WKE MAR 2018

PROJECT ID 2120-17-70
WITH: 2400-00-72

ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	TYPICAL SECTIONS AND DETAILS
SECTION NO.	3	ESTIMATE OF QUANTITIES
SECTION NO.	3	MISCELLANEOUS QUANTITIES
SECTION NO.	5	PLAN AND PROFILE
SECTION NO.	6	STANDARD DETAIL DRAWINGS
SECTION NO.	7	SIGN PLATES

TOTAL: 68

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

W FOREST HOME /S 27TH ST

S.T.H. 24/241

6 CONNECTING HIGHWAYS

MILWAUKEE COUNTY

STATE PROJECT NUMBER

2120-17-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2120-17-70	———	1

Accepted For
City of Milwaukee

10/23/17 _____
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLENSKE E-32628 MILWAUKEE WIS. PROFESSIONAL ENGINEER

10/20/17 _____
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

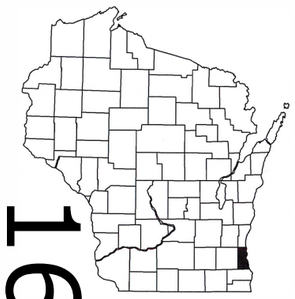
PREPARED BY

SURVEYOR	CITY OF MILWAUKEE
DESIGNER	CITY OF MILWAUKEE
PROJECT MANAGER	CHRISTINE HANNA
REGION EXAMINER	
REGION SUPERVISOR	REEM SHAHIN
C.O. EXAMINER	

APPROVED FOR THE DEPARTMENT

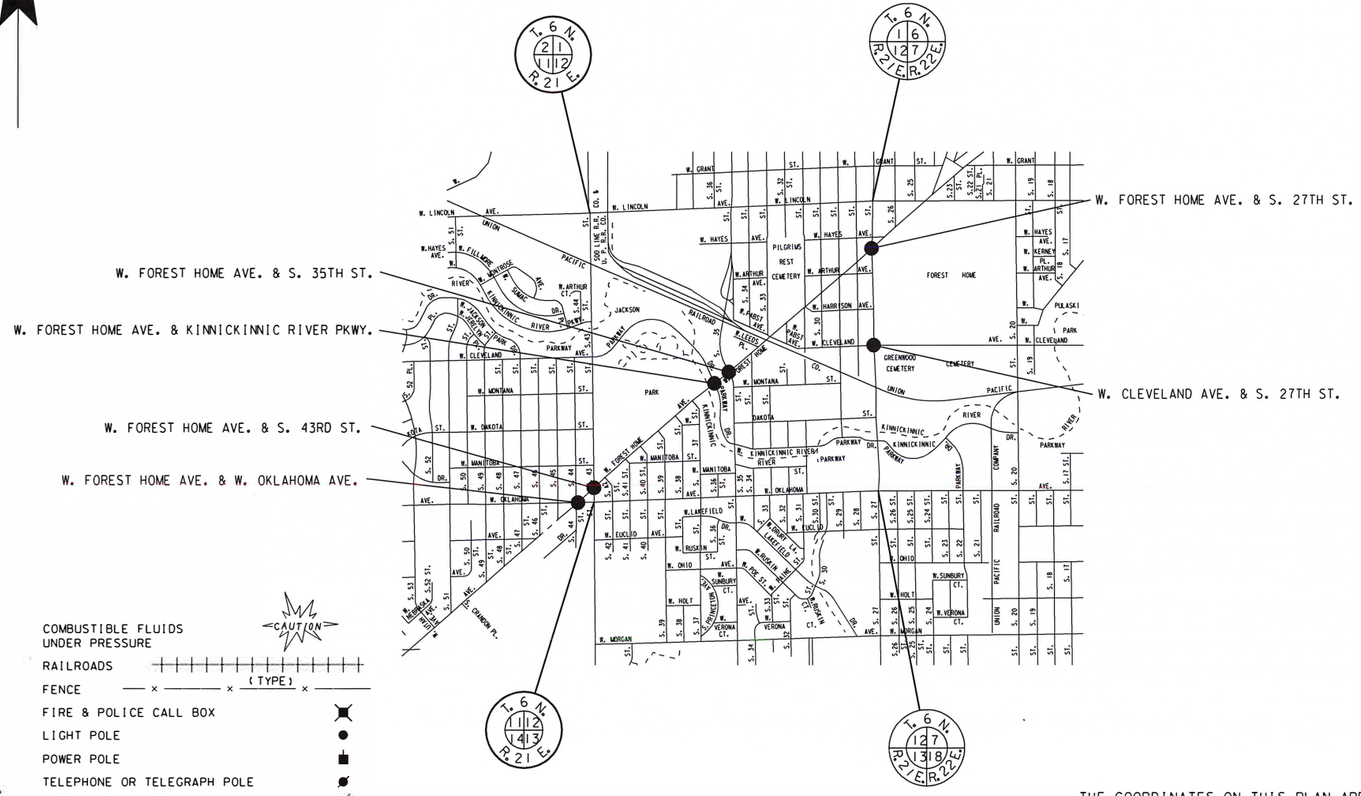
DATE: 10/25/17 _____
(SIGNATURE)

E



N

STREET 1	STREET 2	A.D.T.
FOREST HOME	OKLAHOMA	40,900
FOREST HOME	43RD	34,700
FOREST HOME	KK PARKWAY	18,600
FOREST HOME	35TH	32,400
FOREST HOME	27TH	41,000
CLEVELAND	27TH	35,600



LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MILES (URBAN)

CONVENTIONAL SIGNS

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE (P.L.)
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE (R/W)
- PROPOSED SEWER LATERAL
- BASE OF SURVEY LINE
- CONCRETE WALK/DWY. REMOVAL
- LIMITS OF CONCRETE PAVEMENT REMOVAL (X X X X X X)
- CATCH BASIN OR INLET — EXISTING — PROPOSED
- COMBUSTIBLE FLUIDS UNDER PRESSURE (CAUTION)
- RAILROADS
- FENCE (TYPE)
- FIRE & POLICE CALL BOX
- LIGHT POLE
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- HYDRANT
- GAS OR WATER GATE VALVE
- MANHOLES - SEWER — UTILITY (TYPE)
- TREES - EXISTING — TO BE REMOVED

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 27 SOUTH ZONE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODEDIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

COUNTY MILWAUKEE

FILE NAME = W:\SPR\MONOTUBE PROJECTS*0-17-00_FORHOME-27TH\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. FOR ANY EXCAVATION OF SIX FEET OR MORE IN THE CITY OF MILWAUKEE, THE CONTRACTOR, WHEN REQUESTING A UTILITY LOCATE TICKET FROM DIGGER'S HOTLINE, SHALL SPECIFICALLY ASK FOR THE LOCATION TICKET TO INCLUDE THE MARKING OF ALL THE EXISTING SEWER FACILITIES WITHIN THE LIMITS REQUESTED.

2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4" OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. (INCEDENTAL TO OTHER ITEMS)

3. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

4. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH BASE AGGREGATE DENSE, 1-1/4 INCH.(INCEDENTAL TO OTHER ITEMS)

5. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

6. TYPE M INLET PROTECTIONS ARE TO BE PLACED BETWEEN THE FRAME AND THE GRATE OF CATCH BASINS / INLETS TO PREVENT SOIL FROM ENTERING THE SEWERS. ALL ERROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURES ARE NO LONGER NECESSARY

7. FOR VERTICAL INSTALLATION OF MONOTUBE BASES, POLES, OR DIRECT BURY POLES, THE CONTRACTOR SHALL CONTACT BOB BROOKS @ (414) 286-3241 OR NANCY ALVARADO @ (414) 286-2013 AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION

8. DESIGNER CONTACT: NICK GOODWIN (414) 286-0461 *ngoodw@milwaukee .gov*

STANDARD ABBREVIATIONS

ASPH.	-	ASPHALT
B.M.	-	BENCH MARK
CTR.	-	CENTER
C/L	-	CENTER LINE
COMB.	-	COMBINED
CONC.	-	CONCRETE
COR.	-	CORNER
C.W.	-	CONCRETE WALK
C	-	CURB
CUC	-	CITY UNDERGROUND CONDUIT
ELEV.	-	ELEVATION
ENT.	-	ENTRANCE
EXIST.	-	EXISTING
F	-	FLANGE
G	-	GUTTER, OR GAS
HYD.	-	HYDRANT
LT.	-	LEFT
MMSD	-	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
P/L.	-	PROPERTY LINE
R OR RAD.	-	RADIUS
RET.	-	RETAINING
RT.	-	RIGHT
R/W	-	RIGHT OF WAY
TEL	-	TELEPHONE
TE&ES	-	TRAFFIC ENGINEERING AND ELECTRICAL SERVICES
T/L	-	TRANSIT LINE
WEP	-	WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
UTILITY CONTACTS
PROJECT OVERVIEW
CONSTRUCTION DETAILS
INLET PROTECTION PLAN
TRAFFIC CONTROL
PERMANENT SIGNING PLAN
ALIGNMENT

UTILITY CONTACS

AT & T Wisconsin
Matthew Dinnauer
2005 Pewaukee Rd.
Waukesha, WI 53188
262-896-7690
md9542@att.com

American Transmission Company
Ron Latus
W234N2000 Ridgeview Parkway Ct.
Waukesha, WI 53188
(262) 832-8688

Charter Communications
(Time Warner Cable)
Steve Cramer
1320 N. Dr. Martin Luther King Jr.Dr.
Milwaukee, WI 53204
(414) 277-4045
steve.cramer@charter.com

City of Milwaukee – Utility Coordinator
Mohammad AbuLughold
841 N. Broadway, rm 710
Milwaukee, WI
(414) 708-3085 - M
mohammad.abulughold@milwaukee.gov

City of Milwaukee – Communication
DPW Communication Dispatch
1440 W. Canal St.
Milwaukee, WI 53233
(414) 286-3686

City of Milwaukee - CUC
Karen Rogney
841 N. Broadway,
Milwaukee, WI 53202
(414) 286-3243

City of Milwaukee - Sewers
Zafar Yousuf
841 N. Broadway
Milwaukee, WI
(414) 286-2467

UTILITY CONTACS

City of Milwaukee – Street Lighting
George Berdine
1540 W. Canal St.
Milwaukee, WI 53233
(414) 286-5942
(414) 708-4245

City of Milwaukee – Traffic Signals
Alfonzo Nichols
1540 W. Canal St.
Milwaukee, WI53233
(414) 286-5941
(414) 708-5148

Midwest Fiber Networks
Cheri Grainger
6070 N. Flint Rd.
Glendale, WI 53209
(414) 459-3550 - O
(414) 349-0750 - M

WE Energies – All Correspondence
Dan Sande, P.E.
333 W. Everett St.
Milwaukee, WI
(414) 221-4578
Dan.Sande@we-energies.com

WE Energies – Field
Alex Dantinne
500 S. 116th St
Milwaukee, WI 53214
(920) 621-6903
alex.dantinne@we-energies.com

OTHER CONTACS

City of Milwaukee – Design Contact
Nick Goodwin
841 N. Broadway, rm 902
Milwaukee, WI 53202
(414) 286-0461
ngoodw@milwaukee.gov

Milwaukee County Park System
Jill Organ
9480 Watertown Plank Rd.
Wauwatosa, WI 53213
(414) 257-4775

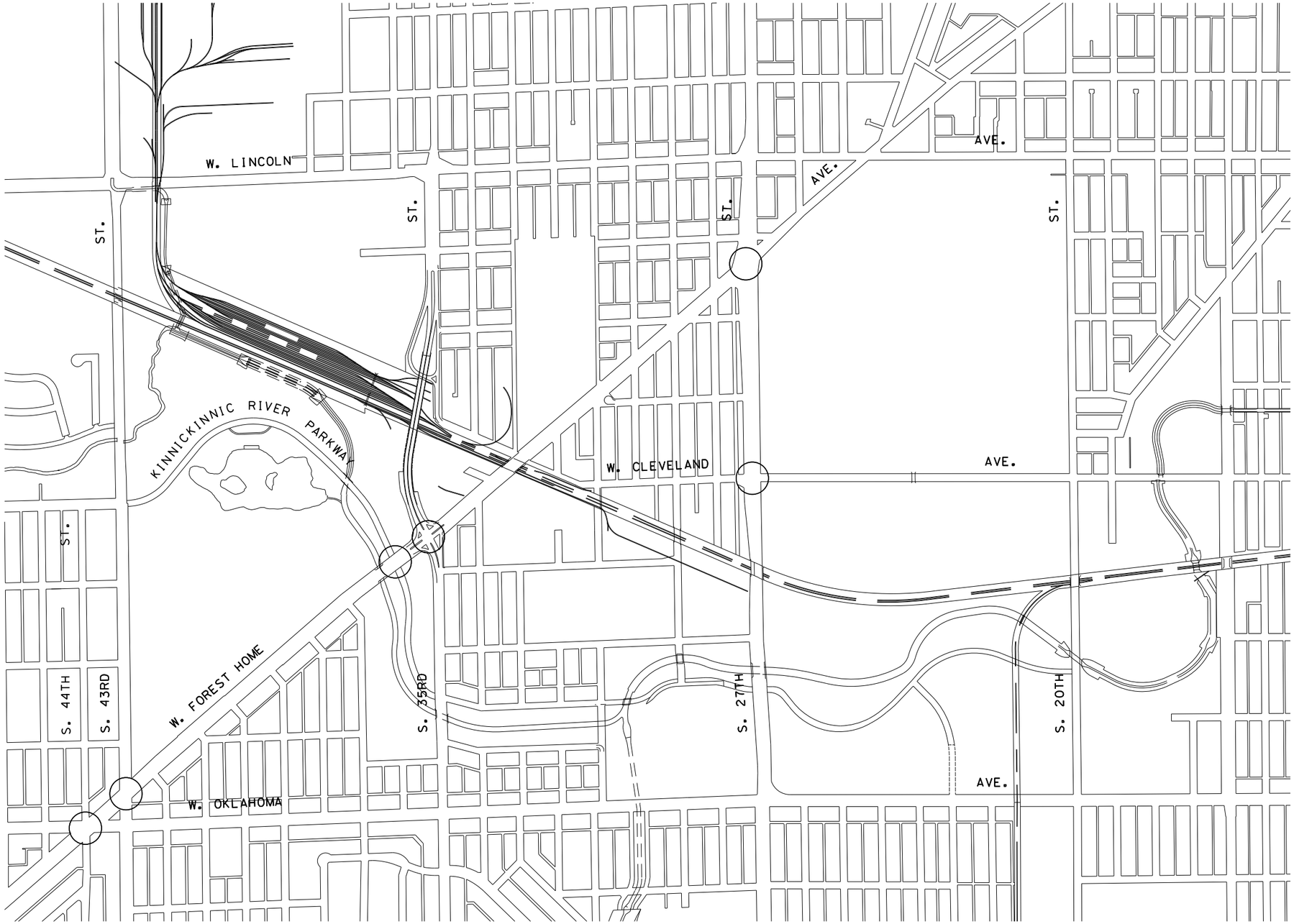
Milwaukee County Transit System
Melenie Mac Arthur
1942 N. 17th St.
Milwaukee, WI 53205
(414) 343-1764
mmacarthur@mcts.org

Milwaukee Metropolitan Sewerage District
Larry Anderson
260 W. Seeboth St.
Milwaukee, WI 53204
(414) 225-2241 - O
(414) 617-1429 - M

Wisconsin Dept. of Natural Resources
Kristina Betzold
2300 N. Dr. Martian Luther King Jr. Dr.
Milwaukee, WI 53205
(414) 507-4946
Kristina.betzold@wisconsin.gov

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

2



STATE PROJECT NUMBER 2120-17-70 - -	HWY: S.T.H. 24/241	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 900'	SHEET NO: 4 E

FILE NAME: W:\SPR\35TH_MITCHELL_GREENFIELD\OVERVIEW.DGN

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.

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

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

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

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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

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

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

UTILITY LINE CODE

SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
E	ELECTRIC
TE&ES	CITY TRAFFIC, LIGHTING, COMM. & UNDERGROUND CONDUIT
OHL	OVERHEAD LINE
T	TELEPHONE
TV	CABLE

OTHER UTILITIES AS NOTED

SHEET 1 OF 5

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	TRFFFIC SIGNAL CONDUIT DETAILS	SHEET 5

FILE NAME :

WISDOT/CADDS SHEET 42

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).

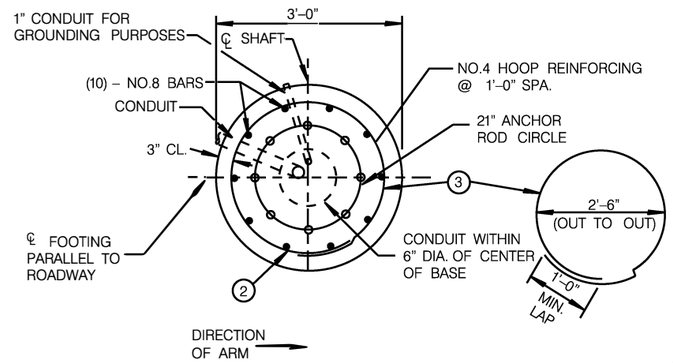
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

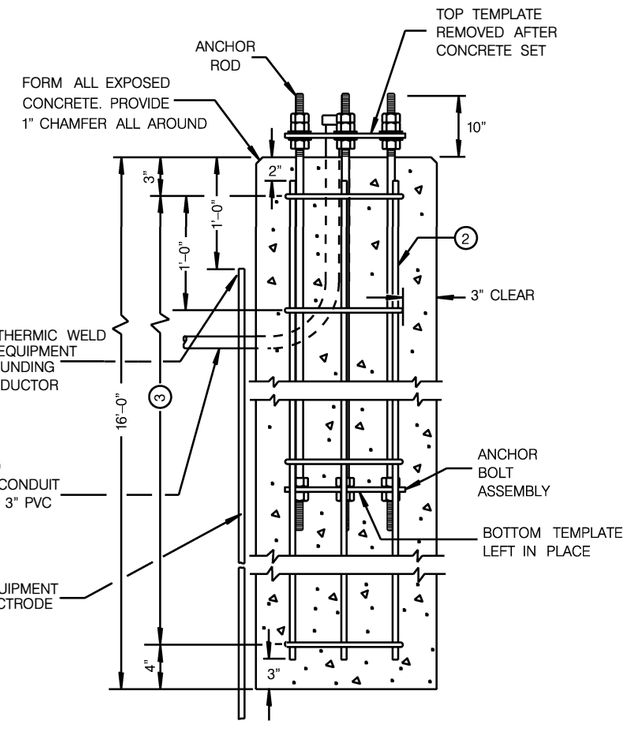
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (10) NO. 8 X 15'–7" BAR STEEL REINFORCEMENT.

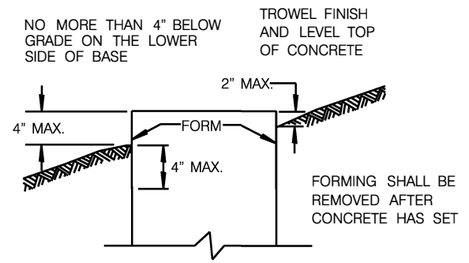
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

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.

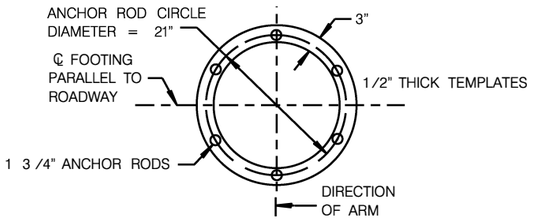




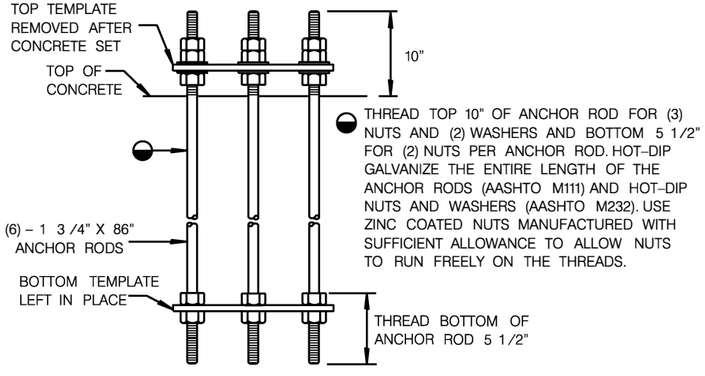
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.19
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	417

SHEET: X

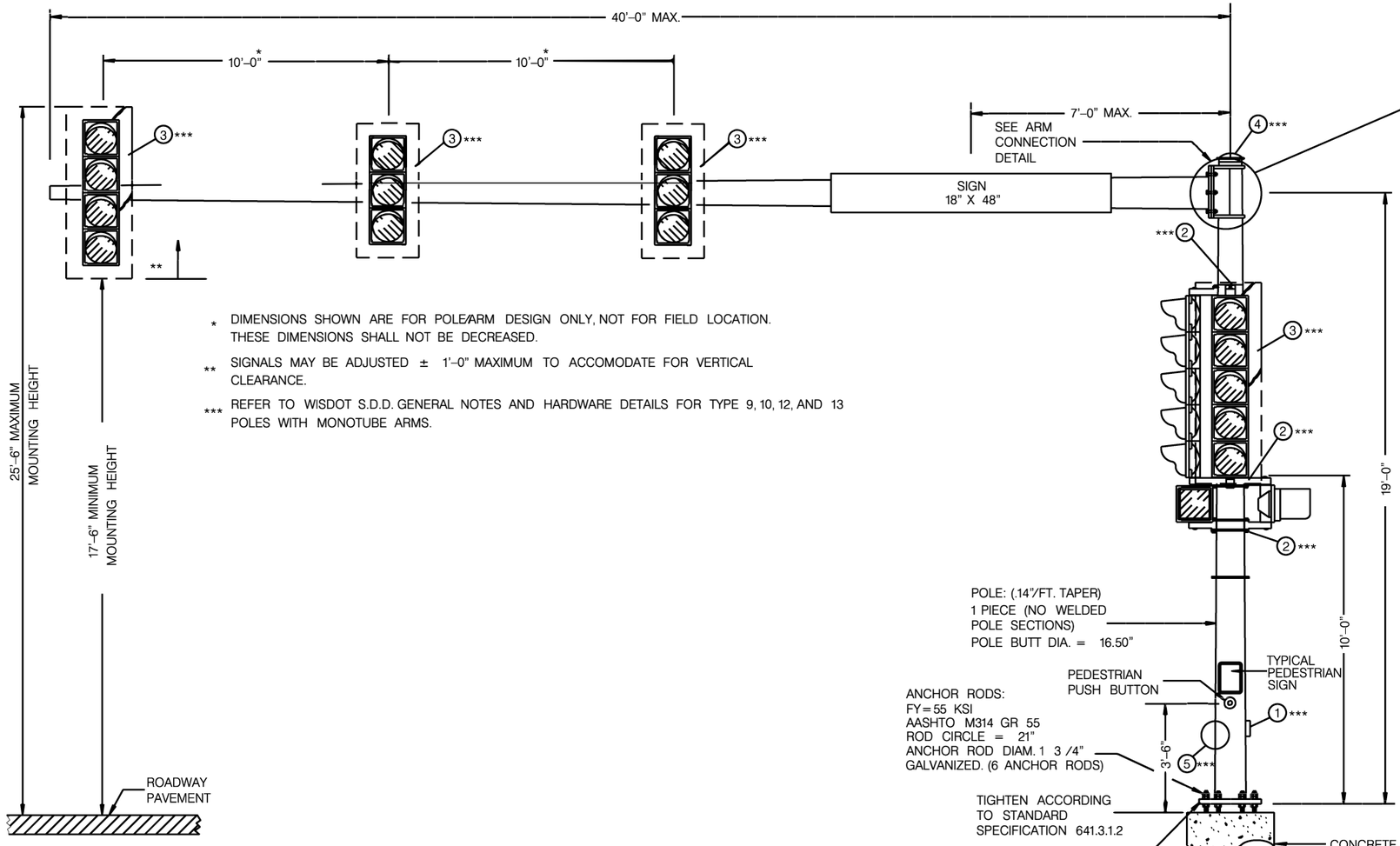
CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED:	DECEMBER 2014 (DATE)	2013 AASHTO (REVISION)
REVISED:	JULY 2015 (DATE)	2015 DESIGN UPDATE (REVISION)
REVISED:	NOVEMBER 2015 (DATE)	ANCHOR ROD PROJECTION UPDATE (REVISION)

FILE NAME : W:\bte\signals\Monotubes\Base Type 10 Special 11–05–15.dgn
PLOT DATE : 06–FEB–2016 07:24
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

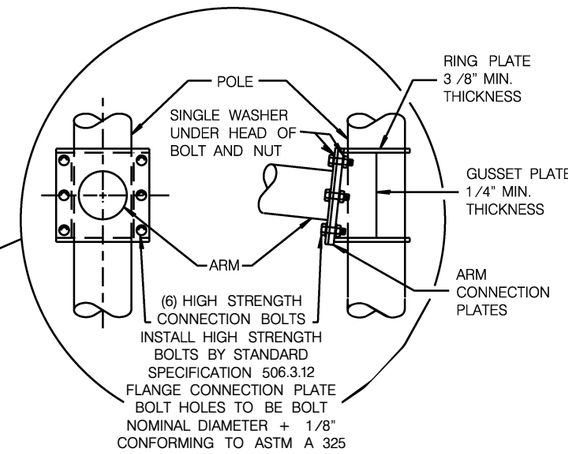
2



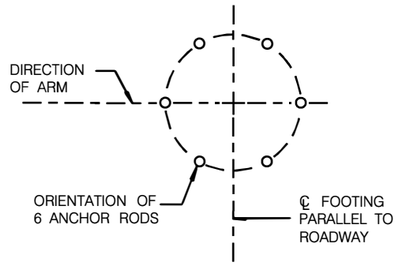
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

SHEET: X

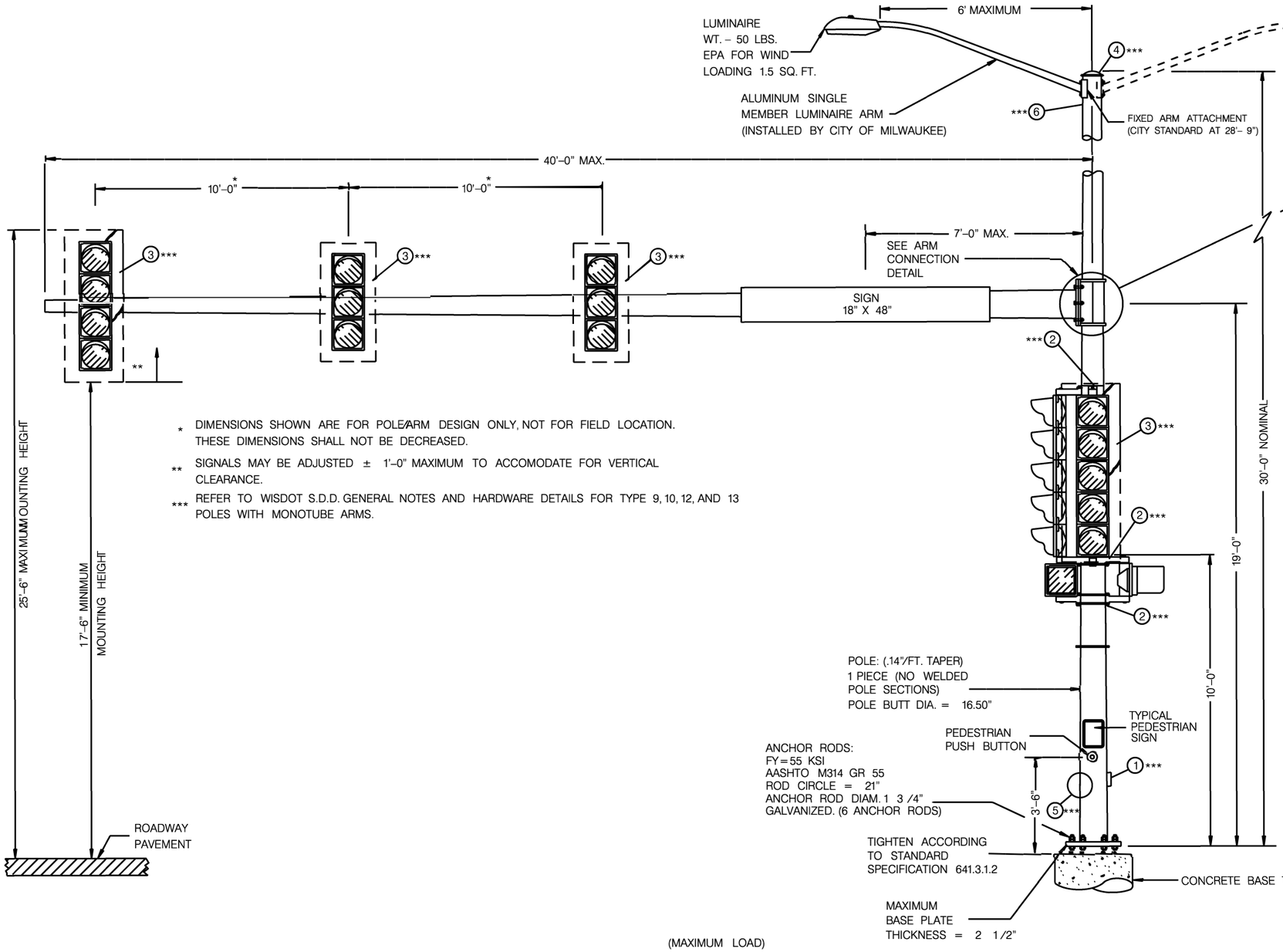
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 7	E

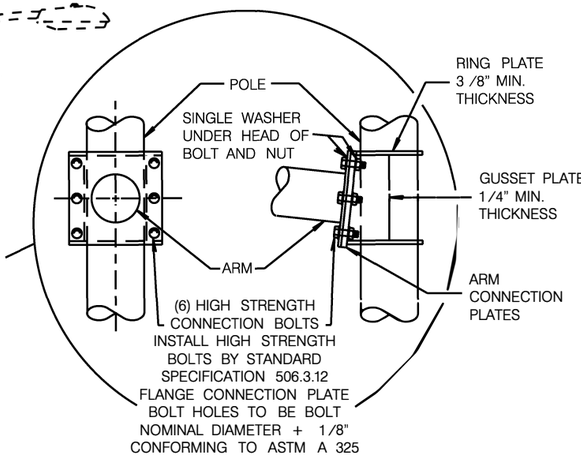
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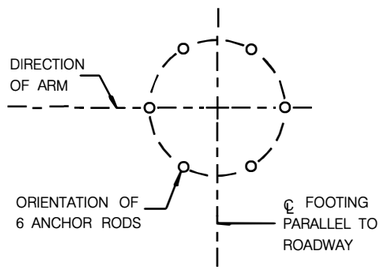
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.



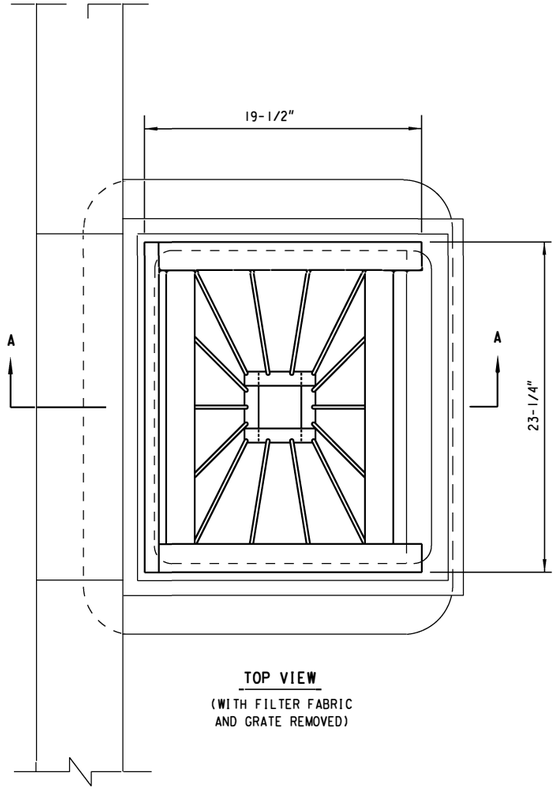
6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

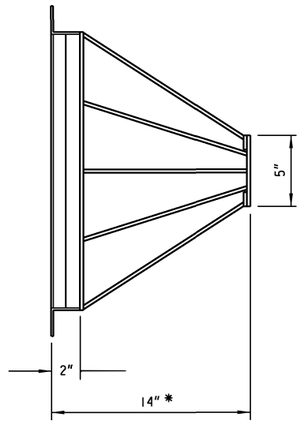
SHEET: X

TYPE 13 POLE SPECIAL 35'– 40' MONOTUBE ARM	
CITY OF MILWAUKEE DEPARTMENT OF PUBLIC WORKS	
REVISED: DECEMBER 2014 (DATE)	2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE)	2015 DESIGN UPDATE (REVISION)



TOP VIEW

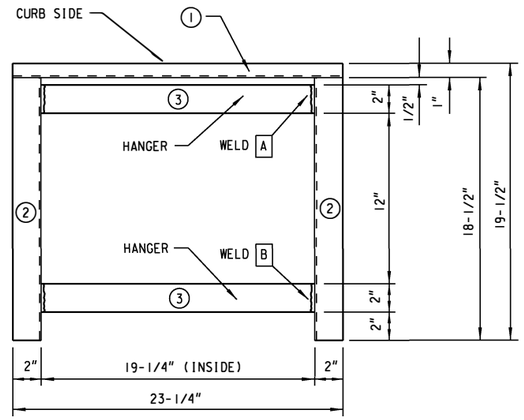
(WITH FILTER FABRIC AND GRATE REMOVED)



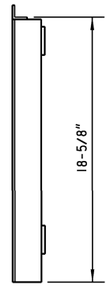
FRONT VIEW

(BASKET ONLY)

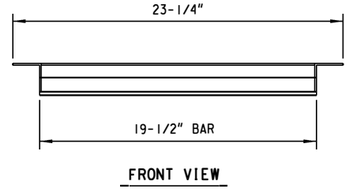
* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH



TOP VIEW



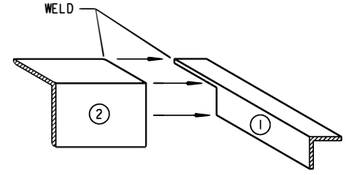
SIDE VIEW



FRONT VIEW

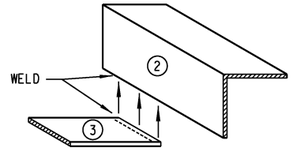
BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
1	ANGLE	1" X 1"	1/8"	23-1/4"	1
2	ANGLE	2" X 2"	1/8"	18-1/2"	2
3	BAR	2"	1/4"	19-1/2"	2



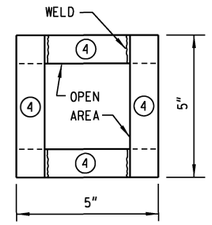
WELD CONNECTION - A

TOP FRAME

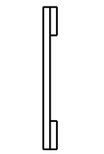


WELD CONNECTION - B

BASKET HANGER TO TOP FRAME



TOP VIEW

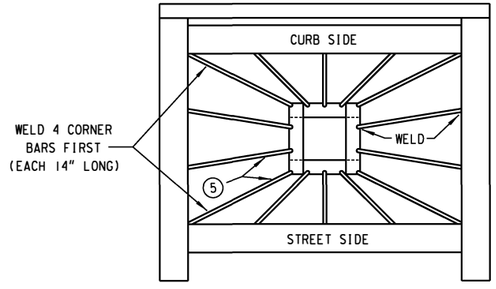


SIDE VIEW

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
4	BAR	1"	1/4"	5"	4

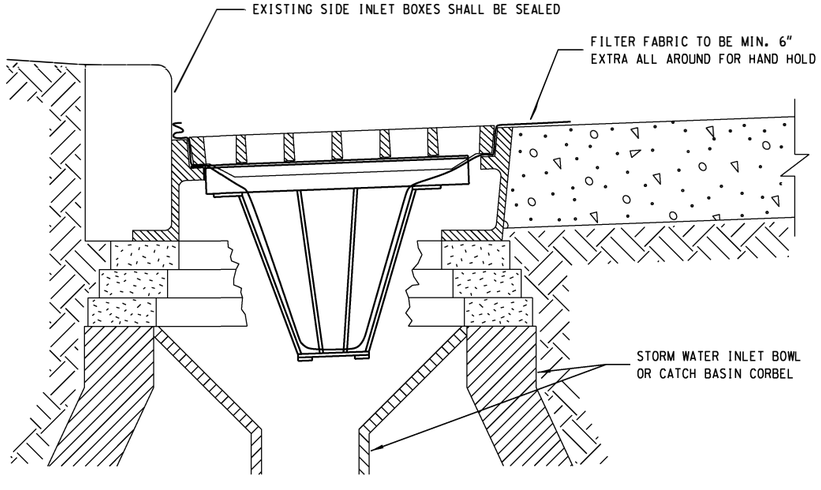
BASKET BOTTOM



ROD PLACEMENT

ROD SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
5	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14



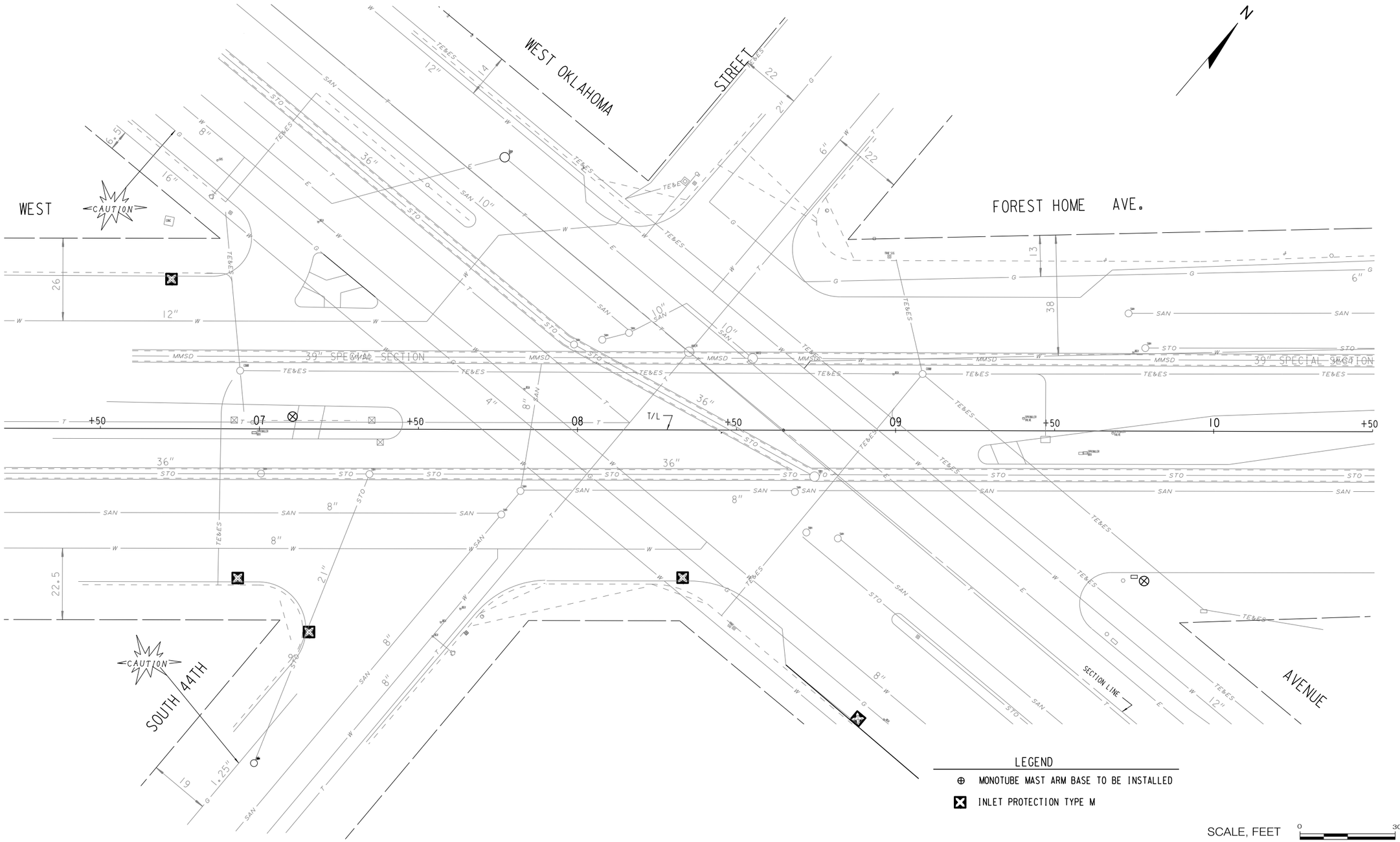
SECTION A-A

TYPE M
INLET / CATCH BASIN BASKET

STATE PROJECT NUMBER 2120-17-70 - -	HWY: STH 24/241	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 9	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\2984-04-71\DRAINDET.DGN

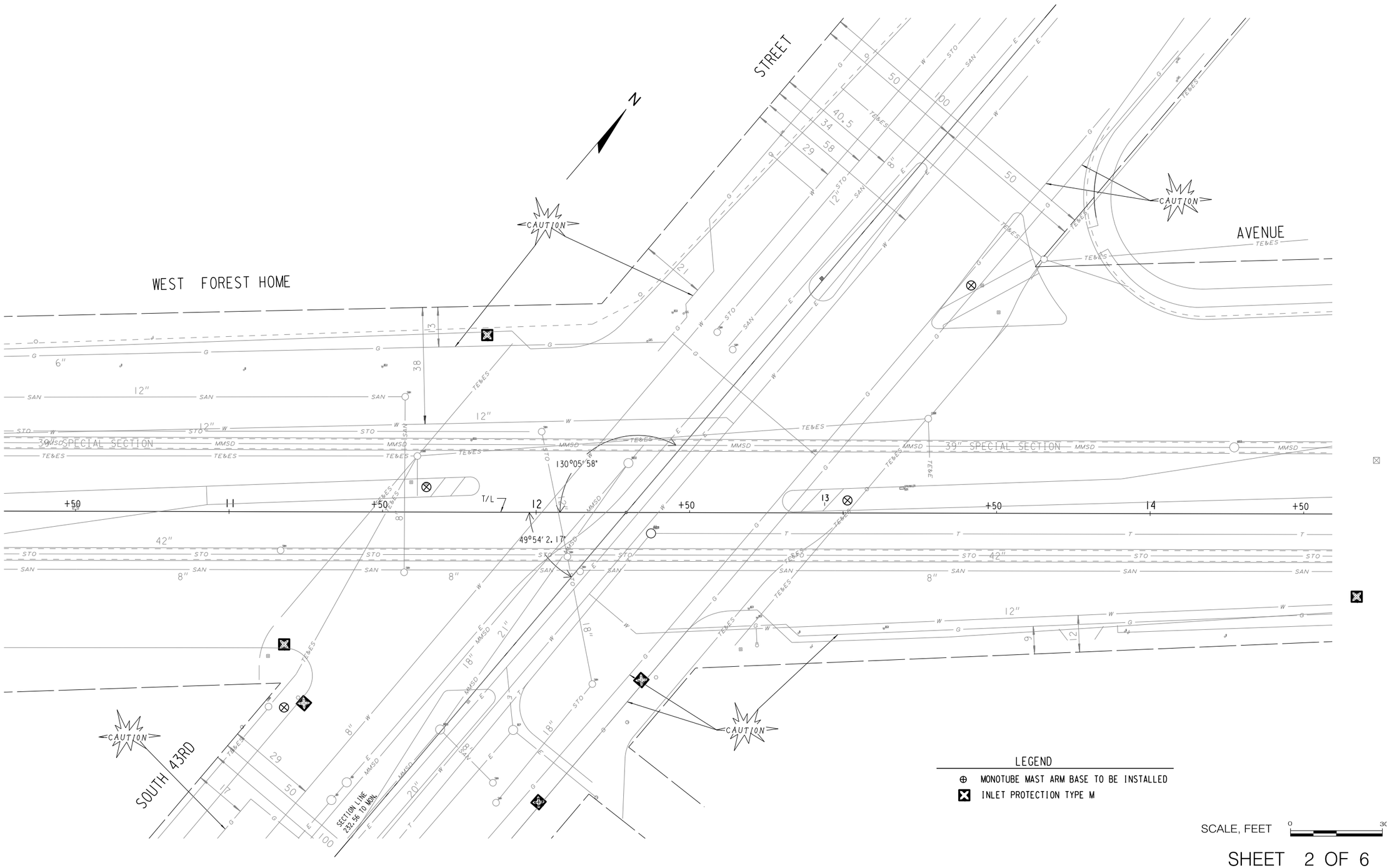
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SHEET 1 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

2



LEGEND

⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED

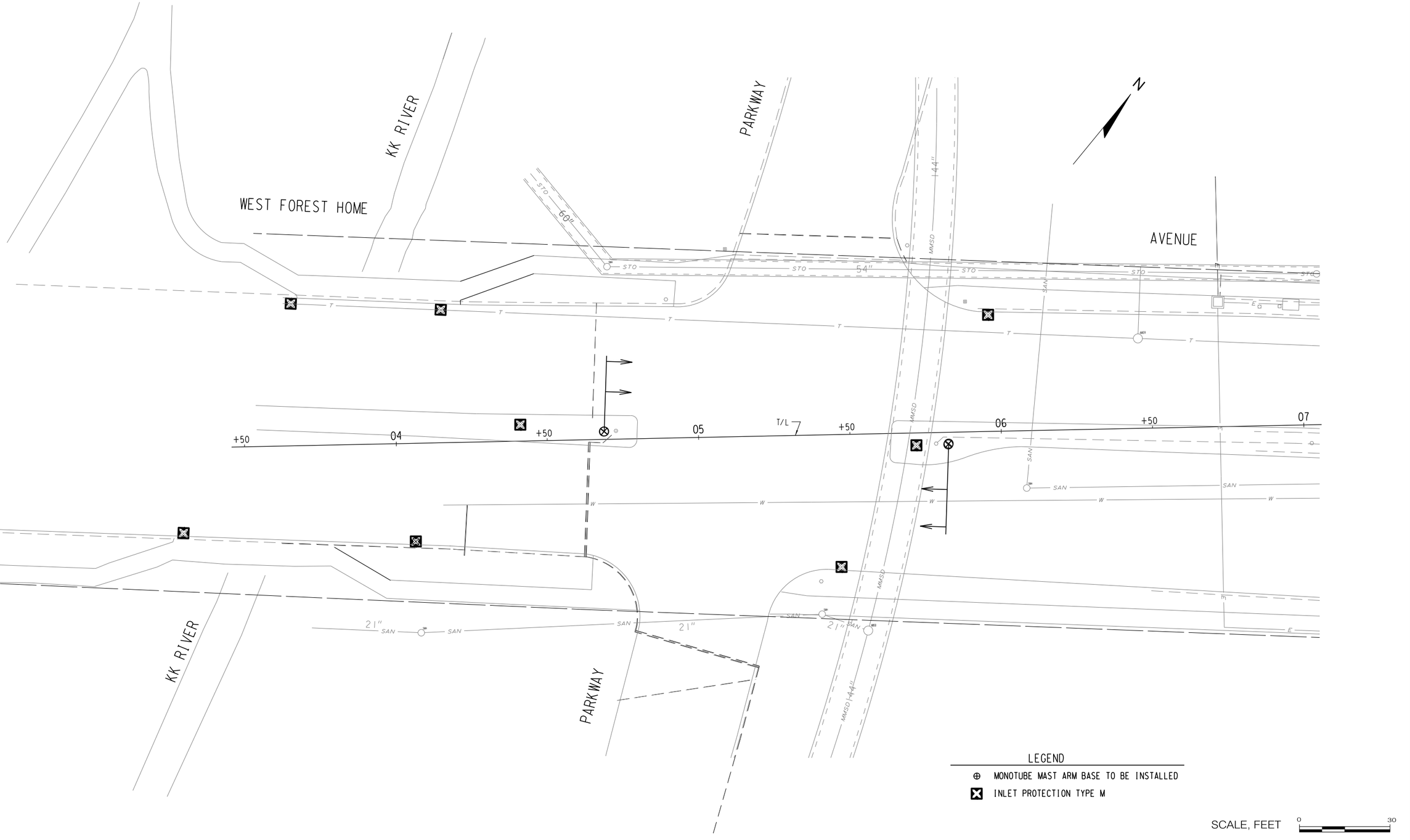
⊠ INLET PROTECTION TYPE M

SCALE, FEET 0 30

SHEET 2 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

2



LEGEND

⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED

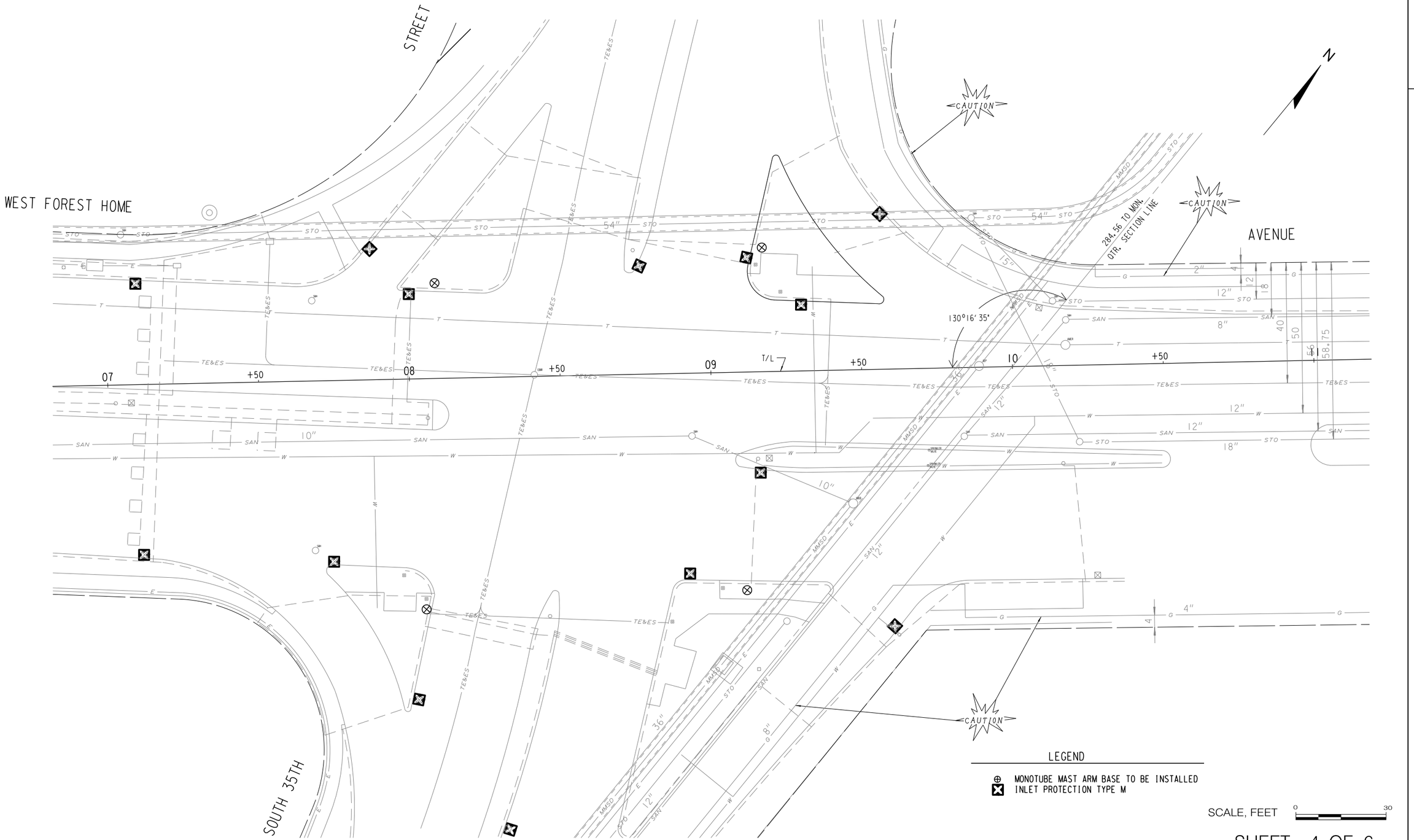
INLET PROTECTION TYPE M

SCALE, FEET 0 30

SHEET 3 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

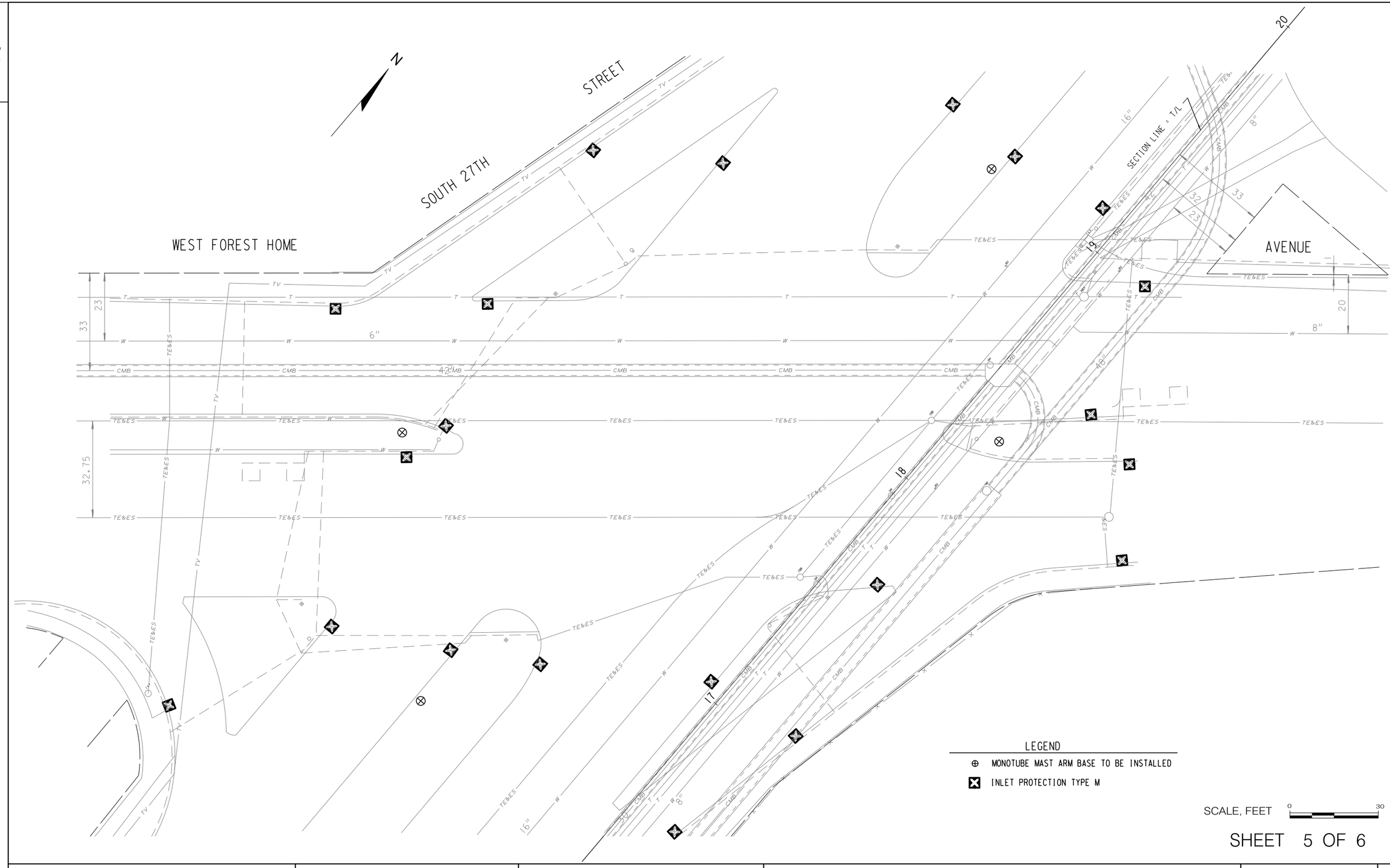
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SHEET 4 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

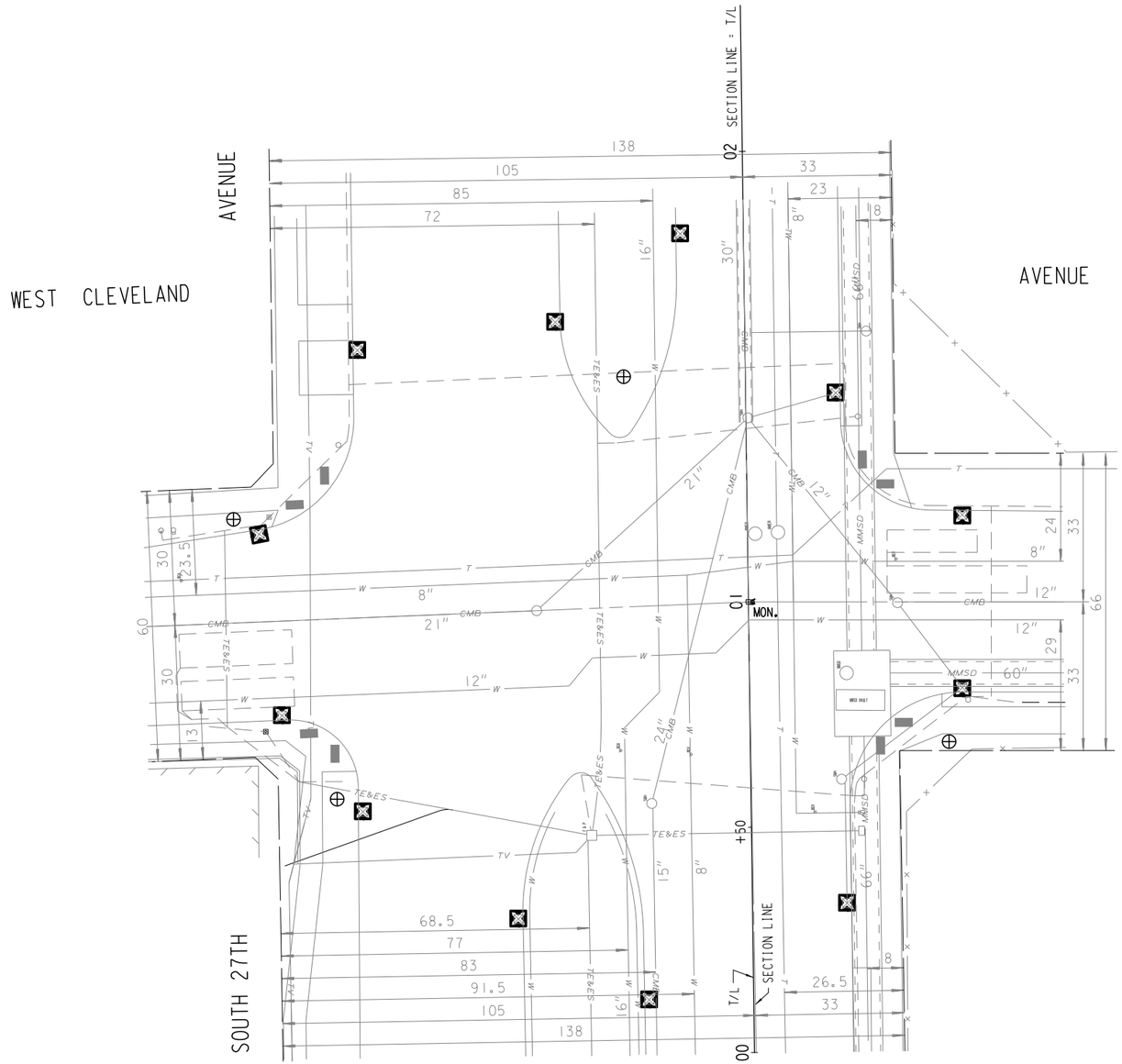
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SHEET 5 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

2



N

LEGEND

⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED

INLET PROTECTION TYPE M

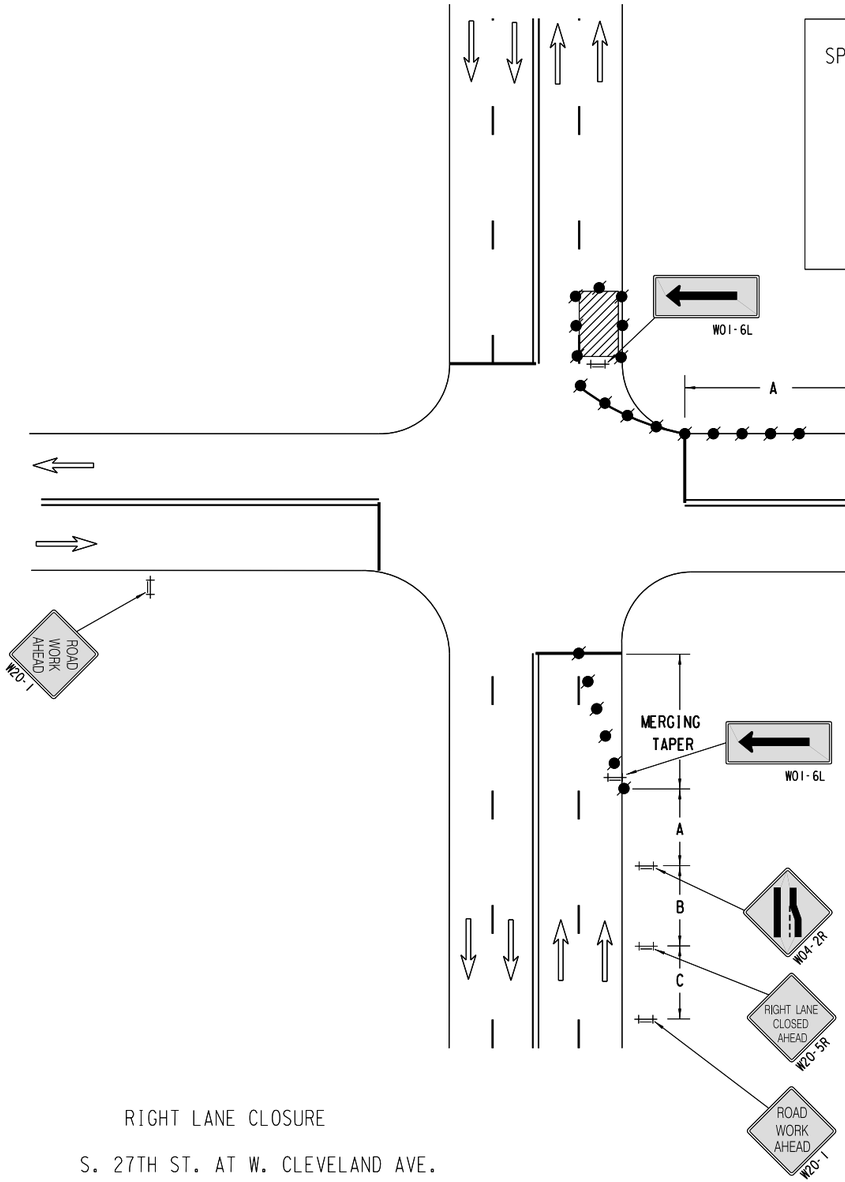
SCALE, FEET 0 30

SHEET 6 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET	E

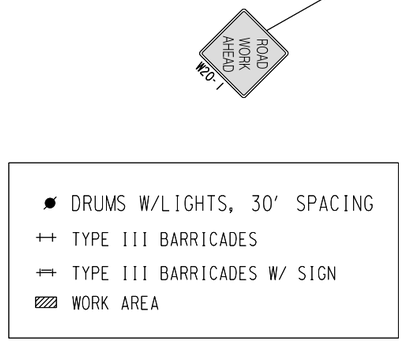
RIGHT LANE CLOSURE

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540



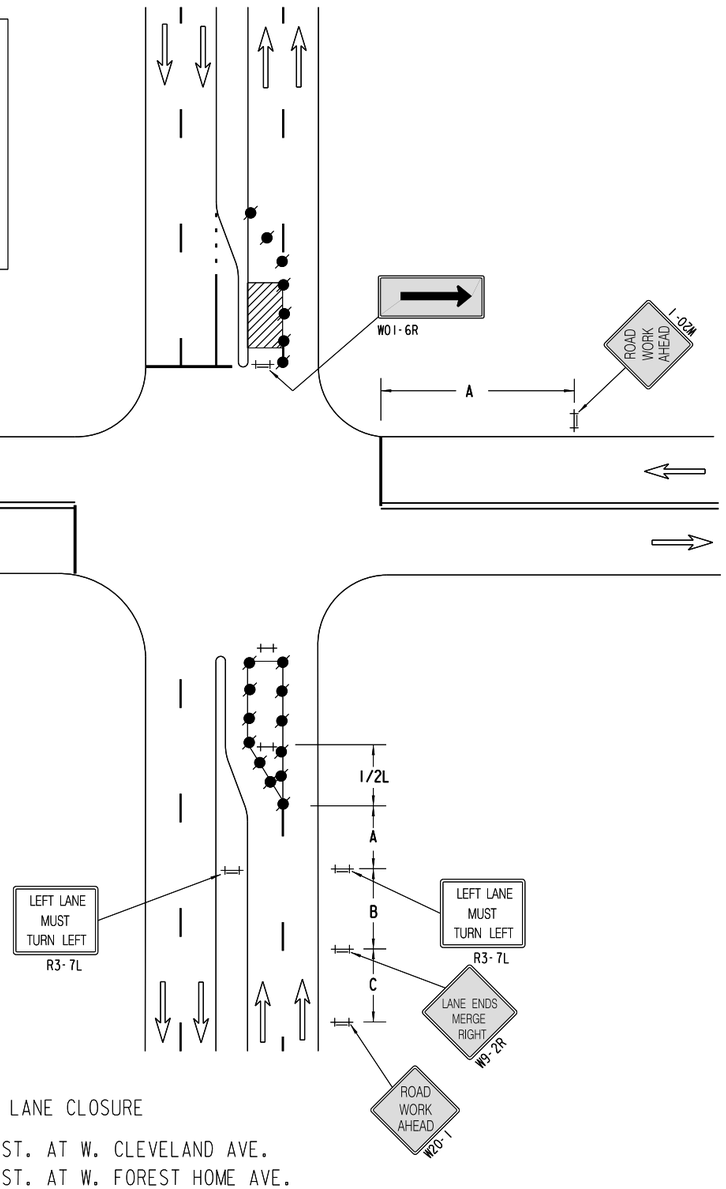
RIGHT LANE CLOSURE

S. 27TH ST. AT W. CLEVELAND AVE.
W. FOREST HOME AVE AT S. 35TH ST.
W. FOREST HOME AVE AT S. 43RD ST.
W. FOREST HOME AVE. AT W OKLAHOMA AVE.



- DRUMS W/LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- WORK AREA

LEFT LANE CLOSURE

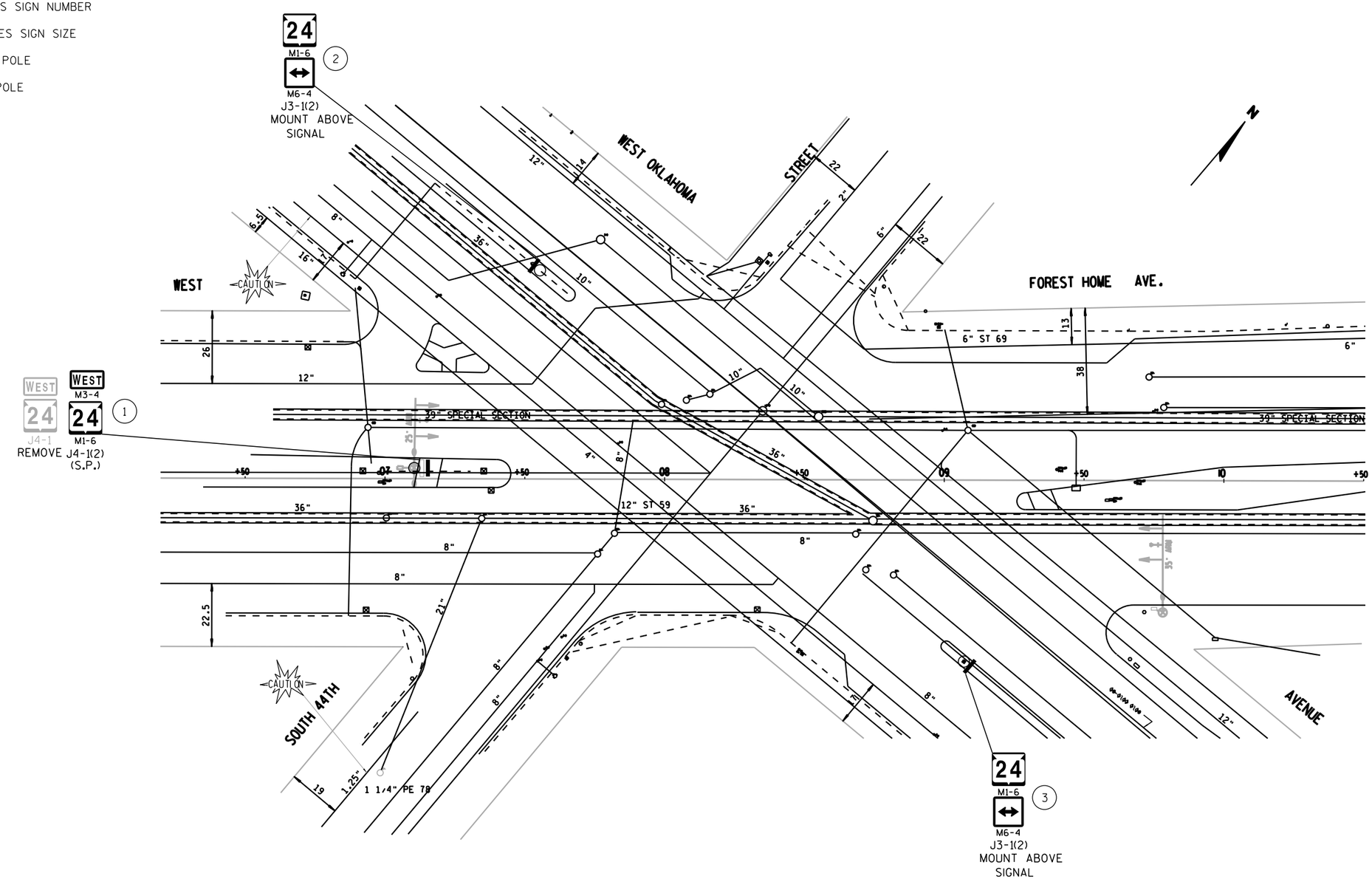


LEFT LANE CLOSURE

S. 27TH ST. AT W. CLEVELAND AVE.
S. 27TH ST. AT W. FOREST HOME AVE.
W. FOREST HOME AVE. AT KK RIVER PKWY.
W. FOREST HOME AVE. AT S 43RD ST.
W. FOREST HOME AVE. AT W. OKLAHOMA AVE.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE

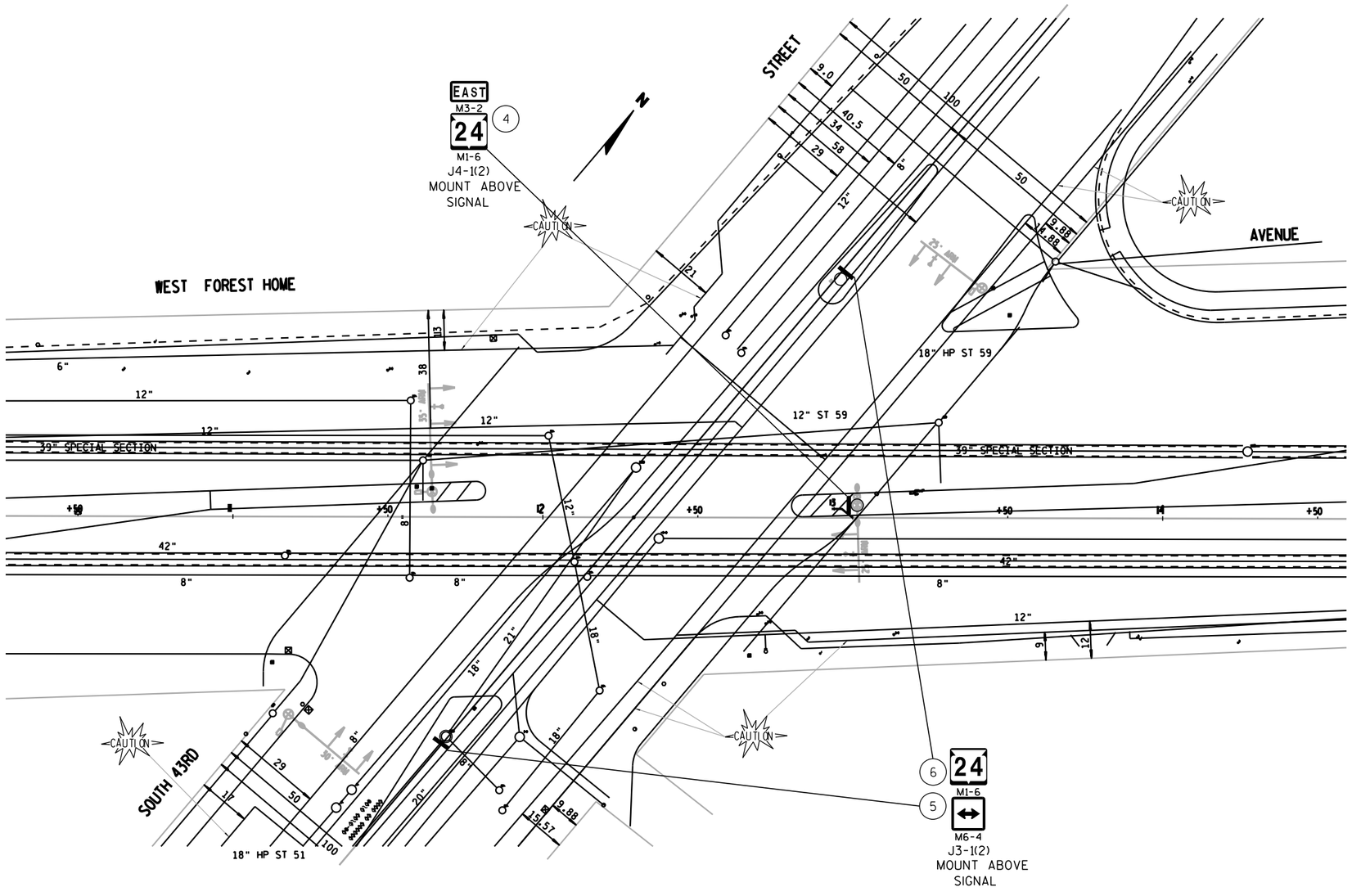


SHEET 1 OF 7

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 17	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE



SHEET 2 OF 7

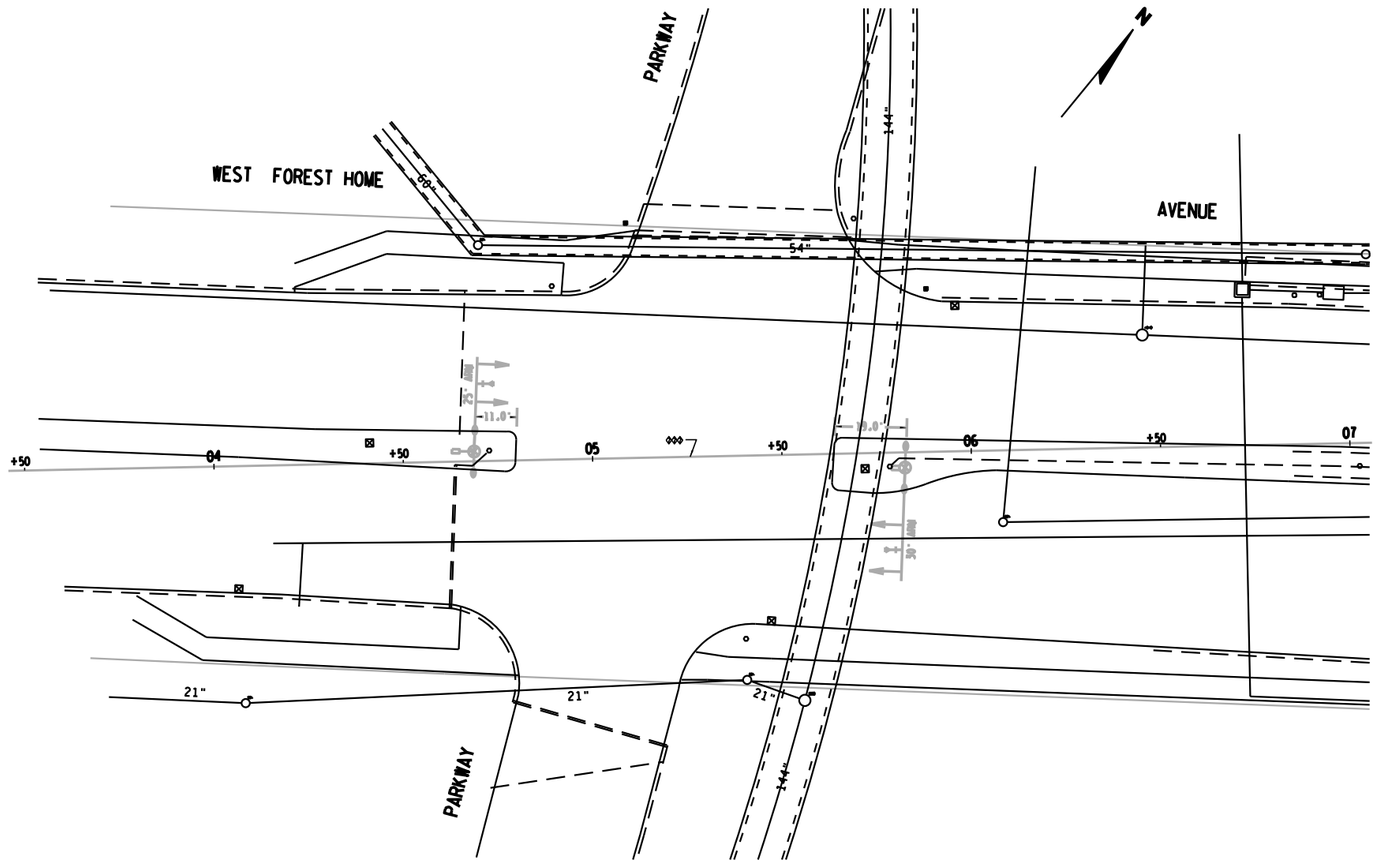
PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 18 E

FILE NAME : J:\projects\d2_21201724\SIGN\023202_ps.dgn PLOT DATE : 12-JUN-2017 07:03 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE

NO SIGNS THIS SHEET



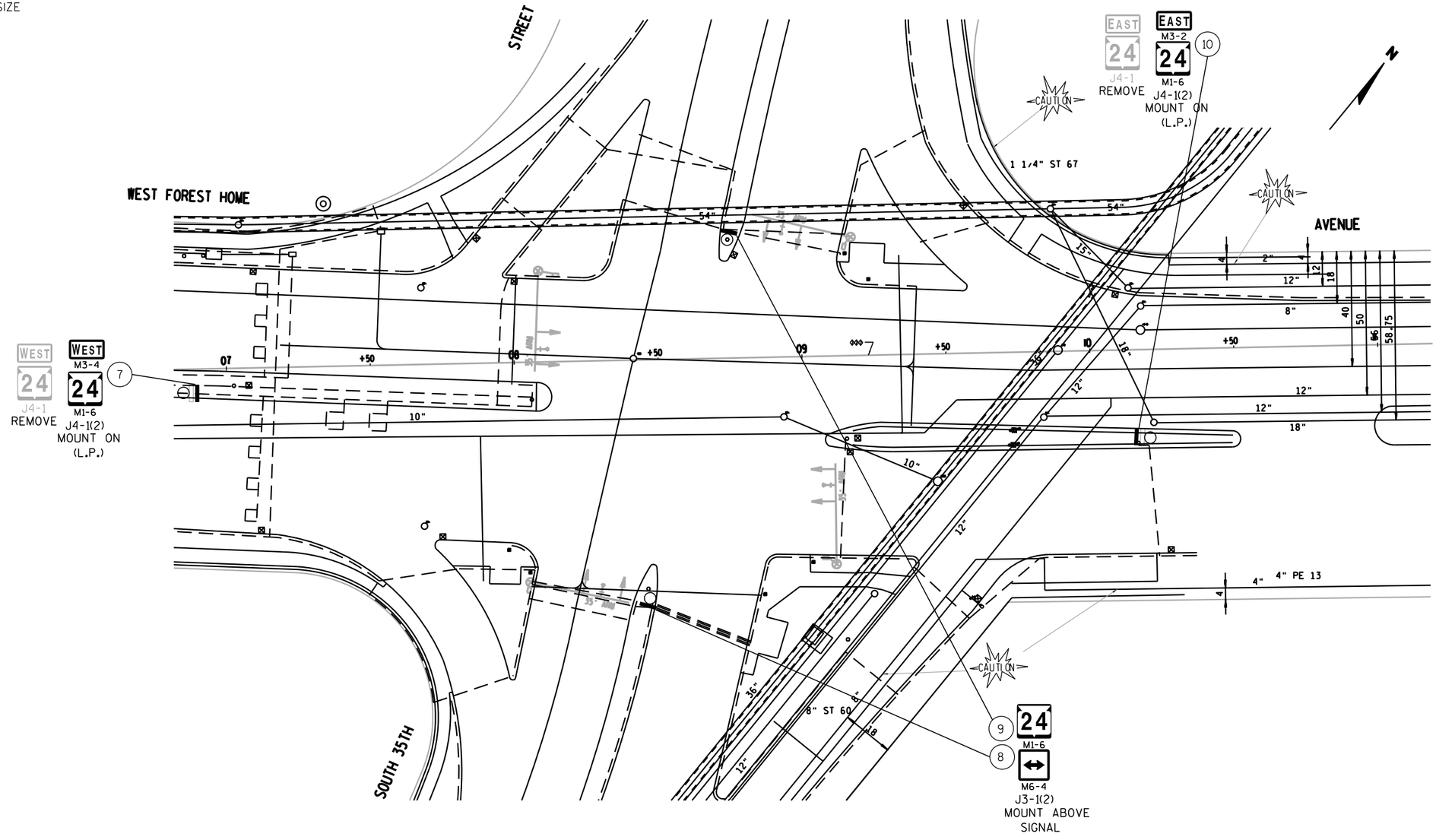
SHEET 3 OF 7

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE



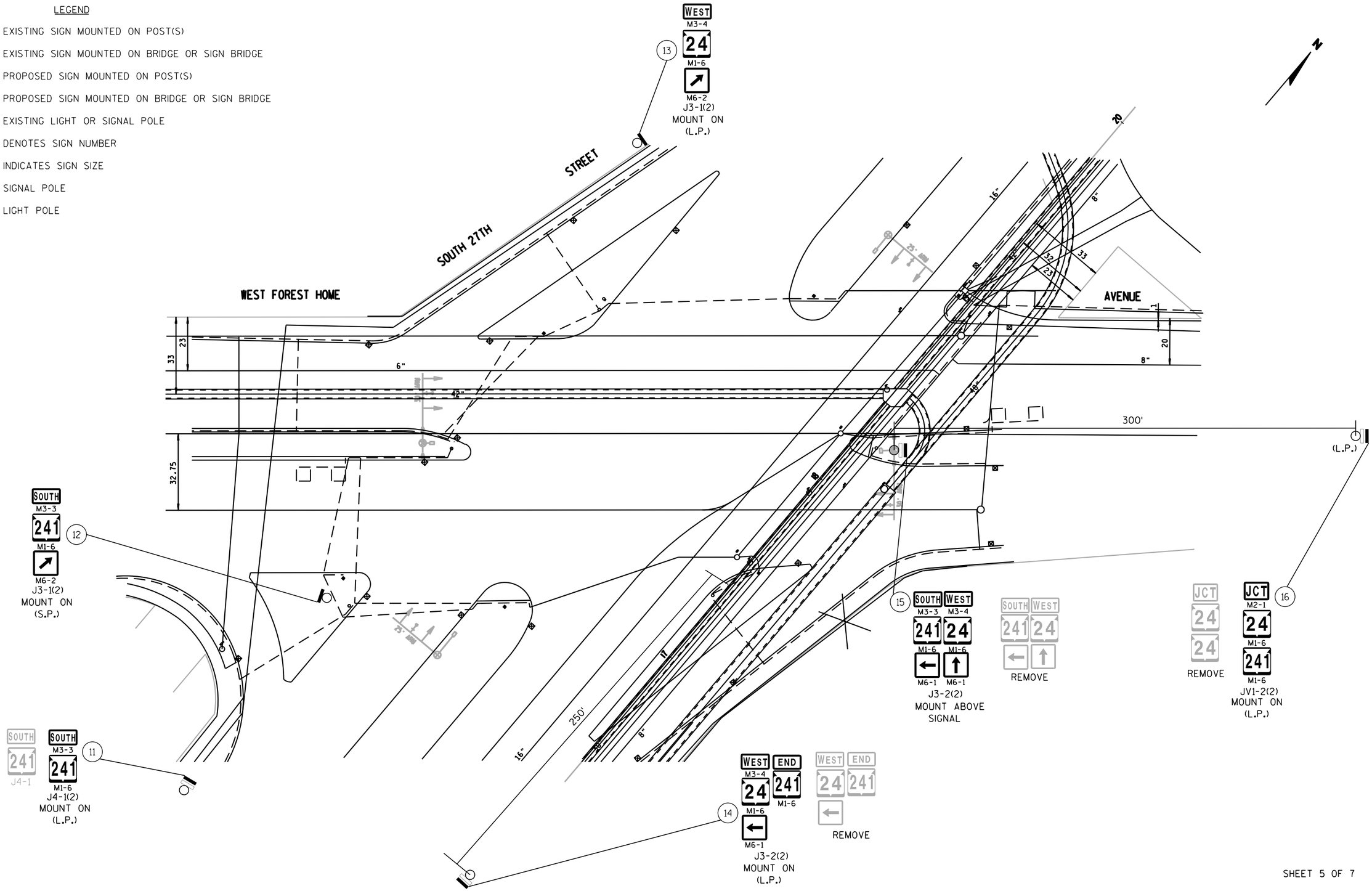
SHEET 4 OF 7

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 20	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE



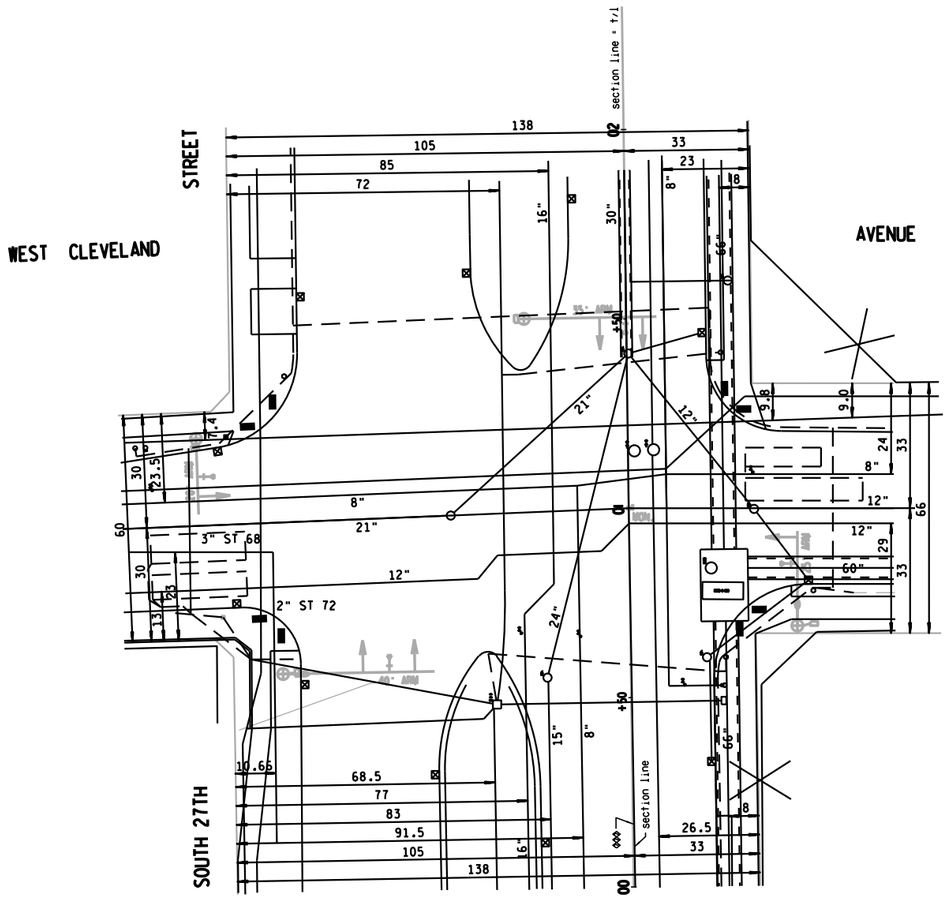
SHEET 5 OF 7

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 21	E

FILE NAME : J:\projects\d2_21201724\SIGN\023205_ps.dgn PLOT DATE : 12-JUN-2017 07:03 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE



N

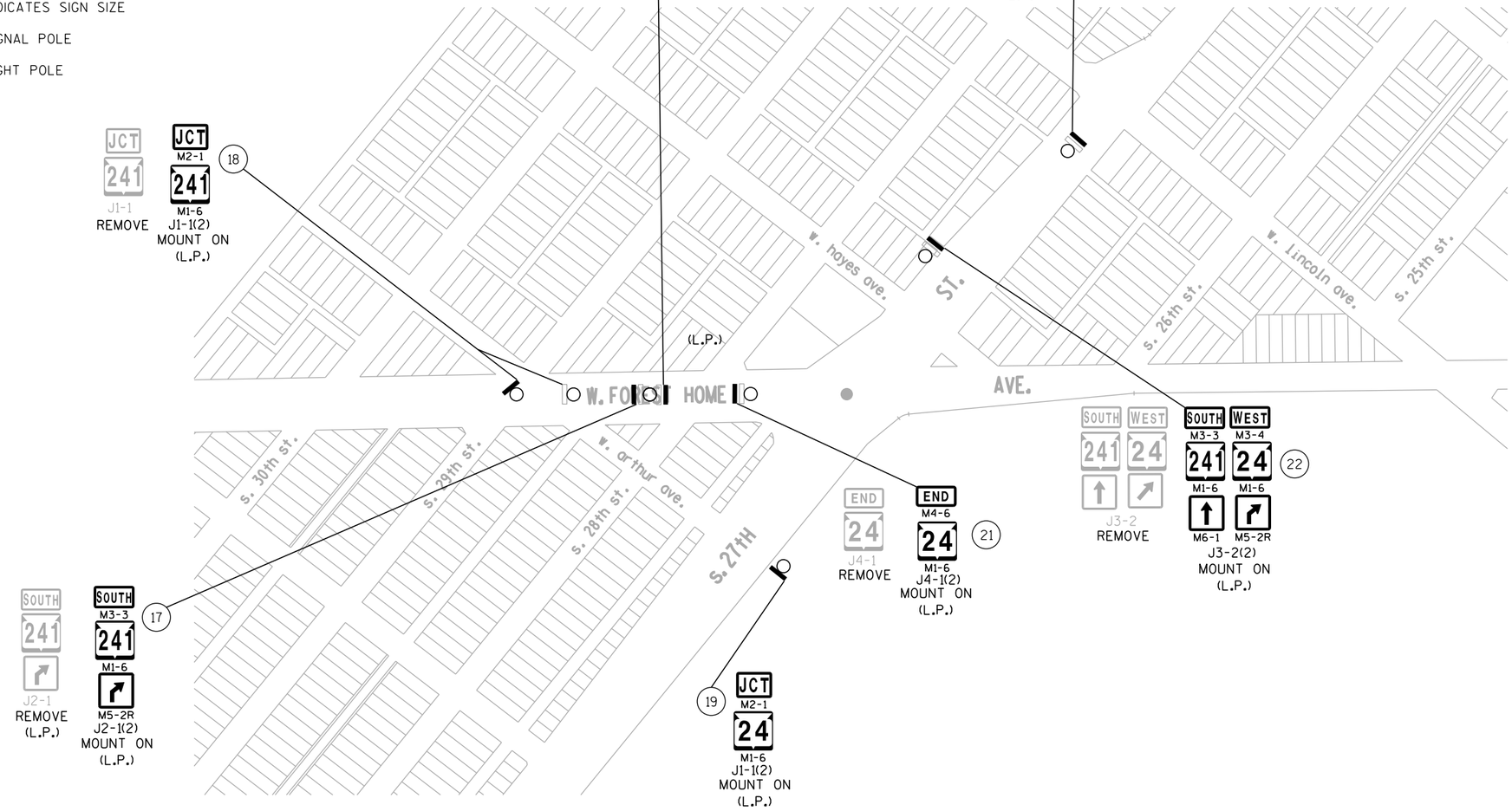
NO SIGNS THIS SHEET

PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 22	E

FILE NAME : J:\projects\d2_21201724\SIGN\023206_ps.dgn PLOT DATE : 12-JUN-2017 07:03 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (S.P.) SIGNAL POLE
- (L.P.) LIGHT POLE

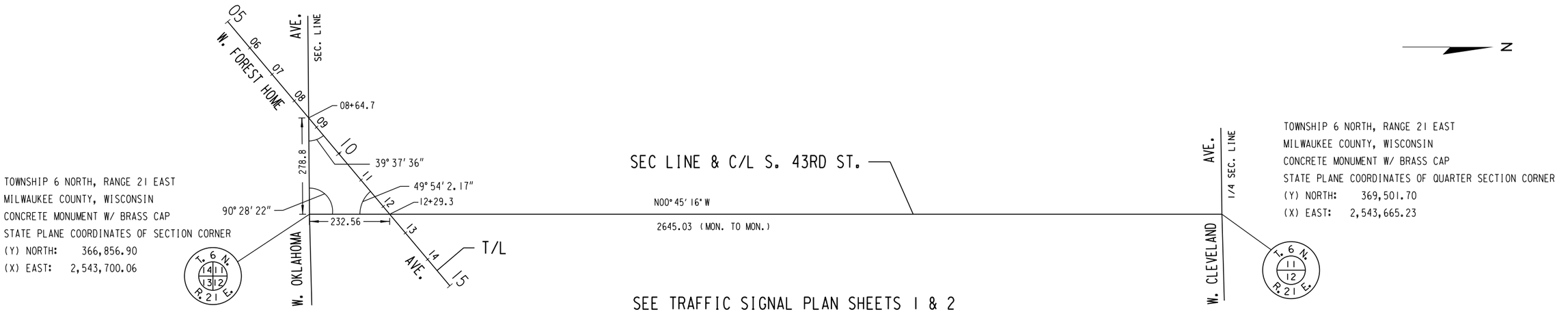


● monotube mastarm locations on w. FOREST HOME AVE.
S. 27TH ST.

SHEET 7 OF 7

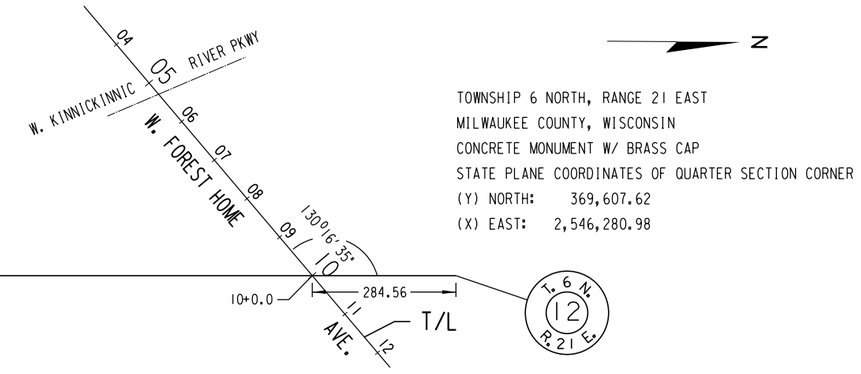
PROJECT NO: 2120-17-70	HWY: STH 24/241	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 23	E

FILE NAME : J:\projects\d2_21201724\SIGN\023207_ps.dgn PLOT DATE : 12-JUN-2017 07:03 PLOT BY : dotw3m PLOT NAME : PLOT SCALE : 300:1



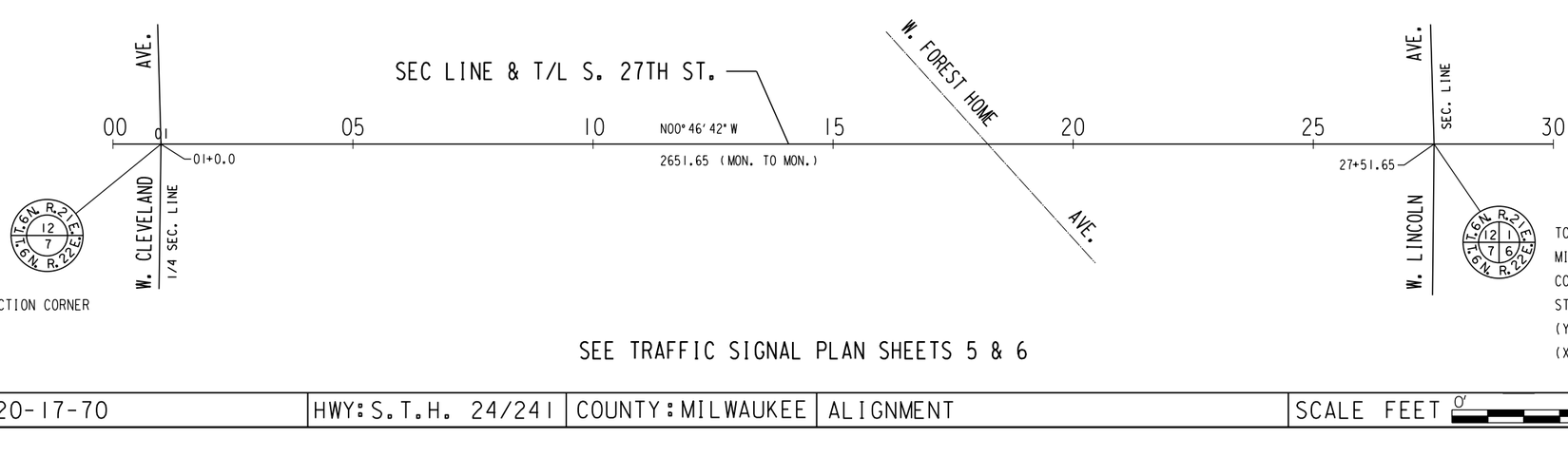
TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF SECTION CORNER
(Y) NORTH: 366,856.90
(X) EAST: 2,543,700.06

TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 369,501.70
(X) EAST: 2,543,665.23



TOWNSHIP 6 NORTH, RANGE 21 & 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 366,959.24
(X) EAST: 2,546,322.90

TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 369,607.62
(X) EAST: 2,546,280.98



TOWNSHIP 6 NORTH, RANGE 21 & 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 369,716.00
(X) EAST: 2,548,908.85

TOWNSHIP 6 NORTH, RANGE 21 & 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF SECTION CORNER
(Y) NORTH: 372,367.41
(X) EAST: 2,548,872.83

STATE PROJECT NUMBER 2120-17-70	HWY: S.T.H. 24/241	COUNTY: MILWAUKEE	ALIGNMENT	SCALE FEET 0' 300'	SHEET NO: 24

FILENAME: DGNFILENAME

REVISED DATE: 11-22-2016 BY SB

NOTE:

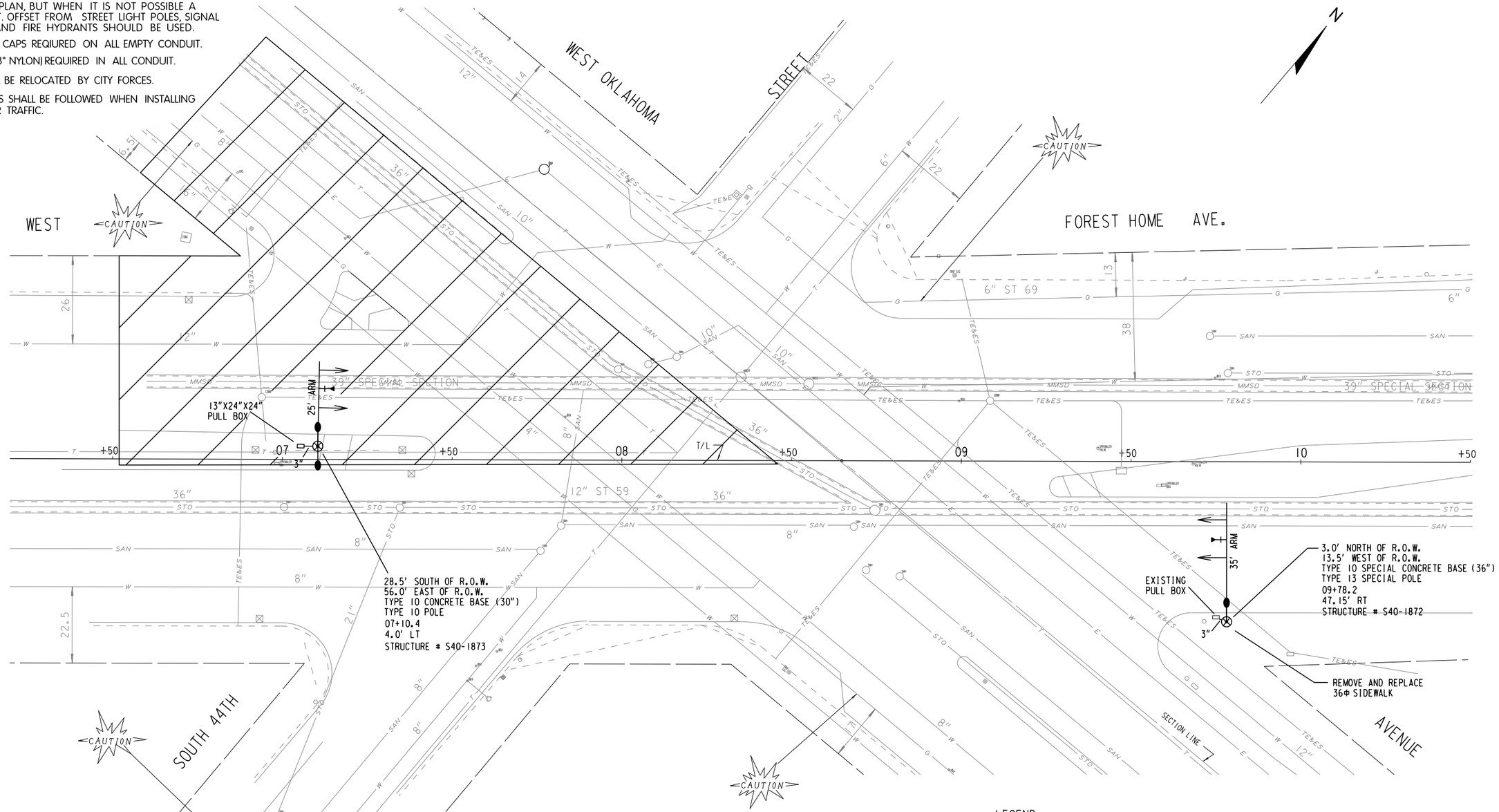
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- STREET LIGHT POLE
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- APPROXIMATE EXTENT OF LEAD-CONTAMINATED SOIL AT DEPTHS OF 0'-2' BGS IN WISDOT PROJECT LIMITS

SCALE, FEET 0 30

SHEET 1 OF 6

PROJECT NO: 2120-17-70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120-17-00_ForHome-27th\ForHome-27 full.dgn

REVISED DATE: 9-01-2017

NOTE:

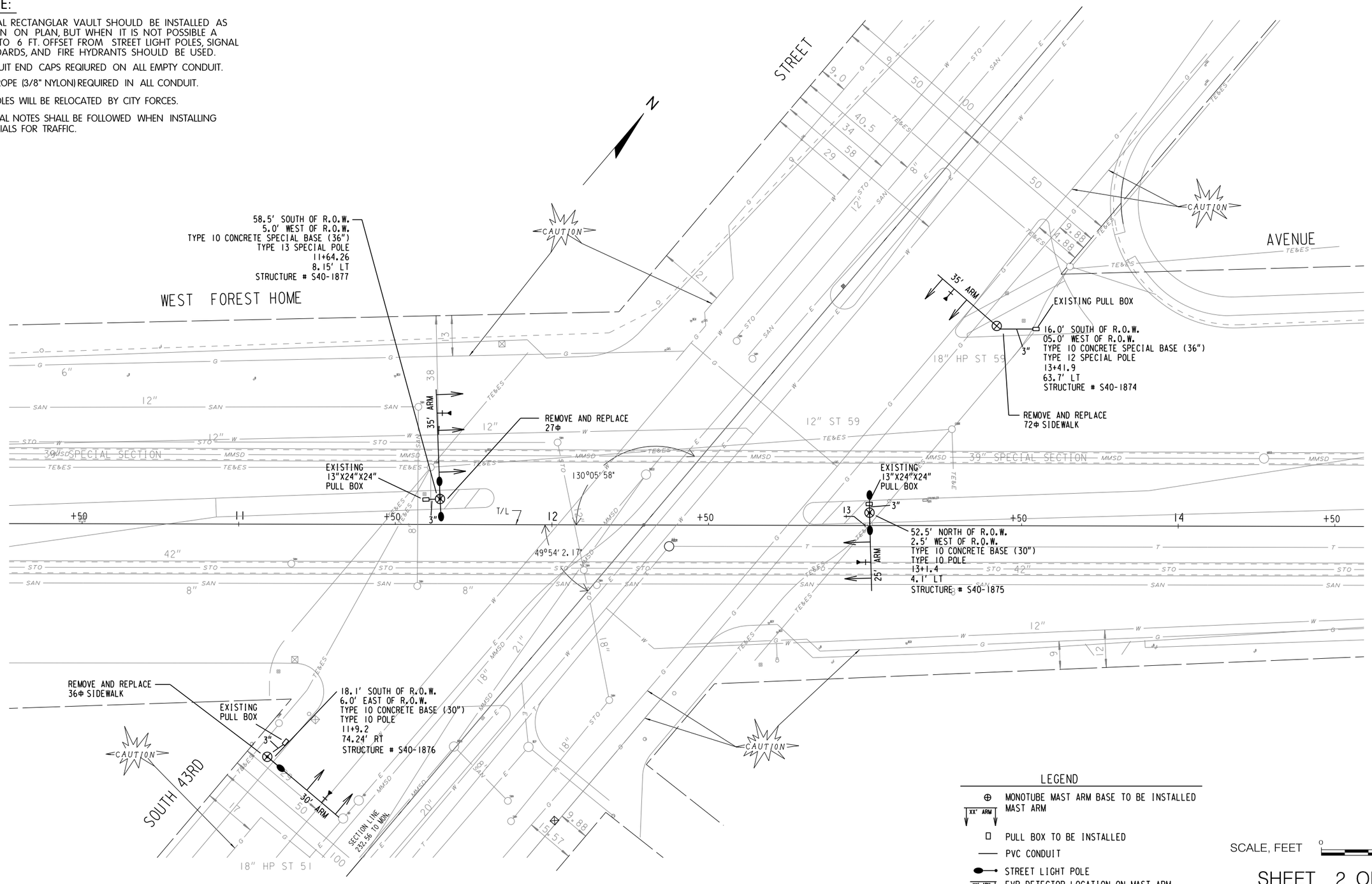
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- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT POLE
- XX' ARM EVP DETECTOR LOCATION ON MAST ARM

SCALE, FEET 0 30

SHEET 2 OF 6

PROJECT NO: 2120-17-70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120-17-00_ForHome-27th\ForHome-27 full.dgn

REVISED DATE: 9-01-2017

NOTE:

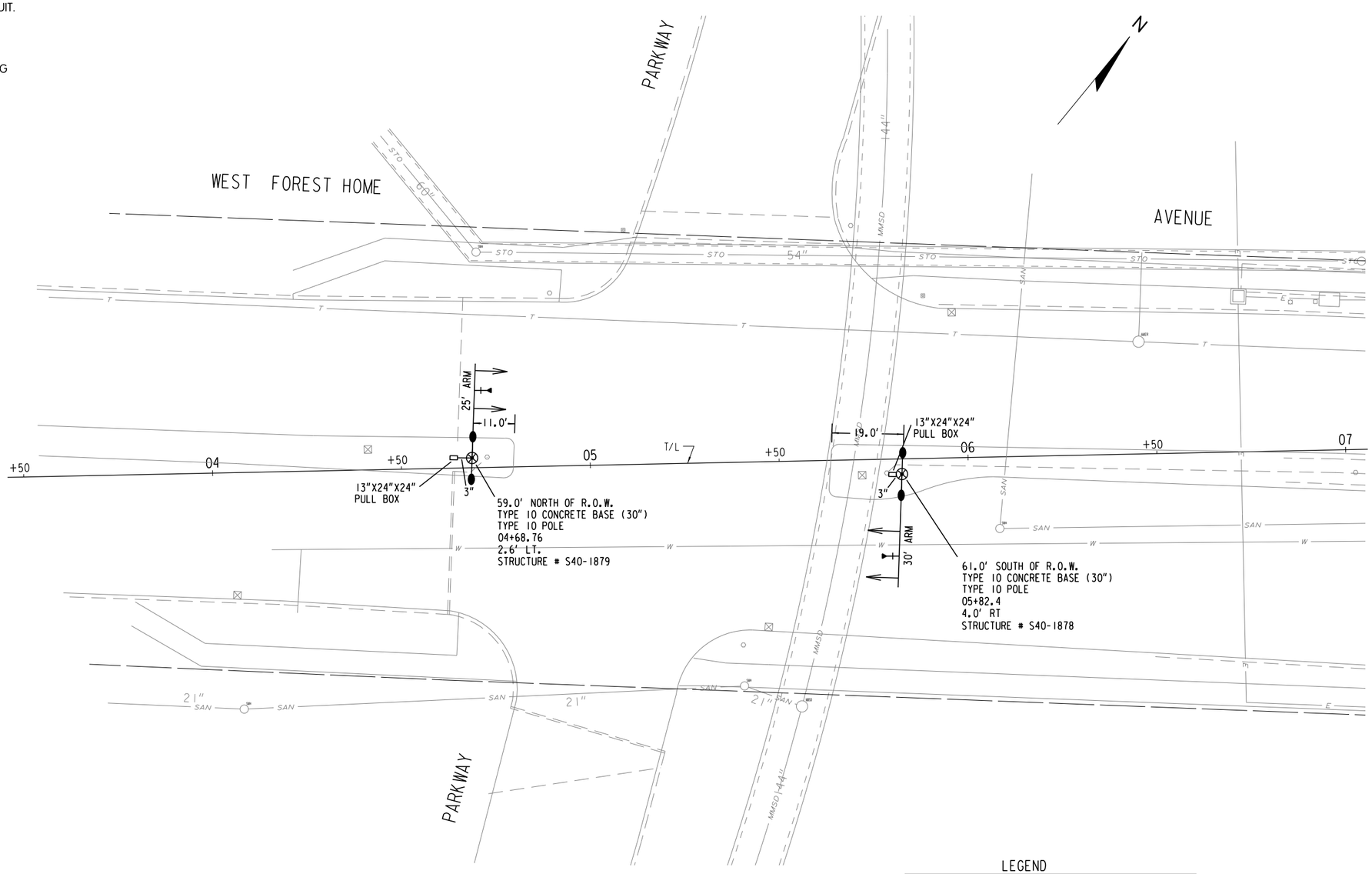
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- PVC CONDUIT
- STREET LIGHT POLE
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM

SCALE, FEET 0 30

SHEET 3 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120–17–00_ForHome–27th\ForHome–27 full.dgn

REVISED DATE: 9-01-201

NOTE:

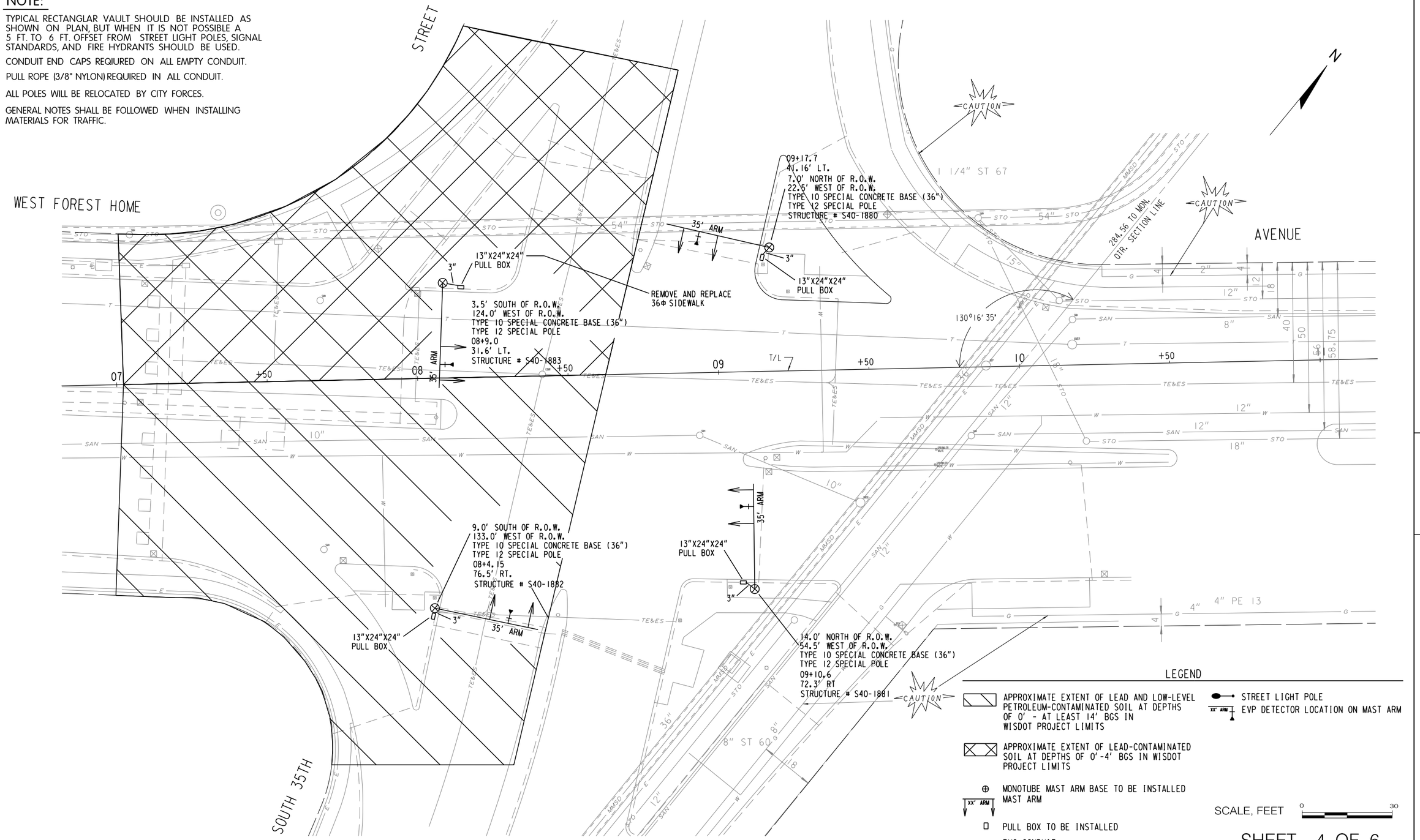
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SHEET 4 OF 6

PROJECT NO: 2120-17-70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120-17-00_ForHome-27th\ForHome-27 full.dgn

REVISED DATE: 9-01-2017

NOTE:

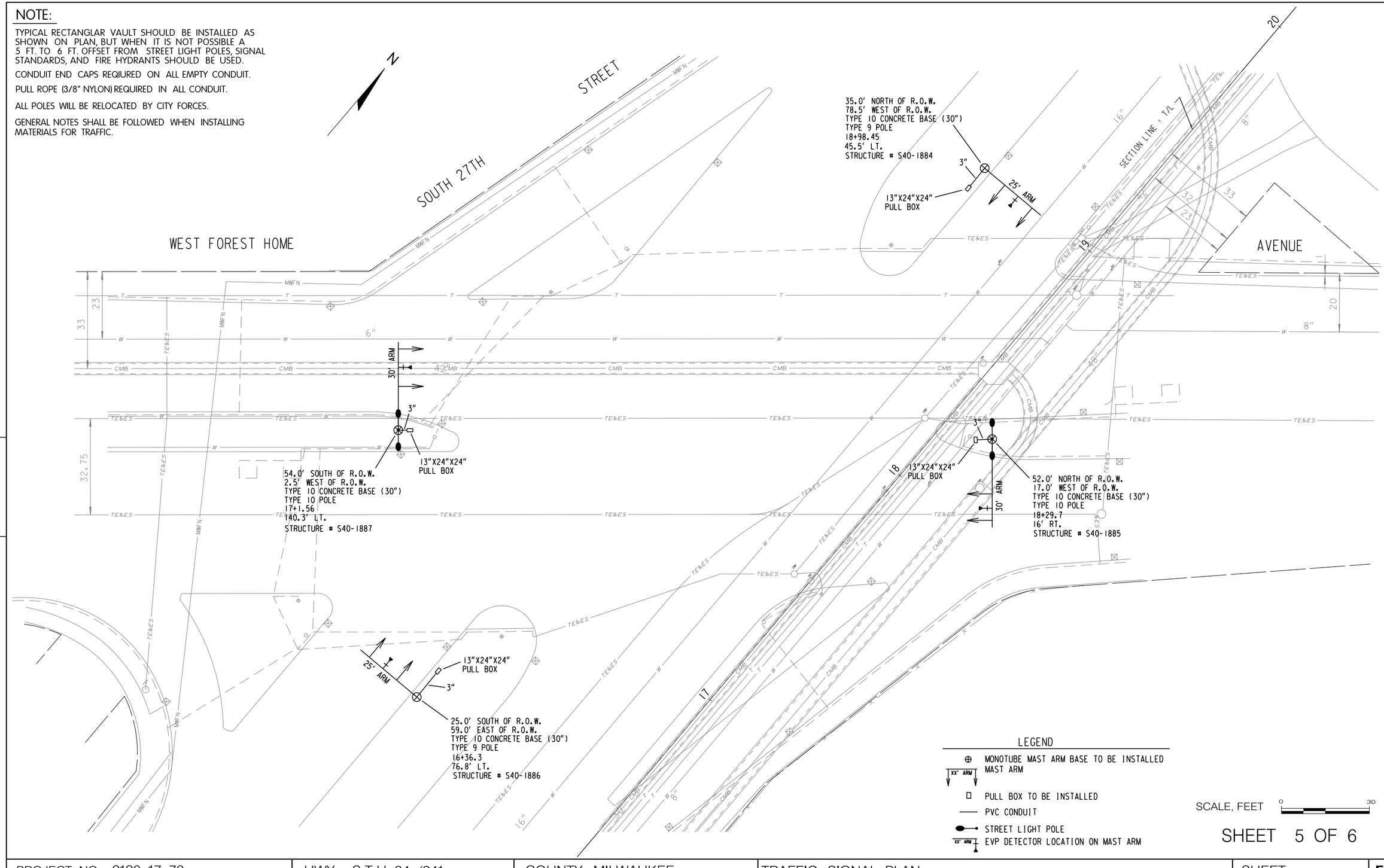
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SHEET 5 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120–17–00_ForHome–27th\ForHome–27 full.dgn

REVISED DATE: 9-01-201

NOTE:

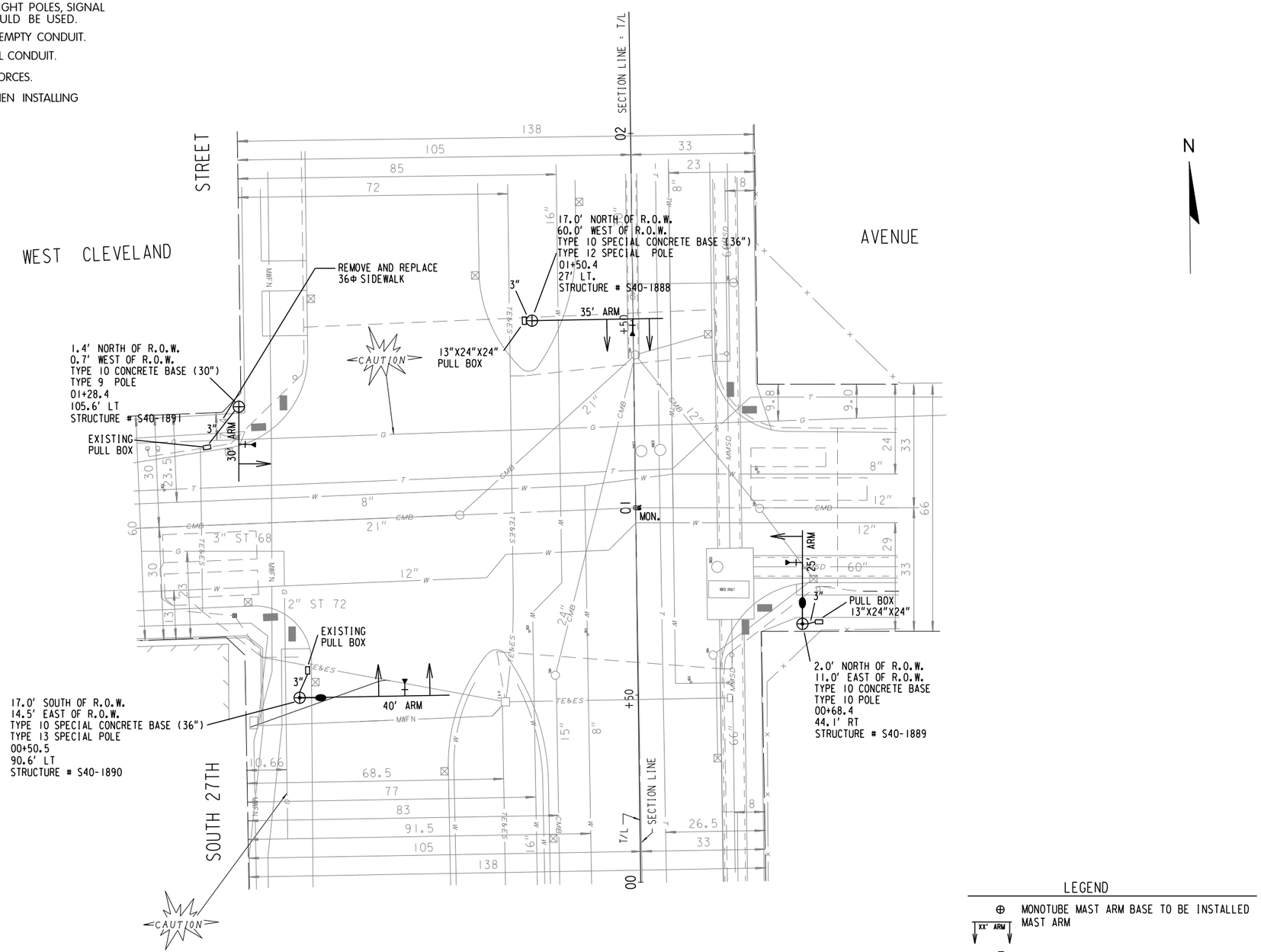
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- XX' ARM — MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT POLE
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM

SCALE, FEET 0 30

SHEET 6 OF 6

PROJECT NO: 2120–17–70	HWY: S.T.H. 24 /241	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2120-17-00_ForHome-27th\ForHome-27 full.dgn

REVISED DATE: 9-01-2017

2120-17-70

Line	Item	Item Description	Unit	Total	Qty
0014	204.0155	Removing Concrete Sidewalk	SY	27.000	27.000
0016	204.0195	Removing Concrete Bases	EACH	20.000	20.000
0026	213.0100	Finishing Roadway (project) 001. 2120-17-70	EACH	1.000	1.000
0058	602.0410	Concrete Sidewalk 5-Inch	SF	243.000	243.000
0074	619.1000	Mobilization	EACH	0.250	0.250
0104	634.0818	Posts Tubular Steel 2x2-Inch X 18-FT	EACH	5.000	5.000
0106	637.2210	Signs Type II Reflective H	SF	193.333	193.333
0108	638.2602	Removing Signs Type II	EACH	12.000	12.000
0112	643.0300	Traffic Control Drums	DAY	7,540.000	7,540.000
0116	643.0420	Traffic Control Barricades Type III	DAY	1,820.000	1,820.000
0122	643.0705	Traffic Control Warning Lights Type A	DAY	3,640.000	3,640.000
0124	643.0715	Traffic Control Warning Lights Type C	DAY	7,540.000	7,540.000
0126	643.0900	Traffic Control Signs	DAY	1,820.000	1,820.000
0132	643.5000	Traffic Control	EACH	1.000	1.000
0172	650.8500	Construction Staking Electrical Installations (project) 001. 2120-17-70	LS	1.000	1.000
0178	650.9910	Construction Staking Supplemental Control (project) 001. 2120-17-70	LS	1.000	1.000
0188	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	120.000	120.000
0202	654.0110	Concrete Bases Type 10	EACH	11.000	11.000
0214	690.0250	Sawing Concrete	LF	150.000	150.000
0244	SPV.0060	Special 009. UTILITY LINE OPENING	EACH	20.000	20.000
0248	SPV.0060	Special 011. INLET BASKET TYPE M	EACH	65.000	65.000
0256	SPV.0060	Special 201. POLES TYPE 9	EACH	3.000	3.000
0258	SPV.0060	Special 202. POLES TYPE 10	EACH	8.000	8.000
0262	SPV.0060	Special 204. POLES TYPE 12 SPECIAL	EACH	6.000	6.000
0264	SPV.0060	Special 205. POLES TYPE 13 SPECIAL	EACH	3.000	3.000
0266	SPV.0060	Special 206. CONCRETE BASES TYPE 10 SPECIAL	EACH	9.000	9.000
0268	SPV.0060	Special 207. MONOTUBE ARMS - 25 FEET	EACH	6.000	6.000
0270	SPV.0060	Special 208. MONOTUBE ARMS - 30 FEET	EACH	5.000	5.000
0272	SPV.0060	Special 209. MONOTUBE ARMS 35-FT	EACH	8.000	8.000
0274	SPV.0060	Special 210. MONOTUBE ARMS 40-FT	EACH	1.000	1.000
0276	SPV.0060	Special 301. POLYMER CONCRETE VAULT 13-INCH x 24-INCH x 24-INCH	EACH	13.000	13.000
0364	SPV.0195	Special 001. EXCAVATION, HAULING AND DISPOSAL OF METALS-CONTAMINATED SOIL	TON	10.000	10.000

TYPE II PERMANENT SIGNING - 2120-17-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	634.0818 TUBULAR STEEL POST 2" X 2" X 8' [EA]	REMARKS / NEW SIGN LOCATION
1	J4-1(2)	--	24	x	36	6.000	1	--	--
--	-- M3-4	--	24	x	12		--	--	--
--	-- M1-6	STH 24	24	x	24		--	--	--
2	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
3	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
4	J4-1(2)	--	24	x	36	6.000	--	--	MOUNT ABOVE SIGNAL
--	-- M3-2	--	24	x	12		--	--	--
--	-- M1-6	STH 24	24	x	24		--	--	--
5	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
6	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
7	J4-1(2)	--	24	x	36	6.000	1	--	MOUNT ON LIGHT POLE
--	-- M3-4	--	24	x	12		--	--	--
--	-- M1-6	STH 24	24	x	24		--	--	--
8	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
9	J3-1(2)	--	24	x	33	5.500	--	--	MOUNT ABOVE SIGNAL
--	-- M1-6	STH 24	24	x	12		--	--	--
--	-- M6-4		21	x	21		--	--	--
10	J4-1(2)	--	24	x	36	6.000	1	--	MOUNT ON LIGHT POLE
--	-- M3-2	--	24	x	12		--	--	--
--	-- M1-6	STH 24	24	x	24		--	--	--
11	J4-1(2)	--	24	x	36	6.000	1	--	MOUNT ON LIGHT POLE
--	-- M3-3	--	24	x	12		--	--	--
--	-- M1-6	STH 241	24	x	24		--	--	--
12	J4-1(2)	--	24	x	57	9.500	--	--	MOUNT ON SIGNAL POLE
--	-- M3-3	--	24	x	12	--	--	--	--
--	-- M1-6	STH 241	24	x	24	--	--	--	--
--	-- M6-2	--	21	x	21	--	--	--	--
13	J4-1(2)	--	24	x	57	9.500	--	--	MOUNT ON LIGHT POLE
--	-- M3-4	--	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
--	-- M6-2	--	21	x	21	--	--	--	--
14	J3-2(2)	--	24	x	83	13.833	1	--	MOUNT ON LIGHT POLE
--	-- M3-4	--	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
--	-- M6-1	--	21	x	21	--	--	--	--
--	-- M4-6	END	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
15	J3-2(2)	--	24	x	114	19.000	1	--	MOUNT ABOVE SIGNAL
--	-- M3-3	--	24	x	12	--	--	--	--
--	-- M1-6	STH 241	24	x	24	--	--	--	--
--	-- M6-1	--	21	x	21	--	--	--	--
--	-- M3-4	--	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
--	-- M6-1	--	21	x	21	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	634.0818 TUBULAR STEEL POST 2" X 2" X 8' [EA]	REMARKS / NEW SIGN LOCATION
16	JV1-2(2)	--	24	x	69	11.500	1	--	MOUNT ON LIGHT POLE
--	-- M2-1	--	21	x	21		--	--	--
--	-- M1-6	24	24	x	24		--	--	--
--	-- M1-6	241	24	x	24		--	--	--
17	J4-1(2)	--	24	x	57	9.500	1	--	MOUNT ON LIGHT POLE
--	-- M3-3	--	24	x	12	--	--	--	--
--	-- M1-6	STH 241	24	x	24	--	--	--	--
--	-- M5-2R	--	21	x	21	--	--	--	--
18	J1-1(2)	--	24	x	45	7.500	1	--	MOUNT ON LIGHT POLE
--	-- M2-1	--	21	x	21		--	--	--
--	-- M1-6	241	24	x	24		--	--	--
19	J1-1(2)	--	24	x	45	7.500	--	--	MOUNT ON LIGHT POLE
--	-- M2-1	--	21	x	21		--	--	--
--	-- M1-6	24	24	x	24		--	--	--
20	J4-1(2)	--	24	x	36	6.000	1	--	MOUNT ON LIGHT POLE
--	-- M3-4	--	24	x	12		--	--	--
--	-- M1-6	STH 24	24	x	24		--	--	--
21	J4-1(2)	--	24	x	36	6.000	--	--	MOUNT ON LIGHT POLE
--	-- M4-6	END	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
22	J3-2(2)	--	24	x	114	19.000	1	--	MOUNT ABOVE SIGNAL
--	-- M3-3	--	24	x	12	--	--	--	--
--	-- M1-6	STH 241	24	x	24	--	--	--	--
--	-- M6-1	--	21	x	21	--	--	--	--
--	-- M3-4	--	24	x	12	--	--	--	--
--	-- M1-6	STH 24	24	x	24	--	--	--	--
--	-- M5-2R	--	21	x	21	--	--	--	--
23	JV1-2(2)	--	24	x	69	11.500	1	--	MOUNT ON LIGHT POLE
--	-- M2-1	--	21	x	21		--	--	--
--	-- M1-6	24	24	x	24		--	--	--
--	-- M1-6	241	24	x	24		--	--	--
UNDISTRIBUTED			--	x	--	--	--	5	--
TOTALS						193.333	12	5	

3

3

Traffic Control Items Required (Category 0010)		Right Lane Closure Average over 13 days		Left Lane Closure Average over 13 days				
Item #	Description	(Each) * (Days)		(Each) * (Days)			UNDISTRIBUTED (Each)	Total
643.0300	Traffic Control Drums	32	130	26	130		0	7,540
643.0420	Traffic Control Barricades Type III	7	130	7	130		0	1,820
643.0705	Traffic Control Warning Lights Type A	14	130	14	130		0	3,640
643.0715	Traffic Control Warning Lights Type c	32	130	26	130		0	7,540
643.0900	Traffic Control Signs	7	130	7	130		0	1,820
643.5000	Traffic Control (Project)	0		0			1	1
								0
								0

NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
THIS WORK WILL BE INCIDENTAL TO THE ITEM OF TRAFFIC CONTROL.
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.
WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
NUMBER OF SIGNS (7) IS BASED ON EACH LANE CLOSURE. THERE ARE A TOTAL OF 10 LANE CLOSURES NEEDED FOR RIGHT AND LEFT CLOSURE.

(1) All Drums have one steady burning yellow light (Type C)
(2) All Type III Barricades have 2 flashing yellow lights (Type A)
(3) When placing temporary pavement marking removable tape, the tape shall be sliced or cut across its width every 25 feet.

Sign Number	Right Lane	Left Lane	Size (in)
R3-7L		2	48"x 30"
WO1-6R		1	60"x30"
WO1-6L	2		60"x30"
WO4-2R	1		48"x48"
W9-2R		1	48"x48"
W20-1	3	3	48"x48"
W20-5R	1		48"x48"
Total	7	7	

3

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

3

REMOVALS

LOCATION	REMOVING CONCRETE SIDEWALK 204.0155 SY	SAWING CONCRETE 690.0250 LF
S. 27th St. and W. Cleveland Ave.	0	0
W. Forest Home Ave. and S. 27th St.	0	0
W. Forest Home Ave. and S. 35th St.	10	50
W. Forest Home Ave. and W. Kinnickinnic Pkwy.	0	0
W. Forest Home Ave. and S. 43rd St.	10	65
W. Forest Home Ave. and S. 44th St. and W. Oklahoma Ave.	7	35
GRAND TOTAL	**27**	**150**

ALL ITEMS ARE CATEGORY 0010

CONCRETE CONSTRUCTION ITEMS

LOCATION	CONCRETE SIDEWALK 5-INCH 602.0410 SF
S. 27th St. and W. Cleveland Ave.	0
W. Forest Home Ave. and S. 27th St.	0
W. Forest Home Ave. and S. 35th St.	103
W. Forest Home Ave. and W. Kinnickinnic Pkwy.	0
W. Forest Home Ave. and S. 43rd St.	70
W. Forest Home Ave. and S. 44th St. and W. Oklahoma Ave.	70
GRAND TOTALS	**243**

ALL ITEMS ARE CATEGORY 0010

TRAFFIC & LIGHTING MISCELLANEOUS QUANTITIES

Item No.	Description	Unit	Quantity
204.0195	Removing Conctete Bases	Each	20
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	120
654.0110	Concrete Bases Type 10	Each	11
SPV.0060.009	Utility Line Opening	Each	20
SPV.0060.201	Poles Type 9	Each	3
SPV.0060.202	Poles Type 10	Each	8
SPV.0060.204	Poles Type 12 Special	Each	6
SPV.0060.205	Poles Type 13 Special	Each	3
SPV.0060.206	Concrete Base Type 10 Special	Each	9
SPV.0060.208	Monotube Arms 25-FT	Each	6
SPV.0060.209	Monotube Arms 30-FT	Each	5
SPV.0060.210	Monotube Arms 35-FT	Each	8
SPV.0060.211	Monotube Arms 40-FT	Each	1
SPV.0060.301	Polymer Concrete Vault 13-Inchx24-Inchx24-Inch	Each	13

ALL ITEMS CATEGORY 0010

3

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

MISCELLANEOUS ITEMS

	FINISHING ROADWAY (PROJECT) EACH 213.0100	MOBILIZATION EACH 619.1000	INLET BASKET TYPE M EACH SPV.0060.011	EXCAVATION, HAULING AND DISPOSAL OF METALS-CONTAMINATED SOIL TON SPV.0195.01
S. 27th St. and W. Cleveland Ave.			12	0
W. Forest Home Ave. and S. 27th St.			21	0
W. Forest Home Ave. and S. 35th St.			14	8
W. Forest Home Ave. and W. Kinnickinnic Pkwy.			6	0
W. Forest Home Ave. and S. 43rd St.			7	0
W. Forest Home Ave. and S. 44th St. and W. Oklahoma Ave.			5	2
GRAND TOTAL	**1**	**1**	**65**	**10**

ALL ITEMS ARE CATEGORY 0010

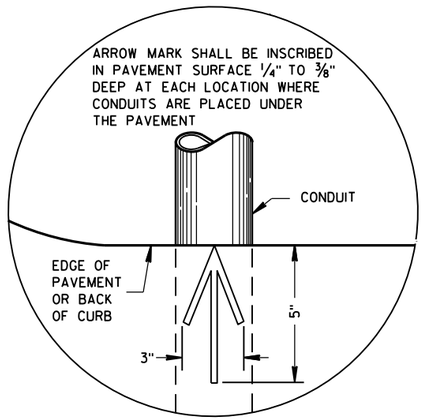
CONSTRUCTION STAKING ROADWAY ITEMS

LOCATION	CONST. STAKING ELECTRICAL INSTALLATIONS (PROJECT) 650.8500 LUMP SUM	CONST. STAKING SUPPLEMENTAL CONTROL (PROJECT) 650.9910 LUMP SUM
S. 27th St. and W. Cleveland Ave.		
W. Forest Home Ave. and S. 27th St.		
W. Forest Home Ave. and S. 35th St.		
W. Forest Home Ave. and W. Kinnickinnic Pkwy.		
W. Forest Home Ave. and S. 43rd St.		
W. Forest Home Ave. and S. 44th St. and W. Oklahoma Ave.		
GRAND TOTAL	**1**	**1**

ALL ITEMS ARE CATEGORY 0010

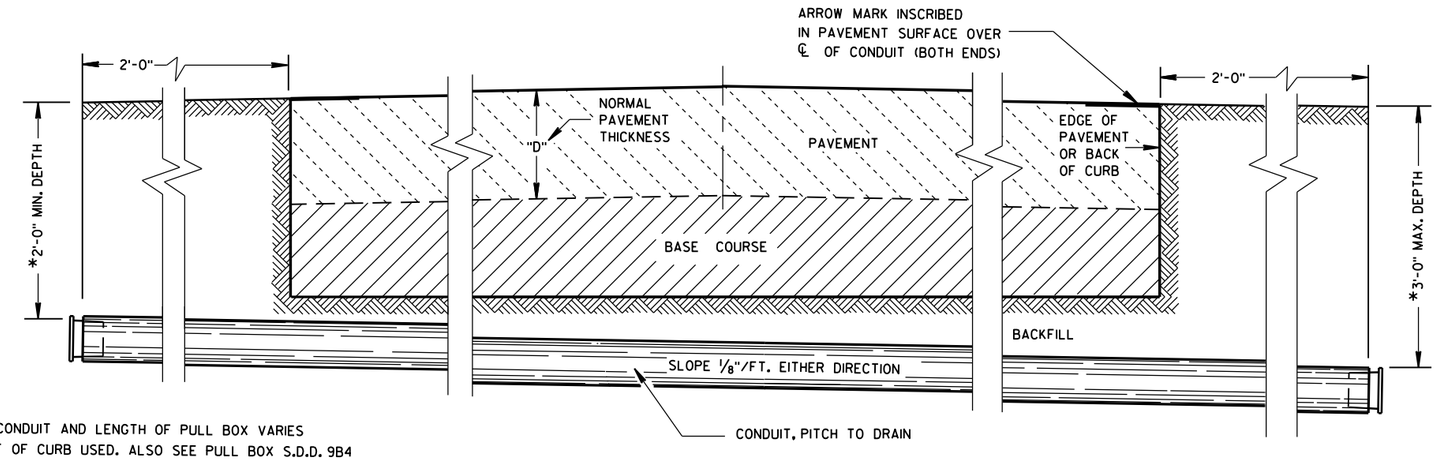
Standard Detail Drawing List

09B02-10	CONDUIT
09C11-09	CONCRETE BASE TYPE 10
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-10

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).

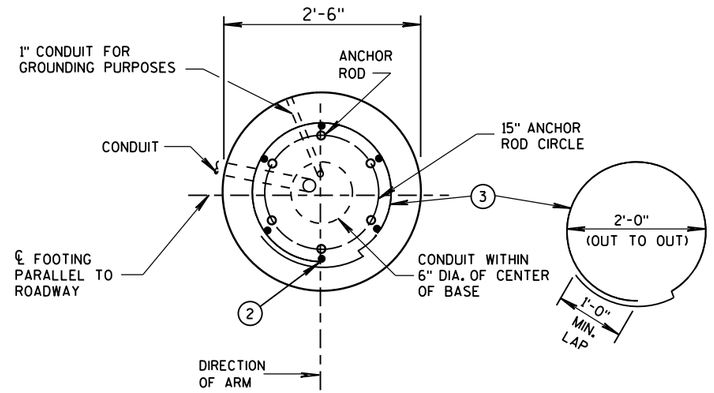
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

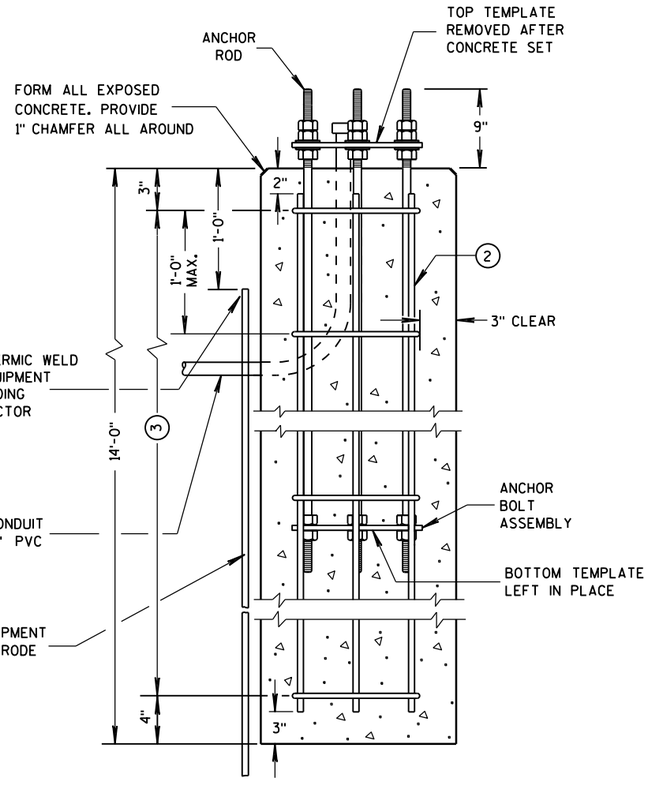
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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" MAX. C-C.

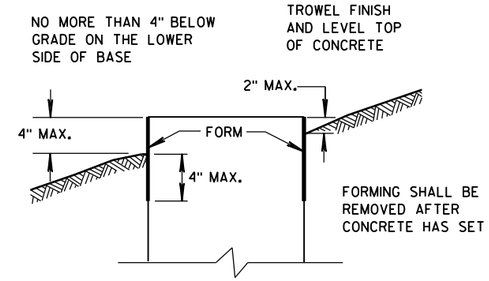
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



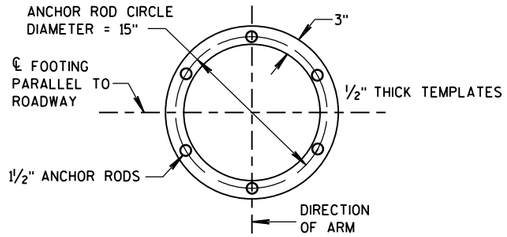


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

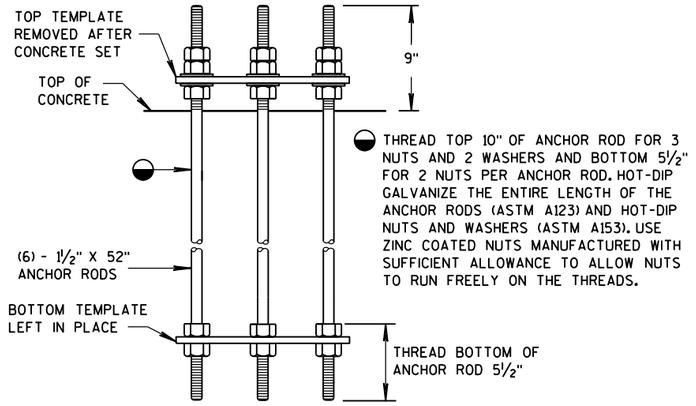
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

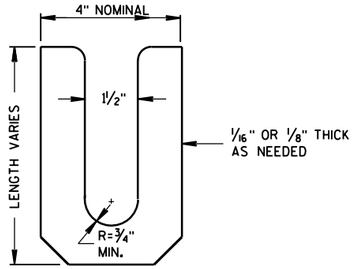
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

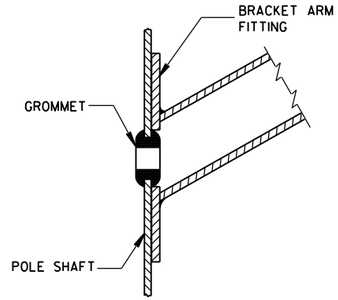
6

S.D.D. 9 C 11-9

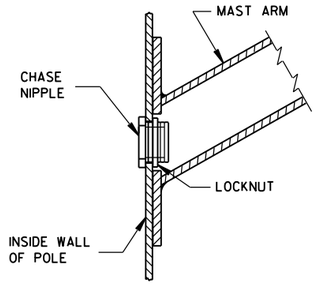


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

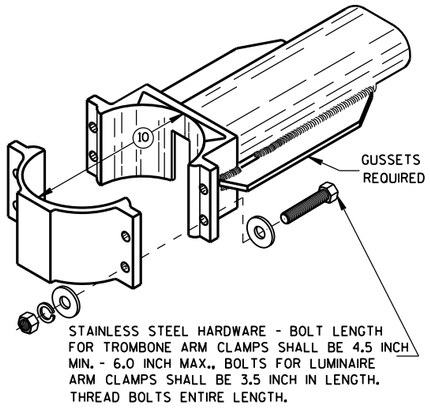
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

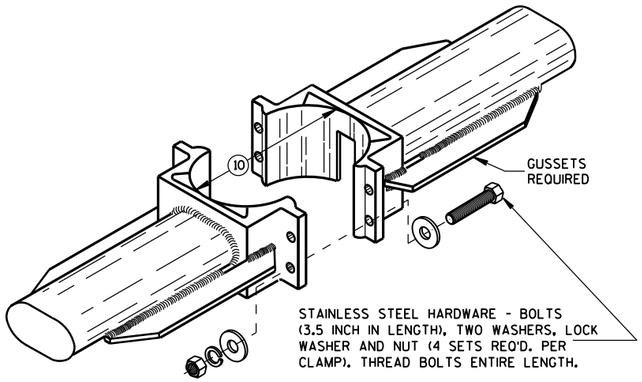
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

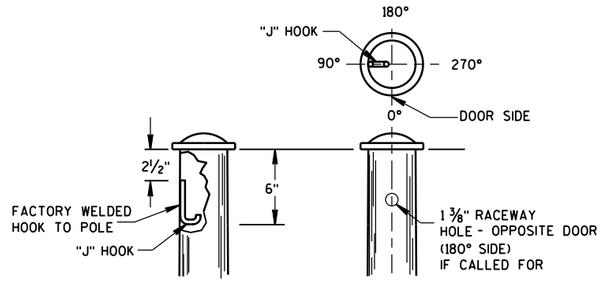
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



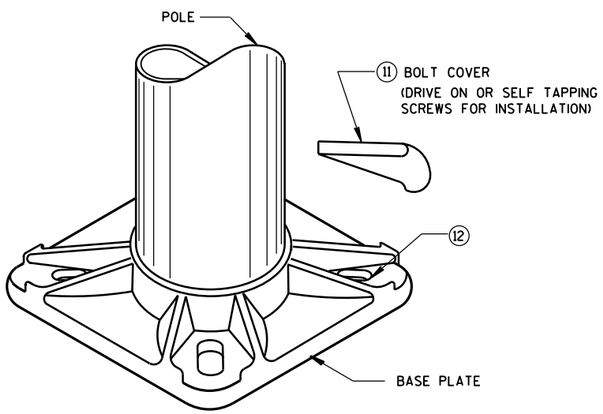
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



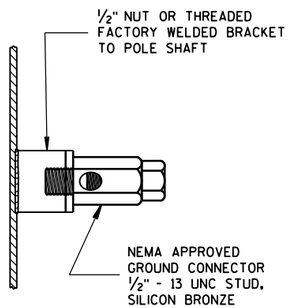
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

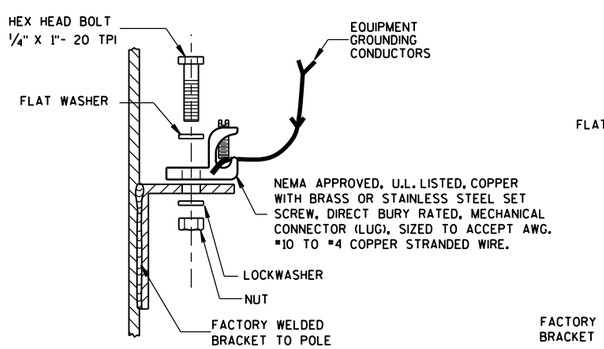


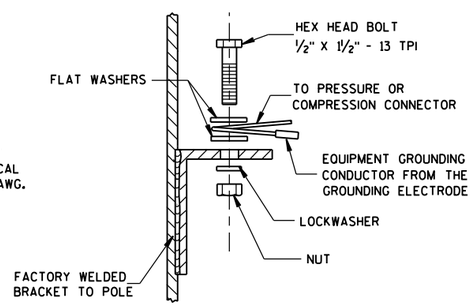
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

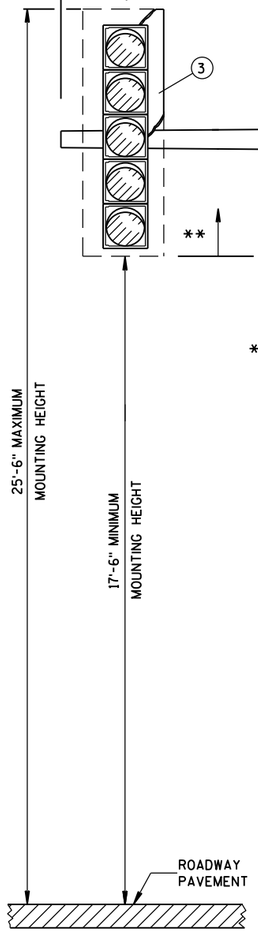
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

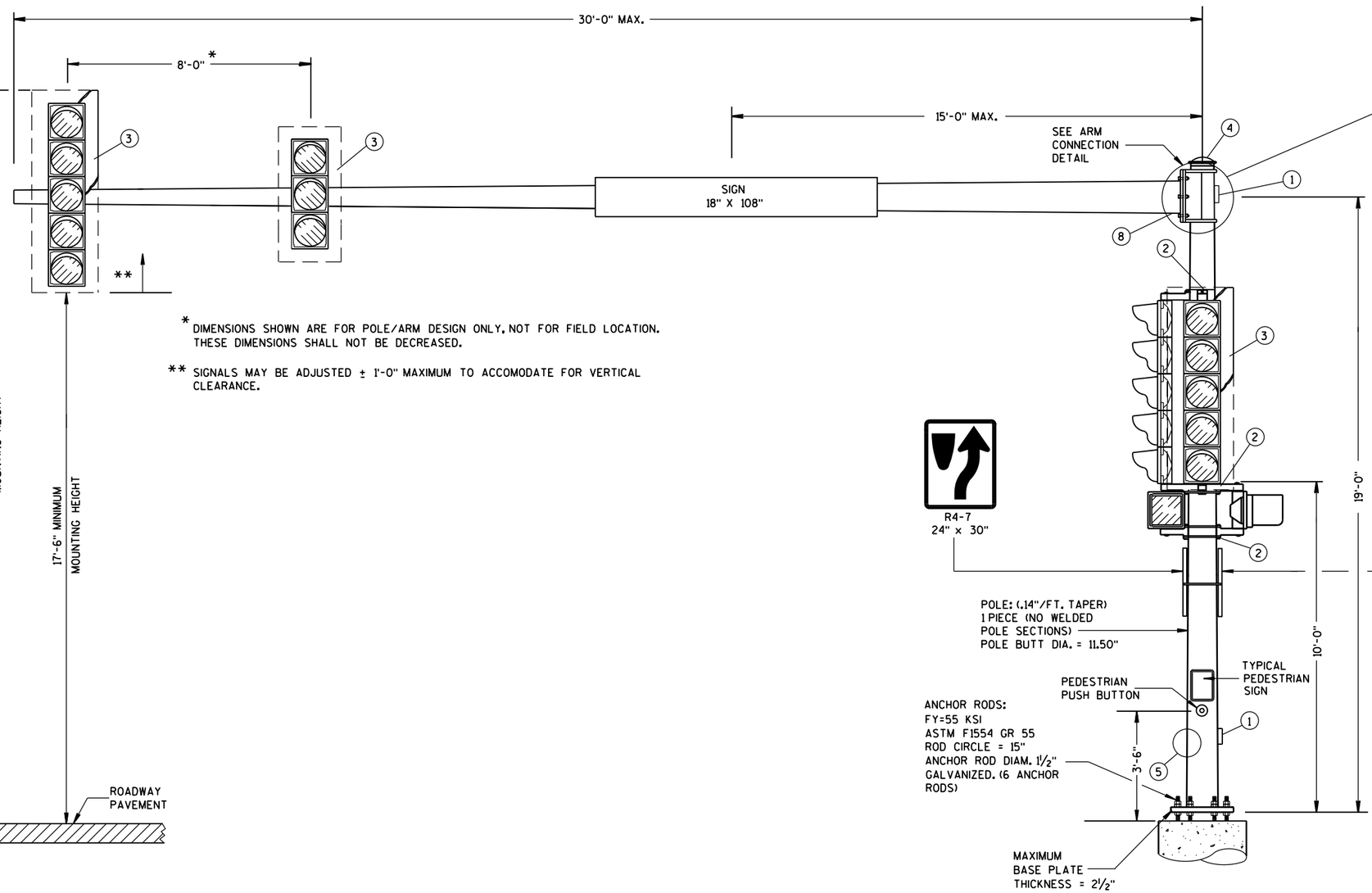
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

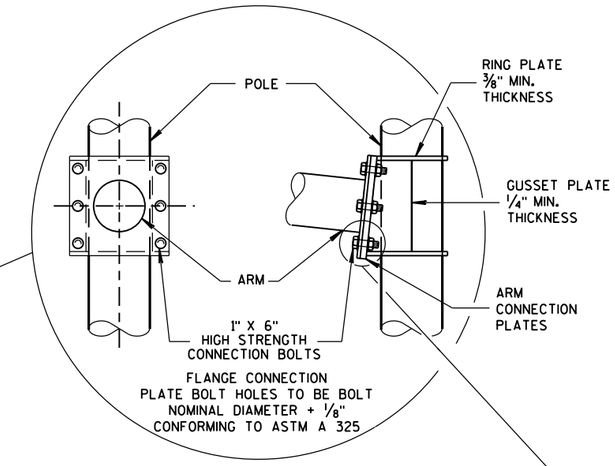
6
S.D.D. 9 E 1-14g



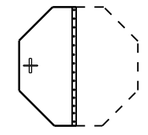


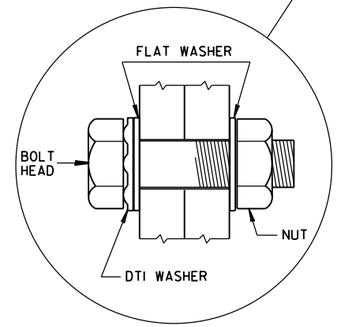
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

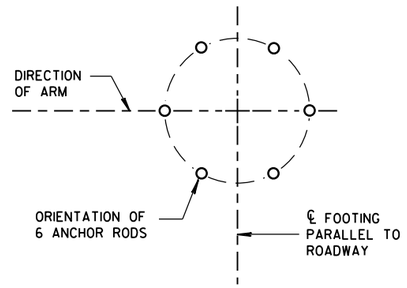


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

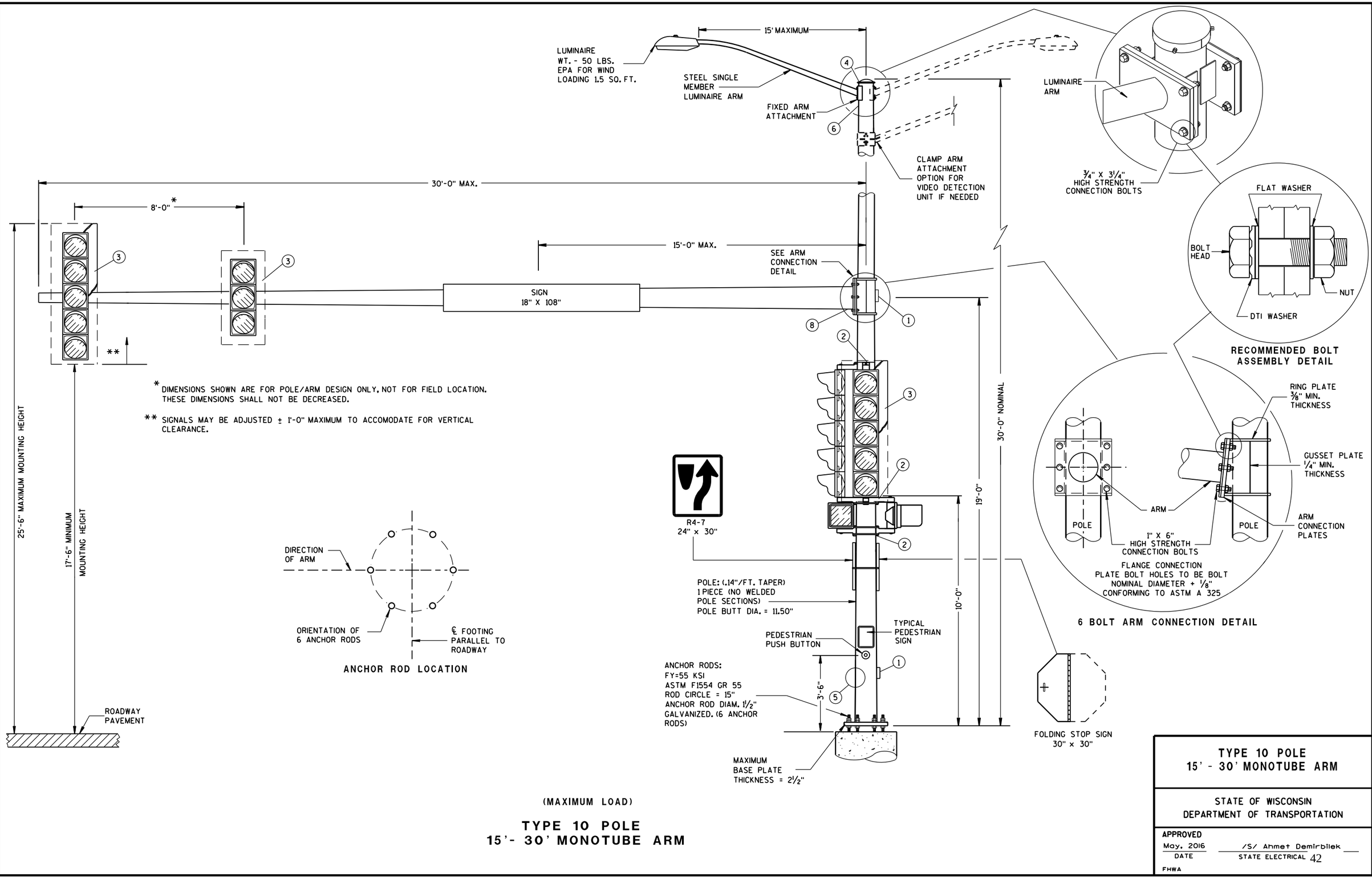
(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

6

S.D.D. 9 E 8-8a



* 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.

(MAXIMUM LOAD)

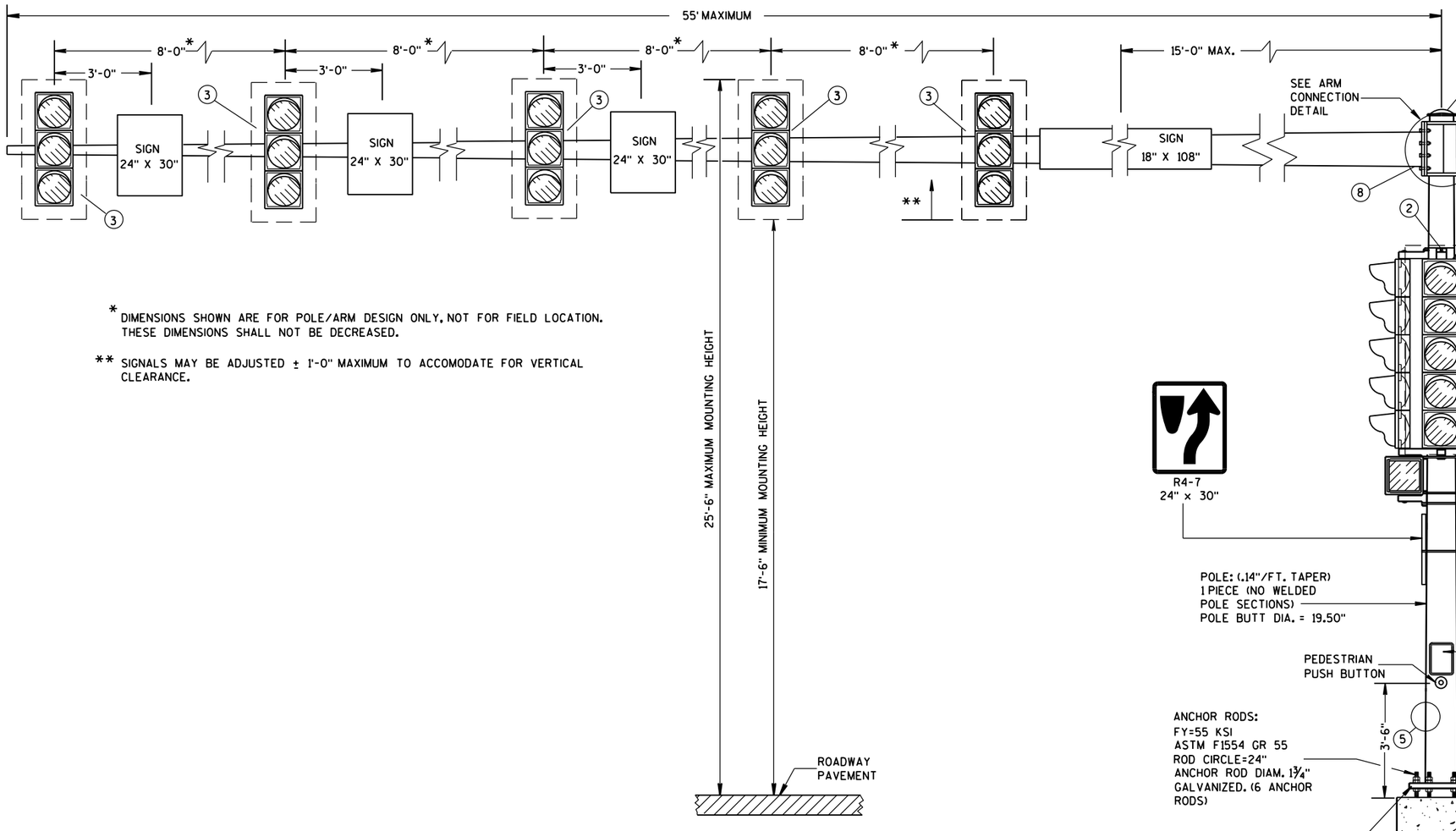
TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

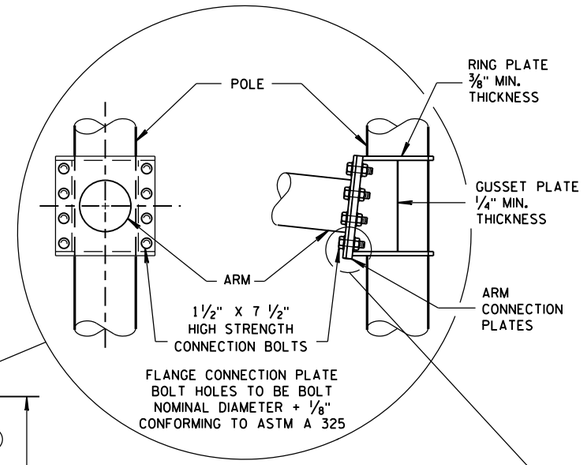
APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 8-8b

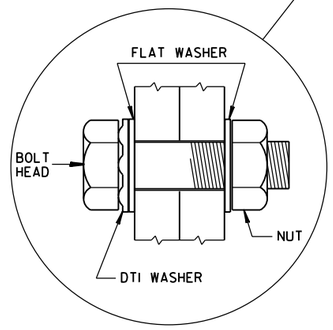


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

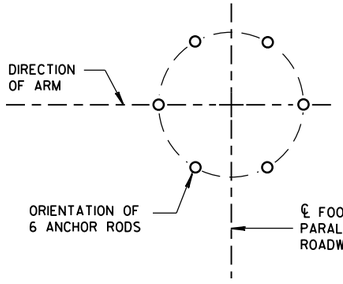
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

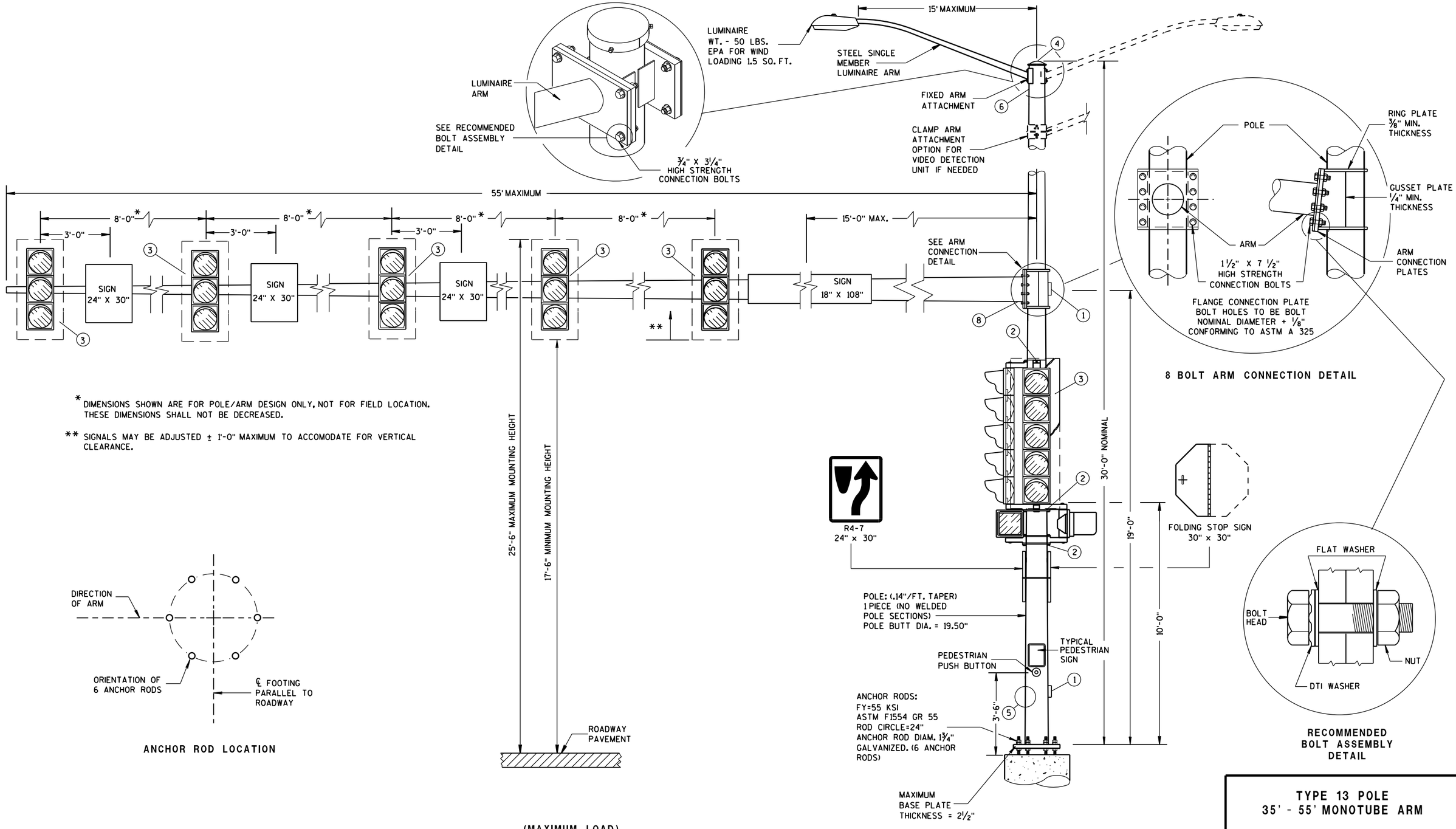
TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
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S.D.D. 9 E 8-8c



* 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.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 9 E 8-8d

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

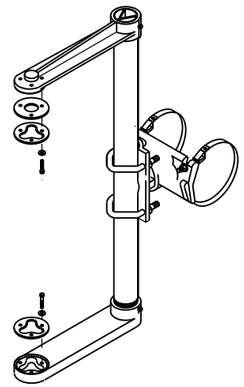
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

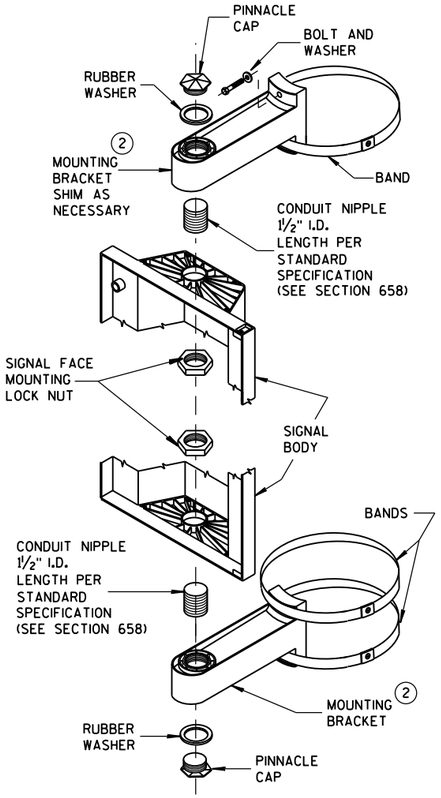
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

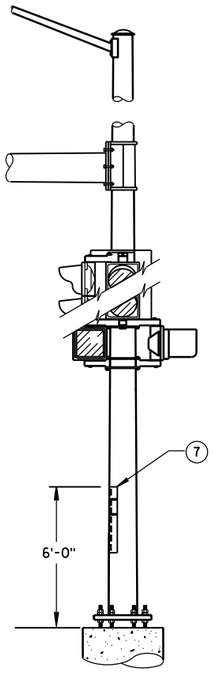


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

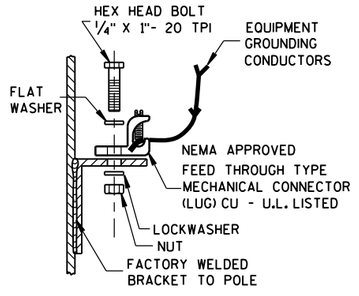
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

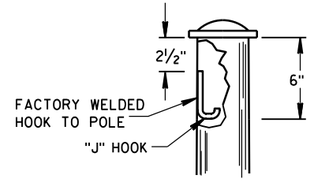


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

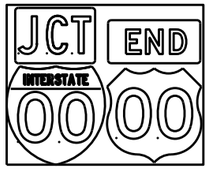
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S.D.D. 9 E 8-8e

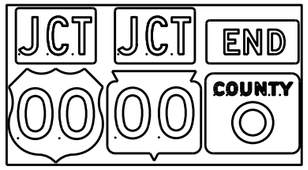
TYPICAL ASSEMBLIES



J1-1



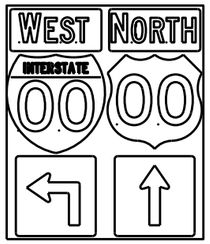
J1-2



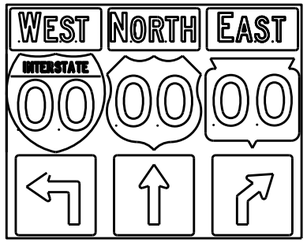
J1-3



J2-1



J2-2

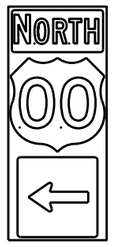


J2-3

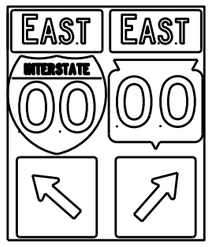


JV

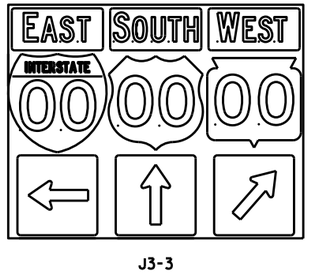
(Typical Vertical J-Assembly
See Note 10 and 11)



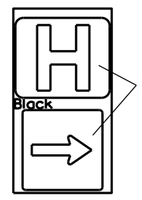
J3-1



J3-2



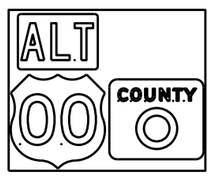
J3-3



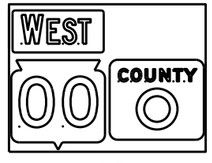
JH-1



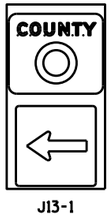
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

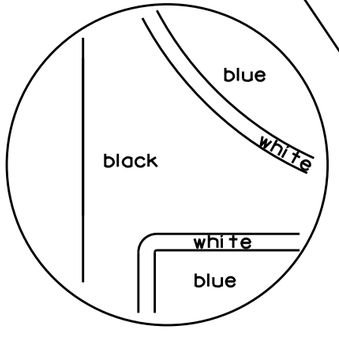


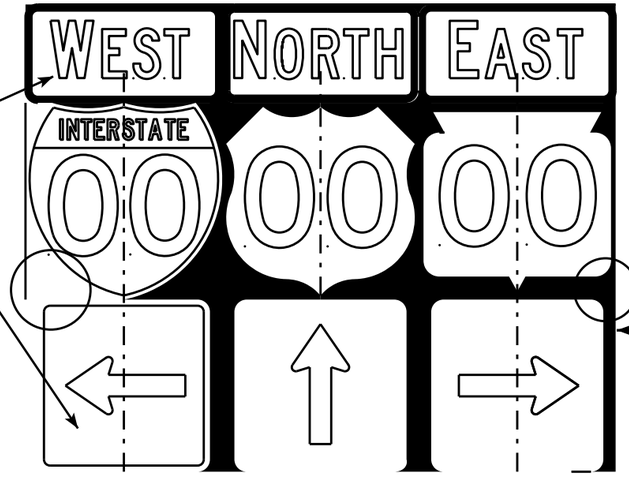
J23-1

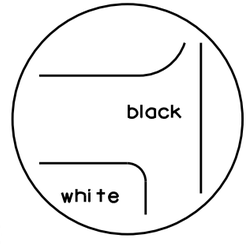


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

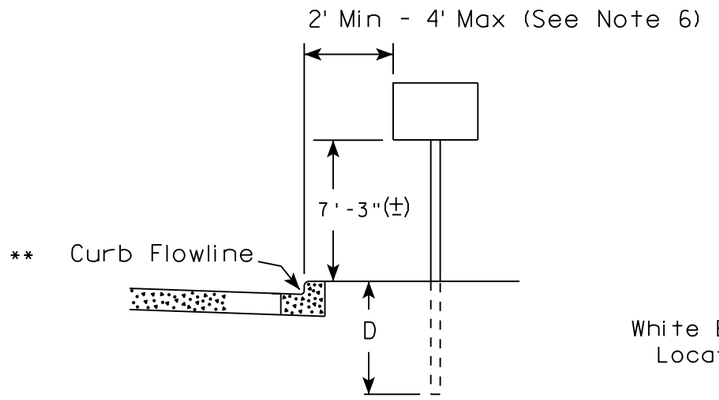
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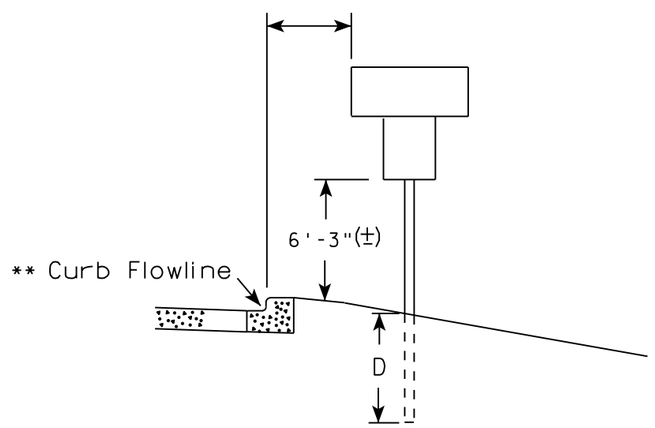
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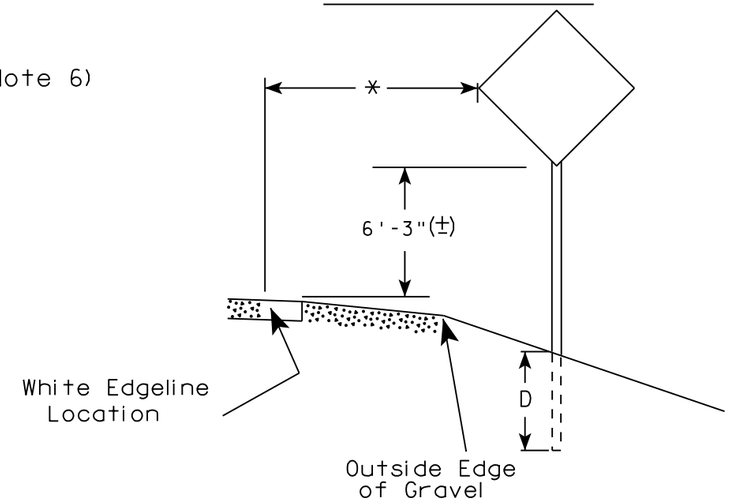
WISDOT/CADDS SHEET 42

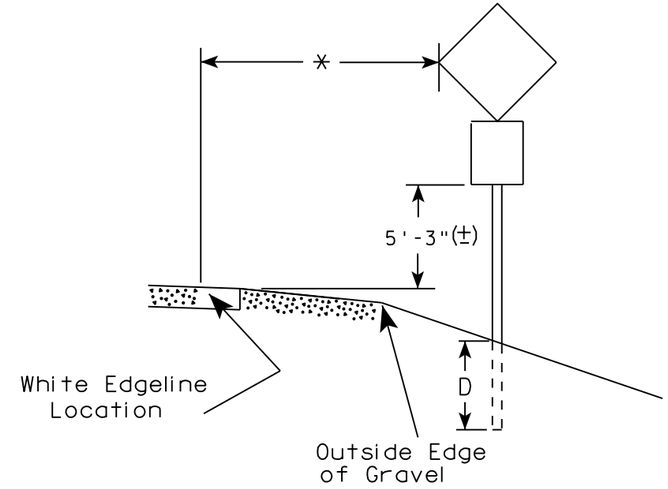
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 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. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

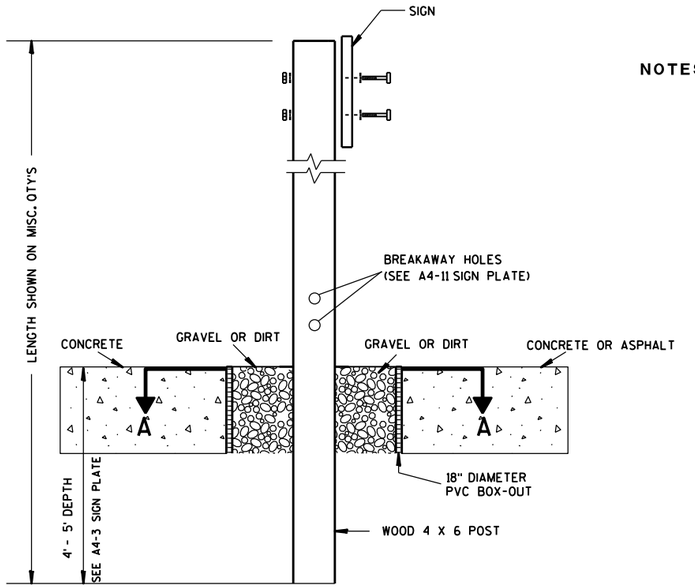
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

7

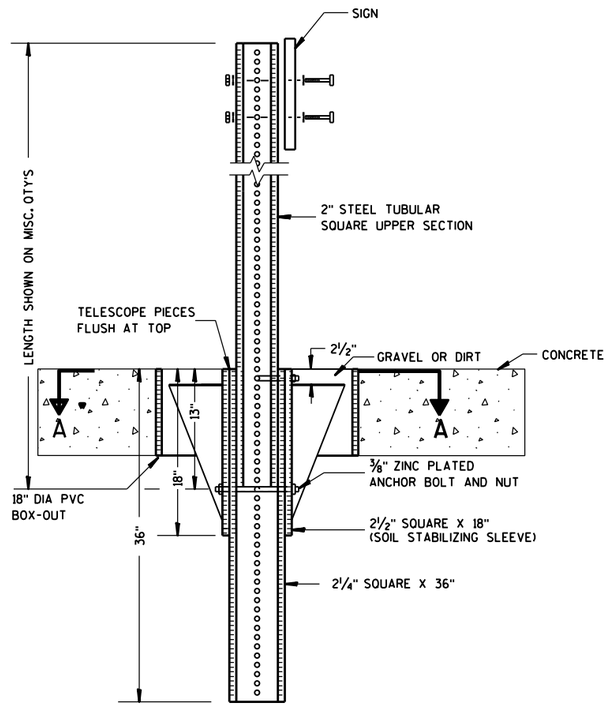
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 47	E



ELEVATION VIEW

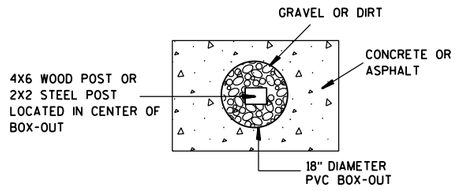
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

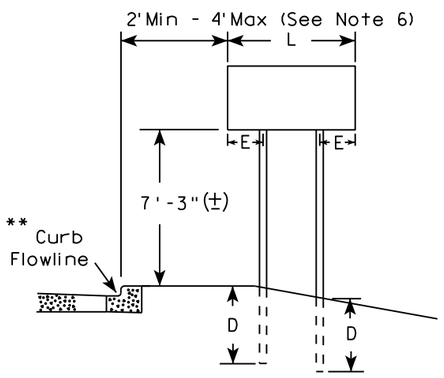
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

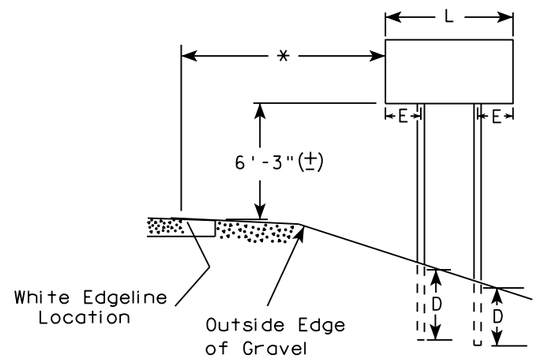
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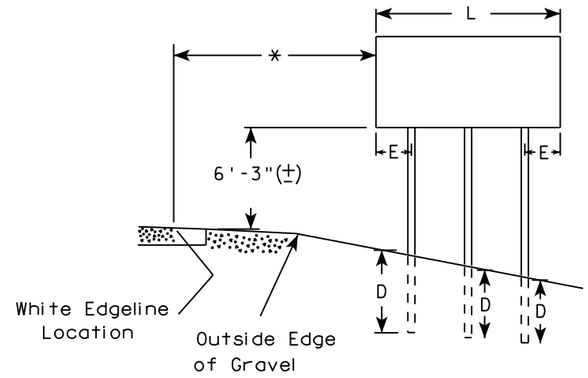
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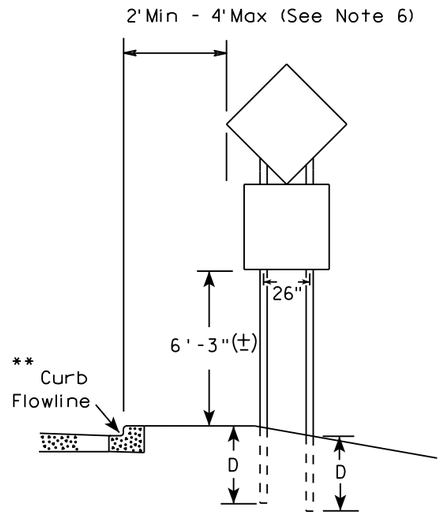
URBAN AREA



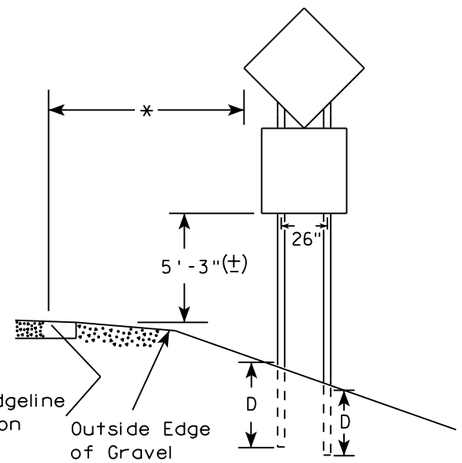
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

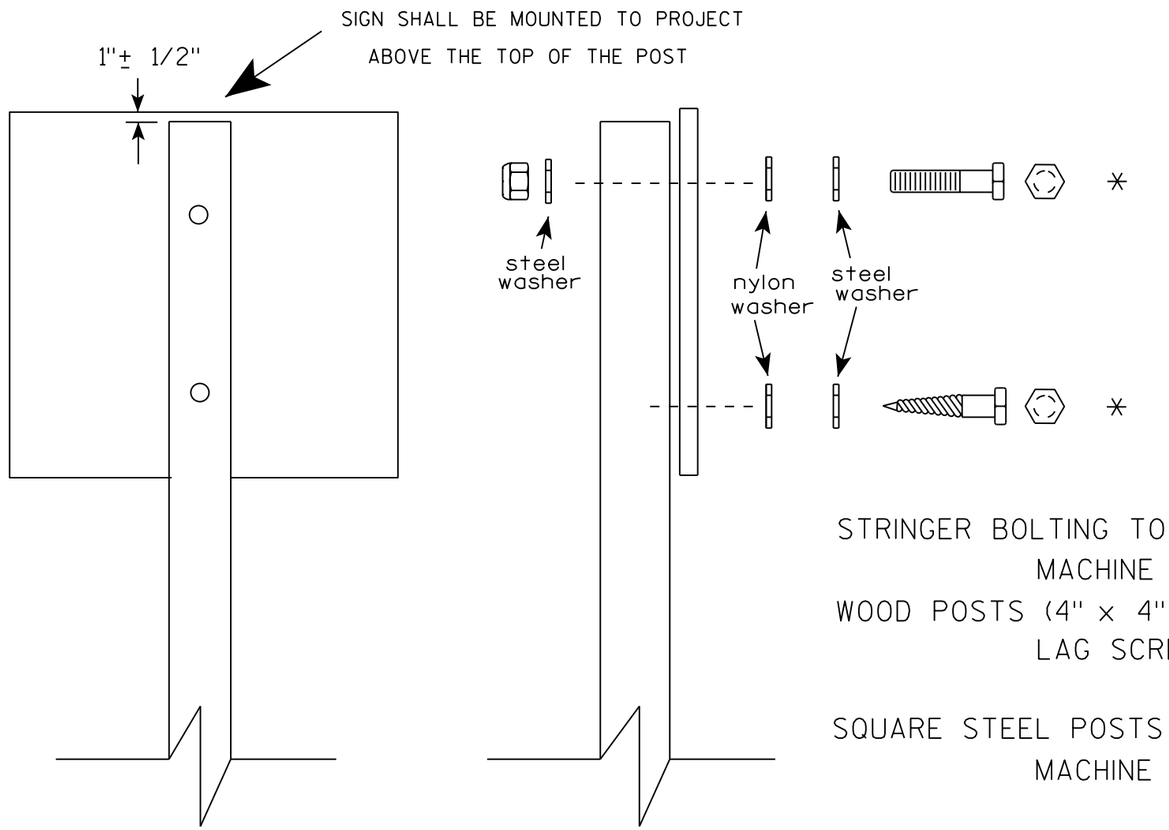
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 49	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

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

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

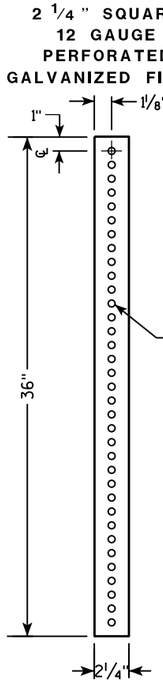
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

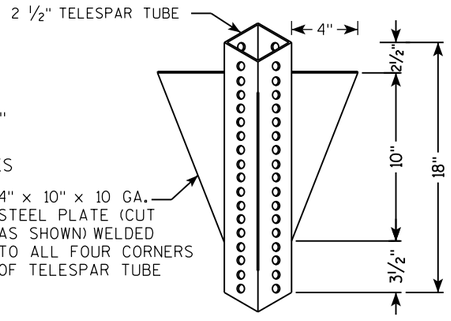
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

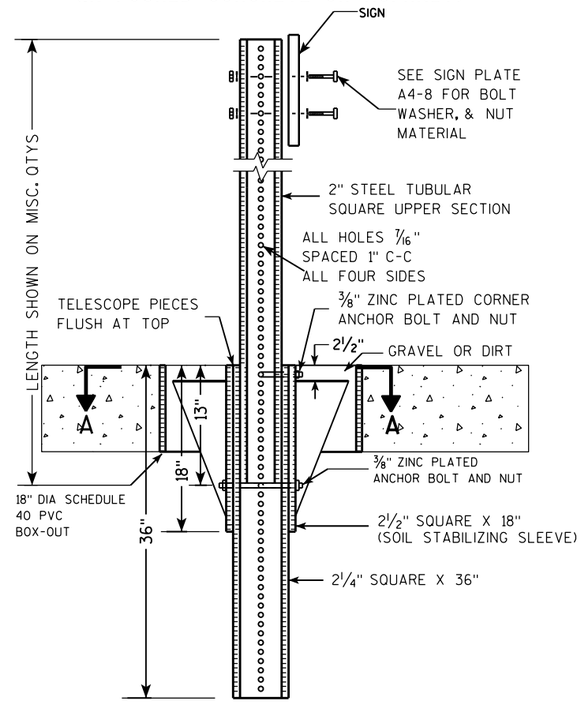
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



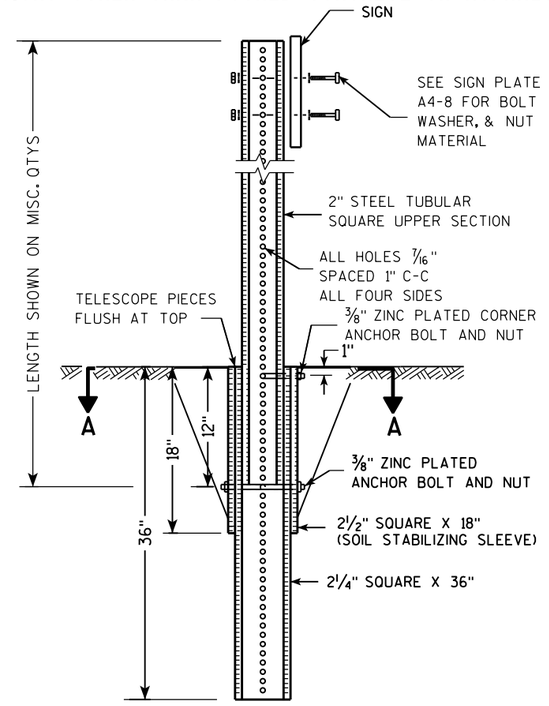
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

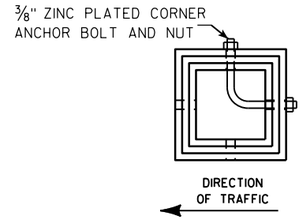


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

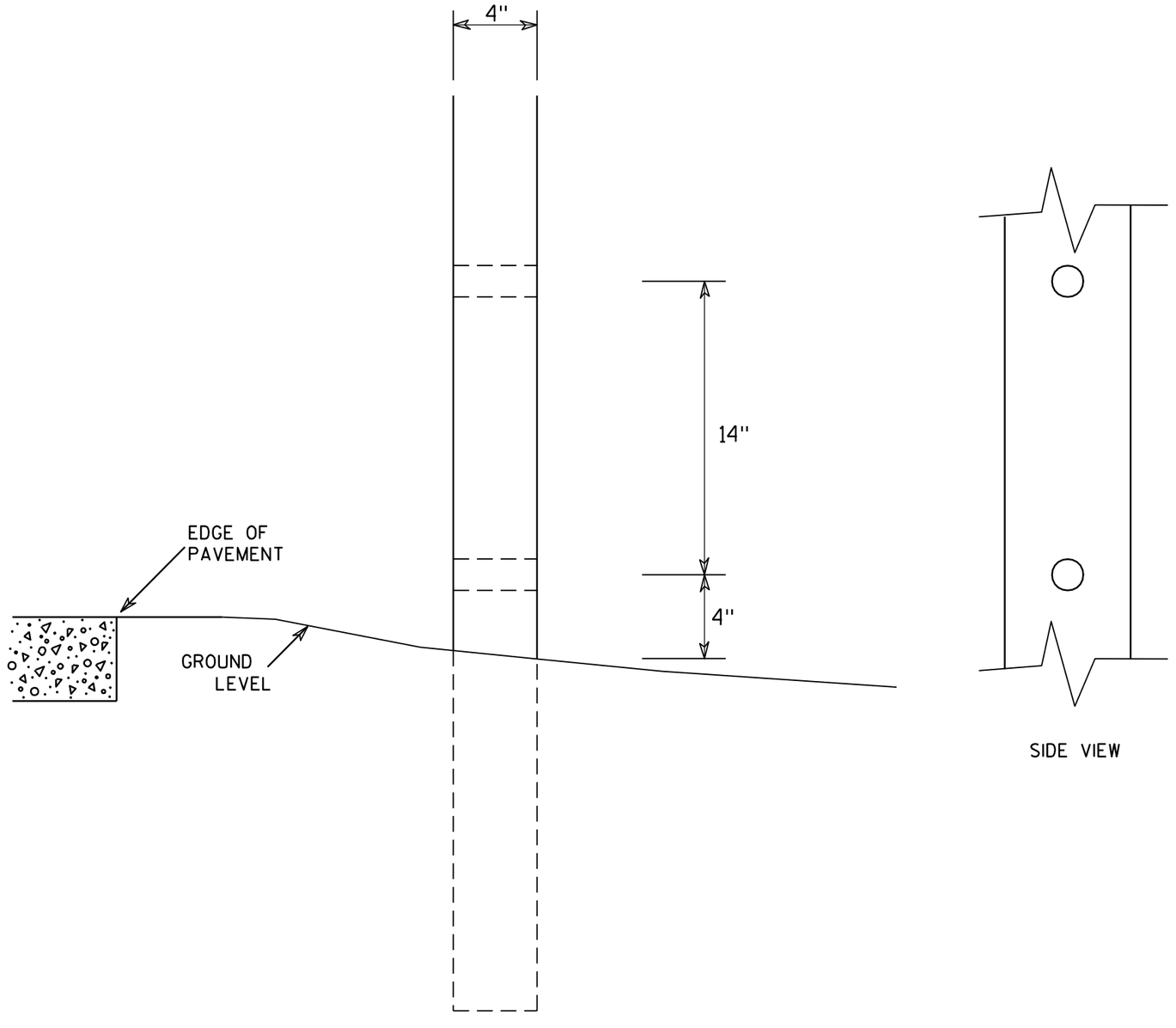
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

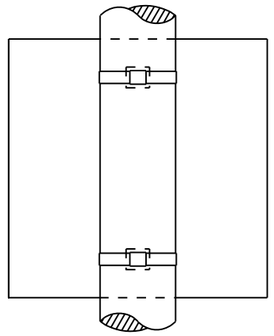
APPROVED Chester J Spang for State Traffic Engineer

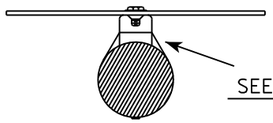
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 52	E

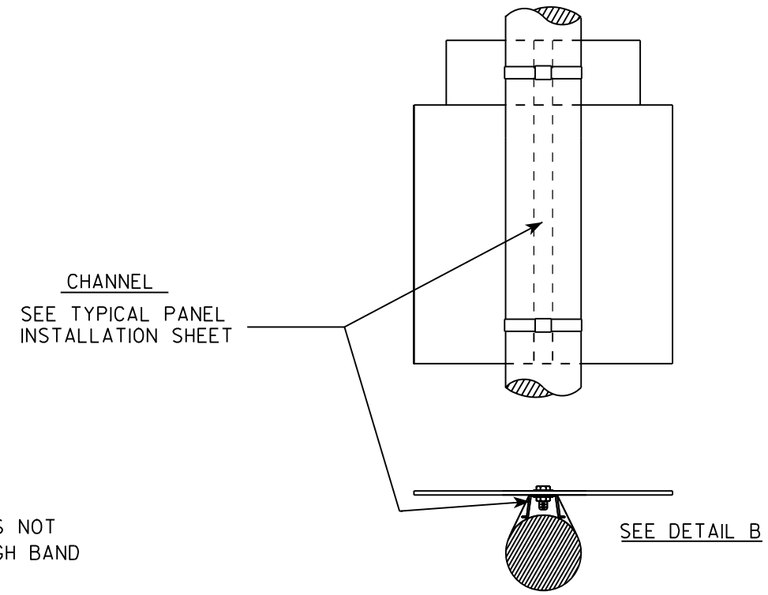
BANDING

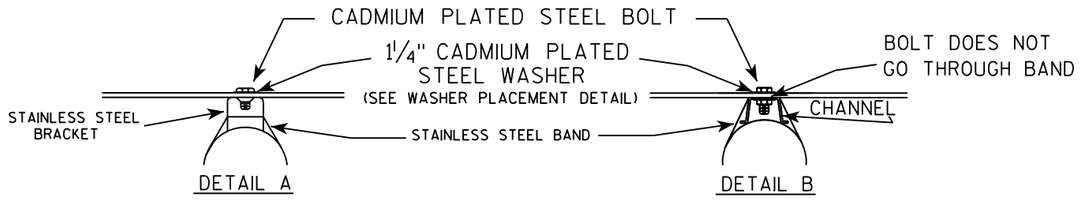
SINGLE SIGN



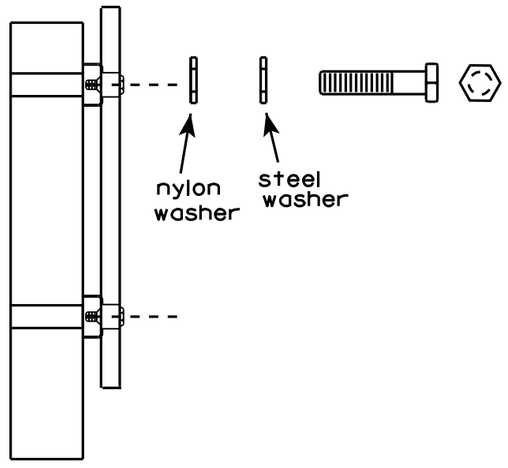


"J" ASSEMBLY





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 ¾" in width and 0.025" thickness.

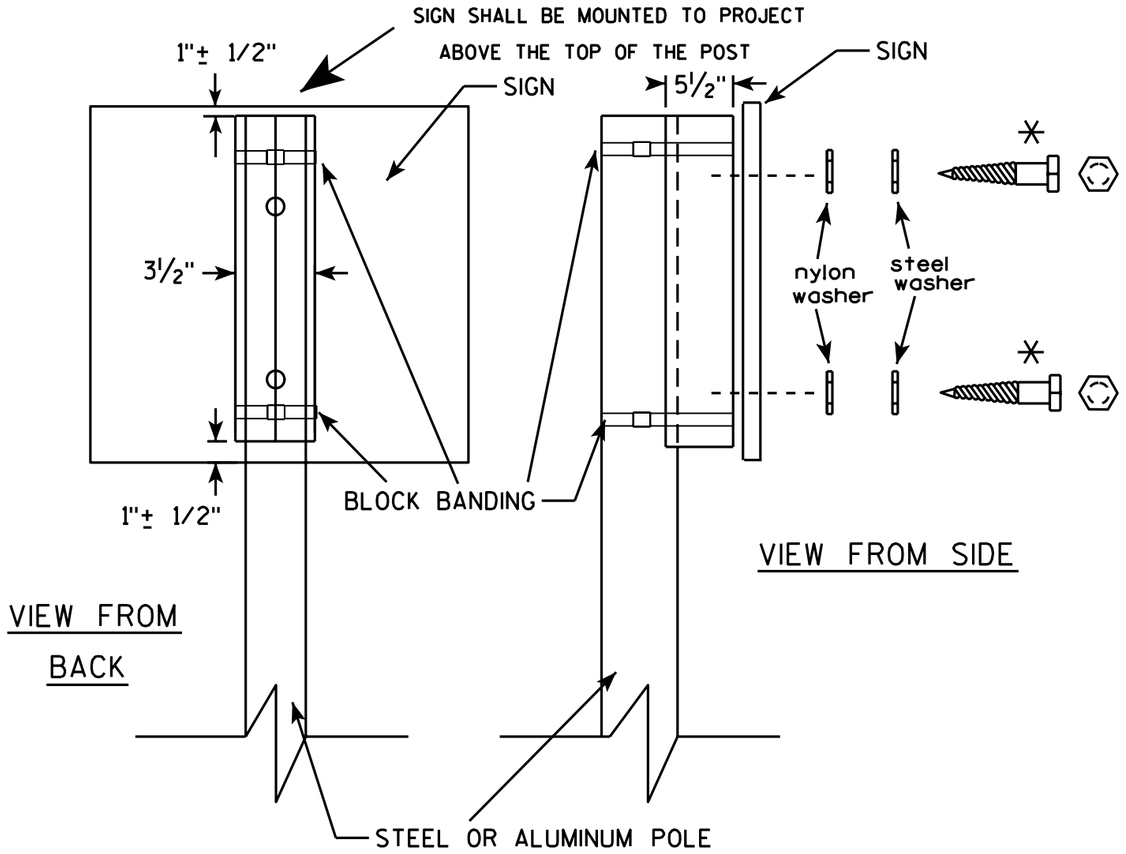
STANDARD SIGN
SIGN BANDING DETAILS

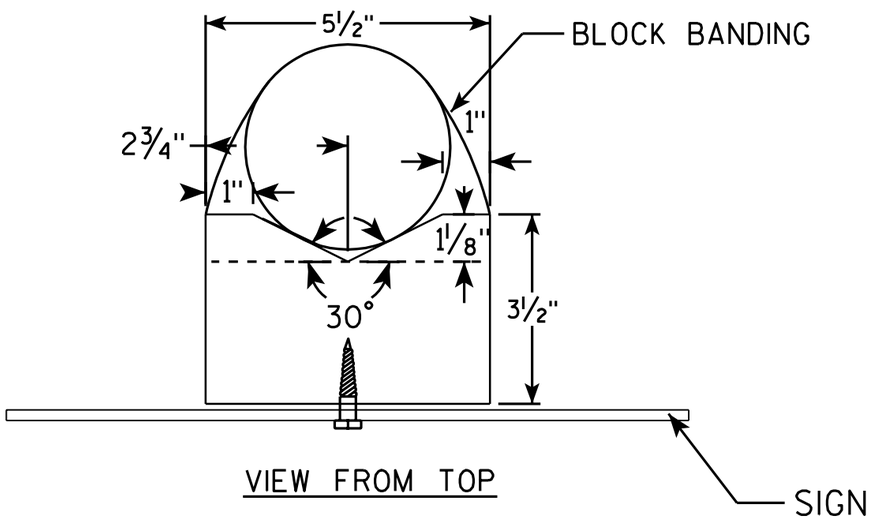
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

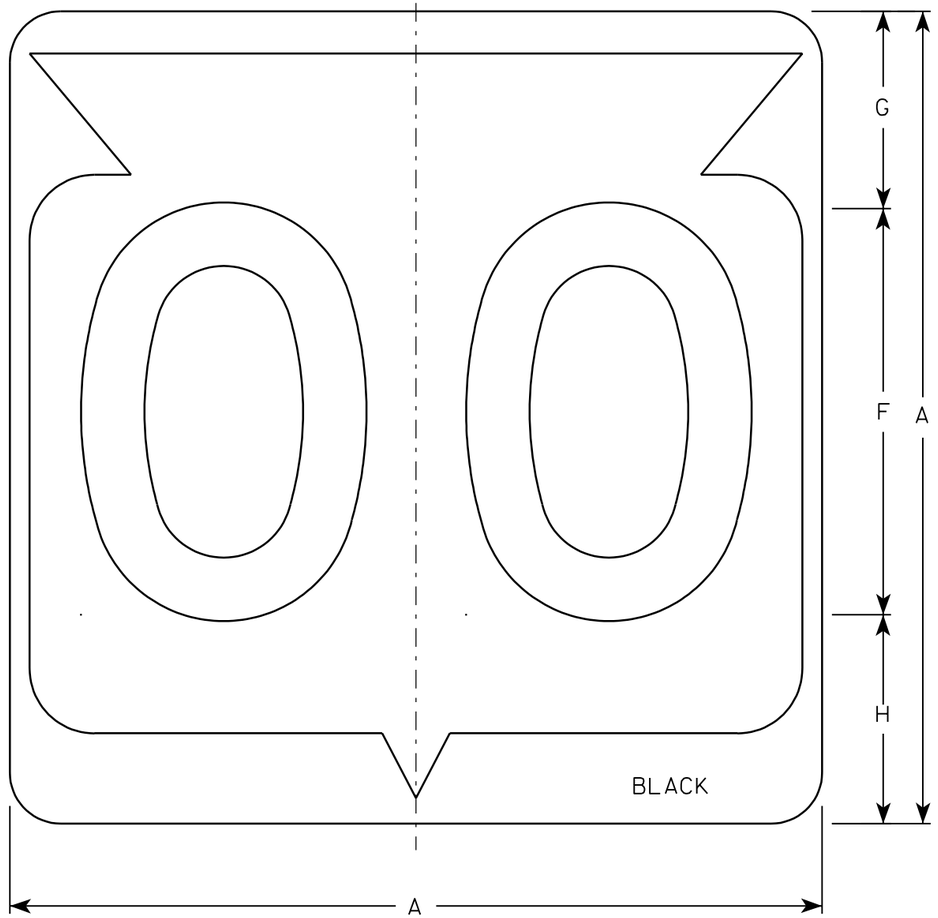
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

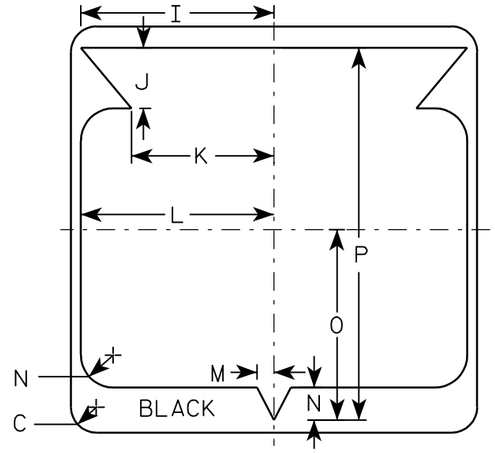
PROJECT NO:				SHEET NO: 54	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

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

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		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

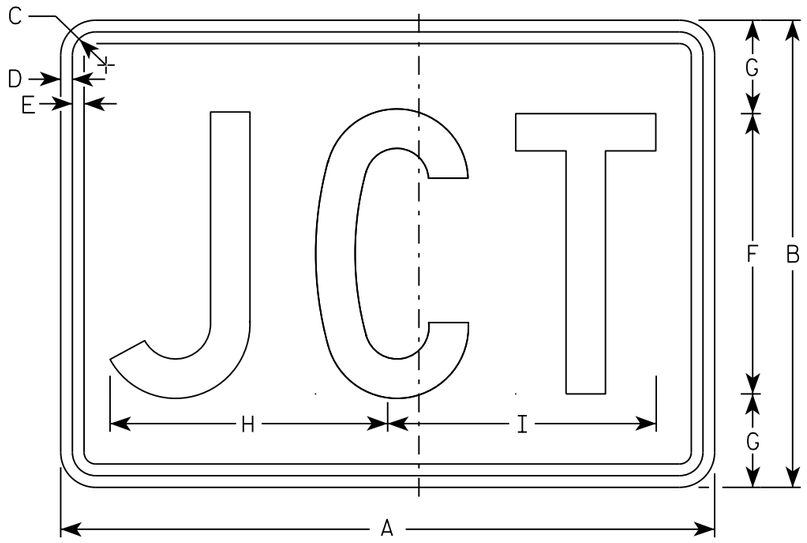
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

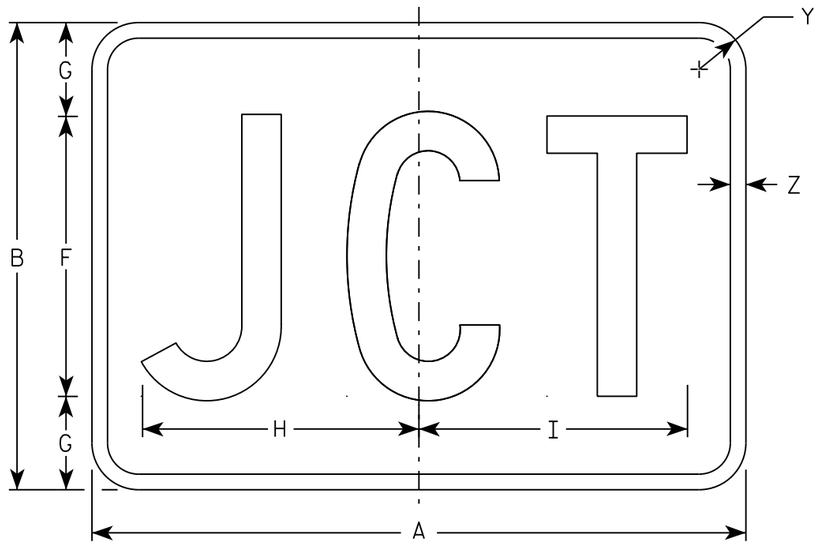
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 55	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

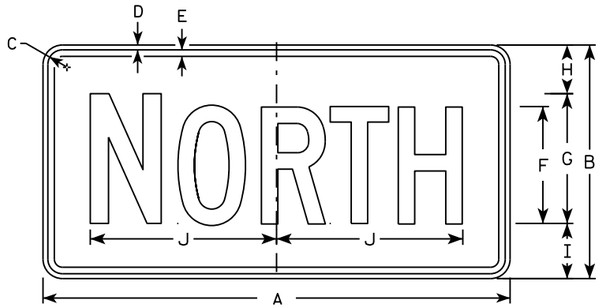
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

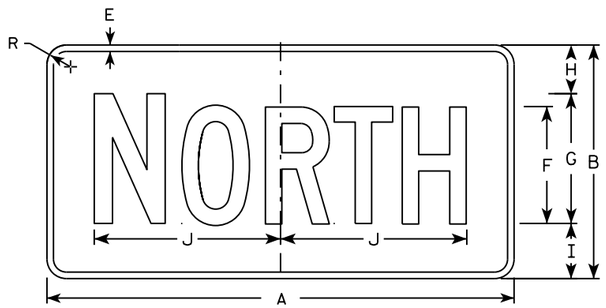
DATE 10/15/15 PLATE 56 M2-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



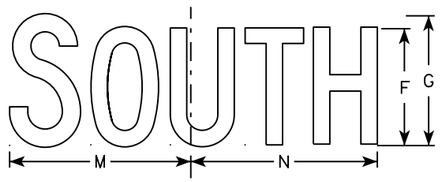
MB3-1
MK3-1
MN3-1



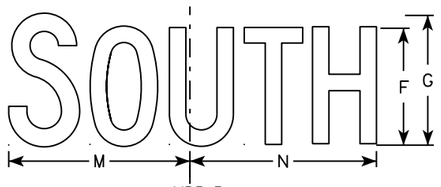
M3-2
MM3-2
MP3-2



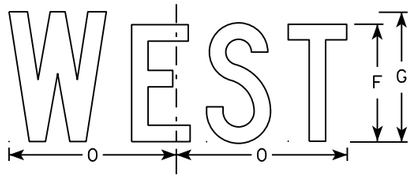
MB3-2
MK3-2
MN3-2



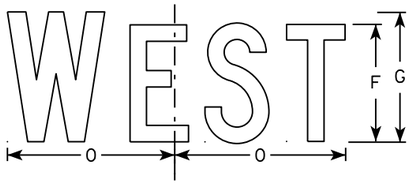
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

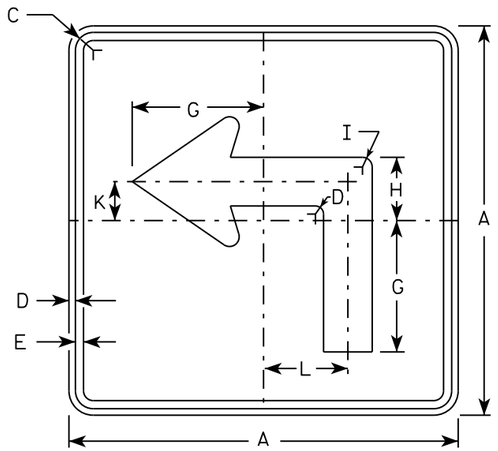
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

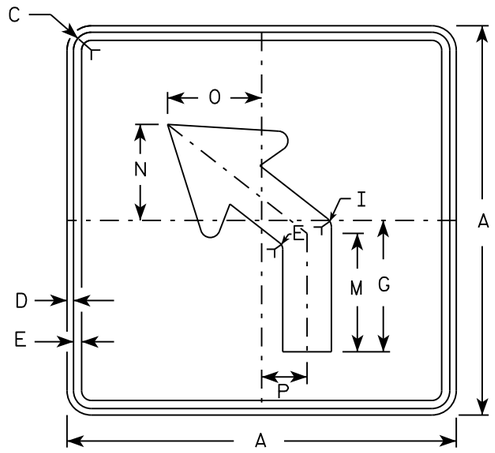
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

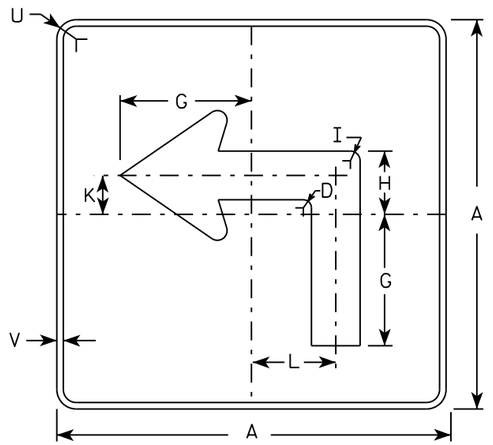
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



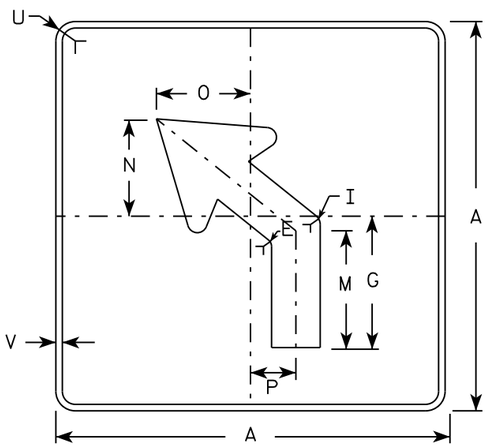
M5-1L
MM5-1L
MO5-1L
MP5-1L



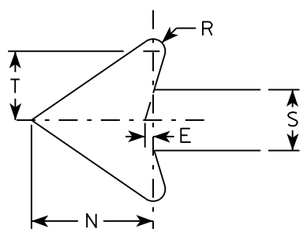
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

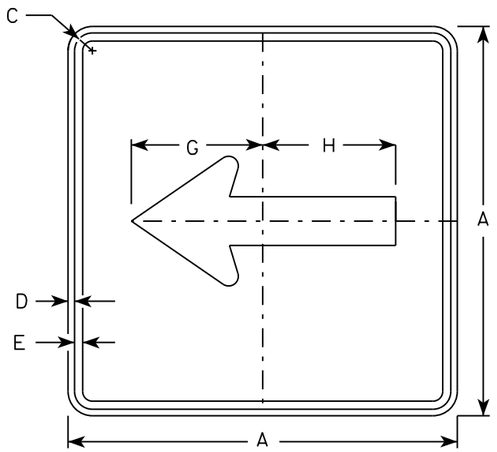
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

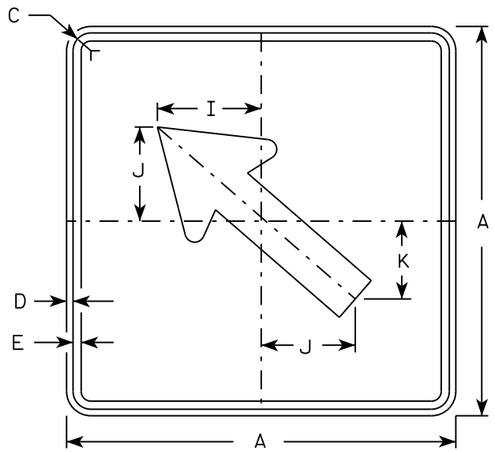
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



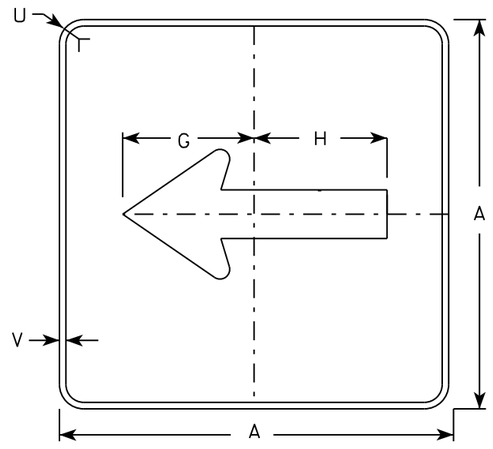
M6-1
MM6-1
MO6-1
MP6-1



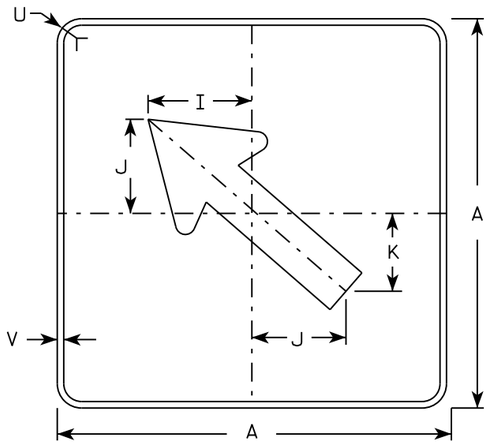
M6-2
MM6-2
MO6-2
MP6-2

NOTES

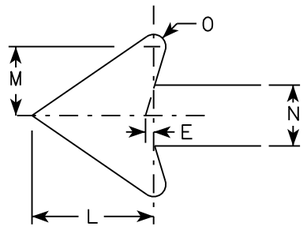
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

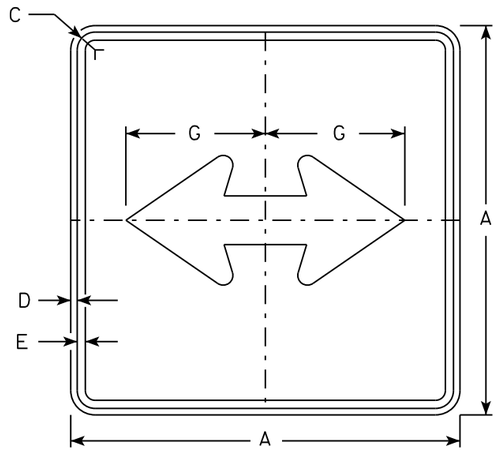
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

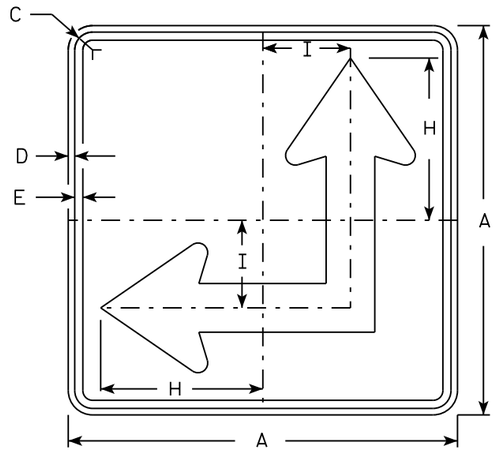
DATE 10/15/15 PLATE 59 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



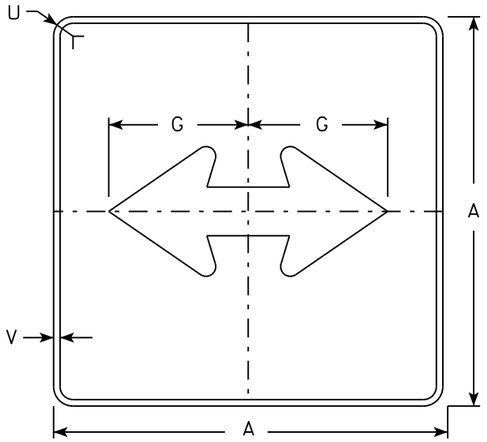
M6-4
MM6-4
MO6-4
MP6-4



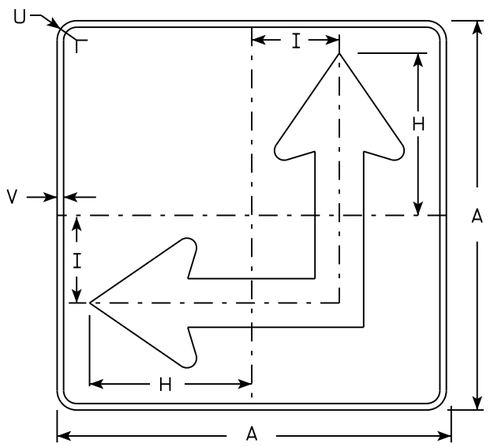
M6-6
MM6-6
MO6-6
MP6-6

NOTES

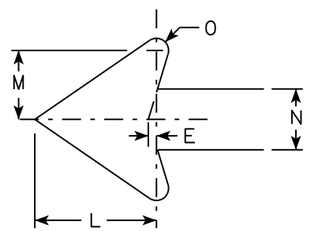
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

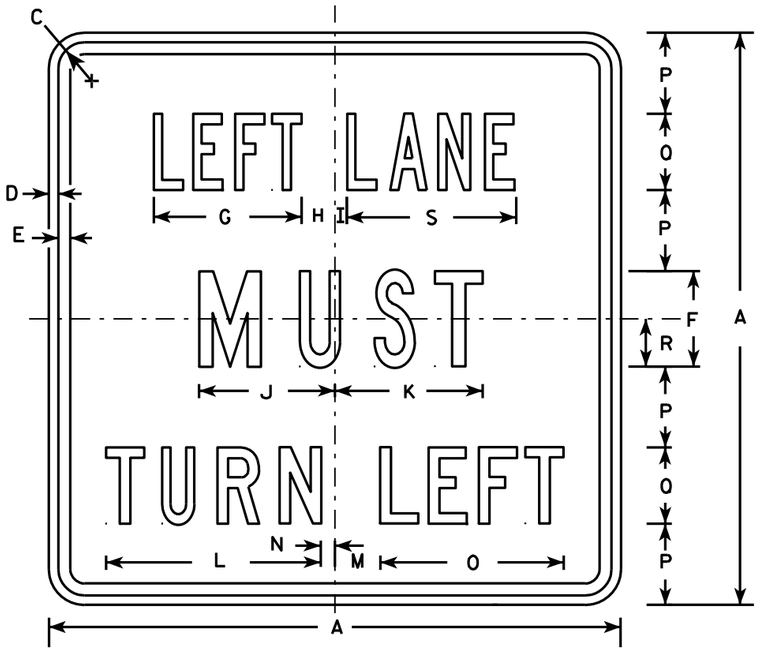
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

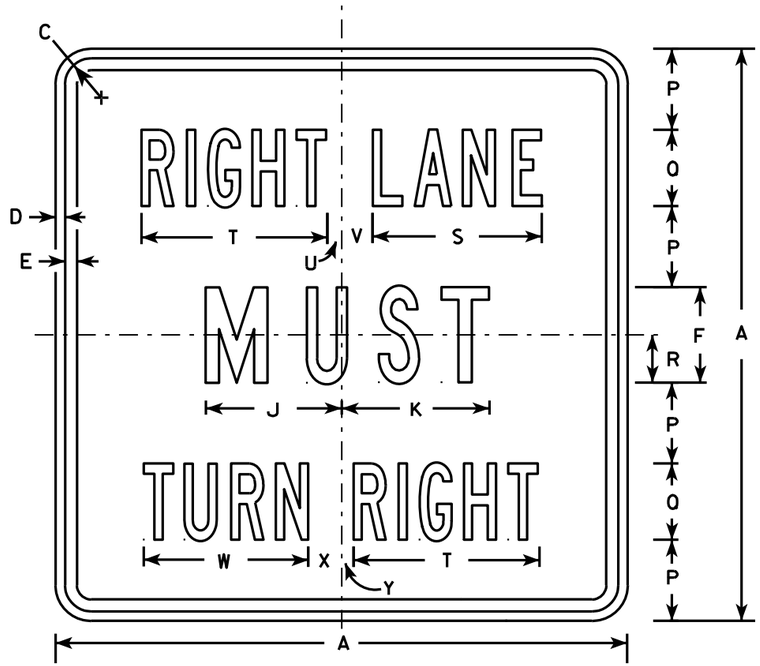
DATE 10/15/15 PLATE 60 M6-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R3-7L



R3-7R

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 - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

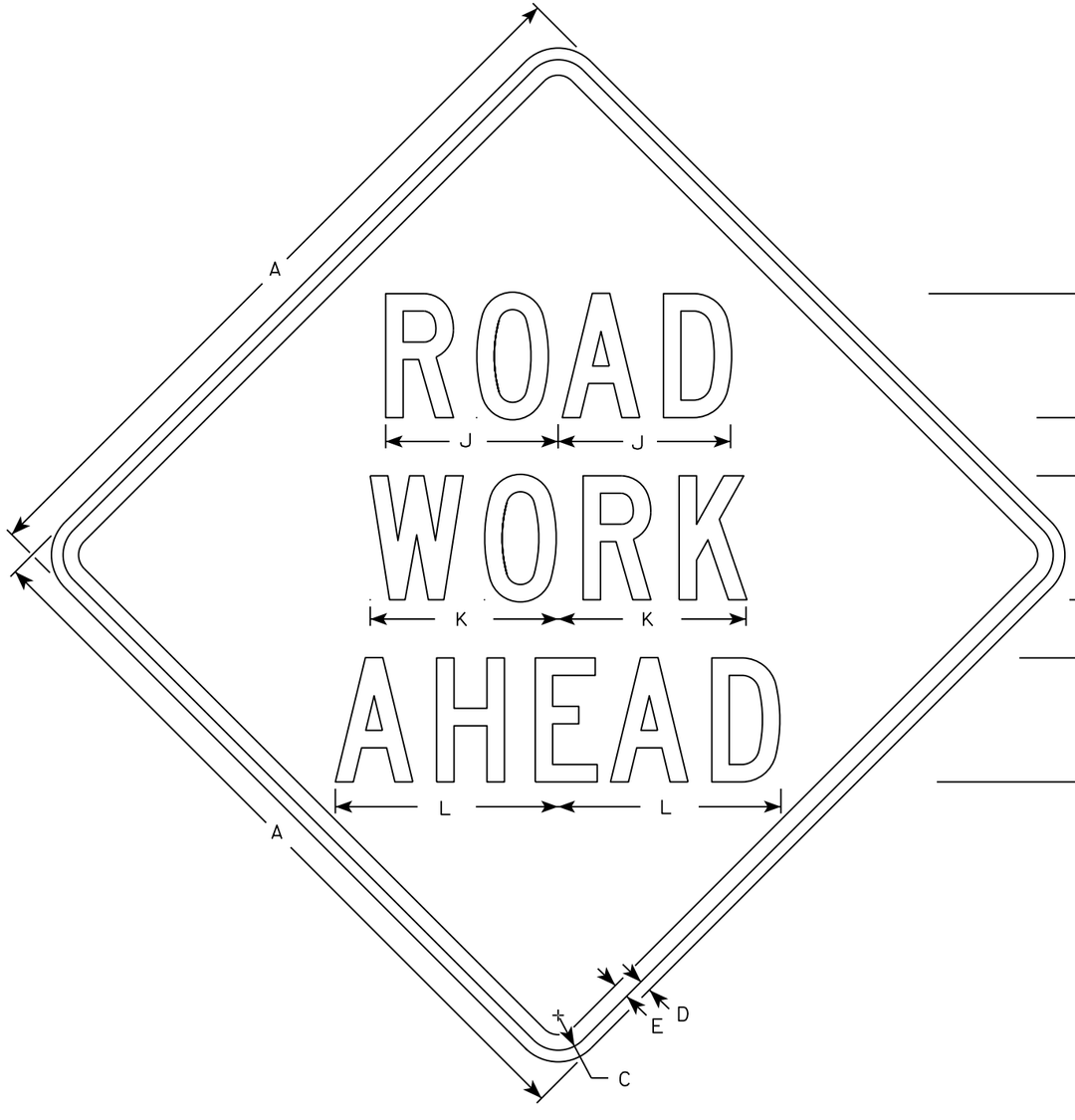
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

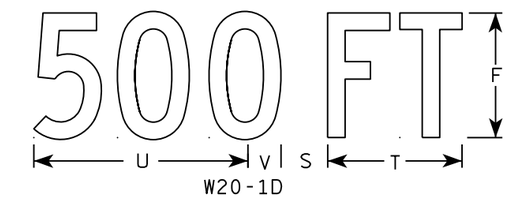
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

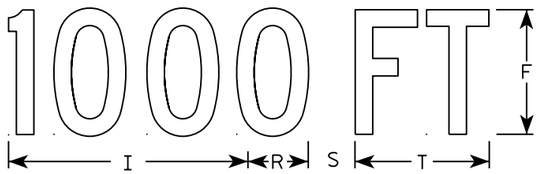
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 61 | E



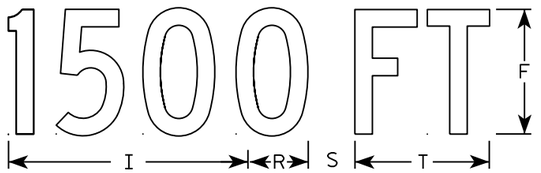
W20-1A



W20-1D



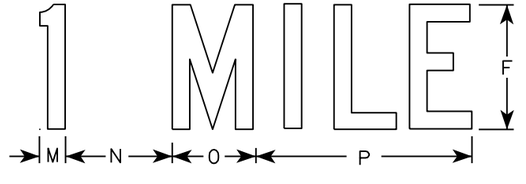
W20-1C



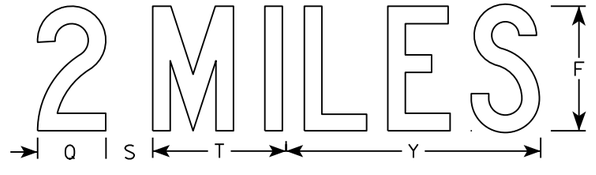
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

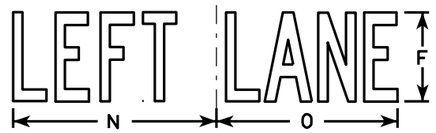
PROJECT NO:

SHEET NO: E

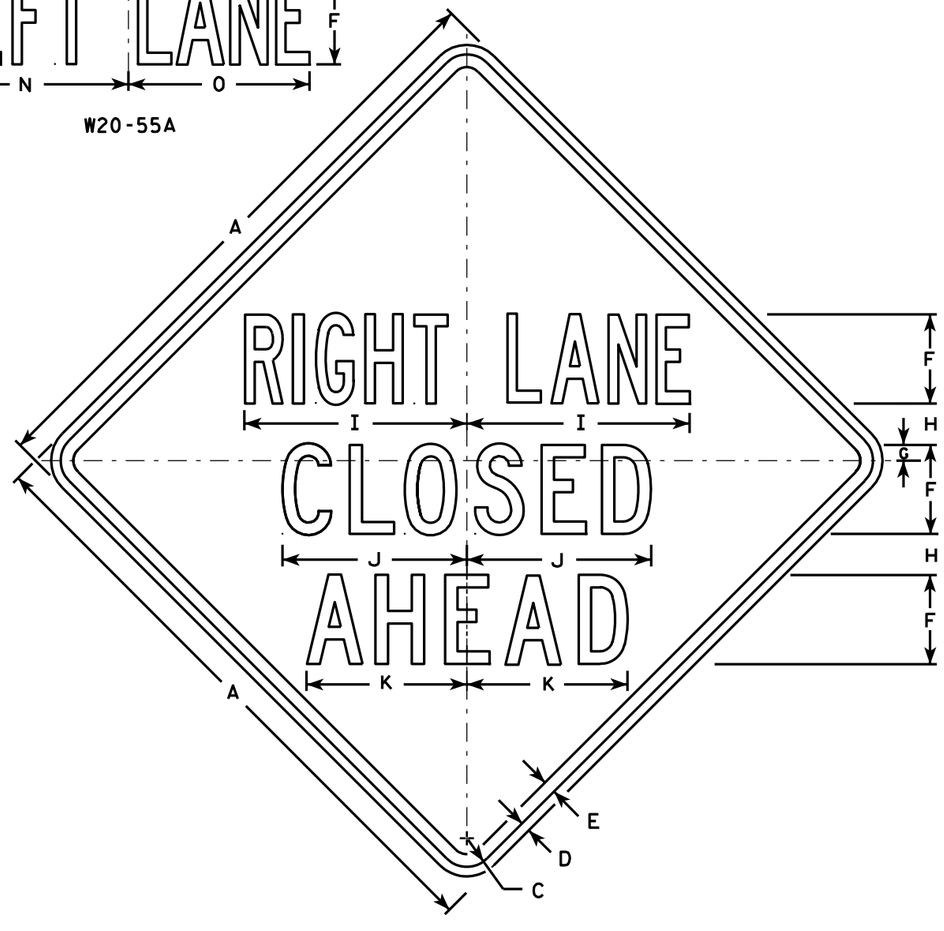
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



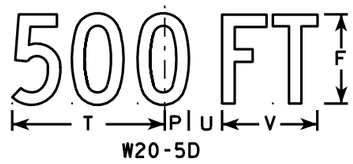
W20-56A



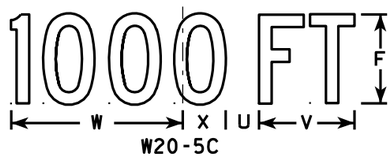
W20-55A



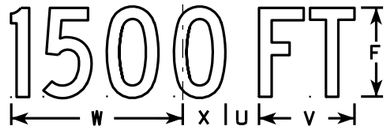
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

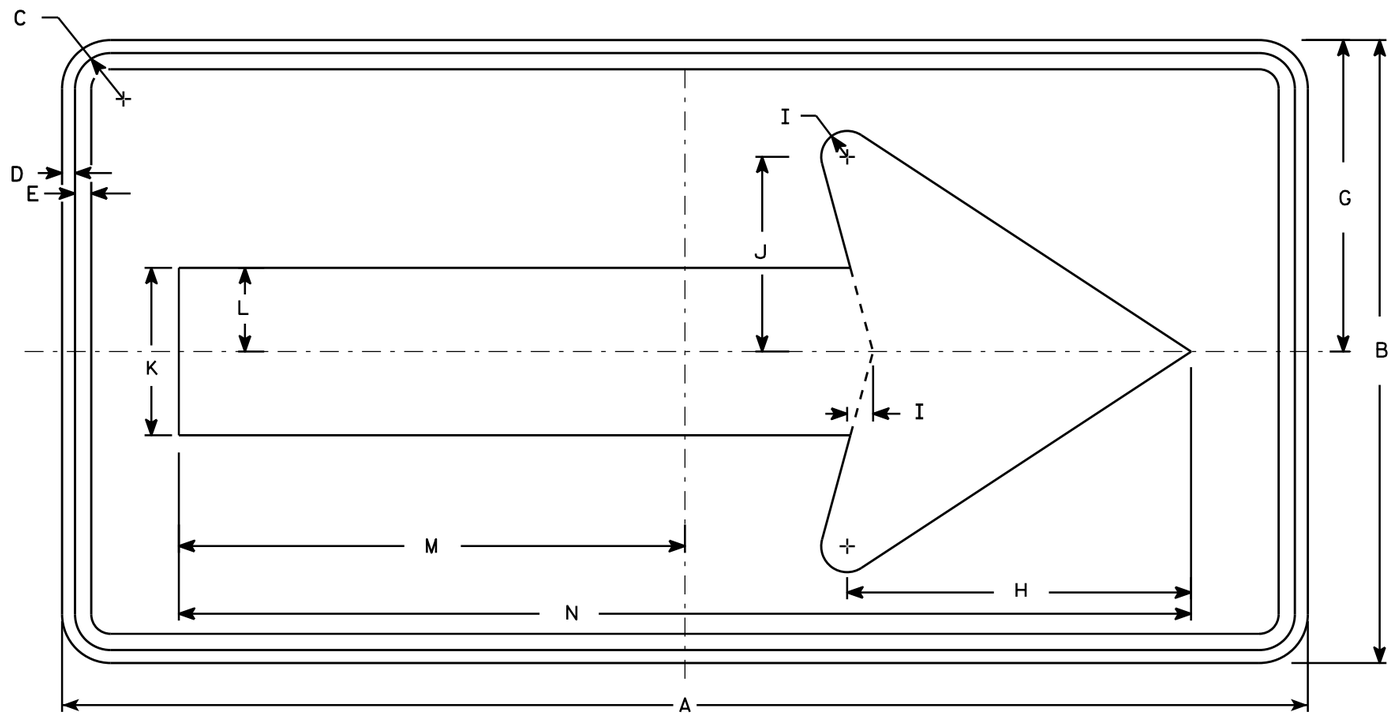
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 63 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

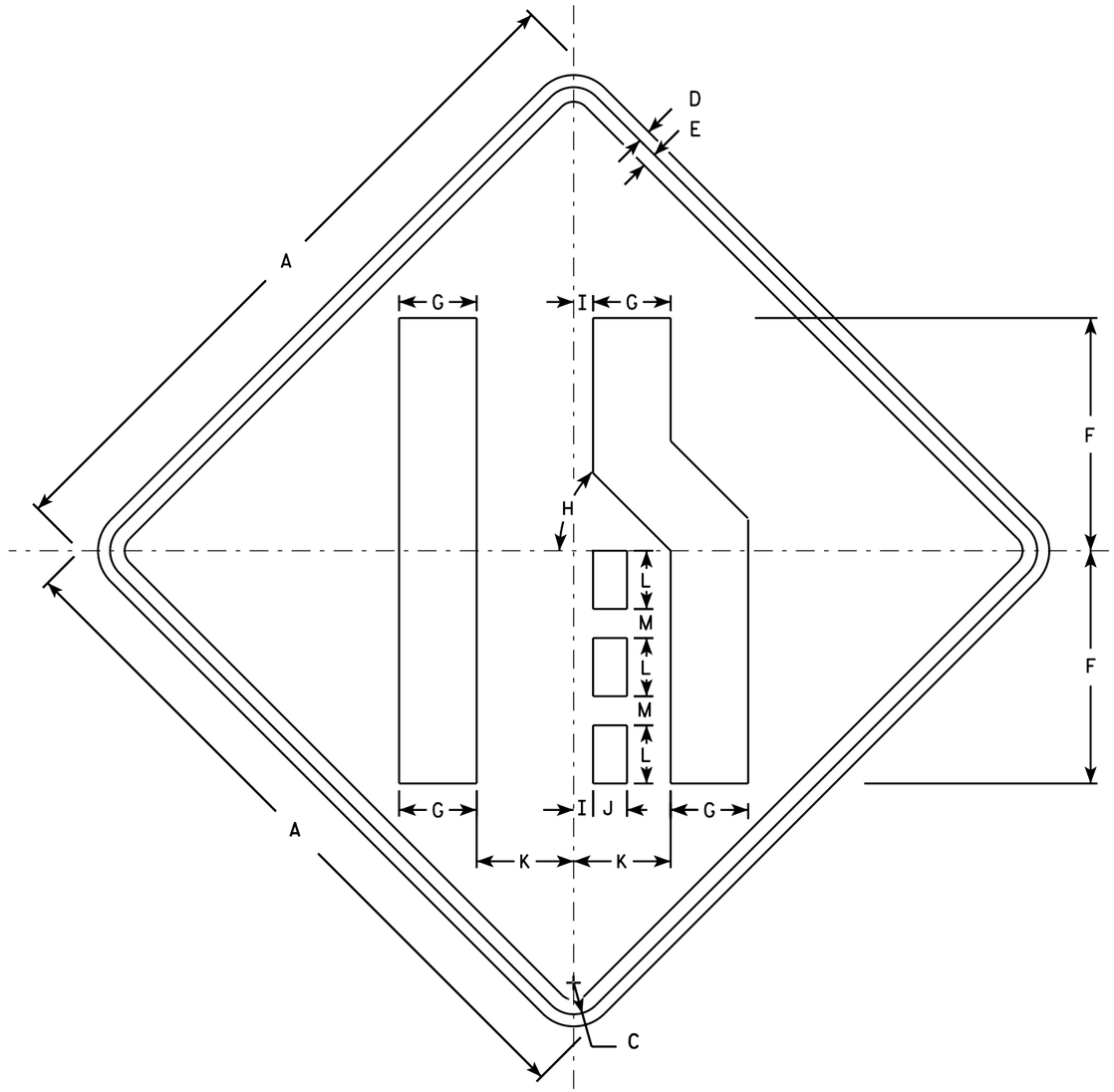
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

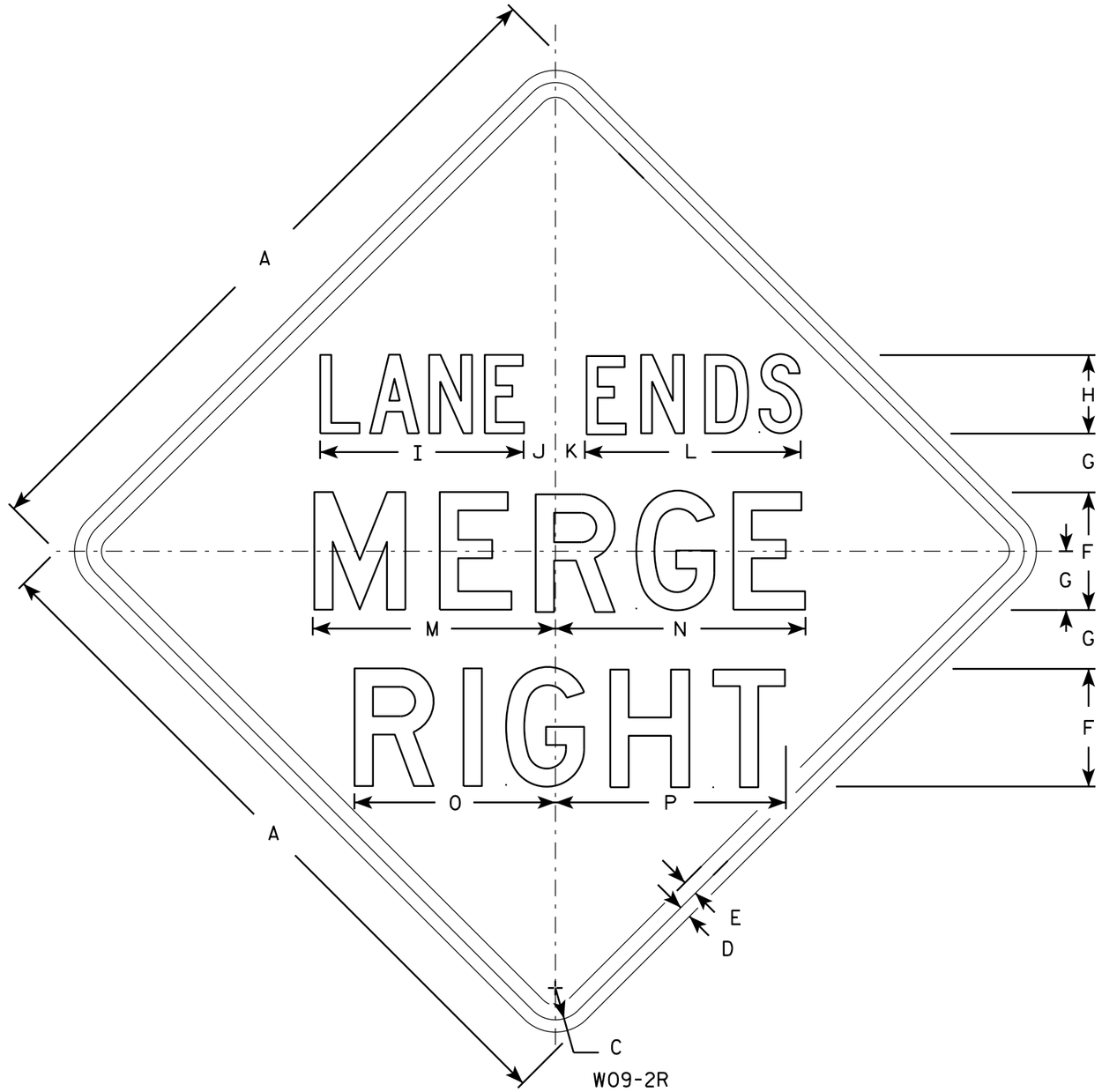
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

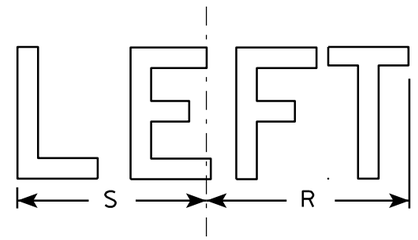
DATE 11/20/13 PLATE 65 W04-2.1

PROJECT NO:

SHEET NO: E



W09-2R



W09-2L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C, lines 2 & 3 are Series D.
6. W09-2L is the same as W09-2R except the word LEFT replaces RIGHT.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
2S	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
2M	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
3	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
4	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
5	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0

STANDARD SIGN
W09-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/02/13 PLATE NO W09-2.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W092.DGN PLOT DATE : 02-DEC-2013 15:18 PLOT BY : mscsja

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

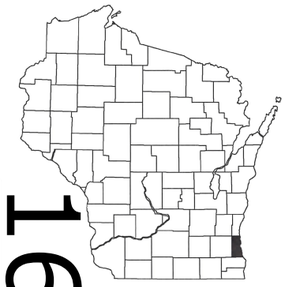
http://www.dot.wisconsin.gov

WKE MAR 2018

PROJECT ID WITH: 2400-00-72 2120-17-70

ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	TYPICAL SECTIONS AND DETAILS
SECTION NO.	3	MISCELLANEOUS QUANTITIES
~~SECTION NO.~~	~~4~~	~~RIGHT OF WAY PLAT~~
SECTION NO.	5	PLAN AND PROFILE
SECTION NO.	6	STANDARD DETAIL DRAWINGS
~~SECTION NO.~~	~~7~~	~~SIGN PLATES~~
~~SECTION NO.~~	~~8~~	~~STRUCTURE PLANS~~
SECTION NO.	9	COMPUTER EARTHWORK DATA
~~SECTION NO.~~	~~8~~	~~CROSS SECTIONS~~
TOTAL		258



16

COUNTY MILWAUKEE

DESIGN DESIGNATION

A.D.T. (CURRENT)	=	17,900
A.D.T. (2038)	=	20,600
D.H.V.	=	1800
D.	=	52%
TRUCKS	=	5.4%
DESIGN SPEED	=	40 MPH
ESALS	=	3,000,000

CONVENTIONAL SYMBOLS

PLAN

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE — P.L.
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE — R/W
- PROPOSED SEWER LATERAL — (SIZE)
- REFERENCE LINE
- CONCRETE WALK/DWY. REMOVAL
- LIMITS OF CONCRETE PAVEMENT REMOVAL — X X X X X X
- COMBUSTIBLE FLUIDS — CAUTION
- RAILROADS
- FENCE — (TYPE)
- CATCH BASIN OR INLET — EXISTING — PROPOSED

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- GRADE ELEVATION — 95.36

UTILITIES

TRAFFIC & ELECTRICAL SERVICES	TE&ES
CITY UNDERGROUND CONDUIT	CUC
ELECTRIC	E
GAS	G
SANITARY SEWER	SAN
STORM SEWER	STO
WATER	W
TELEPHONE	T
MILWAUKEE METRO SEWERAGE DIST	MMSD
TRAFFIC & ELECTRICAL SERVICES	
FIRE & POLICE CALL BOX	
LIGHT POLE	
POWER POLE	
TELEPHONE OR TELEGRAPH POLE	
TRAFFIC SIGNAL	
TRAFFIC SIGNAL CONTROL BOX	
HYDRANT	
GAS OR WATER GATE VALVE	
MANHOLES - SEWER ○ UTILITY (TYPE)	□
TREES - EXISTING ◑ TO BE REMOVED	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

W. OKLAHOMA AVENUE

S. 60TH STREET TO S. 49TH STREET

LOCAL STREET

MILWAUKEE COUNTY

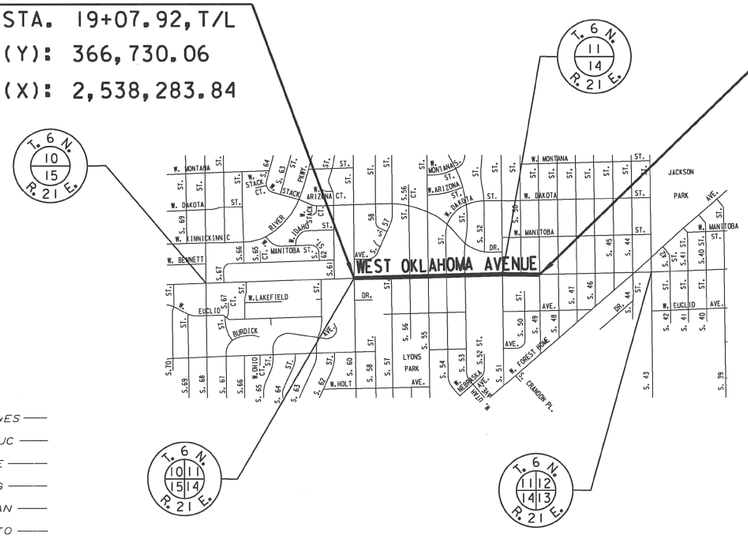
STATE PROJECT NUMBER

2400-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2400 - 00 - 72	WISC 2018149	1

BEGIN PROJECT
STA. 19+07.92, T/L
(Y): 366,730.06
(X): 2,538,283.84

END PROJECT
STA. 53+78.15, T/L
(Y): 366,815.19
(X): 2,541,753.02



LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.657 MI. (URBAN)

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 27 SOUTH ZONE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODEDIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

Accepted For
City of Milwaukee

10/24/17 (Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLENSKE E-32039 MILWAUKEE WIS. PROFESSIONAL ENGINEER

10/20/17 (Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee
Designer City of Milwaukee
Management Consultant DAAR Engineering, Inc.
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 10/25/17 (Management Consultant Signature)

E

FILE NAME: W:\SPR\OKLAHOMA_60TH-49TH\MISC\TITLE.DGN

PLOT DATE: 28-SEP-2017

GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH BASE AGGREGATE DENSE, 1-1/4 INCH.

2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4"OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

4. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

5. ALL LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.

6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

7. ALL STATION AND OFFSET OF CURB REFERENCED IN THE PLANS ARE TO THE FACE OF THE CURB, INCLUDING RADII.

8. FOR ANY EXCAVATION OF SIX FEET OR MORE IN THE CITY OF MILWAUKEE, THE CONTRACTOR, WHEN REQUESTING A UTILITY LOCATE TICKET FROM DIGGER'S HOTLINE, SHALL SPECIFICALLY ASK FOR THE LOCATION TICKET TO INCLUDE THE MARKING OF ALL THE EXISTING SEWER FACILITIES WITHIN THE LIMITS REQUESTED.

9. FOR VERTICAL INSTALLATION OF MONTUBE BASES, POLES, OR DIRECT BURY POLES, THE CONTRACTOR SHALL CONTACT BOB BROOKS @ (414) 286-3241 OR NANCY ALVARADO @ (414)286-2013 AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION

10. DESIGNER CONTACT: NICK GOODWIN
TEL. (414) 286-0461
ngoodw@milwaukee.gov

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
CUC	- CITY UNDERGROUND CONDUIT
C	- CURB
ELEV.	- ELEVATION
ENT.	- ENTRANCE
EXIST.	- EXISTING
F	- FLANGE
G	- GUTTER, OR GAS
HYD.	- HYDRANT
LT.	- LEFT
MMSD	- MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
P/L.	- PROPERTY LINE
R OR RAD.	- RADIUS
RET.	- RETAINING
RT.	- RIGHT
R/W	- RIGHT OF WAY
TEL	- AMERITECH
TES	- TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	- TRANSIT LINE
WEP	- WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
UTILITY CONTACTS
PROJECT OVERVIEW
TYPICAL SECTION
CONSTRUCTION DETAILS
CURB RAMP DETAILS
CONSTRUCTION PERMITS
PLAN DETAIL
SIDEWALK REMOVAL PLAN
EROSION CONTROL
DRAINAGE CONSTRUCTION DETAILS
UTILITIES AND DRAINAGE
BIO-SWALE DETAIL/PLAN
TREE REMOVAL/PLANTING DETAIL/PLAN
CUC DETAILS/PLAN
TRAFFIC SIGNAL & LIGHTING PLAN/DETAILS
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT PLAN
LANDMARK REFERENCE PLANS

2

UTILITY CONTACS

AT & T Wisconsin
Matthew Dinnauer
2005 Pewaukee Rd.
Waukesha, WI 53188
262-896-7690
md9542@att.com

American Transmission Company
Ron Latus
W234N2000 Ridgeview Parkway Ct.
Waukesha, WI 53188
(262) 832-8688

Charter Communications
(Time Warner Cable)
Steve Cramer
1320 N. Dr. Martin Luther King Jr.Dr.
Milwaukee, WI 53204
(414) 277-4045
steve.cramer@charter.com

City of Milwaukee – Utility Coordinator
Mohammad AbuLughold
841 N. Broadway, rm 710
Milwaukee, WI
(414) 708-3085 - M
mohammad.abulughold@milwaukee.gov

City of Milwaukee – Communication
DPW Communication Dispatch
1440 W. Canal St.
Milwaukee, WI 53233
(414) 286-3686

City of Milwaukee - CUC
DPW Communication Dispatch
1440 W. Canal St.
Milwaukee, WI 53233
(414) 286-3686

City of Milwaukee - Sewers
Zafar Yousuf
841 N. Broadway Milwaukee,
WI
(414) 286-2467

UTILITY CONTACS

City of Milwaukee – Street Lighting
George Berdine
1540 W. Canal St.
Milwaukee, WI 53233
(414) 286-5942
(414) 708-4245

City of Milwaukee – Traffic Signals
Alfonzo Nichols
1540 W. Canal St.
Milwaukee, WI53233
(414) 286-5941
(414) 708-5148

Midwest Fiber Networks
Patrick Graham
6070 N. Flint Rd.
Glendale, WI 53209
(414) 672-5612

WE Energies – All Correspondence
Dan Sande, P.E.
333 W. Everett St.
Milwaukee, WI
(414) 221-4578
Dan.Sande@we-energies.com

WE Energies – Field
Alex Dantinne
500 S. 116th St
Milwaukee, WI 53214
(920) 621-6903
alex.dantinne@we-energies.com

OTHER CONTACS

City of Milwaukee – Design Contact
Nick Goodwin
841 N. Broadway, rm 902
Milwaukee, WI 53202
(414) 286-0461
ngoodw@milwaukee.gov

Milwaukee County Park System
Jill Organ
9480 Watertown Plank Rd.
Wauwatosa, WI 53213
(414) 257-4775

Milwaukee County Transit System
Melenie Mac Arthur
1942 N. 17th St.
Milwaukee, WI 53205
(414) 343-1764
mmacarthur@mcts.org

Milwaukee Metropolitan Sewerage District
Larry Anderson
260 W. Seeboth St.
Milwaukee, WI 53204
(414) 225-2241 - O
(414) 617-1429 - M

Wisconsin Dept. of Natural Resources
Kristina Betzold
2300 N. Dr. Martian Luther King Jr. Dr.
Milwaukee, WI 53205
(414) 507-4946
Kristina.betzold@wisconsin.gov

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

2



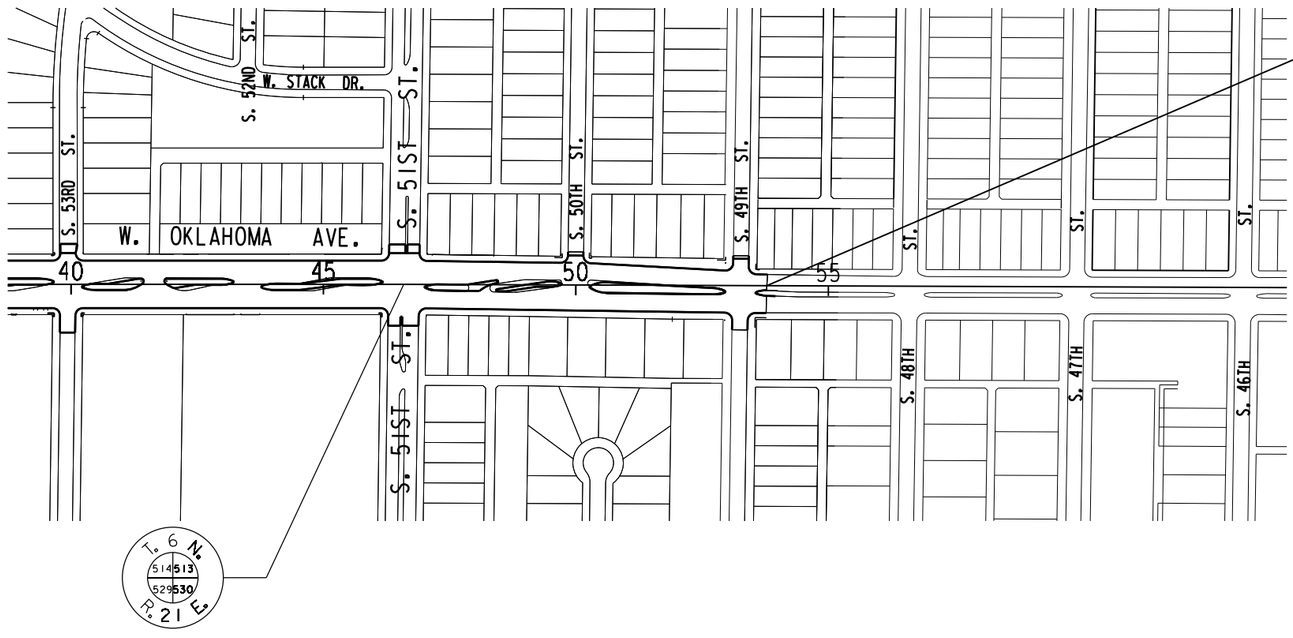
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BEGIN PROJECT 2400-00-72

STA. 19+07.92

(Y): 366,730.06

(X): 2,538,283.84



N

END PROJECT

STA. 53+78.15

(Y): 366,815.19

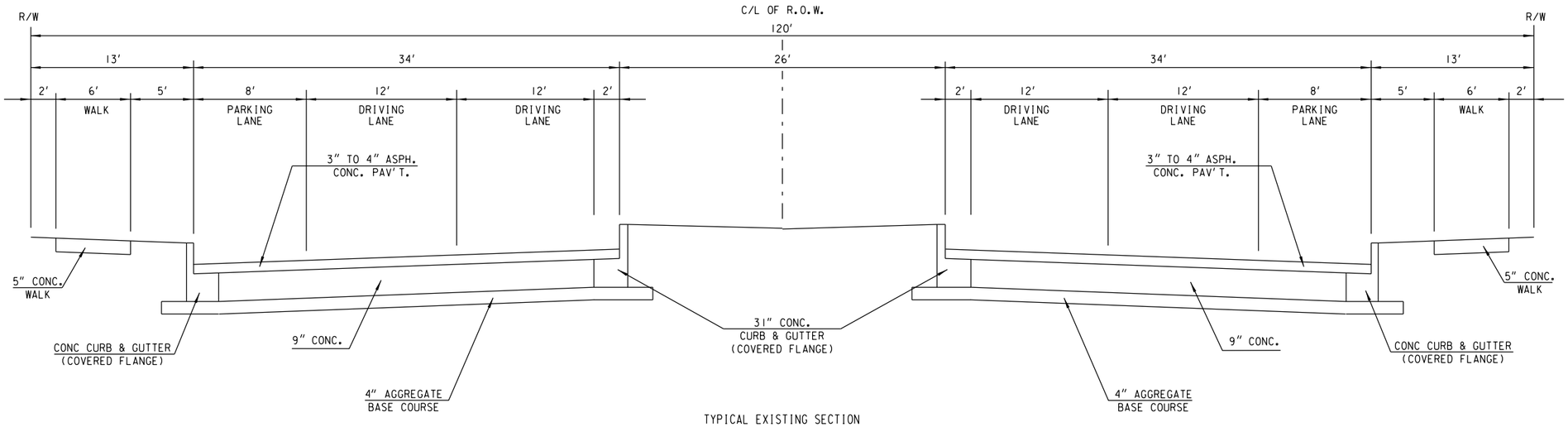
(X): 2,541,753.02

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 4	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\MISC\OVERVIEW.DGN

REVISED DATE: 09-20-2017 BY DB

2



TYPICAL EXISTING SECTION

WEST OKLAHOMA AVENUE

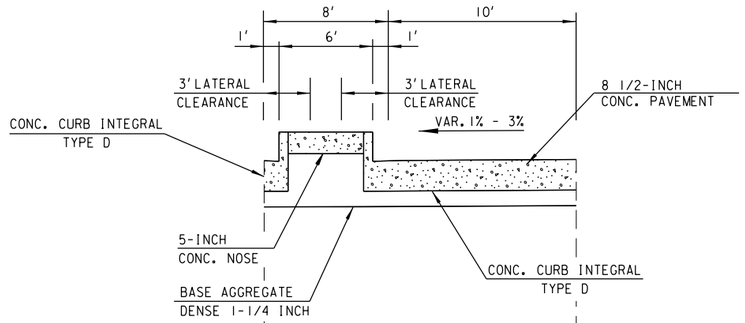
STA. 19 + 07.92 TO STA. 50 + 12

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET 0' 40'	SHEET NO: 5	E

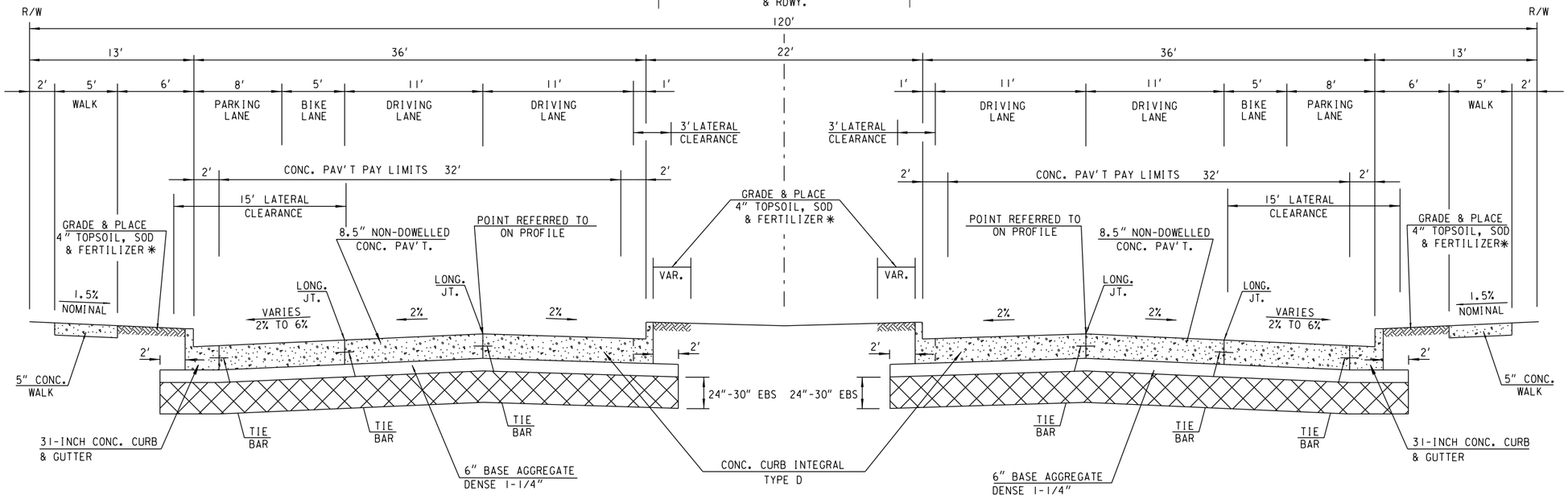
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TYPSEC.DGN

REVISED DATE: 10-03-2017 BY PRM

2



TYPICAL FINISHED LEFT TURN LANE



TYPICAL FINISHED SECTION

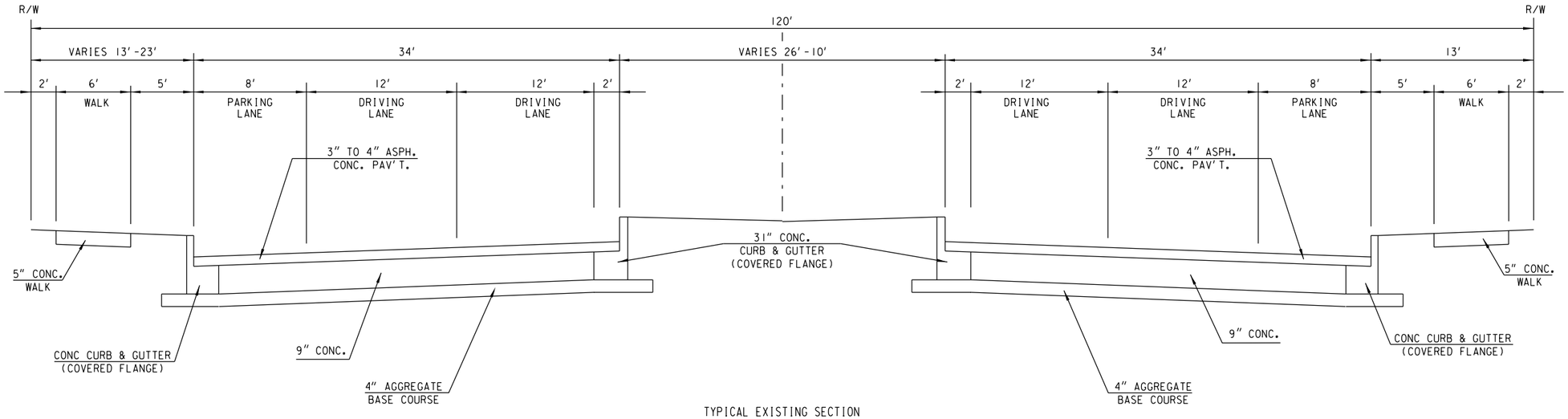
WEST OKLAHOMA AVENUE

STA. 19 + 07.92 TO STA. 50 + 12

* WHERE INDICATED ON PLAN

EBS TO BE UNDERTAKEN ONLY AT THE DIRECTION OF THE ENGINEER. NO EXCAVATION BELOW SUBGRADE WILL BE CONDUCTED PRIOR TO FAILURE OF PROOF ROLL. DEPTH AND WIDTH OF EXCAVATIONS WILL BE DETERMINED BY THE ENGINEER BASED UPON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. SOIL REPORT AVAILABLE UPON REQUEST.

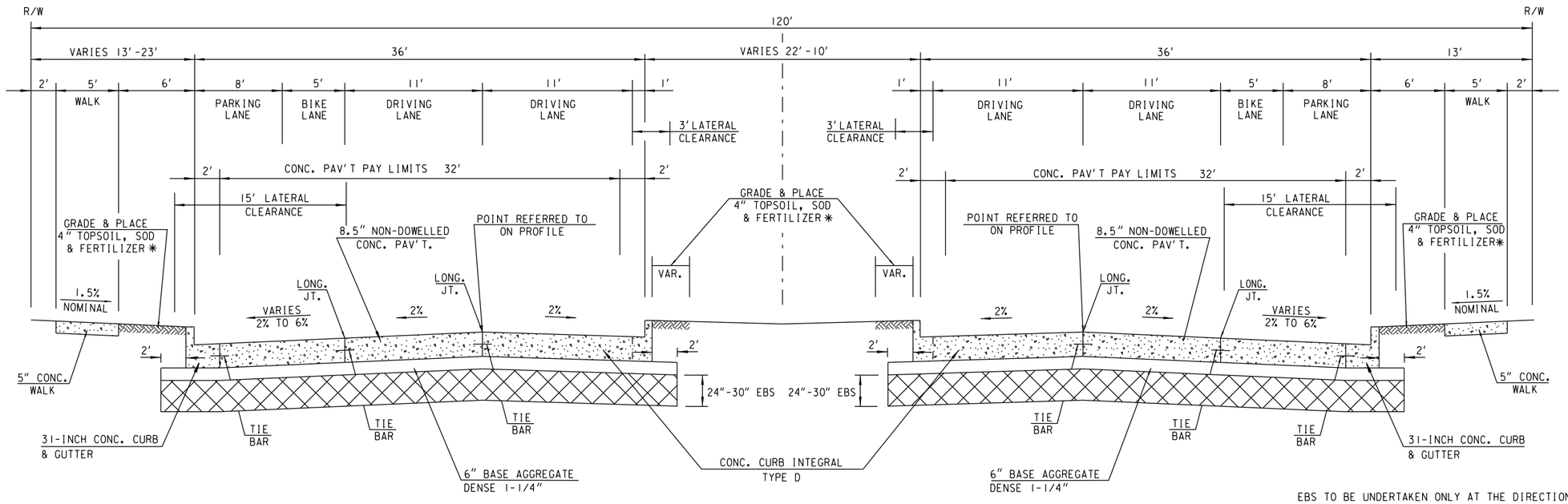
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 6	E



TYPICAL EXISTING SECTION

WEST OKLAHOMA AVENUE

STA. 50 + 12 TO STA. 53 + 78.15



TYPICAL FINISHED SECTION

WEST OKLAHOMA AVENUE

STA. 50 + 12 TO STA. 53 + 78.15

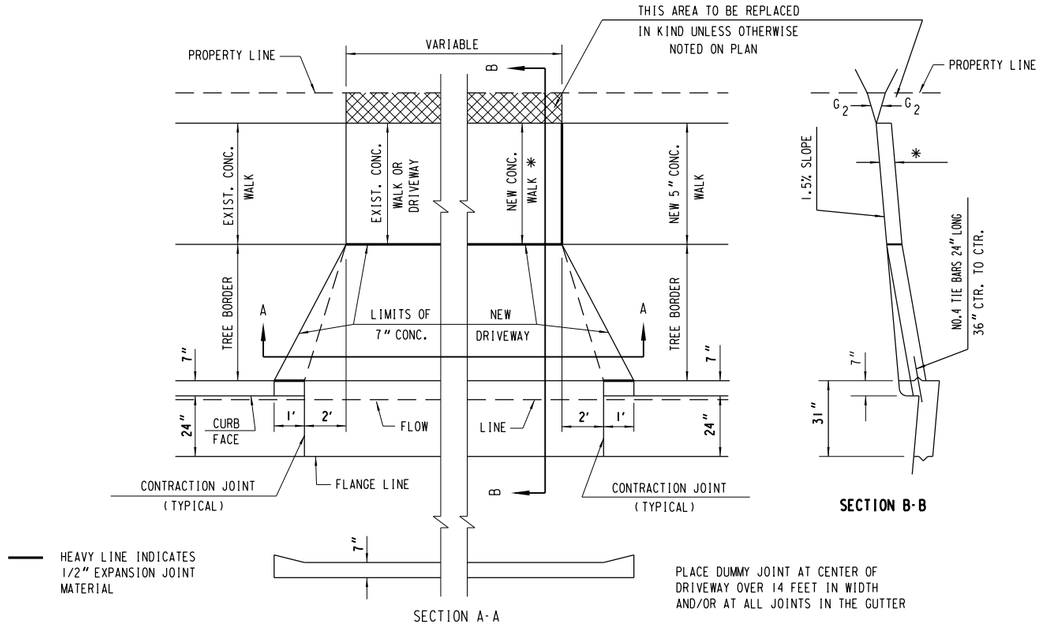
* WHERE INDICATED ON PLAN

EBS TO BE UNDERTAKEN ONLY AT THE DIRECTION OF THE ENGINEER. NO EXCAVATION BELOW SUBGRADE WILL BE CONDUCTED PRIOR TO FAILURE OF PROOF ROLL. DEPTH AND WIDTH OF EXCAVATIONS WILL BE DETERMINED BY THE ENGINEER BASED UPON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. SOIL REPORT AVAILABLE UPON REQUEST.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 7	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TYPSEC.DGN

REVISED DATE: 10-03-2017 BY BB



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

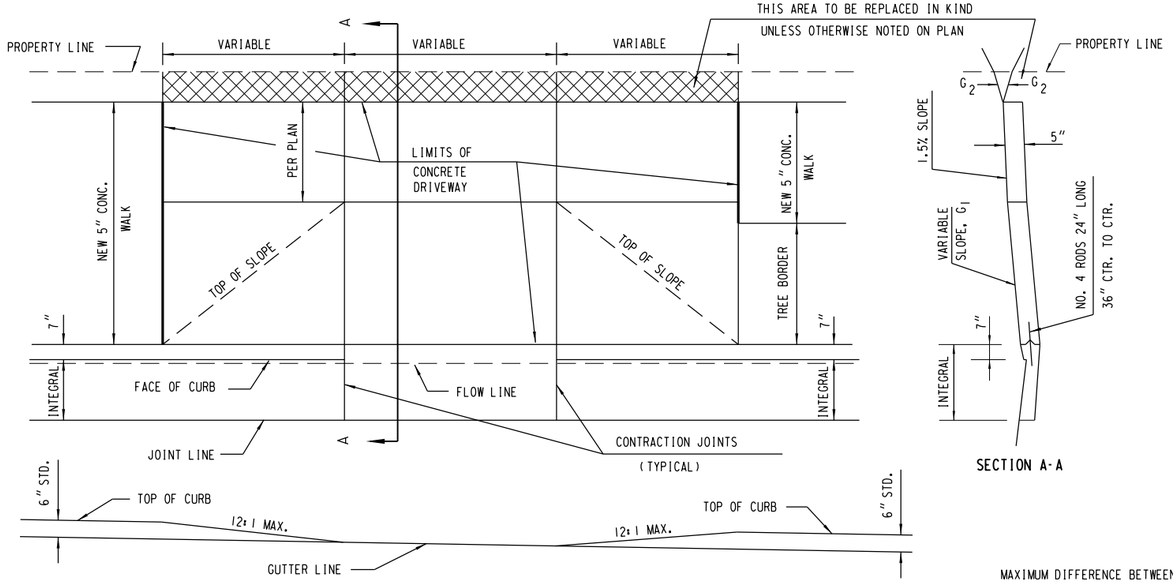
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

* LOCATIONS PER PLAN: USE 7" CONC. FOR BUSINESS PROPERTY AND 5" CONC. FOR RESIDENTIAL PROPERTY.

FLARED CONCRETE DRIVEWAY

(F)



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY. PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

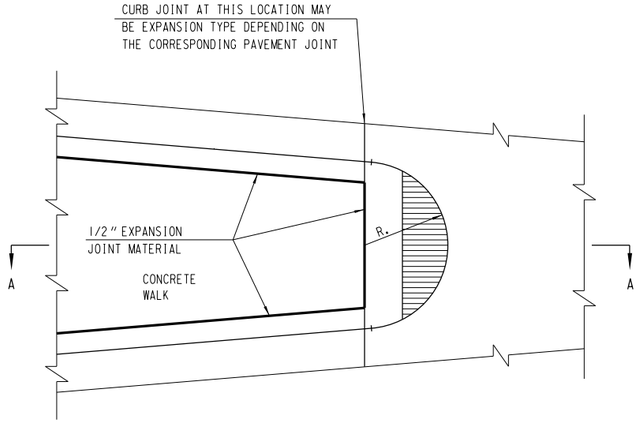
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

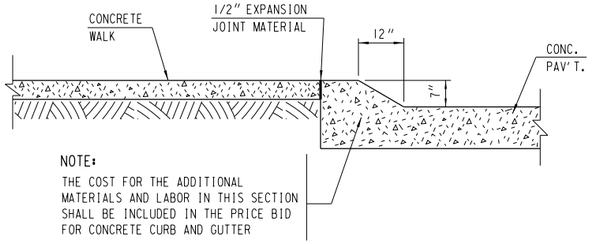
DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

(D)

2

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 8	E



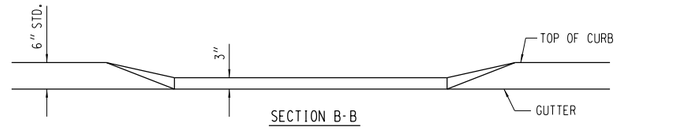


SECTION A-A

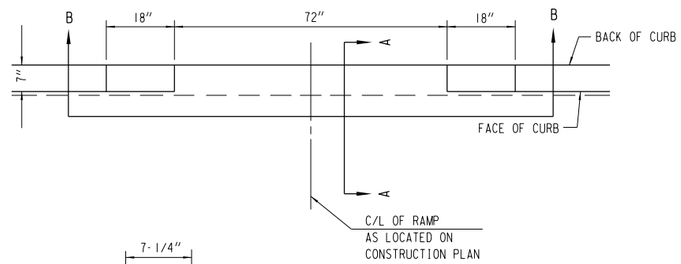
SNOWPLOWABLE MEDIAN ISLAND NOSE

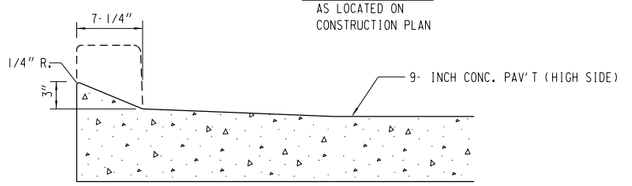
(TYPICAL SECTION OF CONCRETE CURB & GUTTER
TO BE CONSTRUCTED AT END OF MEDIAN ISLAND)

(Y)



SECTION B-B





SECTION A-A

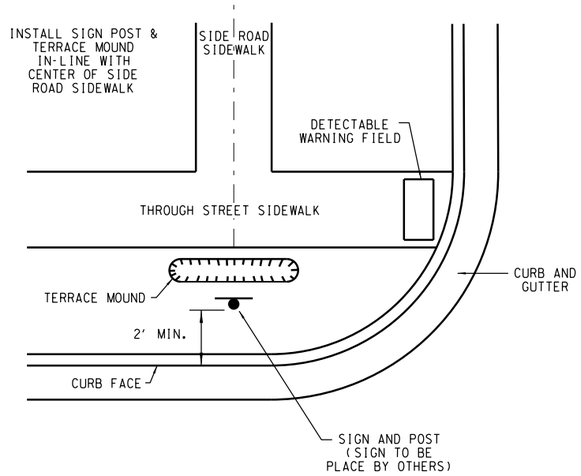
MAINTENANCE RAMP

(X)

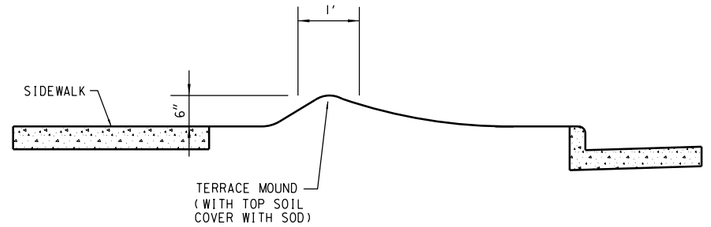
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 9	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\CONDET.DGN

REVISED DATE: 03-30-2017 BY BB

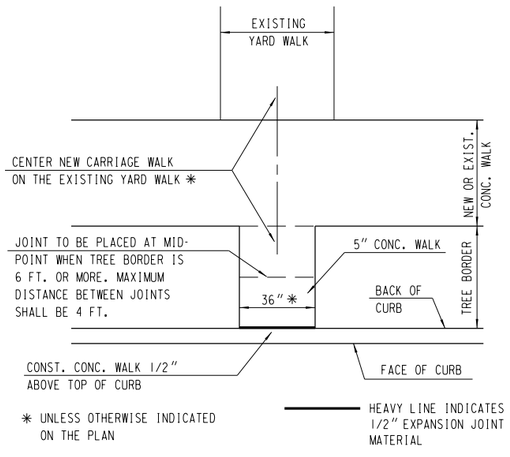


MOUND AND SIGN LOCATION DETAIL

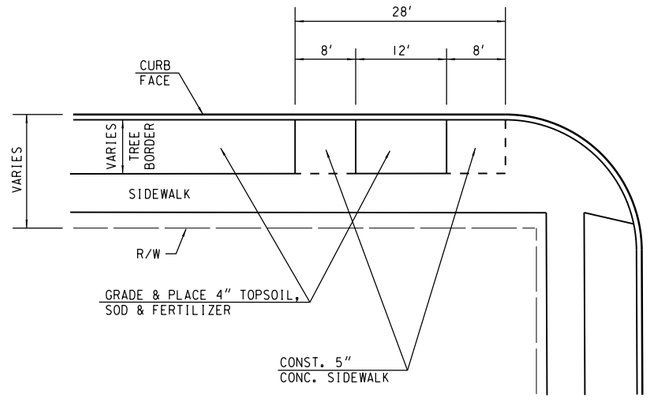


TERRACE MOUND DETAIL

(TM)



CARRIAGE WALK



BUS STOP WALK DETAIL

(BS)

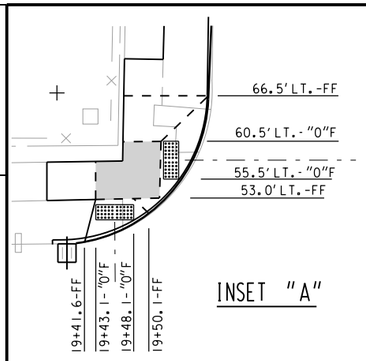
GENERAL NOTES

THE SLOPE OF PASSENGER BOARDING AREA MAY NOT EXCEED 2%.

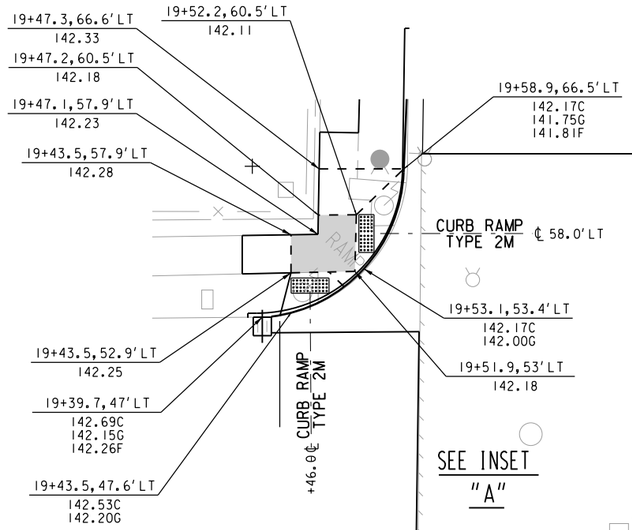
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 40'	SHEET NO: 10	E

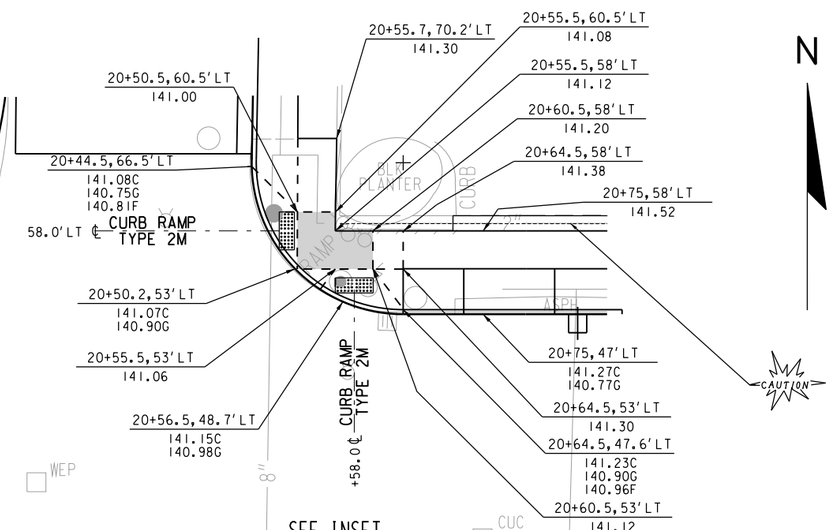
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\CONDET.DGN

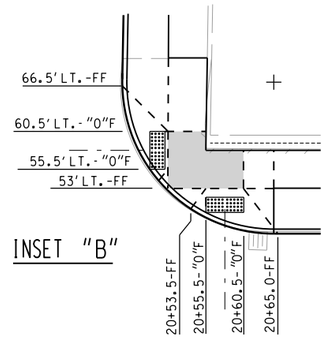
REVISED DATE: 10-20-2017 BY DB



INSET "A"





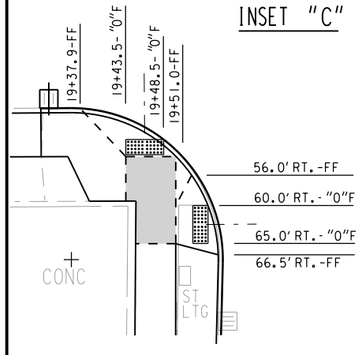


INSET "B"

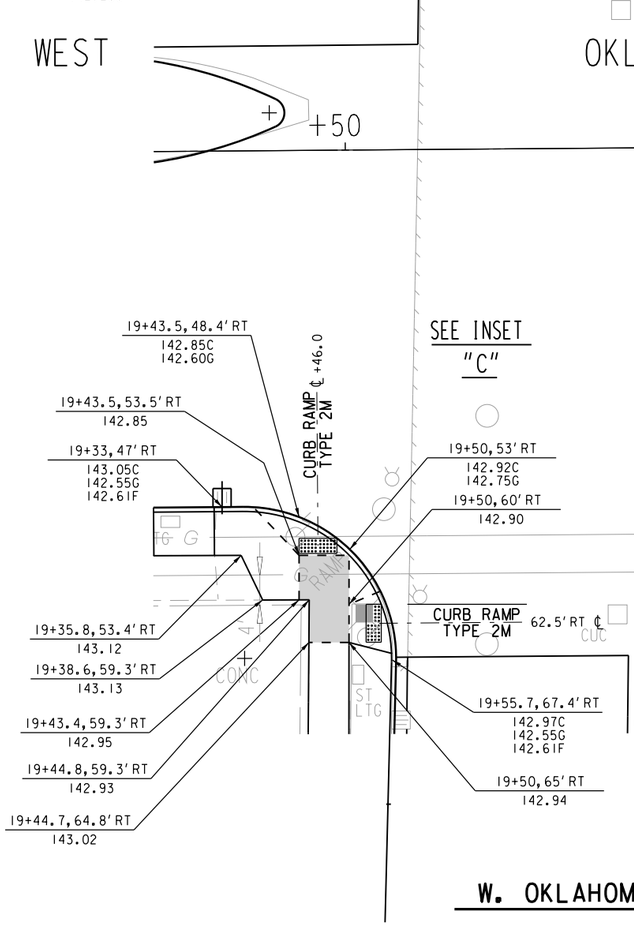
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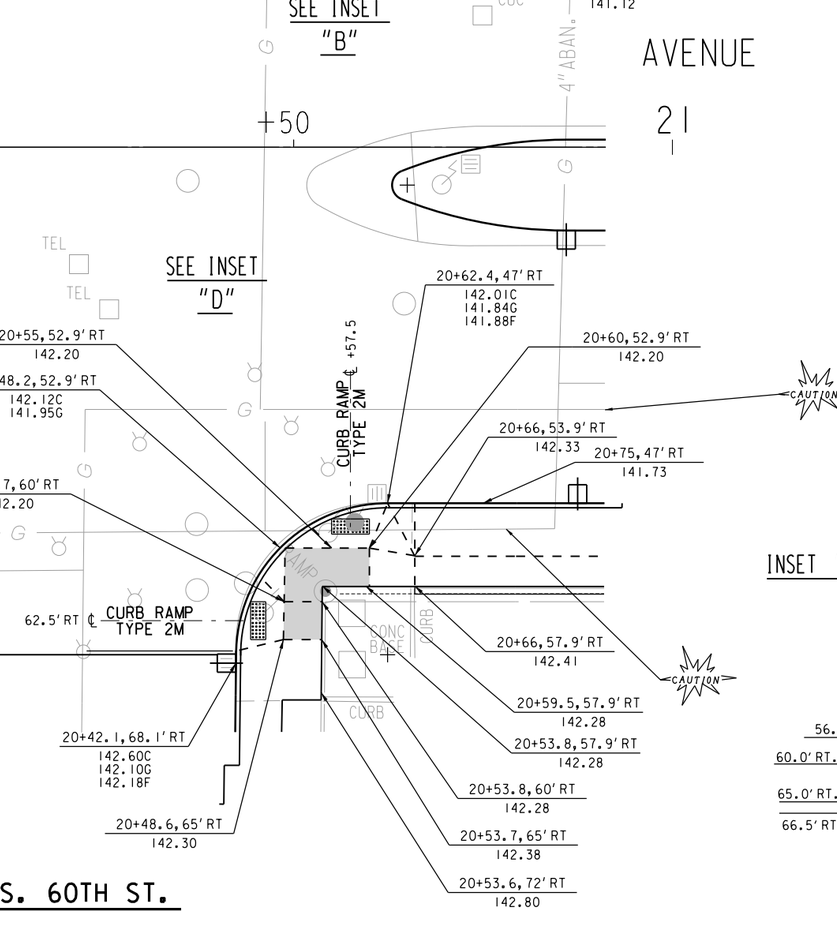
WEST OKLAHOMA AVENUE

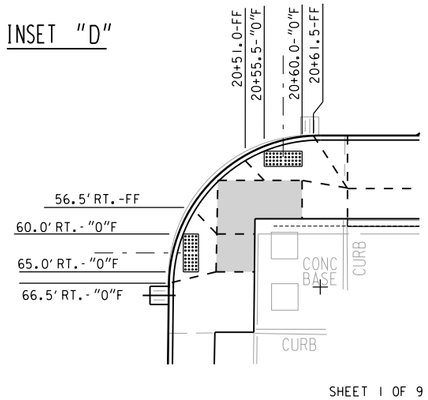
180° 26' 11"
20
MONUMENT
+50
+50
21
4" ABAN.



INSET "C"







INSET "D"

(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

LANDING AREA

FF FULL FACE

"0"F "0" FACE

W. OKLAHOMA AVE. AND S. 60TH ST.

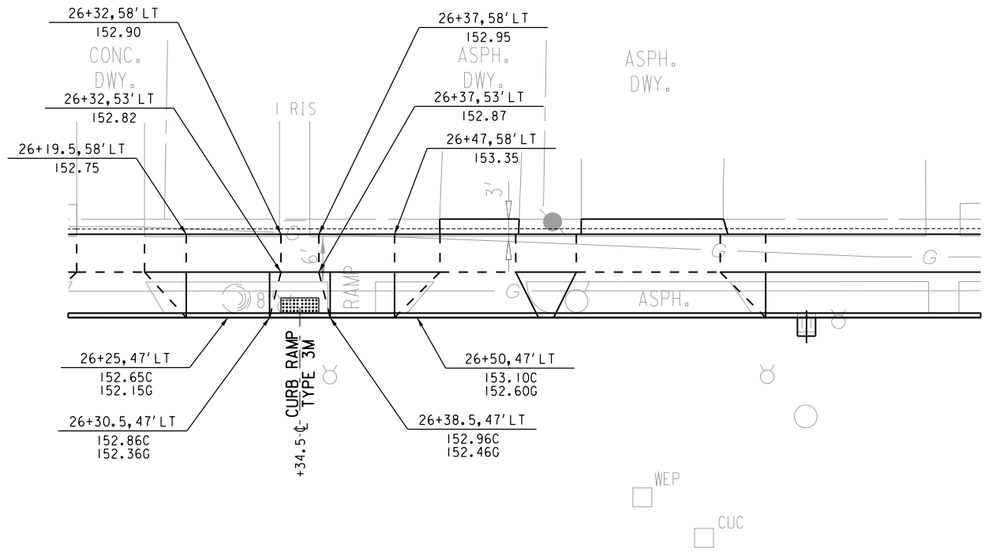
SHEET 1 OF 9

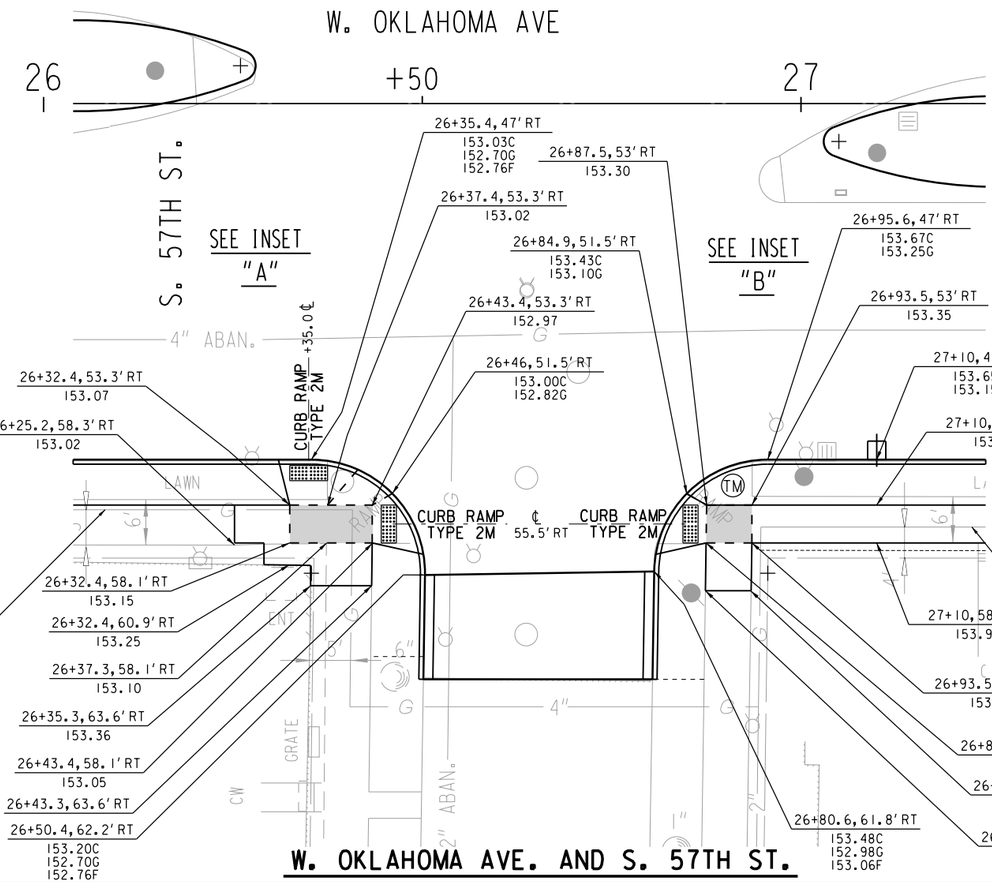
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 11	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\60TH_OKLAHOMA.DGN

REVISED DATE: 09-25-2017 DLF

2





N

(PC) CONST. CONC. PEDESTRIAN CURB

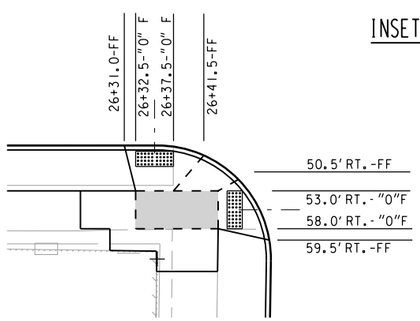
DETECTABLE WARNING FIELD

LANDING AREA

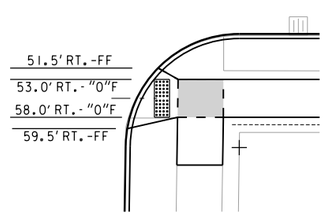
FF FULL FACE

"0"F "0" FACE

INSET "A"



INSET "B"



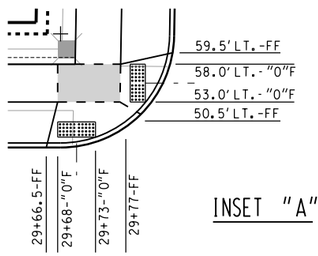
W. OKLAHOMA AVE. AND S. 57TH ST.

SHEET 2 OF 9

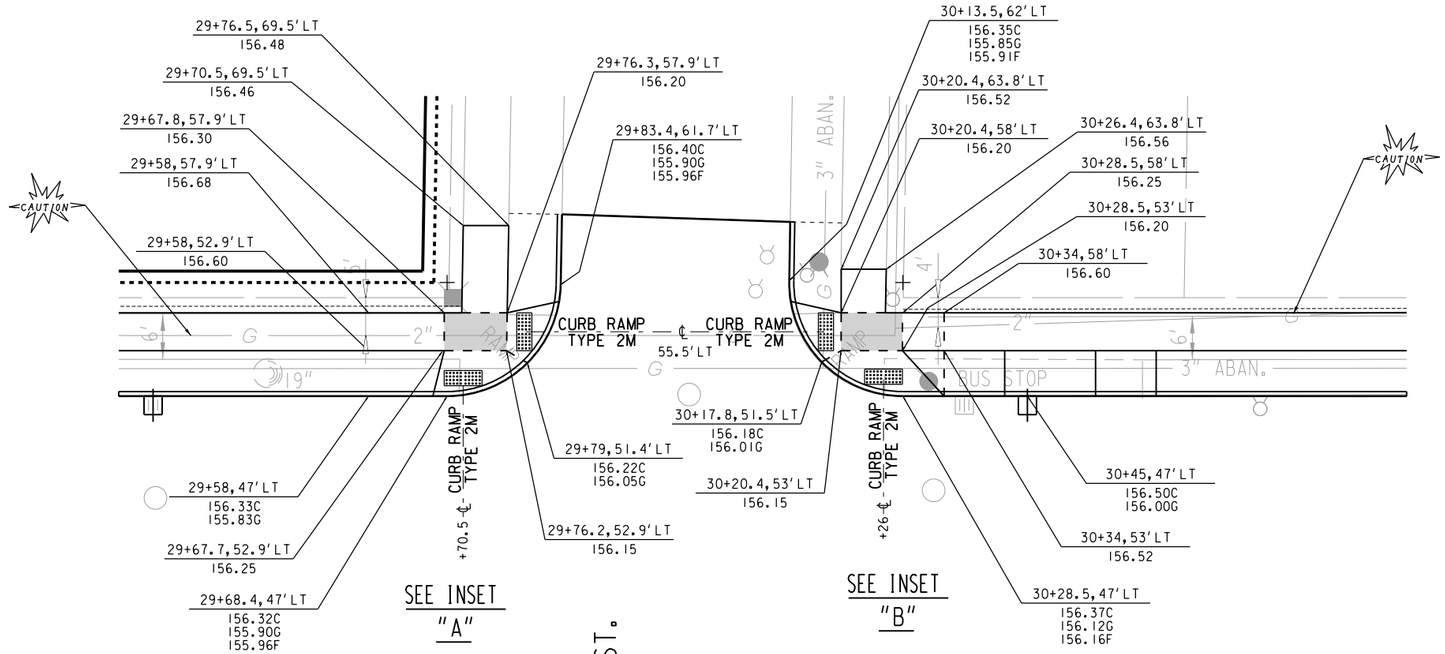
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL	SCALE FEET 0' 20'	SHEET NO: 12	E

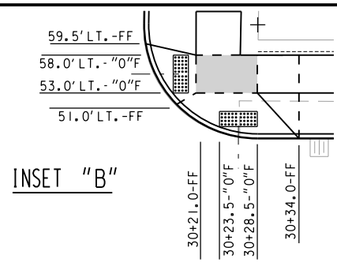
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\57TH_OKLAHOMA.DGN

REVISED DATE: 09-26-2017 BY ML



INSET "A"





INSET "B"

N

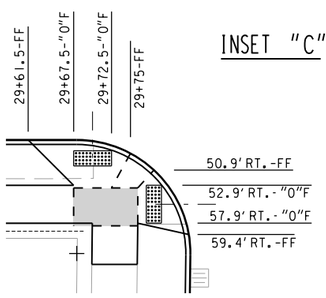
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

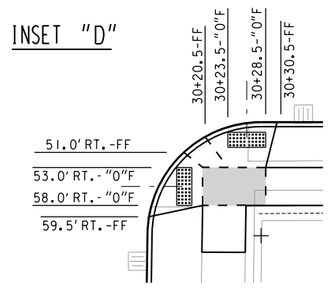
LANDING AREA

FF FULL FACE

"O"F "O" FACE



INSET "C"



INSET "D"

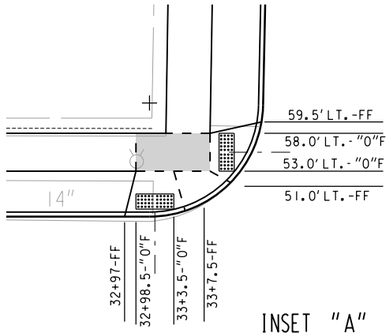
W. OKLAHOMA AVE. AND S. 56TH ST.

SHEET 3 OF 9

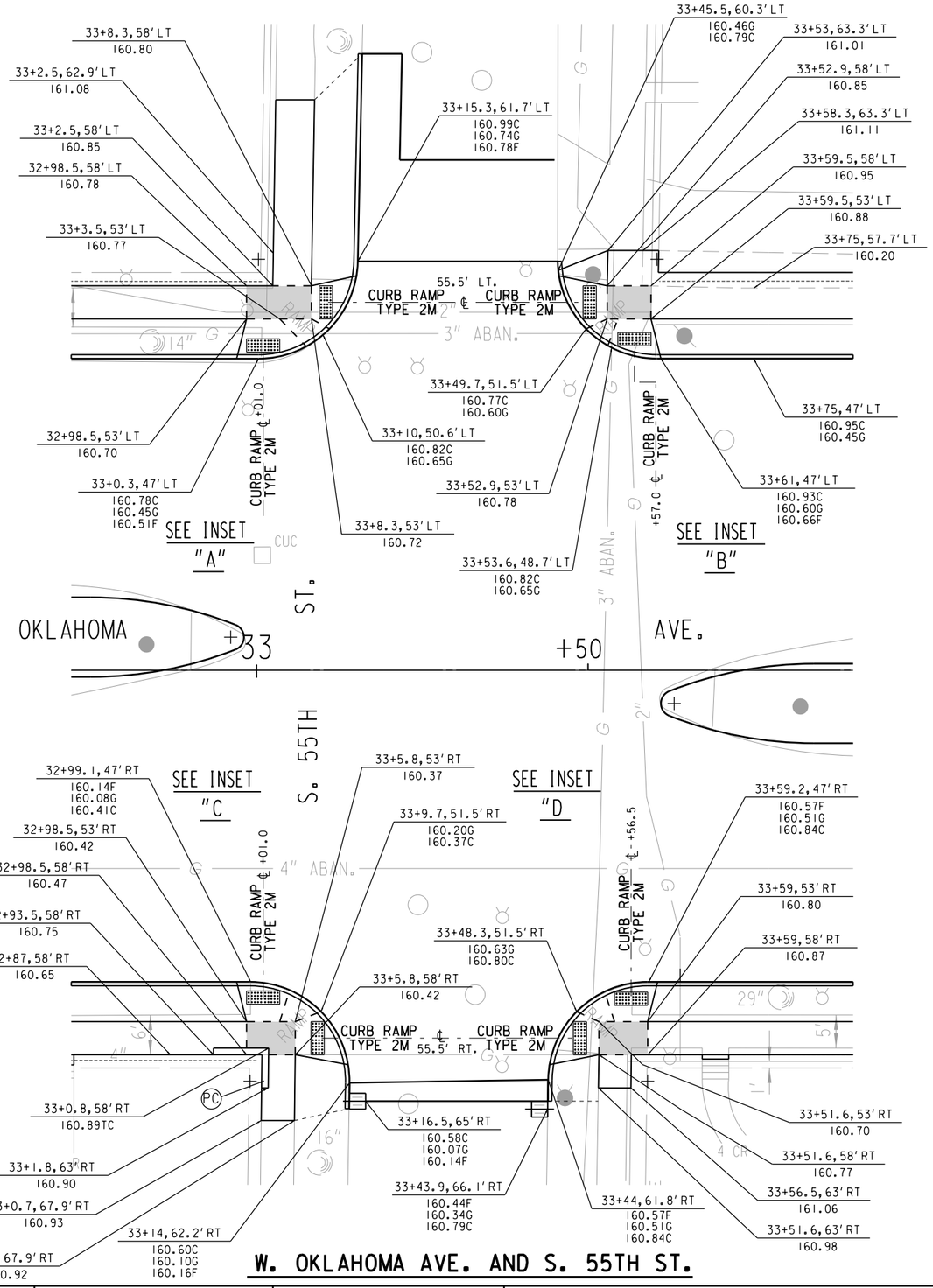
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 13	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\56TH_OKLAHOMA.DGN

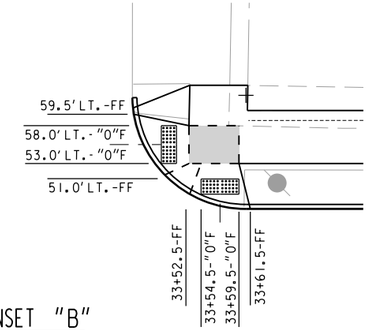
REVISED DATE: 09-29-2017 BY BB



INSET "A"



W. OKLAHOMA AVE. AND S. 55TH ST.



INSET "B"

N

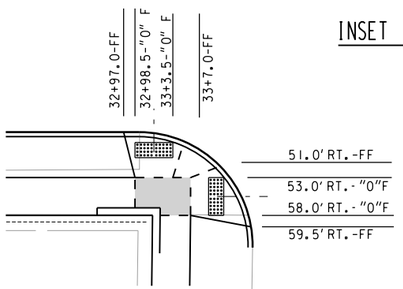
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

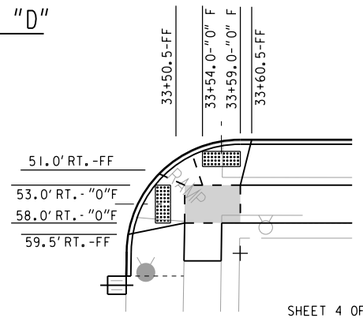
LANDING AREA

FF FULL FACE

"0"F "0" FACE



INSET "C"

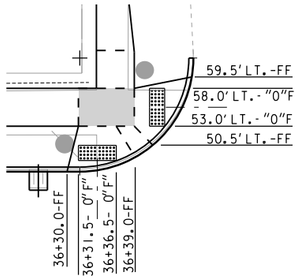


INSET "D"

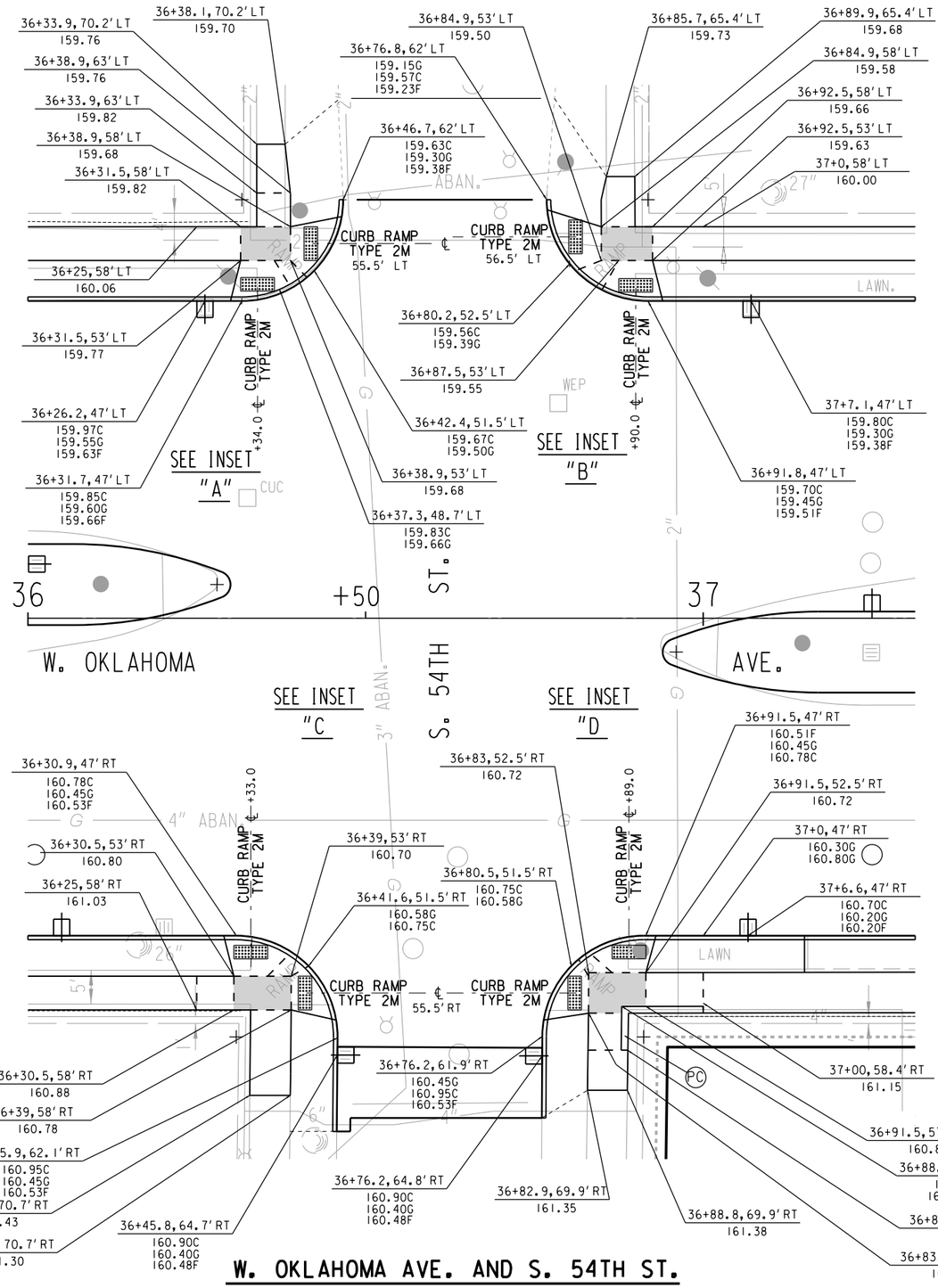
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 14	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\55TH_OKLAHOMA.DGN

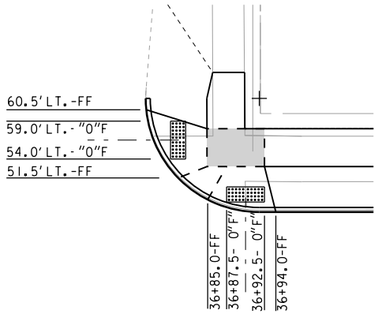
REVISED DATE: 09-26-2017 BY ML



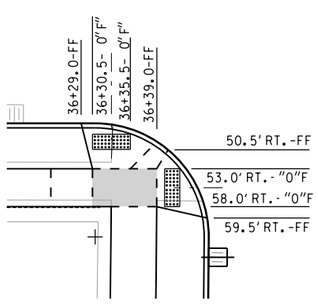
INSET "A"



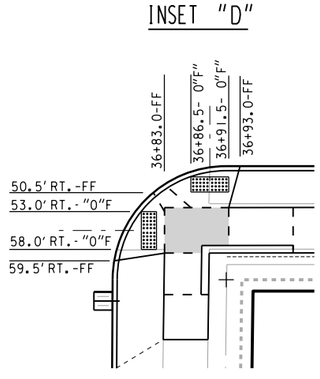
W. OKLAHOMA AVE. AND S. 54TH ST.



INSET "B"



INSET "C"



INSET "D"

(PC) CONST. CONC. PEDESTRIAN CURB

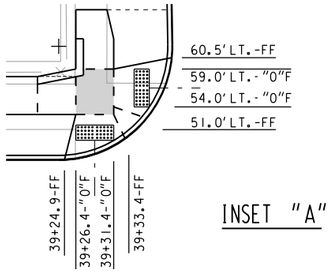
DETECTABLE WARNING FIELD

LANDING AREA

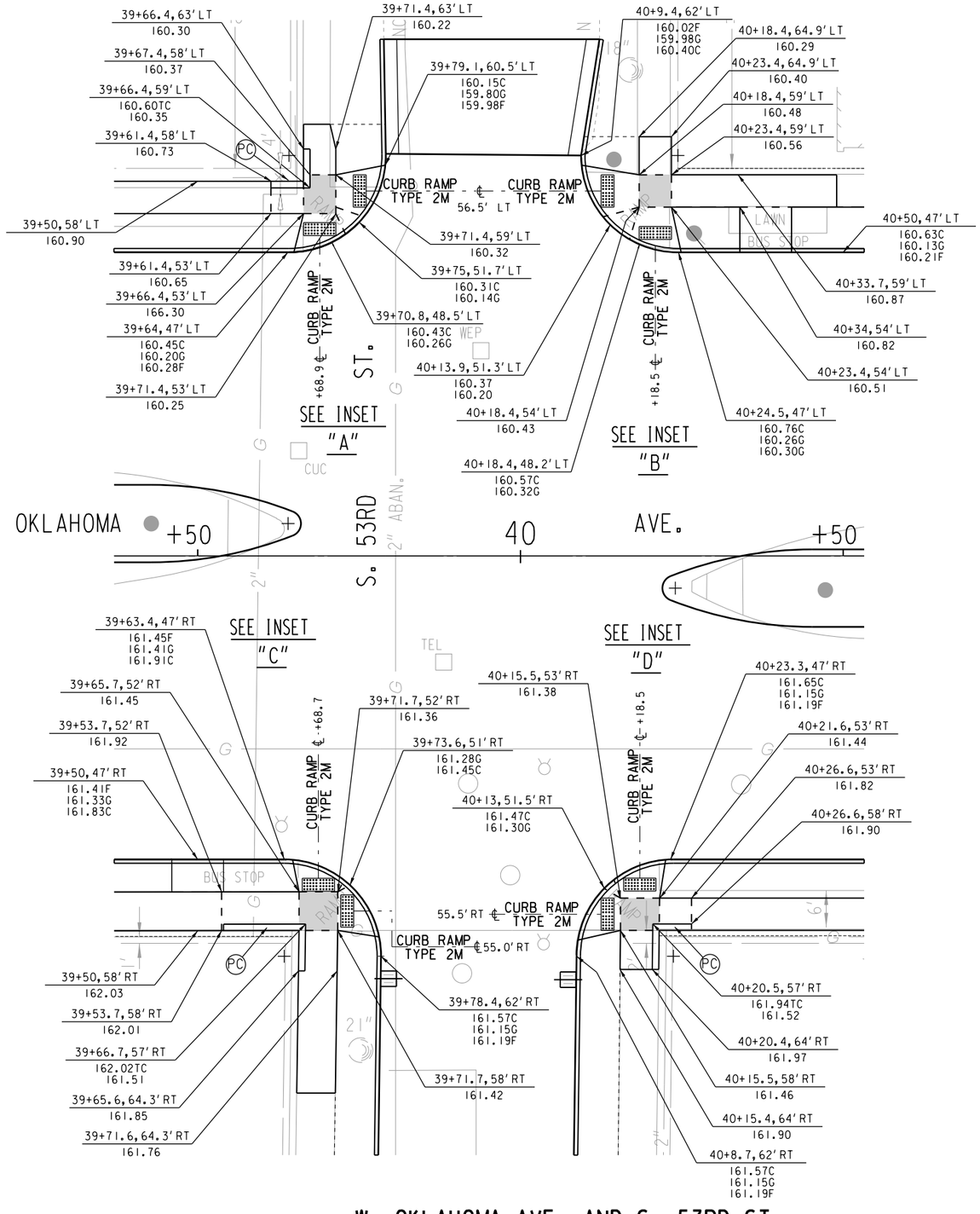
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 15	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\54TH_OKLAHOMA.DGN

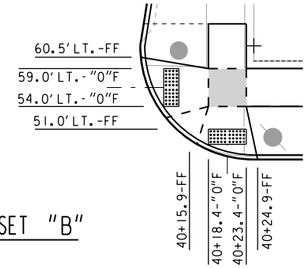
REVISED DATE: 09-26-2017 DLF



INSET "A"



N



INSET "B"

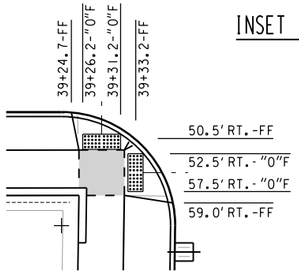
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

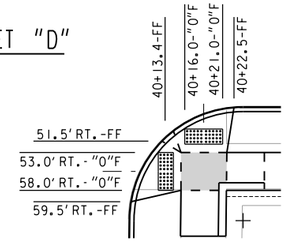
LANDING AREA

FF FULL FACE

"0"F "0" FACE



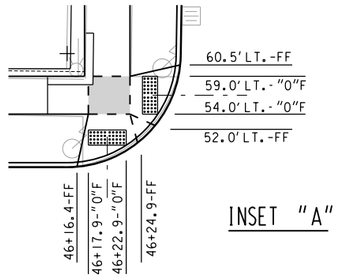
INSET "C"



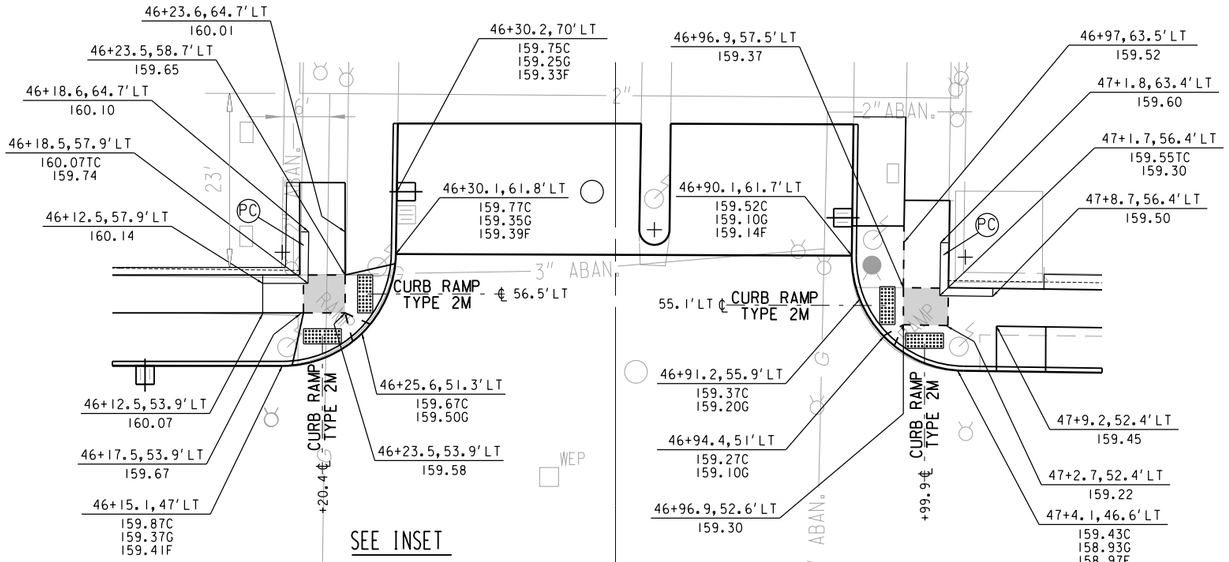
INSET "D"

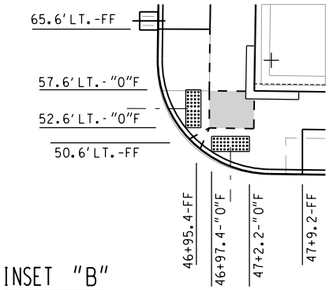
W. OKLAHOMA AVE. AND S. 53RD ST.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 16	E



INSET "A"





INSET "B"

N

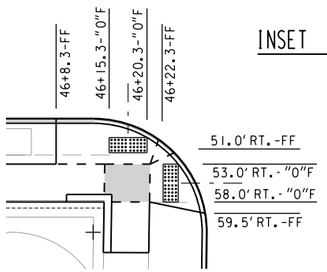
PC CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

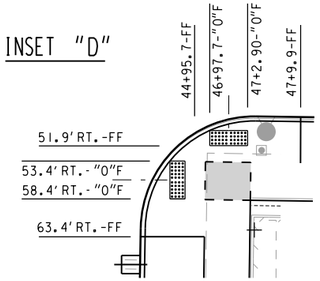
LANDING AREA

FF FULL FACE

"0"F "0" FACE



INSET "C"



INSET "D"

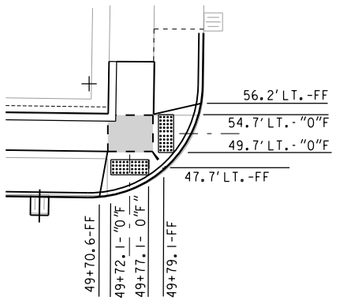
W. OKLAHOMA AVE. AND S. 51ST ST.

SHEET 7 OF 9

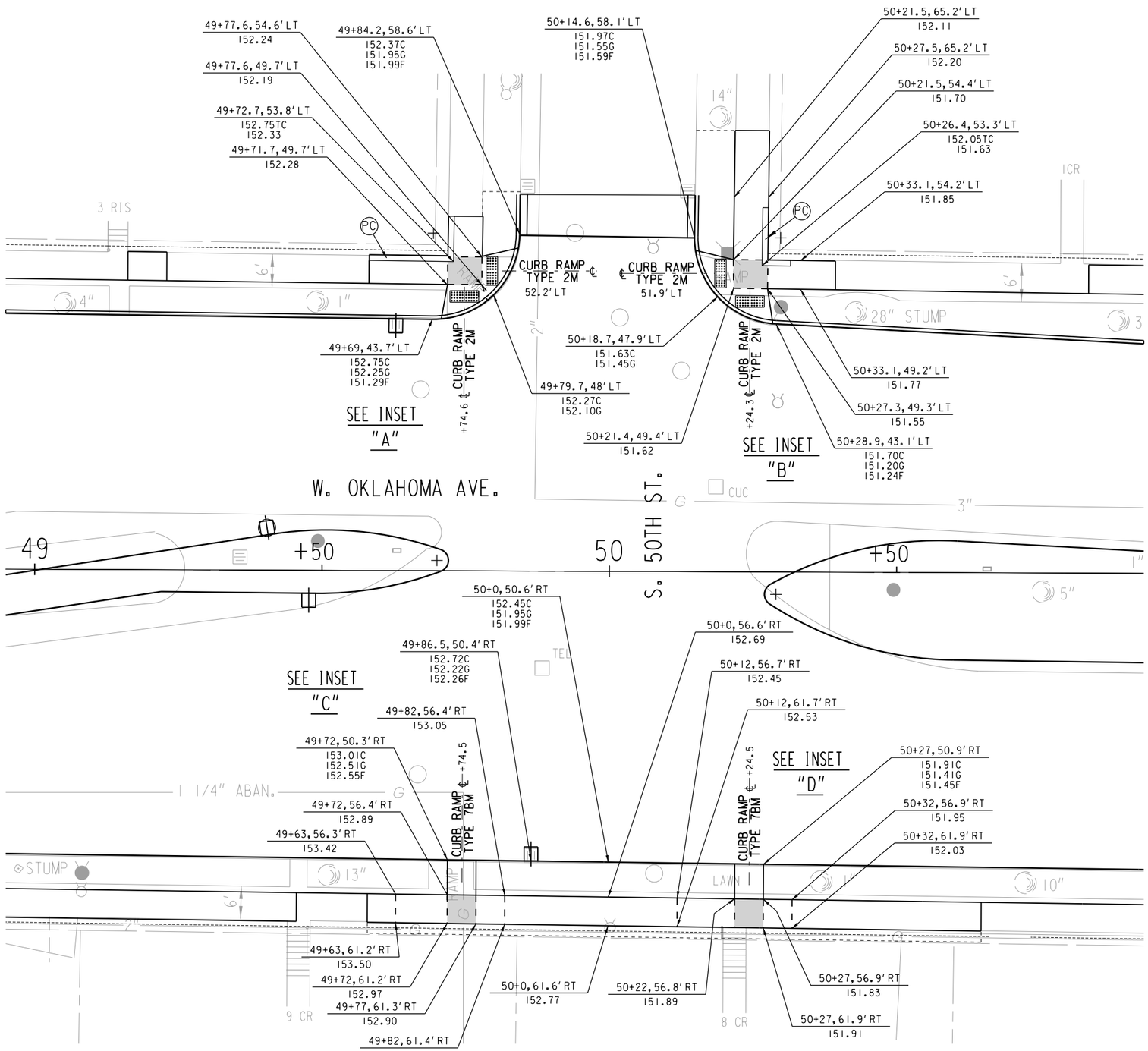
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 17	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\51ST_OKLAHOMA.DGN

REVISED DATE: 09-29-2017 BY BB

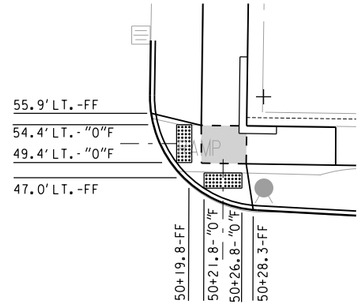


INSET "A"



W. OKLAHOMA AVE. AND S. 50TH ST.

N



INSET "B"

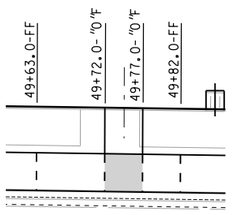
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

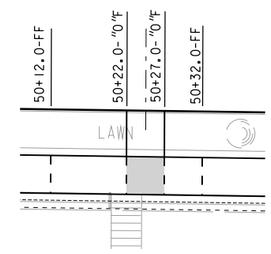
LANDING AREA

FF FULL FACE

"0"F "0" FACE



INSET "C"

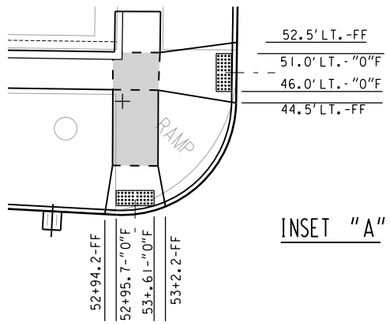


INSET "D"

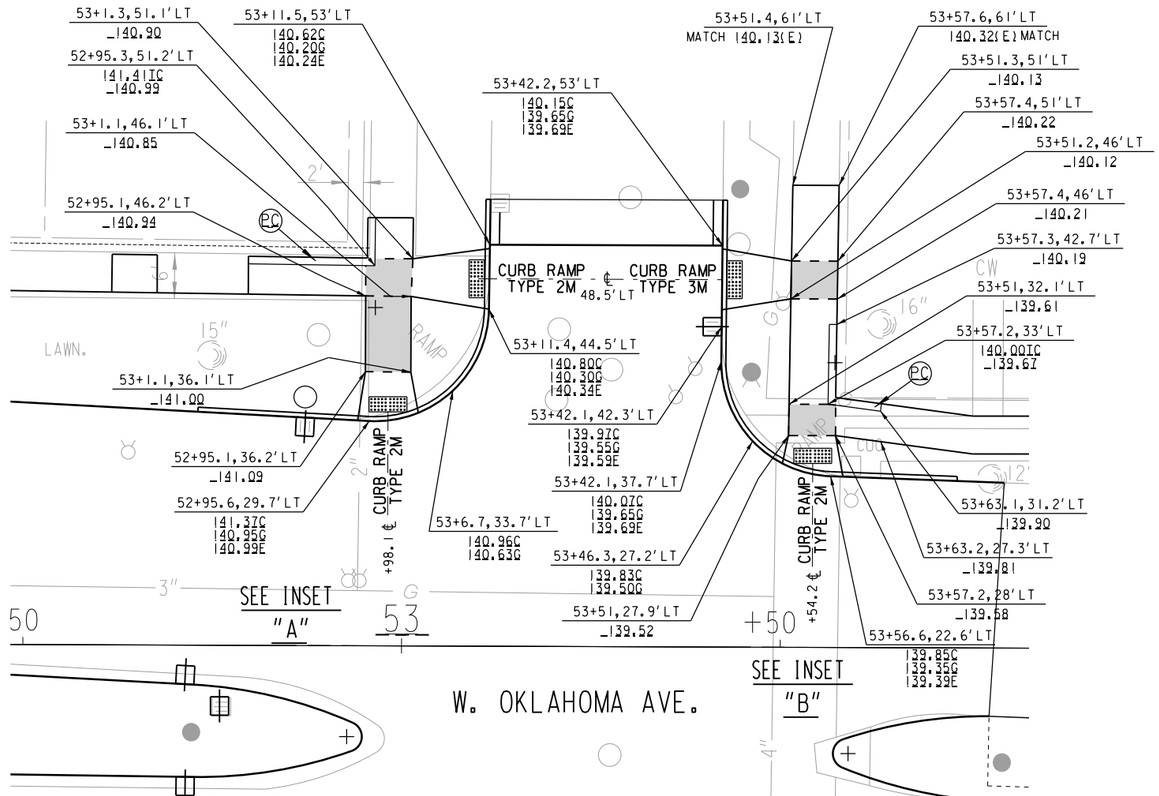
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 18	E

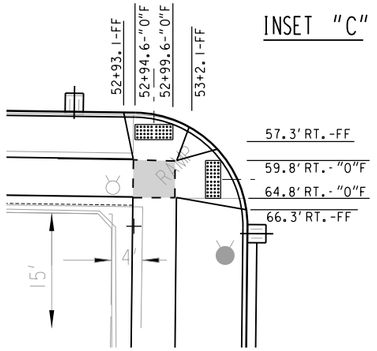
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\50TH_OKLAHOMA.DGN

REVISED DATE: 10-26-2017 BY DB

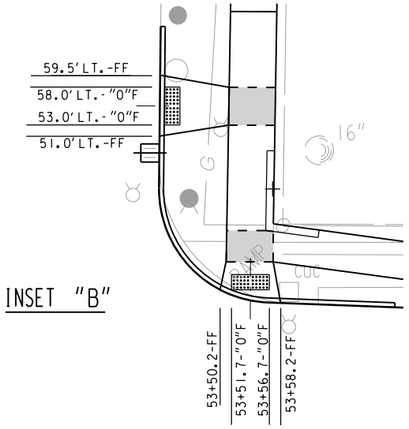


INSET "A"





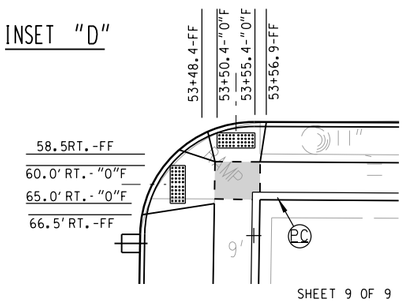
INSET "C"



INSET "B"

N

PC CONST. CONC. PEDESTRIAN CURB
DETECTABLE WARNING FIELD
LANDING AREA
EE FULL FACE
"0"F "0" FACE



INSET "D"

W. OKLAHOMA AVE. AND S. 49TH ST.

SHEET 9 OF 9

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL SIREET	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 20'	SHEET NO: 19	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\RAMPS\49TH_OKLAHOMA.DGN

REVISED DATE: 09-29-2011 BY BB

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

CAUTION

SLOPE INTERCEPT ('/' OFF WALK WHERE AVAIL.)

20' SEWER EASEMENT

110'
6' 43' 11' 32' 6'
8"

BUS SHELTER
R/W
5'
RAMP
LAWN
CONC. DWY.
BUS PLANTER
CURB
RAMP
ASPH
3" ABAN.
CONC.
LAWN
ASPH. PARKING
ASPH. DWY.
SIGN
LANNON STONE WALL
WALL
CUC
MH
WEP
180°26'11"
MONUMENT
TEL
4" ABAN.
19 T/L +50 20 +50 21 +50 22 +50 23 +50 24 +50 25
120'
7" 6" PLANTINGS 8"
BIOSWALE NO. 1

6" ABAN.
LTG
RET WALL
4" CONC
ST LTG
9"
6"
CONC BASE
CURB
PHONE
CW
BUSHES
7"
2"
LANDSCAPE
BRICK WALL
DWY. NOT IN USE
BUS STOP
32'
6' 32' 11' 43' 6'
110'
S. 60TH ST
S.I. LINE ON R/W WHEN LESS THAN 1'
29' SEWER EASEMENT

LEGEND

- APPROXIMATE EXTENT OF POVC AND LEAD CONTAMINATION AT DEPTHS 1'-8' BGS IN WISDOT PROJECT LIMITS

- APPROXIMATE EXTENT OF POVC AND LEAD CONTAMINATION AT DEPTHS 6'-8' BGS IN WISDOT PROJECT LIMITS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	HAZARDOUS MATERIALS DETAIL PLAN	SCALE FEET 0' 40'	SHEET NO: 20	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\HAZARDOUS 19_25.DGN

REVISED DATE: 10-12-2017 BY DB

2

Construction permits						
Property Address	Parcel	House number - low	Street direct-ion	Street name	Street type	Owner name 1
3100 S 60TH ST	2	3100	S	60TH	ST	ZAFAR I MIAN
5335 W OKLAHOMA AV	3	3130	S	54TH	ST	OKLAHOMA AVENUE LUTHERAN
5020 W OKLAHOMA AV	5	5020	W	OKLAHOMA	AV	FAMILY MUSIC REAL ESTATE
5031 W OKLAHOMA AV	6	5031	W	OKLAHOMA	AV	FRANK J GREGUSKA
5101 W OKLAHOMA AV	7	5101	W	OKLAHOMA	AV	ST SAVA SERBIAN
5215 W OKLAHOMA AV	9	5215	W	OKLAHOMA	AV	ST SAVA SERB ORTHODOX CATH
5227 W OKLAHOMA AV	10	5227	W	OKLAHOMA	AV	ST SAVA SERB ORTHODOX CATH
5309 W OKLAHOMA AV	11	5309	W	OKLAHOMA	AV	OKLAHOMA AVENUE LUTHERAN
5518 W OKLAHOMA AV	13	5518	W	OKLAHOMA	AV	RONALD P BELTER
5521 W OKLAHOMA AV	14	5521	W	OKLAHOMA	AV	JENNIFER A BECKER
5524 W OKLAHOMA AV	15	5524	W	OKLAHOMA	AV	CONSTANCE VANWAARDENBURG
5527 W OKLAHOMA AV	16	5527	W	OKLAHOMA	AV	RUBY SLIPPERS HOLDING LLC
5621 W OKLAHOMA AV	19	5621	W	OKLAHOMA	AV	NORMA S HERNANDEZ
5625 W OKLAHOMA AV	20	5625	W	OKLAHOMA	AV	STEVEN A TURNER II
5634 W OKLAHOMA AV	21	5634	W	OKLAHOMA	AV	OKLAHOMA AT 58TH ST CO
5642 W OKLAHOMA AV	22	5642	W	OKLAHOMA	AV	RACHEL A HAGEN
5701 W OKLAHOMA AV	23	5701	W	OKLAHOMA	AV	MILAN STOJSAVLJEVIC
5702 W OKLAHOMA AV	24	5702	W	OKLAHOMA	AV	WARREN JERGENSON
5714 W OKLAHOMA AV	25	5714	W	OKLAHOMA	AV	ALEJANDRO A RAMIREZ GARCIA
5734 W OKLAHOMA AV	27	5734	W	OKLAHOMA	AV	JSH HOLDING INC
5800 W OKLAHOMA AV	29	5800	W	OKLAHOMA	AV	LATITUDE 43 N 45 LIMITED

See Plan/Plan detail sheet s for locations

LEGEND

(22) - Construction Permit

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

83.5' LT.

CTR. 2.0' R=
+6.7 -63.0' LT.

83.5' LT.

CTR. 20.0' R=
+38.5-67.0' LT.

P.T. 60.0' R.
+2.5 -83.4' LT.

P.T. 60.0' R.
+12.4-83.5' LT.

CTR. 20.0' R=
+64.5-67.0' LT.

P.C. 60.0' R.
+14.0-12.7' LT.

CTR. 2.0' R=
+40.0- 5.0' LT.

P.T. 60.0' R.
+86.0- 1.0' LT.

∠PT. +68.0
1.0' LT.

∠PT. +48.0
11.0' LT.

P.C. 60.0' R.
+97.0-11.0' LT.

CTR. 2.0' R=
+19.5- 5.0' LT.

P.T. 60.0' R.
+95.0- 1.0' LT.

∠PT. +46.5
1.0' LT.

N88° 33' 45"E

180° 25' 11"

P.C. 60.0' R.
+14.0- 2.0' RT.

CTR. 2.0' R=
+65.0- 5.0' RT.

P.T. 60.0' R.
+86.0-11.0' RT.

∠PT. +67.0
11.0' RT.

∠PT. +47.0
1.0' RT.

P.C. 60.0' R.
+97.0-1.0' RT.

CTR. 2.0' R=
+73.5- 5.0' RT.

P.T. 60.0' R.
+95.0-11.0' RT.

∠PT. +73.0
11.0' RT.

P.C. 60.0' R.
+87.4-87.0' LT.

P.C. 60.0' R.
+98.3-87.0' LT.

CTR. 20.0' R=
+62.4-67.0' RT.

CTR. 20.0' R=
+36.2-67.0' RT.

CTR. 2.0' R=
+94.0-67.0' RT.

92' RT

102' RT

S. 60TH ST

#5912 #5810 #5800 #5734 #5720 #3100 #5757

ALDI
#5810

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 22	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 19_25.DGN

REVISED DATE: 08-16-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

FIRE HOUSE #5600

25 #5714-16 | 24 #5702-04 | 22 #5642-44 | 21 #5634 | 15 #5524 | #3074

CAUTION

P.C. 60.0'R. +4.5 -11.0'LT.

CTR. 2.0'R= +26.0- 5.0'LT.

∠PT.+26.5 11.'LT.

P.C. 60.0'R. +4.5 - 1.0'RT.

∠PT.+53.0 1.0'RT.

P.T. 60.0'R. +26.0- 1.0'LT.

N88° 33' 45"E

CTR. 2.0'R= +5.0 - 5.0'RT.

P.T. 60.0'R. +26.0-11.0'RT.

P.C. 60.0'R. +1.0 - 1.0'LT.

CTR. 2.0'R= +23.0- 5.0'RT.

P.C. 60.0'R. + 1.0 -11.0' RT.

CTR. 15.0'R= +68.5-62.0'LT.

70.6'LT

CTR. 2.0'R= +25.0- 9.0'LT.

P.C. 60.0'R. +41.0-11.0'LT.

CTR. 2.0'R= +62.1- 5.0'LT.

CTR. 2.0'R= +30.0- 1.0'LT.

P.C. 60.0'R. +41.0- 1.0'RT.

CTR. 15.0'R= +28.5-62.0'LT.

P.T. 60.0'R. +52.0- 1.0'LT.

CTR. 2.0'R= +30.9- 5.0'RT.

P.T. 60.0'R. +52.0-11.0'RT.

CTR. 15.0'R= +35.5-62.0'RT.

CTR. 15.0'R= +95.5-62.0'RT.

CTR. 15.0'R= +67.9-62.0'RT.

CTR. 15.0'R= +27.9-62.0'RT.

76'RT

86'RT

S. 57TH ST.

S. 56TH ST.

#5757 | #5701 | #5633 | #5625 | #5621 | #5613 | #5609 | #5601 | #5535 | #5527

23 | 20 | 19 | 16

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 23	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 25_31.DGN

REVISED DATE: 10-03-2017 BY BB

2

WEST OKLAHOMA AVENUE

N

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CAUTION

93' LT.

77' LT.

CTR. 15.0' R= +00.3-62.0' LT.

CTR. 15.0' R= +60.3-62.0' LT.

CTR. 15.0' R= +32.0-62.0' LT.

CTR. 15.0' R= +92.0-62.0' LT.

77' LT.

∠PT. +83.9 11.'LT.

∠PT. +3.9 1.0' LT.

P.C. 60.0' R. +75.0-11.0' LT.

CTR. 2.0' R= +96.1- 5.0' LT.

N88° 33' 45"E

P.T. 60.0' R. +84.1- 1.0' LT.

∠PT. +36.0 1.0' LT.

∠PT. +16.0 11.'LT.

P.C. 60.0' R. +6.9 -11.0' LT.

CTR. 2.0' R= +28.0- 5.0' LT.

∠PT. +43.1 11.0' RT.

∠PT. +23.1 1.0' RT.

P.C. 60.0' R. +75.0 -11.0' RT.

CTR. 2.0' R= +63.0- 5.0' RT.

P.T. 60.0' R. +84.1-11.0' RT.

∠PT. +75.0 11.'RT.

∠PT. +55.0 1.0' RT.

P.C. 60.0' R. +6.9 - 1.0' RT.

CTR. 2.0' R= +96.0- 5.0' RT.

31 32 33 34 35 36 37

+50

T/L

R/W

CONC. DWY.

ASPH. DWY.

GARAGE

LAWN

RAMP

ABAN. NO CURB

NO CURB

65' RT.

CTR. 15.0' R= +99.0-62.0' RT.

CTR. 15.0' R= +59.0-62.0' RT.

CTR. 15.0' R= +30.9-62.0' RT.

74' RT.

CTR. 15.0' R= +91.0-62.0' RT.

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

S. 55TH ST.

S. 54TH ST.

LANNON STONE

#5524 #5518 #5512 #5606 #3078 #3077

#5527 #5521 #5515 #5507 #5501 #5433 #5427 #5421 #5415 #5407 #5401

15 13 16 14

P.L.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 24	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 31_37.DGN

REVISED DATE: 10-03-2017 BY BB

WEST OKLAHOMA AVENUE

N

CTR. 15.0' R= +92.0-62.0' LT.

∠ PT 60.0' R +17.0-1.0' LT.

CTR. 15.0' R= +64.4-62.0' LT.

80' LT.

CTR. 15.0' R= +24.4-62.0' LT

S.I. LINE ON R/W WHEN LESS THAN 1'

∠PT.+48.9 11.' LT.

∠PT.+68.9 1.0' LT.

P.C. 60.0' R. +42.8-11.0' LT.

CTR. 2.0' R= +64.0- 5.0' LT.

CTR. 2.0' R= +24.0- 5.0' RT.

P.T. 60.0' R. +45.2- 1.0' LT.

∠PT.+33.0 11.' LT.

∠PT.+73.0 1.0' LT.

CTR. 5.0' R= +39.0- 6.0' LT.

CTR. 5.0' R= +90.0- 6.0' LT.

37 +50 38 +50 T/L 39 +50 40 +50 41 +50 N88° 33' 45"E 42 +50 43

∠PT.+9.0 11.' RT.

∠PT.+89.0 1.0' RT.

P.C. 60.0' R. +42.8- 1.0' RT.

P.T. 60.0' R. +45.2-11.0' RT.

P.C. 60.0' R. +4.7 -11.0' RT.

P.C.C.+86.9 2.1' LT

∠PT.+4.7 7.7' RT.

∠PT.+45.0 1.0' RT.

CTR. 2.0' R= +96.0- 5.0' RT.

P.C.C.+42.1 2.1' LT

CTR. 15.0' R= +91.0-62.0' RT.

∠ PT 60.0' R +17.0-11.0' RT.

∠PT.+9.0 11.' RT.

CTR. 15.0' R= +63.4-62.0' RT.

95.5' RT.

CTR. 15.0' R= +23.7-62.0' RT

S. 53RD ST.

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

#3076 #3077 #5232 #5200 #5335 #5309 #3105 #3108 #5227 #5215 #5101

3 11 10 9 7

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 25	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 37_43.DGN

REVISED DATE: 10-03-2017 BY BB

2

2

WEST OKLAHOMA AVENUE

N

CAUTION

CAUTION

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

#5200

#5020

#5006

160.58

R/W

79' LT.

CTR. 15.0' R= +15.1-62.0' LT

CTR. 15.0' R= +5.1-61.5' LT

P.C. 60.0' R. +98.8-11.0' LT

P.T. 60.0' R. +0.2-11.0' LT

CTR. 2.0' R= +20-5.0' LT

N88° 33' 45"E

∠ PT. +54.0 11.0' LT

∠ PT. +34.0 11.0' LT

P.C. 60.0' R. +92.8-11.0' LT

P.T. 60.0' R. +26.2-0.3' LT

CTR. 3.0' R= +43-6.1' LT

∠ PT. +83.0 0.3' RT

43 +50 44 +50 45 +50 46 +50 47 +50 48 +50 49

180° 2' 29"

MONUMENT

CTR. 2.0' R= +14-5.0' LT

P.C. 60.0' R. +98.8-1.0' RT

CTR. 2.0' R= +79-5.0' RT

∠ PT. +34.0 1.0' RT

∠ PT. +54.0 11.0' RT

P.C. 60.0' R. +92.8-1.0' RT

CTR. 2.0' R= +5-5.5' RT

P.T. 60.0' R. +0.2-11.0' RT

P.T. 60.0' R. +26.1-11.7' RT

P.C. 70.0' R. +9.1-12.6' RT

CTR. 2.0' R= +44.1-10.9' RT

∠ PT. +62.0 13.1' RT

BUS STOP

.5' CONC BORDER

FLAG POLES

BRICK PLANTER

6' ENT

AMERICAN SERB HALL

CTR. 15.0' R= +13.2-62.0' RT

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

82' RT

CTR. 15.0' R= +3.8-62.5' RT

DISCOUNT LIQUOR

ASPH PARKING

S. 51ST ST.

#5101

#5031

7

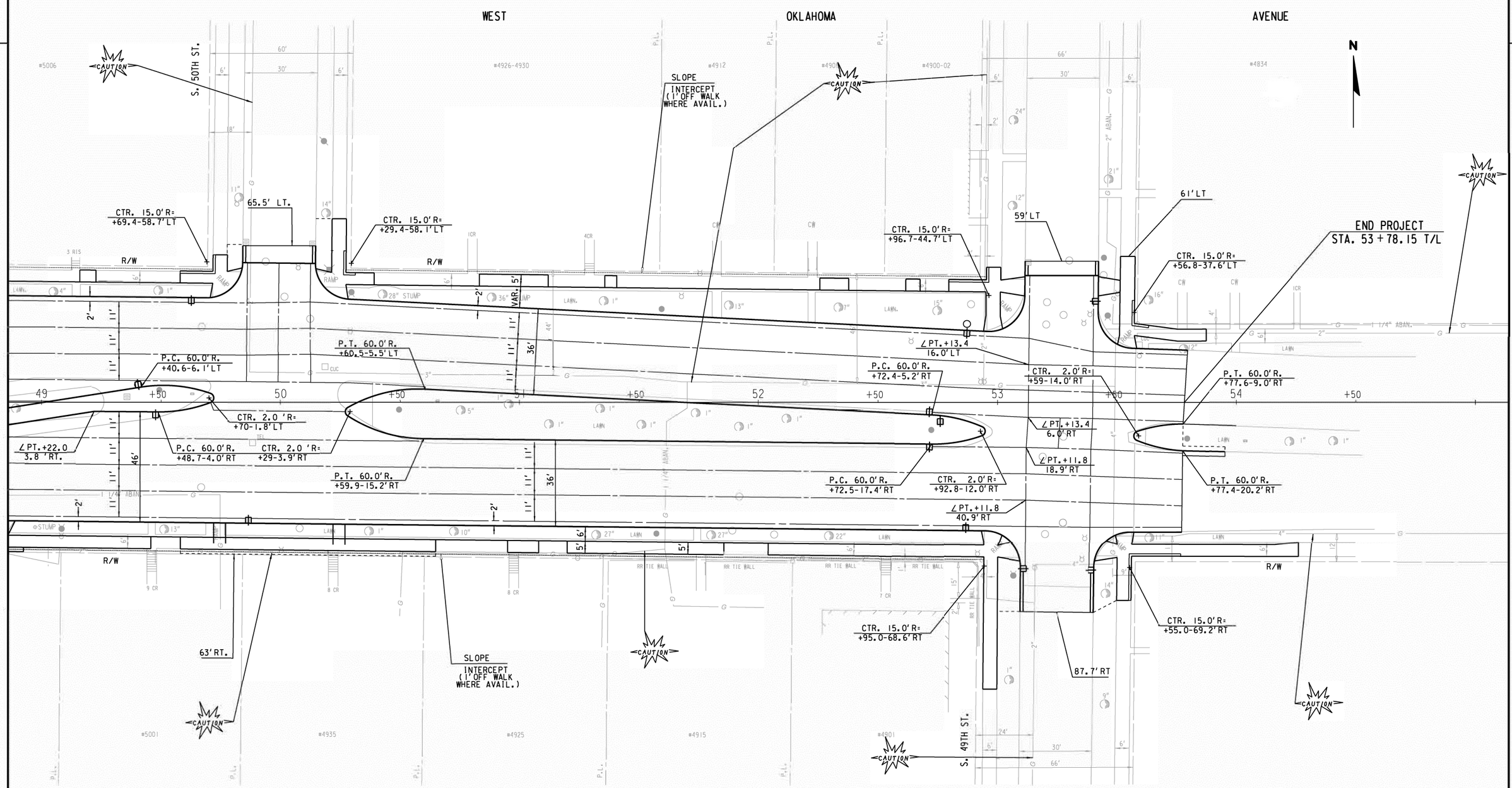
6

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 26	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 43_49.DGN

REVISED DATE: 08-16-2017 BY DB

2



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 27	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\PDET 49_55.DGN

REVISED DATE: 10-03-2017 BY BB

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

82.1'LT
71.4'LT
83.5'LT
70.2'LT
60'LT
59'LT
60'LT

110'
6' 43' 11' 32' 6'
8'
20' SEWER EASEMENT
SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

#5912 #5810 #5800 #5734 #5720

CAUTION

BUS SHELTER
CONC. DWY.
LAWN
ASPH. PARKING
ASPH. DWY.
SIGN
LANNON STONE WALL
BRICK WALL
BUS PLANTER
CURB
GUTTER
R/W
5'
+37.0
+9.2

REMOVE BASE
MAST ARM POLE TO BE REMOVED BY CITY

+67.9 +0.5 +15.4 +24.6 +59.2 +84.7 +10.2

3" ABAN. 4" ABAN. 6" ABAN.

19 +50 20 +50 21 +50 22 +50 23 +50 24 +50 25

T/L
180°26'11"
MONUMENT
120'
PLANTINGS
TEL
CUC
MEP

+5.1 +2.3 +45.7 +63.2 +67.6 +92.3

24'
14" R/W
PHONE
CURB
CONC BASE
BUSHES
LANDSCAPE
CW
SIGN

53.4'RT
82'RT
73'RT
59'RT
59'RT
53'RT
53'RT
60'RT
101.9'RT

+32.0 +70.0 +11.7

RET WALL
CONC
ST LTG
9"
BUS STOP
32'
6' 32' 11' 43' 6'
110'
S. 60TH ST

ASPH. DWY.
ASPH. PARKING
DWY. NOT IN USE
S.I. LINE ON R/W WHEN LESS THAN 1'
29' SEWER EASEMENT
PLANTING STRIP
5'

#3100 ALDI #5810 #5757

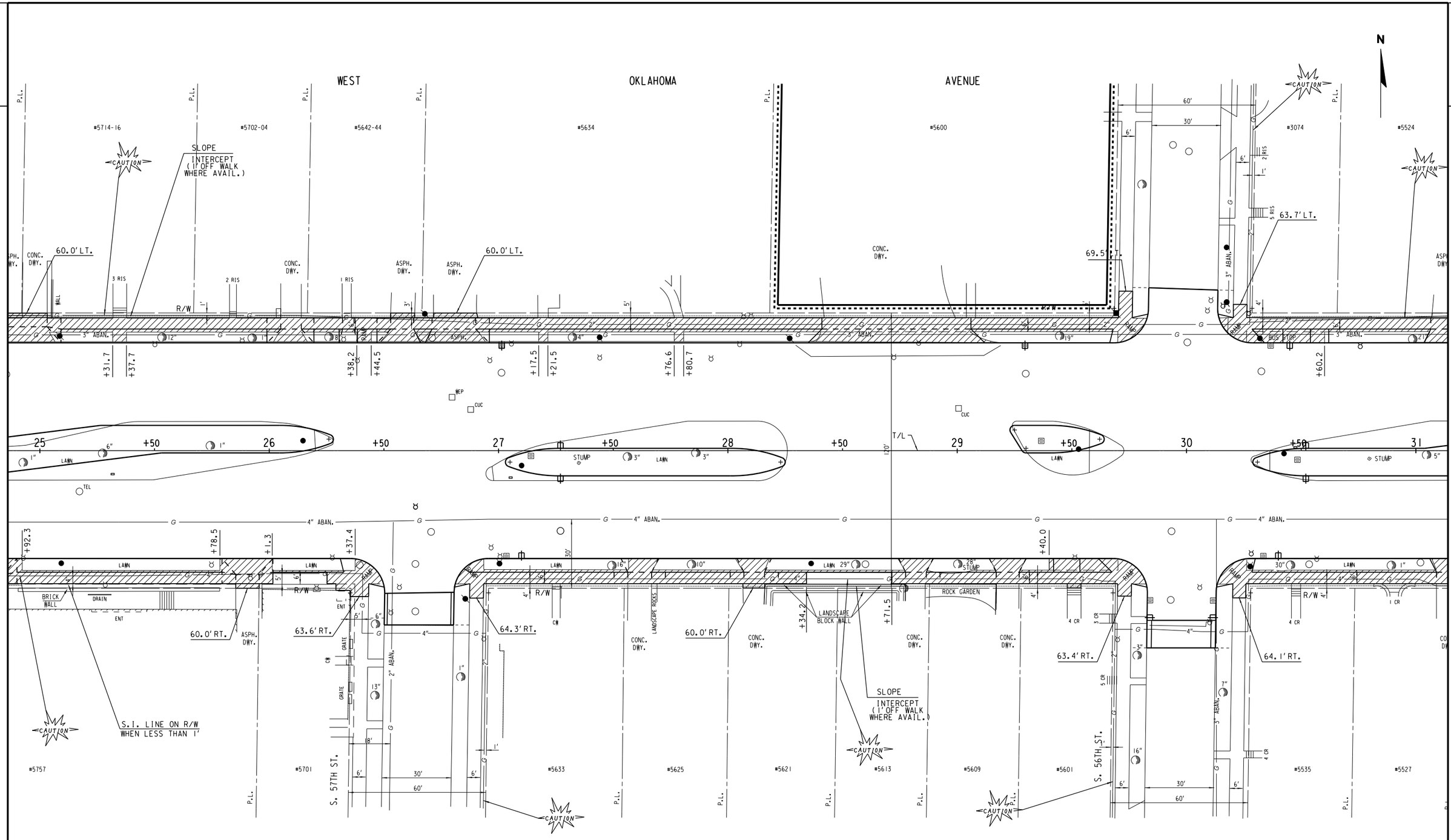
204.0195 - REMOVING CONCRETE BASES, 4 EA.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 28	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 19_25.DGN

REVISED DATE: 09-20-2017 BY DB

2

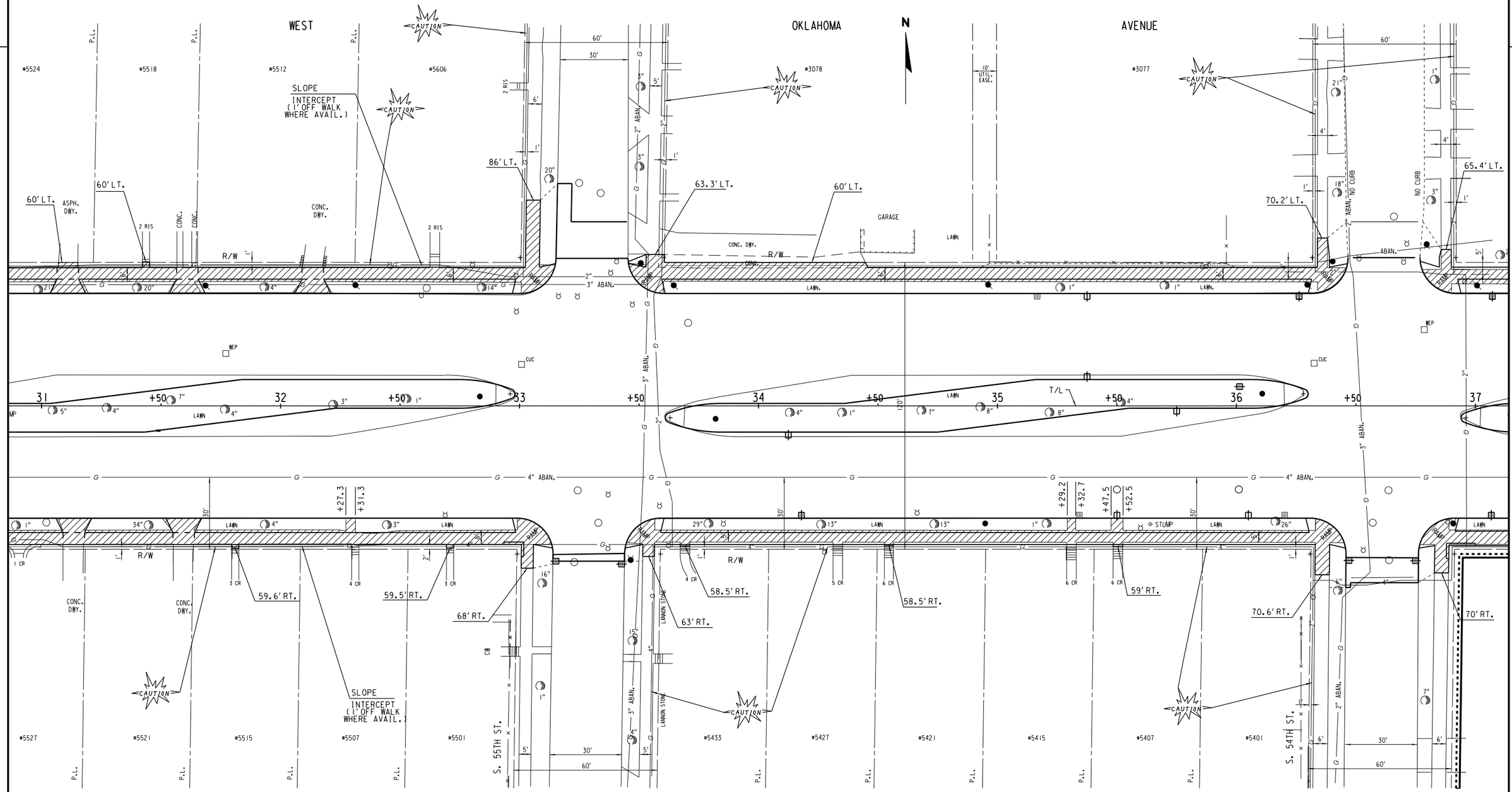


STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 29	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 25_31.DGN

REVISED DATE: 09-21-2017 BY DB

2



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 30	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 31_37.DGN

REVISED DATE: 09-20-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

#3076 #3077 #5232 #5200

CAUTION

S.I. LINE ON R/W WHEN LESS THAN 1'

20' CONC. ALLEY

60'

10' UTIL. EASE.

66.8' LT.

65' LT.

60' LT.

60' LT.

60' LT.

2 CR

R/W

LAWN

3"

27"

20"

2" ABAN.

NO CURB

18"

21"

28"

RAMP

ENT

BUS STOP

+49.0 +64.0 +64.0 +18.0 +28.0 +50.0 +2.6 +23.3 +52.0 +72.1 +55.4

+59.8 +62.8

WEP

CUC

TEL

37 38 39 40 41 42 43

+50

T/L

120'

18" 11" 9" 5" 4" 1"

STUMP

+15.4 +50.4 +31.6 +40.4 +45.9

30'

3 CR

ASPH. DWY.

CONC. DWY.

60' RT.

64.0' RT.

83.2' RT.

ASPH PARKING

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

#5335 #5309 #3105 #3108 #5227 #5215 #5101

S. 53RD ST.

P.I.

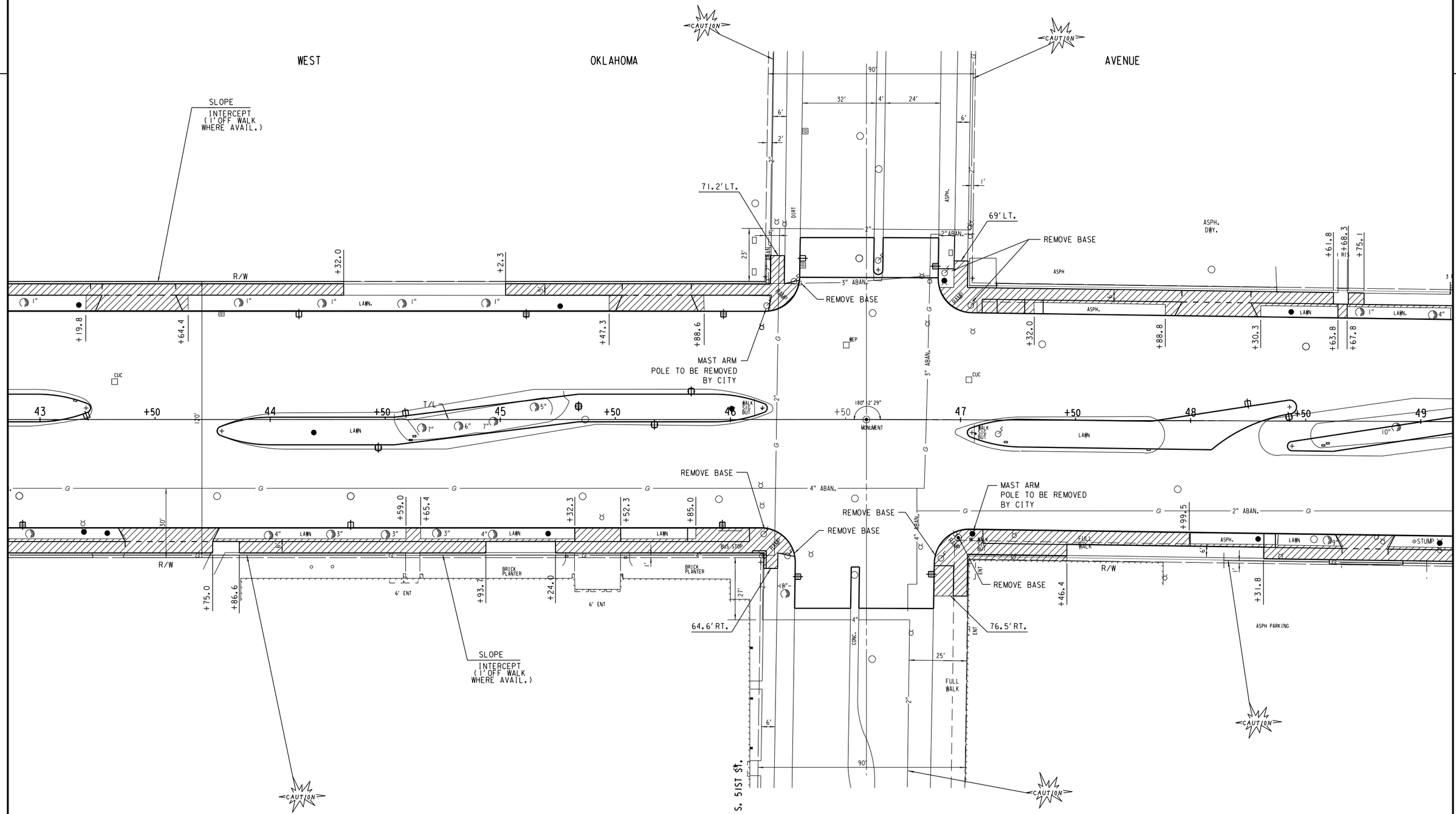
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 31	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 37_43.DGN

REVISED DATE: 09-20-2017 BY DB

2

WEST OKLAHOMA AVENUE



204.0195 - REMOVING CONCRETE BASES, 7 EA.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 32	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 43_49.DGN

REVISED DATE: 09-20-2017 BY DB

2

WEST OKLAHOMA AVENUE

N

#5006 #4926-4930 #4912 #4908 #4900-02 #4834

CAUTION

S. 50TH ST.

60' 6' 30' 6'

66' 6' 30' 6'

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

76.7' LT.

61.6' LT.

56.5' LT.

61' LT.

END PROJECT STA. 53+78.15 T/L

P.L.

R/W

LAWN

RAMP

28" STUMP

36" STUMP

2" ABAN.

1 1/4" ABAN.

CUC

TEL

T/L

RR TIE WALL

STUMP

S. 49TH ST.

82.3' RT.

120' RT.

+16.0 +22.8 +58.0 +39.1 +83.2 +12.0 +35.7 +40.7 +25.6 +37.7 +61.6 +67.5 +79.6 +37.2

+12.8 +16.3 +80.5 +84.5 +20.7 +23.7

49 +50 50 +50 51 +50 52 +50 53 +50 54 +50

+44.6 +47.6 +68.7 +76.6 +72.8 +75.8 +45.7 +58.0 +65.0 +95.0 +8.0 +20.0 +85.5 +4.0 +26.0

#5001 #4935 #4925 #4915 #4901

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	SIDEWALK REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 33	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\REM 49_55.DGN

REVISED DATE: 09-20-2017 BY DB

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

110'
6' 43' 11' 32' 6'

20' SEWER EASEMENT

SLOPE INTERCEPT ('/' OFF WALK WHERE AVAIL.)

BUS SHELTER
LAWN
R/W
5'
RAMP
BLIP PLANTER
CURB
CONC. DWY.
DWY.
ASPH
LAWN
ASPH. PARKING
ASPH. DWY.
SIGN
LANNON STONE WALL
WALL
6'
1"
11"

CUC
MEP
T/L
19 +50 20 +50 21 +50 22 +50 23 +50 24 +50 25
180°26'11"
MONUMENT
TEL
LAWN
120'
7" 6" PLANTINGS 38"
BIOSWALE NO. 1

LTG
RET WALL
CONC
ST LTG
9"
S. 60TH ST
6' 32' 11' 43' 6'
110'
CONC BASE
CURB
ASPH. DWY.
PHONE
CW
SIGN
BUSHES
7"
BUS STOP
ASPH. PARKING
S.I. LINE ON R/W WHEN LESS THAN 1'
29' SEWER EASEMENT
LANDSCAPE
DWY. NOT IN USE
BRICK WALL

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

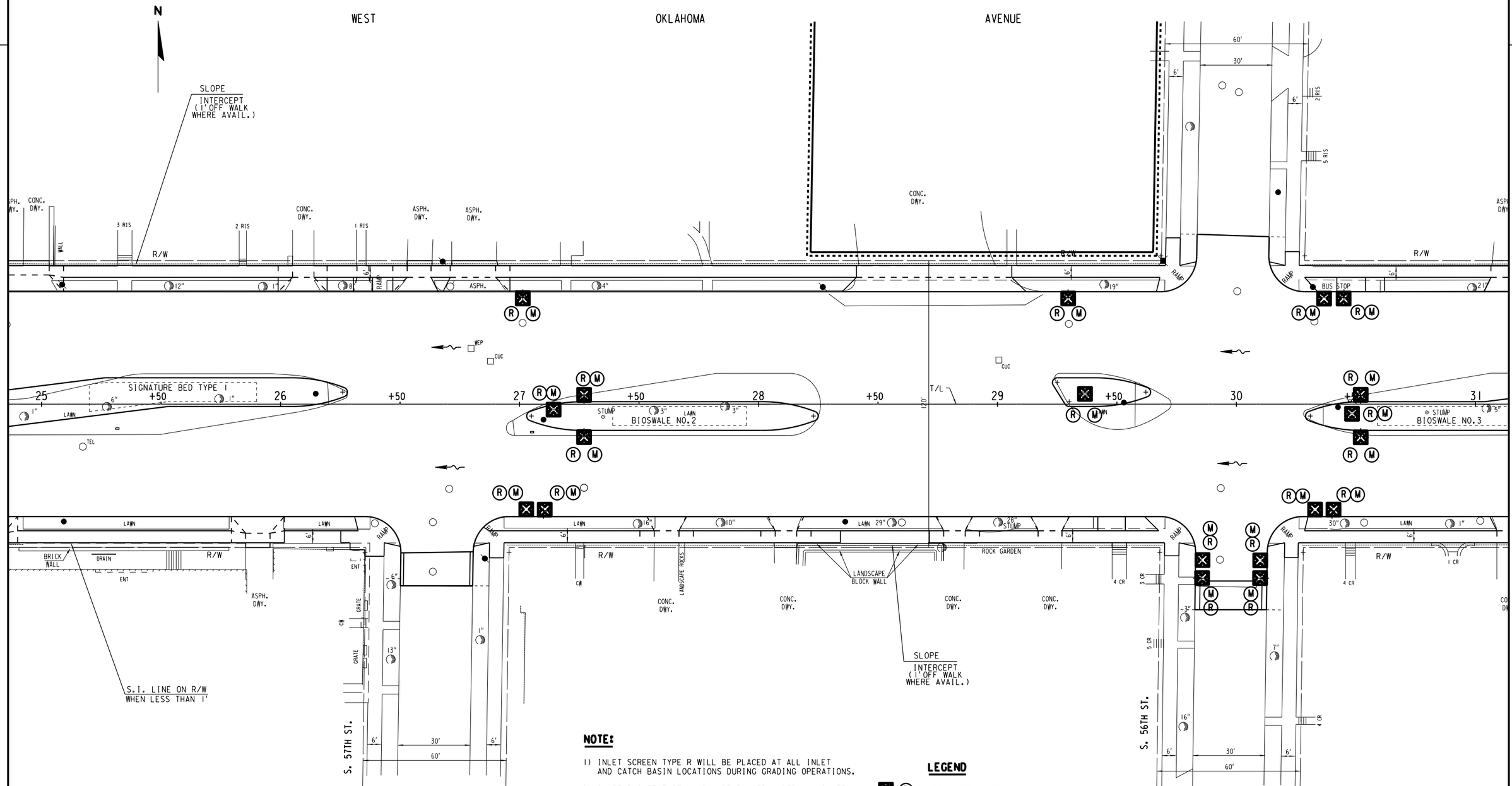
(R) INLET SCREEN TYPE R
(M) INLET BASKET TYPE M
SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 34	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\EROSION 19_25.DGN

REVISED DATE: 09-28-2017 BY DB

2



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET BASKET TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 35	E

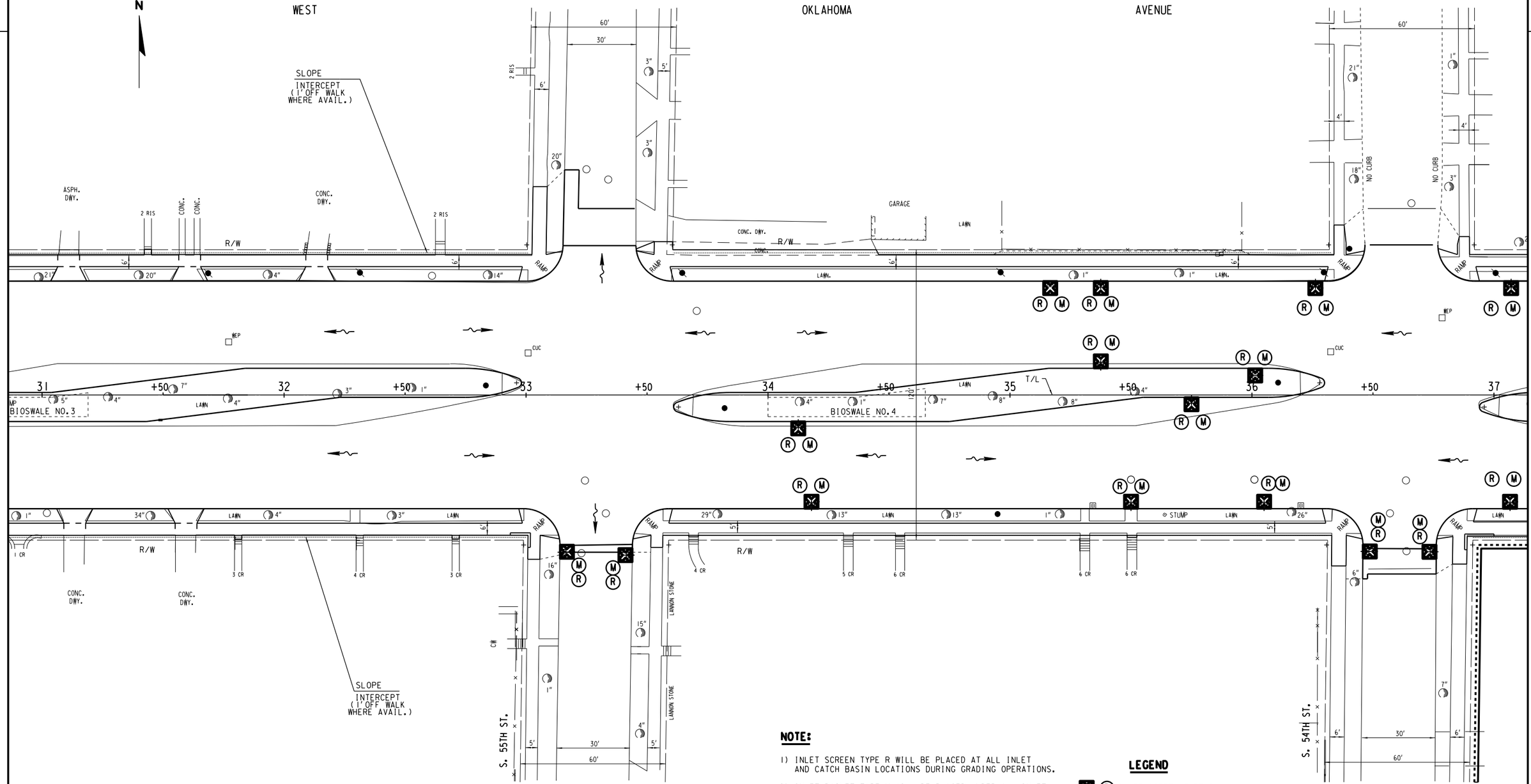
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REVISED DATE: 08-16-2017 BY DB

2

N

WEST OKLAHOMA AVENUE



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET BASKET TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 36	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\EROSION 31_37.DGN

REVISED DATE: 08-16-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

S.I. LINE ON R/W WHEN LESS THAN 1'

60'

20' CONC. ALLEY

4'

20"

10' UTIL. EASE.

NO CURB

NO CURB

5'

18"

27"

R/W

2 CR

ENT

RAMP

RAMP

LAWN

BUS STOP

5"

3"

1"

1'

WEP

CUC

TEL

37 +50 38 +50 39 +50 40 +50 41 +50 42 +50 43

T/L

120'

18"

BIOSWALE NO.5

BIOSWALE NO.6

STUMP

LAWN

9"

11"

4"

20"

3 CR

ASPH. DWY.

CONC. DWY.

ASPH PARKING

21"

28"

6'

30'

60'

S. 53RD ST.

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

(R) INLET SCREEN TYPE R

(M) INLET BASKET TYPE M

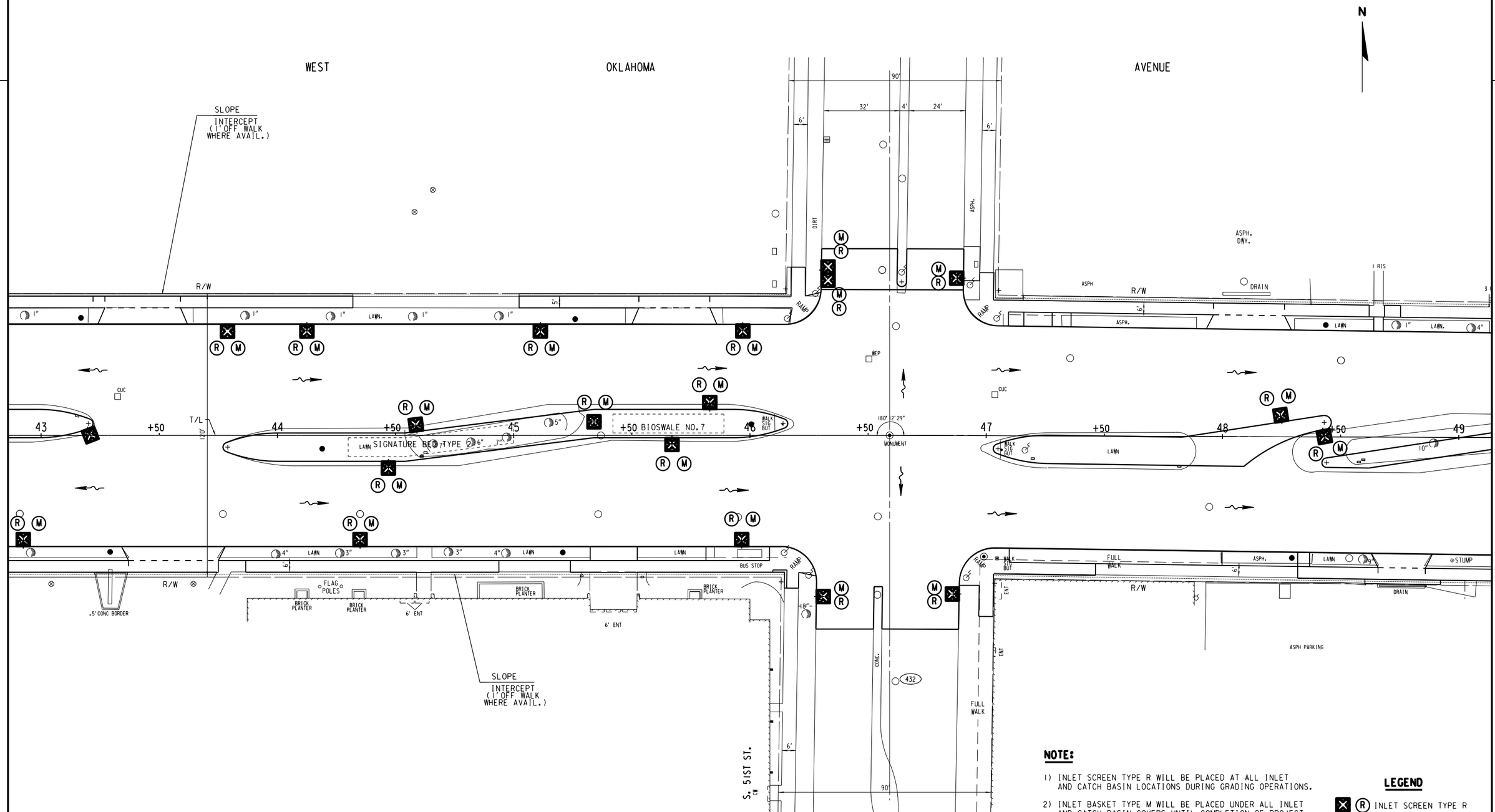
SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 37	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\EROSION 37_43.DGN

REVISED DATE: 08-16-2017 BY DB

2



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET BASKET TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 38	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\EROSION 43_49.DGN

REVISED DATE: 08-16-2017 BY DB

2

WEST OKLAHOMA AVENUE

S. 50TH ST.

S. 49TH ST.

N

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

END PROJECT STA. 53 · 78.15 T/L

SIGNATURE BED TYPE I

BIOSWALE NO.8

T/L

TEL

CUC

LAWN

R/W

RAMP

STUMP

RR TIE WALL

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET BASKET TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

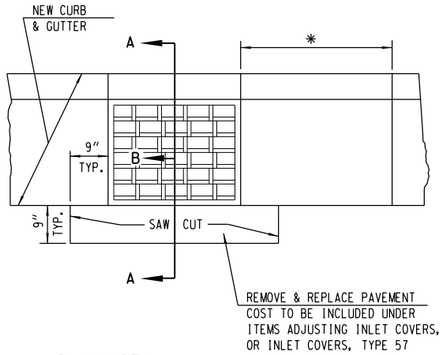
- (R) INLET SCREEN TYPE R
- (M) INLET BASKET TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 39	E

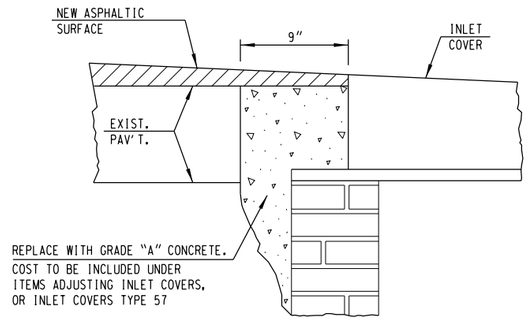
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\EROSION 49_55.DGN

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* REMOVE 3'-0" CURB & GUTTER MIN. OR TO THE NEAREST JOINT, 6'-0" MAX. UNLESS OTHERWISE DIRECTED ON THE PLAN.

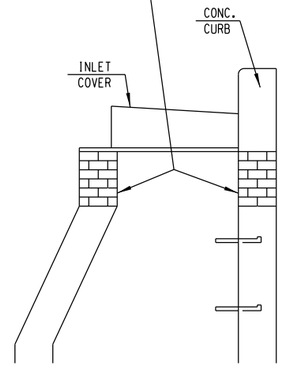


PLAN VIEW



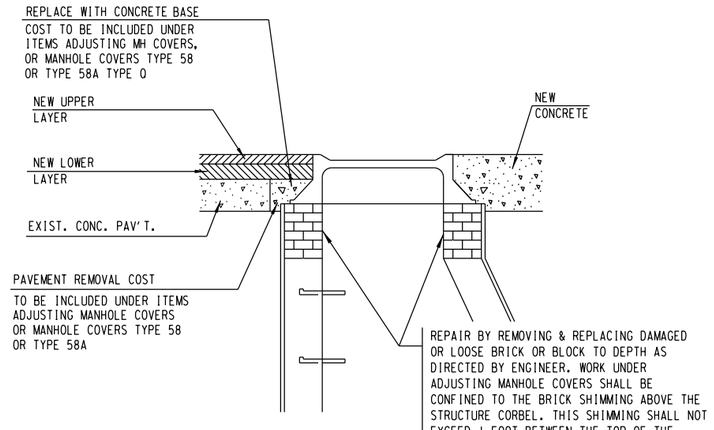
SECTION A-B

REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING CATCH BASIN COVERS SHALL BE CONFINED TO THE BRICK SHIMMING ABOVE THE STRUCTURE CORBEL. THIS SHIMMING SHALL NOT EXCEED 1 FOOT BETWEEN THE TOP OF THE CORBEL AND THE FRAME BOTTOM. ANY WORK MORE EXTENSIVE THAN DESCRIBED IMMEDIATELY ABOVE SHALL BE CONSTRUED AS WORK UNDER RECONSTRUCTING CATCH BASINS. DEPTHS OF BRICKWORK TO BE REPAIRED, AS INDICATED ON THE PLAN, ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

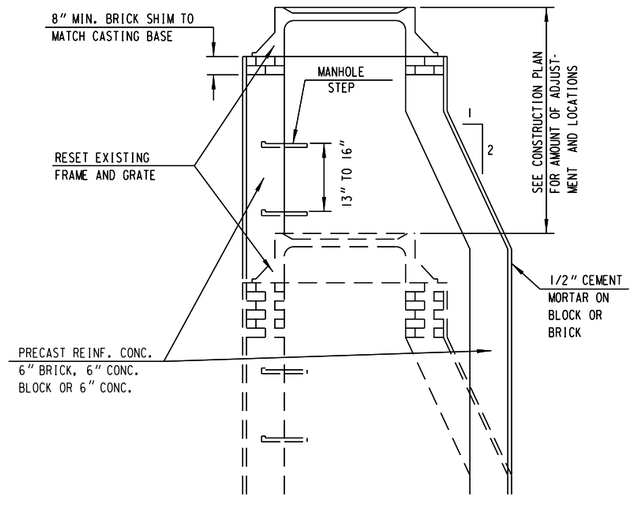


SECTION A-A

ADJUSTING INLET COVERS



ADJUSTING MANHOLE COVERS
OR MANHOLE COVERS TYPE 58A



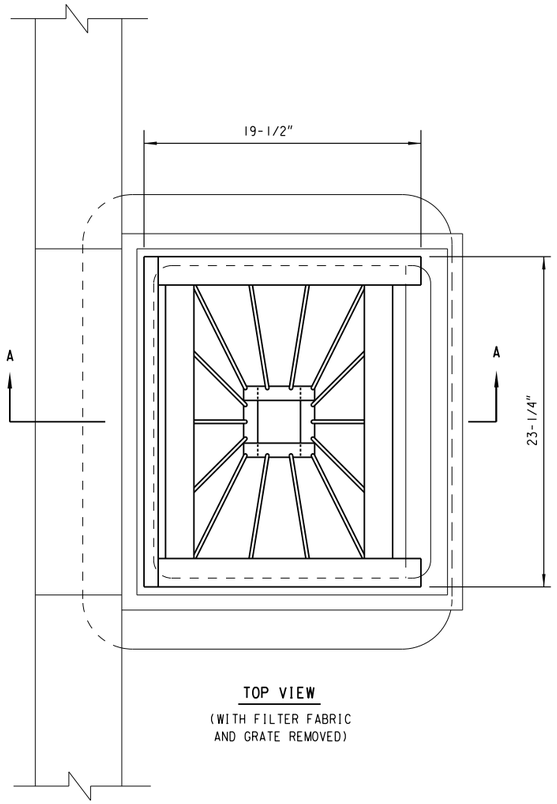
CORBEL MAY BE REVERSED
STRAIGHT SIDE LEANED
SLIGHTLY TO CLEAR CURB HEAD.

REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES
AND INLETS

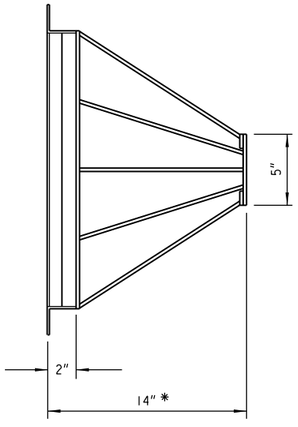
CONSTRUCTION NOTES

1. LOCATIONS OF STRUCTURES IN CURB & GUTTER SECTIONS REFER TO FACE OF CURB.
2. LOCATIONS OF STRUCTURES NOT IN CURB AND GUTTER SECTIONS REFER TO CENTERLINE OF STRUCTURE.
3. PIPE LENGTHS GIVEN ARE APPROXIMATE OUT TO OUT OF STRUCTURE.
4. GRATE & RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET COVER OR AT CENTER-LINE OF MANHOLE COVER.
5. WHEN NEW COVERS ARE PLACED, THE FIRST 12" OF ADJUSTMENT OR REPAIRING SHALL BE INCLUDED IN THE COST OF THE NEW COVER. ANY ADJUSTMENT OR REPAIR OF BRICKWORK 12" OR LESS WILL BE PAID AS ADJUSTING COVERS WHEN RESETTING EXISTING COVERS, ANY ADJUSTMENT OR REPAIR OF BRICKWORK MORE THAN 12" WILL BE PAID AS A RECONSTRUCT.
6. MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED.
7. WHEN CONSTRUCTING CONCRETE CURB ADJACENT TO INLET COVER TYPE 57, TWO (2) DEFORMED TIE BARS SHALL BE PLACED LONGITUDINALLY THROUGH THE CURB SECTION AND EXTENDED ONE (1) FOOT BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.



TOP VIEW

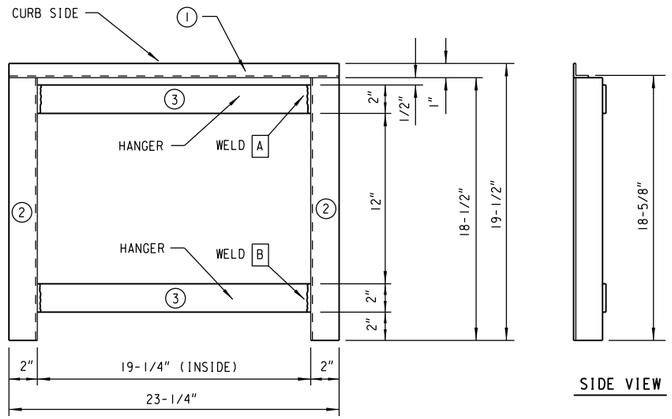
(WITH FILTER FABRIC AND GRATE REMOVED)



FRONT VIEW

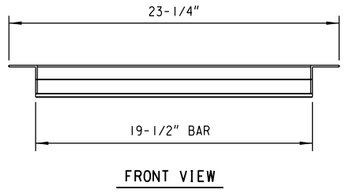
(BASKET ONLY)

* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH

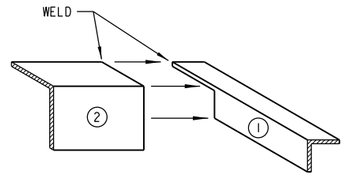


TOP VIEW

SIDE VIEW

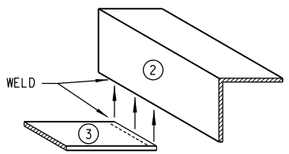


FRONT VIEW



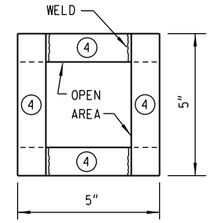
WELD CONNECTION - A

TOP FRAME

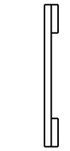


WELD CONNECTION - B

BASKET HANGER TO TOP FRAME



TOP VIEW

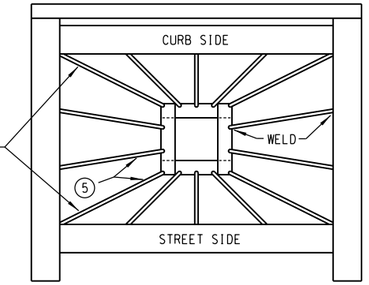


SIDE VIEW

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
4	BAR	1"	1/4"	5"	4

BASKET BOTTOM



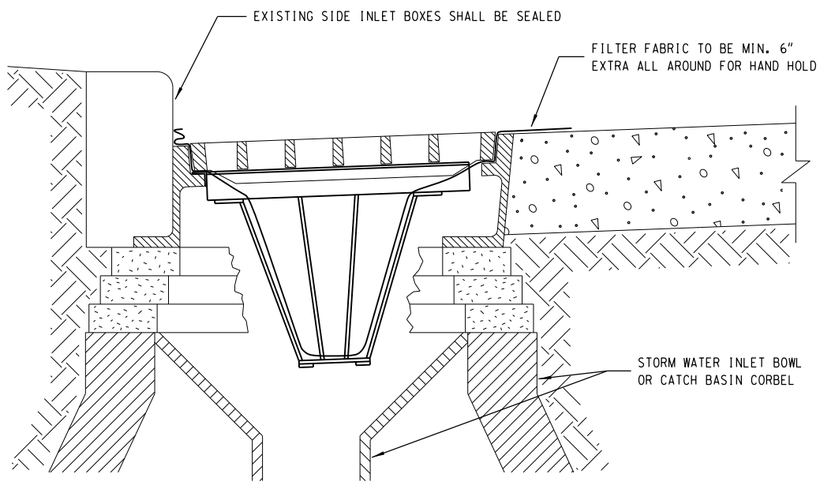
ROD PLACEMENT

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
1	ANGLE	1" X 1"	1/8"	23-1/4"	1
2	ANGLE	2" X 2"	1/8"	18-1/2"	2
3	BAR	2"	1/4"	19-1/2"	2

ROD SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
5	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14



SECTION A-A

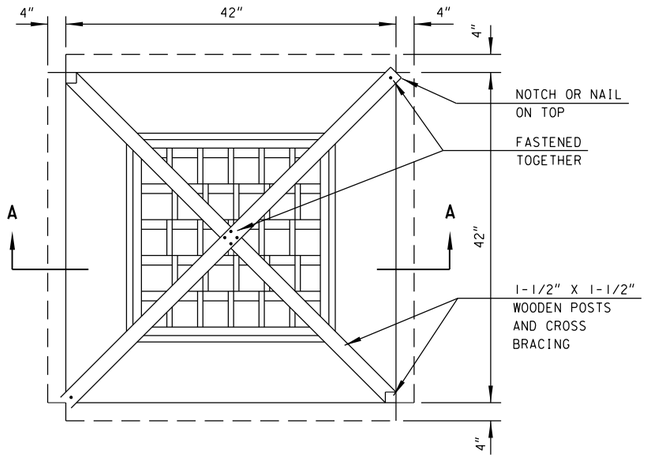
TYPE M
INLET / CATCH BASIN BASKET

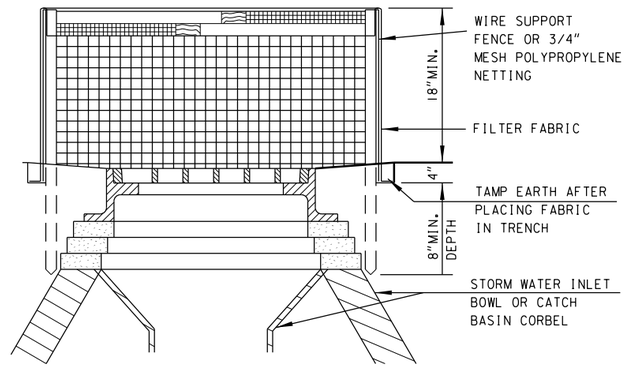
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 41	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\DRAINDET.DGN

REVISED DATE: 03-30-2017 BY BB

2

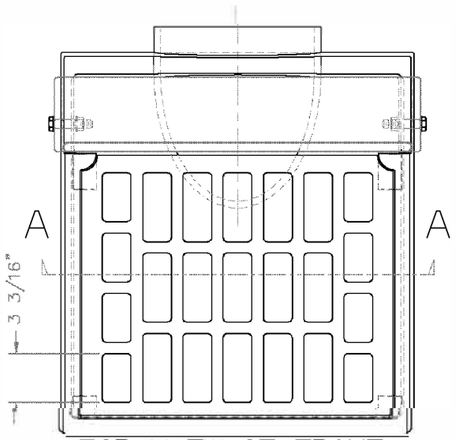




SECTION A-A

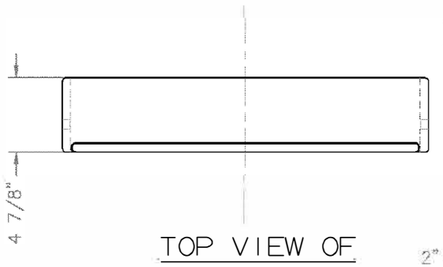
INLET SCREEN

(NOT PAVED) (TYPE R)

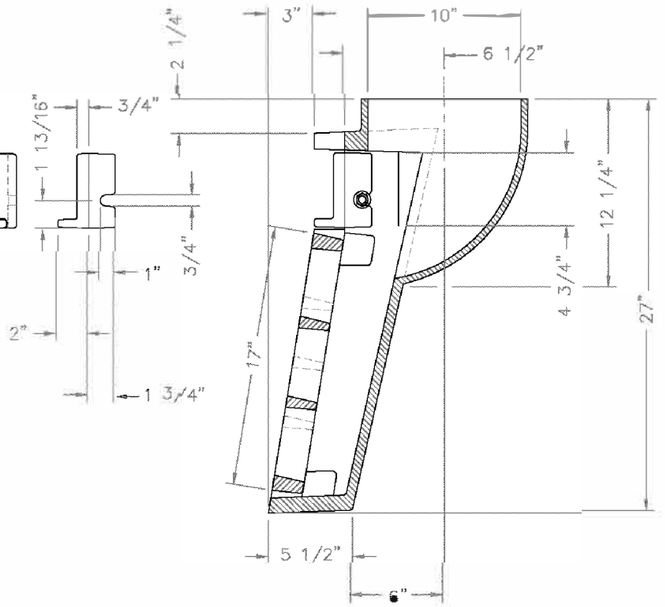


TOP VIEW OF FRAME, PLATE AND GRATE

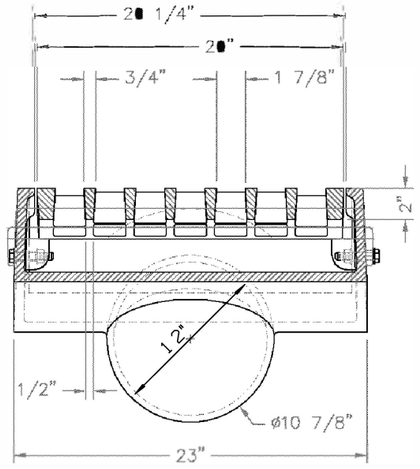
CURB PLATE IS BOLTED TO FRAME w/ (2) 1/2-13 X 2 1/2" STEEL BOLT, NUT, & WASHERS (KIT 95572)



TOP VIEW OF CURB PLATE

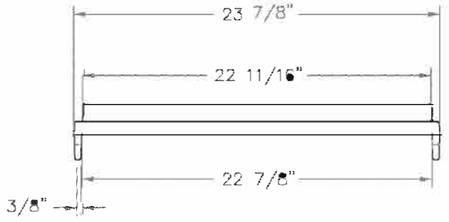


SIDE VIEW OF FRAME AND GRATE



SECTION A-A





SIDE VIEW OF CURB PLATE

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8".

ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

ON THE GRATE

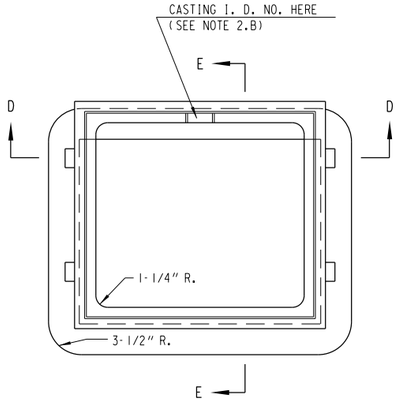
1. ON THE UPPER SIDE OF THE GRATE THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

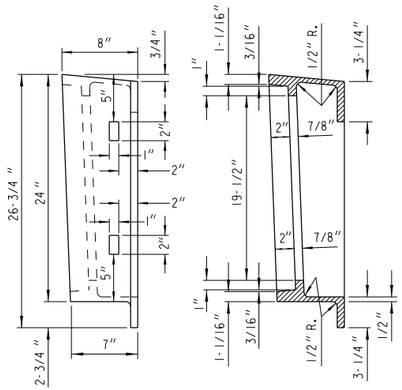
CURB INLET-TYPE 70A

WEIGHT: FRAME 146 LBS., GRATE 78 LBS.
(N.T.S.)

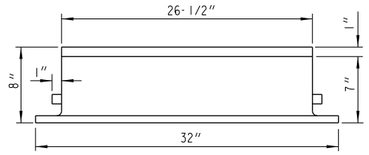
STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 43	E

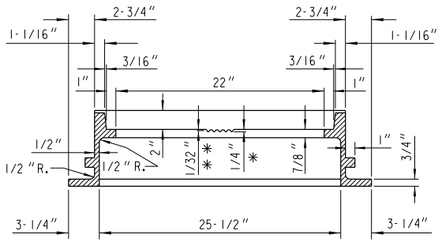
FILE NAME: W:\SPR\2ND NAT MENRVR\DRAINDET.DGN





SECTION E-E





SECTION D-D

* DEPRESSION FOR LETTERS

** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

GENERAL NOTES

1. ALL EDGES ARE TO BE GROUND
2. ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED"1/8

ON THE FRAME

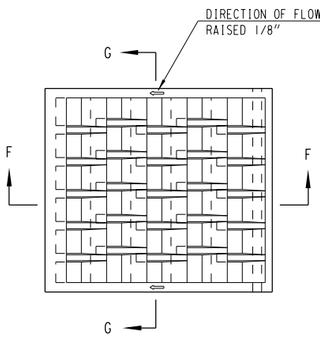
A) ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

B) ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

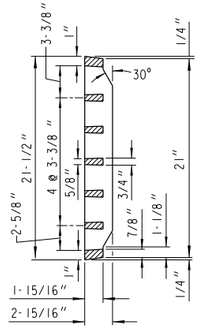
ON THE GRATE

C) ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

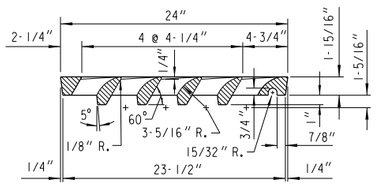
FRAME



GRATE



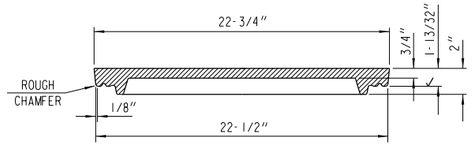
SECTION G-G



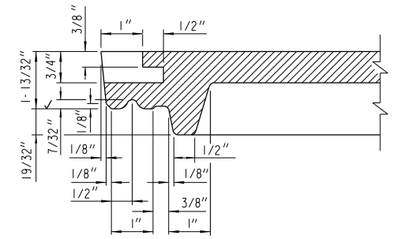
SECTION F-F

INLET COVER - TYPE MS 57

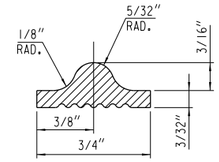
LID-145 LBS., FRAME-204 LBS.



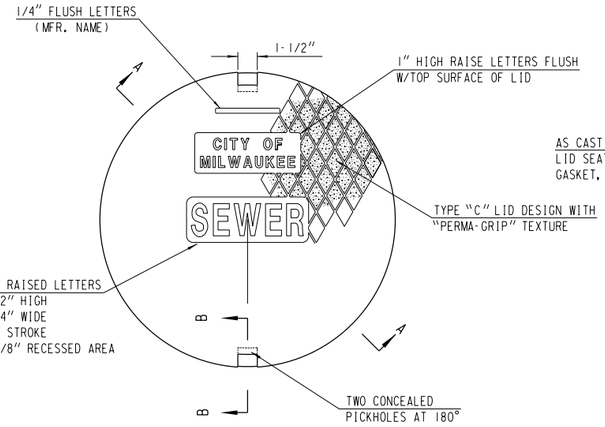
SECTION A-A



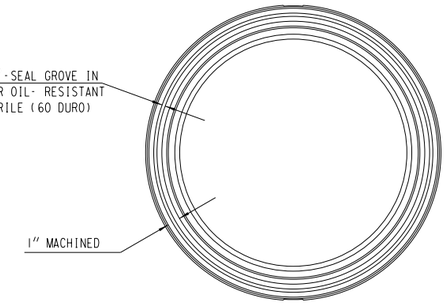
SECTION B-B



"T" GASKET DETAIL



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

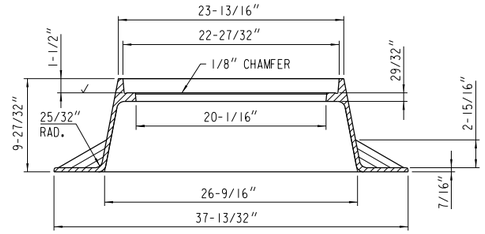
LID - 107 LBS.

NOTE:

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8" HAVING A DIGIT OR LETTER HEIGHT OF ONE INCH ON LOWER FACE OF LID:

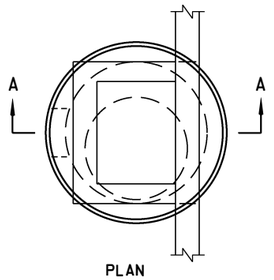
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

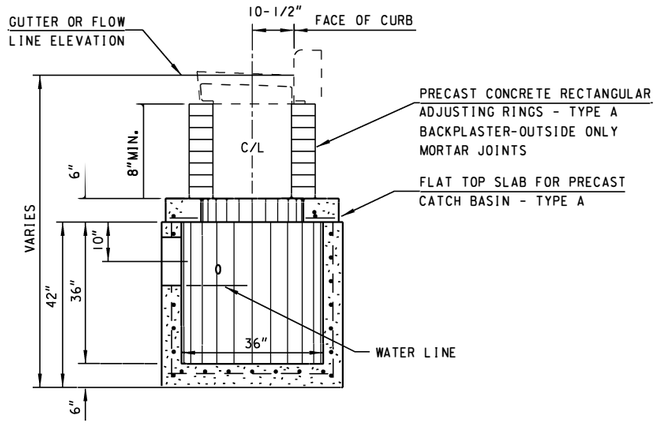


MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.



PLAN

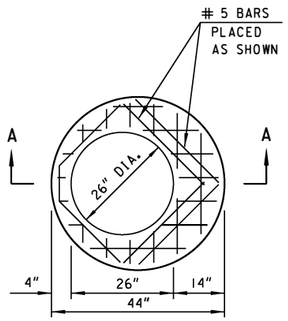


SECTION A-A

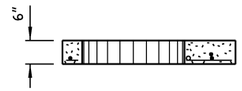
CATCH BASIN - TYPE 45A

GENERAL NOTES

1. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL GOVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4 IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PLAN



SECTION A-A

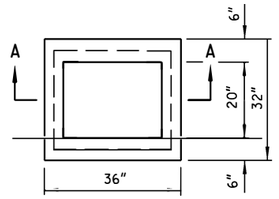
TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 6" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED NEAR THE BOTTOM OF THE SLAB WITH 1" CLEAR COVER.

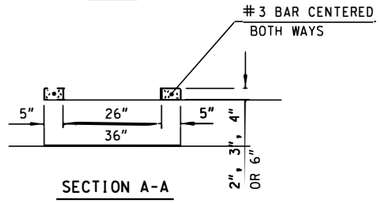
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



PLAN

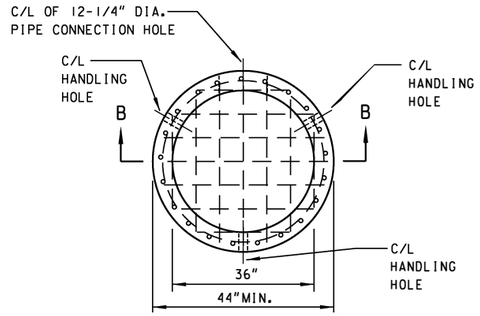


SECTION A-A

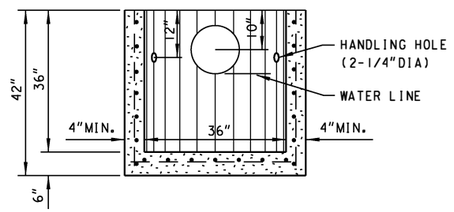
RECTANGULAR ADJUSTING RING - TYPE A

THE ADJUSTING RINGS SHALL BE 2", 3", 4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B

CIRCUMFERENTIAL AND LONGITUDINAL REINFORCEMENT IN THE RISER SECTON SHALL EACH CONSIST OF ONE LAYER OF STEEL NOT LESS THAN 0.12 SQ. IN. PER FOOT AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

THE BASE SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER FOOT IN BOTH DIRECTIONS, PLACED ABOVE THE MIDPOINT OF THE SLAB.

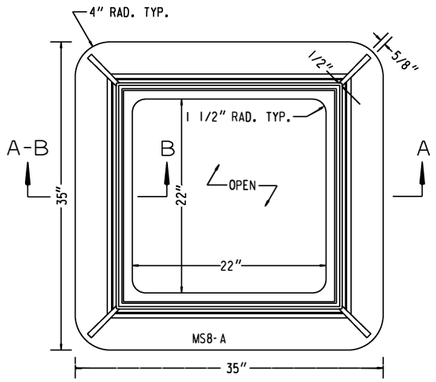
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

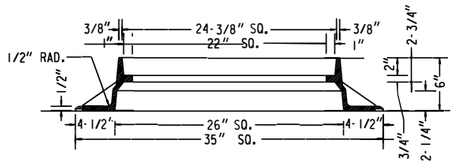
NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

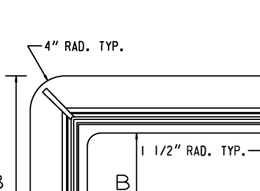
RISER SECTION MAY TAPER TO A 33" INTERNAL DIAMETER AT IT'S BOTTOM PROVIDED A 44" MINIMUM OUTSIDE DIAMETER IS MAINTAINED.



TOP VIEW



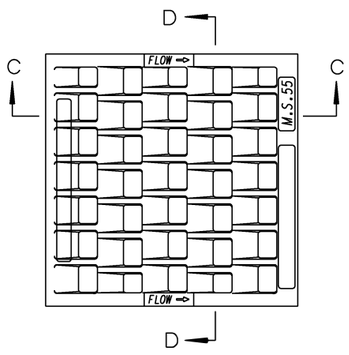
SECTION A-A

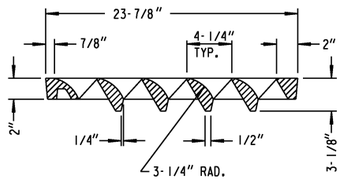


SECTION B-B

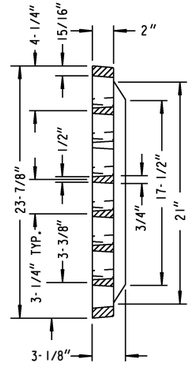
FRAME DETAIL

MS-8A
SCALE N.T.S.





SECTION C-C



SECTION D-D

MS-55
SCALE N.T.S.

GRATE DETAIL

INLET COVER - TYPE 55

GRATE-159 LBS., FRAME-165 LBS.

GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 INCH

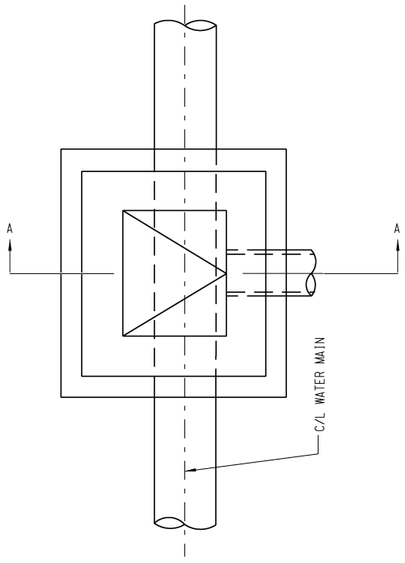
ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE CASTING IDENTIFICATION NUMBER (MS-8A), THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 3/4 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (8).

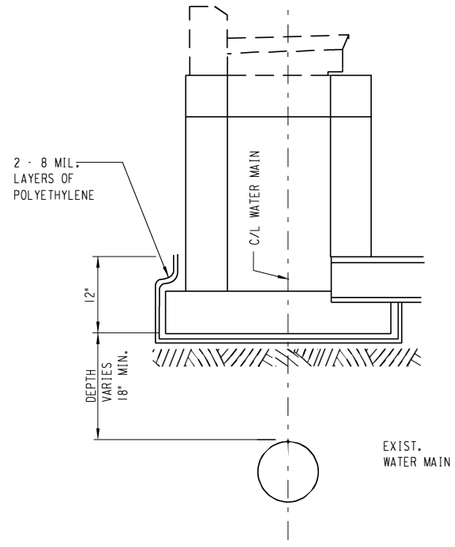
ON THE GRATE

1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (MS-55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

2



PLAN VIEW



SECTION A-A

WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN.

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 1
(SEE BIO-SWALE PLAN)

CAUTION

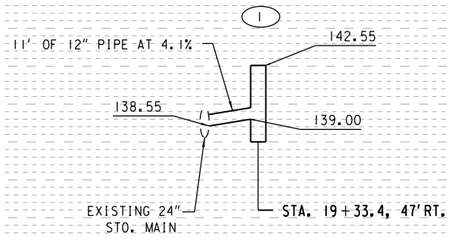
S. 60TH ST

S.I. LINE ON R/W WHEN LESS THAN 1'

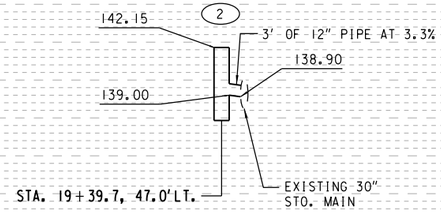
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 48	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 19_25.DGN

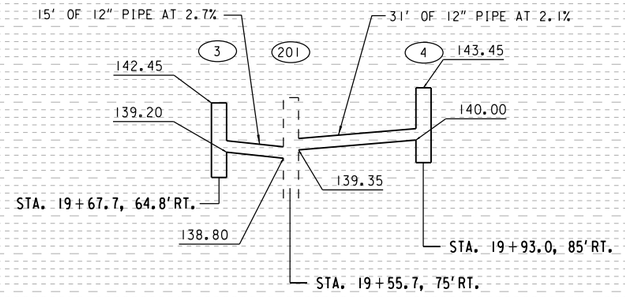
REVISED DATE: 10-03-2017 BY JH



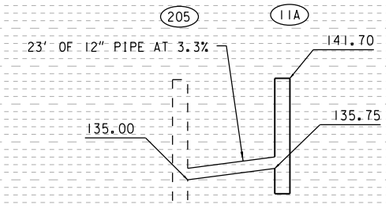
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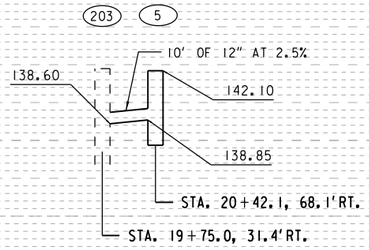
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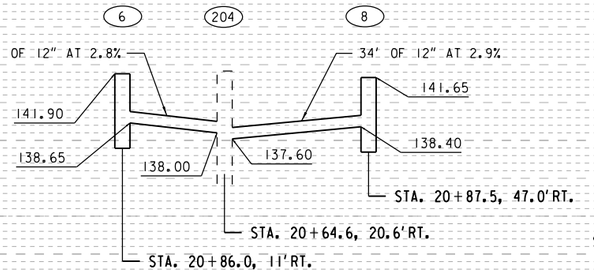
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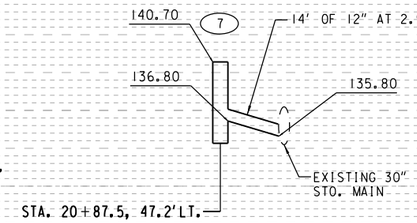
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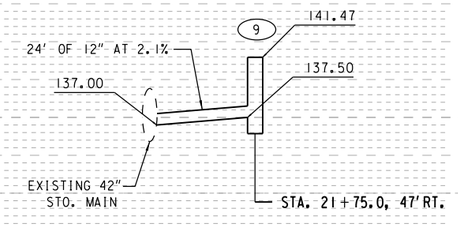
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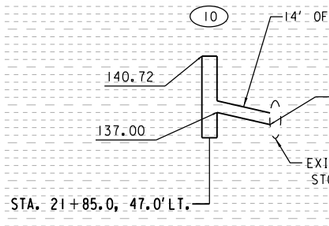
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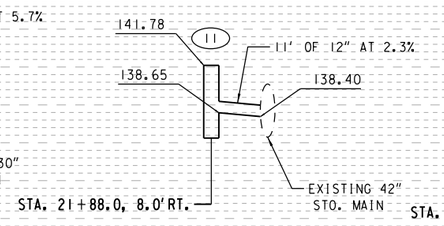
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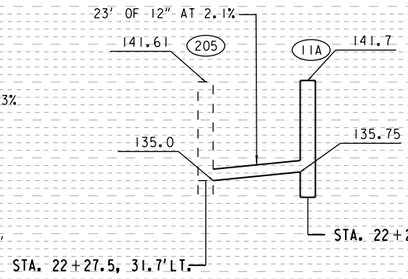
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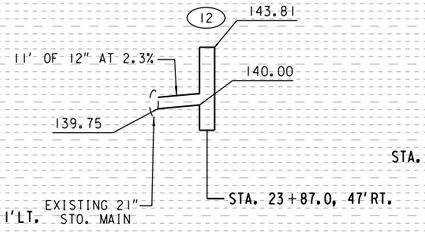
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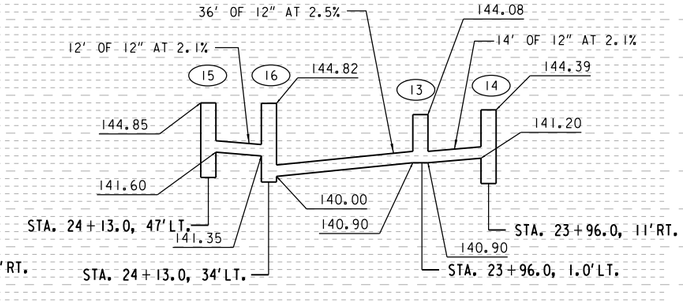
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(LOOKING EASTERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)

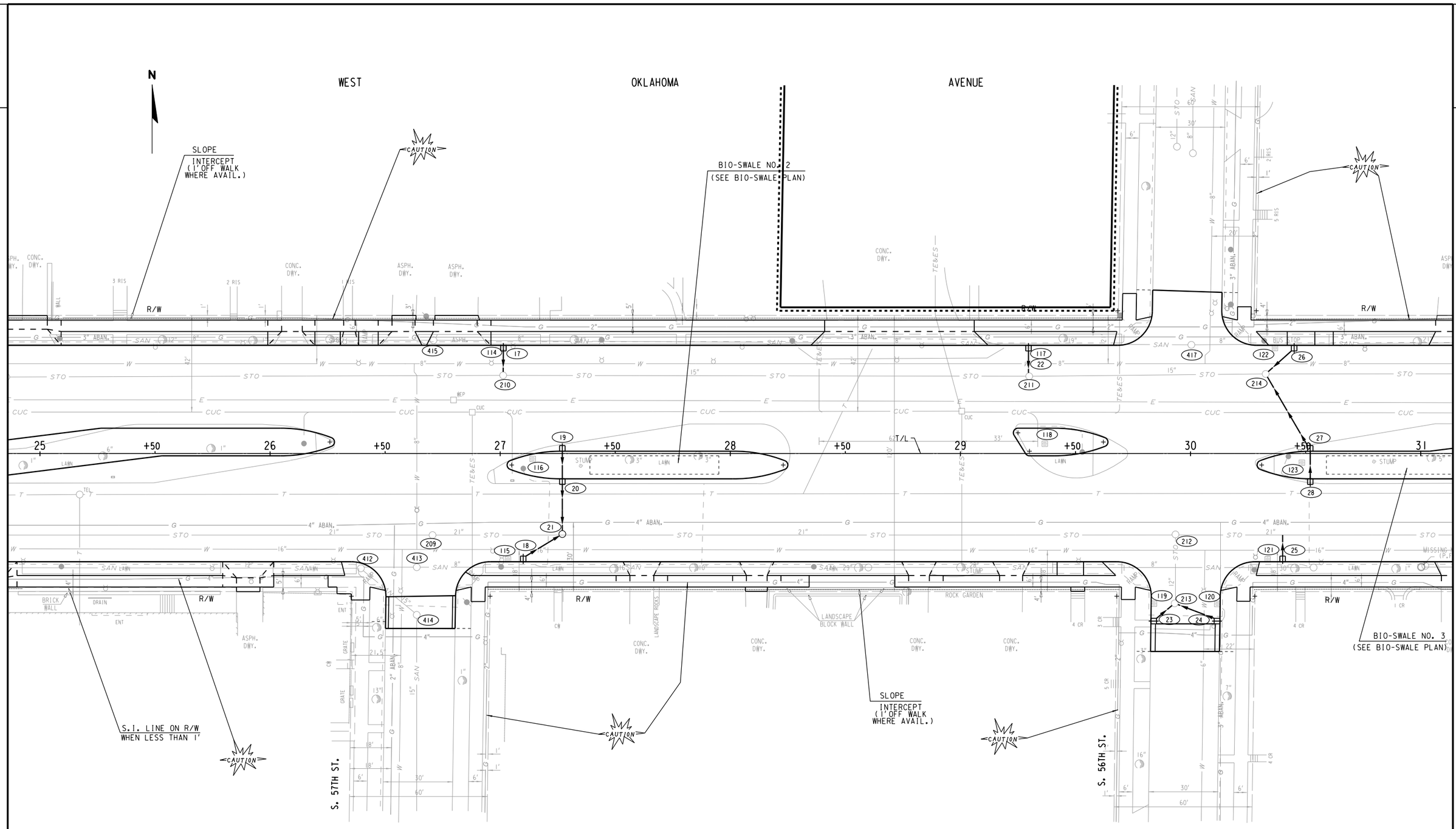
* ALL CONNECTION PIPE IS PVC, STORM SEWER

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 49	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 19_25.DGN

REVISED DATE: 10-02-2017 BY JH

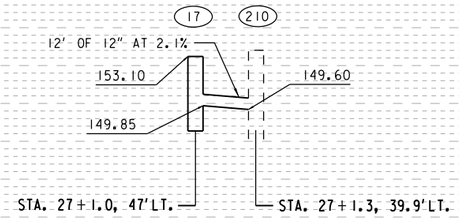
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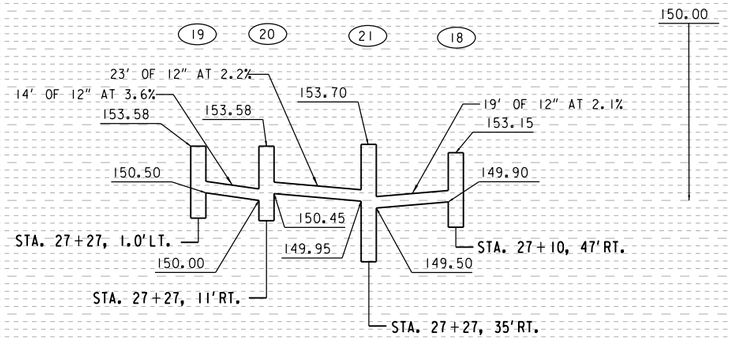
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 50	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 25_31.DGN

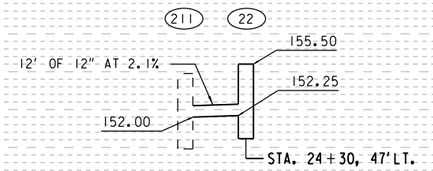
REVISED DATE: 09-20-2017 BY DB



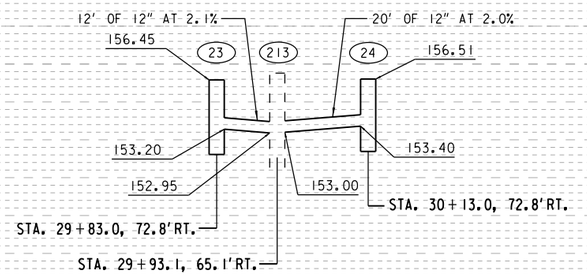
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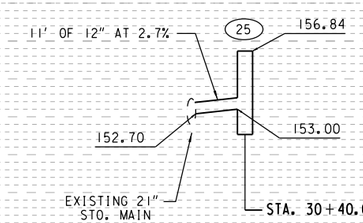
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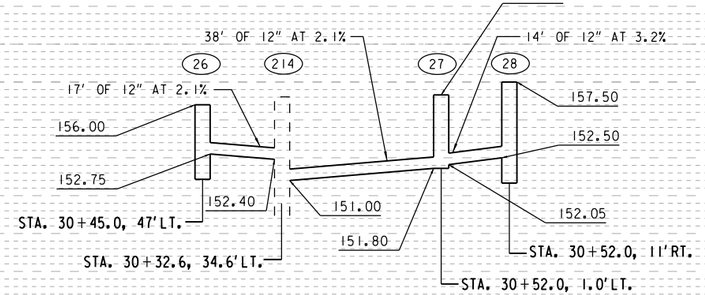
(LOOKING EASTERLY)



(LOOKING NORTHERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)

* ALL CONNECTION PIPE IS PVC, STORM SEWER

+50 +50 +50 +50 +50 +50

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 51	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 25_31.DGN

REVISED DATE: 09-25-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 4 (SEE BIO-SWALE PLAN)

BIO-SWALE NO. 3 (SEE BIO-SWALE PLAN)

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CAUTION

S. 55TH ST.

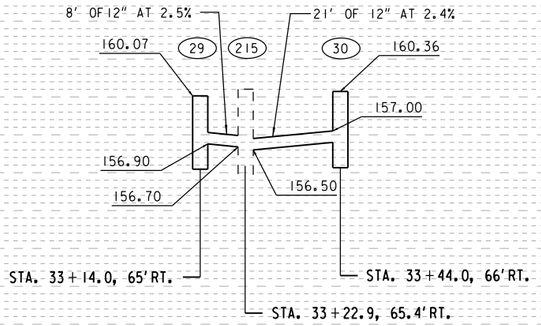
S. 54TH ST.

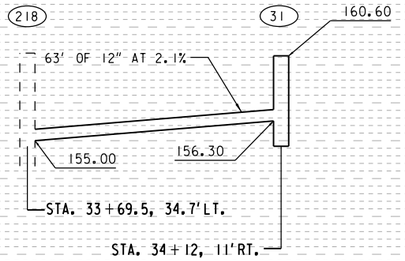
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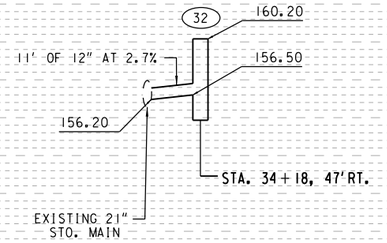
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REVISED DATE: 09-20-2017 BY DB

2



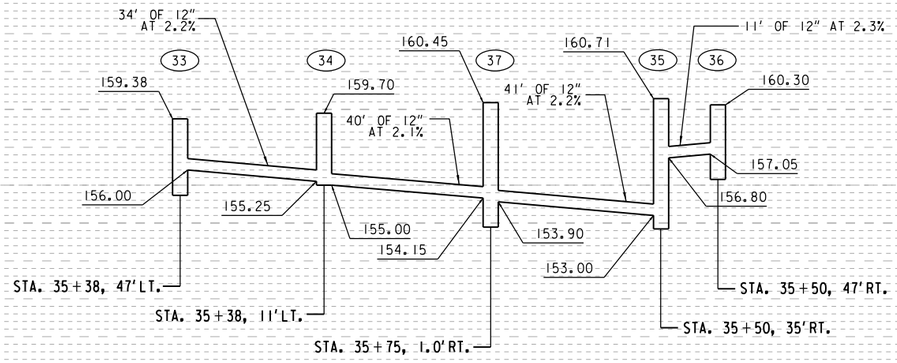


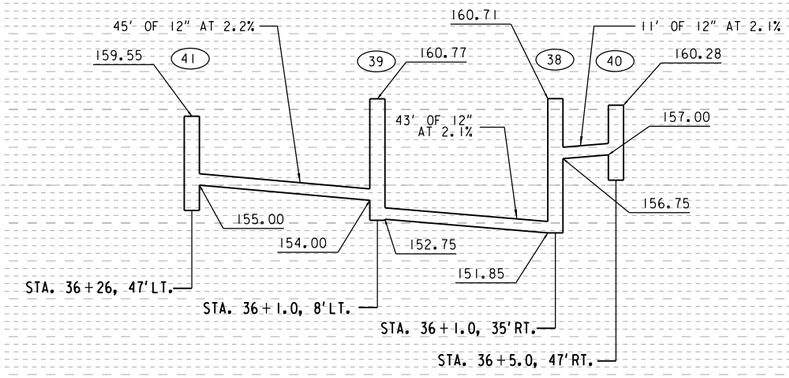


(LOOKING NORTHERLY)

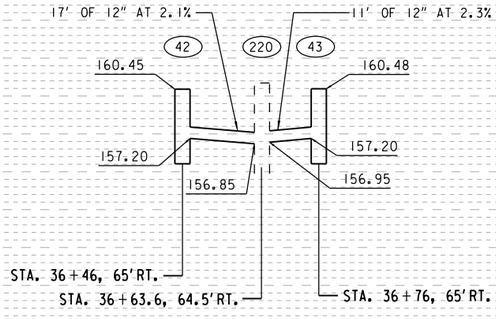
(LOOKING EASTERLY)

(LOOKING EASTERLY)





(LOOKING EASTERLY)



(LOOKING NORTHERLY)

* ALL CONNECTION PIPE IS PVC, STORM SEWER

2

WEST OKLAHOMA AVENUE

N

CAUTION

BIO-SWALE NO. 5
(SEE BIO-SWALE PLAN)

S.I. LINE ON R/W
WHEN LESS THAN 1'

CONC. ALLEY

10' UTIL. EASE.

R/W

LAWN

WEPCO M.H. ON THE PLAN NOT ON SURVEY AND CANT LOCATE WITH GOOGLE M.H. 4922

WEPCO M.H. 8015

T/L

37 38 39 40 41 42 43

+50

STUMP

MISSING M.H. FR (P.F. 090+

ASPH. DWY.

CONC. DWY.

ASPH PARKING

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

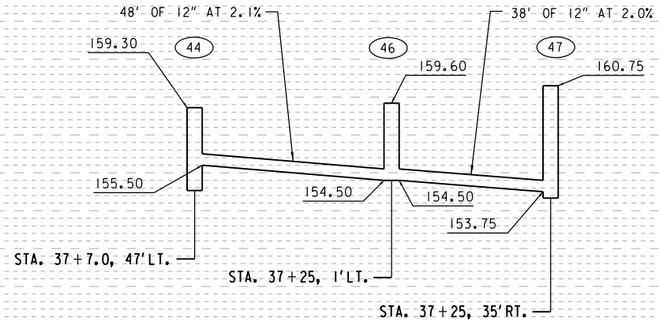
S. 53RD ST.

BIO-SWALE NO. 6
(SEE BIO-SWALE PLAN)

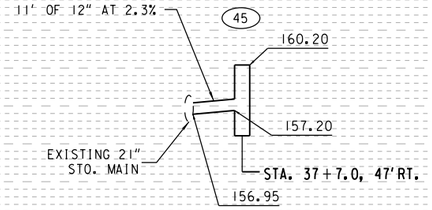
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 54	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 37_43.DGN

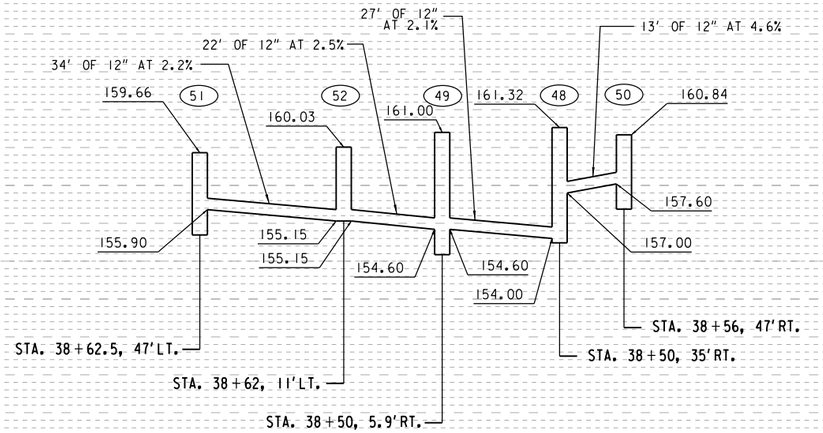
REVISED DATE: 09-20-2017 BY DB



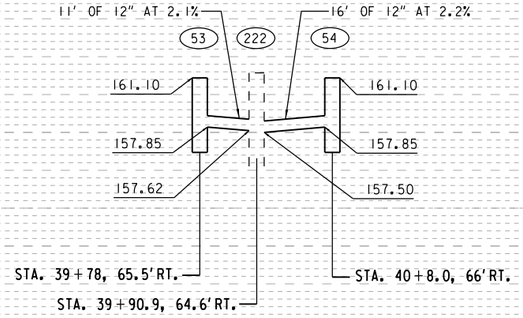
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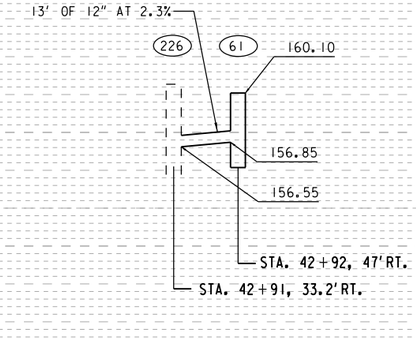
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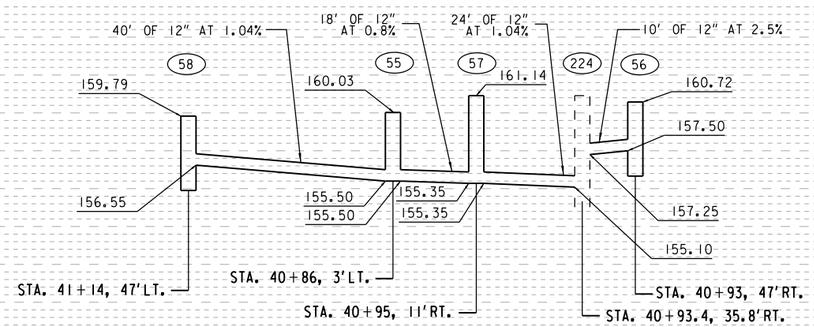
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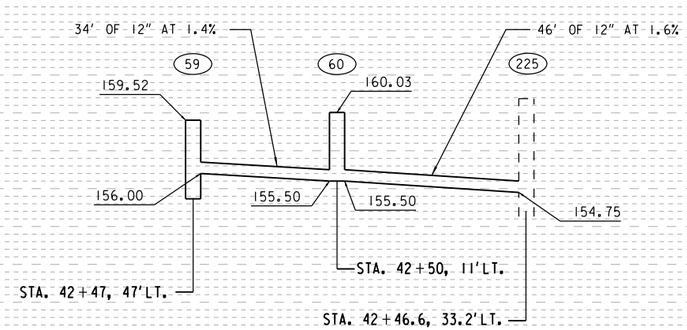
(LOOKING NORTHERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)

* ALL CONNECTION PIPE IS PVC, STORM SEWER

+50	+50	+50	+50	+50	+50	
STATE PROJECT NUMBER 2400-00-72	- -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 55 E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 37_43.DGN

REVISED DATE: 09-25-2017 BY DB

2

WEST OKLAHOMA AVENUE

N

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 7 (SEE BIO-SWALE PLAN)

CAUTION

CAUTION

R/W

R/W

ASPH. DWY.

DRAIN

IRIS

ASPH

ASPH.

LAWN.

LAWN

MISSING M.H. FROM SURVEY (P.F. 090-073)

T/L

MONUMENT

BUS STOP

FLAG POLES

BRICK PLANTER

BRICK PLANTER

BRICK PLANTER

.5' CONC BORDER

6' ENT

ENT

FULL WALK

ASPH.

LAWN

STUMP

DRAIN

ASPH PARKING

CAUTION

CAUTION

CAUTION

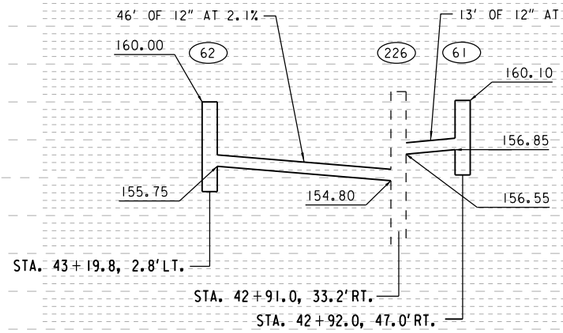
SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

S. 51ST ST.

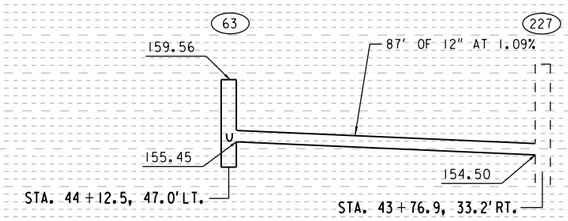
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 56	E

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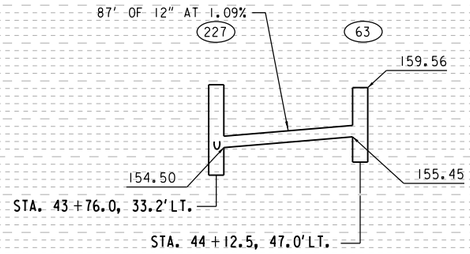
REVISED DATE: 09-20-2017 BY DB



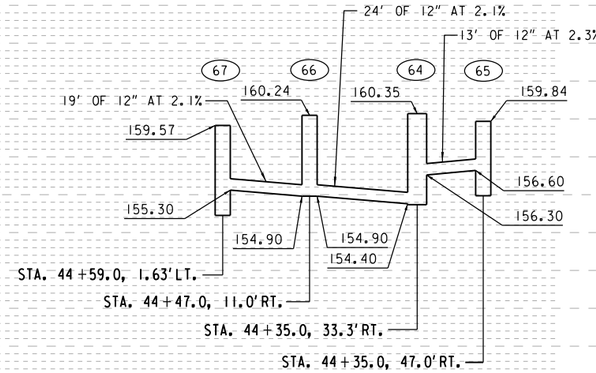
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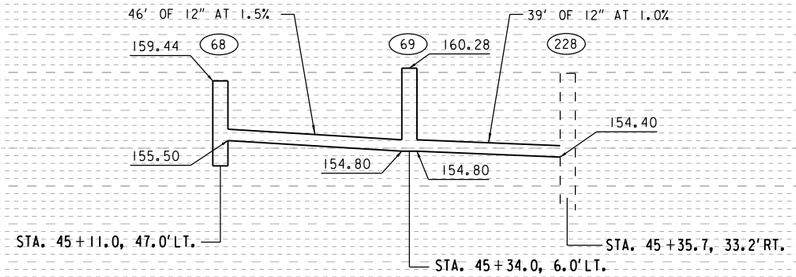
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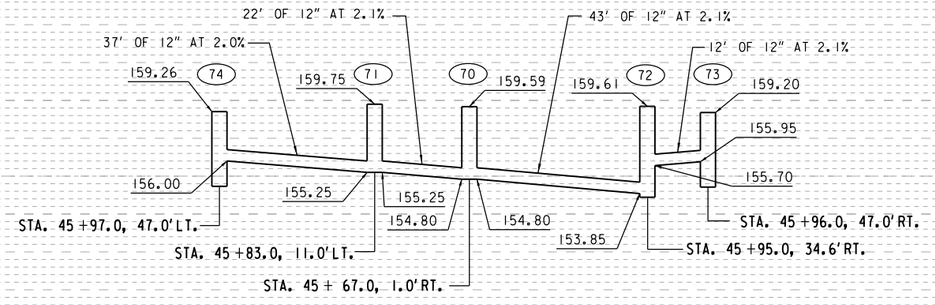
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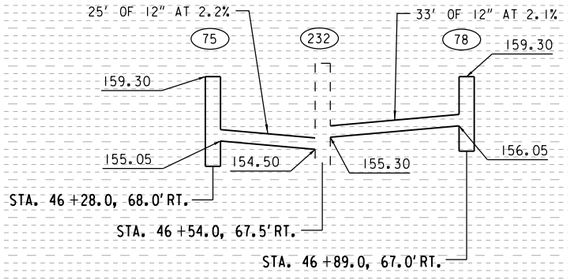
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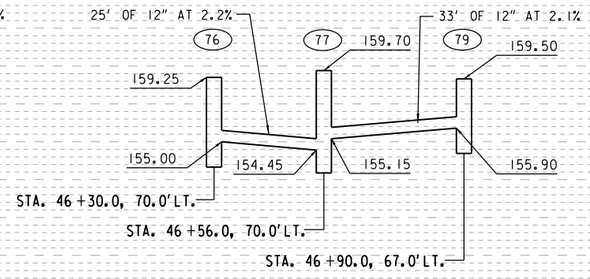
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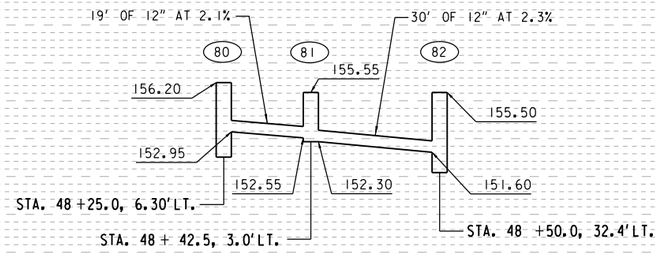
(LOOKING EASTERLY)



(LOOKING NORTHERLY)



(LOOKING NORTHERLY)



(LOOKING NORTHERLY)

* ALL CONNECTION PIPE IS PVC, STORM SEWER

2

WEST OKLAHOMA AVENUE

N

S. 50TH ST.

S. 49TH ST.

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 8 (SEE BIO-SWALE PLAN)

END PROJECT STA. 53 · 78.15 T/L

T/L

M.H. NOT FOUND ON SURVEY (P.F. 080-124)

CAUTION

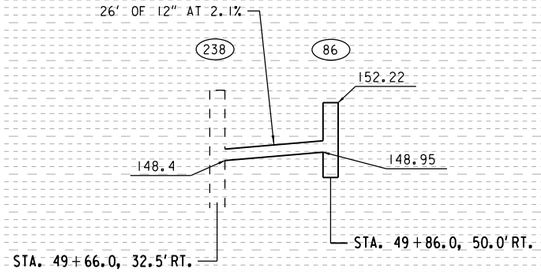
R/W

49 +50 50 +50 51 +50 52 +50 53 +50 54 +50 55

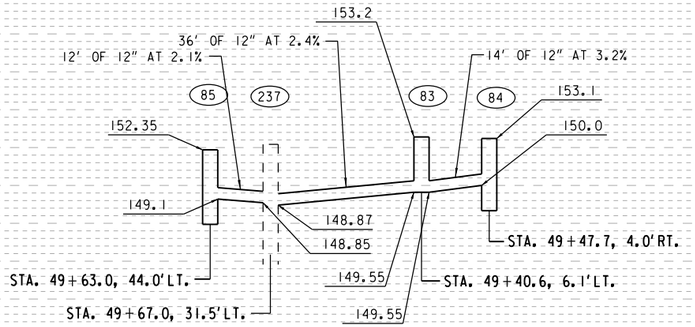
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 58	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\UTIL 49_55.DGN

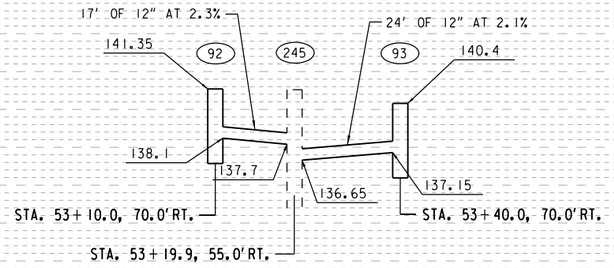
REVISED DATE: 10-03-2017 BY JH



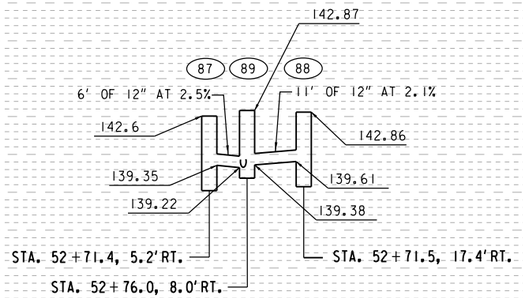
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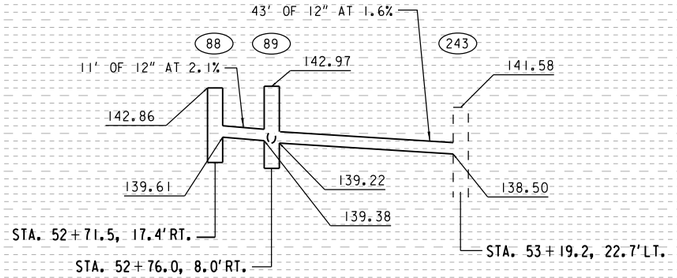
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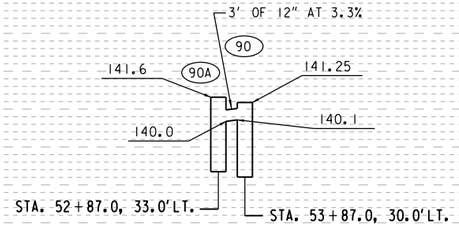
(LOOKING NORTHERLY)



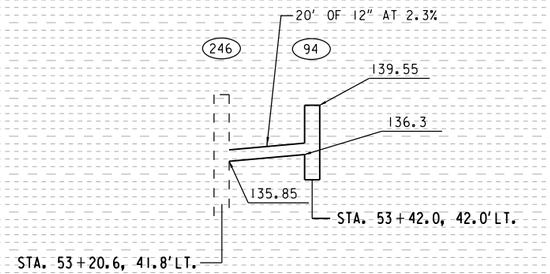
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(LOOKING NORTHERLY)



(LOOKING EASTERLY)

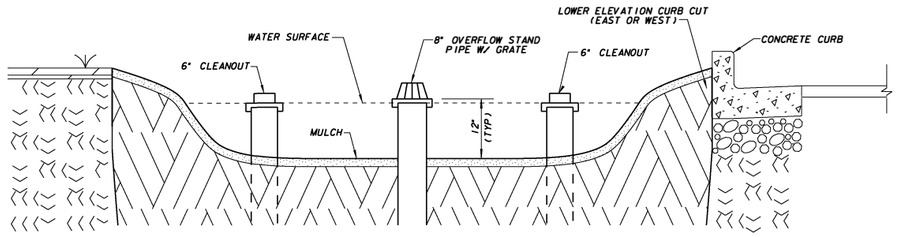


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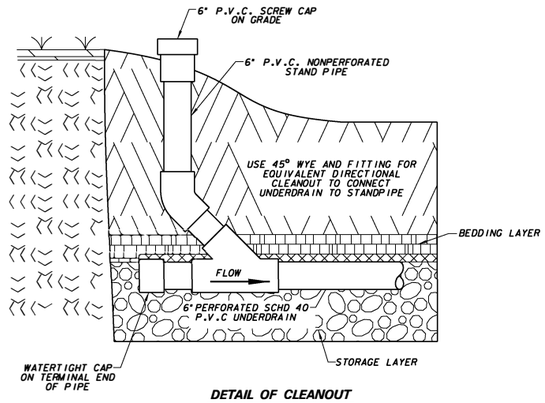
* ALL CONNECTION PIPE IS PVC, STORM SEWER

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 59	E

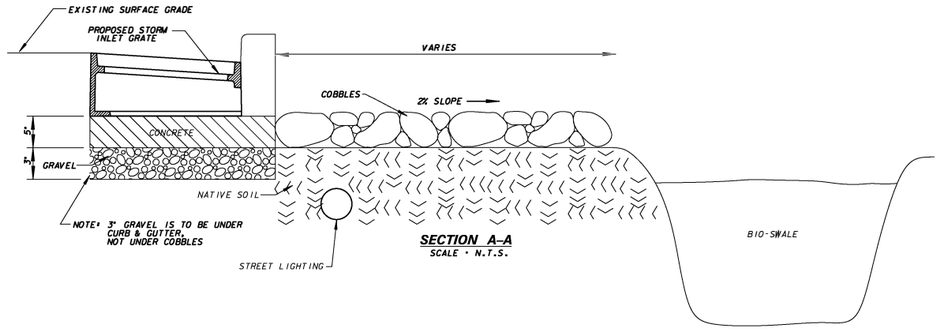
BIO-SWALE DETAILS



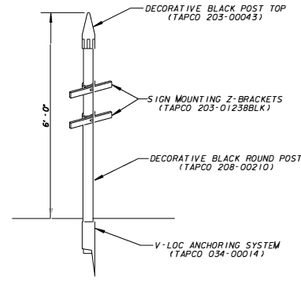
DETAIL OF 8" OVERFLOW STAND PIPE
SCALE • N.T.S.



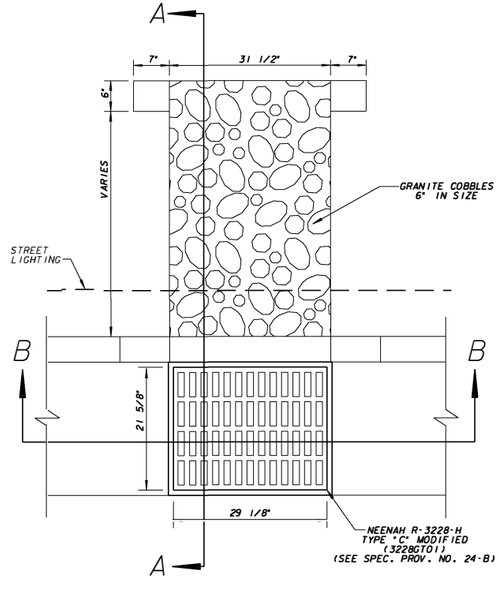
DETAIL OF CLEANOUT
SCALE • N.T.S.



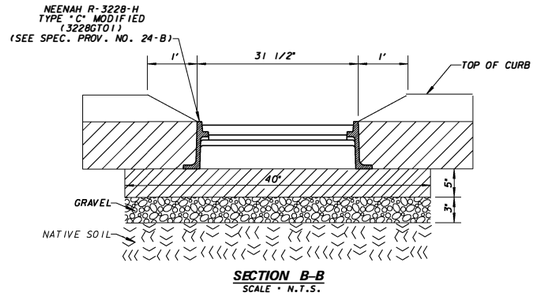
SECTION A-A
SCALE • N.T.S.



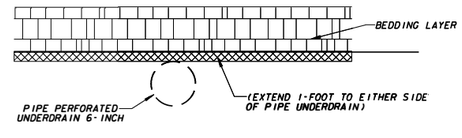
DETAIL OF INFORMATIONAL SIGN
SCALE • N.T.S.



STORM CURB INLET WITH GRATE TYPE "A"
SCALE • N.T.S.



SECTION B-B
SCALE • N.T.S.



DETAIL OF GEOTEXTILE FABRIC

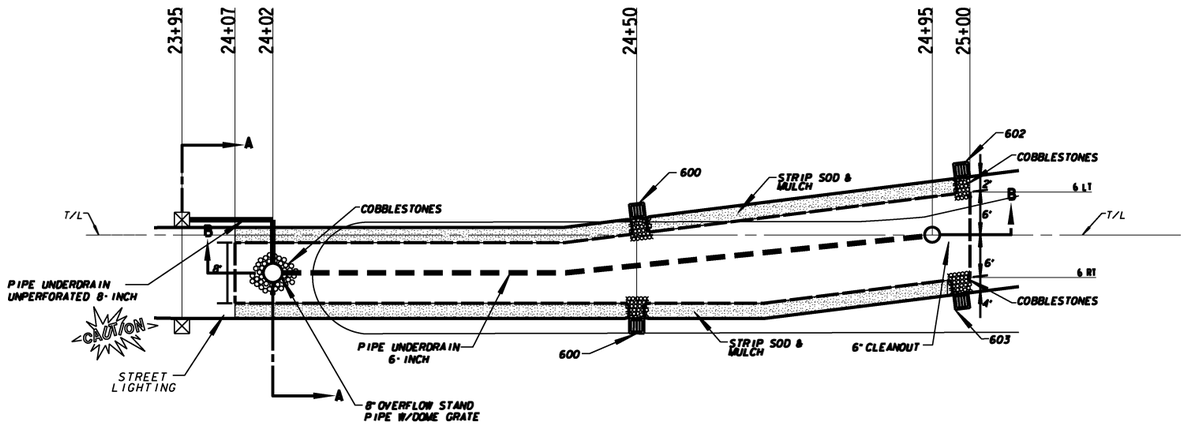
SCALE • N.T.S.

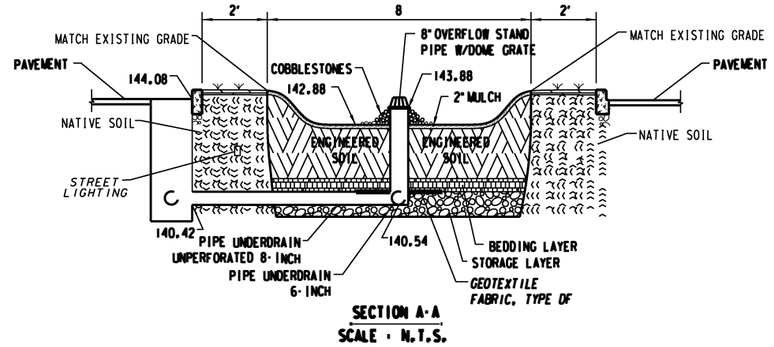
STATE PROJECT NUMBER 2400-00-72	HWY: LOCALSTREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 60

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

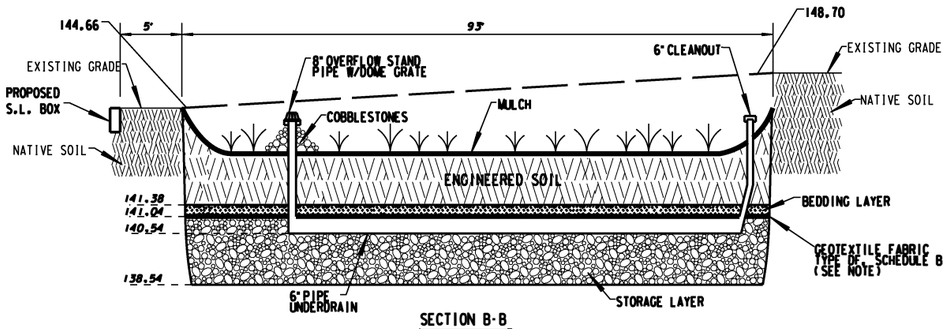
No.	Location	Structure Type	Inlet Cover	Elevation	Depth (ft)	Screen Type M/R	Span From	Span To	Length (ft)	Invert Elevation	Slope	Remarks
600	24+50, LT	Inlet frame & grate	See Remarks	145.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
601	34+50, RT	Inlet frame & grate	See Remarks	146.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
602	25+00, 8' LT	Inlet frame & grate	See Remarks	148.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
603	25+00, 10' RT	Inlet frame & grate	See Remarks	149.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
604	27+95, 6' LT	Inlet frame & grate	See Remarks	155.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
605	27+95, 6' RT	Inlet frame & grate	See Remarks	145.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
606	31+15, 1' LT	Inlet frame & grate	See Remarks	156.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
607	31+15, 11' RT	Inlet frame & grate	See Remarks	158.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
608	34+00, 1' LT	Inlet frame & grate	See Remarks	160.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
609	34+00, 11' RT	Inlet frame & grate	See Remarks	160.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
610	34+20, 11' LT	Inlet frame & grate	See Remarks	160.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
611	38+72, 11'LT	Inlet frame & grate	See Remarks	160.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
612	38+72, 3'RT	Inlet frame & grate	See Remarks	161.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
613	40+55, 1'LT	Inlet frame & grate	See Remarks	160.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
614	40+55, 11'RT	Inlet frame & grate	See Remarks	161.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
615	41+05, 6' LT	Inlet frame & grate	See Remarks	160.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
616	41+05, 11'RT	Inlet frame & grate	See Remarks	161.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
617	45+73, 11LT	Inlet frame & grate	See Remarks	159.80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
618	45+62, 1'RT	Inlet frame & grate	See Remarks	159.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
619	45+73, 1'RT	Inlet frame & grate	See Remarks	159.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
620	51+70, 'LT	Inlet frame & grate	See Remarks	146.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
621	51+70, 'RT	Inlet frame & grate	See Remarks	146.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
622	52+30, LT	Inlet frame & grate	See Remarks	143.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED
623	52+30, RT	Inlet frame & grate	See Remarks	146.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEENAH R-3228 MODIFIED FRAME AND GRATE WITH THE CURB BOX REMOVED

BIO-SWALE NO. 1





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

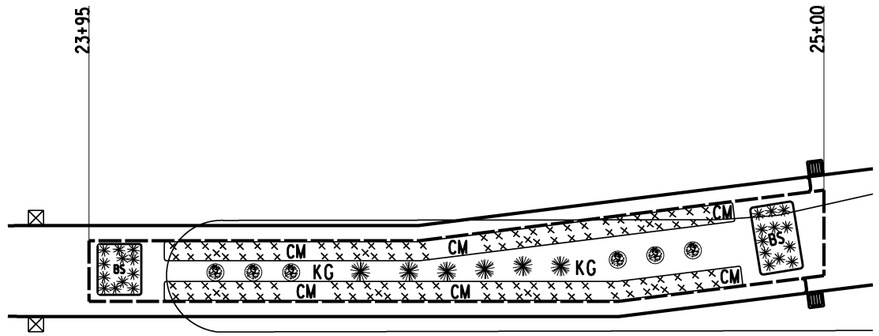
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 62	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

2

BIO-SWALE NO. 1



SHRUBS

(6)	TS	TIGERS EYE SUMAC

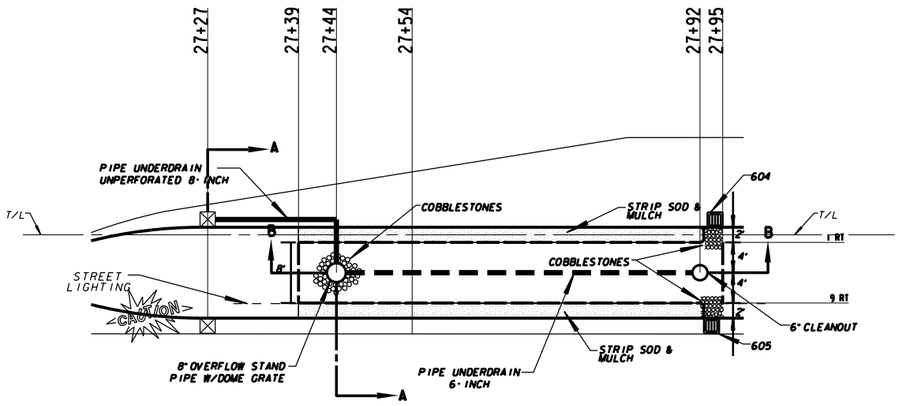
PERENNIALS, GRASS, AND BULBS

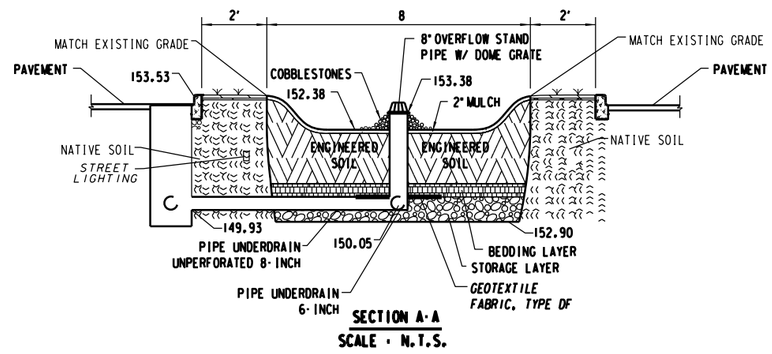
(24)	BS	BLACKED SUSANS
(102)	CM	CATMINT
(6)	KG	KARL FORESTER GRASS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 63	E

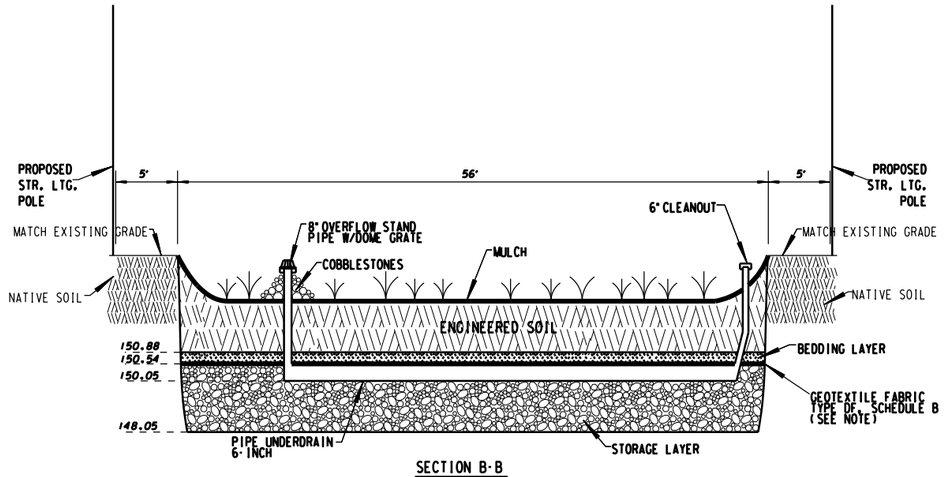
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.2





SECTION A-A
SCALE - N.T.S.



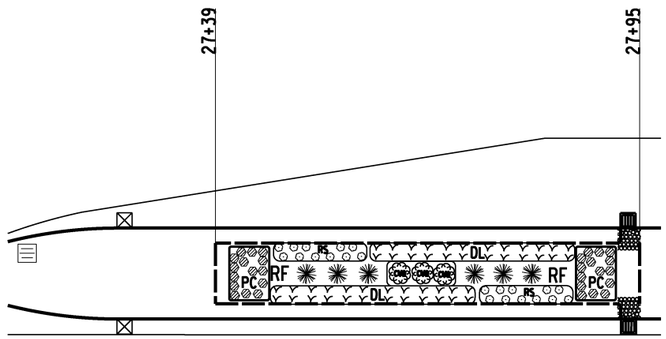
SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 64	E

BIO-SWALE NO.2



SHRUBS

(3)	CMW	CALAMINTHA MONTROSE WHITE

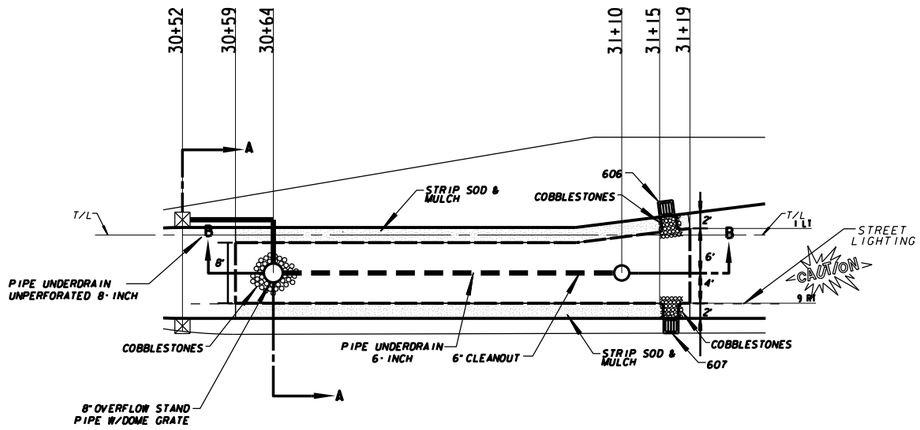
PERENNIALS, GRASS, AND BULBS

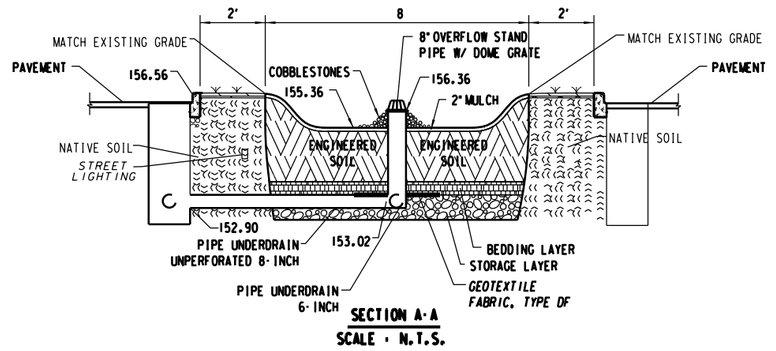
(30)	PC	PURPLE CONE FLOWERS
(48)	DL	DWARF DAYLILIES
(6)	RF	RED FLAME MISCANTHUS GRASS
(24)	RS	RUSSIAN SAGE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 65	E

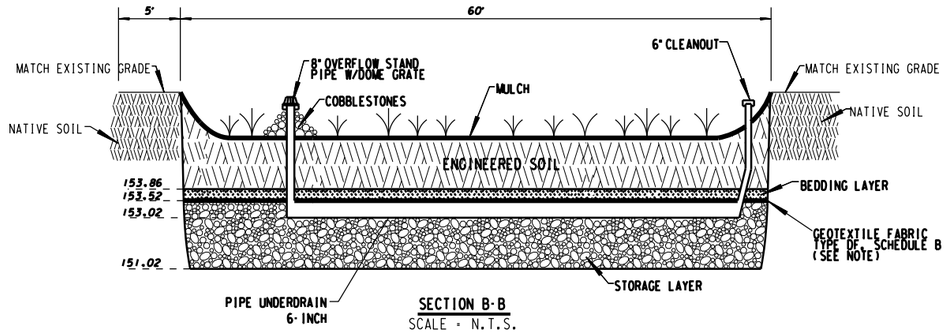
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.3





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

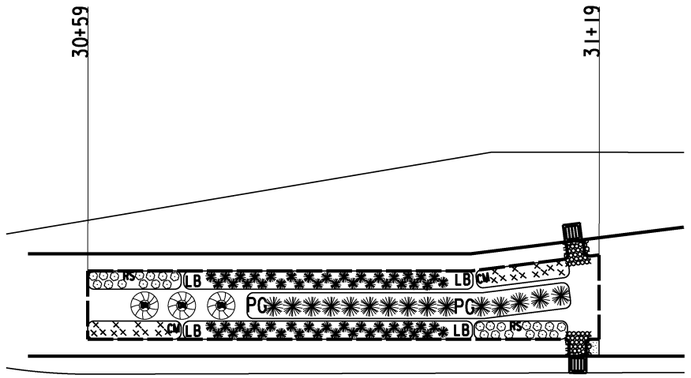
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 66	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

2

BIO-SWALE NO.3



SHRUBS

(3)	DN	DIABLO NINEBARK

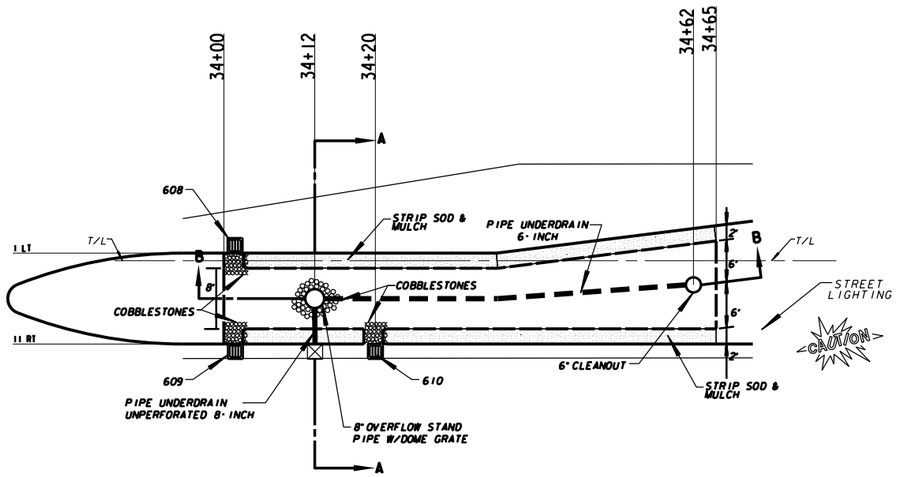
PERENNIALS, GRASS, AND BULBS

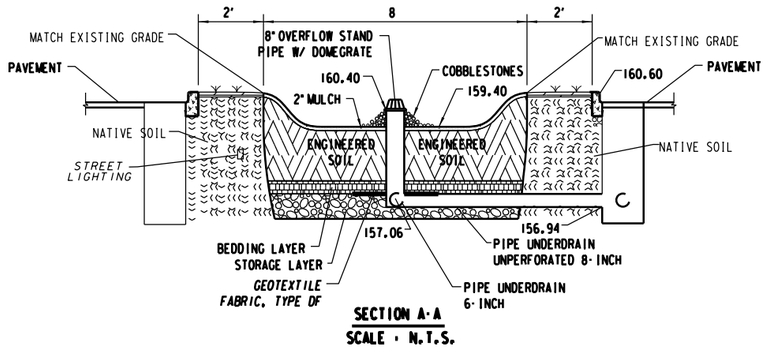
(15)	PG	PANICUM GRASS
(30)	DL	DAYLILIES
(24)	RS	RUSSIAN SAGE LITTLE SPIRE
(24)	CM	CATMINT

STATE PROJECT NUMBER 2400-00-72	HWY: LOCALSTREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 67 E

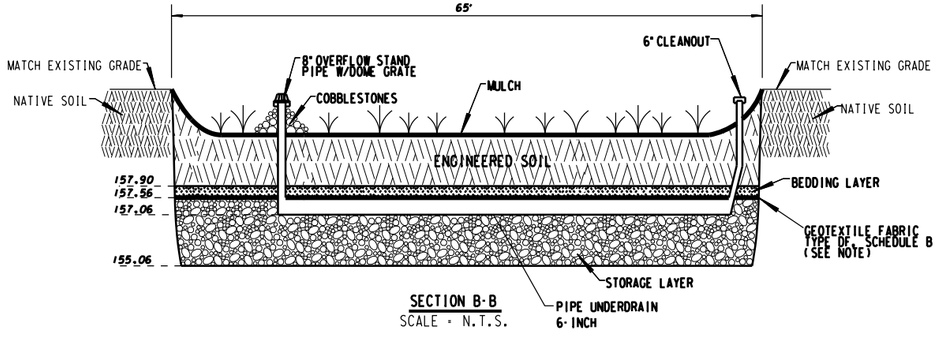
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.4





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

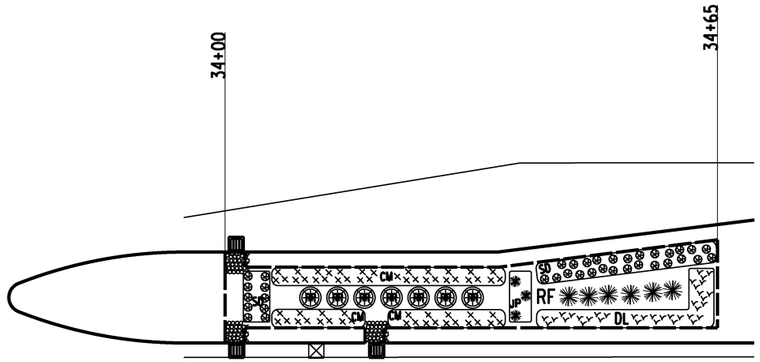
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 68	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

BIO-SWALE NO.4



SHRUBS

(7)	RR	RUGOSA ROSES

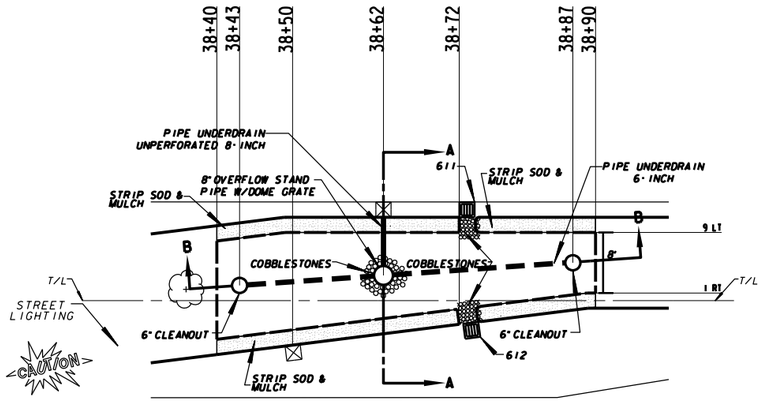
PERENNIALS, GRASS, AND BULBS

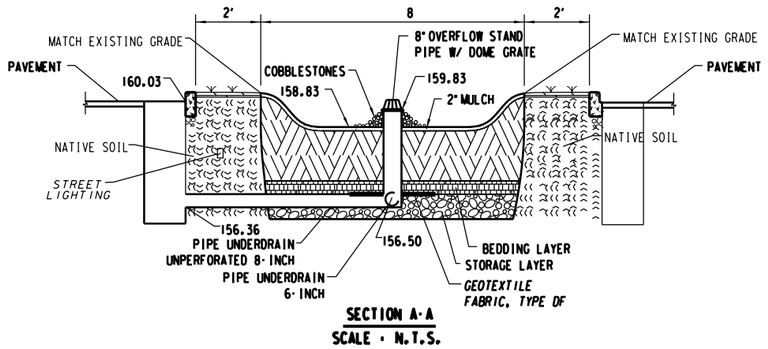
(6)	RF	RED FLAME GRASS MANCANTHUS
(36)	DL	PARDON ME DAYLILIES
(36)	SD	SHASTA DAISYS
(3)	JP	JOE PYE WEED
(60)	CM	CATMINT

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 69	E

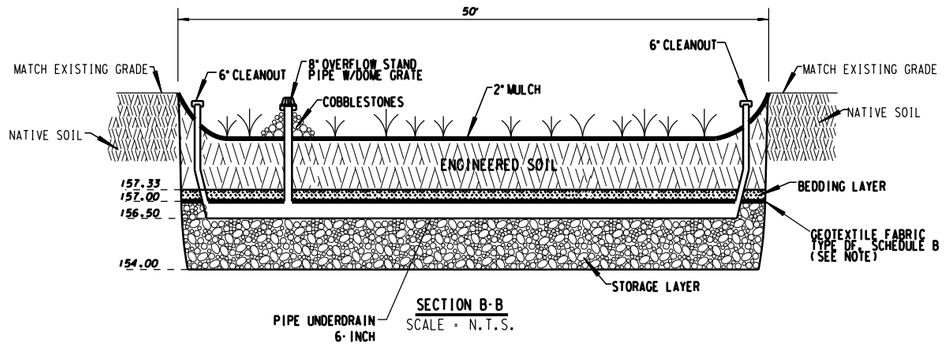
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.5





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

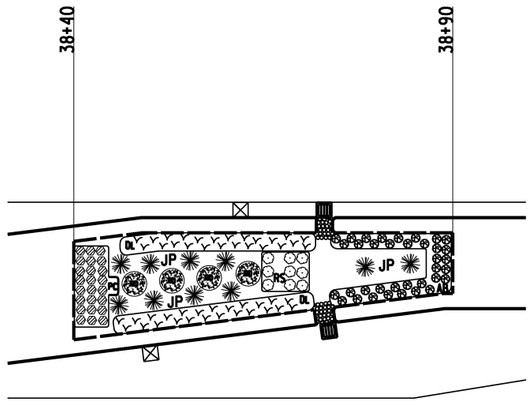
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 70	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

BIO-SWALE NO.5



SHRUBS

(4)	RD	RED TWIG DOGWOODS

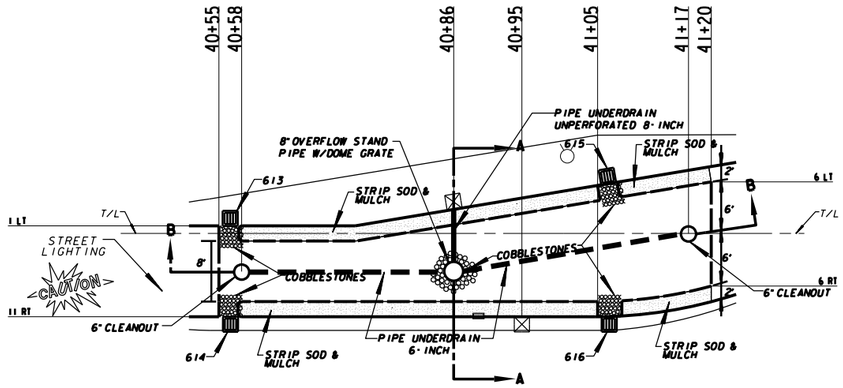
PERENNIALS, GRASS, AND BULBS

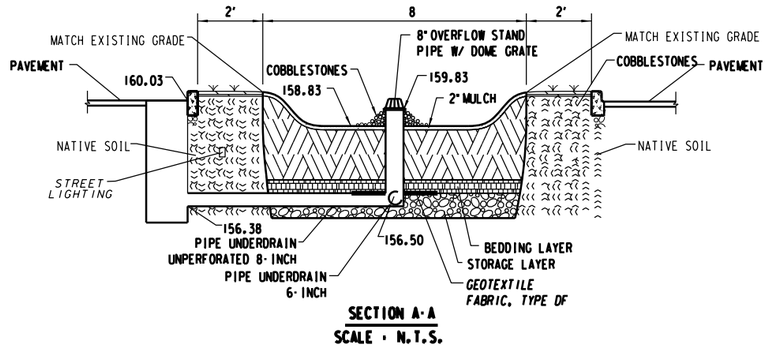
(24)	PC	PURPLE CONEFLOWER
(48)	DL	DWARF DAYLILIES
(10)	JP	JOE PYE WEEDS
(32)	AB	AGASTACHE BLUE FORTUNE
(12)	RS	RUSSIAN SAGE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 71	E

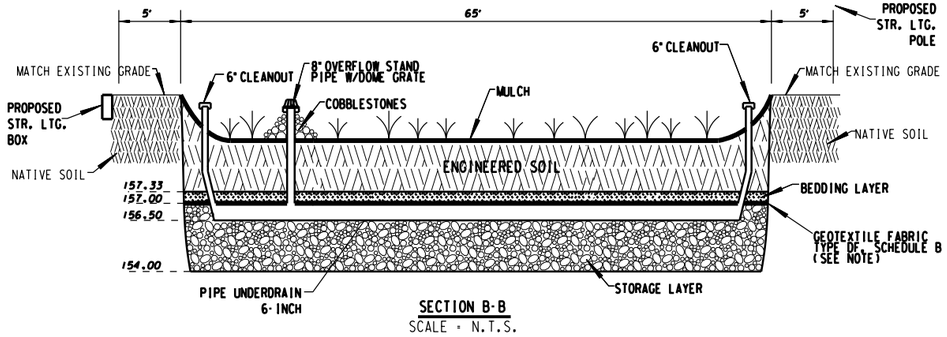
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.6





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

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NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

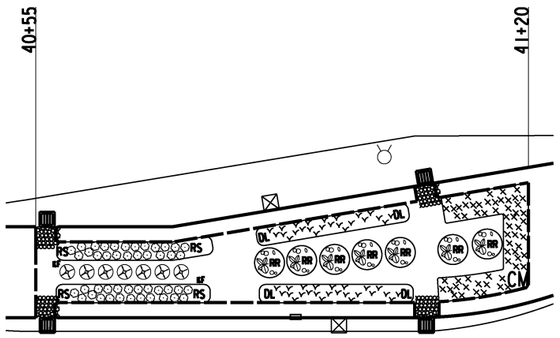
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 72	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

2

BIO-SWALE NO.6



SHRUBS

(7)	RR	RUGOSA ROSES

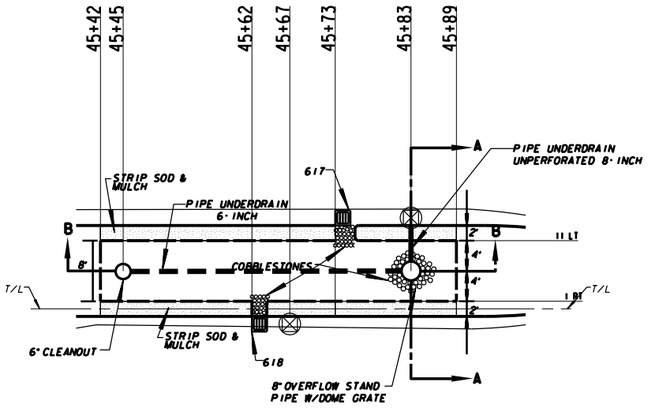
PERENNIALS, GRASS, AND BULBS

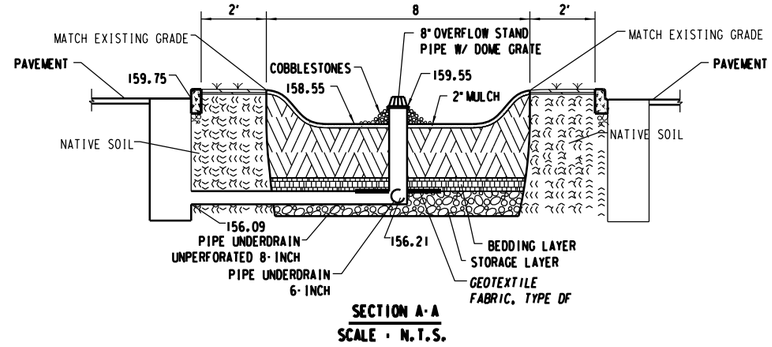
(7)	KF	KARL FORESTER GRASS
(48)	DL	DAYLILIES HAPPY RETURN
(48)	RS	RUSSIAN SAGE
(60)	CM	CATMINT

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 73	E

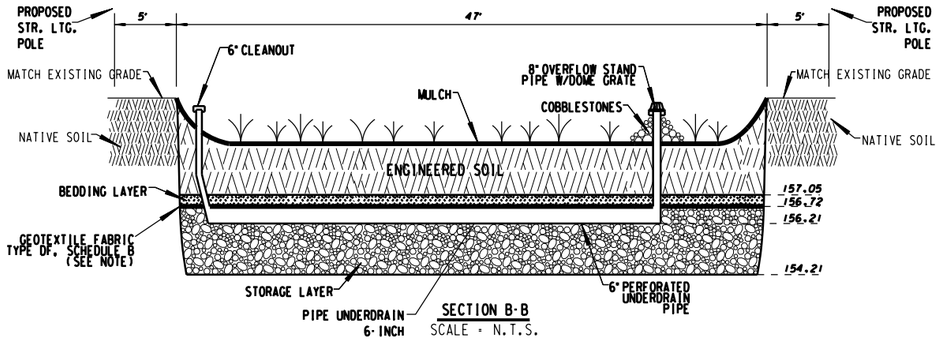
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.7





SECTION A-A
SCALE : N.T.S.



SECTION B-B
SCALE : N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

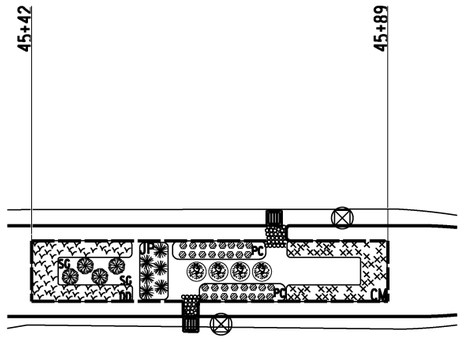
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 74	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

BIO-SWALE NO.7



SHRUBS

(4)	TS	TIGERS EYE SUMAC
(4)	SG	SEA GREEN JUNIPERS

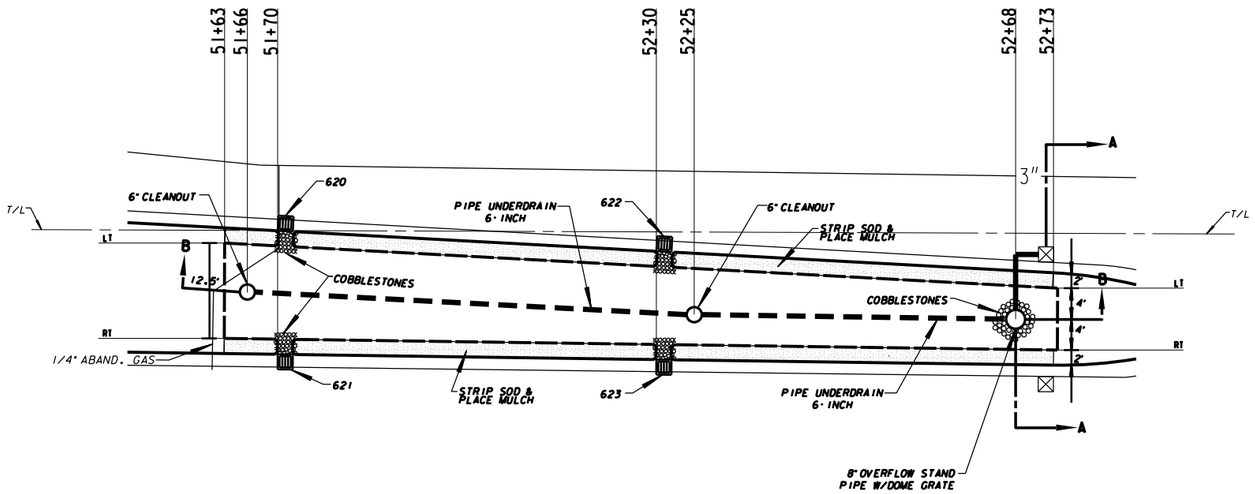
PERENNIALS, GRASS, AND BULBS

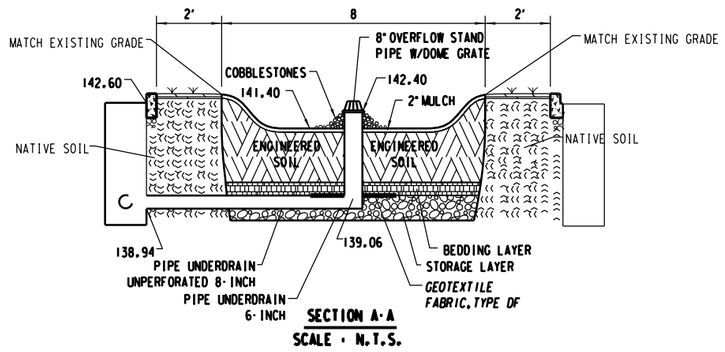
(48)	CM	CATMINT
(60)	DD	DWARF DAYLILIES
(6)	JP	JOE PYE WEED
(32)	PC	PURPLE CONEFLOWERS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 75 E

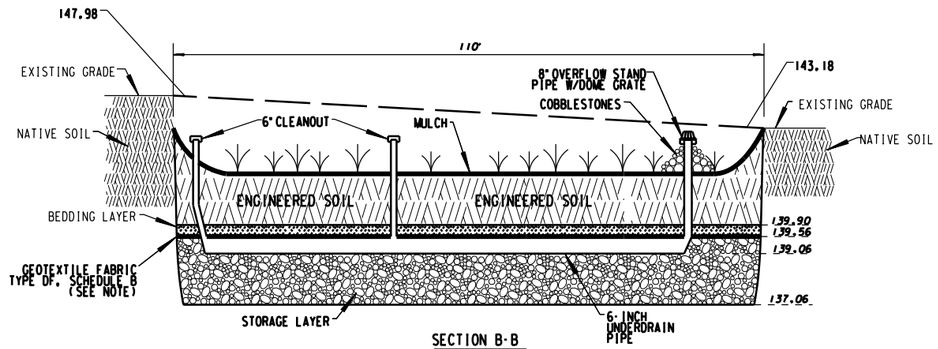
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

BIO-SWALE NO.8





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

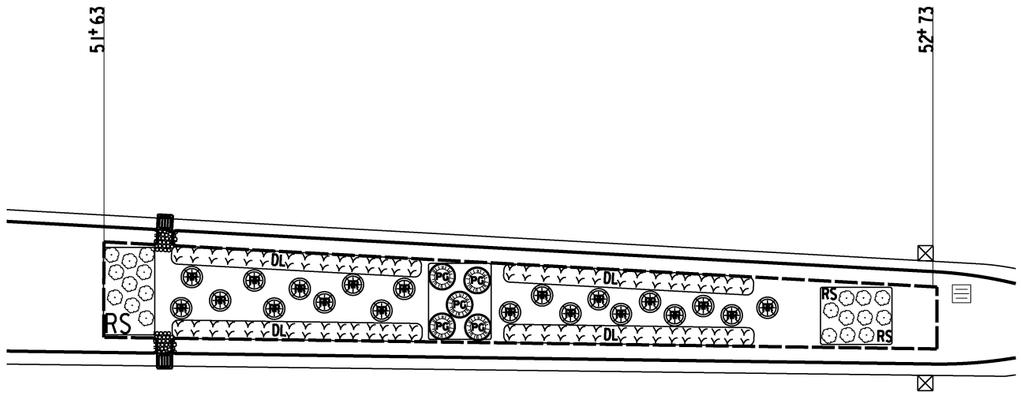
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 76	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA (2017STATE)\OKLAHOMA.SMP

REVISED DATE: - -

2

BIO-SWALE NO.8



SHRUBS

(20)	RR	RUGOSA ROSES

PERENNIALS, GRASS, AND BULBS

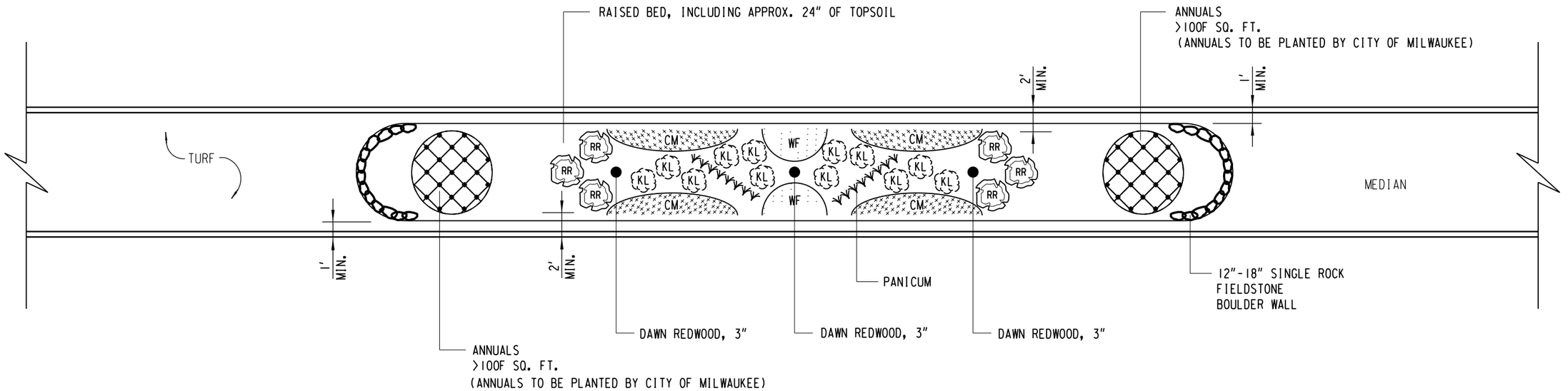
(5)	PG	PANICUM GRASS
(20)	RS	RUSSIAN SAGE
(120)	DL	DAYLILIES

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 77	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\OKLAHOMA(2017STATE).SMP

SIGNATURE BED DETAIL
(TYPE I)

N



LOCATION
25 + 20 TO 25 + 90
50 + 60 TO 51 + 40

LEGEND

RR	RED KNOCKOUT ROSE
KL	DWARF KOREAN LILAC
WF	WHITE CONE FLOWER
CM	CATMINT BLUE WONDER

NOTE:

SHREDDED BARK MULCH AROUND
ALL TREES AND IN BED 3-4" DEPTH.
SHOVEL CUT BED EDGE.

ESTIMATE OF QUANTITIES

ITEM	UNIT	TOTAL
DWARF SERBIAN SPRUCE	EACH	2
RUSSIAN SAGE	EACH	12
CATMINT BLUE WONDER	EACH	24
CLOUD NINE SWITCHGRASS	EACH	14
YELLOW KNOCKOUT ROSE	EACH	6
DWARF KOREAN LILAC	EACH	12
SHASTA DAISYS 'BECKY'	EACH	24
WOODS PURPLE ASTER	EACH	72
HORNBEAMS	EACH	3

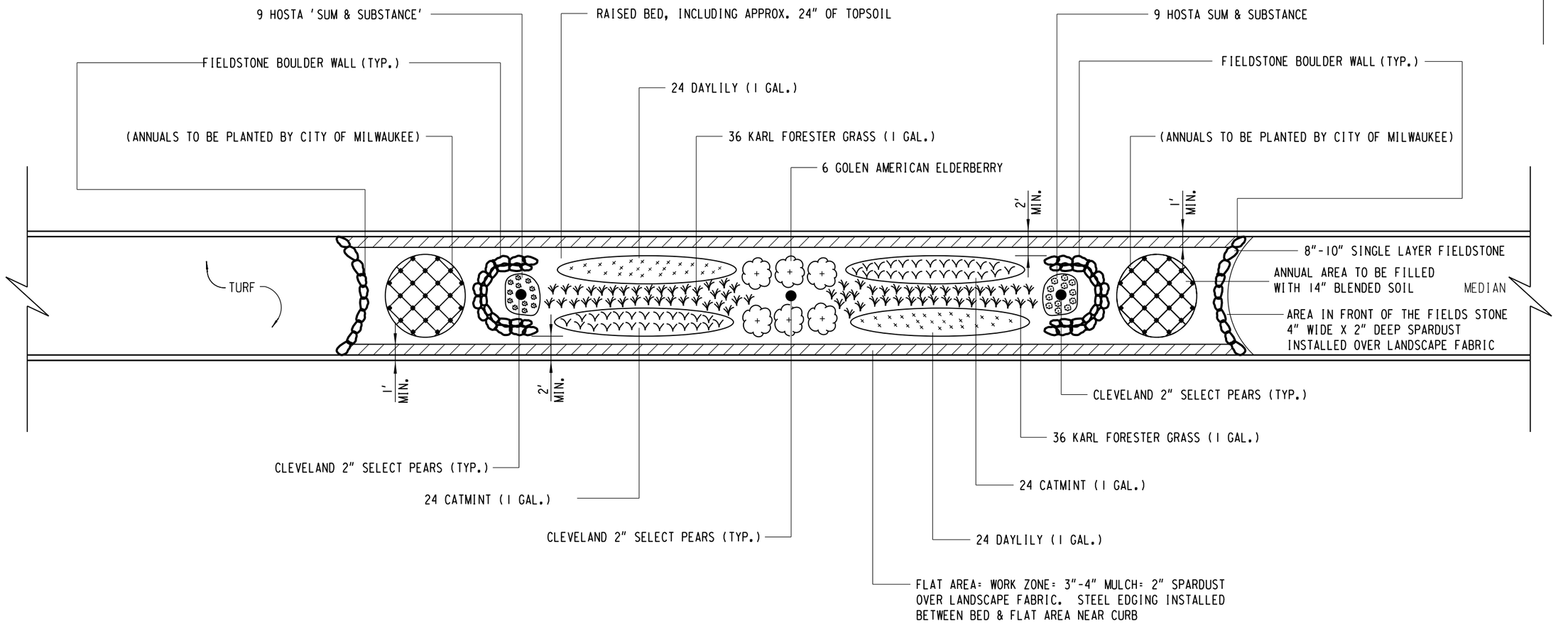
STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE FEET 0' 10'	SHEET NO: 78	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\SIGNITURE BED.DGN

REVISED DATE: 10-12-2017 BY DB

SIGNATURE BED DETAIL
(TYPE 2)

N



LOCATION
44 + 30 TO 45 + 00

ESTIMATE OF QUANTITIES

ITEM	UNIT	TOTAL
TREES		
CLEVELAND SELECT PEAR	EACH	3
SHRUBS AND PERRENIALS		
KARL FORESTER GRASS	EACH	72
CATMINT BLUE WONDER	EACH	48
GOLDEN AMERICAN ELDERBERRY	EACH	6
DAY LILIES	EACH	48
ZAGREB COREOPSIS	EACH	18

NOTE:

SHREDDED BARK MULCH AROUND ALL TREES AND IN BED 3-4" DEPTH. SHOVEL CUT BED EDGE.

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

S. 60TH ST

BUS STOP

BIOSWALE NO. 1

SLOPE INTERCEPT (VERIFY OFF WALK WHERE AVAIL.)

S.I. LINE ON R/W WHEN LESS THAN 1'

95"x150" BOX CULVERT

CUMULUS SERVICEBERRY

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 80	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 19_25.DGN

REVISED DATE: 09-21-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CAUTION

AUTUMN BLAZE MAPLE

AUTUMN BLAZE MAPLE

CONC. DWY.

ASPH. DWY.

3 RIS

2 RIS

1 RIS

5 RIS

WALL

R/W

3" ABAN.

SAN

STO

W

E

CUC

WEP

TE&ES

T

TEL

BUS STOP

RAMP

SIGNATURE BED TYPE I

LAWN

STUMP

BIOSWALE NO.2

BIOSWALE NO.3

62' T/L

120'

33'

+85

+00

+50

25 26 27 28 29 30 31

4" ABAN.

BRICK WALL

DRAIN

ENT

GRATE

CW

2" ABAN.

15" SAN

LANDSCAPE ROCKS

LANDSCAPE BLOCK WALL

ROCK GARDEN

S.I. LINE ON R/W WHEN LESS THAN 1'

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

S. 57TH ST.

S. 56TH ST.

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 81	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 25_31.DGN

REVISED DATE: 09-21-2017 BY DB

2

N

WEST OKLAHOMA AVENUE

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CAUTION

ASPH. DWY.

CONC. DWY.

2 RIS

CONC.

R/W

CALLERY PEAR +00

CALLERY PEAR +50

GARAGE

CONC. DWY.

LAWN

JAPANESE TREE LILAC +00

JAPANESE TREE LILAC +35

KENTUCKY COFFEETREE +60

KENTUCKY COFFEETREE +90

KENTUCKY COFFEETREE +25

NEPCO M.H. ON THE PLAN NOT ON SURVEY AND CANT LOCATE WITH GOOGLE M.H. 4924

MISSING M.H. FROM SURVEY (P.F. 116-215)

BIOSWALE NO.3

BIOSWALE NO.4

T/L

31 32 33 34 35 36 37

+50

4" ABAN.

2" ABAN.

3" ABAN.

NO CURB

RAMP

TE&ES

STO

SAN

CUC

E

T

G

W

CONC. DWY.

CALLERY PEAR +35

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

LANNON STONE

S. 55TH ST.

S. 54TH ST.

JAPANESE TREE LILAC +90

STUMP

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 82	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 31_37.DGN

REVISED DATE: 09-21-2017 BY DB

WEST OKLAHOMA AVENUE

S. 53RD ST.

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 83	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 37_43.DGN

REVISED DATE: 09-21-2017 BY DB

WEST OKLAHOMA AVENUE

N

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CAUTION

R/W

ASPH. DWY.

DRAIN

BIOSWALE NO. 7

SIGNATURE BENCH TYPE

MISSING M.H. FROM SURVEY (P.F. 090-073)

MONUMENT

BUS STOP

FLAG POLES

BRICK PLANTER

.5' CONC BORDER

6' ENT

ASPH PARKING

S. 51ST ST.

- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 84	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 43_49.DGN

REVISED DATE: 09-21-2017 BY DB

WEST OKLAHOMA AVENUE

N

S. 50TH ST.

CAUTION

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

CALLERY PEAR

TULIP TREE

END PROJECT
STA. 53 · 78.15 T/L

SIGNATURE BED TYPE I

BIOSWALE NO.8

M.H. NOT FOUND ON SURVEY (P.F. 080-124)

S. 49TH ST.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 85	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\TREES 49_55.DGN

REVISED DATE: 09-21-2017 BY DB

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

REMOVE TES MANHOLE #602R
STA. 19+86.5, 18.2'LT.

PROPOSED MANHOLE #603
STA. 19+86.5, 18.2'LT.
PRECAST 5'DIA. 'DOGHOUSE'

REMOVE TES MANHOLE #604R
STA. 20+74.9, 17.4'LT.

PROPOSED MANHOLE #605
STA. 20+74.9, 17.4'LT.
PRECAST 5'DIA. 'DOGHOUSE'

REMOVE TES MANHOLE #606R
STA. 23+82.0, 17.7'LT.

PROPOSED MANHOLE #607
STA. 23+82.0, 17.7'LT.
PRECAST 5'DIA. 'DOGHOUSE'

BIO-SWALE NO. 1
(SEE BIO-SWALE PLAN)

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

90°, 5' RAD. HUB
STA. 19+78.3, 72.7'RT.

PROPOSED TRAFFIC CONTROL CABINET
STA. 19+51.9, 77.2'RT.
BY OTHERS

REMOVE TES MANHOLE #600R
STA. 19+85.5, 61.6'RT.

PROPOSED MANHOLE #601
STA. 19+85.5, 61.6'RT.
PRECAST 5'DIA. 'DOGHOUSE'
RECONNECT DRAIN

42'-1-4"PVC CONDUIT
TO CEMENT ENCASED
SEE DETAIL

S.I. LINE ON R/W
WHEN LESS THAN 1'

NOTES:
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

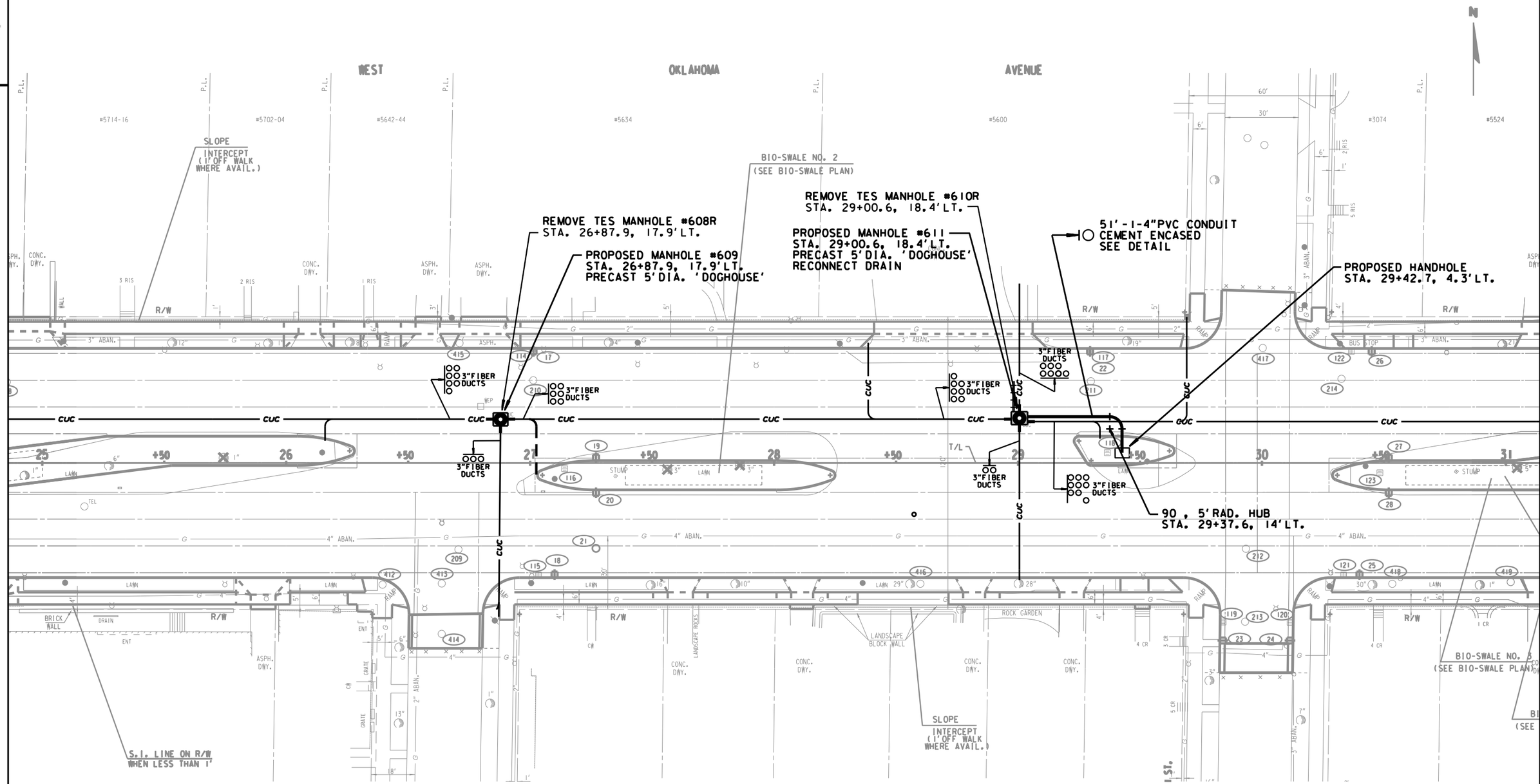
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◙	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	TO BE ABANDONED CONDUIT

SHEET 1 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 86	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 19-25.DGN

2



NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

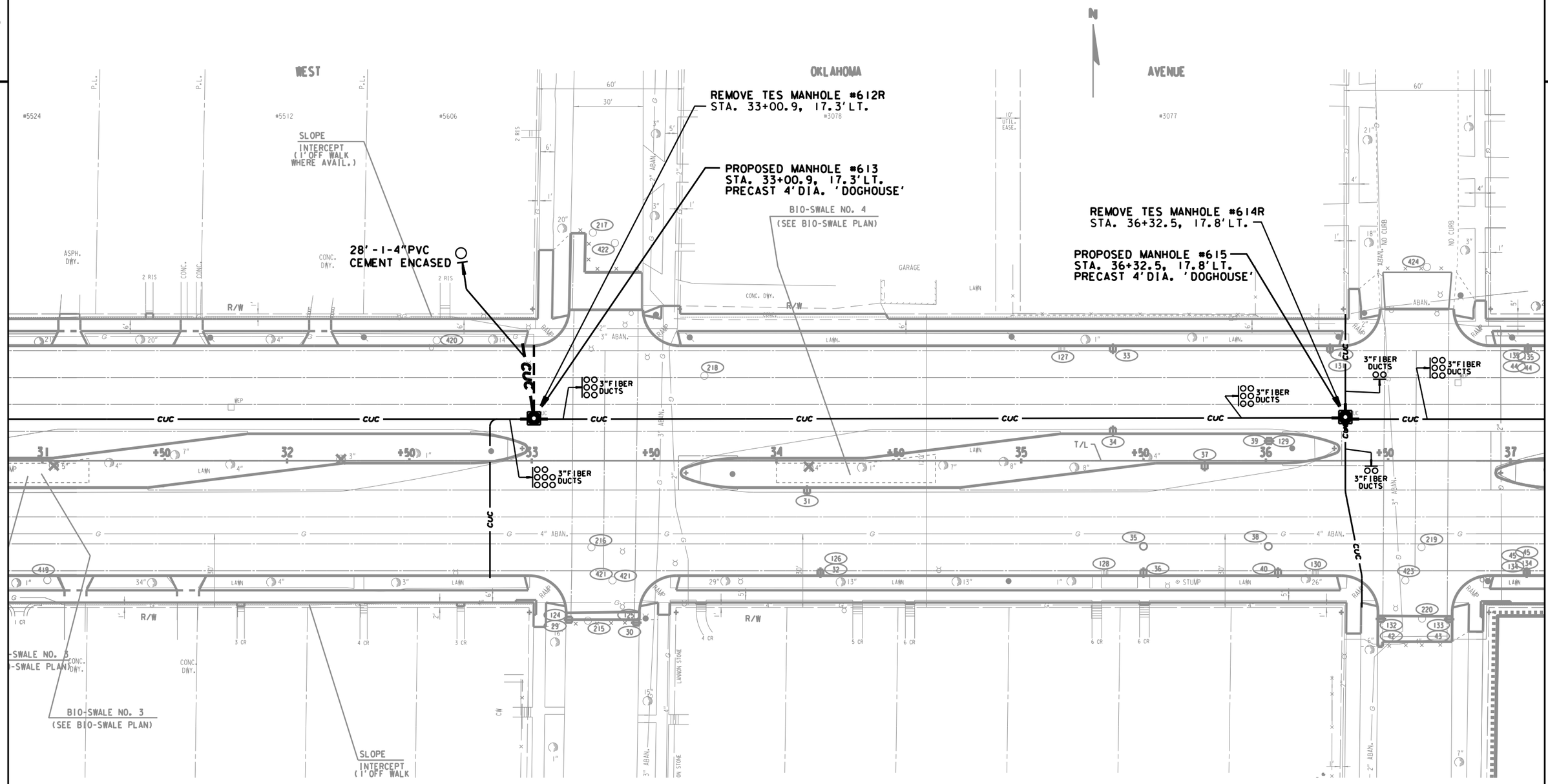
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◘	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	TO BE ABANDONED CONDUIT

SHEET 2 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 87	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 25-31.DGN

2



NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◘	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	TO BE ABANDONED

SHEET 3 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 88	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 31-37.DGN

2

WEST OKLAHOMA AVENUE

#3076 #3077 #5232

BIO-SWALE NO. 5
(SEE BIO-SWALE PLAN)

S.I. LINE ON R/W WHEN LESS THAN 1'

EXISTING TES MANHOLE #616
STA. 39+65.7, 16.3'LT.

CONC. ALLEY

BIO-SWALE NO. 6
(SEE BIO-SWALE PLAN)

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

#5329 #5309 #3105 #3108

NOTES:

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2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

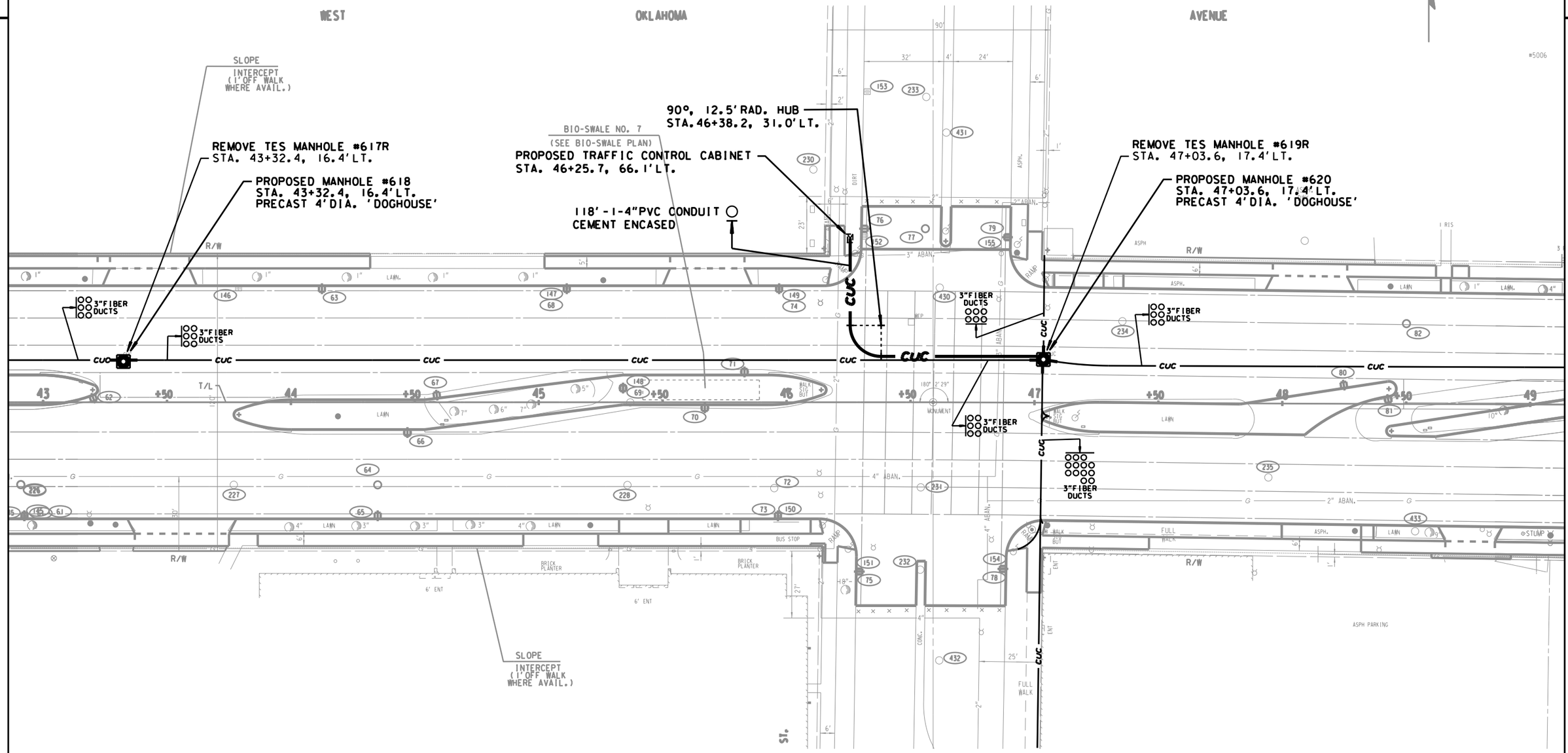
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT

SHEET 4 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 89	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 37-43.DGN

2



NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT

SHEET 5 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 90 E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 43-49.DGN

2

WEST OKLAHOMA AVENUE

S. 50TH ST.

N

REMOVE TES MANHOLE #621R
STA. 50+18.5, 14.8'LT.

PROPOSED MANHOLE #622
STA. 50+18.5, 14.8'LT.
PRECAST 5'DIA. 'DOGHOUSE'

REMOVE TES MANHOLE #623R
STA. 53+59.3, 24.0'LT.

PROPOSED MANHOLE #624
STA. 53+61.3, 24.0'LT.
PRECAST 4'DIA. 'DOGHOUSE'

END PROJECT
STA. 53+78.15 T/L

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 8
(SEE BIO-SWALE PLAN)

3"FIBER DUCTS

CUC

R/W

RR TIE WALL

M ST.

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

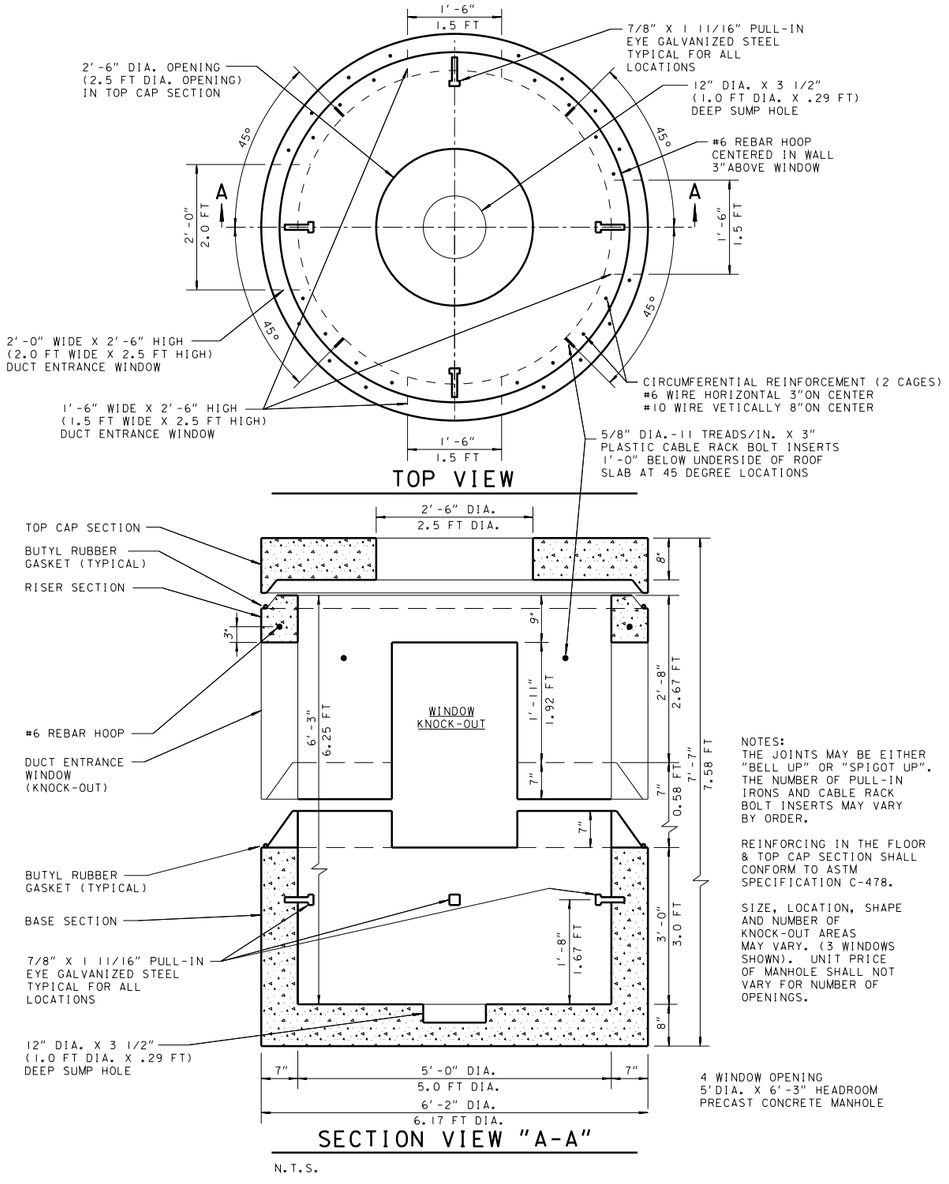
EXISTING TES MANHOLE

—— CUC —— EXISTING CONDUIT

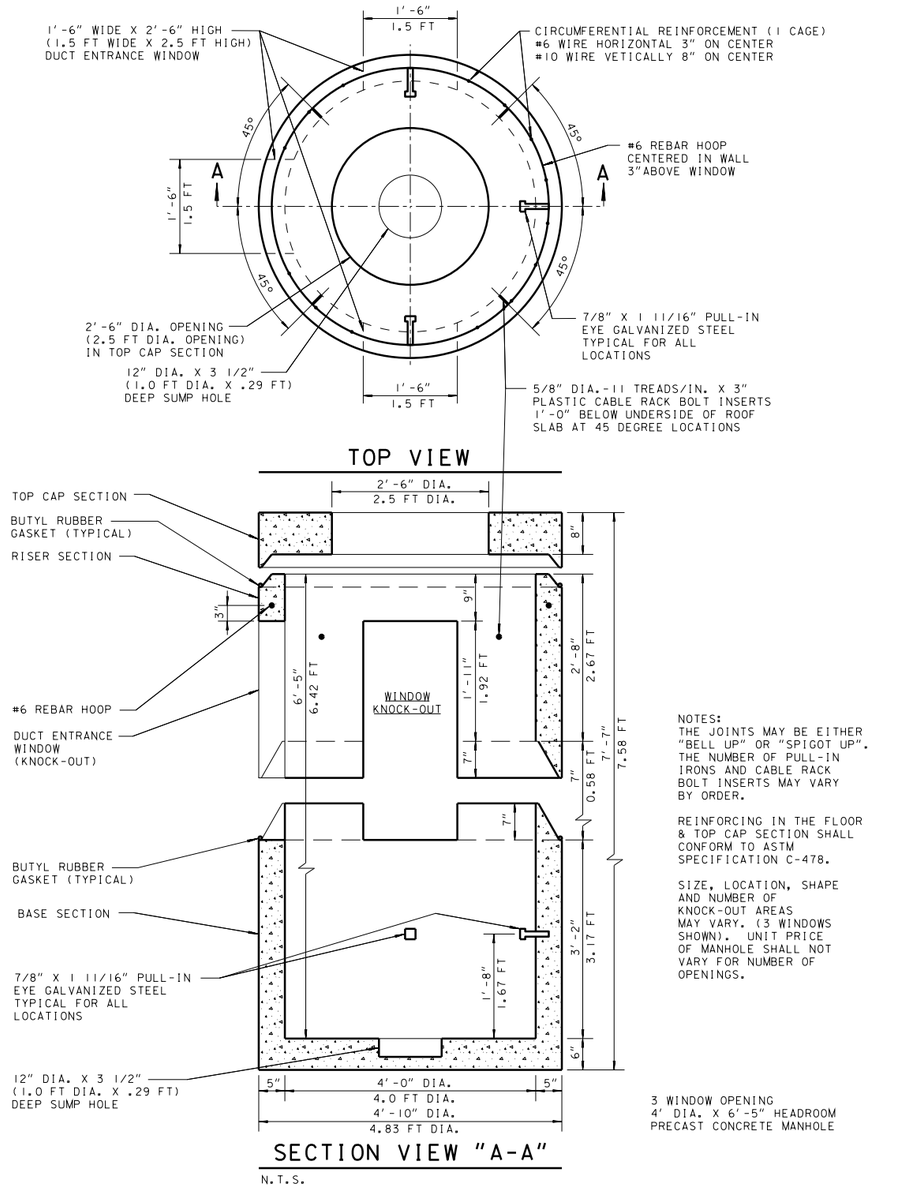
SHEET 6 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 91	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\COPY 49-55.DGN



5' DIAMETER "DOGHOUSE" TYPE TES MANHOLE



4' DIAMETER "DOGHOUSE" TYPE TES MANHOLE

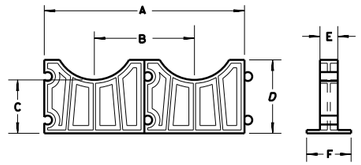
2

SHEET 7 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 92	E

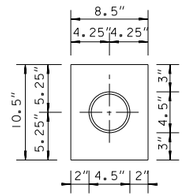
FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\DETAIL A.DGN

COND.	3"	4"
A	10"	11 ¼"
B	5"	5 ⅝"
C	3"	3"
D	3 ⅞"	4 ⅛"
E	1"	1"
F	2 ½"	2 ½"

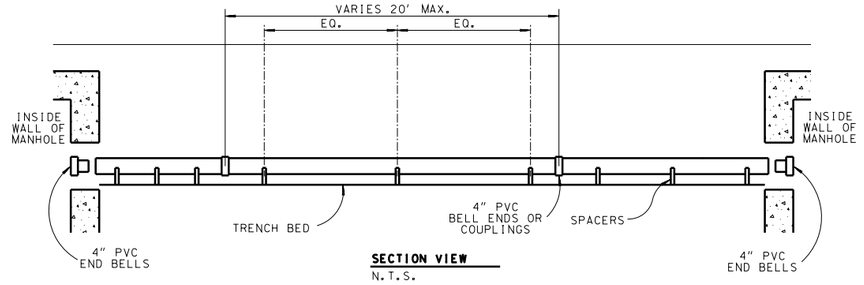


BASE SPACER

BASE SPACER DETAIL

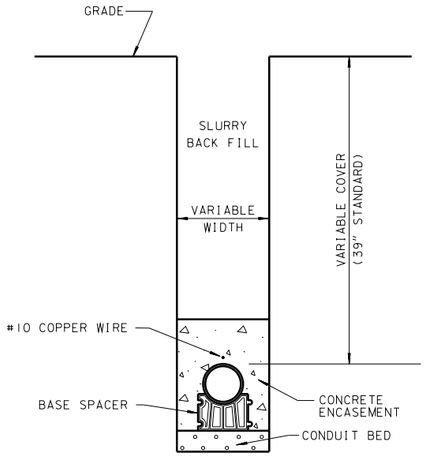


CROSS SECTION VIEW
N.T.S.

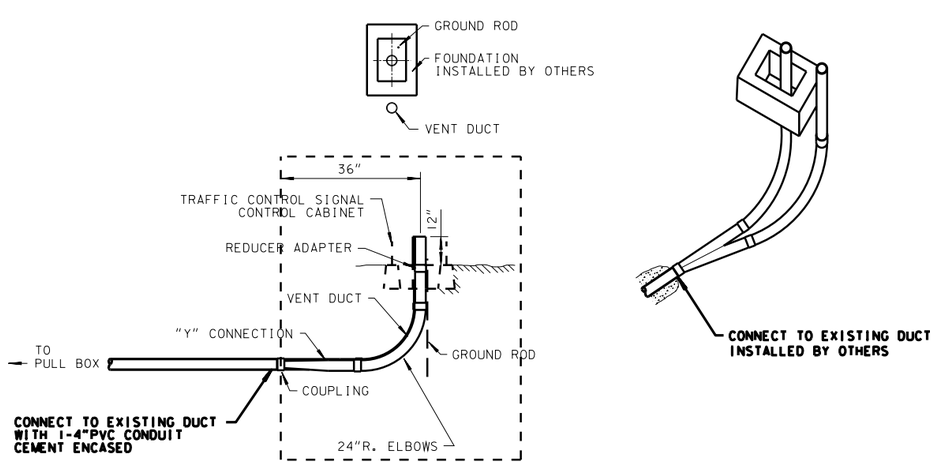


SECTION VIEW
N.T.S.

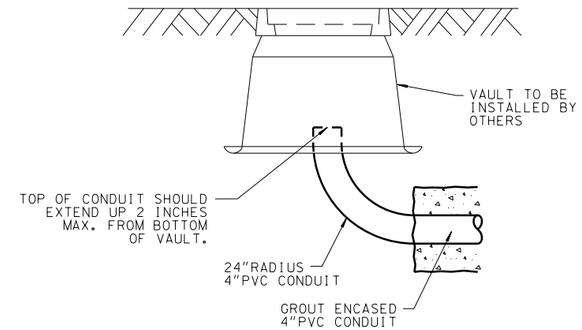
DUCT INSTALLATION DETAIL



CROSS SECTION VIEW, TYP.
N.T.S.



CONTROL CABINET
FOR REFERENCE ONLY



TYPICAL CONDUIT - VAULT ENTRY

SHEET 8 OF 8

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 93	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\OKLAHOMA\DGN\DETAIL B.DGN

2

WEST OKLAHOMA AVENUE

N

BEGIN PROJECT
STA. 19+7.92 T/L

20+09.8: 84.3' LT
TYPE 10 BASE
TYPE 9 POLE
STRUCTURE # S40-1858

25' ARM

19+27.1: 05.0' LT
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
STRUCTURE # S40-1861

30' ARM

20+79.4: 07.3' RT
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
STRUCTURE # S40-1859

30' ARM

CONC
19+51.2: 66.8' RT
TYPE 10 BASE
TYPE 9 POLE
STRUCTURE # S40-1860

30' ARM

SLOPE INTERCEPT (V OFF WALK WHERE AVAIL.)

95" X 150" BOX CULVERT

S.I. LINE ON R/W WHEN LESS THAN 1'

S. 60TH ST

- STREET LIGHT LUMINAIRE
- NEW TRAFFIC CABINET BASE
- TYPE I BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- SIGNAL HEAD LOCATION ON MAST ARM

SHEET: 1 OF 2

SCALE, FEET 0 40

PROJECT NO: 2400–00–72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	MONOTUBE LOCATIONS	SHEET 94	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2400–00–02 Oklahoma 60th to 49th\Monotube Locations.dgn PLOT DATE : 21–SEP–2017 10:35 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 40.000000:1.000000

2

WEST OKLAHOMA AVENUE

N

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

MISSING M.H. FROM SURVEY (P.F. 090-073)

.5' CONC BORDER

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

46+93.0; 77.4' LT
TYPE 10 BASE
TYPE 10 POLE
STRUCTURE = S40-1862

46+05.0; 04.7' LT
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
STRUCTURE = S40-1865

47+16.4; 06.0' RT
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
STRUCTURE = S40-1863

46+24.1; 64.0' RT
TYPE 10 BASE
TYPE 10 POLE
STRUCTURE = S40-1864

30' ARM

S. 51ST ST.

STREET LIGHT LUMINAIRE
NEW TRAFFIC CABINET BASE
TYPE I BASE TO BE INSTALLED
MONOTUBE MAST ARM BASE TO BE INSTALLED
MAST ARM
SIGNAL HEAD LOCATION ON MAST ARM

SHEET: 2 OF 2

SCALE, FEET 0 40

PROJECT NO: 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	MONOTUBE LOCATIONS	SHEET 95	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.

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

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

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

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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

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

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

23 CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

24 CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

25 ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

26 Provide three sets as-built drawings detailing the final placement of conduit, cabling, equipment, and geometric modifications under the contract. Provide PDF copy conforming to CMM 1-65.14, or record all changes in Red ink Only on the As-Let (Design) paper drawings. The City will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

Send to:
City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & CUC Manager
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

27 RETURN ALL REMOVED STREET LIGHTING FIXTURES TO STREET LIGHTING FIELD OFFICE
(ATTN: MIKE GUERRERO)
1540 W. CANAL ST. MILWAUKEE WI 53233

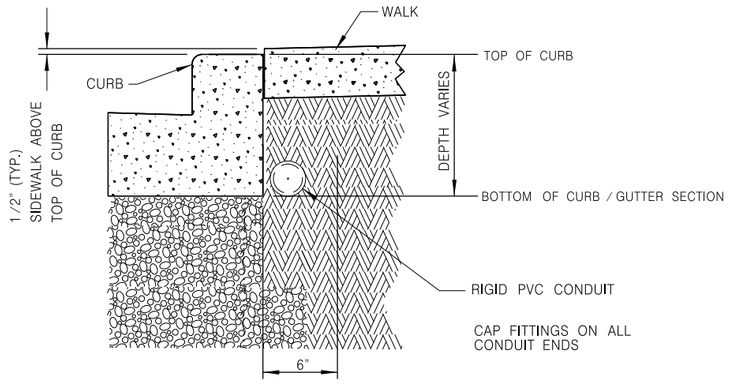
UTILITY LINE CODE

- SAN — SANITARY SEWER
- STO — STORM SEWER
- W — WATER
- G — GAS
- G — PROPOSED GAS
- E — ELECTRIC
- TE&ES — TRAFFIC & STREET LIGHTING
- OLD CITY UNDERGROUND CONDUIT
- CUC — PROPOSED CITY UNDERGROUND CONDUIT
- T — TELEPHONE
- TV — CABLE

PROJECT NO: 2400–00–72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 96	E

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

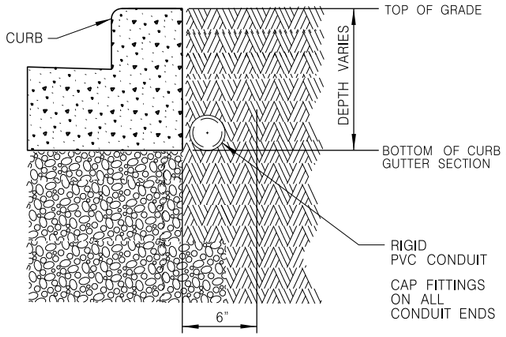
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

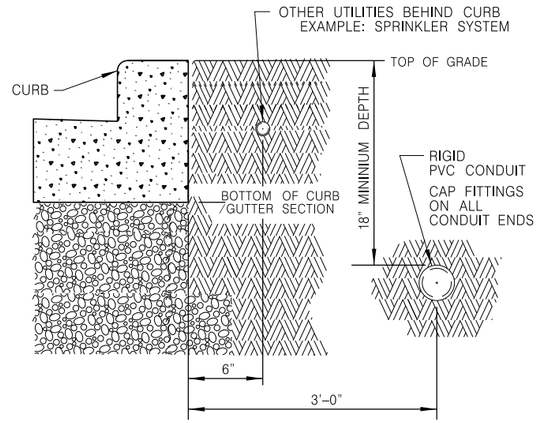
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

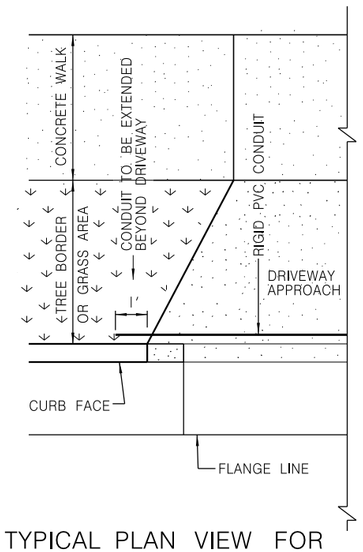


100 DETAIL "B" & "C"

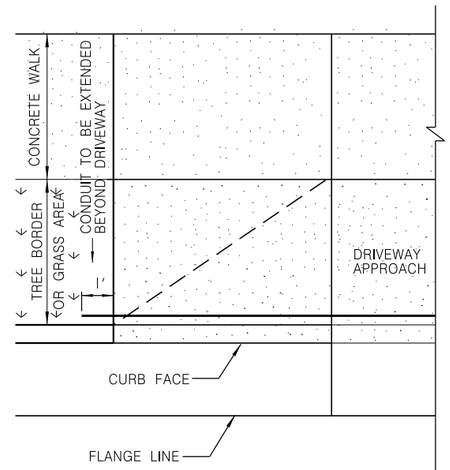
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

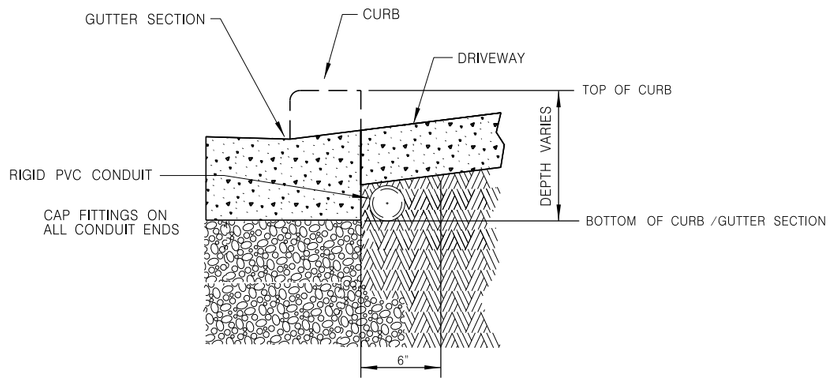


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL

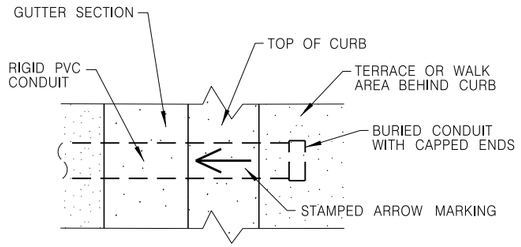
TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 97	E

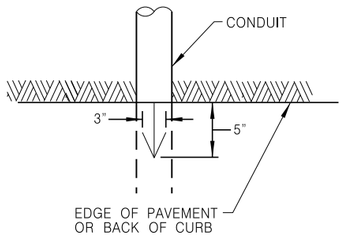


TOP VIEW OF CURB STAMPING

NOT TO SCALE

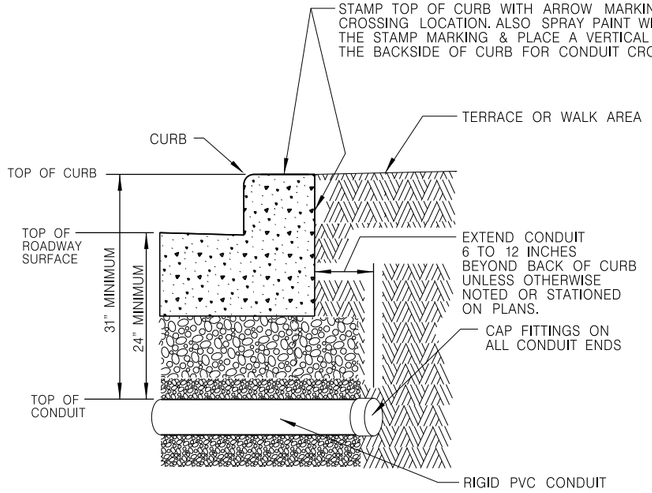
NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE

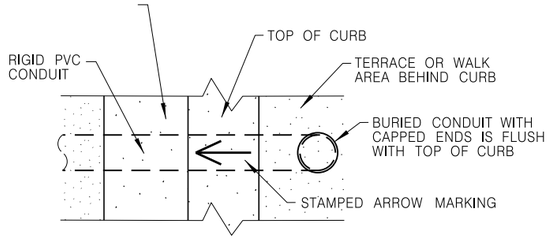


102 DETAIL VERSION #1

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

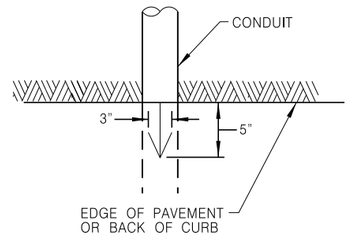


TOP VIEW OF CURB STAMPING

NOT TO SCALE

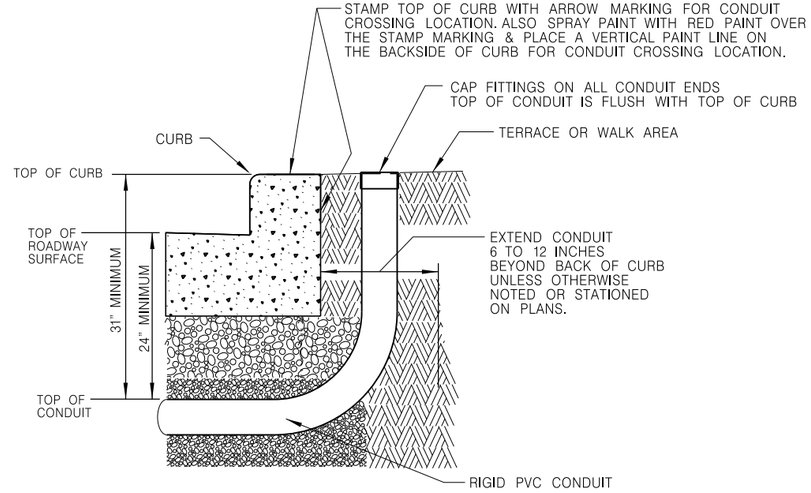
NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE

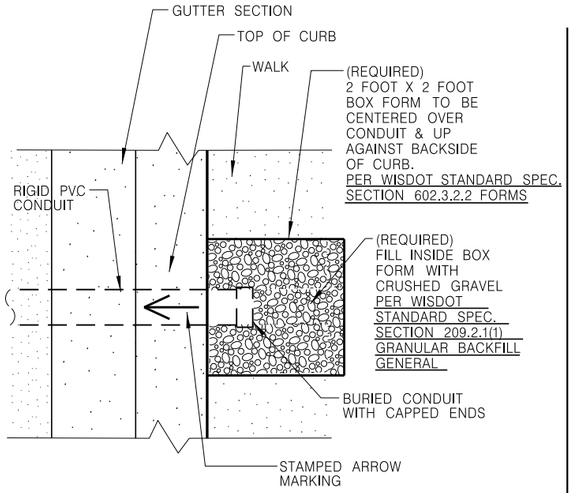


102 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

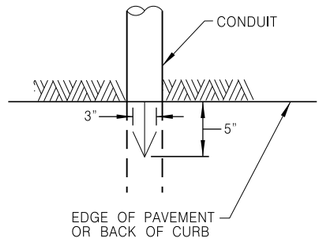
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



TOP VIEW OF CURB STAMPING

NOT TO SCALE

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.

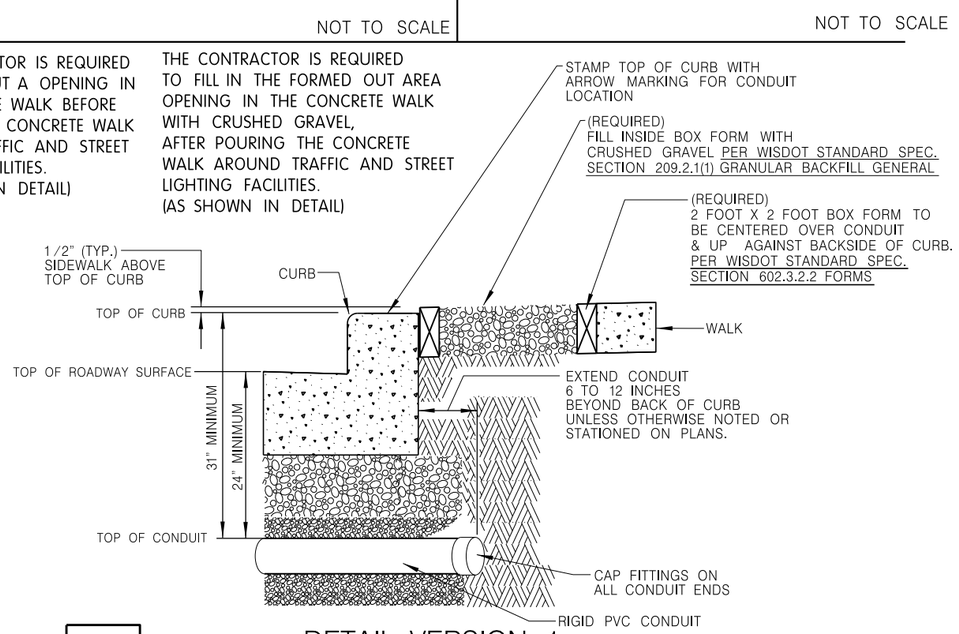


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)



103

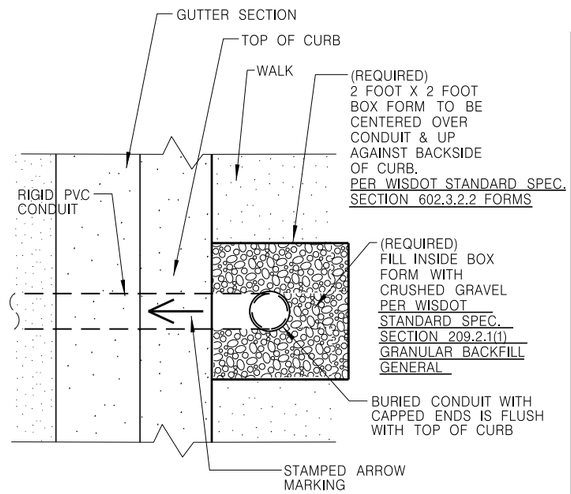
DETAIL VERSION 1

TYPICAL CONDUIT INSTALLATION
FOR CROSSING ROADWAYS
FROM FULL WALK AREAS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

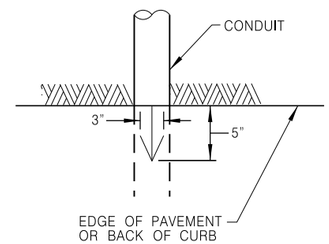
2



TOP VIEW OF CURB STAMPING

NOT TO SCALE

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.

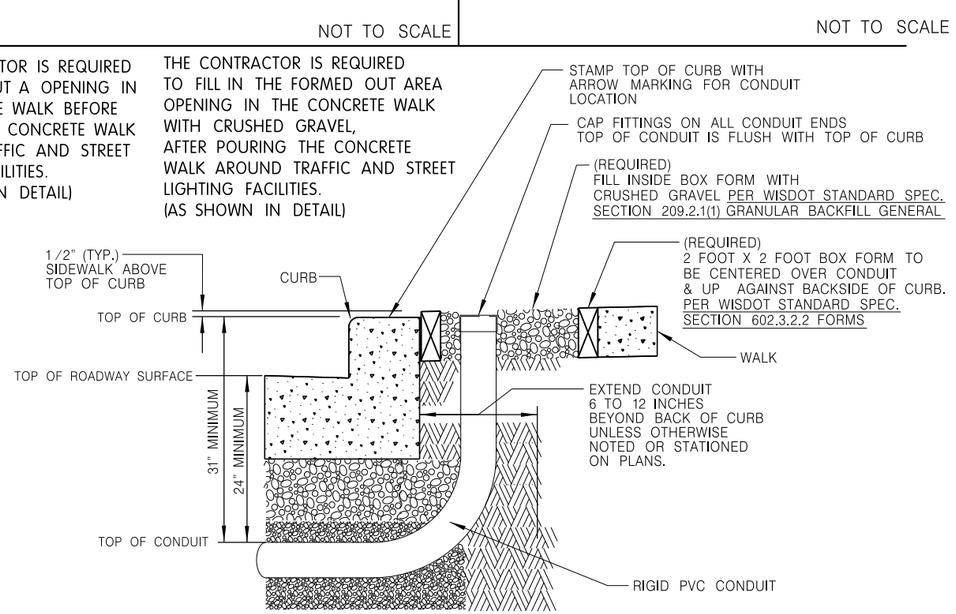


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)



103

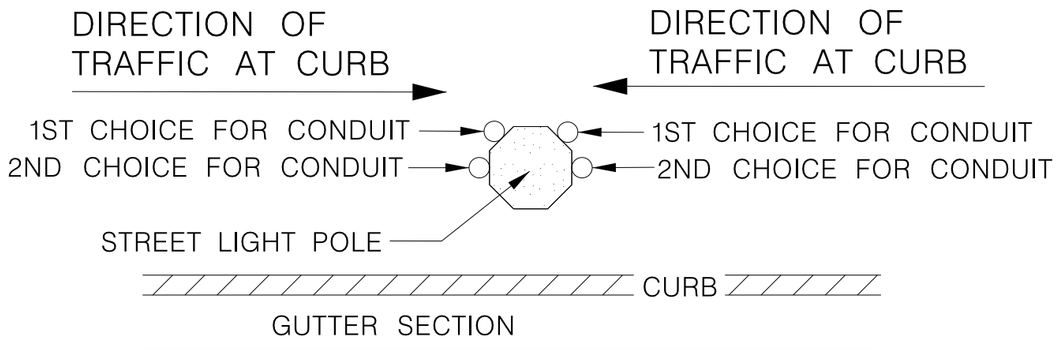
DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION
FOR CROSSING ROADWAYS
FROM FULL WALK AREAS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

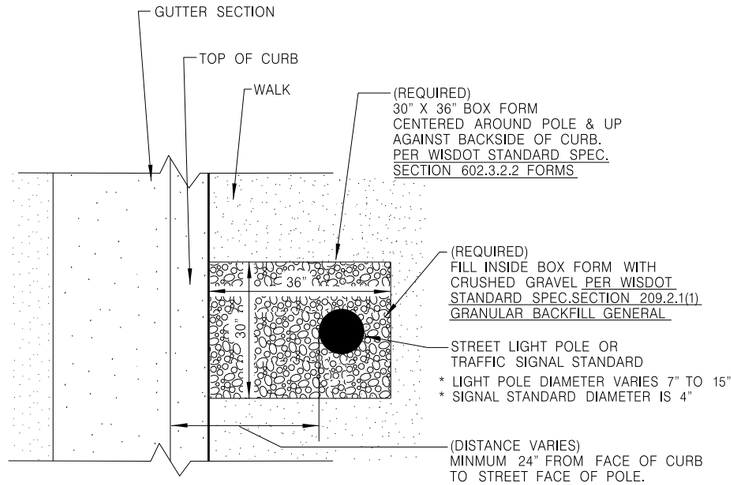
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC / STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

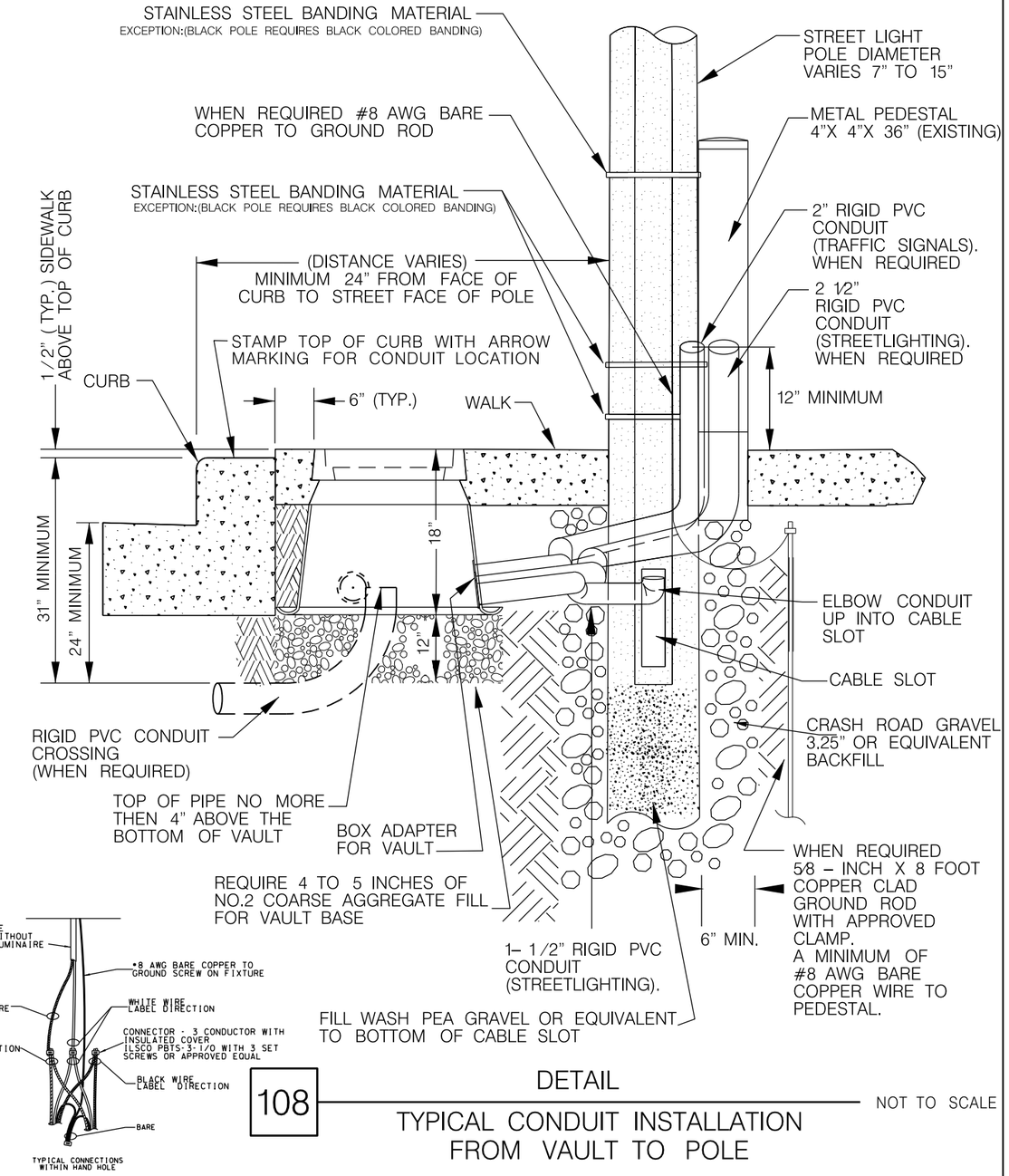


105 DETAIL

TYPICAL 30" X 36" BOX FORM AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

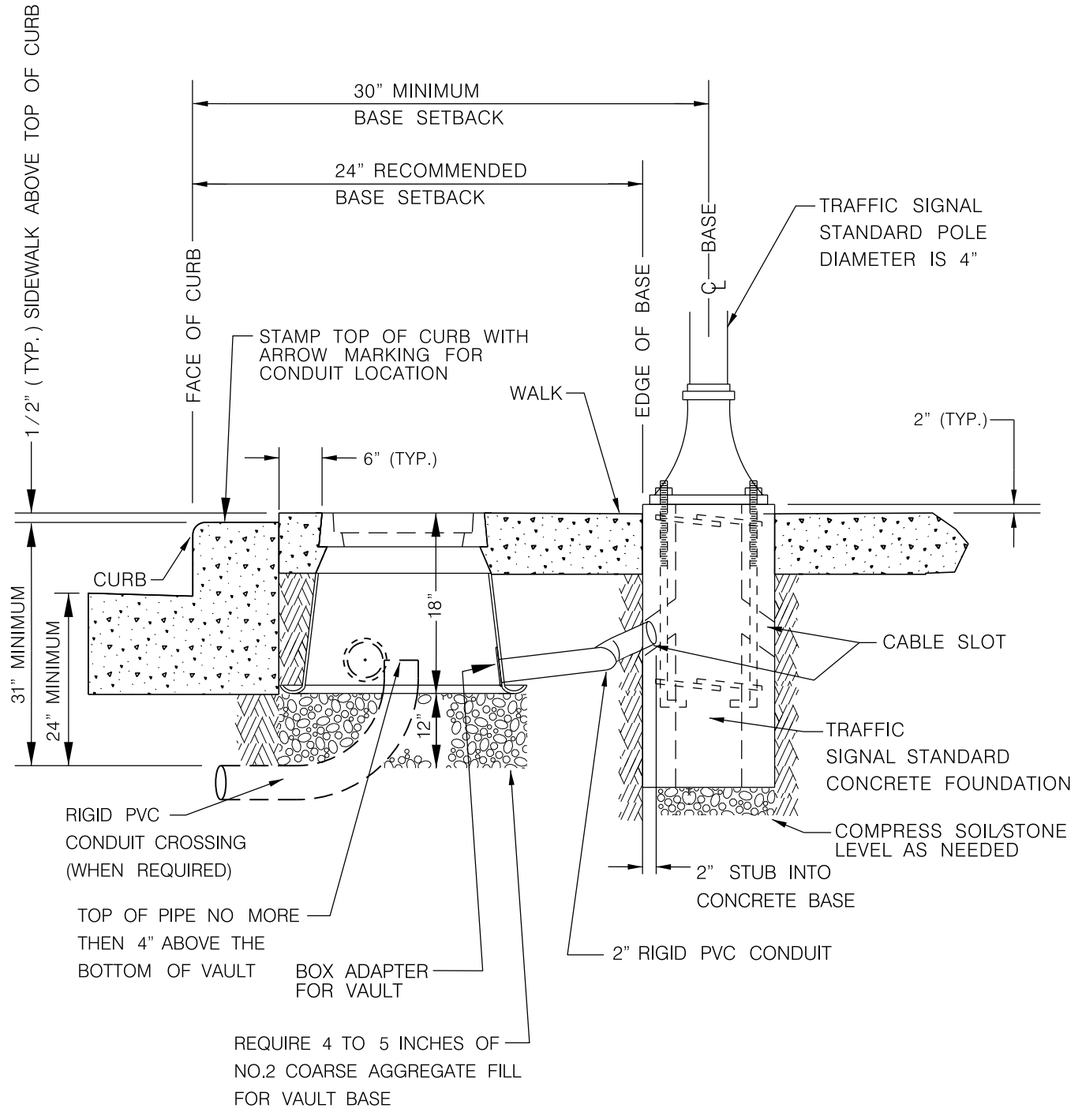


108 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

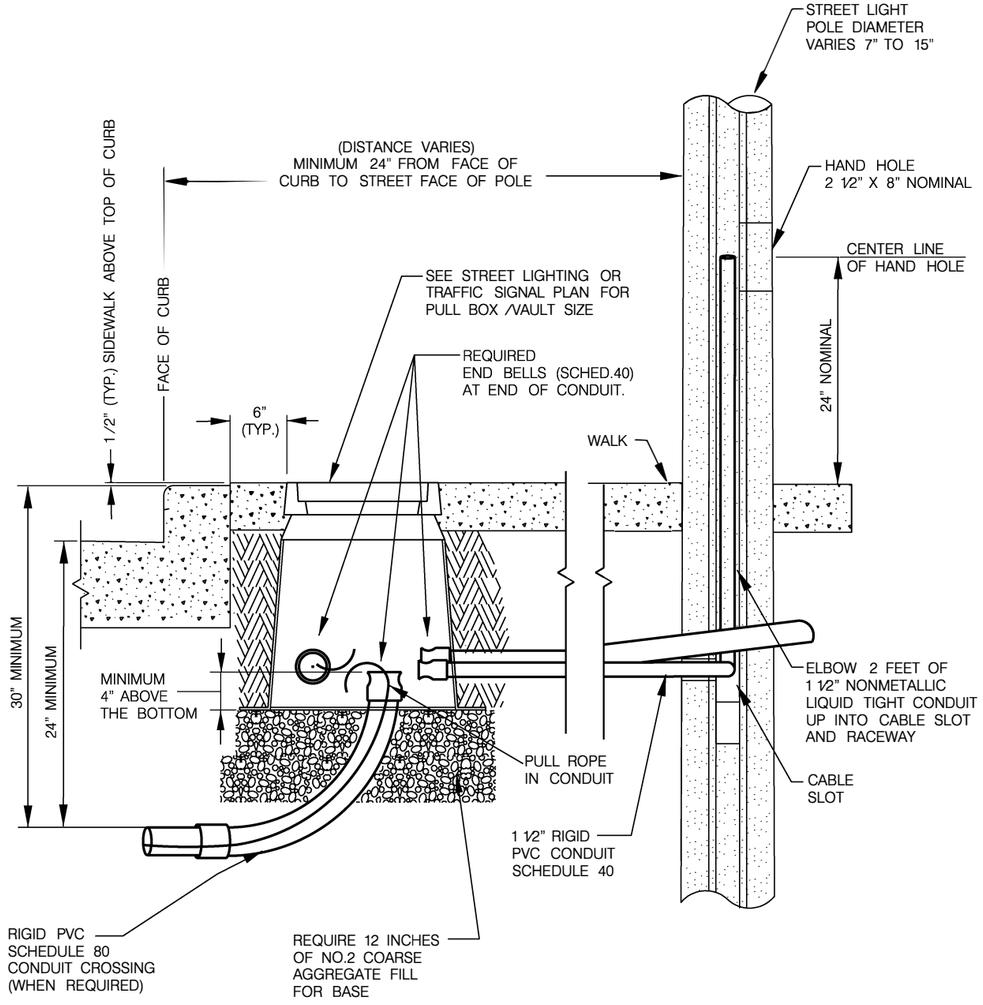


109 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

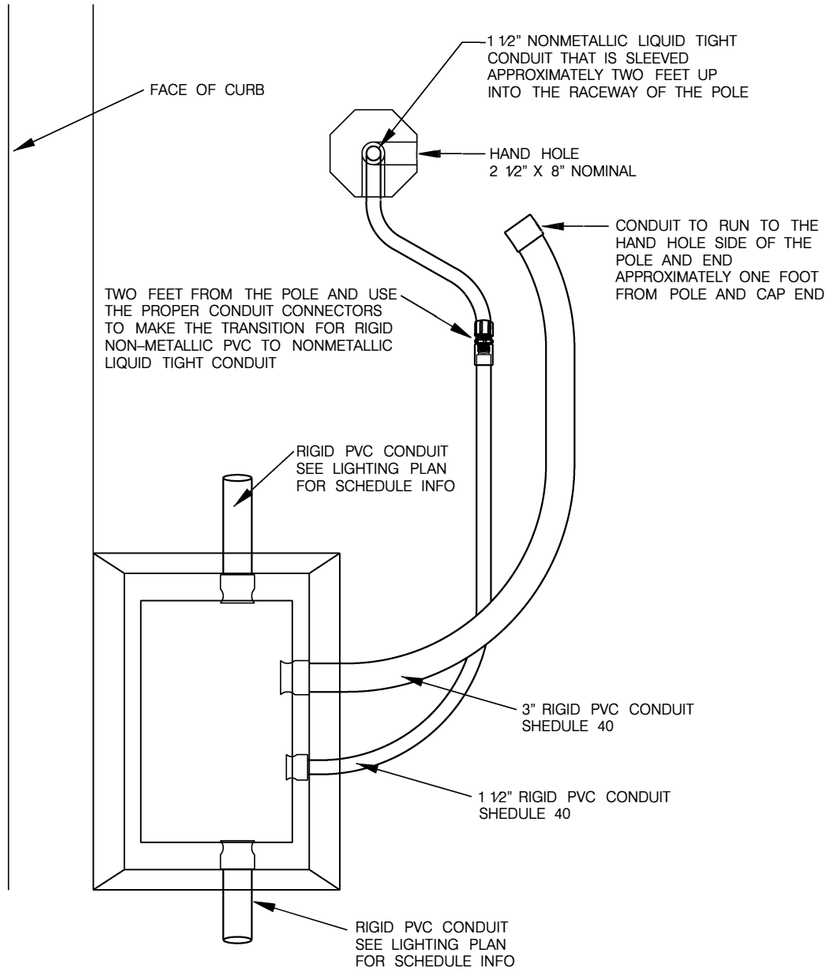
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

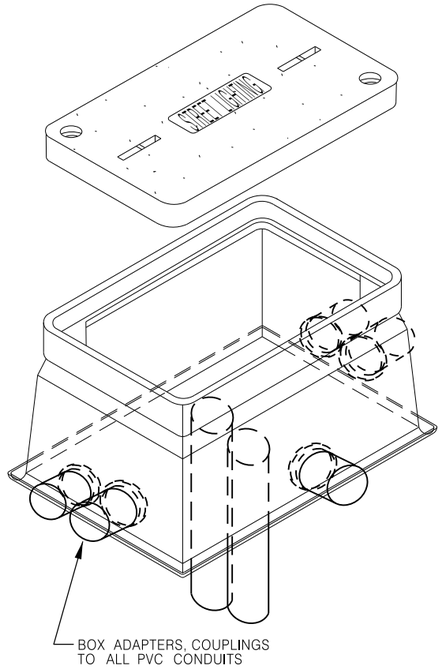
108A DETAIL VERSION

TYPICAL CONDUIT INSTALLATION
FROM PULL BOX / VAULT TO POLE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

29-SEP-2017 14:10



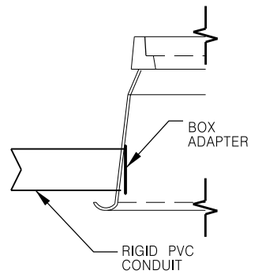
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

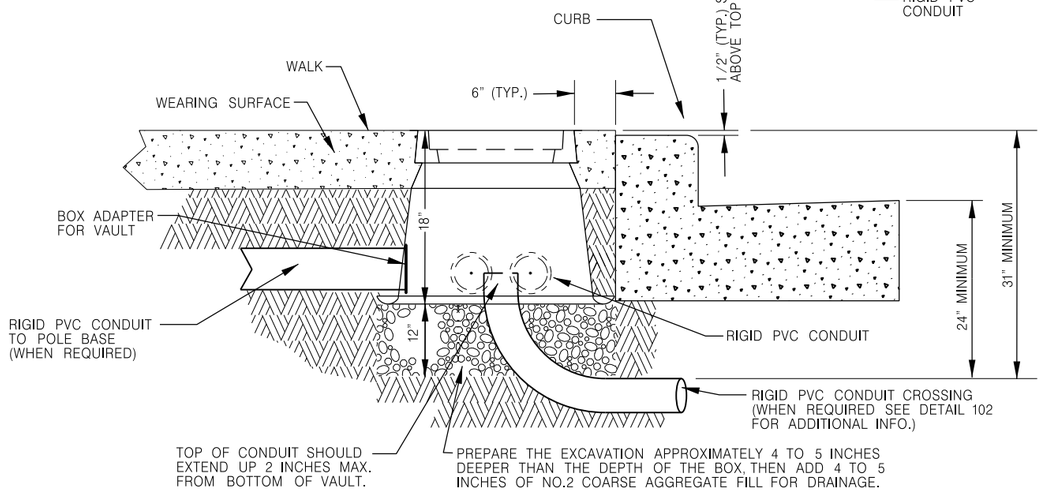
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



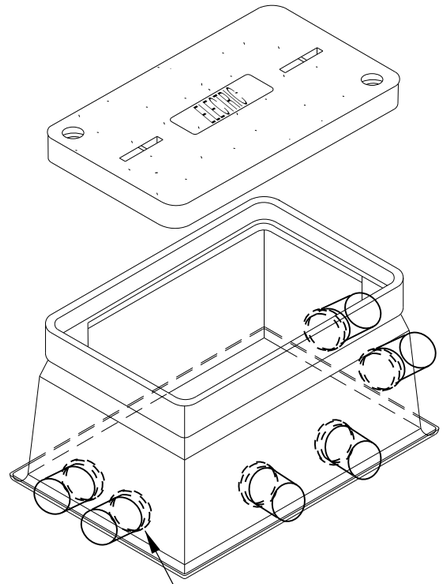


112 DETAIL

TYPICAL VAULT INSTALLATION IN WALK

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

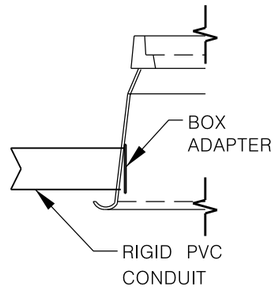


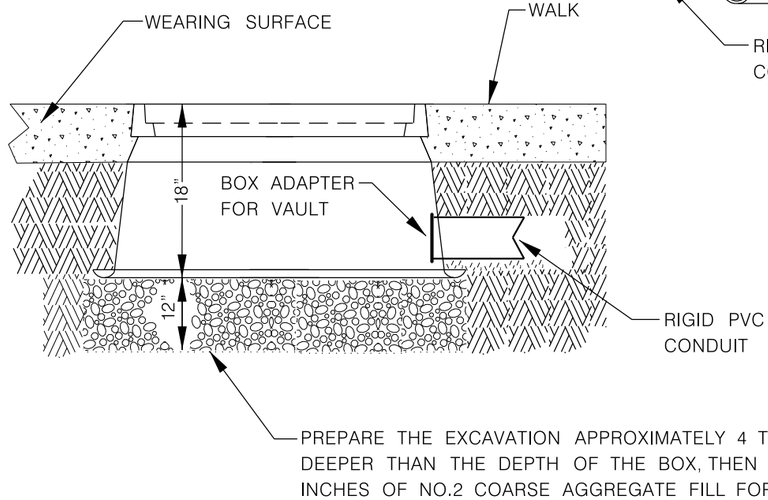
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W / 2 BOLTS
COLOR: GRAY

ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



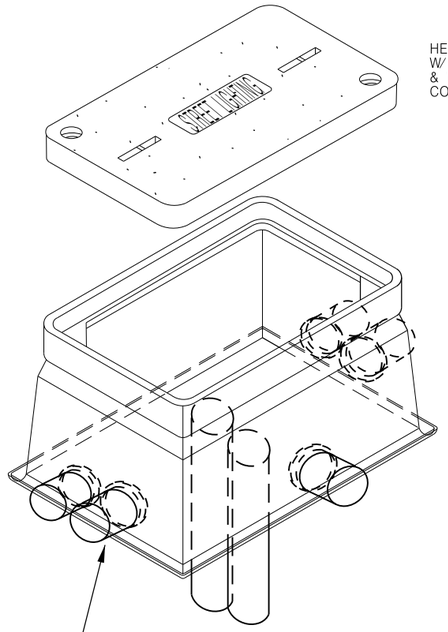


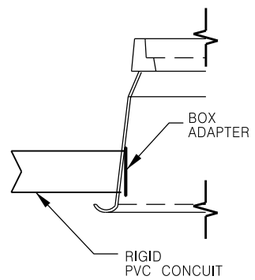
113 DETAIL

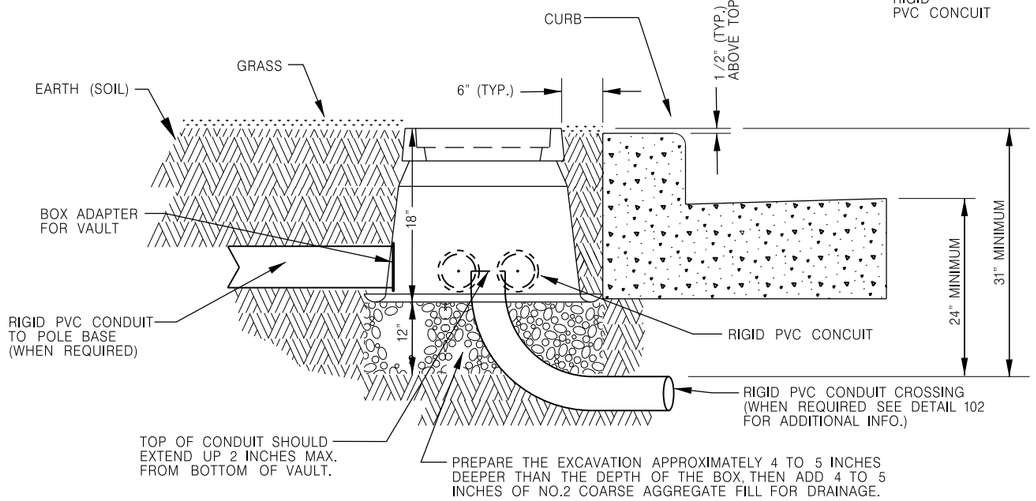
TYPICAL VAULT INSTALLATION
IN SIDEWALK

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.







121 DETAIL

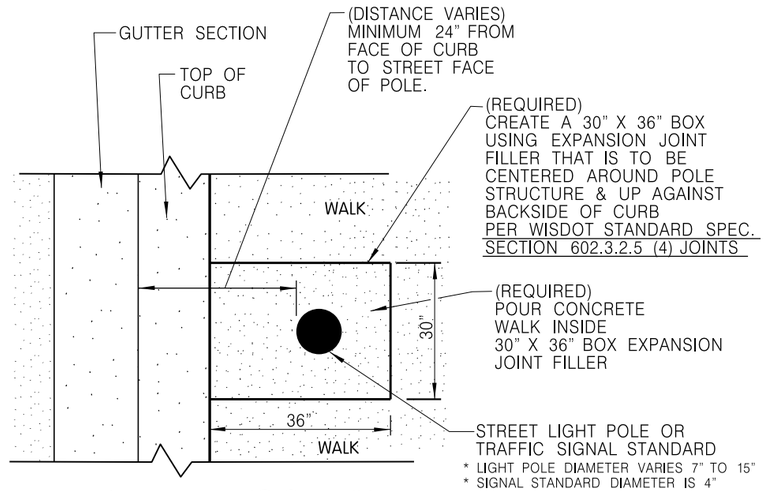
TYPICAL VAULT INSTALLATION IN GRASS AREA

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #1

TYPICAL 30" X 36" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

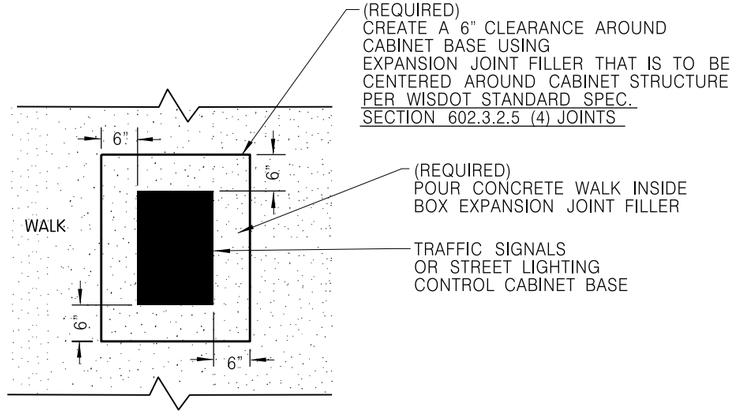
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

29-SEP-2017 14:10

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.

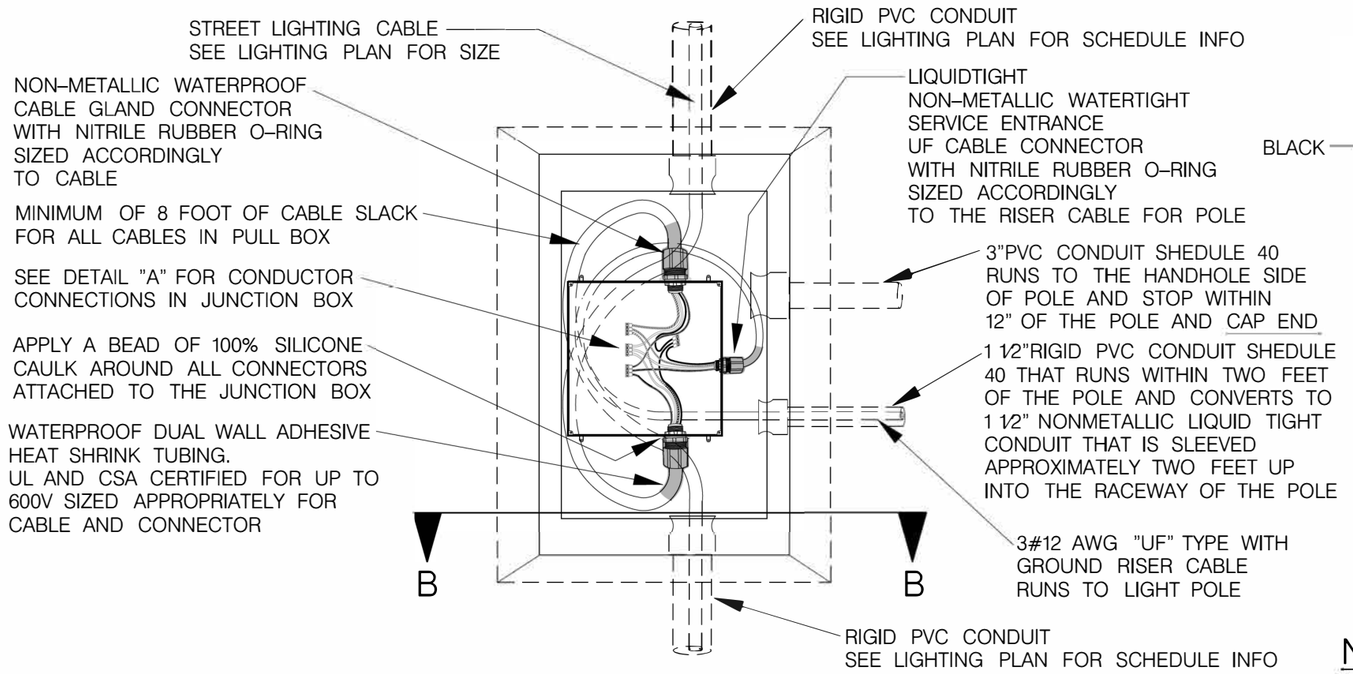


122 DETAIL VERSION #2

TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

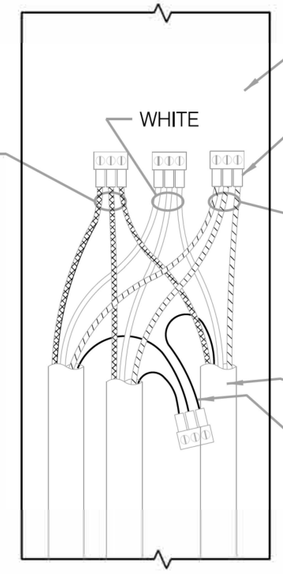
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



PLAN VIEW

NOT TO SCALE



CIRCUIT SHOULD BE IDENTIFIED
INSIDE JUNCTION BOX

SUBMERSIBLE INSULATED
STREETLIGHTING CONNECTOR:
DESIGNED FOR USE IN BELOW
GRADE BOXES, DIRECT BURIAL
AND SUBMERSIBLE
CONDUCTORS RANGE FROM #20–#14
RATED FOR 600 VOLTS
DUAL RATED FOR CU. OR AL.
INSULATED WITH HIGH DIALECTRIC
STRENGTH ABRASION AND CHEMICAL
RESISTANT RUBBER
SET SCREWS OR APPROVED EQUAL
UL 486D LISTED FOR DIRECT BURIAL
AND SUBMERSIBLE APPLICATIONS

"RISER CABLE"
3#12 AWG TYPE "UF" WITH GROUND
CABLE WITHOUT SPLICES TO HAND
HOLE ON POLE

#8 AWG BARE COPPER

DETAIL "A"

CONNECTIONS WITHIN PULL BOX

NOT TO SCALE

NOTES:

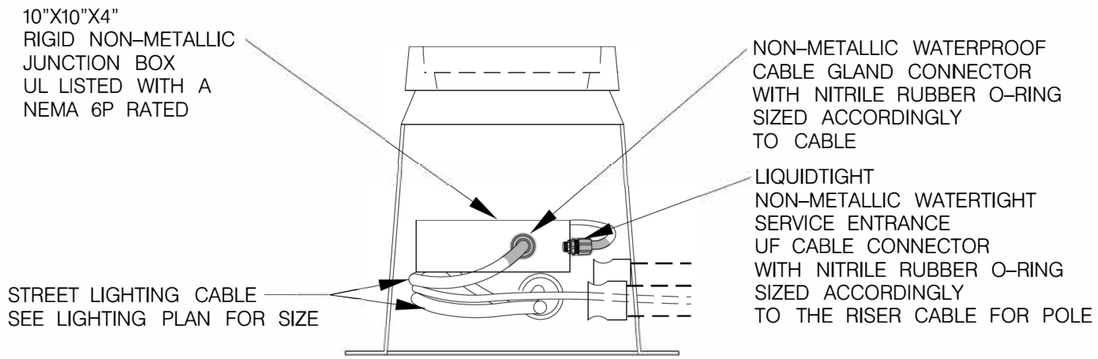
PULL TAPE (5/8–INCH NYLON 1,800 LBS TENSILE STRENGTH) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS–BUILT DRAWINGS (.PDF FORMAT) FOR ALL THE WORK BEING DONE.

PROVIDE MINIMUM CABLE SLACK FOR PULL BOXES: 8–FT ONE WAY IN OR OUT

PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES /VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP MANAGERS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.



SECTION "B"

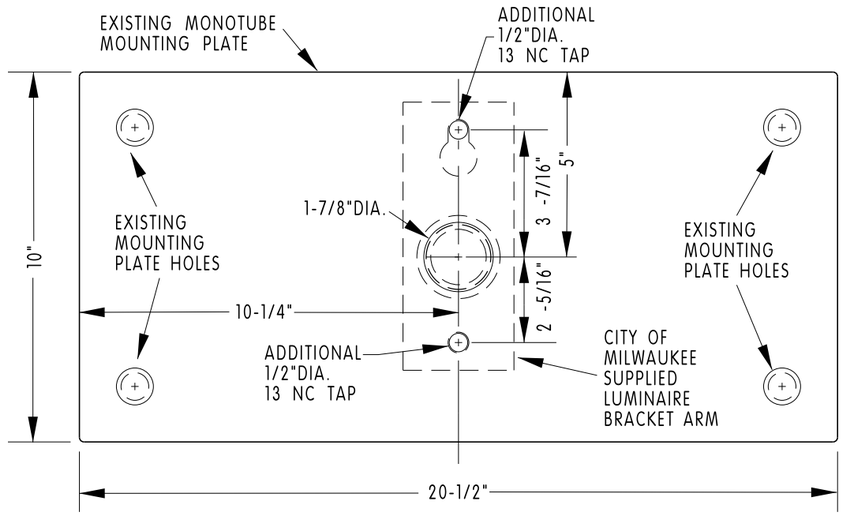
NOT TO SCALE

139 DETAIL

TYPICAL WATERTIGHT JUNCTION BOX SPLICING WITHIN THE PULL BOX

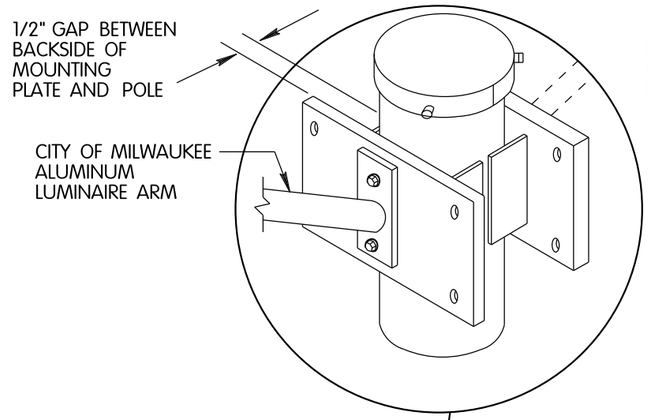
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

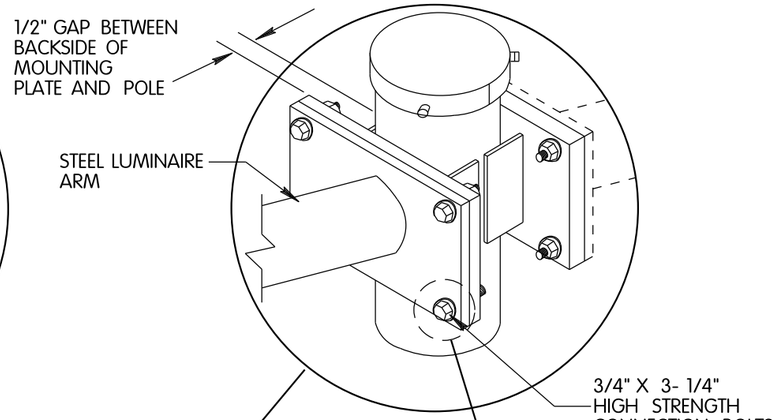


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

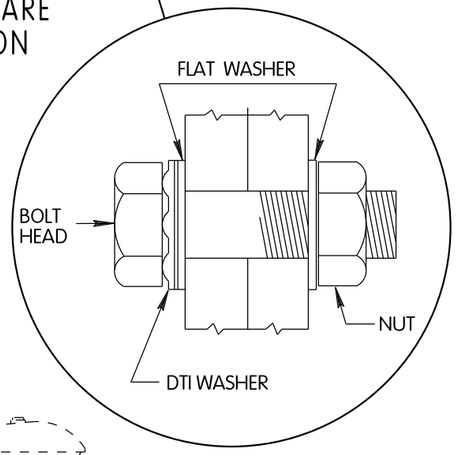
NOT TO SCALE



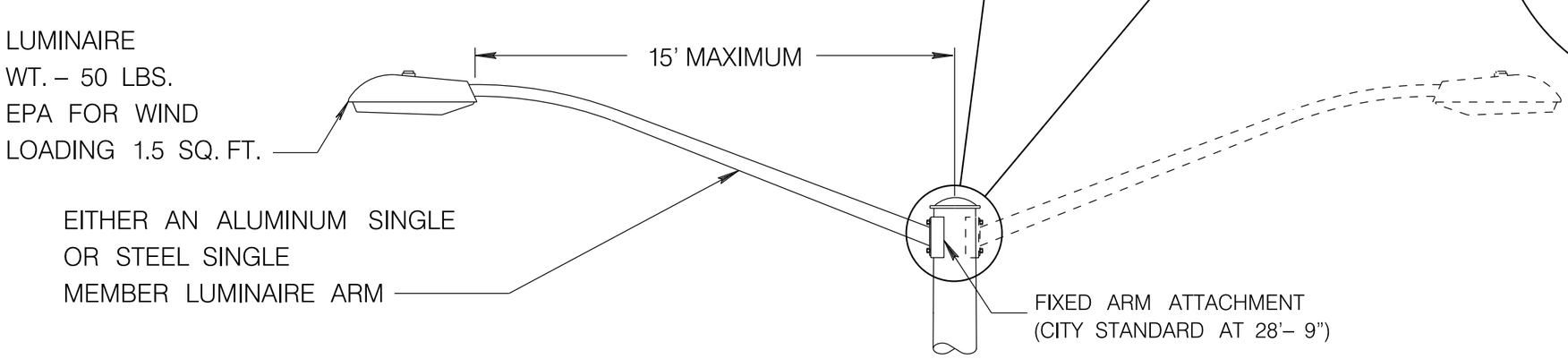
ALUMINUM LUMINIARE ARM OPTION



STEEL LUMINIARE ARM OPTION



RECOMMENDED BOLT ASSEMBLY DETAIL

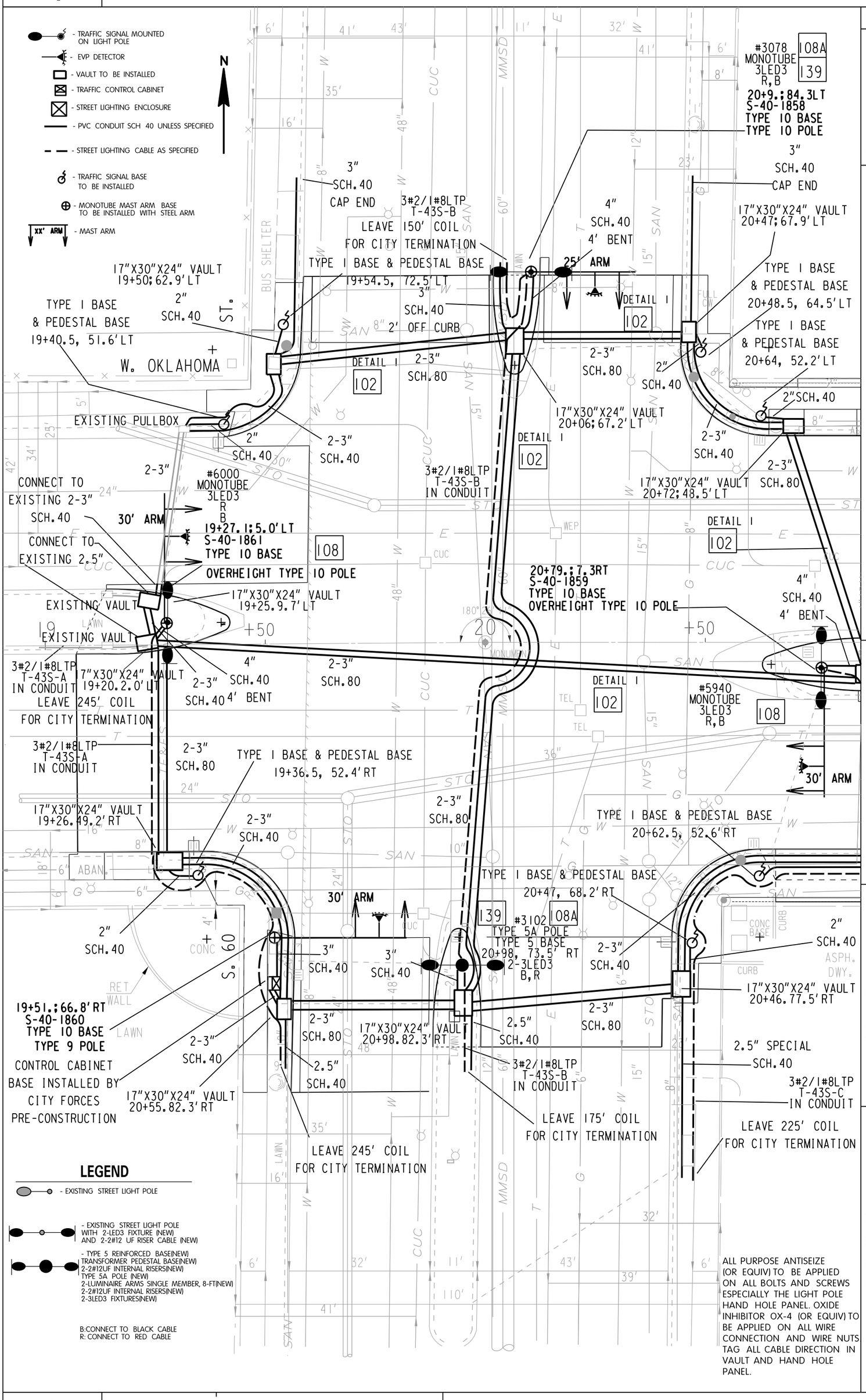


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR

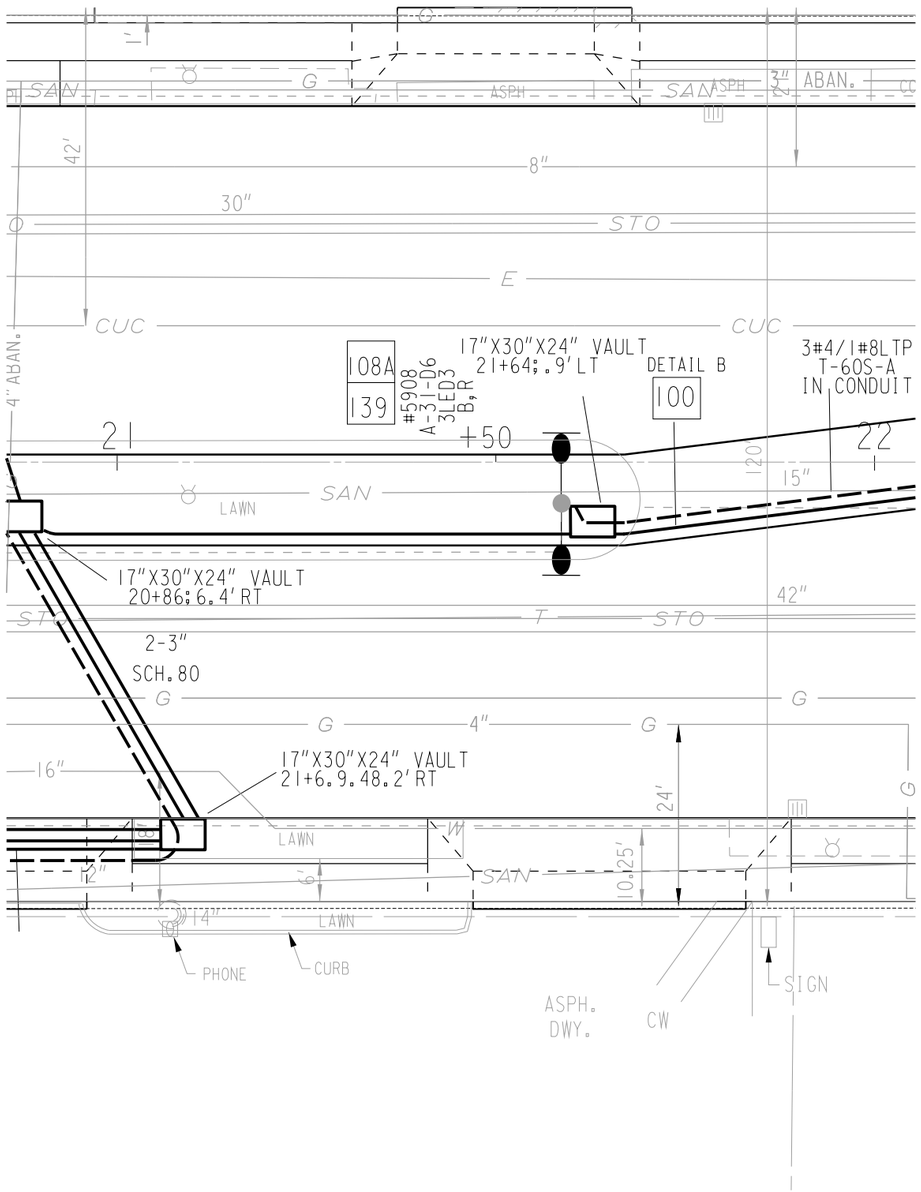
POLES: TYPE 10
TYPE 13 SPECIAL
TYPE 13

NOT TO SCALE

SHEET _ OF _


- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EVP DETECTOR
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH STEEL ARM
XX' ARM - MAST ARM
N
W. OKLAHOMA ST.
S. 60
#3078 MONOTUBE 3LED3 R,B
108A
139
20+9.; 84.3LT
S-40-1858
TYPE 10 BASE
TYPE 10 POLE
3" SCH.40 CAP END
3#2/1#8LTP T-43S-B LEAVE 150' COIL FOR CITY TERMINATION
TYPE 1 BASE & PEDESTAL BASE 19+54.5, 72.5'LT
17"X30"X24" VAULT 19+50; 62.9'LT
TYPE 1 BASE & PEDESTAL BASE 19+40.5, 51.6'LT
2" SCH.40
3" SCH.40 2' OFF CURB
4" SCH.40 4' BENT
25' ARM
DETAIL I 102
17"X30"X24" VAULT 20+47; 67.9'LT
TYPE 1 BASE & PEDESTAL BASE 20+48.5, 64.5'LT
TYPE 1 BASE & PEDESTAL BASE 20+64, 52.2'LT
2-3" SCH.80
2" SCH.40
2"SCH.40
17"X30"X24" VAULT 20+06; 67.2'LT
2-3" SCH.40
EXISTING PULLBOX
2" SCH.40
2-3" SCH.40
2-3" SCH.80
17"X30"X24" VAULT 20+72; 48.5'LT
CONNECT TO EXISTING 2-3" SCH.40
CONNECT TO EXISTING 2.5"
#6000 MONOTUBE 3LED3 R B
30' ARM
19+27.1; 5.0'LT
S-40-1861
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
108
EXISTING VAULT
17"X30"X24" VAULT 19+25.9.7'LT
EXISTING VAULT
20+79.; 7.3RT
S-40-1859
TYPE 10 BASE
OVERHEIGHT TYPE 10 POLE
4" SCH.40 4' BENT
3#2/1#8LTP T-43S-A IN CONDUIT LEAVE 245' COIL FOR CITY TERMINATION
7"X30"X24" VAULT 19+20.2.0'LT
2-3" SCH.40
4" SCH.40 4' BENT
2-3" SCH.80
#5940 MONOTUBE 3LED3 R,B
108
3#2/1#8LTP T-43S-A IN CONDUIT
2-3" SCH.80
TYPE 1 BASE & PEDESTAL BASE 19+36.5, 52.4'RT
30' ARM
17"X30"X24" VAULT 19+26.49.2'RT
2-3" SCH.40
2-3" SCH.80
TYPE 1 BASE & PEDESTAL BASE 20+62.5, 52.6'RT
TYPE 1 BASE & PEDESTAL BASE 20+47, 68.2'RT
30' ARM
139
#3102 TYPE 5A POLE TYPE 5 BASE 20+98, 73.5' RT 2-3LED3 B,R
108A
2" SCH.40
3" SCH.40
3" SCH.40
2-3" SCH.40
2-3" SCH.80
17"X30"X24" VAULT 20+46.77.5'RT
19+51.; 66.8'RT
S-40-1860
TYPE 10 BASE
TYPE 9 POLE
CONTROL CABINET BASE INSTALLED BY CITY FORCES PRE-CONSTRUCTION
2-3" SCH.40
17"X30"X24" VAULT 20+55.82.3'RT
2-3" SCH.80
17"X30"X24" VAULT 20+98.82.3'RT
2.5" SCH.40
2.5" SCH.40
2.5" SPECIAL SCH.40
3#2/1#8LTP T-43S-B IN CONDUIT
3#2/1#8LTP T-43S-C IN CONDUIT
LEAVE 175' COIL FOR CITY TERMINATION
LEAVE 225' COIL FOR CITY TERMINATION
LEAVE 245' COIL FOR CITY TERMINATION
LEGEND
- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- TYPE 5 REINFORCED BASE(NEW) TRANSFORMER PEDESTAL BASE(NEW) 2-2#12UF INTERNAL RISERS(NEW) TYPE 5A POLE (NEW) 2-LUMINAIRE ARMS SINGLE MEMBER, 8-FT(NEW) 2-2#12UF INTERNAL RISERS(NEW) 2-3LED3 FIXTURES(NEW)
B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE
ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.
E
STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN
SHEET 107
WISDOT-CADDS SHEET 42
PLOT SCALE : 20.0000000:1.000000
PLOT NAME :
PLOT BY : elee
PLOT DATE : 14-DEC-2017 10:46
COUNTY: MILWAUKEE
HWY: LOCAL STREET
PROJECT NO: 2400-00-72
FILE NAME : W:\bes\pavtngs\2018work\wOklahoma Ave - 60th to 49th (2400-00-72)\2400-00-72 CONDUIT.dgn

2



N

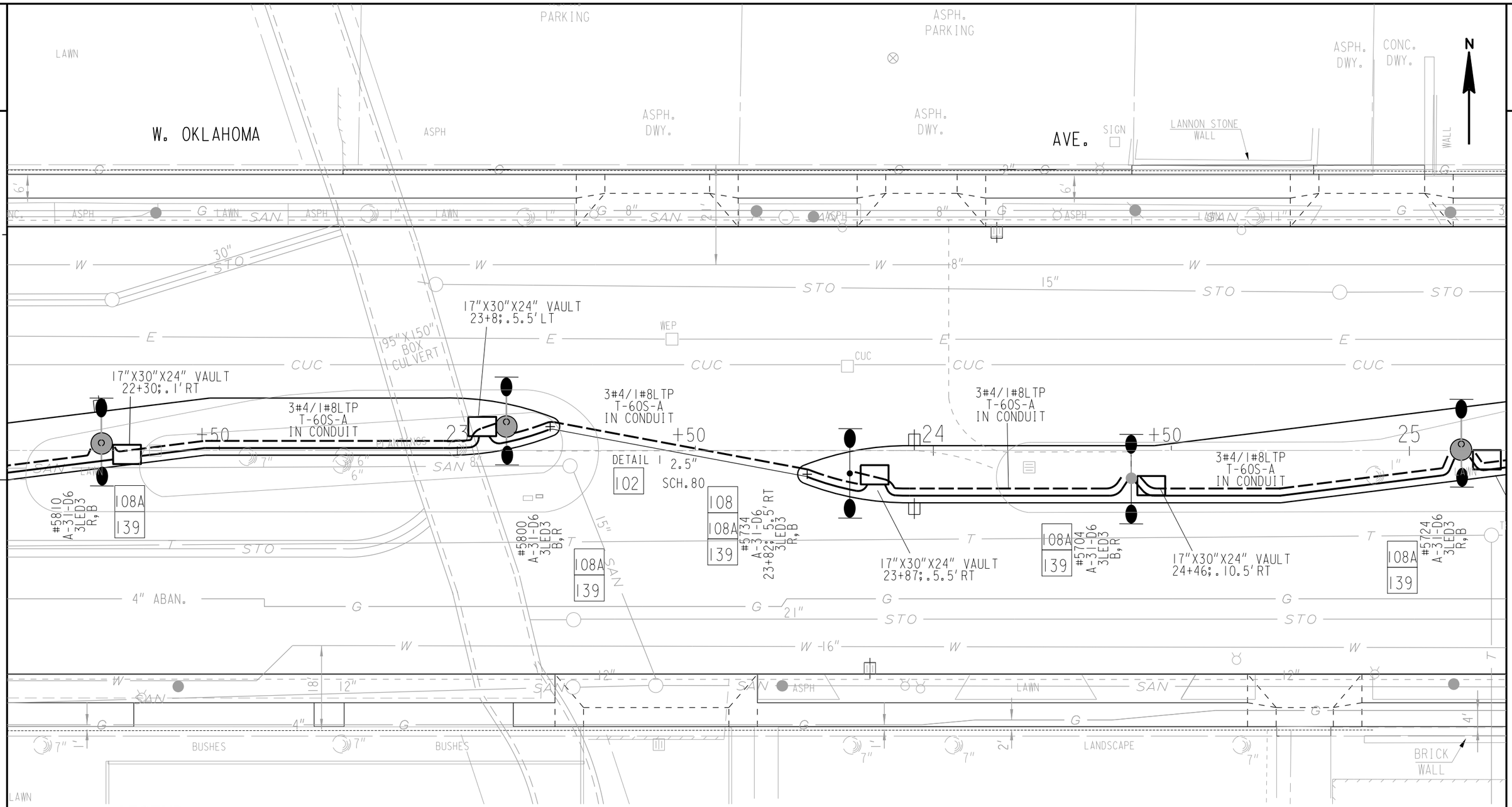
LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- VAULT TO BE INSTALLED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.



LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP 2-6 FT. ARM AT 1540 W. CANAL ST.
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- STREET LIGHTING CABLE AS SPECIFIED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400–00–72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 109	E

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

W. OKLAHOMA AVE.

17"X30"X24" VAULT 25+16;.2.0' RT

17"X30"X24" VAULT 26+4;.3.5' LT

17"X30"X24" VAULT 27+24;.7.6' RT

17"X30"X24" VAULT 28+4;.8.5' RT

17"X30"X24" VAULT 27+16;.50' RT

3#4/1#8LTP T-60S-A IN CONDUIT

REMOVED BY CITY

DETAIL B 100

DETAIL I 102

#5702 A-31-D6 3LED3 B,R

#5634 A-31-D6 3LED3 R,B

#5620 A-31-D6 3LED3 B,R

108A 139

2.5" SCH.80

3" SCH.80

3" SCH.40

2.5" SCH.40

2.5" CAP END

2.5" CAP ENDS

CONTINUED TO RIGHT

CONTINUED TO LEFT

#3113 A-21-6 1S2V, B,PED

3#4/1#8LTP T-60S-A

S. 57 ST.

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

N

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 110 E

2

2

W. OKLAHOMA AVE.

CONC. DWY.

TE&ES

ST.

13"X24"X24" VAULT 29+88;68.0'LT

LEAVE 10' COIL FOR CITY TERMINATION

3#4/1#8LTP T-60S-A BY CITY

2.5" SCH.40 CAP END

2.5" SPECIAL SCH.40

2.5" SCH.80

3" ABAN.

#3074 A-21-6 ILED2 B

13"X24"X24" VAULT 30+19;72.0'LT

DETAIL I 102

3" SCH.40

13"X24"X24" VAULT 29+60;50.0'LT

2.5" SCH.40

2.5" CAP ENDS

BUS STOP

17"X30"X24" VAULT 29+42;.5.0'LT

3#4/1#8LTP T-60S-A IN CONDUIT

3" SCH.80

17"X30"X24" VA 30+47;7.0'RT

+50

29

30

3#4/1#8LTP T-60S-A IN CONDUIT

2.5" SCH.80

#5604 A-31-D6 3LED3 R,B

#5534 A-31-D6 3LED3 B,R

108A 139

3#4/1#8LTP T-60S-A IN CONDUIT

13"X24"X24" VAULT 29+80;.62.5'RT

13"X24"X24" VAULT 30+15;.62.5'RT

13"X24"X24" VAULT 29+51;.50.5'RT

2.5" SCH.40

2.5" CAP ENDS

4" ABAN.

ROCK GARDEN

LANDSCAPE BLOCK WALL

S. 56 ST.

4 CR

3 CR

13"X24"X24" VAULT 29+81;62.8'RT

13"X24"X24" VAULT 30+12;62.8'RT

2.5" SCH.80

2.5" SPECIAL SCH.40

CONTINUED TO RIGHT

CONTINUED TO LEFT

3#4/1#8LTP T-60S-A IN CONDUIT

#3114 A-21-6 ILED2 B,PED

N

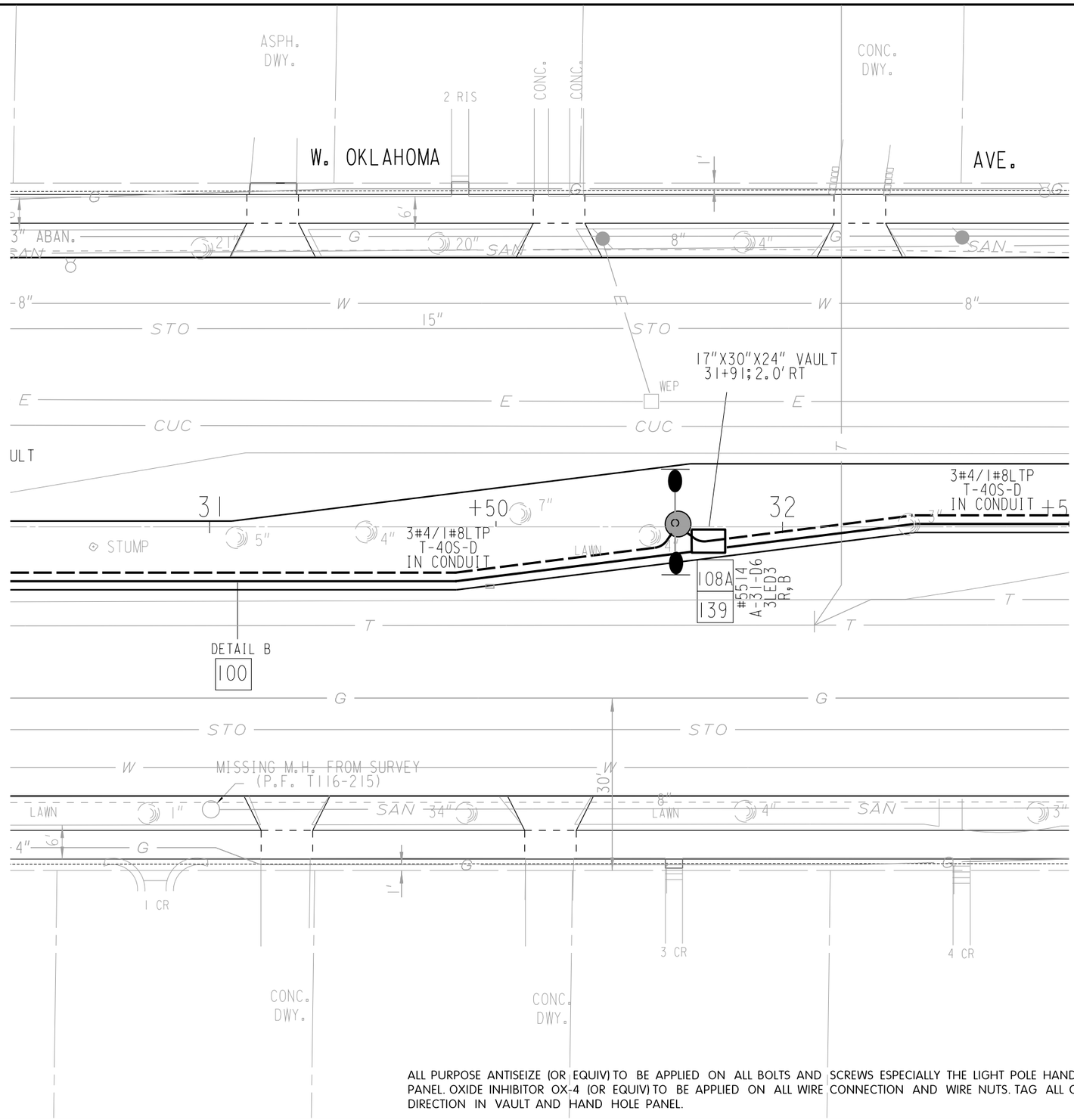
LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

  B:CONNECT TO BLACK CABLE
  R: CONNECT TO RED CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- VAULT TO BE INSTALLED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 111	E



N

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

  B:CONNECT TO BLACK CABLE
  R: CONNECT TO RED CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 112	E

2

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.
  B:CONNECT TO BLACK CABLE
  R: CONNECT TO RED CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

N

W. OKLAHOMA ST.

AVE.

2.5" CAP END 31' N.O. VAULT

CONTINUED TO RIGHT
13"X24"X24" VAULT
33+48; 81.0' LT

13"X24"X24" VAULT
33+13; 81.0' LT

2.5" SCH.80
DETAIL I
102

2.5" SPECIAL SCH.40

#3072
A-21-6
ILED2
R

2.5" SPECIAL SCH.40

3#4/1#8LTP
T-40S-D
IN CONDUIT

CONTINUED TO LEFT

2.5" SCH.40

2.5" SCH.40

2.5" CAP ENDS

13"X24"X24" VAULT
33+73; 49.5' LT

17"X30"X24" VAULT
32+82; 4.0' RT

2.5" SCH.80
DETAIL I
102

3#4/1#8LTP
T-40S-D
IN CONDUIT

108

WEPCO M.H. ON THE PLAN
NOT ON SURVEY AND CANT
LOCATE WITH GOOGLE
M.H. 4924

3#4/1#8LTP
T-40S-D
IN CONDUIT

2.5" SCH.80

DETAIL I
102

17"X30"X24" VAULT
36+86; 6.3' RT

DETAIL B
100

3#4/1#8LTP
T-40S-D
IN CONDUIT

108A
139
#5504
A-31-D6
3LED3
B,R

108A
139
#5434
A-31-D6
3LED3
R,B

108A
139
#5418
A-31-D6
3LED3
B,R

DETAIL B
100

DETAIL I
102

DETAIL I
102

DETAIL I
102

17"X30"X24" VAULT
35+3; 3.0' RT

2.5" CAP ENDS
2.5" SCH.40
2.5" CAP ENDS

2.5" CAP ENDS
2.5" SCH.40
2.5" CAP ENDS

2.5" SCH.80
DETAIL I
102

S. 55 +

+53 +50 +50 +5

34 35

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400–00–72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 113	E

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.
- VAULT TO BE INSTALLED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED

N

W. OKLAHOMA AVE.

S. 54 ST.

3#8/1#8LTP T-40S-D AT WALK

13"X24"X24" VAULT 36+43; 62.0' LT

108 #3081 22-S6'-AL ILED2 B

3#4/1#8LTP T-40S-D IN CONDUIT

13"X2 36+8

2.5" SCH.80

2.5" SCH.40

2.5" CAP ENDS

13"X24"X24" VAULT 36+98; 48.0' LT

B:CONNECT TO BLACK CABLE
R:CONNECT TO RED CABLE

WEPCO M.H. ON THE PLAN NOT ON SURVEY AND CANT LOCATE WITH GOOGLE M.H. 4922

17"X30"X24" VAULT 38+16; 5.0' RT

17"X30"X24" VAULT 36+6; 2.5' RT

17"X30"X24" VAULT 37+11; 7.0' RT

108A 139 #5404 A-31-D6 3LED3 R,B

108A 139 #5334 A-31-D6 3LED3 B,R

108A 139 #5324 A-31-D6 3LED3 R,B

2-3#8/1#8LTP T-40S-D IN CONDUIT

13"X24"X24" VAULT 36+9; 48.0' RT

13"X24"X24" VAULT 36+42; 63; 8.0' RT

13"X24"X24" VAULT 36+79; 63.0' RT

LEAVE 15' COIL

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 114	E

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH AMERICAN ELECTRIC LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- VAULT TO BE INSTALLED

- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

N

W. OKLAHOMA ST.

W. OKLAHOMA AVE.

2.5" CAP END 35' N.O. CURB

2.5" CAP END 22' N.O. POLE

#3080 22-S6'-AL ILED2 R,PED

DETAIL I 102

DETAIL B 100

2.5" CAP ENDS

2.5" SCH.40

2.5" SCH.80

13"X24"X24" VAULT 40+43; 49.0' LT

17"X30"X24" VAULT 39+38; 6.0' LT

17"X30"X24" VAULT 41+20.0; 1.0' RT

3#4/1#8LTP T-40S-D IN CONDUIT

3#8/1#8LTP T-40S-D IN CONDUIT

108A 139 #5304 A-31-D6 3LED3 B,R

108A 139 #5234 A-31-D6 3LED3 R,B

108A 139 #5220 A-31-D6 3LED3 B,R

13"X24"X24" VAULT 39+56; 49.0' RT

17"X30"X24" VAULT 40+43; 4.5' RT

2.5" SPECIAL SCH.40

CONTINUED RIGHT CENTER

CONTINUED FAR RIGHT

CONTINUED FAR LEFT

CONTINUED TO LEFT

#3105

#3109 22-S6'-AL ILED2 R,PED

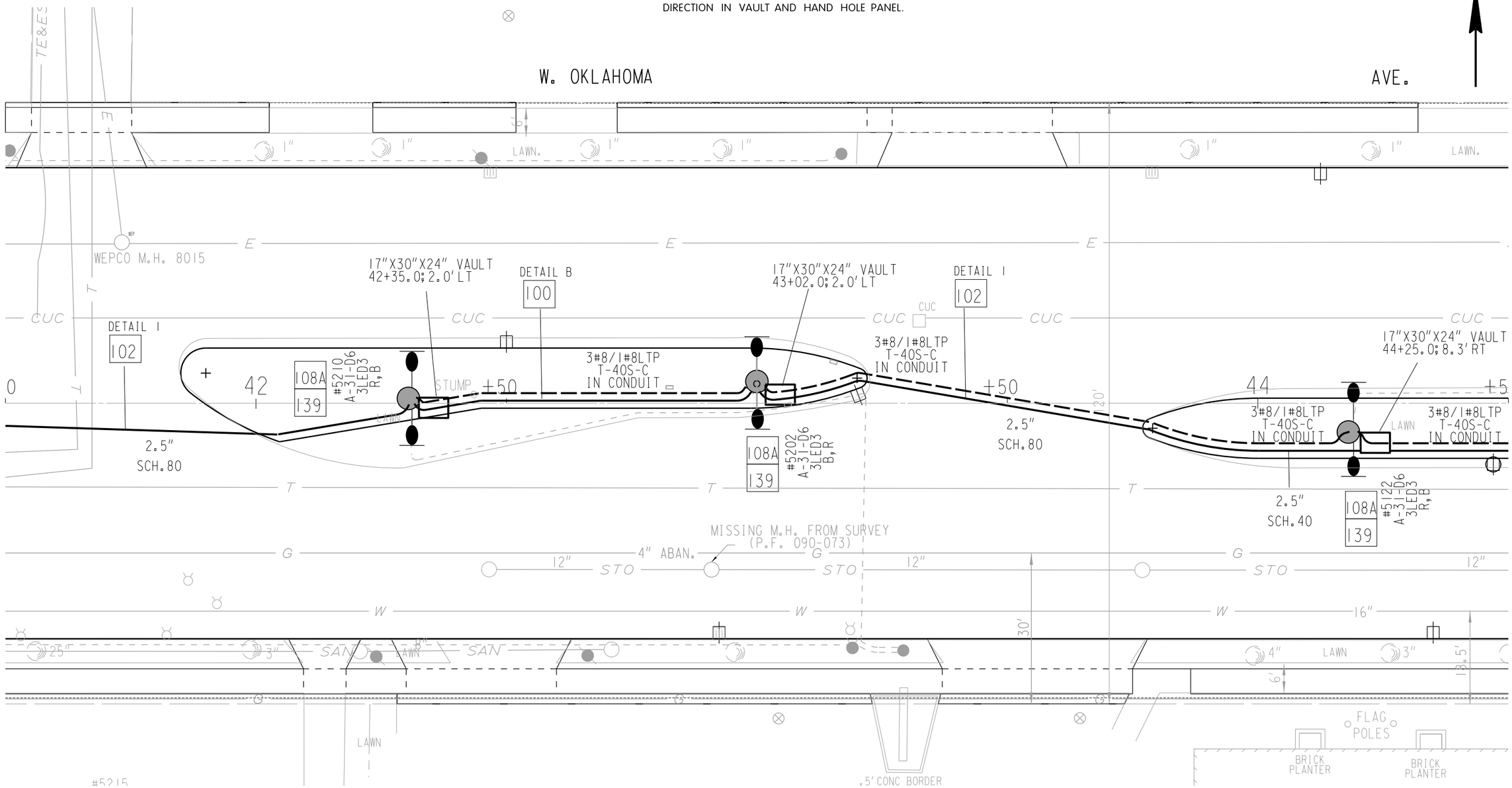
ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 115	E

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

N

W. OKLAHOMA AVE.



LEGEND

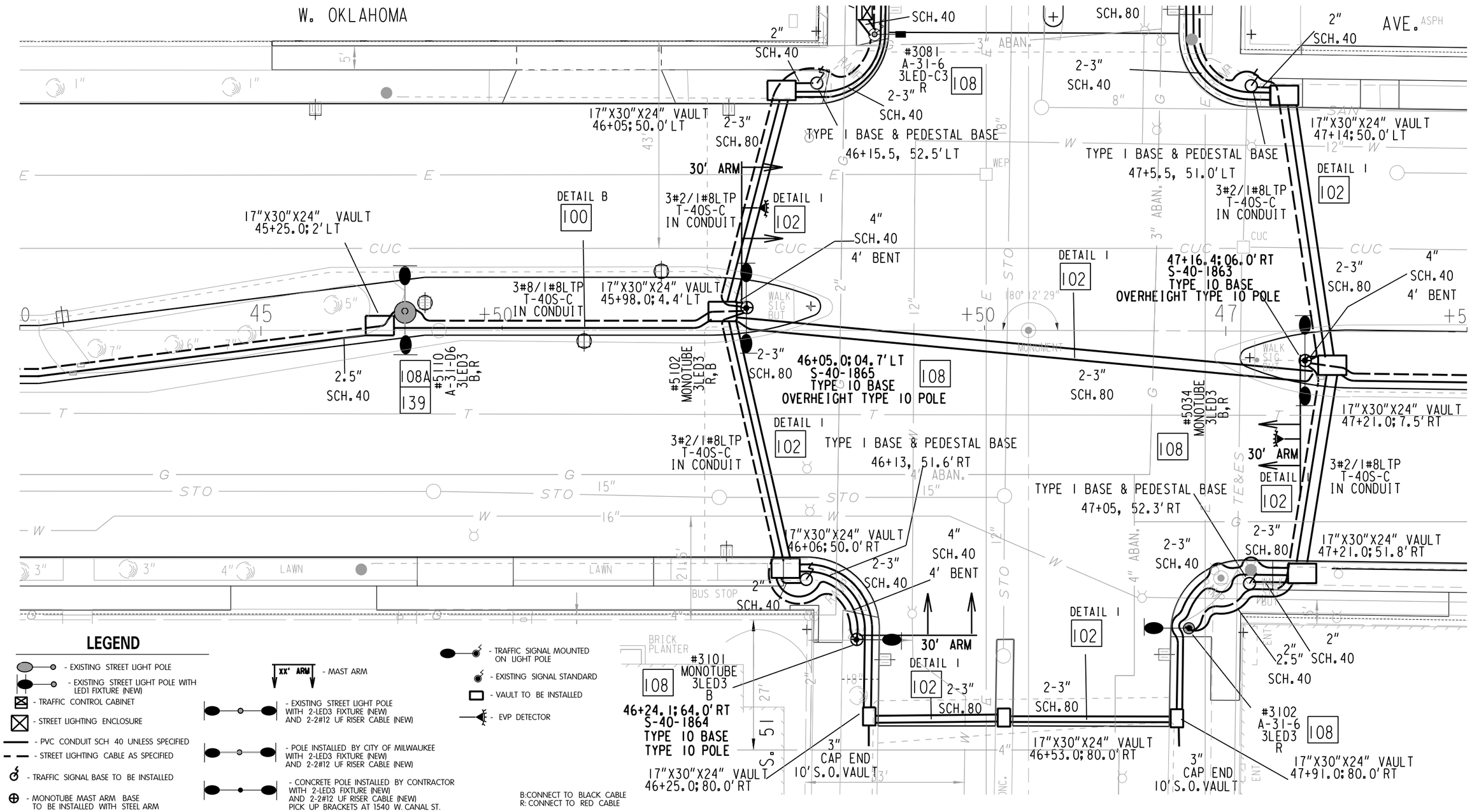
- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 116	E

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

CONTINUED ON SHEET 21 OF 25



LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH STEEL ARM
- XX' ARM - MAST ARM
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- EVP DETECTOR

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 117 E

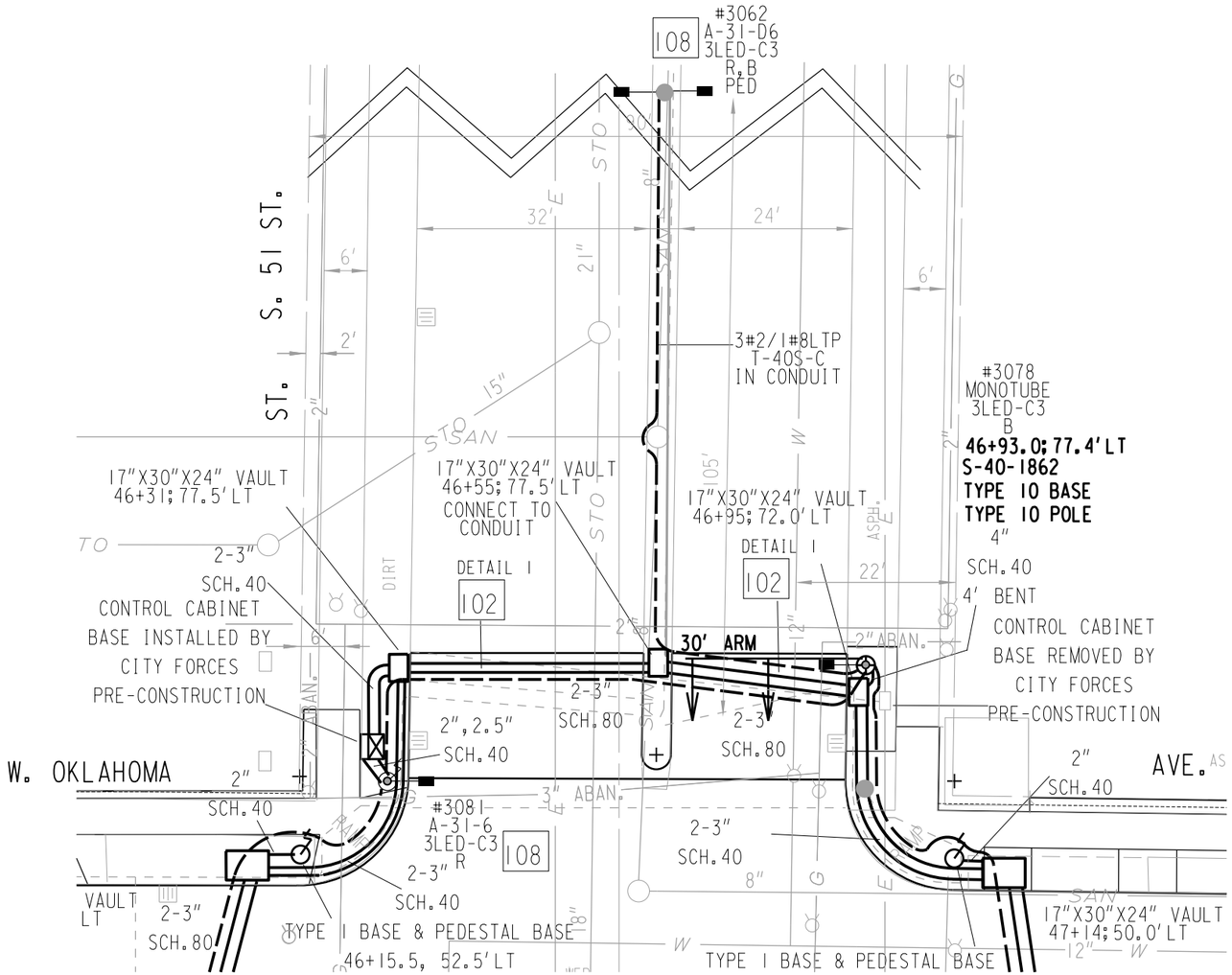
2

LEGEND

- EXISTING STREET LIGHT POLE
- POLE WITH RECTANGULAR LED3 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-RECTANGULAR LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH STEEL ARM
- XX' ARM - MAST ARM



CONTINUED ON SHEET 20 OF 25

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

2

2

N

W. OKLAHOMA

S. 50 ST.

AVE.

15' N.O. POLE
LEAVE 10' COIL
FOR CITY TERMINATION

108
#3079
A-21-6
1LED2
R,PED

3#2/1#8LTP
T-40S-C
IN CONDUIT

13"X24"X24" VAULT
49+66.0; 46.0' LT

DETAIL I
102

2.5"
CAP ENDS

2.5"
SCH. 80

2.5"
SCH. 40

108
108A
139
#5004
A-31-D6
3LED3
R,B
48+18.0; 1' LT

3#2/1#8LTP
T-40S-C
IN CONDUIT

POLE REMOVED
BY CITY

13"X24"X24" VAULT
49+81.0; 55.0' LT

17"X30"X24" VAULT
48+14.0; 5.0' LT

2.5"
SCH. 40

17"X30"X24" VAULT
49+59.0; 2.0' LT

17"X30"X24" VAULT
50+50.0; 7.0' RT

108A
139
#4934
A-31-D6
3LED3
R,B

LEGEND

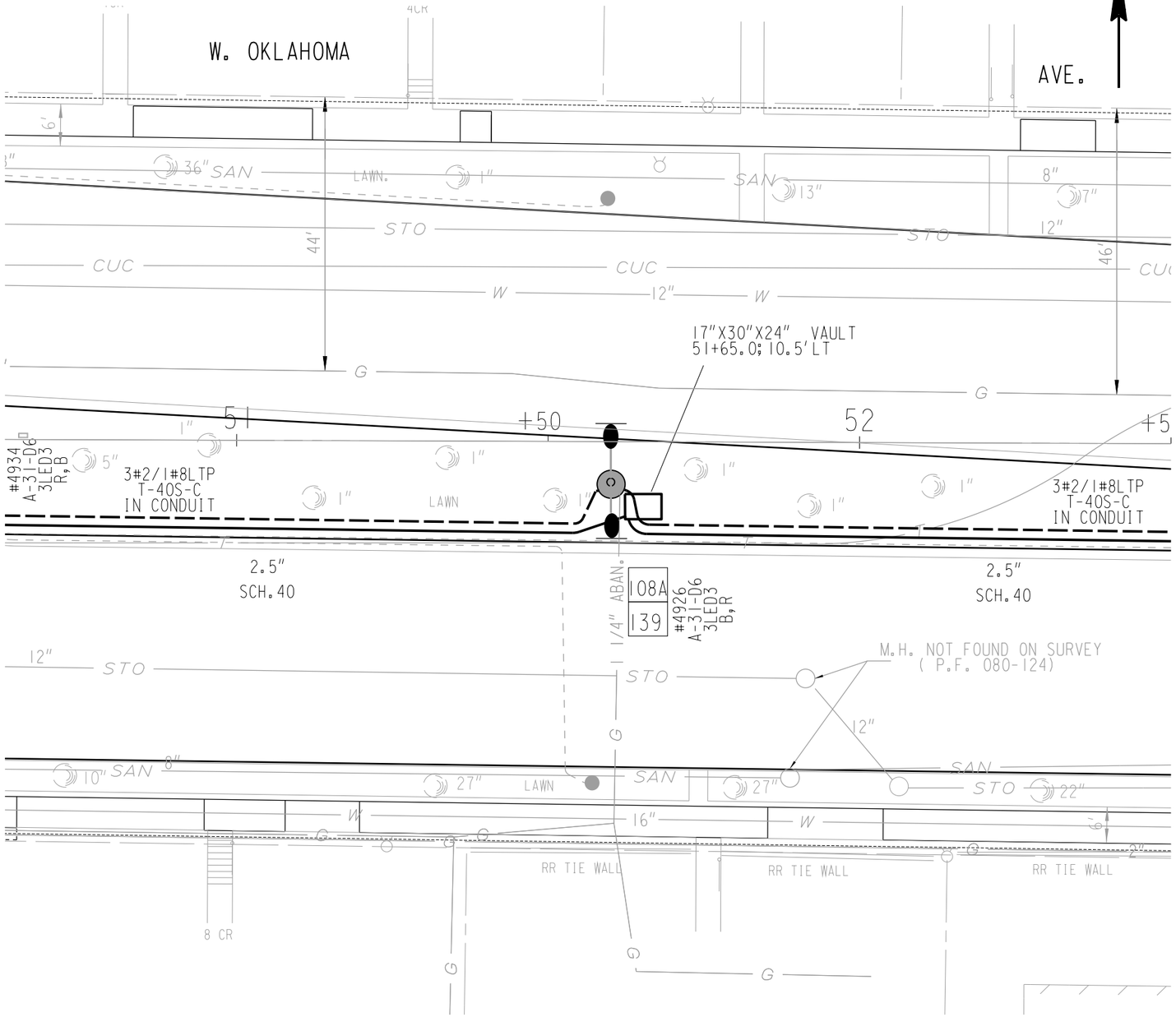
- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP 2-6 FT. ARMS AT 1540 W. CANAL ST.

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- VAULT TO BE INSTALLED

PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 119	E

2



LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- VAULT TO BE INSTALLED
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

PROJECT NO: 2400–00–72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 120	E

2

W. OKLAHOMA AVE.

LEGEND

- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED1 FIXTURE (NEW)
- EXISTING STREET LIGHT POLE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- POLE INSTALLED BY CITY OF MILWAUKEE WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED3 FIXTURE (NEW) AND 2-2#12 UF RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.

B:CONNECT TO BLACK CABLE
R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED

EXISTING 3#6/1#8LTP T-40S-C IN CONDUIT

#3078 A-21-6 1LED2 R,PED 108

3#4/1#8LTP T-40S-C

2.5" SCH.40

2.5" CAP END 10' N.O.CB

2.5" SCH.80 DETAIL I 102

2.5" CAP ENDS

2.5" SCH.40

13"X24"X24" VAULT 53+75.0; 23.0' LT

2.5" CAP END

1 1/4" ABAN.

108 #4904 A-31-D6 3LED3 R,B PED

DETAIL I 102

108A 139 #4904 A-31-D6 3LED3 R,B

3#2/1#8LTP T-40S-C IN CONDUIT

17"X30"X24" VAULT 53+75.0; 15.0' RT

17"X30"X24" VAULT 52+71.0; 11.0' RT

3#4/1#8LTP T-40S-C IN CONDUIT

13"X24"X24" VAULT 52+77.0; 55.0' RT

108A 139 #4834 A-31-D6 3LED3 B,R

2.5" SCH.40

2.5" CAP END

2.5" SCH.80

2.5" CAP ENDS

RR TIE WALL

S. 49

13"X24"X24" VAULT 53+75.0; 79.2' RT

2.5" SPECIAL SCH.40

CONTINUED TO RIGHT

CONTINUED TO LEFT

13"X24"X24" VAULT 53+75.0; 79.2' RT

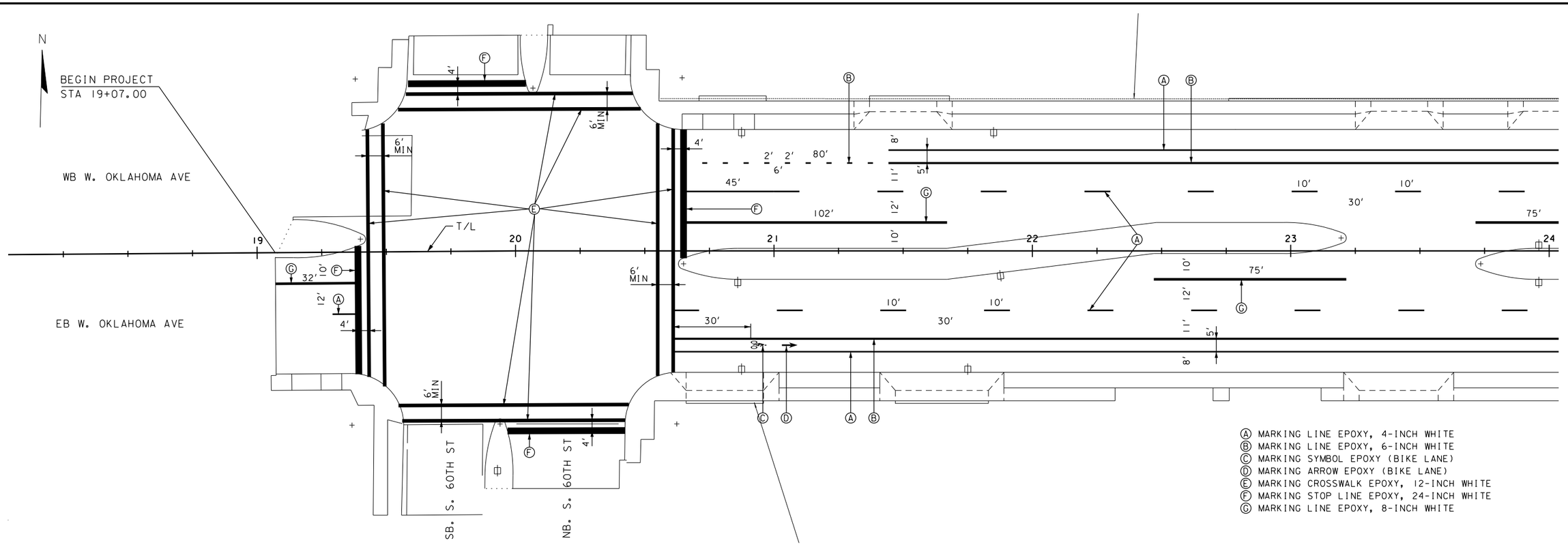
2.5" SPECIAL SCH.40

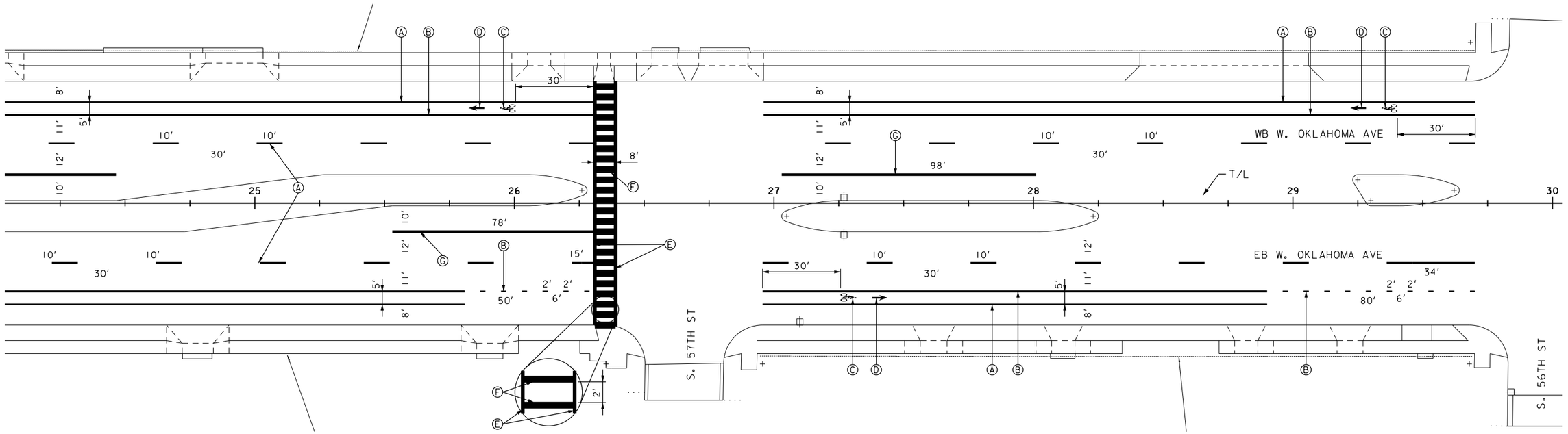
108 #3117 A-21-6 1LED2 B,PED

2#8LTP T-40S-C

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

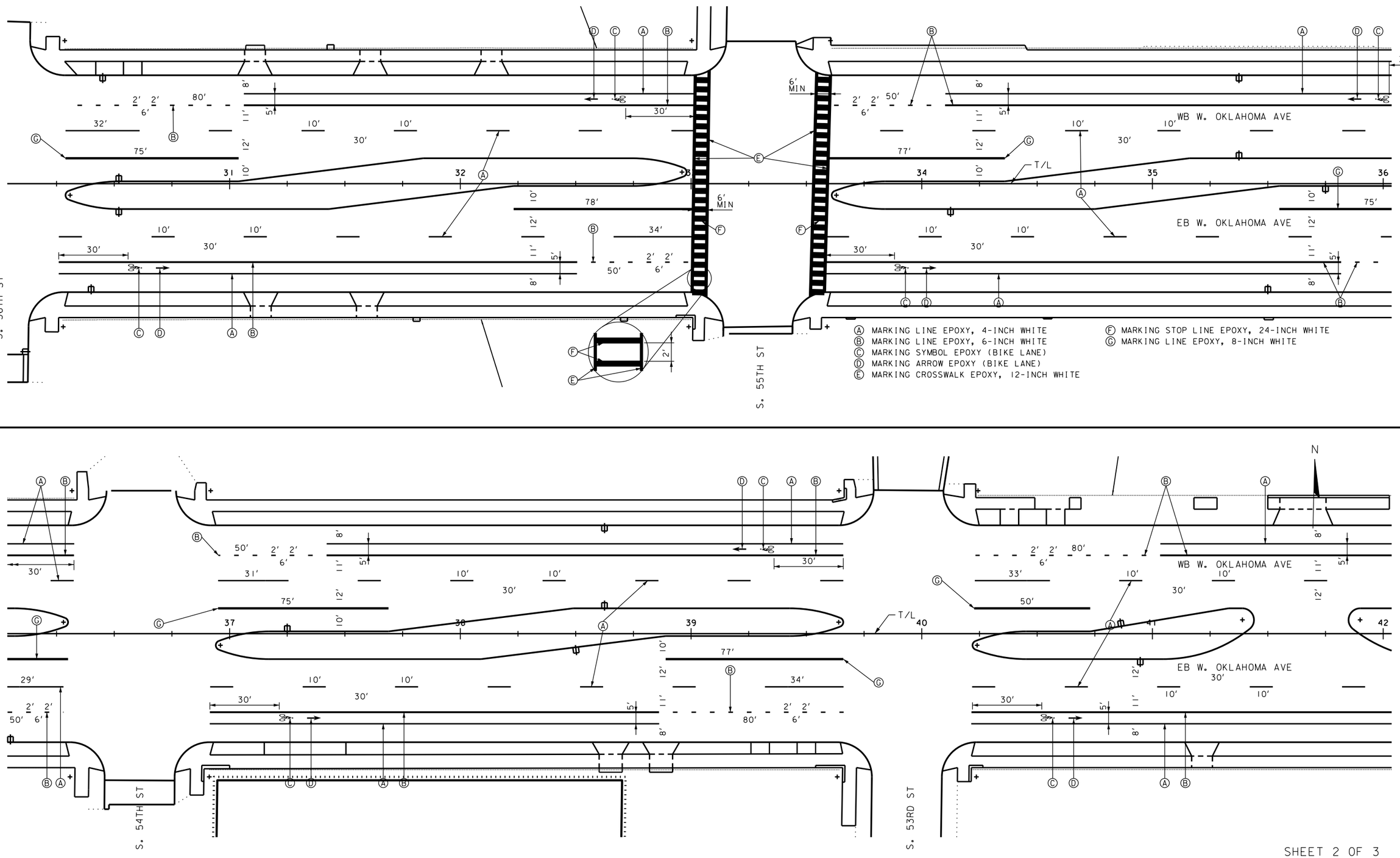
PROJECT NO: 2400-00-72	HWY:LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 121	E





SHEET 1 OF 3

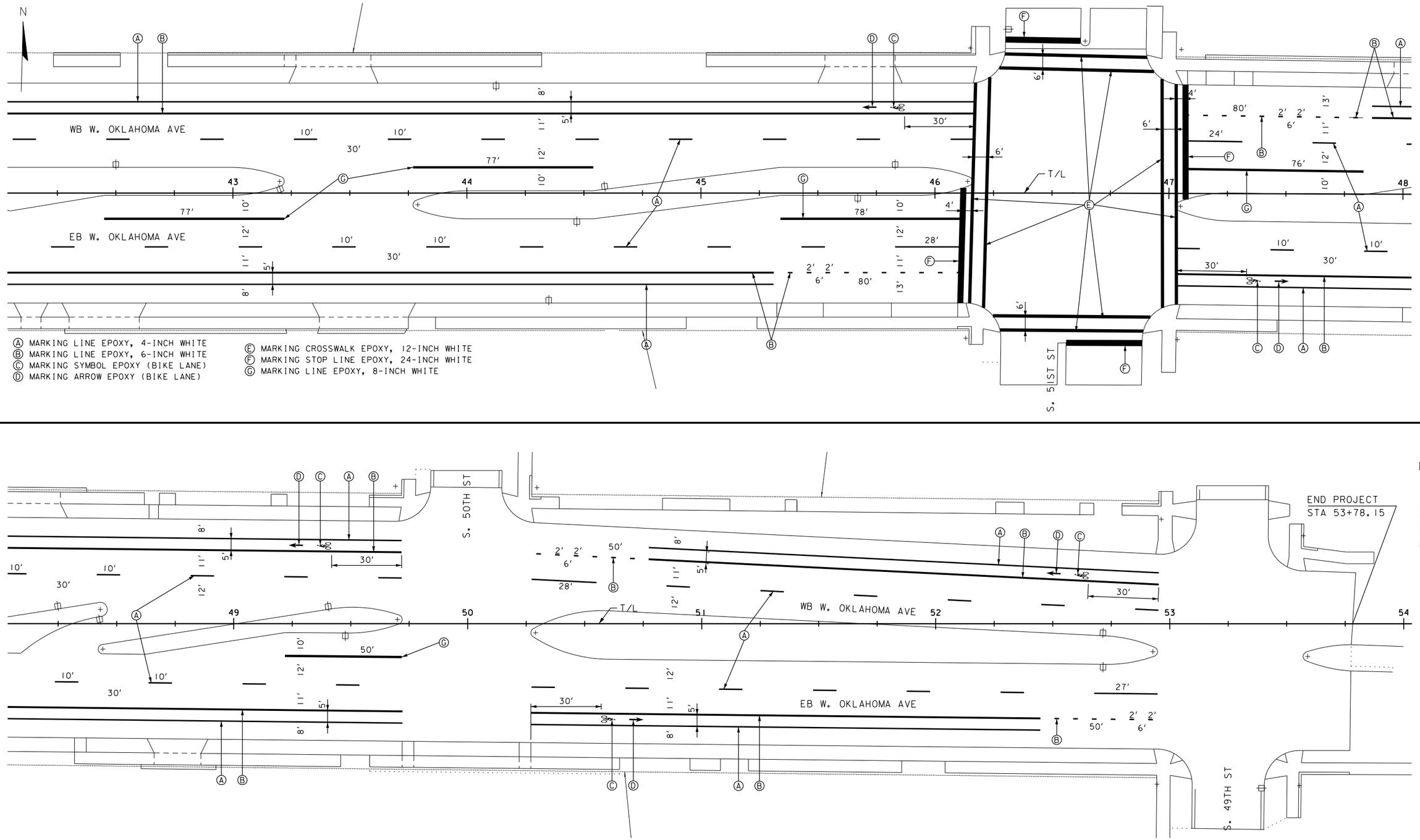
STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 122	E



STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 123	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\024502_PM.DGN
PLOT DATE :8/17/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42

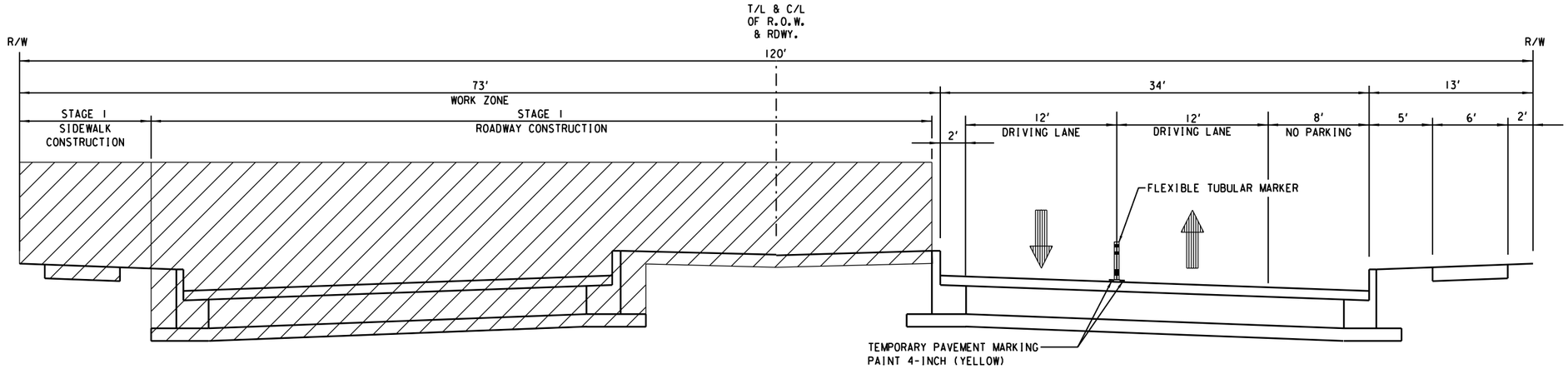
2



Ⓐ MARKING LINE EPOXY, 4-INCH WHITE
Ⓑ MARKING LINE EPOXY, 6-INCH WHITE
Ⓒ MARKING SYMBOL EPOXY (BIKE LANE)
Ⓓ MARKING ARROW EPOXY (BIKE LANE)
Ⓔ MARKING CROSSWALK EPOXY, 12-INCH WHITE
Ⓕ MARKING STOP LINE EPOXY, 24-INCH WHITE
Ⓖ MARKING LINE EPOXY, 8-INCH WHITE

SHEET 3 OF 3

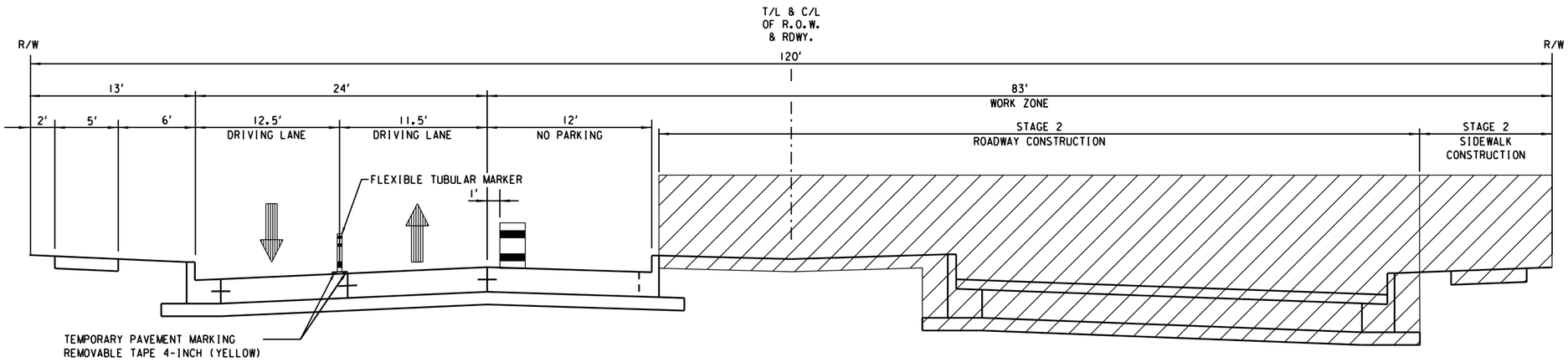
STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 124	E



STAGE I TYPICAL SECTION

WEST OKLAHOMA AVENUE

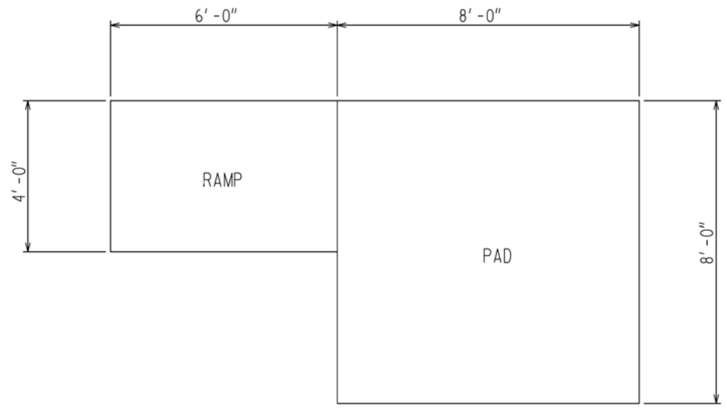
STA. 19 + 59.5 TO STA. 53 + 57.5



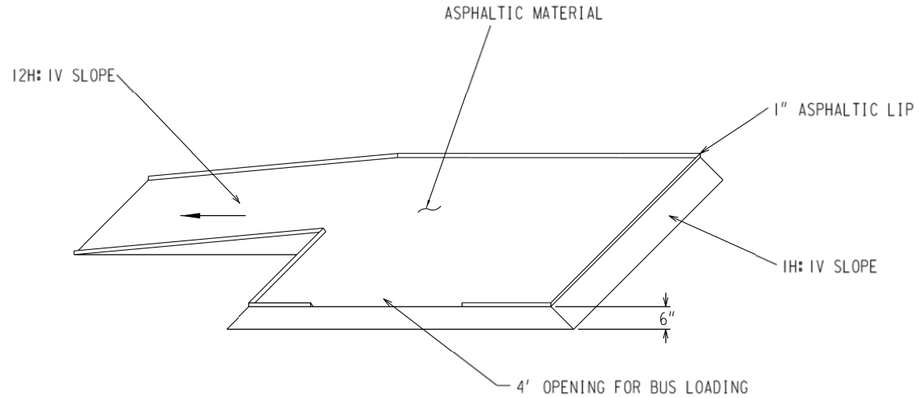
STAGE 2 TYPICAL SECTION

WEST OKLAHOMA AVENUE

STA. 19 + 59.5 TO STA. 53 + 57.5



NOTE:
RAMP MAY BE LONGER
IF ROADWAY SLOPE REQUIRES



NOTE:
RAMP SHALL BE PLACED TO FACE
TOWARDS PEDESTRIAN CROSSING

TEMPORARY BUS LOADING ZONE

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: CONSTRUCTION DETAIL	SHEET 126	E



N

OVERVIEW

LEGEND

ACCESSIBLE CROSSING TO BE MAINTAINED THROUGHOUT CONSTRUCTION

B TEMPOARY BUS STOP DURING CONSTUCTION PERMANENT BUS STOP TO BE RESTORED TO ORIGINAL LOCATIONS

NOTES

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

2. 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

3. EXACT LOCATION OF ACCESSIBLE CROSSING WILL NEED TO BE ADJUSTED TO ACCOMODATE ROADWAY RECONSTRUCTION.

   A. CROSSING TO BE MARKED WITH REMOVABLE TAPE, 4"

   B. CROSSING TO BE SEPARATED FROM THE ACTIVE WORK ZONE AND CLEARLY DELINEATED WITH TRAFFIC CONES 42-INCH OR BARRICADES.

   C. DO NOT BLOCK THE LINE OF SITE BETWEEN VEHICULAR TRAFFIC AND ACCESSIBLE CROSSING WITH BARRICADES, SIGNS, CONES, CONSTRUCTION EQUIPMENT, ETC.

   D. WHEN EXISTING CURB RAMPS CANNOT BE USED, PROVIDE TEMPORARY CURB RAMPS ACCORDING TO STANDARD DETAIL DRAWING (SDD) TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION, AND ACCESS TO THE TEMPORARY CURB RAMPS USING TEMPORARY PEDESTRIAN SURFACE ACCORDING TO SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SUGGESTED CONSTRUCTION SEQUENCE

STAGE 1:
- DIVERT TRAFFIC TO EASTBOUND LANES
- S 60TH ST AND S 51ST ST FULLY OPEN
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS REMAIN OPEN
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY FROM BACK OF CURB THROUGH MEDIAN
- SIDEWALK CONSTRUCTION:
  - CLOSE NORTH SIDEWALK
  - DIVERT PEDESTRIAN TRAFFIC ONTO NEWLY CONSTRUCTED OUTSIDE LANE (SEE DETAIL)
  - RECONSTRUCT SIDEWALK

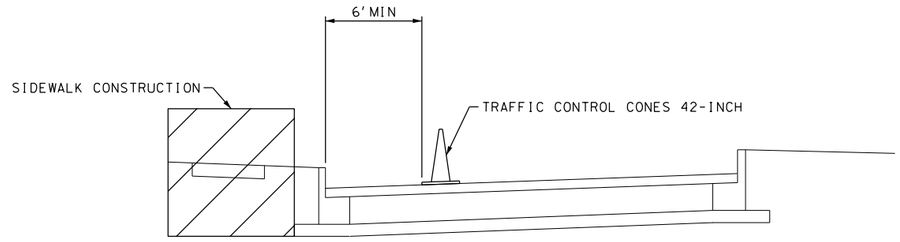
STAGE 1A:
- TRAFFIC REMAINS IN EASTBOUND LANES
- S 60TH ST AND S 51ST ST TRAFFIC DIVERTED TO INSIDE
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS OPEN TO PEDESTRIANS
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY TO BACK OF CURB
- SIDEWALK CONSTRUCTION:
  - DIVERT PEDESTRIAN TRAFFIC ONTO NEWLY CONSTRUCTED OUTSIDE LANE (SEE DETAIL)
  - RECONSTRUCT SIDEWALK

STAGE 1B:
- TRAFFIC REMAINS IN EASTBOUND LANES
- S 60TH ST AND S 51ST ST TRAFFIC DIVERTED TO OUTSIDE
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS OPEN TO PEDESTRIANS
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY TO BACK OF CURB

STAGE 2:
- DIVERT TRAFFIC TO WESTBOUND LANES
- S 60TH ST AND S 51ST ST FULLY OPEN
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS REMAIN OPEN
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY FROM BACK OF CURB TO MEDIAN
- SIDEWALK CONSTRUCTION:
  - CLOSE SOUTH SIDEWALK
  - DIVERT PEDESTRIAN TRAFFIC ONTO NEWLY CONSTRUCTED OUTSIDE LANE (SEE DETAIL)
  - RECONSTRUCT SIDEWALK

STAGE 2A:
- TRAFFIC REMAINS IN WESTBOUND LANES
- S 60TH ST AND S 51ST ST TRAFFIC DIVERTED TO INSIDE
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS OPEN TO PEDESTRIANS
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY TO BACK OF CURB
- SIDEWALK CONSTRUCTION:
  - DIVERT PEDESTRIAN TRAFFIC ONTO NEWLY CONSTRUCTED OUTSIDE LANE (SEE DETAIL)
  - RECONSTRUCT SIDEWALK

STAGE 2B:
- TRAFFIC REMAINS IN WESTBOUND LANES
- S 60TH ST AND S 51ST ST TRAFFIC DIVERTED TO OUTSIDE
- ROADWAY CONSTRUCTION:
  - BOTH SIDEWALKS OPEN TO PEDESTRIANS
  - CROSSING MAINTAINED THROUGH WORK ZONE
  - RECONSTRUCT ROADWAY TO BACK OF CURB



NOTES

VEHICULAR TRAFFIC ON OPPOSITE SIDE OF MEDAIN

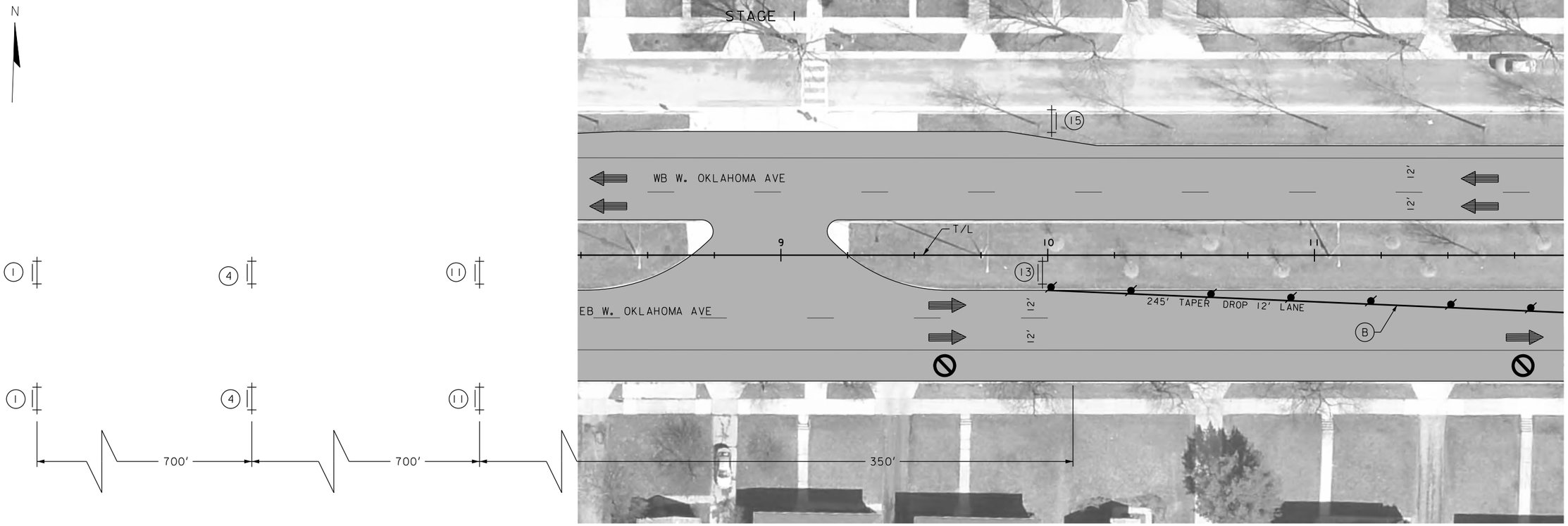
AT EACH INTERSECTION, RECONSTRUCT ONLY ONE CURB RAMP AT A TIME TO PROVIDE ACCESS ACROSS CONSTRUCTION TO SIDEWALK ALONG SIDE ROADS

TEMPORARY CURB RAMPS TO BE PROVIDED AS DIRECTED BY THE ENGINEER

PEDESTRIAN TRAFFIC ON OUTSIDE LANE

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: OVERVIEW AND PEDESTRIAN ACCOMODATION	SHEET 127	E

2



ROAD WORK AHEAD W20-1 36"X36" (1)

ROAD CLOSED R11-2 48"X30" (2)

DO NOT ENTER R5-1 36"X36" (3)

LEFT LANE CLOSED AHEAD W20-55-A 36"X36" (4)

RIGHT LANE CLOSED AHEAD W20-5-A 36"X36" (5)

W01-4R 36"X36" (8)

W01-4L 36"X36" (9)

W04-2-R 36"X36" (10)

W04-2-L 36"X36" (11)

W06-3 36"X36" (12)

W01-6-R 24"X48" (13)

W01-6-L 24"X48" (14)

END ROAD WORK G20-2A 36"X18" (15)

W01-7 24"X12" (17)

SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12" (18)

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (20)

R3-2 24"X24" (22)

15 M.P.H. W013-1 24"X24" (23)

SIDEWALK CLOSED R9-9 30"X18" (24)

NO TURNS R3-3 24"X24" (30)

TRUCKS SPECIAL 24"X6" (31)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (27)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (28)

R3-2 24"X24" (29)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

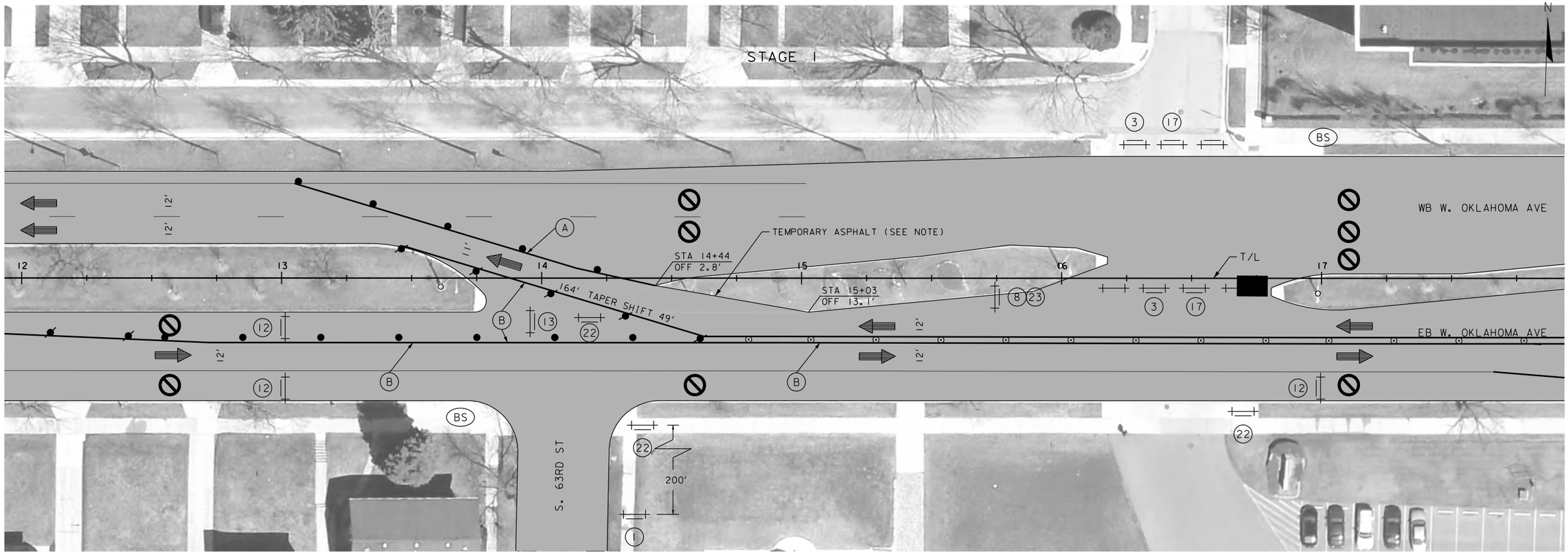
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1	SHEET 128	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025010_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42





W20-1 36"X36" (1)



R11-2 48"X30" (2)



R5-1 36"X36" (3)



W20-55-A 36"X36" (4)



W20-5-A 36"X36" (5)


W01-4R 36"X36" (8)

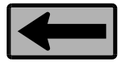

W01-4L 36"X36" (9)


W04-2-R 36"X36" (10)


W04-2-L 36"X36" (11)

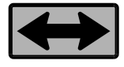

W06-3 36"X36" (12)


W01-6-R 24"X48" (13)


W01-6-L 24"X48" (14)



G20-2A 36"X18" (15)


W01-7 24"X12" (17)



R9-10 24"X12" (18)



R11-4 60"X30" (20)


R3-2 24"X24" (22)



W01-3-1 24"X24" (23)



R9-9 30"X18" (24)



R9-11A 24"X12" (27)



R9-11A 24"X12" (28)


R3-2 24"X24" (29)



R3-3 24"X24" (30)



SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1	SHEET 129	E

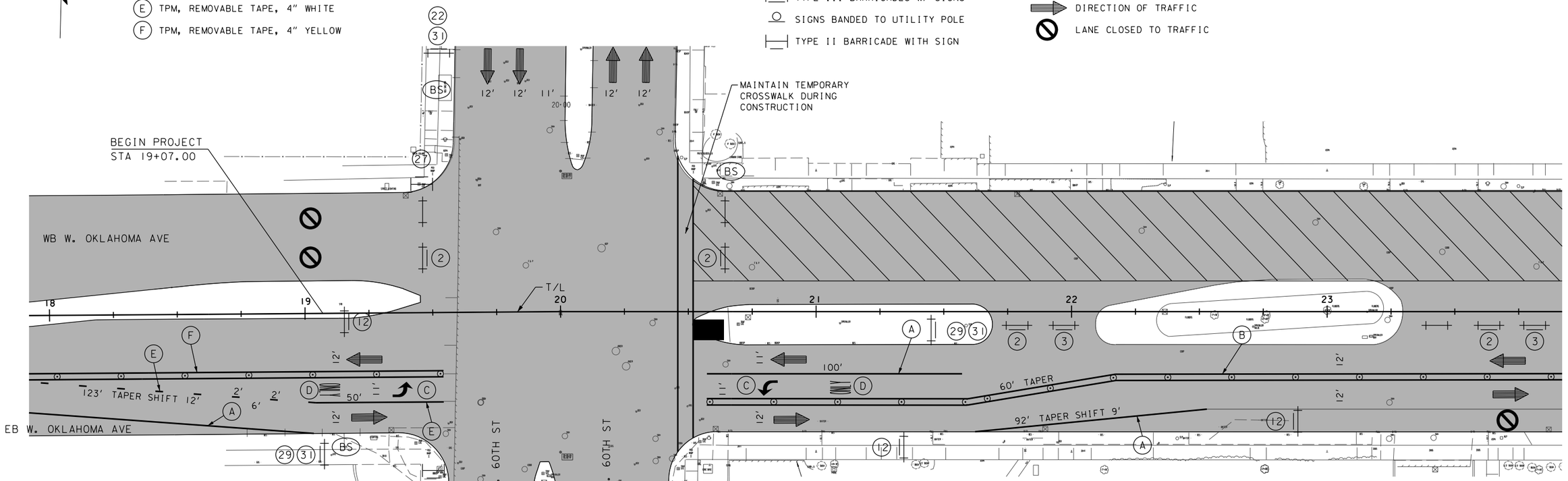
FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025011_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

(A) TPM, PAINT, 4" WHITE
(B) TPM, PAINT, 4" YELLOW
(C) TPM, ARROW REMOVABLE TAPE
(D) TPM, WORDS REMOVABLE TAPE
(E) TPM, REMOVABLE TAPE, 4" WHITE
(F) TPM, REMOVABLE TAPE, 4" YELLOW

STAGE 1

TUBULAR MARKERS 25' SPACING
DRUMS, 30' SPACING
DRUMS W/ LIGHTS, 30' SPACING
TYPE III BARRICADES
TYPE III BARRICADES W/ SIGNS
SIGNS BANDED TO UTILITY POLE
TYPE II BARRICADE WITH SIGN

WORK AREA
WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
(BS) BUS STOP
DIRECTION OF TRAFFIC
LANE CLOSED TO TRAFFIC



ROAD WORK AHEAD	W20-1 36"X36" (1)		W06-3 48"X30" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W1-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W1-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

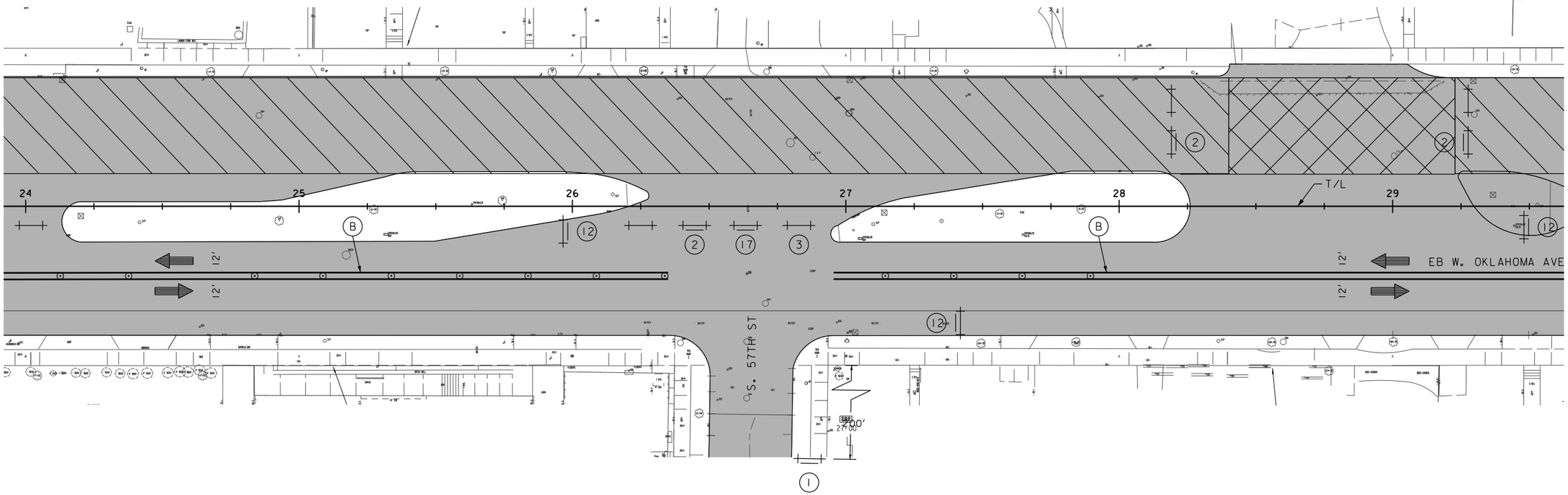
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1	SHEET 130	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025012_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

STAGE I

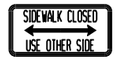




W20-1
36"X36" (1)


W01-4R
36"X36" (8)


W01-6-R
24"X48" (13)



R9-10
24"X12" (18)



R9-11A
24"X12" (27)



R11-2
48"X30" (2)


W01-4L
36"X36" (9)


W01-6-L
24"X48" (14)



R11-4
60"X30" (20)



R9-11A
24"X12" (28)



R5-1
36"X36" (3)


W04-2-R
36"X36" (10)



G20-2A
36"X18" (15)


R3-2
24"X24" (22)


R3-2
24"X24" (29)



W20-55-A
36"X36" (4)


W04-2-L
36"X36" (11)


W01-7
24"X12" (17)



W013-1
24"X24" (23)



R3-3
24"X24" (30)



W20-5-A
36"X36" (5)


W06-3
36"X36" (12)



R9-9
30"X18" (24)



SPECIAL
24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

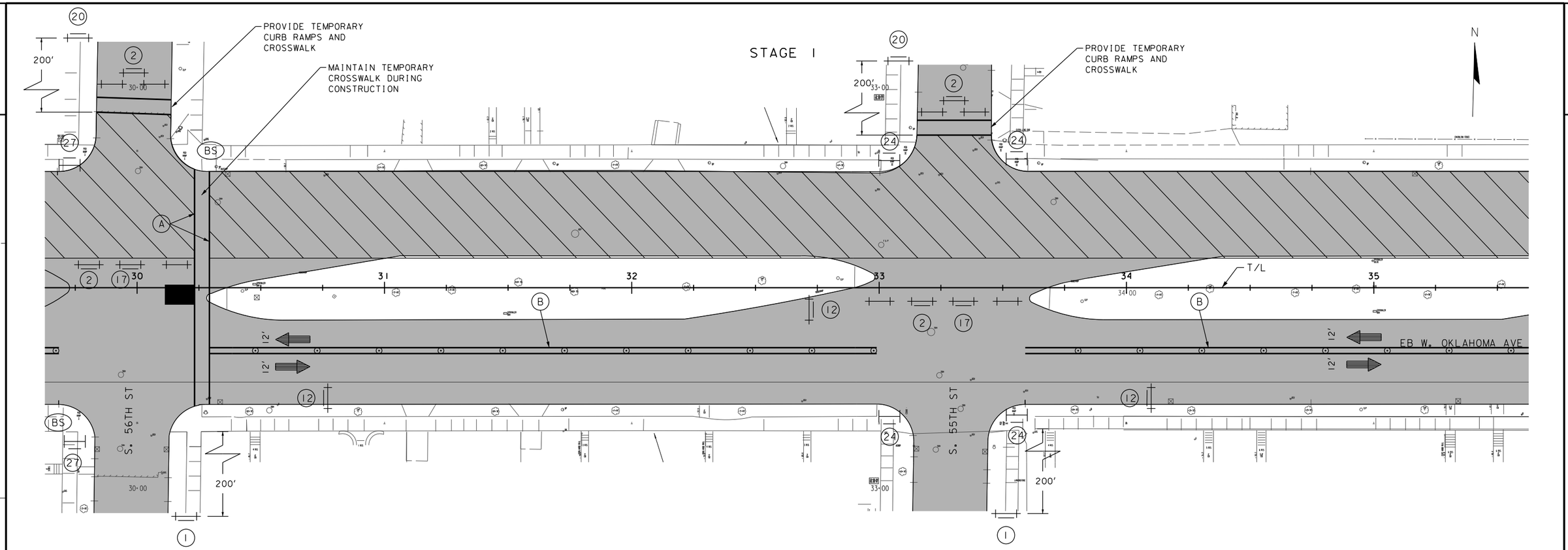
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

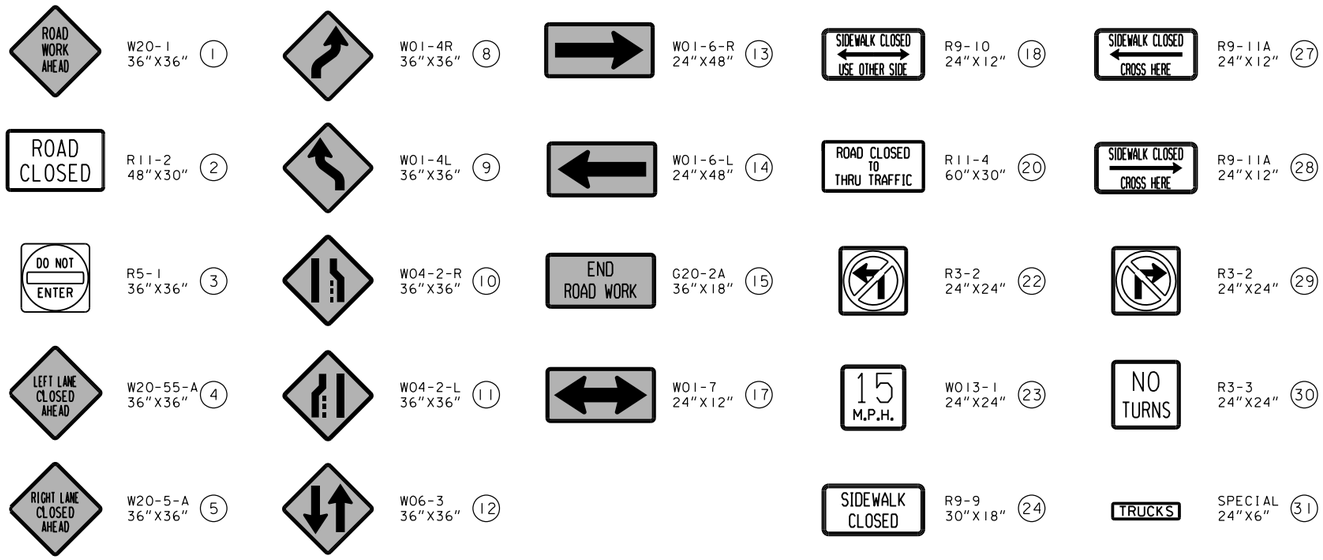
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 131	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025013_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42





- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

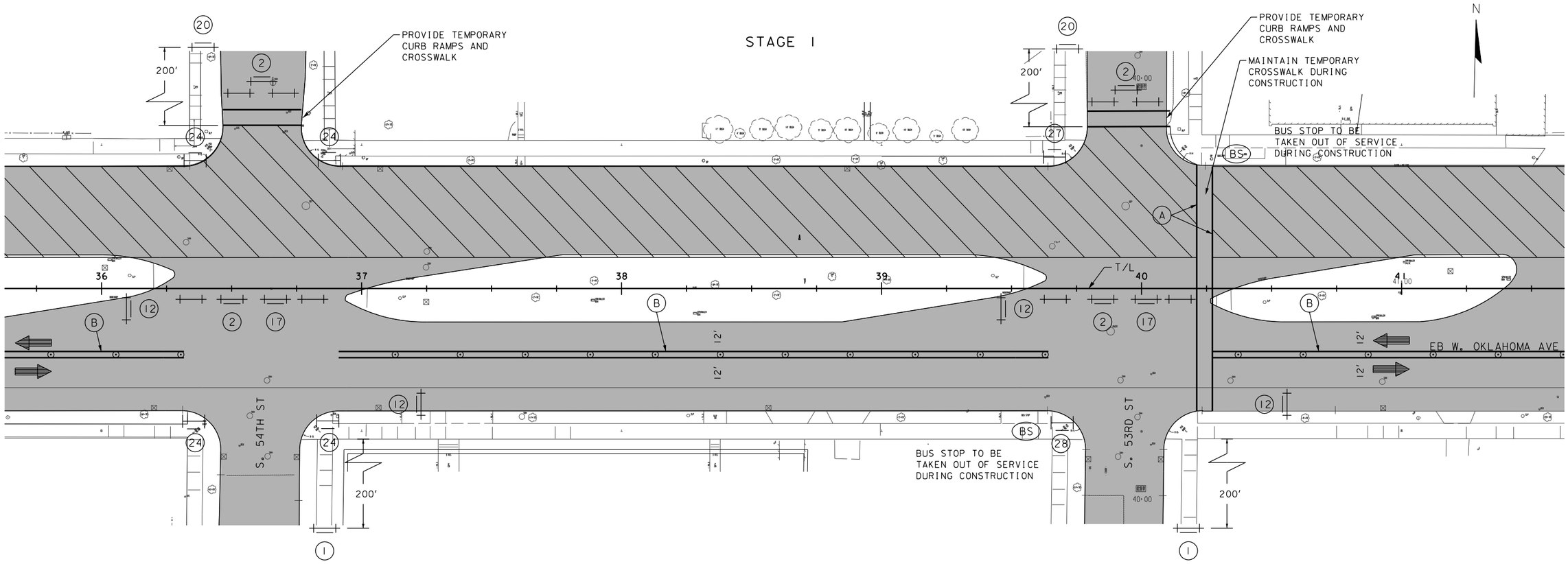
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

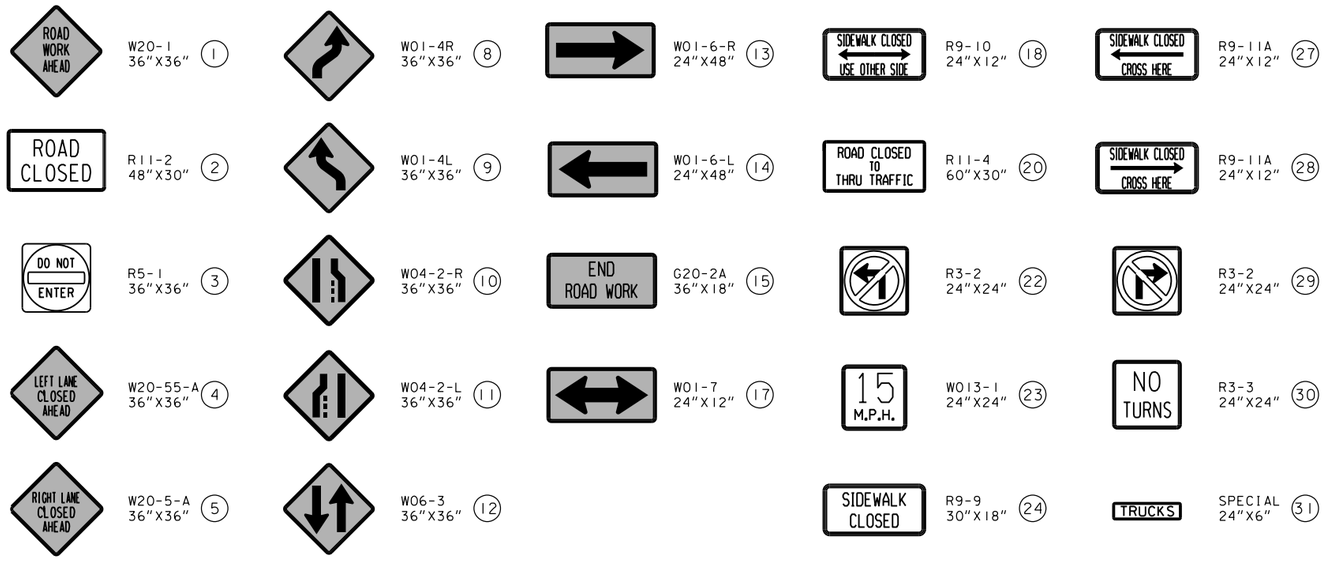
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 132	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025014_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42





- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

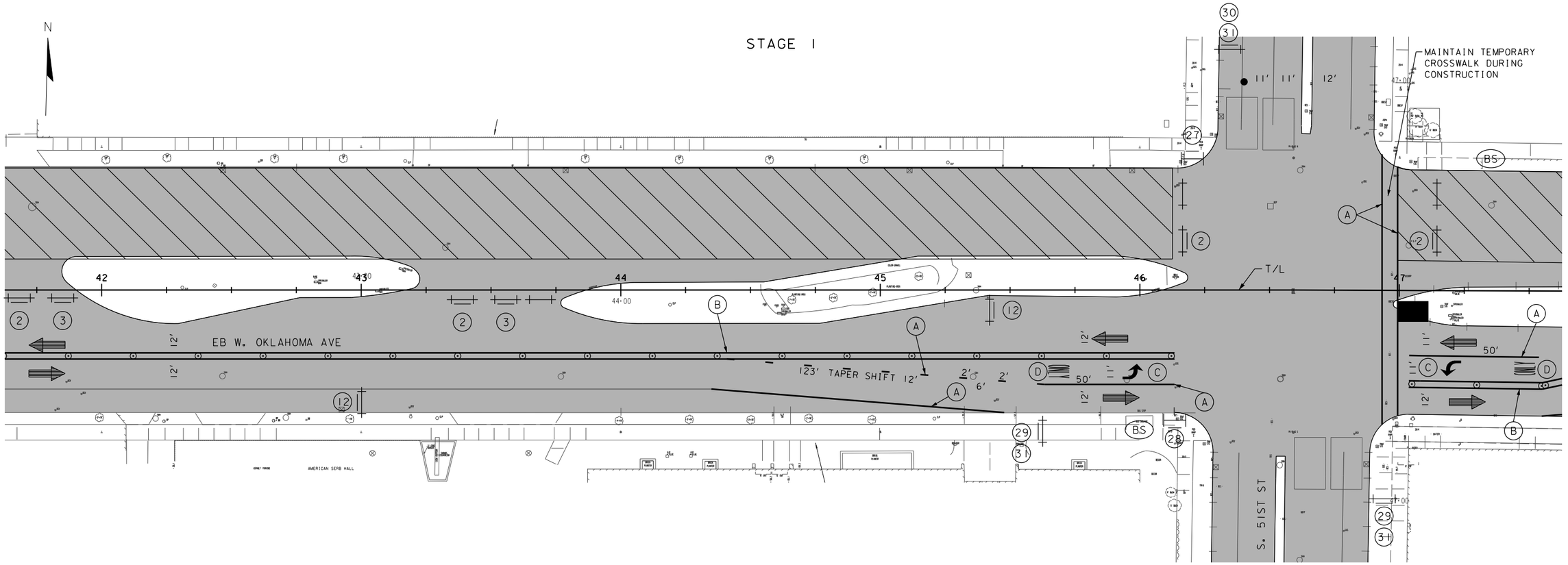
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 6 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 133	E





W20-1 36"X36" (1)



R11-2 48"X30" (2)



R5-1 36"X36" (3)



W20-55-A 36"X36" (4)



W20-5-A 36"X36" (5)


W01-4R 36"X36" (8)


W01-4L 36"X36" (9)


W04-2-R 36"X36" (10)


W04-2-L 36"X36" (11)

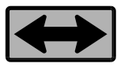

W06-3 36"X36" (12)


W01-6-R 24"X48" (13)


W01-6-L 24"X48" (14)



G20-2A 36"X18" (15)


W01-7 24"X12" (17)



R9-10 24"X12" (18)



R11-4 60"X30" (20)


R3-2 24"X24" (22)



W013-1 24"X24" (23)



R9-9 30"X18" (24)



R9-11A 24"X12" (27)



R9-11A 24"X12" (28)


R3-2 24"X24" (29)



R3-3 24"X24" (30)



SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

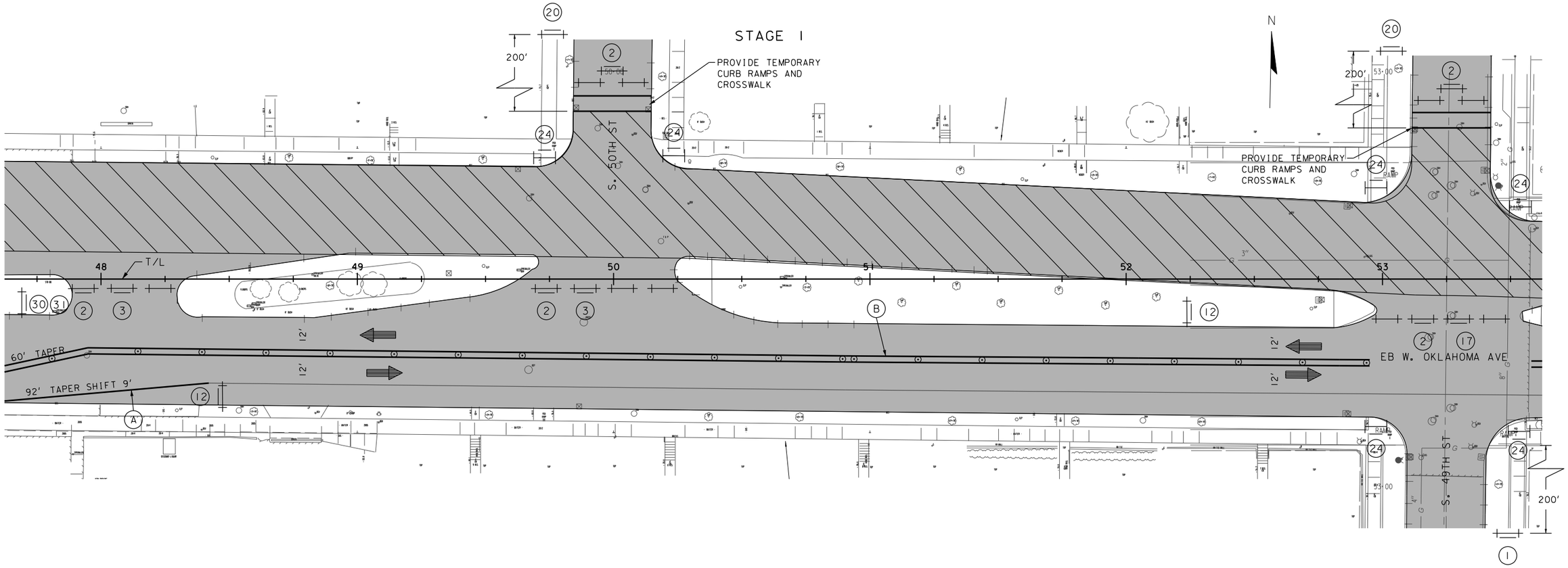
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

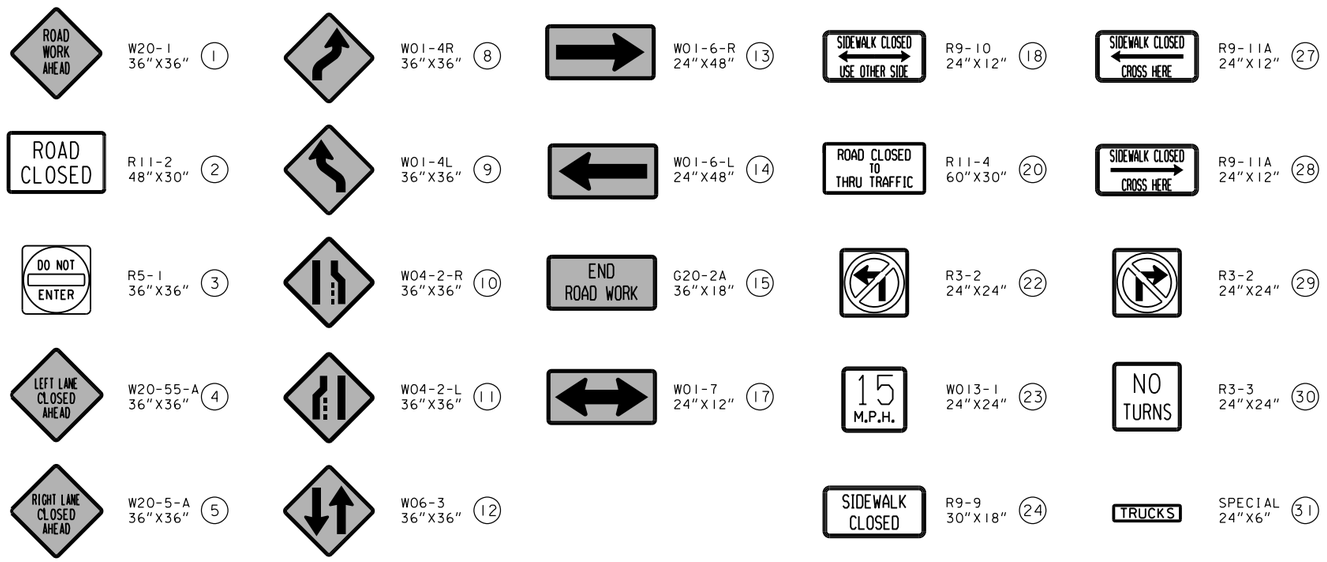
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 134	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025016_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42





- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

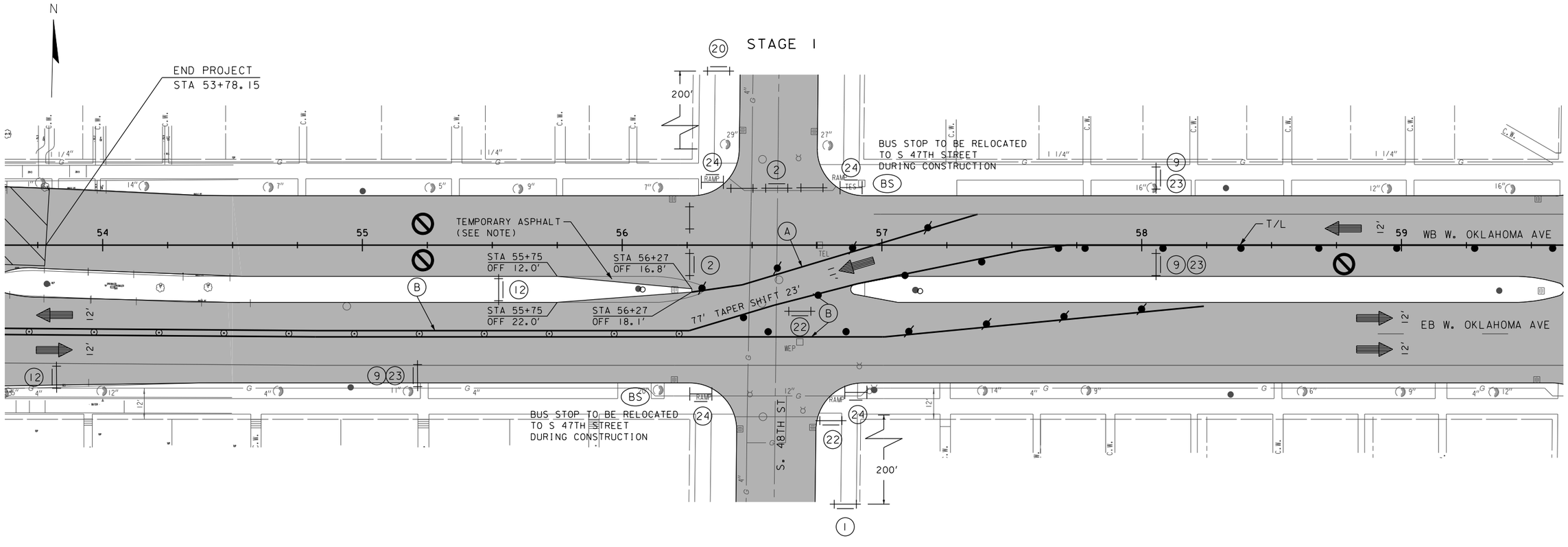
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

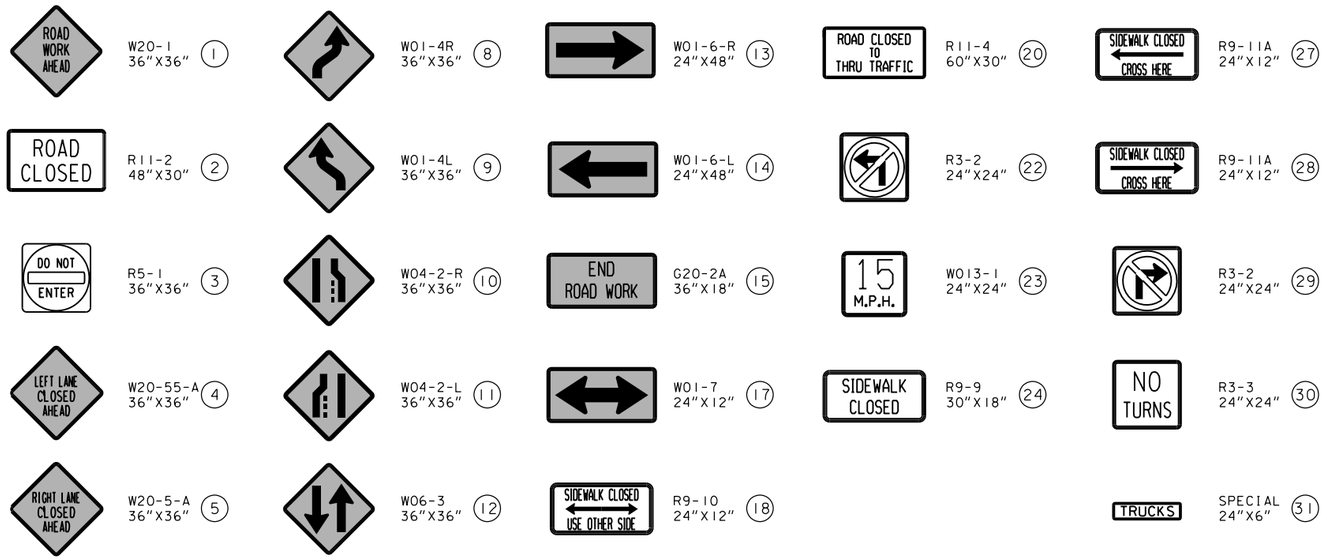
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 135	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025017_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42





- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

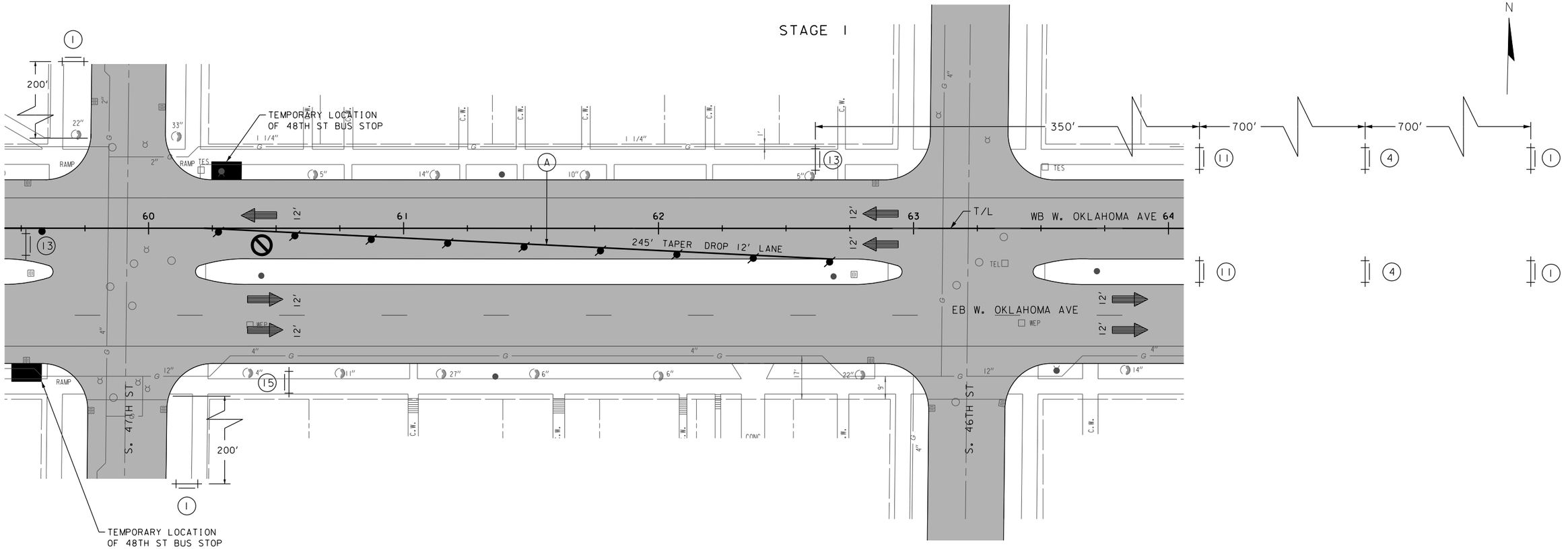
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 9 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 136	E

STAGE I



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

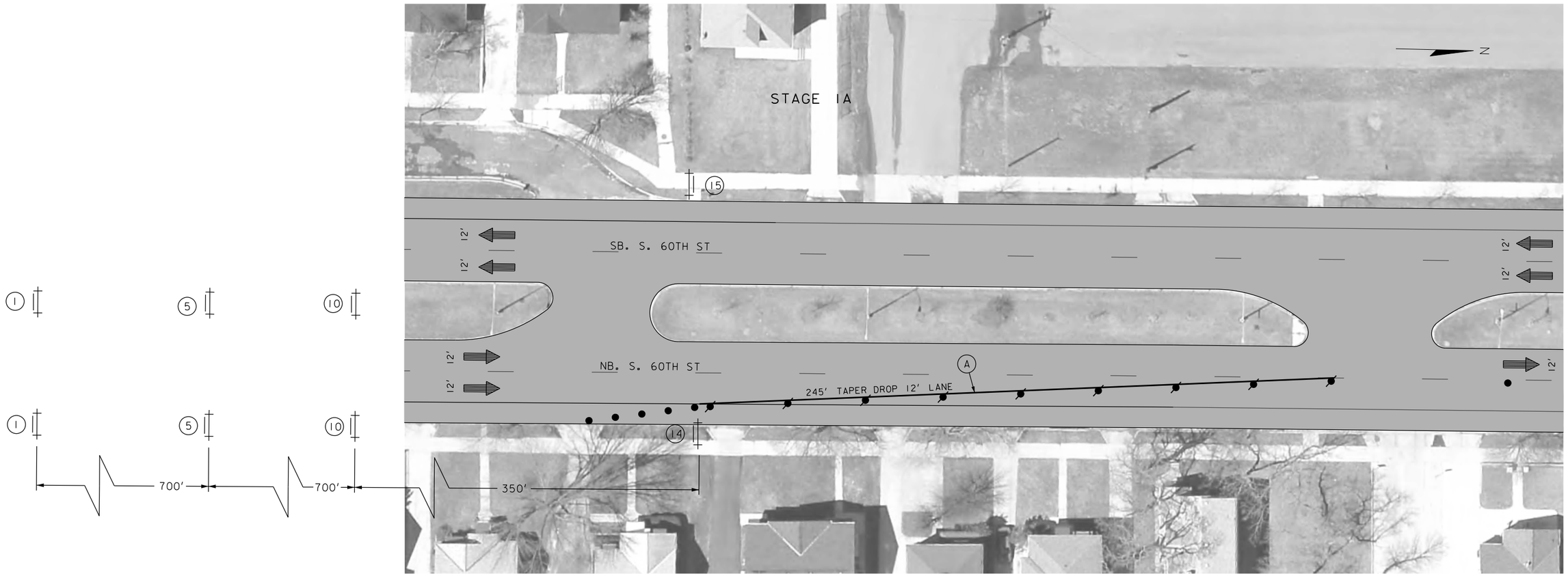
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE I	SHEET 137	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025019_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W01-3-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

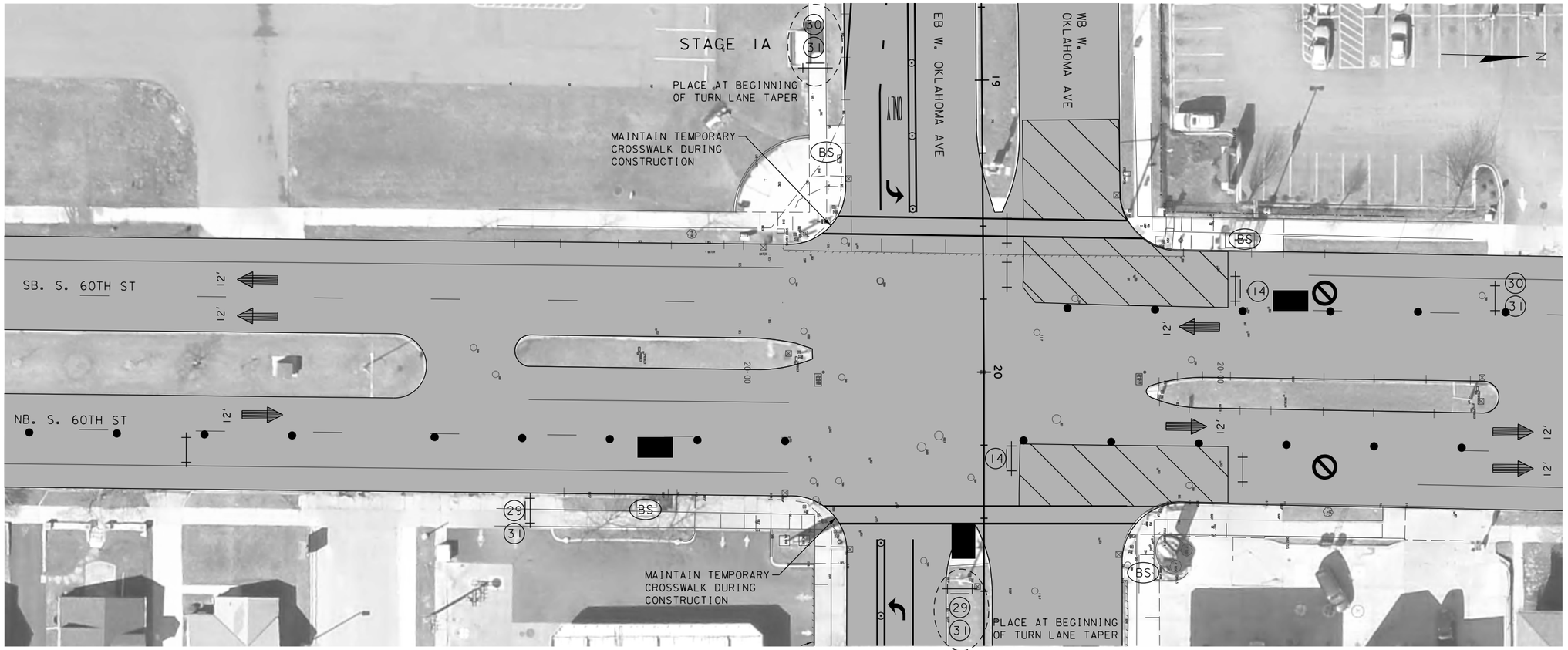
COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 11 OF 20



ROAD WORK AHEAD W20-1 36"X36" (1)
ROAD CLOSED R11-2 48"X30" (2)
DO NOT ENTER R5-1 36"X36" (3)
LEFT LANE CLOSED AHEAD W20-55-A 36"X36" (4)
RIGHT LANE CLOSED AHEAD W20-5-A 36"X36" (5)
W01-4R 36"X36" (8)
W01-4L 36"X36" (9)
W04-2-R 36"X36" (10)
W04-2-L 36"X36" (11)
W06-3 36"X36" (12)
W01-6-R 24"X48" (13)
W01-6-L 24"X48" (14)
END ROAD WORK G20-2A 36"X18" (15)
W01-7 24"X12" (17)
SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12" (18)
ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (20)
R3-2 24"X24" (22)
15 M.P.H. W013-1 24"X24" (23)
SIDEWALK CLOSED R9-9 30"X18" (24)
SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (27)
SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (28)
R3-2 24"X24" (29)
NO TURNS R3-3 24"X24" (30)
TRUCKS SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

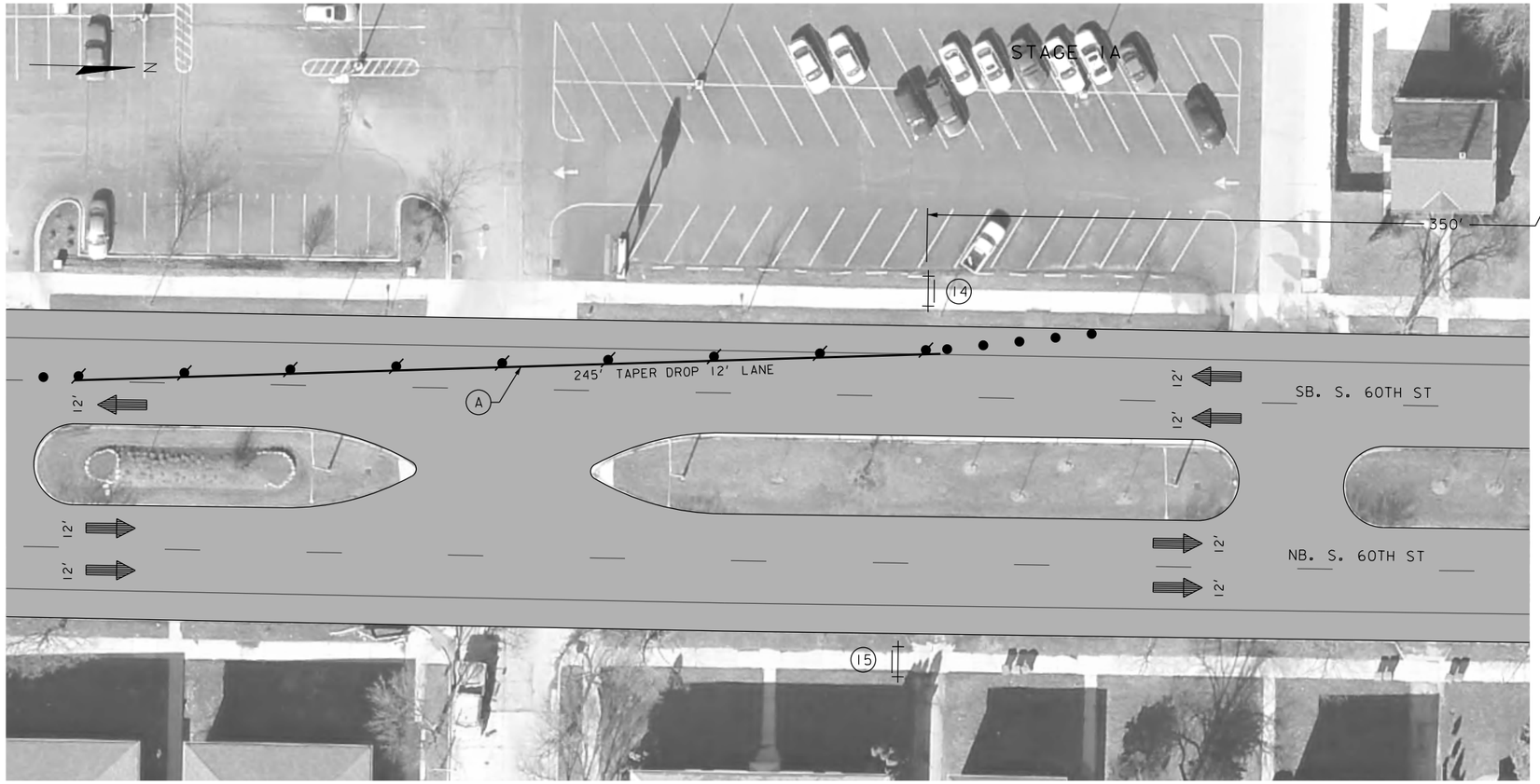
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

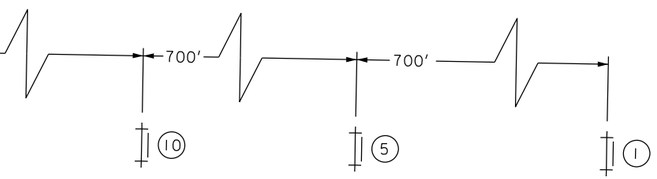
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE I FOR OTHER REQUIRED SIGNS.

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE IA	SHEET 139	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025031_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42







W20-1 36"X36" (1)


W01-4R 36"X36" (8)


W01-6-R 24"X48" (13)



R11-4 60"X30" (20)

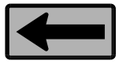


R9-11A 24"X12" (27)



R11-2 48"X30" (2)


W01-4L 36"X36" (9)


W01-6-L 24"X48" (14)


R3-2 24"X24" (22)



R9-11A 24"X12" (28)



R5-1 36"X36" (3)


W04-2-R 36"X36" (10)



G20-2A 36"X18" (15)



W013-1 24"X24" (23)


R3-2 24"X24" (29)



W20-55-A 36"X36" (4)


W04-2-L 36"X36" (11)


W01-7 24"X12" (17)



R9-9 30"X18" (24)



R3-3 24"X24" (30)



W20-5-A 36"X36" (5)


W06-3 36"X36" (12)



R9-10 24"X12" (18)



SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

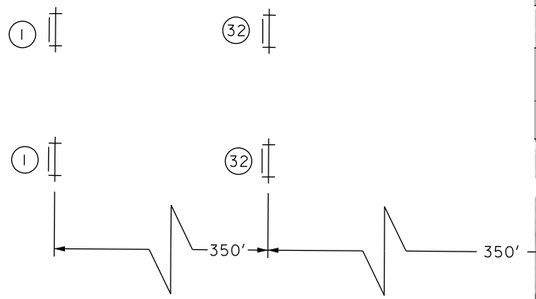
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

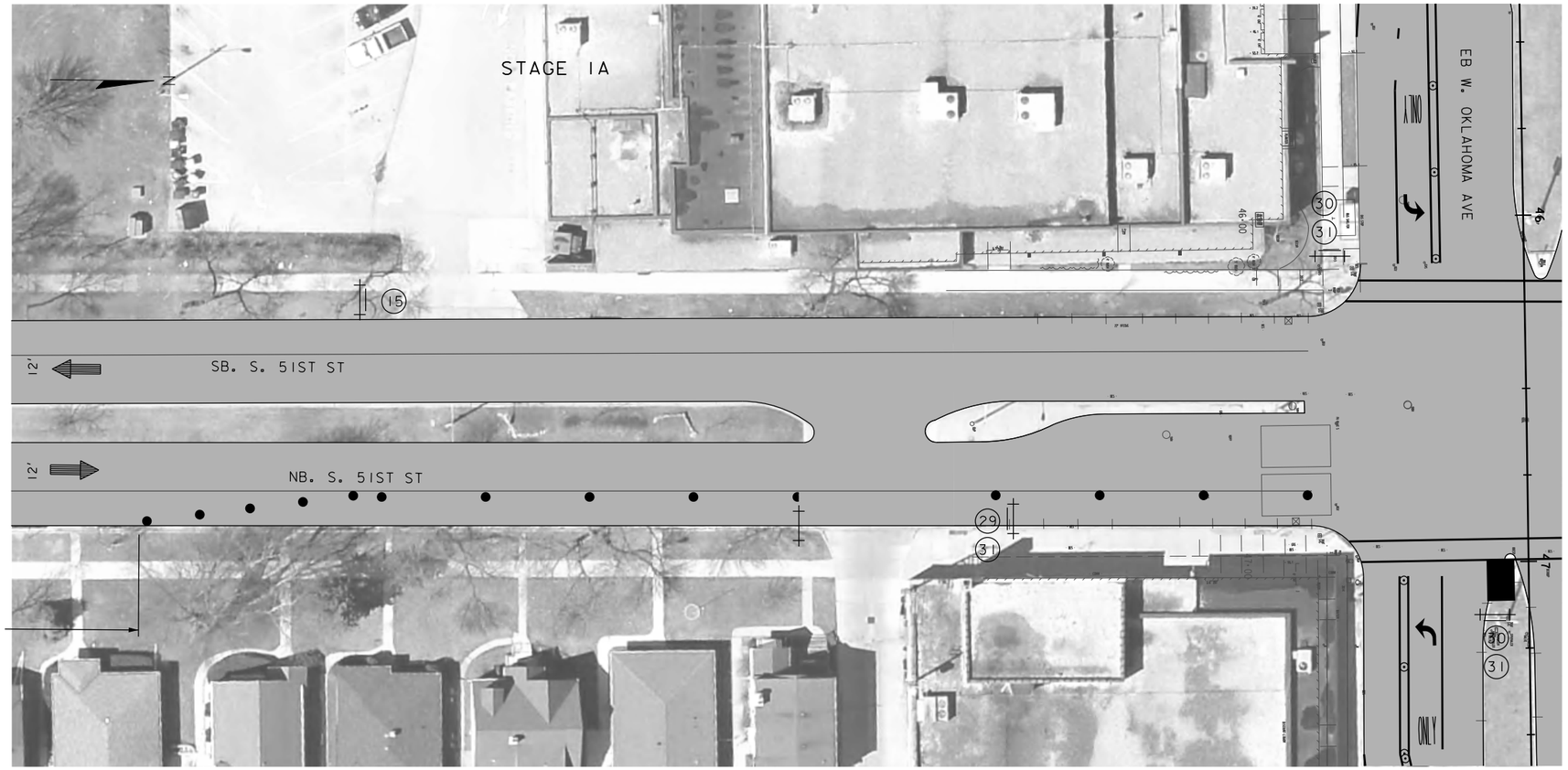
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1A	SHEET 140	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025032_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42





ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD NARROWS	W20-1A 36"X36" (32)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

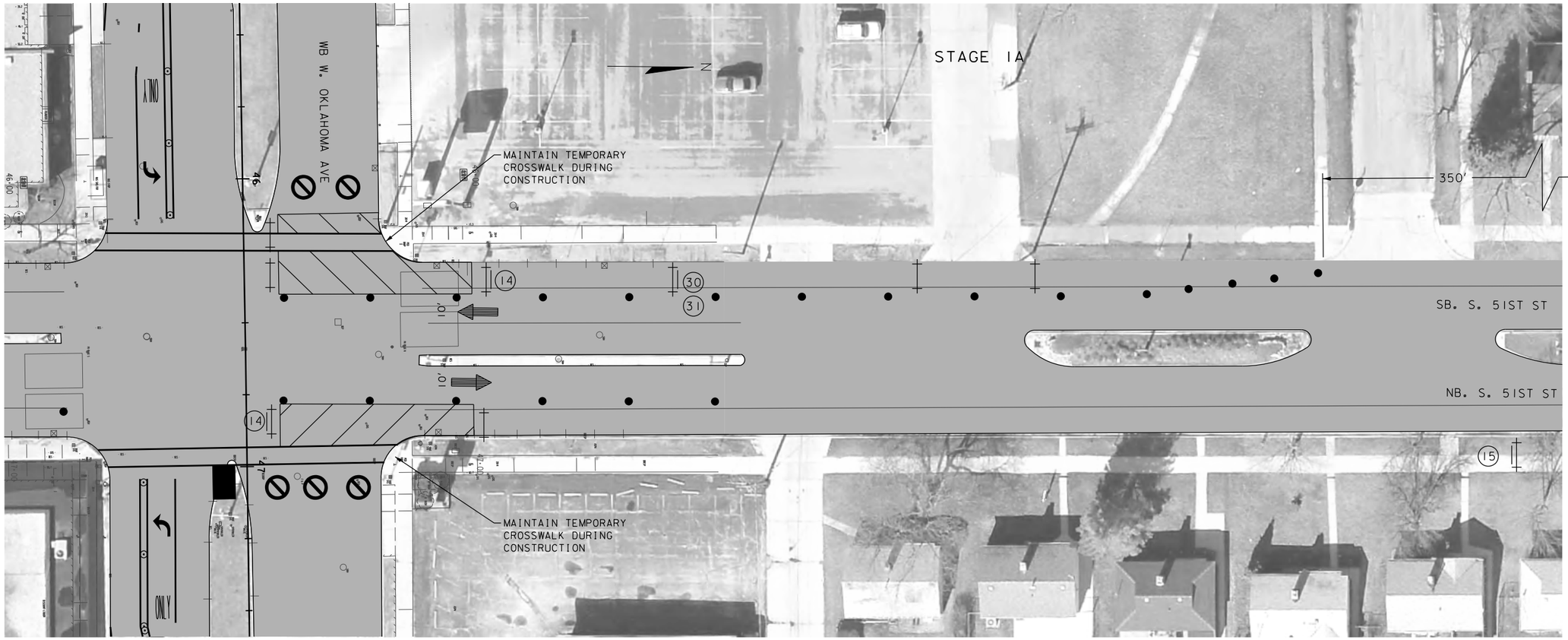
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE I FOR OTHER REQUIRED SIGNS.

SHEET 14 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE IA	SHEET 141	E



ROAD WORK AHEAD W20-1 36"X36" (1)

ROAD CLOSED R11-2 48"X30" (2)

DO NOT ENTER R5-1 36"X36" (3)

LEFT LANE CLOSED AHEAD W20-55-A 36"X36" (4)

RIGHT LANE CLOSED AHEAD W20-5-A 36"X36" (5)

W01-4R 36"X36" (8)

W01-4L 36"X36" (9)

W04-2-R 36"X36" (10)

W04-2-L 36"X36" (11)

W06-3 36"X36" (12)

W01-6-R 24"X48" (13)

W01-6-L 24"X48" (14)

END ROAD WORK G20-2A 36"X18" (15)

W01-7 24"X12" (17)

SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12" (18)

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (20)

R3-2 24"X24" (22)

15 M.P.H. W013-1 24"X24" (23)

SIDEWALK CLOSED R9-9 30"X18" (24)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (27)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (28)

R3-2 24"X24" (29)

NO TURNS R3-3 24"X24" (30)

TRUCKS SPECIAL 24"X6" (31)

ROAD NARROWS W20-1A 36"X36" (32)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

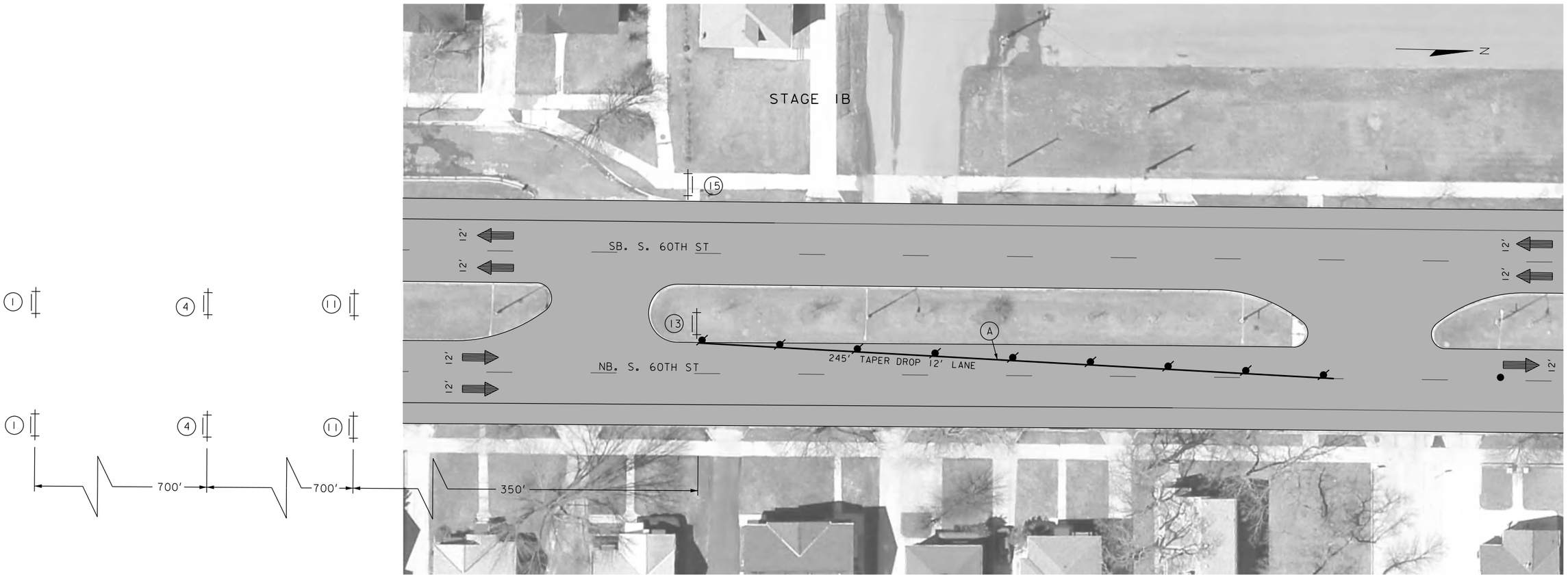
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE I FOR OTHER REQUIRED SIGNS.

SHEET 15 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE IA	SHEET 142	E



ROAD WORK AHEAD	W20-1 36"X36"	1		W01-4R 36"X36"	8		W01-6-R 24"X48"	13	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30"	20
SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	27									
ROAD CLOSED	R11-2 48"X30"	2		W01-4L 36"X36"	9		W01-6-L 24"X48"	14		R3-2 24"X24"	22
SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	28									
DO NOT ENTER	R5-1 36"X36"	3		W04-2-R 36"X36"	10		END ROAD WORK	G20-2A 36"X18"	15	W01-3-1 24"X24"	23
	R3-2 24"X24"	29									
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36"	4		W04-2-L 36"X36"	11		W01-7 24"X12"	17	SIDEWALK CLOSED	R9-9 30"X18"	24
NO TURNS	R3-3 24"X24"	30									
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36"	5		W06-3 36"X36"	12		SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12"	18		
TRUCKS	SPECIAL 24"X6"	31									

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
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NOTE:
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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

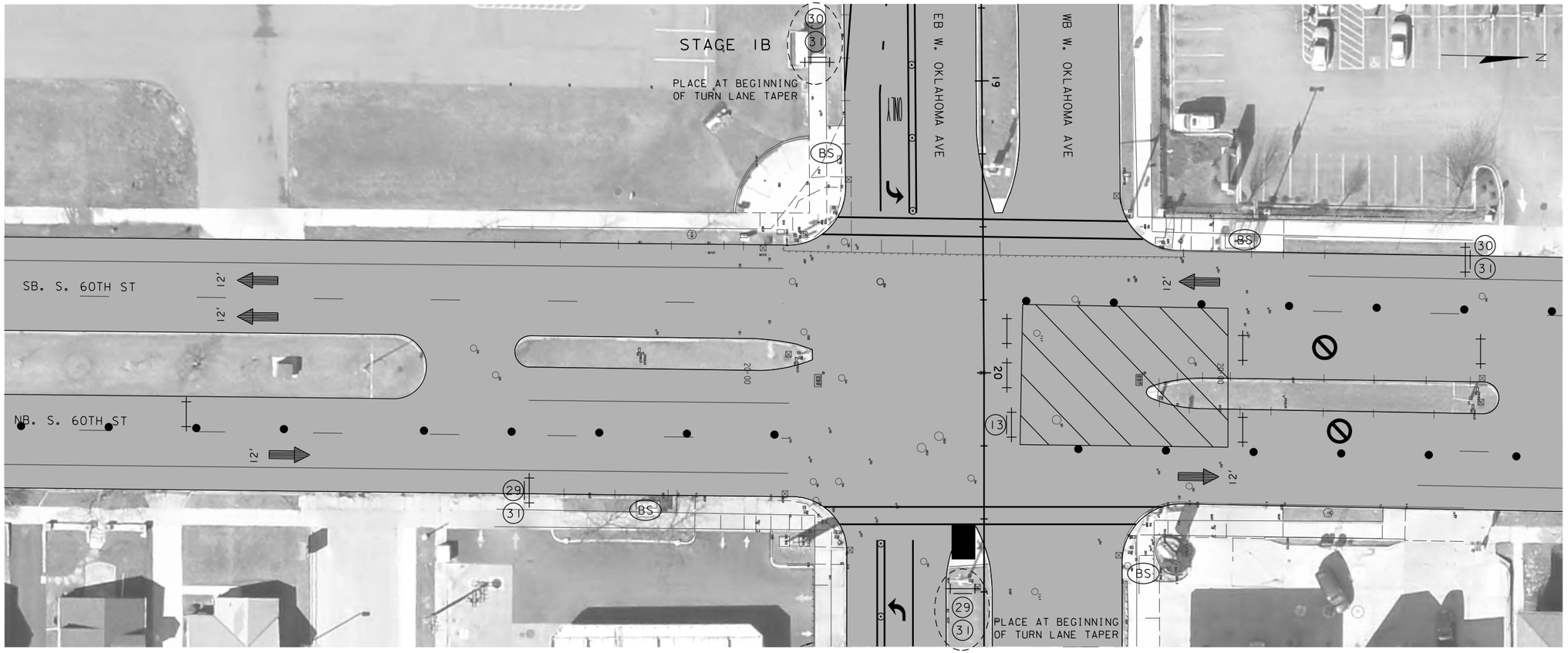
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1B	SHEET 143	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025041_TC.DGN PLOT DATE :9/29/2017 PLOT BY :BWEIGAND PLOT SCALE :1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD	W20-1 36"X36"	1		W01-4R 36"X36"	8		W01-6-R 24"X48"	13	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30"	20	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	27
ROAD CLOSED	R11-2 48"X30"	2		W01-4L 36"X36"	9		W01-6-L 24"X48"	14		R3-2 24"X24"	22	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	28
DO NOT ENTER	R5-1 36"X36"	3		W04-2-R 36"X36"	10	END ROAD WORK	G20-2A 36"X18"	15	15 M.P.H.	W013-1 24"X24"	23		R3-2 24"X24"	29
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36"	4		W04-2-L 36"X36"	11		W01-7 24"X12"	17	SIDEWALK CLOSED	R9-9 30"X18"	24	NO TURNS	R3-3 24"X24"	30
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36"	5		W06-3 36"X36"	12	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12"	18				TRUCKS	SPECIAL 24"X6"	31

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
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- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
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- LANE CLOSED TO TRAFFIC

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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

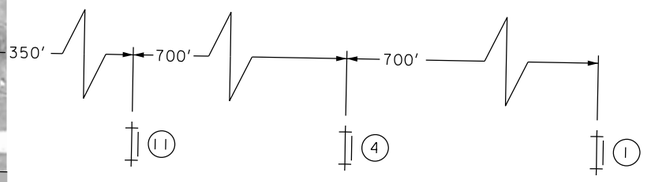
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 1 FOR OTHER REQUIRED SIGNS.

SHEET 17 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1B	SHEET 144	E





ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
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- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

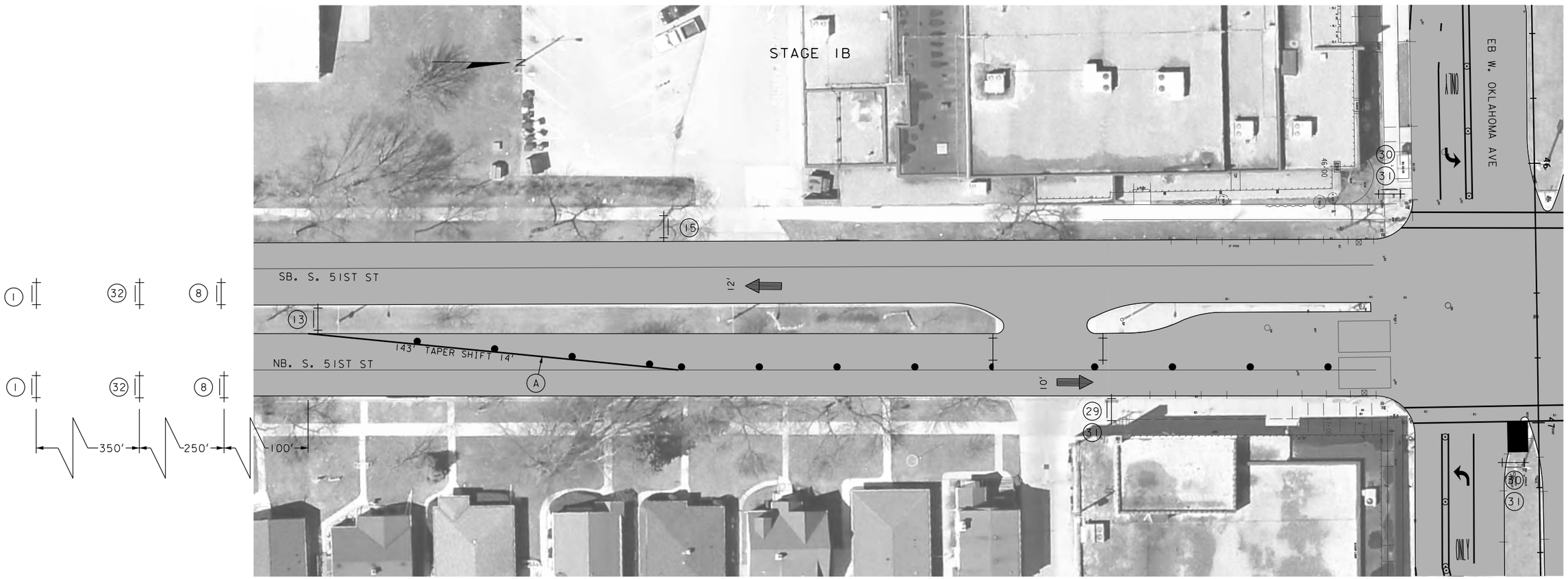
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 18 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1B	SHEET 145	E



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD NARROWS	W20-1A 36"X36" (32)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
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- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

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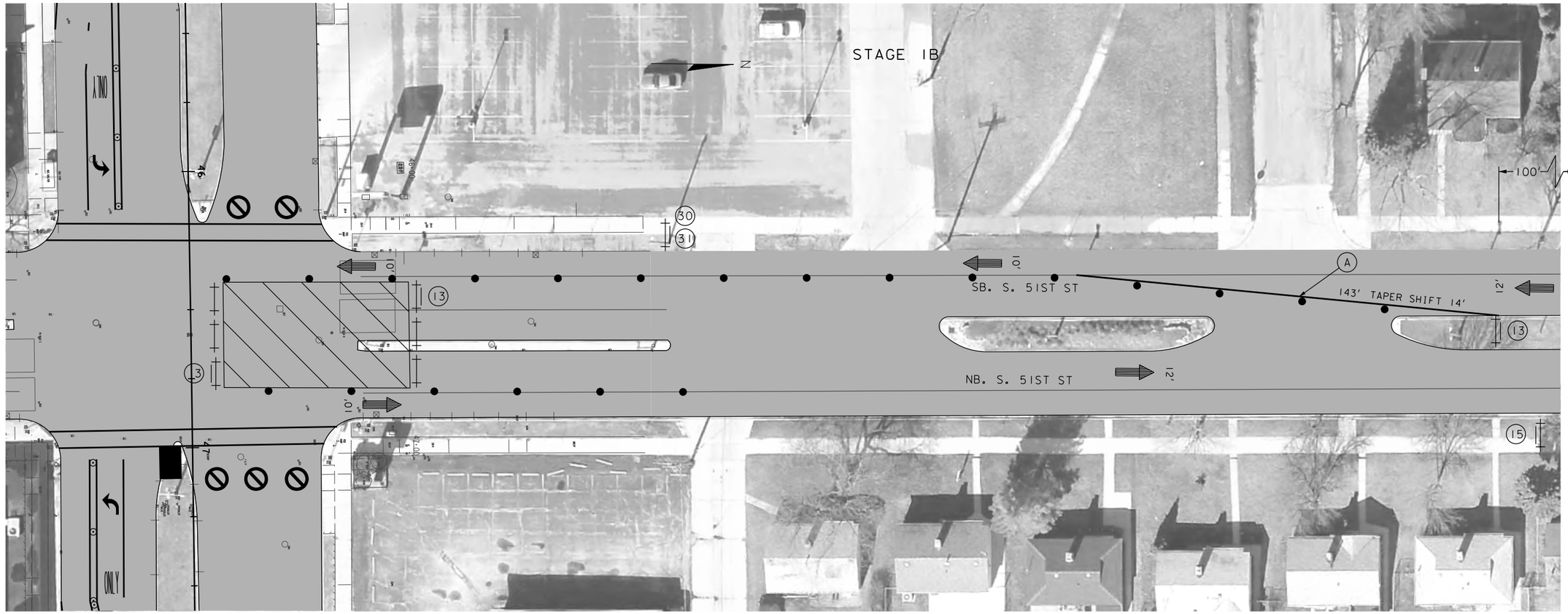
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 1 FOR OTHER REQUIRED SIGNS.

SHEET 19 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 1B	SHEET 146	E

2



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD NARROWS	W20-1A 36"X36" (32)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

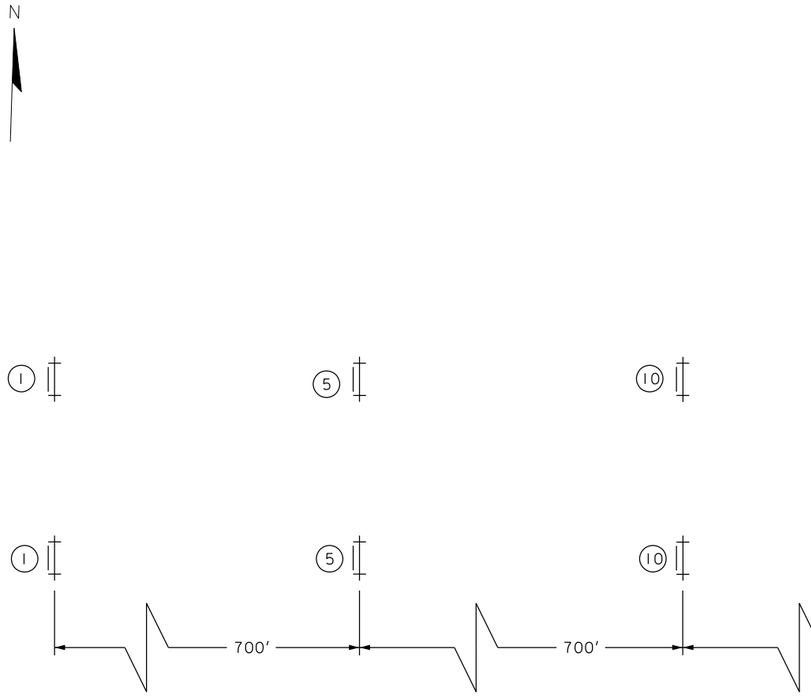
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

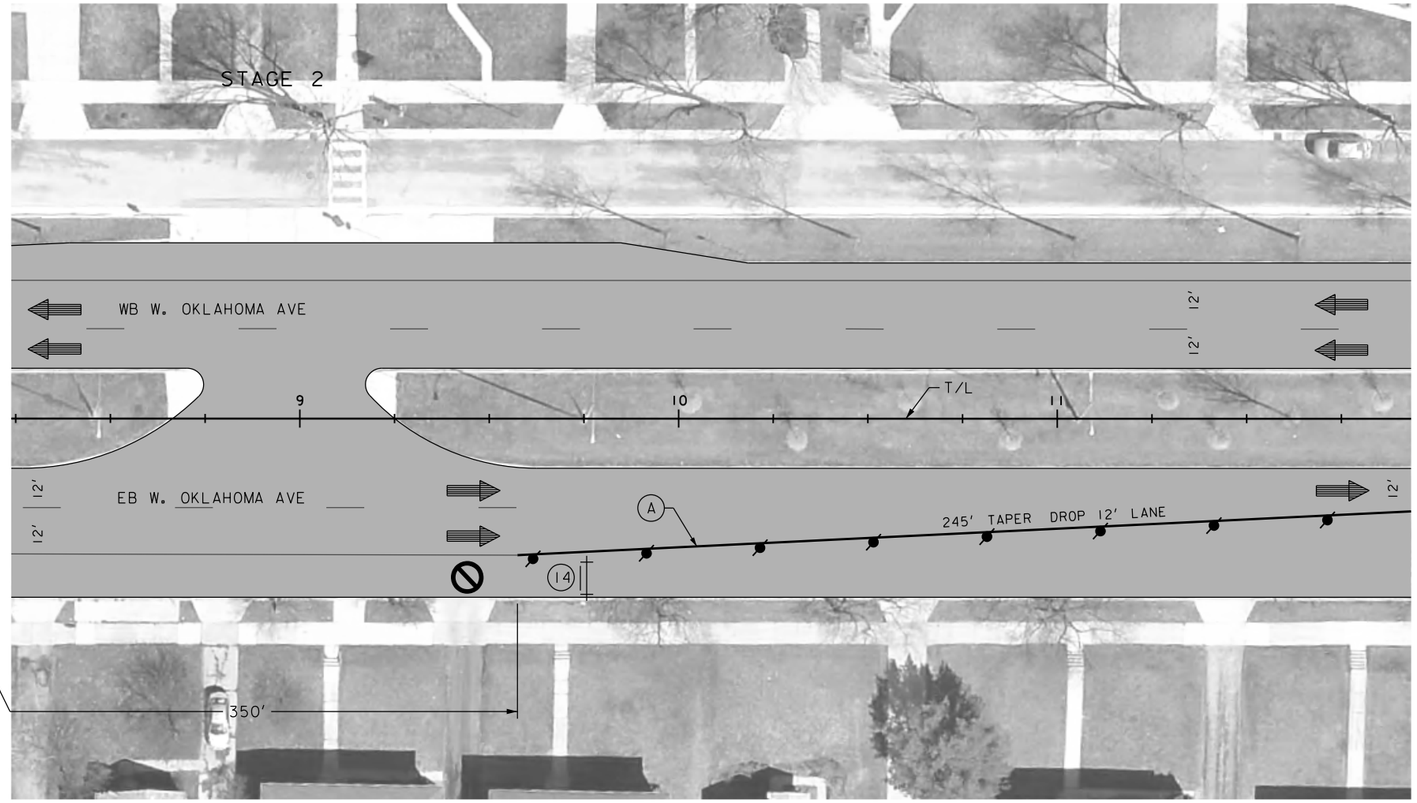
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE I FOR OTHER REQUIRED SIGNS.

SHEET 20 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE IB	SHEET 147	E





2

ROAD WORK AHEAD	W20-1 36"X36"	1		W01-4R 36"X36"	8		W01-6-R 24"X48"	13	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30"	20	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	27
ROAD CLOSED	R11-2 48"X30"	2		W01-4L 36"X36"	9		W01-6-L 24"X48"	14		R3-2 24"X24"	22	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	28
DO NOT ENTER	R5-1 36"X36"	3		W04-2-R 36"X36"	10	END ROAD WORK	G20-2A 36"X18"	15	15 M.P.H.	W013-1 24"X24"	23		R3-2 24"X24"	29
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36"	4		W04-2-L 36"X36"	11		W01-7 24"X12"	17	SIDEWALK CLOSED	R9-9 30"X18"	24	NO TURNS	R3-3 24"X24"	30
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36"	5		W06-3 36"X36"	12	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12"	18				TRUCKS	SPECIAL 24"X6"	31

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

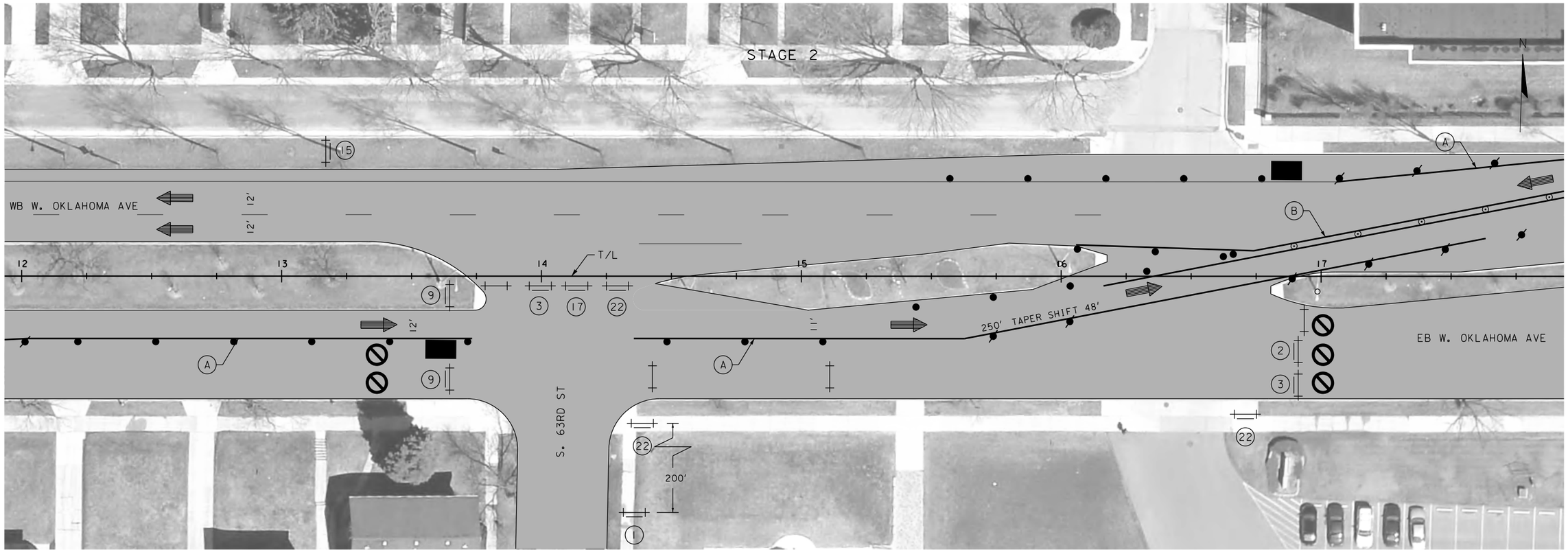
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 148	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025020_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD	W20-1 36"X36"	1		W01-4R 36"X36"	8		W01-6-R 24"X48"	13	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30"	20
SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	27	ROAD CLOSED	R11-2 48"X30"	2		W01-4L 36"X36"	9		W01-6-L 24"X48"	14
	R3-2 24"X24"	22	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	28	DO NOT ENTER	R5-1 36"X36"	3		W04-2-R 36"X36"	10
END ROAD WORK	G20-2A 36"X18"	15	15 M.P.H.	W013-1 24"X24"	23		R3-2 24"X24"	29	LEFT LANE CLOSED AHEAD	W20-55-A 36"X36"	4
	W04-2-L 36"X36"	11		W01-7 24"X12"	17	SIDEWALK CLOSED	R9-9 30"X18"	24	NO TURNS	R3-3 24"X24"	30
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36"	5		W06-3 36"X36"	12	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12"	18	TRUCKS	SPECIAL 24"X6"	31

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 2 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2	SHEET 149	E

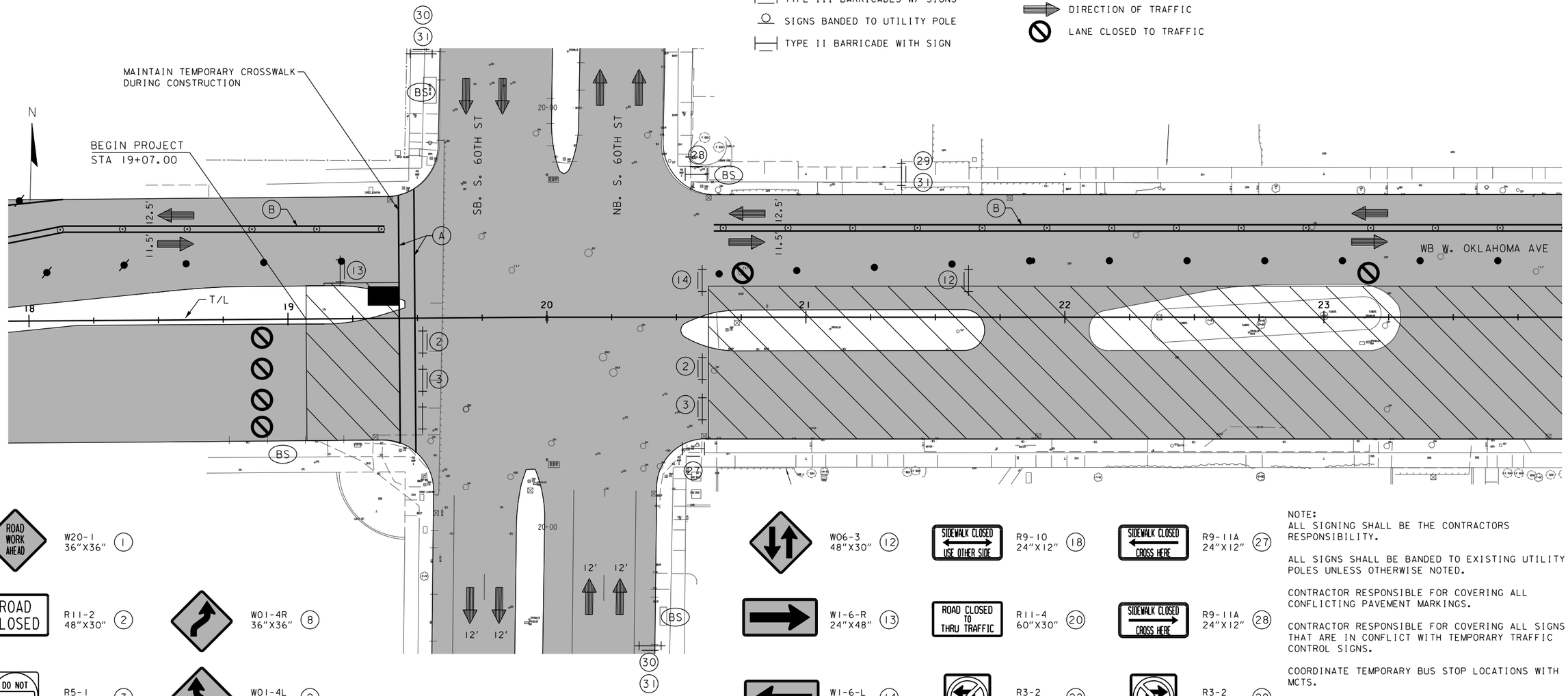
FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025021_TC.DGN PLOT DATE :9/29/2017 PLOT BY :BWEIGAND PLOT SCALE :1:40

(A) TPM, REMOVABLE TAPE, 4" WHITE
(B) TPM, REMOVABLE TAPE, 4" YELLOW
(C) TPM, ARROW REMOVABLE TAPE
(D) TPM, WORDS REMOVABLE TAPE

STAGE 2

TUBULAR MARKERS 25' SPACING
DRUMS, 30' SPACING
DRUMS W/ LIGHTS, 30' SPACING
TYPE III BARRICADES
TYPE III BARRICADES W/ SIGNS
SIGNS BANDED TO UTILITY POLE
TYPE II BARRICADE WITH SIGN

WORK AREA
WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
(BS) BUS STOP
DIRECTION OF TRAFFIC
LANE CLOSED TO TRAFFIC



ROAD WORK AHEAD	W20-1 36"X36"	1		WO6-3 48"X30"	12	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12"	18	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	27
ROAD CLOSED	R11-2 48"X30"	2		W1-6-R 24"X48"	13	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30"	20	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12"	28
DO NOT ENTER	R5-1 36"X36"	3		W1-6-L 24"X48"	14		R3-2 24"X24"	22		R3-2 24"X24"	29
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36"	4		END ROAD WORK	G20-2A 36"X18"	15	15 M.P.H.	W013-1 24"X24"	23	NO TURNS	R3-3 24"X24"	30
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36"	5					SIDEWALK CLOSED	R9-9 30"X18"	24	TRUCKS	SPECIAL 24"X6"	31
				W01-7 24"X12"	17						

NOTE:
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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

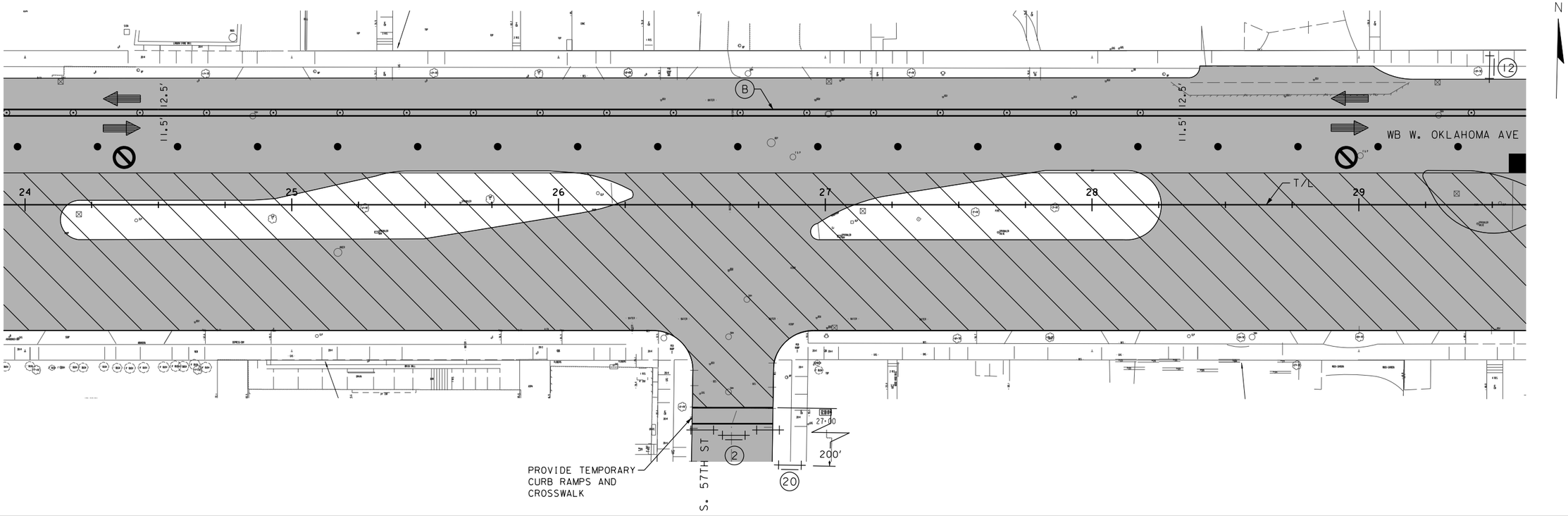
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

SHEET 3 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 150	E

STAGE 2





W20-1 36"X36" (1)



R11-2 48"X30" (2)



R5-1 36"X36" (3)



W20-55-A 36"X36" (4)



W20-5-A 36"X36" (5)


W01-4R 36"X36" (8)

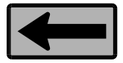

W01-4L 36"X36" (9)


W04-2-R 36"X36" (10)


W04-2-L 36"X36" (11)

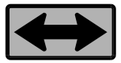

W06-3 36"X36" (12)


W01-6-R 24"X48" (13)


W01-6-L 24"X48" (14)



G20-2A 36"X18" (15)


W01-7 24"X12" (17)



R9-10 24"X12" (18)



R11-4 60"X30" (20)


R3-2 24"X24" (22)



W01-3 24"X24" (23)



R9-9 30"X18" (24)



R9-11A 24"X12" (27)



R9-11A 24"X12" (28)


R3-2 24"X24" (29)



R3-3 24"X24" (30)



SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

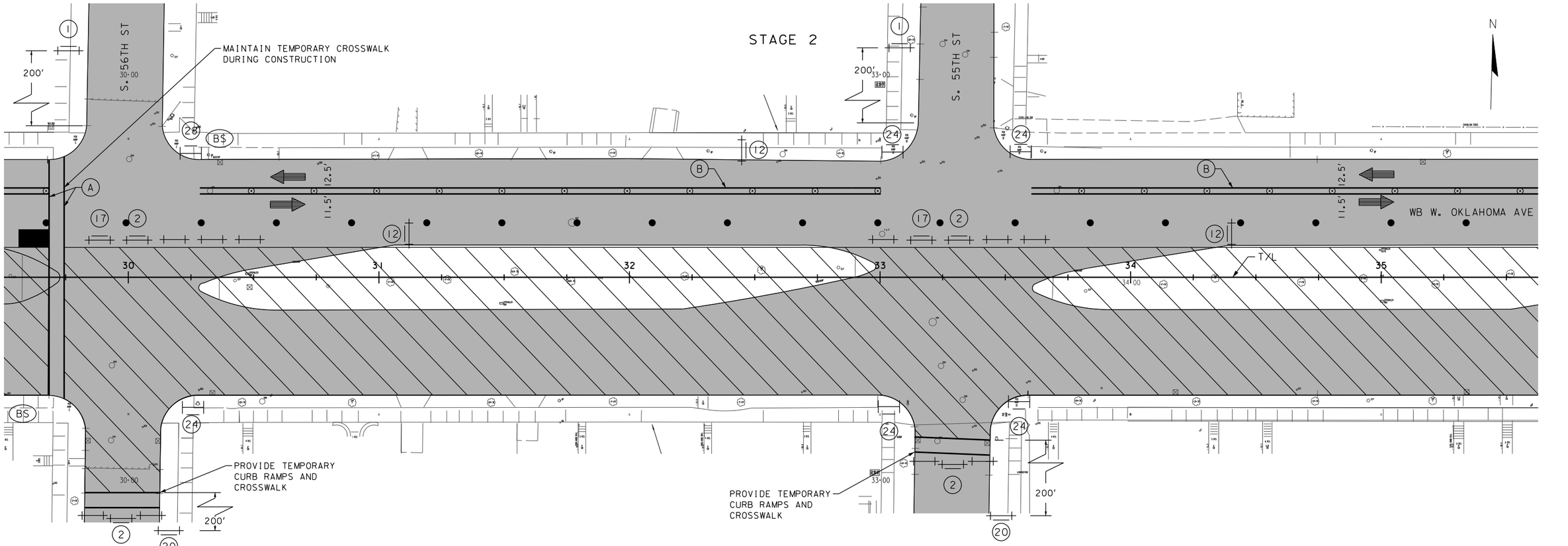
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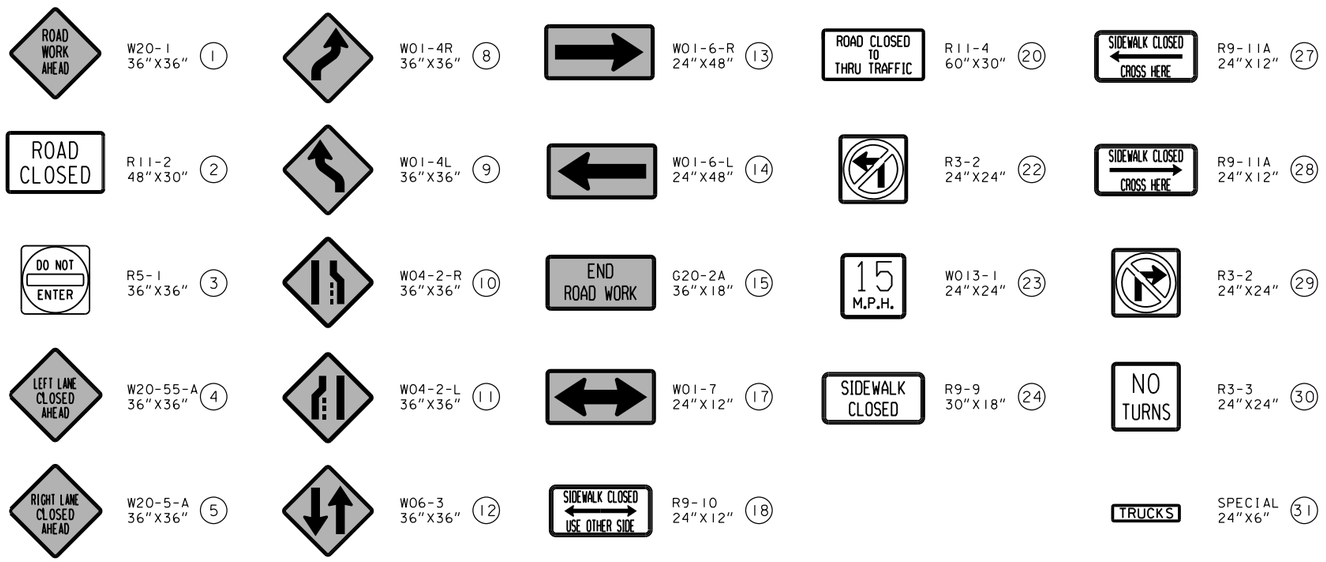
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 151	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025023_TC.DGN PLOT DATE :9/29/2017 PLOT BY :BWEIGAND PLOT SCALE :1:40
WISDOT/CADDS SHEET 42





- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
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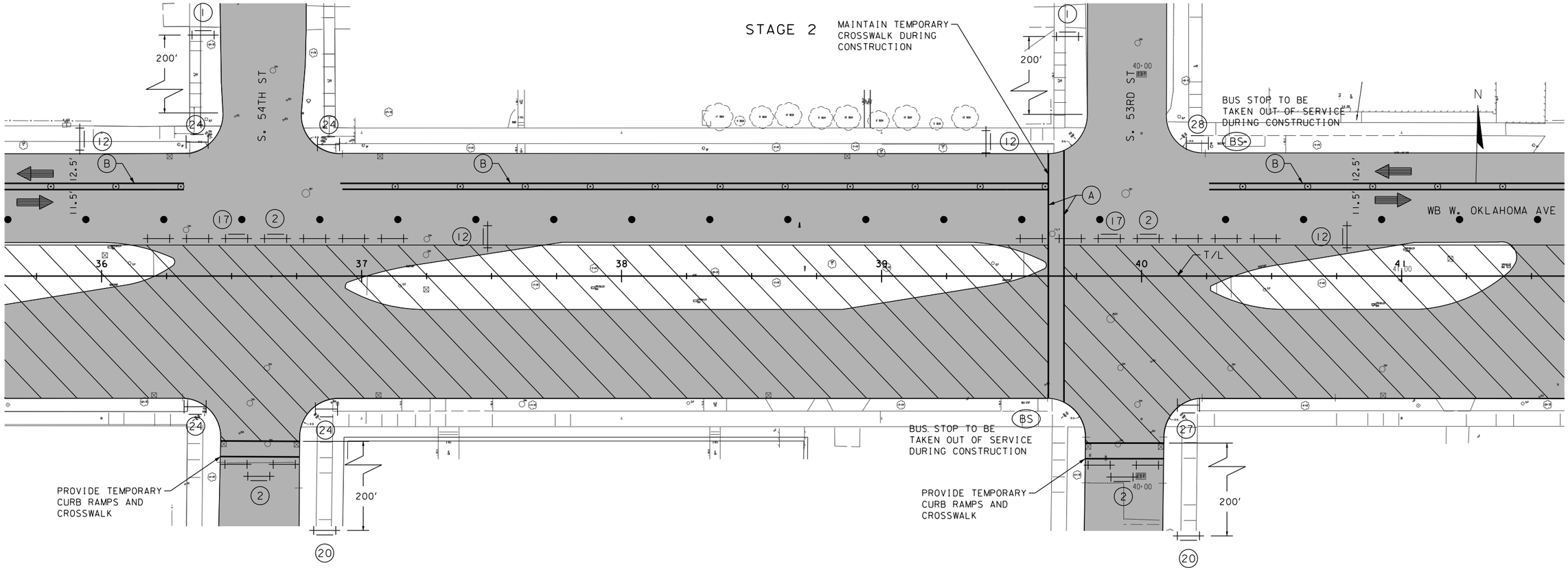
COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 152	E



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

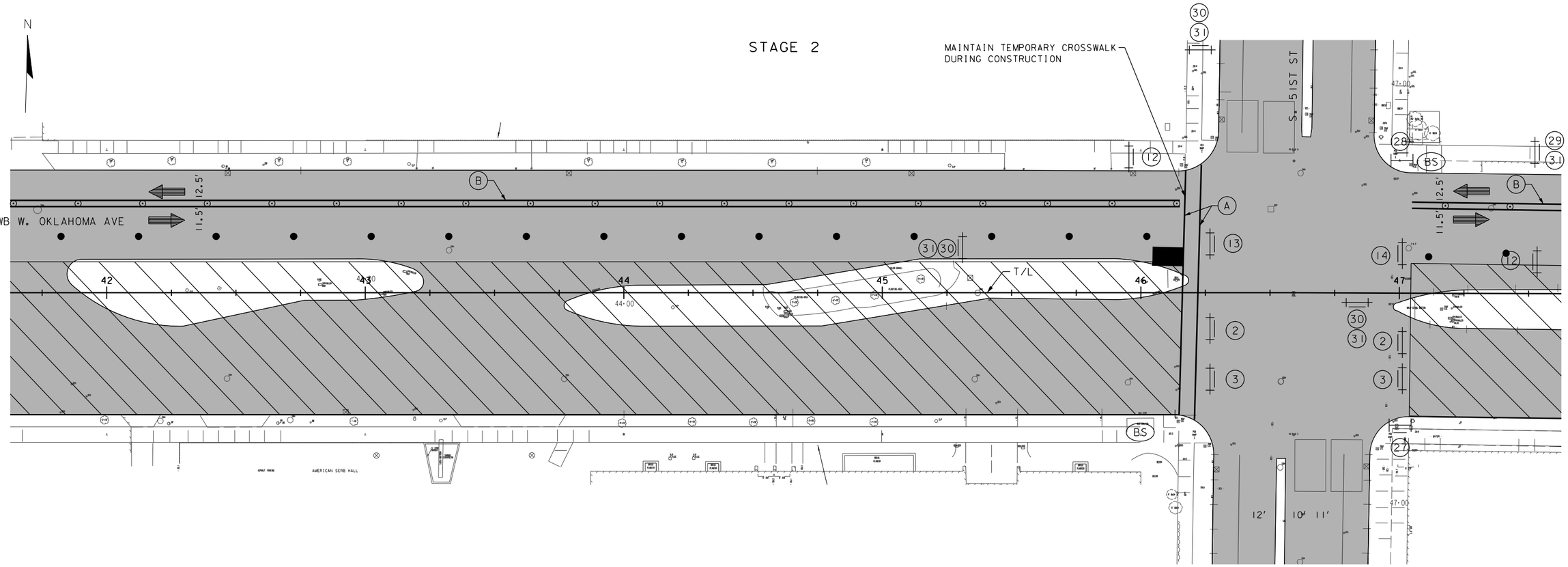
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

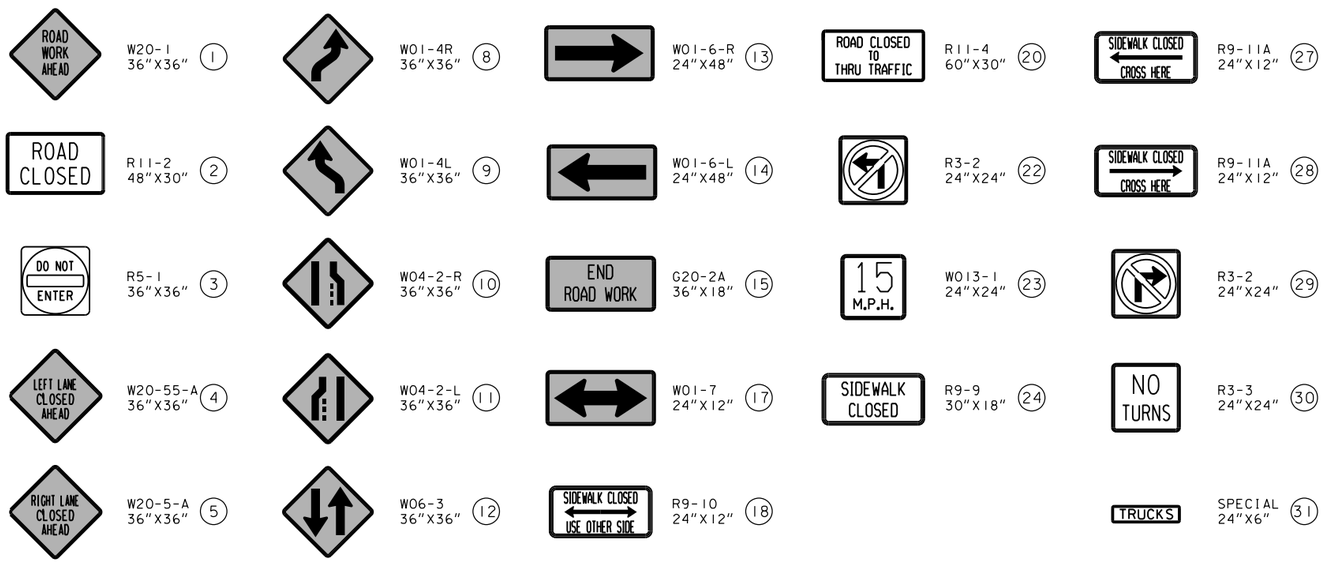
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 6 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 153	E





- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

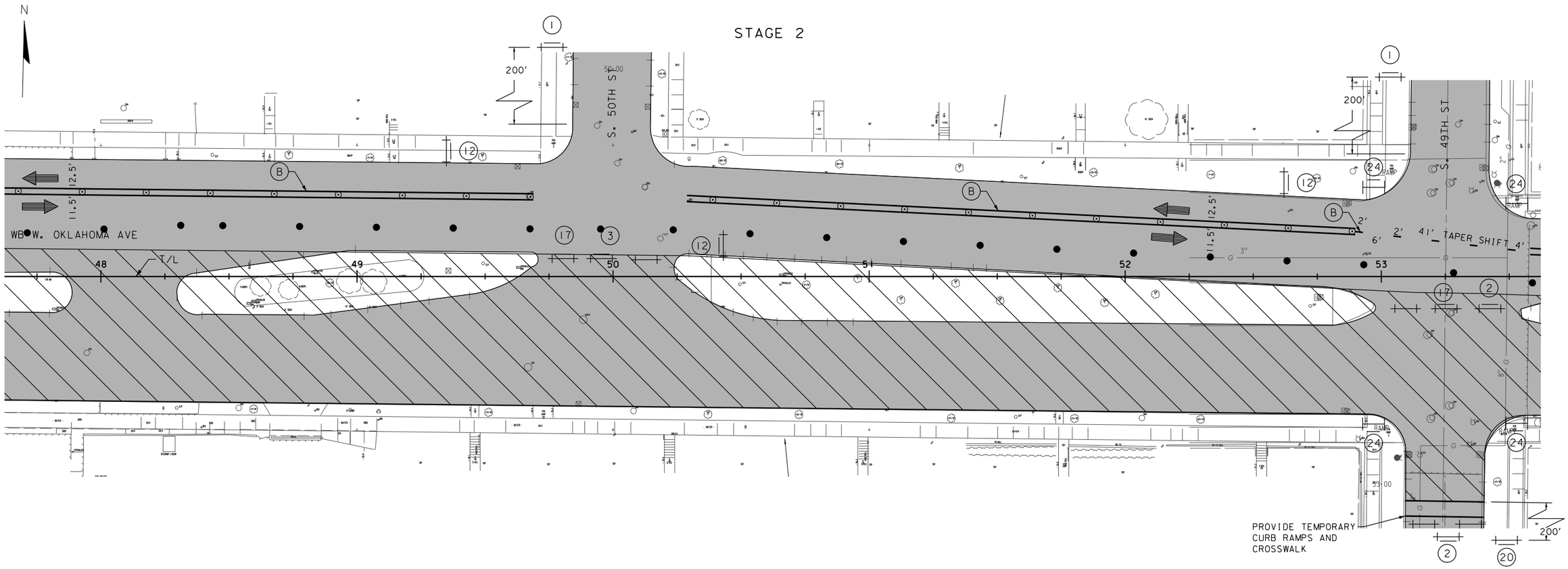
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

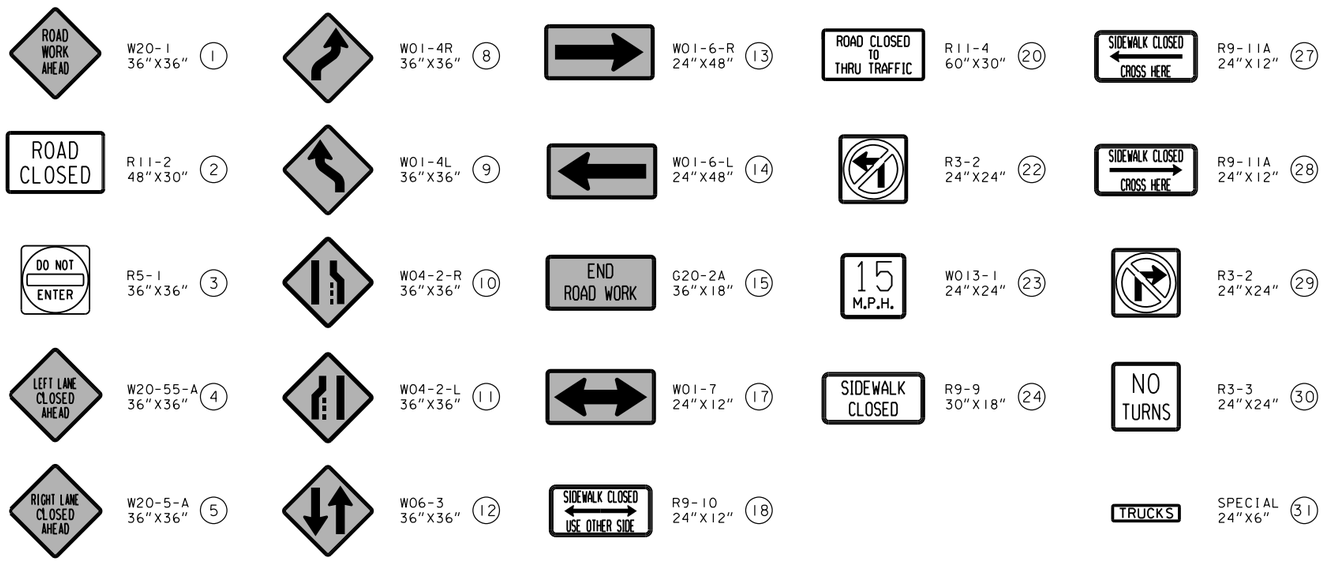
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 154	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025026_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42





- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

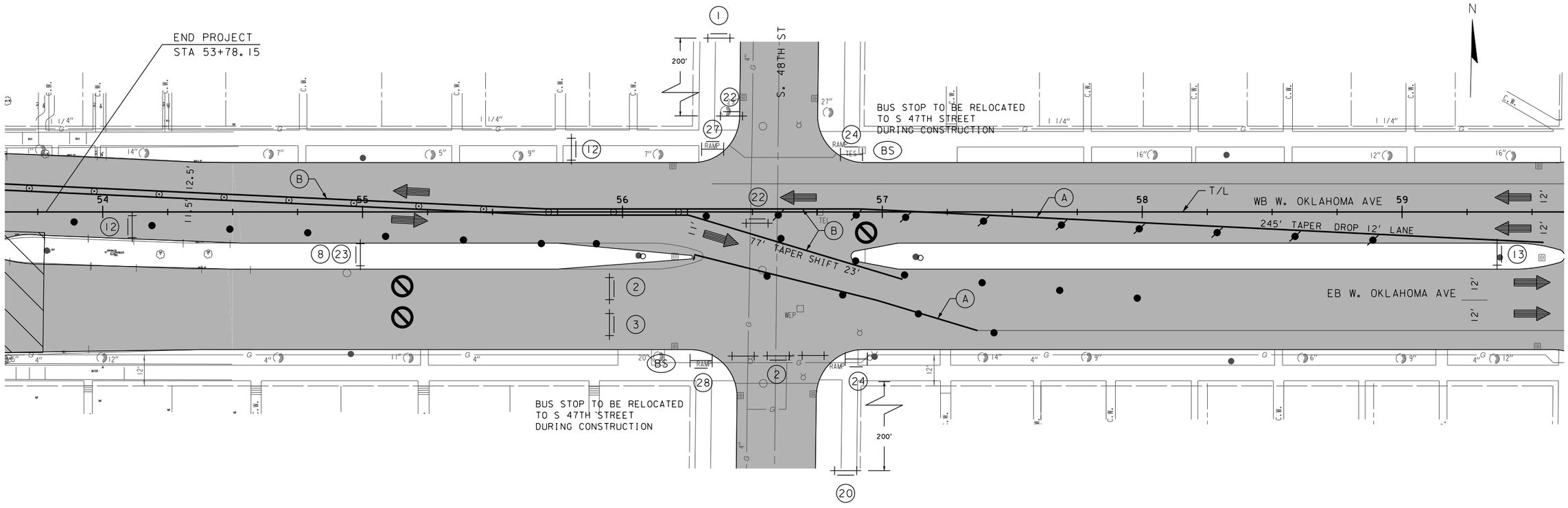
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 155	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025027_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

STAGE 2



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)
SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)
R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)	DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK
G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)	LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)	
W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)	RIGHT LANE CLOSED AHEAD
W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	TRUCKS	SPECIAL 24"X6" (31)	

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
- (B) TPM, PAINT, 4" YELLOW
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- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

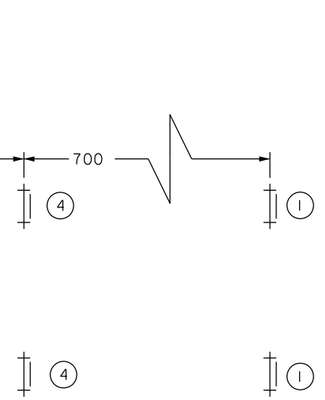
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 9 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET	E

STAGE 2





N

ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, PAINT, 4" WHITE
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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

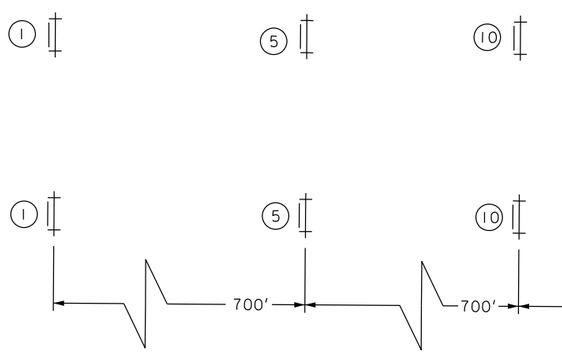
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 10 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2	SHEET 157	E

2





ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
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- WORK AREA
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- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
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- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

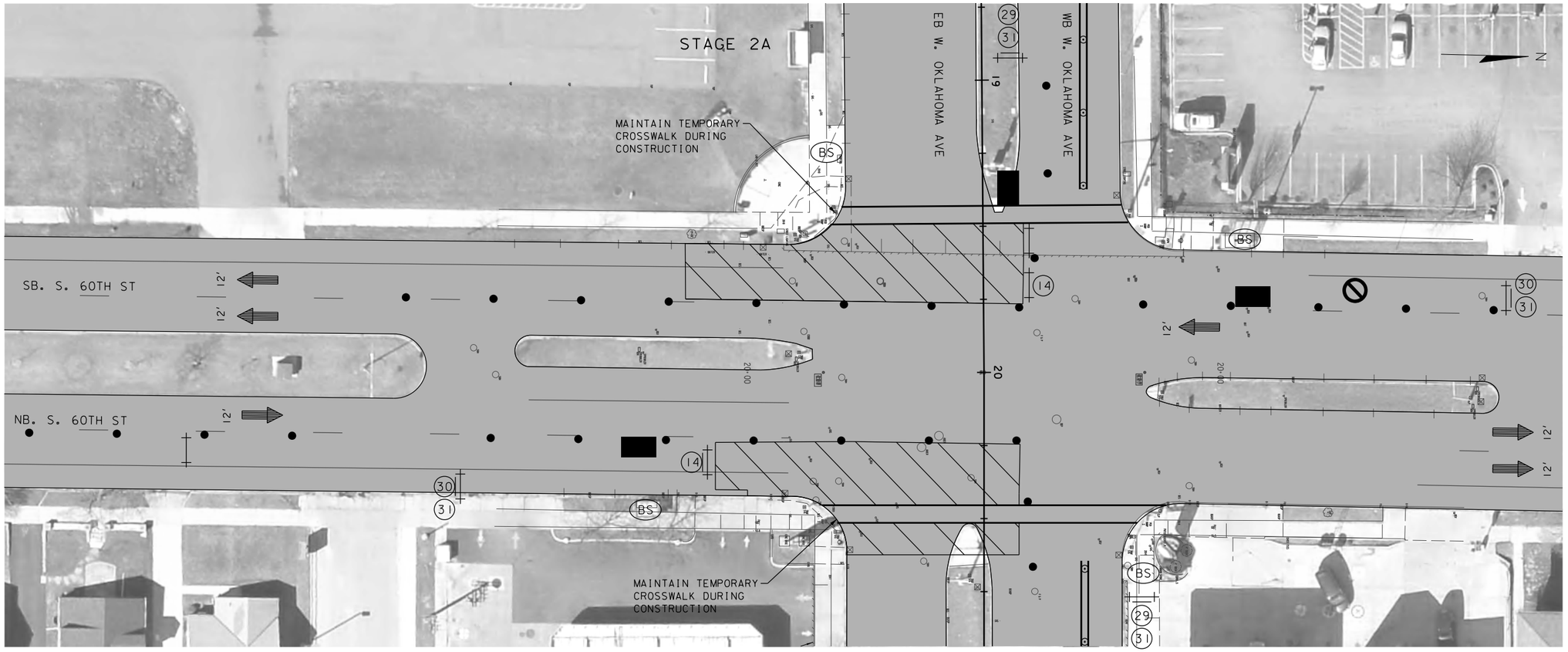
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2A	SHEET 158	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025050_TC.DGN PLOT DATE :9/29/2017 PLOT BY :BWEIGAND PLOT SCALE :1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
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- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

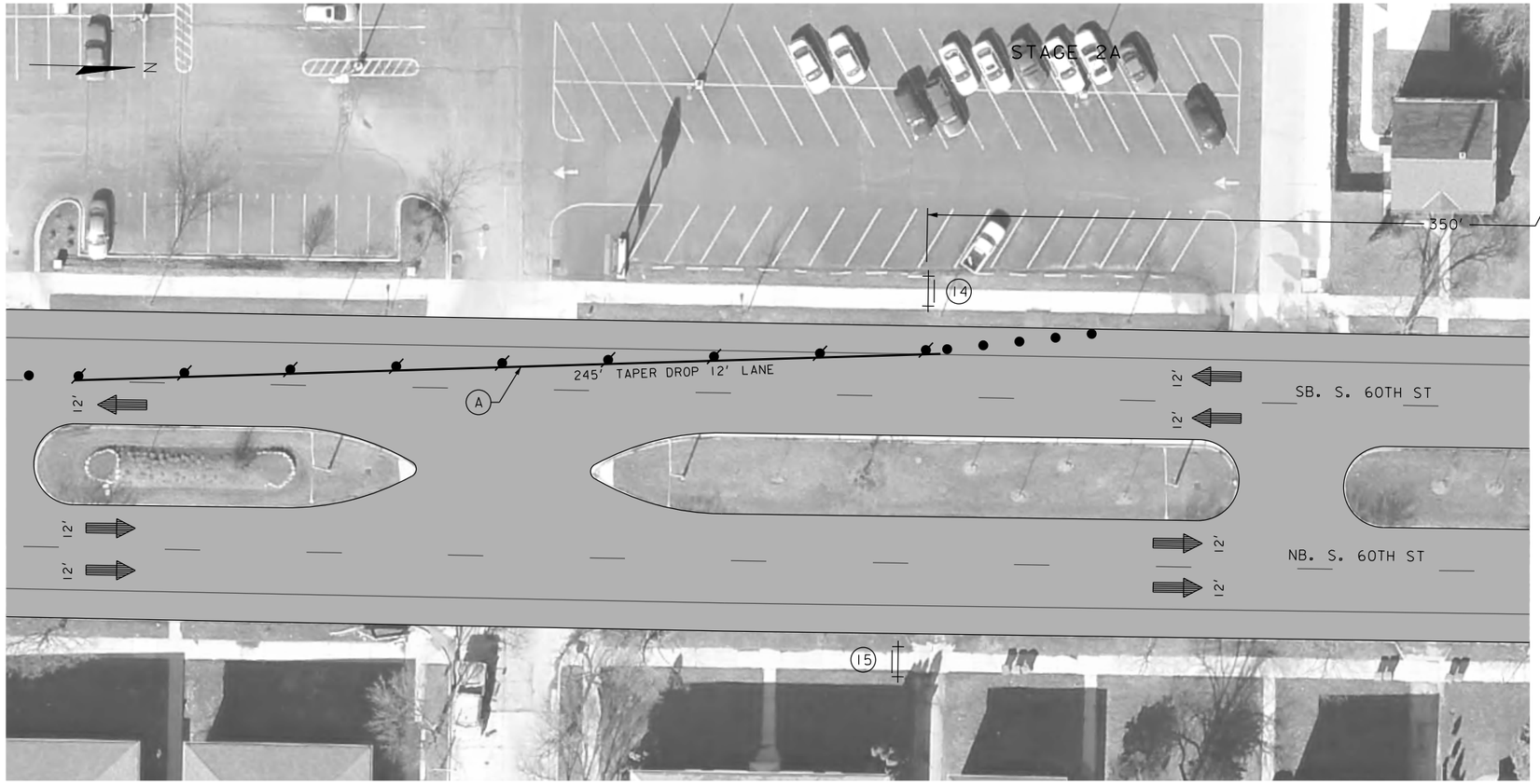
SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

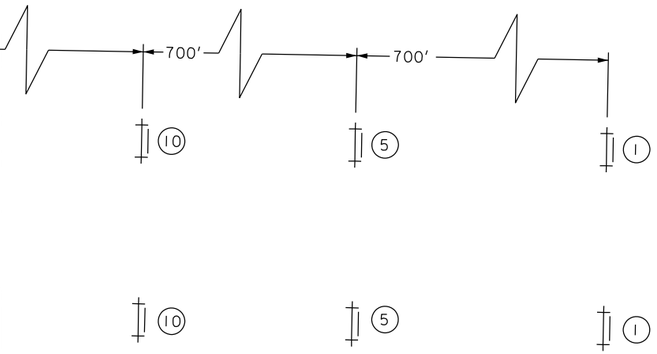
SHEET 12 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2A	SHEET 159	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\02505I_TC.DGN PLOT DATE :9/29/2017 PLOT BY :BWEIGAND PLOT SCALE :1:40

WISDOT/CADDS SHEET 42





ROAD WORK AHEAD W20-1 36"X36" (1)

ROAD CLOSED R11-2 48"X30" (2)

DO NOT ENTER R5-1 36"X36" (3)

LEFT LANE CLOSED AHEAD W20-55-A 36"X36" (4)

RIGHT LANE CLOSED AHEAD W20-5-A 36"X36" (5)

W01-4R 36"X36" (8)

W01-4L 36"X36" (9)

W04-2-R 36"X36" (10)

W04-2-L 36"X36" (11)

W06-3 36"X36" (12)

W01-6-R 24"X48" (13)

W01-6-L 24"X48" (14)

END ROAD WORK G20-2A 36"X18" (15)

W01-7 24"X12" (17)

SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12" (18)

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (20)

R3-2 24"X24" (22)

15 M.P.H. W013-1 24"X24" (23)

SIDEWALK CLOSED R9-9 30"X18" (24)

NO TURNS R3-3 24"X24" (30)

TRUCKS SPECIAL 24"X6" (31)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (27)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (28)

R3-2 24"X24" (29)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2A	SHEET 160	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025052_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD NARROWS	W20-1A 36"X36" (32)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
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- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

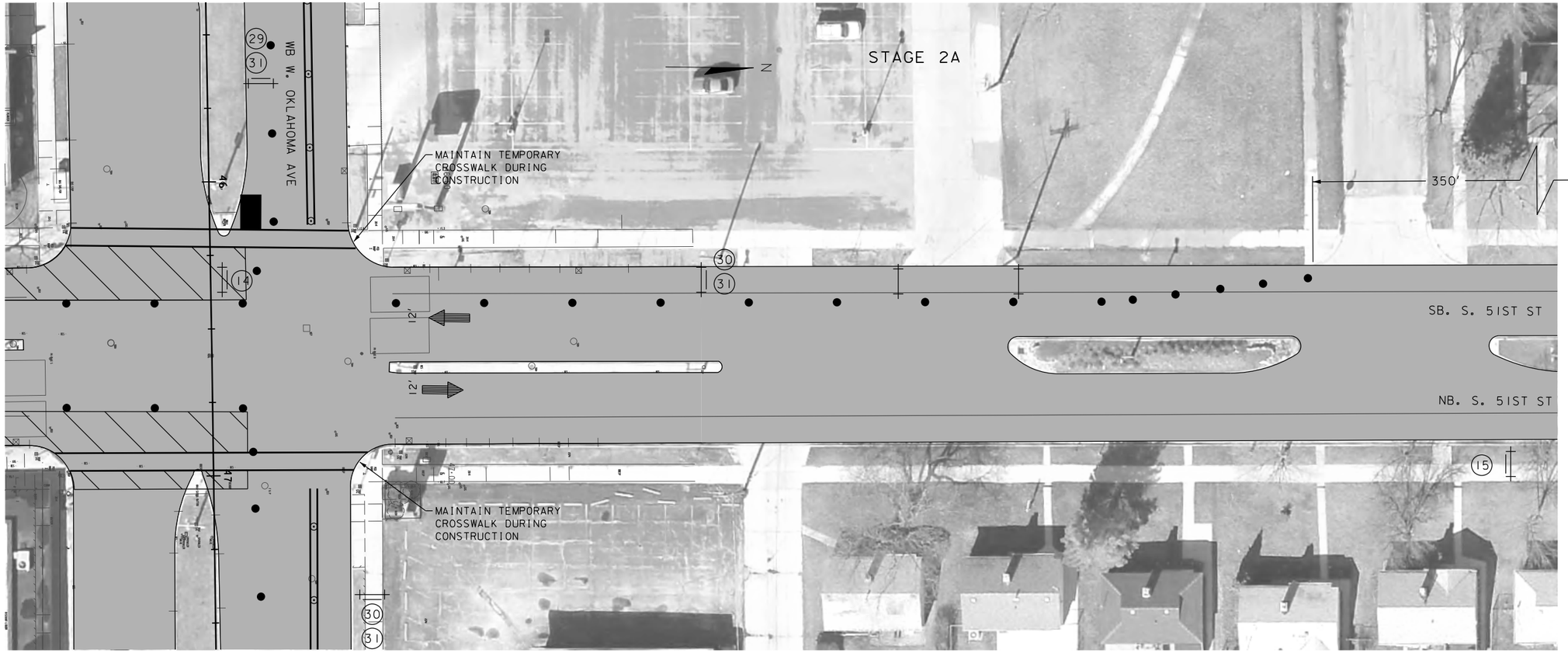
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

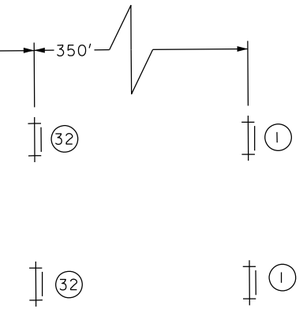
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

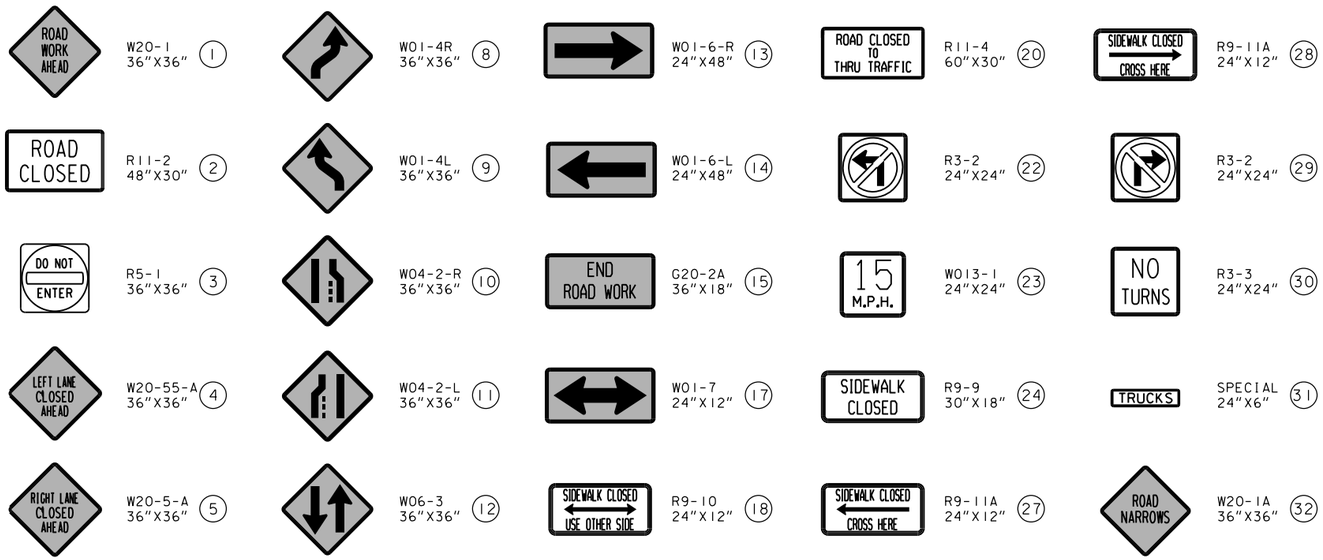
SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

SHEET 14 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2A	SHEET 161	E







- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

SHEET 15 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2A	SHEET 162	E

2



ROAD WORK AHEAD — W20-1 36"X36" (1)

ROAD CLOSED — R11-2 48"X30" (2)

DO NOT ENTER — R5-1 36"X36" (3)

LEFT LANE CLOSED AHEAD — W20-55-A 36"X36" (4)

RIGHT LANE CLOSED AHEAD — W20-5-A 36"X36" (5)

W01-4R 36"X36" (8)

W01-4L 36"X36" (9)

W04-2-R 36"X36" (10)

W04-2-L 36"X36" (11)

W06-3 36"X36" (12)

W01-6-R 24"X48" (13)

W01-6-L 24"X48" (14)

END ROAD WORK — G20-2A 36"X18" (15)

W01-7 24"X12" (17)

SIDEWALK CLOSED USE OTHER SIDE — R9-10 24"X12" (18)

ROAD CLOSED TO THRU TRAFFIC — R11-4 60"X30" (20)

R3-2 24"X24" (22)

15 M.P.H. — W01-3 24"X24" (23)

SIDEWALK CLOSED — R9-9 30"X18" (24)

NO TURNS — R3-3 24"X24" (30)

TRUCKS — SPECIAL 24"X6" (31)

SIDEWALK CLOSED CROSS HERE — R9-11A 24"X12" (27)

SIDEWALK CLOSED CROSS HERE — R9-11A 24"X12" (28)

R3-2 24"X24" (29)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

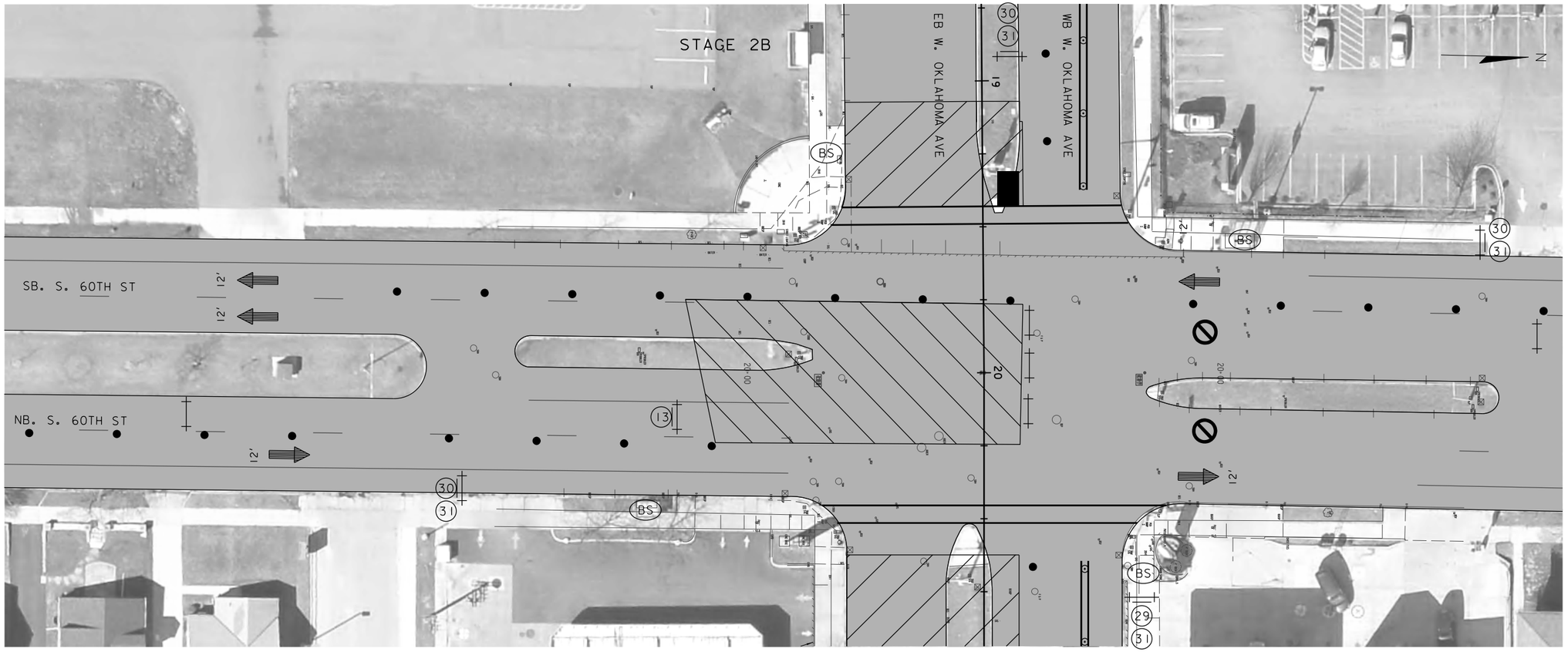
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ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SHEET 16 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2B	SHEET 163	E





W20-1 36"X36" (1)



R11-2 48"X30" (2)



R5-1 36"X36" (3)



W20-55-A 36"X36" (4)



W20-5-A 36"X36" (5)


W01-4R 36"X36" (8)

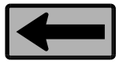

W01-4L 36"X36" (9)


W04-2-R 36"X36" (10)


W04-2-L 36"X36" (11)


W06-3 36"X36" (12)


W01-6-R 24"X48" (13)


W01-6-L 24"X48" (14)



G20-2A 36"X18" (15)


W01-7 24"X12" (17)



R9-10 24"X12" (18)



R11-4 60"X30" (20)


R3-2 24"X24" (22)



W01-3-1 24"X24" (23)



R9-9 30"X18" (24)



R9-11A 24"X12" (27)



R9-11A 24"X12" (28)


R3-2 24"X24" (29)



R3-3 24"X24" (30)



SPECIAL 24"X6" (31)

- TUBULAR MARKERS 25' SPACING
- DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

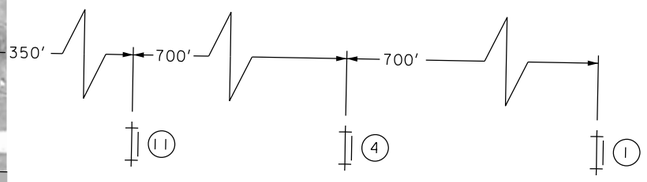
TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

SHEET 17 OF 20

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2B	SHEET 164	E





ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)		R3-2 24"X24" (29)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	NO TURNS	R3-3 24"X24" (30)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)			TRUCKS	SPECIAL 24"X6" (31)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
- DIRECTION OF TRAFFIC
- LANE CLOSED TO TRAFFIC

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" YELLOW
- (C) TPM, ARROW REMOVABLE TAPE
- (D) TPM, WORDS REMOVABLE TAPE

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

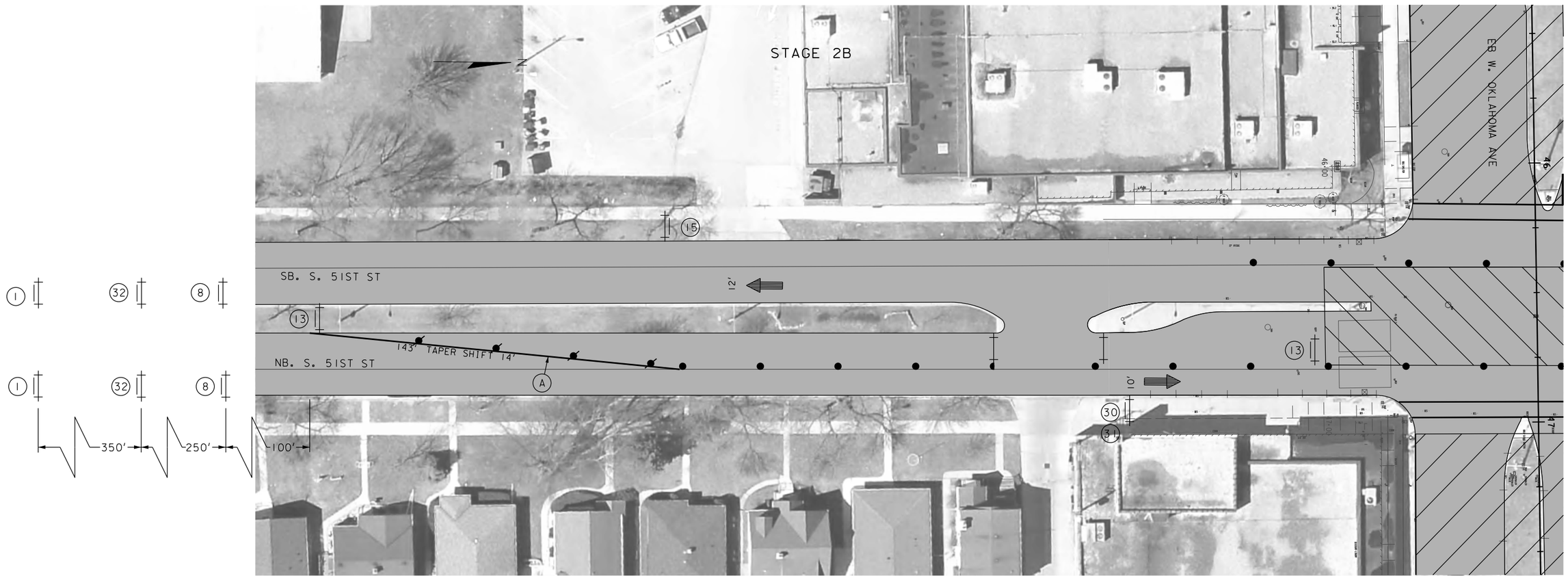
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2B	SHEET 165	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025063_TC.DGN
PLOT DATE :9/29/2017
PLOT BY : BWEIGAND
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD W20-1 36"X36" (1)

ROAD CLOSED R11-2 48"X30" (2)

DO NOT ENTER R5-1 36"X36" (3)

LEFT LANE CLOSED AHEAD W20-55-A 36"X36" (4)

RIGHT LANE CLOSED AHEAD W20-5-A 36"X36" (5)

W01-4R 36"X36" (8)

W01-4L 36"X36" (9)

W04-2-R 36"X36" (10)

W04-2-L 36"X36" (11)

W06-3 36"X36" (12)

W01-6-R 24"X48" (13)

W01-6-L 24"X48" (14)

END ROAD WORK G20-2A 36"X18" (15)

W01-7 24"X12" (17)

SIDEWALK CLOSED USE OTHER SIDE R9-10 24"X12" (18)

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (20)

R3-2 24"X24" (22)

15 M.P.H. W013-1 24"X24" (23)

SIDEWALK CLOSED R9-9 30"X18" (24)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (27)

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12" (28)

R3-2 24"X24" (29)

NO TURNS R3-3 24"X24" (30)

TRUCKS SPECIAL 24"X6" (31)

ROAD NARROWS W20-1A 36"X36" (32)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
- TYPE II BARRICADE WITH SIGN
- WORK AREA
- WORK AREA TO BE STAGED TO ALLOW ACCESS THROUGH WORK ZONE
- TEMP. BUS LOAD ZONE (SEE CONST. DETAIL)
- (BS) BUS STOP
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- LANE CLOSED TO TRAFFIC

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

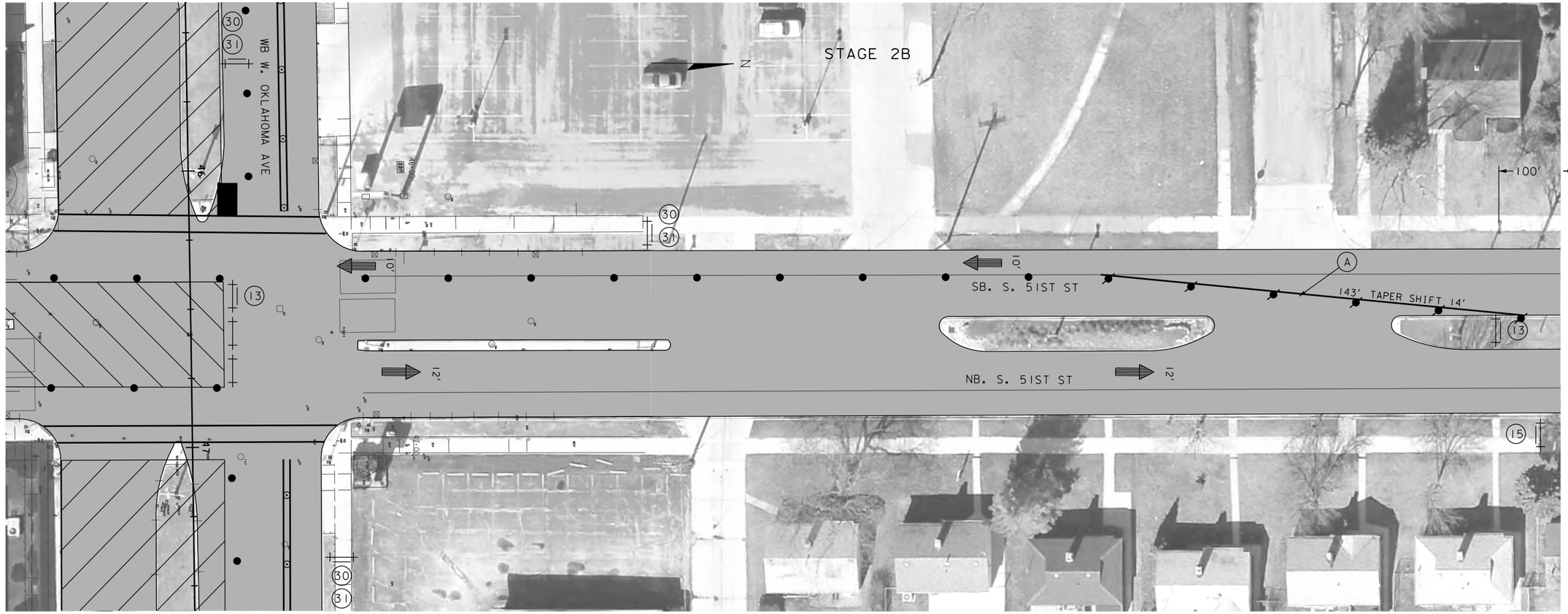
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2B	SHEET 166	E

FILE NAME :Y:\MILWAUKEE\20200S\20232.01\ENG_DOCS\SHEETS\025064_TC.DGN
PLOT DATE :9/29/2017
PLOT BY :BWEIGAND
PLOT SCALE :1:40
WISDOT/CADDS SHEET 42



ROAD WORK AHEAD	W20-1 36"X36" (1)		W01-4R 36"X36" (8)		W01-6-R 24"X48" (13)	ROAD CLOSED TO THRU TRAFFIC	R11-4 60"X30" (20)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (28)
ROAD CLOSED	R11-2 48"X30" (2)		W01-4L 36"X36" (9)		W01-6-L 24"X48" (14)		R3-2 24"X24" (22)		R3-2 24"X24" (29)
DO NOT ENTER	R5-1 36"X36" (3)		W04-2-R 36"X36" (10)	END ROAD WORK	G20-2A 36"X18" (15)	15 M.P.H.	W013-1 24"X24" (23)	NO TURNS	R3-3 24"X24" (30)
LEFT LANE CLOSED AHEAD	W20-55-A 36"X36" (4)		W04-2-L 36"X36" (11)		W01-7 24"X12" (17)	SIDEWALK CLOSED	R9-9 30"X18" (24)	TRUCKS	SPECIAL 24"X6" (31)
RIGHT LANE CLOSED AHEAD	W20-5-A 36"X36" (5)		W06-3 36"X36" (12)	SIDEWALK CLOSED USE OTHER SIDE	R9-10 24"X12" (18)	SIDEWALK CLOSED CROSS HERE	R9-11A 24"X12" (27)	ROAD NARROWS	W20-1A 36"X36" (32)

- ⊙ TUBULAR MARKERS 25' SPACING
- ● DRUMS, 30' SPACING
- DRUMS W/ LIGHTS, 30' SPACING
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGNS
- SIGNS BANDED TO UTILITY POLE
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- (BS) BUS STOP
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- (A) TPM, REMOVABLE TAPE, 4" WHITE
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COORDINATE TEMPORARY BUS STOP LOCATIONS WITH MCTS.

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

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY PAVEMENT TO BE INSTALLED AND RESTORED USING STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

SEE STAGE 2 FOR OTHER REQUIRED SIGNS.

SHEET 20 OF 20

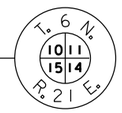
STATE PROJECT NO: 2400-00-72	LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL : STAGE 2B	SHEET 167	E

2

N

BEGIN PROJECT 2400-00-72

STA. 19+7.92
(Y) NORTH: 366,730.07
(X) EAST: 2,538,283.84

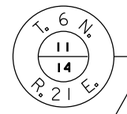


TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 366,733.08
(X) EAST: 2,538,375.87

TOWNSHIP 6 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 366,799.79
(X) EAST: 2,541,034.12



END PROJECT 2400-00-72

STA. 53+78.15
(Y) NORTH: 366,815.19
(X) EAST: 2,541,753.02

180° 26' 11"

SEC LINE & T/L W. OKLAHOMA AVE.

180° 12' 29"

N88° 46' 14"E
(CITY OF MILW.
FIELD SURVEY)

25 30 35 2659.10' 40 45

N88° 07' 34"E

N88° 33' 45"E

N88° 46' 14"E

STA. 20+00, T/L

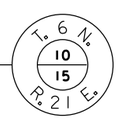
SEC LINE

S. 60TH ST.

STA. 46+59.10, T/L

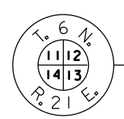
1/4 SEC LINE

S. 51ST ST.



TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 366,646.40
(X) EAST: 2,535,718.45



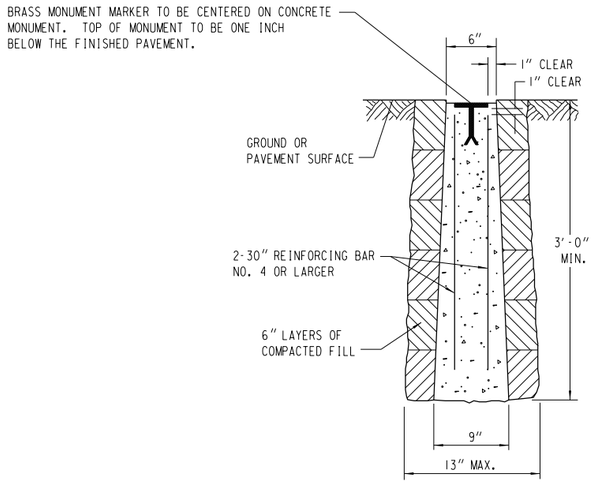
TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 366,856.90
(X) EAST: 2,543,700.06

STATE PROJECT NUMBER 2400-00-72 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT	SCALE FEET 0' 300'	SHEET NO: 168 E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\EXISTING\ALIGNMENT.DGN

REVISED DATE: 08-03-2017 BY DB



PRECAST

CONCRETE MONUMENT



MONUMENT MARKER LOGO

(TO BE FURNISHED BY OTHERS)

GENERAL NOTES

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

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION.

INSTALLATION OF PRECAST MONUMENT TO BE SUPERVISED BY CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION FOR ACCURACY OF LOCATION.

LANDMARK REFERENCE MONUMENT TO BE REPLACED

LOCATIONS W. OKLAHOMA AVE.	MONUMENT	STATION	REMARKS
AT S. 60TH ST.	1	20+00.00 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS
AT S. 51ST ST.	1	46+59.10 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS

LANDMARK REFERENCE MONUMENT

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET	SHEET NO: 169	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\EXISTING\LANDMARK.DGN

REVISED DATE: 05-10-2016 BY PN

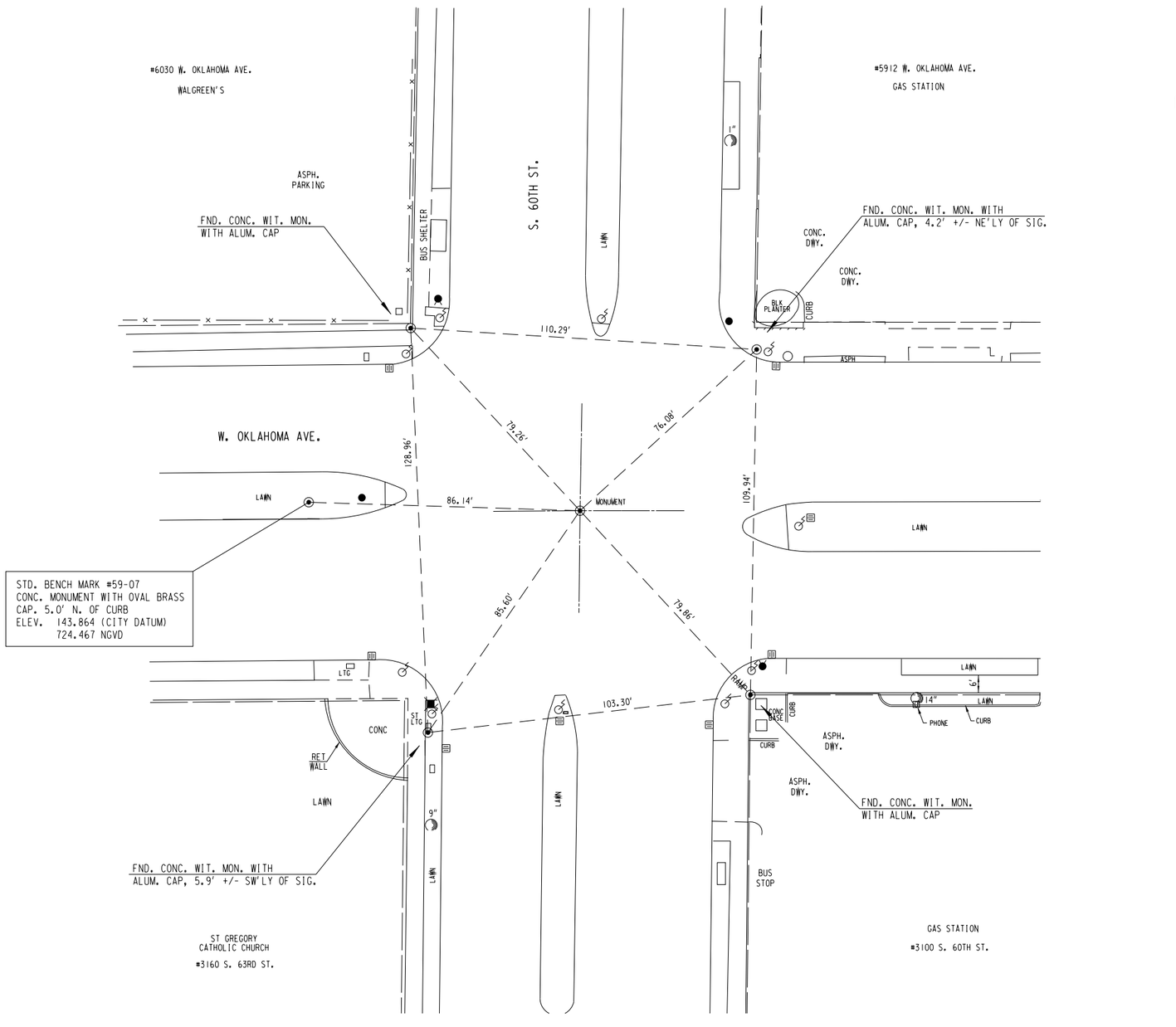
2



TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ ALUMINUM CAP

STATE PLANE COORDINATES OF SECTION CORNER
NORTH: 366,733.08
EAST: 2,538,375.87

SURVEY DATE: NOVEMBER 05, 1987



U.S. PUBLIC LAND SURVEY CORNER
W. OKLAHOMA AVE. & S. 60TH ST.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET 0' 40'	SHEET NO: 170	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\EXISTING\LANDMARK.DGN

REVISED DATE: 05-10-2016 BY PN

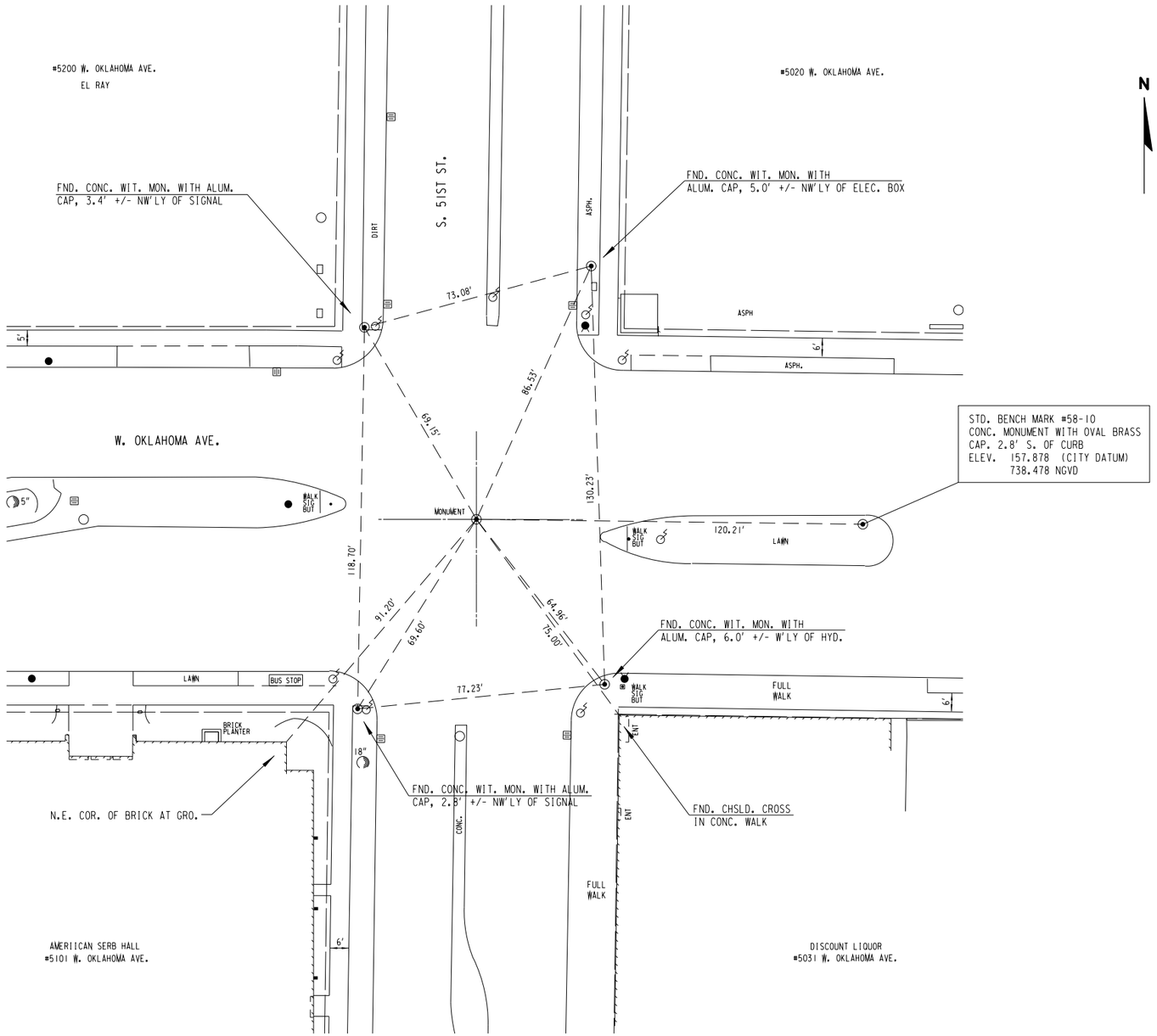
2

T. 6 N.
11
14
R. 22 E.

TOWNSHIP 6 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ ALUMINUM CAP

STATE PLANE COORDINATES OF SECTION CORNER
NORTH: 366,799.79
EAST: 2,541,034.12

SURVEY DATE; NOVEMBER 05, 1987



U.S. PUBLIC LAND SURVEY CORNER
W. OKLAHOMA AVE. & S. 51ST ST.

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET 0' 40'	SHEET NO: 171	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\EXISTING\LANDMARK.DGN

REVISED DATE: 05-10-2016 BY PN

2400-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	425.000	425.000
0004	201.0220	Grubbing	ID	542.000	542.000
0006	204.0100	Removing Pavement	SY	34,200.000	34,200.000
0008	204.0105	Removing Pavement Butt Joints	SY	350.000	350.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	480.000	480.000
0012	204.0150	Removing Curb & Gutter	LF	410.000	410.000
0014	204.0155	Removing Concrete Sidewalk	SY	4,800.000	4,800.000
0016	204.0195	Removing Concrete Bases	EACH	11.000	11.000
0018	204.0220	Removing Inlets	EACH	36.000	36.000
0020	204.0260	Abandoning Inlets	EACH	25.000	25.000
0022	205.0100	Excavation Common	CY	27,304.000	27,304.000
0024	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	1,163.400	1,163.400
0028	213.0100	Finishing Roadway (project) 002. 2400-00-72	EACH	1.000	1.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	29,767.000	29,767.000
0032	320.0145	Concrete Base 8-Inch	SY	66.000	66.000
0034	415.0085	Concrete Pavement 8 1/2-Inch	SY	31,350.000	31,350.000
0036	415.0210	Concrete Pavement Gaps	EACH	12.000	12.000
0038	416.0170	Concrete Driveway 7-Inch	SY	535.000	535.000
0040	416.0180	Concrete Driveway 8-Inch	SY	330.000	330.000
0042	416.0190	Concrete Driveway 9-Inch	SY	85.000	85.000
0044	455.0605	Tack Coat	GAL	20.000	20.000
0046	465.0105	Asphaltic Surface	TON	100.000	100.000
0048	601.0150	Concrete Curb Integral Type D	LF	5,270.000	5,270.000
0050	601.0319	Concrete Curb & Gutter 19-Inch	LF	7.000	7.000
0052	601.0322	Concrete Curb & Gutter 22-Inch	LF	290.000	290.000
0054	601.0331	Concrete Curb & Gutter 31-Inch	LF	7,340.000	7,340.000
0056	601.0600	Concrete Curb Pedestrian	LF	215.000	215.000
0058	602.0410	Concrete Sidewalk 5-Inch	SF	32,300.000	32,300.000
0060	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	650.000	650.000
0062	611.2004	Manholes 4-FT Diameter	EACH	26.000	26.000
0064	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0066	611.3225	Inlets 2x2.5-FT	EACH	3.000	3.000
0068	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000
0070	612.0106	Pipe Underdrain 6-Inch	LF	508.000	508.000
0072	612.0208	Pipe Underdrain Unperforated 8-Inch	LF	108.000	108.000
0074	619.1000	Mobilization	EACH	0.750	0.750
0076	620.0300	Concrete Median Sloped Nose	SF	450.000	450.000
0078	621.0100	Landmark Reference Monuments	EACH	2.000	2.000
0080	623.0200	Dust Control Surface Treatment	SY	31,300.000	31,300.000

2400-00-72

Line	Item	Item Description	Unit	Total	Qty
0082	625.0100	Topsoil	SY	6,850.000	6,850.000
0084	629.0210	Fertilizer Type B	CWT	5.000	5.000
0086	631.1000	Sod Lawn	SY	6,850.000	6,850.000
0088	632.0101	Trees (species) (size) (root) 001. JAPANESE TREE LILAC B&B 3" CAL	EACH	7.000	7.000
0090	632.0101	Trees (species) (size) (root) 002. AUTUMN BLAZE MAPLE B&B 3" CAL	EACH	5.000	5.000
0092	632.0101	Trees (species) (size) (root) 003. CUMULUS SERVICEBERRY B&B 3" CAL	EACH	3.000	3.000
0094	632.0101	Trees (species) (size) (root) 004. KENTUCKY COFFEETREE, B&B 3" CAL	EACH	3.000	3.000
0096	632.0101	Trees (species) (size) (root) 005. TULIP TREE B&B 3" CAL	EACH	1.000	1.000
0098	632.0101	Trees (species) (size) (root) 006. CALLERY PEAR B&B 3" CAL	EACH	8.000	8.000
0100	632.0101	Trees (species) (size) (root) 007. DAWN REDWOOD B&B 3" CAL	EACH	6.000	6.000
0102	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	12.000	12.000
0110	642.5401	Field Office Type D	EACH	1.000	1.000
0112	643.0300	Traffic Control Drums	DAY	29,670.000	29,670.000
0114	643.0410	Traffic Control Barricades Type II	DAY	2,415.000	2,415.000
0116	643.0420	Traffic Control Barricades Type III	DAY	30,002.000	30,002.000
0118	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	350.000	350.000
0120	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	350.000	350.000
0122	643.0705	Traffic Control Warning Lights Type A	DAY	60,004.000	60,004.000
0124	643.0715	Traffic Control Warning Lights Type C	DAY	9,340.000	9,340.000
0126	643.0900	Traffic Control Signs	DAY	28,070.000	28,070.000
0128	643.0920	Traffic Control Covering Signs Type II	EACH	40.000	40.000
0130	643.1070	Traffic Control Cones 42-Inch	DAY	14,000.000	14,000.000
0134	643.5000	Traffic Control 002. 2400-00-72	EACH	1.000	1.000
0136	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	400.000	400.000
0138	644.1420.S	Temporary Pedestrian Surface Plywood	SF	1,200.000	1,200.000
0140	644.1430.S	Temporary Pedestrian Surface Plate	SF	200.000	200.000
0142	644.1601.S	Temporary Curb Ramp	EACH	40.000	40.000
0144	644.1616.S	Temporary Pedestrian Safety Fence	LF	600.000	600.000
0146	645.0112	Geotextile Type DF Schedule B	SY	170.000	170.000
0148	646.1020	Marking Line Epoxy 4-Inch	LF	6,500.000	6,500.000
0150	646.3020	Marking Line Epoxy 8-Inch	LF	1,250.000	1,250.000
0152	646.5020	Marking Arrow Epoxy	EACH	16.000	16.000
0154	646.5220	Marking Symbol Epoxy	EACH	16.000	16.000
0156	649.0105	Temporary Marking Line Paint 4-Inch	LF	7,800.000	7,800.000

2400-00-72

Line	Item	Item Description	Unit	Total	Qty
0158	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	17,500.000	17,500.000
0160	649.0550	Temporary Marking Arrow Removable Tape	EACH	4.000	4.000
0162	649.0650	Temporary Marking Word Removable Tape	EACH	4.000	4.000
0164	650.4000	Construction Staking Storm Sewer	EACH	97.000	97.000
0166	650.4500	Construction Staking Subgrade	LF	6,960.000	6,960.000
0168	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	13,240.000	13,240.000
0170	650.7000	Construction Staking Concrete Pavement	LF	6,960.000	6,960.000
0174	650.8500	Construction Staking Electrical Installations (project) 002. 2400-00-72	LS	1.000	1.000
0176	650.9000	Construction Staking Curb Ramps	EACH	66.000	66.000
0180	650.9910	Construction Staking Supplemental Control (project) 002. 2400-00-72	LS	1.000	1.000
0182	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	350.000	350.000
0184	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	170.000	170.000
0186	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	3,050.000	3,050.000
0188	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	850.000	850.000
0190	652.0240	Conduit Rigid Nonmetallic Schedule 40 4-Inch	LF	70.000	70.000
0192	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	2,425.000	2,425.000
0194	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2,250.000	2,250.000
0196	652.0610	Conduit Special 2 1/2-Inch	LF	380.000	380.000
0198	654.0101	Concrete Bases Type 1	EACH	11.000	11.000
0200	654.0105	Concrete Bases Type 5	EACH	1.000	1.000
0202	654.0110	Concrete Bases Type 10	EACH	8.000	8.000
0204	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,900.000	2,900.000
0206	657.0100	Pedestal Bases	EACH	11.000	11.000
0208	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000
0210	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	2.000	2.000
0212	690.0150	Sawing Asphalt	LF	1,140.000	1,140.000
0214	690.0250	Sawing Concrete	LF	2,140.000	2,140.000
0216	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,800.000	2,800.000
0218	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	6,000.000	6,000.000
0220	SPV.0035	Special 601. ENGINEERED SOIL	CY	262.000	262.000
0222	SPV.0035	Special 602. BEDDING LAYER	CY	58.000	58.000
0224	SPV.0035	Special 603. STORAGE LAYER	CY	369.000	369.000
0226	SPV.0035	Special 604. COBBLESTONES	CY	38.000	38.000
0228	SPV.0060	Special 001. TEMPORARY BUS LOADING ZONE	EACH	17.000	17.000
0230	SPV.0060	Special 002. INLET TYPE 45A	EACH	66.000	66.000
0232	SPV.0060	Special 003. INLET COVER TYPE 55	EACH	4.000	4.000
0234	SPV.0060	Special 004. INLET COVER TYPE 57	EACH	81.000	81.000
0236	SPV.0060	Special 005. MANHOLE COVER TYPE 58A	EACH	76.000	76.000

2400-00-72

Line	Item	Item Description	Unit	Total	Qty
0238	SPV.0060	Special 006. ADJUSTING WATER BOXES	EACH	85.000	85.000
0240	SPV.0060	Special 007. ADJUSTING WATER MANHOLE FRAME AND LID	EACH	1.000	1.000
0242	SPV.0060	Special 008. WATER MAIN PROTECTION	EACH	3.000	3.000
0244	SPV.0060	Special 009. UTILITY LINE OPENING	EACH	8.000	8.000
0246	SPV.0060	Special 010. SIGNATURE BEDS	EACH	3.000	3.000
0248	SPV.0060	Special 011. INLET BASKET TYPE M	EACH	148.000	148.000
0250	SPV.0060	Special 012. INLET SCREEN TYPE R	EACH	148.000	148.000
0252	SPV.0060	Special 013. INTERNAL SANITARY MANHOLE SEALS	EACH	24.000	24.000
0254	SPV.0060	Special 014. INLET TYPE 70A	EACH	1.000	1.000
0256	SPV.0060	Special 201. POLES TYPE 9	EACH	1.000	1.000
0258	SPV.0060	Special 202. POLES TYPE 10	EACH	3.000	3.000
0260	SPV.0060	Special 203. POLES TYPE 10 OVERHEIGHT	EACH	4.000	4.000
0268	SPV.0060	Special 207. MONOTUBE ARMS - 25 FEET	EACH	1.000	1.000
0270	SPV.0060	Special 208. MONOTUBE ARMS - 30 FEET	EACH	7.000	7.000
0276	SPV.0060	Special 301. POLYMER CONCRETE VAULT 13-INCH x 24-INCH x 24-INCH	EACH	21.000	21.000
0278	SPV.0060	Special 302. POLYMER CONCRETE VAULT 17-INCH x 30-INCH x 24-INCH	EACH	55.000	55.000
0280	SPV.0060	Special 303. POLES TYPE 3	EACH	2.000	2.000
0282	SPV.0060	Special 304. LUMINAIRE UTILITY LED 1	EACH	7.000	7.000
0284	SPV.0060	Special 305. LUMINAIRE UTILITY LED 3	EACH	78.000	78.000
0286	SPV.0060	Special 306. LUMINAIRE UTILITY RECTANGULAR LED 3	EACH	4.000	4.000
0288	SPV.0060	Special 307. WATER TIGHT JUNCTION BOX SPLICING	EACH	33.000	33.000
0290	SPV.0060	Special 308. LUMINAIRE ARMS SINGLE MEMBER 6-FT	EACH	16.000	16.000
0292	SPV.0060	Special 309. Poles Type 14	EACH	1.000	1.000
0294	SPV.0060	Special 401. REMOVING TES MANHOLES	EACH	12.000	12.000
0296	SPV.0060	Special 402. 5-FOOT DIAMETER DOGHOUSE MANHOLE TYPE TES	EACH	7.000	7.000
0298	SPV.0060	Special 403. 4-FOOT DOGHOUSE MANHOLE TYPE TES	EACH	5.000	5.000
0300	SPV.0060	Special 404. ADJUSTING TES MANHOLE COVERS	EACH	13.000	13.000
0302	SPV.0060	Special 601. 8-INCH PVC STANDPIPE WITH DOME GRATE	EACH	8.000	8.000
0304	SPV.0060	Special 602. INFORMATIONAL SIGN POST	EACH	3.000	3.000
0306	SPV.0060	Special 603. 6-INCH CLEANOUTS	EACH	11.000	11.000
0308	SPV.0060	Special 604. PERENNIAL BLACK EYED SUSAN 1 Gal CG	EACH	24.000	24.000
0310	SPV.0060	Special 605. PERENNIAL BLUE WONDER CATMINT 1	EACH	326.000	326.000

2400-00-72

Line	Item	Item Description	Unit	Total	Qty
		Gal CG			
0312	SPV.0060	Special 606. PERENNIAL DWARF DAYLILLIES HAPPY RETURNS 1 Gal CG	EACH	360.000	360.000
0314	SPV.0060	Special 607. RUGOSA ROSES 3 Gal CG	EACH	34.000	34.000
0316	SPV.0060	Special 608. PERENNIAL RUSSIAN SAGE 1 Gal CG	EACH	128.000	128.000
0318	SPV.0060	Special 609. PERENNIAL BLUE FORTUNE 1 Gal CG	EACH	32.000	32.000
0320	SPV.0060	Special 610. PERENNIAL SHASTA DAISY 1 Gal CG	EACH	36.000	36.000
0322	SPV.0060	Special 611. PERENNIAL PURPLE CONEFLOWER 1 Gal CG	EACH	86.000	86.000
0324	SPV.0060	Special 612. DIABLO NINEBARK 3 Gal CG	EACH	3.000	3.000
0326	SPV.0060	Special 613. SEA GREEN JUNIPER 3 Gal CG	EACH	4.000	4.000
0328	SPV.0060	Special 614. JOE PYE WEED 1 Gal CG	EACH	19.000	19.000
0330	SPV.0060	Special 615. RED TWIG DOGWOOD 3 Gal CG	EACH	7.000	7.000
0332	SPV.0060	Special 616. KARL FORESTER GRASS 1 Gal CG	EACH	45.000	45.000
0334	SPV.0060	Special 617. LITTLE BUNNY GRASS 1 Gal CG	EACH	30.000	30.000
0336	SPV.0060	Special 618. TIGERS EYE SUMAC 3 Gal CG	EACH	10.000	10.000
0338	SPV.0060	Special 619. INLET FRAME AND GRATE	EACH	23.000	23.000
0340	SPV.0090	Special 001. CONSTRUCTION STAKING SIDEWALK	LF	4,770.000	4,770.000
0342	SPV.0090	Special 002. STORM SEWER PIPE CORRUGATED PVC 12-INCH	LF	2,018.000	2,018.000
0344	SPV.0090	Special 003. MARKING LINE EPOXY 6-INCH	LF	5,000.000	5,000.000
0346	SPV.0090	Special 004. MARKING STOP LINE EPOXY 24-INCH	LF	850.000	850.000
0348	SPV.0090	Special 005. MARKING CROSSWALK EPOXY 12-INCH	LF	2,000.000	2,000.000
0350	SPV.0090	Special 301. CABLE TYPE 3#8/1#8 LTP	LF	900.000	900.000
0352	SPV.0090	Special 302.CABLE TYPE 3#4/1#8 LTP	LF	3,800.000	3,800.000
0354	SPV.0090	Special 303. CABLE TYPE 3#2/1#8 LTP	LF	2,800.000	2,800.000
0356	SPV.0090	Special 304. ELECTRICAL CABLE TYPE UF 3#12AWG WITH GROUND	LF	400.000	400.000
0358	SPV.0090	Special 401. 1-DUCT CONDUIT CEMENT ENCASED DB-60	LF	239.000	239.000
0360	SPV.0170	Special 001. TEST ROLLING	STA	70.000	70.000
0362	SPV.0180	Special 001. JOINT SEALING	SY	31,300.000	31,300.000

W. Oklahoma Ave. - S. 60th St. to S. 49th St. New Drainage Structures

DRAINAGE									PVC PIPE, STORM SEWER							
STRUC-TURE No.	TYPE OF STRUCTURE	STA.	T/L OFFSET	COVER ELEV.	STRUC-TURE DEPTH 1	NEW STRUC-TURE	REPLACE-MENT STRUCTURE	FRAME & LID	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	Length of riser	INVERT ELEV.		PIPE SLOPE	REMARKS
													INLET	OUTLET		
1	INLET	19+33.4	47.0'RT	142.55	5.05	---	45A	57	CONNECT TO STORM MAIN 19+33.0 35.0'RT	12	11	4	139	138.55	0.041	REPLACE CATCH BASIN LEAD
2	INLET	19+39.7	47.0'LT	142.15	4.82	---	45A	57	CONNECT TO STORM MAIN 19+38 7,42.	12	3	4	139	138.9	0.033	REPLACE CATCH BASIN LEAD
3	INLET	19+55.7	75.0'RT	142.45	3.25	---	2'X2.5' INLET	57	201	12	15		139.2	138.8	0.027	REPLACE CATCH BASIN LEAD
4	NEW INLET	19+93.0	85.0'RT	143.27	4.94	2'X2.5' INLET	---	55	201	12	31		140	139.35	0.021	
5	INLET	20+42.1	68.1'RT	142.1	4.92	---	45A	57	203	12	10		138.85	138.6	0.025	REPLACE CATCH BASIN LEAD
6	NEW INLET	20+86.0	11.0'RT	141.9	4.92	45A	---	57	204	12	23		138.65	138	0.028	
7	NEW INLET	20+87.5	47.0'LT	140.7	5.37	45A	---	57	CONNECT TO STORM MAIN 20+88.0 31.0'LT	12	14	1	136	135.5	0.036	Water Main Protection
8	NEW INLET	20+87.5	47.0'RT	141.65	4.92	45A	---	57	204	12	34		136.8	135.8	0.029	Protect & Support 4" Gas Main
9	NEW INLET	21+75.0	47.0'RT	141.47	3.97	2'X2.5' INLET	---	57	CONNECT TO STORM MAIN 21+75.0 22.0'RT	12	24	3	137.5	137	0.021	Protect & Support 4" Gas Main
10	NEW INLET	21+85.0	47.0'LT	140.72	5.39	45A	---	57	CONNECT TO STORM MAIN 21+85.0 32.0'LT	12	14	2	137	136.2	0.057	
11	NEW INLET	21+88.0	8.0'RT	141.78	4.8	45A	---	57	CONNECT TO STORM MAIN 21+90.0 21.0'RT	12	11	4	138.65	138.4	0.023	
11A	NEW INLET	22+25.0	8.1'LT	141.7	7.62	45A	---	57	205	12	23		135.75	135	0.033	Protect & Support CUC, Electrical Conduits
12	INLET	23+87.0	47.0'RT	143.81	5.48	---	45A	57	CONNECT TO STORM MAIN 23+87 35.0'	12	11		140	139.75	0.023	REPLACE CATCH BASIN LEAD
13	STORM MH	23+96.0	1.0'LT	144.08	3.18	4'-0" DIA. MH	---	57	16	12	36		140.9	140	0.025	
14	NEW INLET	23+96 .0	11.0'RT	144.39	4.86	45A	---	57	13	12	14		141.2	140.9	0.021	
15	INLET	24+13.0	47.0'LT	144.85	4.92	---	---	57	16	12	12		141.6	141.35	0.021	REPLACE CATCH BASIN LEAD
16	STORM MH	24+13.0	34.0'LT	144.82	5.19	4'-0" DIA. MH	---	58A		15			139.63			NEW STORM MHBUILT ON EXISTING MAIN
17	INLET	27+01.0	47.0'LT	153.1	4.92	---	45A	57	210	12	12		149.85	149.6	0.021	REPLACE CATCH BASIN LEAD
18	NEW INLET	27+10.0	47.0'RT	153.15	4.92	45A	---	57	21	12	19		149.9	149.5	0.021	
19	NEW INLET	27+27.0	1.0'LT	153.58	4.75	45A	---	57	20	12	14		150.5	150	0.036	
20	STORM MH	27+27. 0	11.0'RT	153.7	3.25	4'-0" DIA. MH	---	57	21	12	23		150.45	149.95	0.022	
21	STORM MH	27+27.0	35..0'RT	153.86	---	4'-0" DIA. MH	---	58A								
22	INLET	29+30.0	47.0'LT	155.5	4.92	---	45A	57	211	12	12		152.25	152	0.021	REPLACE CATCH BASIN LEAD
23	NEW INLET	29+83.0	72.8'RT	156.45	4.92	45A	---	57	213	12	12		153.2	152.95	0.021	
24	NEW INLET	30+13.0	72.8'RT	156.51	4.78	45A	---	57	213	12	20		153.4	153	0.020	
25	NEW INLET	30+40.0	47.0'RT	156.84	5.51	45A	---	57	CONNECT TO STORM MAIN 30+40.0 35.0'RT	12	11	2	153	152.7	0.027	
26	NEW INLET	30+45.0	47.0'LT	156	4.92	45A	---	57	214	12	17		152.75	152.4	0.021	
27	STORM MH	30+52.0	1.0'LT	156.65	4.85	4'-0" DIA. MH	---	57	214	12	38		151.8	151	0.021	Protect & Support CUC, Electrical Conduits
28	NEW INLET	30+52.0	11.0'RT	157.5	6.67	45A	---	57	27	12	14		152.5	152.05	0.032	
29	INLET	33+14.0	65.0'RT	160.07	4.84	---	45A	57	215	12	8		156.9	156.7	0.025	REPLACE CATCH BASIN LEAD
30	INLET	33+44.0	66.0'RT	160.36	5.03	---	45A	57	215	12	21		157	156.5	0.024	REPLACE CATCH BASIN LEAD
31	NEW INLET	34+12.0	11.0'RT	160.6	5.97	45A	---	57	218	12	63		156.3	155	0.021	Protect & Support CUC, Electrical Conduits
32	INLET	34+18.0	47.0'RT	160.2	5.37	---	45A	57	CONNECT TO STORM MAIN 34+18 0,35.	12	11	3	156.5	156.2	0.027	REPLACE CATCH BASIN LEAD
33	NEW INLET	35+38.0	47.0'LT	159.38	5.05	45A	---	57	34	12	34		156	155.25	0.022	Protect & Support CUC, Electrical Conduits
34	STORM MH	35+38.0	11.0'LT	159.75	4.75	4'-0" DIA. MH	---	57	37	12	40		155	154.15	0.021	
35	STORM MH	35+50.0	35.0'RT	160.71	8.34	4'-0" DIA. MH	---	58A		21			152.37			NEW STORM MHBUILT ON EXISTING MAIN
36	NEW INLET	35+50.0	47.0'RT	160.3	4.92	45A	---	57	35	12	11		157.05	156.8	0.023	
37	NEW INLET	35+75.0	1.0'RT	160.45	8.22	4'-0" DIA. MH	---	57	38	12	41		153.9	153	0.022	
38	STORM MH	36+01.0	35.0'RT	160.71	7.97	4'-0" DIA. MH	---	58A		21			152.74			NEW STORM MHBUILT ON EXISTING MAIN
39	STORM MH	36+01.0	8.0'LT	160.77	8.02	---	4'-0" DIA. MH	55	38	12	43		152.75	151.85	0.021	
40	NEW INLET	36+05.0	47.0'RT	160.28	4.95	45A	---	57	38	12	12		157	156.75	0.021	
41	INLET	36+26.0	47.0'LT	159.55	6.22	---	45A	57	39	12	45		155	154	0.022	REPLACE CATCH BASIN LEAD
42	INLET	36+46.0	65.0'RT	160.45	4.92	---	45A	57	220	12	17		157.2	156.85	0.021	REPLACE CATCH BASIN LEAD
43	INLET	36+76.0	65.0'RT	160.48	4.95	---	45A	57	220	12	11		157.2	156.95	0.023	REPLACE CATCH BASIN LEAD
44	INLET	37+07.0	47.0'LT	159.3	5.47	---	45A	57	46	12	48		155.5	154.5	0.021	REPLACE CATCH BASIN LEAD
45	INLET	37+07.0	47.0'RT	160.2	4.67	---	45A	57	CONNECT TO STORM MAIN 37+07 35'RT	12	11	2	157.2	156.95	0.023	REPLACE CATCH BASIN LEAD
46	STORM MH	37+25.0	1.0'LT	159.6	5.1	45A	---	57	47	12	38		154.5	153.75	0.020	Protect & Support Telephone, 4: Gas Abandoned
47	STORM MH	37+25.0	35.0'RT	160.75	7.42	4'-0" DIA. MH	---	58A		21			153.33			NEW STORM MHBUILT ON EXISTING MAIN
48	STORM MH	38+50.0	35.0'RT	161.32	7.61	4'-0" DIA. MH	---	58A		21			153.71			NEW STORM MHBUILT ON EXISTING MAIN

3

W. Oklahoma Ave. - S. 60th St. to S. 49th St. New Drainage Structures(continued)

DRAINAGE									PVC PIPE, STORM SEWER							REMARKS
STRUC-TURE	TYPE OF STRUCTURE	STA.	T/L OFFSET	COVER ELEV.	STRUC-TURE	NEW STRUC-TURE	REPLACE-MENT	FRAME & LID	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	Length of riser	INVERT ELEV. INLET	INVERT ELEV. OUTLET	PIPE SLOPE	
49	NEW INLET	38+50.0	5.9'RT	161	8.07	4'-0" DIA. MH	---	57	48	12	27		154.6	154	0.022	
50	INLET	38+56.0	47.0'RT	160.84	4.91	---	45A	57	48	12	13		157.6	157	0.046	REPLACE CATCH BASIN LEAD
51	NEW INLET	38+62.5	47.0'LT	159.66	5.43	4'-0" DIA. MH	---	57	52	12	34		155.9	155.15	0.022	
52	STORM MH	38+62.0	11.0'LT	160.03	4.88	4'-0" DIA. MH	---	57	49	12	22		155.15	154.6	0.025	
53	INLET	39+78.0	65.5'RT	161.1	4.92	---	45A	57	222	12	11		157.85	157.619	0.021	REPLACE CATCH BASIN LEAD
54	INLET	40+08.0	66.0'RT	161.1	4.92	---	45A	57	222	12	16		157.85	157.5	0.022	REPLACE CATCH BASIN LEAD
55	STORM MH	40+86.0	3.0'LT	160.03	4.53	45A	---	57	57	12	18		155.5	155.35	0.008	Protect & Support CUC, Electrical Conduits
56	INLET	40+93.0	47.0'RT	160.72	4.89	---	45A	57	224	12	10		157.5	157.25	0.025	REPLACE CATCH BASIN LEAD
57	STORM MH	40+95.0	11.0'RT	161.14	5.79	4'-0" DIA. MH	---	57	224	12	24		155.35	155.1	0.010	Protect Telephone
58	INLET	41+14.0	47.0'LT	159.79	4.91	---	45A	57	55	12	50		156.55	155.5	0.021	REPLACE CATCH BASIN LEAD
59	INLET	42+47.0	47.0'LT	159.52	5.19	---	45A	57	60	12	34		156	155.5	0.015	REPLACE CATCH BASIN LEAD
60	STORM MH	42+50.0	11.0'LT	160.03	4.53	4'-0" DIA. MH	---	57	225	12	46		155.5	154.75	0.016	Protect & Support Telephone, 4: Gas Abandoned
61	INLET	42+92.0	47.0'RT	160.1	4.92	---	45A	57	226	12	13		156.85	156.55	0.023	REPLACE CATCH BASIN LEAD
62	NEW INLET	43+19.8	2.8'LT	160	5.92	45A	---	57	226	12	46		155.75	154.8	0.021	
63	NEW INLET	44+12.5	47.0'LT	159.56	5.78	45A	---	57	227	12	87		155.45	154.5	0.011	Protect & Support Telephone, Electrical, CUC, 4"Gas Abandoned
64	STORM MH	44+35.0	33.3'RT	160.35	6.01	5'-0" DIA. MH	---	58A		12			154.34			NEW STORM MHBUILT ON EXISTING MAIN
65	NEW INLET	44+35.0	47.0'RT	159.84	4.91	45A	---	57	64	12	13		156.6	156.3	0.023	
66	STORM MH	44+47.0	11.0'RT	160.24	5.34	4'-0" DIA. MH	---	57	64	12	24		154.9	154.4	0.021	Protect & Support Telephone, 4"Gas Abandoned
67	NEW INLET	44+59.0	1.63'LT	159.57	5.94	45A	---	57	66	12	19		155.3	154.9	0.021	
68	INLET	45+11.0	47.0'LT	159.44	5.61	---	45A	57	69	12	46		155.5	154.8	0.015	REPLACE CATCH BASIN LEAD
69	STORM MH	45+34.0	6.0'LT	160.28	5.48	4'-0" DIA. MH	---	55	228	12	39		154.8	154.4	0.010	Protect & Support Telephone, 4"Gas Abandoned
70	STORM MH	45+67.0	1.0'RT	159.59	4.79	4'-0" DIA. MH	---	57	72	12	43		154.8	153.85	0.021	Protect & Support Telephone, 4"Gas Abandoned
71	STORM MH	45+83.0	11.0'LT	159.75	4.5	4'-0" DIA. MH	---	57	70	12	21		155.25	154.8	0.021	
72	STORM MH	45+95.0	34.6'RT	159.61	6	---	5'-0" DIA. MH	58A		15			153.61			NEW STORM MHBUILT ON EXISTING MAIN
73	INLET	45+96.0	47.0'RT	159.2	4.92	---	45A	57	72	12	12		155.95	155.698	0.021	REPLACE CATCH BASIN LEAD
74	INLET	45+97.0	47.0'LT	159.26	4.93	---	45A	57	71	12	37		156	155.25	0.020	REPLACE CATCH BASIN LEAD
75	INLET	46+28.0	68.0'RT	159.3	5.92	---	45A	57	232	12	25		155.05	154.5	0.022	REPLACE CATCH BASIN LEAD
76	NEW INLET	46+30.0	70.0'LT	159.25	5.92	45A	---	57	77	12	25		155	154.45	0.022	
77	STORM MH	46+56.0	70.0'LT	159.7	6.76	4'-0" DIA. MH	---	58A		18			152.94			NEW STORM MHBUILT ON EXISTING MAIN
78	INLET	46+89.0	67.0'RT	159.3	4.92	---	45A	57	232	12	34		156.05	155.3	0.022	REPLACE CATCH BASIN LEAD
79	INLET	46+90.0	67.0'LT	159.15	4.92	---	45A	57	77	12	33		155.9	155.2	0.021	REPLACE CATCH BASIN LEAD
80	NEW INLET	48+25.0	6.3'LT	156.2	4.92	45A	---	57	81	12	19		152.95	152.55	0.021	
81	STORM MH	48+42.5	3.0'LT	155.55	3.25	4'-0" DIA. MH	---	57	82	12	30		152.3	151.6	0.023	Protect CUC Conduit
82	STORM MH	48+50.0	32.4' LT	155.55		4'-0" DIA. MH		58A		12			149.46			
83	STORM MH	49+40.6	6.1'LT	153.2	3.65	4'-0" DIA. MH	---	57	237	12	36		149.55	148.7	0.024	Protect & Support CUC
84	NEW INLET	49+47.7	4.0'RT	153.1	4.77	45A	---	57	83	12	14		150	149.55	0.032	
85	INLET	49+63.0	44.0'LT	152.35	4.92	---	45A	57	237	12	12		149.1	148.85	0.021	REPLACE CATCH BASIN LEAD
86	INLET	49+86.0	50.0'RT	152.22	4.94	---	45A	57	238	12	26		148.95	148.4	0.021	REPLACE CATCH BASIN LEAD
87	INLET	52+71.4	5.2'RT	142.6	4.92	45A	---	57	89	12	6		139.35	139.2	0.025	
88	INLET	52+71.5	17.4'RT	142.86	4.92	45A	---	57	89	12	11		139.6	139.35	0.023	
89	INLET	52+76.0	8.0'RT	142.97	4.47	---	4'-0" DIA. MH	55	243	12	46		138.5	137	0.033	REPLACE CATCH BASIN LEAD
90	INLET	52+87.0	30.0'LT	141.25	4.92	---	70A	57	90A	12	3		140.1	140	0.033	REPLACE CATCH BASIN LEAD
90A	STORM MH	52+87.0	33.0'LT	141.6		4'-0" DIA. MH		58A								NEW STORM MHBUILT ON EXISTING MAIN
91	STORM MH	52+87.0	54.0'RT	142.05	5.47	---	45A	57		12			136.58			Storm MH With Inlet Grate
92	INLET	53+10.0	70.0'RT	141.35	4.92	---	45A	57	245	12	17		137	136.3	0.041	REPLACE CATCH BASIN LEAD
93	INLET	53+40.0	70.0'RT	140.4	4.92	---	45A	57	245	12	24		137.15	136.65	0.021	REPLACE CATCH BASIN LEAD
94	INLET	53+42.0	42.0'LT	139.55	4.92	---	45A	57	246	12	20		136.3	135.85	0.023	REPLACE CATCH BASIN LEAD

REMOVE INLETS			
STRUC-TURE No.	STA.	T/L OFFSET	COVER ELEV.
102	19+56.0	75.0'RT	142.06
104	20+42.0	68.0'RT	141.9
112	24+13.3	47.0'LT	144.85
111	23+86.9	46.9'RT	143.87
114	27+01.3	47.2' LT	152.89
117	29+29.6	47.1'LT	155.4
124	33+14.2	65.0'RT	160.14
125	33+43.8	66.2'RT	160.36
126	34+18.0	46.9'RT	160.23
129	36+01.4	8.0'LT	160.77
131	36+26.2	47.1'LT	159.57
132	36+46.1	64.7'RT	160.33
133	36+76.0	64.8' RT	160.6
134	37+06.6	46.9'RT	160.16
135	37+07.1	46.9' LT	159.53
137	38+55.9	47.2' RT	160.63
138	38+86.9	46.9'LT	159.72
139	39+78.6	65.5' LT	160.88
141	40+93.0	47.0' RT	160.77
142	41+14.5	47.2' LT	159.79
144	42+46.8	47.2' LT	159.56
145	42+92.5	47.0' RT	160.27
147	45+11.2	47.1'LT	159.51
148	45+34.0	5.7' LT	160.28
149	45+97.0	46.9'LT	159.49
150	45+96.5	47.1'RT	159.2
151	46+28.2	68.2'RT	159.29
154	46+88.6	67.1' RT	159.2
155	46+90.1	66.7' LT	159.17
157	49+62.7	43.8' LT	152.41
159	49+86.5	50.4' RT	152.5
161	52+76.3	8.1' RT	142.97
162	52+87.1	29.9' LT	141.15
163	52+86.7	53.7' RT	141.26
165	53+09.8	69.5'RT	141.26
166	53+41.9	42.3' LT	139.55
REMARKS: Remove Inlet			

ABANDON INLETS			
STRUC-TURE No.	STA.	T/L OFFSET	COVER ELEV.
103	19+93 .4	66.2'RT	142.69
105	20+62.5	46.7'RT	141.43
106	20+62.4	47.0'LT	141.4
107	20+73.6	3.2'RT	142.25
108	21+78.7	47.1'LT	140.94
109	21+89.8	46.8'RT	141.45
110	22+36.5	0.0'RT	142.59
113	24+20.0	3.6'RT	145.96
115	27+03.4	46.9'RT	152.79
116	27+14.2	2.3'RT	154.32
118	29+36.7	4.3'LT	156.83
119	29+83.0	65.2'RT	156.6
120	30+12.7	65.1'RT	156.44
121	30+33.5	47.0'RT	156.77
122	30+36.7	47.0'LT	155.87
123	30+48.4	3.8'RT	157.9
127	35+16.6	46.9'LT	159.73
128	35+34.2	46.8'RT	160.19
130	36+20.2	46.8'RT	160.21
136	37+25.0	5.0'RT	161.15
140	40+08.3	65.6'RT	161.12
143	41+18.8	6.8'LT	161.36
146	43+78.8	46.8'LT	159.75
152	46+30.5	67.0'LT	158.97
156	49+35.7	2.3'LT	154
REMARKS: ABANDON AND BULKHEAD CATCH BASIN LEAD			

SANITARY MANHOLE Type 58A			
STRUC-TURE No.	STA.	T/L OFFSET	COVER ELEV.
400	19+55.3	47.4'RT	142.70
401	19+95.8	71.0'LT	141.44
403	20+36.0	4.0'RT	142.00
404	20+37.3	49.7'RT	142.23
405	20+38.8	70.2'LT	140.77
406	20+44.0	57.6'RT	142.02
407	20+66 .0	49.1'LT	141.30
408	23+23.6	3.1'RT	142.65
409	23+24.2	49.6'RT	142.75
410	23+41.6	49.2'RT	143.04
412	26+39.5	49.8'RT	153.03
413	26+63.7	49.4'RT	153.19
414	26+13.7	70.2'RT	153.00
415	26+71.0	49.1'LT	152.96
417	30+00.3	47.2'LT	156.33
421	33+33.0	48.9'RT	160.52
423	36+57.0	48.9'RT	160.68
427	39+98.3	49.5'RT	161.37
428	42+20.7	49.5'RT	161.17
430	46+61.8	46.2'LT	159.83
434	50+01.7	44.2'LT	151.96
438	53+27.5	36.5'LT	140.13
439	53+27.5	14.3'RT	141.33
440	53+27.5	50'RT	141.11
REMARKS: Manhole Cover Type 58A (Category 0020)			

STORM MANHOLE Type 58A				
STRUC-TURE No.	STA.	T/L OFFSET	COVER ELEV.	FRAME & LID
200	19+68.5	35.2'RT	142.75	58A
201	19+67.7	64.8'RT	142.8	58A
202	19+75.0	31.4'LT	142.24	58A
203	20+37.2	58.5RT	142.24	58A
204	20+64.6	20.6'RT	142.08	58A
205	22+27.5	31.7'LT	141.61	58A
206	22+95.6	34.9'LT	142.22	58A
207	23+24.4	35.6'RT	142.8	58A
208	24+85.4	33.2'LT	147.72	58A
209	26+70.6	35.4'RT	153.45	58A
210	27+01.3	33.9'LT	153.51	58A
211	29+29.9	33.6'LT	156.05	58A
212	29+93.4	35.2'RT	157.02	58A
213	29+93.1	65.1'RT	156.9	58A
214	30+32.6	34.6'LT	156.52	58A
215	33+22.9	65.4'RT	160.51	58A
216	33+24.4	35.3'RT	160.57	57
218	33+69.5	34.7'LT	160.78	58A
219	36+63.6	35.3'RT	160.7	58A
220	36+63.6	64.5'RT	160.86	58A
222	39+90.9	64.6'RT	161.43	58A
221	39+91.9	36.3' RT	161.62	58A
223	40+34.2	35.1'RT	161.42	58A
224	40+93.4	35.8'RT	161.14	58A
225	42+46.6	33.2'RT	160.94	58A
226	42+91.0	33.2'RT	160.68	58A
227	43+76.9	33.2'RT	160.58	58A
228	45+35.7	33.2'RT	159.94	58A
231	46+53.5	34'RT	160.12	58A
232	46+54.0	67.5'RT	160.18	58A
234	47+35.4	32.9'LT	158.65	58A
235	47+94.5	29.8'RT	157.16	58A
237	49+67.0	31.5'LT	152.71	58A
238*	49+66.0	32.5'RT	153.04	58A
239	49+93.8	58.8'LT	152.21	58A
240*	50+12.4	35.0'LT	151.9	58A
241	51+92.0	39.4'RT	145.52	58A
242	52+06.5	55.2'RT	145.43	58A
243	53+19.2	22.7'RT	141.58	58A
244	53+20.4	32.6'LT	140.31	58A
245	53+19.9	55.0'RT	141.3	58A
246	53+20.6	41.8'LT	140.25	58A

*Estimated Location Per Plan File No. 80-124, Uncover MH

Drainage Totals

CATE-GORY	ITEM NUMBER	DESCRIPTION	UNITS
0010	204.0220	REMOVING INLETS	36 EACH
0010	204.0260	ABANDONING INLETS	25 EACH
0010	611.2004	MANHOLES 4-FT DIAMETER	26 EACH
0010	611.2005	MANHOLES 5-FT DIAMETER	2 EACH
0010	611.3225	INLETS 2X2.5-FT	3 EACH
0010	611.8120.S	COVER PLATES TEMPORARY	2 EACH
0010	650.4000	CONSTRUCTION STAKING STORM SEWER	97 EACH
0010	SPV.0060.002	INLET TYPE 45A	66 EACH
0010	SPV.0060.003	INLET COVER TYPE 55	4 EACH
0010	SPV.0060.004	INLET COVER TYPE 57	81 EACH
0010	SPV.0060.005	MANHOLE COVER TYPE 58A	52 EACH
0020	SPV.0060.005	MANHOLE COVER TYPE 58A	24 EACH
0020	SPV.0060.006	ADJUSTING WATER BOXES	85 EACH
0020	SPV.0060.007	ADJUSTING WATER MANHOLE FRAME AND LID	1 EACH
0020	SPV.0060.008	WATER MAIN PROTECTION	3 EACH
0010	SPV.0060.011	INLET BASKET TYPE M	148 EACH
0010	SPV.0060.012	INLET SCREEN TYPE R	148 EACH
0020	SPV.0060.013	INTERNAL SANITARY MANHOLE SEALS	24 EACH
0010	SPV.0060.014	INLET TYPE 70A	1 EACH
0010	SPV.0090.002	STORM SEWER CORRUGATED PVC PIPE 12-INCH	2018 LF

Tree Removals (Clearing and Grubbing)			
Station	Side of Street	Type of Tree	Diameter (in)
22+56	Median	Elm	7
22+76	Median	Crab	7
23+00	Median	Elm	8
24+91	Median	Catalpa	1
25+26	Median	Maple	6
25+74	Median	Crab	1
27+56	Median	Oak	3
27+87	Median	Oak	3
28+54	South	Elm	29
29+00	South	Stump*	28
30+46	South	Elm	30
31+05	Median	Oak	5
31+26	Median	Oak	4
31+45	South	Elm	34
31+54	Median	Lilac	7
31+76	Median	Lilac	4
32+22	Median	Locust	3
32+53	Median	Crab	1
33+78	South	Elm	29
34+14	Median	Catalpa	4
34+28	South	Maple	13
34+35	Median	Maple	1
34+69	Median	Pear	7
34+93	Median	Pear	8
35+22	Median	Crab	8
35+51	Median	Catalpa	4
36+11	South	Elm	26
37+65	South	Maple	11
37+66	Median	Linden	3
37+90	Median	Linden	3
38+60	North	Lilac	3
Total Inches in Diameter (ID)			301

Tree Removals (Clearing and Grubbing)			
Station	Side of Street	Type of Tree	Diameter (in)
38+60	Median	Oak	3
39+02	Median	Maple	11
40+90	Median	Oak	3
41+56	South	Stump*	25
42+96	South	Elm	4
43+86	North	Locust	1
44+25	South	Maple	3
44+69	Median	Pear	7
44+83	Median	Pear	6
44+99	Median	Pear	7
45+14	Median	Pear	5
48+59	South	Maple	9
48+90	Median	Pear	10
50+44	North	Stump*	28
50+76	Median	Maple	5
50+90	North	Stump*	36
50+95	Median	Linden	1
51+12	Median	Oak	1
51+31	South	Elm	27
51+34	Median	Oak	1
51+52	Median	Oak	1
51+74	Median	Oak	1
51+78	South	Elm	27
51+92	Median	Oak	1
52+12	Median	Linden	1
53+77	North	Ash	17
Total Inches in Diameter (ID)			241

Grand Total Inches in Diameter (ID)	542
201.0120 Clearing (ID)	425
201.0220 Grubbing (ID)	542

* Stumps only need Grubbing
All Items are category 0010

STATE PROJ. # 2400-00-72	ESTIMATE OF QUANTITIES TREE PLANTINGS									
TREE LOCATIONS:	**ITEM**	**ITEM**	**DESCRIPTION**	**COMMON NAME**	**UNIT**	**CALIPER**	**HEIGHT**	**SPREAD**	**ROOT**	**REMARKS**
NOTE: MEDIAN TREES										
Sta. 32 + 35 median	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 32 + 00 median	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 42 + 10 median	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 42 + 90 median	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 38 + 00 median	632.0101.002	TREES	ACER FREEMANII "AUTUMN BLAZE"	AUTUMN BLAZE MAPLE	EACH	3.5"	-	-	B&B	SPECIMEN QUALITY
Sta. 39 + 25 median	632.0101.002	TREES	ACER FREEMANII "AUTUMN BLAZE"	AUTUMN BLAZE MAPLE	EACH	3.5"	-	-	B&B	SPECIMEN QUALITY
Sta. 42 + 45 median	632.0101.002	TREES	ACER FREEMANII "AUTUMN BLAZE"	AUTUMN BLAZE MAPLE	EACH	3.5"	-	-	B&B	SPECIMEN QUALITY
Sta. 22 + 50 median	632.0101.003	TREES	AMELANCHIER ARBOREA	CUMULUS SERVICEBERRY	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 22 + 75 median	632.0101.003	TREES	AMELANCHIER ARBOREA	CUMULUS SERVICEBERRY	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 23 + 10 median	632.0101.003	TREES	AMELANCHIER ARBOREA	CUMULUS SERVICEBERRY	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 35 + 25 median	632.0101.004	TREES	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 35 + 60 median	632.0101.004	TREES	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 35 + 90 median	632.0101.004	TREES	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 52 + 15 median	632.0101.005	TREES	LIRIODENDRON TULIPIFERA	TULIP TREE	EACH	3"	-	-	B&B	SPECIMEN QUALITY
SIGNATURE BED TREES										
Sta. 25 + 29 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
Sta. 25 + 55 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
Sta. 25 + 71 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
Sta. 44 + 41 median	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 44 + 65 median	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 44 + 89 median	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 50 + 84 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
Sta. 51 + 00 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
Sta. 51 + 16 median	632.0101.007	TREES	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	EACH	2"	-	-	B&B	SPECIMEN QUALITY
NOTE: NORTH AND SOUTH SIDE R.O.W. TREES										
Sta. 50 + 70 N/S	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 34 + 00 N/S	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 34 + 50 N/S	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 31 + 35 S/S	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 51 + 11 S/S	632.0101.006	TREES	PYRUS CALLERYANA "CLEVELAND SELECT"	CALLERY PEAR	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 41 + 25 N/S	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 37 + 70 N/S	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 35 + 90 S/S	632.0101.001	TREES	SYRINGA RETICULATA "IVORY SILK"	JAPANESE TREE LILAC	EACH	3"	-	-	B&B	SPECIMEN QUALITY
Sta. 27 + 85 N/S	632.0101.002	TREES	ACER FREEMANII "AUTUMN BLAZE"	AUTUMN BLAZE MAPLE	EACH	3.5"	-	-	B&B	SPECIMEN QUALITY
Sta. 29 + 00 N/S	632.0101.002	TREES	ACER FREEMANII "AUTUMN BLAZE"	AUTUMN BLAZE MAPLE	EACH	3.5"	-	-	B&B	SPECIMEN QUALITY

CATEGORY	ITEM NUMBER	DESCRIPTION	UNITS
0010	632.0101.001	JAPANESE TREE LILAC	7 EACH
0010	632.0101.002	AUTUMN BLAZE MAPLE	5 EACH
0010	632.0101.003	CUMULUS SERVICEBERRY	3 EACH
0010	632.0101.004	KENTUCKY COFFEETREE	3 EACH
0010	632.0101.005	TULIP TREE	1 EACH
0010	632.0101.006	CALLERY PEAR	8 EACH
0010	632.0101.007	DAWN REDWOOD	6 EACH
0010	632.9101	LANDSCAPE PLANTING SURVEILLANCE CARE CYCLE	12 EACH
0010	SPV.0060.010	SIGNATURE BEDS	3 EACH

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Bio-Swale Quantities

Bid Item	Discription	Quantities									Unit
		Bio 1	Bio 2	Bio 3	Bio 4	Bio 5	Bio 6	Bio 7	Bio 8	Totals	
205.0100	Excavation Common	138	83	111	96	93	108	70	209	908	CY
612.0106	Pipe Underdrain (6-Inch)	93	50	54	61	44	61	41	104	508	LF
612.0208	Pipe Underdrain Unperforated (8-Inch)	15	24	19	10	10	10	10	10	108	LF
645.0112	Geotextile Type DF Schedule B	31	19	15	15	17	22	16	35	170	SY
SPV.0035.601	Engineered Soil	41	25	33	29	28	36	21	49	262	CY
SPV.0035.602	Bedding Layer	9	6	7	6	6	8	5	11	58	CY
SPV.0035.603	Storage Layer	55	33	44	39	37	48	28	85	369	CY
SPV.0035.604	Cobblestone	4	4	4	6	4	8	4	4	38	CY
SPV.0060.601	8-Inch PVC Standpipe with Dome Grate	1	1	1	1	1	1	1	1	8	EACH
SPV.0060.602	Informational Sign Posts	1	-	-	-	1	-	-	1	3	EACH
SPV.0060.603	6-Inch Cleanouts	1	1	1	1	2	2	1	2	11	EACH
SPV.0060.604	Perennial Black Eyed Susan *	24	-	-	-	-	-	-	-	24	EACH
SPV.0060.605	Perennial Blue Wonder Catmint *	102	-	24	60	32	60	48	-	326	EACH
SPV.0060.606	Perennial Dwarf Daylillies Happy Returns *	-	48	-	36	48	48	60	120	360	EACH
SPV.0060.607	Rugosa Roses +	-	-	-	7	-	7	-	20	34	EACH
SPV.0060.608	Perennial Russian Sage *	-	24	24	-	12	48	-	20	128	EACH
SPV.0060.609	Perennial Blue Fortune *	-	-	-	-	32	-	-	-	32	EACH
SPV.0060.610	Perennial Shasta Daisy *	-	-	-	36	-	-	-	-	36	EACH
SPV.0060.611	Perennial Purple Coneflower *	-	30	-	-	24	-	32	-	86	EACH
SPV.0060.612	Diablo Ninebark+	-	-	3	-	-	-	-	-	3	EACH
SPV.0060.613	See Green Juniper +	-	-	-	-	-	-	4	-	4	EACH
SPV.0060.614	Joe Pye Weed *	-	-	-	3	10	-	6	-	19	EACH
SPV.0060.615	Red Twig Dogwood +	-	3	-	-	4	-	-	-	7	EACH
SPV.0060.616	Karl Forester Grass *	6	6	15	6	-	7	-	5	45	EACH
SPV.0060.617	Little Bunny Grass *	-	-	30	-	-	-	-	-	30	EACH
SPV.0060.618	Tigers Eye Sumac +	6	-	-	-	-	-	4	-	10	EACH
SPV.0060.619	Inlet Frame and Grate	4	2	2	3	2	4	2	4	23	EACH

Plantings; Container size; Ball/CG Diameter, Depth; Root spread.

*	1 GAL.;	9" Dia.,	6" deep ;	24"
+	3 GAL.;	12" Dia.,	9" deep ;	36"

All Items on this page are Category 0020

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Street Lighting and Traffic Signal Quantities

Bid Item	Discription	Unit	Quantity
204.0195	Removing Concrete Bases	Each	11
650.8500	Construction Staking Electrical Installations (project)	LS	1
652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	350
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	170
652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	3050
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	850
652.0240	Conduit Rigid Nonmetallic Schedule 40 4-Inch	LF	70
652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	2425
652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	2250
652.0610	Conduit Special 2 1/2-Inch	LF	380
654.0101	Concrete Bases Type 1	Each	11
654.0105	Concrete Bases Type 5	Each	1
654.0110	Concrete Bases Type 10	Each	8
655.0305	Cable Type UF 2-12AWG Grounded	LF	2900
657.0100	Pedestal Bases	Each	11
657.0255	Transformer Base Breakaway 11 1/2-Inch Bolt Circle	Each	1
657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	Each	2
SPV.0060.009	Utility Line Opening	Each	8
SPV.0060.201	Poles Type 9	Each	1
SPV.0060.202	Poles Type 10	Each	3
SPV.0060.203	Poles Type 10 Overheight	Each	4
SPV.0060.207	Monotube Arms 25-FT	Each	1
SPV.0060.208	Monotube Arms 30-FT	Each	7
SPV.0060.301	Polymer Concrete Vault 13-Inchx24-Inchx24-Inch	Each	21
SPV.0060.302	Polymer Concrete Vault 17-Inchx30-Inchx24-Inch	Each	55
SPV.0060.303	Pole Type 3	Each	2
SPV.0060.304	Luminaire Utility LED 1	Each	7
SPV.0060.305	Luminaire Utility LED 3	Each	78
SPV.0060.306	Luminaire Utility Rectangular LED 3	Each	4
SPV.0060.307	Water Tight Junction Box Splicing	Each	33
SPV.0060.308	Luminaire Arms Single Member 6-FT	Each	16
SPV.0060.309	Pole Type14	Each	1
SPV.0090.301	Cable Type 3#8/1#8 LTP	LF	900
SPV.0090.302	Cable Type 3#4/1#8 LTP	LF	3800
SPV.0090.303	Cable Type 3#2/1#8 LTP	LF	2800
SPV.0090.304	Electrical Cable Type UF 3#12AWG With Ground	LF	400

All Items on this page are Category 0010

TEMPORARY MARKING

STAGE	CATEGORY 10 649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE (LF)	CATEGORY 10 649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW (LF)	CATEGORY 10 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE (LF)	CATEGORY 10 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW (LF)	CATEGORY 10 649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE (EACH)	CATEGORY 10 649.0650 TEMPORARY MARKING WORD REMOVABLE TAPE (EACH)
STAGE 1	1130	5879	633	2338	3	3
STAGE 1A - S 60TH ST	-	-	900	-	-	-
STAGE 1A - S 51ST ST	-	-	400	-	-	-
STAGE 1B - S 60TH ST	-	-	490	-	-	-
STAGE 1B - S 51ST ST	-	-	300	-	-	-
STAGE 2	-	-	1960	7450	1	1
STAGE 2A - S 60TH ST	-	-	900	-	-	-
STAGE 2A - S 51ST ST	-	-	400	-	-	-
STAGE 2B - S 60TH ST	-	-	490	-	-	-
STAGE 2B - S 51ST ST	-	-	300	-	-	-
Undistributed	213	578	349	590	-	-
	7,800		**17,500**		**4**	**4**

PEDESTRIAN ACCOMODATIONS ITEMS

STAGE	DURATION CALANDAR DAYS	#	CATEGORY 10 643.1070 TRAFFIC CONTROL CONES 42-INCH (DAYS)	CATEGORY 10 644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT (SF)	CATEGORY 10 644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD (SF)	CATEGORY 10 644.1430.S TEMPORARY PEDESTRIAN SURFACE PLATE (SF)	CATEGORY 10 644.1601.S TEMPORARY CURB RAMP (EACH)	CATEGORY 10 644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE (LF)	CATEGORY 10 SPV.0060.001 TEMPORARY BUS LOADING ZONE (EACH)
STAGE 1	28	*250*	7000	200	600	100	20	-	8
STAGE 2	28	*250*	7000	200	600	100	20	-	9
Undistributed			-	-	-	-	-	600	-
			14,000	**400**	**1,200**	**200**	**40**	**600**	**17**

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TRAFFIC CONTROL

STAGE	DURATION CALANDAR DAYS	CATEGORY 10 643.5000 TRAFFIC CONTROL (EACH)	CATEGORY 10 643.0300 TRAFFIC CONTROL DRUMS #	(DAYS)	CATEGORY 10 643.0410 TRAFFIC CONTROL BARRICADES TYPE II #	(DAYS)	CATEGORY 10 643.0420 TRAFFIC CONTROL BARRICADES TYPE III #	(DAYS)	CATEGORY 10 643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (EACH)	CATEGORY 10 643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (EACH)	CATEGORY 10 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A #	(DAYS)	CATEGORY 10 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C #	(DAYS)	CATEGORY 10 643.0900 TRAFFIC CONTROL SIGNS #	(DAYS)	CATEGORY 10 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II (EACH)
TOTAL PROJECT	161	1		-		-		-				-		-		-	-
STAGE 1	81	-	*50*	4050	-	-	*162*	13122	160	160	*324*	26244	*32*	2592	*140*	11340	-
STAGE 1A - S 60TH ST	25	-	*50*	1250		-	*26*	650	-	-	*52*	1300	*16*	400	*26*	650	-
STAGE 1A - S 51ST ST	25	-	*34*	850		-	*26*	650	-	-	*52*	1300	-	-	*26*	650	-
STAGE 1B - S 60TH ST	25	-	*50*	1250		-	*26*	650	-	-	*52*	1300	*16*	400	*26*	650	-
STAGE 1B - S 51ST ST	25	-	*34*	850		-	*26*	650	-	-	*52*	1300	*10*	250	*26*	650	-
STAGE 2	80	-	*175*	14000		-	*146*	11680	160	160	*292*	23360	*42*	3360	*124*	9920	-
STAGE 2A - S 60TH ST	25	-	*50*	1250		-	*26*	650	-	-	*52*	1300	*16*	400	*26*	650	-
STAGE 2A - S 51ST ST	25	-	*34*	850		-	*26*	650	-	-	*52*	1300	-	-	*26*	650	-
STAGE 2B - S 60TH ST	25	-	*50*	1250		-	*26*	650	-	-	*52*	1300	*16*	400	*26*	650	-
STAGE 2B - S 51ST ST	25	-	*34*	850		-	*26*	650	-	-	*52*	1300	*10*	250	*26*	650	-
Undistributed		-	20	3220	15	2415	-	-	30	30	-	-	8	1288	10	1610	20
TOTALS		**1**		**29,670**		**2,415**		**30,002**	**350**	**350**		**60,004**		**9,340**		**28,070**	**40***

*Item 643.0920 has one cover and one uncover cycle for a total of 40

PAVEMENT MARKING

LOCATION	CATEGORY 10 646.1020 MARKING LINE EPOXY 4-INCH WHITE (LF)	YELLOW (LF)	CATEGORY 10 646.3020 MARKING LINE EPOXY 8-INCH WHITE (LF)	CATEGORY 10 646.5020 MARKING ARROW EPOXY (EACH)	CATEGORY 10 646.5220 MARKING SYMBOL EPOXY (EACH)	CATEGORY 10 SPV.0090.003 MARKING LINE EPOXY 6-INCH WHITE (LF)	CATEGORY 10 SPV.0090.004 MARKING STOP LINE EPOXY 24-INCH (LF)	CATEGORY 10 SPV.0090.005 MARKING CROSSWALK EPOXY 12-INCH (LF)
	6254	-	1218	16	16	4873	834	1959
Undistributed	246	-	32	-	-	127	16	41
	6,500		**1,250**	**16**	**16**	**5,000**	**850**	**2,000**

3

MISCELLANEOUS QUANTITIES

STATION TO STATION	L OR R	204.0100 REMOVING PAVEMENT SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	205.0501.S EXCAVATION, HAULING, AND DISPOSIAL OF PETROLEUM CONTAMINATED SOIL TON	213.0100 FINISHING ROADWAY (project) EACH	305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	320.0145 CONCRETE BASE 8-INCH SY	415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY	415.0210 CONCRETE PAVEMENT GAPS	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.0180 CONCRETE DRIVEWAY 8-INCH SY	417.0190 CONCRETE DRIVEWAY 9-INCH SY
STA 19+00 TO 25+00	L	2960	120	0	60	440	1163		1060	0	2690	4	100	50	0
STA 25+00 TO 31+00	L	2980	0	0	0	440	0		1100	10	2800	2	60	80	85
STA 31+00 TO 37+00	L	2940	0	110	30	440	0		1060	0	2640	0	20	0	0
STA 37+00 TO 43+00	L	2690	0	60	0	330	0		1100	10	2580	1	30	0	0
STA 43+00 TO 49+00	L	3080	0	110	70	360	0		1160	30	2790	1	120	0	0
STA 49+00 TO 54+50	L	2060	0	40	30	210	0		740	0	1860	0	0	0	0
TOTAL		16710	120	320	190	2220	1163		6220	50	15360	8	330	130	85
STA 19+00 TO 25+00	R	3040	230	0	110	430	0		1120	0	2760	3	30	150	0
STA 25+00 TO 31+00	R	3030	0	0	0	420	0		1130	0	2860	0	60	0	0
STA 31+00 TO 37+00	R	3020	0	50	30	410	0		1090	0	2710	0	10	0	0
STA 37+00 TO 43+00	R	2860	0	0	0	470	0		1050	10	2720	0	70	0	0
STA 43+00 TO 49+00	R	3000	0	130	80	460	0		1100	10	2730	1	30	50	0
STA 49+00 TO 54+50	R	2540	0	0	0	340	0		910	0	2190	0	0	0	0
TOTAL		17490	230	180	220	2530	0		6400	20	15970	4	200	200	0
GRAND TOTAL		34200	350	480	410	4800	1163	1	29767	66	31350	12	535	330	85

All Items on this page are Category 0010

3

MISCELLANEOUS QUANTITIES

STATION TO STATION	L OR R	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	601.0150 CONCRETE CURB INTEGRAL TYPE D LF	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	601.0322 CONCRETE CURB & GUTTER 22-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	619.1000 MOBILI-ZATION EACH	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	621.0100 LANDMARK REFERENCE MONUMENTS EACH	623.0200 DUST CONTROL SURFACE TREATMENT SY	625.0100 TOPSOIL SY
STA 19+00 TO 25+00	L		0	450	0	0	530	0	2430	40		60	1	2690	420
STA 25+00 TO 31+00	L		0	350	0	20	590	0	2740	50		10	0	2800	470
STA 31+00 TO 37+00	L		20	470	0	30	570	0	3340	80		40	0	2640	730
STA 37+00 TO 43+00	L		10	520	0	0	630	10	2370	40		10	0	2580	650
STA 43+00 TO 49+00	L		30	390	0	60	890	0	2020	40		70	1	2790	430
STA 49+00 TO 54+50	L		10	200	0	30	470	80	1600	80		20	0	1860	490
TOTAL			70	2380	0	140	3680	90	14500	330		210	2	15360	3190
STA 19+00 TO 25+00	R		0	470	7	0	720	10	2250	40		60	0	2760	540
STA 25+00 TO 31+00	R		0	360	0	30	640	0	2990	80		10	0	2860	500
STA 31+00 TO 37+00	R		0	470	0	0	610	30	3170	80		40	0	0	660
STA 37+00 TO 43+00	R		0	500	0	0	660	30	3360	40		0	0	2720	510
STA 43+00 TO 49+00	R		20	520	0	80	560	10	3120	40		60	0	2730	510
STA 49+00 TO 54+50	R		0	570	0	40	460	40	2870	40		70	0	2190	960
TOTAL			20	2890	7	150	3650	120	17760	320		240	2	13260	3680
GRAND TOTAL		20	100	5270	7	290	7340	215	32300	650	1	450	2	31300	6850

All Items on this page are Category 0010

3

MISCELLANEOUS QUANTITIES

STATION TO STATION	L OR R	629.021 FERTILIZER TYPE B CWT	631.1000 SOD LAWN SY	642.5410 FIELD OFFICE TYPE D EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9910 CONSTRUCTION STAKING SUPLEMENTAL CONTROL (project) LS	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	SPV.0090.001 CONSTRUCTION STAKING SIDEWALK LF	SPV.0170.001 TEST ROLLING STA	SPV.0180.001 JOINT SEALING SY
STA 19+00 TO 25+00	L		420		600	980	600	4		170	290	310		
STA 25+00 TO 31+00	L		470		600	1060	600	5		30	30	540		
STA 31+00 TO 37+00	L		730		600	1070	600	8		70	60	490		
STA 37+00 TO 43+00	L		650		600	1150	600	4		90	20	540		
STA 43+00 TO 49+00	L		430		600	1340	600	4		440	70	440		
STA 49+00 TO 54+50	L		490		480	780	480	8		0	270	30		
TOTAL			3190		3480	6380	3480	33		800	740	2350		
STA 19+00 TO 25+00	R		540		600	1220	600	4		120	370	280		
STA 25+00 TO 31+00	R		500		600	1070	600	7		10	220	460		
STA 31+00 TO 37+00	R		660		600	1180	600	8		0	80	480		
STA 37+00 TO 43+00	R		510		600	1160	600	4		80	10	340		
STA 43+00 TO 49+00	R		510		600	1160	600	4		130	330	510		
STA 49+00 TO 54+50	R		960		480	1070	480	6		0	400	340		
TOTAL			3680		3480	6860	3480	33		340	1410	2410		
GRAND TOTAL		5	6850	1	6960	13240	6960	66	1	1140	2140	4770	70	31300

All Items on this page are Category 0010

3

CITY UNDERGROUND CONDUIT

LOCATION	SPV.0060.404 ADJUSTING TES MANHOLE COVERS EACH	SPV.0060.401 REMOVING MANHOLE TYPE TES EACH	SPV.0060.402 5' DIAMETER "DOGHOUSE" MANHOLE TYPE TES EACH	SPV.0060.403 4' DIAMETER "DOGHOUSE" MANHOLE TYPE TES EACH	SPV0090.401 1-DUCT CONDUIT CEMENT ENCASED DB-60 LF
MANHOLE #600R - STA 19 + 85.5, 61.6 RT		1			
MANHOLE #601 - STA 19 + 85.5, 61.6 RT	1 NEW COVER		1		
MANHOLE #601 TO PROPOSED TRAFFIC CONTROL CABINET					42
MANHOLE #602R - STA 19 + 86.5, 18.2 LT		1			
MANHOLE #603 - STA 19 + 86.5, 18.2 LT	1 NEW COVER		1		
MANHOLE #604R - STA 20 + 74.9, 17.4 LT		1			
MANHOLE #605 - STA 20 + 74.9, 17.4 LT	1 NEW COVER		1		
MANHOLE #606R - STA 23 + 82.0, 17.7 LT		1			
MANHOLE #607 - STA 23 + 82.0, 17.7 LT	1 NEW COVER		1		
MANHOLE #608R - STA 26 + 87.9, 17.9 LT		1			
MANHOLE #609 - STA 26 + 87.9, 17.9 LT	1 NEW COVER		1		
MANHOLE #610R - STA 29 + 00.6, 18.4 LT		1			
MANHOLE #611 - STA 29 + 00.6, 18.4 LT	1 NEW COVER		1		
MANHOLE #611 TO PROPOSED HANDHOLE					51
MANHOLE #612R - STA 33 + 00.9, 17.3 LT		1			
MANHOLE #613 - STA 33 + 00.9, 17.3 LT	1 NEW COVER			1	
MANHOLE #613 TO STA 32 + 96.2, 48.0 LT					28
MANHOLE #614R - STA 36 + 32.5, 17.8 LT		1			
MANHOLE #615 - STA 36 + 32.5, 17.8 LT	1 NEW COVER			1	
MANHOLE #616 - STA 39 + 65.7, 16.3 LT	1 NEW COVER				
MANHOLE #617R - STA 43 + 32.4, 16.4 LT		1			
MANHOLE #618 - STA 43 + 32.4, 16.4 LT	1 NEW COVER			1	
MANHOLE #619R - STA 47 + 03.6, 17.4 LT		1			
MANHOLE #620 - STA 47 + 03.6, 17.4 LT	1 NEW COVER			1	
MANHOLE #620 TO PROPOSED TRAFFIC CONTROL CABINET					118
MANHOLE #621R - STA 50 + 18.5, 14.8 LT		1			
MANHOLE #622 - STA 50 + 18.5, 14.8 LT	1 NEW COVER		1		
MANHOLE #623R - STA 53 + 59.3, 24.0 LT		1		1	
MANHOLE #624 - STA 53 + 61.3, 24.0 LT	1 NEW COVER				
TOTAL	13	12	7	5	239

All Items on this page are Category 0010

3

EARTH WORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow(8)
		Cut (2)	*EBS Excavation (3)				1.20 Factor			
		CY	CY	CY	CY	CY	CY	CY	CY	CY
19+50 to 54+00		18593	7803	11400	7193	1050	1260	5933	17333	0
		TOTAL	26396							

Enter Exist Pavt Thickness Inches

12.00

1.00000

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Expanded Fill. Factor = 1.20
7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material.
8) To be bid as part of base aggregated dense 1-1/4"
*EBS to be undertaken only at the direction of the engineer. No excavation below subgrade will be undertaken prior to failure of proof roll.
See Section 9 of plans for Cut & Fill quantities

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

WEST OKLAHOMA AVENUE

BEGIN PROJECT STA. 19+7.92 T/L

BM: HYD N/S OF 5800 W. OKLAHOMA AVE. STA. 23+63.50' LT. ELEV: 145.79

BIO-SWALE NO. 1 (SEE BIO-SWALE PLAN)

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

20' SEWER EASEMENT

WB PGL

EB PGL

S.I. LINE ON R/W WHEN LESS THAN 1'

S. 60TH ST

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. CONC. CURB & GUTTER 19-INCH
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(D9) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (9-INCH)
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(G3) REMOVE ASPH. (SURFACE BUTT JOINT) TO OBTAIN 3" MIN. ASPH. OVERLAY
(J) SAW FULL DEPTH CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(T) SAW FULL DEPTH AT OR NEAR BUILDING OR WALL
(V) CONST. 8.5" CONC PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

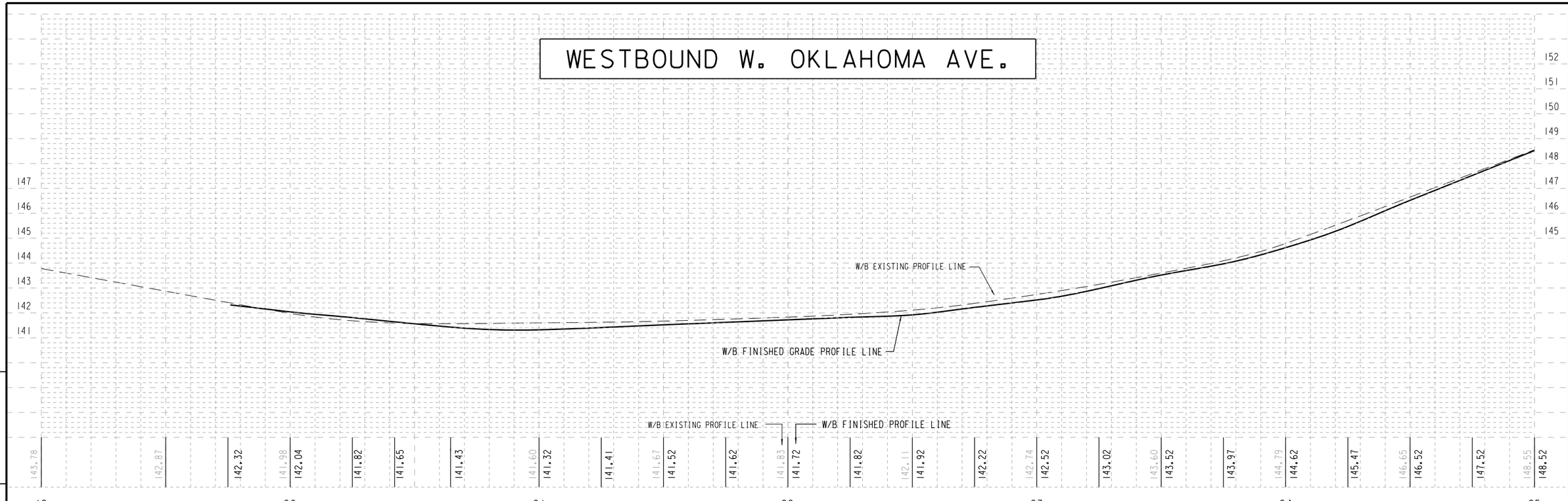
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 190	E

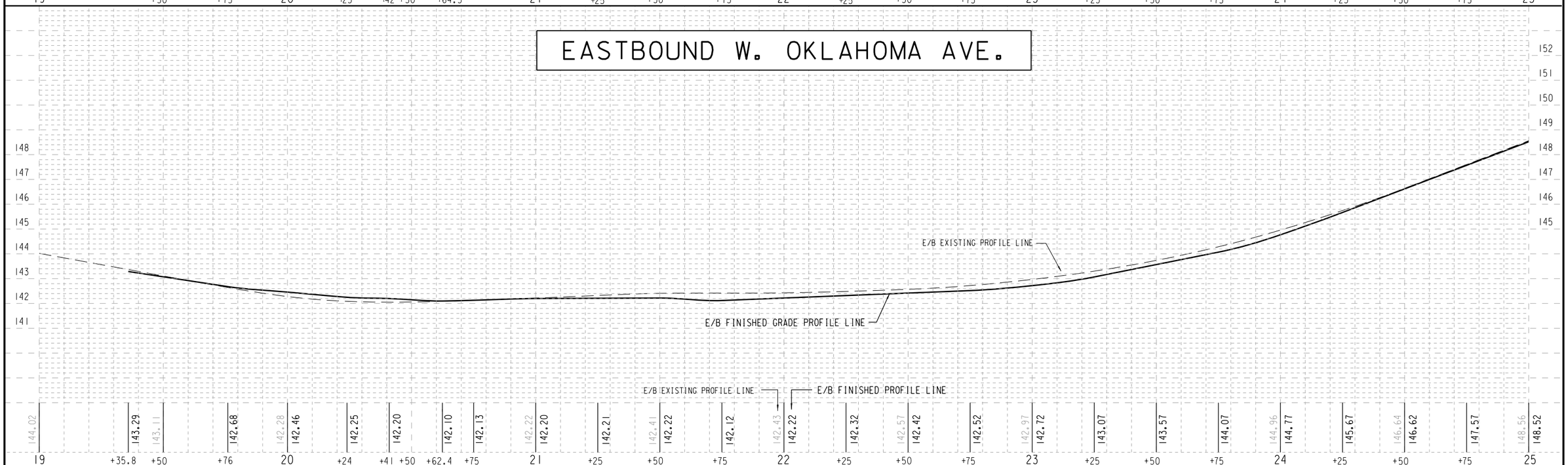
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REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



EASTBOUND W. OKLAHOMA AVE.



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 191	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\19_25.DGN

REVISED DATE: 08-01-2017 BY SB

WEST OKLAHOMA AVENUE

BM: HYD (NE CORNER)
S. 56TH ST. & W. OKLAHOMA
STA. 30+17.65' LT.
ELEV: 158.80

BM: HYD (NE CORNER)
S. 56TH ST. & W. OKLAHOMA
STA. 30+17.65' LT.
ELEV: 158.80

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 2 (SEE BIO-SWALE PLAN)

BIO-SWALE NO. 5 (SEE BIO-SWALE PLAN)

S.I. LINE ON R/W WHEN LESS THAN 1'

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

S. 57TH ST.

S. 56TH ST.

WB PGL

EB PGL

- (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
- (3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (B) CONST. CONC. CURB & GUTTER 22-INCH
- (C) CONST. CONC. CURB & GUTTER 19-INCH
- (D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (J) SAW FULL DEPTH CONCRETE
- (K) SAWING ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (R) SAW FULL DEPTH AT BASE OF CONC STEP
- (T) SAW FULL DEPTH AT OR NEAR BUILDING OR WALL
- (TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)
- (V) CONST 8" CONC PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8" CONC PAVEMENT
- (X) CONST. MAINTENANCE RAMP
- (Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

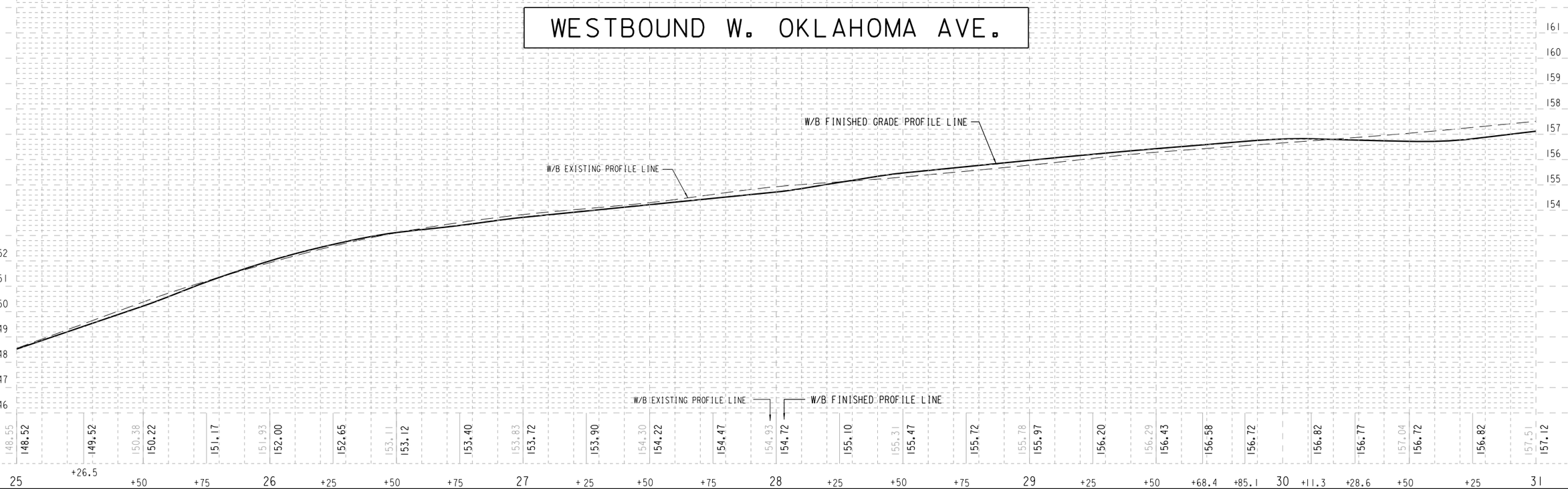
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 192	E

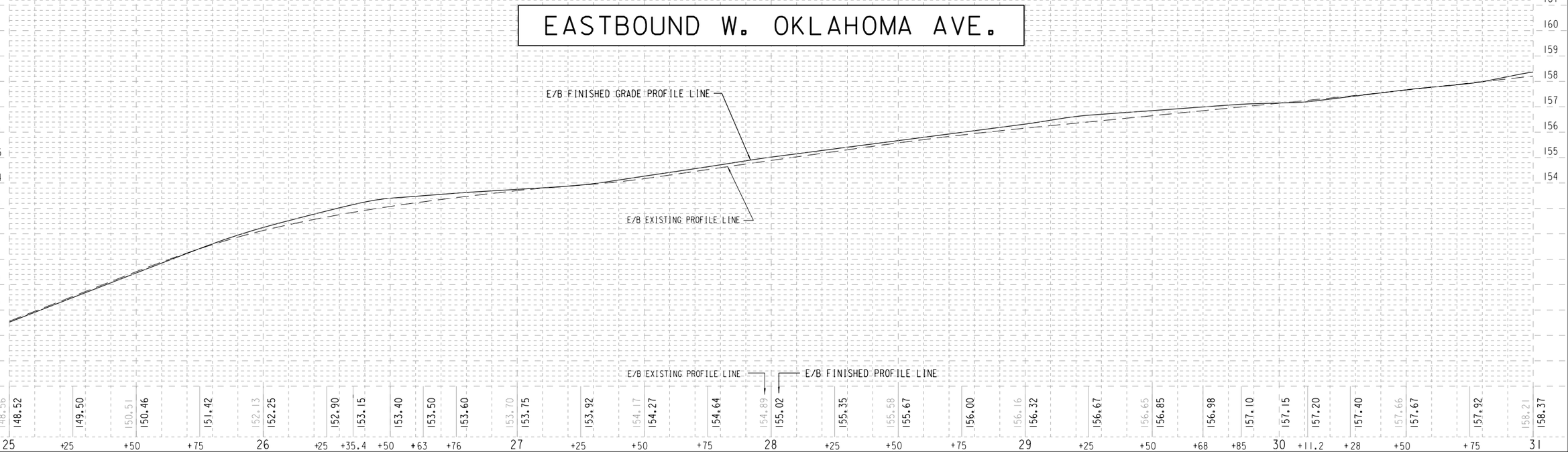
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REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



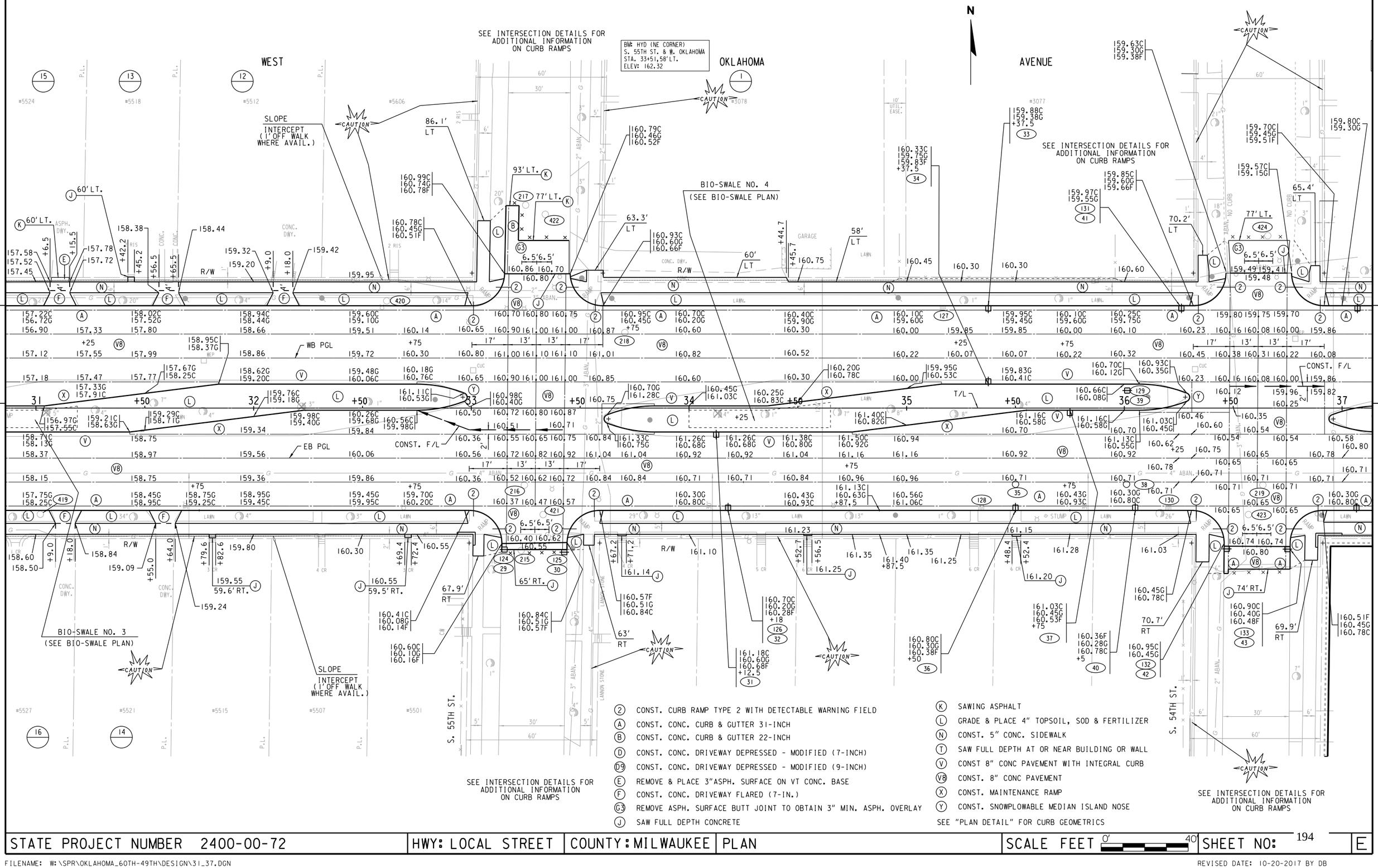
EASTBOUND W. OKLAHOMA AVE.



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 193	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\25_31.DGN

REVISED DATE: 08-02-2017 BY SB



- (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (B) CONST. CONC. CURB & GUTTER 22-INCH
- (D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (D9) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (9-INCH)
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (G3) REMOVE ASPH. SURFACE BUTT JOINT TO OBTAIN 3" MIN. ASPH. OVERLAY
- (J) SAW FULL DEPTH CONCRETE
- (K) SAWING ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (T) SAW FULL DEPTH AT OR NEAR BUILDING OR WALL
- (V) CONST 8" CONC PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8" CONC PAVEMENT
- (X) CONST. MAINTENANCE RAMP
- (Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

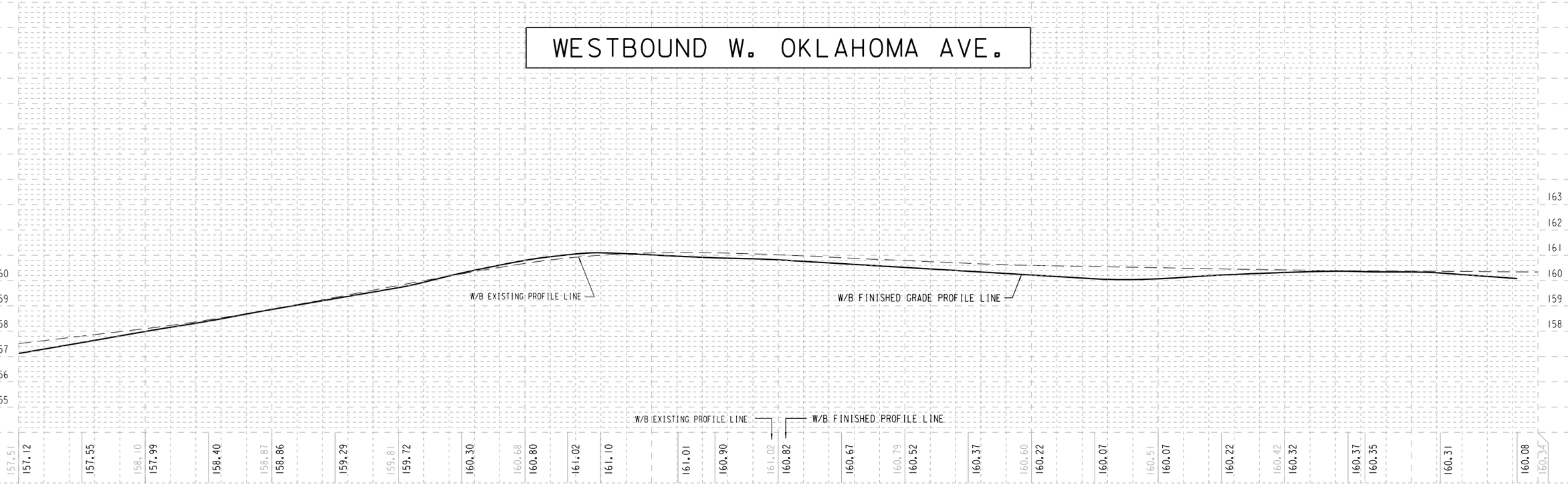
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 194	E

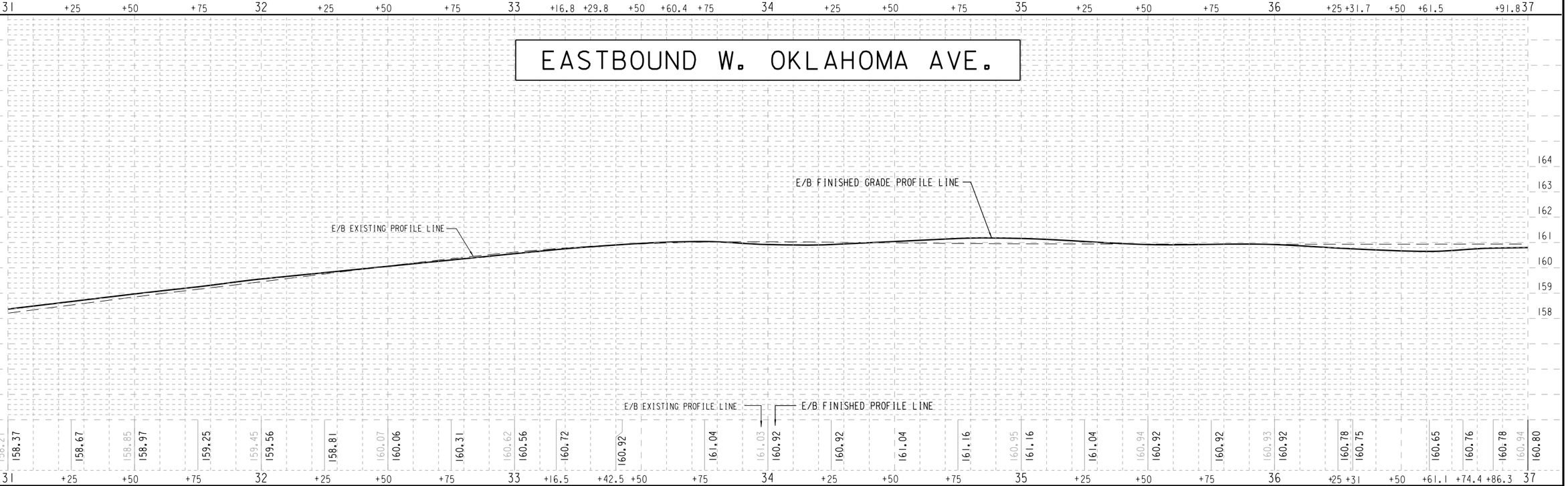
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REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



EASTBOUND W. OKLAHOMA AVE.



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 195	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\31_37.DGN

REVISED DATE: 08-02-2017 BY SB

BM: HYD (NE CORNER)
S. 54TH ST. & W. OKLAHOMA
STA. 36+79.67' LT.
ELEV: 161.99

BM: SW CORNER OF W'RLY
WONDOWSILL OF HSE # 5232
W. OKLAHOMA AVE.
ELEV: 161.58

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

WEST OKLAHOMA AVENUE

BIO-SWALE NO. 5
(SEE BIO-SWALE PLAN)

BIO-SWALE NO. 6
(SEE BIO-SWALE PLAN)

POTENTIALLY ELIGIBLE HISTORIC PROPERTY

S. 53RD ST.

#3076 #3077 #5232 #5200 #5335 #5309 #3105 #3108

CONC. ALLEY

WB PGL

EB PGL

- (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (G3) REMOVE ASPH. SURFACE BUTT JOINT TO OBTAIN 3" MIN. ASPH. OVERLAY
- (J) SAW FULL DEPTH CONCRETE
- (K) SAWING ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (V) CONST 8" CONC PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8" CONC PAVEMENT
- (X) CONST. MAINTENANCE RAMP
- (Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

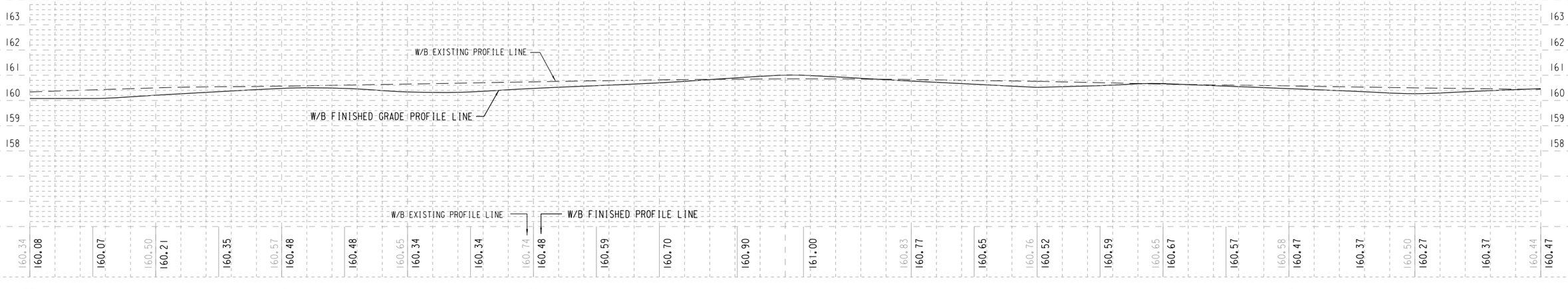
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 196	E

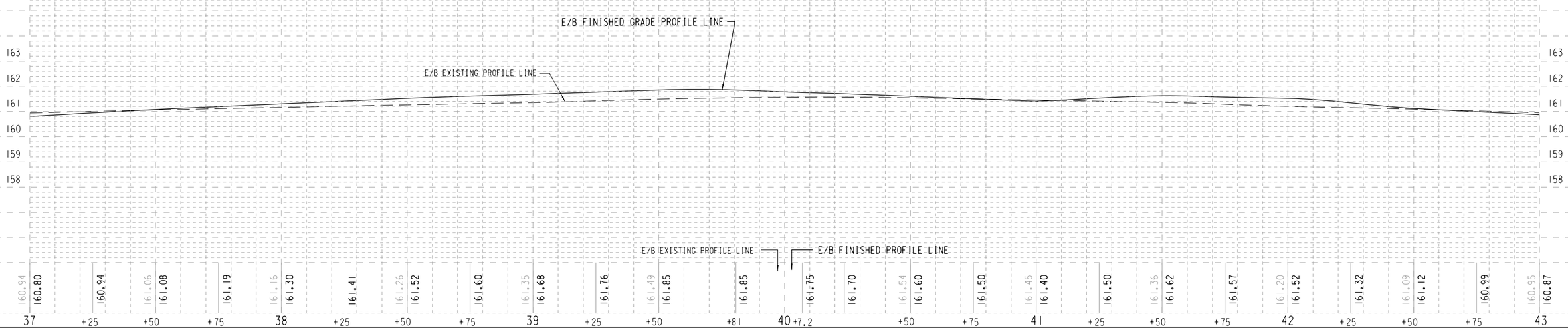
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REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



EASTBOUND W. OKLAHOMA AVE.

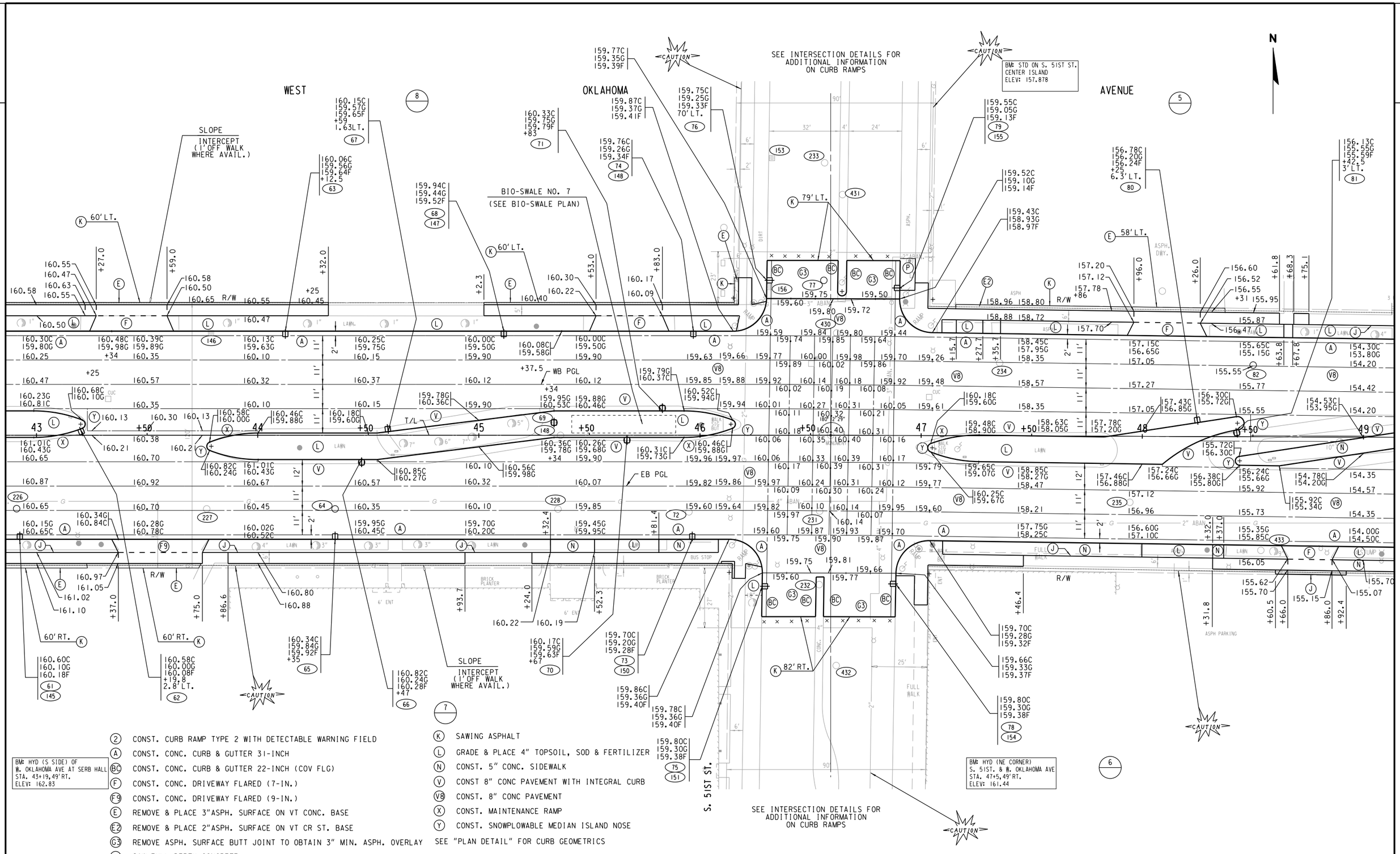


STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 197	E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\37_43.DGN

REVISED DATE: 04-04-2017 BY IJK

5



(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD

(A) CONST. CONC. CURB & GUTTER 31-INCH

(BC) CONST. CONC. CURB & GUTTER 22-INCH (COV FLG)

(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)

(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)

(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE

(E2) REMOVE & PLACE 2"ASPH. SURFACE ON VT CR ST. BASE

(G3) REMOVE ASPH. SURFACE BUTT JOINT TO OBTAIN 3" MIN. ASPH. OVERLAY

(J) SAW FULL DEPTH CONCRETE

(K) SAWING ASPHALT

(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER

(N) CONST. 5" CONC. SIDEWALK

(V) CONST 8" CONC PAVEMENT WITH INTEGRAL CURB

(V8) CONST. 8" CONC PAVEMENT

(X) CONST. MAINTENANCE RAMP

(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

BM: HYD (S SIDE) OF W. OKLAHOMA AVE AT SERB HALL STA. 43+19.49' RT. ELEV: 162.83

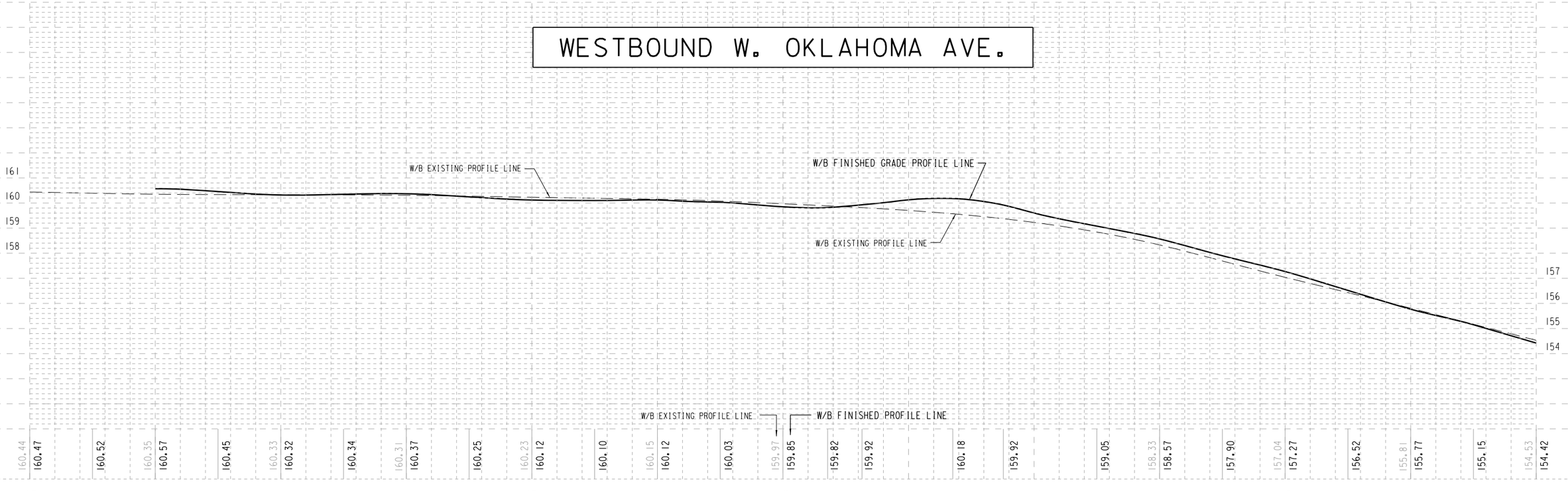
BM: HYD (NE CORNER) S. 51ST. & W. OKLAHOMA AVE STA. 47+5.49' RT. ELEV: 161.44

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 198	E

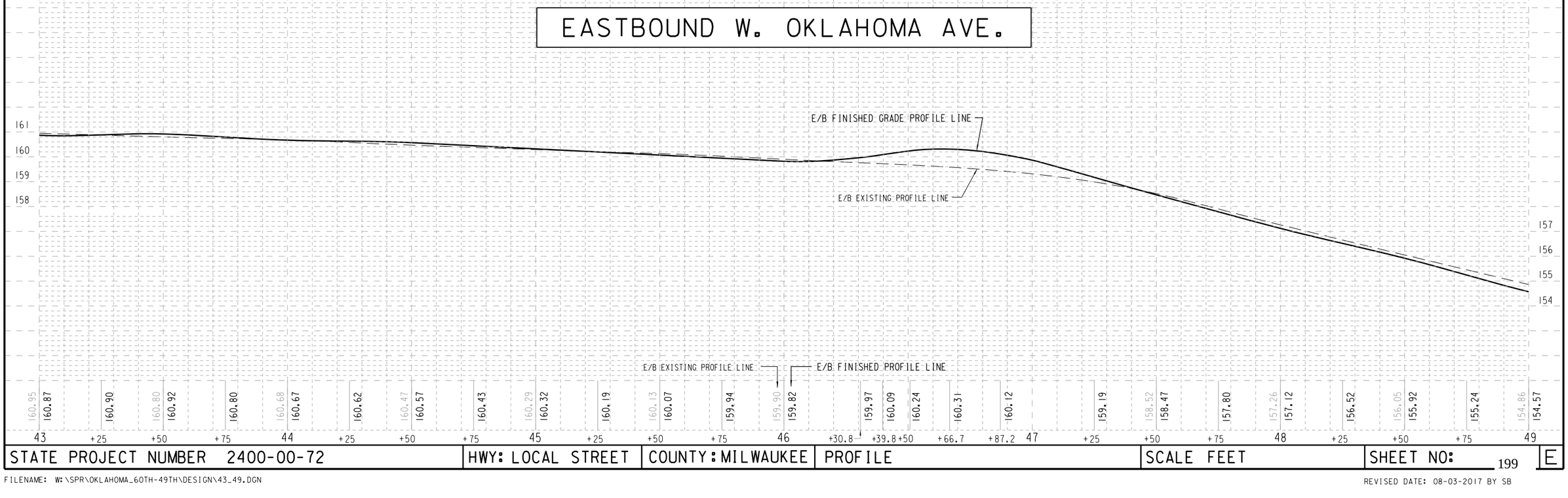
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\43_49.DGN

REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



EASTBOUND W. OKLAHOMA AVE.



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 199 E

FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\43_49.DGN

REVISED DATE: 08-03-2017 BY SB

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

BM# HYD (NE CORNER)
S. 50TH ST. & W. OKLAHOMA
STA. 50+30.46' LT.
ELEV: 153.51

WEST OKLAHOMA AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

BM# HYD (NE CORNER)
S. 49TH ST. & W. OKLAHOMA
STA. 46+00.36.3' LT.
ELEV: 142.13

N

S. 50TH ST.

S. 49TH ST.

SLOPE INTERCEPT (1' OFF WALK WHERE AVAIL.)

BIO-SWALE NO. 8 (SEE BIO-SWALE PLAN)

WB PGL

EB PGL

T/L

CONST F/L

END PROJECT STA. 53+78.15 T/L

66' LT.

76.7' LT.

65.5' LT.

61.7' LT

56.5' LT.

59' LT.

61' LT MATCH

42.6' LT.

63' RT.

88' RT.

87.5' RT.

82.3' RT.

120' RT.

8.1' RT.

14' RT.

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(7B) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER 31-INCH
(B) CONST. CONC. CURB & GUTTER 22-INCH
(BC) CONST. CONC. CURB & GUTTER 22-INCH (COV FLG)
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(G2) REMOVE ASPH. SURFACE BUTT JOINT TO OBTAIN 2" MIN. ASPH. OVERLAY
(J) SAW FULL DEPTH CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(V) CONST 8" CONC PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8" CONC PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

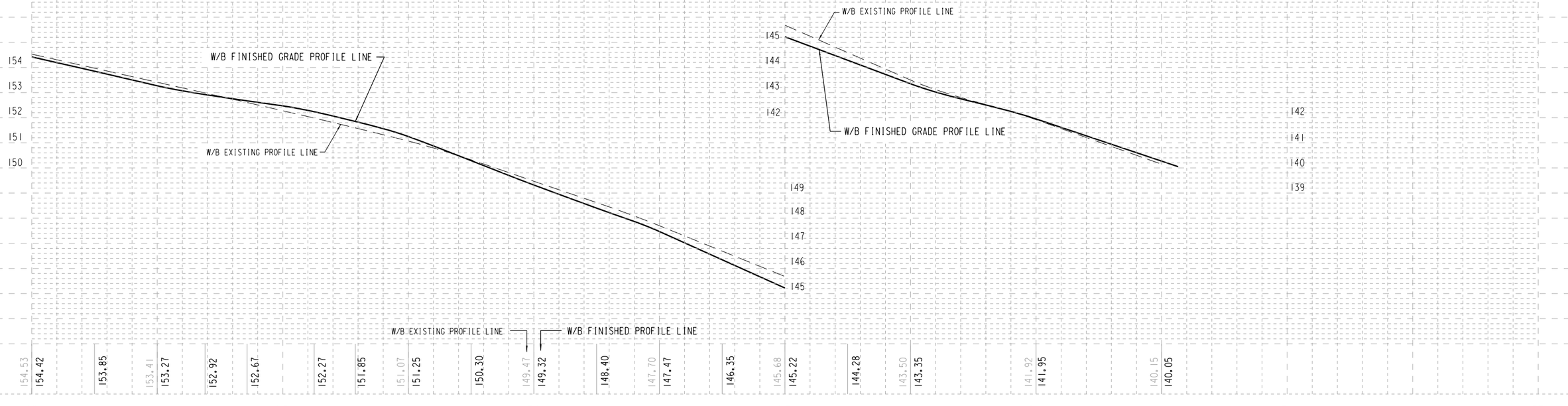
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 200	E

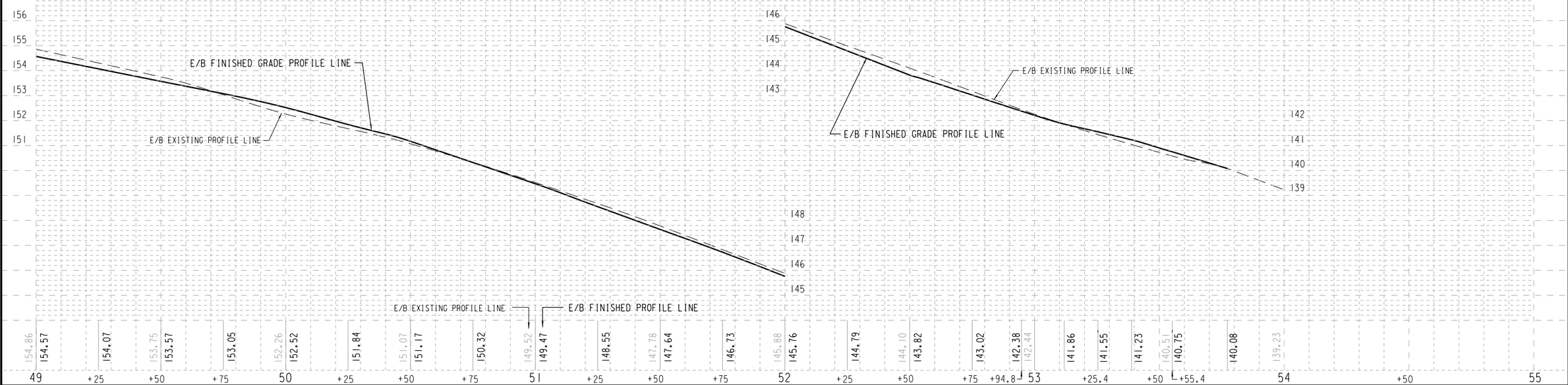
FILENAME: W:\SPR\OKLAHOMA_60TH-49TH\DESIGN\49_55.DGN

REVISED DATE: 10-20-2017 BY DB

WESTBOUND W. OKLAHOMA AVE.



EASTBOUND W. OKLAHOMA AVE.



STATE PROJECT NUMBER 2400-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 201	E

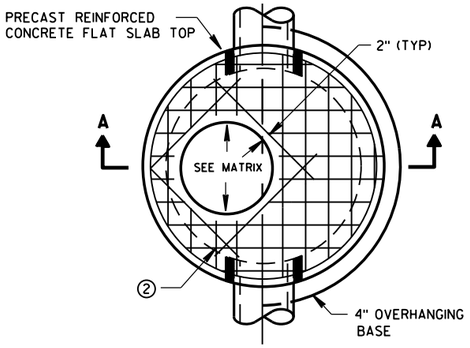
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REVISED DATE: 08-03-2017 BY SB

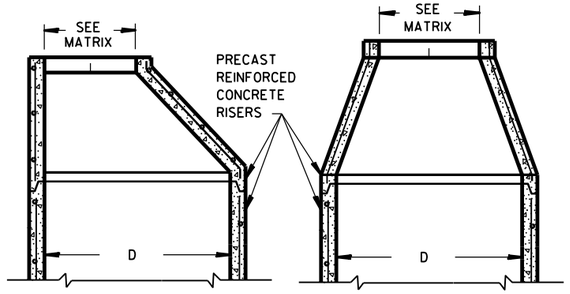
Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-01	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-09	CONCRETE BASE TYPE 10
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E12-01B	OVER HEIGHT TYPE 10 POLE 15'-30' MONOTUBE ARM
09E12-01E	GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
11B02-02	CONCRETE MEDIAN NOSE
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-13A	PAVEMENT MARKING SYMBOLS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C29-05A	BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

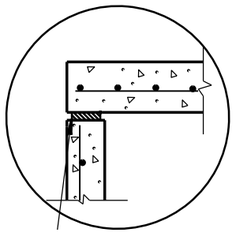


PLAN VIEW CIRCULAR OPENING

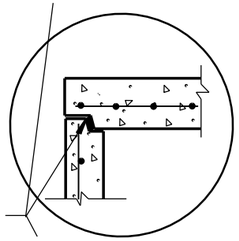


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

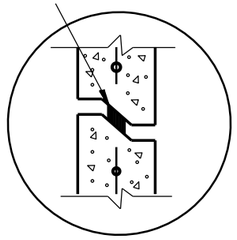


TOP WITH PLAIN END JOINT



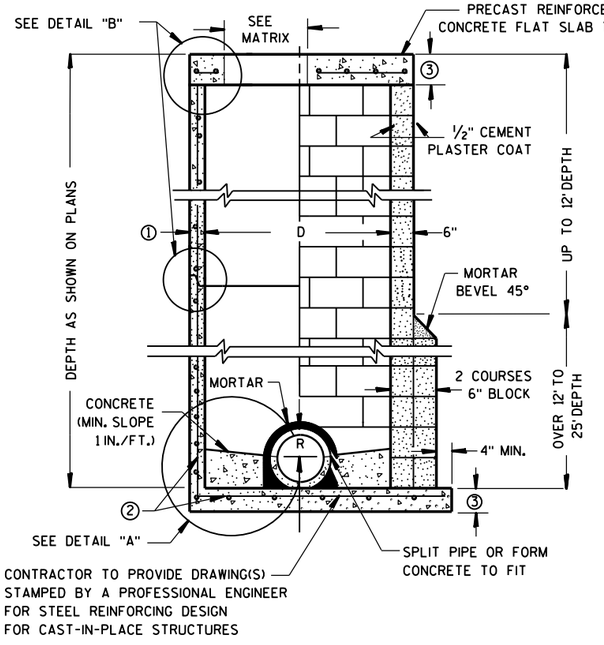
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



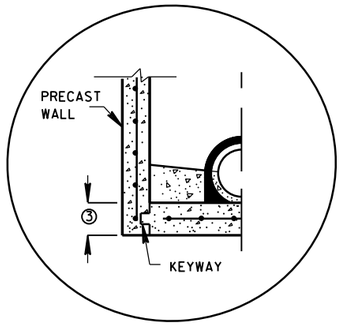
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

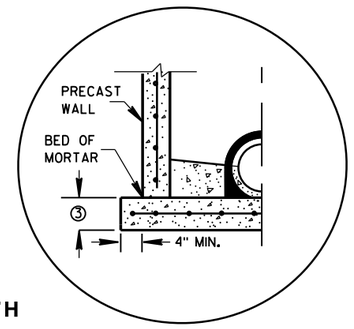


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

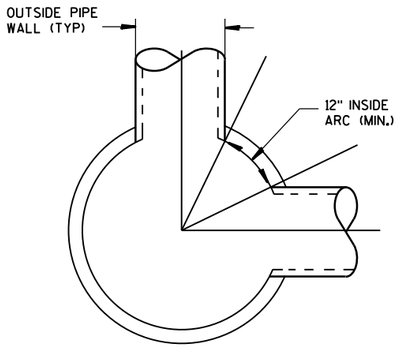


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" 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 DIAMETER.

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

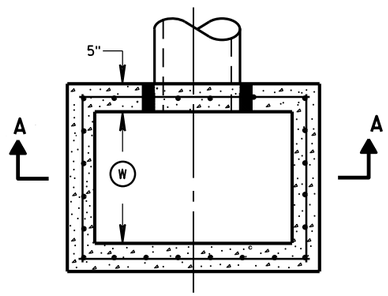
APPROVED

Sept., 2016
DATE

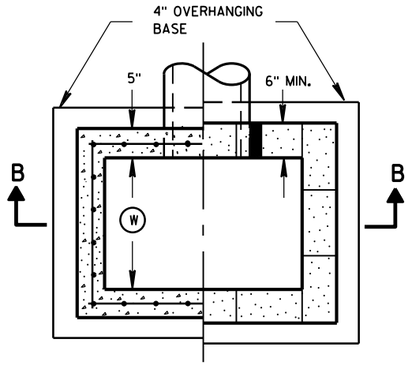
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

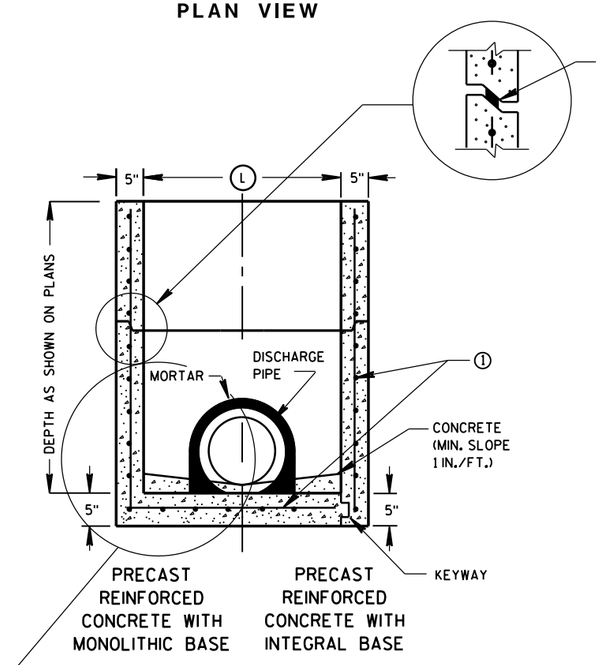
6
S.D.D. 8 B 9-2



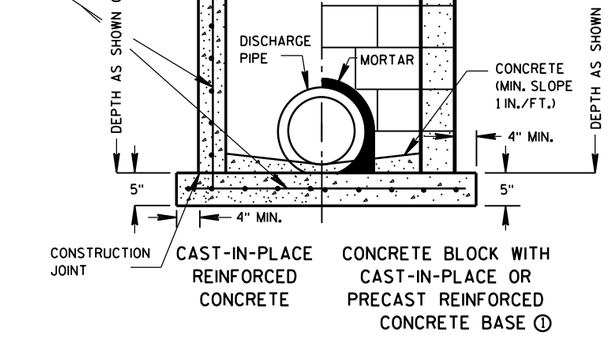
PLAN VIEW



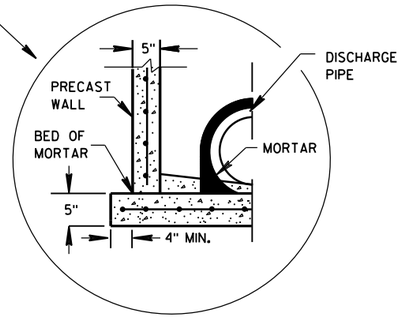
PLAN VIEW



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 FOUNDATION 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.

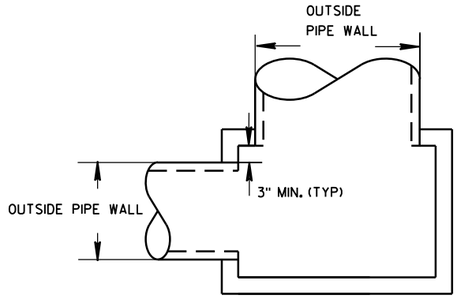
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

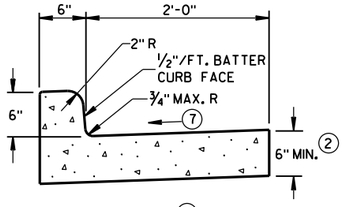
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

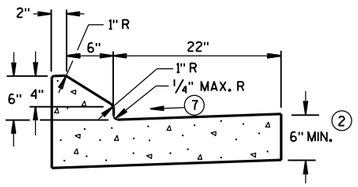
S.D.D. 8 C 7-2

6

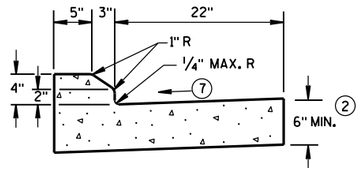
S.D.D. 8 C 7-2



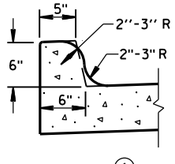
TYPES A (1) & D



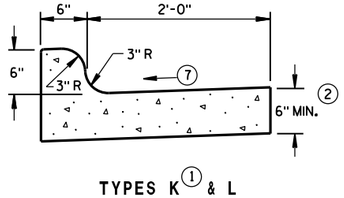
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

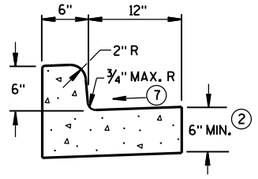


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



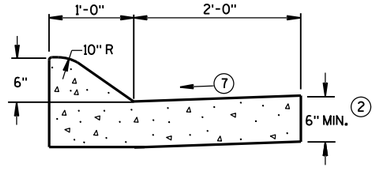
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

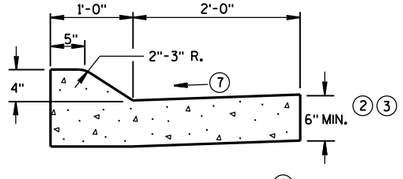


TYPES A (1) & D

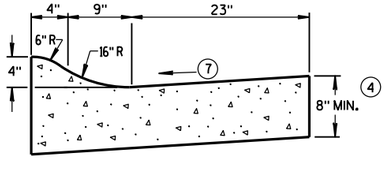
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

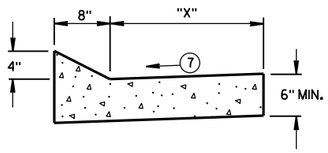


4" SLOPED CURB TYPES A (1) & D



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

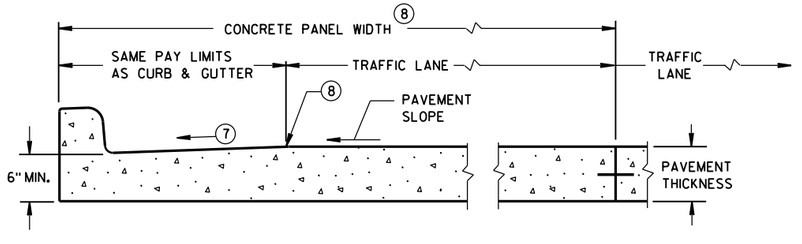
CONCRETE CURB & GUTTER 36"



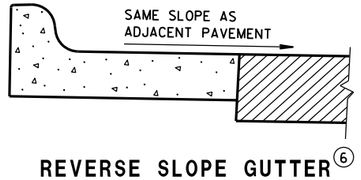
TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

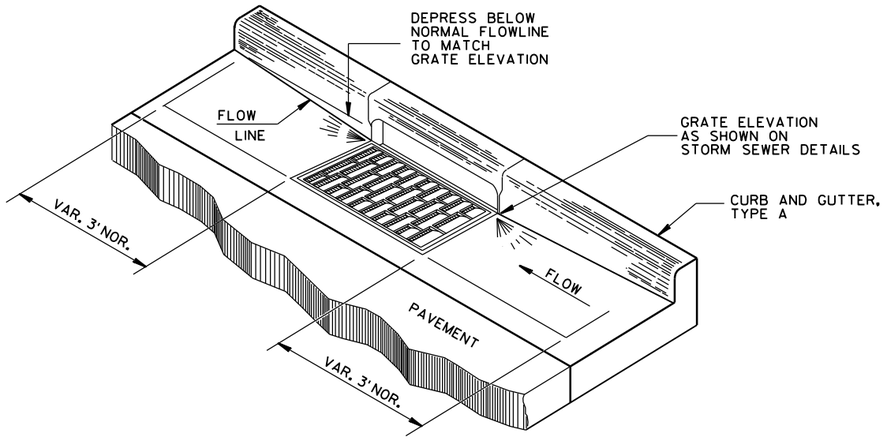
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

6

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



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

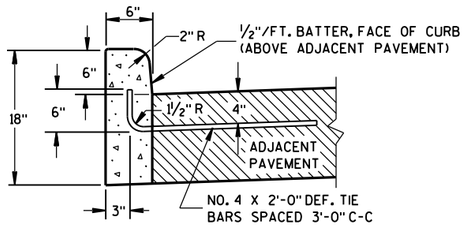
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

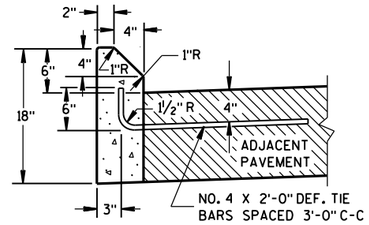
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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

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

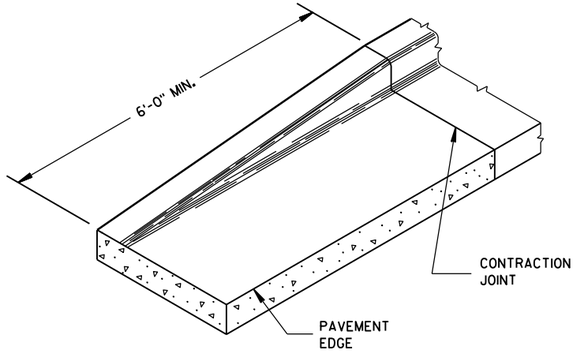


TYPES A(1) & D

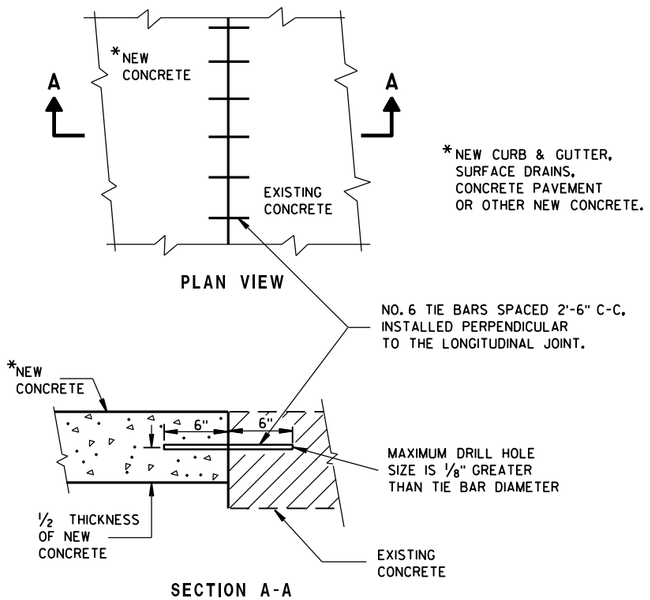


TYPES G(1) & J

CONCRETE CURB



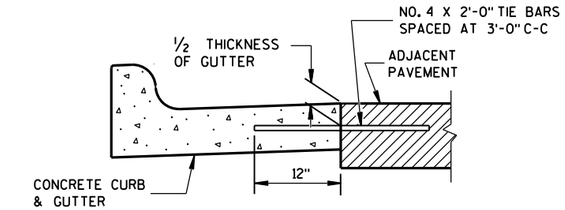
END SECTION CURB & GUTTER



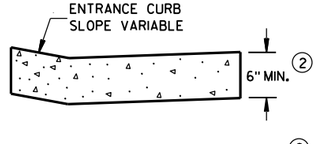
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

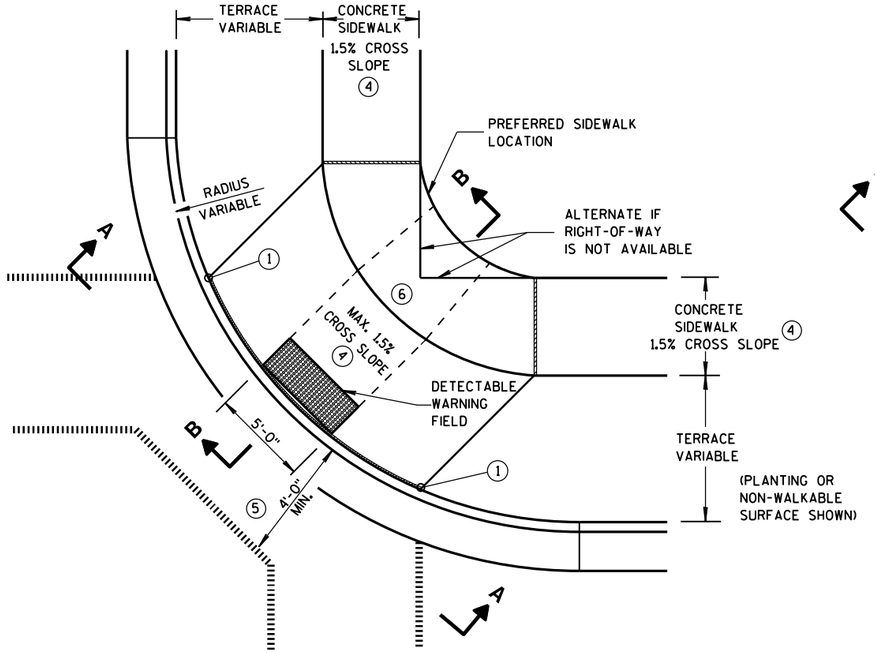
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

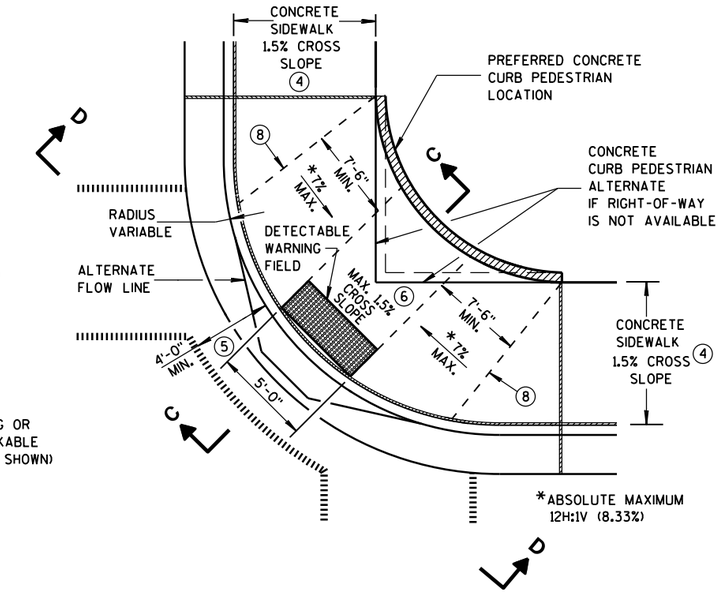
S.D.D. 8 D 1-20b



PLAN VIEW

TYPE 1 RAMP

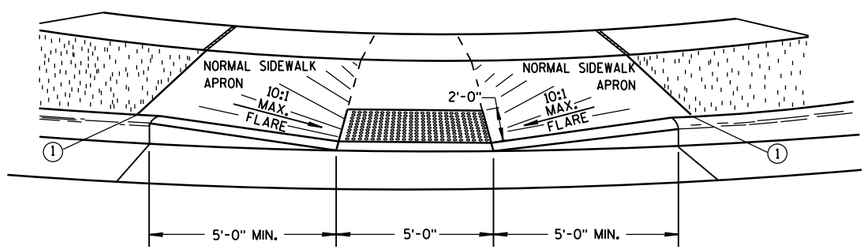
(CENTER OF CORNER RADIUS)



PLAN VIEW

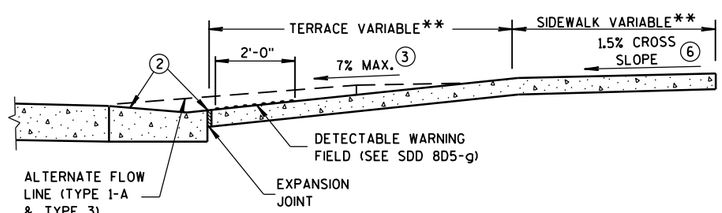
TYPE 1-A RAMP

(NO TERRACE)

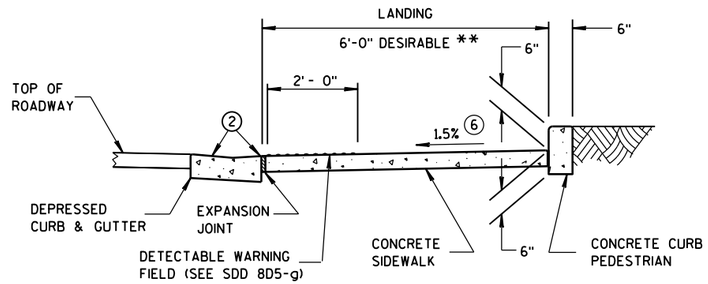


VIEW A-A

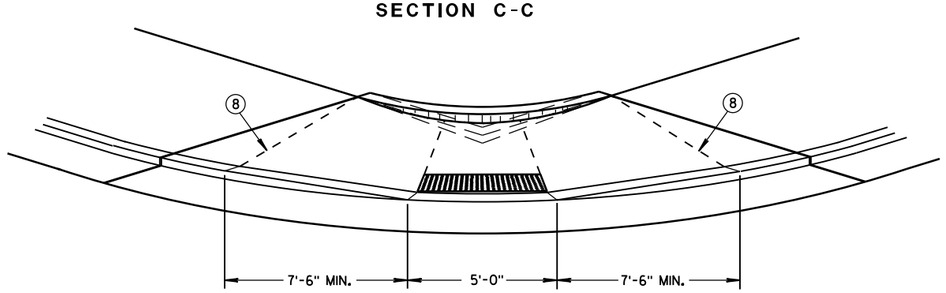
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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.

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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

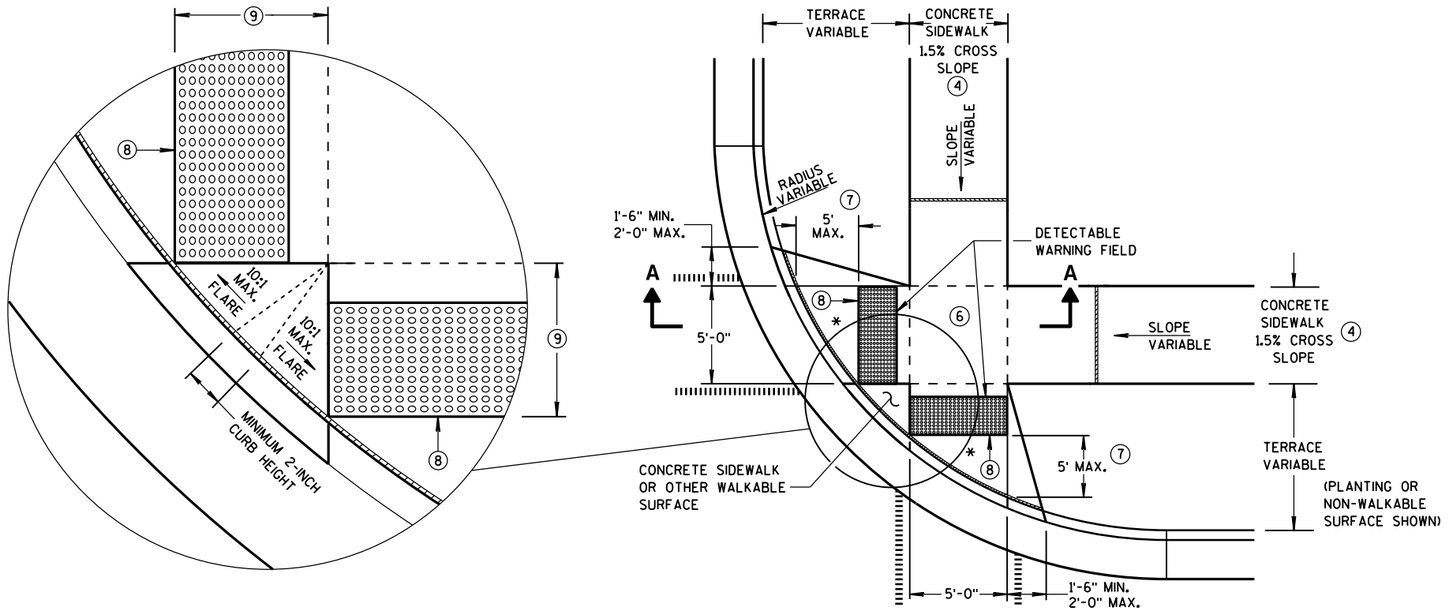
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

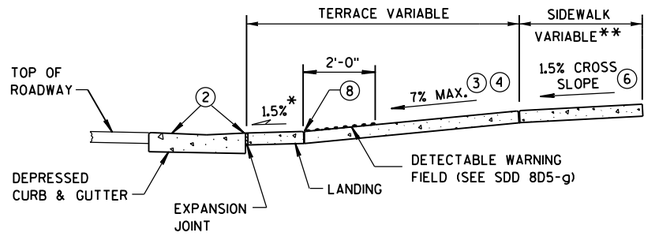
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

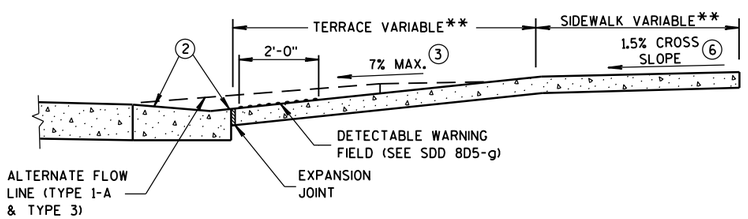
(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

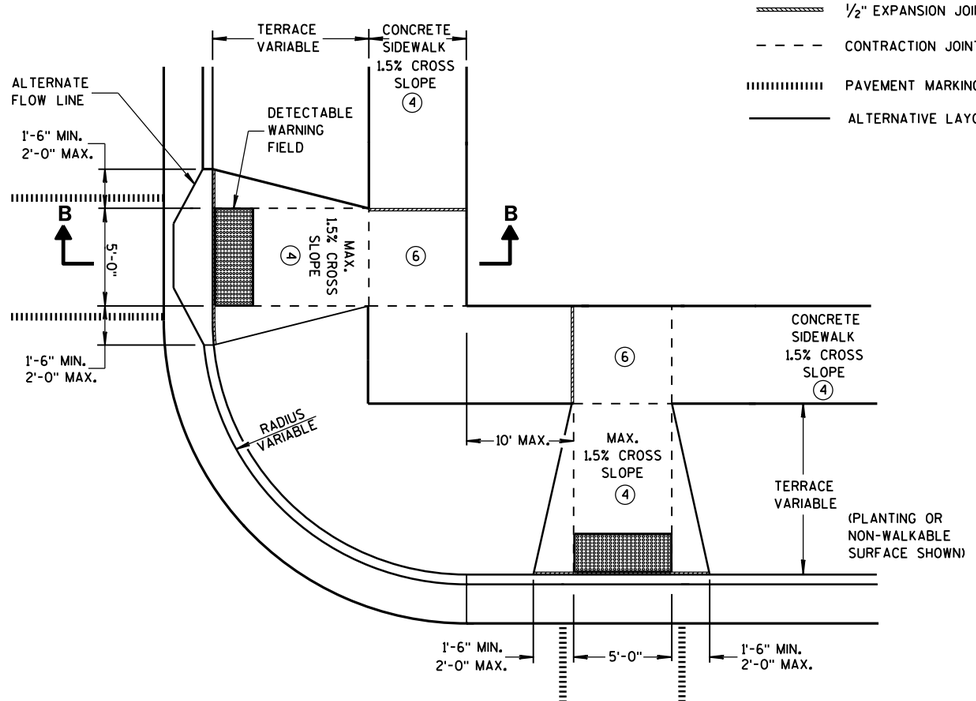


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

LEGEND

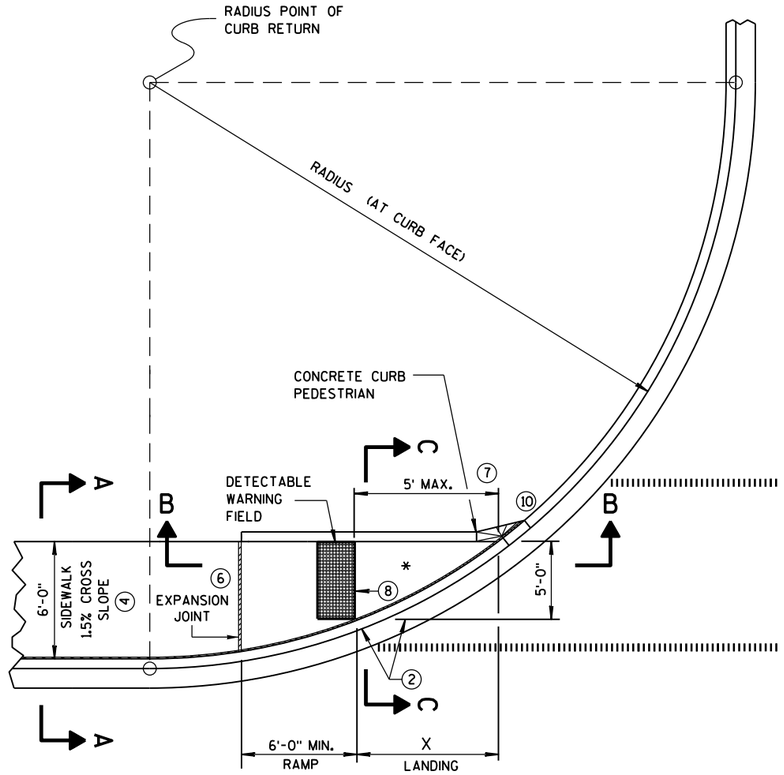
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

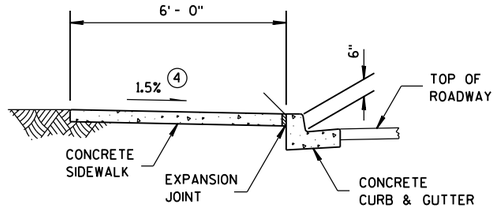
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

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.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

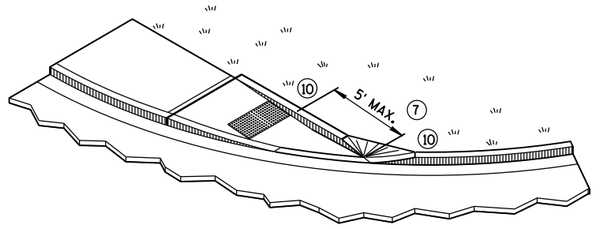
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

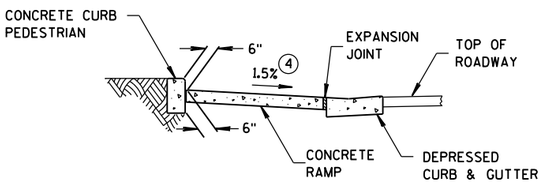
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

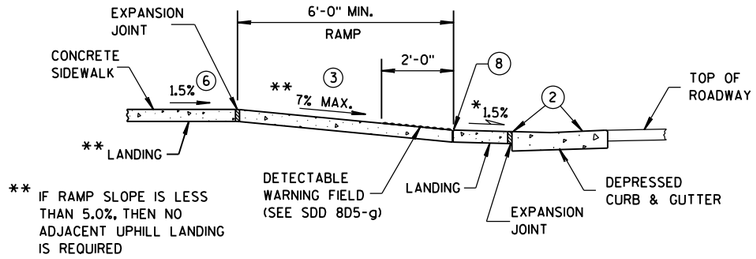
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



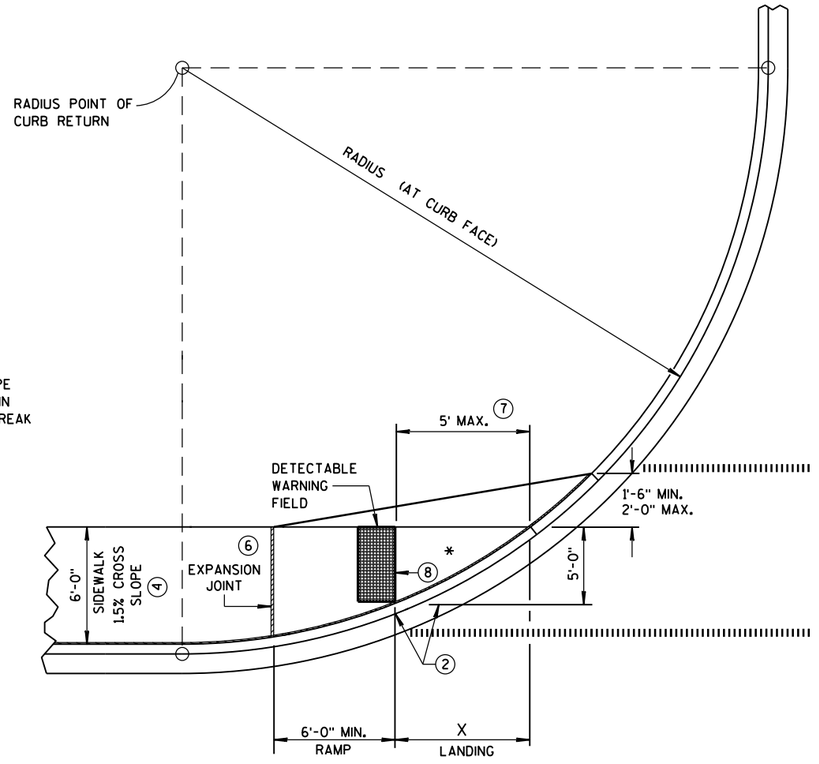
SECTION C-C FOR TYPE 4A



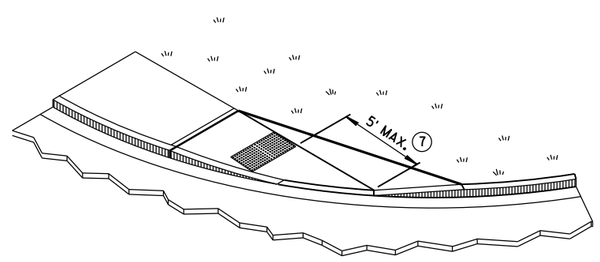
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

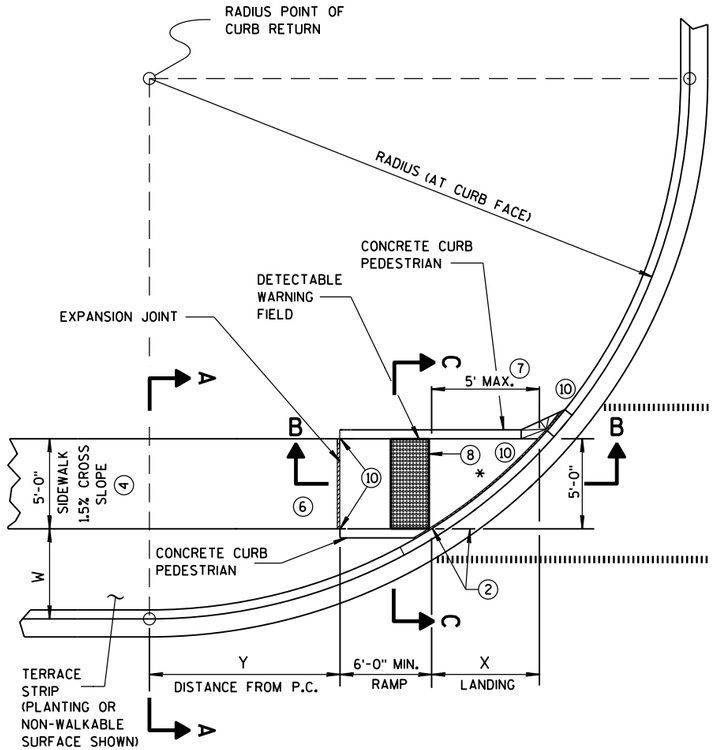
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

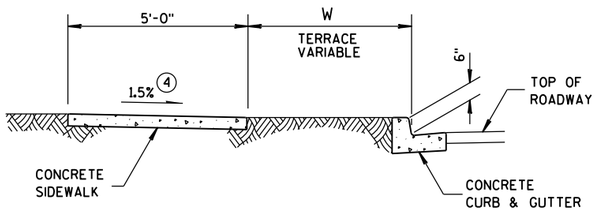
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

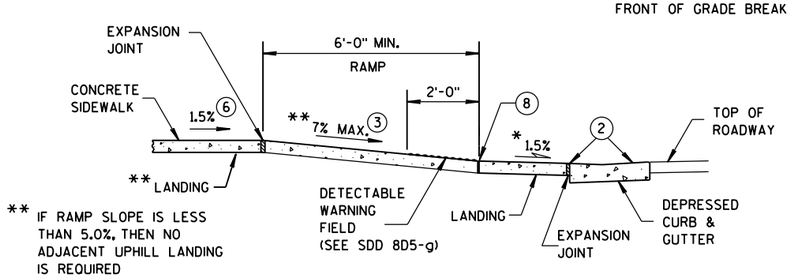
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



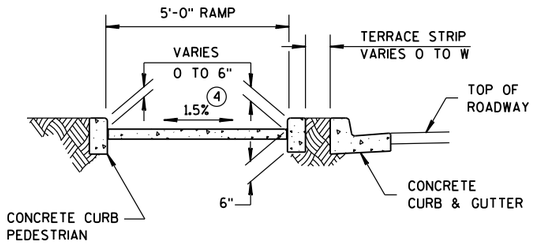
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C-C FOR TYPE 4B

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

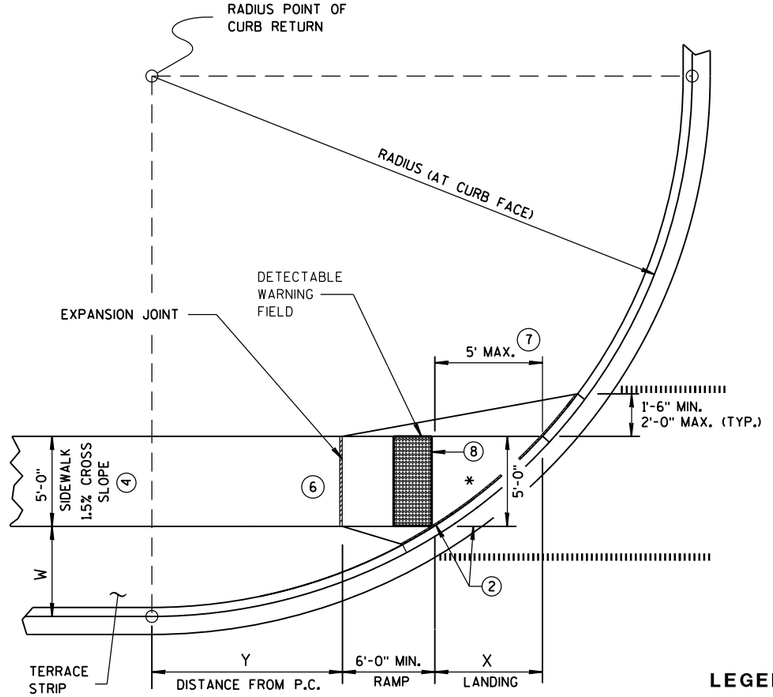
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

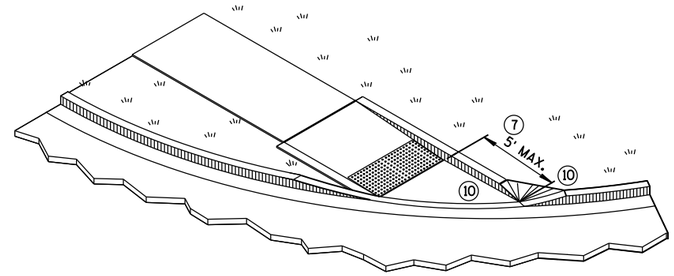
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

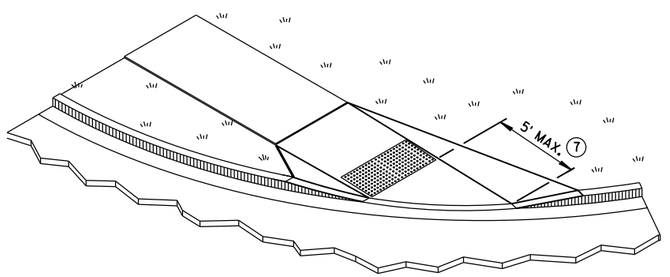
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

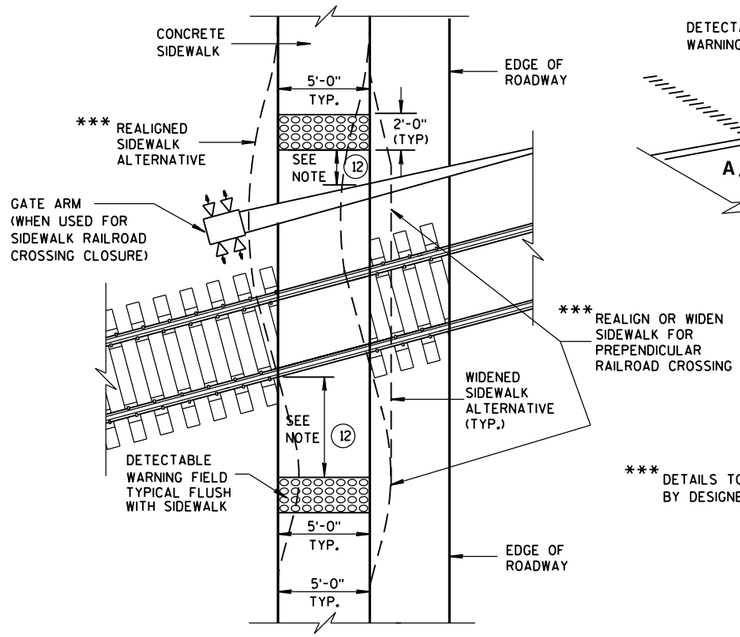
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

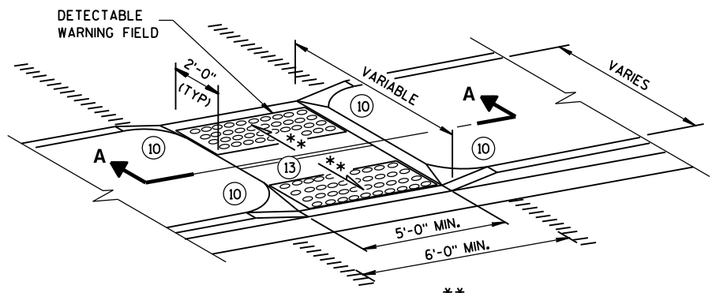
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

*** DETAILS TO BE DETERMINED BY DESIGNER

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

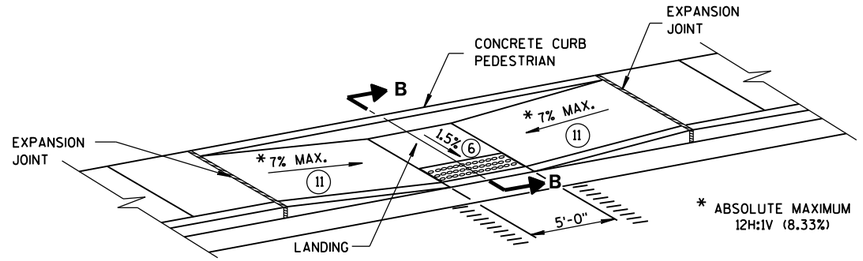
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

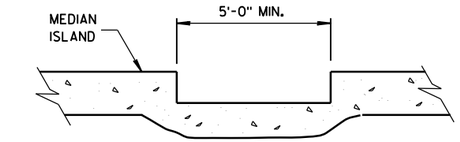
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) 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.

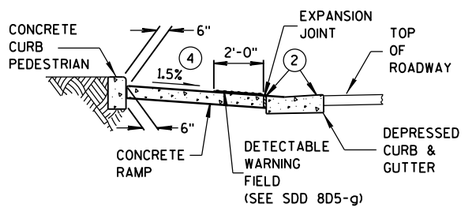
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

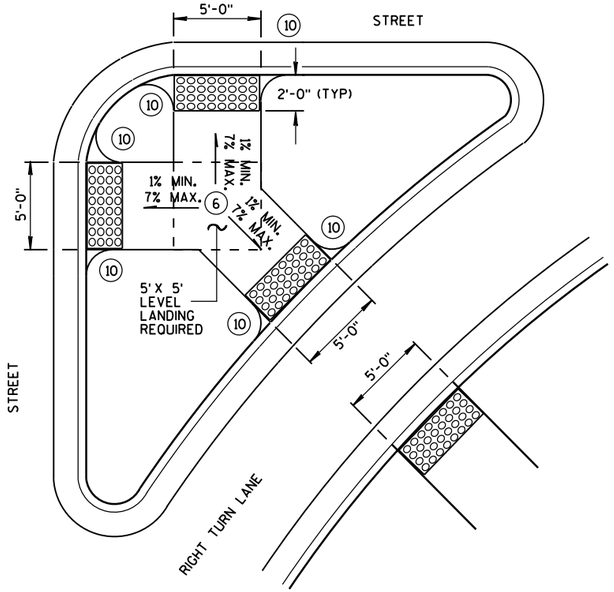


SECTION A-A

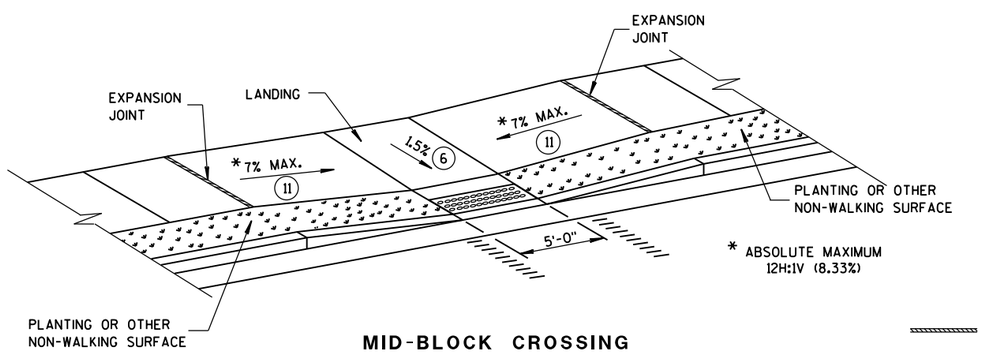


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



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

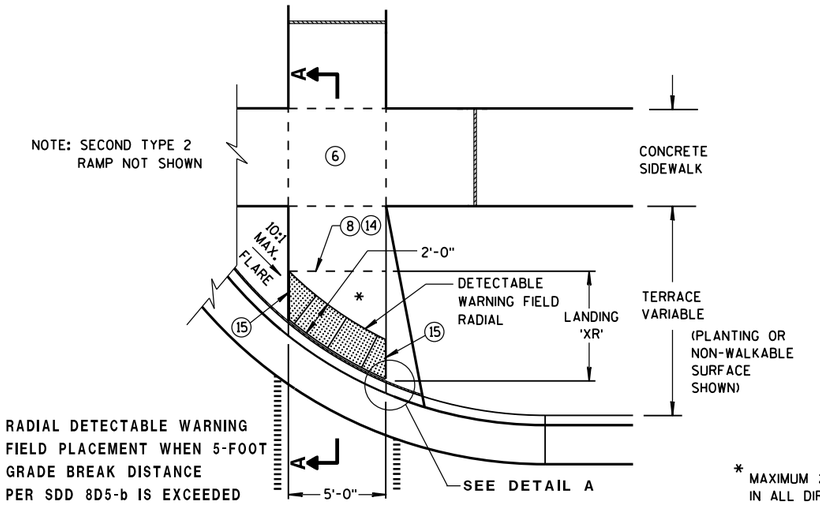
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

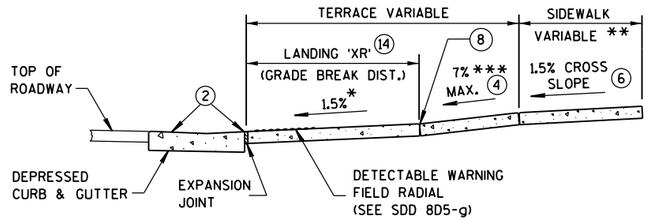
S.D.D. 8 D 5-19e



TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

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

GENERAL NOTES

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

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

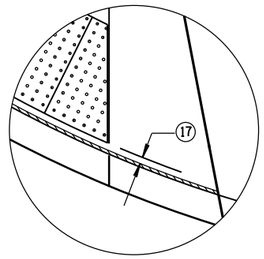
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

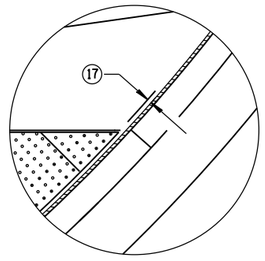
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

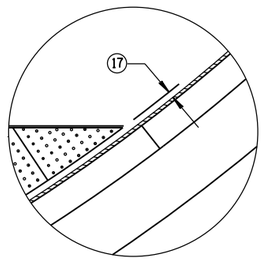
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



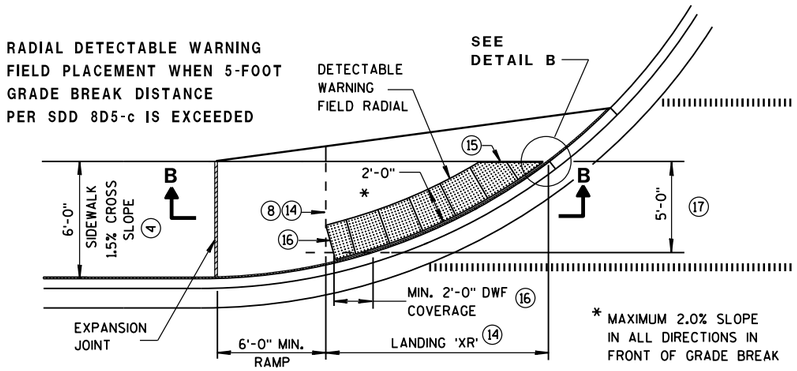
DETAIL A



DETAIL C

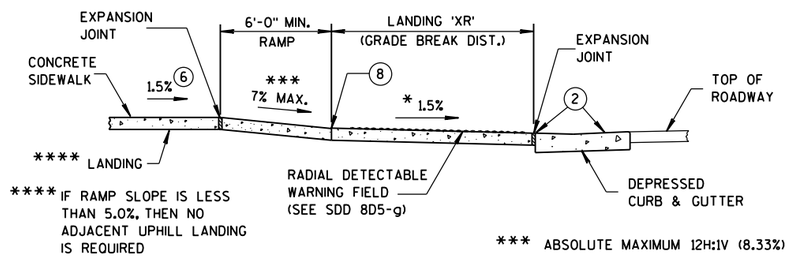


DETAIL B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

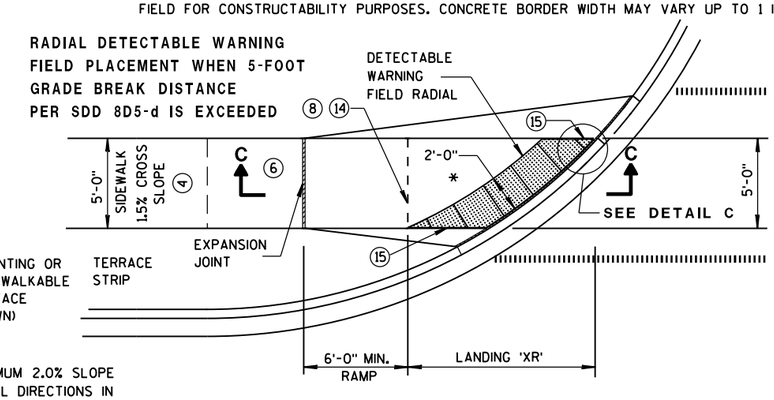
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

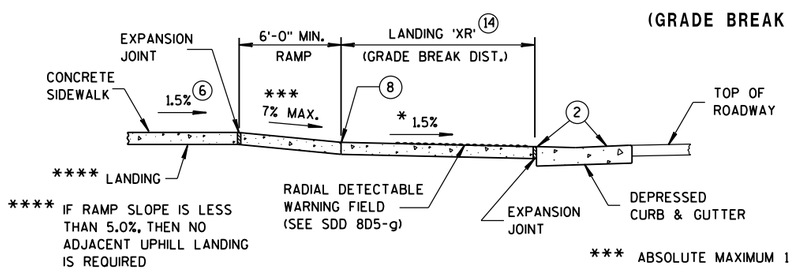
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 212

6

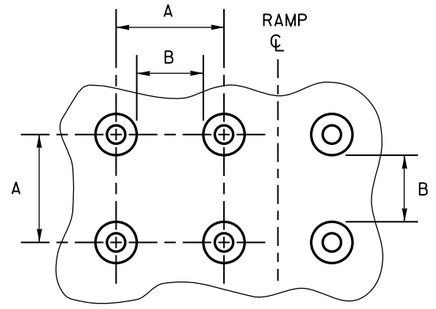
S.D.D. 8 D 5-19f

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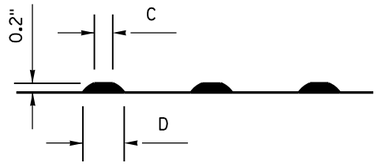
S.D.D. 8 D 5-19f

	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.



PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL

GENERAL NOTES

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

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

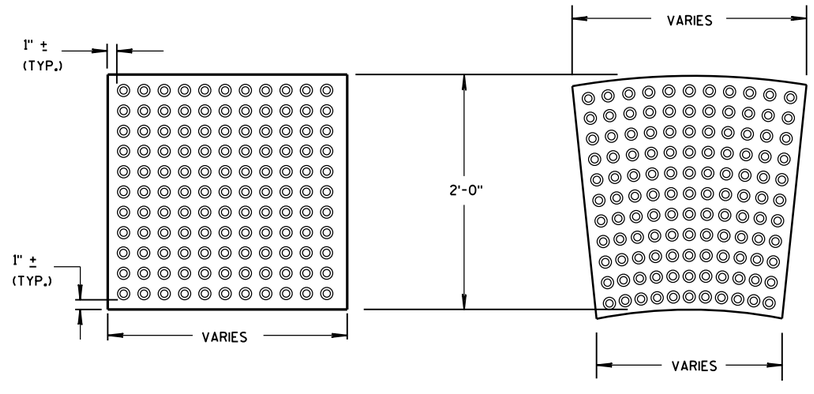
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

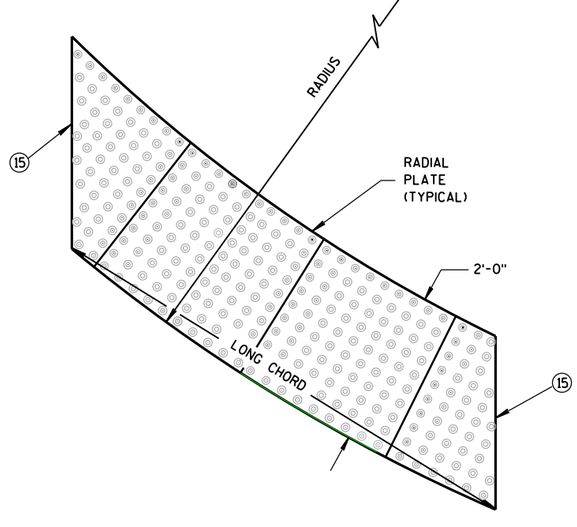


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

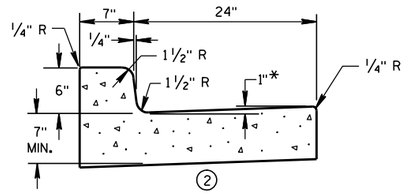
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
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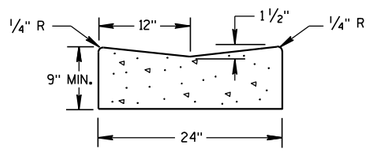
S.D.D. 8 D 5-19g

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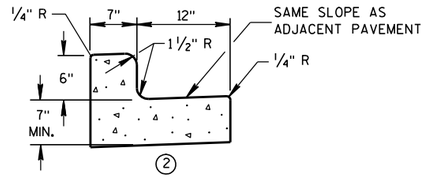
S.D.D. 8 D 5-19g



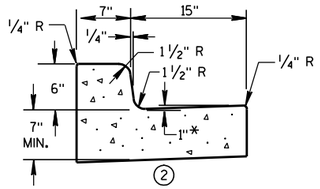
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

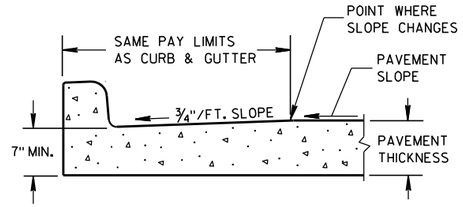


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

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

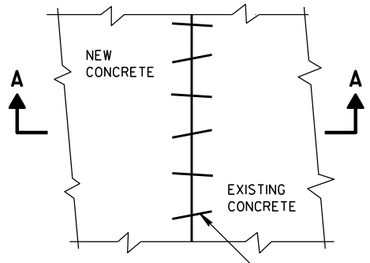
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

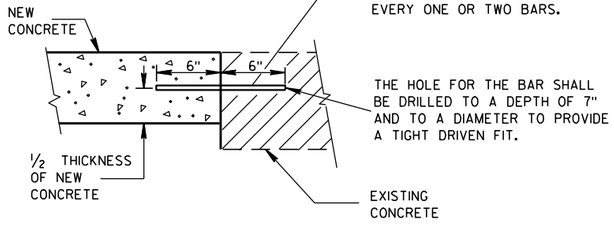
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

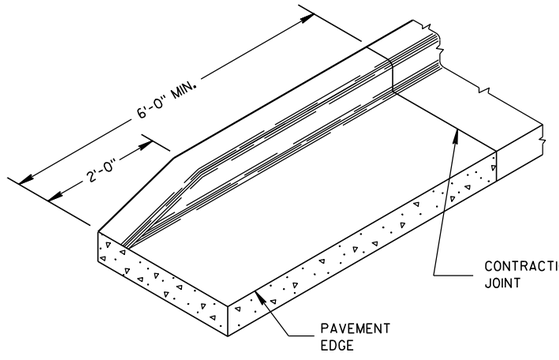
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



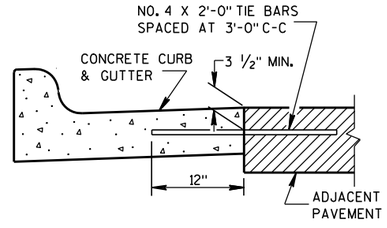
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

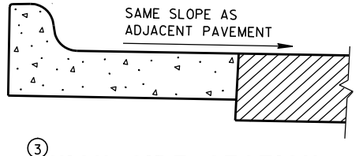
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

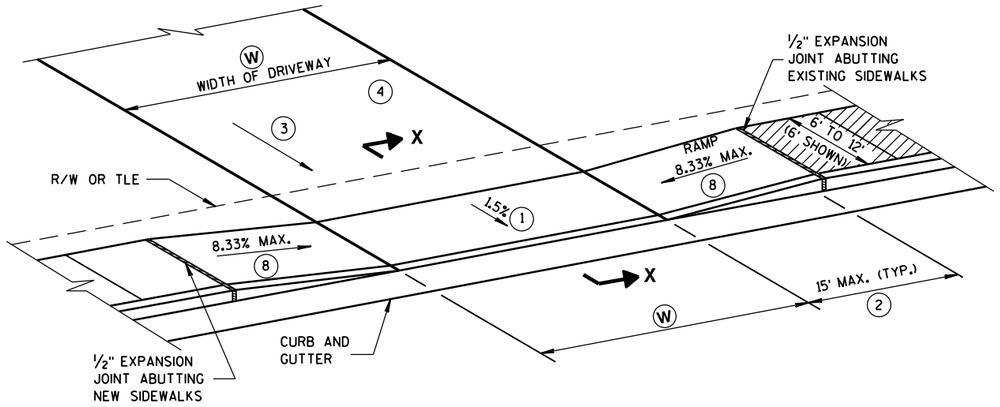
/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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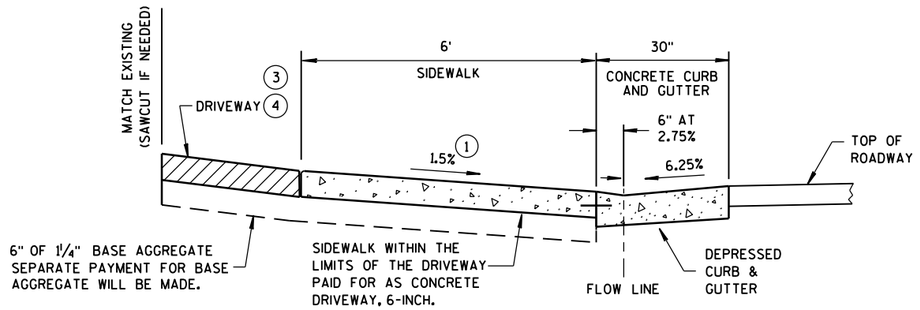
FHWA

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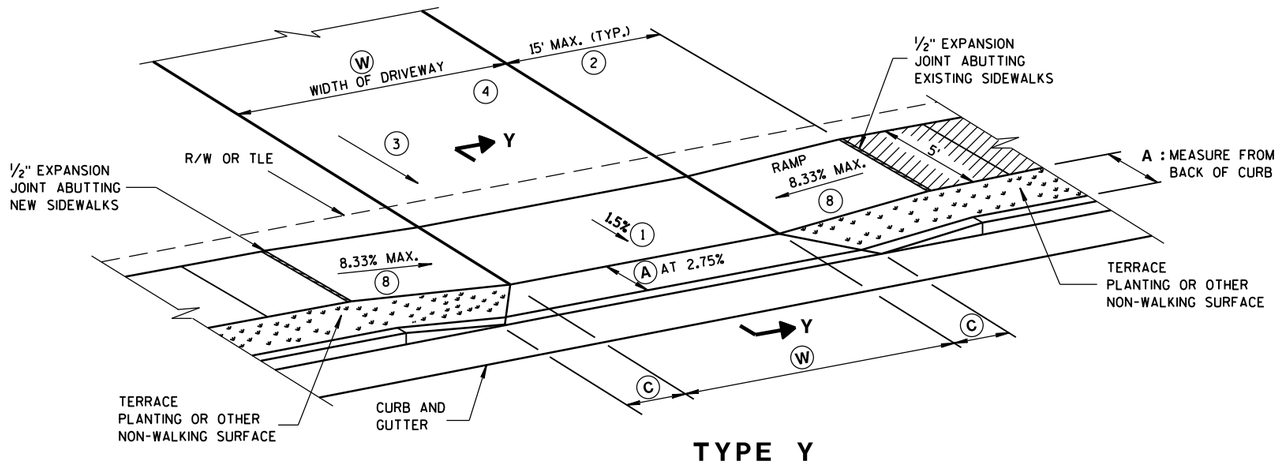
S.D.D. 8 D 16-10



TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X

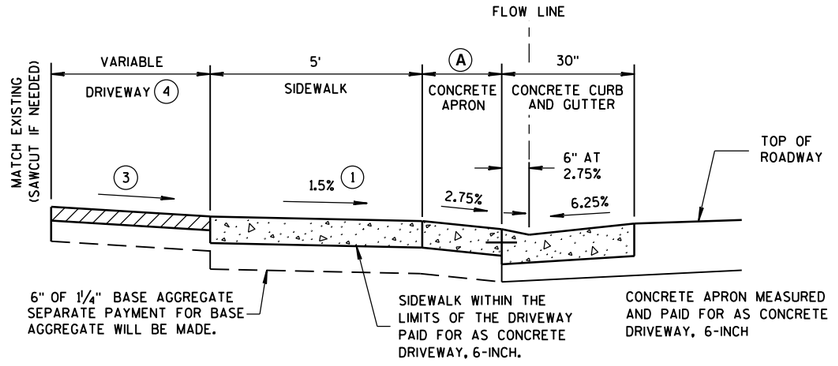


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
2. THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
3. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   - 10.5% UP AWAY FROM SIDEWALK (SAG)
   - 8.5% DOWN AWAY FROM SIDEWALK (CREST)
   - ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
4. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
   - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
   - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)
5. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
6. (W) IS SHOWN ON PLAN AND PROFILE SHEETS.
7. OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.
8. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

TABLE Y

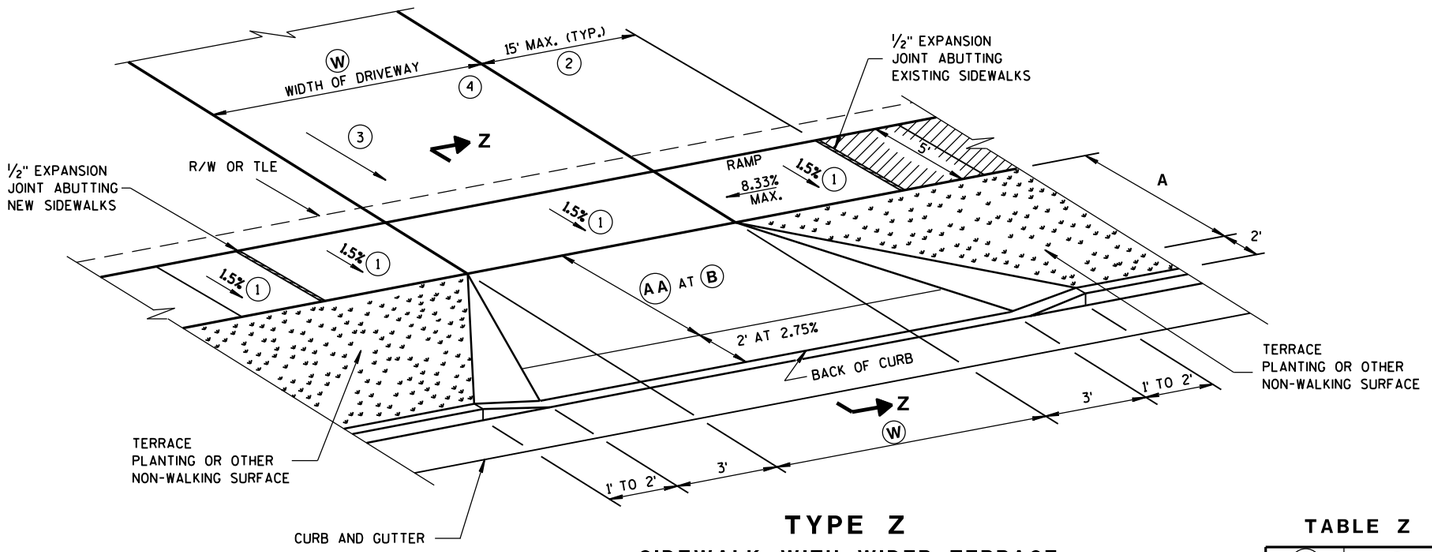
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — /S/ Rodney Taylor
DATE — ROADWAY STANDARDS UNIT SUPERV — ENT
FHWA

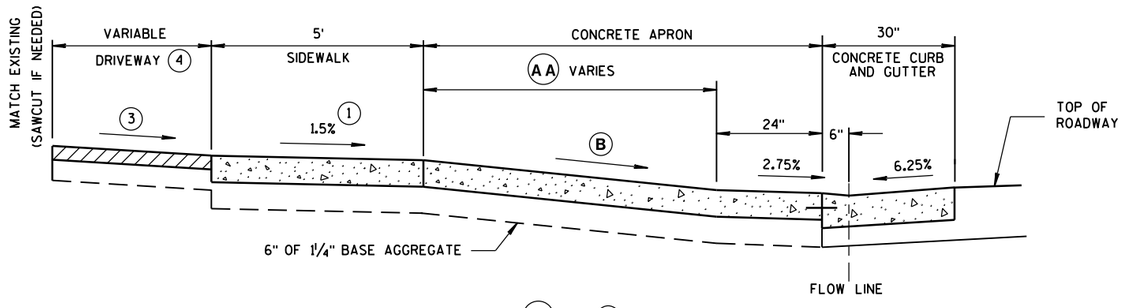


TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) %
4.5'	11.5%
5.5'	9-11.5%
6.5'	8-11.5%
7.5'	7-11.5%
8.5'	6-11.5%
9.5'	5-11.5%



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, 6-INCH

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

2. THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

3. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   10.5% UP AWAY FROM SIDEWALK (SAG)
   8.5% DOWN AWAY FROM SIDEWALK (CREST)
   ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

4. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
   - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
   - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)

5. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

6. (W) IS SHOWN ON PLAN AND PROFILE SHEETS.

7. OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

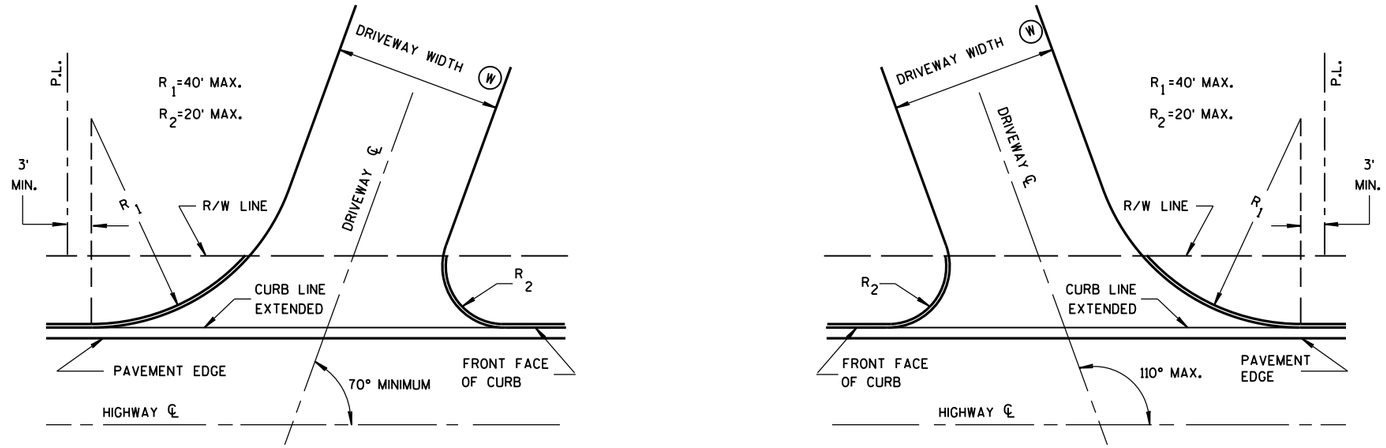
APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

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S.D.D. 8 D 19-1

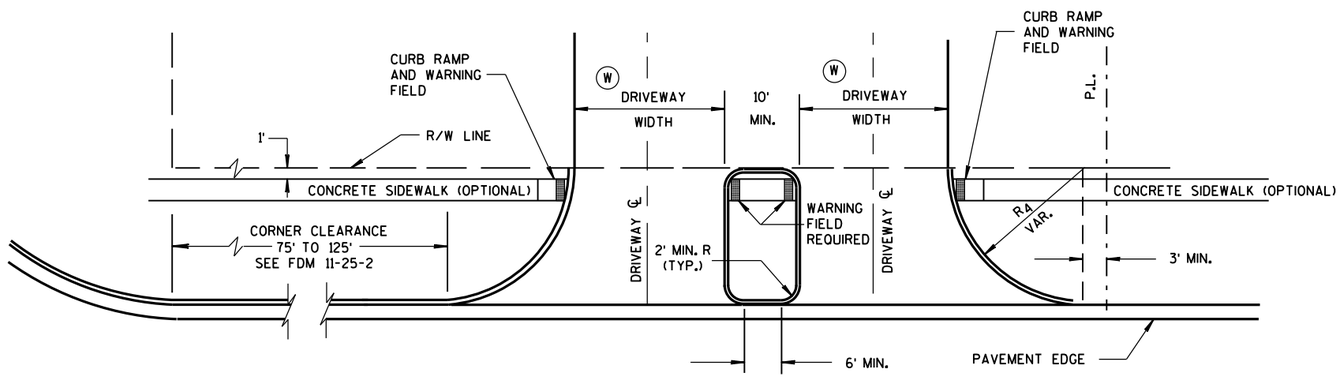
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S.D.D. 8 D 19-1



SKEWED DRIVEWAY DETAILS
(COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

Ⓦ DRIVEWAY WIDTHS:

COMMERCIAL - 35' MAX., 16' MIN.

RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

DRIVEWAYS WITH CURB & GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

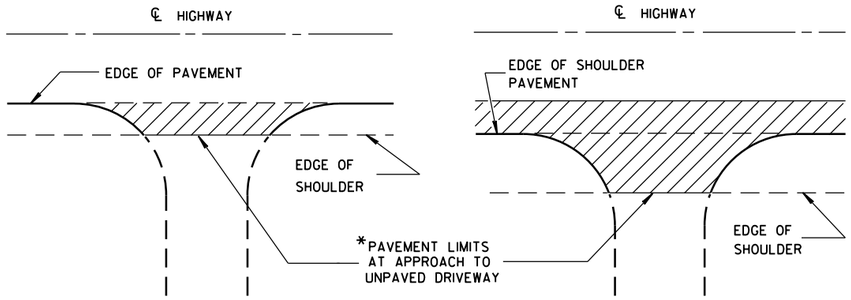
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S.D.D. 8 D 20-1

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S.D.D. 8 D 20-1

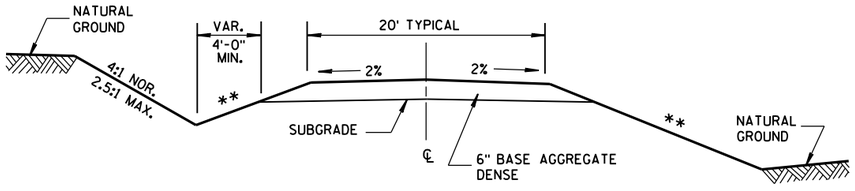


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)

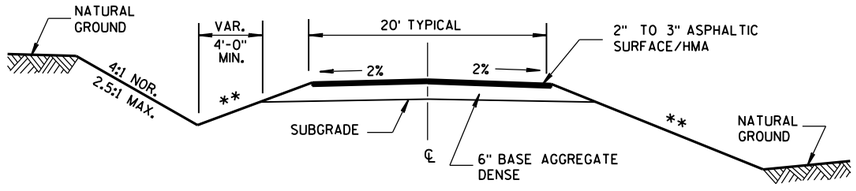


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

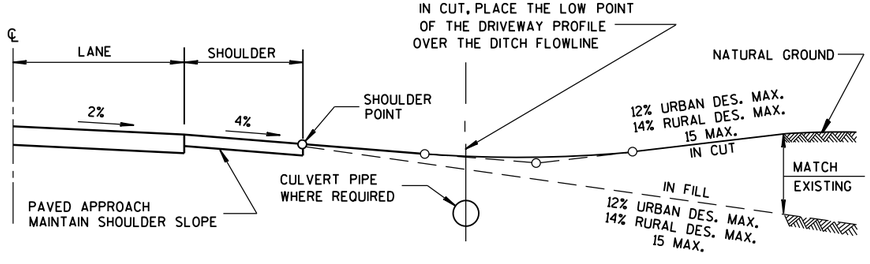
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



TYPICAL DRIVEWAY PROFILES

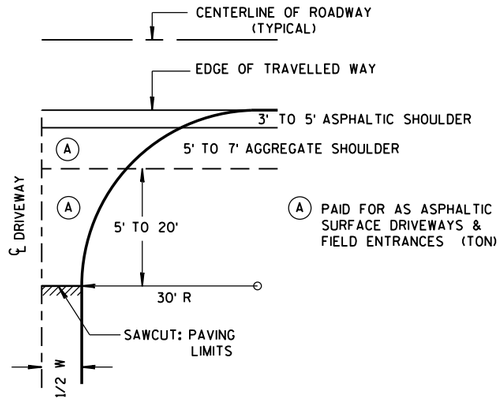
DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

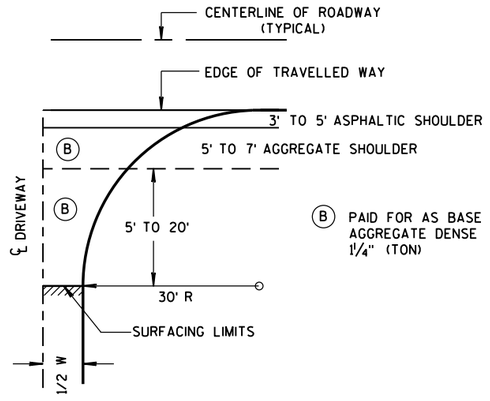
6

S.D.D. 8 D 21-1



PLAN VIEW
HALF SECTION

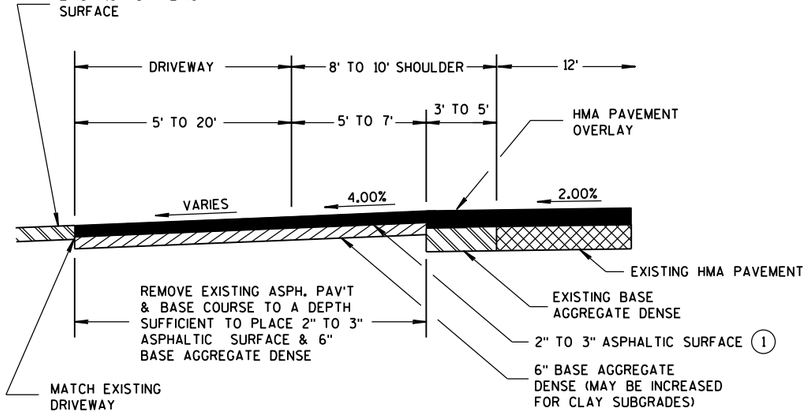
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

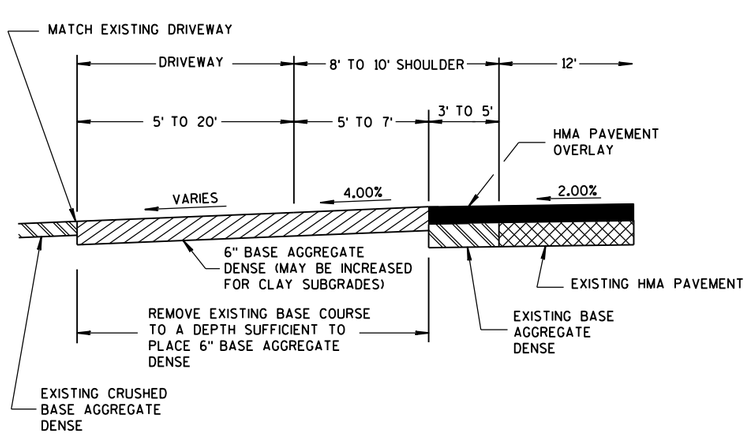
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

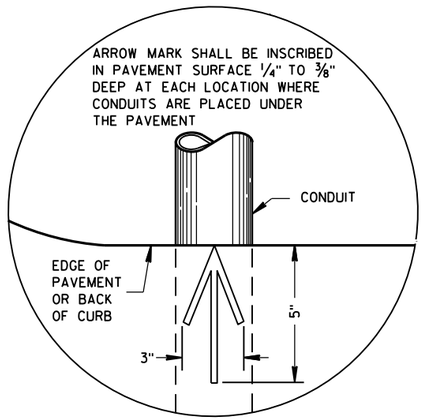
DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

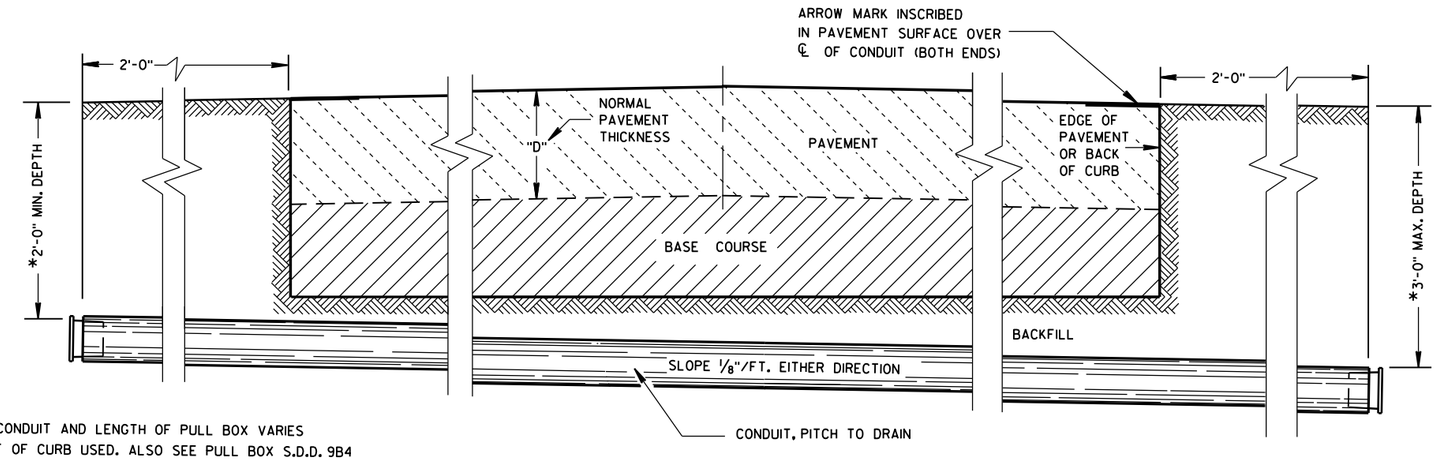
6

S.D.D. 8 D 22-1



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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

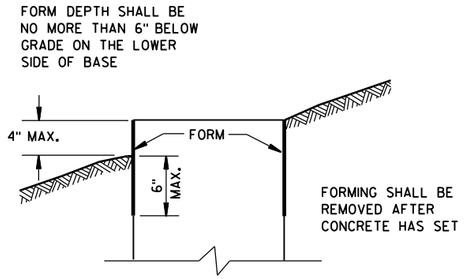
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 220
FHWA

6

S.D.D. 9 B 2-10



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

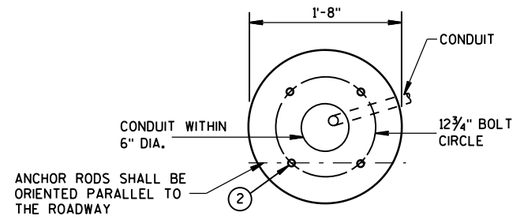
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

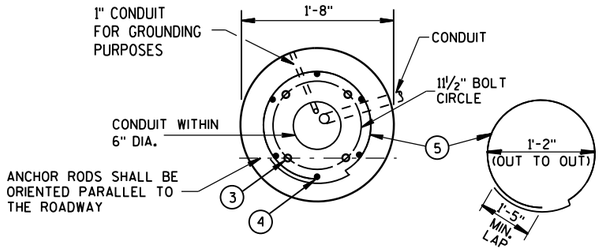
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

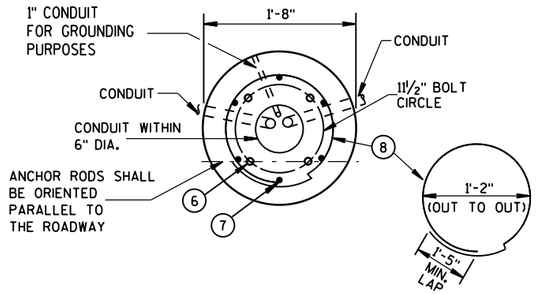
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

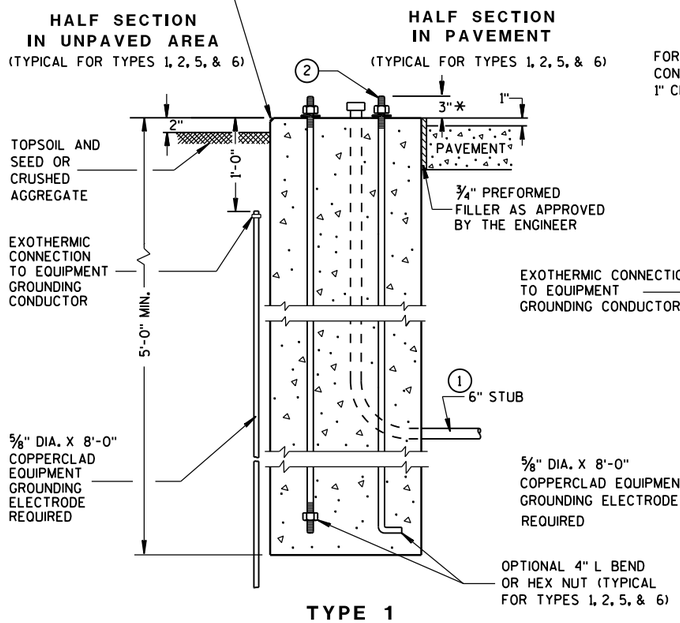




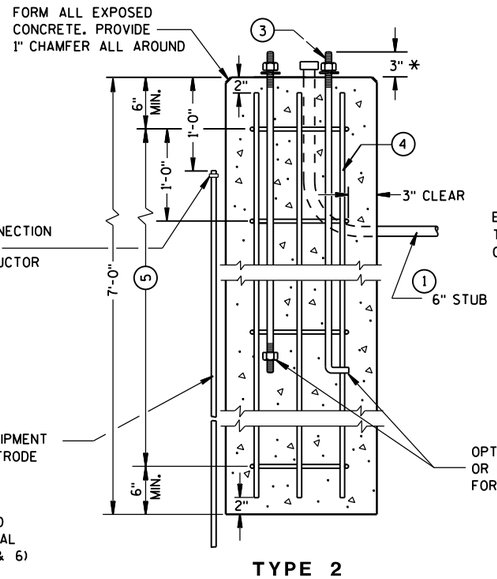


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

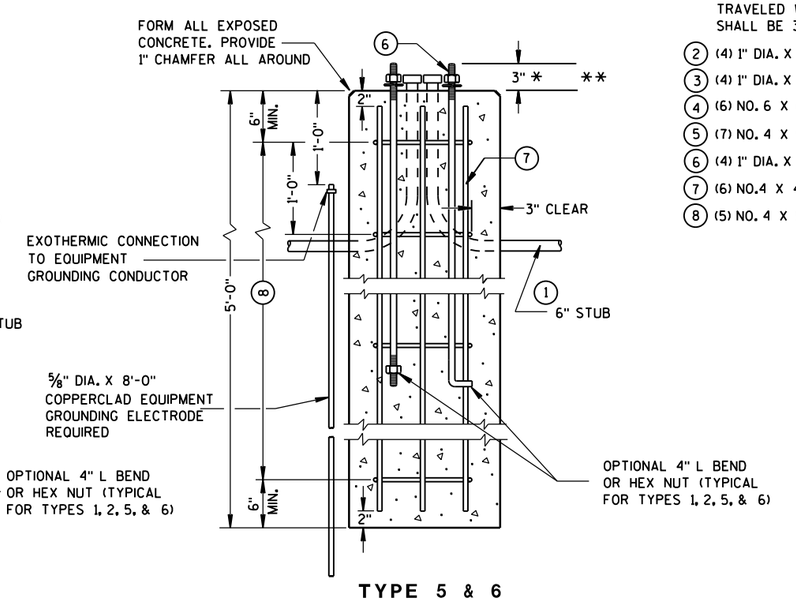
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 221
FHWA

6

S.D.D. 9 C 2-7

6

S.D.D. 9 C 2-7

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.

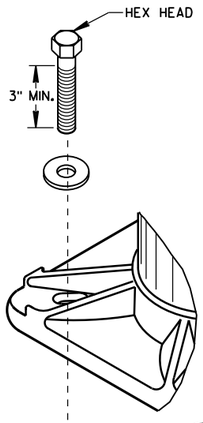
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

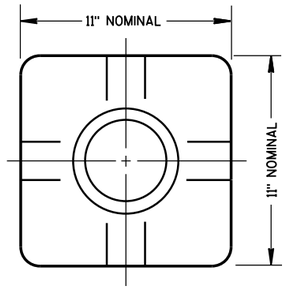
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

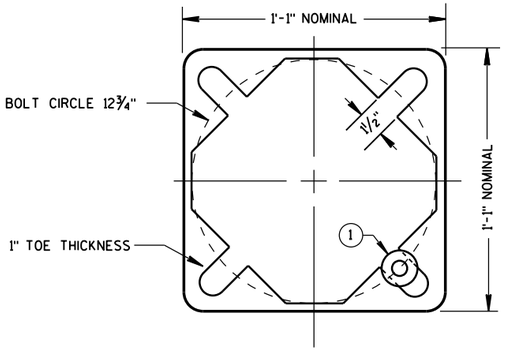
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

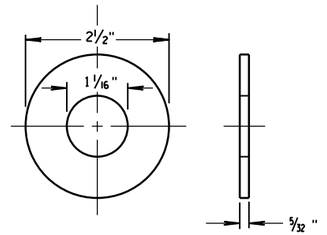




TOP VIEW
(PEDESTAL BASE)

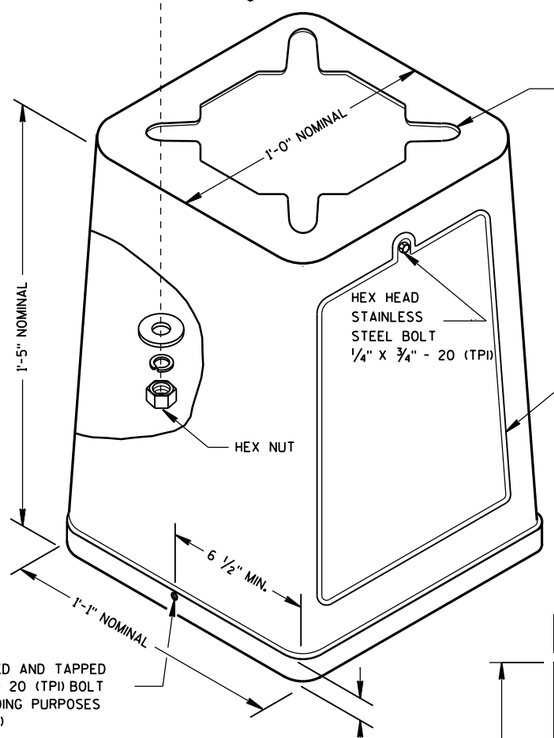


BOTTOM VIEW
(PEDESTAL BASE)

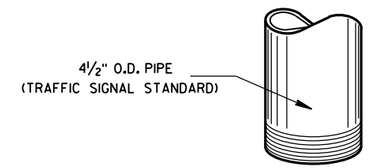


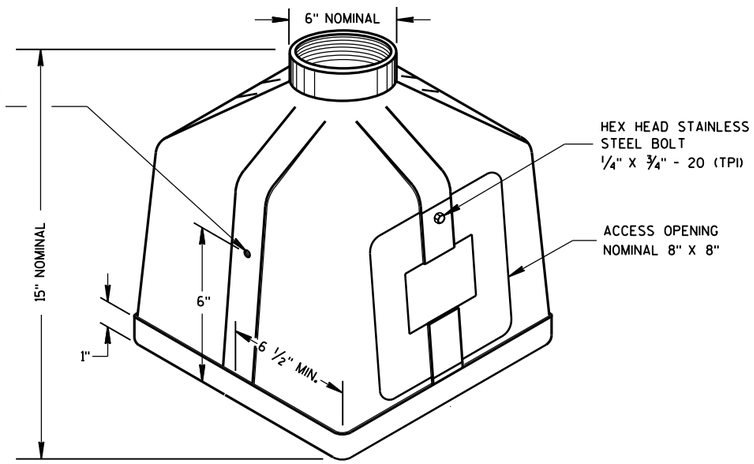
ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)



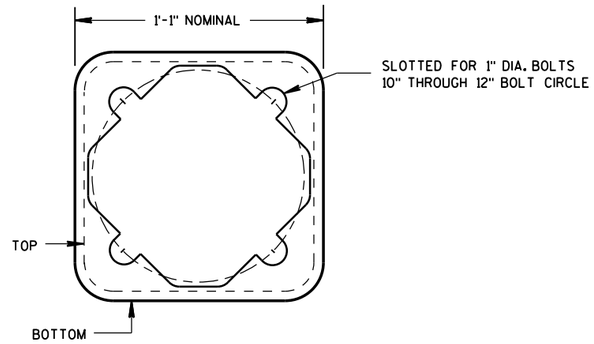
ISOMETRIC VIEW



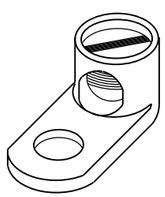


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

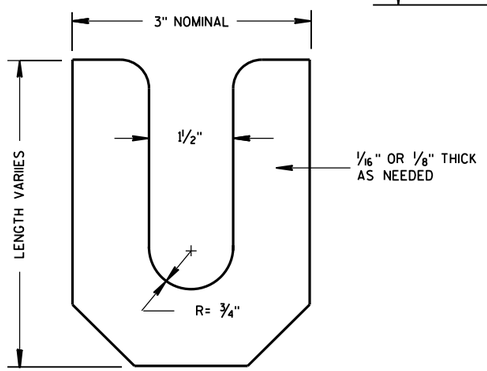


TYPICAL MECHANICAL CONNECTOR LUG

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

6
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).

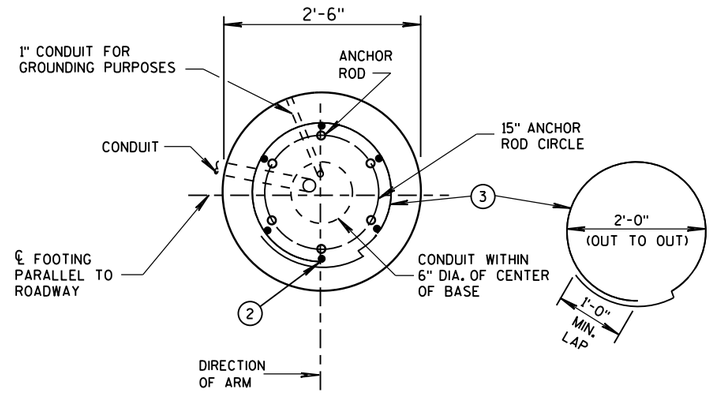
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

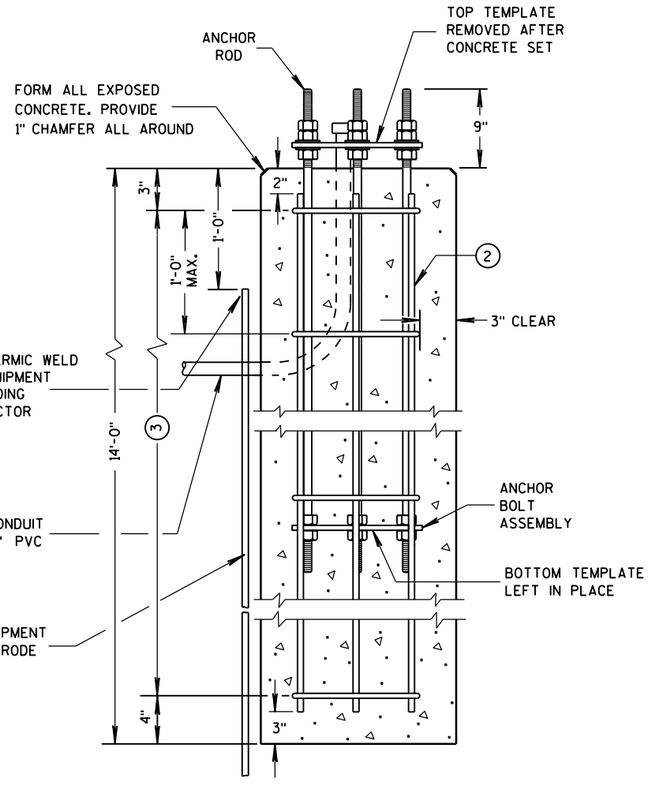
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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" MAX. C-C.

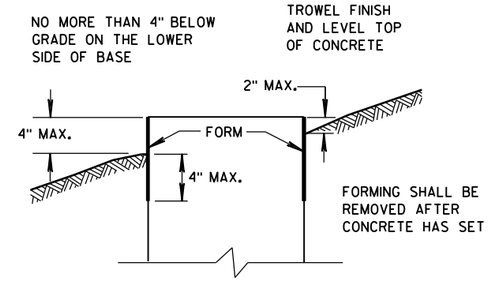
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



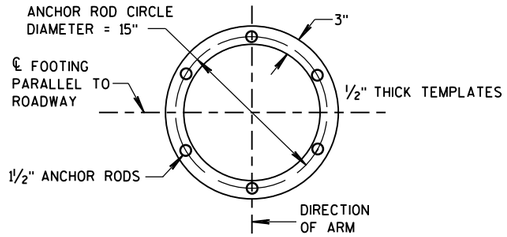


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

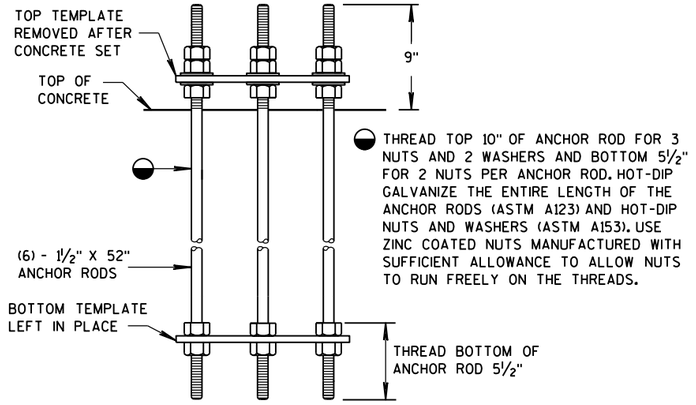
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

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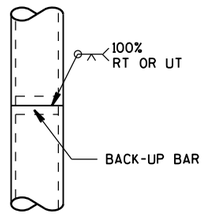
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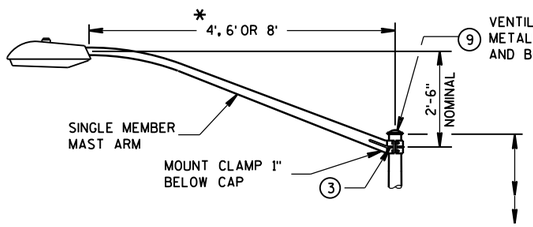
S.D.D. 9 C 11-9

FOR MANUFACTURERS USE ONLY

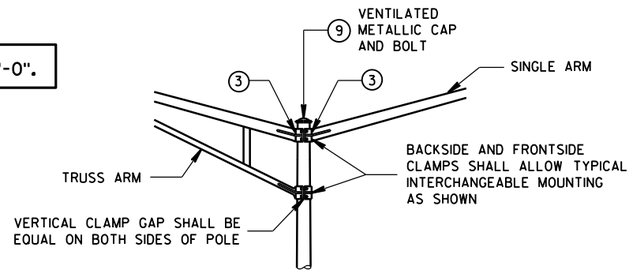
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

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





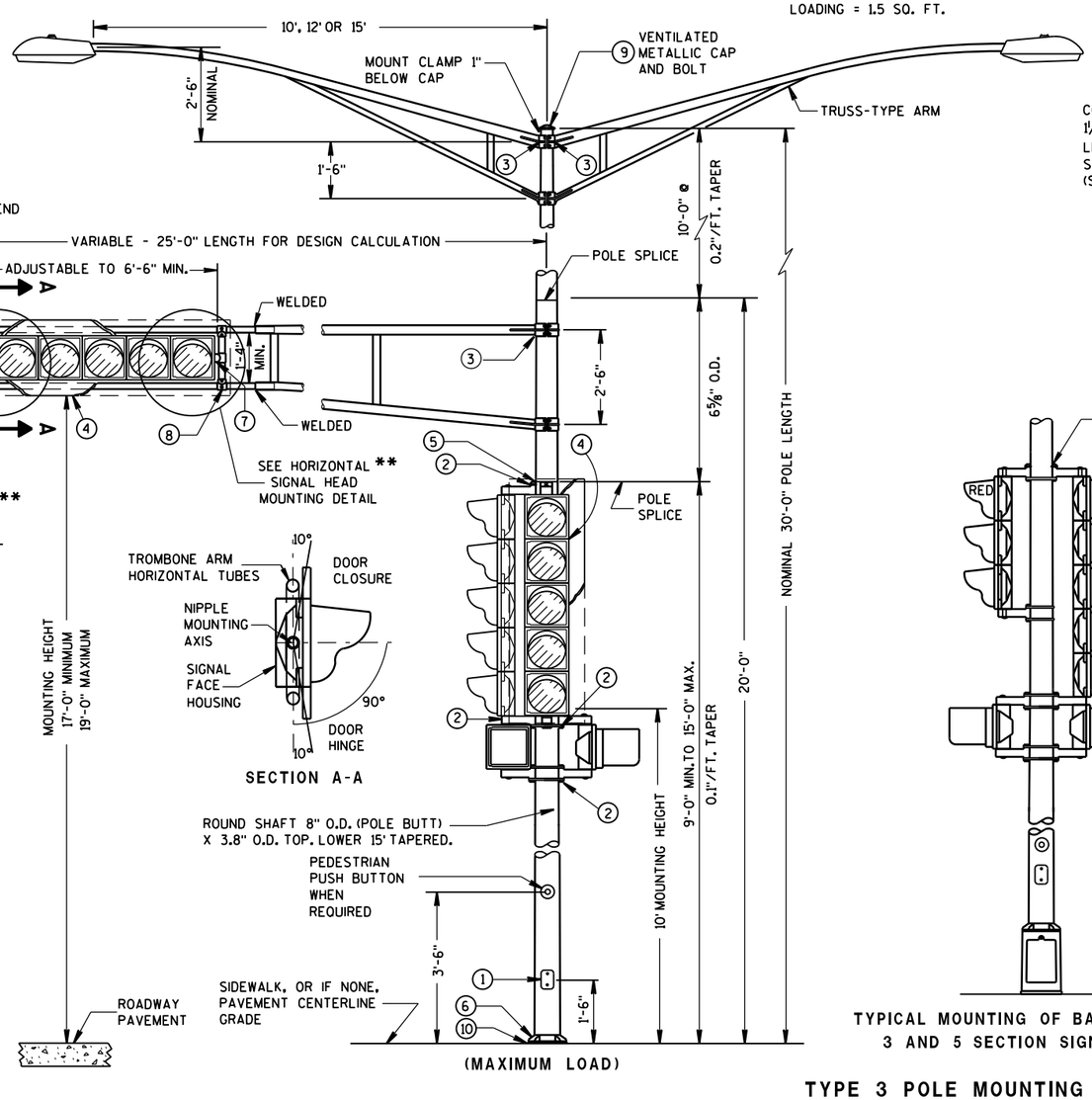
POLE SPLICE DETAIL



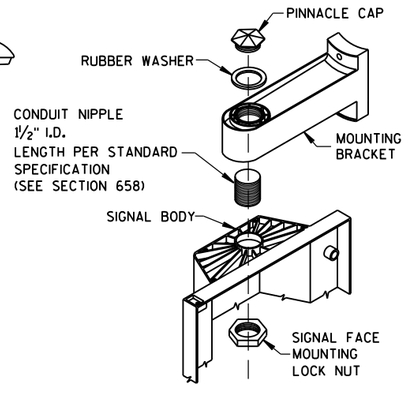
INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

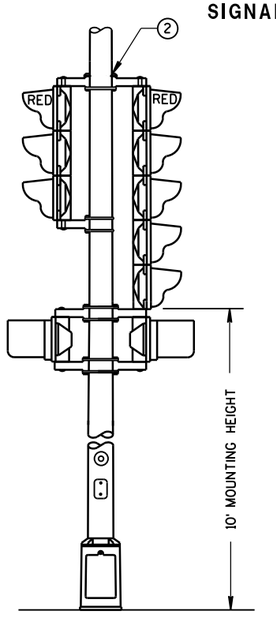
WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.



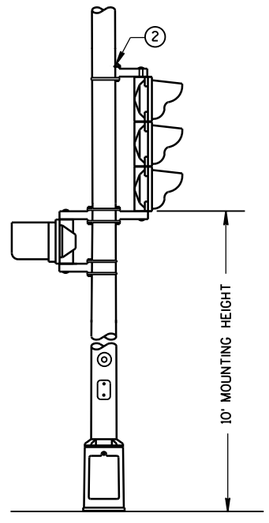
TYPE 3 POLE MOUNTING CONFIGURATION



SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

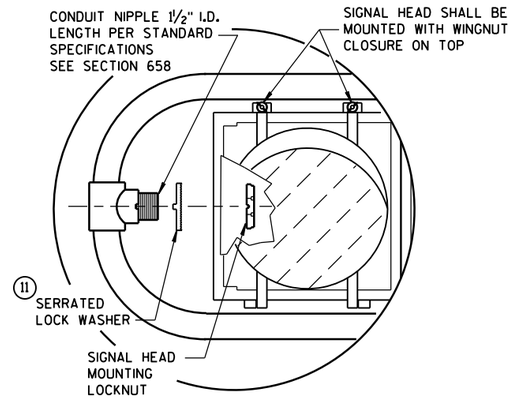
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL**

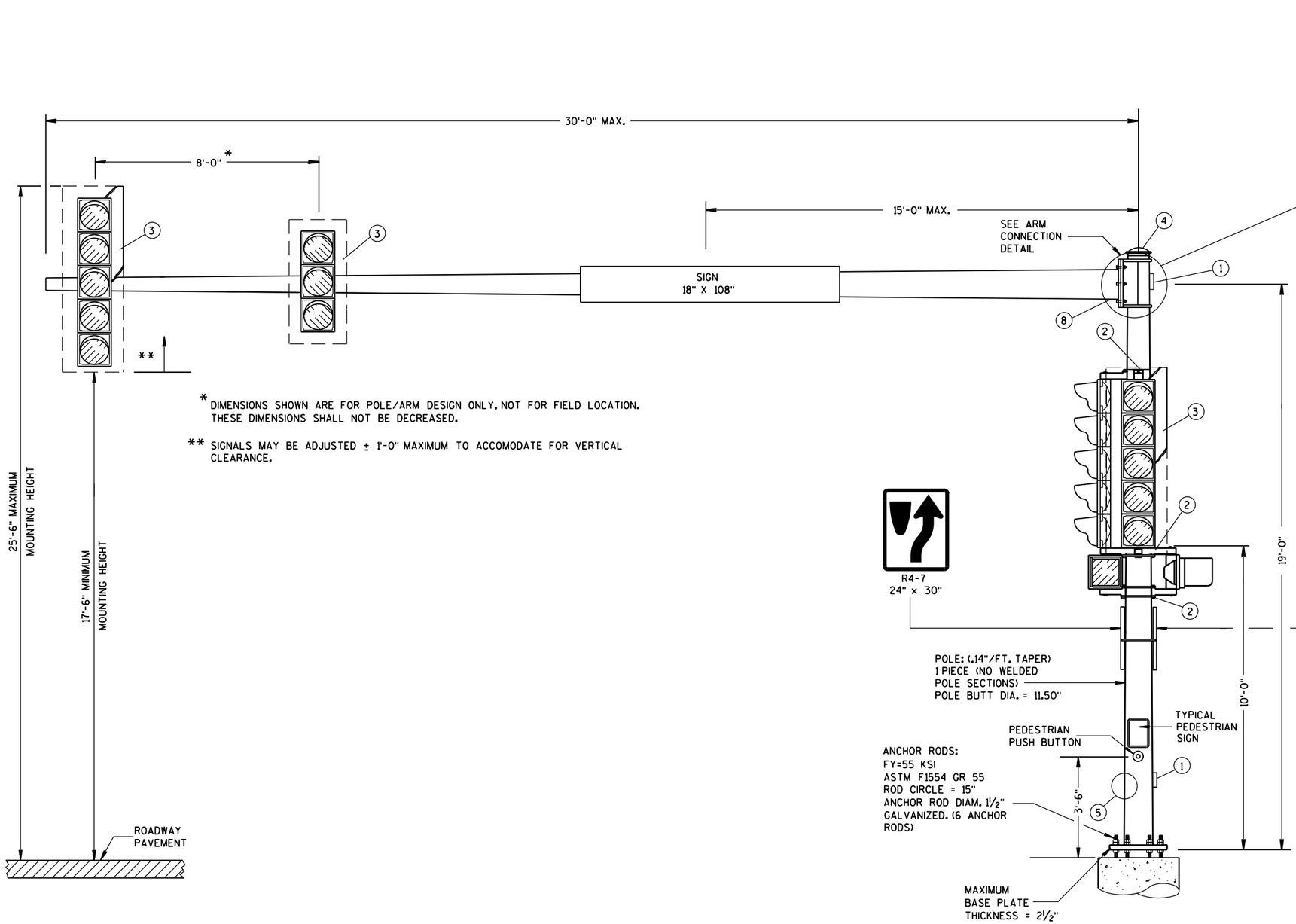
** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

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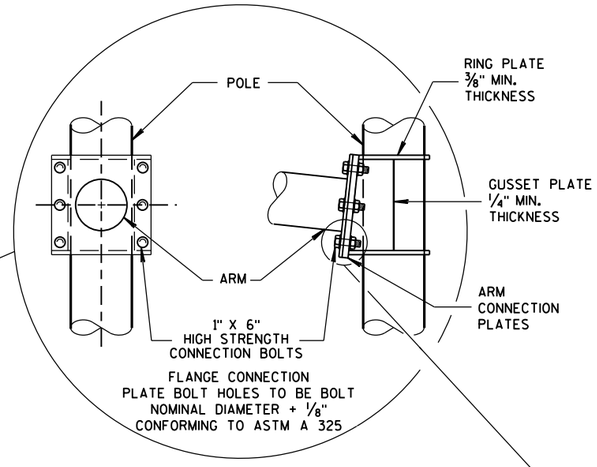
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S.D.D. 9 E 1-14b

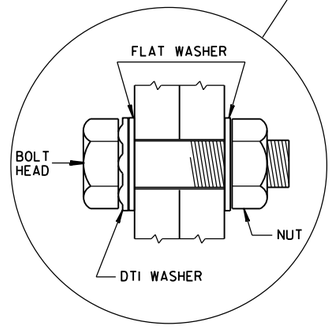


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

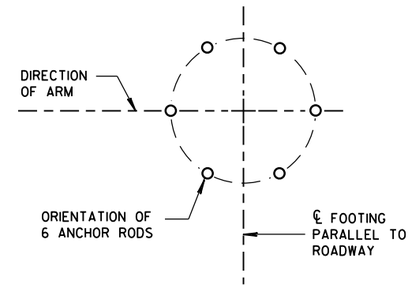
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



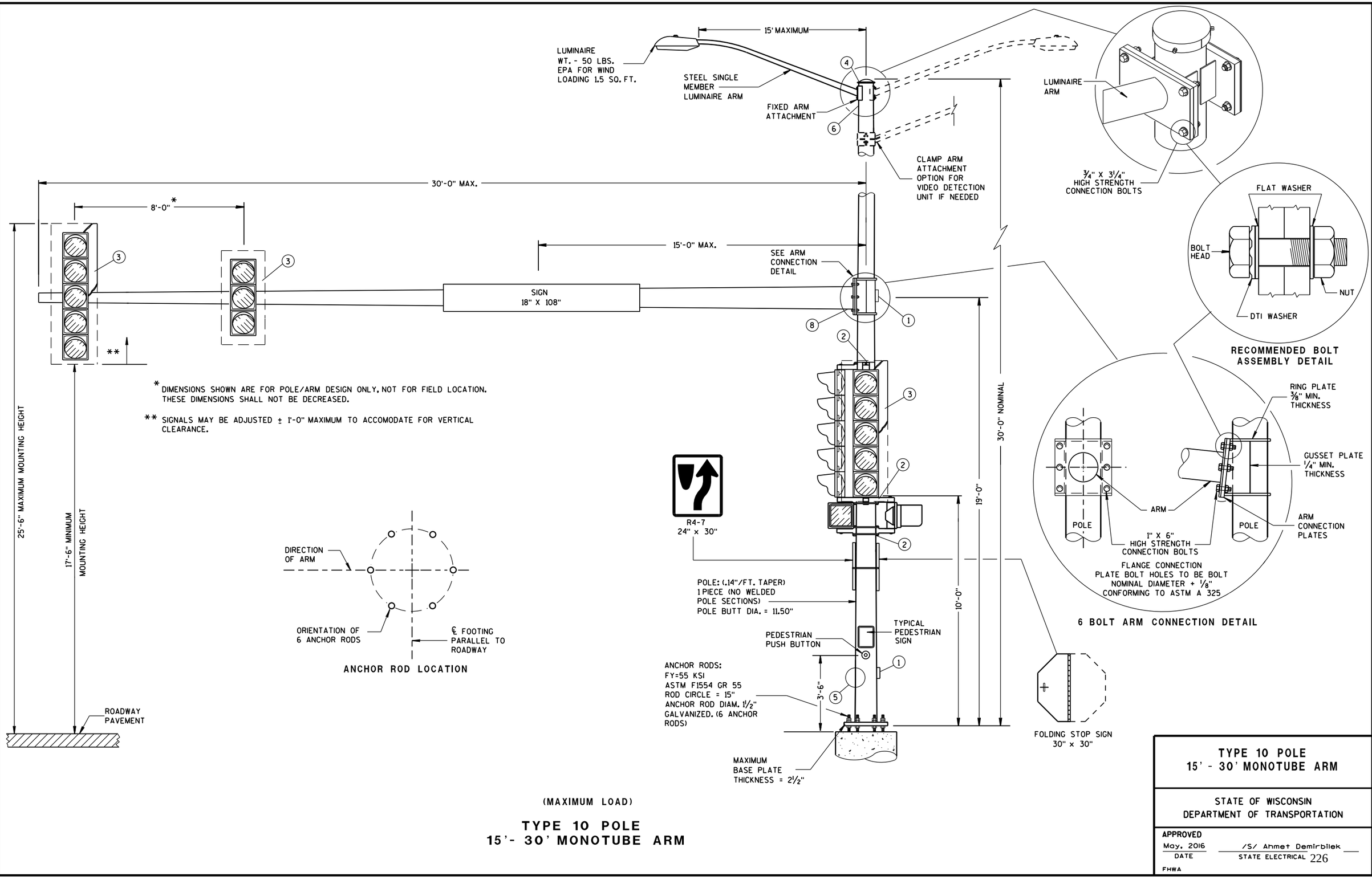
ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

S.D.D. 9 E 8-8a



* 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.

(MAXIMUM LOAD)

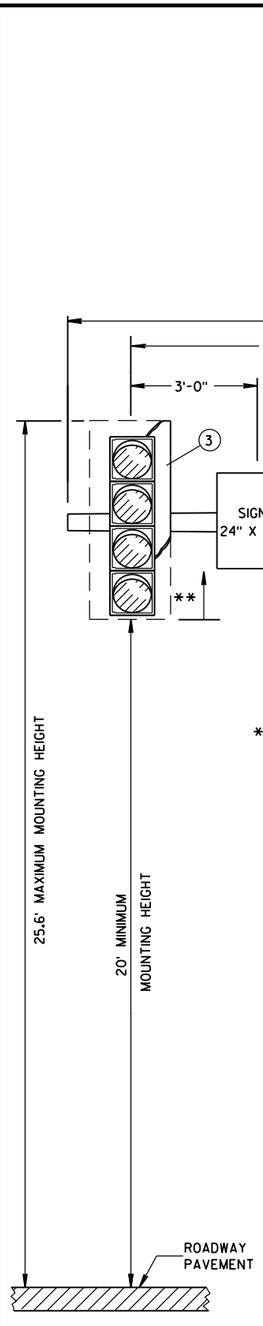
TYPE 10 POLE
15'- 30' MONOTUBE ARM

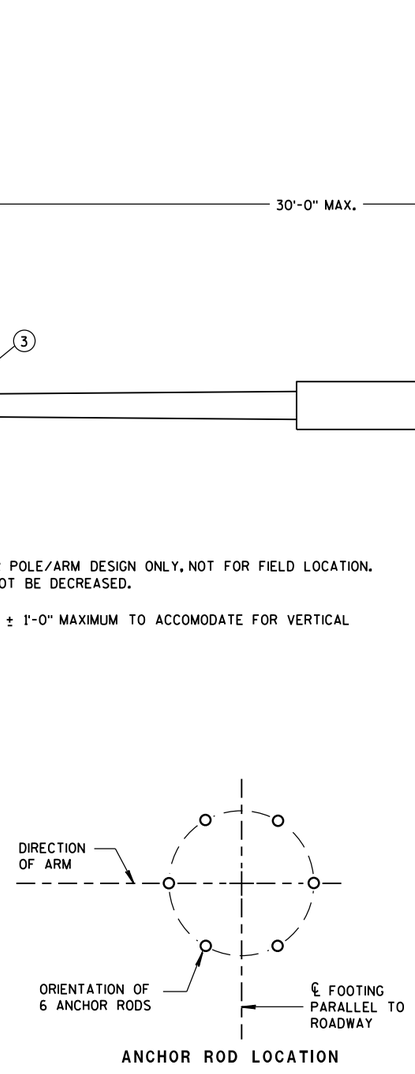
TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
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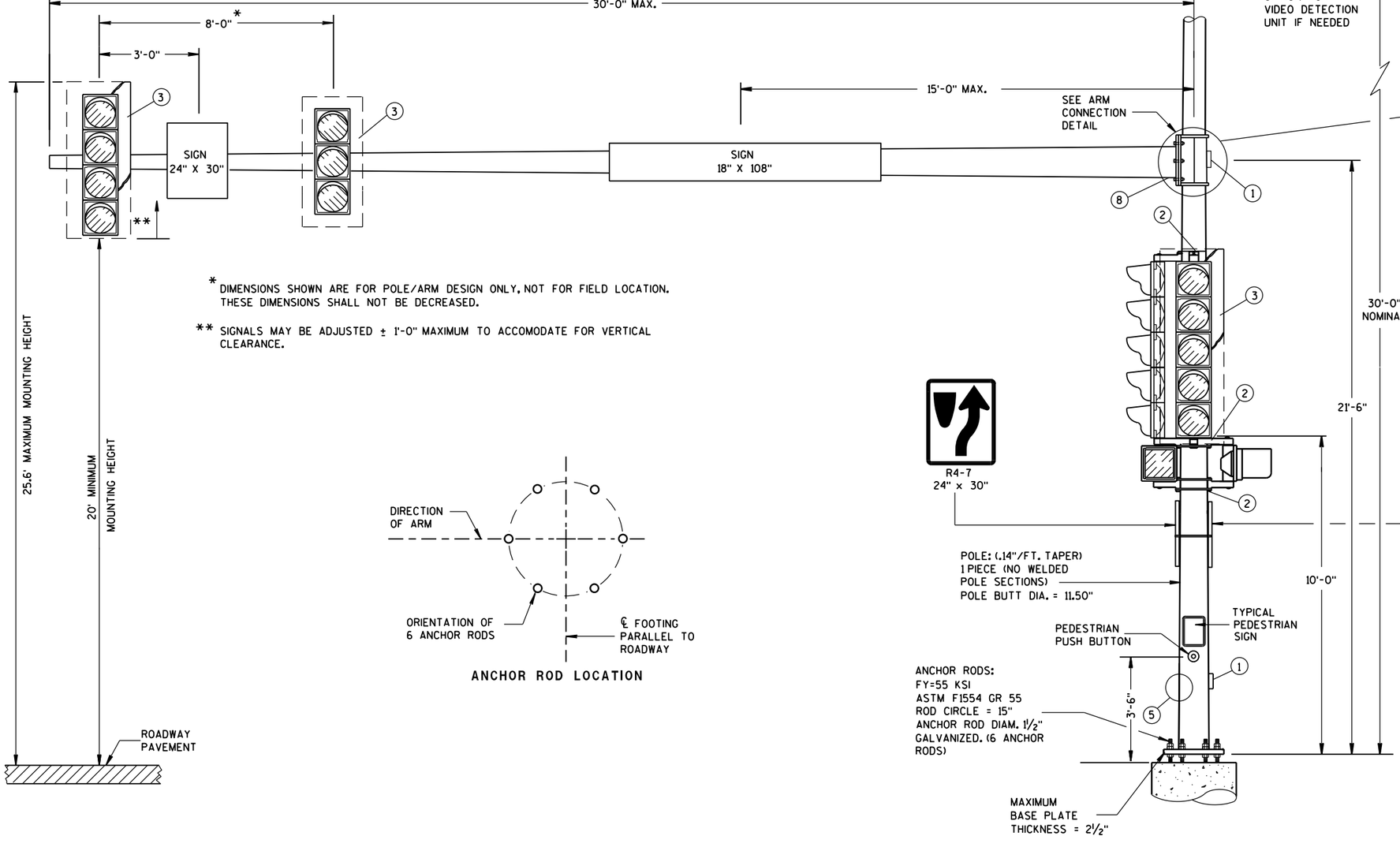
APPROVED
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FHWA

6
S.D.D. 9 E 8-8b



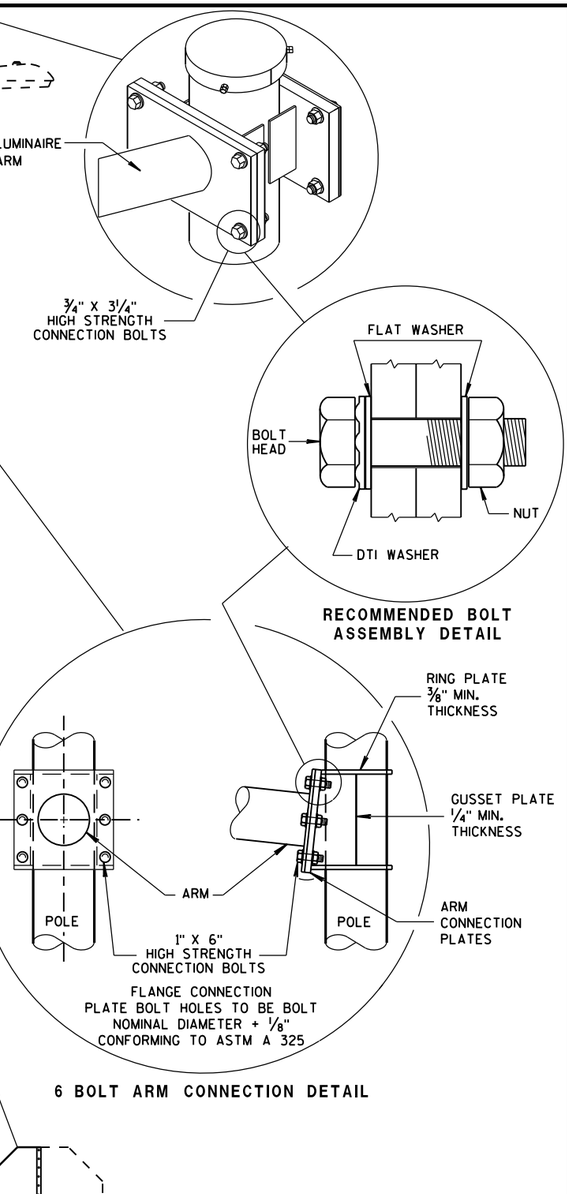


ANCHOR ROD LOCATION



* 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.



(MAXIMUM LOAD)

OVER HEIGHT TYPE 10 POLE 15'- 30' MONOTUBE ARM

OVER HEIGHT TYPE 10 POLE
15' - 30' MONOTUBE ARM

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S.D.D. 9 E 12-1b

GENERAL NOTES

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

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING 2017 INTERIM REVISIONS) AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

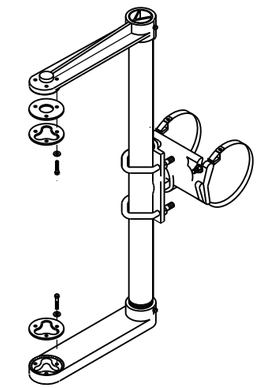
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

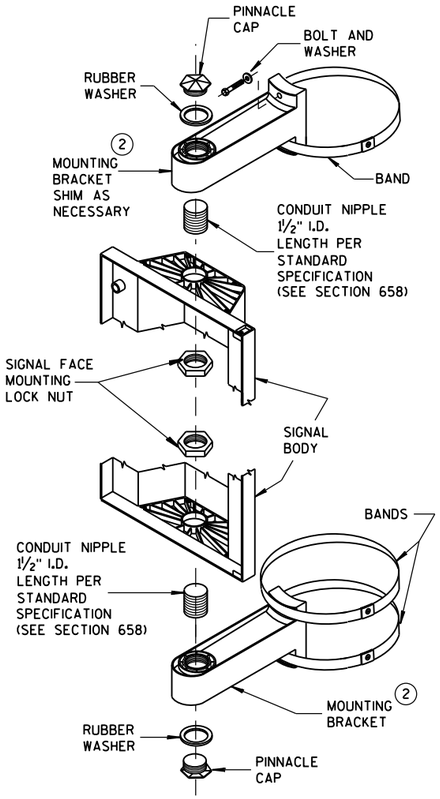
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

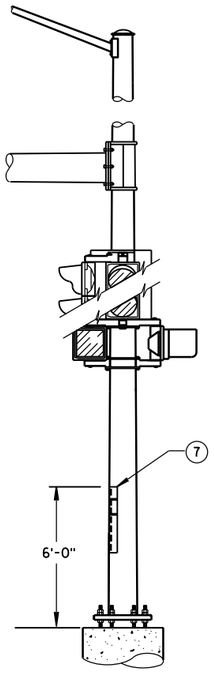


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

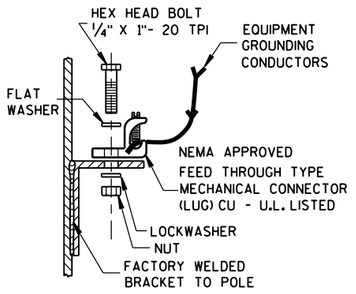
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

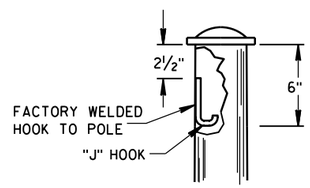


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

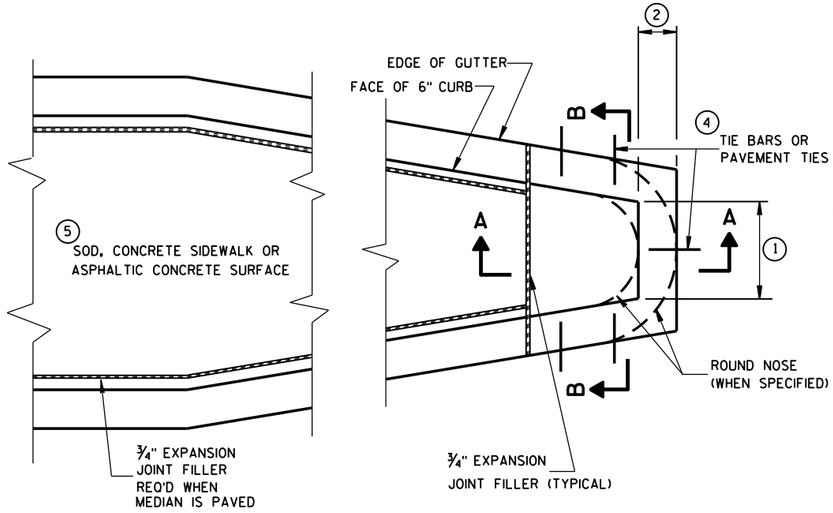
GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

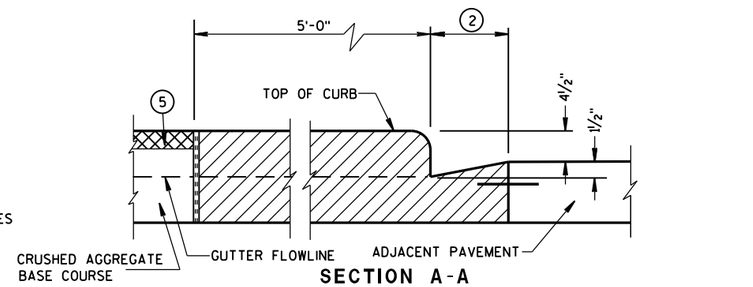
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

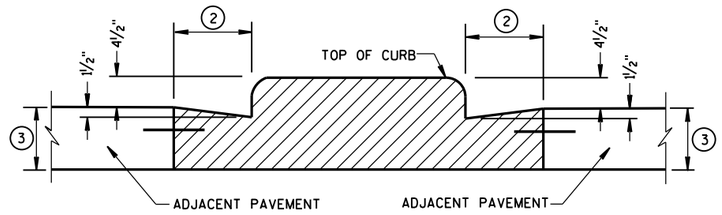
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 E 12-1e







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.

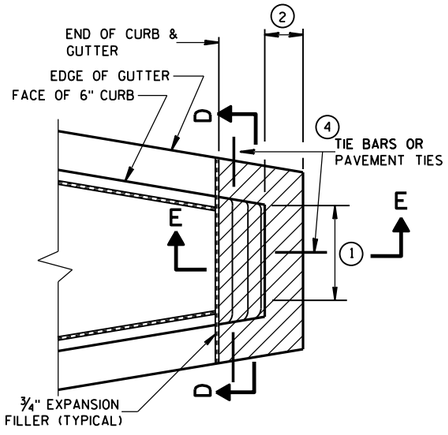
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

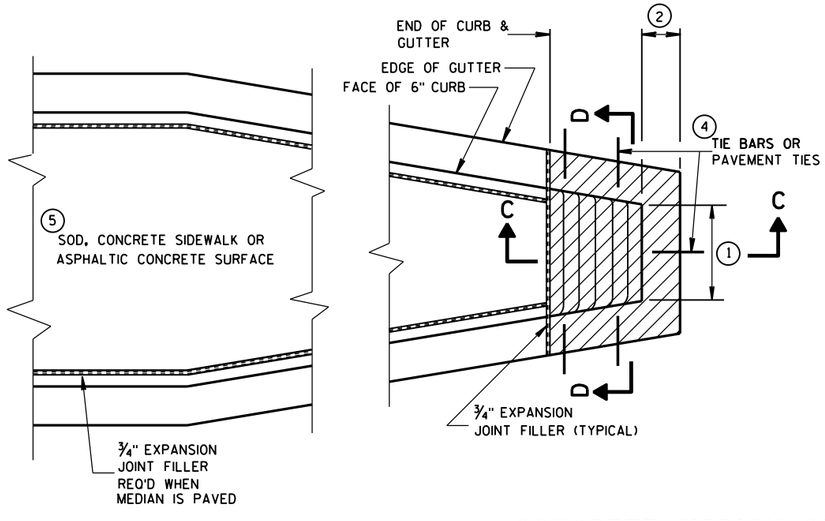
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

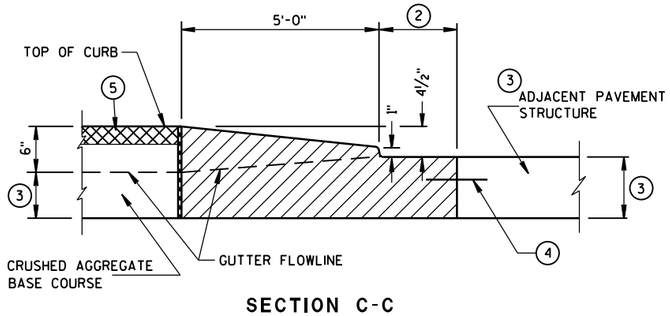
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

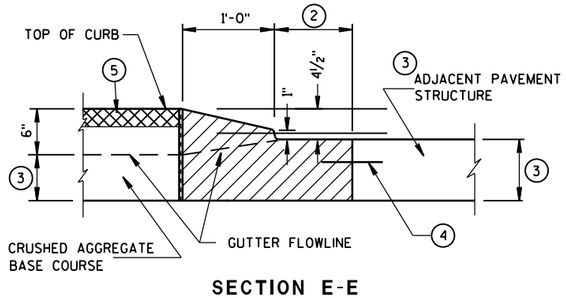
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



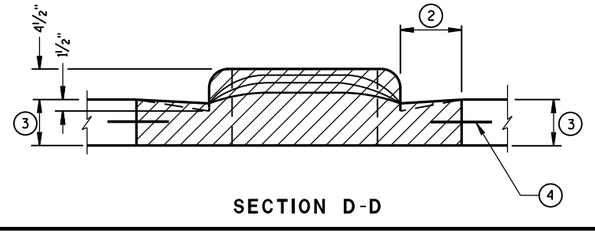






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

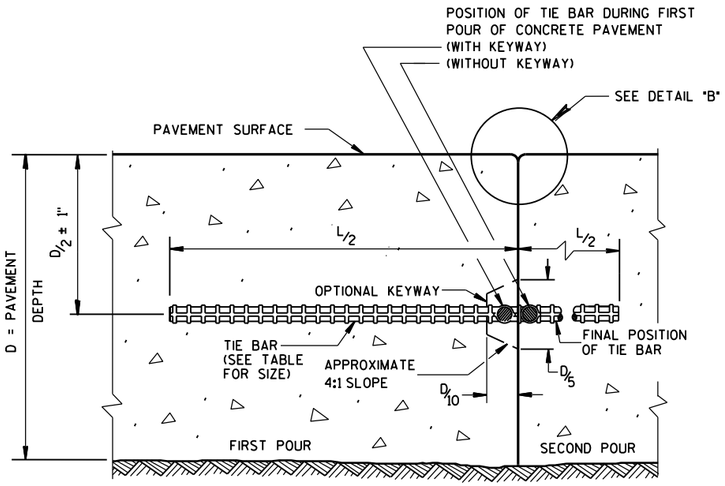
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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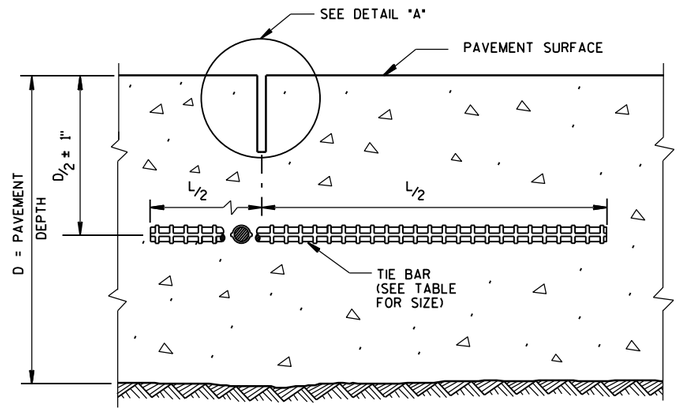
S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

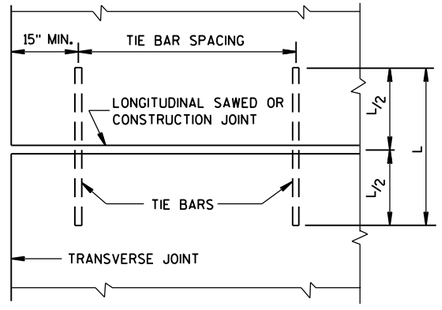
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

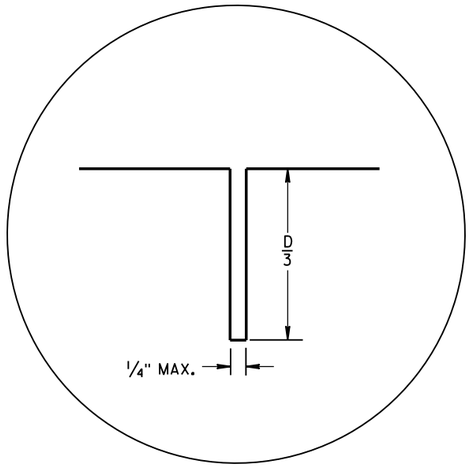
APPROVED
June, 2015
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPER

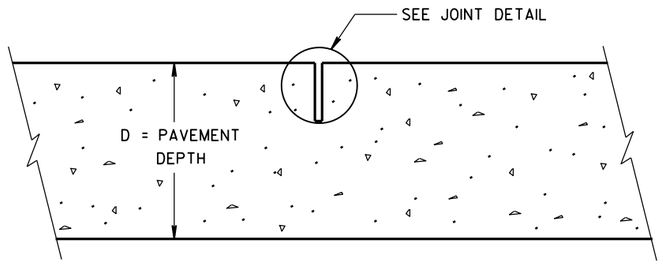
FHWA

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S.D.D. 13 C 1-18



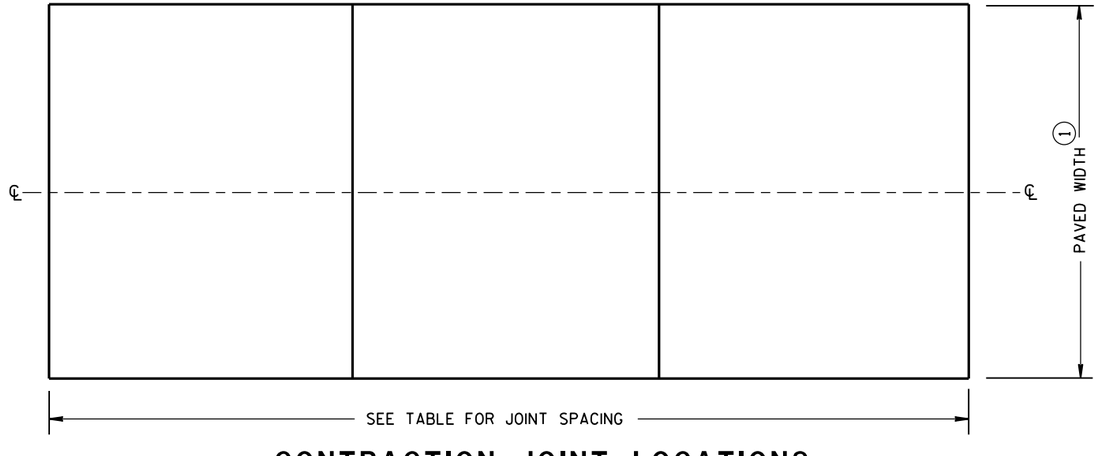
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

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



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

CONSTRUCTION JOINTS

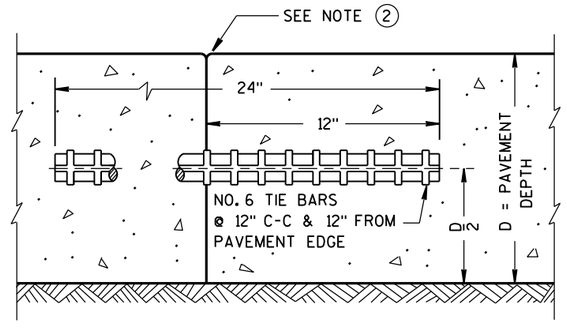
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

6

6

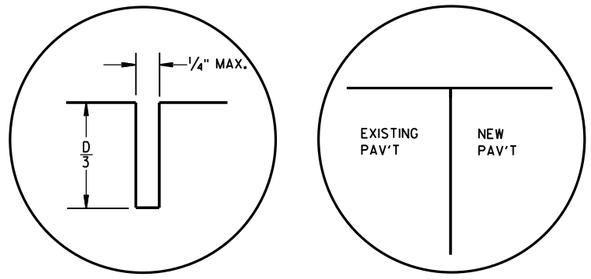
S.D.D. 13 C 4-16

S.D.D. 13 C 4-16

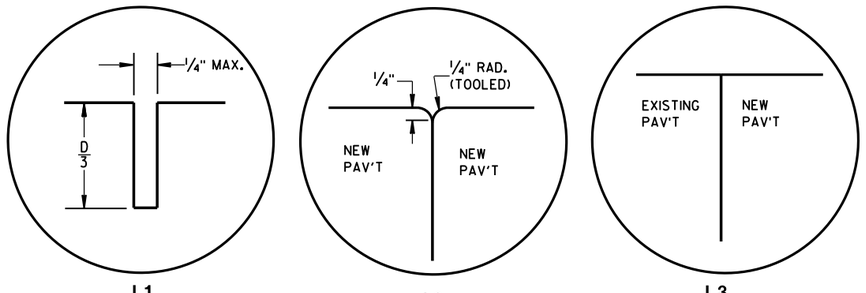
URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

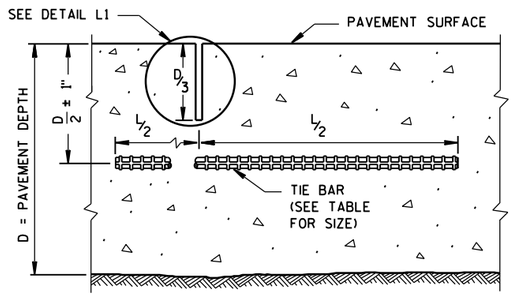
APPROVED
5-3-2013 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE
IEER
FHWA



TRANSVERSE JOINTS

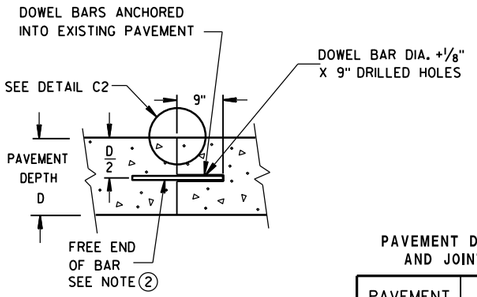


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

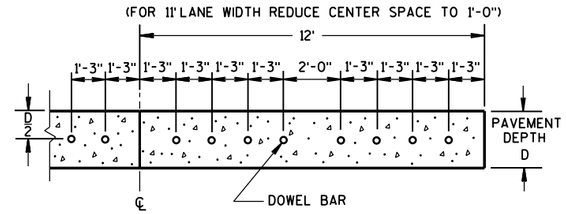
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

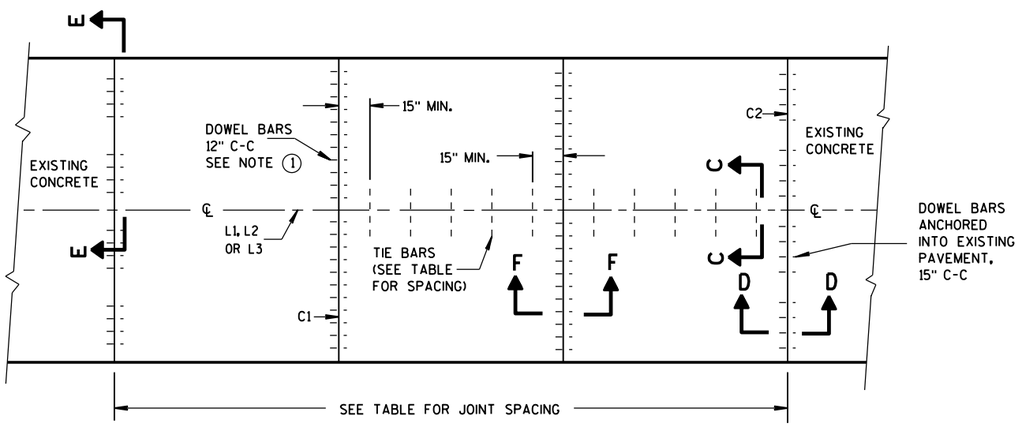
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

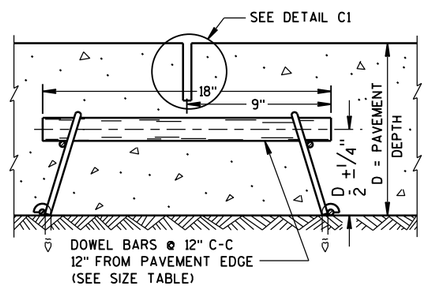
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

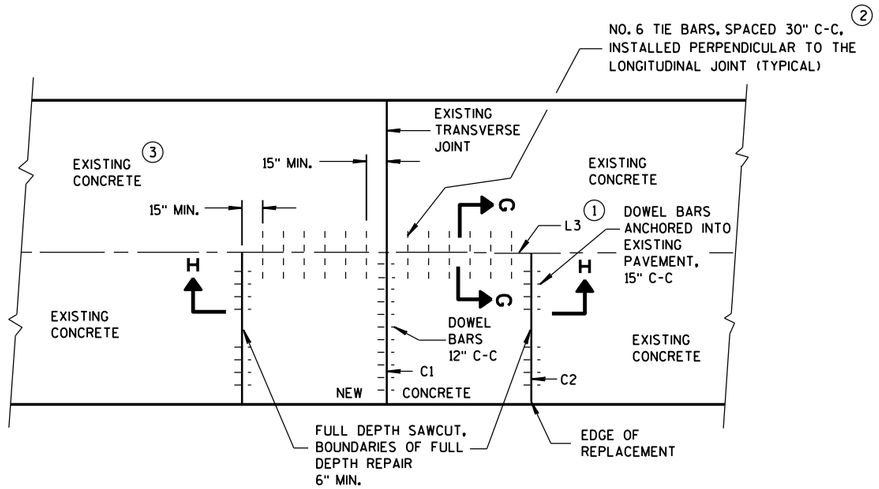
6
S.D.D. 13 C 15-6a

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

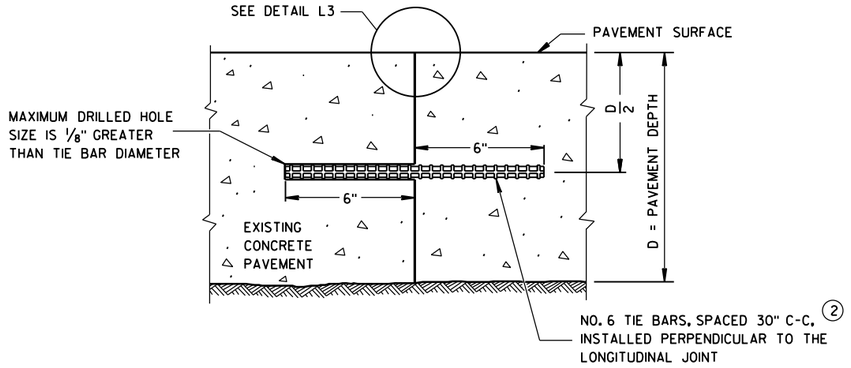
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



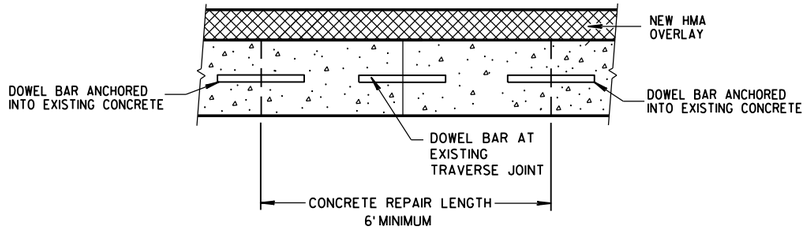
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

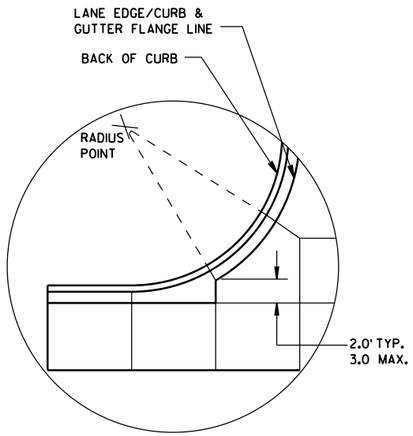
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEI
FHWA

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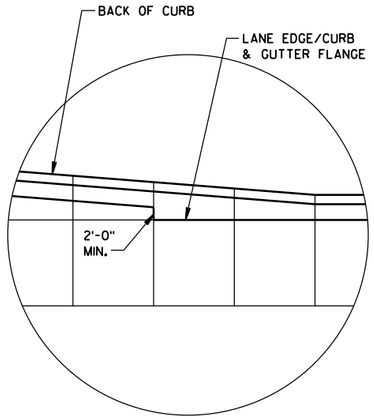
S.D.D. 13 C 15-6b

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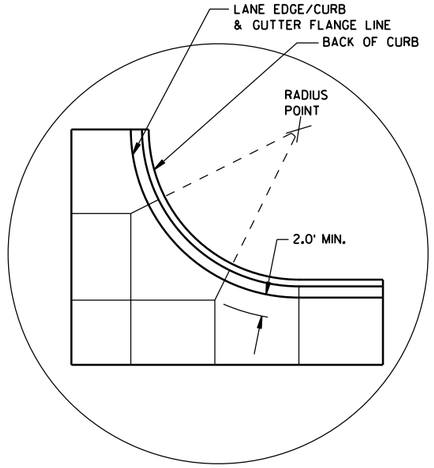
S.D.D. 13 C 15-6b



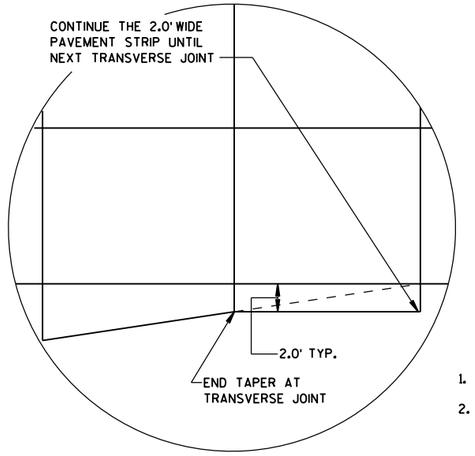
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

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

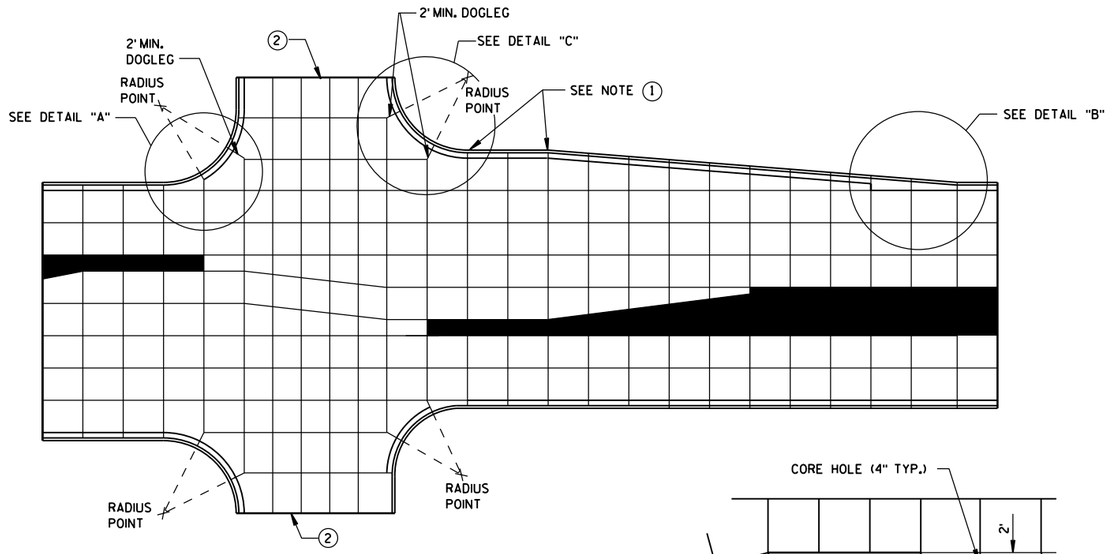
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

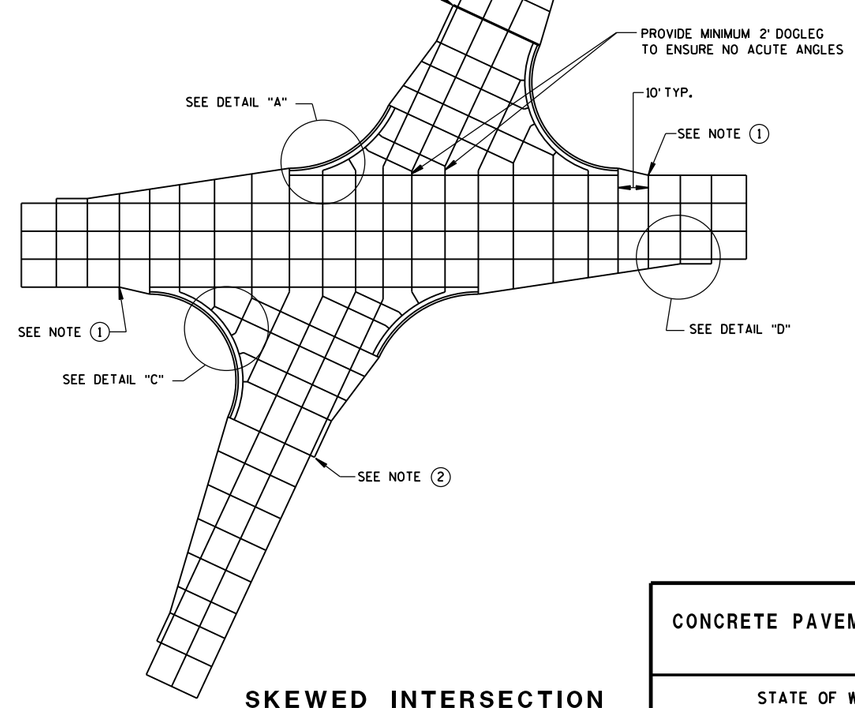
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



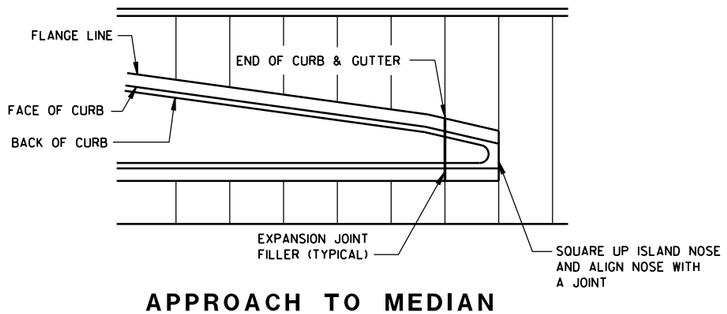
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

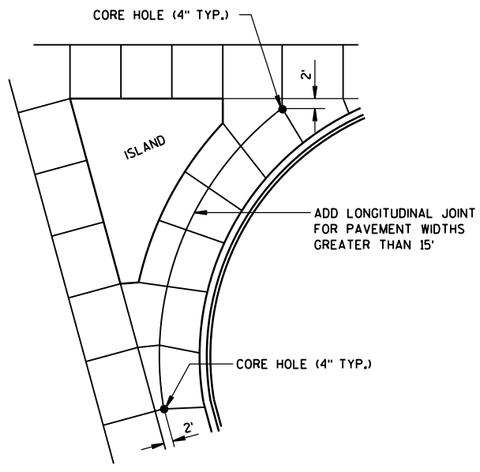
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

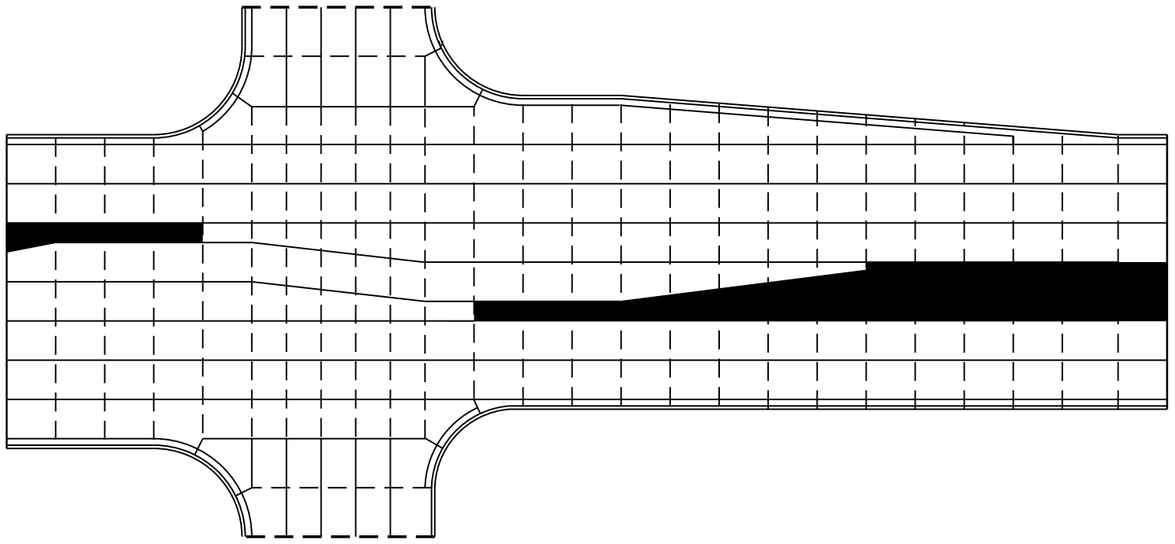
S.D.D. 13 C 18-5a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

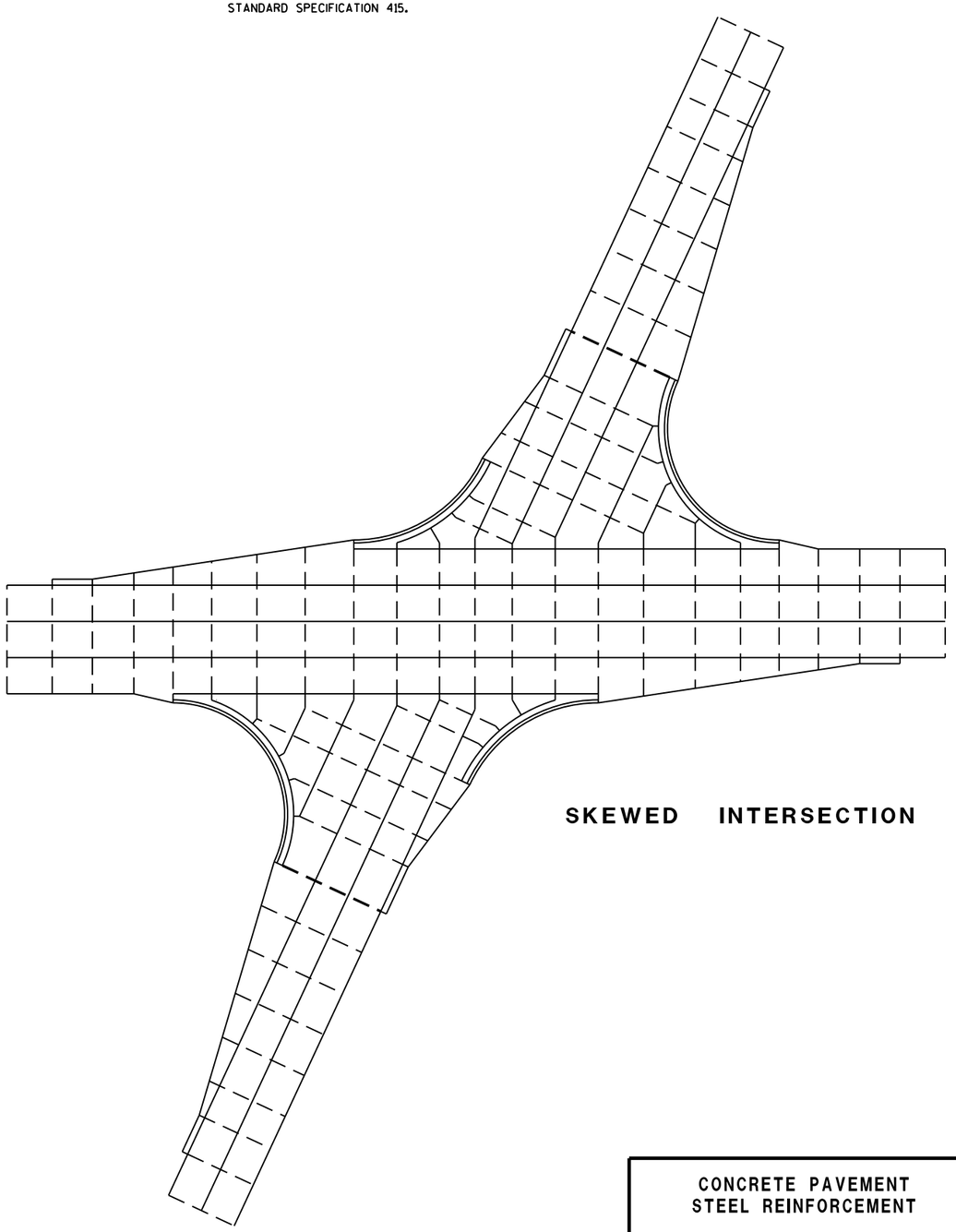
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

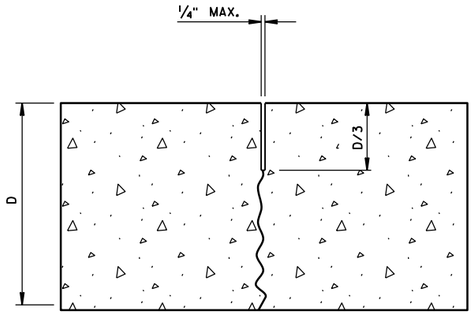
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

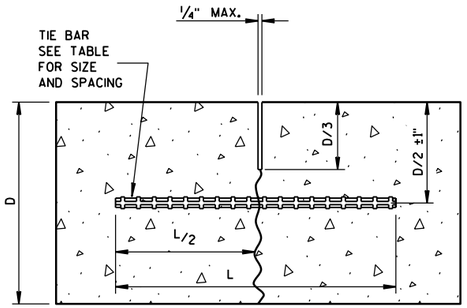
S.D.D. 13 C 18-5b

6

S.D.D. 13 C 18-5b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

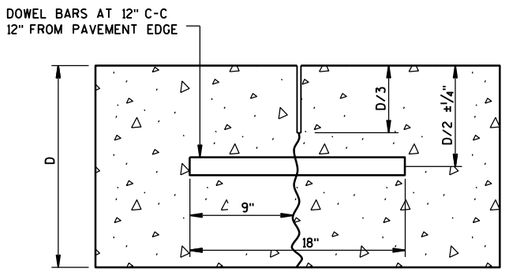
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

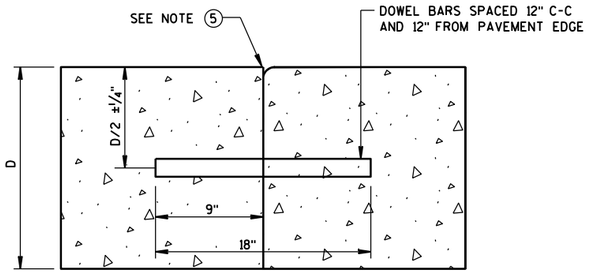
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



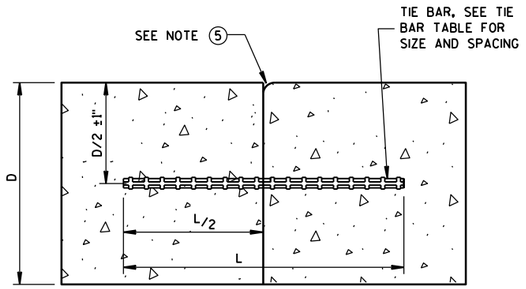
DOWELED-TRANSVERSE

CONTRACTION JOINTS

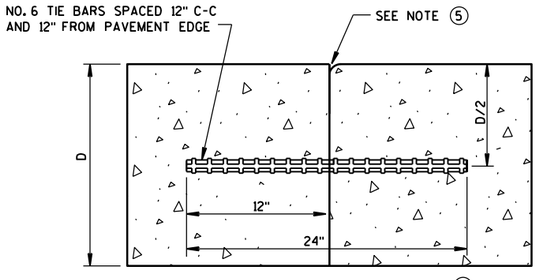
SEE NOTE (2)



DOWELED TRANSVERSE (3)

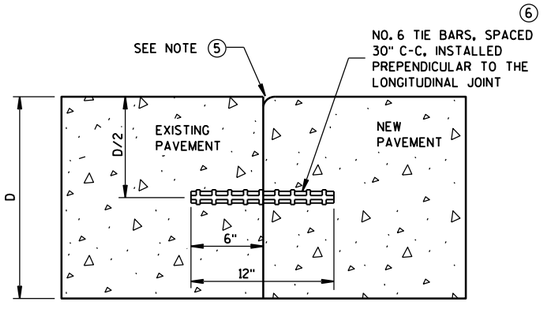


TIED LONGITUDINAL



TIED TRANSVERSE (3)

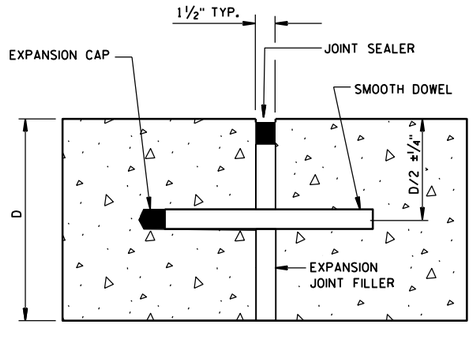
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

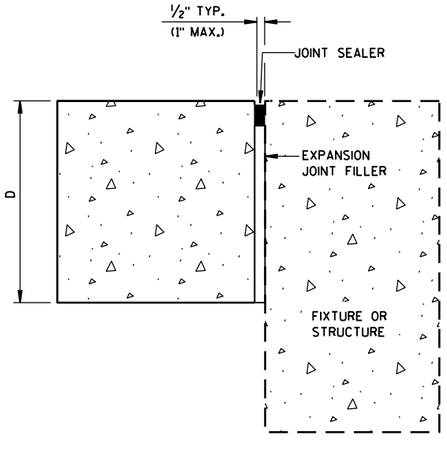
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

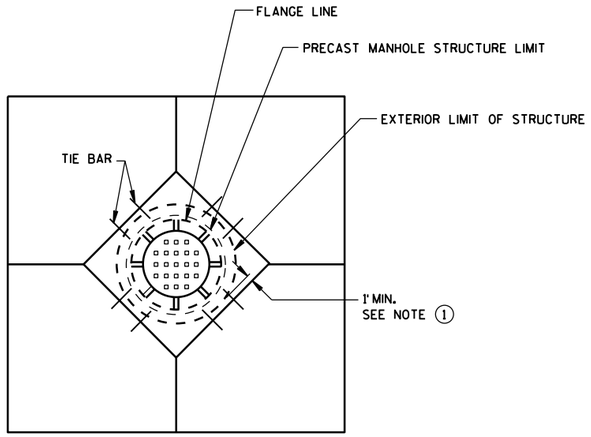
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S.D.D. 13 C 18-5c

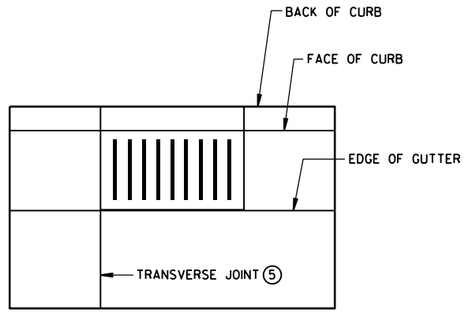
S.D.D. 13 C 18-5c

CONCRETE PAVEMENT
JOINT TYPES

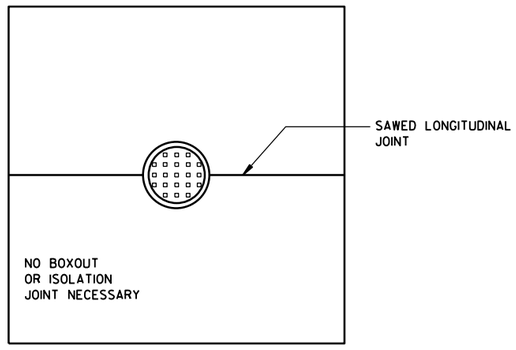
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



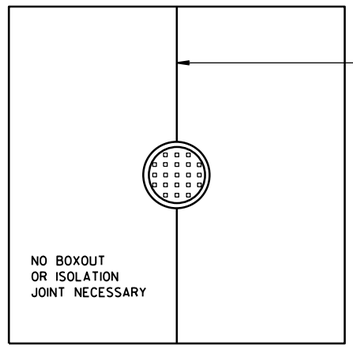
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



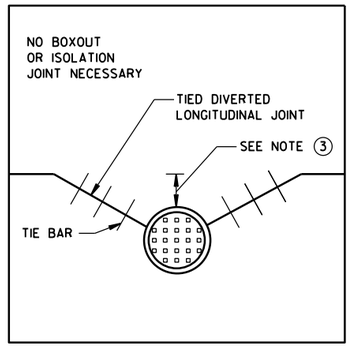
INLET WITH TRANSVERSE JOINT



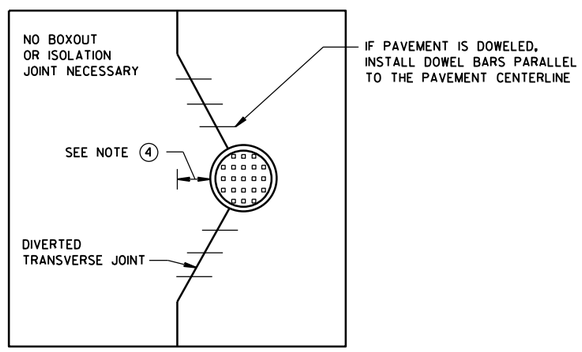
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

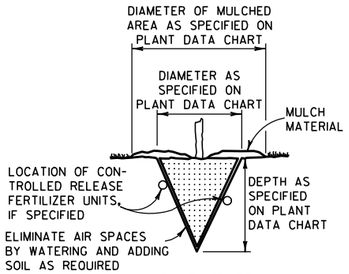
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
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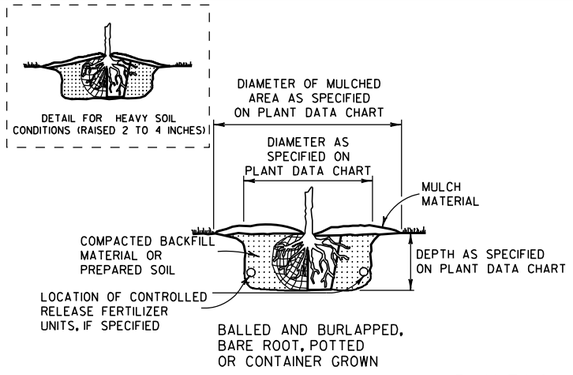
APPROVED
December, 2016 — /S/ Peter Kemp, P.E.
DATE — PAVEMENT SUPEF
FHWA

6

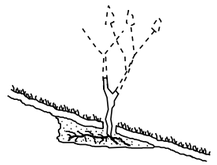
S.D.D. 13 C 18-5d



MACHINE MOVED

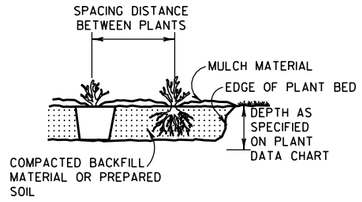


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



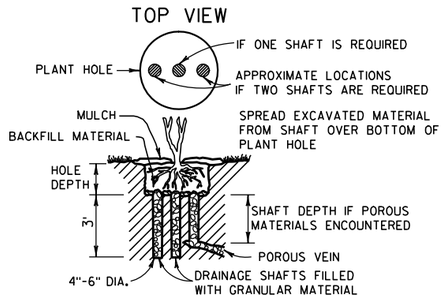
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



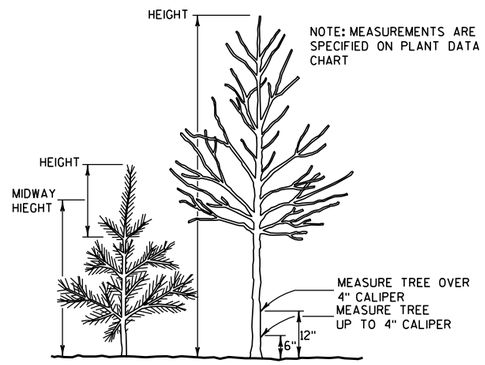
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

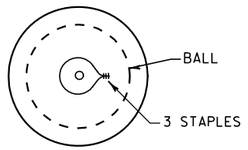


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

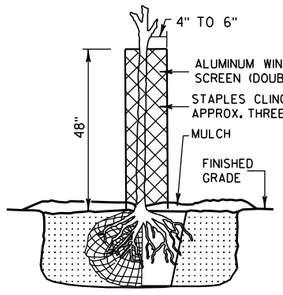
DRAINING



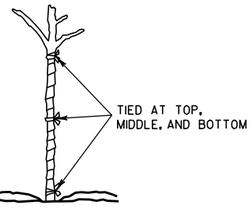
MEASURING



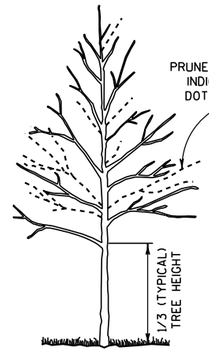
TOP VIEW



RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

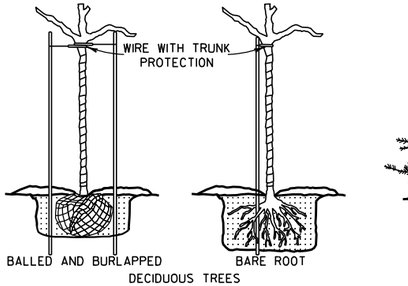


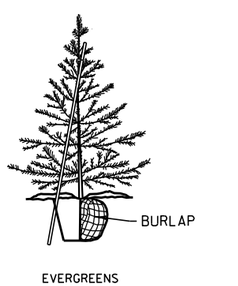
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

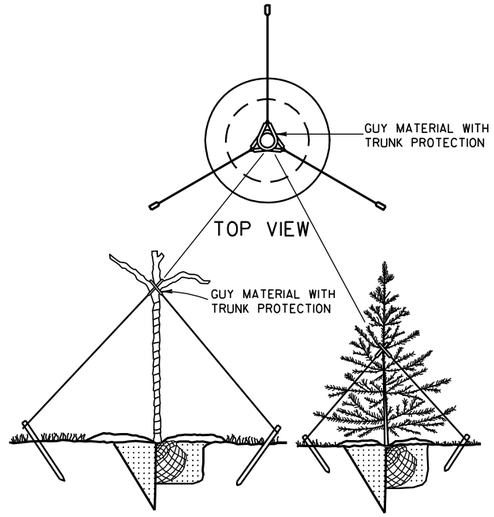
PRUNING





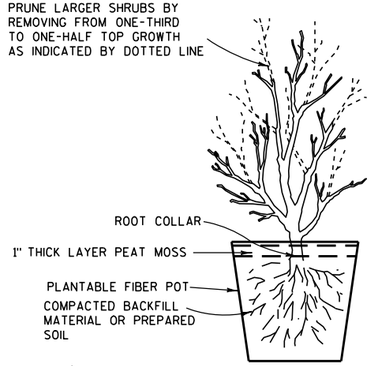
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

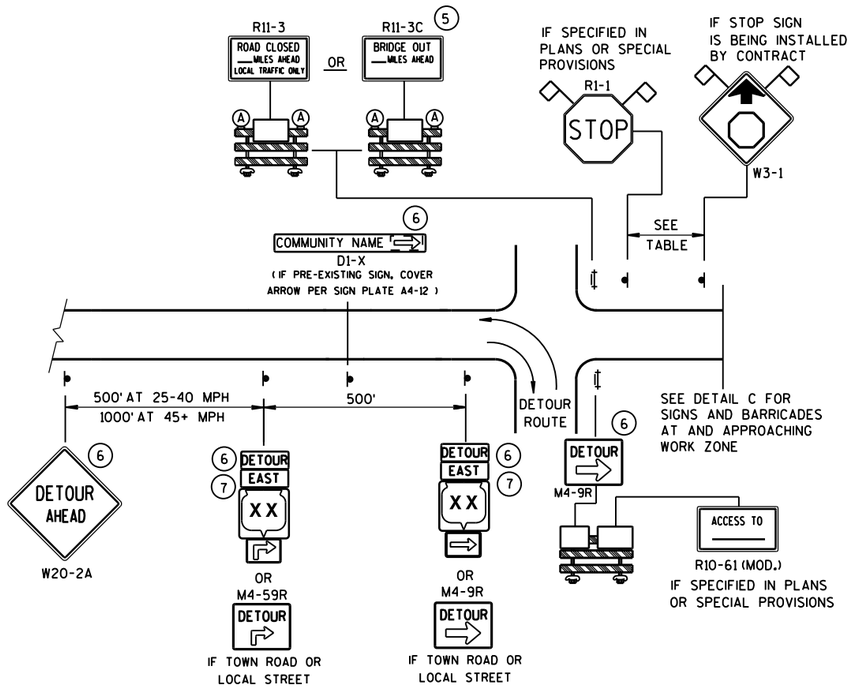
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

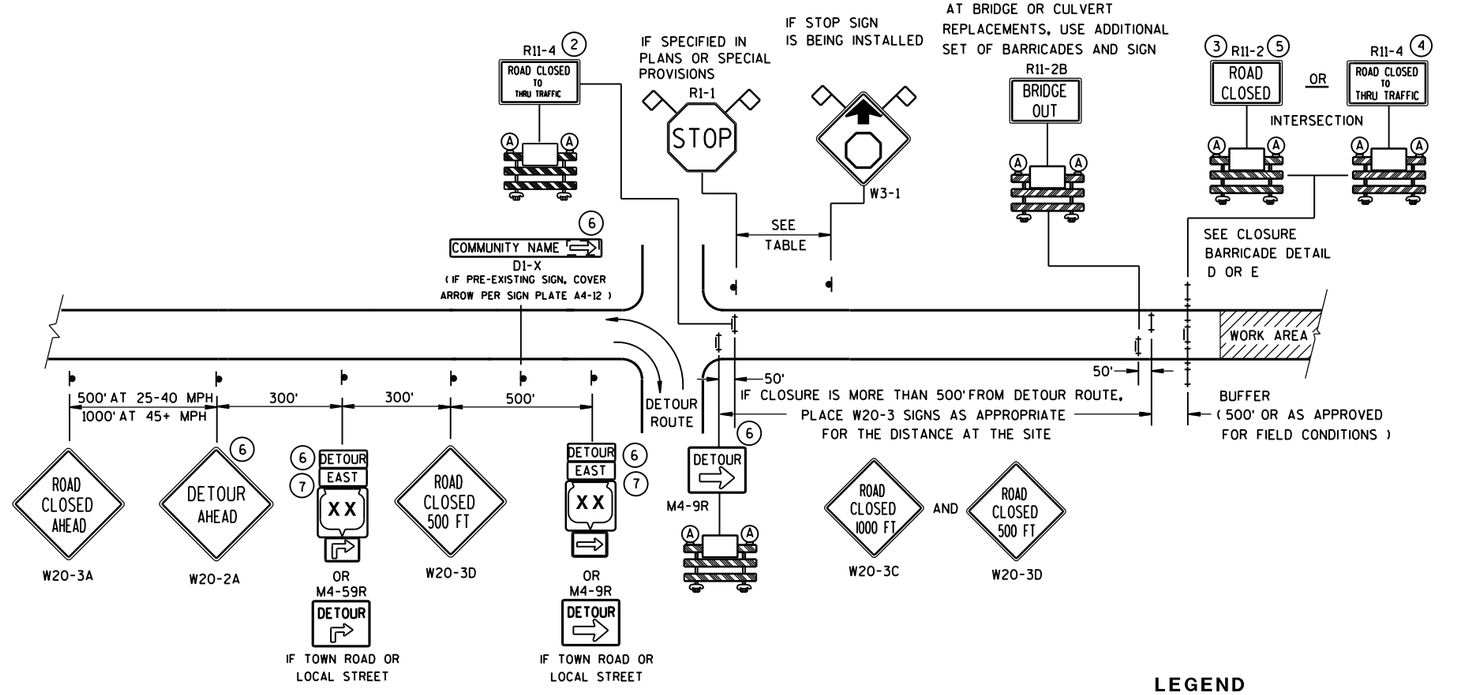
S.D.D. 14 A 2-1

6
S.D.D. 14 A 2-1



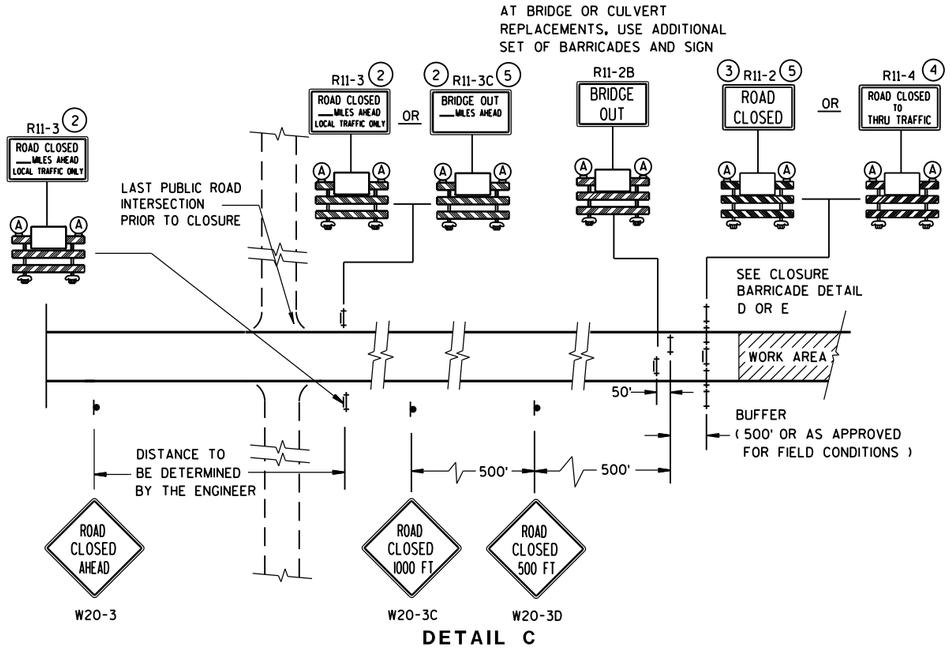
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

LEGEND

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

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

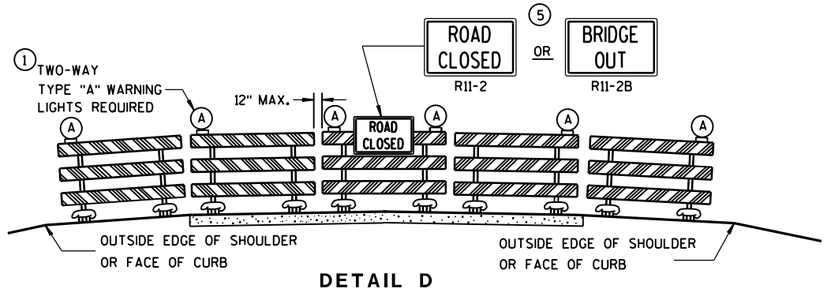
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 15 C 2-6a

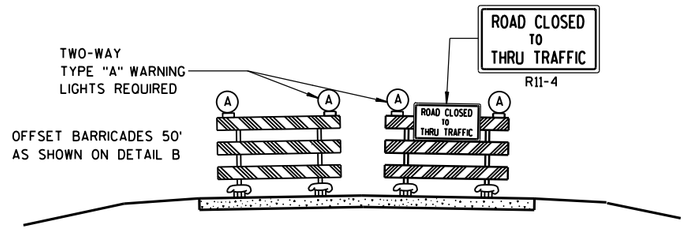
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

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

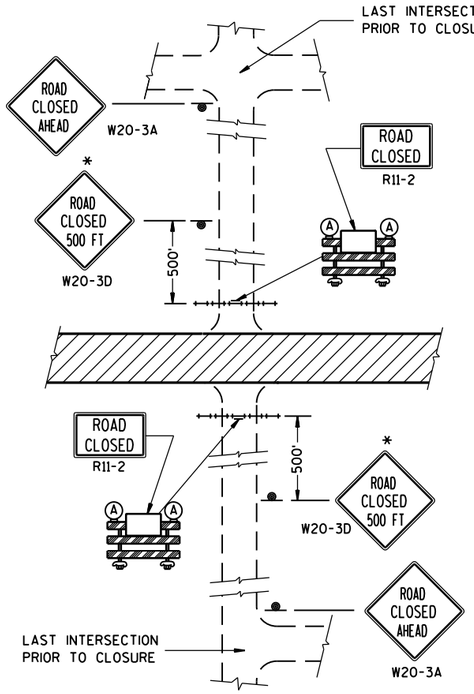
FHWA

6

S.D.D. 15 C 2-6b

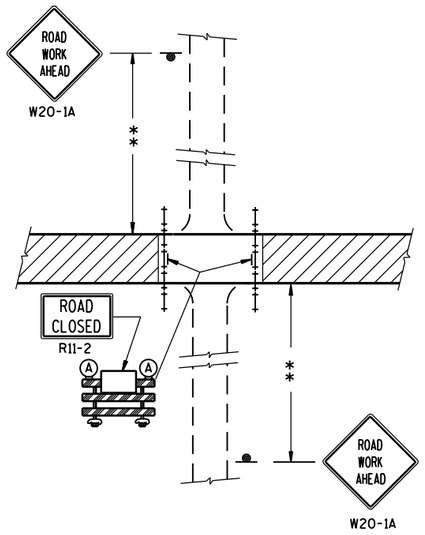
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S.D.D. 15 C 2-6b



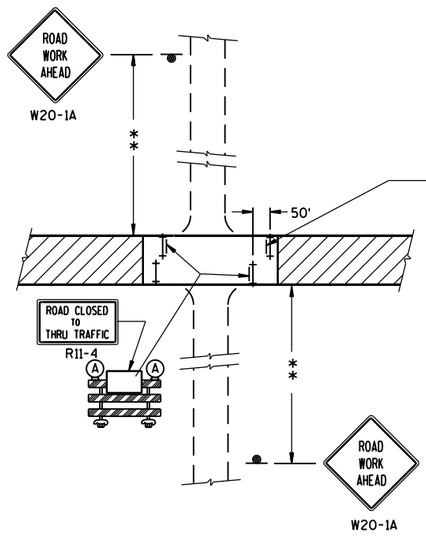
DETAIL 1

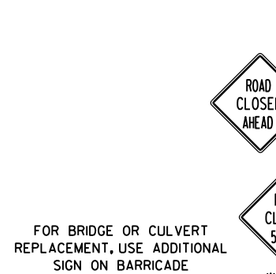
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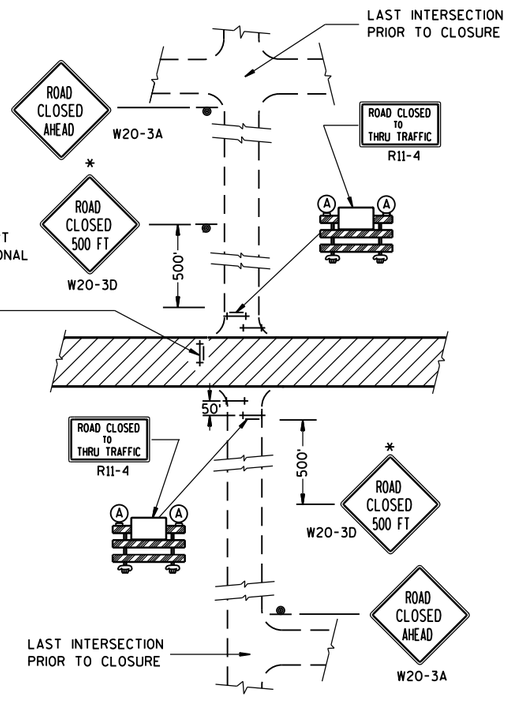
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).





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
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... FIC
FHWA

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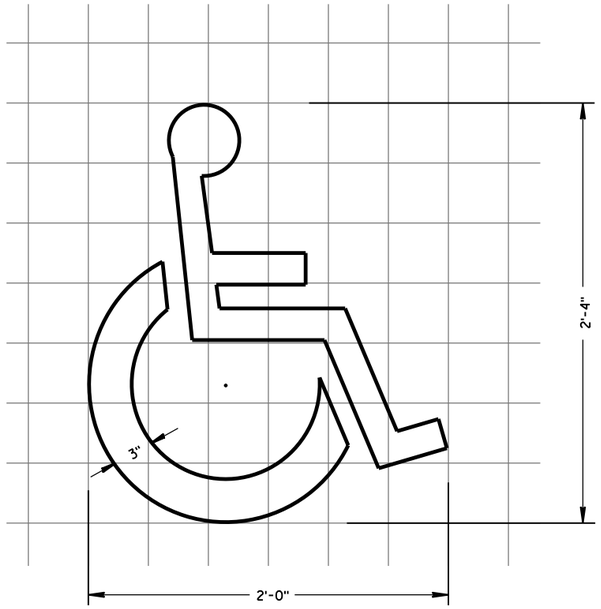
S.D.D. 15 C 3-3

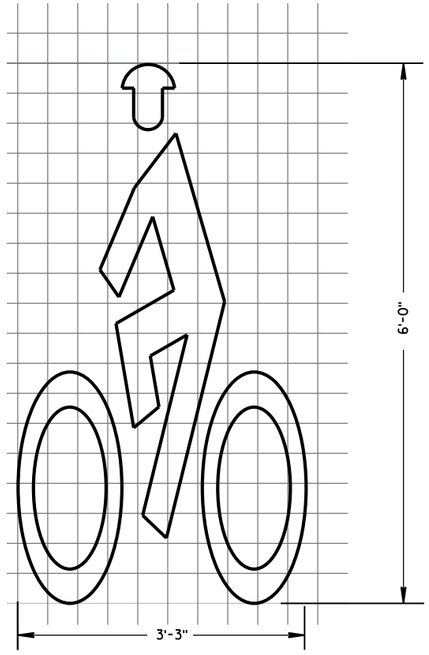
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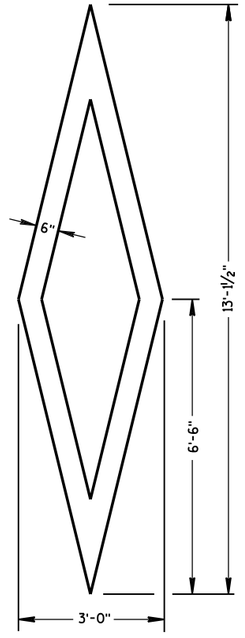
GENERAL NOTES

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.





BIKE CROSSING SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-13a

S.D.D. 15 C 7-13a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

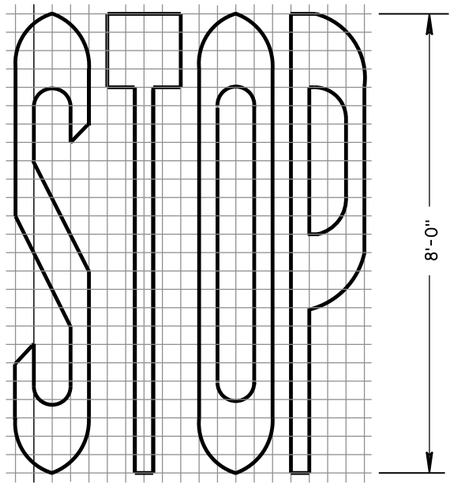
4/18/16 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

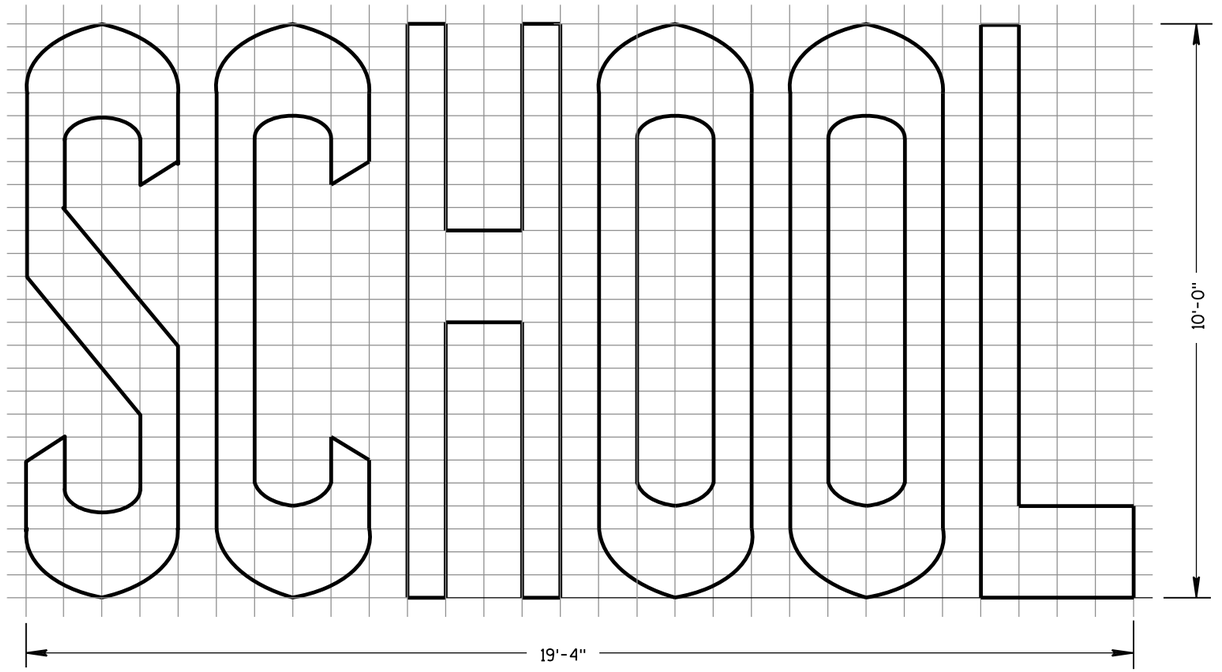
FHWA

GENERAL NOTES

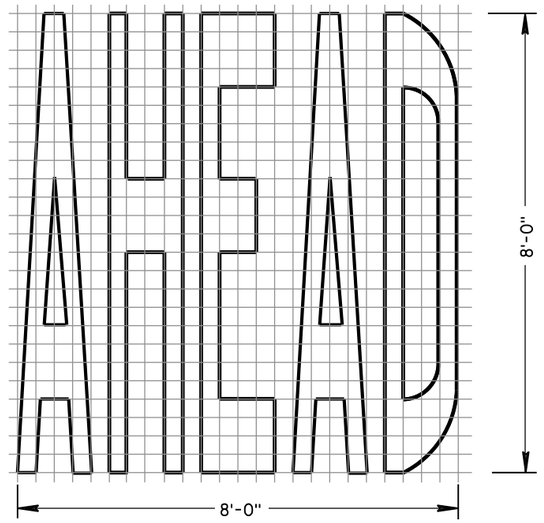
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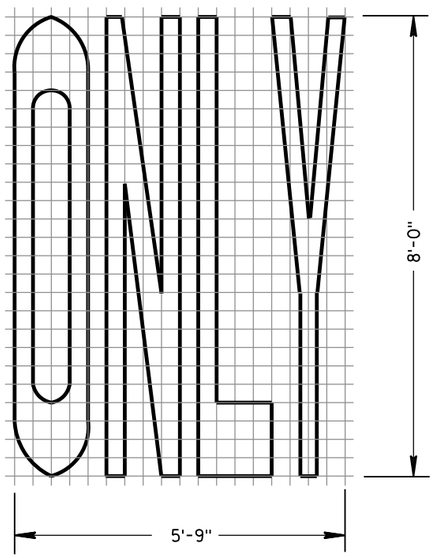


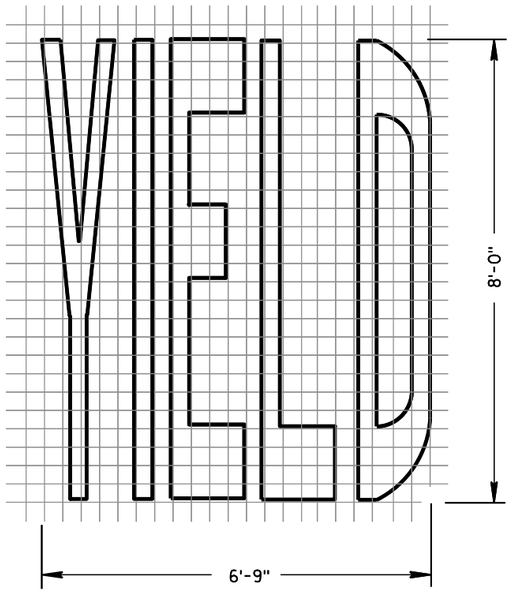


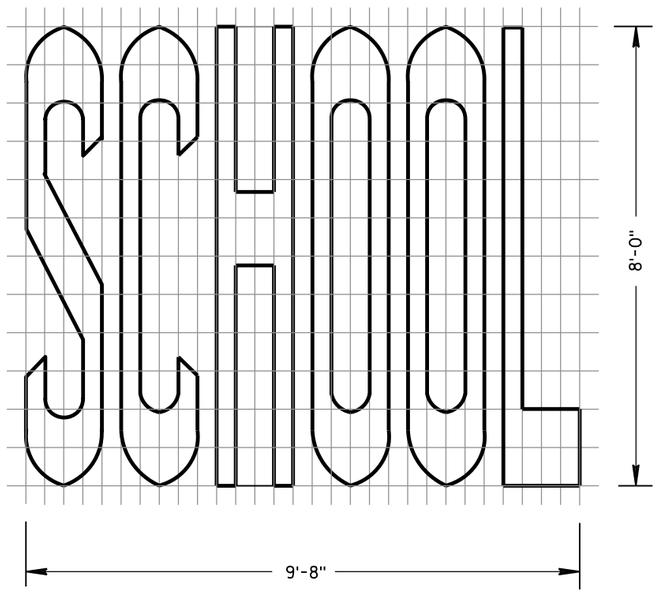


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

FHWA

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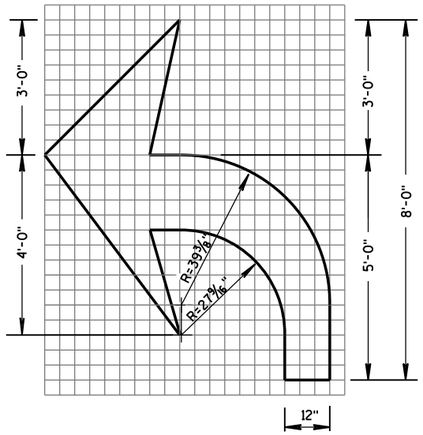
S.D.D. 15 C 7-13b

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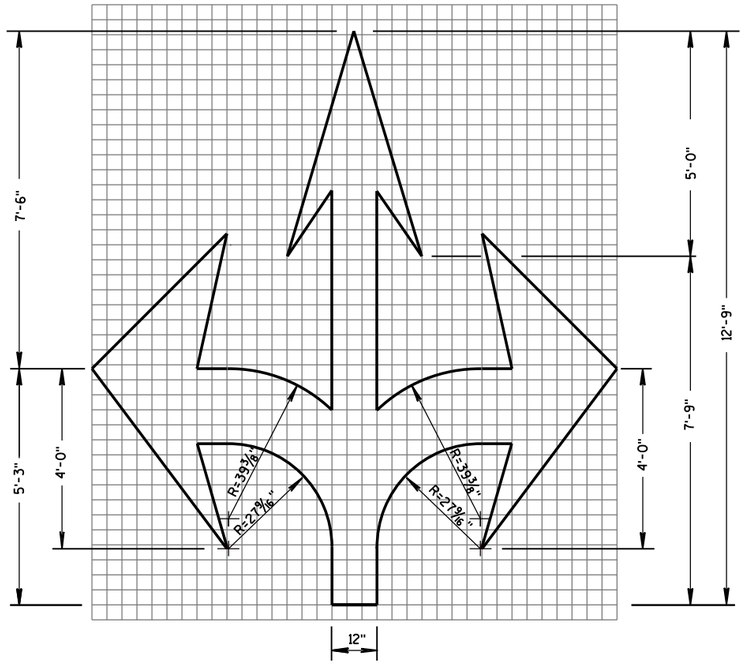
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GENERAL NOTES

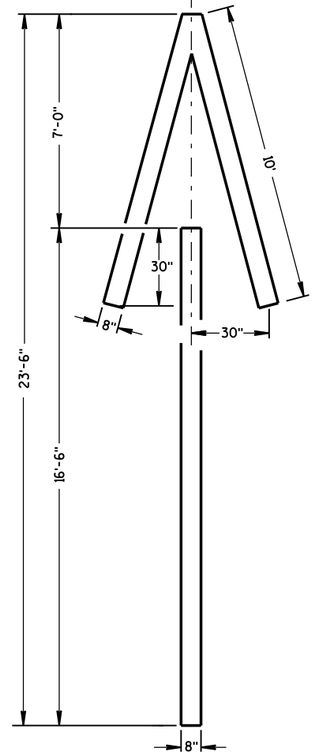
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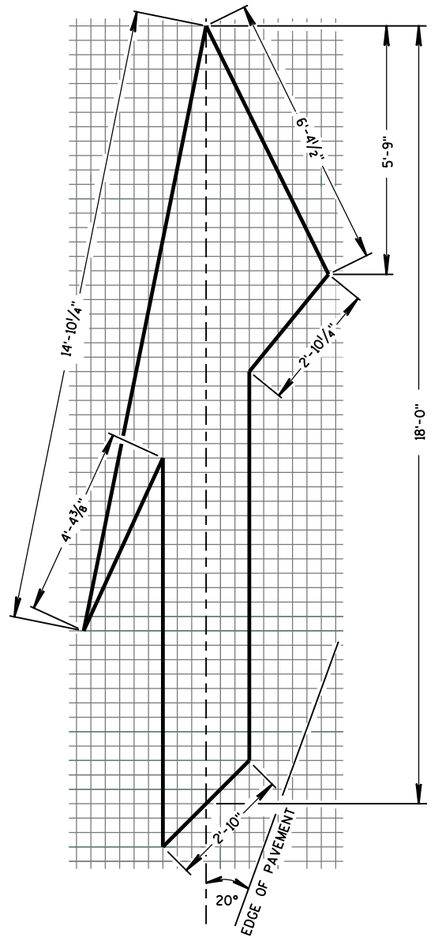
TYPE 2



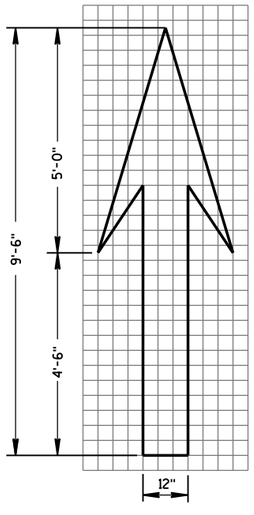
TYPE 6



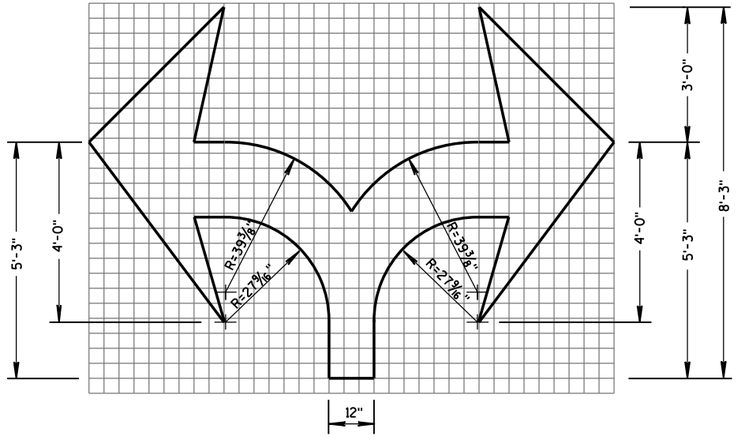
TYPE 4



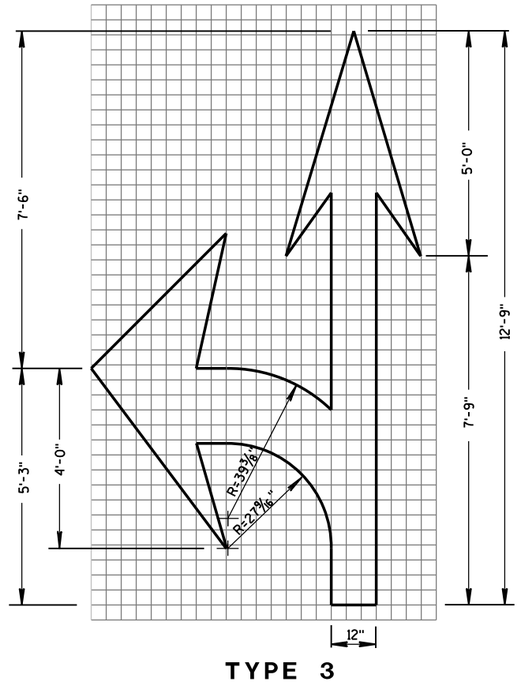
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

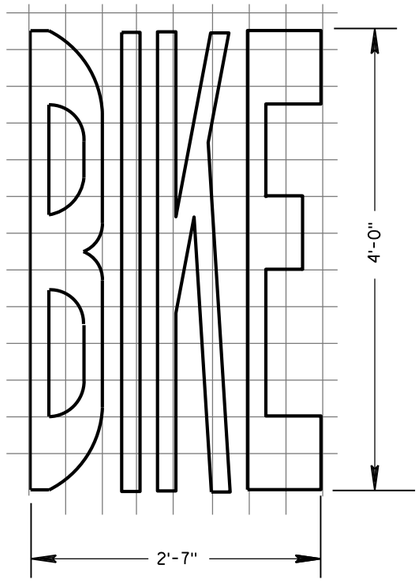
APPROVED
4-18-16
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR
ENGINEER
FHWA

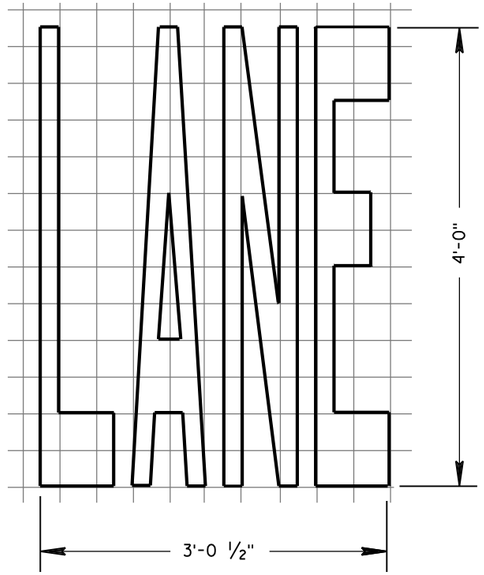
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S.D.D. 15 C 7-13c

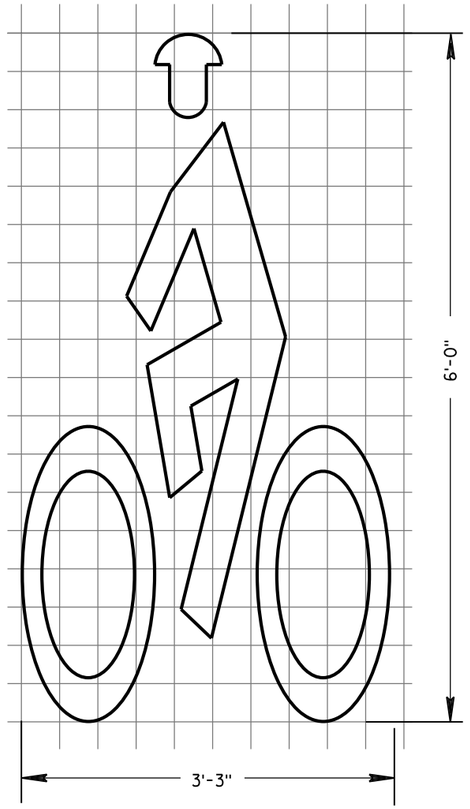
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S.D.D. 15 C 7-13c

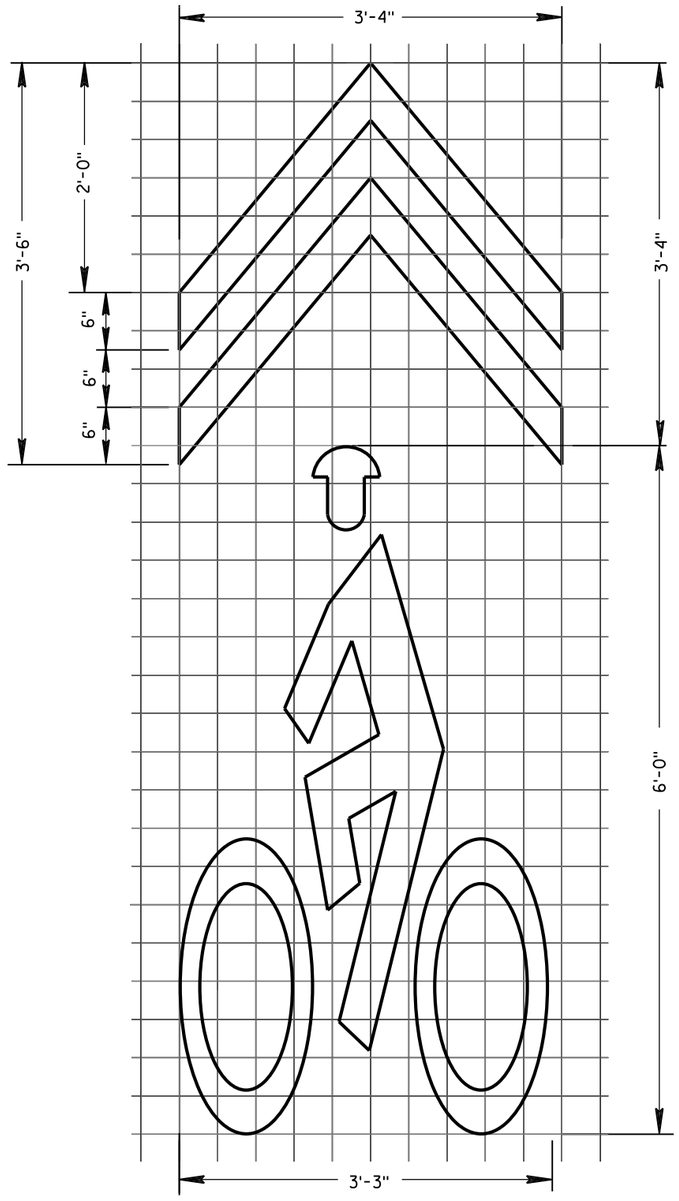




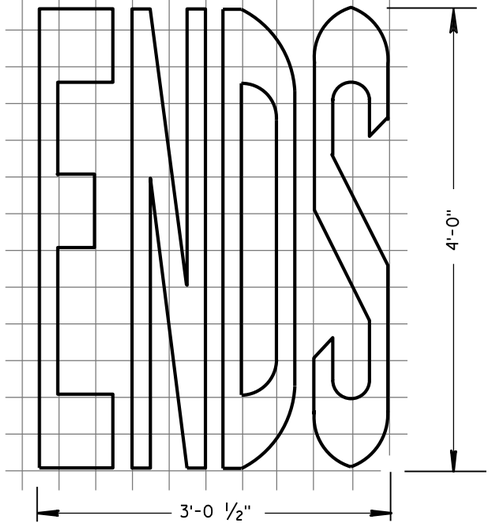
BIKE LANE WORDS



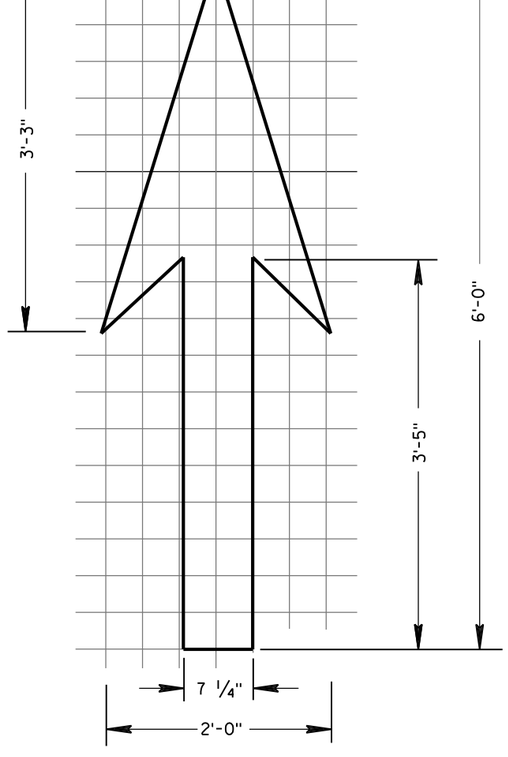
BIKE LANE SYMBOL



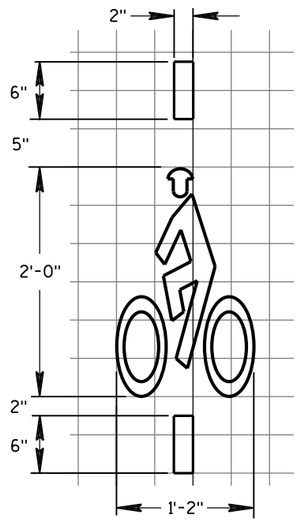
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

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.

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARK ENGINEER

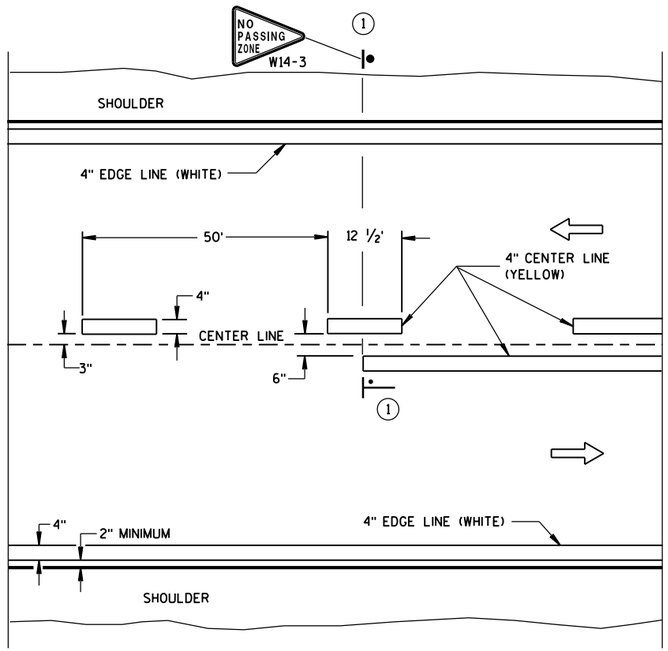
FHWA

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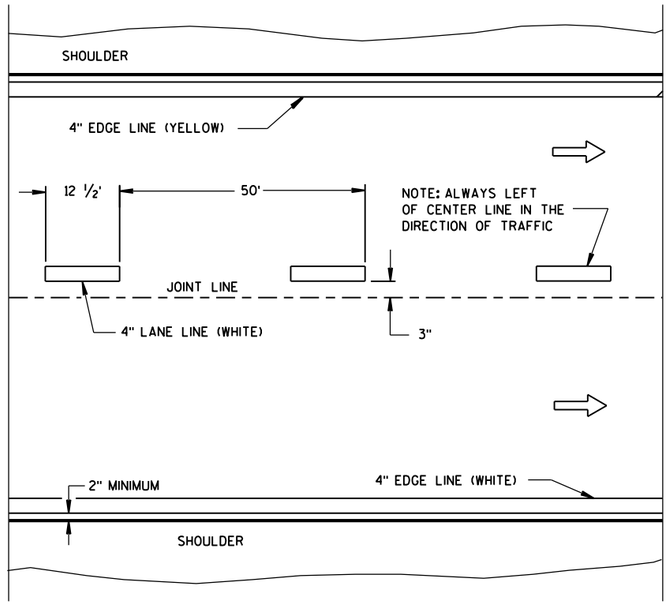
S.D.D. 15 C 7-13e

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S.D.D. 15 C 7-13e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

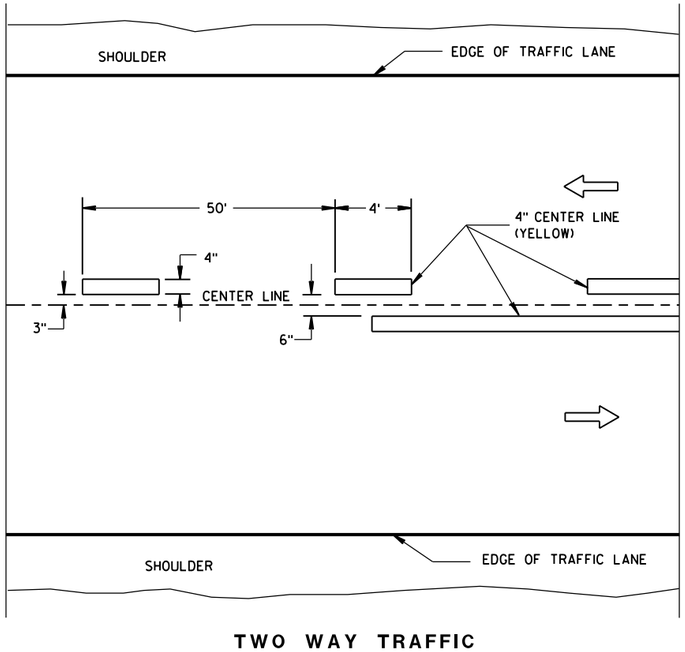
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

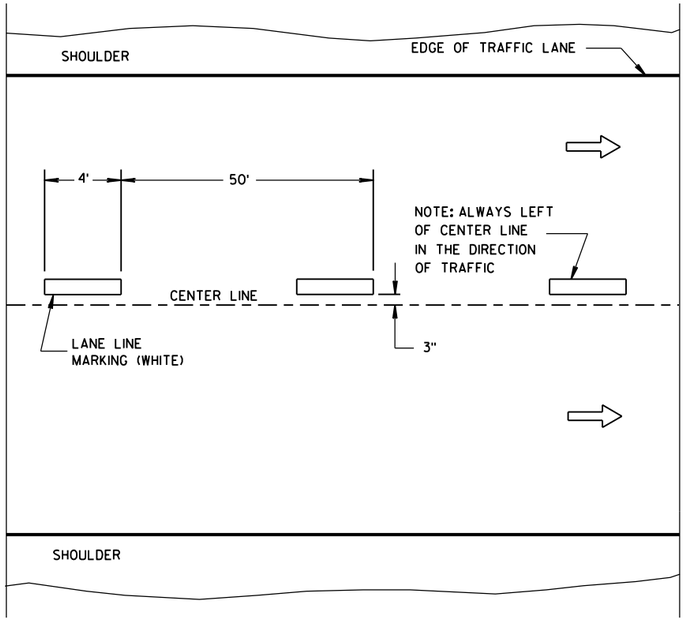
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



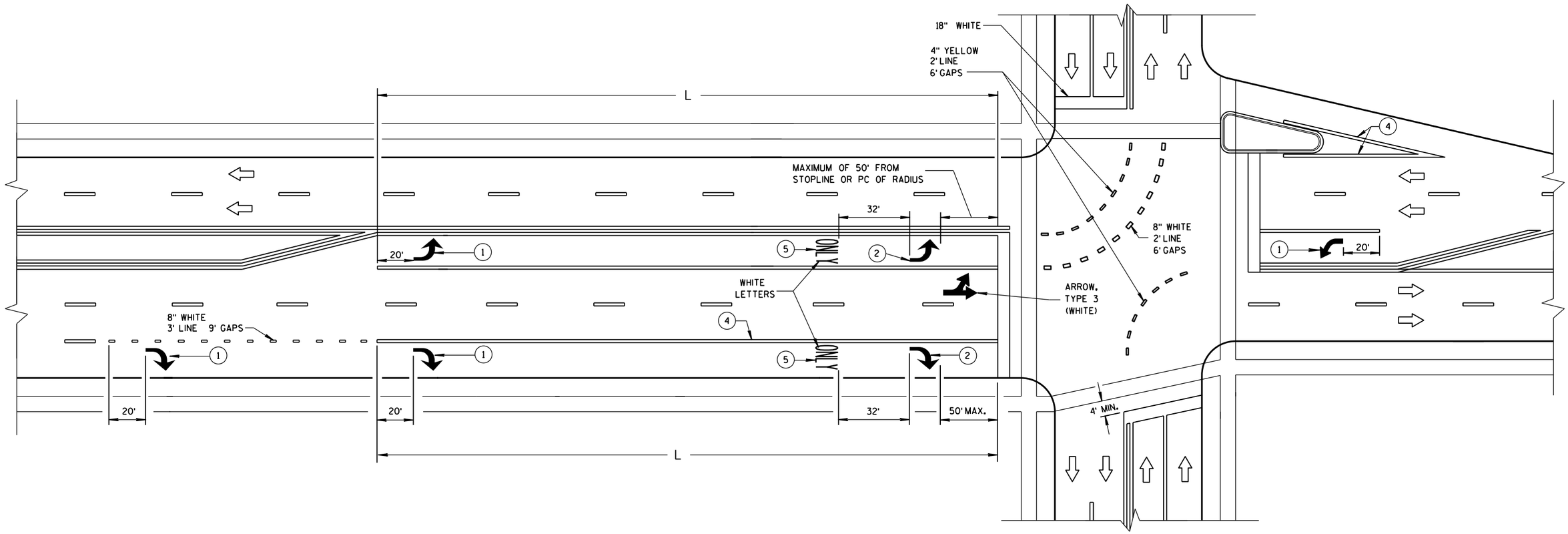
ONE WAY TRAFFIC

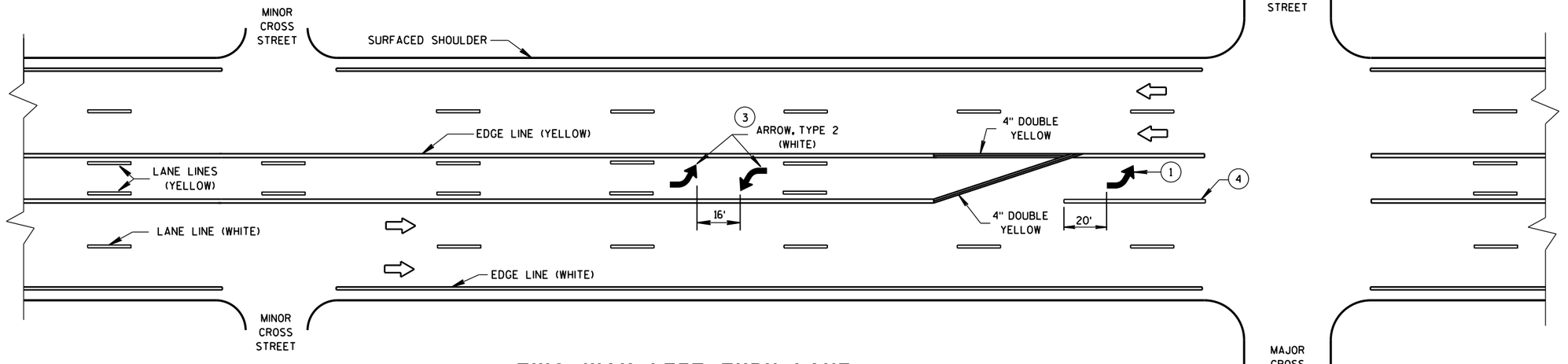
TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MAR[illegible]INEER
FHWA	

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





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

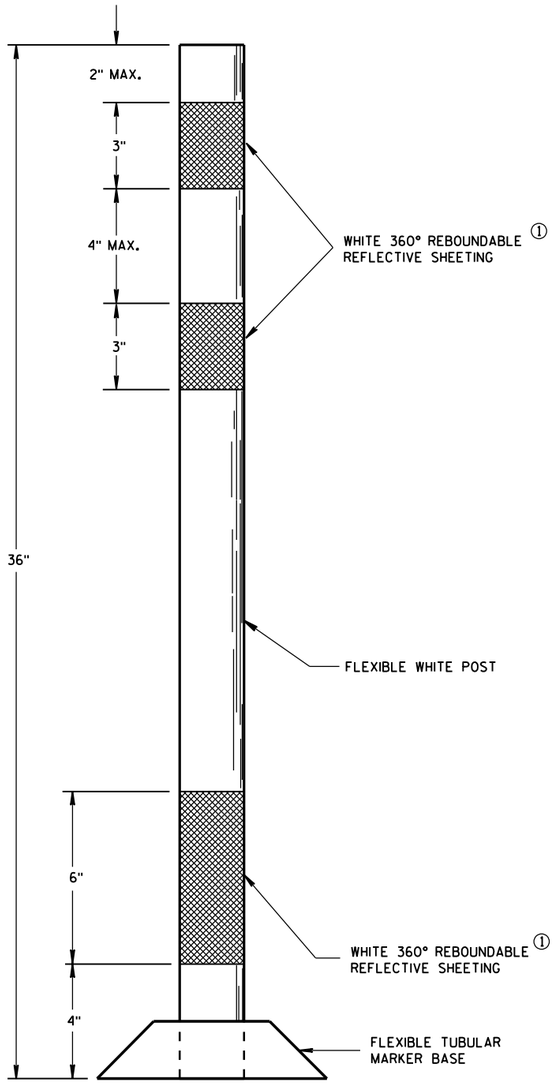
L = LENGTH OF TURN BAY

TWO WAY LEFT TURN LANE

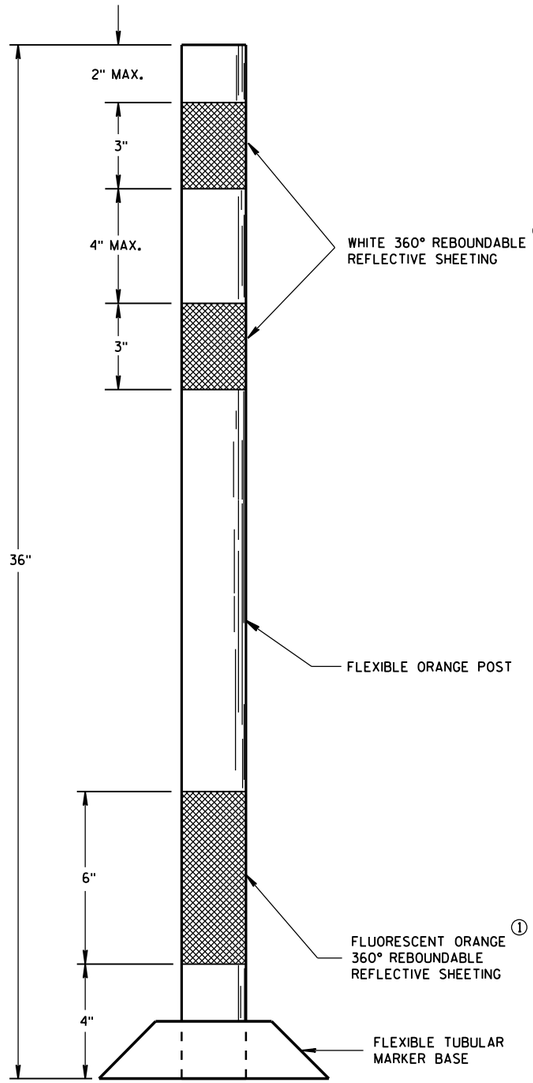
PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

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.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

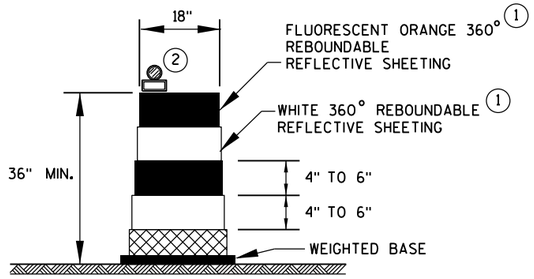
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

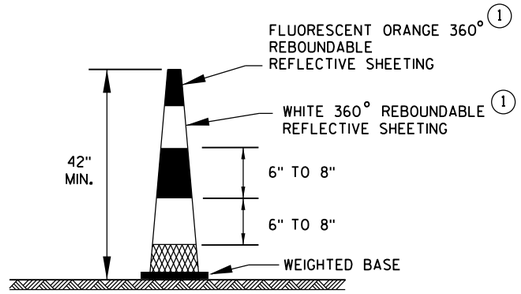
APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
FHWA

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S.D.D. 15 C 11-7a



DRUM

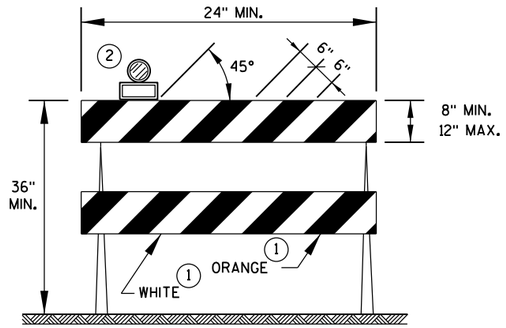


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

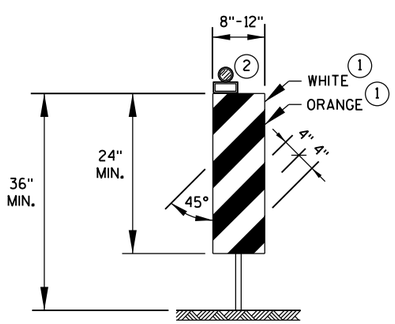
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



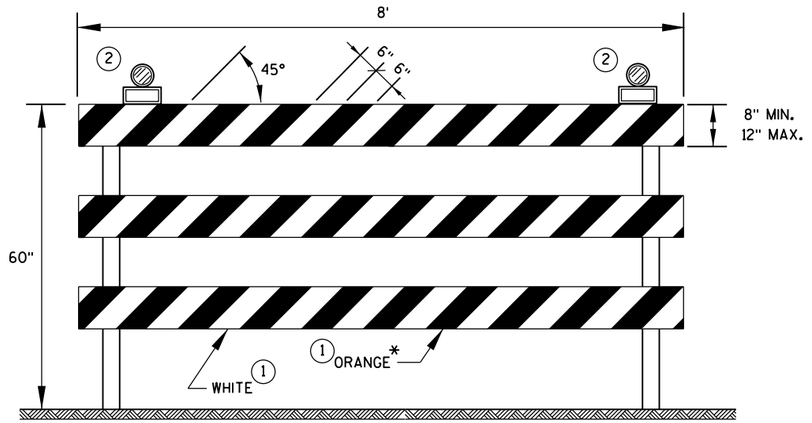
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

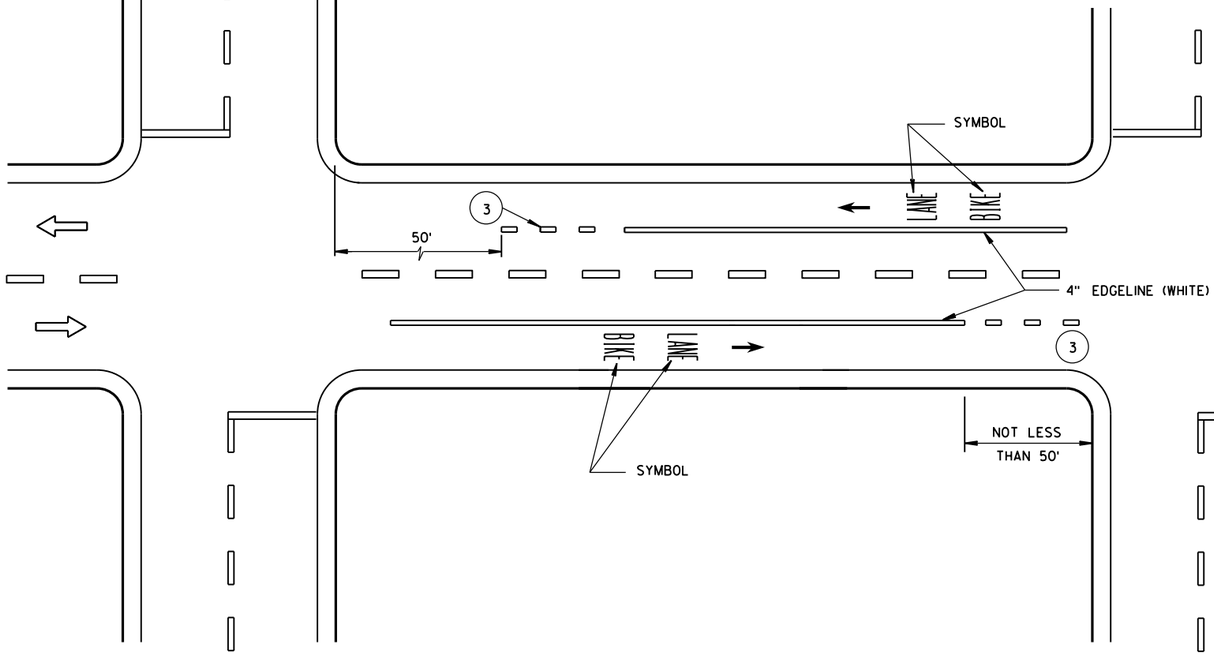
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

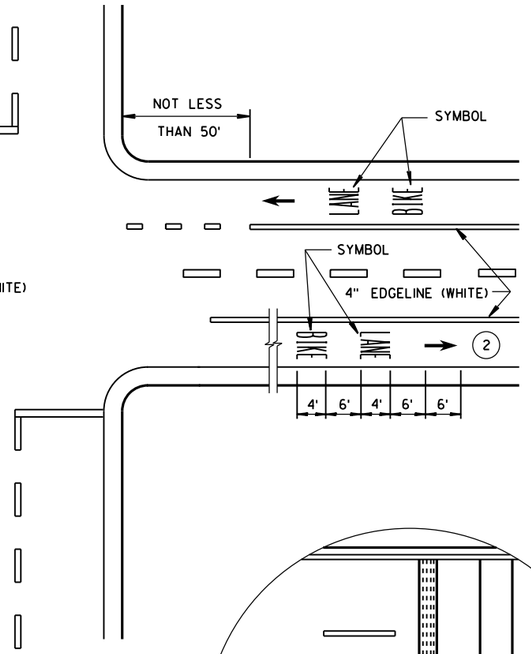
* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENG
FHWA	

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S.D.D. 15 C 11-7b



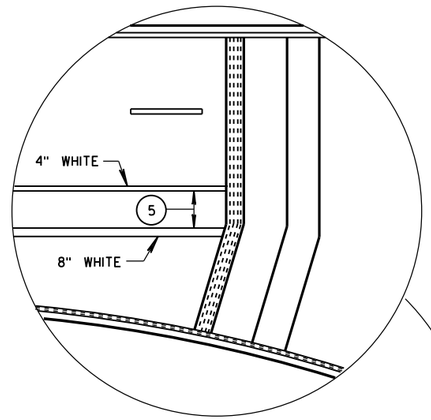


DESIGNATED BICYCLE LANE
NO PARKING

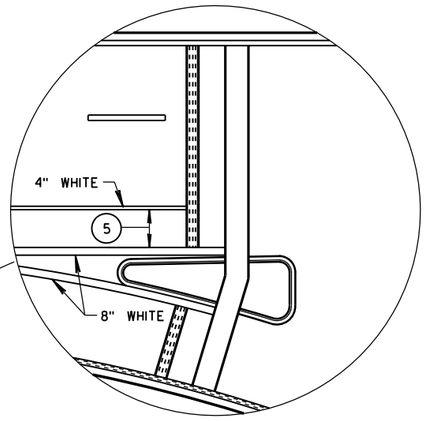
GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

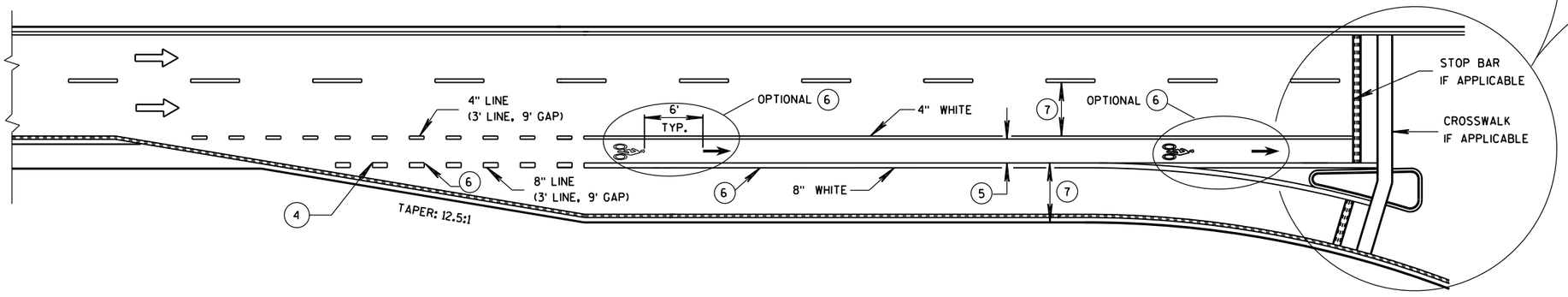
⇨ DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

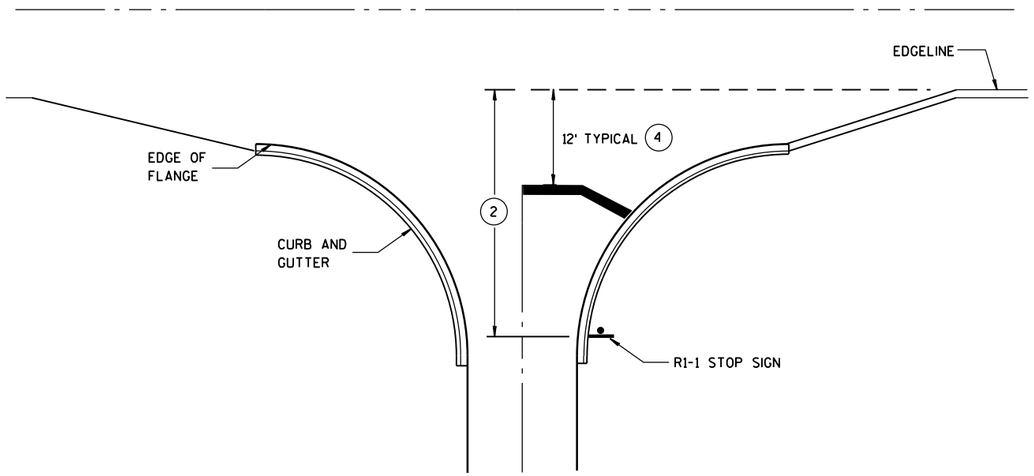
BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	250

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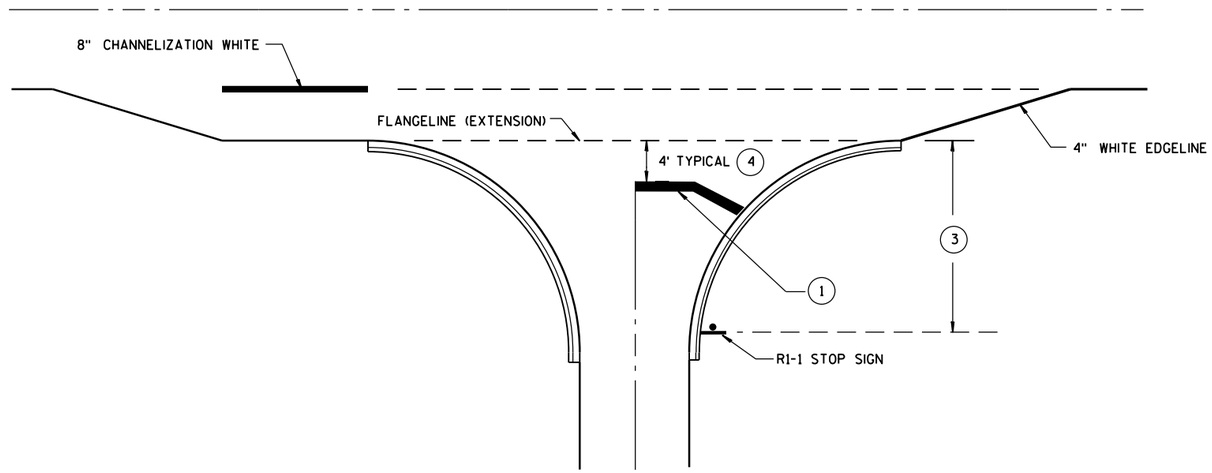
S.D.D. 15 C 29-5a

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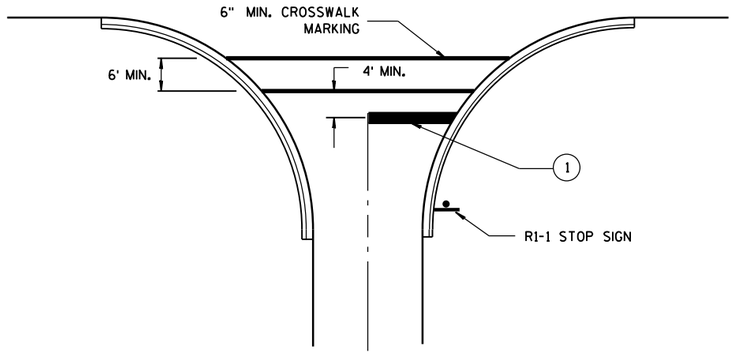
S.D.D. 15 C 29-5a



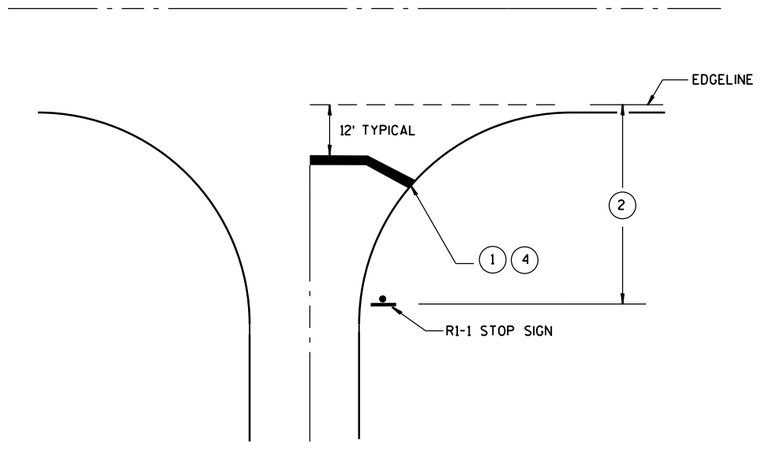
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

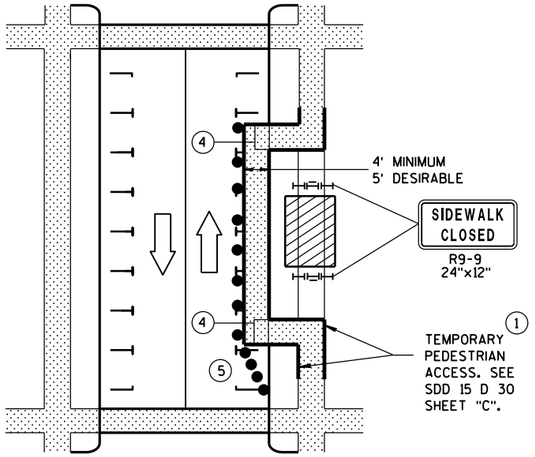
/S/ Matthew R. Rauch
STATE SIGNING AND MAR 251 NEER

FHWA

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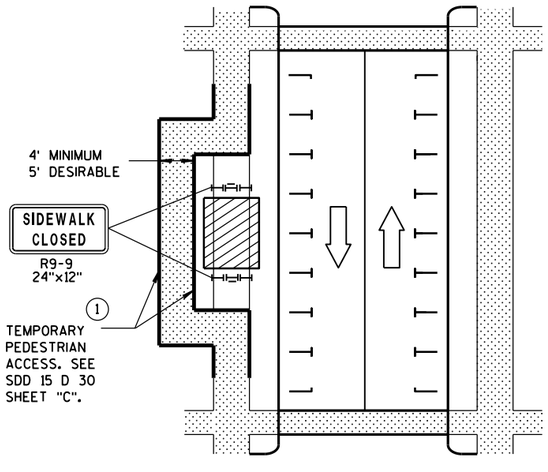
S.D.D. 15 C 33-2

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

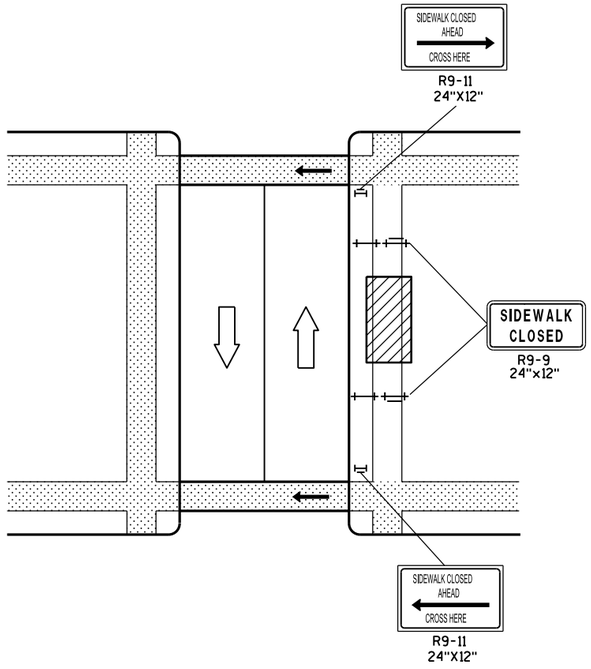


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

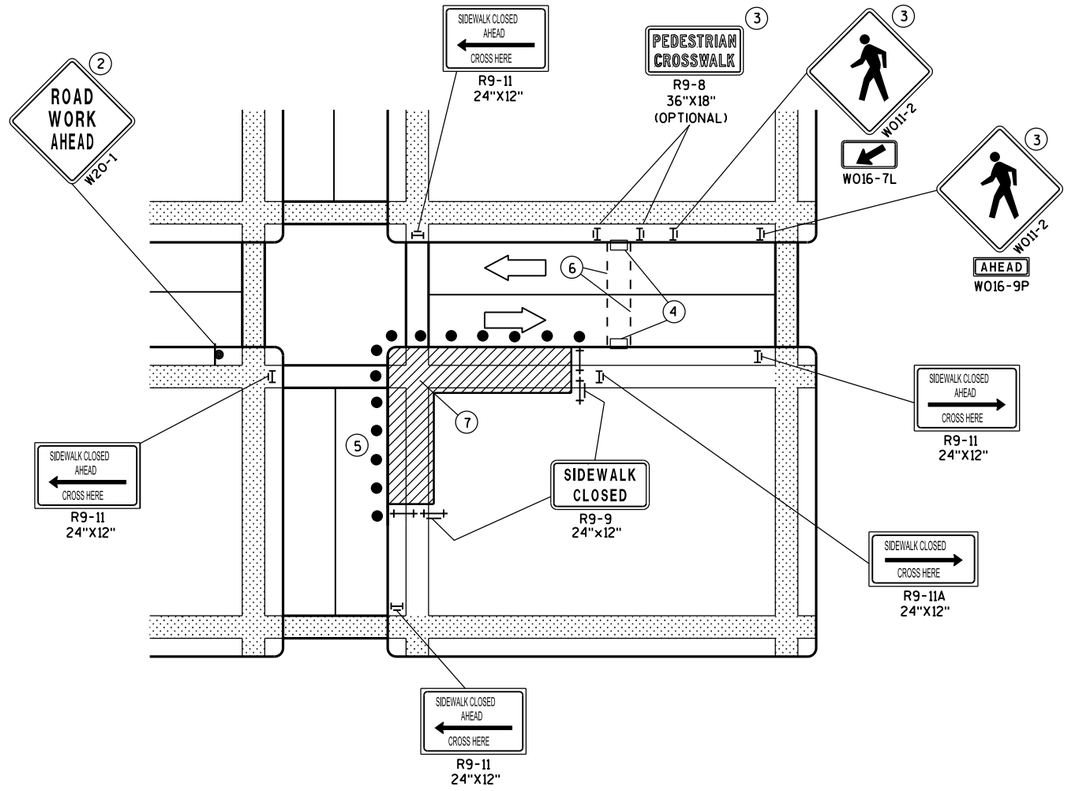
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

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

LEGEND

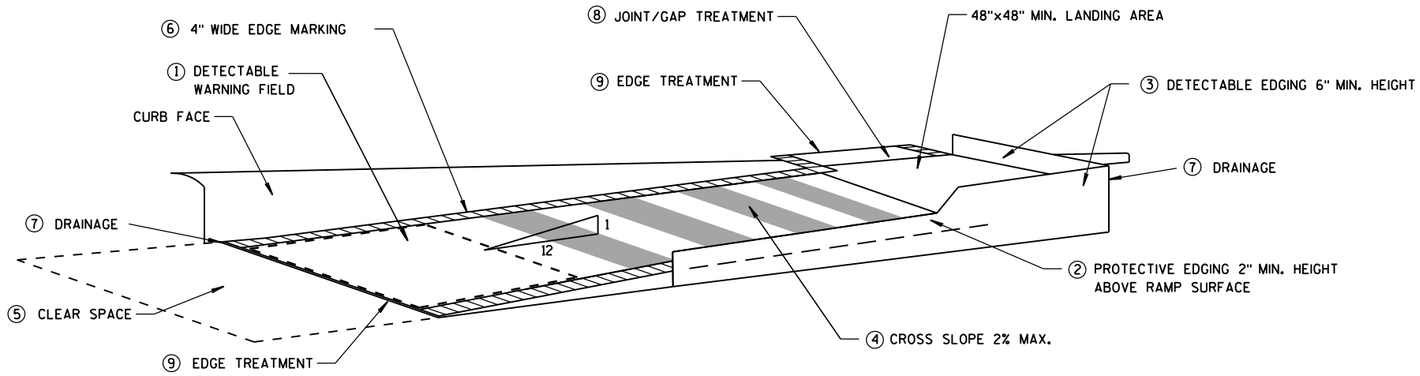
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

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

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

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

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

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

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

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

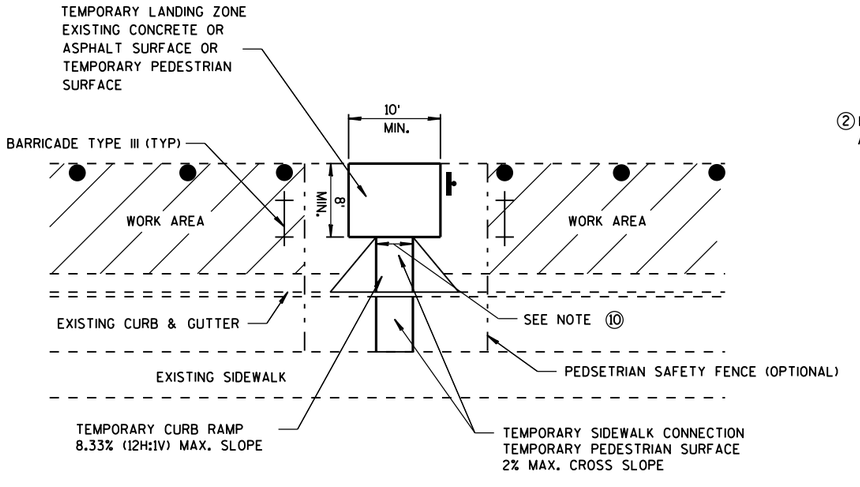
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

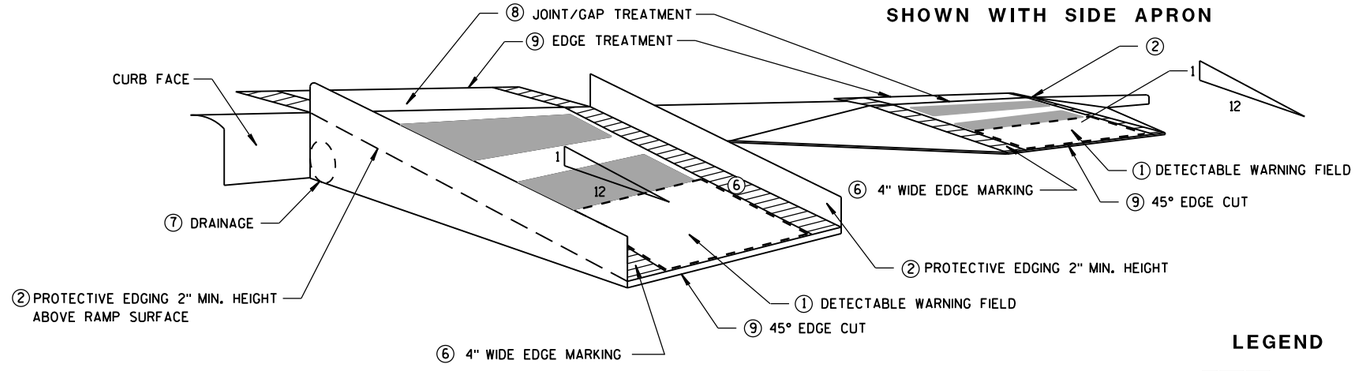
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

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



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016
DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

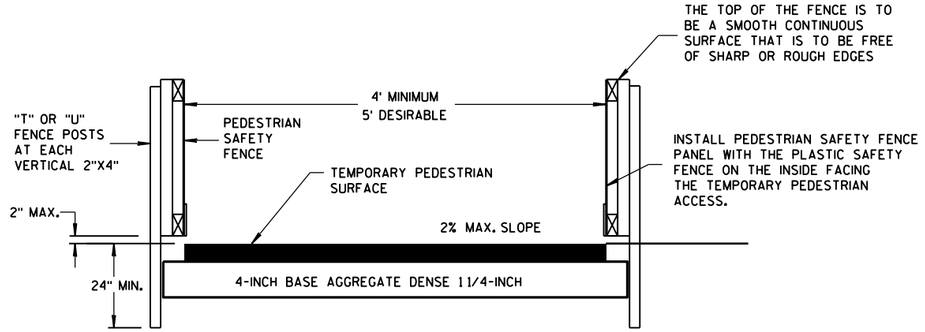
FHWA

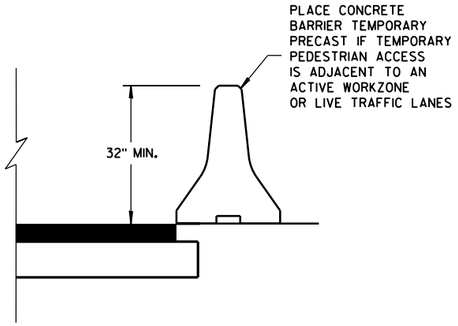
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S.D.D. 15 D 30-3b

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S.D.D. 15 D 30-3b

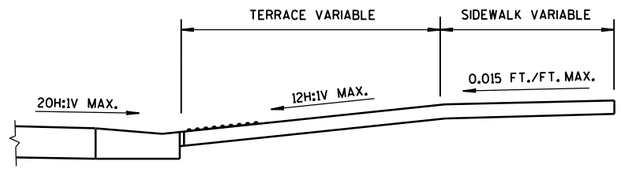




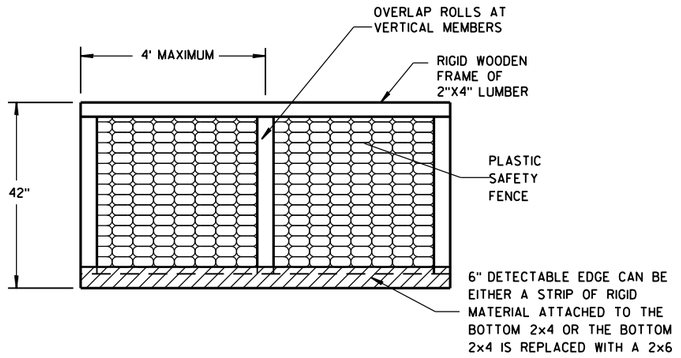
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

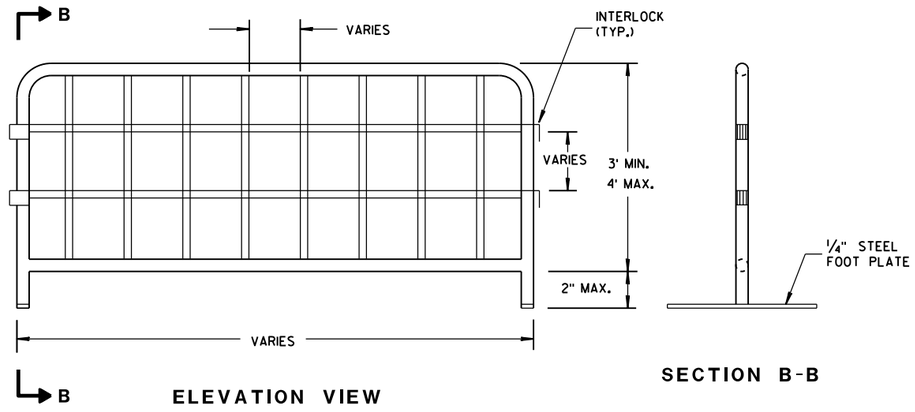
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



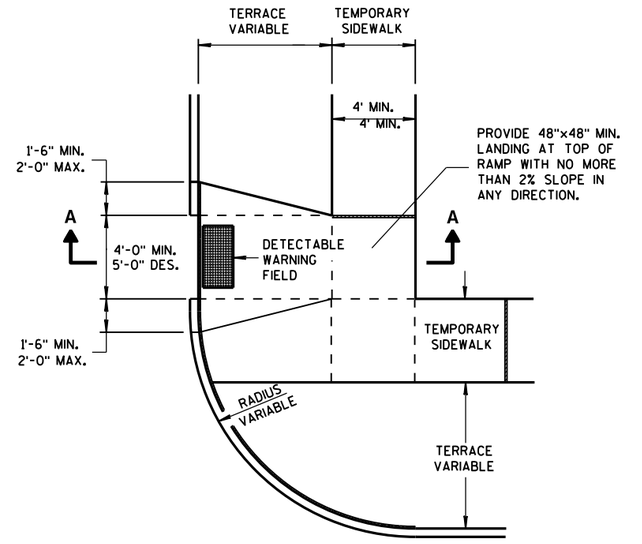
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

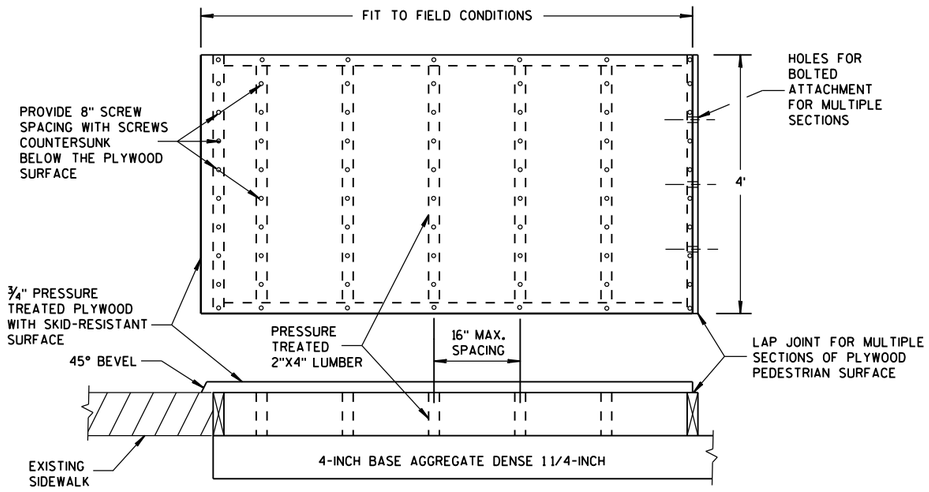
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



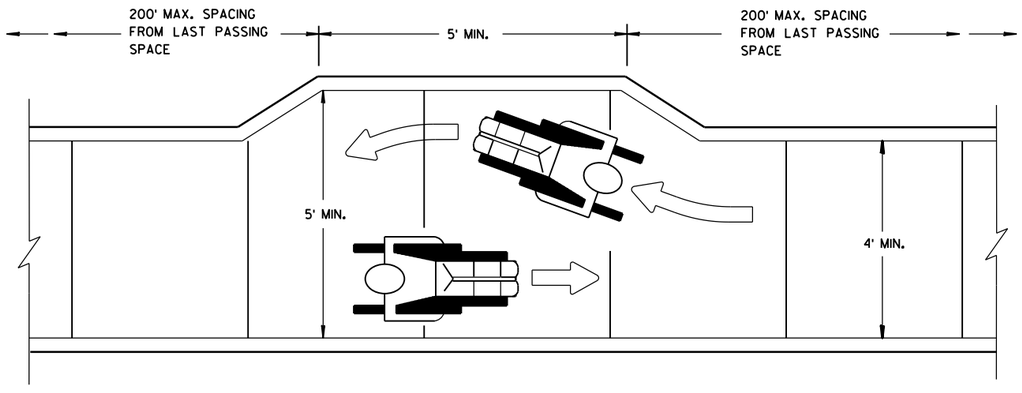
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

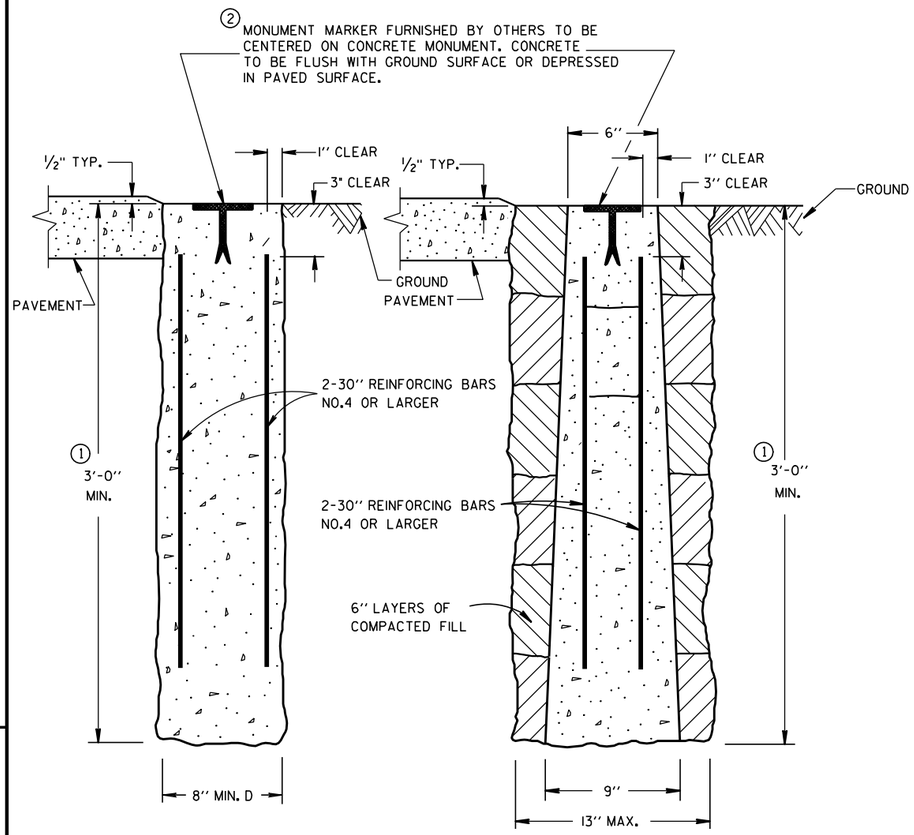
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

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

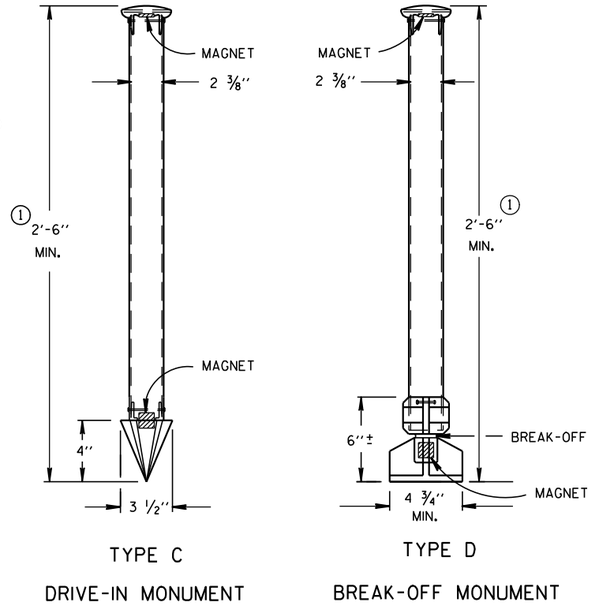
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S.D.D. 15 D 30-3c



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS
TYPE A



ALUMINUM MONUMENTS
(INCLUDES MARKER)

GENERAL NOTES

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

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

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

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

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

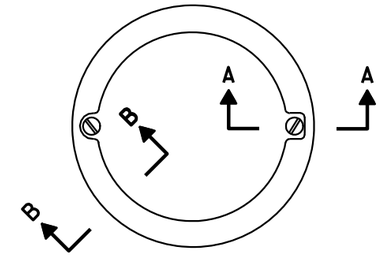
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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

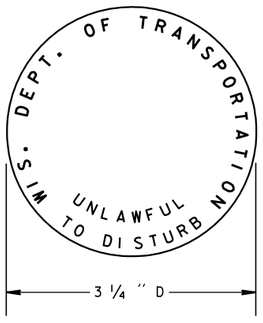
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

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

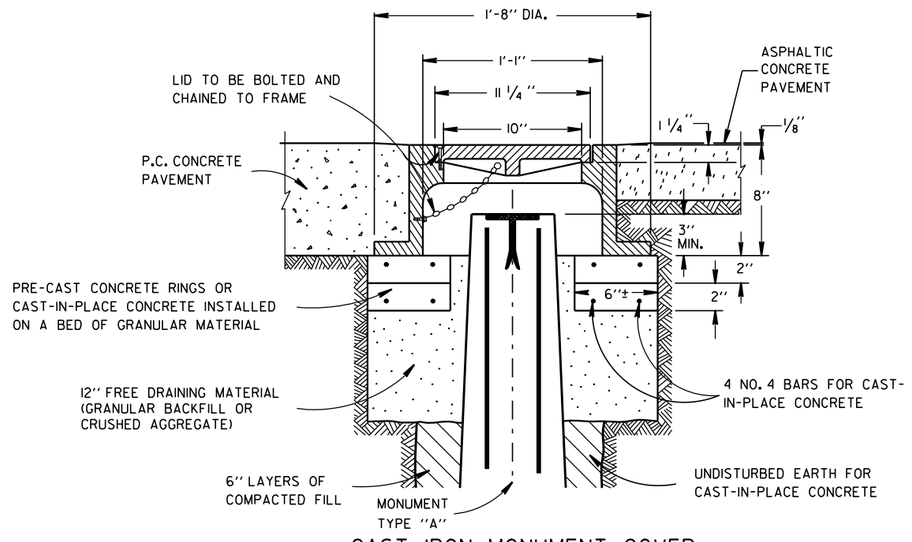
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



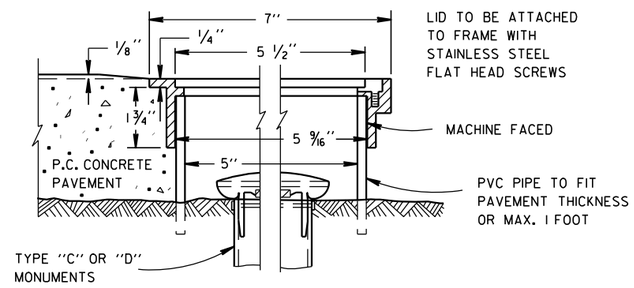
TOP VIEW



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



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/22/1999 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6 S.D.D. 16 A 1-6

CUT AND FILL

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
19+50	116	18	1.80	0.83
20+00	279	18	1.80	0.83
20+50	250	18	1.20	0.83
21+00	235	18	1.87	0.83
21+50	262	18	2.02	0.83
22+00	260	18	2.02	0.83
22+50	273	18	2.80	0.83
23+00	296	18	2.80	0.83
23+50	292	18	2.24	0.83
24+00	277	18	2.36	0.83
24+50	303	18	2.36	0.83
25+00	287	18	2.27	0.83
25+50	261	18	2.27	0.83
26+00	252	18	2.05	0.83
26+50	228	18	1.84	0.83
27+00	222	18	1.93	0.83
27+50	255	18	2.30	0.83
28+00	267	18	2.30	0.83
28+50	221	18	1.85	0.83
29+00	182	18	1.13	0.83
29+50	202	18	2.31	0.83
30+00	263	18	2.31	0.83
30+50	281	18	2.01	0.83
31+00	280	18	2.41	0.83
31+50	293	18	2.41	0.83
32+00	282	18	2.22	0.83
32+50	266	18	2.43	0.83
33+00	256	18	2.43	0.83
33+50	295	18	2.19	0.83
34+00	262	18	2.35	0.83
34+50	295	18	2.35	0.83
35+00	286	18	2.30	0.83
35+50	298	18	3.24	0.83
36+00	307	18	3.24	0.83
36+50	273	18	2.40	0.83
SUB-TOTAL	9157	630		

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
37+00	324	18	2.45	0.83
37+50	300	18	2.59	0.83
38+00	280	18	2.59	0.83
38+50	271	18	2.36	0.83
39+00	262	18	2.28	0.83
39+50	251	18	2.36	0.83
40+00	266	18	2.36	0.83
40+50	275	18	2.82	0.83
41+00	294	18	2.82	0.83
41+50	263	18	2.60	0.83
42+00	233	18	2.16	0.83
42+50	266	18	2.22	0.83
43+00	287	18	2.22	0.83
43+50	254	18	2.21	0.83
44+00	254	18	2.48	0.83
44+50	289	18	2.75	0.83
45+00	287	18	2.75	0.83
45+50	283	18	2.52	0.83
46+00	286	18	2.52	0.83
46+50	282	18	2.38	0.83
47+00	236	18	1.34	0.83
47+50	231	18	2.39	0.83
48+00	268	18	2.39	0.83
48+50	264	18	2.09	0.83
49+00	296	18	2.57	0.83
49+50	312	18	2.87	0.83
50+00	281	18	2.87	0.83
50+50	268	18	2.31	0.83
51+00	274	18	2.49	0.83
51+50	272	18	2.34	0.83
52+00	280	18	2.47	0.83
52+50	279	18	2.47	0.83
53+00	233	18	2.12	0.83
53+50	316	18	1.83	0.83
54+00	119	18	1.83	0.83
Grand Total	18593	1260		

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov