SWL MAY 2015

PROJECT ID: 5992-06-64/74

WITH:

COUNTY: DANE

ORDER OF SHEETS

TOTAL SHEETS = 214

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF MADISON, MINERAL POINT ROAD

(MIDVALE BOULEVARD INTERSECTION)
LOCAL STREET

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5992-06-64	WISC 2015283	1
5992-06-74	———	—

13

STATE PROJECT NUMBER
5992-06-64
ROADWAY

STATE PROJECT NUMBER
5992-06-74
LOCAL UTILITIES

DESIGN DESIGNATION

		MINERAL POINT ROAD	S. MIDVALE BLVD.
A.A.D.T. (2015)	=	17,300	21,100
A.A.D.T. (2035)	=	21,600	23,900
D.H.V. (2035)	=	2,160	2,390
D.D.	=	50/50	50/50
T.	=	2.0%	2.0%
DESIGN SPEED	=	30 MPH	30 MPH
ESALS	=	N/A	868,700

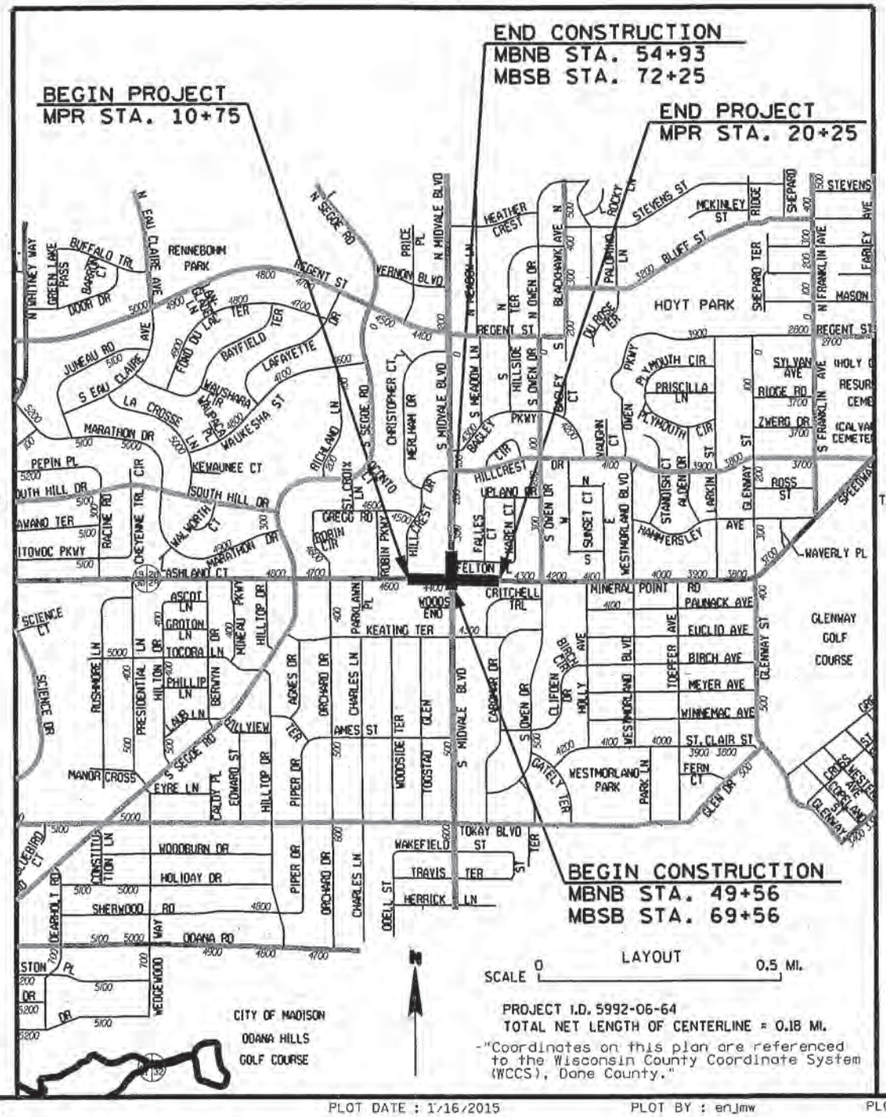
CONVENTIONAL SYMBOLS

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

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

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

R-9-E



PROJECT I.D. 5992-06-64
TOTAL NET LENGTH OF CENTERLINE = 0.18 MI.

-"Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Dane County."

SANITARY SEWER
DESIGNED BY: CITY OF MADISON

MARK D. MODER E-33976 MADISON WI
PROFESSIONAL ENGINEER
1/23/15

WATERMAIN
DESIGNED BY: CITY OF MADISON

DENNIS M. CAVEY E-16611 MADISON WI 1-23-15
PROFESSIONAL ENGINEER

STREET LIGHTING/TRAFFIC SIGNALS
DESIGNED BY: CITY OF MADISON

BRIAN J. SMITH E-37284 MADISON WI 1-23-15
PROFESSIONAL ENGINEER

ACCEPTED FOR
CITY of MADISON
1/26/15 (Date) (City Engineer)

ORIGINAL PLANS PREPARED BY:
CITY OF MADISON
ENGINEERING DIVISION

JAMES M WOLFE E-42725 MADISON, WI
PROFESSIONAL ENGINEER
DATE: 1/23/15 (Professional Engineer)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	BURSE SURVEYING & ENGINEERING
Designer	CITY OF MADISON
Project Manager	CITY OF MADISON
MANAGEMENT CONSULTANT	K.JOHNSON ENGINEERS, INC.

APPROVED FOR THE DEPARTMENT
DATE: 1/29/15 MANAGEMENT CONSULTANT

E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\5992-06-64 Title Sheet.dgn PLOT DATE : 1/16/2015 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 39.9983 sf / in. WISDOT/CADDS SHEET 10

2

STANDARD ABBREVIATIONS

AC	ACRES
AH	AHEAD
ALUM.	ALUMINUM
A.P.	ACCESS POINT
BK	BACK
BLK	BLOCK
BM	BENCHMARK
CL or C/L	CENTERLINE
Δ	CENTRAL ANGLE or DELTA
CSM	CERTIFIED SURVEY MAP
D	DEGREE OF CURVE
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ET AL	AND OTHERS
EXIST	EXISTING
FT	FOOT
GN	GRID NORTH
IN	INCH
IP	IRON PIPE
L	LENGTH
L	LENGTH OF CURVE
LF	LINEAL FEET
LC	LONG CHORD
LCB	LONG CHORD BEARING
LT	LEFT
MH	MANHOLE
MI	MILE
MON	MONUMENT
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
PT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
POB	POINT OF BEGINNING
R	RADIUS
RP	RADIUS POINT
R	RANGE
RL or R/L	REFERENCE LINE
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
SAN	SANITARY SEWER
S	SOUTH
SB	SOUTHBOUND
SQ	SQUARE
FT2	SQUARE FEET
STD	STANDARD
SEC	SECTION
STA	STATION
STM	STORM SEWER
STR	STRUCTURE
T	TANGENT
TAN	TANGENT
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T or TN	TOWN
TYP	TYPICAL
WM	WATERMAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND

UTILITY CONTACTS

WATERMAIN:
CITY OF MADISON WATER UTILITY
ATTN: DENNIS CAWLEY
119 E. OLIN AVENUE
MADISON, WI 53713
PHONE: (608) 261-9243
FAX: (608) 266-4426
E-MAIL: dcawley@madisonwater.org

SANITARY SEWER:
CITY OF MADISON ENGINEERING DIVISION
ATTN: MARK MODER
CITY-COUNTY BUILDING, ROOM 115
210 MARTIN LUTHER KING JR. BOULEVARD
MADISON, WI 53703
PHONE: (608) 261-9250
FAX: (608) 264-9275
E-MAIL: mmoder@cityofmadison.com

ELECTRIC:
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ATTN: RICH PARKER
P.O. BOX 1231
MADISON, WI 53701-1231
PHONE: (608) 252-7379
E-MAIL: rparker@mge.com

COMMUNICATIONS:
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ATTN: ERIK BORGEN
2 FEN OAK COURT
MADISON, WI 53718-8810
PHONE: (608) 664-4438
E-MAIL: erik.borgen@tdstelecom.com

TELEPHONE:
AT&T WISCONSIN
ATTN: CAROL ANASON
316 W. WASHINGTON AVE.
MADISON, WI 53703
PHONE: (608) 252-2385
E-MAIL: CA2624@att.com

COMMUNICATIONS:
US SIGNAL
ATTN: CHRIS LENTINE
201 IONIA, SW
GRAND RAPIDS, MI 49503
PHONE: (616) 988-7194
E-MAIL: clentine@ussignal.com

STORM SEWER:
CITY OF MADISON ENGINEERING DIVISION
ATTN: ERIC DUNDEE
CITY-COUNTY BUILDING, ROOM 115
210 MARTIN LUTHER KING JR. BOULEVARD
MADISON, WI 53703
PHONE: (608) 266-4913
FAX: (608) 264-9275
E-MAIL: edundee@cityofmadison.com

TRAFFIC SIGNALS & STREET LIGHTING:
CITY OF MADISON TRAFFIC ENGINEERING DIVISION
ATTN: BRIAN SMITH
MADISON MUNICIPAL BUILDING, SUITE 100
215 MARTIN LUTHER KING JR. BOULEVARD
MADISON, WI 53703
PHONE: (608) 261-9625
FAX: (608) 267-1158
E-MAIL: bsmith@cityofmadison.com

GAS:
MG&E
ATTN: STEVE BEVERSDORF
P.O. BOX 1231
MADISON, WI 53701-1231
PHONE: (608) 252-1552
E-MAIL: sbeversdorf@mge.com

MADISON GAS AND ELECTRIC (MG&E) 24-HOUR EMERGENCY NUMBER: 608-252-7111

CABLE TELEVISION:
CHARTER COMMUNICATIONS
ATTN: BRANDON STORM
2701 DANIELS ST.
MADISON, WI 53718
PHONE: (608) 274-3822 ex 6642
E-MAIL: brandon.storm@chartercom.com

TELEPHONE:
AT&T TRANSMISSION
ATTN: EMMET LUKASIK
316 W. WASHINGTON AVE., ROOM 209
MADISON, WI 53703
PHONE: (608) 252-2106
E-MAIL: el1345@att.com

GENERAL NOTES

ABBREVIATIONS FOR THE ALIGNMENTS ARE AS FOLLOWS:
"MPR" - MINERAL POINT ROAD
"MBNB" - S. MIDVALE BLVD. NORTHBOUND
"MBSB" - S. MIDVALE BLVD. SOUTHBOUND

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. PAVEMENT SLOPES, BORDER SLOPES, ETC., MAY VARY WITHIN THE STATION LIMITS OF EACH SECTION.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS. SEE DETAIL SHEETS AND CROSS SECTIONS FOR SLOPES AND GRADES.

ALL RADII DIMENSIONS MEASURED TO THE FACE OF CURB UNLESS NOTED UTHERWISE.

CURB GRADES PROVIDED GIVE EDGE OF GUTTER ELEVATIONS UNLESS NOTED OTHERWISE.

OFFSETS FOR INLETS AND MANHOLES ARE GIVEN TO THE CENTER OF STRUCTURE.

STORM SEWER PIPE REMOVALS IN PROPOSED STORM SEWER TRENCHES ARE NOT SHOWN IN THE STORM SEWER PLAN. REMOVALS ARE INCLUDED IN MISCELLANEOUS QUANTITIES.

ELEVATIONS GIVEN IN THE PLAN FOR STORM SEWER INLETS ARE GIVEN TO THE TOP OF CURB AT THE INLET LOCATION.

ELEVATIONS GIVEN IN THE PLAN FOR STORM SEWER STRUCTURES ARE DENOTED "RIM" AND ARE GIVEN TO THE TOP OF CASTING AT THE STRUCTURE LOCATION.

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND. RESIDENTIAL DRIVEWAYS SHALL BE A MAXIMUM OF 20 FEET WIDE.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.

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

PIPE ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

GRADES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

WHEN REPLACING INDIVIDUAL SECTIONS OF SIDEWALK, MATCH EXISTING CONCRETE, ASPHALT OR STRUCTURES (WALLS, BUILDINGS, ETC. THAT ARE CONSTRUCTED TO THE PROPERTY LINE) BEHIND THE SIDEWALK. WHERE TURF EXISTS BEHIND THE SIDEWALK, KEEP DISTURBANCE TO WITHIN 6" OF THE SIDEWALK AND RESTORE WITH TOPSOIL, SEED, FERTILIZER, & EROSION MAT.

CURB RAMPS SHALL BE TYPE 2 UNLESS OTHERWISE NOTED. CONCRETE SIDEWALK FOR CURB RAMPS SHALL BE CONCRETE SIDEWALK, 7-INCH.

CONCRETE SIDEWALK FOR BUS STOPS SHALL BE CONCRETE SIDEWALK, 7-INCH.

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

TEMPORARY PAVEMENT SHALL BE INSTALLED AS 4" OF TEMPORARY SURFACE OVER 8" BASE AGGREGATE DENSE 1.25"

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF THE FOLLOWING COURSES UNLESS NOTED OTHERWISE ON THE PLANS:

6"TOTAL DEPTH	TYPE	SIZE GRADATION	PERFORMANCE GRADE
4" LOWER	E-3	19 mm	PG64-28
2" UPPER	E-3	12.5 mm	PG64-28

SECTION 2 ORDER OF SHEETS

**NOT A MEMBER OF DIGGERS HOTLINE

DESIGN CONTACT

CITY OF MADISON
ATTN: CHRIS PETYKOWSKI, P.E.
CITY-COUNTY BUILDING, ROOM 115
210 MARTIN LUTHER KING JR. BOULEVARD
MADISON, WI 53703
PHONE: (608) 267-8678
FAX: (608) 264-9275
E-MAIL: cpetykowski@cityofmadison.com

DNR LIAISON

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

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

CITY OF MADISON

2

2

SEGOE RD

GREGG RD

ROBIN PKY

HILL CREST DR

ORCHARD DR

PARKLAWN PL

END CONSTRUCTION
MBNB STA. 54+93.00
MBSB STA. 72+25.00

S. MIDVALE BLVD

HILLCREST DR

UPLAND DR

FALLES CT

KAREN CT

S. OWEN DR

N.

W.

SUNSET CT

E.

S.

WESTMORLAND BLVD

FELTON PL

MINERAL POINT RD

WOODS END

CRITCHELL TR

HOLLY AVE

KEATING TER

BEGIN PROJECT
MPR STA. 10+75.00

BEGIN PROJECT
MBNB STA. 49+56.00
MBSB STA. 69+56.00

END PROJECT
MPR STA. 20+25.00

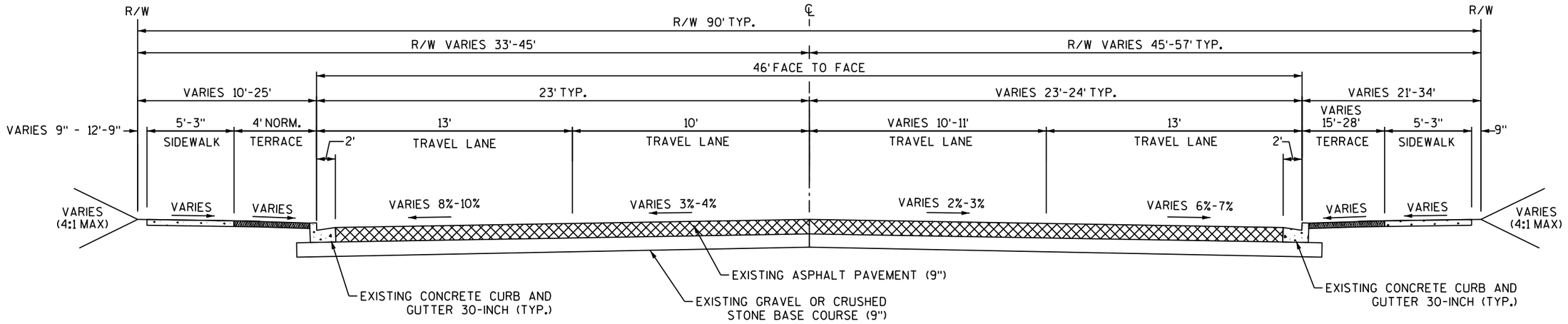
N

NOTE: ALIGNMENT ABBREVIATIONS ARE AS FOLLOWS:
"MPR" = MINERAL POINT ROAD
"MBNB" = S. MIDVALVE BLVD. NORTHBOUND
"MBSB" = S. MIDVALE BLVD. SOUTHBOUND

0 500′ 1000′ 1500′

SCALE IN FEET

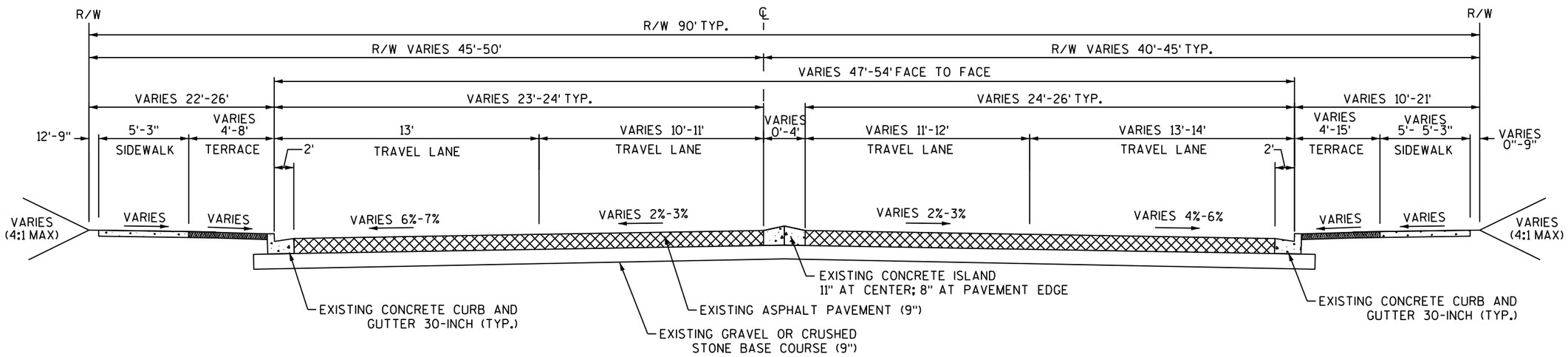
PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION - MINERAL POINT ROAD

STA. 10+75 to STA. 13+50

(HILLCREST DR to WEST OF MIDVALE BLVD)

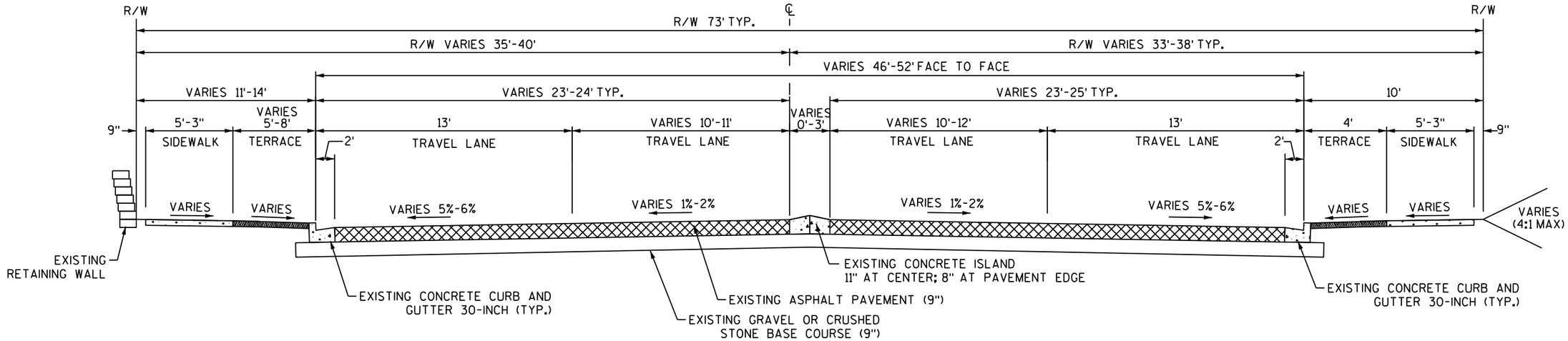


EXISTING TYPICAL SECTION - MINERAL POINT ROAD

STA. 13+50 to STA. 15+00

(WEST OF MIDVALE BLVD to MIDVALE BLVD)

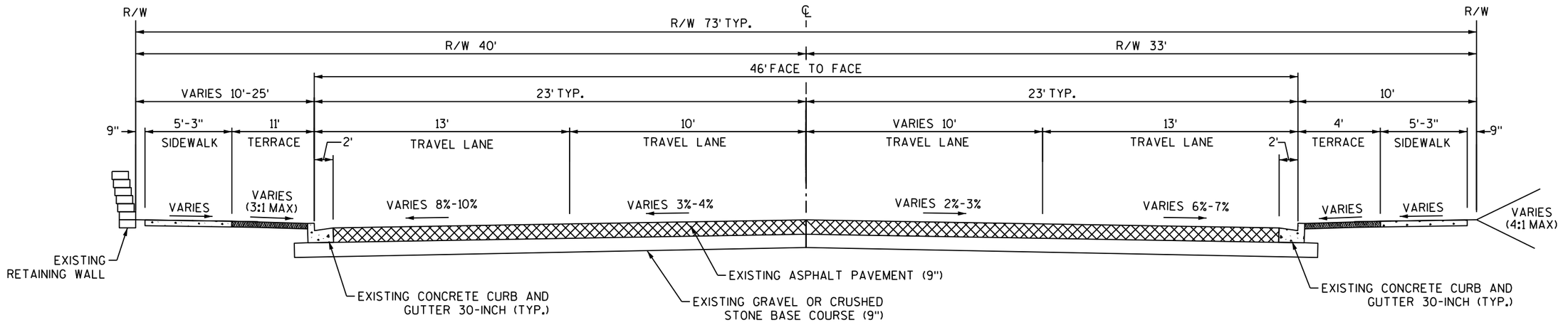
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EXISTING TYPICAL SECTIONS	SHEET 4	E



EXISTING TYPICAL SECTION - MINERAL POINT ROAD

STA. 15+00 to STA. 16+75

(MIDVALE BLVD to EAST OF MIDVALE BLVD)

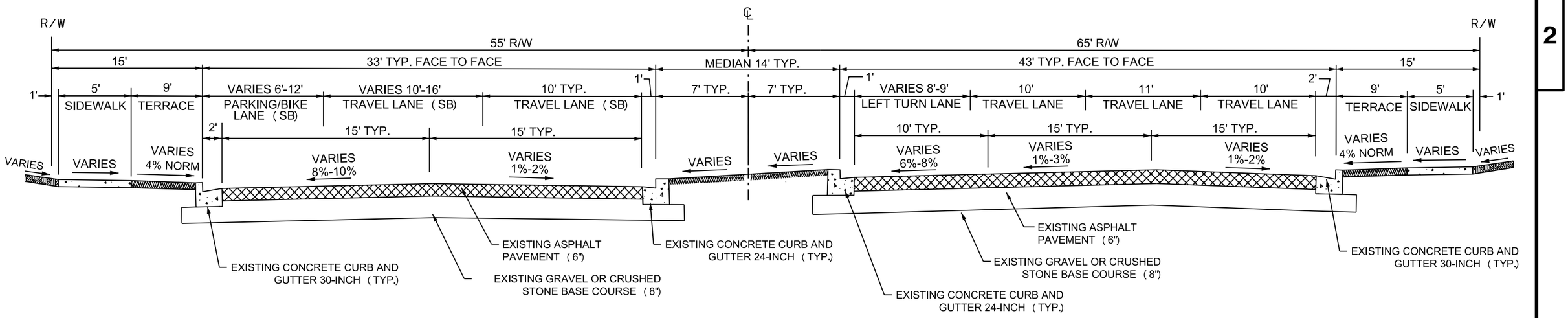


EXISTING TYPICAL SECTION - MINERAL POINT ROAD

STA. 16+75 to STA. 20+25

(EAST OF MIDVALE BLVD to EAST TERMINUS)

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EXISTING TYPICAL SECTIONS	SHEET 5	E

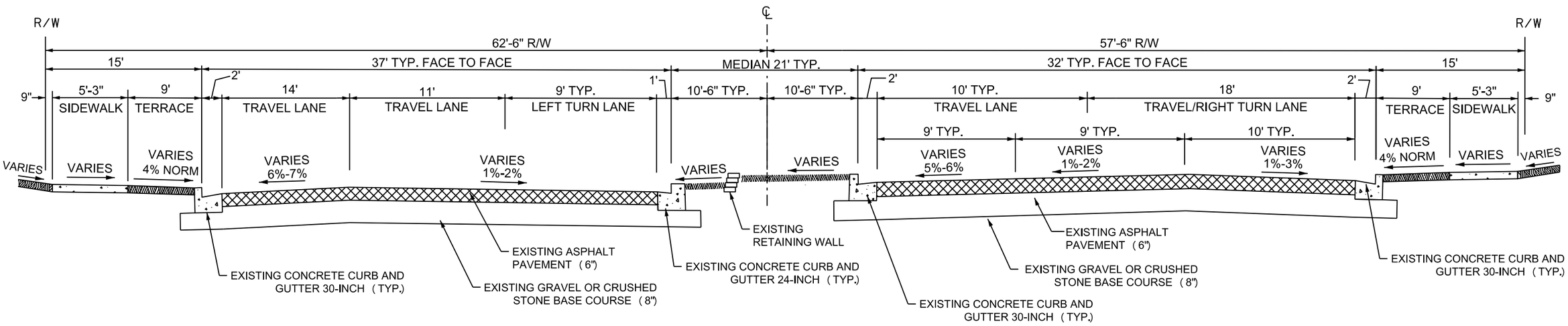


EXISTING TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

NB STA. 49+56 to STA. 51+25

SB STA. 69+56 to STA. 71+25

(SOUTH TERMINUS to MINERAL POINT RD)



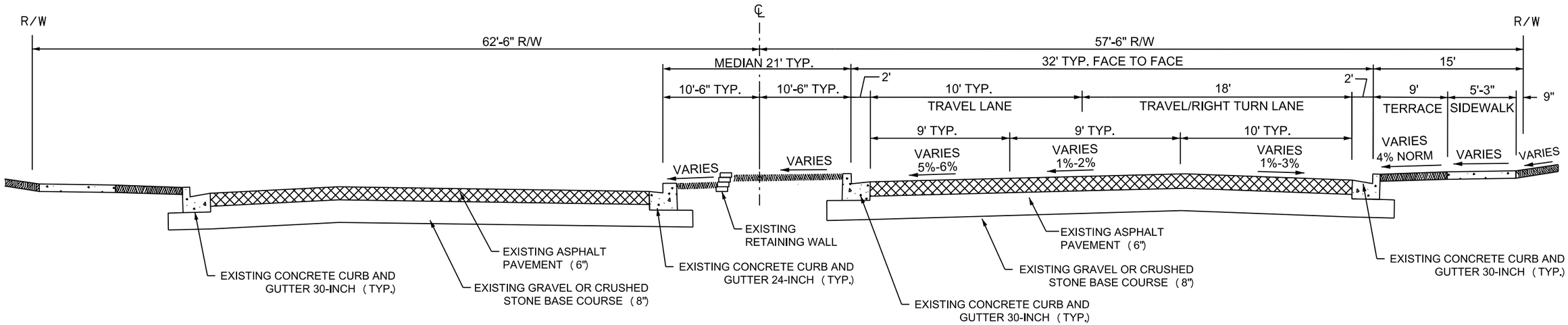
EXISTING TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

NB STA. 51+25 to STA. 53+30

SB STA. 71+25 to STA. 72+25

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EXISTING TYPICAL SECTIONS	SHEET 6	E

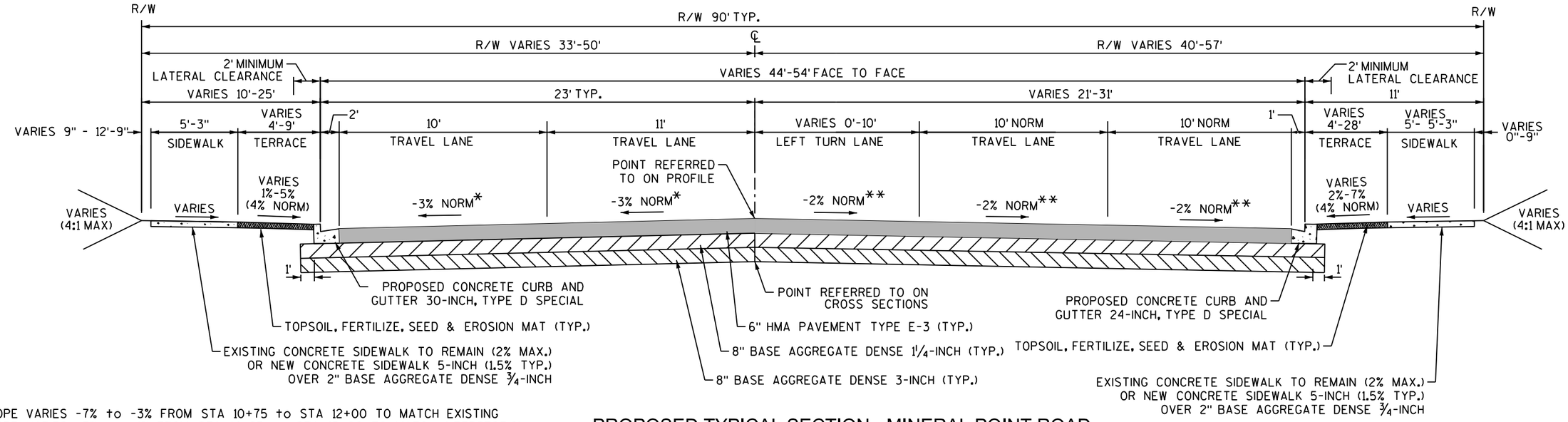
2



EXISTING TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

NB STA. 53+30 to STA. 54+93

(MINERAL POINT RD to NORTH TERMINUS)



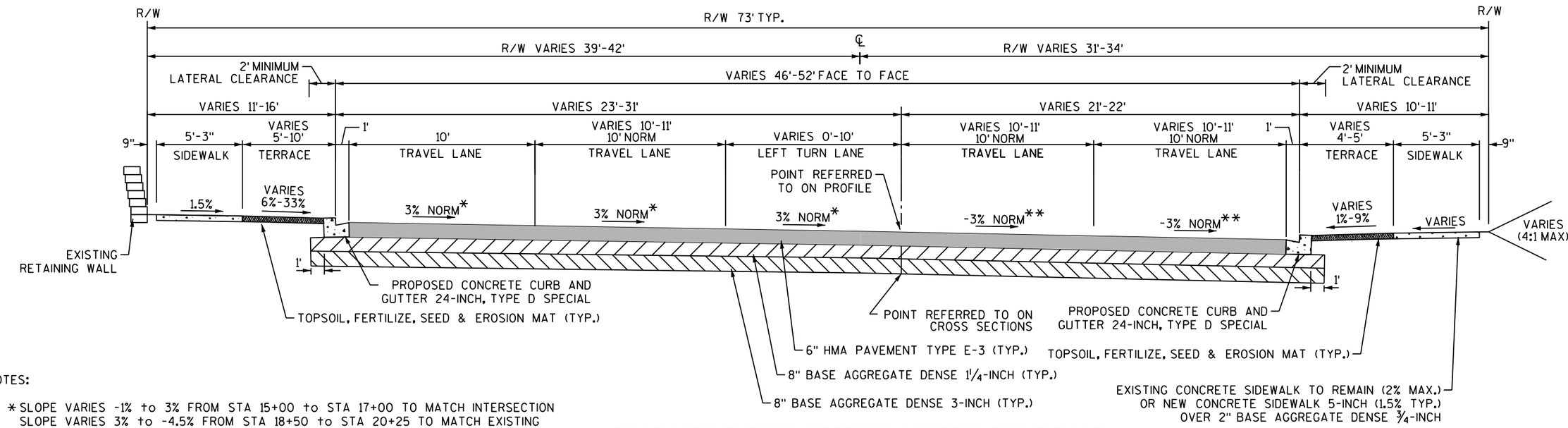
NOTES:

* SLOPE VARIES -7% to -3% FROM STA 10+75 to STA 12+00 TO MATCH EXISTING
SLOPE VARIES -3% to -1% FROM STA 14+25 to STA 15+00 TO MATCH INTERSECTION

** SLOPE VARIES -4% to -2% FROM STA 10+75 to STA 11+75 TO MATCH EXISTING
SLOPE VARIES -2% to -.75% FROM STA 14+25 to STA 15+00 TO MATCH INTERSECTION

PROPOSED TYPICAL SECTION - MINERAL POINT ROAD

STA. 10+75 to STA. 15+00
(WEST TERMINUS to S. MIDVALE BLVD.)



NOTES:

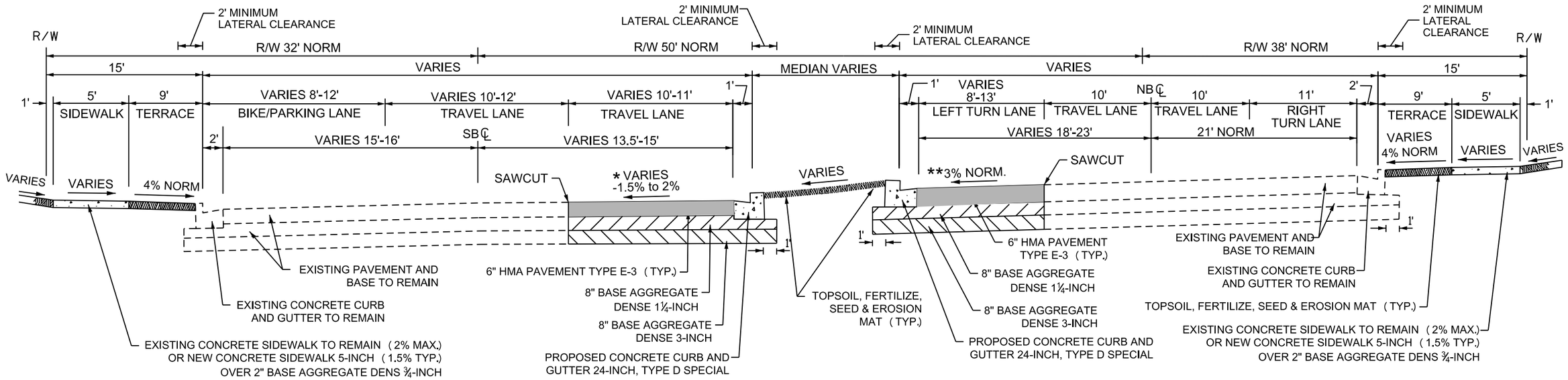
* SLOPE VARIES -1% to 3% FROM STA 15+00 to STA 17+00 TO MATCH INTERSECTION
SLOPE VARIES 3% to -4.5% FROM STA 18+50 to STA 20+25 TO MATCH EXISTING

** SLOPE VARIES -.75% to -3% FROM STA 15+00 to STA 17+00 TO MATCH INTERSECTION
SLOPE VARIES -3% to -4% FROM STA 20+00 to STA 20+25 TO MATCH EXISTING

PROPOSED TYPICAL SECTION - MINERAL POINT ROAD

STA. 15+00 to STA. 20+25
(S. MIDVALE BLVD. TO EAST TERMINUS)

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PROPOSED TYPICAL SECTIONS	SHEET 8	E



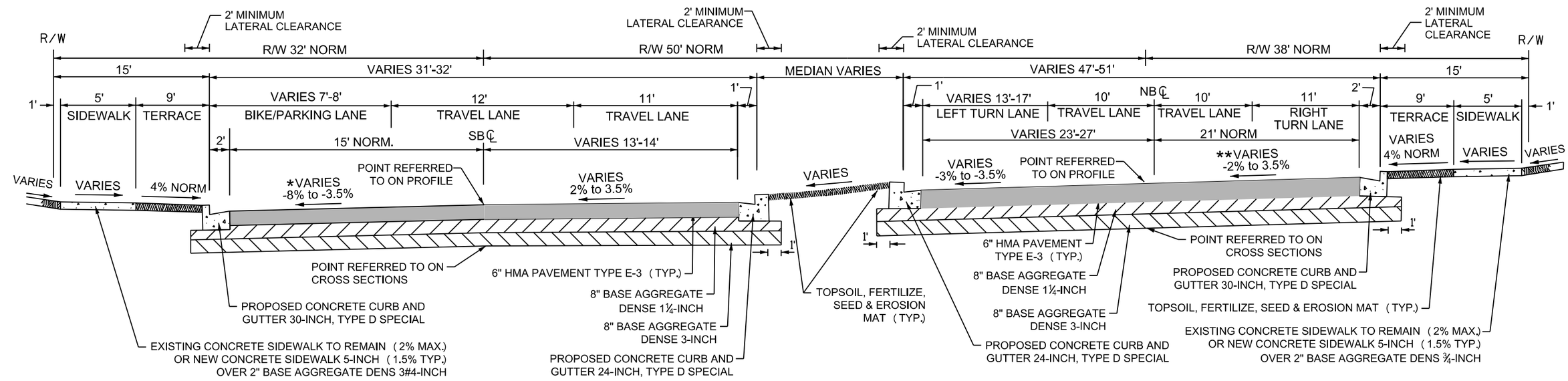
NOTES:

* MATCHES EXISTING AT STA 69+56

** MATCHES EXISTING AT 49+56

PROPOSED TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

NB STA. 49+56 to STA. 50+30
SB STA. 69+56 to STA. 70+50
(SOUTH TERMINUS TO SOUTH OF MINERAL POINT RD.)



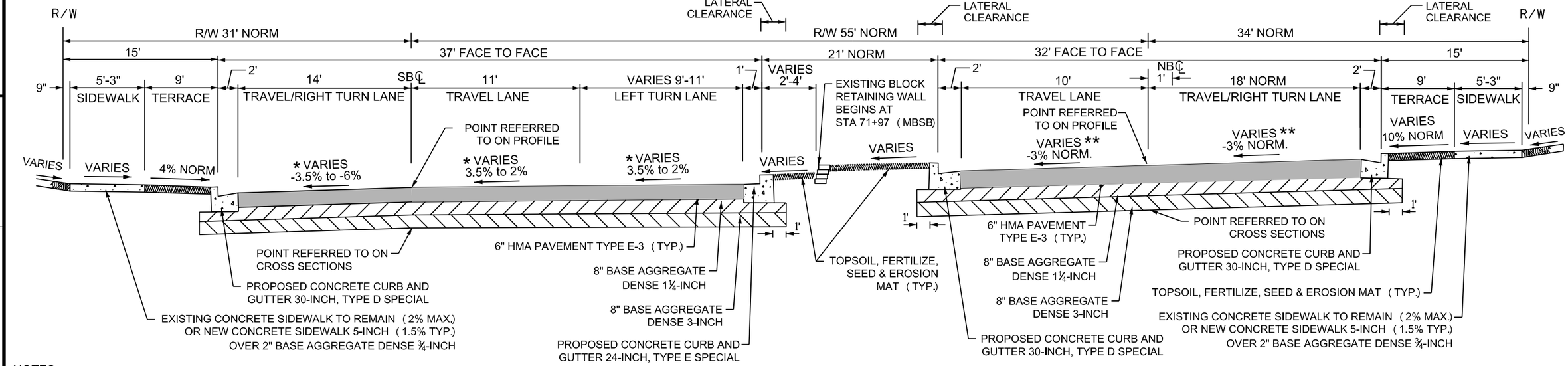
NOTES:

* MATCHES EXISTING AT STA 70+50 & MATCHES INTERSECTION AT 71+25

** MATCHES EXISTING AT 50+30 & MATCHES EXISTING AT 51+25

PROPOSED TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

NB STA. 50+30 to STA. 51+25
SB STA. 70+50 to STA. 71+25
(SOUTH OF MINERAL POINT RD. TO MINERAL POINT RD.)



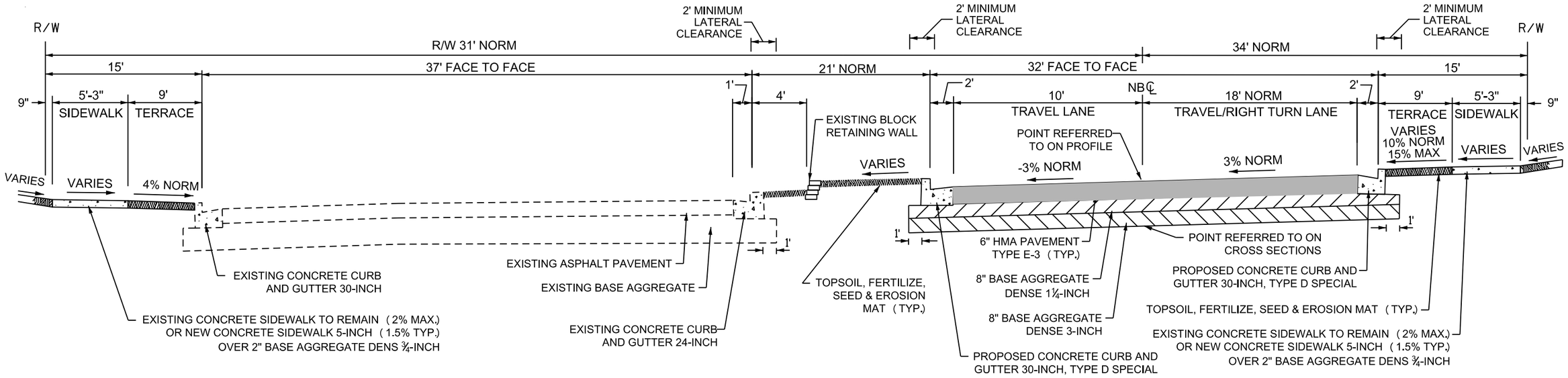
NOTES:

* MATCHES INTERSECTION AT STA 71+25 (3.5%) & MATCHES EXISTING AT 72+25

** MATCHES INTERSECTION AT STA 51+25 AT 3.5% CROSS SLOPE

PROPOSED TYPICAL SECTION - SOUTH MIDVALE BLVD. NB & SB

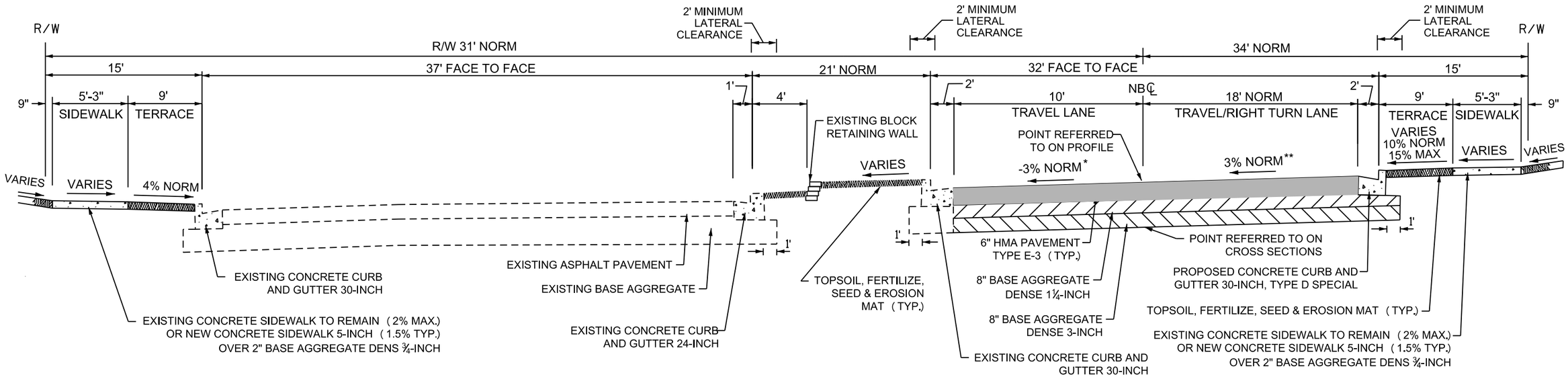
NB STA. 51+25 to STA. 52+25
SB STA. 71+25 to STA. 72+25
(MINERAL POINT RD to NORTH OF MINERAL POINT RD)



PROPOSED TYPICAL SECTION - SOUTH MIDVALE BLVD. NB

NB STA. 52+25 to STA. 53+30
(NORTH OF MINERAL POINT RD to FELTON PL)

PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PROPOSED TYPICAL SECTIONS	SHEET 10	E



NOTES:

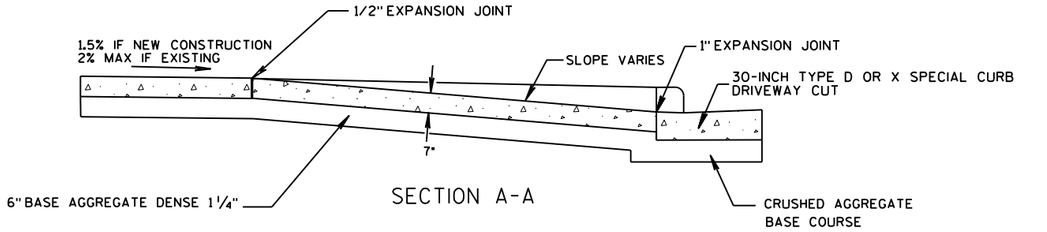
* SLOPE VARIES FROM -3% TO -5.5% FROM STA 53+75 TO STA 54+93 TO MATCH EXISTING

** SLOPE VARIES FROM 3% TO -2.5% FROM STA 53+75 TO STA 54+93 TO MATCH EXISTING

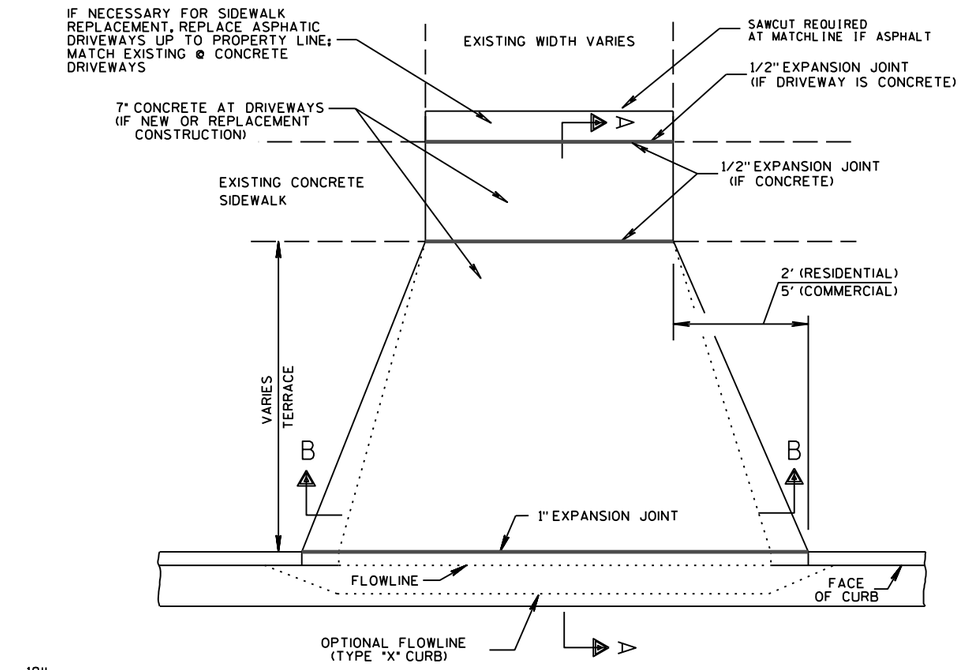
PROPOSED TYPICAL SECTION - SOUTH MIDVALE BLVD. NB

NB STA. 53+30 to STA. 54+93
(FELTON PL TO NORTH TERMINUS)

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PROPOSED TYPICAL SECTIONS	SHEET 11	E



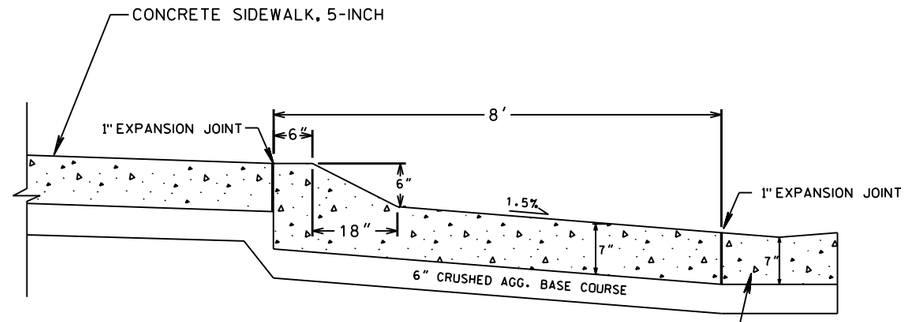
SECTION A-A



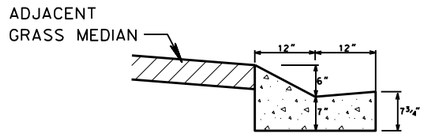
SECTION B-B

CONCRETE DRIVE APRON DETAIL

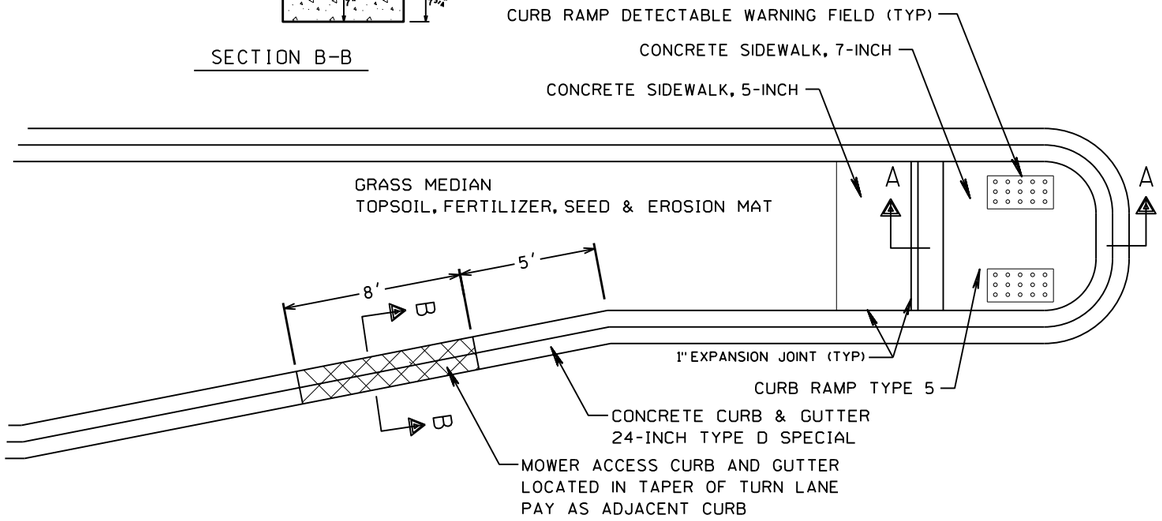
NOT TO SCALE



SECTION A-A



SECTION B-B



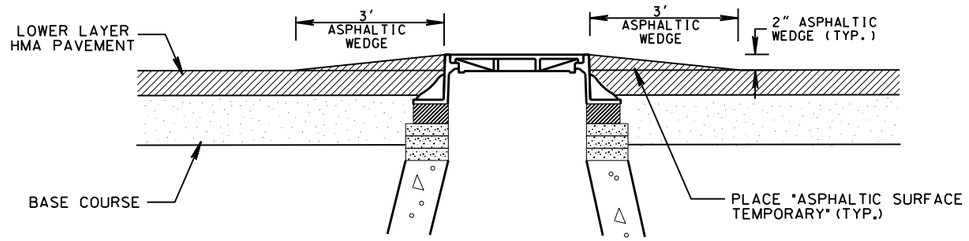
MEDIAN NOSE DETAIL

NOT TO SCALE

NOTES:

PROVIDE ASPHALTIC WEDGES PRIOR TO OPENING LANE TO TRAFFIC

PRIOR TO SURFACE PAVING, REMOVE ALL ASPHALTIC WEDGES DOWN TO THE TOP OF THE LOWER LAYER OF HMA PAVEMENT. REMOVAL OF ASPHALTIC WEDGES WILL BE PAID FOR AS "REMOVE ASPHALTIC SURFACE BUTT JOINTS"

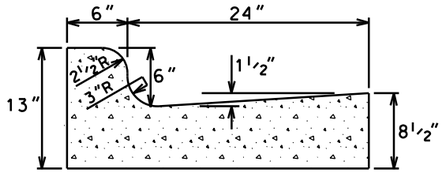


TEMPORARY WEDGING DETAIL

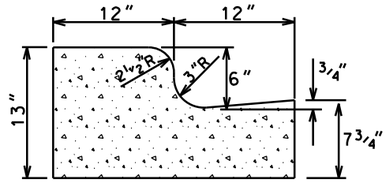
NOT TO SCALE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 12	E

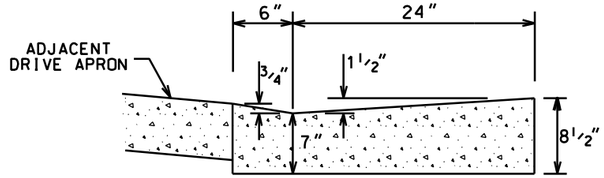
CONCRETE CURB AND GUTTER DETAILS



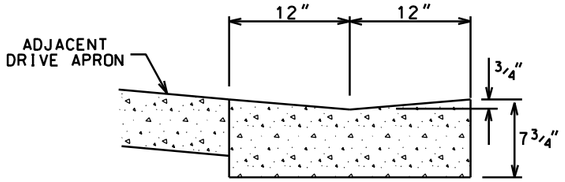
CONCRETE CURB AND GUTTER 30-INCH TYPE D SPECIAL
(CITY OF MADISON TYPE 'A' CURB & GUTTER)
NOT TO SCALE



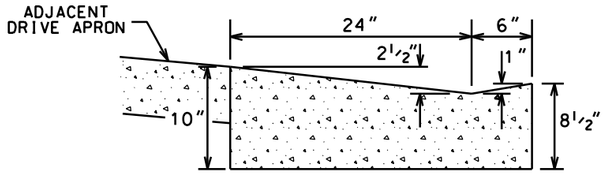
CONCRETE CURB AND GUTTER 24-INCH TYPE D SPECIAL
(CITY OF MADISON TYPE 'H' CURB & GUTTER)
NOT TO SCALE



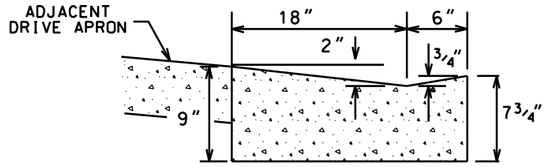
DRIVEWAY SECTION
CONCRETE CURB AND GUTTER 30-INCH TYPE D SPECIAL
(CITY OF MADISON TYPE 'A' CURB & GUTTER)
NOT TO SCALE



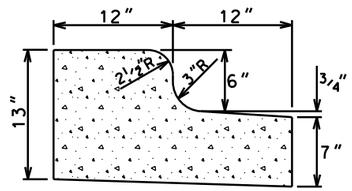
DRIVEWAY SECTION
CONCRETE CURB AND GUTTER 24-INCH TYPE D SPECIAL
(CITY OF MADISON TYPE 'H' CURB & GUTTER)
NOT TO SCALE



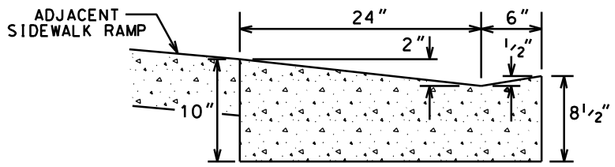
DRIVEWAY SECTION
CONCRETE CURB AND GUTTER 30-INCH TYPE X SPECIAL
(CITY OF MADISON TYPE 'X' CURB & GUTTER)
NOT TO SCALE



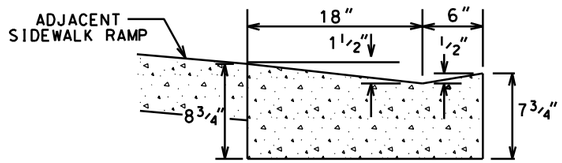
DRIVEWAY SECTION
CONCRETE CURB AND GUTTER 24-INCH TYPE X SPECIAL
NOT TO SCALE



CONCRETE CURB AND GUTTER 24-INCH TYPE E SPECIAL
(CITY OF MADISON TYPE 'E' CURB & GUTTER)
NOT TO SCALE



SIDEWALK RAMP SECTION
CONCRETE CURB AND GUTTER 30-INCH TYPE X SPECIAL
(CITY OF MADISON TYPE 'X' CURB & GUTTER)
NOT TO SCALE



SIDEWALK RAMP SECTION
CONCRETE CURB AND GUTTER 24-INCH TYPE X SPECIAL
NOT TO SCALE

GENERAL NOTES:

LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH

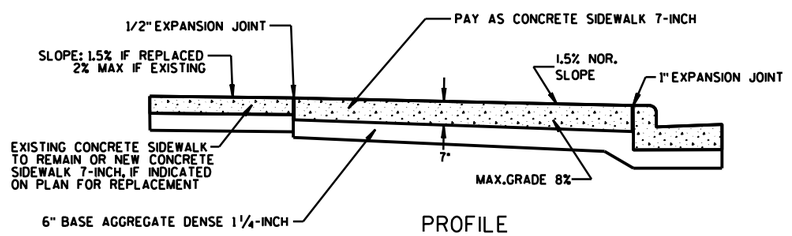
EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS. AND AT ANGLE POINTS. OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK.

IN ALL CASES. CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE

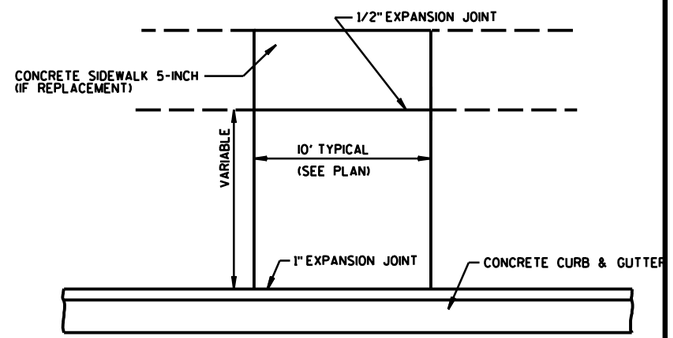
TRANSITIONS BETWEEN TYPE D CURB AND TYPE X CURB ARE TO BE MADE OVER A MINIMUM AS 6 FT. LENGTHEN TRANSITIONS AS NECESSARY TO MAINTAIN DRAINAGE ALONG THE FLOW LINE. PAY THESE TRANSITIONS AS THE TYPE X CURBS OR AS NOTED.

BUS BOARDING PAD DETAIL

NOT TO SCALE



PROFILE

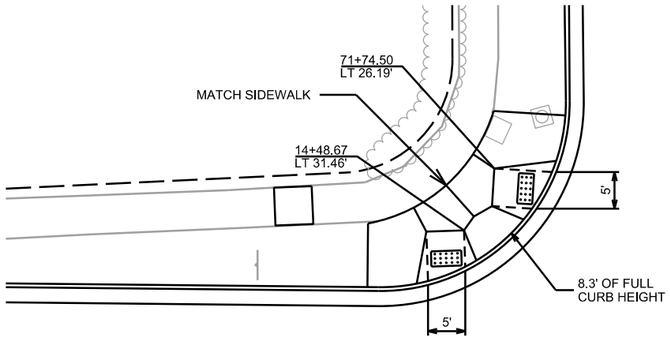


PLAN

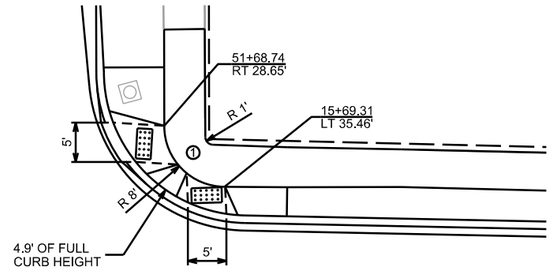
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\53W1293EN-Const Detail **2.dgn
PLOT DATE : 1/16/2015
PLOT BY : enjmw
PLOT NAME :
PLOT SCALE : 121.8712 sf / in.
WISDOT/CADDS SHEET 42

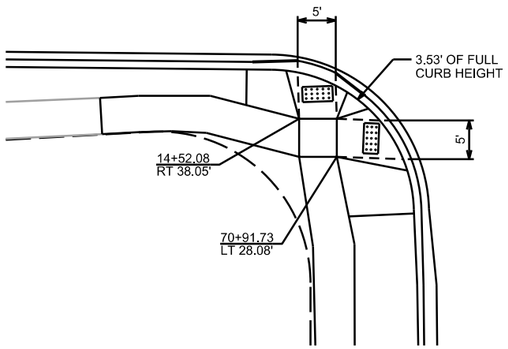
2



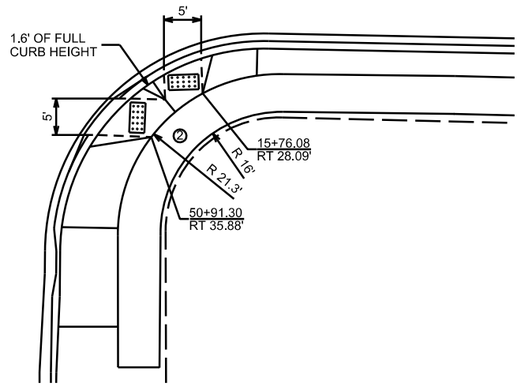
NORTHWEST RAMPS



NORTHEAST RAMPS



SOUTHWEST RAMPS



SOUTHEAST RAMPS

NOTES

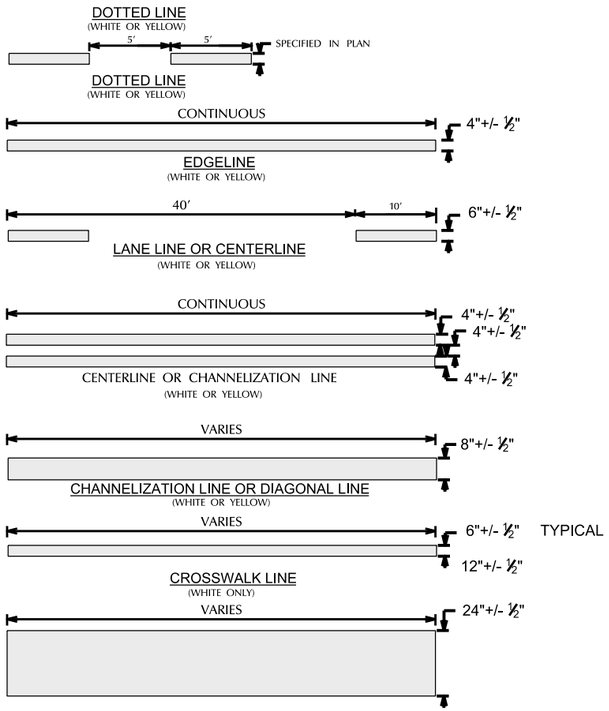
SEE GRADE DETAILS SHEET FOR SPOT ELEVATIONS

① MINIMUM DISTANCE BETWEEN RADII = 4.88'

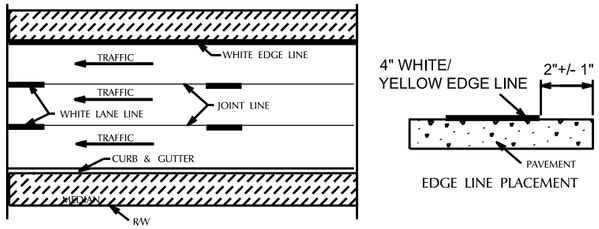
② MINIMUM DISTANCE BETWEEN RADII = 5'

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 14	E

PERMANENT PAVEMENT MARKINGS



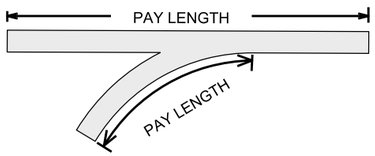
STOP LINE OR CROSSWALK LINE
(WHITE ONLY)



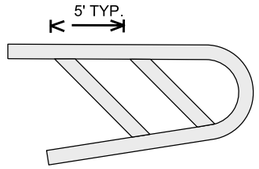
MARKING PLACEMENT DETAIL

EDGE LINE PLACEMENT

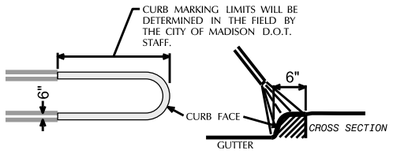
8" WHITE OR YELLOW CHANNELIZING LINE



WHITE OR YELLOW ISLAND



8" DIAGONAL LINES AT
45 DEGREES TO TRAFFIC LANES.



CURB & ISLAND MARKING DETAILS

GENERAL NOTES FOR EPOXY PAVEMENT MARKINGS

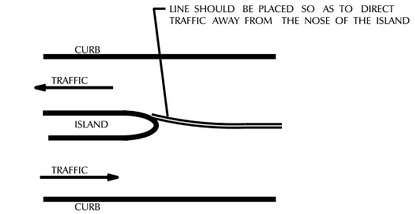
THE CONTRACTOR SHALL APPLY ALL MARKINGS IN ACCORDANCE WITH THE STATE OF WISCONSIN MANUAL ON TRAFFIC CONTROL DEVICES.

AT STREET INTERSECTIONS, MARKINGS START OR END AT THE MARKED CROSSWALK. THE PROPERTY LINE EXTENDED, IF THERE IS NO MARKED CROSSWALK.

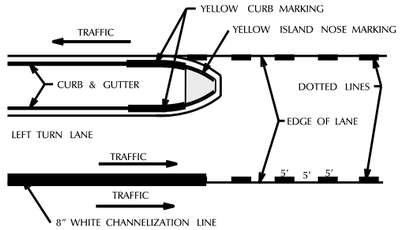
CROSSWALKS AND STOP BARS WILL BE PLACED NO CLOSER THAN 2' TO THE FACE OF CURB.

THE CONTRACTOR SHALL ADHERE TO THE TRAFFIC SPECIFICATION IN THE SPECIAL PROVISIONS AT ALL TIMES.

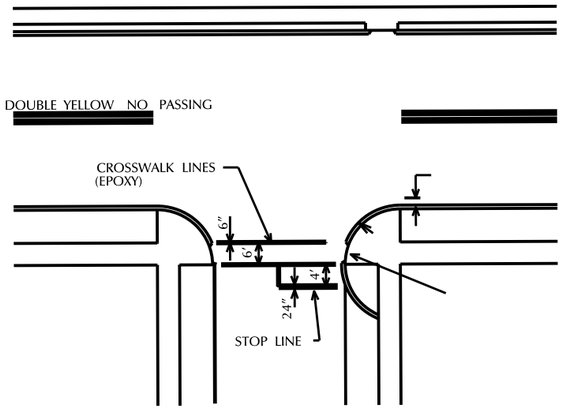
FOR MORE INFORMATION AND FULL SIZE PATTERNS FOR ARROWS & WORD LEGENDS ARE AVAILABLE AT THE CITY OF MADISON TRAFFIC ENGINEERING FIELD OPERATIONS FACILITY #20 SAYLE ST. (608) 266-4767



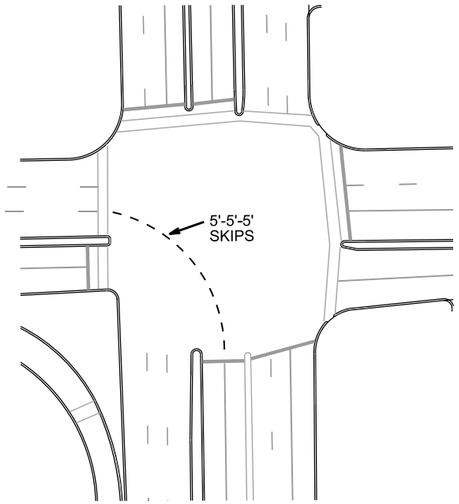
ISLAND APPROACH



LEFT TURN LANE

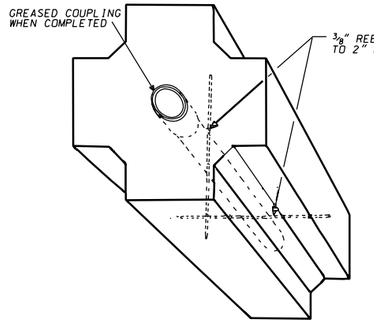


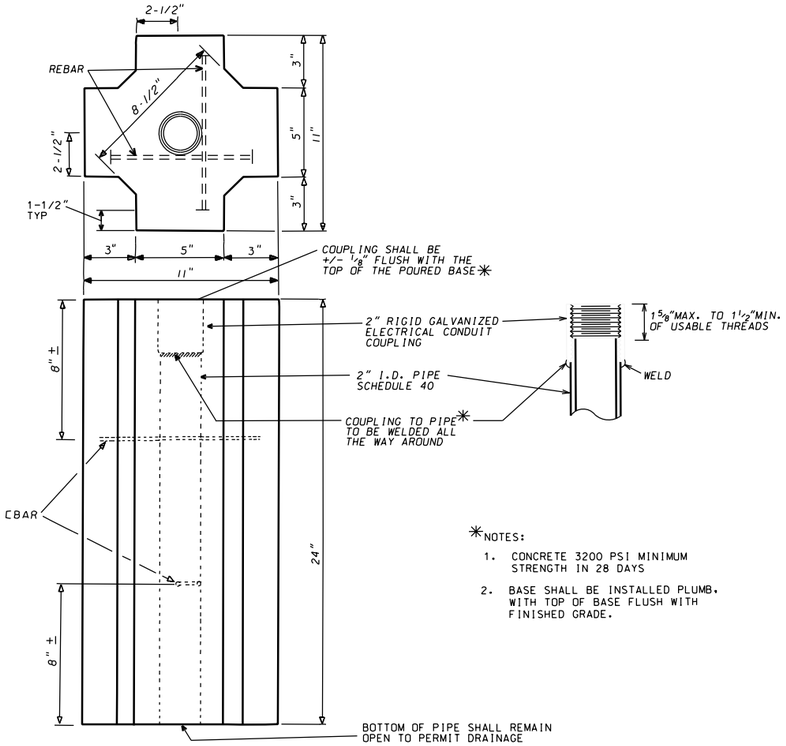
CROSSWALK & STOP LINE DETAILS



TURN RADIUS LINE DETAILS

2



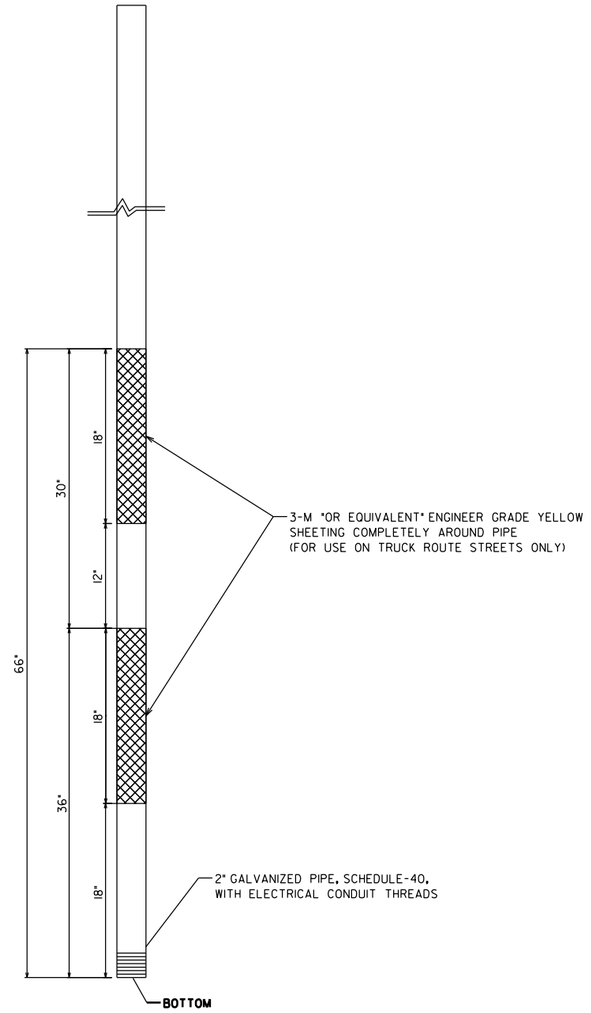


*NOTES:

1. CONCRETE 3200 PSI MINIMUM STRENGTH IN 28 DAYS
2. BASE SHALL BE INSTALLED PLUMB. WITH TOP OF BASE FLUSH WITH FINISHED GRADE.

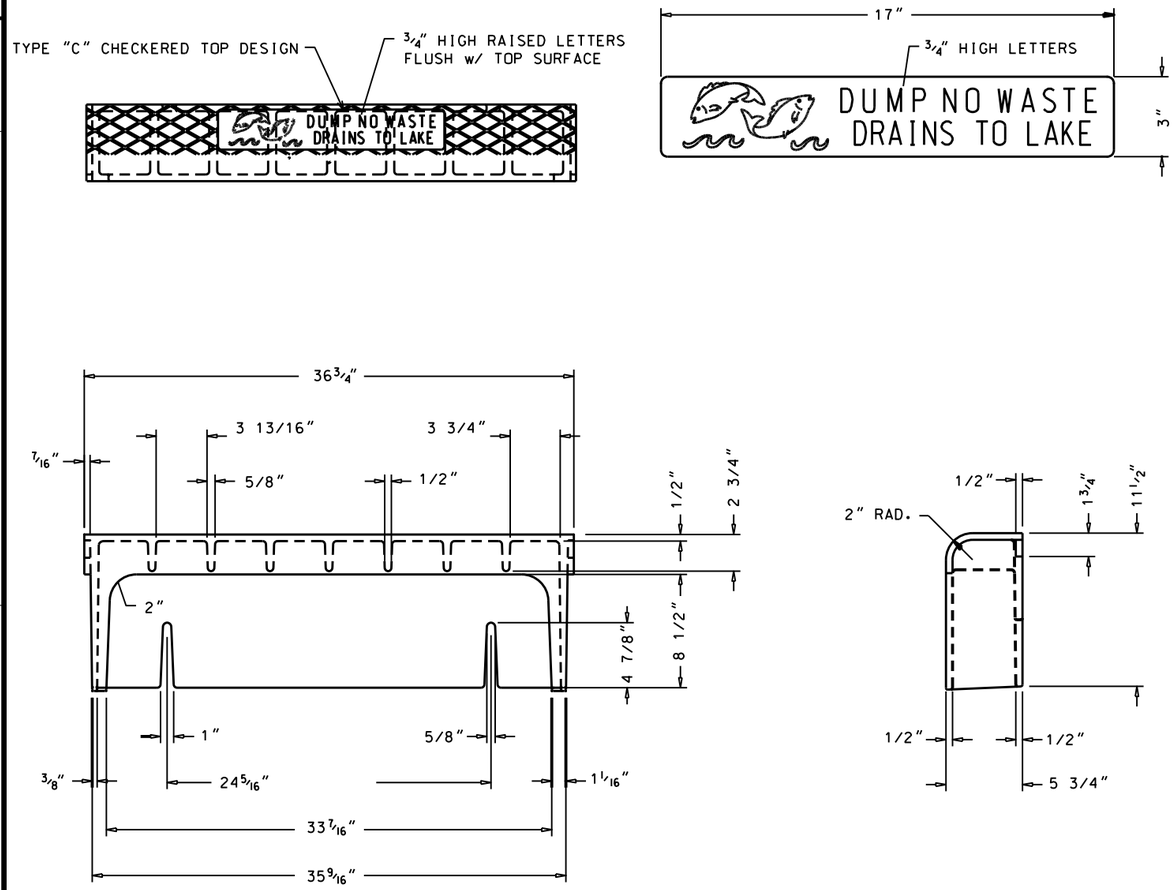
PRECAST SIGN POST BASE DETAIL

NOT TO SCALE



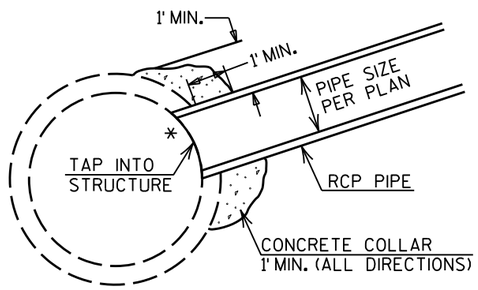
SIGN POST DETAIL

NOT TO SCALE



MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 126#

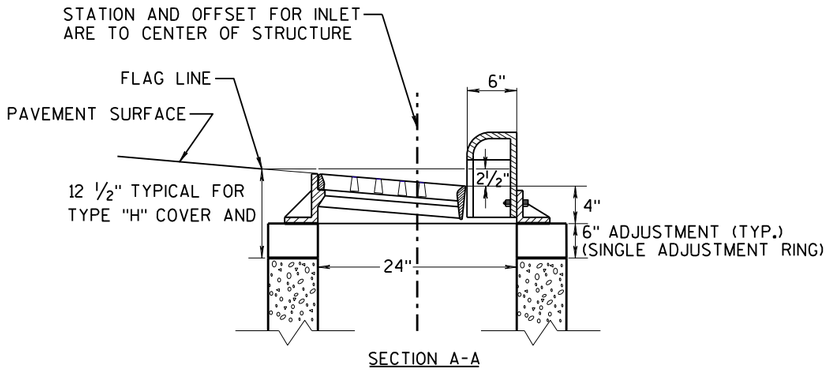
INLET COVER TYPE H SPECIAL & H-S SPECIAL
SCALE: NONE



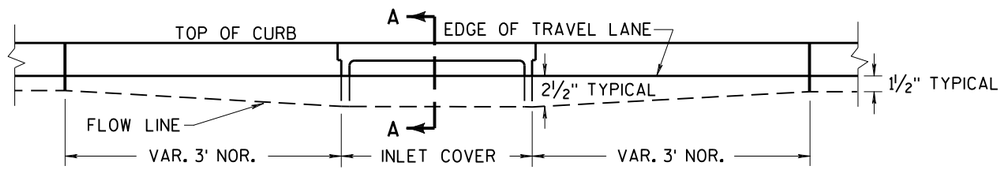
NOTE: CONCRETE COLLAR INCIDENTAL TO TAP SPECIAL FOR STORM SEWER PIPE

* NO PIPE TO PROTRUDE INTO MANHOLE

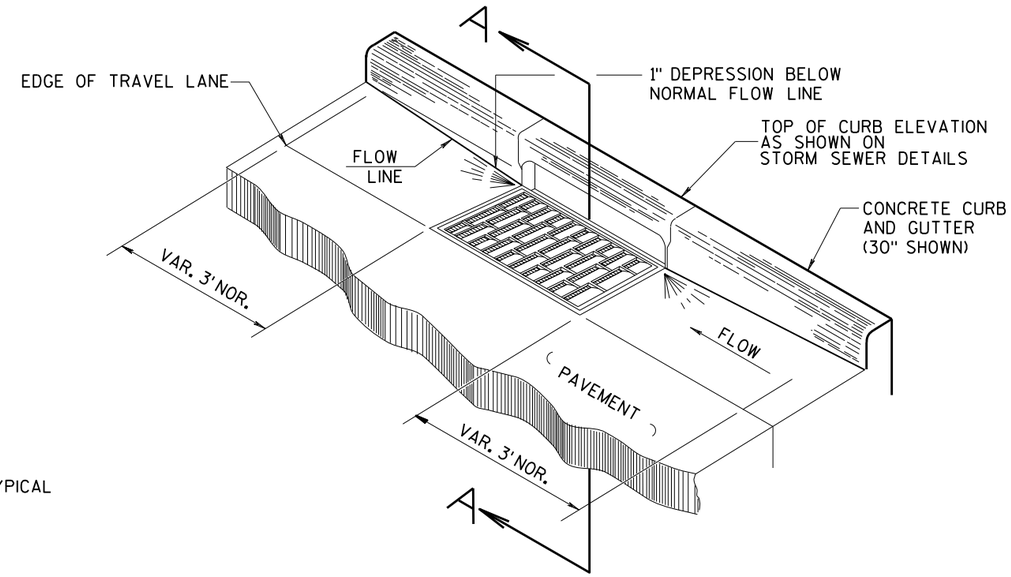
SEWER TAP DETAIL SPECIAL
SCALE: NONE



SECTION A-A



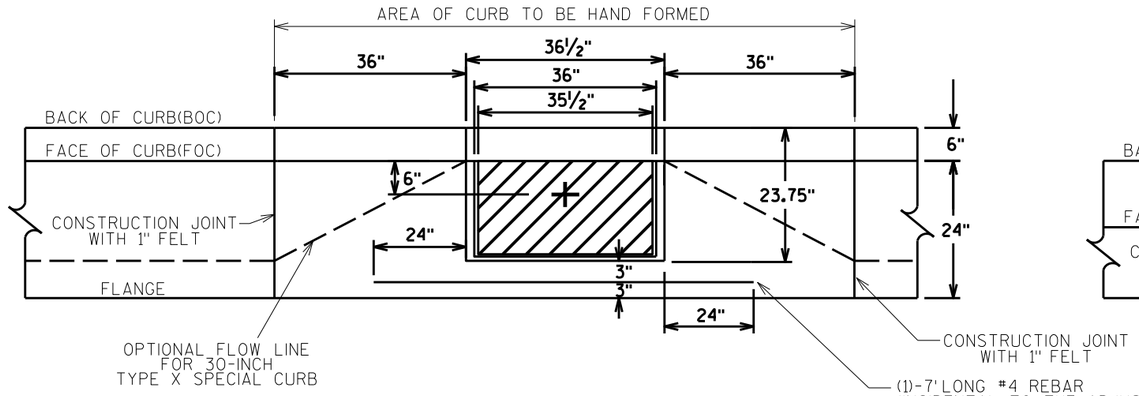
ELEVATION



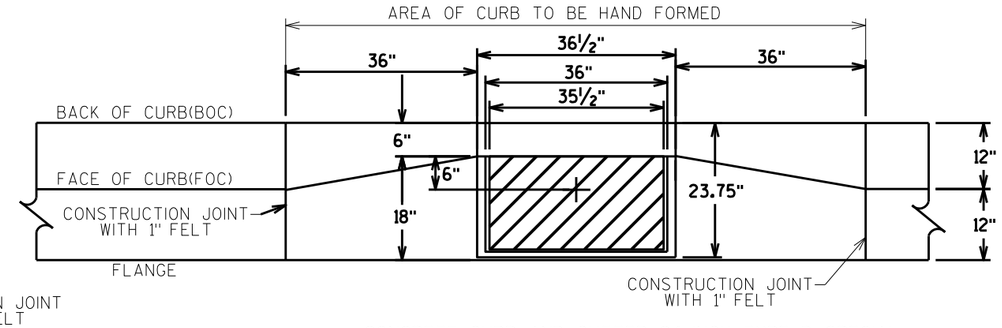
CURB AND GUTTER AT INLET DETAIL
SCALE: NONE

2

= CENTER OF STRUCTURE (STATION AND OFFSET AS INDICATED ON THE STORM SEWER PLANS)



CONCRETE CURB AND GUTTER 30-INCH TYPE D SPECIAL
PLAN VIEW

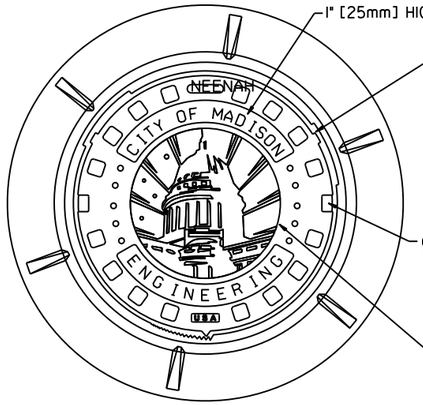


CONCRETE CURB AND GUTTER 24-INCH TYPE D SPECIAL
PLAN VIEW

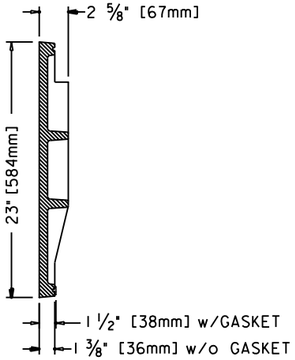
CURB AND GUTTER AT INLET DETAIL
SCALE: NONE

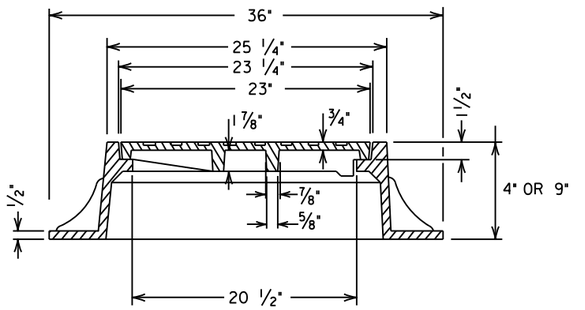
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET E

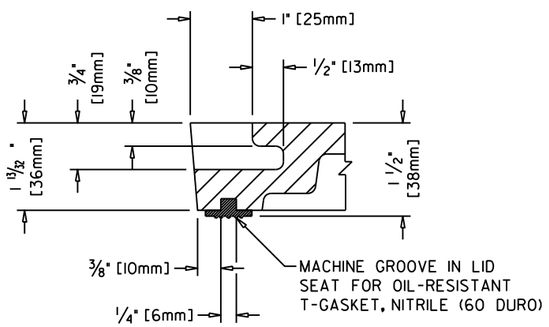
FILE NAME : M:\DESIGN\Projects\53W1293\Storm\Design\53W1293STM_Details**.dgn PLOT DATE : 3/18/2015 PLOT BY : eneld PLOT NAME : _____ PLOT SCALE : 100.0000 sf / in. WISDOT/CADDS Sh



LOGO DETAIL







T-SEAL GASKET / CONCEALED PICK DETAIL

NOTES:

APPROXIMATE TOTAL WEIGHTS:
R-1550 w/ LOGO LID 1550-0054, 9" FRAME AND LID = 265 LBS.
R-1689 w/ LOGO LID 1550-0054, 4" FRAME AND LID = 279 LBS.

IF LOCKABLE LID IS NECESSARY, R-1920, 83/4" FRAME AND LID = 300 LBS THERE IS NO CITY OF MADISON LOGO LID AVAILABLE FOR THIS FRAME AND CASTING.

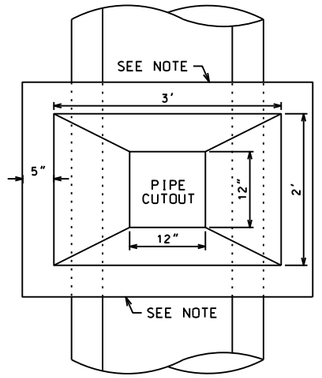
THE FOLLOWING NEENAH FOUNDRY CASTINGS (OR EQUAL CASTINGS) SHALL BE ACCEPTABLE:

1. R-1550, 9" NON-ROCKING ACCESS STRUCTURE FRAME.
2. R-1689, 4" NON-ROCKING ACCESS STRUCTURE FRAME (WHEN REQUESTED BY THE CITY CONSTRUCTION ENGINEER).
3. R-1920, 83/4" ACCESS STRUCTURE FRAME WITH LOCKING LID, TYPE 'F' LOCKS, AND CONCEALED PICK HOLES. TO BE USED IN GREENWAYS AND EASEMENTS.

1. FRAME AND COVER SHALL BE MACHINED AND FITTED SO THAT ROCKING AND CHATTERING WILL BE ELIMINATED.
2. ALL LIDS SHALL BE SELF-SEALING EXCEPT FOR STORM SEWER.
3. ALL LIDS SHALL HAVE CITY OF MADISON LOGO AS SHOWN IN DETAIL (R-1550-0054 OR EQUIV.)

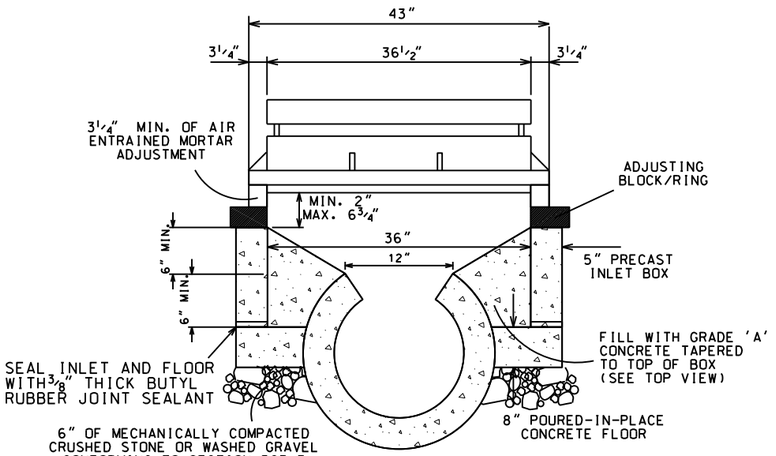
LID NOTES: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC]
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B

MANHOLE COVERS TYPE J SPECIAL
SCALE: NONE



NOTE:
A DOGHOUSE CUTOUT SHALL BE PROVIDED ON EITHER SIDE FOR THE PLACEMENT OF THE PRECAST BOX AS SHOWN OVER THE PIPE: THE CONTRACTOR SHALL ASSURE A TIGHT SEAL AROUND THE PIPE CUTOUT AND THE PIPE CONNECTION BY POURING A TAPERED BENCH

TOP VIEW

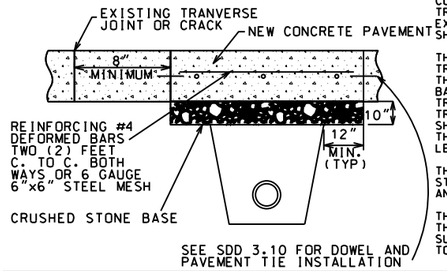


SIDE VIEW

DRAWING NOT TO SCALE

INLET 2X3-FT SPECIAL
SCALE: NONE

TYPE I
CONCRETE PAVEMENT



TYPE I UTILITY TRENCH PATCH

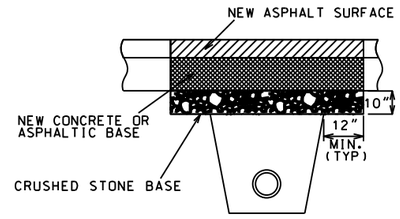
THE PAVEMENT SHALL BE REMOVED IN TWO STAGES. THE INITIAL PAVEMENT REMOVAL SHALL BE LIMITED TO THE AREA OF THE PROPOSED TRENCH. FULL-DEPTH SAWCUTTING WILL NOT BE REQUIRED FOR THIS PHASE OF THE PAVEMENT REMOVAL. AFTER THE TRENCH HAS BEEN BACKFILLED AND COMPACTED, AND AFTER THE BASE HAS BEEN RESTORED IN THE AREA OF THE TRENCH, AND AFTER SAWCUTTING THE NEW JOINTS THE FULL DEPTH OF THE EXISTING PAVEMENT (INCIDENTAL), THE REMAINING PAVEMENT TO BE REMOVED SHALL BE REMOVED WITHOUT DISTURBING THE EXISTING BASE.

THE SIZE OF THE PATCH SHALL BE DETERMINED BY THE TOP WIDTH OF THE TRENCH, THE LOCATION AND SKEW OF THE EXISTING TRANSVERSE JOINTS, THE CONDITION OF THE EXISTING PAVEMENT, AND THE CONDITION OF THE BASE. NEW TRANSVERSE JOINTS SHALL BE PARALLEL TO THE EXISITING TRANSVERSE JOINTS, AND SHALL BE A MININUM OF ONE (1) FOOT FROM THE TRENCH. THE DISTANCE BETWEEN NEW AND EXISTING TRANSVERSE JOINTS SHALL BE A MINIMUM OF EIGHT (8) FEET, MEASURED PERPENDICULAR TO THE JOINTS. THE PATCH SHALL BE A MINIMUM OF EIGHT (8) FEET IN LENGTH, AND SHALL HAVE THE SAME WIDTH AS THE PAVEMENT LANE.

THE PATCH SHALL BE NINE (9) INCHES IN THICKNESS OF HIGH EARLY STRENGTH CONCRETE, DOWELED AND TIED WITH EPOXY COATED BARS, AND REINFORCED, ALL IN ACCORDANCE WITH THE TYPICAL SECTION.

THE TRANSVERSE EDGES OF THE FINISHED PATCH SHALL BE FLUSH WITH THE EDGES OF THE EXISTING CONCRETE PAVEMENT. THE LONGITUDINAL SURFACE SHALL FORM A STRAIGHT LINE FROM EDGE TO EDGE WITHIN A TOLERANCE OF $\frac{1}{8}$INCH.

TYPE II
CONCRETE WITH ASPHALTIC OVERLAY



TYPE II UTILITY TRENCH PATCH

THE PATCH SHALL BE 7" HIGH EARLY STRENGTH CONCRETE BASE WITH THE SAME REINFORCEMENT AS THE EXISTING CONCRETE BASE. OVERLAID WITH ASPHALT UPPER LAYER. WHERE SPECIFIED, OR DIRECTED BY THE ENGINEER, THE BASE SHALL BE CONSTRUCTED OF ASPHALTIC BASE COURSE MATERIAL, SHALL BE THE SAME THICKNESS AS THE EXISTING BASE, AND SHALL BE LAID IN TWO OR MORE COMPACTED LIFTS OF NOT MORE THAN 3" IN THICKNESS EACH.

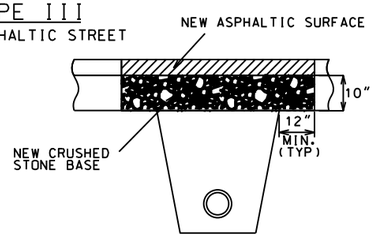
THE PAVEMENT ALONG THE PATCH SHALL BE SAWCUT, FULL DEPTH, AND INCIDENTAL TO THE TRENCH PATCH. THE EDGES OF THE PATCH SHALL BE VERTICAL, FREE OF LOOSE STONES OR CONCRETE PIECES, AND SHALL BE THOROUGHLY WETTED JUST PRIOR TO POURING THE NEW CONCRETE BASE.

THE TOP OF THE NEW CONCRETE OR ASPHALT BASE SHALL BE FLUSH WITH THE TOP OF THE EXISTING CONCRETE BASE.

PRIOR TO PLACING THE ASPHALT UPPER LAYER, THE EDGES OF THE PATCH AND THE SURFACE OF THE NEW CONCRETE BASE SHALL BE THOROUGHLY TACKED WITH LIQUID ASPHALT.

THE ASPHALT UPPER LAYER SHALL BE OF THE SAME THICKNESS AS THE EXISTING ASPHALT OVERLAY WITH A MINIMUM THICKNESS OF 3" AND A MAXIMUM THICKNESS OF 5½ UNLESS OTHERWISE SPECIFIED AND SHALL BE LAID IN ONE OR MORE COURSES AS DIRECTED BY THE ENGINEER. THE ASPHALTIC UPPER LAYER SHALL BE MACHINE LAID WHERE DIRECTED BY THE ENGINEER. WHERE THE ASPHALTIC UPPER LAYER IS MACHINE LAID, AND IS NOT MORE THAN 3" IN THICKNESS, THE ASPHALTIC SURFACE MAY BE LAID IN ONE LIFT.

TYPE III
ASPHALTIC STREET



TYPE III UTILITY TRENCH PATCH

THE PATCH SHALL BE CRUSHED STONE BASE COURSE, GRADATION NO. 2 OVERLAID WITH ASPHALT UPPER LAYER EQUAL IN THICKNESS TO THE EXISTING ASPHALTIC PAVEMENT,WITH A MINIMUM THICKNESS OF 3" AND A MAXIMUM THICKNESS OF 5½ UNLESS OTHERWISE SPECIFIED AND LAID IN ONE OR MORE COURSES AS DIRECTED BY THE ENGINEER.

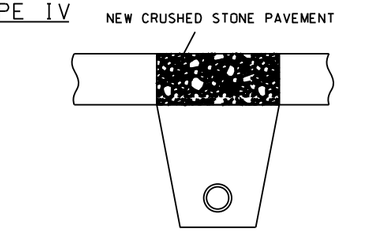
THE PAVEMENT ALONG THE PATCH SHALL BE SAWCUT, FULL DEPTH, AND INCIDENTAL TO THE TRENCH PATCH. THE EDGES OF THE EXISTING ASPHALTIC PAVEMENT SHALL BE FREE OF LOOSE STONES OR PAVEMENT MATERIAL.

THE CRUSED STONE BASE COURSE SHALL BE INSTALLED IN TWO LIFTS. THE LOWER LIFT SHALL BE THOROUGHLY MECHANICALLY COMPACTED PRIOR TO PLACING THE UPPER LIFT.

THE ASPHALT UPPER LAYER SHALL BE LAID IN TWO LIFTS. THE ASPHALT UPPER LAYER SHALL BE MACHINE LAID WHERE DIRECTED BY THE ENGINEER. WHERE THE ASPHALTIC UPPER LAYER IS MACHINE LAID AND IS NOT MORE THAN 3" IN THICKNESS, THE ASPHALT SURFACE COURSE MAY BE IN ONE LIFT.

PRIOR TO PLACING THE ASPHALT UPPER LAYER, THE EDGES OF THE PATCH AND THE SURFACE OF THE CRUSED STONE BASE SHALL BE TACKED AND PRIMED WITH LIQUID ASPHALT.

TYPE IV

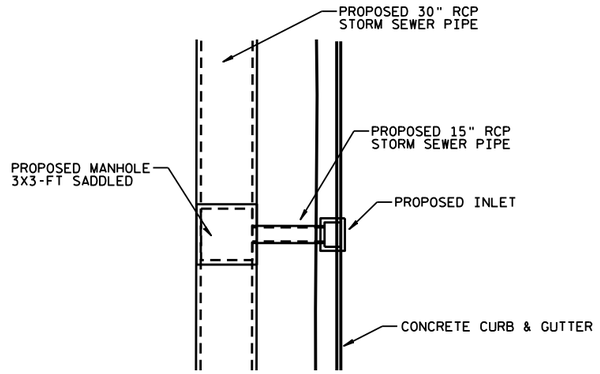


TYPE IV UTILITY TRENCH PATCH

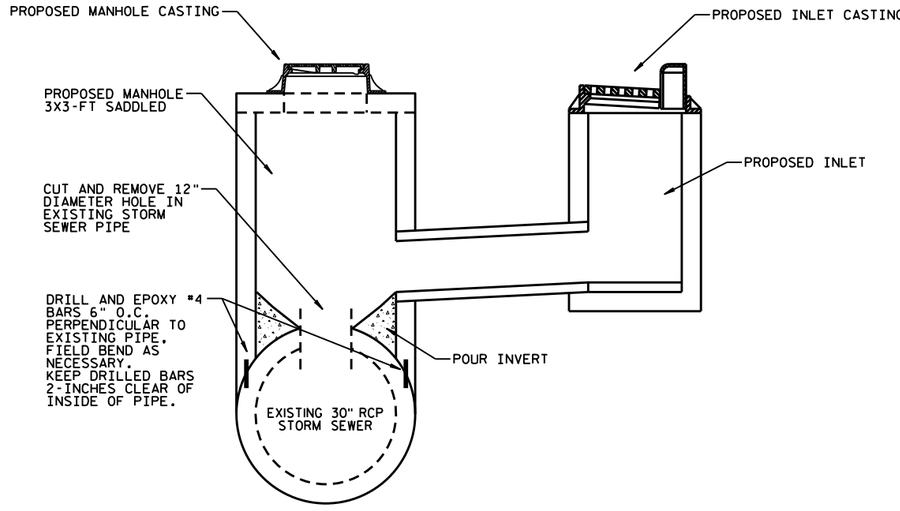
THE PATCH SHALL BE 9" CRUSHED STONE BASE COURSE, GRADATION NO. 2. FULL DEPTH SAWCUTTING OF ADJACENT PAVEMENT (IF ANY) SHALL BE CONSIDERED INCIDENTAL TO THE TRENCH PATCH.

THE CRUSHED STONE BASE COURSE SHALL BE INSTALLED IN THREE LIFTS. EACH LIFT SHALL BE THOROUGHLY MECHANICALLY COMPACTED PRIOR TO PLACING SUCCEEDING LIFTS.

UTILITY TRENCH PATCH TYPE III
SCALE: NONE



PLAN VIEW



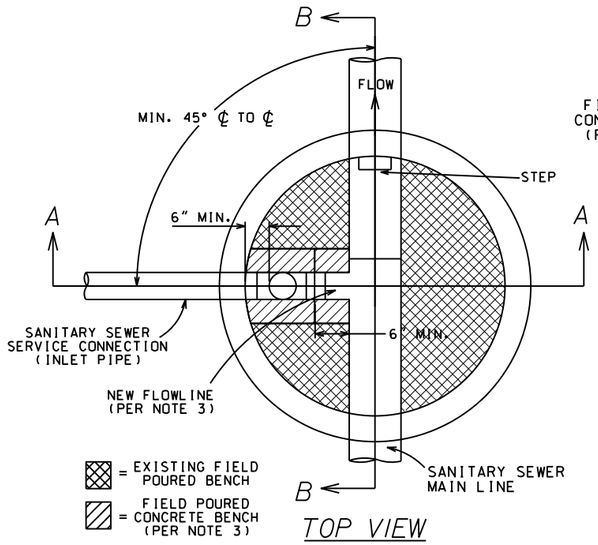
ELEVATION VIEW

*NOTE: ALL MANHOLE 3X3-FT SADDLED STRUCTURES SHALL BE CAST-IN-PLACE. ADJUST FINAL STRUCTURE LOCATION TO AVOID EXISTING PIPE JOINTS.

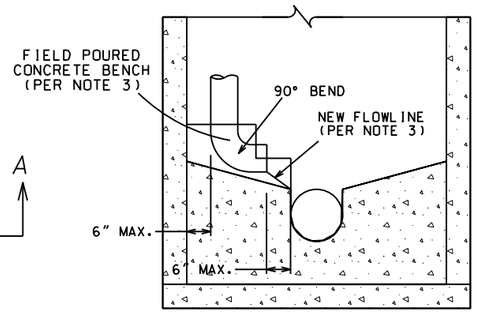
MANHOLE 3X3-FT SPECIAL
SCALE: NONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET E

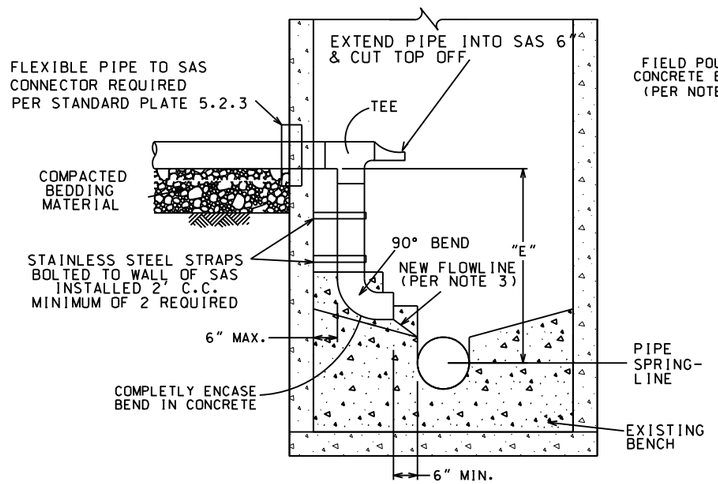
FILE NAME : M:\DESIGN\Projects\53W1293\Storm\Design\53W1293STM_Details"".dgn PLOT DATE : 8/29/2014 PLOT BY : eneld PLOT NAME : _____ PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



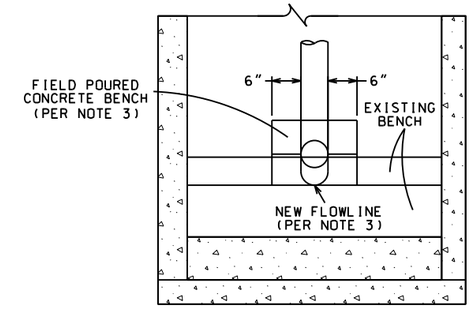
TOP VIEW



SIDE VIEW
FIELD POURED
CONCRETE BENCH



SECTION A-A



SECTION B-B

NOTES:

1) INSIDE DROP INLETS SHALL BE USED ONLY WHERE SITE CONDITIONS MAKE AN OUTSIDE DROP CONNECTION INFEASIBLE TO CONSTRUCT. THIS DETERMINATION SHALL BE MADE BY THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR INSTALLATION OF THE INSIDE DROP INLET FROM THE ENGINEER PRIOR TO CONSTRUCTION.

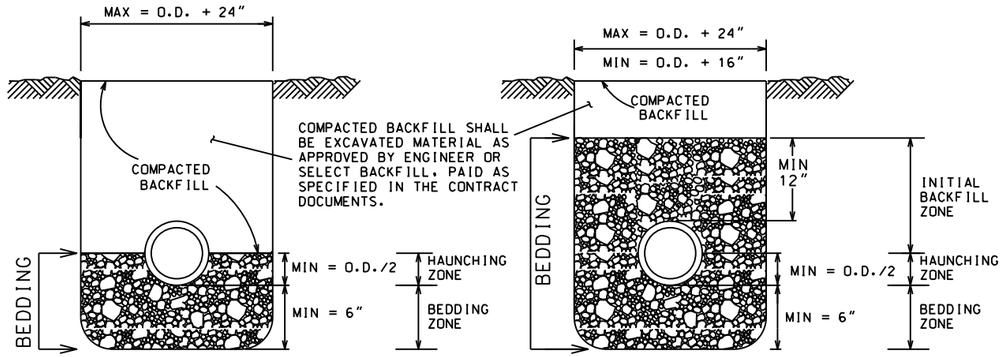
2) DROP INLET SHALL BE BUILT WHEN "E" IS GREATER THEN 24" AND THE INLET PIPE DIAMETER IS 6" OR LESS. INLET PIPES GREATER THAN 6" SHALL HAVE AN OUTSIDE DROP CONNECTION PER STANDARD DETAIL DRAWING 5.7.2 "E" SHALL BE MEASURED FROM THE INVERT OF THE INCOMING PIPE TO THE SPRINGLINE OF THE OUTGOING SEWER.

3) ENCASE INLET PIPE IN CONCRETE FROM THE EXISTING BENCH TO FIRST JOINT ABOVE THE 90° BEND. FORM NEW SMOOTH FLOWLINE FROM PIPE END TO MAIN CHANNEL. ROUGH BRUSH FINISH ALL OTHER SURFACES OF THE NEW CONCRETE ENCASEMENT.

INSIDE DROP FOR SANITARY MAIN OR LATERAL

DRAWING NOT TO SCALE

(CITY OF MADISON S.D.D. 5.7.30)



BEDDING FOR REINFORCED CONCRETE SEWER PIPES

BEDDING FOR SANITARY SEWER PIPES AS WELL AS METAL, ADS, AND PVC STORM PIPES

NOTES:

UNLESS OTHERWISE SPECIFIED, ALL SANITARY AND STORM SEWER PIPES, INCLUDING LATERALS AND LEADS, SHALL BE INSTALLED WITH THE TYPE OF BEDDING SHOWN FOR THE TYPE AND SIZE OF PIPE INSTALLED.

THE COSTS OF BEDDING SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PIPE.
FOR RCP, BEDDING INCLUDES THE HAUNCHING & BEDDING ZONES.
FOR PLASTIC PIPES, THE BEDDING INCLUDES THE HAUNCHING, BEDDING & INITIAL BACKFILL ZONES.
THE BEDDING SHALL BE INSTALLED & COMPACTED IN 6" MAXIMUM LIFTS.

ALL TRENCHES SHALL BE HAND BACKFILLED TO A POINT 12" ABOVE THE TOP OF THE PIPE. ALL BEDDING SHALL BE MECHANICALLY COMPACTED.

PAYMENT SHALL NOT BE MADE FOR BACKFILL WITH EXCAVATED MATERIAL, IF APPROVED. SELECT BACKFILL IF REQUIRED, SHALL BE PAID PER CONTRACT.

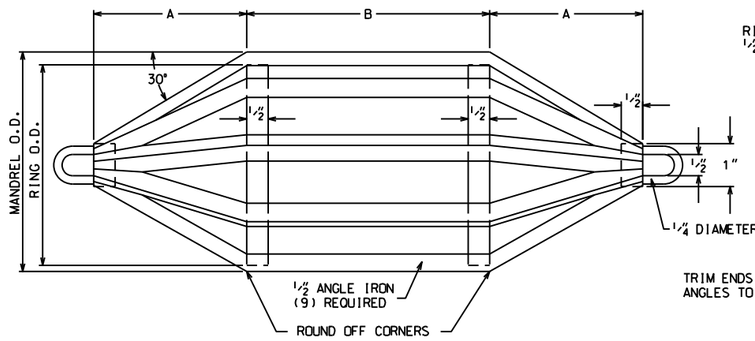
THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE O.D. + 24" AND MINIMUM OF OD + 16" AS SPECIFIED, AND SHALL APPLY FROM THE BOTTOM OF THE TRENCH TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THIS WIDTH IS EXCEEDED, THE CONTRACTOR SHALL FURNISH AND INSTALL A HIGHER TYPE OF BEDDING AT NO EXTRA COST. THE TYPE OF BEDDING SHALL BE DETERMINED BY THE ENGINEER.

O.D. EQUALS THE OUTSIDE DIAMETER OF THE PIPE.

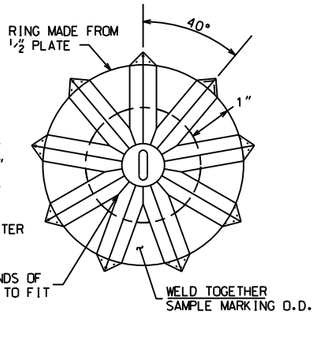
PIPE BEDDING AND BACKFILL

SCALE: NONE

(CITY OF MADISON S.D.D. 5.2.1)



SIDE VIEW



END VIEW

NOMINAL PIPE SIZE ID, in	DIMENSIONS A, in	DIMENSIONS B, in	MANDRELL O.D., in	RING O.D., in
6	4.0	4	5.61	4.90
8	5.3	6	7.36	6.65
10	6.7	6	9.21	8.50
12	8.0	8	11.06	10.35
15	10.0	9	13.82	13.11

MANDREL FOR USE IN ALL P.V.C. SEWER PIPE

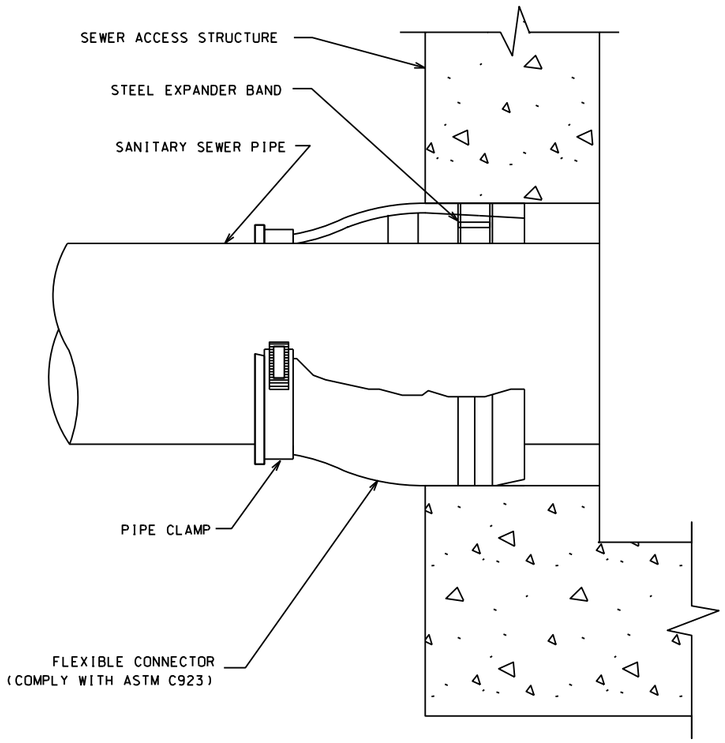
NOTE:

AFTER CONSTRUCTION IS COMPLETE, TRUE THE O.D. DIMENSION FOR THE FULL LENGTH OF "B" TO +/-0.010" BY TOOL AND LATHE OR GRINDING.

MANDREL DETAIL

SCALE: NONE

(CITY OF MADISON S.D.D. 5.1.1)



NOTES:

1. S.A.S. CONNECTIONS FOR SANITARY SEWER MAINS SHALL BE MADE USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS KOR-N-SEAL I OR APPROVED EQUAL, UNLESS DIRECTED OTHERWISE BY ENGINEER.

2. ALL STAINLESS STEEL ELEMENTS OF CONNECTOR SHALL BE TOTALLY NON-MAGNETIC SERIES 304 STAINLESS, EXCLUDING THE WORM SCREW FOR TIGHTENING THE STEEL BAND AROUND THE PIPE WHICH SHALL BE SERIES 305 STAINLESS. THE WORM SCREW FOR TIGHTENING THE STEEL BAND SHALL BE TOROUED BY A BREAK-AWAY TORQUE WRENCH AVAILABLE FOR THE PRECAST S.A.S SUPPLIER AND SET FOR 60 - 70 INCH/LBS.

3. THE CONNECTOR SHALL BE INSTALLED IN THE S.A.S. WALL BY ACTIVATING THE EXPANDING MECHANISM IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE CONNECTOR MANUFACTURER.

4. THE CONNECTOR SHALL BE OF A SIZE SPECIFICALLY DESIGNED FOR THE PIPE MATERIAL AND SIZE BEING UTILIZED ON THE PROJECT.

5. ALL COSTS SHALL BE CONSIDERED INCIDENTAL TO THE S.A.S. AND/OR PIPE. THE ENGINEER RESERVES THE RIGHT TO REQUIRE A "CONCRETE ENCASEMENT" CONNECTION AT NO ADDITIONAL EXPENSE IN THE EVENT OF DESIGN CHANGE.

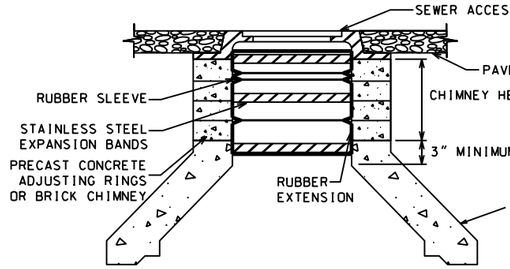
6. FLEXIBLE, WATERTIGHT CONNECTIONS SHALL ALSO BE USED AS REQUIRED FOR STORM SEWER CONNECTIONS.

FLEXIBLE PIPE TO S.A.S. CONNECTOR

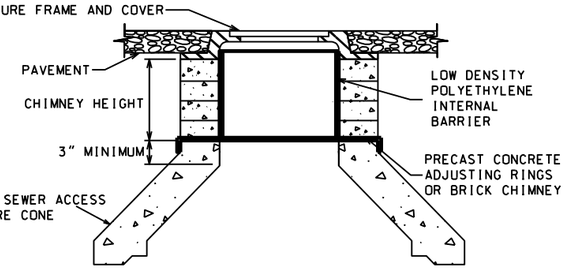
SCALE: NONE

(CITY OF MADISON S.D.D. 5.7.31)

INTERNAL CHIMNEY SEALS SHALL BE USED ON ALL SANITARY SEWER ACCESS STRUCTURES AT THE FOLLOWING LOCATIONS:
1) WITHIN 100' OF A STREET LOW POINT
2) ALL GREENWAYS
3) WHERE SPECIFIED BY THE ENGINEER



FLEXIBLE INTERNAL RUBBER SLEEVE



LOW DENSITY POLYETHYLENE INTERNAL BARRIER

AN INTERNAL CHIMNEY SEAL WHERE NEEDED, SHALL BE INSTALLED TO COVER THE ENTIRE CHIMNEY AREA IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FRAME SEALS SHALL CONSIST OF ONE OF THE FOLLOWING TYPES OF INTERNAL SEALS:

1) FLEXIBLE INTERNAL RUBBER SLEEVE

A FLEXIBLE INTERNAL RUBBER SLEEVE, INTERLOCKING EXTENSIONS AND STAINLESS STEEL EXPANSION BANDS AS MANUFACTURED BY CRETEX SPECIALTY PRODUCTS OR AN APPROVED EQUAL CONFORMING TO THE FOLLOWING REQUIREMENTS.

THE SEAL SHALL REMAIN FLEXIBLE THROUGHOUT A 25 YEAR DESIGN LIFE, ALLOWING REPEATED VERTICAL MOVEMENT OF THE FRAME OF NOT LESS THAN 2 INCHES AND/OR REPEATED HORIZONTAL MOVEMENTS OF NOT LESS THAN $^{1}/_{2}$ INCH. THE SLEEVE PORTION OF THE SEAL SHALL BE EITHER DOUBLE OR TRIPLE PLEATED WITH A MINIMUM UNEXPANDED VERTICAL HEIGHT OF EITHER 8 INCHES OR 10 INCHES, RESPECTIVELY. THE SLEEVE AND EXTENSION SHALL HAVE A MINIMUM THICKNESS OF $^{3}/_{16}$ INCHES AND SHALL BE MADE FROM A HIGH QUALITY RUBBER COMPOUND CONFORMING TO THE APPLICABLE REQUIREMENTS OF ASTM C-923, WITH A MINIMUM 1500 PSI TENSILE STRENGTH, A MAXIMUM 18% COMPRESSION SET AND A HARDNESS (DUROMETER) OF 48 +/- . THE BANDS SHALL BE FABRICATED FROM 16 GAUGE STAINLESS STEEL CONFORMING TO ASTM A-240, TYPE 304 AND SHALL HAVE A MINIMUM ADJUSTMENT RANGE OF 2 DIAMETER INCHES AND A POSITIVE LOCKING MECHANISM. ANY SCREWS, BOLTS OR NUTS USED FOR THIS MECHANISM SHALL BE STAINLESS STEEL CONFORMING TO ASTM F-593 AND 594, TYPE 304.

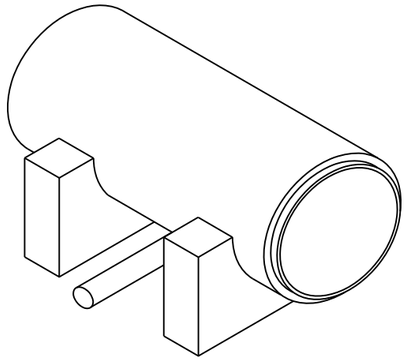
2) LOW DENISTY POLYETHYLENE INTERNAL BARRIER

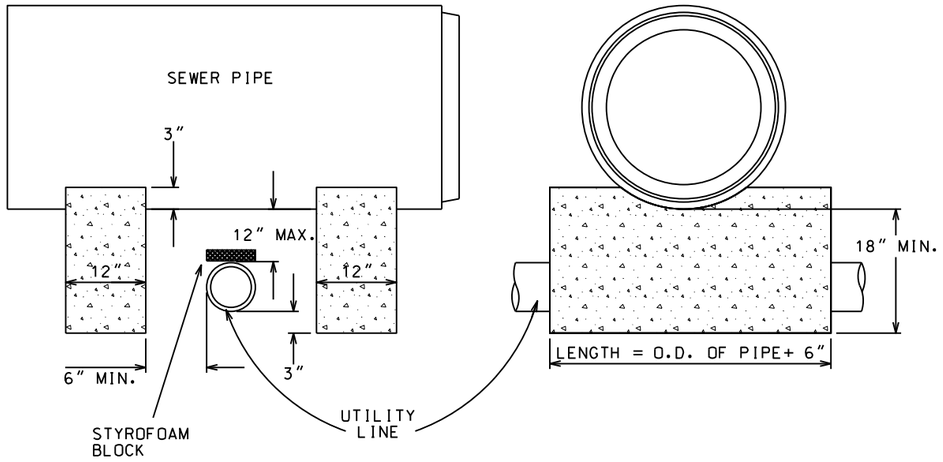
A LOW DENSITY POLYETHYLENE INTERNAL BARRIER SHALL MAINTAIN THEIR ADHESION ALLOWING REPEATED HORIZONTAL MOVEMENT OF NOT LESS THAN 1 INCH. THE BARRIER SHALL HAVE A MINIMUM THICKNESS OF $^{1}/_{4}$INCH AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING STANDARDS:
ASTM D 790/1505, D 1238, D 638, D 790, D 648 AND D 1693.

SANITARY SEWER INTERNAL CHIMNEY SEAL

SCALE: NONE

(CITY OF MADISON S.D.D. 5.7.17)





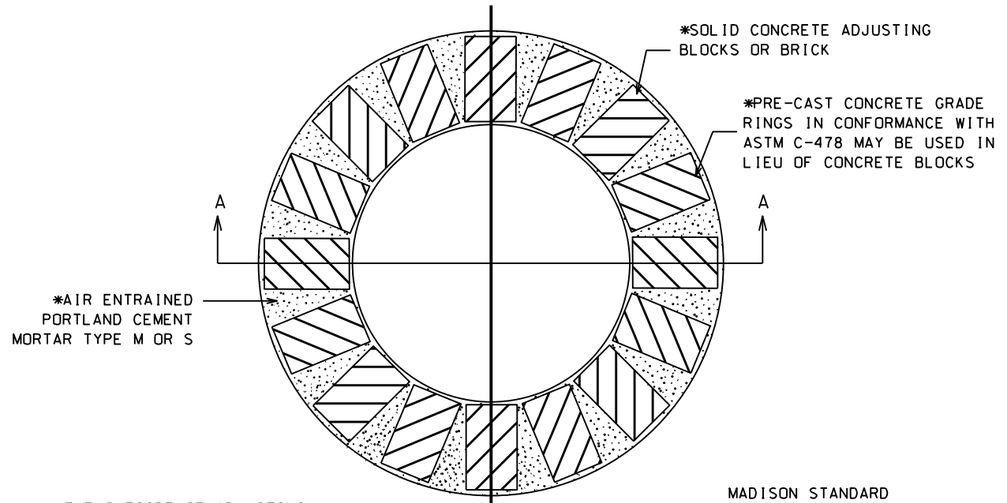
NOTE:

FIELD POURED. CONCRETE PIPE SUPPORTS SHALL BE INSTALLED FOR SEWERS OVER 10" IN DIAMETER WHEN CLEARANCE BETWEEN BOTTOM OF PIPE & TOP OF UTILITY LINE IS 12" OR LESS.

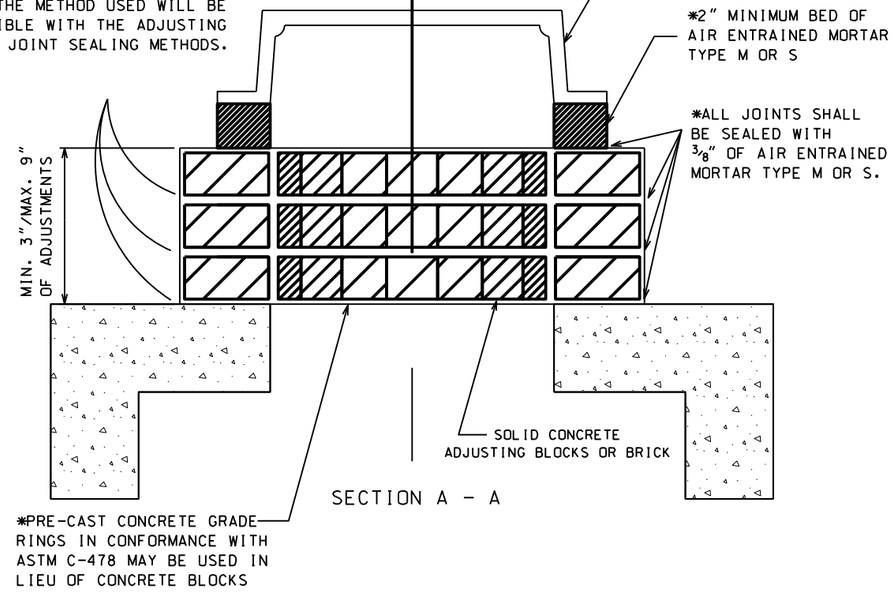
PIPE SUPPORTS

SCALE: NONE

(CITY OF MADISON S.D.D. 5.8.1)



*THE OUTSIDE OF ADJUSTING RINGS SHALL BE SEALED WITH A 1/2" THICK. AIR ENTRAINED MORTAR TYPE M OR S SEAL. THE METHOD USED WILL BE COMPATIBLE WITH THE ADJUSTING RING JOINT SEALING METHODS.

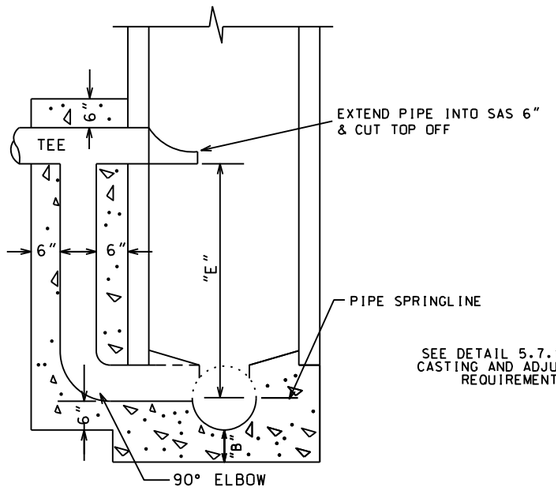


*NOTE: RUBBER ADJUSTMENT RINGS (CRETEX PRO-RING OR APPROVED EQUIV.) INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WILL BE CONSIDERED AN ACCEPTABLE ALTERNATE TO PRECAST RINGS. IF RUBBER ADJUSTMENT RINGS ARE INSTALLED, THERE WILL BE NO NEED OR PAYMENT FOR AN INTERNAL CHIMNEY SEAL (SDD 5.7.17)

S.A.S. CHIMNEY AND CASTING

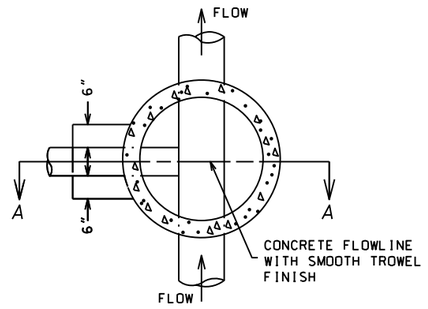
SCALE: NONE

(CITY OF MADISON S.D.D. 5.7.15)

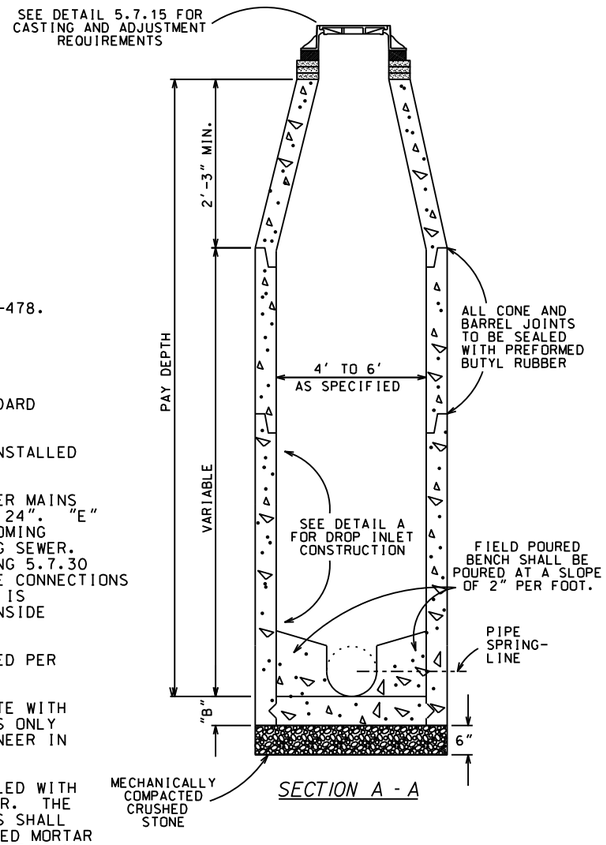


DETAIL A

SHOWING DROP INLET CONSTRUCTION FOR SANITARY SEWER MAINS & LATERALS



TOP VIEW



SECTION A - A

NOTES:

1) PRECAST S.A.S. SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.

2) THICKNESS OF BASE, "B":
   6" MIN. FOR 4' DIAMETER SAS
   8" MIN. FOR 5' AND 6' DIAMETER SAS

3) FOR CASTING DESIGNATION REFER TO STANDARD DETAIL DRAWING 5.7.16

4) CENTERED (CONCENTRIC) CONE SHALL BE INSTALLED UNLESS OTHERWISE DIRECTED.

5) DROP INLET SHALL BE BUILT FOR ALL SEWER MAINS AND LATERALS WHEN "E" IS GREATER THAN 24". "E" SHOULD BE MEASURED FROM INVERT OF INCOMING PIPE TO THE SPRINGLINE OF THE OUTGOING SEWER. INSIDE DROP PER STANDARD DETAIL DRAWING 5.7.30 MAY BE INSTALLED FOR 4" AND 6" SERVICE CONNECTIONS WHERE OUTSIDE DROP INLET CONSTRUCTION IS INFEASIBLE. ENGINEER SHALL APPROVE INSIDE DROP INLET PRIOR TO INSTALLATION.

6) FLEXIBLE PIPE TO SAS CONNECTOR REQUIRED PER STANDARD DETAIL DRAWING 5.7.31

7) ALL BENCHES TO BE FIELD POURED CONCRETE WITH SMOOTH TROWEL FINISH. PRECAST BENCHES ONLY PERMITTED WITH PRIOR APPORVAL OF ENGINEER IN WRITING.

8) ALL JOINTS BETWEEN RINGS SHALL BE SEALED WITH $\frac{3}{8}$" OF AIR-ENTRAINED TYPE M OR S MORTAR. THE OUTSIDE SURFACE OF THE ADJUSTING RINGS SHALL BE SEALED WITH A $1\frac{1}{2}$" THICK AIR-ENTRAINED MORTAR TYPE M OR S SEAL. THE METHOD USED FOR SEALING THE OUTSIDE SURFACE SHALL BE COMPATIBLE WITH THAT USED TO SEAL JOINTS BETWEEN THE RINGS.

9) PRECAST SANITARY SEWER ACCESS STRUCTURES FOR STREET RECONSTRUCTION PROJECTS AND FOR STREET EXCAVATION PERMITS REQUIRE PRECAST SHOP DRAWING APPROVAL FROM CITY ENGINEERING. PRIOR TO BEING FABRICATED BY THE MANUFACTURER NO PRECAST SHOP DRAWINGS ARE REQUIRED FOR NEW CONSTRUCTION IN SUBDIVISION DEVELOPMENTS.

SANITARY SEWER ACCESS STRUCTURE (4-FT DIAMETER)

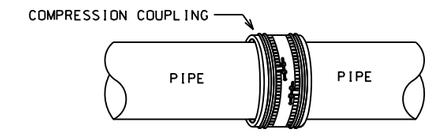
SCALE: NONE

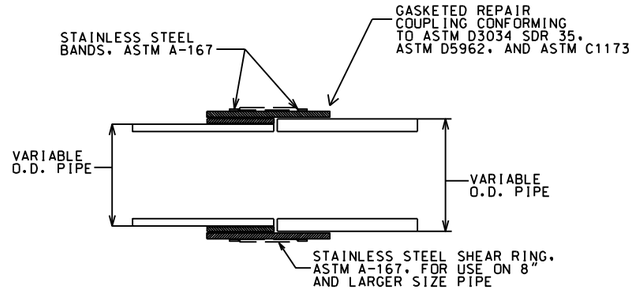
(CITY OF MADISON S.D.D. 5.7.2)

2

COMPRESSION COUPLING

PIPES WITH DIFFERENT MATERIAL TYPES
PIPES WITH DIFFERENT OUTSIDE DIAMETERS

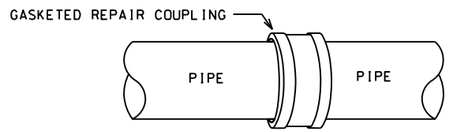


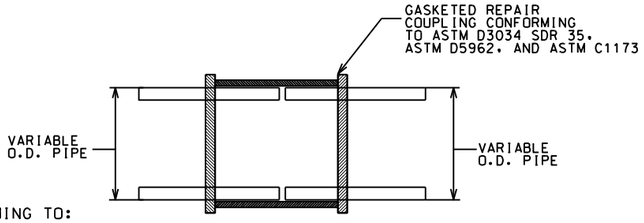


ALL REPAIRS INVOLVING PIPE CONNECTIONS 8" IN DIAMETER TO 8" IN DIAMETER OR LARGER SHALL UTILIZE THE FERNCO RC STRONGBACK OR EQUIVALENT REPAIR COUPLING. (ASTM C1173).

GASKETED REPAIR COUPLING

PVC TO PVC CONNECTION





COMPRESSION COUPLING, CONFORMING TO:

ASTM C-425 ALL PIPES REPAIR CONNECTIONS INVOLVING PIPE SMALLER THAN 8" IN DIAMETER.

ASTM C-1173 ALL PIPE REPAIR CONNECTIONS INVOLVING PIPE GREATER THAN OR EQUAL TO 8" IN DIAMETER TO PIPES GREATER OR THAN EQUAL TO 8" IN DIAMETER

COUPLING DETAILS

SCALE: NONE

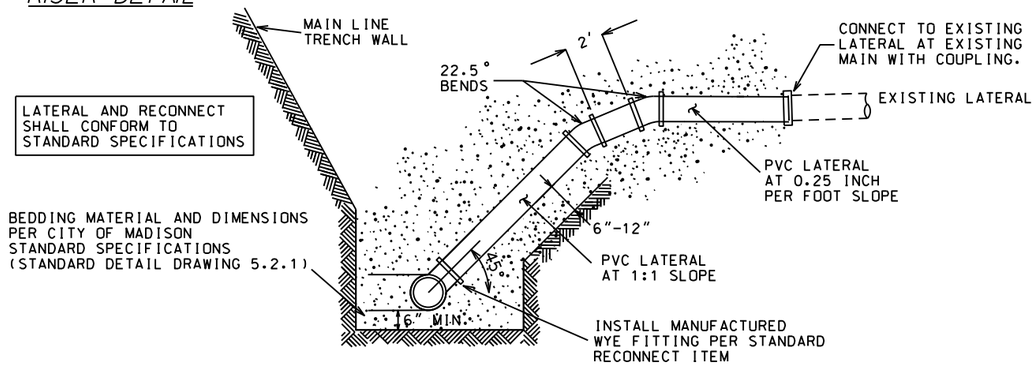
(CITY OF MADISON S.D.D. 5.3.3)

PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

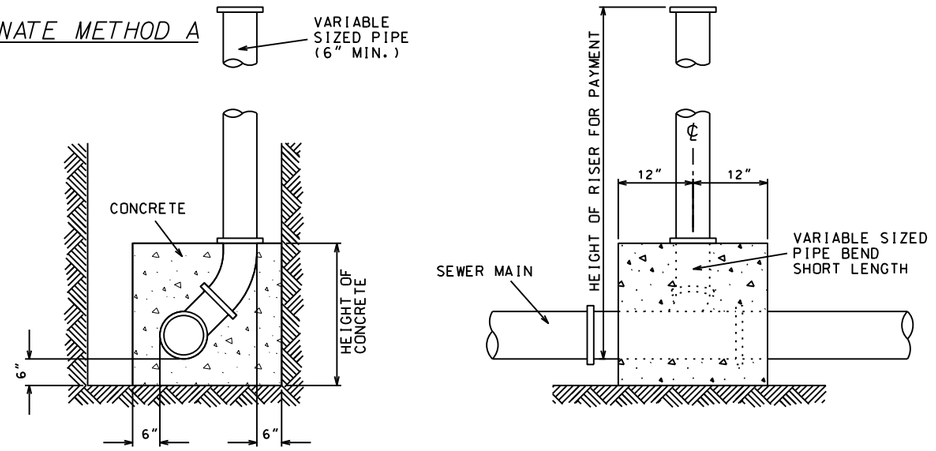
FILE NAME : M:\DESIGN\Projects\53W1293\Sanitary\Design\53W1293SAN-Detail 2.dgn PLOT DATE : 11/21/2014 PLOT BY : enmdm PLOT NAME : _____ PLOT SCALE : 100.6780 sf / in.
WISDOT/CADDS SHEET 42

2

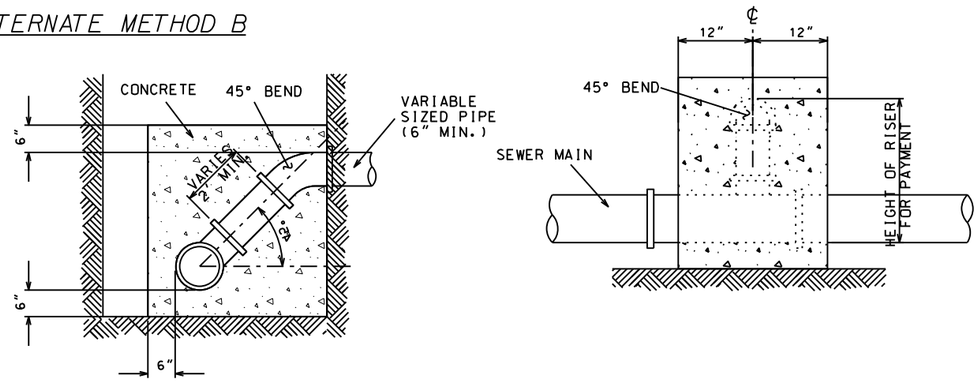
RISER DETAIL



ALTERNATE METHOD A



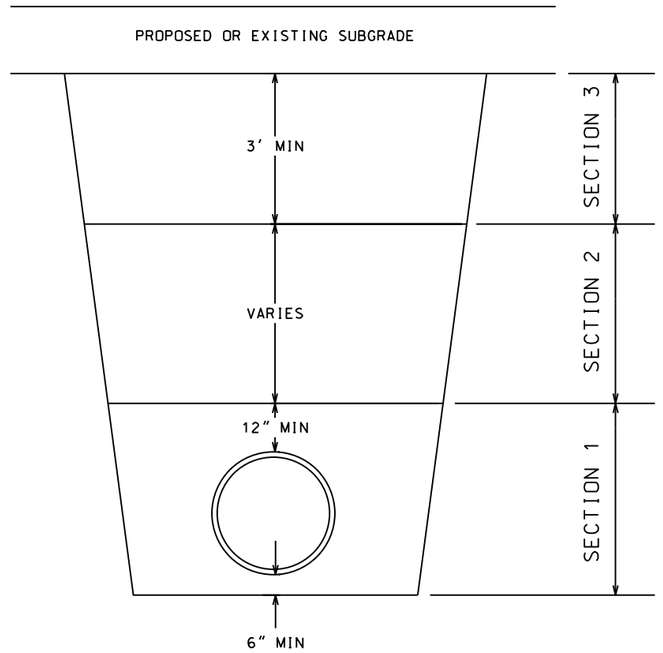
ALTERNATE METHOD B



RISER DETAIL

SCALE: NONE

(CITY OF MADISON S.D.D. 5.3.1)



TYPICAL TRENCH COMPACTION

ALL BACKFILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12" BEFORE COMPACTION UNLESS AUTHORIZED BY THE ENGINEER DUE TO THE CHARACTER OF THE MATERIAL AND THE COMPACTING EQUIPMENT. EACH LIFT SHALL BE MECHANICALLY COMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING SUCCEEDING LIFTS OF BACKFILL MATERIAL.

IN COLD WEATHER, TRENCHES SHALL BE COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN SECTION 502.1 (e), BACKFILLING EXCAVATIONS AND COMPACTION OF BACKFILL, OF THESE SPECIFICATIONS.

SECTION 1:

MECHANICALLY COMPACTED BEDDING AS REQUIRED BY THE SPECIFICATIONS. COMPACTION ACHIEVED WITH SMALLER PLATE COMPACTOR. FOR ALL PLASTIC PIPE SECTION 1 SHALL BE INSTALLED IN ACCORDANCE WITH S.D.D. 5.2.1A

SECTION 2:

MINIMUM COMPACTION OF 90% MAXIMUM DENSITY. COMPACTION OF BACKFILL WITH BOMAG OR HOE-PAC SHALL NOT BEGIN UNTIL THE DEPTH OF BACKFILL MATERIAL IS TWO FEET ABOVE THE TOP OF PIPE.

SECTION 3:

MINIMUM COMPACTION OF 95% MAXIMUM DENSITY.

TYPICAL TRENCH COMPACTION

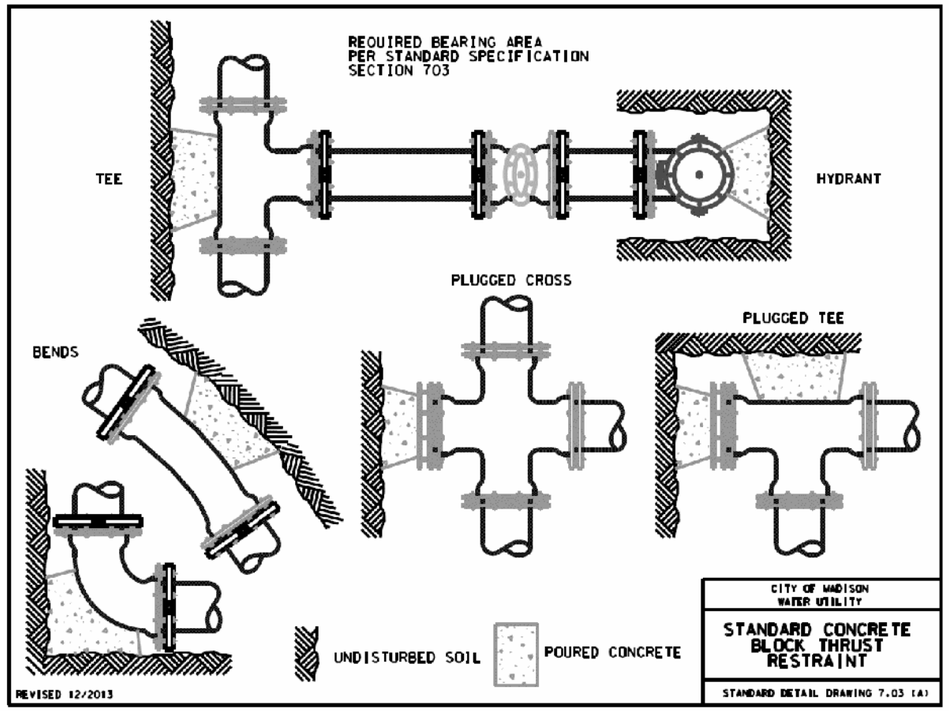
SCALE: NONE

(CITY OF MADISON S.D.D. 5.2.2)

2

PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET E

FILE NAME : M:\DESIGN\Projects\53W1293\Sanitary\Design\53W1293SAN-Detail 1.dgn PLOT DATE : 11/21/2014 PLOT BY : enmdm PLOT NAME : _____ PLOT SCALE : 100.6780 sf / in.
WISDOT/CADDS SHEET 42

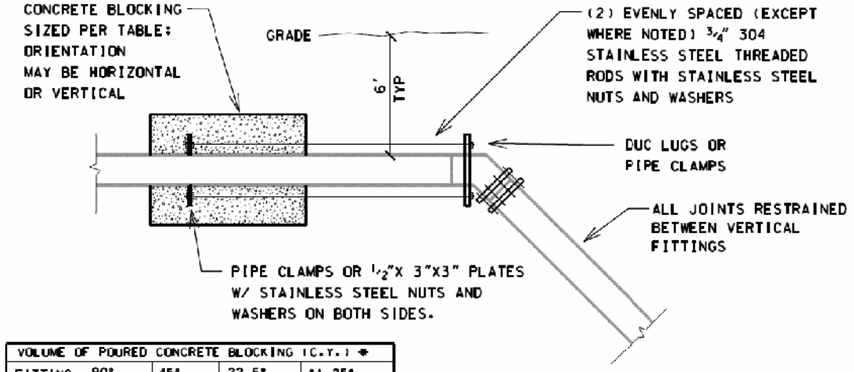


CITY OF MADISON
WATER UTILITY

STANDARD CONCRETE BLOCK THRUST RESTRAINT

STANDARD DETAIL DRAWING 7.03 (A)

REVISED 12/2013



VOLUME OF POURED CONCRETE BLOCKING (C.Y.) *				
FITTING SIZE (IN)	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4	0.1	0.1	0.1	0.1
6	0.3	0.2	0.1	0.1
8	0.7	0.4	0.2	0.1
10	1.3	0.8	0.3	0.1
12	2.1	1.3	0.6	0.2
16	4.6	2.9	1.3	0.5
20	8.2 4 RODS	5.4 3 RODS	2.3	0.9
24	13.0 5 RODS	8.4 4 RODS	3.8	1.5

* CONCRETE SHALL BE MIN. 3000 PSI COMPRESSIVE STRENGTH

NOTE:

THIS METHOD MAY ONLY BE USED WHERE SPECIFIED OR WITH ENGINEER'S APPROVAL

N T S

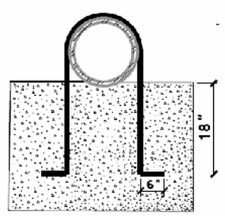
CITY OF MADISON
WATER UTILITY

ROD & CONCRETE BLOCK THRUST RESTRAINT FOR VERTICAL BENDS

STANDARD DETAIL DRAWING 7.03(C)

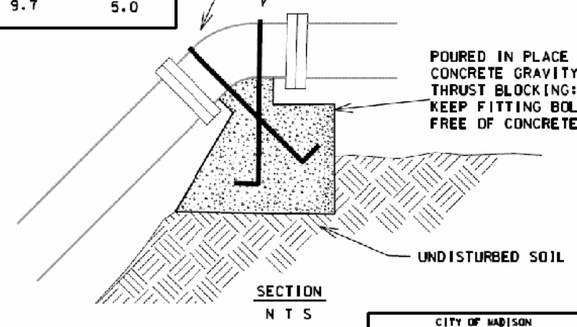
12/2013

VOLUME RQ'MNT FOR VERTICAL DOWN BENDS (C.Y.)				
FITTING SIZE (IN)	90° BEND	45° BEND	22.5° BEND	11¼ BEND
4	0.7	0.5	0.3	0.1
6	1.6	1.1	0.6	0.3
8	2.8	2.0	1.1	0.6
10	4.4	3.1	1.7	0.9
12	6.4	4.5	2.4	1.2
16	11.3	8.0	4.3	2.2
20	17.7: 3 BARS	12.5: 3 BARS	6.8	3.4
24	25.4: 6 BARS	18.0: 4 BARS	9.7	5.0



CROSS SECTION

N T S



SECTION

N T S

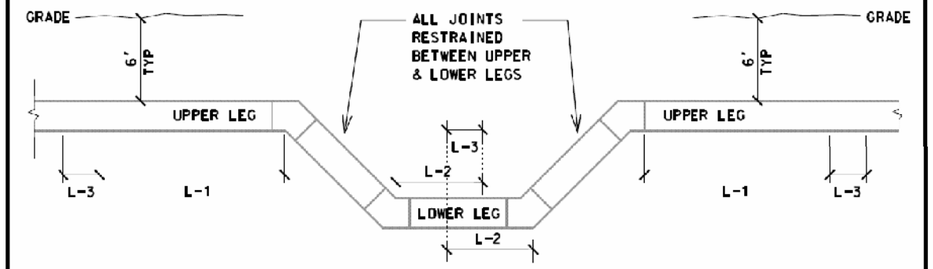
NOTES:
1) REBAR SHALL BE #5 EXPOXY COATED GRADE 60
2) CONCRETE SHALL BE MIN. 3,000 PSI COMPRESSIVE STRENGTH
3) ABOVE VALUES ARE BASED ON 150 PSI TEST PRESSURE
FOR OTHER TEST PRESSURES PROPORTION AS FOLLOWS:
BLOCK VOLUME=TEST PRESSURE/150 X TABLE VALUE

CITY OF MADISON
WATER UTILITY

GRAVITY BLOCK THRUST RESTRAINT FOR VERTICAL DOWN BENDS

STANDARD DETAIL DRAWING 7.03(B)

12/2013



	90° BEND		45° BEND		22.5° BEND		11.25° BEND	
FITTING SIZE (IN)	L-1 (FT)	L-2 (FT)	L-1 (FT)	L-2 (FT)	L-1 (FT)	L-2 (FT)	L-1 (FT)	L-2 (FT)
4	30	30	13	3	6	2	3	1
6	43	43	18	4	9	2	5	1
8	56	56	24	5	12	3	6	2
10	68	68	28	6	14	3	7	2
12	80	80	34	7	16	4	8	2
16	104	104	43	10	21	5	11	3
20	128	128	53	12	26	6	13	3
24	150	150	63	13	30	7	15	4

L-1: RESTRAINED JOINT LENGTH
UPPER LEG OF VERTICAL BEND

L-2: RESTRAINED JOINT LENGTH
LOWER LEG OF VERTICAL BEND

L-3: L-2 OVERLAP: WHERE L-3 EXISTS
L-3 IS ADDED TO L-1

NOTES

SOURCE: EBAA Iron Restraint Length Calculator, Version 3.3
Mandela/Poly Wrapped Ductile Iron Pipe
Soil Type=GM (Silty Gravels, Gravel-Sand-Silt Mixtures)
Test Pressure = 150 PSI

Safety Factor = 1.5
Trench Type = 4
High Side Depth = 8'
Low Side Depth = 8'

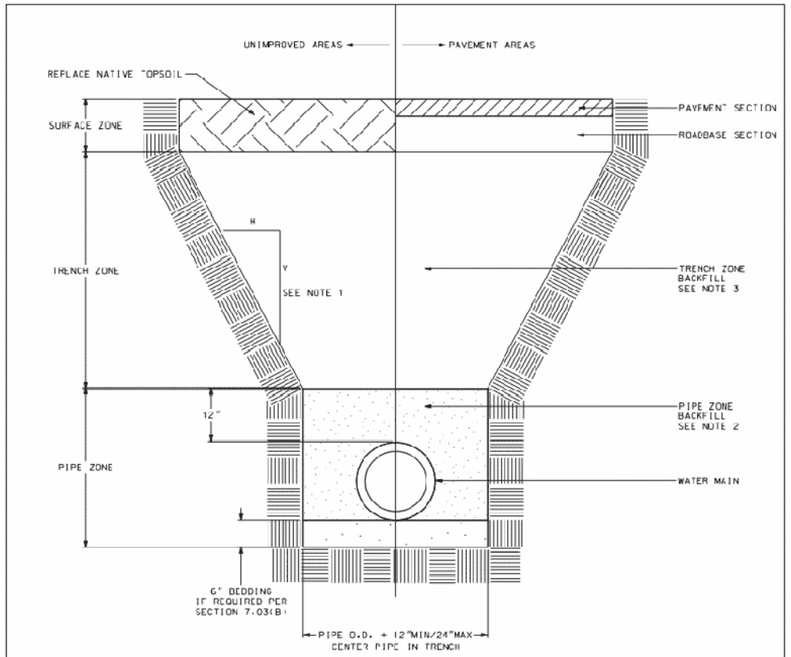
CITY OF MADISON
WATER UTILITY

JOINT RESTRAINT LENGTHS FOR VERTICAL BENDS

STANDARD DETAIL DRAWING 7.10

12/2013

N T S



NOTES:

1) ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE WISCONSIN ADMINISTRATIVE CODE FOR "TRENCH EXCAVATION, AND TUNNEL CONSTRUCTION" AND ANY ADDITIONAL REQUIREMENTS INCLUDED IN THE CONTRACT DOCUMENTS.

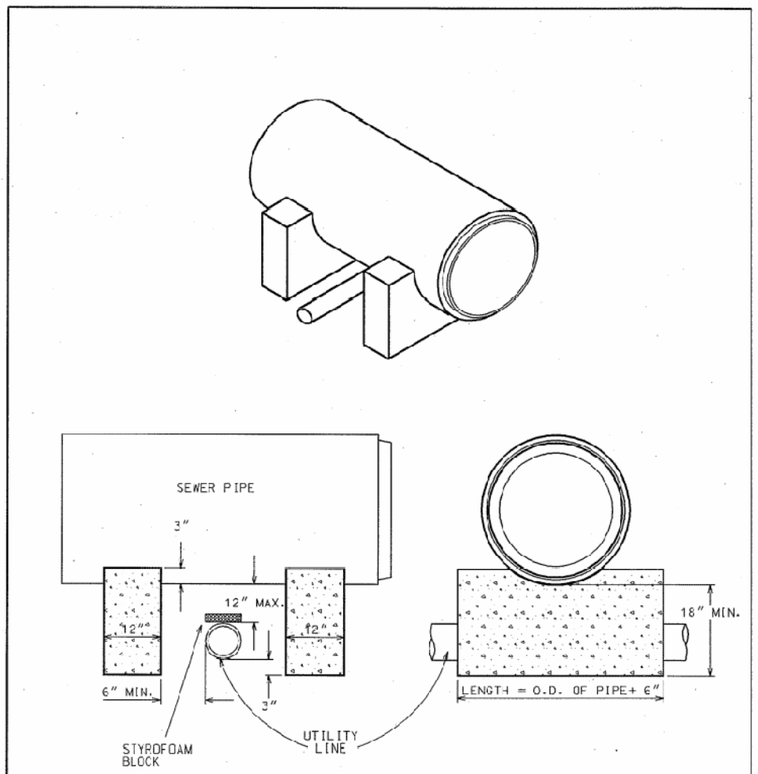
2) BACKFILL OPERATIONS SHALL COMPLY WITH SECTION 703.8 AND SUBSECTION 202.2(B). THE PIPE ZONE SHALL CONSIST OF SELECT FILL SAND, LIMESTONE SCREENINGS, WASHED OR CLEAR STONE, GRAVEL OR CRUSHED STONE.

3) BACKFILL OPERATIONS FOR THE TRENCH ZONE SHALL COMPLY WITH SECTION 703.11.

4) COMPACTION REQUIREMENTS:
PIPE ZONE: COMPACT BEDDING MATERIAL USING A HAND OPERATED MECHANICAL COMPACTOR.
FROM 2' OVER PIPE TO 3' BELOW SUBGRADE: MINIMUM OF 90% OF MAX DENSITY.
WITHIN 3' OF BOTTOM OF SUBGRADE: MINIMUM OF 95% OF MAX DENSITY

CITY OF MADISON WATER UTILITY
TYPICAL WATER PIPE TRENCH
STANDARD DETAIL DRAWING 7.11

CREATED: 6/2009



NOTE:

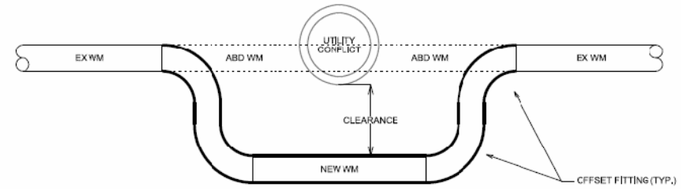
FIELD POURED, CONCRETE PIPE SUPPORTS SHALL BE INSTALLED FOR SEWERS OVER 10" IN DIAMETER WHEN CLEARANCE BETWEEN BOTTOM OF PIPE & TOP OF UTILITY LINE IS 12" OR LESS.

2004

CITY OF MADISON ENGINEERING DIVISION
CONCRETE SUPPORTS
STANDARD DETAIL DRAWING 5.8.1

5.8.1

OFFSETTING EXISTING WATER MAIN UNDER UTILITY CONFLICTS



NOTES:

1) CLEARANCE SHALL BE PER STANDARD SPECIFICATIONS

2) IF REQUIRED CLEARANCE CANNOT BE OBTAINED, USE 45° FITTINGS IN LIEU OF OFFSET FITTINGS

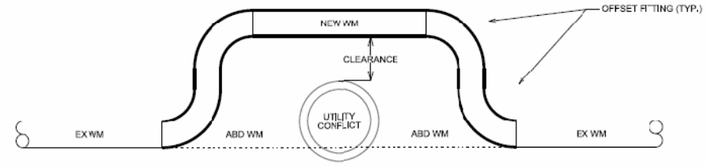
3) 11.25°, 22.5°, OR 90° FITTINGS NOT ALLOWED WITHOUT APPROVAL

4) INSULATE AS REQUIRED PER STANDARD SPECIFICATIONS

5) FITTINGS CONNECTED TO EX WM WITH CUT-IN CONNECTIONS PER STANDARD SPECIFICATIONS

6) NEW PIPE SHALL HAVE NO JOINTS BETWEEN FITTINGS

OFFSETTING EXISTING WATER MAIN OVER UTILITY CONFLICTS



NOTES:

1) CLEARANCE SHALL BE PER STANDARD SPECIFICATIONS

2) IF REQUIRED CLEARANCE CANNOT BE OBTAINED, USE 45° FITTINGS IN LIEU OF OFFSET FITTINGS

3) 11.25°, 22.5°, OR 90° FITTINGS NOT ALLOWED WITHOUT APPROVAL

4) INSULATE AS REQUIRED PER STANDARD SPECIFICATIONS

5) FITTINGS CONNECTED TO EX WM WITH CUT-IN CONNECTIONS PER STANDARD SPECIFICATIONS

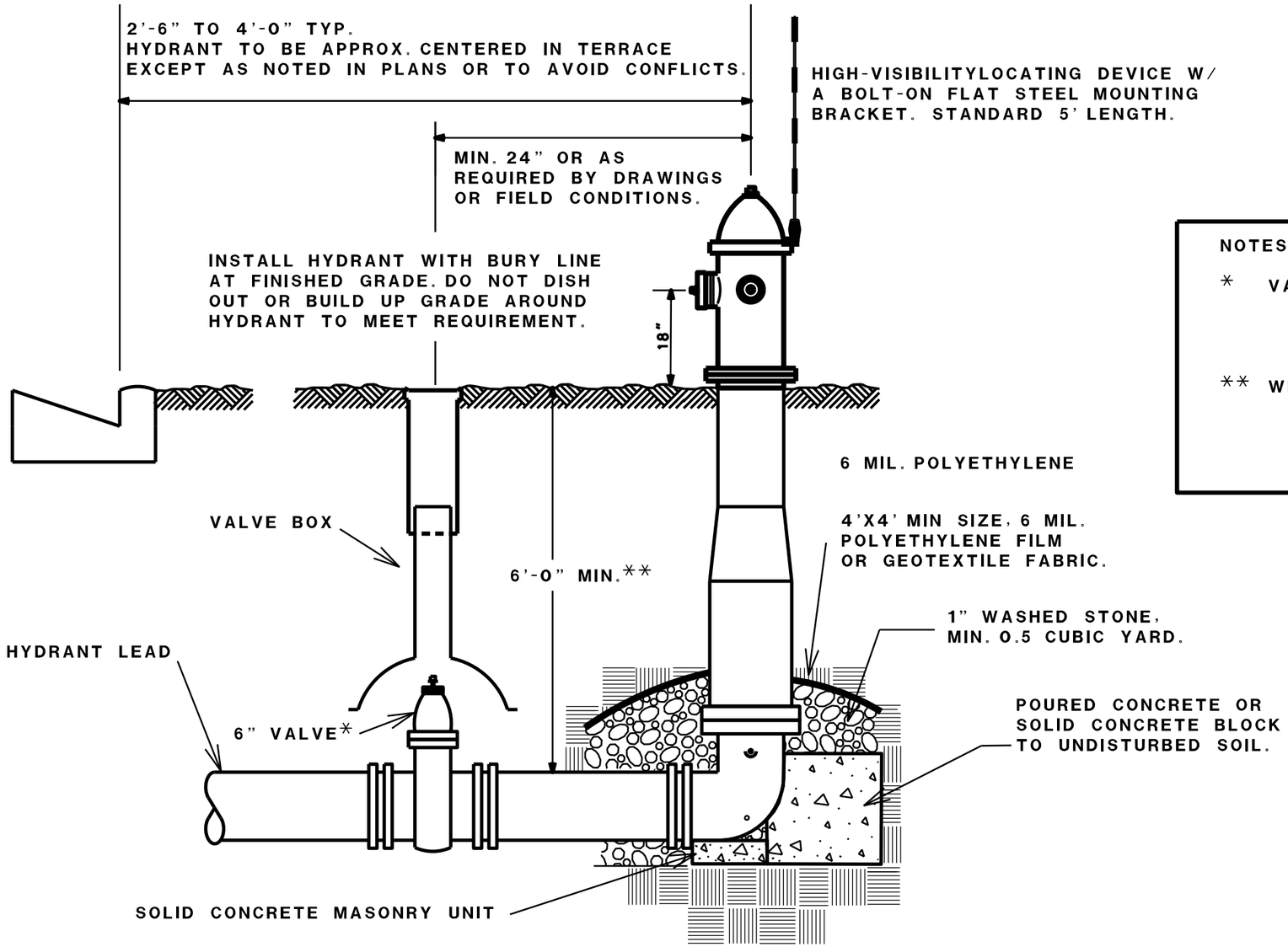
6) NEW PIPE SHALL HAVE NO JOINTS BETWEEN FITTINGS

DRAFTED 12/2013

CITY OF MADISON WATER UTILITY
OFFSETTING EXISTING WATER MAIN
STANDARD DETAIL DRAWING 7.12

PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS (WATER MAIN)	SHEET - 28	E

2



NOTES:

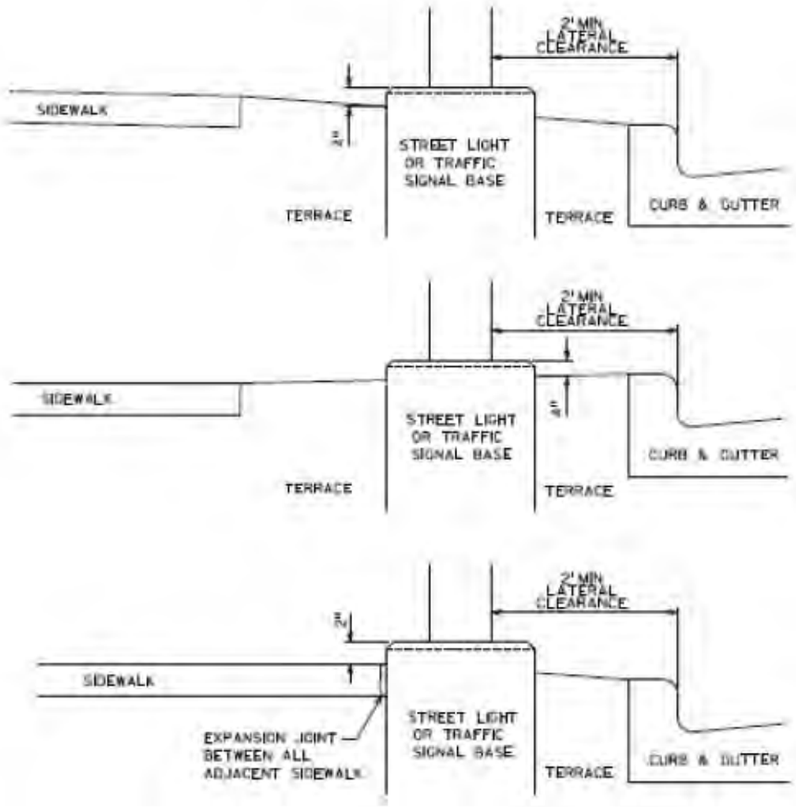
* VALVE MAY BE LOCATED IN STREET OR TERRACE; SEE PLANS FOR INDIVIDUAL HYDRANT VALVE LOCATIONS

** WHERE DEPTH IS OVER 6'-0" PROVIDE EXTENSION FITTINGS, VALVE BOX EXTENSIONS AND PIPE FITTINGS AS NECESSARY

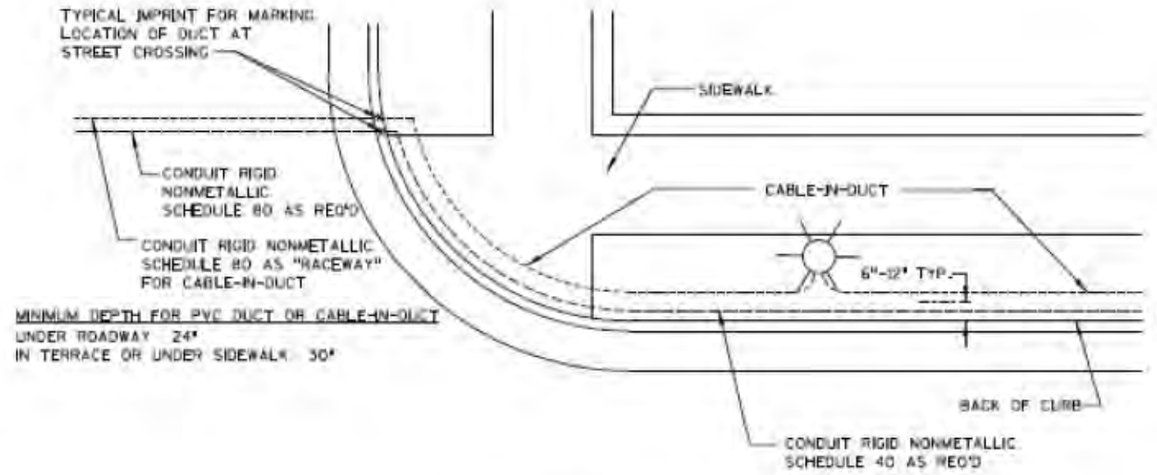
TYPICAL HYDRANT INSTALLATION

PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS (WATER MAIN)	SHEET	E

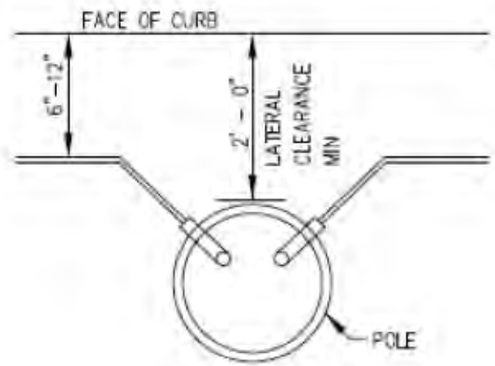
FILE NAME : M:\DESIGN\Projects\53W1293\Water\Design\53W1293WU-Details.dgn PLOT DATE : 11/7/2014 PLOT BY : wuarw PLOT NAME : _____ PLOT SCALE : 100.6780 sf / in.
WISDOT/CADDS SHEET 42



ELEVATION DETAIL FOR CONCRETE BASES

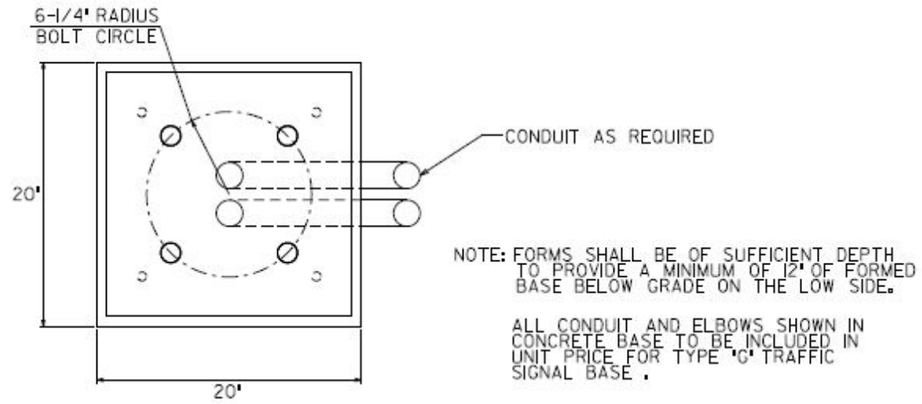


TYPICAL CONDUIT DETAIL



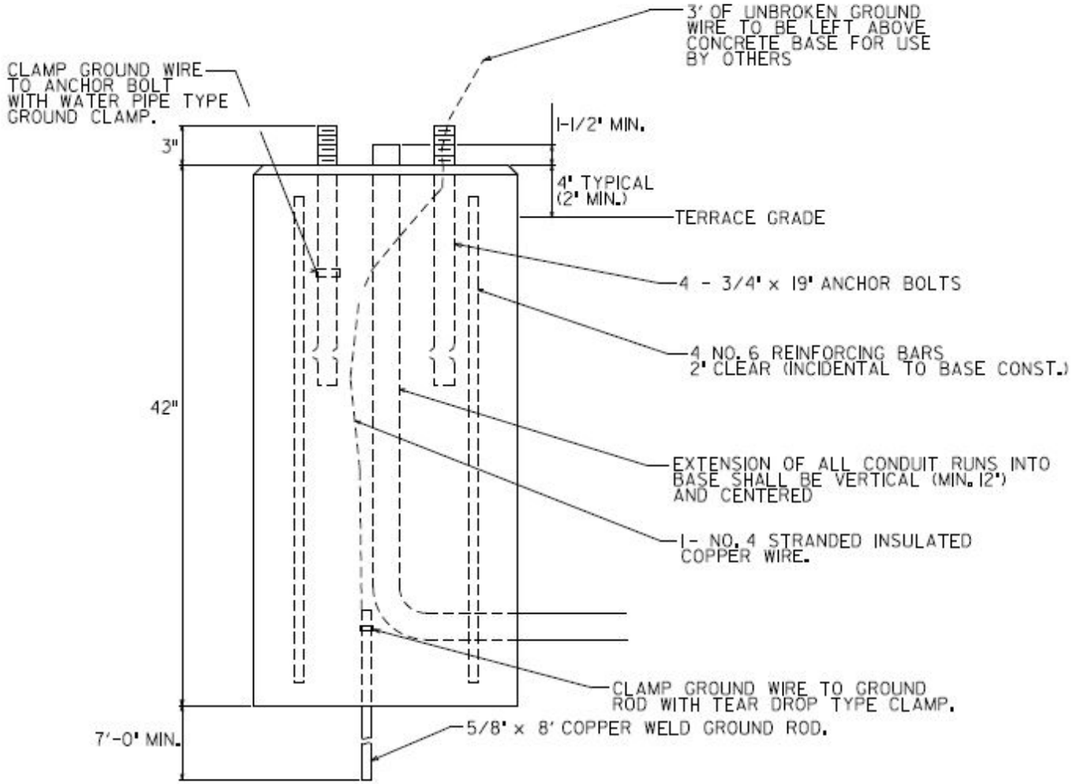
LIGHT POLE LOCATION

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 30	E

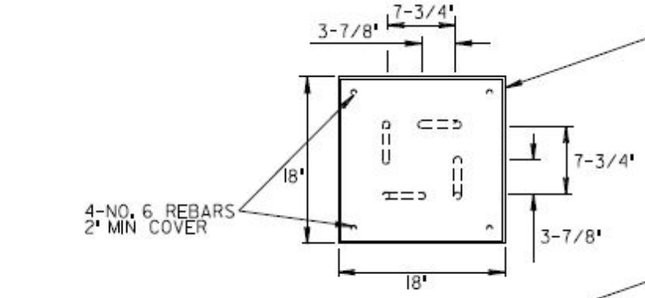


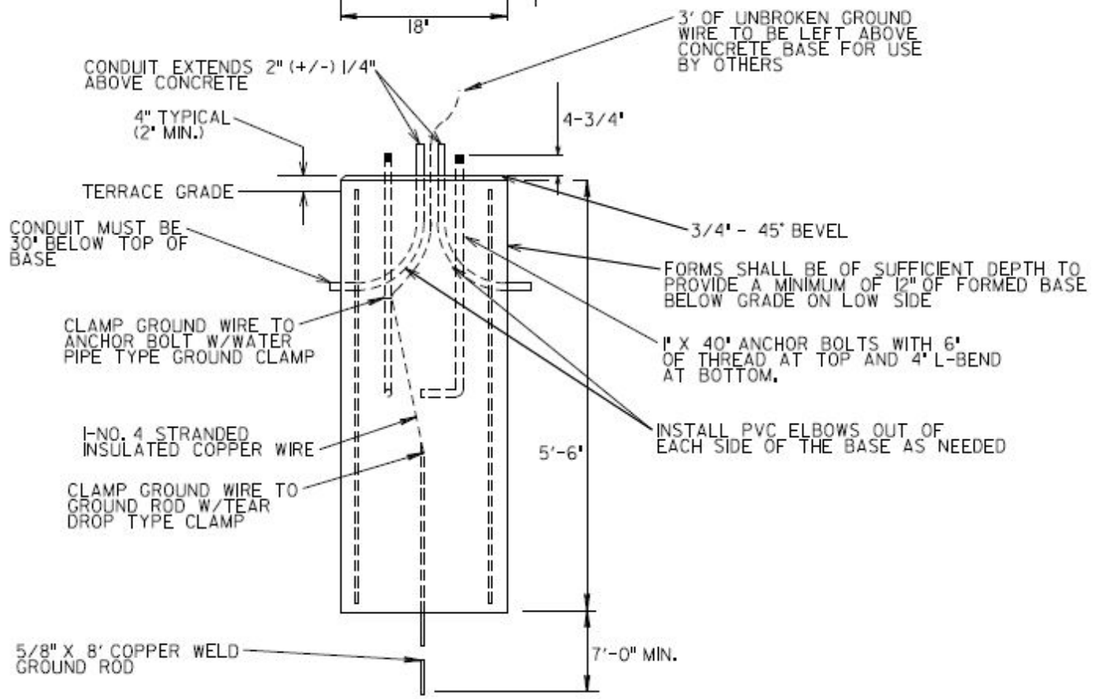
NOTE: FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON THE LOW SIDE.

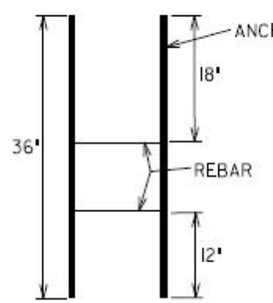
ALL CONDUIT AND ELBOWS SHOWN IN CONCRETE BASE TO BE INCLUDED IN UNIT PRICE FOR TYPE "C" TRAFFIC SIGNAL BASE .



TYPE "C" BASE DETAIL
SCALE: NONE

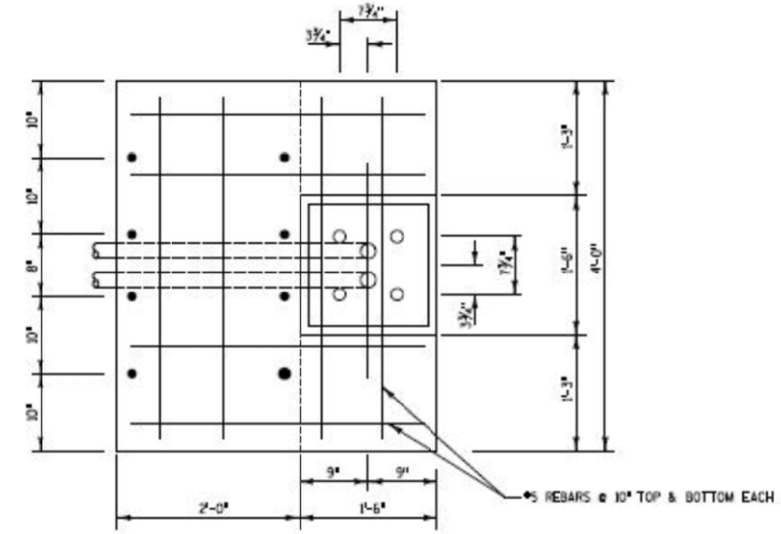


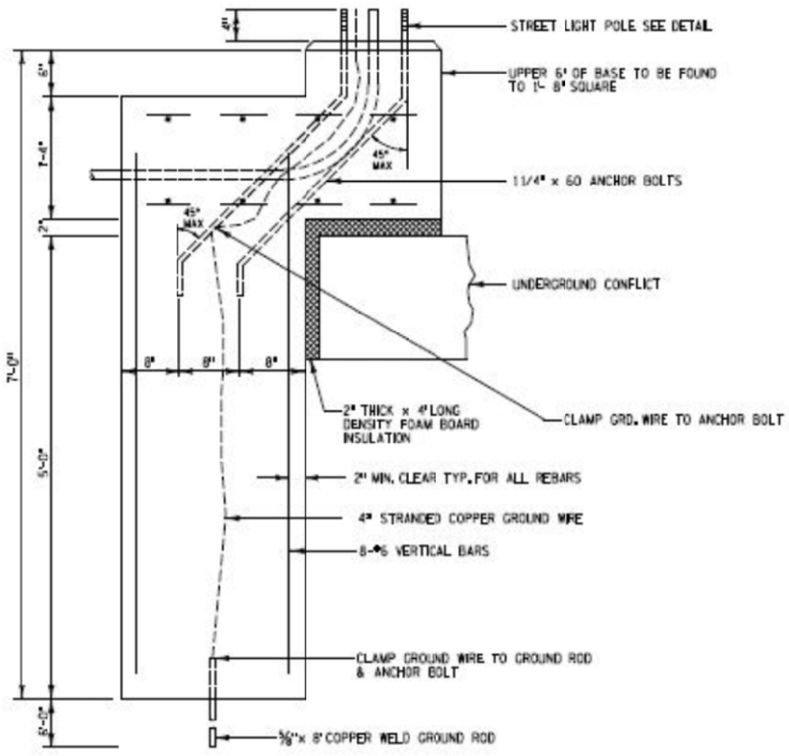




HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.

LB-3 BASE DETAIL
SCALE: NONE

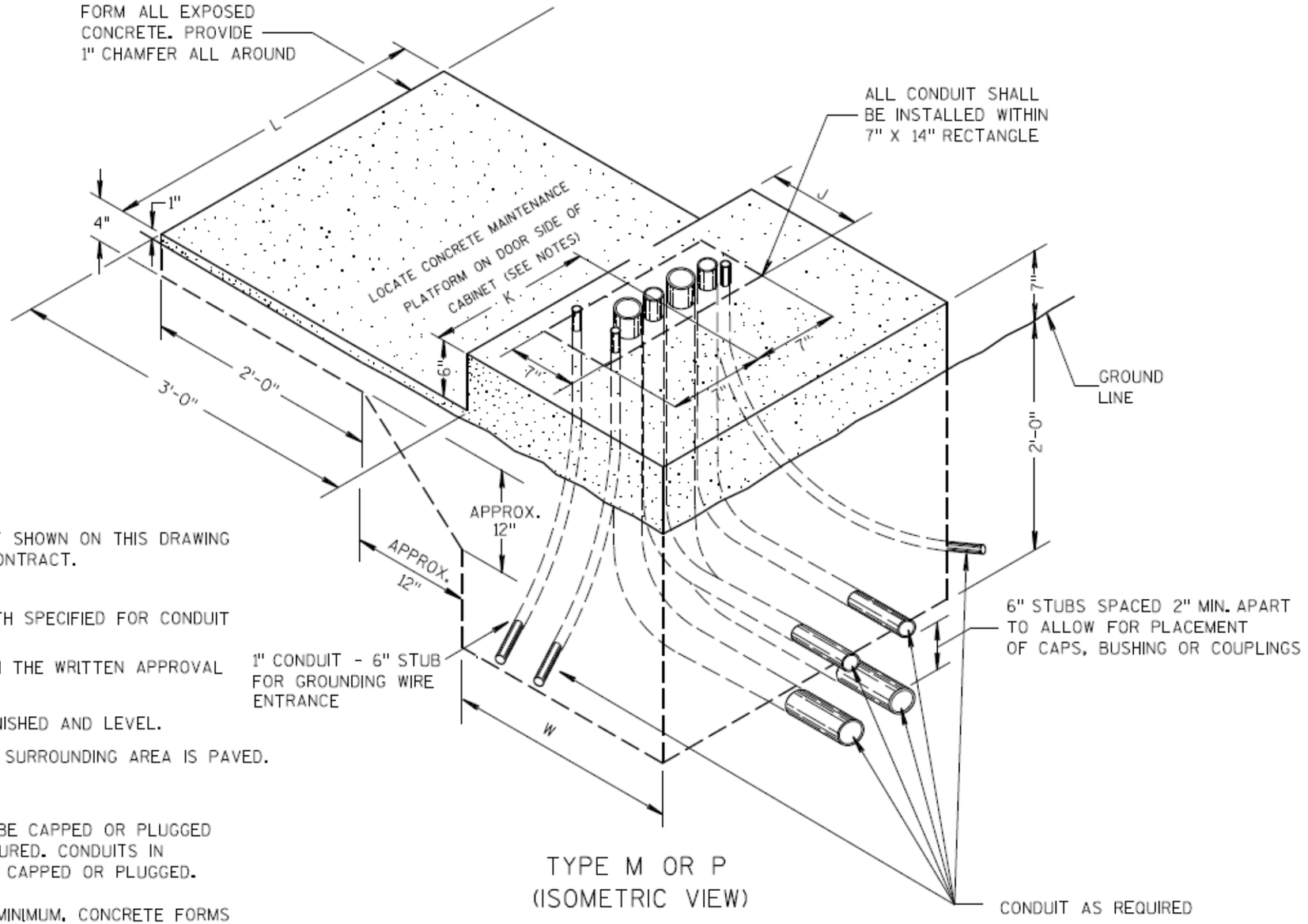




CONCRETE BASE OFFSET

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 32	E

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	L	W	J	K	
TYPE M	40"	30"	12"	20"	.823
TYPE P	48"	30"	16"	24"	1.179
TYPE M MODIFIED	-	-	-	-	-
TYPE P MODIFIED	-	-	-	-	-
TYPE OTHER	-				-



TYPE M OR P
(ISOMETRIC VIEW)

GENERAL NOTES

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

ALL CONDUIT SHALL BE PVC, SCHEDULE 40

DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.

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 AND LEVEL.

MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

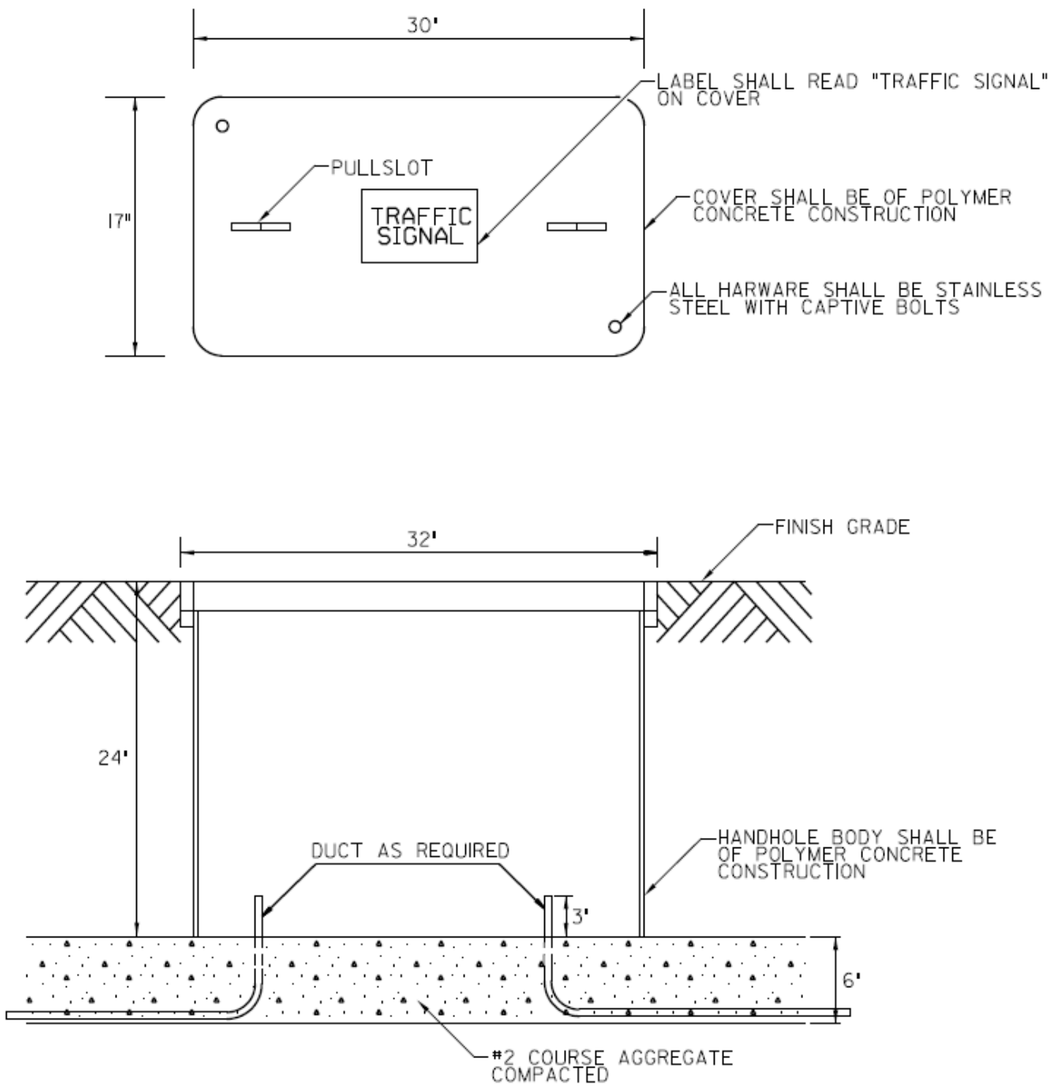
ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.

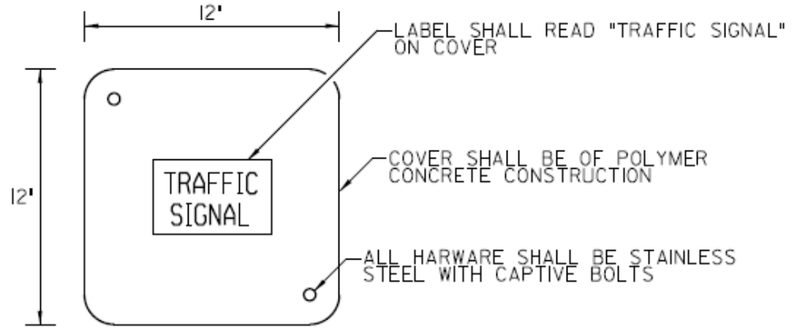
MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

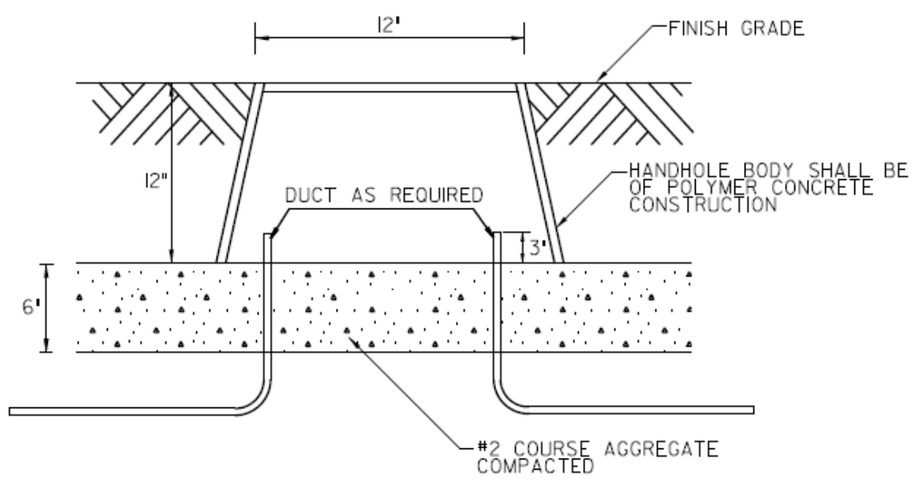
TYPE "M" AND "P" CONTROLLER BASE DETAIL
SCALE: NONE



ELECTRICAL PULLBOX TYPE 1

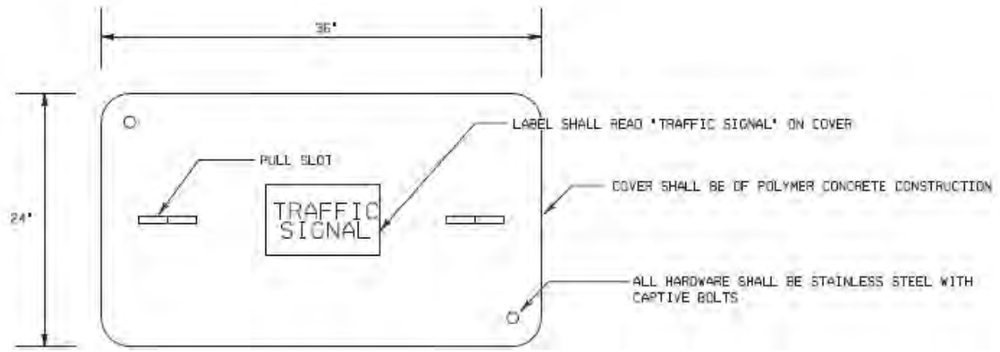
SCALE: NONE



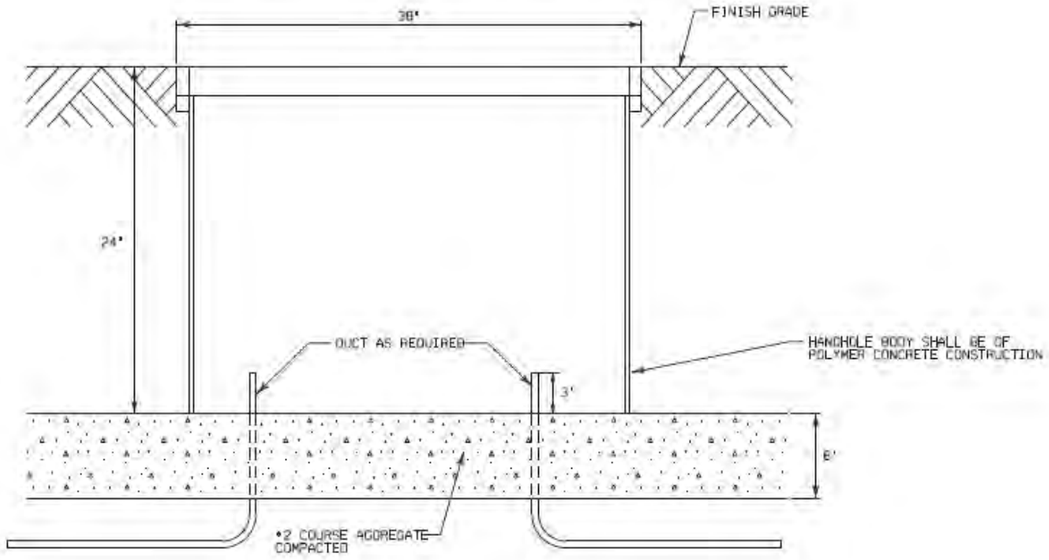


ELECTRICAL PULLBOX TYPE 3

SCALE: NONE

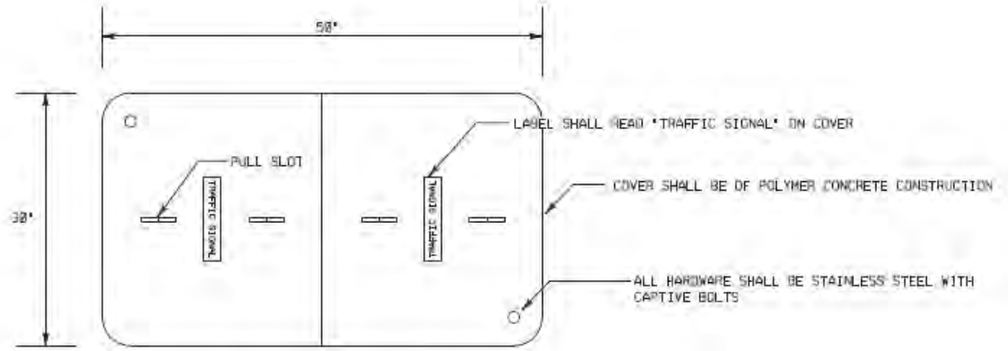


*15,000 LBS MAXIMUM LOAD OVER A 10' X 10' TEST AREA RATING FOR COVER AND BOX

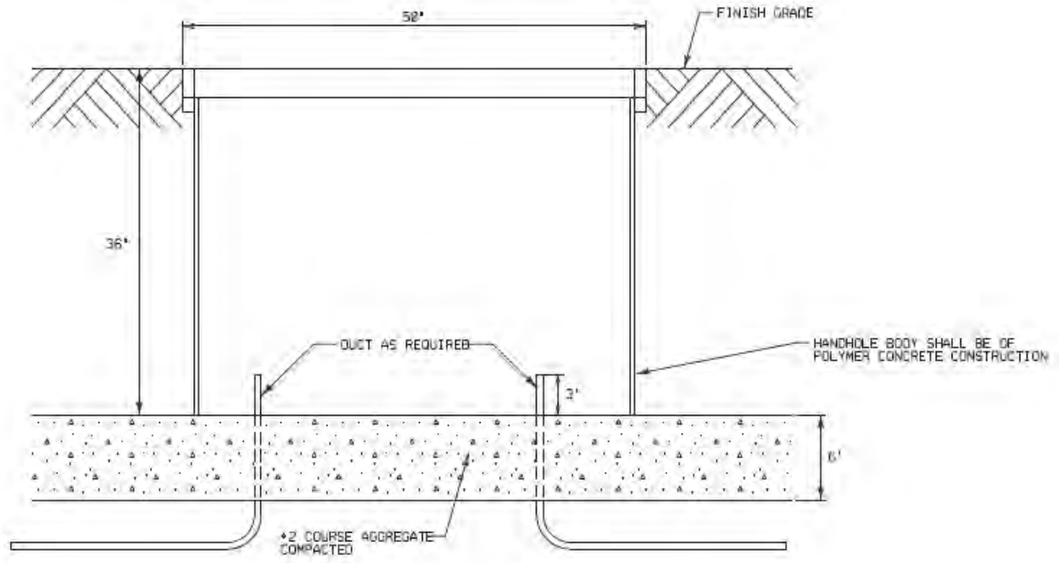


ELECTRICAL PULLBOX TYPE 5

SCALE: NONE



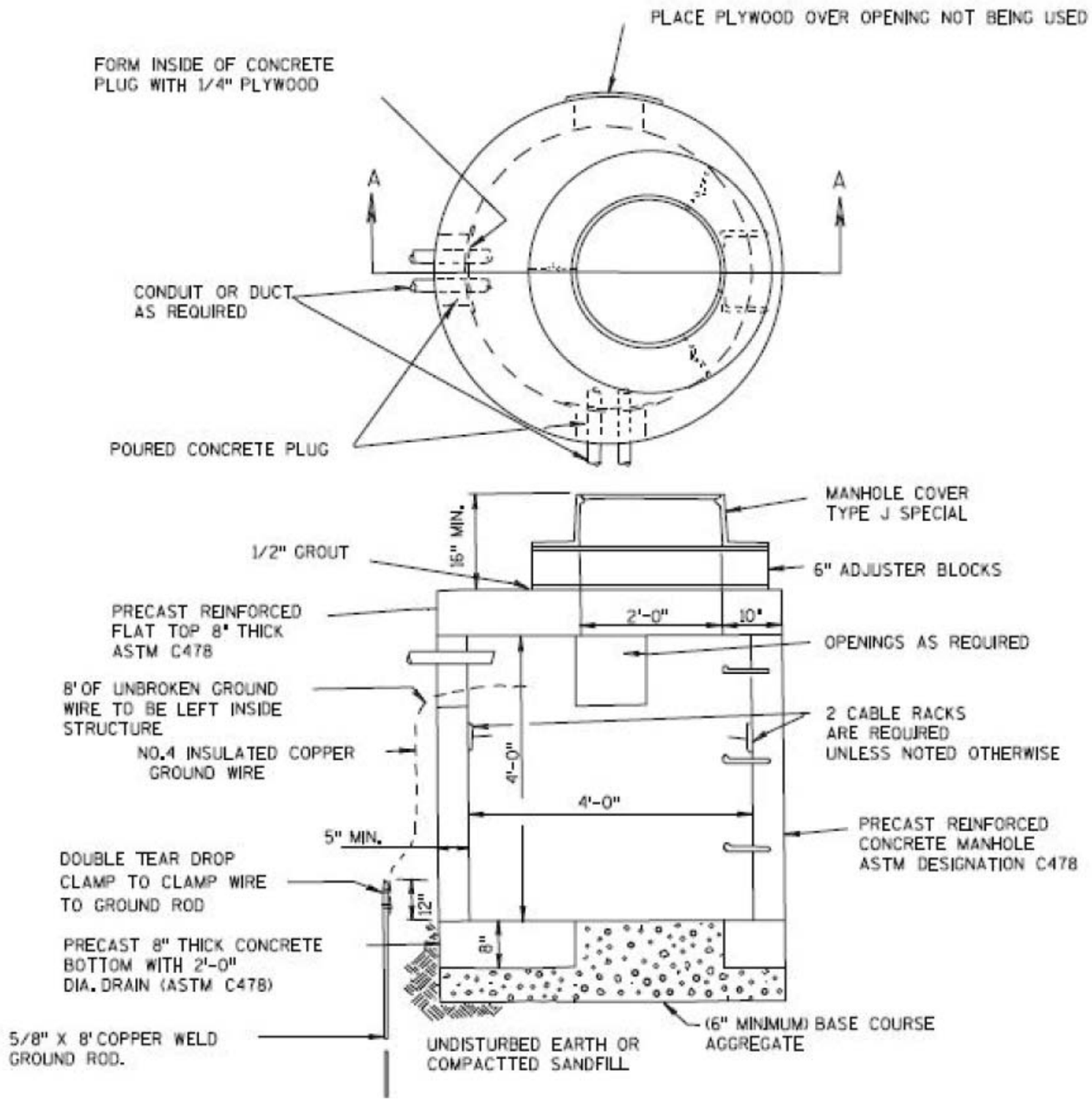
*15,000 LBS MAXIMUM LOAD OVER A 10' X 10' TEST AREA RATING FOR COVER AND BOX



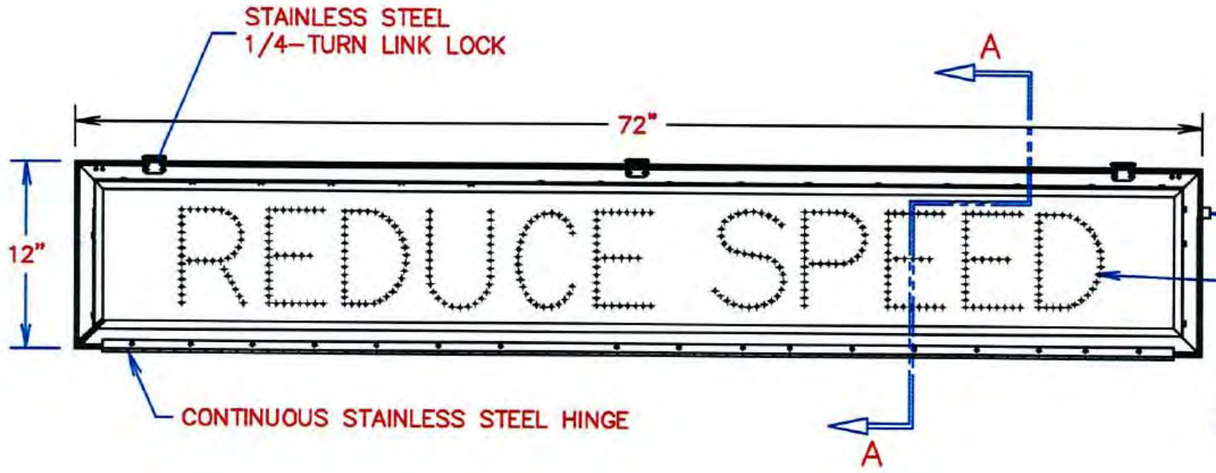
ELECTRICAL PULLBOX TYPE 7

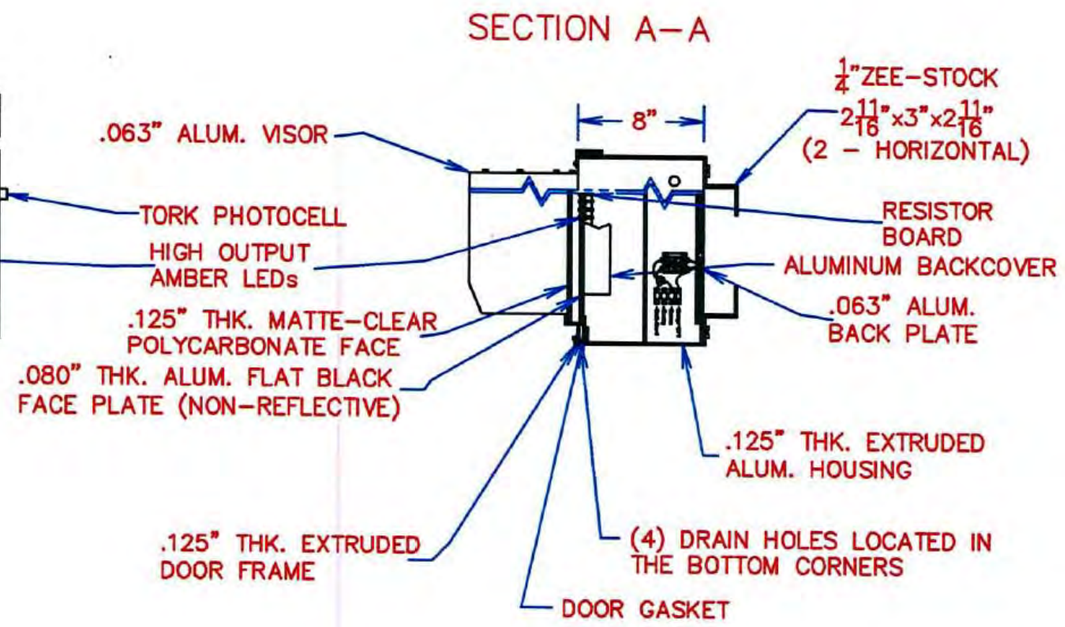
SCALE: NONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 35	E



ELECTICAL UTILITY ACCESS STRUCTURE

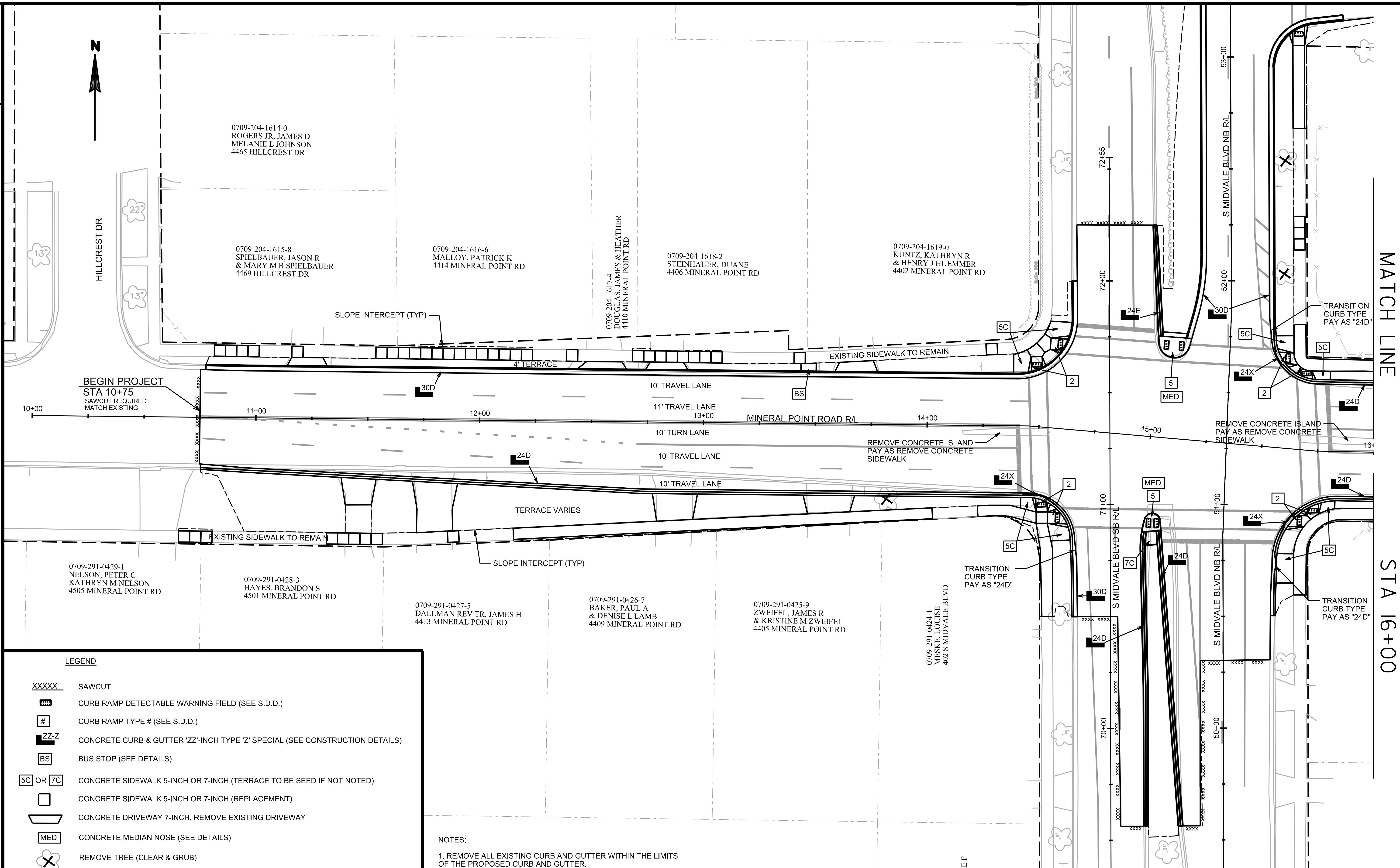




NOTES:

1. SIGN SHALL BE FULLY GASKETED AND WATERTIGHT.
2. SIGN SHALL BE EQUIPPED WITH FOUR SCREENED DRAIN HOLES LOCATED IN THE LOWER CORNERS OF THE HOUSING.
3. HINGE AND ALL FASTENERS TO BE STAINLESS STEEL.
4. MESSAGES FORMED BY A SINGLE ROW OF HIGH OUTPUT AMBER LEDs FORMING THE LETTERS IN 6" HIGHWAY D FONT.
5. WHEN NOT ENERGIZED, SIGN SHALL EFFECTIVELY BLANK OUT.
6. EXTERIOR HOUSING SHALL BE NATURAL MILL FINISH.
7. FACE PLATE AND INTERIOR OF THE SIGN SHALL BE FLAT BLACK.
8. AUTOMATIC NIGHT-TIME DIMMING SHALL BE PROVIDED WITH A PHOTOCELL AND PRESETS ON PCB.
9. SIGN SHALL ACCEPT INCOMING 12VDC AND PROVIDE FLASHING OUTPUT AS DIRECTED.
10. NATURAL CONVECTION VENTILATION SHALL BE PROVIDED TO COOL LEDS AND COMPONENTS.
11. DUE TO VIBRATION CONCERNS, NO SOLDER JOINTS SHALL BE ALLOWED FOR LED CONNECTIONS. WIRE WRAP CONNECTIONS SHALL BE USED PER MIL SPEC 217.

REDUCE SPEED LED SIGN, 72" X 12"



2 | 2

LEGEND

XXXXX SAWCUT

CURB RAMP DETECTABLE WARNING FIELD (SEE S.D.D.)

CURB RAMP TYPE # (SEE S.D.D.)

ZZ-Z CONCRETE CURB & GUTTER 'ZZ'-INCH TYPE 'Z' SPECIAL (SEE CONSTRUCTION DETAILS)

BS BUS STOP (SEE DETAILS)

5C OR 7C CONCRETE SIDEWALK 5-INCH OR 7-INCH (TERRACE TO BE SEED IF NOT NOTED)

CONCRETE SIDEWALK 5-INCH OR 7-INCH (REPLACEMENT)

CONCRETE DRIVEWAY 7-INCH, REMOVE EXISTING DRIVEWAY

MED CONCRETE MEDIAN NOSE (SEE DETAILS)

REMOVE TREE (CLEAR & GRUB)

NOTES:

1. REMOVE ALL EXISTING CURB AND GUTTER WITHIN THE LIMITS OF THE PROPOSED CURB AND GUTTER.

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN DETAILS - MINERAL POINT RD.	SHEET 38	E

2

2

MATCH LINE

STA 16+00

0709-204-1310-4
FRITSCHE, JOHN B
& RACHEL E GONZALEZ
4349 FELTON PL

0709-204-1309-7
BUNDERS, ERIC D
TERESA A BUNDERS
4345 FELTON PL

0709-204-1308-9
BEECHER, MATTHEW A
& JILL A SAKAI
4341 FELTON PL

0709-204-1307-1
COOK, MARSHALL
& DOROTHY
4337 FELTON PL

0709-204-1306-3
HOLLANDER, MICHAEL J
AMY L GUNDERSON
4333 FELTON PL

0709-204-1305-5
WEHRLE, CRAIG D
4329 FELTON PL

0709-204-1304-7
CAIN, LINNE F
4325 FELTON PL

0709-204-1303-9
SCHIENLE, JILL D
4321 FELTON PL

0709-204-1302-1
STEIN, SUSAN K
4317 FELTON PL

N

SLOPE INTERCEPT (TYP)

REPLACE 5'-4" SIDEWALK

TERRACE VARIES

10' TRAVEL LANE

10' TRAVEL LANE

REMOVE CONCRETE ISLAND; PAY AS REMOVE CONCRETE SIDEWALK

24-D

TRANSITION CURB TYPES PAY AS "24D"

30-D

+00

10' TURN LANE

17+00

MINERAL POINT ROAD R/L

18+00

19+00

20+00

20+98

END PROJECT
STA 20+25
SAWCUT REQUIRED
MATCH EXISTING

10' TRAVEL LANE

BS

10' TRAVEL LANE

24-D

TRANSITION CURB TYPES PAY AS "24D"

REPLACE 5'-4" SIDEWALK

4'-5' TERRACE

EXISTING SIDEWALK TO REMAIN

SLOPE INTERCEPT (TYP)

0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD

0709-291-0322-7
HOLMAN, TODD G
ANN MILLER HOLMAN
4345 MINERAL POINT RD

0709-291-0313-6
MATHER TRUST, PAMELA
4337 MINERAL PT RD

STORM SEWER ESMT

0709-291-0314-4
RIESELMAN, BRIAN J
& RICARDO A GONZALEZ
4330 CRITCHELL TERRACE

0709-291-0315-2
SMITH, RICHARD L
& KATHLEEN CANTWELL-SMITH
4326 CRITCHELL TER

0709-291-0316-0
ARMACANQUI, M EDGAR
& COLLEEN M ARMACANQUI
4322 CRITCHELL TER

0709-291-0317-8
WELCH, STEVEN P
& ANDREA S KONIK
4318 CRITCHELL TER

LEGEND

XXXXX	SAWCUT
▦	CURB RAMP DETECTABLE WARNING FIELD (SEE S.D.D.)
#	CURB RAMP TYPE # (SEE S.D.D.)
ZZ-Z	CONCRETE CURB & GUTTER 'ZZ'-INCH TYPE 'Z' SPECIAL (SEE CONSTRUCTION DETAILS)
BS	BUS STOP (SEE DETAILS)
5C	CONCRETE SIDEWALK 5-INCH (TERRACE - SEED IF NOT NOTED)
	CONCRETE SIDEWALK 5-INCH OR 7-INCH (REPLACEMENT)
	CONCRETE DRIVEWAY 7-INCH, REMOVE EXISTING DRIVEWAY
MED	CONCRETE MEDIAN NOSE (SEE DETAILS)

NOTES:

1. REMOVE ALL EXISTING CURB AND GUTTER WITHIN THE LIMITS OF THE PROPOSED CURB AND GUTTER.

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN DETAILS - MINERAL POINT RD.	SHEET 39	E

2

N

MINERAL POINT ROAD R/L

14+00

15+00

16+00

17+00

0709-291-0424-1
MESKE, LOUISE
402 S MIDVALE BLVD

-3
EROME F
END

0709-204-1619-0
KUNTZ, KATHRYN R
& HENRY J HUEMMER
4402 MINERAL POINT RD

0709-204-1620-7
BRAUSEN, CAROL M
330 S MIDVALE BLVD

0709-204-1621-5
BRADLEY, DOUGLAS J
326 S MIDVALE BLVD

0709-204-1622-3
HOFFMANN, ROBERT M
318 S MIDVALE BLVD

SLOPE INTERCEPT (TYP)

EXISTING SIDEWALK TO REMAIN

9' TERRACE

30D

BEGIN CONST.
STA 69+46
SAWCUT REQUIRED
MATCH EXISTING

70+00

71+00

72+00

72+55

S MIDVALE BLVD SB R/L

24D

7C

5
MED

END CONSTRUCTION
STA 72+25
SAWCUT REQUIRED
MATCH EXISTING

EXISTING RETAINING WALL
& SHRUBS TO REMAIN

24E

END CONSTRUCTION
STA 54+93
SAWCUT REQUIRED
MATCH EXISTING

BEGIN CONST.
STA 49+56
SAWCUT REQUIRED
MATCH EXISTING

50+00

51+00

52+00

53+00

54+00

55+00

10' TRAVEL LANE

18' TRAVEL/PARKING LANE

S MIDVALE BLVD NB R/L

30X

2

0709-291-0302-9
SEVERSON, ALEXANDER P
& LORENE EK SEVERSON
409 S MIDVALE BLVD

0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD

0709-204-1311-2
BARNETT, BRENDA M
4351 FELTON PL

0709-204-1310-4
FRITSCHE, JOHN B
& RACHEL E GONZALEZ
4349 FELTON PL

FELTON PLACE

0709-204-1412-8
GOODING JR REV TRUST, F
321 S MIDVALE BLVD

0709-204-1411-0
BEDALE, WENDY A
317 S MIDVALE BLVD

0709-204-1410-2
BEACHY, DOUGL
& SARA K BEACH
313 S MIDVALE B

NOTES:
1. REMOVE ALL EXISTING CURB AND GUTTER WITHIN THE LIMITS OF THE PROPOSED CURB AND GUTTER.

LEGEND

XXXXX	SAWCUT
	CURB RAMP DETECTABLE WARNING FIELD (SEE S.D.D.)
#	CURB RAMP TYPE # (SEE S.D.D.)
ZZ-Z	CONCRETE CURB & GUTTER 'ZZ'-INCH TYPE 'Z' SPECIAL (SEE CONSTRUCTION DETAILS)
	TREE REMOVAL (CLEAR & GRUB)
5C OR 7C	CONCRETE SIDEWALK 5-INCH OR 7-INCH (TERRACE - SEED IF NOT NOTED)
	CONCRETE SIDEWALK 5-INCH OR 7-INCH (REPLACEMENT)
	CONCRETE DRIVEWAY 7-INCH, REMOVE EXISTING DRIVEWAY
MED	CONCRETE MEDIAN NOSE (SEE DETAILS)

PROJECT NO: 5992-06-64	HWY: S MIDVALE BLVD	COUNTY: DANE	PLAN DETAILS - S. MIDVALE BLVD.	SHEET 40	E

2

2

N

0709-204-1632-2
DARGAN, JENNIFER B
& SEAN MICHAEL DARGAN
202 S MIDVALE BLVD

HILLCREST DR

DO NOT DAMAGE EXISTING ASPHALT PAVEMENT
USE EXISTING EDGE OF PAVEMENT WHEN
INSTALLING CURB AND GUTTER

24-E

MED

SLOPE INTERCEPT

TRANSITION CURB TYPES
PAY AS "30-D"

30-D

59+00 60+00 61+00 62+00 63+00 63+57

S MIDVALE BLVD NB R/L

NOTES:
1. REMOVE ALL EXISTING CURB AND GUTTER WITHIN THE LIMITS
OF THE PROPOSED CURB AND GUTTER.

0709-204-1514-2
NELSON, JONATHAN
& MELISSA L NELSON
201 S MIDVALE BLVD

LEGEND

XXXXX	SAWCUT
	CURB RAMP DETECTABLE WARNING FIELD (SEE S.D.D.)
#	CURB RAMP TYPE # (SEE S.D.D.)
ZZ-Z	CONCRETE CURB & GUTTER 'ZZ'-INCH TYPE 'Z' SPECIAL (SEE CONSTRUCTION DETAILS)
	TREE REMOVAL (CLEAR & GRUB)
5C OR 7C	CONCRETE SIDEWALK 5-INCH OR 7-INCH (TERRACE - SEED IF NOT NOTED)
	CONCRETE SIDEWALK 5-INCH OR 7-INCH (REPLACEMENT)
	CONCRETE DRIVEWAY 7-INCH, REMOVE EXISTING DRIVEWAY
MED	CONCRETE MEDIAN NOSE (SEE DETAILS)

PROJECT NO: 5992-06-64	HWY: S MIDVALE BLVD	COUNTY: DANE	PLAN DETAILS - S. MIDVALE BLVD.	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\53W1293EN-PlanDetail*5.dgn PLOT DATE : 3/10/2015 PLOT BY : encwd PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

POINT	STATION	OFFSET
C001 (PC)	14'MPT'+47.73	29.92'
C002 (MC)	14'MPT'+62.14	34.21'
C003 (PC)	14'MPT'+70.13	48.40'
C004 (PC)	14'MPT'+39.73	21.00'
C005 (MC)	14'MPT'+56.74	30.00'
C006 (PC)	14'MPT'+62.94	49.95'
C007 (PC)	15'MPT'+00.16	42.04'
C008 (MC)	15'MPT'+06.91	36.01'
C009 (PC)	15'MPT'+13.96	41.69'
C010 (PC)	51'MDNB'+83.02	14.92'
C011 (MC)	51'MDNB'+97.59	12.00'
C018 (PC)	15'MPT'+50.39	47.11'
C019 (MC)	15'MPT'+58.15	34.31'
C020 (PC)	15'MPT'+72.46	29.93'
C021 (PC)	15'MPT'+84.66	20.00'
C022 (MC)	15'MPT'+65.98	29.25'
C023 (PC)	15'MPT'+59.02	50.49'
C024 (PC)	15'MPT'+07.58	37.04'

POINT	STATION	OFFSET
C025 (MC)	15'MPT'+04.22	34.11'
C026 (PC)	15'MPT'+00.70	36.86'
C027 (PT)	52'MDNB'+11.82	11.00'
C028 (PC,LP)	14'MPT'+99.98	50.99'
P101 (EP)	10'MPT'+75.42	20.90'
P102 (EP)	10'MPT'+77.45	21.30'
P103 (PI)	10'MPT'+95.45	21.00'
P104 (PI)	10'MPT'+95.42	22.37'
P105 (EP)	72'MDSB'+25.00	19.46'
P106 (PI)	14'MPT'+97.85	46.70'
P112 (TRANS)	51'MDNB'+84.78	17.00'
P118 (EP)	50'MDNB'+58.83	21.20'
P119 (EP)	49'MDNB'+56.31	-18.23'
P120 (PI)	70'MDSB'+18.82	14.70'
P121 (EP)	70'MDSB'+50.00	14.76'
P122 (PI)	14'MPT'+72.07	58.33'
P123 (PI)	12'MPT'+72.24	30.00'
P124 (EP)	69'MDSB'+56.20	14.73'

LEGEND

- XXXXX — SAWCUT
- PROPOSED INLET
- +ZZZ.ZZ — SPOT ELEVATION AT EDGE OF GUTTER
- ZZZZ — POINT CALLOUT AT CURB FLAG (EDGE OF PAVEMENT)
- R ZZ — CURB RADIUS AT CURB FLAG OR BACK OF WALK
- SURFACE DRAINAGE DIRECTION

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN DETAILS - GRADES: MINERAL POINT RD.	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\53W1293EN-GradesDetail#1.dgn PLOT DATE : 1/16/2015 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 39.9999 sf / in.

2

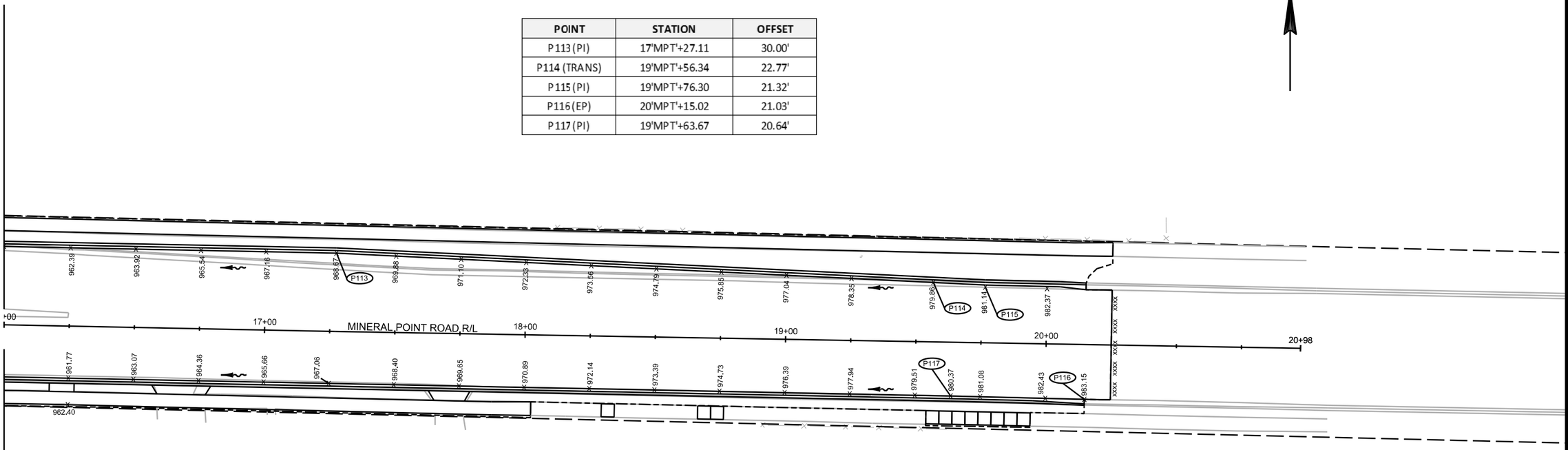
2

POINT	STATION	OFFSET
P113 (PI)	17'MPT'+27.11	30.00'
P114 (TRANS)	19'MPT'+56.34	22.77'
P115 (PI)	19'MPT'+76.30	21.32'
P116 (EP)	20'MPT'+15.02	21.03'
P117 (PI)	19'MPT'+63.67	20.64'

N

MATCH LINE

STA 16+00



LEGEND

XXXXX SAWCUT

PROPOSED INLET

+ZZZ.ZZ SPOT ELEVATION AT EDGE OF GUTTER

ZZZZ POINT CALLOUT AT FACE OF CURB (SEE PLAN DETAIL - GRADES SHEETS ZZ-ZZ)

R ZZ CURB RADIUS AT FACE OF CURB

SURFACE DRAINAGE DIRECTION

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN DETAILS - GRADES: MINERAL POINT RD.	SHEET 43	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\53W1293EN-GradesDetail#2.dgn PLOT DATE : 1/16/2015 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 39.9999 sf / in.

POINT	STATION	OFFSET
C012 (PC)	53'MDNB'+65.21	17.00'
C013 (MC)	53'MDNB'+47.75	24.10'
C014 (PC)	53'MDNB'+40.22	41.37'
C015 (PC)	53'MDNB'+17.16	36.63'
C016 (MC)	53'MDNB'+09.98	22.63'
C017 (PC)	52'MDNB'+95.28	17.00'
P108 (EP)	54'MDNB'+00.00	11.00'
P109 (EP)	54'MDNB'+91.15	17.13'
P110 (EP)	53'MDNB'+39.93	52.84'
P111 (EP)	53'MDNB'+18.63	50.24'

MINERAL POINT ROAD R/L

S MIDVALE BLVD SB R/L

S MIDVALE BLVD NB R/L

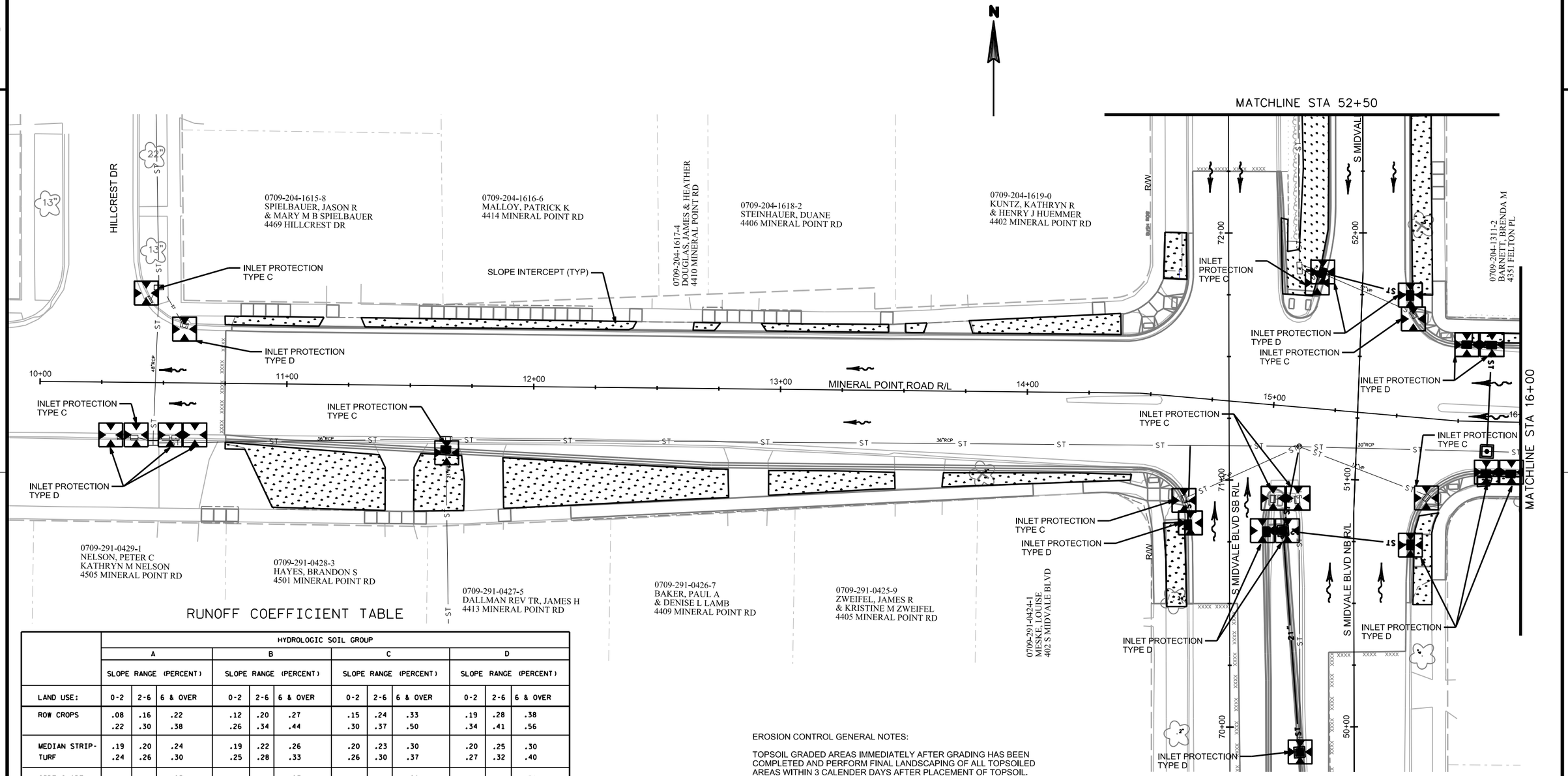
FELTON PL

LEGEND

- XXXXX — SAWCUT
- PROPOSED INLET
- +ZZZ.ZZ — SPOT ELEVATION AT EDGE OF GUTTER
- (ZZZZ) — POINT CALLOUT AT FACE OF CURB (SEE PLAN DETAIL - GRADES SHEETS ZZ-ZZ)
- R ZZ — CURB RADIUS AT CURB FLAG
- SURFACE DRAINAGE DIRECTION

PROJECT NO: 5992-06-64	HWY: S MIDVALE BLVD	COUNTY: DANE	PLAN DETAILS - GRADES: S. MIDVALE BLVD.	SHEET 44	E

2



RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 2.5 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.0 ACRES

EROSION CONTROL GENERAL NOTES:

TOPSOIL GRADED AREAS IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED AND PERFORM FINAL LANDSCAPING OF ALL TOPSOILED AREAS WITHIN 3 CALENDER DAYS AFTER PLACEMENT OF TOPSOIL.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

6" OF TERRACE SEEDING RESTORATION SHALL BE PERFORMED BEHIND REMOVED AND REPLACED CONCRETE SIDEWALK AS SHOWN ON PLANS OR AS DIRECTED BY ENGINEER.

WATER SHALL BE USED FOR DUST CONTROL. SEE MISCELLANEOUS QUANTITIES SHEETS FOR QUANTITY.

LEGEND

- TERRACE SEEDING AND EROSION MATTING
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EROSION CONTROL PLAN	SHEET 45	E

2

2

N

0709-204-1310-4
FRITSCHE, JOHN B
& RACHEL E GONZALEZ
4349 FELTON PL

0709-204-1309-7
BUNDERS, ERIC D
TERESA A BUNDERS
4345 FELTON PL

0709-204-1308-9
BEECHER, MATTHEW A
& JILL A SAKAI
4341 FELTON PL

0709-204-1307-1
COOK, MARSHALL
& DOROTHY
4337 FELTON PL

0709-204-1306-3
HOLLANDER, MICHAEL J
AMY L GUNDERSON
4333 FELTON PL

0709-204-1305-5
WEHRLE, CRAIG D
4329 FELTON PL

0709-204-1304-7
CAIN, LINNE F
4325 FELTON PL

0709-204-1303-9
SCHIENLE, JILL D
4321 FELTON PL

0709-204-1302-1
STEIN, SUSAN K
4317 FELTON PL

SLOPE INTERCEPT (TYP)

INLET PROTECTION
TYPE D

INLET PROTECTION
TYPE D

MATCHLINE STA 16+00

00

17+00

MINERAL POINT ROAD R/L

18+00

19+00

20+00

20+98

ST

30"RCP

ST

ST

ST

ST

ST

ST

ST

30"RCP

INLET PROTECTION
TYPE D

0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD

0709-291-0322-7
HOLMAN, TODD G
ANN MILLER HOLMAN
4345 MINERAL POINT RD

0709-291-0313-6
MATHER TRUST, PAMELA
4337 MINERAL PT RD

STORM SEWER ESMT

ST

ST

0709-291-0314-4
RIESELMAN, BRIAN J
& RICARDO A GONZALEZ
4330 CRITCHELL TERRACE

0709-291-0315-2
SMITH, RICHARD L
& KATHLEEN CANTWELL-SMITH
4326 CRITCHELL TER

0709-291-0316-0
ARMACANQUI, M EDGAR
& COLLEEN M ARMACANQUI
4322 CRITCHELL TER

LEGEND

TERRACE SEDDING AND EROSION MATTING

SLOPE INTERCEPT

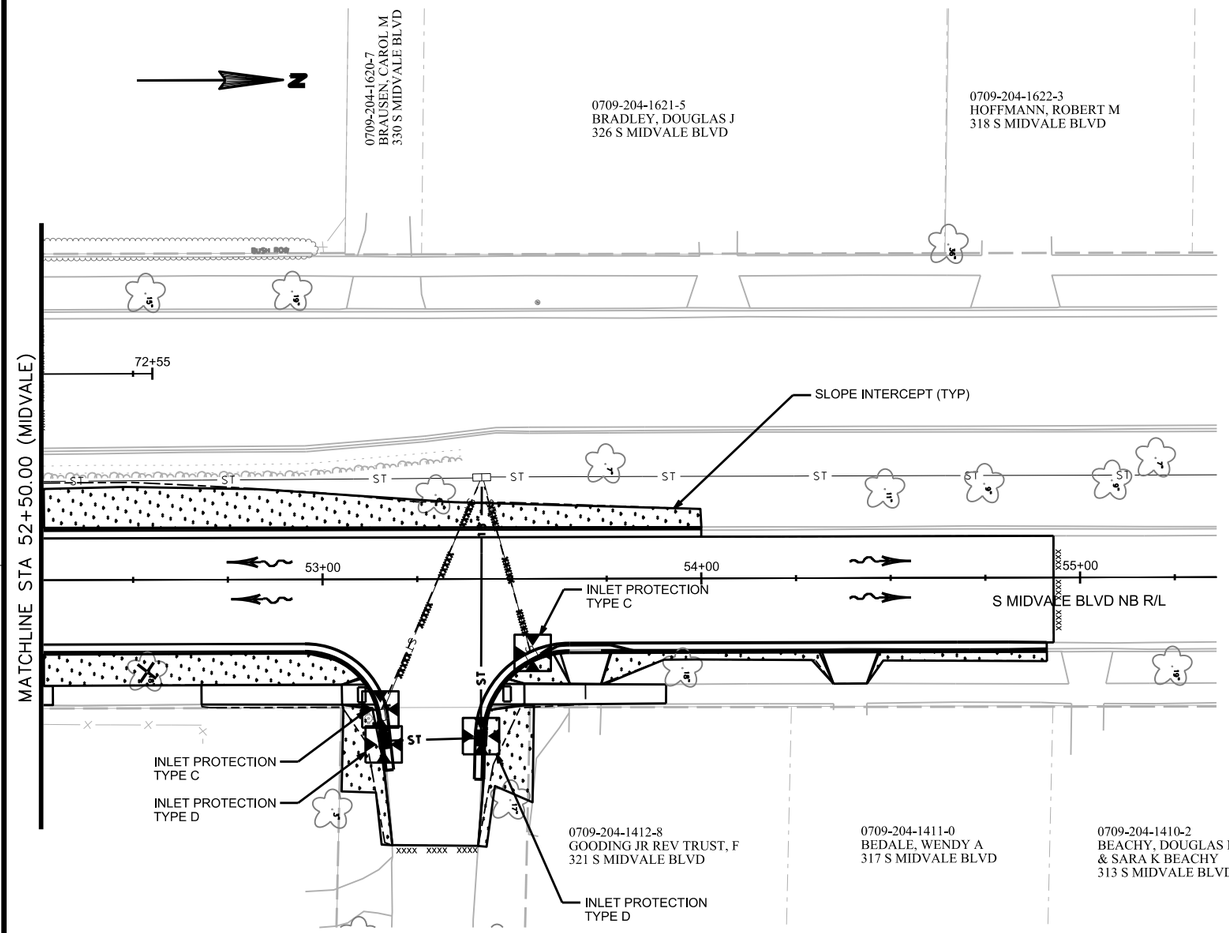
INLET PROTECTION

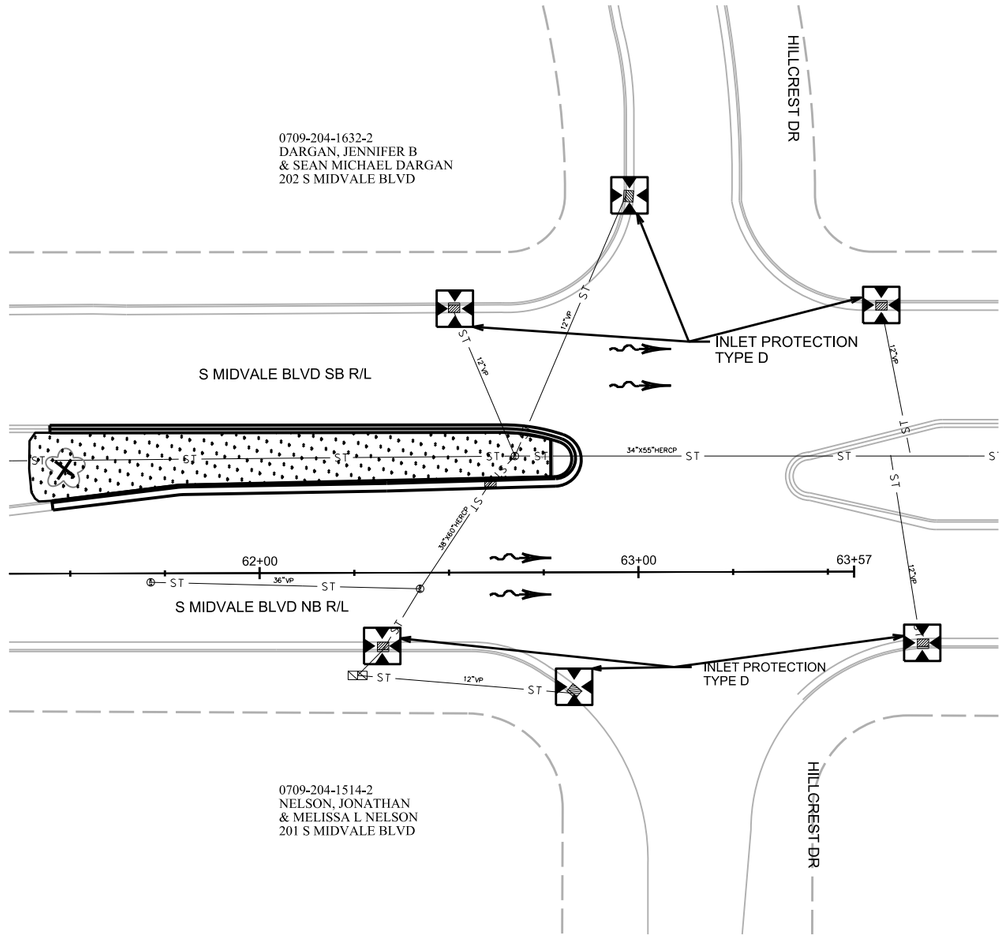
SURFACE WATER FLOW

PROJECT NO: 5992-06-64	HWY: E MINERAL POINT ROAD	COUNTY: DANE	EROSION CONTROL PLAN	SHEET 46	E

FILE NAME : M:\DESIGN\Projects\53W1293\Storm\Design\EC\53W1293EC-Plan Detail *2.dgn PLOT DATE : 1/14/2015 PLOT BY : eneld PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

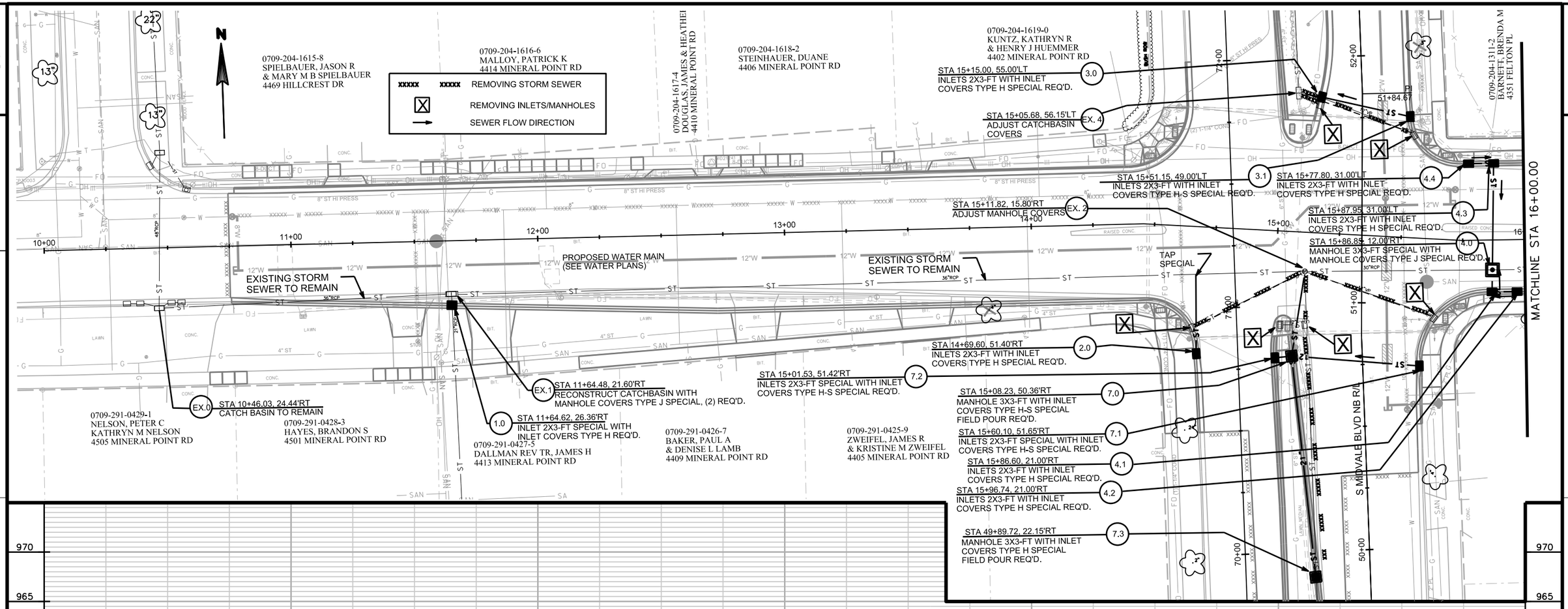


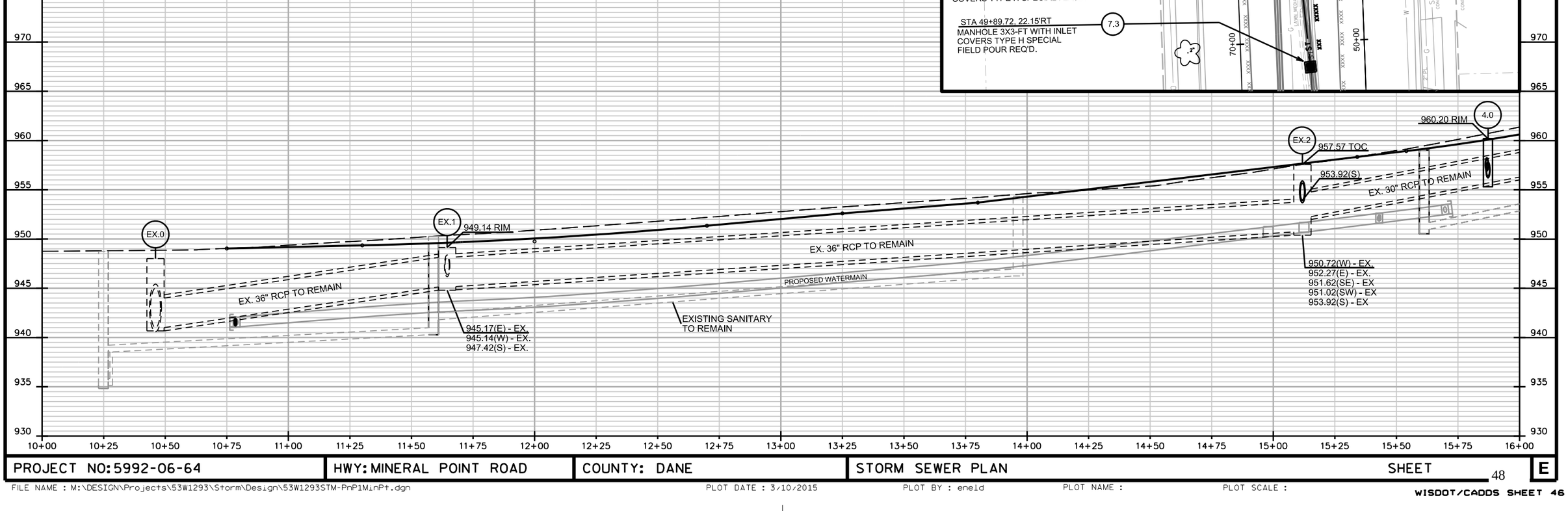


LEGEND

- TERRACE SEEDING AND EROSION MATTING
- SLOPE INTERCEPT
- INLET PROTECTION
- SURFACE WATER FLOW

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EROSION CONTROL PLAN	SHEET 47	E





PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	STORM SEWER PLAN	SHEET 48 E

0709-204-1310-4
FRITSCHE, JOHN B
& RACHEL E GONZALEZ
4349 FELTON PL

0709-204-1309-7
BUNDERS, ERIC D
TERESA A BUNDERS
4345 FELTON PL

0709-204-1308-9
BEECHER, MATTHEW A
& JILL A SAKAI
4341 FELTON PL

0709-204-1307-1
COOK, MARSHALL
& DOROTHY
4337 FELTON PL

0709-204-1306-3
HOLLANDER, MICHAEL J
AMY L GUNDERSON
4333 FELTON PL

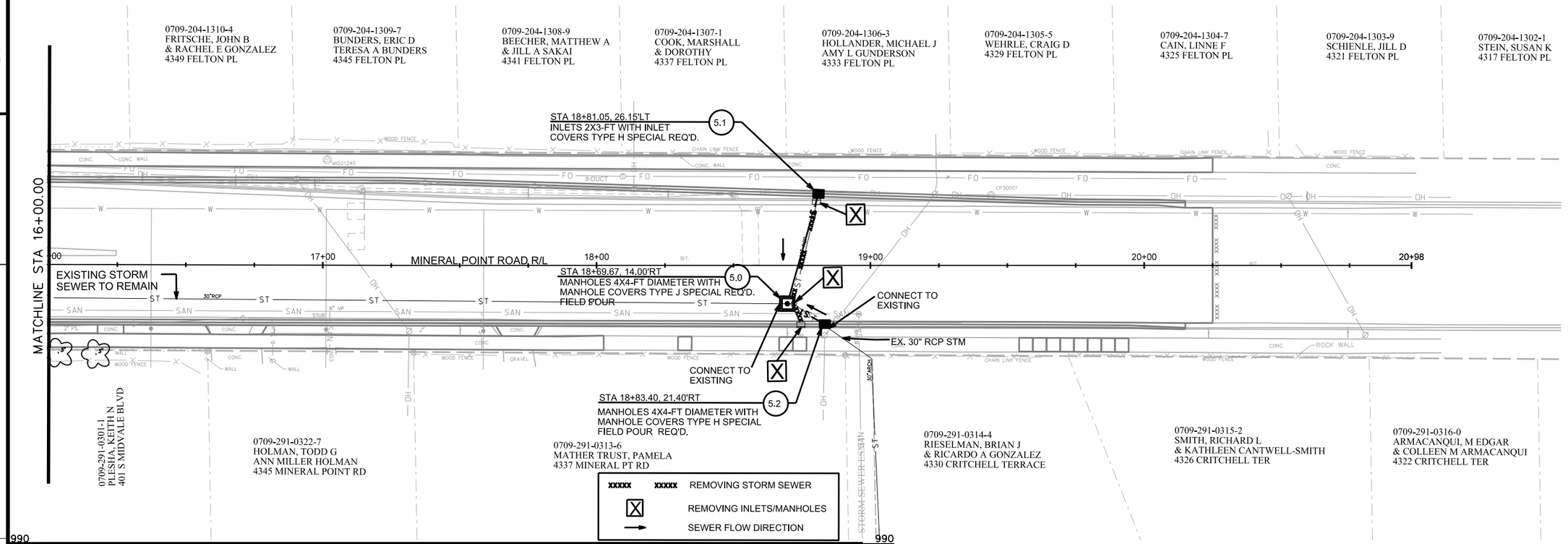
0709-204-1305-5
WEHRLE, CRAIG D
4329 FELTON PL

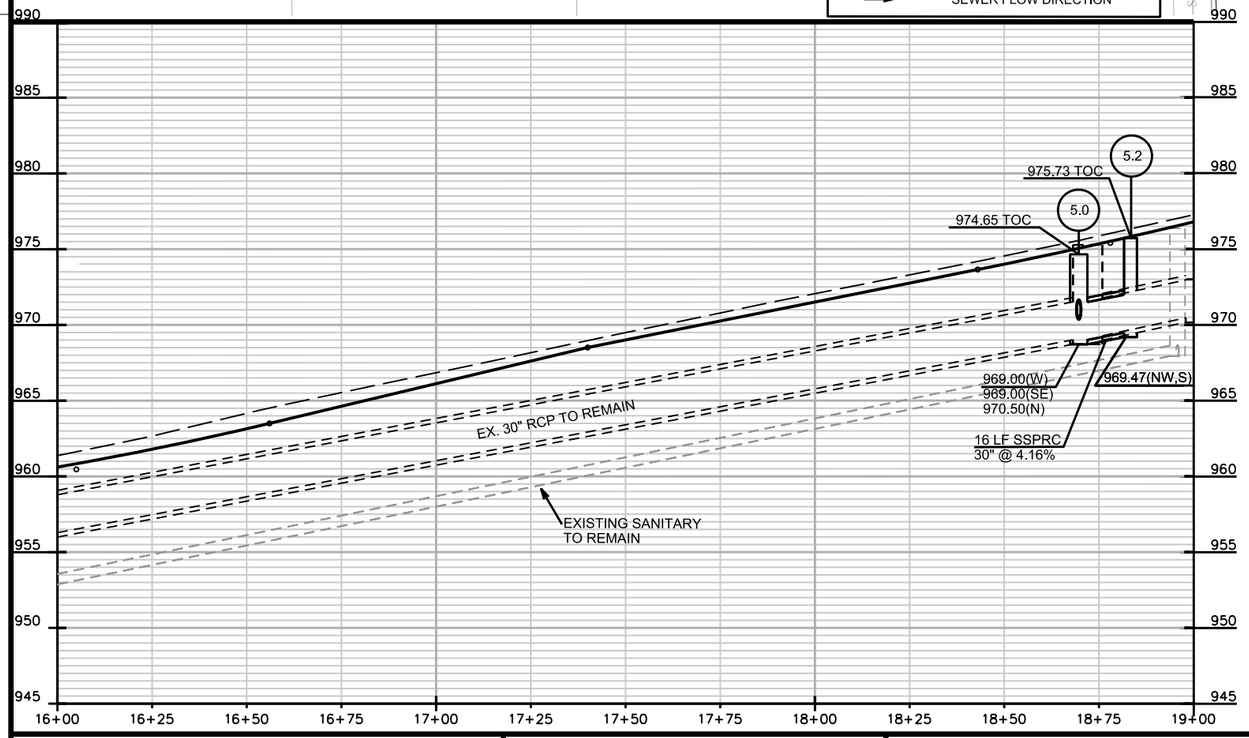
0709-204-1304-7
CAIN, LINNE F
4325 FELTON PL

0709-204-1303-9
SCHIENLE, JILL D
4321 FELTON PL

0709-204-1302-1
STEIN, SUSAN K
4317 FELTON PL

N





PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	STORM SEWER PLAN	SHEET 49	E

INLETS 2X3-FT WITH INLET COVERS TYPE H SPECIAL REQ'D 2.0

S MIDVALE BLVD SB R/L

ADJUST MANHOLE COVER EX.2

ADJUST CATCHBASIN EX.4

MANHOLE 3X3-FT WITH INLET COVERS TYPE H-S SPECIAL REQ'D 7.0

S MIDVALE BLVD NB R/L

SEE MINERAL POINT STORM SEWER PLAN FOR STRUCTURE LOCATION INFORMATION

EXISTING STORM SEWER TO REMAIN

EX. 5 STA 51+86.00, 25.65'LT EXISTING TO REMAIN

EXISTING STORM SEWER TO REMAIN

PROPOSED WATER MAIN (SEE WATER PLANS)

PROPOSED SANITARY SWERE (SEE SANITARY PLANS)

STA 53+16.30, 42.65'RT INLETS 2X3-FT WITH INLET COVERS TYPE H SPECIAL REQ'D. 6.1

6.0 STA 53+41.70, 42.00'RT INLETS 2X3-FT WITH INLET COVERS TYPE H SPECIAL REQ'D.

FELTON PL

0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD

0709-204-1311-2
BARNETT, BRENDA M
4351 FELTON PL

0709-204-1412-8
GOODING JR REV TRUST, F
321 S MIDVALE BLVD

0709-204-1411-0
BEDALE, WENDY A
317 S MIDVALE BLVD

0709-204-1410-2
BEACHY, DOUGLAS M
& SARA K BEACHY
313 S MIDVALE BLVD

0709-204-1409-5
HENRICHS, MARK A
309 S MIDVALE BLVD

S.MIDVALE BLVD - NB PROFILE

xxxxx xxxxx REMOVING STORM SEWER
REMOVING INLETS/MANHOLES
SEWER FLOW DIRECTION

7.0
957.89 TOC
90 LF SSPRC
21" @ 1.33%
954.23(S)
954.23(N)
954.98(E)
954.98(W)
35 LF SSPRC
21" @ 1.01%
EX.2
957.57 RIM
950.72(W) - EX.
952.27(E) - EX.
951.62(SE) - EX
953.92(S) - EX
951.02(SW) - EX
953.92(S)
957.60 RIM
EX.4
953.83(E) - PROP.
952.33(N) - EX.
EX. 18" VP TO REMAIN
PROPOSED WATERMAIN
EXISTING SANITARY TO REMAIN
957.59 TOC
EX.5
EX. FO (1.25") TOP=957.76
EX. FO (1.5") TOP=957.73
EX. FO (2") TOP=957.72
EX. FO (1") TOP=957.68
954.21(E) - PROP
951.57(S) - EX.
951.16(N) - EX.
EX. 18" VP TO REMAIN

980 975 970 965 960 955 950 945 940

50+00 50+25 50+50 50+75 51+00 51+25 51+50 51+75 52+00 52+25 52+50 52+75 53+00 53+25 53+50 53+75 54+00 54+25 54+42

S. MIDVALE BLVD SB PROFILE

2.0
956.00 TOC
951.23 (N)
32 LF SSPRC
12" @ 5.00%
949.70 TAP
VERIFY

960 955 950 945 940

70+50 70+75 71+00 71+25 71+50

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	STORM SEWER PLAN	SHEET E

FILE NAME : M:\DESIGN\Projects\53W1293\Storm\Design\53W1293STM-PnP1MidNB.dgn PLOT DATE : 1/14/2015 PLOT BY : eneld PLOT NAME : _____ PLOT SCALE : 40.0000 sf / in.

2

N

0709-204-1632-2
DARGAN, JENNIFER B
& SEAN MICHAEL DARGAN
202 S MIDVALE BLVD

HILLCREST DR

EX. 7 STA 62+67.50, 30.75'LT
ADJUST MANHOLE COVERS

EX. 6 STA 62+61.00, 23.90'LT
ADJUST INLET COVERS

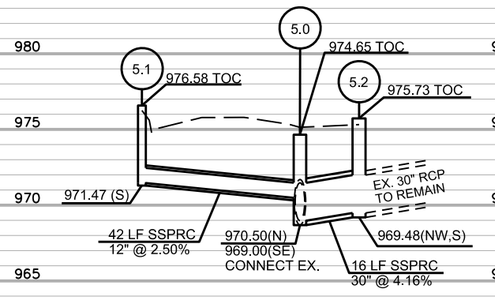
59+00 60+00 61+00 62+00 63+00 63+57

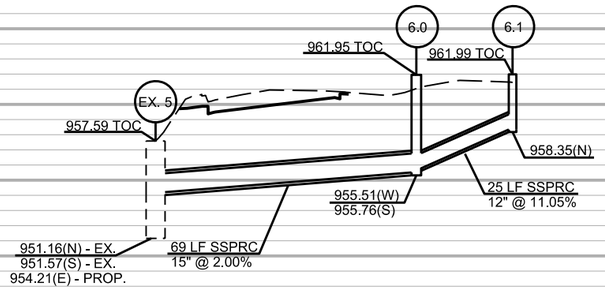
S MIDVALE BLVD NB R/L

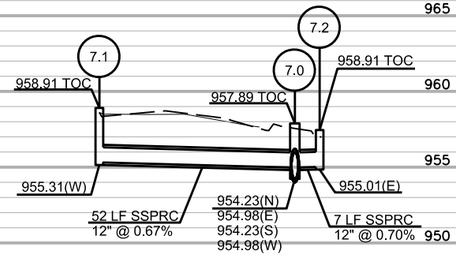
0709-204-1514-2
NELSON, JONATHAN
& MELISSA L NELSON
201 S MIDVALE BLVD

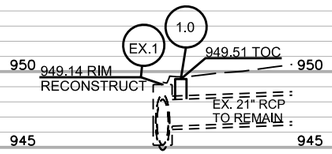
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	STORM SEWER PLAN	SHEET 51	E

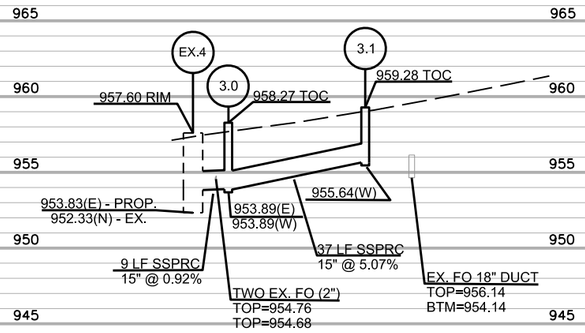
FILE NAME : M:\DESIGN\Projects\53W1293\Storm\Design\53W1293STM-PnP2MidNB.dgn PLOT DATE : 1/14/2015 PLOT BY : eneld PLOT NAME : PLOT SCALE : 40.0000 sf / in.

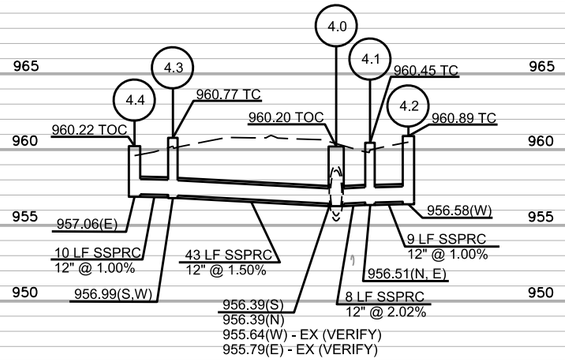

980
975
970
965
5.0
974.65 TOC
5.1
976.58 TOC
5.2
975.73 TOC
971.47 (S)
EX. 30" RCP
TO REMAIN
42 LF SSPRC
12" @ 2.50%
970.50(N)
969.00(SE)
CONNECT EX.
969.48(NW,S)
16 LF SSPRC
30" @ 4.16%


965
960
955
950
6.0
6.1
961.95 TOC
961.99 TOC
EX. 5
957.59 TOC
958.35(N)
955.51(W)
955.76(S)
25 LF SSPRC
12" @ 11.05%
951.16(N) - EX.
951.57(S) - EX.
954.21(E) - PROP.
69 LF SSPRC
15" @ 2.00%


965
960
955
950
7.1
7.2
7.0
958.91 TOC
958.91 TOC
957.89 TOC
955.31(W)
52 LF SSPRC
12" @ 0.67%
954.23(N)
954.98(E)
954.23(S)
954.98(W)
955.01(E)
7 LF SSPRC
12" @ 0.70%


950
945
EX.1
1.0
949.51 TOC
949.14 RIM
RECONSTRUCT
EX. 21" RCP
TO REMAIN


965
960
955
950
945
EX.4
3.0
3.1
957.60 RIM
958.27 TOC
959.28 TOC
953.83(E) - PROP.
952.33(N) - EX.
953.89(E)
953.89(W)
955.64(W)
9 LF SSPRC
15" @ 0.92%
37 LF SSPRC
15" @ 5.07%
EX. FO 18" DUCT
TOP=956.14
BTM=954.14
TWO EX. FO (2")
TOP=954.76
TOP=954.68


965
960
955
950
4.0
4.1
4.3
4.4
4.2
960.45 TC
960.77 TC
960.20 TOC
960.22 TOC
960.89 TC
957.06(E)
956.58(W)
9 LF SSPRC
12" @ 1.00%
10 LF SSPRC
12" @ 1.00%
43 LF SSPRC
12" @ 1.50%
956.51(N, E)
956.99(S,W)
956.39(S)
956.39(N)
955.64(W) - EX (VERIFY)
955.79(E) - EX (VERIFY)
8 LF SSPRC
12" @ 2.02%

2

N

0709-204-1615-8
SPIELBAUER, JASON R
& MARY M B SPIELBAUER
4469 HILLCREST DR

0709-204-1616-6
MALLOY, PATRICK K
4414 MINERAL POINT RD

0709-204-1617-4
DOUGLAS, JAMES & HEATHI
4410 MINERAL POINT RD

0709-204-1618-2
STEINHAUER, DUANE
4406 MINERAL POINT RD

0709-204-1619-0
KUNTZ, KATHRYN R
& HENRY J HUEMMER
4402 MINERAL POINT RD

0709-204-1311-2
BARNETT, BRENDA
4351 FELTON PL

HILLCREST DR

EX. 10" VP SAN

EX. SAS
3756-001

EX. 8" VP SAN

REM.EX. SAS
3756-002

SAS#3

EX. 8" VP SAN

MINERAL POINT ROAD R/L

PROPOSED WATER
SEE WATER PLAN

EX. 8" VP SAN

EX. SAS
3756-003

ADJ.RIM
REPLACE
CASTING

EX. SAS
3756-004

ADJ. SAS
SPECIAL

EX. 8" VP SAN

PROPOSED WATER
SEE WATER PLAN

PI
50+84.87

EX. 8" VP SAN

REM.EX.SAS
3756-015

SAS#1

EX. 8" VP SAN

PI
50+86.61

S MIDVALE BLVD SB R/L

S MIDVALE BLVD NB R/L

EX. 8" VP SAN

MATCHLINE STA 16+00.00

0709-291-0429-1
NELSON, PETER C
KATHRYN M NELSON
4505 MINERAL POINT RD

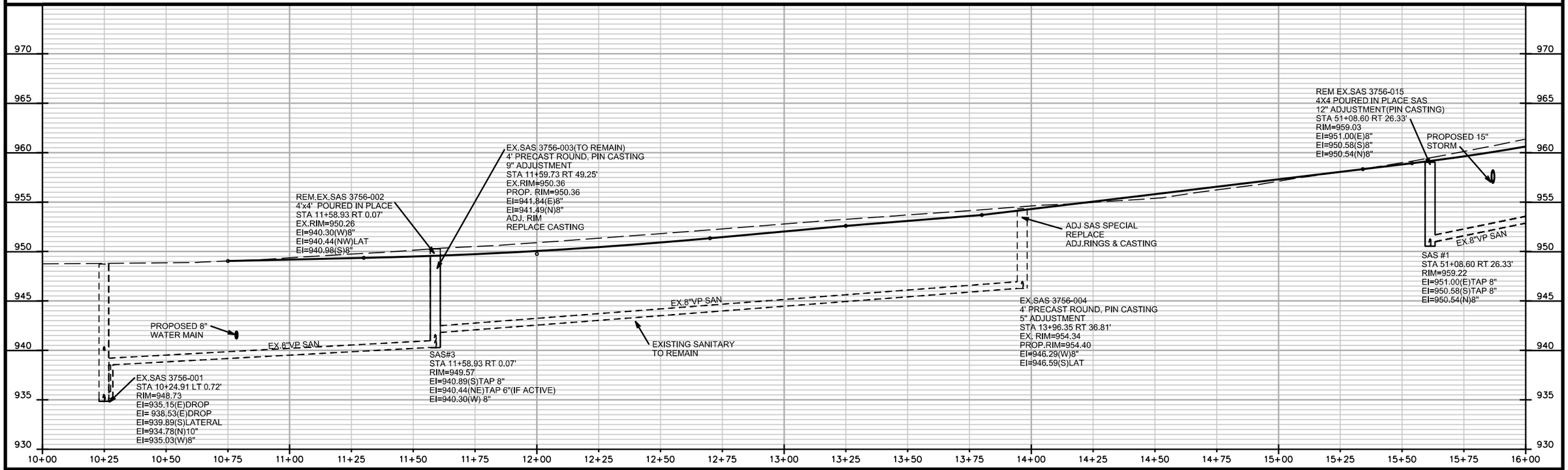
0709-291-0428-3
HAYES, BRANDON S
4501 MINERAL POINT RD

0709-291-0427-5
DALLMAN REV TR, JAMES H
4413 MINERAL POINT RD

0709-291-0426-7
BAKER, PAUL A
& DENISE L LAMB
4409 MINERAL POINT RD

0709-291-0425-9
ZWEIFEL, JAMES R
& KRISTINE M ZWEIFEL
4405 MINERAL POINT RD

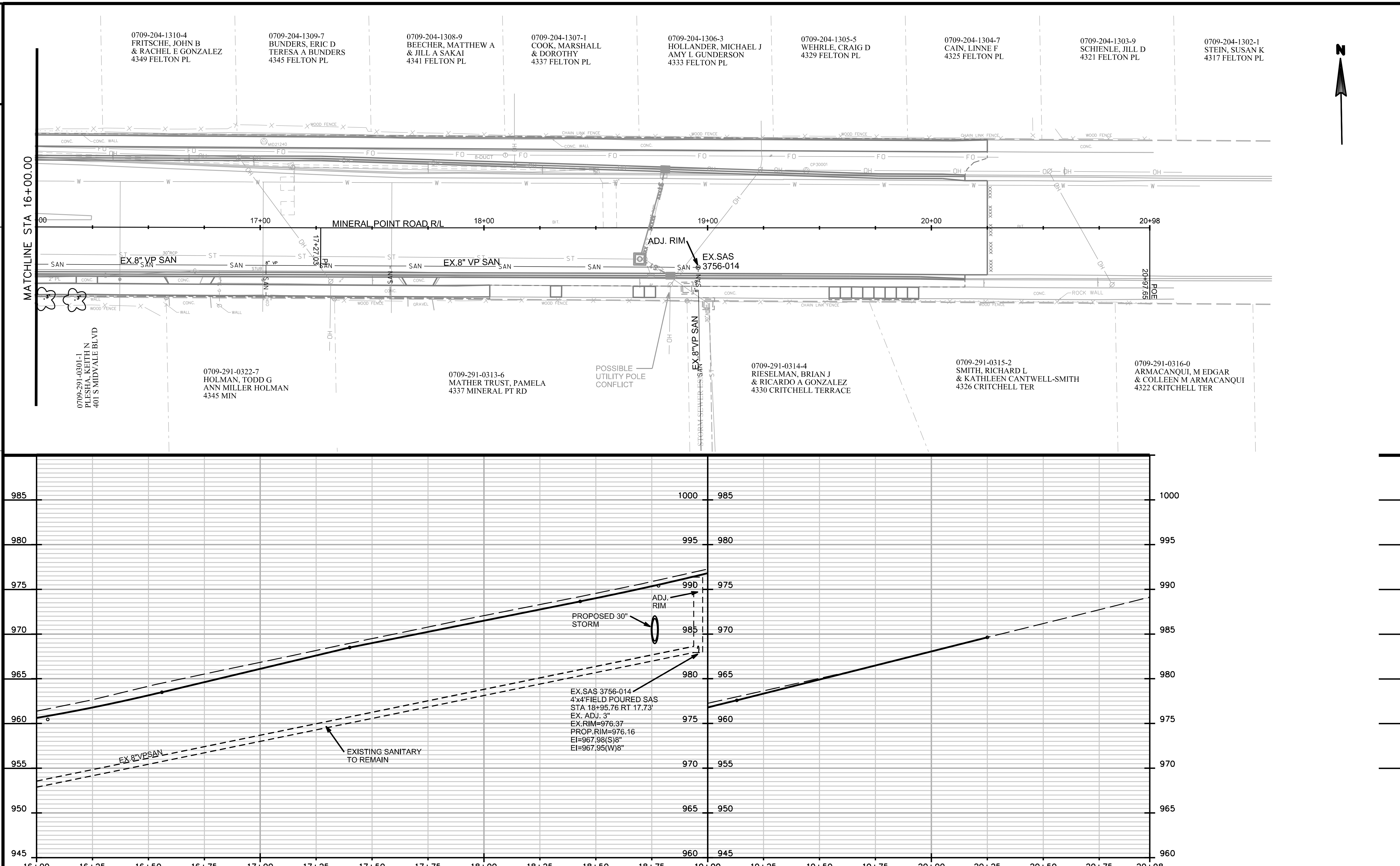
0709-291-0424-1
MESKE, LOUISE
402 S MIDVALE BLVD



PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	SANITARY SEWER PLAN- MINERAL POINT ROAD	SHEET E

FILE NAME : M:\DESIGN\Projects\53W1293\Sanitary\Design\53W1293SAN-PnP1MinPt.dgn PLOT DATE : 1/21/2015 PLOT BY : enmdm PLOT NAME : _____ PLOT SCALE : 39.9999 sf / in.

WISDOT/CADDS SHEET 46


2
2
N
MATCHLINE STA 16+00.00
0709-204-1310-4
FRITSCHE, JOHN B
& RACHEL E GONZALEZ
4349 FELTON PL
0709-204-1309-7
BUNDERS, ERIC D
TERESA A BUNDERS
4345 FELTON PL
0709-204-1308-9
BEECHER, MATTHEW A
& JILL A SAKAI
4341 FELTON PL
0709-204-1307-1
COOK, MARSHALL
& DOROTHY
4337 FELTON PL
0709-204-1306-3
HOLLANDER, MICHAEL J
AMY L GUNDERSON
4333 FELTON PL
0709-204-1305-5
WEHRLE, CRAIG D
4329 FELTON PL
0709-204-1304-7
CAIN, LINNE F
4325 FELTON PL
0709-204-1303-9
SCHIENLE, JILL D
4321 FELTON PL
0709-204-1302-1
STEIN, SUSAN K
4317 FELTON PL
MINERAL POINT ROAD R/L
17+00
18+00
19+00
20+00
20+98
17+27.03
EX.8" VP SAN
EX.8" VP SAN
ADJ. RIM
EX.SAS
3756-014
20+97.65
POE
EX.8"VP SAN
POSSIBLE
UTILITY POLE
CONFLICT
STORM SEWER
0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD
0709-291-0322-7
HOLMAN, TODD G
ANN MILLER HOLMAN
4345 MIN
0709-291-0313-6
MATHER TRUST, PAMELA
4337 MINERAL PT RD
0709-291-0314-4
RIESELMAN, BRIAN J
& RICARDO A GONZALEZ
4330 CRITCHELL TERRACE
0709-291-0315-2
SMITH, RICHARD L
& KATHLEEN CANTWELL-SMITH
4326 CRITCHELL TER
0709-291-0316-0
ARMACANQUI, M EDGAR
& COLLEEN M ARMACANQUI
4322 CRITCHELL TER
ADJ.
RIM
PROPOSED 30"
STORM
EX.SAS 3756-014
4'x4'FIELD POURED SAS
STA 18+95.76 RT 17.73'
EX. ADJ. 3"
EX.RIM=976.37
PROP.RIM=976.16
EI=967.98(S)8"
EI=967.95(W)8"
EX 8"VPSAN
EXISTING SANITARY
TO REMAIN
985
980
975
970
965
960
955
950
945
1000
995
990
985
980
975
970
965
960
16+00
16+25
16+50
16+75
17+00
17+25
17+50
17+75
18+00
18+25
18+50
18+75
19+00
19+25
19+50
19+75
20+00
20+25
20+50
20+75
20+98

PROJECT NO:5992-06-74	HWY:MINERAL POINT ROAD	COUNTY: DANE	MINERAL POINT ROAD SANITARY SEWER PLAN	SHEET 54	E

FILE NAME : M:\DESIGN\Projects\53W1293\Sanitary\Design\53W1293SAN-PnP2MinPt.dgn PLOT DATE : 1/21/2015 PLOT BY : enmdm PLOT NAME : PLOT SCALE : 39.9999 sf / in.

WISDOT/CADDS SHEET 46

2

70+00 71+00 72+00 72+55

S MIDVALE BLVD SB R/L

72+55.11 POE

PROPOSED WATER (SEE WATER PLAN)

14+45.56 PI

15+00

50+00 S MIDVALE BLVD NB R/L 51+00 52+00 S MIDVALE BLVD NB R/L 53+00 54+00 55+00 56-

50+96.61 PI

51+84.67 PI

PROPOSED WATER-SEE WATER PLAN

15+74.47 PI

16+00

SAS#1

EX.8" VP SAN

REM.EX.SAS 3756-015

SAS #2

6"-7'@6.00%

EX.SAS 3755-013 ADJ RIM

EX.SAS 3755-009

EX.8" VP SAN

EX.SAS 3755-014

ABAN.EX.8" VP SAN

PLUG PIPE (TYP.)

EXTEND LATERALS TO LOWER SEWER (WEST SEWER)

EXTEND LATERALS TO LOWER SEWER (WEST SEWER)

PLUG PIPE (TYP.)PAID

EX. SAS 3755-010

REMOVE EX. SAS #3755-012 INSTALL COMPRESSION COUPLING

EX.6" VP SAN@6.00%

MINERAL POINT RD

FELTON PL

0709-291-0301-1
PLESHA, KEITH N
401 S MIDVALE BLVD

0709-204-1311-2
BARNETT, BRENDA M
4351 FELTON PL

0709-204-1412-8
GOODING JR REV TRUST, F
321 S MIDVALE BLVD

0709-204-1411-0
BEDALE, WENDY A
317 S MIDVALE BLVD

0709-204-1410-2
BEACHY, DOUGLAS M
& SARA K BEACHY
313 S MIDVALE BLVD

0709-204-1409-5
HENRICHS, MARK A
309 S MIDVALE BLVD

CONTRACTOR SHALL REM & REP SIDEWALK & CURB AS NEEDED FOR LATERALS (MAX. OF 4 SW SQUARES PER LATERAL & 20 FEET OF CURB & GUTTER)

REM.EX.SAS 3756-015
(4'x4' SAS)
EX. ADJ. 12"
STA 51+08.60 RT 26.33'
EX.RIM=959.03
EI=951.00(E)8"
EI=950.58(S)8"
EI=950.54(N)8"

PROPOSED 12" WATER MAIN

EX.8"VP SAN

SAS #1
STA 51+08.60 RT 26.33'
RIM=959.22
EI=951.00(E)TAP (8")
EI=950.58(S)TAP (8")
EI=950.54(N) 8"

EXISTING SANITARY TO REMAIN

REM.EX.SAS #3755-012
4X4 POURED IN PLACE
EX. ADJ. 3"
STA 53+06.17 RT 30.05'
RIM=961.75
EI=957.35(N)8"
EI=957.55(E)6"

EX.SAS 3755-013
4x4 POURED IN PLACE
EX. ADJ= 10"
STA 53+47.52 RT 22.72'
EX.RIM=960.44
PROP.RIM=960.36
EI=949.62(S)8"
EI=949.62(N)8"

PROPOSED 15" STORM

ADJ.RIM

CONSTRUCT INSIDE DROP(6") (SEE DETAIL)

PROPOSED 12" WATER MAIN

EX.8"VP SAN

SAS#2
(5' DIA.SAS, FLAT TOP, OFFSET CASTING BEHIND CURB)
STA 53+06.21 RT 28'
RIM=961.20
EI=949.78(S)TAP 8"
EI=949.76(N)8"
EI=957.13(E)TAP 6" DROP
EI=950.09(E)6" DROP

ABAN.EX.8"VP SAN

EX.8"VP SAN

EXISTING SANITARY TO REMAIN(WEST SEWER MAIN)

EX.SAS 3755-010
4x4 CAST IN PLACE
EX. ADJ. 22"
STA 55+95.07 RT 30.87'
EX.RIM=952.01
EI=945.61(S)8"
EI=949.97(SW)8"
EI=945.61(N) 8"
EI=946.09(E)LAT

EX.SAS #3755-014(SAVE)
STA 55+84.86 RT 23.04'
RIM=952.00
EI=946.04(S)8"
EI=946.04(NE)8"

980 975 970 965 960 955 950 945 940

50+00 50+25 50+50 50+75 51+00 51+25 51+50 51+75 52+00 52+25 52+50 52+75 53+00 53+25 53+50 53+75 54+00 54+25 54+50 54+75 55+00 55+25 55+50 55+75 56+00

6"-7'@ 6.00%

6"-7'@6.00%

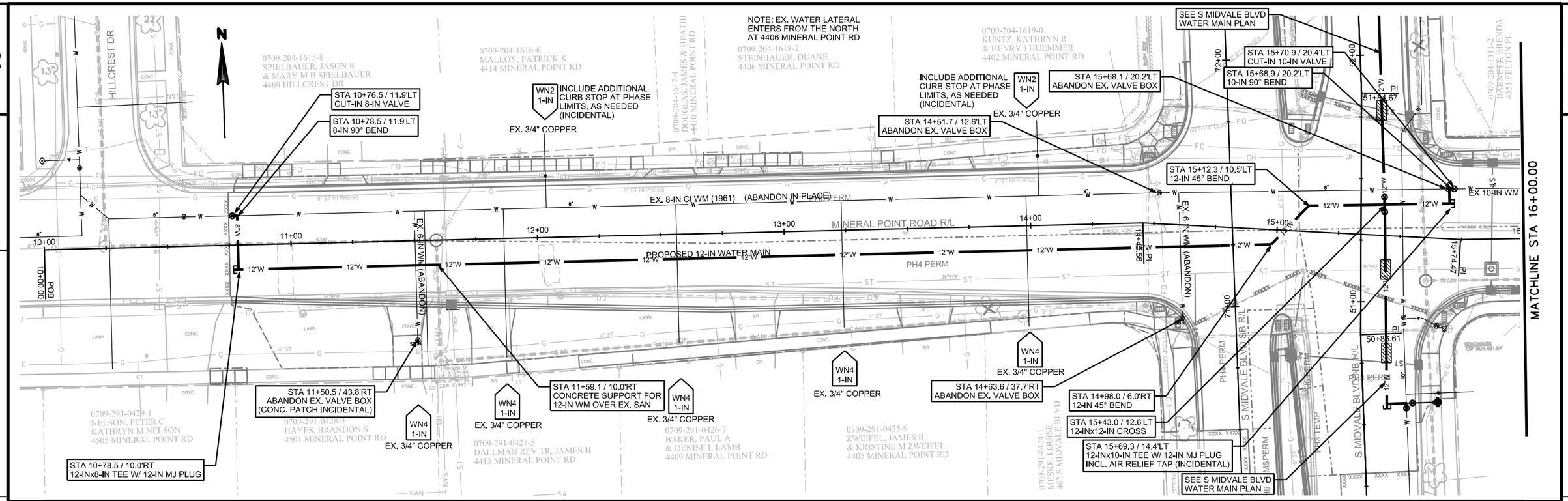
REM.EX.SAS #3755-012
4X4 POURED IN PLACE
STA 53+06.17 RT 30.05'
RIM=961.75
EI=957.35(N)8"
EI=957.55(E)6"

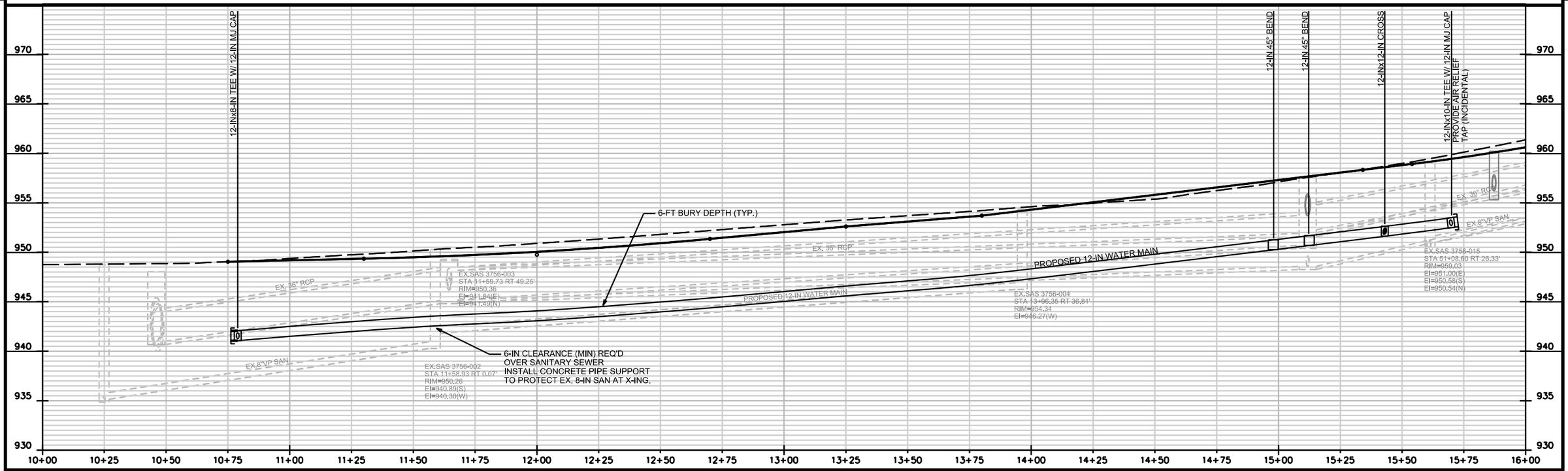
SAS#2 (5'DIA.)
STA 53+06.21 RT 28'
(INSTALL OFFSET CASTING)
RIM=961.20
EI=949.78(S)8", EI=949.76(N)8"
EI=957.13(E)6"(INSIDE)
EI=950.09(E)6"(DROP)

960 955 950 945

FELTON PLACE

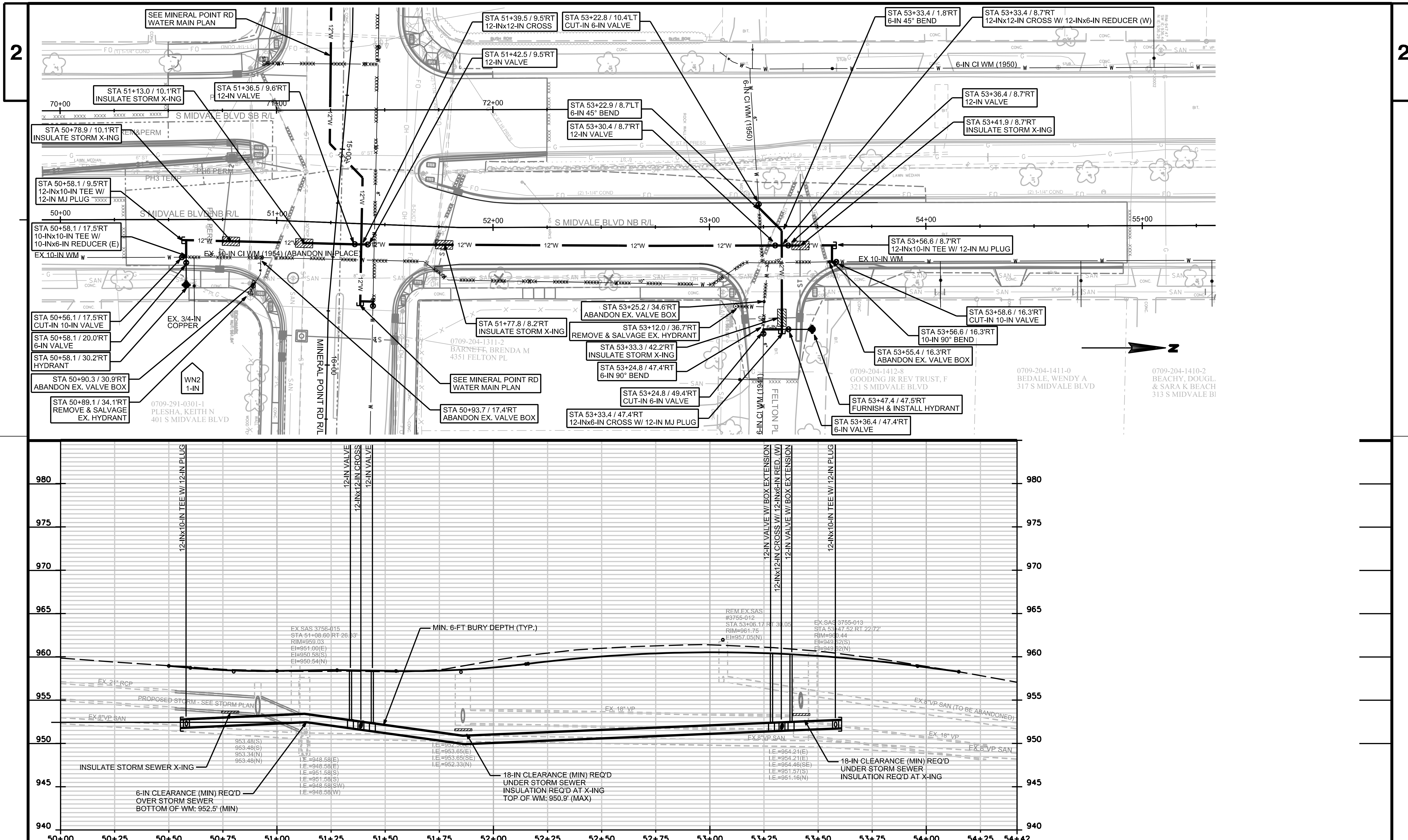
PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	SANITARY SEWER PLAN - N. MIDVALE BLVD. NB	SHEET 55 E





PROJECT NO: 5992-06-74	HWY: MINERAL POINT ROAD	COUNTY: DANE	WATER MAIN PLAN	SHEET E

FILE NAME : M:\DESIGN\Projects\53W1293\Water\Design\53W1293WU-PnP1MinPt.dgn PLOT DATE : 11/14/2014 PLOT BY : wuarw PLOT NAME : _____ PLOT SCALE : 39.9999 sf / in.



2
SEE MINERAL POINT RD WATER MAIN PLAN
STA 51+39.5 / 9.5'RT 12-INx12-IN CROSS
STA 53+22.8 / 10.4'LT CUT-IN 6-IN VALVE
STA 53+33.4 / 1.8'RT 6-IN 45° BEND
STA 53+33.4 / 8.7'RT 12-INx12-IN CROSS W/ 12-INx6-IN REDUCER (W)
STA 51+42.5 / 9.5'RT 12-IN VALVE
STA 51+13.0 / 10.1'RT INSULATE STORM X-ING
STA 51+36.5 / 9.6'RT 12-IN VALVE
STA 53+22.9 / 8.7'LT 6-IN 45° BEND
STA 53+30.4 / 8.7'RT 12-IN VALVE
STA 53+36.4 / 8.7'RT 12-IN VALVE
STA 53+41.9 / 8.7'RT INSULATE STORM X-ING
STA 50+78.9 / 10.1'RT INSULATE STORM X-ING
STA 50+58.1 / 9.5'RT 12-INx10-IN TEE W/ 12-IN MJ PLUG
STA 50+58.1 / 17.5'RT 10-INx10-IN TEE W/ 10-INx6-IN REDUCER (E)
EX. 10-IN CI WM (1954) (ABANDON IN PLACE)
EX 10-IN WM
STA 53+56.6 / 8.7'RT 12-INx10-IN TEE W/ 12-IN MJ PLUG
EX 10-IN WM
6-IN CI WM (1950)
S MIDVALE BLVD SB R/L
S MIDVALE BLVD NB R/L
70+00
71+00
72+00
50+00
51+00
52+00
53+00
54+00
55+00
STA 50+56.1 / 17.5'RT CUT-IN 10-IN VALVE
STA 50+58.1 / 20.0'RT 6-IN VALVE
STA 50+58.1 / 30.2'RT HYDRANT
STA 50+90.3 / 30.9'RT ABANDON EX. VALVE BOX
STA 50+89.1 / 34.1'RT REMOVE & SALVAGE EX. HYDRANT
EX. 3/4-IN COPPER
WN2 1-IN
STA 51+77.8 / 8.2'RT INSULATE STORM X-ING
SEE MINERAL POINT RD WATER MAIN PLAN
STA 50+93.7 / 17.4'RT ABANDON EX. VALVE BOX
STA 53+25.2 / 34.6'RT ABANDON EX. VALVE BOX
STA 53+12.0 / 36.7'RT REMOVE & SALVAGE EX. HYDRANT
STA 53+33.3 / 42.2'RT INSULATE STORM X-ING
STA 53+24.8 / 47.4'RT 6-IN 90° BEND
STA 53+24.8 / 49.4'RT CUT-IN 6-IN VALVE
STA 53+33.4 / 47.4'RT 12-INx6-IN CROSS W/ 12-IN MJ PLUG
STA 53+58.6 / 16.3'RT CUT-IN 10-IN VALVE
STA 53+56.6 / 16.3'RT 10-IN 90° BEND
STA 53+55.4 / 16.3'RT ABANDON EX. VALVE BOX
STA 53+47.4 / 47.5'RT FURNISH & INSTALL HYDRANT
STA 53+36.4 / 47.4'RT 6-IN VALVE
MINERAL POINT RD R/L
FELTON PL
0709-291-0301-1 PLESHA, KEITH N 401 S MIDVALE BLVD
0709-204-1311-2 BARNETT, BRENDA M 4351 FELTON PL
0709-204-1412-8 GOODING JR REV TRUST, F 321 S MIDVALE BLVD
0709-204-1411-0 BEDALE, WENDY A 317 S MIDVALE BLVD
0709-204-1410-2 BEACHY, DOUGL. & SARA K BEACH 313 S MIDVALE B
N
12-INx10-IN TEE W/ 12-IN PLUG
12-IN VALVE
12-INx12-IN CROSS
12-IN VALVE
12-IN VALVE W/ BOX EXTENSION
12-INx12-IN CROSS W/ 12-INx6-IN RED. (W)
12-IN VALVE W/ BOX EXTENSION
12-INx10-IN TEE W/ 12-IN PLUG
MIN. 6-FT BURY DEPTH (TYP.)
INSULATE STORM SEWER X-ING
6-IN CLEARANCE (MIN) REQ'D OVER STORM SEWER BOTTOM OF WM: 952.5' (MIN)
18-IN CLEARANCE (MIN) REQ'D UNDER STORM SEWER INSULATION REQ'D AT X-ING TOP OF WM: 950.9' (MAX)
18-IN CLEARANCE (MIN) REQ'D UNDER STORM SEWER INSULATION REQ'D AT X-ING
940
945
950
955
960
965
970
975
980
50+00
50+25
50+50
50+75
51+00
51+25
51+50
51+75
52+00
52+25
52+50
52+75
53+00
53+25
53+50
53+75
54+00
54+25
54+42

PROJECT NO:5992-06-74	HWY:SOUTH MIDVALE BLVD (NB)	COUNTY: DANE	WATER MAIN PLAN	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Water\Design\53W1293WU-PnP1Mid.dgn PLOT DATE : 11/14/2014 PLOT BY : wuarw PLOT NAME : PLOT SCALE : 39.9999 sf / in.

WISDOT/CADDS SHEET 46

2

2

MINERAL POINT ROAD

MINERAL POINT ROAD

SOUTH MIDVALE BOULEVARD

FELTON PLACE

BOULEVARD

1-01 R3-8M ONLY ONLY

1-02 R8-NS-1L NO STOPPING STANDING OR PARKING

1-03 R8-NS-1R NO STOPPING STANDING OR PARKING

1-04 S4-51 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT

1-05 R8-NS-1 NO STOPPING STANDING OR PARKING

1-06 R8-NS-1 NO STOPPING STANDING OR PARKING

1-07 R2-1 SPEED LIMIT 30

2-01 BUS STOP

2-02 Mineral Point Rd D3-1

2-03 S Midvale Blvd D3-1

2-04 Mineral Point Rd D3-1

2-05 S Midvale Blvd D3-1

2-06 BUS STOP

2-07 Midvale Blvd D3-1

2-08 Felton Pl D3-1

2-11 NO TURN ON RED

2-12 WHEN CROSSING GUARD PRESENT

2-13 NO TURN ON RED

2-14 WHEN CROSSING GUARD PRESENT

1-08 R3-4

1-09 R4-7

1-10 R3-4

1-11 R4-7

2-15 NO TURN ON RED

2-16 WHEN CROSSING GUARD PRESENT

1-12 TRUCK ROUTE R14-1

1-13 R12-1L

1-14 R8-NS-1L NO STOPPING STANDING OR PARKING

1-15 R8-NS-1R NO STOPPING STANDING OR PARKING

1-22 R7-NP-7R NO PARKING HERE TO CORNER

1-23 R2-1 SPEED LIMIT 30

1-24 R2-1 SPEED LIMIT 30

1-25 R6-2R ONE WAY

1-26 R1-1 STOP

PROJECT NO: 5992-06-64	HWY: MINERAL POINT RD	COUNTY: DANE	PERMANENT SIGNING	SHEET 58	E

2

2

FALLES COURT

PLACE

TRUCK ROUTE
R14-1
1-12

1-13
R14-1BL

NO STOPPING STANDING OR PARKING
R8-NS-1L
1-14

NO STOPPING STANDING OR PARKING 4 PM-6:30 PM EX SAT SUN & LEG HOL TOW AWAY ZONE
R8-NS-3tz
1-16

1-18
SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
S4-51

1-19
S1-1

1-21
ONLY ONLY
R3-8M

MINERAL POINT ROAD

MINERAL POINT ROAD

NO STOPPING STANDING OR PARKING
R8-NS-1R
1-15

NO STOPPING STANDING OR PARKING 7 AM - 8:30 AM EX SAT SUN & CITY HOL TOW AWAY ZONE
R8-NS-4tz
1-17

SPEED LIMIT 30
R2-1
1-20

PROJECT NO: 5992-06-64	HWY: MINERAL POINT RD	COUNTY: DANE	PERMANENT SIGNING	SHEET 59	E

2

MATCH LINE 52+75

MIDVALE BLVD

72+55

72+00

52+00

CONNECT TO EXISTING LOOP DETECTOR CONDUITS LEADING TO THE NORTH

CCB1

SL6431A

HH21

L20

HH23

L19

HH22

TS2

HH25

L21

L22

HH24

CONNECT TO EXISTING INTERCONNECT CONDUIT TO THE NORTH

TS3

HH4

L6

L7

HH7

TS9

TS4

HH16

HH17

HH19

L16

L17

L12

L13

14+00

15+00

16+00

17+00

L4

L5

MATCH LINE 13+50

FO

HH5

HH6

SL6430A

TS8

FO

71+00

51+00

TS7

HH9

L10

SL6428A

HH8

HH14

HH11

L8

L9

HH12

L11

FO

TS5

TS6

SL6429A

HH15

HH18

L14

L15

MINERAL POINT ROAD

MATCH LINE 18+00

PED PUSH BUTTON NEEDED

CONNECT TO EXISTING LOOP DETECTOR CONDUIT LEADING TO THE SOUTH

MATCH LINE 50+00

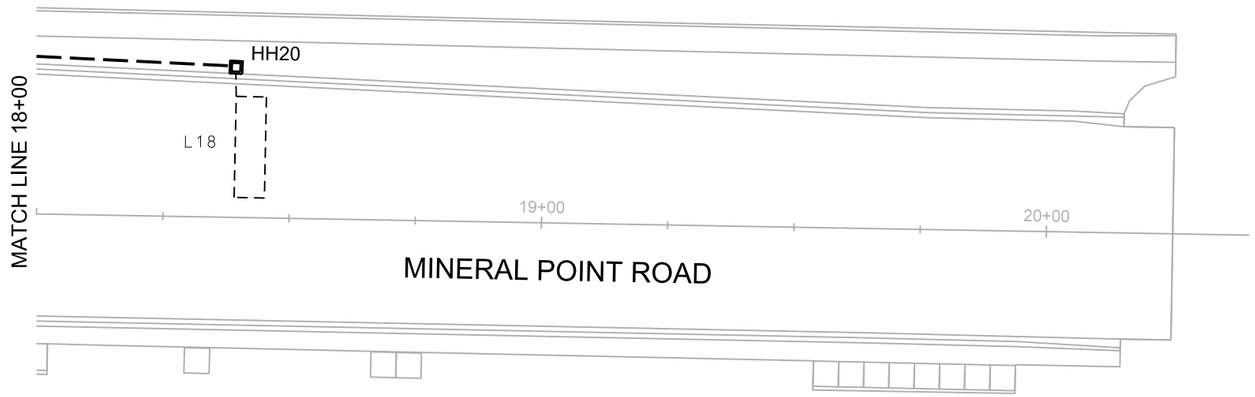
LEGEND

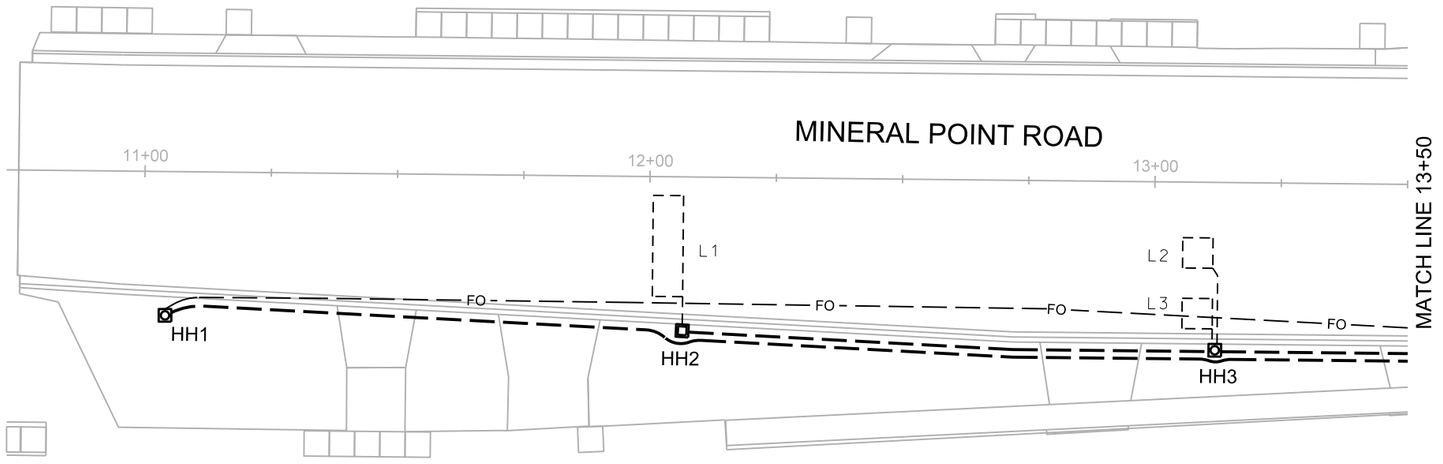
- LB TYPE (X) CONCRETE BASE
- TYPE-G CONCRETE BASE
- TYPE-(M or P) CONCRETE BASE
- TRAFFIC SIGNAL HEAD
- ELECTRICAL PULL BOX TYPE 1
- ELECTRIAL PULL BOX TYPE 3
- ELECTRICAL PULL BOX TYPE 5
- ELECTRICAL PULL BOX TYPE 7
- ELECTRIC UTILIY ACCESS STRUCTURE
- LOOP DETECTORS
- CONDUITS FOR TRAFFIC SIGNALS/COMMUNICATIONS
- PEDESTRIAN SIGNAL
- FO — EXISTING COMMUNICATION FIBER OPTIC

THE EXISTING FIBER OPTIC CONDUIT MUST REMAIN IN PLACE AND UNDISTURBED UNTIL THE THE NEW CONDUIT IS INTALLED AND FROM HH1 TO HH11 TO HH13 AND CITY CREWS HAVE RE-ROUTED THE FIBER OPTIC CABLE THROUGH THE NEW CONDUITS. AFTER THIS NEW CONDUIT AND NEW HANDHOLES HH11 AND HH13 HAVE BEEN INSTALLED CITY CREWS WILL REROUTE THE FIBER AND MAKE CONNECTIONS WITHIN 7 CALENDAR DAYS.

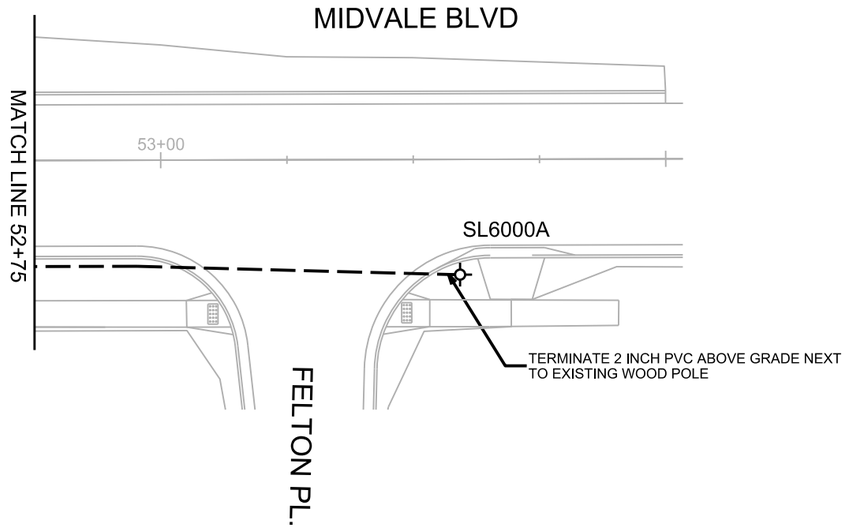
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 60 E

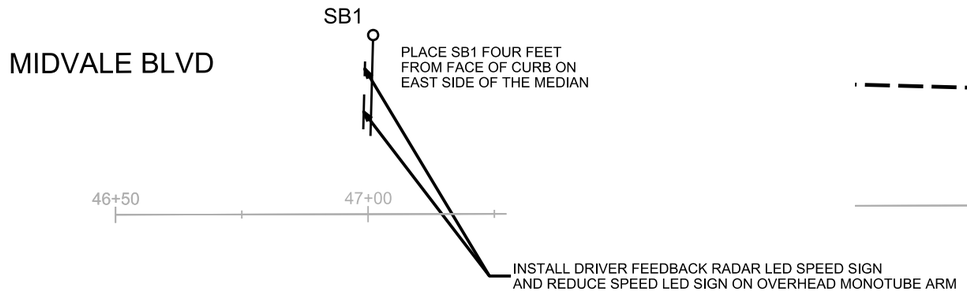
2

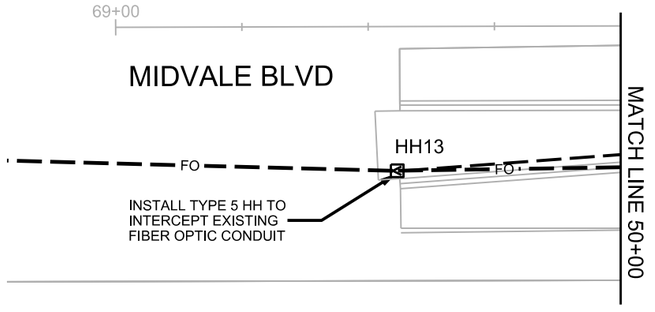




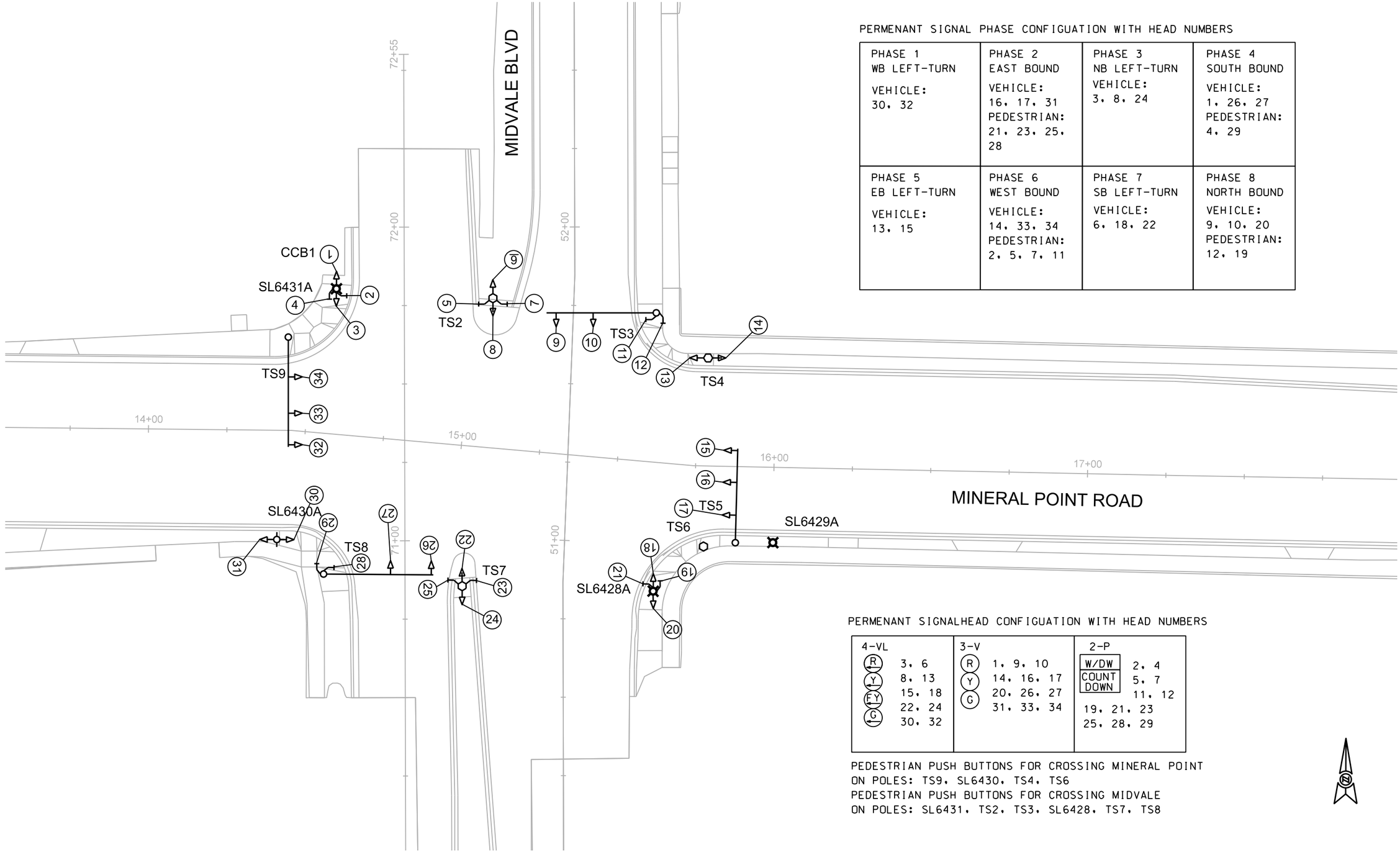
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 61 E







PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 62 E



PERMENANT SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 1 WB LEFT-TURN VEHICLE: 30, 32	PHASE 2 EAST BOUND VEHICLE: 16, 17, 31 PEDESTRIAN: 21, 23, 25, 28	PHASE 3 NB LEFT-TURN VEHICLE: 3, 8, 24	PHASE 4 SOUTH BOUND VEHICLE: 1, 26, 27 PEDESTRIAN: 4, 29
PHASE 5 EB LEFT-TURN VEHICLE: 13, 15	PHASE 6 WEST BOUND VEHICLE: 14, 33, 34 PEDESTRIAN: 2, 5, 7, 11	PHASE 7 SB LEFT-TURN VEHICLE: 6, 18, 22	PHASE 8 NORTH BOUND VEHICLE: 9, 10, 20 PEDESTRIAN: 12, 19

PERMENANT SIGNALHEAD CONFIGUATION WITH HEAD NUMBERS

4-VL	3-V	2-P
R 3, 6 Y 8, 13 FY 15, 18 G 22, 24 30, 32	R 1, 9, 10 Y 14, 16, 17 G 20, 26, 27 31, 33, 34	W/DW COUNT DOWN 2, 4 5, 7 11, 12 19, 21, 23 25, 28, 29

PEDESTRIAN PUSH BUTTONS FOR CROSSING MINERAL POINT
ON POLES: TS9, SL6430, TS4, TS6
PEDESTRIAN PUSH BUTTONS FOR CROSSING MIDVALE
ON POLES: SL6431, TS2, TS3, SL6428, TS7, TS8

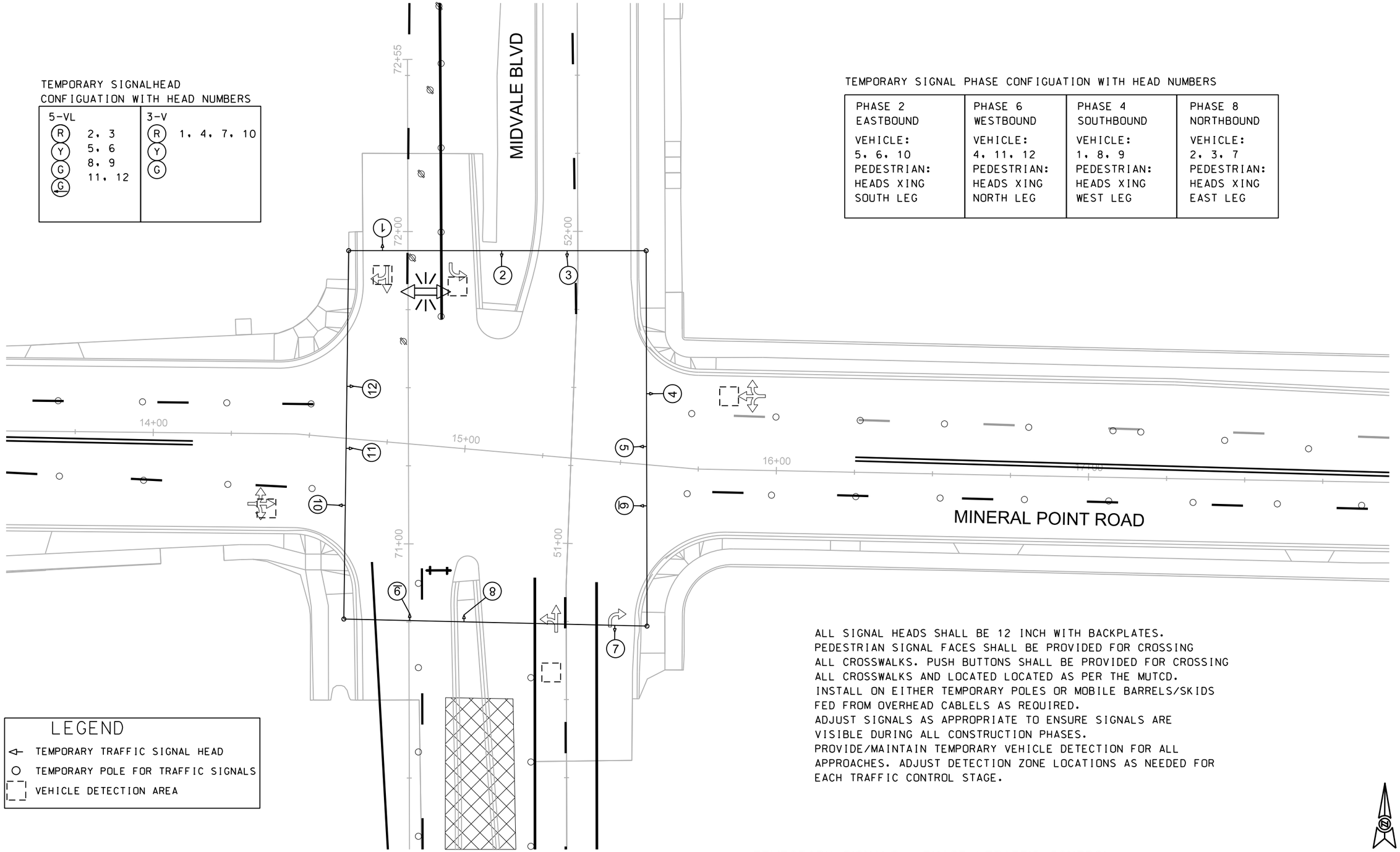
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-PERMANENT TRAFFIC SIGNALS	SHEET 63 E

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL		3-V	
R	2, 3	R	1, 4, 7, 10
Y	5, 6	Y	
G	8, 9	G	
G	11, 12		

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10 PEDESTRIAN: HEADS XING SOUTH LEG	VEHICLE: 4, 11, 12 PEDESTRIAN: HEADS XING NORTH LEG	VEHICLE: 1, 8, 9 PEDESTRIAN: HEADS XING WEST LEG	VEHICLE: 2, 3, 7 PEDESTRIAN: HEADS XING EAST LEG



LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA

ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 1 TRAFFIC CONTROL

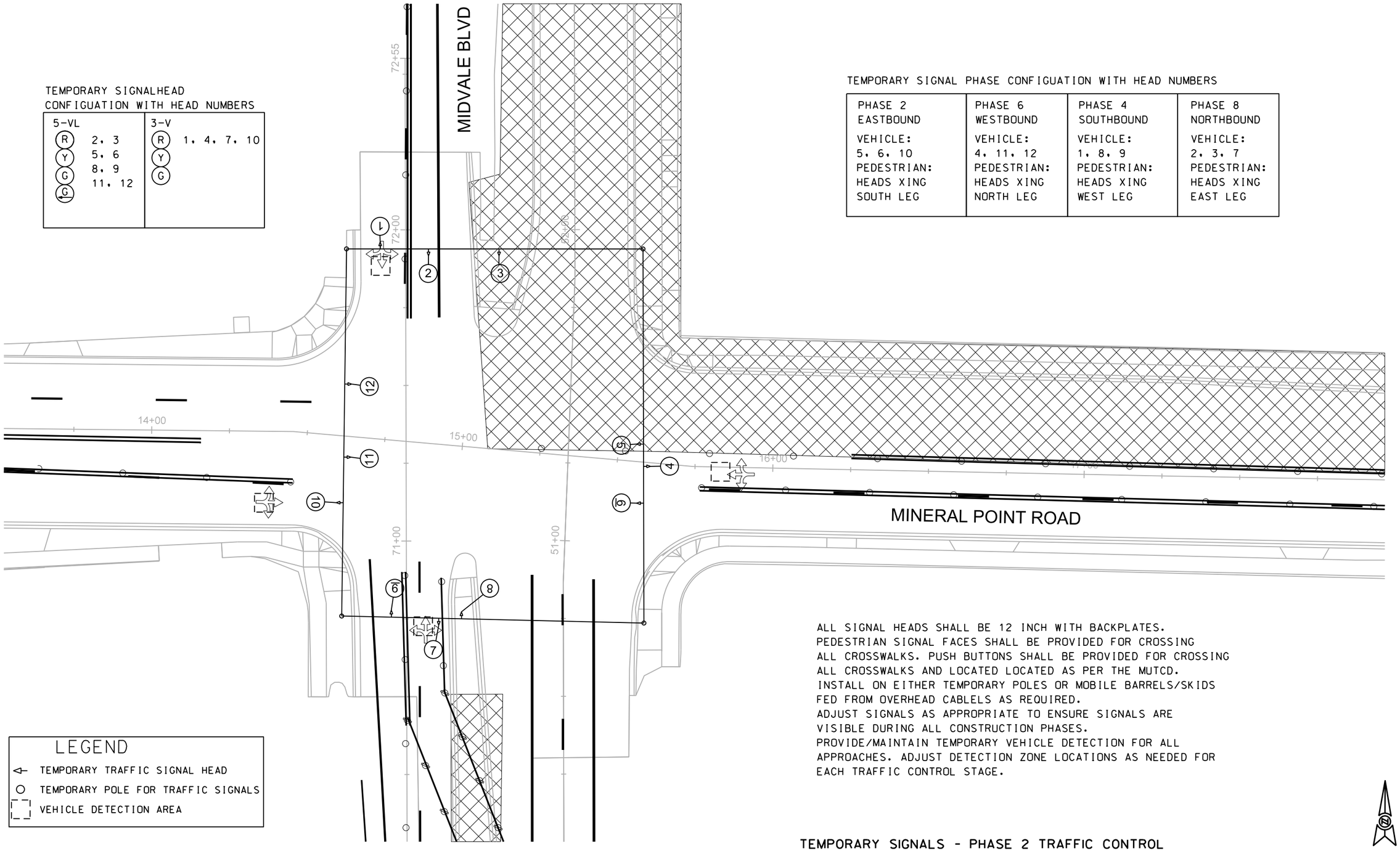
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET 64 E

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL	3-V
R 2, 3 Y 5, 6 G 8, 9 G 11, 12	R 1, 4, 7, 10 Y G

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10 PEDESTRIAN: HEADS XING SOUTH LEG	VEHICLE: 4, 11, 12 PEDESTRIAN: HEADS XING NORTH LEG	VEHICLE: 1, 8, 9 PEDESTRIAN: HEADS XING WEST LEG	VEHICLE: 2, 3, 7 PEDESTRIAN: HEADS XING EAST LEG



LEGEND
- TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA

ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 2 TRAFFIC CONTROL

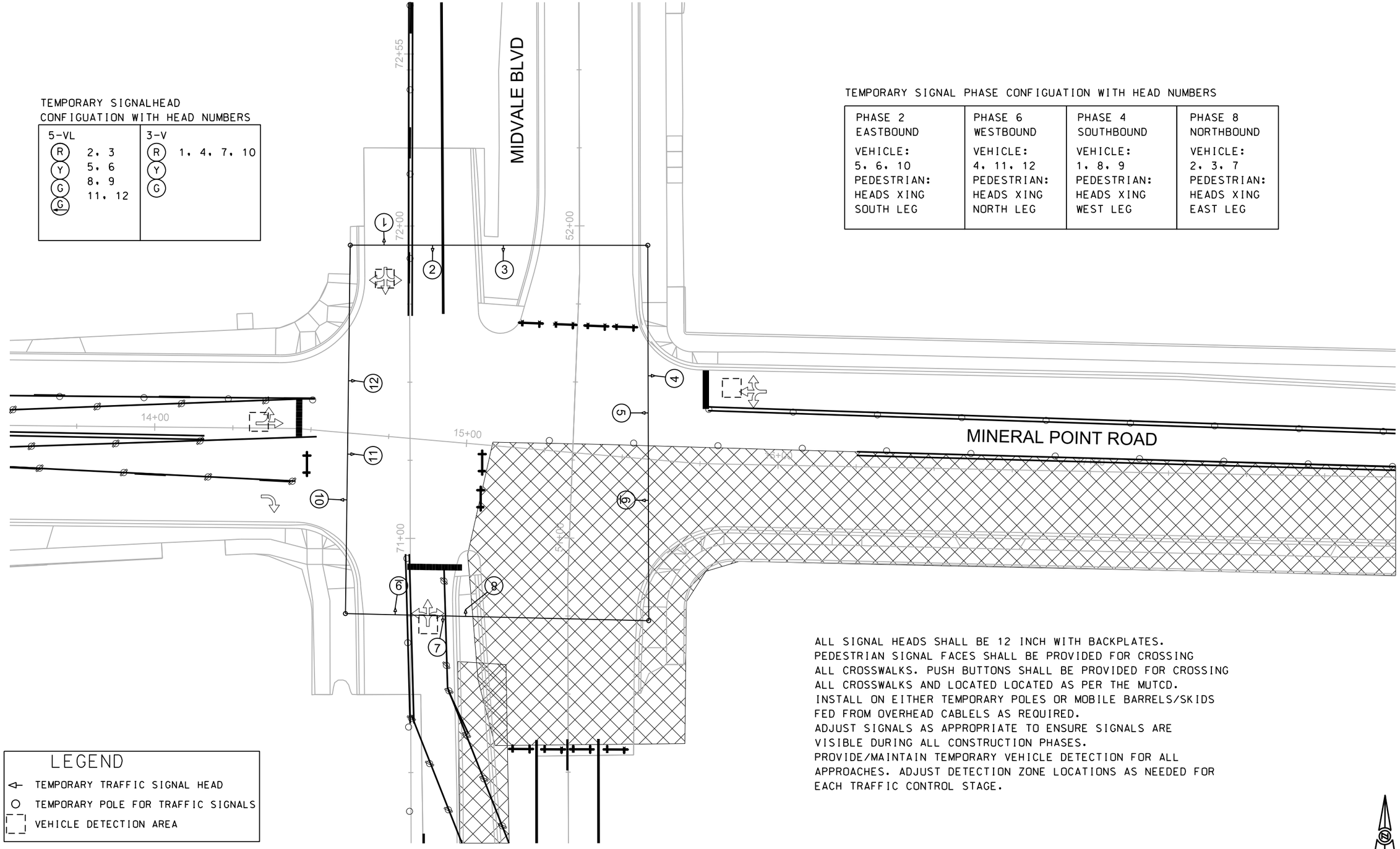
PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY:DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET 65 E

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL		3-V	
R	2, 3	R	1, 4, 7, 10
Y	5, 6	Y	
G	8, 9	G	
G	11, 12		

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10	VEHICLE: 4, 11, 12	VEHICLE: 1, 8, 9	VEHICLE: 2, 3, 7
PEDESTRIAN: HEADS XING SOUTH LEG	PEDESTRIAN: HEADS XING NORTH LEG	PEDESTRIAN: HEADS XING WEST LEG	PEDESTRIAN: HEADS XING EAST LEG



LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA

ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 3 & 3B TRAFFIC CONTROL

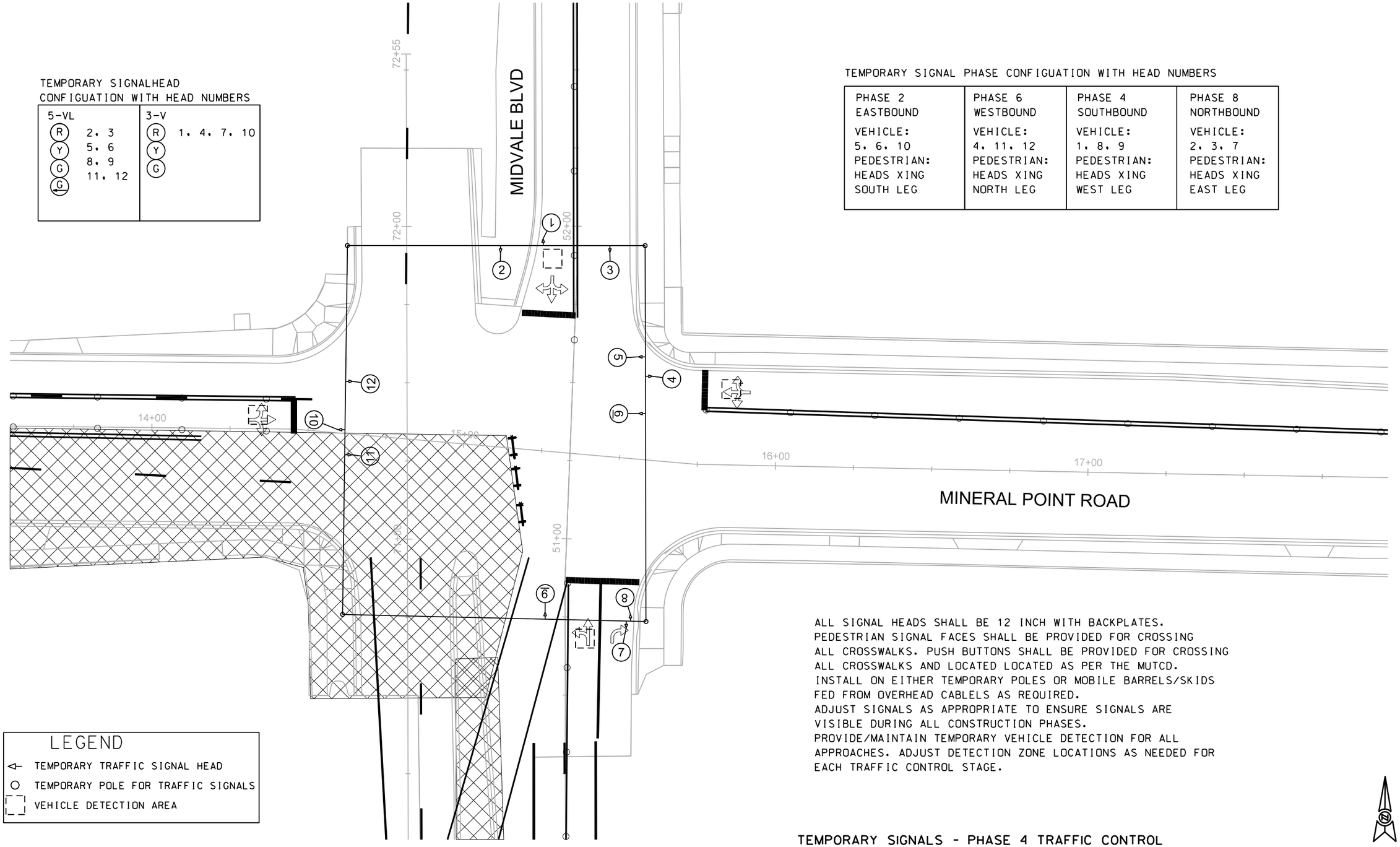
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET E

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL	3-V
R 2, 3 Y 5, 6 G 8, 9 G 11, 12	R 1, 4, 7, 10 Y G

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10 PEDESTRIAN: HEADS XING SOUTH LEG	VEHICLE: 4, 11, 12 PEDESTRIAN: HEADS XING NORTH LEG	VEHICLE: 1, 8, 9 PEDESTRIAN: HEADS XING WEST LEG	VEHICLE: 2, 3, 7 PEDESTRIAN: HEADS XING EAST LEG



LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA

ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 4 TRAFFIC CONTROL

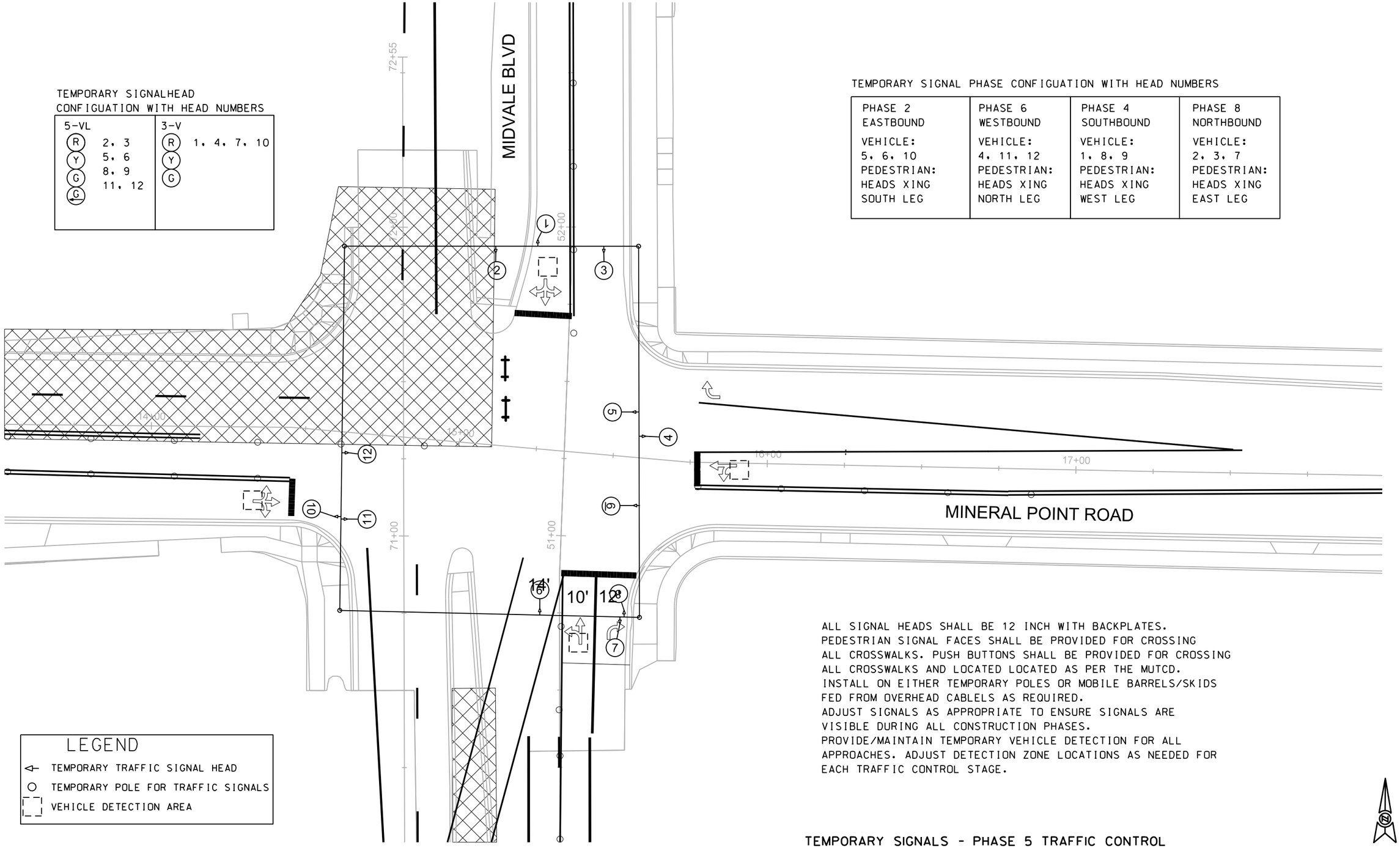
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET 67 E

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL	3-V
R 2, 3 Y 5, 6 G 8, 9 G 11, 12	R 1, 4, 7, 10 Y G

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10 PEDESTRIAN: HEADS XING SOUTH LEG	VEHICLE: 4, 11, 12 PEDESTRIAN: HEADS XING NORTH LEG	VEHICLE: 1, 8, 9 PEDESTRIAN: HEADS XING WEST LEG	VEHICLE: 2, 3, 7 PEDESTRIAN: HEADS XING EAST LEG



LEGEND
- TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA

ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 5 TRAFFIC CONTROL

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET E

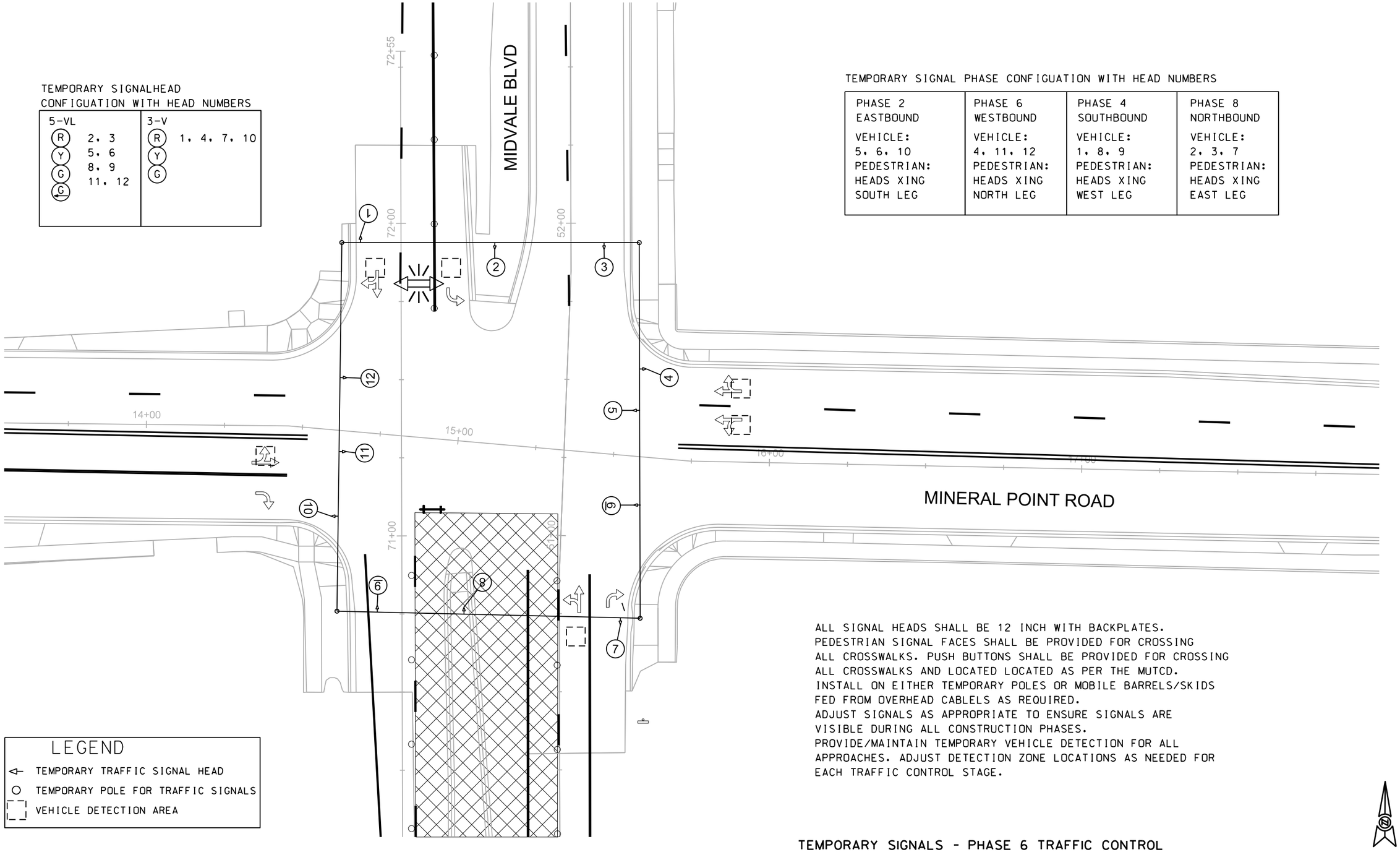
FILE NAME : M:\DESIGN\Projects\53W1293\Traffic\Design\53W1293TE-Electrical-2d 11-30 test.dgn PLOT DATE : 12/1/2014 PLOT BY : tnbjs PLOT NAME : _____ PLOT SCALE : 30.0000 sf / in.
WISDOT/CADDS SHEET 44

TEMPORARY SIGNALHEAD
CONFIGUATION WITH HEAD NUMBERS

5-VL		3-V	
R	2, 3	R	1, 4, 7, 10
Y	5, 6	Y	
G	8, 9	G	
G	11, 12		

TEMPORARY SIGNAL PHASE CONFIGUATION WITH HEAD NUMBERS

PHASE 2 EASTBOUND	PHASE 6 WESTBOUND	PHASE 4 SOUTHBOUND	PHASE 8 NORTHBOUND
VEHICLE: 5, 6, 10	VEHICLE: 4, 11, 12	VEHICLE: 1, 8, 9	VEHICLE: 2, 3, 7
PEDESTRIAN: HEADS XING SOUTH LEG	PEDESTRIAN: HEADS XING NORTH LEG	PEDESTRIAN: HEADS XING WEST LEG	PEDESTRIAN: HEADS XING EAST LEG



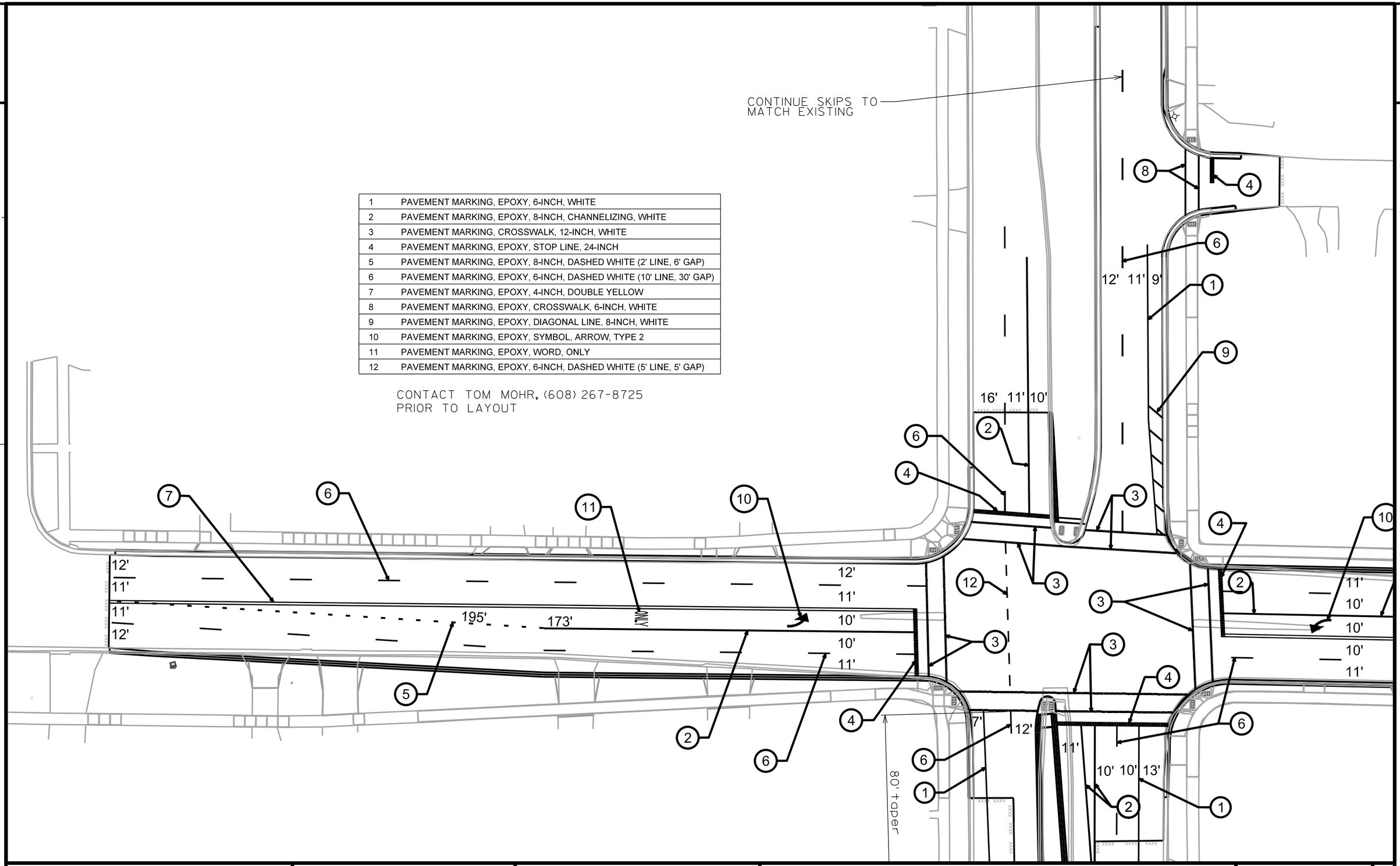
ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES.
PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED LOCATED AS PER THE MUTCD.
INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLELS AS REQUIRED.
ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES.
PROVIDE/MAINTAIN TEMPORARY VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE.

TEMPORARY SIGNALS - PHASE 6 TRAFFIC CONTROL

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC SIGNAL PLAN-TEMPORARY SIGNALS	SHEET 69 E

1	PAVEMENT MARKING, EPOXY, 6-INCH, WHITE
2	PAVEMENT MARKING, EPOXY, 8-INCH, CHANNELIZING, WHITE
3	PAVEMENT MARKING, CROSSWALK, 12-INCH, WHITE
4	PAVEMENT MARKING, EPOXY, STOP LINE, 24-INCH
5	PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (2' LINE, 6' GAP)
6	PAVEMENT MARKING, EPOXY, 6-INCH, DASHED WHITE (10' LINE, 30' GAP)
7	PAVEMENT MARKING, EPOXY, 4-INCH, DOUBLE YELLOW
8	PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
9	PAVEMENT MARKING, EPOXY, DIAGONAL LINE, 8-INCH, WHITE
10	PAVEMENT MARKING, EPOXY, SYMBOL, ARROW, TYPE 2
11	PAVEMENT MARKING, EPOXY, WORD, ONLY
12	PAVEMENT MARKING, EPOXY, 6-INCH, DASHED WHITE (5' LINE, 5' GAP)

CONTACT TOM MOHR, (608) 267-8725
PRIOR TO LAYOUT



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EPOXY PAVEMENT MARKING PLAN	SHEET 70 E

2

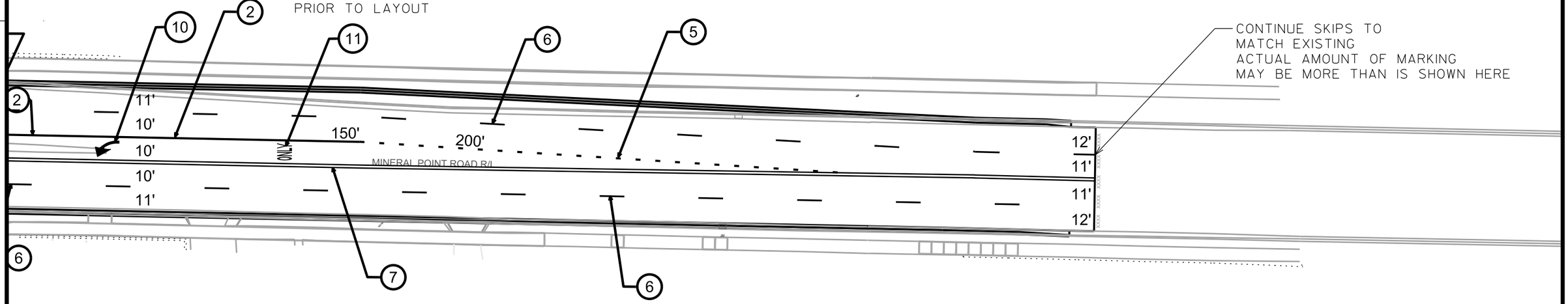
2

4

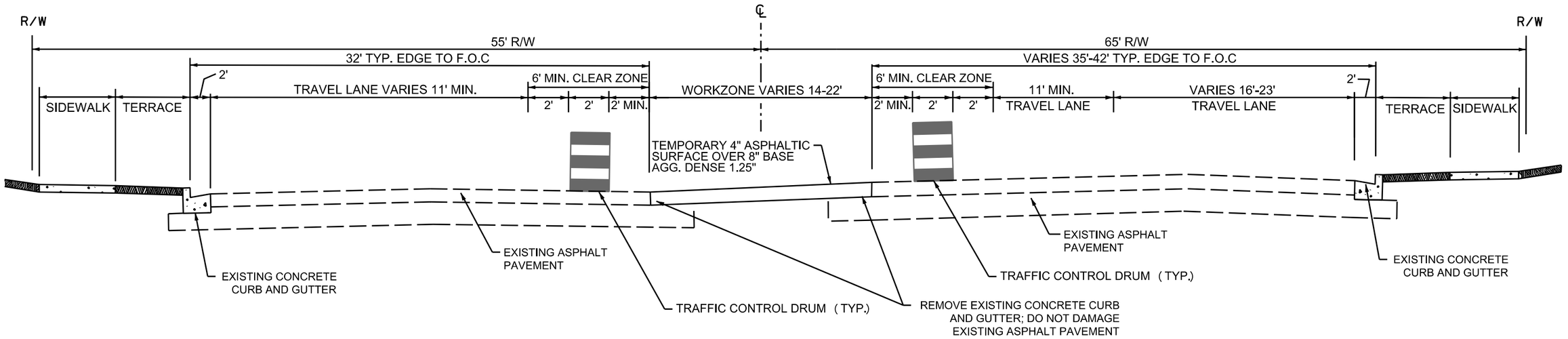
FELTON PL

1	PAVEMENT MARKING, EPOXY, 6-INCH, WHITE
2	PAVEMENT MARKING, EPOXY, 8-INCH, CHANNELIZING, WHITE
3	PAVEMENT MARKING, CROSSWALK, 12-INCH, WHITE
4	PAVEMENT MARKING, EPOXY, STOP LINE, 24-INCH
5	PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (2' LINE, 6' GAP)
6	PAVEMENT MARKING, EPOXY, 6-INCH, DASHED WHITE (10' LINE, 30' GAP)
7	PAVEMENT MARKING, EPOXY, 4-INCH, DOUBLE YELLOW
8	PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
9	PAVEMENT MARKING, EPOXY, DIAGONAL LINE, 8-INCH, WHITE
10	PAVEMENT MARKING, EPOXY, ARROW, TYPE 2
11	PAVEMENT MARKING, EPOXY, WORD, ONLY
12	PAVEMENT MARKING, EPOXY, 6-INCH, DASHED WHITE (5' LINE, 5' GAP)

CONTACT TOM MOHR, (608) 267-8725
PRIOR TO LAYOUT

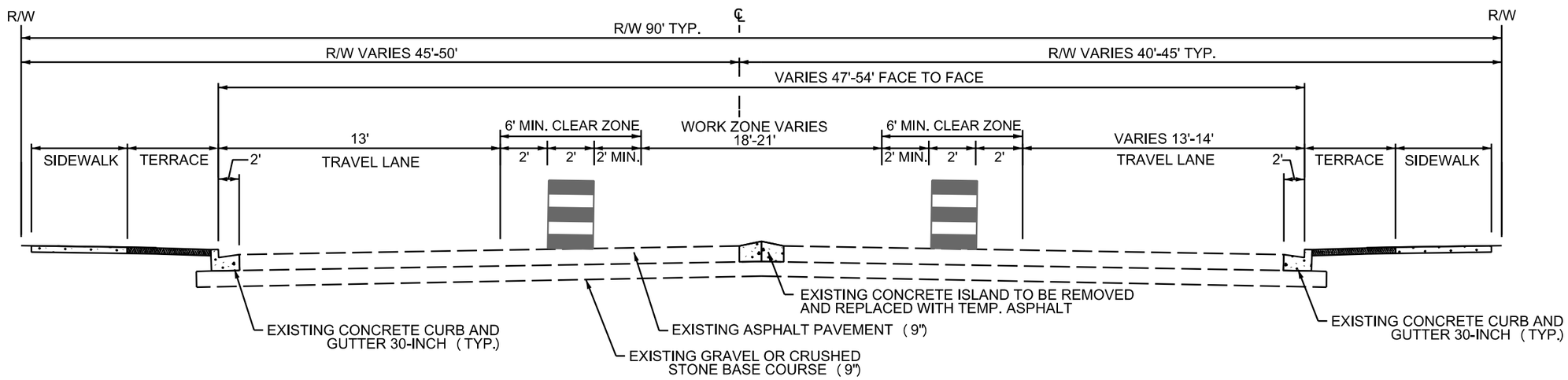


PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	EPOXY PAVEMENT MARKING PLAN	SHEET 71	E



STAGE 1 TYPICAL SECTION - MIDVALE BOULEVARD

STA. 49+56 to STA. 50+50 AND 61+50 to STA 62+85



STAGE 1 TYPICAL SECTION - MINERAL POINT ROAD

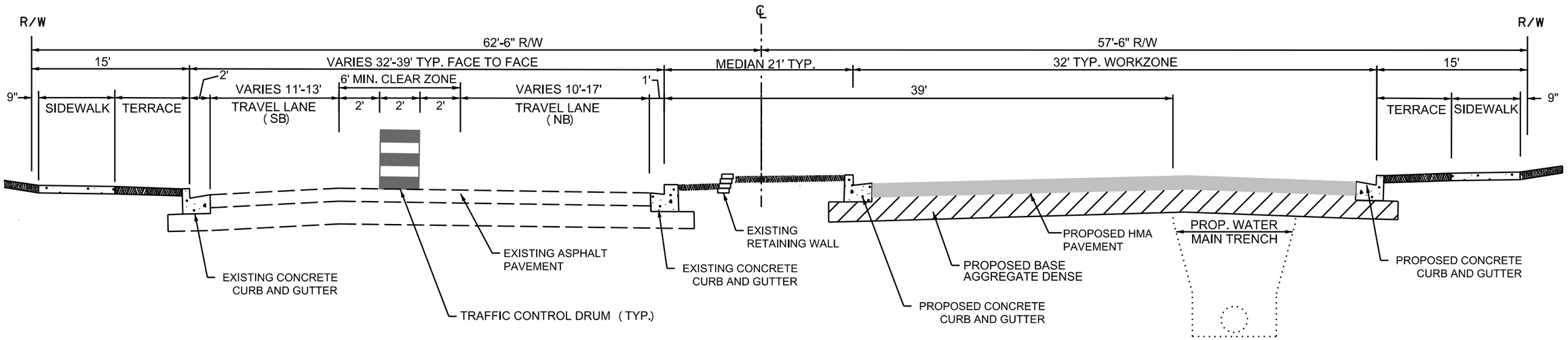
STA. 14+10 to STA. 14+60 AND 15+65 to STA 16+25

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TYPICAL CONSTRUCTION SECTIONS	SHEET 72	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%-FINAL_DGNs\Proposed Typical Traff Ph1.dgn PLOT DATE : 1/16/2015 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 7.8750 ' / in.

WISDOT/CADDS SHEET 42

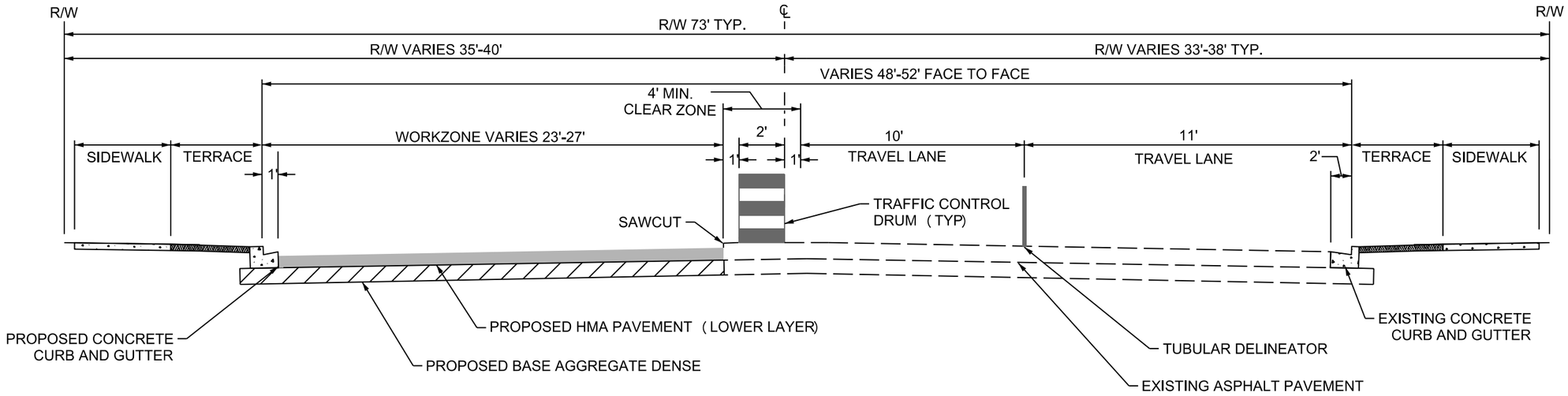
2



STAGE 2 TYPICAL SECTION - MIDVALE BOULEVARD

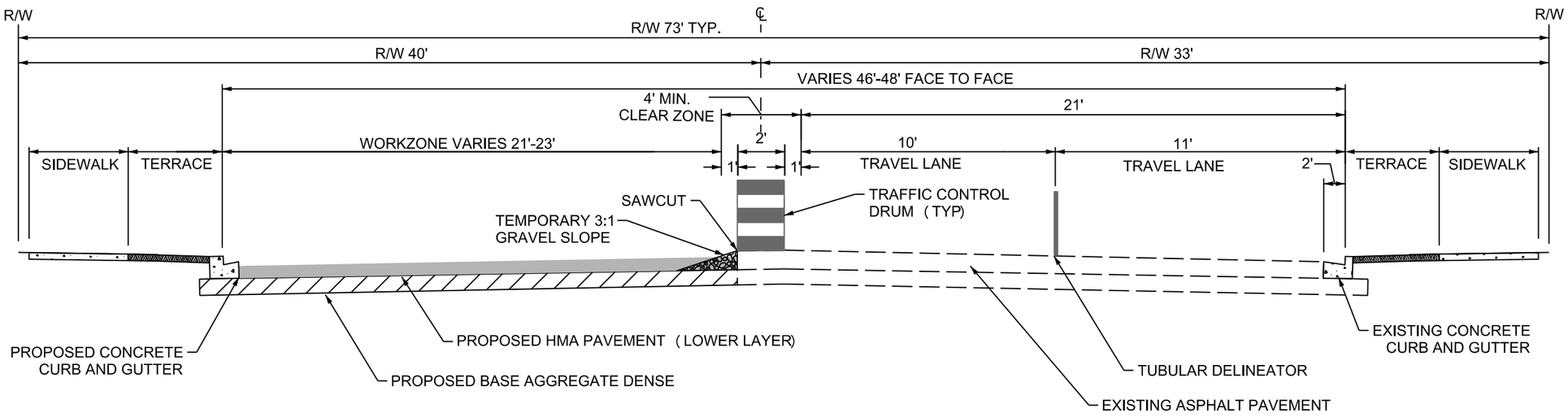
STA. 50+50 to STA. 54+93
(MINERAL POINT RD. TO NORTH TERMINUS)

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TYPICAL CONSTRUCTION SECTIONS	SHEET 73	E



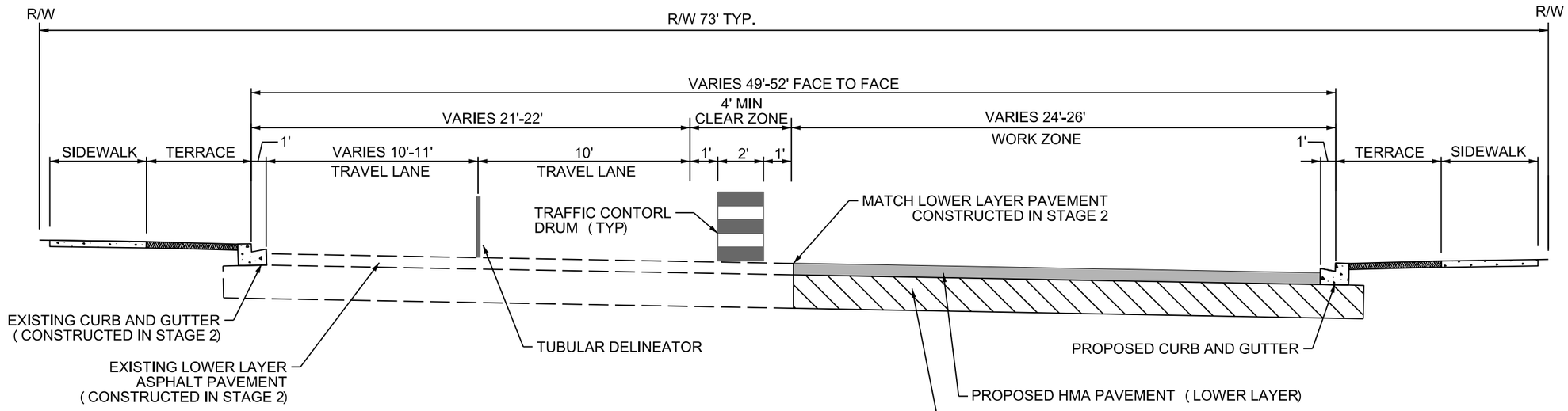
STAGE 2 TYPICAL SECTION - MINERAL POINT ROAD

STA. 15+00 to STA. 18+50
(S. MIDVALE BLVD. TO 175' WEST OF EAST TERMINUS)



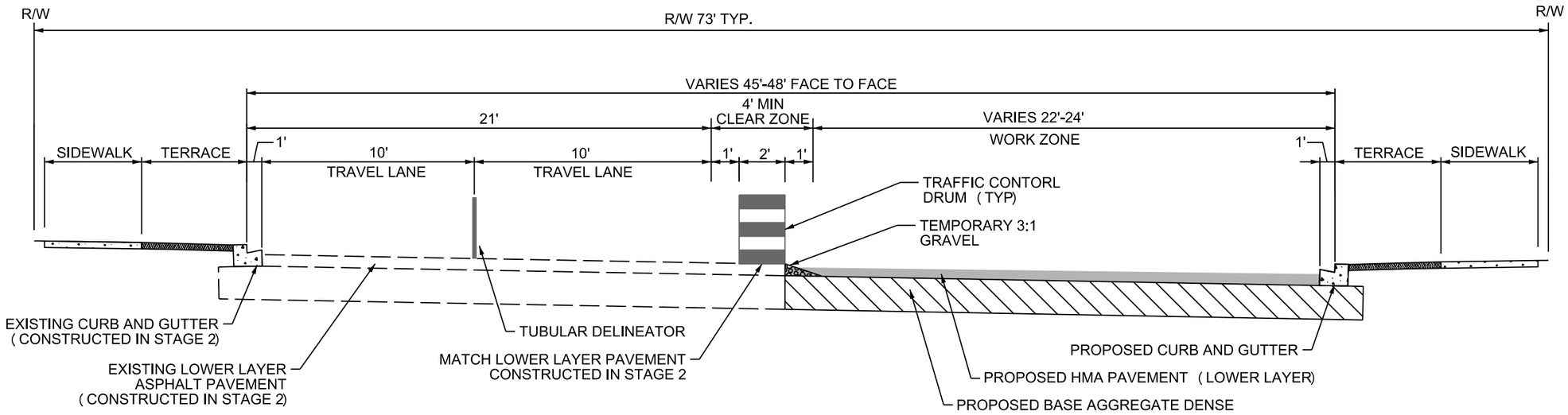
STAGE 2 TYPICAL SECTION - MINERAL POINT ROAD

STA. 18+50 to STA. 20+25
(175' WEST OF EAST TERMINUS TO EAST TERMINUS)



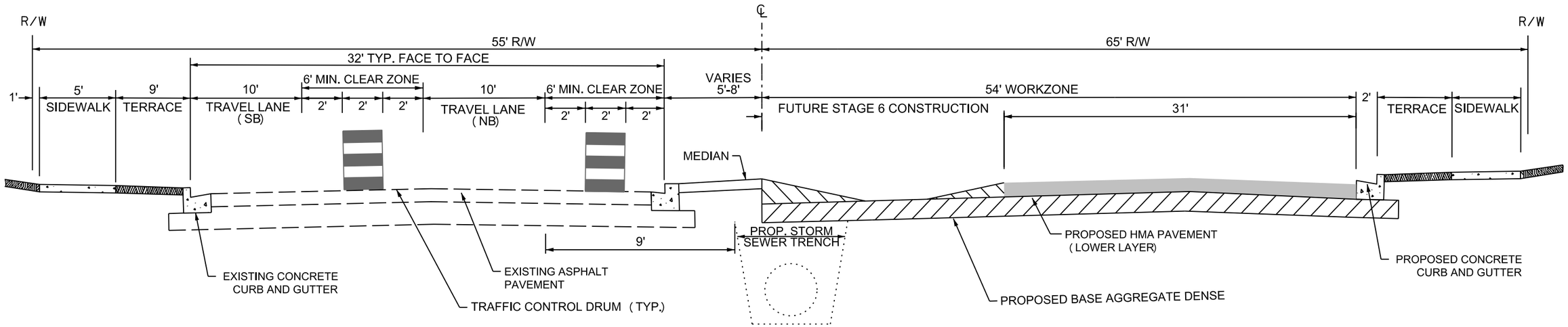
STAGE 3 TYPICAL SECTION - MINERAL POINT ROAD

STA. 15+00 to STA. 18+50
(S. MIDVALE BLVD. TO 175' WEST OF EAST TERMINUS)



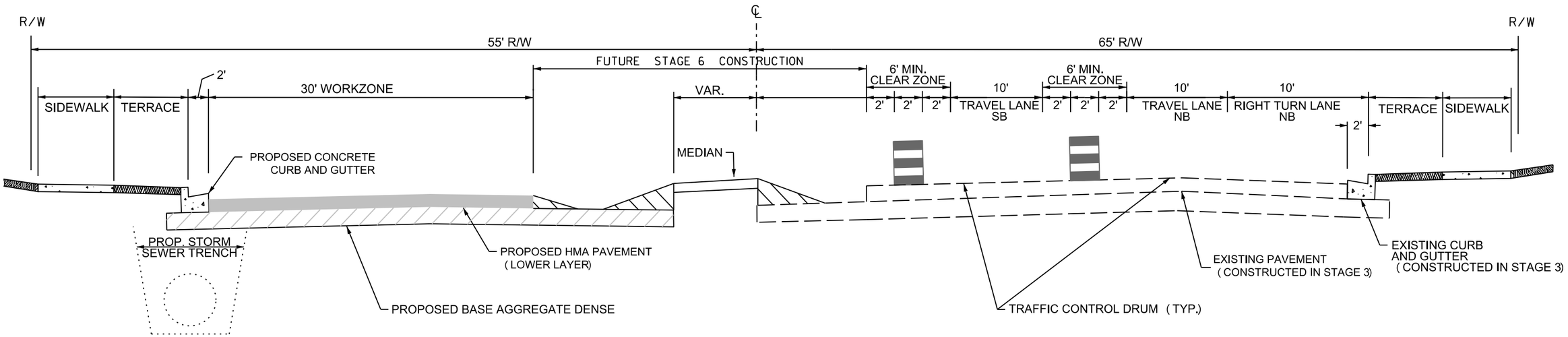
STAGE 3 TYPICAL SECTION - MINERAL POINT ROAD

STA. 18+50 to STA. 20+25
(175' WEST OF EAST TERMINUS TO EAST TERMINUS)



STAGE 3 TYPICAL SECTION - MIDVALE BOULEVARD

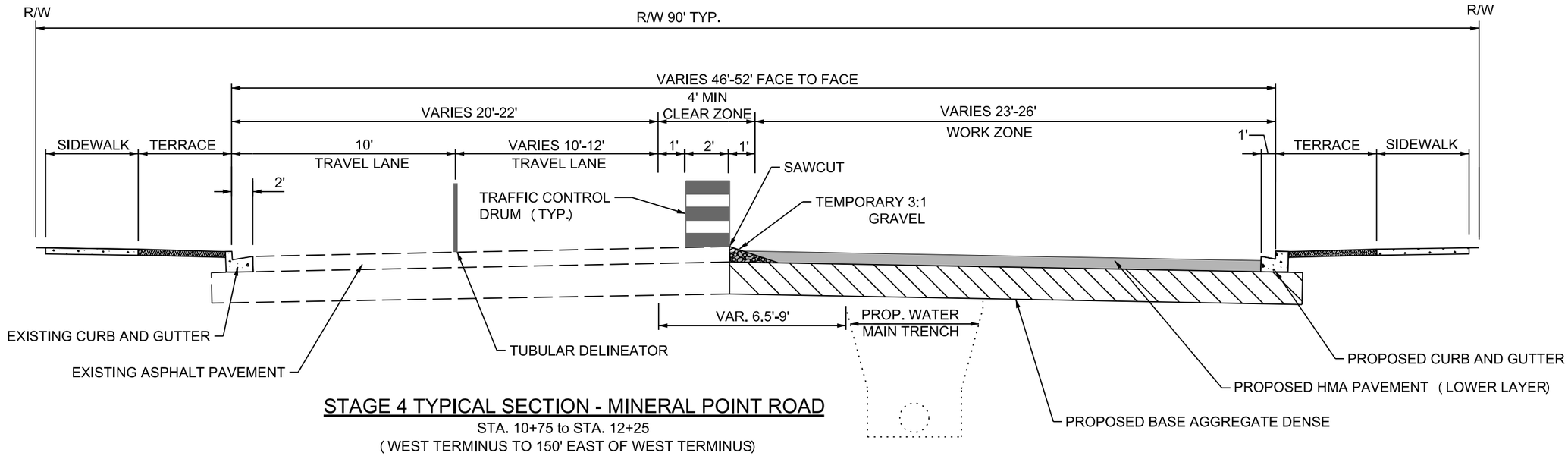
(MINERAL POINT ROAD TO SOUTH TERMINUS)



STAGE 4 TYPICAL SECTION - MIDVALE BOULEVARD

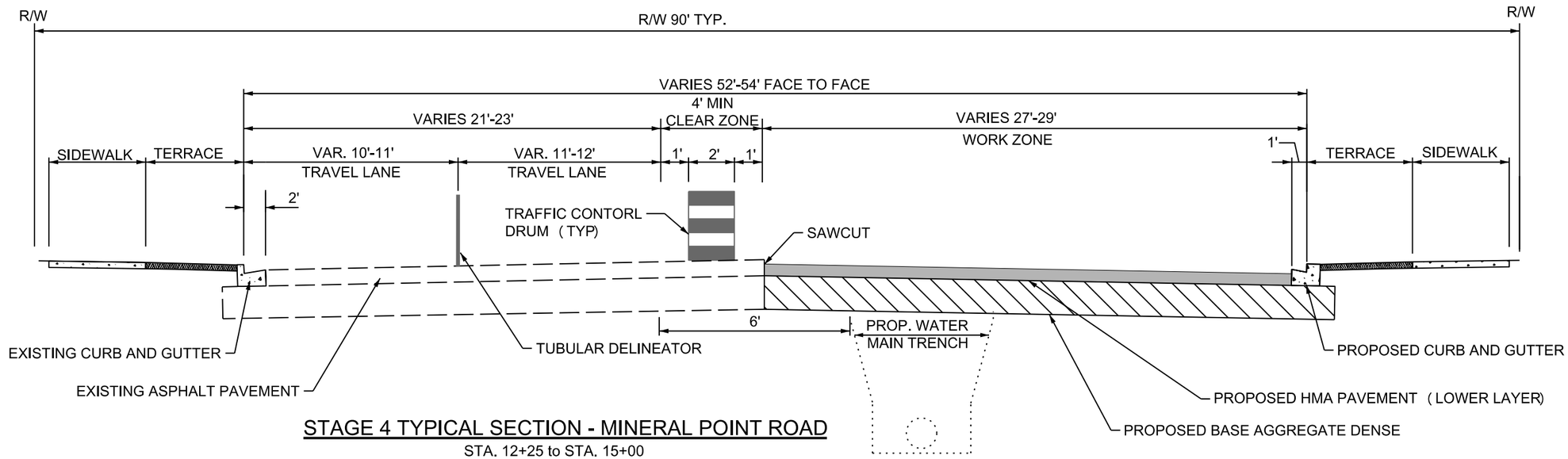
(MINERAL POINT ROAD TO SOUTH TERMINUS)

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TYPICAL CONSTRUCTION SECTIONS	SHEET 76	E



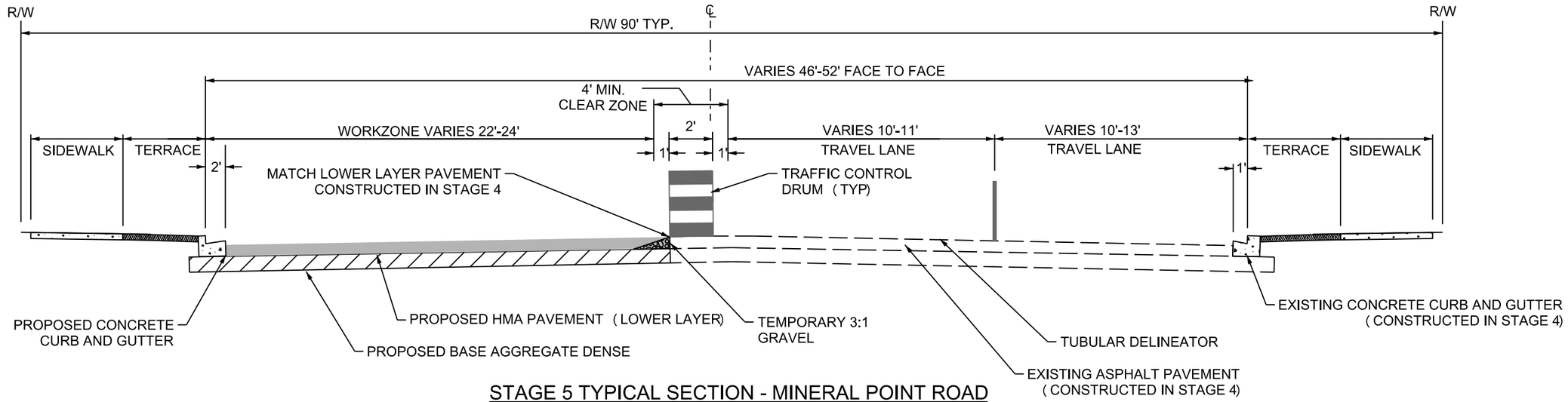
STAGE 4 TYPICAL SECTION - MINERAL POINT ROAD

STA. 10+75 to STA. 12+25
(WEST TERMINUS TO 150' EAST OF WEST TERMINUS)



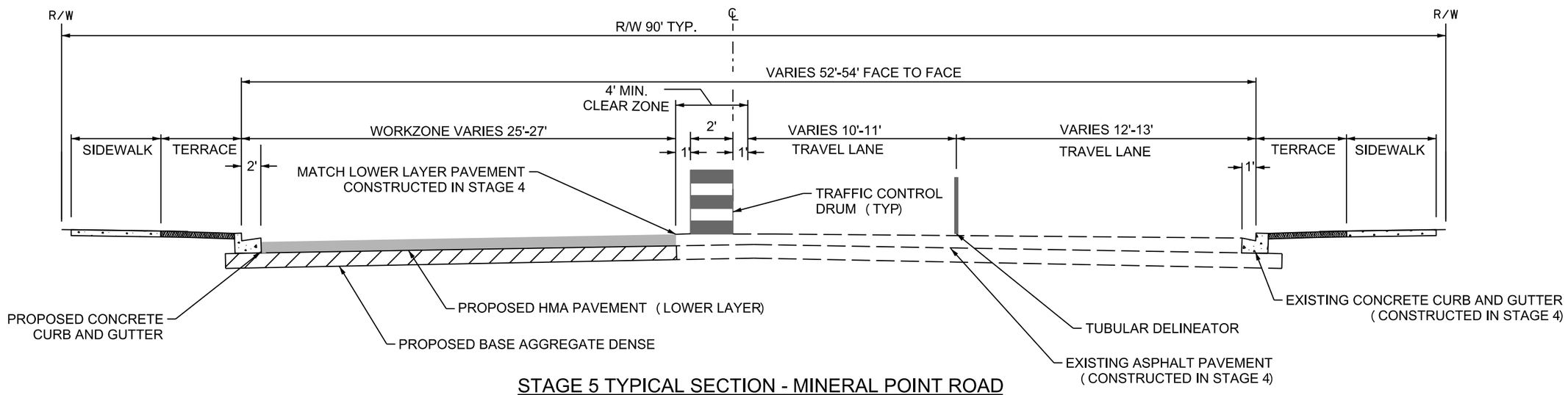
STAGE 4 TYPICAL SECTION - MINERAL POINT ROAD

STA. 12+25 to STA. 15+00
(150' EAST OF WEST TERMINUS TO S. MIDVALE BLVD.)



STAGE 5 TYPICAL SECTION - MINERAL POINT ROAD

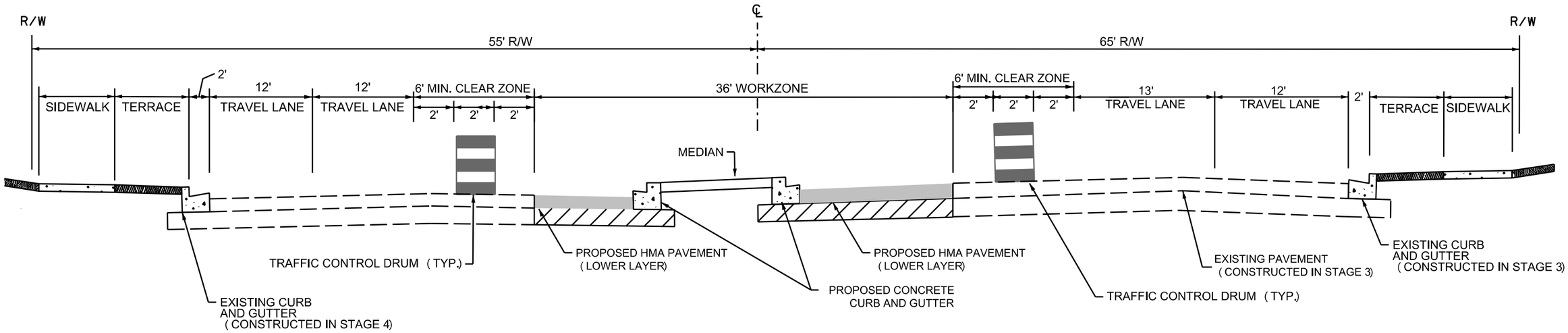
STA. 10+75 to STA. 12+25
(WEST TERMINUS TO 150' EAST OF WEST TERMINUS)



STAGE 5 TYPICAL SECTION - MINERAL POINT ROAD

STA. 12+25 to STA. 15+00
(150' EAST OF WEST TERMINUS TO S. MIDVALE BLVD.)

2



STAGE 6 TYPICAL SECTION - MIDVALE BOULEVARD

STA 50+56 to STA 51+00 (MINERAL POINT ROAD TO SOUTH TERMINUS)
AND STA 61+50 TO STA 62+85

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TYPICAL CONSTRUCTION SECTIONS	SHEET 79	E

2

2

200'

SIGN LOCATED 200'
FROM FIRST BARREL

W4-2L

LEFT LANE
CLOSED
AHEAD

W20-5L

CREATE TEMPORARY
ASPHALT, TRAFFIC CROSSOVER

SOUTH MIDVALE BOULEVARD

60+00 61+00 62+00 63+00 63+57

HILLCREST DR

BAGLEY PKWY

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 80	E

FILE NAME : M:\DESIGN\Projects\53W1293\Traffic\Design\53W1293TE-TrafficControl.dgn PLOT DATE : 1/28/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 44

2

ROAD WORK AHEAD W20-1

200'

W4-2R

R3-2

REMOVE EXISTING CONCRETE ISLAND

LANE CLOSED R11-2(MOD)

SIGN LOCATED 200' FROM FIRST BARREL

CREATE TEMPORARY ASPHALT, TRAFFIC CROSSOVER

MINERAL POINT ROAD

SOUTH MIDVALE BOULEVARD

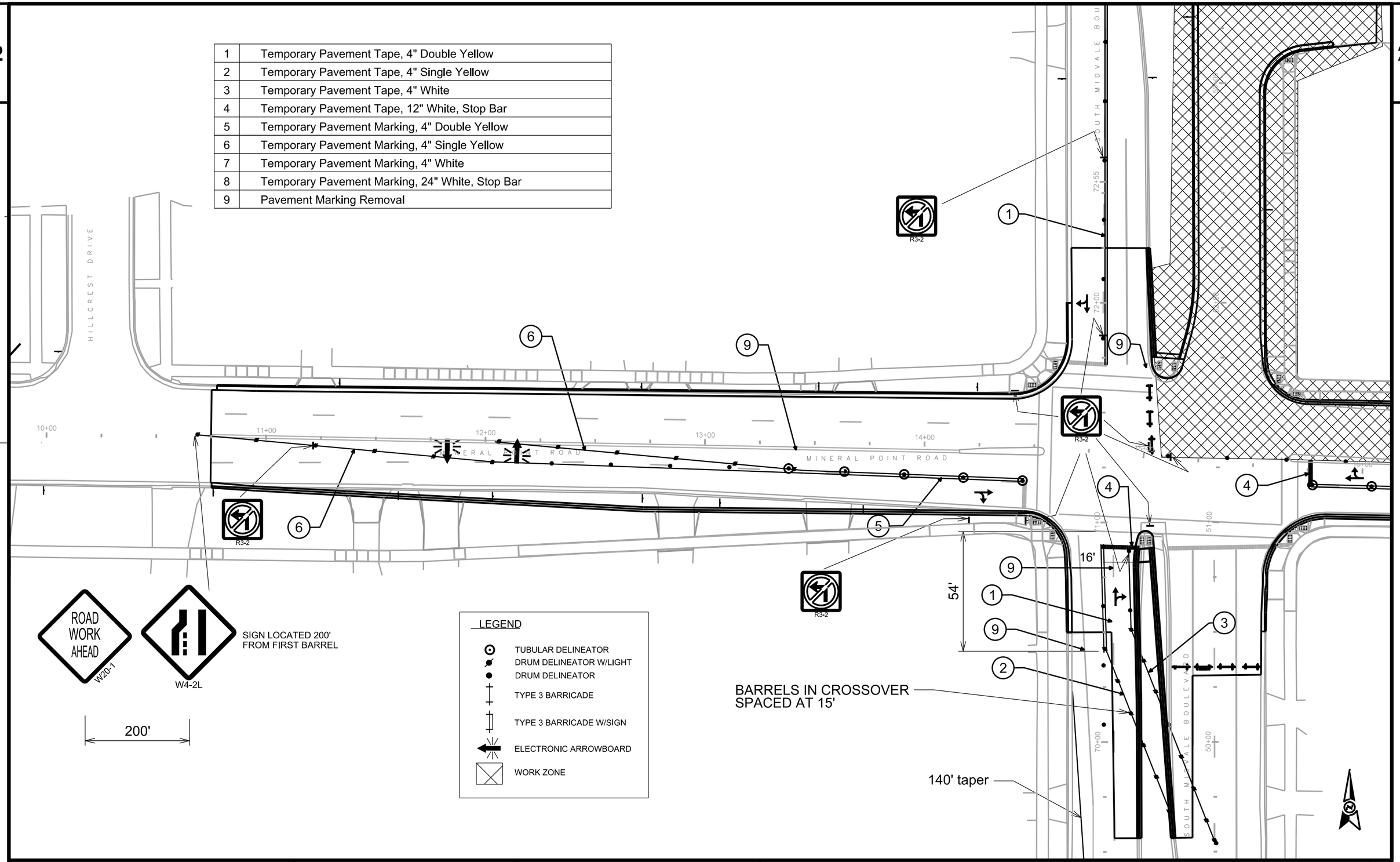
13+00 14+00 15+00 17+00 18+00 72+55 72+00 51+00 50+00 70+00 69+00 45+00

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

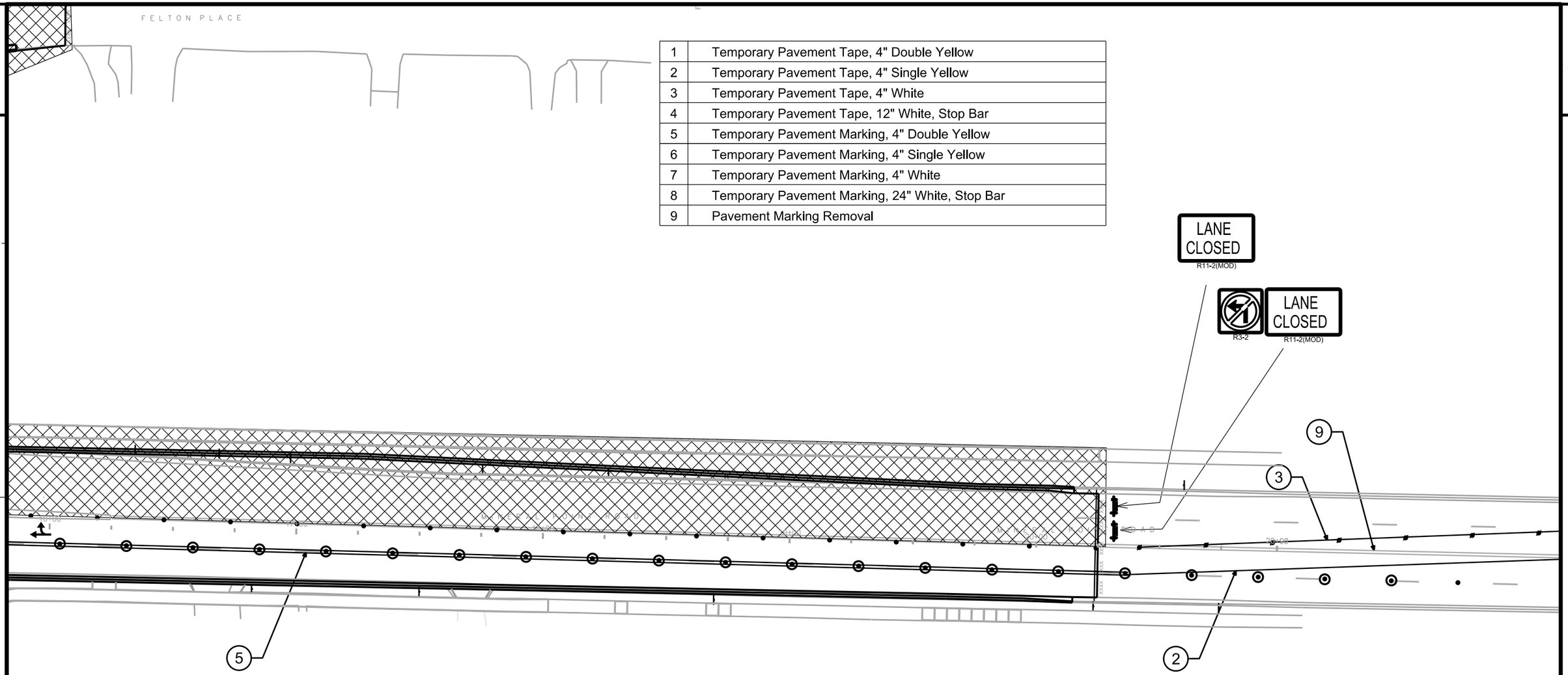
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 81	E

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 82 E

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



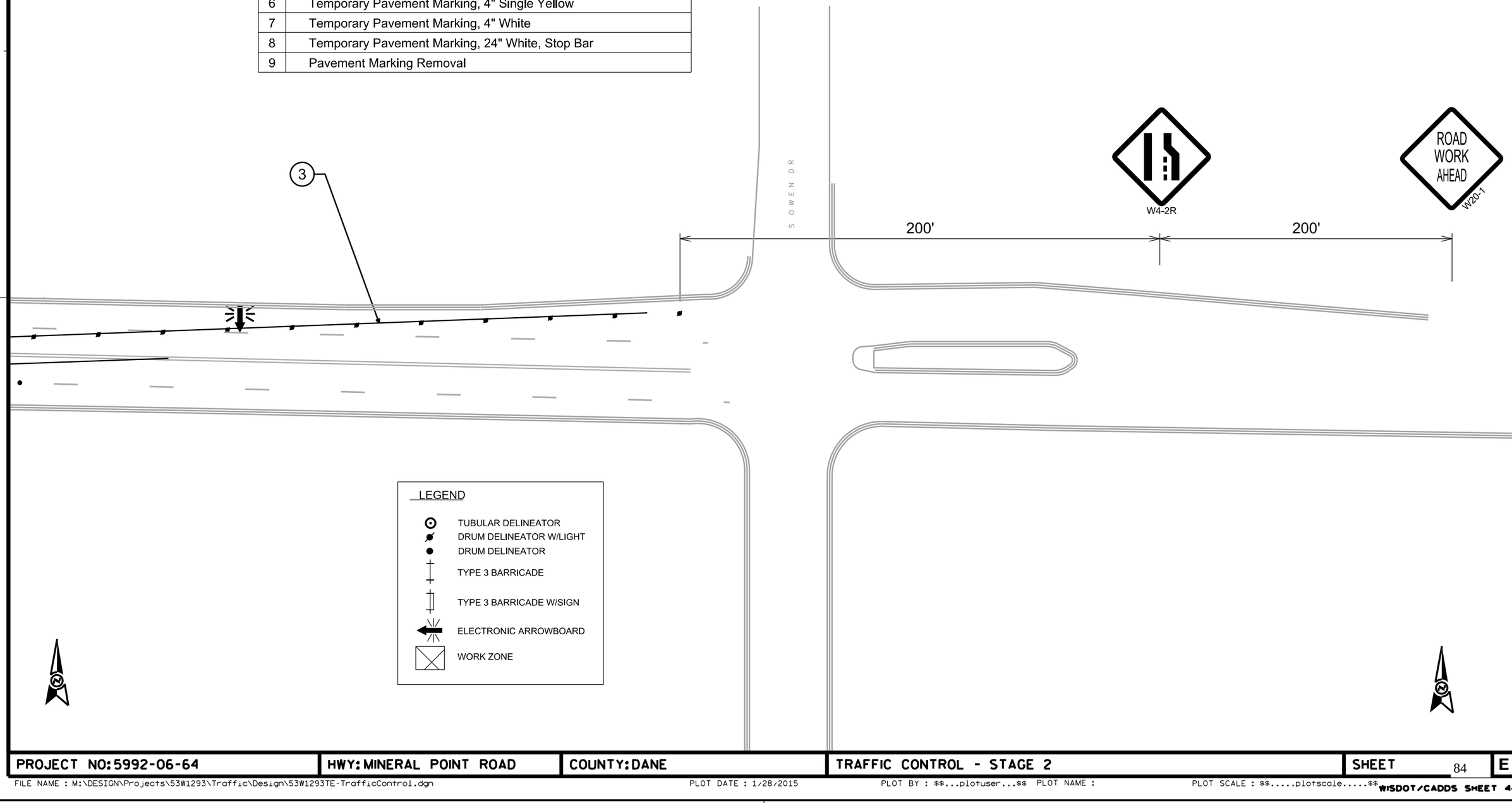
LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

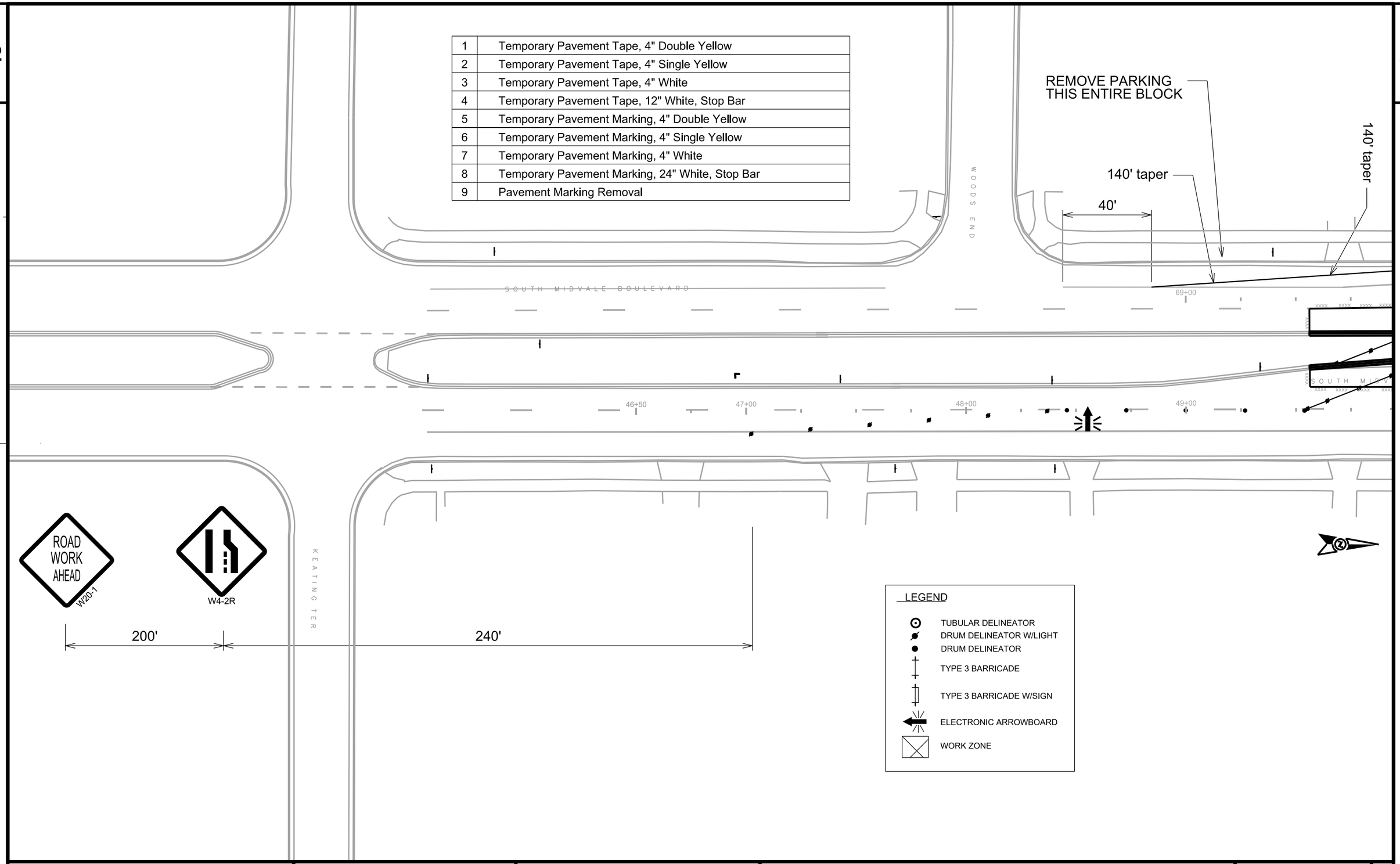
PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 83	E

2

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

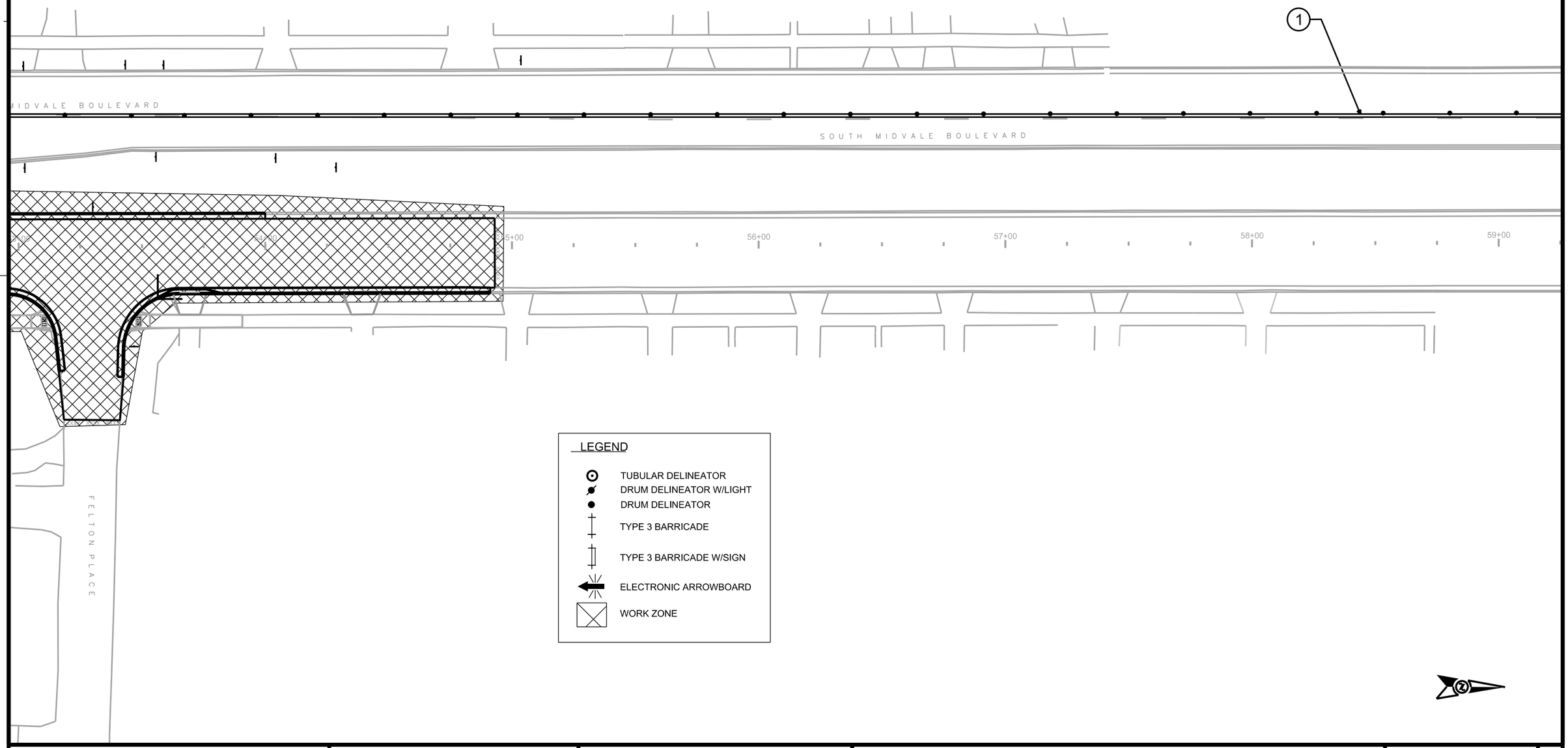


1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 85	E

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 86	E

2

LANE CLOSED
R11-2(MOD)

1

SOUTH MIDVALE BOULEVARD

58+00 59+00 60+00 61+00 62+00 63+00

2

3

BARRELS IN CROSSOVER SPACED AT 15'

HILLCREST DR

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 87	E

2

200'

200'

2

R D

63+00

63+57

HILLCREST DR

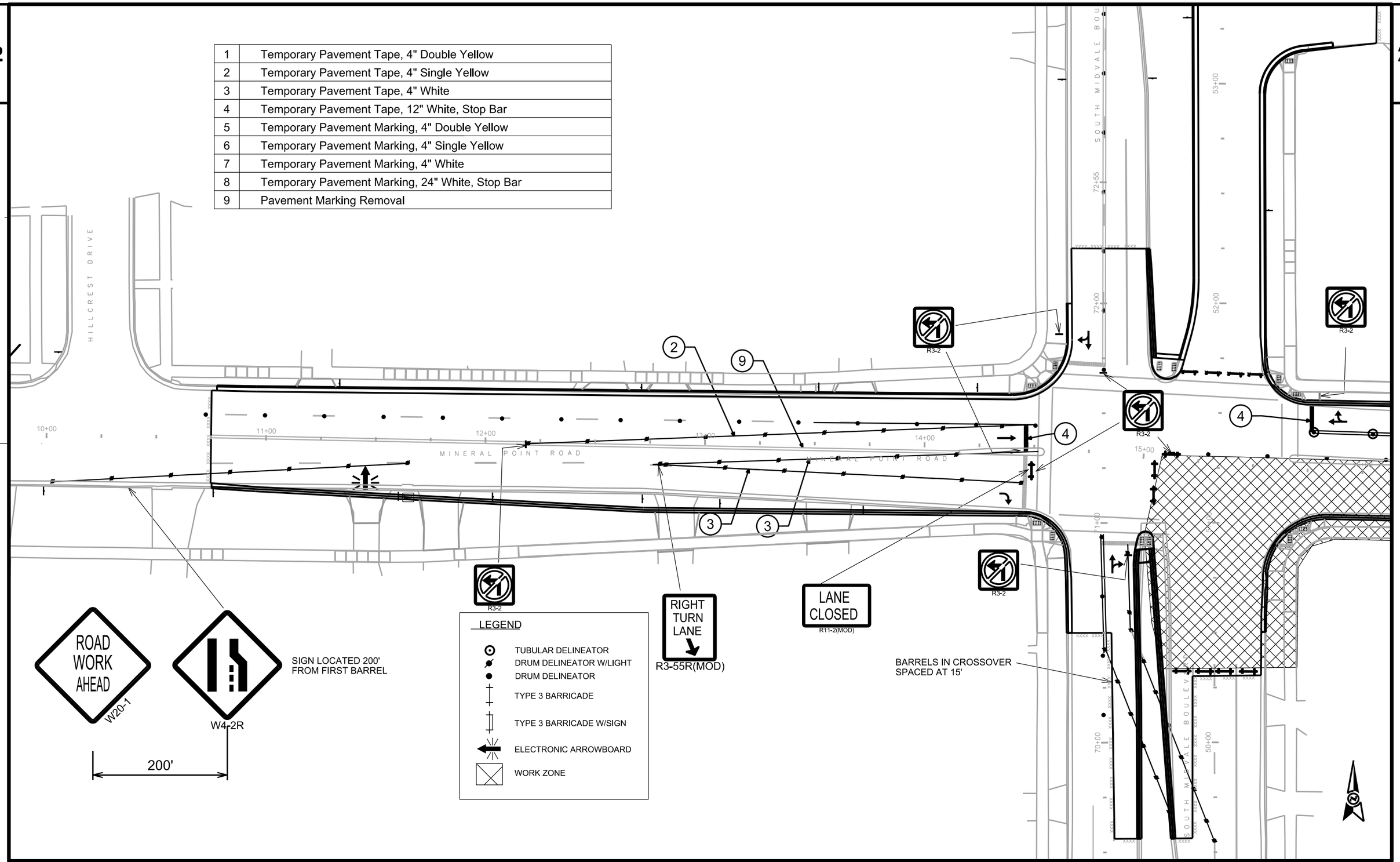
BAGLEY PKWY

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 89	E

2

2

FELTON PLACE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

R3-2

MINERAL POINT ROAD

19+00

MINERAL POINT ROAD

20+00

20+98

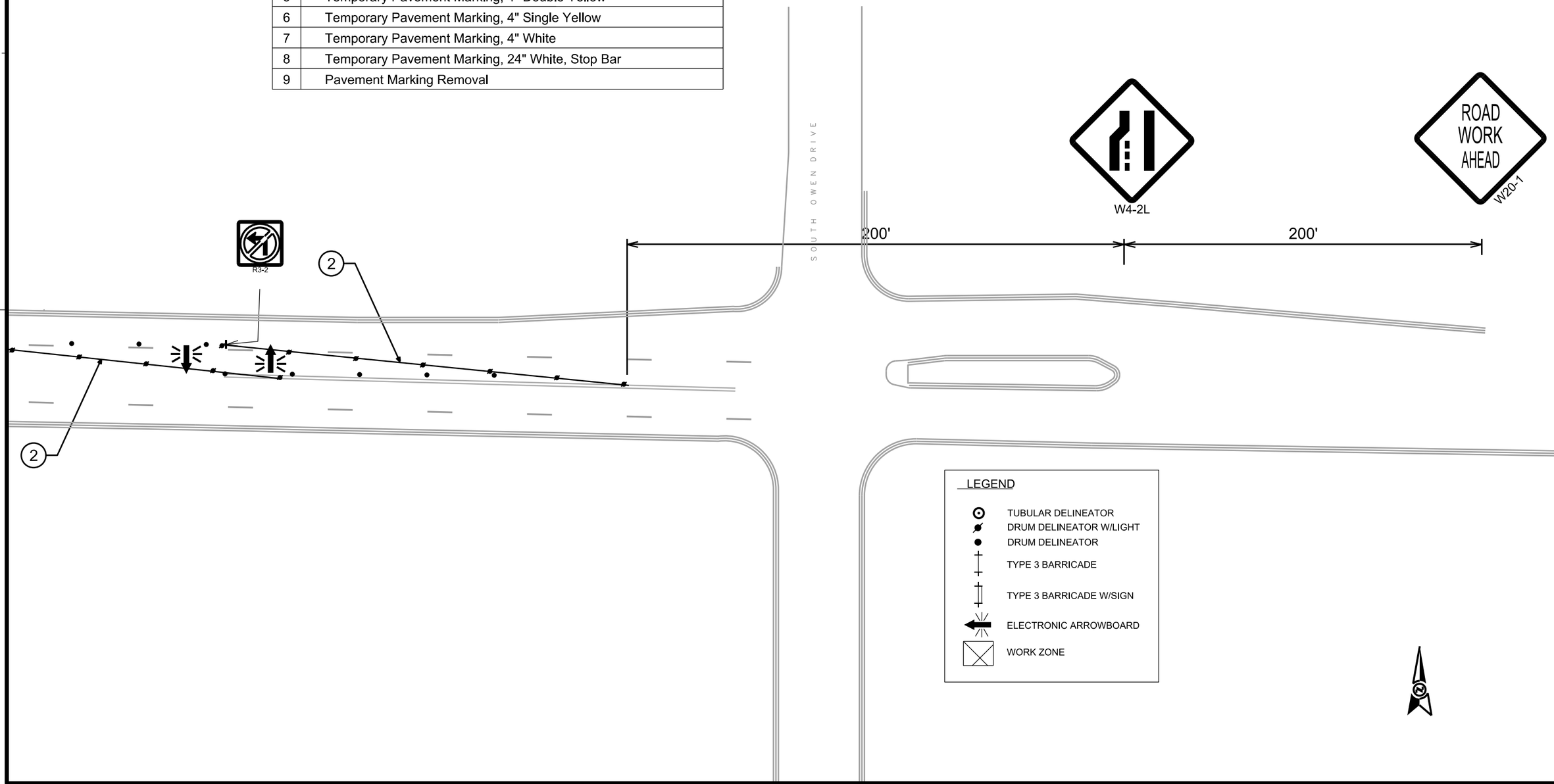
LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 90	E

2

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 91 E

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

WOODS END

SOUTH MIDVALE BOULEVARD

69+00

46+50 47+00 48+00 49+00

2

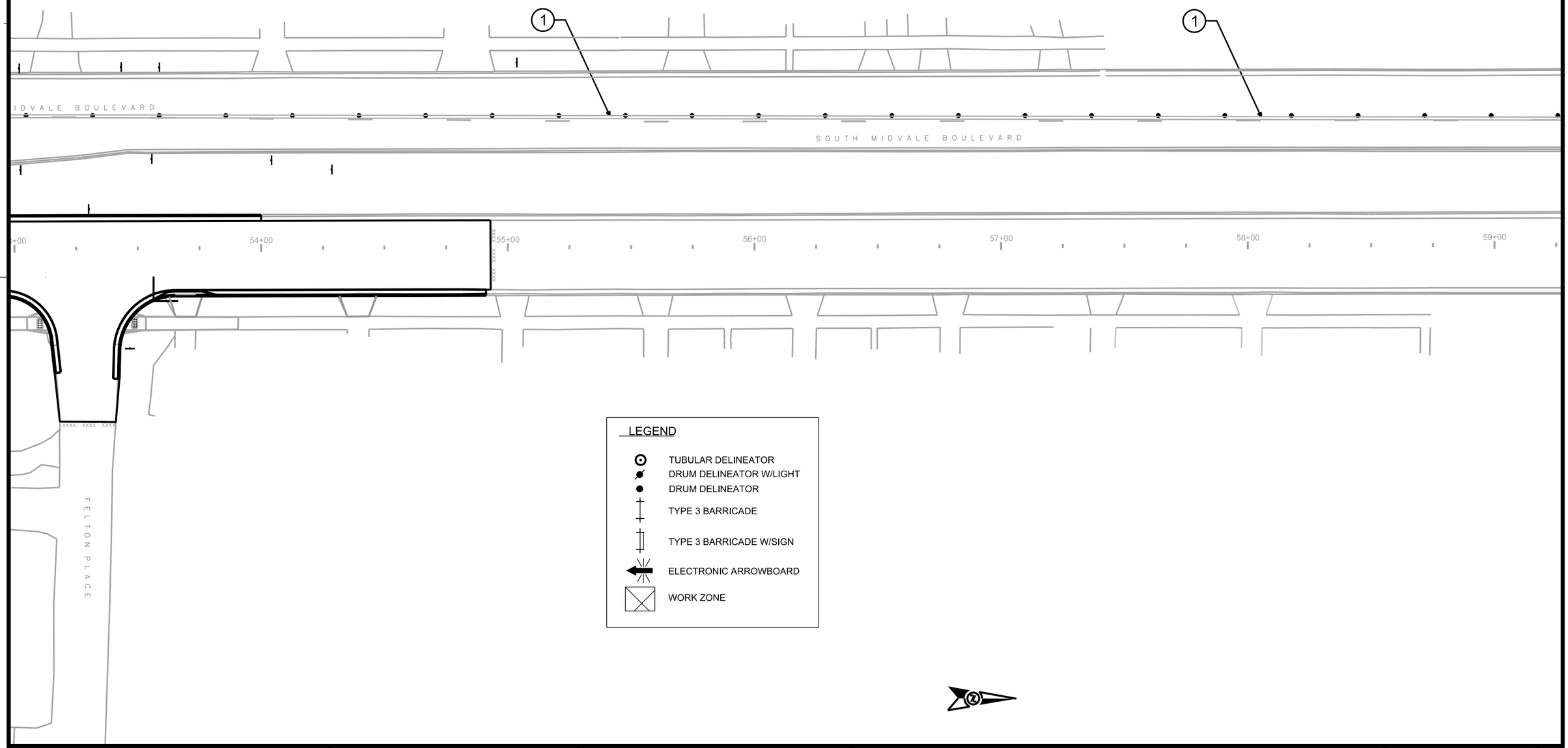
ROAD WORK AHEAD W20-1

W4-2L

200' 200'

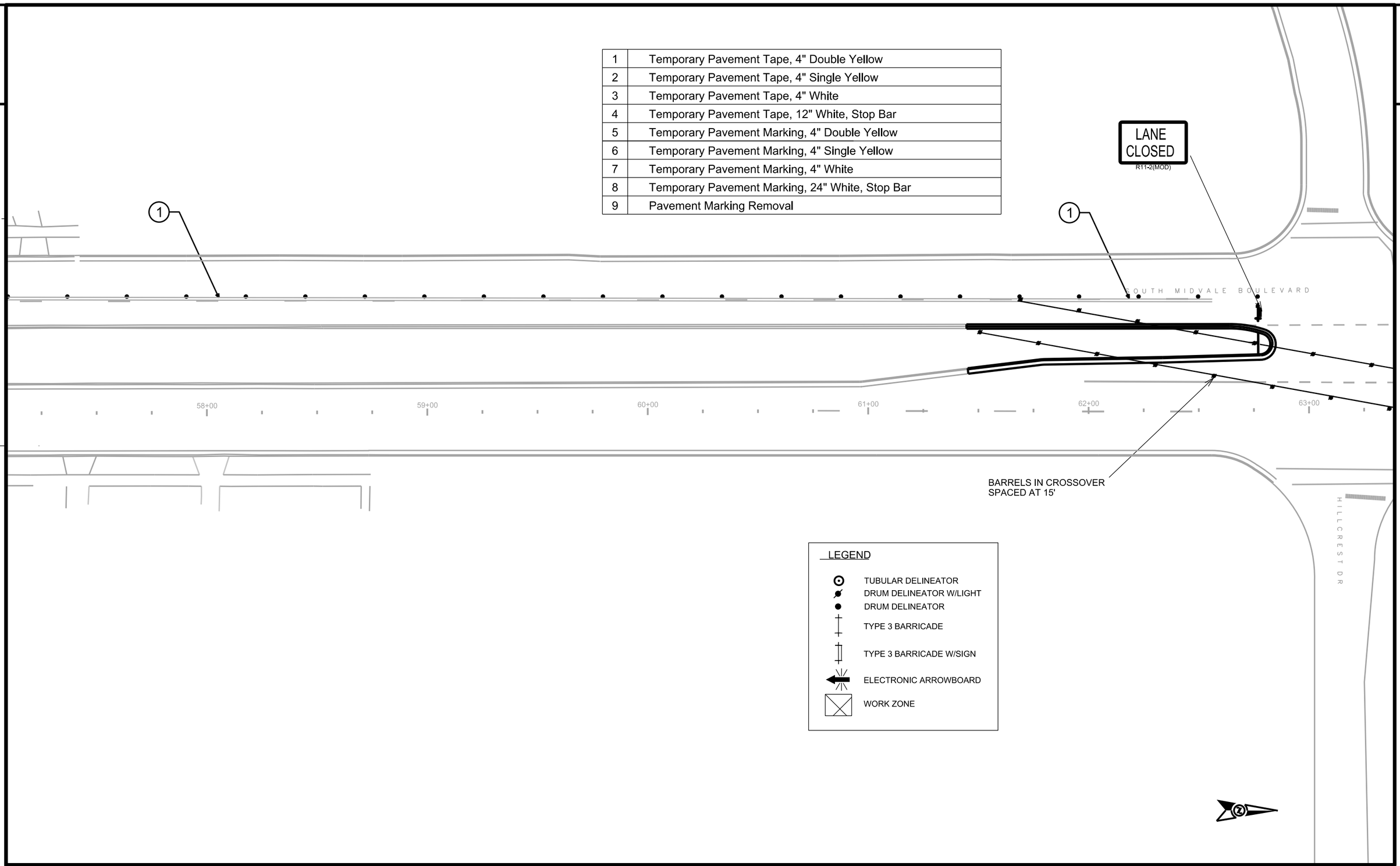
1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



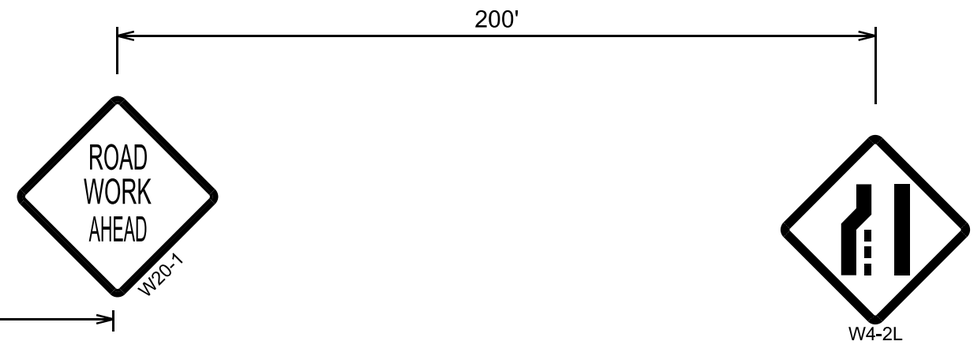
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 93 E

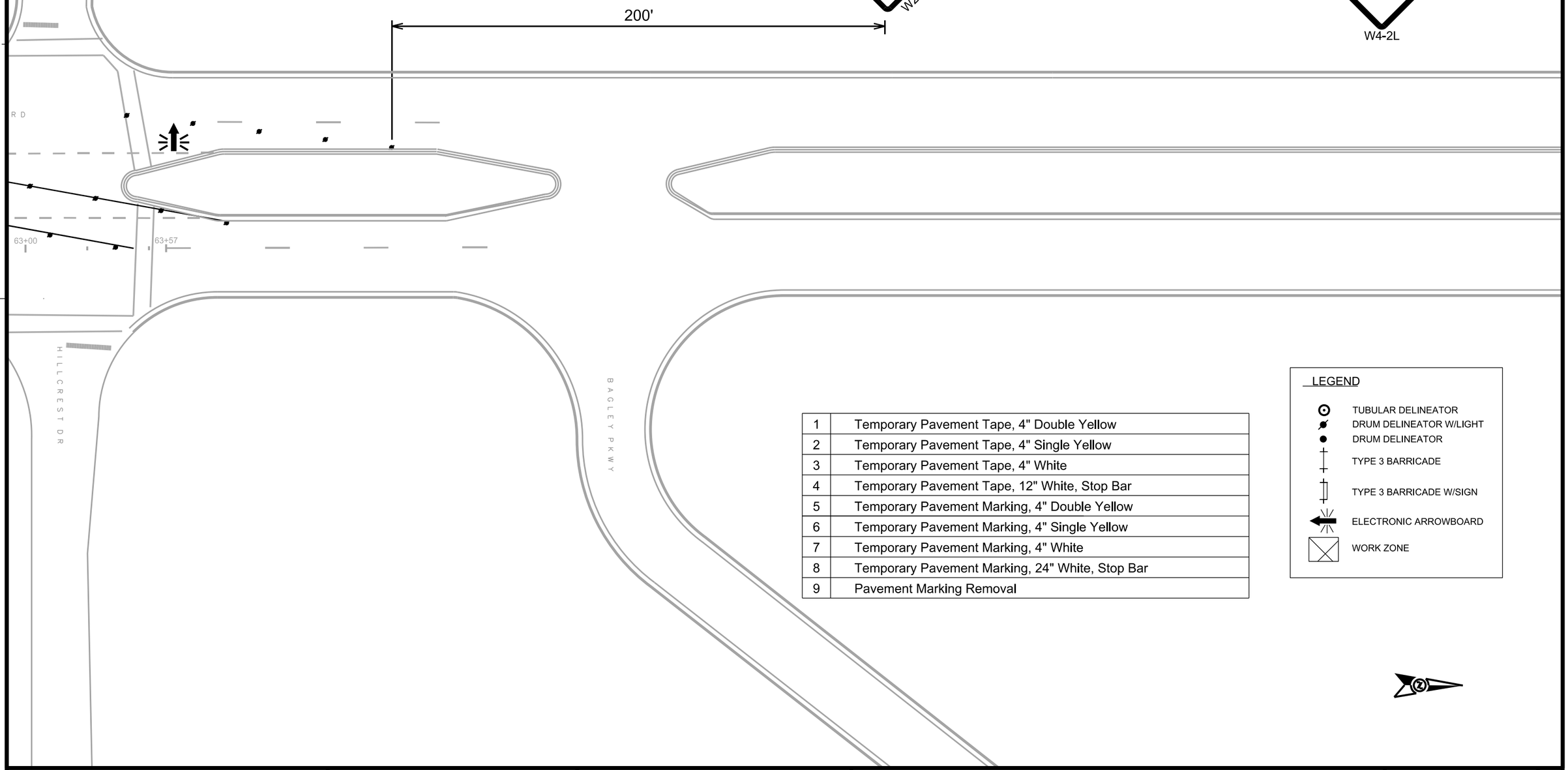
1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 94 E

2



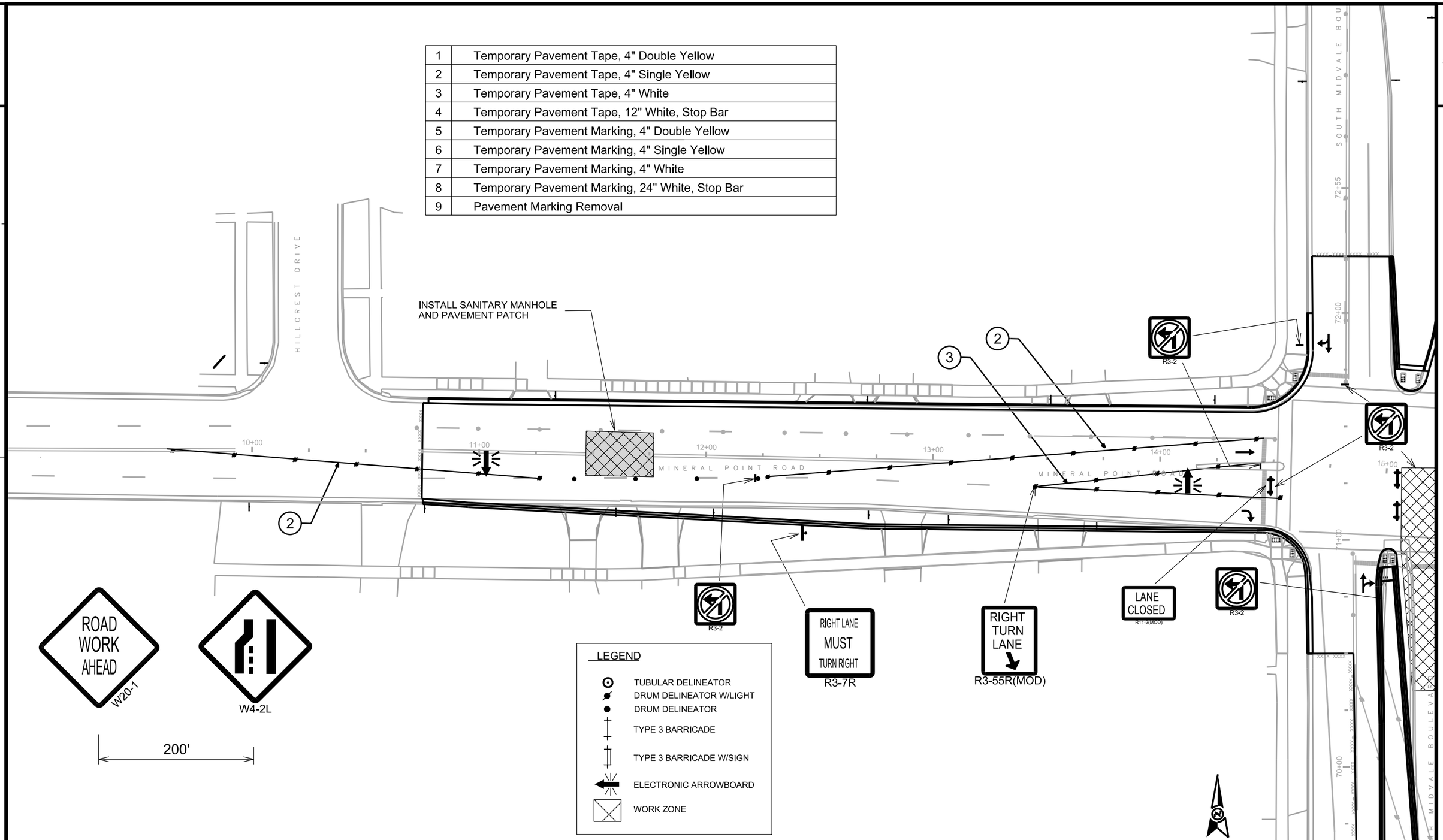


1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

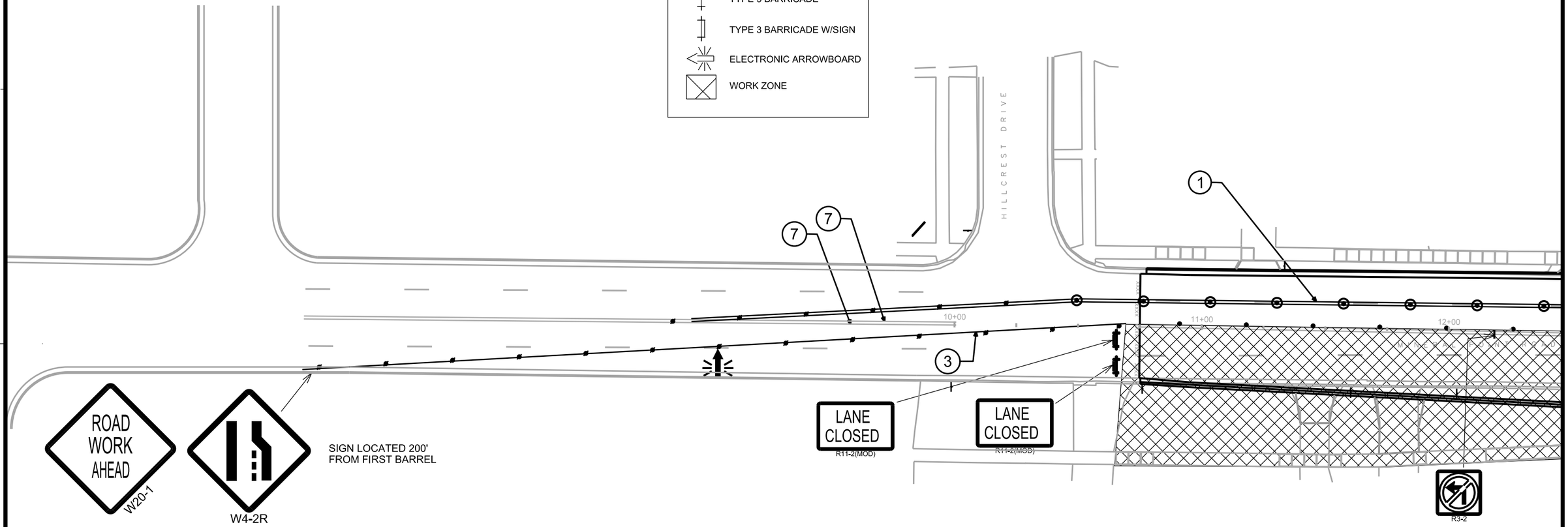


PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3B	SHEET 96 E

2

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE



1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

2

2

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

FELTON PLACE

SOUTH MIDVALE BO

SOUTH MIDVALE BOULEVARD

MINERAL POINT ROAD

MINERAL POI

12+00 13+00 14+00 16+00 17+00 18+00

72+55 72+00 53+00 52+00 51+00 70+00 50+00

R3-2

14' 10' 12'

BARRELS IN CROSSOVER SPACED AT 15'

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 4	SHEET 98 E

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
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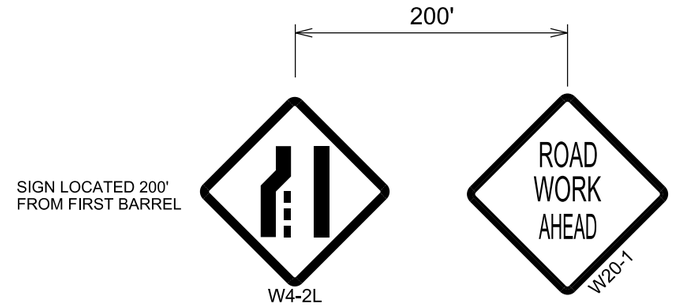
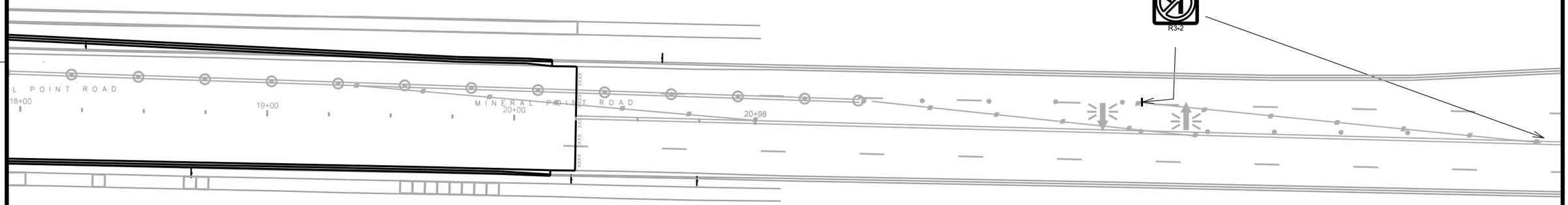
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal





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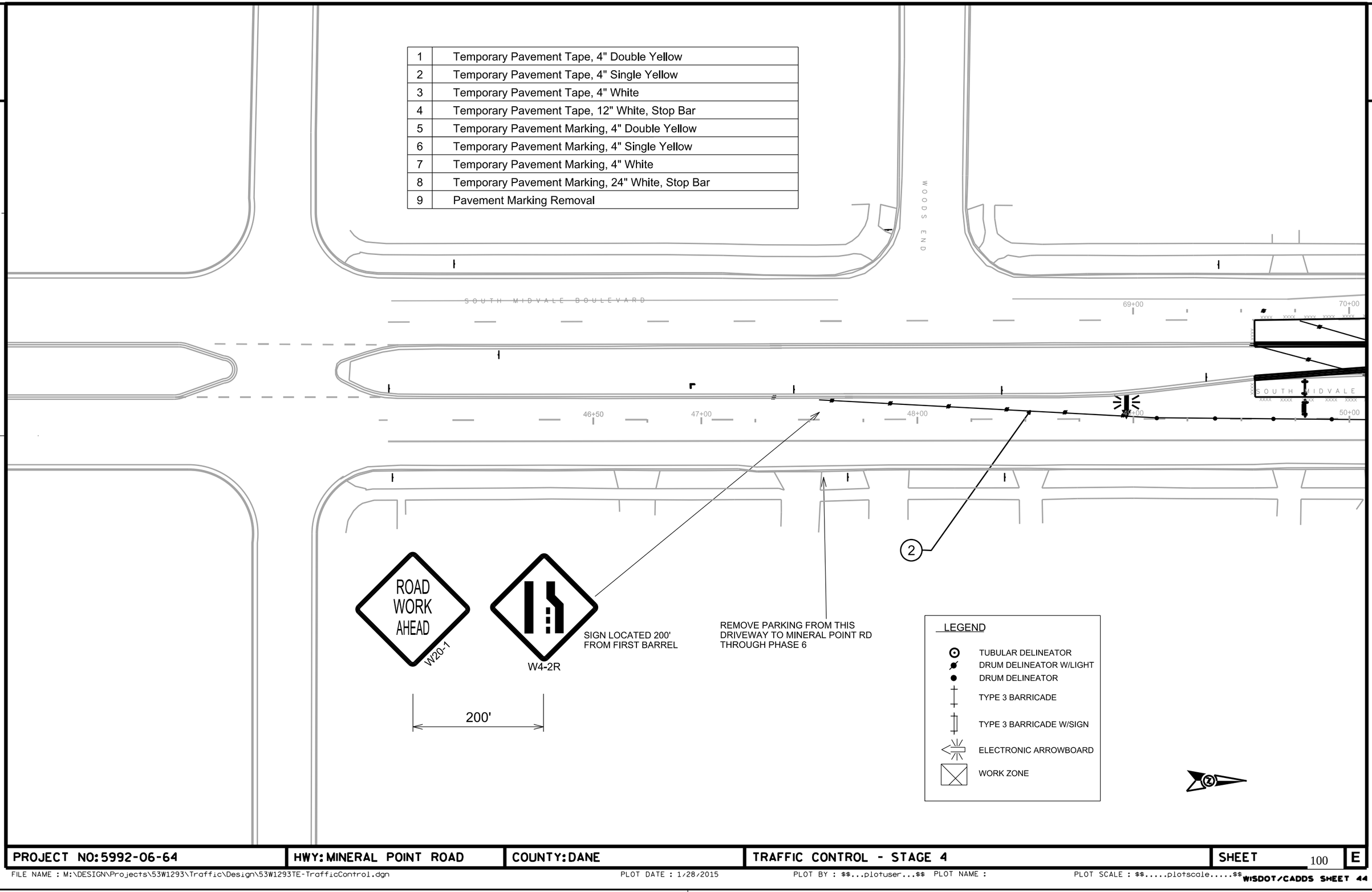
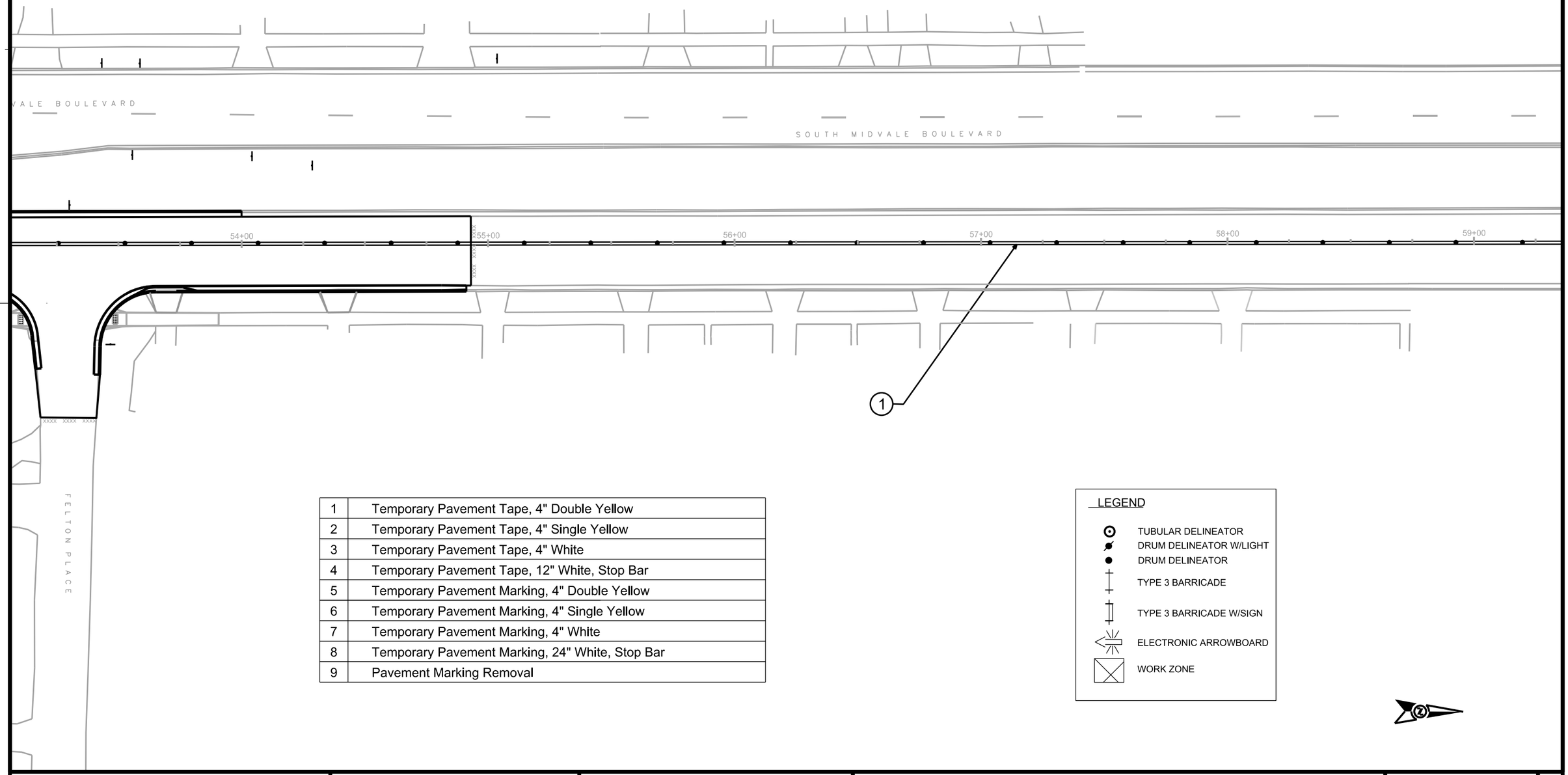
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 4	SHEET 100 E

2



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7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
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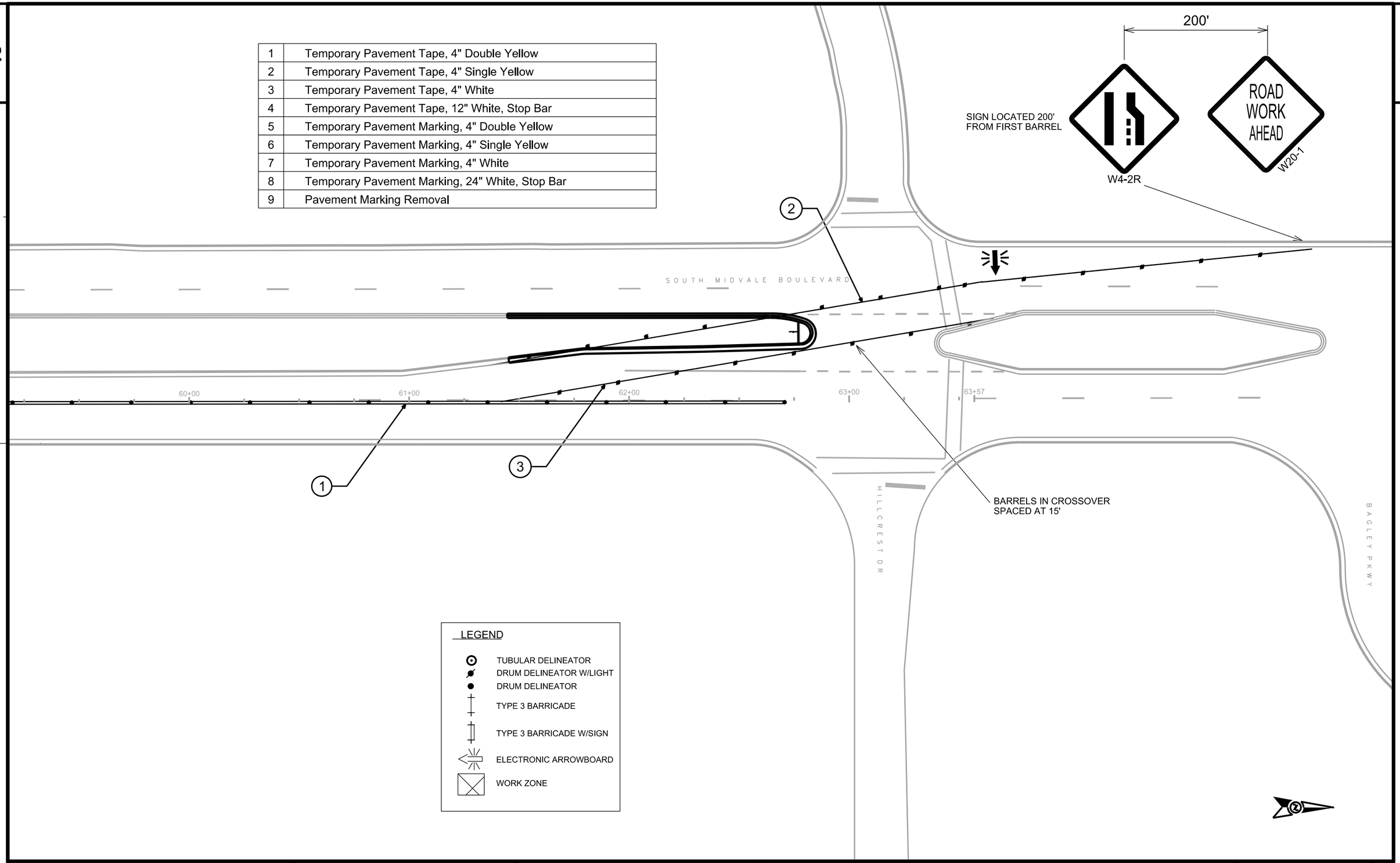
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



2

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
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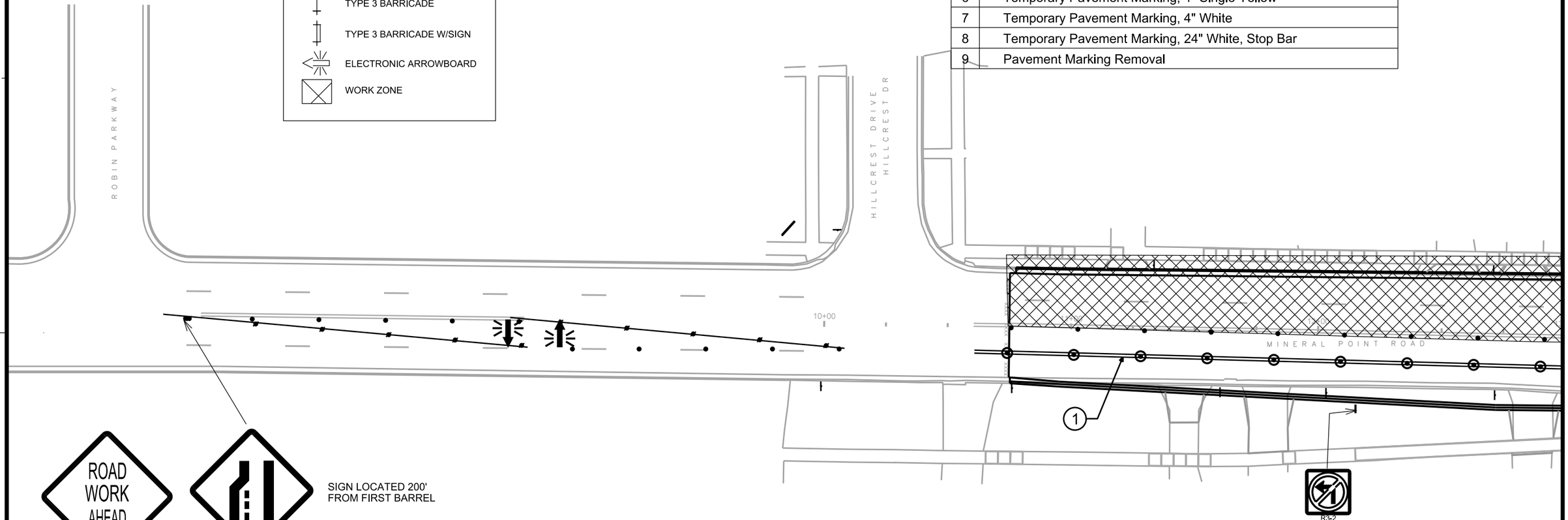
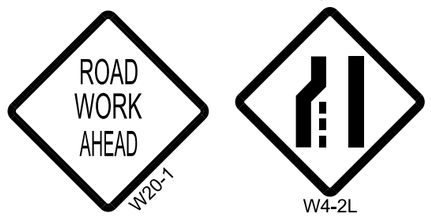
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal





SIGN LOCATED 200'
FROM FIRST BARREL

200'

2

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 5	SHEET 103	E

2

FELTON PLACE

SOUTH MIDVALE BOULEVARD

MINERAL POINT ROAD

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

RIGHT TURN LANE
R3-55R(MOD)

R3-2

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

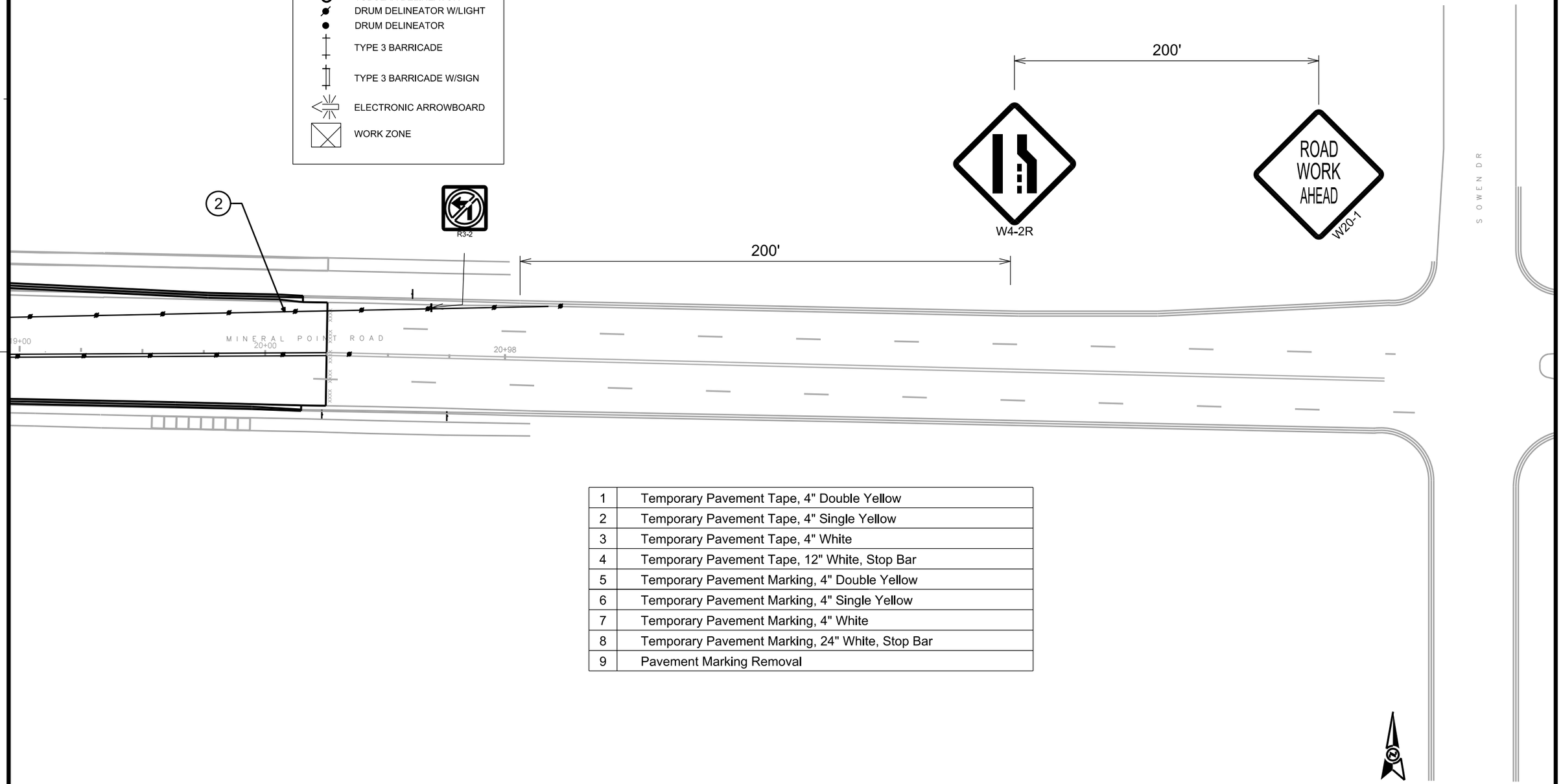
PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 5	SHEET 104	E

2

2

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE



1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

2

WOODS END WOODS END

SOUTH MIDVALE BOULEVARD

69+00

46+50

47+00

48+00

49+00

SOUTH

KEATING TER

200'

170'

5

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

1	Temporary Pavement Tape, 4" Double Yellow
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6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
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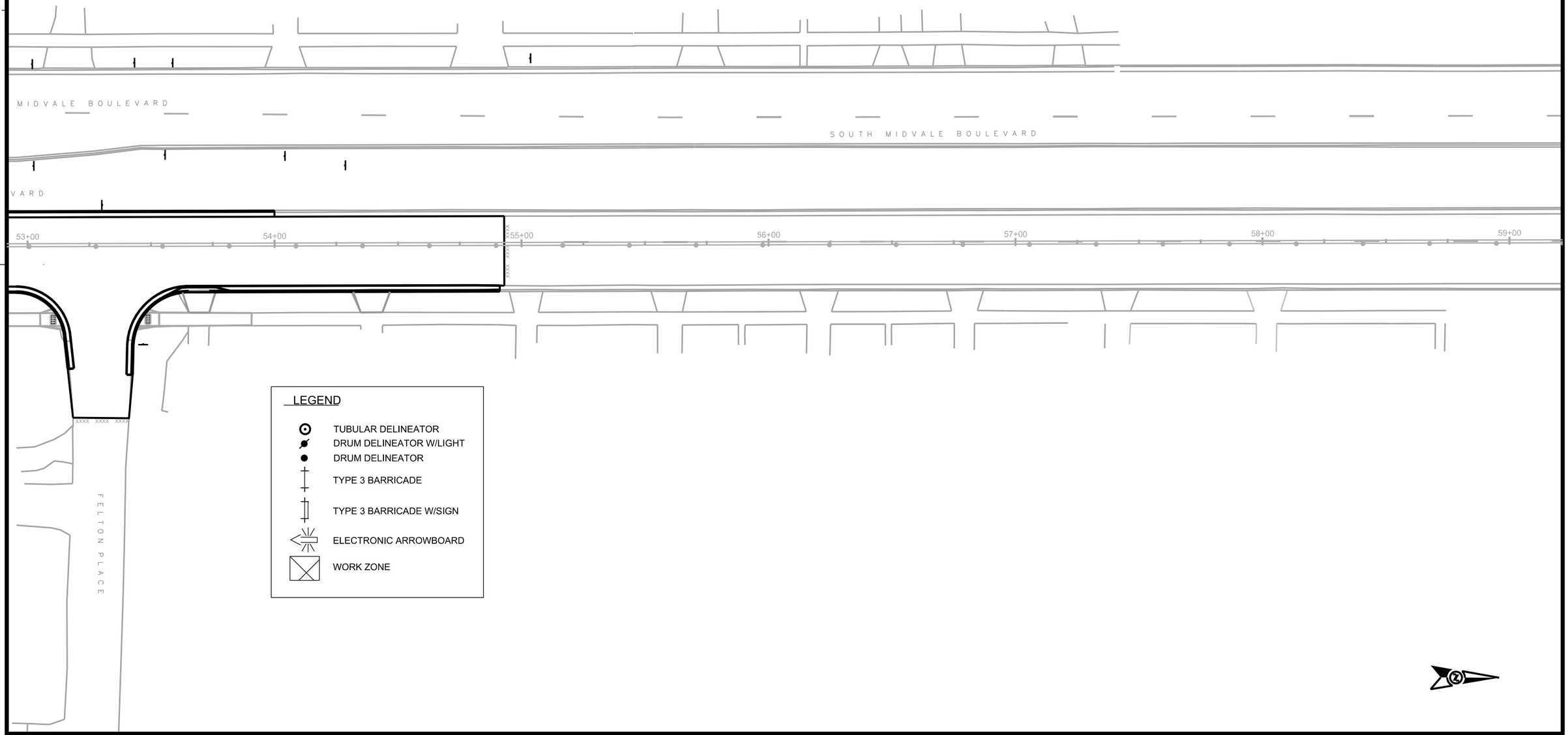
6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal



PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 5	SHEET 107	E

1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
3	Temporary Pavement Tape, 4" White
4	Temporary Pavement Tape, 12" White, Stop Bar
5	Temporary Pavement Marking, 4" Double Yellow
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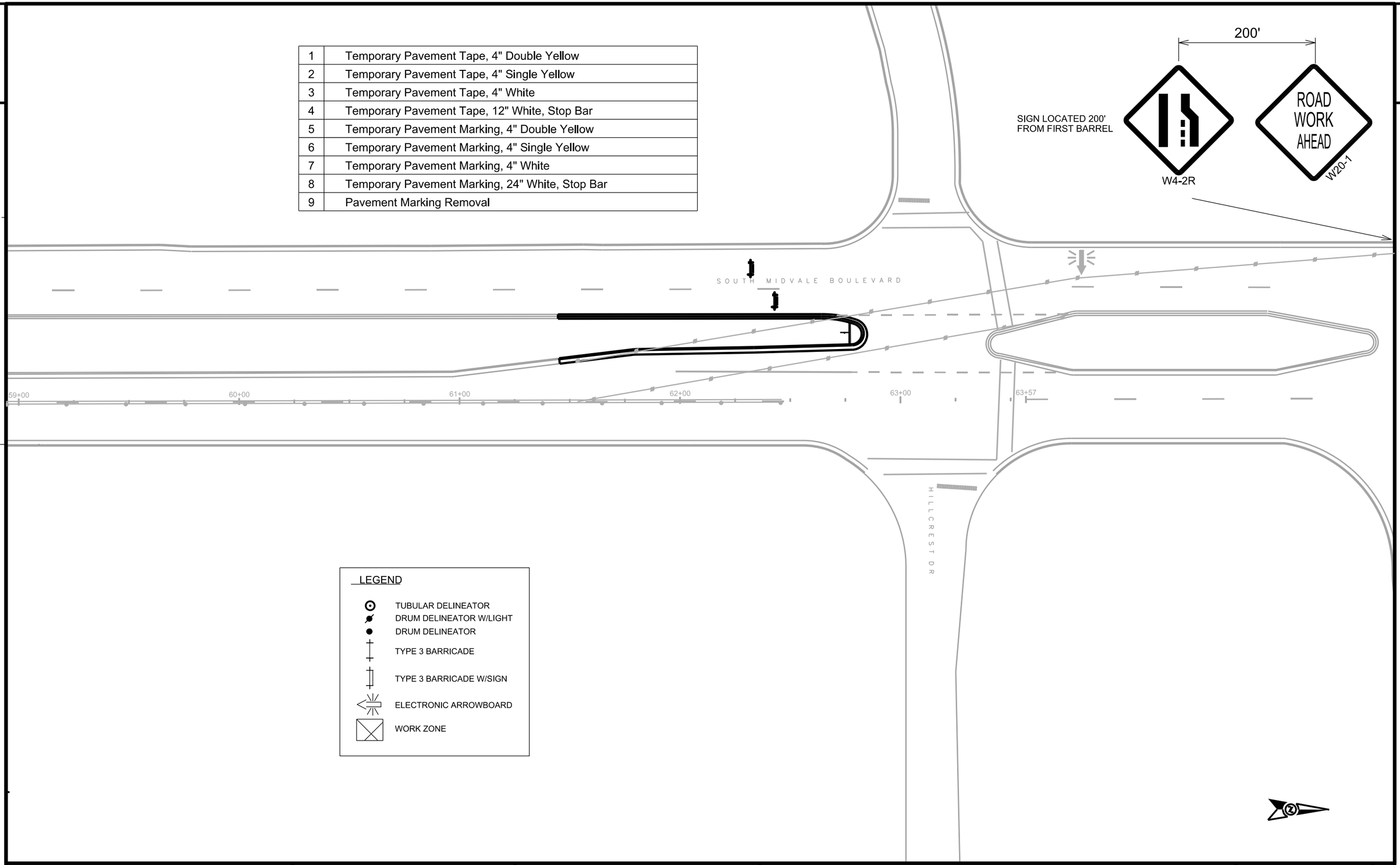
9	Pavement Marking Removal



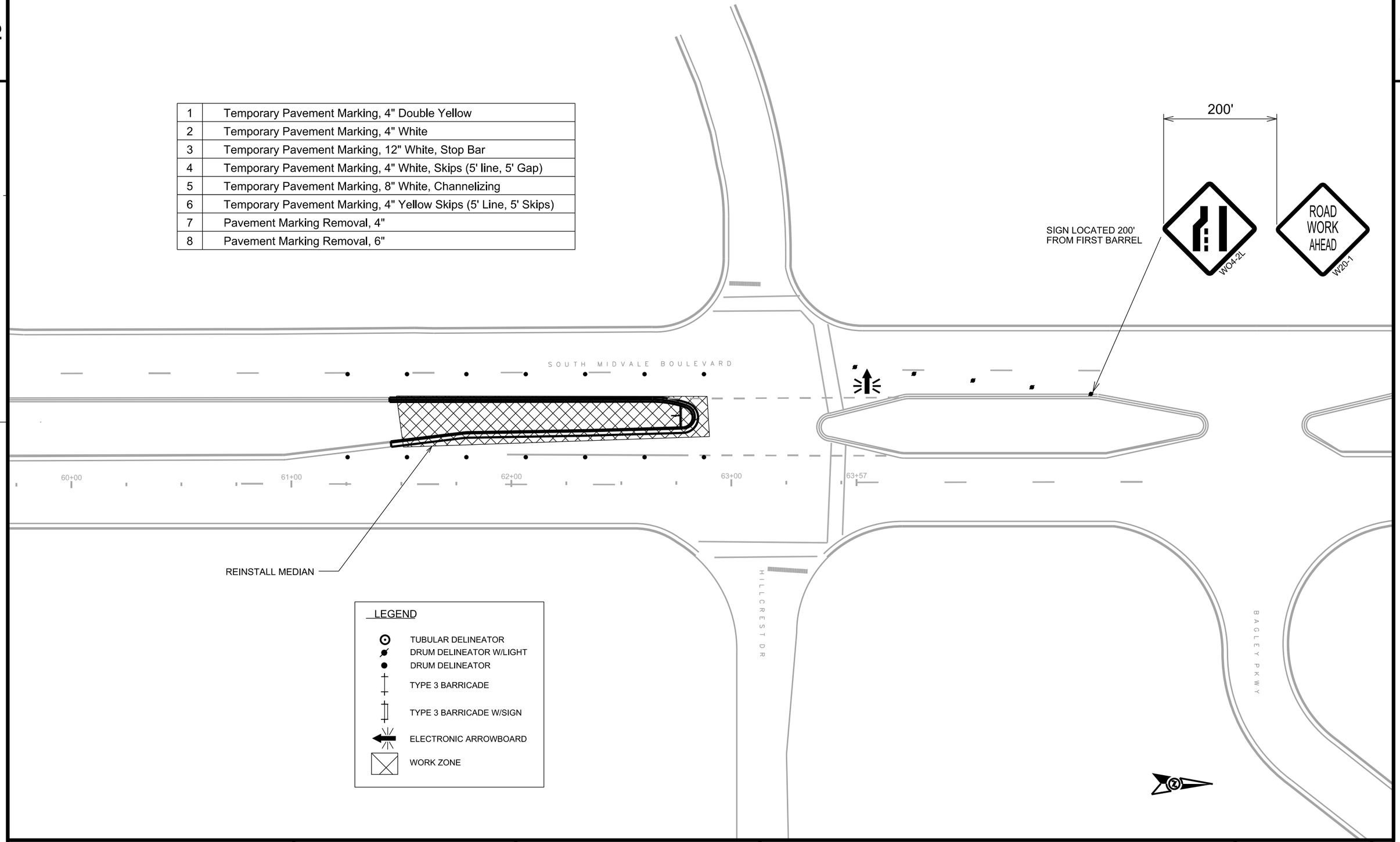
LEGEND

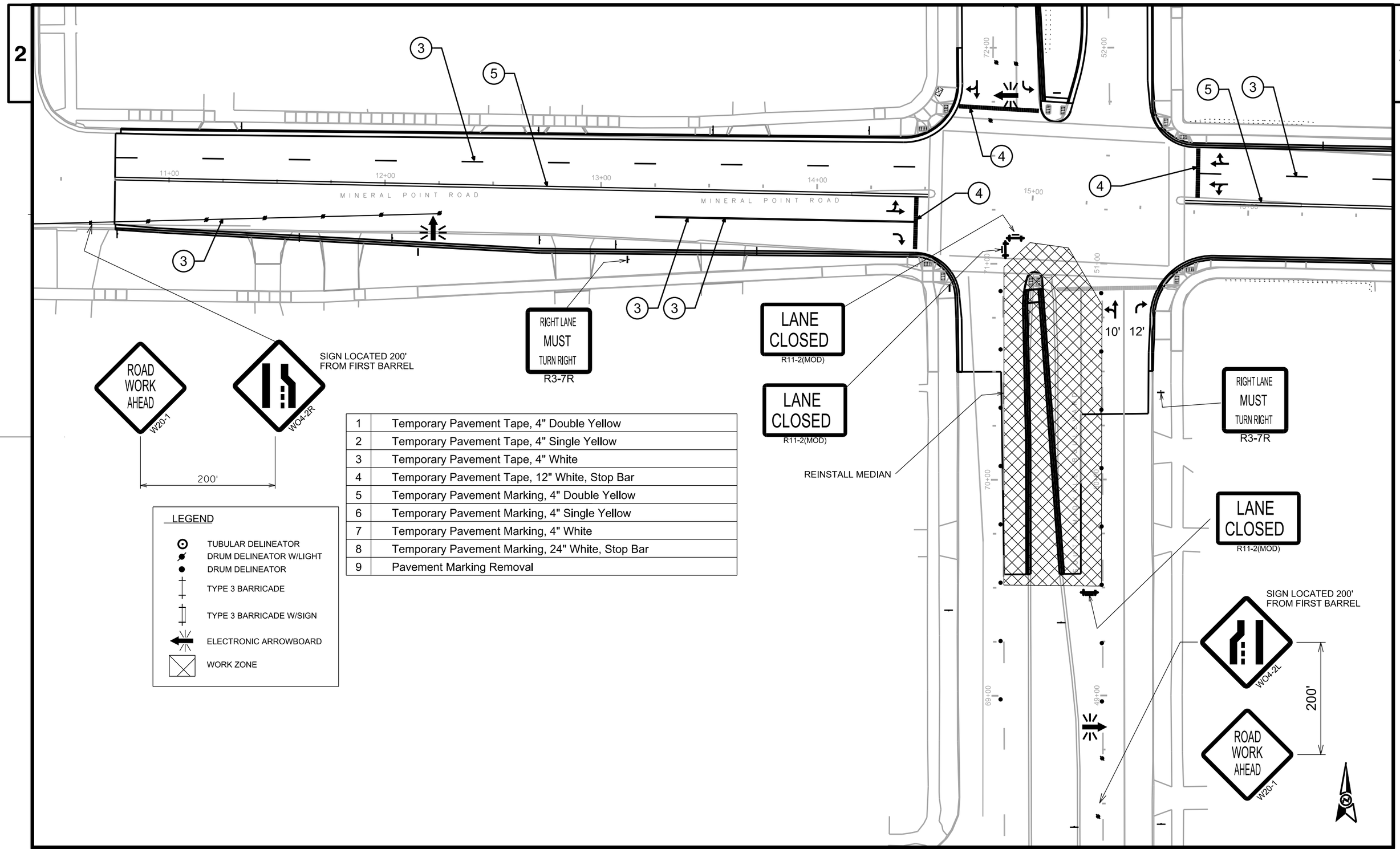
- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 5	SHEET 108	E

2

1	Temporary Pavement Marking, 4" Double Yellow
2	Temporary Pavement Marking, 4" White
3	Temporary Pavement Marking, 12" White, Stop Bar
4	Temporary Pavement Marking, 4" White, Skips (5' line, 5' Gap)
5	Temporary Pavement Marking, 8" White, Channelizing
6	Temporary Pavement Marking, 4" Yellow Skips (5' Line, 5' Skips)
7	Pavement Marking Removal, 4"
8	Pavement Marking Removal, 6"





1	Temporary Pavement Tape, 4" Double Yellow
2	Temporary Pavement Tape, 4" Single Yellow
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4	Temporary Pavement Tape, 12" White, Stop Bar
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6	Temporary Pavement Marking, 4" Single Yellow
7	Temporary Pavement Marking, 4" White
8	Temporary Pavement Marking, 24" White, Stop Bar
9	Pavement Marking Removal

LEGEND

- TUBULAR DELINEATOR
- DRUM DELINEATOR W/LIGHT
- DRUM DELINEATOR
- TYPE 3 BARRICADE
- TYPE 3 BARRICADE W/SIGN
- ELECTRONIC ARROWBOARD
- WORK ZONE

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	TRAFFIC CONTROL - STAGE 6	SHEET 110	E

2

2

MATCHLINE STA 56+00.00

CP-7
NAIL
N=478147.41
E=803228.54
ELV=947.19

CP-2
REBAR
N=477961.43
E=803286.32
ELV=961.06

POE STA 72+55.11
N=477899.44
E=803247.19

CP-8
CUT X
N=477809.42
E=802760.55
ELV=947.73

CP-5
CUT X
N=477810.38
E=803037.33
ELV=951.20

POB STA 10+00.00
N=477784.17
E=802765.83

MINERAL POINT ROAD R/L

S89^24'09"E 445.56'

S. MIDVALE BLVD NB R/L

N0^08'56"W 1172.27'

N2^12'52"E 98.06'

N0^25'80"W 255.11'

PI STA 51+84.67
N=477829.06
E=803301.79

PI STA 15+74.47
N=477768.28
E=803339.79

CP-4
CUT X
N=477804.22
E=803467.61
ELV=968.14

PI STA 17+27.03
N=477765.21
E=803492.31

CP-6
NAIL
N=477787.07
E=803709.79
ELV=979.66

POE STA 20+97.65
N=477758.73
E=803862.88

S84^59'53"E 128.91'

S88^50'41"E 152.56'

S88^59'54"E 370.62'

MINERAL POINT ROAD R/L

S. MIDVALE BLVD SB R/L

PI STA 14+45.56
N=477779.52
E=803211.37

PI STA 50+86.61
N=477731.07
E=803298.00

CP-3
CHISLED X
N=477734.15
E=803269.53
ELV=957.44

POB STA 70+00.00
N=477644.34
E=803247.85

N0^08'05"W 436.61'

CP-1
CHISLED X
N=477469.58
E=803264.52
ELV=964.93

POB STA 46+50.00
N=477294.47
E=803299.03

N

0 100 200

GRAPHIC SCALE

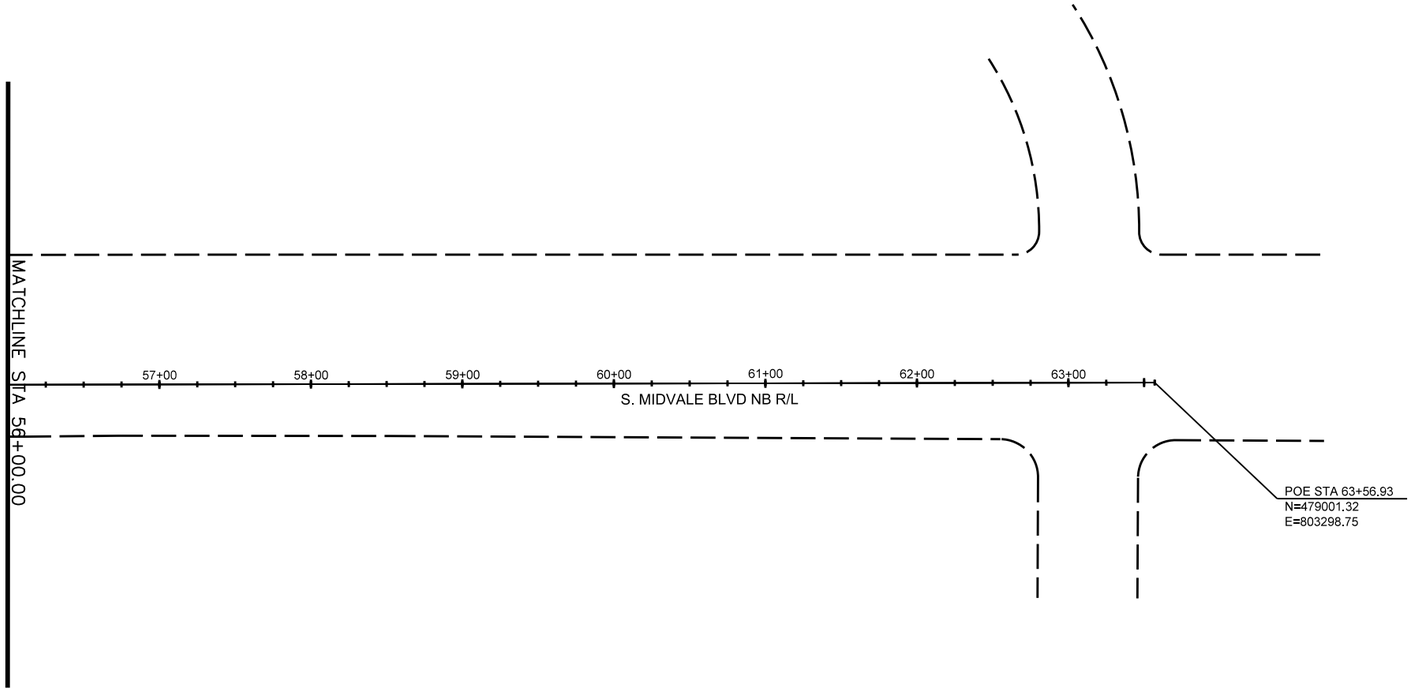
PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	ALIGNMENT OVERVIEW	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%DGNs\53W1293EN-AlignOverview.dgn PLOT DATE : 11/20/2014 PLOT BY : encwd PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N



0 100 200

GRAPHIC SCALE

PROJECT NO:5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	ALIGNMENT OVERVIEW	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\90%DGNs\53W1293EN-AlignOverview2.dgn PLOT DATE : 11/20/2014 PLOT BY : encwd PLOT NAME : PLOT SCALE : 100.0000 sf / in.

DATE 20MAR15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5992-06-64 QUANTITY	5992-06-74 QUANTITY
0010	201.0120	Clearing	ID	28.000	28.000	
0020	201.0220	Grubbing	ID	28.000	28.000	
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	6.000	6.000	
0040	204.0150	Removing Curb & Gutter	LF	3,000.000	3,000.000	
0050	204.0155	Removing Concrete Sidewalk	SY	855.000	855.000	
0060	204.0195	Removing Concrete Bases	EACH	11.000	11.000	
0070	204.0210	Removing Manholes	EACH	2.000	2.000	
0080	204.0220	Removing Inlets	EACH	9.000	9.000	
0090	204.0245	Removing Storm Sewer (size) 01. 12-Inch Or Less	LF	295.000	295.000	
0100	204.0245	Removing Storm Sewer (size) 02. 15-Inch To 30-Inch	LF	187.000	187.000	
0110	205.0100	Excavation Common	CY	7,005.000	7,005.000	
0120	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5992-06-64	LS	1.000	1.000	
0130	213.0100	Finishing Roadway (project) 01. 5992-06-64	EACH	1.000	1.000	
0140	305.0110	Base Aggregate Dense 3/4-Inch	TON	98.000	98.000	
0150	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,125.000	4,125.000	
0160	305.0130	Base Aggregate Dense 3-Inch	TON	4,038.000	4,038.000	
0170	416.0170	Concrete Driveway 7-Inch	SY	164.000	164.000	
0180	455.0120	Asphaltic Material PG64-28	TON	170.000	170.000	
0190	455.0605	Tack Coat	GAL	374.000	374.000	
0200	460.1103	HMA Pavement Type E-3	TON	2,715.000	2,715.000	
0210	460.2000	Incentive Density HMA Pavement	DOL	1,740.000	1,740.000	
0220	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	1,234.000	1,234.000	
0230	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	1.000	1.000	
0240	465.0125	Asphaltic Surface Temporary	TON	128.000	128.000	
0250	602.0410	Concrete Sidewalk 5-Inch	SF	5,475.000	5,475.000	
0260	602.0420	Concrete Sidewalk 7-Inch	SF	1,555.000	1,555.000	
0270	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	112.000	112.000	
0280	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	228.000	228.000	
0290	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	115.000	115.000	
0300	608.0321	Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	LF	125.000	125.000	
0310	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	16.000	16.000	
0320	611.0410	Reconstructing Catch Basins	EACH	1.000	1.000	
0330	611.2033	Manholes 3x3-FT	EACH	2.000	2.000	
0340	611.2044	Manholes 4x4-FT	EACH	2.000	2.000	
0350	611.3230	Inlets 2x3-FT	EACH	12.000	12.000	
0360	611.8105	Adjusting Catch Basin Covers	EACH	1.000	1.000	
0370	611.8110	Adjusting Manhole Covers	EACH	5.000	2.000	3.000
0380	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000	
0390	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000	
0400	619.1000	Mobilization	EACH	1.000	1.000	
0410	620.0300	Concrete Median Sloped Nose	SF	295.000	295.000	
0420	624.0100	Water	MGAL	116.000	116.000	
0430	625.0100	Topsoil	SY	1,756.000	1,756.000	
0440	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000	
0450	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000	

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DATE 20MAR15 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5992-06-64 QUANTITY	5992-06-74 QUANTITY
0460	628.2006	Erosion Mat Urban Class I Type A	SY	1,756.000	1,756.000	
0470	628.7015	Inlet Protection Type C	EACH	11.000	11.000	
0480	628.7020	Inlet Protection Type D	EACH	27.000	27.000	
0490	628.7560	Tracking Pads	EACH	6.000	6.000	
0500	629.0210	Fertilizer Type B	CWT	1.110	1.110	
0510	630.0140	Seeding Mixture No. 40	LB	32.000	32.000	
0520	637.2210	Signs Type II Reflective H	SF	129.500	129.500	
0530	642.5001	Field Office Type B	EACH	1.000	1.000	
0540	643.0100	Traffic Control (project) 01. 5992-06-64	EACH	1.000	1.000	
0550	643.0300	Traffic Control Drums	DAY	15,326.000	15,326.000	
0560	643.0420	Traffic Control Barricades Type III	DAY	1,063.000	1,063.000	
0570	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	128.000	128.000	
0580	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	128.000	128.000	
0590	643.0705	Traffic Control Warning Lights Type A	DAY	8,040.000	8,040.000	
0600	643.0715	Traffic Control Warning Lights Type C	DAY	7,286.000	7,286.000	
0610	643.0800	Traffic Control Arrow Boards	DAY	533.000	533.000	
0620	643.0900	Traffic Control Signs	DAY	2,166.000	2,166.000	
0630	643.1050	Traffic Control Signs PCMS	DAY	154.000	154.000	
0640	646.0106	Pavement Marking Epoxy 4-Inch	LF	732.000	732.000	
0650	646.0116	Pavement Marking Epoxy 6-Inch	LF	1,206.000	1,206.000	
0660	646.0126	Pavement Marking Epoxy 8-Inch	LF	723.000	723.000	
0670	646.0600	Removing Pavement Markings	LF	471.000	471.000	
0680	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	2.000	2.000	
0690	647.0356	Pavement Marking Words Epoxy	EACH	2.000	2.000	
0700	647.0456	Pavement Marking Curb Epoxy	LF	30.000	30.000	
0710	647.0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	159.000	159.000	
0720	647.0606	Pavement Marking Island Nose Epoxy	EACH	3.000	3.000	
0730	647.0716	Pavement Marking Diagonal Epoxy 8-Inch	LF	40.000	40.000	
0740	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	55.000	55.000	
0750	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	552.000	552.000	
0760	649.0100	Temporary Pavement Marking 4-Inch	LF	4,198.000	4,198.000	
0770	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	11,565.000	11,565.000	
0780	649.1000	Temporary Pavement Marking Stop Line Removable Tape 12-Inch	LF	159.000	159.000	
0790	650.4000	Construction Staking Storm Sewer	EACH	23.000	23.000	
0800	650.4500	Construction Staking Subgrade	LF	2,815.000	2,815.000	
0810	650.5000	Construction Staking Base	LF	2,815.000	2,815.000	
0820	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,000.000	3,000.000	
0830	650.8500	Construction Staking Electrical Installations (project) 01. 5992-06-64	LS	1.000	1.000	
0840	650.9910	Construction Staking Supplemental Control (project) 01. 5992-06-64	LS	1.000	1.000	
0850	650.9920	Construction Staking Slope Stakes	LF	2,455.000	2,455.000	
0860	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	217.000	217.000	
0870	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	696.000	696.000	
0880	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,323.000	1,323.000	
0890	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	60.000	60.000	

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DATE 20MAR15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5992-06-64 QUANTITY	5992-06-74 QUANTITY
0900	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	1,228.000	1,228.000	
0910	652.0800	Conduit Loop Detector	LF	962.500	962.500	
0920	653.0905	Removing Pull Boxes	EACH	9.000	9.000	
0930	654.0110	Concrete Bases Type 10	EACH	4.000	4.000	
0940	654.0113	Concrete Bases Type 13	EACH	1.000	1.000	
0950	655.0210	Cable Traffic Signal 3-14 AWG	LF	43.000	43.000	
0960	655.0230	Cable Traffic Signal 5-14 AWG	LF	685.000	685.000	
0970	655.0240	Cable Traffic Signal 7-14 AWG	LF	120.000	120.000	
0980	655.0250	Cable Traffic Signal 9-14 AWG	LF	1,003.000	1,003.000	
0990	655.0260	Cable Traffic Signal 12-14 AWG	LF	569.000	569.000	
1000	655.0615	Electrical Wire Lighting 10 AWG	LF	1,488.000	1,488.000	
1010	655.0620	Electrical Wire Lighting 8 AWG	LF	446.000	446.000	
1020	655.0625	Electrical Wire Lighting 6 AWG	LF	1,338.000	1,338.000	
1030	655.0800	Loop Detector Wire	LF	2,957.000	2,957.000	
1040	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. Midvale-Mineral Point	LS	1.000	1.000	
1050	657.0100	Pedestal Bases	EACH	4.000	4.000	
1060	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000	
1070	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000	
1080	658.0500	Pedestrian Push Buttons	EACH	10.000	10.000	
1090	658.5069	Signal Mounting Hardware (location) 01. Midvale-Mineral Point	LS	1.000	1.000	
1100	690.0150	Sawing Asphalt	LF	2,463.000	2,463.000	
1110	690.0250	Sawing Concrete	LF	20.000	20.000	
1120	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	400.000	400.000	
1130	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	280.000	280.000	
1140	SPV.0060	Special 01. Root Pruning Existing Terrace Trees	EACH	1.000	1.000	
1150	SPV.0060	Special 02. Precast Sign Post Base	EACH	21.000	21.000	
1160	SPV.0060	Special 03. Erecting City-Owned Signs Type II	EACH	14.000	14.000	
1170	SPV.0060	Special 04. Storm Sewer Tap	EACH	1.000	1.000	
1180	SPV.0060	Special 05. Sewer Electronic Markers	EACH	7.000	1.000	6.000
1190	SPV.0060	Special 06. Manhole 3X3-Ft Special	EACH	1.000	1.000	
1200	SPV.0060	Special 07. Inlet 2X3-Ft Special	EACH	1.000	1.000	
1210	SPV.0060	Special 08. Manhole Cover Type J Special	EACH	11.000	4.000	7.000
1220	SPV.0060	Special 09. Inlet Cover Type H Special	EACH	12.000	12.000	
1230	SPV.0060	Special 10. Inlet Cover Type H-S Special	EACH	4.000	4.000	
1240	SPV.0060	Special 11. Remove Sanitary Sewer Structure	EACH	3.000		3.000
1250	SPV.0060	Special 12. Abandon Sanitary Sewer - Pipe Plug	EACH	1.000		1.000
1260	SPV.0060	Special 13. Install Compression Coupling	EACH	1.000		1.000
1270	SPV.0060	Special 14. Sanitary Lateral Reconnect	EACH	3.000		3.000
1280	SPV.0060	Special 15. Sanitary Sewer Access Structure (5-Foot Diameter)	EACH	1.000		1.000
1290	SPV.0060	Special 16. Sanitary Sewer Access Structure (4-Foot Diameter)	EACH	2.000		2.000
1300	SPV.0060	Special 17. Adjust Sewer Access Structure Special	EACH	1.000		1.000
1310	SPV.0060	Special 18. Sanitary Sewer Tap	EACH	6.000		6.000
1320	SPV.0060	Special 19. Utility Line Opening (ULO)	EACH	4.000		4.000

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DATE 20MAR15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5992-06-64 QUANTITY	5992-06-74 QUANTITY
1330	SPV.0060	Special 20. Furnish and Install 6-Inch Valve	EACH	4.000		4.000
1340	SPV.0060	Special 21. Furnish and Install 8-Inch Valve	EACH	1.000		1.000
1350	SPV.0060	Special 22. Furnish and Install 10-Inch Valve	EACH	3.000		3.000
1360	SPV.0060	Special 23. Furnish and Install 12-Inch Valve	EACH	4.000		4.000
1370	SPV.0060	Special 24. Furnish and Install Hydrant	EACH	2.000		2.000
1380	SPV.0060	Special 25. Disconnect/Reconnect 1-Inch Service Lateral	EACH	4.000		4.000
1390	SPV.0060	Special 26. Cut-In or Connect-To Existing Water System	EACH	6.000		6.000
1400	SPV.0060	Special 27. Furnish Excavation and Ditch for Live Tap	EACH	1.000		1.000
1410	SPV.0060	Special 28. Cut Off Existing Water Main	EACH	2.000		2.000
1420	SPV.0060	Special 29. Abandon Water Valve Box	EACH	8.000		8.000
1430	SPV.0060	Special 30. Abandon Hydrant	EACH	2.000		2.000
1440	SPV.0060	Special 31. Concrete Pipe Support	EACH	1.000		1.000
1450	SPV.0060	Special 32. Remove Street Light	EACH	3.000	3.000	
1460	SPV.0060	Special 33. LED Luminaire Type 1	EACH	2.000	2.000	
1470	SPV.0060	Special 34. LED Luminaire Type 2	EACH	2.000	2.000	
1480	SPV.0060	Special 35. Pole 30-Foot, 11 Gauge	EACH	4.000	4.000	
1490	SPV.0060	Special 36. Electrical Pullbox Type 1	EACH	5.000	5.000	
1500	SPV.0060	Special 37. Electrical Pullbox Type 3	EACH	7.000	7.000	
1510	SPV.0060	Special 38. Electrical Pullbox Type 5	EACH	7.000	7.000	
1520	SPV.0060	Special 39. Electrical Pullbox Type 7	EACH	1.000	1.000	
1530	SPV.0060	Special 40. Electrical Utility Access Structure	EACH	3.000	3.000	
1540	SPV.0060	Special 41. Concrete Base Type G	EACH	4.000	4.000	
1550	SPV.0060	Special 42. Concrete Base Type LB-3	EACH	4.000	4.000	
1560	SPV.0060	Special 43. Concrete Base Type P	EACH	1.000	1.000	
1570	SPV.0060	Special 44. Concrete Base Offset	EACH	1.000	1.000	
1580	SPV.0060	Special 45. Transformer Base Steel, 16-Inch	EACH	3.000	3.000	
1590	SPV.0060	Special 46. Monotube Pole, Type 9	EACH	4.000	4.000	
1600	SPV.0060	Special 47. Monotube Pole, Type 12	EACH	1.000	1.000	
1610	SPV.0060	Special 48. Monotube Arm, 20-Foot	EACH	1.000	1.000	
1620	SPV.0060	Special 49. Monotube Arm, 30-Foot	EACH	1.000	1.000	
1630	SPV.0060	Special 50. Monotube Arm, 35-Foot	EACH	3.000	3.000	
1640	SPV.0060	Special 51. Traffic Signal Control Cabinet	EACH	1.000	1.000	
1650	SPV.0060	Special 52. Traffic Signal Controller	EACH	1.000	1.000	
1660	SPV.0060	Special 53. Malfunction Management Unit (MMU)	EACH	1.000	1.000	
1670	SPV.0060	Special 54. Traffic Signal Ethernet Switch	EACH	1.000	1.000	
1680	SPV.0060	Special 55. Traffic Signal Heads 12-Inch, 3-Section	EACH	12.000	12.000	
1690	SPV.0060	Special 56. Traffic Signal Heads 12-Inch, 4-Section	EACH	10.000	10.000	
1700	SPV.0060	Special 57. Traffic Signal Heads 12-Inch, Pedestrian	EACH	12.000	12.000	
1710	SPV.0060	Special 58. Traffic Signal Heads 12-Inch, Pedestrian Countdown	EACH	12.000	12.000	

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DATE 20MAR15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5992-06-64 QUANTITY	5992-06-74 QUANTITY
1720	SPV.0060	Special 59. Backplates Signal Face 3-Section, 12-Inch	EACH	12.000	12.000	
1730	SPV.0060	Special 60. Backplates Signal Face 4-Section, 12-Inch	EACH	10.000	10.000	
1740	SPV.0060	Special 61. Driver Feedback Radar LED Speed Sign	EACH	1.000	1.000	
1750	SPV.0060	Special 62. Reduce Speed LED Sign, 72" X 12"	EACH	1.000	1.000	
1760	SPV.0090	Special 01. Concrete Curb and Gutter 24-Inch Type D Special	LF	1,604.000	1,604.000	
1770	SPV.0090	Special 02. Concrete Curb and Gutter 30-Inch Type D Special	LF	1,125.000	1,125.000	
1780	SPV.0090	Special 03. Concrete Curb and Gutter 24-Inch Type X Special	LF	29.000	29.000	
1790	SPV.0090	Special 04. Concrete Curb and Gutter 30-Inch Type X Special	LF	40.000	40.000	
1800	SPV.0090	Special 05. Concrete Curb and Gutter 24-Inch Type E Special	LF	202.000	202.000	
1810	SPV.0090	Special 06. Reflective Sign Post	LF	198.500	198.500	
1820	SPV.0090	Special 07. Utility Trench Patch Type III	LF	110.000		110.000
1830	SPV.0090	Special 08. Select Fill for Sanitary Sewer	LF	31.000		31.000
1840	SPV.0090	Special 09. Sanitary Sewer Pipe PVC, 6-Inch	LF	7.000		7.000
1850	SPV.0090	Special 10. Sanitary Sewer Lateral	LF	24.000		24.000
1860	SPV.0090	Special 11. Furnish & Install 6-Inch Pipe & Fittings	LF	62.000		62.000
1870	SPV.0090	Special 12. Furnish & Install 8-Inch Pipe & Fittings	LF	24.000		24.000
1880	SPV.0090	Special 13. Furnish & Install 10-Inch Pipe & Fittings	LF	28.000		28.000
1890	SPV.0090	Special 14. Furnish & Install 12-Inch Pipe & Fittings	LF	843.000		843.000
1900	SPV.0090	Special 15. Extend and Reconnect 1-Inch Service Lateral	LF	54.000		54.000
1910	SPV.0090	Special 16. Select Fill for Water Main	LF	957.000		957.000
1920	SPV.0090	Special 17. Furnish and Install 2-Inch Foam Board Insulation	LF	40.000		40.000
1930	SPV.0090	Special 18. Loop Detector Lead-In Cable Special	LF	3,550.000	3,550.000	
1940	SPV.0105	Special 01. Wastewater Control	LS	1.000		1.000
1950	SPV.0105	Special 02. Construction Staking Sanitary Sewer	LS	1.000		1.000
1960	SPV.0105	Special 03. Construction Staking Water Main	LS	1.000		1.000
1970	SPV.0105	Special 04. Optical Signal Preempt	LS	1.000	1.000	
1980	SPV.0105	Special 05. Temporary Traffic Signals (Midvale-Mineral Point)	LS	1.000	1.000	
1990	SPV.0105	Special 06. Temporary Vehicle Detection (Midvale-Mineral Point)	LS	1.000	1.000	
2000	SPV.0200	Special 01. Construct Inside Drop	VF	7.040		7.040

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TREE REMOVAL

CATEGORY	STATION	LOCATION	201.0120 CLEARING IN DIA	201.0220 GRUBBING IN DIA	SPV.0060.01 ROOT PRUNING EXISTING TERRACE TREES EACH
0010	13+82	RT	4	4	--
	52+03	RT	3	3	--
	52+54	RT	18	18	--
	61+50	LT	3	3	--
	UNDISTRIBUTED	PROJECT	--	--	1
		PROJECT TOTALS	28	28	1

REMOVING CURB & GUTTER

CATEGORY	STATION - STATION	LOCATION	204.0150 LF
	C&G REMOVAL STAGE 1		
0010	49+50 - 50+66	LT	110
	69+50 - 70+60	RT	105
	61+50 - 62+88	LT	280
	C&G REMOVAL STAGE 2		
	15+60 - 20+25	LT	440
	51+63 - 54+93	LT	242
	51+58 - 54+93	RT	350
	C&G REMOVAL STAGE 3		
	15+70 - 20+25	RT	442
	50+66 - 51+00	LT	28
	50+35 - 51+01	RT	60
	C&G REMOVAL STAGE 4		
	10+75 - 14+60	RT	384
	70+50 - 71+02	LT	58
	70+50 - 71+00	RT	34
	C&G REMOVAL STAGE 5		
	10+75 - 14+50	LT	378
	71+60 - 72+10	LT	47
	71+69 - 72+10	RT	42
		PROJECT TOTAL	3000

SAWCUTTING

CATEGORY	STATION	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
	SAWCUTTING FOR STAGE 1				
	49+56	50+90	S MIDVALE BLVD NB, LT	135	--
	61+50	62+88	S MIDVALE BLVD NB, LT	280	--
	69+56	70+87	S MIDVALE BLVD SB, RT	130	--
	SAWCUTTING FOR STAGE 2				
	15+00	20+25	MINERAL POINT RD, LT	525	--
	51+30	51+68	S MIDVALE BLVD NB, LT	38	--
	53+18	53+41	S MIDVALE BLVD NB, RT	23	--
	54+00	54+93	S MIDVALE BLVD NB, LT	93	--
	54+93	--	S MIDVALE BLVD NB	28	--
	SAWCUTTING FOR STAGE 3				
	50+30	--	S MIDVALE BLVD NB	41	--
	50+30	50+50	S MIDVALE BLVD NB, RT	20	--
	50+99	51+30	S MIDVALE BLVD NB, LT	31	--
	SAWCUTTING FOR STAGE 3B				
	11+47	--	MINERAL POINT RD	15	--
	11+69	--	MINERAL POINT RD	15	--
	11+47	11+69	MINERAL POINT RD, LT	22	--
	11+47	11+69	MINERAL POINT RD, RT	22	--
	SAWCUTTING FOR STAGE 4				
	10+75	15+00	MINERAL POINT RD, RT	425	--
	70+50	--	S MIDVALE BLVD SB	30	--
	SAWCUTTING FOR STAGE 5				
	72+00	72+25	S MIDVALE BLVD SB, LT	25	--
	72+25	--	S MIDVALE BLVD SB	34	--
	SAWCUTTING FOR STAGE 6				
	49+56	50+66	S MIDVALE BLVD NB, LT	110	--
	61+50	62+88	S MIDVALE BLVD NB, LT	280	--
	69+56	70+62	S MIDVALE BLVD SB, RT	106	--
	SAWCUTTING FOR ASPHALT DRIVEWAYS				
	--	--	MINERAL POINT RD	35	--
	UNDISTRIBUTED SAWCUTTING				
	--	--	PROJECT	--	20
			PROJECT TOTALS	2463	20

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	204.0155 SY
0010	10+75 - 14+50	LT	90
	10+75 - 14+50	RT	110
	15+75 - 20+25	LT	260
	15+75 - 20+25	RT	160
	50+35 - 51+00	RT	40
	51+55 - 54+93	RT	80
	70+50 - 71+05	LT	40
	71+60 - 72+10	LT	10
	MINERAL POINT WEST ISLAND		15
	MINERAL POINT EAST ISLAND		20
	MIDVALE SOUTH MEDIAN @ MINERAL POINT		15
	MIDVALE NORTH MEDIAN @ MINERAL POINT		10
	MIDVALE NORTH MEDIAN @ HILLCREST		5
		PROJECT TOTAL	855

3

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.8500 ELECTRICAL INSTALLATIONS LUMP	650.9910 SUPPLEMENTAL CONTROL LUMP	650.9920 SLOPE STAKES LF
0010	STAGE 2					
	MINERAL POINT RD, LT	525	525	--	--	455
	S MIDVALE BLVD NB	345	345	--	--	500
	SIDEROADS	55	55	--	--	100
	STAGE 2 TOTAL	925	925	--	--	1055
	STAGE 3					
	MINERAL POINT RD, RT	525	525	--	--	440
	S MIDVALE BLVD NB	70	70	--	--	50
	STAGE 3 TOTAL	595	595	--	--	490
	STAGE 4					
	MINERAL POINT RD, RT	435	435	--	--	385
	S MIDVALE BLVD SB	50	50	--	--	45
	STAGE 4 TOTAL	485	485	--	--	430
	STAGE 5					
	MINERAL POINT RD, LT	435	435	--	--	375
	S MIDVALE BLVD SB	75	75	--	--	65
	STAGE 5 TOTAL	510	510	--	--	440
	STAGE 6					
	S MIDVALE BLVD NB	150	150	--	--	20
	S MIDVALE BLVD SB	150	150	--	--	20
	STAGE 6 TOTAL	300	300	--	--	40
	PROJECT TOTALS	2815	2815	1	1	2455

NOTE: SEE MISCELLANEOUS QUANTITIES FOR CURB & GUTTER, STORM SEWER, SANITARY SEWER AND WATER FOR ADDITIONAL CONSTRUCTION STAKING QUANTITITES

BASE AGGREGATE

STATION	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	624.0100 WATER MGAL
STAGE 2		MINERAL POINT RD	--	648	648	13.0
		SIDEWALK	31	--	--	0.3
		S MIDVALE BLVD (NB)	--	803	803	16.1
		SIDEWALK	12	--	--	0.1
		DRIVEWAY	--	10	--	0.1
STAGE 3		MINERAL POINT RD	--	627	627	12.5
		SIDEWALK	17	--	--	0.2
		DRIVEWAY	--	12	--	0.1
		S MIDVALE BLVD (NB)	--	254	254	5.1
		SIDEWALK	5	--	--	0.1
STAGE 4		MINERAL POINT RD	--	581	581	11.6
		SIDEWALK	12	--	--	0.1
		DRIVEWAY	--	50	--	0.5
		S MIDVALE BLVD (SB)	--	152	152	3.0
		SIDEWALK	5	--	--	0.1
STAGE 5		MINERAL POINT RD	--	553	553	11.1
		SIDEWALK	11	--	--	0.1
		DRIVEWAY	--	15	--	0.2
		S MIDVALE BLVD (SB)	--	226	226	4.5
		SIDEWALK	3	--	--	0.0
STAGE 6		S MIDVALE BLVD (SB)	--	89	89	1.8
		SIDEWALK	1	--	--	0.0
		S MIDVALE BLVD (NB)	--	105	105	2.1
		SIDEWALK	1	--	--	0.0
		UNDISTRIBUTED FOR DUST CONTROL	--	--	--	33.3
		SUBTOTALS, MAINLINE	98	4125	4038	116

3

ASPHALT

STATION	STATION	LOCATION	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	460.4110 REHEATING HMA LONGITUDINAL JOINTS LF
STAGE 2						
15+75	20+25	MINERAL POINT RD	18	--	290	--
51+30	54+93	S MIDVALE BLVD NB	22	--	350	--
		STAGE 2 - ASPHALT TOTALS	40	0	640	0.00
STAGE 3						
15+75	20+25	MINERAL POINT RD	18	--	280	525.00
50+30	51+30	S MIDVALE BLVD NB	8	--	125	0.00
		STAGE 3 - ASPHALT TOTALS	25	0	405	525.00
STAGE 4						
10+75	14+50	MINERAL POINT RD	16	--	255	--
70+50	71+31	S MIDVALE BLVD SB	5	--	85	0.00
		STAGE 4 - ASPHALT TOTALS	21	0	340	0.00
STAGE 5						
10+75	14+50	MINERAL POINT RD	15	--	240	425.00
71+31	72+25	S MIDVALE BLVD SB	7	--	115	0.00
		STAGE 5 - MAIN-LINE ASPHALT TOTALS	22	0	355	425.00
STAGE 6						
49+56	50+98	S MIDVALE BLVD NB	3	--	40	142.00
69+56	70+98	S MIDVALE BLVD SB	2	--	35	142.00
		STAGE 6 - ASPHALT TOTALS	5	0	75	284.00
STAGE 7						
10+75	14+50	MINERAL POINT RD	15	102	245	--
15+75	20+25	MINERAL POINT RD	18	118	285	--
69+56	72+25	S MIDVALE BLVD SB	7	46	110	--
49+56	54+93	S MIDVALE BLVD NB	16	108	260	--
		STAGE 7 - MAIN-LINE ASPHALT TOTALS	56	374	900	0.00
		PROJECT TOTALS	170	374	2715	1234

CONCRETE CURB & GUTTER

	STATION	-	STATION	LOCATION	SPV.0090.01 24-INCH TYPE D SPECIAL LF	SPV.0090.02 30-INCH TYPE D SPECIAL LF	SPV.0090.03 24-INCH TYPE X SPECIAL LF	SPV.0090.04 30-INCH TYPE X SPECIAL LF	SPV.0090.05 24-INCH TYPE E SPECIAL LF	650.5500 CONSTRUCTION STAKING CURB GUTTER LF
STAGE 2	15+75	-	20+25	MINERAL POINT RD	440	--	--	--	--	440
	51+30	-	54+93	S MIDVALE BLVD NB	15	540	--	40	--	595
STAGE 3	15+75	-	20+25	MINERAL POINT RD	440	--	--	--	--	440
	50+30	-	51+30	S MIDVALE BLVD NB	44	--	15	--	--	59
STAGE 4	10+75	-	14+50	MINERAL POINT RD	370	--	5	--	--	375
	70+50	-	71+31	S MIDVALE BLVD SB	25	30	9	--	--	64
STAGE 5	10+75	-	14+50	MINERAL POINT RD	--	375	--	--	--	375
	71+31	-	72+25	S MIDVALE BLVD SB	--	50	--	--	50	100
STAGE 6	49+56	-	50+98	S MIDVALE BLVD NB	135	--	--	--	--	135
	61+50	-	62+88	S MIDVALE BLVD NB	--	130			152	282
	69+56	-	70+98	S MIDVALE BLVD SB	135	--	--	--	--	135
				PROJECT TOTALS	1604	1125	29	40	202	3000

ASPHALTIC SURFACE TEMPORARY

CATEGORY	TRAFFIC CONTROL STAGE	LOCATION	REMOVE ASPHALTIC SURFACE BUTT JOINTS SY	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
0010	STAGE 1	PROJECT	--	104	TEMPORARY PAVEMENT
	STAGE 1	PROJECT	--	8	REPLACE ISLANDS
	STAGE 2	PROJECT	--	1	MANHOLE/RAMP WEDGES
	STAGE 3	PROJECT	--	2	MANHOLE/RAMP WEDGES
	STAGE 3	PROJECT	--	10	TEMPORARY PAVEMENT
	STAGE 3B	PROJECT	--	1	MANHOLE/RAMP WEDGES
	STAGE 4	PROJECT	--	1	MANHOLE/RAMP WEDGES
	STAGE 5	PROJECT	--	1	MANHOLE/RAMP WEDGES
	STAGE 7	PROJECT	6	--	MANHOLE/RAMP WEDGES
		PROJECT TOTALS	6	128	

EARTHWORK SUMMARY (205.0100 EXCAVATION COMMON)

CATEGORY	TRAFFIC CONTROL STAGE	STATION - STATION	CUT FACT	CUT VOLUME (cu yd)	CUT ADJUSTED (cu yd)	FILL FACT	FILL VOLUME (cu yd)	FILL ADJUSTED (cu yd)	MASS ORD. (cu yd)
0010	STAGE 1								
	S MIDVALE BLVD NB	49+50 - 50+50	1.0	100	100	1.2	0	0	100
	S MIDVALE BLVD NB	61+45 - 62+85	1.0	70	70	1.2	0	0	70
	STAGE 2								
	MINERAL POINT RD	15+00 - 20+25	1.0	915	915	1.2	0	0	915
	S MIDVALE BLVD NB	51+50 - 54+93	1.0	1225	1225	1.2	0	0	1225
	STAGE 3								
	MINERAL POINT RD	15+00 - 20+25	1.0	1074	1074	1.2	0	0	1074
	S MIDVALE BLVD NB	50+30 - 51+00	1.0	268	268	1.2	0	0	268
	STAGE 4								
	MINERAL POINT RD	10+75 - 15+00	1.0	1006	1006	1.2	0	0	1006
	S MIDVALE BLVD SB	70+50 - 71+00	1.0	128	128	1.2	0	0	128
	STAGE 5								
	MINERAL POINT RD	10+75 - 15+00	1.0	924	924	1.2	0	0	924
	S MIDVALE BLVD SB	71+50 - 72+25	1.0	195	195	1.2	0	0	195
	STAGE 6								
	S MIDVALE BLVD NB	49+50 - 50+50	1.0	190	190	1.2	0	0	190
	S MIDVALE BLVD NB	61+45 - 62+85	1.0	80	80	1.2	0	0	80
	EBS (UNDISTRIBUTED)	PROJECT	1.0	830	830	1.2	0	0	830
		PROJECT TOTALS	--	7005	7005	--	0	0	7005
		PLAN QUANTITY EXCAVATION (PROJECT TOTAL LESS EBS)	--	--	6175	--	--	--	--

NOTE: REFER TO EARTHWORK DATA SHEETS WIHTIN THE PLANS FOR ADDITIONAL INFORMATION

ASPHALTIC DRIVEWAYS

CATEGORY	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS TON	690.0150 SAWING ASPHALT* LF
0010	12+85	RT	0.5	16
	13+60	RT	0.5	19
	PROJECT TOTALS		1.0	35.0

* QUANTITY IS INCLUDED ON SAWCUTTING SUMMARY

CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	602.0410 5-INCH SF	602.0420 7-INCH SF
0010	10+75 - 14+50	LT	450	300
	10+75 - 14+50	RT	675	360
	15+75 - 20+25	LT	2250	20
	15+75 - 20+25	RT	1225	245
	50+35 - 51+10	RT	125	65
	51+50 - 54+93	RT	500	260
	70+50 - 71+10	LT	250	145
	71+60 - 71+85	LT	--	160
	PROJECT TOTALS		5475	1555

CONCRETE DRIVEWAY 7-INCH

CATEGORY	STATION - STATION	LOCATION	416.0170 SY
0010	10+75 - 14+50	LT	28
	10+75 - 14+50	RT	101
	16+00 - 18+00	RT	14
	53+50 - 54+50	RT	21
	PROJECT TOTAL		164

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

CATEGORY	STATION - STATION	LOCATION	602.0515 SF
0010	14+50 - 15+75	MINERAL PT @ MIDVALE	96
	53+00 - 53+50	NB MIDVALE @ FELTON	16
	PROJECT TOTAL		112

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION	LOCATION	620.0300 SF
0010	15+07	LT	165
	15+07	RT	85
	62+80	LT	45
	PROJECT TOTAL		295

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EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	(628.7015) INLET PROTECTION TYPE C EACH	(628.7020) INLET PROTECTION TYPE D EACH
0020	10+00.00	-	11+00.00	HILLCREST DR/MINERAL POINT RD INTERSECTION	2	4
	11+00.00	-	12+00.00	MINERAL POINT ROAD	1	-
	14+25.00	-	16+00.00	S. MIDVALE BLVD/MINERAL POINT RD INTERSECTION	6	11
	18+25.00	-	19+00.00	MINERAL POINT ROAD	-	4
	53+00.00	-	54+00.00	S. MIDVALE BLVD NB	2	2
	62+25.00	-	63+75	HILLCREST DR/S. MIDVALE BLVD INTERSECTION	-	6
				PROJECT TOTALS	**11**	**27**

MOBILIZATIONS

CATEGORY	(628.1905) EROSION CONTROL EACH	(628.1910) EMERGENCY EROSION CONTROL EACH
0020	1	2
PROJECT TOTALS	**1**	**2**

TRACKING PADS

CATEGORY	LOCATION	(628.7560) EACH
0020	BEGIN PROJECT	2
	END PROJECT	2
	UNDISTRIBUTED	2
	PROJECT TOTAL	**6**

FINISHING ITEMS

CATEGORY	STATION	TO STATION	LOCATION	(625.0100) TOPSOIL SY	(628.2006) EROSION MAT URBAN CLASS 1 TYPE A SY	(629.0210) FERTILIZER TYPE B CWT	(630.0140) SEEDING MIXTURE NO. 40 LB
0020	10+75	20+25	MINERAL POINT ROAD	994	994	0.63	18
	50+50	54+93	MIDVALE BLVD	533	533	0.34	10
	61+38	62+77	MIDVALE BLVD	207	207	0.13	4
			UNDISTRIBUTED	22	22	0.01	0
			PROJECT TOTALS	**1,756**	**1,756**	**1.11**	**32**

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REMOVING STORM SEWER STRUCTURES

CATEGORY	STATION	LOCATION	OFFSET	(204.0210) REMOVING MANHOLES EACH	(204.0220) REMOVING INLETS EACH
0020	14+67.00	MINERAL POINT ROAD	41.16 RT	-	1
	15+02.71	MINERAL POINT ROAD	37.86 RT	-	1
	15+12.55	MINERAL POINT ROAD	37.41 RT	1	-
	15+13.98	MINERAL POINT ROAD	51.95 LT	-	1
	15+53.30	MINERAL POINT ROAD	41.49 LT	-	1
	15+65.04	MINERAL POINT ROAD	32.06 RT	-	1
	18+72.03	MINERAL POINT ROAD	13.99 RT	1	-
	18+75.00	MINERAL POINT ROAD	18.00 RT	-	1
	18+80.32	MINERAL POINT ROAD	23.53 LT	-	1
	53+15.14	MIDVALE BOULEVARD NB	36.64 RT	-	1
	53+54.96	MIDVALE BOULEVARD NB	19.63 RT	-	1
		PROJECT TOTALS		**2**	**9**

REMOVING STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	(204.0245.01) SIZE 01. 12-INCH OR LESS LF	(204.0245.02) SIZE 02. 15-INCH TO 30-INCH LF
0020	14+67.00	-	15+11.82	MINERAL POINT ROAD	47	-
	15+05.69	-	15+13.98	MINERAL POINT ROAD	7	-
	15+05.68	-	15+53.30	MINERAL POINT ROAD	44	-
	15+11.82	-	15+65.04	MINERAL POINT ROAD	53	-
	18+72.03	-	18+80.32	MINERAL POINT ROAD	35	-
	18+72.03	-	18+75.00	MINERAL POINT ROAD	-	5
	18+72.03	-	18+83.35	MINERAL POINT ROAD	-	11
	50+51.80	-	50+03.75	MIDVALE BOULEVARD NB	-	52
	50+93.25	-	51+09.25	MIDVALE BOULEVARD NB	-	16
	49+89.72	-	50+93.25	MIDVALE BOULEVARD NB	-	103
	53+42.00	-	53+15.30	MIDVALE BOULEVARD NB	64	-
	53+42.00	-	53+56.25	MIDVALE BOULEVARD NB	45	-
			PROJECT TOTALS		**295**	**187**

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE I.D.	STATION	LOCATION	(611.2033) MANHOLES 3X3-FT EACH	(SPV.0060.06) MANHOLE 3X3-FT SPECIAL EACH	(611.2044) MANHOLES 4X4-FT EACH	(611.3230) INLETS 2X3-FT EACH	(SPV.0060.07) INLET 2X3-FT SPECIAL EACH	(611.0410) RECONSTRUCTING CATCH BASIN EACH	(SPV.0060.08) MANHOLE COVER TYPE J SPECIAL EACH	(SPV.0060.09) INLET COVER TYPE H SPECIAL EACH	(SPV.0060.10) INLET COVER TYPE H-S SPECIAL EACH	(611.8110) ADJUSTING MANHOLE COVERS EACH	(611.8105) ADJUSTING CATCH BASIN COVERS EACH	(611.8115) ADJUSTING INLET COVERS EACH	(650.4000) CONSTRUCTION STAKING STORM SEWER EACH	TOP OF CASTING ELEVATION
0020	1.0	11+64.62	26.36' RT	-	-	-	-	1	-	-	1	-	-	-	-	1	949.51
	2.0	14+69.60	51.40' RT	-	-	-	1	-	-	-	1	-	-	-	-	1	956.00
	3.0	15+15.00	55.00' LT	-	-	-	1	-	-	-	1	-	-	-	-	1	958.27
	3.1	15+51.15	49.00' LT	-	-	-	1	-	-	-	-	1	-	-	-	1	959.28
	4.0	15+86.85	12.00' RT	-	1	-	-	-	-	1	-	-	-	-	-	1	960.20
	4.1	15+86.60	21.00' RT	-	-	-	1	-	-	-	1	-	-	-	-	1	960.45
	4.2	15+96.74	21.00' RT	-	-	-	1	-	-	-	1	-	-	-	-	1	960.89
	4.3	15+87.95	31.00' LT	-	-	-	1	-	-	-	1	-	-	-	-	1	960.77
	4.4	15+77.80	31.00' LT	-	-	-	1	-	-	-	1	-	-	-	-	1	960.22
	5.0	18+69.67	14.00' RT	-	-	1	-	-	-	1	-	-	-	-	-	1	974.65
	5.1	18+81.05	26.15' LT	-	-	-	1	-	-	-	1	-	-	-	-	1	976.58
	5.2	18+83.40	21.40' RT	-	-	1	-	-	-	-	1	-	-	-	-	1	975.73
	6.0	53+41.70	42.00' RT	-	-	-	1	-	-	-	1	-	-	-	-	1	961.95
	6.1	53+16.30	42.65' RT	-	-	-	1	-	-	-	1	-	-	-	-	1	961.99
	7.0	15+08.23	50.36' RT	1	-	-	-	-	-	-	-	1	-	-	-	1	957.89
	7.1	15+60.57	51.65' RT	-	-	-	1	-	-	-	-	1	-	-	-	1	958.91
	7.2	15+01.53	51.42' RT	-	-	-	1	-	-	-	-	1	-	-	-	1	957.45
	7.3	49+89.72	22.15 LT	1	-	-	-	-	-	-	1	-	-	-	-	1	959.88
	EX. 1	11+64.48	21.60' RT	-	-	-	-	-	1	2	-	-	-	-	-	1	949.14
	EX. 2	15+11.82	15.80' RT	-	-	-	-	-	-	-	-	-	1	-	-	1	957.57
	EX. 4	15+05.68	56.15 LT	-	-	-	-	-	-	-	-	-	-	1	-	1	957.60
	EX. 6	62+61.00	23.90' LT	-	-	-	-	-	-	-	-	-	-	-	1	1	
	EX.7	62+67.50	30.75' LT	-	-	-	-	-	-	-	-	-	1	-	-	1	
PROJECT TOTALS				**2**	**1**	**2**	**12**	**1**	**1**	**4**	**12**	**4**	**2**	**1**	**1**	**23**	

STORM SEWER PIPE

CATEGORY	STRUCTURE I.D. FROM	STRUCTURE I.D. TO	(608.0312) CLASS III SS RCP 12-INCH LF	(608.0315) CLASS III SS RCP 15-INCH LF	(608.0321) CLASS III SS RCP 21-INCH LF	(608.0330) CLASS III SS RCP 30-INCH LF
0020	TAP	2.0	32	-	-	-
	EX. 4	3.0	-	9	-	-
	3.0	3.1	-	37	-	-
	4.0	4.3	43	-	-	-
	4.0	4.1	8	-	-	-
	4.1	4.2	9	-	-	-
	4.3	4.4	10	-	-	-
	5.0	5.1	42	-	-	-
	5.0	5.2	-	-	-	16
	EX. 5	6.0	-	69	-	-
	6.0	6.1	25	-	-	-
	EX. 2	7.0	-	-	35	-
	7.0	7.1	52	-	-	-
	7.0	7.2	7	-	-	-
	7.0	7.3	-	-	90	-
PROJECT TOTALS			**228**	**115**	**125**	**16**

MISCELLANEOUS STORM SEWER ITEMS

CATEGORY	STATION	LOCATION	(611.8120.S) COVER PLATES TEMPORARY EACH	(SPV.0060.04) STORM SEWER TAP EACH	(SPV.0060.05) SEWER ELECTRONIC MARKERS EACH
0020	14+68.50	20' RT	-	1	1
	62+61.00	24' LT	1	-	-
	62+67.50	31' LT	1	-	-
PROJECT TOTALS			**2**	**1**	**1**

* SEWER ELECTRONIC MARKERS ELSEWHERE IN PLANS

SANITARY SEWER STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	LOCATION	FINAL RIM	TEMP RIM ELEV.	EXISTING TOP OF	EXISTING ADJUST	NET ADJUST	IE	DEPTH	SPV.0060.16 SANITARY SEWER ACCESS STRUCTURE (4-FT DIAMETER) EACH	SPV.0060.15 SANITARY SEWER ACCESS STRUCTURE (5-FT DIAMETER) EACH	SPV.0060.08 MANHOLE COVER TYPE-J SPECIAL EACH	611.811 ADJUSTING MANHOLE COVERS EACH	SPV.0060.17 ADJUST SEWER ACCESS STRUCTURE SPECIAL EACH	SPV.0060.18 SANITARY SEWER TAP EACH	SPV.0200.01 CONSTRUCT INSIDE DROP V.F.	NOTES
0020	SAS#3	11+58.93	RT-0.07	949.57	-	-	-	-	940.30	9.27	1	-	1	-	-	2	-	
	3756-003	11+59.73	RT-49.25	950.36	-	950.36	0.75	0.00	941.84	8.52	-	-	1	1	-	-	-	ADJUST RIM/ REPLACE CASTING
	3756-004	13+96.35	RT-36.81	954.40	-	954.34	0.42	0.06	946.29	8.11	-	-	1	-	1	-	-	REPLACE ADJUSTMENT RINGS/ REPLACE CASTING
	3756-014	18+95.76	RT-17.73	976.16	-	976.37	0.25	-0.21	967.95	8.21	-	-	1	1	-	-	-	
	3755-013	53+47.52	RT-22.72	960.36	-	960.44	0.83	-0.08	845.44	114.92	-	-	1	1	-	-	-	
	SAS#1	51+08.60	RT-26.33	959.22	-	-	-	-	950.54	8.68	1	-	1	-	-	2	-	
	SAS#2	53+06.21	RT-28.00	961.20	-	-	-	-	949.76	11.44	-	1	1	-	-	2	7.04	INSTALL FLAT TOP MANHOLE WITH OFFSET CASTING (TAPS INCIDENTAL TO INSIDE DROP)
								PROJECT TOTALS			**2**	**1**	**7**	**3**	**1**	**6**	**7.04**	

SANITARY SEWER PIPES (SEWER MAIN)

CATEGORY	LOCATION (DOWNSTREAM)	LOCATION (UPSTREAM)	EI (DOWNSTREAM)	EI (UPSTREAM)	SLOPE (%)	SPV.0090.08 SELECT FILL FOR SANITARY SEWER LF	SPV.0090.09 SANITARY SEWER PIPE PVC 6-INCH LF	SPV.0060.13 INSTALL COMPRESSION COUPLING EACH	NOTES
0020	SAS#2	EX.SAS 3755-012	957.13	957.55	6.00%	7	7	1	
				PROJECT TOTALS		**7**	**7**	**1**	

SEWER ACCESS STRUCTURE REMOVALS

CATEGORY	EXIST. STRUCTURE NUMBER	STATION	LOCATION (OFFSET)	RIM	EI	DEPTH	SPV.0060.11 REMOVE SANITARY SEWER STRUCTURE EACH	NOTES
0020	3756-015	51+08.60	RT-26.33	959.03	950.54	8.49	1	
	3755-012	53+06.17	RT-30.05	961.75	957.05	4.70	1	
	3756-002	11+58.93	RT-0.07	950.26	940.30	9.96	1	
				PROJECT TOTAL			**3**	

SANITARY SEWER LATERALS

CATEGORY	CITY BLOCK	STATION	LOCATION (OFFSET)	SPV.0090.10 SANITARY SEWER LATERAL L.F.	SPV.0060.14 SANITARY LATERAL RECONNECT EACH	SPV.0090.08 *SELECT FILL FOR SANITARY SEWER LF	SPV.0060.05 *SEWER ELECTRONIC MARKERS EACH	NOTES
0020	300 BLK	54'+07	RT	8.00	1	8.00	2	
		54'+70	RT	8.00	1	8.00	2	
		55'+33	RT	8.00	1	8.00	2	
				24	**3**	**24**	**6**	

SANITARY SEWER MAIN ABANDONMENT

CATEGORY	FROM STRUCTURE # (OR STA. LOCATION) DWNSTRM	TO STRUCTURE # (OR STA. LOCATION) UPSTREAM	LENGTH UPSTREAM	PAID (Y/N)	SIZE	PIPE MATERIAL	SPV.0060.12 *ABANDON SANITARY SEWER - PIPE PLUG EACH	NOTES
0020	EX.3755-010	EX.3755-012	289	Y	8"	VP	1	PIPE PLUG PAID AT SAS 3755-010
						PROJECT TOTAL	**1.00**	

*ADDITIONAL ABAN. SAN.SEWER- PIPE PLUGS QUANTITIES ELSEWHERE IN PLANS, PLUGS OF PIPES LESS THAN 10" DIAMETER NOT CALLED OUT FOR PAYMENT ARE CONSIDERED INCIDENTAL TO NEW LATERAL OR STRUCTURE REMOVAL

UTILITY TRENCH PATCHES

CATEGORY	FROM STATION	LOCATION	TO STATION	LOCATION	SPV.0090.07 UTILITY TRENCH PATCH TYPE III LF	NOTE
0020		*UNDISTRIBUTED			30	
				PROJECT TOTAL	**30**	

MISC. SANITARY ITEMS

CATEGORY	STATION	LOCATION	SPV.0105.01 WASTEWATER CONTROL L.S.	SPV.0060.19 *UTILITY LINE OPENING (ULO) EACH	SPV.0105.02 CONSTRUCTION STAKING FOR SAN. SEWER L.S	NOTE
0020		*UNDISTRIBUTED	1	2	1	
		PROJECT TOTAL	**1**	**2**	**1**	

*ADDITIONAL UTILITY LINE OPENINGS QUANTITIES ELSEWHERE IN PLANS

WATER MAIN CONNECTIONS

CATEGORY	STATION	OFFSET	LOCATION / DESCRIPTION	SPV.0060.26 CUT-IN OR CONNECT-TO EXISTING WATER MA EACH
10	10+76.5	11.9'LT	WEST CONNECTION, MINERAL POINT RD	1
10	15+70.9	20.4'LT	EAST CONNECTION, MINERAL POINT RD	1
10	50+56.1	17.5'RT	SOUTH CONNECTION, S MIDVALE BLVD	1
10	53+58.6	16.3'RT	NORTH CONNECTION, S MIDVALE BLVD	1
10	53+22.8	8.7'LT	WEST CONNECTION, FELTON PL	1
10	53+24.8	49.4'RT	EAST CONNECTION, FELTON PL	1
			TOTALS:	6

WATER MAIN AND FITTINGS, SELECT FILL, INSULATION

CATEGORY	FROM: STATION	OFFSET	TO: STATION	OFFSET	LOCATION	SPV.0090.11 FURNISH & INSTALL 6-IN PIPE & FITTINGS LF	SPV.0090.12 FURNISH & INSTALL 8-IN PIPE & FITTINGS LF	SPV.0090.13 FURNISH & INSTALL 10-IN PIPE & FITTINGS LF	SPV.0090.14 FURNISH & INSTALL 12-IN PIPE & FITTINGS LF	SPV.0090.16 SELECT FILL FOR WATER MAIN LF	SPV.0090.17 FURNISH & INSTALL FOAM BOARD INSULATION LF
10	10+76.5	11.9LT	10+78.5	10.0'RT	WEST CONNECTION, MINERAL POINT RD	-	24	-	-	24	-
10	10+78.5	10.0RT	15+69.3	14.4'LT	MINERAL POINT RD	-	-	-	500	500	-
10	15+69.3	14.4LT	15+70.9	20.4'LT	EAST CONNECTION, MINERAL POINT RD	-	-	8	-	8	-
10	50+58.1	9.5'RT	50+58.1	30.2'RT	SOUTH CONNECTION, S MIDVALE BLVD	13	-	10	-	23	-
10	50+58.1	9.5'RT	53+56.6	8.7'RT	S MIDVALE BLVD	-	-	-	301	301	32
10	53+56.6	8.7'RT	53+58.6	16.3'RT	NORTH CONNECTION, S MIDVALE BLVD	-	-	10	-	10	-
10	53+24.8	49.4RT	53+47.4	47.5'RT	EAST CONNECTION, FELTON PL	25	-	-	-	25	-
10	53+33.4	47.4RT	53+22.8	10.4'LT	FELTON PL	24	-	-	42	66	8

COPPER WATER SERVICE LATERALS

CATEGORY	FROM: STATION	TO: STATION	LOCATION / DESCRIPTION	SPV.0090.15 EXTEND & RECONNECT 1-IN SERVICE LATERAL LF	SPV.0060.25 DISCONNECT / RECONNECT 1-IN SERVICE LATERAL EACH
10	11+00	15+00	4400 BLOCK OF MINERAL POINT RD	46	4
10			401 S MIDVALE BLVD	8	-
			TOTALS:	54	4

WATER VALVES & HYDRANTS

CATEGORY	STATION	OFFSET	LOCATION / DESCRIPTION	SPV.0060.20 FURNISH & INSTALL 6-IN WATER VALVE EACH	SPV.0060.21 FURNISH & INSTALL 8-IN WATER VALVE EACH	SPV.0060.22 FURNISH & INSTALL 10-IN WATER VALVE EACH	SPV.0060.23 FURNISH & INSTALL 12-IN WATER VALVE EACH	SPV.0060.29 ABANDON WATER VALVE BOX EACH	SPV.0060.24 FURNISH & INSTALL HYDRANT EACH	SPV.0060.30 ABANDON HYDRANT EACH
10	10+76.5	11.9'LT	WEST CONNECTION, MINERAL POINT RD	-	1	-	-	-	-	-
10	11+50.5	40.5'RT	4501 MINERAL POINT RD DRIVEWAY	-	-	-	-	1	-	-
10	14+51.7	12.6'LT	EXISTING MAIN, MINERAL POINT RD (W)	-	-	-	-	1	-	-
10	14+63.6	37.7'RT	402 S MIDVALE BLVD SIDEWALK RAMP	-	-	-	-	1	-	-
10	15+68.1	20.2'RT	EXISTING MAIN, MINERAL POINT RD (E)	-	-	-	-	1	-	-
10	15+70.9	20.4'LT	EAST CONNECTION, MINERAL POINT RD	-	-	1	-	-	-	-
10	50+56.1	17.5'RT	SOUTH CONNECTION, S MIDVALE BLVD	-	-	1	-	-	-	-
10	50+58.1	20.0'RT	HYDRANT LEAD, S MIDVALE BLVD	1	-	-	-	-	-	-
10	50+58.1	30.2'RT	HYDRANT, S MIDVALE BLVD	-	-	-	-	-	1	-
10	50+93.7	17.4'RT	S END OF INTERSECTION, S MIDVALE BLVD	-	-	-	-	1	-	-
10	50+90.3	30.9'RT	EXISTING HYDRANT LEAD, S MIDVALE BLVD	-	-	-	-	1	-	-
10	50+89.1	34.1'RT	EXISTING HYDRANT, S MIDVALE BLVD	-	-	-	-	-	-	1
10	51+36.5	9.6'RT	MINERAL POINT RD AT S MIDVALE BLVD (S)	-	-	-	1	-	-	-
10	51+42.5	9.5'RT	MINERAL POINT RD AT S MIDVALE BLVD (N)	-	-	-	1	-	-	-
10	53+22.8	10.4'LT	WEST CONNECTION, FELTON PL	1	-	-	-	-	-	-
10	53+30.4	8.7'RT	S MIDVALE BLVD AT FELTON PL (S)	-	-	-	1	-	-	-
10	53+36.4	8.7'RT	S MIDVALE BLVD AT FELTON PL (N)	-	-	-	1	-	-	-
10	53+55.4	16.3'RT	NORTH CONNECTION, S MIDVALE BLVD	-	-	-	-	1	-	-
10	53+58.6	16.3'RT	NORTH CONNECTION, S MIDVALE BLVD	-	-	1	-	-	-	-
10	53+25.2	34.6'RT	EXISTING MAIN, FELTON PL	-	-	-	-	1	-	-
10	53+12.0	36.7'RT	EXISTING HYDRANT, FELTON PL	-	-	-	-	-	-	1
10	53+24.8	49.4'RT	EAST CONNECTION, FELTON PL	1	-	-	-	-	-	-
10	53+36.4	47.4'RT	HYDRANT LEAD, FELTON PL	1	-	-	-	-	-	-
10	53+47.4	47.5'RT	HYDRANT, FELTON PL	-	-	-	-	-	1	-
			TOTALS:	4	1	3	4	8	2	2

CATEGORY	STATION	OFFSET	LOCATION / DESCRIPTION	SPV.0060.31 CONCRETE PIPE SUPPORT EACH	SPV.0060.19 UTILITY LINE OPENING (ULO) EACH	SPV.0090.07 UTILITY TRENCH PATCH TYPE III LF	SPV.0060.27 FURNISH EXCAVATION & DITCH FOR LIVE TAP EACH	SPV.0060.28 CUT OFF EXISTING WATER MAIN EACH
10	11+59.1	10.0'RT	12-IN WM (NEW) CROSSING EX. 8-IN SAN	1	-	-	-	-
10	*NA		*UNDISTRIBUTED, AS REQUIRED AND APPROVED BY ENGINEE	-	2	80	1	2
			TOTALS:	1	2	80	1	2

PERMANENT SIGNING, CONTRACTOR FURNISHED SIGNS

SIGN #	SIGN CODE	SIGN SIZE (IN x IN)	637.2210 SIGNS REFLECTIVE TYPE II:H (SF)	SPV.0090.06 REFLECTIVE SIGN POST (LF)	SPV.0060.02 PRECAST SIGN POST BASE (EACH)	SIGN MOUNTED ON SAME POST AS…	REMARKS
1-01	R3-8M	54x30	11.25	9.5	1	--	LEFT ONLY / AHEAD ONLY / AHEAD, RIGHT
1-02	R8-NS-1L	18x24	3.00	11.0	1	2-01	NO STOPPING STANDING OR PARKING
1-03	R8-NS-1	18x24	3.00	9.0	--	--	NO STOPPING STANDING OR PARKING
1-04	S4-51	24x48	8.00	11.0	1	--	SCHOOL SPEED LIMIT 20 MPH WHEN CHILDREN PRESENT
1-05	R8-NS-1	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING
1-06	R8-NS-1	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING
1-07	R2-1	30x36	7.50	10.0	1	--	SPEED LIMIT 30
1-08	R3-4	24x24	4.00	--	--	SIGNAL	NO U-TURN
1-09	R4-7	2430	5.00	--	--	SIGNAL	KEEP RIGHT
1-10	R3-4	24x24	4.00	--	--	SIGNAL	NO U-TURN
1-11	R4-7	24x30	5.00	--	--	SIGNAL	KEEP RIGHT
1-12	R14-1	24x18	3.00	10.0	1	1-16	TRUCK ROUTE
1-13	R14-1aL	24x18	3.00	--	--	1-15	LEFT, THRU, RIGHT ARROWS
1-14	R8-NS-1L	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING WITH LEFT ARROW
1-15	R8-NS-1R	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING WITH RIGHT ARROW
1-16	R8-NS-3tz	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING TOW AWAY ZONE
1-17	R8-NS-4tz	18x24	3.00	9.0	1	--	NO STOPPING STANDING OR PARKING TOW AWAY ZONE
1-18	S4-51	24X48	8.00	11.0	1	--	SCHOOL SPEED LIMIT 20 MPH WHEN CHILDREN PRESENT
1-19	S1-1	18x30	3.75	9.5	1	--	SCHOOL CROSSING AHEAD
1-20	R2-1	30x36	7.50	10.0	1	--	SPEED LIMIT 30
1-21	R3-8M	54x30	11.25	9.5	1	--	LEFT ONLY / AHEAD ONLY / AHEAD, RIGHT
1-22	R2-1	30x36	7.50	10.0	1	--	SPEED LIMIT 30
1-23	R2-1	30x36	7.50	10.0	1	--	SPEED LIMIT 30
1-24	R6-2R	30x30	3.00	11.5	1	2-07, 2-08	ONE WAY: RIGHT ARROW
1-25	R1-1	30x30	6.25	9.5	--	--	STOP SIGN
CONTRACTOR FURNISHED SIGNS TOTAL			129.50	195.5	18		

PERMANENT SIGNING, NON-STANDARD, CITY OF MADISON FURNISHED SIGNS

SIGN #	SIGN CODE	SIGN SIZE (IN x IN)	SPV.0090.06 REFLECTIVE SIGN POST (LF)	SPV.0060.03 ERECTING CITY-OWNED SIGNS TYPE II (EACH)	SPV.0060.02 PRECAST SIGN POST BASE (EACH)	SIGN MOUNTED ON SAME POST AS…	REMARKS
2-01	N/A	Xx18	--	1	--	1-07	BUS STOP
2-02	D3-1	N/A	--	1	--	SIGNAL	MINERAL POINT RD
2-03	D3-1	N/A	--	1	--	SIGNAL	S MIDVALE BLVD
2-04	D3-1	N/A	--	1	--	SIGNAL	MINERAL POINT RD
2-05	D3-1	N/A	--	1	--	SIGNAL	S MIDVALE BLVD
2-06	N/A	Xx18	1	1	1	--	BUS STOP
2-07	D3-1	Xx12	1	1	1	2-08	S MIDVALE BLVD
2-08	D3-1	Xx12	--	1	--	2-07	FELTON PL
2-09	D3-1	Xx12	1	1	1	2-10	HILLCREST DR
2-10	D3-1	Xx12	--	1	--	2-09	S MIDVALE BLVD
2-11	N/A	18x24	--	1	--	2-12, SIGNAL	NO TURN ON RED
2-12	N/A	18x24	--	1	--	2-11, SIGNAL	WHEN CROSSING GUARD PRESENT
2-13	N/A	18x24	--	1	--	2-14, SIGNAL	NO TURN ON RED
2-14	N/A	18x24	--	1	--	2-13, SIGNAL	WHEN CROSSING GUARD PRESENT
CITY FURNISHED SIGNS TOTALS			3	14	3		

3

PAVEMENT MARKING EPOXY

STATION	TO	STATION	LOCATION	646.0106 4-INCH (YELLOW) (LF)	646.0116 6-INCH (WHITE) (LF)	646.0126 8-INCH (WHITE) (LF)	647.0166 ARROWS TYPE II (EACH)	647.0356 WORDS (EACH)	647.0456 CURB (LF)	647.0576 STOP LINE 24-INCH (LF)	647.0606 ISLAND NOSE (EACH)	647.0716 8-INCH DIAGONAL (LF)	647.0766 CROSSWALK 6-INCH (LF)	647.0776 CROSSWALK 12-INCH (LF)
10+15	-	15+00	MINERAL POINT ROAD	732	200	217.75	1	1		31				109
15+00	-	20+98	MINERAL POINT ROAD		240	196.25	1	1		30				108
46+50	-	51+25	S MIDVALE BOULEVARD		139	192				51				108
51+25	-	63+57	S MIDVALE BOULEVARD		272				30	12		40	55	87
69+00	-	71+25	S MIDVALE BOULEVARD		295						1			64
71+25	-	72+55	S MIDVALE BOULEVARD		60	117				35	1			76
			MIDVALE BLVD @ HILLCREST								1			
TOTALS				732	1206	723	2	2	30	159	3	40	55	552

TEMPORARY PAVEMENT MARKINGS

STAGE	LOCATION	646.0600 REMOVE PAVEMENT MARKINGS (LF)	649.0100 TEMPORARY PAVEMENT MARKING 4-IN WHITE (LF)	649.0100 TEMPORARY PAVEMENT MARKING 4-IN YELLOW (LF)	649.0400 TEMPORARY PAVEMENT TAPE 4-IN WHITE (LF)	649.0400 TEMPORARY PAVEMENT TAPE 4-IN YELLOW (LF)	649.1000 TEMPORARY PAVEMENT TAPE 12-IN STOP LINE (LF)
STAGE 1	MINERAL POINT RD MIDVALE BLVD	0	0	0	0	0	0
STAGE 2	MINERAL POINT RD MIDVALE BLVD	471		4198		259	20
STAGE 3	MINERAL POINT RD MIDVALE BLVD	-	-		354	1752	24
STAGE 3B	MINERAL POINT RD MIDVALE BLVD	-	-	-	-	385	-
STAGE 4	MINERAL POINT RD MIDVALE BLVD	-			334 316	1106 2894	12 40
STAGE 5	MINERAL POINT RD MIDVALE BLVD	-			491	1948	26
STAGE 6	MINERAL POINT RD MIDVALE BLVD	-	-	-	244	1482	- 37
	TOTALS	471	0	4198	1739	9826	159
	COMBINED TOTALS FOR SINGLE ITEM		4198		11565		

TRAFFIC CONTROL DEVICES

STAGE	LOCATION	DAYS	643.0300 DRUMS	643.0300 DRUMS (DAYS)	643.0420 BARRICADE TYPE III (DAYS)	643.0420 BARRICADES TYPE III (DAYS)	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (EACH)	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (EACH)	643.0705 WARNING LIGHTS TYPE A	643.0705 WARNING LIGHTS TYPE A (DAYS)	643.0715 WARNING LIGHTS TYPE C	643.0715 WARNING LIGHTS TYPE C (DAYS)	643.0800 ARROW BOARDS	643.0800 ARROW BOARDS (DAYS)	643.0900 TRAFFIC CONTROL SIGNS	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAYS)
STAGE 1	MINERAL POINT RD	3	44	132	4	12	0	0	30	90	14	42	2	6	26	78	14
	MIDVALE BLVD	3	44	132	1	3	0	0	30	90	14	42	2	6		0	14
STAGE 2	MINERAL POINT RD	27	66	1782	4	108	27	27	30	810	36	972	3	81	22	594	14
	MIDVALE BLVD	27	85	2295	5	135	0	0	50	1350	35	945	2	54		0	14
STAGE 3	MINERAL POINT RD	20	65	1300	4	80	22	22	23	460	42	840	3	60	19	380	14
	MIDVALE BLVD	20	85	1700	9	180	0	0	50	1000	35	700	2	40		0	14
STAGE 3B	MINERAL POINT RD	24	84	2016	4	96	22	22	49	1176	35	840	4	96	19	456	14
	MIDVALE BLVD	24	85	2040	9	216	0	0	50	1200	35	840	2	48		0	14
STAGE 4	MINERAL POINT RD	16	38	608	5	80	37	37	7	112	31	496	3	48	23	368	14
	MIDVALE BLVD	16	94	1504	4	64	0	0	50	800	44	704	2	32		0	14
STAGE 5	MINERAL POINT RD	10	70	700	4	40	20	20	35	350	35	350	3	30	23	230	14
	MIDVALE BLVD	10	94	940	4	40	0	0	50	500	44	440	2	20		0	0
STAGE 6	MINERAL POINT RD	3	7	21	1	3	0	0	0	0	7	21	1	3	20	60	0
	MIDVALE BLVD	3	52	156	2	6	0	0	34	102	18	54	3	9		0	0
	TOTALS	206	913	15326	60	1063	128	128	488	8040	425	7286	34	533	152	2166	154

CONDUIT (SIGNALS)

CATEGORY	FROM	TO	652.0235 3" (LF)	652.0225 SCHEDULE 40 2" (LF)	652.0215 1 1/4" (LF)	652.0335 SCHEDULE 80 3" (LF)	652.0325 SCHEDULE 80 2" (LF)	COMMENT
40	HH1	HH11	540	-	-	274	-	2-3"
	HH2	HH3	-	-	106	-	-	1-1 1/4"
	HH3	HH5	-	68	-	-	-	1-2"
	HH5	HH6	-	28	-	-	-	1-2"
	HH6	SL6430	8	-	-	-	-	1-3"
	HH4	HH7	-	47	-	-	-	1-2"
	HH6	HH8	82	-	-	-	-	2-3"
	HH6	HH7	-	-	-	100	-	2-3"
	HH8	TS8	10	-	-	-	-	1-3"
	HH8	HH12	-	27	-	-	-	1-2"
	HH8	HH9	-	-	-	74	-	2-3"
	HH9	HH22	-	-	-	312	-	3-3"
	HH9	TS7	-	6	-	-	-	1-2"
	HH9	HH10	-	9	-	-	-	1-2"
	HH9	HH11	36	-	-	-	-	2-3"
	HH9	HH14	0	-	-	120	-	2-3"
	HH11	HH13	216	-	-	-	-	2-3"
	HH14	SL6428	7	-	-	-	-	1-3"
	HH14	HH15	98	-	-	-	-	2-3"
	HH15	TS5	7	-	-	-	-	1-3"
	HH15	TS6	-	18	-	-	-	1-2"
	HH15	HH18	-	51	-	-	-	1-2"
	HH15	HH16	-	-	-	114	-	2-3"
	HH16	TS4	-	11	-	-	-	1-2"
	HH16	HH24	88	-	-	-	-	2-3"
	HH16	HH17	-	28	-	-	-	1-2"
	HH17	HH19	-	113	-	-	-	1-2"
	HH19	HH20	-	-	111	-	-	1-1 1/4"
	HH24	TS3	7	-	-	-	-	1-3"
	HH24	HH25	-	49	-	-	-	1-2"
	HH24	HH22	-	-	-	102	-	2-3"
	HH22	TS2	-	7	-	-	-	1-2"
	HH22	HH23	-	12	-	-	-	1-2"
	HH22	NORTH LIMIT	-	44	-	-	-	1-2"
	HH22	NORTH LIMIT	88	44	-	-	-	2-3"
	HH22	HH21	0	-	-	132	-	3-3"
	HH21	CCB1	36	-	-	-	-	4-3"
	HH21	SL6431	5	-	-	-	-	1-3"
	HH21	HH7	84	-	-	-	-	2-3"
	HH7	TS9	11	-	-	-	-	1-3"
		TOTALS	1323	562	217	1228	0	

CONDUIT (LIGHTING)

CATEGORY	FROM	TO	652.0225 SCHEDULE 40 2" (LF)	652.0325 SCHEDULE 80 2" (LF)	COMMENT
30	HH15	SL6429	6	-	1-2"
	HH24	SL6000	128	60	1-2"
		TOTALS	134	60	

ELECTRICAL WIRE LIGHTING

CATEGORY	FROM	TO	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG (LF)	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG (LF)
30	CCB1	SL6431	32	96
	CCB1	SL6430	139	417
	SL6430	SL6428	189	567
	SL6428	SL6429	86	258
		TOTALS	446	1338

CABLE AND WIRE

CATEGORY	FROM	TO	655.0210 3-14 AWG (LF)	655.0250 9-14 AWG (LF)	655.0260 12-14 AWG (LF)	655.0615 10 AWG (LF)	SPV.0090.18 LOOP DETECTOR LEAD-IN CABLE SPECIAL (LF)
40	CCB1	SL6431	-		32	-	-
	CCB1	TS2	-		84	-	-
	CCB1	TS3	-	141	-	-	-
	CCB1	TS4	-	195	-	-	-
	CCB1	TS5	-	254	-	-	-
	TS5	TS6	43	-	-	-	-
	CCB1	SL6428	-	-	260	-	-
	CCB1	TS7	-	-	193	-	-
	CCB1	TS8	-	188	-	-	-
	CCB1	SL6430	-	139	-	-	-
	CCB1	TS9	-	86	-	-	-
	System Ground		-	-	-	744	-
	System Neutral		-	-	-	744	-
	Detector loop lead-in		-	-	-		3550
		TOTALS	43	1003	569	1488	3550

ELECTRICAL PULLBOX

CATEGORY	STRUCTURE	STATION	OFFSET	SPV.0060.36 TYPE 1 EACH	SPV.0060.37 TYPE 3 EACH	SPV.0060.38 TYPE 5 EACH	SPV.0060.39 TYPE 7 EACH	SPV.0060.40 ELECTRIC UTILITY ACCESS STRUCTURE EACH	COMMENTS
40	HH1	11+03.86	29.27' RT	-	-	-	-	-	EXISTING
	HH2	12+06.67	30.46' RT	-	1	-	-	-	-
	HH3	13+12.15	33.23' RT	1	-	-	-	-	-
	HH4	13+88.37	24.75' LT	-	1	-	-	-	-
	HH5	14+05.99	33.25' RT	-	1	-	-	-	-
	HH6	14+33.65	33.25' RT	-	-	1	-	-	-
	HH7	14+35.12	24.80' LT	-	-	1	-	-	-
	HH8	70+82.78	19.29' LT	-	-	1	-	-	-
	HH9	70+74.04	17.48' RT	-	-	-	-	1	-
	HH11	70+62.62	17.18' RT	-	-	-	1	-	-
	HH12	70+56.19	18.80' LT	-	1	-	-	-	-
	HH13	49+55.68	21.78' LT	-	-	1	-	-	-
	HH14	50+77.40	25.64' RT	1	-	-	-	-	-
	HH15	15+94.65	23.15' RT	-	-	1	-	-	-
	HH16	15+88.48	33.27' LT	-	-	1	-	-	-
	HH17	16+16.21	33.27' LT	1	-	-	-	-	-
	HH18	16+44.83	23.28' RT	1	-	-	-	-	-
	HH19	17+28.50	33.23' LT	1	-	-	-	-	-
	HH20	18+39.02	29.74' LT	-	1	-	-	-	-
	HH21	71+83.77	18.43' LT	-	-	-	-	1	-
	HH22	71+81.21	24.97' RT	-	-	-	-	1	-
	HH23	71+92.28	23.84' RT	-	1	-	-	-	-
	HH24	51+77.55	21.62' RT	-	-	1	-	-	-
	HH25	52+25.17	20.75' RT	-	1	-	-	-	-
			TOTAL	5	7	7	1	3	

CABLE TRAFFIC SIGNAL

CATEGORY	AT POLE #	TO HEAD #	655.0230 5-14 AWG (LF)	655.0240 7-14 AWG (LF)
40	SL6431	1	15	-
	SL6431	2	10	-
	SL6431	3	-	15
	SL6431	4	10	-
	TS2	5	10	-
	TS2	6	-	15
	TS2	7	10	-
	TS2	8	-	15
	TS3	9	60	-
	TS3	10	50	-
	TS3	11	10	-
	TS3	12	10	-
	TS4	13	-	15
	TS4	14	15	-
	TS5	15	55	-
	TS5	16	45	-
	TS5	17	35	-
	SL6428	18	-	15
	SL6428	19	10	-
	SL6428	20	15	-
	SL6428	21	10	-
	TS7	22	-	15
	TS7	23	10	-
	TS7	24	-	15
	TS7	25	10	-
	TS8	26	60	-
	TS8	27	50	-
	TS8	28	10	-
	TS8	29	10	-
	SL6430	30	-	15
	SL6430	31	15	-
	TS9	32	60	-
	TS9	33	50	-
	TS9	34	40	-
		TOTALS	685	120

CONCRETE BASE (SIGNALS)

CATEGORY	STRUCTURE	STATION	OFFSET	SPV.0060.41 TYPE G EACH	SPV.0060.42 TYPE LB-3 EACH	SPV.0060.43 TYPE P EACH	SPV.0060.44 OFFSET EACH	654.0110 TYPE 10 EACH	654.0113 TYPE 13 EACH	SPV.0060.45 TRANSFORMER BASE, STEEL 16-INCH EACH
40	SL6431	71+80.41	21.64' LT	-	1	-	-	-	-	1
	TS2	71+77.28	28.27' RT	1	-	-	-	-	-	-
	TS3	51+73.64	26.41' RT	-	-	-	-	1	-	-
	TS4	15+78.29	34.44' LT	1	-	-	-	-	-	-
	TS5	15+88.14	24.28' RT	-	-	-	-	1	-	-
	SL6429	16+00.12	24.00' RT	-	-	-	-	-	-	-
	TS6	15+78.03	25.70' RT	1	-	-	-	-	-	-
	SL6428	50+83.74	28.76' RT	-	1	-	-	-	-	1
	TS7	70+85.49	18.22' RT	1	-	-	-	-	-	-
	TS8	70+89.46	25.98' LT	-	-	-	-	1	-	-
	SL6430	14+41.28	34.83' RT	-	1	-	-	-	-	1
	TS9	14+44.28	29.74' LT	-	-	-	-	-	1	-
	CCB1	71+91.04	23.37' LT	-	-	1	-	-	-	-
	SB1	47+01.09	35.47' LT	-	-	-	-	1	-	-
		UNDISTRIBUTED		-	-	-	1	-	-	-
	TOTALS			4	3	1	1	4	1	3

TRAFFIC SIGNALS

CATEGORY	STRUCTURE	SPV.0105.04 Optical Signal Preempt* * EACH	SPV.0060.55 TRAFFIC SIGNAL HEADS 12-INCH 3-SECTION EACH	SPV.0060.56 TRAFFIC SIGNAL HEADS 12-INCH 4-SECTION EACH	SPV.0060.57 TRAFFIC SIGNAL HEADS 12-INCH PEDESTRIAN EACH	SPV.0060.58 TRAFFIC SIGNAL HEADS 12-INCH PEDESTRIAN COUNTDOWN EACH	SPV.0060.59 BACKPLATES SIGNAL FACE 12-INCH 3-SECTION EACH	SPV.0060.60 BACKPLATES SIGNAL FACE 12-INCH 4-SECTION EACH	658.0500 PEDESTRIAN PUSH BUTTON EACH
40	SL6431	-	1	1	2	2	1	1	1
	TS2	-	-	2	2	2	-	2	1
	TS3	1	2	-	2	2	2	-	1
	TS4	-	1	1	-	-	1	1	1
	TS5	1	2	1	-	-	2	1	-
	TS6	-	-	-	-	-	-	-	1
	SL6428	-	1	1	2	2	1	1	1
	TS7	-	-	2	2	2	-	2	1
	TS8	1	2	-	2	2	2	-	1
	SL6430	-	1	1	-	-	1	1	1
	TS9	1	2	1	-	-	2	1	1
	TOTALS		12	10	12	12	12	10	10

* OPTICAL PRE-EMPT IS A LUMP SUM PAY ITEM. TABLE QUANTITES LISTED TO SHOW LOCATIONS OF PRE-EMPT DETECTORS

TRAFFIC SIGNAL POLES

CATEGORY	STRUCTURE	657.0100 BASE PEDESTAL EACH	SPV.0060.46 MONOTUBE POLE TYPE 9 EACH	SPV.0060.47 MONOTUBE POLE TYPE 12 EACH	SPV.0060.35 POLE 30-FOOT 11-GAUGE EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5 FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.48 MONOTUBE ARM 20-FOOT EACH	SPV.0060.49 MONOTUBE ARM 30-FOOT EACH	SPV.0060.50 MONOTUBE ARM 35-FOOT EACH	SPV.0060.61 DRIVER FEEDBACK RADAR LED SPEED SIGN EACH	SPV.0060.62 REDUCE SPEED SIGN LED 72" X 12" EACH
40	SL6431	-	-	-	1	-	-	-	-	-	-	-
	TS2	1	-	-	-	-	1	-	-	-	-	-
	TS3	-	1	-	-	-	-	-	-	1	-	-
	TS4	1	-	-	-	-	1	-	-	-	-	-
	TS5	-	1	-	-	-	-	-	1	-	-	-
	SL6429	-	-	-	-	-	-	-	-	-	-	-
	TS6	1	-	-	-	1	-	-	-	-	-	-
	SL6428	-	-	-	1	-	-	-	-	-	-	-
	TS7	1	-	-	-	-	1	-	-	-	-	-
	TS8	-	1	-	-	-	-	-	-	1	-	-
	SL6430	-	-	-	1	-	-	-	-	-	-	-
	TS9	-	-	1	-	-	-	-	-	1	-	-
	SB1	-	1		-	-	-	1	-	-	1	1
	TOTALS	4	4	1	3	1	3	1	1	3	1	1

STREET LIGHTING

CATEGORY	STRUCTURE	STATION	OFFSET	SPV.0060.42 CONCRETE BASE TYPE LB-3 EACH	SPV.0060.35 POLE 30-FOOT 11-GAUGE EACH	SPV.0060.33 LED LUMINAIRE TYPE-1 EACH	SPV.0060.34 LED LUMINAIRE TYPE-2 EACH
30	SL6431	71+80.41	21.64' LT	-	-	-	1
	SL6429	16+00.12	24.00' RT	1	1	1	-
	SL6428	50+83.74	28.76' RT	-	-	-	1
	SL6430	14+41.28	34.83' RT	-	-	1	-
	TOTALS			1	1	2	2

ADDITIONAL ITEMS

CATEGORY	ITEM NUMBER	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
40	656.0200	ELEC SERVICE METER BREAKER PED (MIDVALE-MINERAL POINT)	LS	1
	658.5069	SIGNAL MOUNTING HARDWARE (MIDVALE-MINERAL POINT)	LS	1
	SPV.0060.51	TRAFFIC SIGNAL CONTROL CABINET	EACH	1
	SPV.0060.52	TRAFFIC SIGNAL CONTROLLER	EACH	1
	SPV.0060.53	MALFUNCTION MANAGEMENT UNIT	EACH	1
	SPV.0060.54	TRAFFIC SIGNAL ETHERNET SWITCH	EACH	1
	SPV.0105.04	OPTICAL SIGNAL PREEMPT	LS	1
	SPV.0105.05	TEMPORARY TRAFFIC SIGNALS (MIDVALE-MINERAL POINT)	LS	1
	SPV.0105.06	TEMPORARY VEHICLE DETECTION (MIDVALE-MINERAL POINT)	LS	1

3

TRAFFIC DETECTOR LOOPS

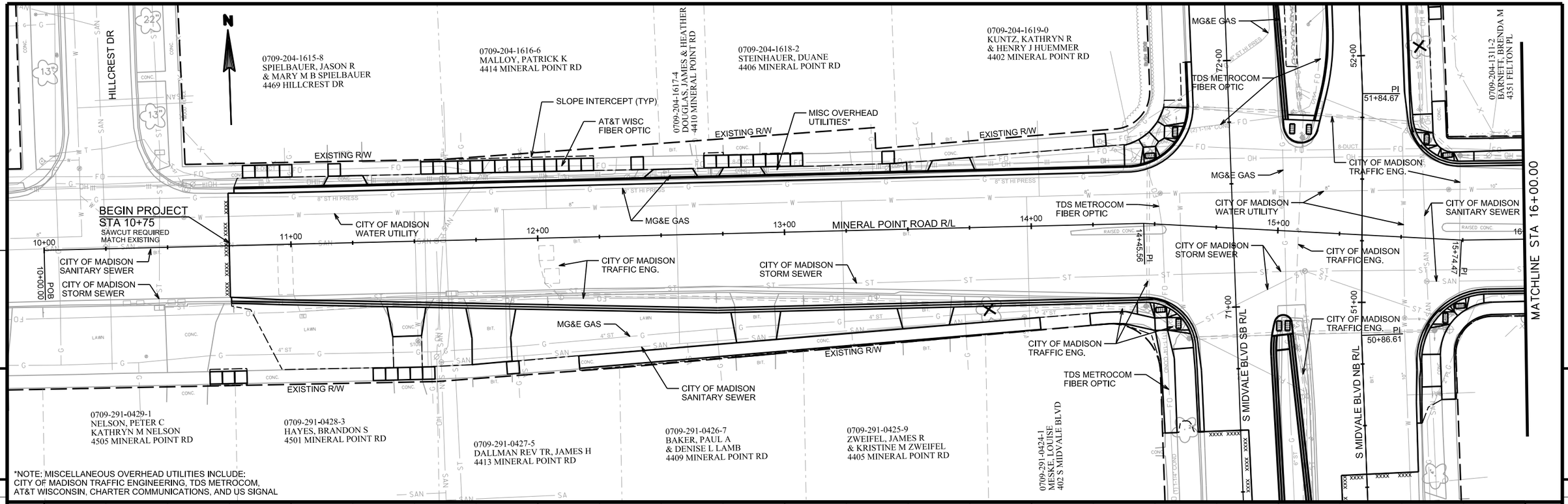
CATEGORY	LOOP NO.	STATION	CURB OFFSET (FT)	CURBLINE REFERENCE	SIZE	NO. TURNS	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF
40	L1	12+06.67	15.4	S	6 x 20	3	59	226
	L2	13+11.60	18	S	6 x 6	3	42	108
	L3	13+11.60	6	S	6 x 6	3	30	84
	L4	14+00.00	27.4	S	6 x 20	3	59	226
	L5	14+16.03	27	S	6 x 6	3	51	126
	L6	13+88.04	5.5	N	6 x 6	3	29.5	83
	L7	13+88.04	17.5	N	6 x 6	3	32	88
	L8	70+56.30	13.5	W	6 x 6	3	37.5	99
	L9	70+56.30	25.5	W	6 x 6	3	49.5	123
	L10	50+74.86	5.5	W	6 x 6	3	29.5	83
	L11	50+15.95	5.5	W	6 x 20	3	59	226
	L12	16+05.00	27.5	N	6 x 6	3	51.5	127
	L13	16+21.00	27.5	N	6 x 20	3	59	226
	L14	16+45.30	17.5	S	6 x 6	3	41.5	107
	L15	16+45.30	5.5	S	6 x 6	3	29.5	83
	L16	17+28.90	5.5	N	6 x 6	3	29.5	83
	L17	17+28.90	17.5	N	6 x 6	3	41.5	107
	L18	18+39.10	15	N	6 x 20	3	59	226
	L19	71+81.00	5	E	6 x 6	3	29	82
	L20	71+96.90	5	E	6 x 20	3	59	226
	L21	52+25.78	12.5	E	6 x 6	3	36.5	97
	L22	52+25.78	24.5	E	6 x 6	3	48.5	121
						TOTAL	962.5	2957

OFFSET IS TO FRONT CENTER OF LOOP

CURBLINE REFERENCE:
- E: Curb EAST of loop
- W: Curb WEST of loop
- N: Curb NORTH of loop
- S: Curb SOUTH of loop

REMOVALS

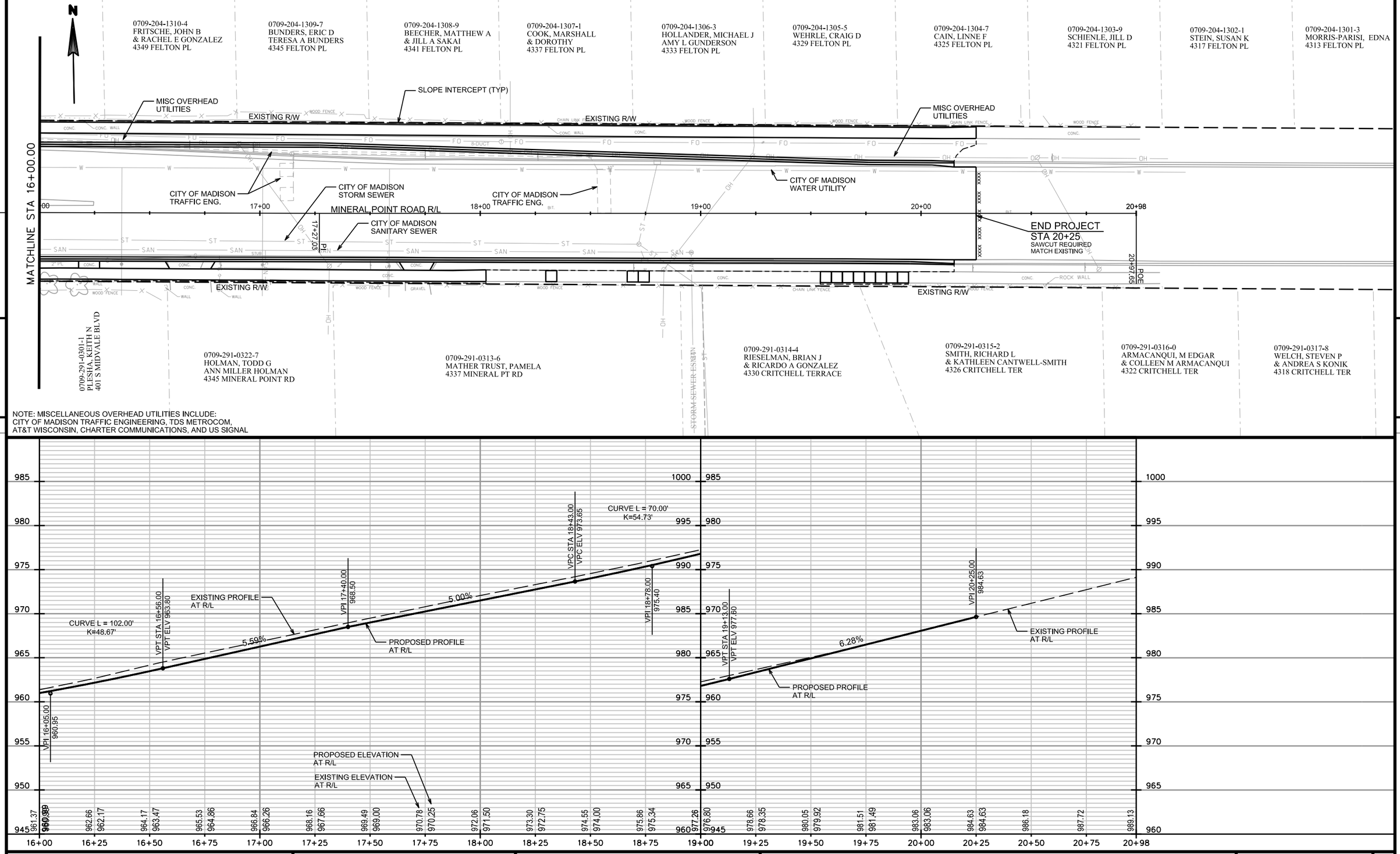
CATEGORY	STATION	OFFSET	204.0195 REMOVING CONCRETE BASE EACH	653.0905 REMOVING PULL BOXES EACH	SPV.0060.32 REMOVE STREET LIGHT EACH
10	12+08.91	24.16' RT	-	1	-
	13+36.90	26.96' RT	-	1	-
	14+45.71	33.53' RT	1	-	-
	70+88.10	19.38' LT	1	-	1
	70+88.04	22.77' RT	-	1	-
	70+83.17	23.65' RT	1	-	-
	50+62.90	22.85' LT	-	1	-
	50+88.58	29.49' RT	1	-	-
	15+73.81	26.93' RT	1	-	1
	18+50.00	26.07' LT	-	1	-
	17+14.57	27.07' LT	-	1	-
	15+72.16	34.24' LT	1	-	-
	51+65.97	26.98' RT	1	-	1
	51+73.73	24.36' RT	-	1	-
	51+66.76	24.25' LT	1	-	-
	51+76.50	23.94' RT	-	1	-
	71+82.36	20.00' LT	-	1	-
	71+79.70	25.63' LT	1	-	-
	71+74.25	21.26' LT	1	-	-
	71+63.28	33.40' LT	1	-	-
TOTAL			11	9	3



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN & PROFILE - MINERAL POINT RD.	SHEET 134	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-PnP_MinPt1.dgn PLOT DATE : 11/25/2014 PLOT BY : encwd PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 46



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN & PROFILE - MINERAL POINT RD.	SHEET 135	E

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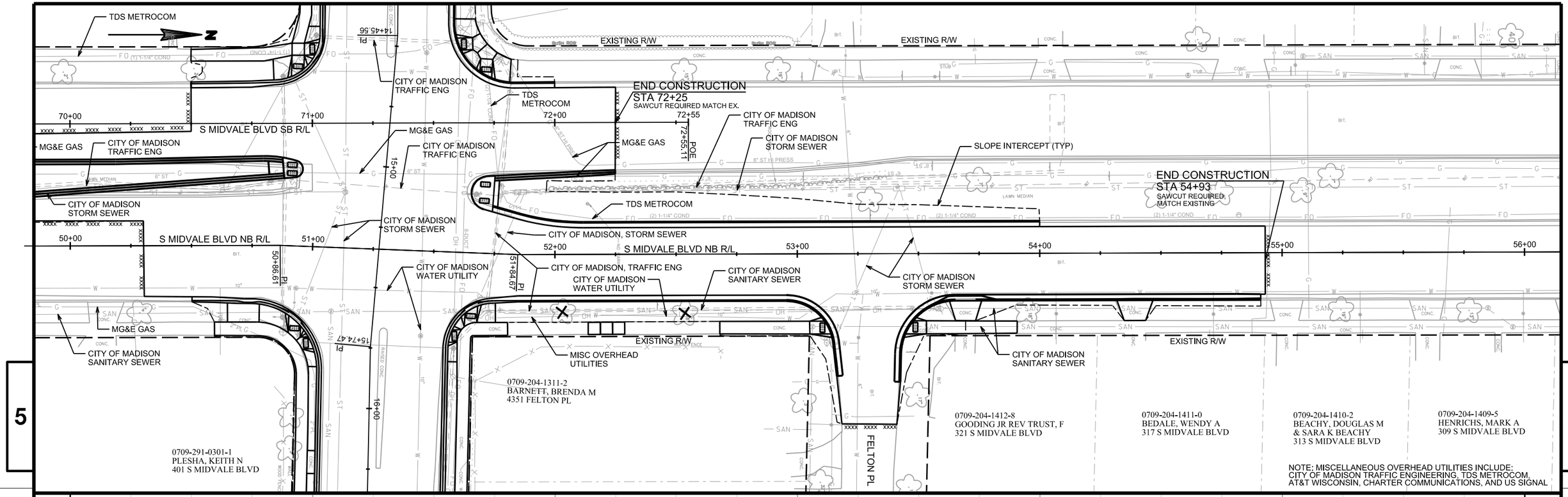
WISDOT/CADDS SHEET 46



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN & PROFILE - S. MIDVALE BLVD. NB	SHEET E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-PnP_MidvNB.dgn PLOT DATE : 11/25/2014 PLOT BY : encwd PLOT NAME : PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 46

N

0709-291-0424-1
MESKE, LOUISE
402 S MIDVALE BLVD

0709-291-0423-3
KOTNOUR, JEROME F
4402 WOODS END

0709-204-1619-0
KUNTZ, KATHRYN R
& HENRY J HUEMMER
4402 MINERAL POINT RD

0709-204-1620-7
BRAUSEN, CAROL M
330 S MIDVALE BLVD

0709-204-1621-5
BRADLEY, DOUGLAS J
326 S MIDVALE BLVD

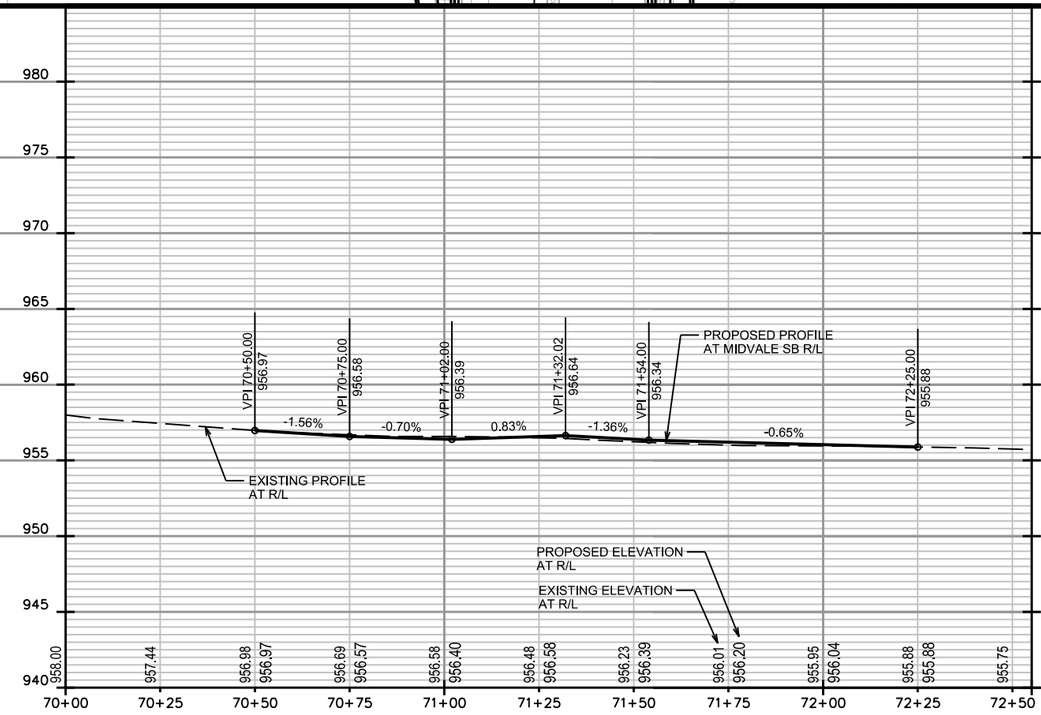
0709-204-1622-3
HOFFMANN, ROBERT M
318 S MIDVALE BLVD

NOTE: MISCELLANEOUS OVERHEAD UTILITIES INCLUDE:
CITY OF MADISON TRAFFIC ENGINEERING, TDS METROCOM,
AT&T WISCONSIN, CHARTER COMMUNICATIONS, AND US SIGNAL

TDS METROCOM
EXISTING R/W
BEGIN CONST.
STA 69+56
SAWCUT REQUIRED
MATCH EXISTING
69+00
70+00
71+00
72+00
72+55
69+00.00 POB
S MIDVALE BLVD SB R/L
MG&E GAS
CITY OF MADISON
TRAFFIC ENG
CITY OF MADISON
STORM SEWER
14+00
15+00
PI 14+45.56
END CONSTRUCTION
STA 72+25
SAWCUT REQUIRED MATCH EX.
72+55.11 POE
SLOPE INTERCEPT (TYP)
END CONSTRUCTION
STA 54+93
SAWCUT REQUIRED
MATCH EXISTING
BEGIN CONST.
STA 49+56
SAWCUT REQUIRED
MATCH EXISTING
49+00
50+00
51+00
52+00
53+00
54+00
55+00
S MIDVALE BLVD NB R/L
CITY OF MADISON
WATER UTILITY
CITY OF MADISON, STORM SEWER
CITY OF MADISON, TRAFFIC ENG
CITY OF MADISON
SANITARY SEWER
PI 50+86.61
PI 51+84.67
PI 15+74.47
MISC OVERHEAD
UTILITIES

5

5



PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	PLAN & PROFILE - S. MIDVALE BLVD. SB	SHEET	E

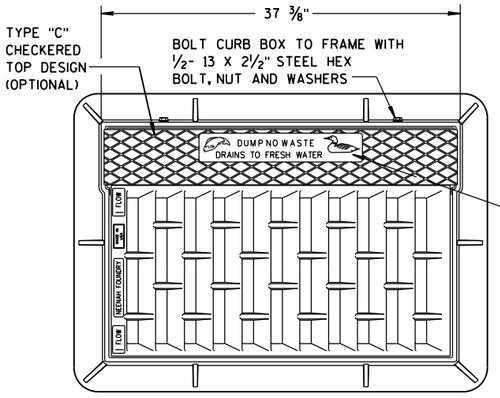
FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-PnP_MidvSB.dgn PLOT DATE : 11/25/2014 PLOT BY : encwd PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 46

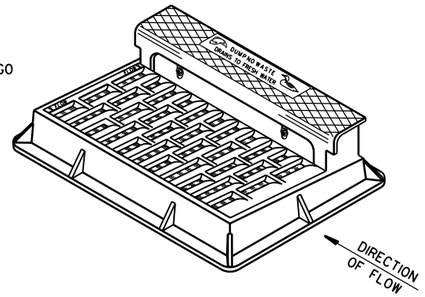
Standard Detail Drawing List

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
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
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
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-05	CONCRETE BASE TYPE 10
09C12-05A	CONCRETE BASE TYPE 13
09C12-05B	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-06A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-06C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09F01-03	DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
14A01-03	TREE PRESERVATION DETAILS
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

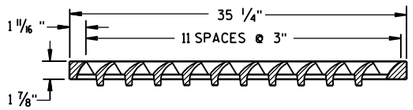
6

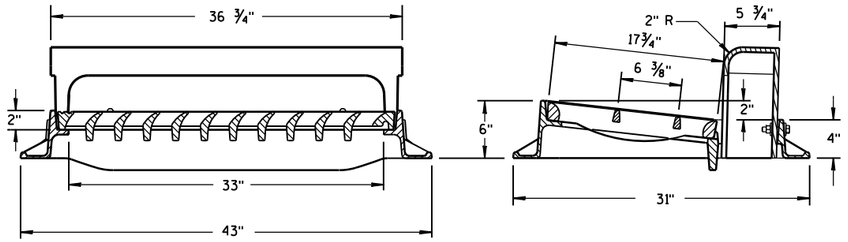


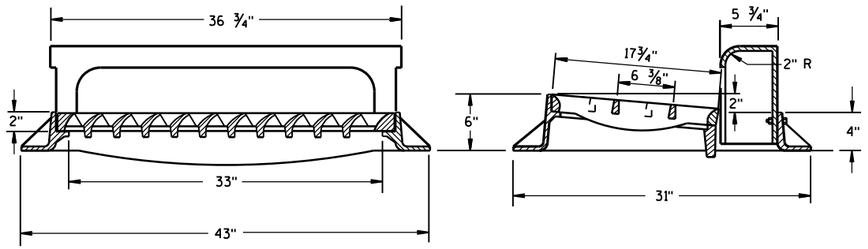
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

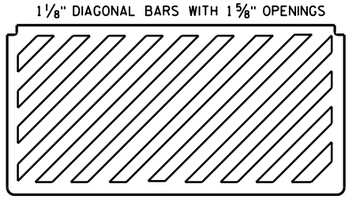






TYPE "H"

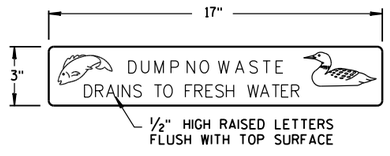
NOTE: EITHER CASTING IS ACCEPTABLE



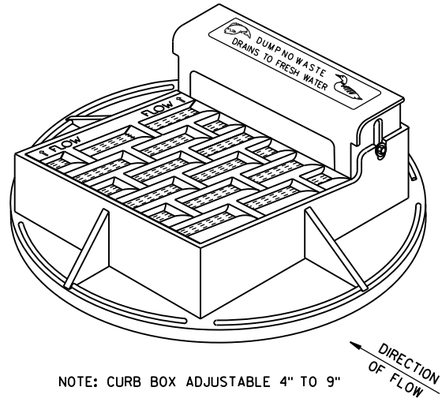
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

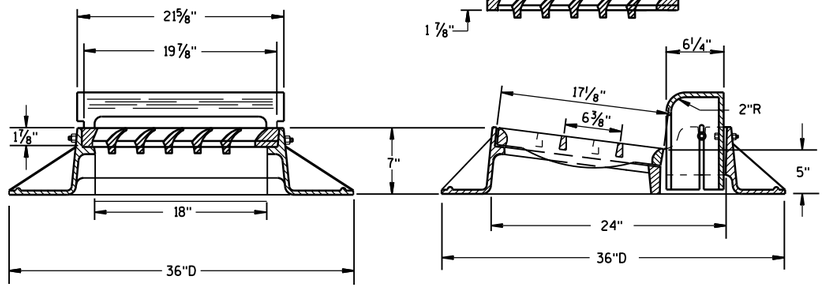


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



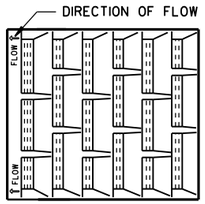
TYPE "A"

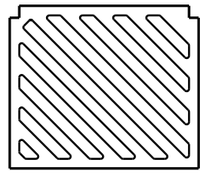
GENERAL NOTES

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

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

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

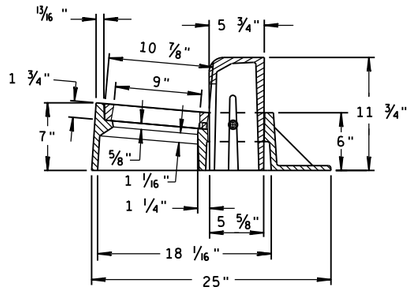


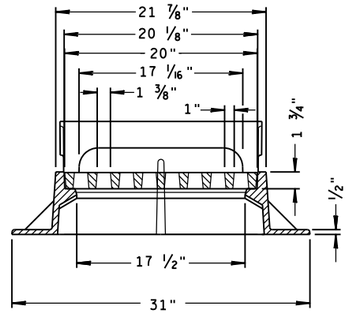


SPECIAL GRATE FOR TYPE "A" COVER

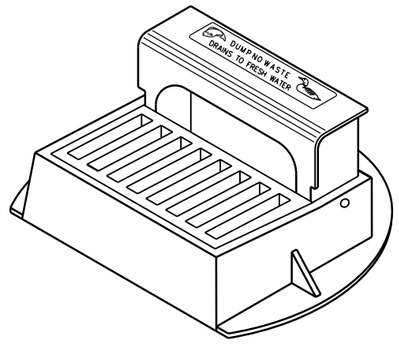
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"

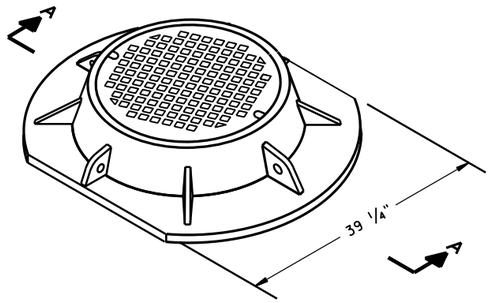


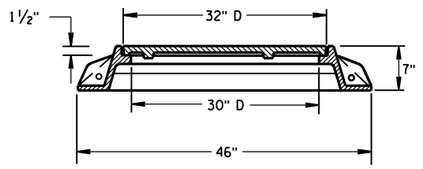
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

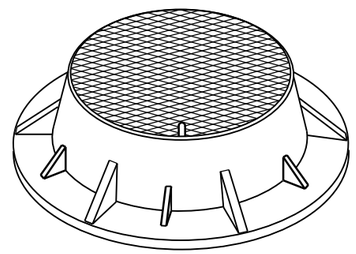
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

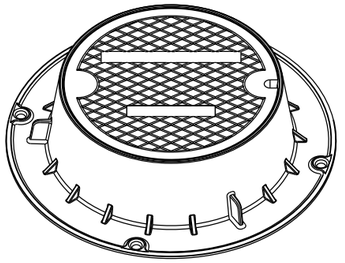
S.D.D. 8 A 5-19a

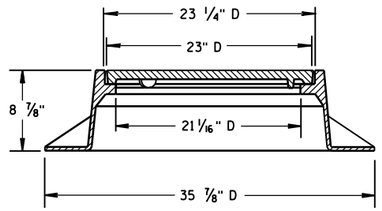


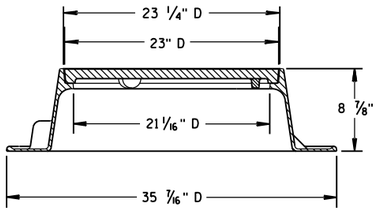


SECTION A-A
TYPE "K"









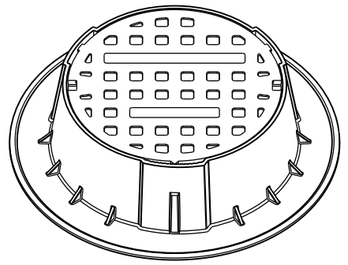
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

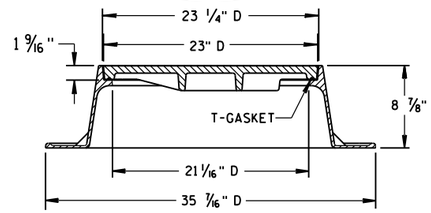
GENERAL NOTES

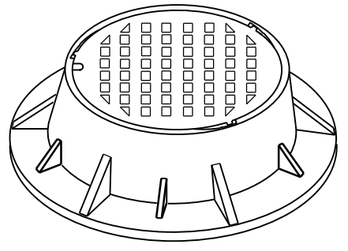
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

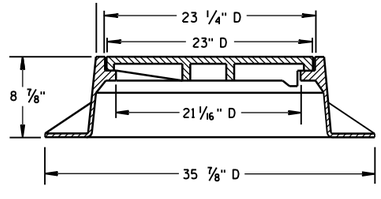
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

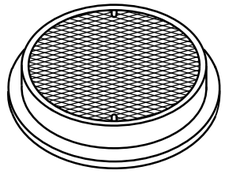


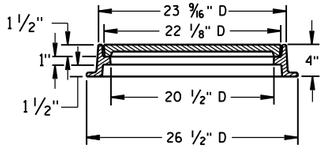




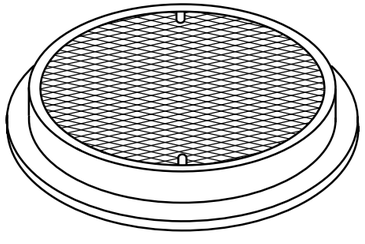


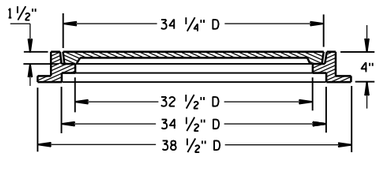
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



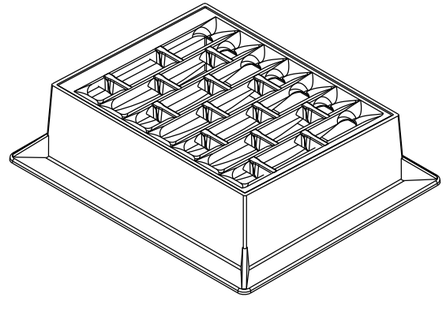


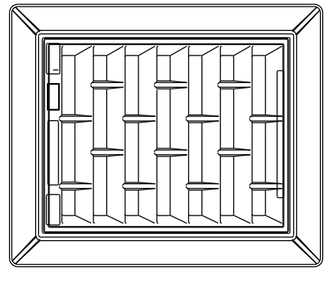
TYPE "L"

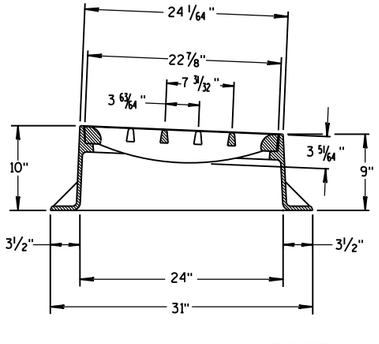


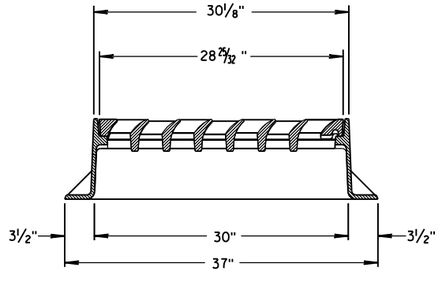


TYPE "M"









INLET COVER TYPE "BW"

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

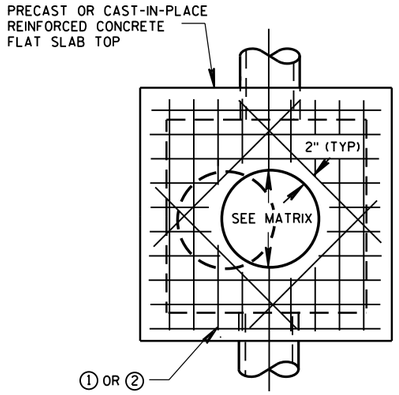
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

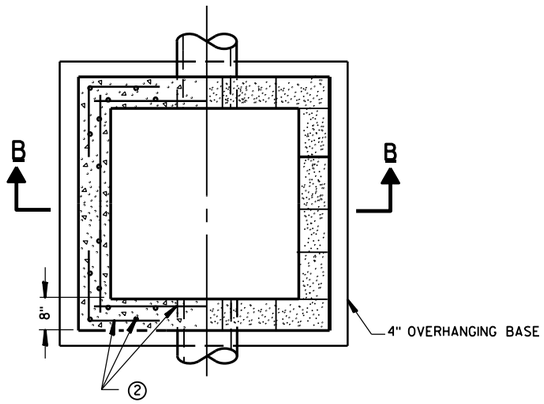
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

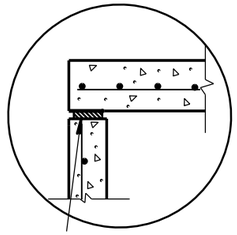
S.D.D. 8 A 5-19d



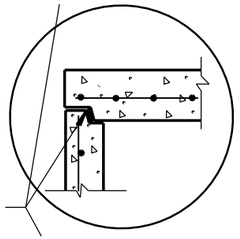
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

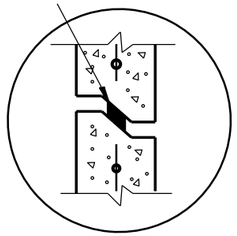


TOP WITH PLAIN END JOINT



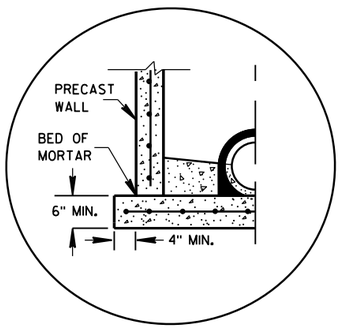
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



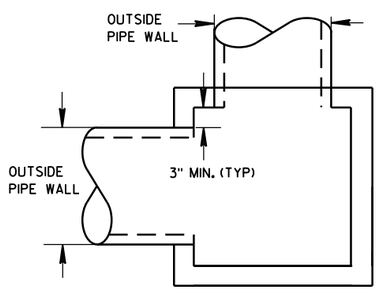
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

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 ASTM C 913.

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.

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

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

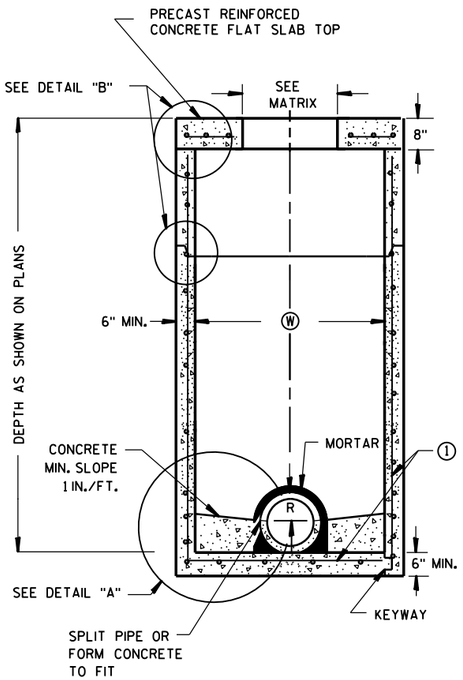
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

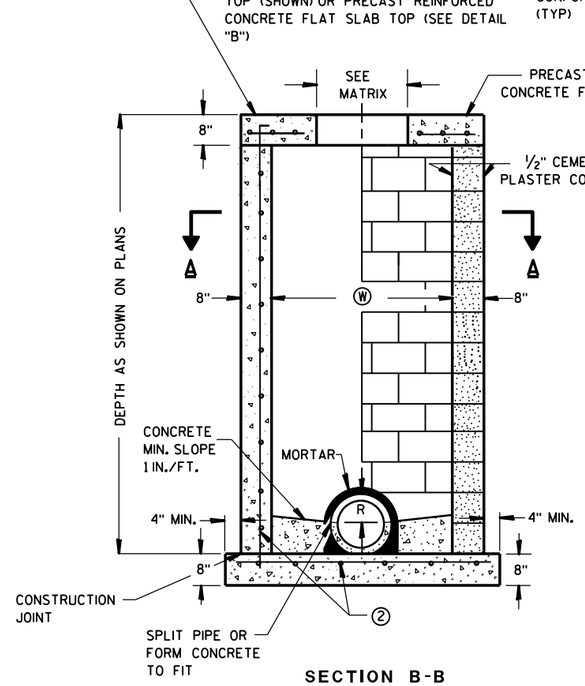
MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

SECTION B-B

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

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

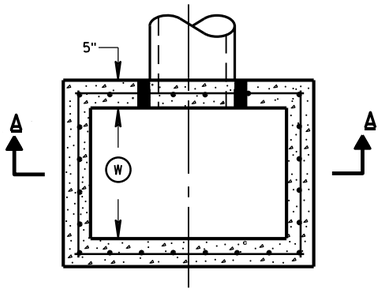
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS ENGINEER
FHWA

6

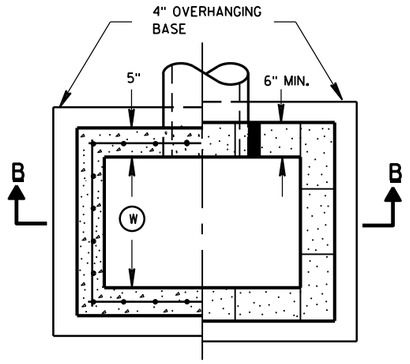
S.D.D. 8 B 10-1

6

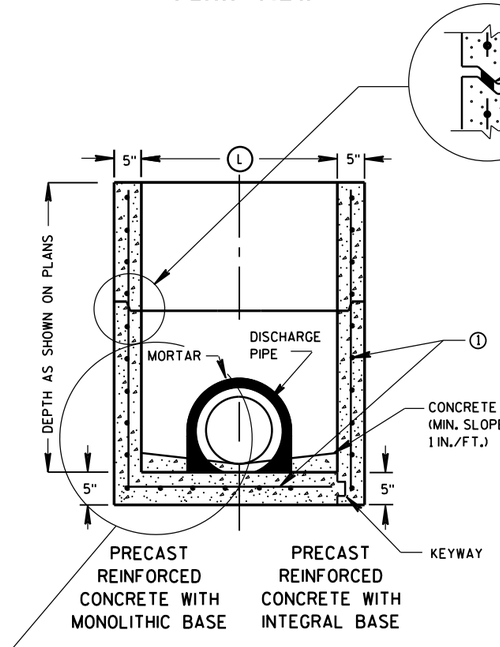
S.D.D. 8 B 10-1



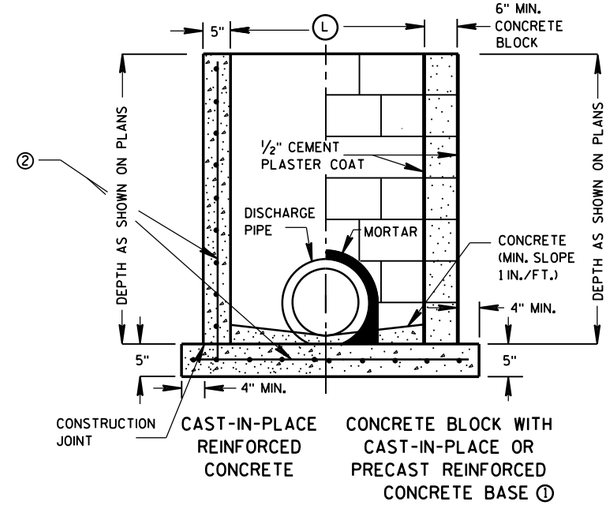
PLAN VIEW



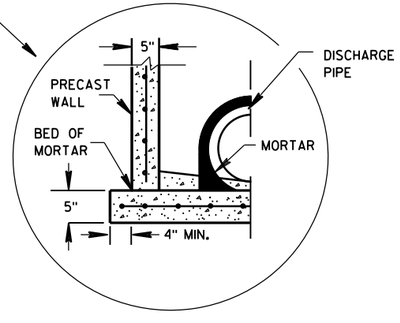
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

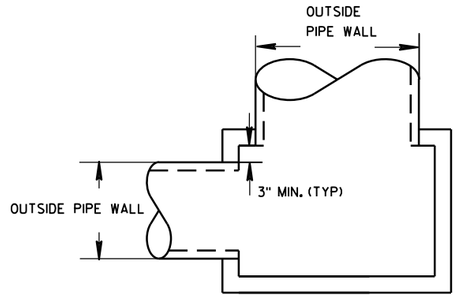
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (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



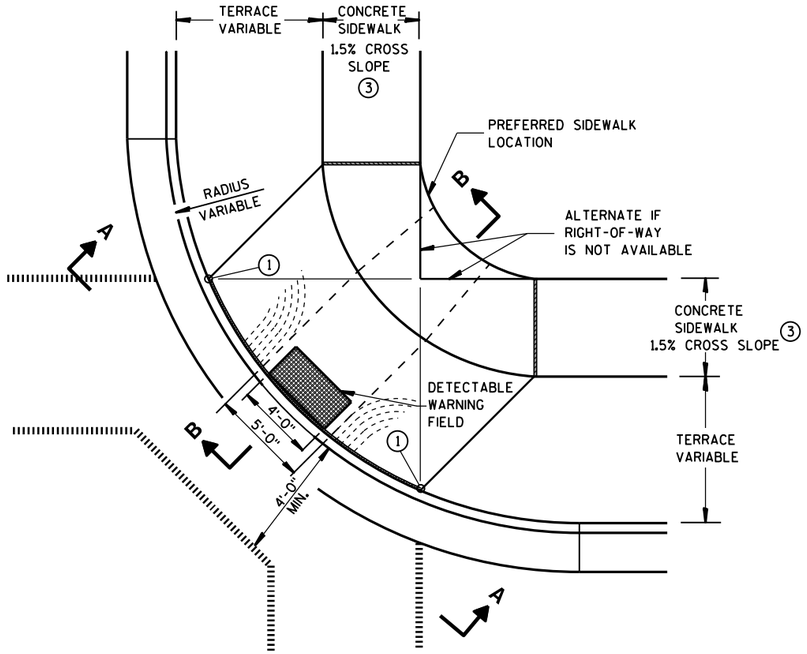
DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

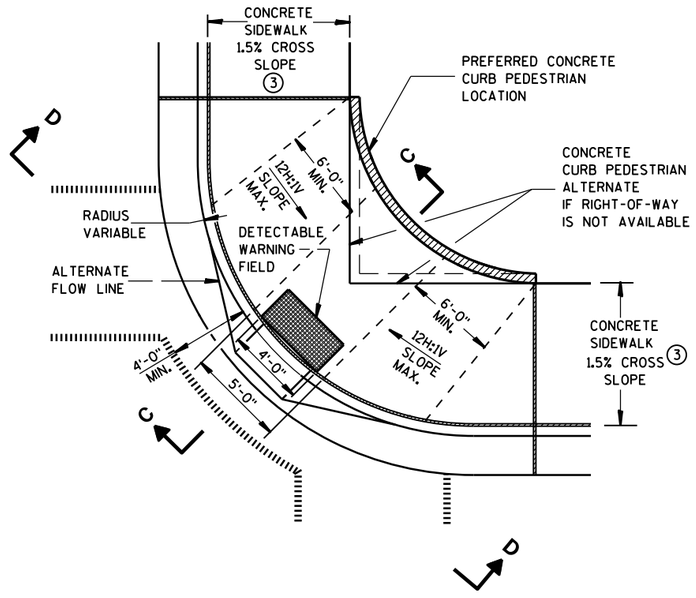
6
S.D.D. 8 C 7-1



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

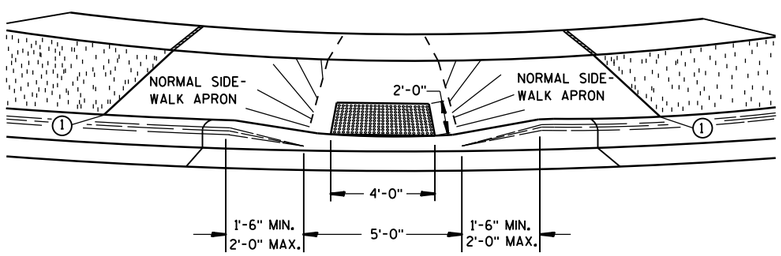
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

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.

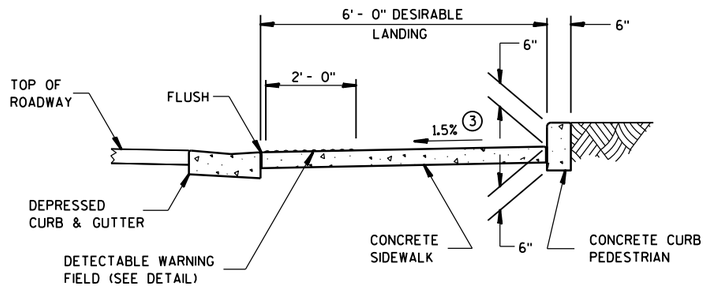
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

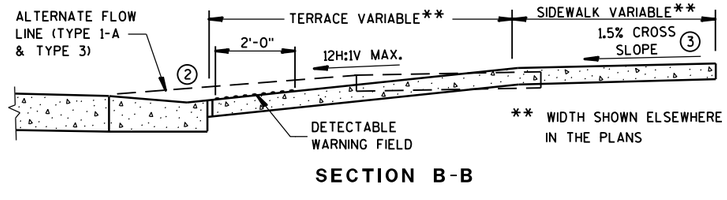
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



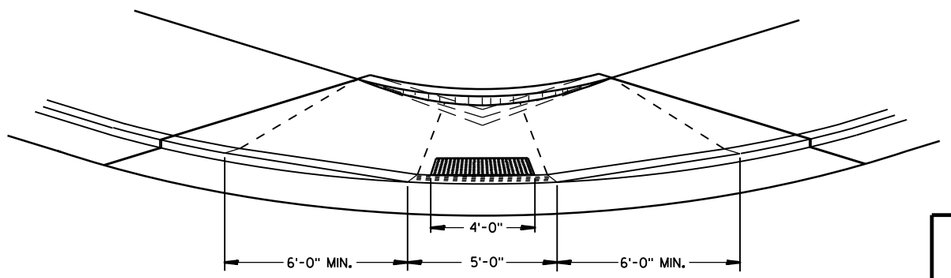
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

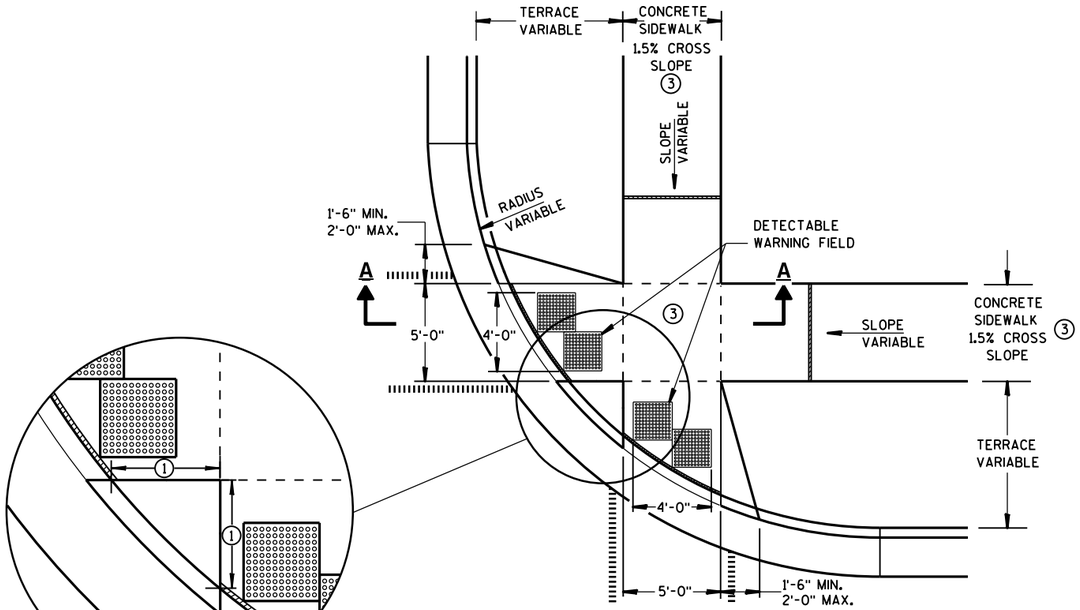
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

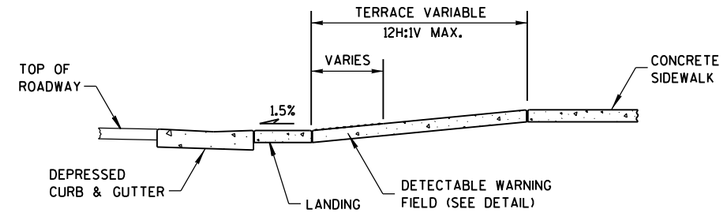
S.D.D. 8 D 5-15a

6

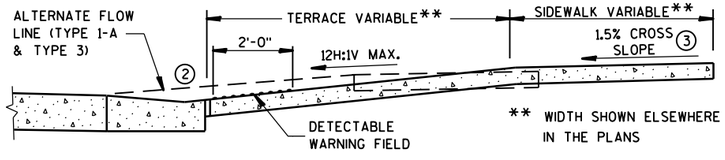
S.D.D. 8 D 5-15a



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.

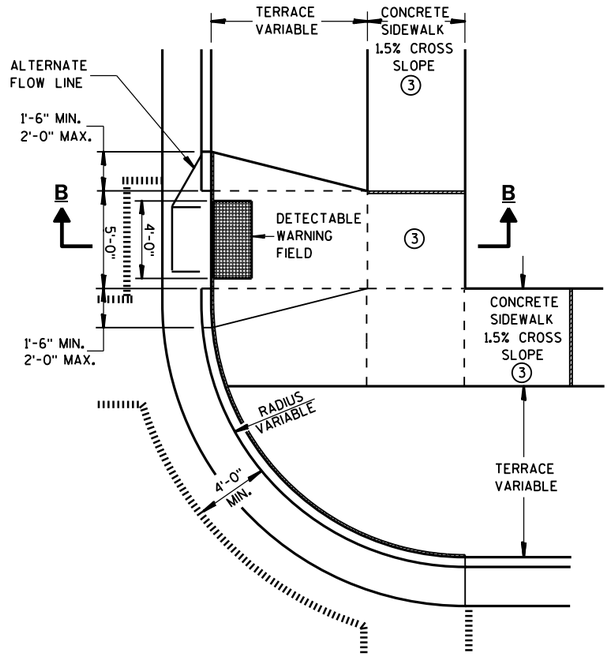
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

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

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



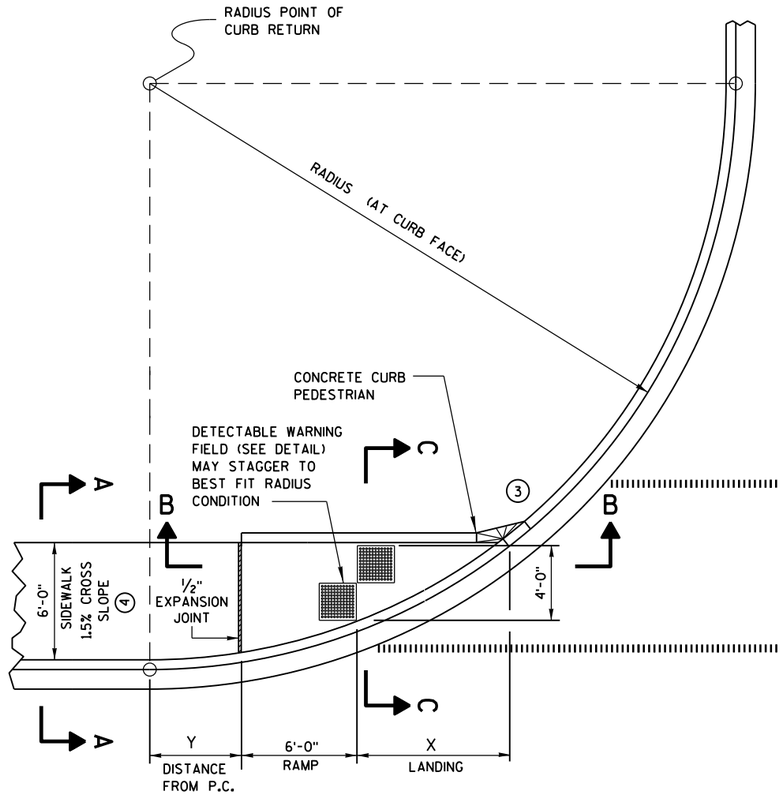
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

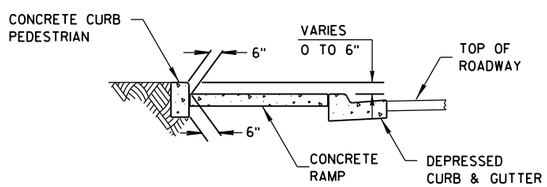
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

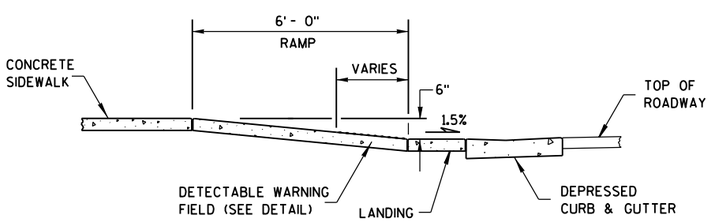
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



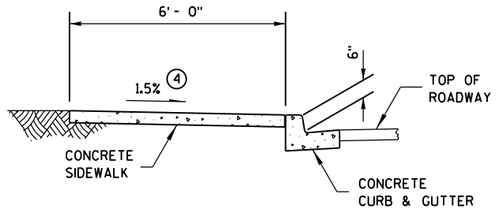
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

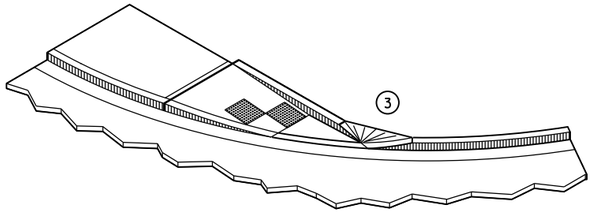
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

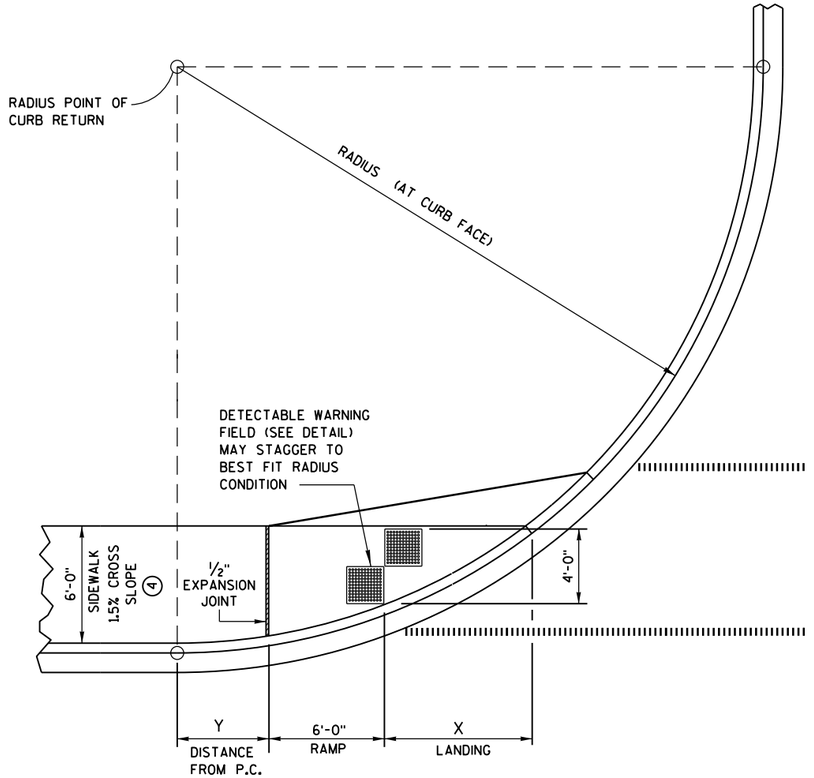
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

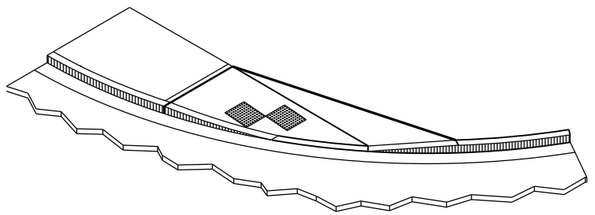
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

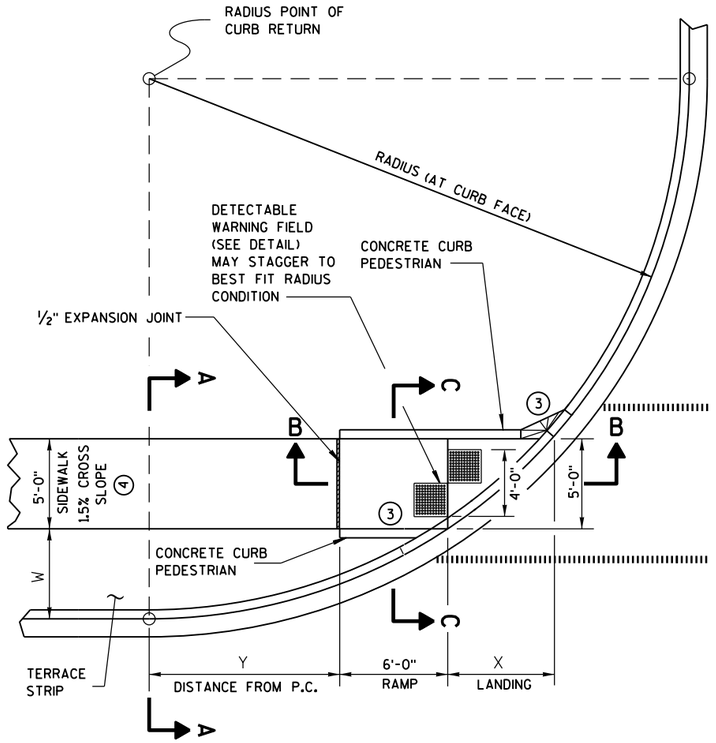
LEGEND

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

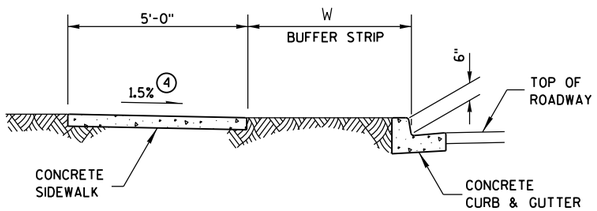
CURB RAMPS TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

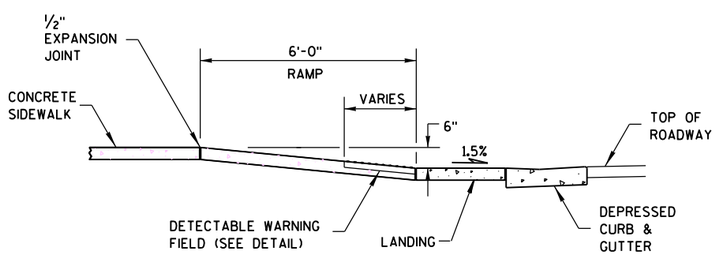
6
S.D.D. 8 D 5-15c



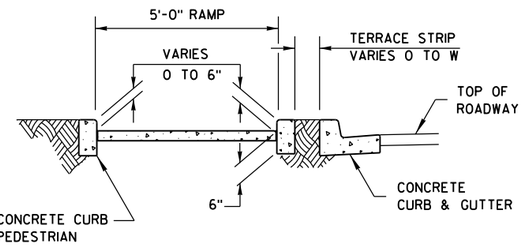
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" 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'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

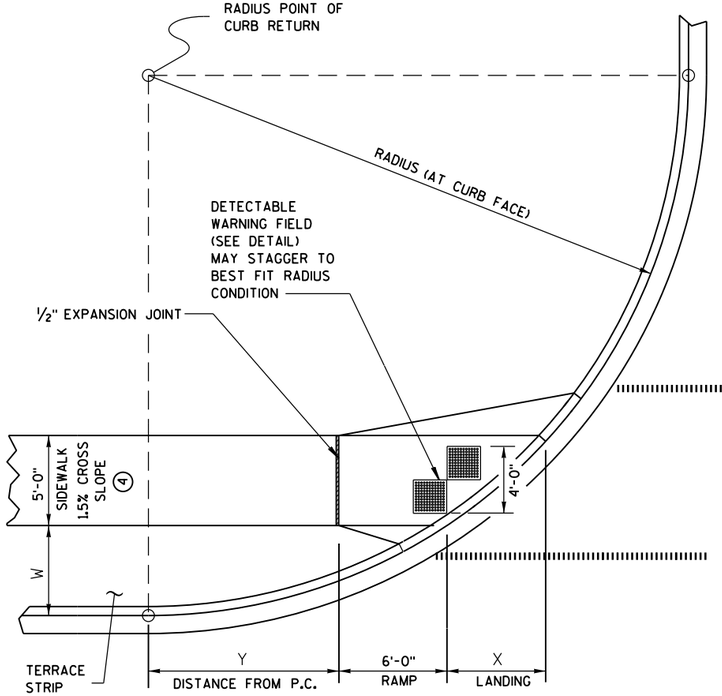
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

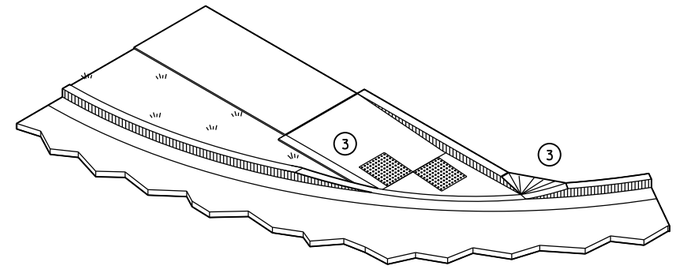
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

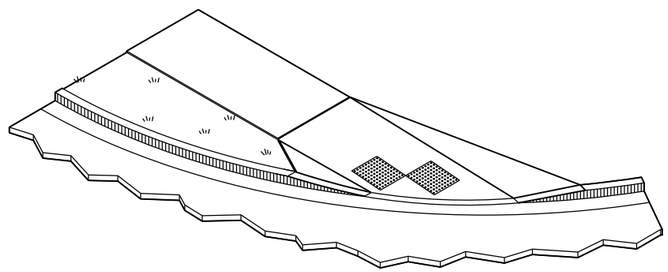
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



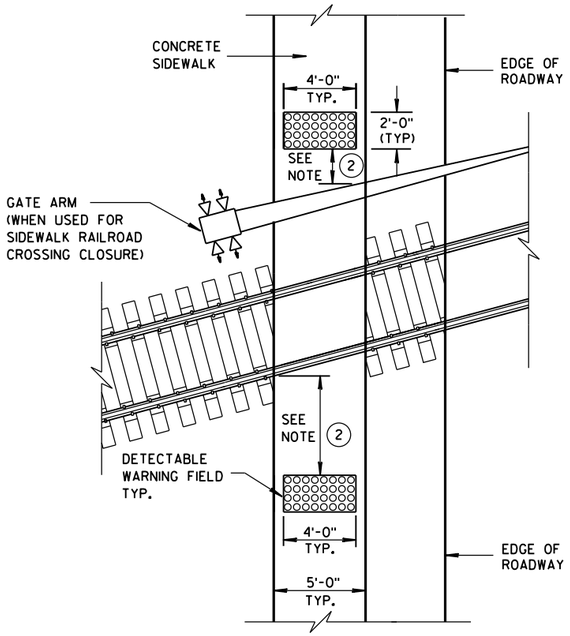
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

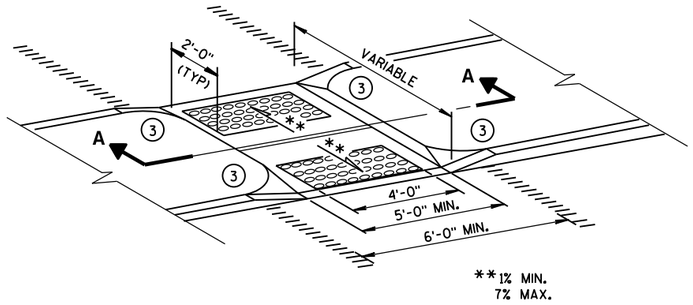
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

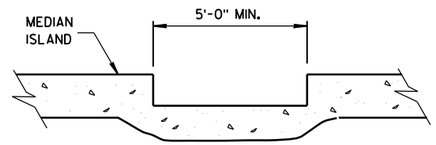
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

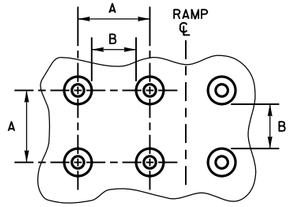
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

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

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



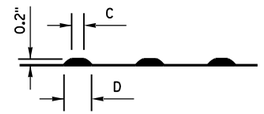
SECTION A-A



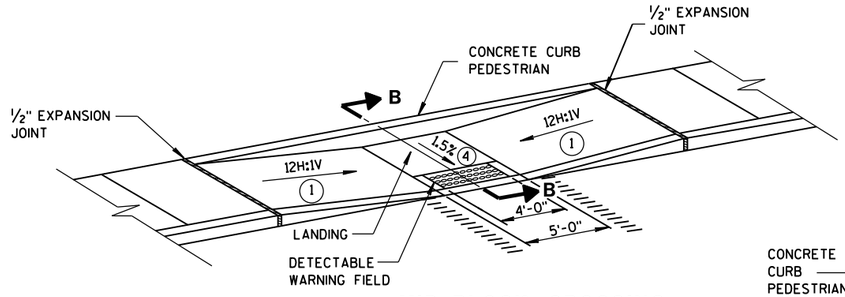
PLAN VIEW

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

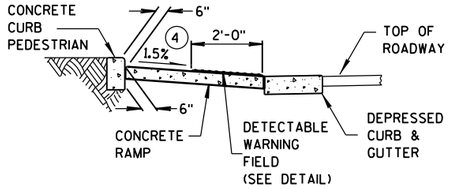
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

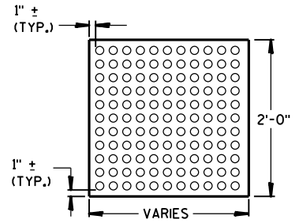


MID-BLOCK CROSSING
TYPE 7A



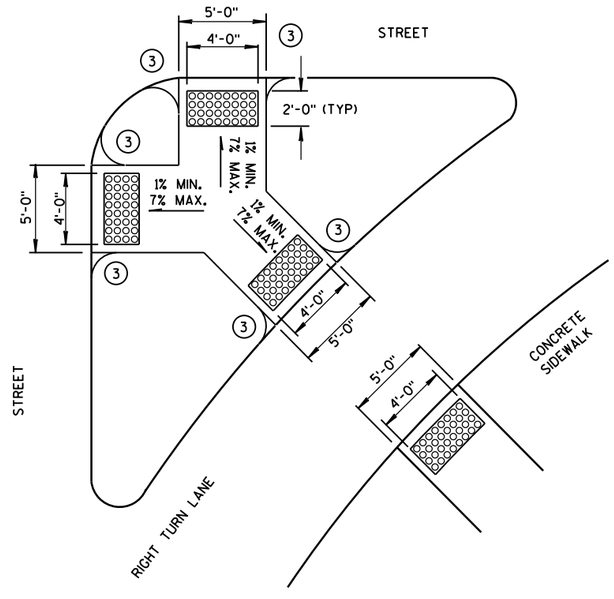
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

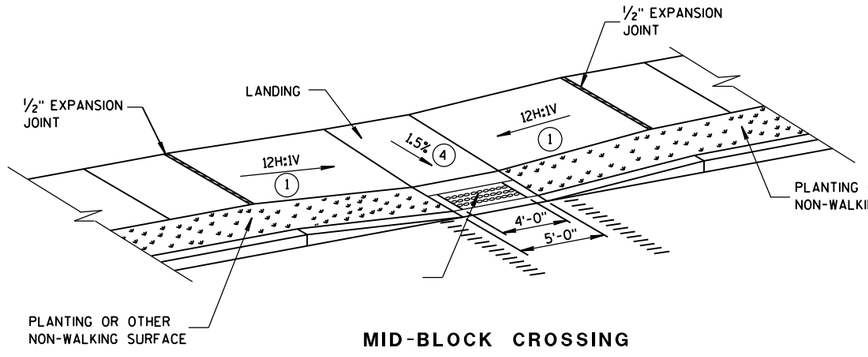


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

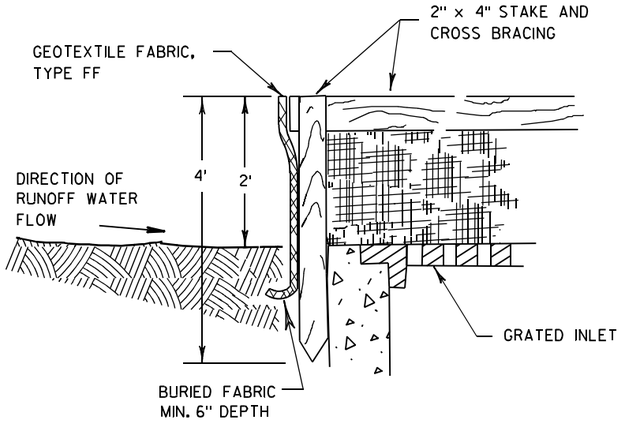
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS [illegible]ENT ENGINEER
FHWA

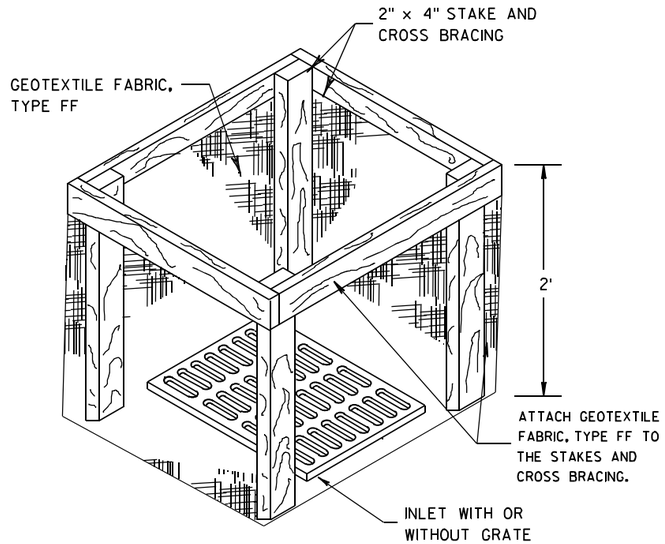
6

S.D.D. 8 D 5-15e

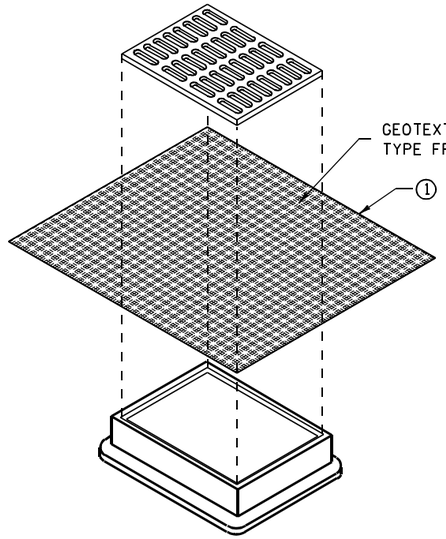
6

S.D.D. 8 D 5-15e



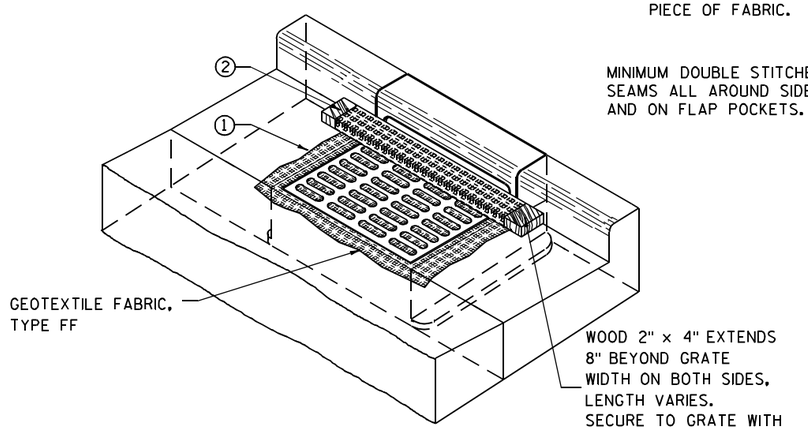


INLET PROTECTION, TYPE A

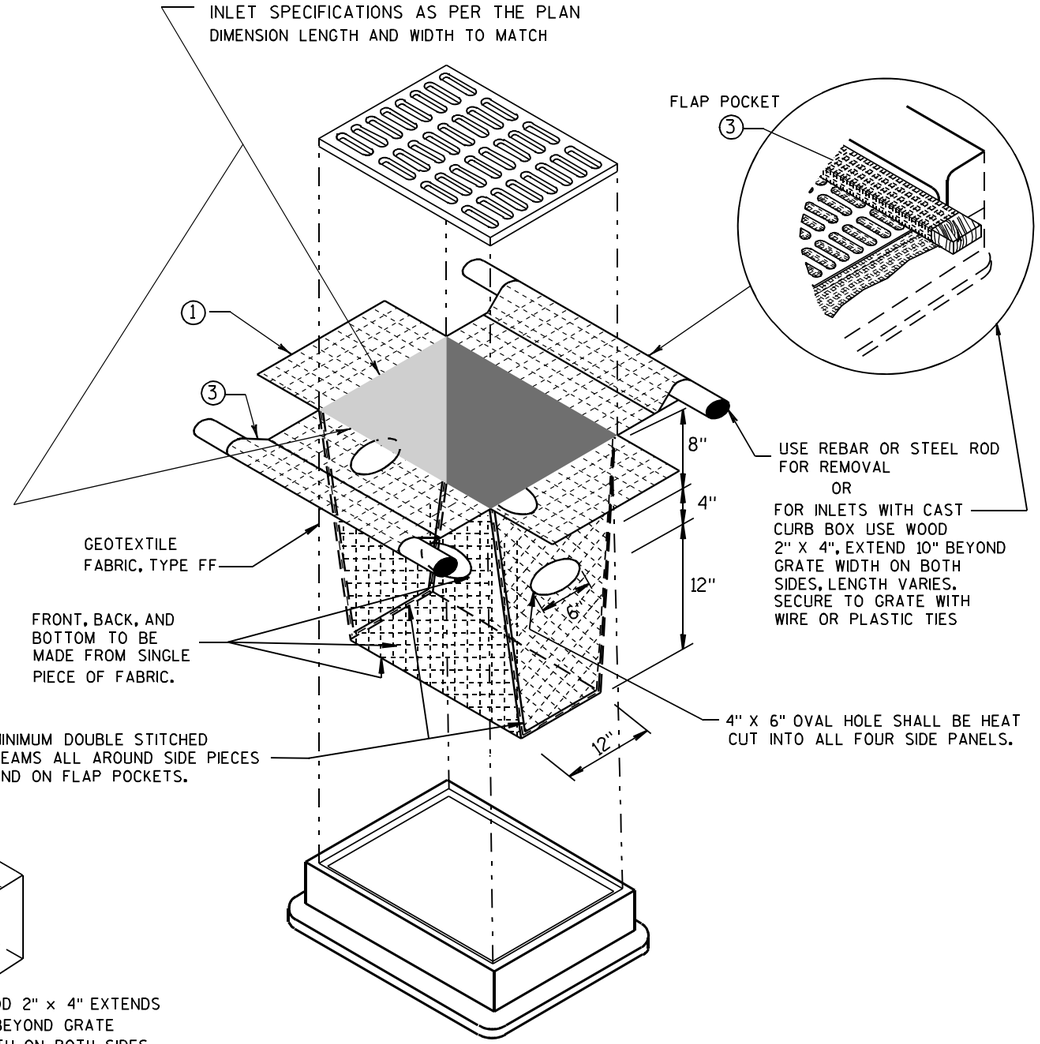


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

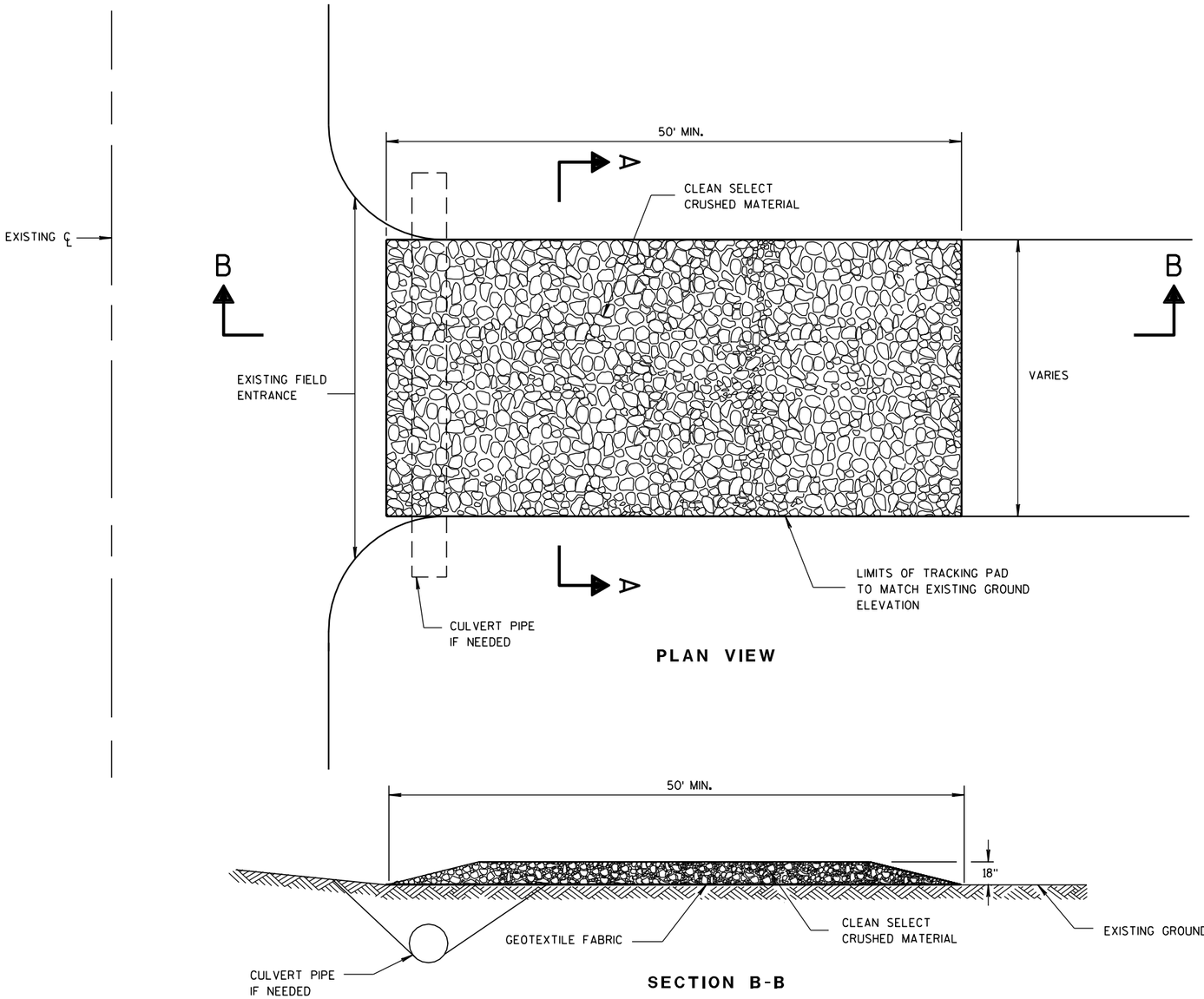
APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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



PLAN VIEW

SECTION B-B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

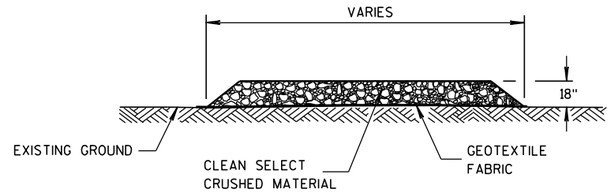
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 E 14-1

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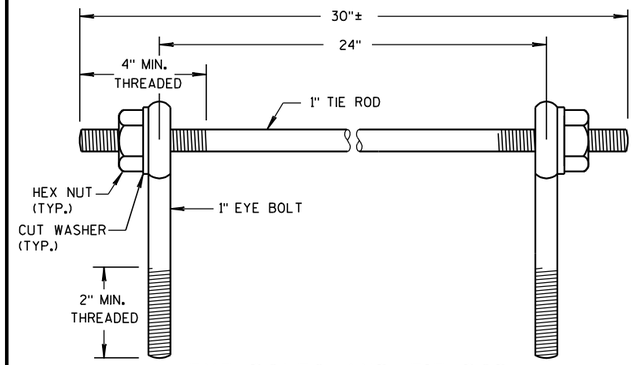
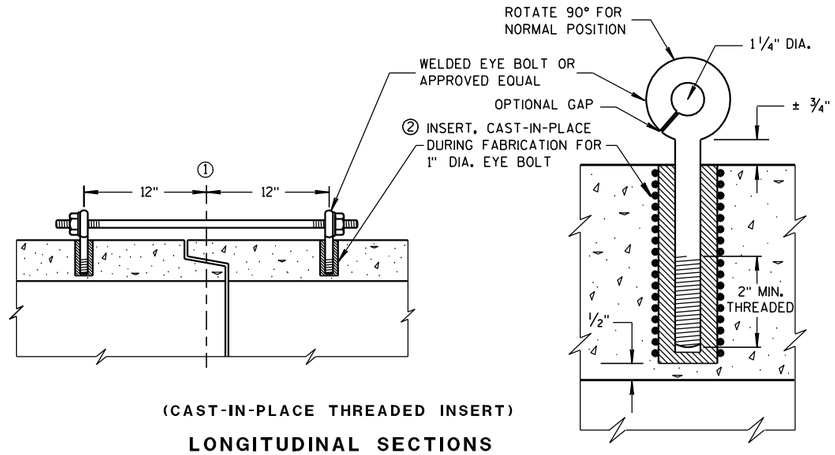
S.D.D. 8 E 14-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

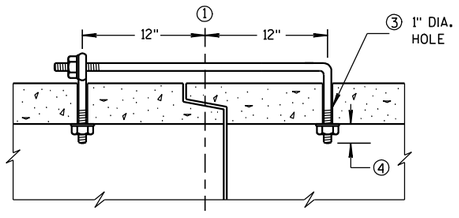
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

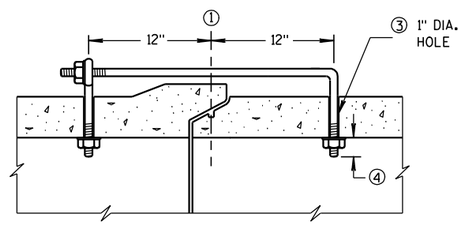
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

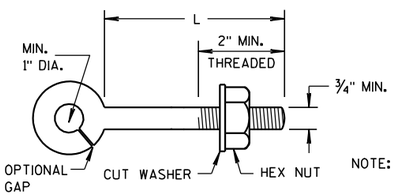


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

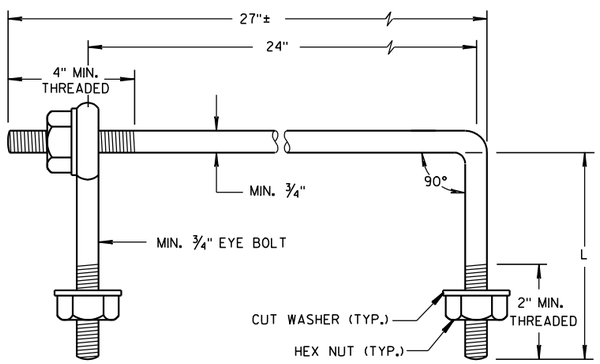
EYE BOLT DIMENSION TABLE

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



EYE BOLT

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



EYE BOLT AND TIE ROD

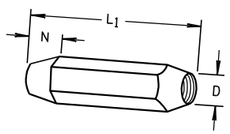
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



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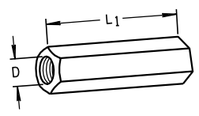
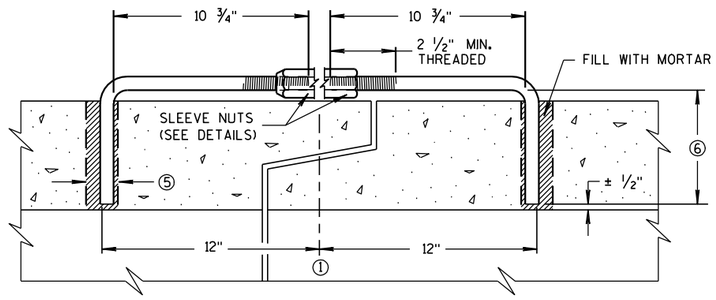


PLAIN

RIGHT AND LEFT THREADS

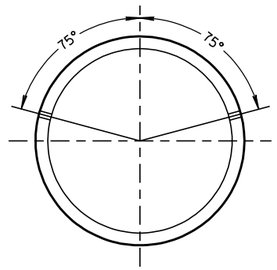
SLEEVE NUTS



LONGITUDINAL SECTION

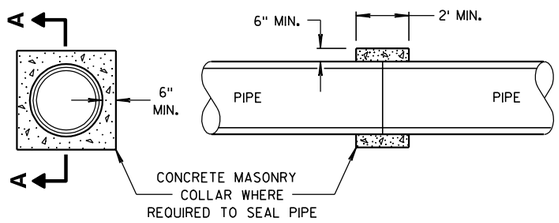
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

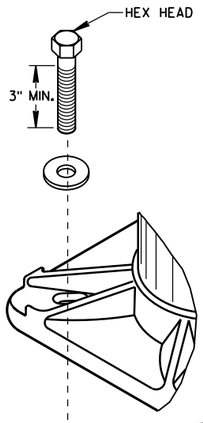
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

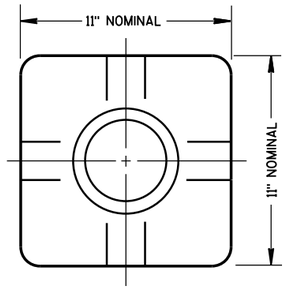
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

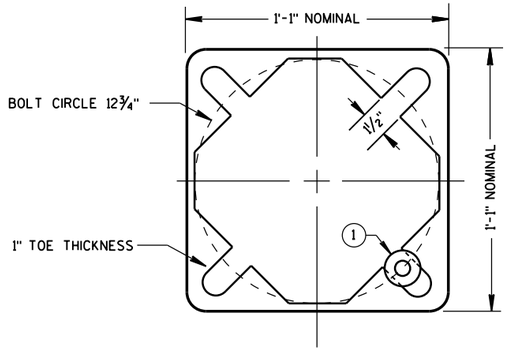
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

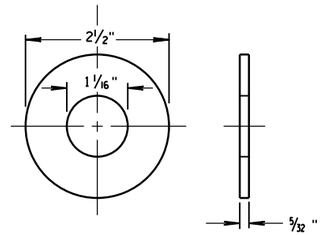




TOP VIEW
(PEDESTAL BASE)

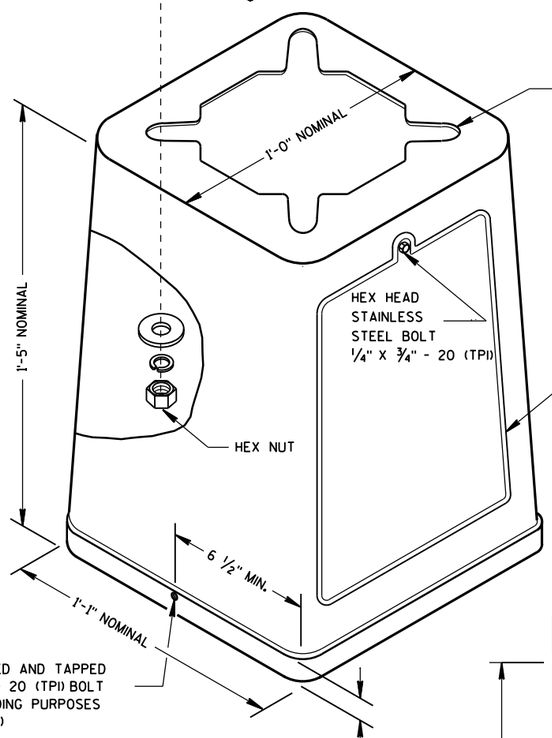


BOTTOM VIEW
(PEDESTAL BASE)

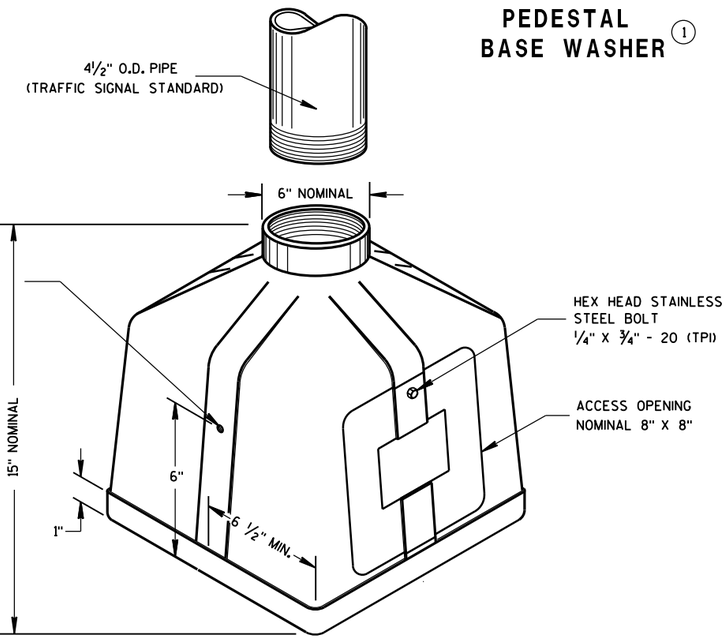


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

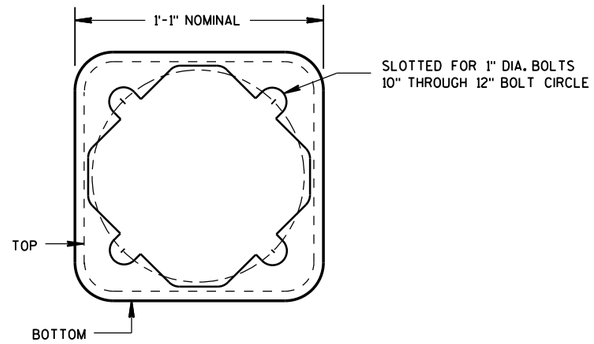


ISOMETRIC VIEW

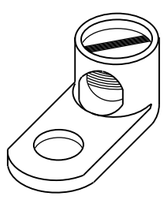


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

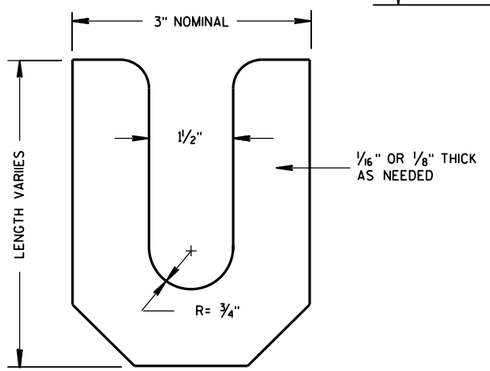


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

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 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 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE 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.

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

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

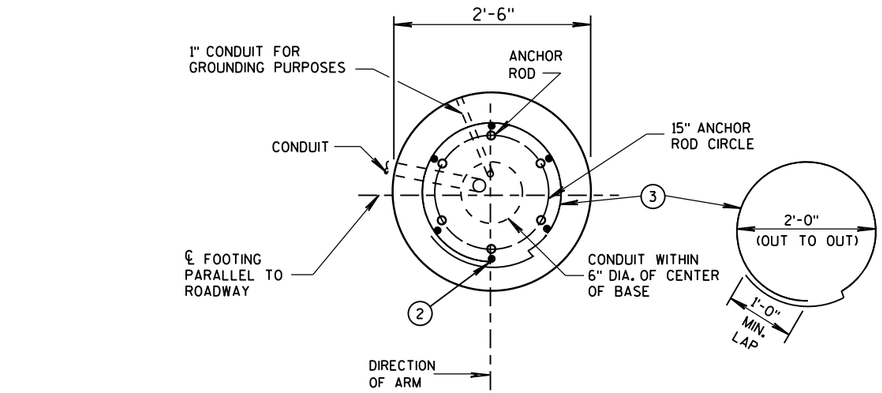
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

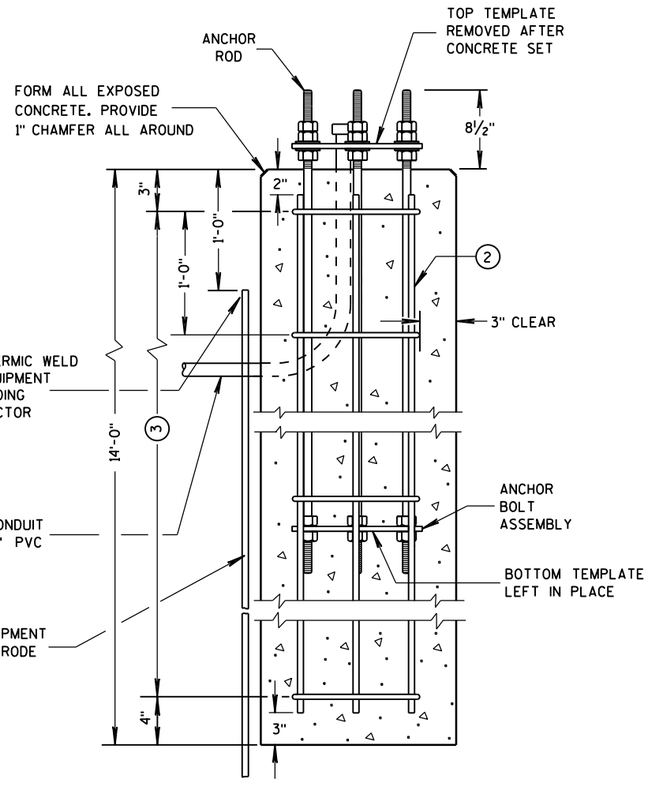
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

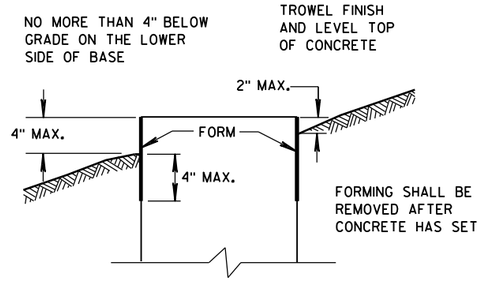
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



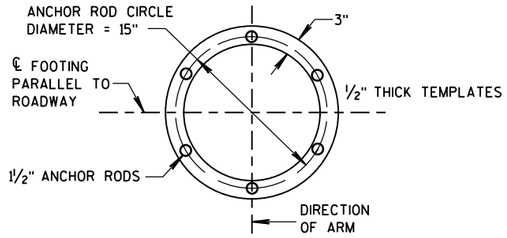


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

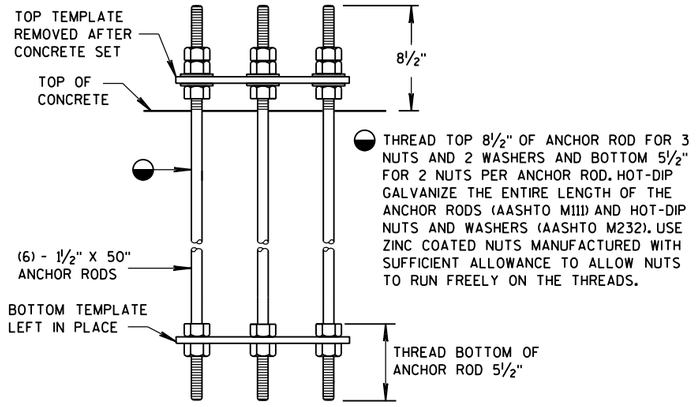
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
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FHWA

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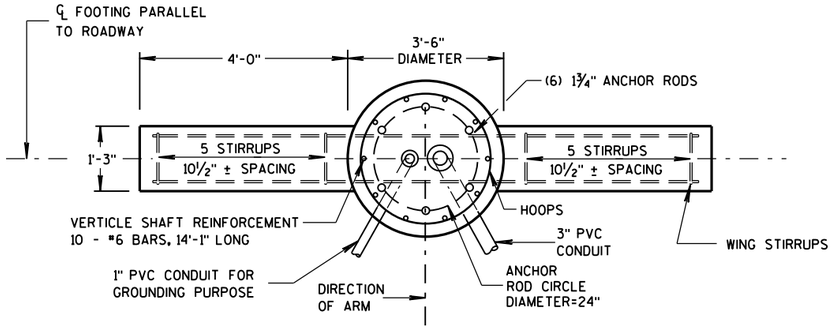
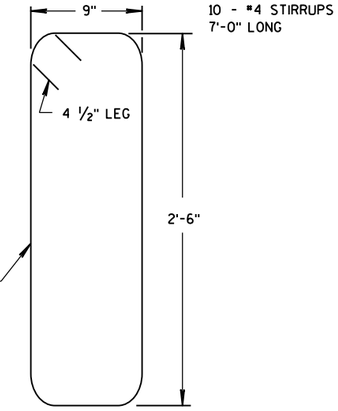
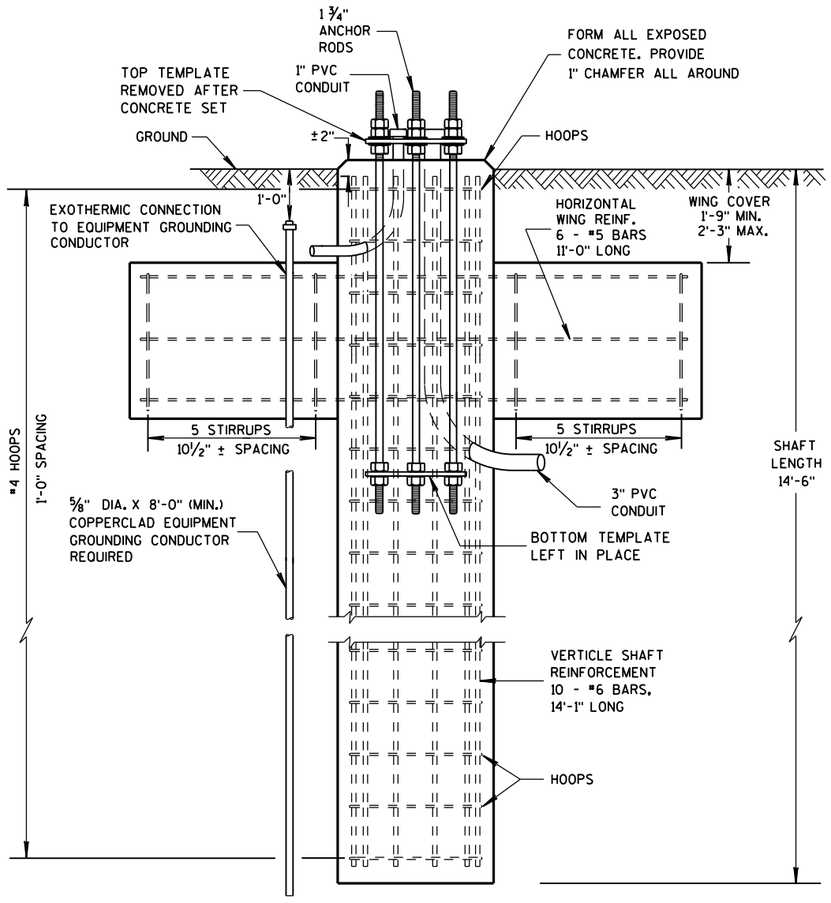
S.D.D. 9 C 11-5



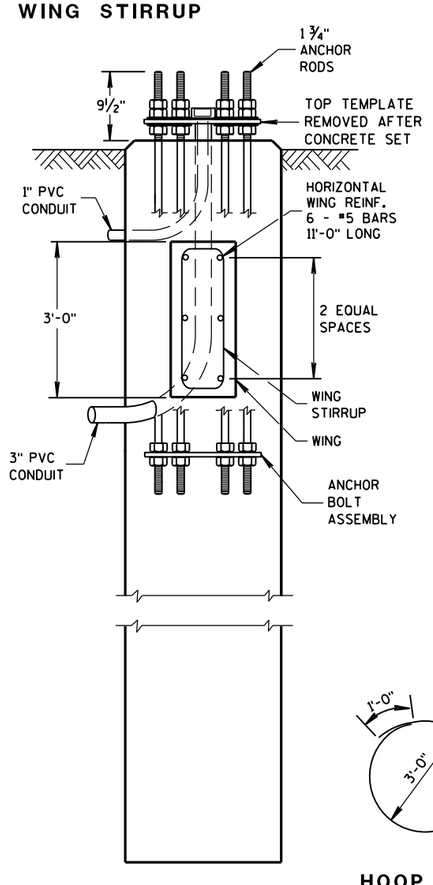
PLAN VIEW



WING STIRRUP

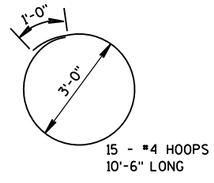


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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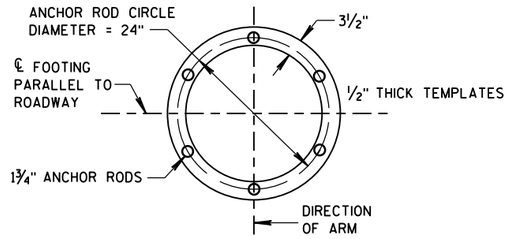
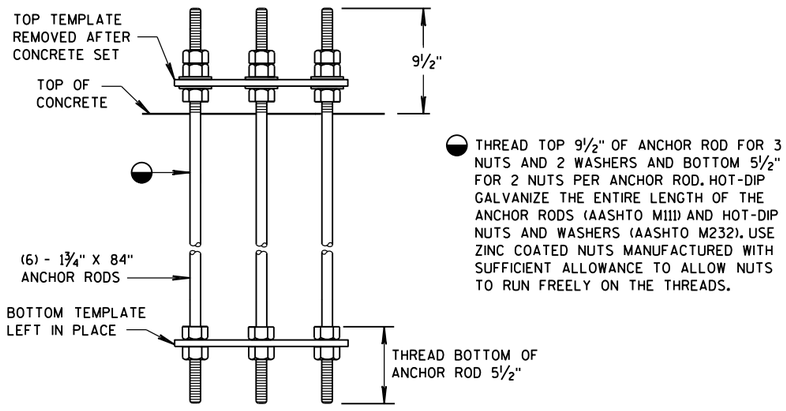
S.D.D. 9 C 12-5a

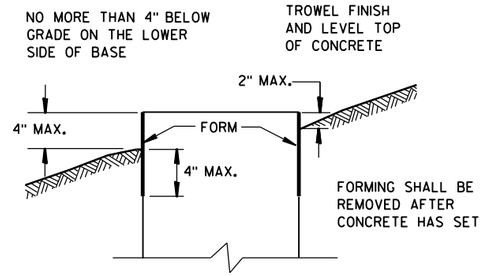


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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S.D.D. 9 C 12-5b

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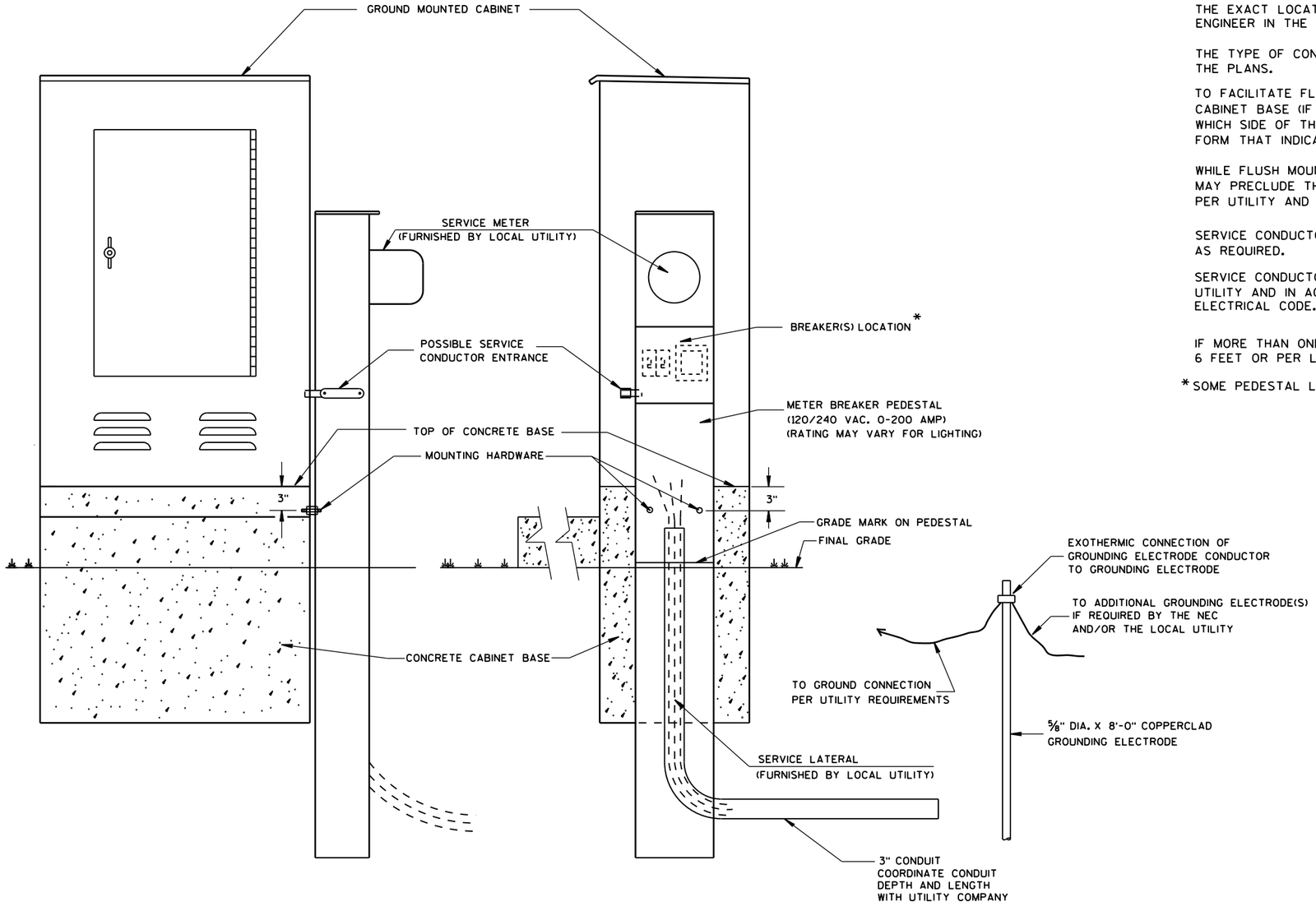
S.D.D. 9 C 12-5b



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.

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S.D.D. 9 D 1-5

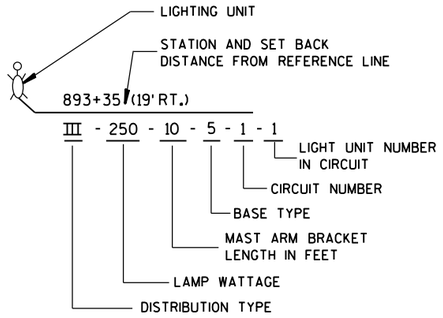
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

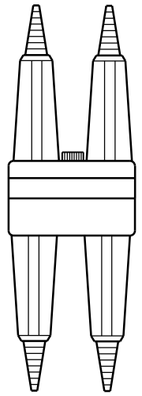
APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

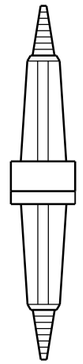
FHWA



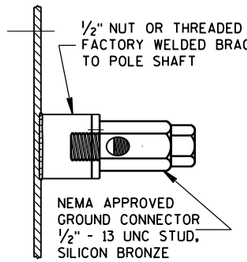
LIGHTING UNIT CODE
(TYPICAL)

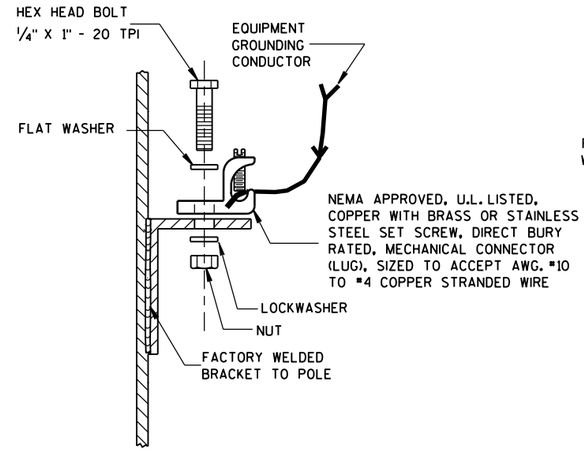


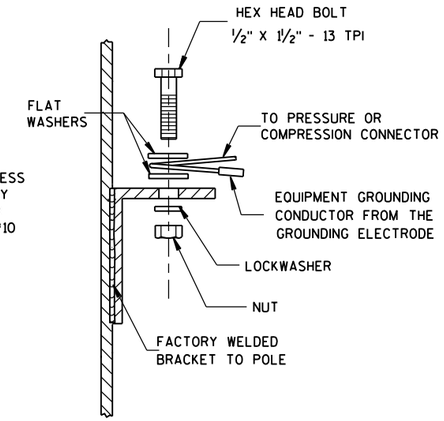
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



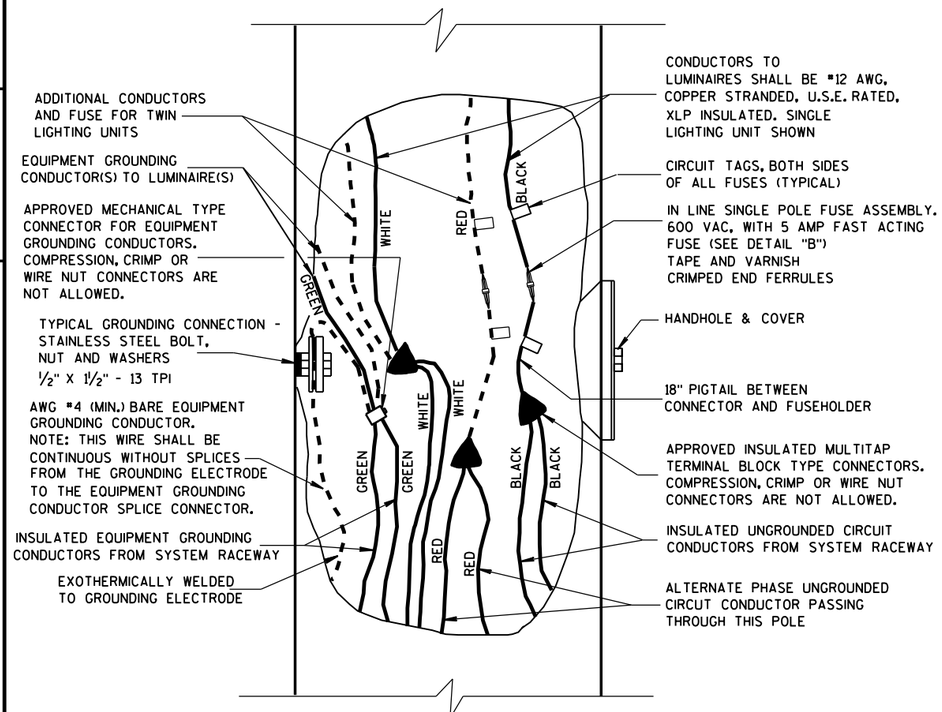
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



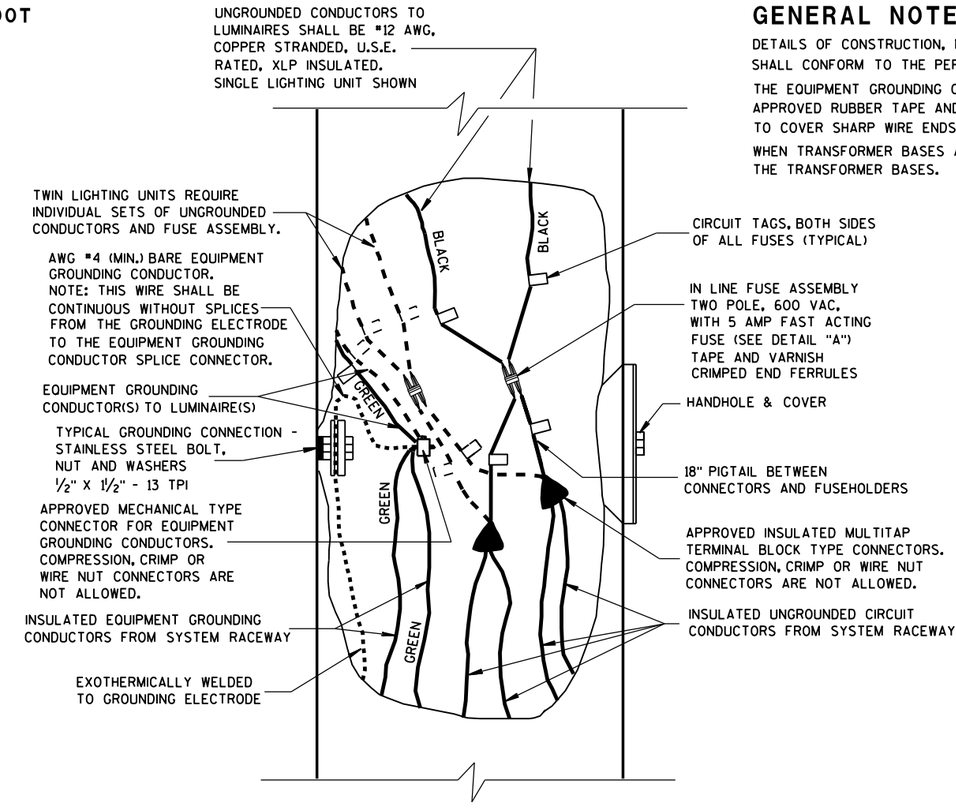




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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



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

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.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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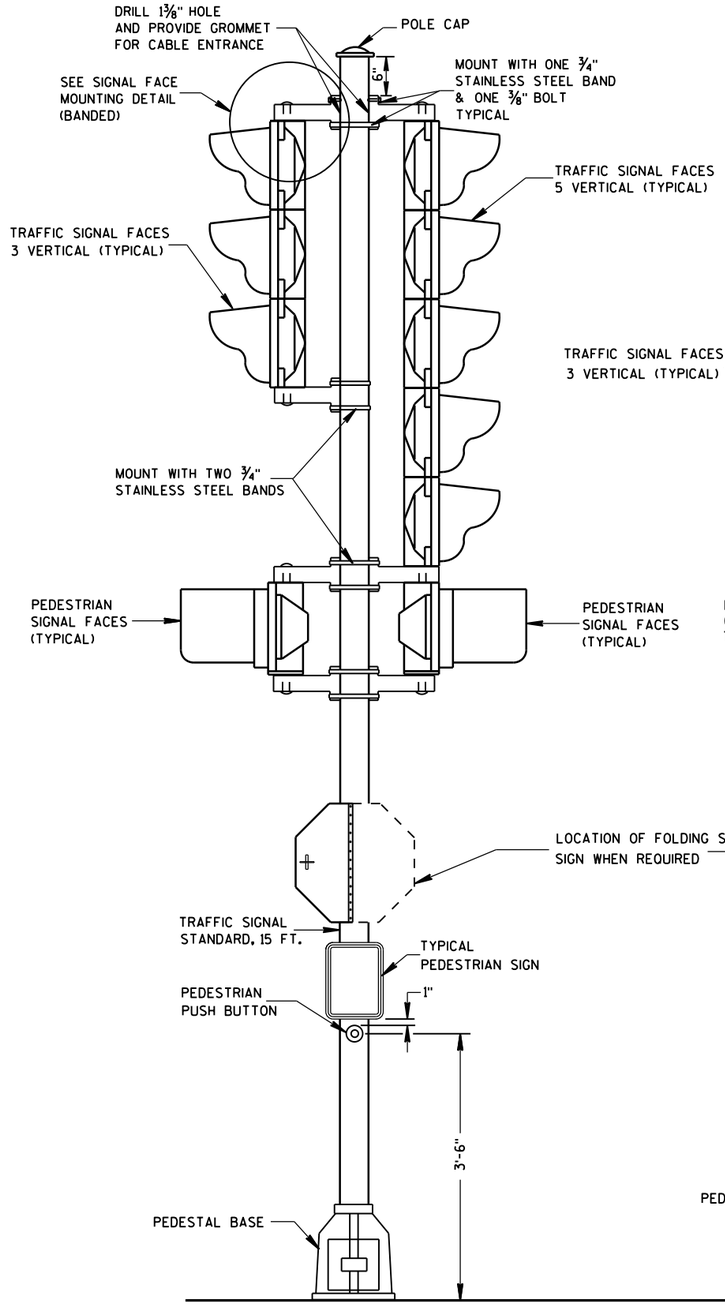
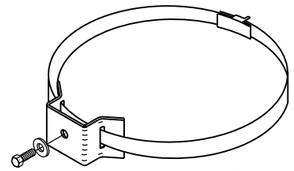
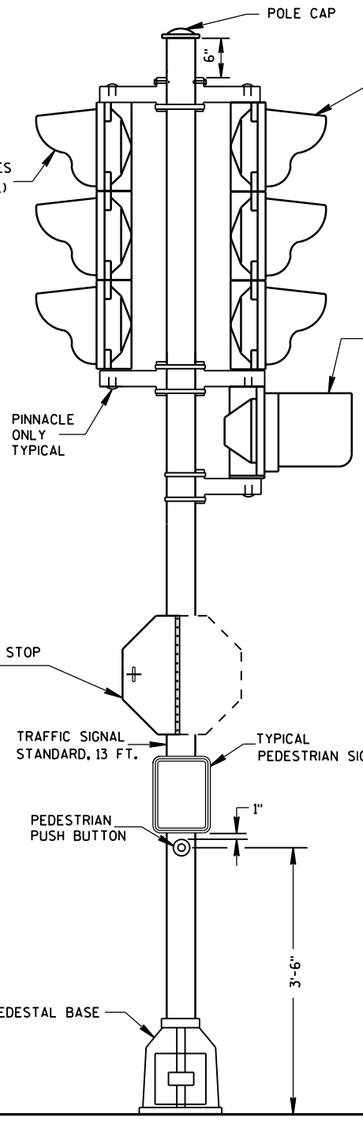
S.D.D. 9 E 3-5



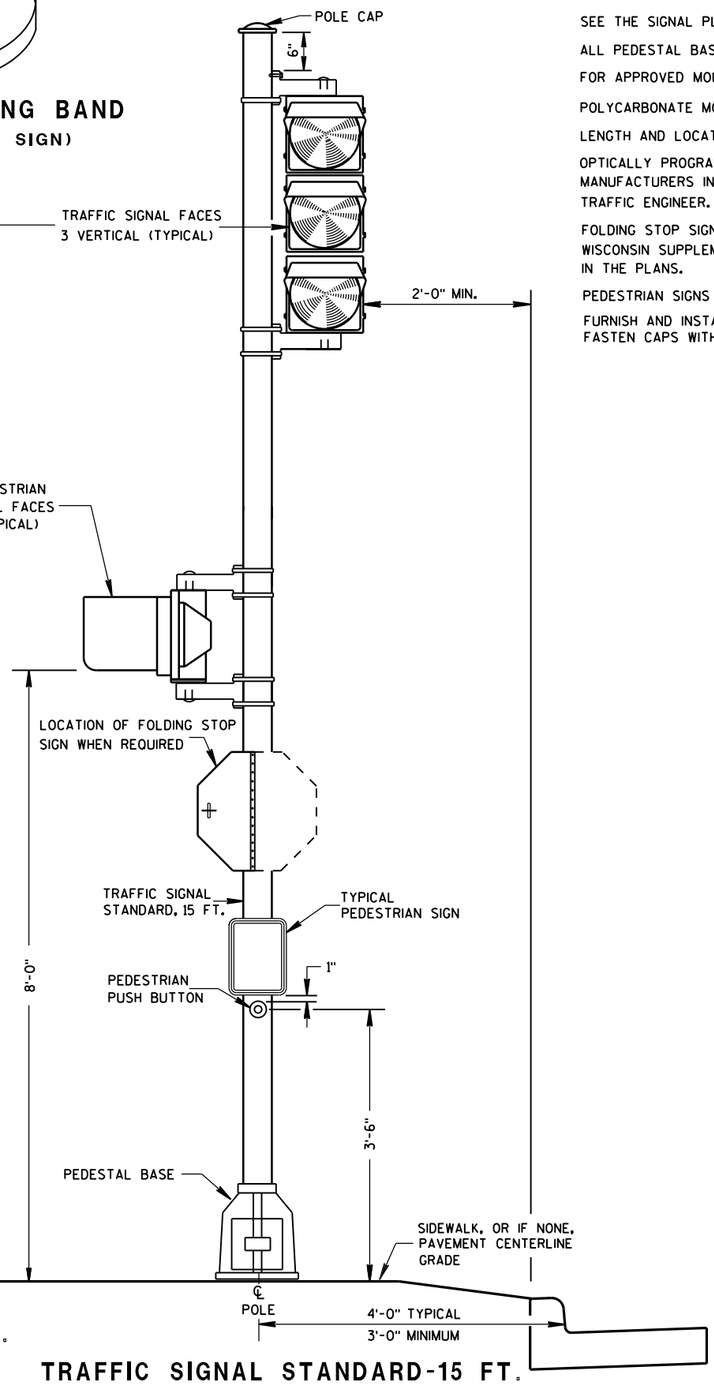
TRAFFIC SIGNAL STANDARD-15 FT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

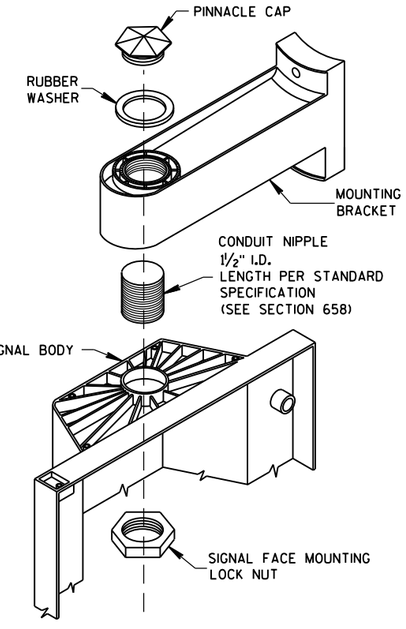
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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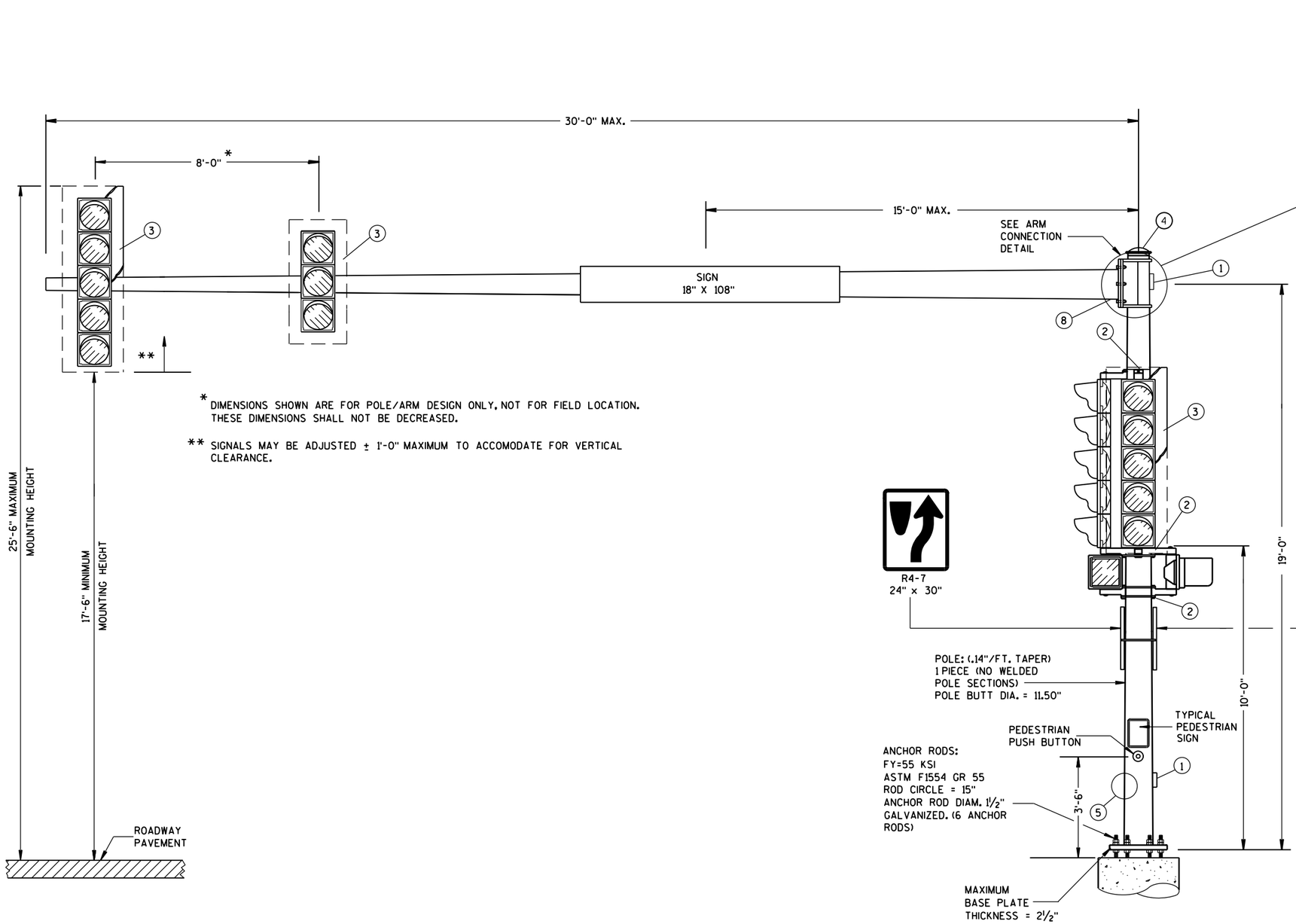
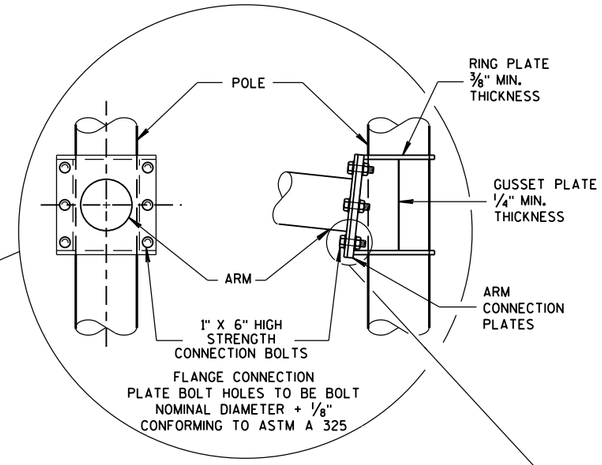
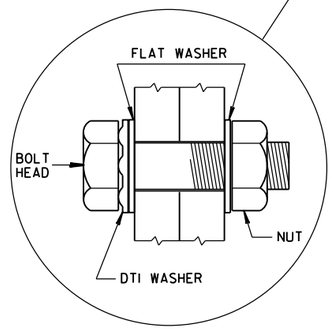


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

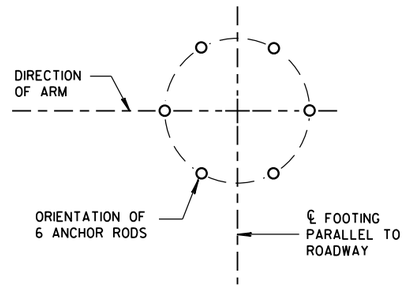
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE
15' - 30' MONOTUBE ARM

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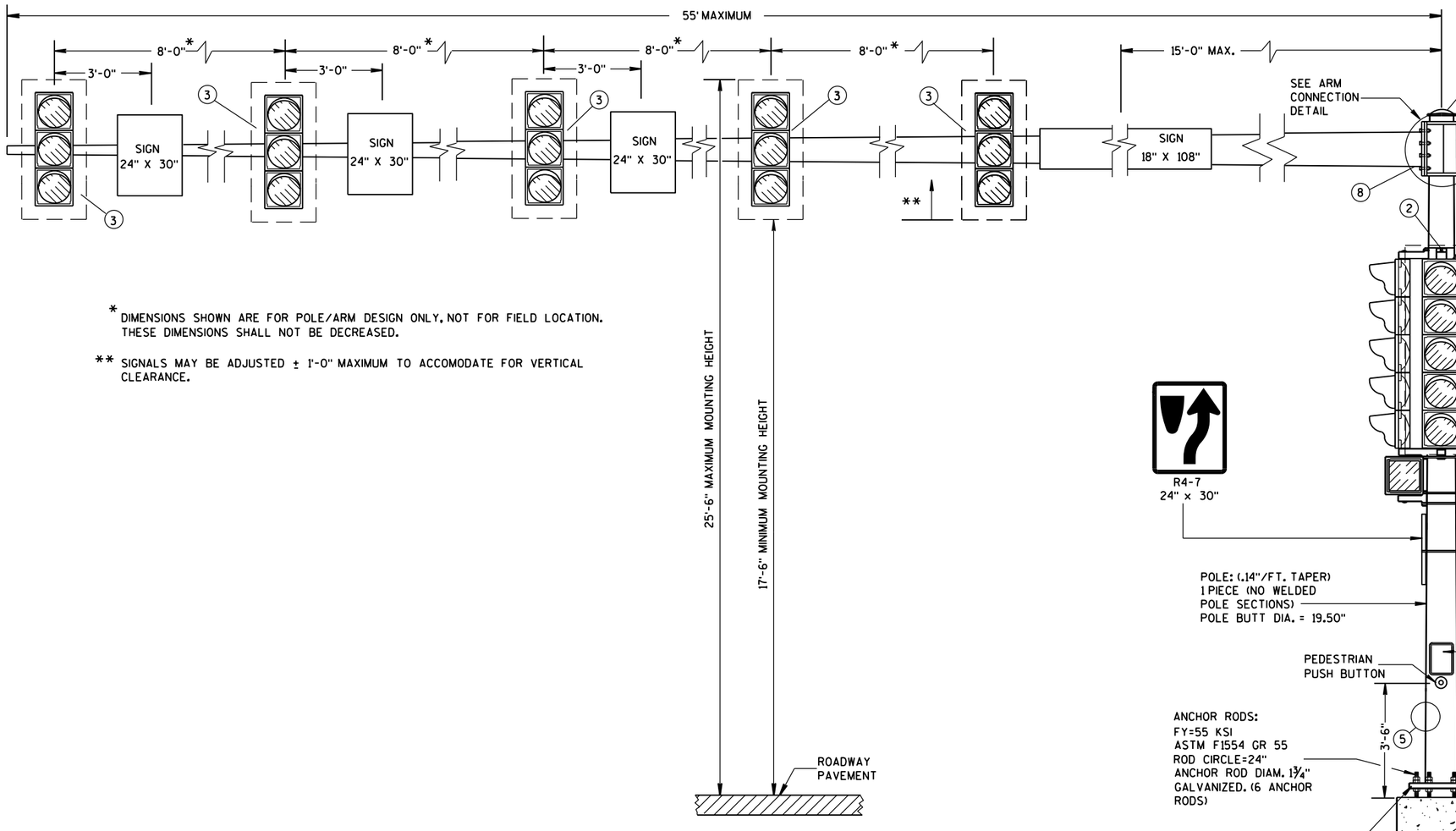

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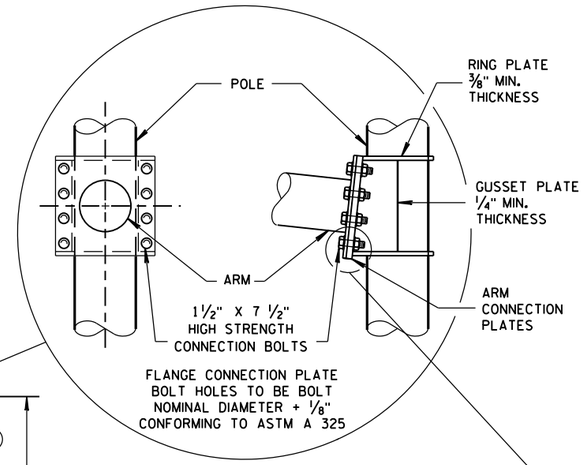
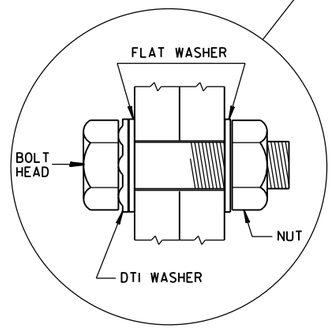
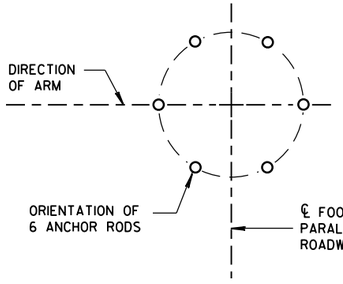


8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

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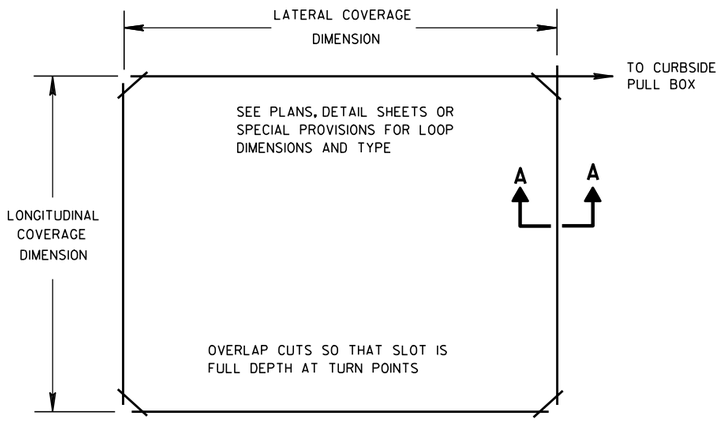
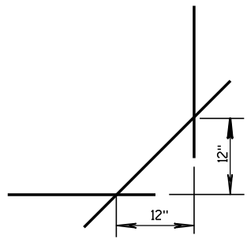
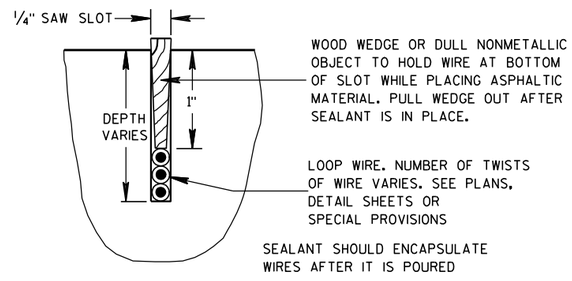


LOOP WIRE SLOT CONSTRUCTION

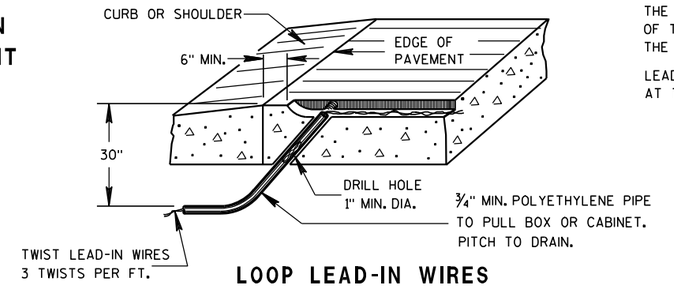


EXPANDED VIEW
SAW CUT CORNERS



SECTION A-A

LOOP AND LEAD-IN WIRES IN PAVEMENT



LOOP LEAD-IN WIRES THROUGH PAVEMENT

GENERAL NOTES

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

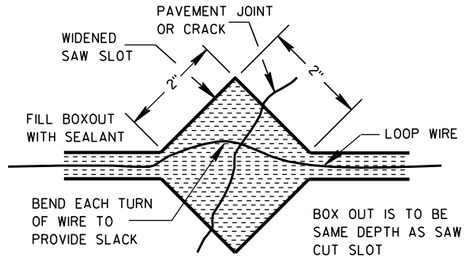
THE SLOTS IN THE PAVEMENT SHALL BE CUT TO DIMENSION WITH A SAW. THE SLOTS SHALL BE CLEANED FREE OF DIRT, DUST, MOISTURE AND DEBRIS PRIOR TO INSTALLATION OF THE WIRE.

AFTER PLACING THE WIRE IN THE SLOT, FILL THE SLOT WITH AN ASPHALTIC MATERIAL IN ACCORDANCE WITH THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

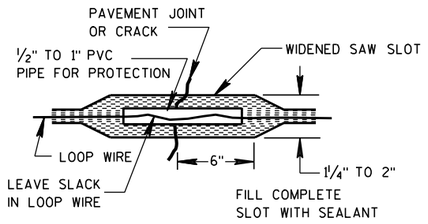
IN THE EVENT ASPHALTIC MATERIAL IS UNAVAILABLE, A FLEXIBLE TYPE EPOXY MAY BE USED AS A LOOP SLOT FILLER. THE LOOP SLOT SHALL BE CLEAN AND DRY BEFORE EPOXY IS INSTALLED. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED ONLY AFTER WRITTEN APPROVAL BY THE BY THE PROJECT ENGINEER.

THE TWO SINGLE CONDUCTOR LOOP WIRES SHALL BE TWISTED TOGETHER AT A RATE OF THREE TWISTS PER FOOT FROM THE PAVEMENT EDGE TO THE SPLICE CONNECTION WITH THE LOOP LEAD-IN CABLE.

LEAD-IN CABLES AND LOOP LEAD-IN WIRES SHALL BOTH BE CUT TO 6 FEET IN LENGTH AT THE SPLICING PULL BOX.

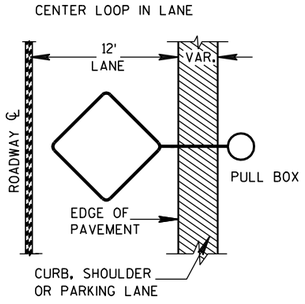


PLAN VIEW

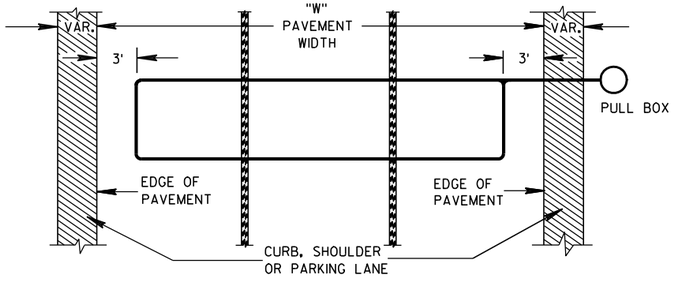


FRONT VIEW

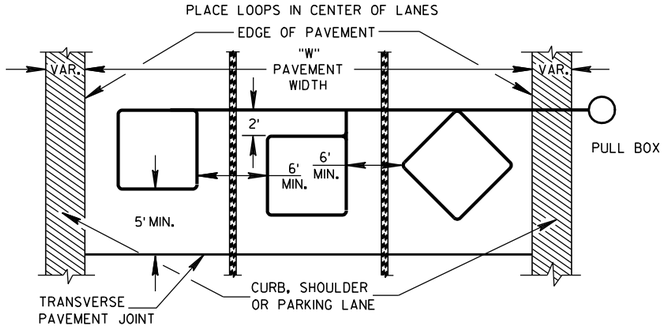
LOOP WIRE INSTALLATION ACROSS PAVEMENT JOINT OR CRACK



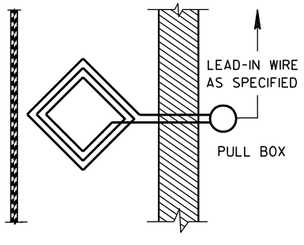
LOOP WIRE SLOT PLAN



LOOP WIRE SLOT PLAN

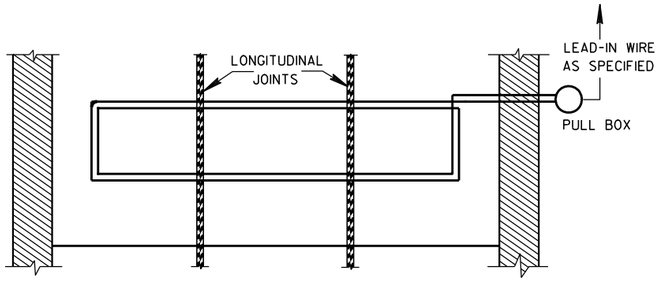


LOOP WIRE SLOT PLAN



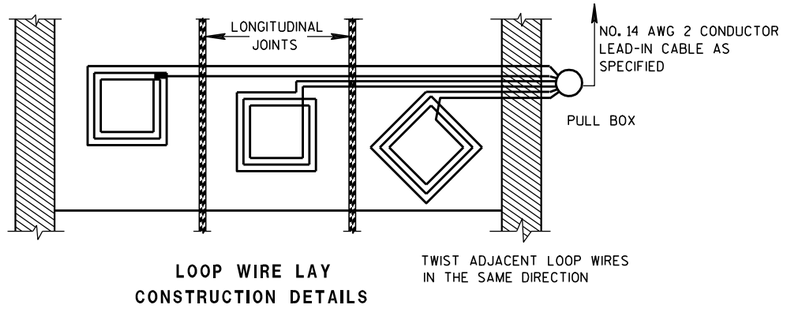
LOOP WIRE LAY CONSTRUCTION DETAILS

SINGLE LANE LOOP DETECTION



LOOP WIRE LAY CONSTRUCTION DETAILS

MULTIPLE LANE MASS LOOP DETECTION



LOOP WIRE LAY CONSTRUCTION DETAILS

MULTIPLE LANE DETECTION BY INDIVIDUAL LANES, TYPICAL TYPE LOOPS

DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT

STATE OF WISCONSIN
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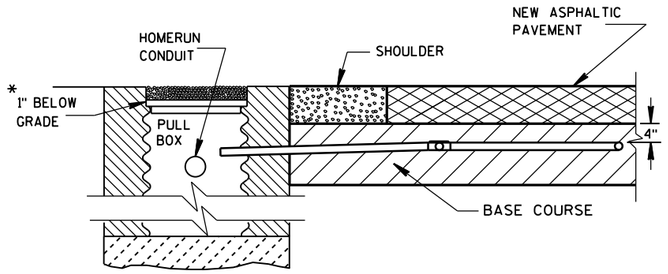
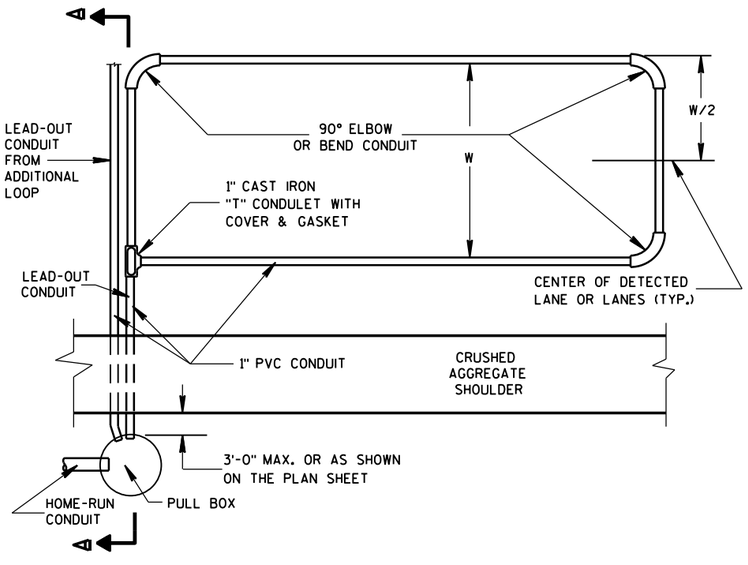


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

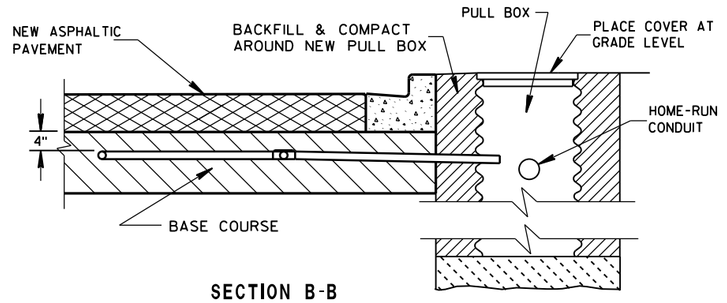
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

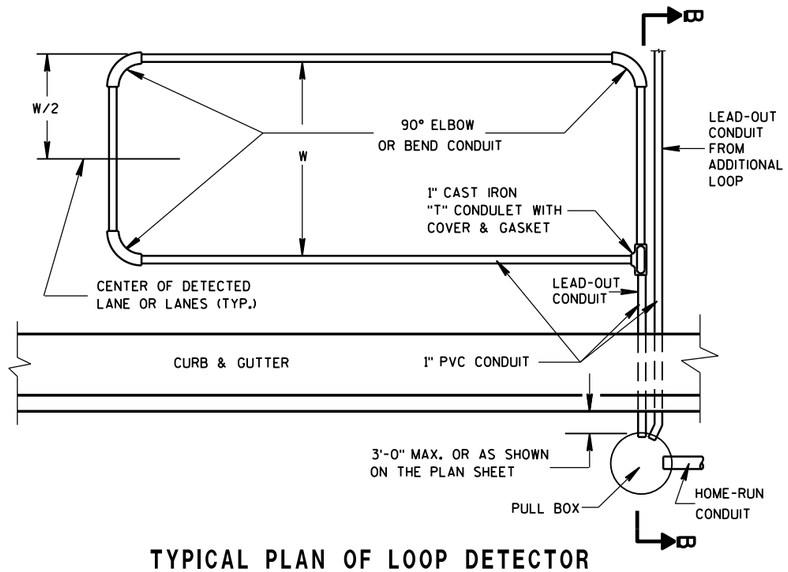
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept. 2014 — DATE
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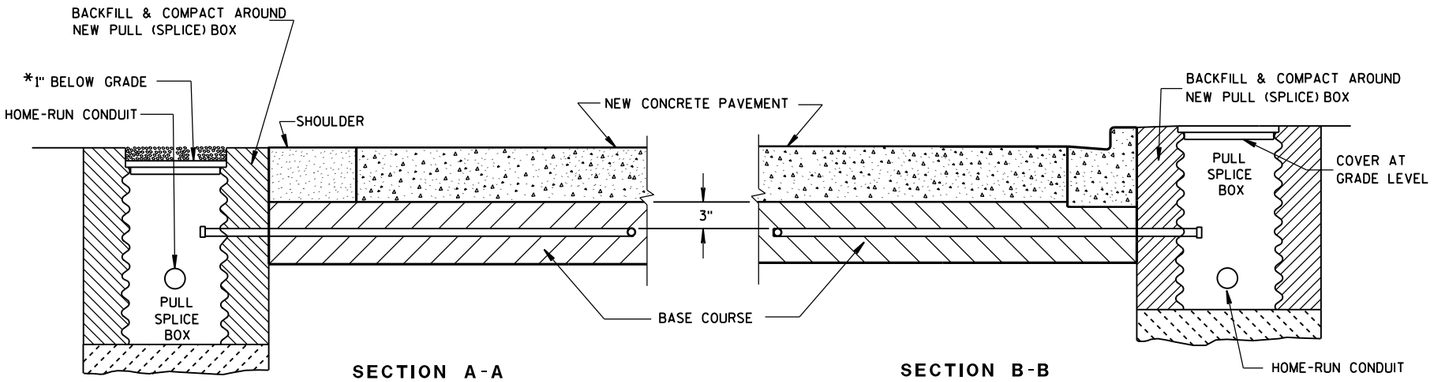

SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

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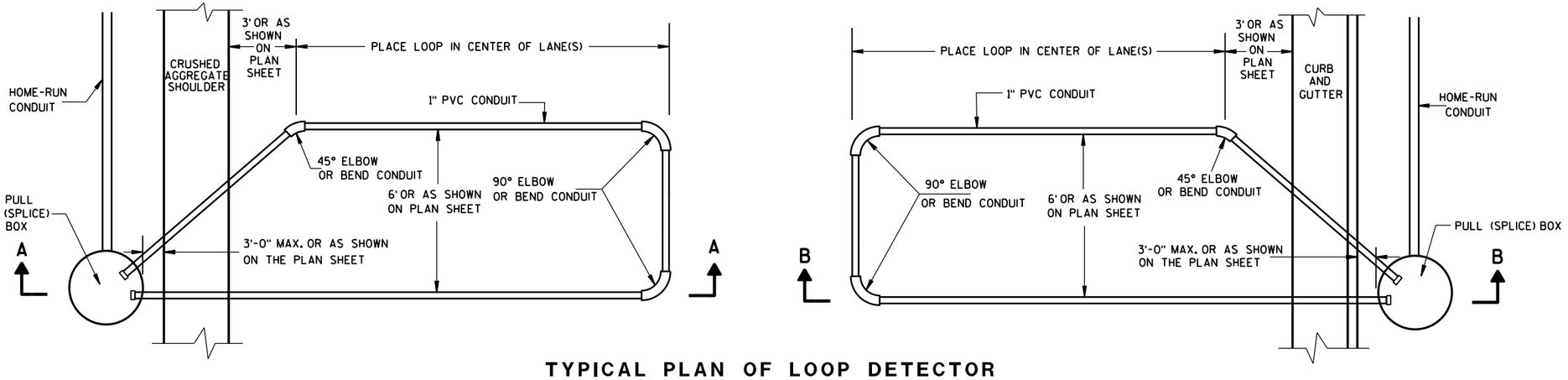

TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept. 2014 — DATE
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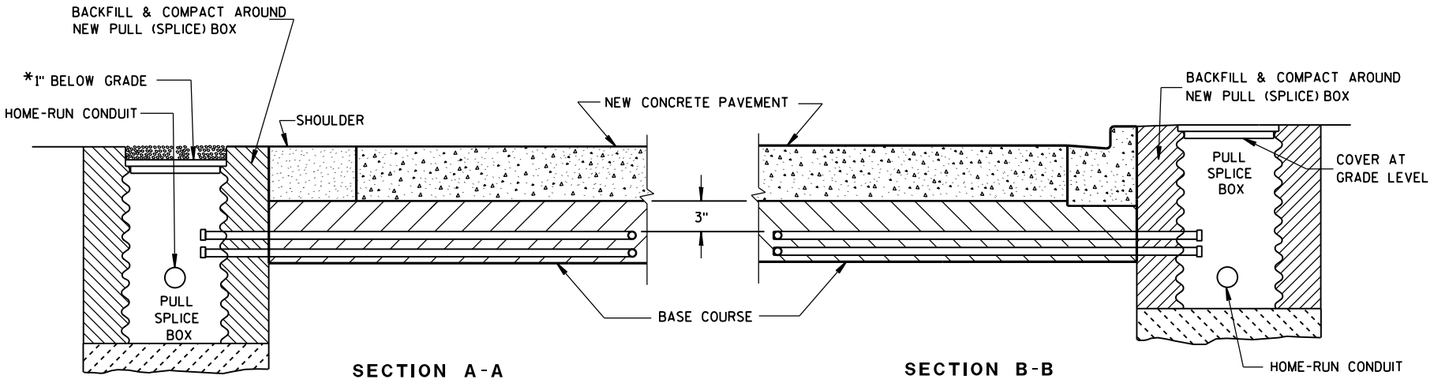


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

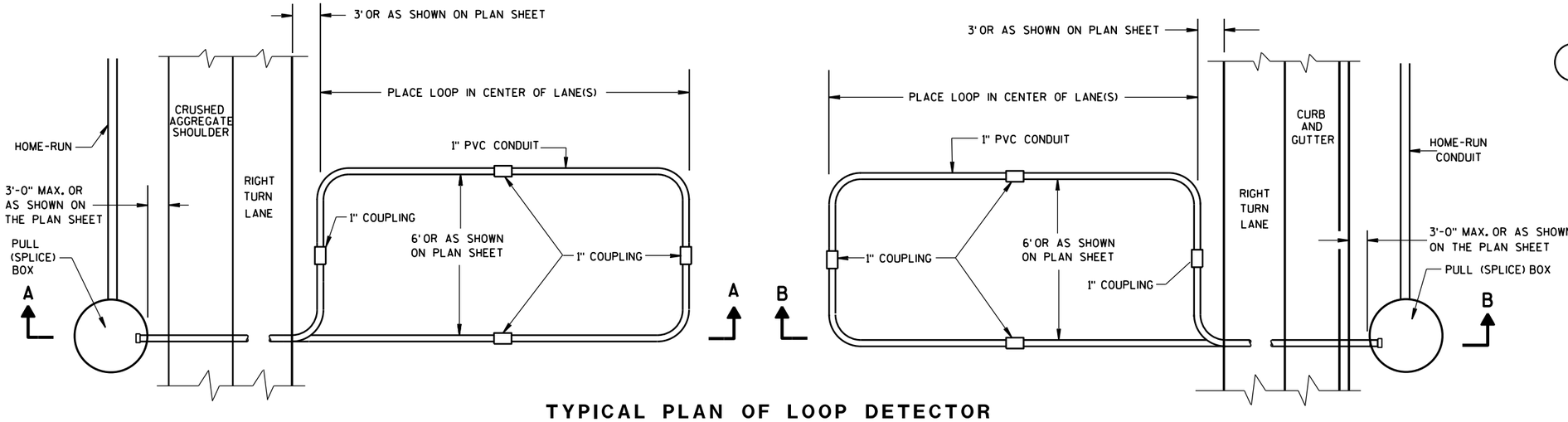
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

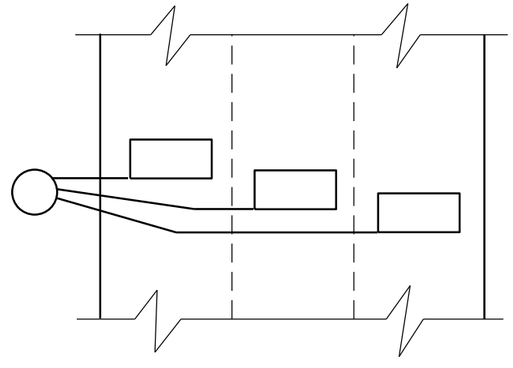
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 F 15-4b

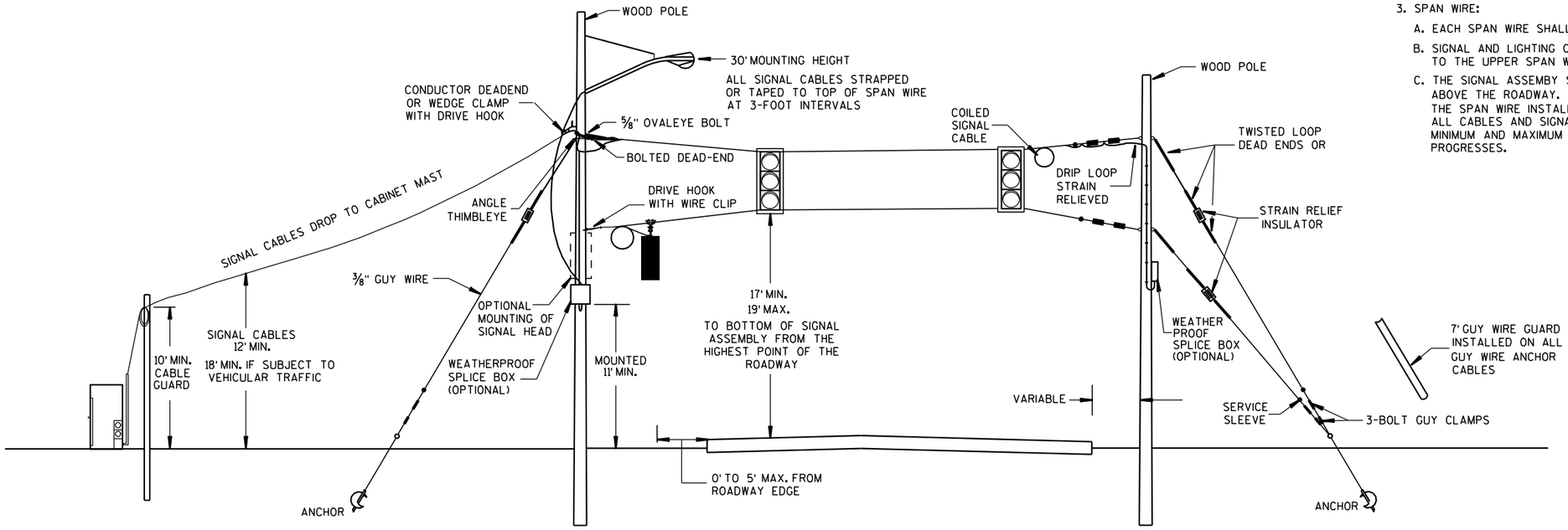
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthar[illegible]n
STATE ELECTRICAL ENGI

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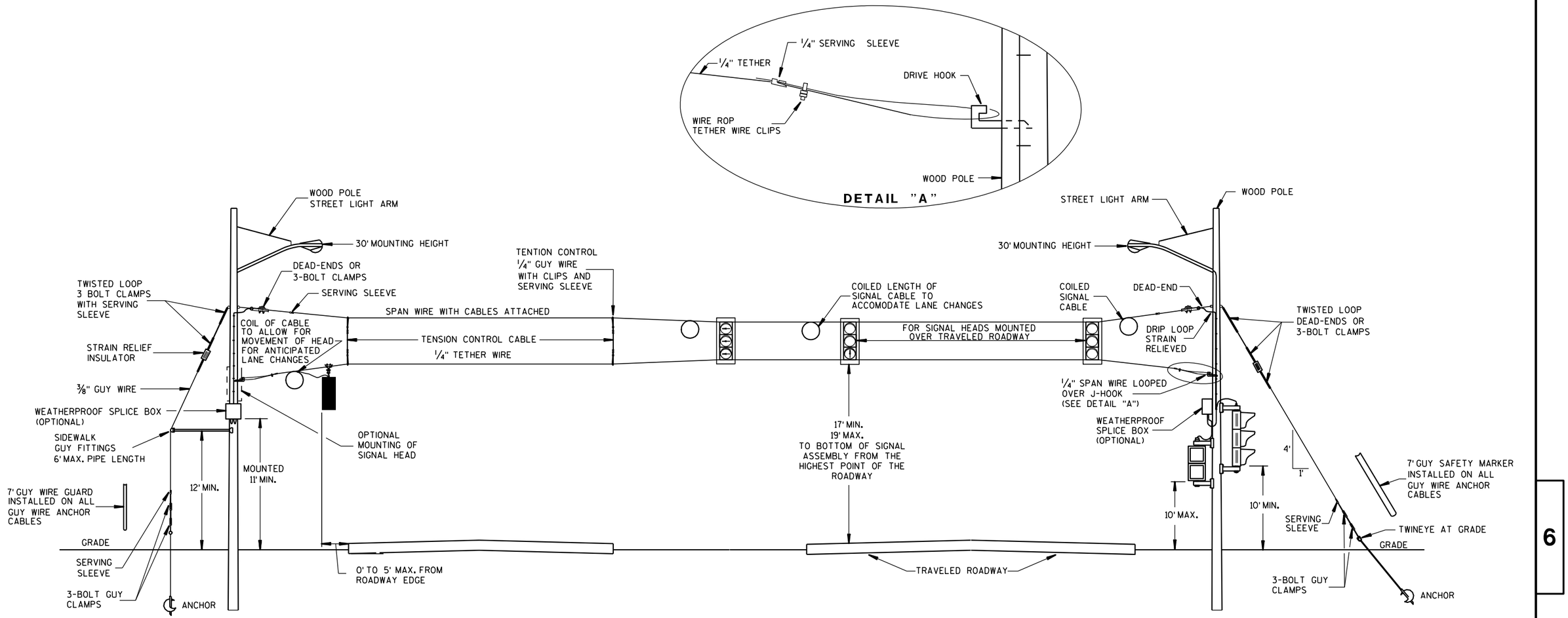

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

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

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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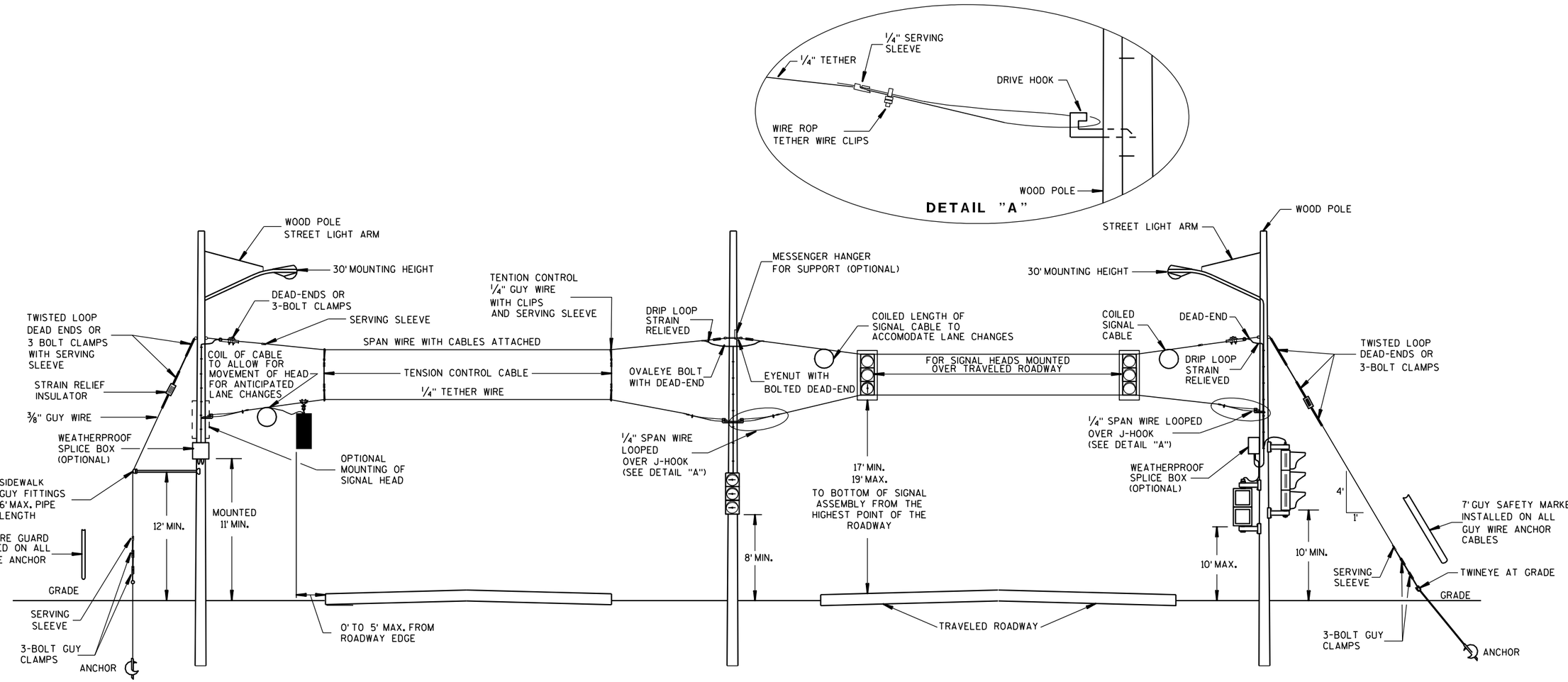
S.D.D. 9 G 1-3b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
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   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI

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S.D.D. 9 G 1-3c

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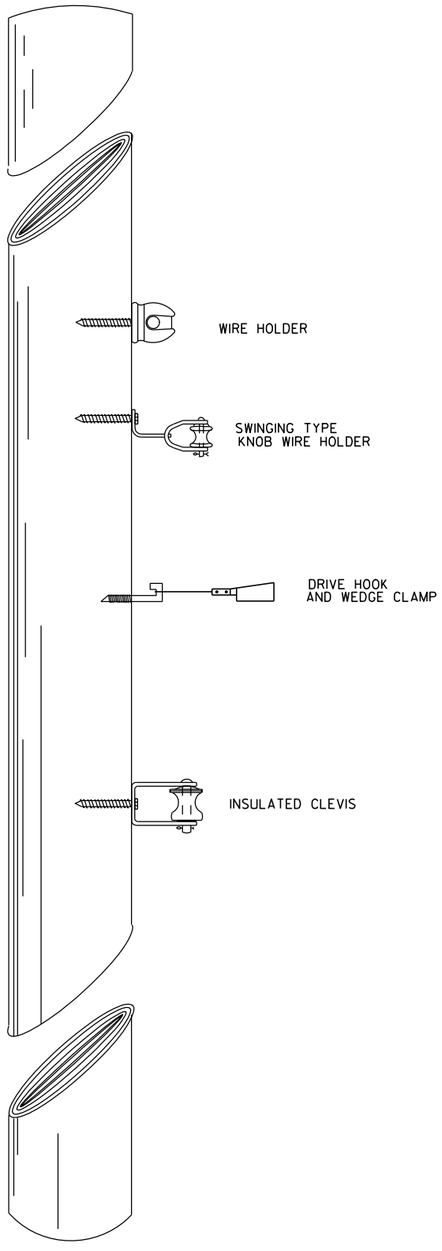
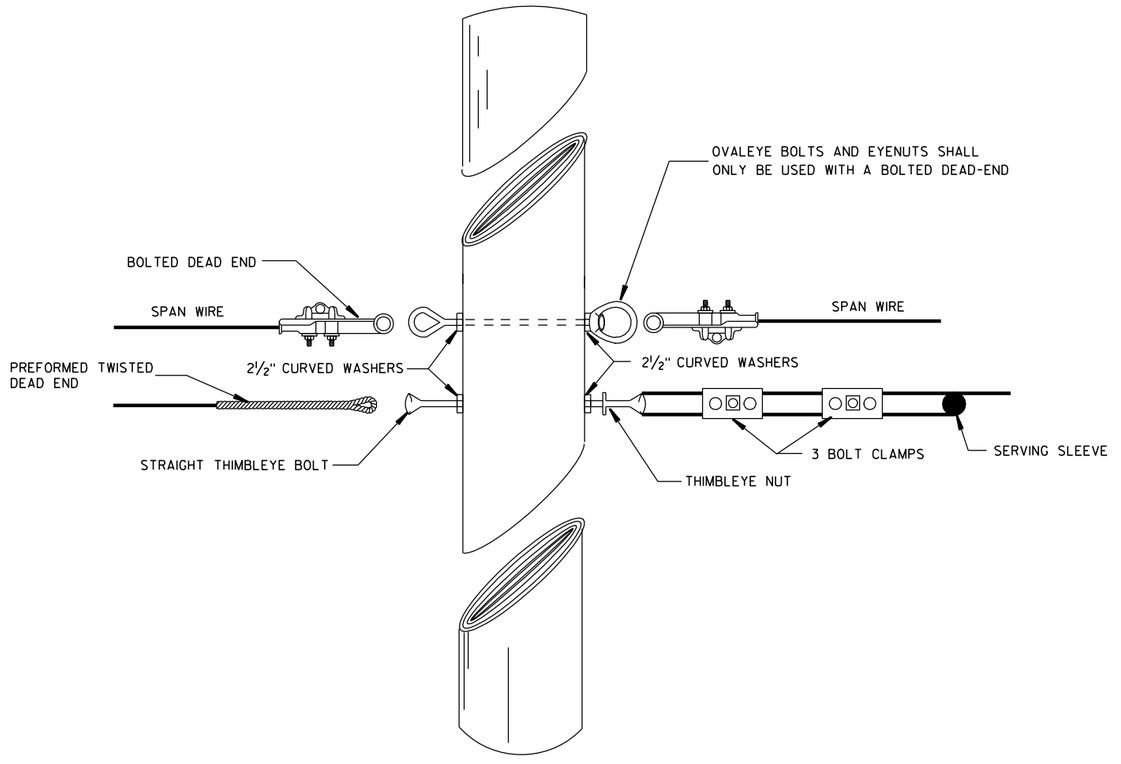


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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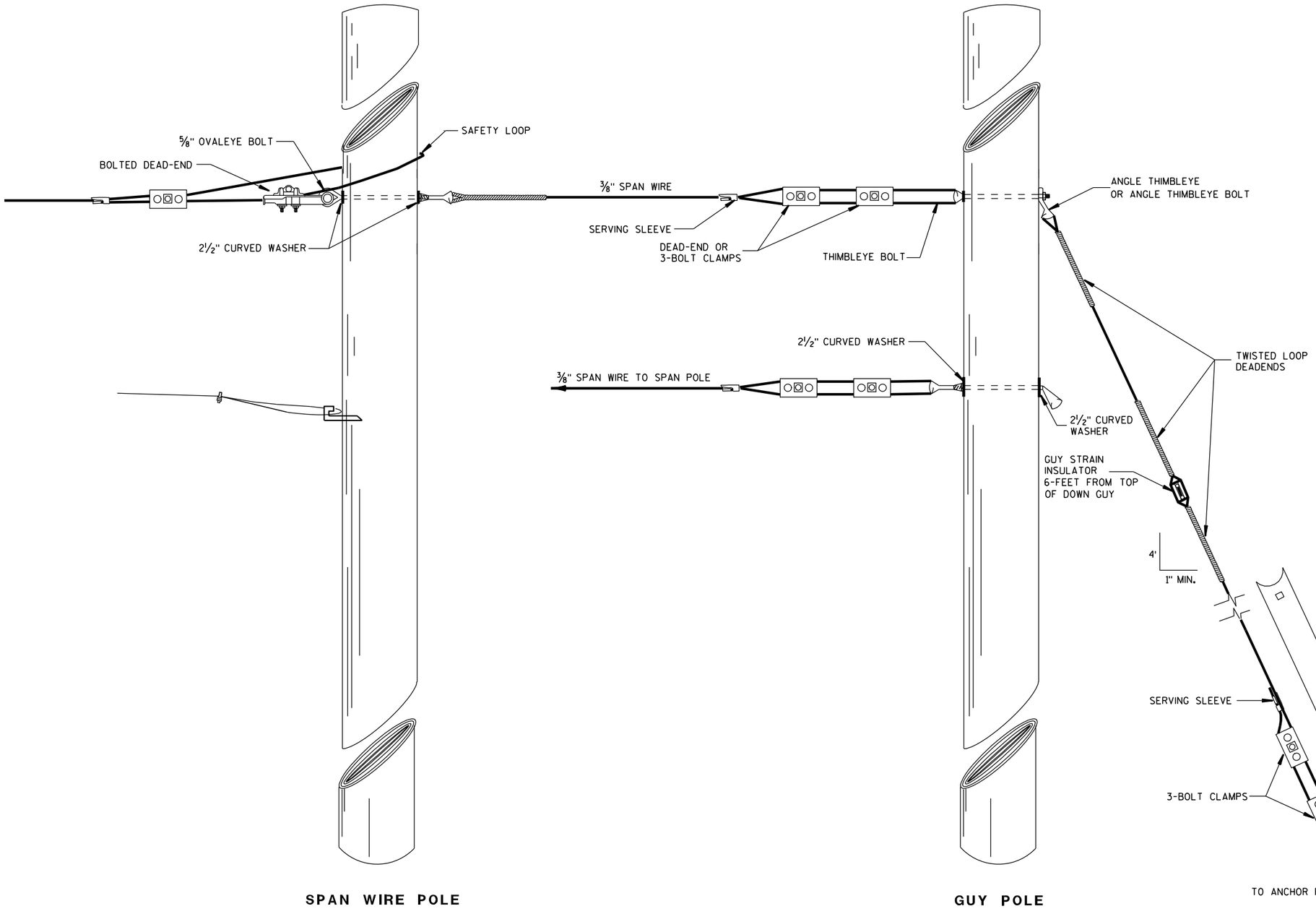
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 168 HWYS
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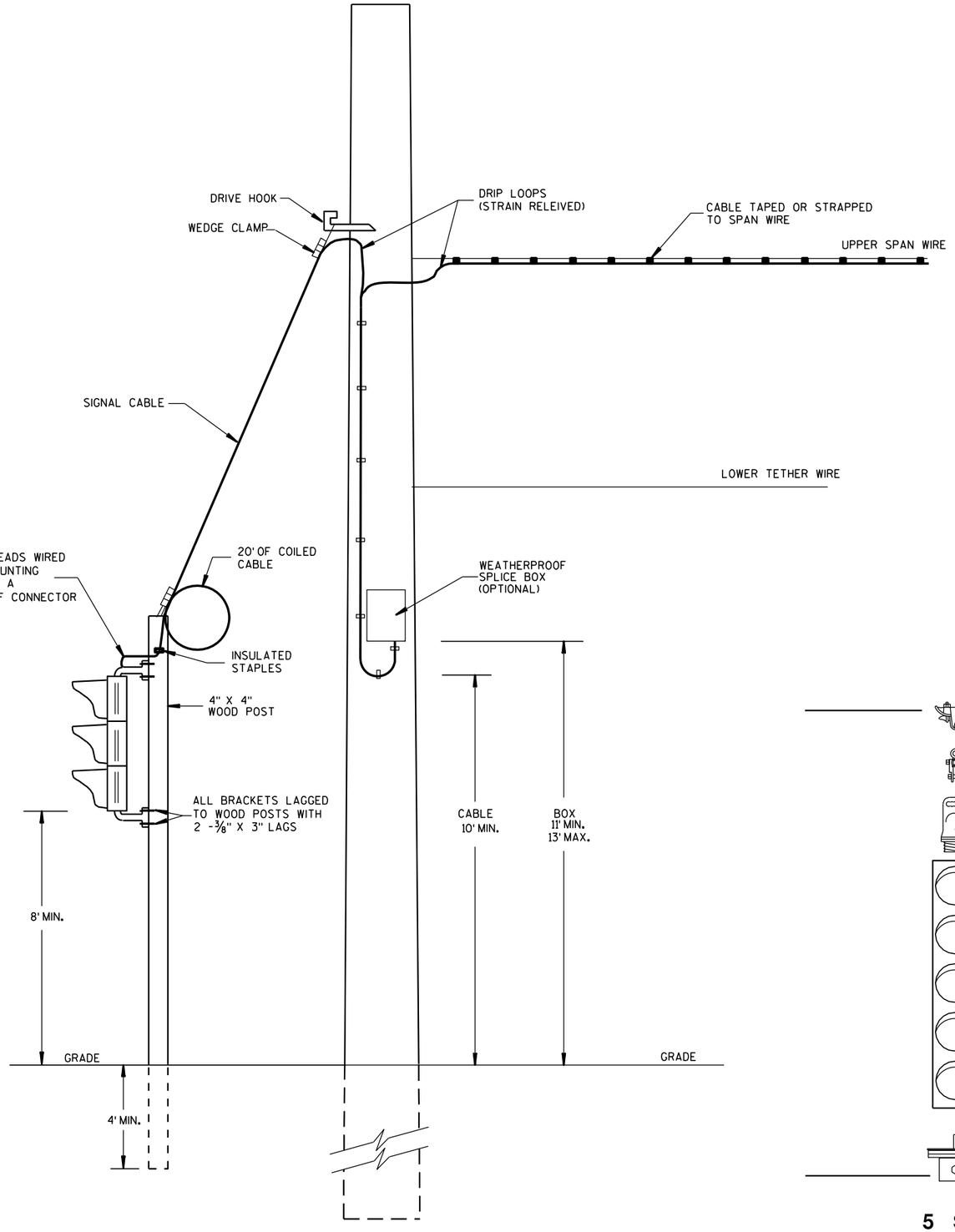
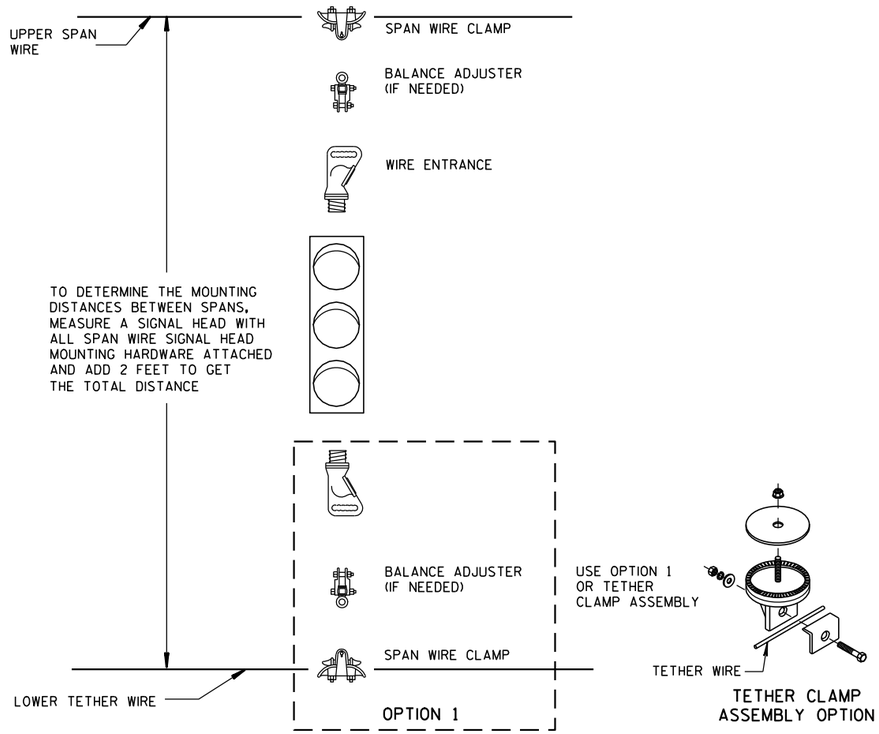
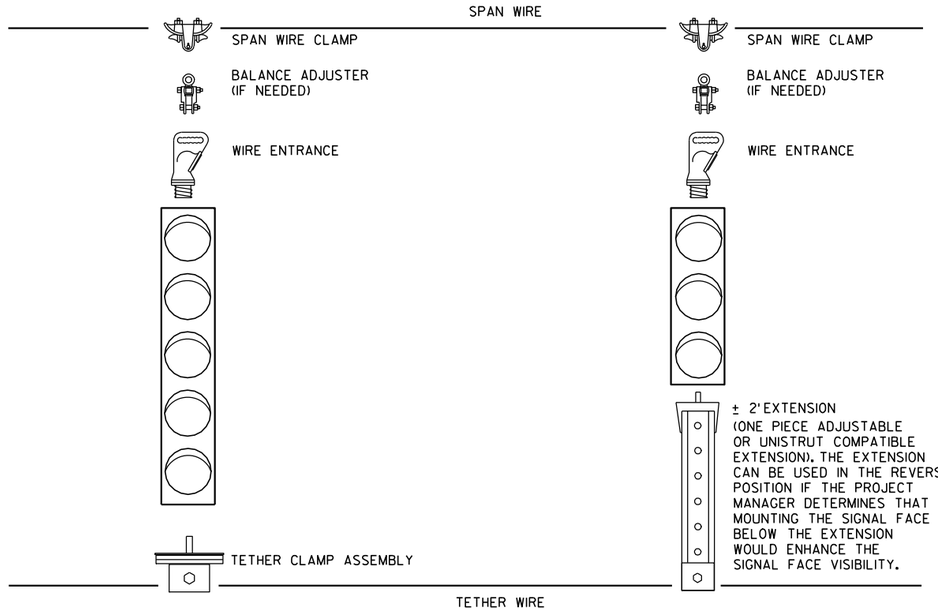


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthangarayanan
STATE ELECTRICAL ENGI
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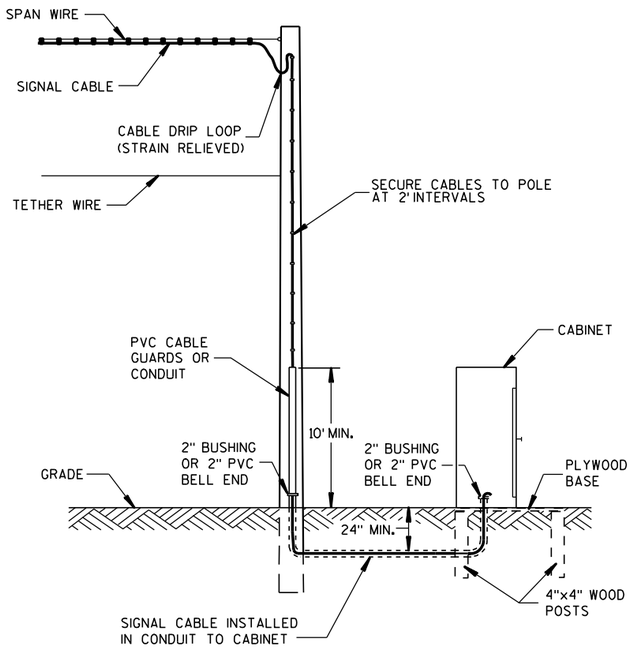
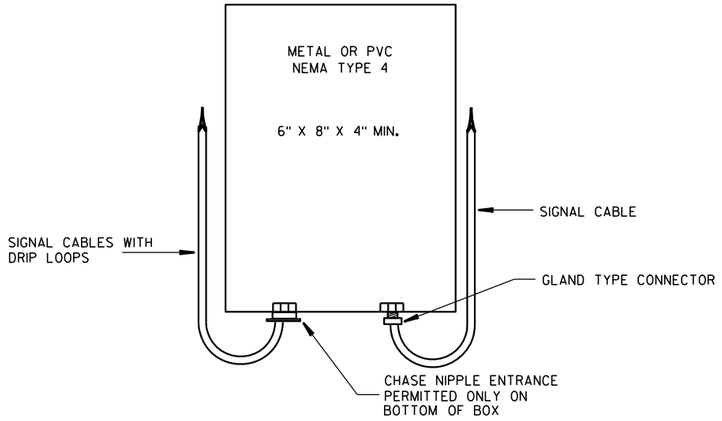
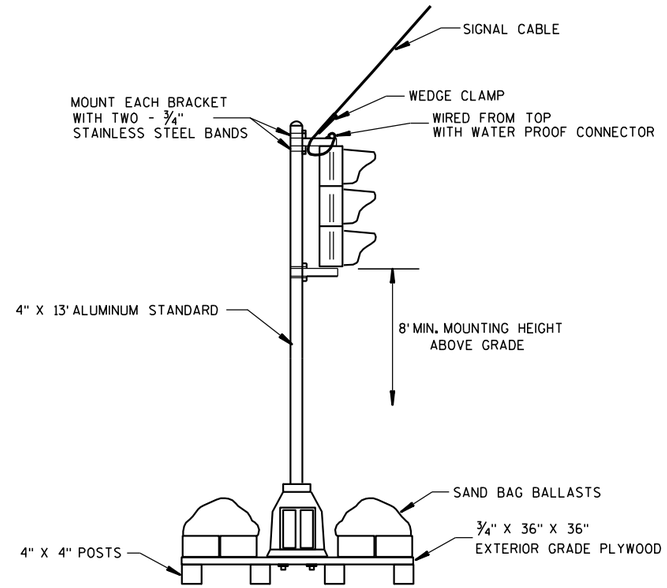
S.D.D. 9 G 1-3f

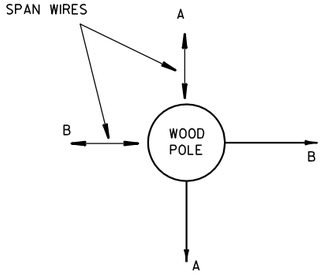




SPLICE BOX

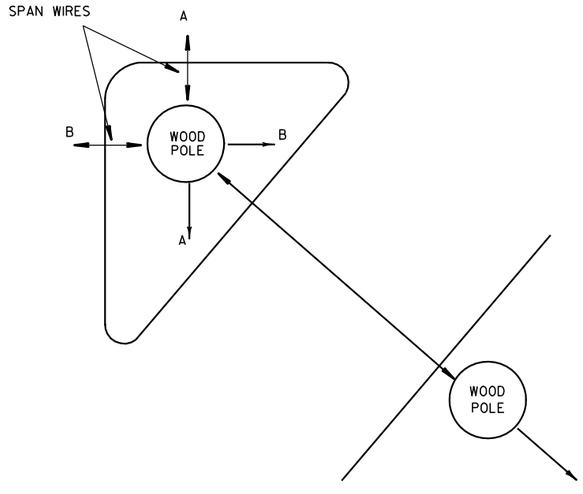


TYPICAL SKID TYPE TEMPORARY

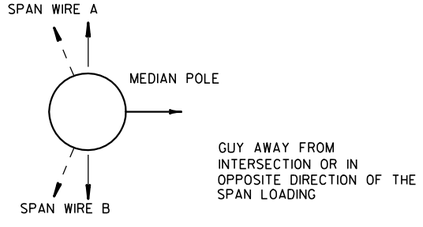


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Aganthangayanan
STATE ELECTRICAL ENGI

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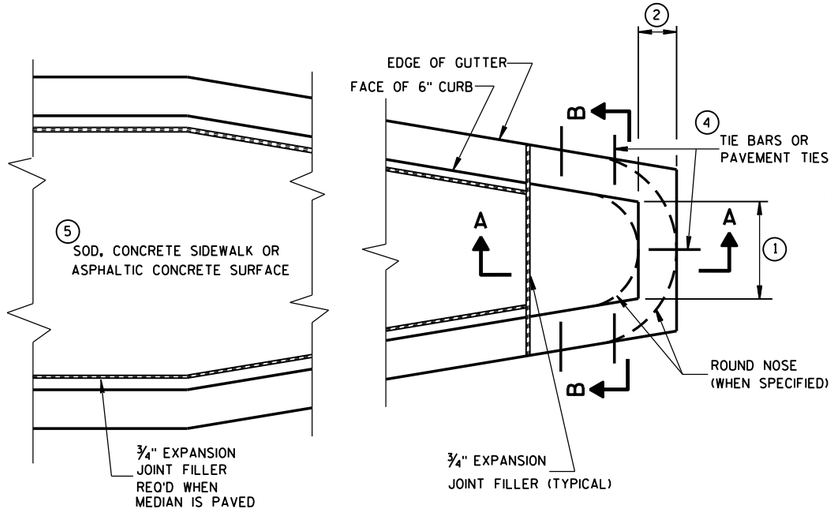
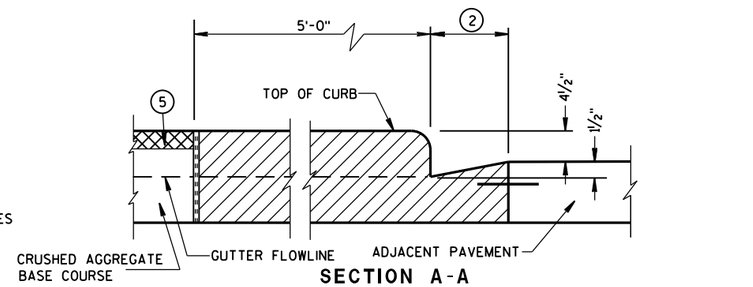
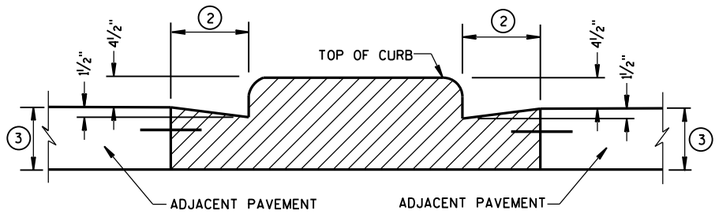






CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

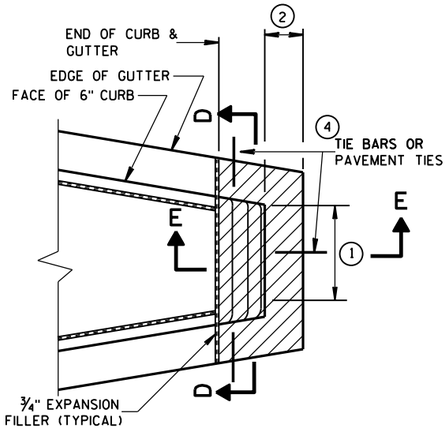
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

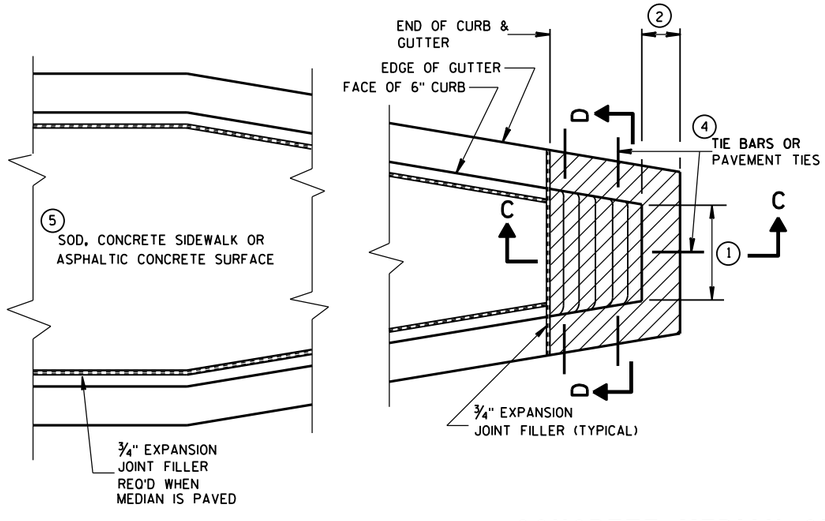
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

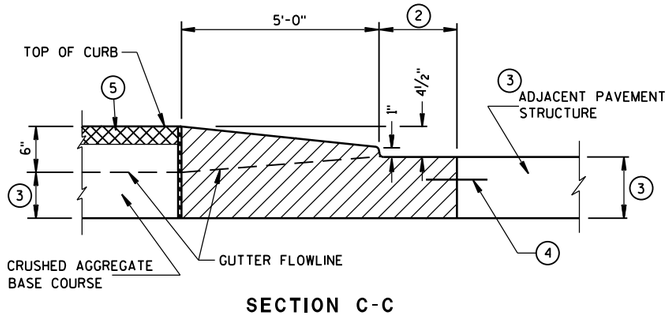
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

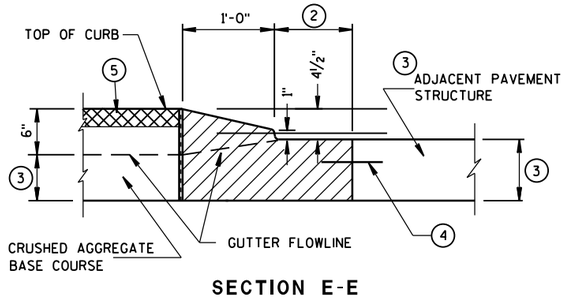
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



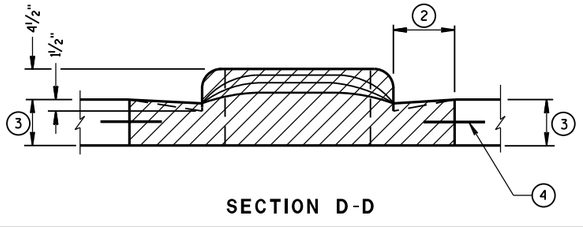




CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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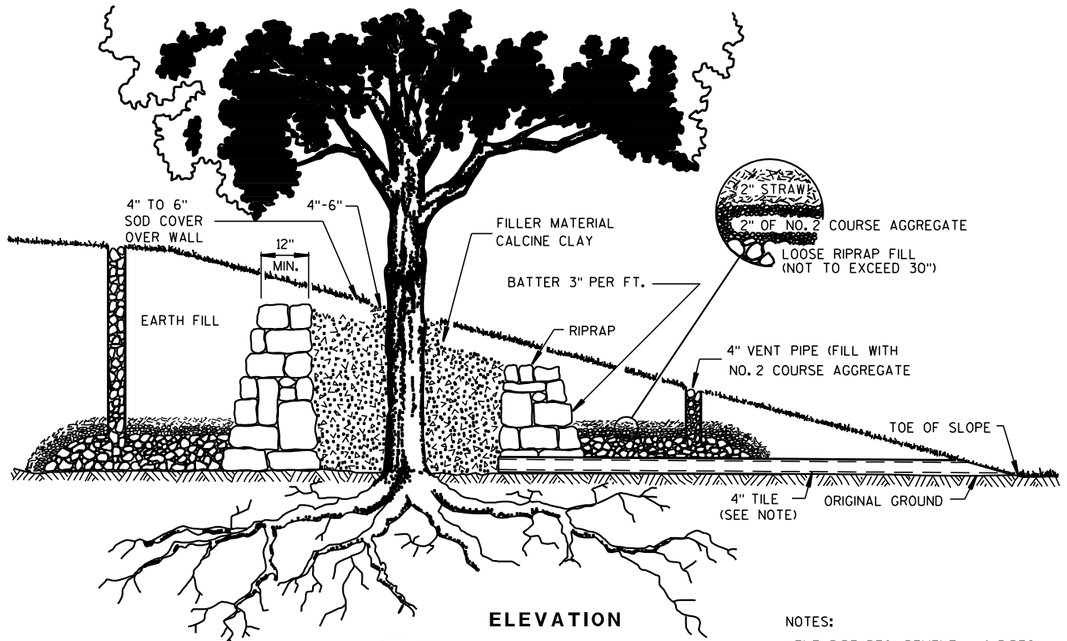


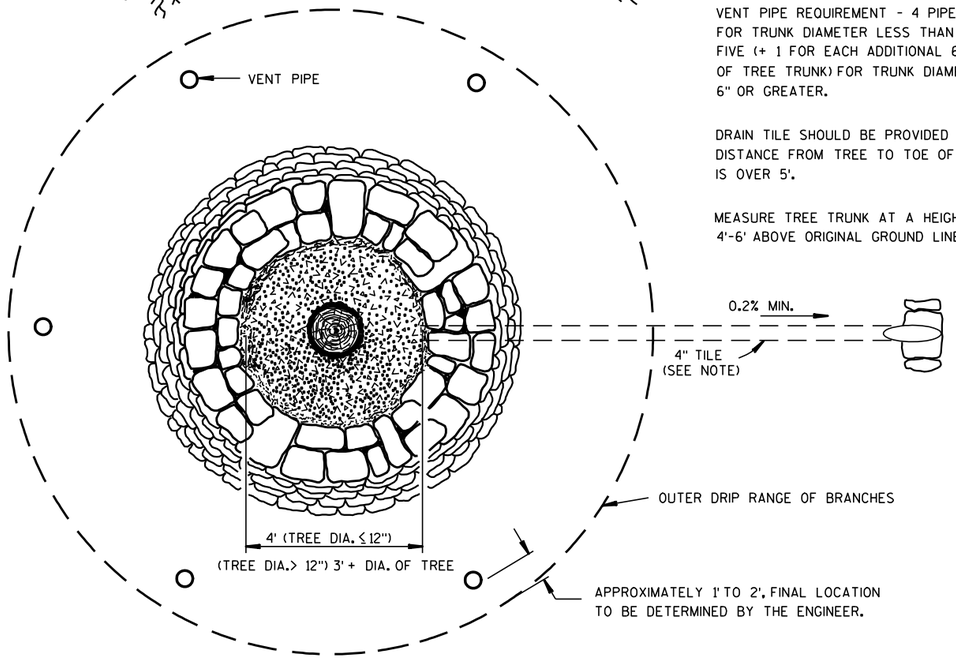
ELEVATION

NOTES:

VENT PIPE REQUIREMENT - 4 PIPES FOR TRUNK DIAMETER LESS THAN 6". FIVE (+ 1 FOR EACH ADDITIONAL 6" OF TREE TRUNK) FOR TRUNK DIAMETER 6" OR GREATER.

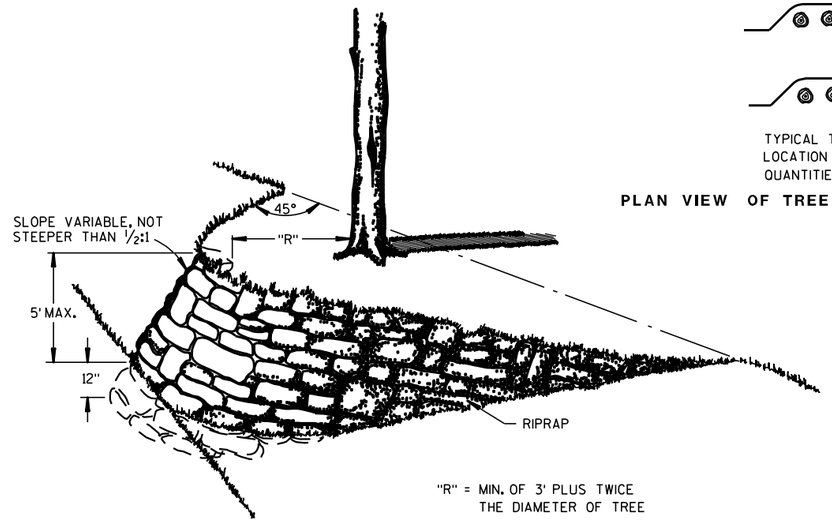
DRAIN TILE SHOULD BE PROVIDED IF DISTANCE FROM TREE TO TOE OF SLOPE IS OVER 5'.

MEASURE TREE TRUNK AT A HEIGHT 4'-6' ABOVE ORIGINAL GROUND LINE.



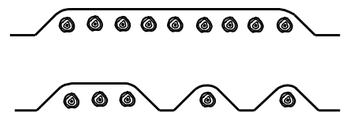
PLAN

FULL TREE WELL WITH RIPRAP WALL



"R" = MIN. OF 3' PLUS TWICE THE DIAMETER OF TREE

DETAILS OF TREE ISLAND AND ROOT PROTECTION



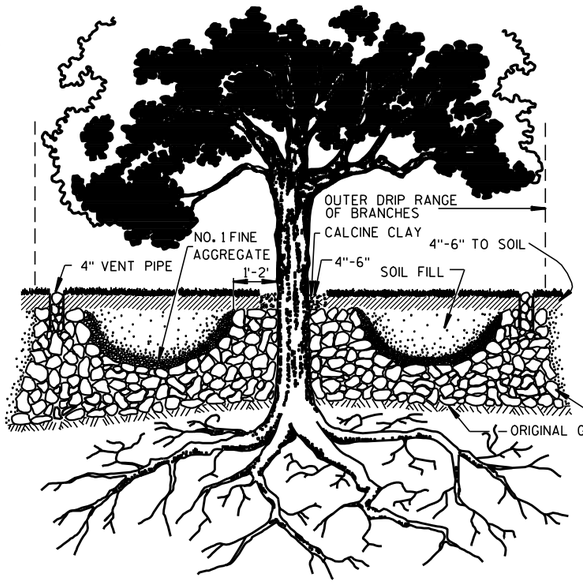
TYPICAL TREATMENTS OF ROOT PROTECTION. LOCATION SHOWN ON MISCELLANEOUS QUANTITIES SHEET.

PLAN VIEW OF TREE ISLANDS FOR ONE OR MORE TREES

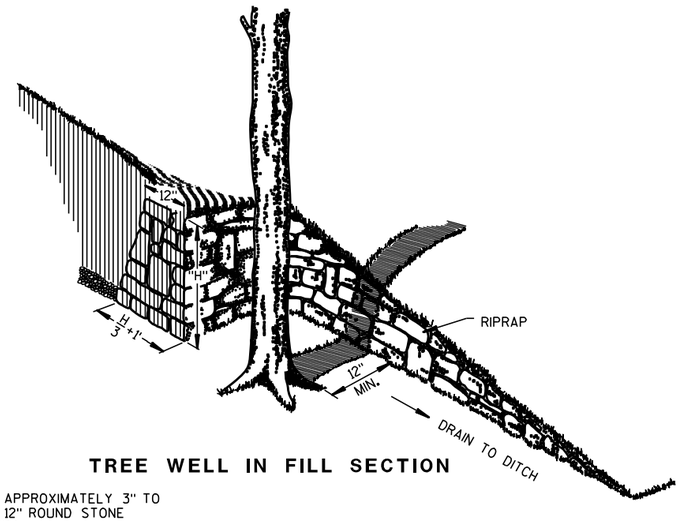
GENERAL NOTES

WALLS TO BE BUILT TO APPROXIMATE SHAPE AND DIMENSIONS SHOWN. STONE TO CONFORM TO SPECIFICATIONS FOR RIPRAP.

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



TREE WELL WITHOUT WALL



TREE WELL IN FILL SECTION

DETAILS FOR TREE WELLS

TREE PRESERVATION DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/25/76 DATE
/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA

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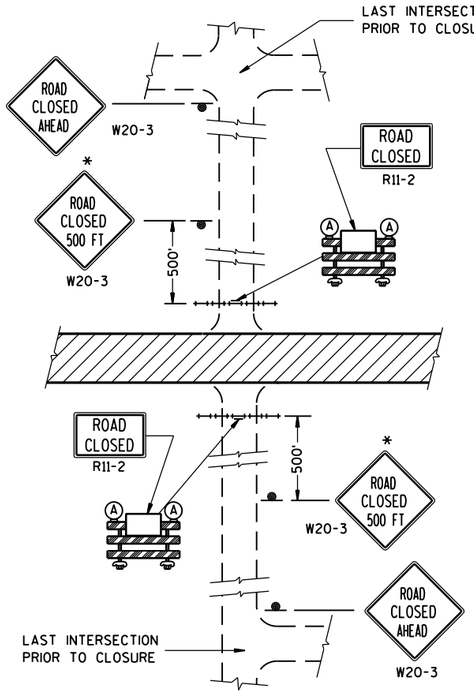
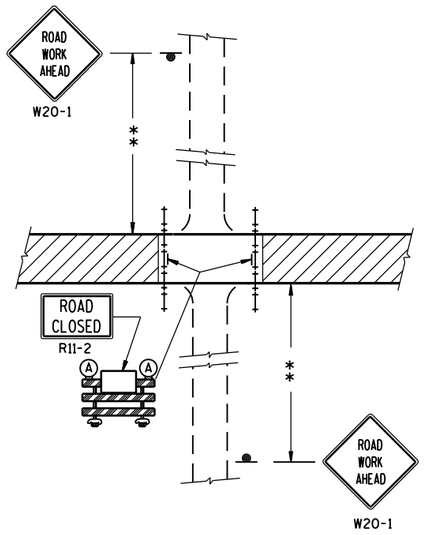
S.D.D. 14 A 1-3



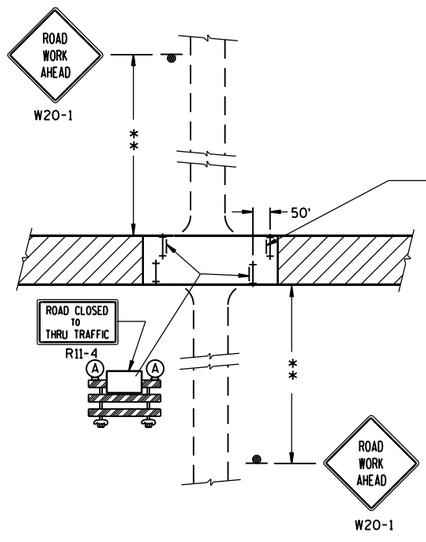
DETAIL 1

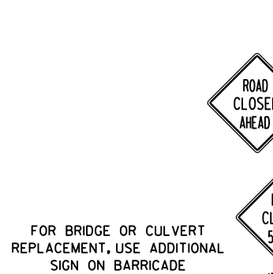
(NO ACCESS TO PROJECT)

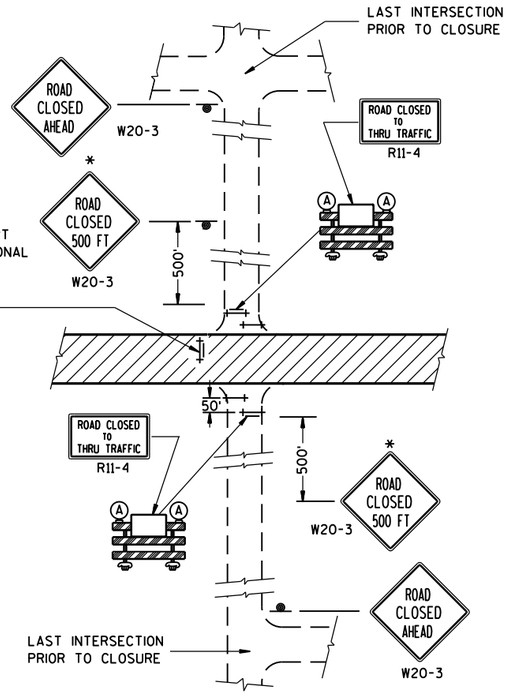


DETAIL 2

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







DETAIL 3

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

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 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

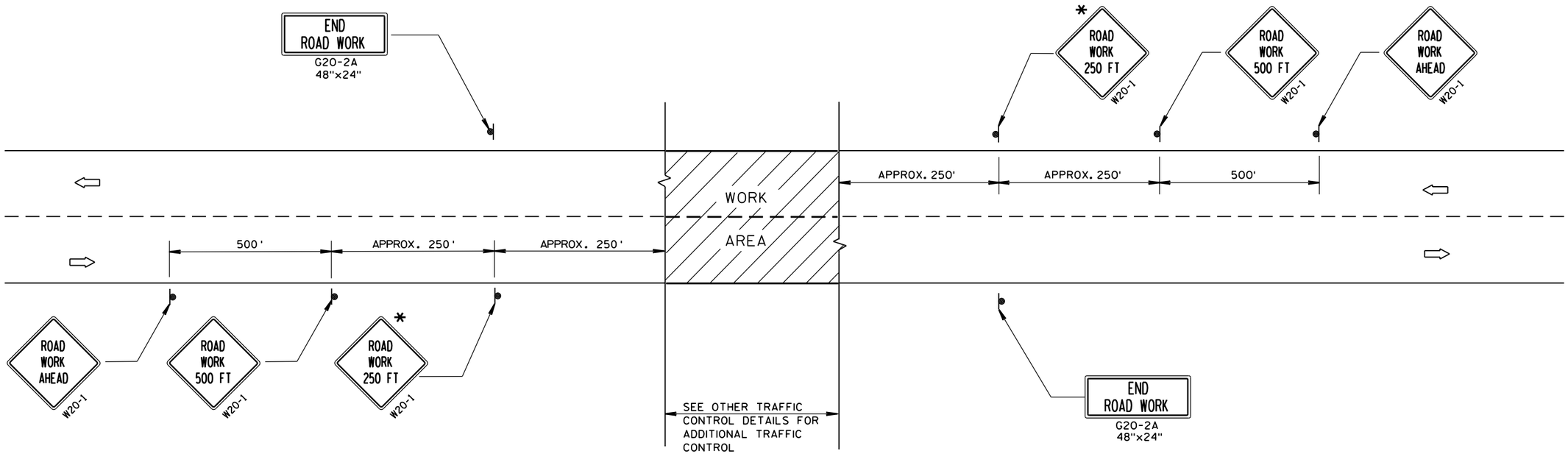
6

S.D.D. 15 C 3-2

6

S.D.D. 15 C 3-2

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

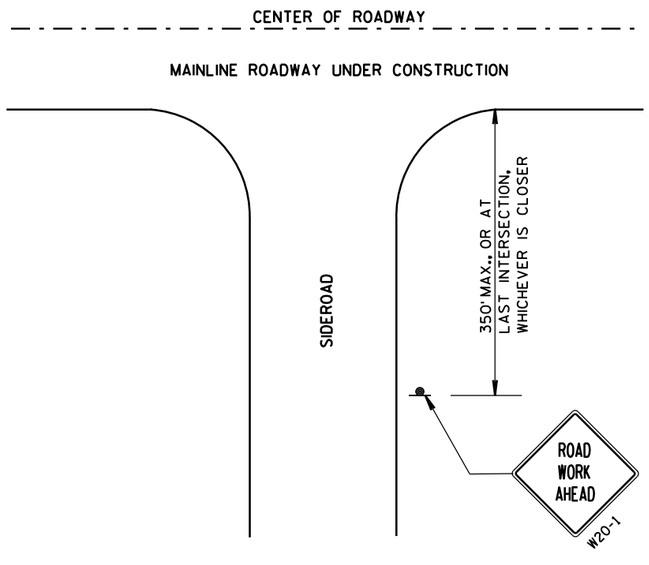
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

FHWA

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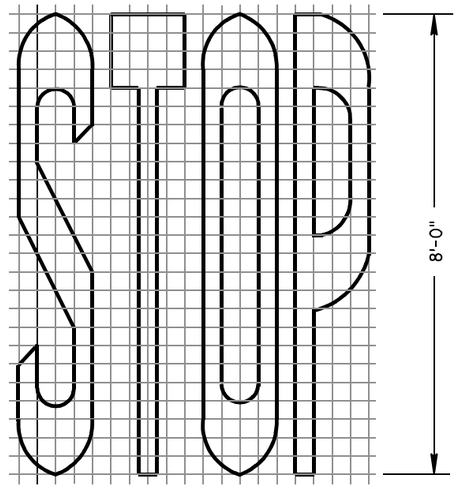
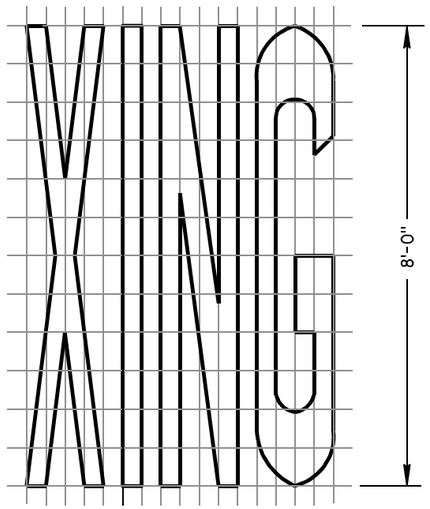
S.D.D. 15 C 5-2

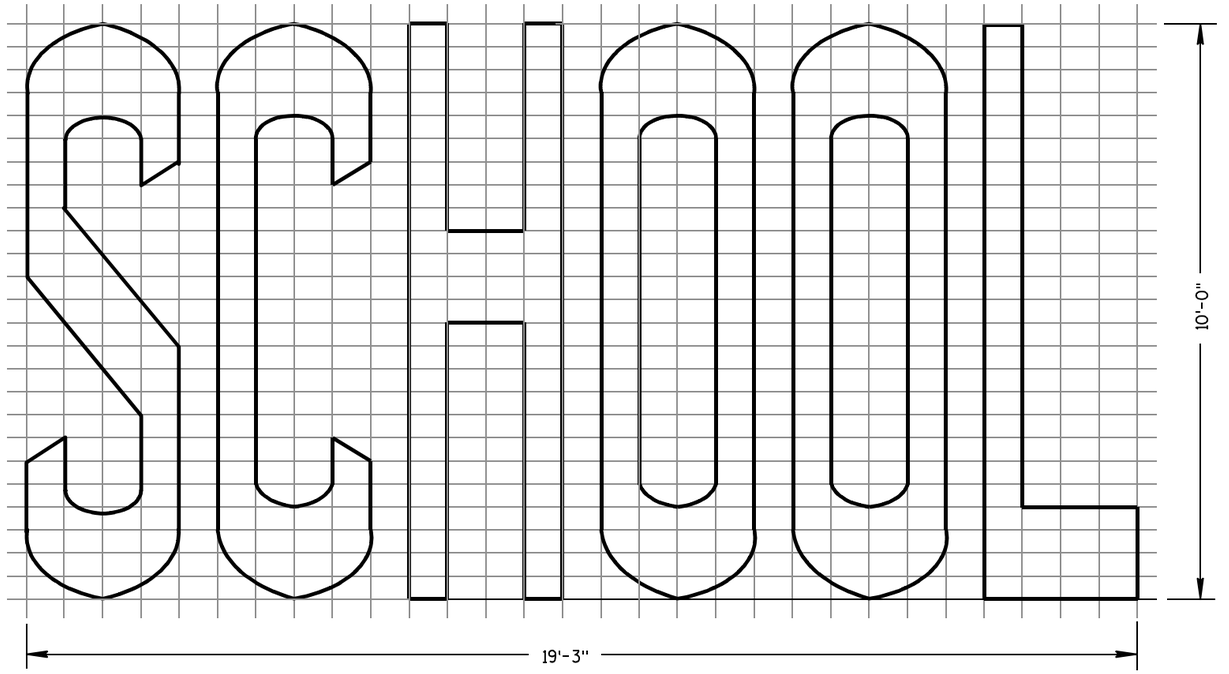
GENERAL NOTES

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.

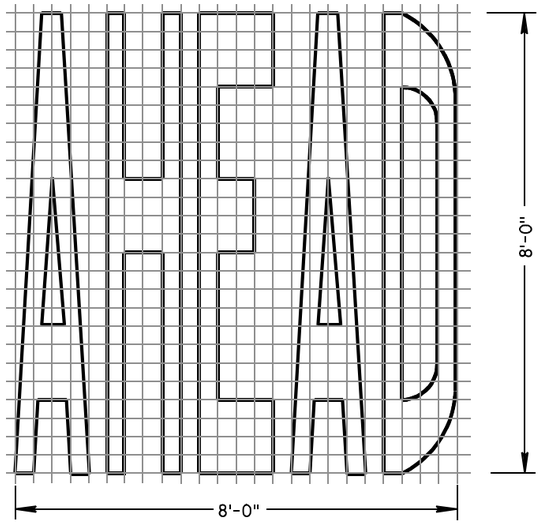
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

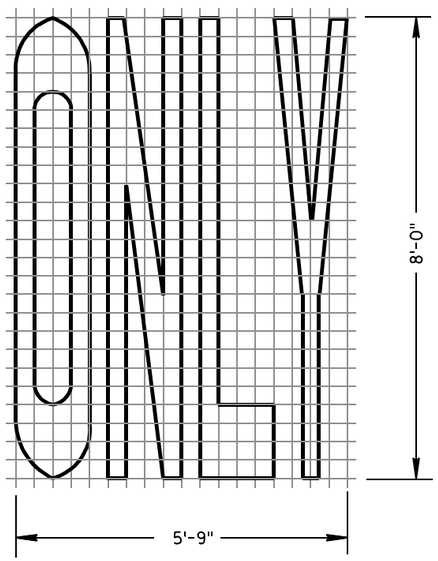


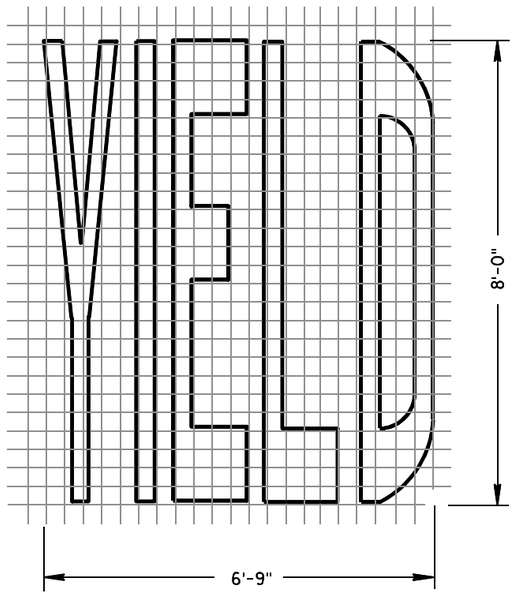


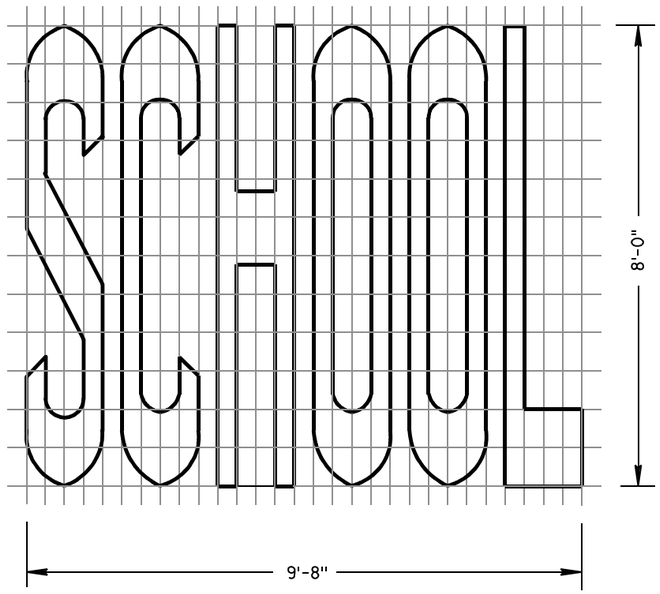


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12b

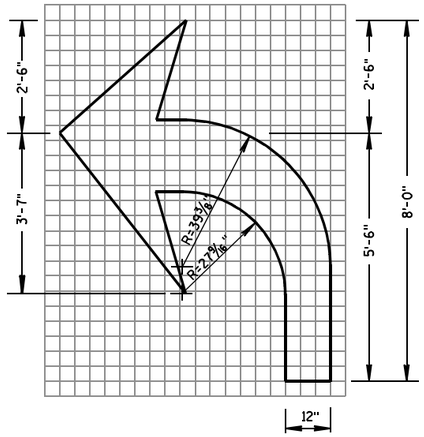
6

S.D.D. 15 C 7-12b

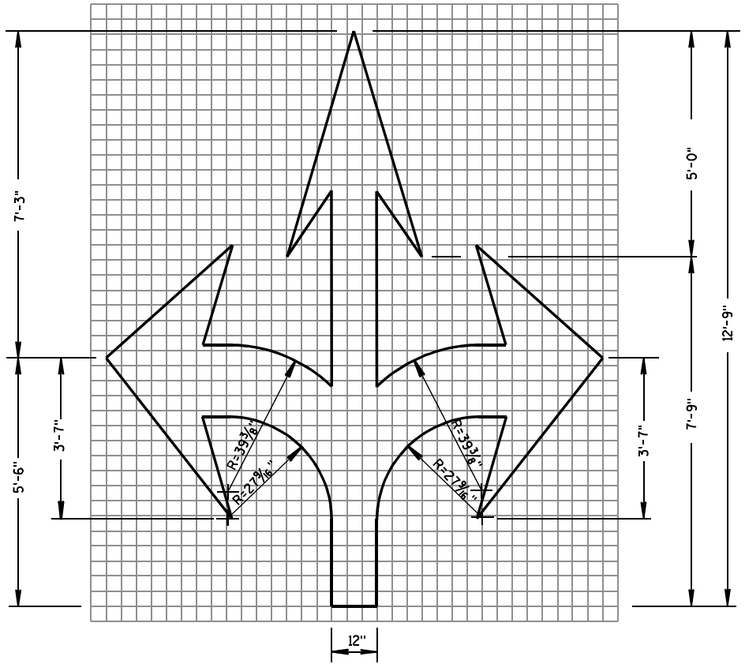
GENERAL NOTES

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.

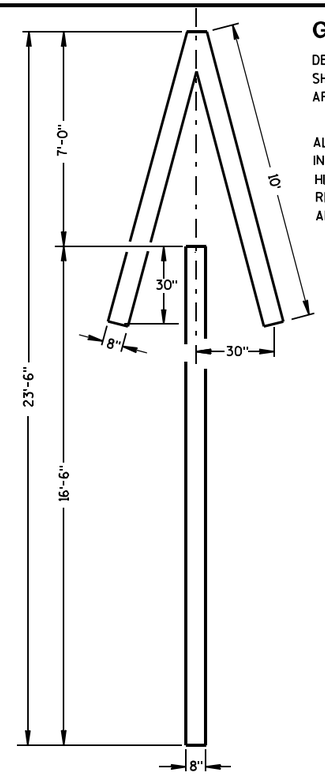
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



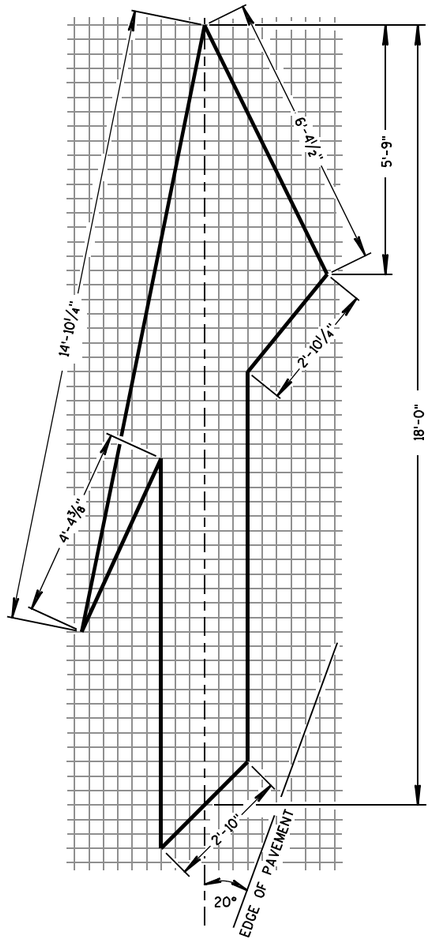
TYPE 2



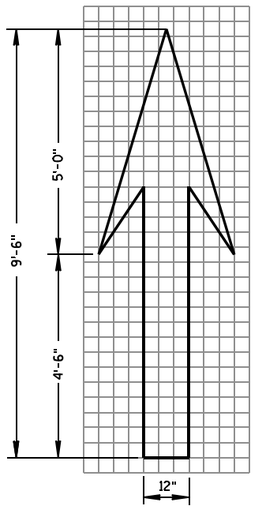
TYPE 6



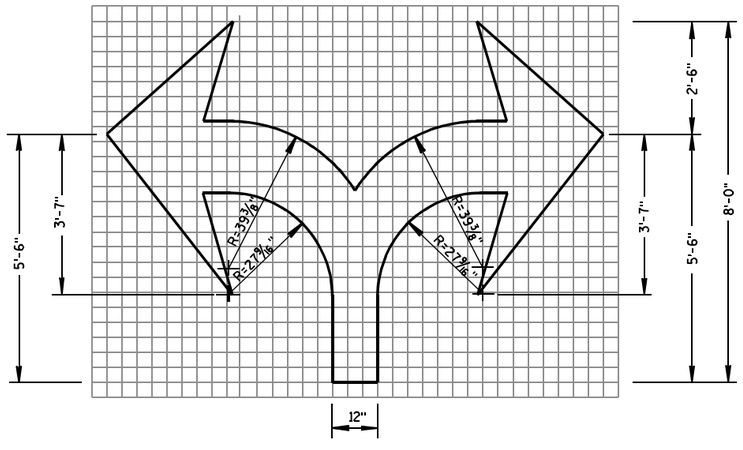
TYPE 4



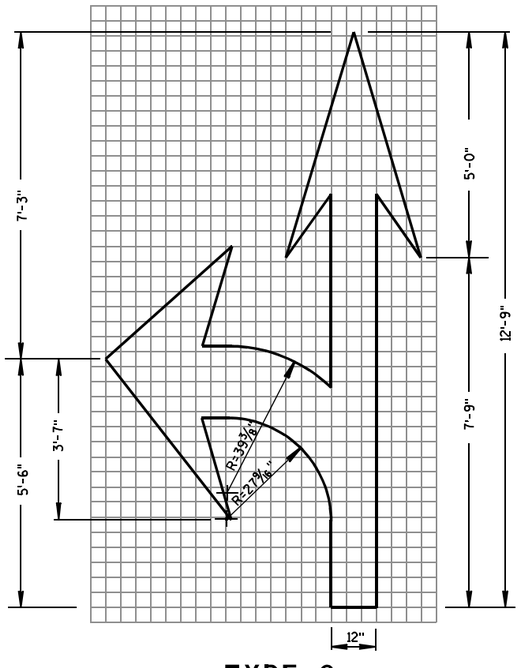
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12c

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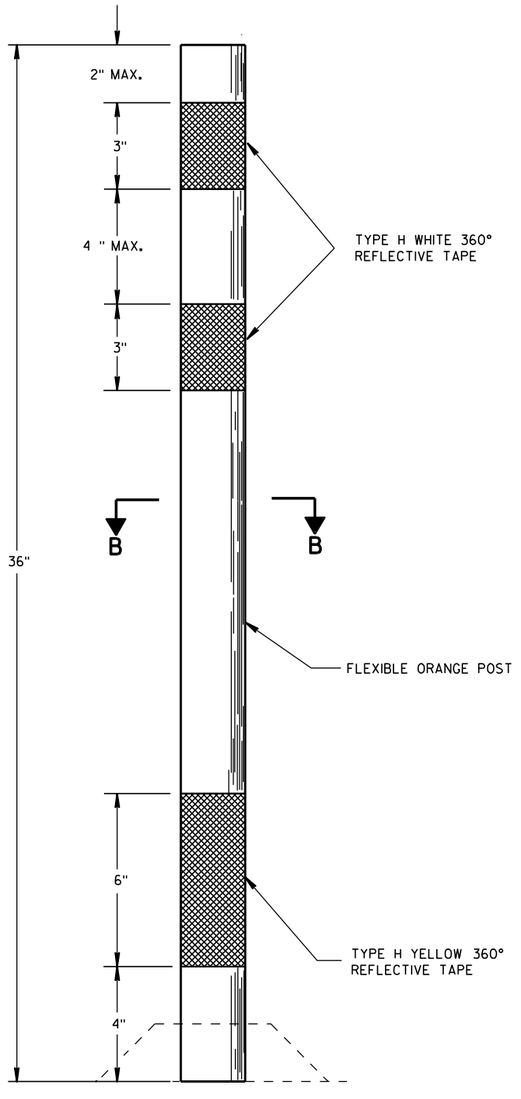
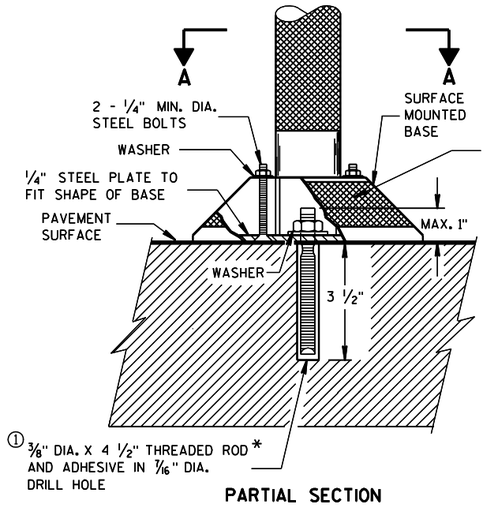
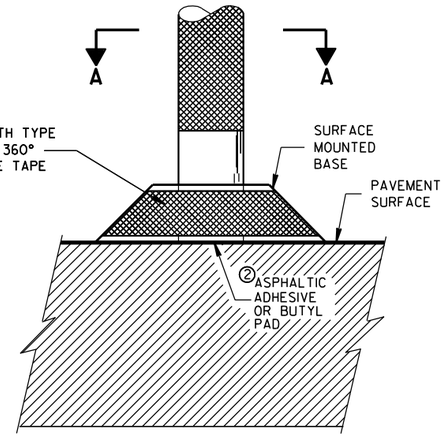
S.D.D. 15 C 7-12c



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

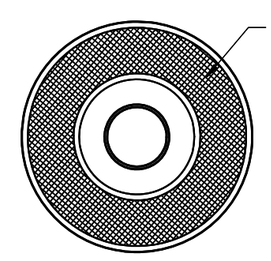
GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

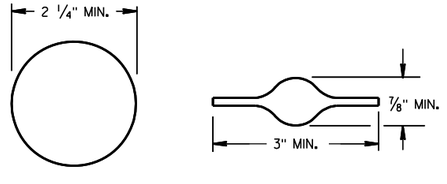
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



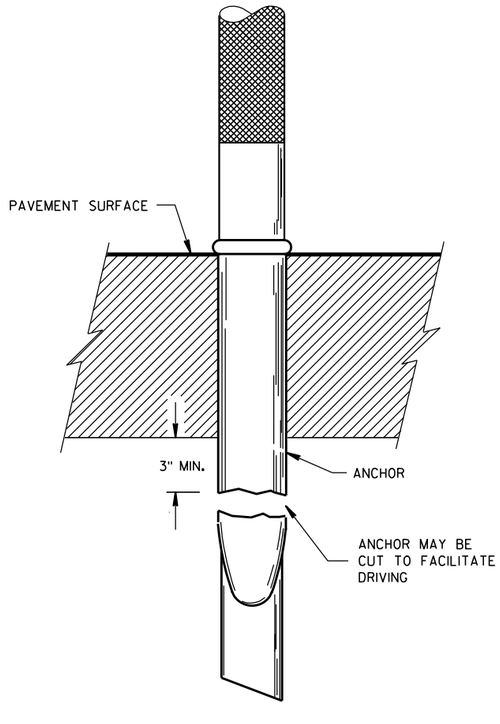
SECTION A-A

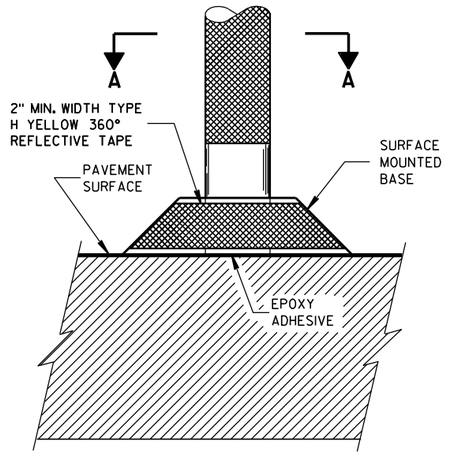
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

6

S.D.D. 15 C 11-5

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

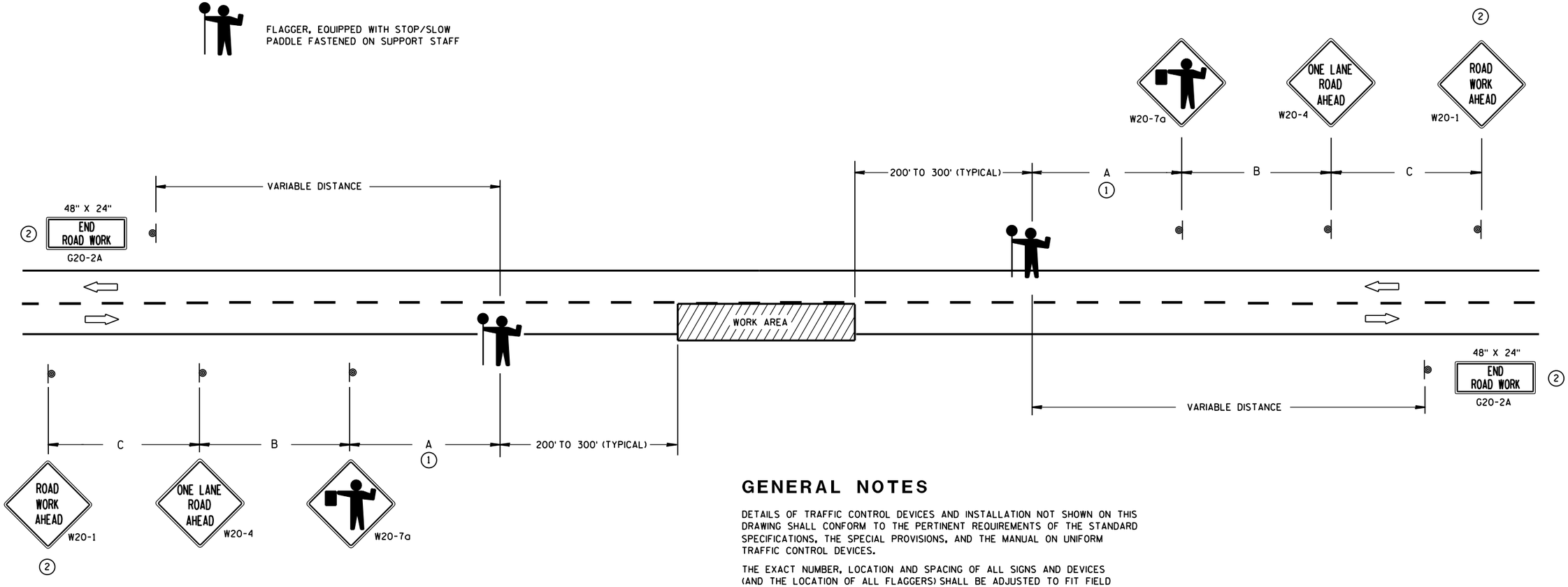
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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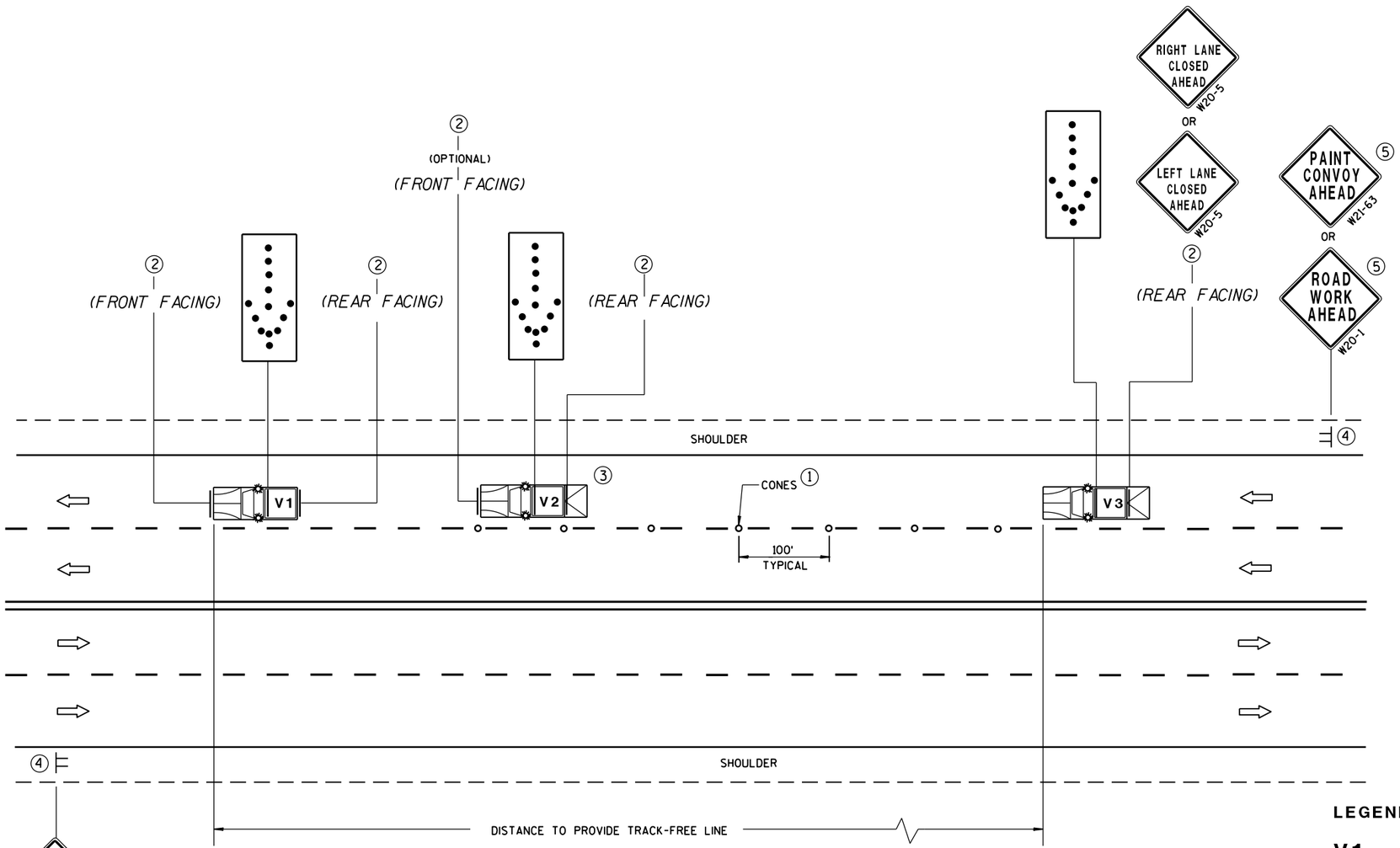
S.D.D. 15 C 12-4



PAINT CONVOY AHEAD W21-63
OR
ROAD WORK AHEAD W20-1

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Travis Feltes STATE TRAFFIC EN
FHWA

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S.D.D. 15 C 19-2b

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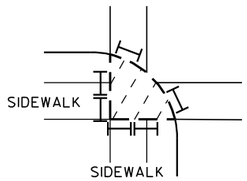
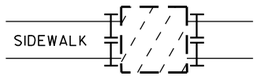
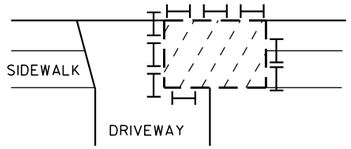
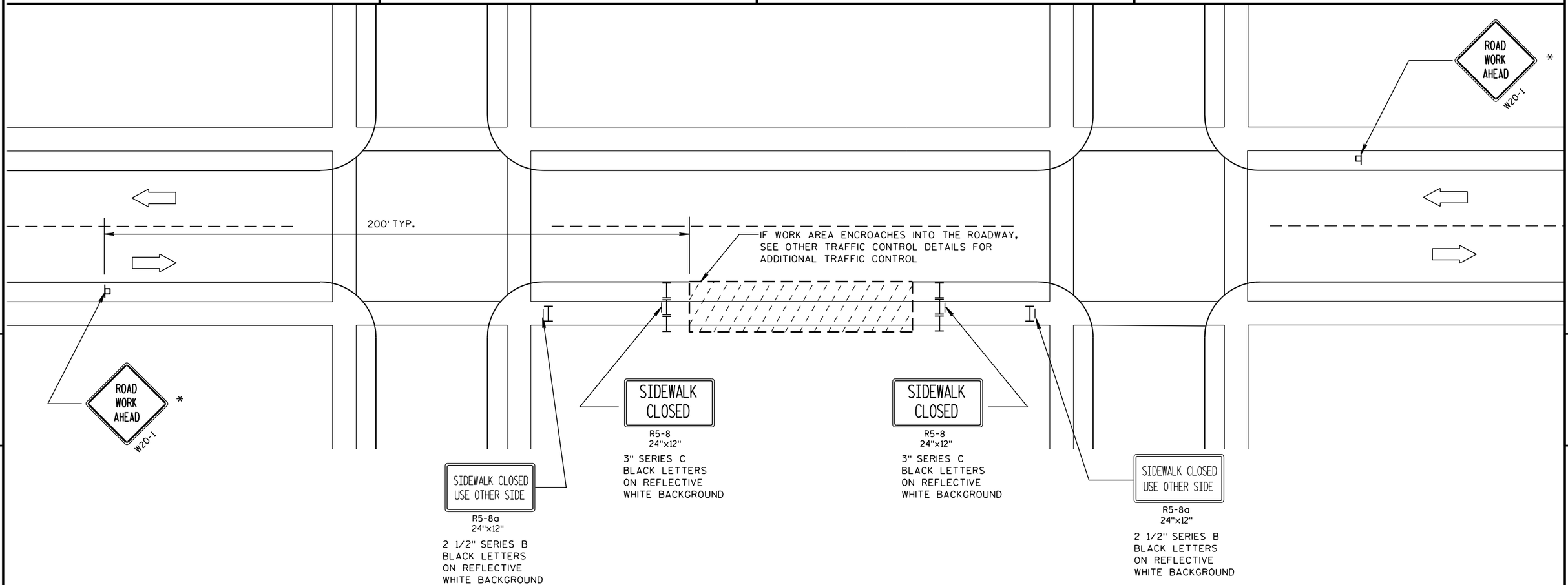
S.D.D. 15 C 19-2b

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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

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

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

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

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

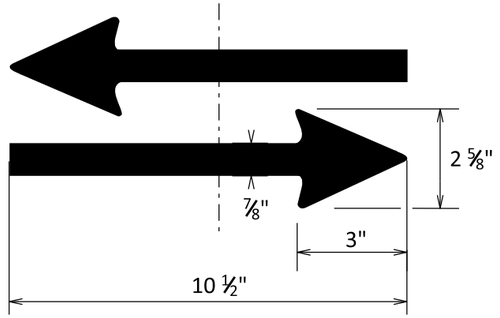
TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]NEER
FHWA

6

S.D.D. 15 D 30-1



R8-NS-1LR (DOUBLE ARROW)
R8-NS-1L (LEFT ARROW)
R8-NS-1R (RIGHT ARROW)

NOTES:
1. SIGN IS TYPE II-TYPE H REFLECTIVE - REFERENCE WI DOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION LATEST EDITION.

2. COLOR:
BACKGROUND: WHITE
MESSAGE: RED

3. BASE MATERIAL IS METAL WITH ROUNDED CORNERS.

4. CENTER MESSAGE AND ARROWS ON SIGN CENTERLINE. OPTICALLY ADJUST SPACING TO achieve PROPER BALANCE.

7

7

PROJECT NO: 5992-06-64	HWY: MINERAL POINT RD	COUNTY: DANE	PERMANENT SIGNING	SHEET 181	E

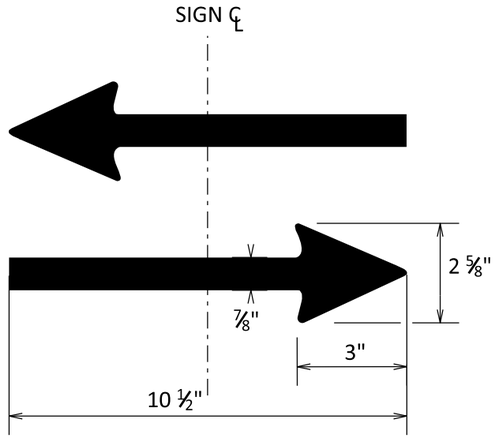
NOTES:
1. SIGN IS TYPE II-TYPE H REFLECTIVE - REFERENCE WI DOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION LATEST EDITION.

2. COLOR:
   BACKGROUND: WHITE
   MESSAGE: RED

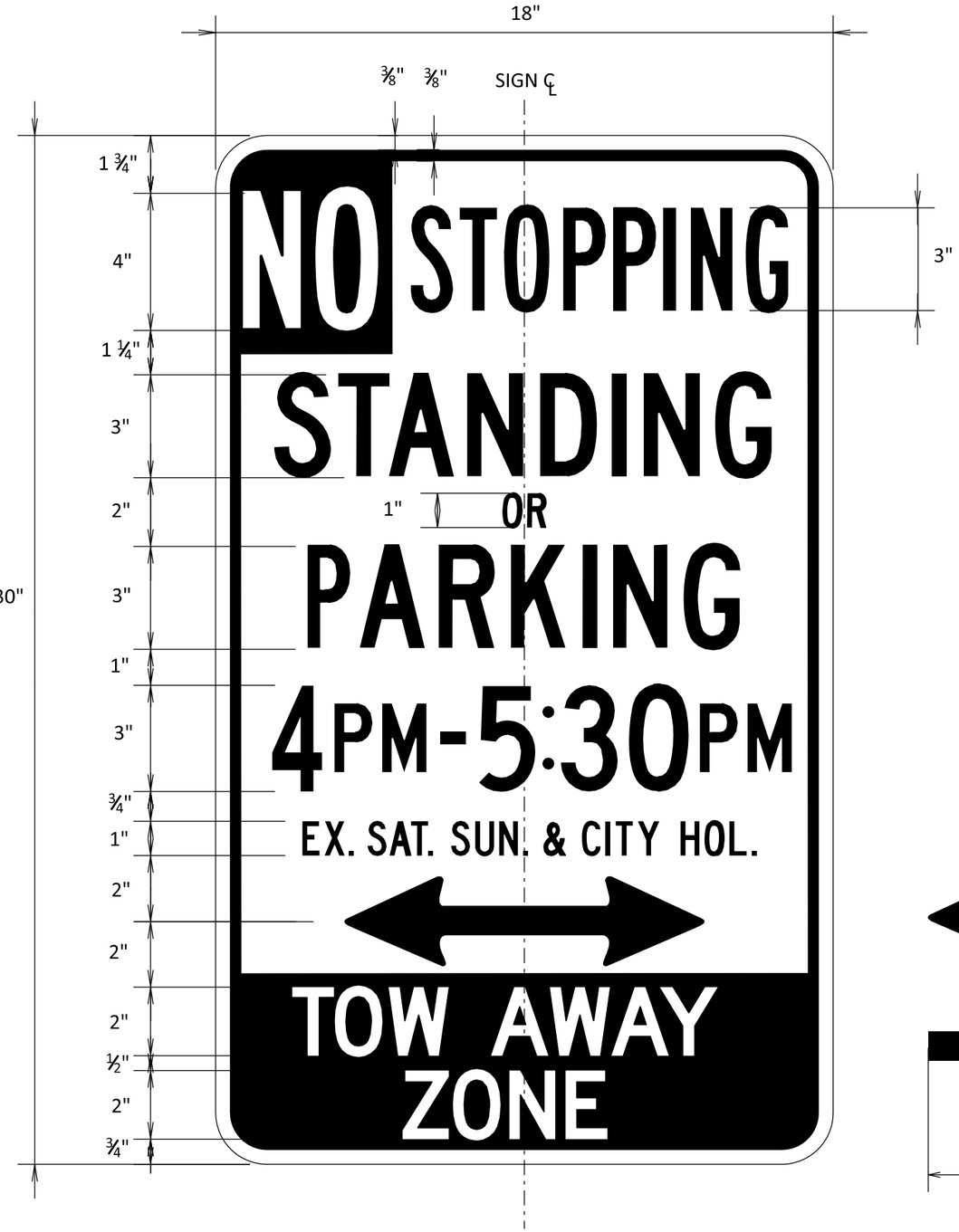
3. BASE MATERIAL IS METAL WITH ROUNDED CORNERS.

4. CENTER MESSAGE AND ARROWS ON SIGN CENTERLINE. OPTICALLY ADJUST SPACING TO ACHIEVE PROPER BALANCE.

SIGN CODE	SIGN NUMBERS
R8-NS-4TZLR (DOUBLE ARROW)	1-17



PROJECT NO:5992-06-64	HWY: MINERAL POINT RD	COUNTY: DANE	PERMANENT SIGNING	SHEET 182	E



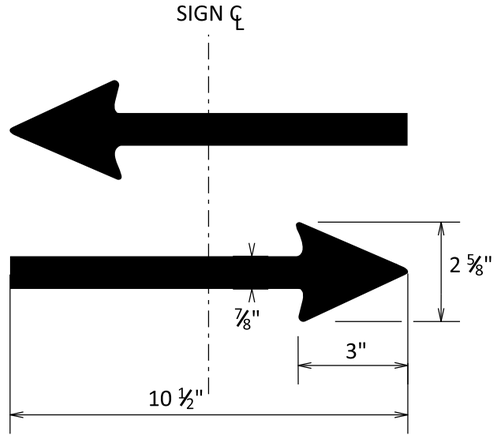
NOTES:
1. SIGN IS TYPE II-TYPE H REFLECTIVE - REFERENCE WI DOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION LATEST EDITION.

2. COLOR:
   BACKGROUND: WHITE
   MESSAGE: RED

3. BASE MATERIAL IS METAL WITH ROUNDED CORNERS.

4. CENTER MESSAGE AND ARROWS ON SIGN CENTERLINE. OPTICALLY ADJUST SPACING TO ACHIEVE PROPER BALANCE.

SIGN CODE	SIGN NUMBERS
R8-NS-3TZLR (DOUBLE ARROW)	1-16



7

7

PROJECT NO: 5992-06-64	HWY: MINERAL POINT RD	COUNTY: DANE	PERMANENT SIGNING	SHEET 183	E

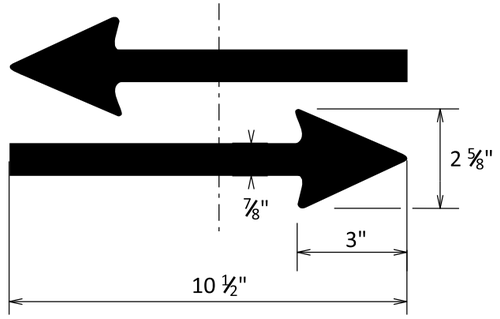
NOTES:
1. SIGN IS TYPE II-TYPE H REFLECTIVE - REFERENCE WI DOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION LATEST EDITION.

2. COLOR:
BACKGROUND: WHITE
MESSAGE: RED

3. BASE MATERIAL IS METAL WITH ROUNDED CORNERS.

4. CENTER MESSAGE AND ARROWS ON SIGN CENTERLINE. OPTICALLY ADJUST SPACING TO ACHIEVE PROPER BALANCE.

SIGN CODE	SIGN NUMBERS
R7-NS-1LR (DOUBLE ARROW)	1-05, 1-06
R7-NS-1L (LEFT ARROW)	1-14
R7-NS-1R (RIGHT ARROW)	1-02, 1-03, 1-15



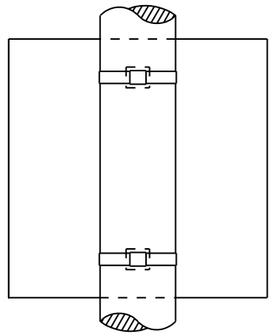
R8-NS-1LR (DOUBLE ARROW)
R8-NS-1L (LEFT ARROW)
R8-NS-1R (RIGHT ARROW)

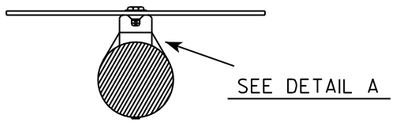
7

7

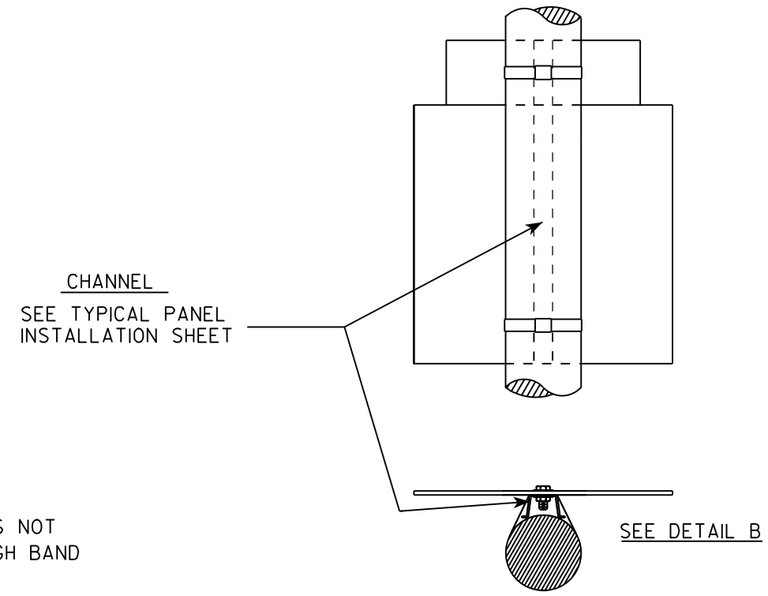
BANDING

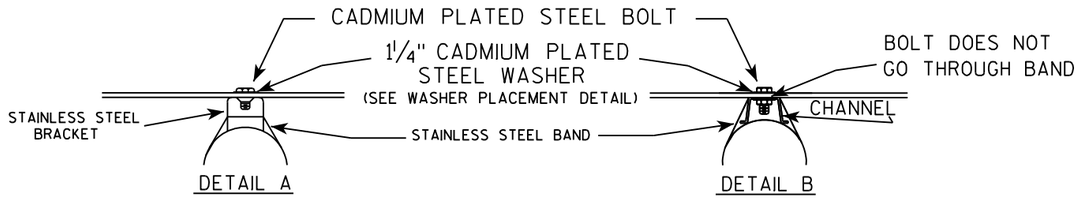
SINGLE SIGN



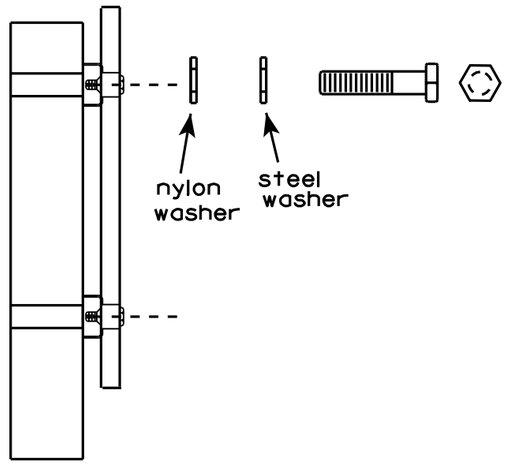


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

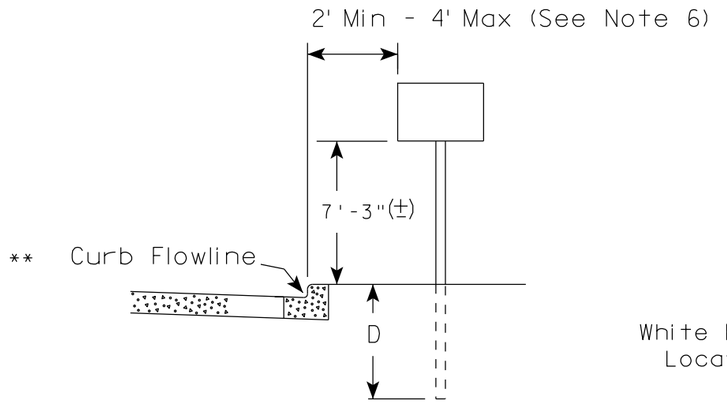
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

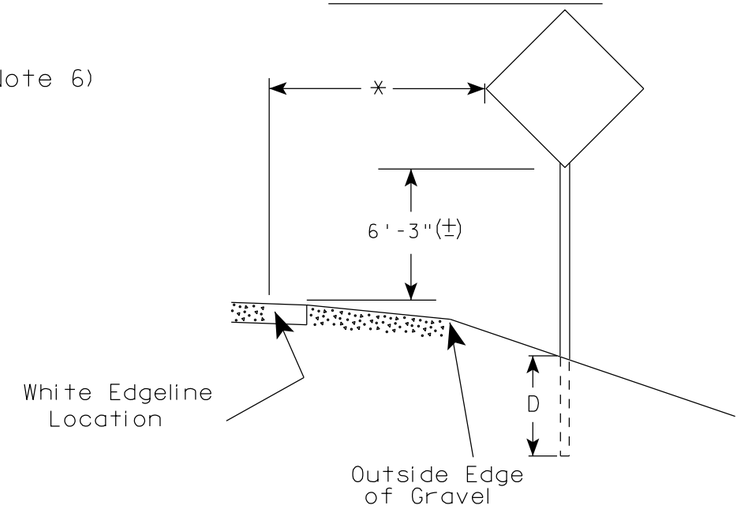
DATE 8/16/13 PLATE NO. A5-9.3

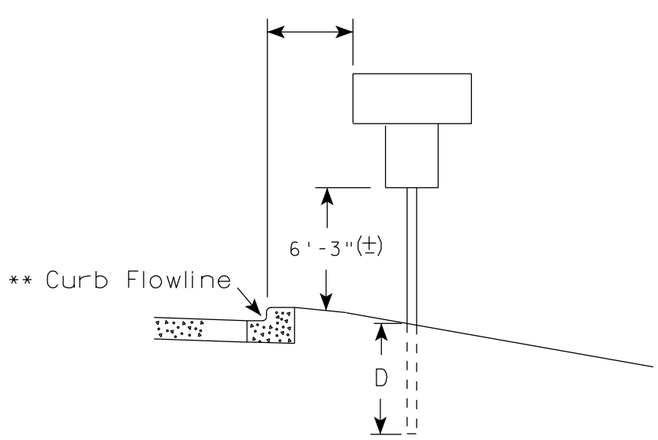
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 185	E

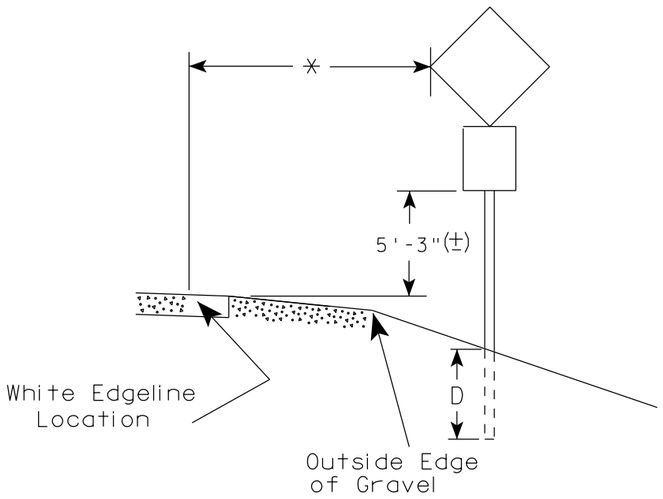
URBAN AREA



RURAL AREA (See Note 2)







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

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

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 (A4-5) 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 stop signs (R1-1F) 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) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

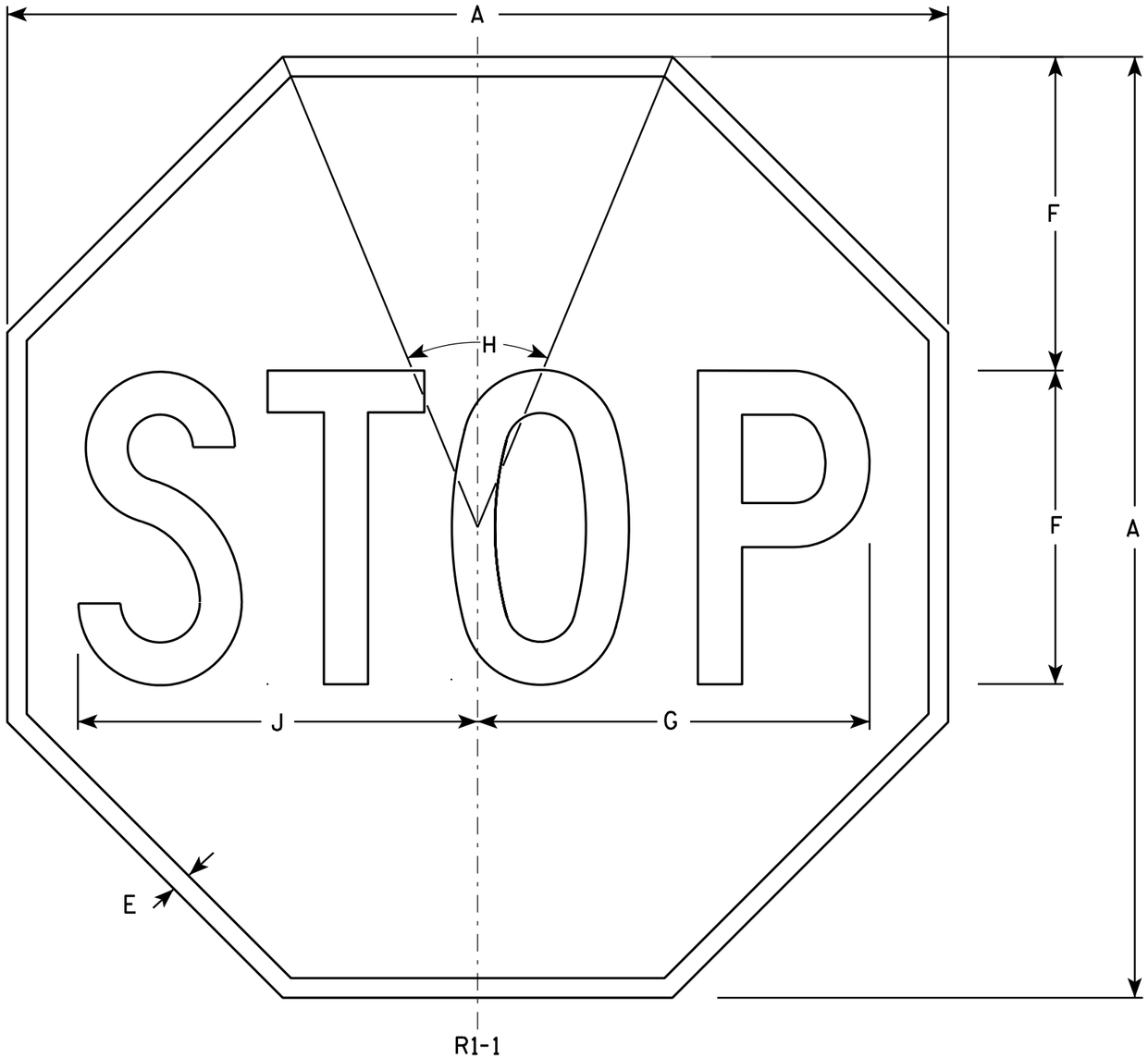
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

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

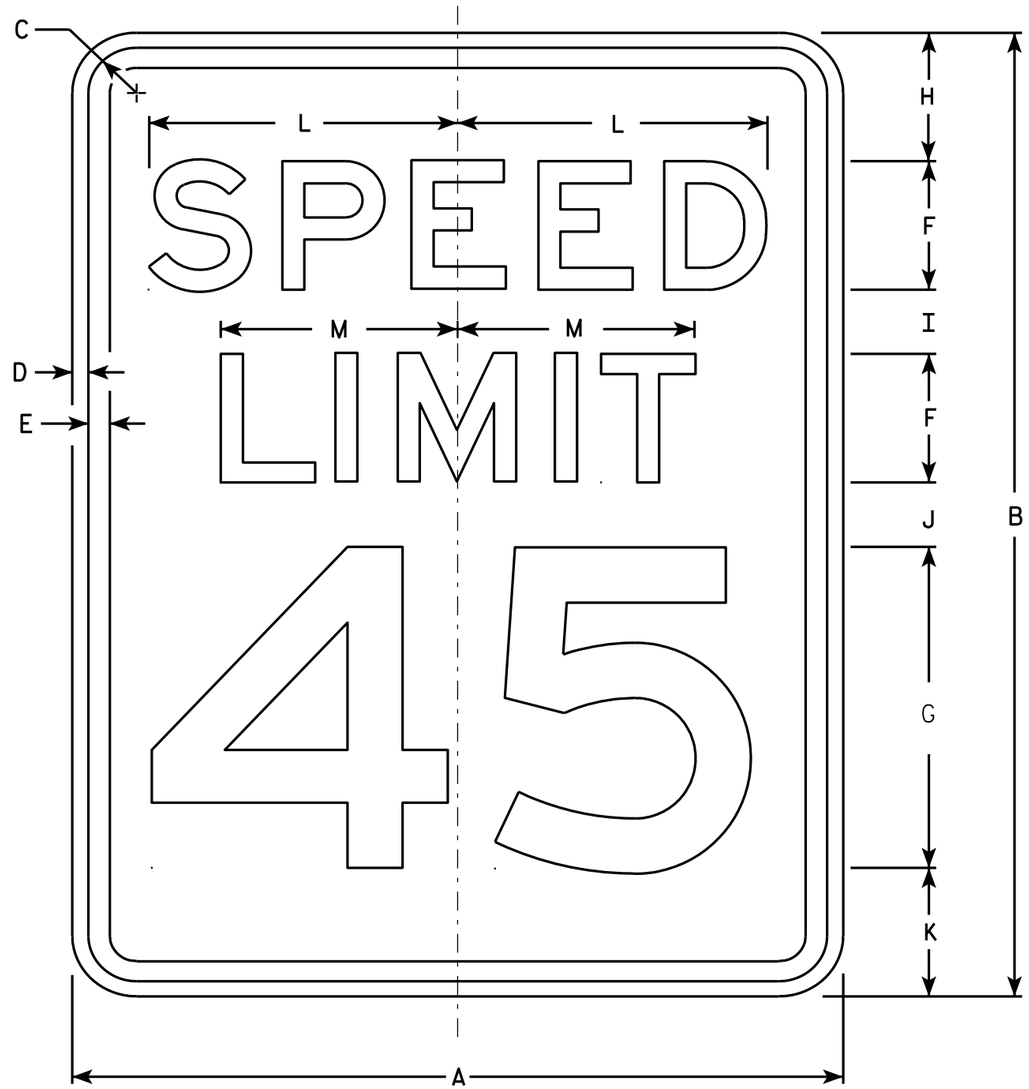
STANDARD SIGN
R1-1

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: 187	E



R2-1

NOTES

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

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

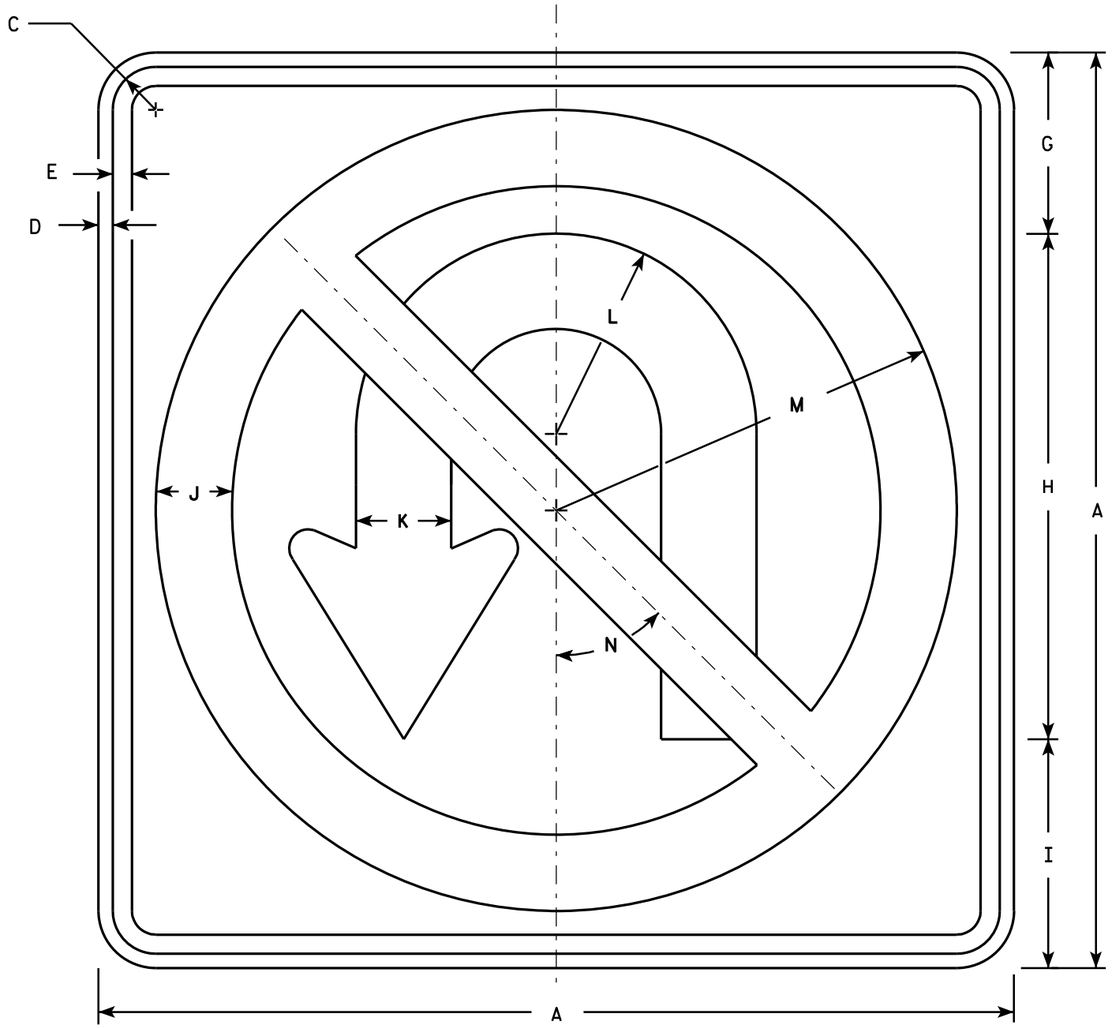
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

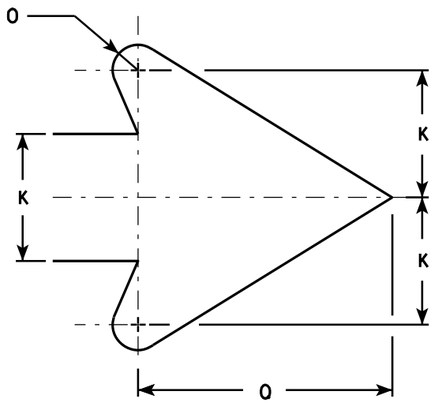
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 188 | E



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

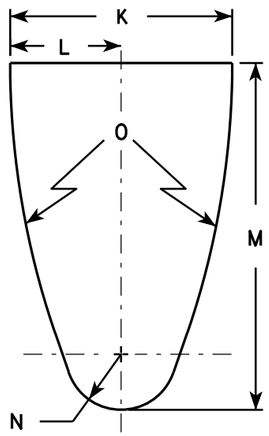
STANDARD SIGN
R3-4

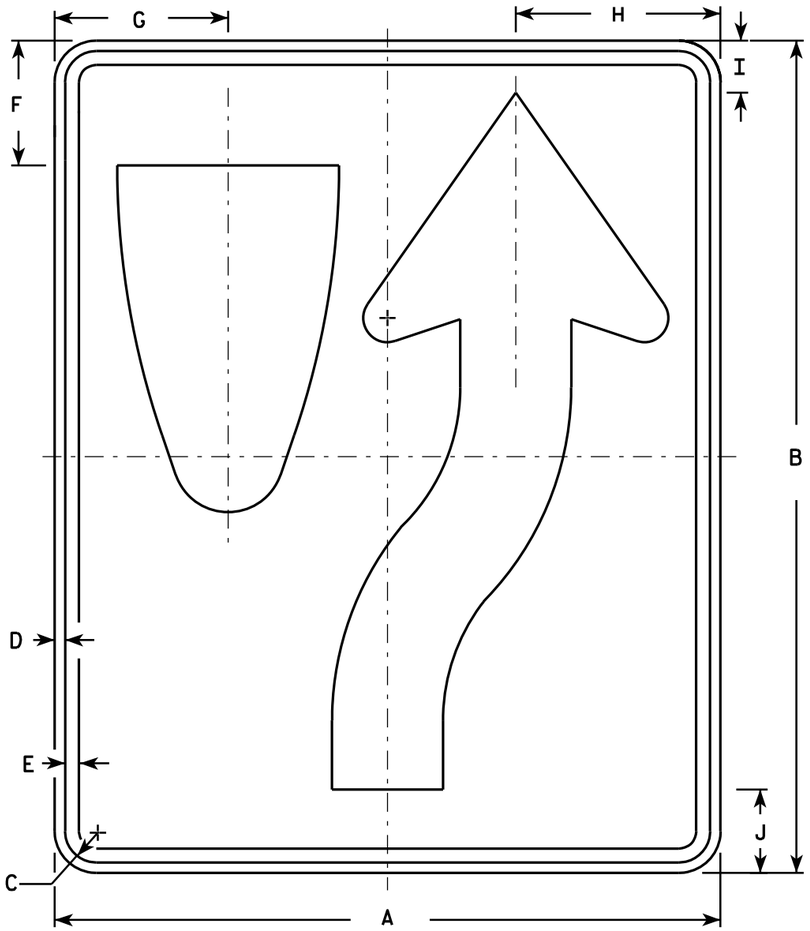
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 189	E

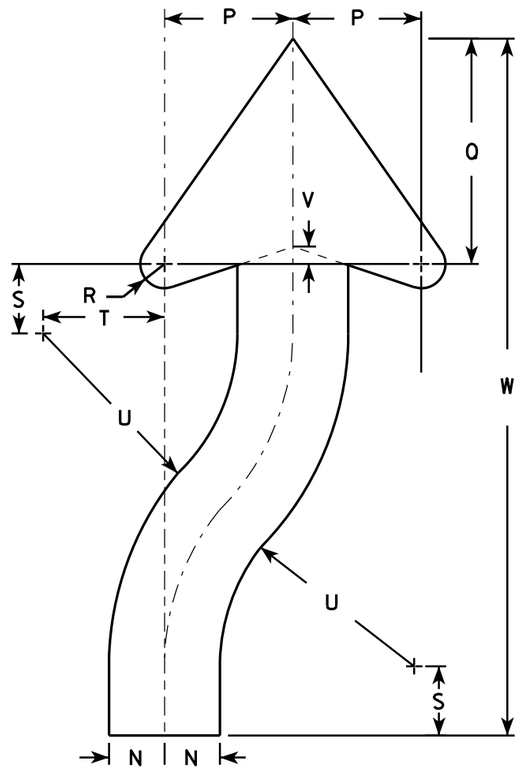




R4-7

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.



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

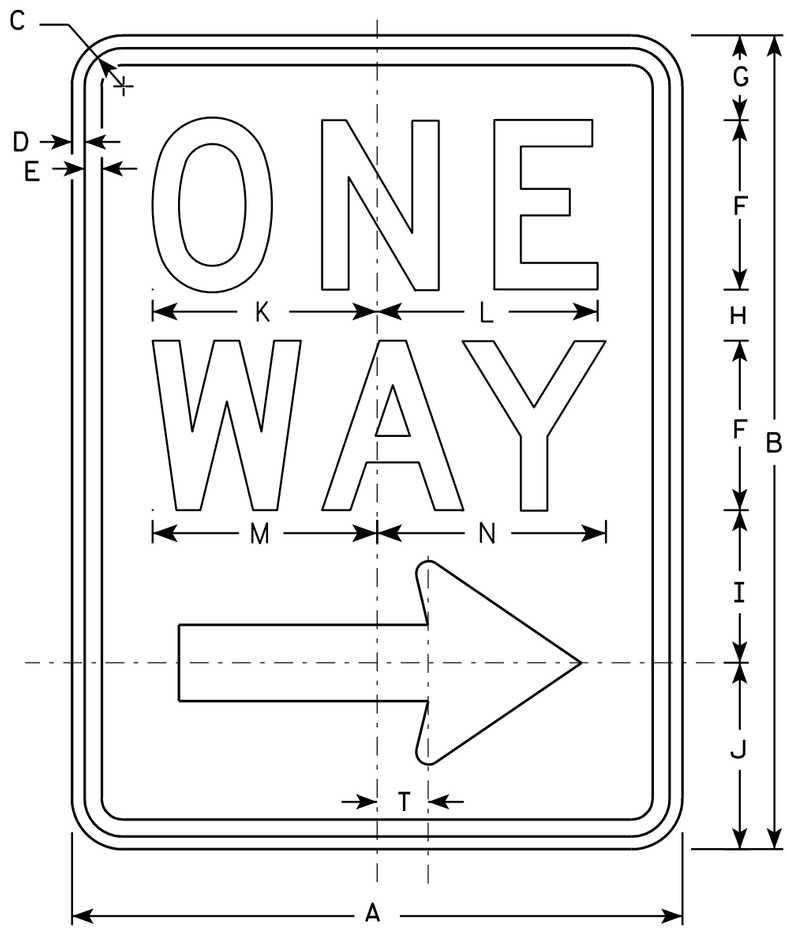
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

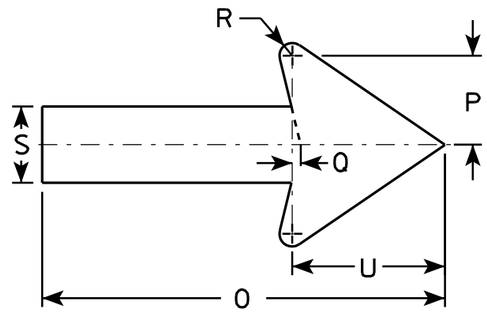
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E



R6-2R

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. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

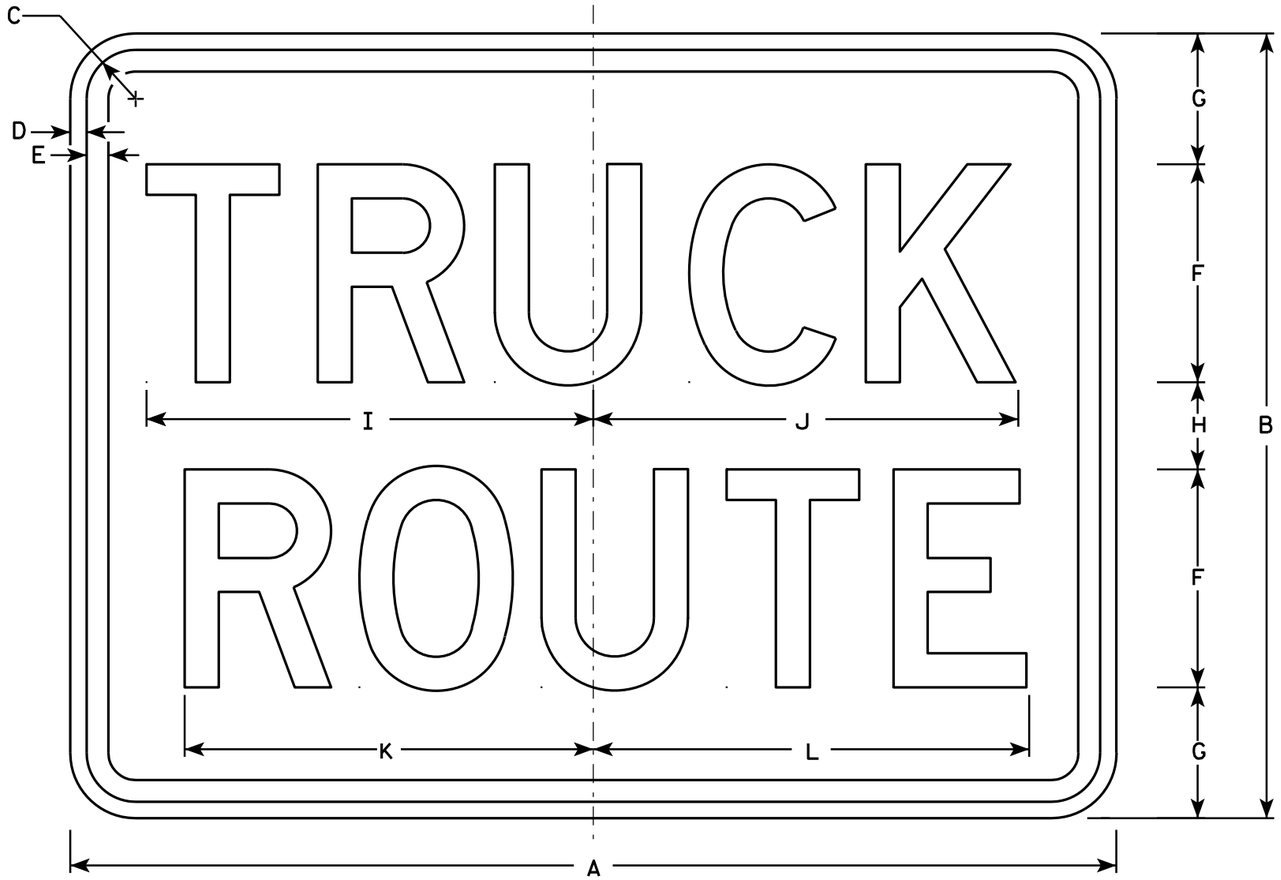
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	E



R14-1

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 - 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																											
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
3	30	24	1 1/8	3/8	1/2	6	4	4	12 1/4	11 3/4	11 1/4	12															5.0
4																											
5																											

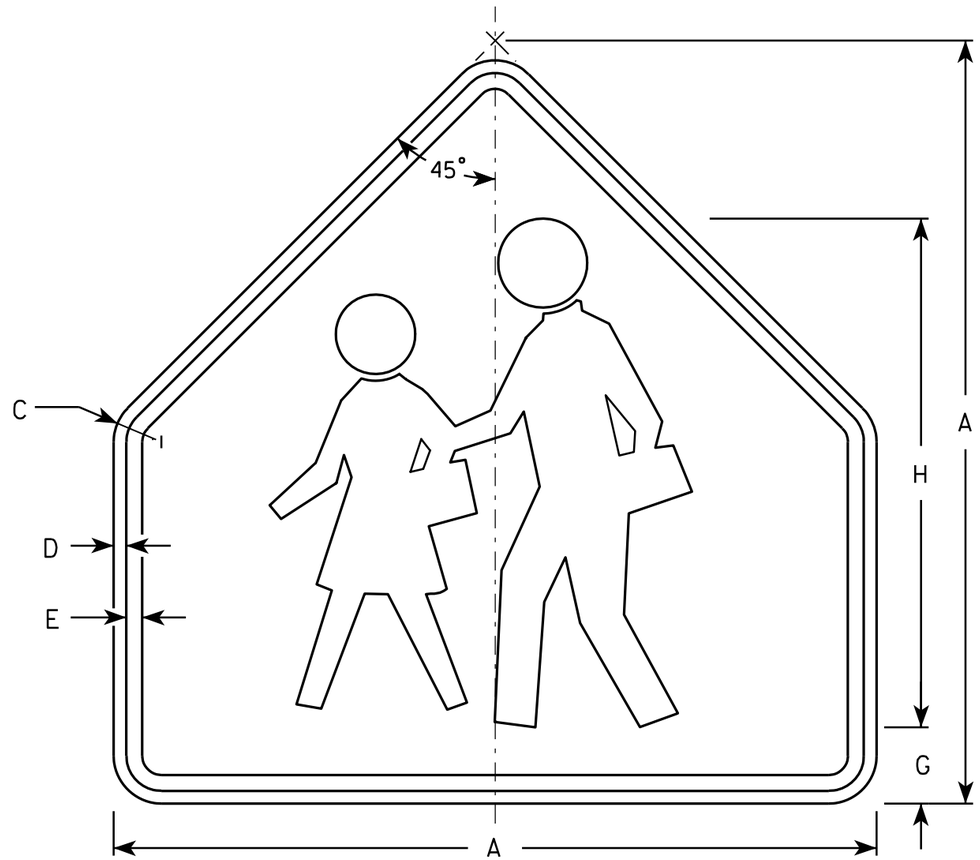
STANDARD SIGN
R14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R14-1.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



S1-1

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																											

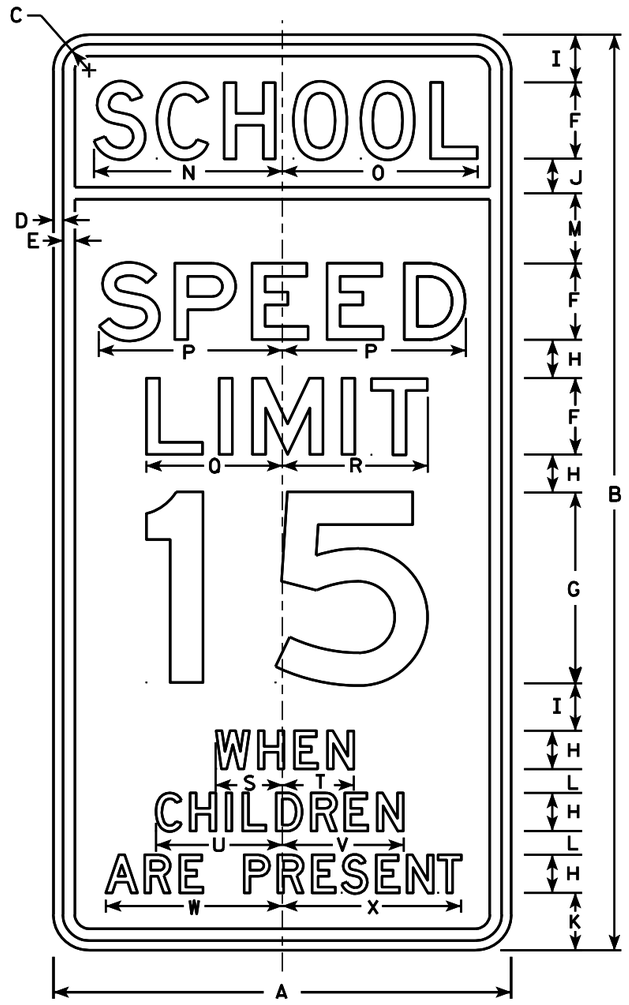
STANDARD SIGN
S1-1

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: 193	E



S4-51

NOTES

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

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 m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E

STAGE 1 EARTHWORK S. MIDVALE BLVD. (49+50 - 50+50 & 61+45 - 62+85)

STATION - STATION	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
49+50 - 50+50	--	--	100	0	100	0	100
61+45 - 62+85	--	--	70	0	170	0	170
STAGE 1 TOTALS			170	0	--	--	--

STAGE 2 EARTHWORK MINERAL POINT ROAD (STA 15+00 - STA 20+25)

STATION	DISTANCE (LF)	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
15+00	25	39.7	0.0	0	0	0	0	0
15+25	25	39.8	0.0	37	0	37	0	37
15+50	25	47.6	0.0	40	0	77	0	77
15+75	25	56.6	0.0	48	0	126	0	126
16+00	25	57.6	0.0	53	0	178	0	178
16+25	25	58.3	0.0	54	0	232	0	232
16+50	25	56.0	0.0	53	0	285	0	285
16+75	25	50.2	0.0	49	0	334	0	334
17+00	25	44.2	0.0	44	0	378	0	378
17+25	25	42.4	0.0	40	0	418	0	418
17+50	25	42.0	0.0	39	0	457	0	457
17+75	25	43.6	0.0	40	0	497	0	497
18+00	25	46.5	0.0	42	0	538	0	538
18+25	25	44.4	0.0	42	0	580	0	580
18+50	25	48.3	0.0	43	0	623	0	623
18+75	25	46.1	0.0	44	0	667	0	667
19+00	25	46.5	0.0	43	0	710	0	710
19+25	25	45.9	0.0	43	0	753	0	753
19+50	25	43.8	0.0	42	0	794	0	794
19+75	25	41.9	0.0	40	0	834	0	834
20+00	25	43.6	0.0	40	0	873	0	873
20+25	25	45.6	0.0	41	0	915	0	915
STAGE 2 MINERAL POINT ROAD SUBTOTALS				915	0	--	--	--

STAGE 2 EARTHWORK S. MIDVALE BLVD. (STA 51+50 - STA 54+93)

STATION	DISTANCE (LF)	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
51+50	25	66.6	0.0	0	0	0	0	0
51+75	25	77.1	0.0	67	0	67	0	67
52+00	25	101.0	0.0	82	0	149	0	149
52+25	25	112.7	0.0	99	0	248	0	248
52+50	25	114.6	0.0	105	0	353	0	353
52+75	25	112.4	0.0	105	0	458	0	458
53+00	25	110.9	0.0	103	0	562	0	562
53+25	25	91.6	0.0	94	0	655	0	655
53+50	25	99.0	0.0	88	0	744	0	744
53+75	25	76.8	0.0	81	0	825	0	825
54+00	25	69.5	0.0	68	0	893	0	893
54+25	25	58.5	0.0	59	0	952	0	952
54+50	25	57.0	0.0	53	0	1005	0	1005
54+75	25	57.5	0.0	53	0	1058	0	1058
54+93	18	51.4	0.0	36	0	1095	0	1095
FELTON PL	--	--	--	130	0	1225	0	1225
STAGE 2 S. MIDVALE BLVD SUBTOTALS				1225	0	--	--	--

STAGE 3 EARTHWORK MINERAL POINT ROAD (STA 15+00 - STA 20+25)

STATION	DISTANCE (LF)	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
15+00	25	47.5	0.0	0	0	0	0	0
15+25	25	46.0	0.0	43	0	43	0	43
15+50	25	44.2	0.0	42	0	85	0	85
15+75	25	55.1	0.0	46	0	131	0	131
16+00	25	59.5	0.0	53	0	184	0	184
16+25	25	63.3	0.0	57	0	241	0	241
16+50	25	67.3	0.0	60	0	301	0	301
16+75	25	66.5	0.0	62	0	363	0	363
17+00	25	65.1	0.0	61	0	424	0	424
17+25	25	62.5	0.0	59	0	483	0	483
17+50	25	60.1	0.0	57	0	540	0	540
17+75	25	59.8	0.0	56	0	596	0	596
18+00	25	59.1	0.0	55	0	651	0	651
18+25	25	58.7	0.0	55	0	705	0	705
18+50	25	58.1	0.0	54	0	759	0	759
18+75	25	57.2	0.0	53	0	813	0	813
19+00	25	52.8	0.0	51	0	864	0	864
19+25	25	47.8	0.0	47	0	910	0	910
19+50	25	44.2	0.0	43	0	953	0	953
19+75	25	41.9	0.0	40	0	993	0	993
20+00	25	43.9	0.0	40	0	1032	0	1032
20+25	25	45.8	0.0	42	0	1074	0	1074
STAGE 3 MINERAL POINT ROAD SUBTOTALS				1074	0	--	--	--

STAGE 3 EARTHWORK S. MIDVALE BLVD. (STA 50+30 - STA 51+00)

STATION	DISTANCE (LF)	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
50+30	25	98.8	0.0	0	0	0	0	0
50+50	25	102.9	0.0	75	0	75	0	75
50+75	25	107.3	0.0	97	0	172	0	172
51+00	25	100.4	0.0	96	0	268	0	268
STAGE 3 S. MIDVALE BLVD SUBTOTALS				268	0	--	--	--

STAGE 4 EARTHWORK MINERAL POINT ROAD (STA 10+75 - STA 15+00)

STATION	DISTANCE (LF)	AREA CUT (SF)	AREA FILL (SF)	INCREMENTAL VOLUME CUT (CY)	INCREMENTAL VOLUME FILL (CY)	CUMULATIVE VOLUME CUT FACTOR 1.0 (CY)	CUMULATIVE VOLUME EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
10+75	25	39.6	0.0	0	0	0	0	0
11+00	25	53.6	0.0	43	0	43	0	43
11+25	25	60.2	0.0	53	0	96	0	96
11+50	25	63.7	0.0	57	0	153	0	153
11+75	25	65.8	0.0	60	0	213	0	213
12+00	25	71.7	0.0	64	0	277	0	277
12+25	25	76.1	0.0	68	0	345	0	345
12+50	25	77.1	0.0	71	0	416	0	416
12+75	25	77.9	0.0	72	0	488	0	488
13+00	25	72.4	0.0	70	0	558	0	558
13+25	25	67.6	0.0	65	0	622	0	622
13+50	25	65.8	0.0	62	0	684	0	684
13+75	25	65.7	0.0	61	0	745	0	745
14+00	25	61.7	0.0	59	0	804	0	804
14+25	25	57.8	0.0	55	0	859	0	859
14+50	25	53.3	0.0	51	0	911	0	911
14+75	25	52.8	0.0	49	0	960	0	960
15+00	25	47.5	0.0	46	0	1006	0	1006
STAGE 4 MINERAL POINT ROAD SUBTOTALS				1006	0	--	--	--

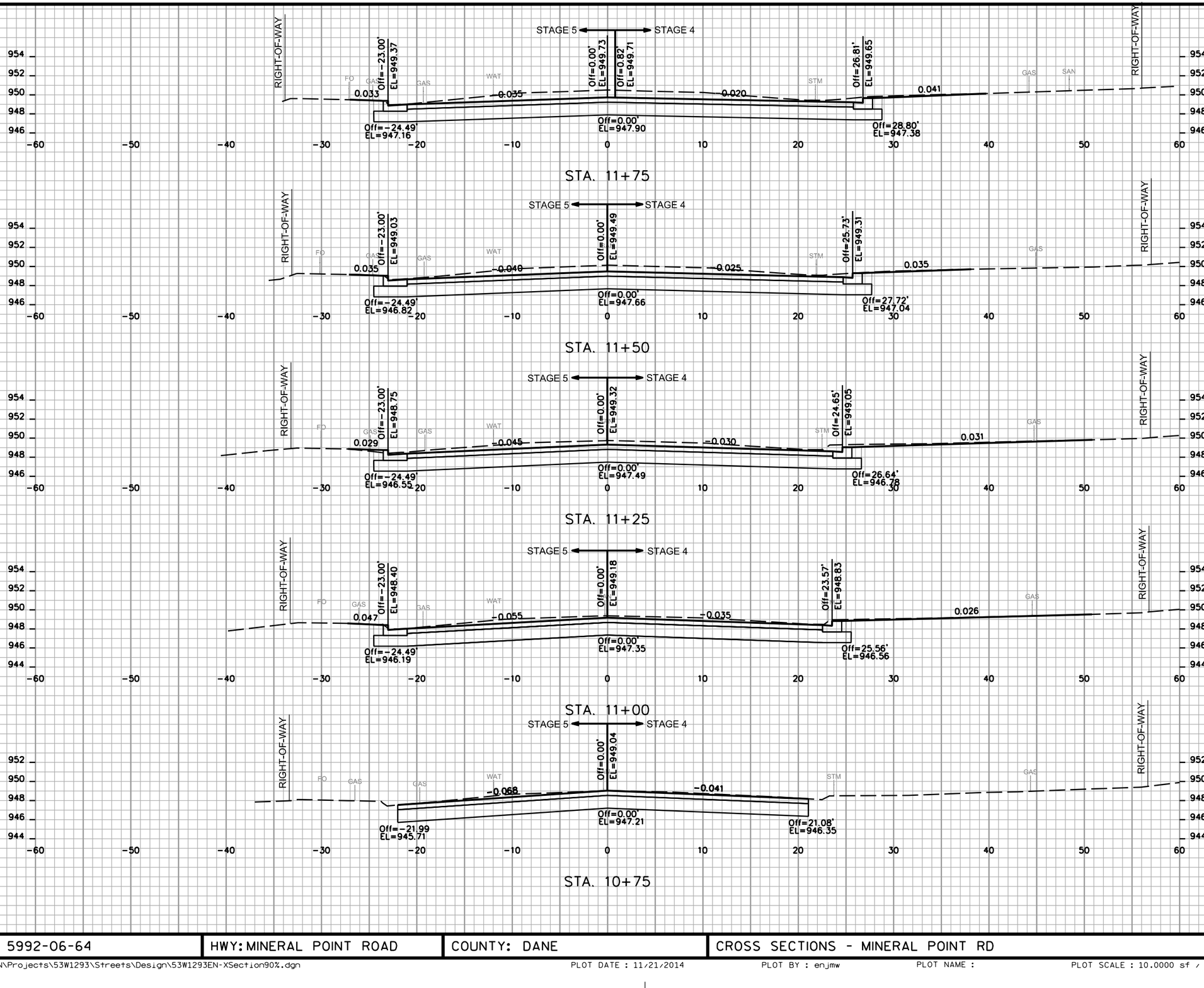
STAGE 4 EARTHWORK S. MIDVALE BLVD. (STA 70+50 - STA 71+00)								
		AREA		INCREMENTAL VOLUME		CUMULATIVE VOLUME		
STATION	DISTANCE (LF)	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT FACTOR 1.0 (CY)	EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
70+50	25	66.1	0.0	0	0	0	0	0
70+75	25	64.3	0.0	60	0	60	0	60
71+00	25	81.5	0.0	68	0	128	0	128
STAGE 4 S. MIDVALE BLVD SUBTOTALS				128	0	--	--	--

STAGE 5 EARTHWORK MINERAL POINT ROAD (STA 10+75 - STA 15+00)								
		AREA		INCREMENTAL VOLUME		CUMULATIVE VOLUME		
STATION	DISTANCE (LF)	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT FACTOR 1.0 (CY)	EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
10+75	25	43.7	0.0	0	0	0	0	0
11+00	25	50.9	0.0	44	0	44	0	44
11+25	25	54.2	0.0	49	0	92	0	92
11+50	25	55.8	0.0	51	0	143	0	143
11+75	25	59.2	0.0	53	0	197	0	197
12+00	25	62.0	0.0	56	0	253	0	253
12+25	25	65.8	0.0	59	0	312	0	312
12+50	25	68.1	0.0	62	0	374	0	374
12+75	25	69.2	0.0	64	0	437	0	437
13+00	25	67.3	0.0	63	0	501	0	501
13+25	25	65.0	0.0	61	0	562	0	562
13+50	25	64.6	0.0	60	0	622	0	622
13+75	25	63.5	0.0	59	0	681	0	681
14+00	25	60.1	0.0	57	0	738	0	738
14+25	25	54.1	0.0	53	0	791	0	791
14+50	25	53.7	0.0	50	0	841	0	841
14+75	25	43.0	0.0	45	0	886	0	886
15+00	25	39.7	0.0	38	0	924	0	924
STAGE 5 MINERAL POINT ROAD SUBTOTALS				924	0	--	--	--

STAGE 5 EARTHWORK S. MIDVALE BLVD. (STA 71+50 - STA 72+25)								
		AREA		INCREMENTAL VOLUME		CUMULATIVE VOLUME		
STATION	DISTANCE (LF)	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORD. (CY)
71+50	25	74.0	0.0	0	0	0	0	0
71+75	25	69.5	0.0	66	0	66	0	66
72+00	25	70.0	0.0	67	0	67	0	67
72+25	25	64.0	0.0	62	0	128	0	128
STAGE 5 S. MIDVALE BLVD SUBTOTALS				195	0	--	--	--

STAGE 6 EARTHWORK S. MIDVALE BLVD. (49+50 - 50+50 & 61+45 - 62+85)							
	AREA		INCREMENTAL VOLUME		CUMULATIVE VOLUME		
STATION - STATION	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT FACTOR 1.0 (CY)	EXPANDED FILL FACTOR 1.2 (CY)	MASS ORD. (CY)
49+50 - 50+50	--	--	190	0	100	0	100
61+45 - 62+85	--	--	80	0	180	0	180
STAGE 1 TOTALS			270	0	--	--	--

PROJECT TOTALS	
CUT (CY)	6175
EXPANDED FILL (CY)	0
MASS ORDINATE (CY)	6175



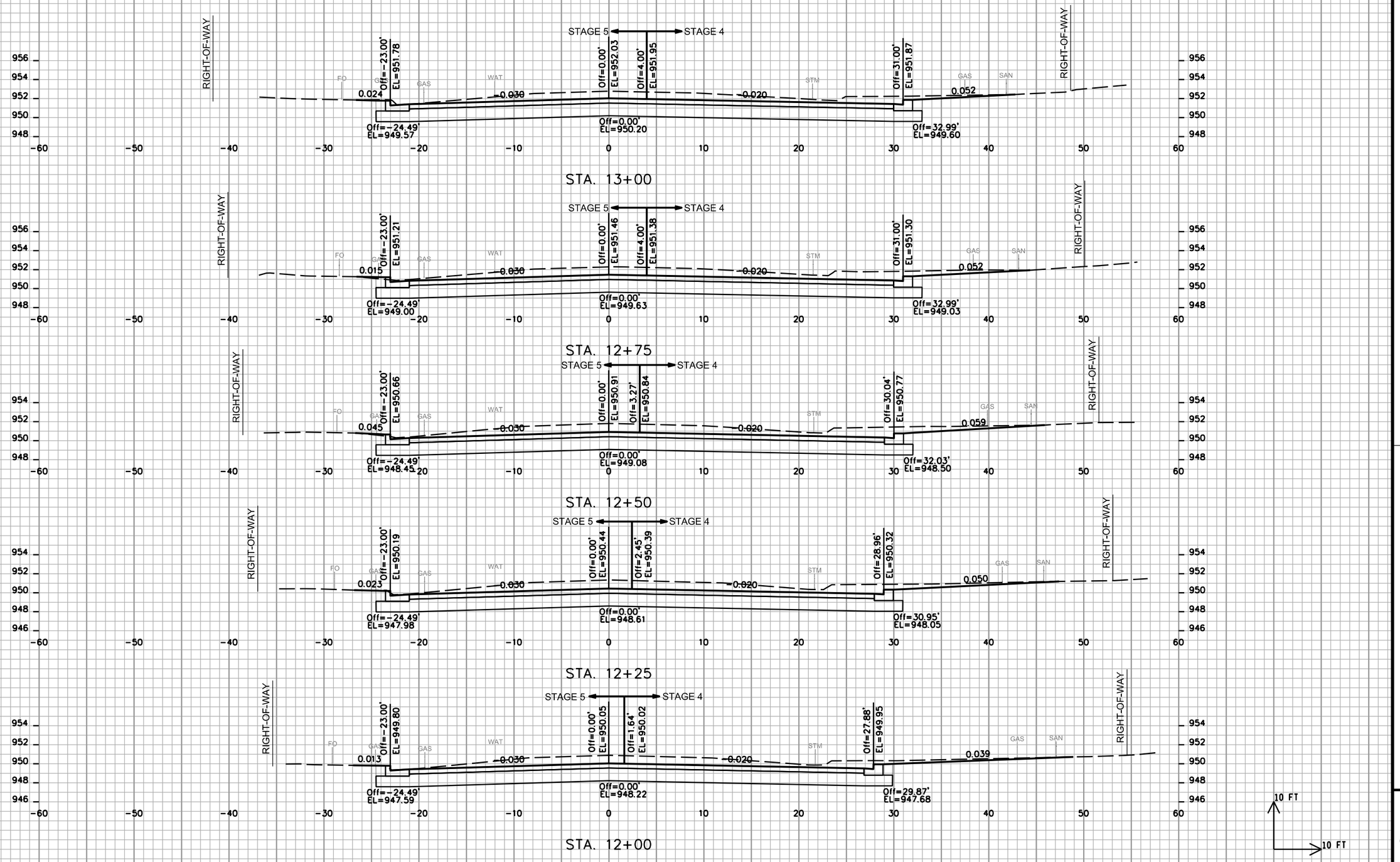
9

9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET 198	E

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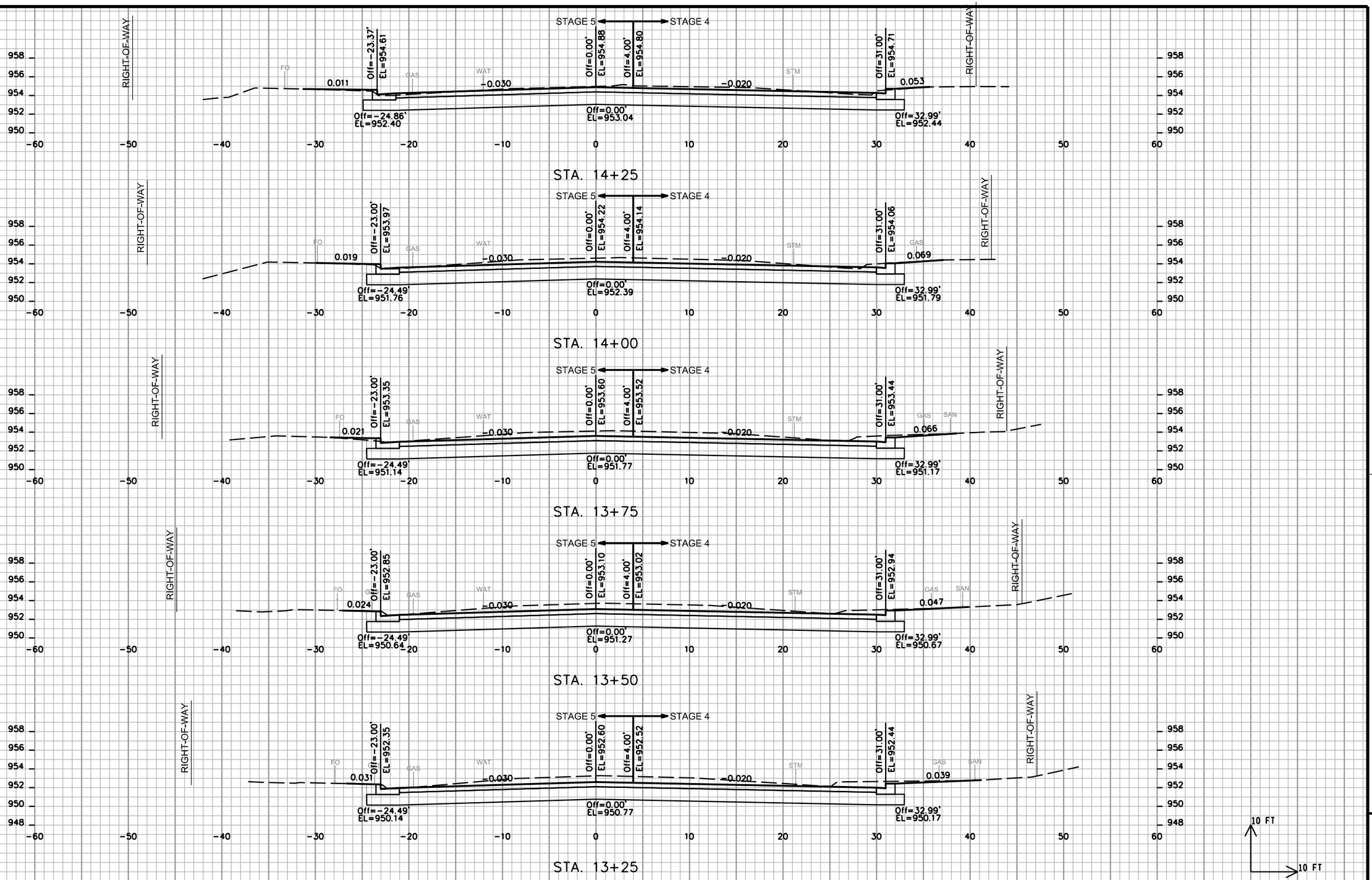
WISDOT/CADDS SHEET 21



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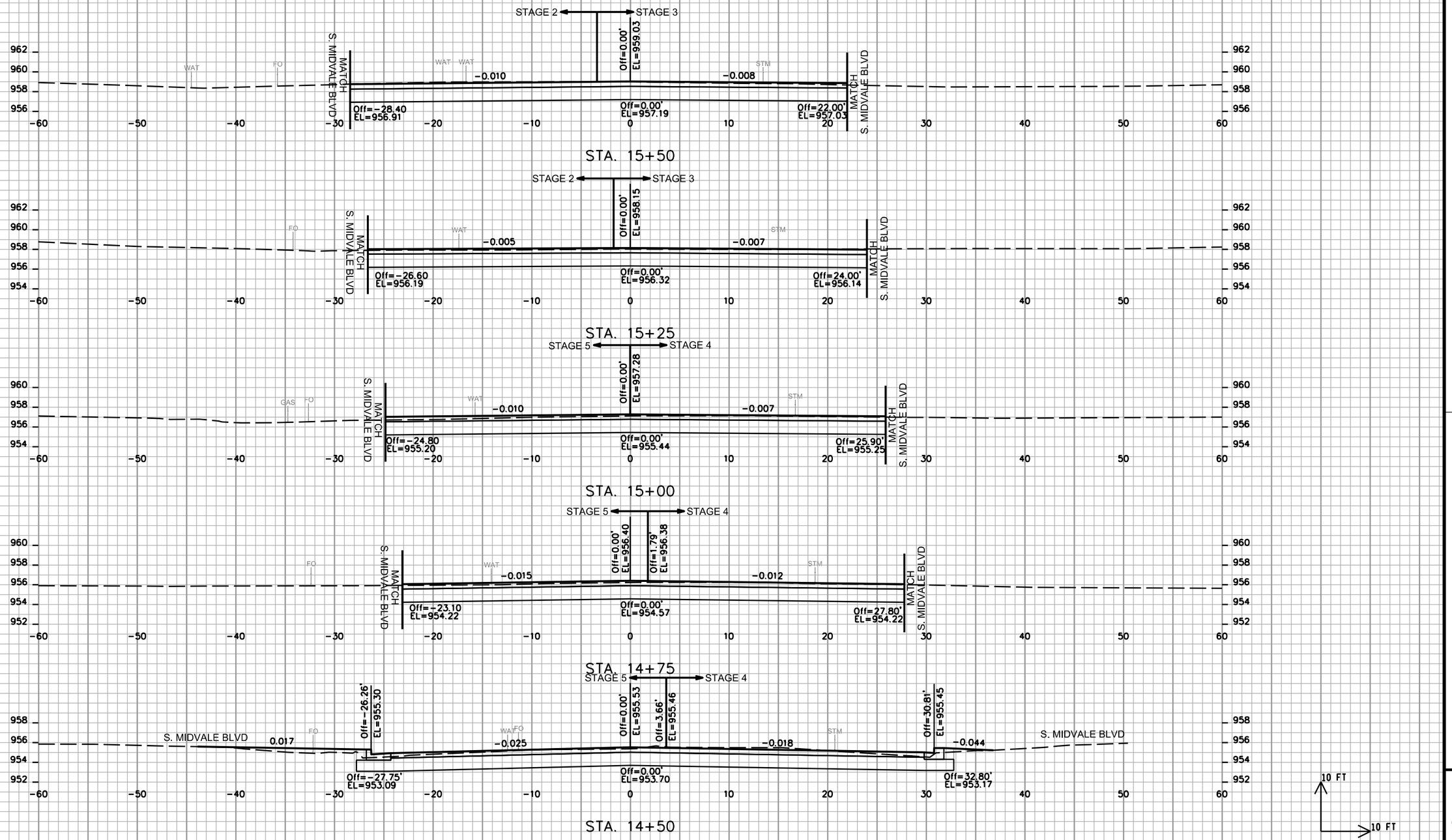

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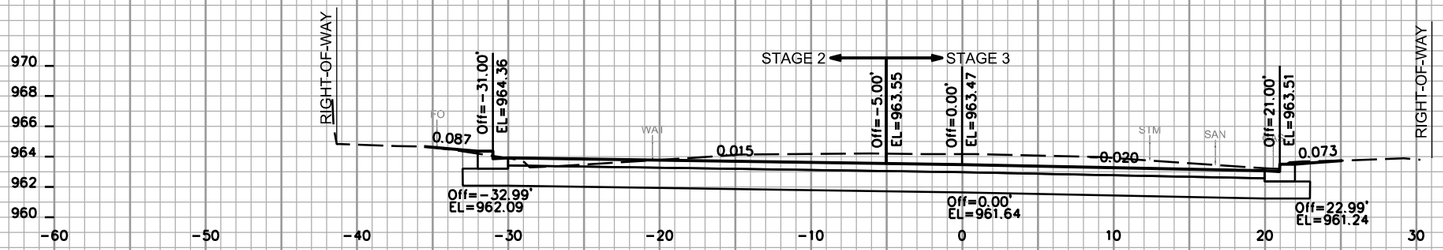
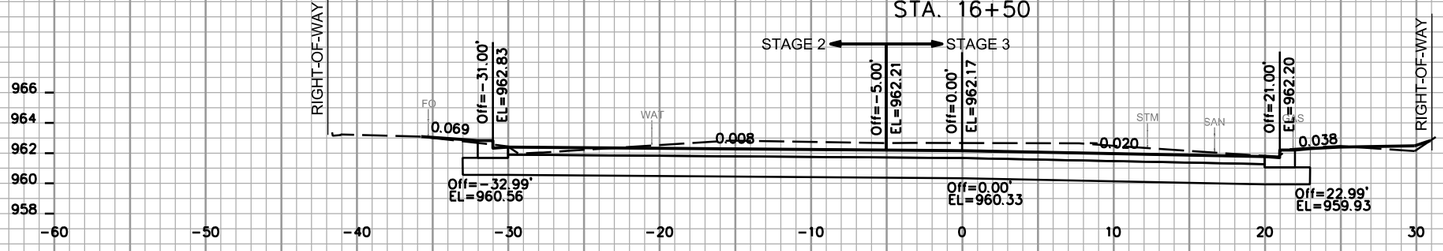
9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET 200	E

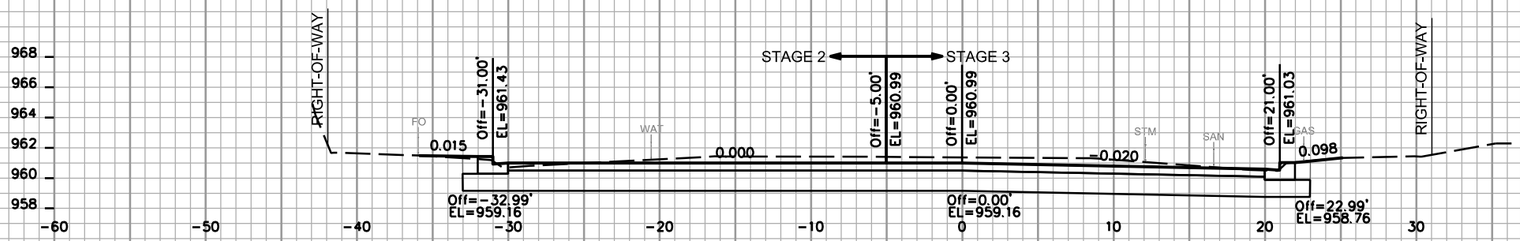
FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn
PLOT DATE : 11/21/2014
PLOT BY : enjmw
PLOT NAME :
PLOT SCALE : 10.0000 sf / in.
WISDOT/CADDS SHEET 21



STA. 16+50

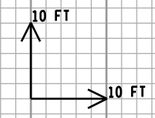


STA. 16+25



STA. 16+00

STA. 15+75



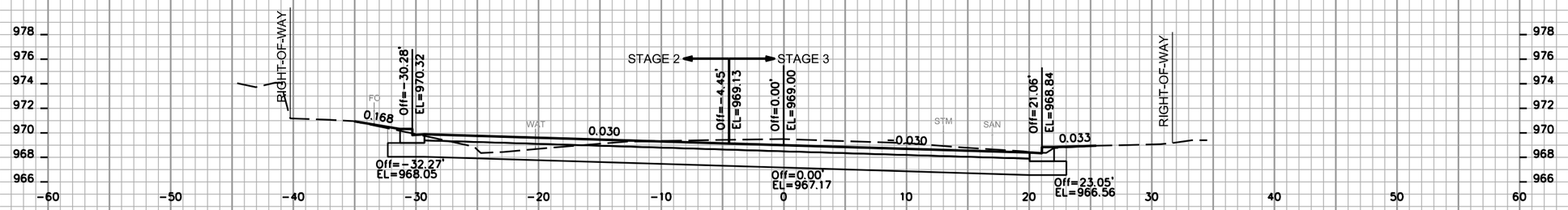
9

9

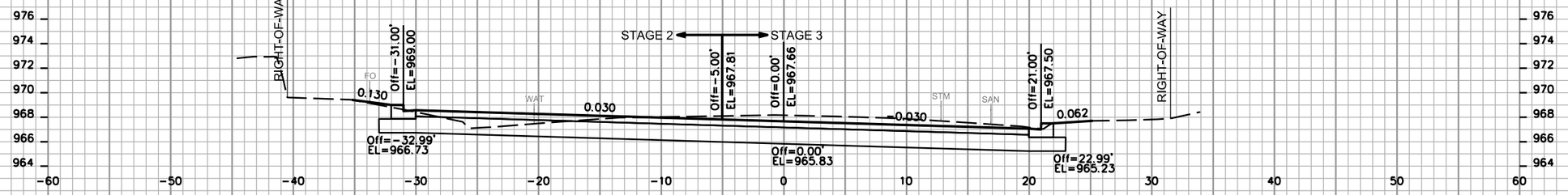
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET 201	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 1/16/2015 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

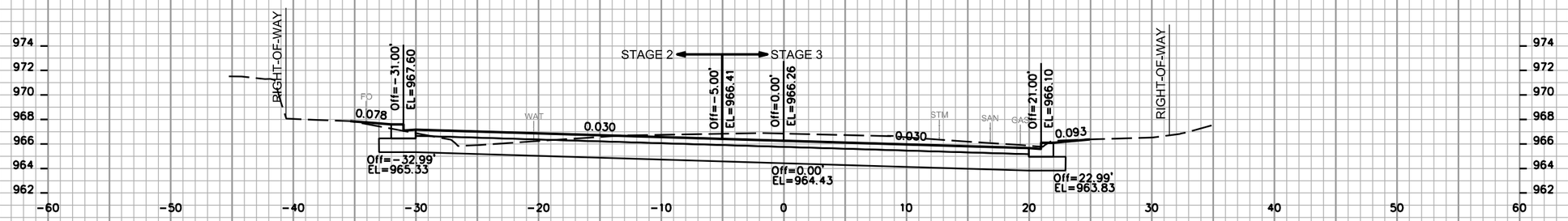
WISDOT/CADDS SHEET 21



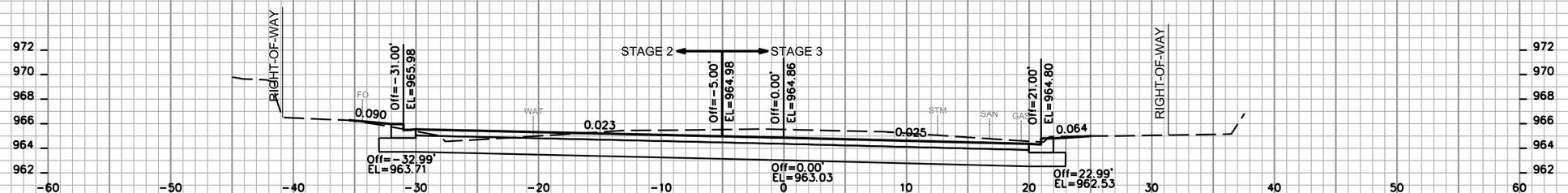
STA. 17+50



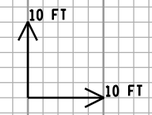
STA. 17+25



STA. 17+00



STA. 16+75



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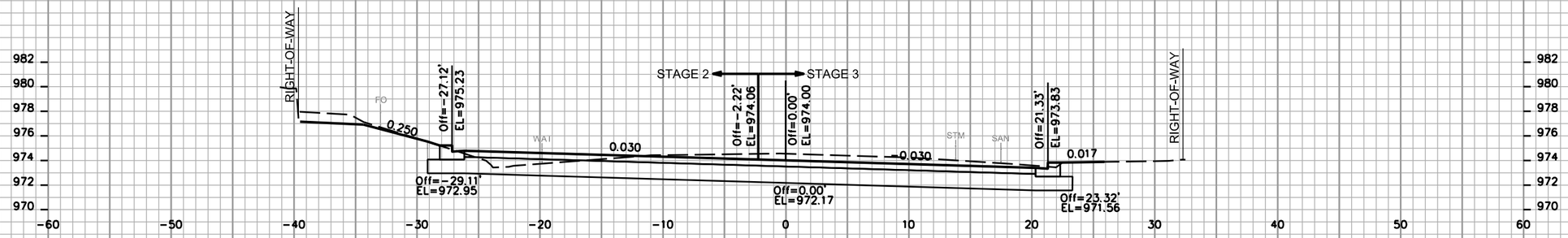
9

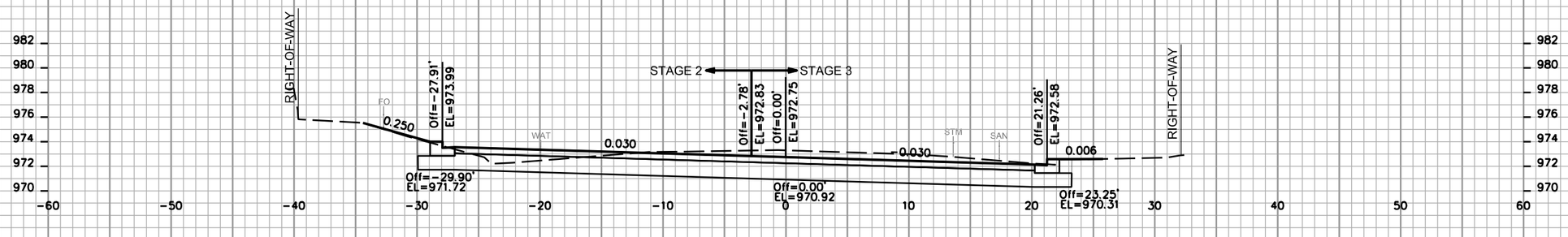
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET 202	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn | PLOT DATE : 11/21/2014 | PLOT BY : enjmw | PLOT NAME : | PLOT SCALE : 10.0000 sf / in.

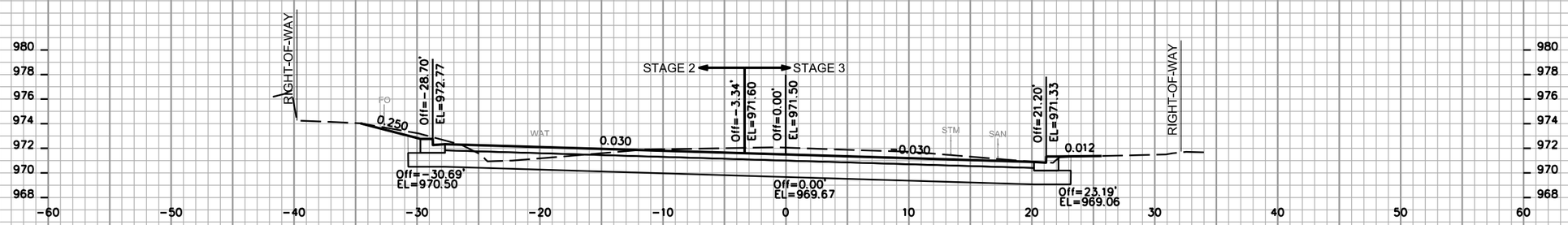
WISDOT/CADDS SHEET 21



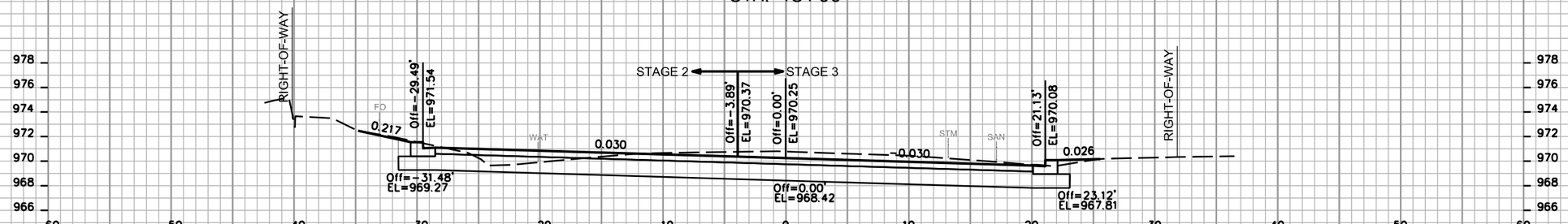
STA. 18+50



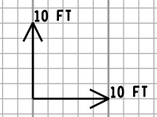
STA. 18+25



STA. 18+00



STA. 17+75



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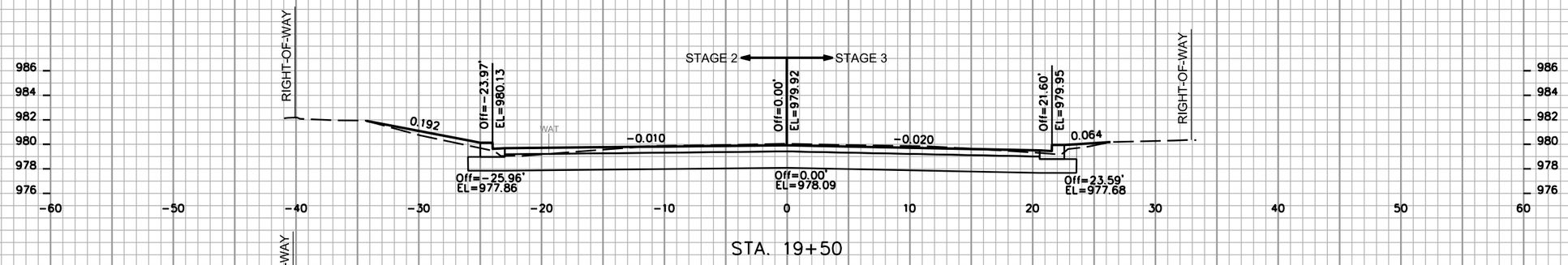
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET	E

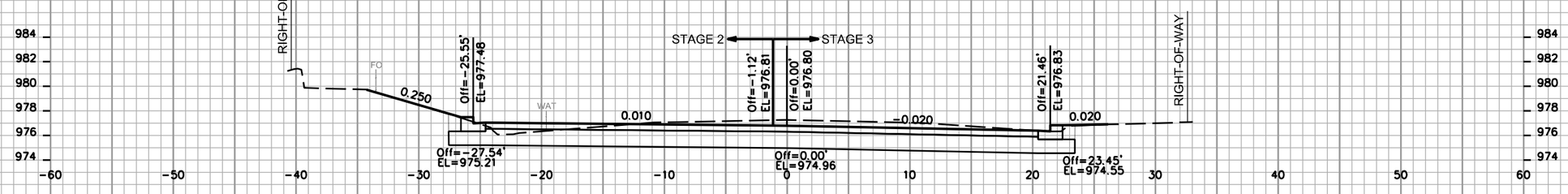
FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21

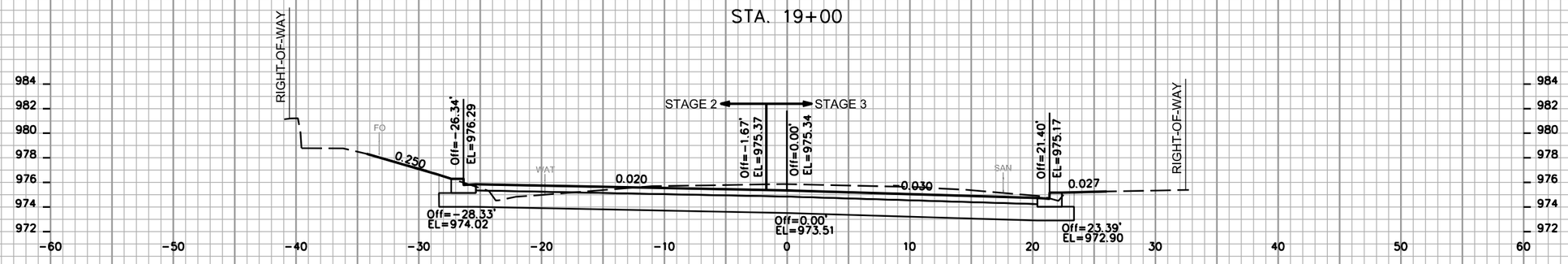


STA. 19+50

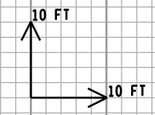
STA. 19+25



STA. 19+00



STA. 18+75



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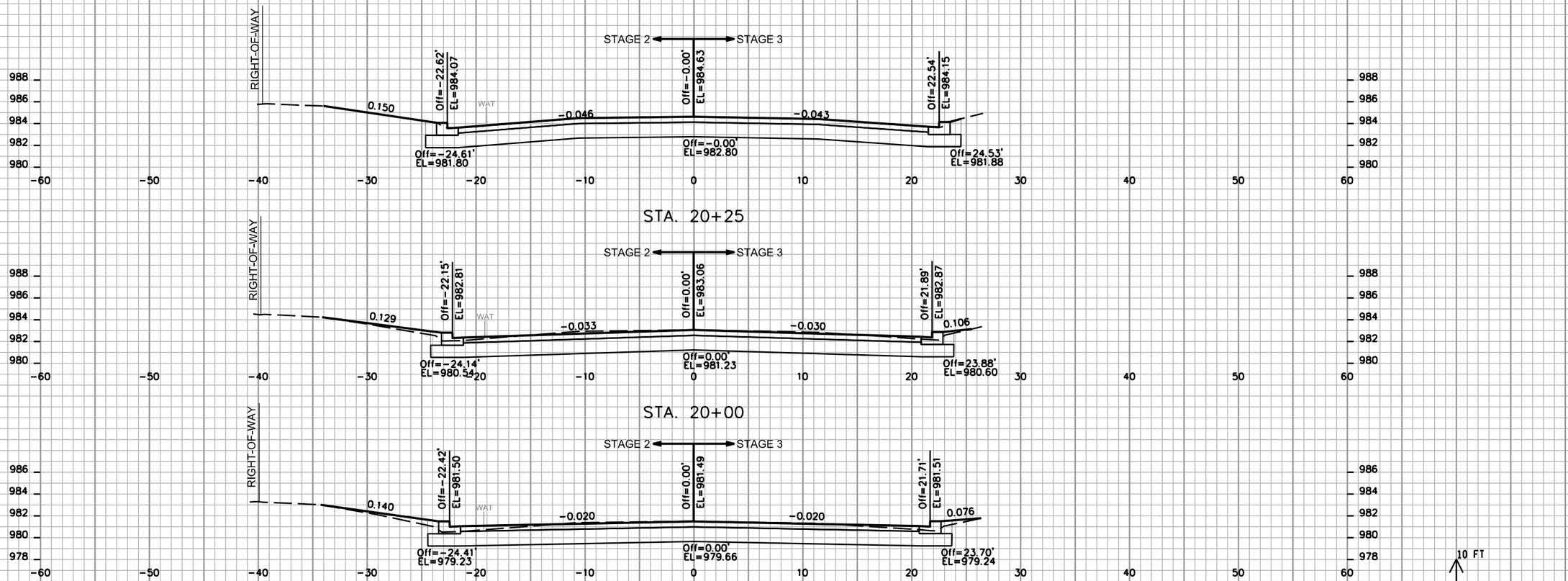
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET 204	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21



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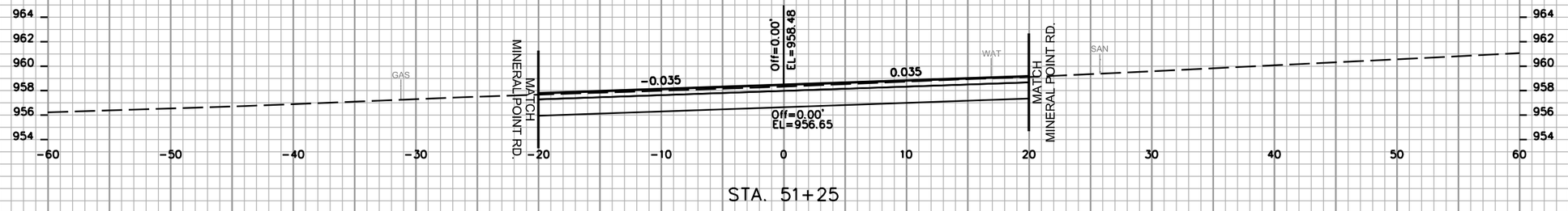
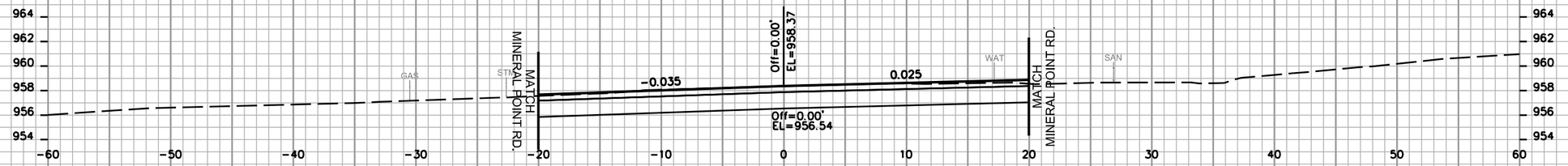
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - MINERAL POINT RD	SHEET	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21

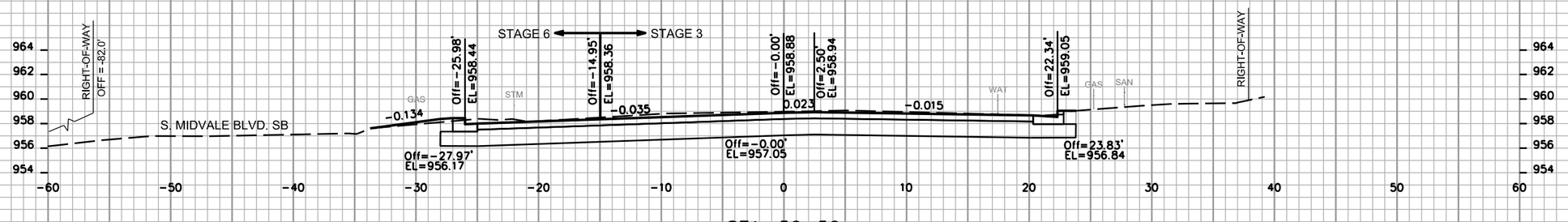


STA. 51+25

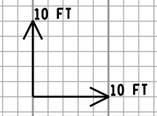


STA. 51+00

STA. 50+75



STA. 50+50



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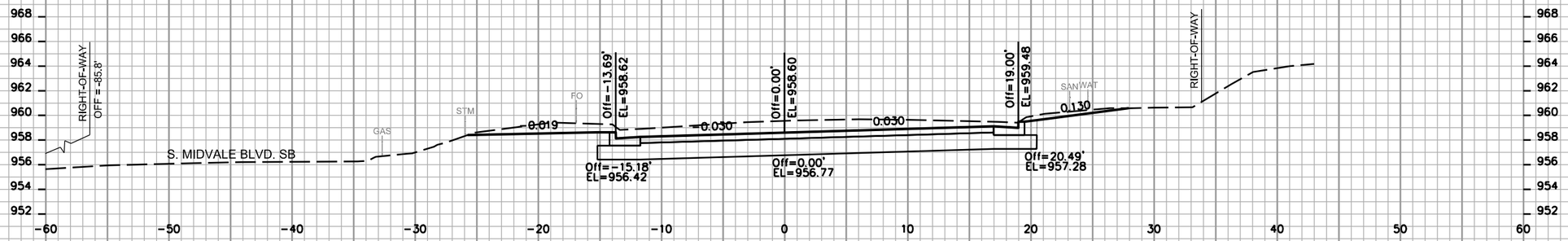
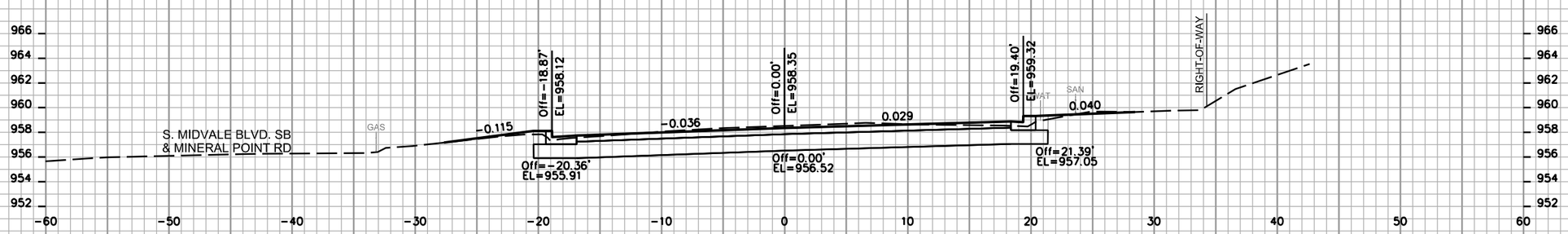
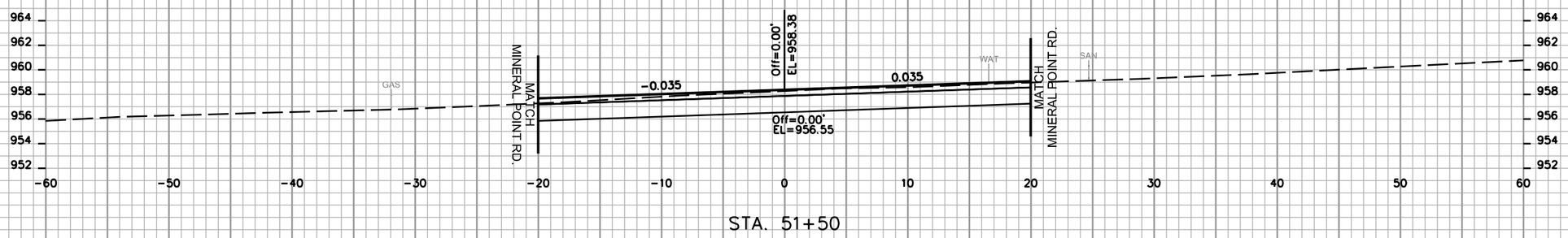
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 206 E



STA. 52+00



STA. 51+75



STA. 51+50

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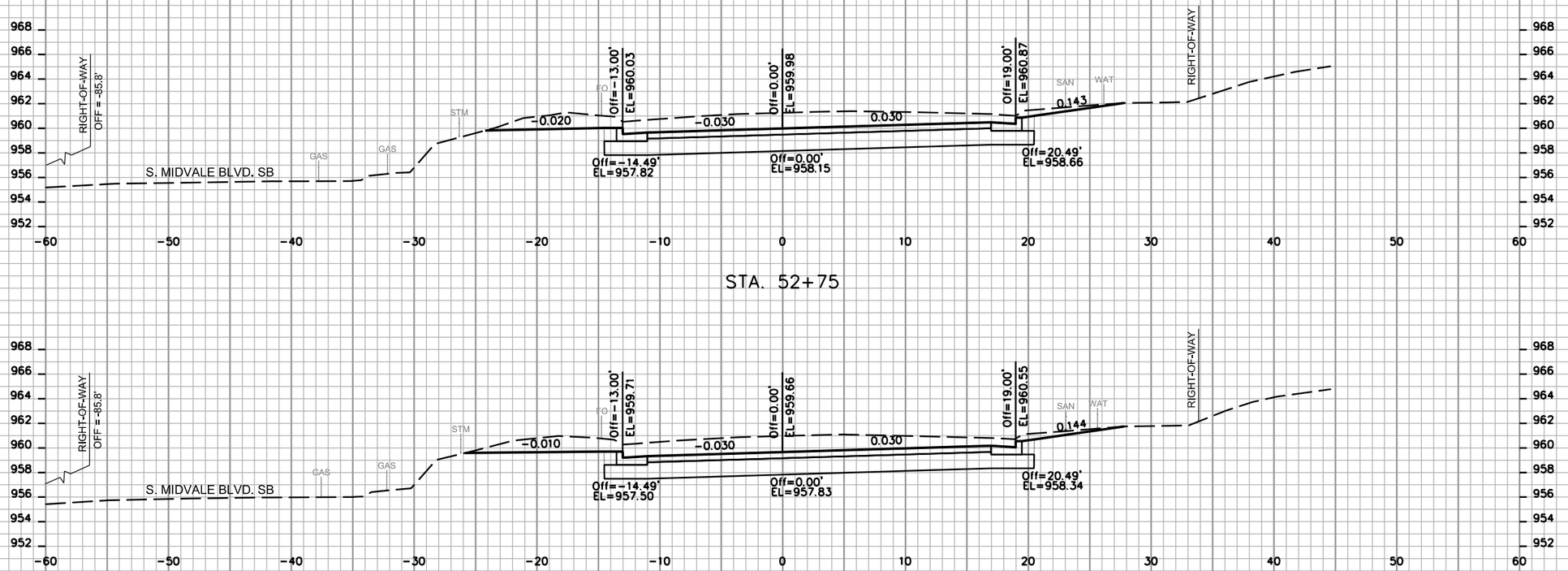
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 207	E



STA. 52+75

STA. 52+50

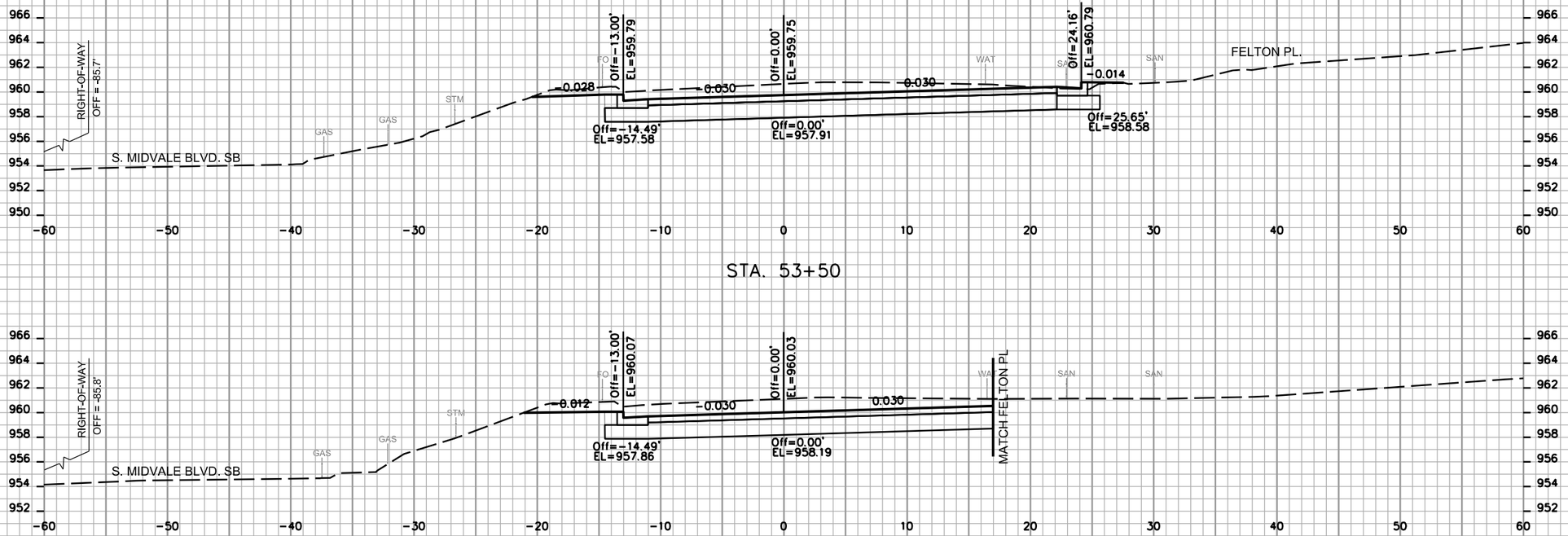
STA. 52+25

10 FT
10 FT

9

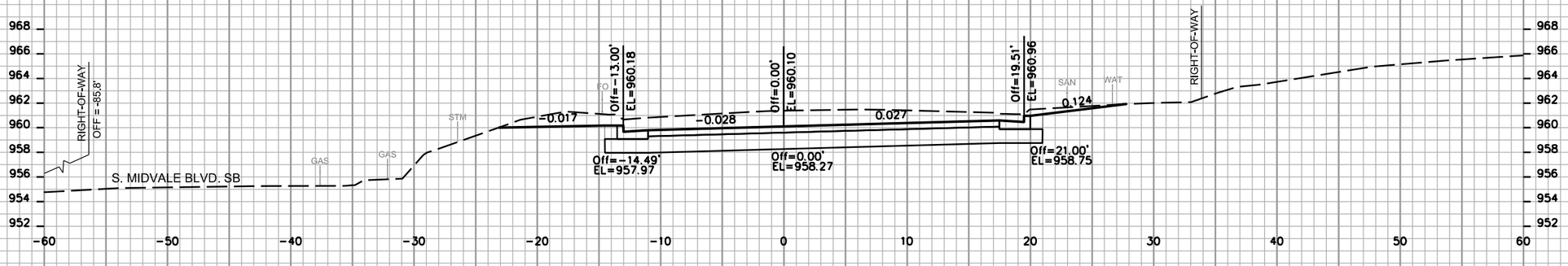
9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 208	E

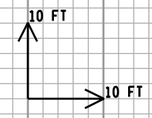


STA. 53+50

STA. 53+25



STA. 53+00



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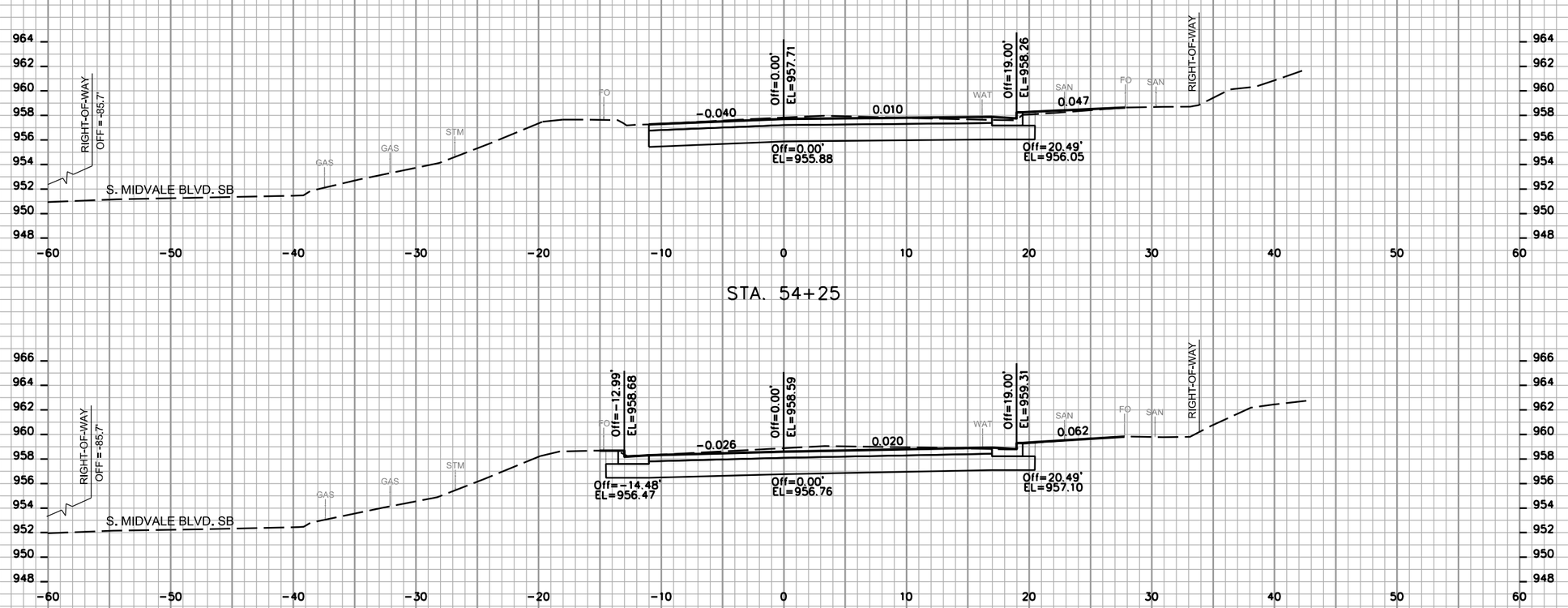
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 209 E

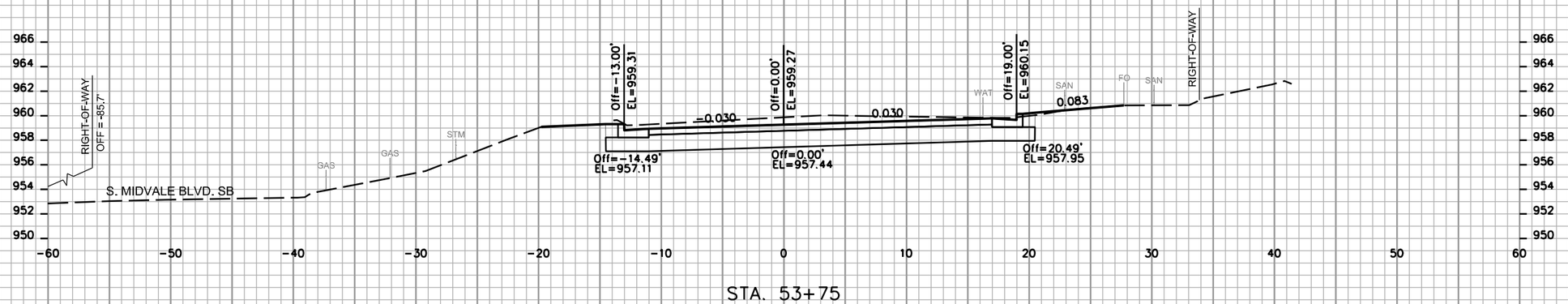
FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21

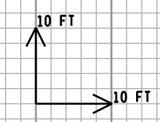


STA. 54+25

STA. 54+00



STA. 53+75



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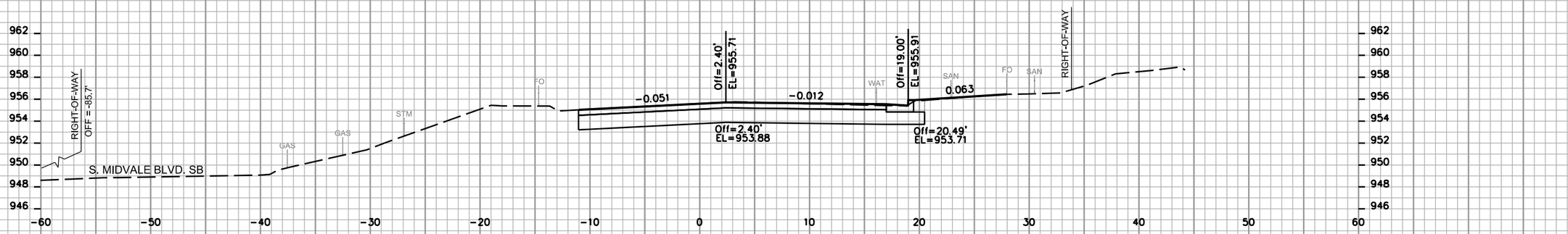
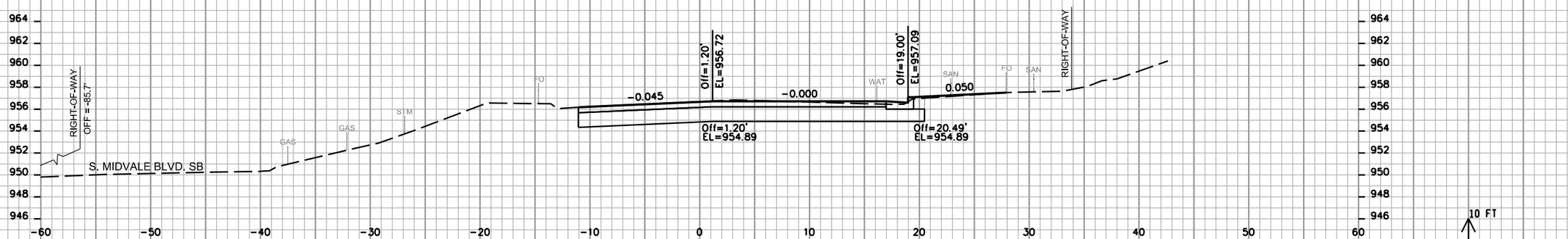
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 210	E



STA. 54+75



STA. 54+50

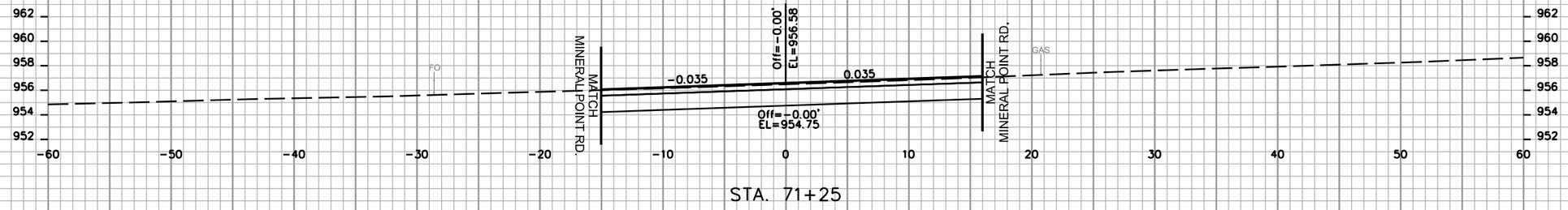
9

9

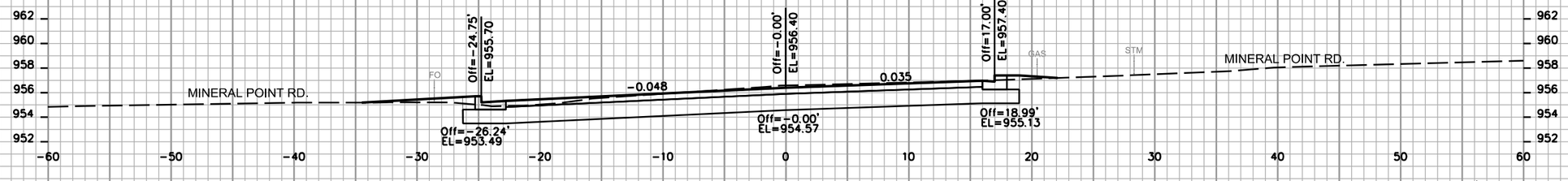
PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD NB	SHEET 211	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn PLOT DATE : 11/21/2014 PLOT BY : enjmw PLOT NAME : PLOT SCALE : 10.0000 sf / in.

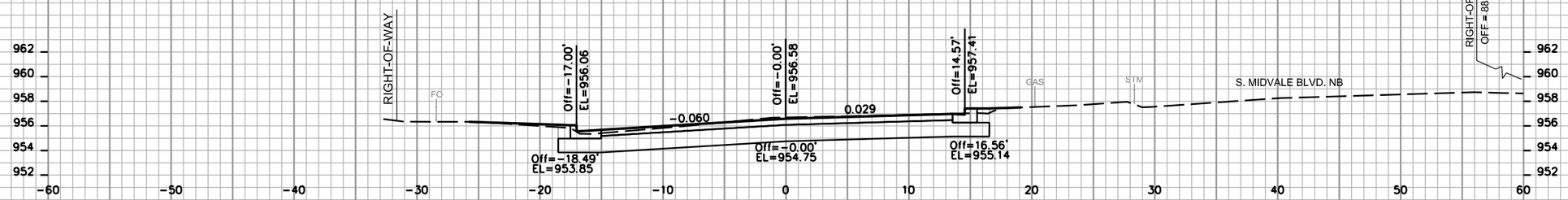
WISDOT/CADDS SHEET 21



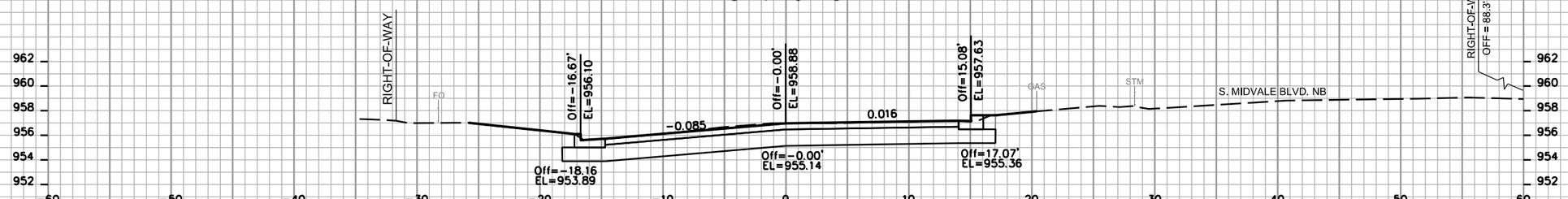
STA. 71+25



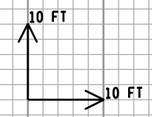
STA. 71+00



STA. 70+75



STA. 70+50



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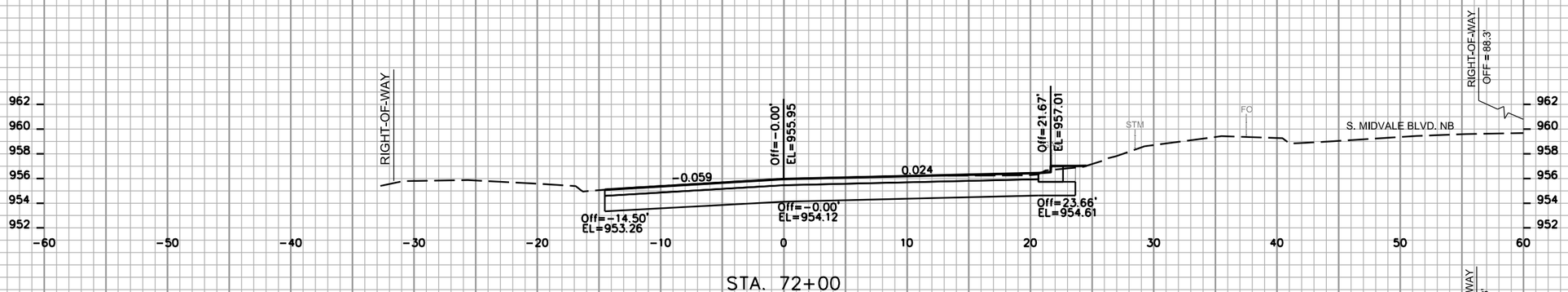
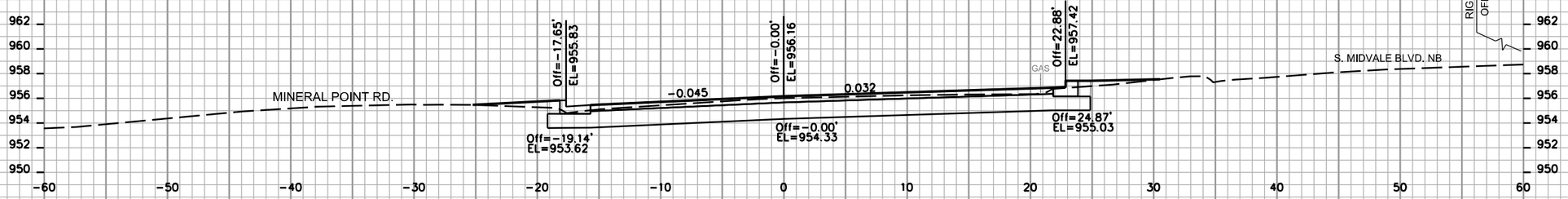
9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD SB	SHEET 212	E



STA. 72+00



STA. 71+75

STA. 71+50

9

9

PROJECT NO: 5992-06-64	HWY: MINERAL POINT ROAD	COUNTY: DANE	CROSS SECTIONS - S. MIDVALE BLVD SB	SHEET 213	E

FILE NAME : M:\DESIGN\Projects\53W1293\Streets\Design\53W1293EN-XSection90%.dgn | PLOT DATE : 11/21/2014 | PLOT BY : enjmw | PLOT NAME : | PLOT SCALE : 10.0000 sf / in.

WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

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