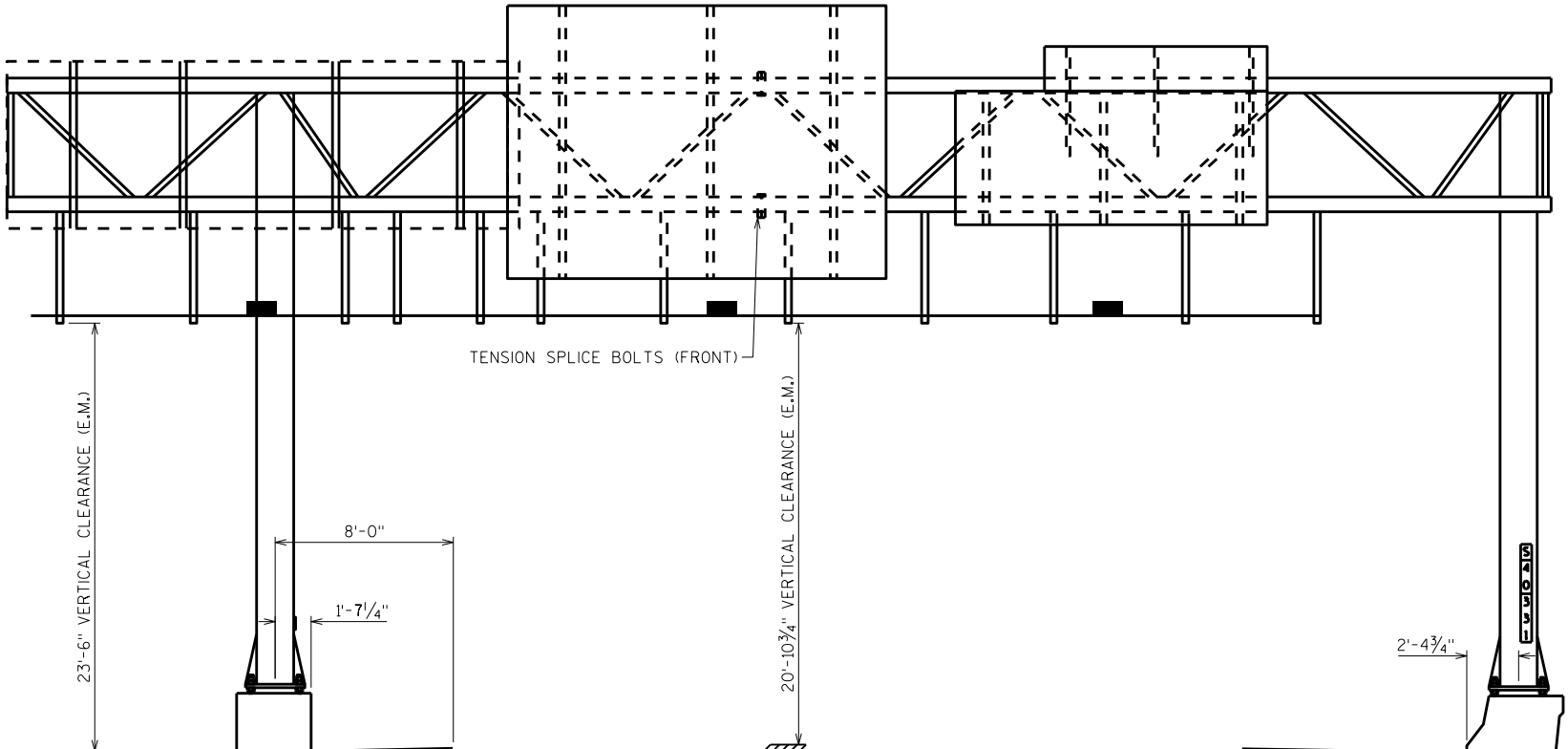


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.04	LOWER STRUCTURE	1	EA	3
SPV.0060.08	VERTICAL SIGN SUPPORT	3	EA	6

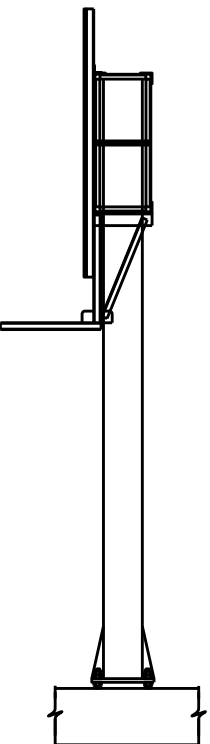
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-0269		SHEET 28	



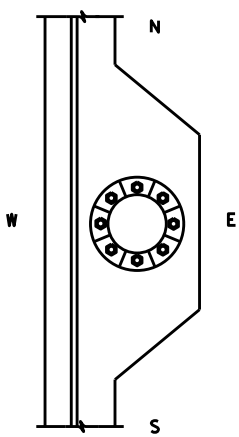
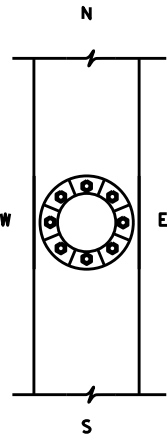
LOOKING EAST



LOOKING NORTH

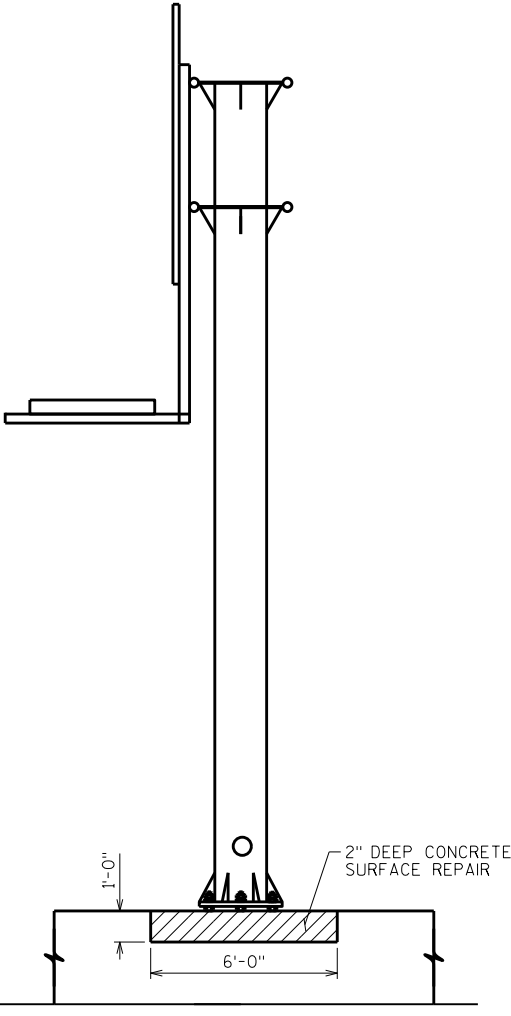
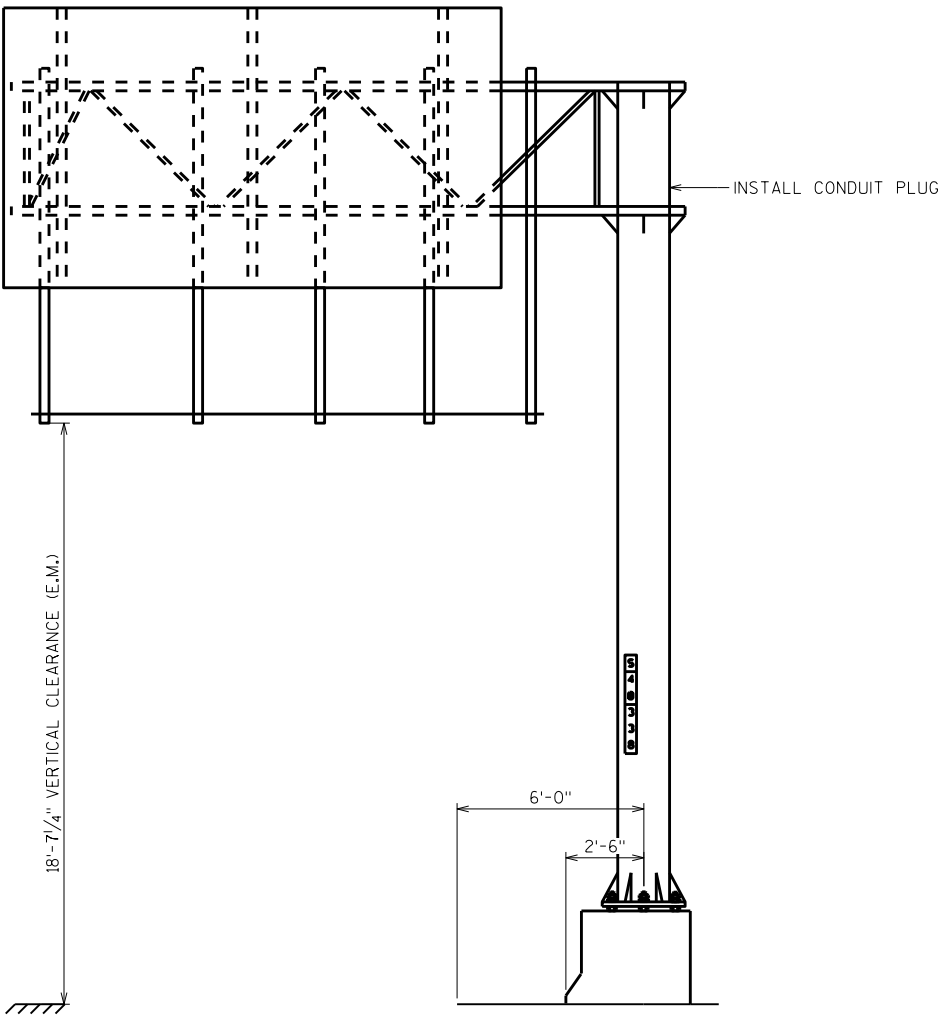
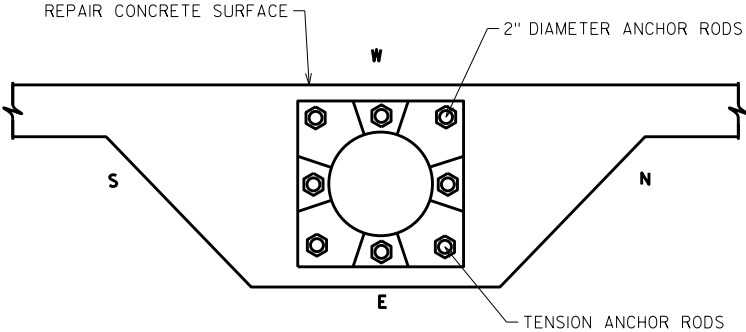


LOOKING WEST



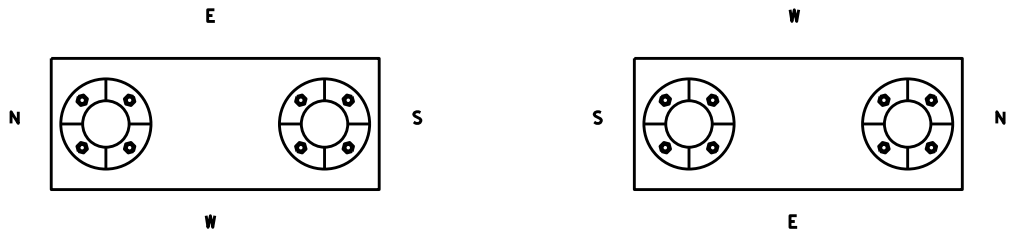
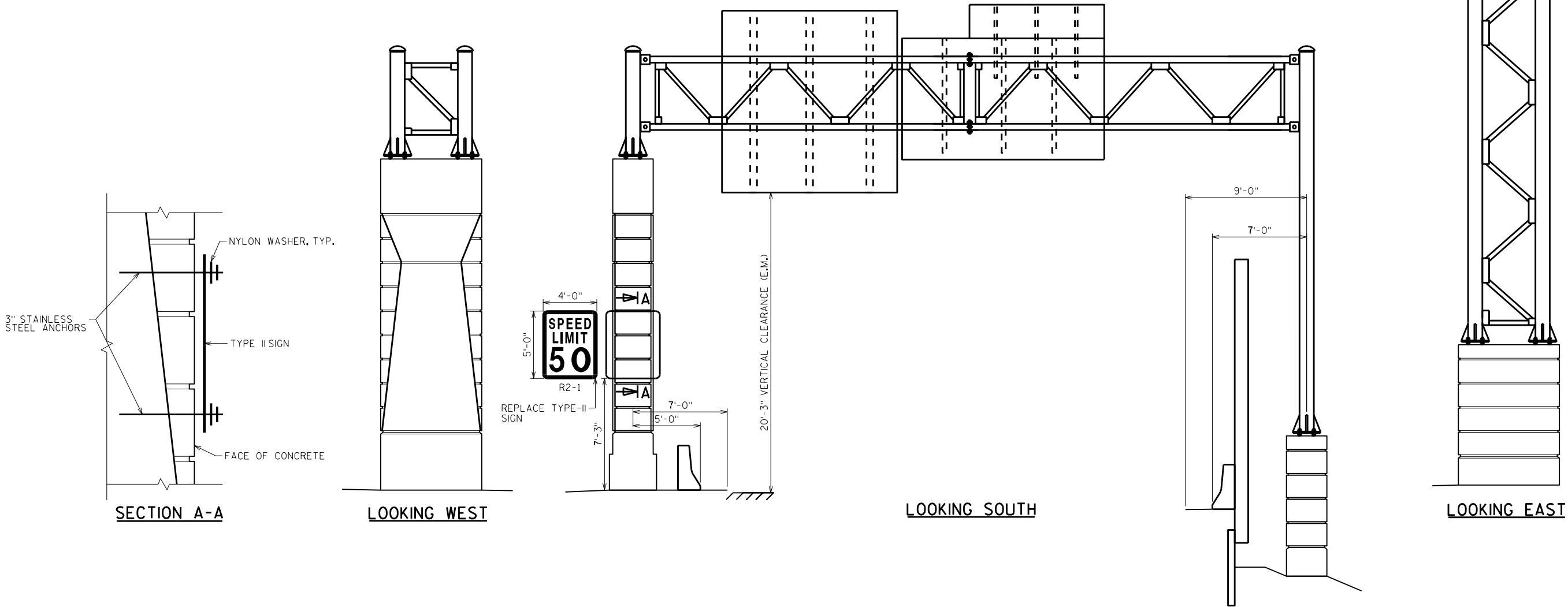
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	4	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-40-0331		SHEET 29	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
509.1500	CONCRETE SURFACE REPAIR	6	SF	3
SPV.0060.01	TENSION ANCHOR RODS	8	EA	3
SPV.0060.14	CONDUIT PLUG	1	EA	7

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-0338		SCL	SHEET 30

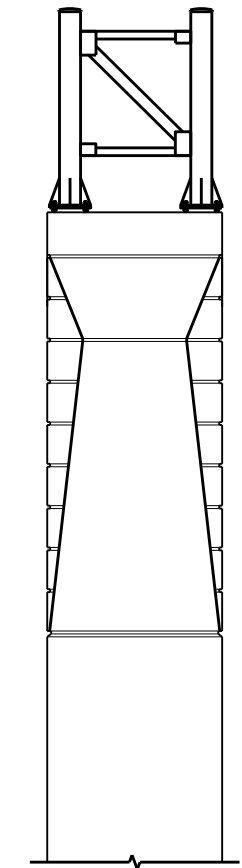


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	20	SF	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-0567		SHEET 31	

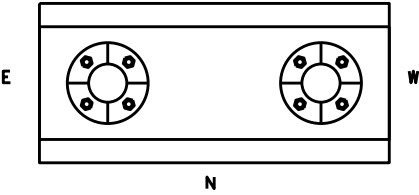
INSTALL LOOSE OR MISSING SIGN PANEL
CONNECTORS PER SIGN PLATE MANUAL
A4-6 AND A4-7A (14 EA)

INSTALL LOOSE OR MISSING SIGN PANEL
CONNECTORS PER SIGN PLATE MANUAL
A4-6 AND A4-7A (3 EA)

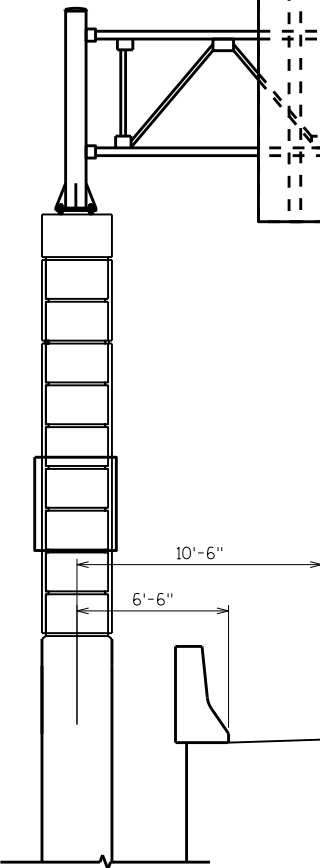


LOOKING SOUTH

S



N



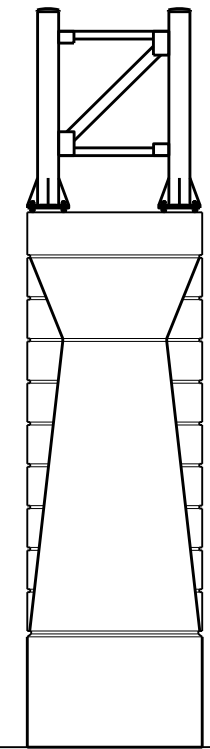
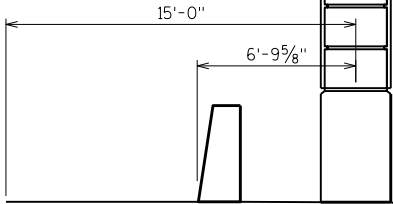
20'-9 5/8" VERTICAL CLEARANCE (E.M.)

LOOKING EAST

N



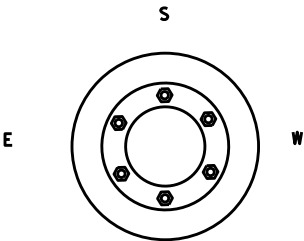
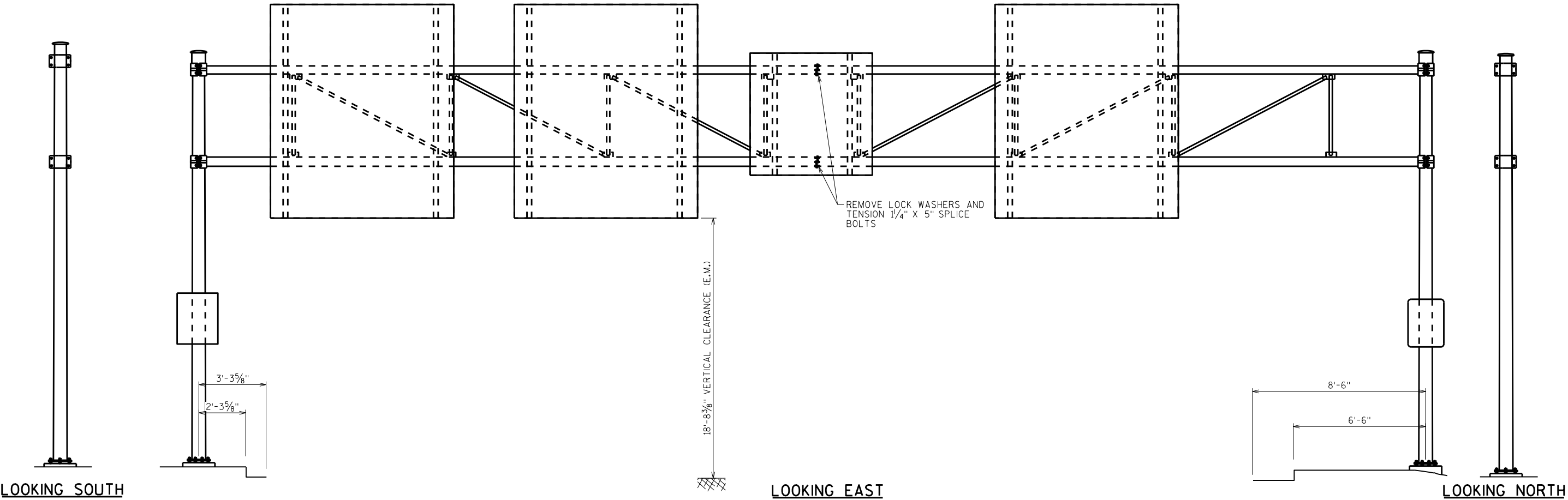
S



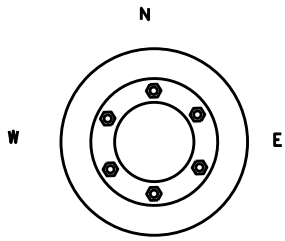
LOOKING NORTH

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-40-0742		SHEET 32	

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.09	SIGN PANEL CONNECTOR	17	EA	6



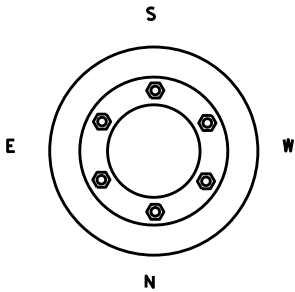
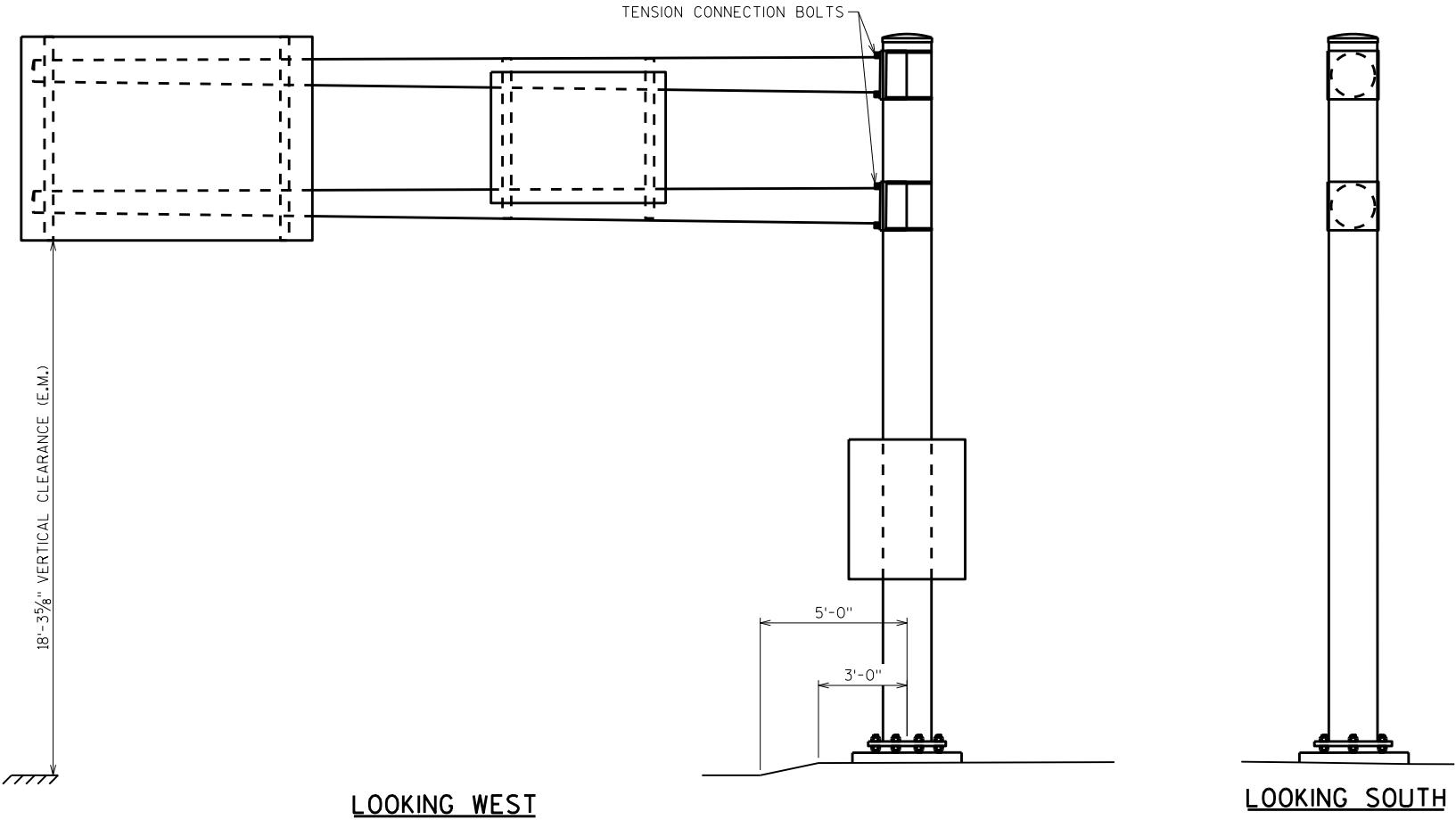
NORTH FOUNDATION
DETAIL



SOUTH FOUNDATION
DETAIL

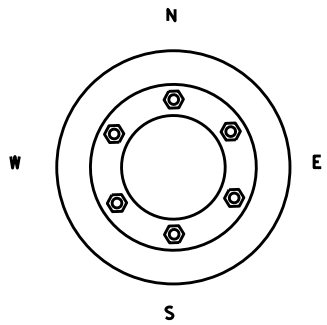
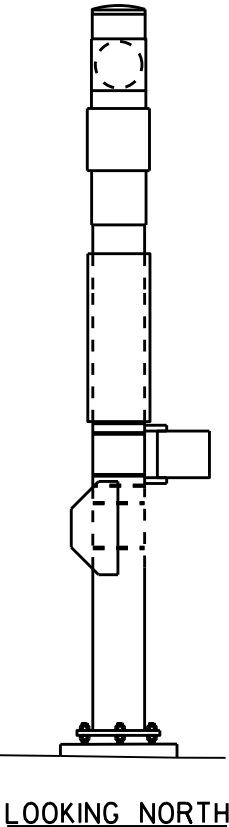
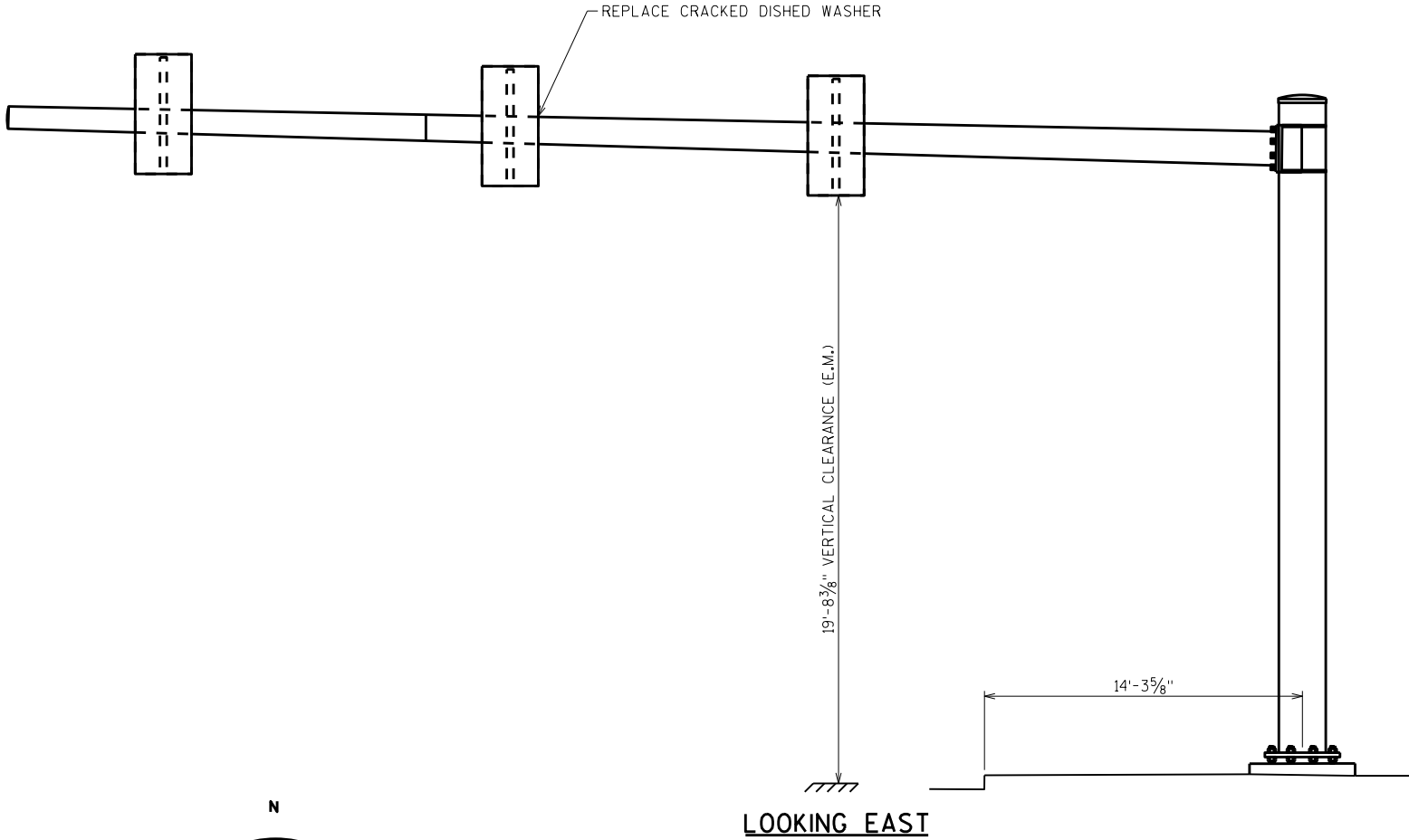
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	12	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-0926		SHEET 33	



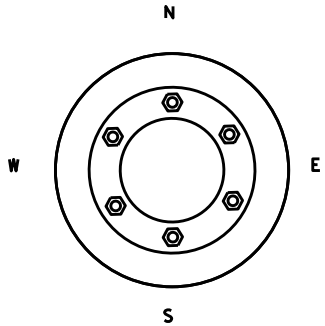
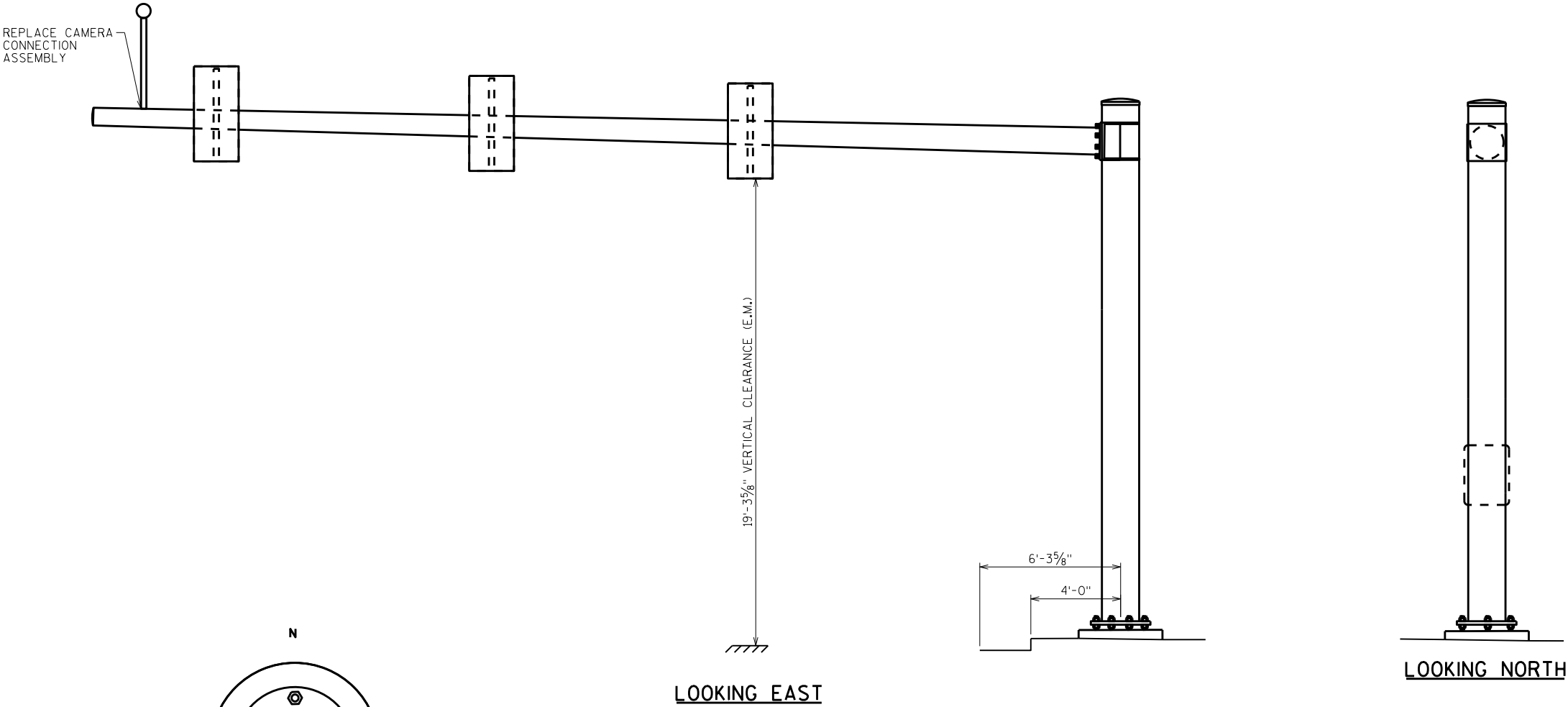
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	8	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-40-0982			SHEET 34



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1217		SCL	SHEET 35



LOOKING EAST

LOOKING NORTH

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.12	MISC. ATTACHMENTS	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1220		SCL	SHEET 36

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

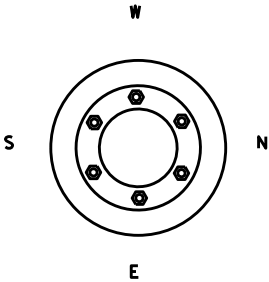
19'-10 3/4" VERTICAL CLEARANCE (E.M.)

LOOKING NORTH

11'-3 5/8"

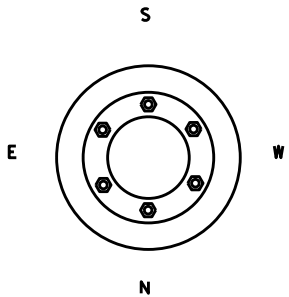
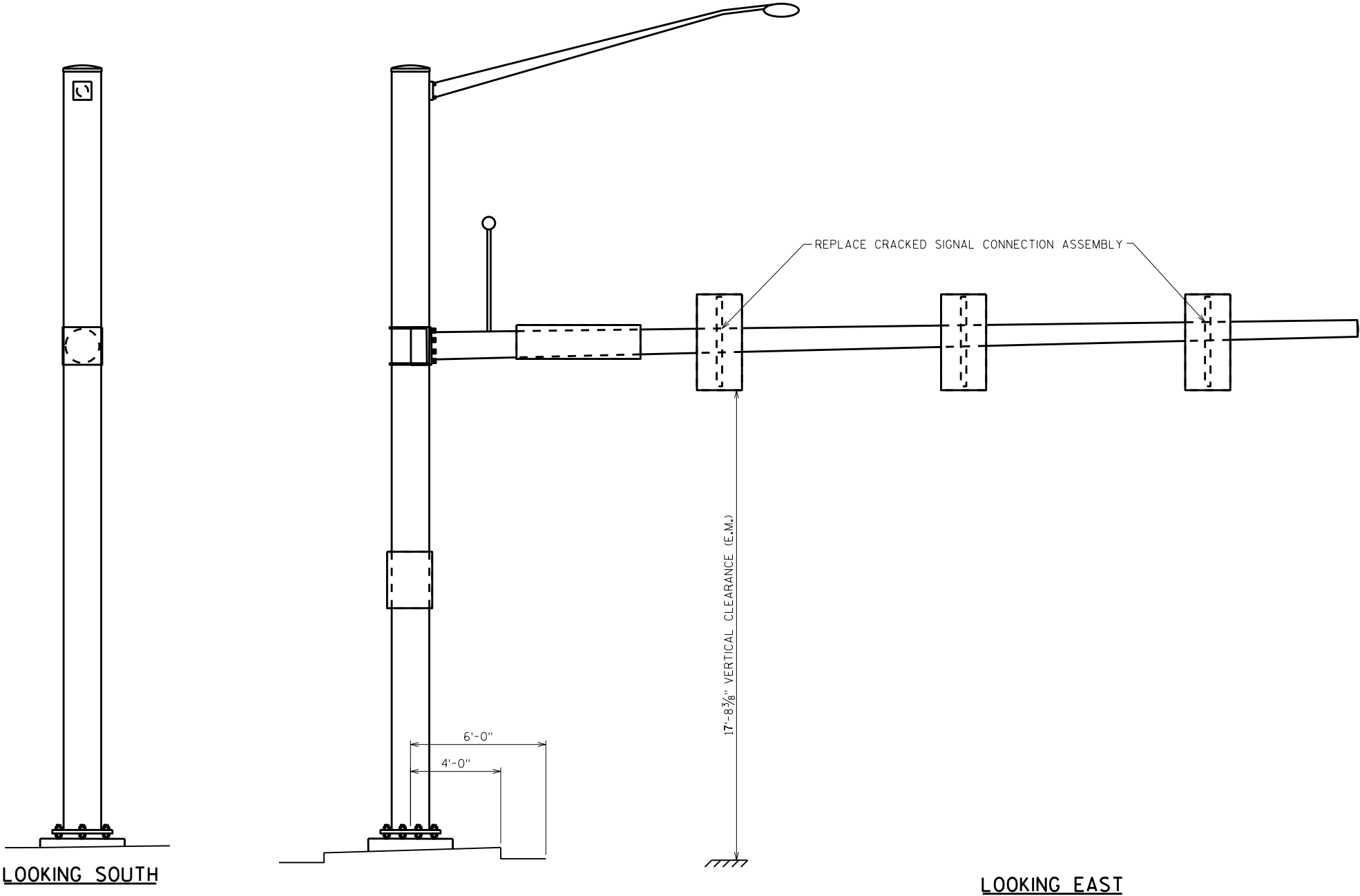
9'-3 5/8"

LOOKING WEST



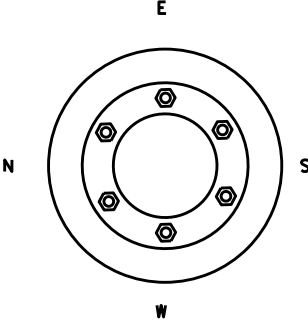
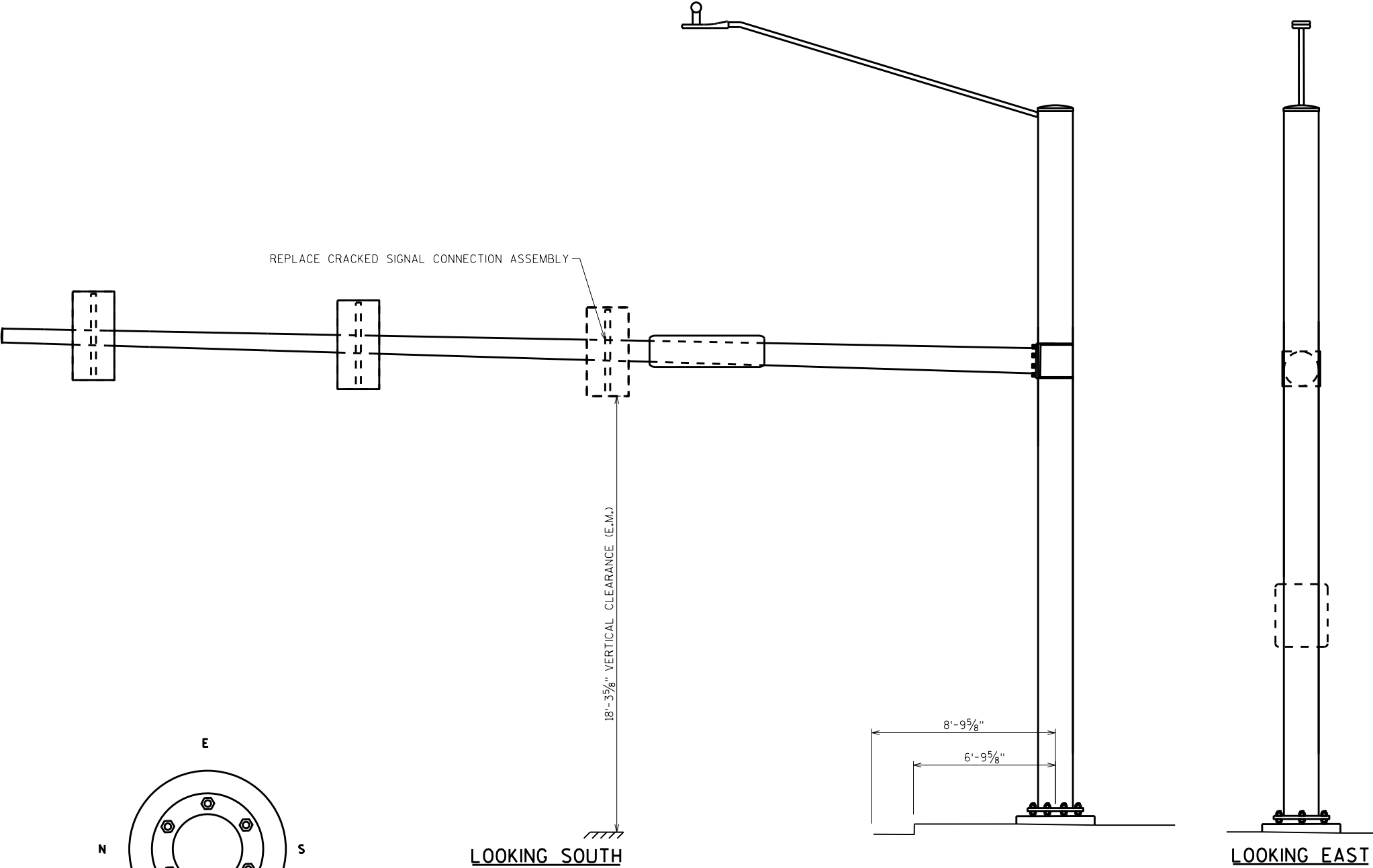
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-1240		SHEET 37	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

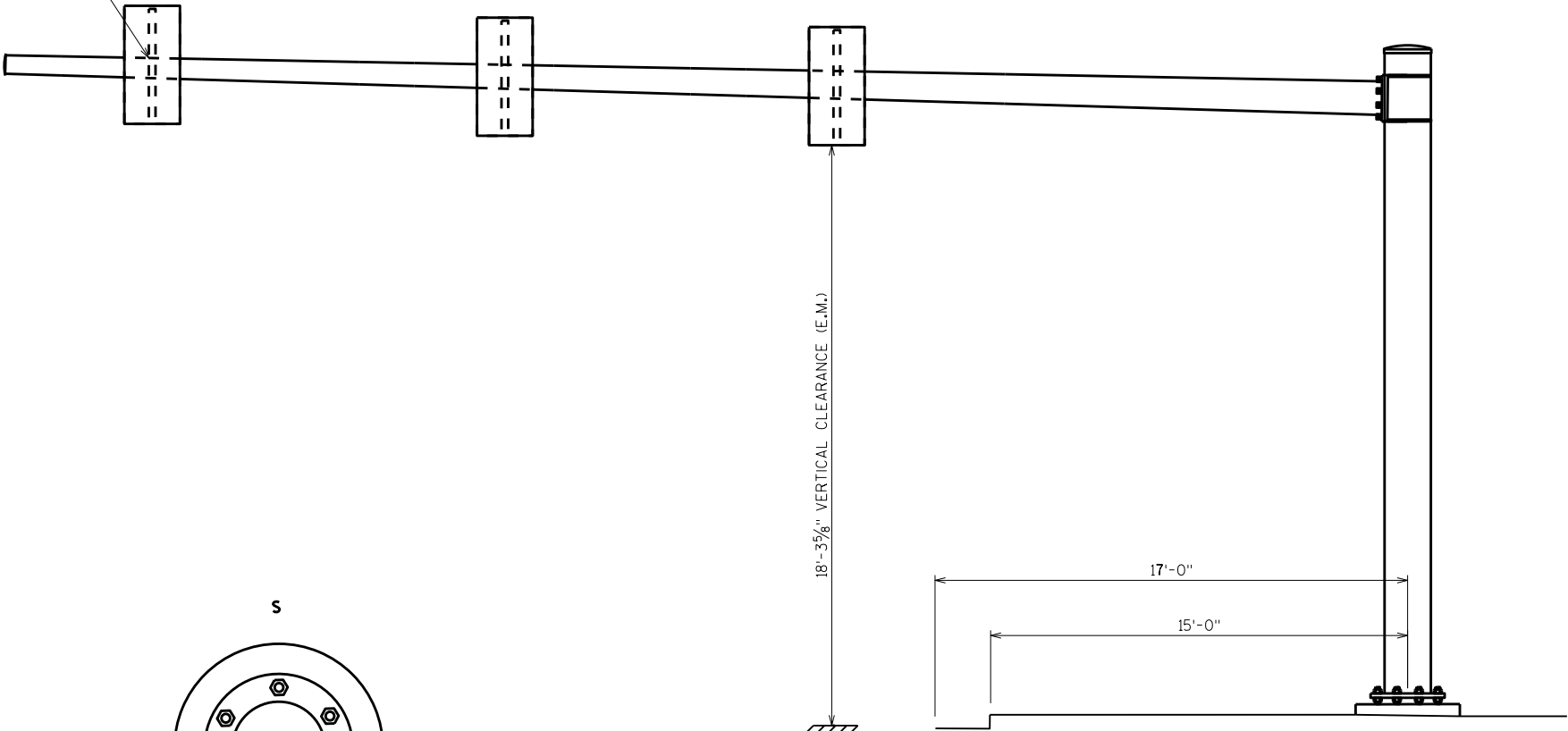
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-40-1241		SHEET 38	



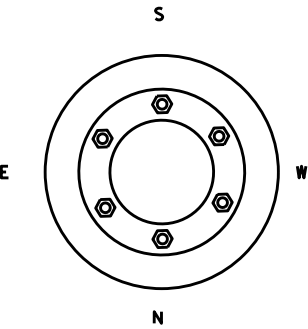
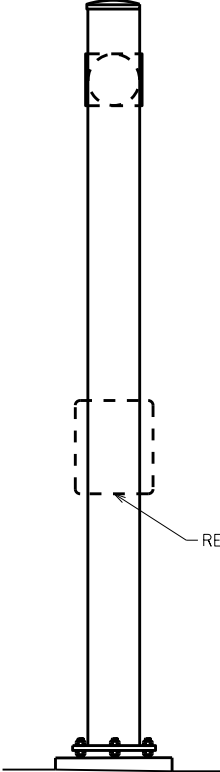
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-40-1273		SHEET 39	

REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY



REPLACE TYPE-II SIGN SUPPORT BOLT



LOOKING WEST

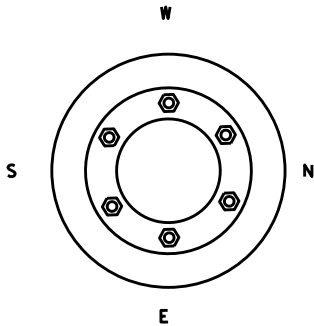
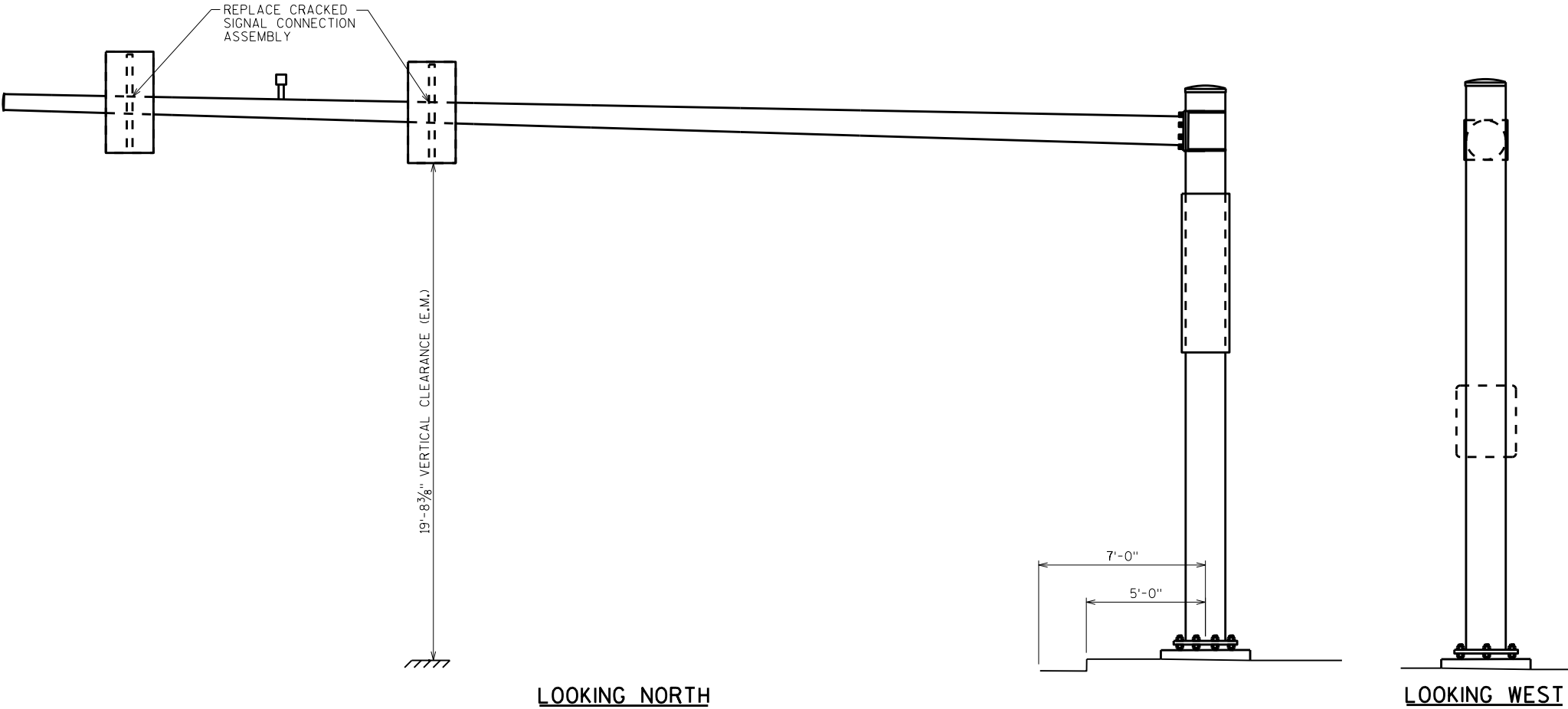
LOOKING SOUTH

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.10	ADJUST SIGN	1	EA	NA
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1274		SCL	SHEET 40

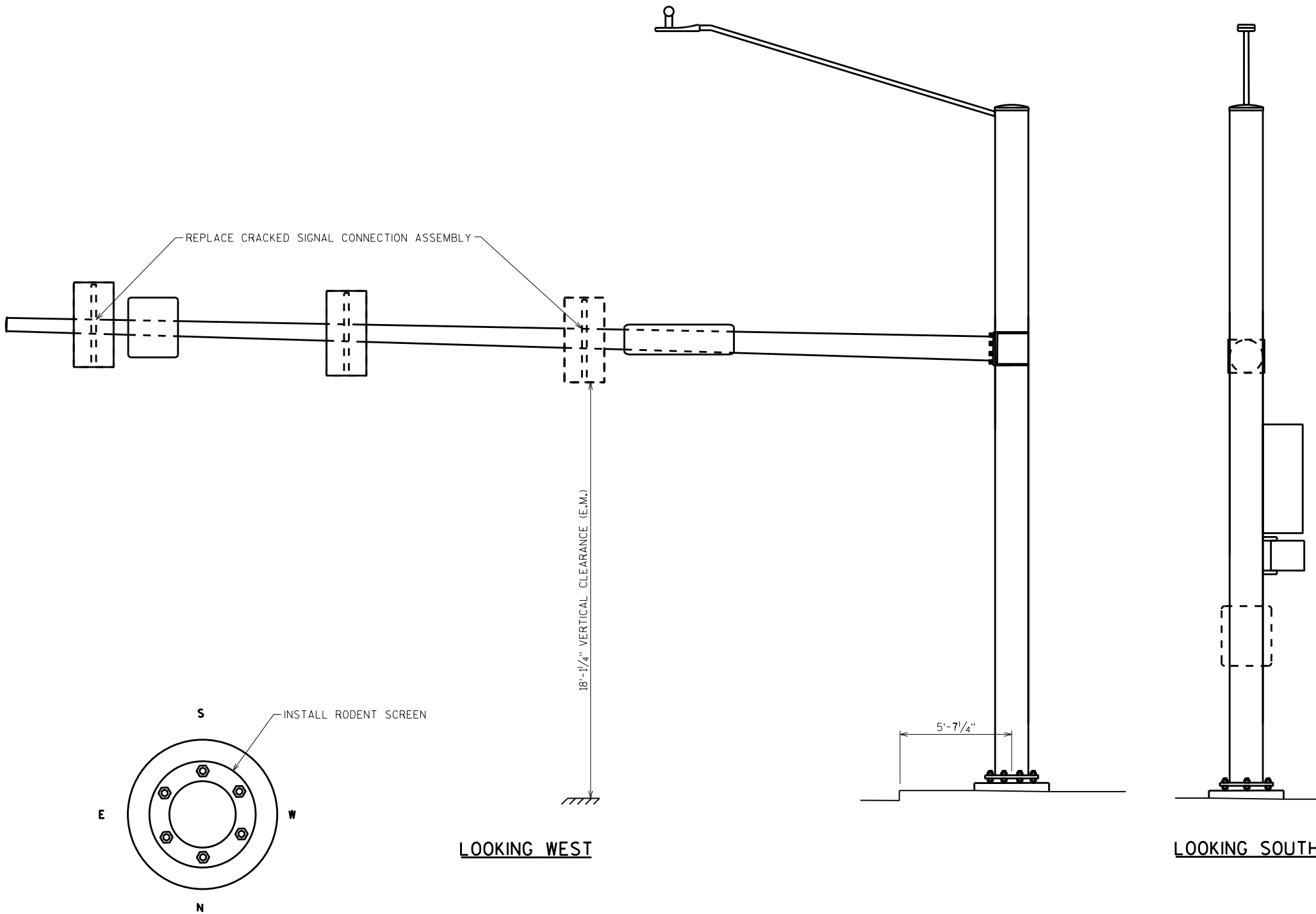


8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-1275		SHEET 41	

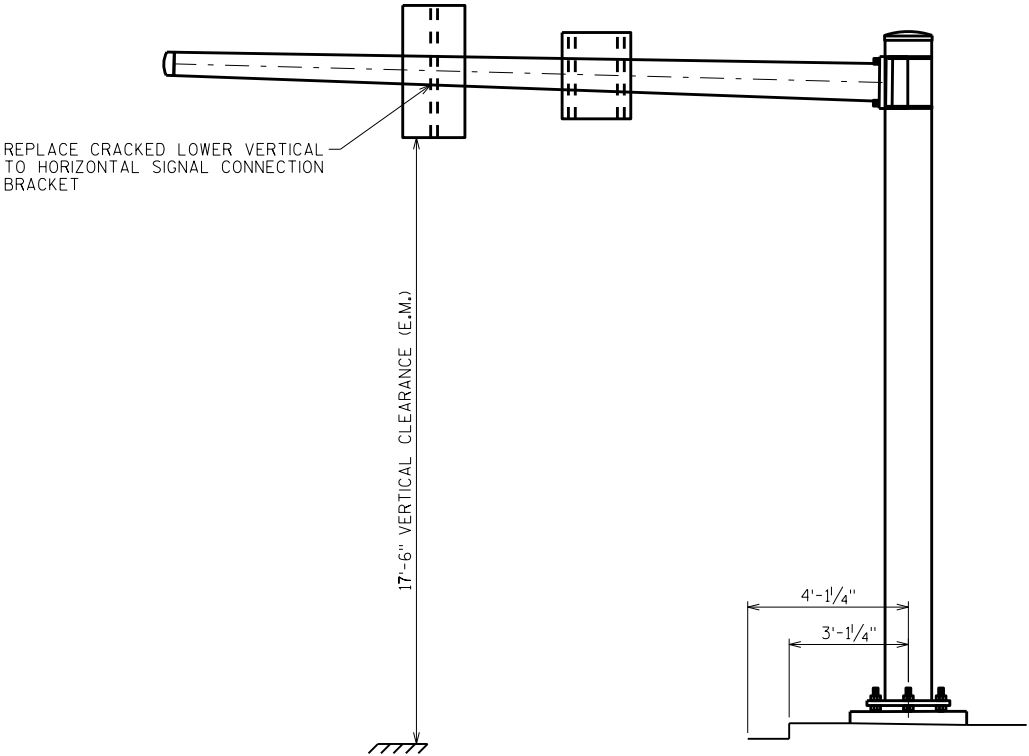


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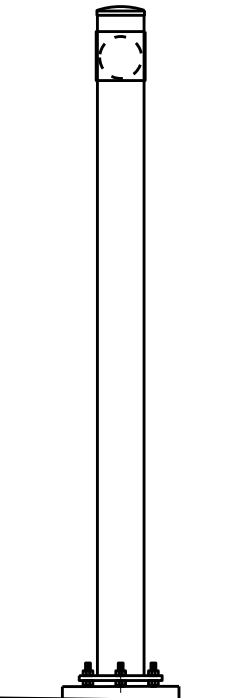
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ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.03	RODENT SCREEN	1	EA	3
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

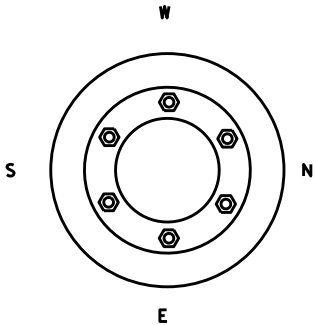
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1386		SCL	SHEET 42



LOOKING NORTH

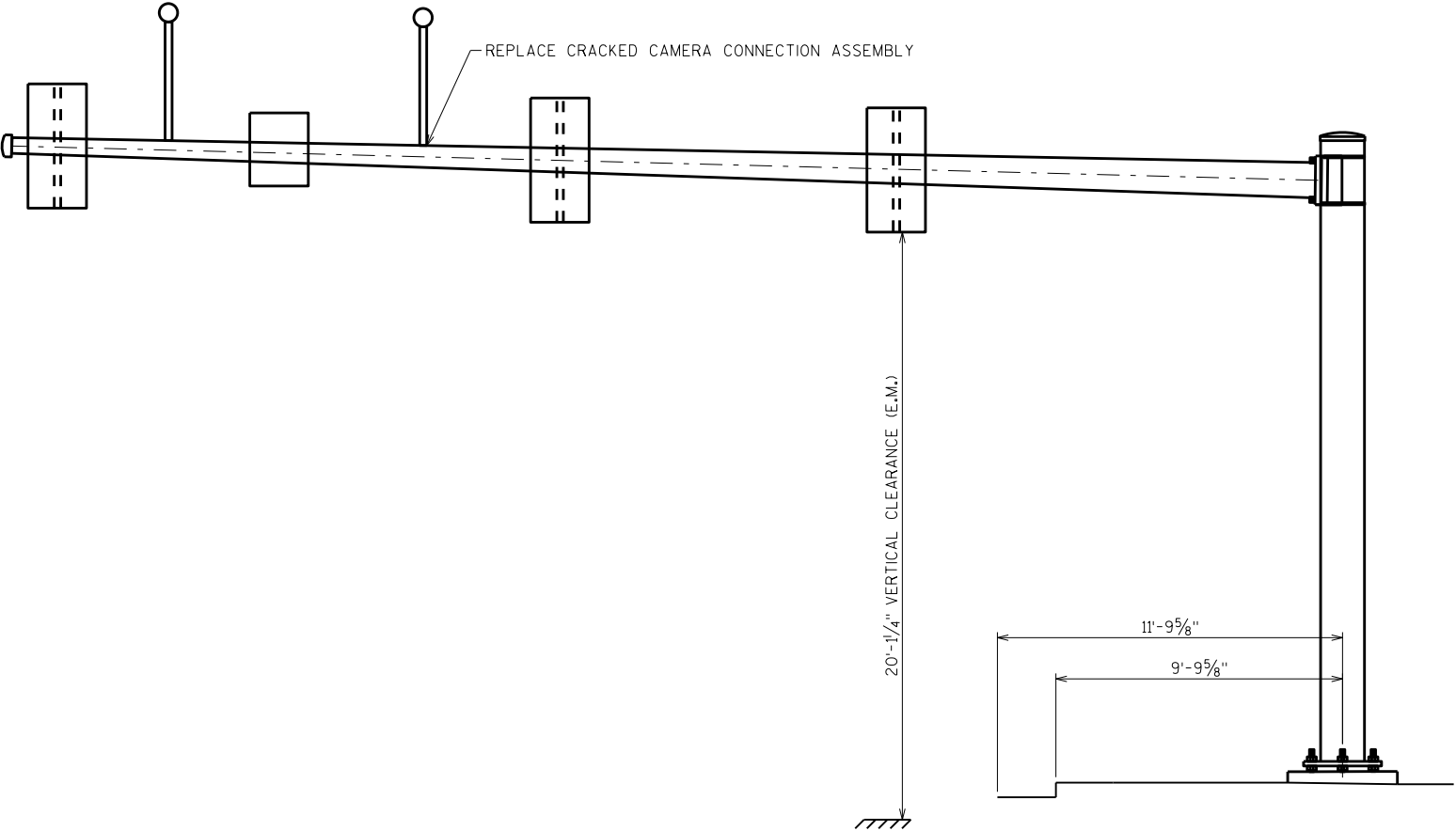


LOOKING WEST

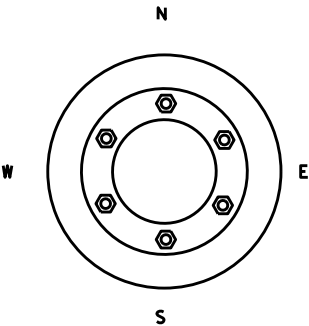
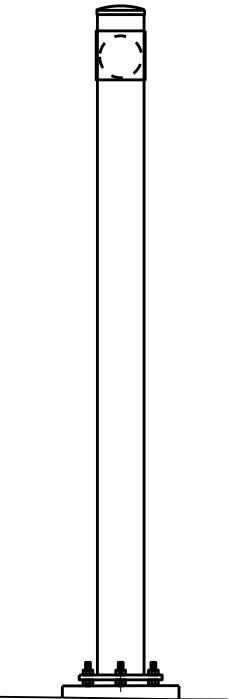


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1389		SCL	SHEET 43



LOOKING EAST

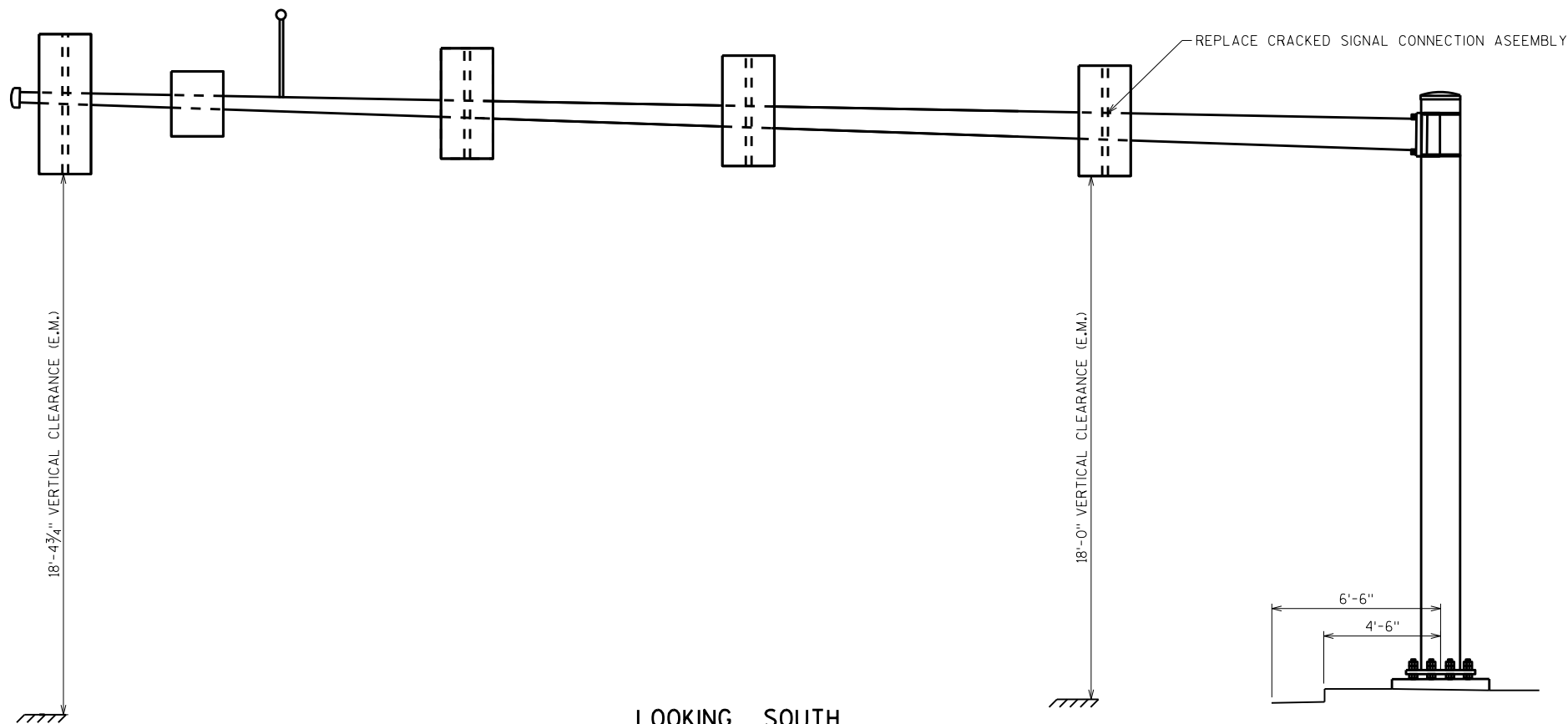


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8

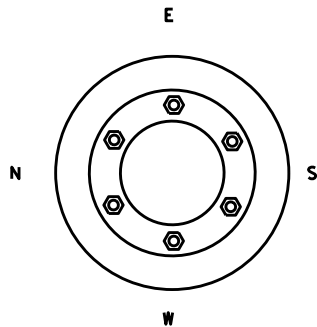
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.12	MISC. ATTACHMENTS	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1391		SCL	SHEET 44



LOOKING SOUTH

LOOKING EAST

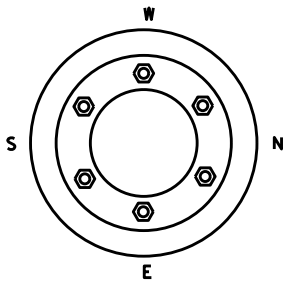


8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1392		SCL	SHEET 45



REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY

LOOKING NORTH

17'-6" VERTICAL CLEARANCE (E.M.)

INSTALL STRUCTURE ID PLAQUE

9'-0"

6'-0"

LOOKING WEST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1395		SCL	SHEET 46

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

17'-9 5/8" VERTICAL CLEARANCE (E.M.)

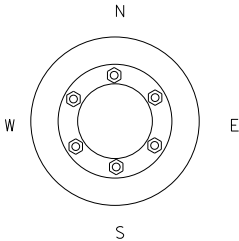
REPLACE TYPE-II SIGN

DIVIDED
HIGHWAY

R6-3

LOOKING EAST

LOOKING NORTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	6	SF	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	SCL PLANS CK'D. SAD
S-40-1429		SHEET 47	

REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY

REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY

INSTALL POST CAP

POST TOP
O.D. 15.9"

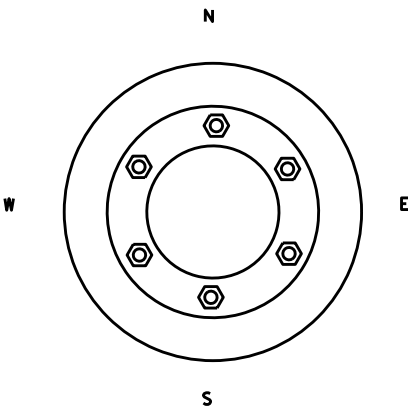
17'-10 3/4" VERTICAL CLEARANCE (E.M.)

LOOKING EAST

6'-6"

4'-6"

LOOKING NORTH



8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.15	POST/END CAP	1	EA	7
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-1442		SHEET 48	

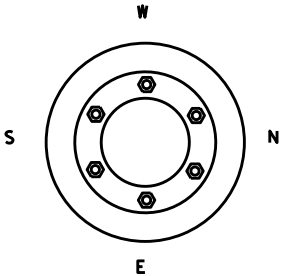
REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

18'-6" VERTICAL CLEARANCE (E.M.)

17'-8³/₈" VERTICAL CLEARANCE (E.M.)

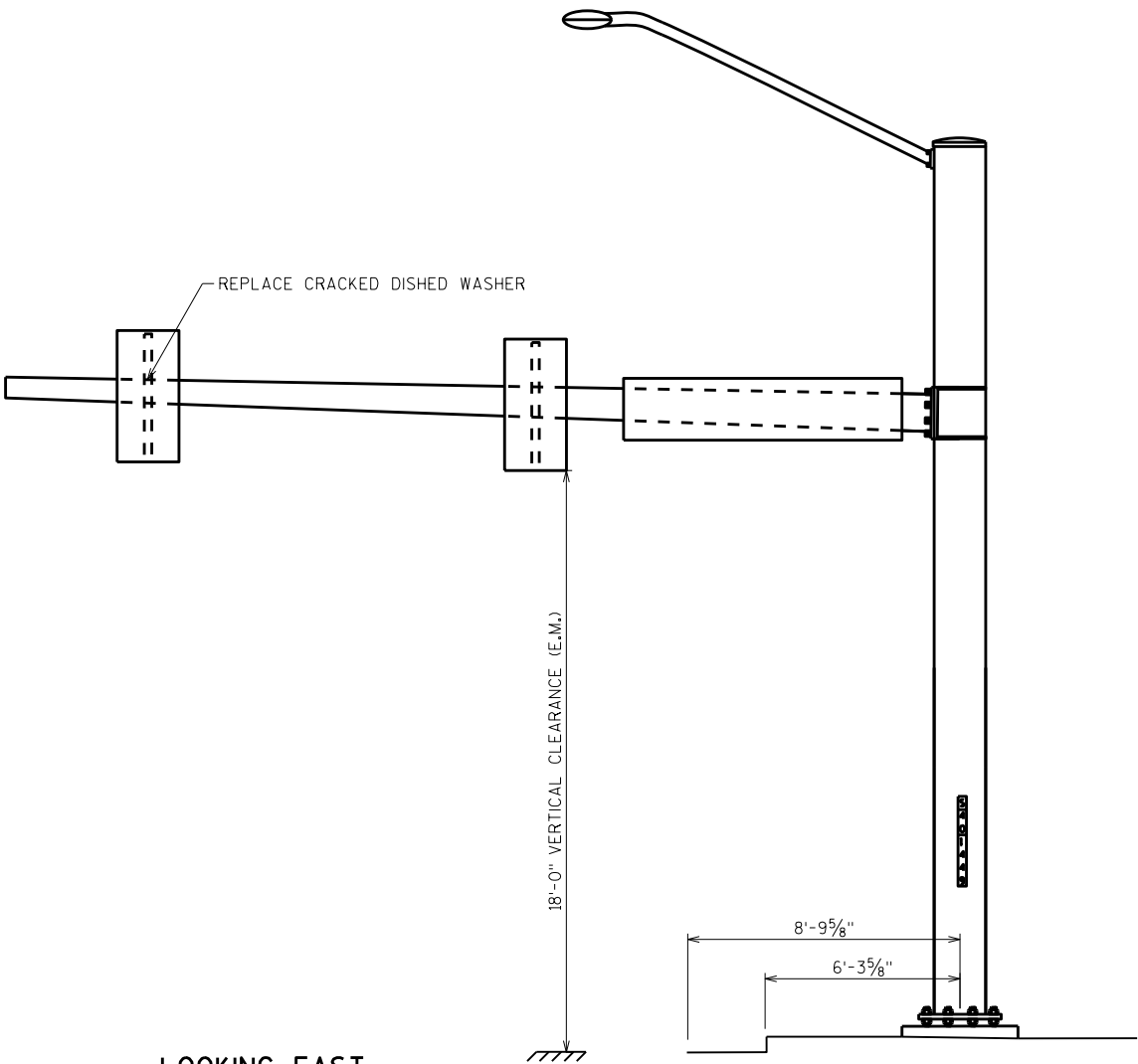
LOOKING NORTH

LOOKING WEST

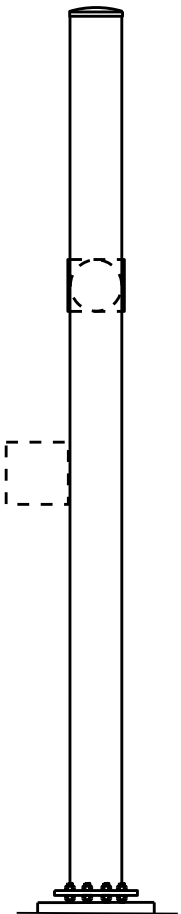


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

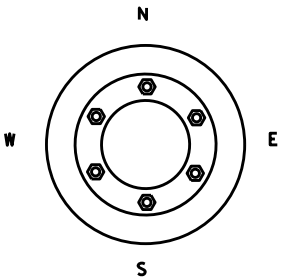
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1448		SCL	
		SHEET 49	



LOOKING EAST



LOOKING NORTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1449		SCL	SHEET 50

REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY

17'-10³/₄" VERTICAL CLEARANCE (E.M.)

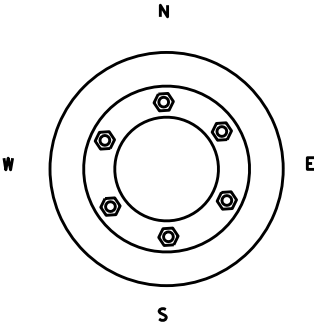
INSTALL STRUCTURE ID PLAQUE

11'-0"

9'-0"

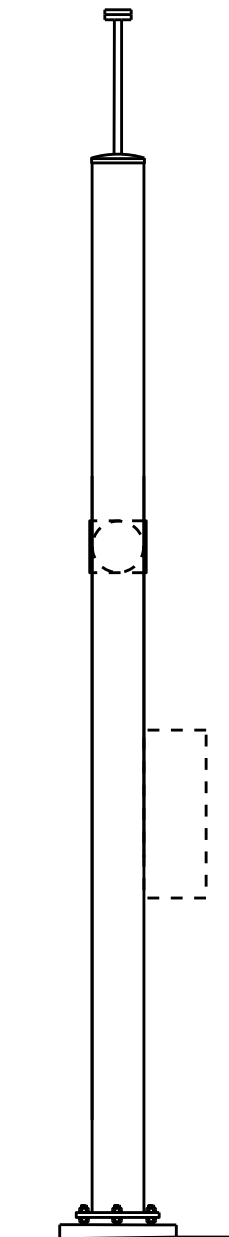
LOOKING EAST

LOOKING NORTH

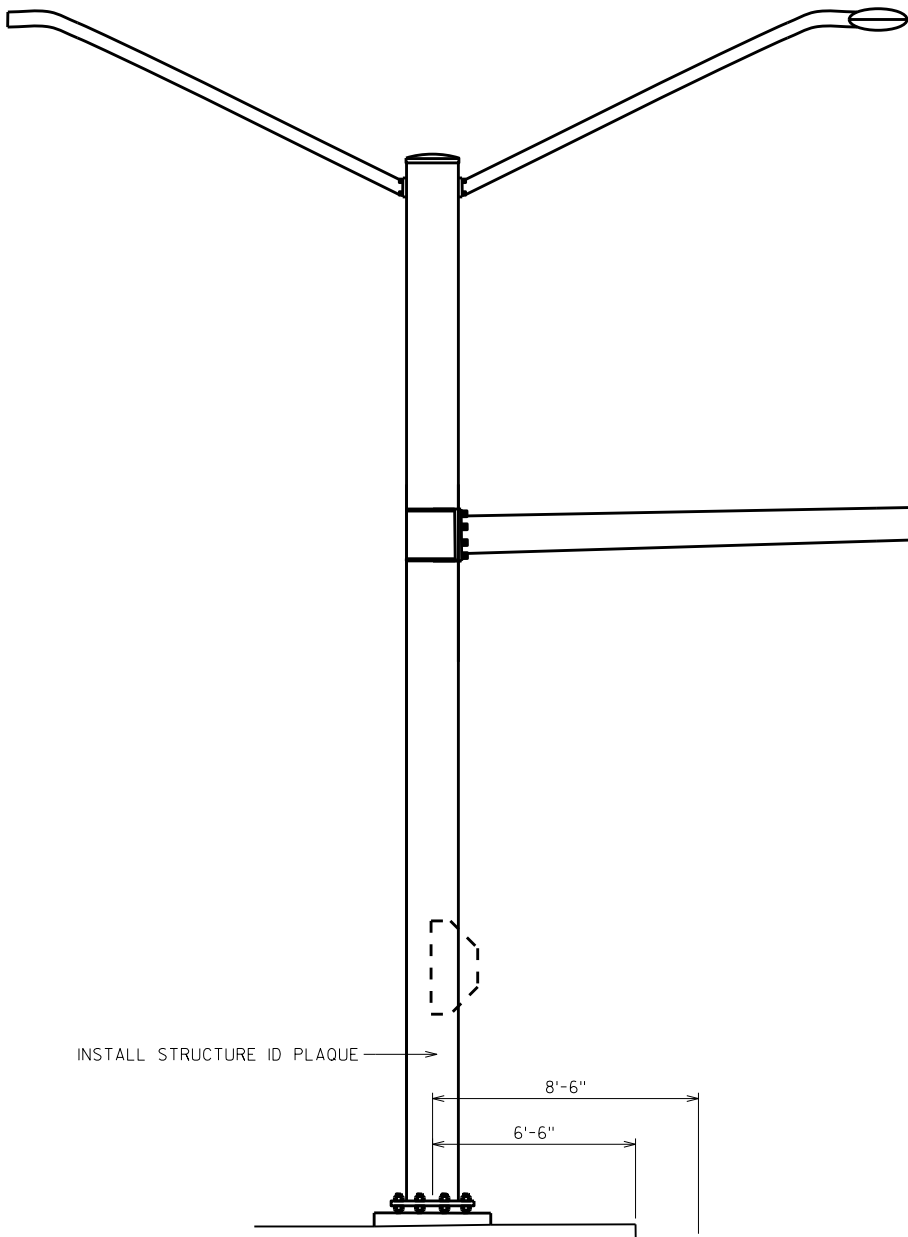


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1459		SCL	SHEET 51



LOOKING WEST



INSTALL STRUCTURE ID PLAQUE

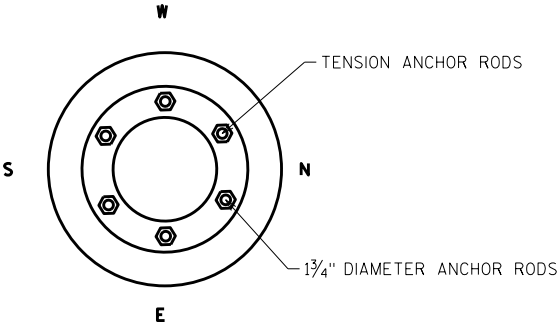
8'-6"

6'-6"

18'-8 3/8" VERTICAL CLEARANCE (E.M.)

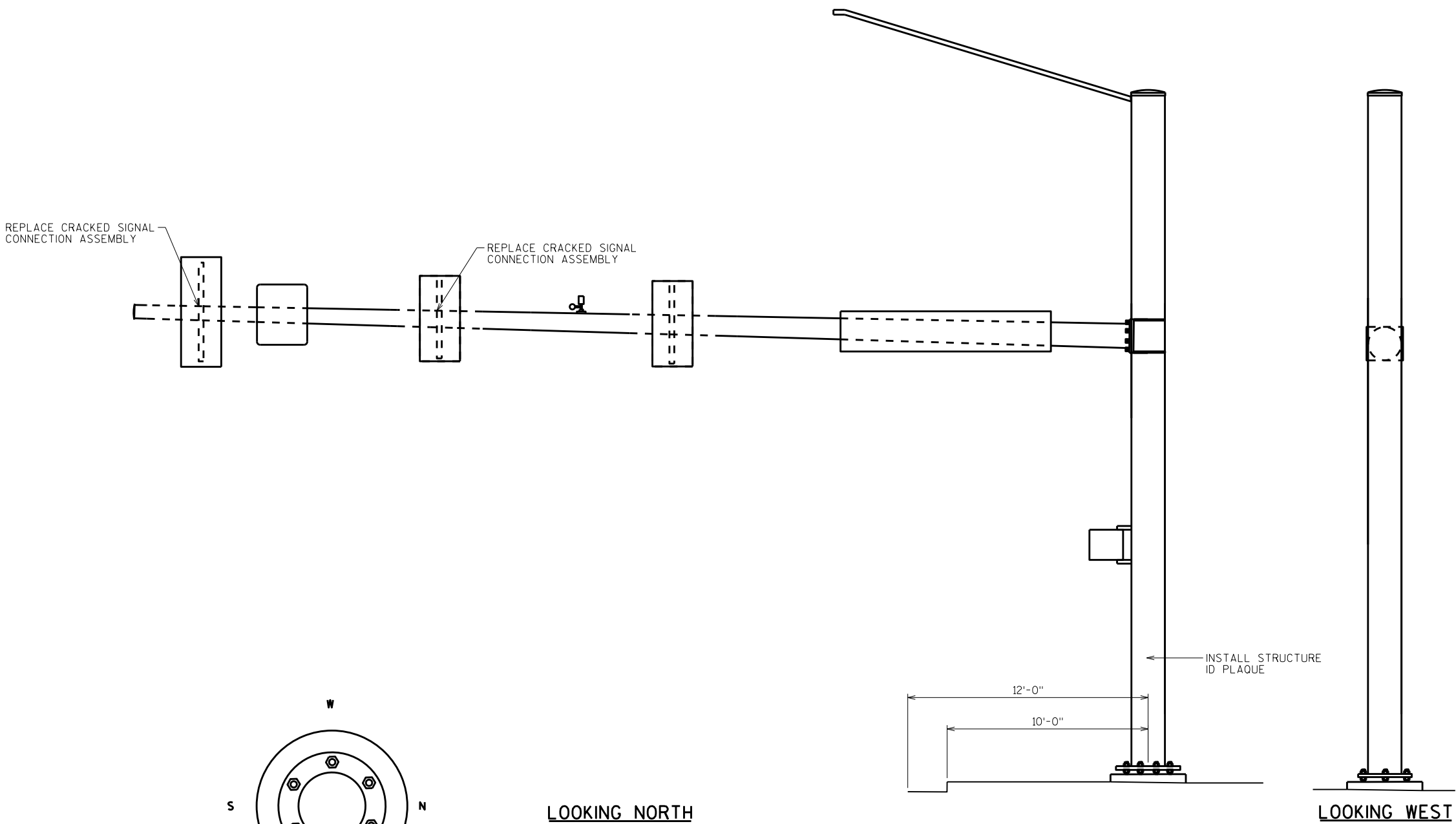
REPLACE CRACKED SIGNAL CONNECTION ASSEMBLY

LOOKING SOUTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	6	EA	3
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-40-1460		SHEET 52	

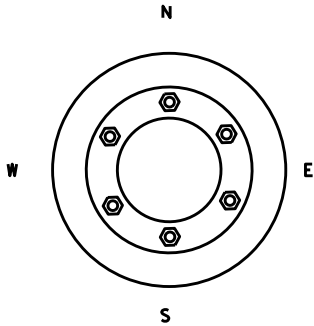
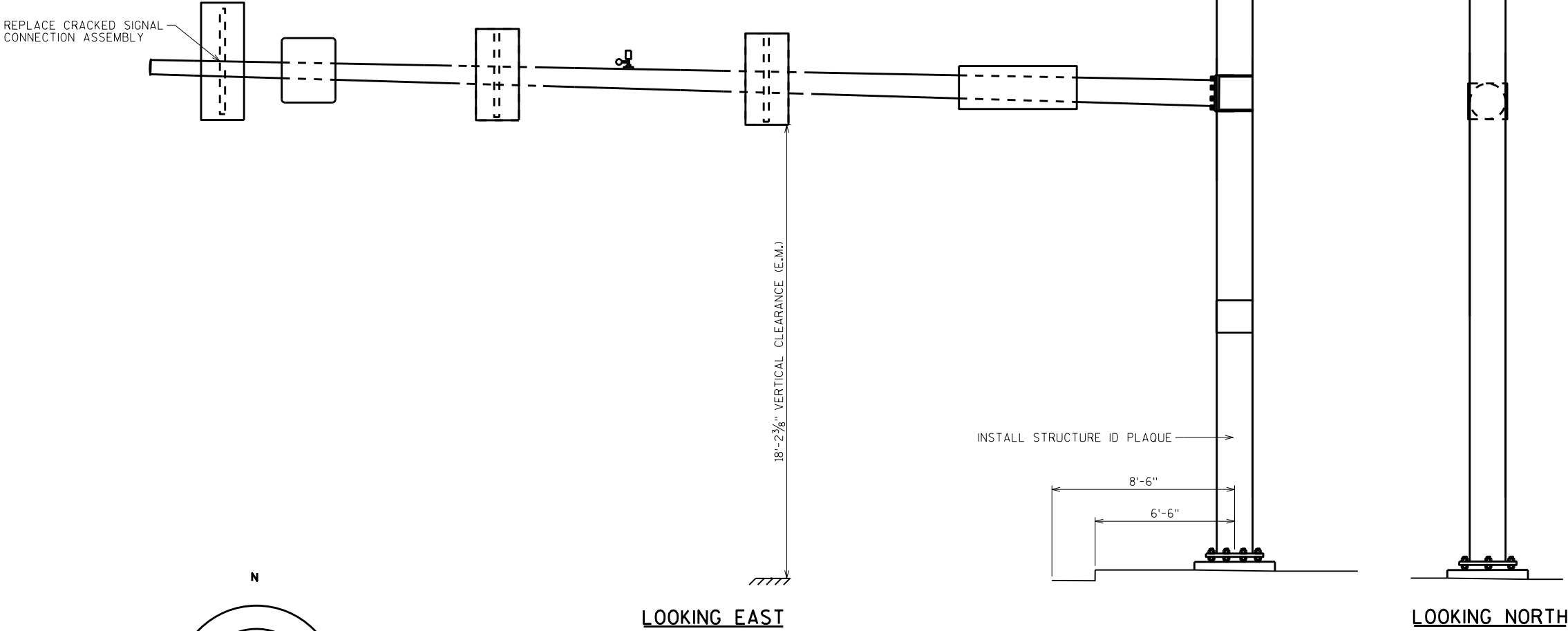


8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-40-1461		SHEET 53	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-40-1462		SHEET 54	

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

REPLACE CRACKED
SIGNAL CONNECTION
ASSEMBLY

17'-8³/₈" VERTICAL CLEARANCE (E.M.)

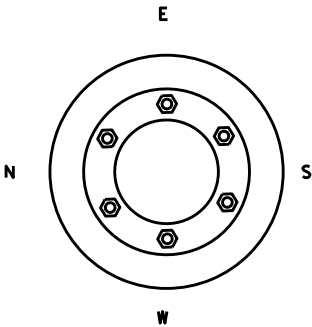
INSTALL STRUCTURE ID PLAQUE

10'-3⁵/₈"

8'-3⁵/₈"

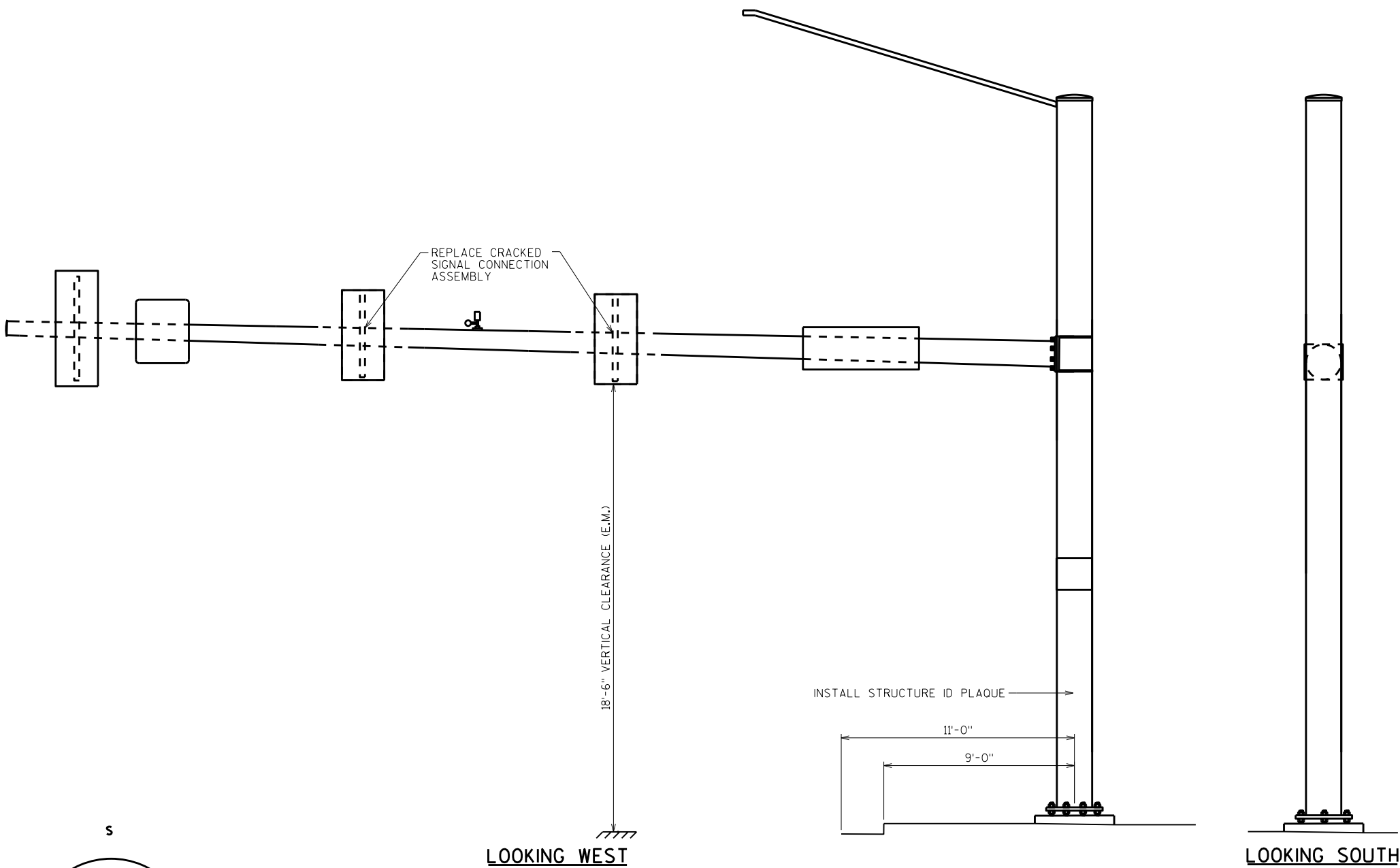
LOOKING SOUTH

LOOKING EAST



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	3	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-40-1463		SHEET 55	

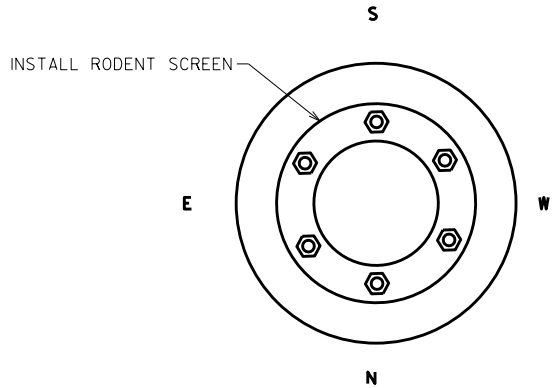
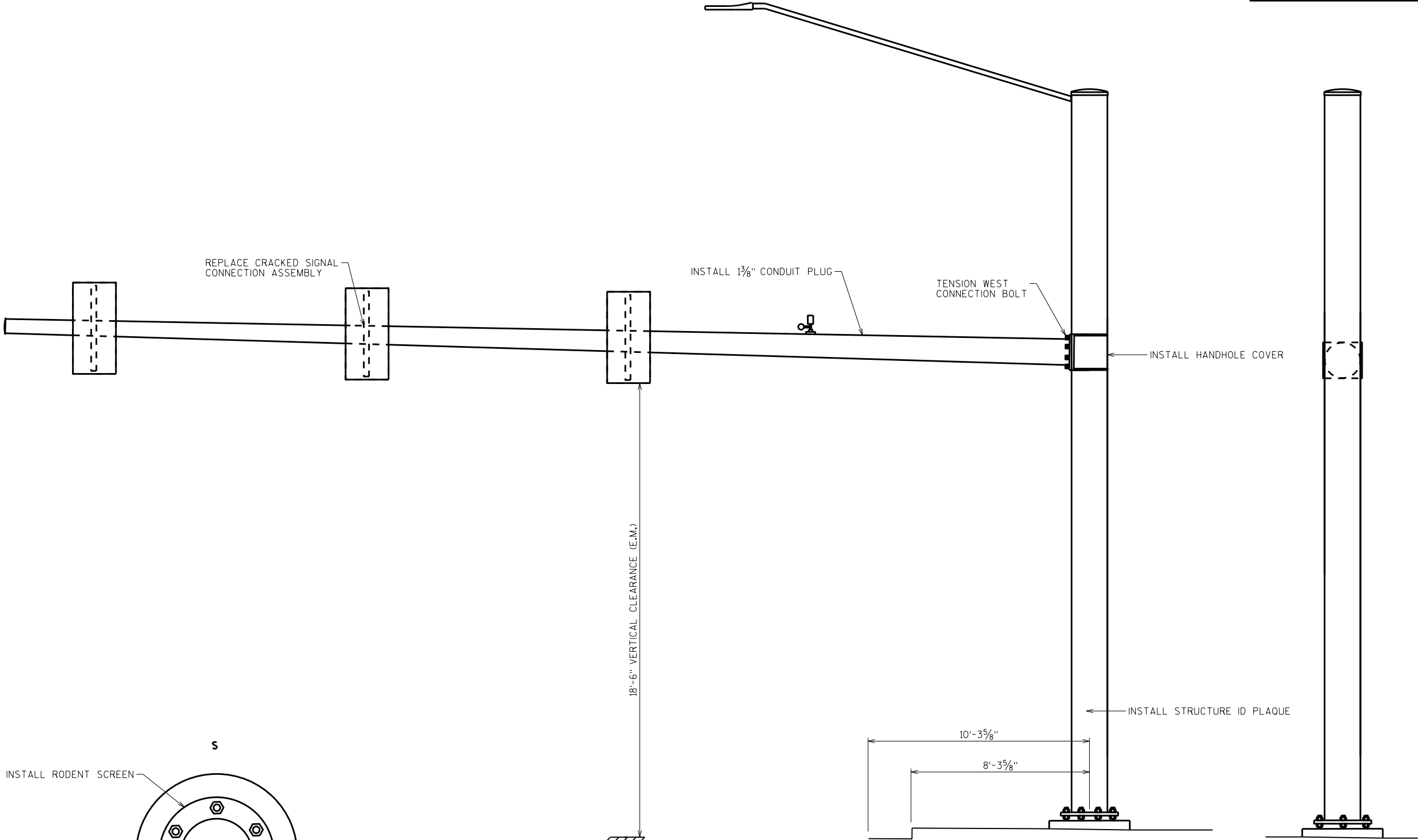


8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1464		SCL	SHEET 56

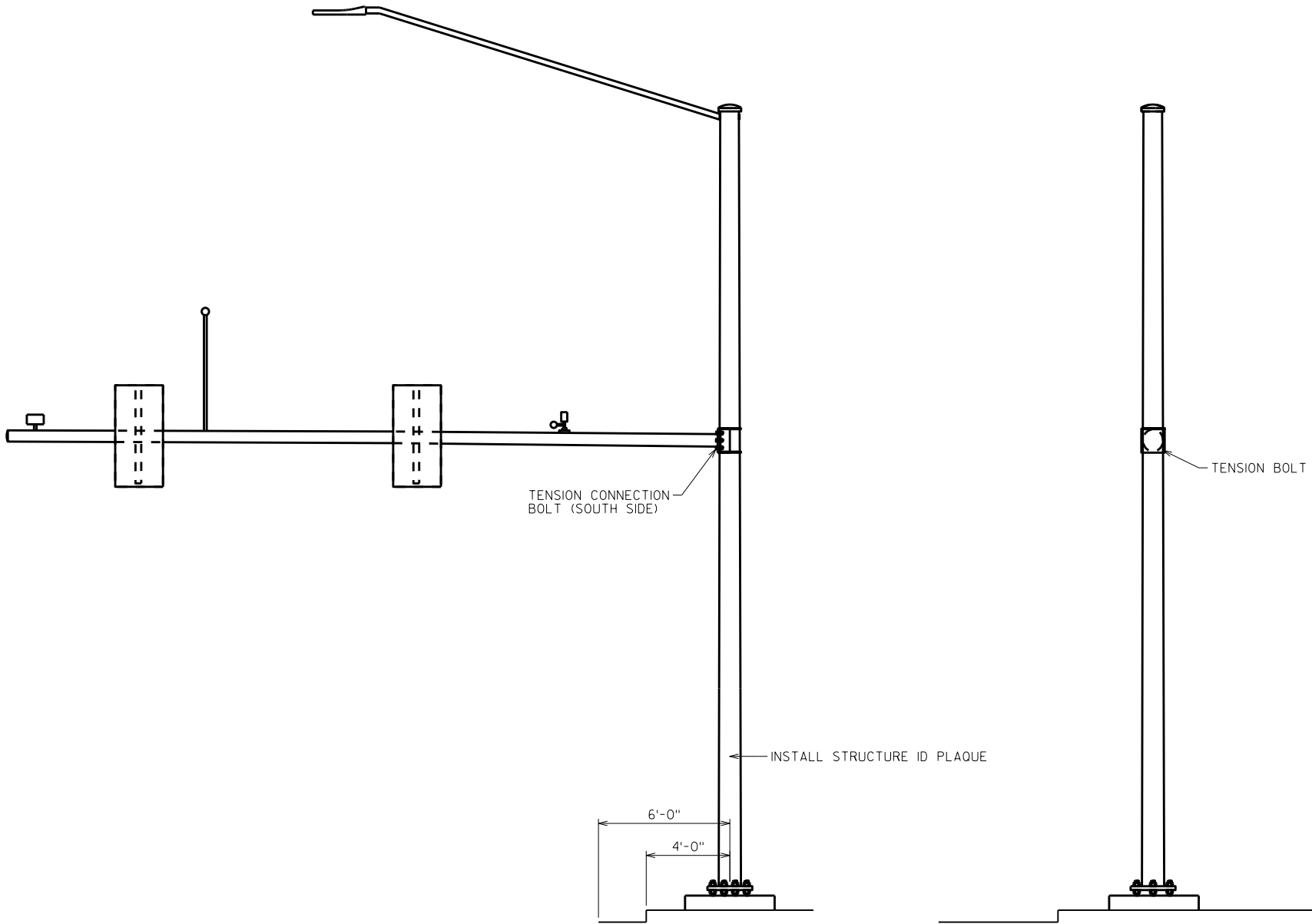


LOOKING WEST

LOOKING SOUTH

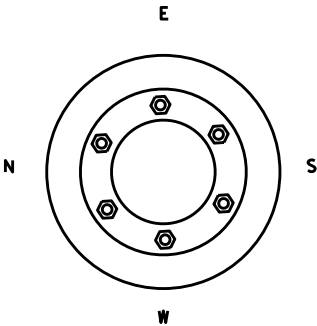
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.03	RODENT SCREEN	1	EA	3
SPV.0060.06	TENSION STRUCTURAL BOLTS	1	EA	5
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.13	HANDHOLE COVER	1	EA	7
SPV.0060.14	CONDUIT PLUG	1	EA	7
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-1465		SHEET 57	



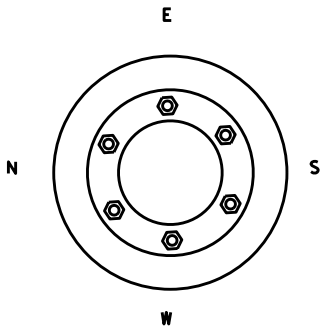
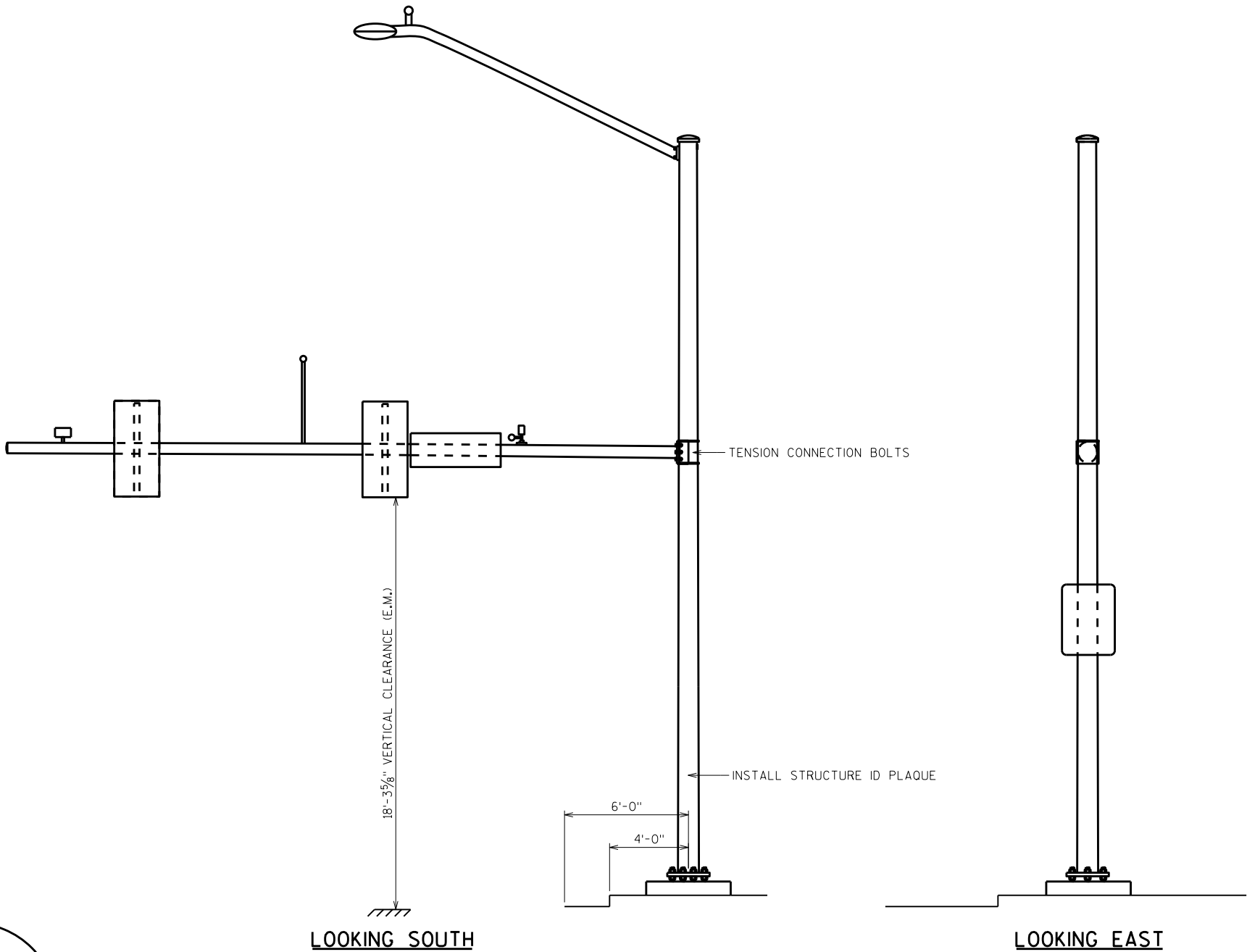
LOOKING SOUTH

LOOKING EAST



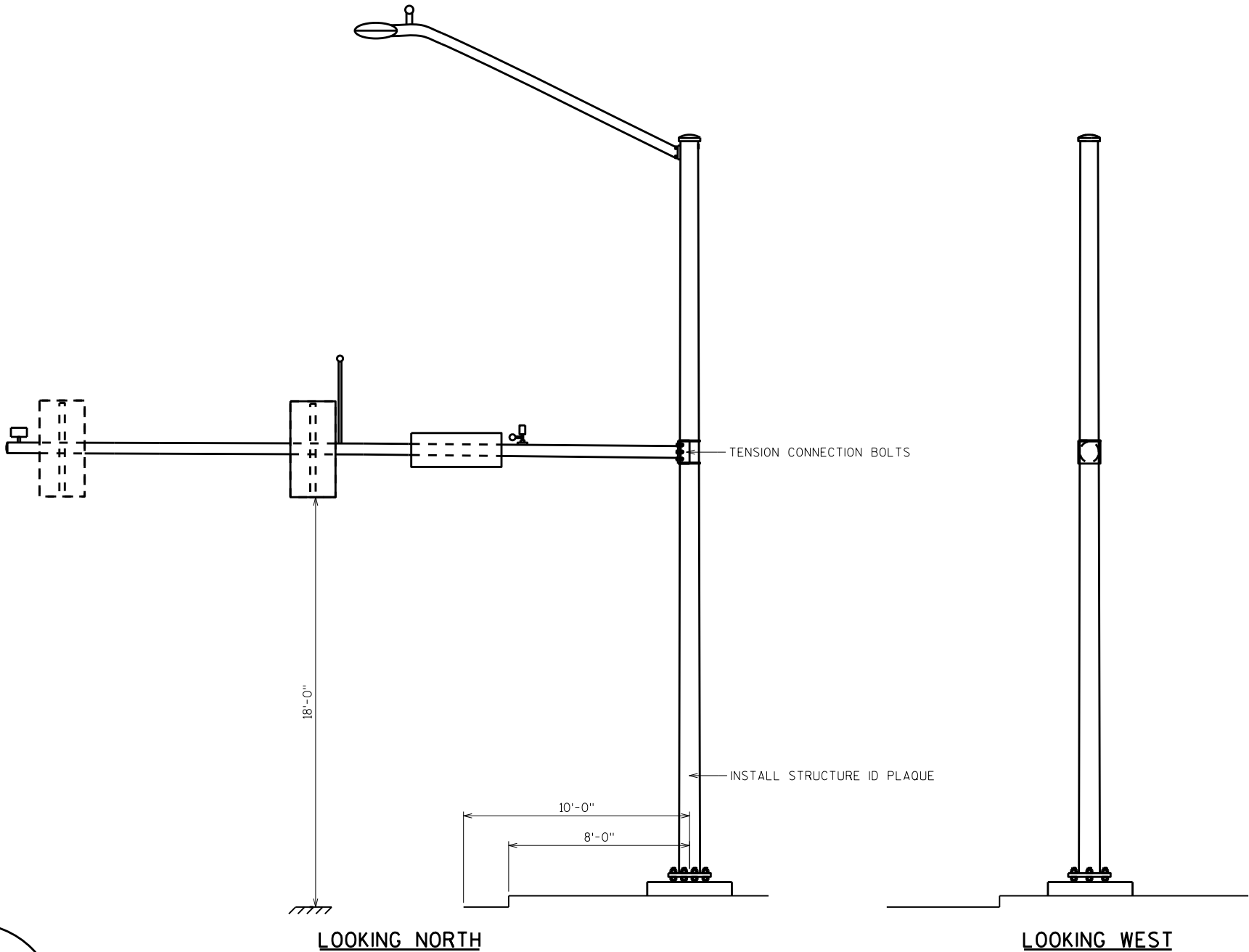
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	1	EA	5
SPV.0060.11	ID PLAQUE	1	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-40-1468		SHEET 58	



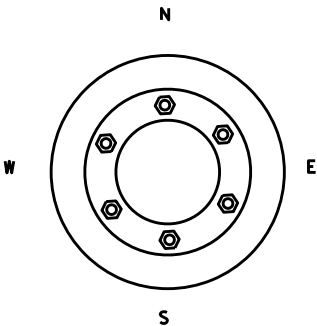
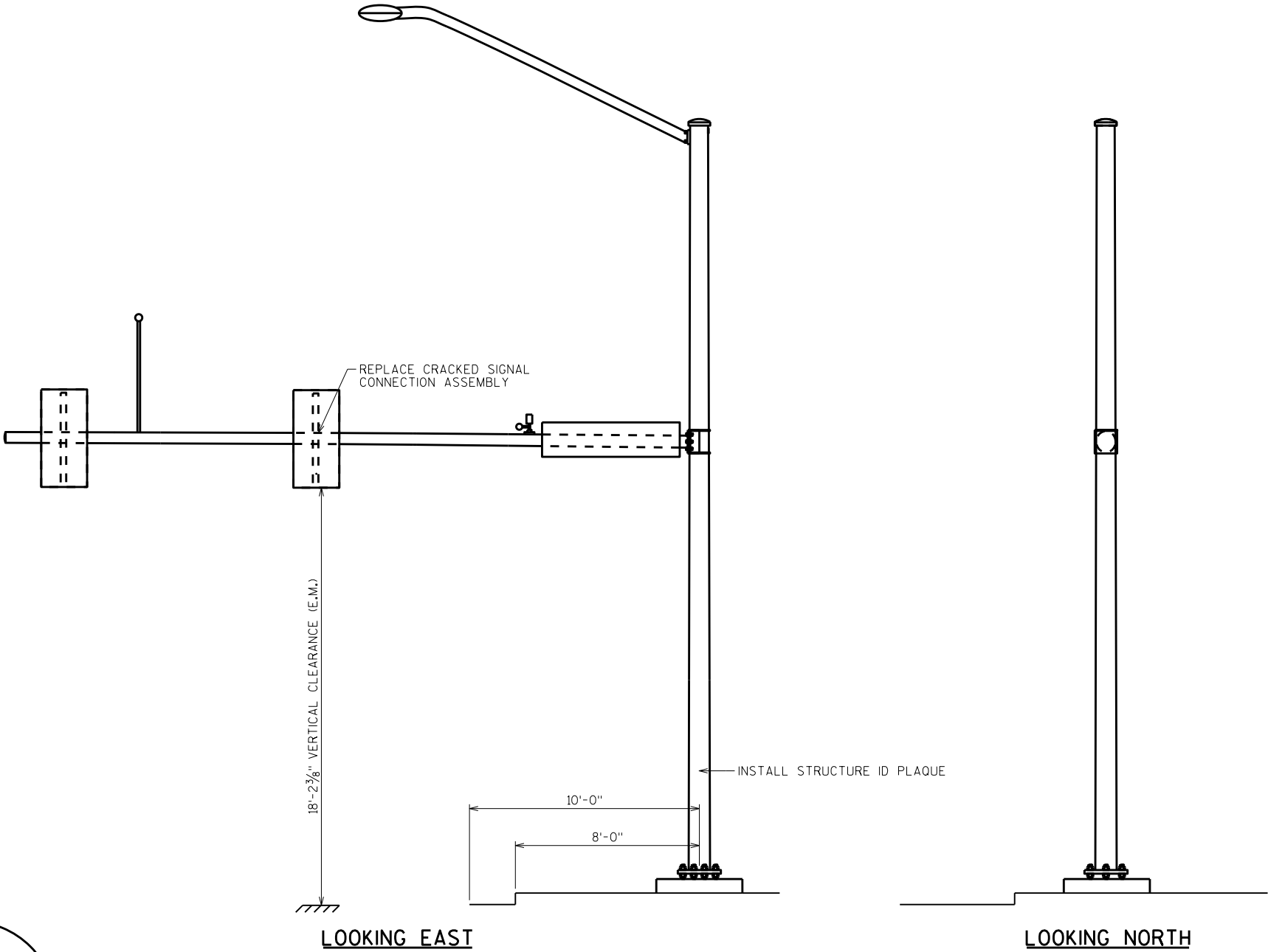
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	6	EA	5
SPV.0060.11	ID PLAQUE	1	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1469		SCL	SHEET 59



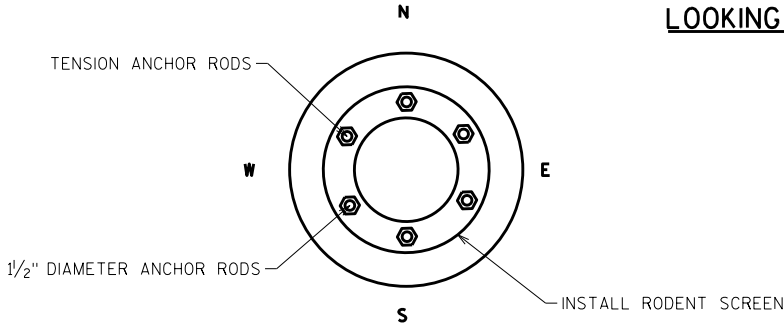
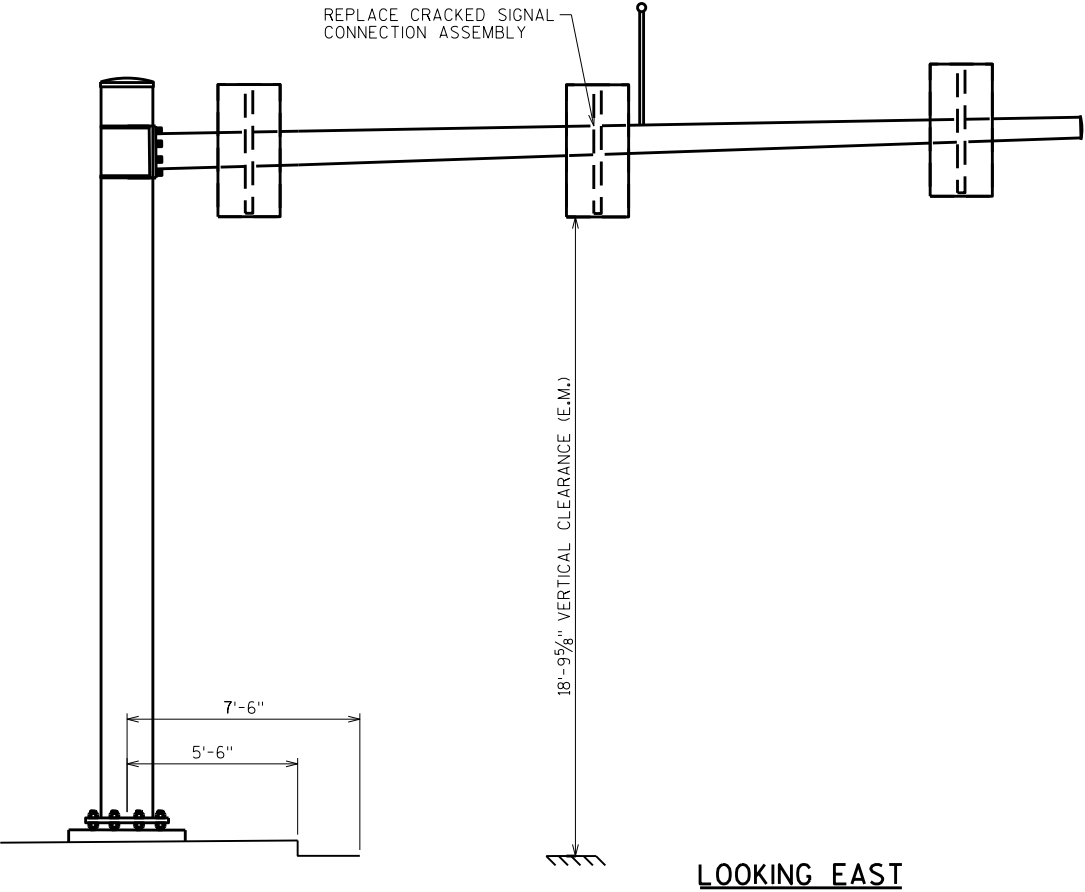
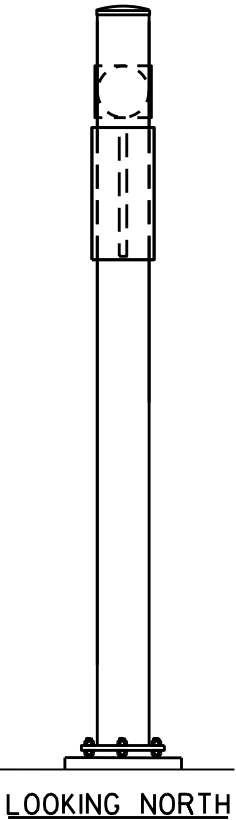
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL BOLTS	6	EA	5
SPV.0060.11	ID PLAQUE	1	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-40-1470		SHEET 60	



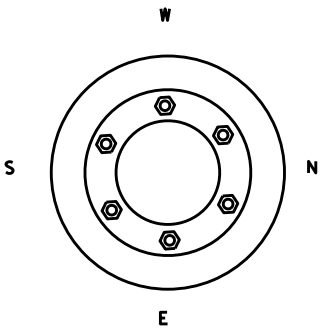
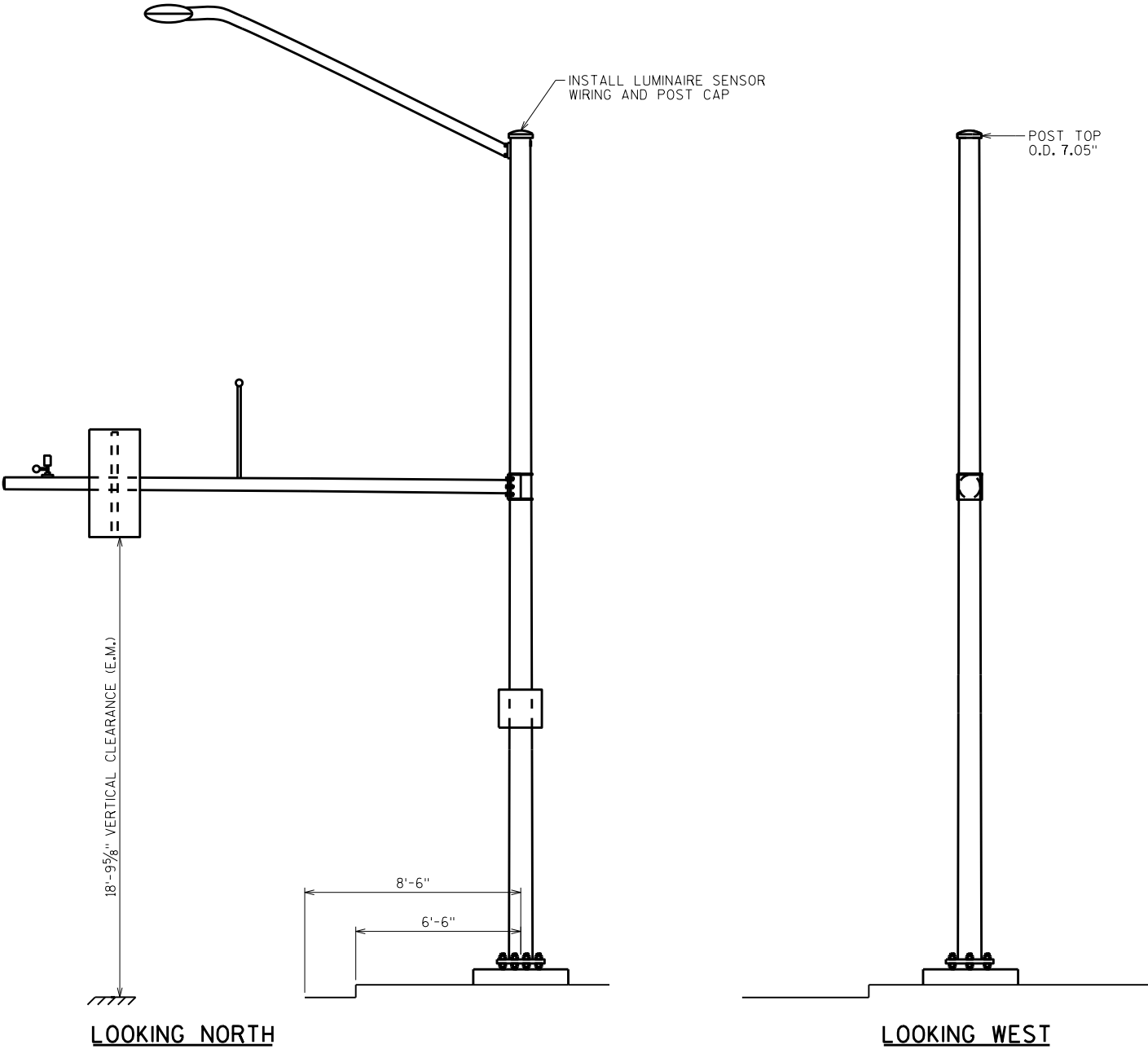
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-40-1473		SHEET 61	



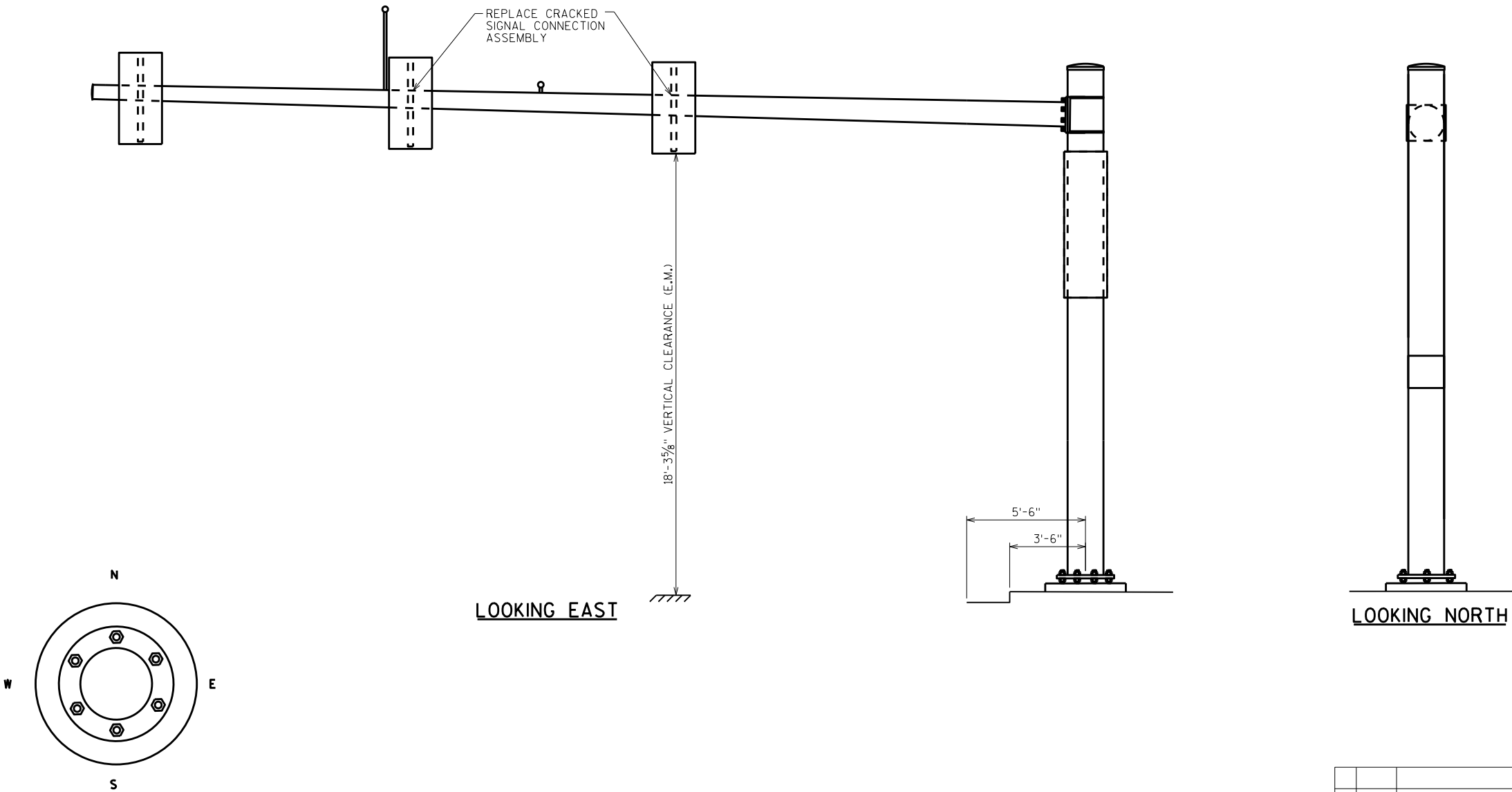
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	6	EA	3
SPV.0060.03	RODENT SCREEN	1	EA	3
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
		SCL	
S-40-1511		SHEET 62	



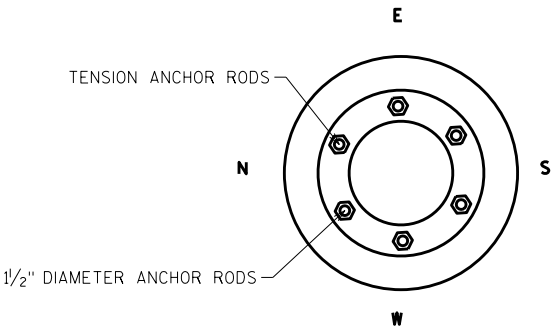
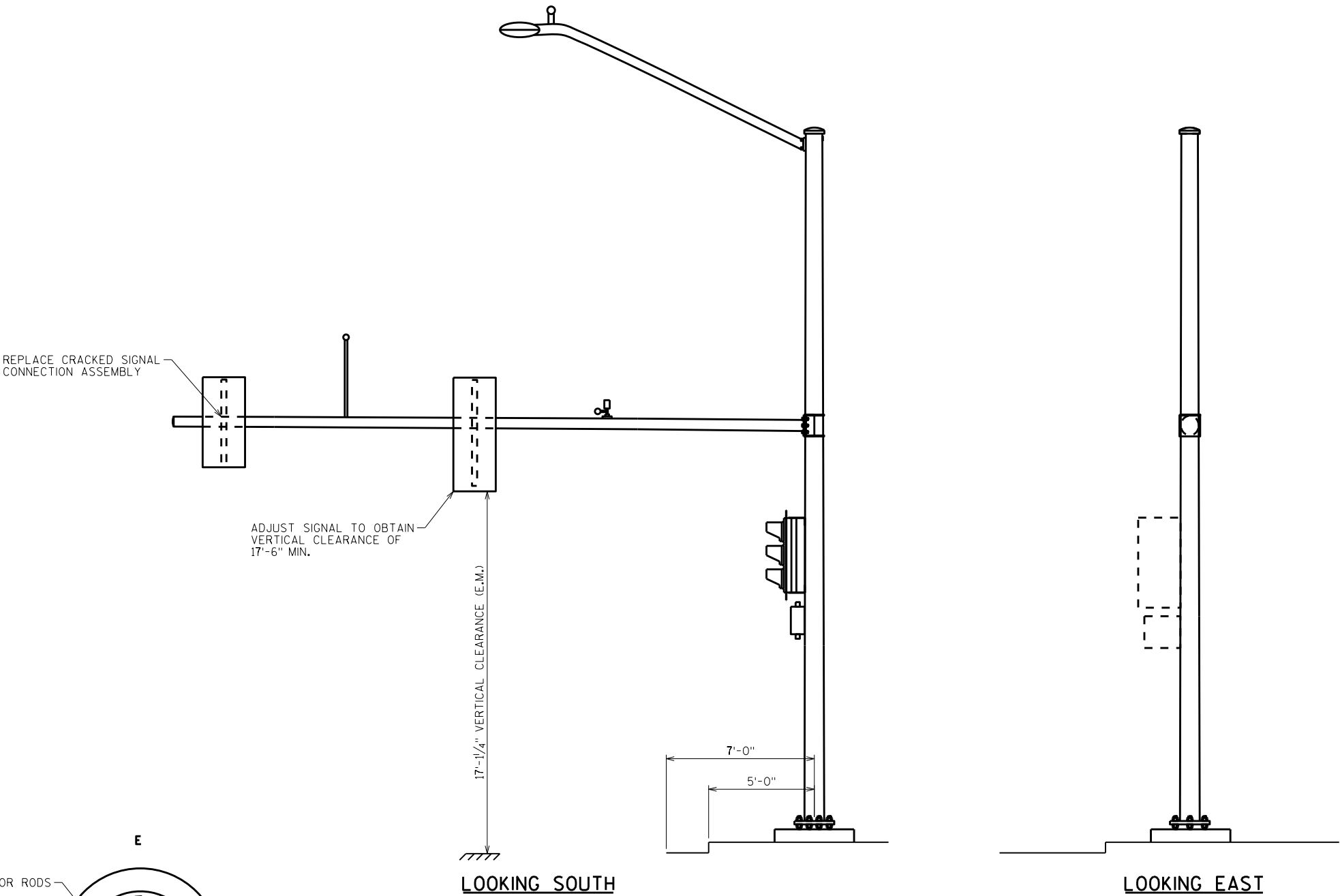
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.12	MISC. ATTACHMENTS	1	EA	7
SPV.0060.15	POST/END CAP	1	EA	7

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-40-1513		SCL	SHEET 63



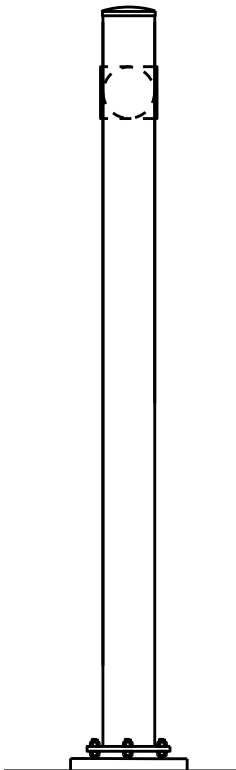
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-40-1514		SCL	SHEET 64

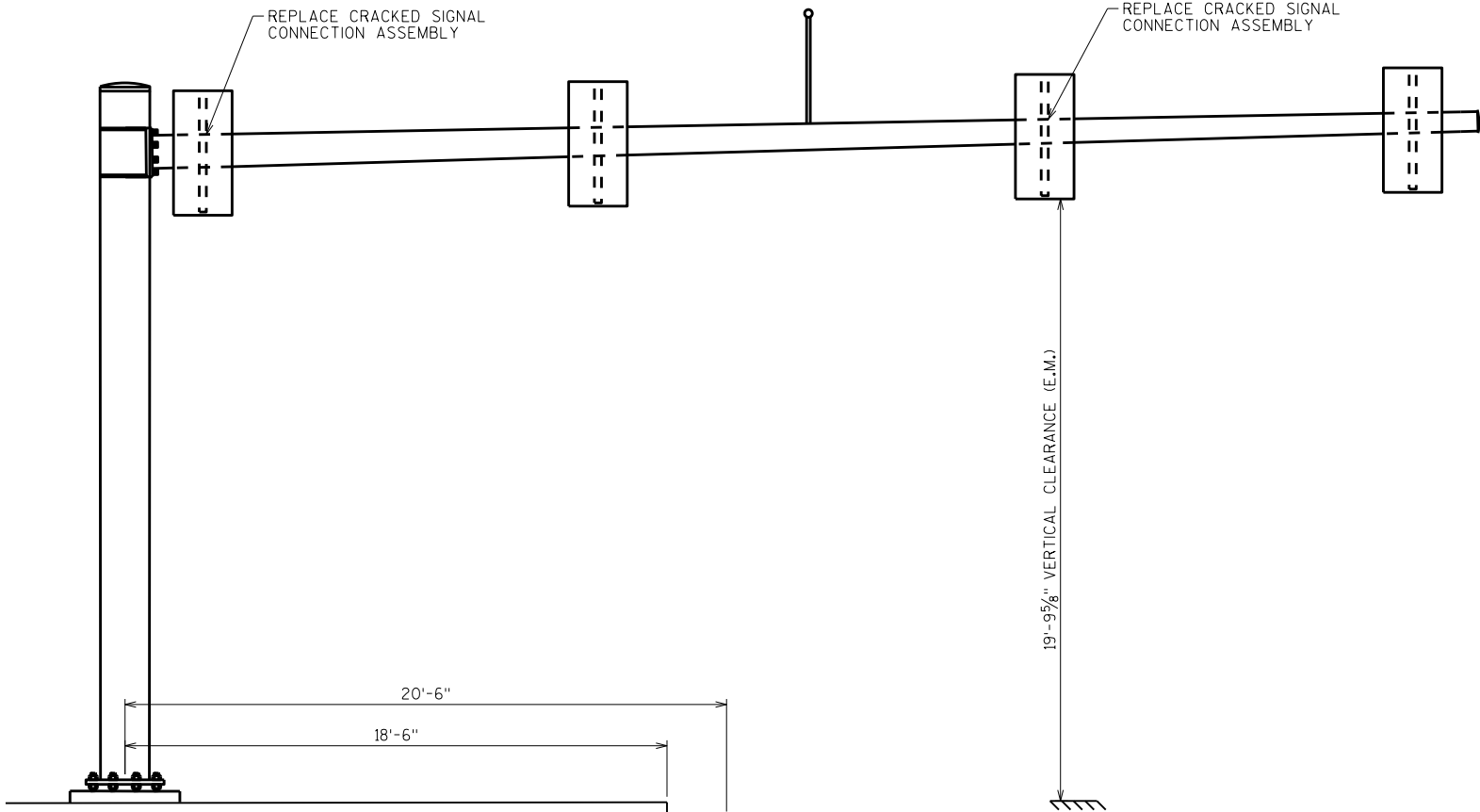
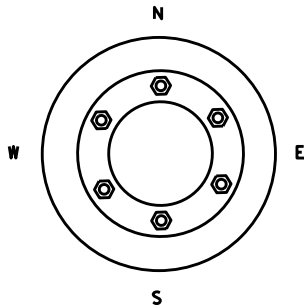


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	6	EA	3
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-40-1515		SHEET 65	



LOOKING NORTH



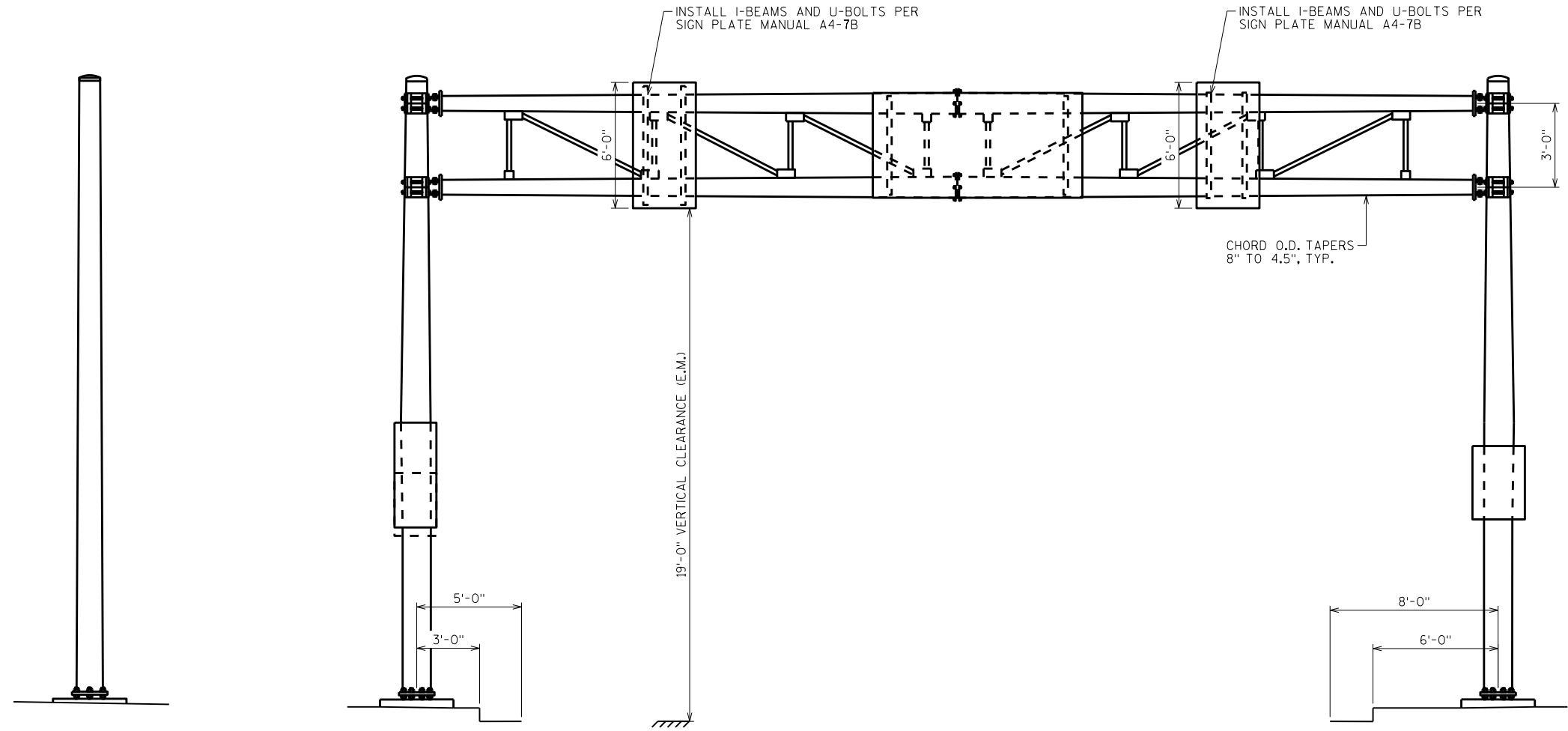
LOOKING WEST

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	2	EA	9

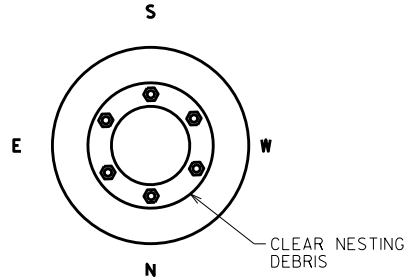
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-40-1516		SHEET 66	



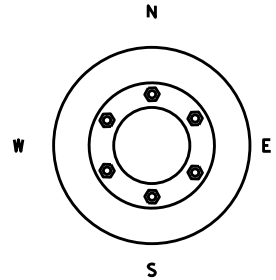
LOOKING SOUTH

LOOKING EAST

LOOKING NORTH



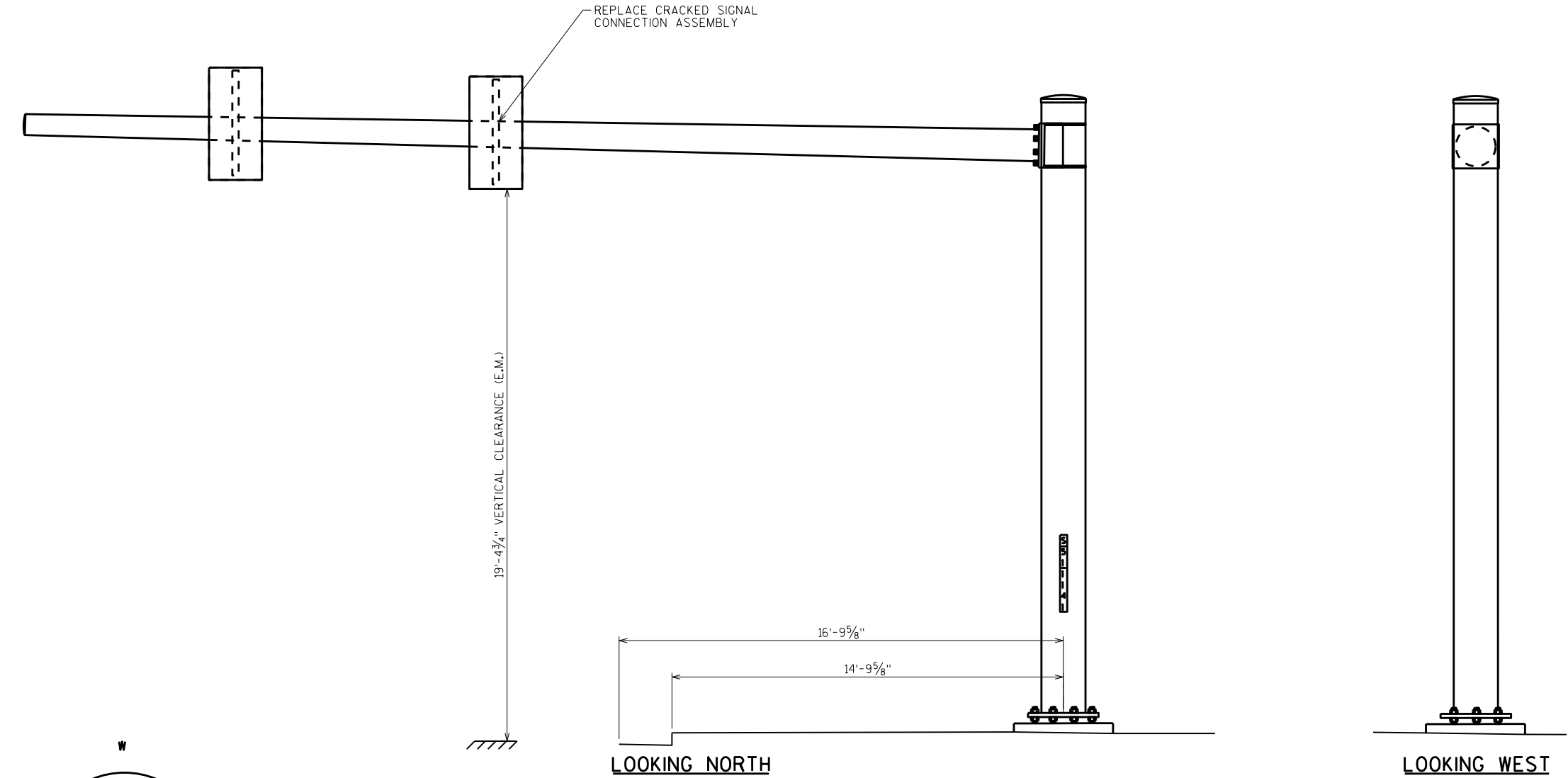
SOUTH FOUNDATION



NORTH FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.02	REMOVE DEBRIS	1	EA	NA
SPV.0060.08	VERTICAL SIGN SUPPORT	4	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL
		PLANS CK'D.	SAD
S-45-0201		SHEET 67	

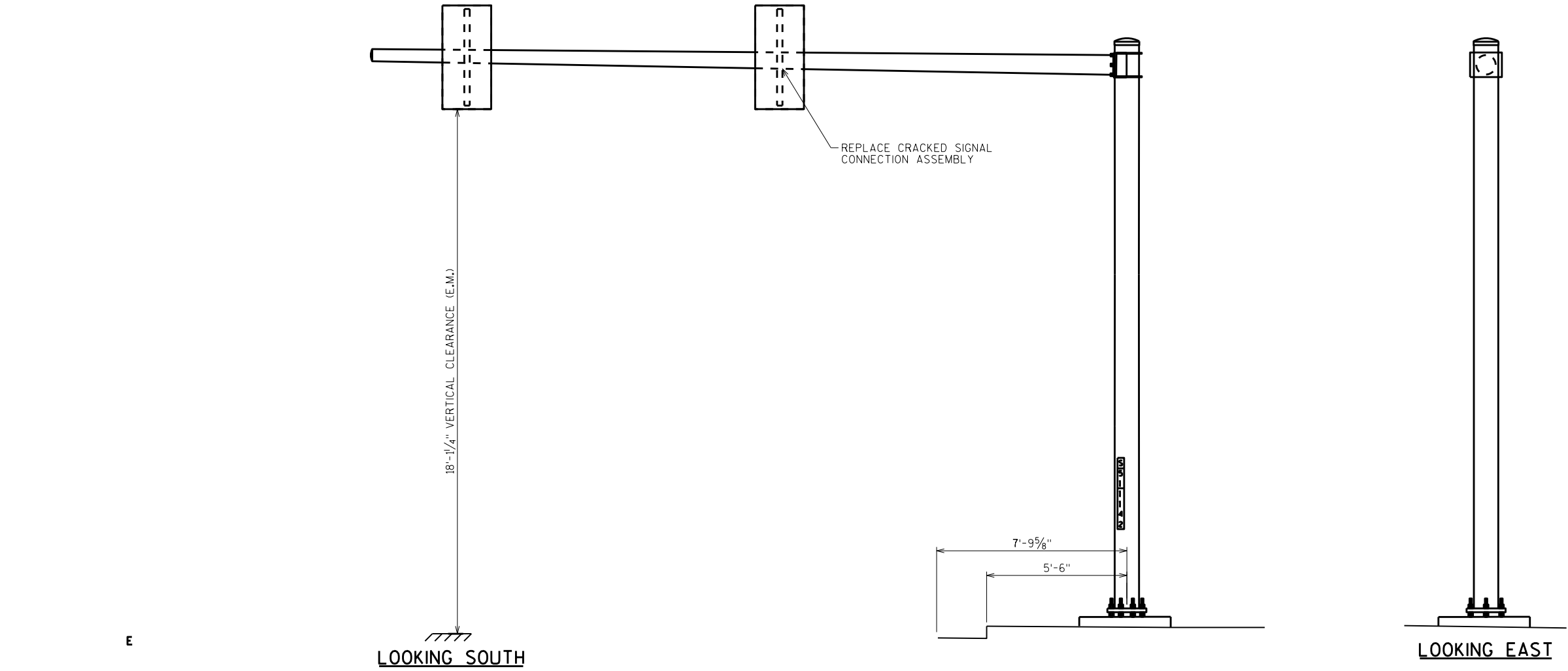


LOOKING NORTH

LOOKING WEST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1141		SHEET 68	



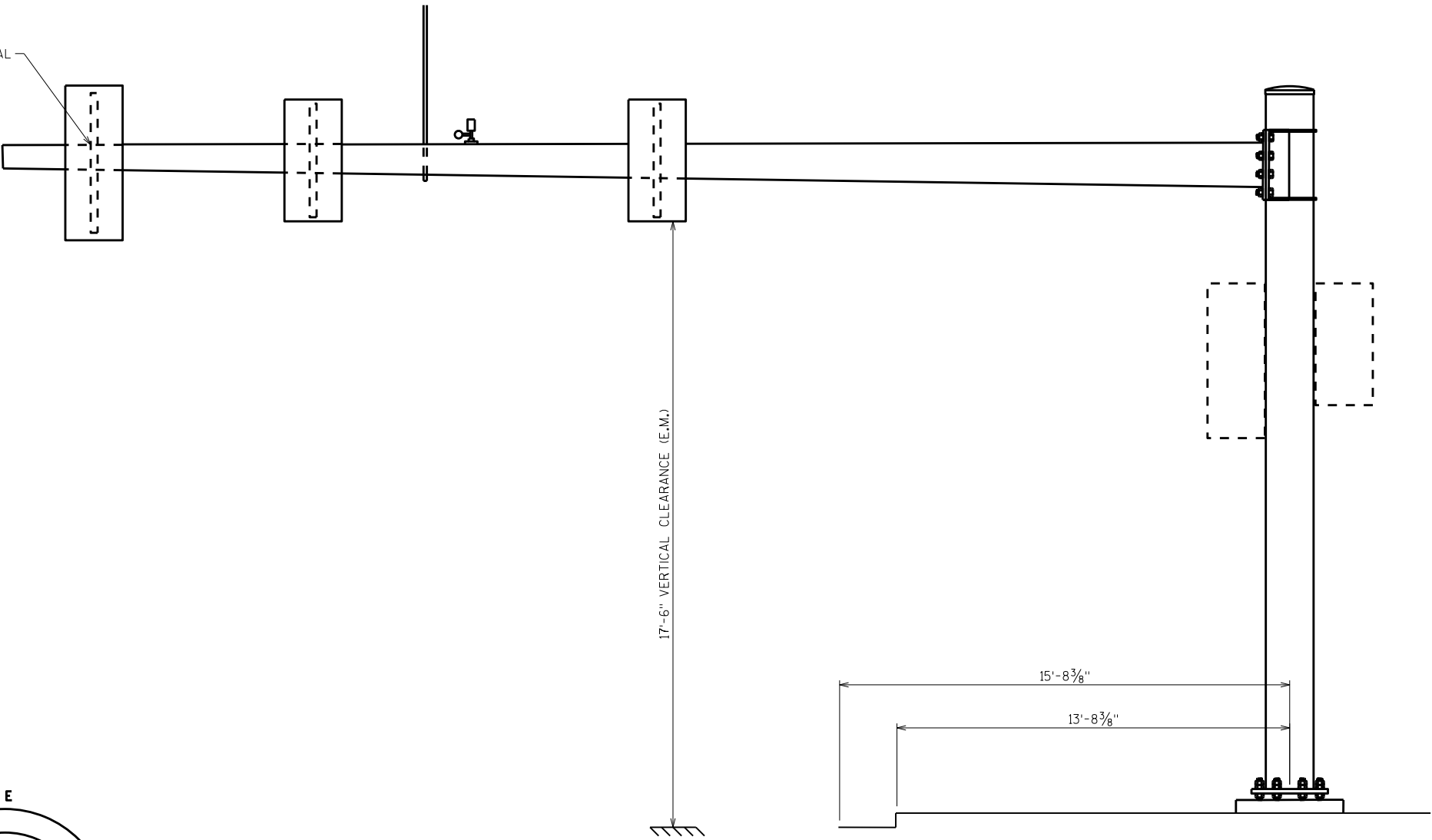
LOOKING SOUTH

LOOKING EAST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

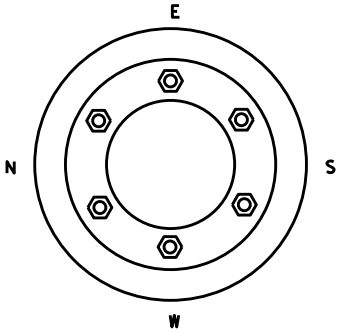
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1142		SHEET 69	

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY



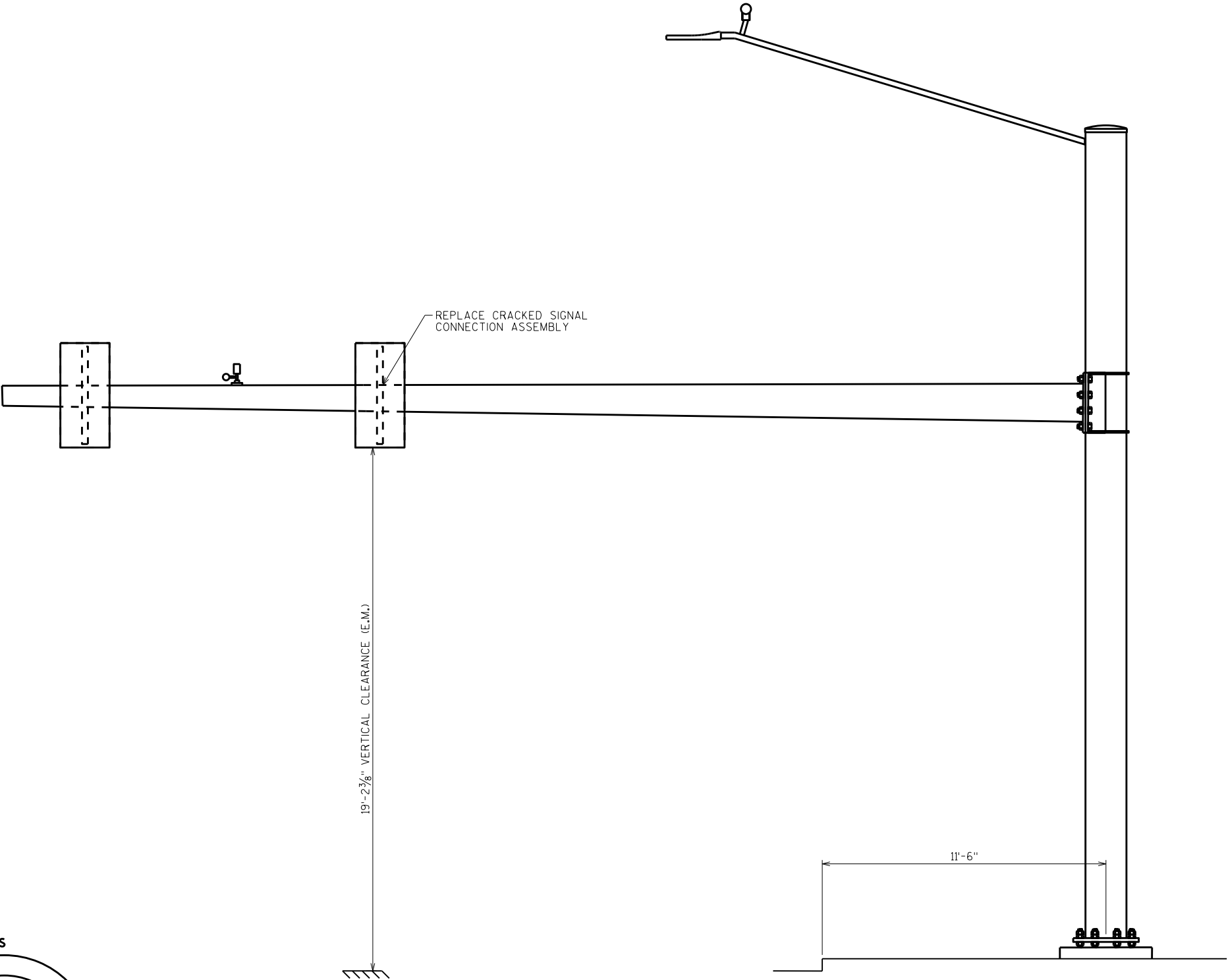
LOOKING SOUTH

LOOKING EAST



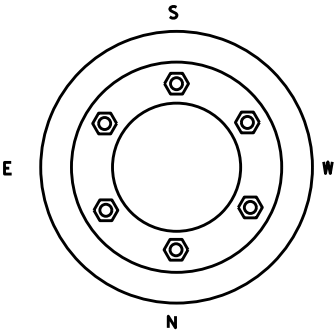
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-51-1143		SCL	SHEET 70



LOOKING WEST

LOOKING SOUTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1144		SHEET 71	

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

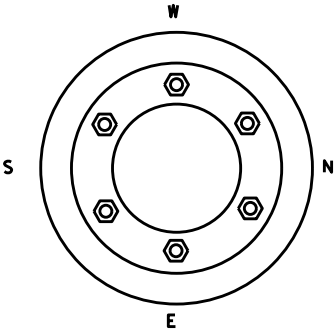
18'-7 1/4" VERTICAL CLEARANCE (E.M.)

LOOKING NORTH

15'-8 3/8"

13'-0"

LOOKING WEST

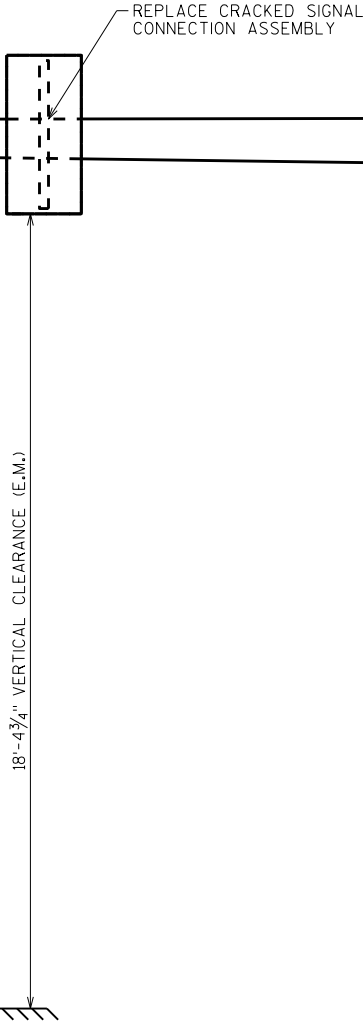
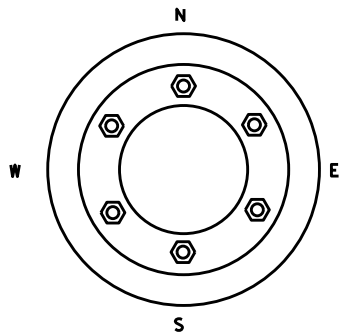


8

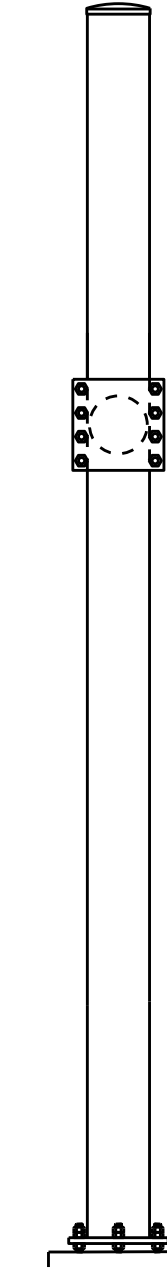
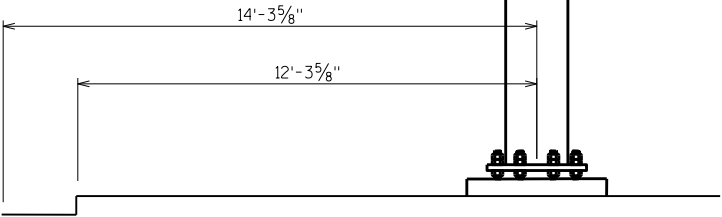
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ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	3	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1145		SHEET 72	



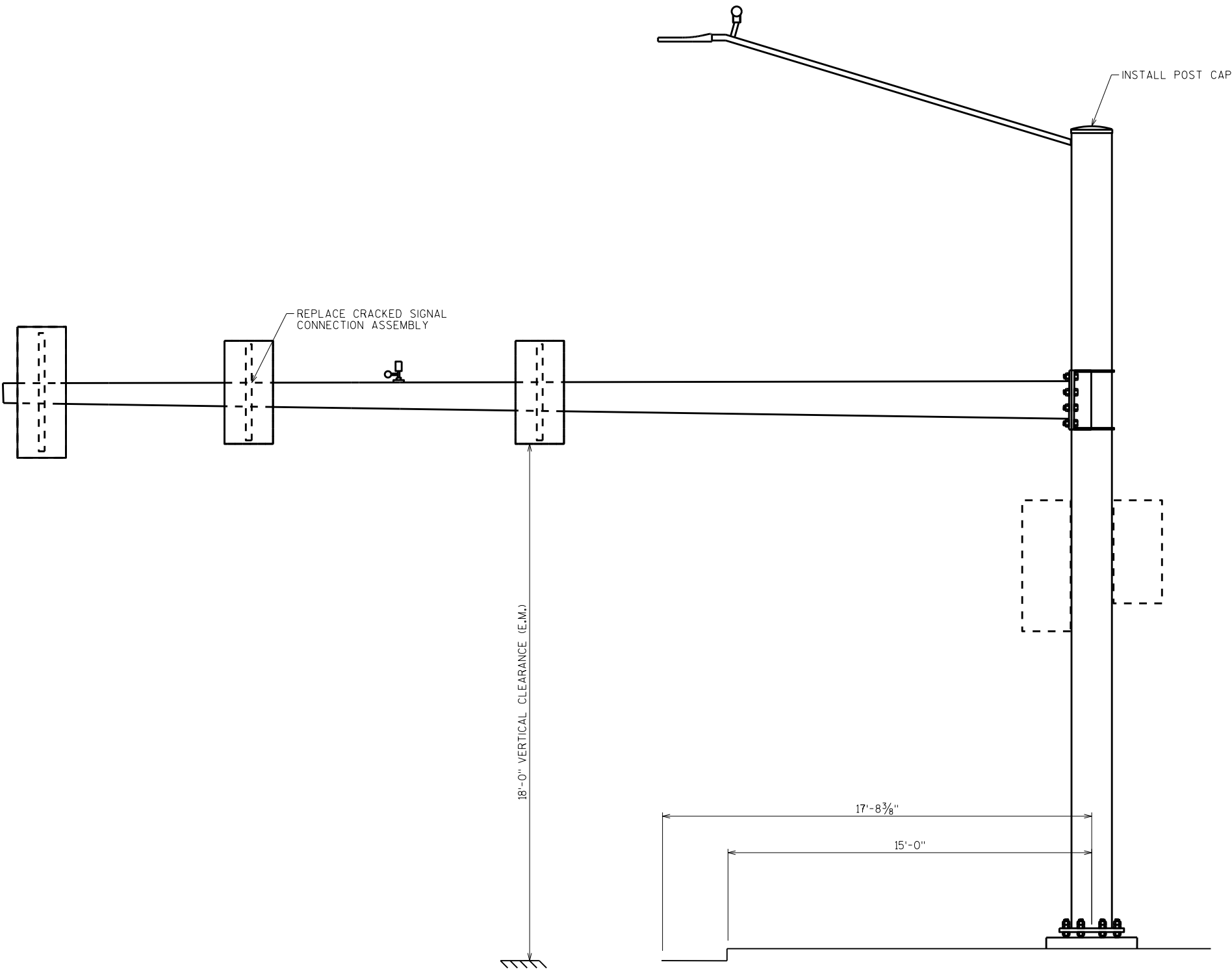
LOOKING EAST



LOOKING NORTH

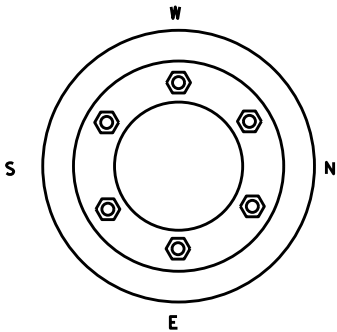
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1146		SHEET 73	



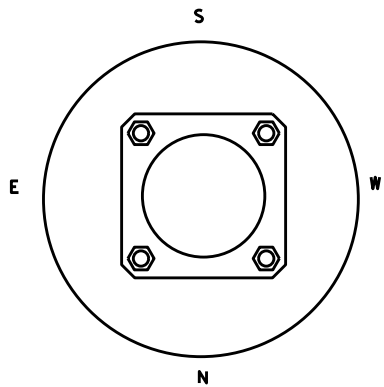
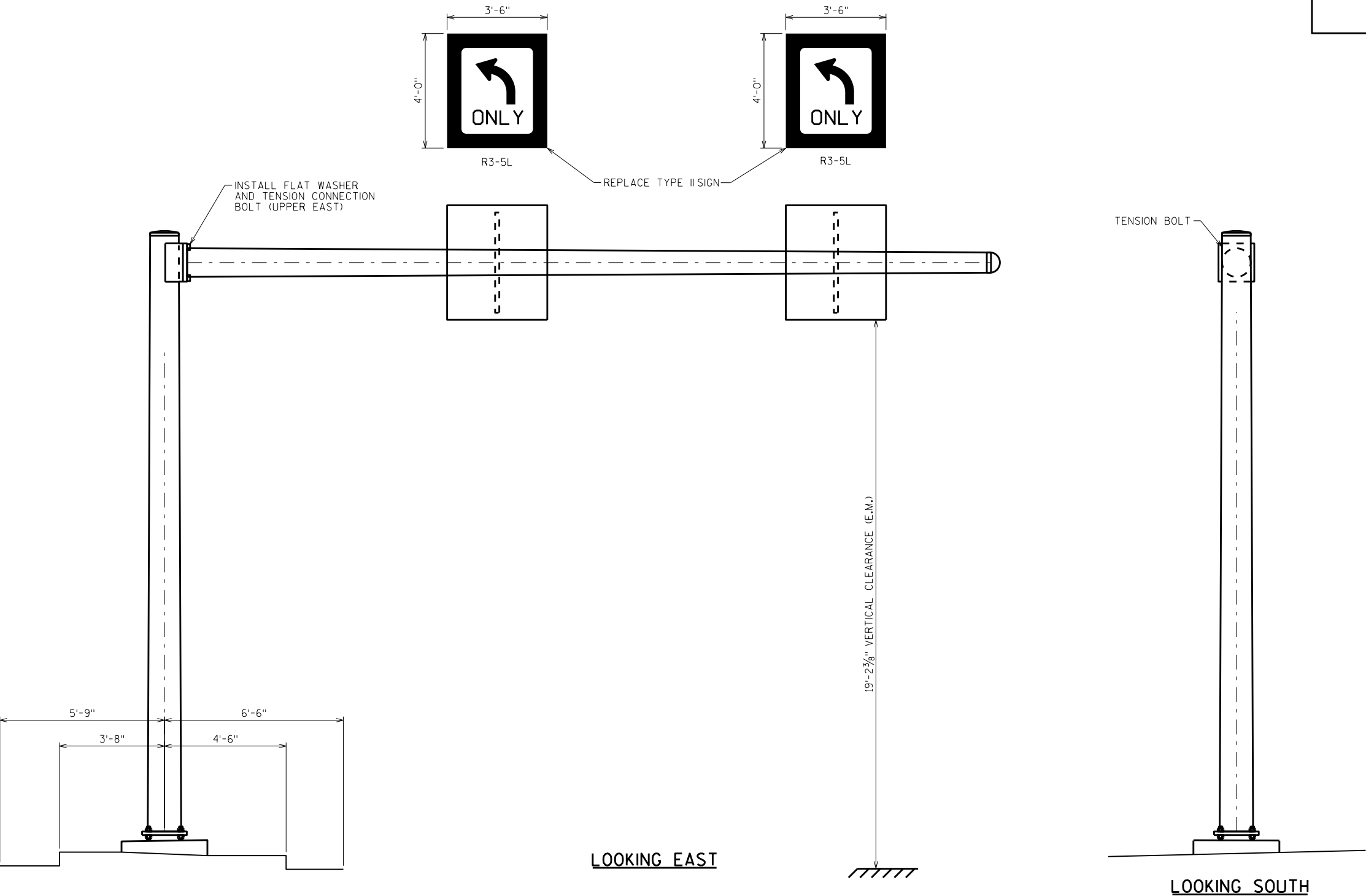
LOOKING NORTH

LOOKING WEST



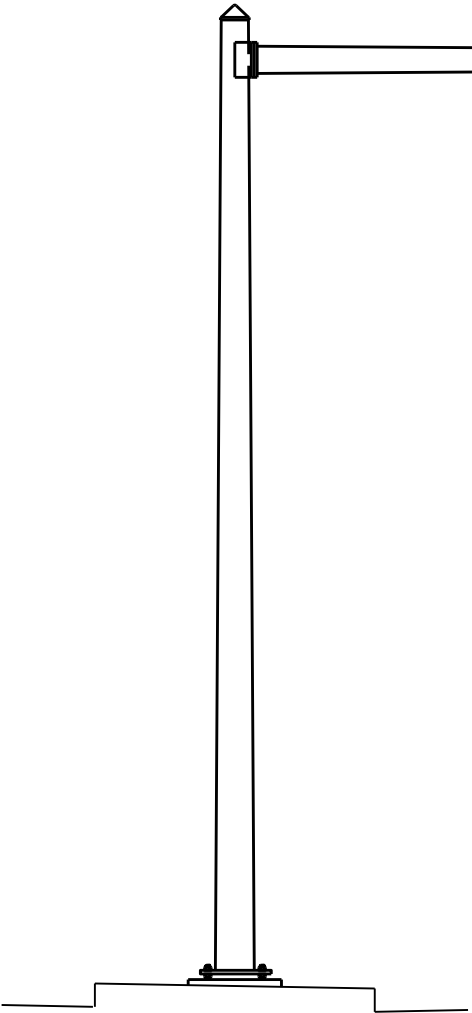
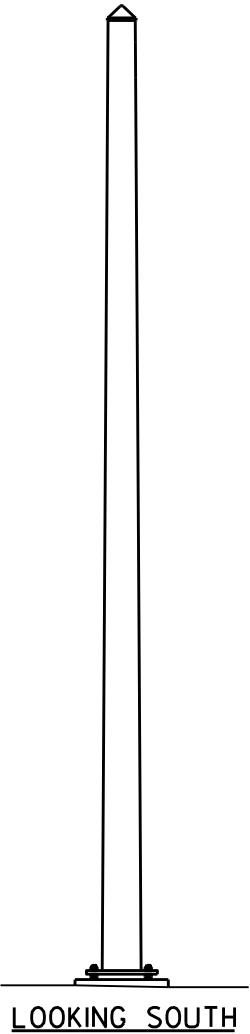
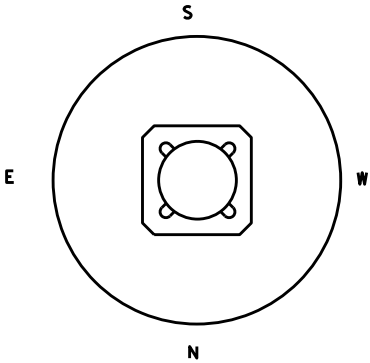
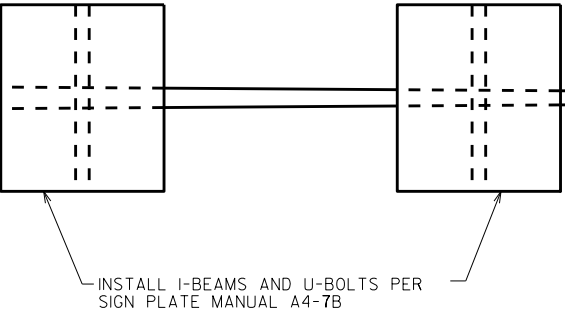
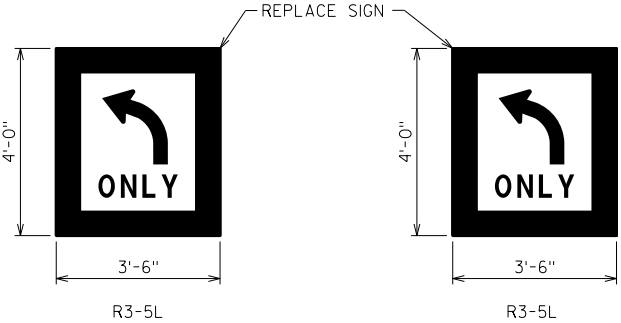
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.15	POST/END CAP	1	EA	7
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-51-1149		SHEET 74	



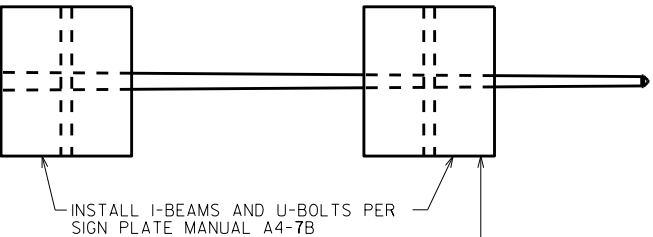
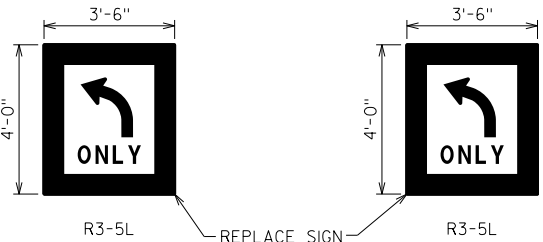
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	28	SF	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-64-0201		SHEET 75	

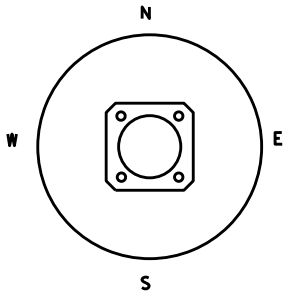
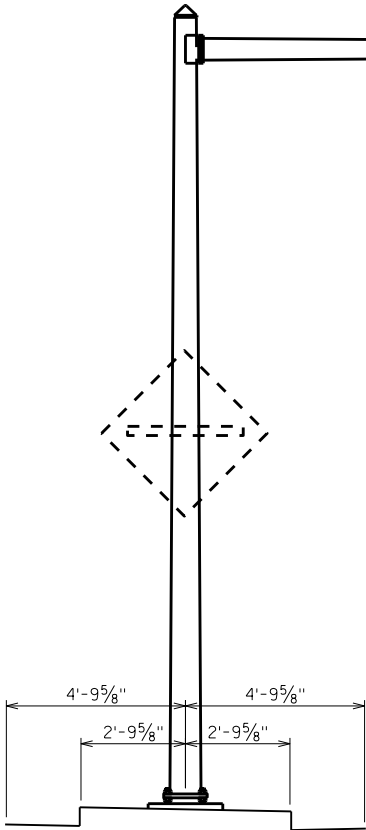


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	28	SF	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-66-0201		SHEET 76	



18'-4 3/4" VERTICAL CLEARANCE (E.M.)

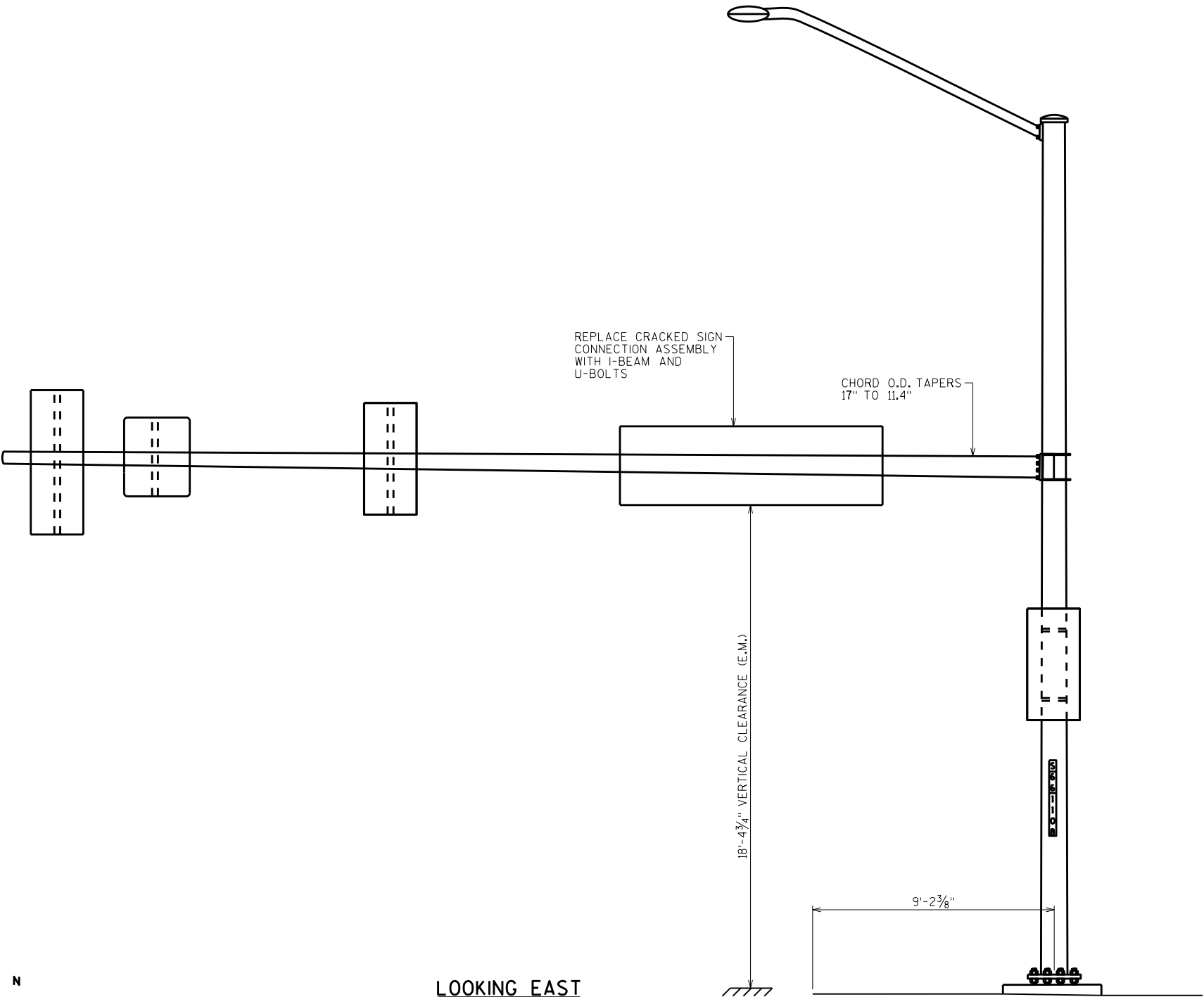


LOOKING NORTH

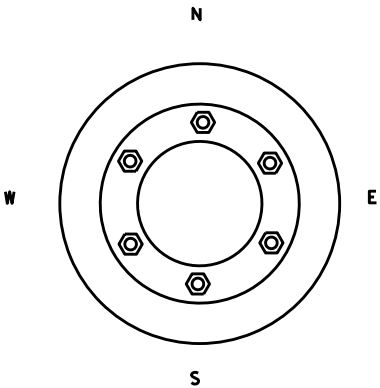
LOOKING WEST

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-66-0202		SHEET 77	

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	28	SF	NA



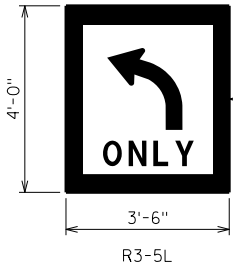
LOOKING NORTH



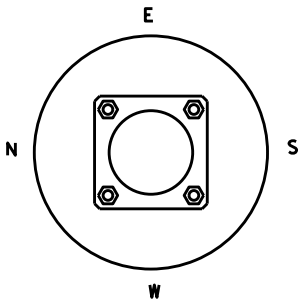
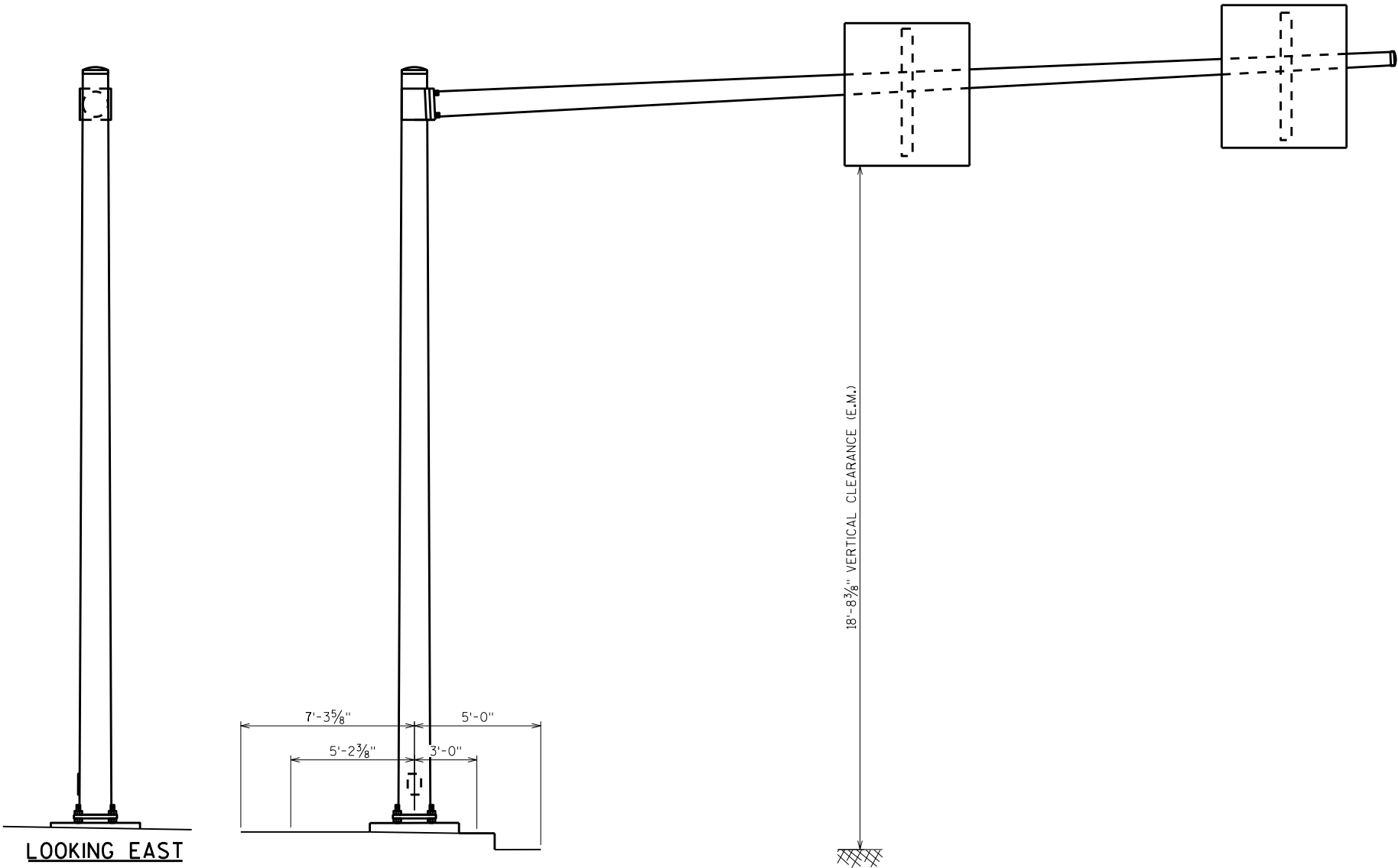
LOOKING EAST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.08	VERTICAL SIGN SUPPORT	1	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-66-1108		SCL	SHEET 78

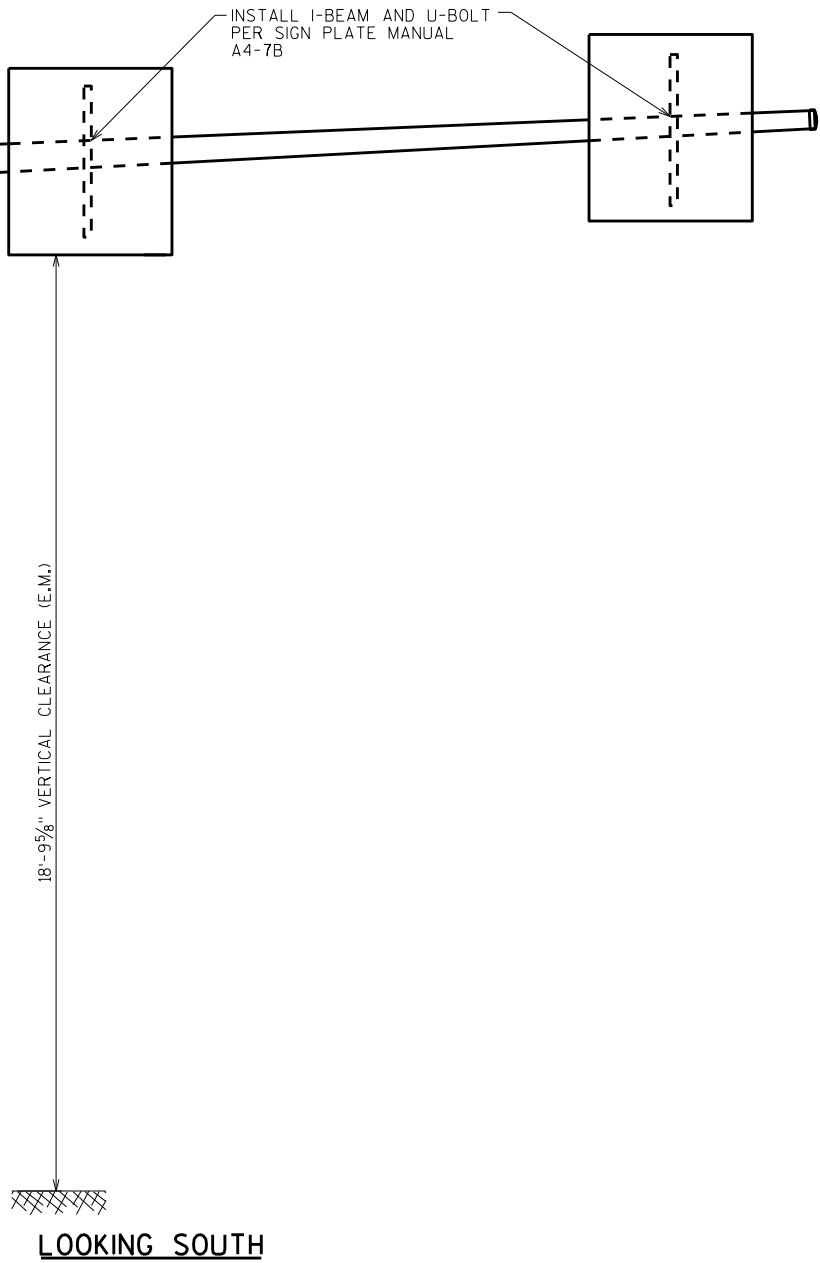
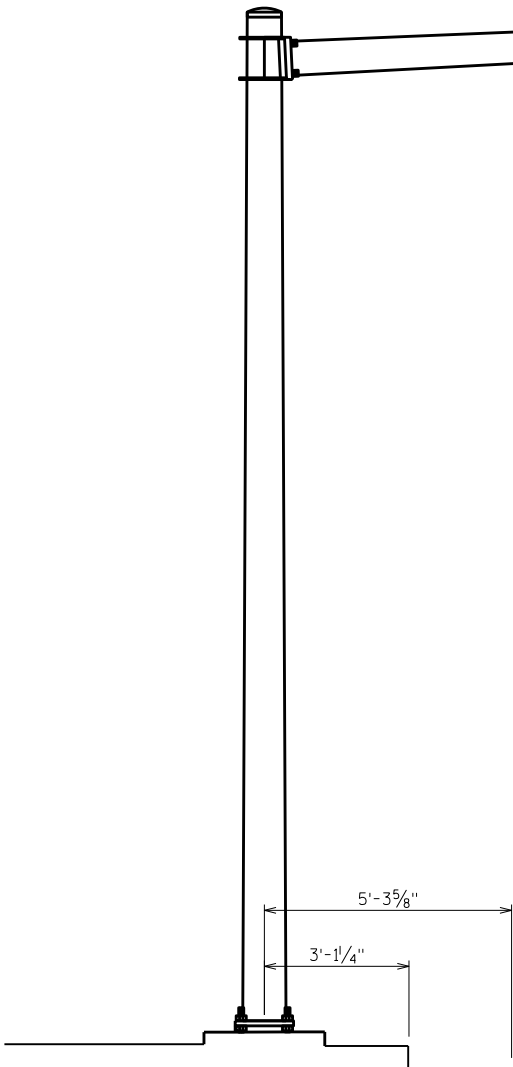
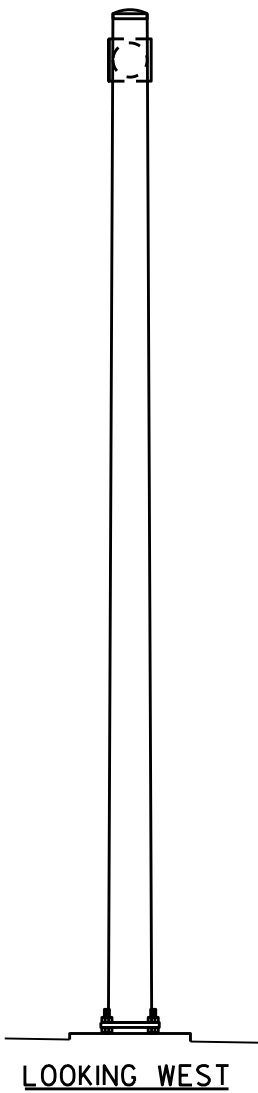
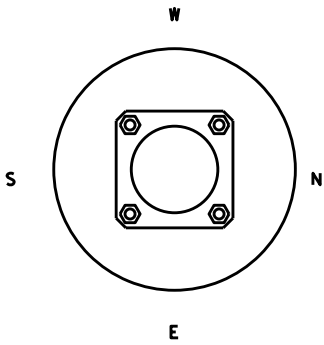


REPLACE TYPE II SIGN



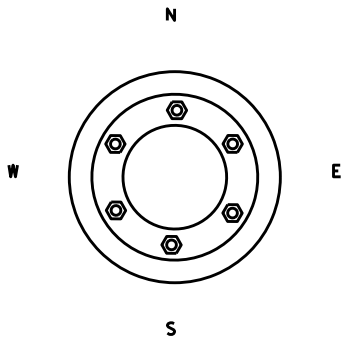
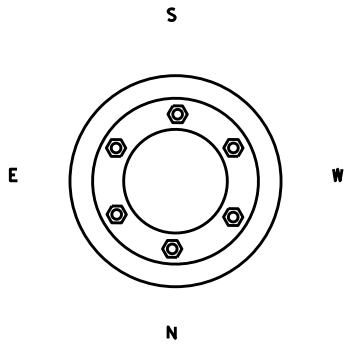
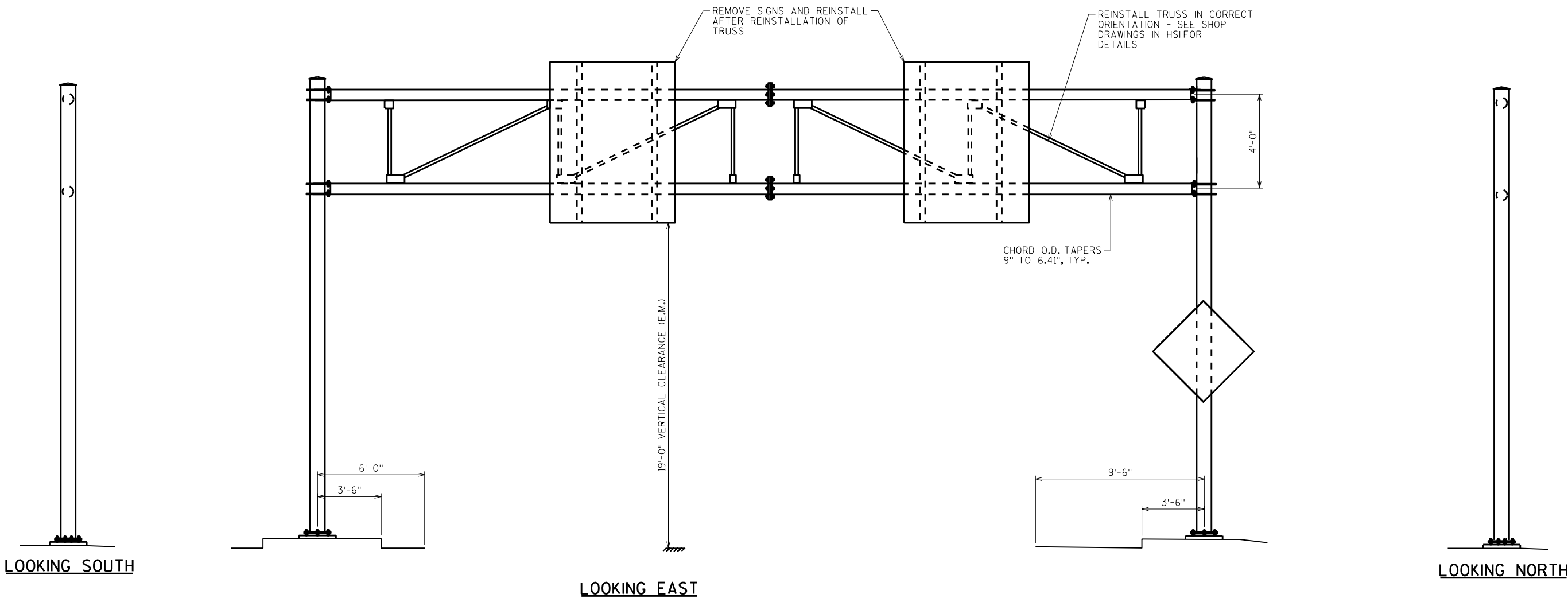
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-0215		SHEET 79	

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
637.2210	SIGNS TYPE II REFLECTIVE H	14	SF	NA



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.08	VERTICAL SIGN SUPPORT	2	EA	6

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-0216		SHEET 80	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	REINSTALL TRUSS	1	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-67-0947		SHEET 81	

REMOVE TRUSS AND REINSTALL
EAST SECTION IN CORRECT
ORIENTATION. SEE SHOP
DRAWINGS IN HSIFOR DETAILS

REMOVE AND REINSTALL SIGN
AFTER REINSTALLATION OF
TRUSS

REMOVE AND REINSTALL
SPLICE BOLTS

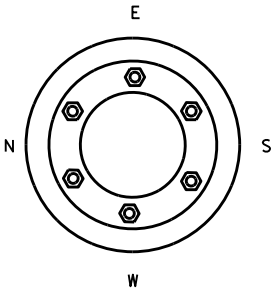
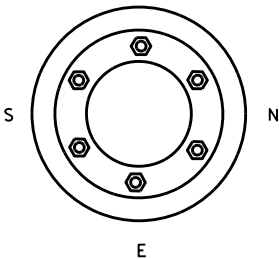
CHORD O.D. TAPERS
9" TO 6.41", TYP.

REPLACE STRUCTURE
ID PLAQUE

LOOKING WEST

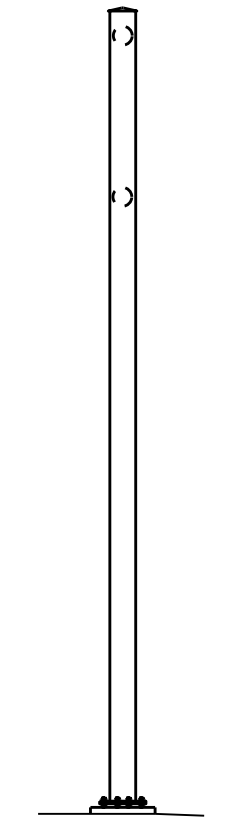
LOOKING SOUTH

LOOKING EAST

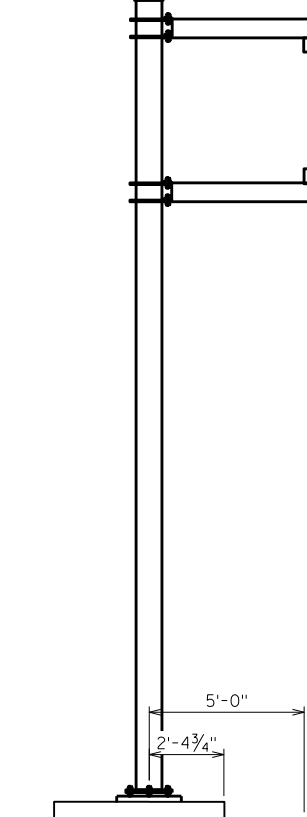


ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	REINSTALL TRUSS	1	EA	5
SPV.0060.11	ID PLAQUE	6	EA	5

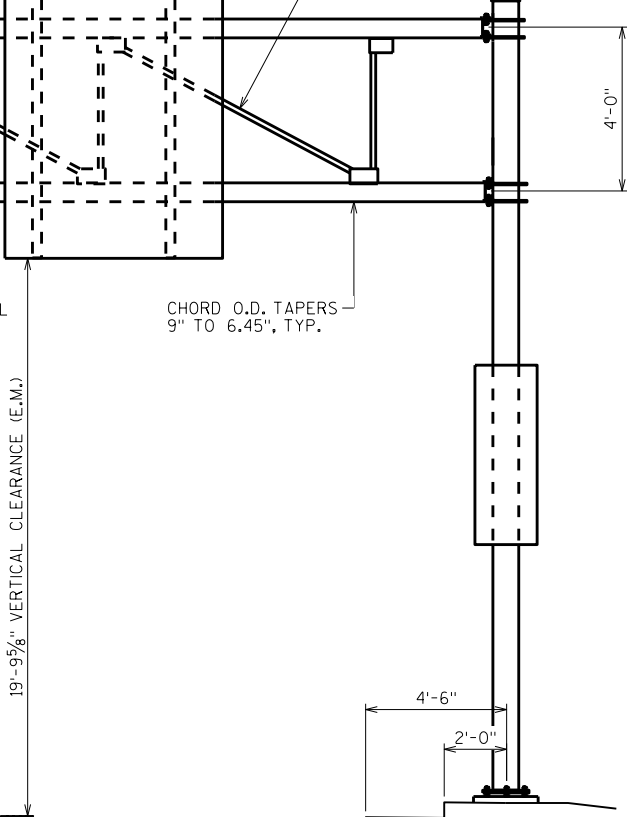
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-0948		SHEET 82	



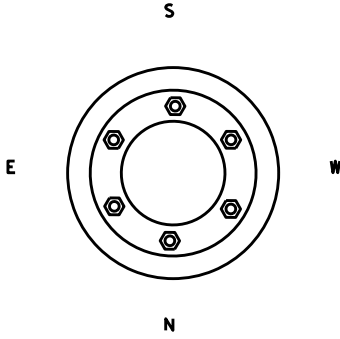
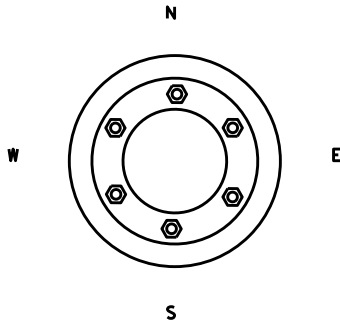
LOOKING NORTH



LOOKING WEST



LOOKING SOUTH



REMOVE AND REINSTALL SIGN
AFTER REINSTALLATION OF
TRUSS

REMOVE TRUSS AND REINSTALL NORTH
SECTION IN CORRECT ORIENTATION.
SEE SHOP DRAWINGS IN HSIFOR
DETAILS

REMOVE AND REINSTALL
SPLICE BOLTS

CHORD O.D. TAPERS
9" TO 6.45", TYP.

19'-9 5/8" VERTICAL CLEARANCE (E.M.)

4'-0"

5'-0"

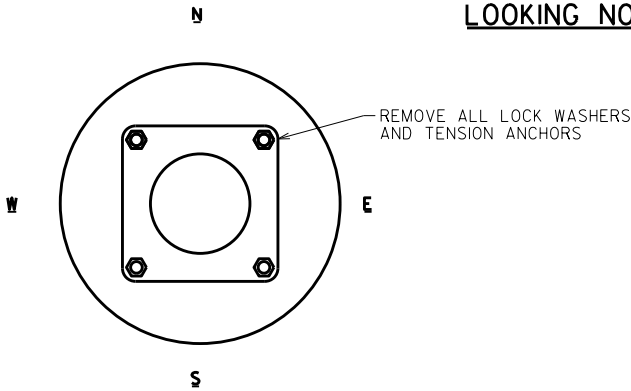
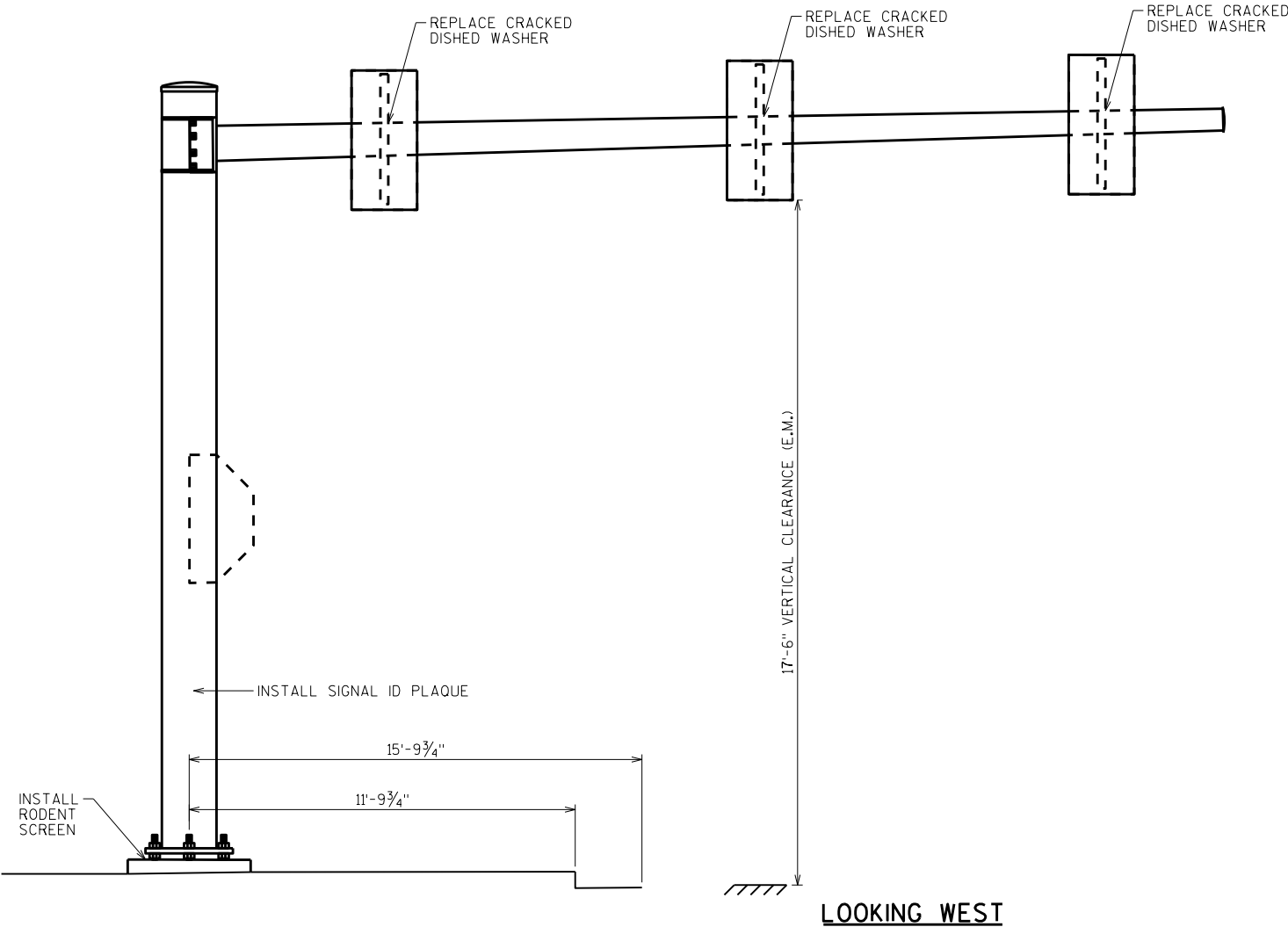
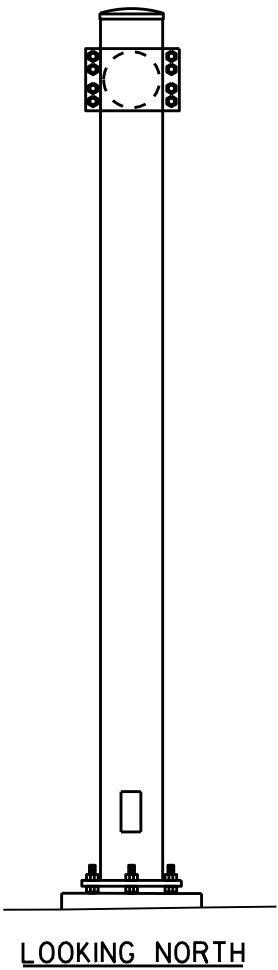
2'-4 3/4"

4'-6"

2'-0"

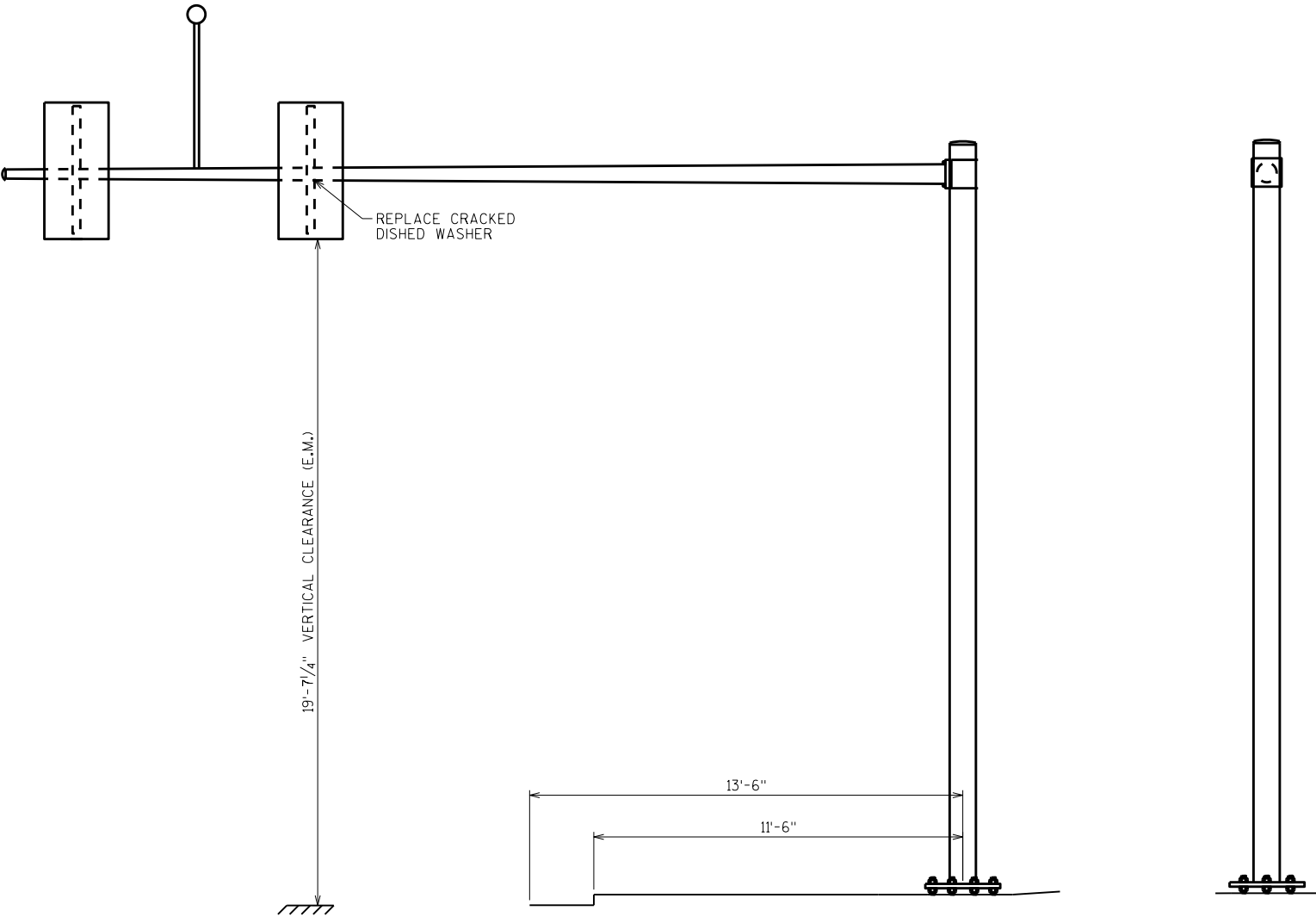
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	REINSTALL TRUSS	1	EA	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-0949		SHEET 83	



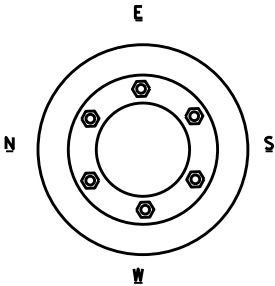
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR RODS	4	EA	3
SPV.0060.03	RODENT SCREEN	1	EA	3
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.17	DISHED WASHER	3	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-1101		SHEET 84	



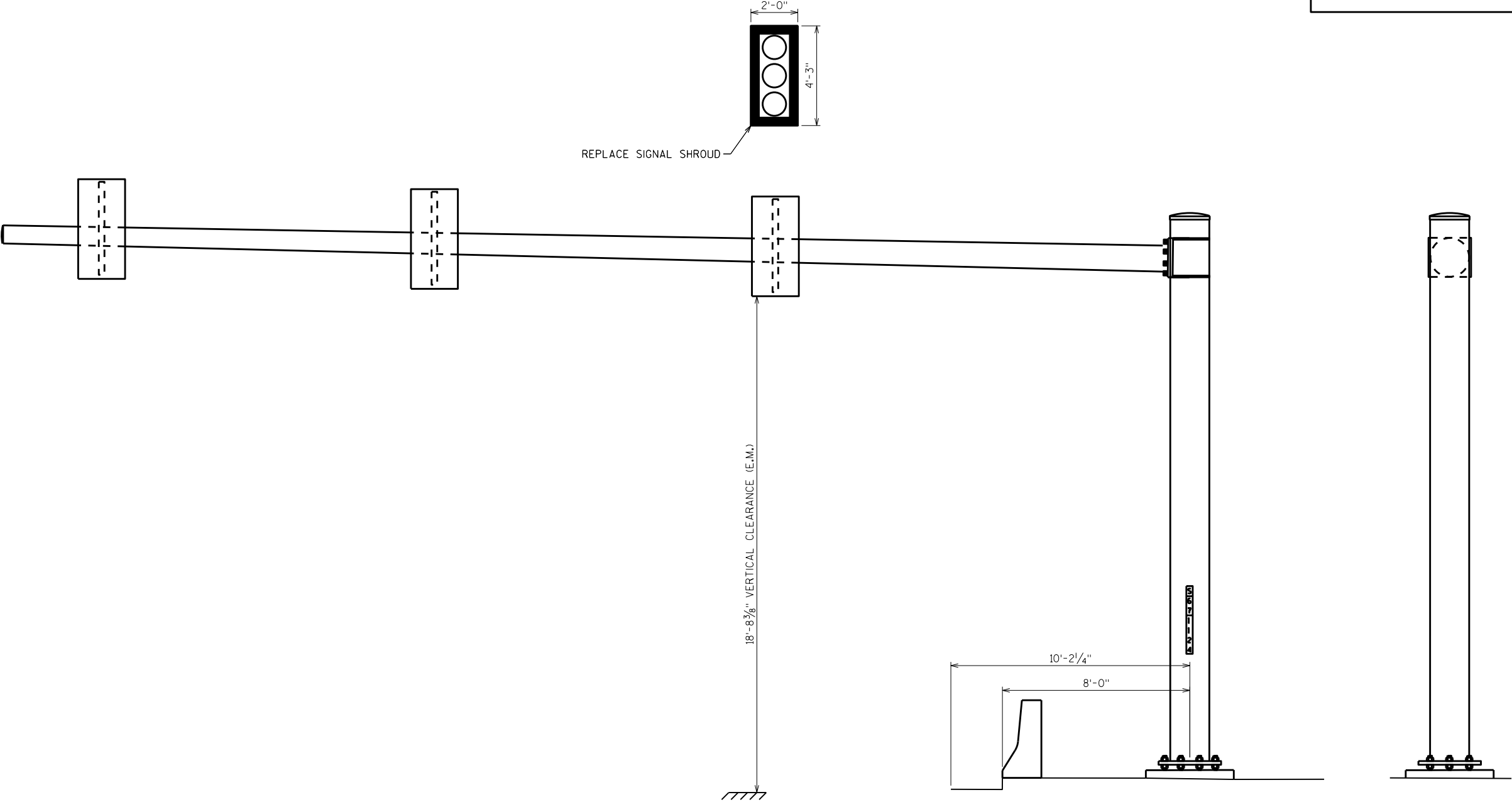
LOOKING SOUTH

LOOKING EAST



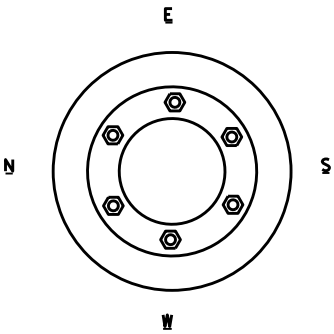
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-67-1120		SHEET 85	



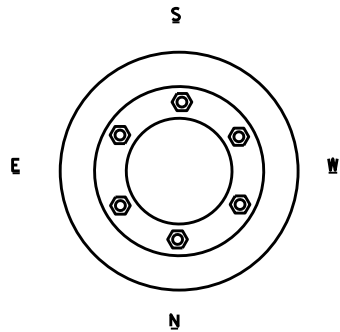
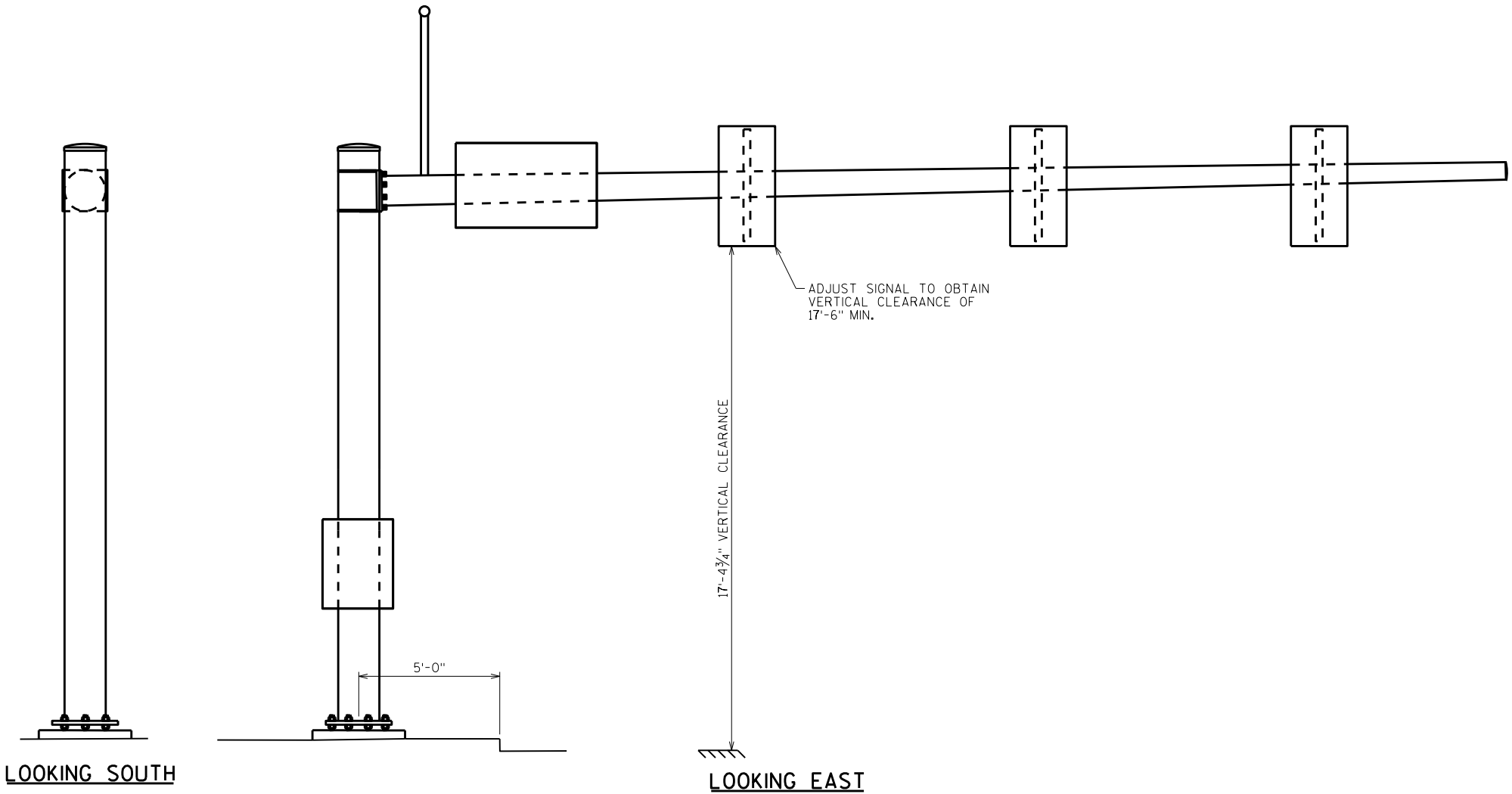
LOOKING SOUTH

LOOKING EAST



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.18	REPLACE SIGNAL SHROUD	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-67-1124		SHEET 86	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

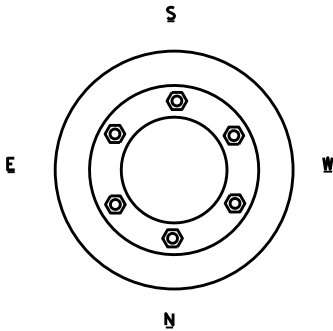
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-67-1141		SHEET 87	

REPLACE CRACKED CONNECTION
ASSEMBLY

18'-8 1/2" VERTICAL CLEARANCE (E.M.)

LOOKING WEST

LOOKING SOUTH



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.12	MISC. ATTACHMENTS	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-67-1146		SCL	SHEET 88

REPLACE CRACKED SIGNAL
CONNECTION ASSEMBLY

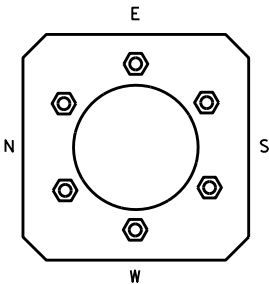
19'-7 1/4" VERTICAL CLEARANCE (E.M.)

INSTALL STRUCTURE ID PLAQUE

11'-0"

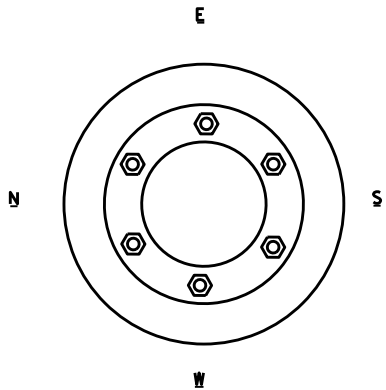
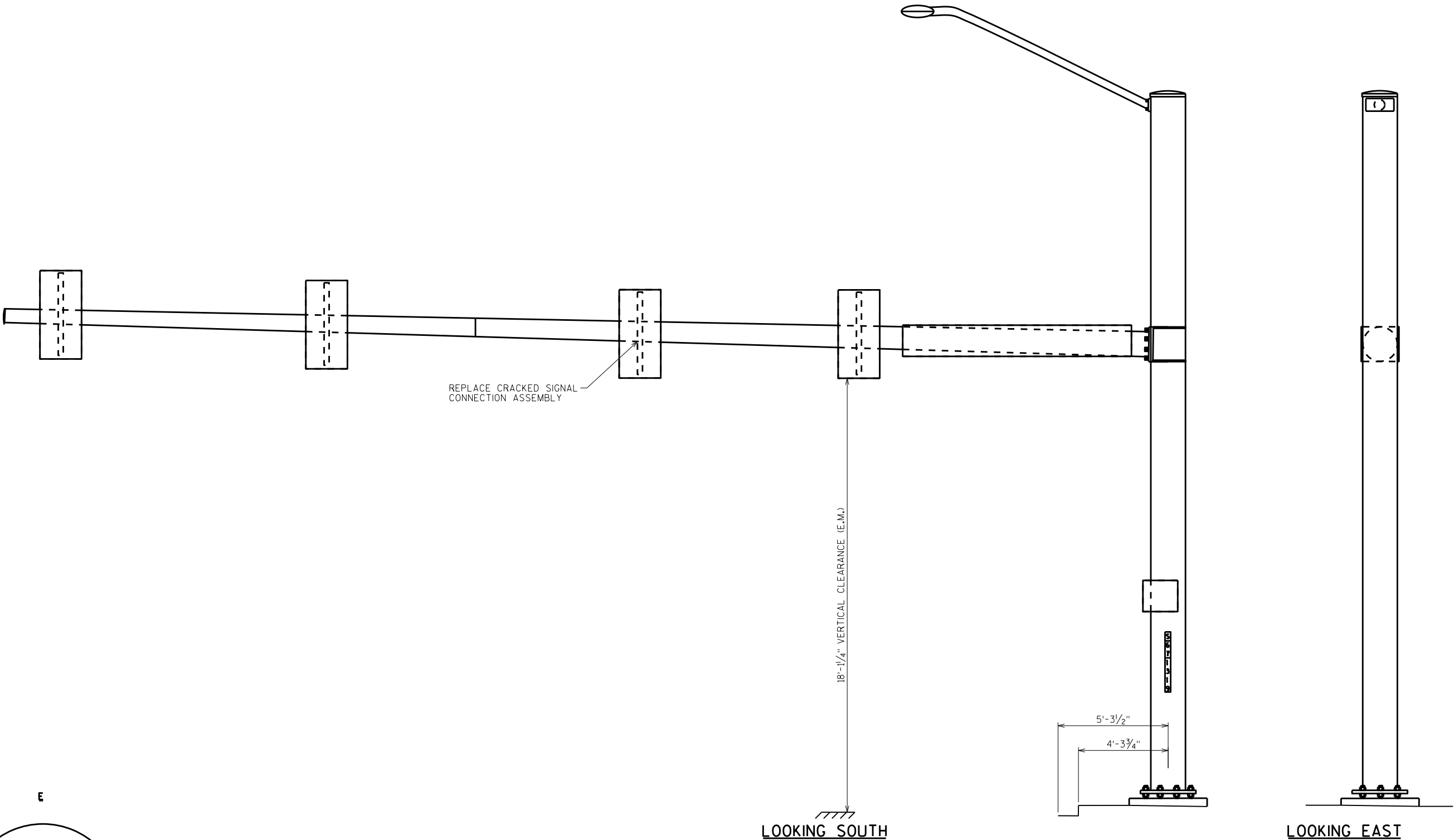
LOOKING SOUTH

LOOKING EAST



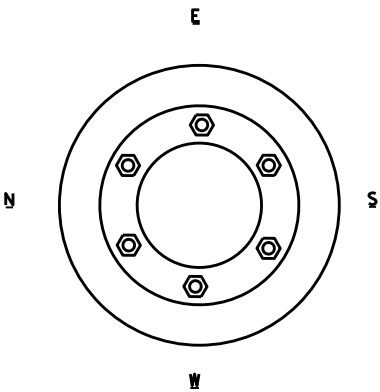
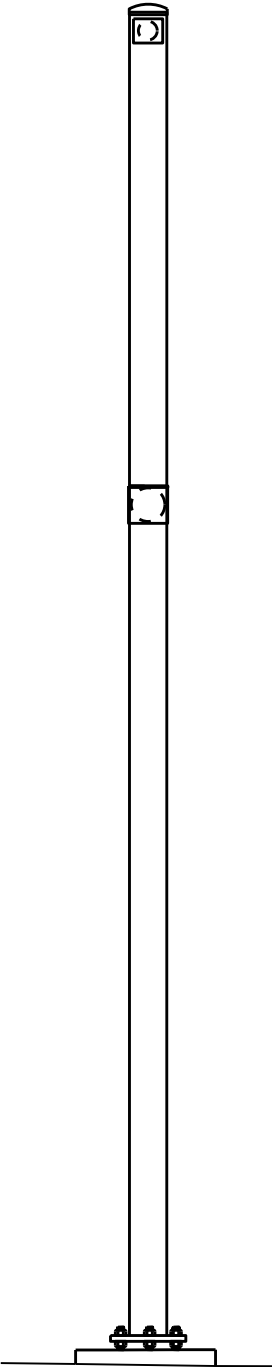
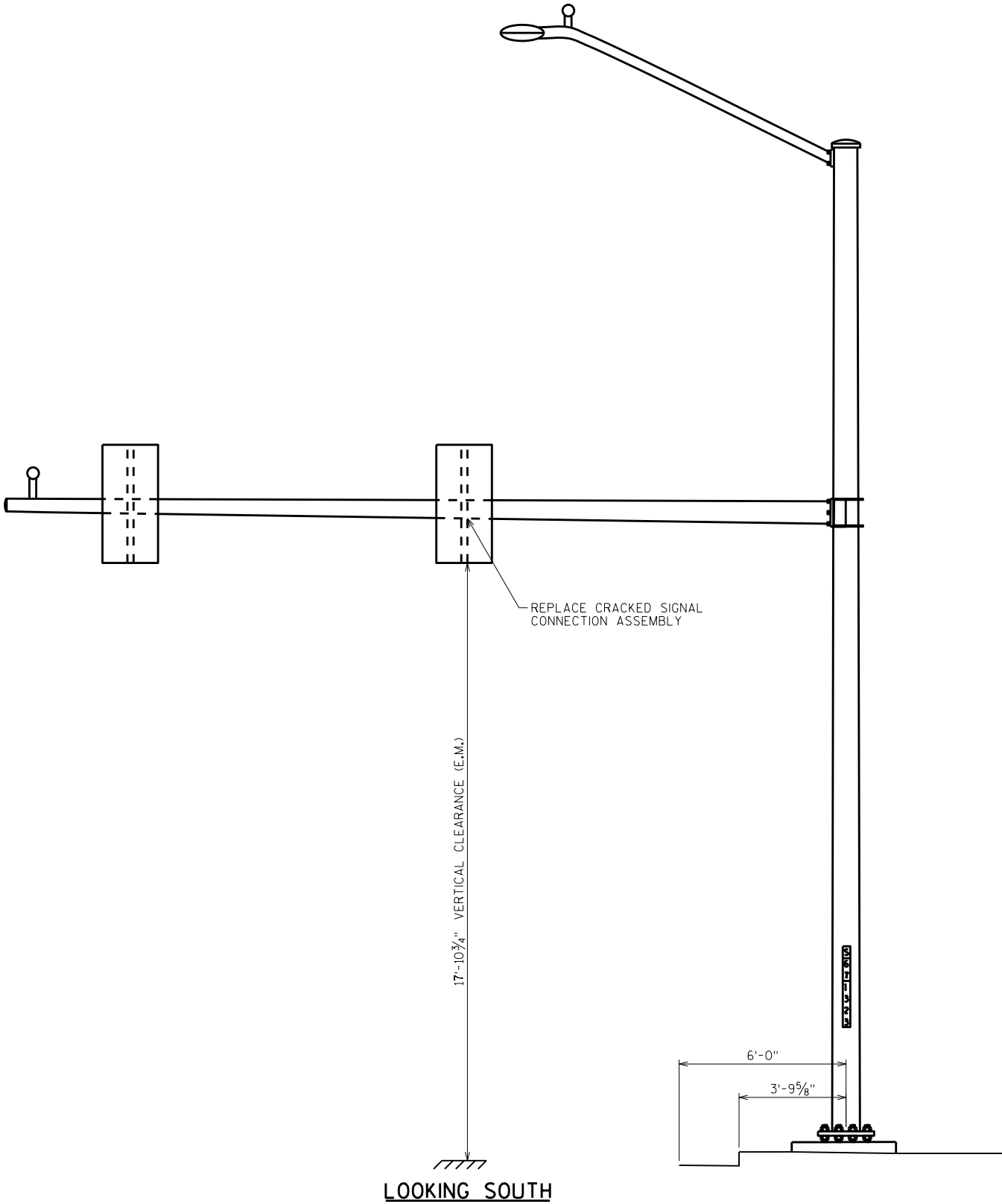
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.11	ID PLAQUE	1	EA	6
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	SCL PLANS CK'D. SAD
S-67-1310		SHEET 89	



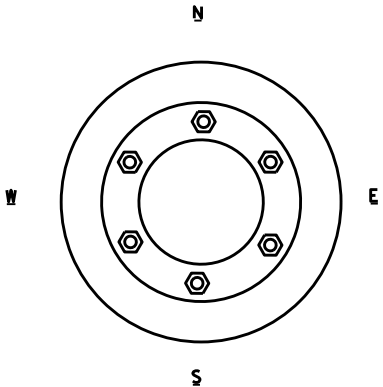
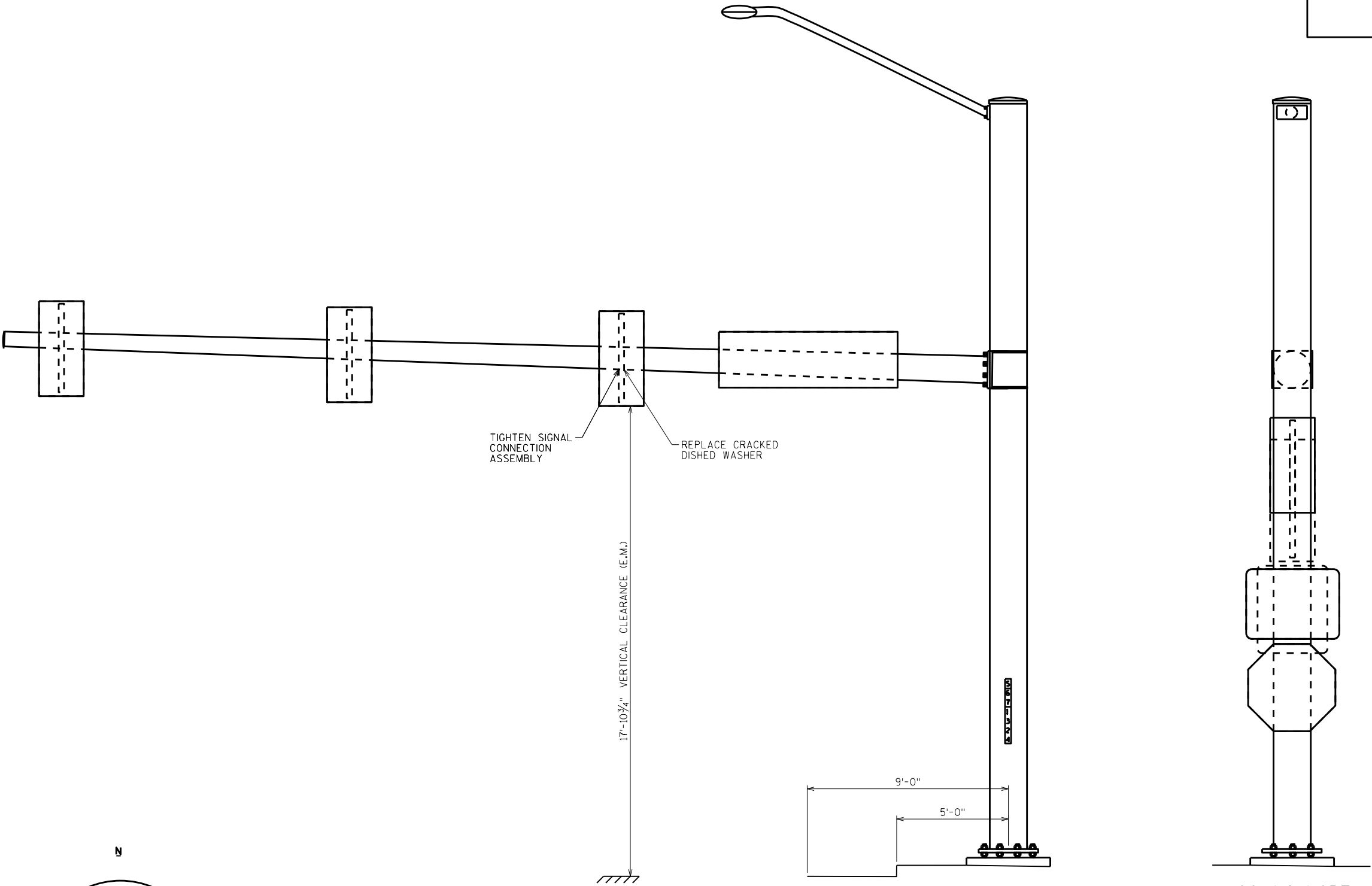
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-1319		SHEET 90	



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-67-1323		SHEET 91	

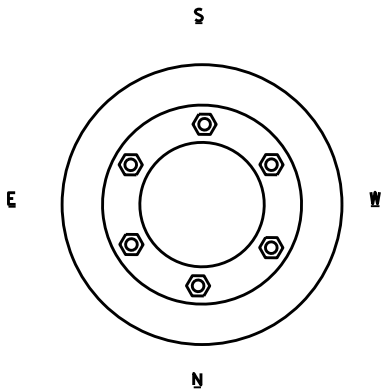
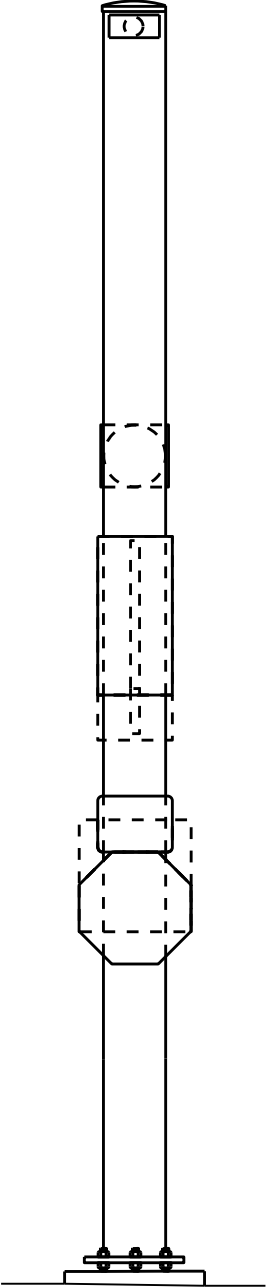
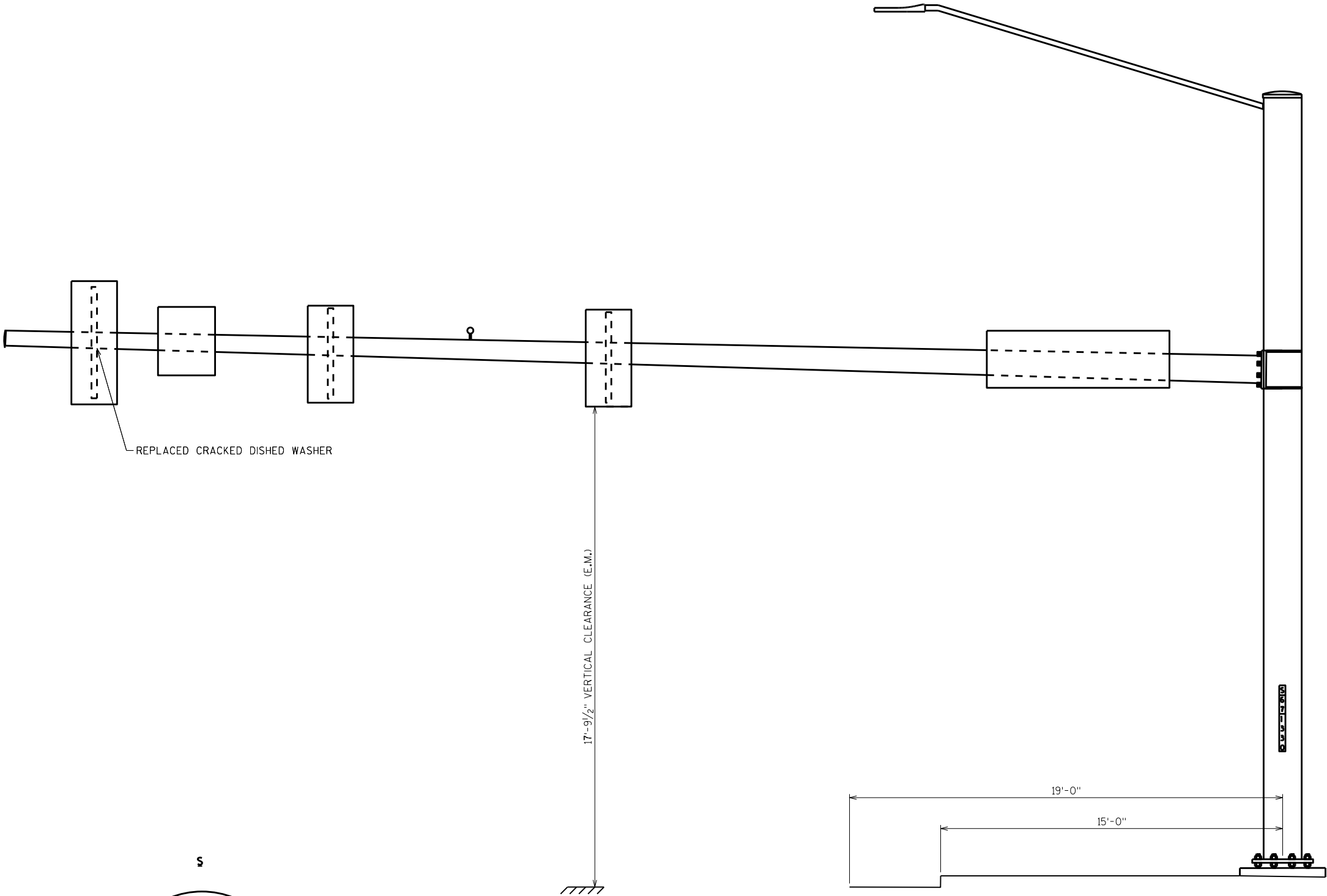


LOOKING EAST

LOOKING NORTH

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021		DRAWN BY	PLANS CK'D. SAD
S-67-1324		SCL	SHEET 92

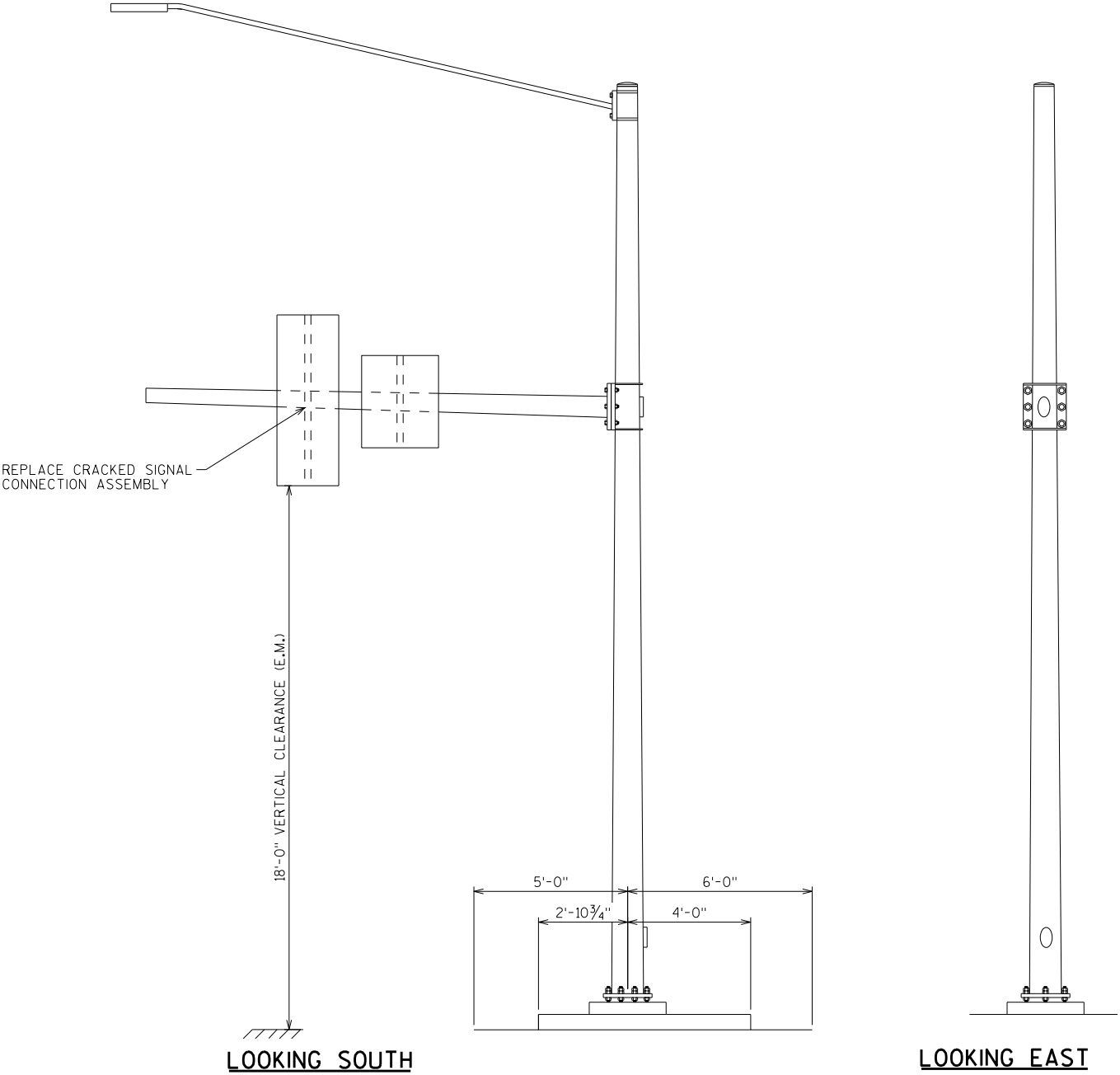


LOOKING WEST

LOOKING SOUTH

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.17	DISHED WASHER	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D.
		SCL	SAD
S-67-1330		SHEET 93	

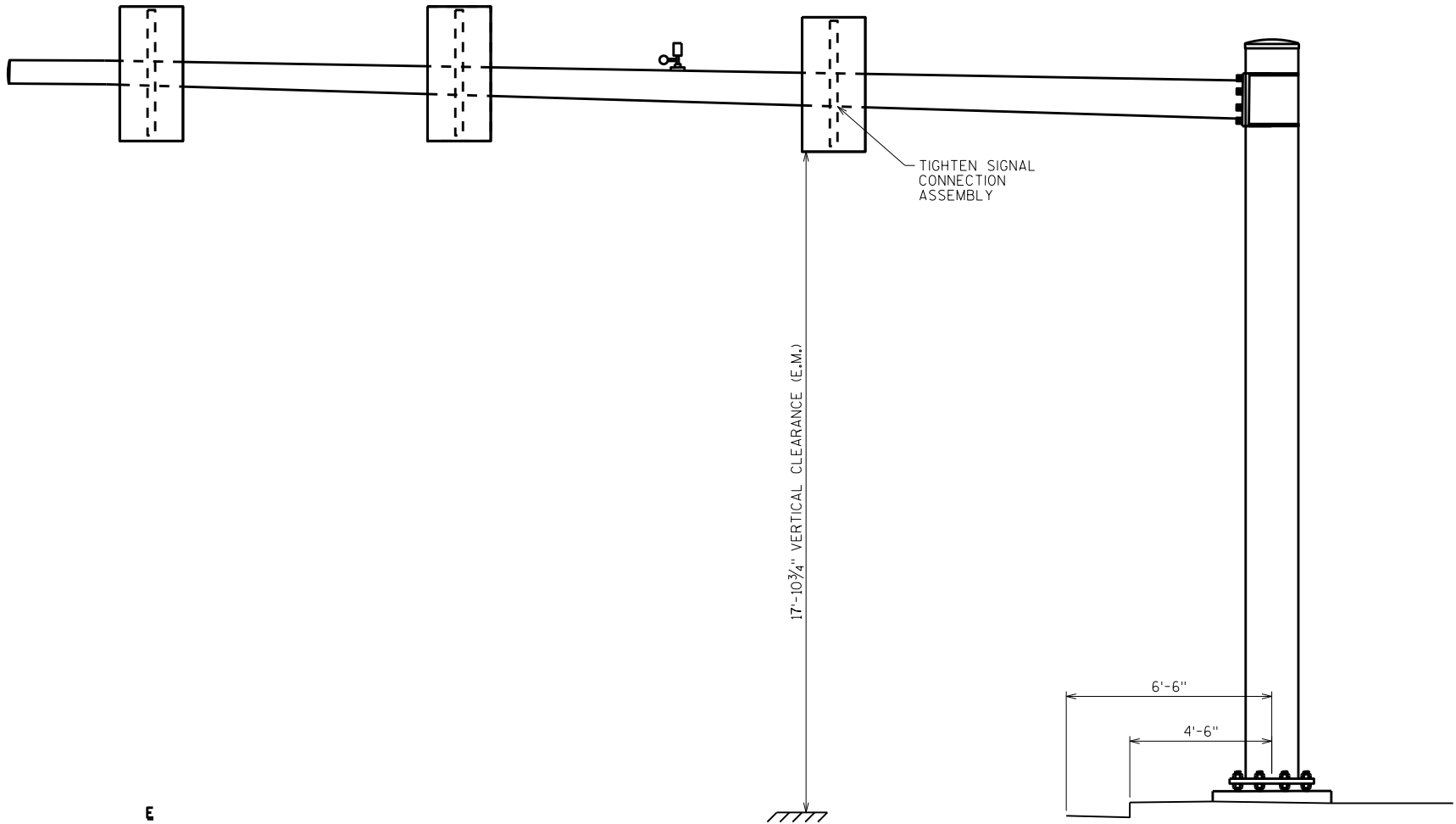


8

8

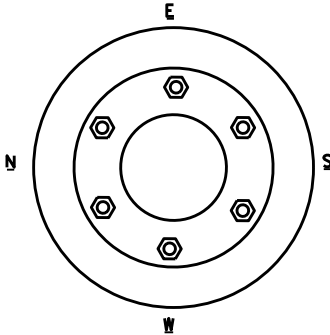
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.19	SIGNAL MOUNTING HARDWARE	1	EA	9

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-67-1334		SCL	
		SHEET 94	



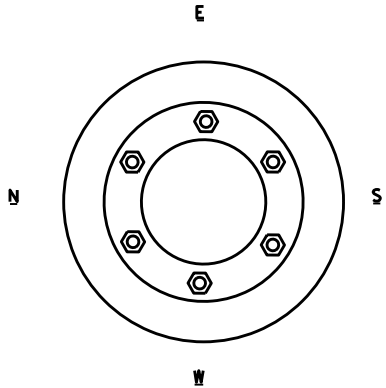
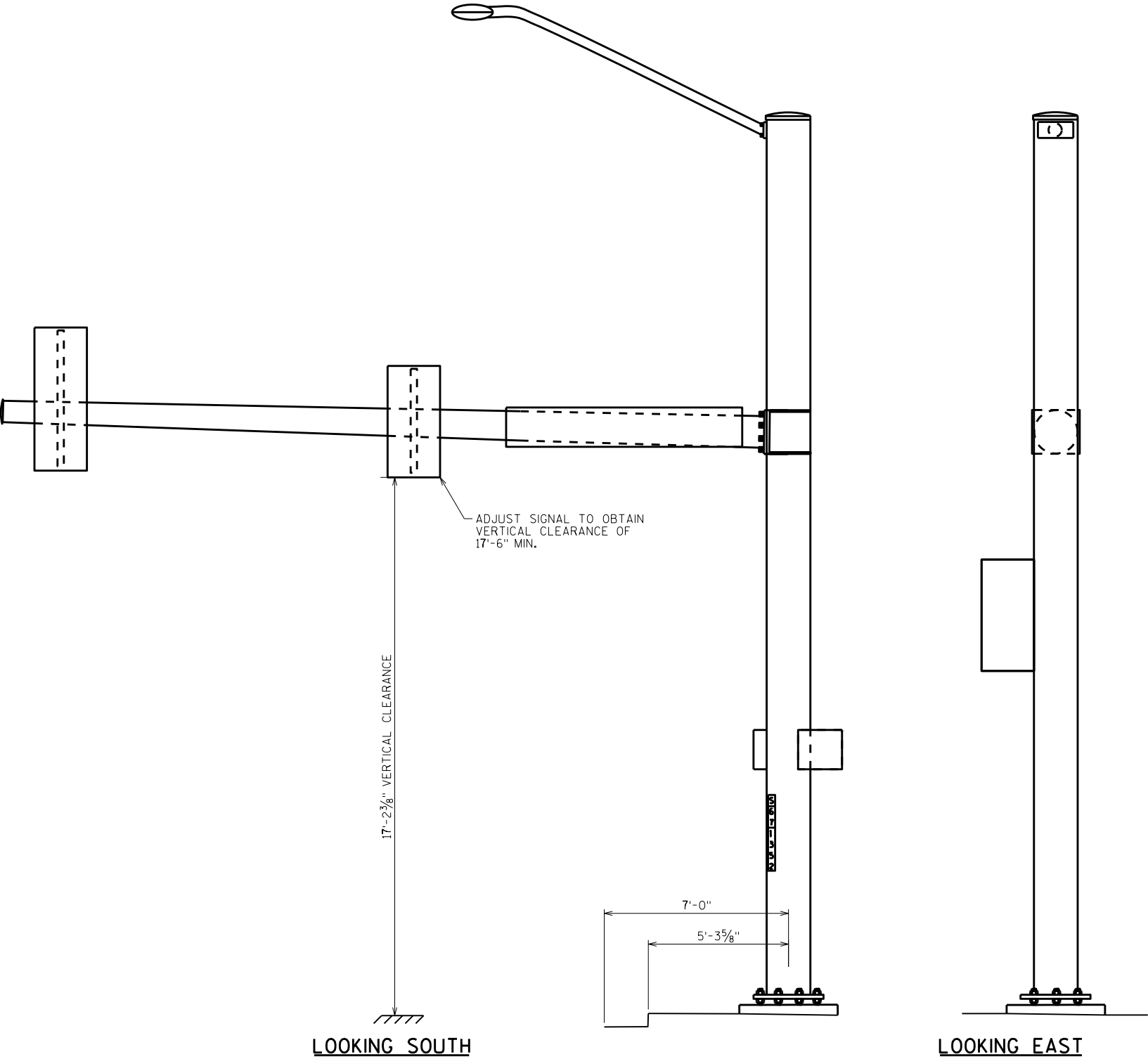
LOOKING SOUTH

LOOKING EAST



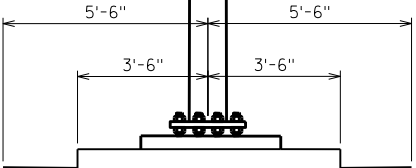
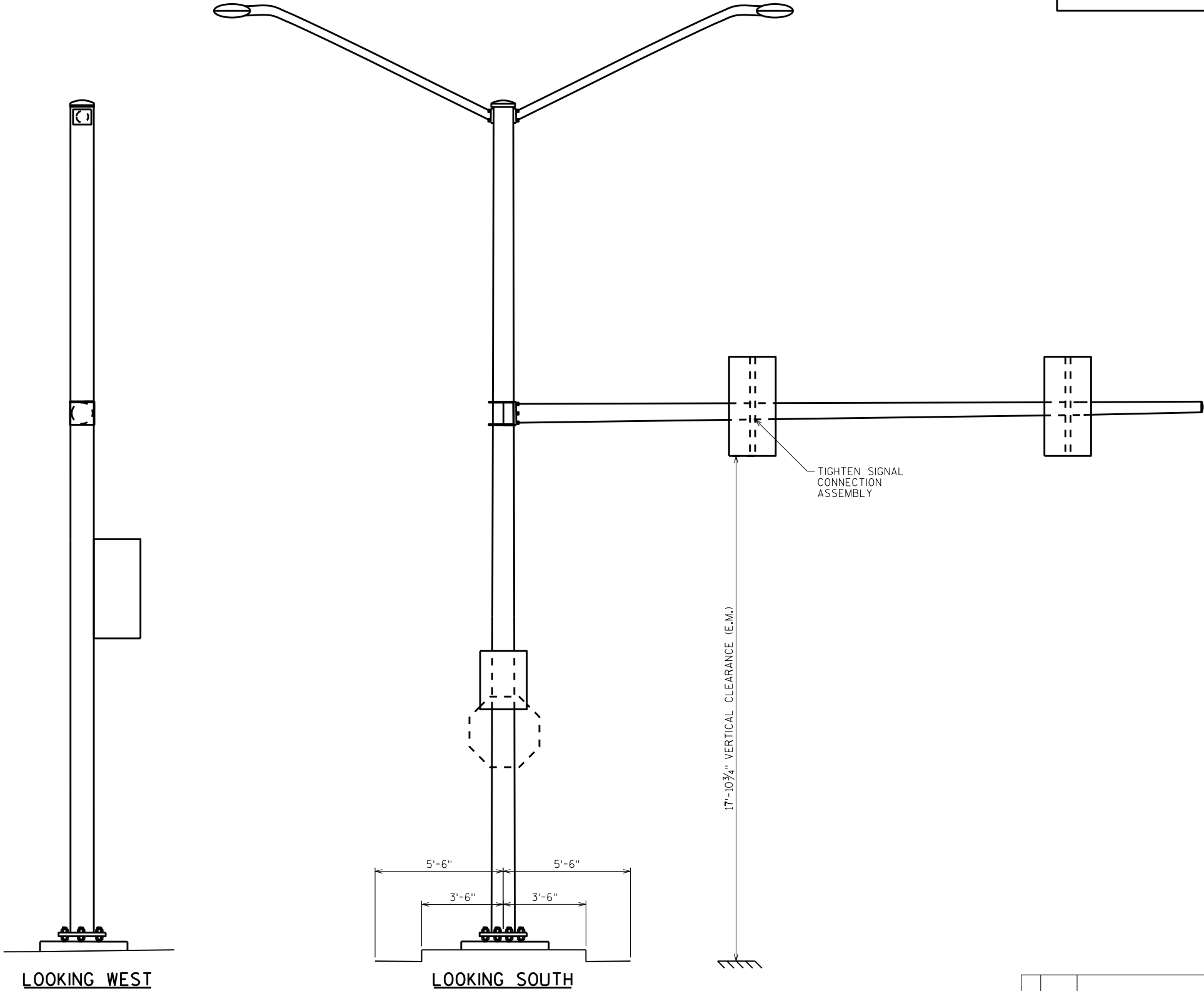
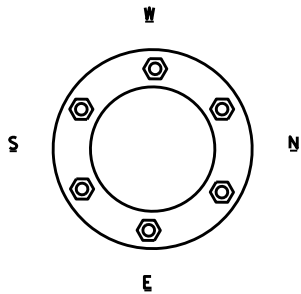
ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-67-1346		SCL	SHEET 95



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
		DRAWN BY	PLANS CK'D. SAD
S-67-1352		SCL	SHEET 96



LOOKING WEST

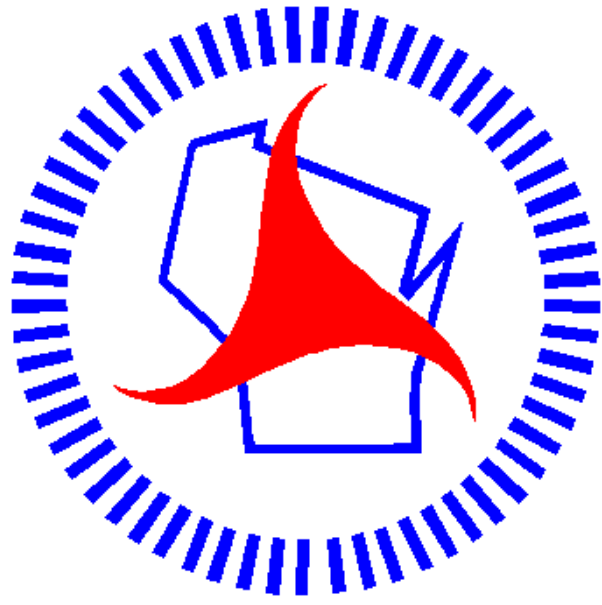
LOOKING SOUTH

TIGHTEN SIGNAL
CONNECTION
ASSEMBLY

17'-10 3/4\"/>

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.20	ADJUST SIGNAL	1	EA	NA

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
ANCILLARY STRUCT REHAB 2021			
DRAWN BY		SCL	PLANS CK'D. SAD
S-67-1361		SHEET 97	



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