

PROJECT ID: 6995-00-73
WITH:

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 (includes erosion control plan)
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 = 146



A.A.D.T.	2015	=	1600
A.A.D.T.	2035	=	1800
D.H.V.	2035	=	135
D.D.		=	57/43
T.		=	3.3%
DESIGN SPEED		=	30 MPH
ESALS		=	138,700

PLAN
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE

REFERENCE LINE

PROPOSED CULVERT
(Box or Pipe)

WOODED OR SHRUB AREA

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

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

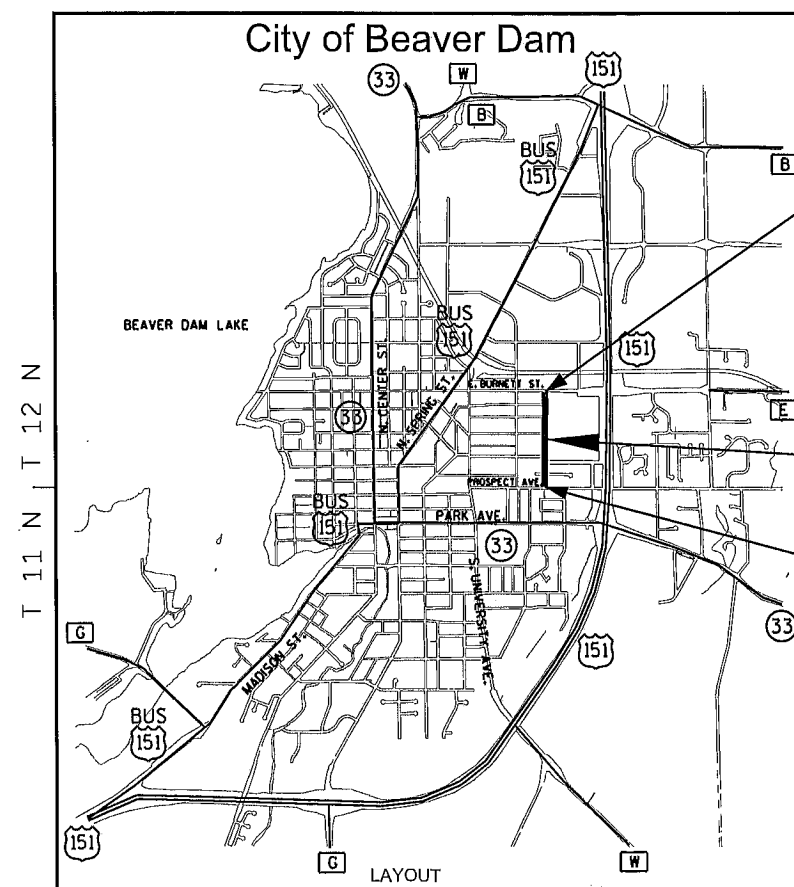
SANITARY SEWER

STORM SEWER

TELEPHONE
 114777WATER
LITHIUM PESTICIDE

POWER ROLE

TELEPHONE R



PROJECT END
STA= 36+60.58
Y= 726734.86
X= 851608.66

MCKINLEY STREET
0.504 MI.

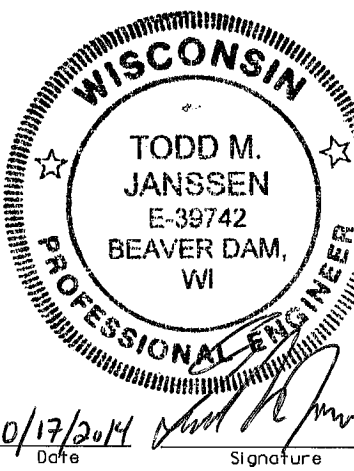
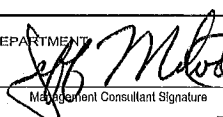
PROJECT BEGIN
STA= 10+00.00
Y= 724074.78
X= 851588.88

.. R 14 E

SCALE 0 1 M

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY
COORDINATE SYSTEM (WCCS), DODGE COUNTY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6995-00-73	WISC 2015181	1

ACCEPTED FOR CITY OF BEAVER DAM	
10/16/14 DATE	MAYOR
ORIGINAL PLANS PREPARED BY:	
MSA TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL 201 Corporate Drive, Beaver Dam, WI 53916 920-887-4242 1-800-552-6330 Fax: 920-887-4250 Web Address: www.msa-ps.com © 2014 Professional Services, Inc.	
	
10/17/2014 Date	 Signature
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Management Consultant	KJOHNSON ENGINEERS, INC.
APPROVED FOR THE DEPARTMENT	
DATE: 10/30/14	 Management Consultant Signature

GENERAL NOTES

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.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE U.S.G.S DATUM.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLAN AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

PAVEMENT, SIDEWALK, CURB & DRIVEWAY REMOVEAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWCUT WHERE SHOWN ON THE PLANS.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.

UNDISTRIBUTED QUANTITIES OF INLET PROTECTION TYPE C ARE TO BE USED FOR EXISTING INLETS BEYOND THE CONSTRUCTION LIMITS THAT MAY BE SUSCEPTIBLE TO EROSION FROM THE JOB SITE DUE TO EXISTING DRAINAGE PATTERNS. THE UNDISTRIBUTED QUANTITIES SHALL NOT BE USED WITHOUT APPROVAL BY THE ENGINEER.

PROJECT DESIGNER

MSA PROFESSIONAL SERVICES, INC.
ATTN: TODD M. JANSSEN
201 CORPORATE DRIVE
BEAVER DAM, WI 53916
TELEPHONE: (920) 887-4242
tjanssen@msa-ps.com

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
ATTN: ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI. 53711
(608) 275-3301
eric.heggelund@wisconsin.gov

STANDARD ABBREVIATIONS

BDUSD	BEAVER DAM UNIFIED SCHOOL DISTRICT
BM	BENCHMARK
CL OR C	CENTERLINE
X	EAST GRID COORDINATE
MH	MANHOLE
Y	NORTH GRID COORDINATE
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PL	PROPERTY LINE
R	RADIUS
REQD	REQUIRED
R/W	RIGHT-OF-WAY
TLE	TEMPORARY LIMITED EASEMENT
FL	FLOW LINE

INDEX OF TYPICAL SECTIONS & DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
RAMP DETAILS
PAVING DETAILS
STORM SEWER
PAVEMENT MARKING & SIGNAGE
STREET LIGHTING
TRAFFIC CONTROL
ALIGNMENT DATA
CONTROL POINT TIES

UTILITIES

STORM, STREET & LIGHTING

CITY OF BEAVER DAM
ATTN: JEREMY KLUG
640 S. CENTER STREET
BEAVER DAM, WI 53916
(920) 887-4635
jklug@cityofbeaverdam.com

WATER & SEWER

BEAVER DAM UTILITIES
ATTN: DON QUARFORD
108 MYRTLE ROAD
BEAVER DAM, WI 53916
(920) 210-7762
dquarford@cityofbeaverdam.com

TELEPHONE & FIBER OPTIC

AT&T WISCONSIN
ATTN: WALLY WELK
70 E. DIVISION ST
FOND DU LAC, WI 54935
(920) 929-1016
ww5363@att.com

CITY OF BEAVER DAM

ENGINEERING COORDINATOR

RITCHIE PILTZ
205 S. LINCOLN AVENUE
BEAVER DAM, WI 53916
(920) 887-4600 X326
rpiltz@cityofbeaverdam.com

DIRECTOR OF FACILITIES

JEREMY KLUG
640 S. CENTER STREET
BEAVER DAM, WI 53916
(920) 887-4635
jklug@cityofbeaverdam.com

DIRECTOR OF UTILITIES

DON QUARFORD
108 MYRTLE ROAD
BEAVER DAM, WI 53916
(920) 887-4625
dquarford@cityofbeaverdam.com

ELECTRIC

ALLIANT ENERGY
ATTN: PERRY BOECK
120 E. MAPLE AVENUE
BEAVER DAM, WI 53916
(920) 887-6061
perryboeck@alliantenergy.com



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

GAS

ALLIANT ENERGY
ATTN: PERRY BOECK
120 E. MAPLE AVENUE
BEAVER DAM, WI 53916
(920) 887-6061
perryboeck@alliantenergy.com

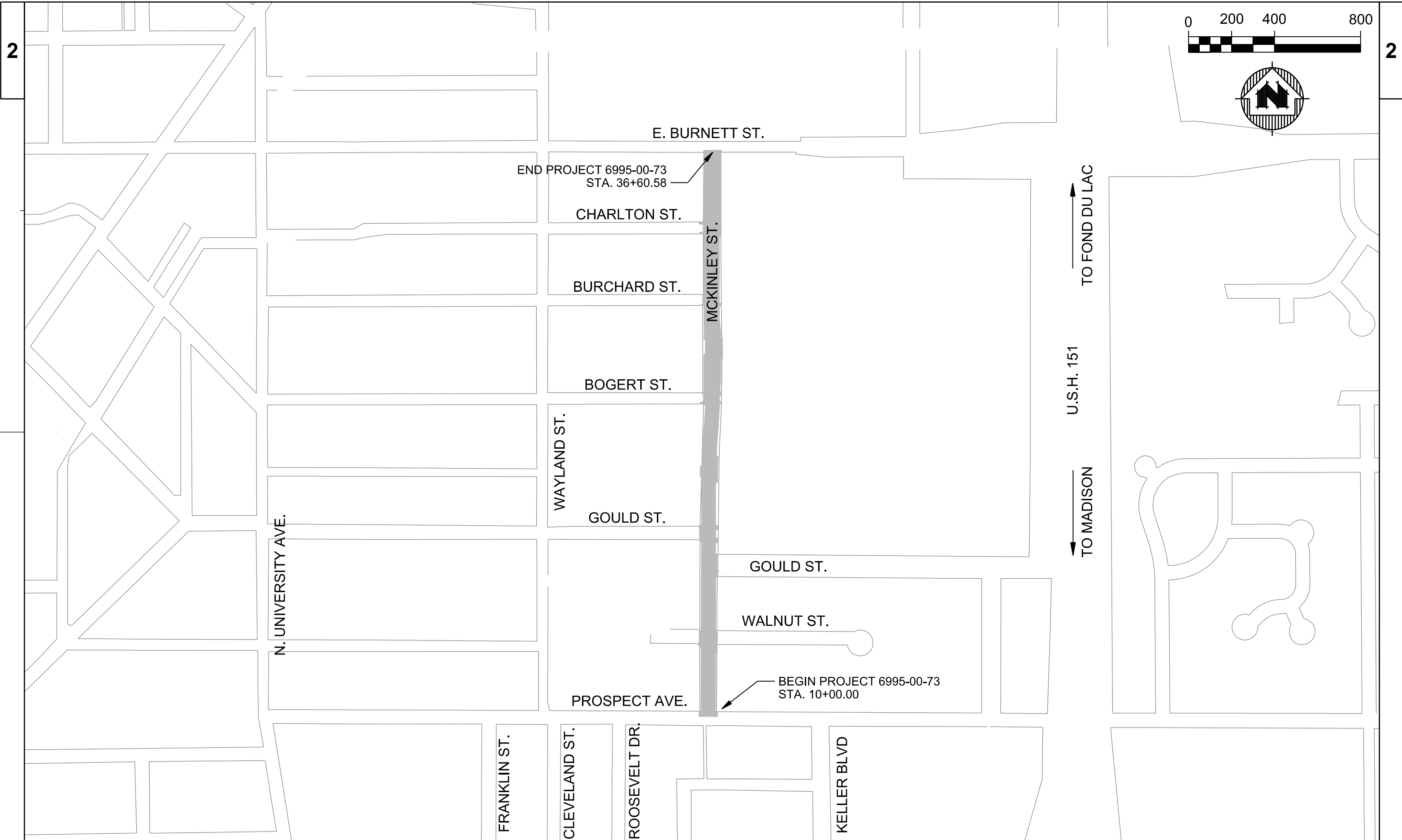
* - DENOTES NON-MEMBER OF DIGGERS HOTLINE.

FIBER OPTIC CABLE

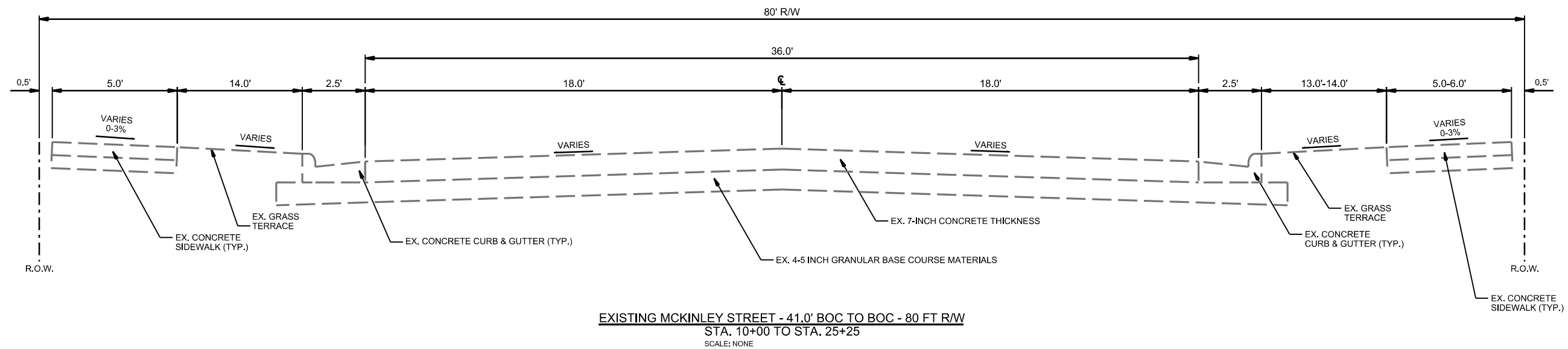
BEAVER DAM UNIFIED
SCHOOL DISTRICT (BDUSD)
ATTN: PAUL BUCHHOLZ
705 MCKINLEY STREET
BEAVER DAM, WI 53916
(920) 885-7470
buchholz@bdusd.org

CABLE

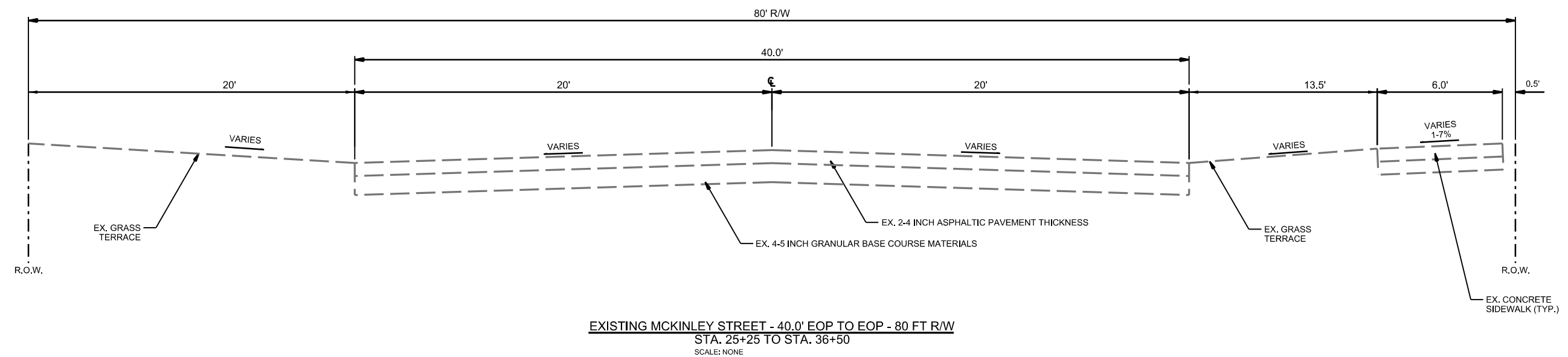
CHARTER COMMUNICATIONS
ATTN: TONY KLATT
W7185 STATE ROAD 49
WAUPUN, WI 53963
(920) 623-0062
tony.klatt@charter.com.com



2



2



PROJECT NO:6995-00-73

HWY:MCKINLEY STREET

COUNTY:DODGE

EXISTING TYPICAL SECTIONS

SHEET 4

E

FILE NAME : P:\00218070\CADD\MUNI\Planshts\ 02 - 02 Ex Typ Section.dgn

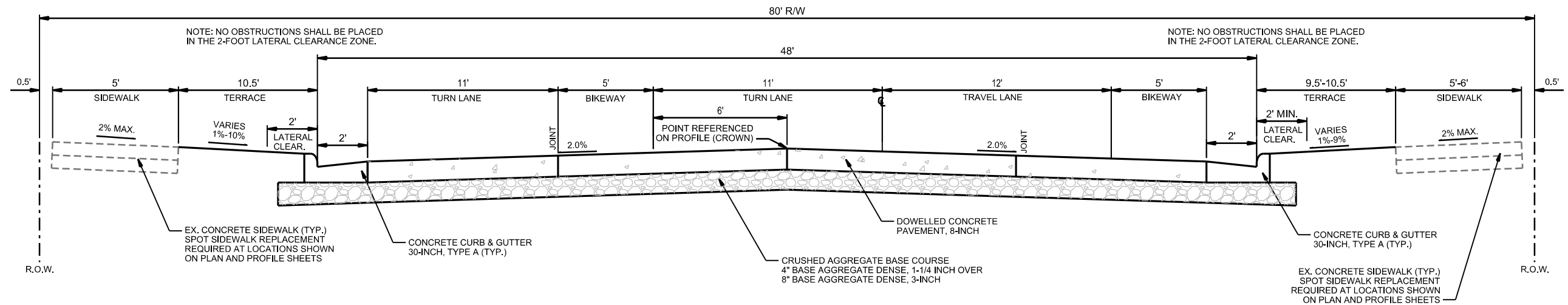
PLOT DATE : 08/27/2014

PLOT BY : JANSSEN, TODD M

PLOT NAME : -----

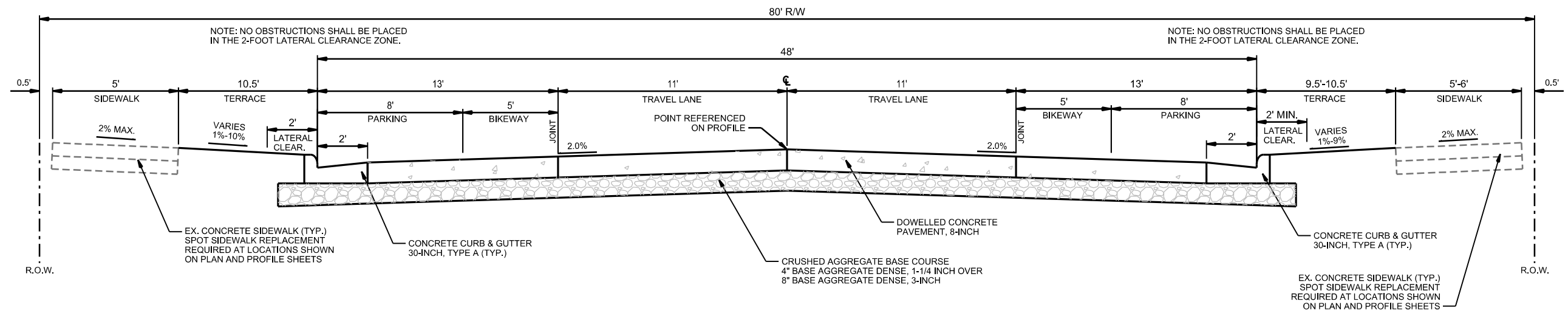
WISDOT/CADDs SHEET 42

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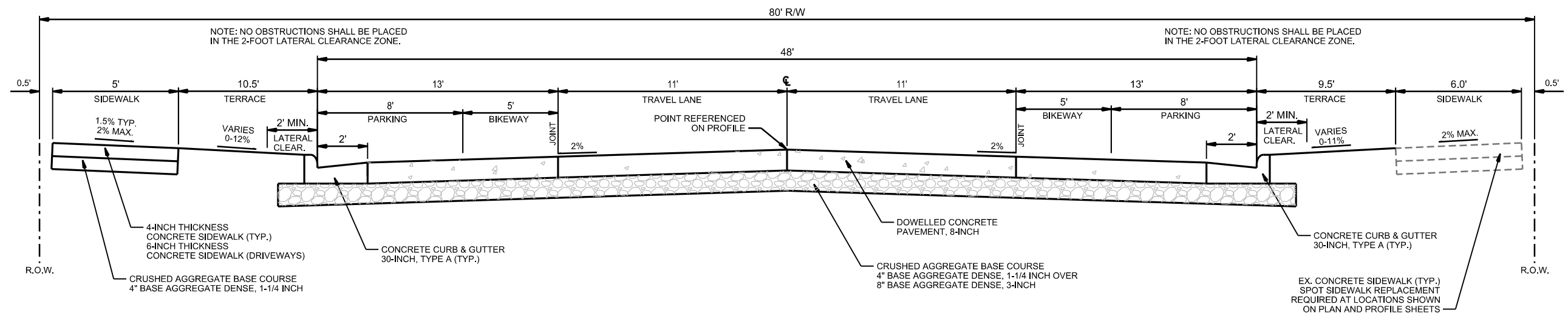


PROPOSED MCKINLEY STREET - 48' FACE TO FACE - 80 FT R/W
STA. 10+00 TO STA. 11+12
SCALE: NONE

2

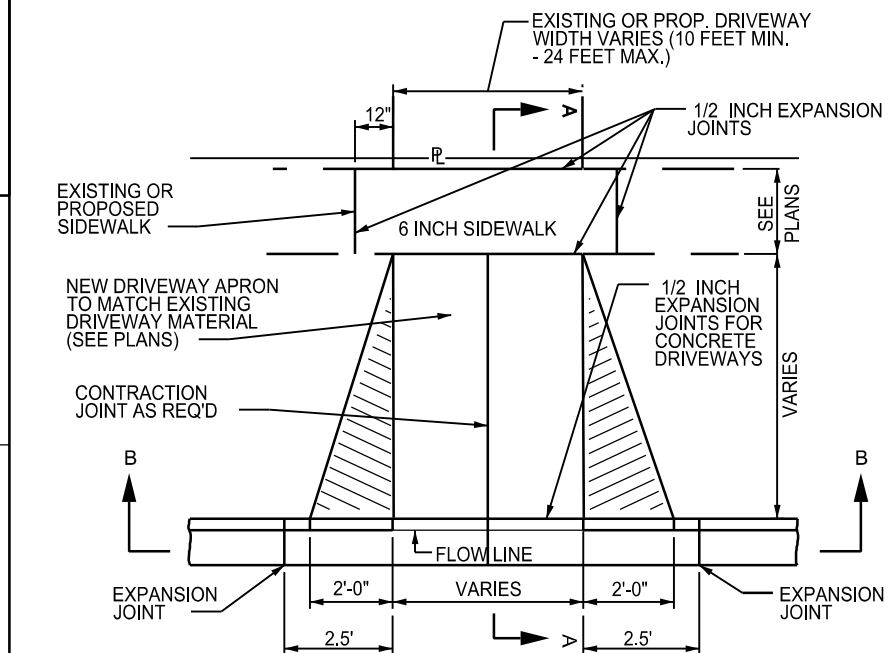


PROPOSED MCKINLEY STREET - 48' FACE TO FACE - 80 FT R/W
STA. 12+12 TO STA. 25+25
SCALE: NONE

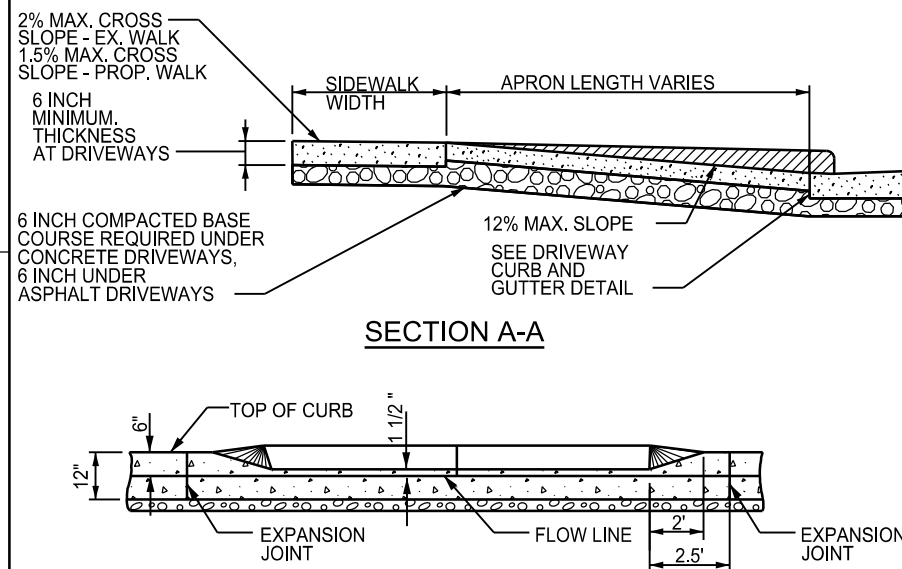


PROPOSED MCKINLEY STREET - 48' FACE TO FACE - 80 FT R/W
STA. 25+25 TO STA. 36+50
SCALE: NONE

2



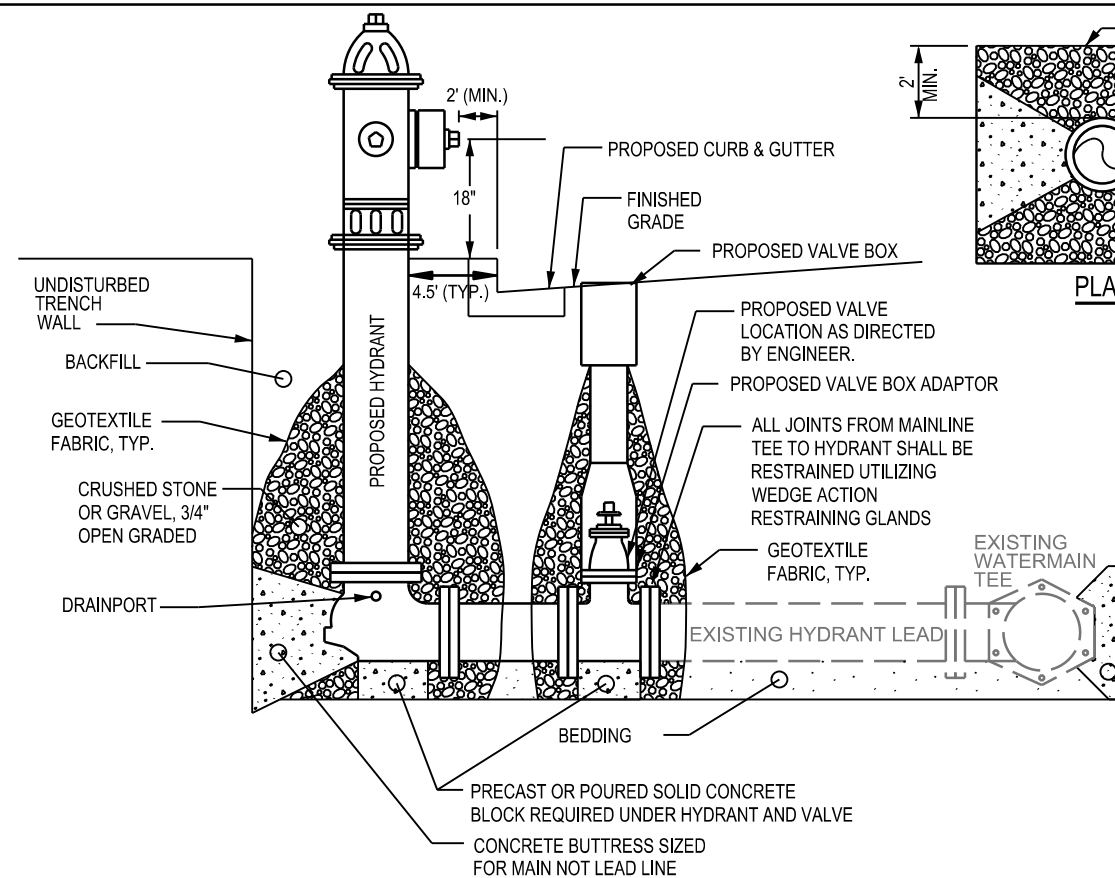
SECTION A-A



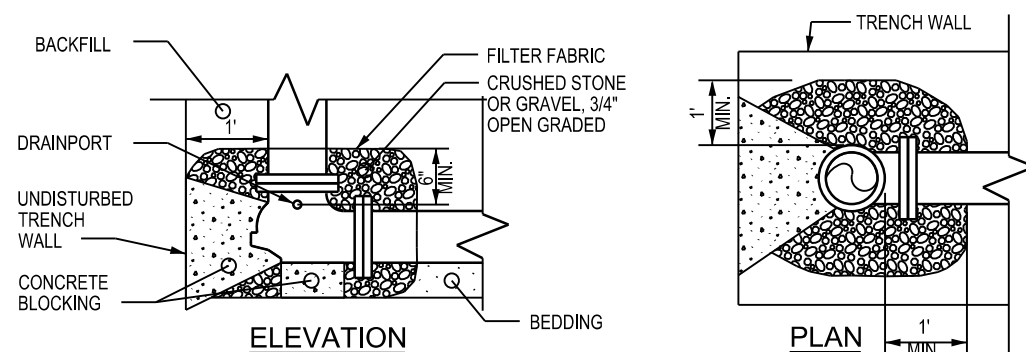
SECTION B-B

DRIVEWAY DETAIL

SCALE: NONE



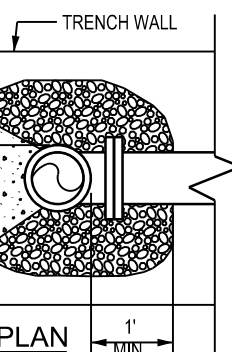
ELEVATION



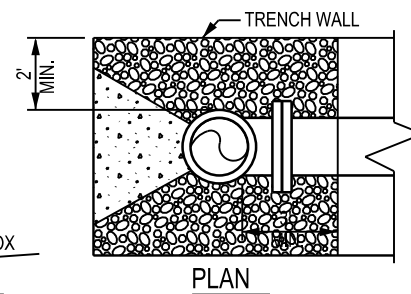
ELEVATION

PERVIOUS SOIL SUMP DETAIL**HYDRANT AND LEAD CONNECTION DETAIL**

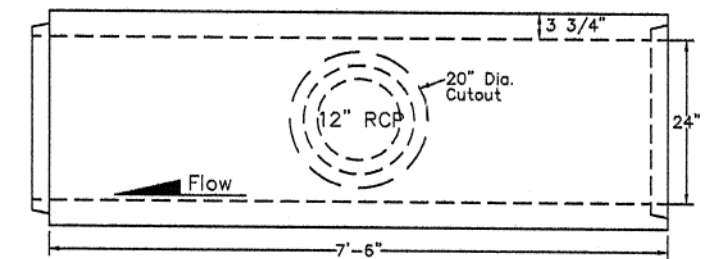
SCALE: NONE



PLAN

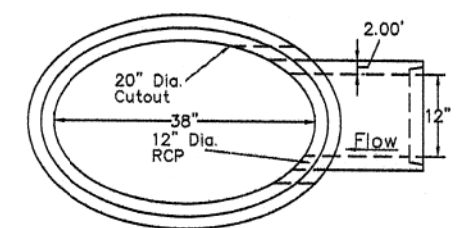


PLAN



PROFILE VIEW

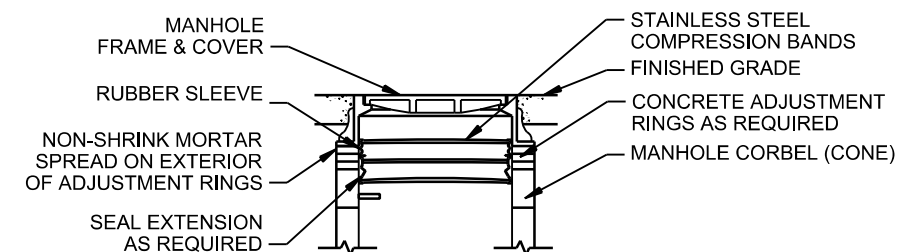
CONCRETE COLLAR REQUIRED AT 24X38-INCH / 12-INCH PIPE INTERFACE.



BELL END VIEW

**STORM SEWER PIPE REINFORCED CONCRETE
CLASS HE-III 24X38-INCH X 12-INCH TEE**

SCALE: NONE

**GENERAL NOTES:**

1. THE SEAL SHALL EXTEND FROM THE CASTING TO THE CORBEL (CONE). SEAL EXTENSIONS SHALL BE USED AS REQUIRED.
2. AN INTERNAL ADAPTOR SEAL RING MAY BE USED IN LIEU OF THE RUBBER SLEEVE. THE INTERNAL ADAPTOR SEAL RING SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

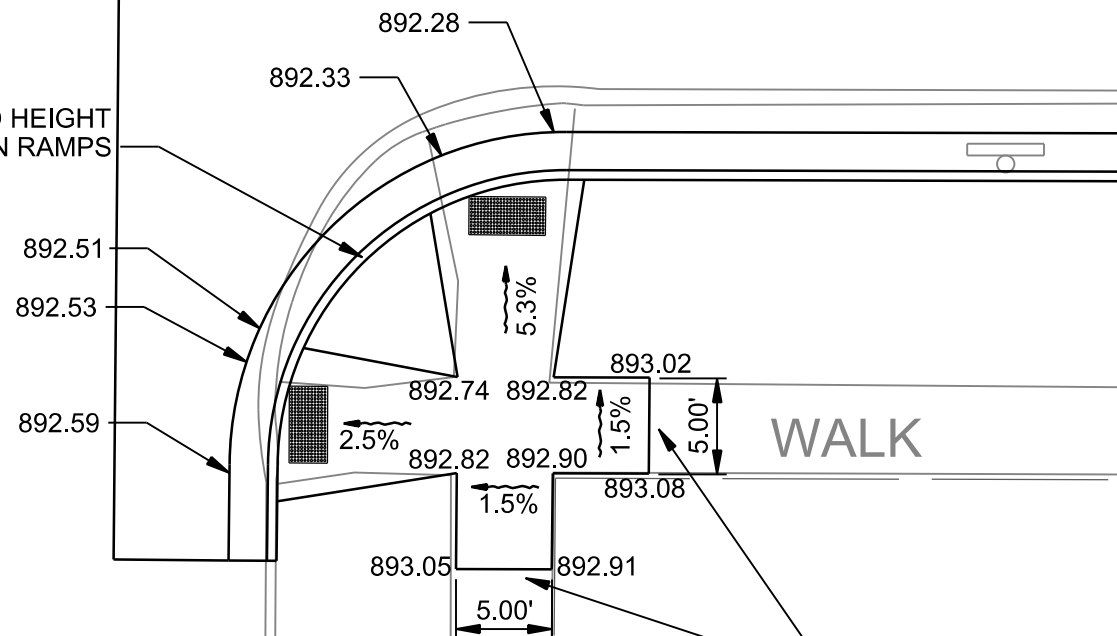
INTERNAL RUBBER SLEEVE FRAME/CHIMNEY SEAL**SANITARY MANHOLE WATERPROOFING DETAIL**

SCALE: NONE

2

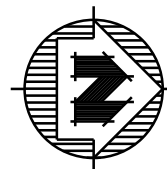
10+00

MCKINLEY STREET

4-INCH CURB HEAD HEIGHT
BETWEEN RAMPS

NE CORNER MCKINELY STREET/PROSPECT AVENUE

0 10 20



PROSPECT AVENUE

PROJECT NO: 6995-00-73

HWY: MCKINLEY STREET

COUNTY: DODGE

RAMP DETAILS

SHEET

7

E

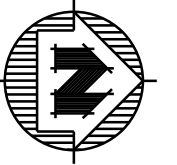
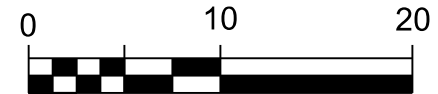
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PLOT DATE : 10/13/2014

PLOT BY : JANSSEN, TODD M

PLOT NAME : _____

WISDOT/CADDs SHEET 42

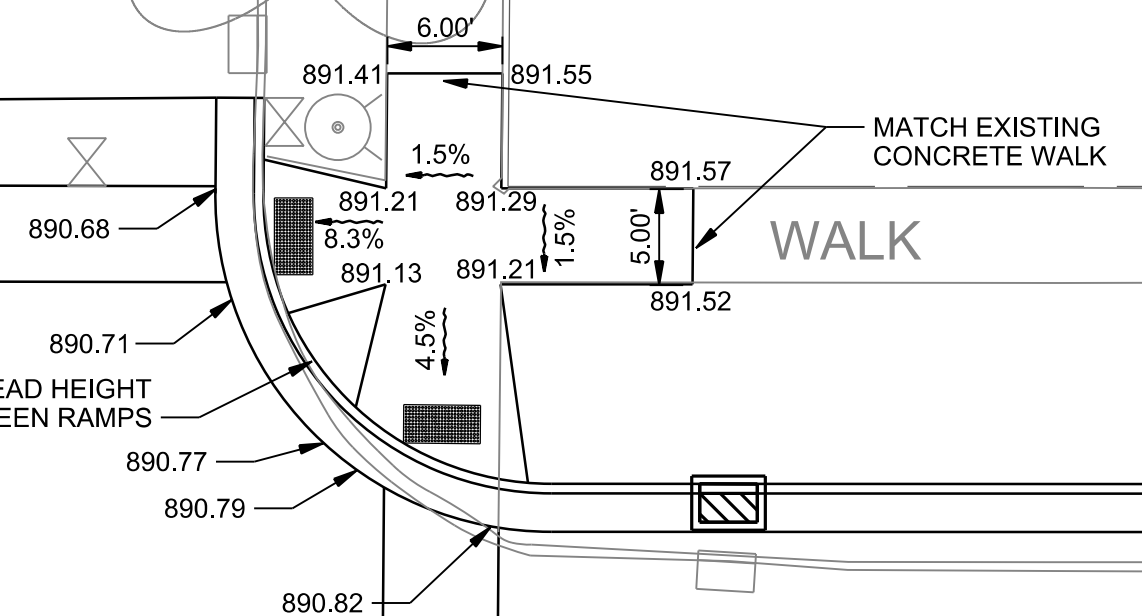


2

GOULD STREET

CONC.

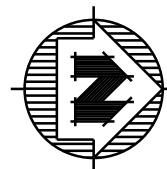
NW CORNER MCKINELY STREET/GOULD STREET

5-INCH CURB HEAD HEIGHT
BETWEEN RAMPS

MCKINLEY STREET

19+00

0 10 20



2

2

13+00

14+00

MCKINLEY STREET

WALK

WALK

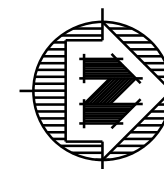
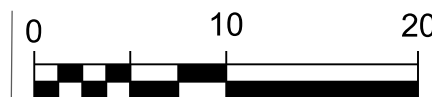
MATCH EXISTING
CONCRETE WALKMATCH EXISTING
CONCRETE WALK

WALNUT STREET

ASPH.

CONC.

SE & NE CORNERS MCKINELY STREET/WALNUT STREET



PROJECT NO:6995-00-73

HWY:MCKINLEY STREET

COUNTY:DODGE

RAMP DETAILS

SHEET

8

E

FILE NAME : P:\210s\218\00218070\cadd\MUNI\Planshts\02-05 construction details.dgn

PLOT DATE : 10/13/2014

PLOT BY : JANSSEN, TODD M

PLOT NAME : _____

WISDOT/CADDs SHEET 42

02-06a ramp details.dgn 10/13/2014 3:35:38 PM tjansen



SW & NW CORNERS MCKINLEY STREET/BOGERT STREET

MATCH EXISTING
CONCRETE WALK

CONC.

WALK

909.46 5.00' 909.30

MATCH EXISTING
CONCRETE WALK

WALK

908.77 5.00' 1.5% 908.51 908.43 908.43 908.35 8.3%

BOGERT STREET

CONC.

WALK

MATCH EXISTING
CONCRETE WALK

908.99 5.00' 909.13

908.34 8.3% RAMP
SLOPE 908.72 908.80 1.5% 908.64 908.72 1.5% 6.5%908.27 7.5% RAMP
SLOPE 908.14 908.064-INCH CURB HEAD HEIGHT
BETWEEN RAMPS

907.94

907.73

5-INCH CURB HEAD HEIGHT
BETWEEN RAMPS

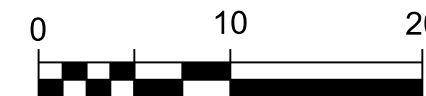
908.24 908.19

MCKINLEY STREET

25+00

CONC.

ASPH.



SW & NW CORNERS MCKINLEY STREET/BURCHARD STREET

MATCH EXISTING
CONCRETE WALKMATCH EXISTING
CONCRETE WALK907.59 907.49
5.00'907.32 907.40
5.00'

CONC.

CONC.

ASPH.

ASPH.

5.00'

5.00'

1.5%

1.5%

1.5%

1.5%

906.94

906.94

906.86

906.86

906.78

906.78

6.2%

6.2%

8.3% RAMP
SLOPE8.3% RAMP
SLOPE

906.59

906.64

906.54

906.60

906.52

906.58

4-INCH CURB
HEAD HEIGHT
BETWEEN RAMP4-INCH CURB
HEAD HEIGHT
BETWEEN RAMP

906.48

906.49

4-INCH CURB HEAD HEIGHT
BETWEEN RAMP

906.42

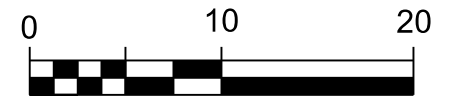
MCKINLEY STREET

29+00

30+00

2

2

MATCH EXISTING
CONCRETE WALKMATCH EXISTING
CONCRETE WALK

SW & NW CORNERS MCKINLEY STREET/CHARLTON STREET

CONC.

CHARLTON STREET

ASPH.

ASPH.

WALK

WALK

MCKINLEY STREET

33+00

PROJECT NO:6995-00-73

HWY:MCKINLEY STREET

COUNTY:DODGE

RAMP DETAILS

SHEET

11

E

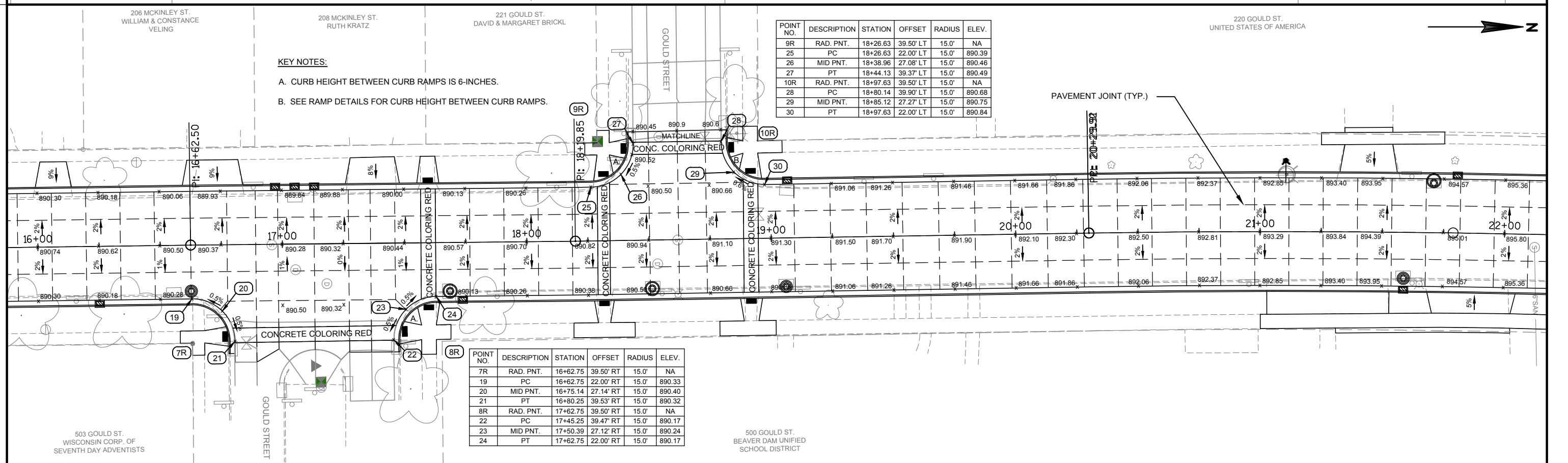
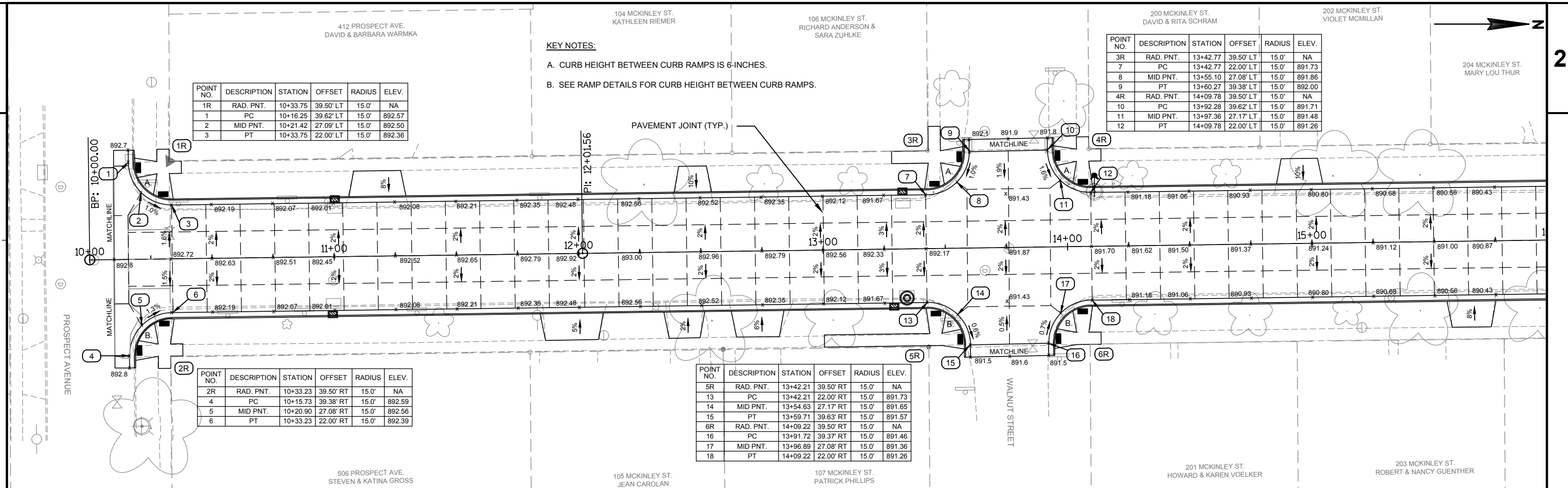
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PLOT DATE : 10/13/2014

PLOT BY : JANSSEN, TODD M

PLOT NAME : _____

WISDOT/CADDs SHEET 42



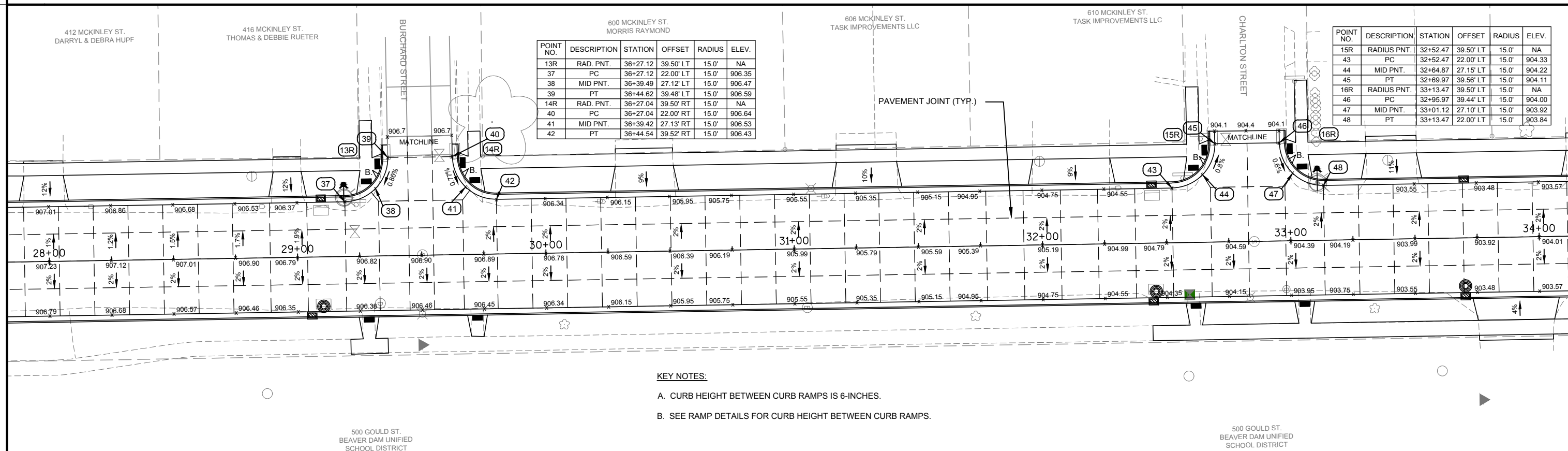
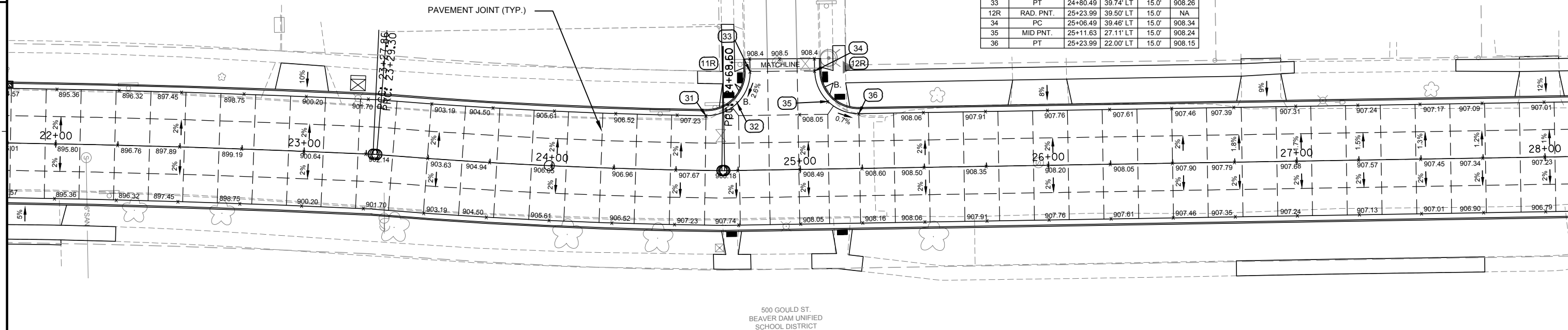
KEY NOTES:

- A. CURB HEIGHT BETWEEN CURB RAMPS IS 6-INCHES.
B. SEE RAMP DETAILS FOR CURB HEIGHT BETWEEN CURB RAMPS.

235 BOGERT ST.
JOSEPHINE DAHL TRUST

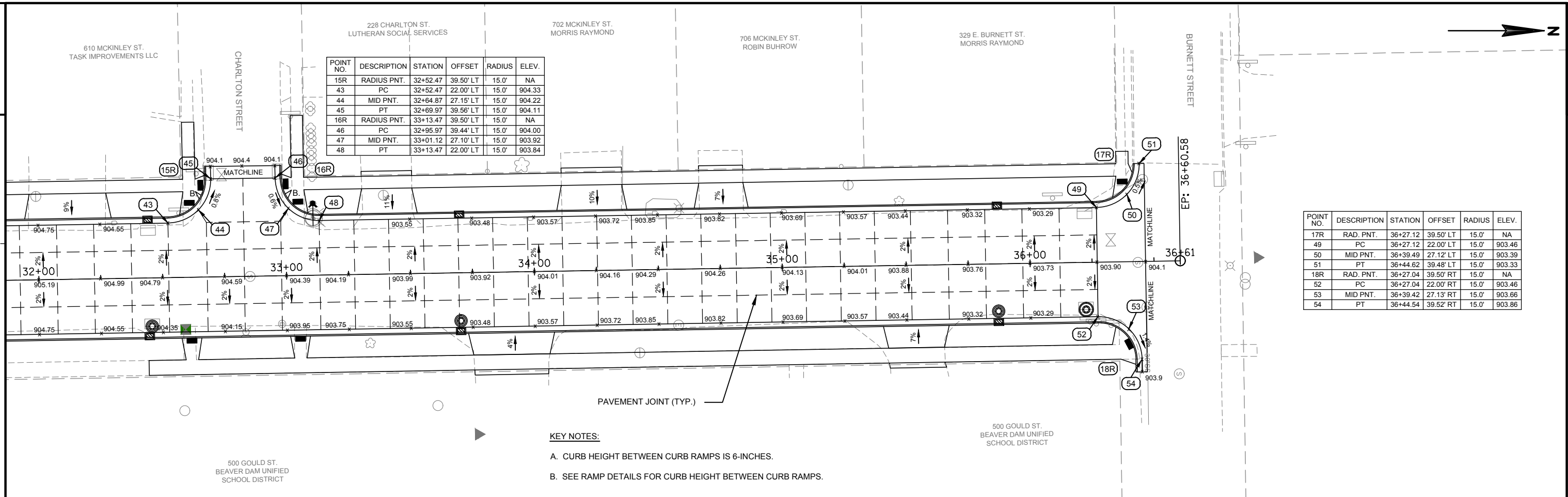
222 BOGERT ST.
REBECCA STUTZMAN

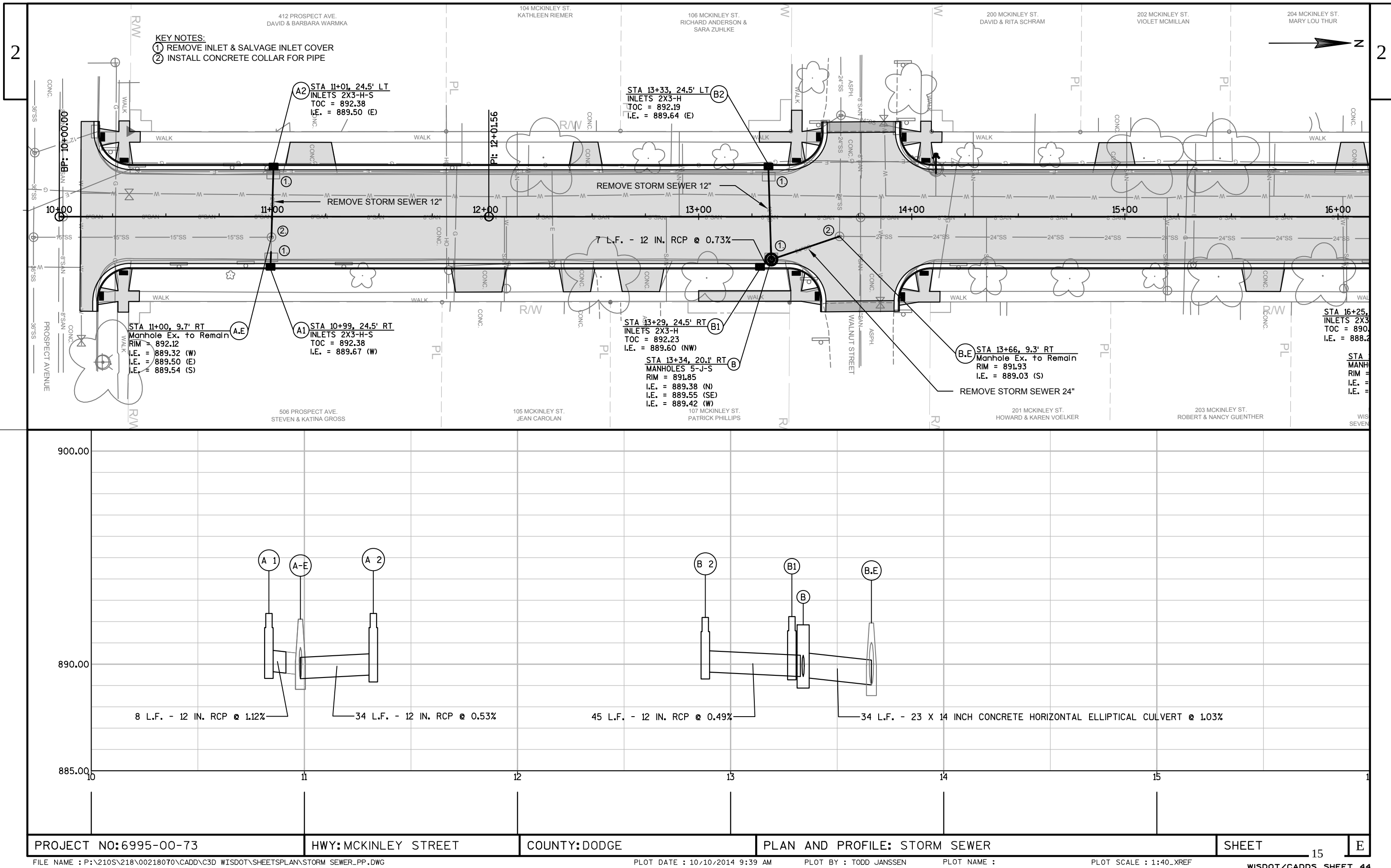
408 MCKINLEY ST.
ROBERT & ARLENE DOLGNER

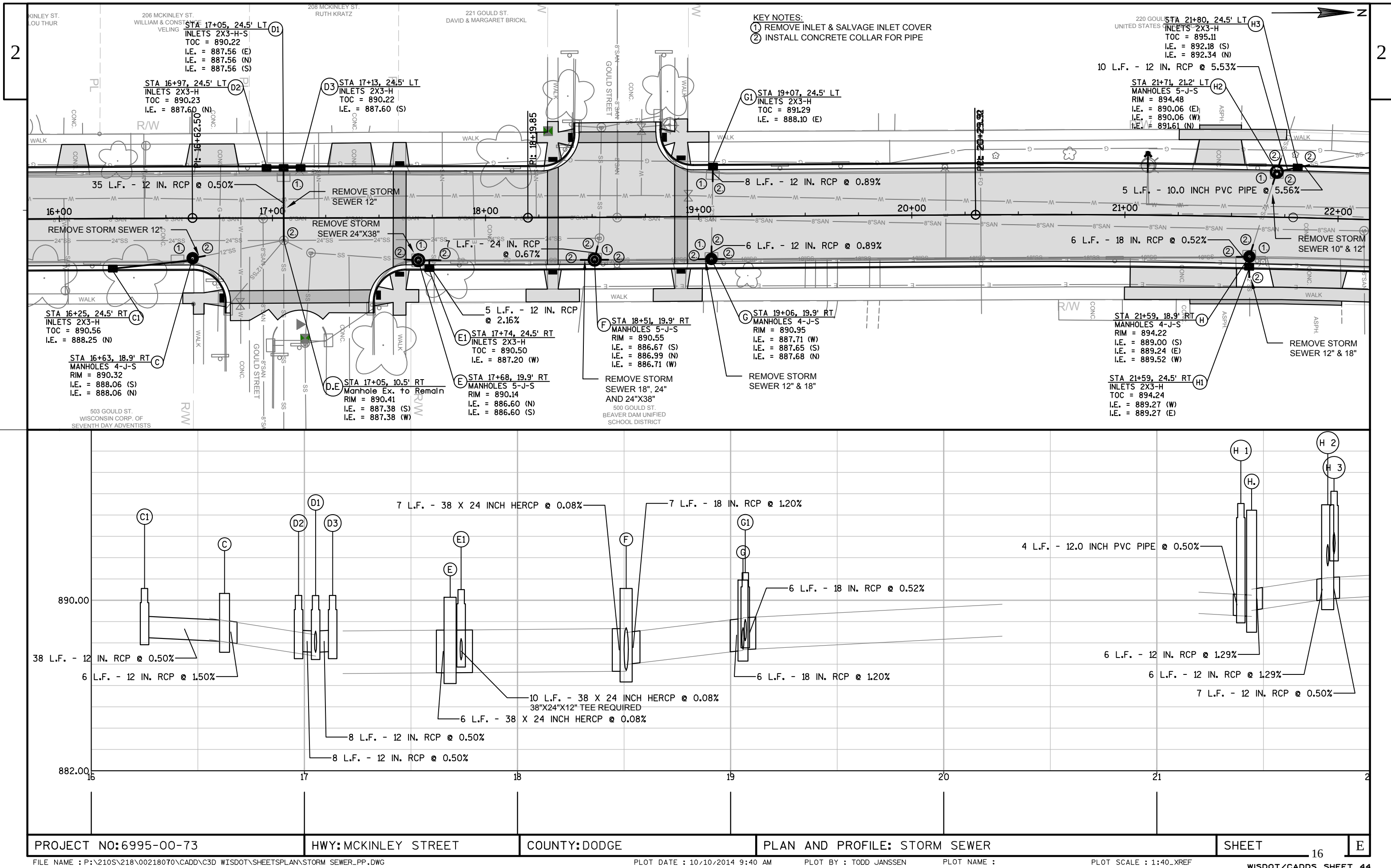
412
DARR

KEY NOTES:

- A. CURB HEIGHT BETWEEN CURB RAMPS IS 6-INCHES.
B. SEE RAMP DETAILS FOR CURB HEIGHT BETWEEN CURB RAMPS.







PROJECT NO:6995-00-73

HWY:MCKINLEY STREET

COUNTY:DODGE

PLAN AND PROFILE: STORM SEWER

SHEET

16

E

FILE NAME : P:\210S\218\00218070\CADD\C3D WISDOT\SHEETS\PLAN\STORM SEWER_PP.DWG

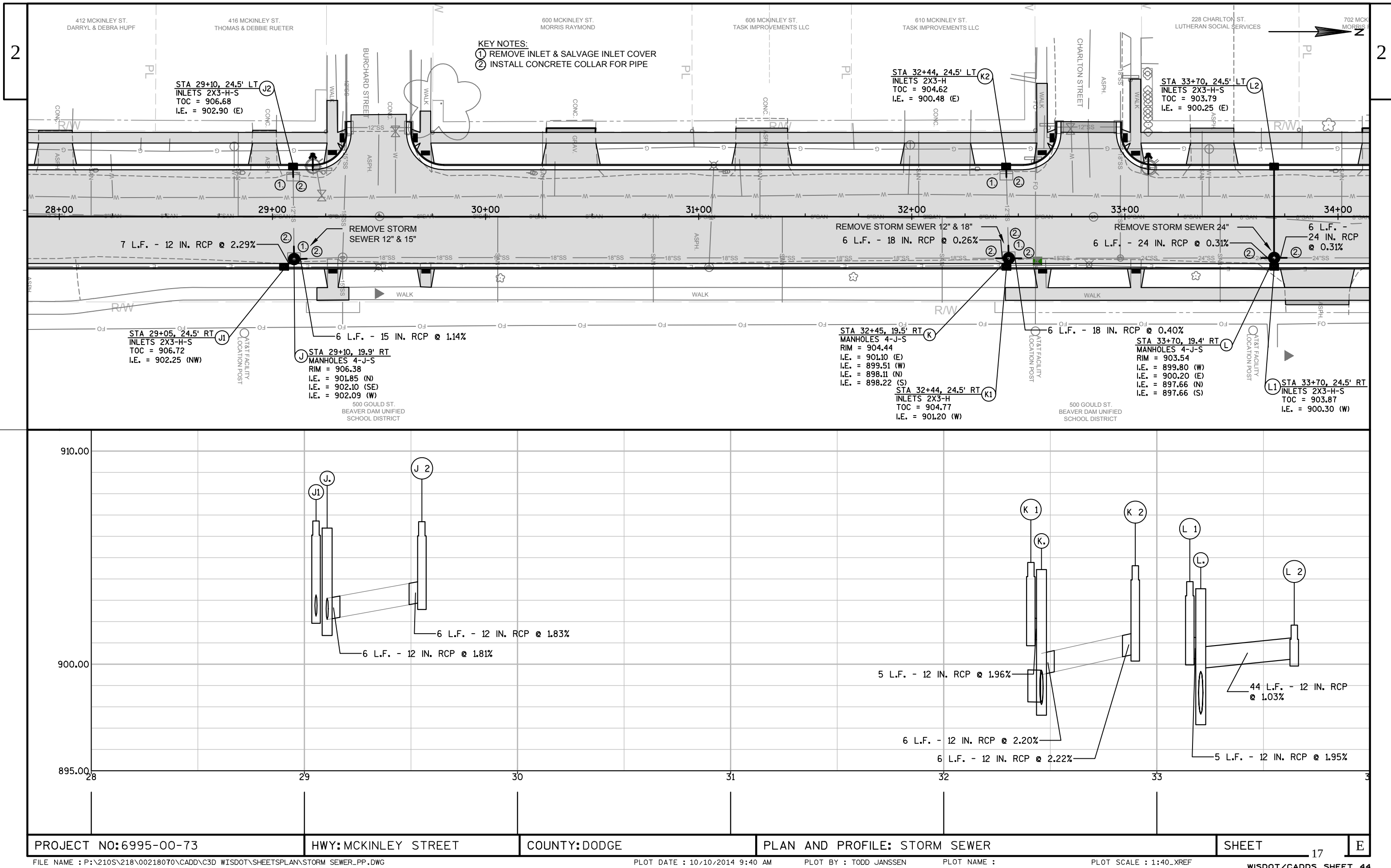
PLOT DATE : 10/10/2014 9:40 AM

PLOT BY : TODD JANSSEN

PLOT NAME :

PLOT SCALE : 1:40_XREF

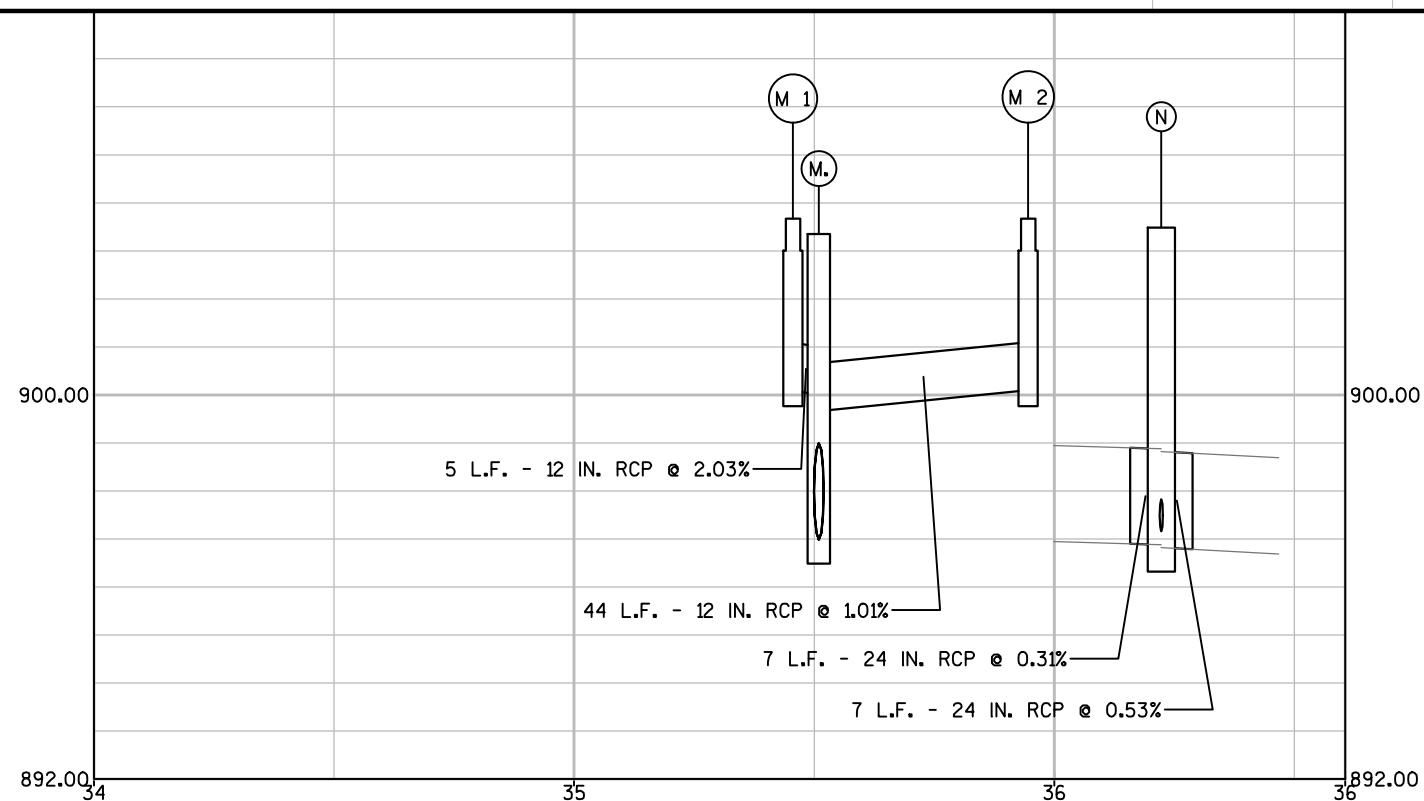
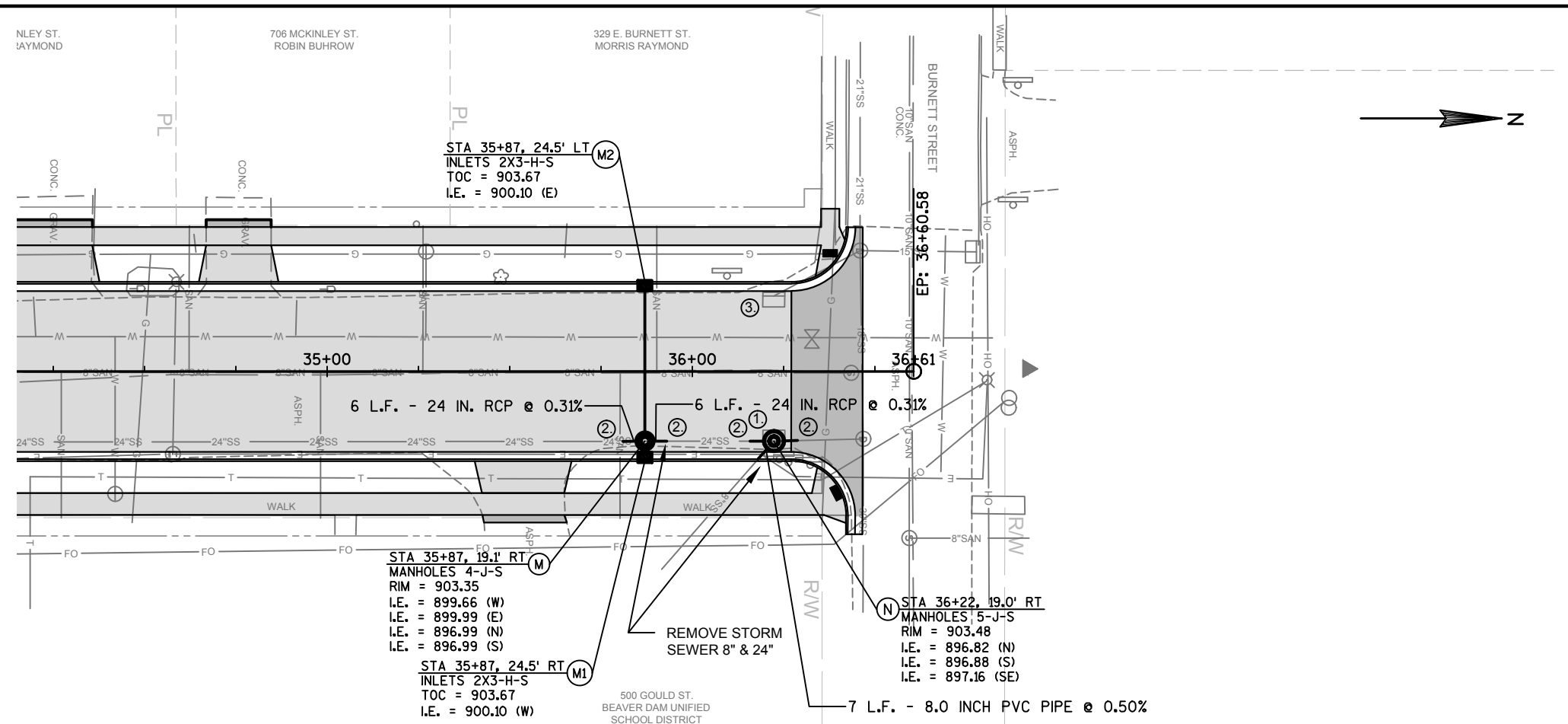
WISDOT/CADDs SHEET 44



2

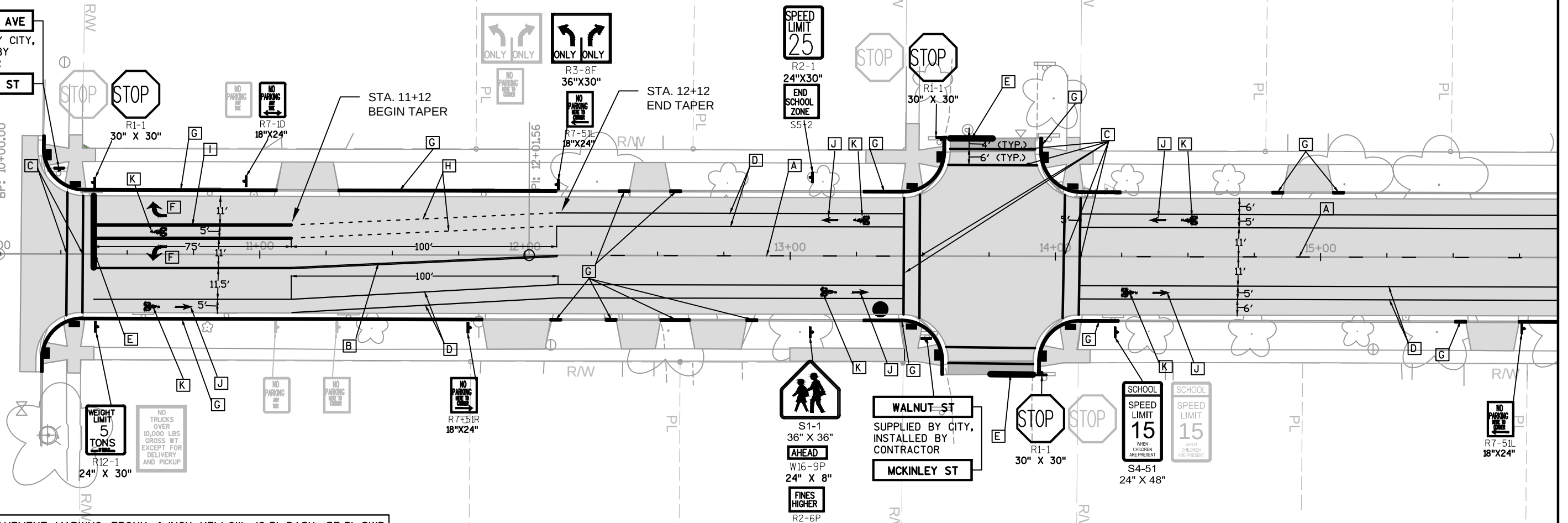
2

- KEY NOTES:**
- ① REMOVE INLET & SALVAGE INLET COVER
 - ② INSTALL CONCRETE COLLAR FOR PIPE
 - ③ ABANDON INLET & CULVERT PIPE, SALVAGE INLET COVER



PROSPECT AVE
SUPPLIED BY CITY,
INSTALLED BY
CONTRACTOR

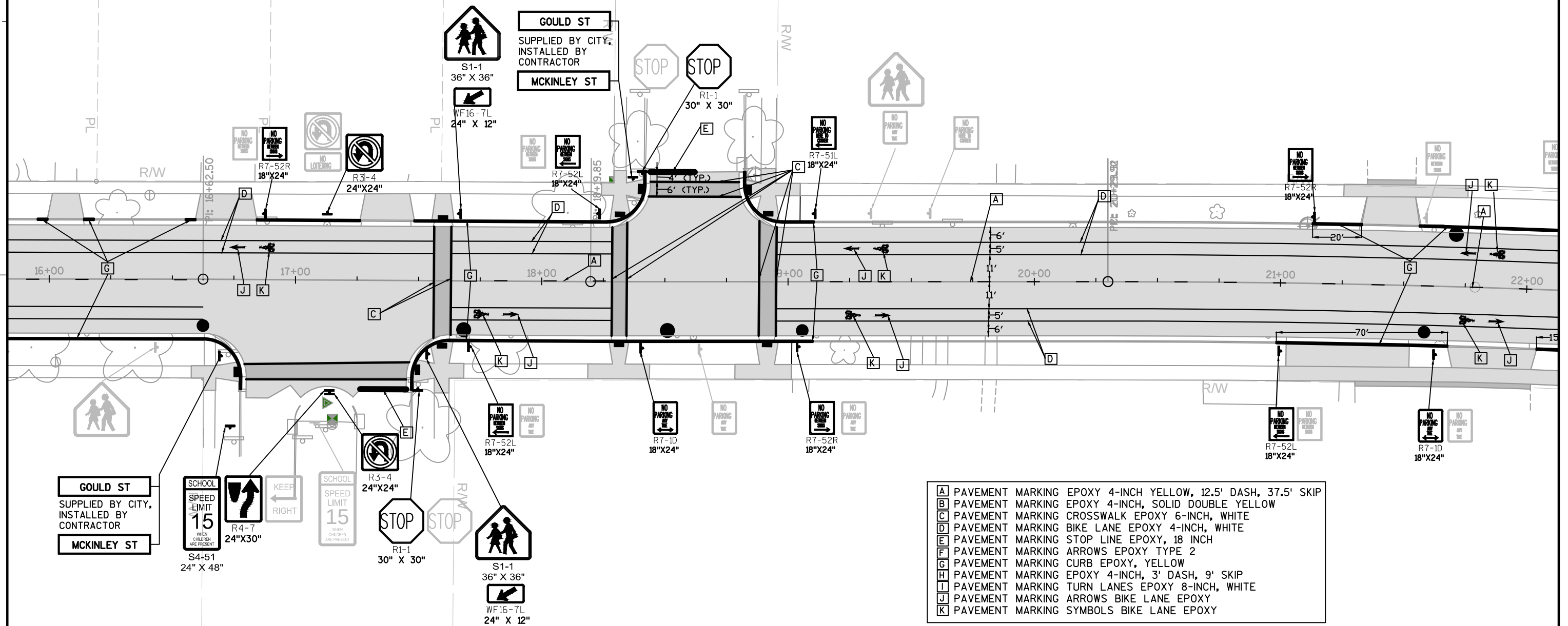
MCKINLEY ST

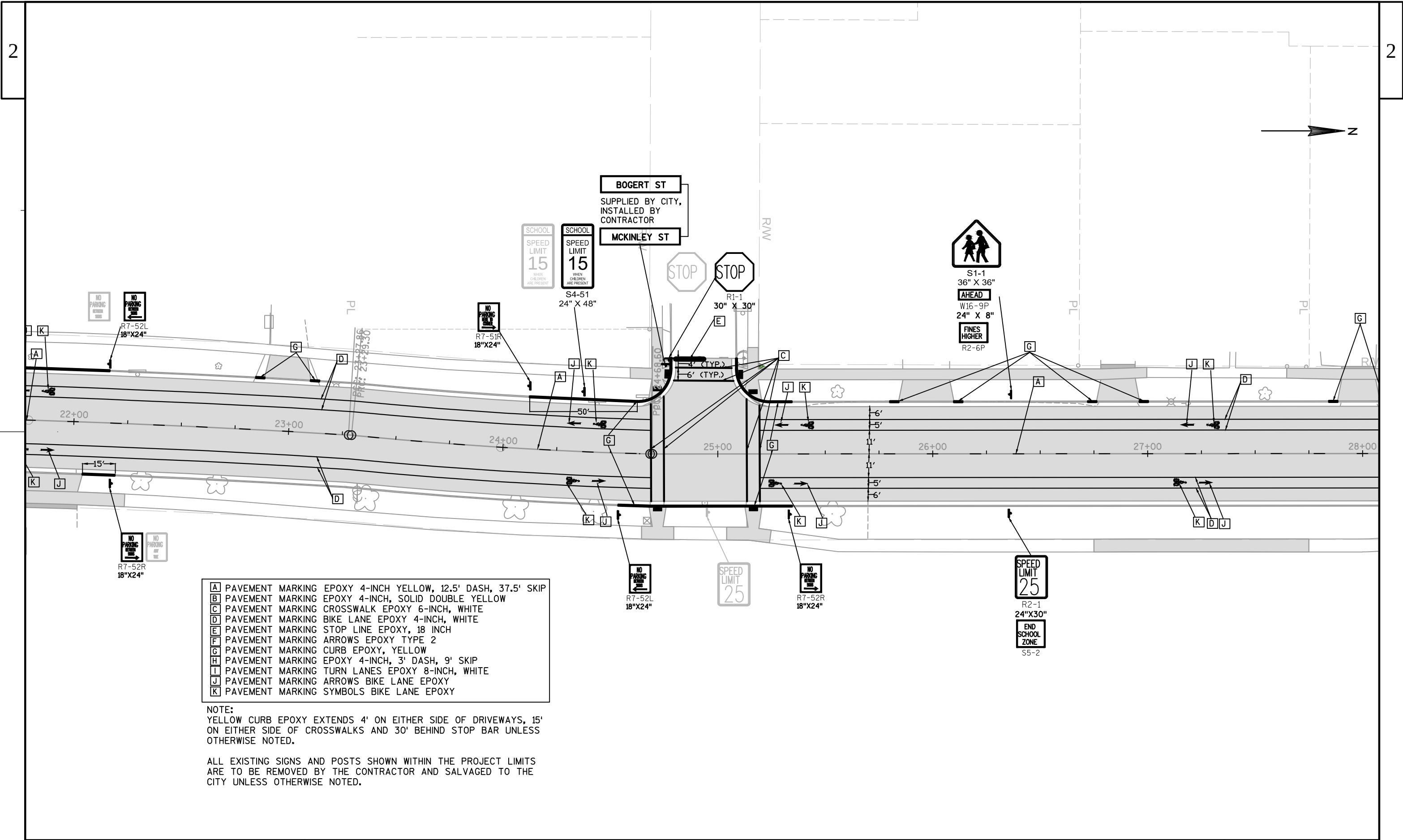


- [A] PAVEMENT MARKING EPOXY 4-INCH YELLOW, 12.5' DASH, 37.5' SKIP
- [B] PAVEMENT MARKING EPOXY 4-INCH, SOLID DOUBLE YELLOW
- [C] PAVEMENT MARKING CROSSWALK EPOXY 6-INCH, WHITE
- [D] PAVEMENT MARKING BIKE LANE EPOXY 4-INCH, WHITE
- [E] PAVEMENT MARKING STOP LINE EPOXY, 18 INCH
- [F] PAVEMENT MARKING ARROWS EPOXY TYPE 2
- [G] PAVEMENT MARKING CURB EPOXY, YELLOW
- [H] PAVEMENT MARKING EPOXY 4-INCH, 3' DASH, 9' SKIP
- [I] PAVEMENT MARKING TURN LANES EPOXY 8-INCH, WHITE
- [J] PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- [K] PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY

NOTE:
YELLOW CURB EPOXY EXTENDS 4' ON EITHER SIDE OF DRIVEWAYS, 15'
ON EITHER SIDE OF CROSSWALKS AND 30' BEHIND STOP BAR UNLESS
OTHERWISE NOTED.

ALL EXISTING SIGNS AND POSTS SHOWN WITHIN THE PROJECT LIMITS
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CITY UNLESS OTHERWISE NOTED.

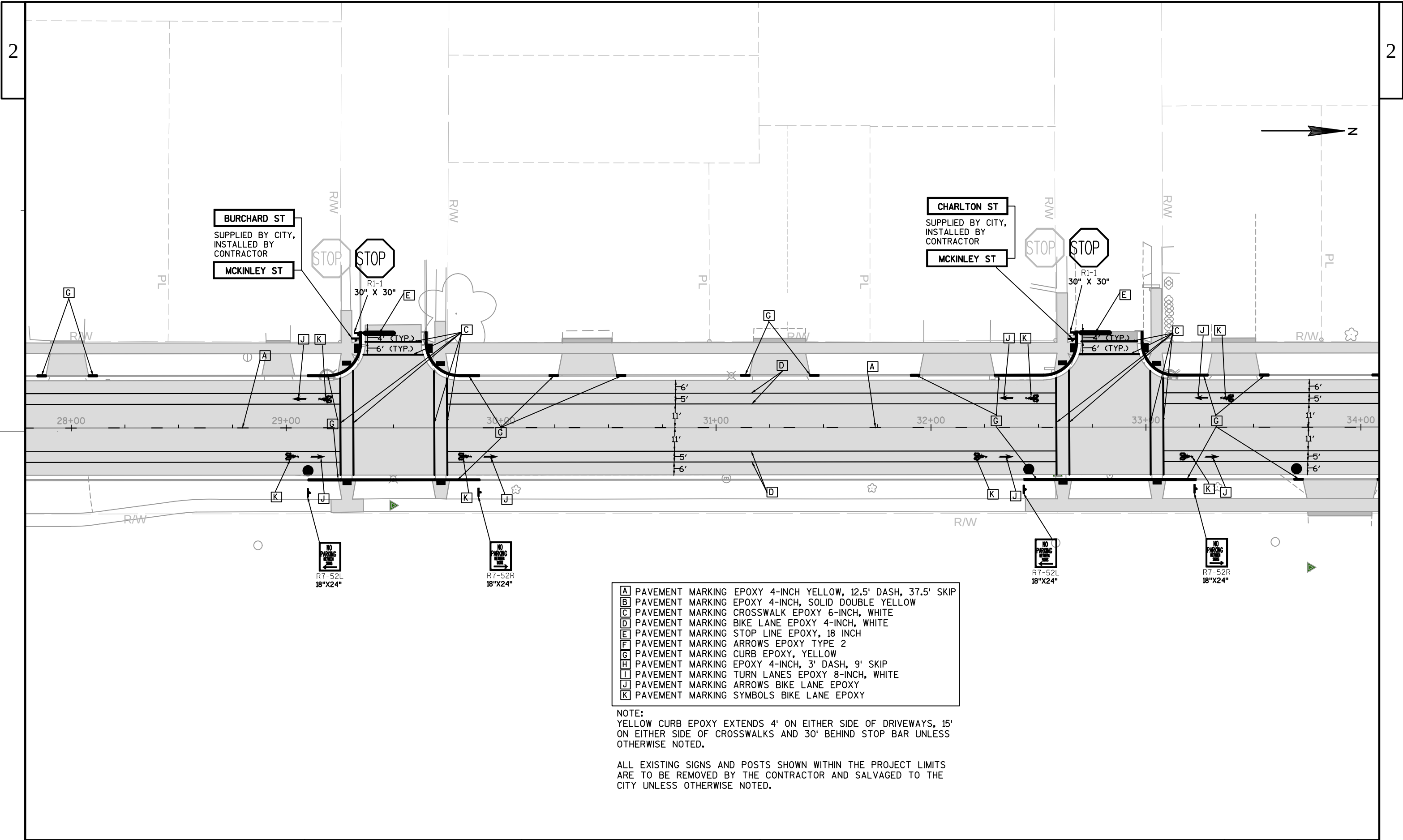




- [A] PAVEMENT MARKING EPOXY 4-INCH YELLOW, 12.5' DASH, 37.5' SKIP
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- [J] PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- [K] PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY

NOTE:
YELLOW CURB EPOXY EXTENDS 4' ON EITHER SIDE OF DRIVEWAYS, 15' ON EITHER SIDE OF CROSSWALKS AND 30' BEHIND STOP BAR UNLESS OTHERWISE NOTED.

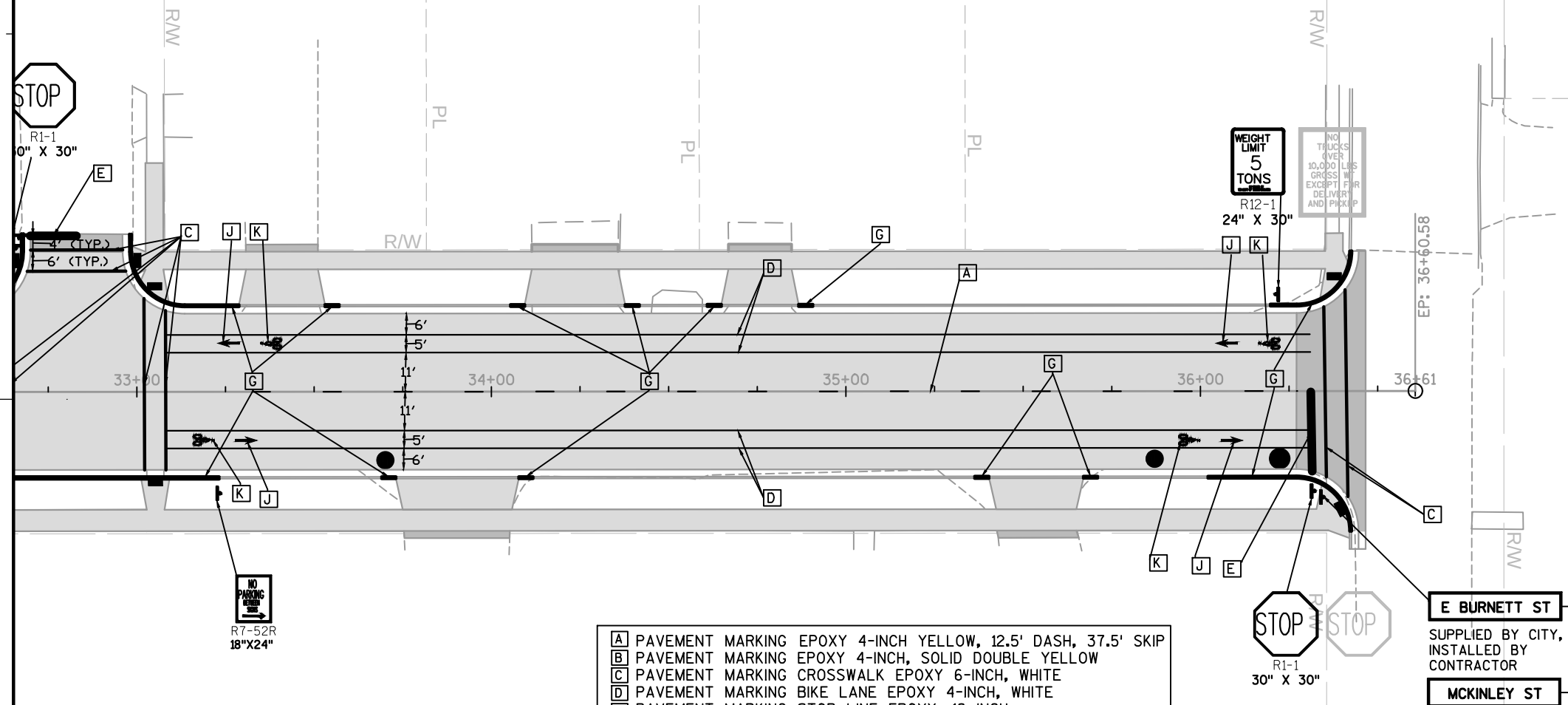
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- [A] PAVEMENT MARKING EPOXY 4-INCH YELLOW, 12.5' DASH, 37.5' SKIP
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NOTE:
YELLOW CURB EPOXY EXTENDS 4' ON EITHER SIDE OF DRIVEWAYS, 15'
ON EITHER SIDE OF CROSSWALKS AND 30' BEHIND STOP BAR UNLESS
OTHERWISE NOTED.

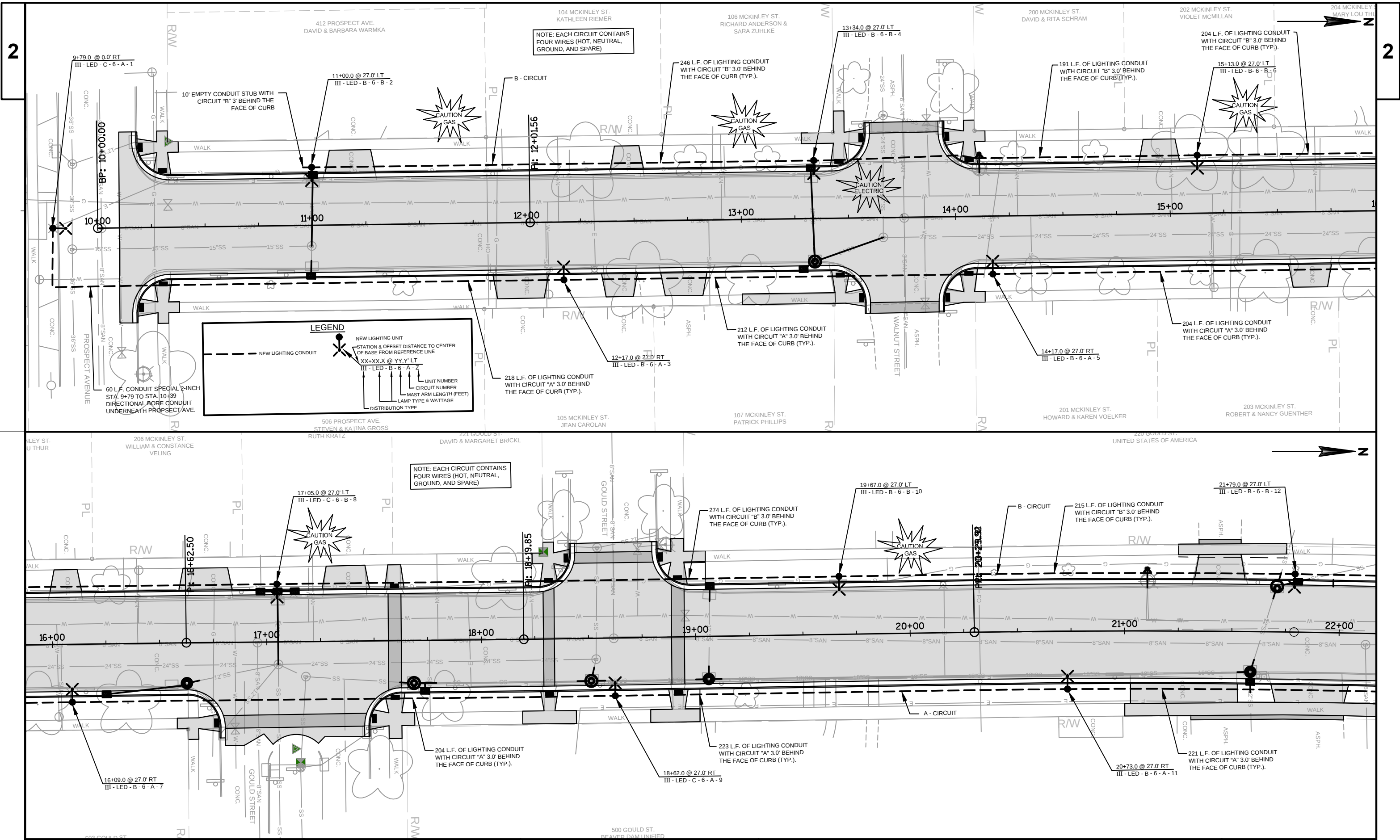
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- | | |
|---|--|
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NOTE:
YELLOW CURB EPOXY EXTENDS 4' ON EITHER SIDE OF DRIVEWAYS, 15' ON EITHER SIDE OF CROSSWALKS AND 30' BEHIND STOP BAR UNLESS OTHERWISE NOTED.

ALL EXISTING SIGNS AND POSTS SHOWN WITHIN THE PROJECT LIMITS ARE TO BE REMOVED BY THE CONTRACTOR AND SALVAGED TO THE CITY UNLESS OTHERWISE NOTED.



PROJECT NO:6995-00-73

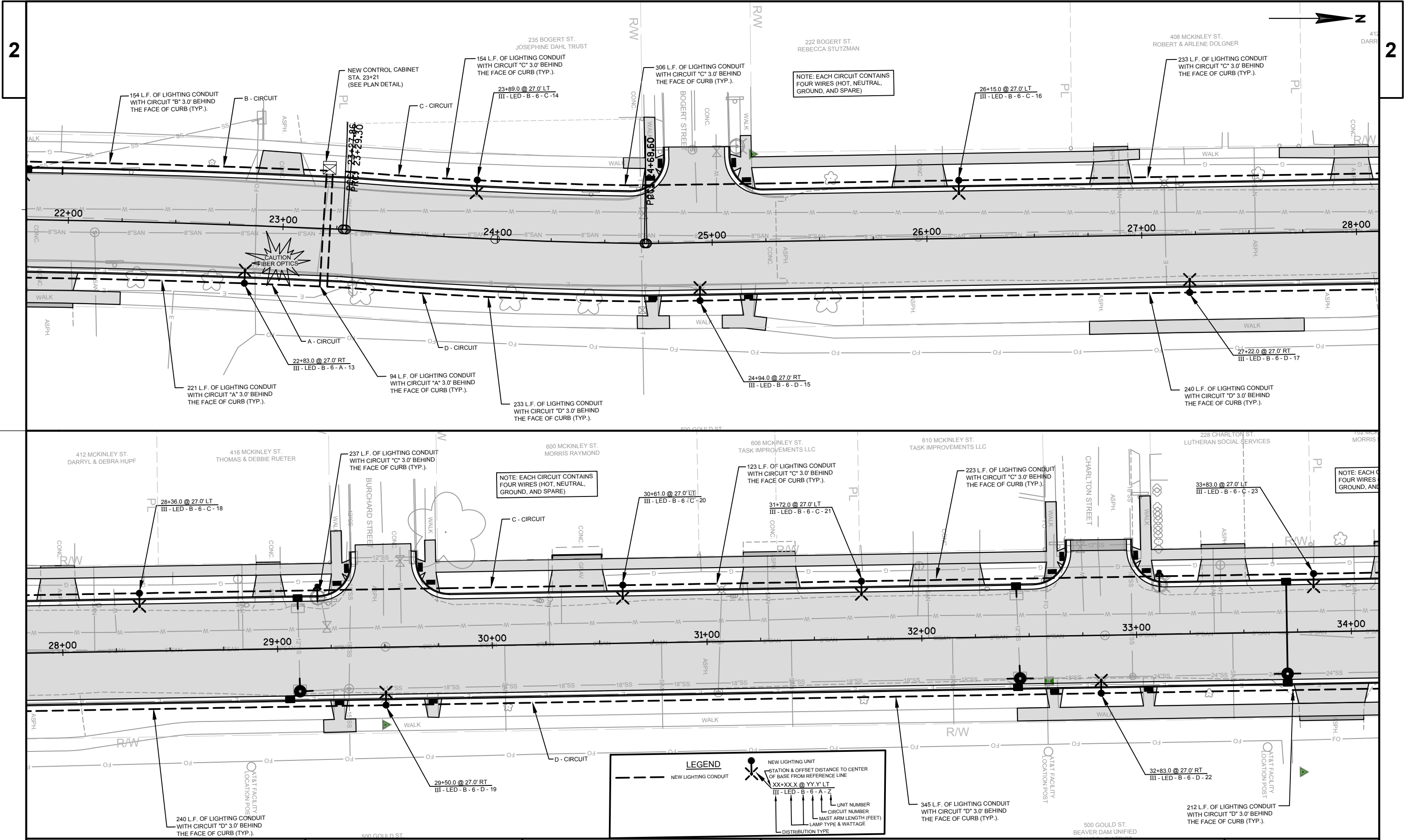
HWY:MCKINLEY STREET

COUNTY:DODGE

STREET LIGHTING PLAN

SHEET

24



PROJECT NO:6995-00-73

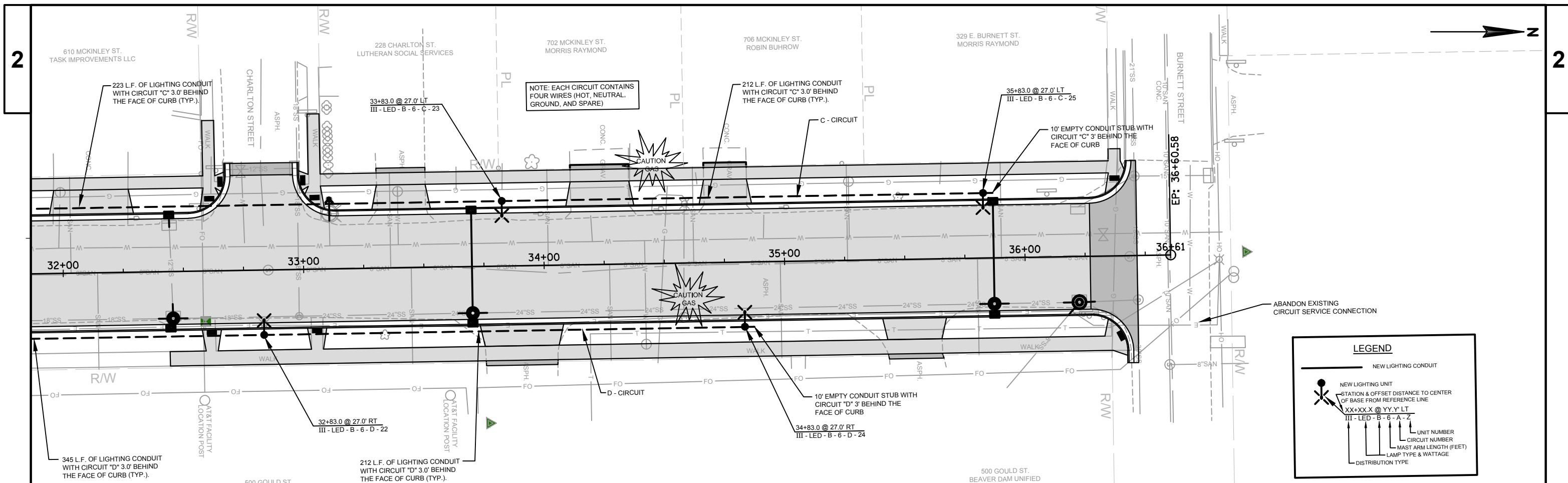
HWY: MCKINLEY STREET

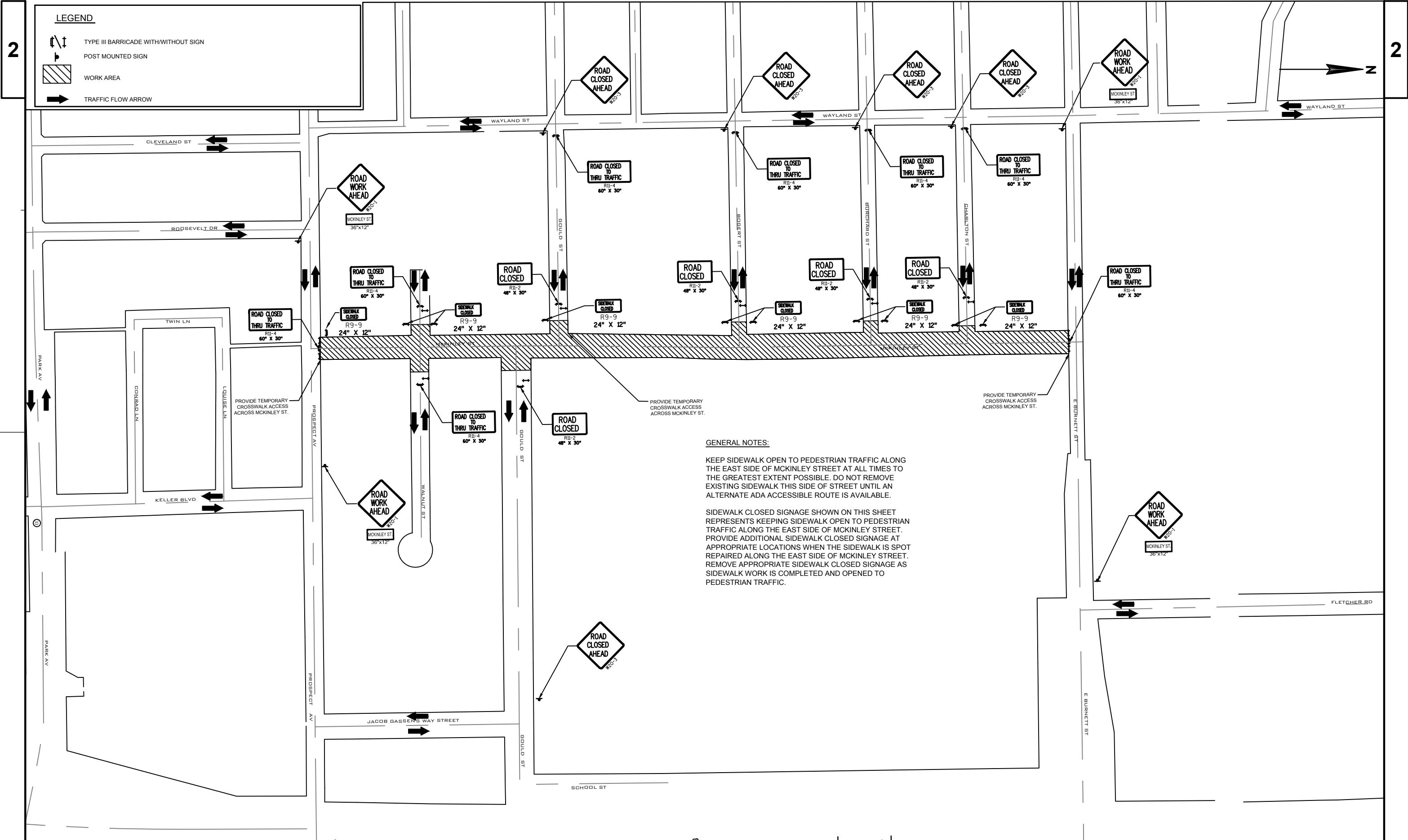
COUNTY:DODGE

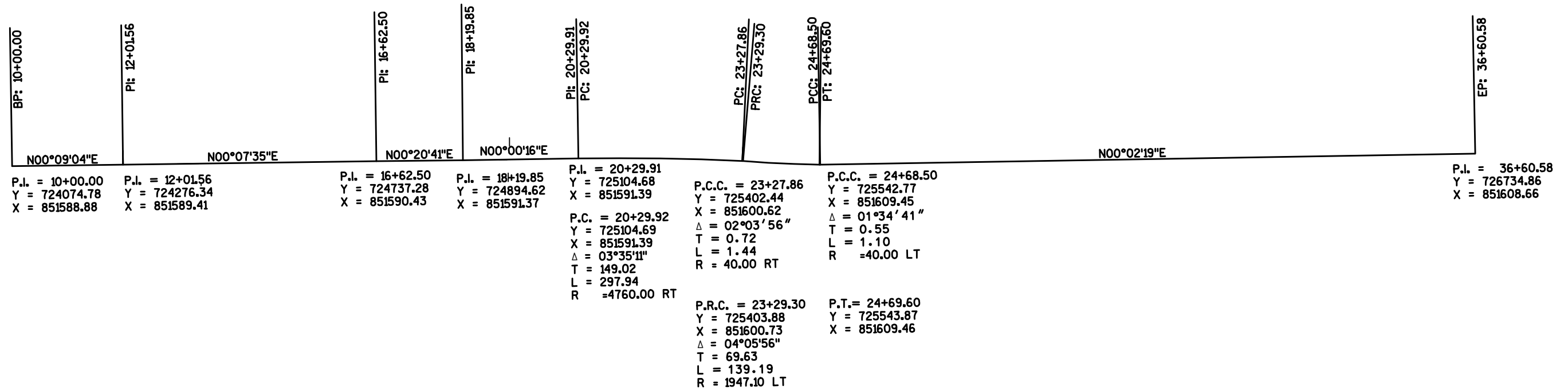
STREET LIGHTING PLAN

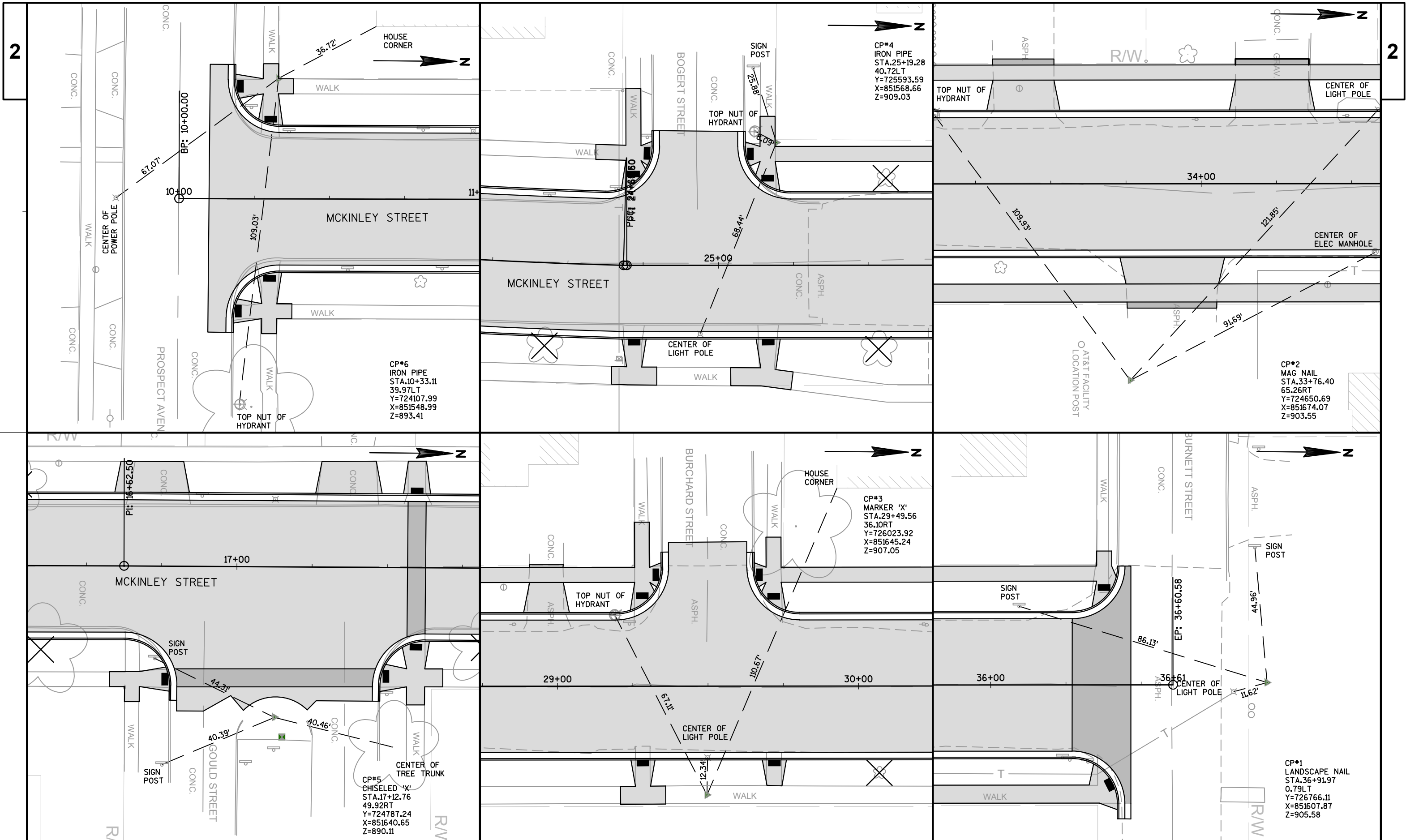
SHEET

25









PROJECT NO:6995-00-73

HWY:MCKINLEY STREET

COUNTY:DODGE

CONTROL POINT TIES

SHEET

29

E

3

DATE 20FEB15		E S T I M A T E O F Q U A N T I T I E S			
LINE				6995-00-73	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0100	Removing Pavement	SY	8,151.000	8,151.000
0020	204.0155	Removing Concrete Sidewalk	SY	1,037.000	1,037.000
0030	204.0195	Removing Concrete Bases	EACH	16.000	16.000
0040	204.0220	Removing Inlets	EACH	17.000	17.000
0050	204.0245	Removing Storm Sewer (size) 01. 8-Inch	LF	7.000	7.000
0060	204.0245	Removing Storm Sewer (size) 02. 10-Inch	LF	16.000	16.000
0070	204.0245	Removing Storm Sewer (size) 03. 12-Inch	LF	174.000	174.000
0080	204.0245	Removing Storm Sewer (size) 04. 15-Inch	LF	6.000	6.000
0090	204.0245	Removing Storm Sewer (size) 05. 18-Inch	LF	37.000	37.000
0100	204.0245	Removing Storm Sewer (size) 06. 24-Inch	LF	78.000	78.000
0110	204.0245	Removing Storm Sewer (size) 07. 24x38-Inch	LF	24.000	24.000
0120	204.0260	Abandoning Inlets	EACH	1.000	1.000
0130	204.0270	Abandoning Culvert Pipes	EACH	1.000	1.000
0140	205.0100	Excavation Common	CY	9,651.000	9,651.000
0150	213.0100	Finishing Roadway (project) 01. 6995-00-73	EACH	1.000	1.000
0160	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,083.000	4,083.000
0170	305.0130	Base Aggregate Dense 3-Inch	TON	6,911.000	6,911.000
0180	405.0100	Coloring Concrete Red	CY	33.000	33.000
0190	415.0080	Concrete Pavement 8-Inch	SY	13,366.000	13,366.000
0200	416.0160	Concrete Driveway 6-Inch	SY	603.000	603.000
0210	416.0620	Drilled Dowel Bars	EACH	132.000	132.000
0220	465.0105	Asphaltic Surface	TON	52.000	52.000
0230	520.8000	Concrete Collars for Pipe	EACH	34.000	34.000
0240	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	5,141.000	5,141.000
0250	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	83.000	83.000
0260	602.0405	Concrete Sidewalk 4-Inch	SF	9,885.000	9,885.000
0270	602.0415	Concrete Sidewalk 6-Inch	SF	3,895.000	3,895.000
0280	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	336.000	336.000
0290	607.0600.S	Storm Sewer Pipe (inch) 01. 8-Inch	LF	7.000	7.000
0300	607.0600.S	Storm Sewer Pipe (inch) 02. 10-Inch	LF	5.000	5.000
0310	607.0600.S	Storm Sewer Pipe (inch) 03. 12-Inch	LF	4.000	4.000
0320	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	342.000	342.000
0330	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	6.000	6.000
0340	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	37.000	37.000
0350	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	45.000	45.000
0360	610.0114	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 14x23-Inch	LF	34.000	34.000
0370	610.0124	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	23.000	23.000
0380	611.0535	Manhole Covers Type J-Special	EACH	12.000	12.000
0390	611.0624	Inlet Covers Type H	EACH	11.000	11.000
0400	611.0639	Inlet Covers Type H-S	EACH	9.000	9.000
0410	611.2004	Manholes 4-FT Diameter	EACH	7.000	7.000
0420	611.2005	Manholes 5-FT Diameter	EACH	5.000	5.000
0430	611.3230	Inlets 2x3-FT	EACH	20.000	20.000
0440	611.8110	Adjusting Manhole Covers	EACH	10.000	10.000
0450	611.8115	Adjusting Inlet Covers	EACH	10.000	10.000

3

3

DATE 20FEB15		E S T I M A T E O F Q U A N T I T I E S			
LINE				6995-00-73	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	611.9710	Salvaged Inlet Covers	EACH	18.000	18.000
0470	619.1000	Mobilization	EACH	1.000	1.000
0480	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0490	628.7015	Inlet Protection Type C	EACH	45.000	45.000
0500	628.7020	Inlet Protection Type D	EACH	22.000	22.000
0510	631.0300	Sod Water	MGAL	33.500	33.500
0520	631.1000	Sod Lawn	SY	5,591.000	5,591.000
0530	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	33.000	33.000
0540	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0550	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	4.000	4.000
0560	637.2210	Signs Type II Reflective H	SF	203.000	203.000
0570	637.2230	Signs Type II Reflective F	SF	43.000	43.000
0580	638.2602	Removing Signs Type II	EACH	37.000	37.000
0590	638.3000	Removing Small Sign Supports	EACH	33.000	33.000
0600	642.5001	Field Office Type B	EACH	1.000	1.000
0610	643.0100	Traffic Control (project) 01. 6995-00-73	EACH	1.000	1.000
0620	646.0106	Pavement Marking Epoxy 4-Inch	LF	9,544.000	9,544.000
0630	646.0126	Pavement Marking Epoxy 8-Inch	LF	150.000	150.000
0640	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	2.000	2.000
0650	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	26.000	26.000
0660	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	27.000	27.000
0670	647.0456	Pavement Marking Curb Epoxy	LF	1,951.000	1,951.000
0680	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	158.000	158.000
0690	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	1,706.000	1,706.000
0700	650.4000	Construction Staking Storm Sewer	EACH	32.000	32.000
0710	650.4500	Construction Staking Subgrade	LF	2,629.000	2,629.000
0720	650.7000	Construction Staking Concrete Pavement	LF	2,629.000	2,629.000
0730	650.8500	Construction Staking Electrical	LS	1.000	1.000
0740	650.9910	Installations (project) 01. 6995-00-73	LS	1.000	1.000
0750	650.9920	Construction Staking Supplemental Control (project) 01. 6995-00-73	LF	2,629.000	2,629.000
0760	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	5,448.000	5,448.000
0770	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	8.000	8.000
0780	652.0605	Conduit Special 2-Inch	LF	60.000	60.000
0790	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0800	654.0105	Concrete Bases Type 5	EACH	25.000	25.000
0810	654.0200	Concrete Control Cabinet Bases Type 6	EACH	1.000	1.000
0820	655.0610	Electrical Wire Lighting 12 AWG	LF	3,450.000	3,450.000
0830	655.0625	Electrical Wire Lighting 6 AWG	LF	21,912.000	21,912.000
0840	656.0100	Electrical Service Meter Socket (location) 01. Station 23+21.00, 28' Lt	LS	1.000	1.000
0850	657.0322	Poles Type 5-Aluminum	EACH	25.000	25.000
0860	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	25.000	25.000
0870	659.1120	Luminaires Utility LED B	EACH	22.000	22.000
0880	659.1125	Luminaires Utility LED C	EACH	3.000	3.000
0890	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0900	690.0150	Sawing Asphalt	LF	390.000	390.000
0910	690.0250	Sawing Concrete	LF	549.000	549.000
0920	715.0415	Incentive Strength Concrete Pavement	DOL	4,010.000	4,010.000

3

DATE 20FEB15		E S T I M A T E O F Q U A N T I T I E S			
LINE		6995-00-73			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0930	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	500.000	500.000
0940	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	325.000	325.000
0950	SPV.0045	Special 01. Temporary Crosswalk Access	DAY	180.000	180.000
0960	SPV.0060	Special 01. Sanitary Sewer Manhole Adjustment	EACH	9.000	9.000
0970	SPV.0060	Special 02. Water Valve Box Adjustment	EACH	11.000	11.000
0980	SPV.0060	Special 03. Remove And Replace Hydrant	EACH	4.000	4.000
0990	SPV.0060	Special 04. Remove And Replace Mainline Valve	EACH	1.000	1.000
1000	SPV.0060	Special 05. Storm Sewer Pipe Reinforced Concrete Class He-Iii 24x38-Inch X 12-Inch Tee	EACH	1.000	1.000
1010	SPV.0060	Special 06. Install City Furnished Street Name Sign	EACH	8.000	8.000
1020	SPV.0105	Special 01. Removing Lighting Conduit & Wire	LS	1.000	1.000

REMOVING PAVEMENT			
CATEGORY	STATION	TO STATION	(204.0100) SY
0010	10+00	16+00	3,137
	16+00	22+00	3,236
	22+00	28+00	1,682
	28+00	34+00	96
PROJECT TOTAL			8,151

REMOVING CONCRETE SIDEWALK				
CATEGORY	STATION	TO STATION	LOCATION	(204.0155) SY
0010	10+00	16+00	RT & LT	153
	16+00	22+00	RT & LT	360
	22+00	28+00	RT & LT	153
	28+00	34+00	RT & LT	218
	34+00	36+50	RT & LT	153
PROJECT TOTAL				1,037

REMOVING CONCRETE BASES			
CATEGORY	STATION	LOCATION	(204.0195) EACH
0010	9+79	0 RT	1
	10+98	23 LT	1
	12+31	23 RT	1
	14+02	27 LT	1
	15+32	23 RT	1
	17+13	23 LT	1
	18+62	23 RT	1
	20+16	23 LT	1
	21+65	22 RT	1
	23+21	23 LT	1
	24+94	23 RT	1
	27+11	25 LT	1
	29+50	24 RT	1
	31+07	25 LT	1
	32+83	23 RT	1
	34+59	25 LT	1
PROJECT TOTAL			16

REMOVING INLETS			
CATEGORY	STATION	LOCATION	(204.0220) EACH
0010	10+99	21 RT	1
	11+01	21 LT	1
	13+33	20 LT	1
	13+34	20 RT	1
	16+55	21 RT	1
	17+05	21 LT	1
	17+69	20 RT	1
	18+51	20 RT	1
	19+06	20 RT	1
	19+07	21 LT	1
	21+59	19 RT	1
	21+71	22 LT	1
	29+10	21 LT	1
	29+10	21 RT	1
	32+44	21 LT	1
	32+46	21 RT	1
	36+22	20 RT	1
PROJECT TOTAL			17

REMOVING STORM SEWER										
CATEGORY	STATION	TO STATION	LOCATION	SIZE 01.	SIZE 02.	SIZE 03.	SIZE 04.	SIZE 05.	SIZE 06.	SIZE 07.
				(204.0245.01)	(204.0245.02)	(204.0245.03)	(204.0245.04)	(204.0245.05)	(204.0245.06)	(204.0245.07)
				8-INCH	10-INCH	12-INCH	15-INCH	18-INCH	24-INCH	24x38-inch
				LF	LF	LF	LF	LF	LF	LF
0010	11+00	-	LT&RT	-	-	35	-	-	-	-
	13+33	13+66	LT&RT	-	-	40	-	-	34	-
	16+55	16+68	RT	-	-	13	-	-	-	-
	17+05	-	RT	-	-	31	-	-	-	-
	17+62	17+79	RT	-	-	-	-	-	-	17
	18+50	-	RT	-	-	-	-	7	7	7
	19+06	-	LT&RT	-	-	10	-	12	-	-
	21+50	21+85	LT&RT	-	16	29	-	6	-	-
	29+10	-	LT&RT	-	-	8	6	-	-	-
	32+45	-	LT&RT	-	-	8	-	12	-	-
	33+70	-	RT	-	-	-	-	-	12	-
	35+87	-	RT	-	-	-	-	-	12	-
	36+22	-	RT	7	-	-	-	-	13	-
PROJECT TOTAL				7	16	174	6	37	78	24

ABANDONING				
CATEGORY	STATION	LOCATION	INLETS	CULVERT PIPES
			(204.0260)	(204.0270)
			EACH	EACH
0010	36+22	21 LT	1	-
	36+22	21 LT	-	1
PROJECT TOTAL			1	1

Division	From/To Station	Location	Common Excavation (1)	(item # 205.0100)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste
			Cut (2)	EBS Excavation (3)				Factor 1.25		
CATEGORY 0010	10+16 to 36+45	McKinley Street	9651	0	2067	7584	51	63	7521	7521
Project Total			9651	0	2067	7584	51	63	7521	7521

NOTE: COMMON EXCAVATION TO BE PAID AS PLAN QUANTITY

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

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

3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

4) Salvaged/Unusable Pavement Material

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

13) Expanded Fill. Factor = 1.25

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

3

REMOVING			
CATEGORY	STATION	LOCATION	PULL BOX (653.0905) EACH
0010	31+05	24 RT	1
	34+58	23 RT	1
PROJECT TOTAL			2

CATEGORY	STATION	TO STATION	(305.0120) BASE AGGREGATE DENSE 1 1/4-INCH	(305.0130) BASE AGGREGATE DENSE 3-INCH
			TON	TON
0010	10+00	16+00	884	1,574
	16+00	22+00	924	1,630
	22+00	28+00	867	1,547
	28+00	34+00	969	1,579
	34+00	36+50	439	581
PROJECT TOTAL			4,083	6,911

CONCRETE					
CATEGORY	STATION	TO STATION	(405.0100) COLORING RED CY	(415.0080) PAVEMENT 8-INCH SY	(416.0160) DRIVEWAY 6-INCH SY
0010	10+00	16+00	-	3,083	150
	16+00	22+00	33	3,072	123
	22+00	28+00	-	3,014	89
	28+00	34+00	-	3,088	165
	34+00	36+50	-	1,110	75
PROJECT TOTAL			33	13,366	603

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO STATION	LOCATION	(601.0409) 30-INCH TYPE A LF	(601.0411) 30-INCH TYPE D LF
0010	10+00	16+00	RT<	1,156	20
	16+00	22+00	RT<	1,147	-
	22+00	28+00	RT<	1,198	-
	28+00	34+00	RT<	1,186	10
	34+00	36+50	RT<	454	53
PROJECT TOTAL				5,141	83

CONCRETE COLLARS FOR PIPE

CATEGORY	STATION	TO STATION	(520.8000) EACH
0010	10+00	16+00	3
	16+00	22+00	17
	22+00	28+00	-
	28+00	34+00	9
	34+00	36+50	5
PROJECT TOTAL			34

HMA PAVEMENT

CATEGORY	STATION	TO STATION	(465.0105) ASPHALTIC SURFACE TON
0010	10+00	16+00	9
	16+00	22+00	3
	22+00	28+00	1
	28+00	34+00	7
	34+00	36+50	32
PROJECT TOTAL			52

DRILLED DOWEL BARS

CATEGORY	STATION	TO STATION	(416.0620) EACH
0010	10+00	16+00	44
	16+00	22+00	53
	22+00	28+00	15
	28+00	34+00	18
	34+00	36+50	2
PROJECT TOTAL			132

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CURB RAMP DETECTABLE WARNING FIELD YELLOW			
CATEGORY	STATION	TO STATION	(602.0505) SF
0010	10+00	16+00	96
	16+00	22+00	80
	22+00	28+00	48
	28+00	34+00	96
	34+00	36+50	16
	PROJECT TOTAL		336

STORM SEWER PIPE REINFORCED CONCRETE CLASS III										
				(608.0312) 12-INCH	(608.0315) 15-INCH	(608.0318) 18-INCH	(608.0324) 24-INCH	(610.0114) 14x23-INCH	(610.0124) 24X38-INCH	(SPV.0060.05) 24X38-INCH X12-INCH TEE
CATEGORY	STATION	TO STATION	LOCATION	LF	LF	LF	LF	LF	LF	EA
0010	10+99	11+01	LT & RT	42	-	-	-	-	-	-
	13+29	13+66	LT & RT	52	-	-	-	34	-	-
	16+55	16+69	RT	15	-	-	-	-	-	-
	16+97	17+13	LT & RT	51	-	-	-	-	-	-
	17+62	17+78	RT	-	-	-	-	-	16	1
	18+44	18+58	RT	-	-	7	7	-	7	-
	19+00	19+12	LT & RT	14	-	12	-	-	-	-
	21+53	21+85	LT & RT	34	-	6	-	-	-	-
	29+05	29+16	LT & RT	19	6	-	-	-	-	-
	32+39	32+51	LT & RT	17	-	12	-	-	-	-
	33+64	33+76	LT & RT	49	-	-	12	-	-	-
	35+81	35+93	LT & RT	49	-	-	12	-	-	-
	36+15	36+29	RT	-	-	-	14	-	-	-
	PROJECT TOTAL			342	6	37	45	34	23	1

CONCRETE SIDEWALK					
CATEGORY	STATION	TO STATION	LOCATION	(602.0405) 4-INCH SF	(602.0415) 6-INCH SF
0010	10+00	16+00	RT<	666	737
	16+00	22+00	RT<	1,675	902
	22+00	28+00	RT<	2,025	539
	28+00	34+00	RT<	3,276	1,238
	34+00	36+50	RT<	2,243	479
PROJECT TOTAL				9,885	3,895

STORM SEWER PIPE					
			(607.0600.01.S) 8-INCH	(607.0600.02.S) 10-INCH	(607.0600.03.S) 12-INCH
CATEGORY	STATION	TO STATION	LOCATION	LF	LF
0010	21+59	-	RT	-	-
	21+80	21+85	LT	-	5
	36+15	36+22	RT	7	-
PROJECT TOTAL				7	5

STORM SEWER STRUCTURES											
			(611.0535) MANHOLE COVERS TYPE J-S	(611.0624) INLET COVERS TYPE H	(611.0639) INLET COVERS TYPE H-S	(611.2004) MANHOLES 4-FT DIAM	(611.2005) MANHOLES 5-FT DIAM	(611.3230) INLETS 2X3 FT	(611.8110) ADJUSTING MANHOLE COVERS	(611.8115) ADJUSTING INLET COVERS	(611.9710) SALVAGED INLET COVERS
CATEGORY	STATION	TO STATION	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
0010	10+99	11+01	-	-	2	-	-	2	1	-	2
	13+29	14+00	1	2	-	-	1	2	1	2	2
	16+55	16+80	1	1	-	1	-	1	-	1	1
	16+97	17+20	-	2	1	-	-	3	2	-	1
	17+45	17+74	1	1	-	-	1	1	-	1	1
	18+45	18+55	1	-	-	-	1	-	2	1	1
	18+80	19+07	1	1	-	1	-	1	-	1	2
	21+59	21+80	2	2	-	1	1	2	-	-	2
	29+05	29+70	1	-	2	1	-	2	1	2	2
	32+44	33+00	1	2	-	1	-	2	1	2	2
	33+70	-	1	-	2	1	-	2	-	-	-
	35+87	-	1	-	2	1	-	2	-	-	-
	36+22	36+50	1	-	-	-	1	-	2	-	2
	PROJECT TOTAL		12	11	9	7	5	20	10	10	18

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INLET PROTECTION

		(628.7010)		(628.7015)	(628.7020)
STRUCTURE		TYPE B		TYPE C	TYPE D
CATEGORY	I.D.	STATION	EACH	EACH	EACH
	10+00	16+00	-	7	4
	16+00	22+00	-	12	8
	22+00	28+00	-	-	-
	28+00	34+00	2	6	6
	34+00	36+50	-	-	4
UNDISTRIBUTED			-	20	-
PROJECT TOTALS			2	45	22

SODDING

				(631.0300)	(631.1000)
				SOD	SOD
				WATER	LAWN
CATEGORY	STATION	TO STATION	LOCATION	MGAL	SY
0010	10+00	16+00	RT & LT	6.5	1,091
	16+00	22+00	RT & LT	6.0	994
	22+00	28+00	RT & LT	8.3	1,380
	28+00	34+00	RT & LT	6.7	1,120
	34+00	36+50	RT & LT	3.0	506
UNDISTRIBUTED				3.0	500
PROJECT TOTAL				33.5	5,591

CONSTRUCTION STAKING

		(650.4000)	(650.4500)	(650.7000)	(650.9920)
		STORM SEWER	SUBGRADE	CONCRETE	SLOPE
				PAVEMENT	STAKES
CATEGORY	STATION	TO STATION	EACH	LF	LF
0010	10+16	16+00	5	584	584
	16+00	22+00	14	600	600
	22+00	28+00	-	600	600
	28+00	34+00	9	600	600
	34+00	36+45	4	245	245
PROJECT TOTAL			32	2629	2629

PERMANENT SIGNING

		(634.0614)	(634.0616)	(634.0618)	(637.2210)	(637.2230)
		POSTS WOOD	POSTS WOOD	POSTS WOOD	SIGNS TYPE II	SIGNS TYPE II
		4X6-INCH X 14FT	4X6-INCH X 16FT	4X6-INCH X 18FT	REFLECTIVE H	REFLECTIVE F
CATEGORY	STATION	LOCATION	CODE	SIZE	EACH	EACH
0010	10+39	27' RT	R12-1	24X30	1	-
	10+37	27' LT	R1-1	30X30	1	-
	10+94	27' LT	R7-1D	18X24	1	-
	11+79	27' RT	R7-51R	18X24	1	-
	12+12	27' LT	R7-51L	18X24	-	1
				R3-8F	36X30	-
13+08	27'	LT	R2-1	24X30	-	-
		LT	S5-2	24X30	-	-
	27'	RT	S1-1	36X36	-	9
				RT W16-9P	24X8	-
				RT R2-6P	24x18	-
13+57	44'	LT	R1-1	30X30	1	-
	13+95	44'	RT	R1-1	30X30	1
	14+23	RT	S4-51	24X48	-	1
15+77	27'	RT	R7-51L	18X24	1	-
	16+74	60'	RT	S4-51	24X48	-
	16+87	27'	LT	R7-52R	18X24	1
17+13	28'	LT	R3-4	24X24	1	-
	17+14	46'	RT	R4-7	24X30	-
		RT	R3-4	24X24	-	-
17+50	44'	RT	R1-1	30X30	1	-
	17+54	30'	RT	S1-1	36X36	-
		RT	WF16-7L	24X12	-	-
17+71	27'	RT	R7-52L	18X24	1	-
	17+66	27'	LT	S1-1	36X36	-
		LT	WF16-7L	24X12	-	-
18+23	27'	LT	R7-52L	18X24	1	-
	18+41	44'	LT	R1-1	30X30	1
	18+41	27'	RT	R7-1D	18X24	1
19+05	27'	RT	R7-52R	18X24	1	-
	19+10	27'	LT	R7-51L	18X24	1
	21+00	27'	RT	R7-52L	18X24	1
21+13	27'	LT	R7-52R	18X24	1	-
	21+64	27'	RT	R7-1D	18X24	1
	22+19	27'	RT	R7-52R	18X24	1
22+15	27'	LT	R7-52L	18X24	1	-
	24+10	27'	LT	R7-51R	18X24	1
	24+36	27'	LT	S4-51	24X48	-
24+55	27'	RT	R7-52L	18X24	1	-
	24+77	44	LT	R1-1	30X30	1
25+34	27'	RT	R7-52R	18X24	1	-
	26+36	27	RT	S5-2	24X30	-
		RT	R2-1	24X30	-	-
26+36	27'	LT	S1-1	36X36	-	9
			W16-9P	24X8	-	1
				R2-6P	24X18	-
29+11	27'	RT	R7-52L	18X24	1	-
	29+34	44'	LT	R1-1	30X30	1
	29+90	27'	RT	R7-52R	18X24	1
32+44	27'	RT	R7-52L	18X24	1	-
	32+67	44'	LT	R1-1	30X30	1
	33+23	27'	RT	R7-52R	18X24	1
36+21	27'	LT	R12-1	24X30	1	-
	36+32	27'	RT	R1-1	30X30	1
PROJECT TOTAL					33	7

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REMOVING				
			(638.2602) SIGNS TYPE II	(638.3000) SMALL SIGN SUPPORTS
CATEGORY	STATION	TO STATION	EACH	EACH
0010	10+00	15+75	10	9
	15+75	22+00	18	15
	22+00	28+00	5	5
	28+00	34+00	2	2
	34+00	36+50	2	2
PROJECT TOTALS			37	33

PAVEMENT MARKING										
			(646.0106) EPOXY 4-INCH	(646.0126) EPOXY 8-INCH	(647.0166) ARROWS EPOXY TYPE 2	(647.0206) ARROWS BIKE LANE EPOXY	(647.0306) SYMBOLS BIKE LANE EPOXY	(647.0566) STOP LINE EPOXY 18-INCH	(647.0456) CURB EPOXY YELLOW	(647.0766) CROSSWALK EPOXY 6-INCH
CATEGORY	STATION	TO STATION	LF	LF	EACH	EACH	EACH	LF	LF	LF
0010	10+00	15+75	1,938	150	2	5	6	59	584	402
	15+75	22+00	2,142	-	-	6	6	37	632	476
	22+00	28+00	2,348	-	-	6	6	13	259	240
	28+00	34+00	2,128	-	-	7	7	26	367	482
	34+00	36+50	988	-	-	2	2	23	109	106
PROJECT TOTALS			9,544	150	2	26	27	158	1,951	1,706

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LIGHTING UNITS									
					(654.0105) CONCRETE BASE TYPE 5 EACH	(657.0322) POLES TYPE 5 ALUMINUM EACH	(657.0610) LUMINAIRE ARMS SINGLE MEMBER 4-1/2-INCH CLAMP 6-FT EACH	(659.1120) LUMINAIRES UTILITY LED B EACH	(659.1125) LUMINAIRES UTILITY LED C EACH
CATEGORY	STRUCTURE	STATION	LOCATION						
0010	A-1	9+79.00	0.00	RT	1	1	1	-	1
	B-2	11+00.00	27.00	LT	1	1	1	1	-
	A-3	12+17.00	27.00	RT	1	1	1	1	-
	B-4	13+34.00	27.00	LT	1	1	1	1	-
	A-5	14+17.00	27.00	RT	1	1	1	1	-
	B-6	15+13.00	27.00	LT	1	1	1	1	-
	A-7	16+09.00	27.00	RT	1	1	1	1	-
	B-8	17+05.00	27.00	LT	1	1	1	-	1
	A-9	18+62.00	27.00	RT	1	1	1	-	1
	B-10	19+67.00	27.00	LT	1	1	1	1	-
	A-11	20+73.00	27.00	RT	1	1	1	1	-
	B-12	21+79.00	27.00	LT	1	1	1	1	-
	A-13	22+83.00	27.00	RT	1	1	1	1	-
	C-14	23+89.00	27.00	LT	1	1	1	1	-
	D-15	24+94.00	27.00	RT	1	1	1	1	-
	C-16	26+15.00	27.00	LT	1	1	1	1	-
	D-17	27+22.00	27.00	RT	1	1	1	1	-
	C-18	28+36.00	27.00	LT	1	1	1	1	-
	D-19	29+50.00	27.00	RT	1	1	1	1	-
	C-20	30+61.00	27.00	LT	1	1	1	1	-
	C-21	31+72.00	27.00	LT	1	1	1	1	-
	D-22	32+83.00	27.00	RT	1	1	1	1	-
	C-23	33+83.00	27.00	LT	1	1	1	1	-
	D-24	34+83.00	27.00	RT	1	1	1	1	-
	C-25	35+83.00	27.00	LT	1	1	1	1	-
TOTAL					25	25	25	22	3

SAWING ASPHALT				
				(690.0150) LF
CATEGORY	STATION	TO STATION	LOCATION	
0010	13+60	13+92	LT & RT	68
	21+31	22+03	LT & RT	91
	26+78	26+94	LT	16
	31+18	31+42	LT	24
	32+67	32+98	LT	31
	33+31	33+51	LT	20
	33+75	34+05	RT	30
	35+43	35+66	RT	23
	36+45	-	LT & RT	87
PROJECT TOTAL				390

SAWING CONCRETE				
				(690.0250) LF
CATEGORY	STATION	TO STATION	LOCATION	
0010	10+00	16+00	LT & RT	156
	16+00	22+00	LT & RT	194
	22+00	28+00	LT & RT	89
	28+00	34+00	LT & RT	100
	34+00	36+50	LT	10
PROJECT TOTAL				549

LIGHTING CONDUIT & WIRE						
CATEGORY	STATION	TO STATION	(652.0225)	(652.0605)	(655.0610)	(655.0625)
			CONDUIT RIGID	CONDUIT	ELECTRICAL	ELECTRICAL
			NONMETALIC	SPECIAL	WIRE	WIRE
			SCHEDULE 40		LIGHTING	LIGHTING
			2-INCH	2-INCH	12 AWG	6 AWG
			LF	LF	LF	LF
0010	POLE A-1		-	-	138	-
	9+79.00	12+17.00	218	60	-	1112
	POLE A-3		-	-	138	-
	12+17.00	14+17.00	212	-	-	848
	POLE A-5		-	-	138	-
	14+17.00	16+09.00	204	-	-	816
	POLE A-7		-	-	138	-
	16+09.00	18+62.00	204	-	-	816
	POLE A-9		-	-	138	-
	18+62.00	20.73.00	223	-	-	892
	POLE A-11		-	-	138	-
	20.73.00	22+83.00	221	-	-	884
	POLE A-13		-	-	138	-
	22+83.00	23+21.00	94	-	-	376
	CONTROL CABINET		-	-	-	-
	POLE B-2		10	-	138	-
	11+00.00	13+34.00	246	-	-	984
	POLE B-4		-	-	138	-
	13+34.00	15+13.00	191	-	-	764
	POLE B-6		-	-	138	-
	15+13.00	17+05.00	204	-	-	816
	POLE B-8		-	-	138	-
	17+05.00	19+67.00	274	-	-	1096
	POLE B-10		-	-	138	-
	19+67.00	21+79.00	215	-	-	860
	POLE B-12		-	-	138	-
	21+79.00	23+21.00	154	-	-	616
	CONTROL CABINET		-	-	-	-
	CONTROL CABINET		-	-	-	-
	23+21.00	23+89.00	154	-	-	616
	POLE C-14		-	-	138	-
	23+89.00	26+15.00	306	-	-	1224
	POLE C-16		-	-	138	-
	26+15.00	28+36.00	233	-	-	932
	POLE C-18		-	-	138	-
	28+36.00	30+61.00	237	-	-	948
	POLE C-20		-	-	138	-
	30+61.00	31+72.00	123	-	-	492
	POLE C-21		-	-	138	-
	41+23.00	33+83.00	223	-	-	892
	POLE C-23		-	-	138	-
	41+23.00	35+83.00	212	-	-	848
	POLE C-25		10	-	138	-
	CONTROL CABINET		-	-	-	-
	23+21.00	24+94.00	233	-	-	932

LIGHTING CONDUIT & WIRE						
CATEGORY	STATION	TO STATION	(652.0225)	(652.0605)	(655.0610)	(655.0625)
			CONDUIT RIGID	CONDUIT	ELECTRICAL	ELECTRICAL
			NONMETALIC	SPECIAL	WIRE	WIRE
			SCHEDULE 40		LIGHTING	LIGHTING
			2-INCH	2-INCH	12 AWG	6 AWG
			LF	LF	LF	LF
	POLE D-15		-	-	138	-
	24+94.00	27+22.00	240	-	-	960
	POLE D-17		-	-	138	-
	27+22.00	29+50.00	240	-	-	960
	POLE D-19		-	-	138	-
	29+50.00	32+83.00	345	-	-	1380
	POLE D-22		-	-	138	-
	32+83.00	34+83.00	212	-	-	848
	POLE D-24		10	-	138	-
	TOTAL		5448	60	3450	21912

LIGHTING CONTROL CABINETS						
CATEGORY	STRUCTURE	STATION	LOCATION	(654.0200)	(659.2124)	(652.0235)
				CONCRETE	LIGHTING	CONDUIT RIGID
				CONTROL CABINET	CONTROL	NONMETALIC
				BASE TYPE 6	CABINET	SCHEDULE 40
				EACH	(120/240. 24")	3-INCH
				LF		
0010	CABINET	23+21.00	28 LT	1	1	8
	TOTAL			1	1	8

WATER UTILITY ADJUSTMENTS						
CATEGORY	STATION	LOCATION	WATER VALVE	REMOVE &	REMOVE &	REMOVE &
			BOX ADJUSTMENT	REPLACE	REPLACE	REPLACE
			(SPV.0060.02)	HYDRANT	MAINLINE	VALVE
			EACH	(SPV.0060.03)	(SPV.0060.04)	(SPV.0060.04)
			EACH	EACH	EACH	EACH
0020	10+33	10 LT	-	-	1	-
	13+86	50 RT	1	-	-	-
	13+88	36 LT	1	-	-	-
	14+11	13 LT	-	1	-	-
	16+85	40 RT	1	-	-	-
	18+73	41 LT	1	-	-	-
	18+95	10 LT	1	-	-	-
	21+10	23 LT	-	1	-	-
	24+68	14 LT	1	-	-	-
	25+02	42 LT	1	-	-	-
	29+19	24 LT	-	1	-	-
	29+23	10 LT	1	-	-	-
	29+58	40 LT	1	-	-	-
	32+74	41 LT	1	-	-	-
	33+11	23 LT	-	1	-	-
	36+33	9 LT	1	-	-	-
	PROJECT TOTAL		11	4	1	

SANITARY SEWER MANHOLE ADJUSTMENT			
(SPV.0060.01)			
CATEGORY	STATION	LOCATION	EACH
0020	13+76	CL	1
	16+95	CL	1
	18+62	CL	1
	22+12	5 RT	1
	24+91	43 LT	1
	25+96	1 LT	1
	29+50	CL	1
	32+85	CL	1
	36+44	CL	1
PROJECT TOTAL			9

TEMPORARY CROSS WALK ACCESS				
(SPV.0045.01)				
CATEGORY	LOCATION	NO. CROSSWALKS	DAYS	DAYS
0010	PROSPECT AVENUE	1	60	60
	GOULD STREET	1	60	60
	EAST BURNETT STREET	1	60	60
PROJECT TOTAL			180	

INSTALL CITY FURNISHED STREET NAME SIGN			
(SPV.0060.06)			
CATEGORY	STATION	LOCATION	EACH
0020	10+24	32 LT	1
	13+51	32 RT	1
	16+70	32 RT	1
	18+37	41 LT	1
	24+76	41 LT	1
	29+32	41 LT	1
	32+66	41 LT	1
	36+35	30 RT	1
PROJECT TOTAL			8

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NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DODGE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

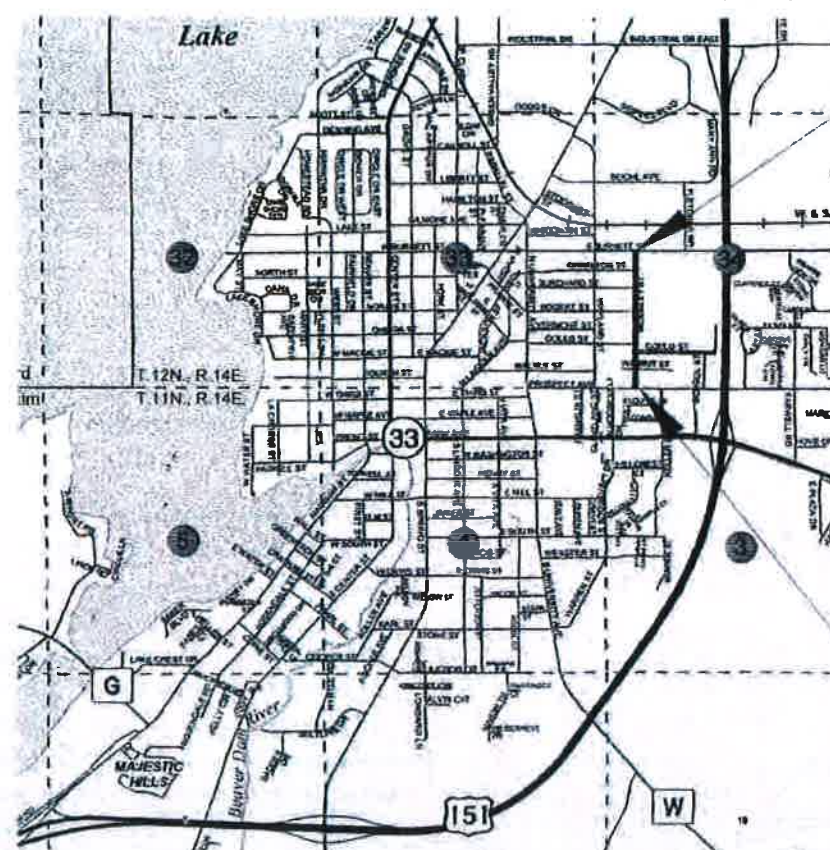
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

WATER — W
GAS — G
TELEPHONE — T
OVERHEAD — OH
TRANSMISSION LINES
ELECTRIC — E
CABLE TELEVISION — TV
FIBER OPTIC — FO
SANITARY SEWER — SAN
STORM SEWER — SS



STA. 36+60.58
790.89' E. OF THE W 1/4 CORNER
SEC. 34, T 12N., R. 14E.



STA 10+00 00
771.38' E. OF AND 2.99' S. OF THE
SW CORNER SEC. 34, T.12N., R.14E

LAYOUT

0.7 MI

SCALE

ORIGINAL PLAT PREPARED BY:

MSA

PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL

WISCONSIN
★ MICHAEL J. LAUE ★
S-1435
BEAVER DAM,
WISCONSIN
LAND SURVEYOR

DATE 08/08/14 *Michael J. Laue*
(REGISTERED LAND SURVEYOR)

CITY OF BEAVER DAM
DODGE COUNTY, WISCONSIN

APPROVED BY THE CITY OF BEAVER DAM

DATE 8/14/11

SIGNATURE _____

41

SCHEDULE OF LANDS & INTEREST REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE CITY OF BEAVER DAM

PARCEL NUMBER	SHEET NUMBER	OWNER(S) NUMBER	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE SQ. FT.
				NEW	EXISTING	TOTAL	
1	4.05-4.06-4.07	BEAVER DAM UNIFIED SCHOOL DISTRICT	TLE	---	---	---	3,237.38
2	4.07	MORRIS RAYMOND	TLE	---	---	---	534.83
3	4.07	ROBIN BUHROW	TLE	---	---	---	374.99
4	4.07	MORRIS RAYMOND	TLE	---	---	---	384.87
5	4.07	LUTHERAN SOCIAL SERVICES OF WI	TLE	---	---	---	491.20
6	4.07	TASK IMPROVEMENTS LLC	TLE	---	---	---	541.64
7	4.07	TASK IMPROVEMENTS LLC	TLE	---	---	---	373.58
8	4.07	MORRIS RAYMOND	TLE	---	---	---	658.88
9	4.06	THOMAS R. & DEBBIE RUETER	TLE	---	---	---	473.13
10	4.06	DARRYL M. & DEBRA HUPF	TLE	---	---	---	350.00
11	4.06	ROBERT E. & ARLENE DOLGNER	TLE	---	---	---	258.96
12	4.06	REBECCA A. STUTZMAN	TLE	---	---	---	783.95
13	4.06	JOSEPHINE R. DAHL TRUST	TLE	---	---	---	162.55
14	4.05-4.06	UNITED STATES OF AMERICA	ICL*	---	---	---	404.81
15	4.05	DAVID F. & MARGARET BRICKL	TLE	---	---	---	74.87
18	4.05	WISCONSIN CORP OF SEVENTH DAY ADVENTISTS	TLE	---	---	---	75.12
22	4.04	HOWARD A. & KAREN VOELKER	TLE	---	---	---	47.54
23	4.04	DAVID P. & RITA SCHRAM	TLE	---	---	---	75.16
24	4.04	RICHARD F. ANDERSON	TLE	---	---	---	147.86
25	4.04	PATRICK E. PHILLIPS	TLE	---	---	---	238.46
28	4.04	DAVID M. & BARBARA WARMKA	TLE	---	---	---	75.15
29	4.04	STEVEN M. & KATINA GROSS	TLE	---	---	---	74.81

* ICL = INSTALLATION COMMANDER'S LICENSE

REVISION DATE JANUARY 9, 2015

DATE AUGUST 8, 2014

SCALE, FEET



HWY: MCKINLEY STREET

COUNTY: DODGE

STATE R/W PROJECT NUMBER 6995-00-67

CONSTRUCTION PROJECT NUMBER 6995-00-73

PLAT SHEET 4.02

PS&E SHEET 4.42

E



CITY OF BEAVER DAM

NOTE:
EXISTING RW ESTABLISHED FROM BRIDGES
ADDITION TO THE CITY OF BEAVER DAM,
SCHOENICKS SUBDIVISION, ORIGINAL 3RD
WARD AND EAST LAWN SUBDIVISION,
CERTIFIED SURVEY MAPS OF RECORD, PLAT
OF SURVEYS AND EXISTING IRONS LOCATED
IN THE FIELD.

UTILITY OWNERS

CABLE TV - CHARTER COMMUNICATIONS
(OH CROSSING AT STA. 11+75)

ELECTRIC - ALLIANT ENERGY
(OH CROSSINGS AT STA. 11+75 & 23+25)

ELECTRIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (32' EAST OF
CENTERLINE FROM STA. 18+45 TO 23+15.)

ELECTRIC - CITY OF BEAVER DAM
(21' WEST OF CENTERLINE STA. 10+35 TO
17+95, CONTINUING 21' EAST OF
CENTERLINE STA. 17+95 TO 24+90. ALSO
23' EAST OF CENTERLINE STA. 27+10 TO
36+20. CROSSINGS AT STA. 12+30, 15+30,
17+95, 20+15, 23+20, 27+10, 31+05, AND
34+60.)

FIBER OPTIC - AT&T (CROSSINGS AT STA.
20+30 AND 32+60. ALSO 50' EAST OF
CENTERLINE STA. 34+20 TO 36+35.)

FIBER OPTIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (50' EAST OF
CENTERLINE FROM STA. 22+90 TO 33+65.
ALSO CROSSING AT STA. 22+90.)

GAS - ALLIANT ENERGY (ALL)

TELECOMMUNICATION - AT&T (ALL)

SANITARY SEWER, WATERMAIN, AND
STORM SEWER - CITY OF BEAVER DAM
(ALL)

23 DAVID P. &
RITA SCHRAM
206-1214-3433-017

200 MCKINLEY ST.

23 TLE - GRADING
0.002 AC.

SIDEWALK

WALNUT ST.

STA. 13+76.00

WALNUT ST.

MCKINLEY ST.

25 TLE - GRADING
0.006 AC.

206-1214-3433-019

106 MCKINLEY ST.

24 RICHARD F.
ANDERSON,
SLOPE INTERCEPTS
(TYPICAL)

206-1214-3433-020

104 MCKINLEY ST.

28 DAVID M. &
BARBARA
WARMKA

28 TLE - GRADING
0.002 AC.

410 PROSPECT AVE.
206-1214-3433-022

412 PROSPECT AVE.
206-1214-3433-021

506 PROSPECT AVE.
206-1214-3433-049

29 STEVEN M. &
KATINA GROSS

29 TLE - GRADING
0.002 AC.

Y 724082.06
X 850817.52
(CHISELED CROSS)

BEGIN RELOCATION ORDER
STATION 10+00
Y 724074.78
X 851588.88

S. LINE SW. 1/4, SEC. 34-12-14

PROSPECT AVE.
STA. 10+00.00
S. 89°40'53"E. 771.88'

PROSPECT AVE.
STA. 10+00.00
S. 89°40'53"E. 1881.14'

Y 724067.31
X 853470.00
(BRASS SURVEY MARKER BPT)

ALIGNMENT DATA

P.I. = 10+00.00
Y = 724,074.78
X = 851588.88

P.I. = 12+01.56
Y = 724,276.34
X = 851,589.41

P.I. = 16+62.50
Y = 724,737.28
X = 851,590.43

TILE POINT	STATION	OFFSET
T-96	10+33	40.00 R
T-97	10+33	50.00 R
T-98	10+38	50.00 R
T-99	10+38	45.00 R
T-100	10+43	45.00 R
T-101	10+43	40.00 R
T-102	10+33	40.00 L
T-103	10+33	50.00 L
T-104	10+38	50.00 L
T-105	10+38	45.00 L
T-106	10+43	45.00 L
T-107	10+43	40.00 L
T-108	12+95	40.00 R
T-109	12+95	45.00 R
T-110	13+23	40.00 L
T-111	13+23	45.00 L
T-112	13+38	45.00 L
T-113	13+38	55.00 L
T-114	13+43	50.00 L
T-115	13+43	40.00 L
T-116	13+43	45.00 R
T-117	13+43	40.00 R
T-118	14+09	40.00 R
T-119	14+09	45.00 R
T-120	14+18	45.00 R
T-121	14+18	40.00 R
T-122	14+09	40.00 L
T-123	14+09	50.00 L
T-124	14+14	50.00 L
T-125	14+14	45.00 L
T-126	14+19	45.00 L
T-127	14+19	40.00 L

REVISION DATE JANUARY 9, 2015 (N.C.)

DATE AUGUST 8, 2014



HWY: MCKINLEY STREET

COUNTY: DODGE

STATE R/W PROJECT NUMBER 6995-00-67

CONSTRUCTION PROJECT NUMBER 6995-00-73

PLAT SHEET 4.04

PS&E SHEET 4.44

CITY OF BEAVER DAM

UTILITY OWNERS

CABLE TV - CHARTER COMMUNICATIONS
(OH CROSSING AT STA. 11+75)

ELECTRIC - ALLIANT ENERGY
(OH CROSSINGS AT STA. 11+75 & 23+25)

ELECTRIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (32' EAST OF
CENTERLINE FROM STA. 18+45 TO 23+15.)

ELECTRIC - CITY OF BEAVER DAM
(21' WEST OF CENTERLINE STA. 10+35 TO
17+95, CONTINUING 21' EAST OF
CENTERLINE STA. 17+95 TO 24+90. ALSO
23' EAST OF CENTERLINE STA. 27+10 TO
36+20. CROSSINGS AT STA. 12+30, 15+30,
17+95, 20+15, 23+20, 27+10, 31+05, AND
34+60.)

FIBER OPTIC - AT&T (CROSSINGS AT STA.
20+30 AND 32+60. ALSO 50' EAST OF
CENTERLINE STA. 34+20 TO 36+35.)

FIBER OPTIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (50' EAST OF
CENTERLINE FROM STA. 22+90 TO 33+65.
ALSO CROSSING AT STA. 22+90.)

GAS - ALLIANT ENERGY (ALL)

TELECOMMUNICATION - AT&T (ALL)

SANITARY SEWER, WATERMAIN, AND
STORM SEWER - CITY OF BEAVER DAM
(ALL)

ALIGNMENT DATA

P.I. = 16+62.50
Y = 724,737.28
X = 851,590.43

P.I. = 18+19.85
Y = 724,894.62
X = 851,591.37

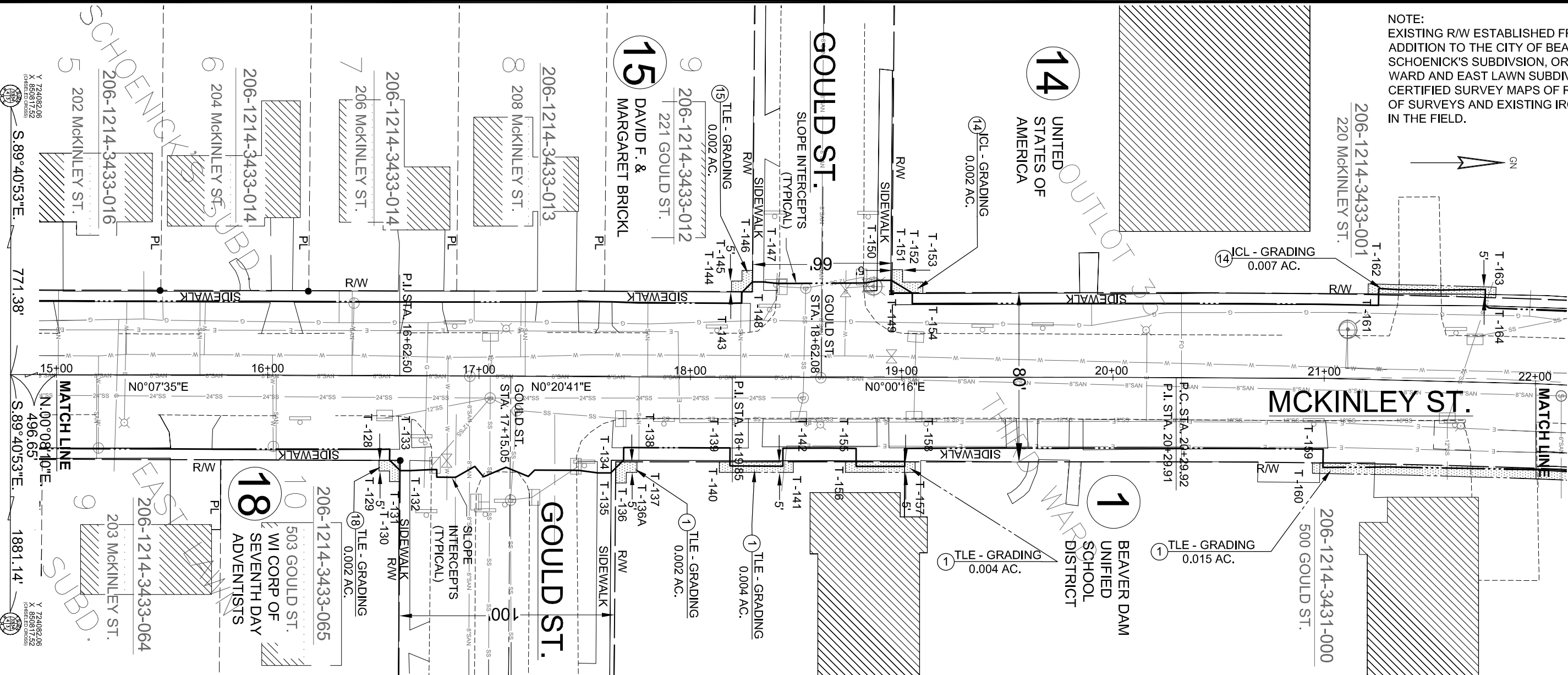
P.I. = 20+29.91
Y = 725,104.68
X = 851,591.39

P.C. = 20+29.92
Y = 725,104.69
X = 851,591.39
Δ = 03°35'11"
T = 149.02
L = 297.94
R = 4760.00 RT

P.C.C. = 23+27.86
Y = 725,402.44
X = 851,600.62
Δ = 02°03'56"
T = 0.72
L = 1.44
R = 40.00 RT

TILE POINT	STATION	OFFSET
T-128	16+53	40.00 R
T-129	16+53	45.00 R
T-130	16+58	45.00 R
T-131	16+58	50.00 R
T-132	16+63	50.00 R
T-133	16+63	40.00 R
T-134	17+65	40.00 R
T-135	17+65	50.00 R
T-136	17+70	50.00 R
T-136A	17+75	45.00 R
T-137	17+75	40.00 R
T-138	17+75	40.00 R
T-139	18+14	45.00 R
T-140	18+14	45.00 R
T-141	18+49	45.00 R
T-142	18+49	40.00 R
T-143	18+19	40.00 R
T-144	18+19	45.00 L
T-145	18+24	45.00 L
T-146	18+24	50.00 L
T-147	18+29	50.00 L
T-148	18+29	40.00 L
T-149	18+95	40.00 L
T-150	18+95	50.00 L
T-151	19+00	50.00 L
T-152	19+09	45.00 L
T-153	19+10	45.00 L
T-154	19+10	40.00 L
T-155	18+74	40.00 R
T-156	18+74	45.00 R
T-157	19+07	45.00 R
T-158	19+07	40.00 R
T-159	20+94	40.00 R
T-160	20+94	45.00 R
T-161	21+21	40.00 L
T-162	21+21	45.00 L
T-163	21+81	45.00 L
T-164	21+81	40.00 L

NOTE:
EXISTING R/W ESTABLISHED FROM BRIDGE'S
ADDITION TO THE CITY OF BEAVER DAM,
SCHOENICK'S SUBDIVISION, ORIGINAL 3RD
WARD AND EAST LAWN SUBDIVISION,
CERTIFIED SURVEY MAPS OF RECORD, PLAT
OF SURVEYS AND EXISTING IRONS LOCATED
IN THE FIELD.



REVISION DATE	JANUARY 9, 2015	DATE	AUGUST 8, 2014	SCALE, FEET		HWY: MCKINLEY STREET	STATE R/W PROJECT NUMBER 6995-00-67	PLAT SHEET	4.05
						COUNTY: DODGE	CONSTRUCTION PROJECT NUMBER 6995-00-73	PS&E SHEET	4-45

BURCHARD ST.

MATCH LINE

BURCHARD ST.
STA. 29+50.28

CITY OF BEAVER DAM

UTILITY OWNERS

CABLE TV - CHARTER COMMUNICATIONS
(OH CROSSING AT STA. 11+75)

ELECTRIC - ALLIANT ENERGY
(OH CROSSINGS AT STA. 11+75 & 23+25)

ELECTRIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (32' EAST OF
CENTERLINE FROM STA. 18+45 TO 23+15.)

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(21' WEST OF CENTERLINE STA. 10+35 TO
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CENTERLINE STA. 17+95 TO 24+90. ALSO
23' EAST OF CENTERLINE STA. 27+10 TO
36+20. CROSSINGS AT STA. 12+30, 15+30,
17+95, 20+15, 23+20, 27+10, 31+05, AND
34+60.)

FIBER OPTIC - AT&T (CROSSINGS AT STA.
20+30 AND 32+60. ALSO 50' EAST OF
CENTERLINE STA. 34+20 TO 36+35.)

FIBER OPTIC - BEAVER DAM UNIFIED
SCHOOL DISTRICT (50' EAST OF
CENTERLINE FROM STA. 22+90 TO 33+65.
ALSO CROSSING AT STA. 22+90.)

GAS - ALLIANT ENERGY (ALL)

TELECOMMUNICATION - AT&T (ALL)

SANITARY SEWER, WATERMAIN, AND
STORM SEWER - CITY OF BEAVER DAM
(ALL)

ALIGNMENT DATA

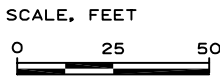
P.C.C. = 23+27.86 P.C.C. = 24+68.50
Y = 725,402.44 Y = 725,542.77
X = 851,600.62 X = 851,609.45
Δ = 02°03'56" Δ = 01°34'41"
T = 0.72 T = 0.55
L = 1.44 L = 1.10
R = 40.00 RT R = 40.00 LT

P.R.C. = 23+29.30 P.T. = 24+69.60
Y = 725,403.88 Y = 725,543.87
X = 851,600.74 X = 851,609.46
Δ = 04°05'56" P.I. = 36+60.58
T = 69.63 Y = 726,734.86
L = 139.19 X = 851,608.66
R = 1947.10 LT

SLOPE INTERCEPTS
(TYPICAL)

NOTE:
EXISTING RW ESTABLISHED FROM BRIDGES
ADDITION TO THE CITY OF BEAVER DAM,
SCHOENICK'S SUBDIVISION, ORIGINAL 3RD
WARD AND EAST LAWN SUBDIVISION.
CERTIFIED SURVEY MAPS OF RECORD, PLAT
OF SURVEYS AND EXISTING IRONS LOCATED
IN THE FIELD.

TILE POINT	STATION	OFFSET
T-165	22+28	40.00 R
T-166	22+28	45.00 R
T-167	24+60	40.00 R
T-168	24+60	45.00 R
T-169	24+69	45.00 R
T-170	24+69	40.00 R
T-171	24+54	40.00 L
T-172	24+54	45.00 L
T-173	24+63	45.00 L
T-174	24+63	64.00 L
T-175	24+68	64.00 L
T-176	24+68	40.00 L
T-177	25+19	40.00 L
T-178	25+19	53.00 L
T-179	25+24	40.00 R
T-180	25+24	45.00 R
T-181	26+68	45.00 L
T-182	26+68	45.00 L
T-183	27+04	45.00 L
T-184	27+04	40.00 L
T-185	27+59	40.00 L
T-186	27+59	45.00 L
T-187	27+75	40.00 L
T-188	27+75	45.00 L
T-189	28+45	40.00 L
T-190	28+45	45.00 L
T-191	29+20	45.00 L
T-192	29+20	60.00 L
T-193	29+25	60.00 L
T-194	29+25	40.00 L
T-195	29+16	40.00 R
T-196	29+16	45.00 R
T-197	29+41	45.00 R
T-198	29+41	40.00 R



HWY: MCKINLEY STREET

COUNTY: DODGE

STATE R/W PROJECT NUMBER 6995-00-67

CONSTRUCTION PROJECT NUMBER 6995-00-73

PLAT SHEET 4.06

PS&E SHEET 4-6

DATE AUGUST 8, 2014

REVISION DATE JANUARY 9, 2015 (N.C.)

CITY OF BEAVER DAM

(ACCESSORY REFERENCED)
Y 726735.15
X 850817.77

790.89°

STA. 36+60.58

790.89°

S.89°58'44"E.

1842.92'

S.89°58'44"E.

BURNETT ST.

END RELOCATION ORDER
STATION 36+60.58
Y 726734.86
X 851608.66

DOT PLUG

Y 726734.18
X 853451.58

UTILITY OWNERS

- CABLE TV - CHARTER COMMUNICATIONS (OH CROSSING AT STA. 11+75)
- ELECTRIC - ALLIANT ENERGY (OH CROSSINGS AT STA. 11+75 & 23+25)
- ELECTRIC - BEAVER DAM UNIFIED SCHOOL DISTRICT (32' EAST OF CENTERLINE FROM STA. 18+45 TO 23+15.)
- ELECTRIC - CITY OF BEAVER DAM (21' WEST OF CENTERLINE STA. 10+35 TO 17+95, CONTINUING 21' EAST OF CENTERLINE STA. 17+95 TO 24+90. ALSO 23' EAST OF CENTERLINE STA. 27+10 TO 36+20. CROSSINGS AT STA. 12+30, 15+30, 17+95, 20+15, 23+20, 27+10, 31+05, AND 34+60.)
- FIBER OPTIC - AT&T (CROSSINGS AT STA. 20+30 AND 32+60. ALSO 50' EAST OF CENTERLINE STA. 34+20 TO 36+35.)
- FIBER OPTIC - BEAVER DAM UNIFIED SCHOOL DISTRICT (50' EAST OF CENTERLINE FROM STA. 22+90 TO 33+65. ALSO CROSSING AT STA. 22+90.)
- GAS - ALLIANT ENERGY (ALL)
- TELECOMMUNICATION - AT&T (ALL)
- SANITARY SEWER, WATERMAIN, AND STORM SEWER - CITY OF BEAVER DAM (ALL)

CHARLTON ST.

CHARLTON ST.

MCKINLEY ST.

500 GOULD ST.

ALIGNMENT DATA

P.I. = 36+60.58
Y = 726,734.86
X = 851,608.66

NOTE:
EXISTING R/W ESTABLISHED FROM BRIDGES ADDITION TO THE CITY OF BEAVER DAM, SCHOENICKS SUBDIVISION, ORIGINAL 3RD WARD AND EAST LAWN SUBDIVISION, CERTIFIED SURVEY MAPS OF RECORD, PLAT OF SURVEYS AND EXISTING IRONS LOCATED IN THE FIELD.

TILE POINT	STATION	OFFSET
T-199	29+75	40.00 L
T-200	29+75	55.00 L
T-201	29+80	55.00 L
T-202	29+80	45.00 L
T-203	30+96	40.00 L
T-204	30+96	45.00 L
T-205	31+71	40.00 L
T-206	31+71	45.00 L
T-207	32+52	45.00 L
T-208	32+52	67.00 L
T-209	32+57	67.00 L
T-210	32+57	40.00 L
T-211	32+39	40.00 R
T-212	32+39	45.00 R
T-213	33+08	40.00 L
T-214	33+08	69.50 L
T-215	33+13	69.50 L
T-216	33+13	45.00 L
T-217	33+81	40.00 L
T-218	33+81	45.00 L
T-219	34+58	40.00 L
T-220	34+58	45.00 L
T-221	35+34	40.00 L
T-222	35+34	45.00 L
T-223	36+30	45.00 L
T-224	36+30	50.00 L
T-225	36+35	50.00 L
T-226	36+35	40.00 L
T-227	36+35	45.00 R
T-228	36+35	40.00 R

REVISION DATE JANUARY 9, 2015 (N.C.)

DATE AUGUST 8, 2014

SCALE, FEET

HWY: MCKINLEY STREET

COUNTY: DODGE

STATE R/W PROJECT NUMBER 6995-00-67

CONSTRUCTION PROJECT NUMBER 6995-00-73

PLAT SHEET 4.07

PS&E SHEET 4-7

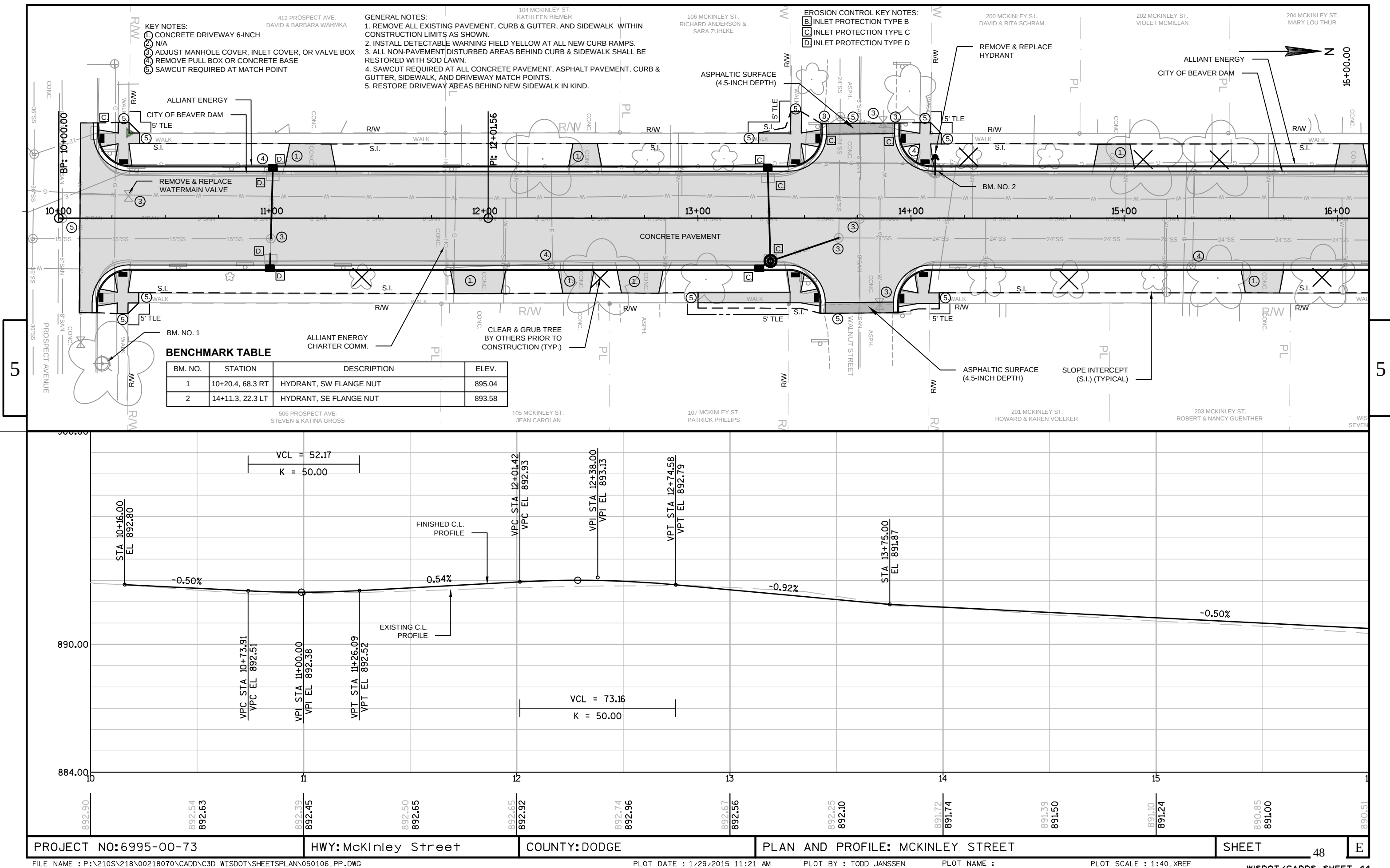
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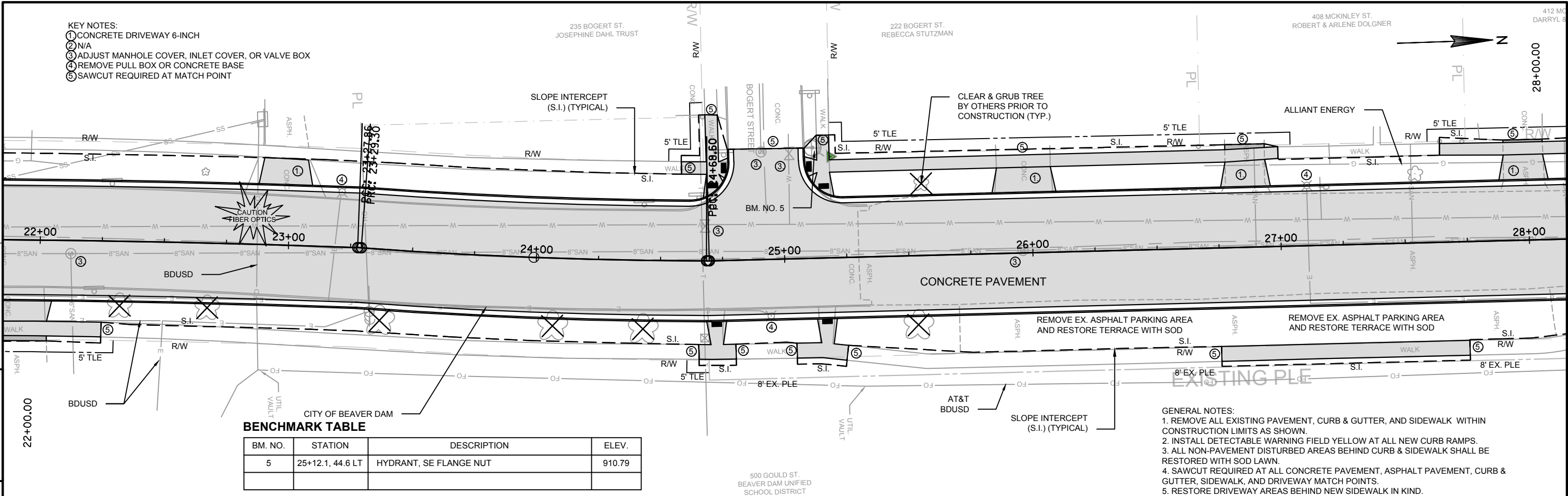
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PLOT BY : TODD JANSSSEN

PLOT NAME :

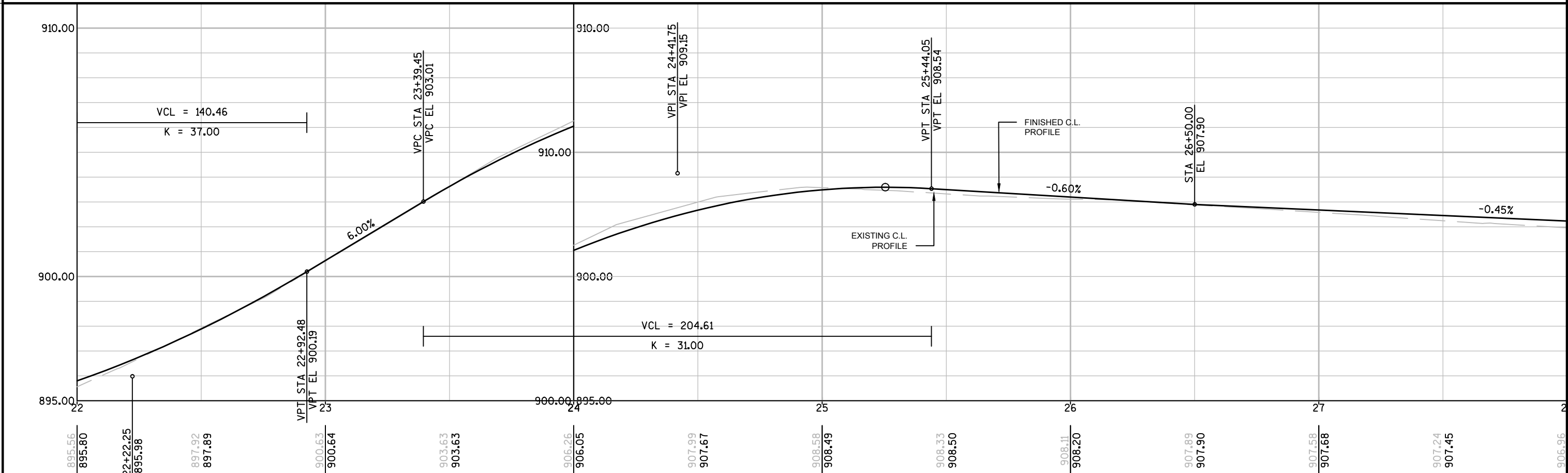
WISDOT/CADDs SHEET 75

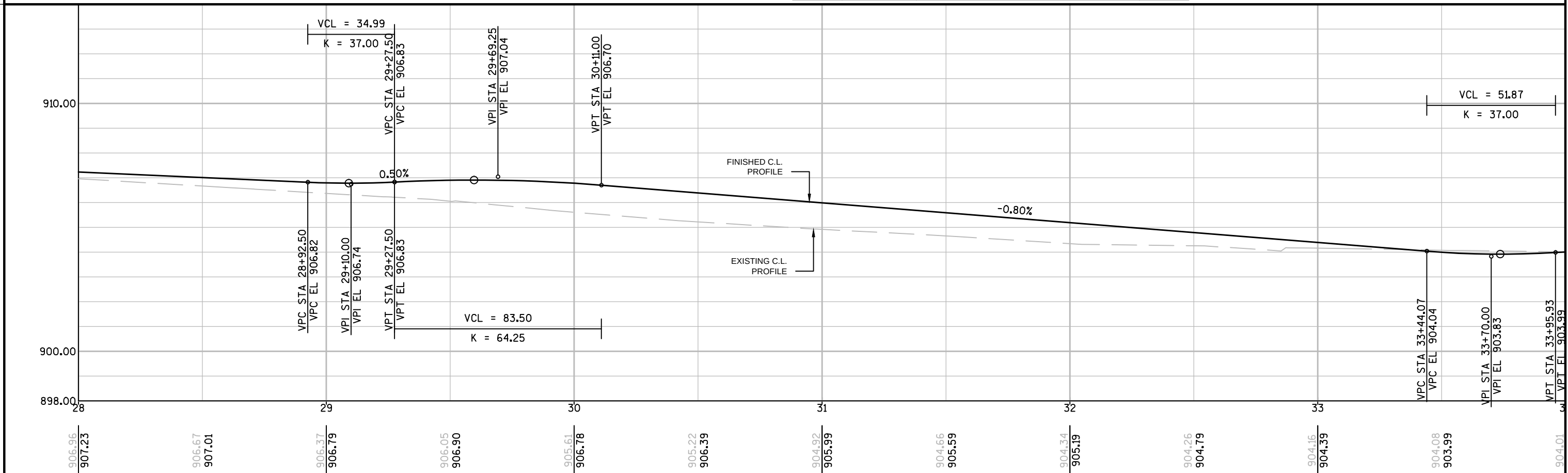
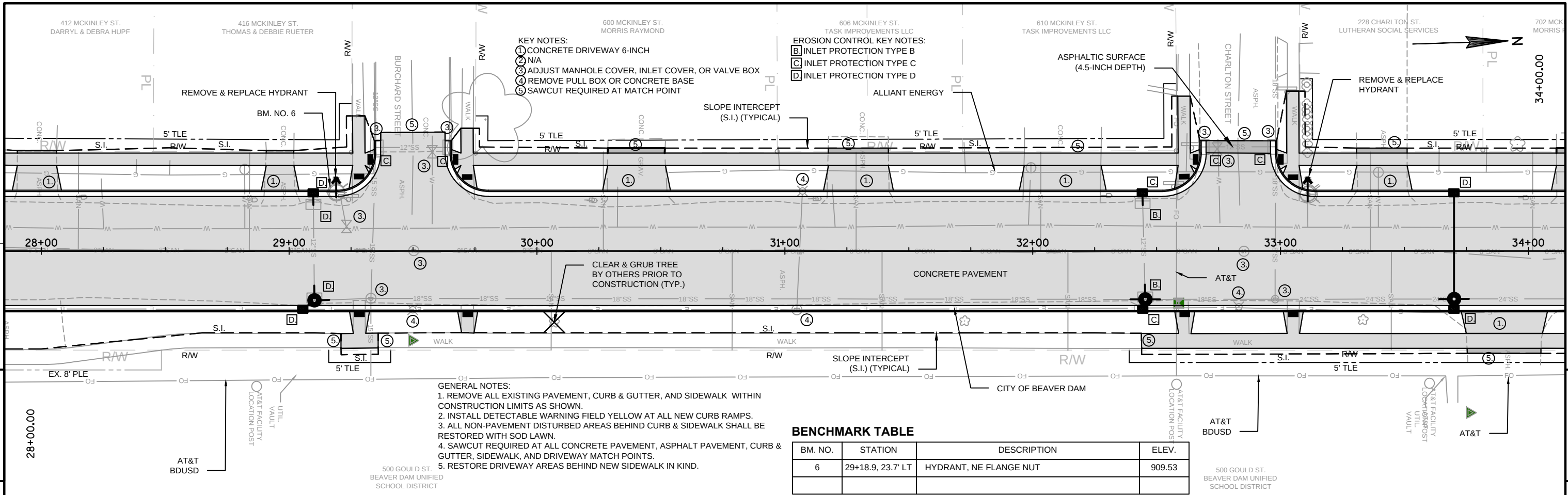


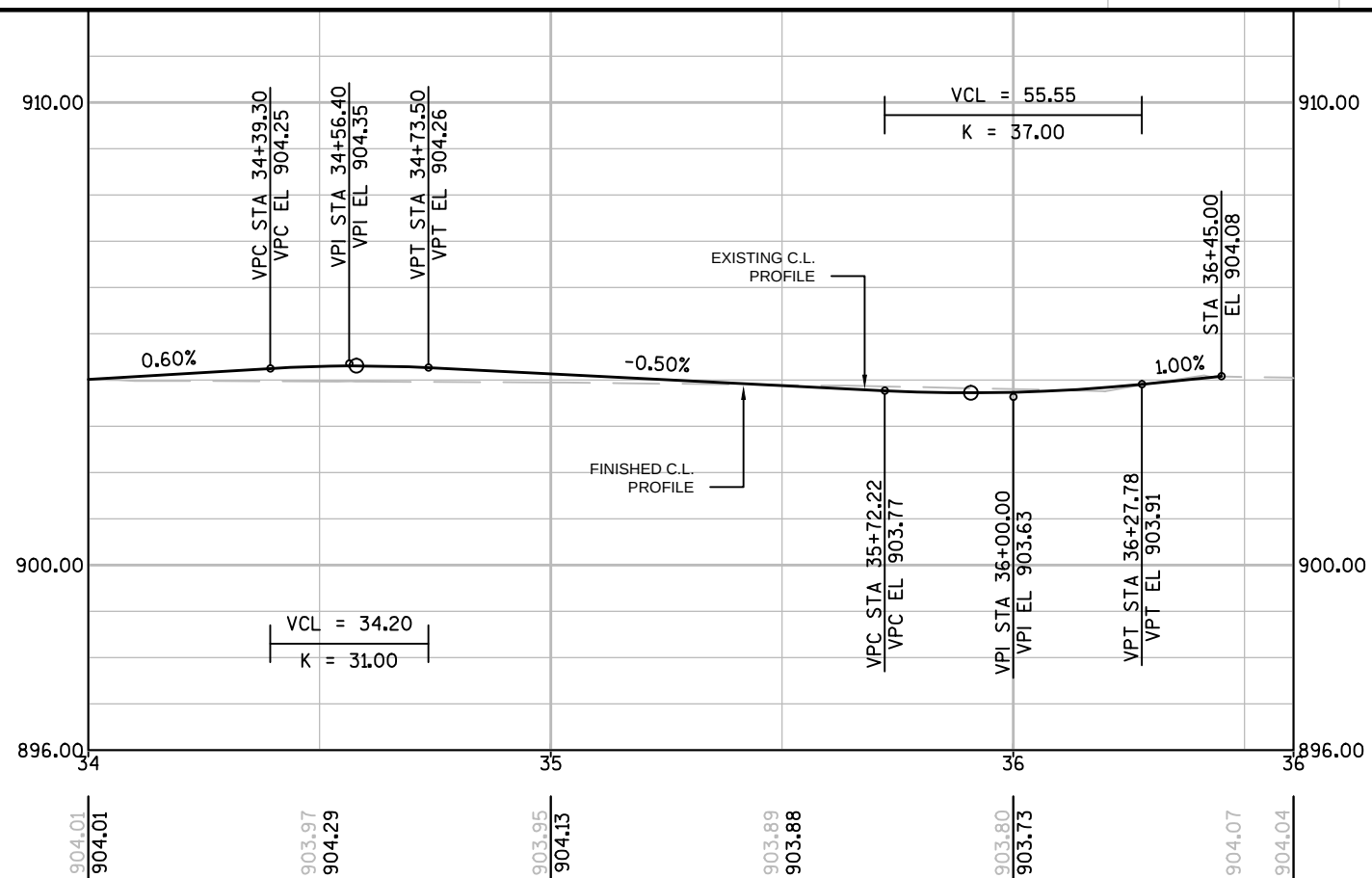
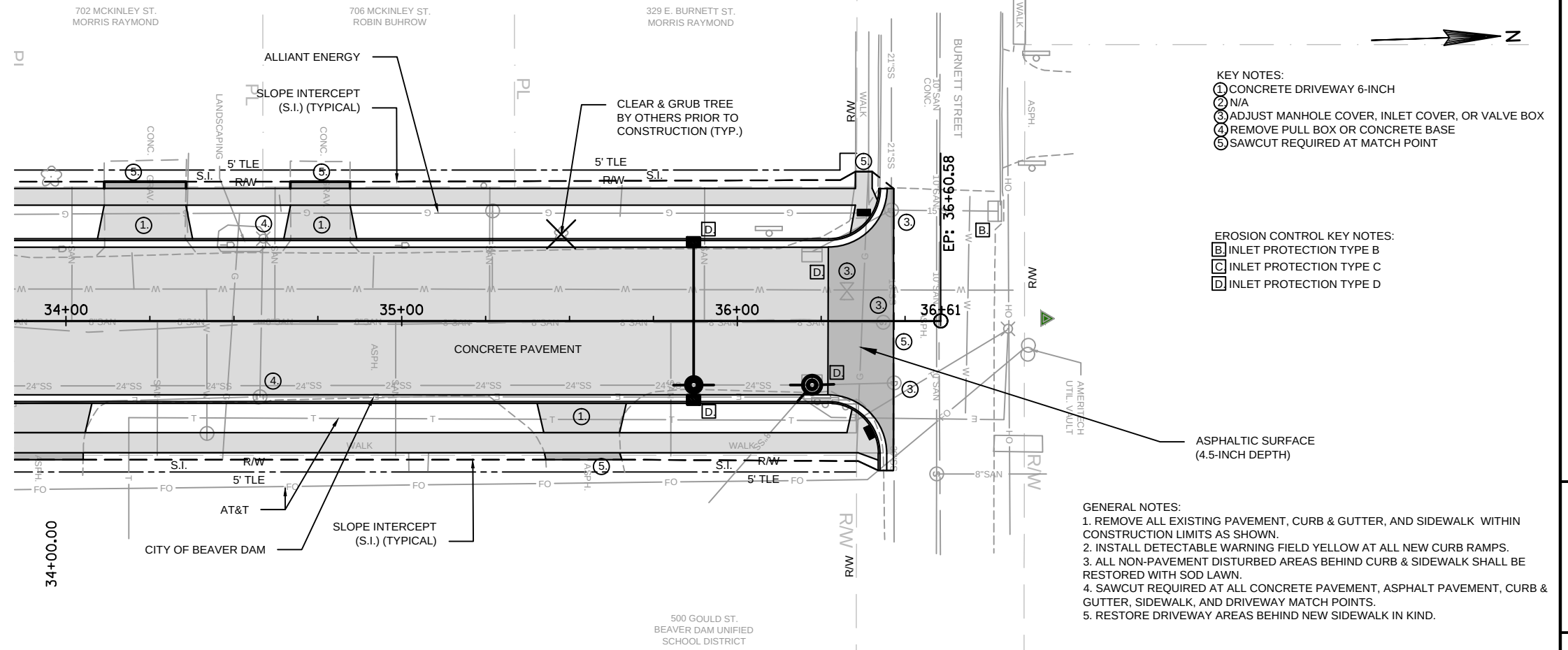


BENCHMARK TABLE

BM. NO.	STATION	DESCRIPTION	ELEV.
5	25+12.1, 44.6 LT	HYDRANT, SE FLANGE NUT	910.79







PROJECT NO:6995-00-73

HWY:McKinley Street

COUNTY:DODGE

PLAN AND PROFILE: MCKINLEY STREET

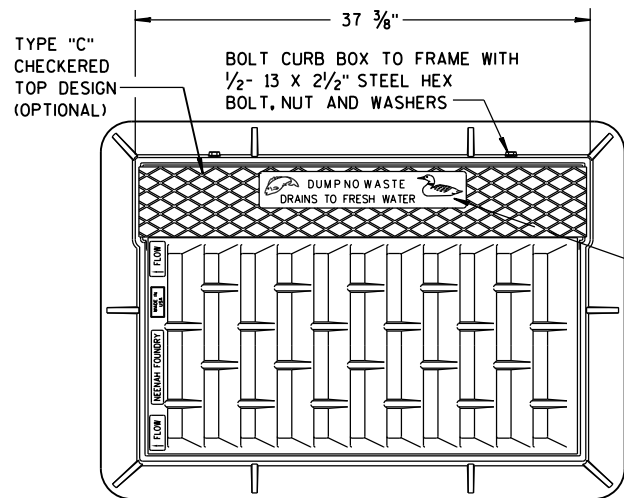
SHEET

52

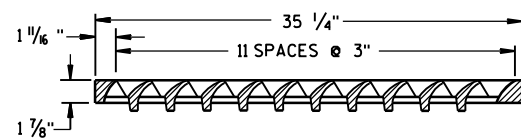
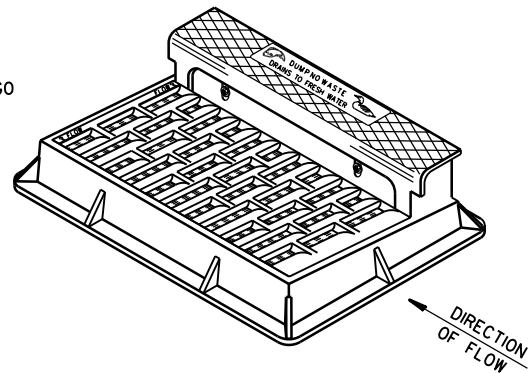
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Standard Detail Drawing List

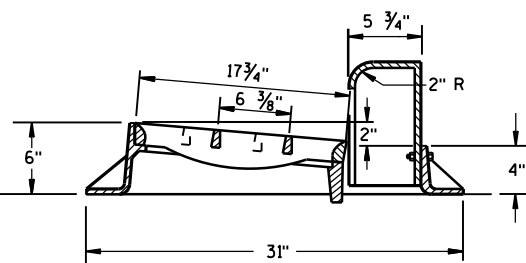
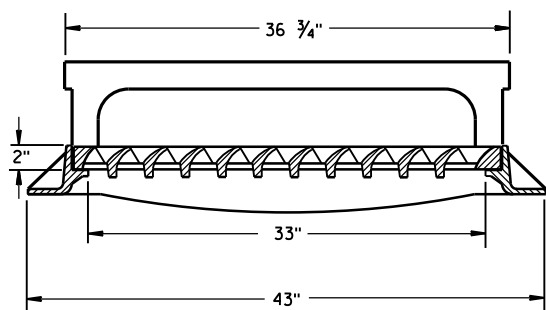
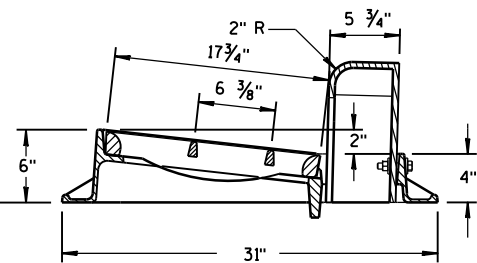
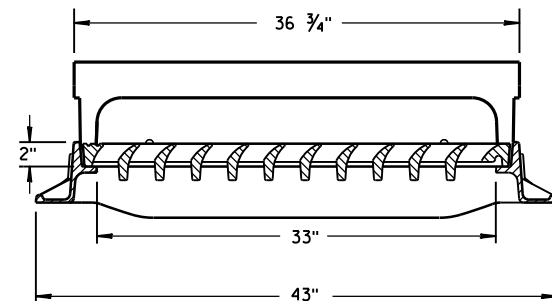
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-08	CONDUIT UNDER PAVED HIGHWAYS
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C05-09	CONCRETE CONTROL CABINET BASES
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-13D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-13G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
10A05-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
13C01-17	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



**NOTE:
GRATE IS REVERSIBLE.**

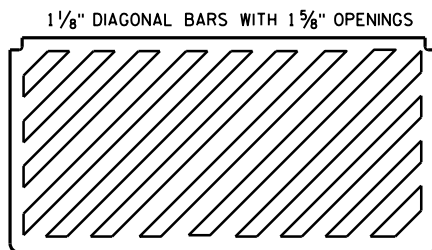


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



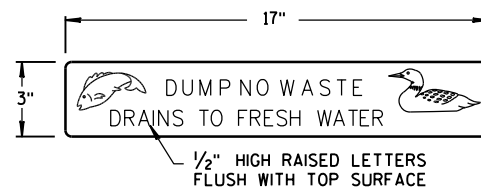
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

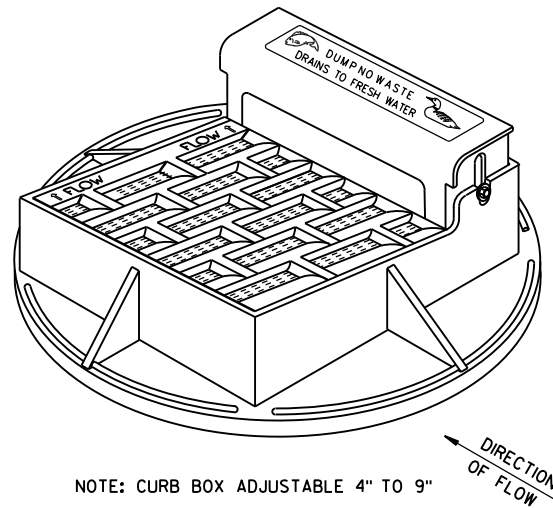


**SPECIAL GRATE FOR
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

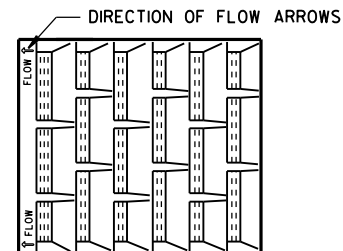


LOGO DETAIL

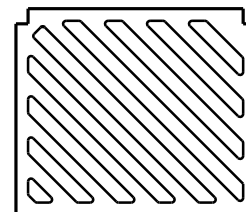


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

**NOTE:
GRATE IS REVERSIBLE.**

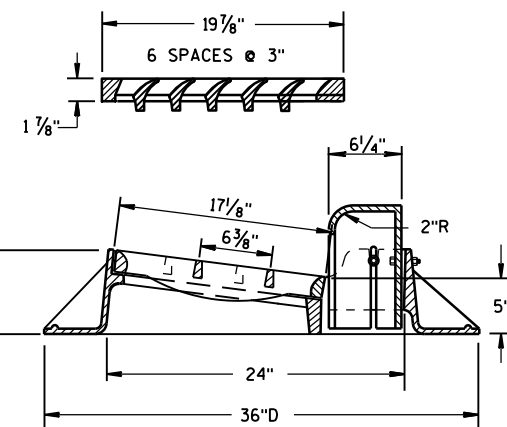
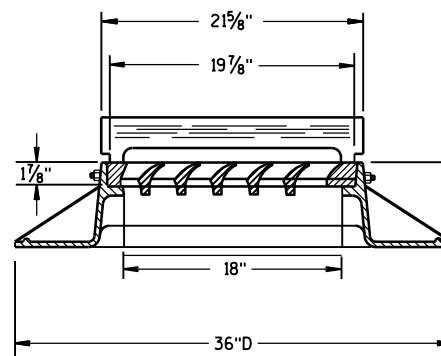


1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

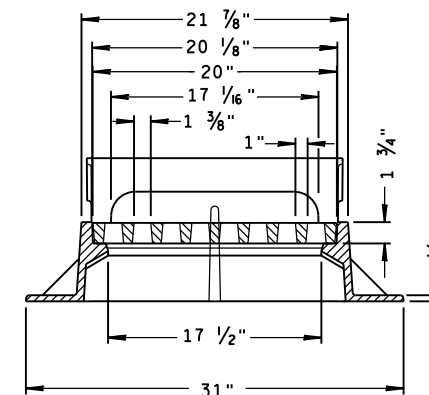
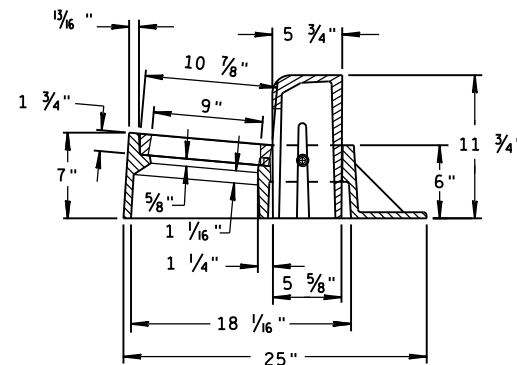


**SPECIAL GRATE FOR
TYPE "A" COVER**

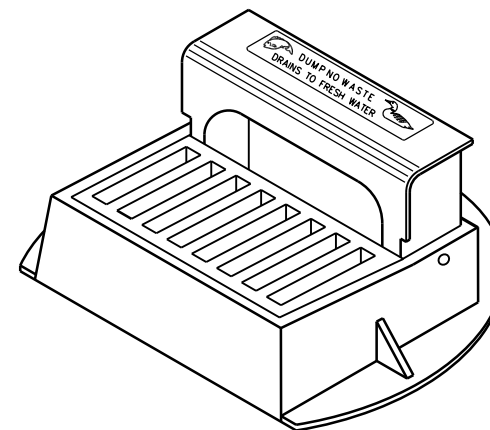
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"



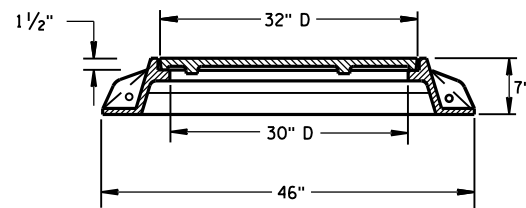
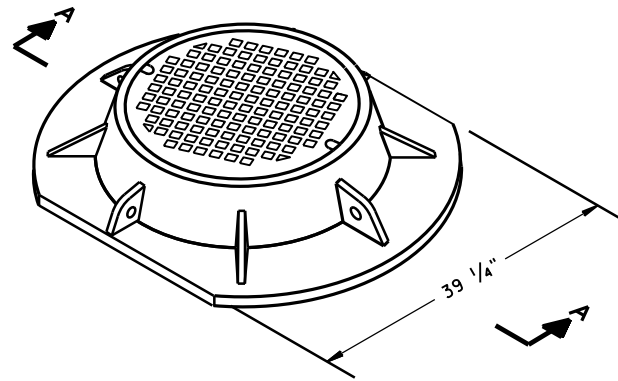
**INLET COVERS
TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

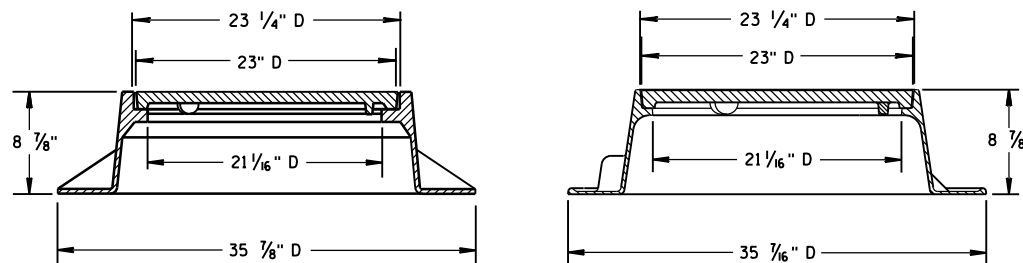
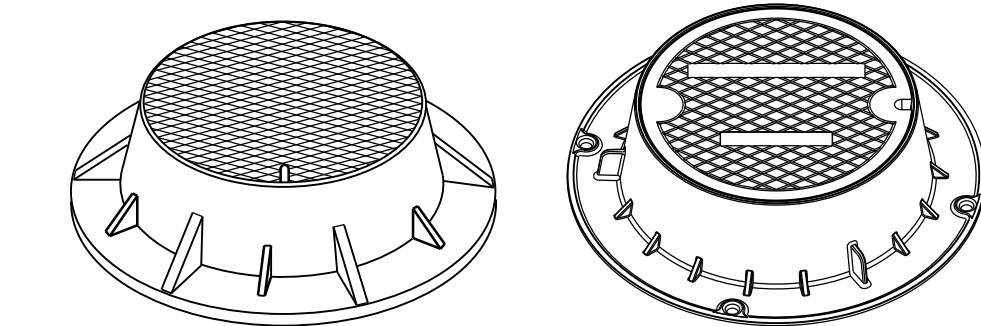
APPROVED
II-27-13
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS
ENGINEER

ENT

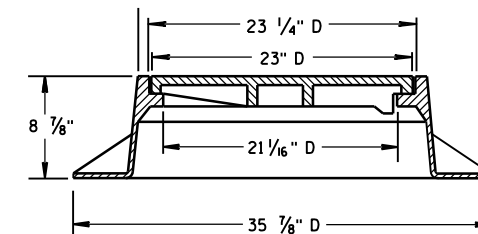
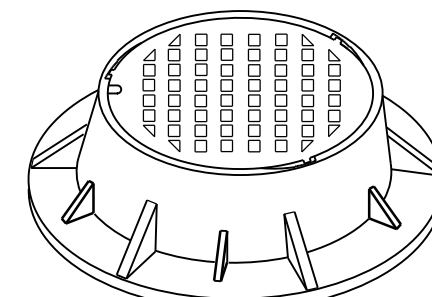
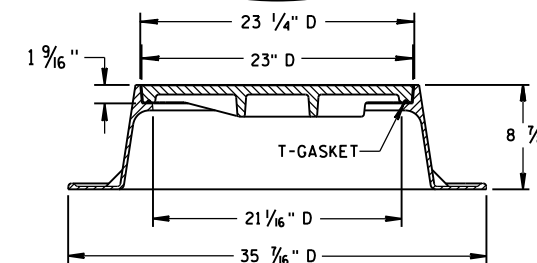
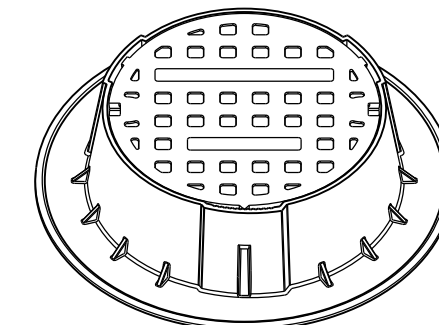


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

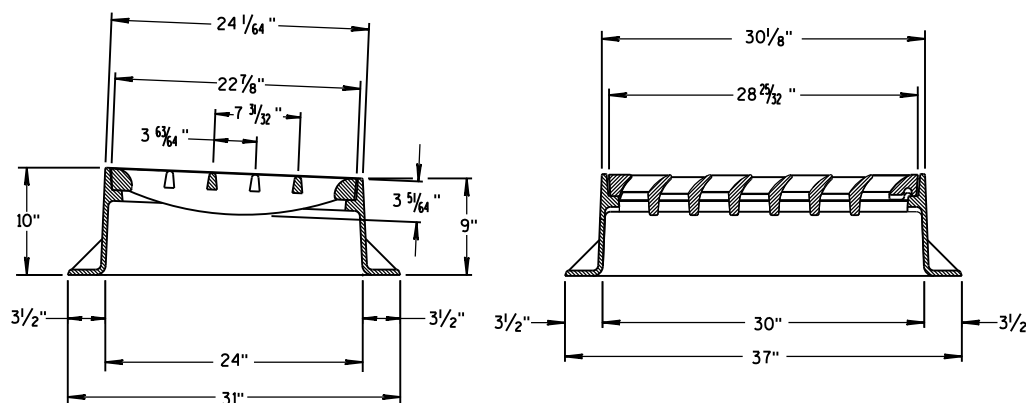
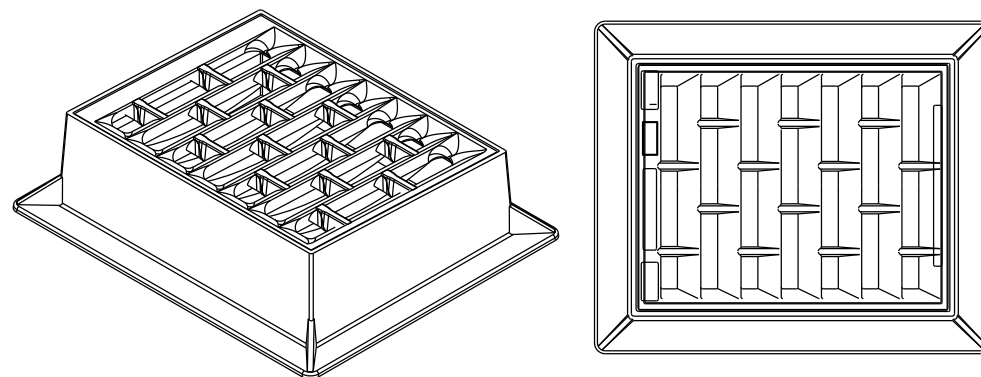


TYPE "J" SPECIAL

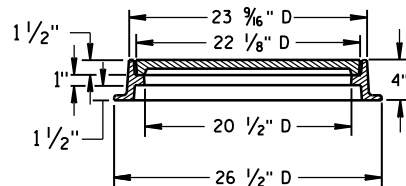
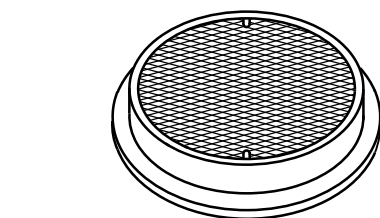
TYPE "B" NON-ROCKING SELF-SEAL LID

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

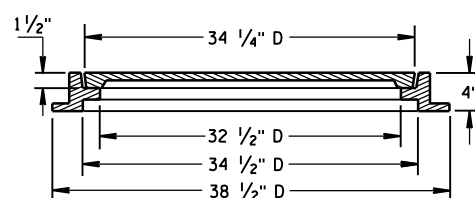
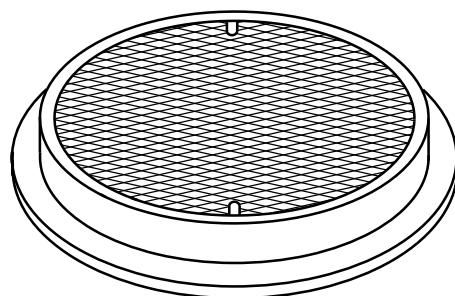
NOTE: EITHER CASTING IS ACCEPTABLE



INLET COVER TYPE "BW"



TYPE "L"



TYPE "M"

GENERAL NOTES

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

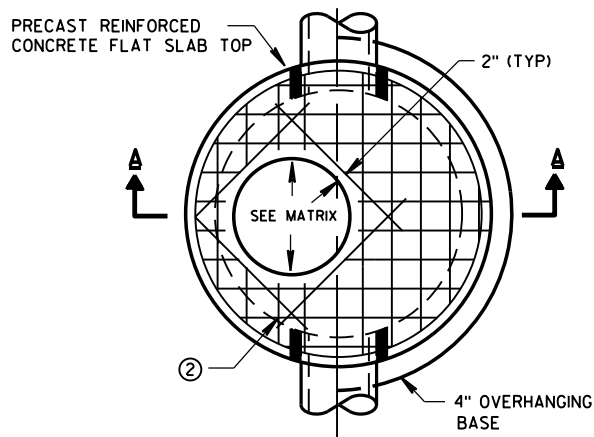
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

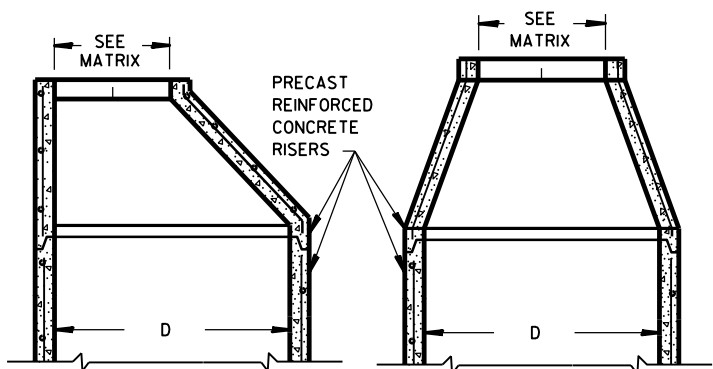
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS & ENGINEERING
VT

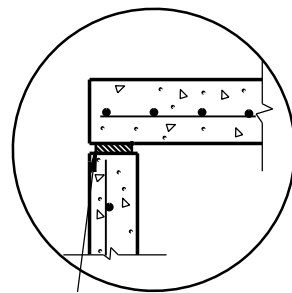


PLAN VIEW CIRCULAR OPENING

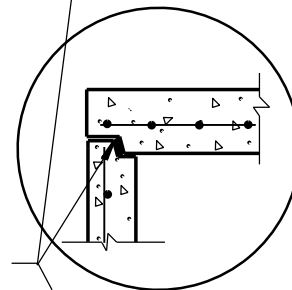


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

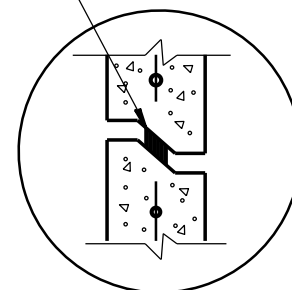
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



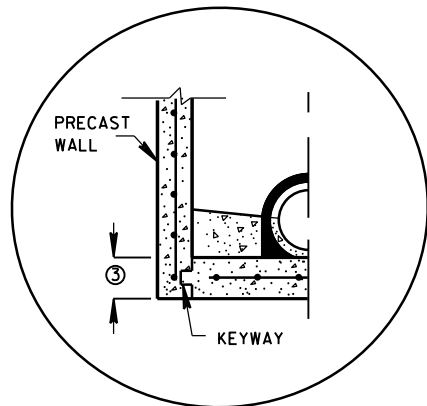
TOP WITH TONGUE AND GROOVE JOINT



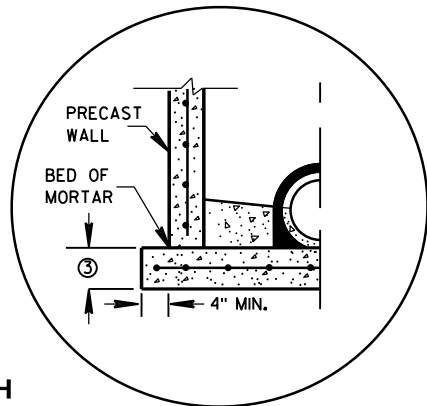
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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

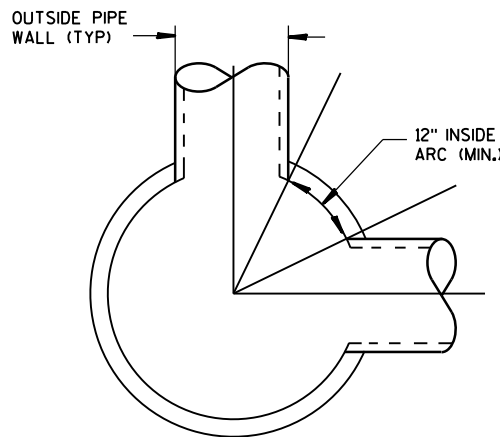


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

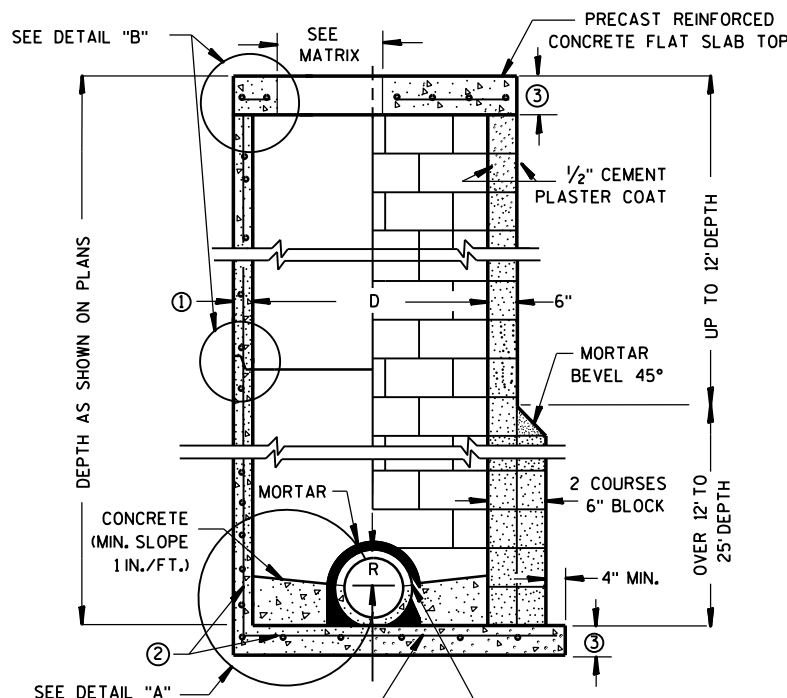


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SPLIT PIPE OR FORM CONCRETE TO FIT

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

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

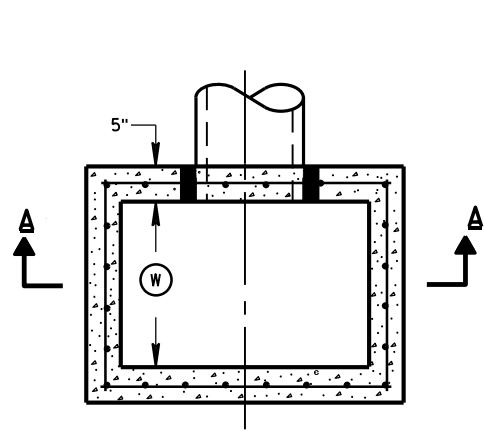
PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

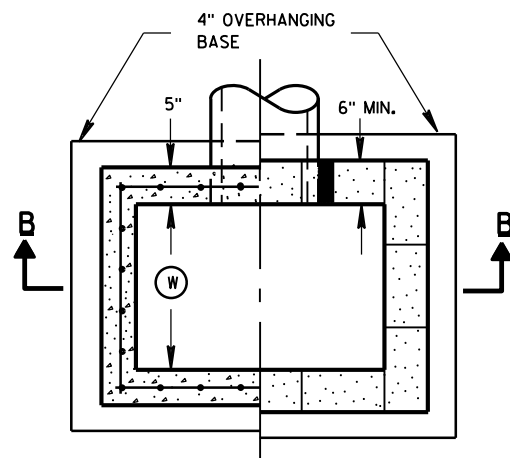
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 56
FHWA

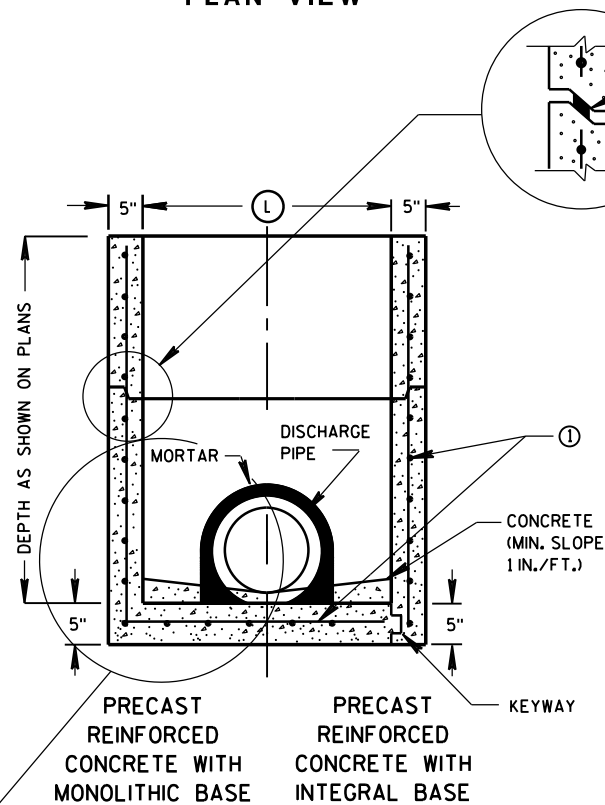


PLAN VIEW

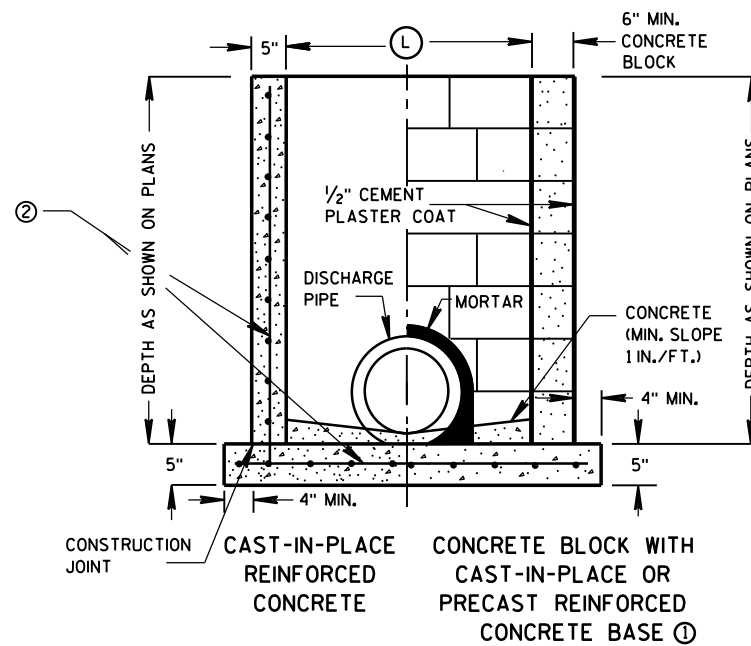


PLAN VIEW

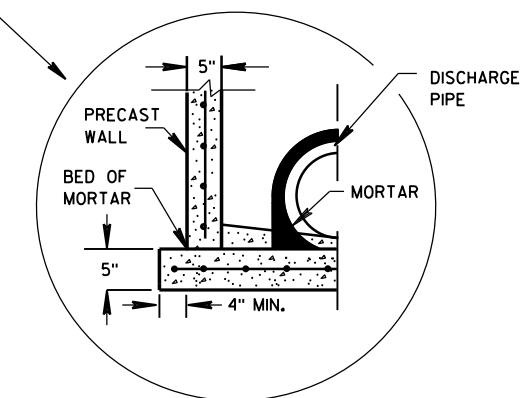
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

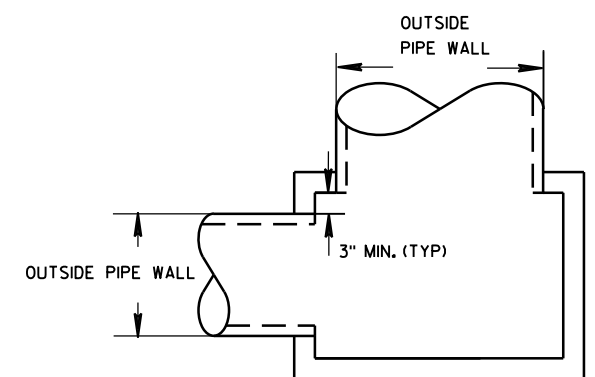
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH ① (FT)	LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

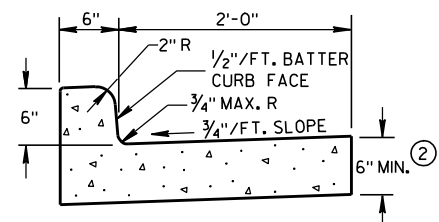


DETAIL "A"

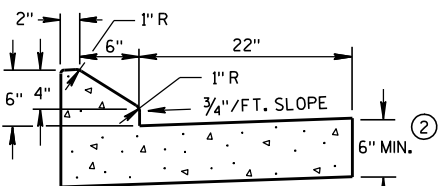
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

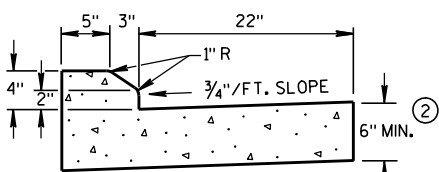
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DE
FHWA ENGINEER 57



TYPES A & D ①



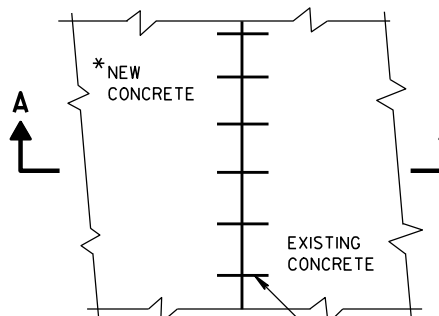
6" SLOPED CURB TYPES G & J ①



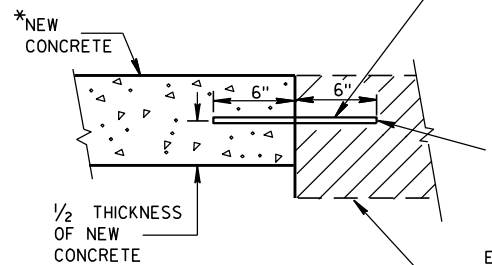
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.



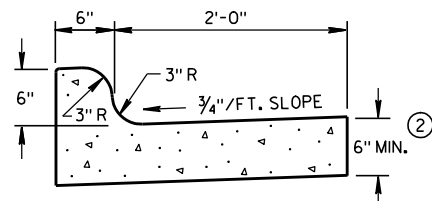
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

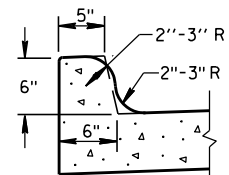
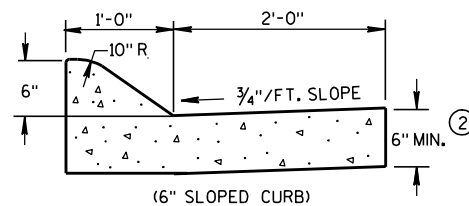
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

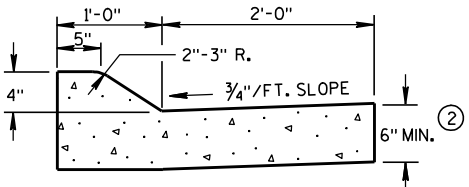
EXISTING
CONCRETE



TYPES K & L ①

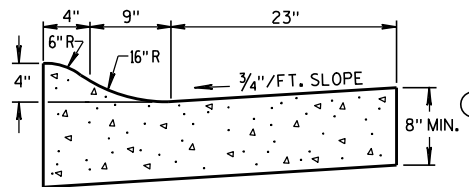
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

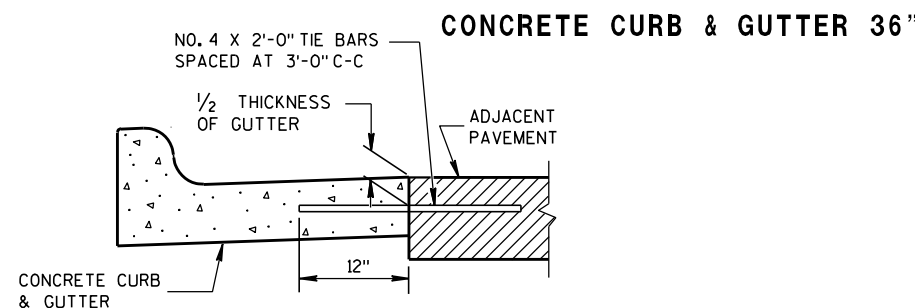


(4" SLOPED CURB)

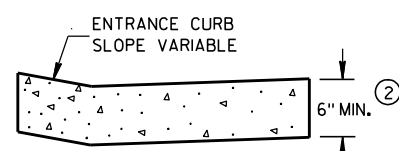
TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

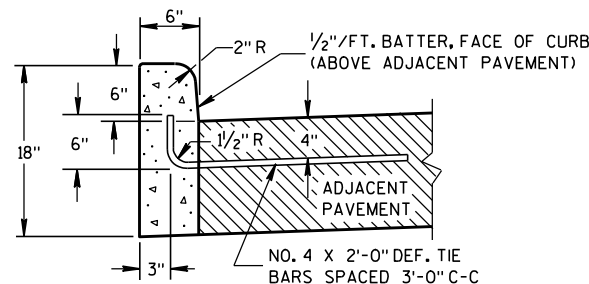


TYPICAL TIE BAR LOCATION ①



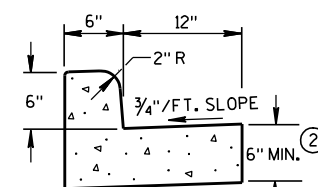
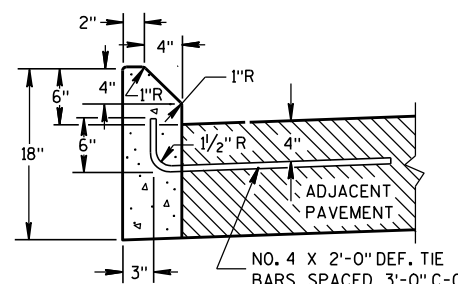
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

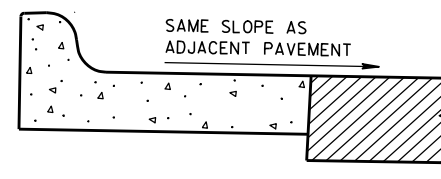
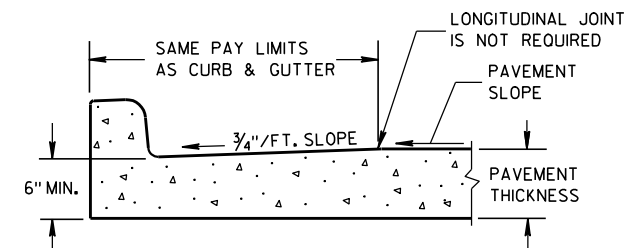
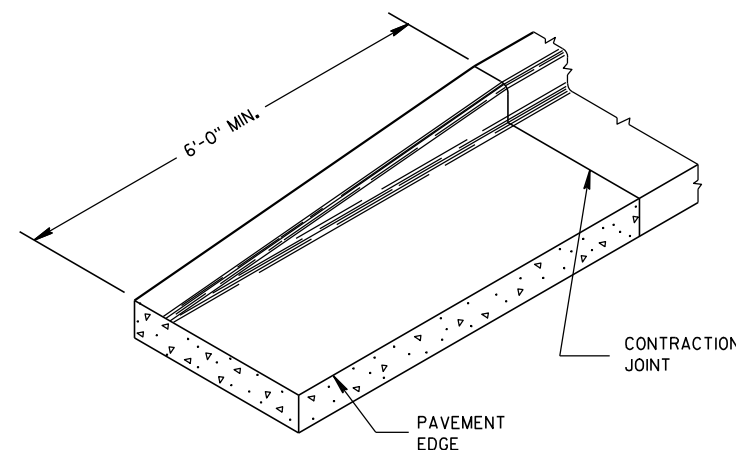
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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 AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

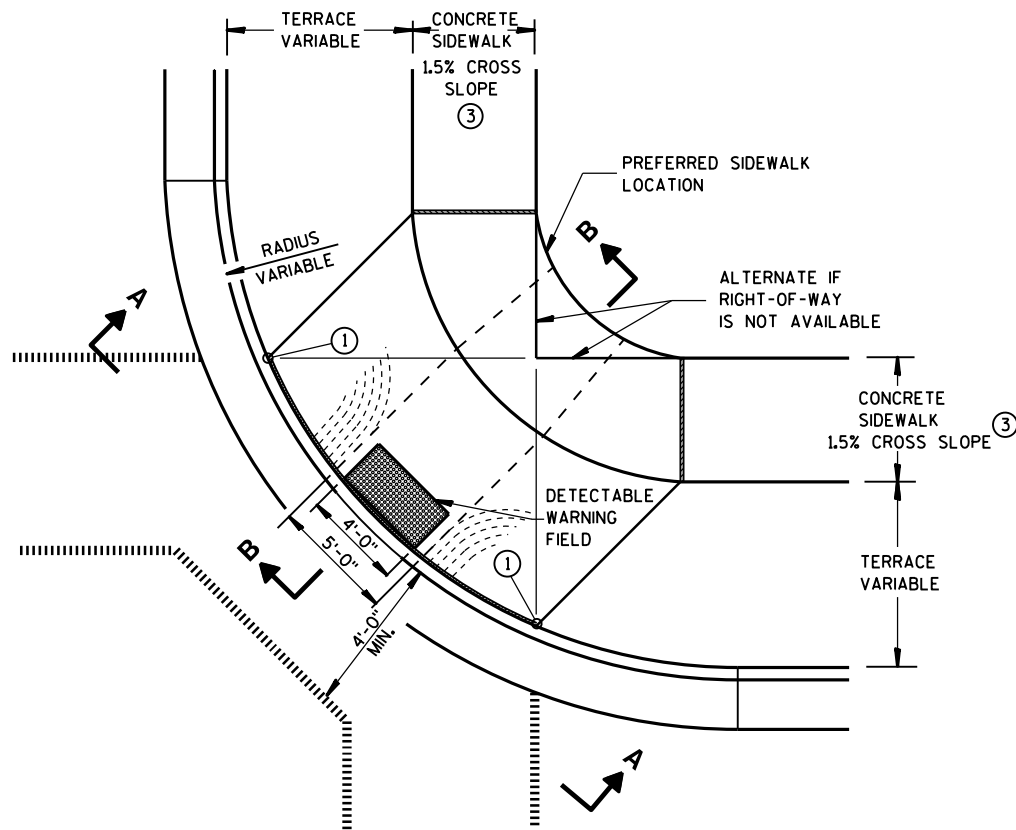
FHWA

/S/ Jerry H. 7

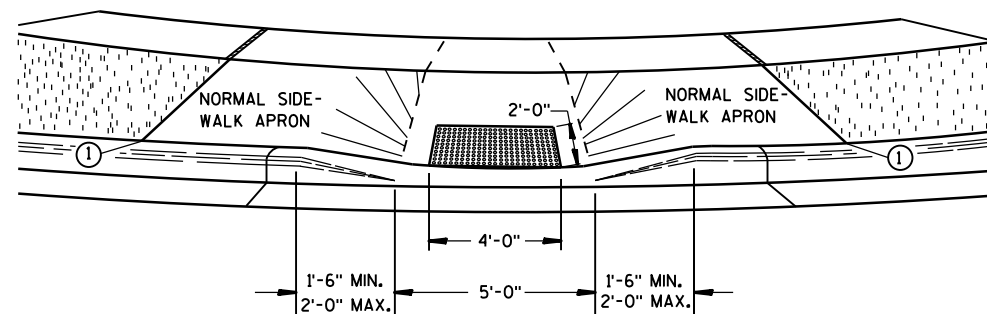
ROADWAY STANDARDS 58

ENGINEER

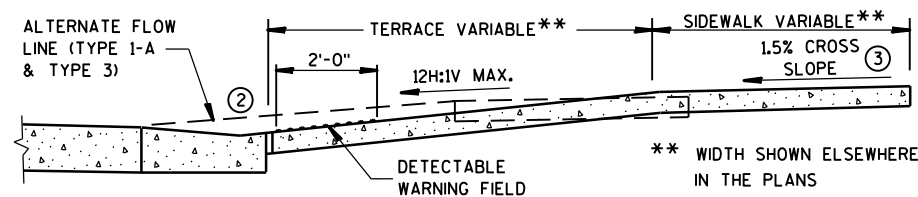
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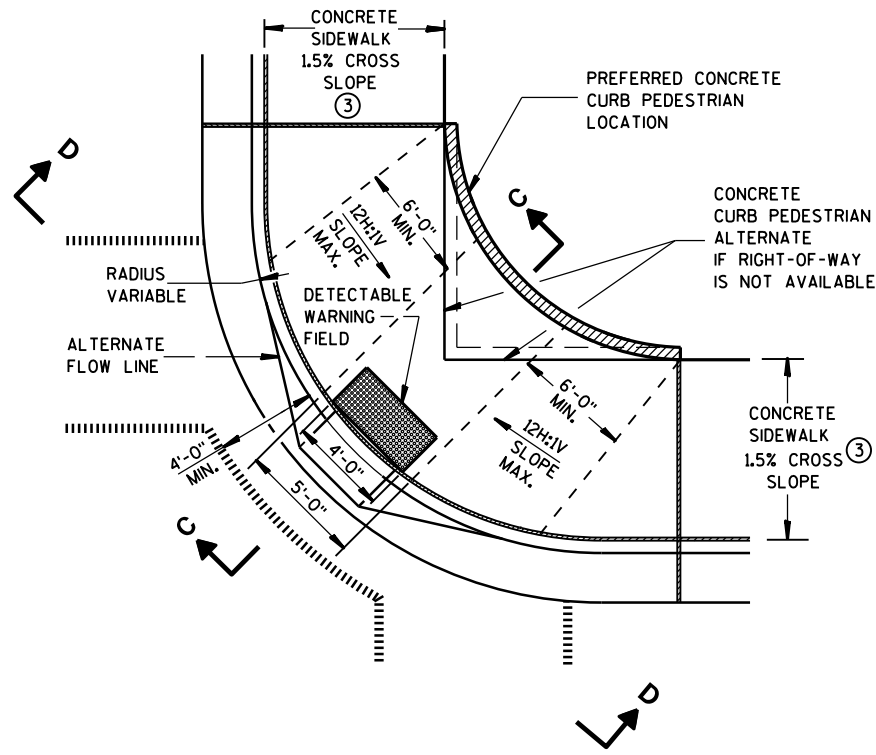
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



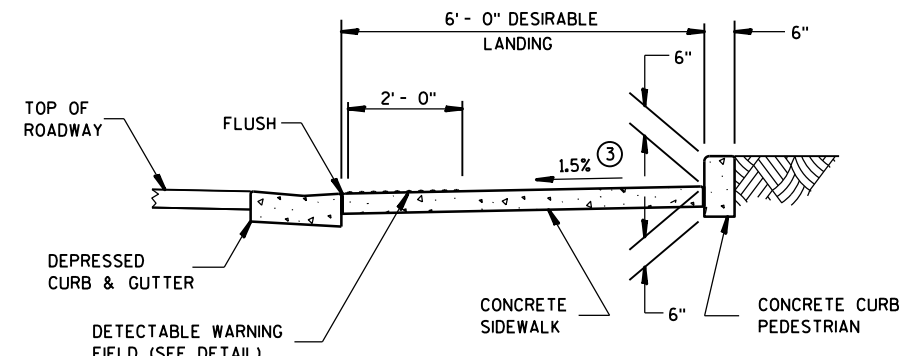
VIEW A-A



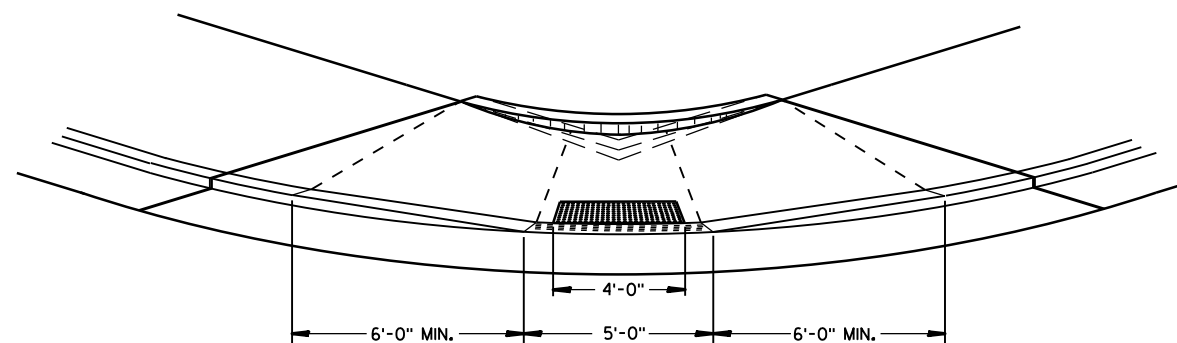
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

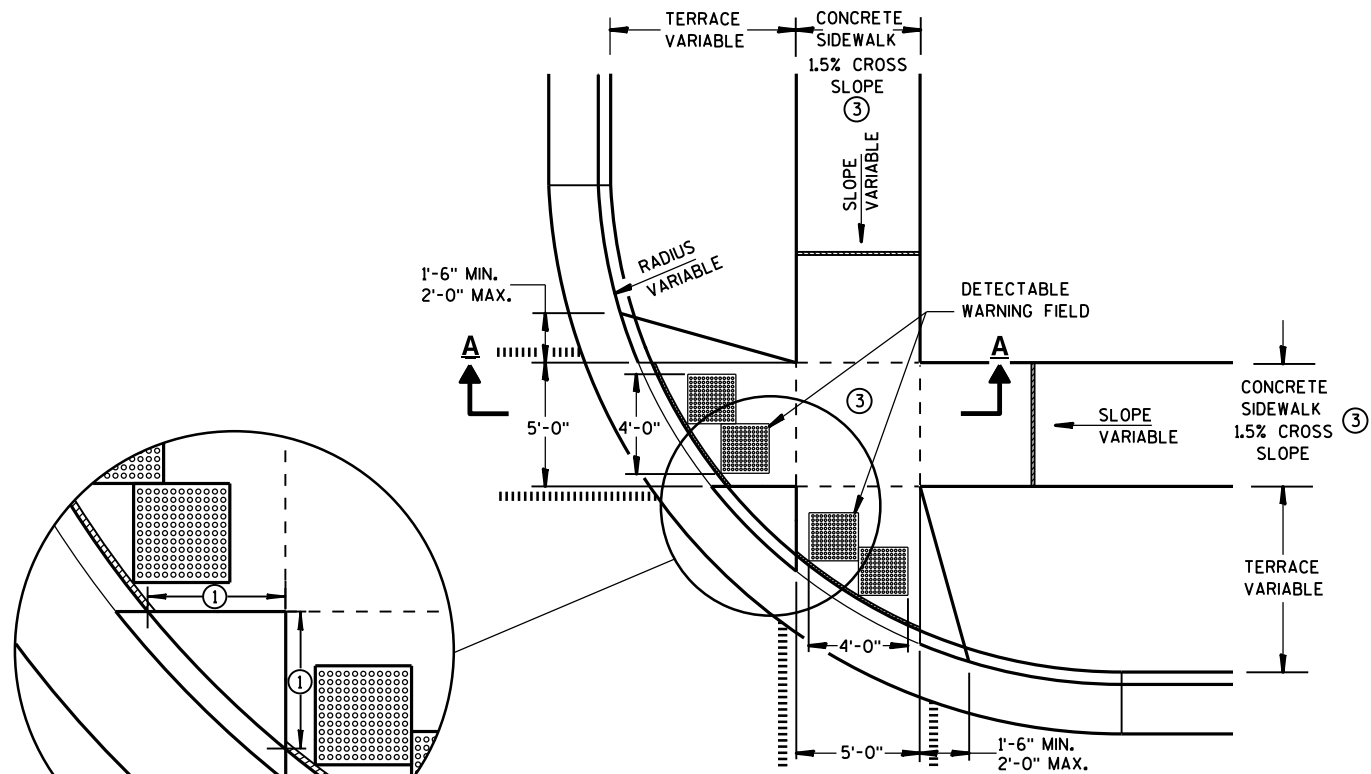
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

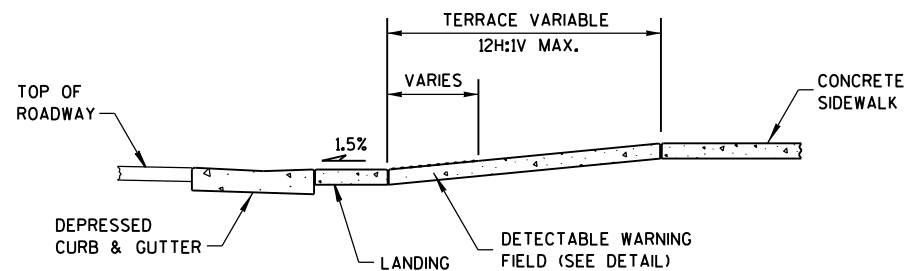
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

**CURB RAMPS
TYPES 1 AND 1-A**

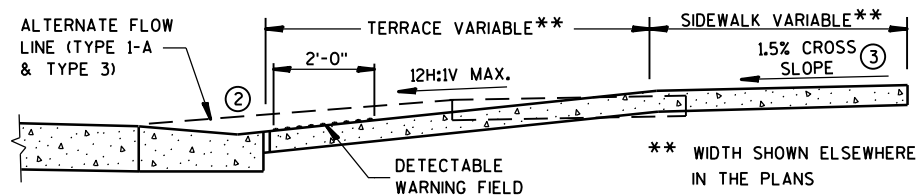
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

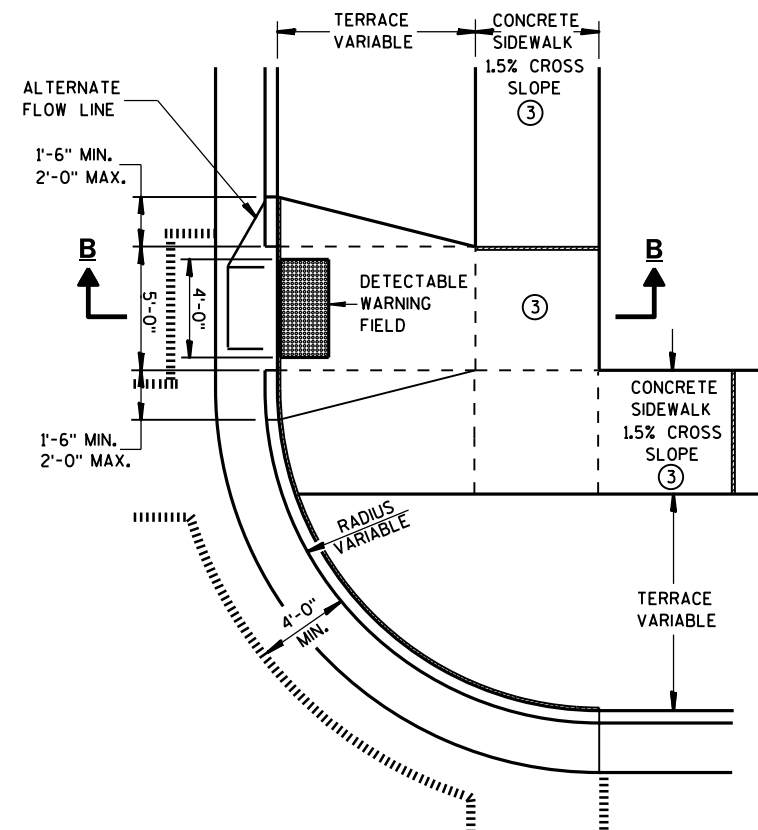
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

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



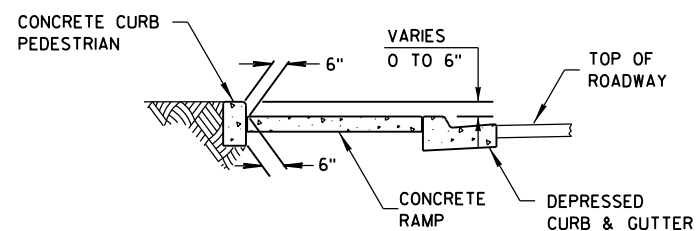
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

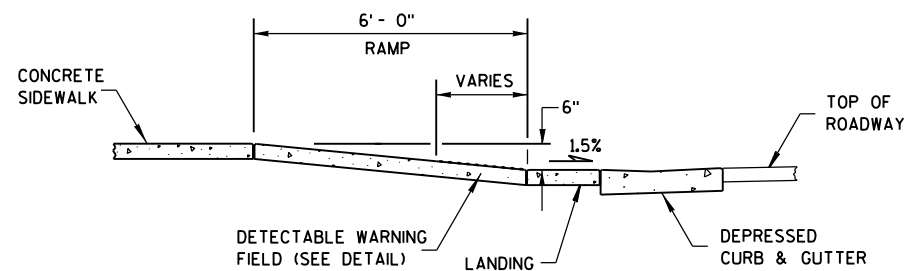
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



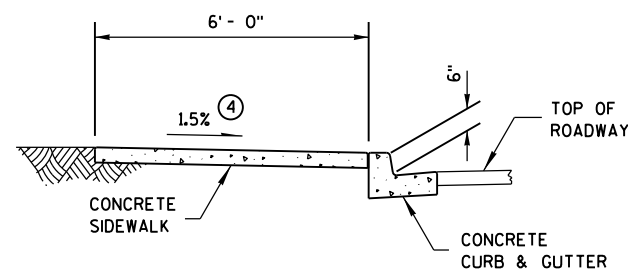
SECTION C-C FOR TYPE 4A



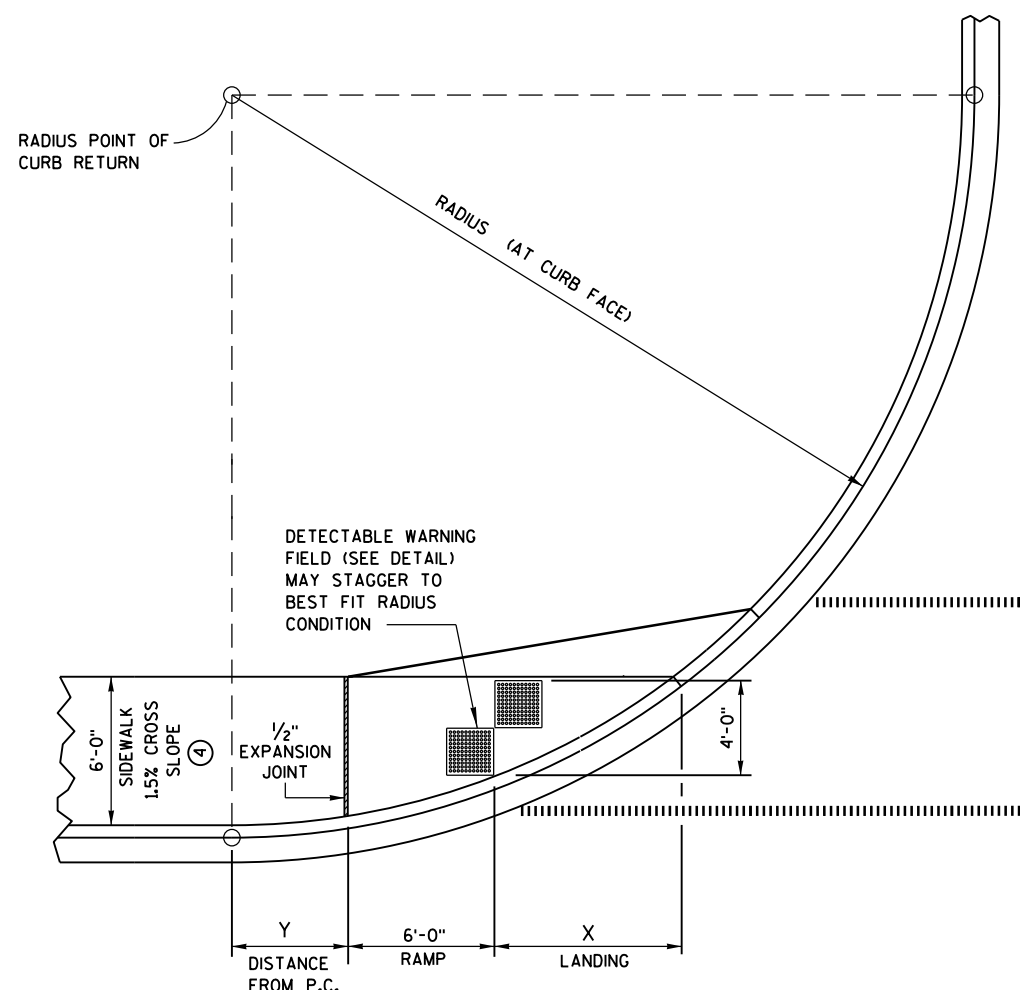
SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 $\frac{3}{4}$ "	2'-7 $\frac{1}{4}$ "
30 FEET	7'-11 $\frac{3}{4}$ "	4'-8 $\frac{1}{4}$ "
40 FEET	9'-5 $\frac{1}{4}$ "	6'-5"
50 FEET	10'-8 $\frac{3}{4}$ "	7'-11 $\frac{1}{4}$ "
60 FEET	11'-10 $\frac{1}{4}$ "	9'-3 $\frac{1}{2}$ "

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW

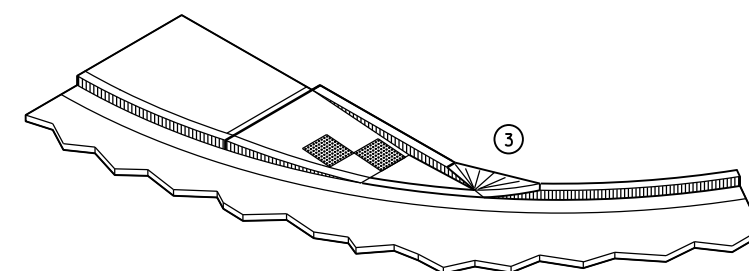
GENERAL NOTES

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

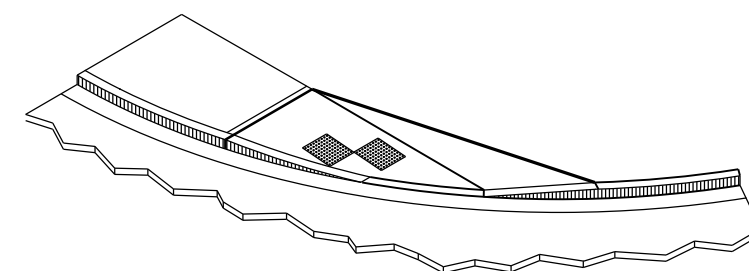
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



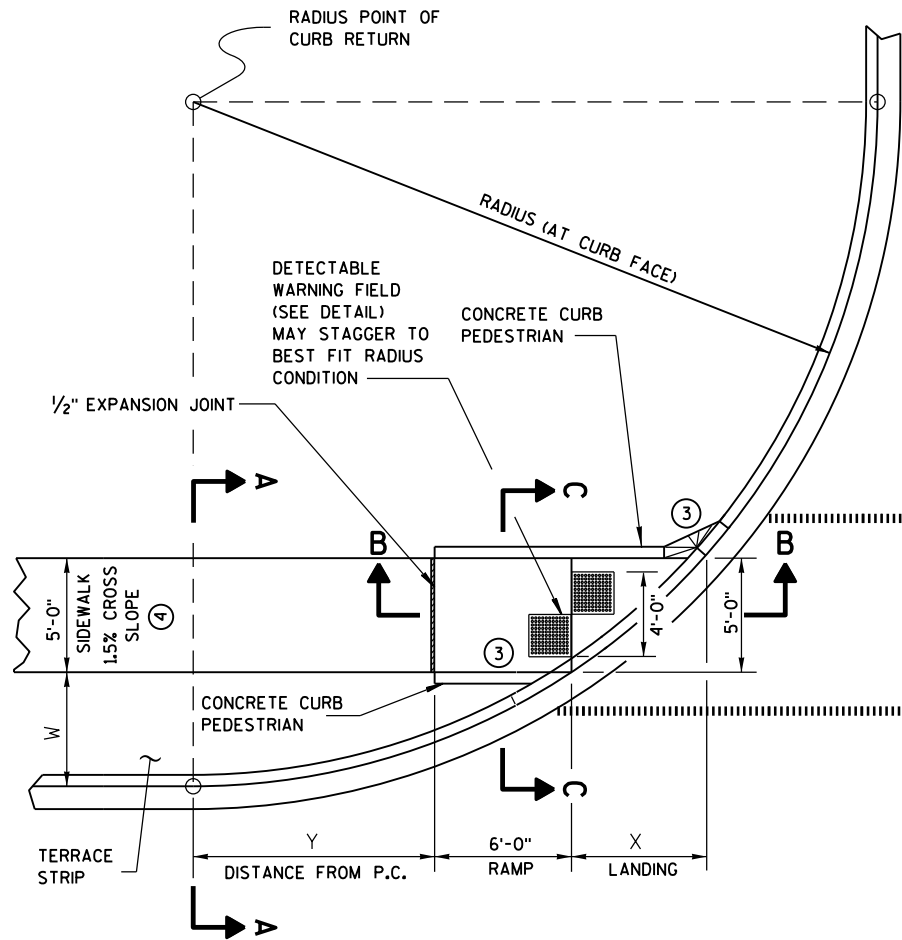
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

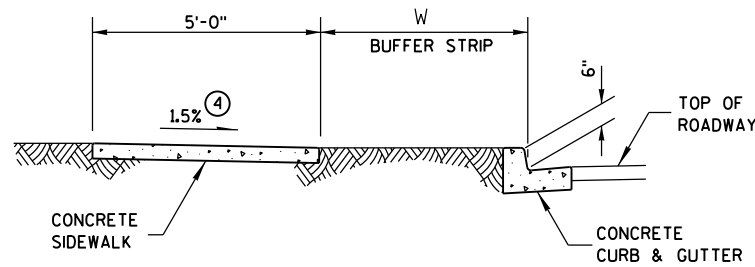
- | | |
|---|------------------------------------|
| | 1/2" EXPANSION JOINT-SIDEWALK |
|  | CONTRACTION JOINT FIELD LOCATED |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS TYPES 4A AND 4A1

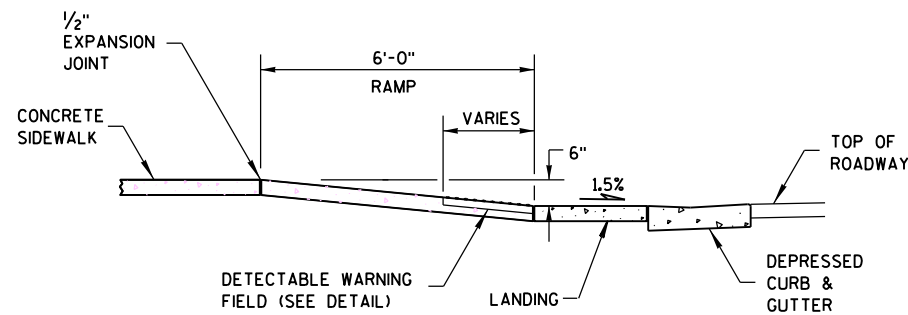
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁶¹



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B

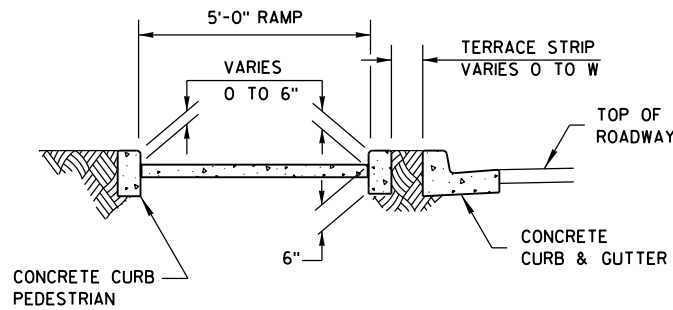


SECTION B-B FOR TYPE 4B

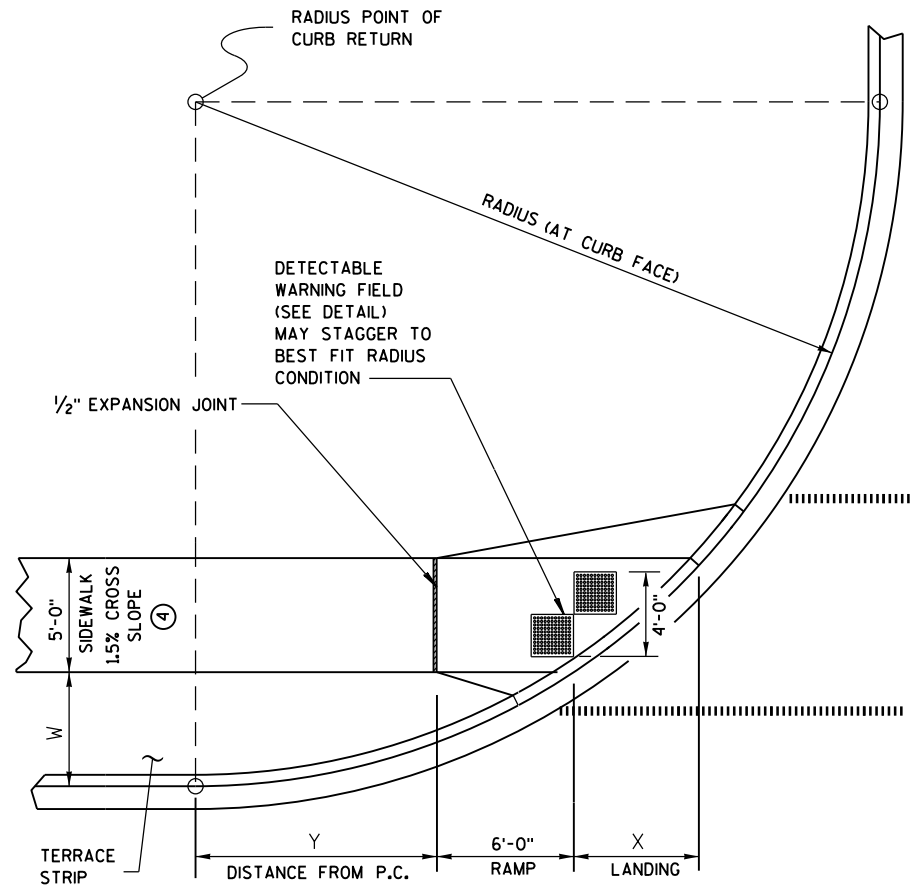
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

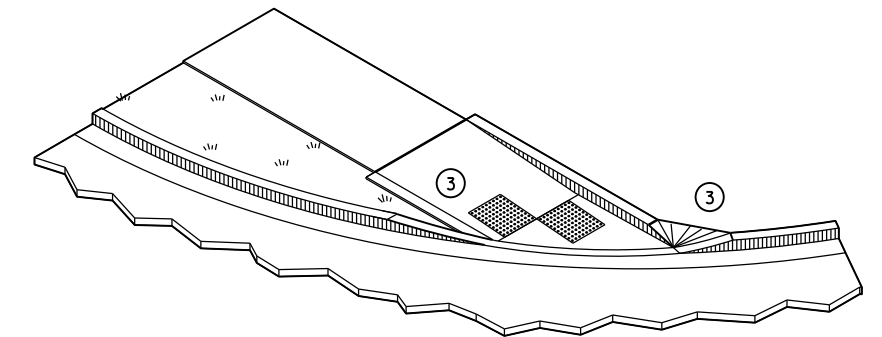
INTERMEDIATE RADII CAN BE INTERPOLATED



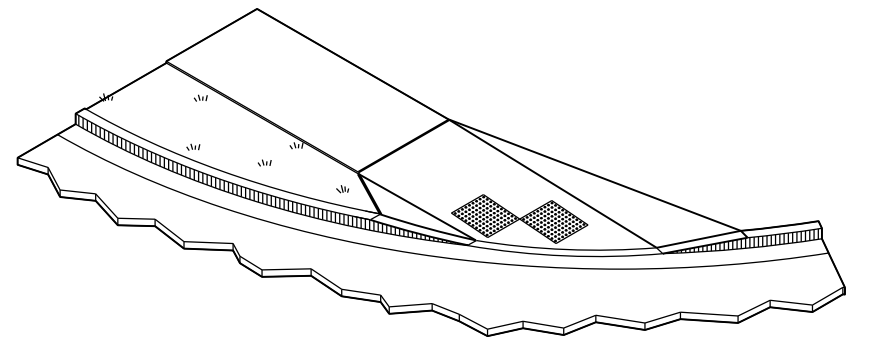
SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

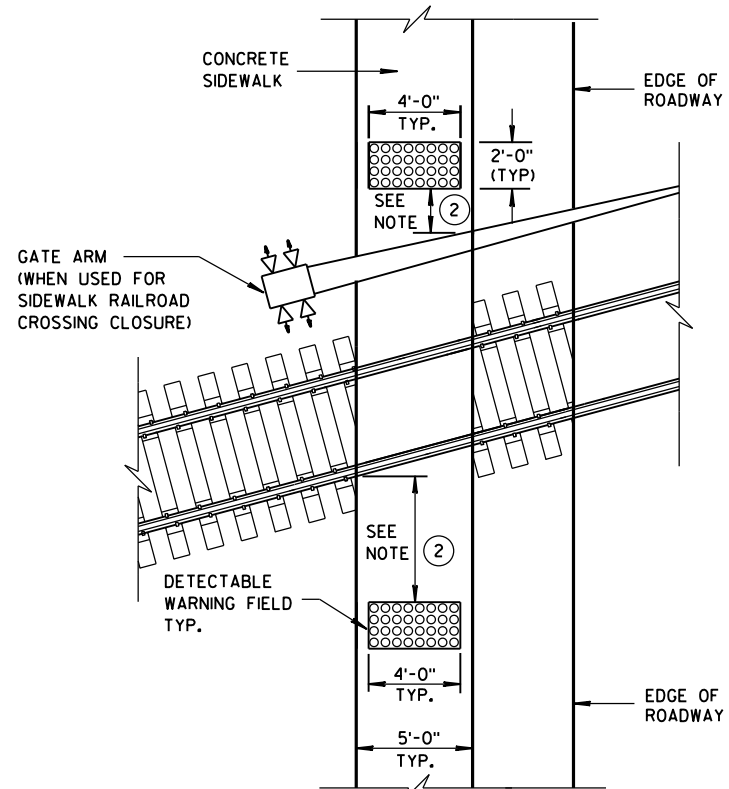
GENERAL NOTES

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

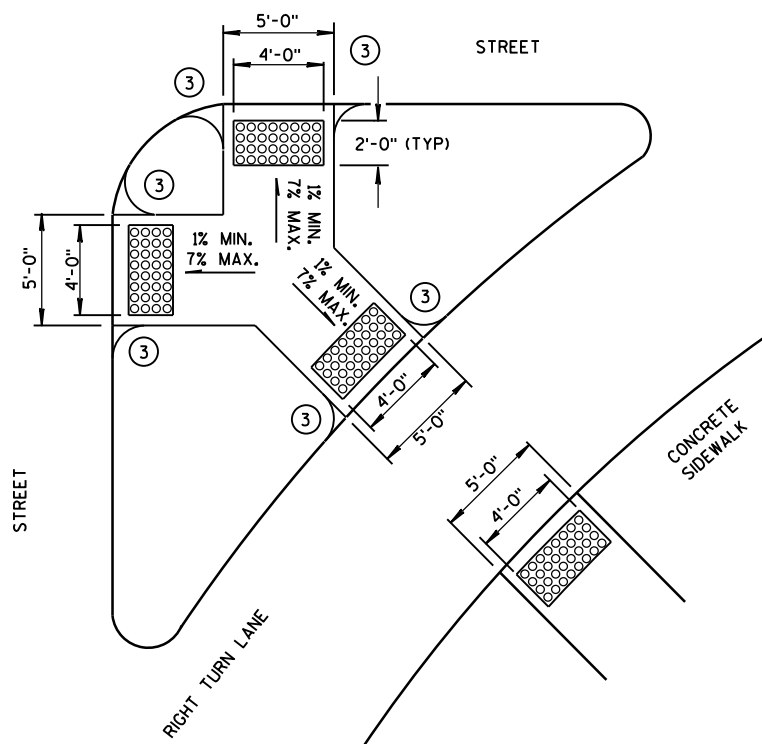
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

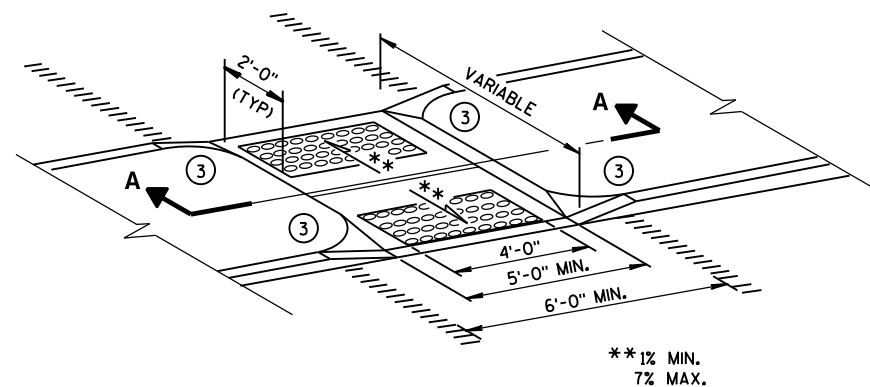
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



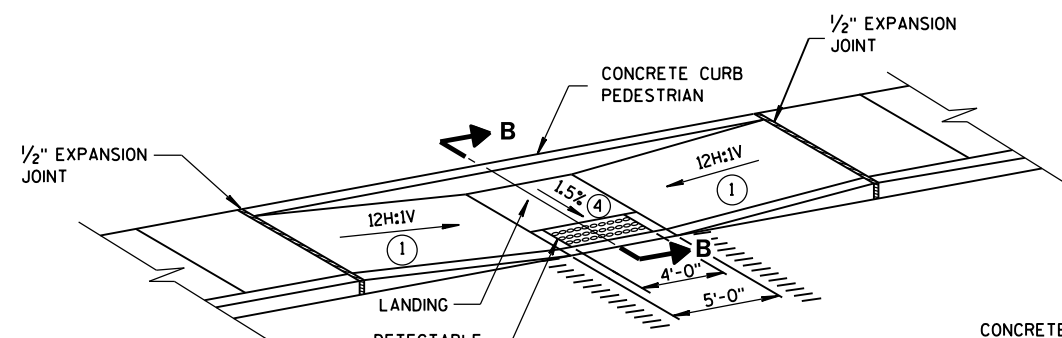
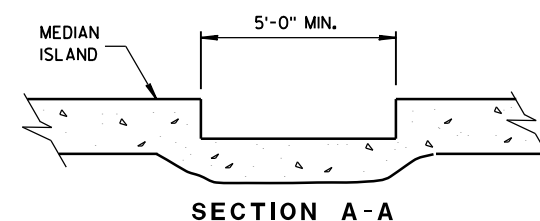
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



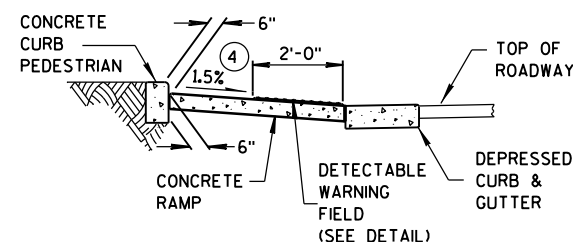
TYPE 6
DETECTABLE WARNING AT ISLANDS



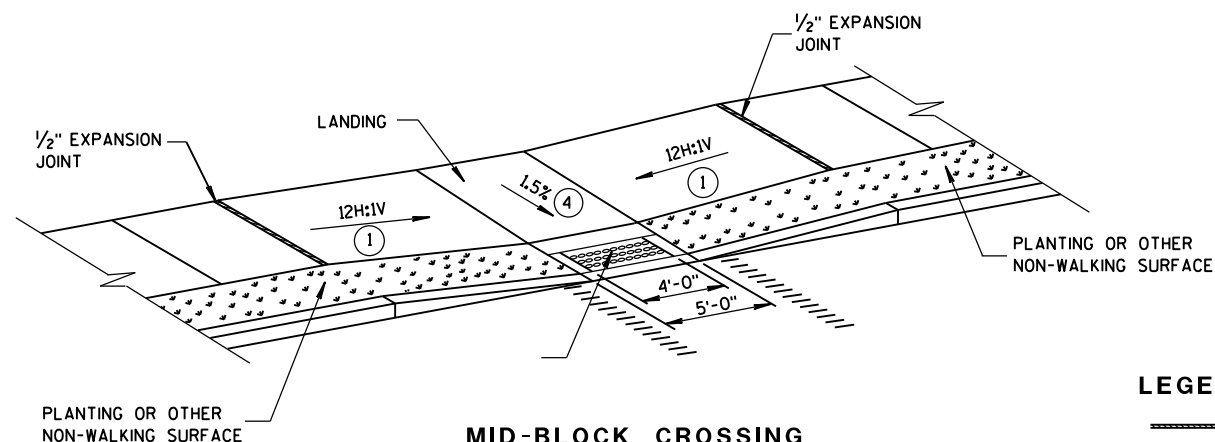
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

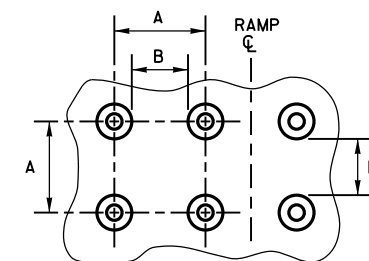
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

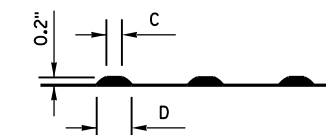
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- 1 SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 2 THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- 3 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- 4 $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



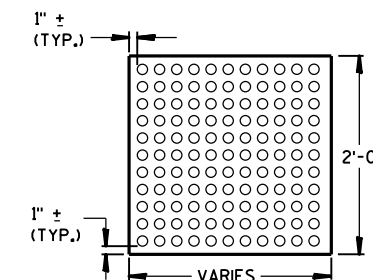
ELEVATION VIEW

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

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

LEGEND

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

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

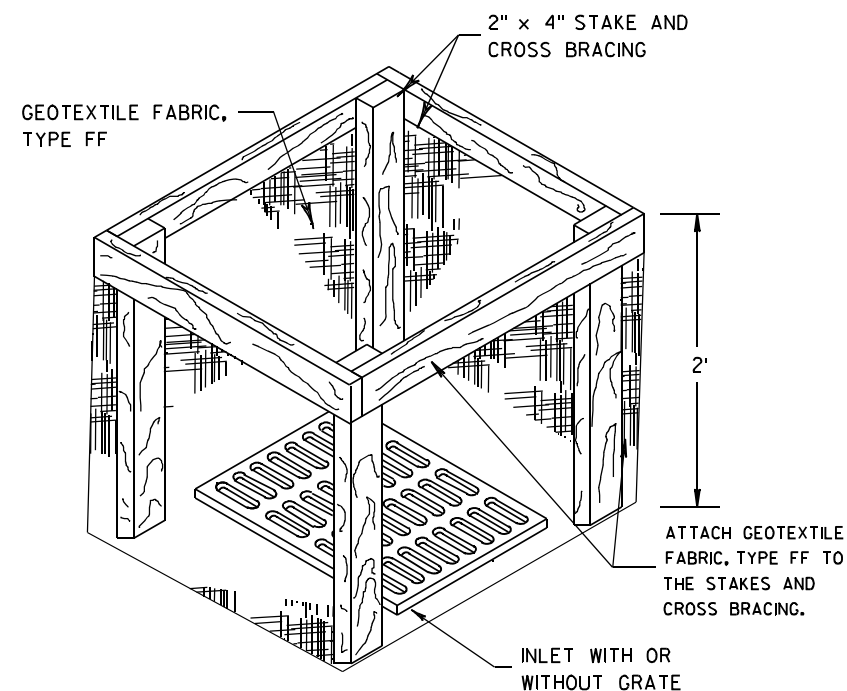
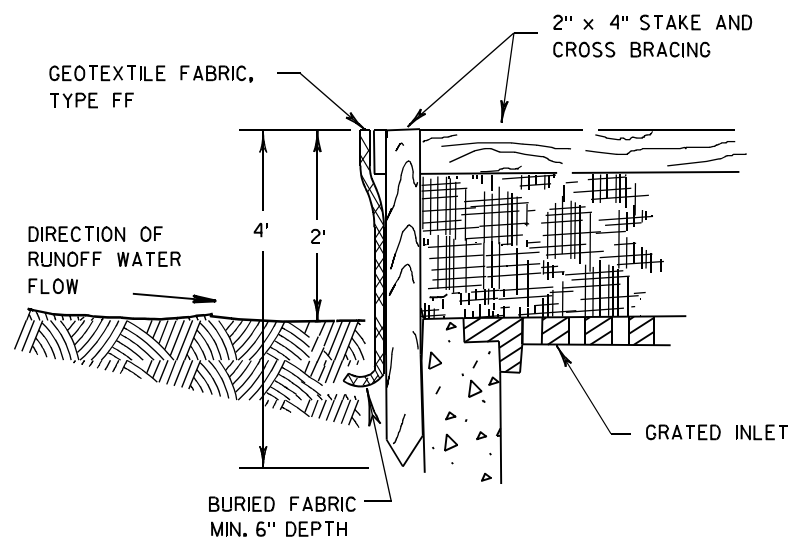
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-6-2013
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER



INLET PROTECTION, TYPE A

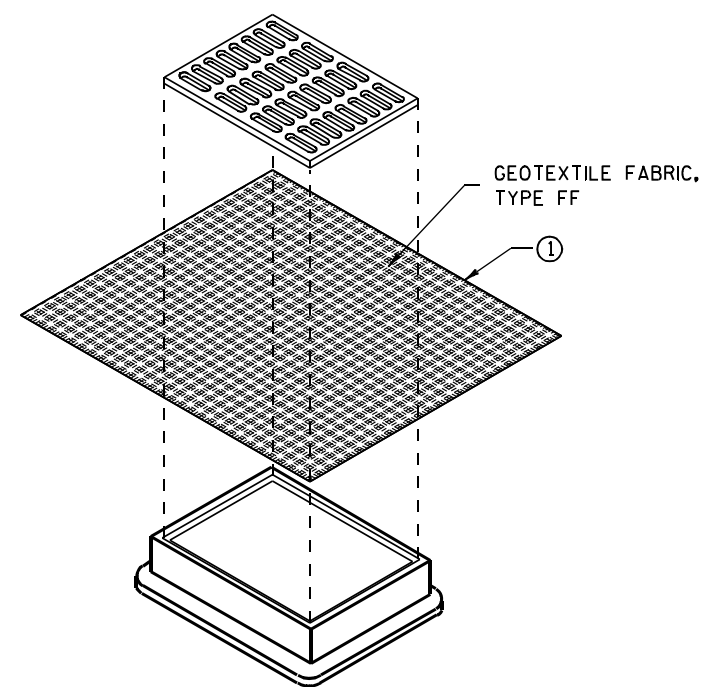
GENERAL NOTES

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

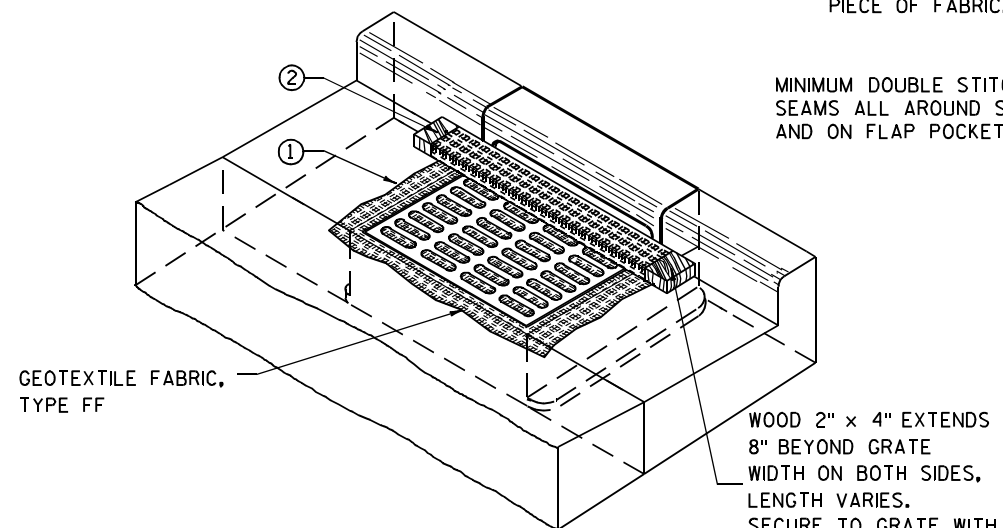
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

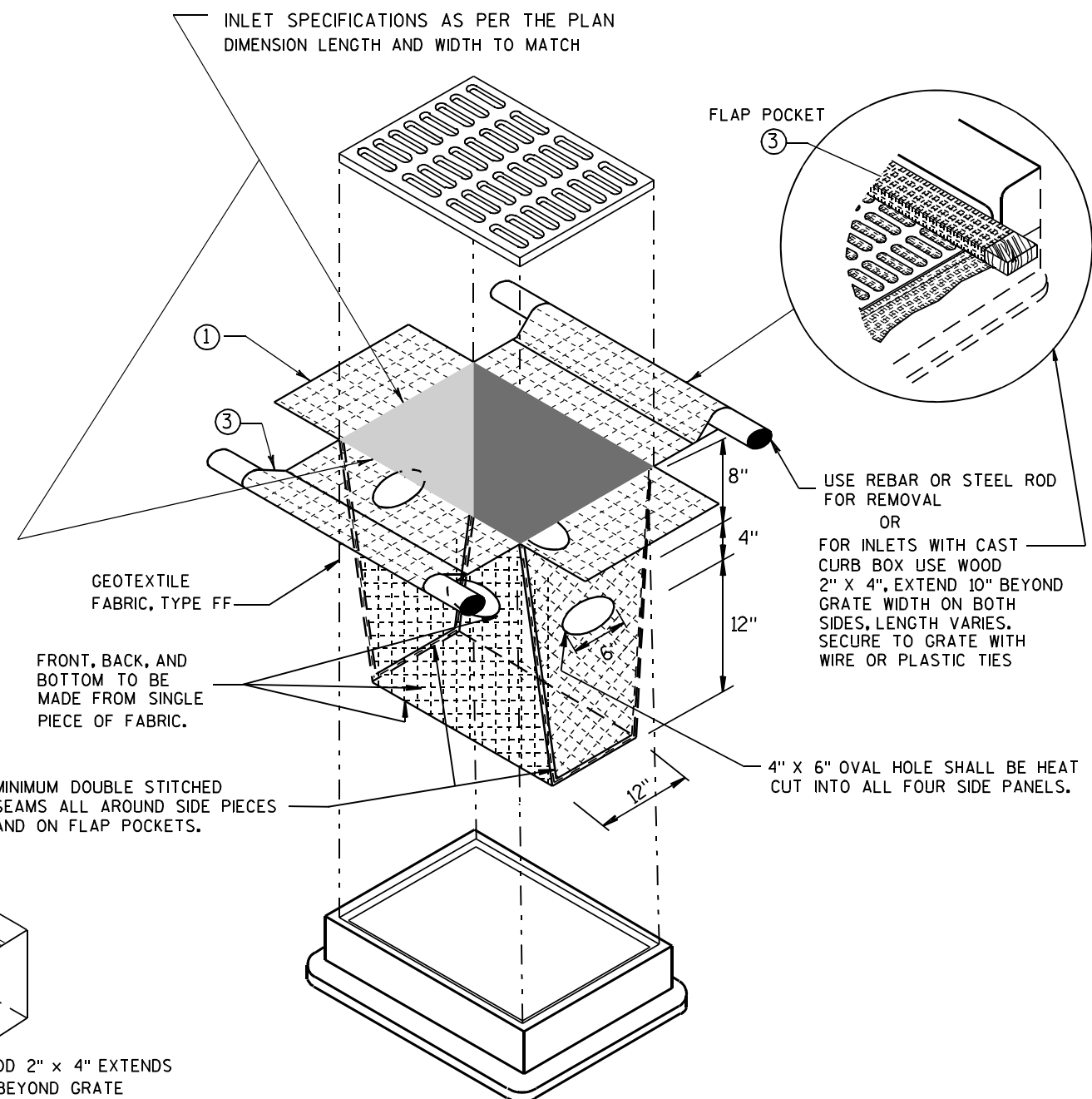
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



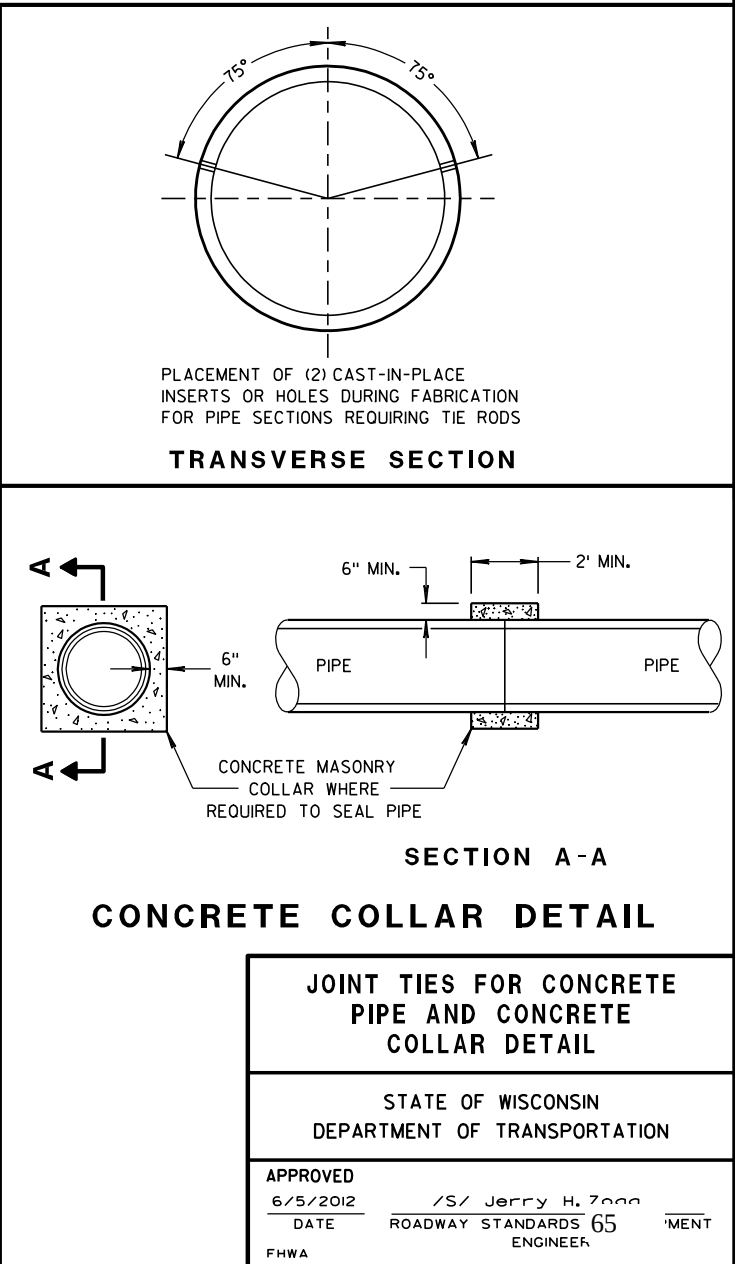
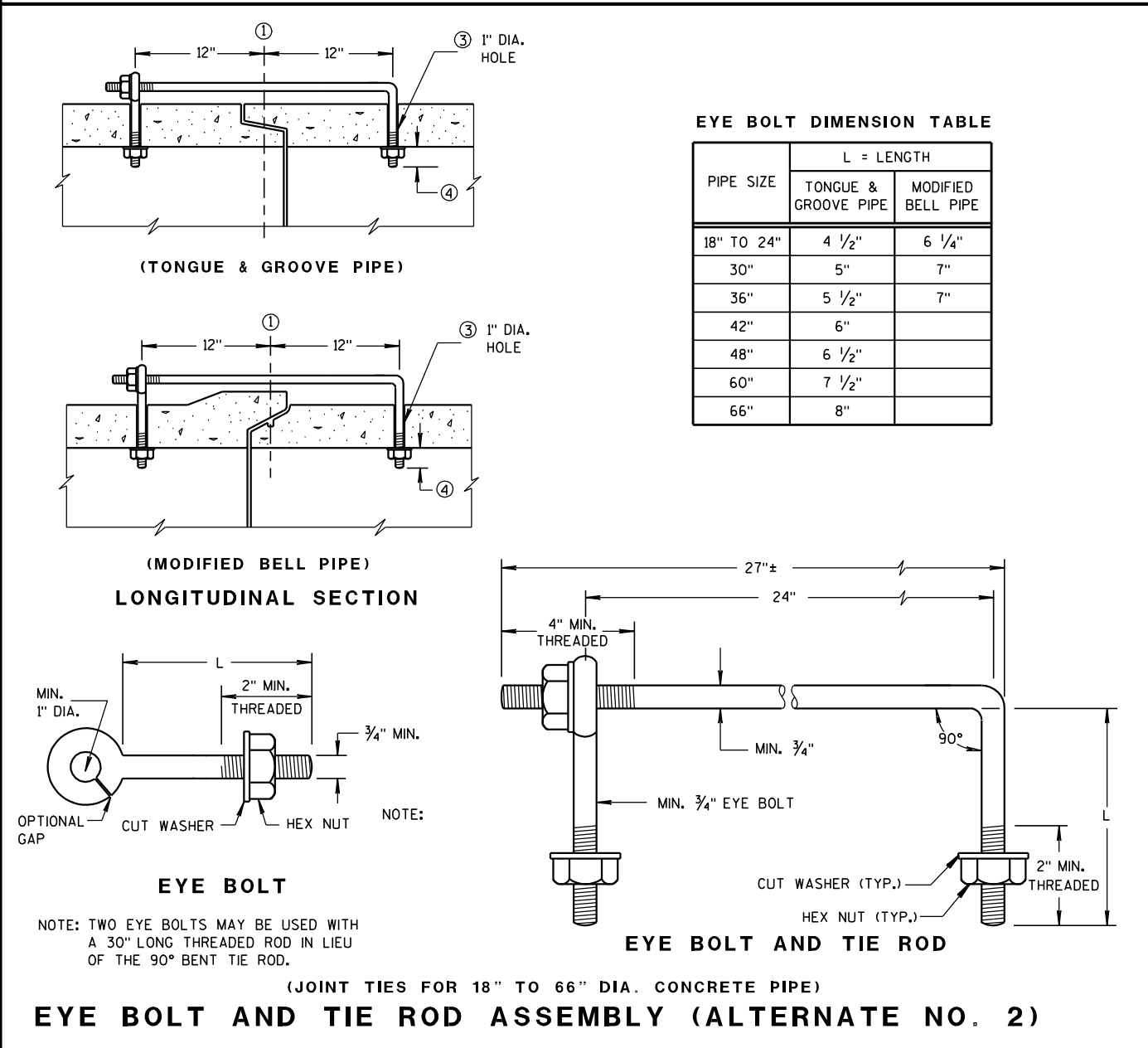
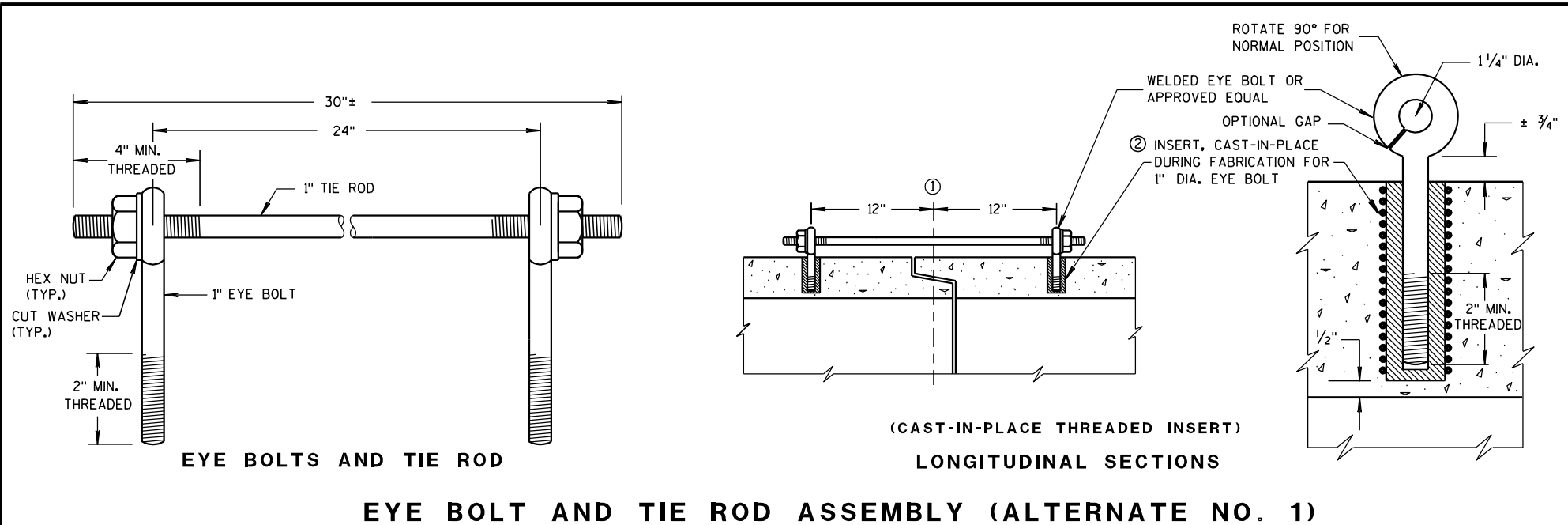
INLET PROTECTION, TYPE D

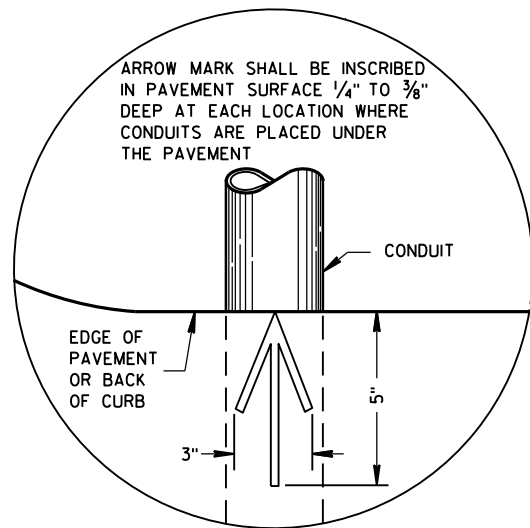
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

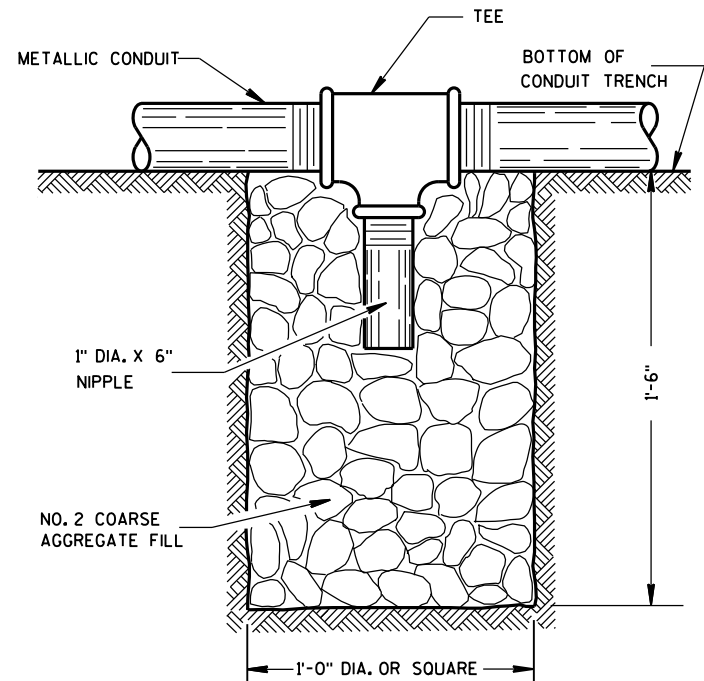
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connors
DATE 64
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



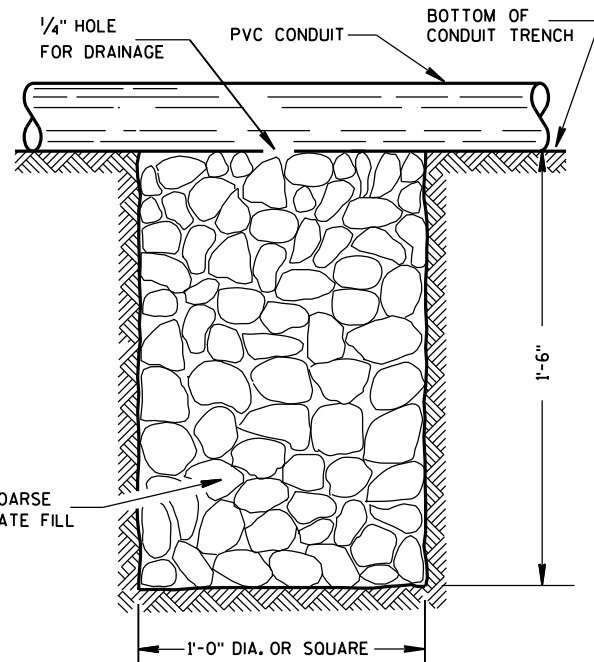


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

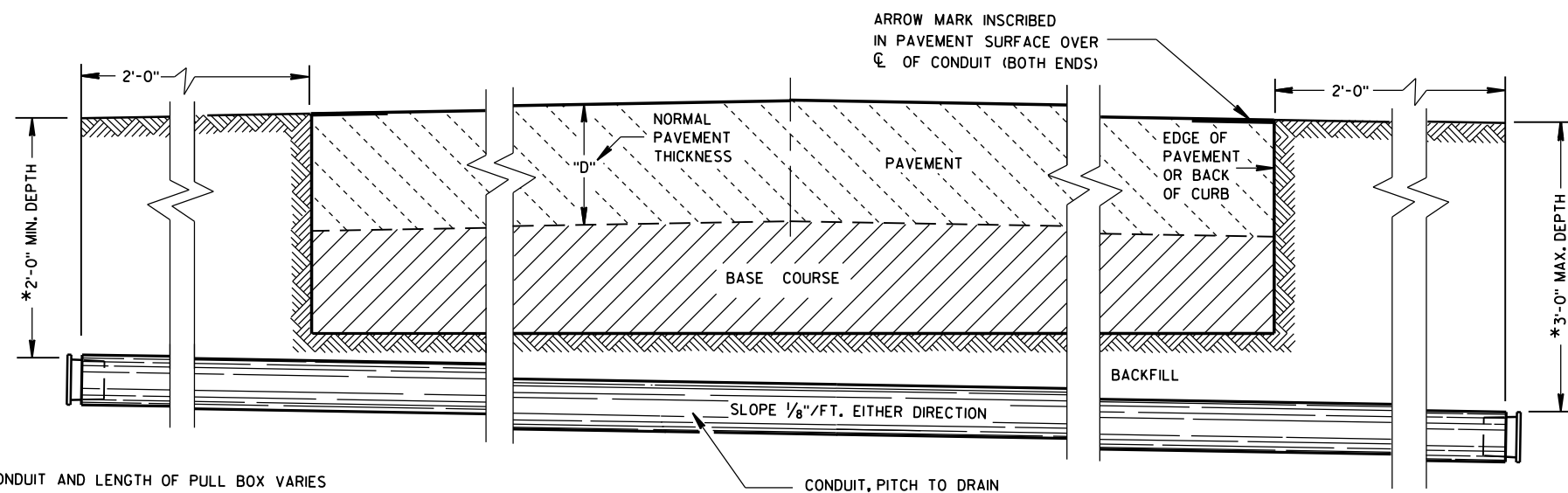
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT UNDER PAVED HIGHWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014

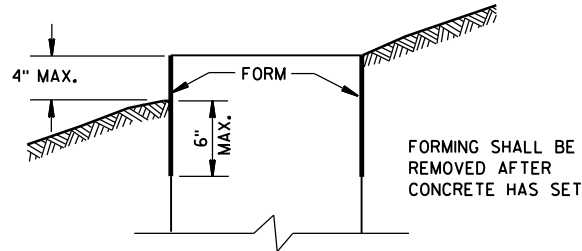
DATE

FHWA

/S/ Ahmet Demirbilek

STATE ELECTRICAL 66

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

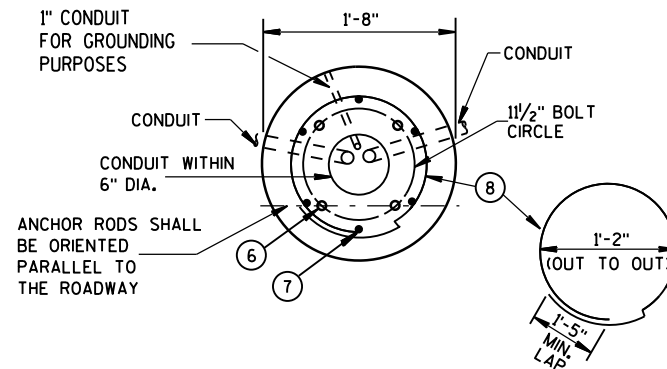
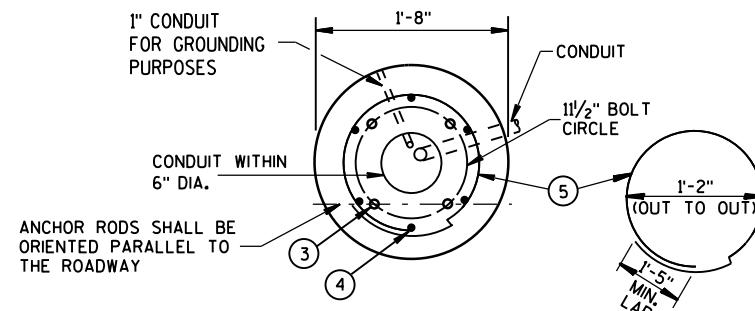
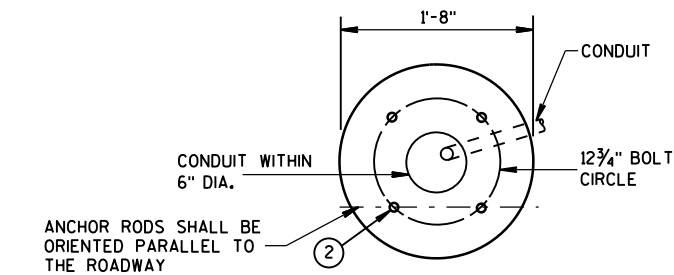
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

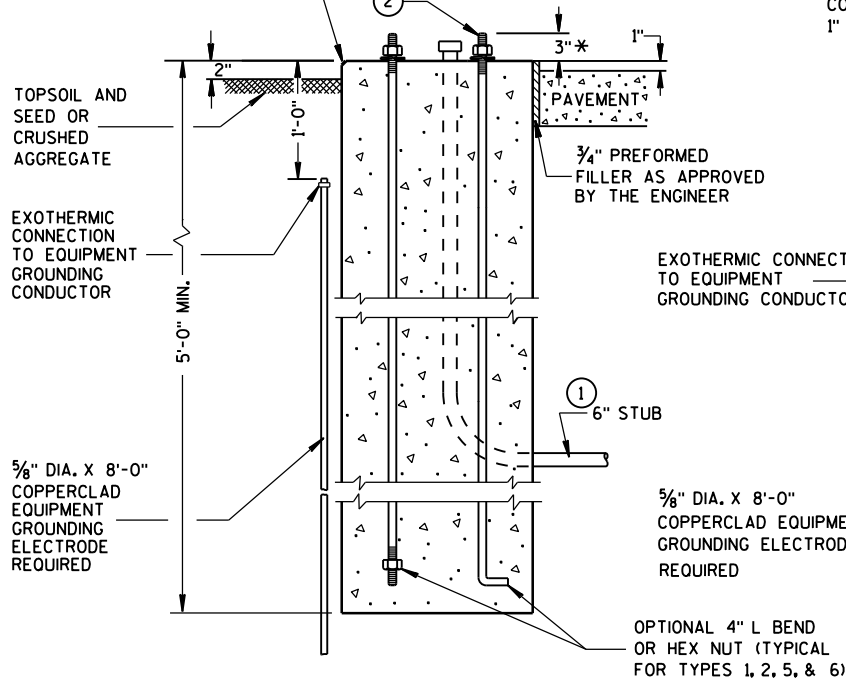
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

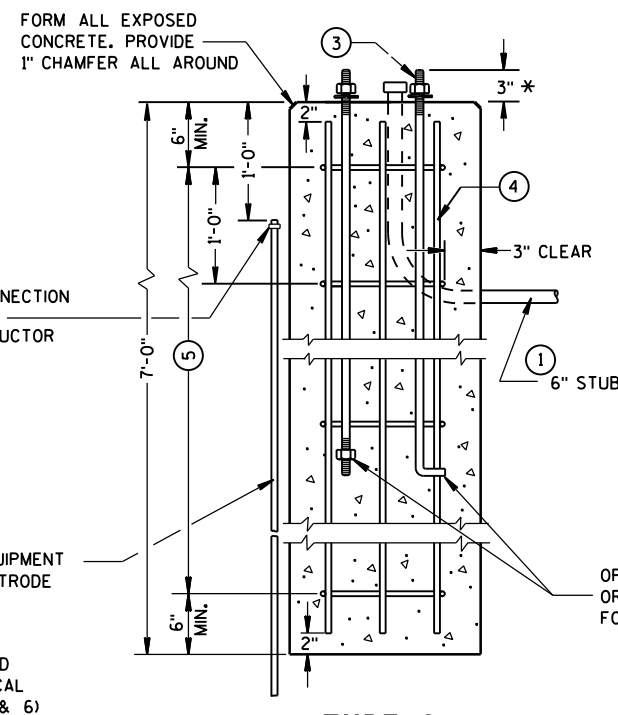


FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

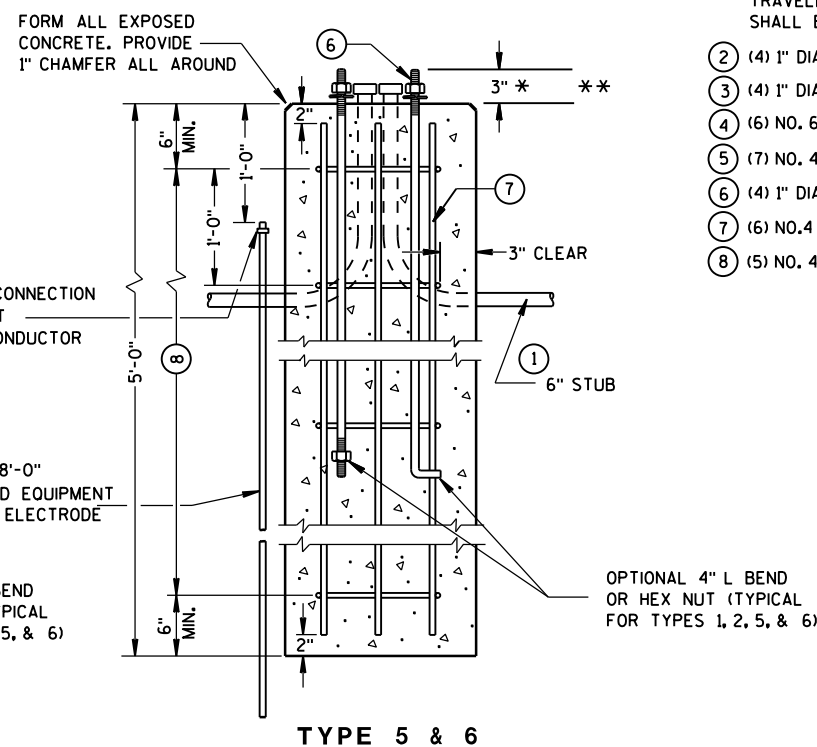
HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2, 5, & 6)



HALF SECTION IN PAVEMENT (TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2 CONCRETE BASES



TYPE 5 & 6

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 3/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014
DATE

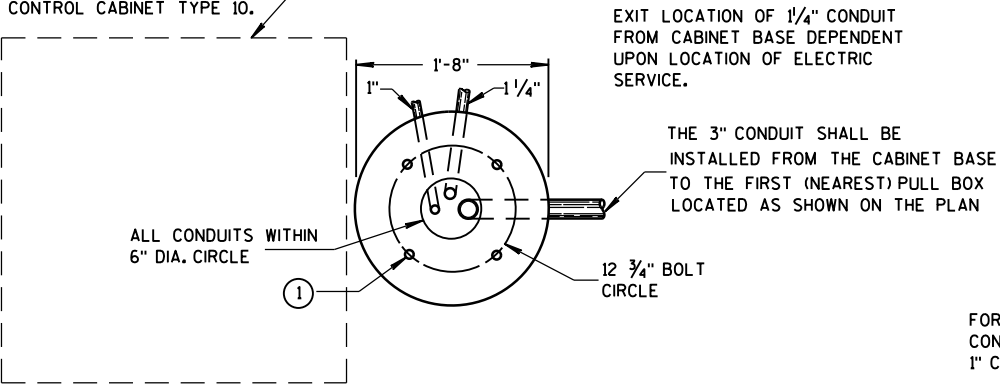
/S/ Ahmet Demirelek
STATE ELECTRICAL 67

FHWA

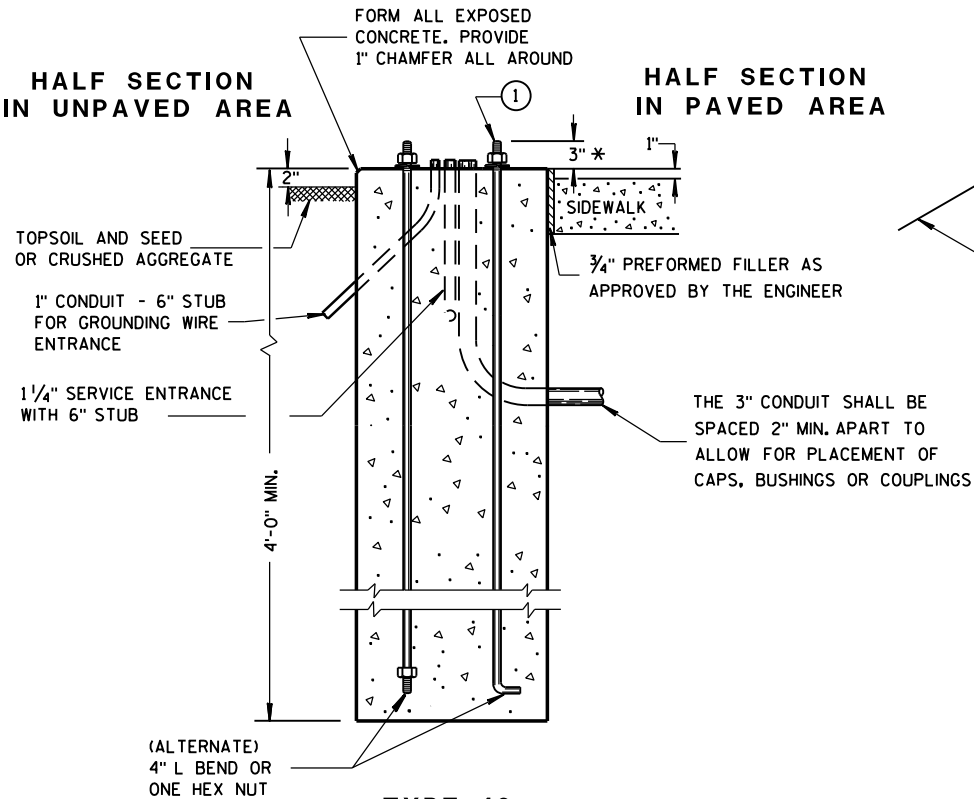
CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

* INCLUDES MAINTENANCE PLATFORM.

TYPICAL 3'-0" X 3'-0" X 4" THICK
MAINTENANCE PLATFORM.
LOCATION TO BE DETERMINED
IN THE FIELD. COST TO BE
INCLUDED UNDER CONCRETE
CONTROL CABINET TYPE 10.



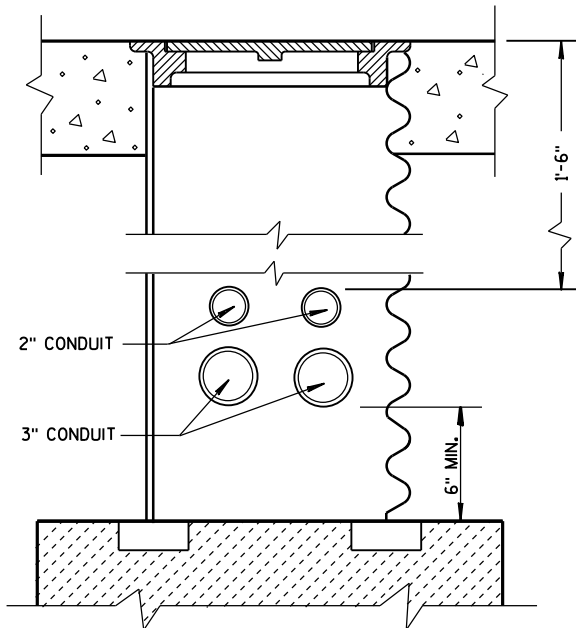
HALF SECTION IN UNPAVED AREA



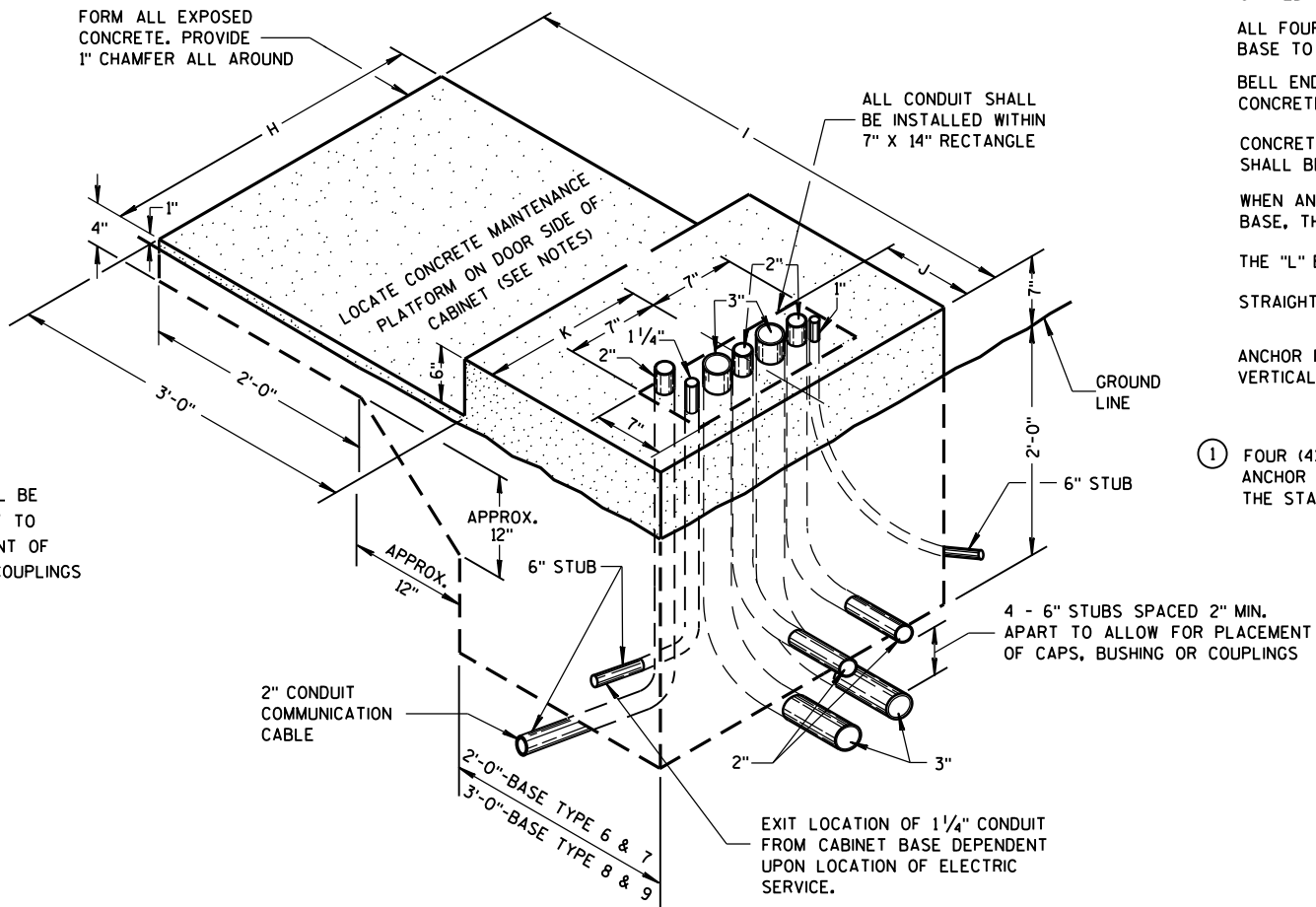
TYPE 10

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 3/4" SHALL REQUIRE
THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

CONCRETE CONTROL CABINET BASES



CONDUIT LOCATIONS IN 24" X 36" PULL BOX (LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 6, 7, 8 AND 9
(ISOMETRIC VIEW)

GENERAL NOTES

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

INSTALL FOUR 1/2 INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE
MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO
TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY
THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER
FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM
AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES
MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL
OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A
36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR
SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM
FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR
PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS
POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN
CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET
BASE TO THE FIRST (NEAREST) PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE
CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS
SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10
BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

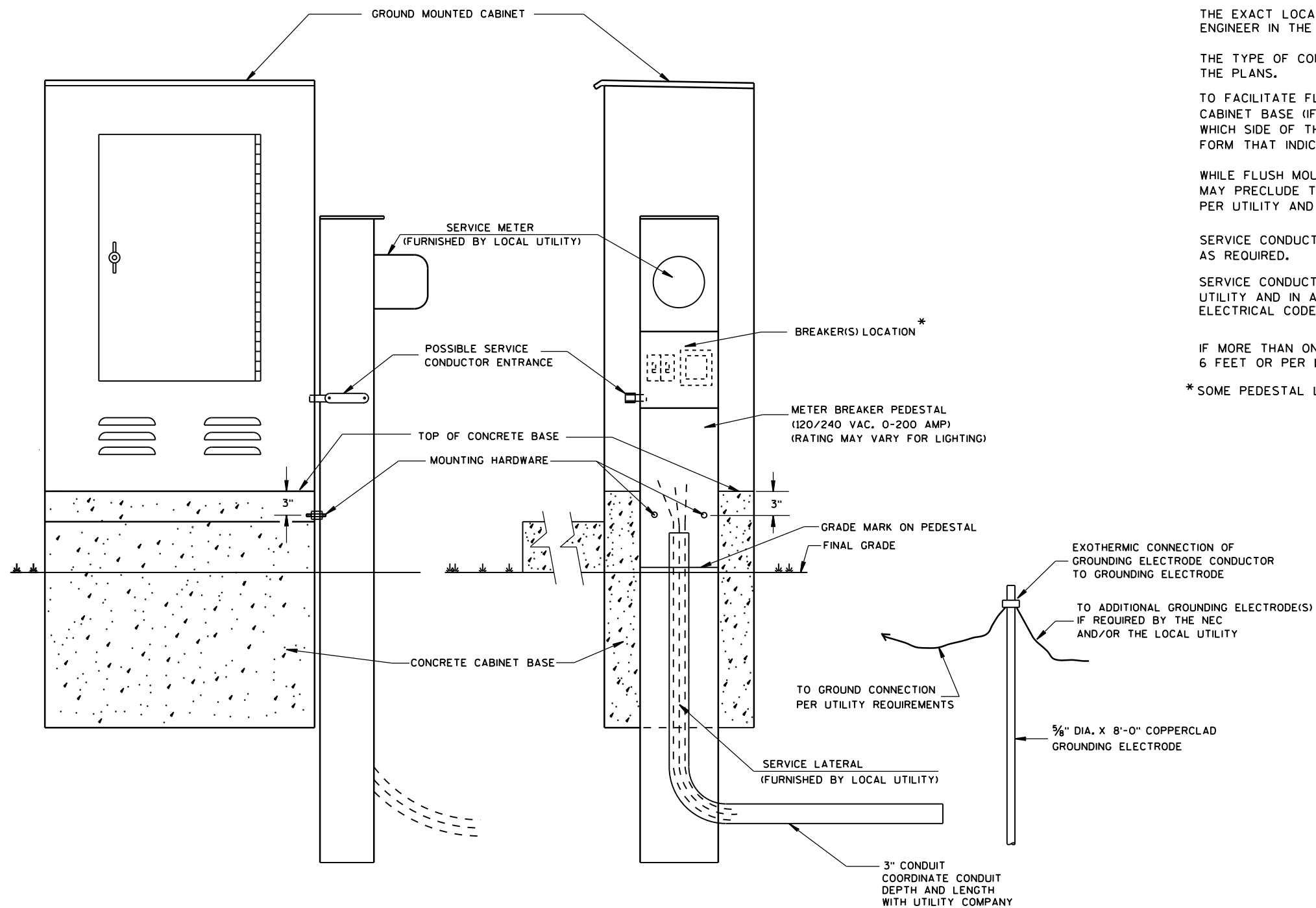
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM
VERTICAL.

① FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6".
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF
THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 68
FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

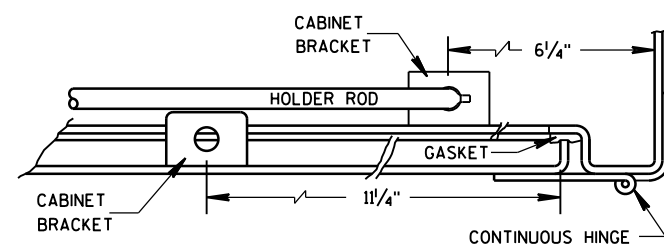
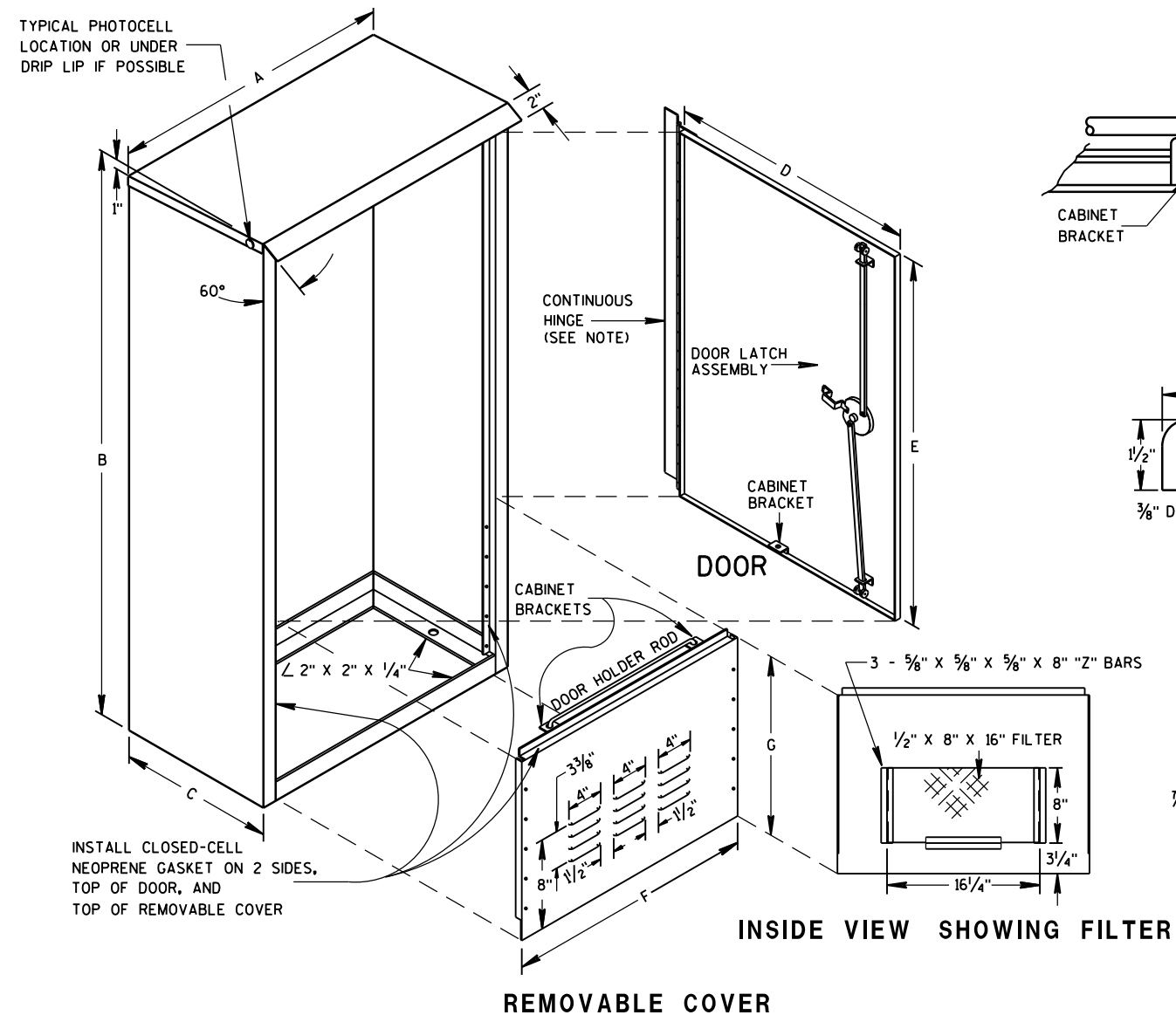
Sept. 2014

DATE

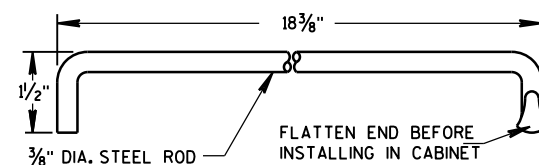
FHWA

/S/ Ahmet Demirbilek

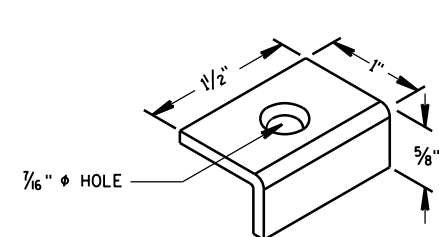
STATE ELECTRICAL 69



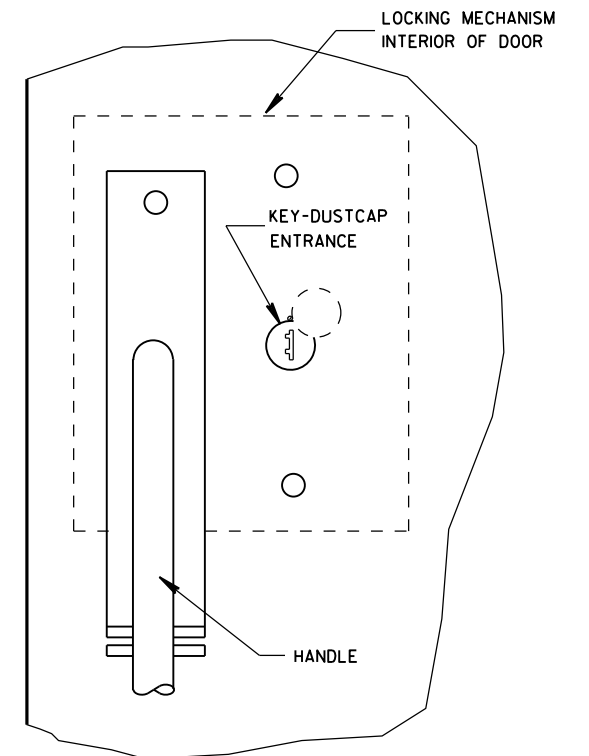
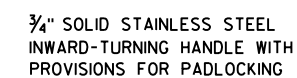
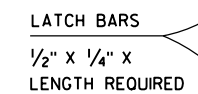
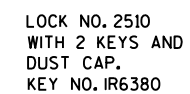
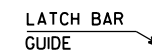
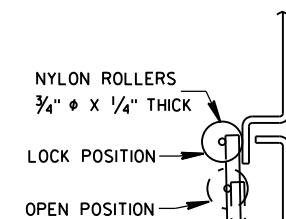
HINGE & DOOR HOLDER



HOLDER ROD



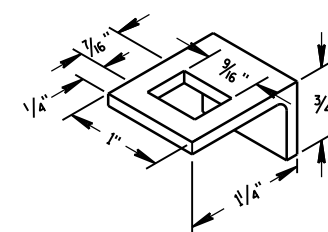
CABINET BRACKET



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL
OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

TABLE OF DIMENSIONS (INCHES)

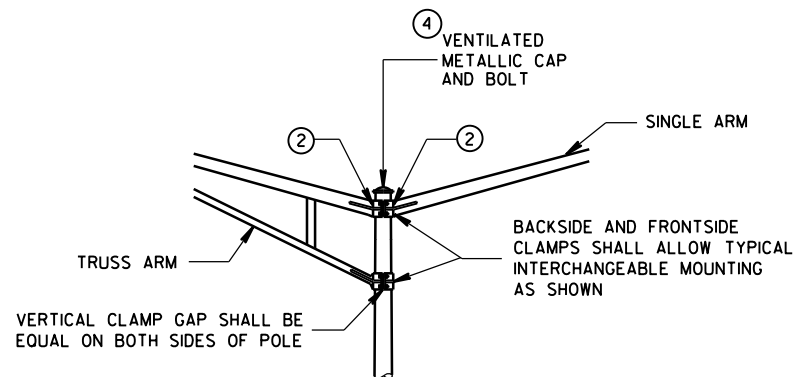
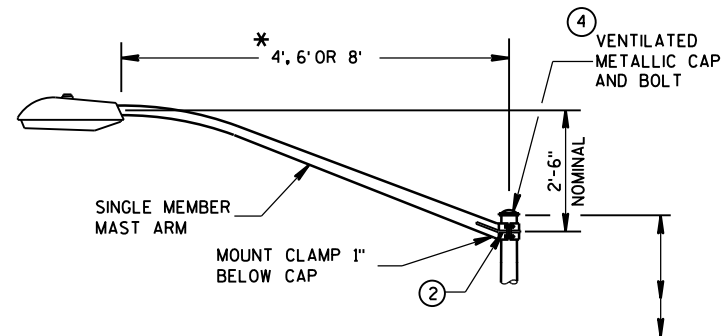
MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	$16\frac{1}{2}$	$16\frac{1}{2}$	24
D	$26\frac{1}{2}$	$34\frac{3}{4}$	$33\frac{3}{4}$
E	$38\frac{3}{4}$	$38\frac{3}{4}$	$38\frac{3}{4}$
F	$26\frac{1}{2}$	$34\frac{3}{4}$	$33\frac{3}{4}$
G	19	19	25
H	$16\frac{1}{2}$	$16\frac{1}{2}$	24
$\frac{H}{2}$	$8\frac{1}{4}$	$8\frac{1}{4}$	12
J	30	38	38
$\frac{J}{2}$	15	19	19
K	$13\frac{3}{4}$	$13\frac{3}{4}$	$21\frac{1}{4}$
L	$27\frac{1}{2}$	$35\frac{1}{2}$	$35\frac{1}{2}$

SIGNAL CONTROL CABINET

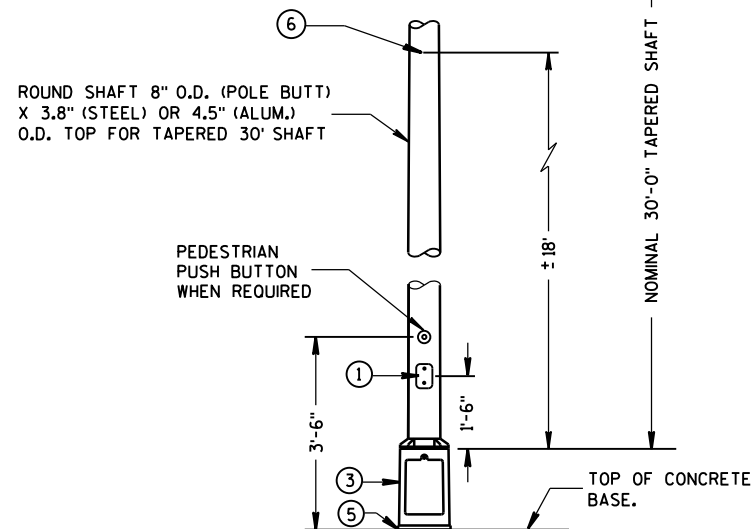
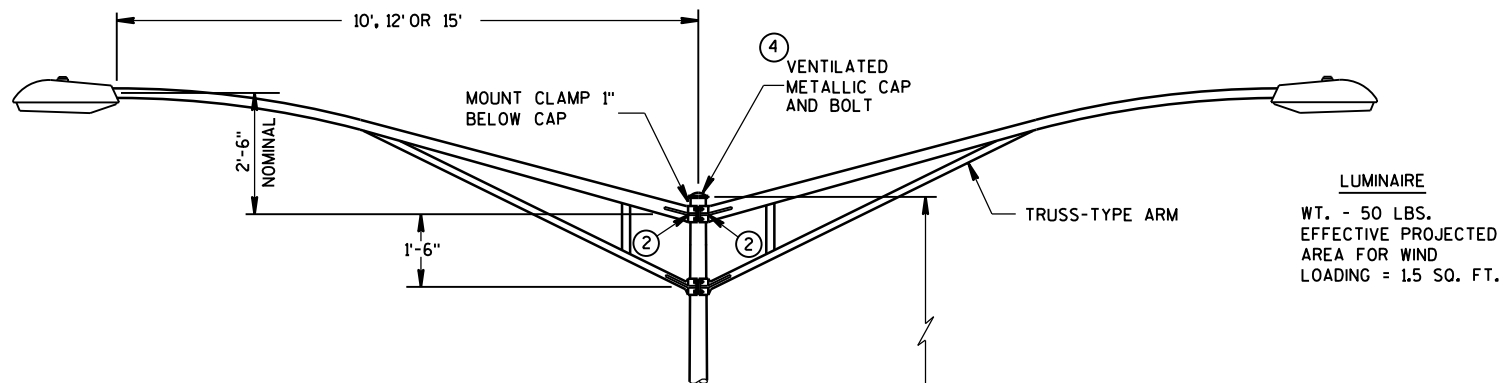
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 70
FHWA

* RISE FOR 4' ARM SHALL BE 2'-0".



INTERCHANGEABLE MOUNTING DETAIL



TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

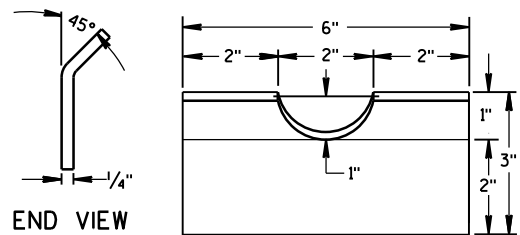
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

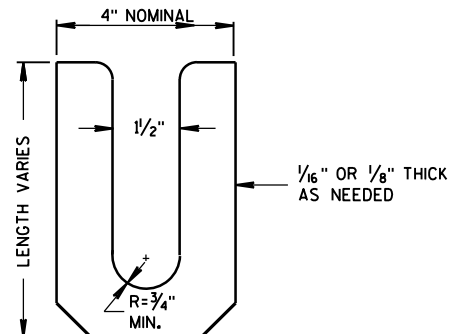
- ① 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" x 3/4" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
- ② GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" x 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.
- ⑥ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

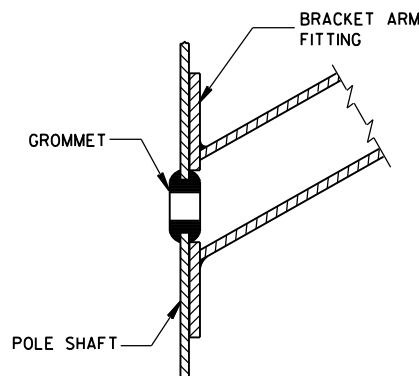
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



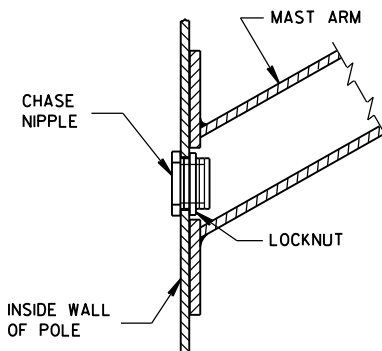
FRONT VIEW
RECTANGULAR CLAMP SHIM
(4 TO A SET)



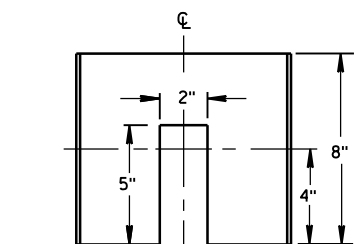
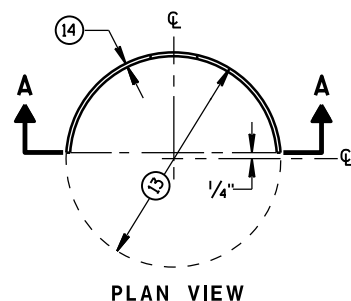
LEVELING SHIM
SHALL BE ALUMINUM



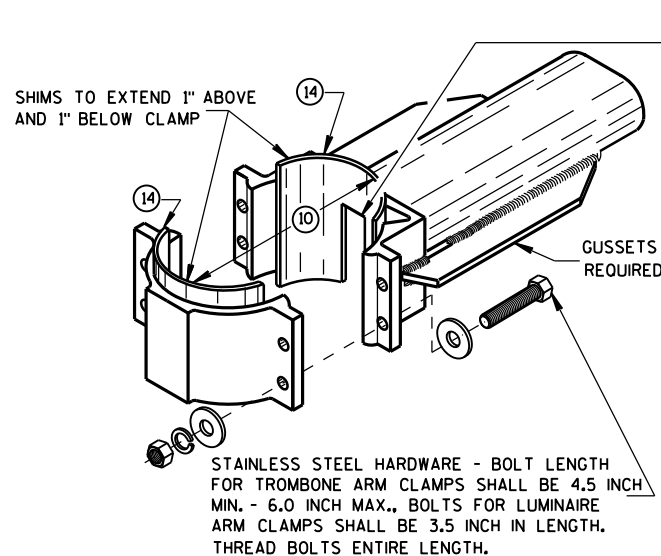
TYPICAL APPLICATION OF
GROMMET IN POLE SHAFT



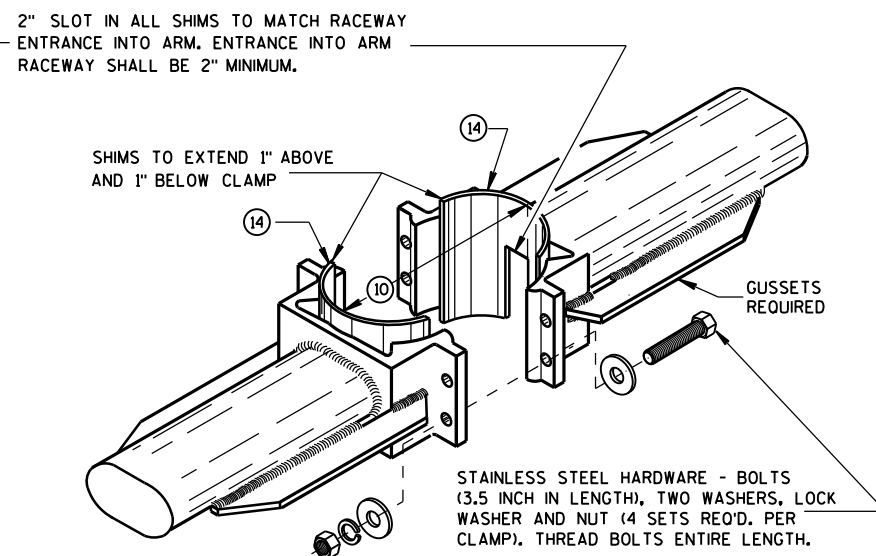
TYPICAL APPLICATION OF
CHASE NIPPLE IN POLE SHAFT



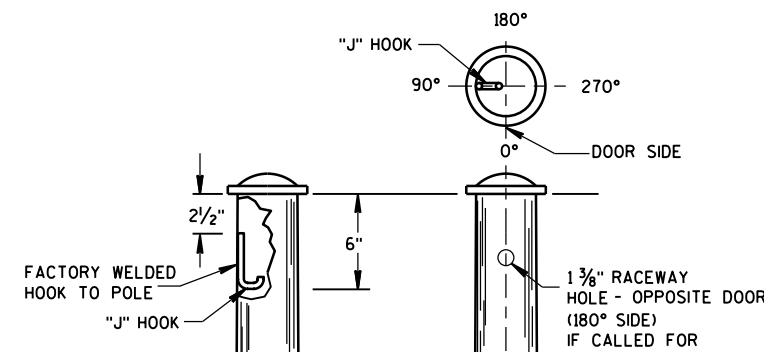
SECTION A-A
CIRCULAR CLAMP SHIM
(2 TO A SET)



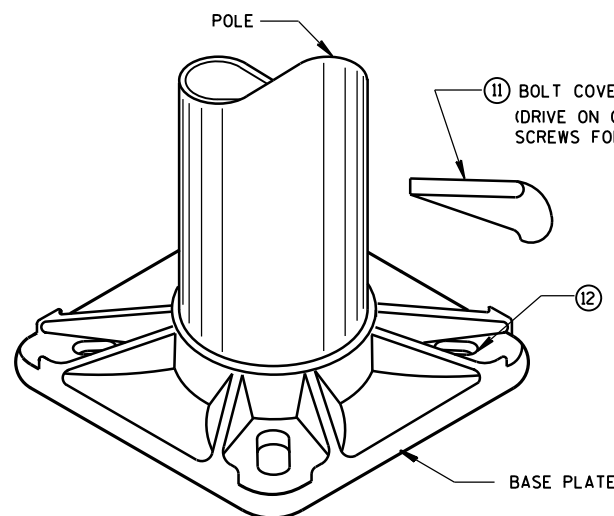
TYPICAL TROMBONE MAST ARM AND SINGLE
LUMINAIRE MAST ARM MOUNTING CLAMP



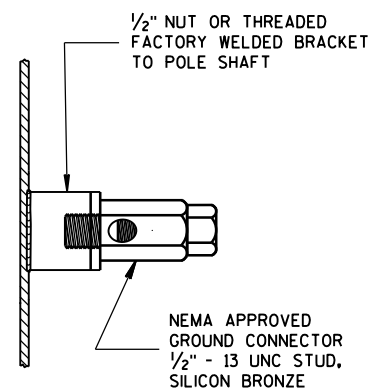
TYPICAL LUMINAIRE MAST ARM
(DOUBLE) MOUNTING BRACKETS



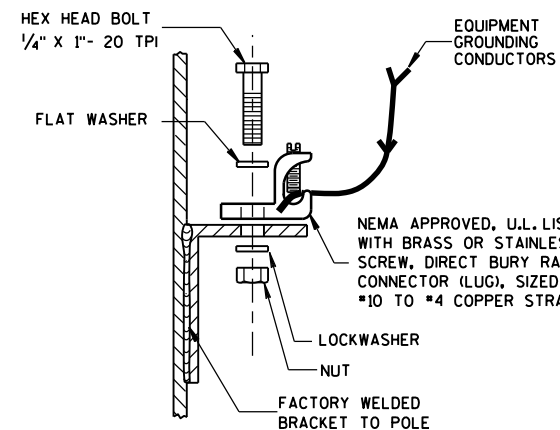
TYPICAL "J" HOOK LOCATION



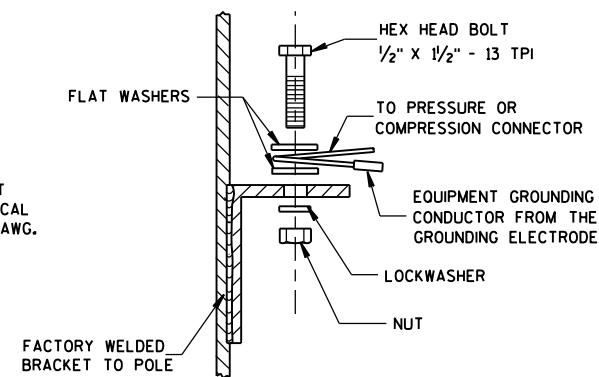
BASE PLATE



NEMA APPROVED
GROUND CONNECTOR
1/2" - 13 UNC STUD,
SILICON BRONZE



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



GENERAL NOTES

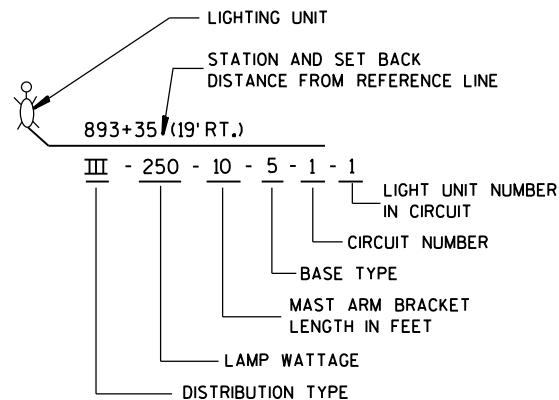
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- 10 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- 11 INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- 12 BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- 13 OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)
- 14 VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")
SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".
SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.
SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
- 15 LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

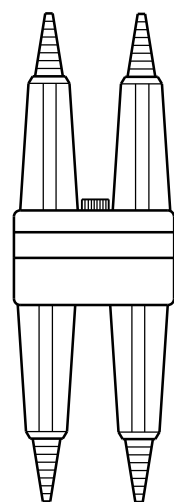
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

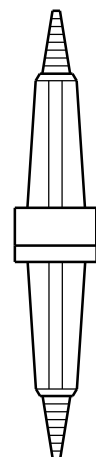
APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 72
FHWA



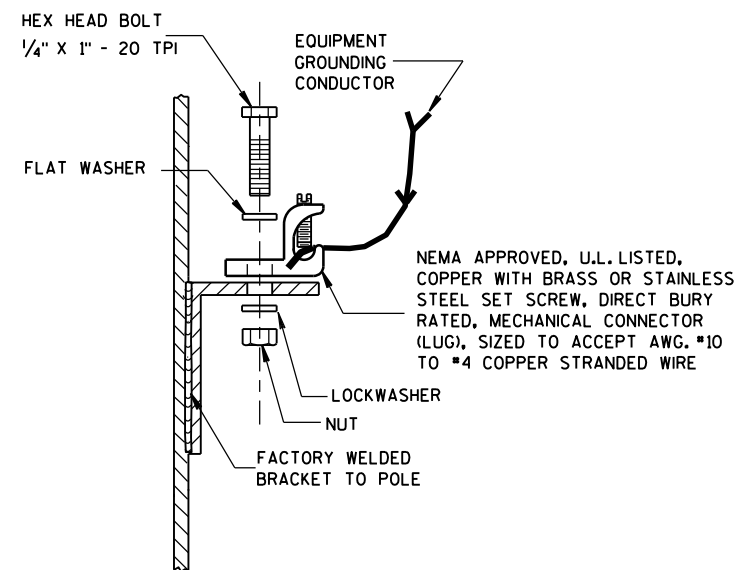
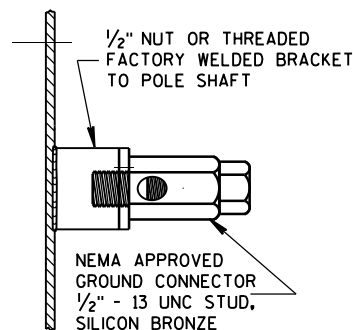
**LIGHTING UNIT CODE
(TYPICAL)**



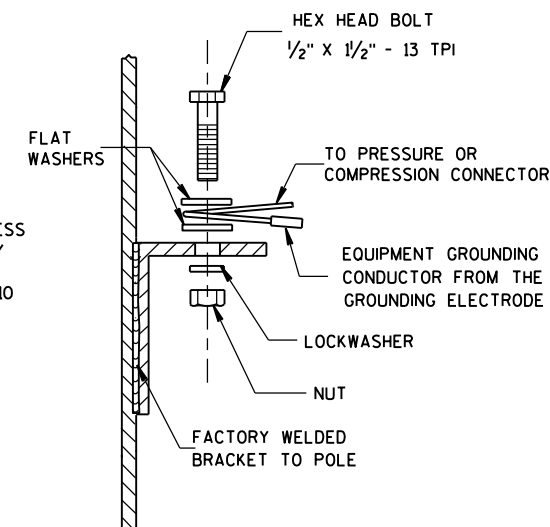
**DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT**



**DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT**



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

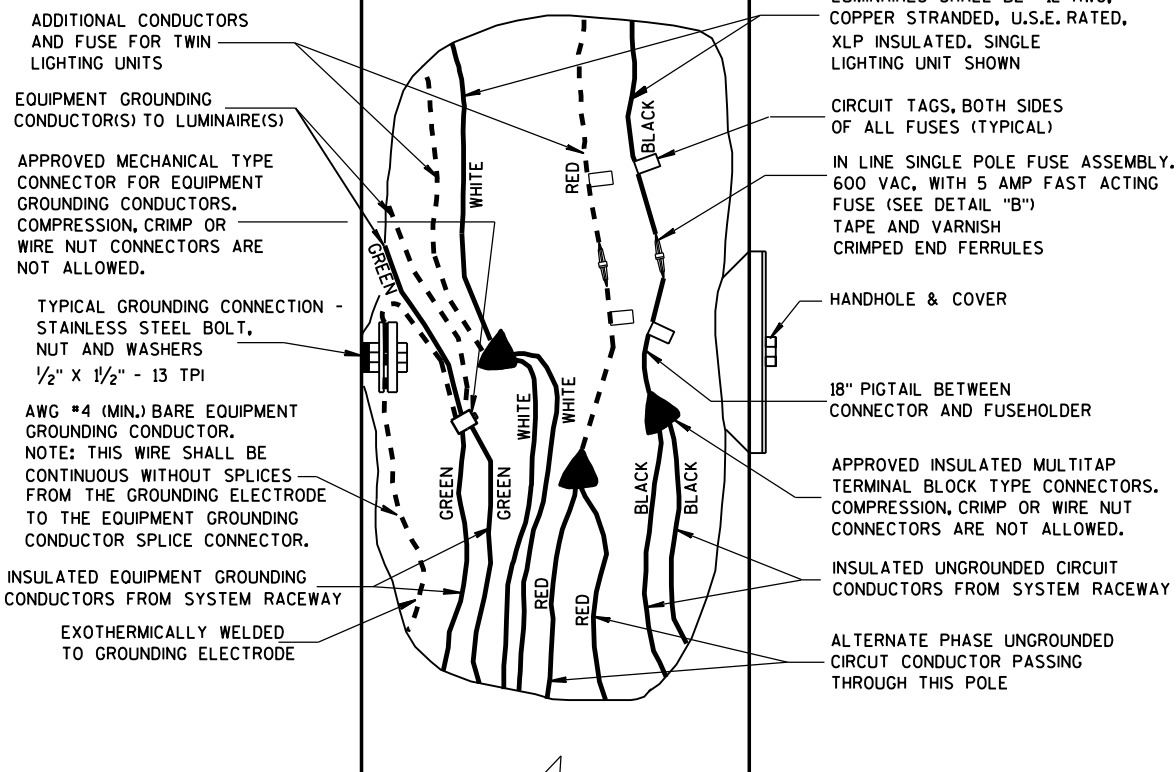


GENERAL NOTES

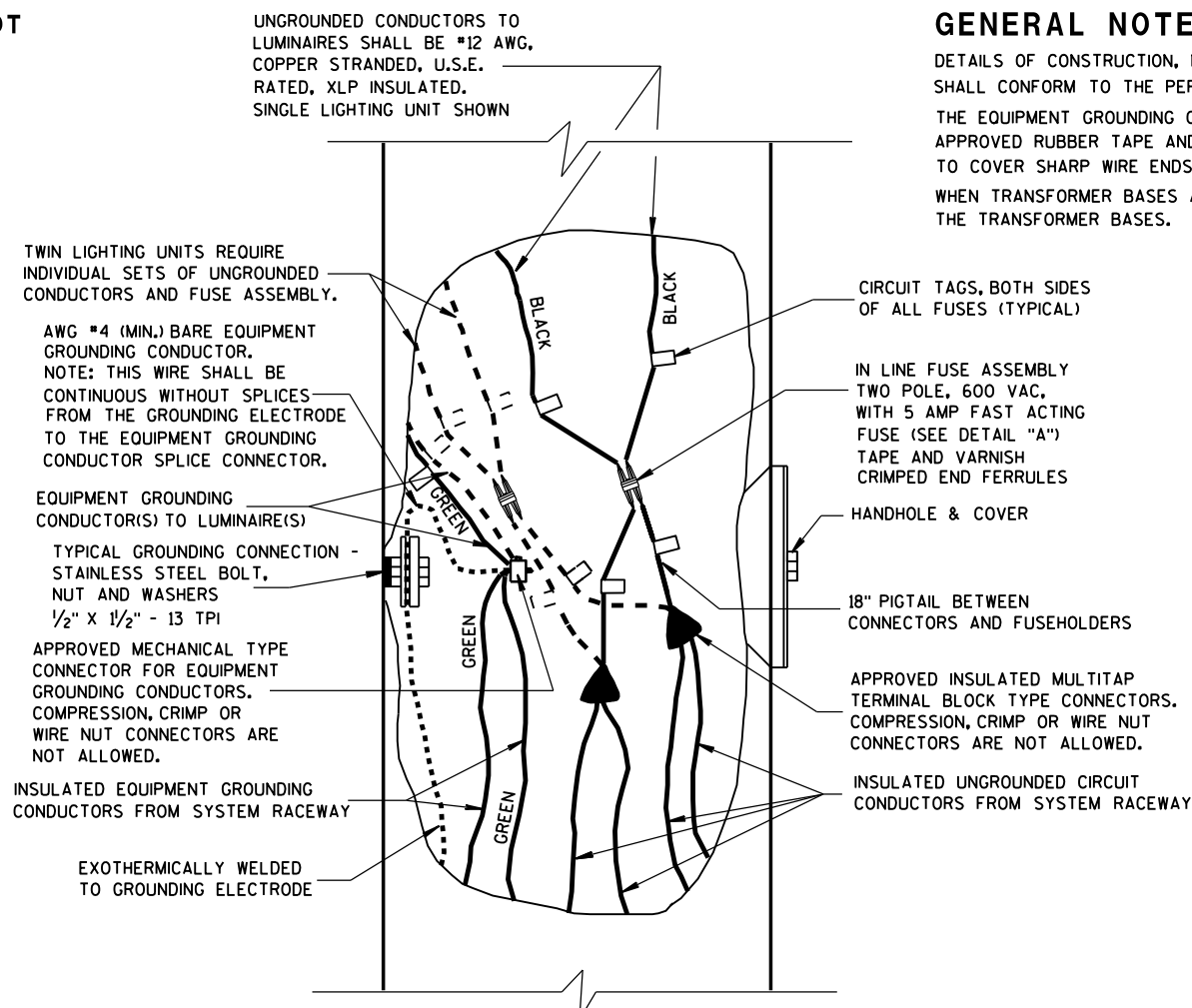
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



**3 WIRE - 120, 240 OR 480 VAC (UNGROUND CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR**



**2 WIRE - 240 OR 480 VAC (UNGROUND CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR**

**NON-FREWAY LIGHTING UNIT
POLE WIRING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 73
FHWA

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

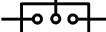
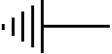
WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

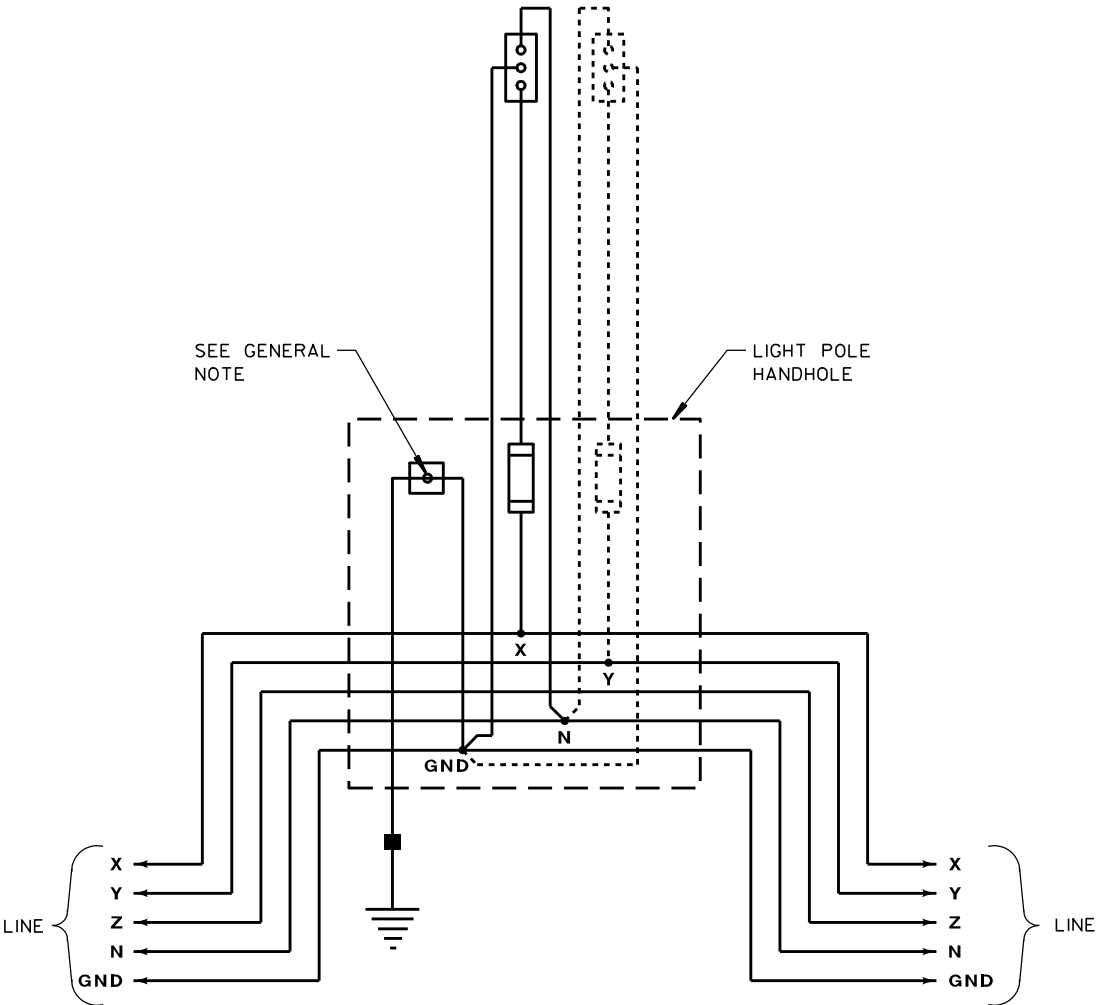
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

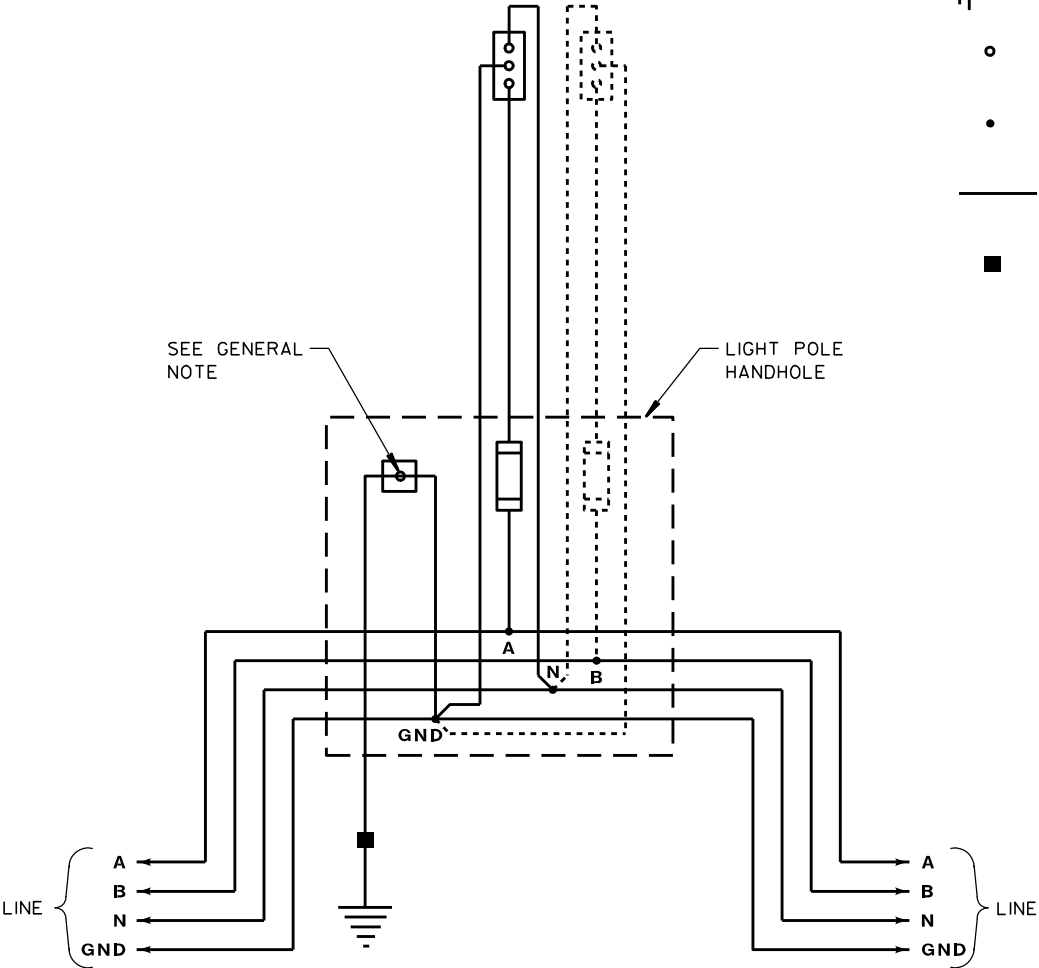
LINE VOLTAGE φ-GROUND	BALLAST WATTAGE	
	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

LEGEND

- A, B, X, Y, Z
- UNGROUND
- CIRCUIT
- CONDUCTORS
- N
- GROUND
- CIRCUIT
- CONDUCTORS
- GND
- EQUIPMENT
- GROUNDING
- CONDUCTOR
- P
- POLE (ELECTRICAL
- CIRCUIT)
- φ
- PHASE (ELECTRICAL
- CURRENT)
- 
- HANDHOLE
- GROUND
- LUG
- 
- SINGLE-POLE (1P)
- FUSE
- ASSEMBLY
- 
- TWO-POLE (2P)
- FUSE
- ASSEMBLY
- 
- UNFUSED
- LUMINAIRE
- 
- EQUIPMENT
- GROUNDING
- ELECTRODE
- o
- TERMINAL
- .
- SPLICE
-
- CONDUCTOR
-
- EXOTHERMIC
- WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE

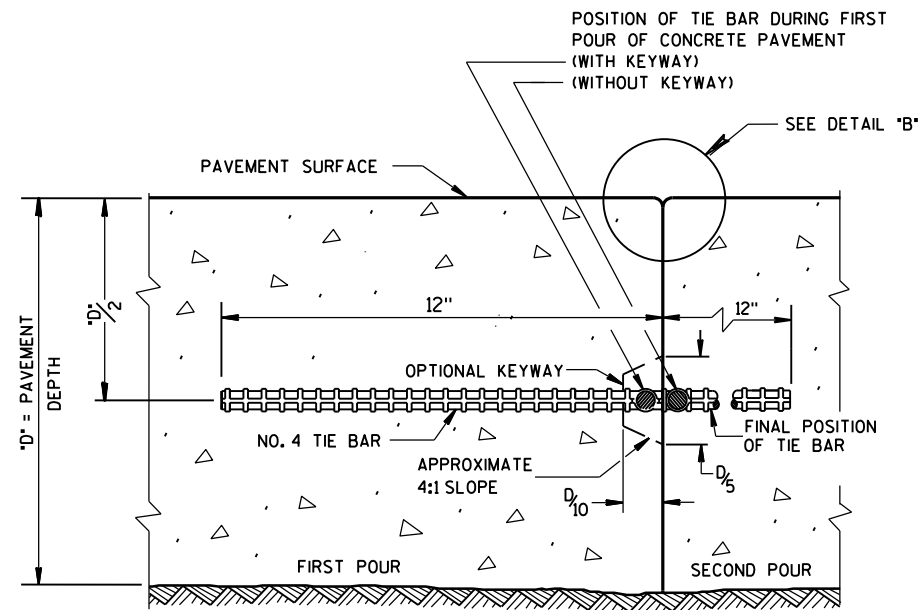


TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

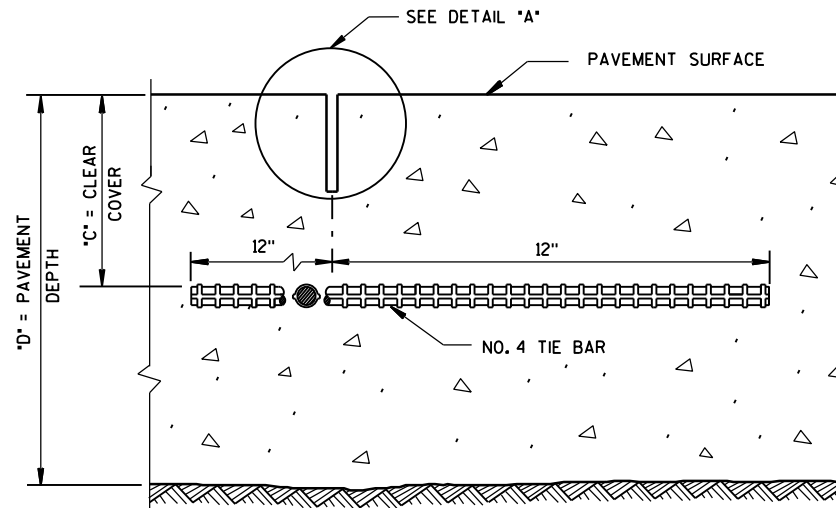
ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 /S/ John Corbin
DATE STATE ELECTRICAL ENGI 74 HWYS
FHWA



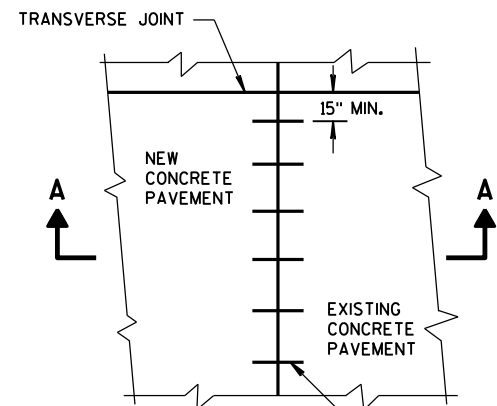
CONSTRUCTION JOINT



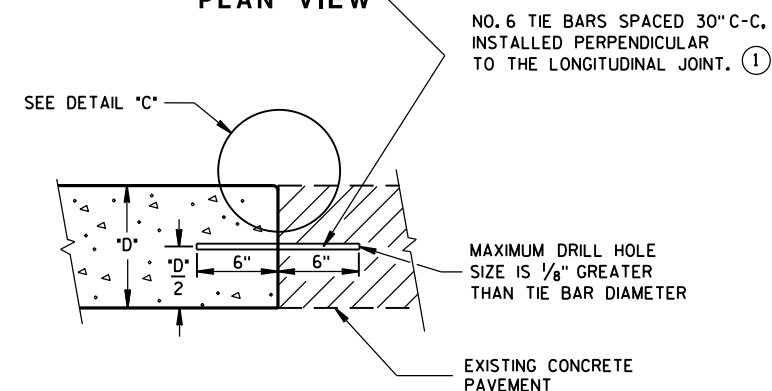
SAWED JOINT

GENERAL NOTES

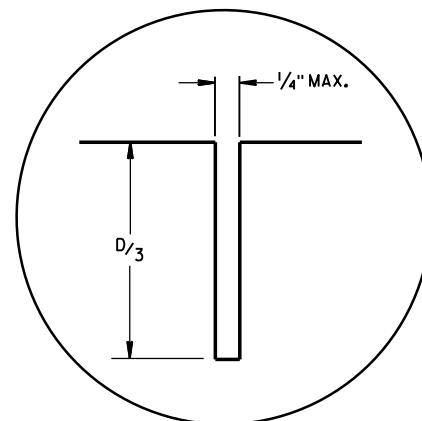
- DO NOT SEAL OR FILL LONGITUDINAL JOINTS.
- CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



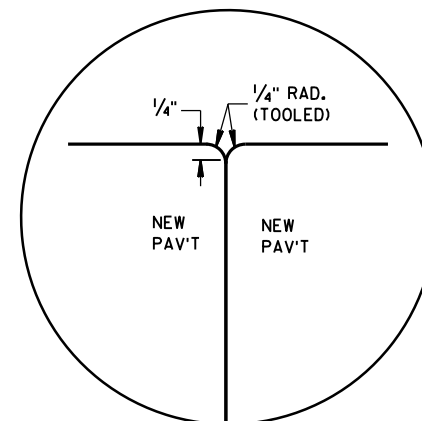
PLAN VIEW



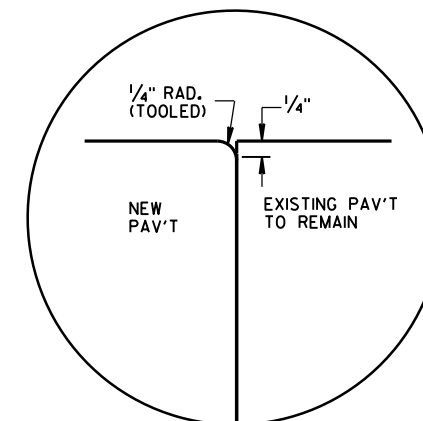
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



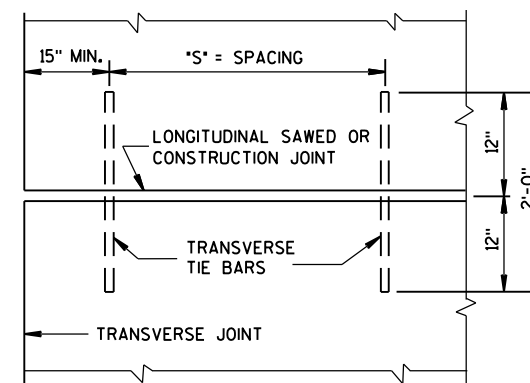
DETAIL "B"



DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3 ± 1/2"	48"	42"
7, 7 1/2"	3 1/4 ± 1"	45"	36"
8, 8 1/2"	3 3/4 ± 1"	39"	30"
9, 9 1/2"	4 1/4 ± 1"	33"	27"
10, 10 1/2"	4 3/4 ± 1"	30"	24"
11, 11 1/2"	5 1/4 ± 1"	27"	21"
12"	5 3/4 ± 1"	24"	21"



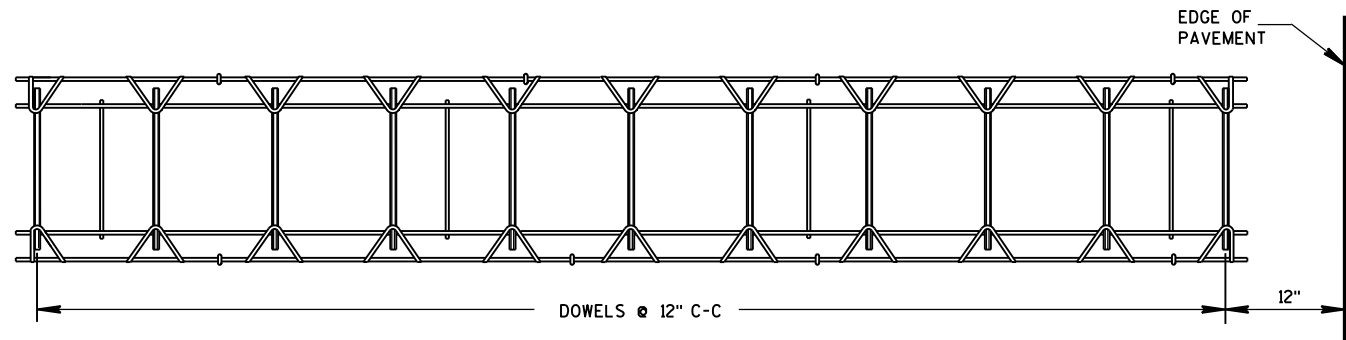
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

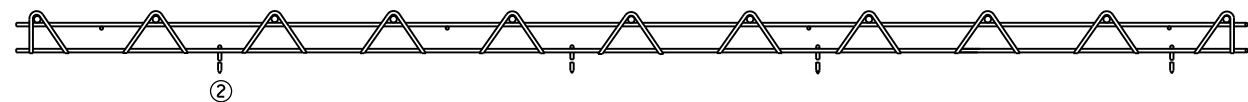
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

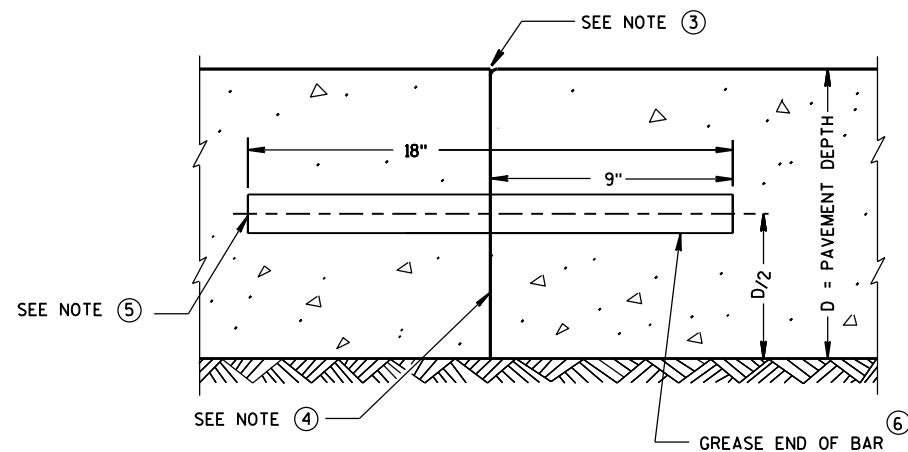
9/2014 DATE /S/ Deb Bischoff
PAVEMENT POLICY & DE 75
FHWA



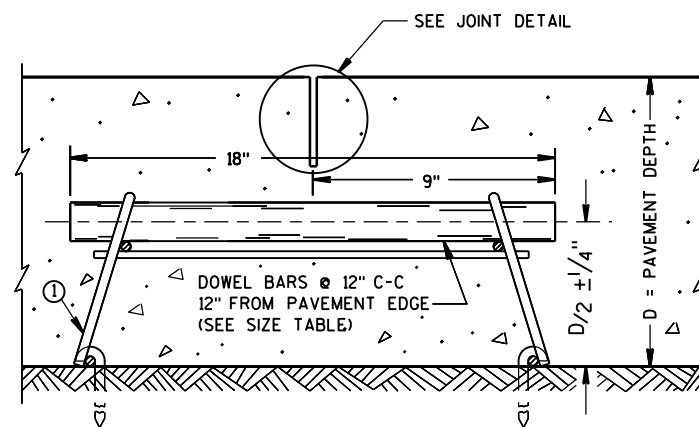
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

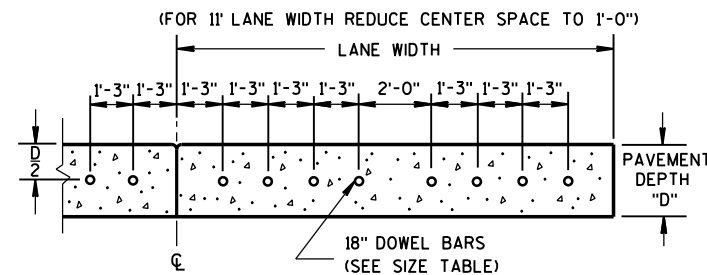
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

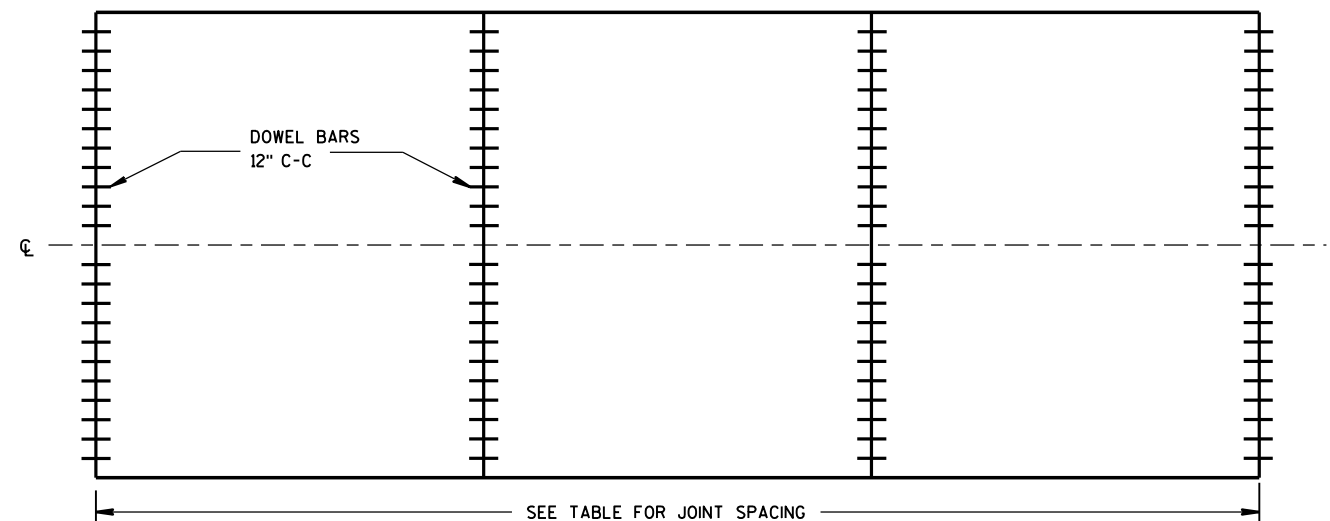
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

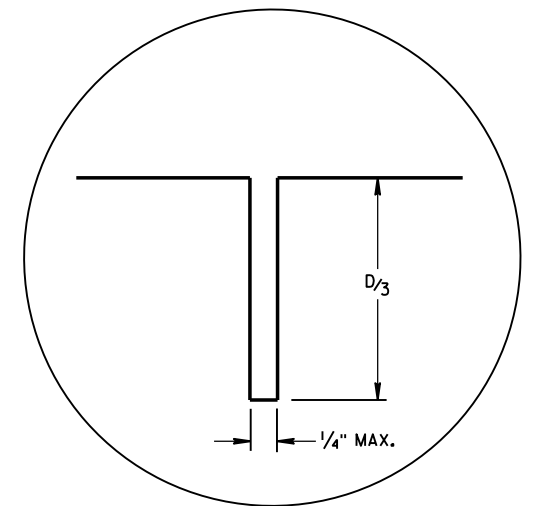
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

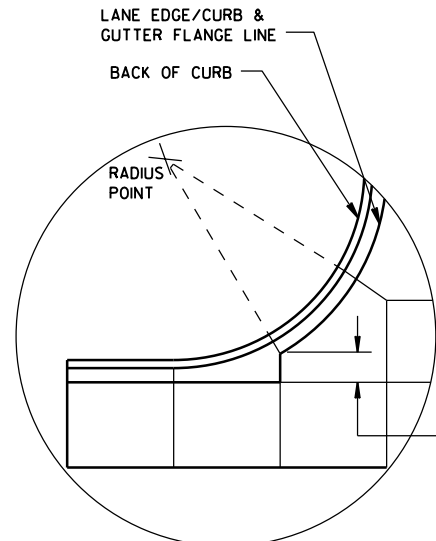
APPROVED

5/3/2013
DATE

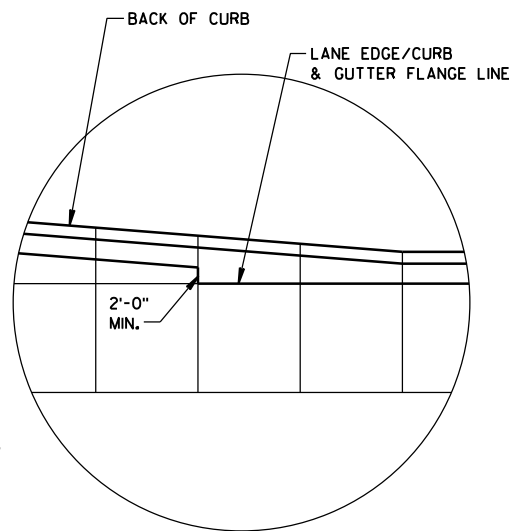
FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DE 76

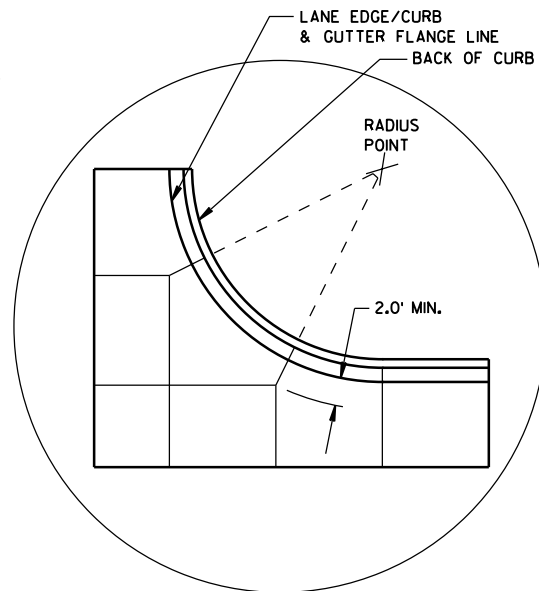
JEER



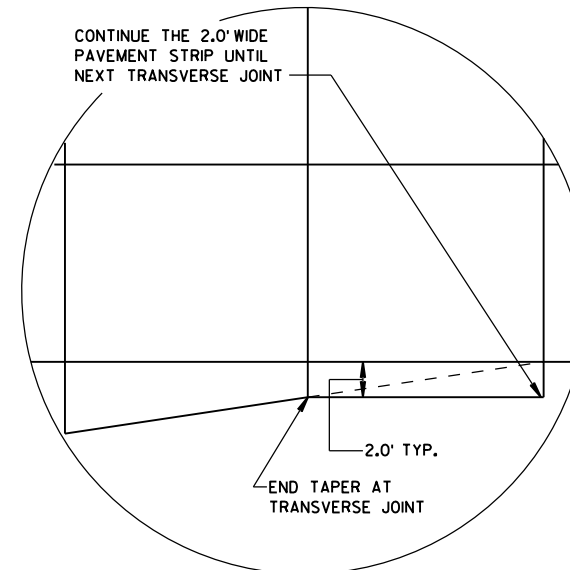
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

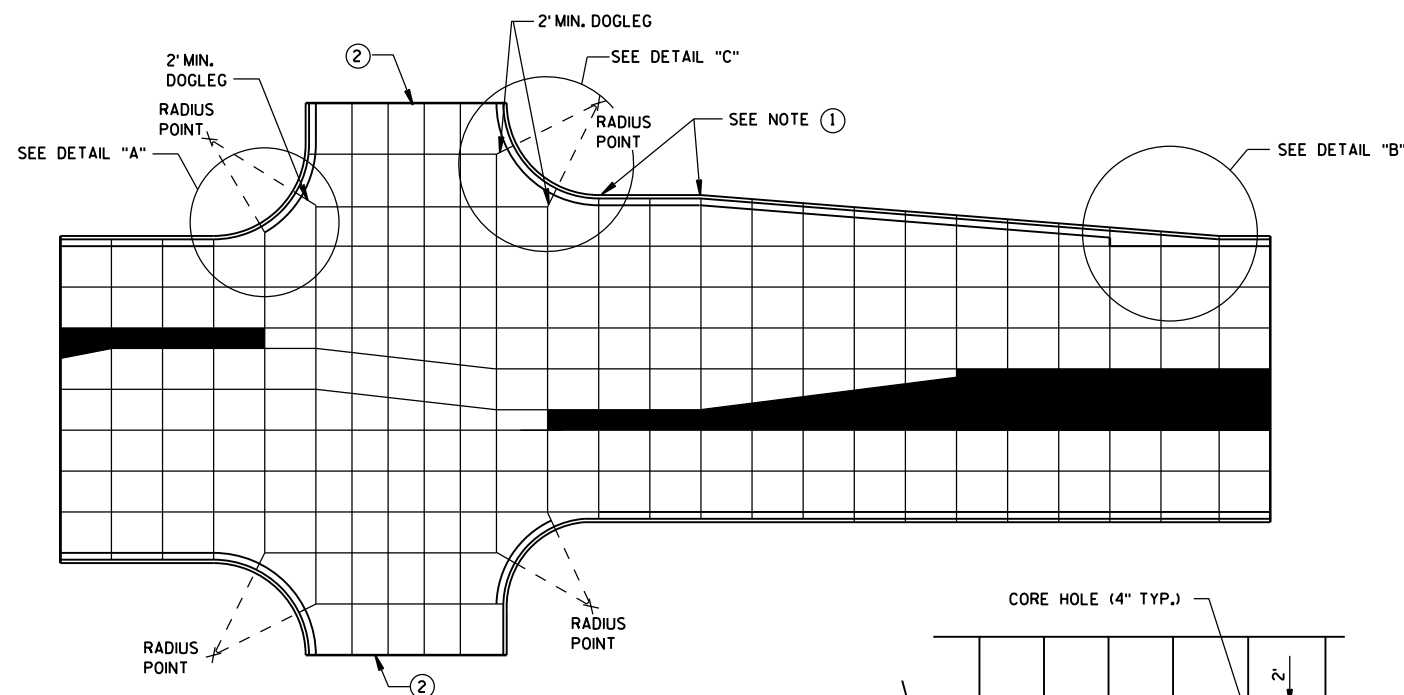
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

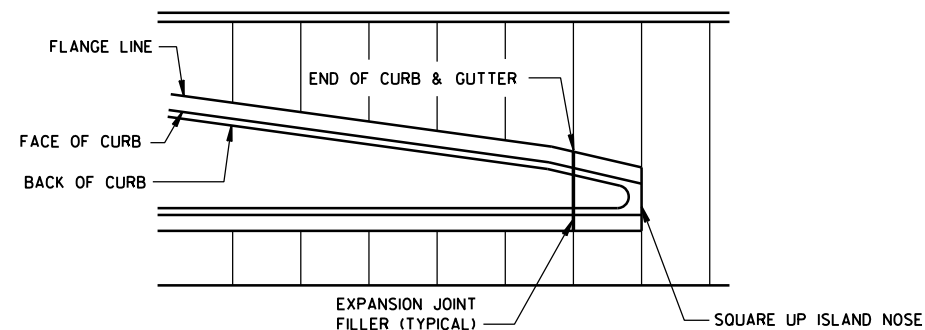
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

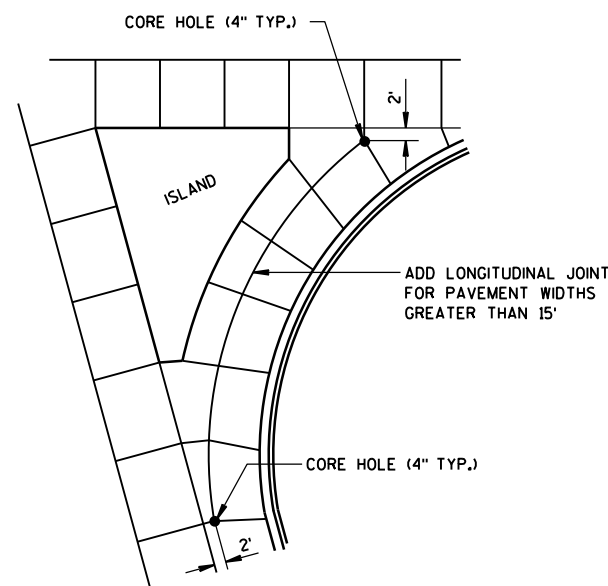
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



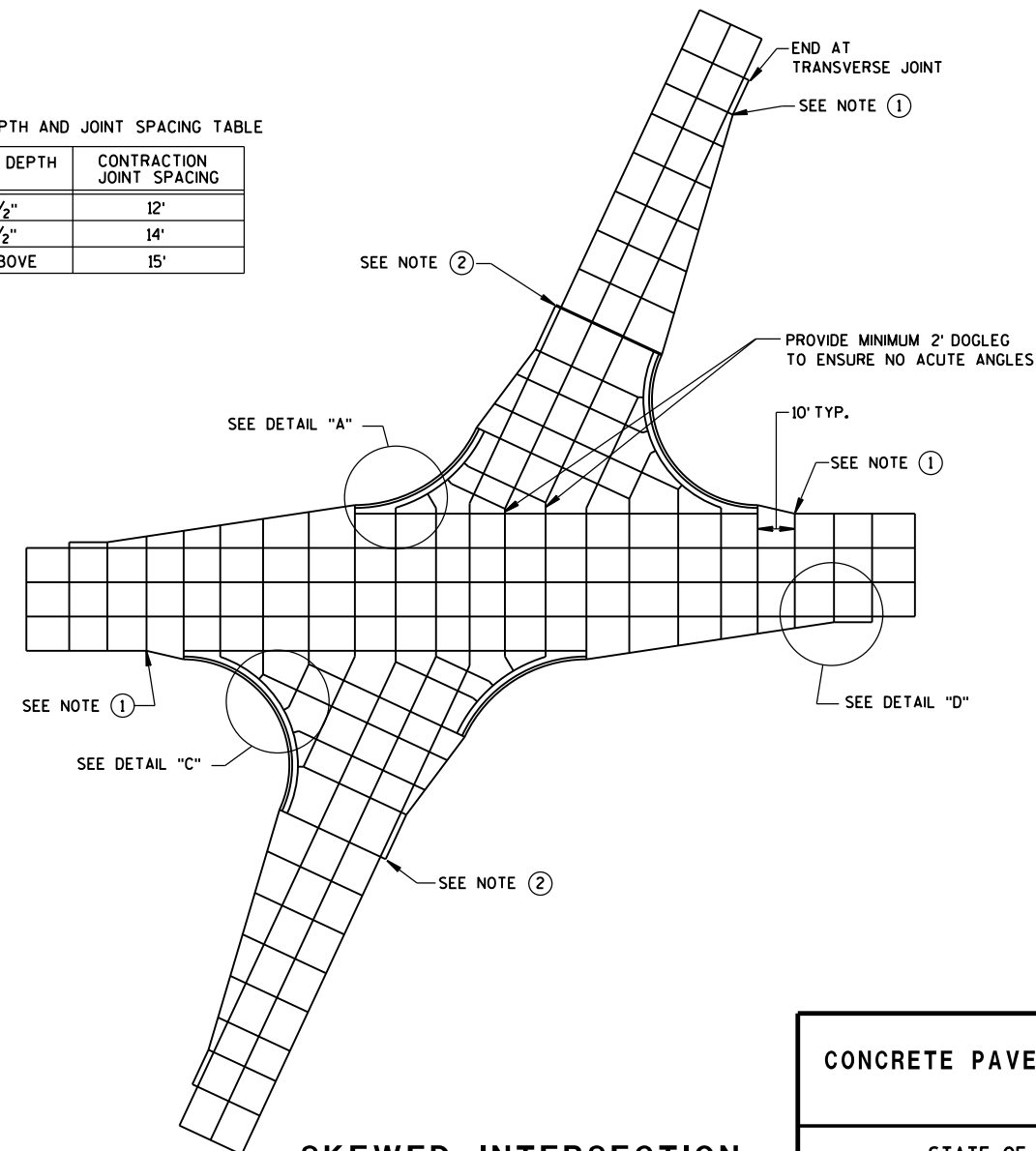
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



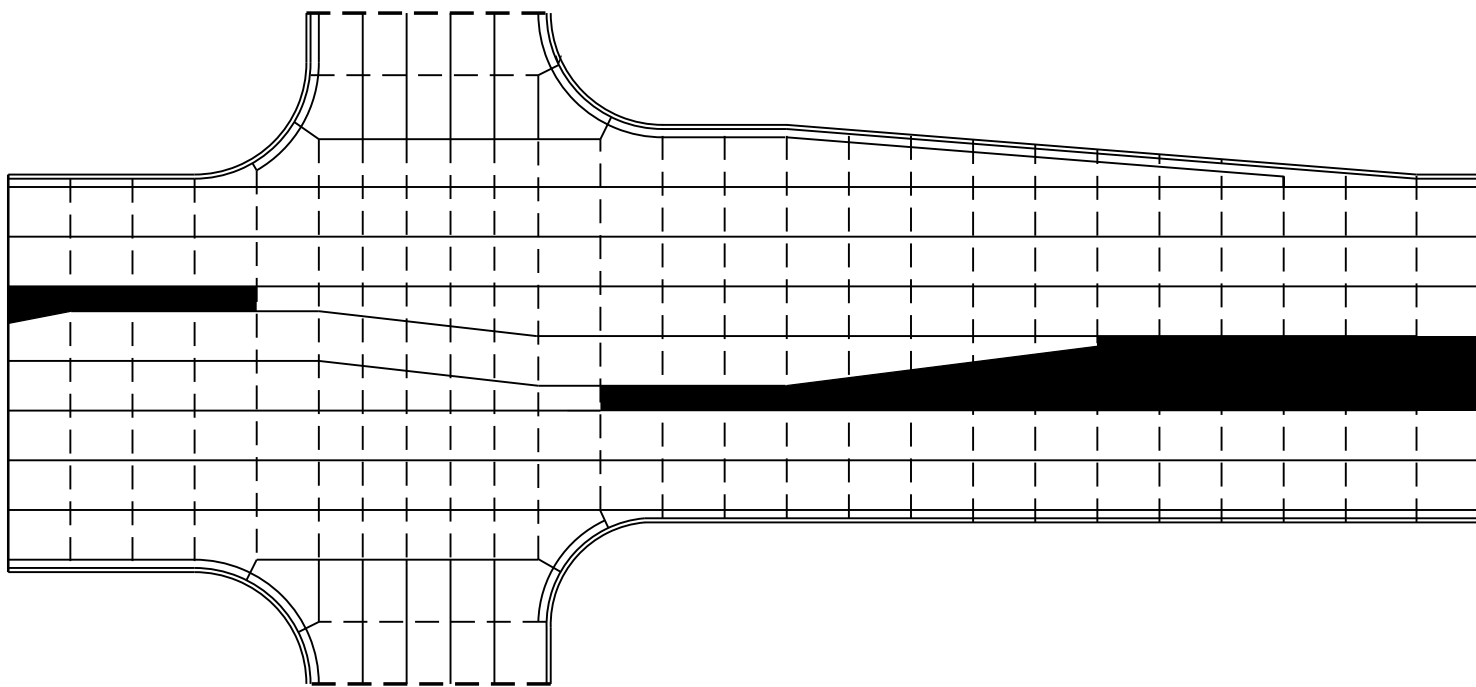
SKewed INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

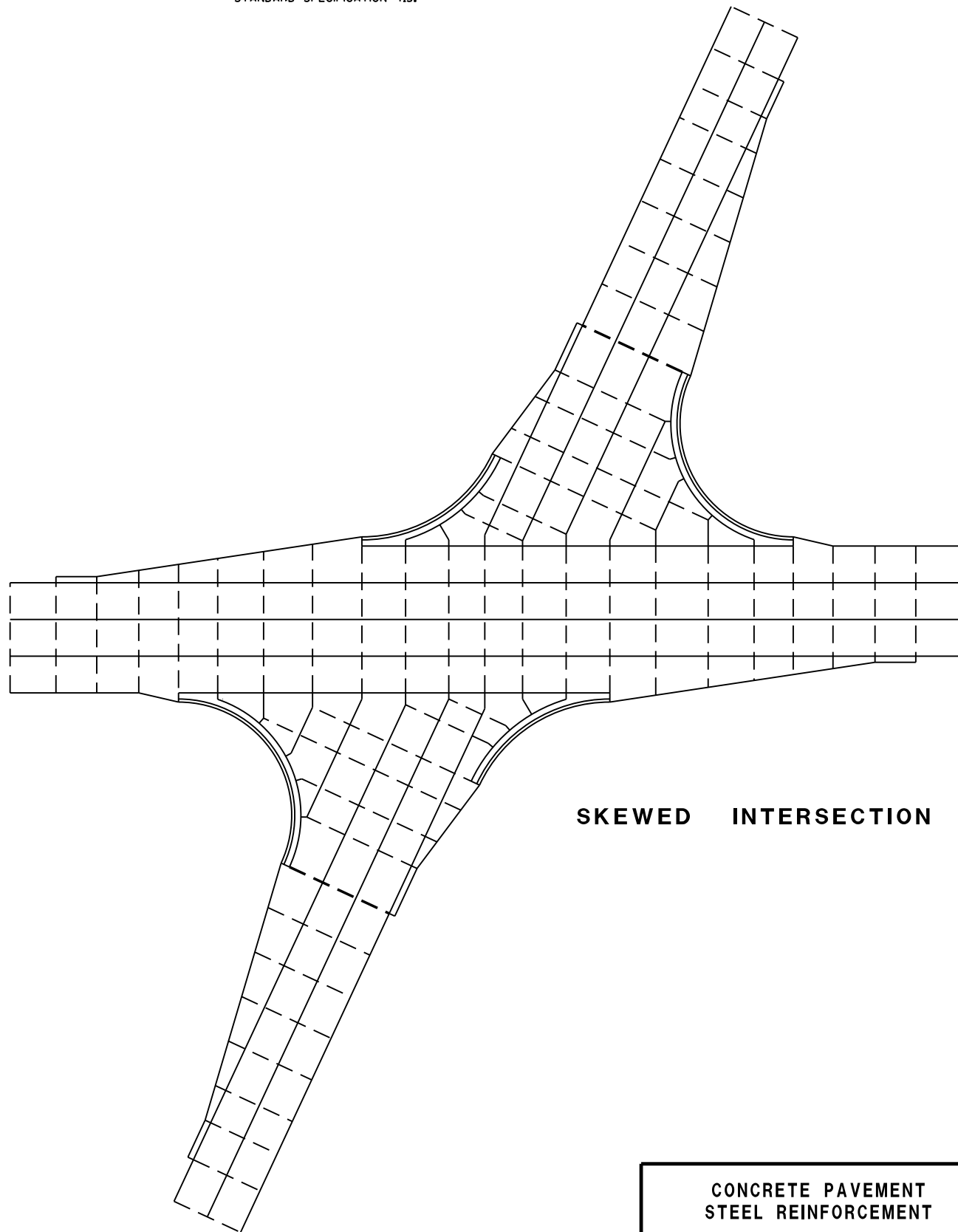
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

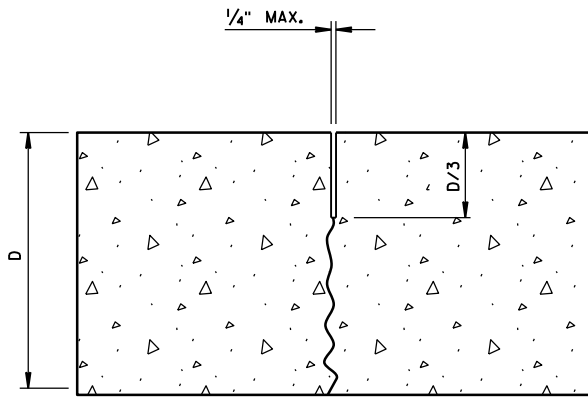
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



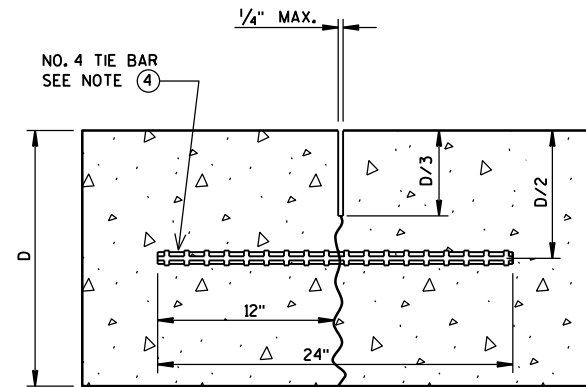
SKEWED INTERSECTION

**CONCRETE PAVEMENT
STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

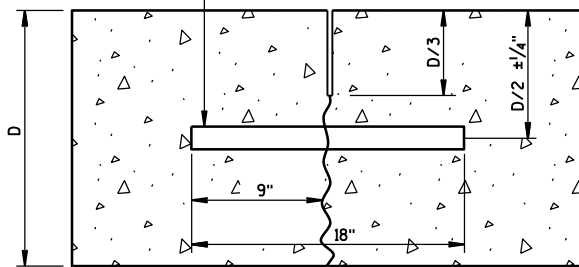


UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

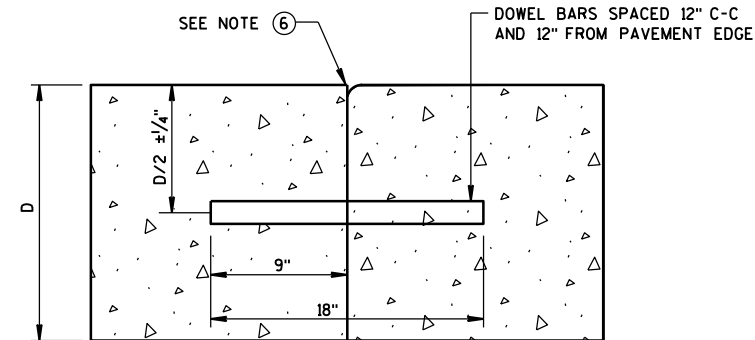
DOWEL BARS AT 12" C-C
12" FROM PAVEMENT EDGE



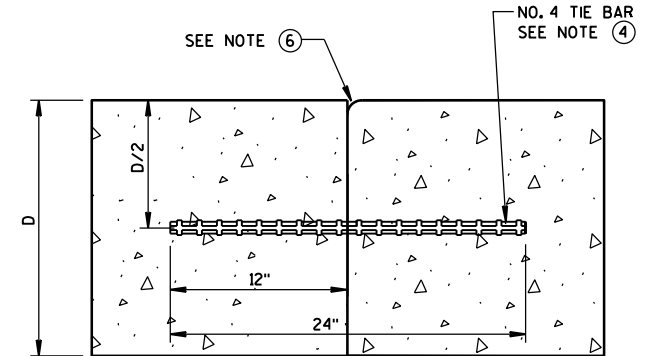
DOWELED-TRANSVERSE

CONTRACTION JOINTS

SEE NOTE ②

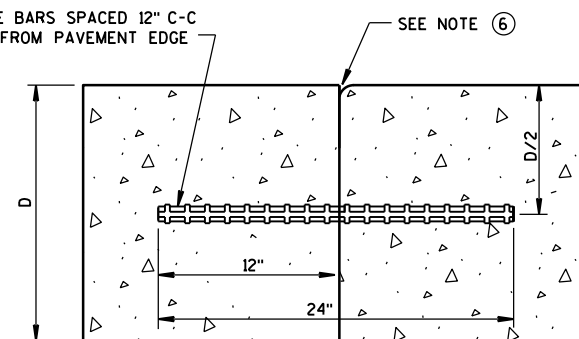


DOWELED TRANSVERSE

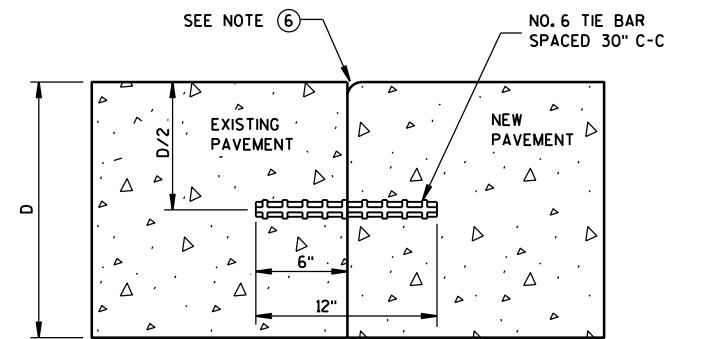


TIED LONGITUDINAL

NO. 6 TIE BARS SPACED 12" C-C
AND 12" FROM PAVEMENT EDGE



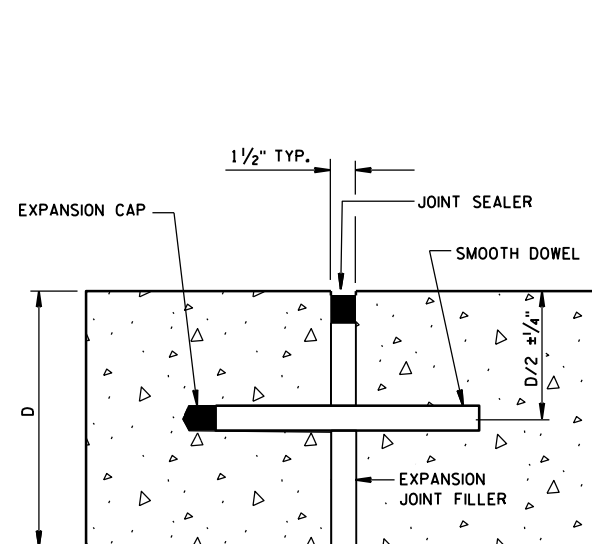
TIED TRANSVERSE
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



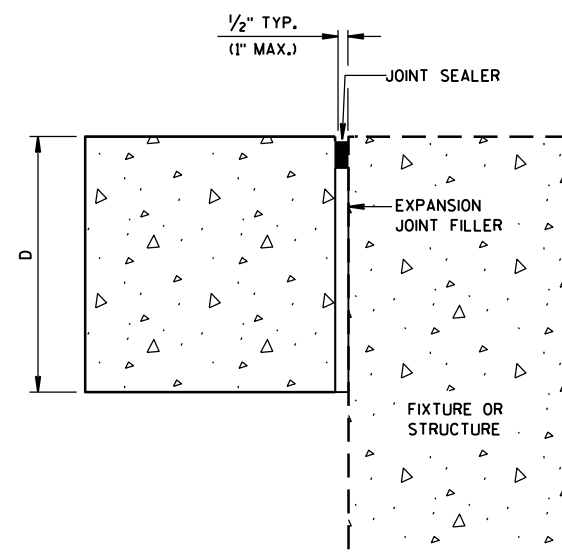
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE ⑤



DOWELED-TRANSVERSE
SEE NOTE ①



UNTIED-LONGITUDINAL

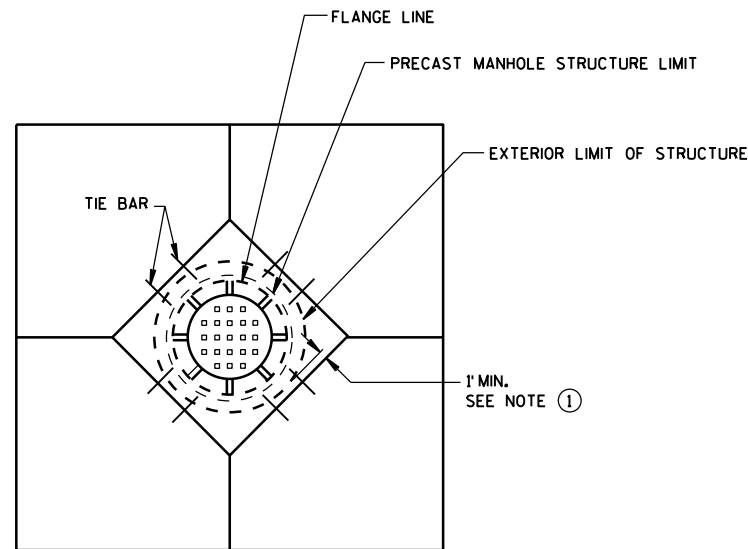
EXPANSION JOINTS

GENERAL NOTES

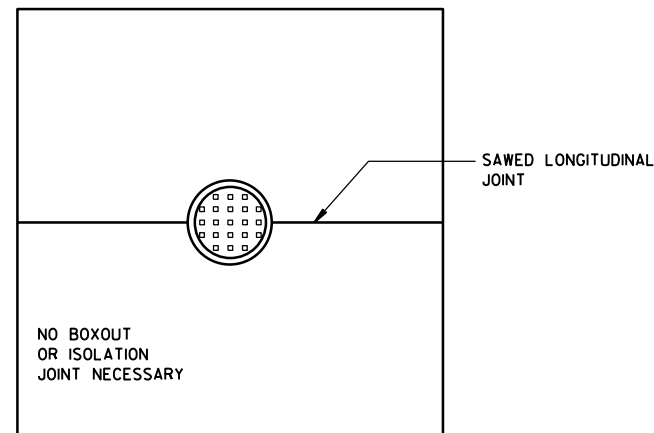
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.

CONCRETE PAVEMENT
JOINT TYPES

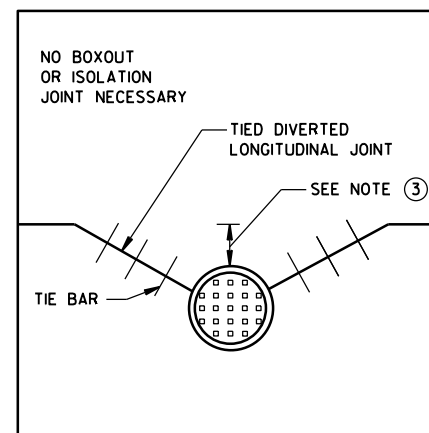
STATE OF WISCONSIN
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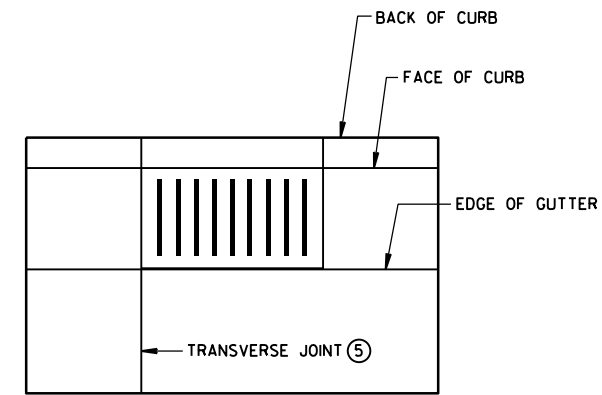
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



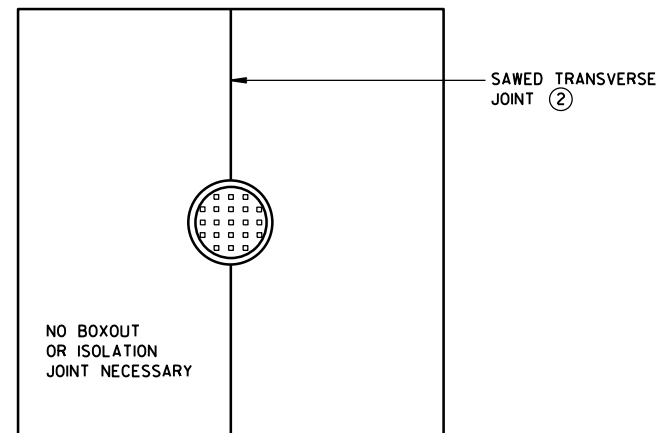
**MANHOLE WITH
LONGITUDINAL JOINT**



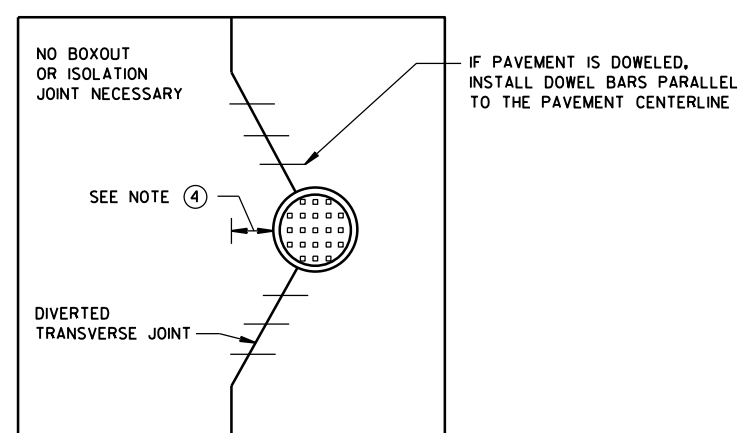
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

GENERAL NOTES

- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ④ IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

**CONCRETE PAVEMENT
JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

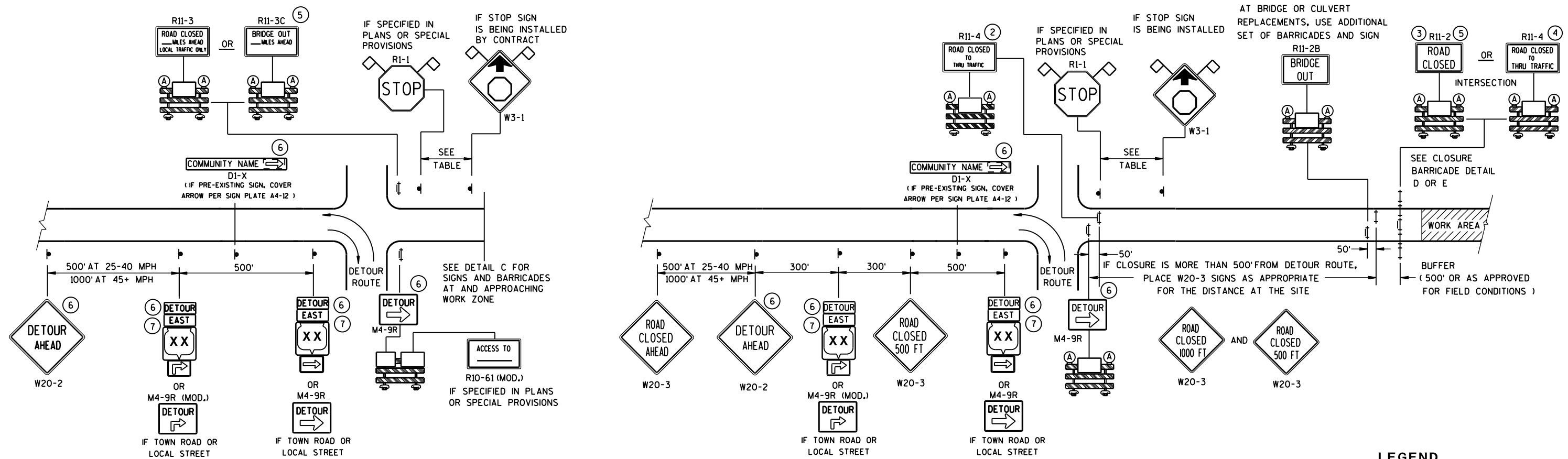
APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE 80

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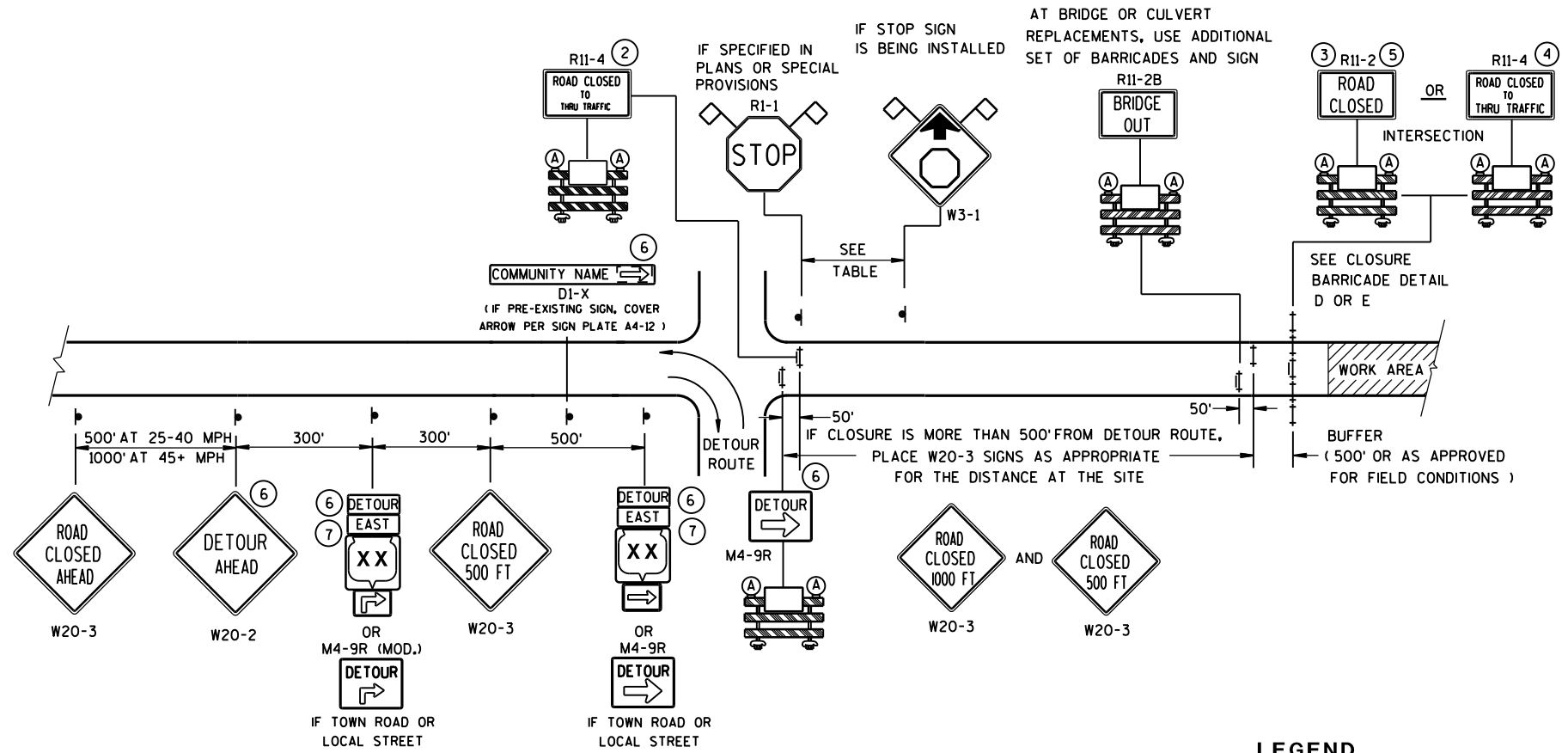
FHWA



DETAIL A

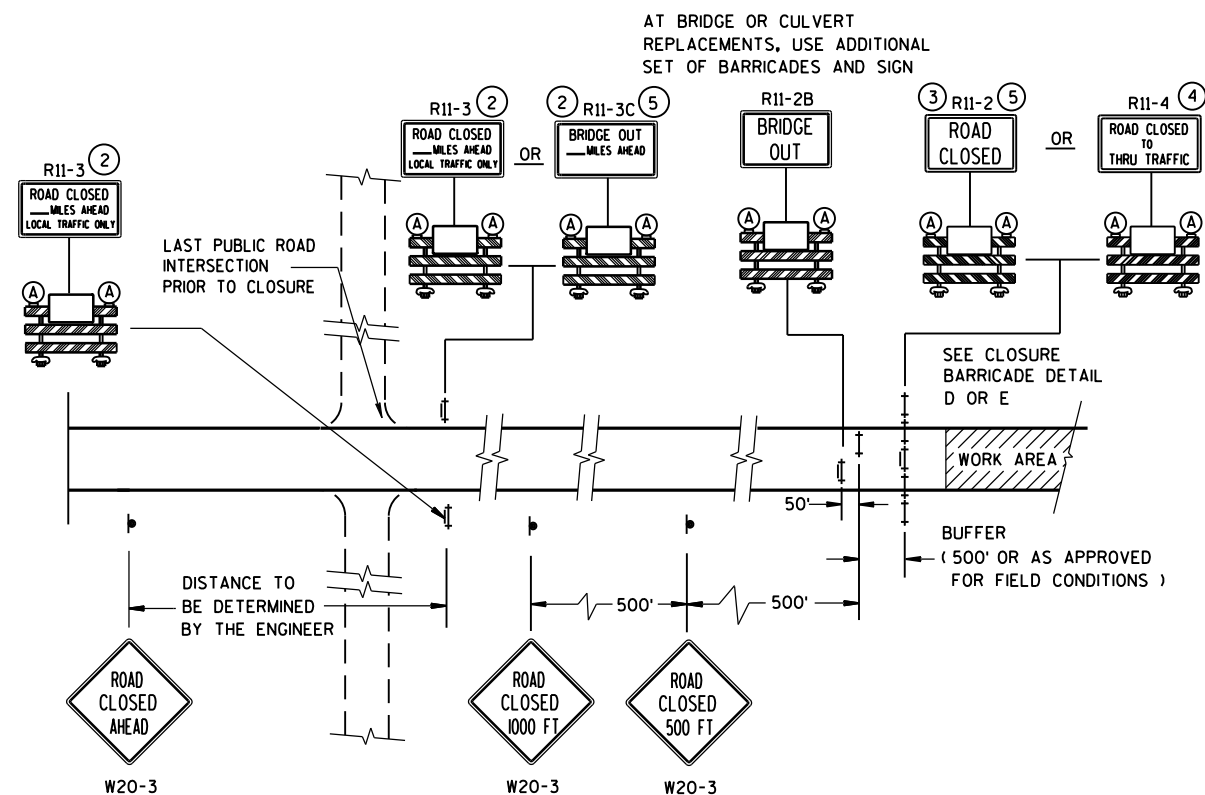
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

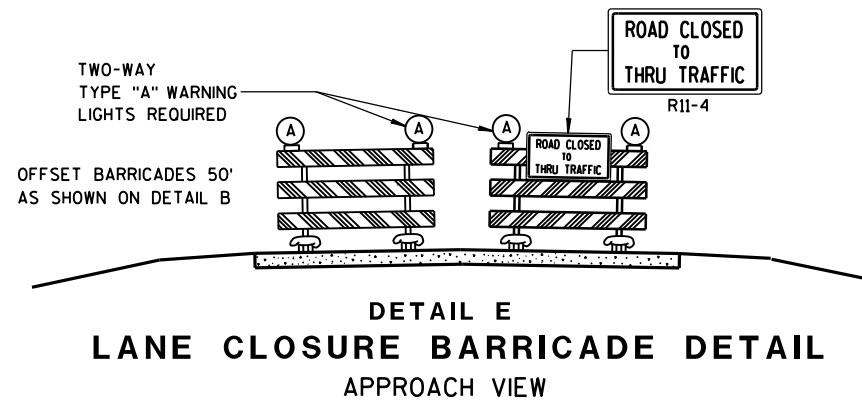
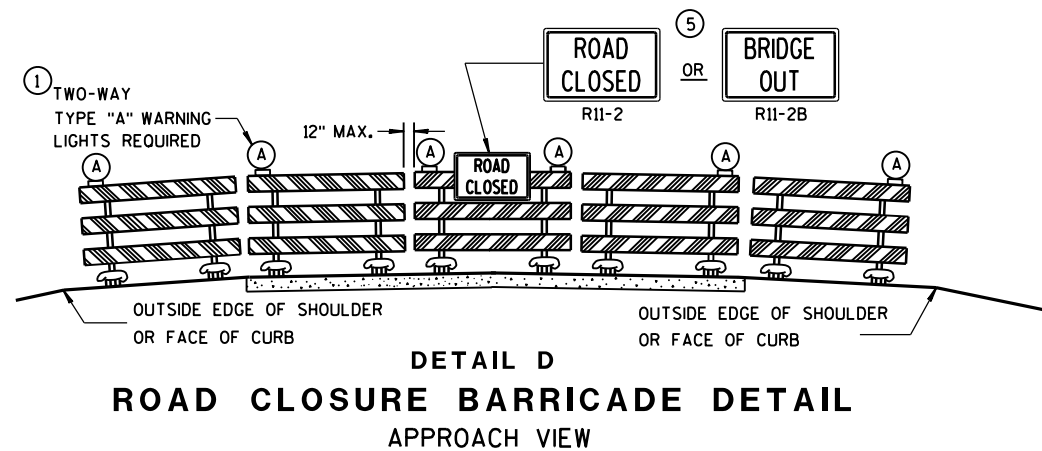
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  DETOUR M4-8
-  DETOUR M3-X
-  COUNTY M1-4
- OR
-  COUNTY M1-5A
- OR
-  COUNTY M1-6
-  M05-1
- OR
-  M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 81 ESIGN
FHWA



SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

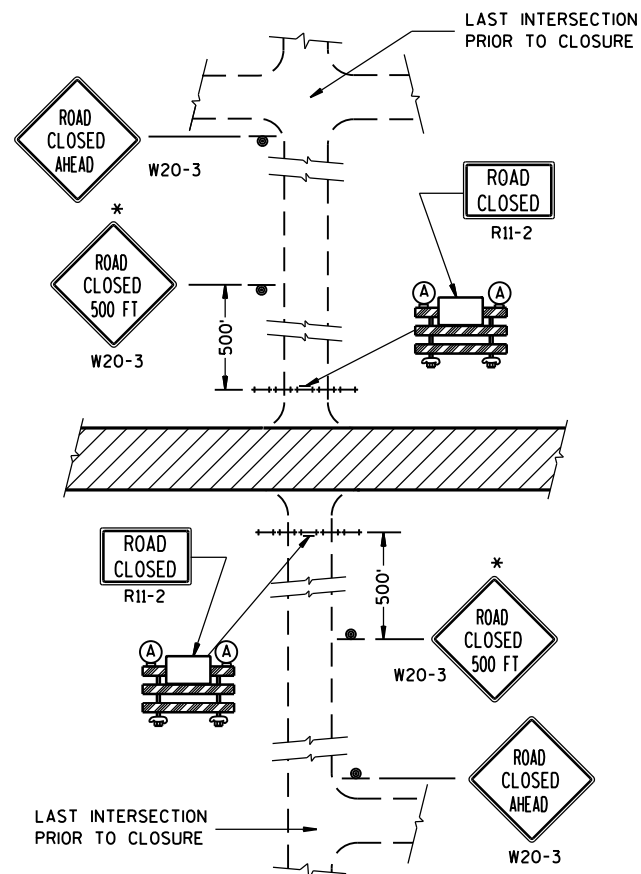
R1-1 SHALL BE 36" X 36".

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

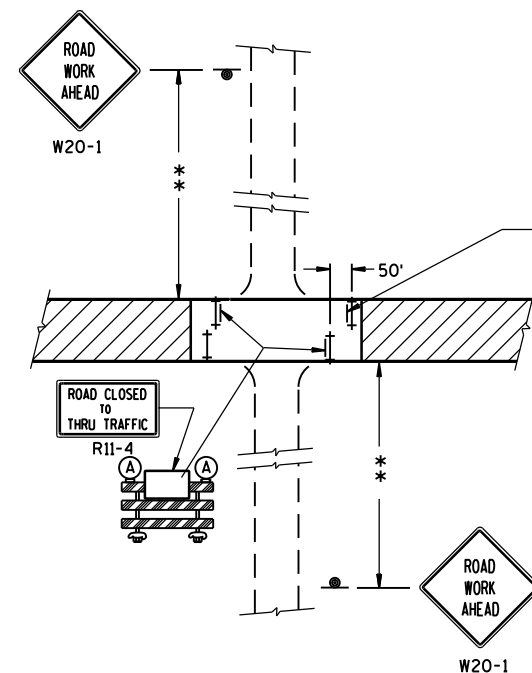
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

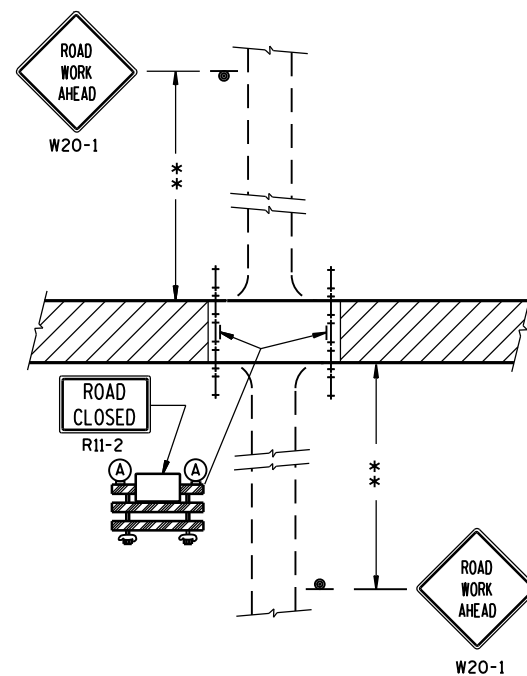
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 82 ESIGN
FHWA



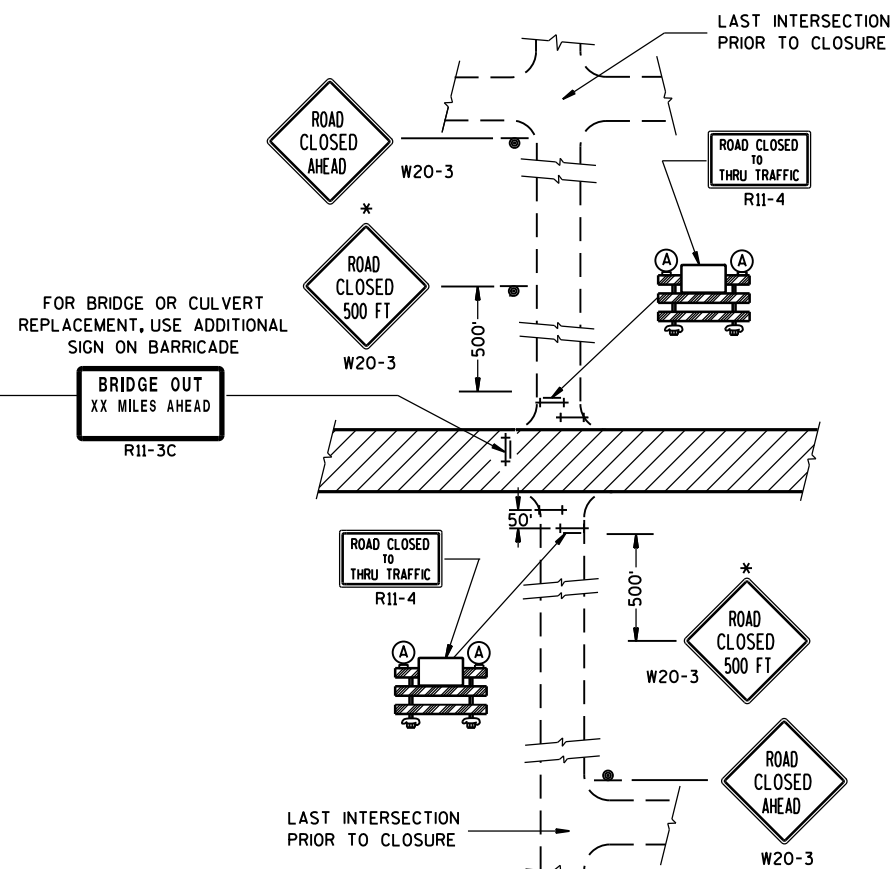
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

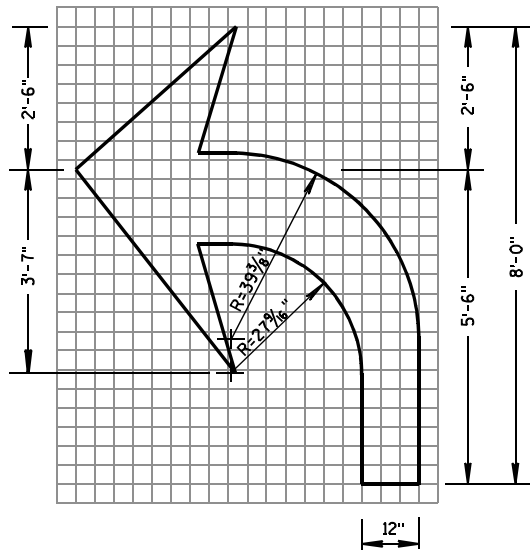
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

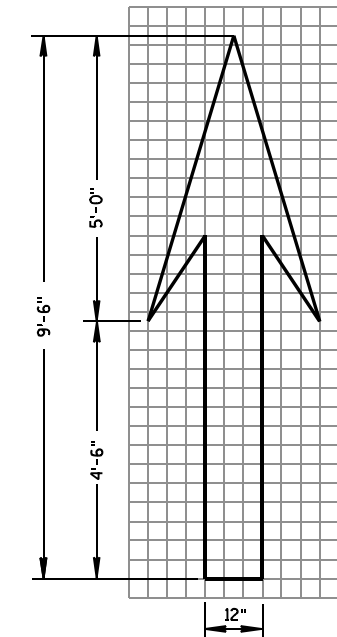
8/2013 /S/ Travis Fettes

DATE STATE TRAFFIC ENGINE 83 SIGN

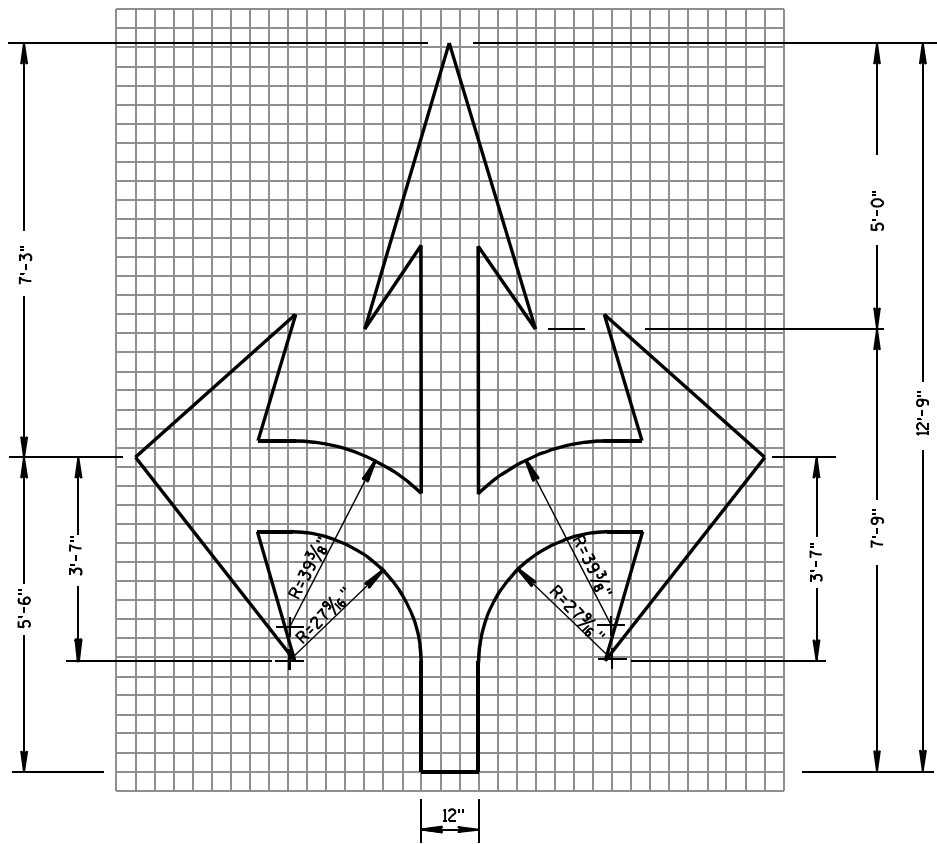
FHWA



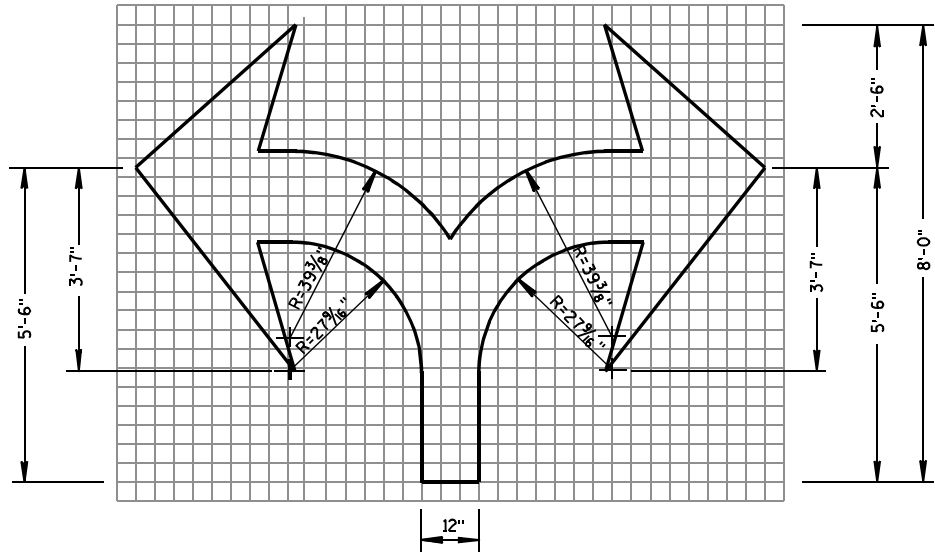
TYPE 2



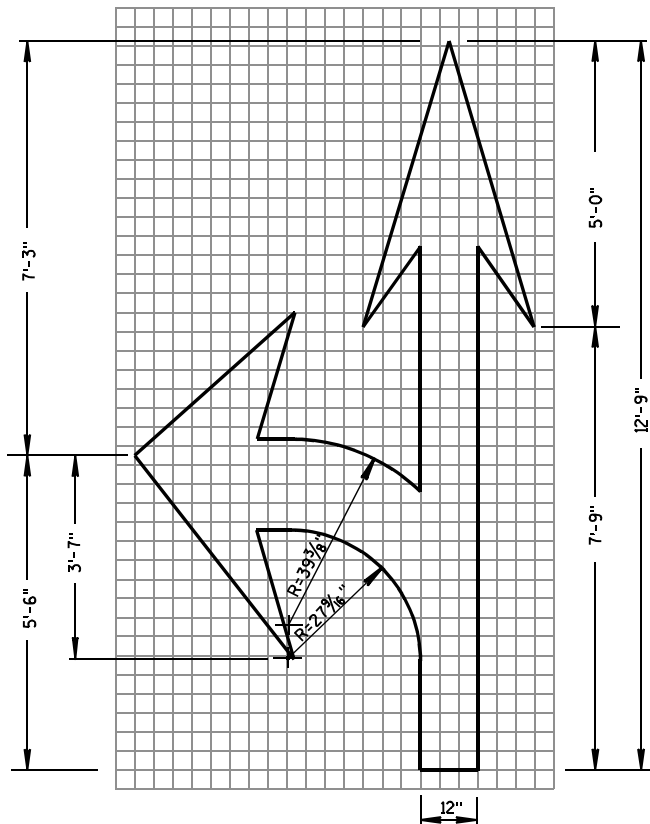
TYPE 1



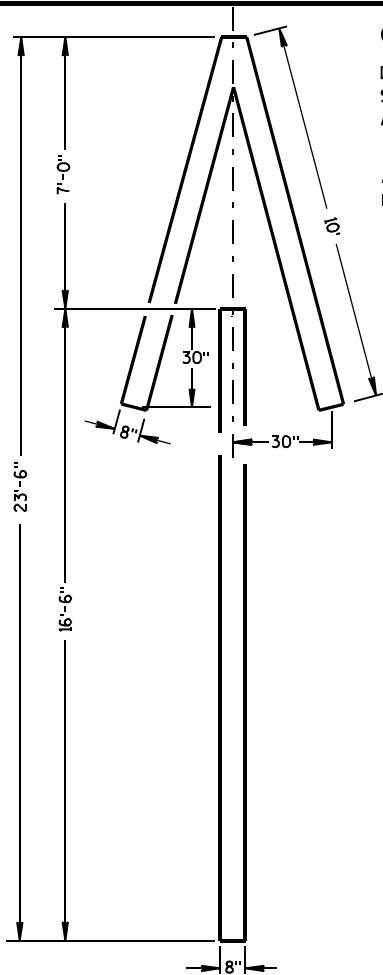
TYPE 6



TYPE 7



TYPE 3

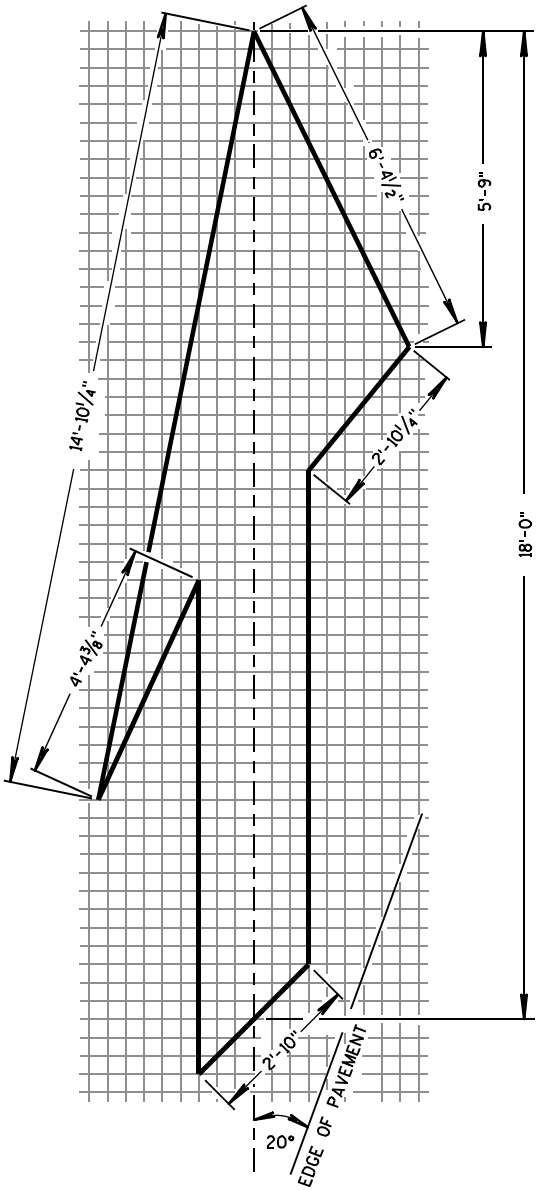


TYPE 4

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.

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

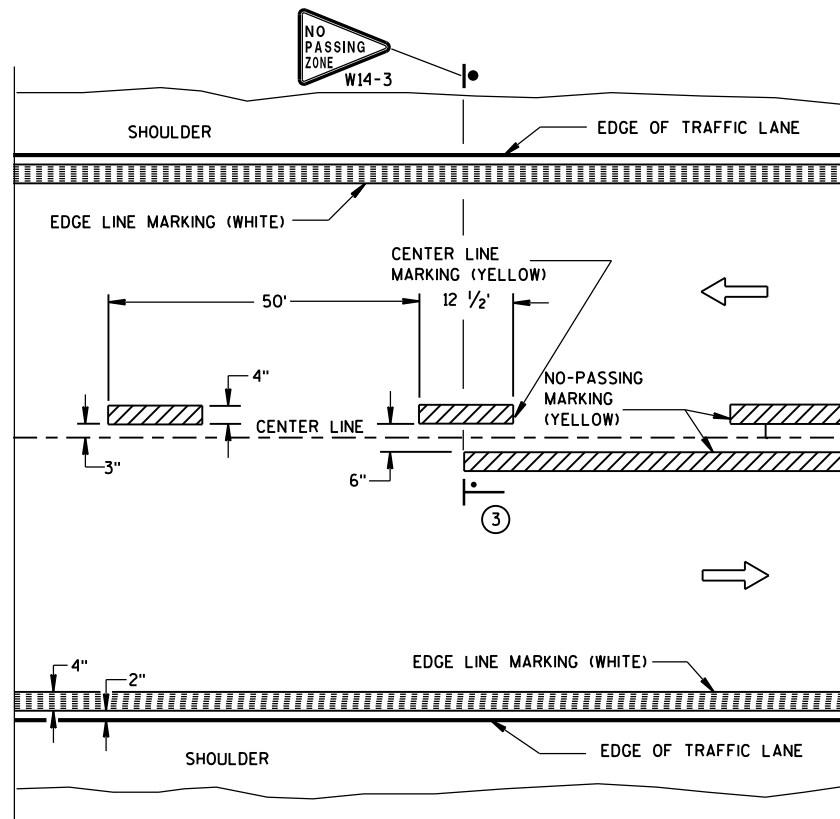


TYPE 5 LANE DROP ARROW

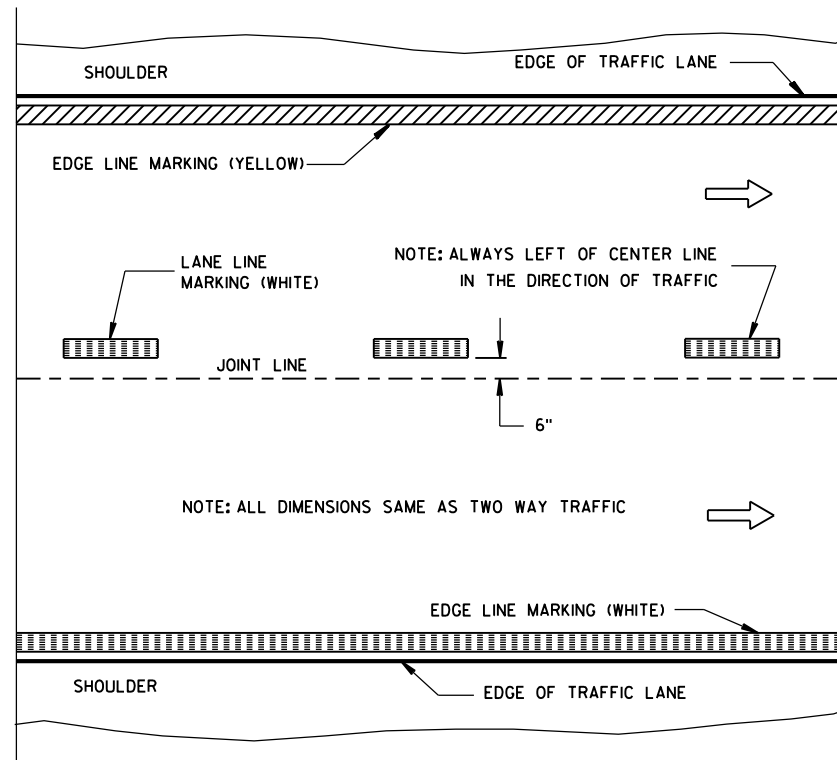
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 7/1/11 /S/ Thomas N. Nathahn
STATE TRAFFIC ENGINE 84 SIGN
FHWA

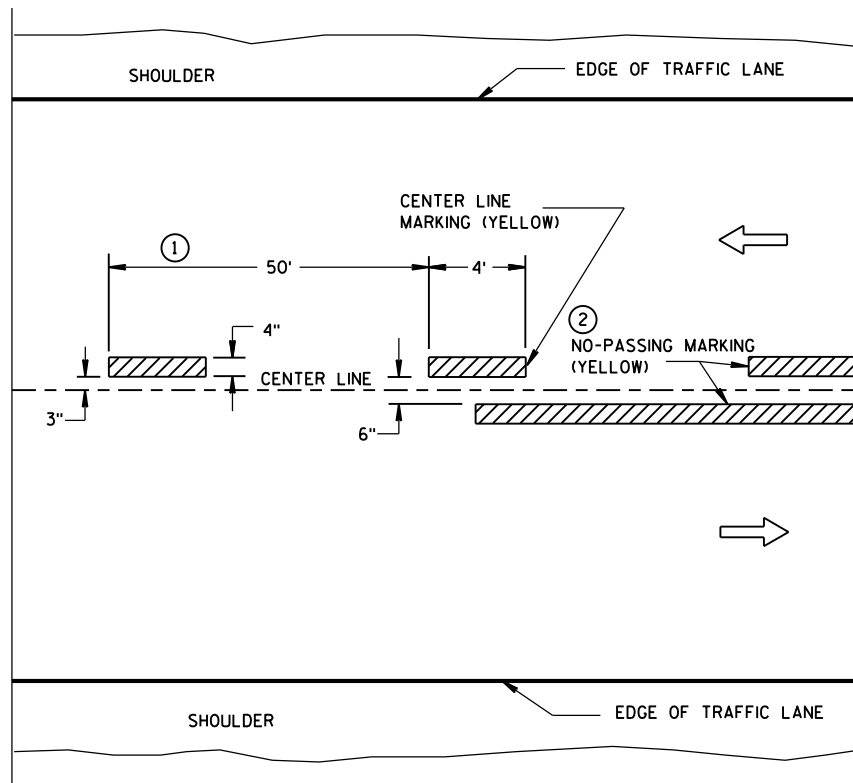


TWO WAY TRAFFIC

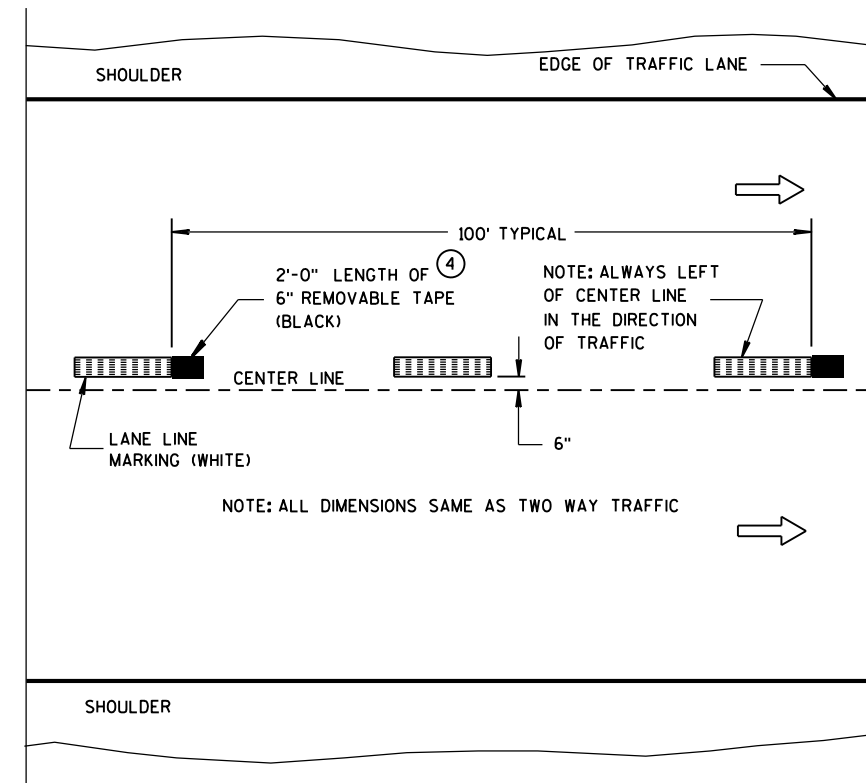


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

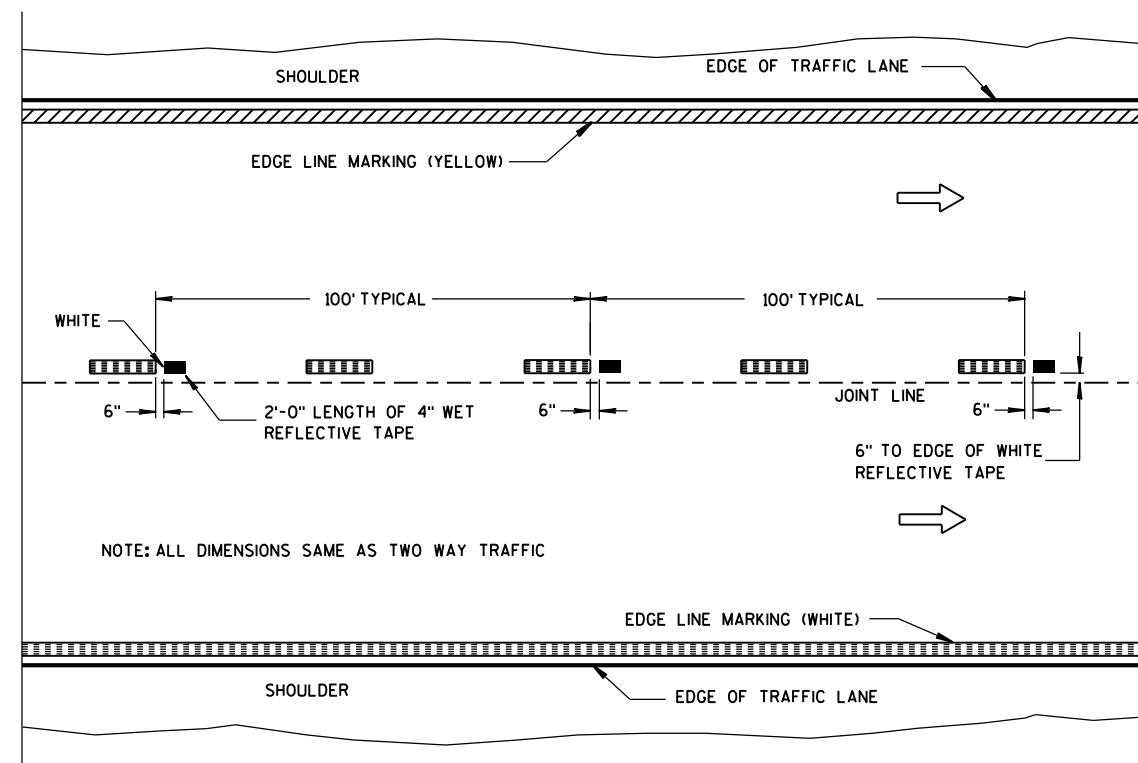
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



**WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE**

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

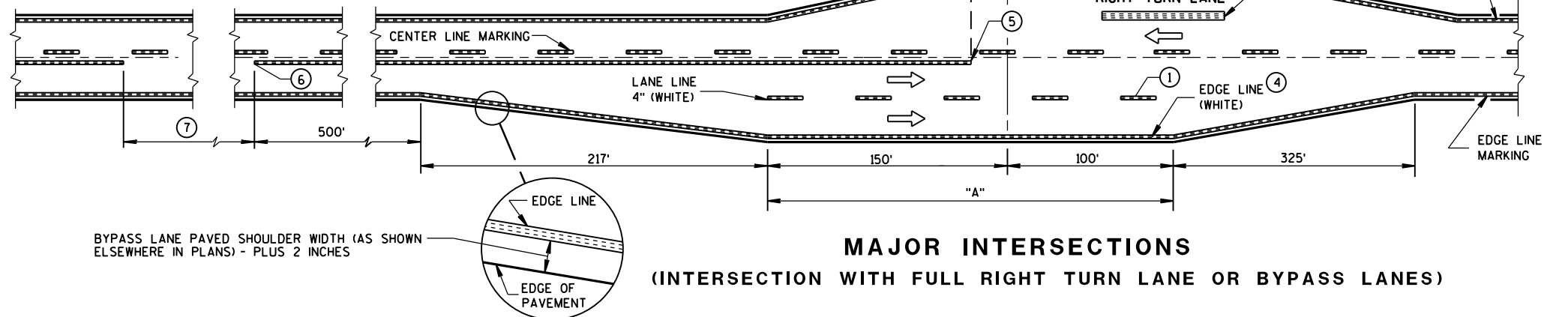
APPROVED
5-13-2013
DATE
FHWA

/S/ Travis Feltes
STATE TRAFFIC E 85



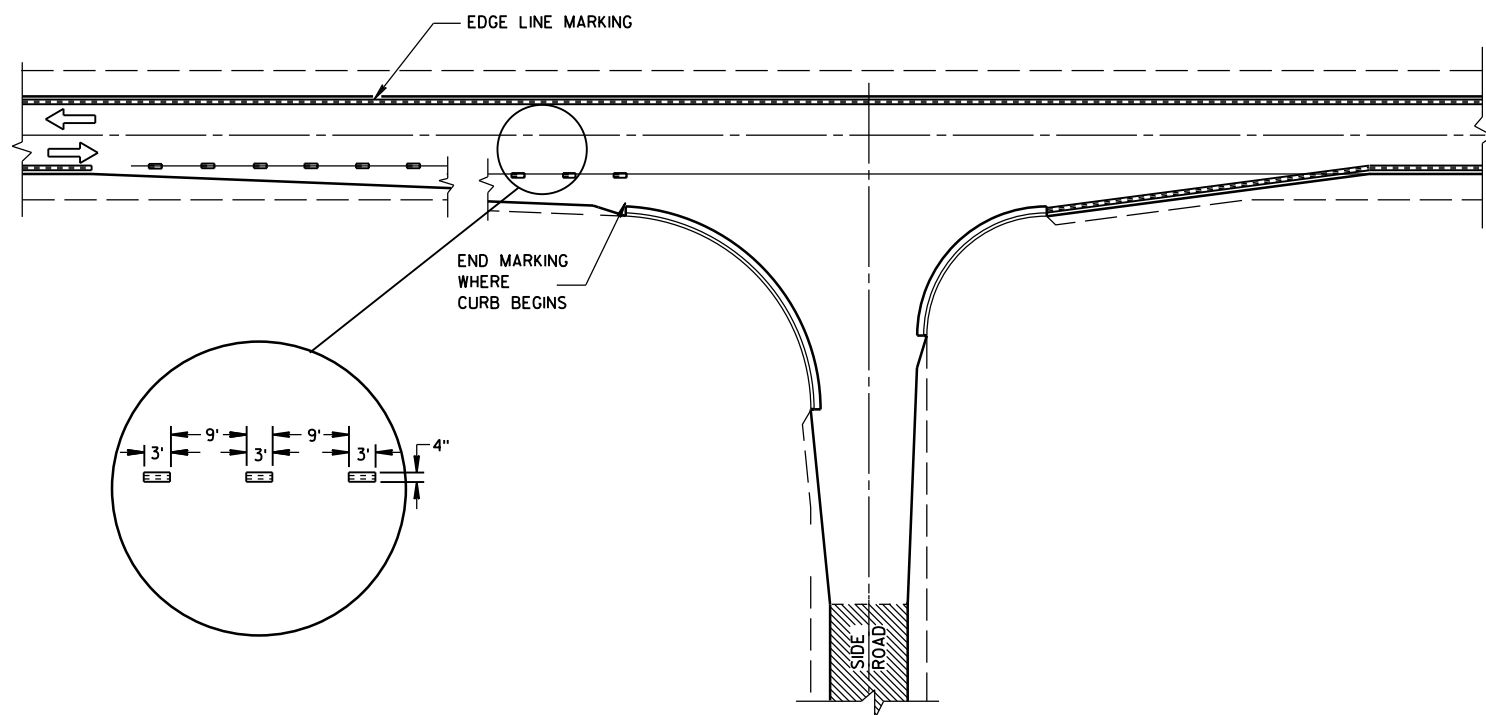
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792

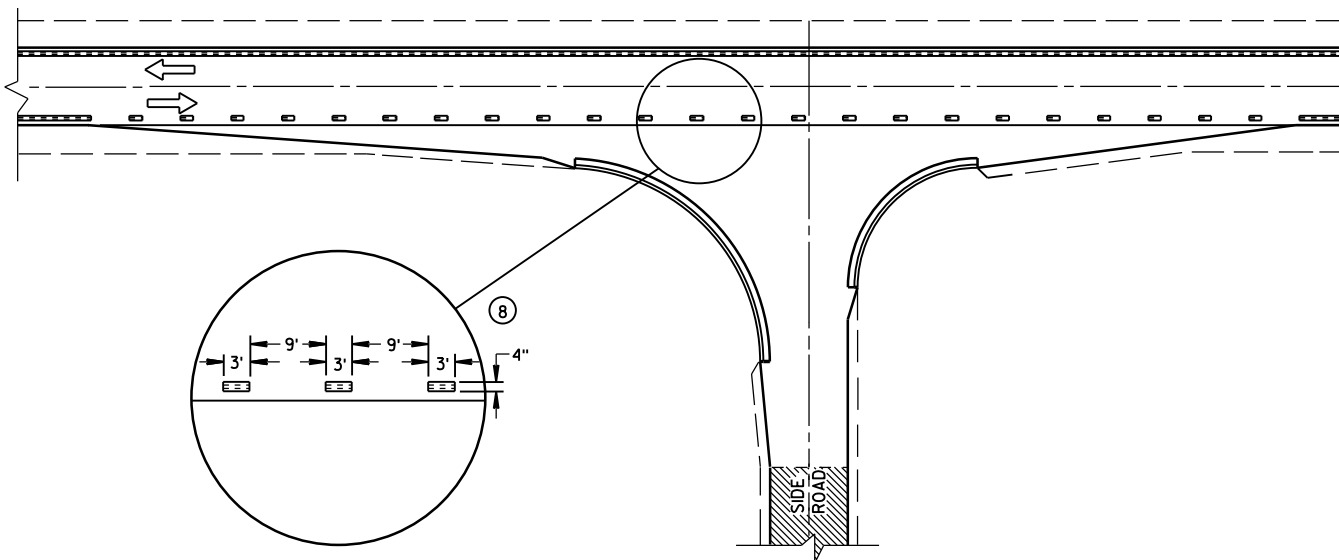


MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS (TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 86

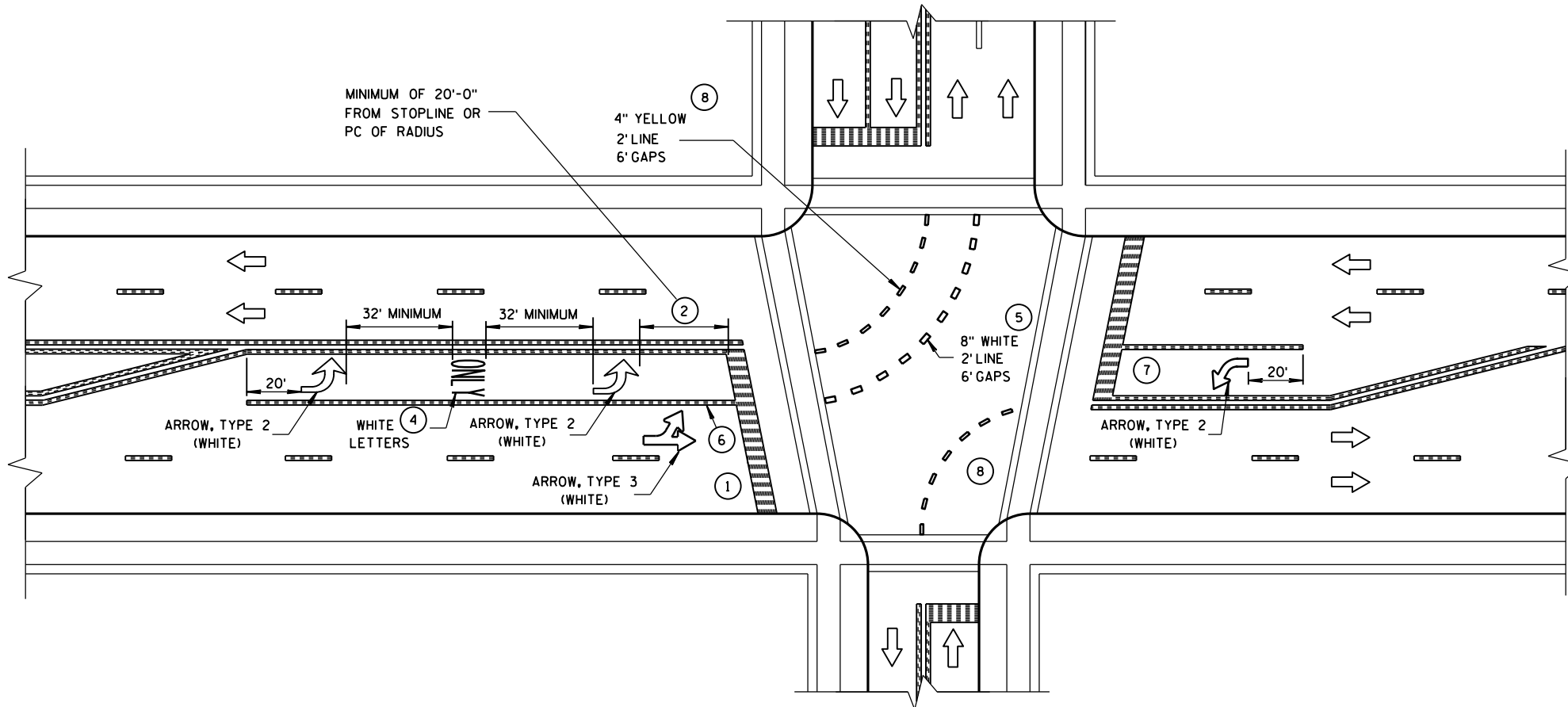
GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
- ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

- ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
- ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

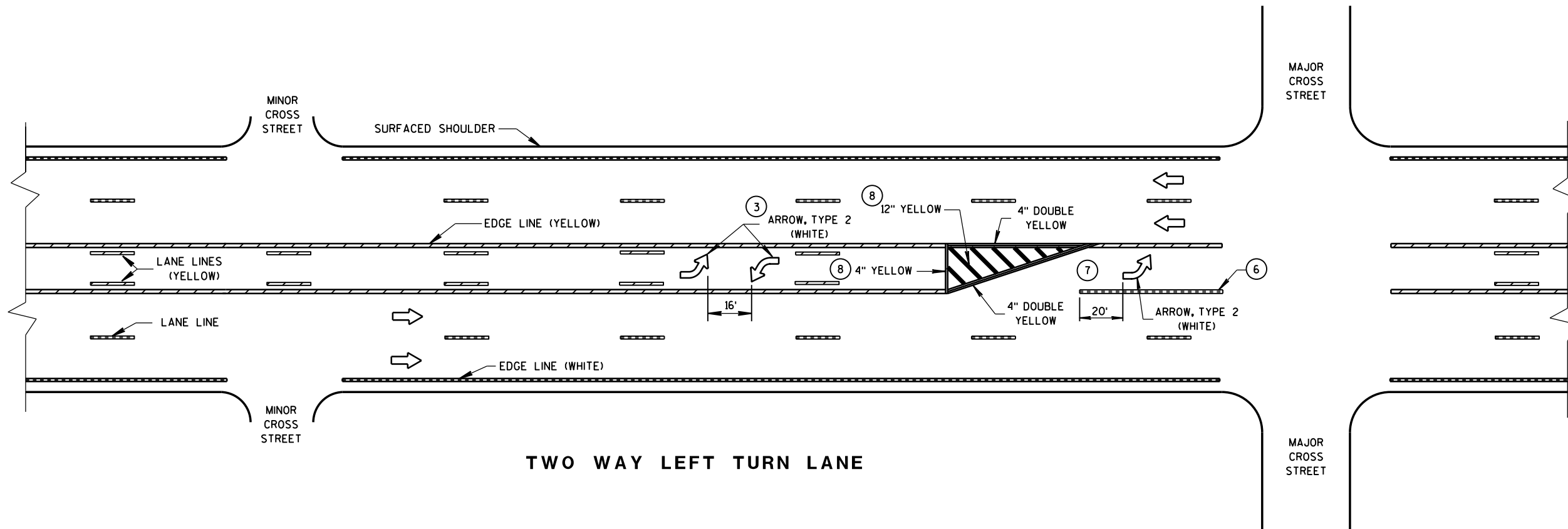
ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



GENERAL NOTES

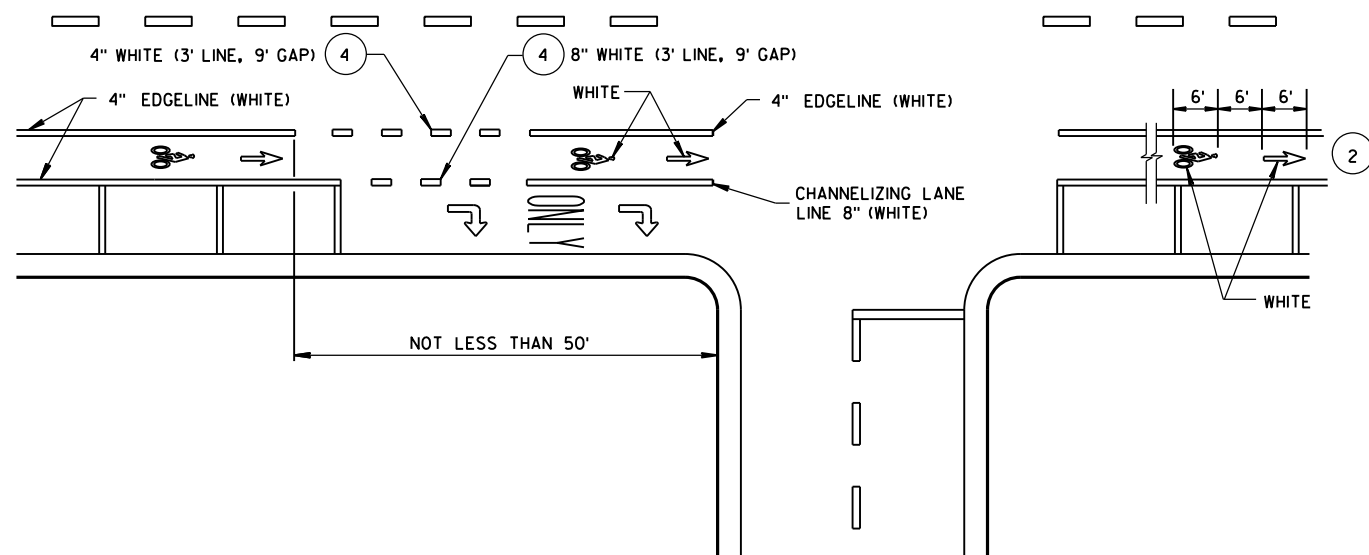
- 1 STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- 2 DISTANCE MAY BE ADJUSTED TO ACCOMMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- 3 A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- 4 ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- 5 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- 6 8" WHITE
- 7 ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- 8 REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL

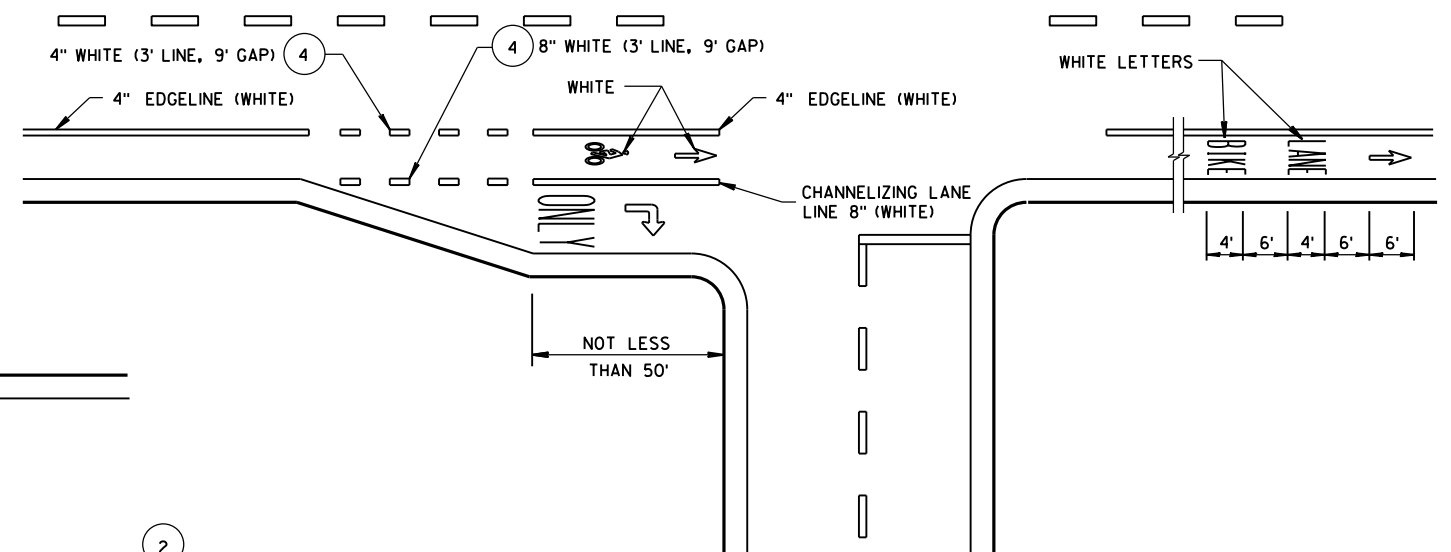


PAVEMENT MARKING (LEFT TURN LANE)

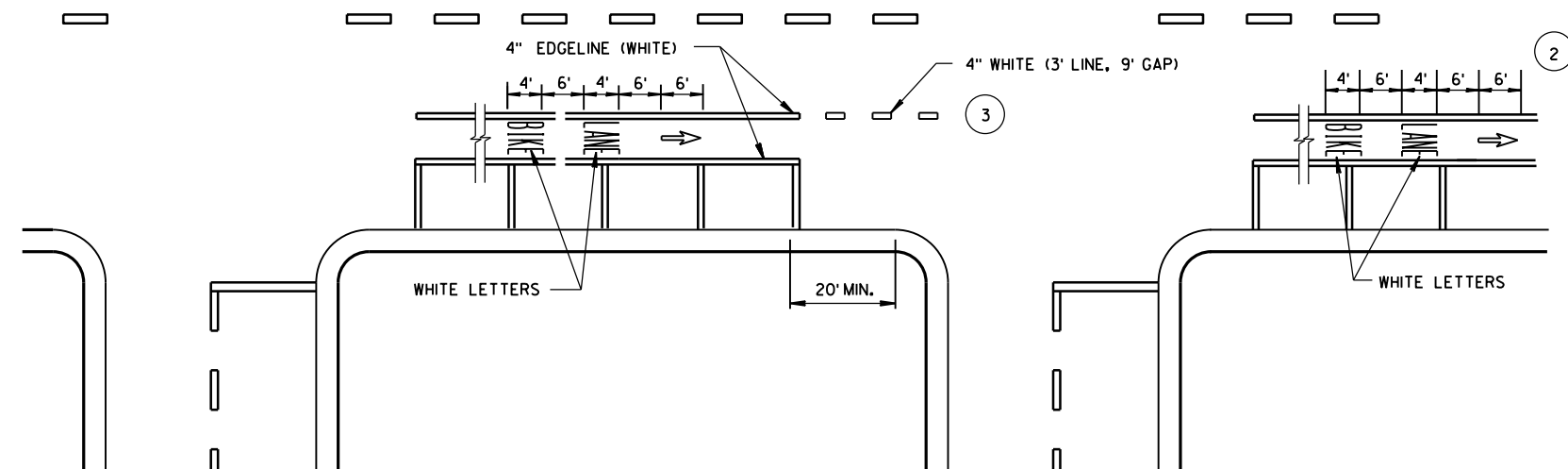
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DESIGNATED BICYCLE LANE



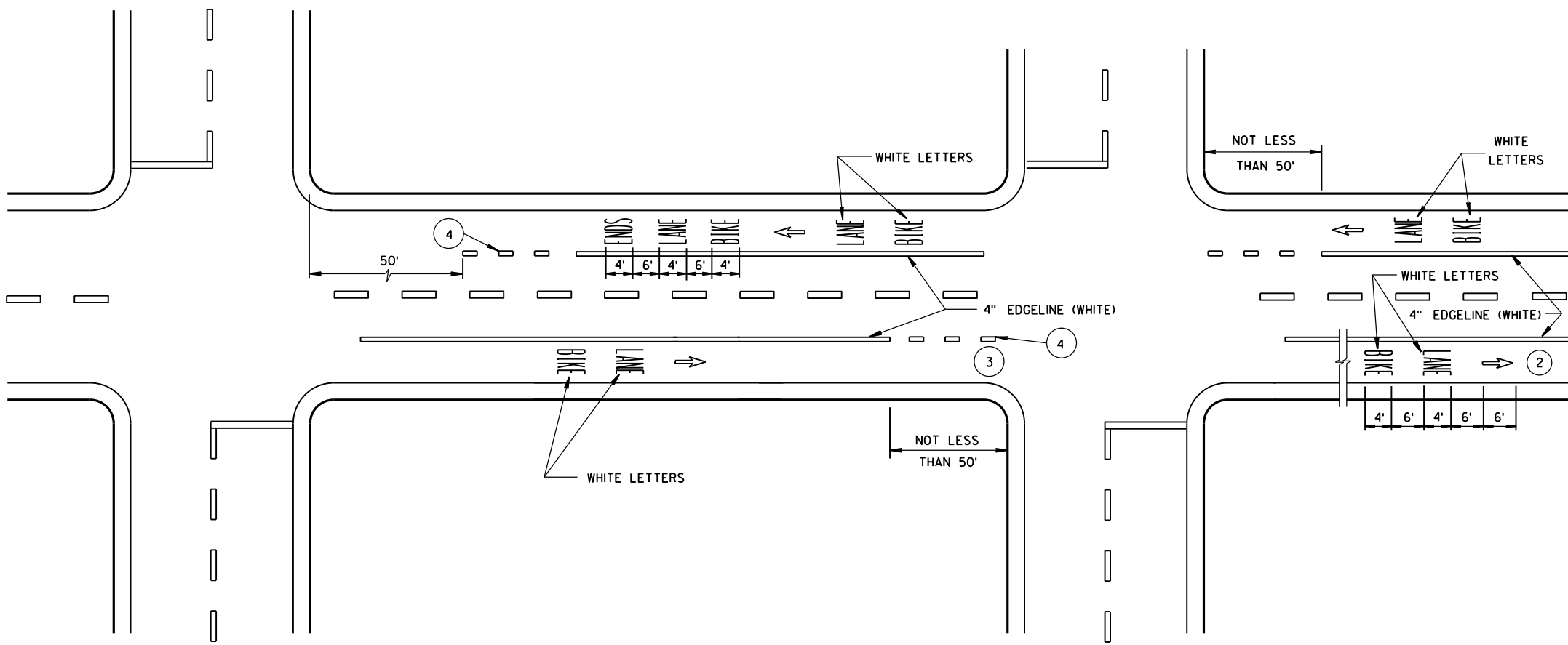
DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



**DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE**

- ## GENERAL NOTES
- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
 - 2 THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
 - 3 DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
 - 4 WHEN SPECIFIED IN THE CONTRACT.

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4/30/2013</u> DATE	<u>/S/ Travis Feltes</u> STATE TRAFFIC ENGINEER



DESIGNATED BICYCLE LANE
NO PARKING

GENERAL NOTES

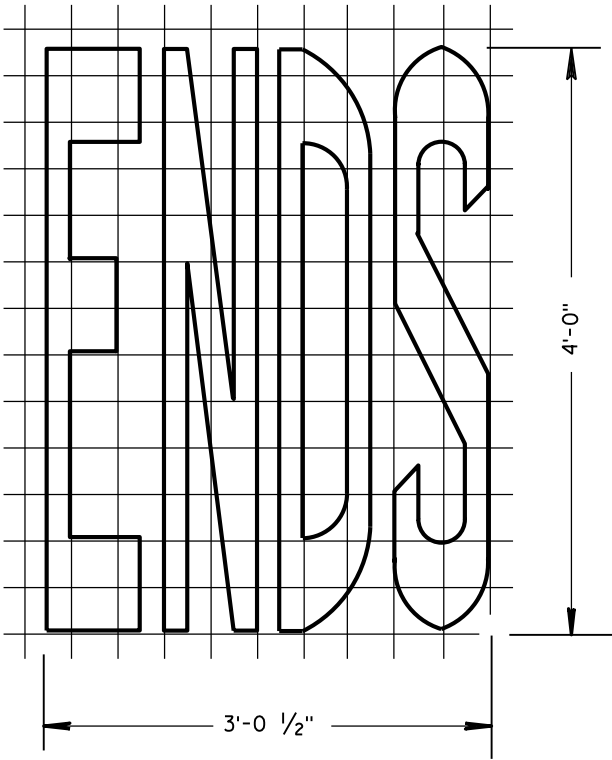
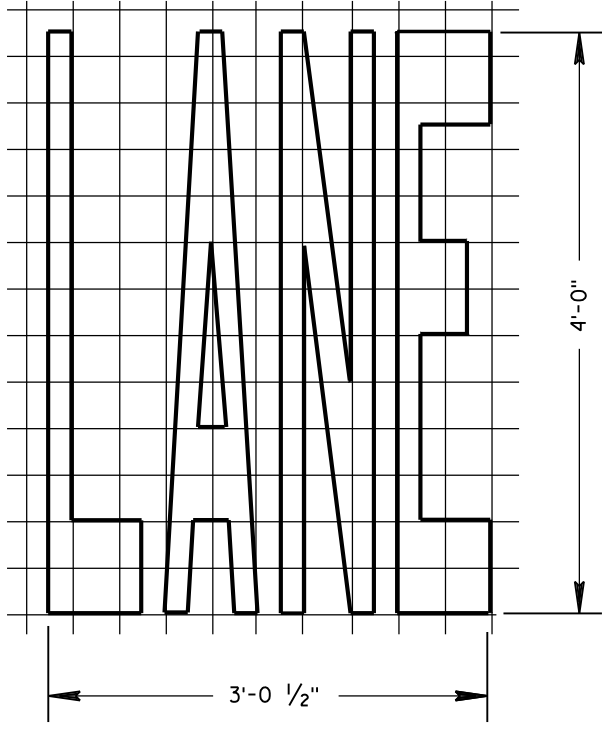
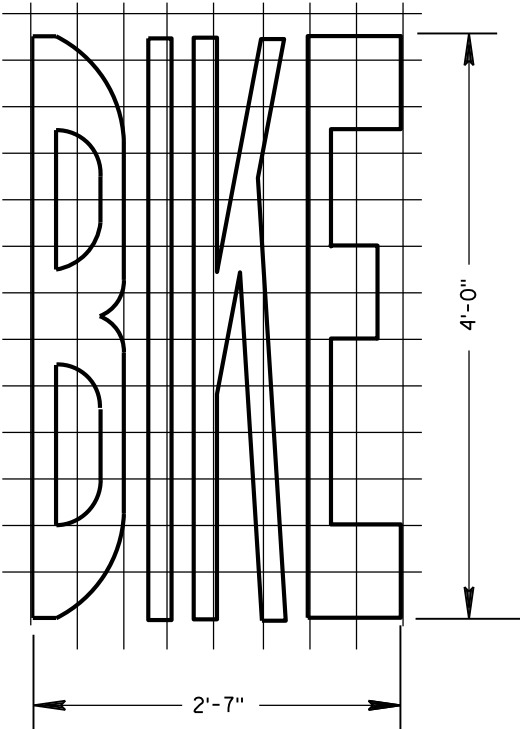
- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
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- 3 DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- 4 3' LINE, 9' GAP - 4" WIDE, WHITE.

URBAN BICYCLE LANE MARKING		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 4/30/2013 DATE	/S/ Travis Fettes STATE TRAFFIC ENGINEER	
FHWA		

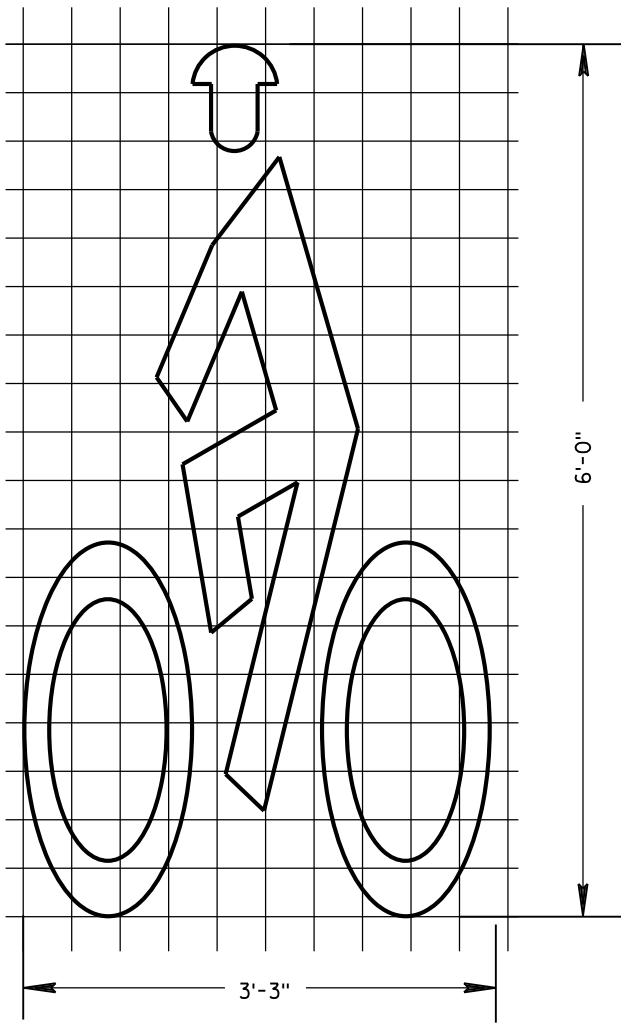
GENERAL NOTES

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.

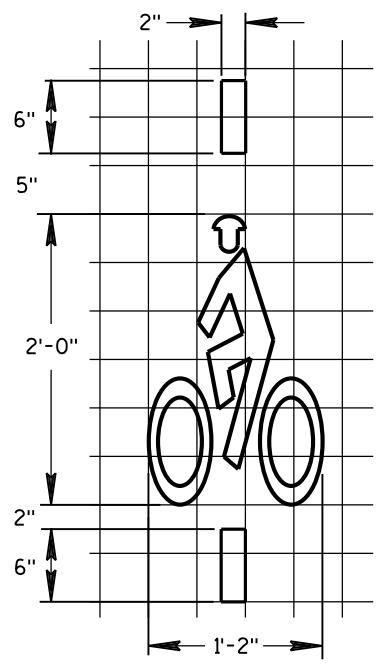
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



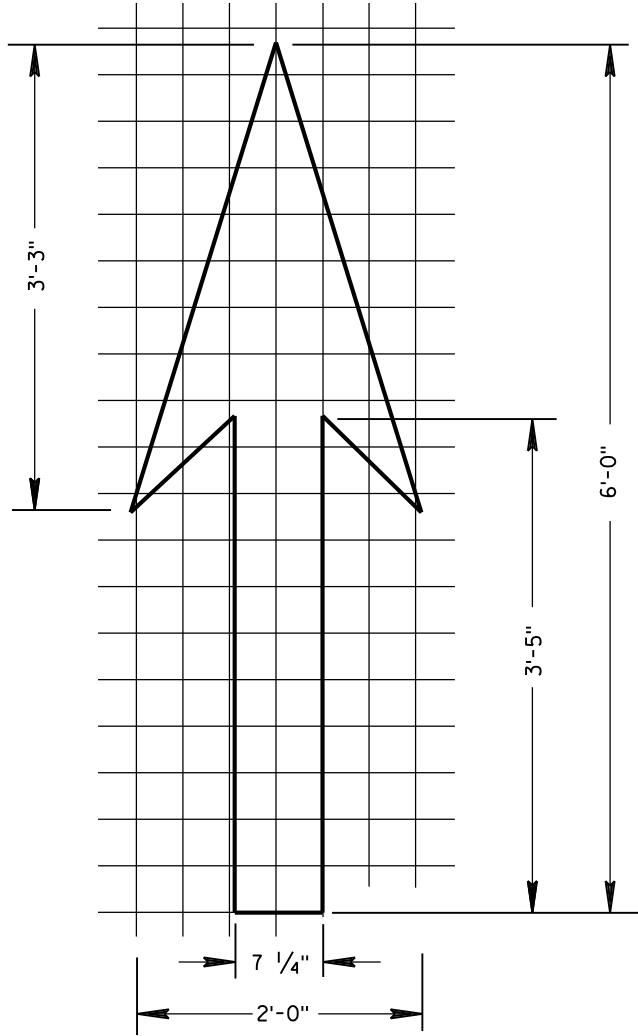
BIKE LANE WORDS



BIKE LANE SYMBOL

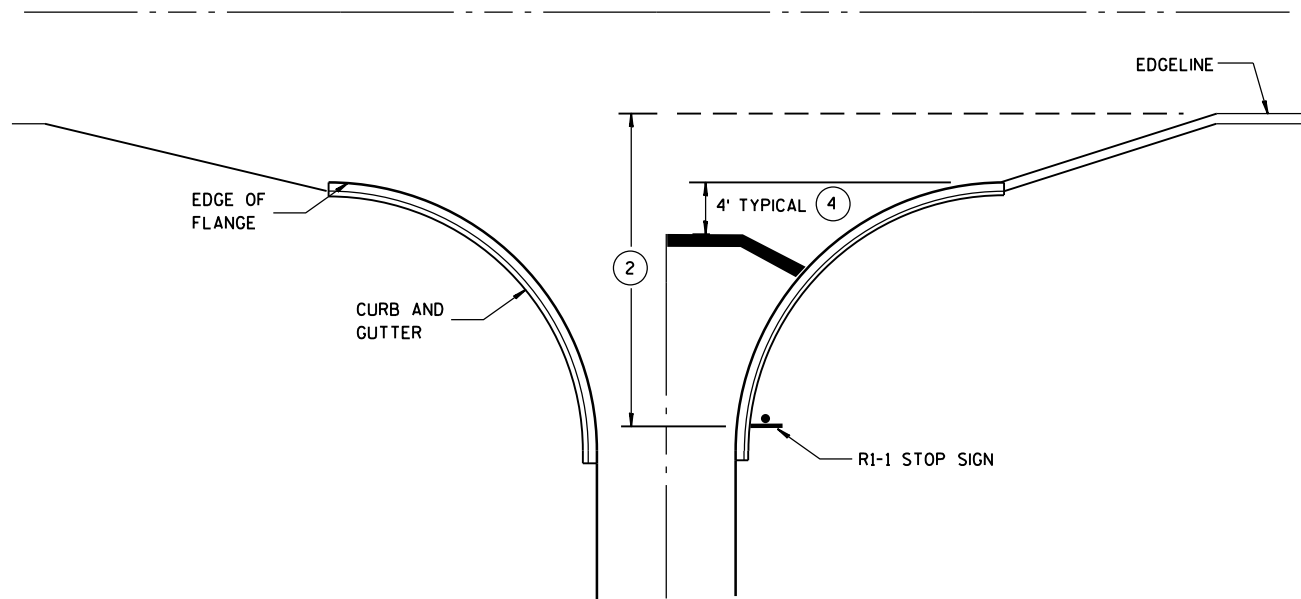


BICYCLE DETECTOR PAVEMENT MARKING

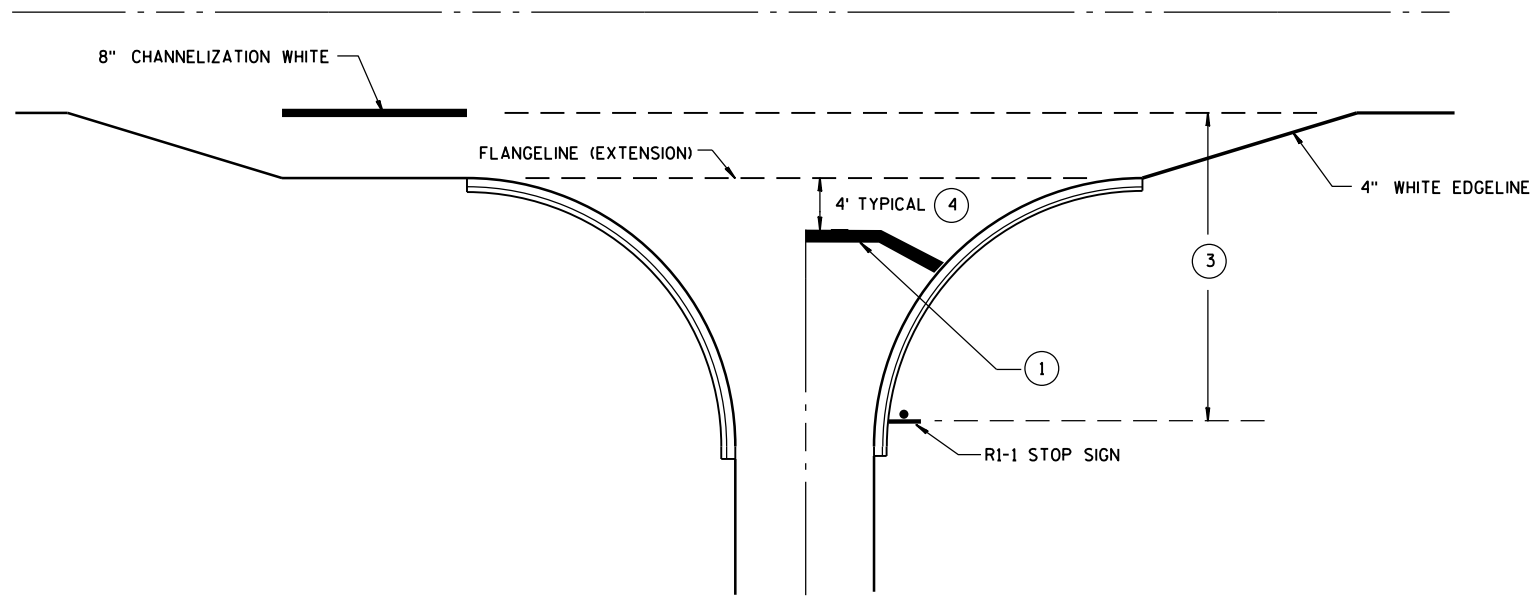


BIKE LANE ARROW

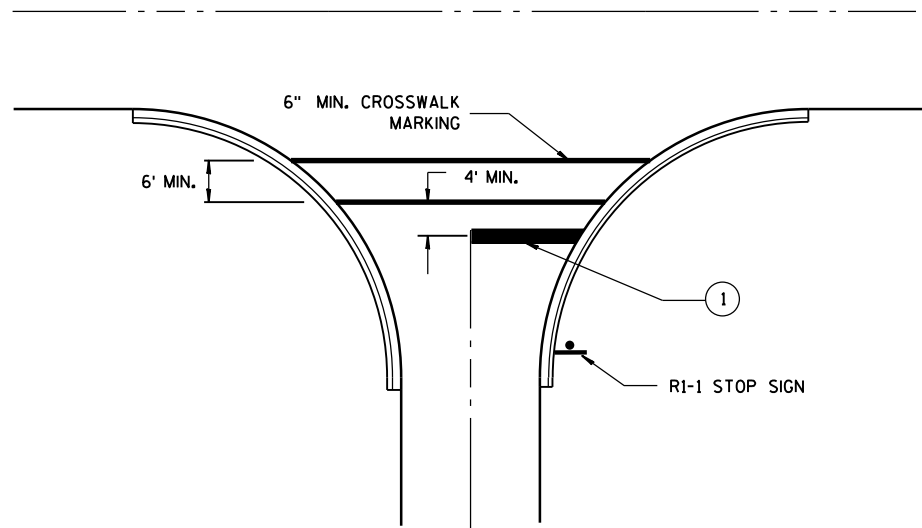
PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-30-2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	



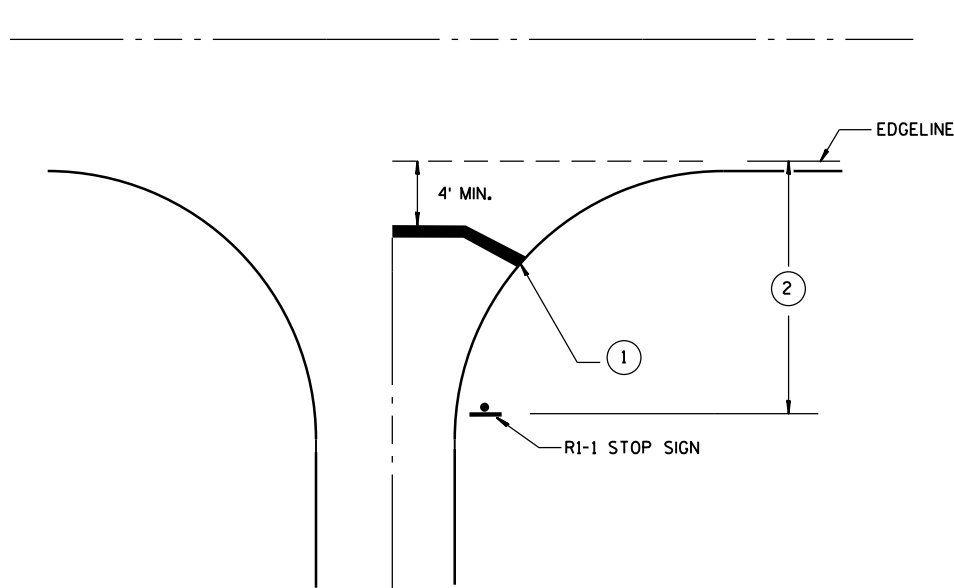
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING

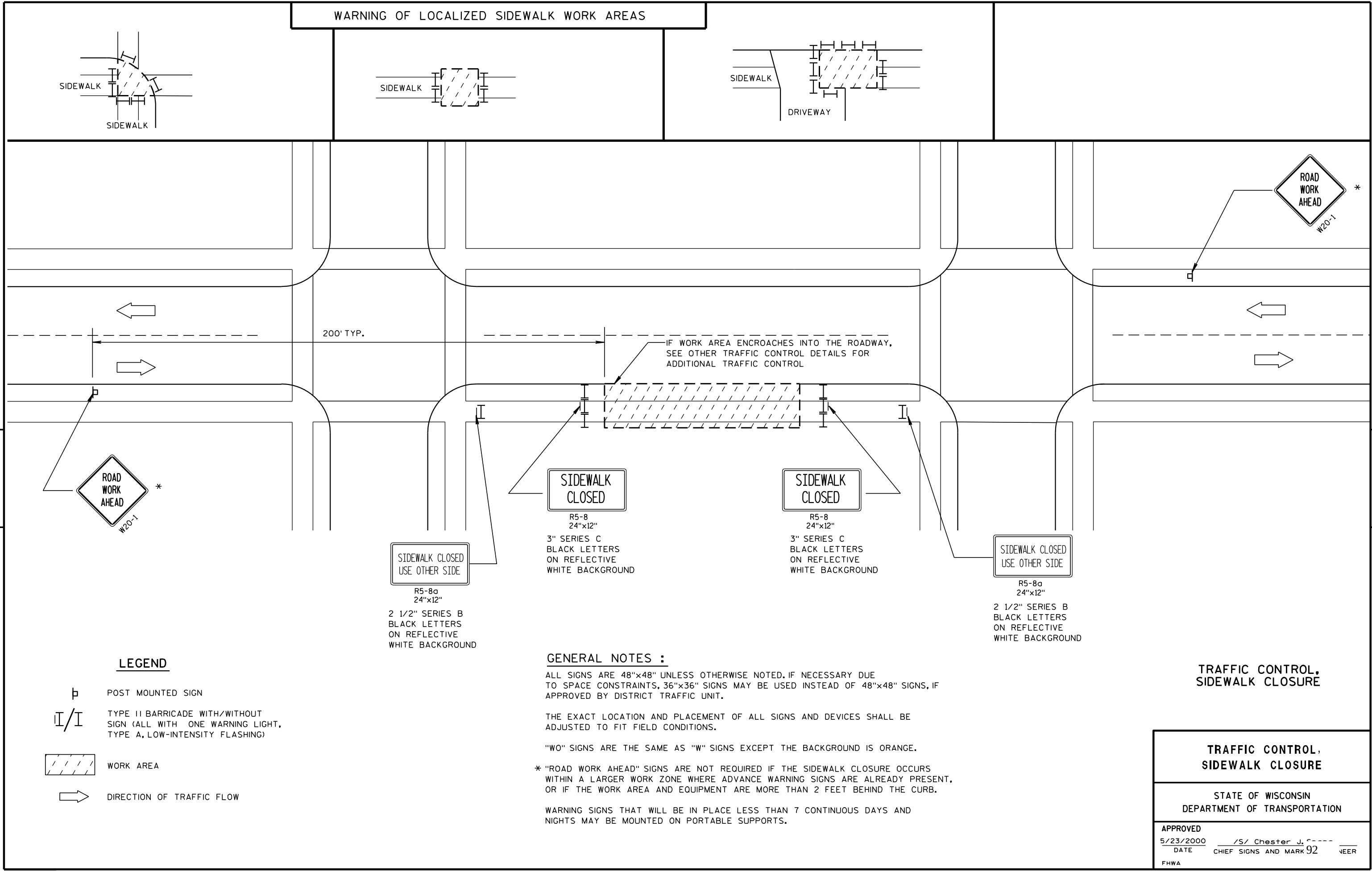


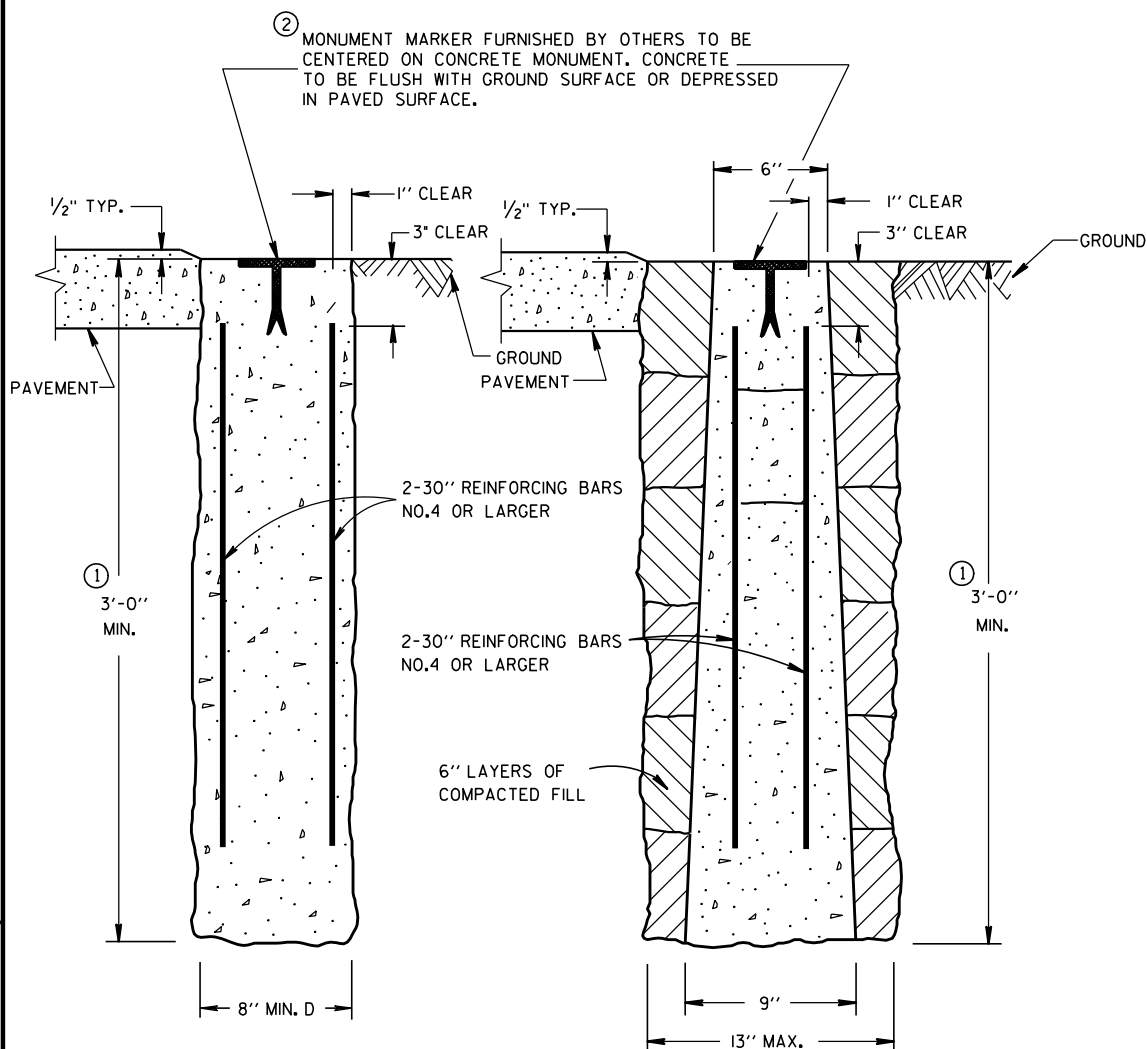
TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 4/30/2013	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	



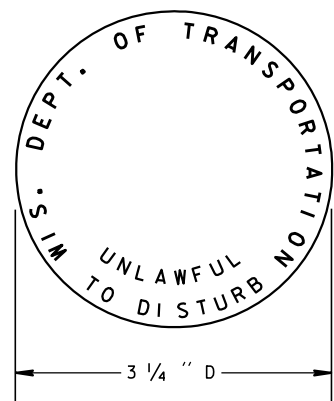


CAST-IN-PLACE

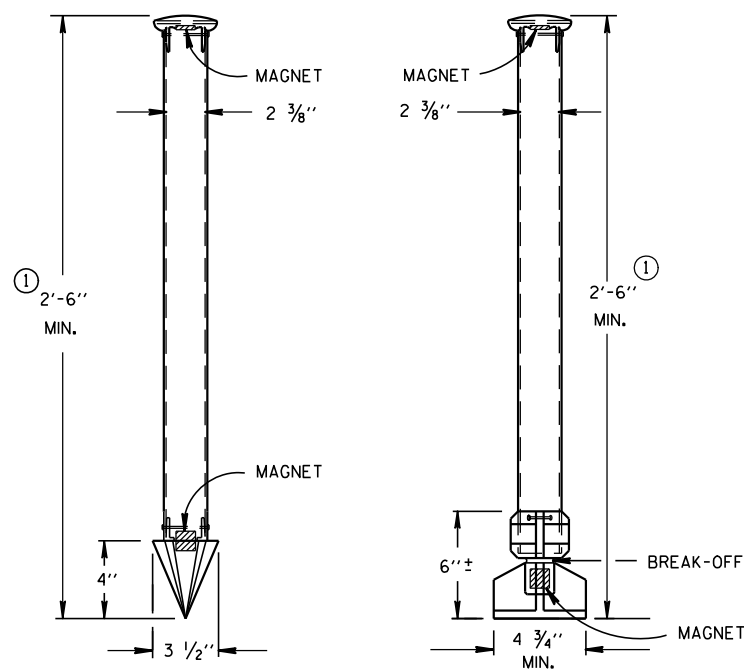
PRECAST

CONCRETE MONUMENTS

TYPE A



② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



TYPE C

TYPE D

DRIVE-IN MONUMENT

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

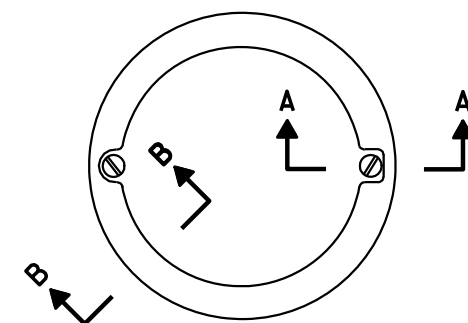
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

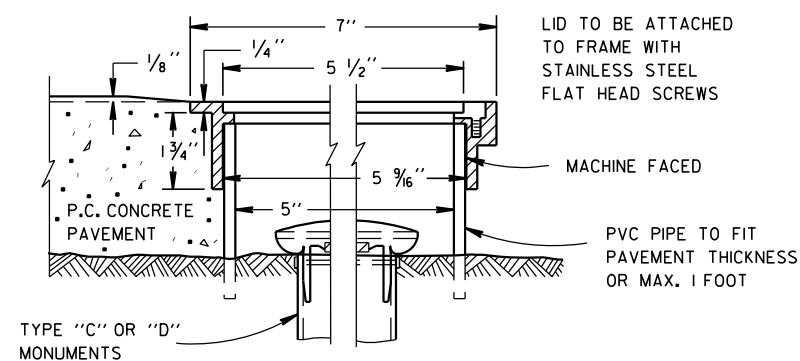
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

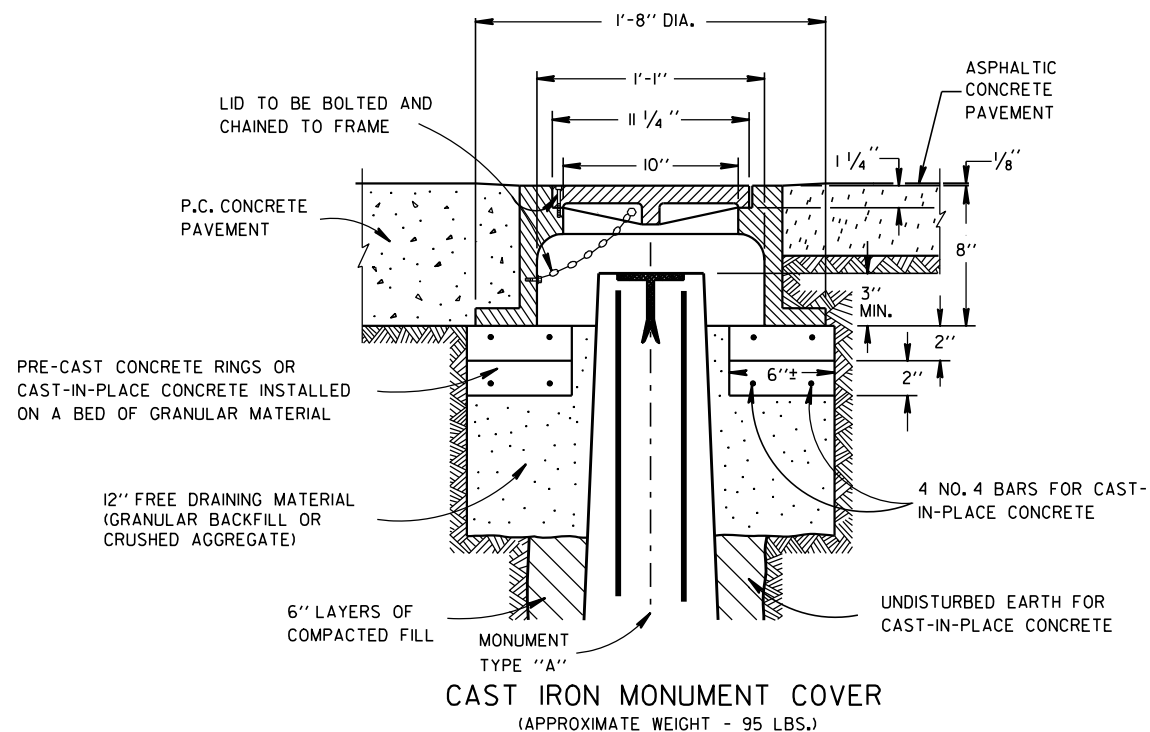
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)

LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999

DATE

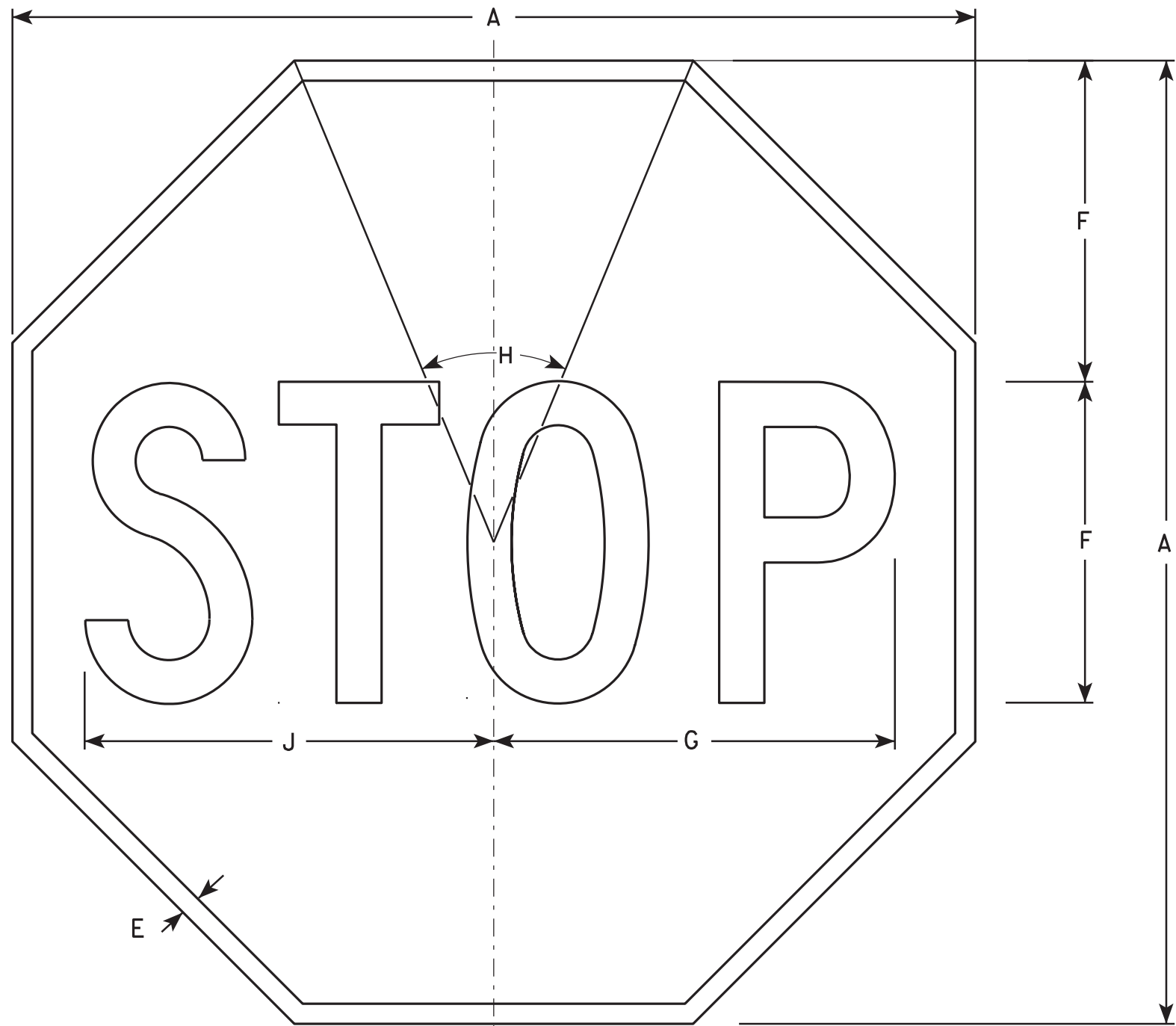
FHWA

/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

93

NEER



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

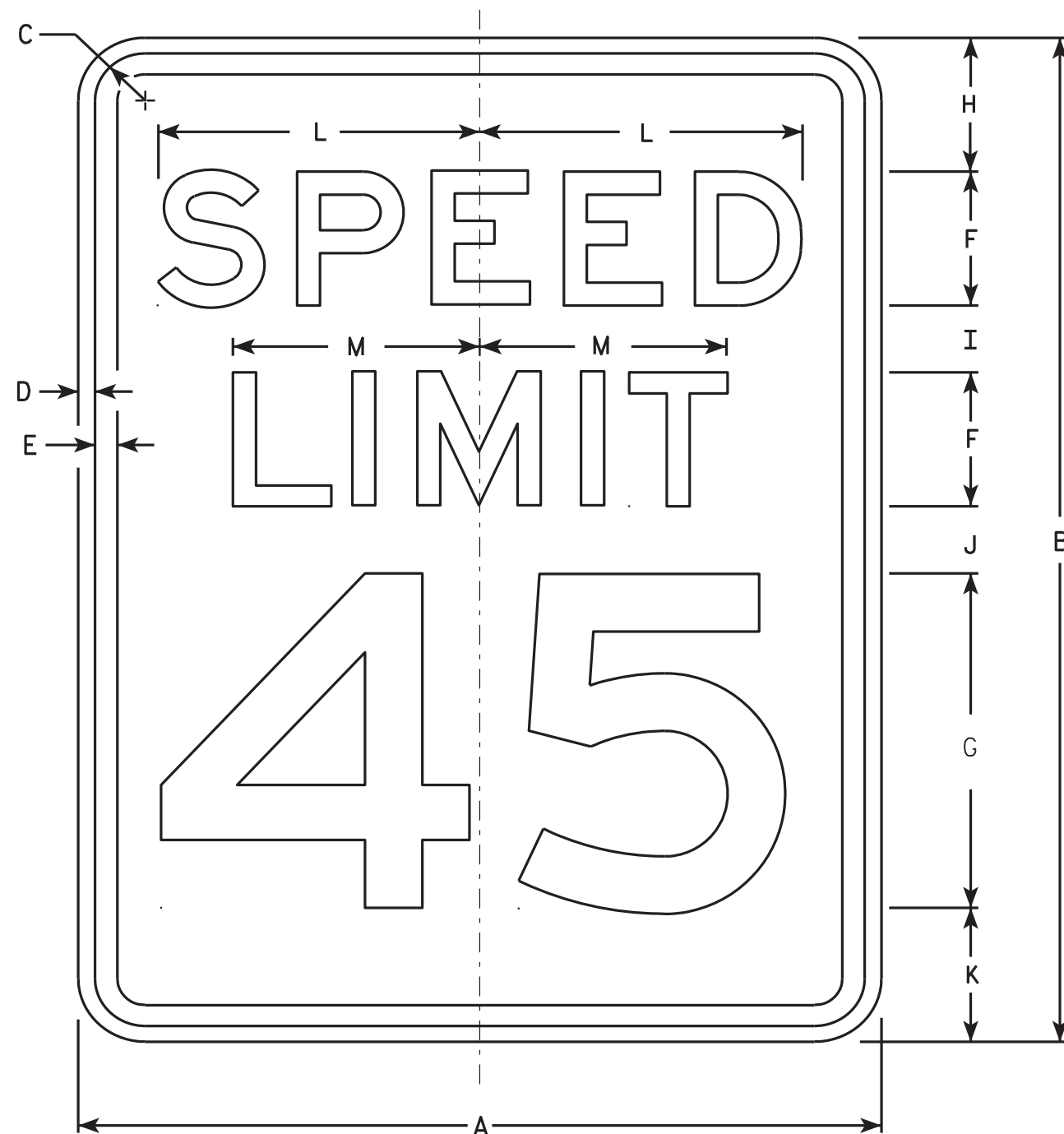
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13



R2-6P

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

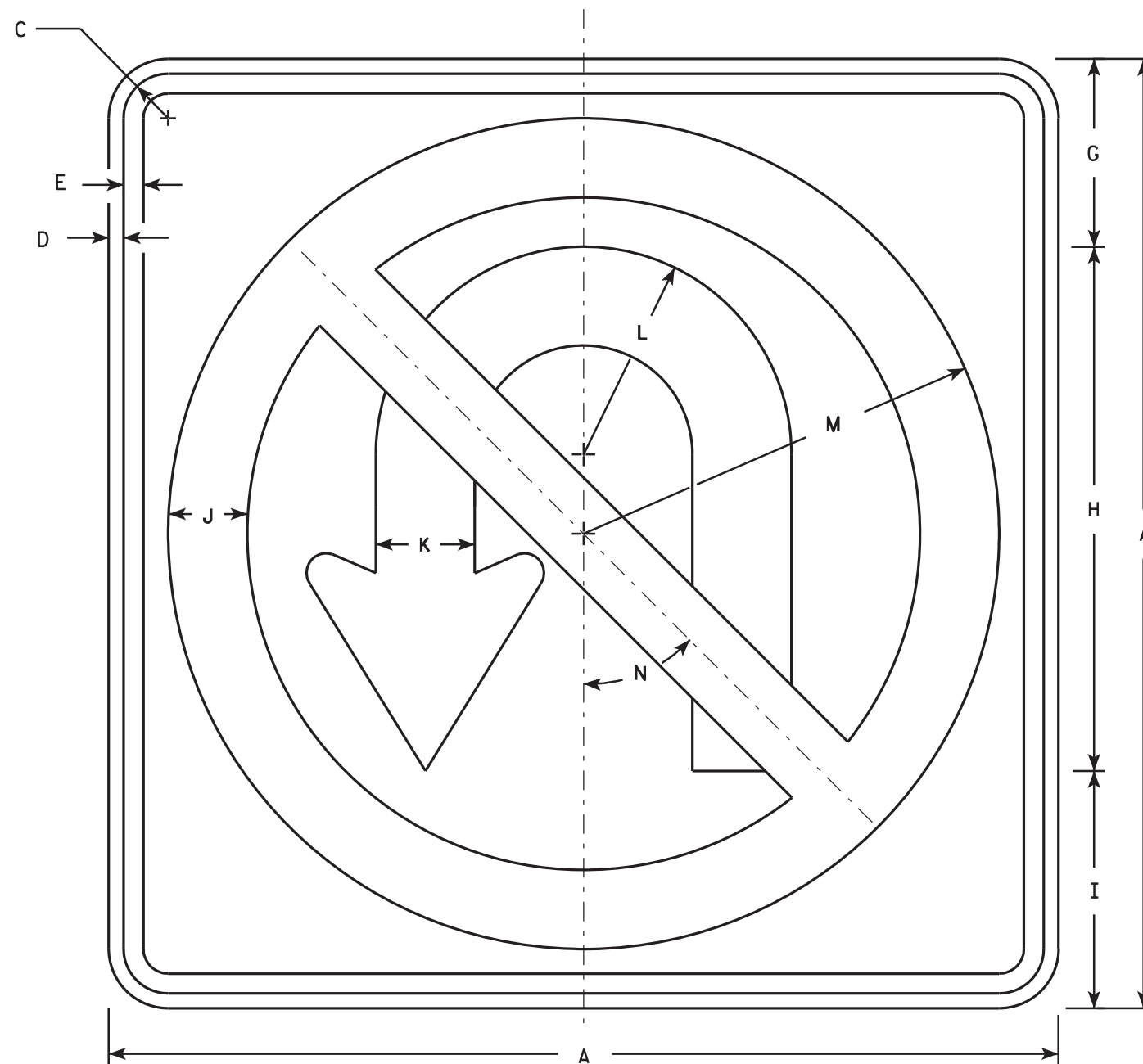
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 96

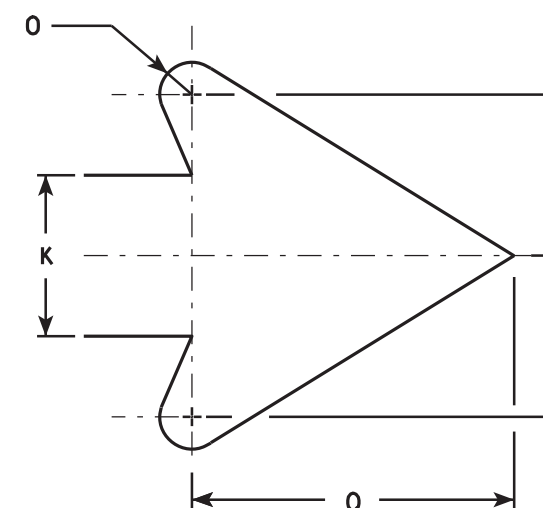
E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

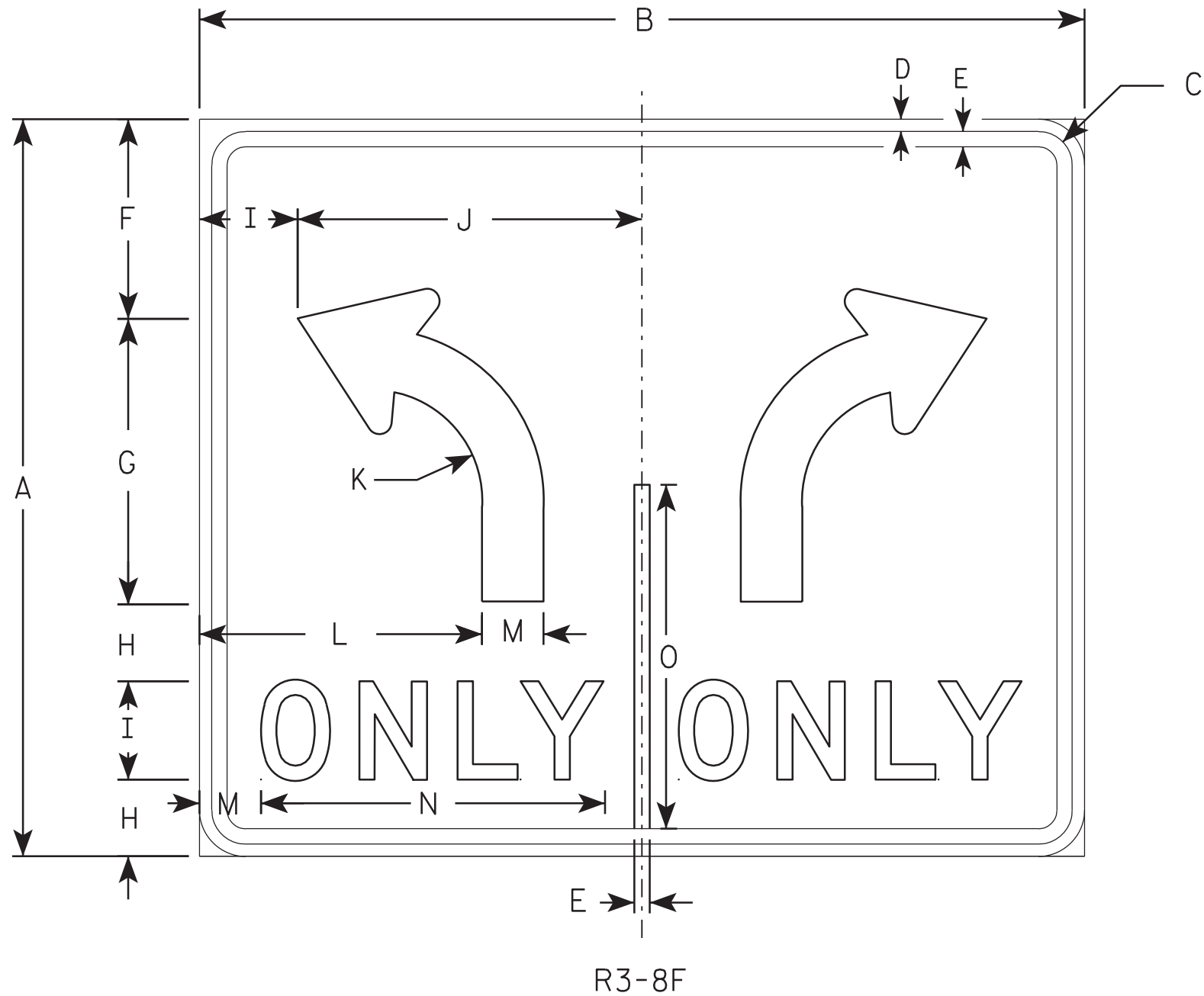


ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

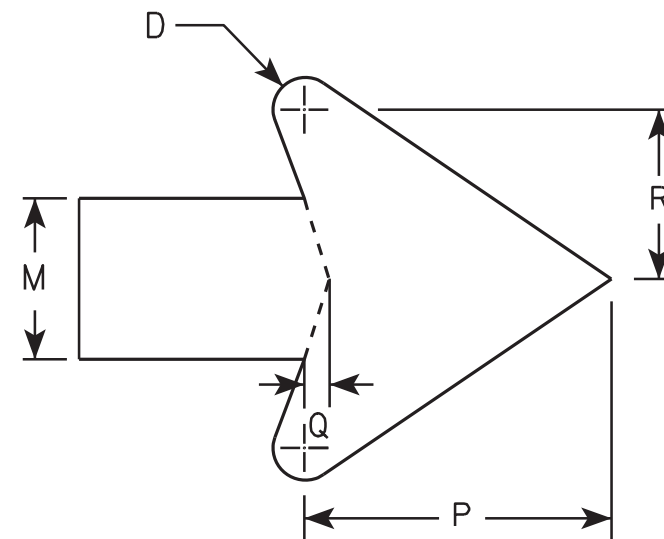
STANDARD SIGN R3-4	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/08/10	PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 97	E
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NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - WHITE
Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	14	4 1⁄2	11 1⁄2	2 1⁄2	14	14	4 3⁄4	3⁄8	2 5⁄8									7.5
2M	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	14	4 1⁄2	11 1⁄2	2 1⁄2	14	14	4 3⁄4	3⁄8	2 5⁄8									7.5
3																											
4	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	21	7 1⁄4	17 1⁄4	3 3⁄4	20 5⁄8	22 3⁄8	7 1⁄8	5⁄8	4									18.0
5	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	21	7 1⁄4	17 1⁄4	3 3⁄4	20 5⁄8	22 3⁄8	7 1⁄8	5⁄8	4									18.0

STANDARD SIGN R3-8F

WISCONSIN DEPT OF TRANSPORTATION

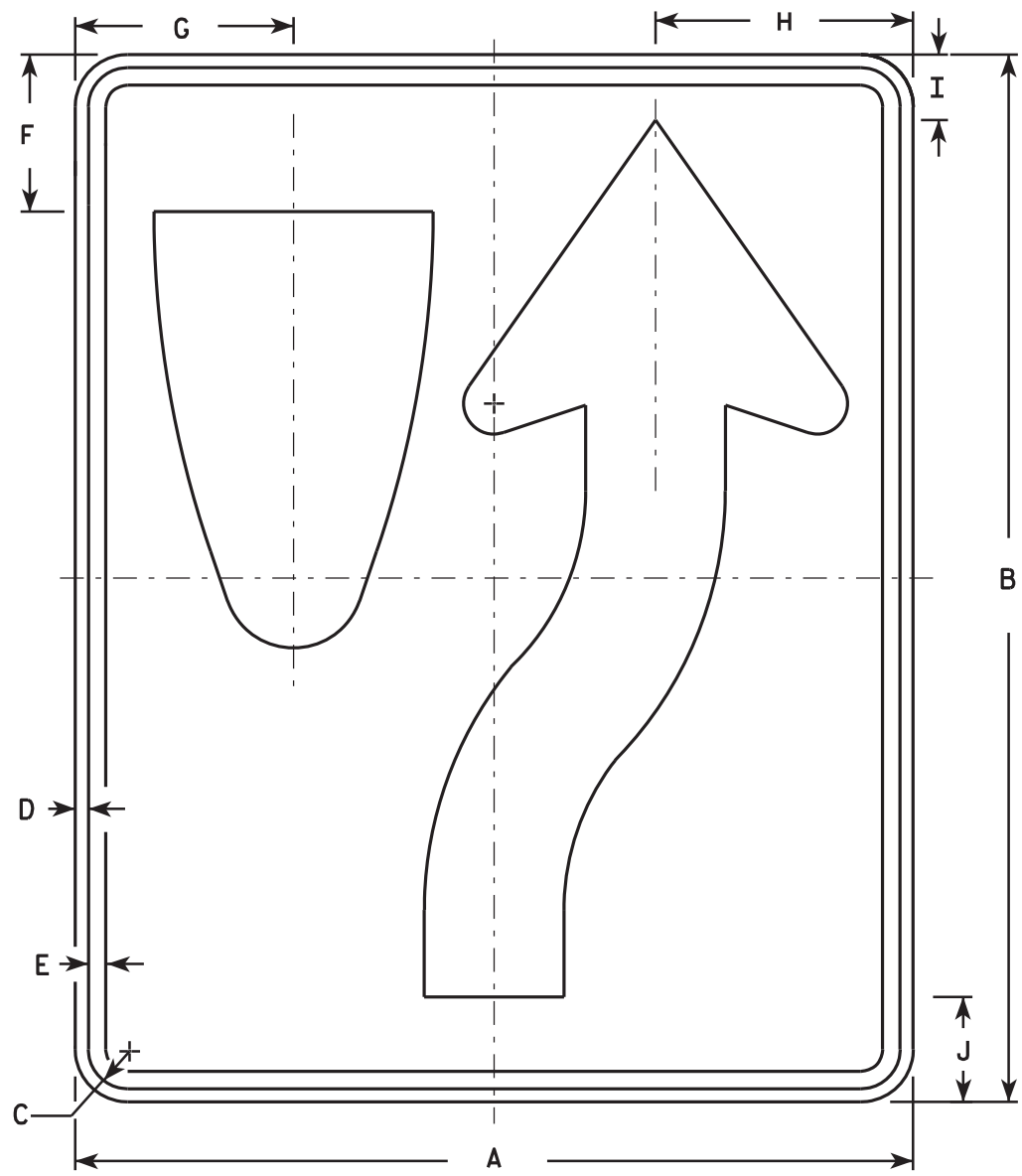
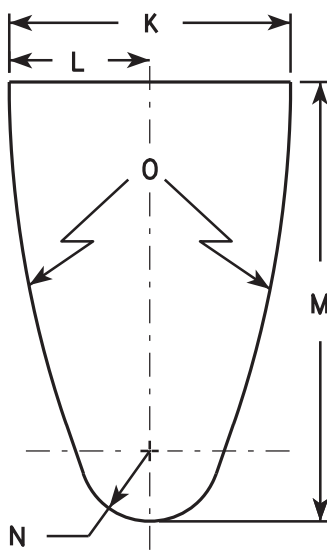
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8F.2

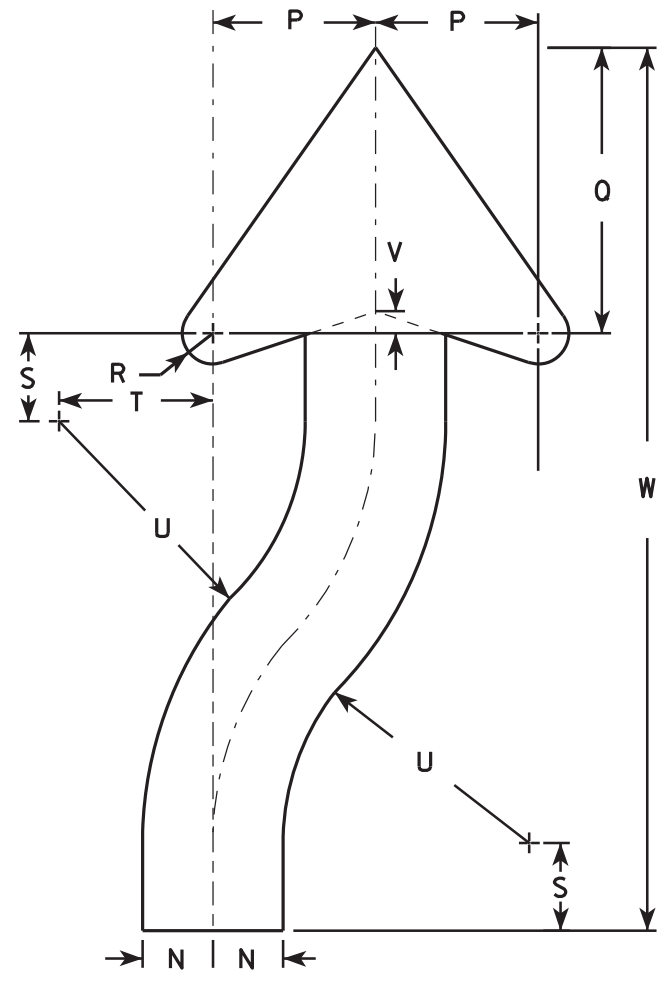
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 98 **E**

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
- 2. Color:
Background - White
Message - Black
- 3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
- 4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 99

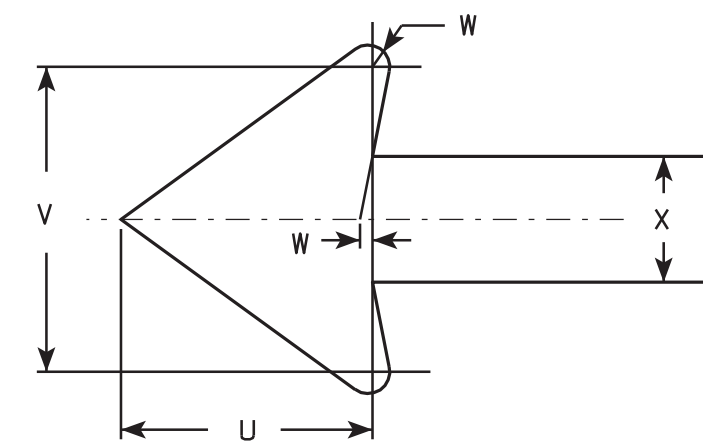
E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:
HWY:
COUNTY:
SHEET NO: 100

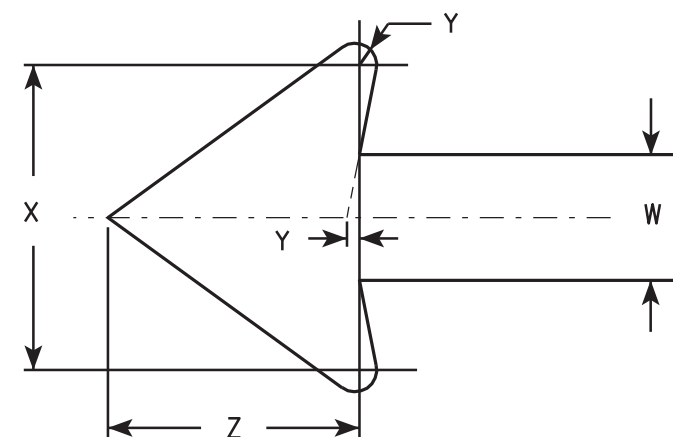
7



R7-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-51D (double arrow)
R7-51R (right arrow)
R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.
Line 2 is Series B.



ARROW DETAIL

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E
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STANDARD SIGN
R7-51

WISCONSIN DEPT OF TRANSPORTATION

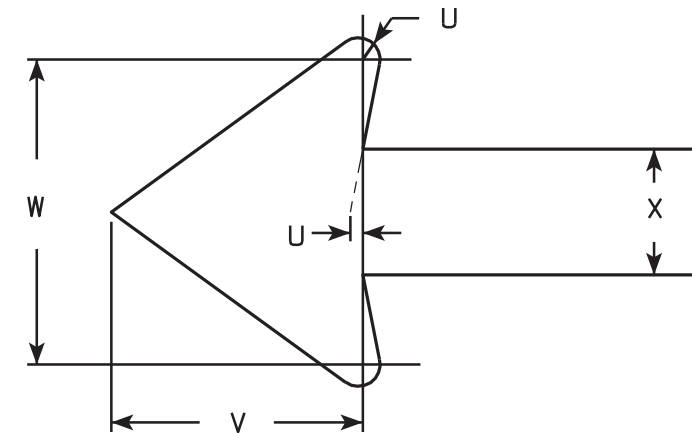
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-51.6



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Red
- Message Series - See Note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Lines 1, 3 and 4 are series C, line 2 is series B.
- R7-52D (double arrow)
R7-52L (left arrow)
R7-52R (right arrow)



ARROW DETAIL

R7-52

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	5 1/8	5	3 1/8	3 7/8	1/8	1 1/2	1 3/4	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	6 3/8	6 1/4	3 7/8	5 7/8	1/4	2 1/4	2 5/8	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
4																											
5																											

STANDARD SIGN R7-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-52.6

PROJECT NO:

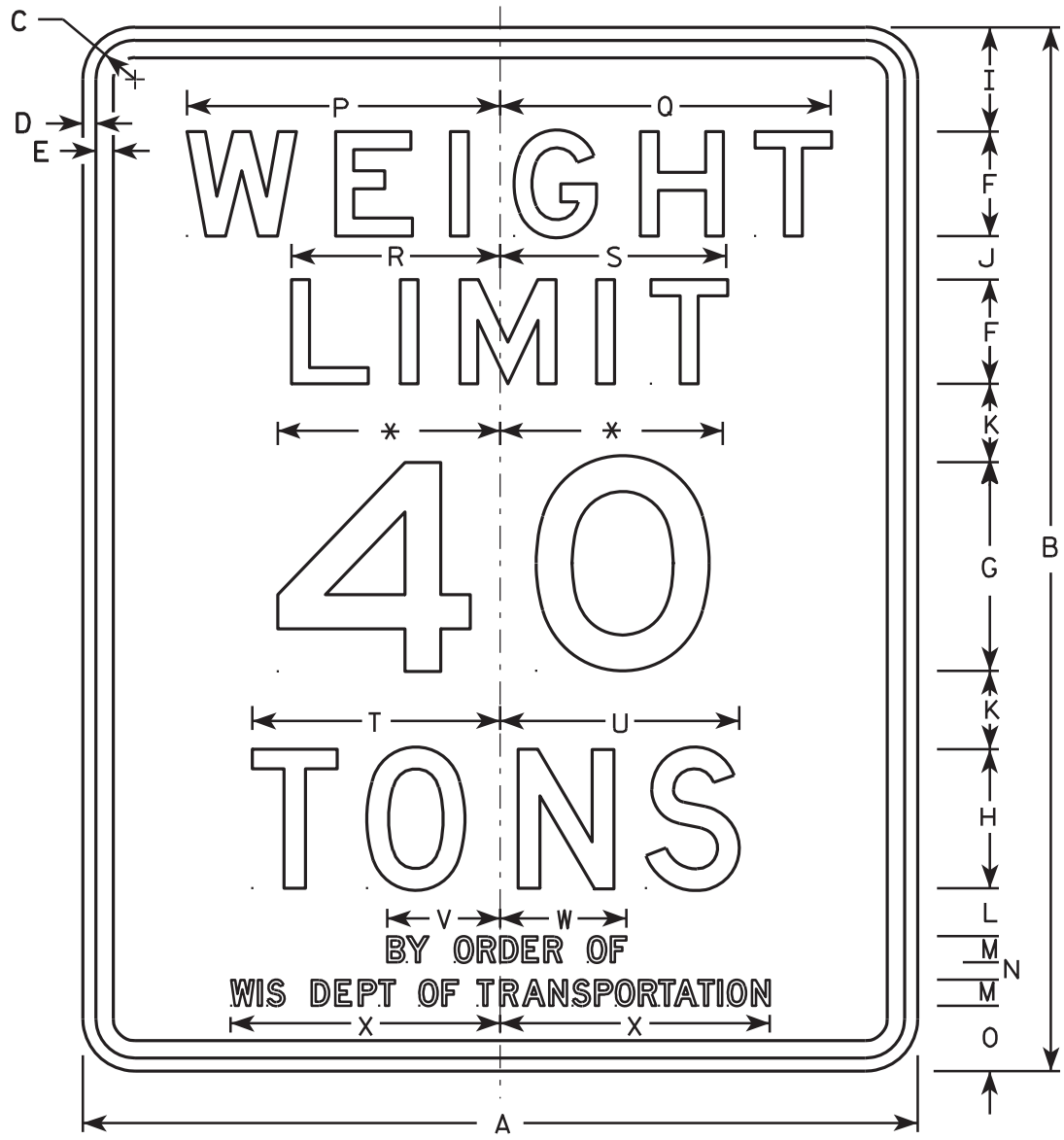
HWY:

COUNTY:

SHEET NO: 102

E

7



R12-1

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - See note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1, 2 & 3 are series E
Lines 4, 5, & 6 are series D.
- 6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
- 7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 6)

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 103

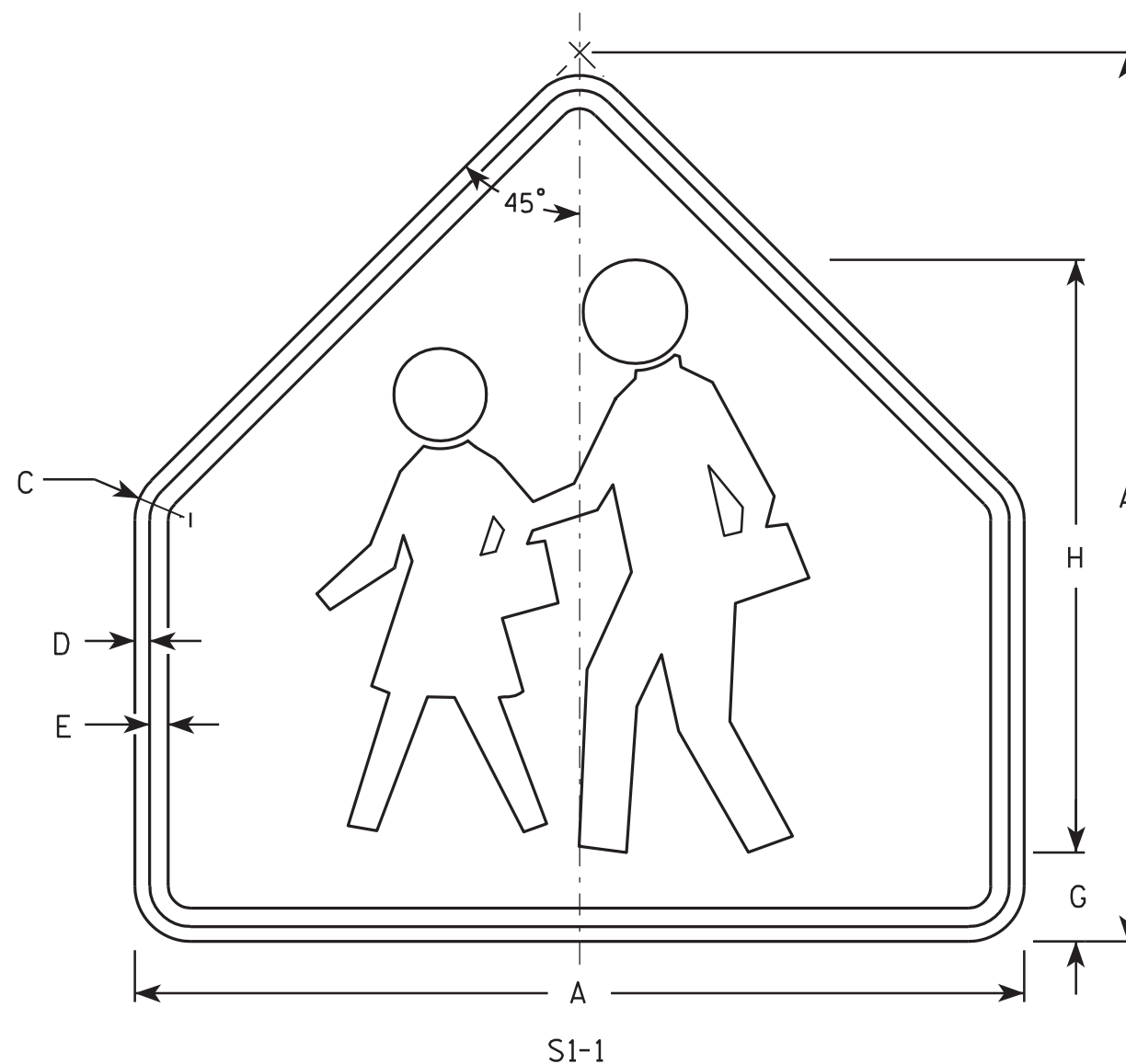
E

STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Yellow-Green
Message - Black
 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

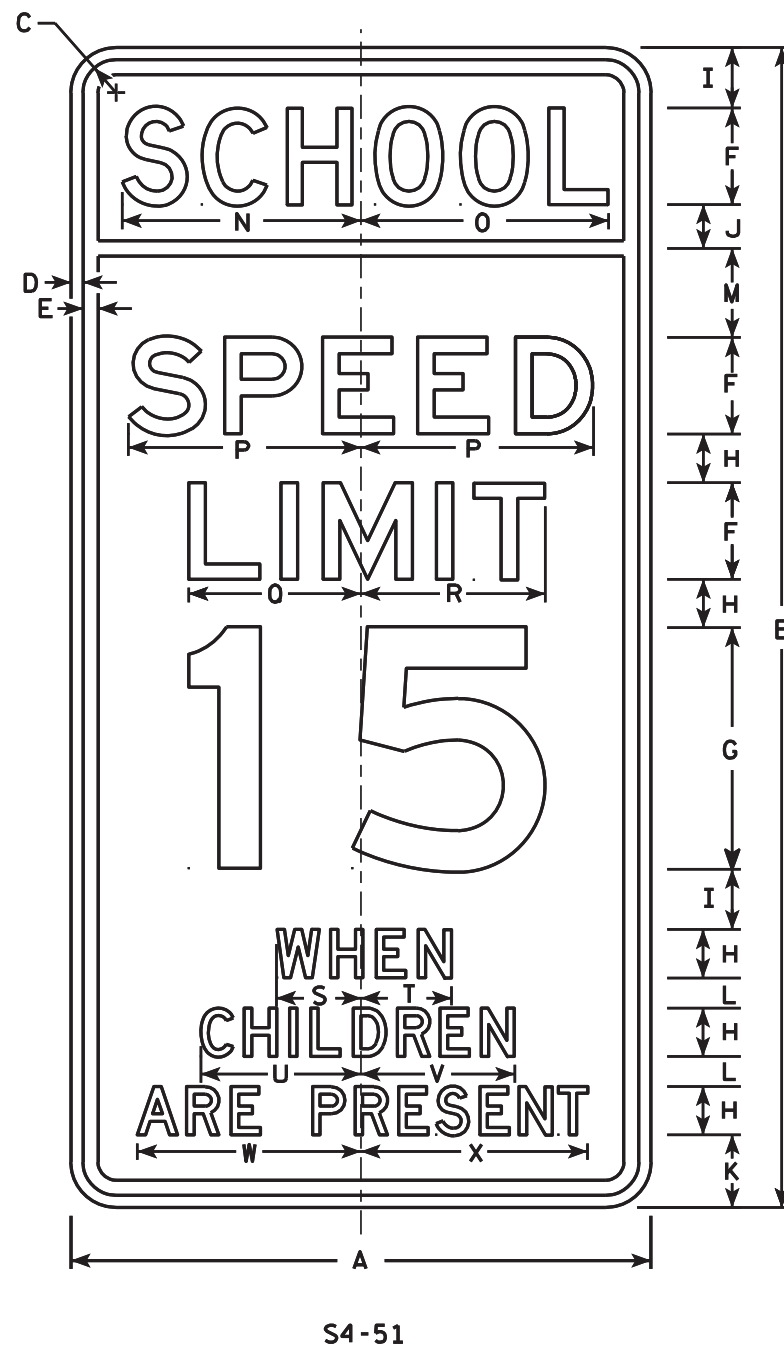
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 104 **E**

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	48	1 ⅜	½	⅝	4	10	2	2 ½	1 ¾	3	1 ¼	3 ¾	9 ⅞	10 ¼	9 ⅝	7 ⅛	7 ⅝	3 ½	3 ⅜	6 ⅝	6 ⅜	9 ¼	9 ⅜			8.00	0.72
3	36	72	2 ¼	¾	1	6	15	3	3 ¾	2 ¾	4 ½	1 ⅞	5 ½	15	15 ¼	14 ½	11 ¼	11 ½	5 ½	5 ¾	10	9 ¾	14	14 ⅛			18.00	1.62
4																												
5																												

PROJECT NO:			HWY:			COUNTY:			SHEET NO: 105			E
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NOTES

- Sign is Type II - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:
Background - See note 5
Message - Black
- Message Series - See note 6
- CornerRadius may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.
Lower panel background - White -Type H Reflective.
- From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and
adjust spacing to achieve proper balance.

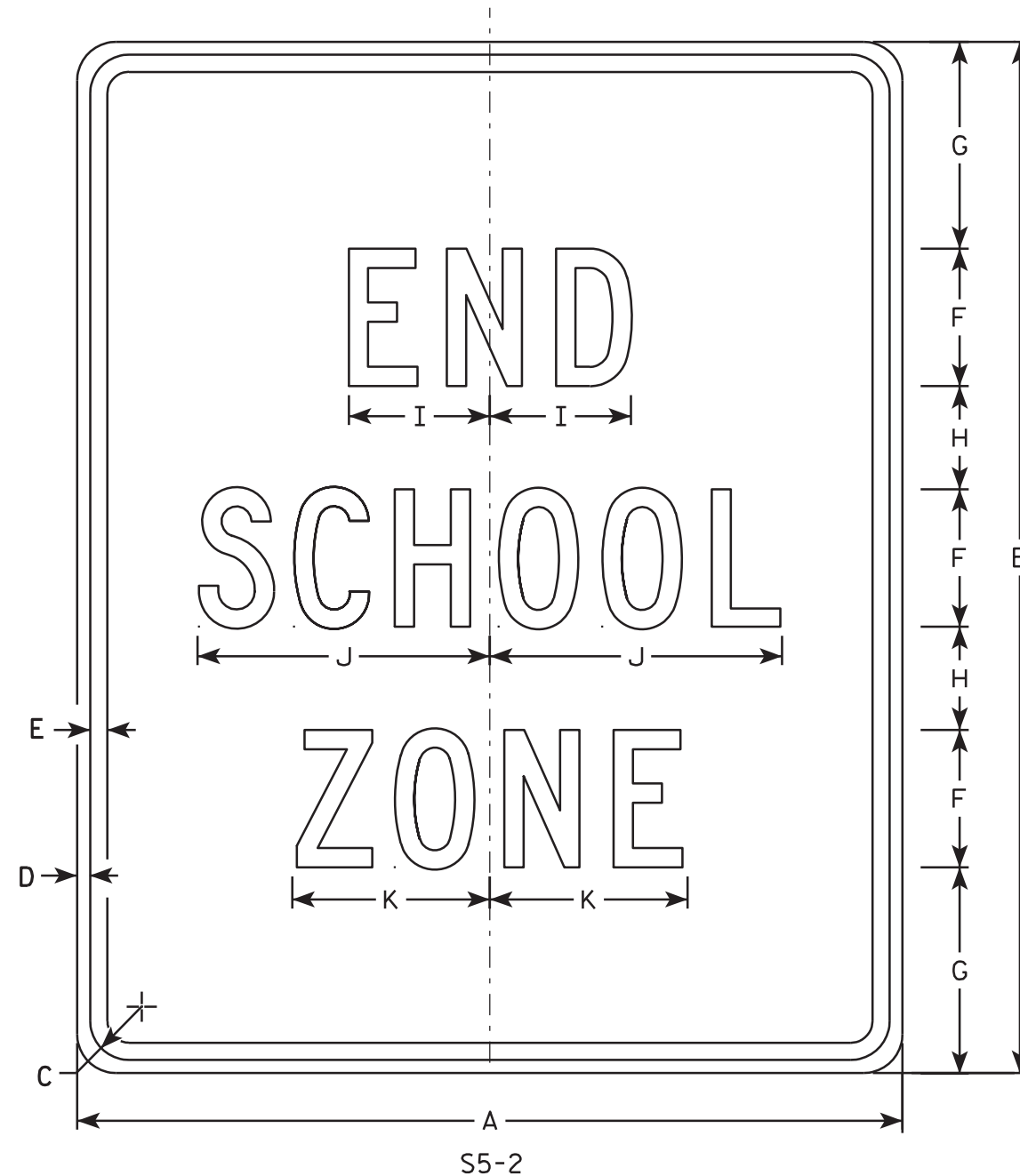
STANDARD SIGN S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 4/26/10 PLATE NO. S4-51.9

NOTES

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

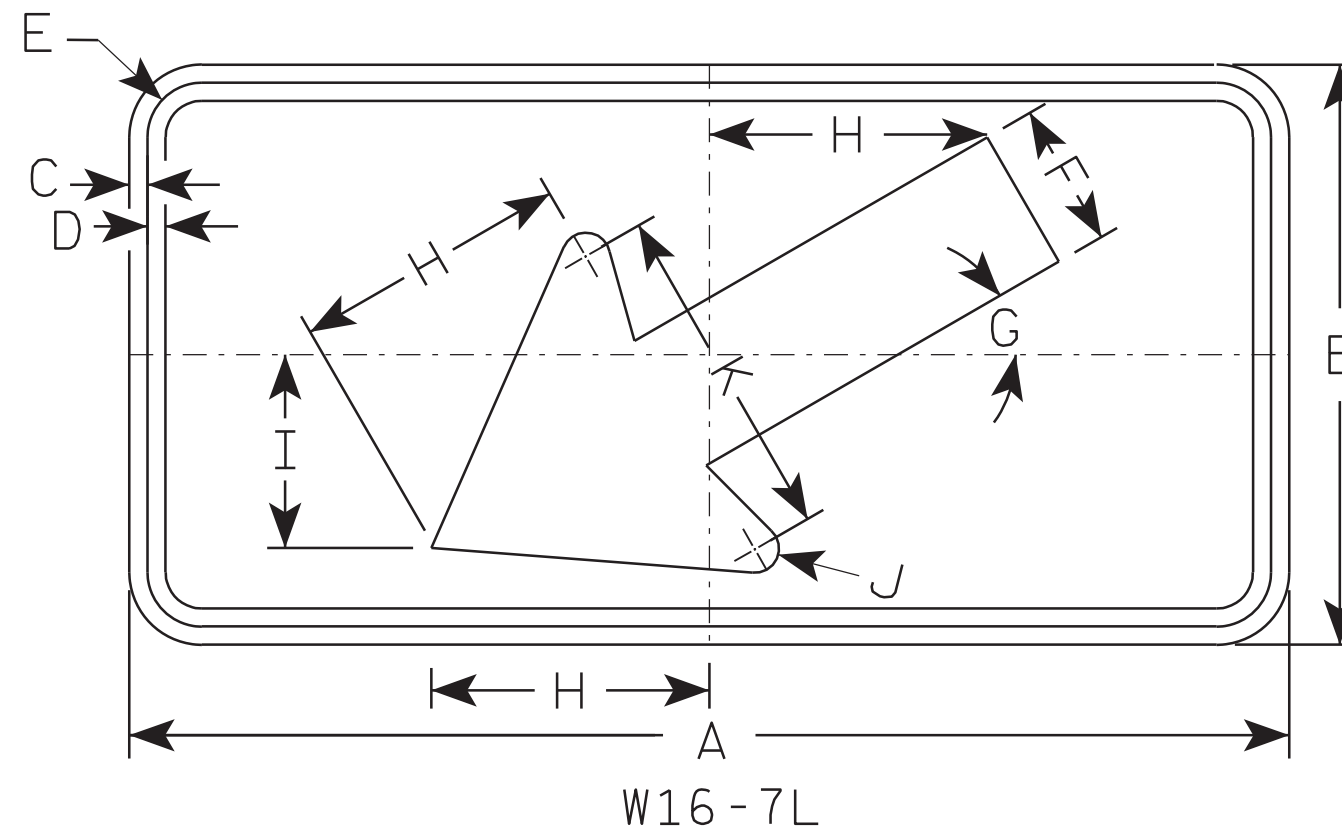
[illegible]

STANDARD SIGN	
S5-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew P. Rauch</u> for State Traffic Engineer
DATE <u>3/8/11</u>	PLATE NO. <u>S5-2.2</u>

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E
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NOTES

1. Sign is Type II - Type F Reflective -
reference WIS DOT Standard Specification for
HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. W16-7R is the same as W16-L
except the arrow is reversed along
the vertical centerline.

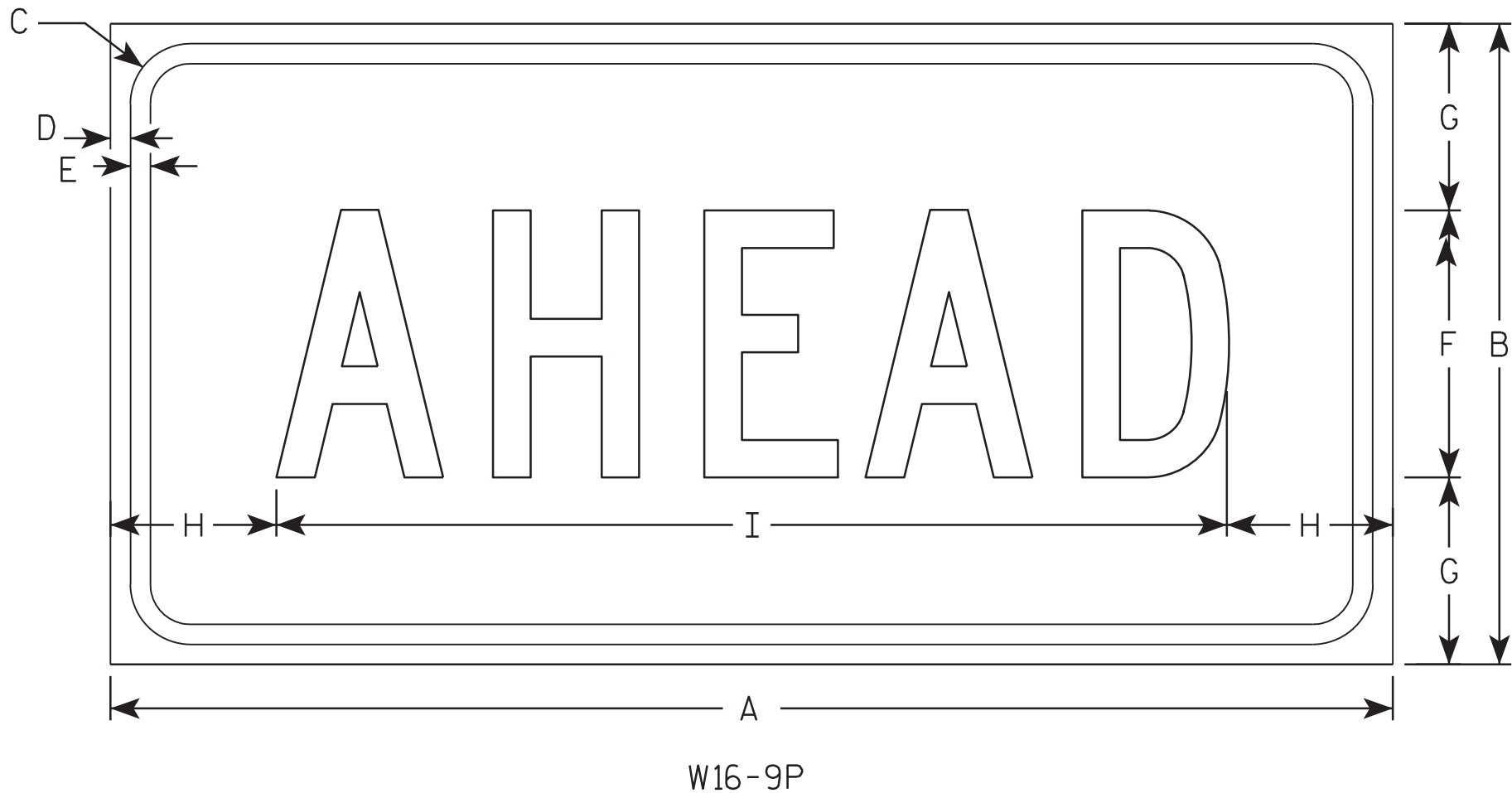


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

STANDARD SIGN	
W16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/02/10	PLATE NO. W16-7.5

7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

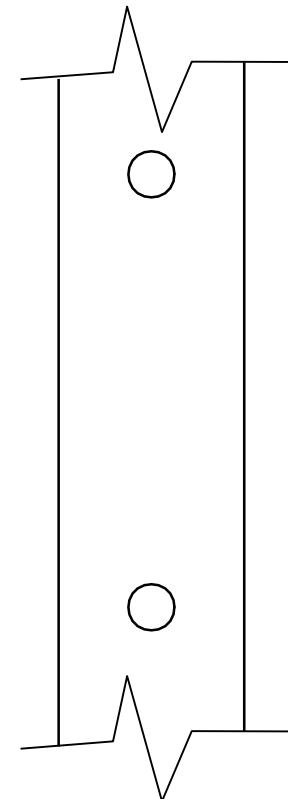
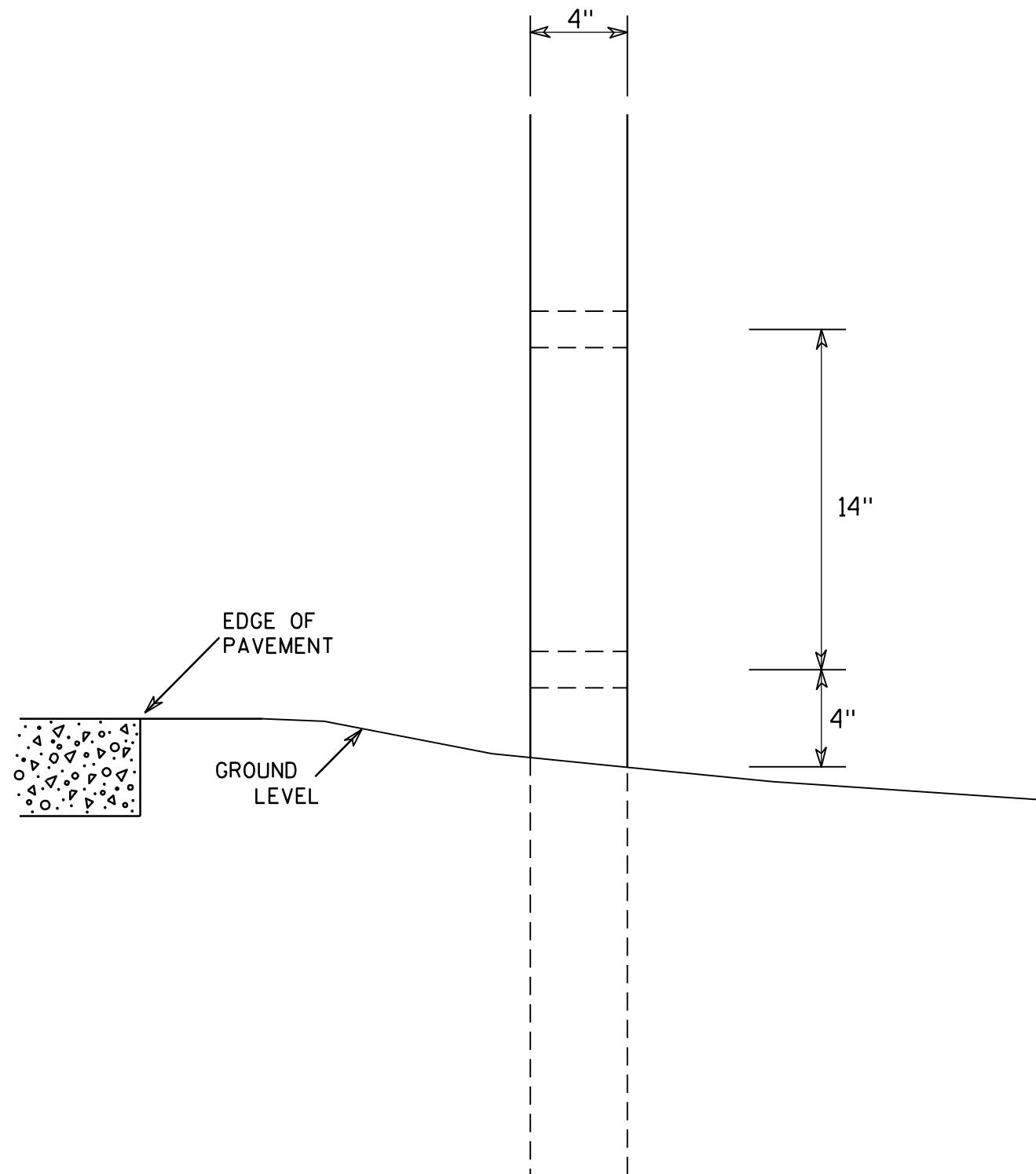
STANDARD SIGN

W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

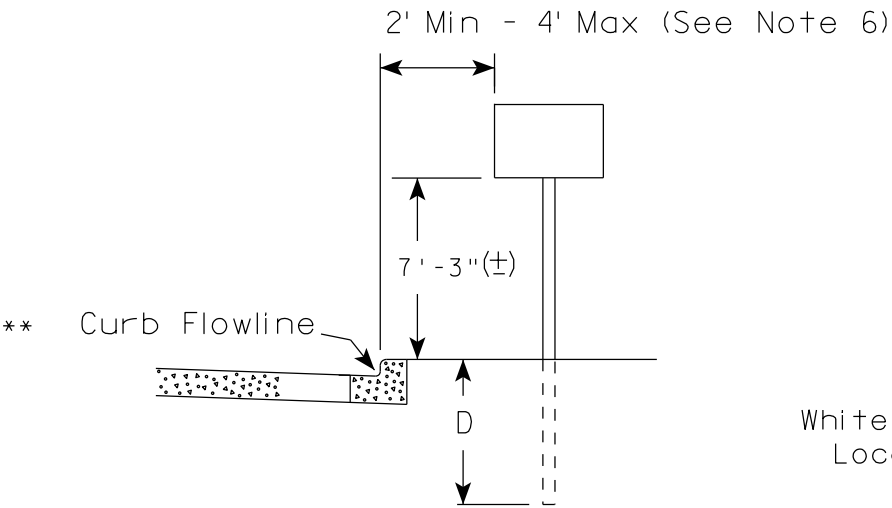
HWY:

COUNTY:

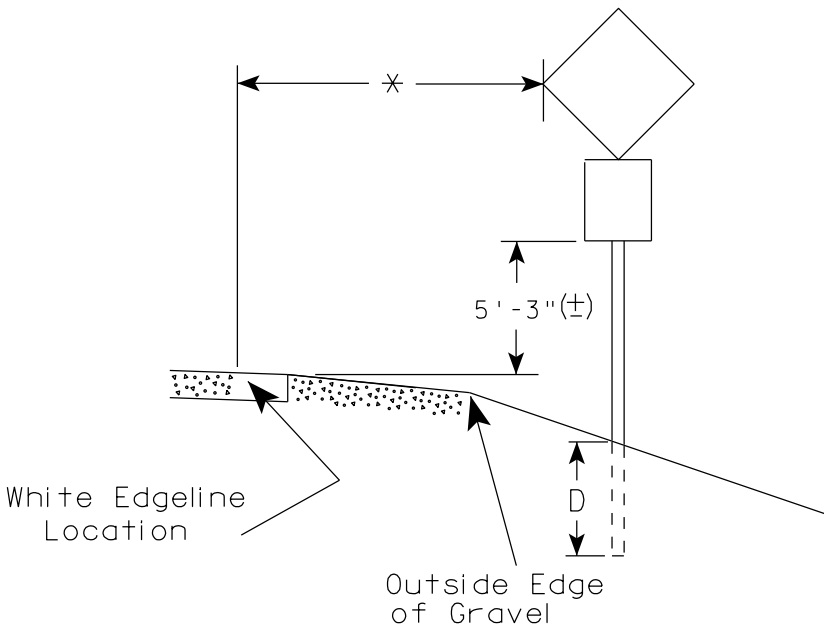
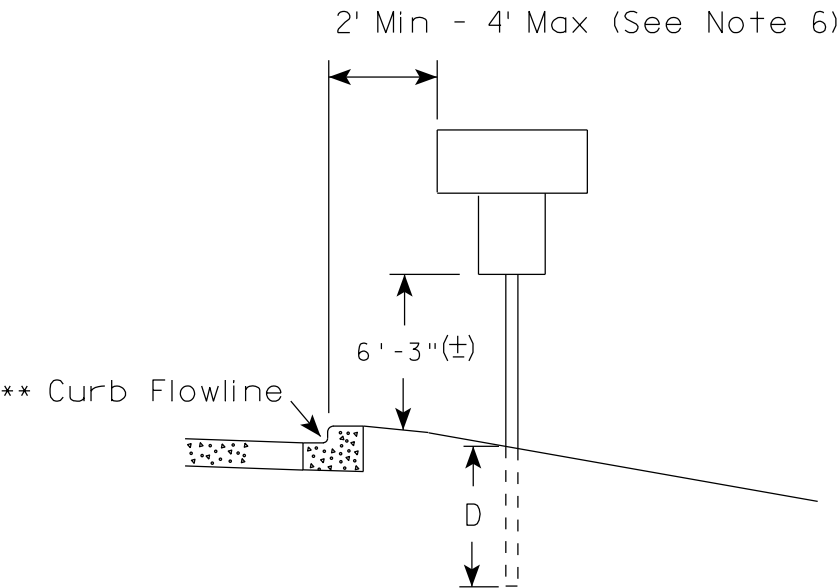
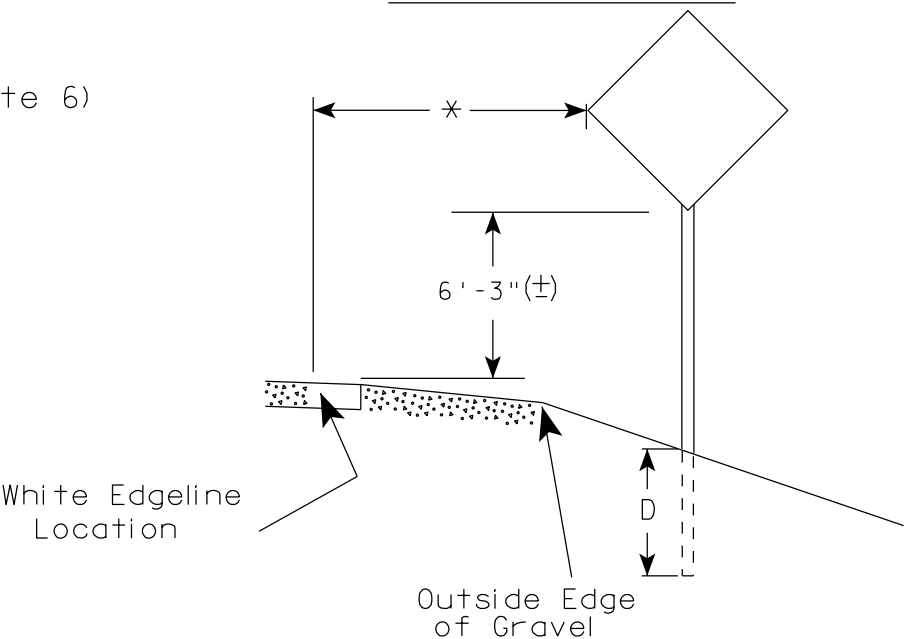
SHEET NO: 109

E

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

×× The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

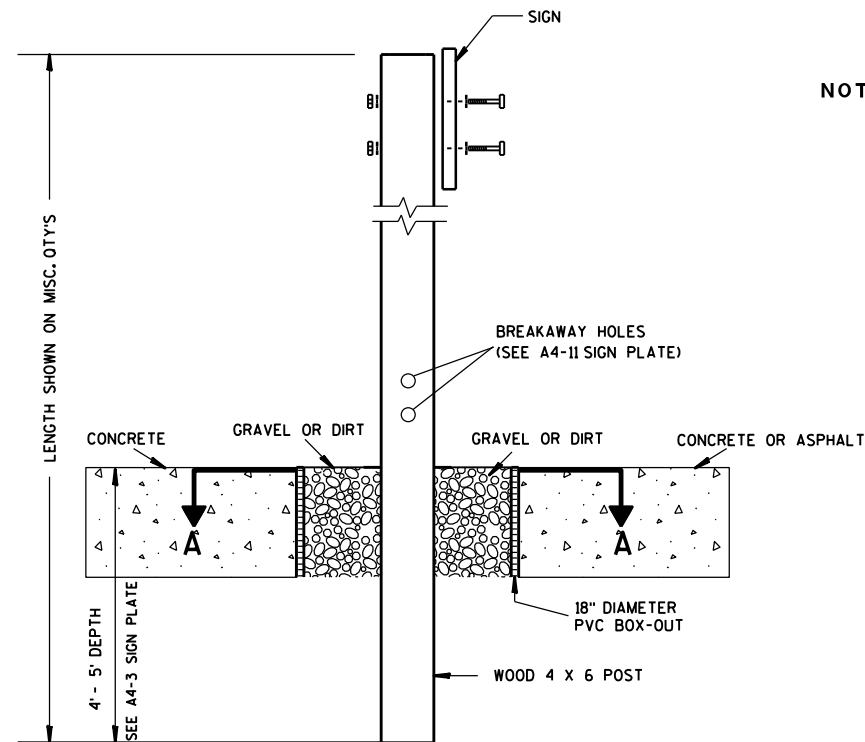
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

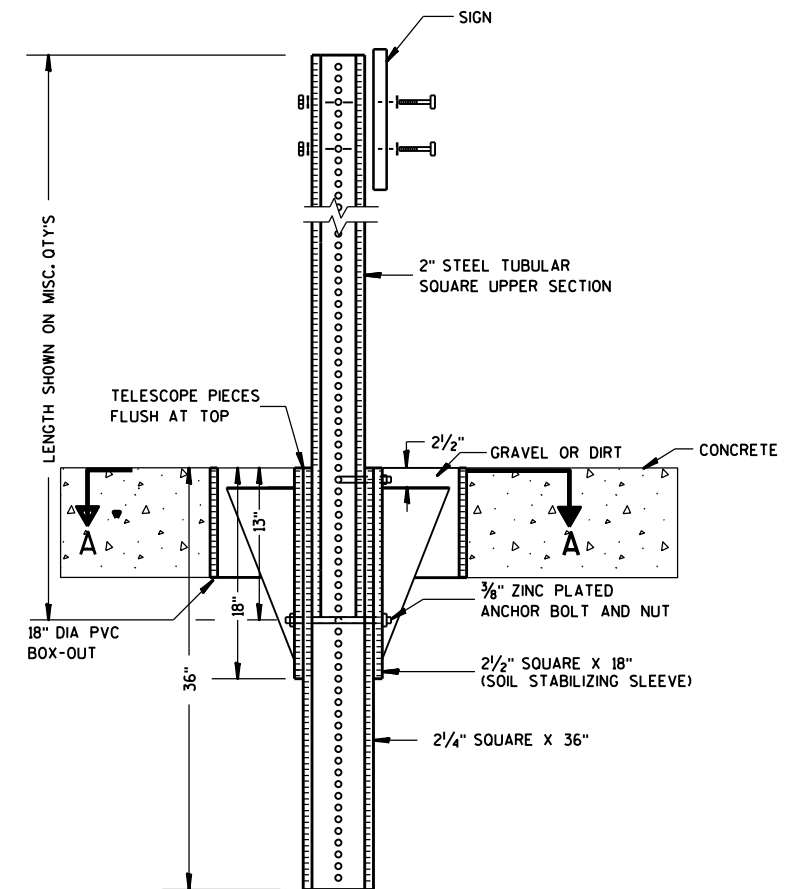
110



ELEVATION VIEW

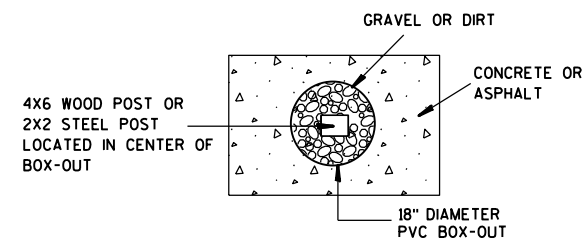
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 111 A4-3B.1

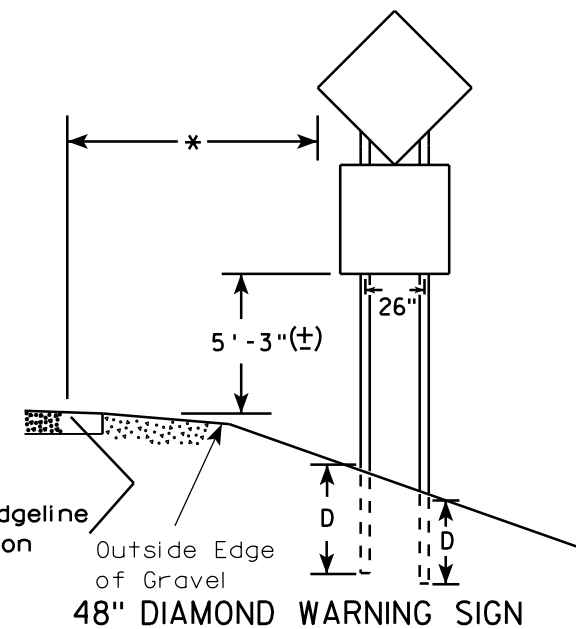
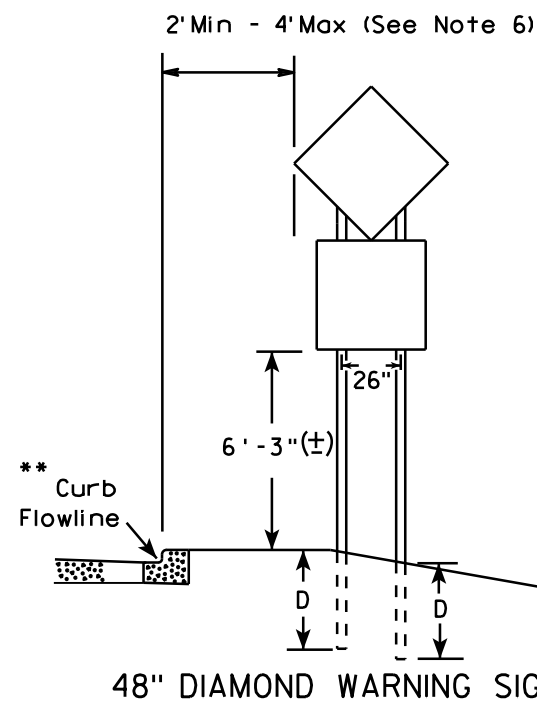
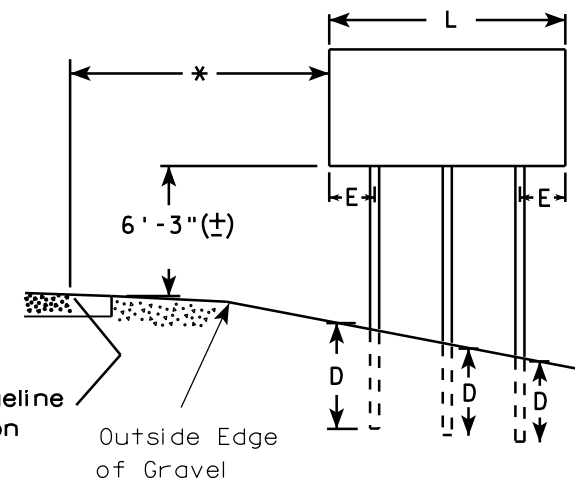
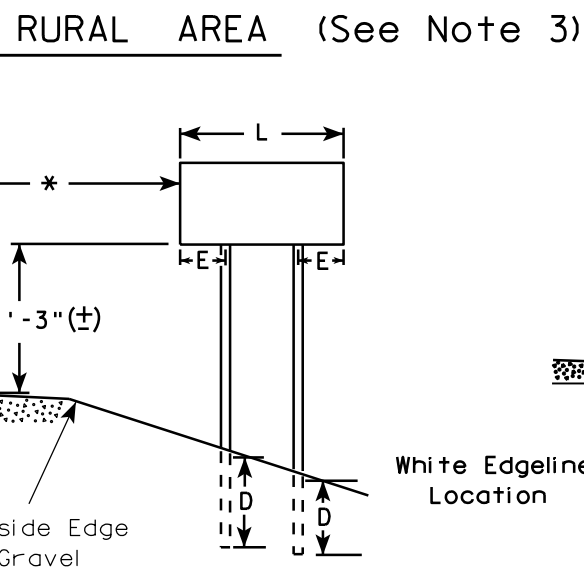
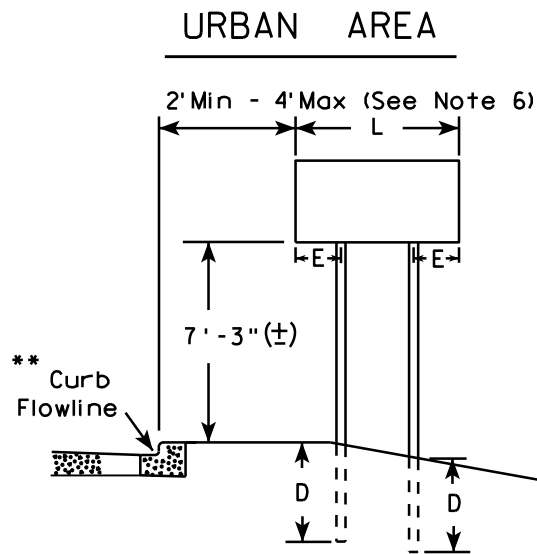
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

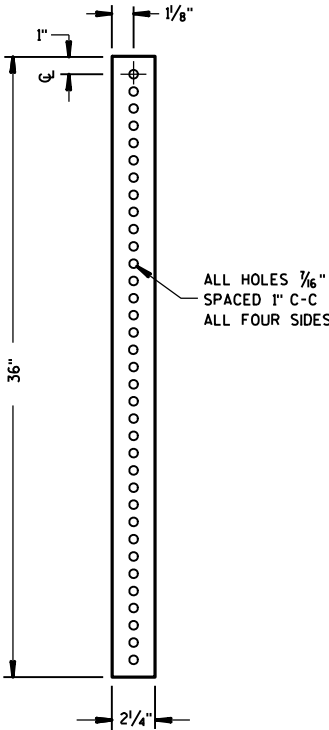
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

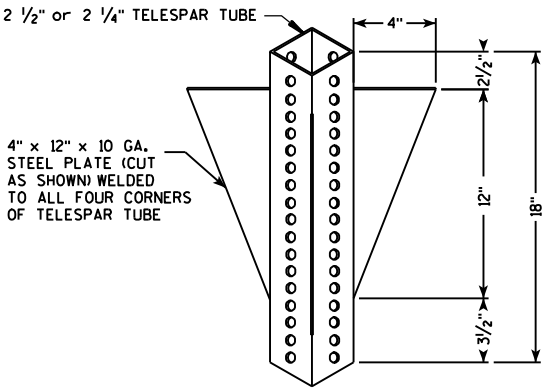
DATE 11/12/14 PLATE NO. 112 13

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

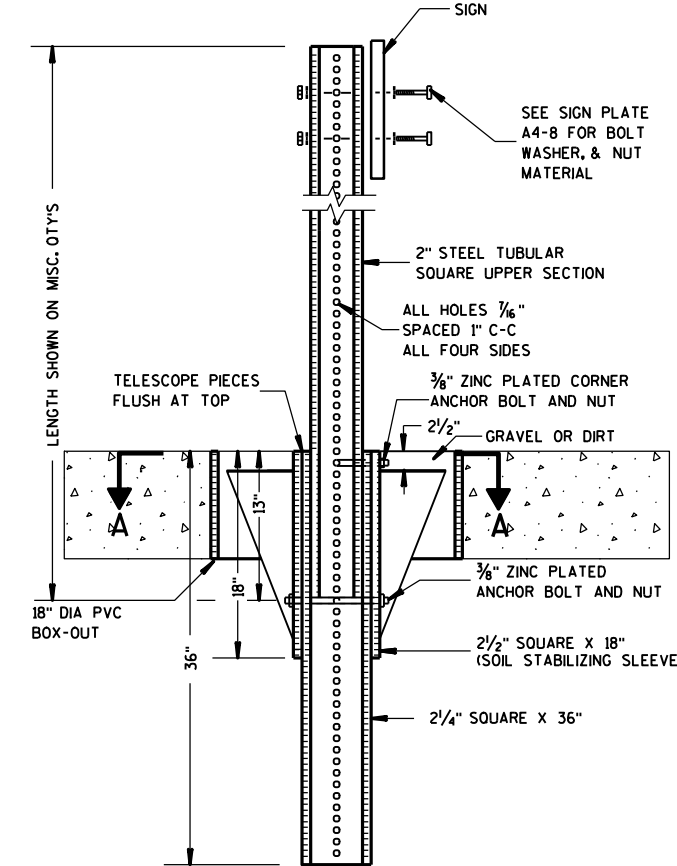
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



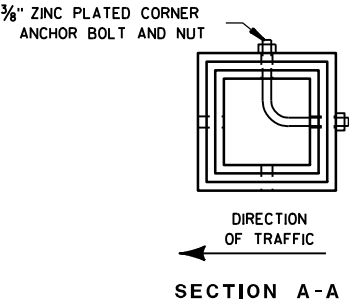
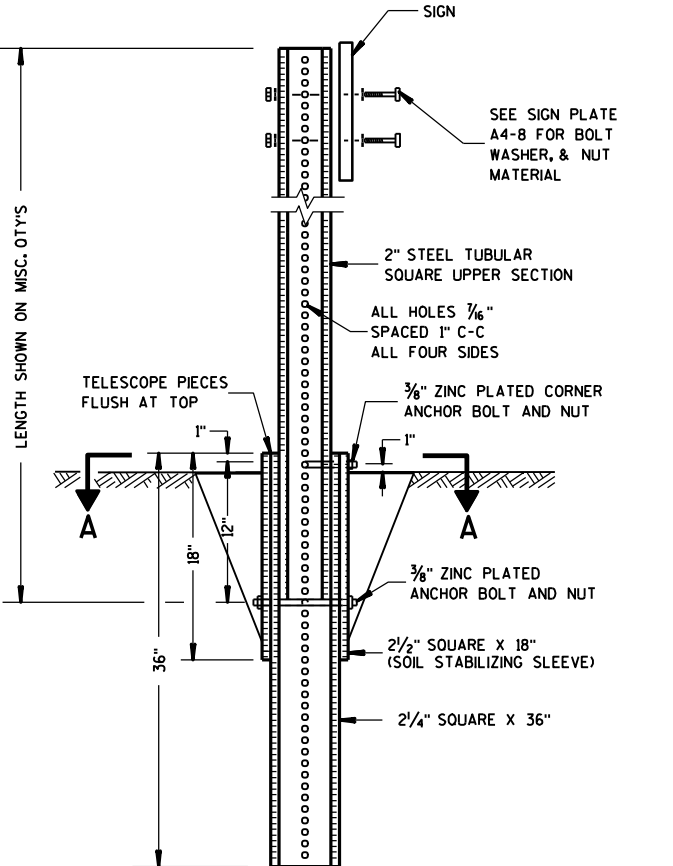
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



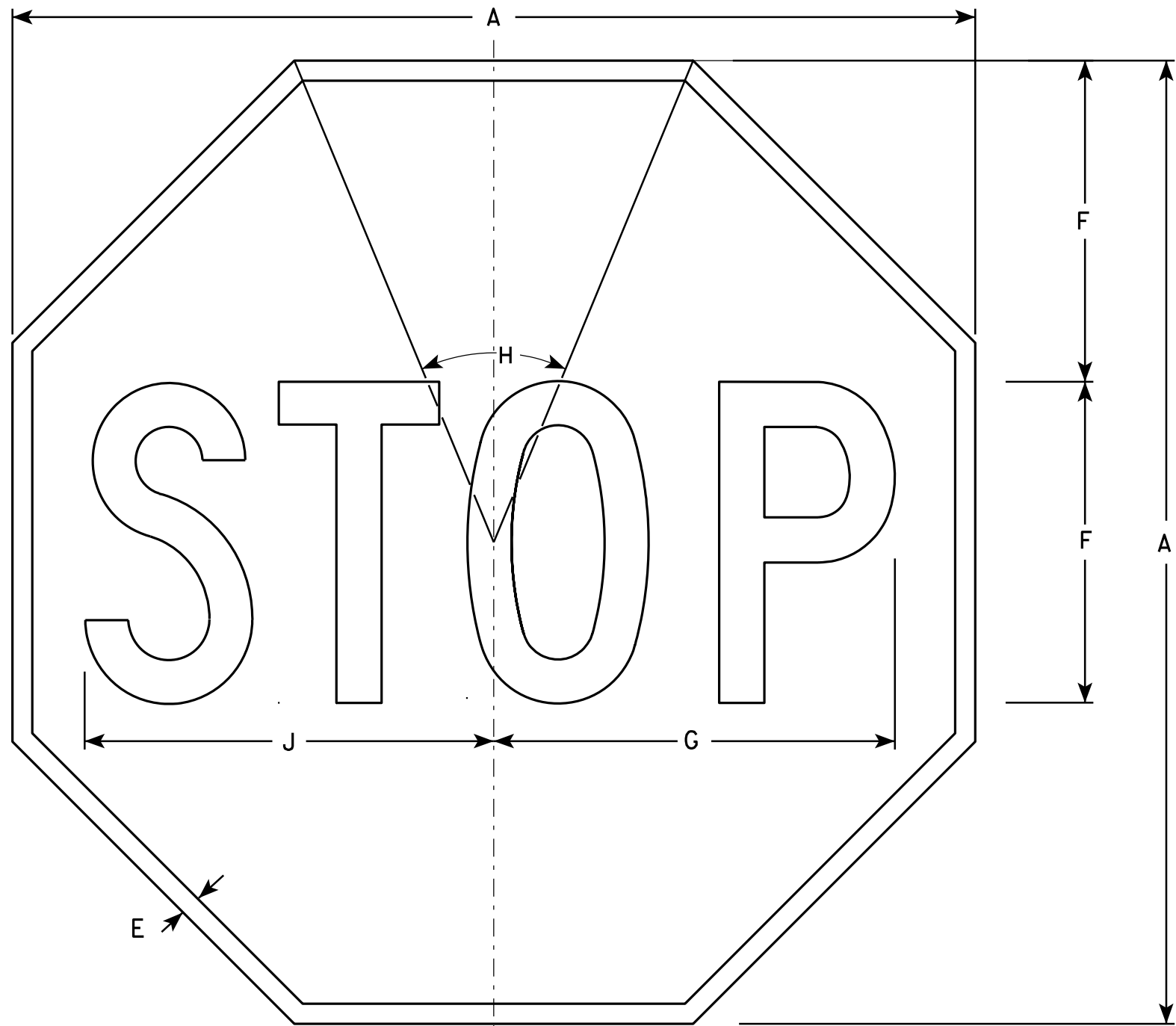
DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



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

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

TUBULAR STEEL SIGN POST A4-9	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 5/30/12	PLATE NO. A4-9.7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

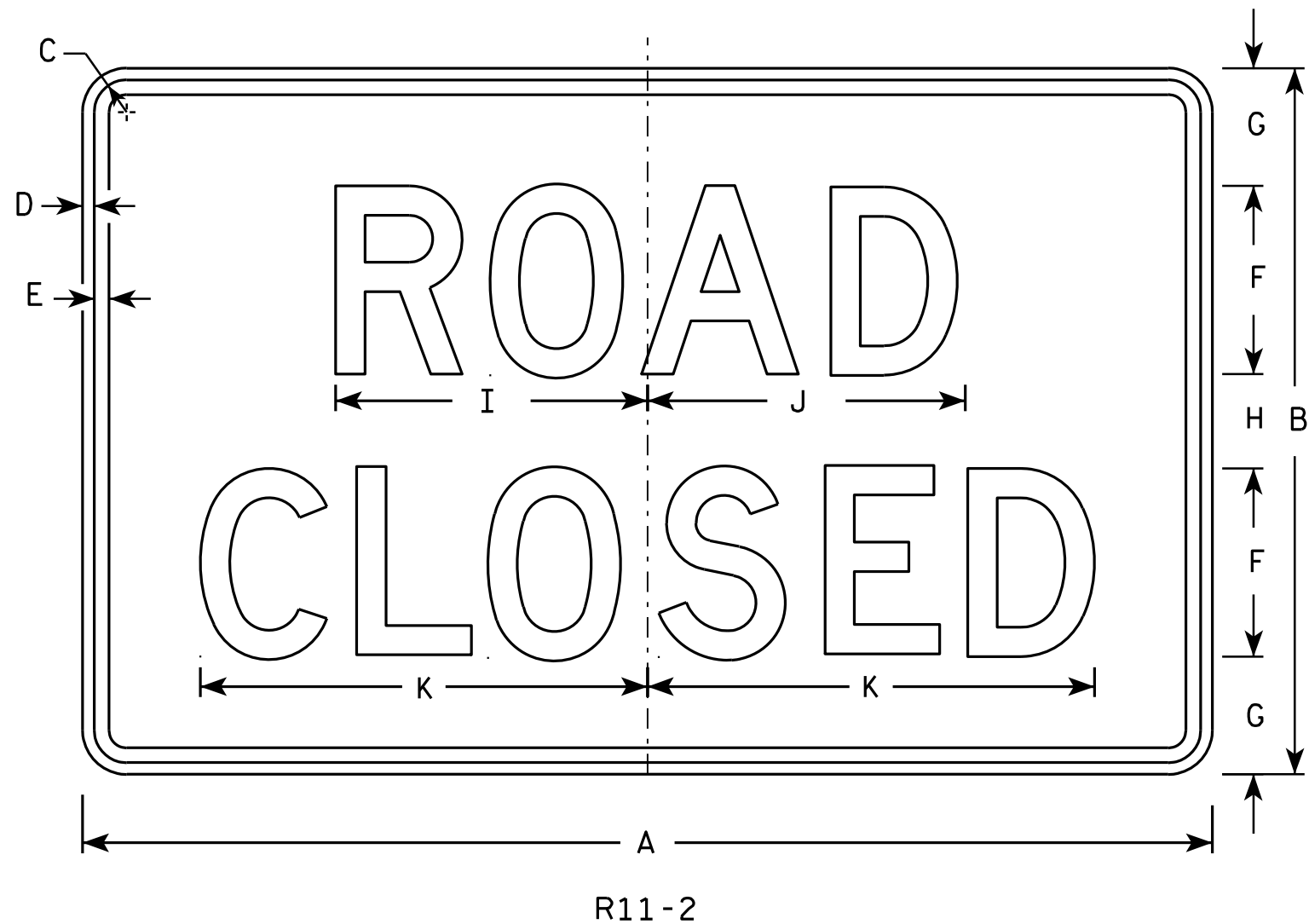
DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:

HWY:

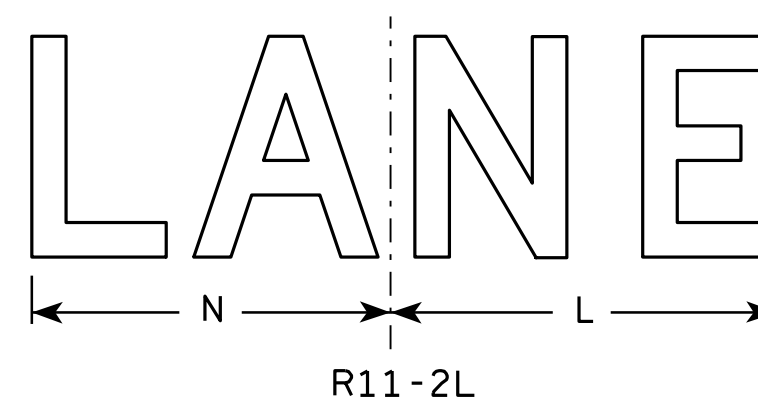
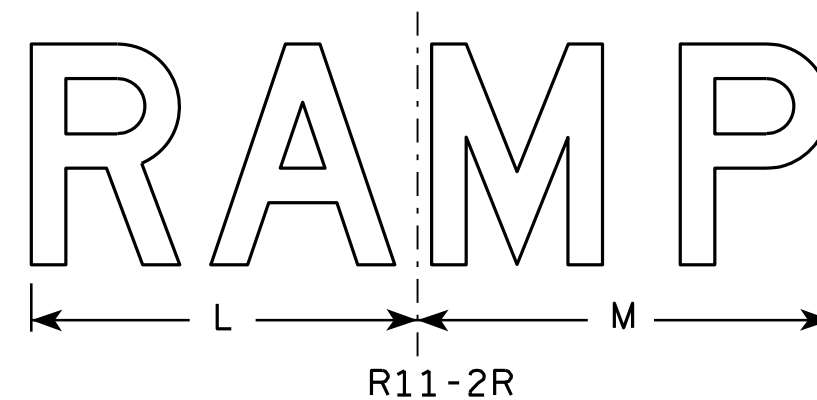
COUNTY:

SHEET NO: 114



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

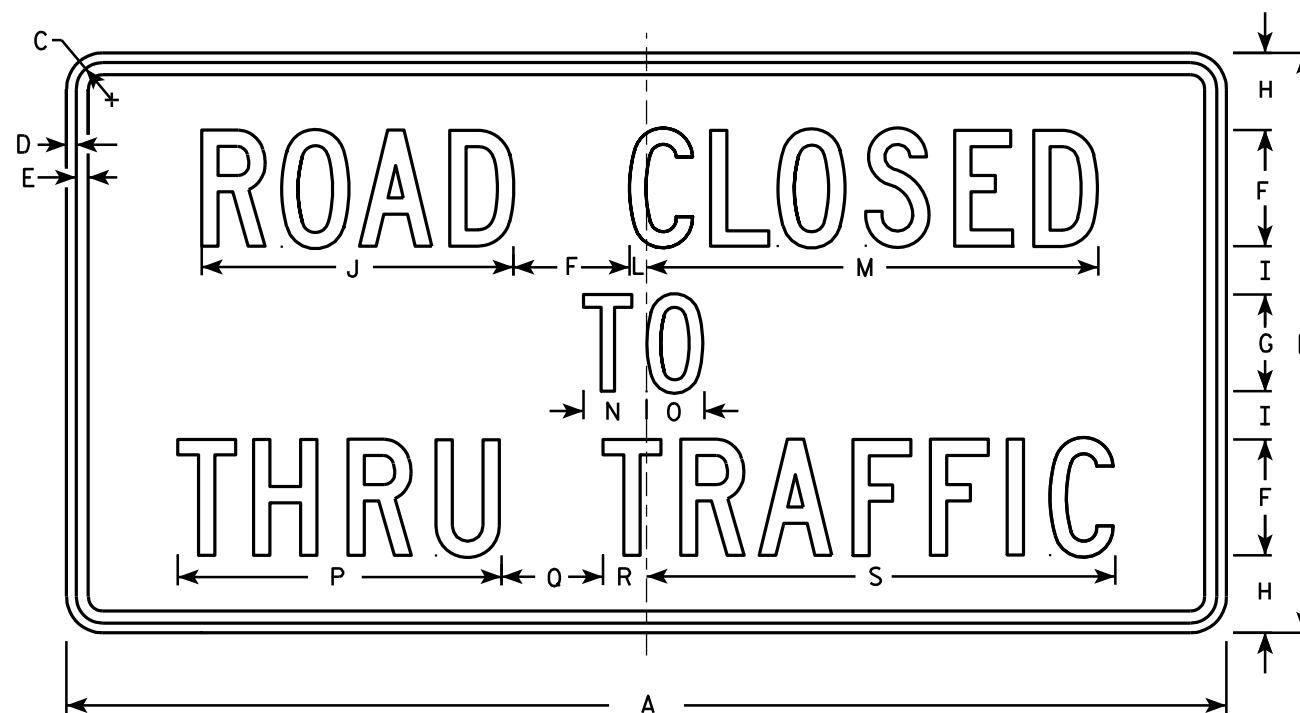


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 for State Traffic Engineer
 DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 115	E
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R11-4

NOTES

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

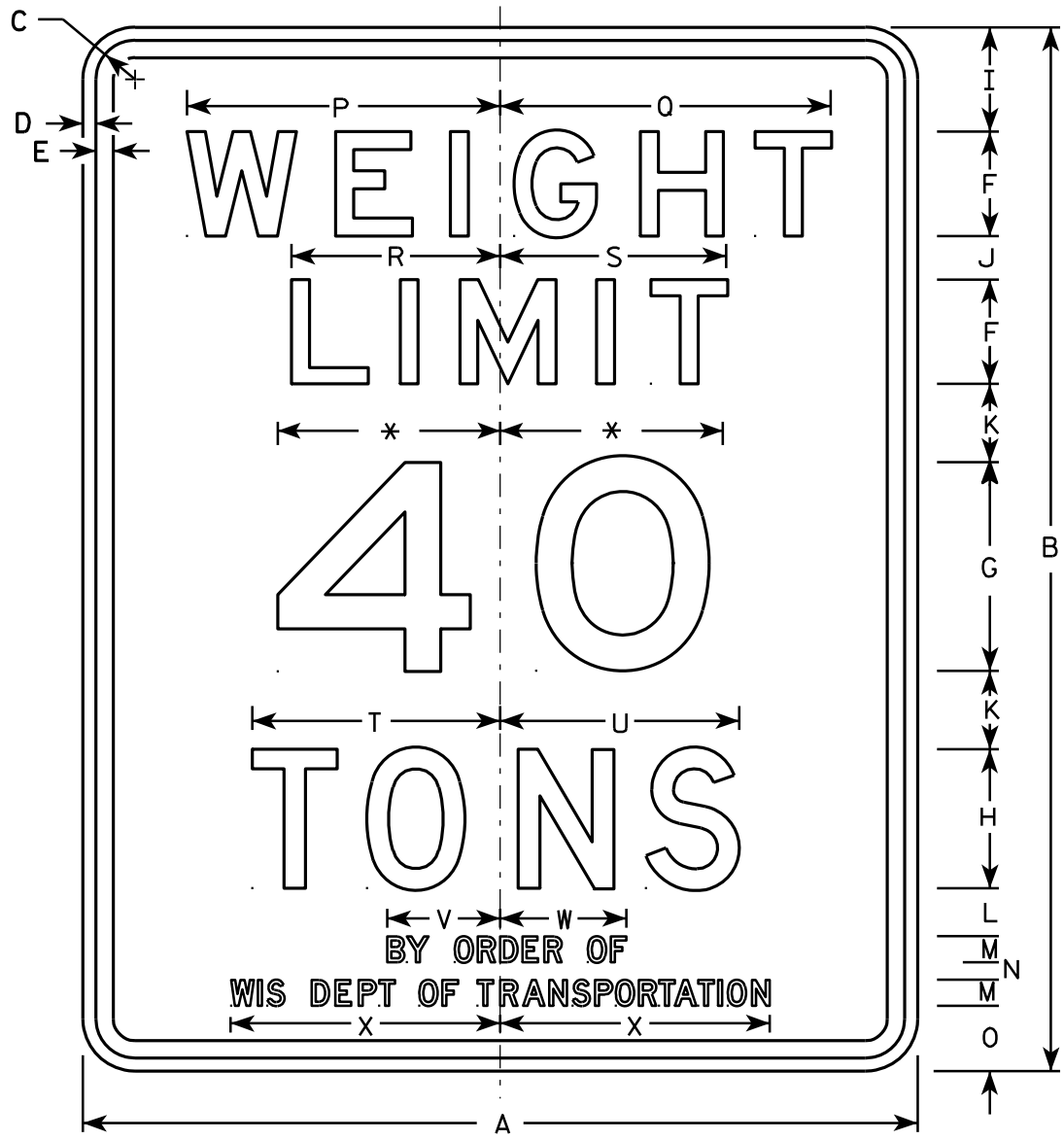
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: HWY: COUNTY: SHEET NO: 116 E



R12-1

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - See note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1, 2 & 3 are series E
Lines 4, 5, & 6 are series D.
- 6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
- 7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 6)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 117

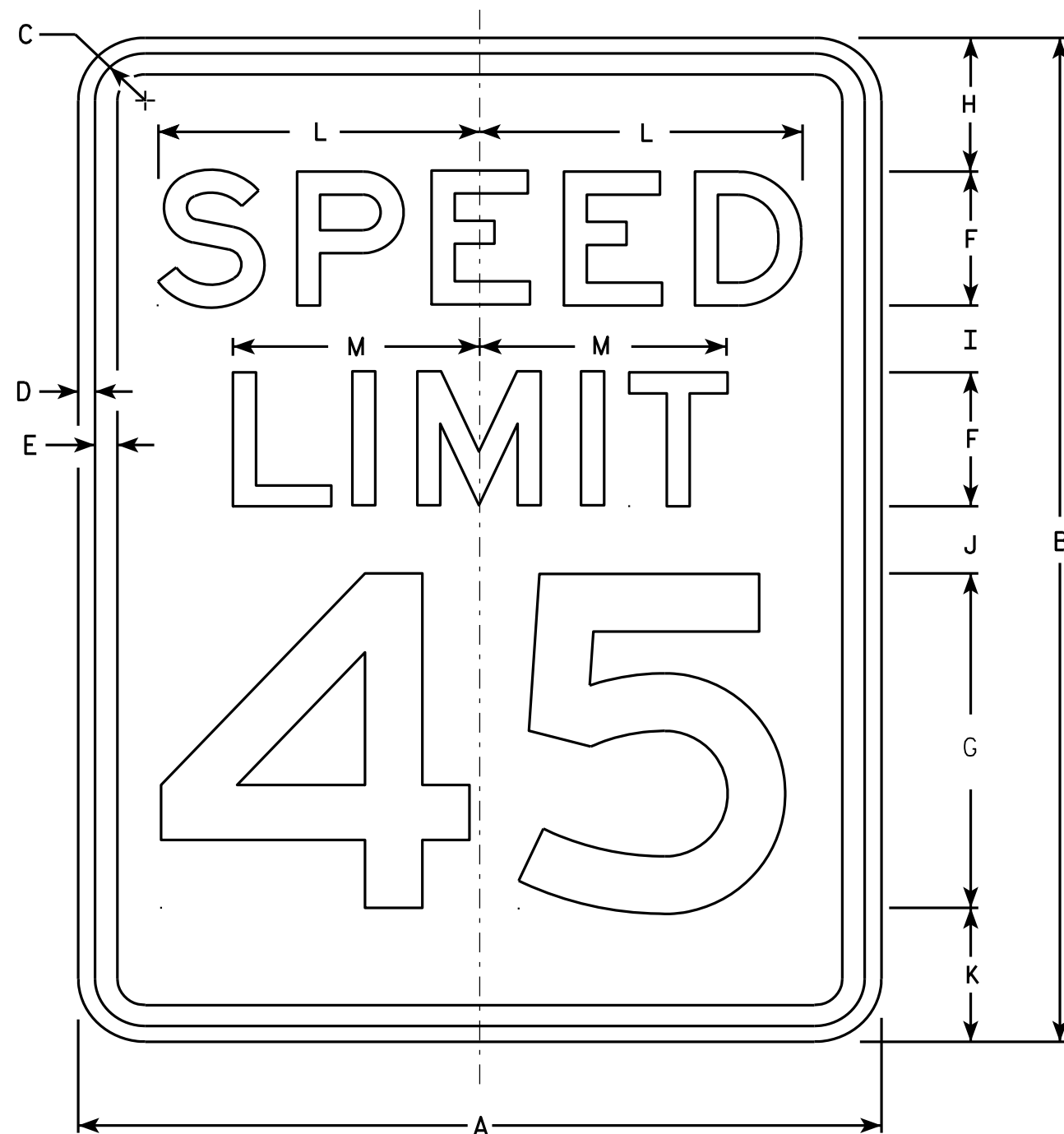
E

STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 118 E



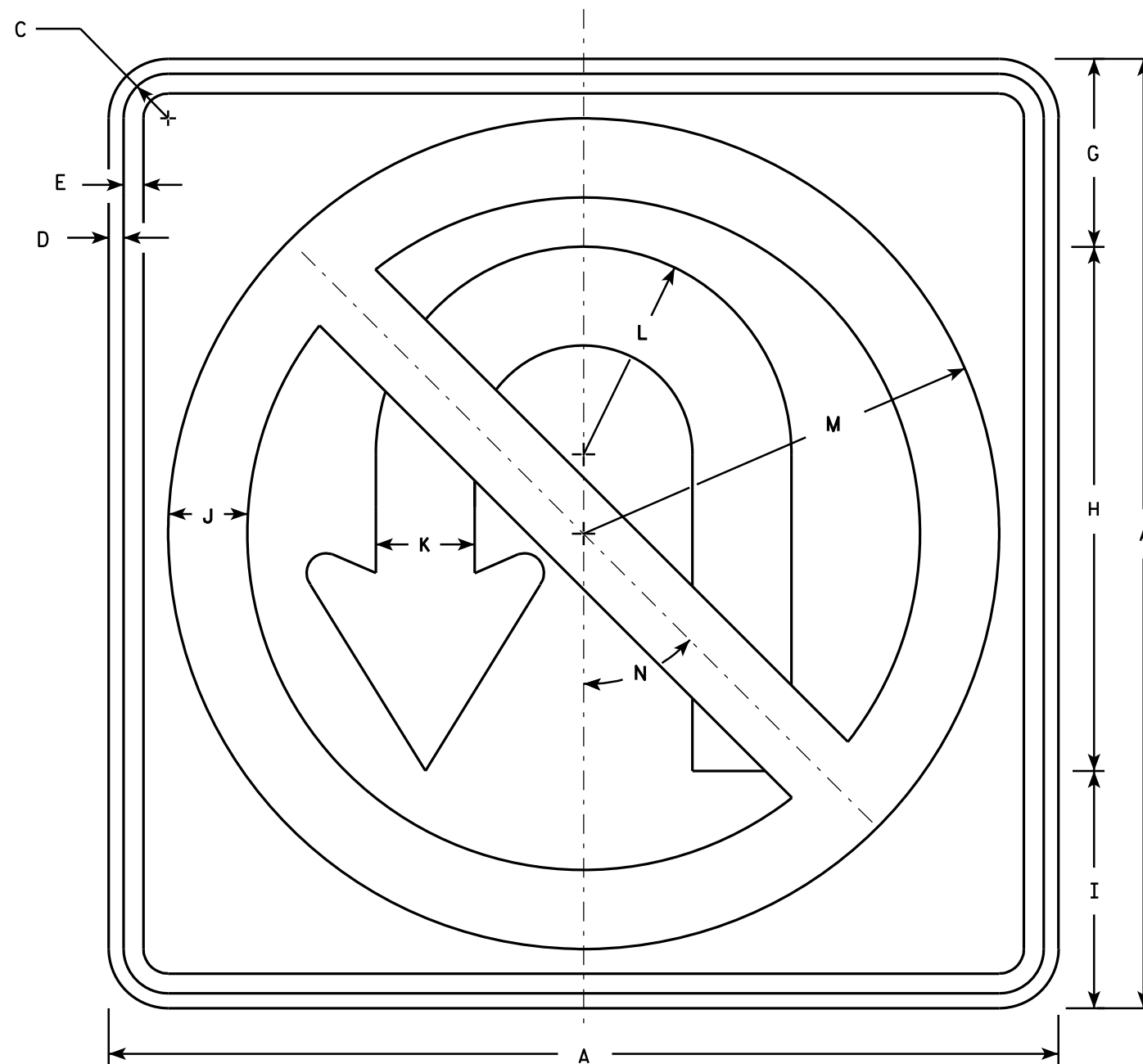
R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

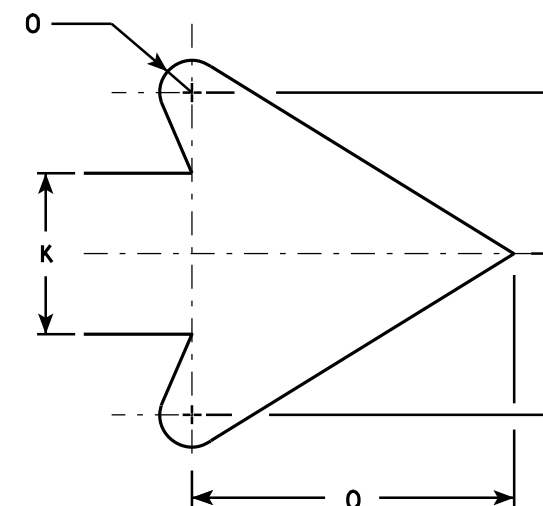
STANDARD SIGN	
R2-6P	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/20/10	PLATE NO. R2-6P.2



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

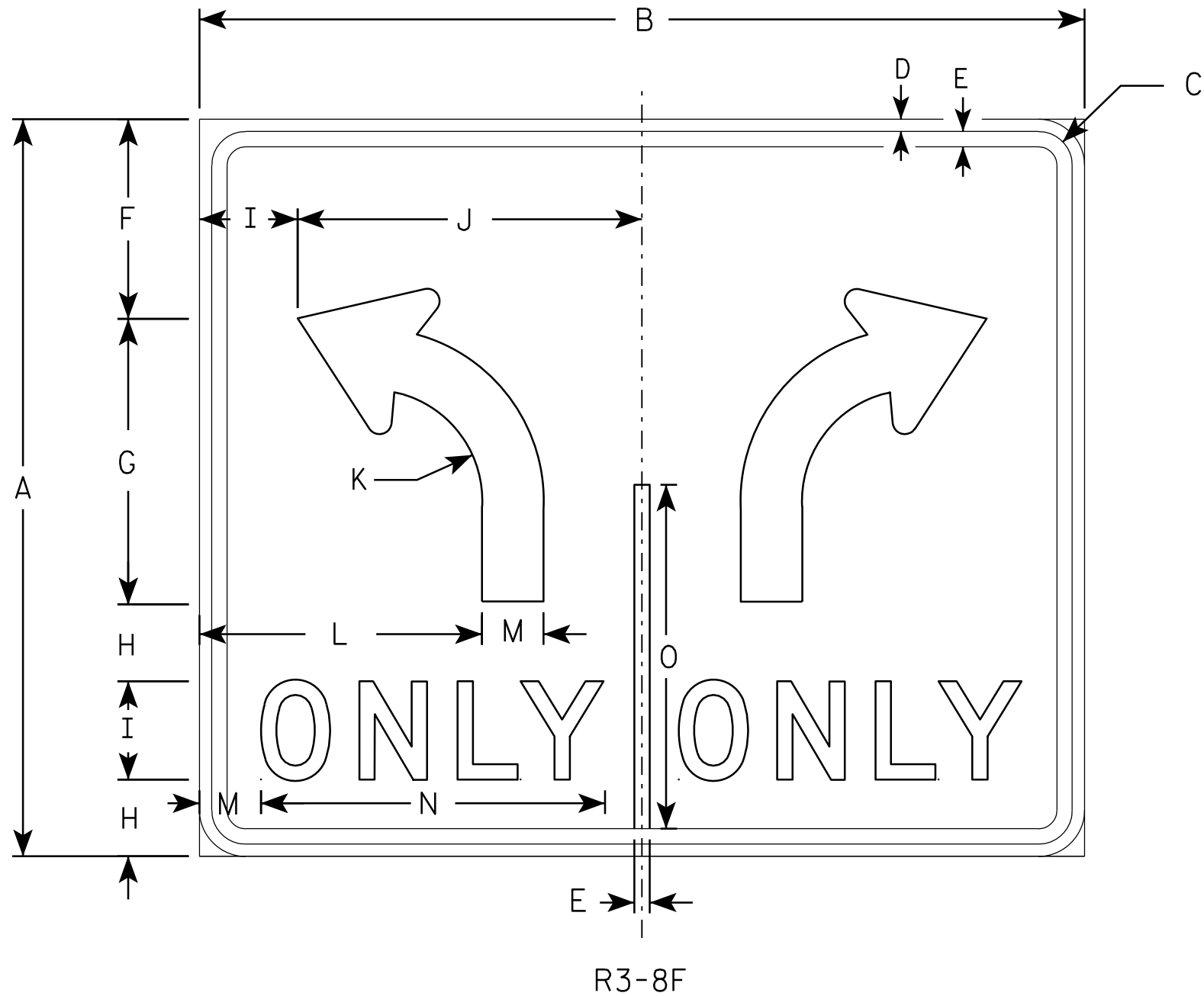


ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

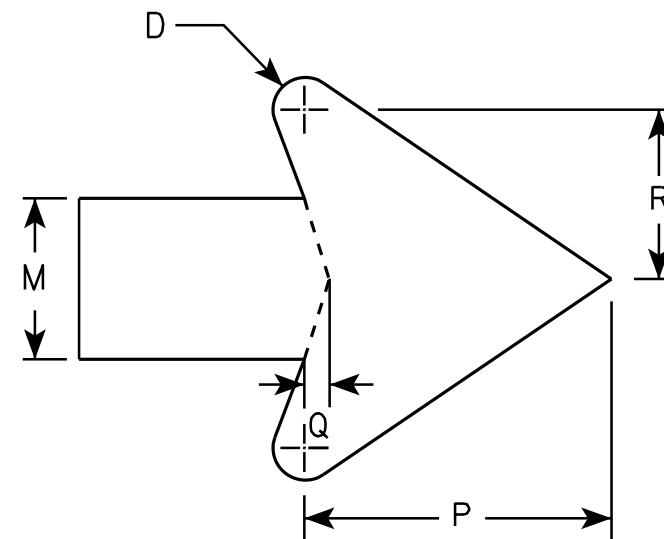
STANDARD SIGN	
R3-4	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/08/10	PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 120	E
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NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - WHITE
Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	14	4 1⁄2	11 1⁄2	2 1⁄2	14	14	4 3⁄4	3⁄8	2 5⁄8									7.5
2M	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	14	4 1⁄2	11 1⁄2	2 1⁄2	14	14	4 3⁄4	3⁄8	2 5⁄8									7.5
3																											
4	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	21	7 1⁄4	17 1⁄4	3 3⁄4	20 5⁄8	22 3⁄8	7 1⁄8	5⁄8	4									18.0
5	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	21	7 1⁄4	17 1⁄4	3 3⁄4	20 5⁄8	22 3⁄8	7 1⁄8	5⁄8	4									18.0

STANDARD SIGN R3-8F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8F.2

PROJECT NO:

HWY:

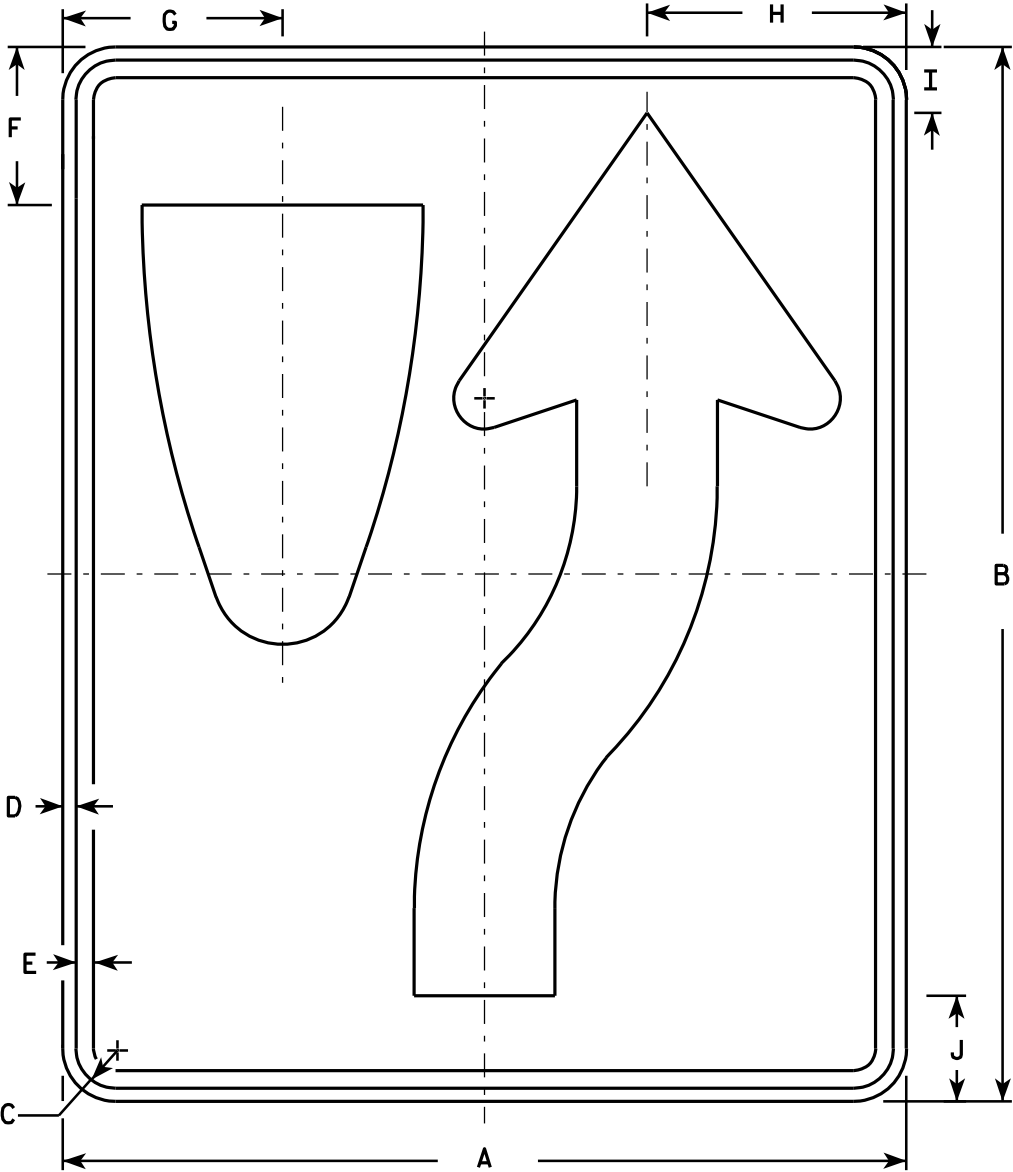
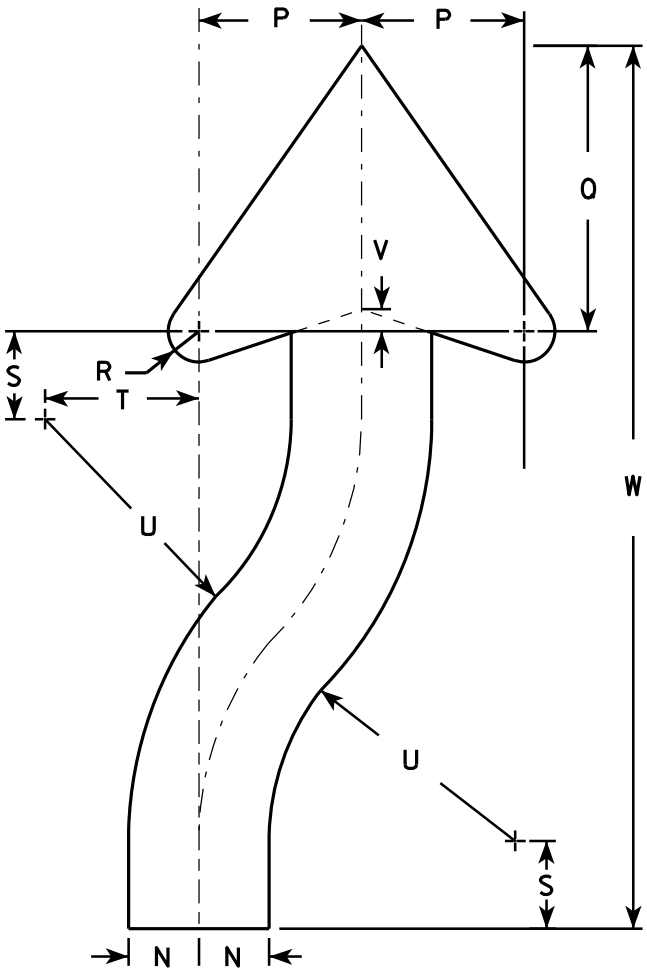
COUNTY:

SHEET NO: 121

E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
Background - White
Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

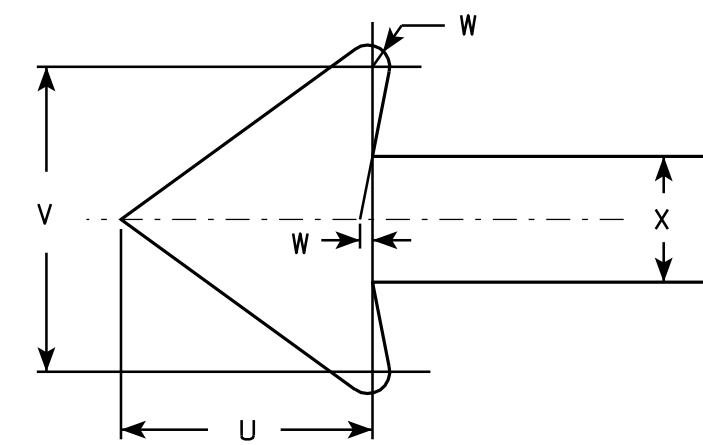
DATE 3/25/2011 PLATE NO. R4-7.8



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 123

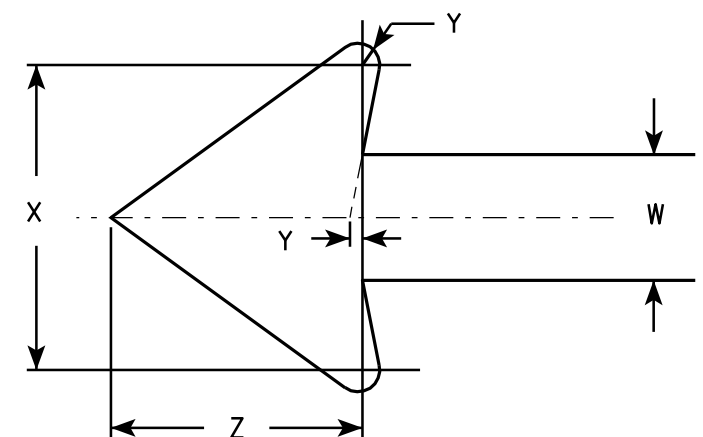
E



R7-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-51D (double arrow)
R7-51R (right arrow)
R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.
Line 2 is Series B.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

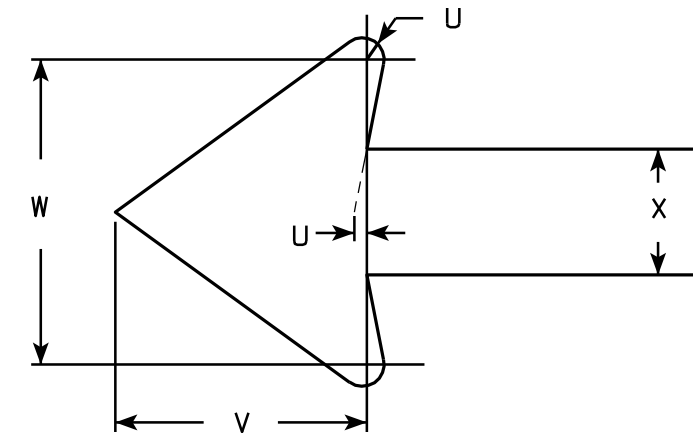
STANDARD SIGN	
R7-51	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/31/2011	PLATE NO. R7-51.6



R7-52

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-52D (double arrow)
R7-52L (left arrow)
R7-52R (right arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	5 1/8	5	3 1/8	3 7/8	1/8	1 1/2	1 3/4	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	6 3/8	6 1/4	3 7/8	5 7/8	1/4	2 1/4	2 5/8	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
4																											
5																											

STANDARD SIGN R7-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-52.6

PROJECT NO: HWY: COUNTY: SHEET NO: 125 E

NOTES

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



R9-9

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ¾	½	½	4	3 ½	3	10 ¾	8 ⅛																	3.75
2M	30	18	1 ¾	½	½	4	3 ½	3	10 ¾	8 ⅛																	3.75
3																											
4																											
5																											

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

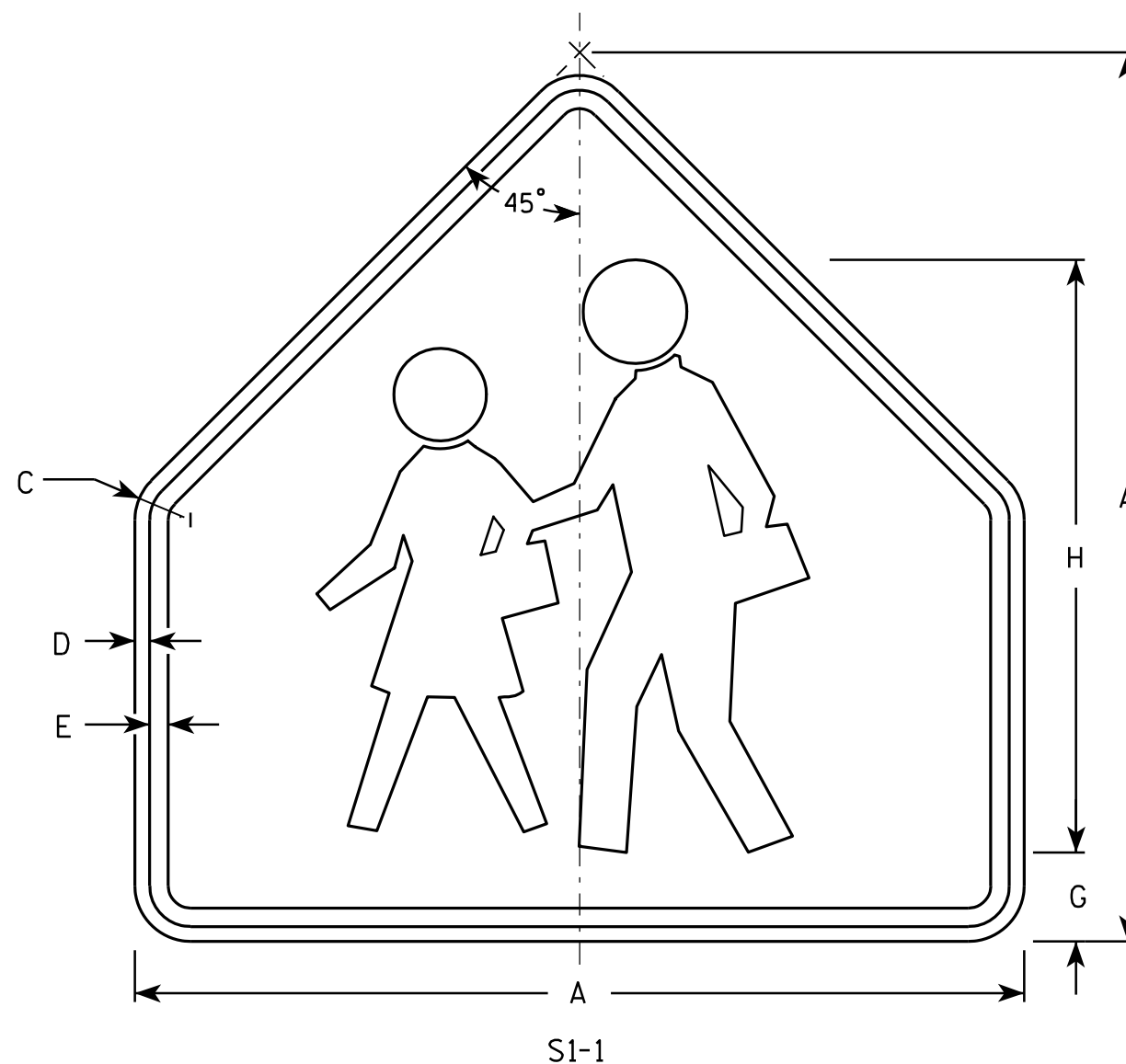
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 126

E



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Yellow-Green
Message - Black
 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN
S1-1

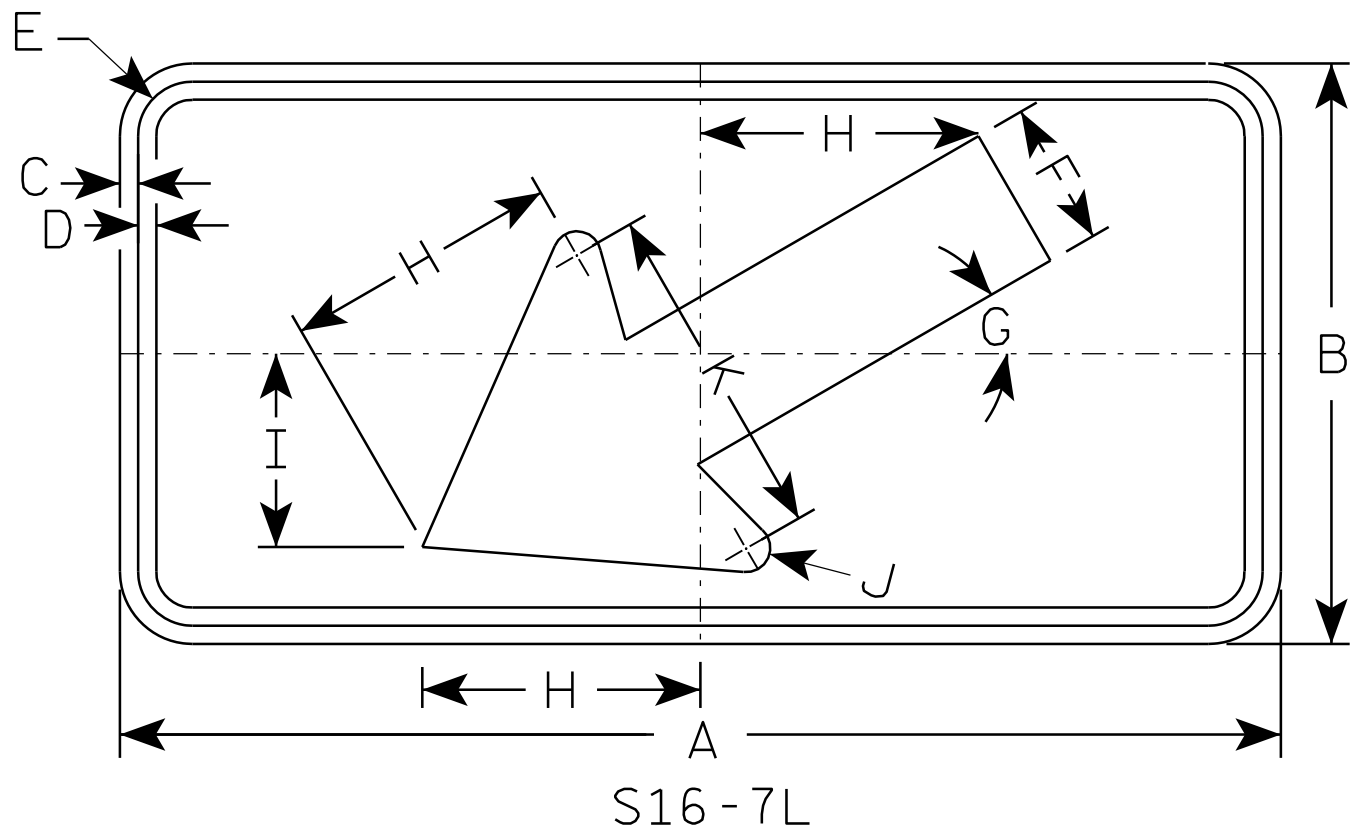
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: HWY: COUNTY: SHEET NO: 127 E

NOTES

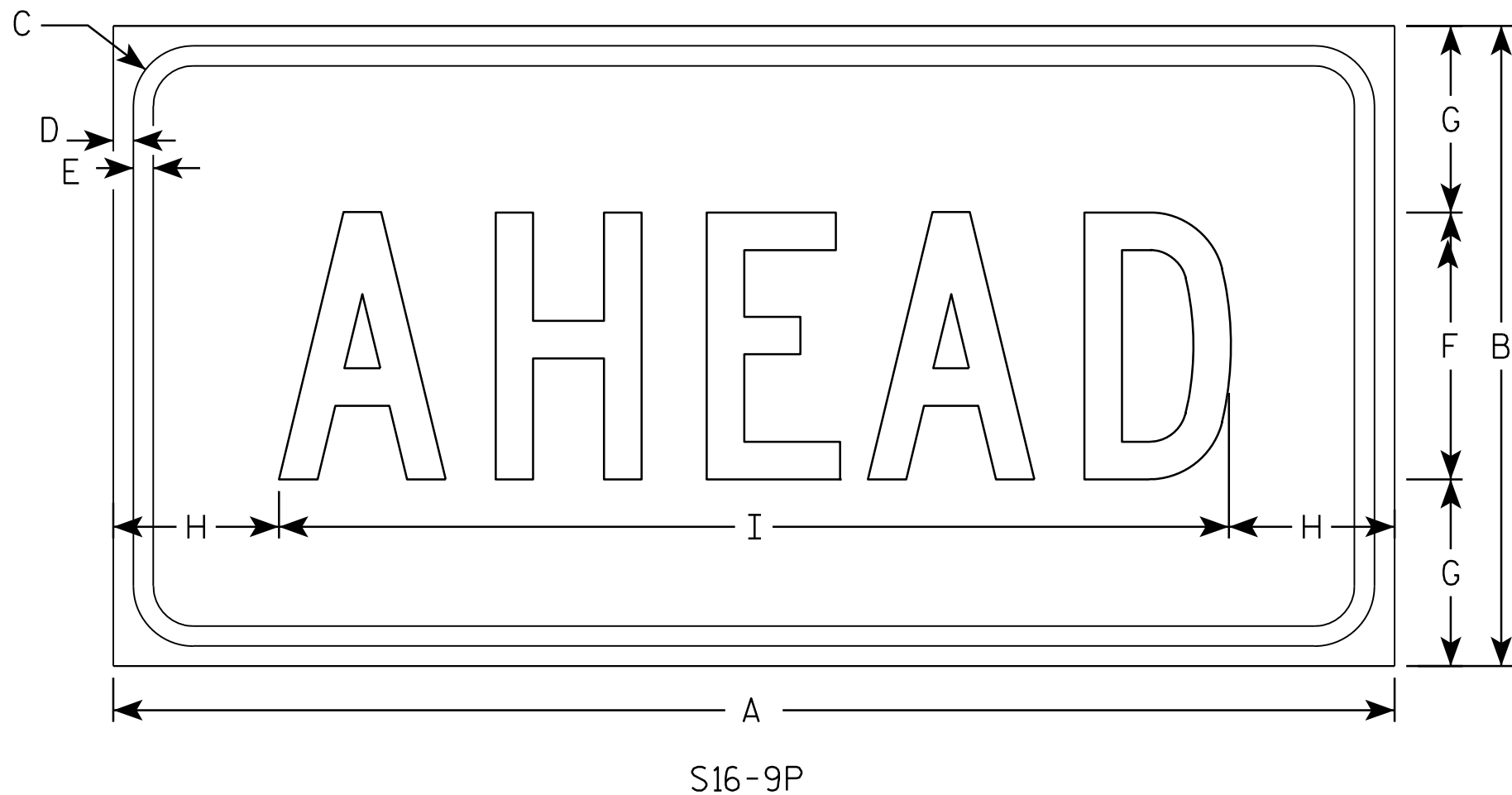
1. Sign is Type II - Type F Reflective -
reference WIS DOT Standard Specification for
HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow-Green
Message - Black
3. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. S16-7R are the same as
S16-7L except the arrow is reversed along
the vertical centerline.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN	
S16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/22/13	PLATE NO. S16-7.1

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow-Green
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN

S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

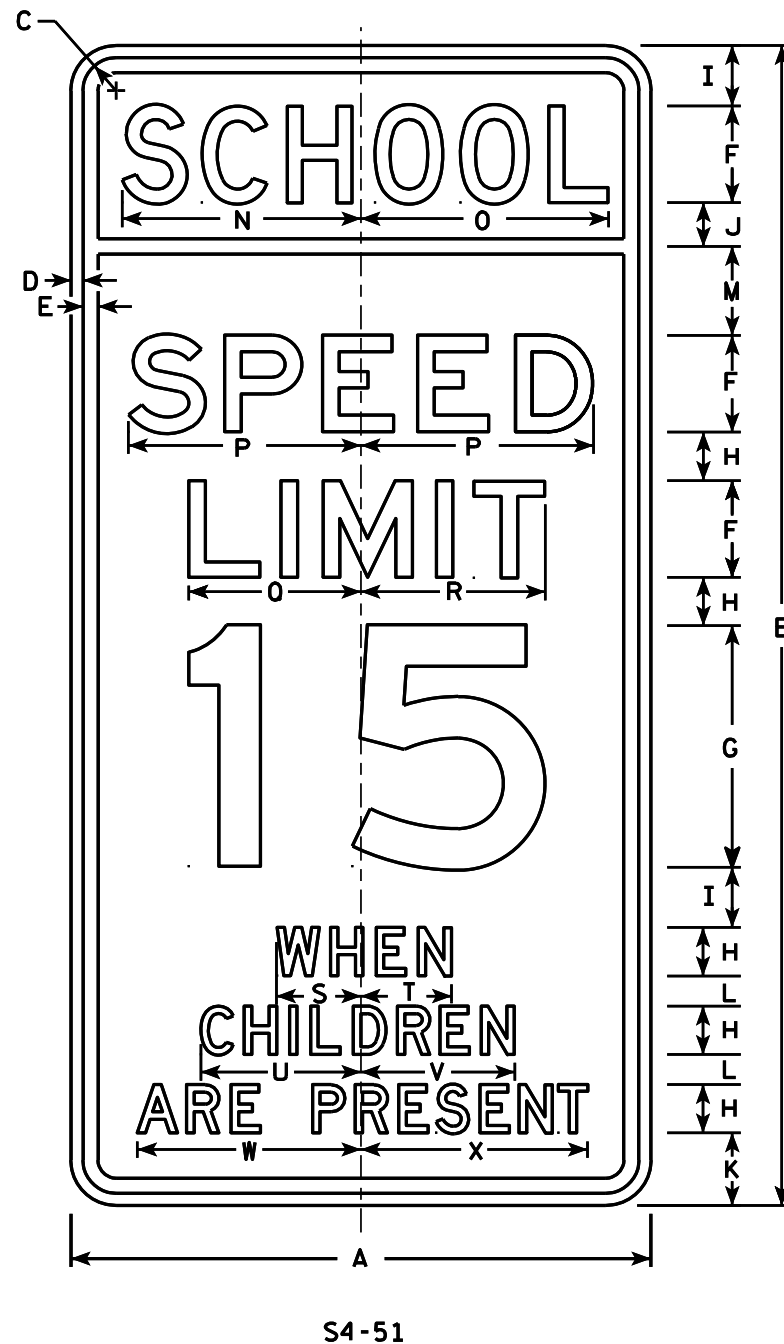
DATE 7/22/13 PLATE NO. S16-9P.1

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	48	1 ⅜	½	⅝	4	10	2	2 ½	1 ¾	3	1 ¼	3 ¾	9 ⅞	10 ¼	9 ⅝	7 ⅛	7 ⅝	3 ½	3 ⅜	6 ⅝	6 ⅜	9 ¼	9 ⅜			8.00	0.72
3	36	72	2 ¼	¾	1	6	15	3	3 ¾	2 ¾	4 ½	1 ⅞	5 ½	15	15 ¼	14 ½	11 ¼	11 ½	5 ½	5 ¾	10	9 ¾	14	14 ⅛			18.00	1.62
4																												
5																												

PROJECT NO:			HWY:			COUNTY:			SHEET NO: 130			E
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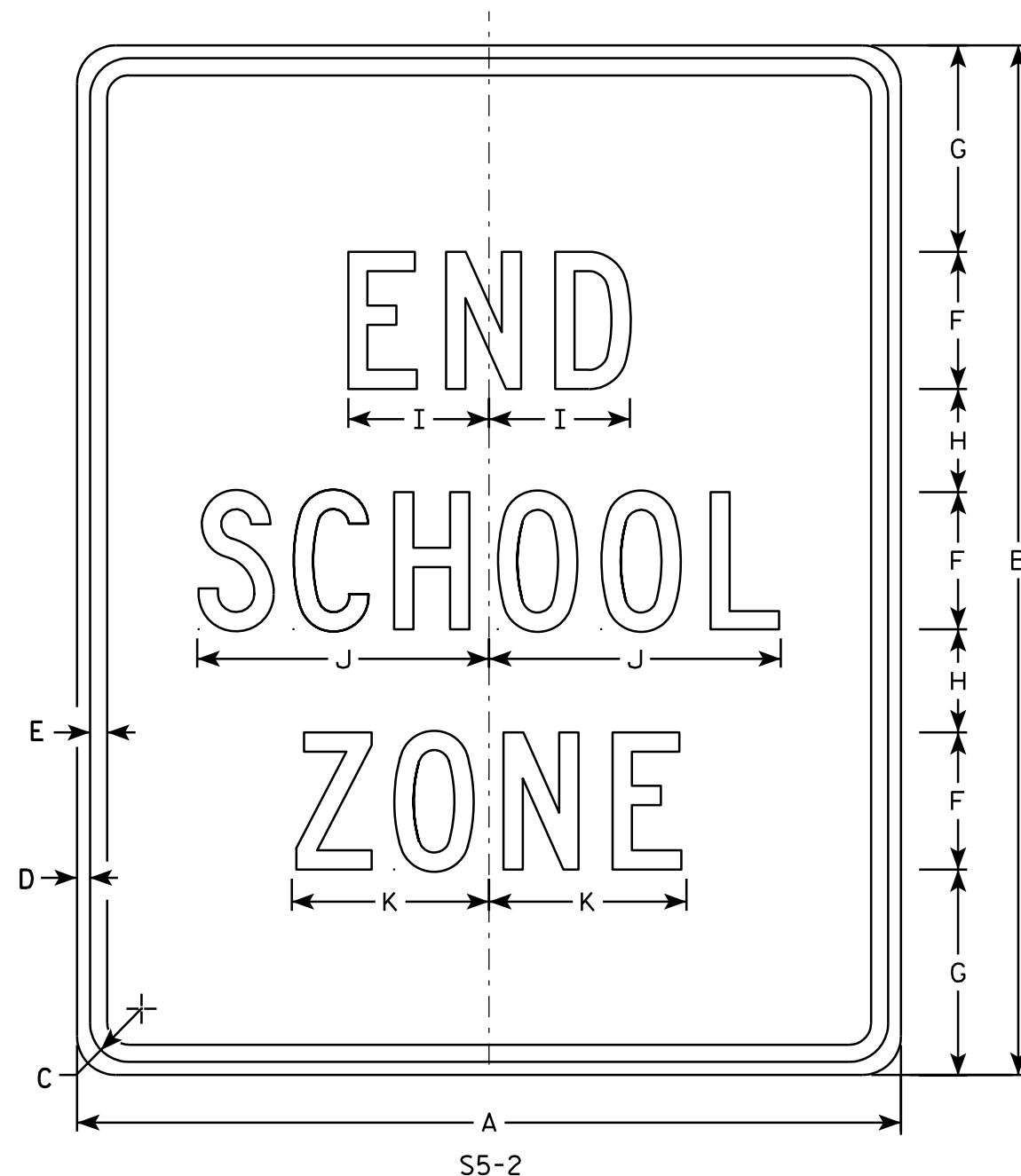
NOTES

- Sign is Type II - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:
Background - See note 5
Message - Black
- Message Series - See note 6
- Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.
Lower panel background - White -Type H Reflective.
- From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and
adjust spacing to achieve proper balance.

STANDARD SIGN S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 4/26/10 PLATE NO. S4-51.9



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

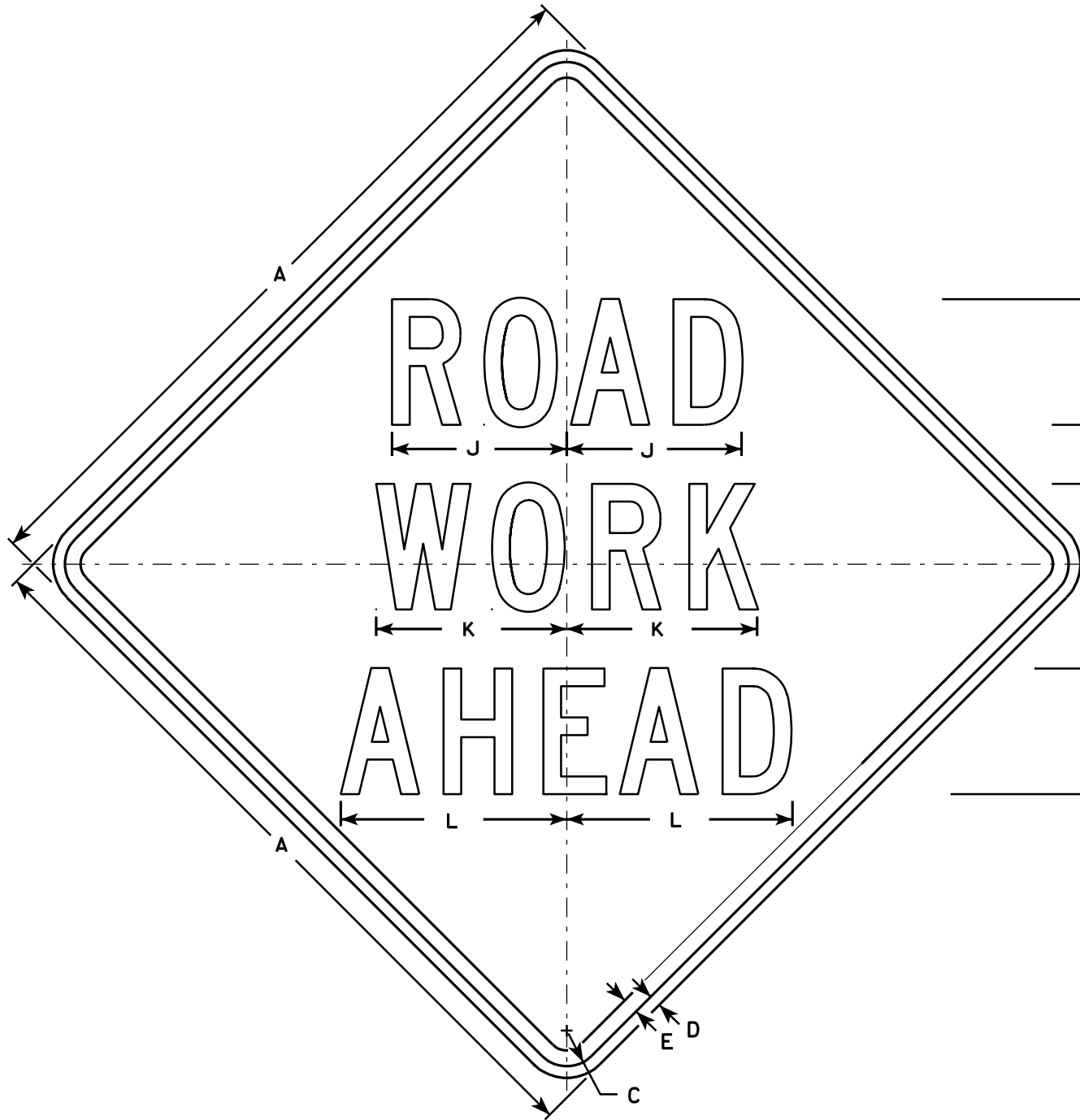
PROJECT NO:

HWY:

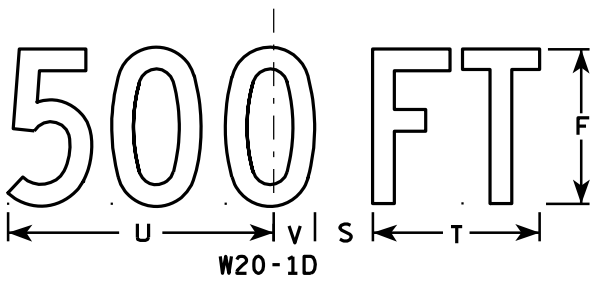
COUNTY:

SHEET NO: 131

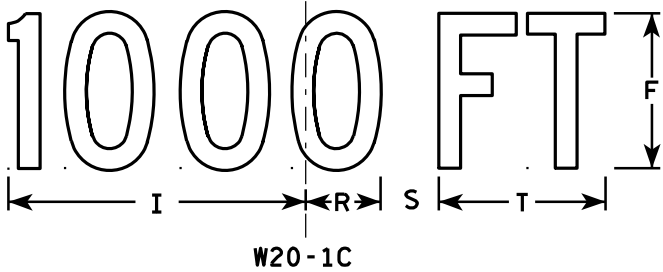
E



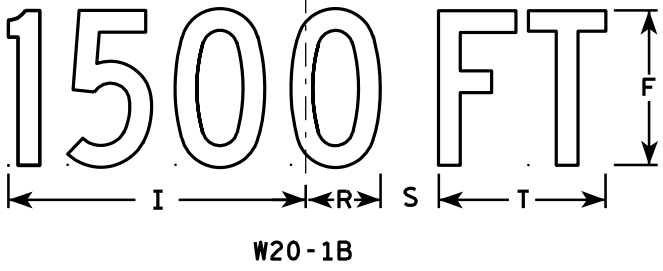
W20-1A



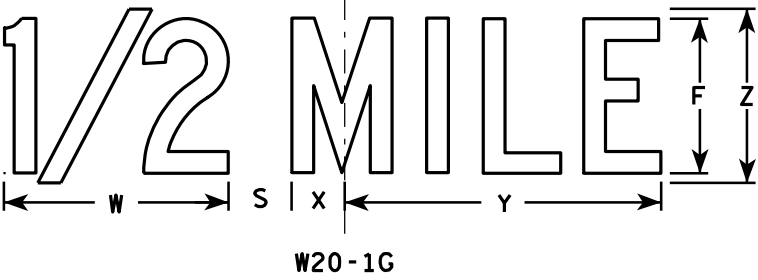
W20-1D



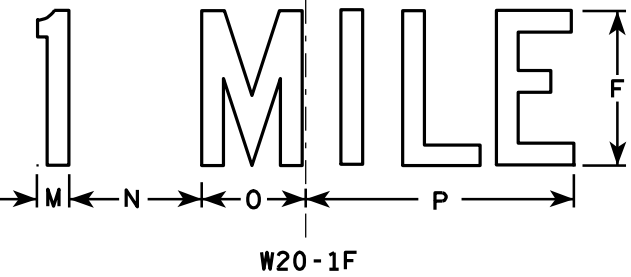
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

PROJECT NO:

SHEET NO: 132

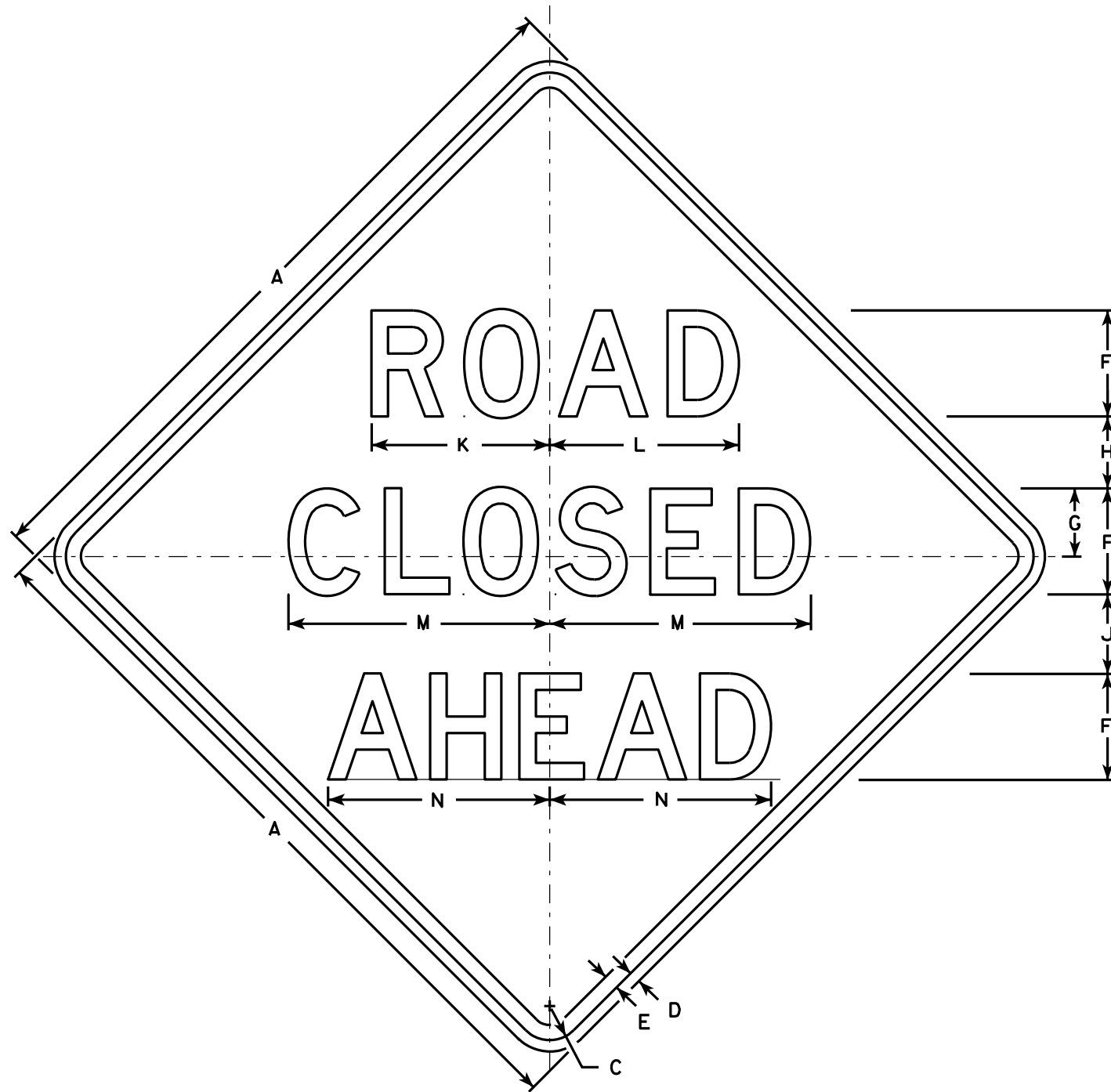
E

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 3/18/11
PLATE NO. W20-19



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

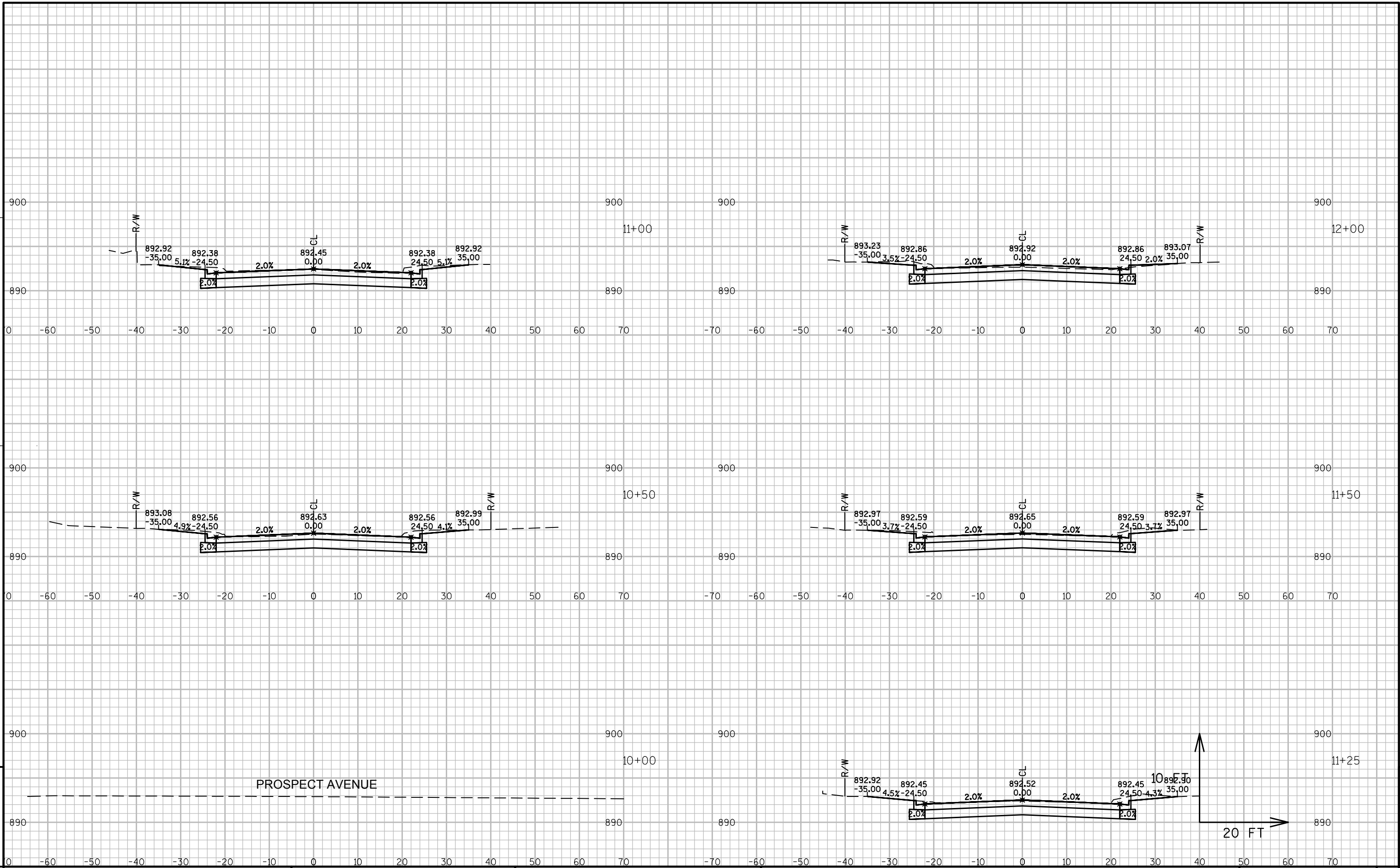
COUNTY:

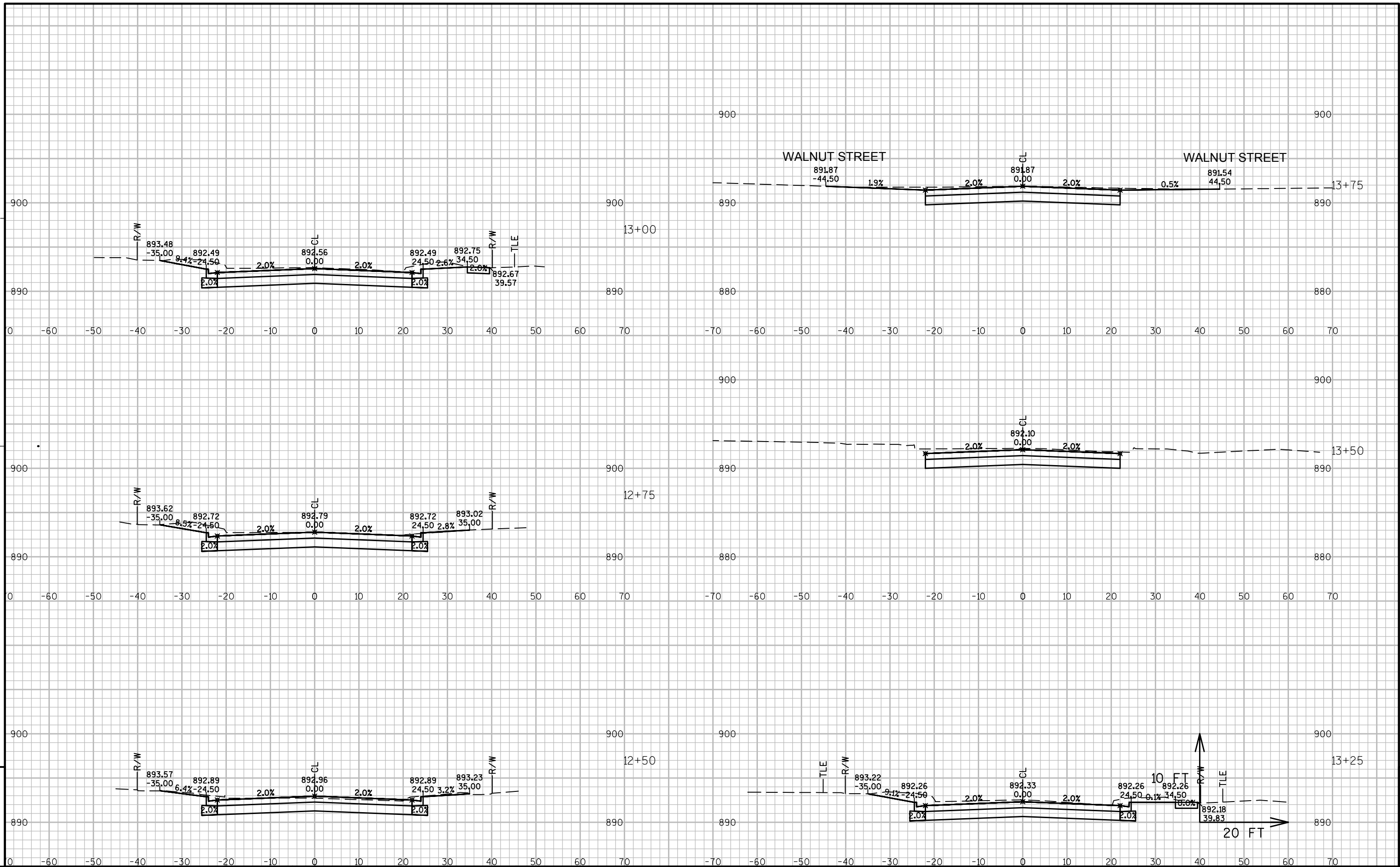
SHEET NO: 133

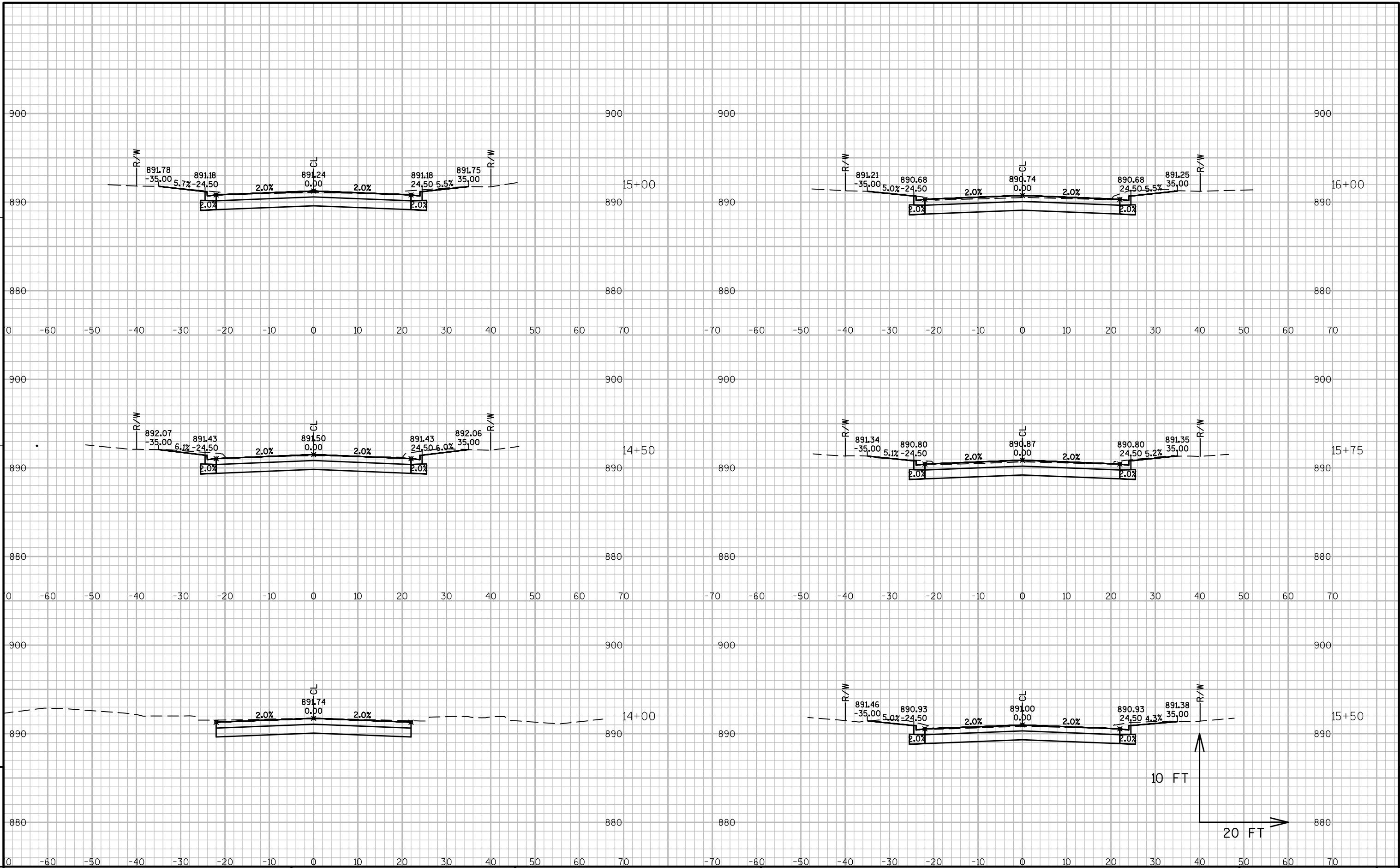
E

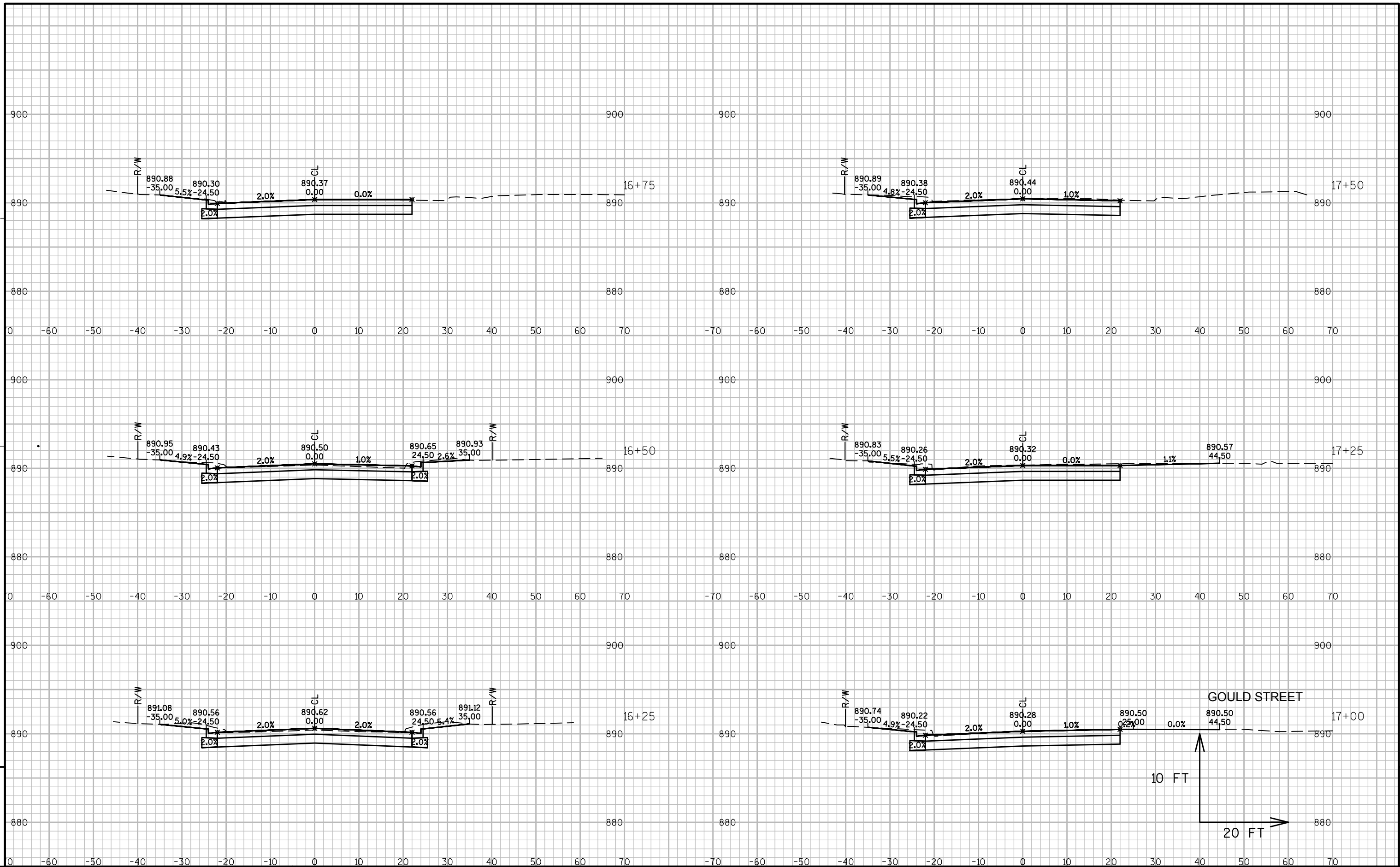
STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00 Note 1	Expanded Fill 1.25	
10+25.00	1025	0	0	0	0	0	0	0	0	0	0
10+50.00	1050	25	114	24	0	53	11	0	53	0	42
10+75.00	1075	25	114	24	0	106	22	0	158	0	125
11+00.00	1100	25	117	24	0	107	22	0	265	0	210
11+25.00	1125	25	116	31	0	108	25	0	373	0	292
11+50.00	1150	25	116	24	0	107	25	0	481	0	374
11+75.00	1175	25	107	24	0	103	22	0	584	0	455
12+00.00	1200	25	106	31	0	99	25	0	682	0	528
12+25.00	1225	25	110	24	0	100	25	0	782	0	603
12+50.00	1250	25	111	31	0	102	25	0	885	0	680
12+75.00	1275	25	123	31	0	108	29	0	993	0	759
13+00.00	1300	25	137	26	0	120	26	0	1113	0	853
13+25.00	1325	25	138	26	0	127	24	0	1241	0	956
13+50.00	1350	25	76	27	0	99	25	0	1340	0	1031
13+75.00	1375	25	21	21	0	45	22	0	1385	0	1054
14+00.00	1400	25	53	27	0	34	22	0	1419	0	1066
14+25.00	1425	25	124	24	0	82	24	0	1501	0	1124
14+50.00	1450	25	120	24	0	113	22	0	1614	0	1215
14+75.00	1475	25	122	24	0	112	22	0	1726	0	1304
15+00.00	1500	25	111	31	0	108	25	0	1834	0	1387
15+25.00	1525	25	113	24	0	104	25	0	1938	0	1465
15+50.00	1550	25	114	24	0	105	22	0	2043	0	1548
15+75.00	1575	25	108	24	0	103	22	0	2145	0	1629
16+00.00	1600	25	110	24	0	101	22	0	2246	0	1707
16+25.00	1625	25	116	31	0	105	25	0	2351	0	1786
16+50.00	1650	25	107	24	0	103	25	0	2454	0	1864
16+75.00	1675	25	76	30	1	85	25	0	2539	1	1923
17+00.00	1700	25	54	23	0	60	25	0	2599	1	1958
17+25.00	1725	25	64	23	0	55	21	0	2654	2	1991
17+50.00	1750	25	85	23	4	69	21	1	2723	3	2037
17+75.00	1775	25	124	24	3	97	22	2	2819	6	2110
18+00.00	1800	25	126	24	1	116	22	2	2935	9	2200
18+25.00	1825	25	122	27	0	115	24	1	3050	11	2290
18+50.00	1850	25	72	23	0	90	23	0	3140	11	2356
18+75.00	1875	25	67	23	0	64	21	0	3204	11	2399
19+00.00	1900	25	108	27	0	81	23	0	3285	11	2457
19+25.00	1925	25	108	24	0	100	24	0	3385	11	2534
19+50.00	1950	25	102	24	1	97	22	0	3482	11	2608
19+75.00	1975	25	99	24	1	93	22	1	3575	12	2678
20+00.00	2000	25	97	24	2	91	22	1	3666	13	2745
20+25.00	2025	25	91	24	2	87	22	2	3753	15	2808
20+50.00	2050	25	96	24	2	87	22	2	3840	18	2870
20+75.00	2075	25	92	24	2	87	22	2	3927	20	2932
21+00.00	2100	25	89	26	1	84	23	2	4011	23	2991
21+25.00	2125	25	84	32	1	80	27	1	4091	24	3042
21+50.00	2150	25	78	39	1	75	33	1	4166	25	3084
21+75.00	2175	25	82	34	1	74	34	1	4240	26	3123
22+00.00	2200	25	97	36	1	83	32	1	4323	27	3173
22+25.00	2225	25	109	26	2	95	29	1	4418	28	3238
22+50.00	2250	25	116	24	1	104	23	1	4522	30	3318
22+75.00	2275	25	115	24	1	107	22	1	4629	31	3401
23+00.00	2300	25	114	31	0	106	25	1	4735	32	3480
23+25.00	2325	25	124	24	0	110	25	1	4845	33	3564
23+50.00	2350	25	126	24	0	116	22	0	4961	33	3657
23+75.00	2375	25	131	24	0	119	22	0	5080	33	3754
24+00.00	2400	25	139	24	0	125	22	0	5205	34	3857
24+25.00	2425	25	145	24	0	131	22	0	5337	34	3966
24+50.00	2450	25	145	24	0	134	22	0	5471	34	4078
24+75.00	2475	25	104	24	0	115	22	0	5586	34	4171
25+00.00	2500	25	75	23	0	83	22	0	5669	34	4232

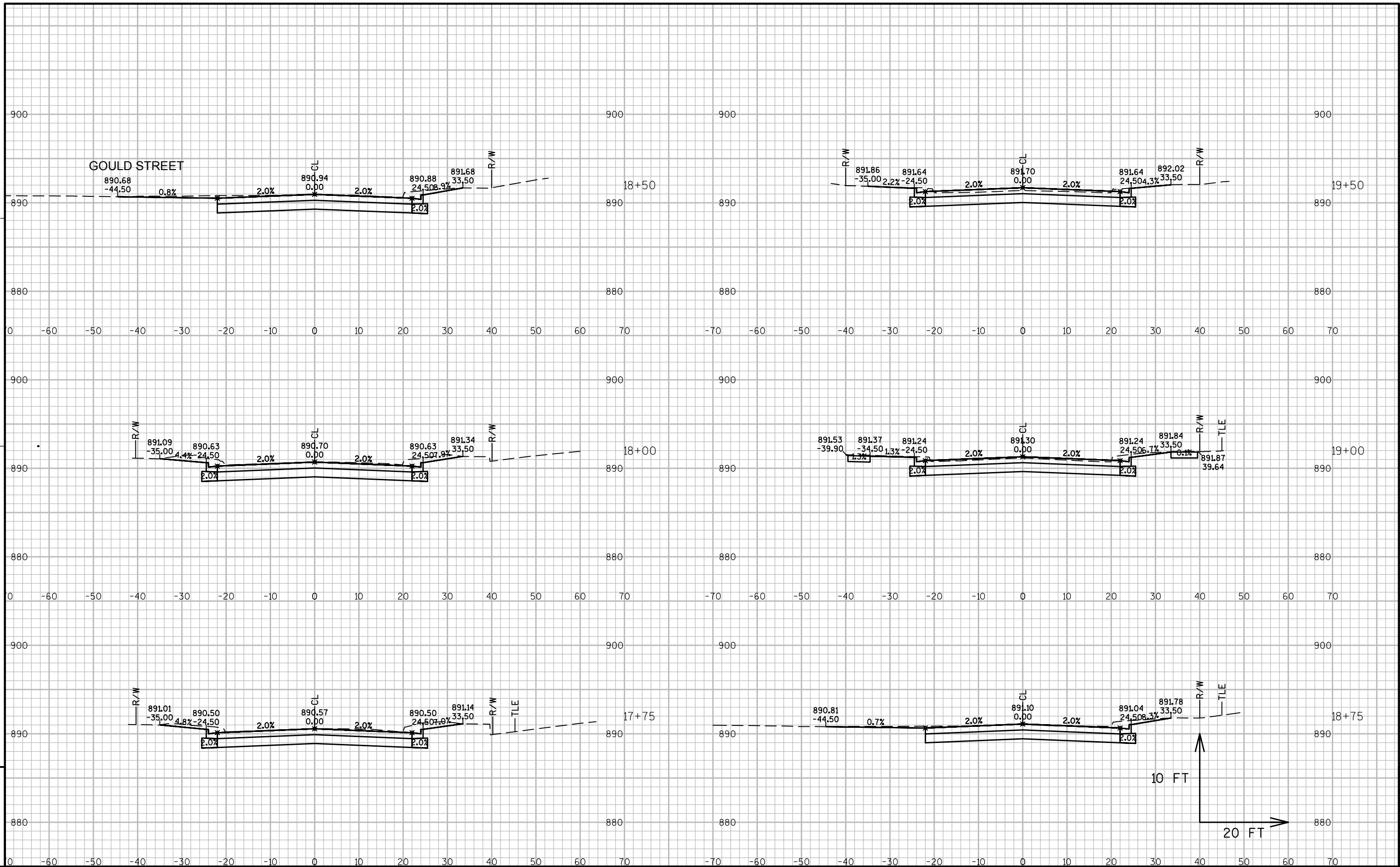
25+25.00	2525	25	114	24	0	88	22	0	5756	34	4298
25+50.00	2550	25	115	13	0	106	17	0	5863	34	4386
25+75.00	2575	25	118	13	0	108	12	0	5970	34	4482
26+00.00	2600	25	120	23	0	110	17	0	6081	34	4575
26+25.00	2625	25	120	13	0	111	17	0	6192	34	4670
26+50.00	2650	25	122	13	0	112	12	0	6304	34	4770
26+75.00	2675	25	125	15	0	114	13	0	6418	34	4871
27+00.00	2700	25	121	15	0	114	14	0	6532	34	4971
27+25.00	2725	25	117	15	0	110	14	0	6642	34	5067
27+50.00	2750	25	116	15	0	108	14	0	6750	34	5161
27+75.00	2775	25	115	15	0	107	14	0	6857	35	5254
28+00.00	2800	25	108	18	0	103	15	0	6960	35	5342
28+25.00	2825	25	106	13	0	99	14	0	7059	35	5427
28+50.00	2850	25	99	13	0	95	12	0	7154	35	5509
28+75.00	2875	25	96	13	2	90	12	1	7244	36	5586
29+00.00	2900	25	89	18	1	86	14	1	7330	38	5656
29+25.00	2925	25	68	15	1	73	15	1	7403	39	5713
29+50.00	2950	25	23	13	1	42	13	1	7445	40	5741
29+75.00	2975	25	53	17	3	35	14	1	7480	41	5761
30+00.00	3000	25	49	13	3	47	14	2	7527	43	5792
30+25.00	3025	25	52	13	2	47	12	2	7574	46	5824
30+50.00	3050	25	52	13	2	48	12	2	7622	49	5857
30+75.00	3075	25	54	13	2	49	12	2	7671	51	5892
31+00.00	3100	25	60	13	1	53	12	2	7724	53	5931
31+25.00	3125	25	63	18	1	57	14	1	7781	54	5972
31+50.00	3150	25	66	13	1	60	14	1	7841	56	6016
31+75.00	3175	25	68	13	1	62	12	1	7903	57	6065
32+00.00	3200	25	78	23	0	68	17	1	7970	58	6115
32+25.00	3225	25	79	23	1	73	21	1	8043	59	6165
32+50.00	3250	25	85	15	1	76	18	1	8119	60	6223
32+75.00	3275	25	47	15	0	61	14	0	8180	60	6269
33+00.00	3300	25	69	15	1	54	14	0	8234	61	6309
33+25.00	3325	25	119	15	0	87	14	0	8321	61	6382
33+50.00	3350	25	129	20	0	115	16	0	8436	61	6480
33+75.00	3375	25	129	18	0	119	18	0	8555	61	6582
34+00.00	3400	25	121	18	0	116	17	0	8671	61	6681
34+25.00	3425	25	110	15	0	107	15	0	8778	62	6772
34+50.00	3450	25	106	15	0	100	14	0	8878	62	6858
34+75.00	3475	25	103	15	0	97	14	0	8975	62	6941
35+00.00	3500	25	107	15	0	97	14	0	9072	62	7024
35+25.00	3525	25	113	15	0	102	14	0	9174	63	7112
35+50.00	3550	25	118	20	0	107	16	0	9281	63	7202
35+75.00	3575	25	121	15	0	111	16	0	9391	63	7297
36+00.00	3600	25	117	15	0	110	14	0	9501	63	7393
36+25.00	3625	25	103	15	0	102	14	0	9603	63	7480
36+50.00	3650	25	0	0	0	48	7	0	9651	63	7521
						9651	2067	51			

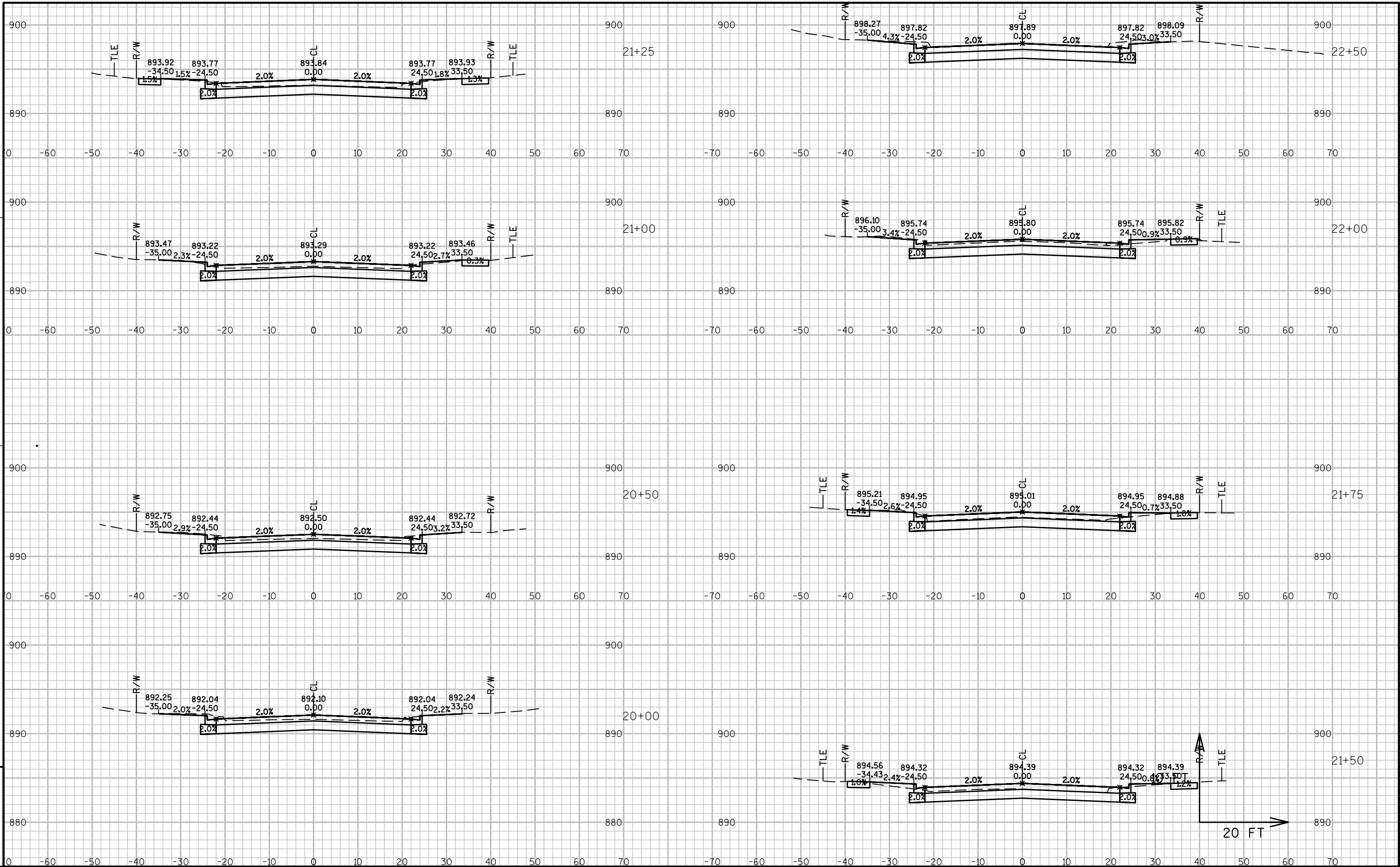


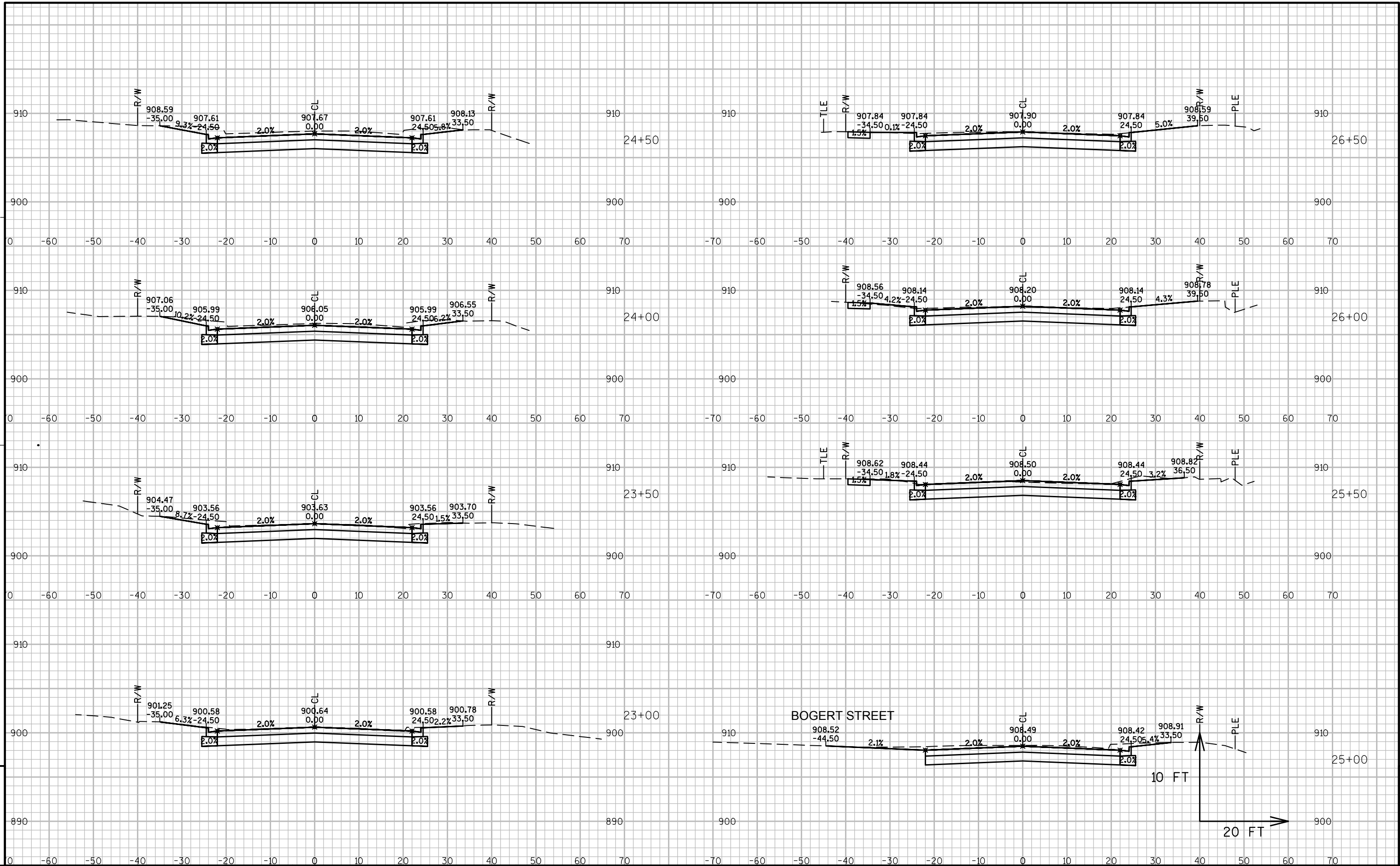


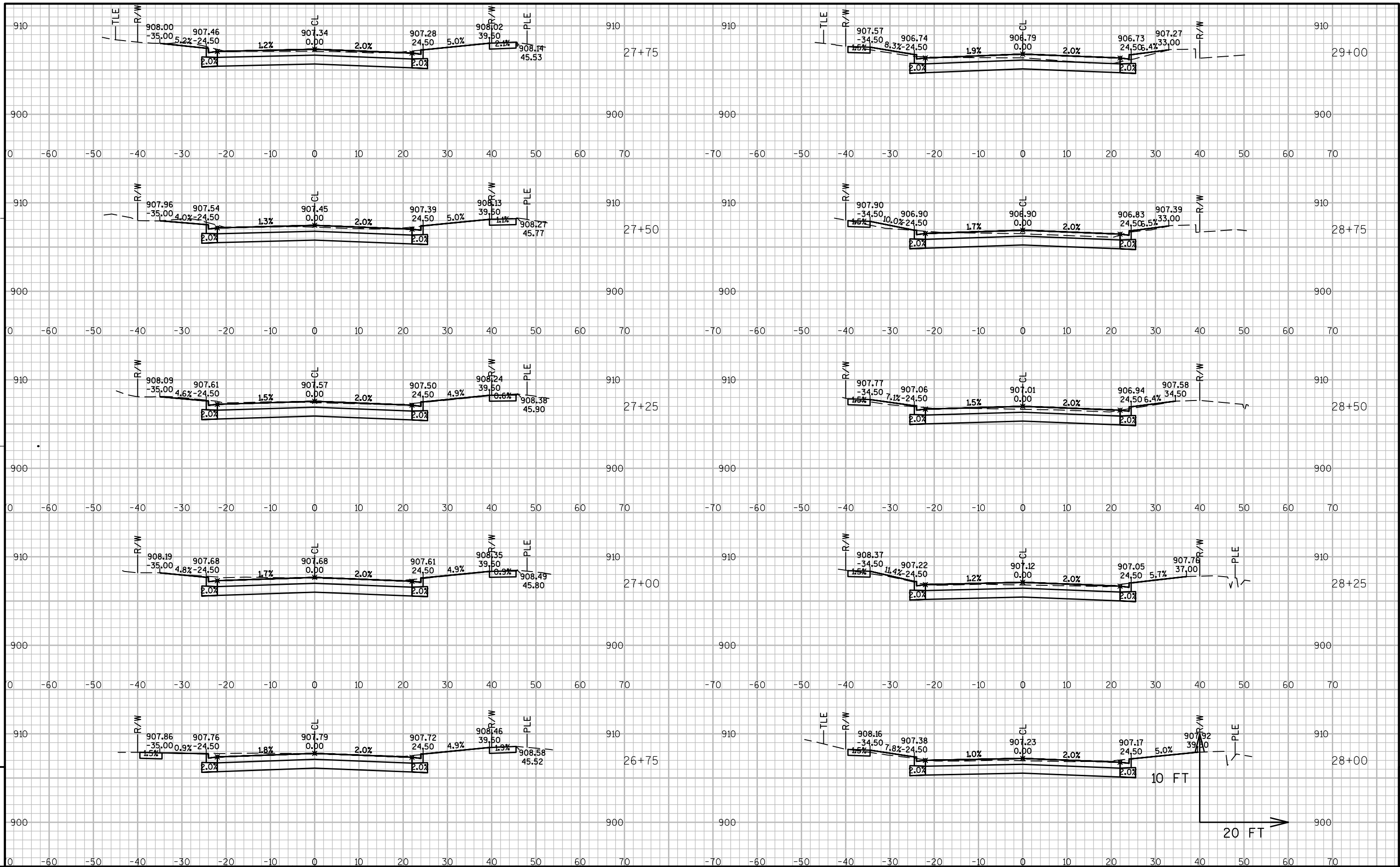


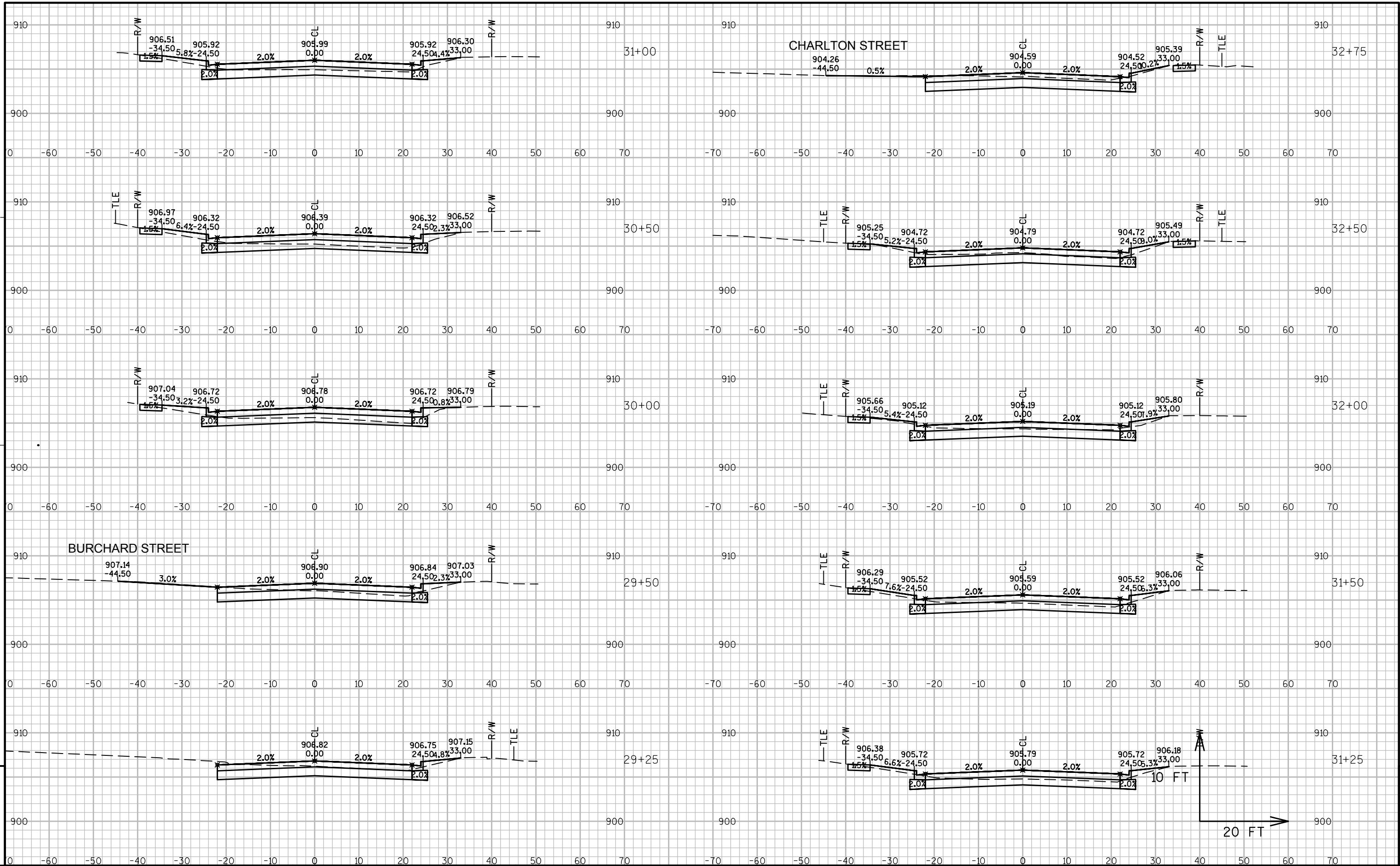


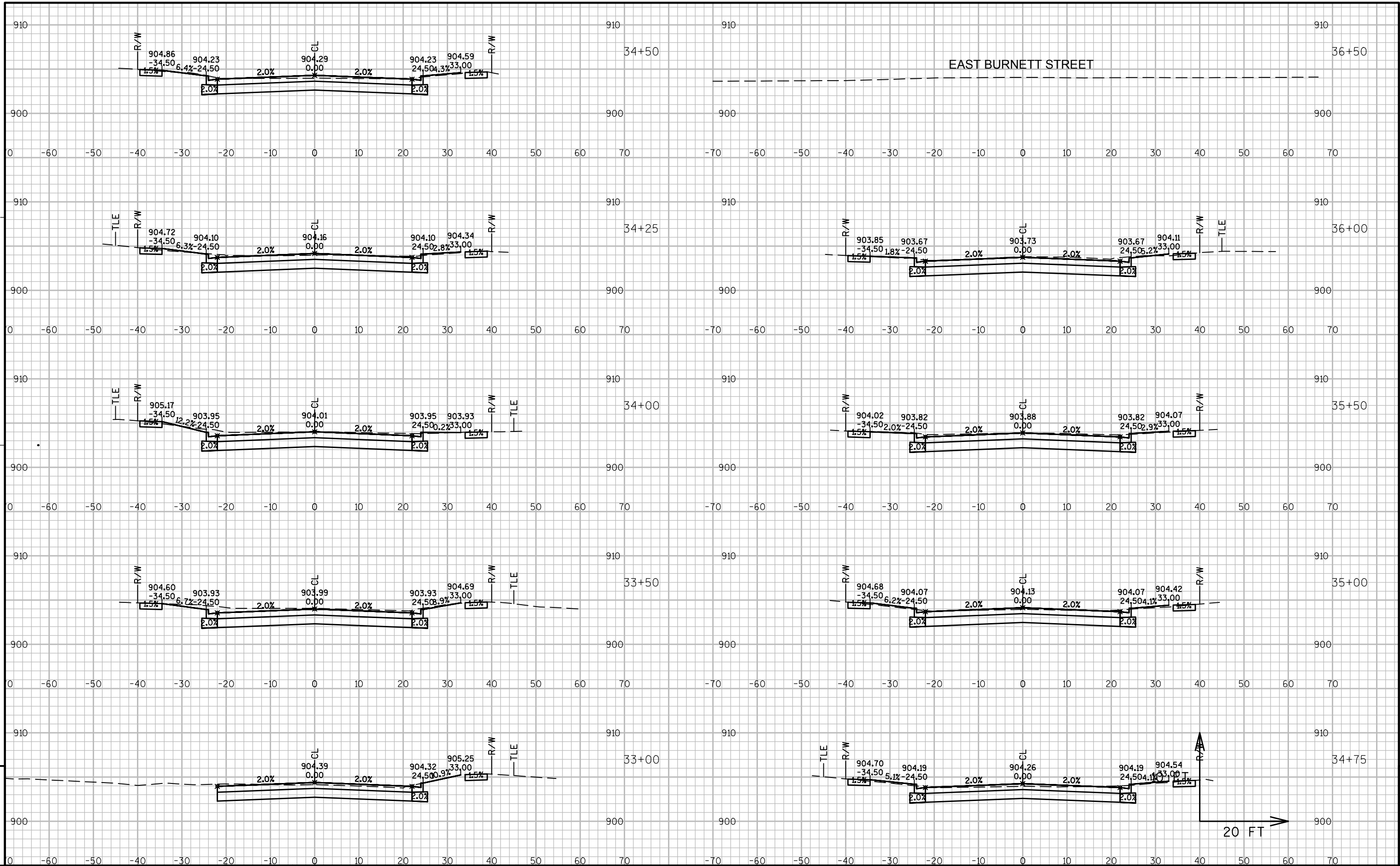


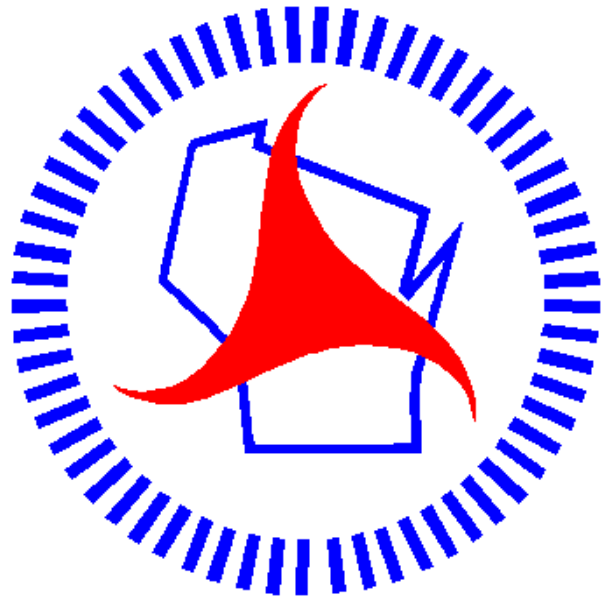












Wisconsin Department of Transportation

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through innovation and exceptional service.

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