RHI

NOVEMBER 2018

PROJECT ID: 6320-08-62
WITH: 9000-13-61/9260-01-61

COUNTY: WOOD/LINCOLN/FOREST

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right-of-Way Plat~~
~~Section No.~~	~~5~~	~~Plan and Profile~~
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
Section No.	8	Structure Plans
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
~~Section No.~~	~~9~~	~~Cross Sections~~

TOTAL SHEETS = 76

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6320-08-62	WISC 2018448	1
9000-13-61	WISC 2018449	1
9260-01-61	WISC 2018450	1

PLAINFIELD - WISCONSIN RAPIDS
BRIDGE MAINTENANCE B-71-0018

STH 73

WOOD COUNTY

STATE PROJECT NUMBER
6320-08-62

MERRILL - ANTIGO
BRIDGE MAINTENANCE B-35-0002

STH 64

LINCOLN COUNTY

STATE PROJECT NUMBER
9000-13-61

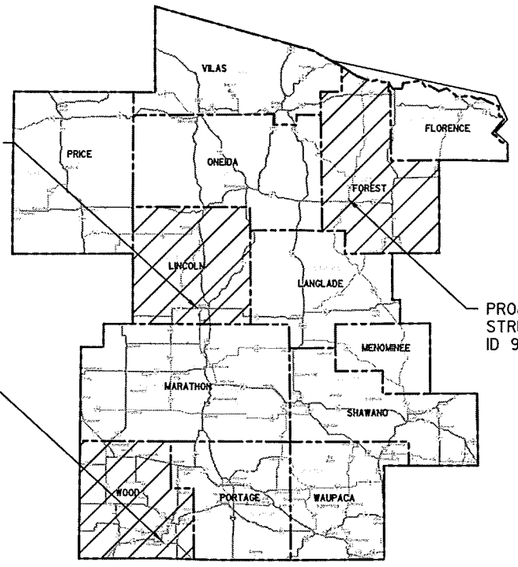
CRANDON - THREE LAKES
BRIDGE MAINTENANCE B-21-0015

STH 32/55

FOREST COUNTY

STATE PROJECT NUMBER
9260-01-61

N



PROJECT LOCATION
STRUCTURE B-35-02, STH 64
ID 9000-13-61

PROJECT LOCATION
STRUCTURE B-21-15, STH 32/55
ID 9260-01-61

PROJECT LOCATION
STRUCTURE B-71-18, STH 73
ID 6320-08-62

DESIGN DESIGNATION		STH 73	STH 64	STH 32/55
A.A.D.T.	2019	= 8100	= 6400	= 3700
A.A.D.T.	2039	= 9100	= 7100	= 4100
D.H.V.		= 11.5	= 5.0	= 13.7
D.D.		= 59/41	= 59/41	= 61/39
T.		= 13.3%	= 5.8%	= 14.6%
DESIGN SPEED		= 30	= 30	= 40
ESALS		= N/A	= N/A	= 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 (300'EB)
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

LAYOUT
SCALE 0 N/A

TOTAL NET LENGTH OF CENTERLINE = N/A

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WOOD, LINCOLN AND FOREST COUNTY.

ORIGINAL PLANS PREPARED BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1635 N.Stevens St. Rhinelander, WI 54501
715-362-3244 1-800-844-7854 Fax: 715-362-4116
Web Address: www.msa-ps.com

1/26/18
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	
Designer	MSA PROFESSIONAL SERVICES
Project Manager	JED PETERS, PE
Regional Examiner	CHERYL SIMON, PE
Regional Supervisor	ROBIN STAFFORD, PE

APPROVED FOR THE DEPARTMENT

DATE: 1/30/18 (Signature)

E

GENERAL NOTES

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES. THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS SHALL BE FERTILIZED, SEEDED AND HAVE EROSION MAT INSTALLED AS DIRECTED BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

SECTION 2 ORDER

GENERAL NOTES
PROJECT OVERVIEW
PLAN DETAIL
TRAFFIC CONTROL

AS-BUILT REFERENCE (YEAR)*

PROJECT: 6320-08-71 B-71-0018 (2000)
PROJECT: 9131-05-71 B-21-0015 (1990)
PROJECT: 9000-09-70 B-35-0002 (2001

*APPROVAL YEAR (NOT CONSTRUCTION)

DNR CONTACTS

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
COUNTY: FOREST
DNR NORTHERN REGION HQ
107 SUTLIFF STREET
RHINELANDER, WI 54501
JON SIMONSEN
PHONE: (715) 367-1936
Jonathan.Simonsen@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
COUNTY: LINCOLN
DNR NORTHERN REGION HQ
107 SUTLIFF STREET
RHINELANDER, WI 54501
JON SIMONSEN
PHONE: (715) 367-1936
Jonathan.Simonsen@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
COUNTY: WOOD
DNR WISCONSIN RAPIDS SERVICE CENTER
473 GRIFFITH AVENUE
WISCONSIN RAPIDS, WI 54494
BOBBI JO FISCHER
PHONE: (715) 421-7845
Bobbi.Fischer@wisconsin.gov

EROSION CONTROL NOTES

RUNOFF COEFFICIENTS FOR THIS PROJECT: EXISTING PAVEMENT 0.95, NEW PAVEMENT 0.95.
TOTAL PROJECT AREA = 0.5 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.20 ACRES

UTILITIES PROJECT 6320-08-62

COMMUNICATIONS
CHARTER COMMUNICATIONS
JESSE GRUNY
503 EAST IVES STREET, SUITE 316
MARSHFIELD, WI 54449
PHONE: (715) 651-5605
jesse.gruny@charter.com

COMMUNICATIONS
SOLARUS
RICK SCHMUTZER
440 EAST GRAND AVENUE
WISCONSIN RAPIDS, WI 54494
PHONE: (715) 421-8193
schmutz@solarus.biz

ELECTRIC
ALLIANT ENERGY
MICHAEL PEETERS
2710 JEFFERSON STREET
WISCONSIN RAPIDS, WI 54495
PHONE: (715) 424-7039
michaelpeeters@alliantenergy.com

STREET LIGHTING
NEKOOSA MUNICIPAL WATER UTILITY
RICK SCHMIDT, PE
951 MARKET STREET
NEKOOSA, WI 54457
PHONE: (715) 572-3614
rschmidt@nekoosawi.com

UTILITIES PROJECT 9000-13-61

COMMUNICATIONS
FRONTIER COMMUNICATIONS OF WI LLC
CALVIN KLADE
1851 N 14TH AVENUE
WAUSAU, WI 54401
PHONE: (715) 847-1525
calvin.klade@ftr.com

ELECTRIC
WISCONSIN PUBLIC SERVICE CORPORATION
CLAYTON VIRCKS
P.O. BOX 1166
WAUSAU, WI 54402
PHONE: (715) 848-7317
chvircks@wisconsinpublicservice.com

GAS
WISCONSIN PUBLIC SERVICE CORPORATION
DENA ANDRE
2830 S. ASHLAND AVENUE
GREEN BAY, WI 54304
PHONE: (920) 617-5092
DJAndre@wisconsinpublicservice.com

SEWER
CITY OF MERRILL
GABE STEINAGEL
2606 STURDEVANT STREET
MERRILL, WI 54452
PHONE: (715) 536-5263
gabriel.steinagel@ci.merrill.wi.us

WATER
CITY OF MERRILL
GABE STEINAGEL
2401 RIVER STREET
MERRILL, WI 54452
PHONE: (715)536-6561
gabriel.steinagel@ci.merrill.wi.us

UTILITIES PROJECT 9260-01-61

COMMUNICATIONS
CHARTER COMMUNICATIONS
MARK OLEJNICZAK
821 LINCOLN STREET
RHINELANDER, WI 54501
PHONE: (715) 420-0301
mark.olejniczak@charter.com

ELECTRIC
WISCONSIN PUBLIC SERVICE CORPORATION
CLAYTON VIRCKS
P.O. BOX 1166
WAUSAU, WI 54402
PHONE: (715) 848-7317
chvircks@wisconsinpublicservice.com

GAS/PETROLEUM
WISCONSIN PUBLIC SERVICE CORPORATION
DENA ANDRE
2830 S. ASHLAND AVENUE
GREEN BAY, WI 54304
PHONE: (920) 617-5092
DJAndre@wisconsinpublicservice.com

SEWER
CRANDON WATER AND SEWER UTILITY
KEVIN MONTGOMERY
PO BOX 176
CRANDON, WI 54520
PHONE: (715) 478-2836
crandonw@frontiernet.net

WATER
CRANDON WATER AND SEWER UTILITY
KEVIN MONTGOMERY
PO BOX 176
CRANDON, WI 54520
PHONE: (715) 478-2836
crandonw@frontiernet.net

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

2

N

PRICE COUNTY

WOOD COUNTY

MARATHON COUNTY

LINCOLN COUNTY

ONEIDA COUNTY

VILAS COUNTY

PORTAGE COUNTY

WAUPACA COUNTY

SHAWANO COUNTY

LANGLADE COUNTY

FOREST COUNTY

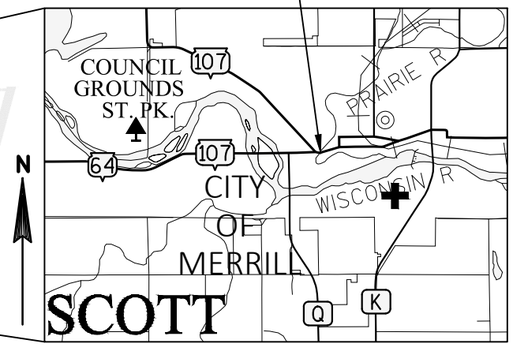
FLORENCE COUNTY

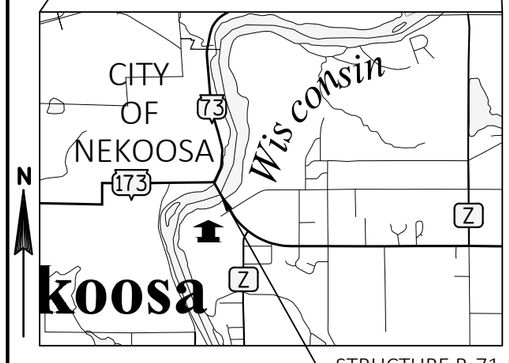
NEKOOSA

MERRILL

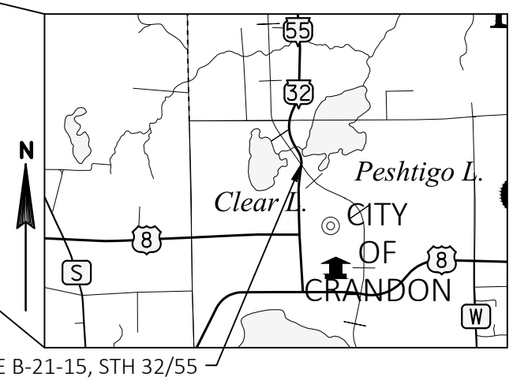
CRANDON

STRUCTURE B-35-02, STH 64
ID 9000-13-61





STRUCTURE B-71-18, STH 73
ID 6320-08-62



STRUCTURE B-21-15, STH 32/55
ID 9260-01-61

PROJECT NO: 6320-08-62/9000-13-61/9260-01-61	HWY: STH 73, STH 64, STH 32/55	COUNTY: WOOD, LINCOLN, FOREST	PROJECT OVERVIEW	SHEET 3	E

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	PLAN DETAIL	SHEET 4	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025002_B-35-0002 PLAN DETAIL.DWG
LAYOUT NAME - 025002_B-35-0002 PLAN DETAIL - 01
PLOT DATE : 2/1/2018 7:15 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 44

NOTES:

1. PROVIDE A TEMPORARY PLATE OR PLYWOOD SURFACE OVER THE WORK AREA WHEN PEDESTRIANS/BICYCLISTS ARE PRESENT. COVER THE WORK AREA DURING NON-WORK HOURS WITH A STEEL PLATE.
2. THE MULTIPLE PLACEMENTS AND REMOVALS OF THE PLATE OR PLYWOOD ARE INCIDENTAL TO THE TEMPORARY PEDESTRIAN SURFACE PLATE OR PLYWOOD BID ITEMS.

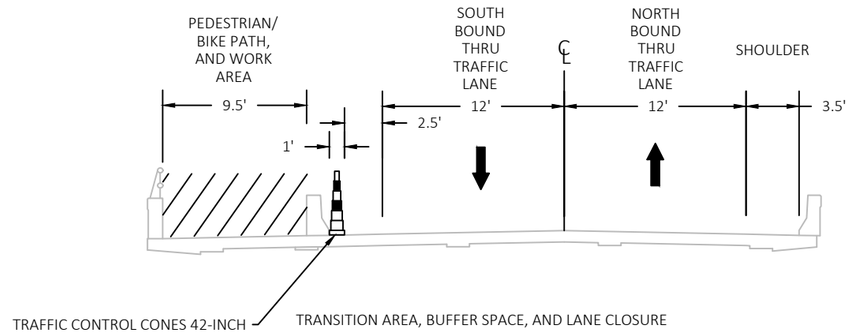
WORK AREA FOR 6320-08-62

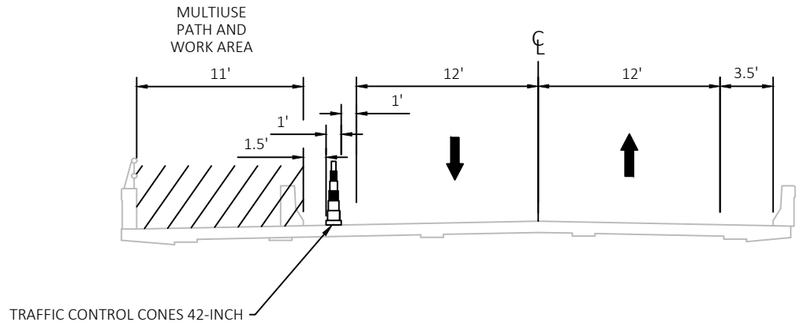
PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL OVERVIEW	SHEET 5	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025003_TC B-71-0018.DWG
LAYOUT NAME - 025003_TC B-71-0018 - 025003_TC B-71-18_OVERVIEW

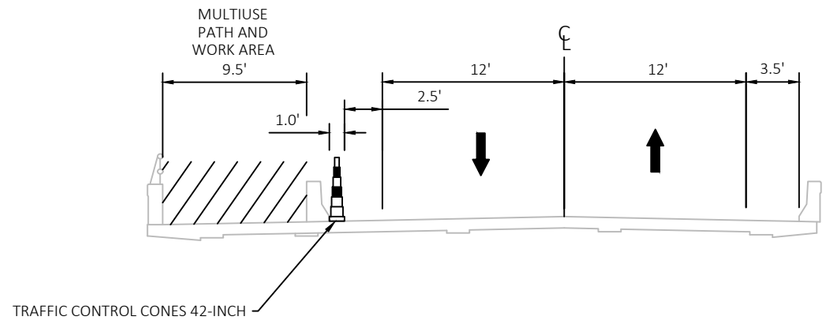
PLOT DATE : 2/1/2018 7:28 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





WORK AREA ON BRIDGE



TRANSITION AREA, BUFFER SPACE, AND LANE CLOSURE

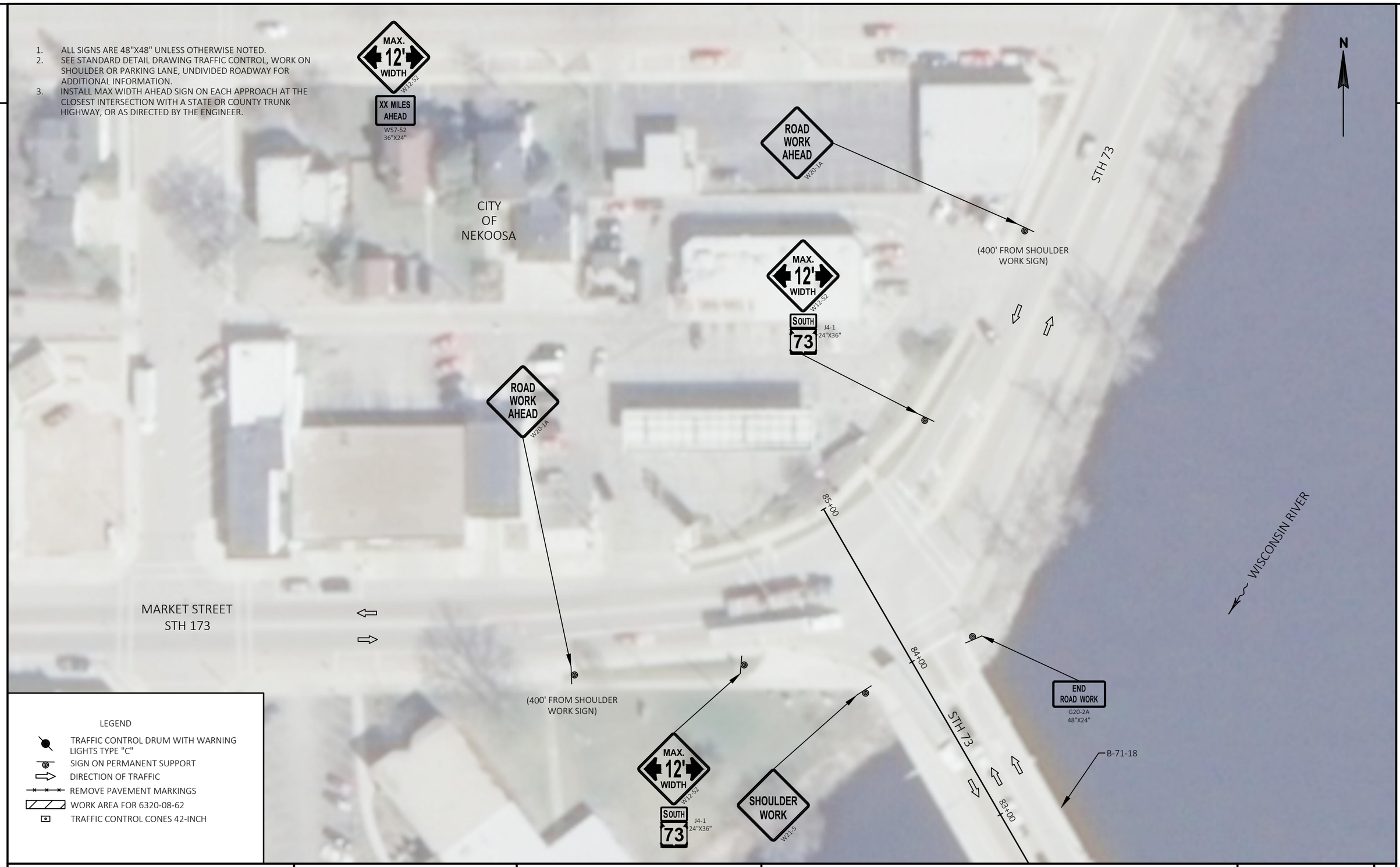
TYPICAL SECTION - STAGE 1

STH 73 LOOKING NORTH

PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL	SHEET 6	E

2

1. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
2. SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY FOR ADDITIONAL INFORMATION.
3. INSTALL MAX WIDTH AHEAD SIGN ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER.



LEGEND

- TRAFFIC CONTROL DRUM WITH WARNING LIGHTS TYPE "C"
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA FOR 6320-08-62
- TRAFFIC CONTROL CONES 42-INCH

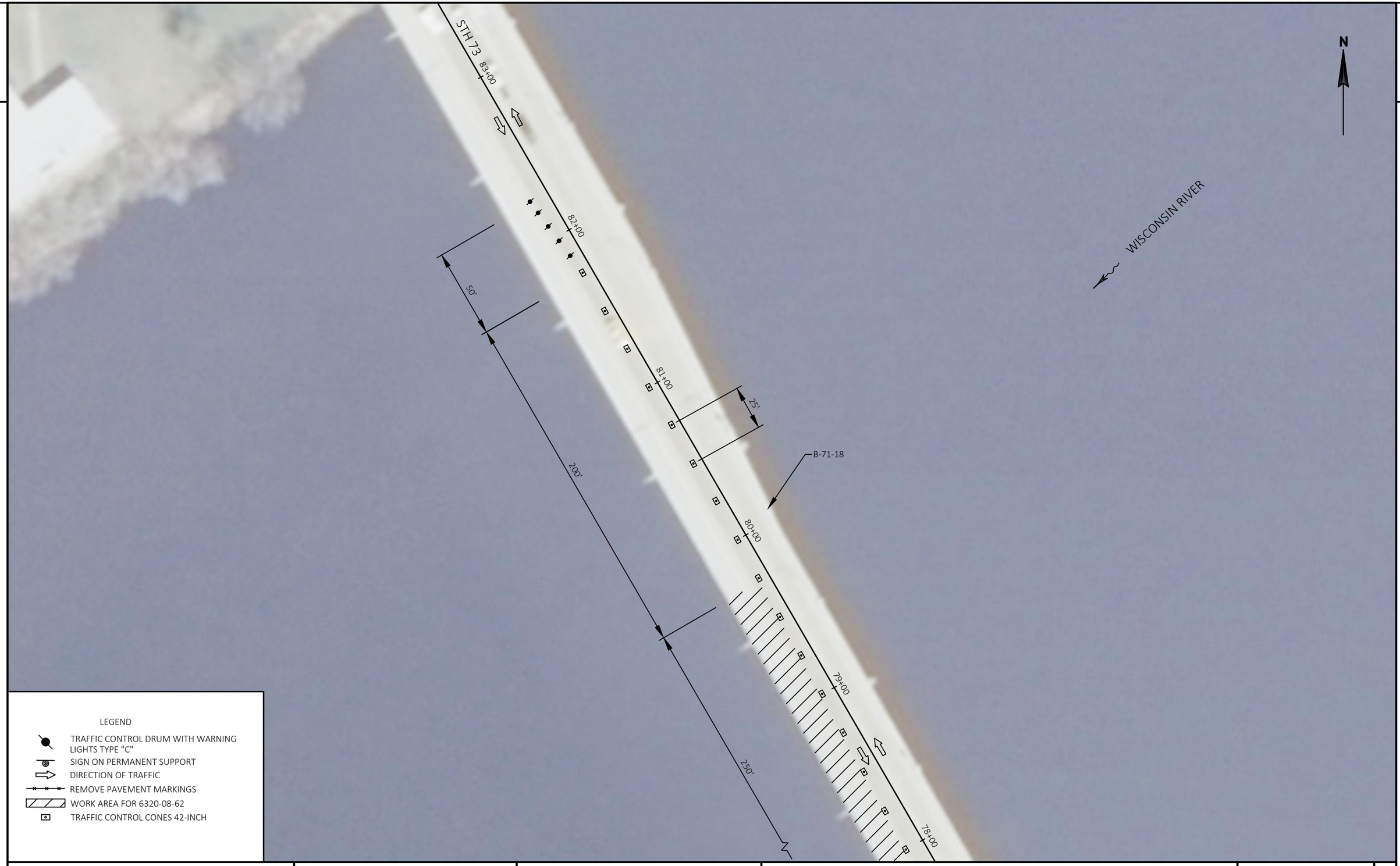
PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL	SHEET 7	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025003_TC B-71-0018.DWG
LAYOUT NAME - 025003_tc_B-71-18_stage 1

PLOT DATE : 7/27/2018 8:05 AM PLOT BY : JOLIE SNYDER PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL	SHEET 8	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025003_TC B-71-0018.DWG
LAYOUT NAME - 025003_tc_B-71-18_stage 1 (2)

PLOT DATE : 7/27/2018 8:05 AM PLOT BY : JOLIE SNYDER PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

250'

78+00

77+00

76+00

75+00

74+00

73+00

STH 73

B-71-18

WISCONSIN RIVER

N

END
ROAD WORK
G20-2A
48"X24"

LEGEND

- TRAFFIC CONTROL DRUM WITH WARNING LIGHTS TYPE "C"
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA FOR 6320-08-62
- TRAFFIC CONTROL CONES 42-INCH

PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL	SHEET 9	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025003_TC B-71-0018.DWG
LAYOUT NAME - 025003_tc_B-71-18_stage 1 (3)

PLOT DATE : 7/27/2018 8:05 AM PLOT BY : JOLIE SNYDER PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- TRAFFIC CONTROL DRUM WITH WARNING LIGHTS TYPE "C"
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA FOR 6320-08-62
- TRAFFIC CONTROL CONES 42-INCH

1. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
2. SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY FOR ADDITIONAL INFORMATION.
3. INSTALL MAX WIDTH AHEAD SIGN ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER.

W57-52
36"X24"

PROJECT NO: 6320-08-62	HWY: STH 73	COUNTY: WOOD	TRAFFIC CONTROL	SHEET 10	E

2

2

CITY OF MERRILL

GRAND AVENUE

N PROSPECT STREET

STH 107

PARKWAY DRIVE

R/W

CITY OF MERRILL STANGE PUBLIC PARK

PRAIRIE RIVER

CITY OF MERRILL T B SCOTT LIBRARY

1ST STREET

R/W

STH 64

R/W

W MAIN STREET

STH 64

B-35-02

CITY OF MERRILL KITCHENETTE PARK

APPROXIMATE LOCATION OF TEMPORARY OCCUPANCY FOR ACCESS TO RIVER THROUGH PARK

N

LEGEND

WORK AREA FOR 9000-13-61

1. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
2. INSTALL MAX WIDTH AHEAD SIGN ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER.

W57-52
36"X24"

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	TRAFFIC CONTROL OVERVIEW	SHEET 11	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025002_TC B-35-0002.DWG
LAYOUT NAME - 025002_TC B-35-0002 - 025002_TC B-35-0002

PLOT DATE : 2/1/2018 7:32 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

E 3RD STREET

EAST STREET

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

N

STH 64 (WB)

GRAND AVENUE

MERRILL STREET

STANGE
PUBLIC
PARK

CITY
OF
MERRILL

N GENESEE STREET

WRIGHT STREET

N PROSPECT STREET

STH 107

PARKWAY DRIVE

R/W

PRAIRIE RIVER

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

T B SCOTT
LIBRARY

STH 64 (EB)

R/W

1ST STREET

STH 64

POLK STREET

W MAIN STREET

STH 64

SIDEWALK CLOSED AHEAD
DETOUR
R9-11 (MOD.)
48"X30"

B-35-02

SIDEWALK CLOSED AHEAD
DETOUR
R9-11 (MOD.)
48"X30"

KITCHENETTE
PARK

LEGEND

- WORK AREA 9000-13-61
- ALTERNATE PEDESTRIAN ROUTE
- EXISTING PEDESTRIAN ROUTE
- PROPOSED BARRICADE TYPE II
- PROPOSED BARRICADE TYPE II w/SIGN

NOTES:

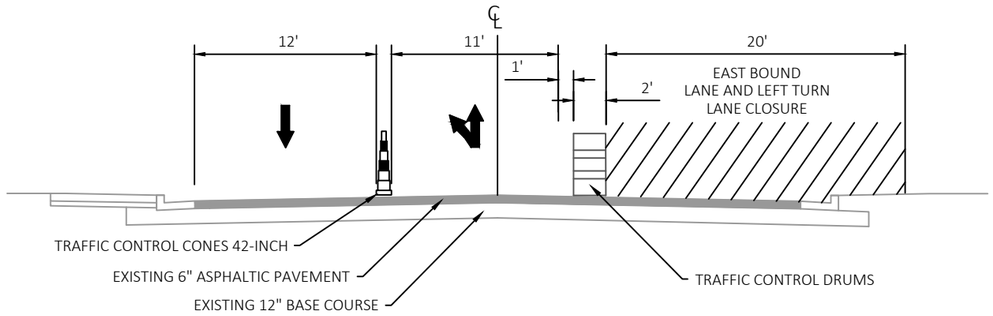
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION FOR ADDITIONAL DETAILS.

PROVIDE PEDESTRIAN ACCOMODATION SIGNS PER THIS PLAN DURING SIDEWALK REMOVALS.

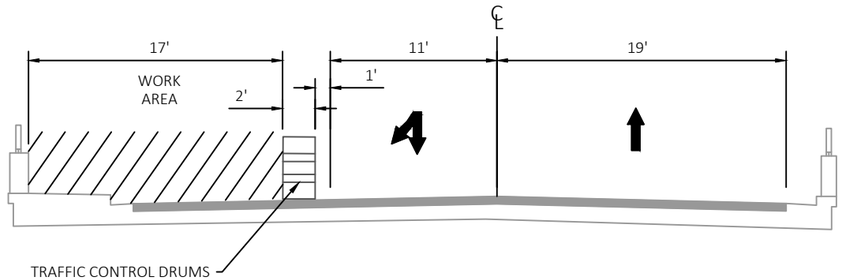
PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	PEDESTRIAN ACCOMODATION PLAN	SHEET 12	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\027001_DT B-35-0002.DWG
LAYOUT NAME - 027001_DT B-35-0002 - PEDESTRIAN ACCOMODATION PLAN

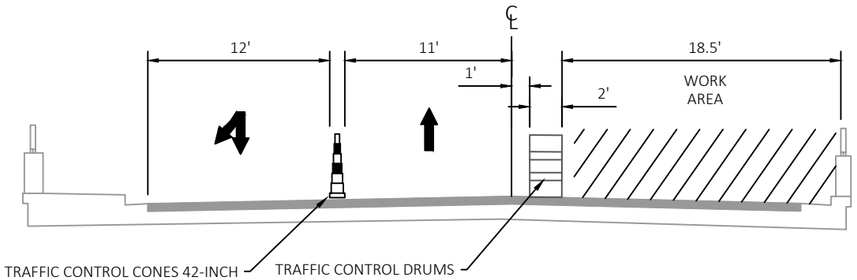
PLOT DATE : 1/5/2018 10:57 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:150 FT



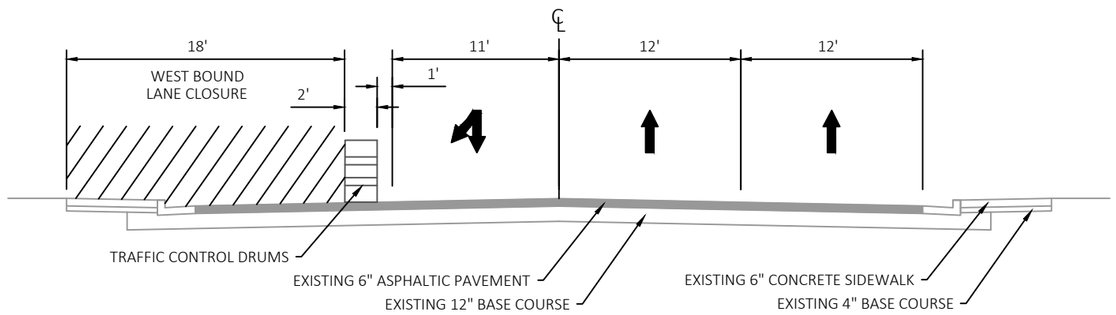
TRANSITION AREA, BUFFER SPACE, AND THROUGH
LANE AND LEFT TURN LANE CLOSURE WEST OF BRIDGE



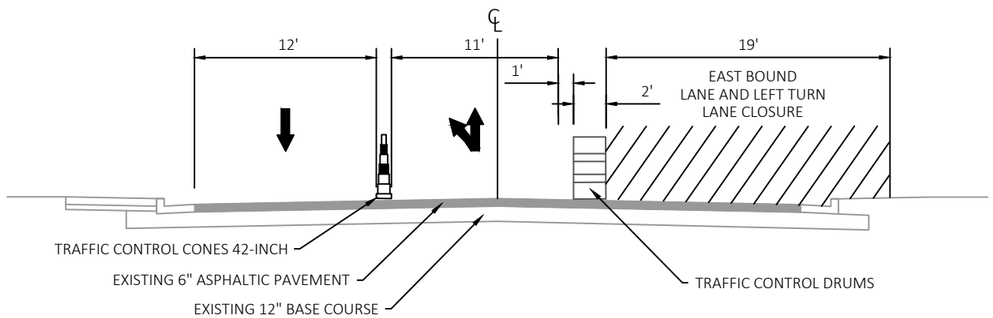
WORK AREA AT NORTHEAST CORNER OF BRIDGE



WORK AREA AT SOUTHWEST CORNER OF BRIDGE



TRANSITION AREA, BUFFER SPACE, AND RIGHT TURN
LANE CLOSURE AT WEST BOUND



TRANSITION AREA, BUFFER SPACE, AND THROUGH
LANE AND LEFT TURN LANE CLOSURE EAST OF BRIDGE

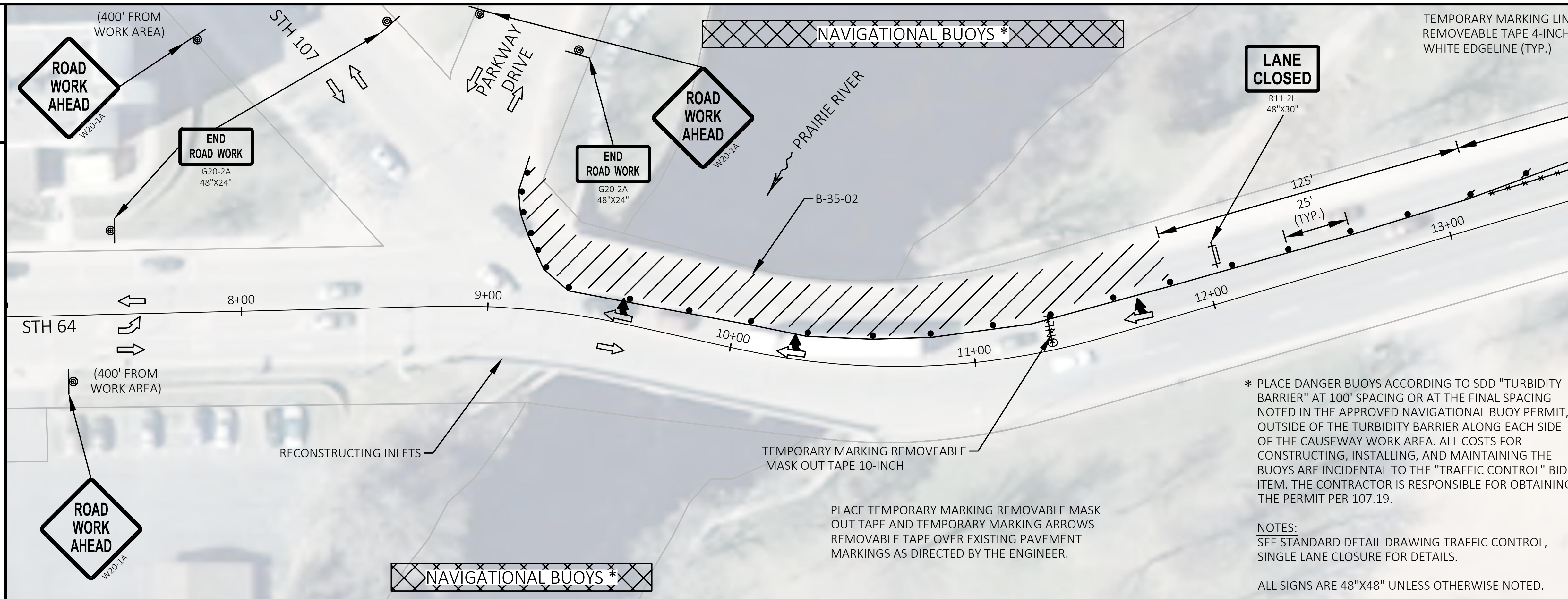
TRAFFIC CONTROL - STAGE 1

STH 64 LOOKING EAST

TRAFFIC CONTROL - STAGE 2

STH 64 LOOKING EAST

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	TRAFFIC CONTROL	SHEET 13	E



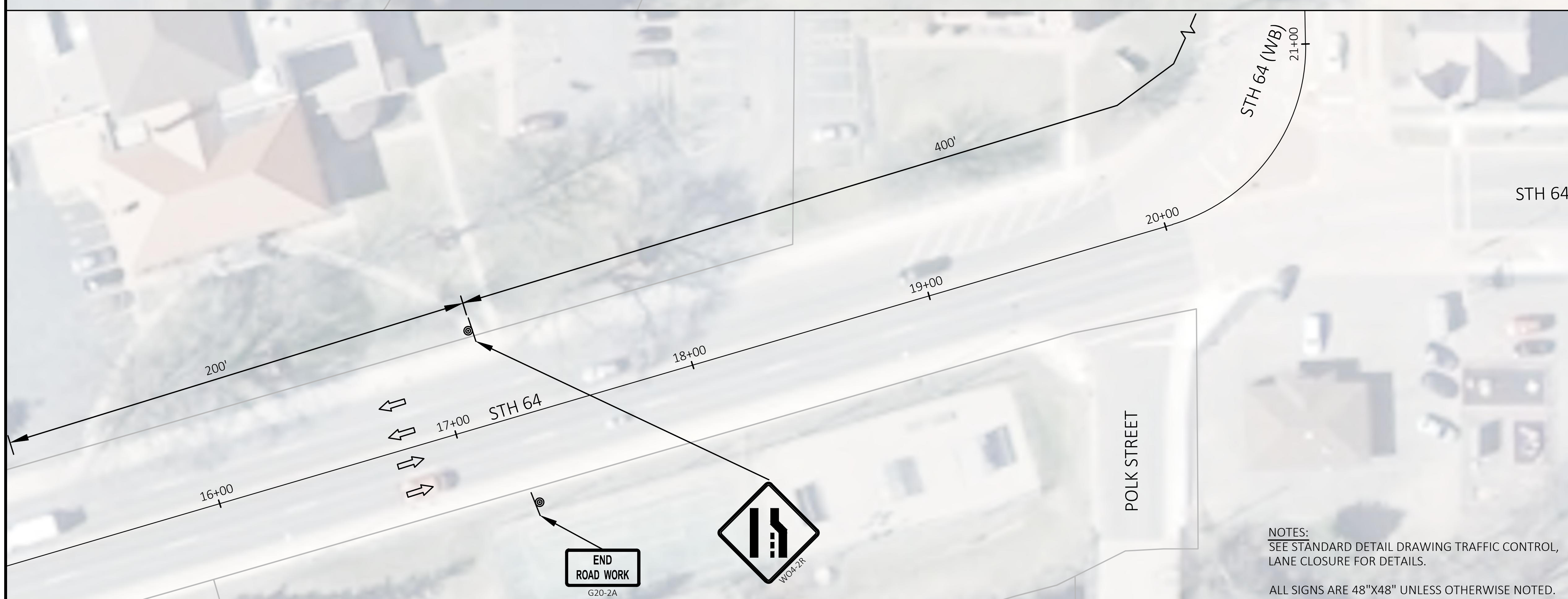
PLACE TEMPORARY MARKING REMOVABLE MASK OUT TAPE AND TEMPORARY MARKING ARROWS REMOVABLE TAPE OVER EXISTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.

* PLACE DANGER BUOYS ACCORDING TO SDD "TURBIDITY BARRIER" AT 100' SPACING OR AT THE FINAL SPACING NOTED IN THE APPROVED NAVIGATIONAL BUOY PERMIT, OUTSIDE OF THE TURBIDITY BARRIER ALONG EACH SIDE OF THE CAUSEWAY WORK AREA. ALL COSTS FOR CONSTRUCTING, INSTALLING, AND MAINTAINING THE BUOYS ARE INCIDENTAL TO THE "TRAFFIC CONTROL" BID ITEM. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT PER 107.19.

NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SINGLE LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE



NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE

2

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE

NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SINGLE LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	TRAFFIC CONTROL - STAGE 1	SHEET 15	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025002_TC B-35-0002.DWG
LAYOUT NAME - 025002_tc_B-35-0002_stage 1 (2)
PLOT DATE : 2/1/2018 10:36 AM
PLOT BY : ALEX PASSOW
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

LEGEND
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE
- TRAFFIC CONTROL CONES 42-INCH

COVER EXISTING PARKING SIGN

PROSPECT STREET

NO PARKING (R) R7-1D 18"X24"

COVER EXISTING PARKING SIGN

ROAD WORK AHEAD W20-1A

(400' FROM WORK AREA)

NO PARKING (R) R7-1D 18"X24"

COVER EXISTING PARKING STALL MARKINGS WITH TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

STH 107

PARKWAY DRIVE

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

NAVIGATIONAL BUOYS *

END ROAD WORK G20-2A 48" X 24"

PRAIRIE RIVER

B-35-02

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW EDGELINE (TYP.)

25' (TYP.)

4+00 5+00 STH 64 6+00 7+00 8+00 9+00 10+00 11+00 STH 64

200' 200' 400' 200' 200' 85'

MAX. 11' WIDTH W12-52

ROAD WORK AHEAD W20-1A

RIGHT LANE CLOSED AHEAD W20-5A

W04-2R

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE EDGELINE (TYP.)

COVER EXISTING LEFT LANE TURN AND RIGHT LANE THROUGH SIGN.

LANE CLOSED R11-2L 48"X30"

RECONSTRUCTING INLETS

NAVIGATIONAL BUOYS *

PLACE TEMPORARY MARKING REMOVABLE MASK OUT TAPE AND TEMPORARY MARKING ARROWS REMOVABLE TAPE OVER EXISTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.

* PLACE DANGER BUOYS ACCORDING TO SDD "TURBIDITY BARRIER" AT 100' SPACING OR AT THE FINAL SPACING NOTED IN THE APPROVED NAVIGATIONAL BUOY PERMIT, OUTSIDE OF THE TURBIDITY BARRIER ALONG EACH SIDE OF THE CAUSEWAY WORK AREA. ALL COSTS FOR CONSTRUCTING, INSTALLING, AND MAINTAINING THE BUOYS ARE INCIDENTAL TO THE "TRAFFIC CONTROL" BID ITEM. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT PER 107.19.

N

NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SINGLE LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

2

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW EDGELINE (TYP.)

400' 200' 200' 200'

12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 STH 64

W01-4R

W04-2L

END ROAD WORK G20-2A 48"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE EDGELINE (TYP.)

N

NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SINGLE LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE
- TRAFFIC CONTROL CONES 42-INCH

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	TRAFFIC CONTROL - STAGE 2	SHEET 16	E

2

2

STH 64 (WB)

N

PRAIRIE RIVER
MIDDLE SCHOOL

LOGAN STREET

STH 64 (WB)

25+00

24+00

23+00

22+00

21+00

20+00

200'

200'

ROAD
WORK
AHEAD
W20-1A

MAX.
11'
WIDTH
W12-52

LEFT LANE
CLOSED
AHEAD
W20-5A

STH 64 WB

NOTES:
SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SINGLE LANE CLOSURE FOR DETAILS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- WORK AREA FOR 9000-13-61
- ARROW BOARD
- TEMPORARY MARKING ARROW REMOVABLE TAPE
- TRAFFIC CONTROL CONES 42-INCH

PROJECT NO: 9000-13-61	HWY: STH 64	COUNTY: LINCOLN	TRAFFIC CONTROL - STAGE 2	SHEET 17	E

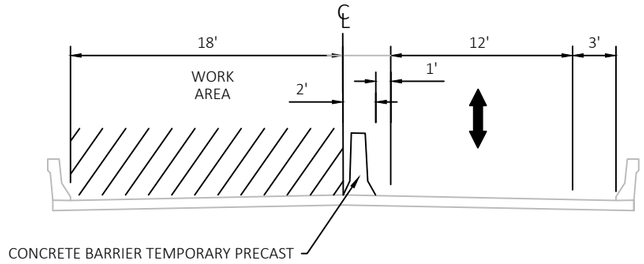
FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025002_TC B-35-0002.DWG
LAYOUT NAME - 025002_tc_B-35-0002_stage 2 (2)

PLOT DATE : 2/1/2018 10:39 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:50 FT

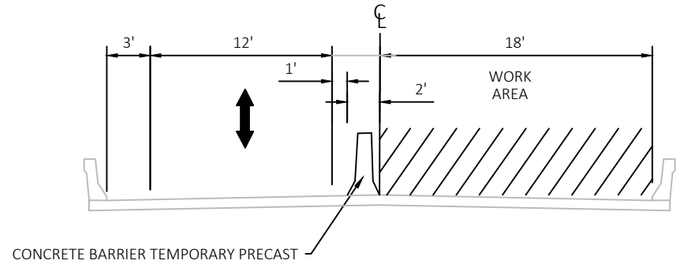
PROJECT NO: 9260-01-61	HWY: STH 32/55	COUNTY: FOREST	TRAFFIC CONTROL OVERVIEW	SHEET 18	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025001_TC B-21-15.DWG
LAYOUT NAME - 025001_TC B-21-15 - 025001_OVERVIEW_B-21-15

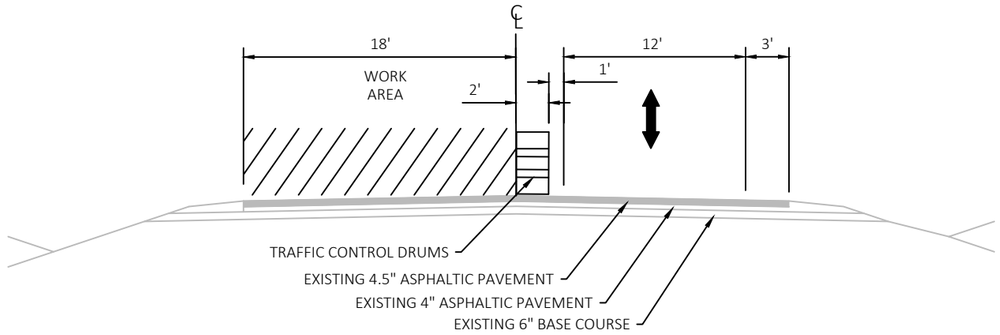
PLOT DATE : 2/1/2018 7:34 AM PLOT BY : ALEX PASSOW PLOT NAME : PLOT SCALE : 1 IN:200 FT



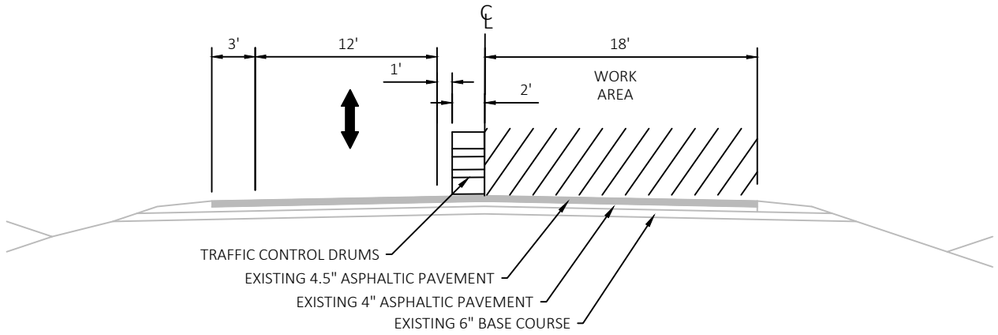
WORK AREA ON BRIDGE



WORK AREA ON BRIDGE



TRANSITION AREA, BUFFER SPACE, AND LANE CLOSURE



TRANSITION AREA, BUFFER SPACE, AND LANE CLOSURE

TRAFFIC CONTROL - STAGE 1

STH 32/55 LOOKING NORTH

TRAFFIC CONTROL - STAGE 2

STH 32/55 LOOKING NORTH

2

N

ROAD WORK AHEAD W20-1A

ONE LANE ROAD AHEAD W20-4A

MAX. 12' WIDTH W12-52

NO PASSING ZONE W14-3 48"X36"

W03-3

END ROAD WORK G20-2A 48"X24"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (TYP.)

CRASH CUSHION

W05-52L 12"X36"

WO1-6 48" X 24"

TYPE III BARRICADE

INACTIVE RAILROAD CORRIDOR

LAKE AVENUE

STH 32/55

W05-52R 12"X36"

B-21-15

450'

STOP HERE ON RED R10-6 24"X36"

W03-3

ONE LANE ROAD AHEAD W20-4A

MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00

STH 32/55

350' 350' 350' 300' 15' 75' 50' 50' 100' 50' 75' 15' 300' 350' 350' 350'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW CENTERLINE (TYP.)

STOP HERE ON RED R10-6 24"X36"

W05-52R 12"X36"

W05-52L 12"X36"

E COBB BOULEVARD

PESHTIGO LAKE

W01-4R

ONE LANE TWO WAY TRAFFIC

INACTIVE RAILROAD CORRIDOR

END ROAD WORK G20-2A 48"X24"

R3-2 24"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE EDGELINE (TYP.)

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- SIGN FLAGS, 16" X 16" MIN., (ORANGE)
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- STOP BAR
- WORK AREA FOR 9260-01-61
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH ON BREAKWAY POLE
- CRASH CUSHIONS TEMPORARY

1. ALL EXISTING SIGNS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL WILL BE COVERED.
2. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
3. SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR ADDITIONAL INFORMATION.
4. INSTALL MAX WIDTH AHEAD SIGN ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER.

MAX. 12' WIDTH W12-52

XX MILES AHEAD W57-52 36"X24"

TEMPORARY TRAFFIC SIGNAL TIMING

ALL TIMES LISTED IN SECONDS

SEQUENCE 1: 7:00 AM TO 6:00 PM
TOTAL CYCLE TIME = 93.0

NORTHBOUND	SOUTHBOUND	YELLOW	ALL RED	GREEN
RED	RED		22.0	
GREEN	RED			21.0
YELLOW	RED	3.5		
RED	RED		22.0	
RED	GREEN			21.0
RED	YELLOW	3.5		
TOTAL:		7.0	44.0	42.0

SEQUENCE 2: 6:00 PM TO 7:00 AM
TOTAL CYCLE TIME = 79.0

NORTHBOUND	SOUTHBOUND	YELLOW	ALL RED	GREEN
RED	RED		22.0	
GREEN	RED			14.0
YELLOW	RED	3.5		
RED	RED		22.0	
RED	GREEN			14.0
RED	YELLOW	3.5		
TOTAL:		7.0	44.0	28.0

PROJECT NO: 9260-01-61	HWY: STH 32/55	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 1	SHEET 20	E

2

N

ROAD WORK AHEAD W20-1A

ONE LANE ROAD AHEAD W20-4A

MAX. 12' WIDTH W12-52

NO PASSING ZONE W14-3 48"X36"

W03-3

END ROAD WORK G20-2A 48"X24"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (TYP.)

W05-52L 12"X36"

LAKE AVENUE

W01-4R

W05-52R 12"X36"

B-21-15

CRASH CUSHION

STOP HERE ON RED R10-6 24"X36"

INACTIVE RAILROAD CORRIDOR

W03-3

ONE LANE ROAD AHEAD W20-4A

MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

STH 32/55

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+

350' 350' 350' 300' 15' 75' 50' 50' 450' 100' 50' 75' 15' 300' 350' 350' 350'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW CENTERLINE (TYP.)

STOP HERE ON RED R10-6 24"X36"

W05-52L 12"X36"

W05-52R 12"X36"

E COBB BOULEVARD

R3-2 24"X24"

END ROAD WORK G20-2A 48"X24"

PESHTIGO LAKE

WO1-6 48" X 24"

TYPE III BARRICADE

INACTIVE RAILROAD CORRIDOR

ONE LANE TWO WAY TRAFFIC

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE EDGELINE (TYP.)

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- SIGN FLAGS, 16" X 16" MIN., (ORANGE)
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- STOP BAR
- WORK AREA FOR 9260-01-61
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH ON BREAKWAY POLE
- CRASH CUSHIONS TEMPORARY

1. ALL EXISTING SIGNS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL WILL BE COVERED.
2. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
3. SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR ADDITIONAL INFORMATION.
4. INSTALL MAX WIDTH AHEAD SIGN ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER.

MAX. 12' WIDTH W12-52

XX MILES AHEAD W57-52 36"X24"

TEMPORARY TRAFFIC SIGNAL TIMING

ALL TIMES LISTED IN SECONDS

SEQUENCE 1: 7:00 AM TO 6:00 PM
TOTAL CYCLE TIME = 93.0

NORTHBOUND	SOUTHBOUND	YELLOW	ALL RED	GREEN
RED	RED		22.0	
GREEN	RED			21.0
YELLOW	RED	3.5		
RED	RED		22.0	
RED	GREEN			21.0
RED	YELLOW	3.5		
TOTAL:		7.0	44.0	42.0

SEQUENCE 2: 6:00 PM TO 7:00 AM
TOTAL CYCLE TIME = 79.0

NORTHBOUND	SOUTHBOUND	YELLOW	ALL RED	GREEN
RED	RED		22.0	
GREEN	RED			14.0
YELLOW	RED	3.5		
RED	RED		22.0	
RED	GREEN			14.0
RED	YELLOW	3.5		
TOTAL:		7.0	44.0	28.0

PROJECT NO: 9260-01-61	HWY: STH 32/55	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 2	SHEET 21	E

FILE NAME : P:\90S\93\00093360\CADD\SHEETSPLAN\025001_TC B-21-15.DWG
LAYOUT NAME - 025001_tc_B-21-15_stage 2
PLOT DATE : 7/27/2018 7:57 AM
PLOT BY : COURTNEY ROOYAKKERS
PLOT NAME :
PLOT SCALE : 1 IN: 100 FT
WISDOT/CADDS SHEET 44

					6320-08-62	9000-13-61	9260-01-61
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0002	203.0225.S	Debris Containment (structure) 01. B-71-18	LS	1.000	1.000		
0004	203.0225.S	Debris Containment (structure) 03. B-21-15	LS	1.000			1.000
0006	204.0110	Removing Asphaltic Surface	SY	95.000		95.000	
0008	204.0150	Removing Curb & Gutter	LF	65.000		65.000	
0010	204.0155	Removing Concrete Sidewalk	SY	18.000		18.000	
0012	205.0100	Excavation Common	CY	36.000		36.000	
0014	206.1000	Excavation for Structures Bridges (structure) 02. B-35-02	LS	1.000		1.000	
0016	210.1500	Backfill Structure Type A	TON	100.000		100.000	
0018	213.0100	Finishing Roadway (project) 01. 6320-08-62	EACH	1.000	1.000		
0020	213.0100	Finishing Roadway (project) 02. 9000-13-61	EACH	1.000		1.000	
0022	213.0100	Finishing Roadway (project) 03. 9260-01-61	EACH	1.000			1.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	67.000		67.000	
0026	465.0105	Asphaltic Surface	TON	33.000		33.000	
0028	502.0100	Concrete Masonry Bridges	CY	11.000		11.000	
0030	502.3100	Expansion Device (structure) 01. B-71-18	LS	1.000	1.000		
0032	502.3100	Expansion Device (structure) 03. B-21-15	LS	1.000			1.000
0034	502.3200	Protective Surface Treatment	SY	10.000	10.000		
0036	502.3210	Pigmented Surface Sealer	SY	200.000	10.000		190.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	270.000		270.000	
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	4,600.000	180.000		4,420.000
0042	505.0904	Bar Couplers No. 4	EACH	6.000			6.000
0044	505.0905	Bar Couplers No. 5	EACH	20.000	14.000		6.000
0046	505.0906	Bar Couplers No. 6	EACH	24.000			24.000
0048	505.0907	Bar Couplers No. 7	EACH	12.000			12.000
0050	509.1000	Joint Repair	SY	55.000	6.000		49.000
0052	509.1500	Concrete Surface Repair	SF	60.000	20.000		40.000
0054	509.2100.S	Concrete Masonry Deck Repair	CY	5.000	5.000		
0056	509.5100.S	Polymer Overlay	SY	50.000			50.000
0058	509.9025.S	Epoxy Injection Crack Repair	LF	50.000		50.000	
0060	511.1200	Temporary Shoring (structure) 02. B-35-02	SF	260.000		260.000	
0062	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	65.000		65.000	
0064	602.0415	Concrete Sidewalk 6-Inch	SF	162.000		162.000	
0066	603.8000	Concrete Barrier Temporary Precast Delivered	LF	375.000			375.000
0068	603.8125	Concrete Barrier Temporary Precast Installed	LF	750.000			750.000
0070	606.0300	Riprap Heavy	CY	140.000		140.000	
0072	611.0430	Reconstructing Inlets	EACH	1.000		1.000	
0074	614.0905	Crash Cushions Temporary	EACH	2.000			2.000
0076	619.1000	Mobilization	EACH	1.000	0.200	0.400	0.400
0078	624.0100	Water	MGAL	2.000		2.000	

					6320-08-62	9000-13-61	9260-01-61
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**	**Qty**
0080	625.0500	Salvaged Topsoil	SY	140.000		140.000	
0082	628.1504	Silt Fence	LF	120.000		120.000	
0084	628.1520	Silt Fence Maintenance	LF	120.000		120.000	
0086	628.1905	Mobilizations Erosion Control	EACH	2.000		2.000	
0088	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000		1.000	
0090	628.2008	Erosion Mat Urban Class I Type B	SY	160.000		160.000	
0092	628.7015	Inlet Protection Type C	EACH	2.000		2.000	
0094	628.7570	Rock Bags	EACH	16.000		16.000	
0096	629.0210	Fertilizer Type B	CWT	0.200		0.200	
0098	630.0140	Seeding Mixture No. 40	LB	4.000		4.000	
0100	630.0200	Seeding Temporary	LB	4.000		4.000	
0102	642.5001	Field Office Type B 01. 6320-08-62	EACH	1.000	1.000		
0104	642.5001	Field Office Type B 01. 9000-13-61	EACH	1.000		1.000	
0106	642.5001	Field Office Type B 01. 9260-01-61	EACH	1.000			1.000
0108	643.0300	Traffic Control Drums	DAY	4,482.000	85.000	3,197.000	1,200.000
0110	643.0310.S	Temporary Portable Rumble Strips	LS	1.000			1.000
0112	643.0410	Traffic Control Barricades Type II	DAY	84.000		84.000	
0114	643.0420	Traffic Control Barricades Type III	DAY	101.000		61.000	40.000
0116	643.0705	Traffic Control Warning Lights Type A	DAY	202.000		122.000	80.000
0118	643.0715	Traffic Control Warning Lights Type C	DAY	2,035.000	85.000	1,550.000	400.000
0120	643.0800	Traffic Control Arrow Boards	DAY	108.000		108.000	
0122	643.0900	Traffic Control Signs	DAY	2,746.000	289.000	1,417.000	1,040.000
0124	643.0920	Traffic Control Covering Signs Type II	EACH	3.000		3.000	
0126	643.1070	Traffic Control Cones 42-Inch	DAY	1,673.000	357.000	1,316.000	
0128	643.5000	Traffic Control	EACH	1.000	0.200	0.400	0.400
0130	644.1420.S	Temporary Pedestrian Surface Plywood	SF	96.000	96.000		
0132	644.1430.S	Temporary Pedestrian Surface Plate	SF	96.000	96.000		
0134	646.1020	Marking Line Epoxy 4-Inch	LF	2,530.000		530.000	2,000.000
0136	646.3020	Marking Line Epoxy 8-Inch	LF	265.000		265.000	
0138	646.5020	Marking Arrow Epoxy	EACH	6.000		6.000	
0140	646.5120	Marking Word Epoxy	EACH	2.000		2.000	
0142	646.6120	Marking Stop Line Epoxy 18-Inch	LF	50.000		50.000	
0144	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	4,275.000		3,075.000	1,200.000
0146	649.0550	Temporary Marking Arrow Removable Tape	EACH	6.000		6.000	
0148	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	36.000		12.000	24.000
0150	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	2,360.000		1,800.000	560.000
0152	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	250.000		250.000	
0154	650.6500	Construction Staking Structure Layout (structure) 01. B-71-18	LS	1.000	1.000		
0156	650.6500	Construction Staking Structure Layout (structure) 02. B-	LS	1.000		1.000	

					6320-08-62	9000-13-61	9260-01-61
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
		35-02					
0158	650.6500	Construction Staking Structure Layout (structure) 03. B-21-15	LS	1.000			1.000
0160	650.9910	Construction Staking Supplemental Control (project) 01. 6320-08-62	LS	1.000	1.000		
0162	650.9910	Construction Staking Supplemental Control (project) 02. 9000-13-61	LS	1.000		1.000	
0164	650.9910	Construction Staking Supplemental Control (project) 03. 9260-01-61	LS	1.000			1.000
0166	661.0100	Temporary Traffic Signals for Bridges (structure) 03. B-21-15	LS	1.000			1.000
0168	690.0150	Sawing Asphalt	LF	115.000		115.000	
0170	690.0250	Sawing Concrete	LF	90.000		90.000	
0172	715.0502	Incentive Strength Concrete Structures	DOL	96.000	30.000	66.000	
0174	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	150.000	150.000		
0176	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000		
0178	SPV.0060	Special 01. Parapet Wall Raising	EACH	2.000		2.000	
0180	SPV.0165	Special 01. Repointing Stone Masonry	SF	1,500.000		1,500.000	

3

REMOVALS

PROJECT	STAGE	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0150 REMOVING CURB AND GUTTER LF	201.0155 REMOVING CONCRETE SIDEWALK SY	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
9000-13-61	STAGE 1	5	25	18	30	45
	STAGE 2	90	40	--	85	45
TOTALS		95	65	18	115	90

INLETS

PROJECT	STAGE	611.0430 RECONSTRUCTING EACH	628.7015 PROTECTION TYPE C EACH
9000-13-61	STAGE 1	--	1
	STAGE 2	1	1
TOTALS		1	2

EXCAVATION COMMON

PROJECT	STAGE	205.0100 CY
9000-13-61	STAGE 1	6
	STAGE 2	30
TOTAL		36

CRASH CUSHION

PROJECT	LOCATION	STAGE	LOCATION	BACK WIDTH (FT)	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS	614.0905 TEMPORARY EACH
9260-01-61	STH 32/55	STAGE 1	108+00	2	OM-3L	TL-3	BIDIRECTIONAL	R	BLUNT END OF TEMP BARRIER	1
		STAGE 2	111+50	2	OM-3L	TL-3	BIDIRECTIONAL	L	BLUNT END OF TEMP BARRIER	1
TOTAL										2

BASE AGGREGATE

PROJECT	STAGE	305.0120 DENSE 1/4-INCH TON	624.0100 WATER MGAL
9000-13-61	STAGE 1	11	1
	STAGE 2	56	1
TOTAL		67	2

MOBILIZATION

PROJECT	CATEGORY	619.1000 MOBILIZATION EACH
6320-08-62	0010	0.1
	0020	0.1
	SUBTOTAL	0.2
9000-13-61	0010	0.1
	0020	0.3
	SUBTOTAL	0.4
9260-01-61	0010	0.1
	0020	0.3
	SUBTOTAL	0.4
TOTAL		1

ASPHALTIC

PROJECT	STAGE	465.0105 SURFACE TON
9000-13-61	STAGE 1	3
	STAGE 2	30
TOTAL		33

CONCRETE

PROJECT	STAGE	601.0411 CURB AND GUTTER 30-INCH TYPE D LF	602.0415 SIDEWALK 6-INCH SF
9000-13-61	STAGE 1	25	162
	STAGE 2	40	--
TOTALS		65	162

TEMPORARY PEDESTRIAN SURFACE

PROJECT	LOCATION	644.1420.S PLYWOOD SF	644.1430.S PLATE SY
6320-08-62	EXPANSION DEVICE	96	96
TOTALS		96	96

CONCRETE BARRIER

PROJECT	LOCATION	STAGE	603.8000 TEMPORARY PRECAST DELIVERED LF	603.8125 TEMPORARY PRECAST INSTALLED LF
9260-01-61	STH 32/55	STAGE 1	375	375
		STAGE 2	--	375
	TOTALS		375	750

TEMPORARY TRAFFIC SIGNALS

PROJECT	LOCATION	661.0100 FOR BRIDGES LS
9260-01-61	STH 32/55	1
TOTAL		1

ALL ITEMS AND QUANTITES ON THIS SHEET ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

TRAFFIC CONTROL

PROJECT	LOCATION	STAGE	DRUMS DAYS	DRUMS EACH	643.0300 DRUMS DAYS	CONES 42-INCH EACH	643.1070 CONES 42-INCH DAYS	BARRICADES TYPE II EACH	643.0410 BARRICADES TYPE II DAYS	BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	ARROW BOARDS EACH	643.0800 ARROW BOARDS DAYS	*643.0920 COVERING SIGNS TYPE II EACH	SIGNS EACH	643.0900 SIGNS DAYS	643.5000 TRAFFIC CONTROL EACH
6320-08-62	STH 73	STAGE 1	17	5	85	21	357	--	--	--	--	--	--	5	85	--	--	--	17	289	--
	PROJECT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2
	SUBTOTAL				85		357		--		--		--		85		--	--		289	0.2
9000-13-61	WB LANE	STAGE 1	14	37	518	--	--	--	--	1	14	2	28	10	140	1	14	--	18	252	--
	EB LANE	STAGE 2	47	57	2,679	28	1,316	--	--	1	47	2	94	30	1,410	2	94	3	23	1,081	--
	PED ACCOM.		14	--	--	--	--	6	84	--	--	--	--	--	--	--	--	--	6	84	-
	PROJECT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.4
	SUBTOTAL				3,197		1,316		84		61		122		1,550		108	3		1,417	0.4
9260-01-61	SB LANE	STAGE 1	20	30	600	--	--	--	--	1	20	2	40	10	200	--	--	--	26	520	--
	NB LANE	STAGE 2	20	30	600	--	--	--	--	1	20	2	40	10	200	--	--	--	26	520	--
	PROJECT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.4
	SUBTOTAL				1,200		--		--		40		80		400		--	--		1,040	0.4
	TOTALS				4,482		1,673		84		101		202		2,035		108	3		2,746	1

*BID ITEM COVERING SIGNS TYPE II IS REQUIRED FOR 1 CYCLE

RESTORATION ITEMS

PROJECT	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7570 ROCK BAGS EACH	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS 1 TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE #40 LB	630.0200 SEEDING TEMPORARY LB
9000-13-61	WING 2	60	60	8	60	70	0.1	2	2
	WING 3	60	60	8	80	90	0.1	2	2
TOTALS		120	120	16	140	160	0.2	4	4

NOTE: USE ROCK BAGS FOR SILT FENCE WEEPS AS DIRECTED BY THE ENGINEER

TRAFFIC CONTROL

PROJECT	LOCATION	STAGE	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	649.0960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH LF	649.0970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH LF
6320-08-62	MULTIUSE PATH	STAGE 1	--	--	--	--	--
	PROJECT		--	--	--	--	--
	SUBTOTAL		--	--	--	--	--
9000-13-61	WB LANE	STAGE 1	675	3	--	50	25
	EB LANE	STAGE 2	2400	3	12	1750	225
	PED ACCOM.		--	--	--	--	--
	PROJECT		--	--	--	--	--
	SUBTOTAL		3,075	6	12	1,800	250
9260-01-61	SB LANE	STAGE 1	600	--	24	560	--
	NB LANE	STAGE 2	600	--	--	--	--
	PROJECT		--	--	--	--	--
	SUBTOTAL		1,200	--	24	560	--
	TOTALS		4,275	6	36	2,360	250

TEMPORARY PORTABLE RUMBLE STRIPS

PROJECT	LOCATION	643.0310.S LS
9260-01-61	STH 32/55	1
TOTAL		1

ALL ITEMS AND QUANTITES ON THIS SHEET ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

PAVEMENT MARKINGS

PROJECT	LOCATION	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.3020 MARKING LINE EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY EA	646.5120 MARKING WORD EPOXY EA	646.6120 MARKING STOP LINE EPOXY 18-INCH LF
9000-13-61	STH 64	8+45	-	12+00	--	530	265	6	2	50
	SUBTOTAL				530		265	6	2	50
9260-01-61	STH 32/55	107+00	-	112+00	1,000	1,000	--	--	--	--
	SUBTOTAL				2,000		--	--	--	--
	TOTALS				2,530		265	6	2	50

CONSTRUCTION STAKING

PROJECT	LOCATION	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-71-0018) LS	650.6500.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-35-0002) LS	650.6500.03 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-21-0015) LS
6320-08-62	STH 73	1	--	--
SUBTOTAL		1	--	--
9000-13-61	STH 64	--	1	--
SUBTOTAL		--	1	--
9260-01-61	STH 32/55	--	--	1
SUBTOTAL		--	--	1
TOTALS		1	1	1

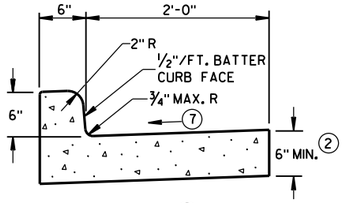
MOBILIZATIONS EROSION CONTROL

PROJECT	LOCATION	628.1905 EA	628.1910 EMERGENCY EA
9000-13-61	PROJECT	2	1
TOTALS		2	1

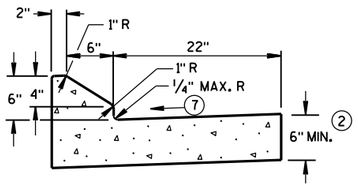
Standard Detail Drawing List

08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C04-04	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-04	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

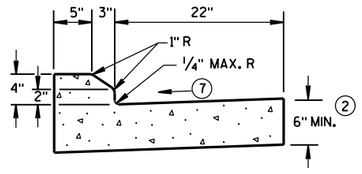
6



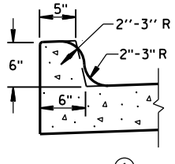
TYPES A (1) & D



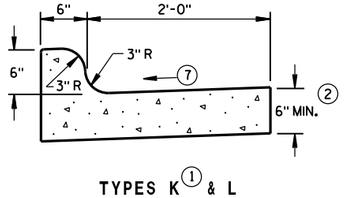
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

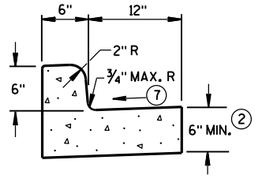


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



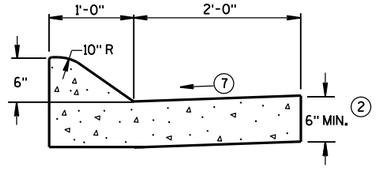
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

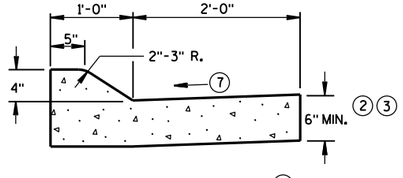


TYPES A (1) & D

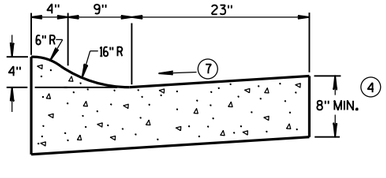
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

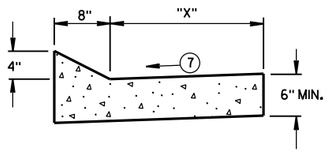


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

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

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

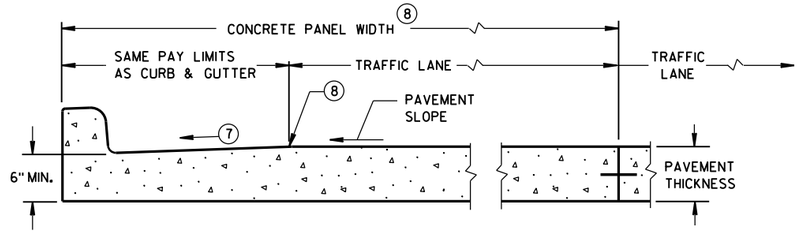
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

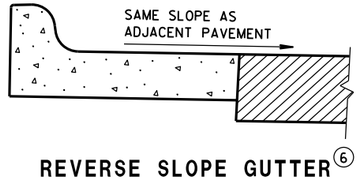
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.

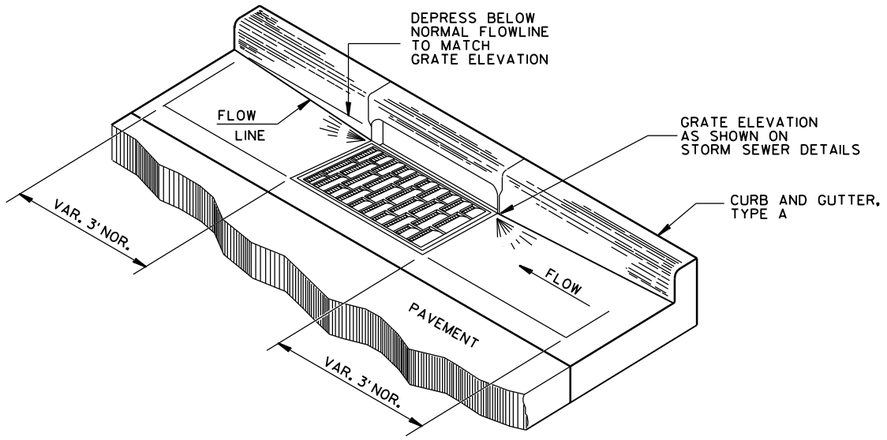


REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

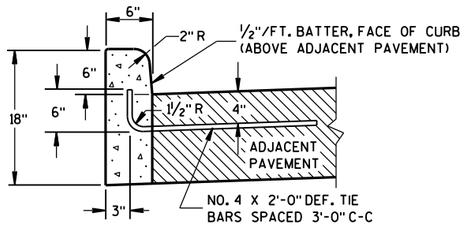
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

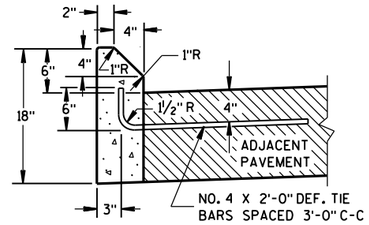
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

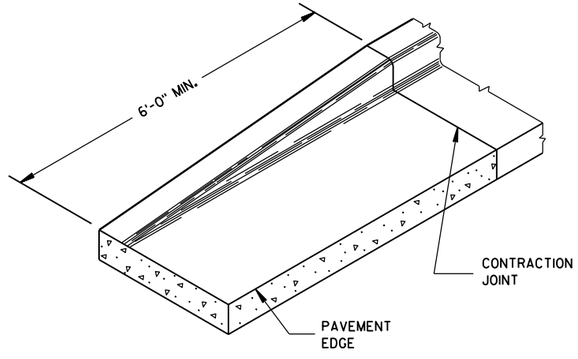


TYPES A(1) & D

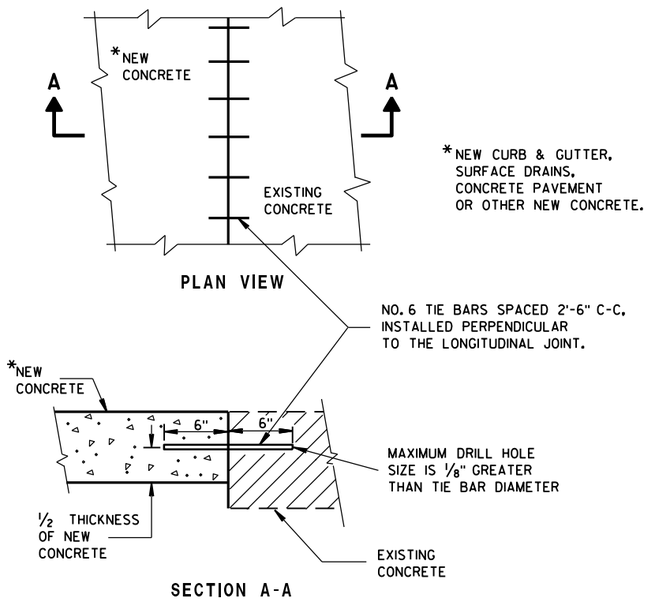


TYPES G(1) & J

CONCRETE CURB



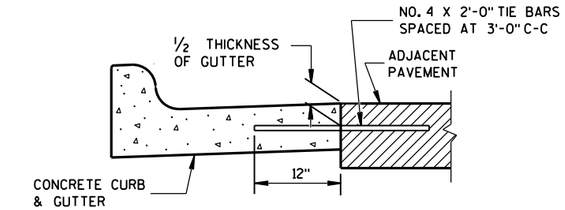
END SECTION CURB & GUTTER



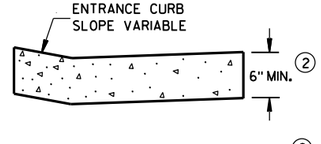
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
29 — ENT
FHWA

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

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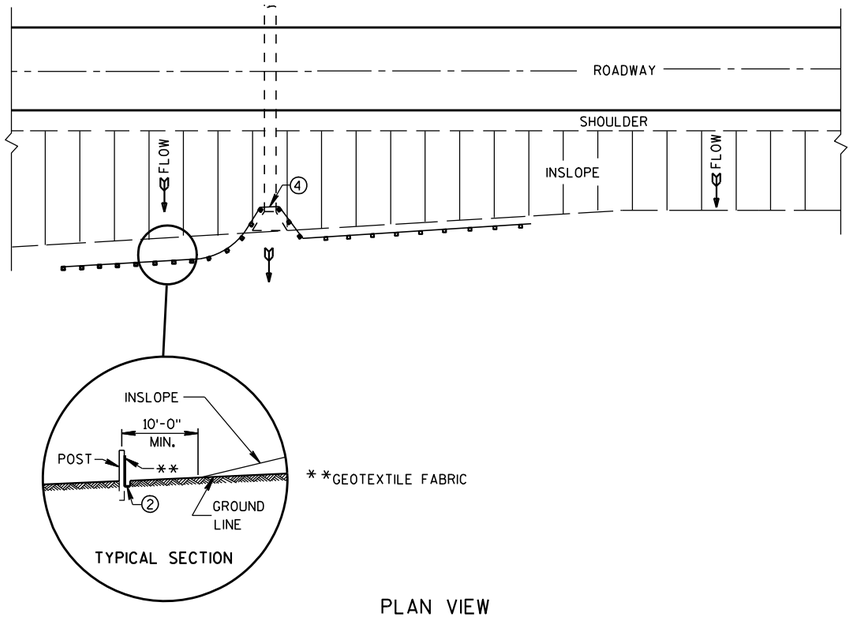
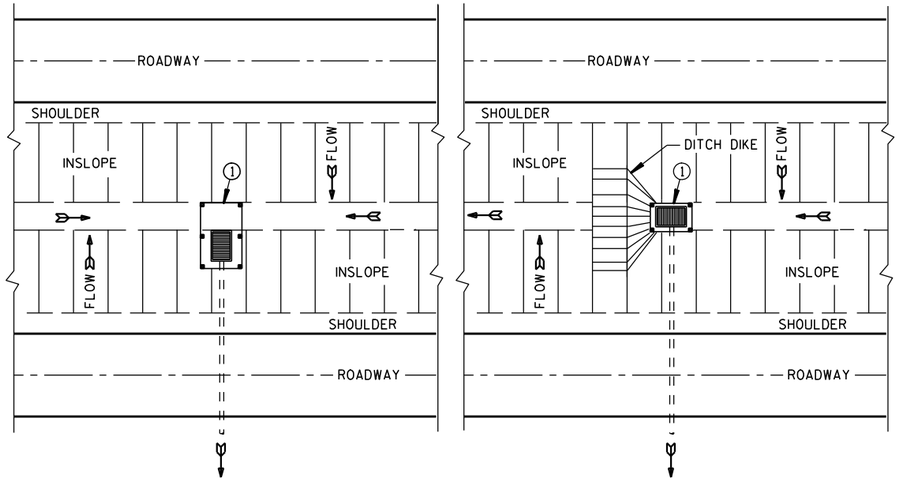
S.D.D. 8 D 1-20b



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

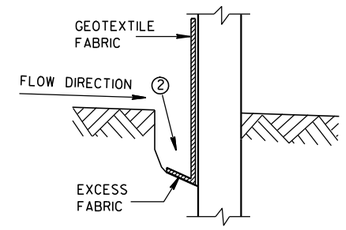
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

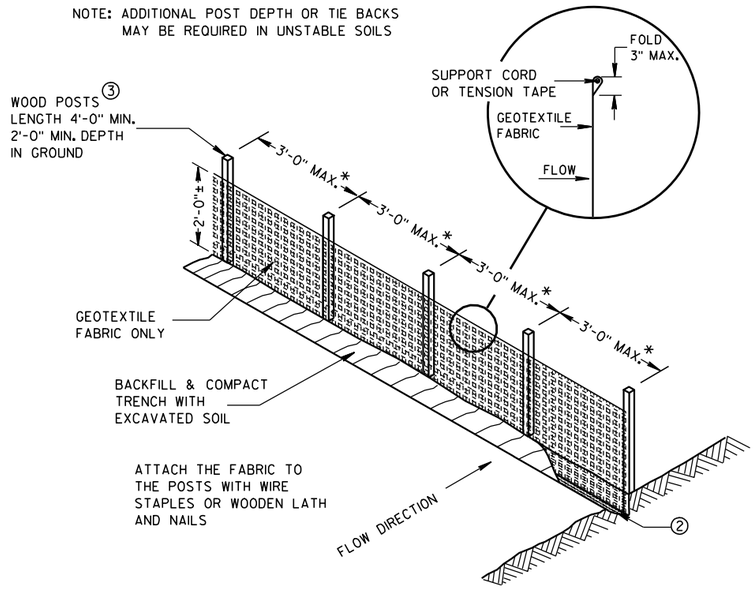
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

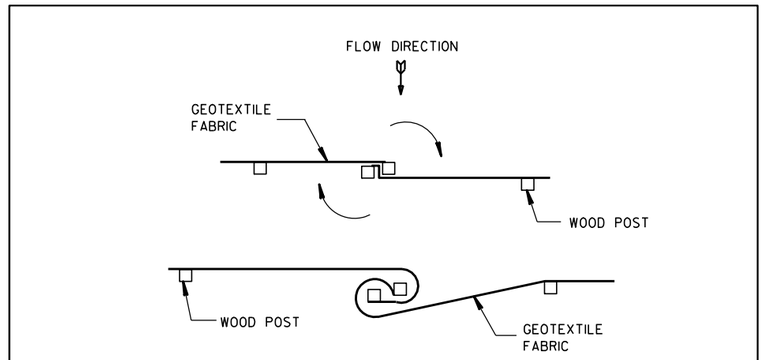
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



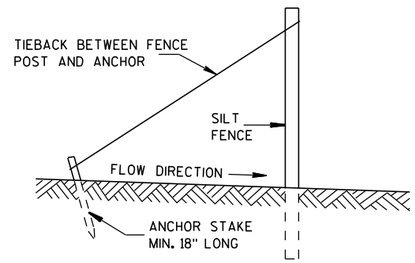
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 E 9-6

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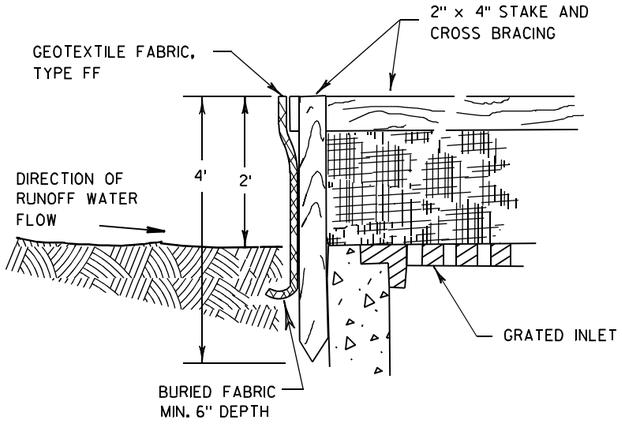
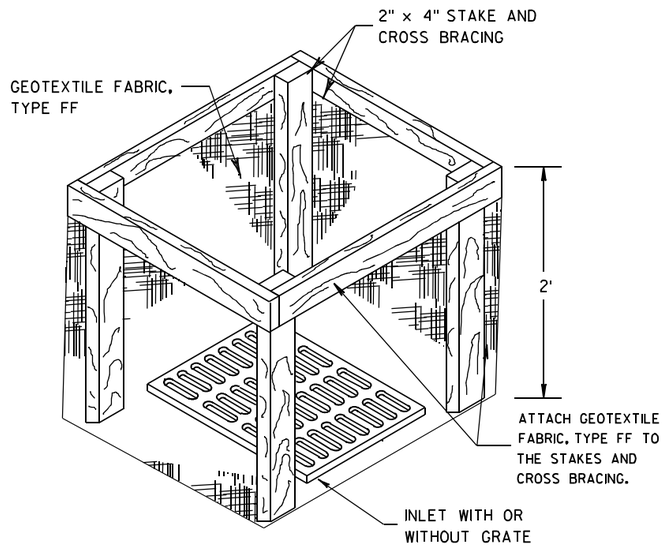
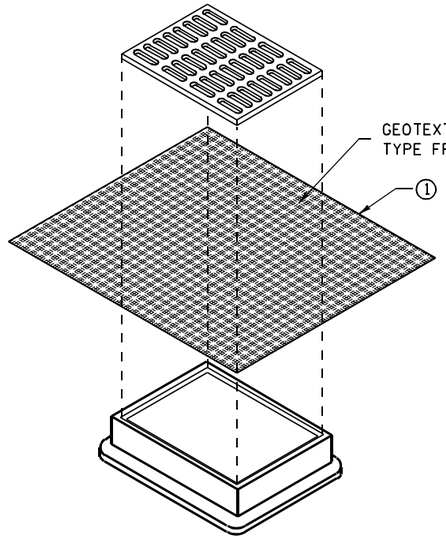
S.D.D. 8 E 9-6



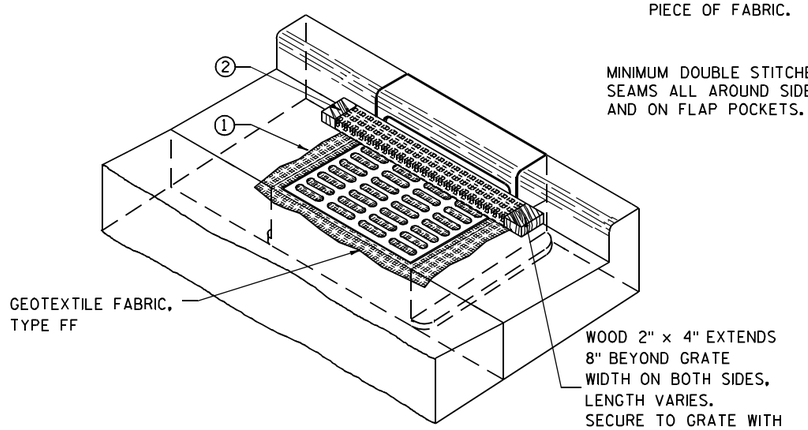


INLET PROTECTION, TYPE A

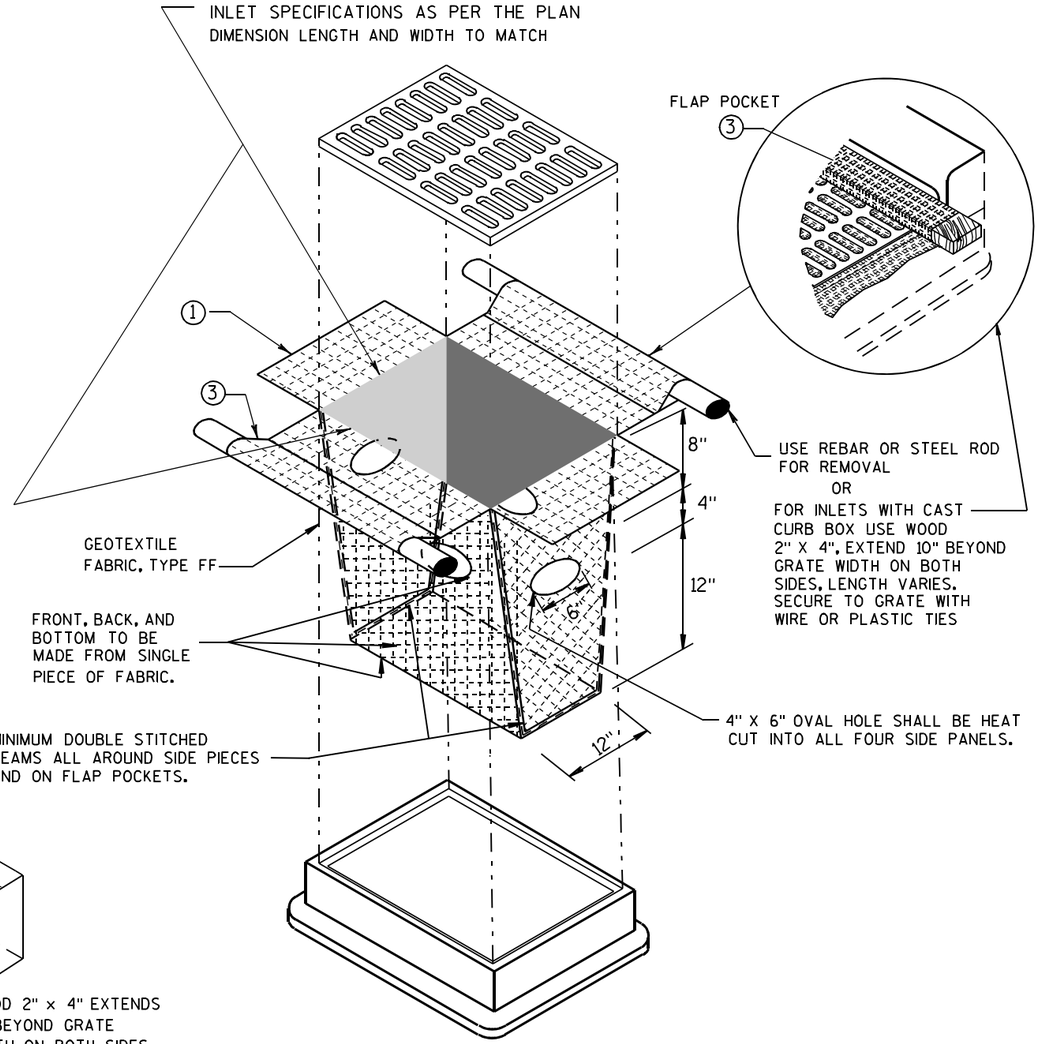


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

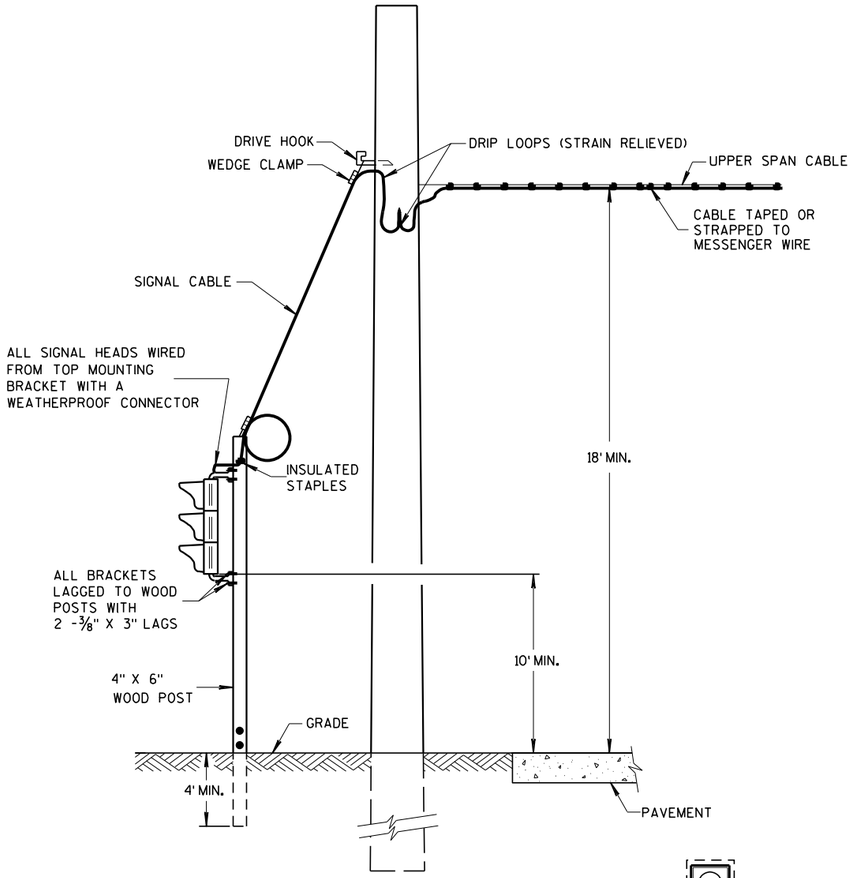
APPROVED

10/16/02
DATE

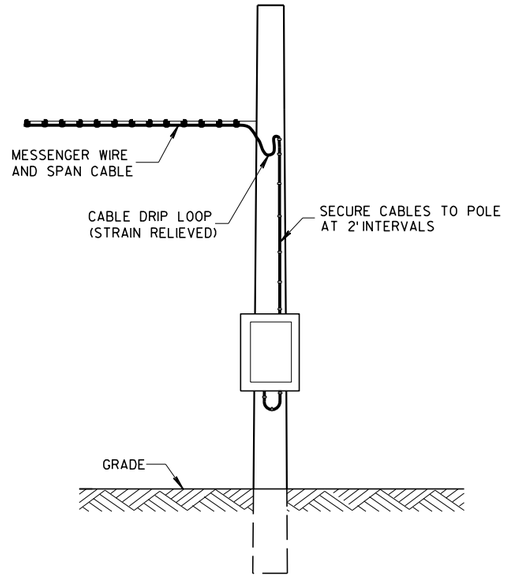
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

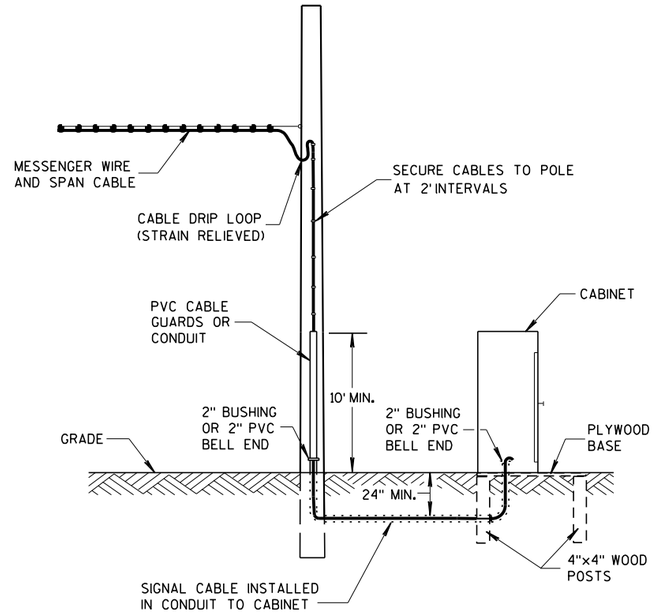
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.

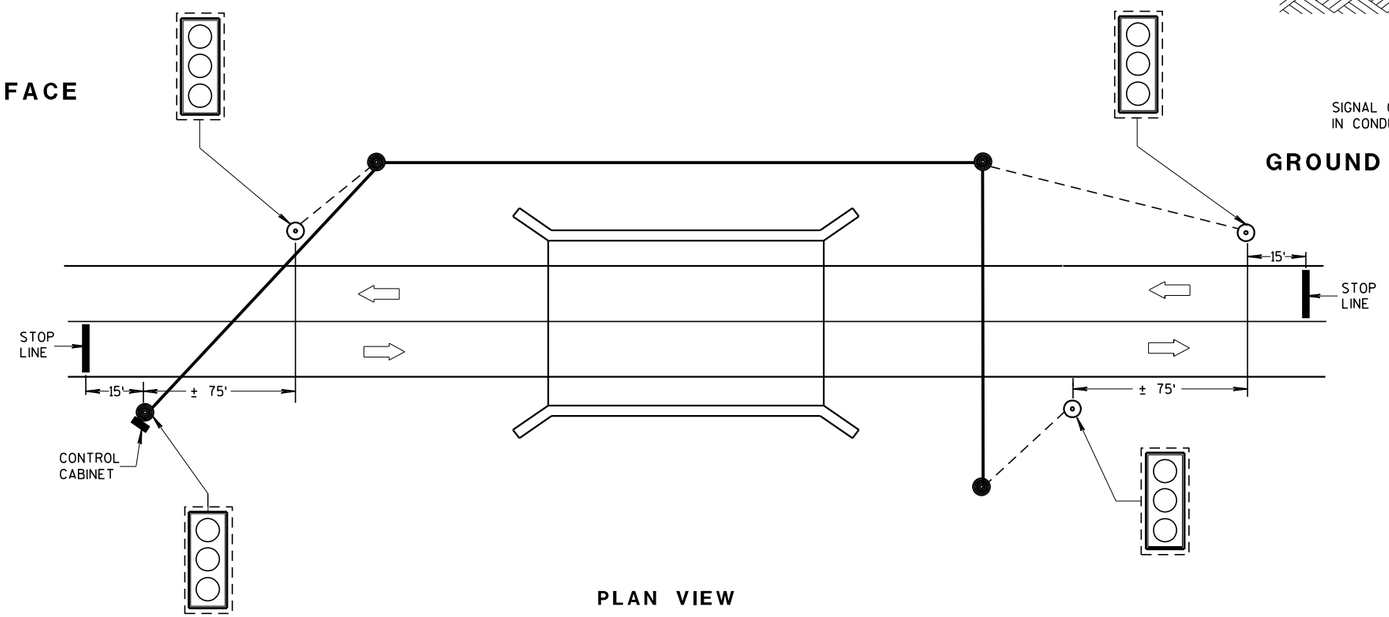
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



GROUND MOUNT CABINET INSTALLATION

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.



PLAN VIEW

TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

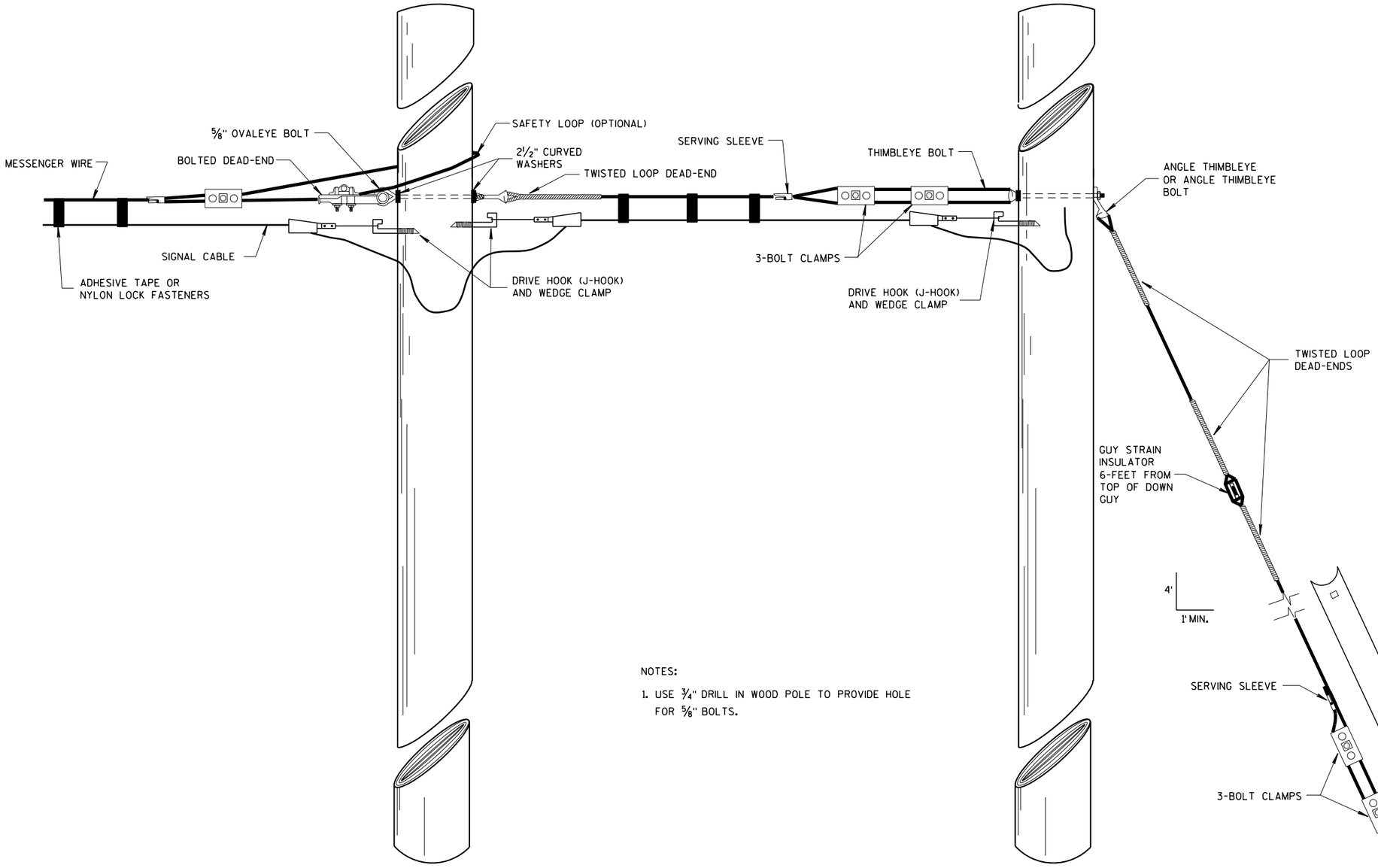
- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

MINIMUM POLE LENGTHS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICA
FHWA



SPAN WIRE POLE

GUY POLE

NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

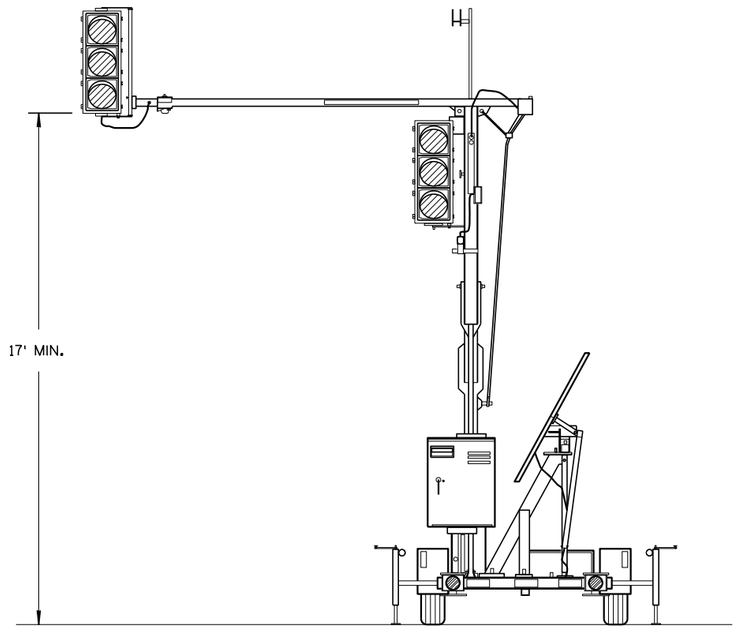
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

6

S.D.D. 9 G 2-5b

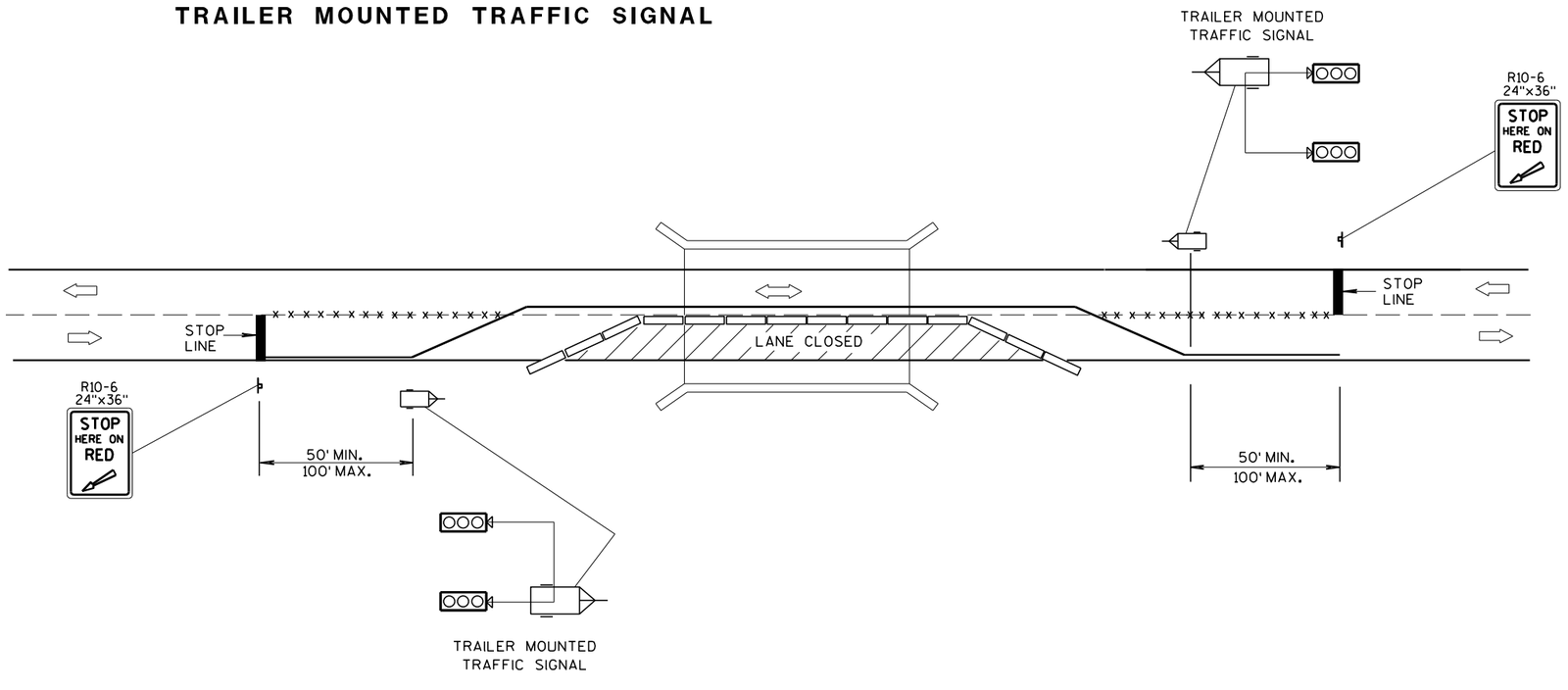


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 G 2-5c

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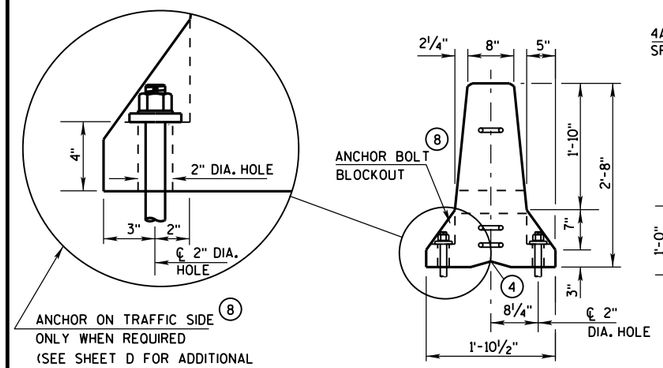
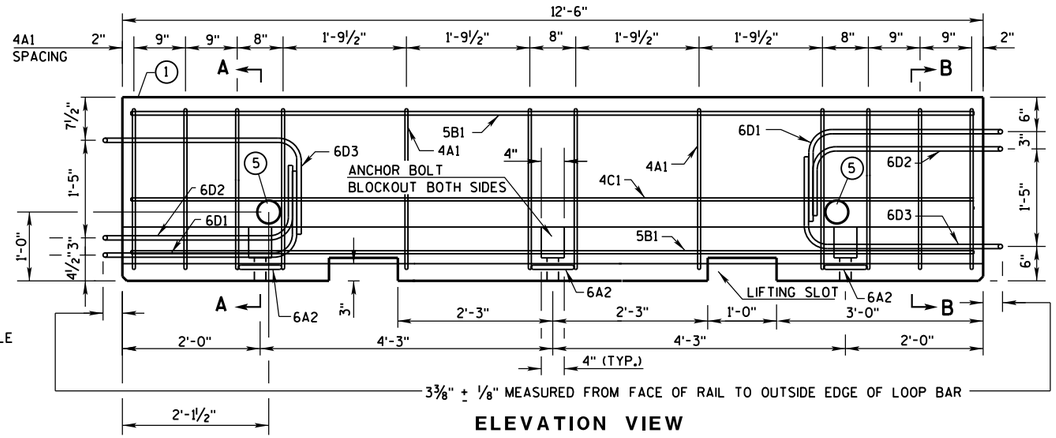
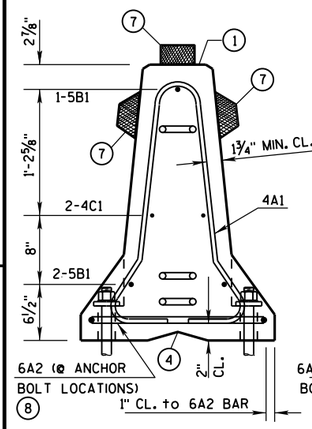
S.D.D. 9 G 2-5c



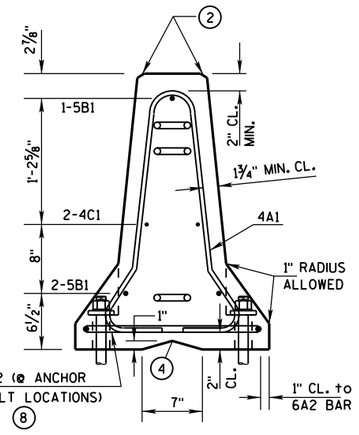
END VIEW



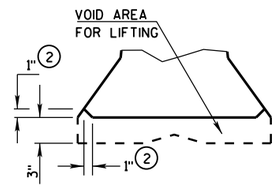
ELEVATION VIEW



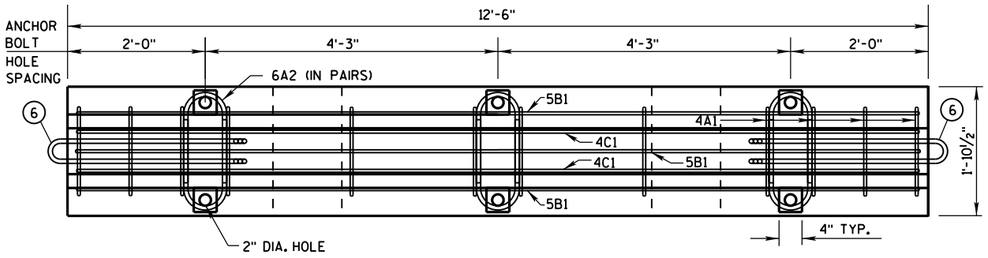
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

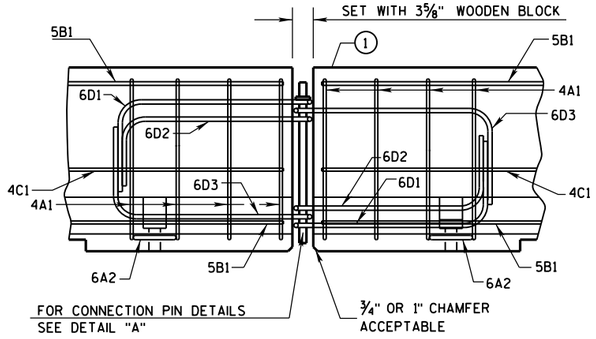


DETAIL "B"
LIFTING SLOT DETAIL

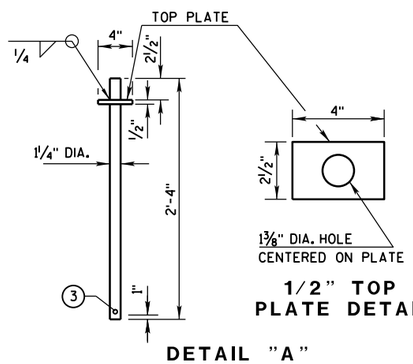


PLAN VIEW

DETAILS OF BARRIER SECTION

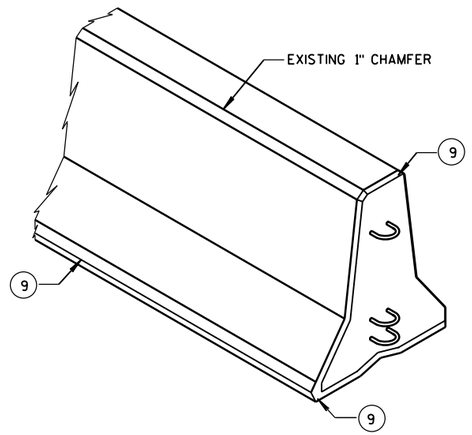


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

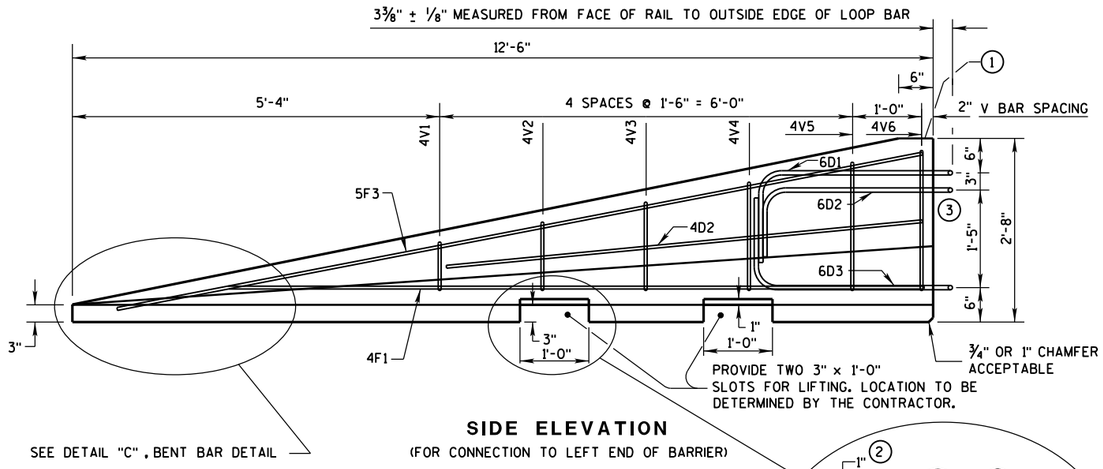
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

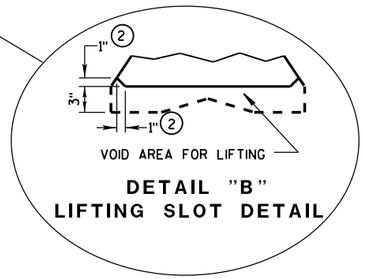
f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

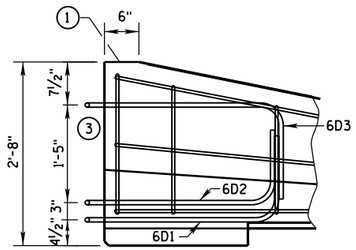
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 35



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



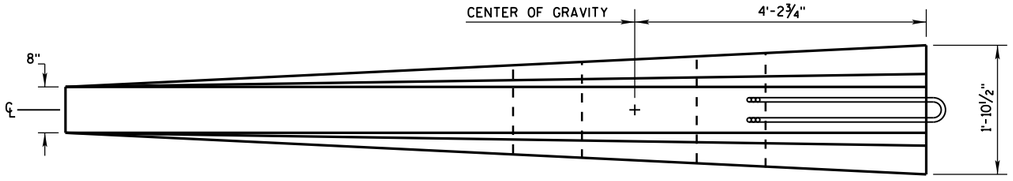
DETAIL "B"
LIFTING SLOT DETAIL



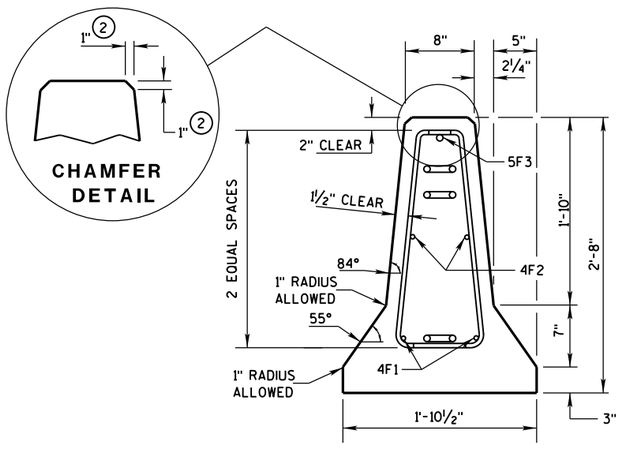
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

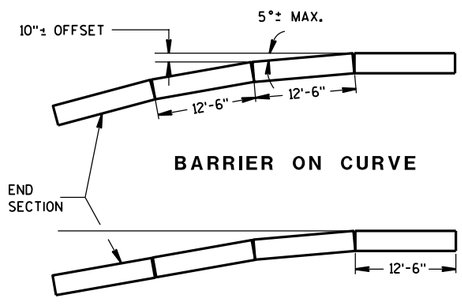
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



PLAN VIEW



END SECTION **FRONT ELEVATION**



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

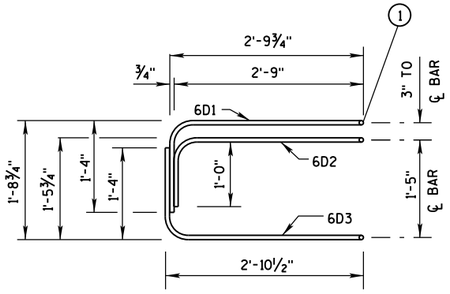
6

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

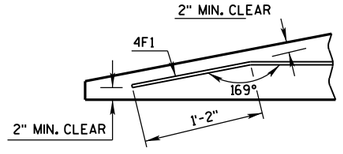
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

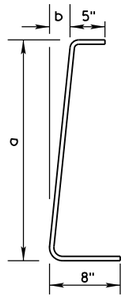
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

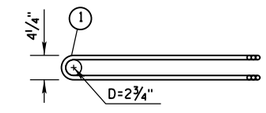
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

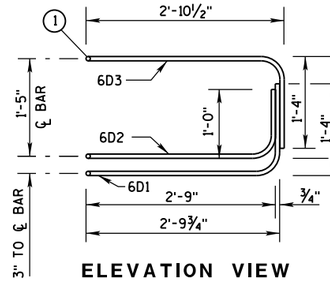
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

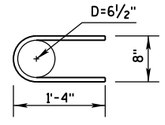
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



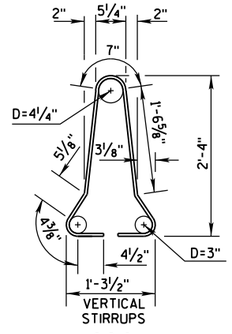
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

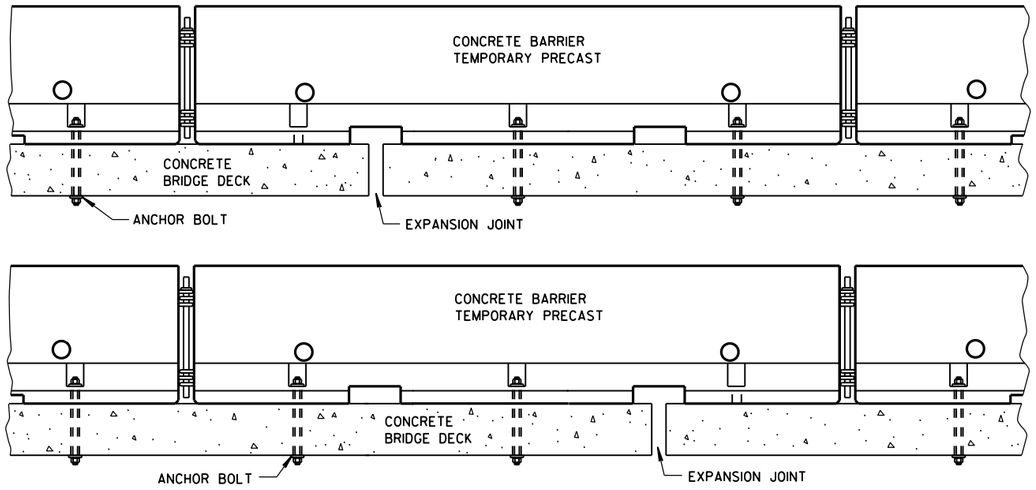
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

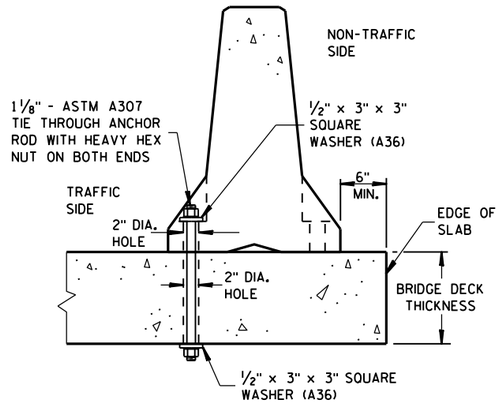
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

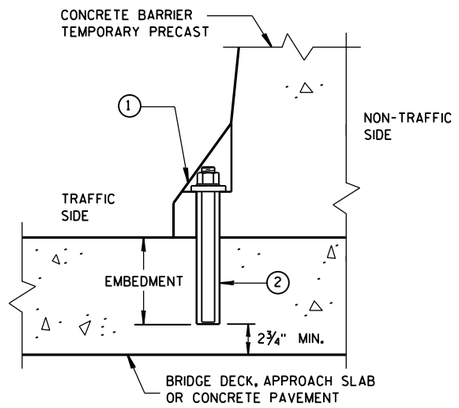
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



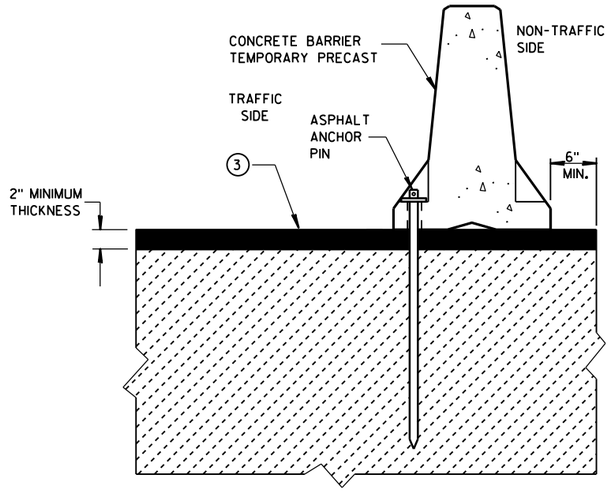
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

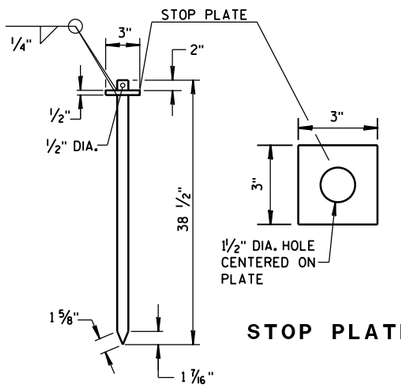


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



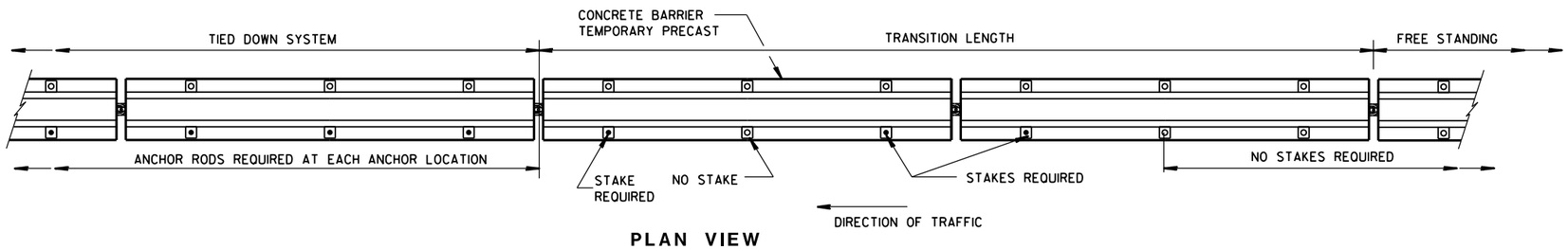
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

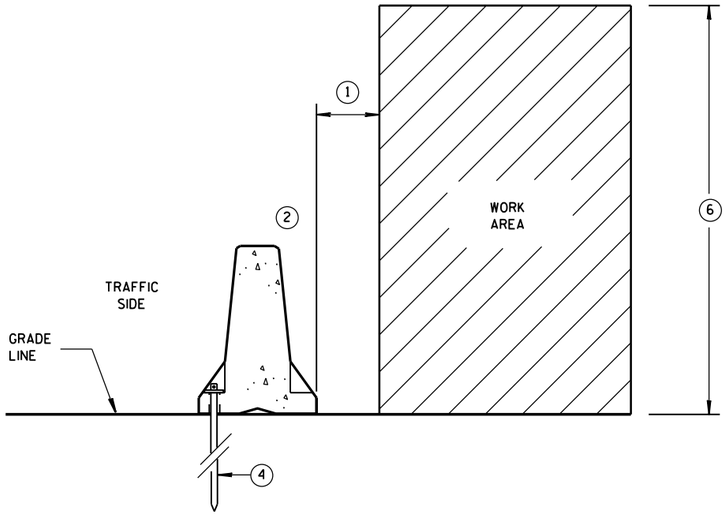
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

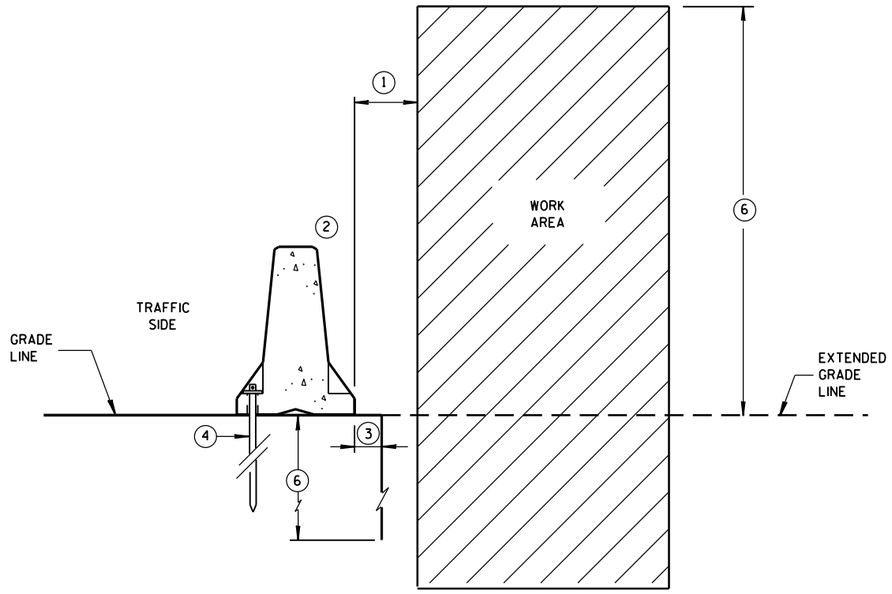
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

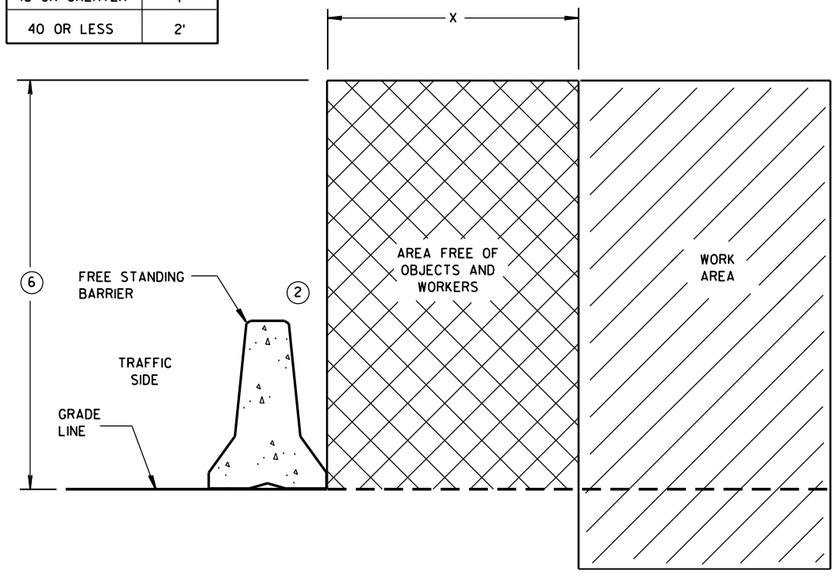


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

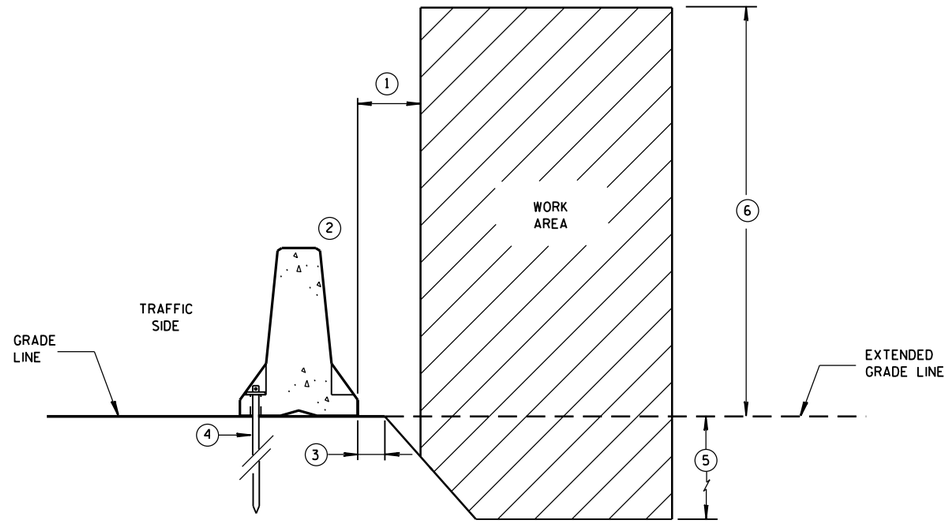
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



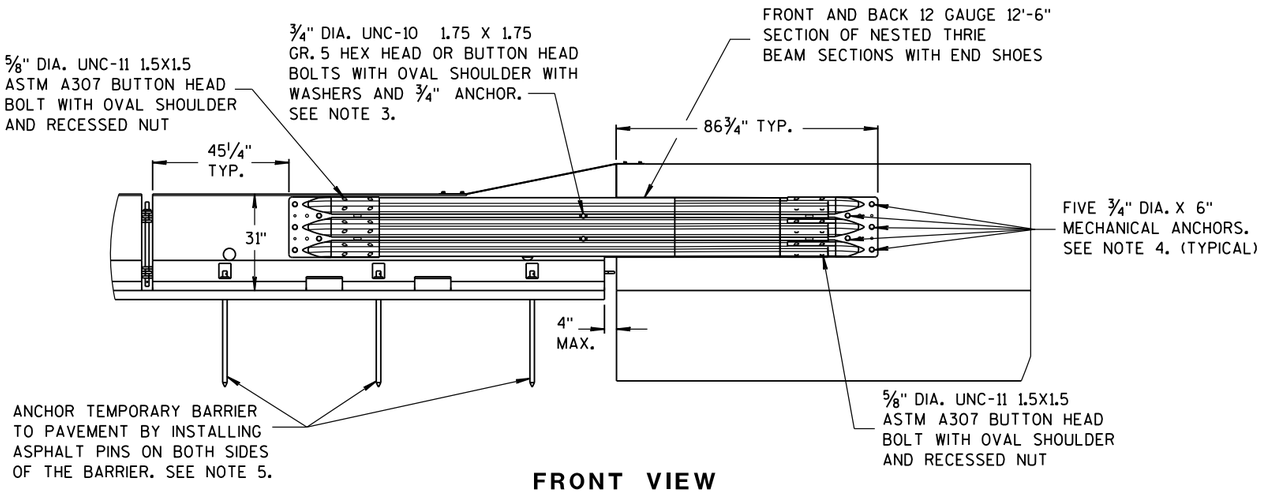
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

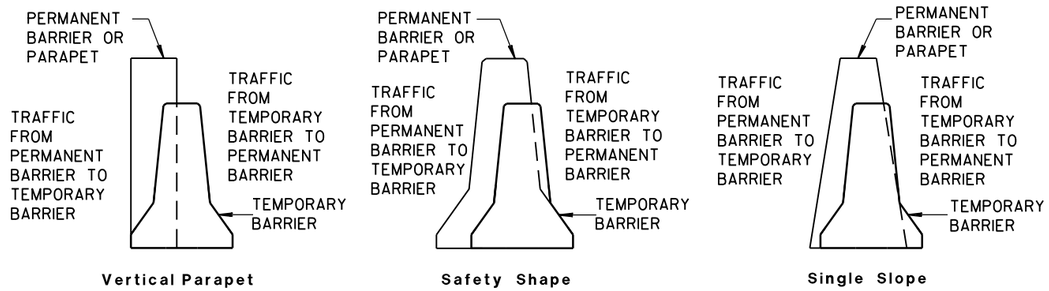
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15e



FRONT VIEW

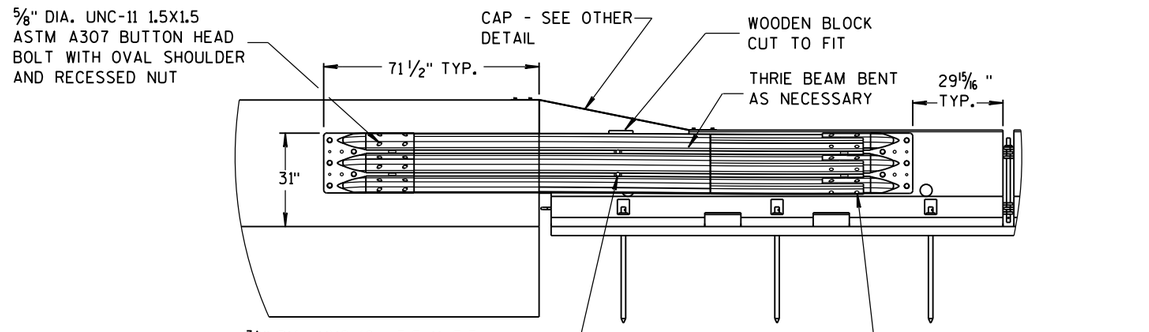


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

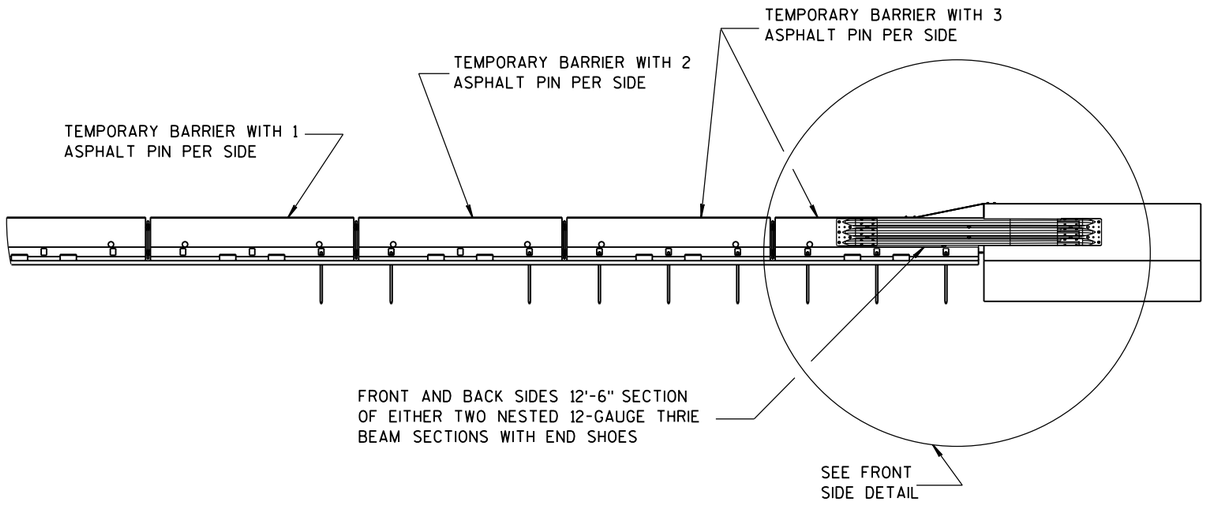
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

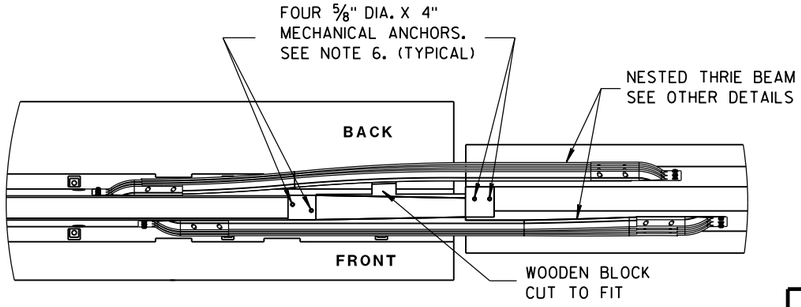
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



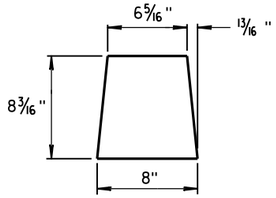
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

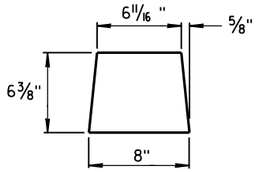
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

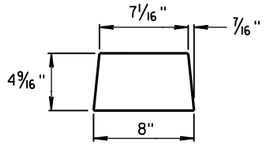
6
S.D.D. 14 B 7-15f



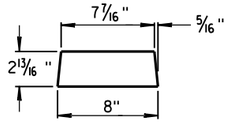
GUSSET 1



GUSSET 2

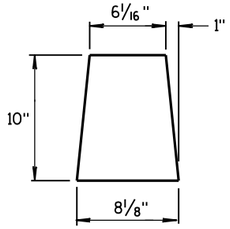


GUSSET 3

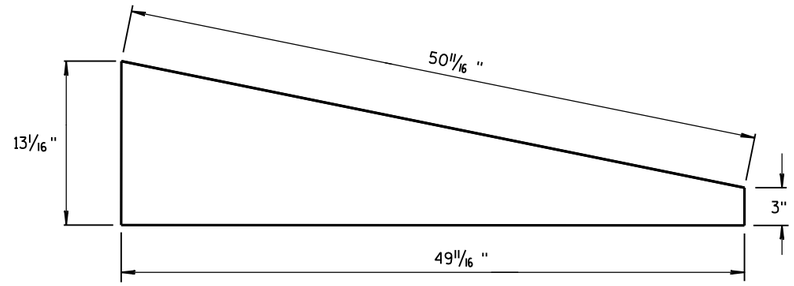


GUSSET 4

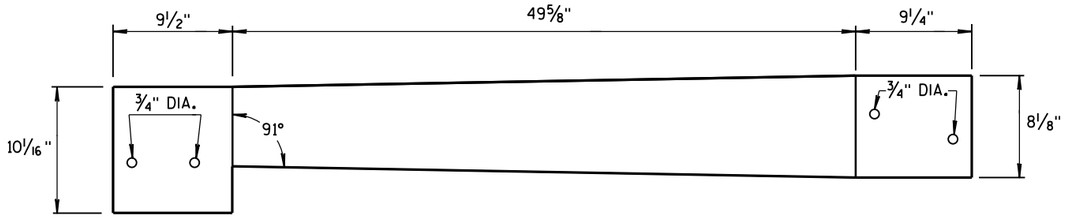
GUSSETS

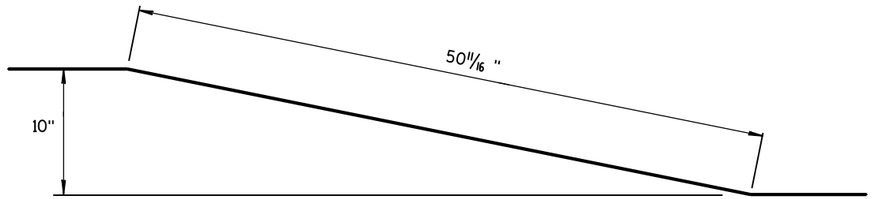


END PLATE



SIDE PLATE

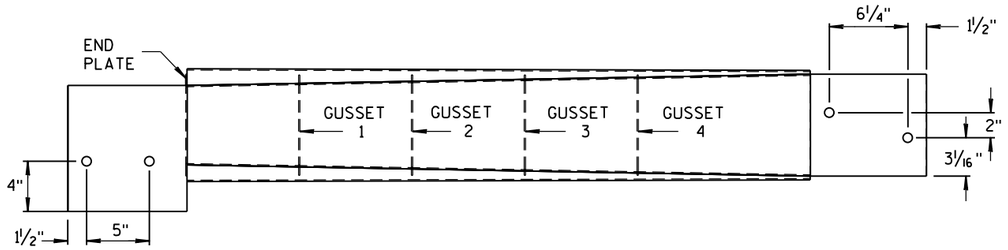


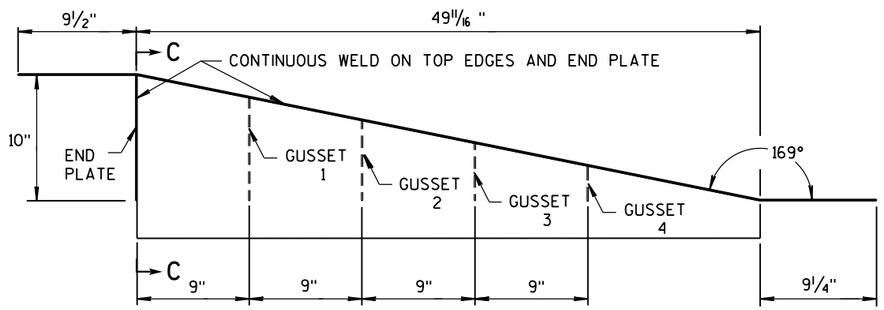


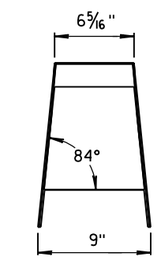
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

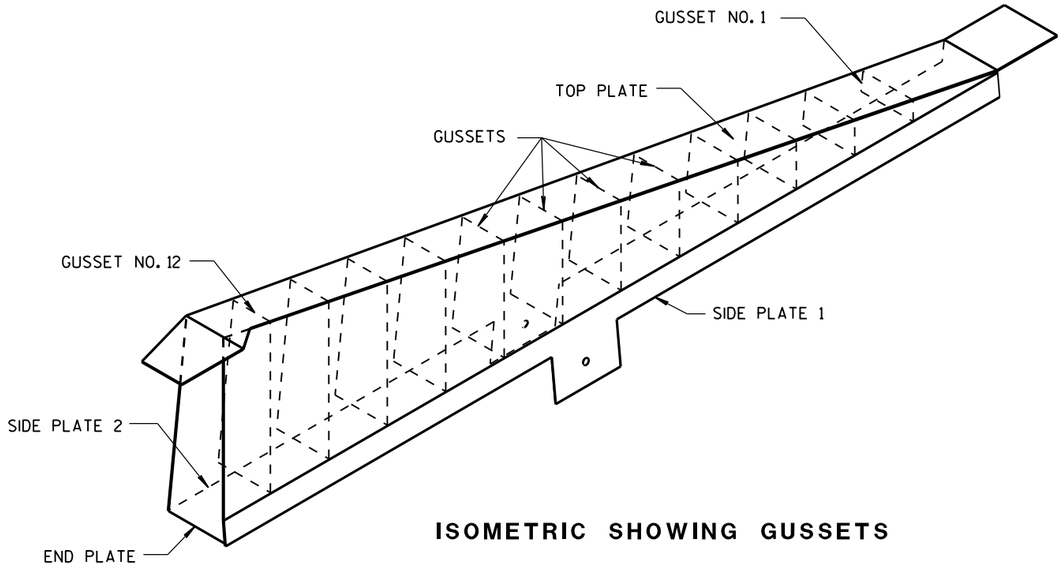
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

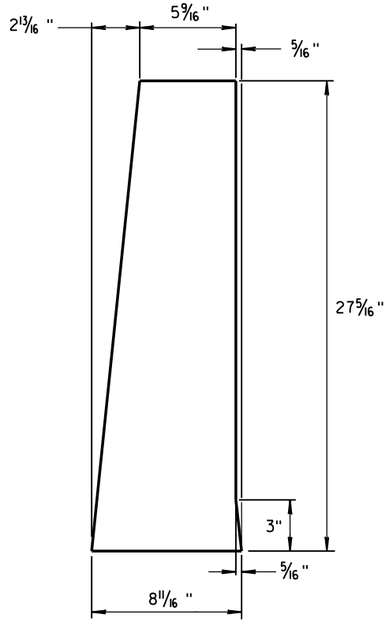
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15g

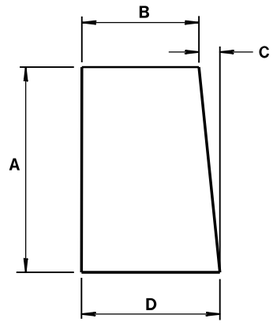


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



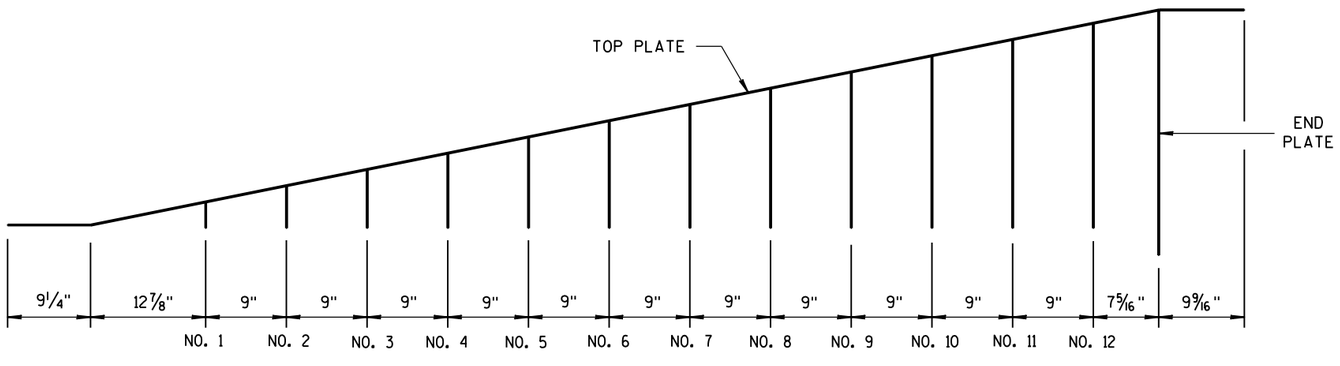
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

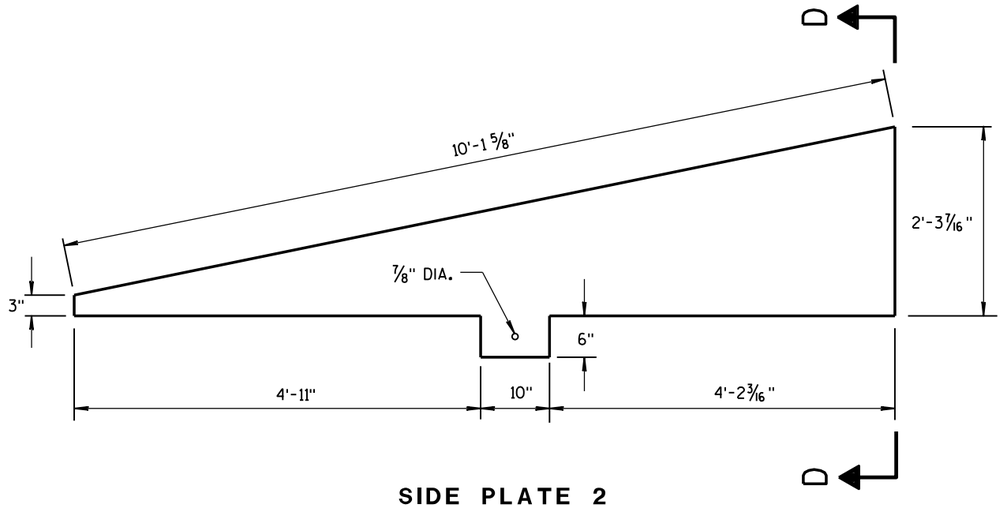
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

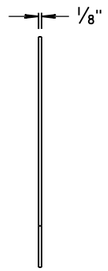
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

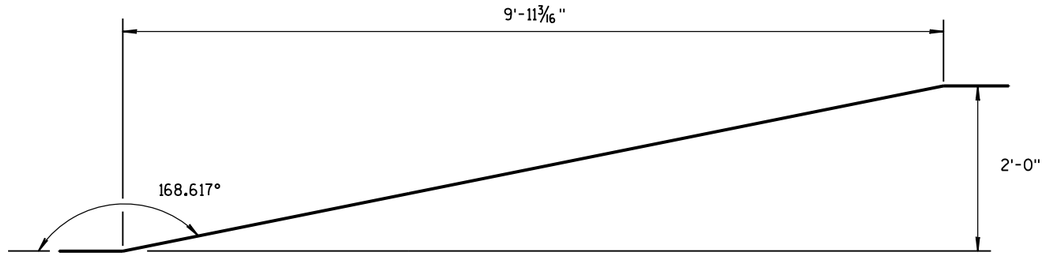
S.D.D. 14 B 7-15h



SIDE PLATE 2

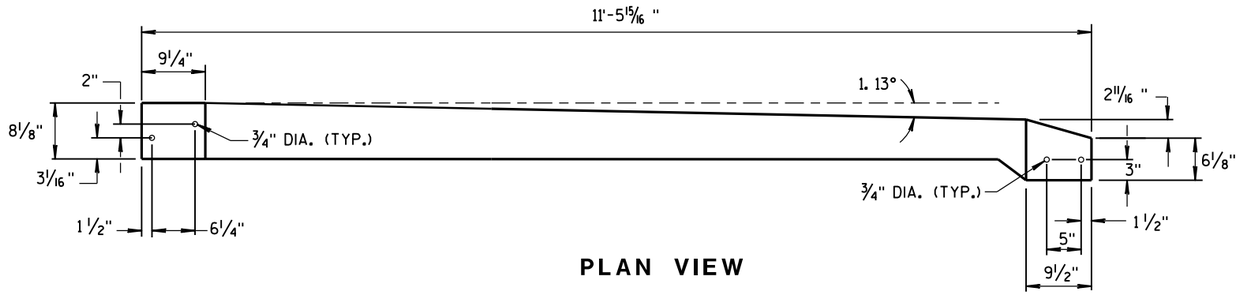


END VIEW



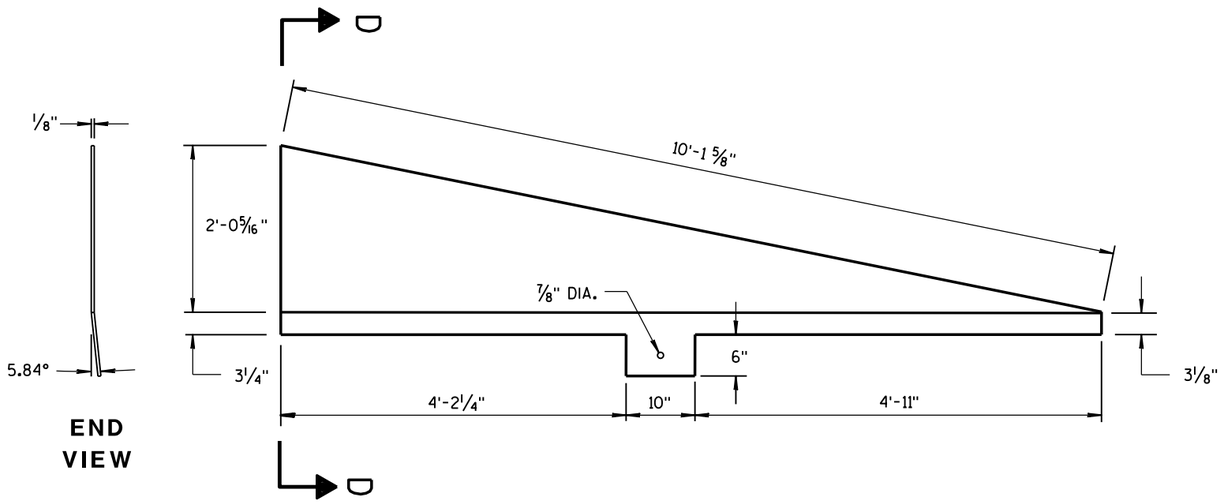
SIDE VIEW

TOP PLATE



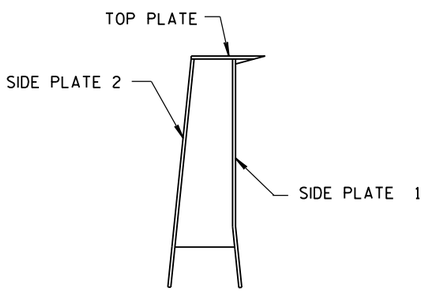
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
FHWA

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S.D.D. 14 B 7-15i

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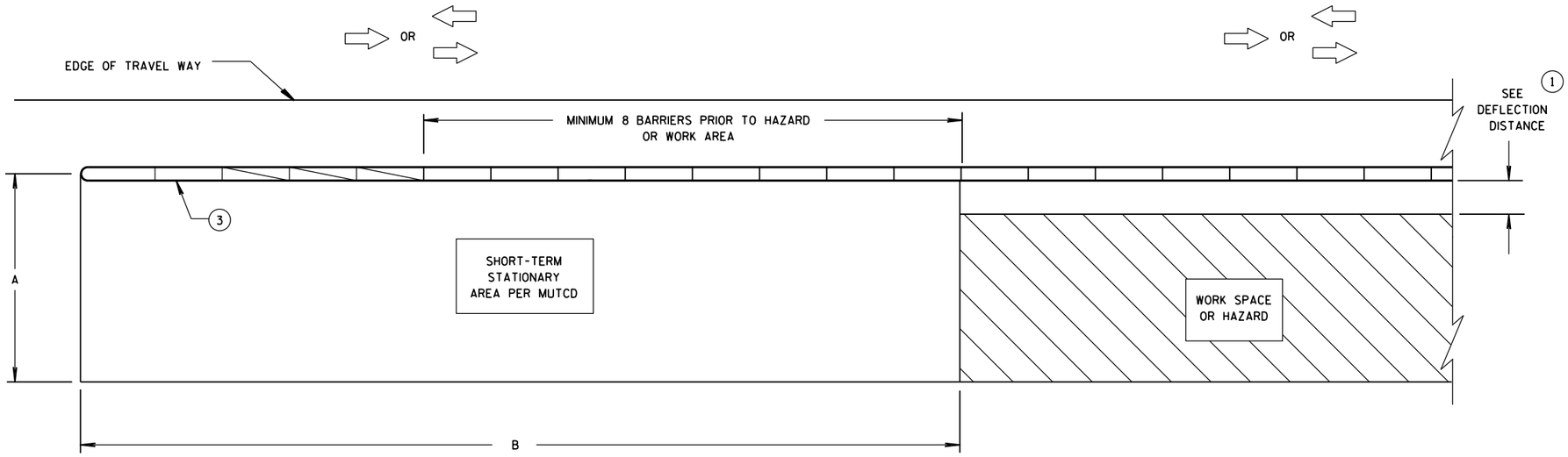
S.D.D. 14 B 7-15i



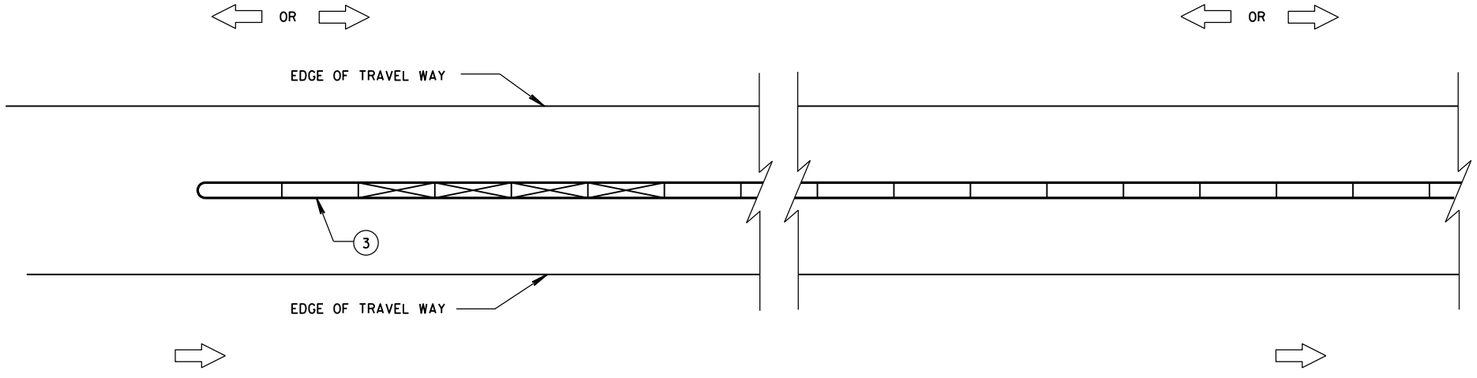
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

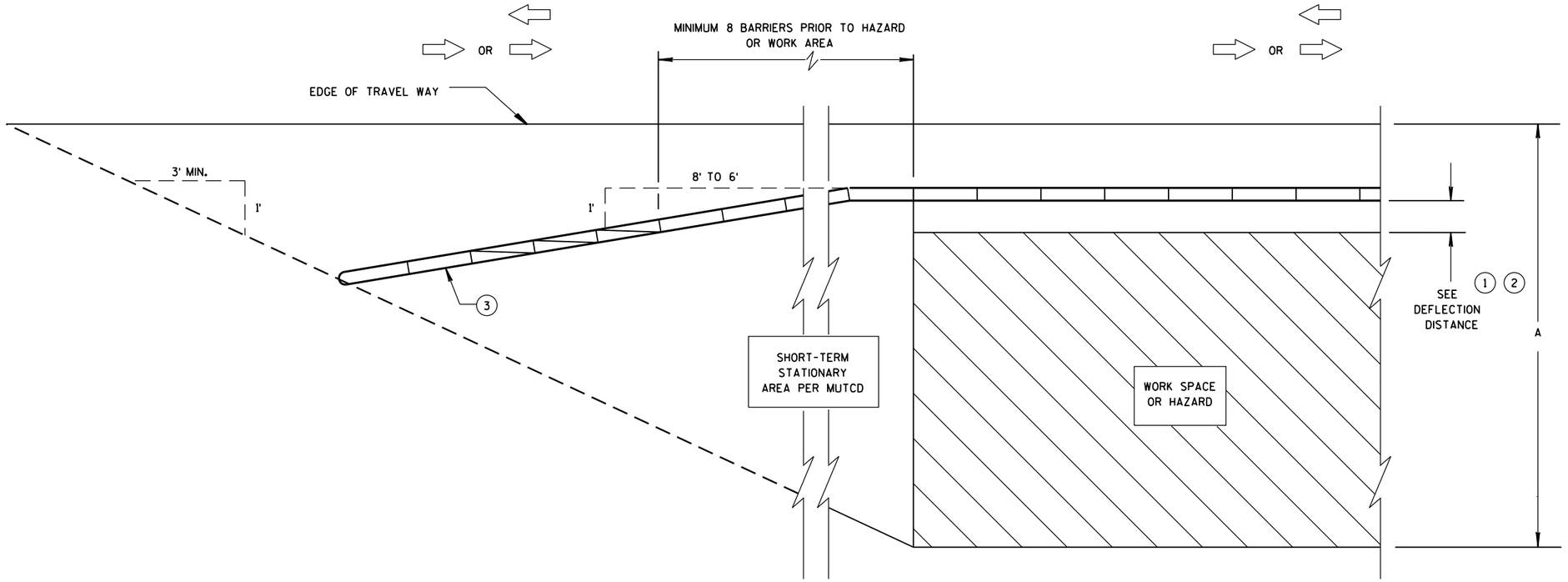
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

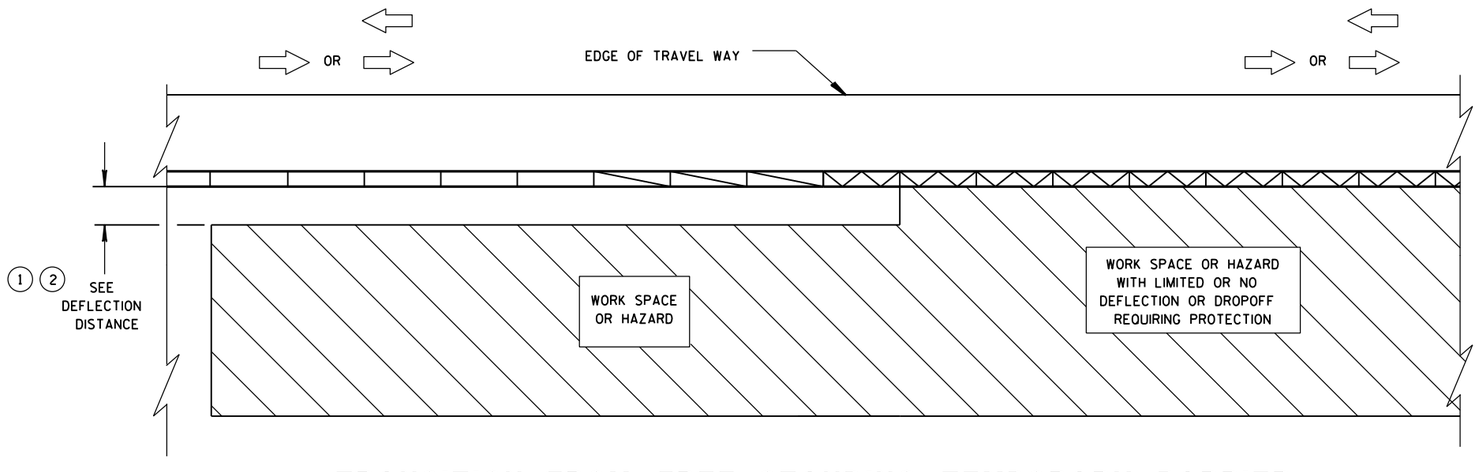
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

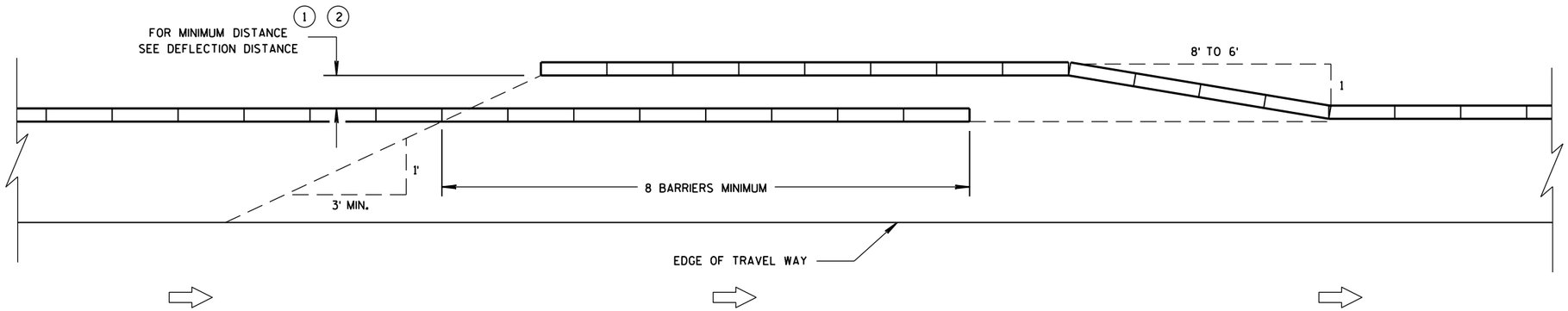
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

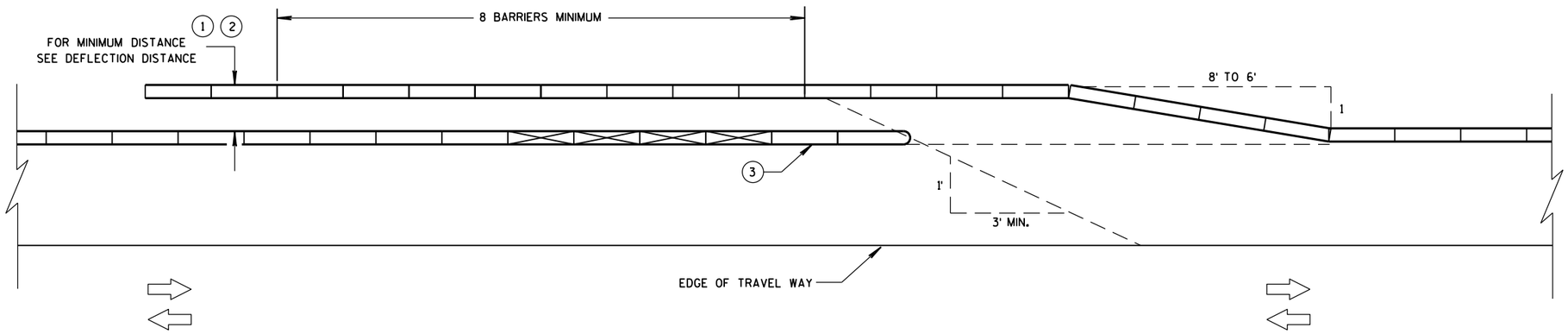
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

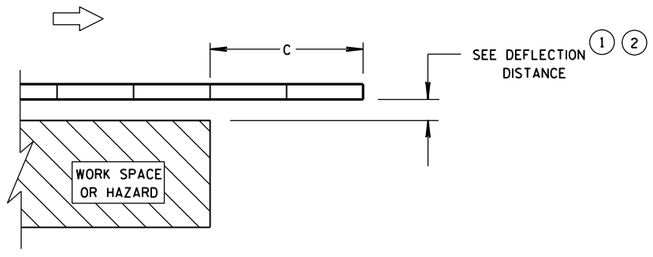
S.D.D. 14 B 8-2b



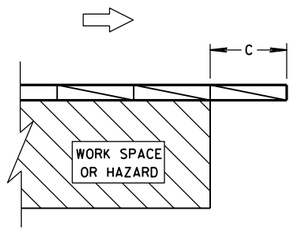
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

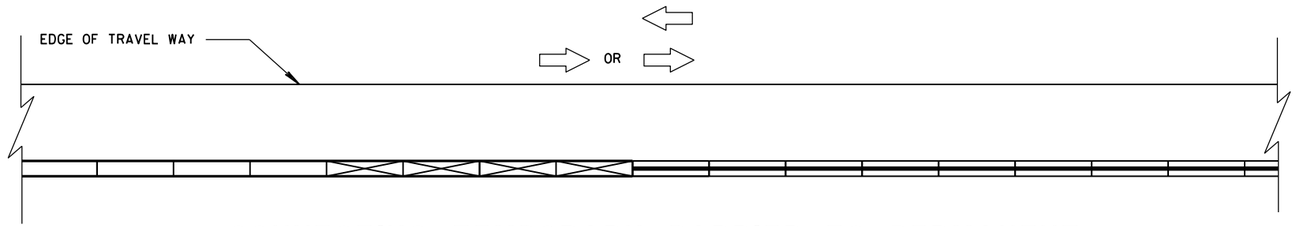
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

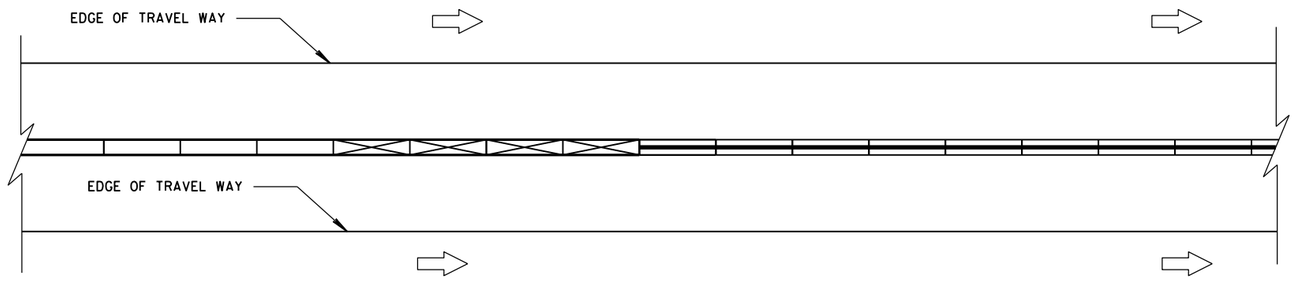
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

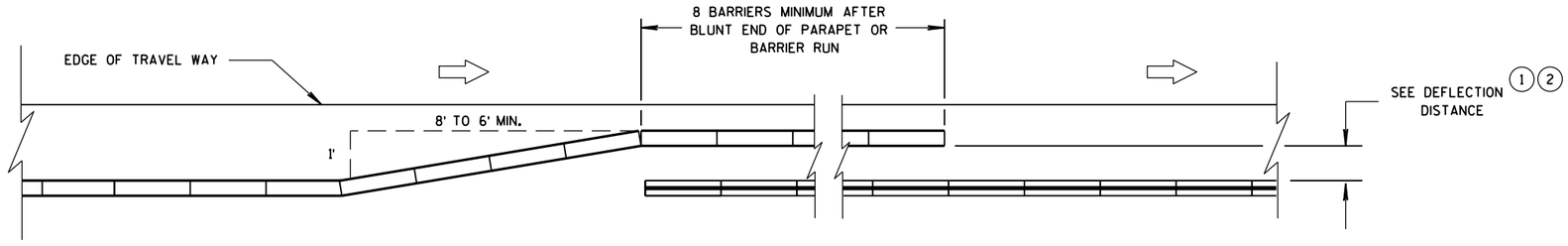
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

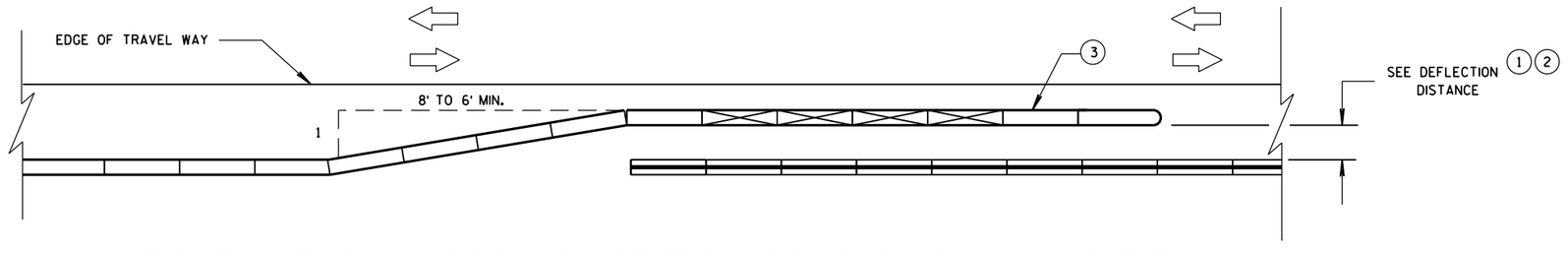
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

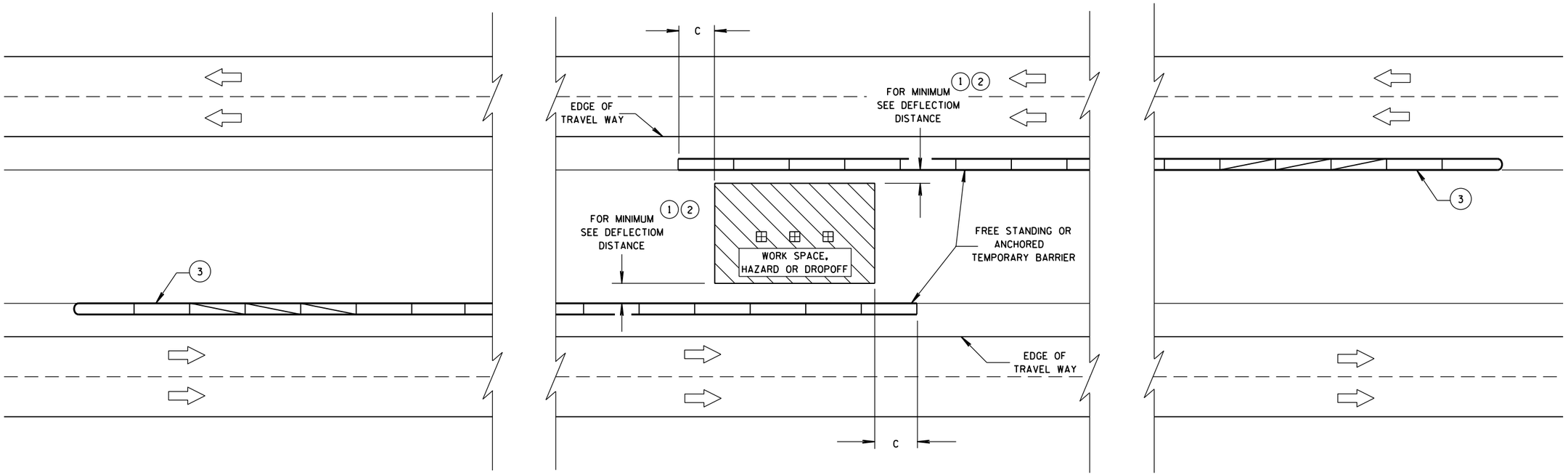
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
ENT
FHWA

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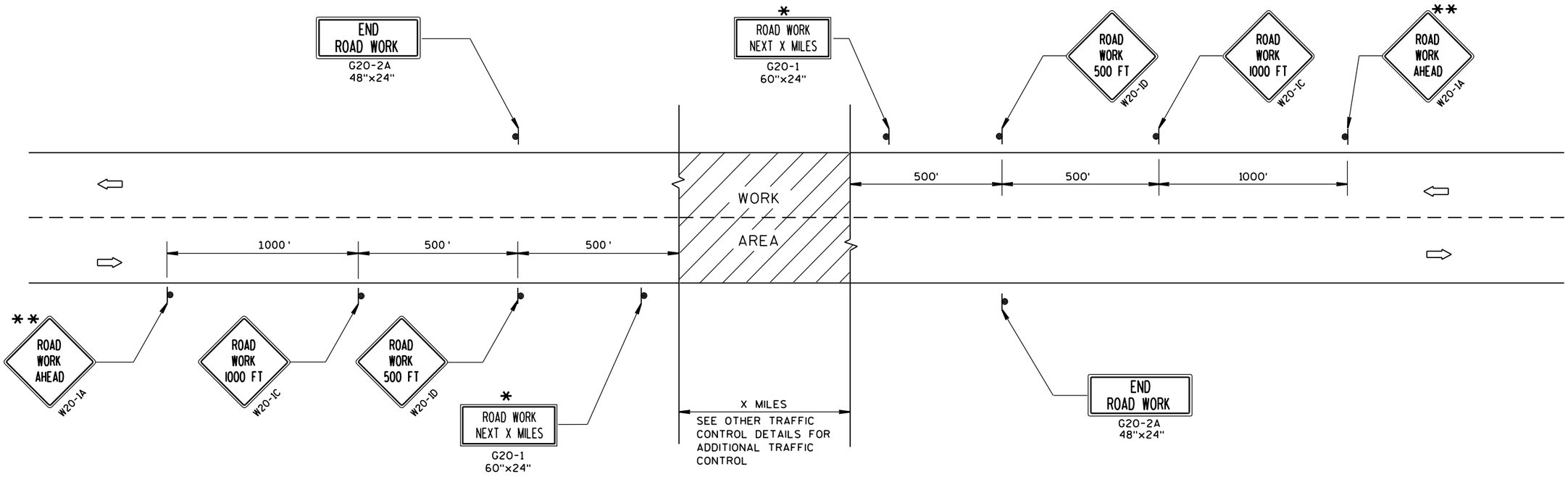
S.D.D. 14 B 8-2e

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

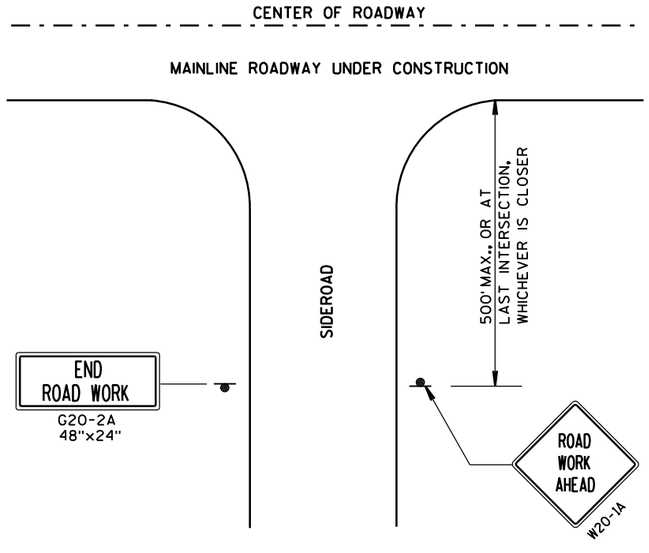
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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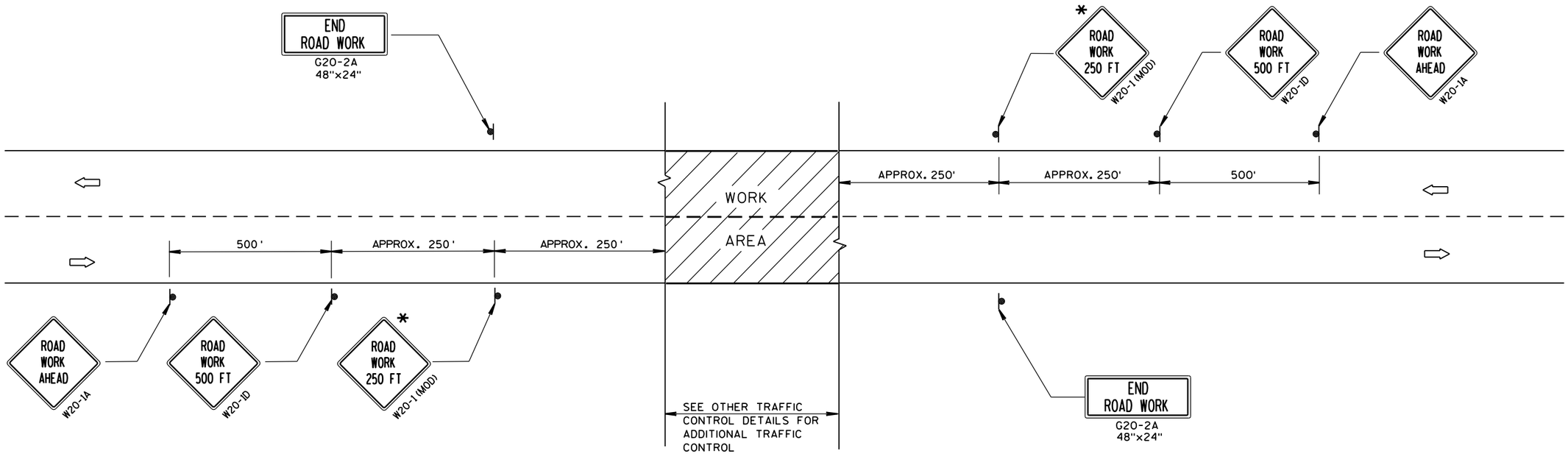
S.D.D. 15 C 4-4

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

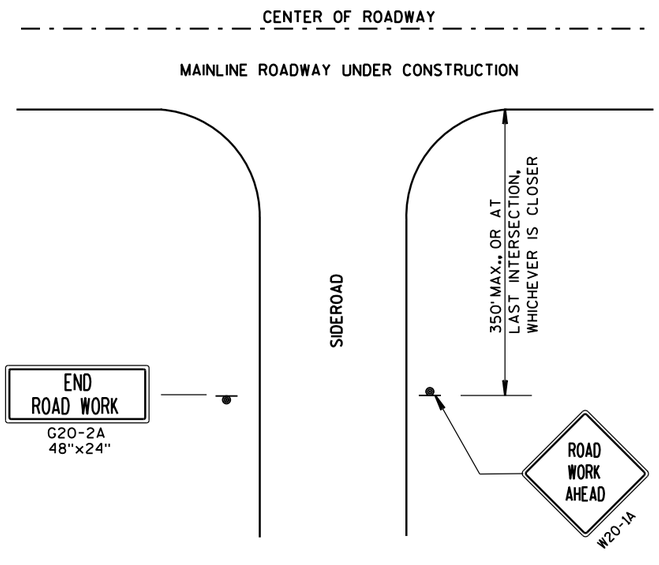
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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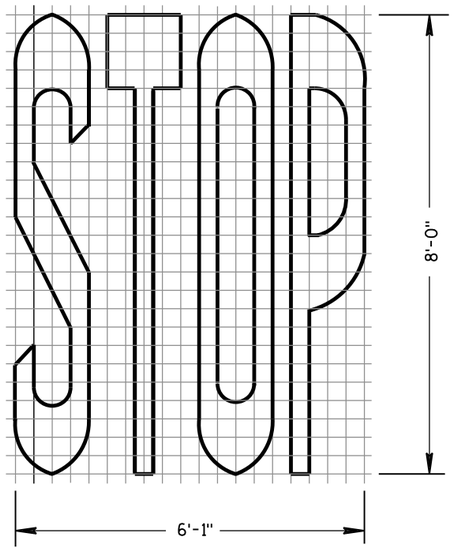
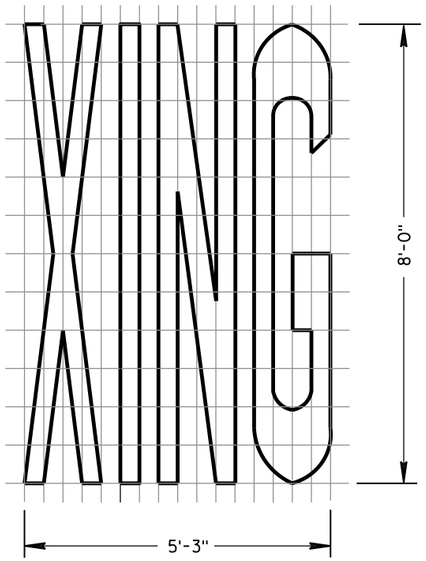
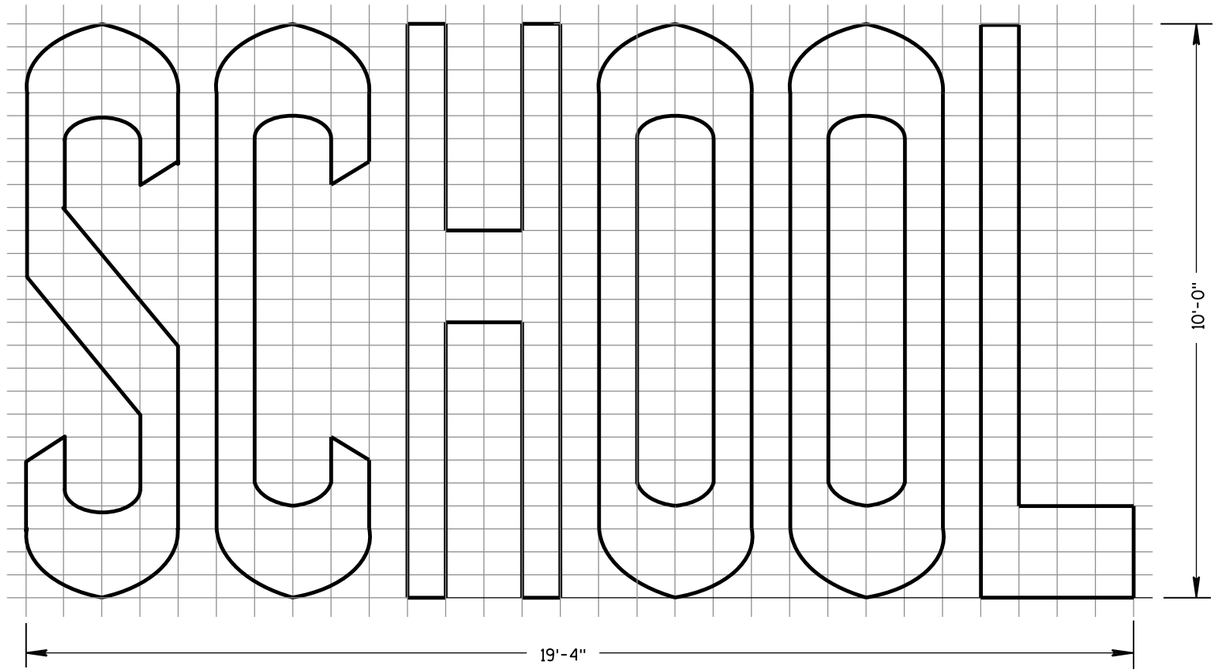
S.D.D. 15 C 5-4

GENERAL NOTES

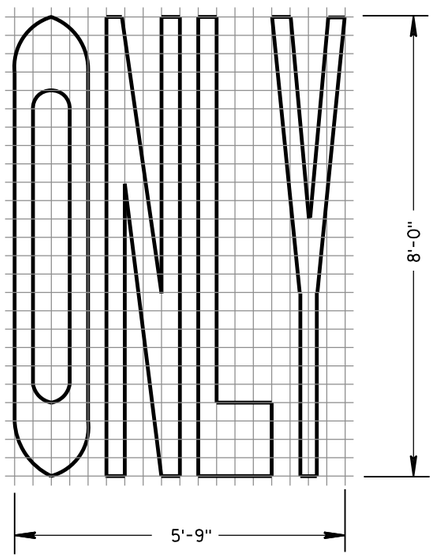
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

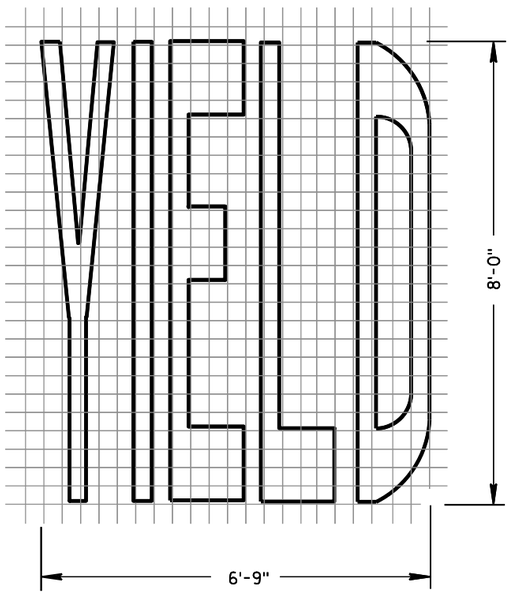


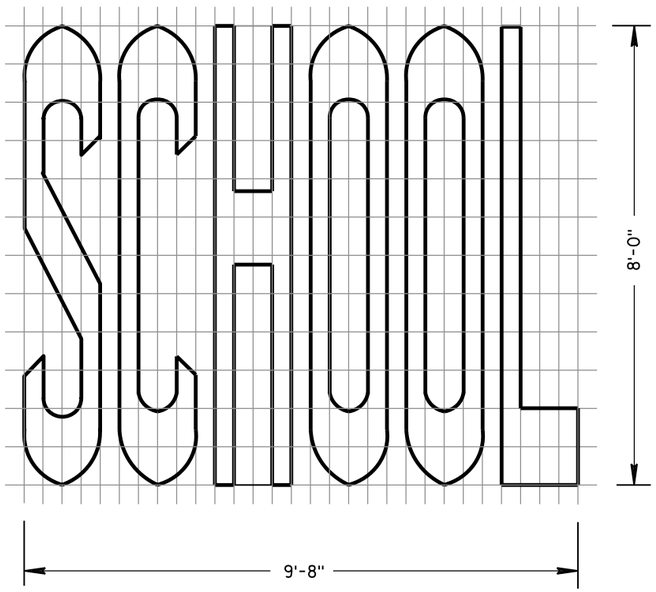




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

FHWA

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

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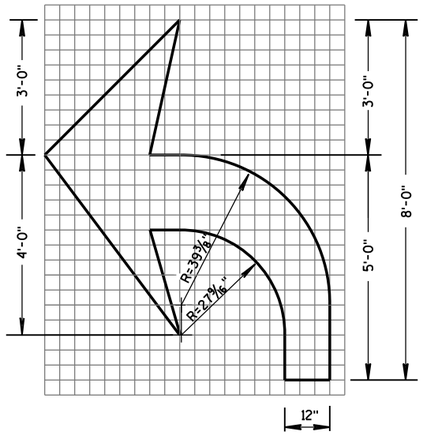
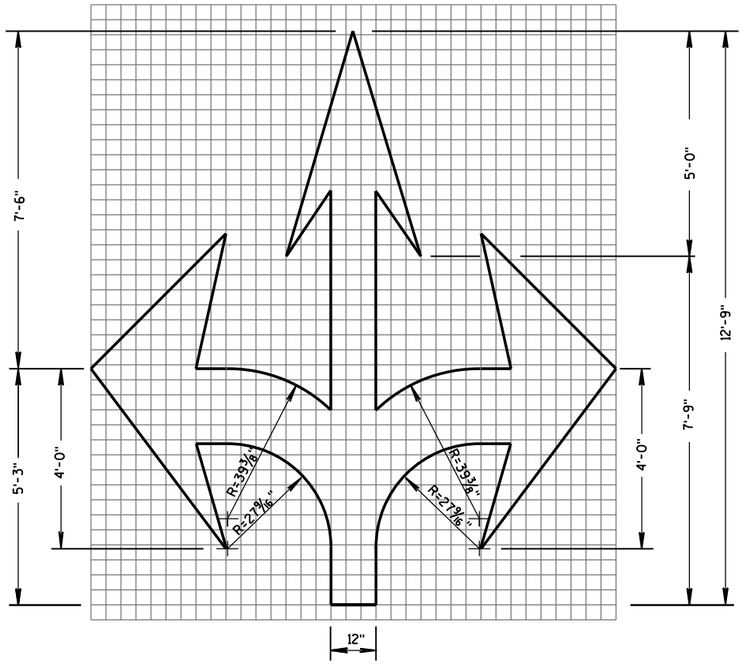
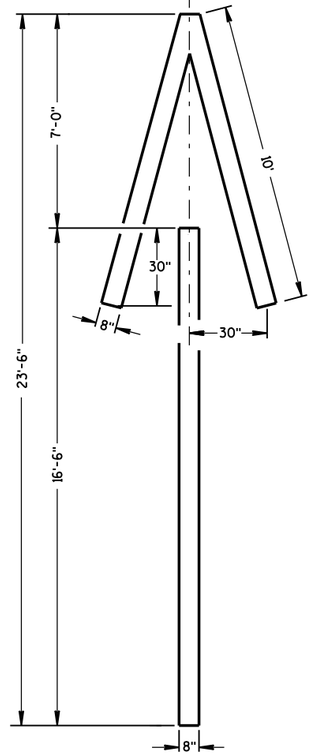
S.D.D. 15 C 7-14b



TYPE 2



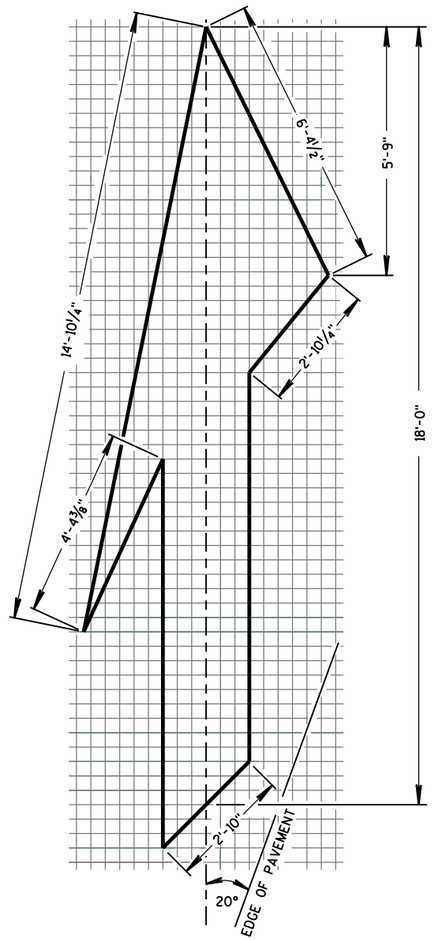
TYPE 6



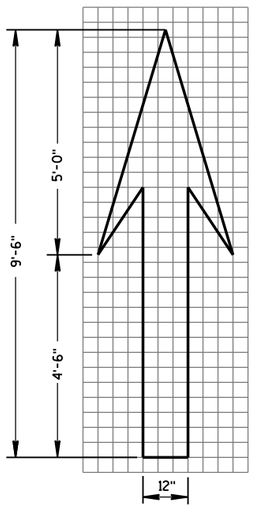
TYPE 4

GENERAL NOTES

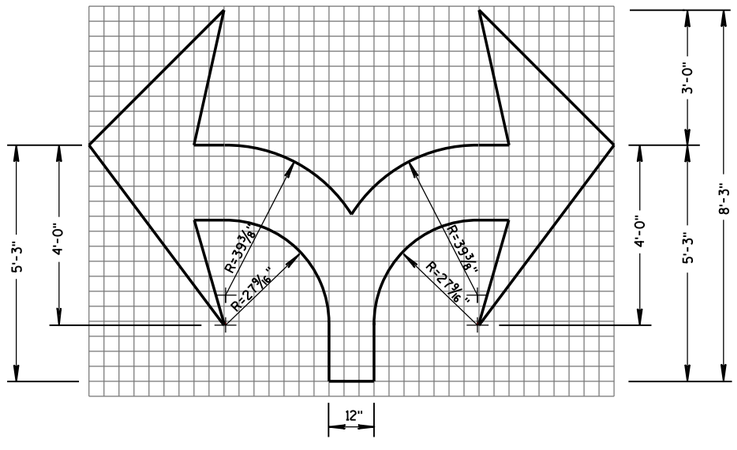
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 5 LANE DROP ARROW



TYPE 1



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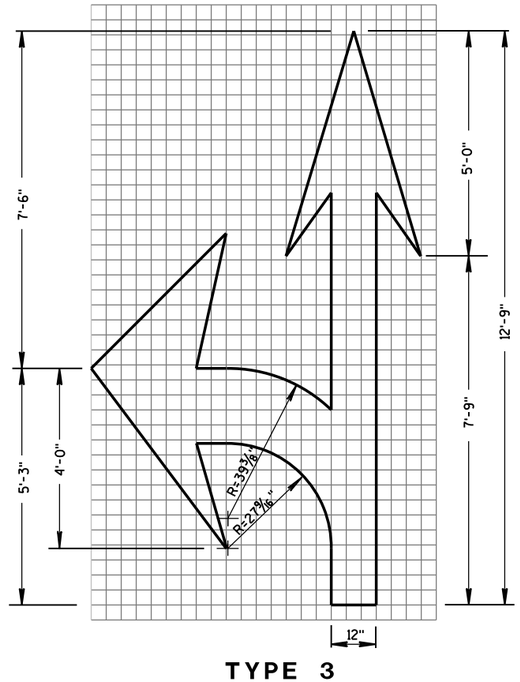

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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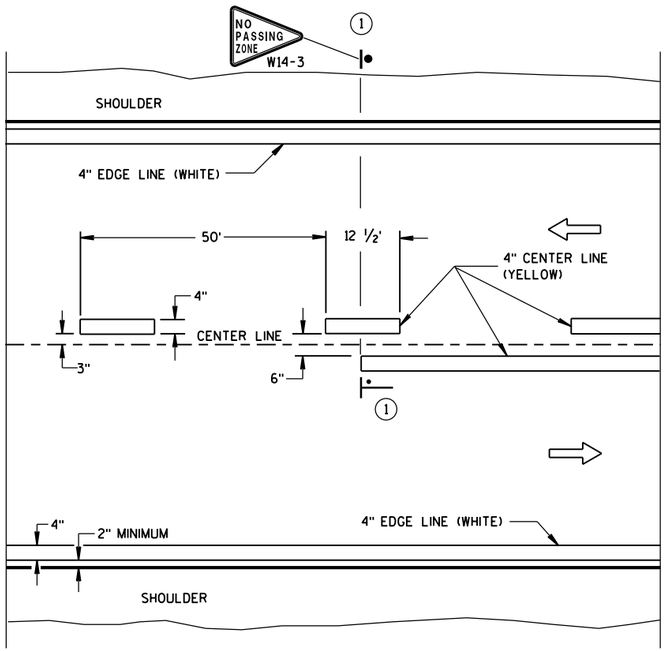
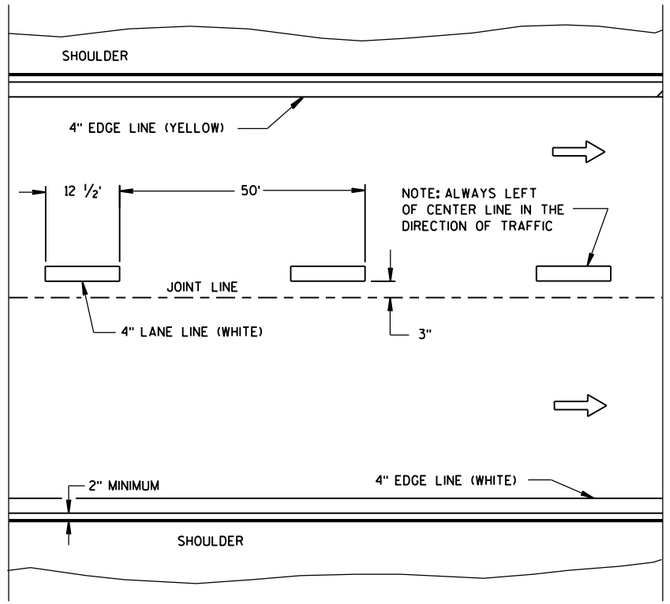
S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

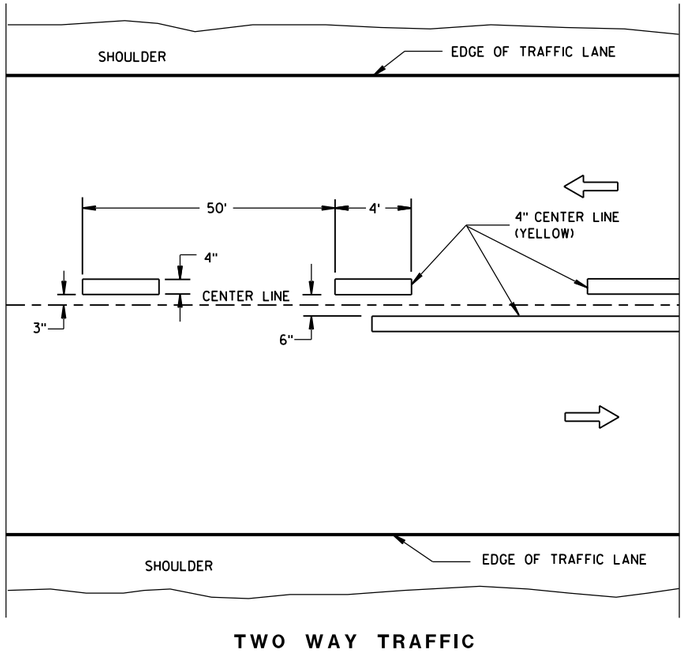
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

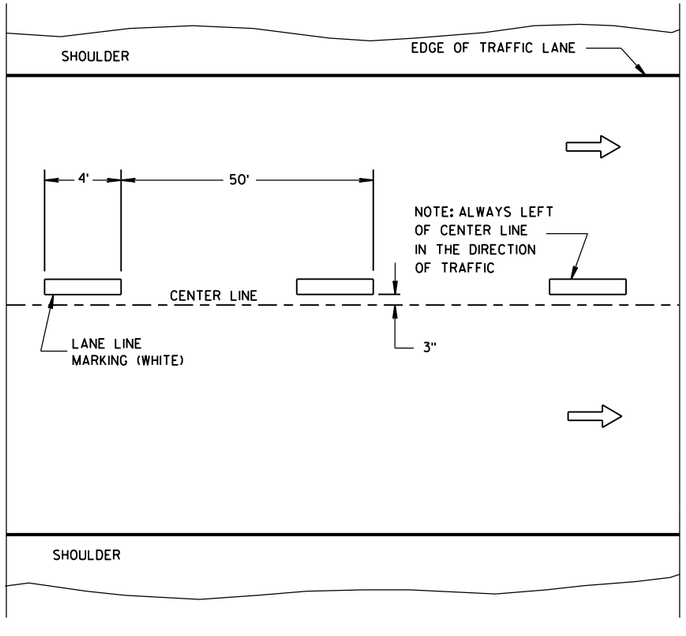
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June 2017 (DATE)	/S/ Matthew R. Rauch (STATE SIGNING AND MARKING ENGINEER)
FHWA	

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S.D.D. 15 C 8-18a

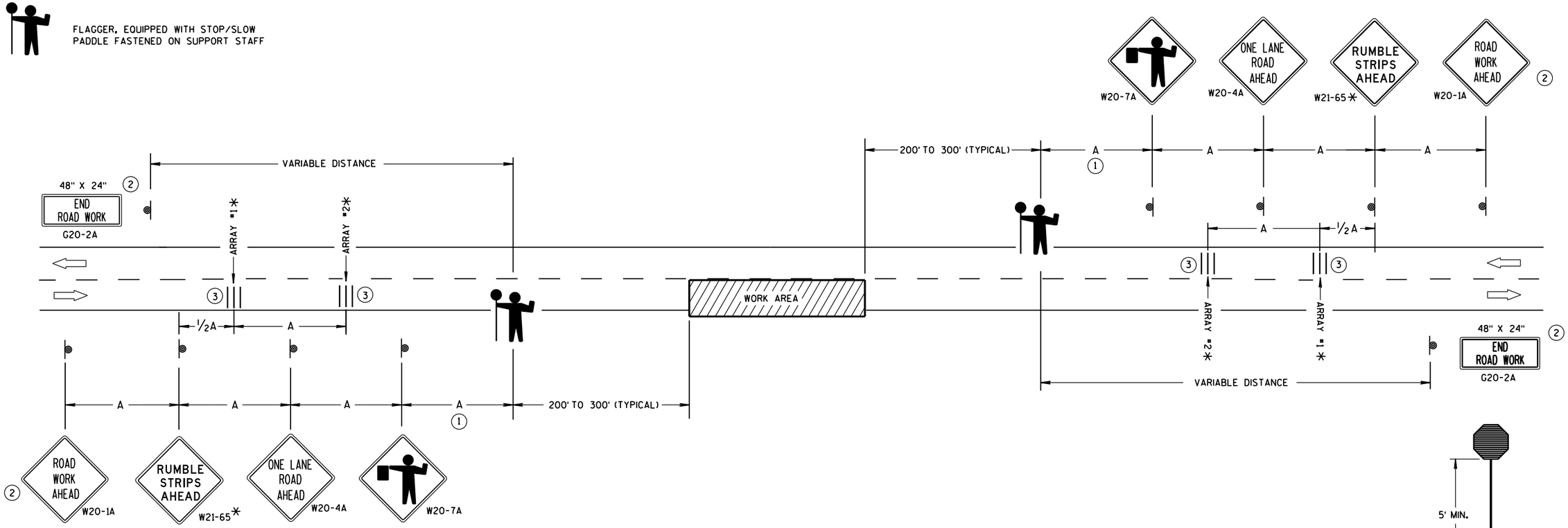
LEGEND

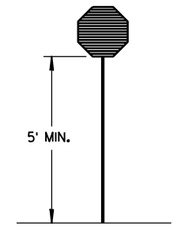
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

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





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

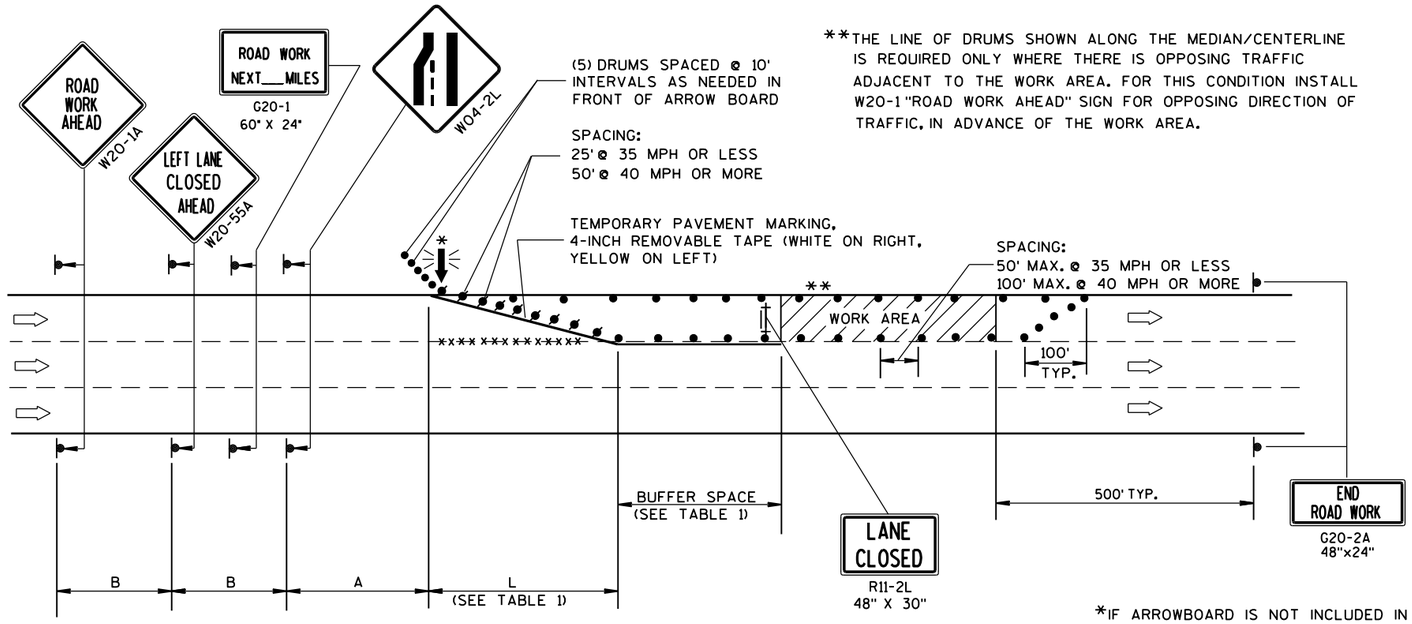
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 C 12-6

S.D.D. 15 C 12-6



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

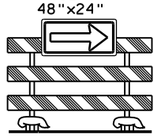


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

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

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

6

S.D.D. 15 D 20-4

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S.D.D. 15 D 20-4

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

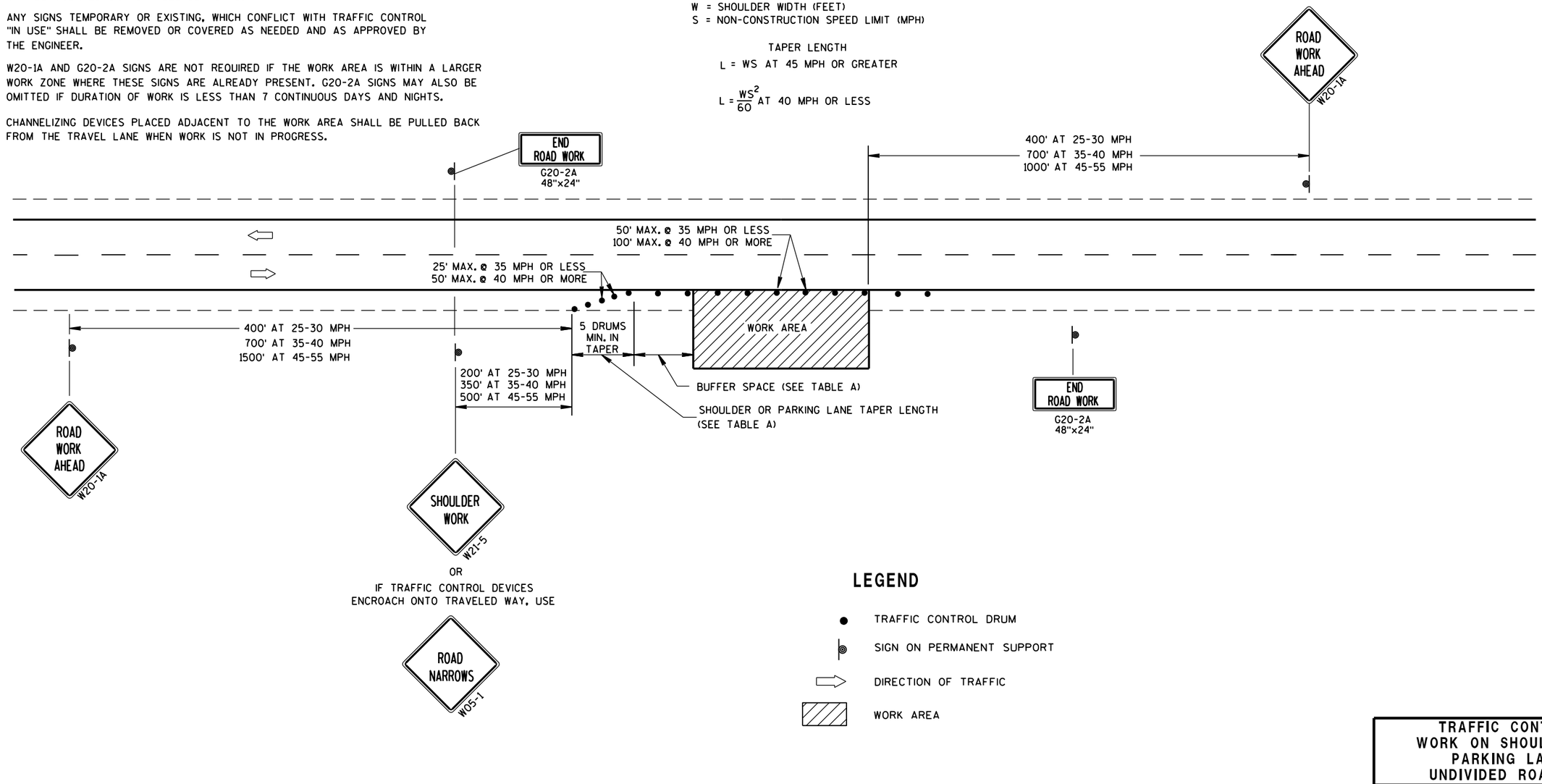
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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S.D.D. 15 D 28-3

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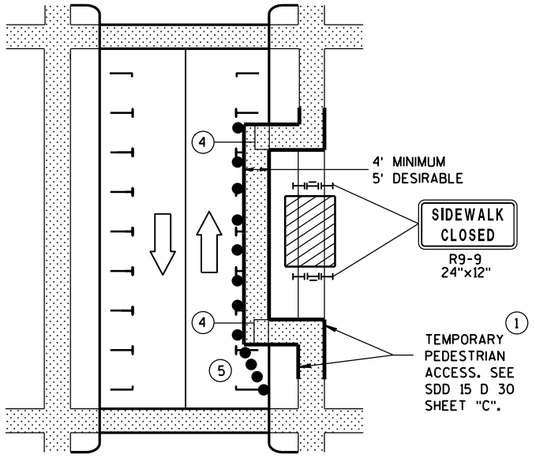
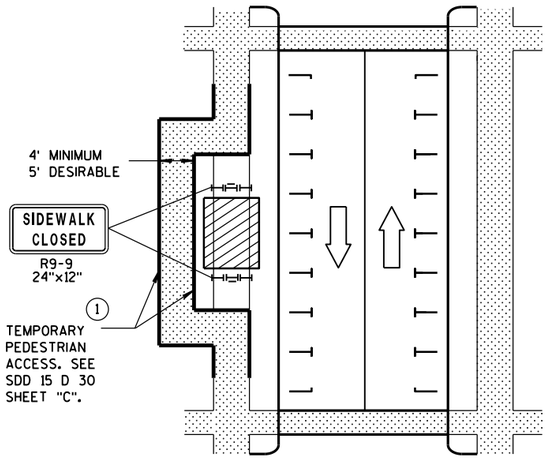
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

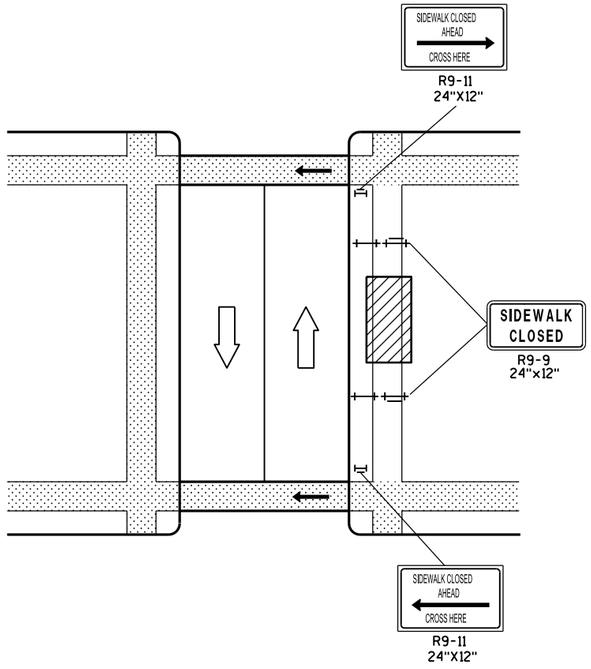


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

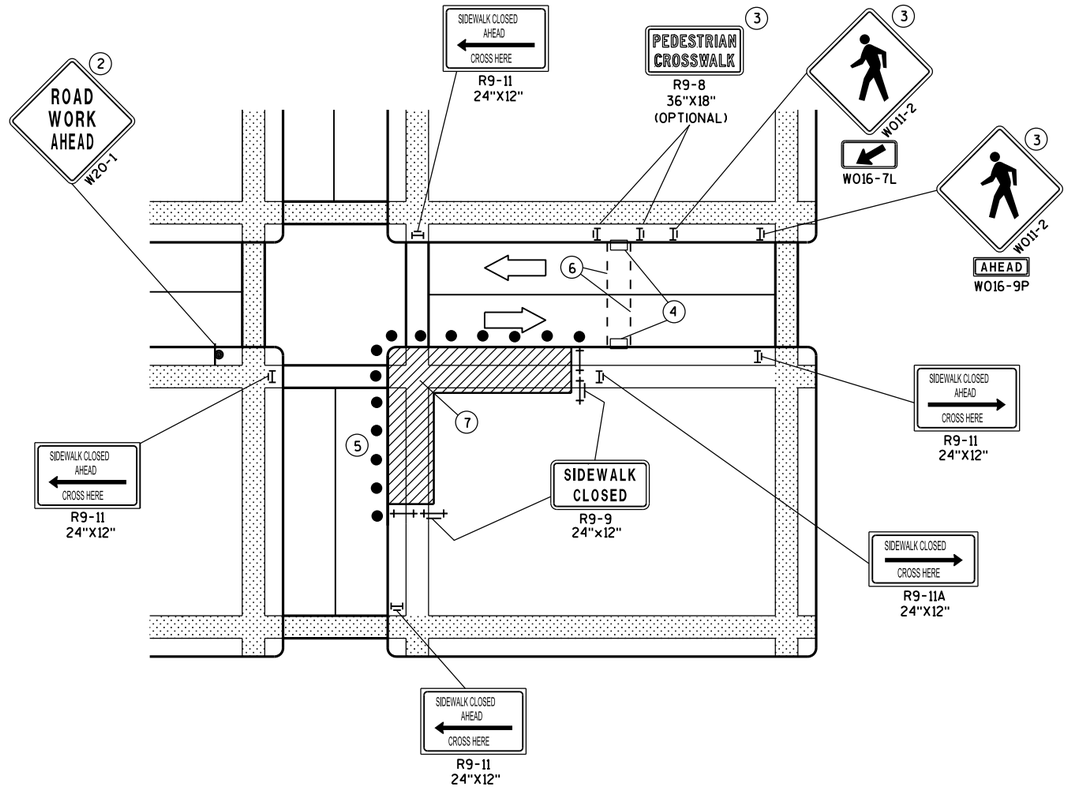
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 D 30-3a

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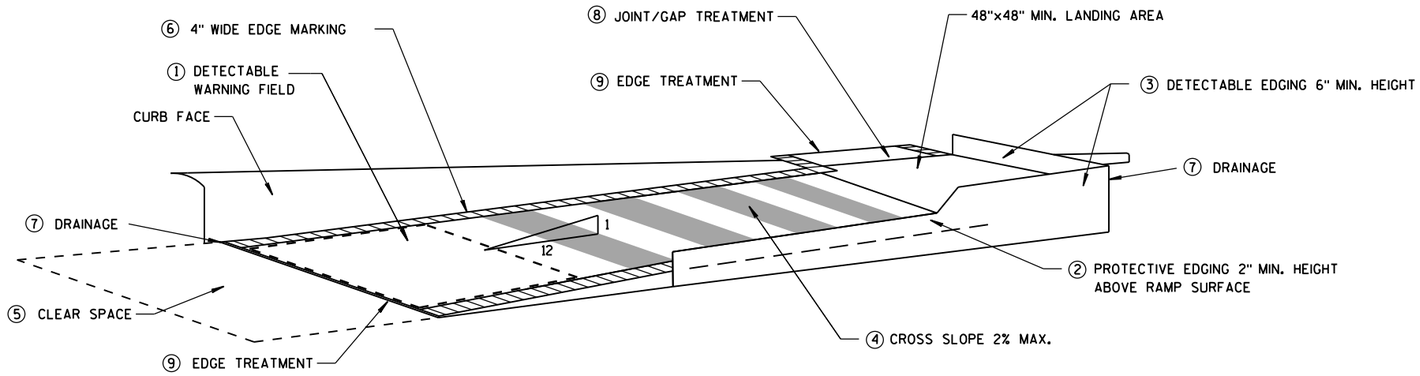
S.D.D. 15 D 30-3a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

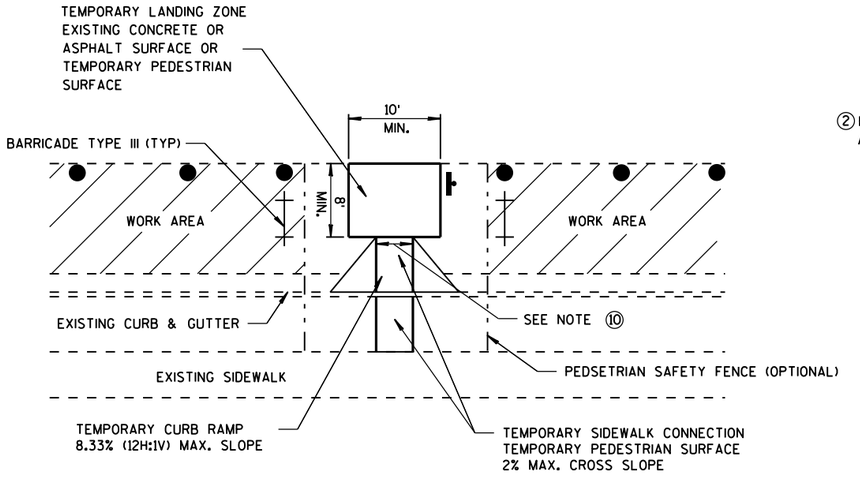
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

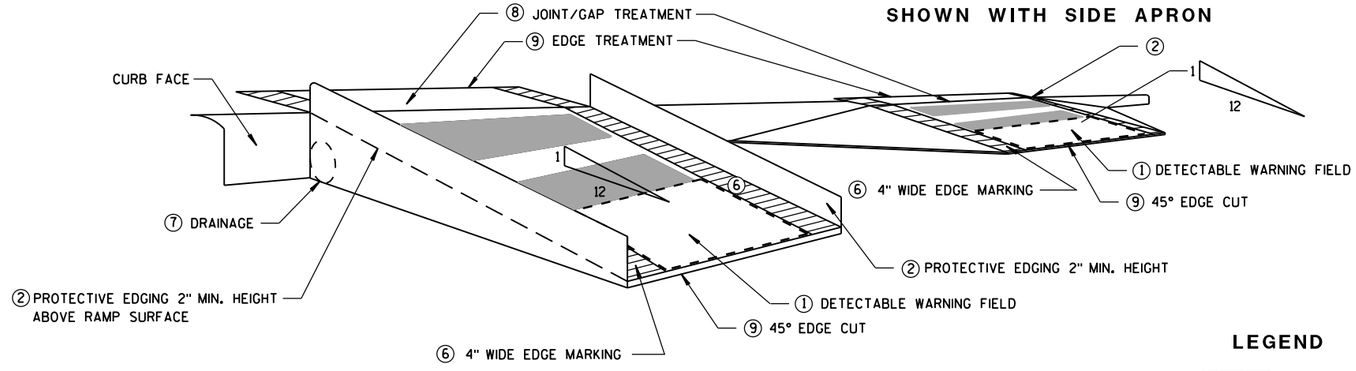
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI IC

FHWA

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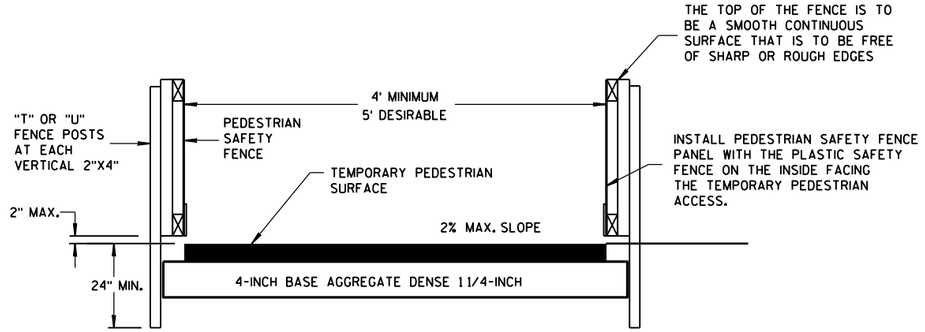
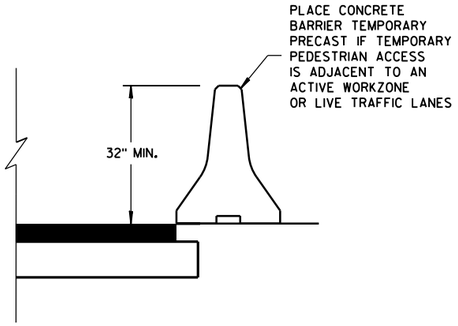
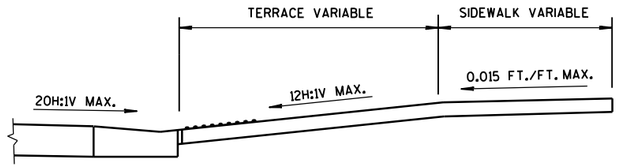




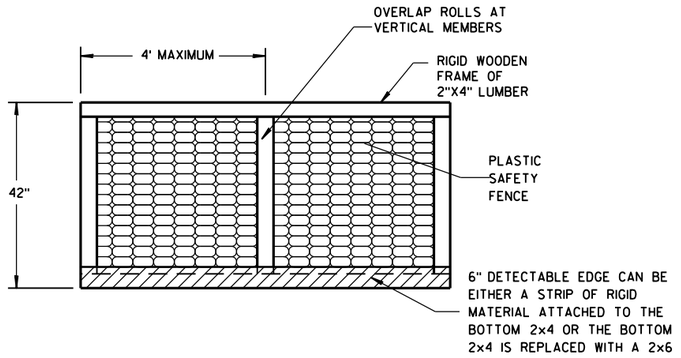
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

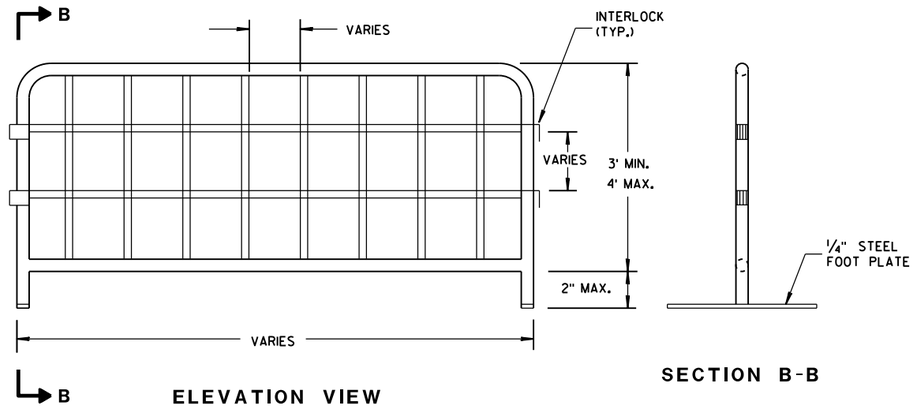
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



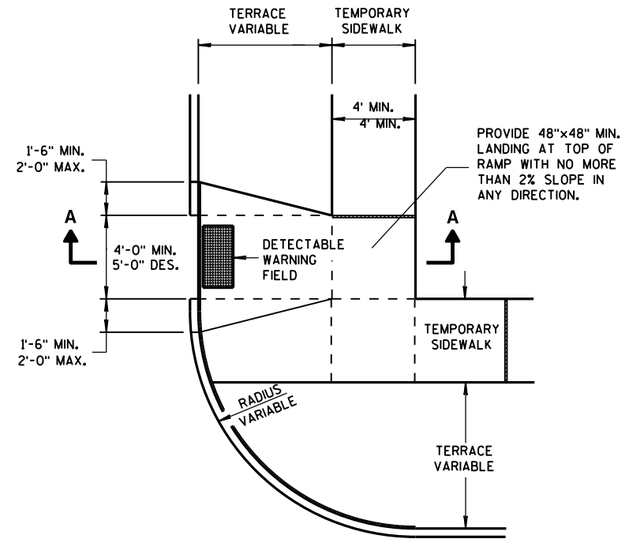
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

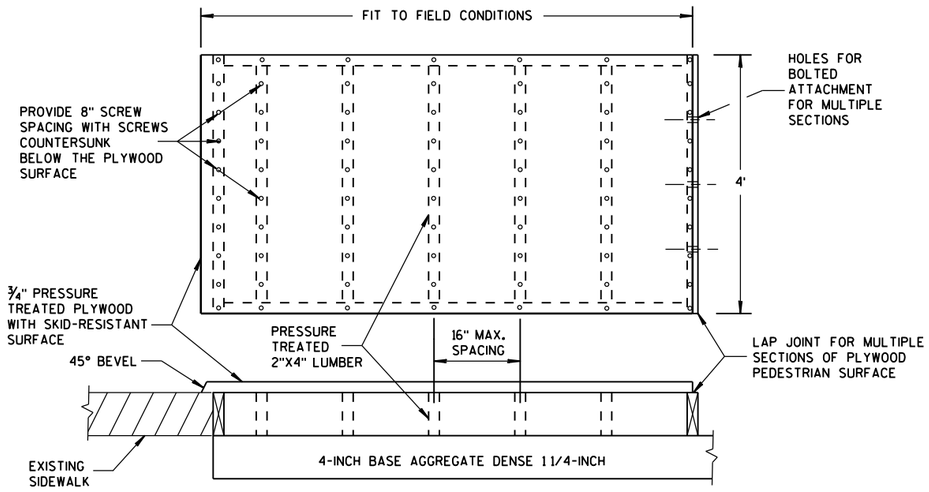
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



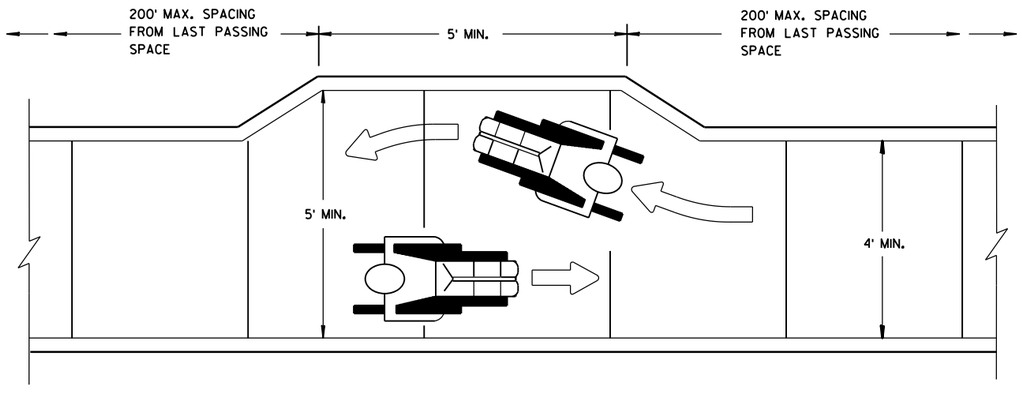
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON IC
SAFETY ENGIN
FHWA

6

S.D.D. 15 D 30-3c

6

S.D.D. 15 D 30-3c

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

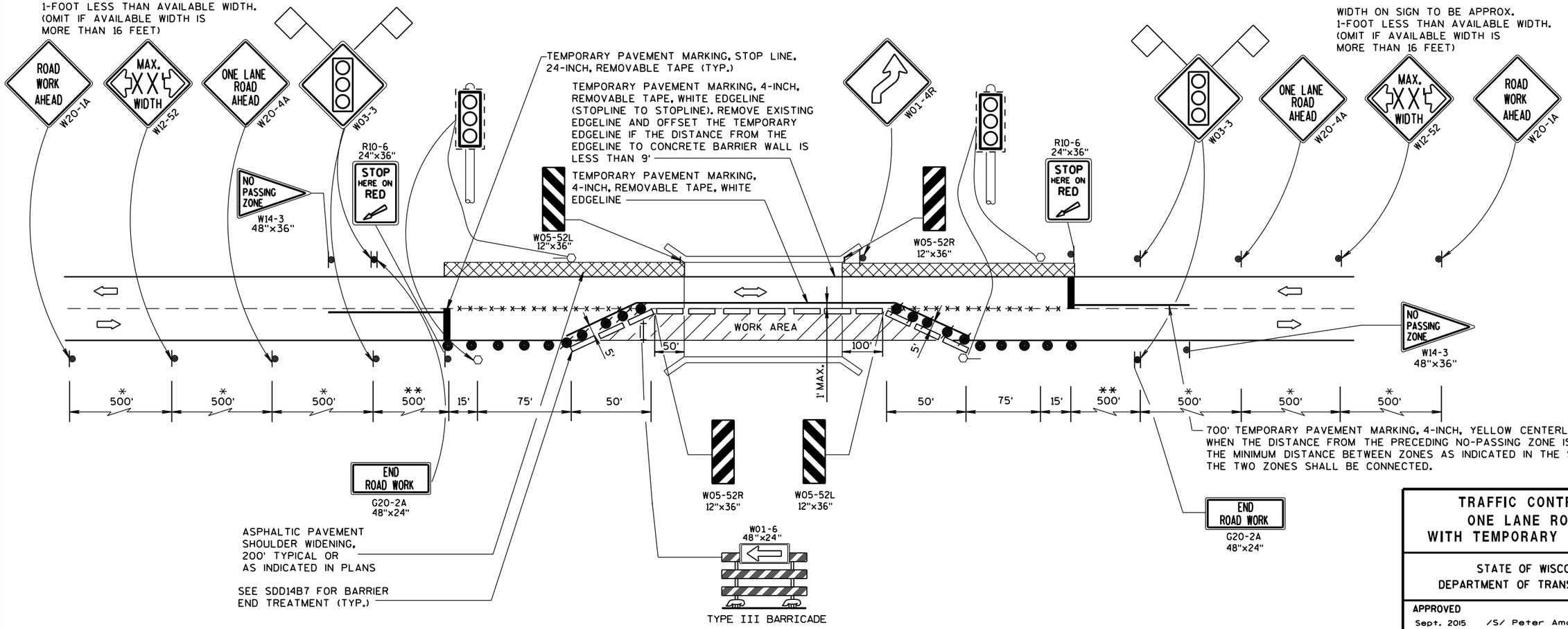
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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 EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.

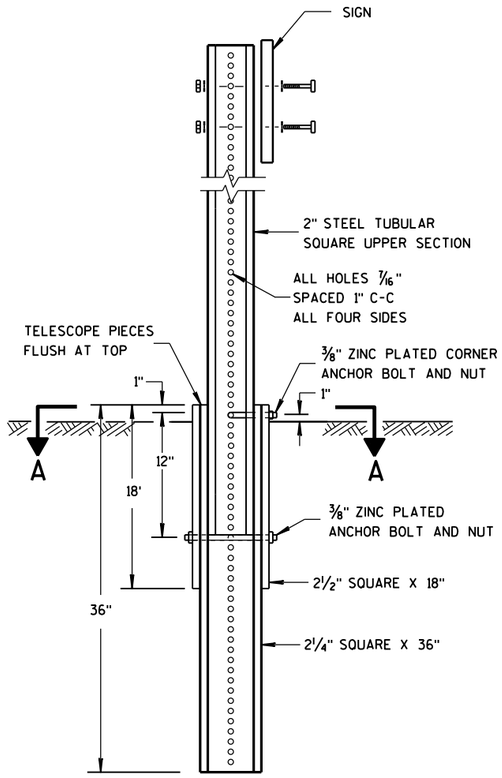


TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

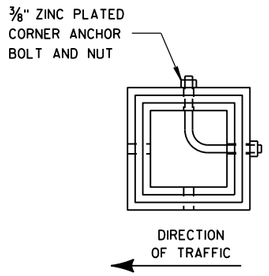
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

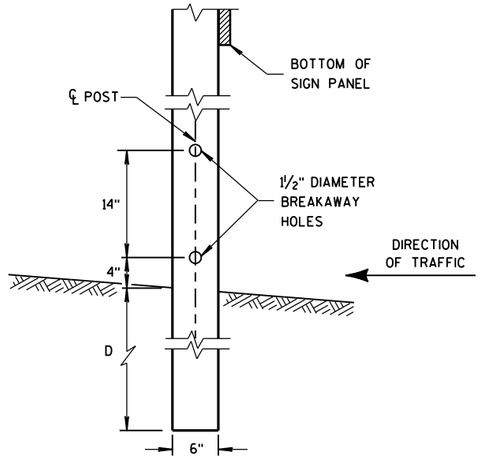
S.D.D. 15 D 33-4



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



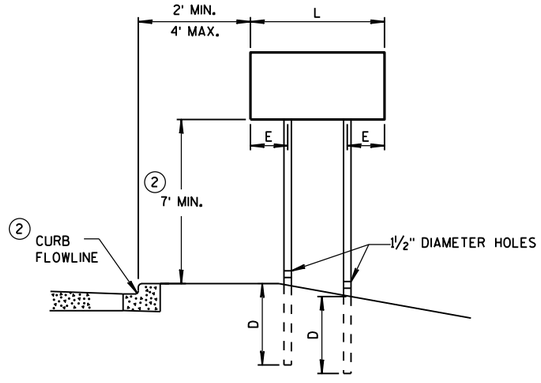
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

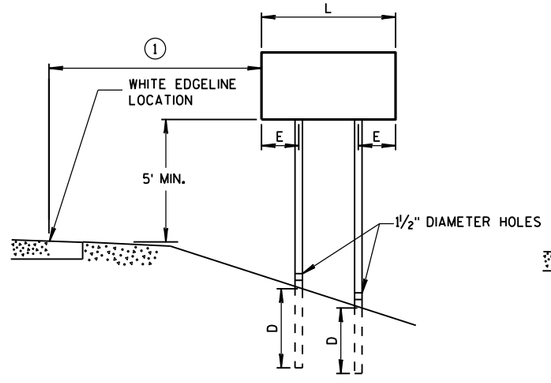
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

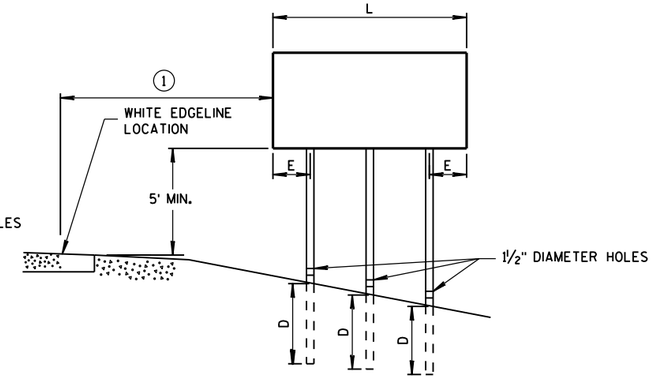
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

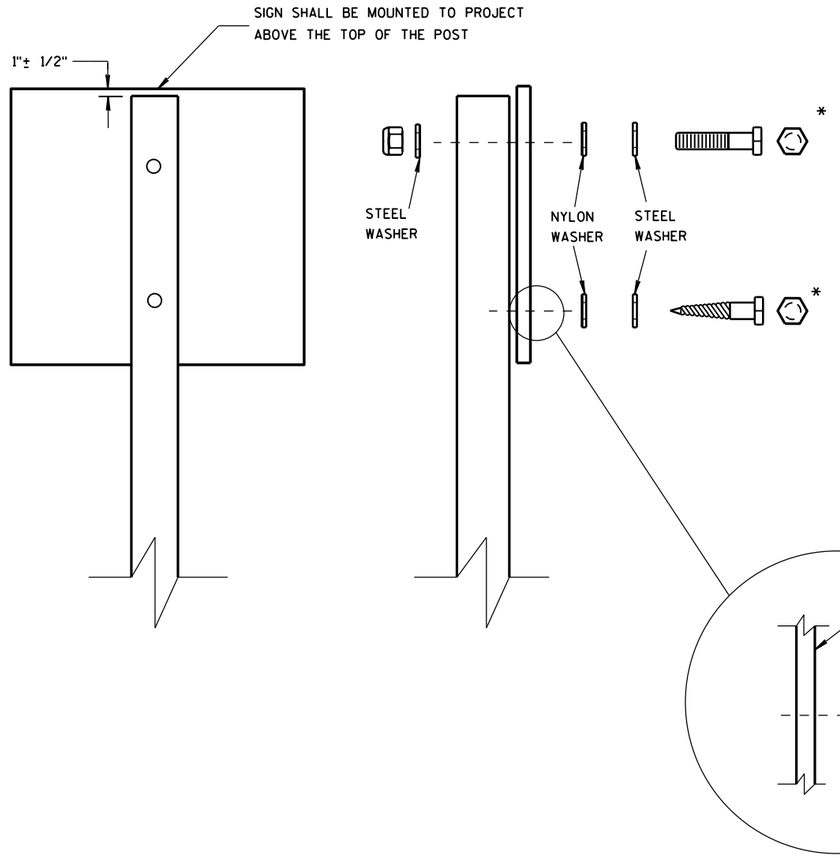
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

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

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

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

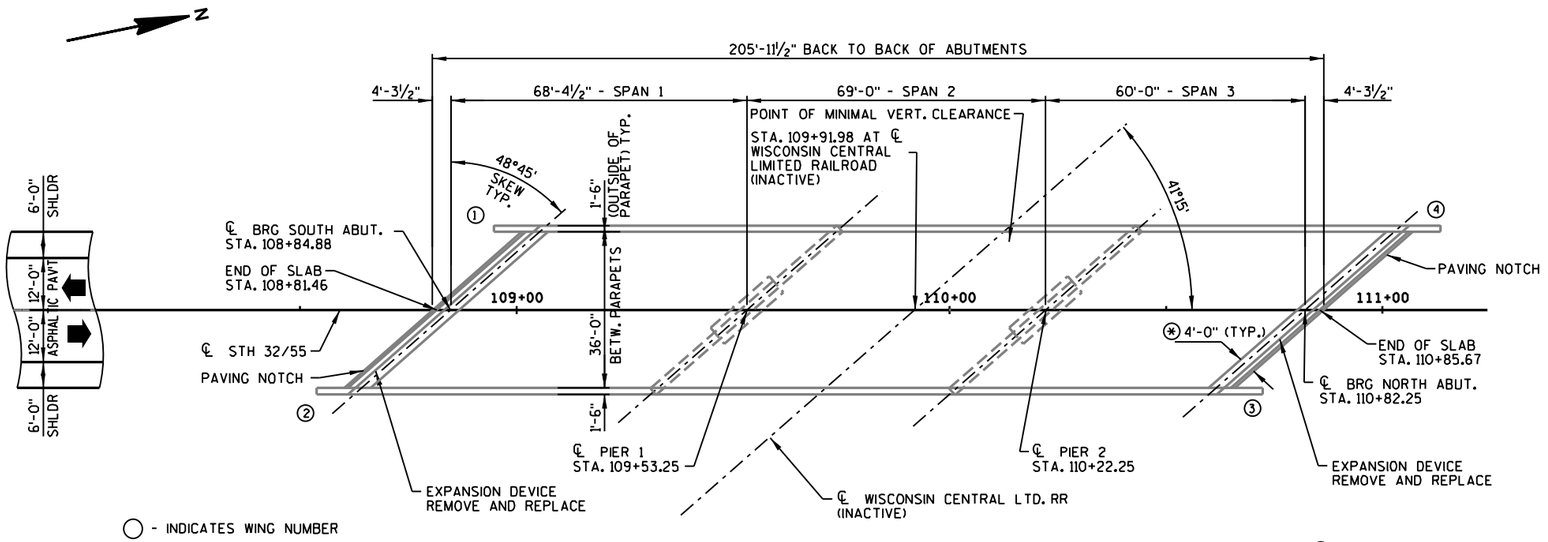
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

STATE PROJECT NUMBER

9260-01-61



○ - INDICATES WING NUMBER

PLAN

(REHAB - JOINT REPAIR ON EXISTING THREE SPAN 36" PRESTRESSED CONCRETE DECK GIRDER)
SEE SHEET 2 FOR CONCRETE SURFACE REPAIR REQUIRED ON PRESTRESSED CONCRETE GIRDERS.

(*) JOINT REPAIR LIMITS & POLYMER OVERLAY LIMITS. LIMITS EXTEND BETWEEN PARAPETS AT BOTH ABUTMENTS.

DESIGN DATA

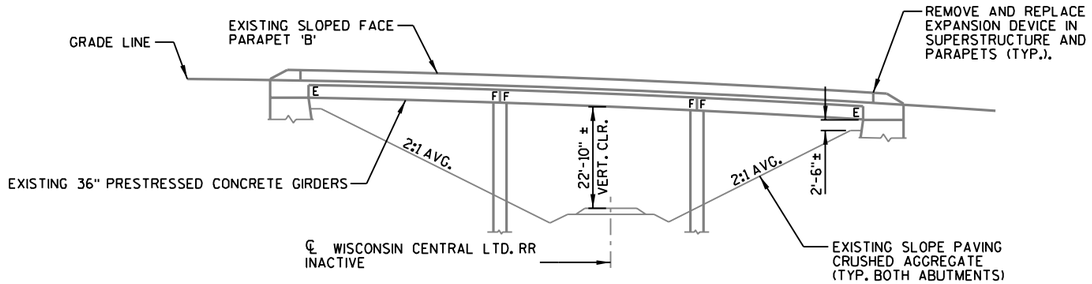
LIVE LOAD: - INFORMATION FROM HSI, 6-28-2017
DESIGN LOADING: HS-20
INVENTORY RATING : HS-22
OPERATIONAL RATING : HS-40
WISCONSIN STANDARD PERMIT VEHICLE (WisSPV) : 250 KIPS

TRAFFIC DATA:	STH 32/55
A.A.D.T. (2019) =	3700
A.A.D.T. (2039) =	4100
DESIGN SPEED =	40 MPH

MATERIAL PROPERTIES:
CONCRETE MASONRY —— f'c = 4,000 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 —— fy = 60,000 P.S.I.

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES & NOTES
3. REMOVAL DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT DETAILS



ELEVATION

(LOOKING NORTHWEST)

WISCONSIN
SEAN M. SPROMBERG
E-37771-008
SCHOFIELD, WI
PROFESSIONAL ENGINEER

1/18/18

CONSULTANT DESIGN CONTACT:
SEAN SPROMBERG
(715) 304-0451

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1835 North Stevens Street Rhinelander, WI 54501
715-892-3244 1-800-844-7854

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SOR 02/07/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-21-15

STH 32/55 OVER WISCONSIN CENTRAL LTD. RAILROAD

COUNTY	TOWN/CITY/VILLAGE
FOREST	CRANDON

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DHW	SMS	RLR	DHW

GENERAL PLAN

SHEET 1 OF 5
63

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DATE= 1/18/2018

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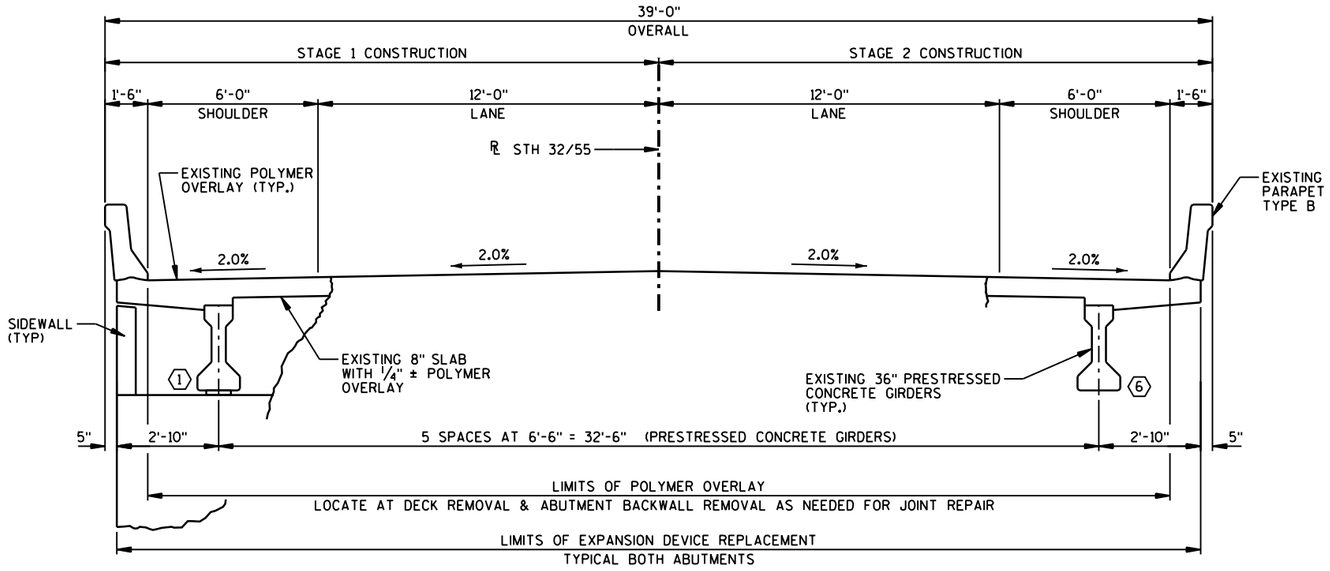
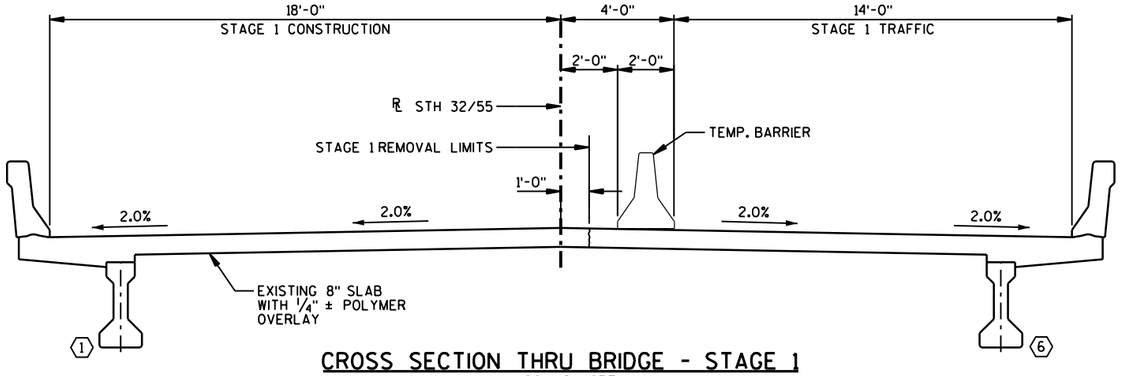
STATE PROJECT NUMBER

9260-01-61

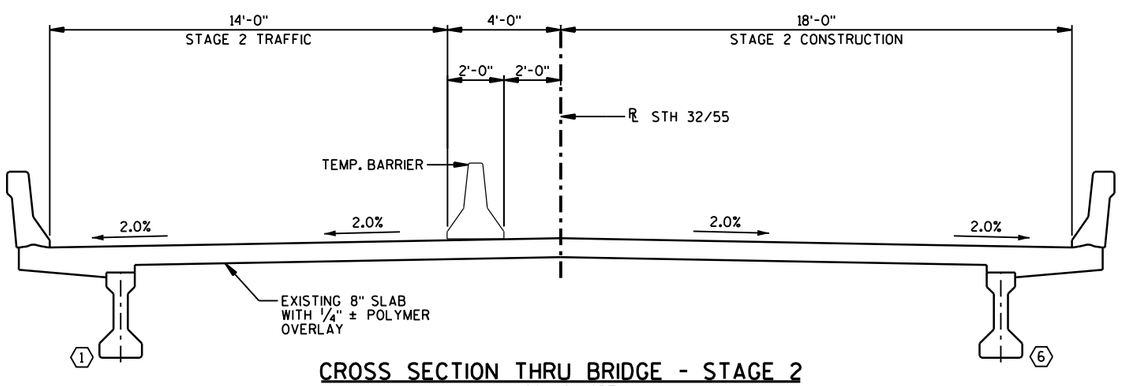


⬡ — INDICATES GIRDER NUMBER.
GIRDERS ARE NUMBERED SEQUENTIALLY

EXISTING TYPICAL SECTION - STH 32/55
(LOOKING NORTH)



CROSS SECTION THRU BRIDGE - STAGE 1
(LOOKING NORTH)



CROSS SECTION THRU BRIDGE - STAGE 2
(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL 1990 PLANS WHICH ARE AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

IMPROVEMENTS INCLUDE EXPANSION JOINT REPLACEMENTS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1½" DEEP SAW CUT.

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-21-15, A THREE SPAN, 205.96 FOOT LONG, PRESTRESSED CONCRETE GIRDER BRIDGE SET ON FULL RETAINING CONCRETE ABUTMENTS AND TWO SINGLE-COLUMN HAMMERHEAD PIERS.

THE CONCRETE APPROACH SLABS ARE FULL WIDTH OF THE ROADWAY AT EACH END OF THE BRIDGE AND HAVE NO POLYMER OVERLAY. REPLACE PAVING BLOCK AT EACH JOINT REPLACEMENT WITHOUT DAMAGE TO APPROACH SLABS.

POLYMER OVERLAY IS REQUIRED AT JOINT REPAIRS, ASSOCIATED EXPANSION DEVICES REPLACEMENT, AND AT OTHER LOCALIZED AREAS ON THE BRIDGE DECK AS DIRECTED BY THE ENGINEER.

CONCRETE SURFACE REPAIR IS REQUIRED AT ENDS OF ABUTMENTS, ON ABUTMENT SIDEWALLS AND ON PRESTRESSED CONCRETE GIRDER #2 NEAR THE SOUTH ABUTMENT AND ON PRESTRESSED CONCRETE GIRDER #5 NEAR THE NORTH ABUTMENT. THE LIMITS OF REPAIR ARE TO BE DIRECTED BY THE ENGINEER.

APPLY PIGMENTED SURFACE SEALER TO THE TRAFFIC FACES OF ALL EXISTING & REPAIRED CONCRETE PARAPETS.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-21-15".

STRUCTURE ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	SUPER	TOTAL
203.0225.S.03	DEBRIS CONTAINMENT B-21-15	LS	-	-	-	-	-	1
502.3100.03	EXPANSION DEVICE B-21-15	LS	-	-	-	-	-	1
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	190	190
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	4420	4420
505.0904	BAR COUPLERS NO. 4	EACH	-	-	-	-	6	6
505.0905	BAR COUPLERS NO. 5	EACH	-	-	-	-	6	6
505.0906	BAR COUPLERS NO. 6	EACH	-	-	-	-	24	24
505.0907	BAR COUPLERS NO. 7	EACH	-	-	-	-	12	12
509.1000	JOINT REPAIR	SY	-	-	-	-	49	49
509.1500	CONCRETE SURFACE REPAIR	SF	20	-	-	10	10	40
509.5100.S	POLYMER OVERLAY	SY	-	-	-	-	50	50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-21-15

DRAWN BY SSD | PLANS CK'D. DHW

TYPICAL SECTION QUANTITIES & NOTES

SHEET 2 OF 5
64

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DATE=1/18/2018

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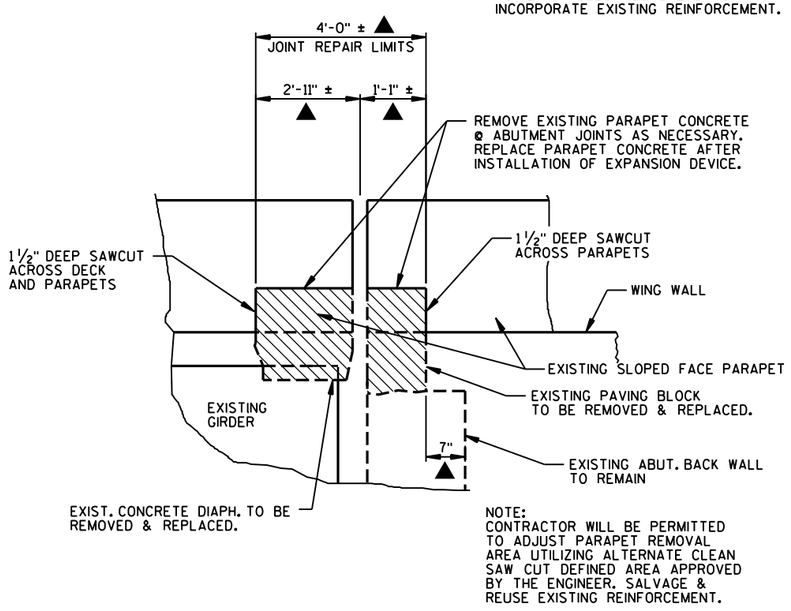
STATE PROJECT NUMBER

9260-01-61

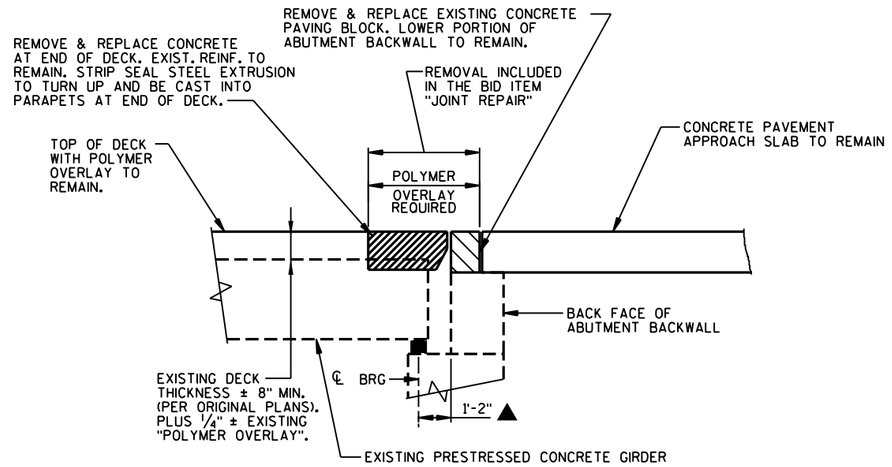
▲ — DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT. INCORPORATE EXISTING REINFORCEMENT.



NOTE:
CONTRACTOR WILL BE PERMITTED TO ADJUST PARAPET REMOVAL AREA UTILIZING ALTERNATE CLEAN SAW CUT DEFINED AREA APPROVED BY THE ENGINEER. SALVAGE & REUSE EXISTING REINFORCEMENT.

REMOVAL DETAIL

(EXISTING EXPANSION DEVICE NOT SHOWN. REMOVE AND REPLACE)



PART LONGITUDINAL SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-21-15

DRAWN BY CAR | PLANS CK'D. DHW

REMOVAL DETAILS

SHEET 3 OF 5
65

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STATE PROJECT NUMBER
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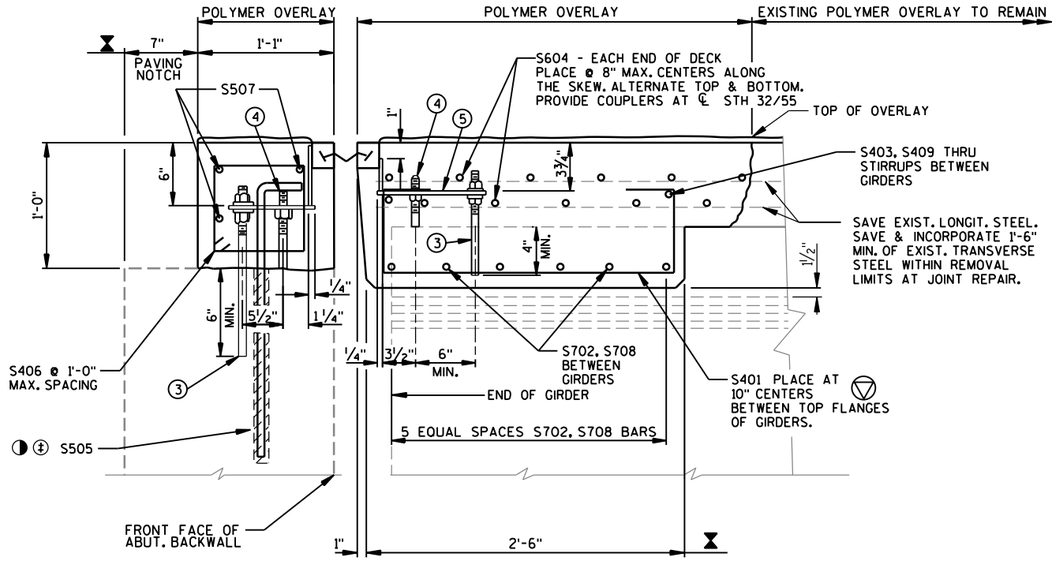
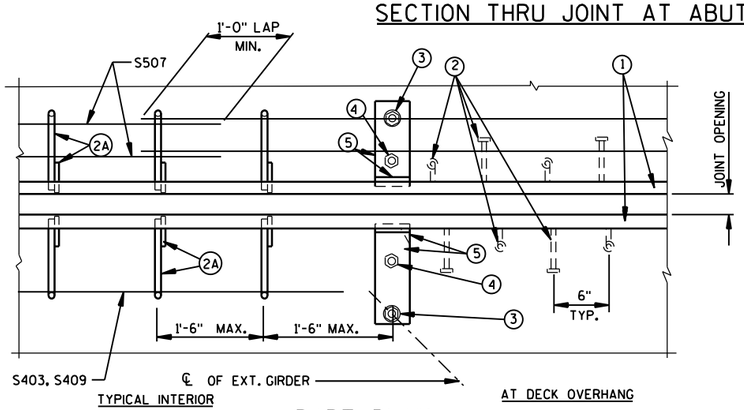
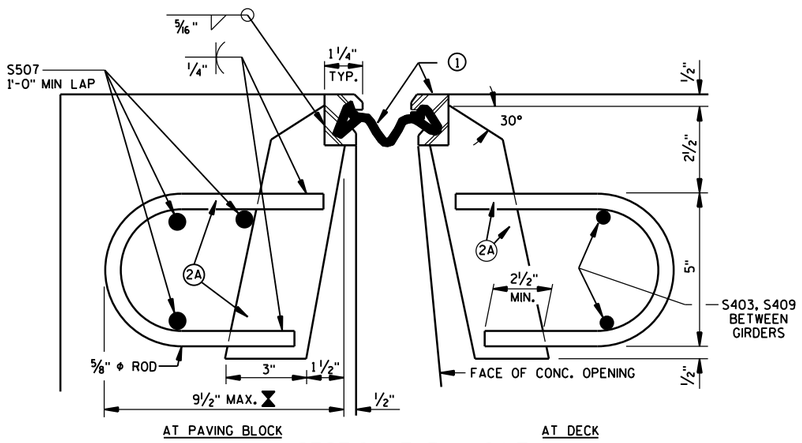


SECTION THRU JOINT AT ABUTMENTS

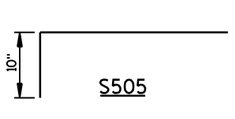


PART PLAN

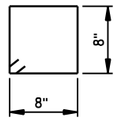


SECTION THRU JOINT

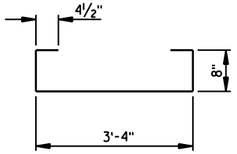
AT INTERIOR BAYS BETWEEN EXTERIOR GIRDERS.
SYM. ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED



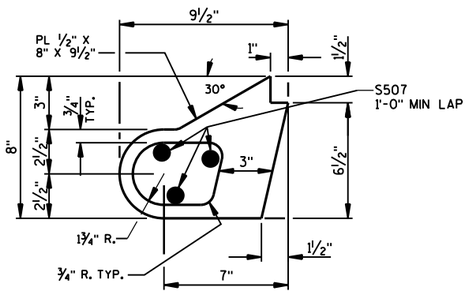
S505



S406



S401



ALTERNATE STRIP SEAL ANCHOR

AT INTERIOR BAYS BETWEEN EXTERIOR GIRDERS.

BILL OF BARS (COATED) 4420 LBS.

MARK	NO. REQ'D	LENGTH	BENT	NO. COUPLINGS	LOCATION
S401	88	5'-1"	X	-	DIAPH @ ABUT. - STIRRUP - VERT.
S702	48	7'-10"		-	DIAPH @ ABUT. - BETWEEN GIRDERS - TRANS.
S403	24	7'-10"		-	THRU JOINT ANCHORS & STIRRUPS - BETWEEN GIRDERS - TRANS.
S604	48	28'-8"		24	DECK ENDS - ABOVE DIAPHRAGM - TRANS.
S505	112	2'-11"	X	-	ABUTMENT BACKWALL TOP - RESIN ANCHOR - VERT.
S406	112	3'-2"	X	-	ABUTMENT BACKWALL TOP - VERT. STIRRUP
S507	36	9'-8"		6	ABUTMENT BACKWALL TOP - TRANS.
S708	24	3'-11"		12	DIAPH @ ABUT. - CENTER BAY BETWEEN GIRDERS - TRANS.
S409	12	3'-11"		6	THRU JOINT ANCHORS & STIRRUPS - CENTER BAY BTWN. GIRDERS - TRANS.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

EPOXY COAT ALL BARSTEEL REINFORCEMENT.

THE LENGTH OF BARS USING BAR COUPLERS HAS BEEN CALCULATED TO THE ℄ OF JOINT. THESE BARS MUST ACCOMMODATE THE BAR COUPLER MANUFACTURER'S SPECIFICATIONS.

LEGEND

- ‡ · REMOVE EXISTING VERTICAL REINFORCING BARS DURING REMOVAL OF PAVING BLOCK. REPLACE WITH "ADHESIVE ANCHORS NO. 5 BAR" SPACED AT 1'-0".
- ◑ · ADHESIVE ANCHORS NO. 5 BAR EMBED 1'-6" IN CONCRETE. ANCHOR HOLES SHALL BE 4" CLEAR MIN. TO FACE OF EXISTING CONCRETE. TURN 10" HORIZONTAL LEG OF S505 BARS AS NECESSARY TO FIT.
- ▽ · BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ OF GIRDERS.
- ⧗ · DIMENSION IS GIVEN NORMAL TO THE ℄ OF ABUTMENT.
- (1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾". JOINT OPENING GIVEN NORMAL TO JOINT.
- (2) STUDS ⅝" ø X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING. SEE SHEET 5.
- (2A) ½" THICK ANCHOR PLATE WITH ⅝"ø ROD OR ALTERNATE STRIP SEAL ANCHOR. WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CTRS. MAX. BETWEEN GIRDERS.
- (3) ¾" ø THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED RODS INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN AND ON ℄ OF GIRDERS.
- (4) ¾"ø THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
- (5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ø HOLE FOR NO. 3 & 1" ø HOLE FOR NO. 4.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-21-15

DRAWN BY CAR | PLANS CK'D. DHW

STRIP SEAL EXPANSION JOINT

SHEET 4 OF 5
66

8

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DATE= 1/18/2018

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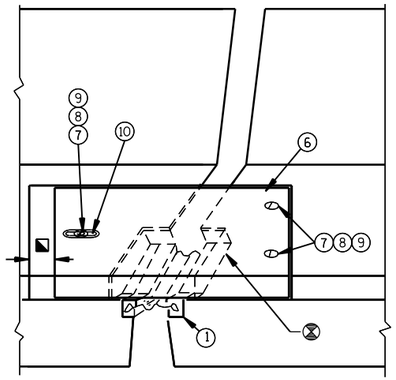
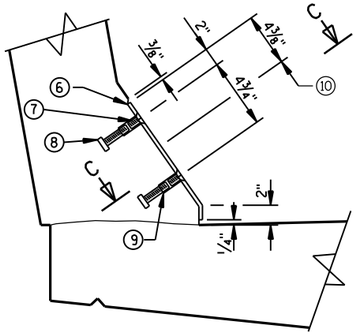
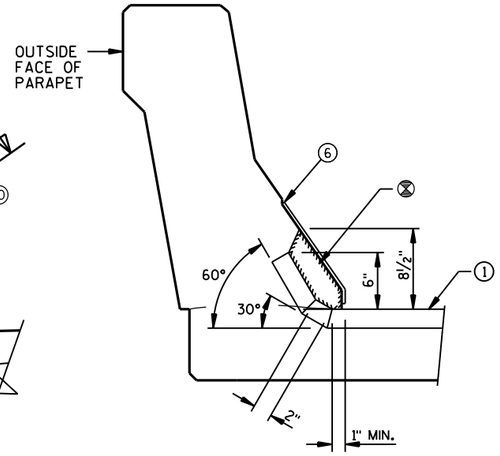
STATE PROJECT NUMBER
9260-01-61



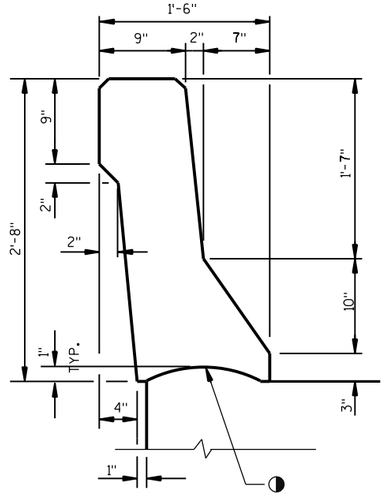
VIEW OF PARAPET PLATES FROM ROADWAY



SECTION A-A



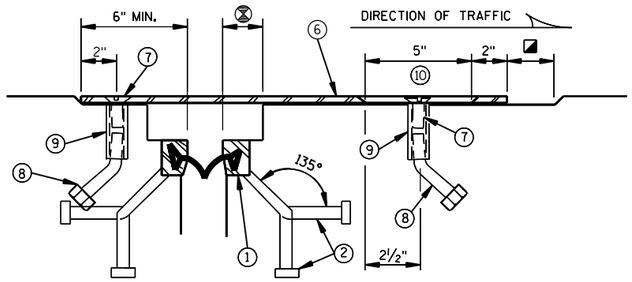
SECTION B-B



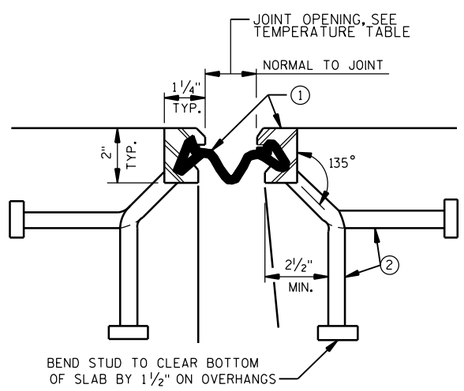
SECTION THRU PARAPET ON BRIDGE

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4". JOINT OPENING GIVEN NORMAL TO JOINT.
2. STUDS 5/8" ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING. SEE SHEET 5.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD OR ALTERNATE STRIP SEAL ANCHOR. WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CTRS. MAX. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED RODS INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN AND ON ℄ OF GIRDERS.
4. 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" x 12" x 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ x 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ x 4" GALV. HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ x 2 1/4" GALV. THREADED COUPLING.
10. 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



SECTION C-C



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF DECK & AT PARAPETS

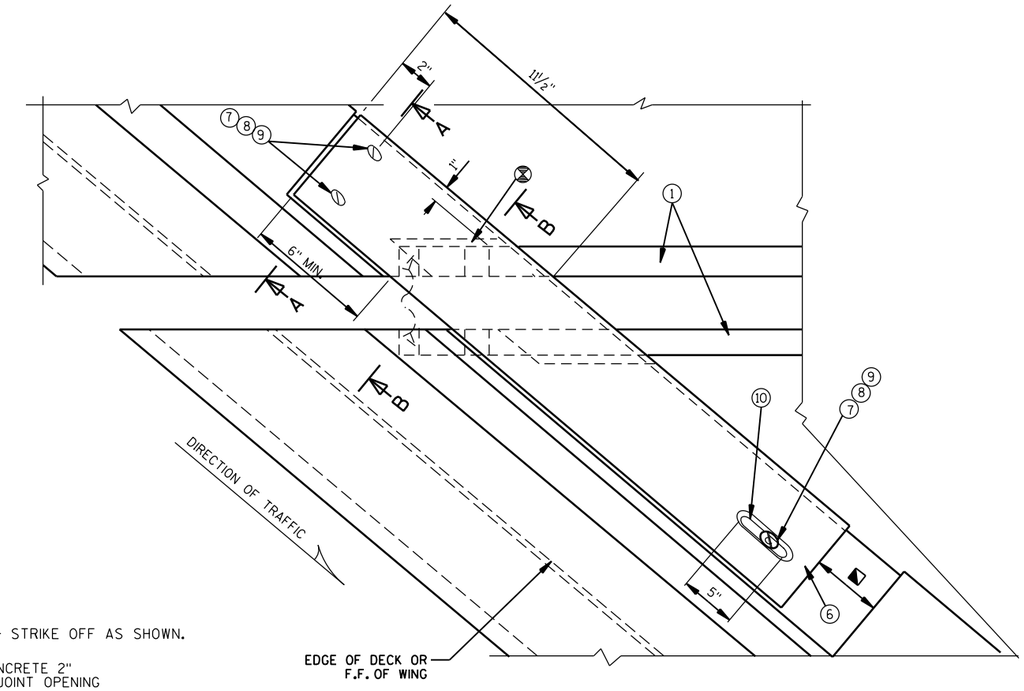
TEMPERATURE TABLE

TEMP	JOINT OPENING
90°	1 1/2"
80°	1 9/16"
70°	1 11/16"
60°	1 3/4"
50°	1 7/8"
40°	1 15/16"
30°	2"

◑ — CONST. JOINT - STRIKE OFF AS SHOWN.

⊗ — BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

◪ — JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2"



PLAN AT PARAPET

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE NEEDED FOR STAGED CONSTRUCTION. IF SPLICE IS USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING PARAPET PLATES, ANCHOR STUDS & HARDWARE, CONNECTIONS AND FIELD DRILLING, WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-21-15".

ALL NEW TRANSVERSE STEEL SHALL BE PLACED PARALLEL TO THE JOINT.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-21-15

DRAWN BY CAR | PLANS CK'D. DHW

STRIP SEAL EXPANSION JOINT DETAILS

SHEET 5 OF 5
67

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DATE=1/18/2018

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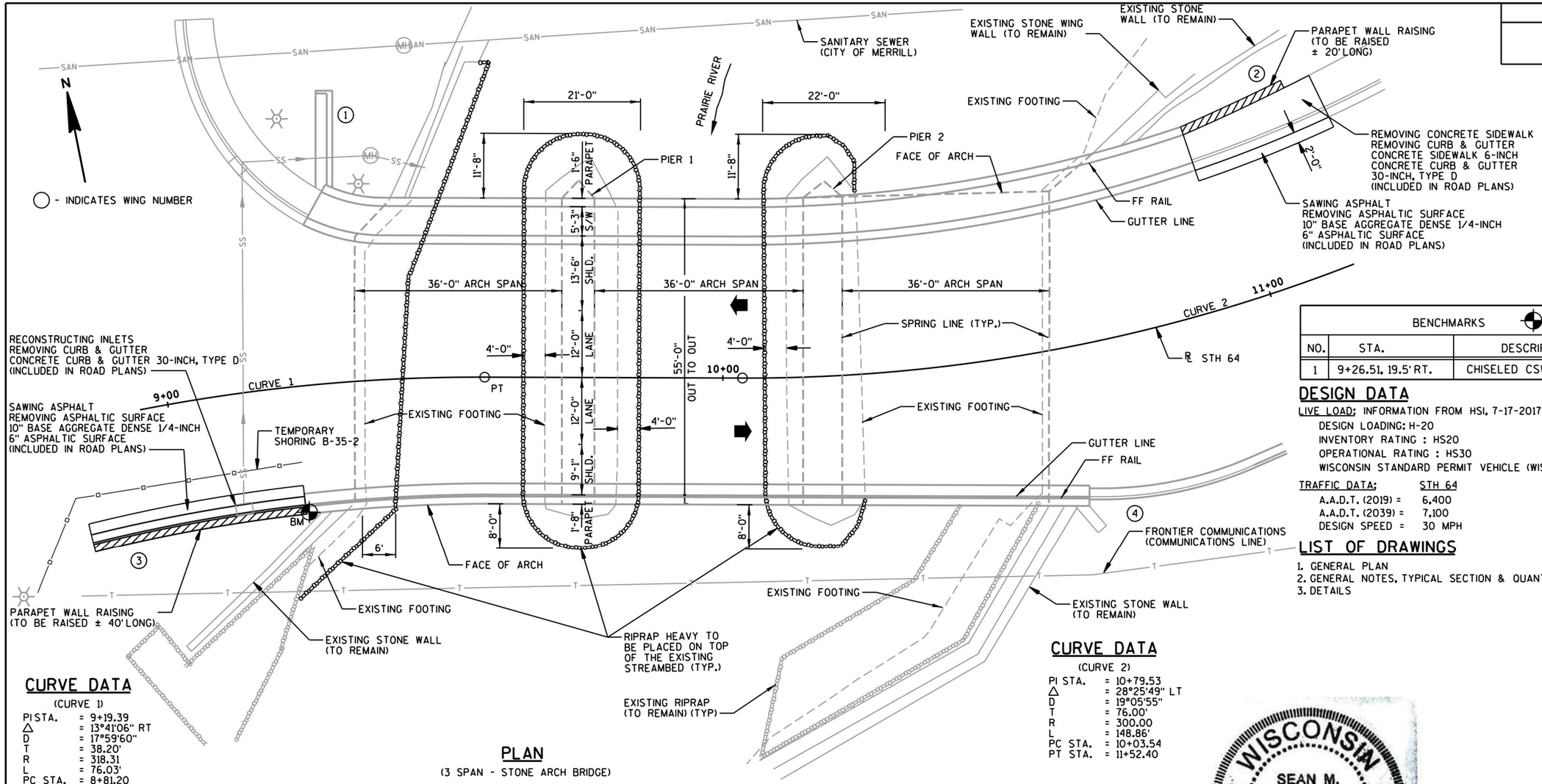
STATE PROJECT NUMBER
9000-13-61



PLAN
(3 SPAN - STONE ARCH BRIDGE)

CURVE DATA
(CURVE 1)

PI STA.	= 9+19.39
△	= 13°41'06" RT
D	= 17°59'60"
T	= 38.20'
R	= 318.31
L	= 76.03'
PC STA.	= 8+81.20
PT STA.	= 9+57.22

CURVE DATA
(CURVE 2)

PI STA.	= 10+79.53
△	= 28°25'49" LT
D	= 19°05'55"
T	= 76.00'
R	= 300.00
L	= 148.86'
PC STA.	= 10+03.54
PT STA.	= 11+52.40

BENCHMARKS ⊕ NAVD 88			
NO.	STA.	DESCRIPTION	ELEV.
1	9+26.51, 19.5' RT.	CHISELED CSW CORNER BRIDGE	1265.62

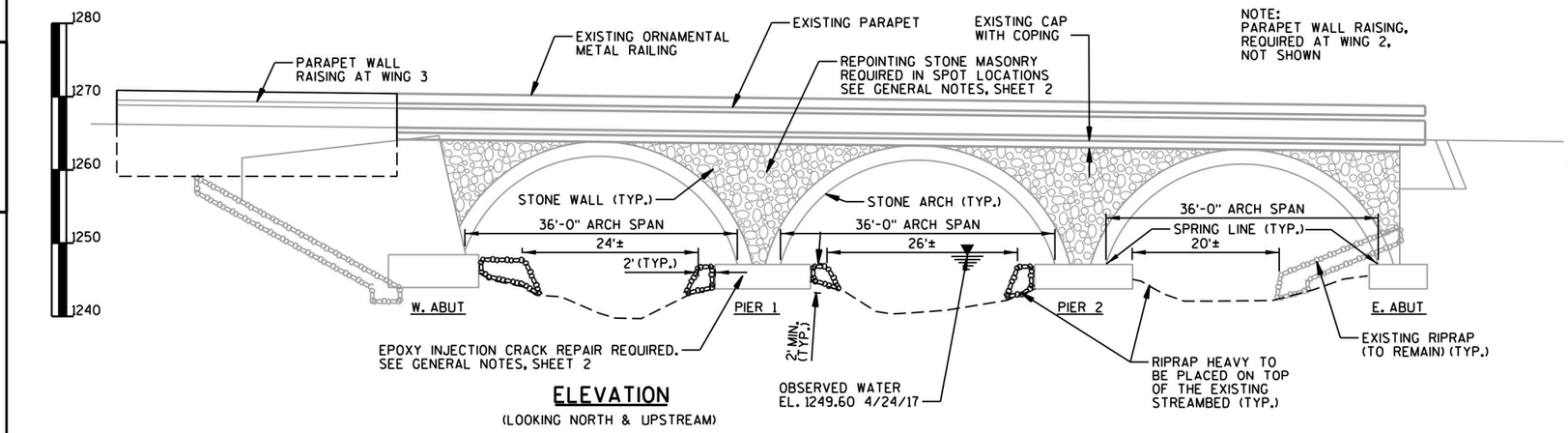
DESIGN DATA

LIVE LOAD: INFORMATION FROM HSI, 7-17-2017
DESIGN LOADING: H-20
INVENTORY RATING : HS20
OPERATIONAL RATING : HS30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS

TRAFFIC DATA: STH 64
A.A.D.T. (2019) = 6,400
A.A.D.T. (2039) = 7,100
DESIGN SPEED = 30 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. GENERAL NOTES, TYPICAL SECTION & QUANTITIES
3. DETAILS



ELEVATION
(LOOKING NORTH & UPSTREAM)

WISCONSIN
SEAN M. SPROMBERG
E-37771-008
SCHOFIELD, WI
PROFESSIONAL ENGINEER

1/30/18

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1835 North Stevens Street Rhinelander, WI 54501
715-362-3244 1-800-844-7854

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 02/19/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-35-2

STH 64 OVER PRAIRIE RIVER

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
LINCOLN	MERRILL

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DHW	SMS	RLR	DHW

GENERAL PLAN

SHEET 1 OF 3
68

DESIGN CONTACT:
SEAN SPROMBERG
(715) 304-0451

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489

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STATE PROJECT NUMBER
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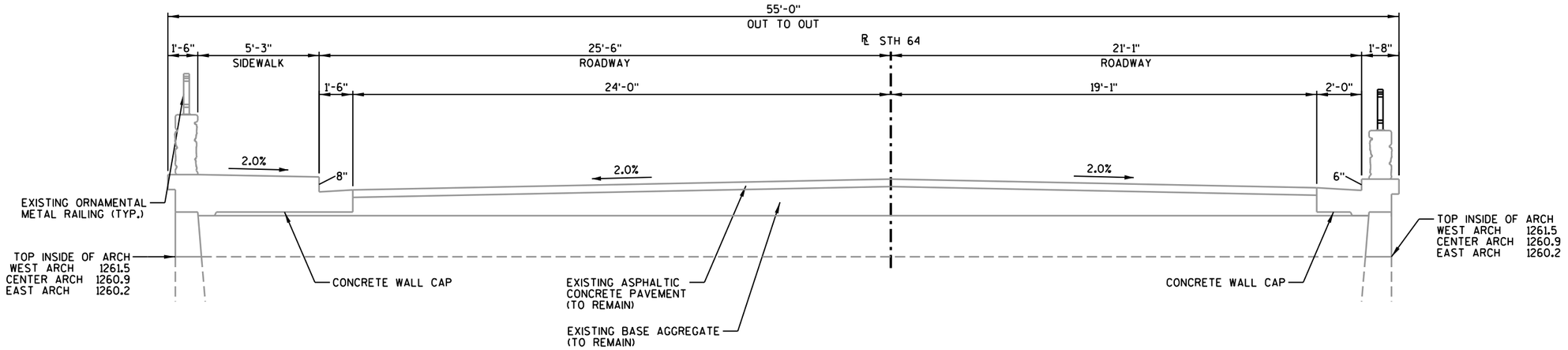

TYPICAL SECTION - STH 64
(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	TOTAL
206.1000.02	EXCAVATION FOR STRUCTURES BRIDGES B-35-2	LS	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	70	-	-	30	100
502.0100	CONCRETE MASONRY BRIDGES	CY	7.0	-	-	4.0	11
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	180	-	-	90	270
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	-	25	25	-	50
511.1200.02	TEMPORARY SHORING B-35-2	SF	260	-	-	-	260
606.0300	RIPRAP HEAVY	CY	50	55	35	-	140
SPV.0060.01	PARAPET WALL RAISING	EACH	-	-	-	-	2
SPV.0165.01	REPOINTING STONE MASONRY	SF	75	675	675	75	1500

GENERAL NOTES

REPOSITION APPROACH PARAPET WING WALLS 3 AND 2 AT THE SOUTHWEST AND NORTHEAST CORNERS RESPECTIVELY OF THE BRIDGE. MATCH EXISTING HORIZONTAL LAYOUT. RAISE WALLS TO MATCH BRIDGE PARAPETS IN ELEVATION AND PROFILE.

PROTECT PARAPETS AND RAILINGS FROM DAMAGE.

DRILLED HOLES OR OTHER ATTACHMENTS FOR LIFTING ARE ALLOWED ONLY IN PARTS BELOW FINISHED GRADE.

REPOINTING THE STONE MASONRY IS REQUIRED. TUCK POINT THE GROUT BETWEEN EXISTING STONES ON THE ARCH STRUCTURE AT LOCATIONS APPROVED BY THE ENGINEER. REPOINTING STONE MASONRY REQUIRED AT NORTH AND SOUTH VERTICAL FACES OF ARCH WALLS AND UNDERSIDE OF ARCHES. DO NOT REMOVE LOOSE STONES WITHOUT APPROVAL.

REPAIR CRACKS IN ABUTMENT OR PIER FOOTINGS USING EPOXY INJECTION CRACK REPAIR AT LOCATIONS APPROVED BY THE ENGINEER.

DRAWINGS SHALL NOT BE SCALED.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

THE STREAM BED IN FRONT OF THE WEST ABUTMENT AND THE PIERS SHALL BE COVERED WITH RIPRAP HEAVY TO THE EXTENT SHOWN ON SHEET 1. RIPRAP HEAVY QUANTITIES ARE BASED ON AN AVERAGE DEPTH OF 2'-0" TO ACCOUNT FOR STREAMBEAD HOLES ALONG THE ABUTMENT & PIER FOOTINGS.

DIMENSIONS AND ALIGNMENT DATA SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS SHOWN OR NOTED ELSEWHERE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-35-2

DRAWN BY RLR | PLANS CK'D. DHW

GENERAL NOTES
TYPICAL SECTION
& QUANTITIES

SHEET 2 OF 3
69

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STATE PROJECT NUMBER

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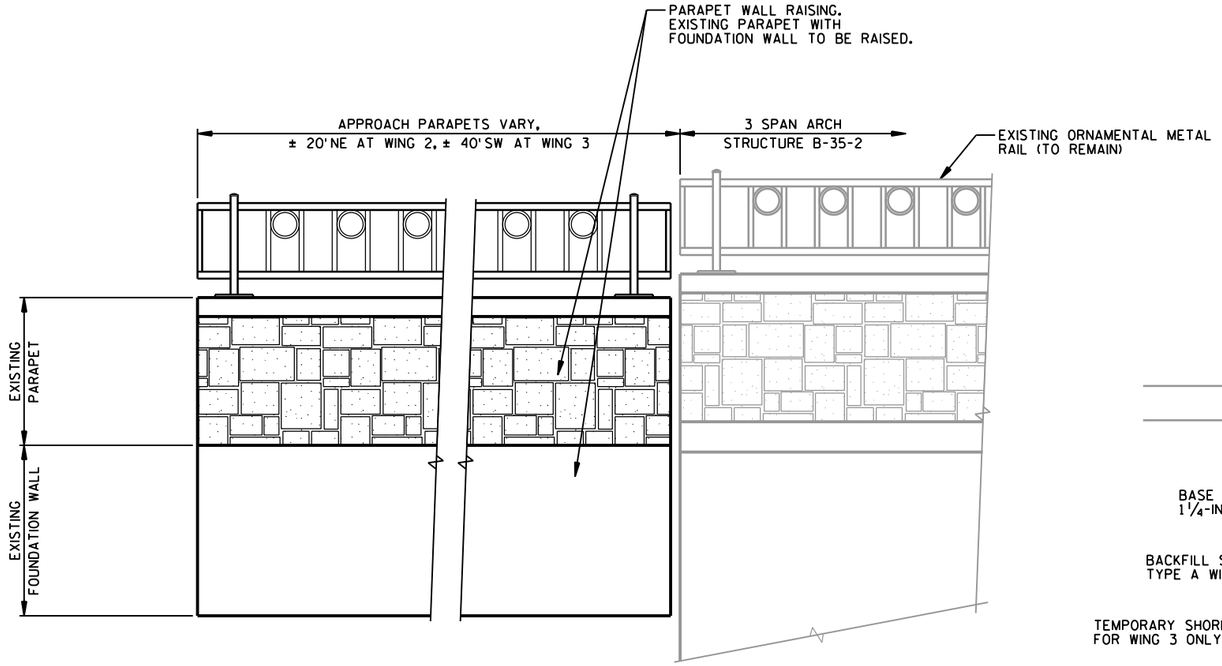
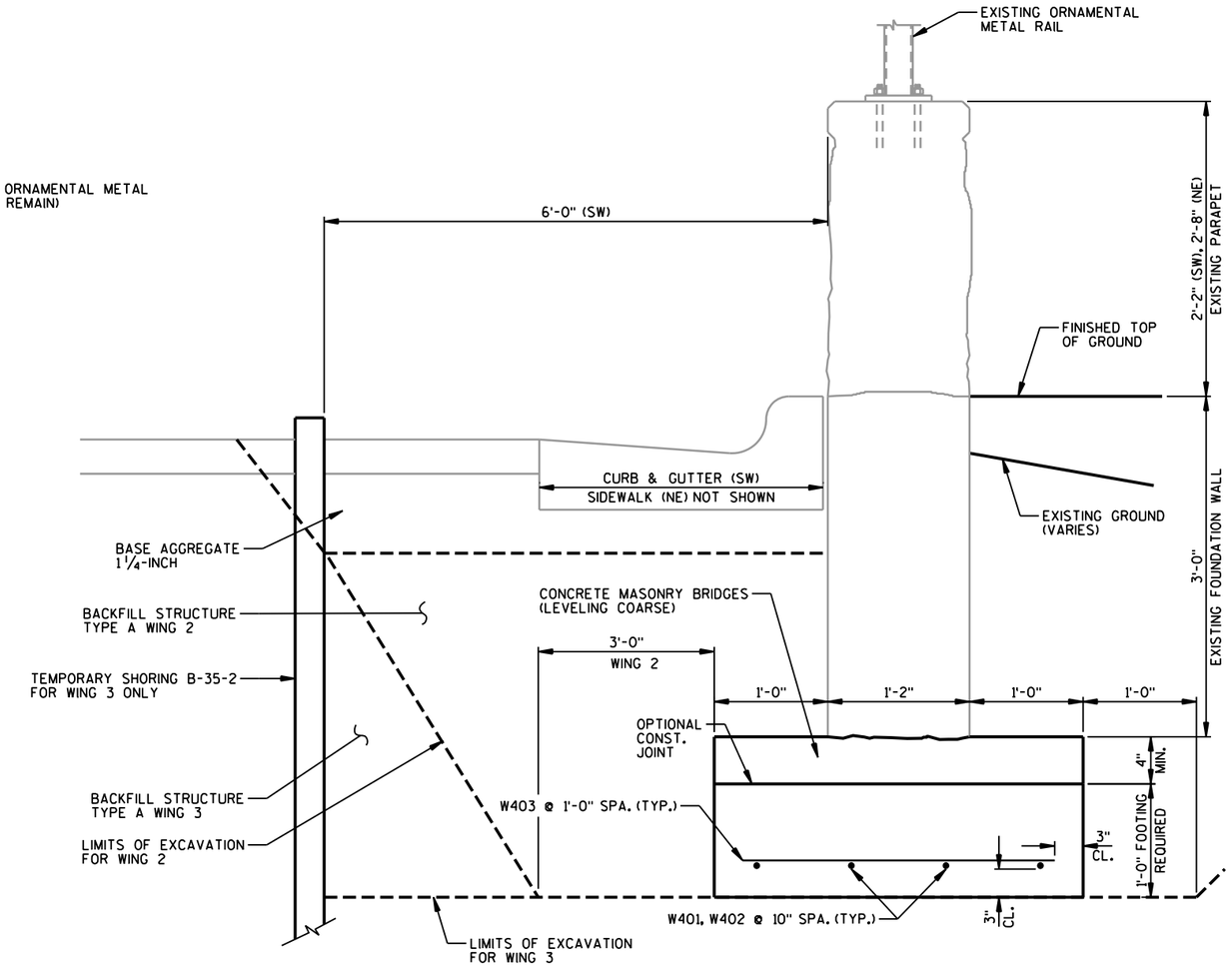


ELEVATION - EXISTING PARAPET & FOOTING

(EXISTING CONDITIONS SHOWN)



SECTION THRU WINGS 2 & 3 APPROACH PARAPET WALL AND FOOTING

FORM FOOTING AROUND EXISTING INLET AT WING 3. CUT BAR STEEL CONFLICTING WITH INLET.

90 LBS WING 2 (EAST ABUT.)
180 LBS WING 3 (WEST ABUT.)
270 LBS. TOTAL

BILL OF BARS (UNCOATED)

MARK	NUMBER REQUIRED		LENGTH	LOCATION
	WING 2	WING 3		
W401	-	4	39'-5"	FOOTING - WING 3 - LONGIT.
W402	4	-	19'-5"	FOOTING - WING 2 - LONGIT.
W403	20	40	2'-8"	FOOTING - WINGS 2 & 3 - TRANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-35-2

DRAWN BY RLR | PLANS CK'D. DHW

DETAILS

SHEET 3 OF 3

70

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STATE PROJECT NUMBER

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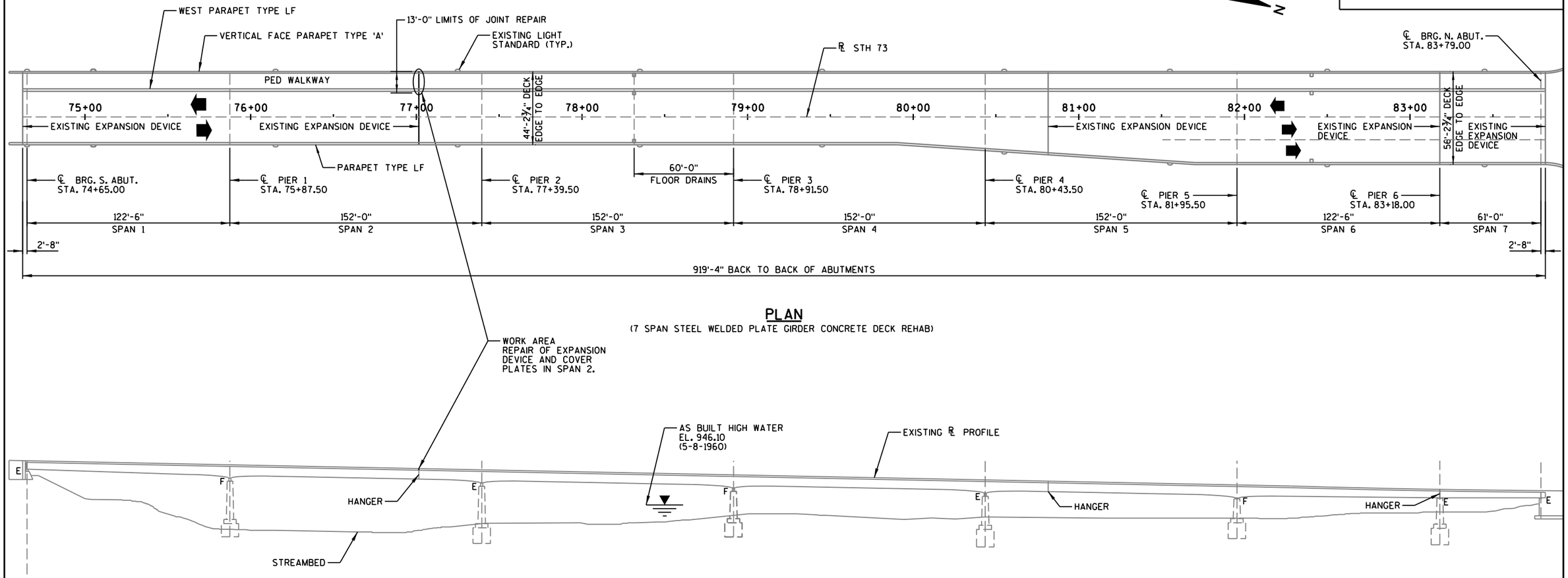

PLAN

(7 SPAN STEEL WELDED PLATE GIRDER CONCRETE DECK REHAB)

ELEVATION

(LOOKING WEST AND DOWNSTREAM)
(PROFILE GRADE FOR SPANS 1-5 IS -2.0%)

DESIGN DATA

LIVE LOAD; INFORMATION FROM HSI, 7-17-2017

DESIGN LOADING : HS20
INVENTORY RATING : HS18
OPERATIONAL RATING : HS30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 180 KIPS

TRAFFIC DATA;

A.A.D.T. (2019) = 8100
A.A.D.T. (2039) = 9100
DESIGN SPEED = 30 MPH

MATERIAL PROPERTIES;

CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 —— fy = 60,000 P.S.I.

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, GENERAL NOTES & QUANTITIES
3. EXPANSION DEVICE & COVER PLATE DETAILS
4. PARAPET DETAILS

WISCONSIN
SEAN M. SPROMBERG
E-37771-008
SCHOFIELD, WI
PROFESSIONAL ENGINEER

12/1/17

DESIGN CONTACT
SEAN SPROMBERG
(715) 304-0451

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL

1835 North Stevens Street Rhinelander, WI 54501
715-362-8244 1-800-844-7854

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/21/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-71-18

STH 73 OVER WISCONSIN RIVER

COUNTY	TOWN ~~CITY/VILLAGE~~
WOOD	SARATOGA

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DHW	SMS	RLR	DHW

GENERAL PLAN

SHEET 1 OF 4
71

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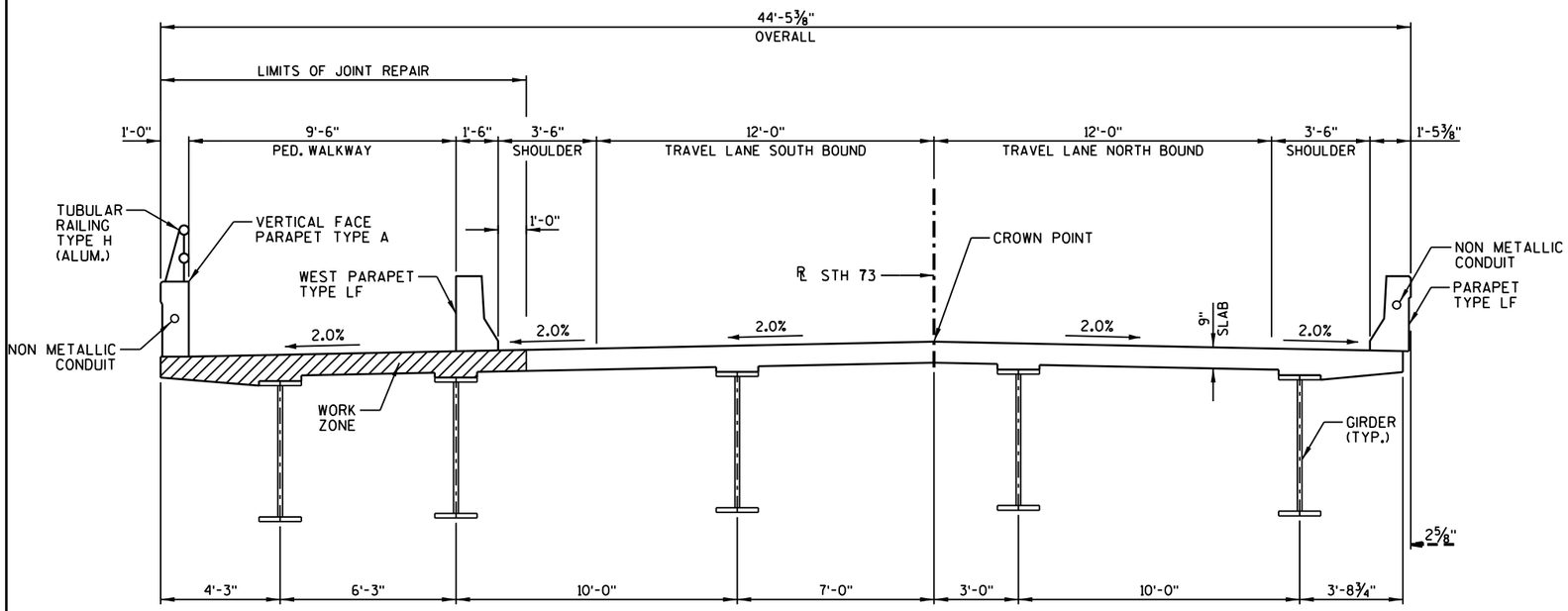
STATE PROJECT NUMBER

6320-08-62



TYPICAL SECTION AT WORK ZONE

(SECTION AT SPAN 2 EXPANSION JOINT)
(UTILITIES HUNG UNDER BRIDGE ARE NOT SHOWN)
(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

DIMENSIONS AND ALIGNMENT SHOWN ARE BASED ON EXISTING PLANS. ORIGINAL AND AS-BUILT 2001 PLANS ARE AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

IMPROVEMENTS INCLUDE PARTIAL EXPANSION JOINT REPLACEMENT AND 4 COVER PLATE REPLACEMENTS AT THE EXPANSION JOINT IN SPAN 2. SALVAGE EXISTING COVER PLATES.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1½" DEEP SAW CUT.

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-71-18, A SEVEN SPAN, 918.0 FOOT LONG, CONCRETE DECK STEEL WELDED PLATE GIRDER BRIDGE.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP SURFACES OF THE SLAB IN THE WORK ZONE. EXTEND 3 FEET MINIMUM EACH SIDE OF THE EXPANSION DEVICE JOINT OPENING.

APPLY PIGMENTED SURFACE SEALER TO TOPS AND SIDEWALK AND TRAFFIC SURFACES OF THE PARAPETS IN THE WORK ZONE. EXTEND 3 FEET MINIMUM EACH SIDE OF THE EXPANSION DEVICE JOINT OPENING.

PROVIDE SALVAGED PLATES TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SUPER	TOTAL
203.0225.S.01	DEBRIS CONTAINMENT B-71-18	LS	-	1
502.3100.01	EXPANSION DEVICE B-71-18	LS	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	10	10
502.3210	PIGMENTED SURFACE SEALER	SY	10	10
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	180	180
505.0905	BAR COUPLERS NO. 5	EACH	14	14
509.1000	JOINT REPAIR	SY	6	6
509.1500	CONCRETE SURFACE REPAIR	SF	20	20
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	5	5

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-71-18

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TYPICAL SECTION, GENERAL NOTES & QUANTITIES

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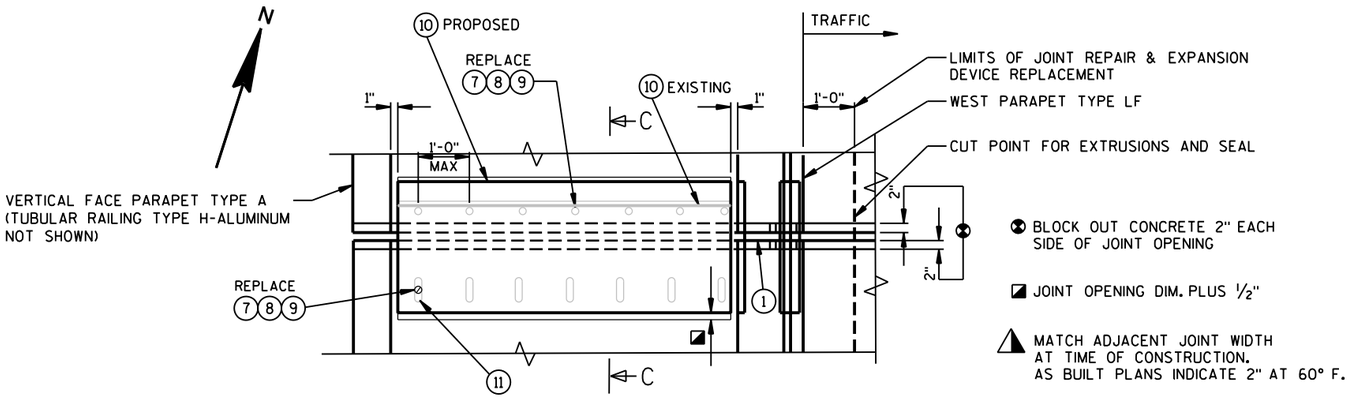

PLAN AT PED WALKWAY

LEGEND

1. NEOPRENE STRIP SEAL (5 INCH) & STEEL EXTRUSIONS. REPLACE EXISTING STEEL EXTRUSIONS. CUT WHERE SHOWN. REPLACE EXTRUSIONS AND NEOPRENE GLAND FROM CUT POINT WESTWARD. PER AS-BUILT PLANS, A BOWMAN A-SE 500 5-INCH EXPANSION JOINT WITH A WATSON BOWMAN ACME CORD SSA 3FM 1.25X2, C11 810 EXTRUSION WAS INSTALLED.
2. STUDS 5/8" Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
6. GALVANIZED PARAPET PLATE 3/8" WITH HOLES FOR #7 & #11. REMOVE EXISTING 2'-0" LONG PLATE AND REPLACE WITH 2'-7" LONG x 3/8" x SAME HEIGHT PLATE. BEND AS SHOWN FOR TRAFFIC FACE OF PARAPET LF.
7. 3/4"Φ x 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" Φ x 4" GALV. HEX HEAD BOLT. BENT 45°. REPLACE ALL.
9. 3/4" Φ x 2 1/4" GALV. THREADED COUPLING.
10. GALVANIZED SIDEWALK PLATE 3/8" x 2'-7" WIDE x LIMITS SHOWN WITH HOLES FOR REQ'D #7 TO REPLACE EXISTING 2'-0" WIDE PLATE.
11. 1" x 6" SLOTTED COUNTERSUNK HOLE FOR #7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.
12. SALVAGE ALL EXISTING TRANSVERSE AND LONGITUDINAL BARS.

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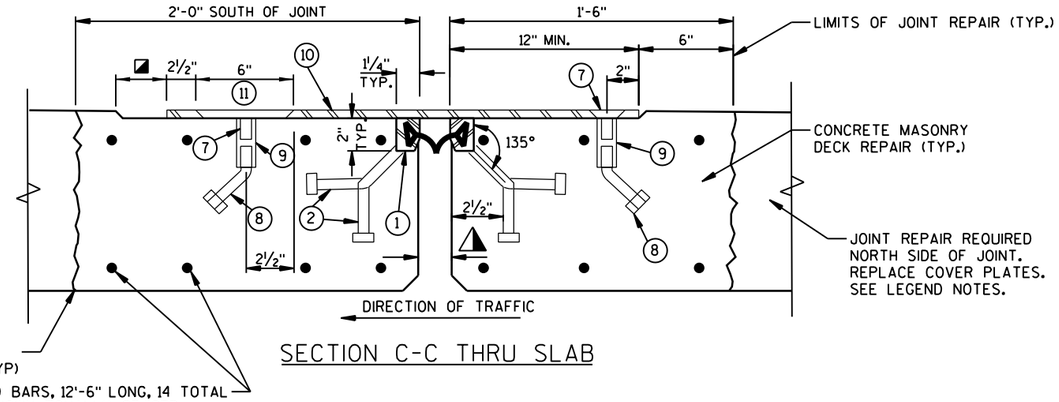
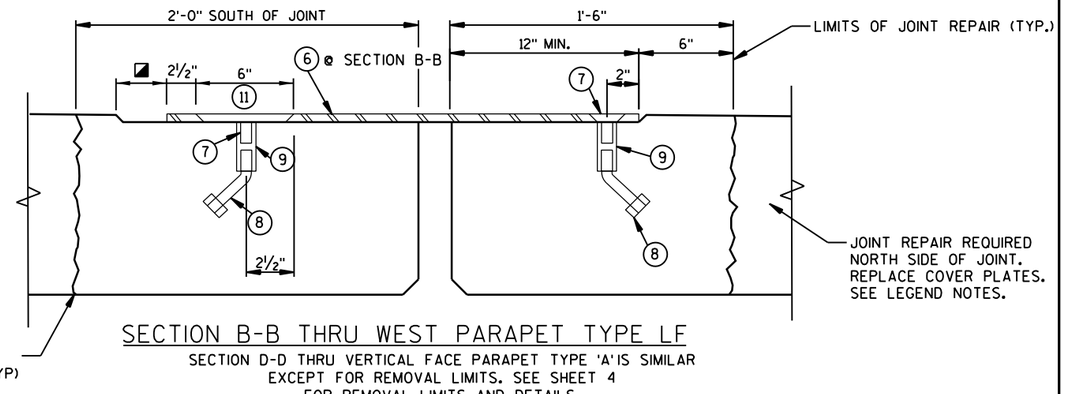
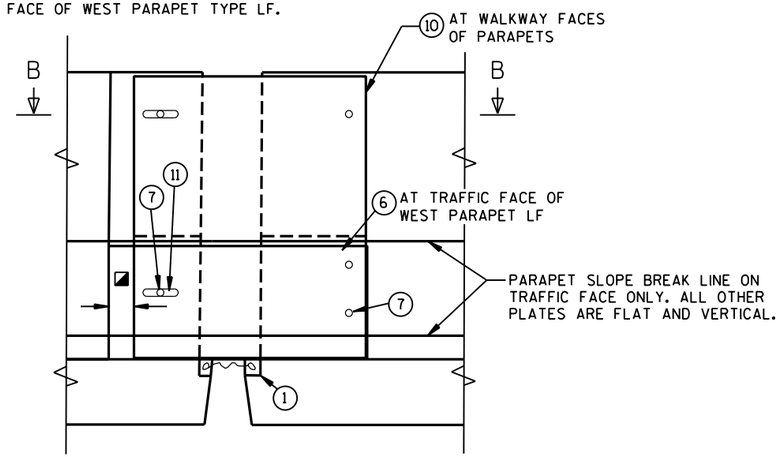


SECTION C-C THRU SLAB



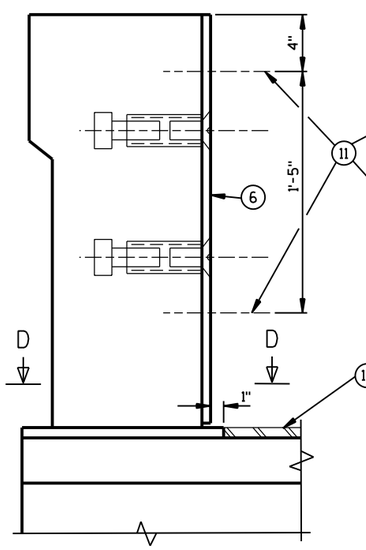
SECTION B-B THRU WEST PARAPET TYPE LF

SECTION D-D THRU VERTICAL FACE PARAPET TYPE 'A' IS SIMILAR EXCEPT FOR REMOVAL LIMITS. SEE SHEET 4 FOR REMOVAL LIMITS AND DETAILS.

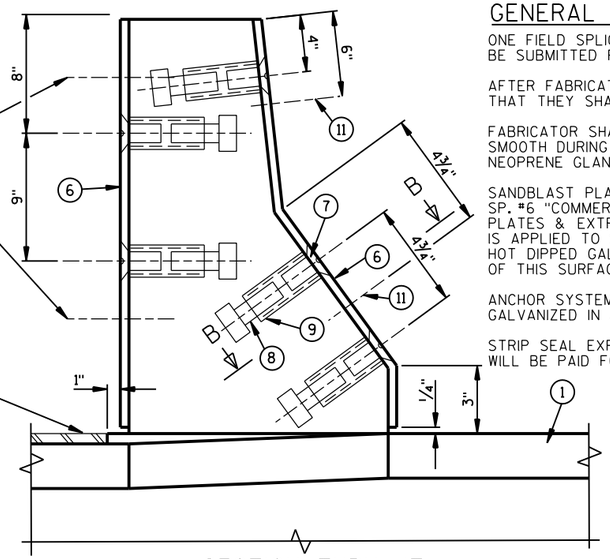


VIEW OF WEST PARAPET TYPE LF PLATES FROM ROADWAY

LOOKING WEST AT JOINT OVER THE HANGER ON SPAN 2
(VIEW OF VERTICAL FACE PARAPET TYPE "A" IS SIMILAR.)



SECTION THRU JT. @ VERT. FACE PARAPET TYPE A



SECTION THRU JT. @ WEST PARAPET TYPE LF
(LOOKING NORTH)

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPEDGALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM No. 8 & No. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-71-18".

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EXPANSION DEVICE & COVER PLATE DETAILS

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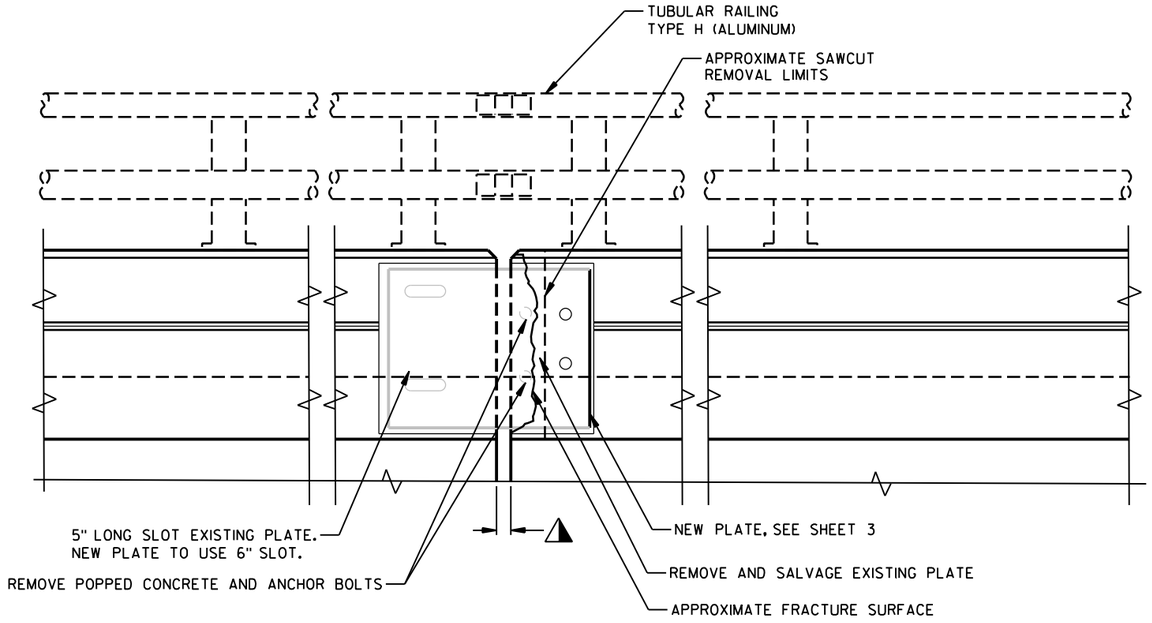
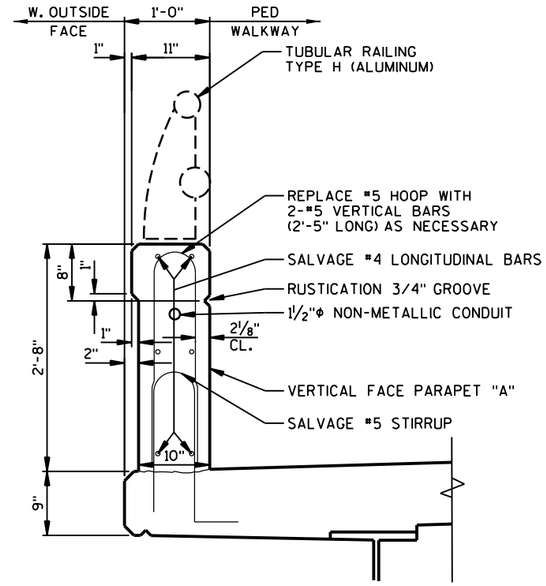


ELEVATION OF VERTICAL FACE PARAPET TYPE 'A' AT EXPANSION JOINT

(LOOKING WEST)



AT SIDEWALK

VERTICAL FACE PARAPET NOTES:

SEE SHEET 3 FOR PLATE DETAILS

ON VERTICAL FACE PARAPET TYPE "A" REMOVE EXISTING PLATE. REMOVE POPPED CONCRETE & ANCHOR BOLTS. DEFINE LIMITS OF CONCRETE REMOVAL WITH 1½" DEEP SAWCUT. REMOVE SURFACE CONCRETE TO 2" DEEP MIN. PATCH POP OUTS AND REMOVAL.

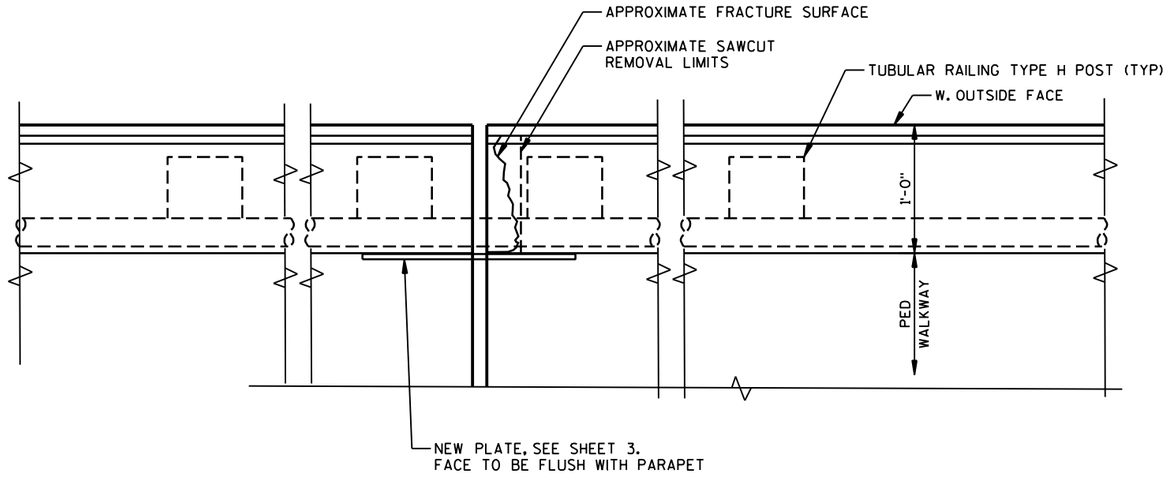
PLACE NEW PLATE. INSERT ADHESIVE THREADED ANCHORS ON FIXED SIDE (NORTH) AND SECURE WITH NEW ¾" X 1½" STAINLESS STEEL FLAT HEAD MACHINE SCREWS. RECESS 1/16" BELOW PLATE SURFACE. ALTERNATE TO SCREWS MAY USE ¾" STAINLESS FLAT HEAD BOLTS THROUGH THE PARAPET AND SECURED WITH STAINLESS DOUBLE NUT CONNECTION.

TUBULAR RAILING TYPE H POST MAY BE REMOVED TEMPORARILY. IF EXISTING RAILING ANCHOR BOLTS ARE DISRUPTED, REPLACE IN KIND OR WITH ADHESIVE ANCHORS 5/8-INCH.

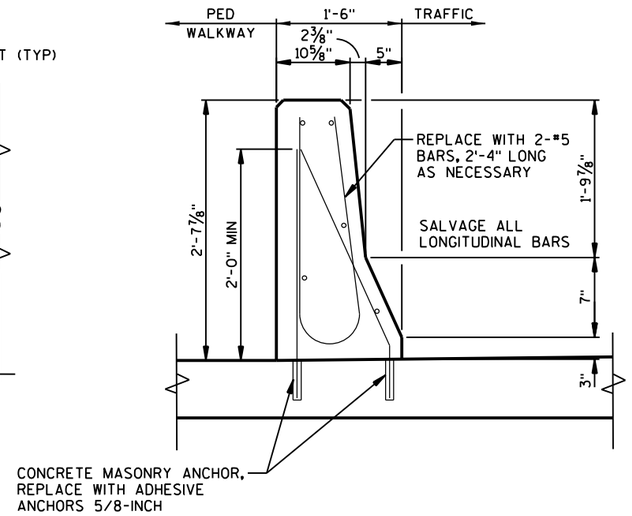
ALL FACES OF REPAIRED PARAPETS SHALL BE FIT TO MATCH EXISTING PARAPETS. DIMENSIONS GIVEN ARE FOR INFORMATION ONLY.

IN BOTH PARAPETS, SALVAGE ALL EXISTING VERTICAL AND HORIZONTAL BARS. REUSE OR REPLACE WITH #5 EPOXY COATED HIGH STRENGTH BARS, SIZE TO FIT OR AS NOTED. COST OF NEW REBAR, IF USED, IS INCLUDED IN THE BID ITEM, JOINT REPAIR.

PROVIDE CONCRETE SURFACE REPAIR TO PARAPETS AS DIRECTED BY THE ENGINEER.



PLAN OF VERTICAL FACE PARAPET TYPE 'A'



TYPICAL SECTION THRU WEST PARAPET TYPE LF

⚠ MATCH ADJACENT JOINT WIDTH AT TIME OF CONSTRUCTION. AS BUILT PLANS INDICATE 2" AT 60° F.

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION PRIOR TO SETTING THE EXPANSION JOINT.

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PARAPET DETAILS

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Notes

Wisconsin Department of Transportation

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