SEL MAR 2016

PROJECT ID 2984-04-77
WITH: 2984-16-71

ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	DETAILS
SECTION NO.	3	ESTIMATE OF QUANTITIES
SECTION NO.	3	MISCELLANEOUS QUANTITIES
~~SECTION NO.~~	~~4~~	~~RIGHT OF WAY PLAT~~
~~SECTION NO.~~	~~5~~	~~PLAN AND PROFILE~~
SECTION NO.	6	STANDARD DETAIL DRAWINGS
~~SECTION NO.~~	~~7~~	~~SIGN PLATES~~
~~SECTION NO.~~	~~8~~	~~STRUCTURE PLANS~~
~~SECTION NO.~~	~~9~~	~~COMPUTER EARTHWORK DATA~~
~~SECTION NO.~~	~~9~~	~~CROSS SECTIONS~~
TOTAL	28	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

VARIOUS LOCATIONS, CITY OF MILWAUKEE

3 LOCAL INTERSECTIONS

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2984-04-07	WISC 2015291	1

STATE PROJECT NUMBER

2984-04-77

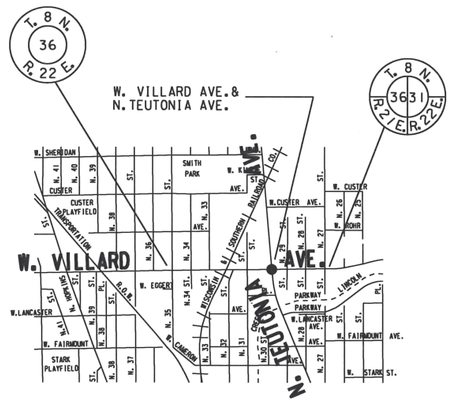
15

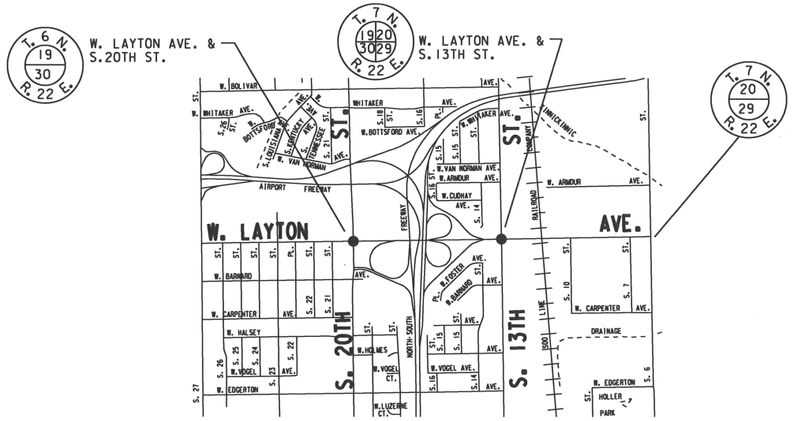
COUNTY MILWAUKEE

N

DESIGN DESIGNATION

STREET 1	STREET 2	2013 A.D.T.
W. LAYTON AVE.	N. 20TH ST.	41,600
W. LAYTON AVE.	N. 13TH ST.	44,500
W. VILLARD AVE.	N. TUETONIA AVE.	27,400





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

LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = N/A

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

12/15/15 Ghassan Korban
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLENSKE E-37629 MILWAUKEE WIS. PROFESSIONAL ENGINEER

12/15/15 City Engineer
(Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee
Designer City of Milwaukee
Management Consultant Daar Engineering
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 12/22/15 Todd D. Beck
(Signature)

E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\2984-04-07\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESINATED FOR REMOVAL BY THE ENGINEER.

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

3. THE CONTRACTOR IS TO CONTACT ROBERT BROOKS AT 286-3241 OR NANCY ALVARADO AT 286-2013 AT LEAST 3 BUSINESS DAYS PRIOR TO ANY EXCAVATION.

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

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
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
TRAFFIC SIGNAL DETAILS
TRAFFIC SIGNAL PLANS
TRAFFIC CONTROL

2

2

UTILITY CONTACTS

CITY OF MILWAUKEE, UTILITY COORDINATOR (NORTHSIDE)

MUSA ABU-KHADER
841 N. BROADWAY, RM 710
MILWAUKEE, WI 53202
PHONE: 414-708-2529

CITY OF MILWAUKEE, UTILITY COORDINATOR (SOUTHSIDE)

ANTHONY KOTECKI
841 N. BROADWAY, RM 710
MILWAUKEE, WI 53202
(414) 708-3886

AT & T WISCONSIN

DEAN HERO
425 S. 35TH ST.
MILWAUKEE, WI. 53214
(414) 678-2644

WE ENERGIES - ELECTRIC (NORTHSIDE)

LA TROY BRUMFIELD
333 W. EVERETT ST, A299
MILWAUKEE, WI 53203
PHONE: 414-221-5617

TIME WARNER CABLE

CHARLES BRASILE
1320 N. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-7625

OTHER CONTACTS

WISCONSIN DEPT. OF NATURAL RESOURCES

KRISTINA BETZOLD
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212-0436
PHONE: 414-263-8517

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

DEBRA JENSEN
260 W. SEEBOTH ST.
MILWAUKEE, WI 53204
PHONE: 414-225-2143

CITY OF MILWAUKEE - DESIGN

CHAD CHRISBAUM
841 NORTH BROADWAY, ROOM 902
MILWAUKEE, WI 53202
PHONE: 414-286-0470

MILWAUKEE COUNTY TRANSIT SYSTEM

MELANIE MACARTHUR
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1764

DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

STATE PROJECT NUMBER 2984-04-77 - -	HWY: VARIOUS	COUNTY: MILWAUKEE	UTILITY CONTACTS	SCALE FEET	SHEET NO: 3	E

FILE NAME: W:\SPR\ MONOTUBE PROJECTS\2984-04-07\GENNOTES.DGN

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.

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.

2

UTILITY LINE CODE

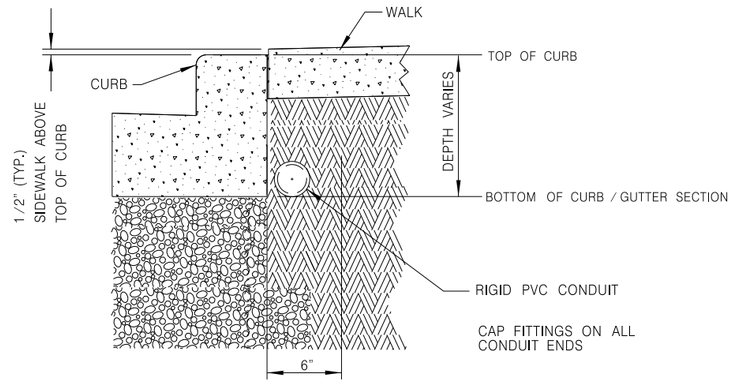
SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
E	ELECTRIC
TE&ES	CITY TRAFFIC, LIGHTING, COMM. & UNDERGROUND CONDUIT
. . .	OVERHEAD LINE
T	TELEPHONE
TV	CABLE

OTHER UTILITIES AS NOTED

SHEET 1 OF 6

PROJECT NO: 2984–04–77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 4	E

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" — NOT TO SCALE

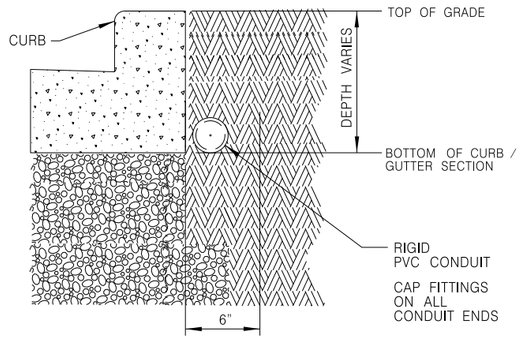
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

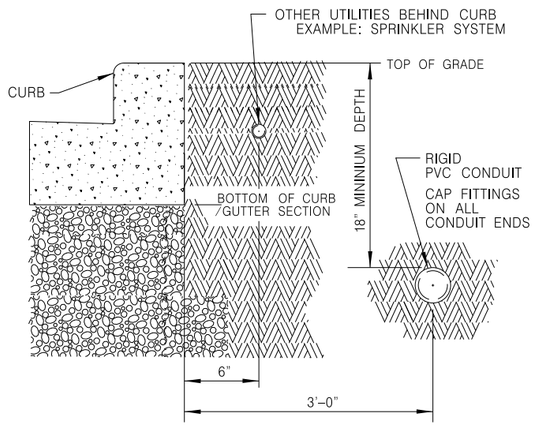
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



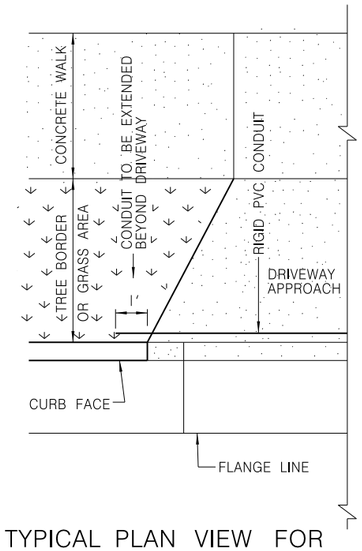
DETAIL "C"



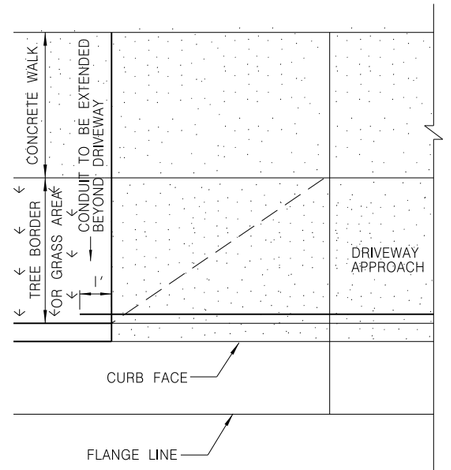
100 DETAIL "B" & "C" — NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

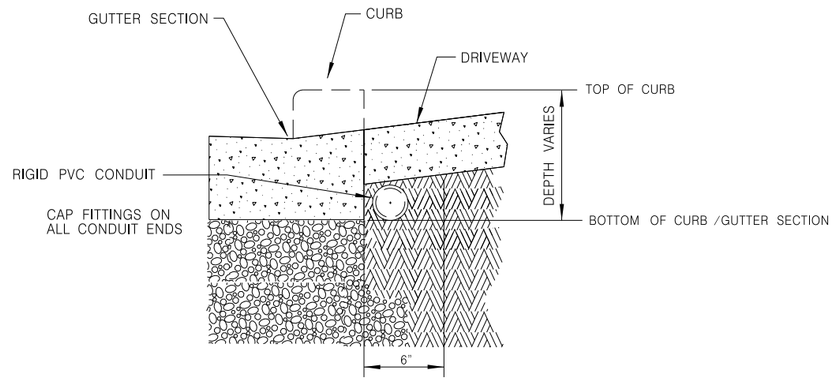


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



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.



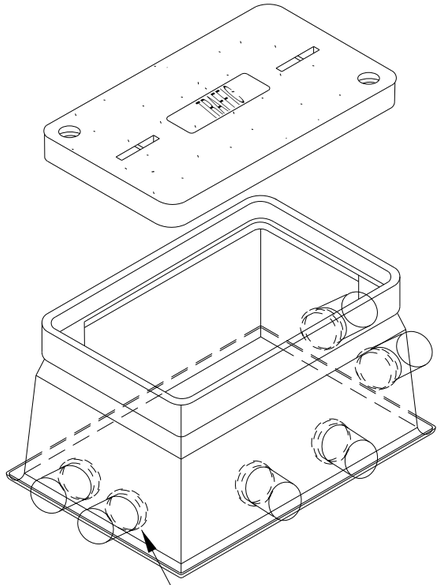
101 DETAIL — NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 2 OF 6

PROJECT NO: 2984–04–77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 5	E

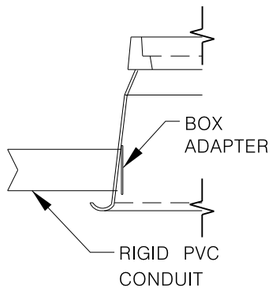


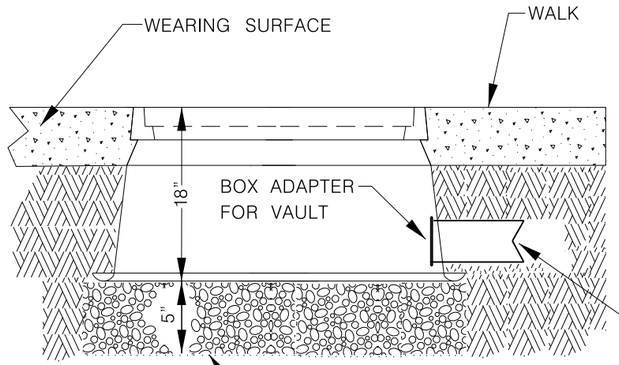
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W /2 BOLTS
COLOR: GRAY

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



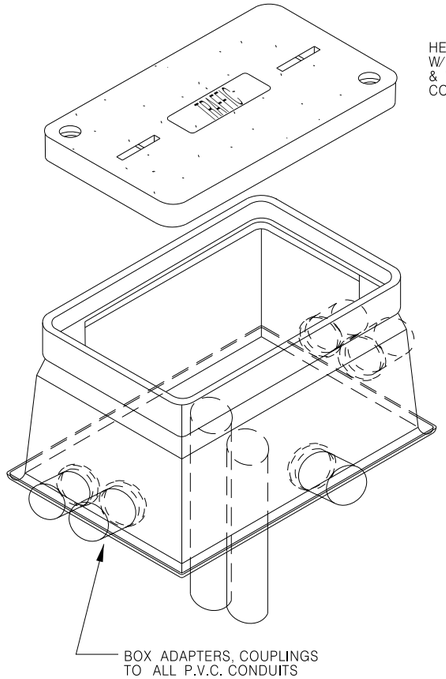


113 DETAIL

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.



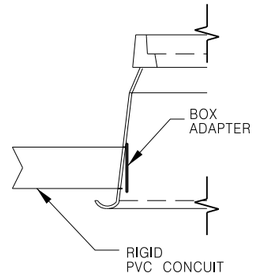
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

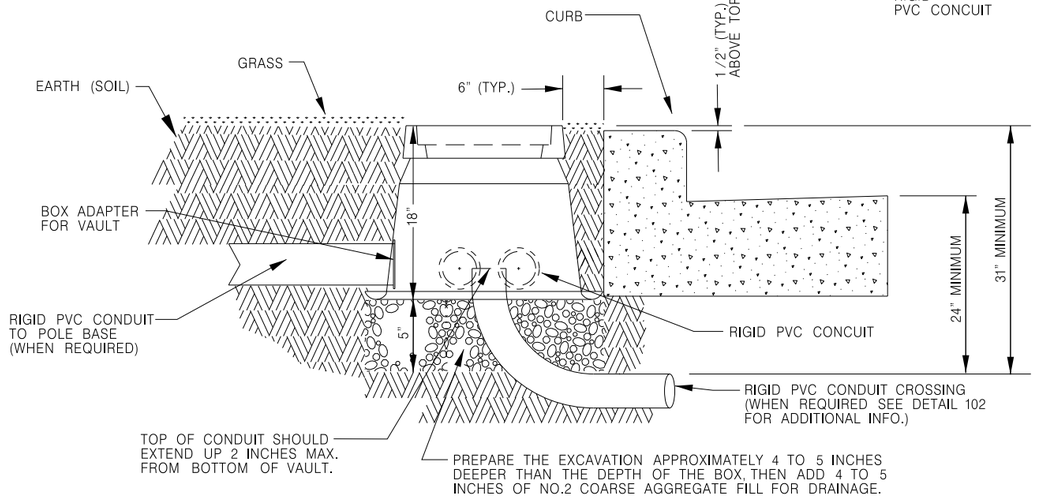
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL P.V.C. CONDUITS





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.

PROJECT NO: 2984-04-77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 6	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2984-04-07\2984-04-77 Traffic Plan Set 30%.dgn
PLOT DATE : 21-OCT-2015 09:21
PLOT BY : sbiega
PLOT NAME :
PLOT SCALE : 19.987872:1.000000
WISDOT/CADDS SHEET 42

2

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).

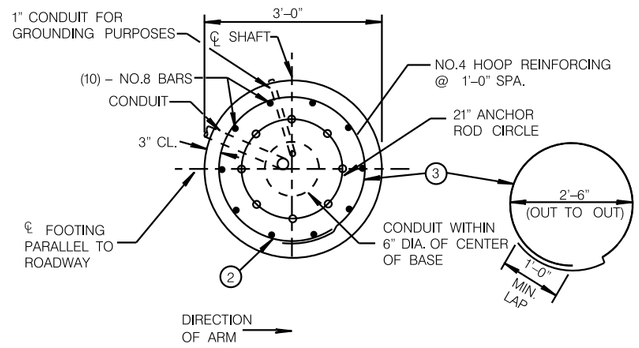
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

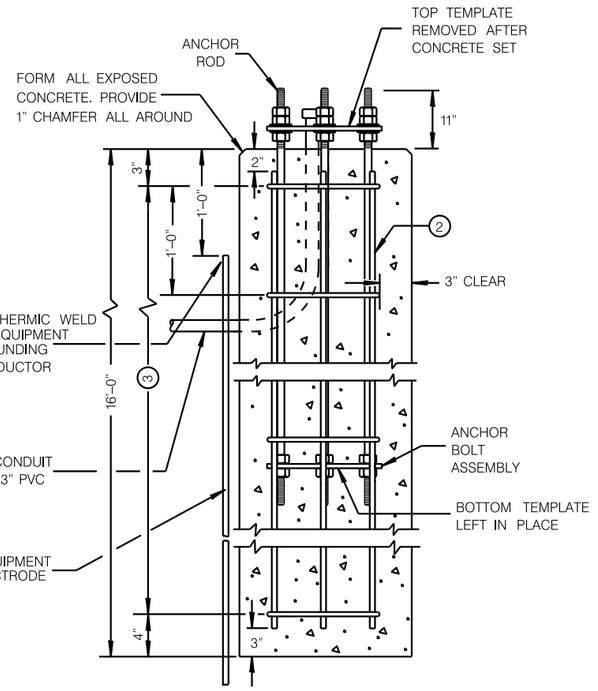
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

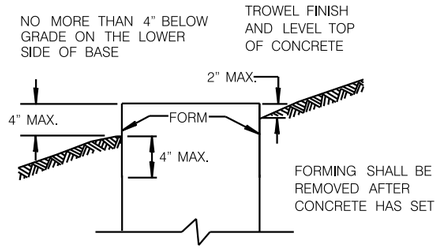
(3) (17) NO. 4 X 9'-0" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

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.

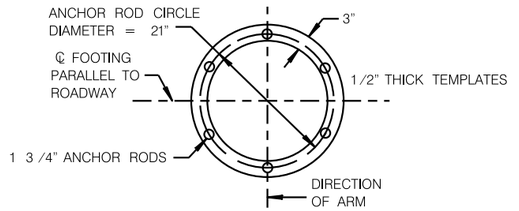




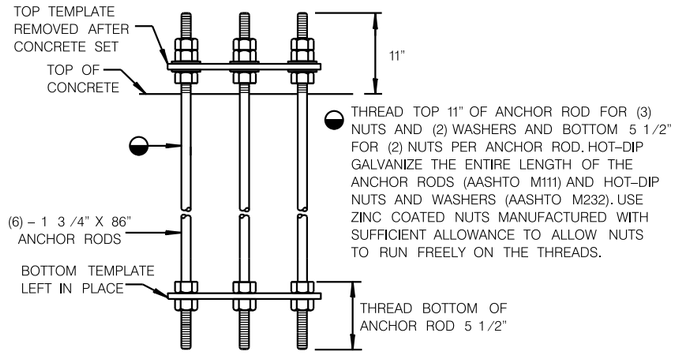
CONCRETE BASE TYPE 10 SPECIAL



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

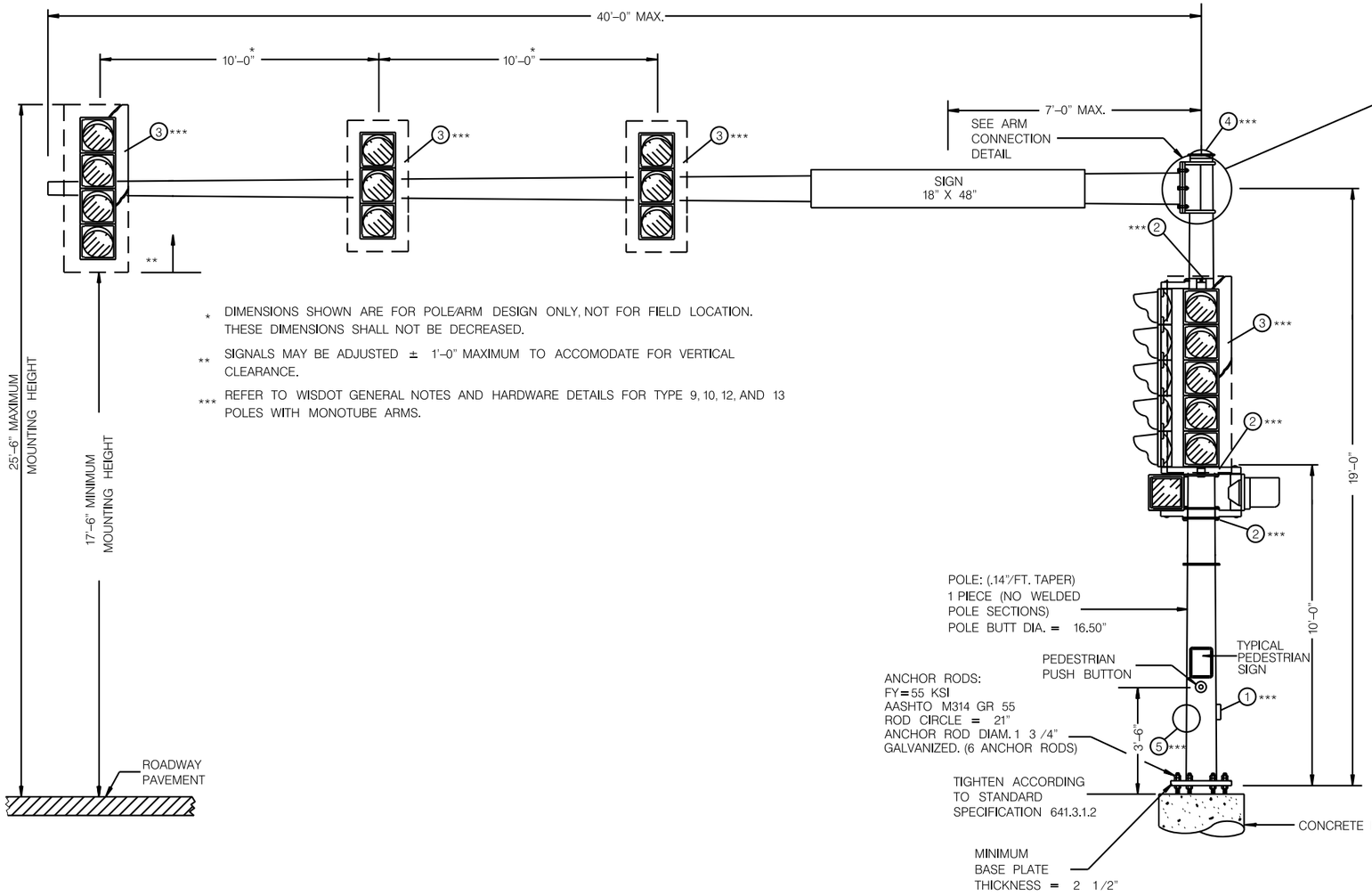
CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

SHEET: 4 OF 6

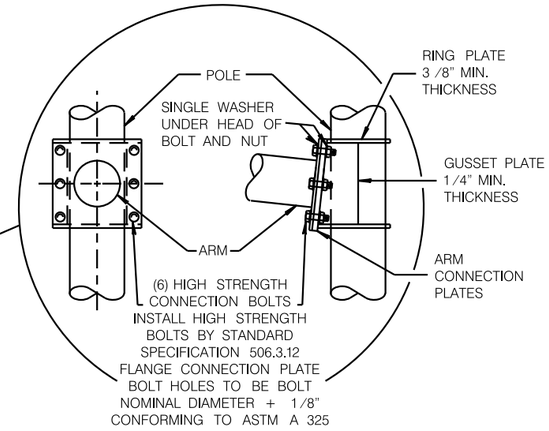
PROJECT NO: 2984-04-77	HWY: VARIOUS	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET	E



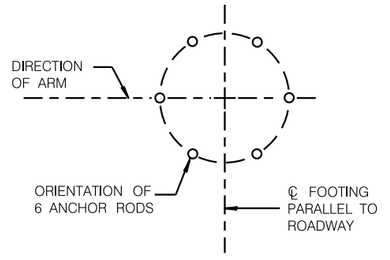
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

*** REFER TO WISDOT 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: 5 OF 6

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

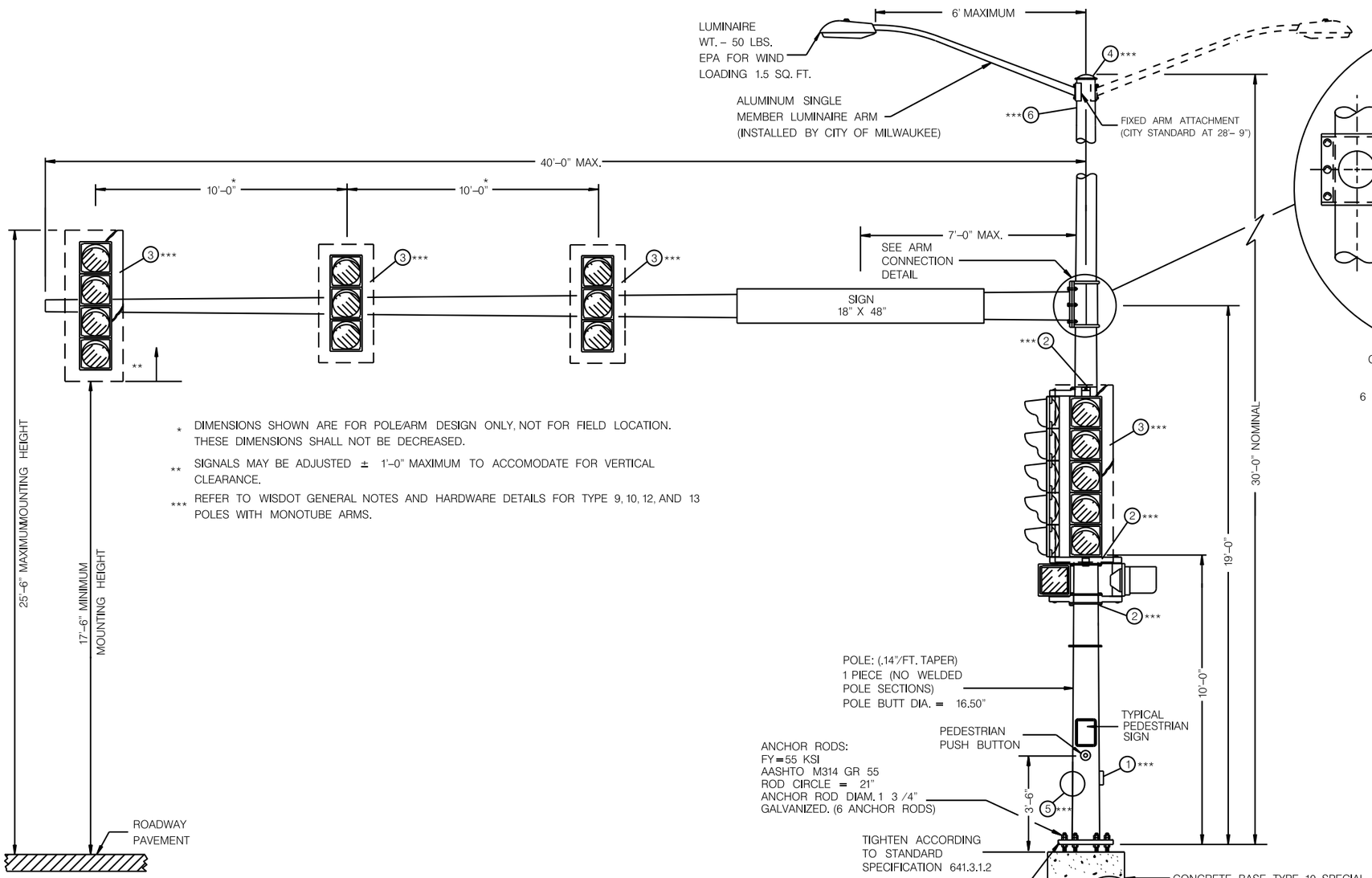
REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)

PROJECT NO: 2984–04–77	HWY: VARIOUS	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2984-04-07\2984-04-77 Traffic Plan Set 30%.dgn PLOT DATE : 02-NOV-2015 11:07 PLOT BY : wfuchs PLOT NAME : PLOT SCALE : 20.952381:1.000000

WISDOT/CADDS SHEET 4

2



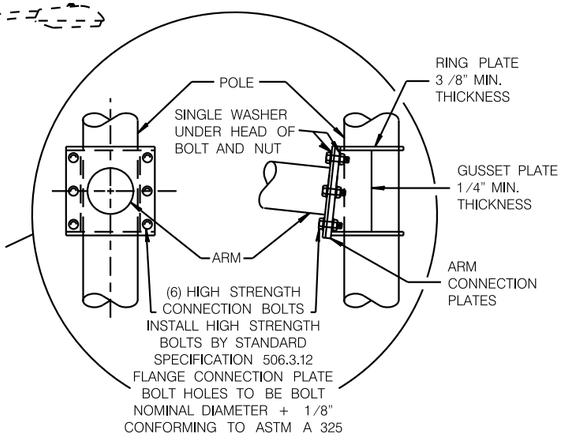
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

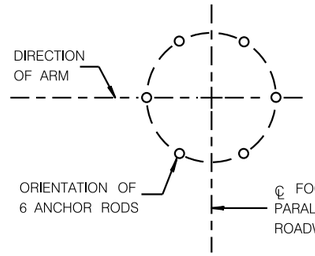
*** REFER TO WISDOT GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

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)

SHEET: 6 OF 6

PROJECT NO: 2984–04–77	HWY: VARIOUS	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2984–04–07\2984–04–77 Traffic Plan Set 30%.dgn
PLOT DATE : 02–NOV–2015 11:08
PLOT BY : wfuchs
PLOT NAME :
PLOT SCALE : 20.952381:1.000000
WISDOT/CADDS SHEET 4

2

NOTE:

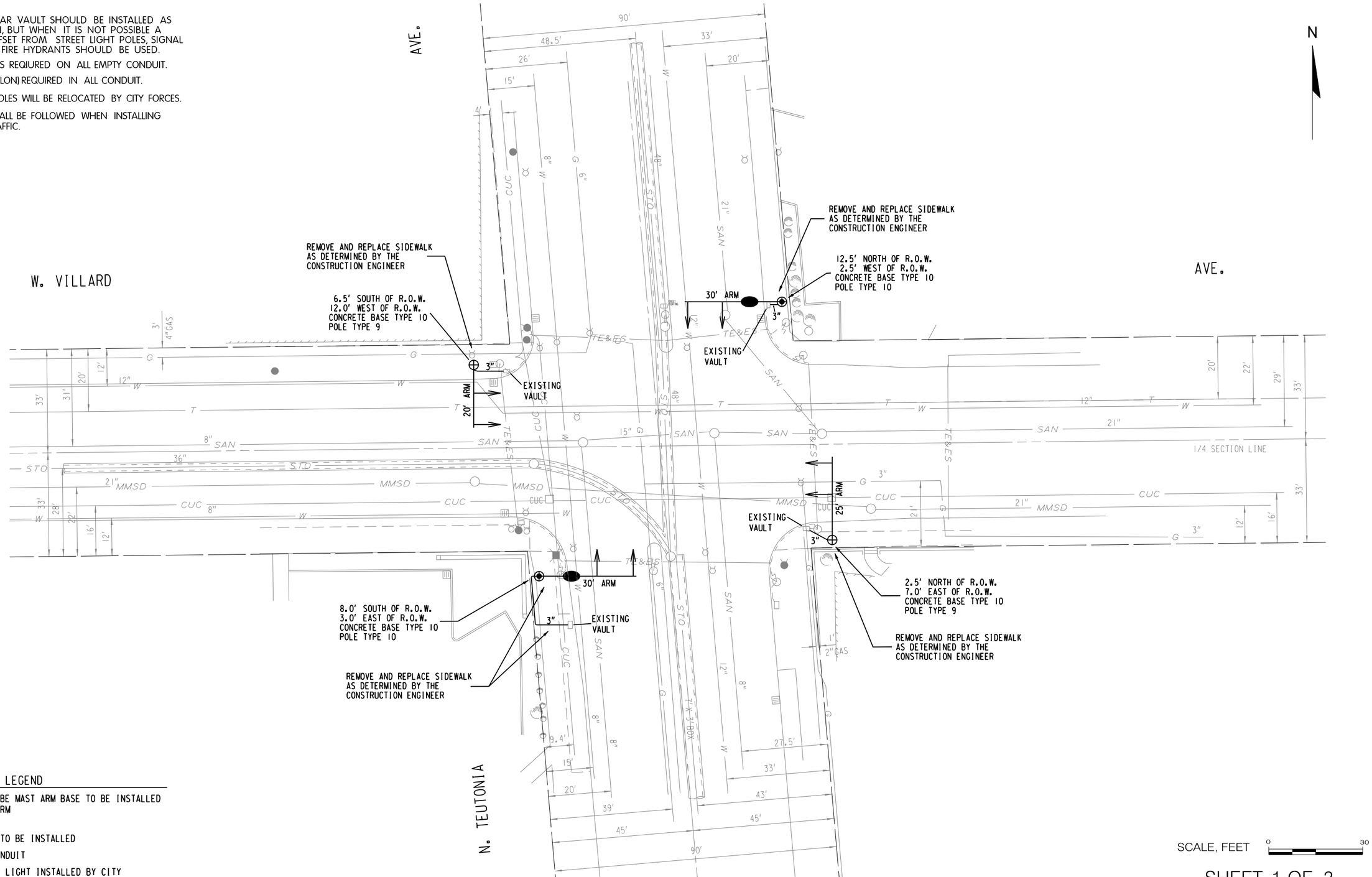
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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

ALL STREET LIGHT 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
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 1 OF 3

PROJECT NO: 2984-04-77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 10	E

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.

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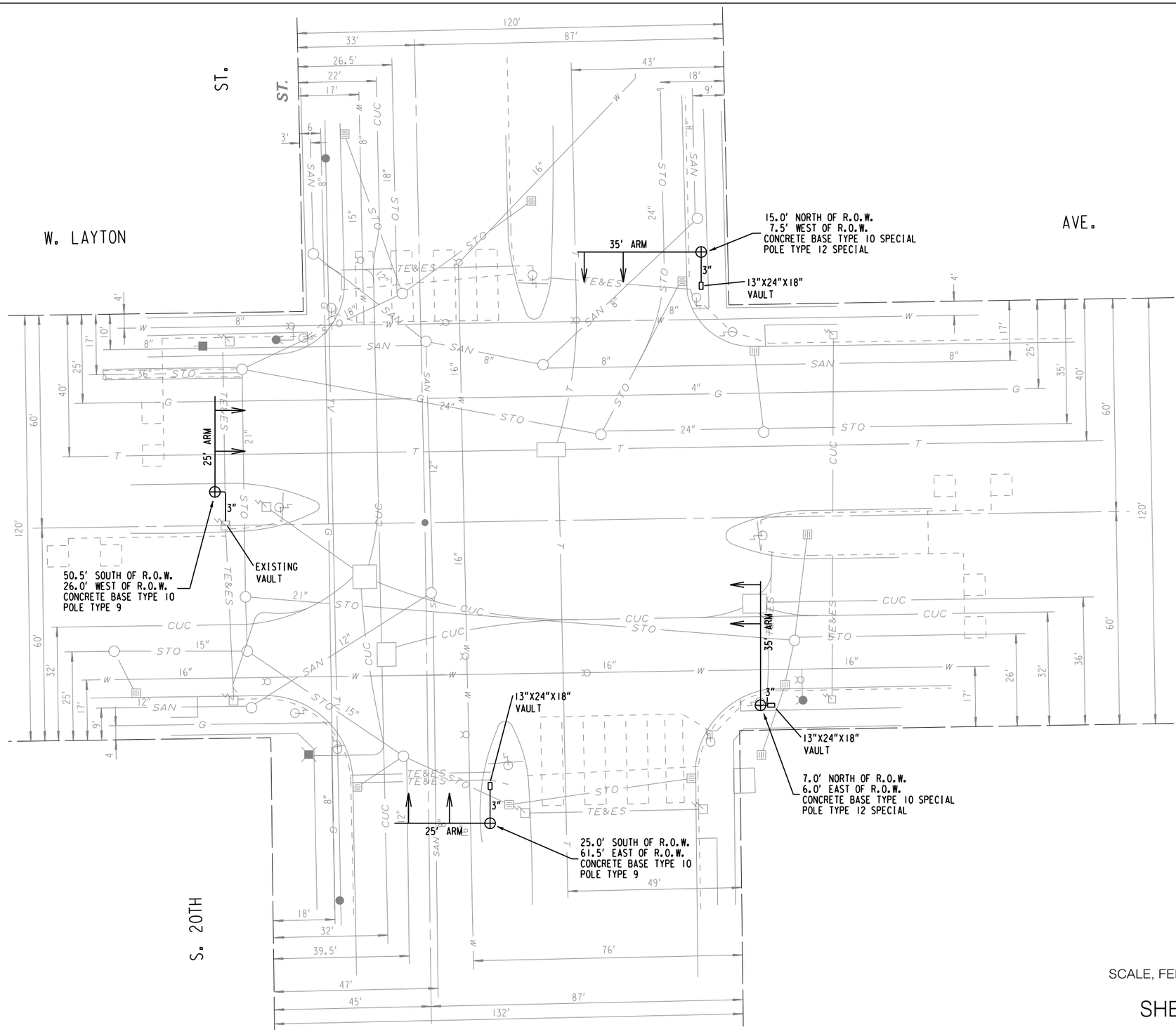
ALL STREET LIGHT POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM MAST ARM
- □ VAULT TO BE INSTALLED
- —— PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 2 OF 3

PROJECT NO: 2984-04-77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 11	E

2

NOTE:

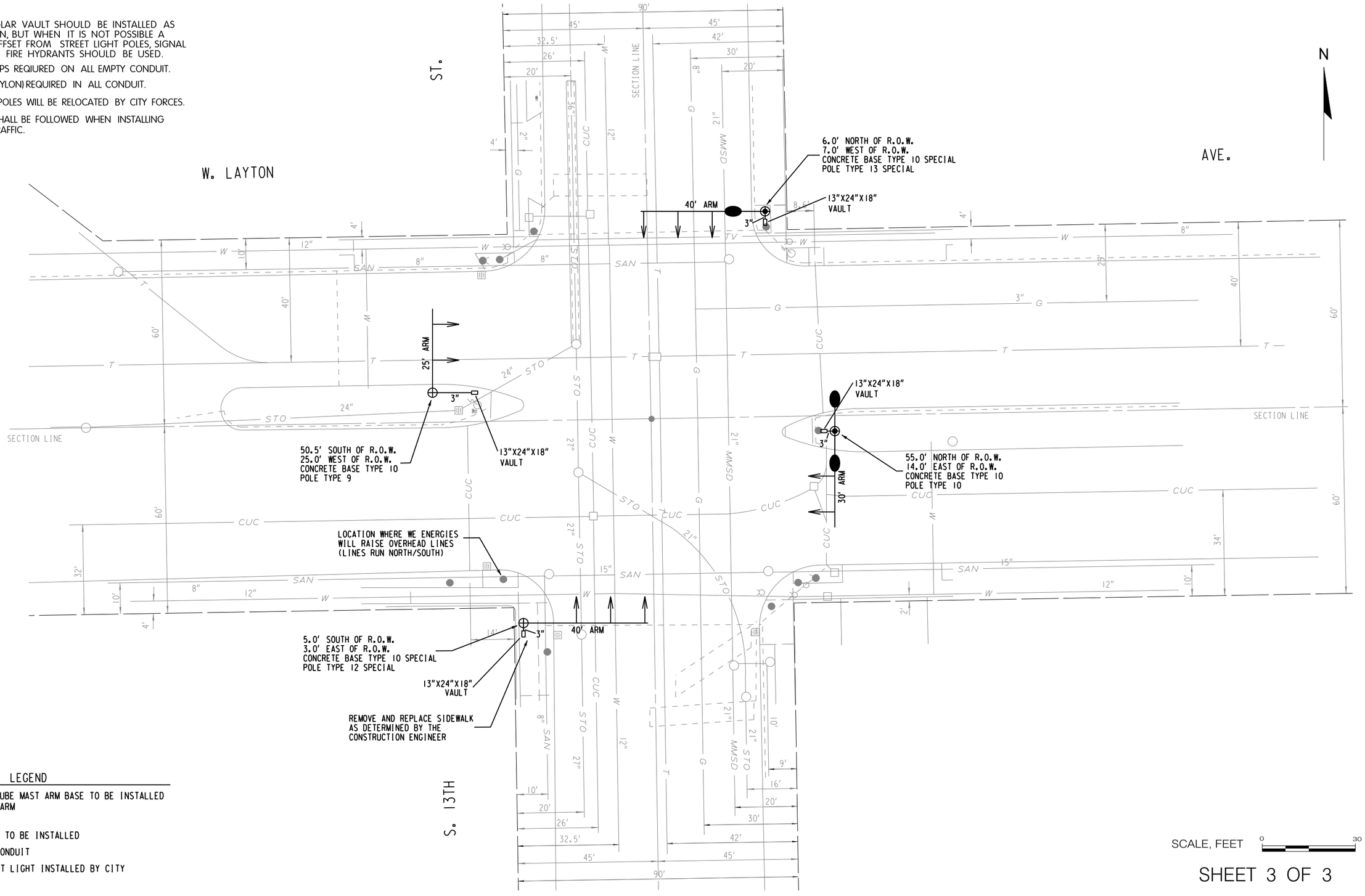
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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

ALL STREET LIGHT 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
- □ VAULT TO BE INSTALLED
- —— PVC CONDUIT
- ●—— STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

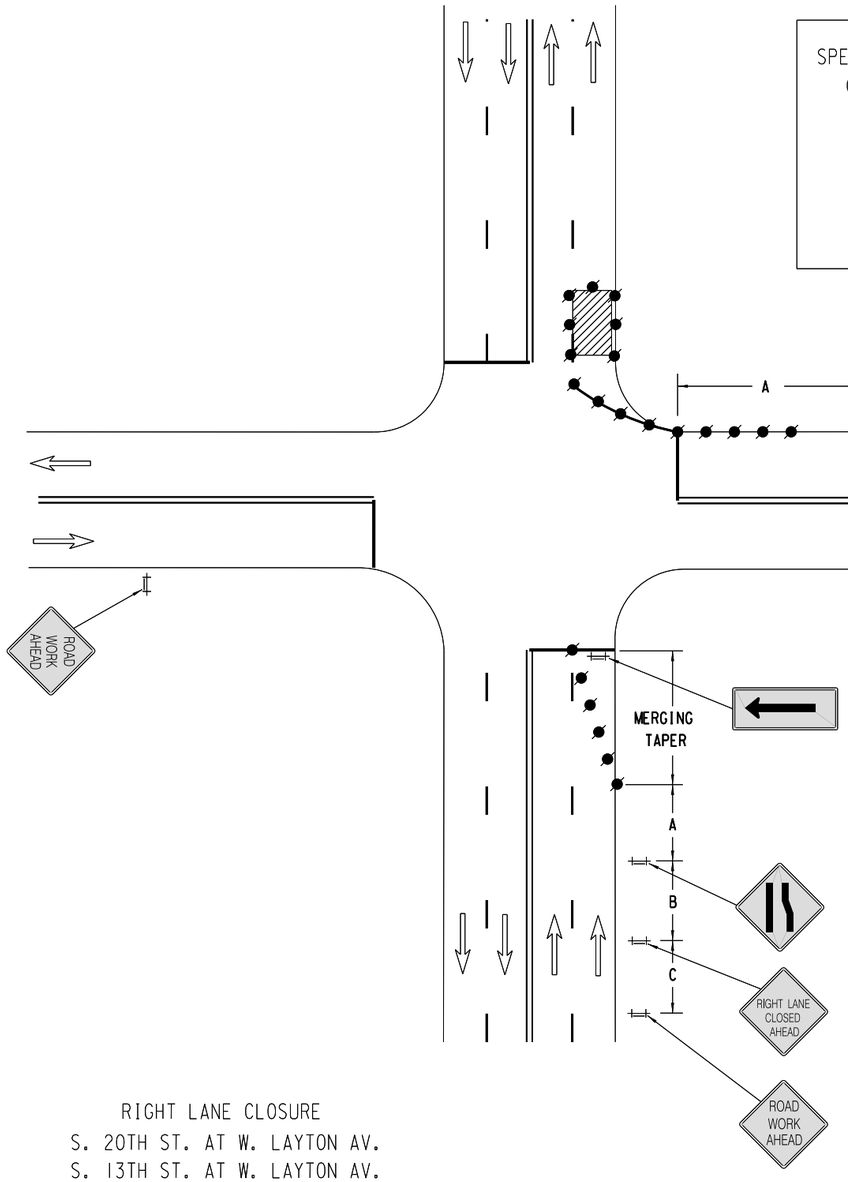
SHEET 3 OF 3

PROJECT NO: 2984-04-77	HWY: VARIOUS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 12	E

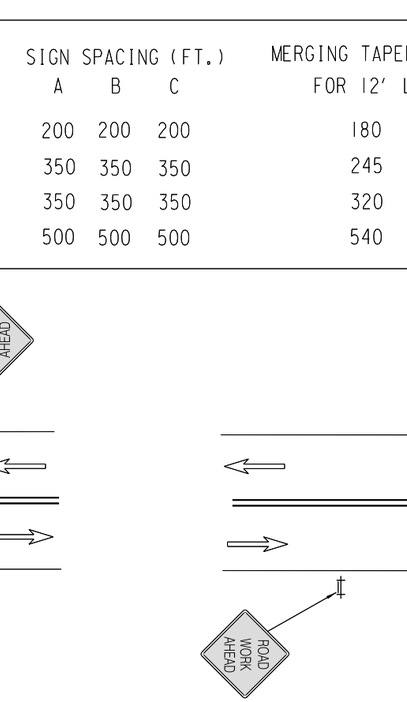
2

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

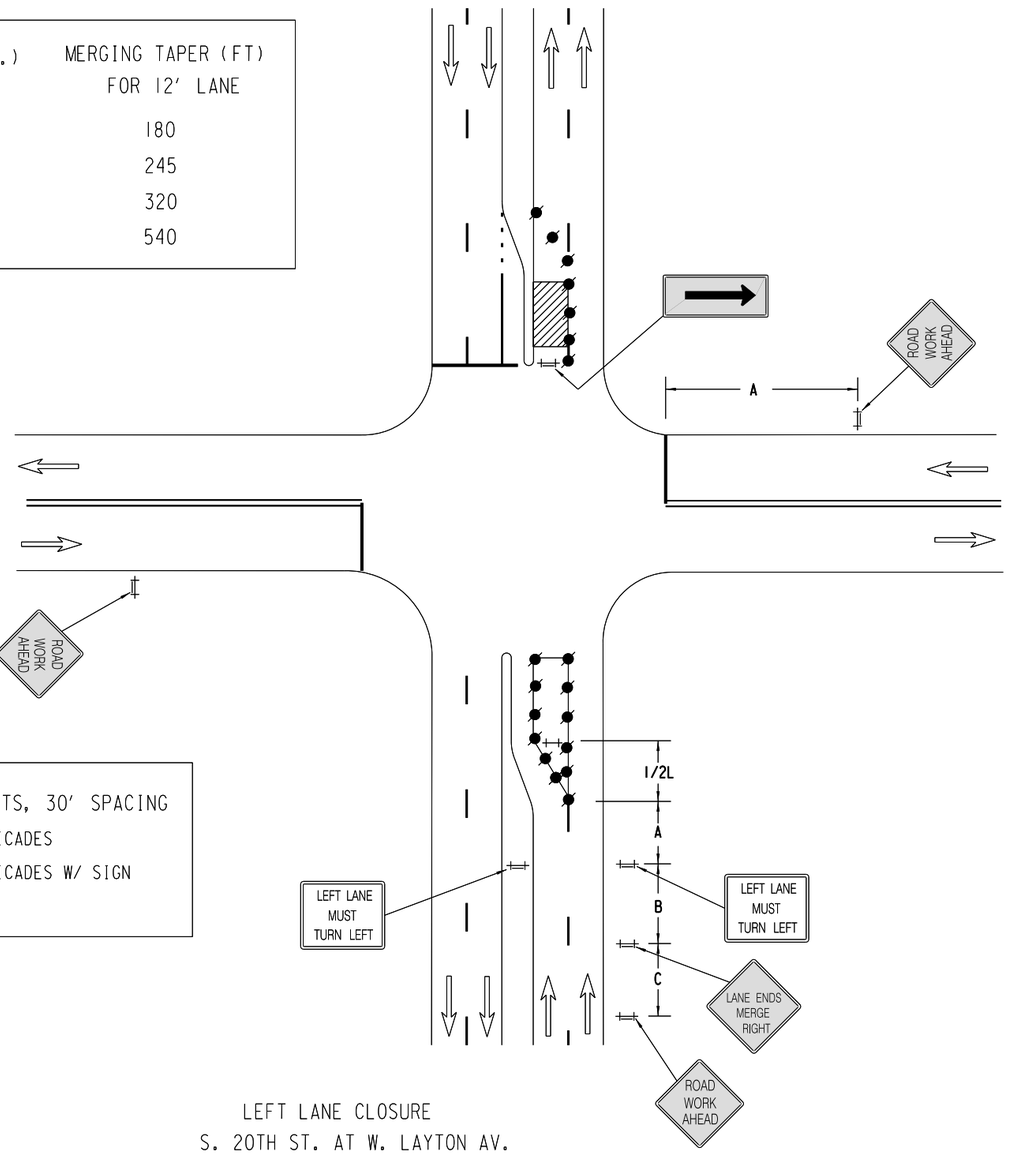


RIGHT LANE CLOSURE
S. 20TH ST. AT W. LAYTON AV.
S. 13TH ST. AT W. LAYTON AV.
N. TEUTONIA AV. AT W. VILLARD AV.



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

LEFT LANE CLOSURE



LEFT LANE CLOSURE
S. 20TH ST. AT W. LAYTON AV.
S. 13TH ST. AT W. LAYTON AV.

STATE PROJECT NUMBER 2984-04-77 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 13	E

FILE NAME: W:\SPR\MONOTUBE PROJRCTS\2984-08-05\TRAFFIC.DGN

REVISED:

DATE 06JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2984-04-77 QUANTITY
0130	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	65.000	65.000
0360	619.1000	Mobilization	EACH	0.060	0.060
0380	623.0200	Dust Control Surface Treatment	SY	6,918.000	6,918.000
0520	642.5001	Field Office Type B	EACH	0.060	0.060
0540	643.0100	Traffic Control (project) 02. 2984-04-77	EACH	1.000	1.000
0550	643.0300	Traffic Control Drums	DAY	2,337.000	2,337.000
0560	643.0420	Traffic Control Barricades Type III	DAY	468.000	468.000
0590	643.0705	Traffic Control Warning Lights Type A	DAY	936.000	936.000
0600	643.0715	Traffic Control Warning Lights Type C	DAY	2,337.000	2,337.000
0610	643.0900	Traffic Control Signs	DAY	684.000	684.000
0870	650.8500	Construction Staking Electrical Installations (project) 02. 2984-04-77	LS	1.000	1.000
0890	650.9910	Construction Staking Supplemental Control (project) 02. 2984-04-77	LS	1.000	1.000
0930	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	120.000	120.000
0960	654.0110	Concrete Bases Type 10	EACH	8.000	8.000
0990	690.0250	Sawing Concrete	LF	100.000	100.000
1010	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,400.000	1,400.000
1020	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,200.000	1,200.000
1090	SPV.0060	Special 07. Inlet Screen Type M	EACH	15.000	15.000
1100	SPV.0060	Special 08. Inlet Screen Type R	EACH	2.000	2.000
1190	SPV.0060	Special 17. Concrete Base Type 10 Special	EACH	4.000	4.000
1210	SPV.0060	Special 19. Rectangular Polymer Concrete Vault 13-Inch x 24-Inch x 18-Inch	EACH	6.000	6.000
1230	SPV.0060	Special 21. Monotube Arms 20-FT	EACH	1.000	1.000
1240	SPV.0060	Special 22. Monotube Arms 25-FT	EACH	4.000	4.000
1250	SPV.0060	Special 23. Monotube Arms 30-FT	EACH	3.000	3.000
1260	SPV.0060	Special 24. Monotube Arms 35-FT	EACH	2.000	2.000
1270	SPV.0060	Special 25. Monotube Arms 40-FT	EACH	2.000	2.000
1290	SPV.0060	Special 27. Poles Type 9	EACH	5.000	5.000
1300	SPV.0060	Special 28. Poles Type 10	EACH	3.000	3.000
1310	SPV.0060	Special 29. Poles Type 12 Special	EACH	3.000	3.000
1330	SPV.0060	Special 31. Poles Type 13 Special	EACH	1.000	1.000
1340	SPV.0060	Special 32. Utility Line Opening	EACH	12.000	12.000
1480	SPV.0195	Special 01. Management Of Solid Waste	TON	41.000	41.000

3

PROJECT ITEMS

2984-04-77

CATEGORY 010		EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOILS	MOBILIZATION	DUST CONTROL SURFACE TREATMENT	TRAFFIC CONTROL	CONST. STKG. ELECTRICAL INSTALLATIONS	SAWING CONCRETE	INLET SCREEN TYPE M	INLET SCREEN TYPE R	MANAGEMENT OF SOLID WASTE
	ITEM NO.	205.0501.S	619.1000	623.0200	643.0100	650.8500	690.0250	SPV.0060.07	SPV.0060.08	SPV.0195.01
	UNIT PAY	TON	EACH	SY	EACH	LUMP	LF	EACH	EACH	TON
LOCATION										
VARIOUS INTERSECTIONS		65	0.06	6918	1	1	100	15	2	41
	TOTAL	**65**	**0.06**	**6918**	**1**	**1**	**100**	**15**	**2**	**41**

TRAFFIC SIGNAL ITEMS

2984-04-77

CATEGORY 010		CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	CONCRETE BASE TYPE 10	CONCRETE BASE TYPE 10 SPECIAL	POLES TYPE 12 SPECIAL	POLES TYPE 13 SPECIAL	RECTANGULAR POLYMER CONCRETE VAULT 13" x 24" x 18"	MONOTUBE ARM 20-FT	UTILITY LINE OPENING (ULO)
	ITEM NO.	652.0235	654.0110	SPV.0060.17	SPV.0060.29	SPV.0060.31	SPV.0060.19	SPV.0060.21	SPV.0060.32
	UNIT PAY	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH
LOCATION									
VARIOUS INTERSECTIONS		120	8	4	3	1	6	1	12
	TOTAL	**120**	**8**	**4**	**3**	**1**	**6**	**1**	**12**

TRAFFIC SIGNAL ITEMS

2984-04-77

CATEGORY 010		MONOTUBE ARM 25-FT	MONOTUBE ARM 30-FT	MONOTUBE ARM 35-FT	MONOTUBE ARM 40-FT	POLES TYPE 9	POLES TYPE 10
	ITEM NO.	SPV.0060.22	SPV.0060.23	SPV.0060.24	SPV.0060.25	SPV.0060.27	SPV.0060.28
	UNIT PAY	EACH	EACH	EACH	EACH	EACH	EACH
LOCATION							
VARIOUS INTERSECTIONS		4	3	2	2	5	3
	TOTAL	**4**	**3**	**2**	**2**	**5**	**3**

3

TRAFFIC CONTROL ITEMS

2984-04-77

CATEGORY 010

ITEMS	Right Lane Closures		Left Lane Closures		TOTAL	
	(EACH)	(DAYS)	(EACH)	(DAYS)	(EACH)	(DAYS)
# TRAFFIC CONTROL DRUMS **(643.0300)**	66	1254	57	1083	123	2337
## TRAFFIC CONTROL BARRICADES, TYPE III **(643.0420)**	18	251	24	217	42	468
TRAFFIC CONTROL WARNING LIGHTS, TYPE "A" (FLASHING) **(643.0705)**	36	468	48	468	84	936
TRAFFIC CONTROL WARNING LIGHTS, TYPE "C" (STEADY) **(643.0715)**	66	1254	57	1083	123	2337

ALL DRUMS HAVE STEADY BURNING YELLOW LIGHTS (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

ALL TYPE III BARRICADES HAVE TWO (2) FLASHING YELLOW LIGHTS (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

ITEM	SIZE	DESCRIPTION	Right Lane Closures	Left Lane Closures	TOTAL
R3-7L	36"x36"	LEFT LANE MUST TURN LEFT	0	2	2
WO1-6L	24"x48"	DIRECTIONAL ARROW (LEFT)	1	0	1
WO1-6R	24"x48"	DIRECTIONAL ARROW (RIGHT)	0	1	1
WO4 2-R	30"x30"	LANE SHIFT (RIGHT)	1	0	1
W09-2L	48"x48"	LANE SHIFT (LEFT)	0	1	1
WO20-1A	48"x48"	ROAD WORK AHEAD	3	3	6
WO 20-5A	48"x48"	RIGHT LANE CLOSED AHEAD	1	0	1
		TRAFFIC CONTROL SIGNS **(643.0900)** TOTAL	6 342 (DAYS)	7 342 (DAYS)	13 684 (DAYS)

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

NOTES:

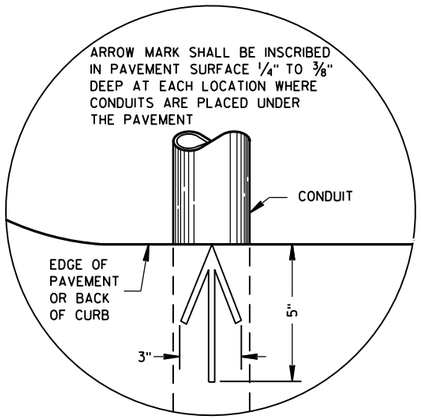
THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES CAN BE ADJUSTED TO FIT THE ACTUAL FIELD CONDITIONS, IF APPROVED BY THE ENGINEER.

ALL SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL "IN USE", SHALL BE COVERED AS NEEDED, AND AS APPROVED. THIS WORK WILL BE
INCIDENNTAL TO THE TEMPORARY TRAFFIC CONTROL ITEMS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELED WAY, WHEN WORK IS NOT IN PROGRESS.

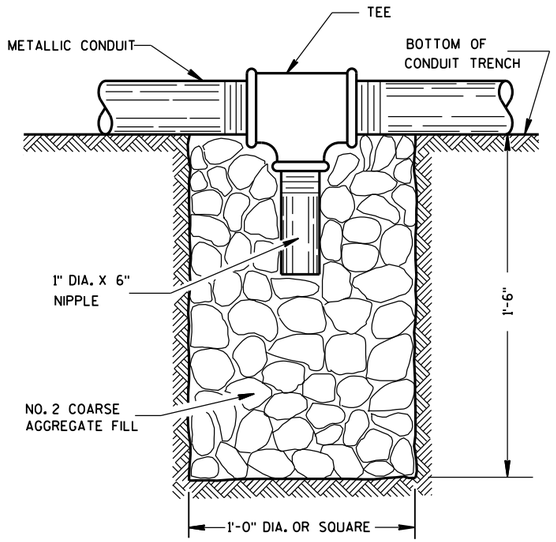
Standard Detail Drawing List

09B02-09	CONDUIT
09C11-06	CONCRETE BASE TYPE 10
09E08-07A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-07B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-07C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-07D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



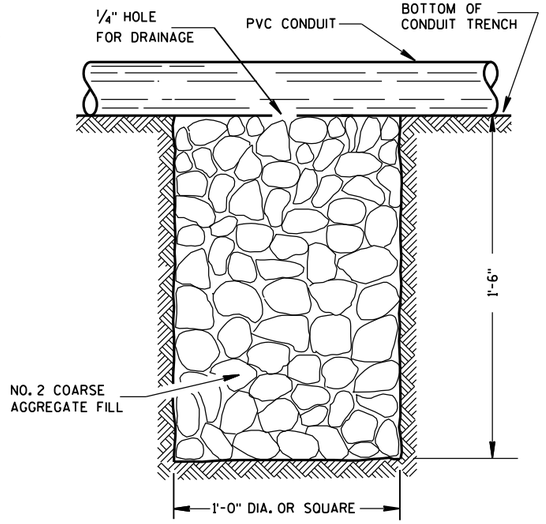
PLAN VIEW

ARROW MARK



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

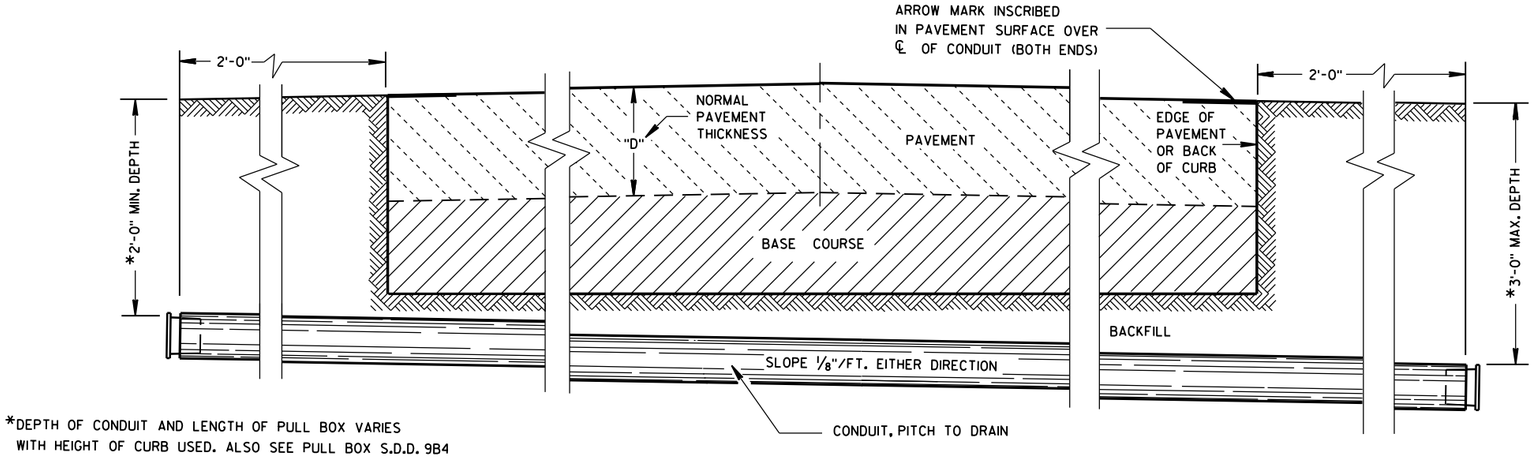
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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.



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 B 2-9

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

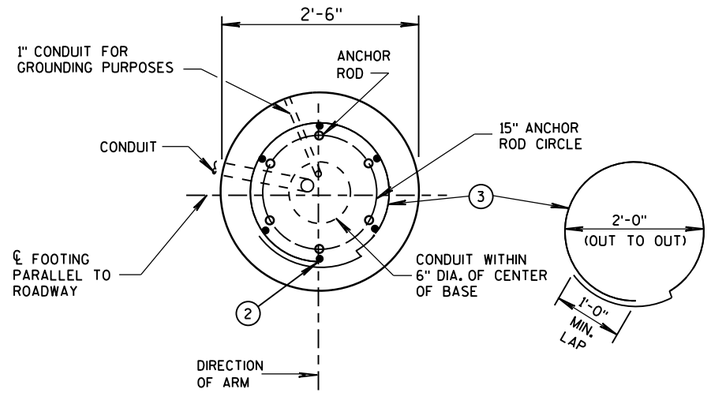
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

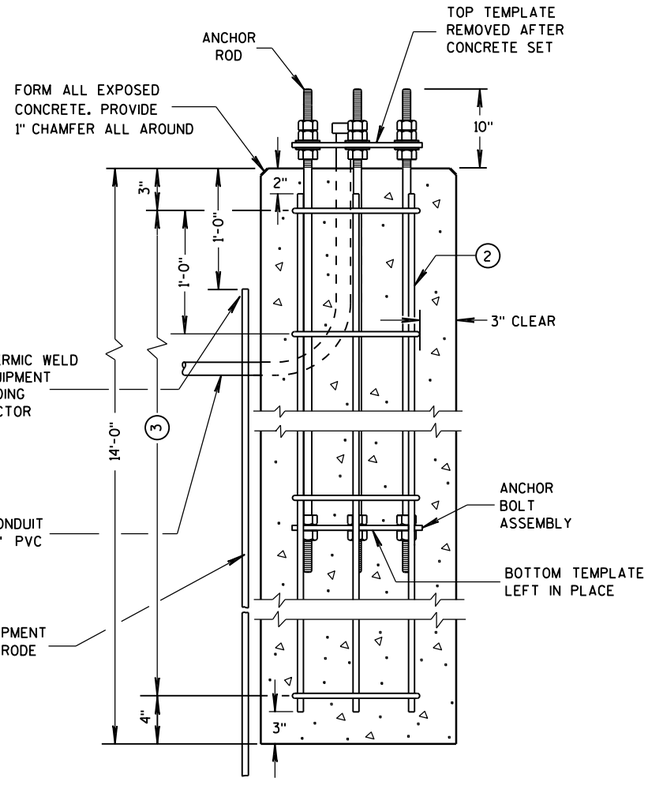
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

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

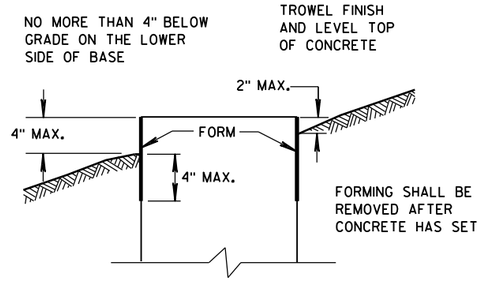
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



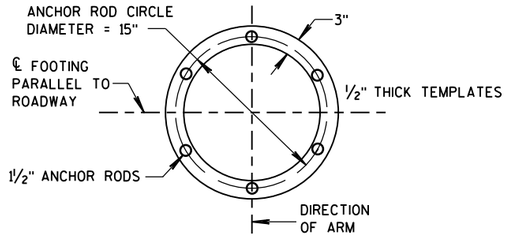


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

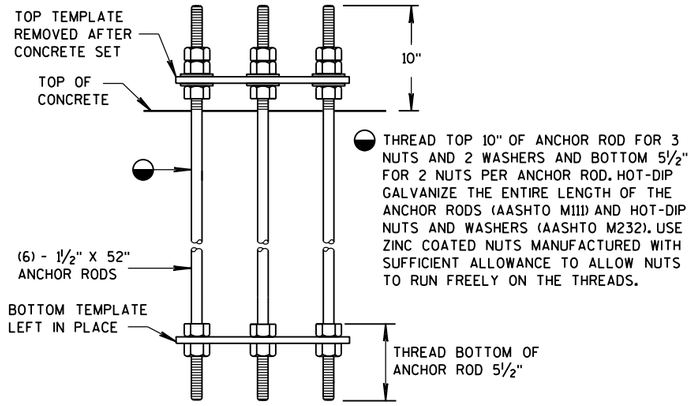
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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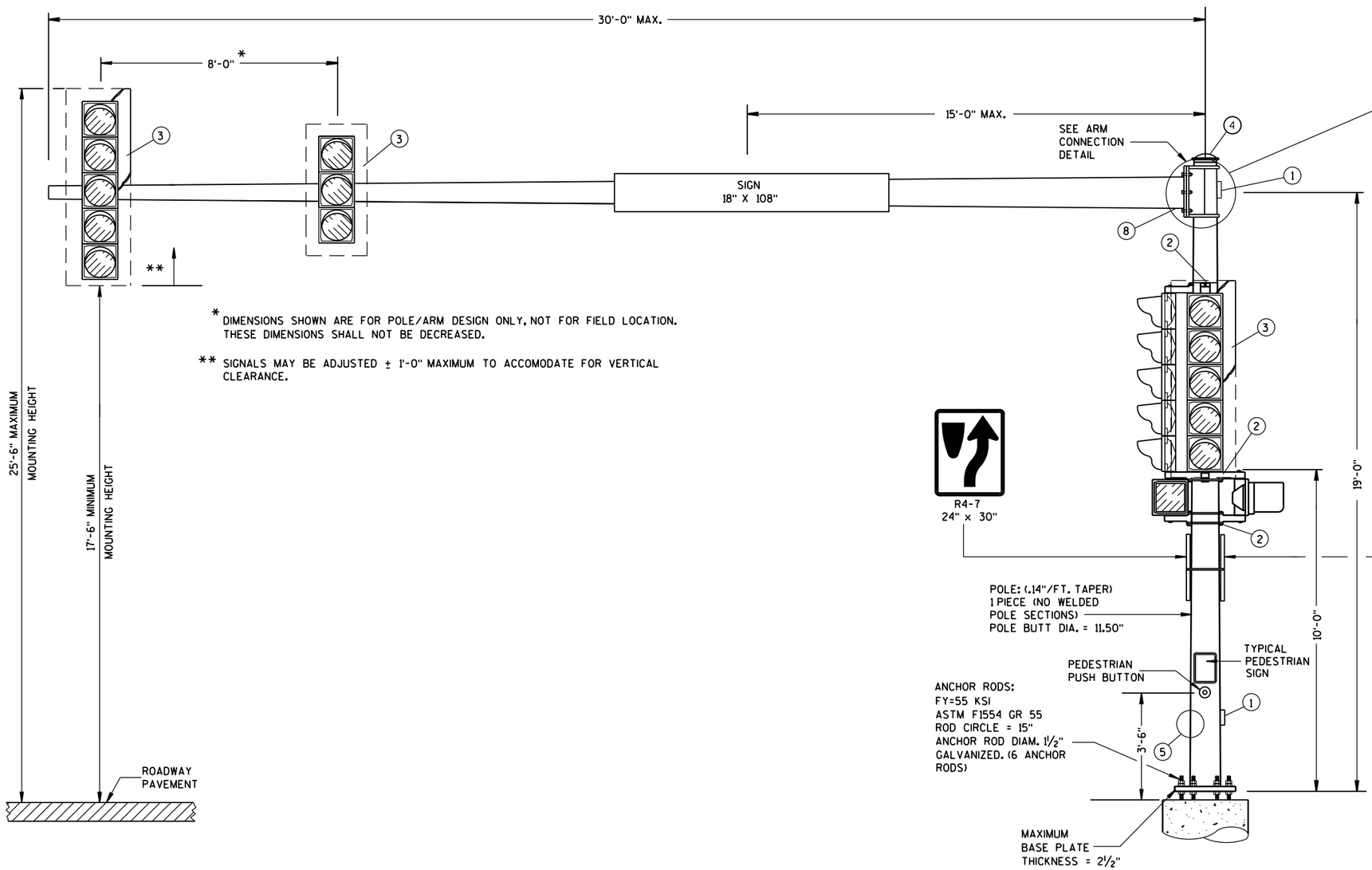
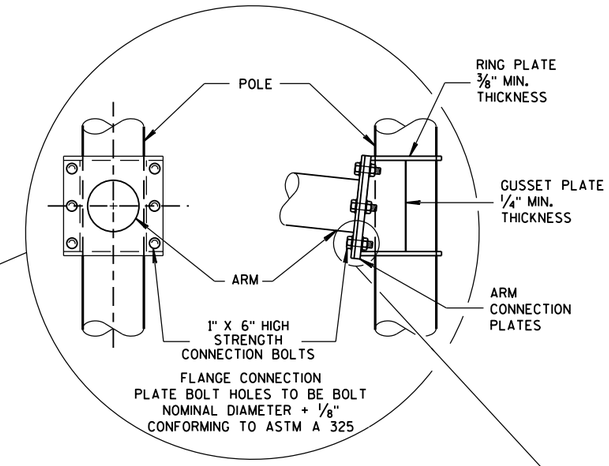
S.D.D. 9 C 11-6

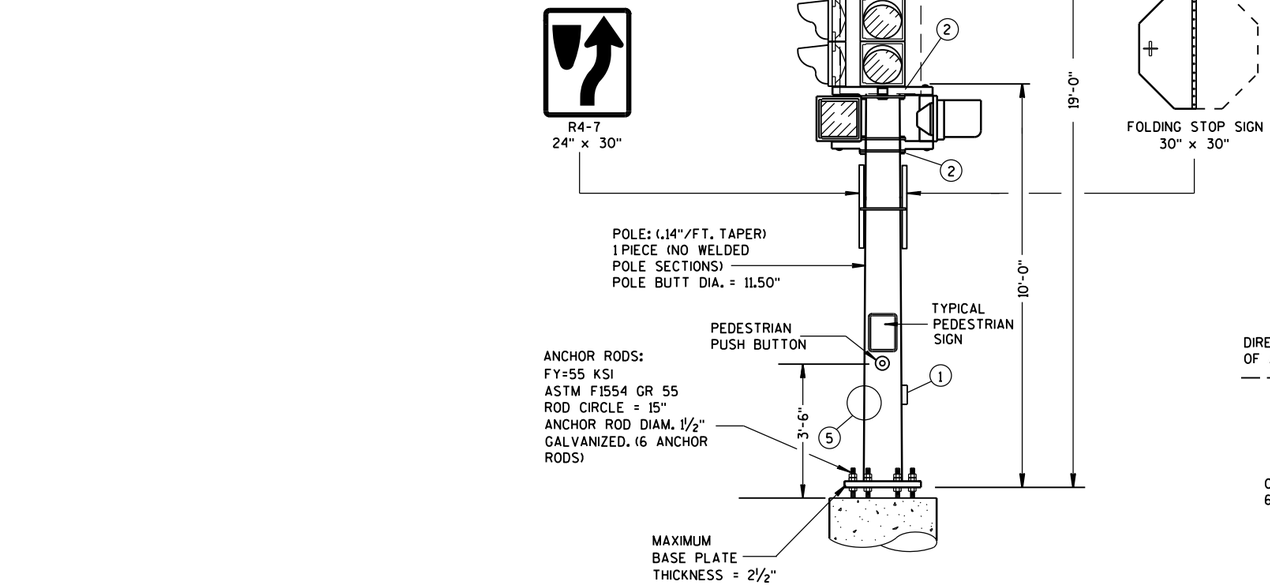


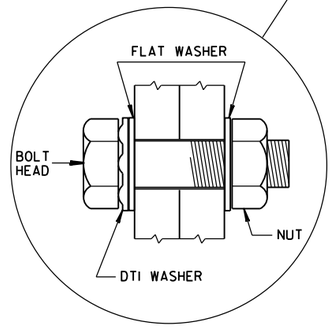
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

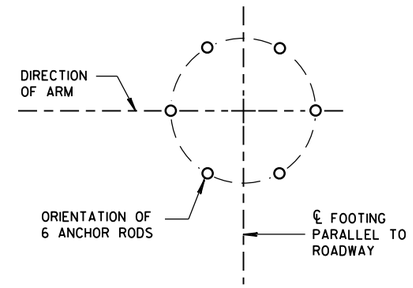


6 BOLT ARM CONNECTION DETAIL





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 June, 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

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S.D.D. 9 E 8-7a

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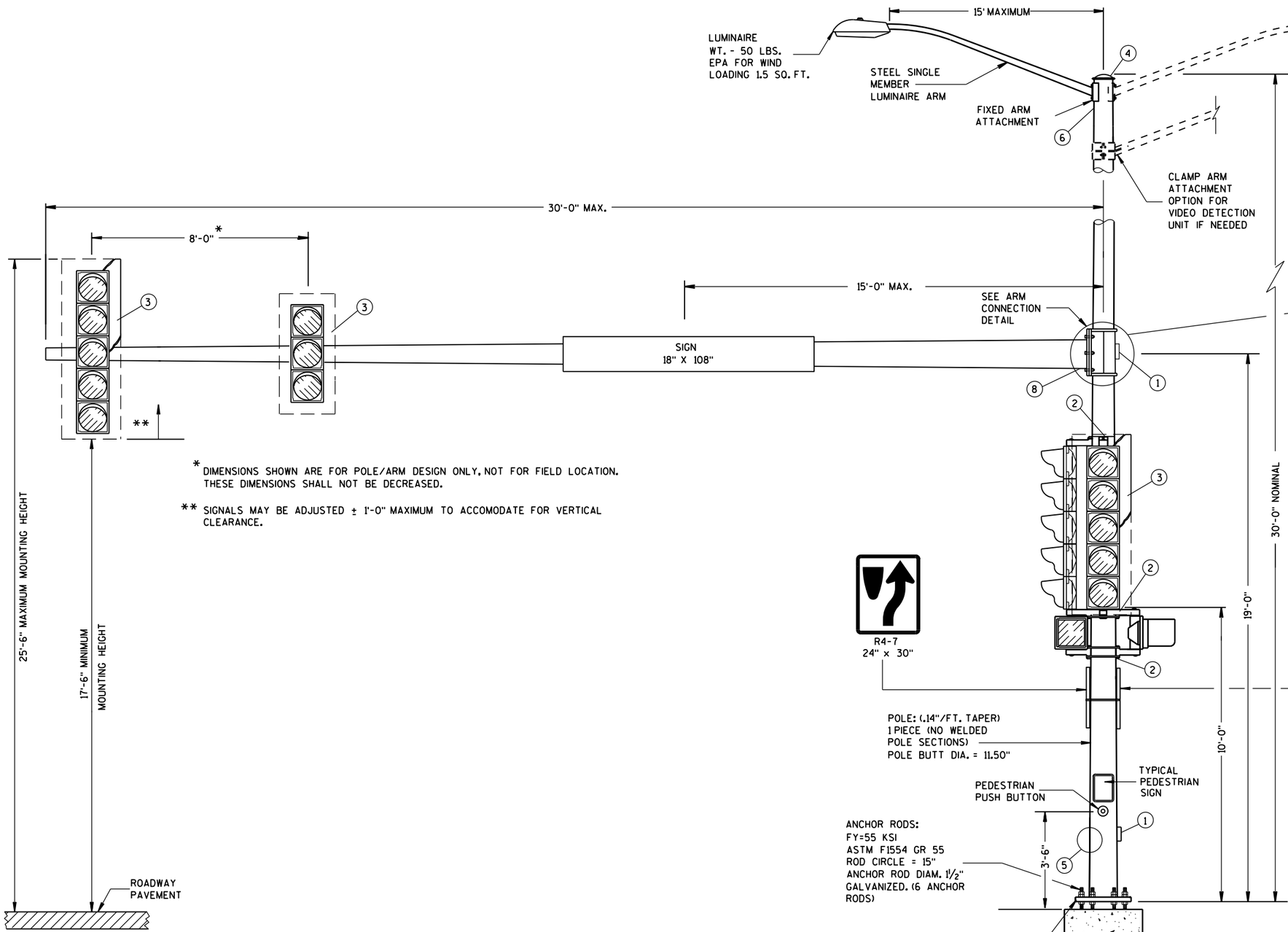
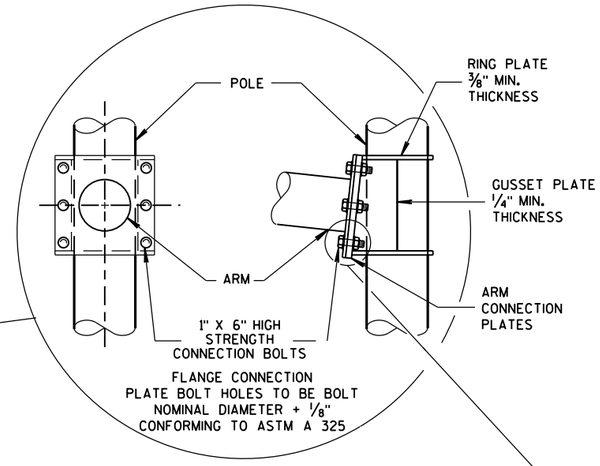
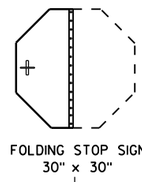
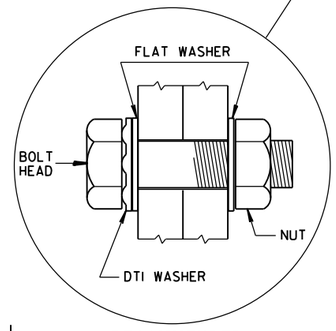


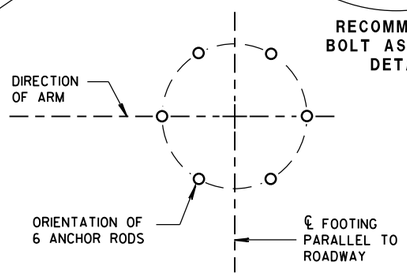


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

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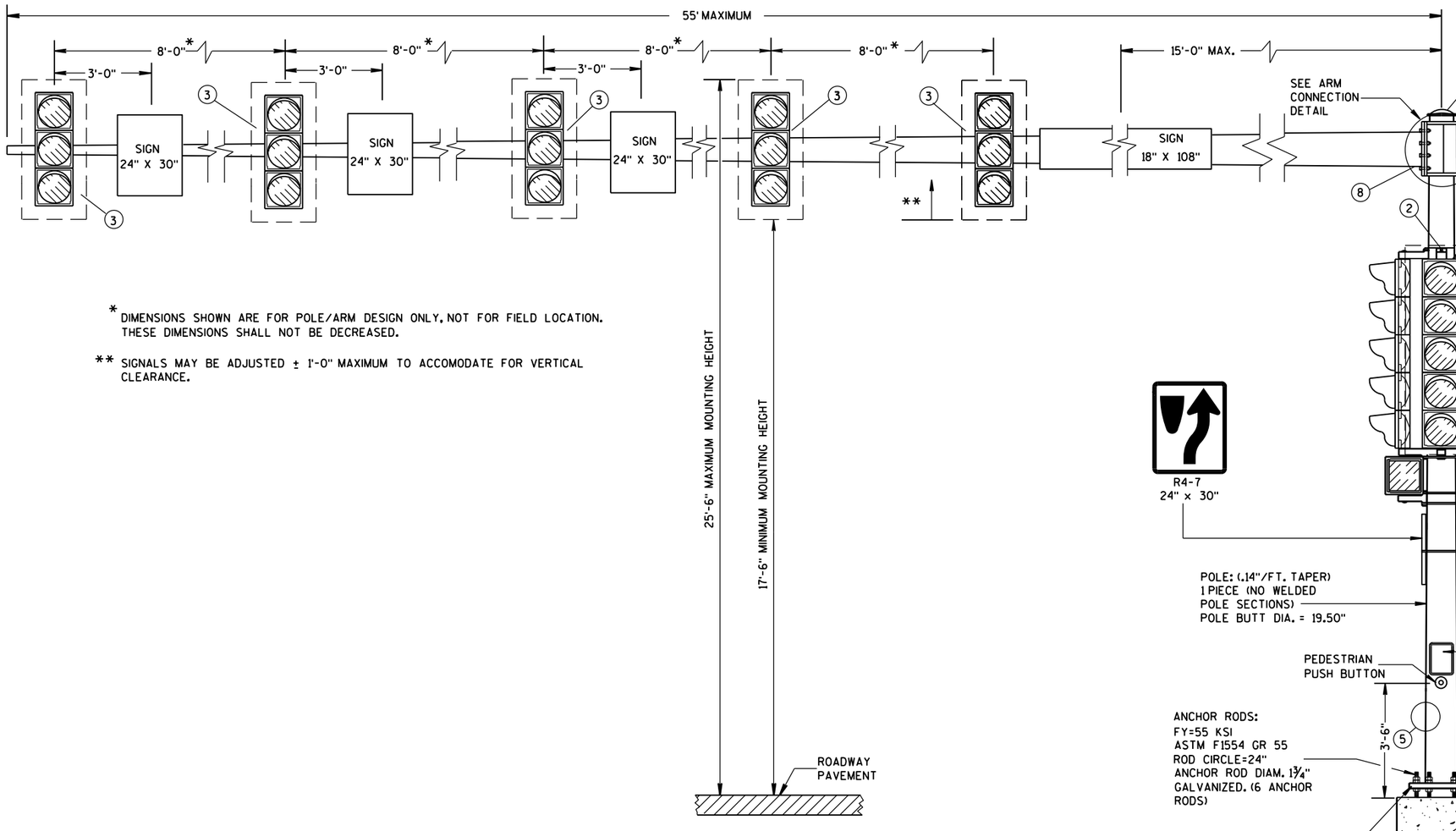
S.D.D. 9 E 8-7b



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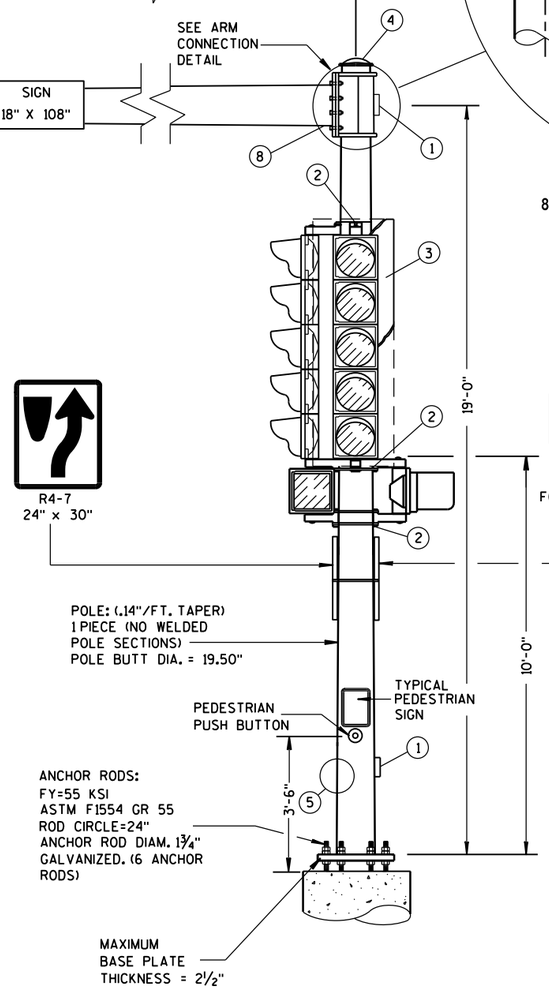
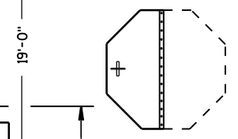
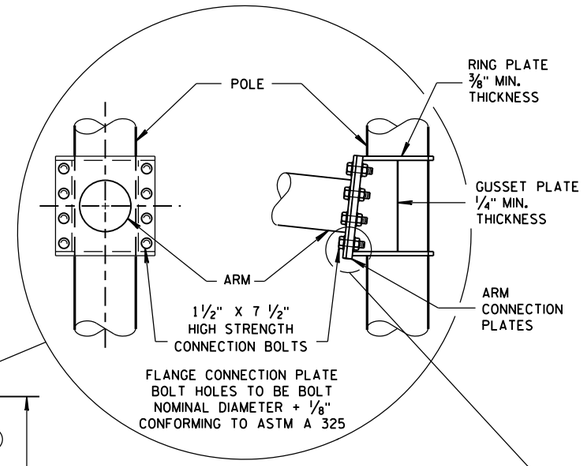
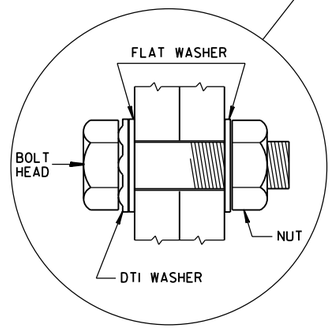


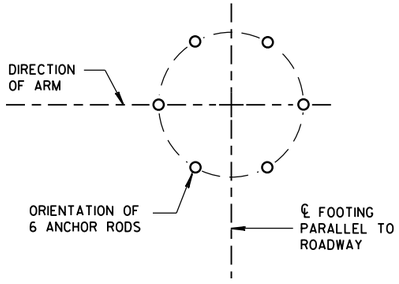




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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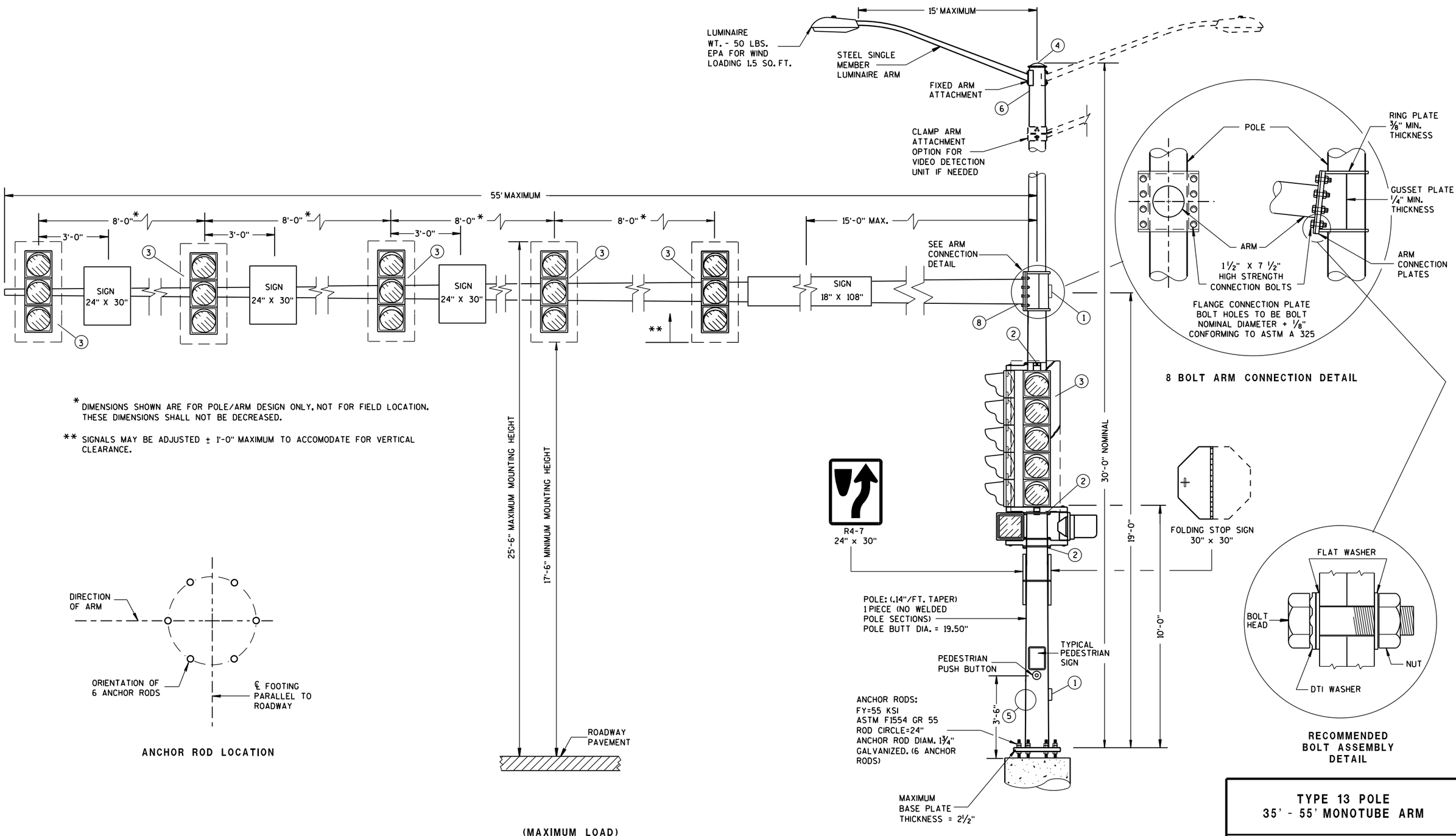
S.D.D. 9 E 8-7c



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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	
APPROVED June, 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

6

S.D.D. 9 E 8-7d

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.

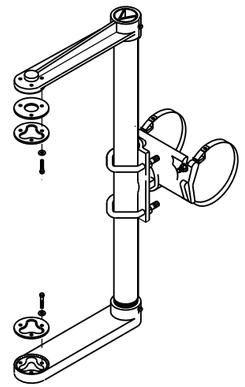
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

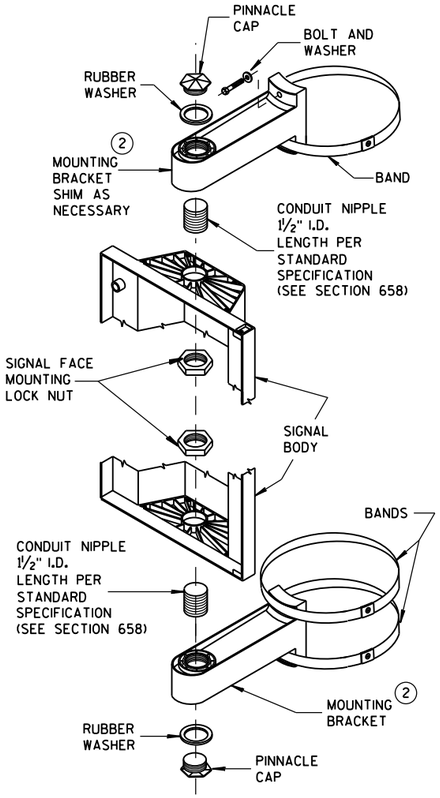
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

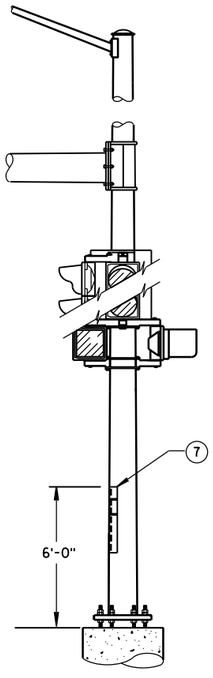


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

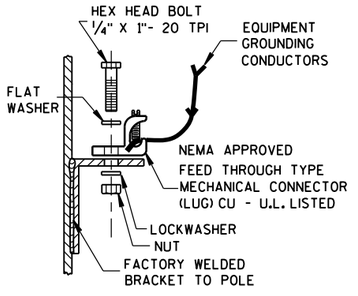
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

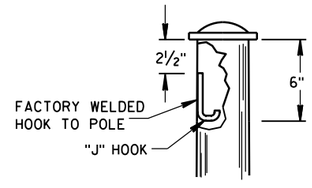


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

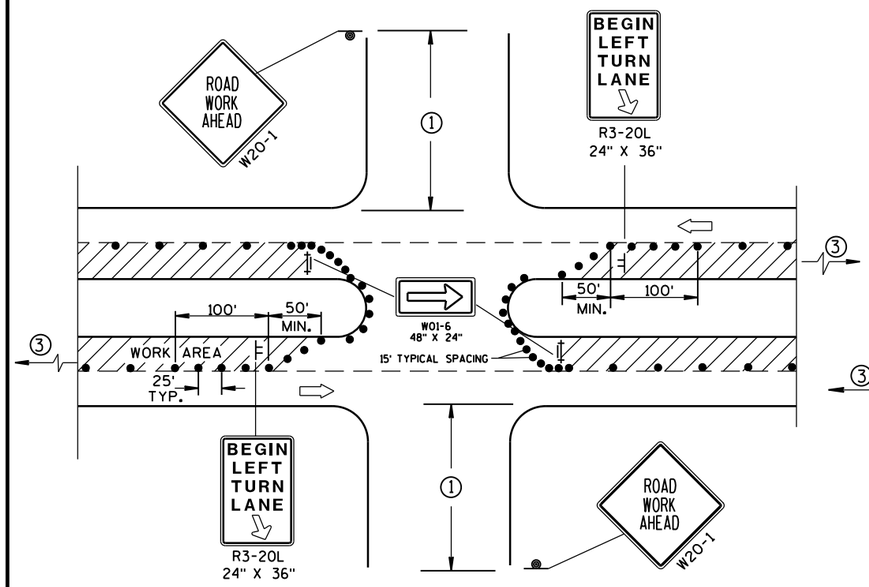
GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

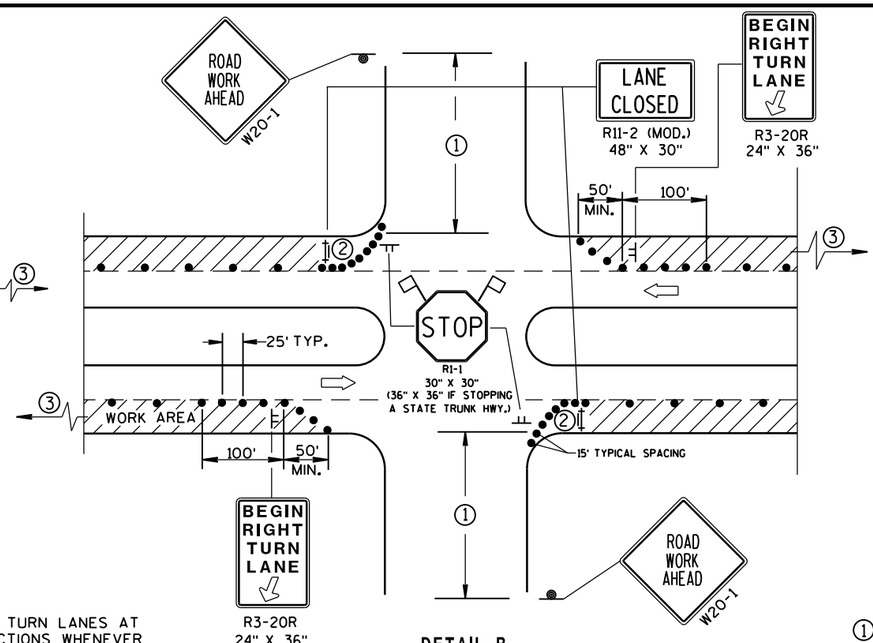
S.D.D. 9 E 8-7e



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

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

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

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

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

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

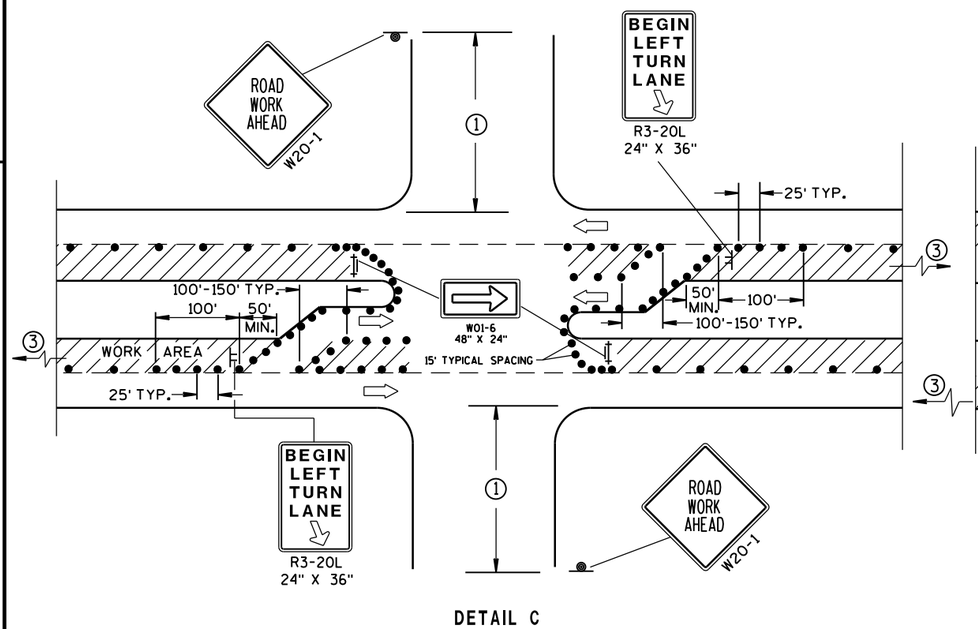
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

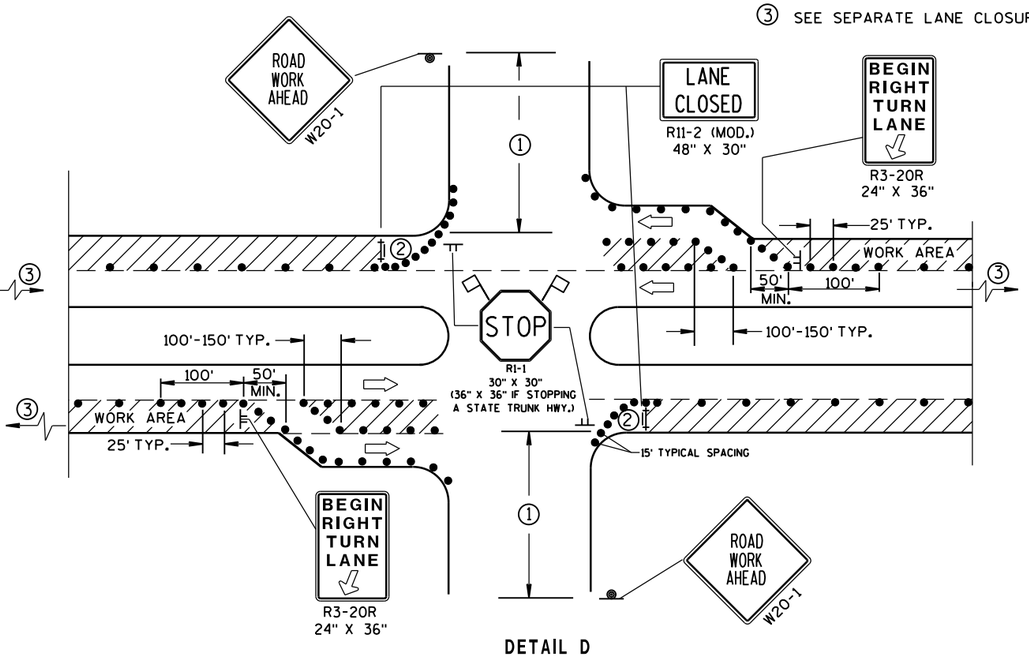
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

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



DETAIL D

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

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 21-3
S.D.D. 15 D 21-3

LEGEND

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

GENERAL NOTES

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

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

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

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

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

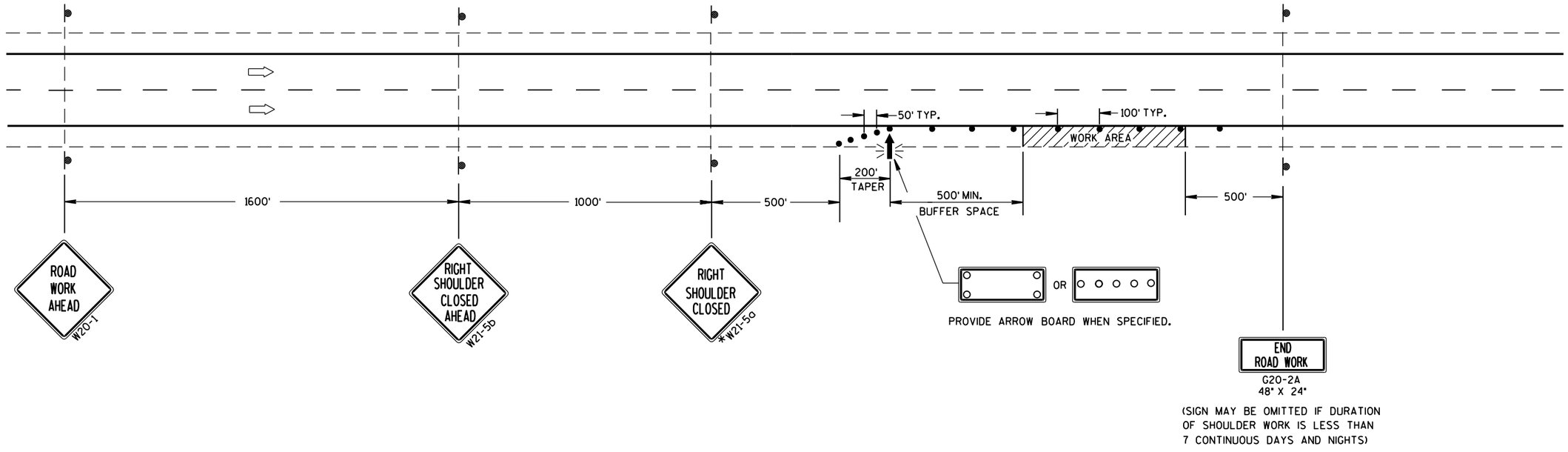
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 D 27-2

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

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

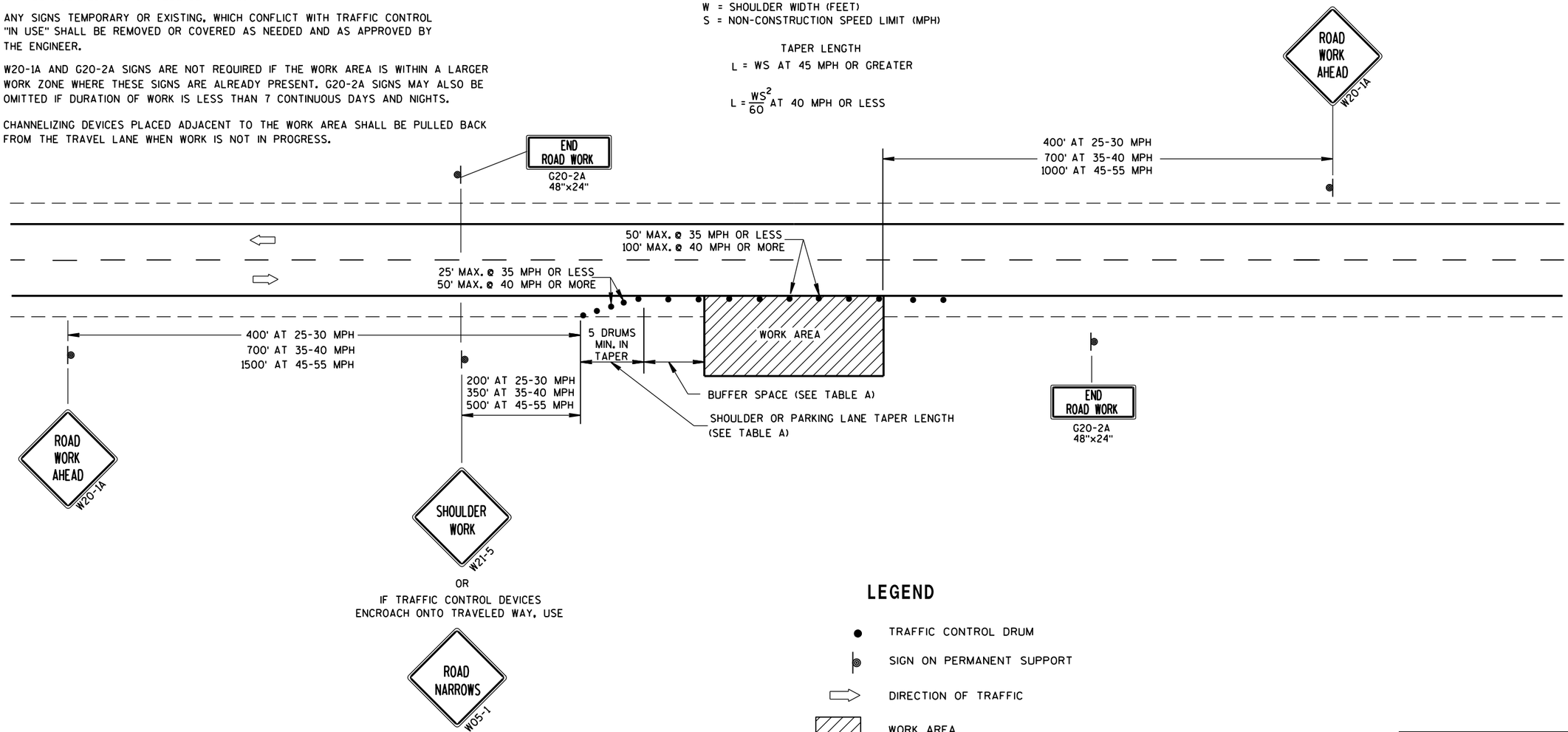
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO... SAFETY ENGI... FIC

FHWA

6

S.D.D. 15 D 28-3

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

SEL MAR 2016

PROJECT ID 2984-16-71
WITH: 2984-04-77

ORDER OF SHEETS

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

TOTAL 242

15

DESIGN DESIGNATION

A.D.T. (CURRENT)	=	15,100
A.D.T. (2032)	=	17,400
D.H.V.	=	1,800
D.	=	62%
T.	=	5.8%
DESIGN SPEED	=	30 M.P.H.
ESALS	=	

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

CITY UNDERGROUND CONDUIT	CUC
ELECTRIC	E
GAS	G
COMBINED SEWER	CMB
STORM SEWER	STO
TELEPHONE	T
WATER	W
TRAFFIC & ELECTRICAL SERVICES	TE&ES

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

COUNTY MILWAUKEE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WEST LLOYD STREET

NORTH 60TH STREET TO WEST LISBON AVENUE

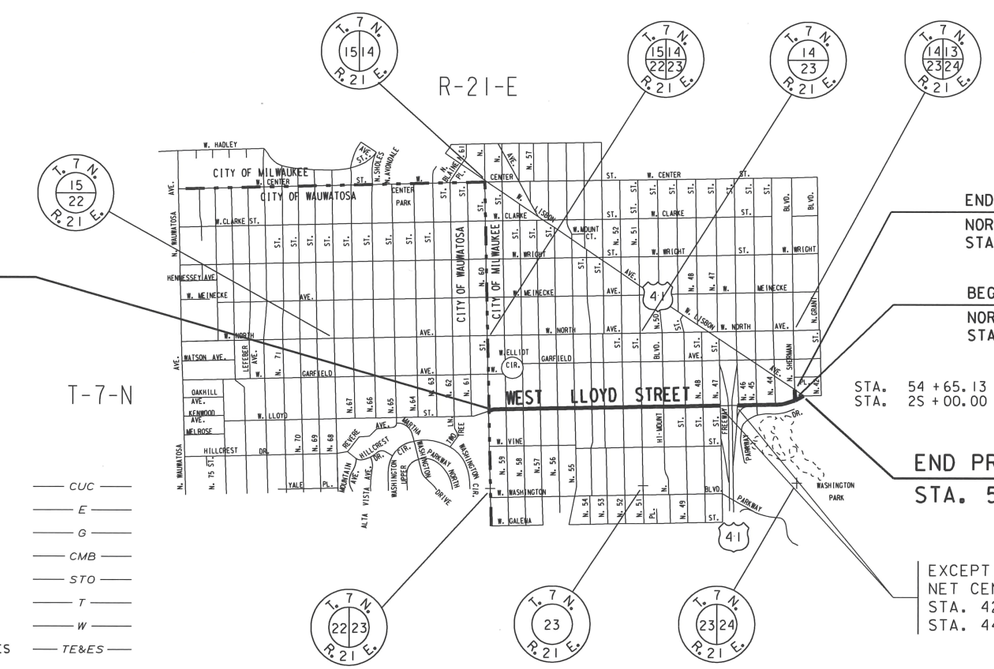
LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2984-16-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2984-16-71	WISC 2016058	1

GN



BEGIN PROJECT
STA. 01+44.00, T/L
Y= 391,772.73
X=2,537,865.33

T-7-N

END CONSTRUCTION
NORTH SHERMAN BOULEVARD
STA. 4S + 72.90

BEGIN CONSTRUCTION
NORTH SHERMAN BOULEVARD
STA. 2S + 00.00

EQUATION
STA. 54 + 65.13 - W. LLOYD ST. =
STA. 2S + 00.00 - N. SHERMAN BLVD.

END PROJECT
STA. 56+01.00, T/L

EXCEPTION TO
NET CENTERLINE LENGTH
STA. 42 + 19.0 TO
STA. 44 + 20.0 T/L

LAYOUT
SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.995 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

10/30/15 Ghassan Korban
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLENSKE E-33028 MILWAUKEE WIS. PROFESSIONAL ENGINEER

10/29/15
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee
Designer City of Milwaukee
Management Consultant DHAR
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 11/2/15 Todd Buchholz
(Signature)

E

FILE NAME:

PLOT DATE:

GENERAL NOTES

1. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4"OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TOPSOILED AREAS SHALL BE SODDED AND FERTILIZED WITHIN 5 CALENDAR DAYS.

2. WHEN THE QUANTITY OF ITEMS OF BASE & / OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIALS AS DIRECTED BY THE ENGINEER.

3. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER OR ON THE TREE PLANTING AND REMOVAL PLAN.

4. ALL ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.

5. ALL CURB AND GUTTER IS LOW SIDE UNLESS OTHERWISE INDICATED ON THE PLAN.

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

7. ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.

8. "PAVEMENT TIES" AS SHOWN ON STANDARD DETAIL DRAWING "CONCRETE GUTTER,CURB AND GUTTER AND PAVEMENT TIES" ARE REQUIRED TO TIE EXISTING CONCRETE TO NEW CONCRETE CURB AND GUTTER.

9. 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. CONTRACTOR IS RESPONSIBLE FOR MAKING THOSE CONTACTS.

10. ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, SOUTH ZONE. THE CONTROL SURVEY FOR THIS IMPROVEMENT PROJECT WAS CONDUCTED UNDER AND MET SPECIFICATIONS FOR THIRD ORDER CONTROL SURVEYS.

11. REPLACE ALL CONCRETE CURB AND GUTTER INDICATED FOR REMOVAL AND REPLACEMENT IN EXISTING LOCATION UNLESS OTHERWISE NOTED ON PLAN.

12. INLET SCREENS ARE TO BE PLACED BETWEEN THE FRAME AND GRATE OF CATCH BASINS / INLETS TO PREVENT SOIL FROM ENTERING THE SEWERS.

13. CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

14. EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS "ECIP" AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGATATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

15. RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOIL AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
CMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
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
PROJECT OVERVIEW
TYPICAL SECTION
ALIGNMENT PLAN
CONSTRUCTION DETAILS
DRAINAGE DETAILS
UTILITIES & DRAINAGE
TRAFFIC CONTROL
PAVEMENT MARKING
STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT
CITY UNDERGROUND CONDUIT (TES)
EROSION CONTROL PLAN
TREE REMOVAL AND PLANTING

2

2

UTILITY CONTACTS

CITY OF MILWAUKEE
841 N. BROADWAY, RM 710 MILW.,WI 53202
MUSA ABU-KHADER TEL. (414) 286-2432
UTILITY COORDINATOR

WE ENERGIES (GAS)
333 W. EVERETT ST., A299, MILWAUKEE, WI. 53203
LATROY BRUMFIELD, TEL. (414) 221-5617

WE ENERGIES (ELECTRIC)
333 W. EVERETT ST., A299, MILWAUKEE, WI. 53203
LATROY BRUMFIELD, TEL. (414) 221-5617

TIME WARNER CABLE
1320 N. DR. MARTIN LUTHER KING JR. DR
MILW., WI 53212
STEVE CRAMER, TEL. (414) 277-4045

AT&T WISCONSIN
2005 PEWAUKEE DR., WAUKESHA WI., 53188
JAY BULANEK, TEL. (414) 491-2855

MMSD
260 W. SEEBOTH ST., MILW., WI 53204
DEBRA JENSEN, TEL. (414) 225-2143

OTHER CONTACTS

MILW. CO. TRANSIT SYSTEM
1942 N. 17TH ST., MILW., WI 53205
MELANIE MACARTHUR, TEL. (414) 343-1764

STATE OF WISCONSIN
DEPT. OF NATURAL RESOURCES
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILW., WI 53212
KRISTINA BETZOLD TEL. (414) 263-8517

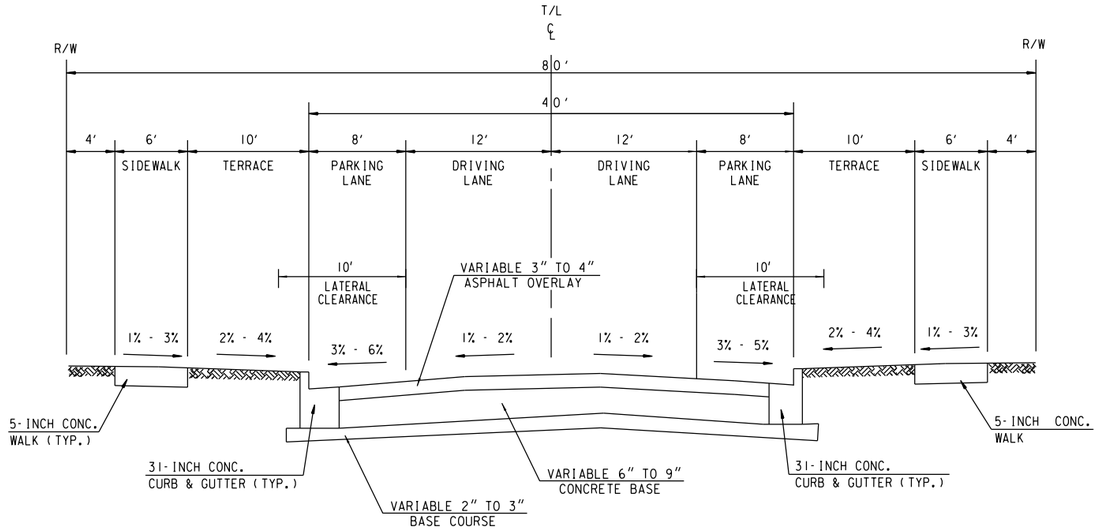
DESIGN CONSULTANT
SAMUEL MEDHIN
CITY OF MILWAUKEE
841 N. BROADWAY, RM 902 MILW.,WI 53202
TEL. (414) 286-0474
samuel.medhin@milwaukee.gov

STADIUM FREEWAY CONTACT
KEN KIEPCZYNSKI
WISDOT
TEL. (414) 349-3748
kenneth.kiepczynski@dot.wi.gov

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

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITY CONTACTS	SCALE FEET	SHEET NO: 3	E

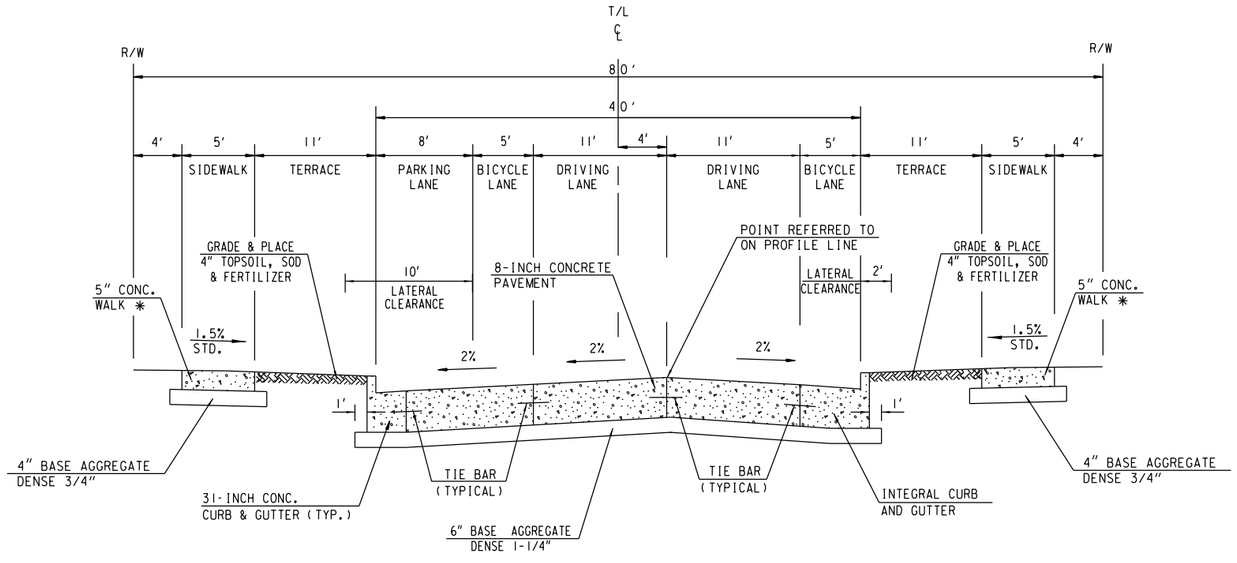
FILE NAME: W:\SPR\LLOYD 47TH 60TH \TYPSEC.DGN



TYPICAL EXISTING SECTION

WEST LLOYD STREET - N. 60TH ST. TO N. 47TH ST.

STA. 01+44.0 TO STA. 42+19.0



TYPICAL PROPOSED SECTION

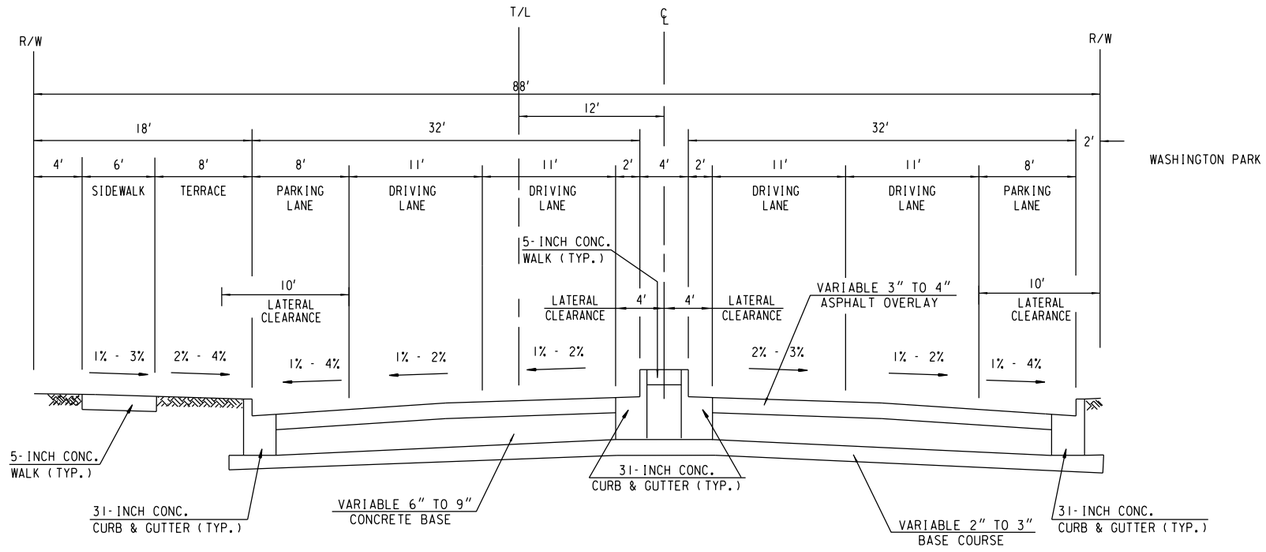
WEST LLOYD STREET - N. 60TH ST. TO N. 47TH ST.

STA. 01+44.0 TO STA. 42+19.0

* WHERE INDICATED ON PLAN

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET 0' 40'	SHEET NO: 4	E

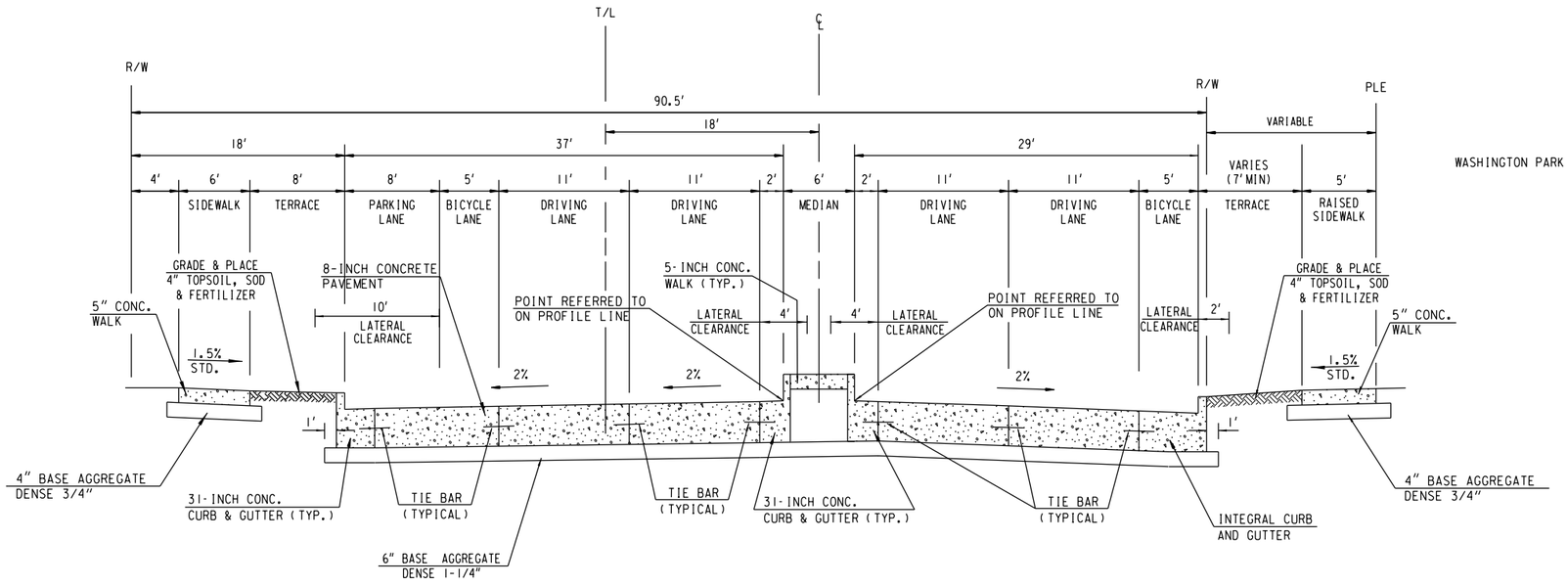
FILE NAME: W:\SPR\LLOYD 47TH 60TH \TYPSEC.DGN



TYPICAL EXISTING SECTION

WEST LLOYD STREET - N. 46TH ST. TO W. LISBON AVE.

STA. 44+20.0 TO STA. 56.+01.0



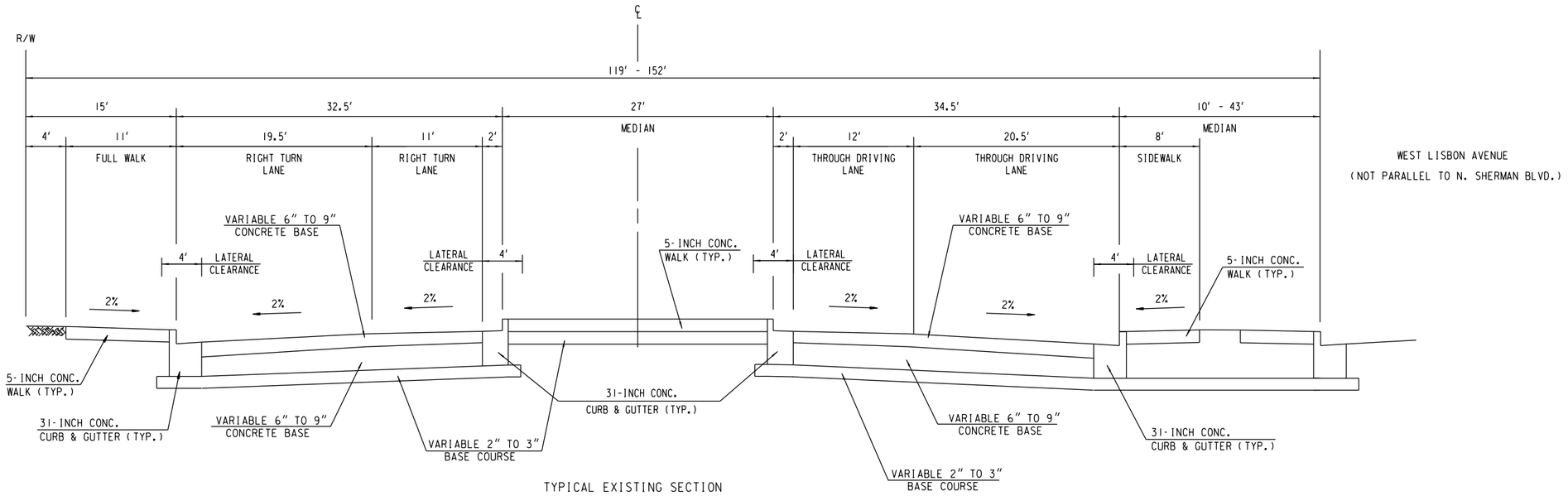
TYPICAL PROPOSED SECTION

WEST LLOYD STREET - N. 46TH ST TO W. LISBON AVE

STA. 44+20.0 TO STA. 56+01.0

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET 0′ 40	SHEET NO: 5	E

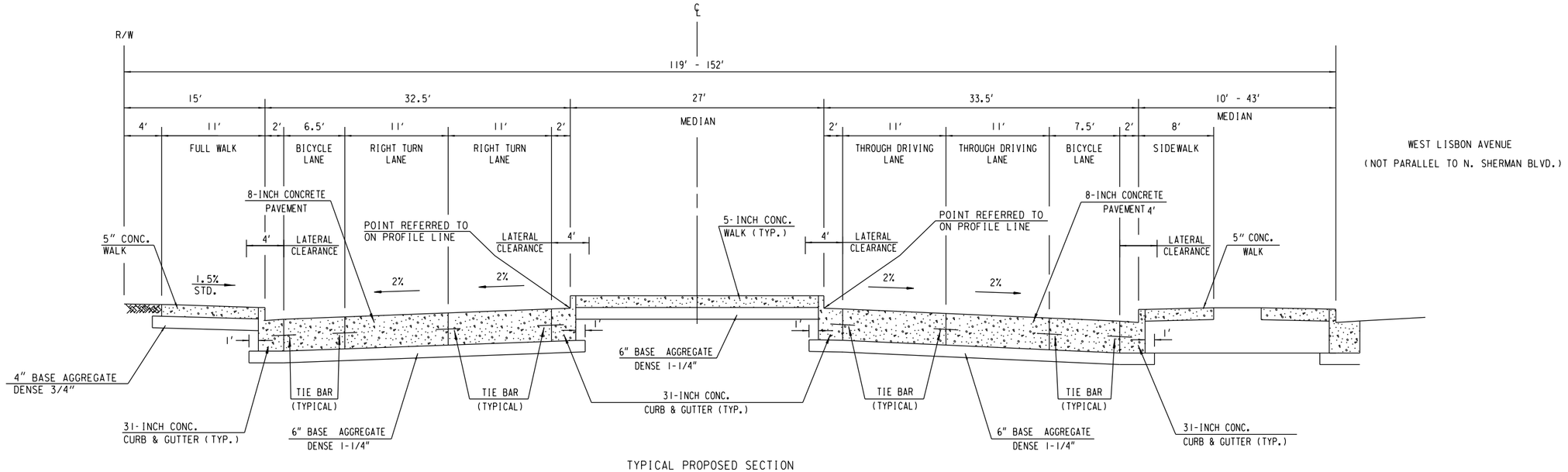
FILE NAME: W:\SPR\LLOYD 47TH 60TH \TYPSEC.DGN



TYPICAL EXISTING SECTION

NORTH SHERMAN BOULEVARD - W. LLOYD ST. TO W. LISBON AVE.

STA. 2S+00.0 TO STA. 4S+72.9



TYPICAL PROPOSED SECTION

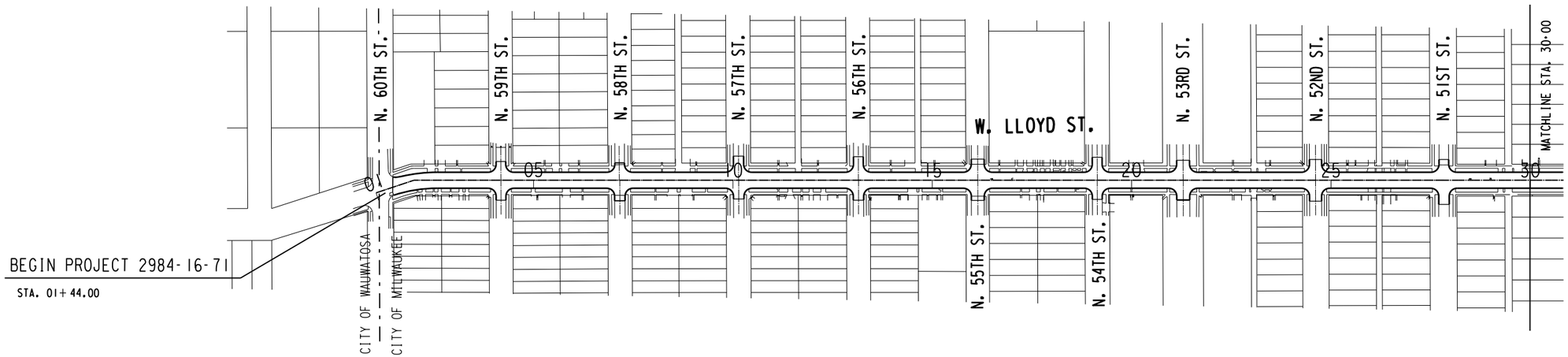
NORTH SHERMAN BOULEVARD - W. LLOYD ST. TO W. LISBON AVE.

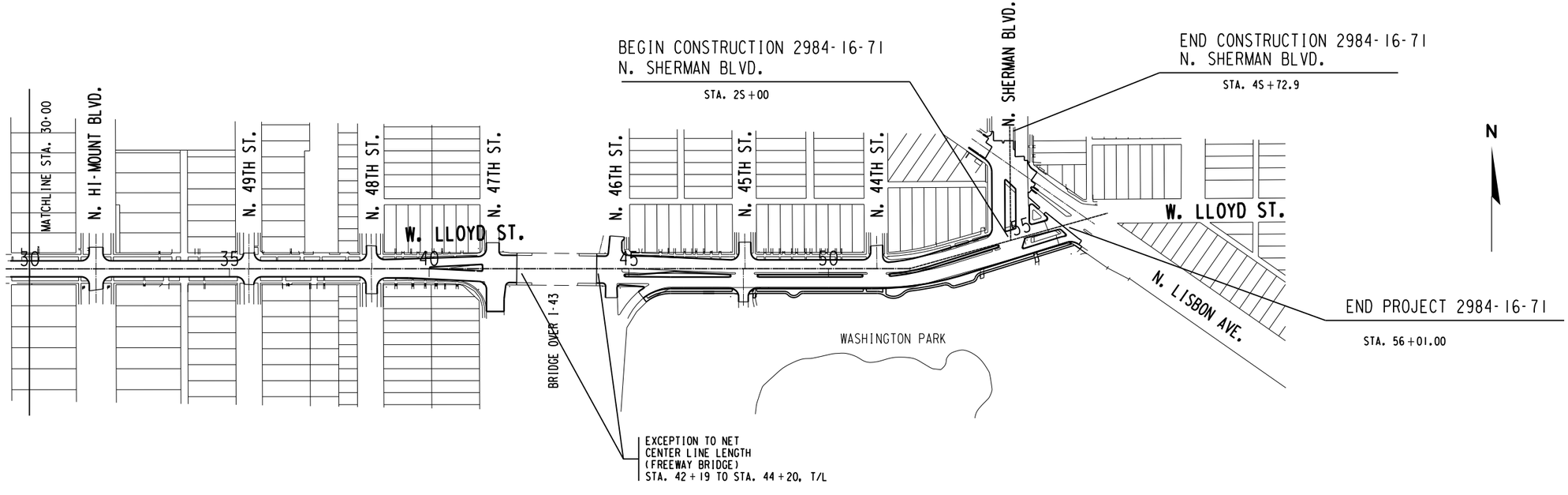
STA. 2S+00.0 TO STA. 4S+72.9

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SCALE FEET 0′ 40	SHEET NO: 6	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH \TYPSEC.DGN

2





STATE PROJECT NUMBER 2984-16-71 - -	HWY:	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 7 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\OVERVIEW.DGN

STATE PLANE COORDINATES OF
SECTION CORNER

(Y) NORTH: 393,074.28
(X) EAST: 2,537,806.31

T.7 N. R.21 E. 15 14 22 23

SECTION LINE **W. NORTH AVE.**

N. 60TH ST. SECTION LINE

N01°14'32"W (SEWPC) 1312.63' TO W. LLOYD ST. T/L

71°49'47"
STA. 01 + 11.59

T/L W. LLOYD ST.

01 05 10 15 N88°58'21"E 2583.25' 20 25 30

T/L ANGLE PT.
161°36'58"
STA. 02 + 00.00

BEGIN PROJECT 2984-16-71
W. LLOYD ST.
STA. 01 + 44.00
(Y) NORTH: 391,772.73
(X) EAST: 2,537,865.33

CITY OF WAUWATOSA | CITY OF MILWAUKEE

T.7 N. R.21 E. 22 23

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 390,411.13
(X) EAST: 2,537,864.06

SEE DETAIL "A" FOR BEARING AND DISTANCE

N

SECTION LINE **W. NORTH AVE.**

T.7 N. R.21 E. 14 23

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 393,121.63
(X) EAST: 2,540,473.37

N01°12'59"W (SEWPC) 1284.77' TO W. LLOYD ST. T/L

T/L ANGLE PT.
179°58'54"
STA. 27 + 83.25

90°10'28"

MATCHLINE STA. 30-00

N. 51ST ST. 1/4 SECTION LINE

T.7 N. R.21 E. 23

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 390,465.15
(X) EAST: 2,540,529.77

DETAIL "A" N.T.S.

N. 60TH ST. SECTION LINE

N70°35'15"E 01 02 03

* 88.41' FROM SECTION LINE TO ANGLE PT.
56.00' FROM "BEGIN PROJECT" TO ANGLE PT.

BEGIN PROJECT 2984-16-71
STA. 01 + 44.00

CITY OF WAUWATOSA | CITY OF MILWAUKEE

N

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 393,121.63
(X) EAST: 2,540,473.37

T.7 N. R.21 E. 14 23

SECTION LINE **W. NORTH AVE.**

N01°12'59"W (SEWPC) 1284.77' TO W. LLOYD ST. T/L

T/L ANGLE PT.
179°58'54"
STA. 27 + 83.25

90°10'28"

MATCHLINE STA. 30-00

T/L W. LLOYD ST.

30 N88°57'29"E 1351.71' 35 40 45 N88°58'02"E 1068.81' 50

T/L ANGLE PT.
179°59'27"
STA. 41 + 34.96

EXCEPTION TO NET
CENTER LINE LENGTH
(FREEWAY BRIDGE)
STA. 42+19 TO STA. 44+20, T/L
PROJECT ID 1350-09-70
STADIUM FREEWAY BRIDGE LIMITS

N. 51ST ST. 1/4 SECTION LINE

T.7 N. R.21 E. 23

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 390,465.15
(X) EAST: 2,540,529.77

SEE "SHEET 2 OF 2" FOR N. SHERMAN BLVD T/L INFO.

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 393,170.02
(X) EAST: 2,543,142.38

T.7 N. R.21 E. 14 13 23 24

T/L **N. SHERMAN BLVD.** 65+ 48+ 50+

T/L ANGLE PT.
164°21'07"
STA. 52 + 03.77

N73°19'09"E **

WASHINGTON PARK

BEGIN CONSTRUCTION
N. SHERMAN BLVD.
STA. 2S+00.00
(Y) NORTH: 391,955.72
(X) EAST: 2,543,227.93

END CONSTRUCTION
N. SHERMAN BLVD.
STA. 4S + 72.90
(Y) NORTH: 392,267.55
(X) EAST: 2,543,351.68

END PROJECT 2984-16-71
W. LLOYD ST.
STA. 56 + 01.00
(Y) NORTH: 391,994.72
(X) EAST: 2,543,358.08

W. LLOYD ST.

N. LISBON AVE.

SECTION LINE

** 261.36' ANGLE POINT TO T/L OF N. SHERMAN BLVD.
397.23' ANGLE POINT TO "END PROJECT" W. LLOYD ST.

T.7 N. R.21 E. 23 24

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

(Y) NORTH: 390,515.69
(X) EAST: 2,543,204.60

SHEET 1 OF 2

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 8	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\ALIGNLLOYD.DGN

STATE PLANE COORDINATES OF
SECTION CORNER

(Y) NORTH: 393,170.02
(X) EAST: 2,543,142.38

W. NORTH AVE. SECTION LINE

T. 7 N.
R. 21 E.
14 13
23 24

END CONSTRUCTION
N. SHERMAN BLVD.

STA. 4S + 72.90
(Y) NORTH: 392,267.55
(X) EAST: 2,543,351.68

4S

N

W. LISBON AVE.

T/L N. SHERMAN BLVD

3S

SECTION LINE = T/L N. SHERMAN BLVD. N89° 55' 55"E (SEWPC)
272.90' TO "END CONSTRUCTION" OF N. SHERMAN BLVD.
1214.30' W. LLOYD ST. T/L TO SECTION CORNER

END PROJECT 2984-16-71
W. LLOYD ST.

STA. 56 + 01.00
(Y) NORTH: 391,994.72
(X) EAST: 2,543,358.08

56

55

EQUATION STA. 54 +65.13 - W. LLOYD ST. =
STA. 2S +00.00 - N. SHERMAN BLVD.

105° 18' 54.1132"

2S

54

T/L W LLOYD ST.

N73° 19' 09"E
261.36' ANGLE POINT TO T/L OF N. SHERMAN BLVD.
397.23' ANGLE POINT TO "END PROJECT" W. LLOYD ST.

53

T/L ANGLE PT.
164° 21' 07"
STA. 52 + 03.77

52

WASHINGTON PARK

SECTION LINE

BEGIN CONSTRUCTION
N. SHERMAN BLVD.

STA. 2S + 00.00
(Y) NORTH: 391,955.72
(X) EAST: 2,543,227.93

T. 7 N.
R. 21 E.
23 24

STATE PLANE COORDINATES OF
QUARTER SECTION CORNER

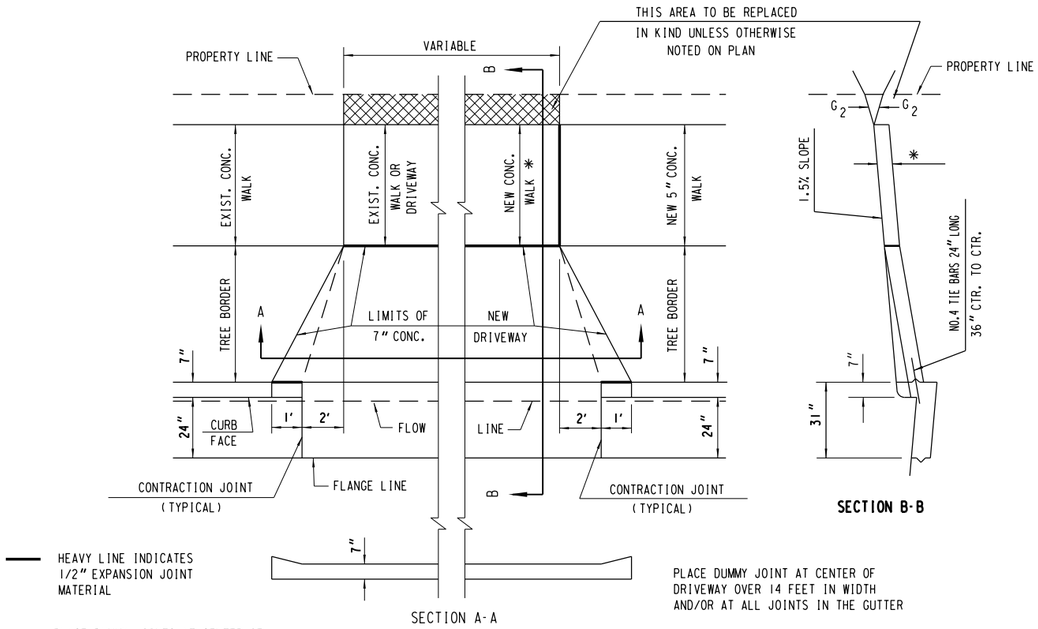
(Y) NORTH: 390,515.69
(X) EAST: 2,543,204.60

SECTION CORNER TIE IN ALSO
N. SHERMAN BLVD. T/L INFO

SHEET 2 OF 2

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 40'	SHEET NO: 9	E

FILE NAME: W:\SPR\



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

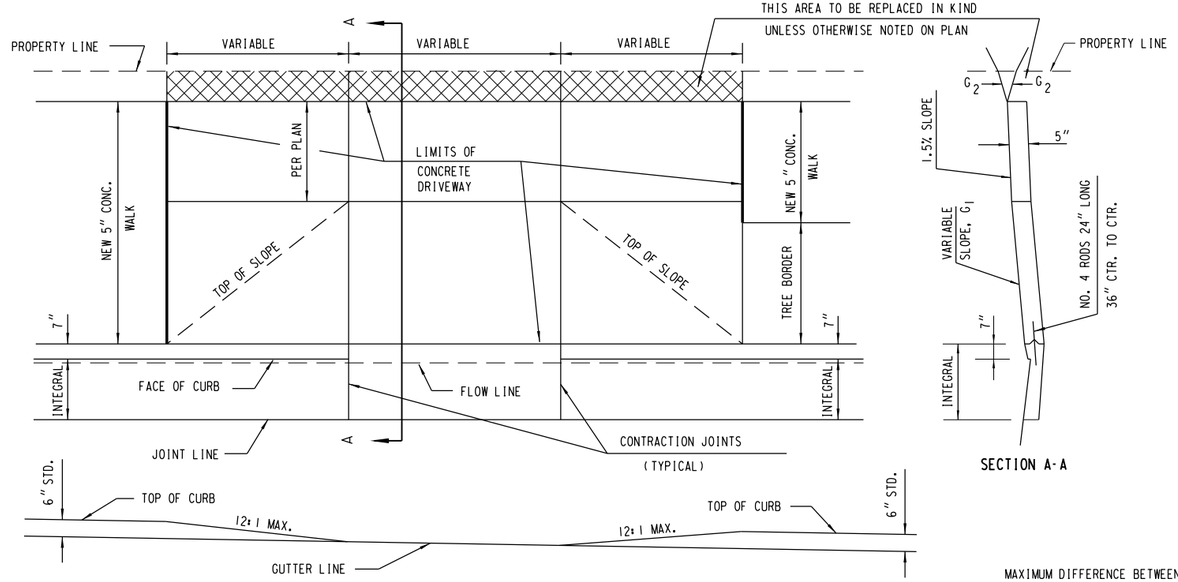
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15% DESIRABLE MAXIMUM - 10%

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.

CONCRETE DRIVEWAY FLARED

Ⓠ



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

DRIVEWAY CONSTRUCTION NOTES

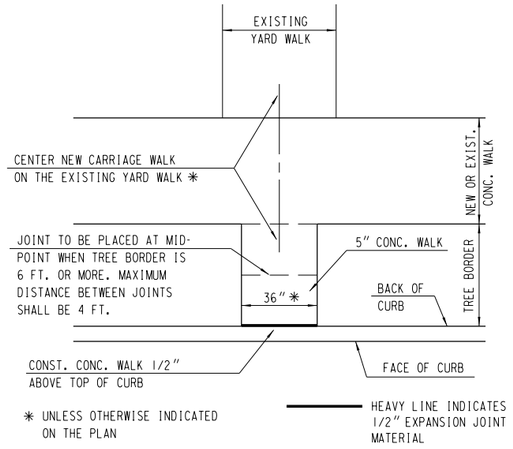
CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY. PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

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

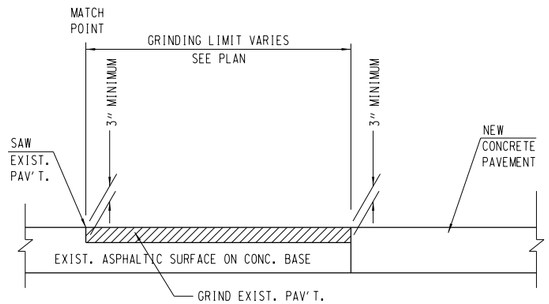
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL - 14%

DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

Ⓟ



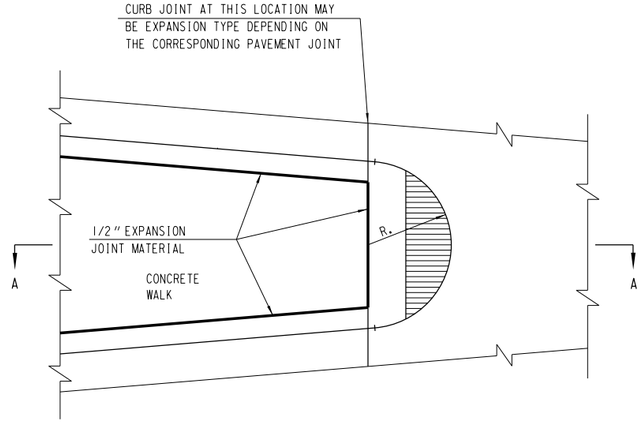
CARRIAGE WALK

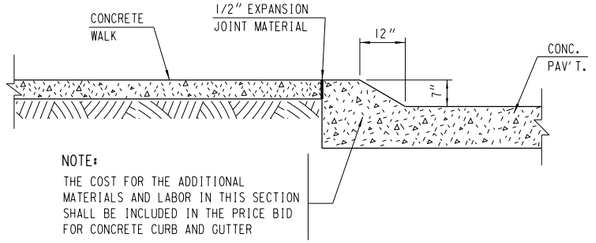


REMOVING ASPHALTIC SURFACE BUTT JOINTS

IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT

Ⓛ



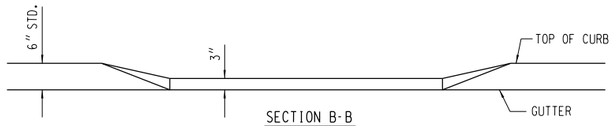


SECTION A-A

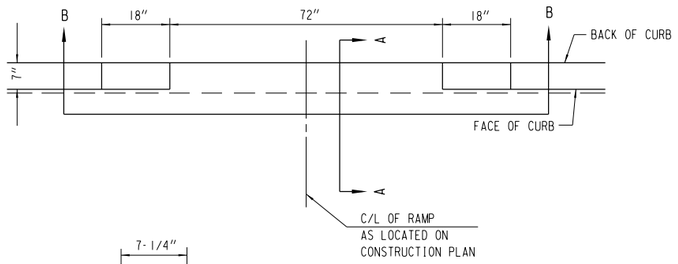
SNOWPLOWABLE MEDIAN ISLAND NOSE

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

Ⓤ



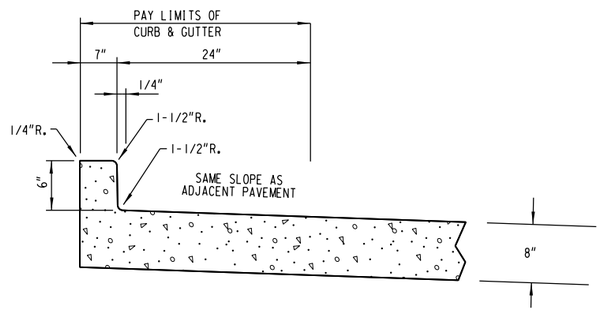
SECTION B-B



SECTION A-A

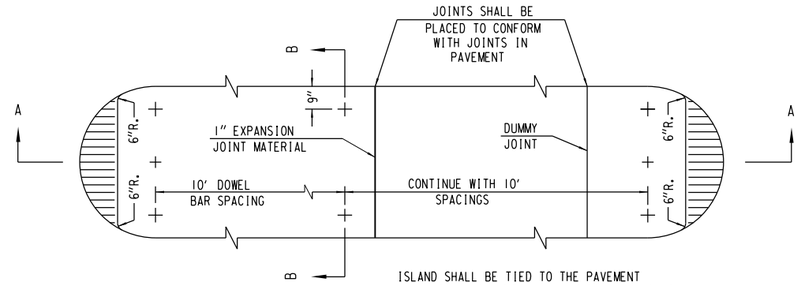
MAINTENANCE RAMP

Ⓡ

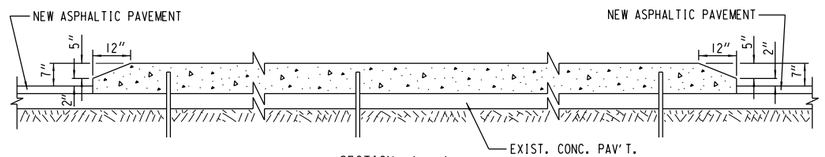


CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
(REVISED)

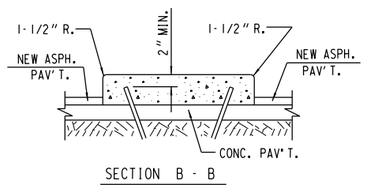
Ⓐ



ISLAND SHALL BE TIED TO THE PAVEMENT
BY PLACING 3/4" DIA. X 18" DOWEL BARS AS
DIRECTED BY THE ENGINEER. COST INCLUDED
IN COST OF CONCRETE LOADING ZONE



SECTION A - A

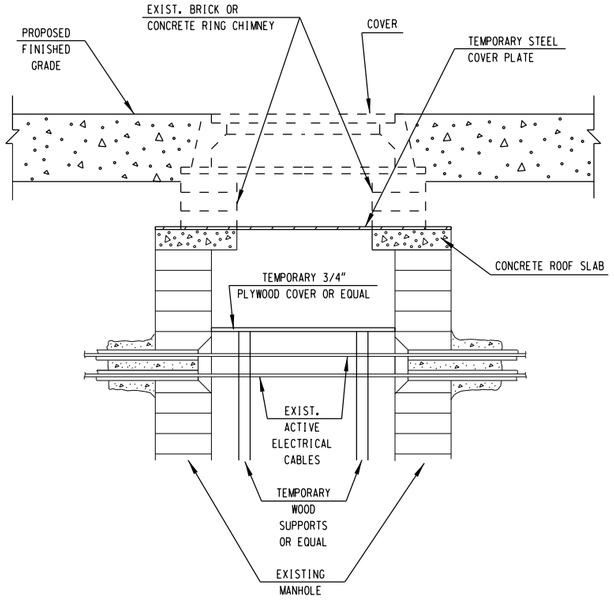


SECTION B - B

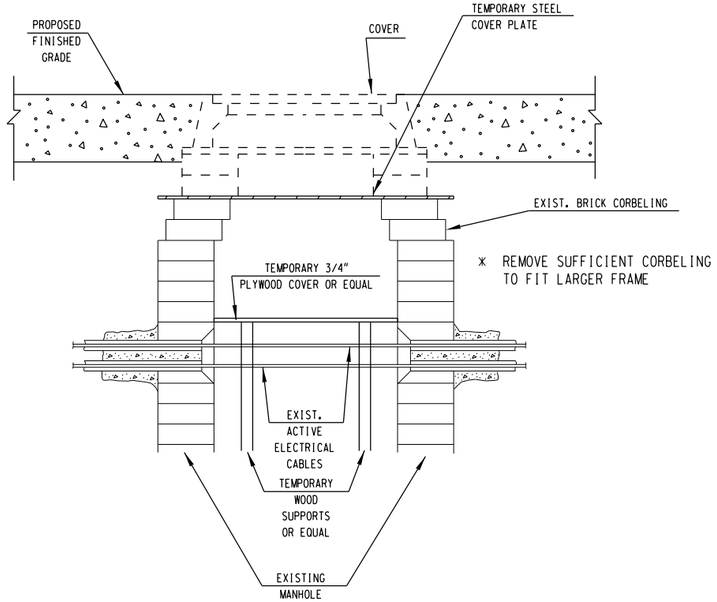
NOTE :
SIZE AND LOCATION OF CITY OF MILWAUKEE
ELECTRICAL SERVICES BOXOUTS IN CONCRETE
ISLANDS ON BASE TO BE DETERMINED IN FIELD
AT THE TIME OF CONSTRUCTION

CONCRETE LOADING ZONE
(WITH SNOWPLOWABLE NOSE)

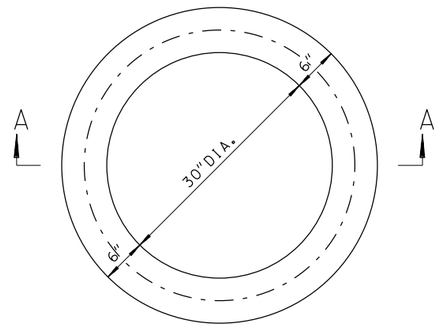
Ⓢ



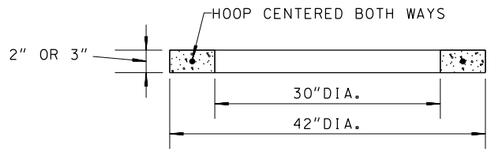
BLOCK OR PRECAST MANHOLE



BRICK ROUND MANHOLE



PLAN



SECTION A-A

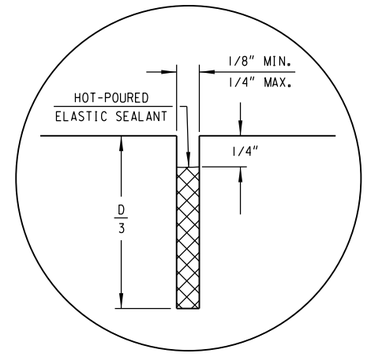
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

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

CONCRETE ADJUSTING RING



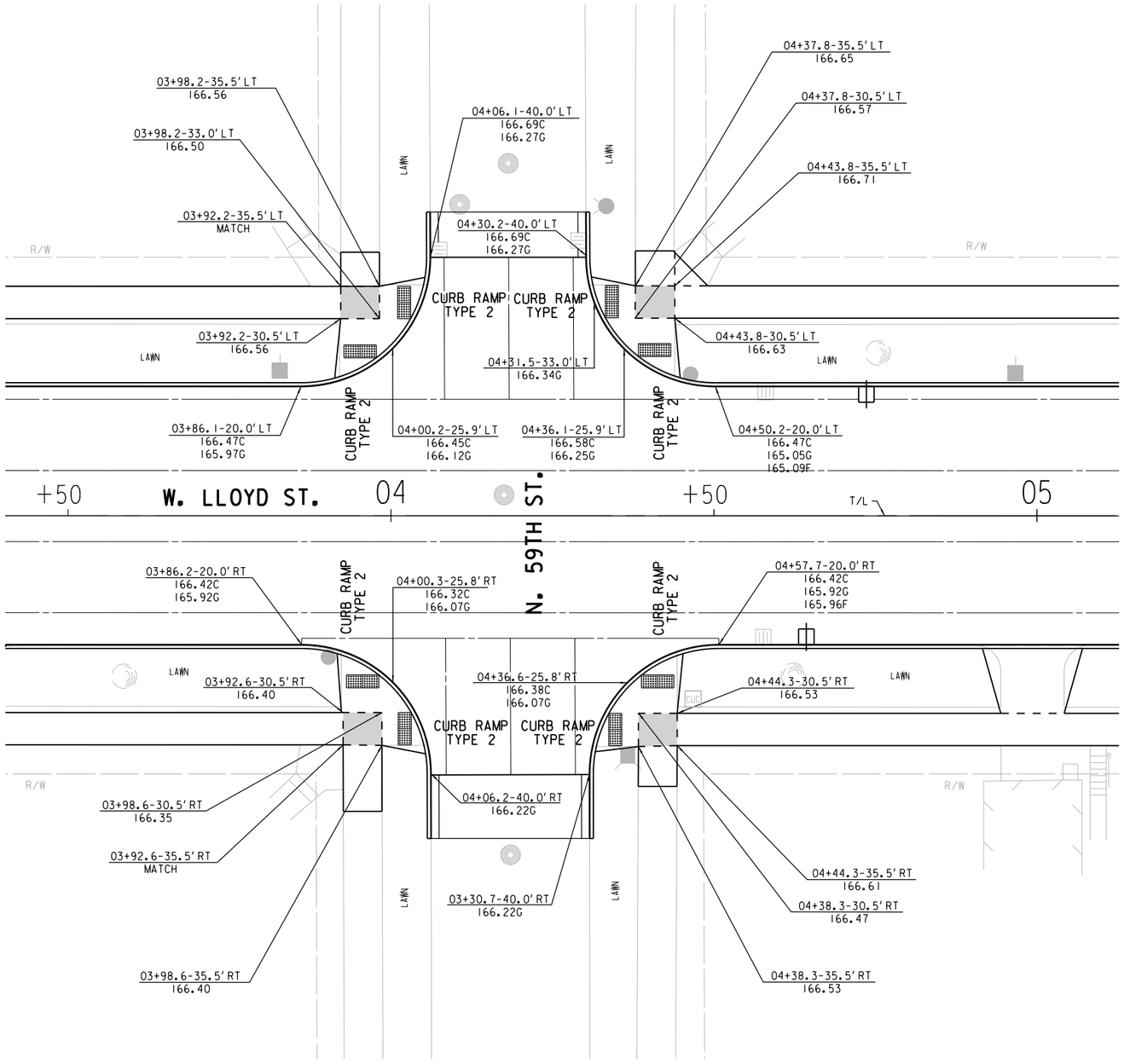
JOINT SEALING DETAIL

PAVEMENT DEPTH AND JOINT SPACING TABLE	
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6"	12'
7"	14'
8"	15'
9"	15'
10" & ABOVE	18'

ADJUSTING TES MANHOLES

2

N



CURB RAMP DETAILS - W. LLOYD ST. AND N. 59TH ST.

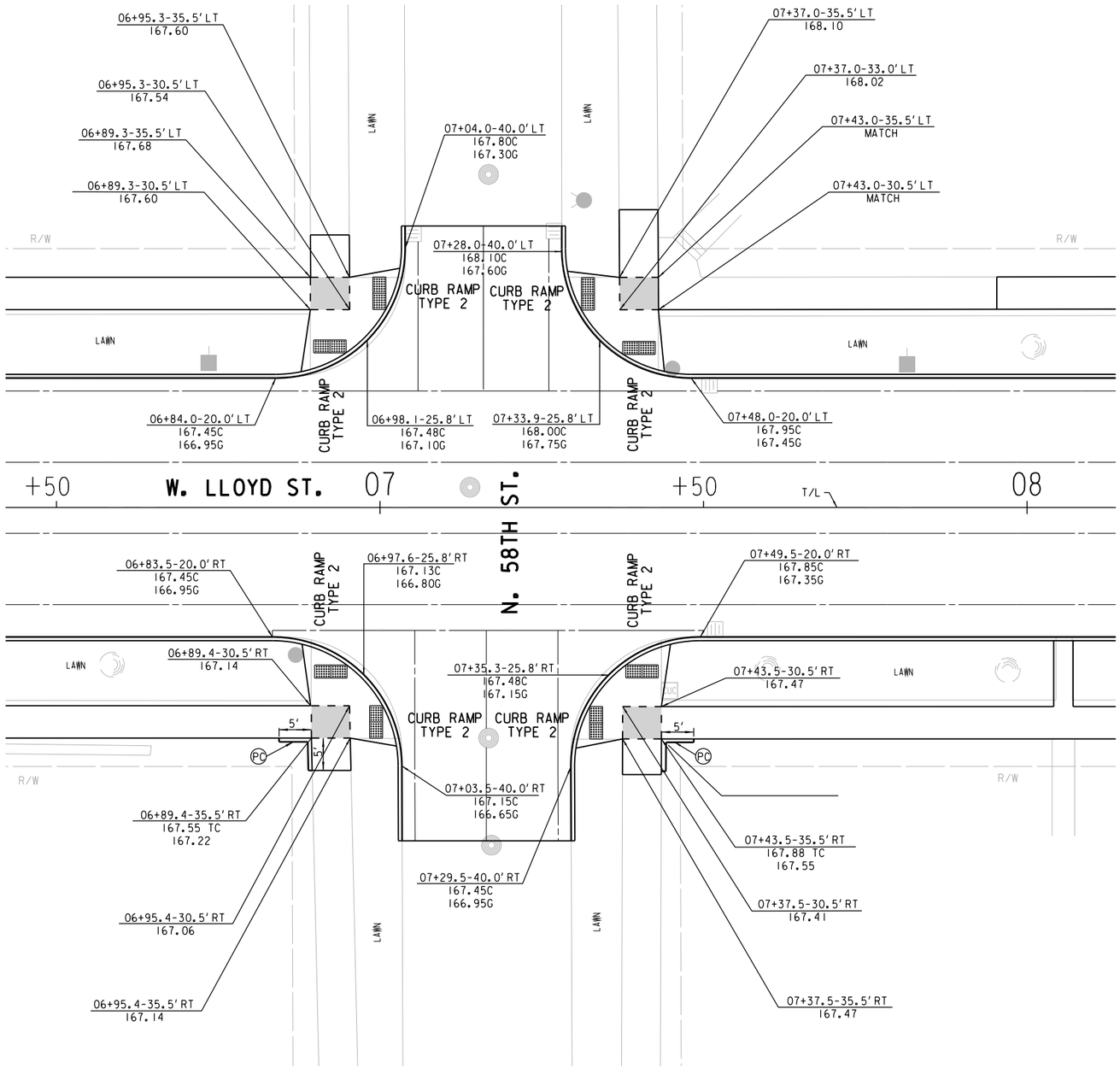
LANDING AREA

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 14	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. 58TH ST.

LANDING AREA

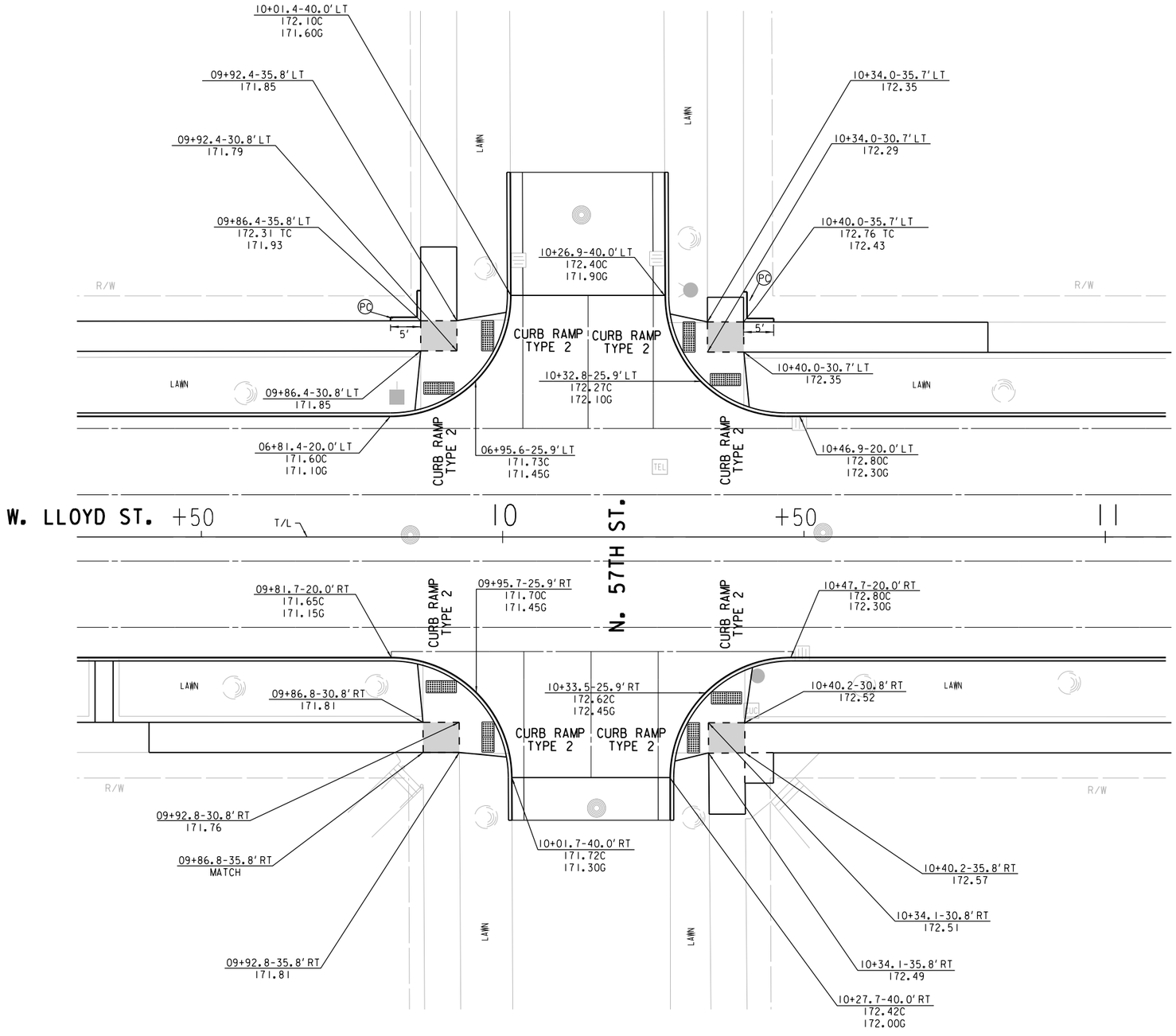
(PC) CONST. CONC. PEDESTRIAN CURB

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 15	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



N

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

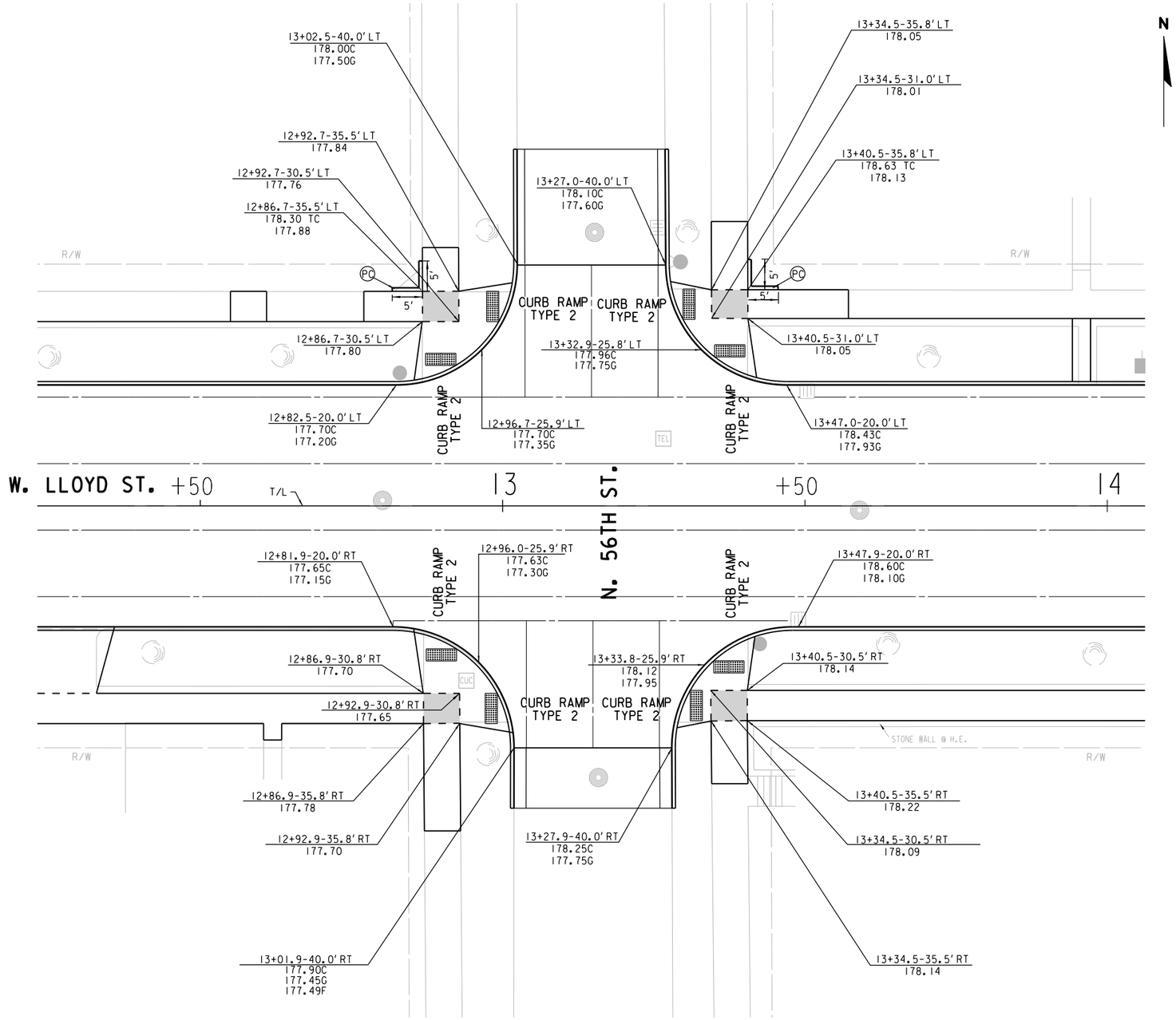
CURB RAMP DETAILS - W. LLOYD ST. AND N. 57TH ST.

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 16	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. 56TH ST.

LANDING AREA

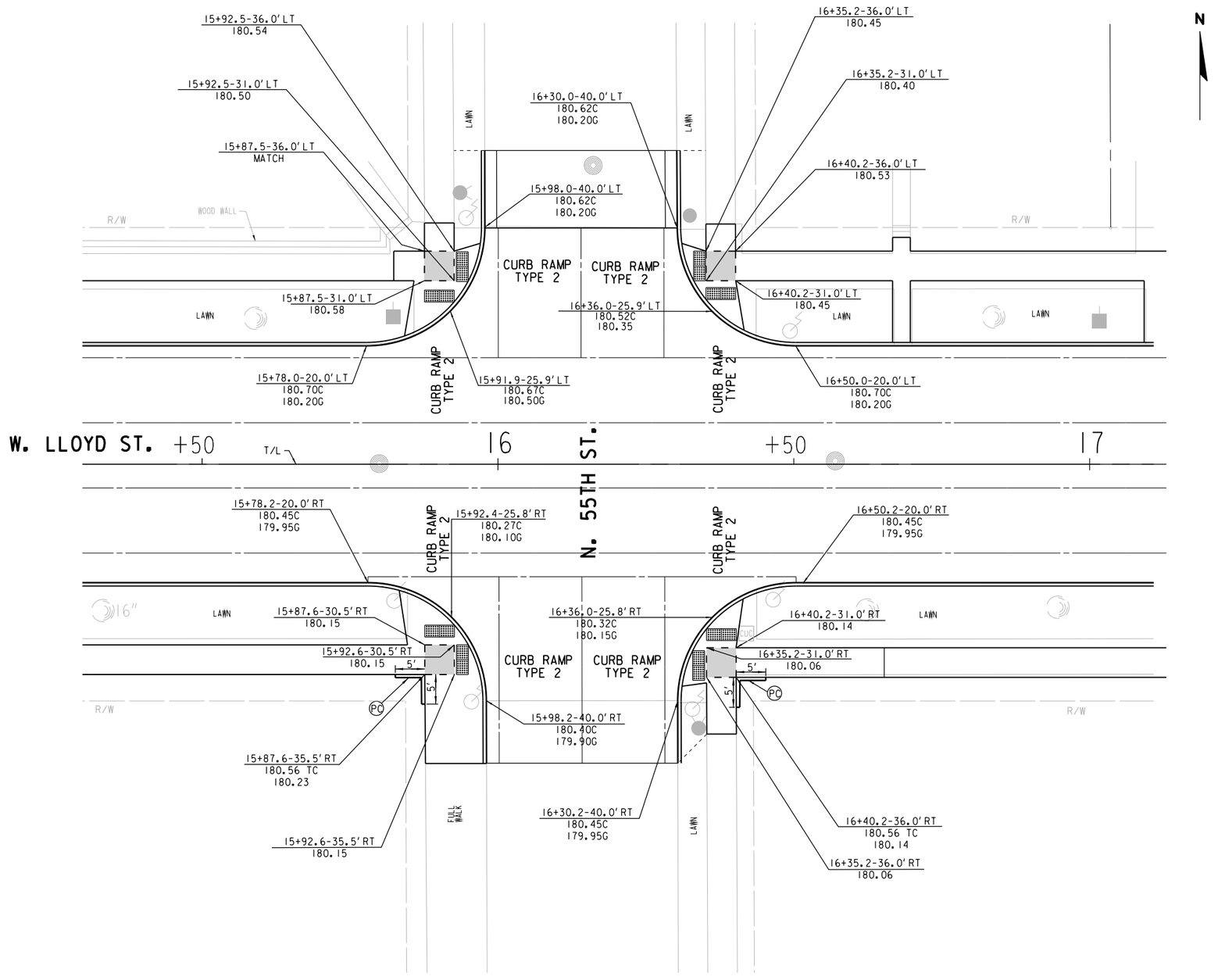
(PC) CONST. CONC. PEDESTRIAN CURB

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 17	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. 55TH ST.

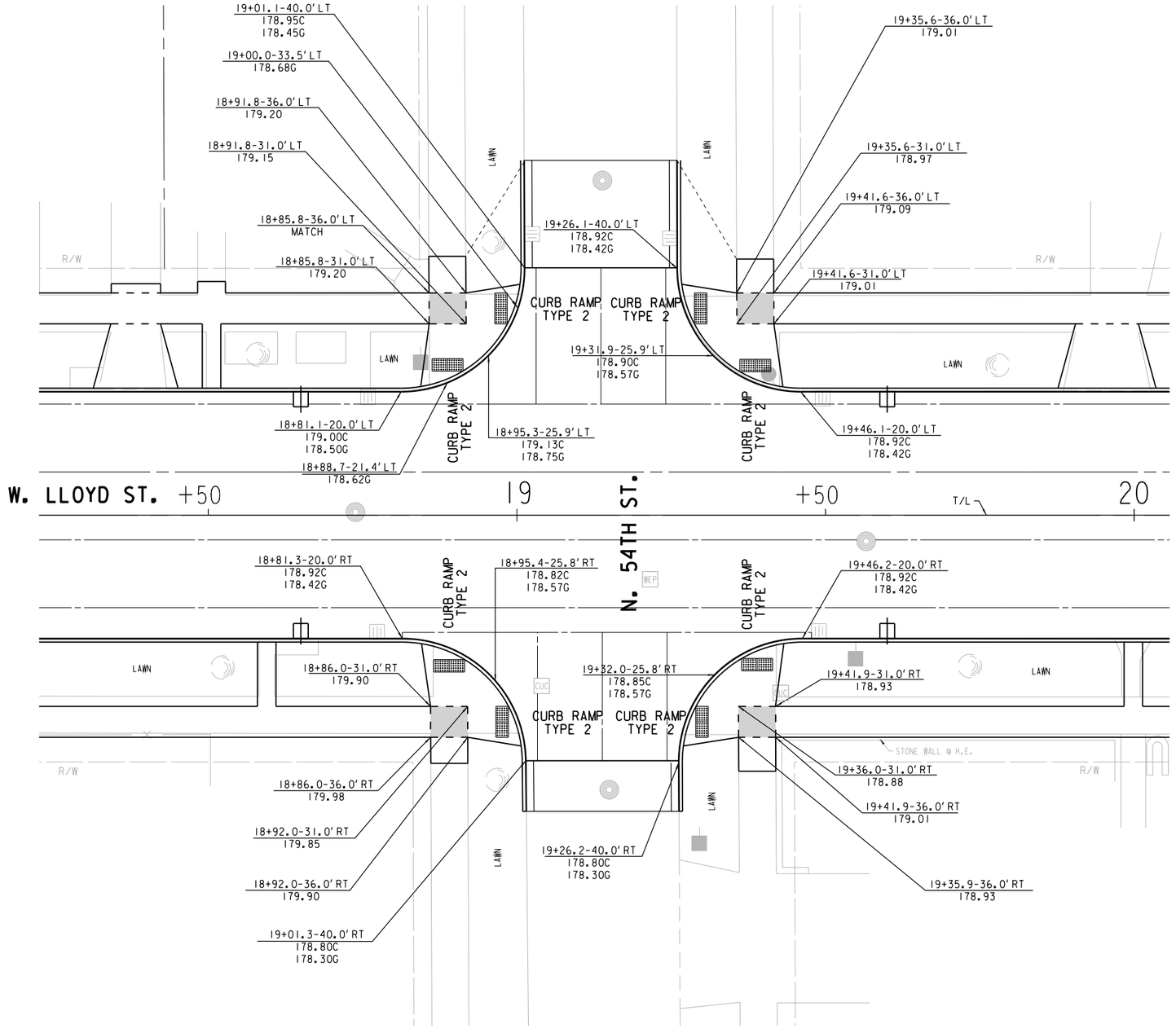
LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 18	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN



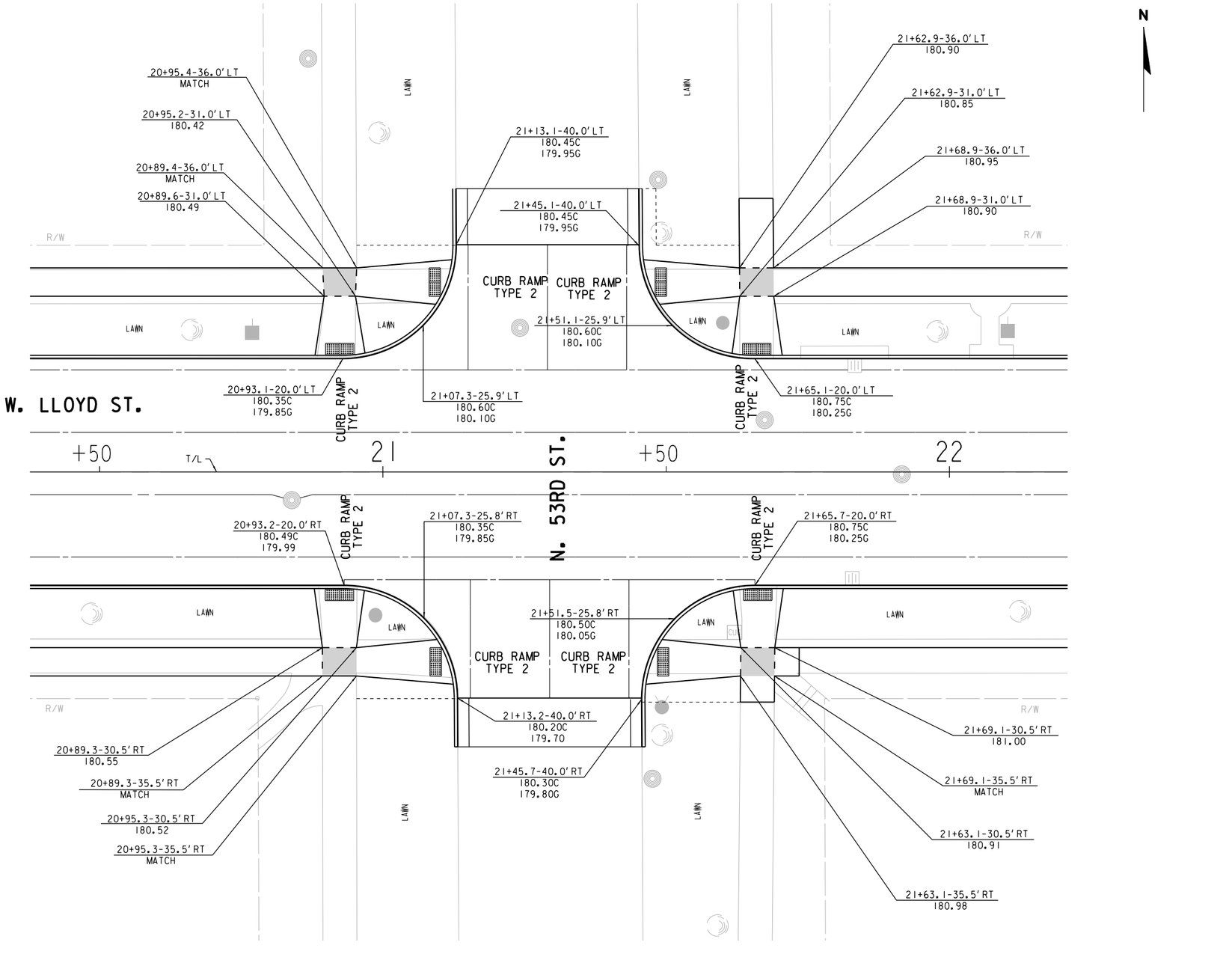
CURB RAMP DETAILS - W. LLOYD ST. AND N. 54TH ST.

REVISED: 10-02-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 19	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



LANDING AREA

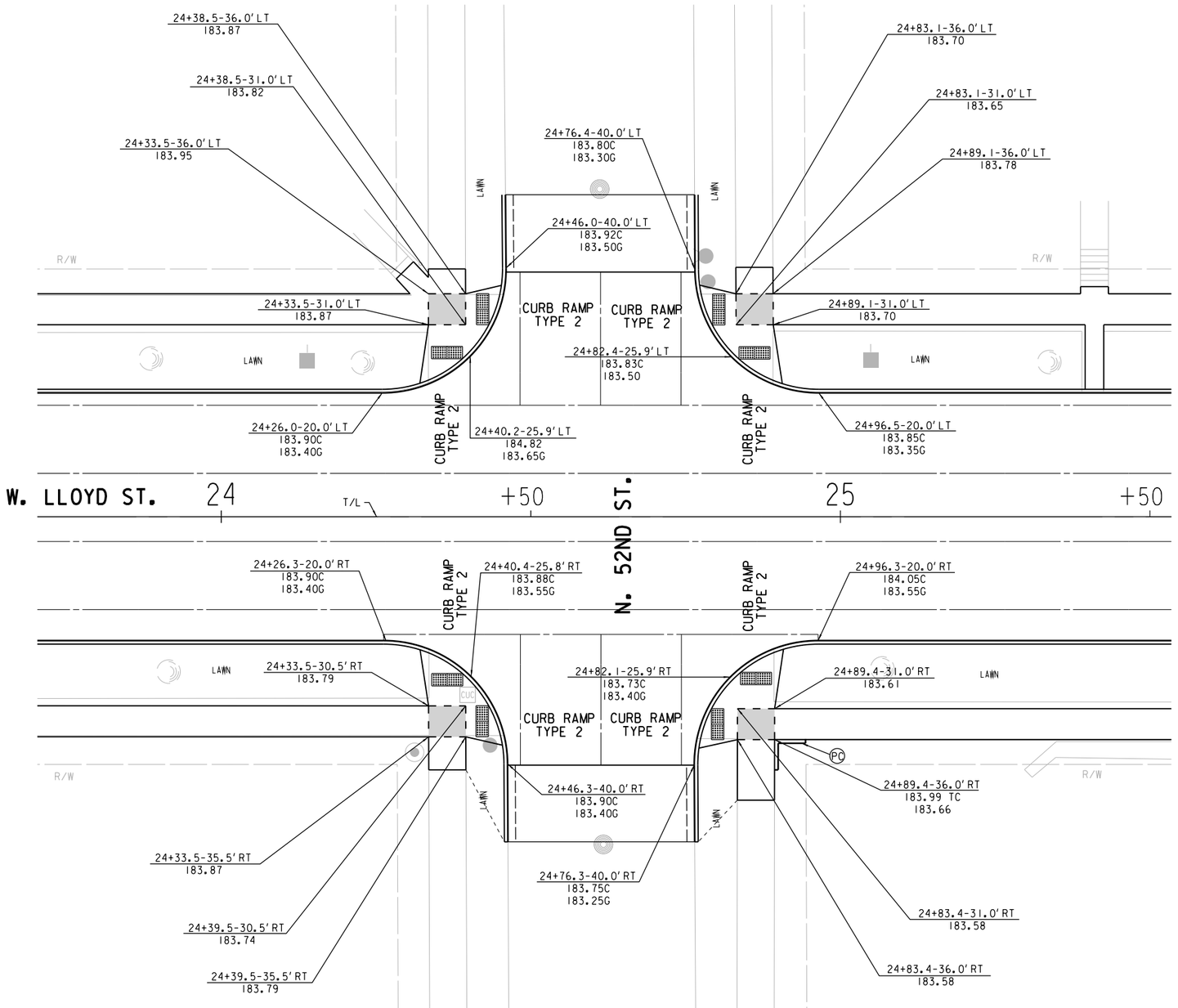
CURB RAMP DETAILS - W. LLOYD ST. AND N. 53RD ST.

REVISED: 10-05-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 20	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. 52ND ST.

LANDING AREA

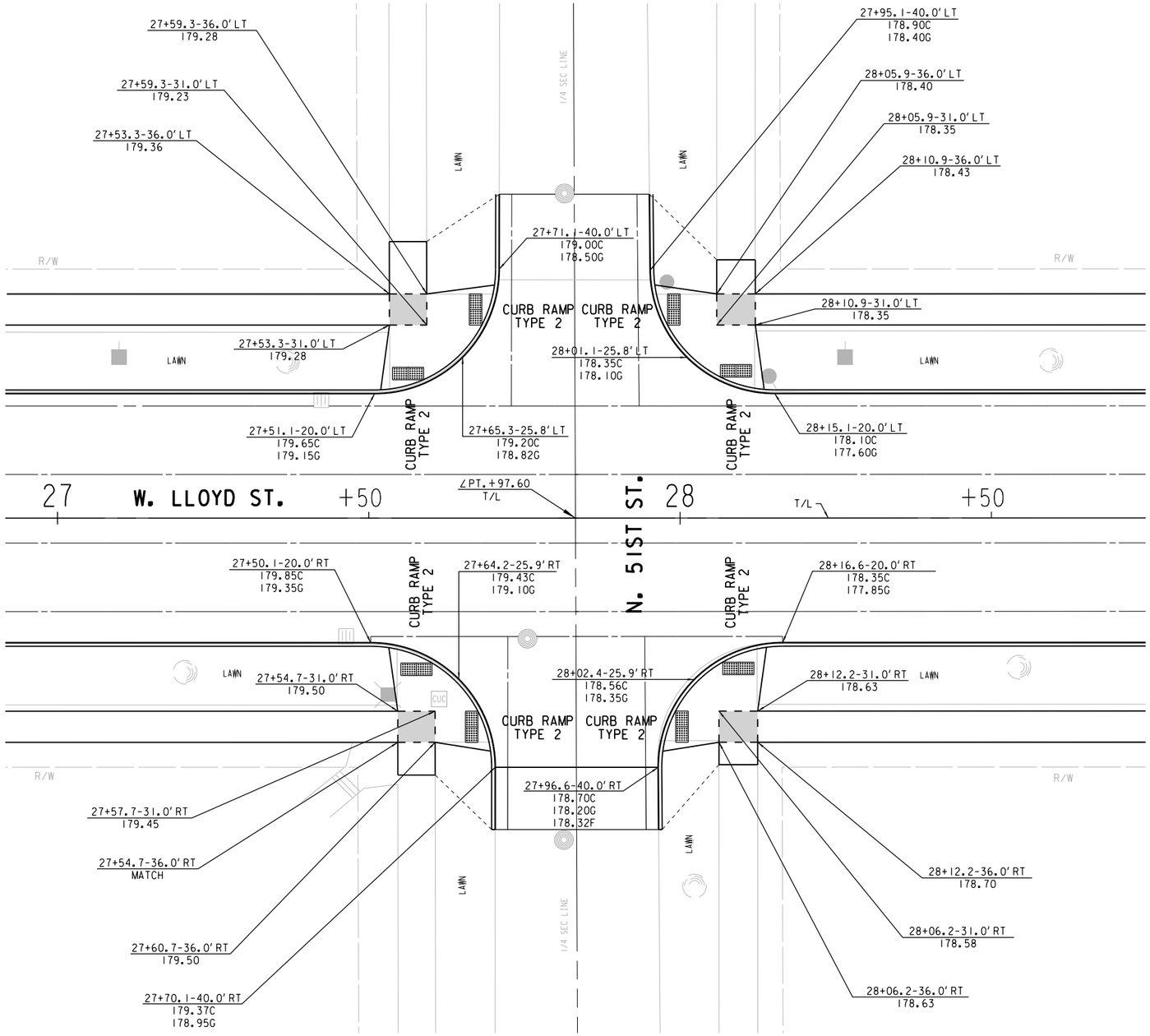
(PC) CONST. CONC. PEDESTRIAN CURB

REVISED: 10-05-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 21	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



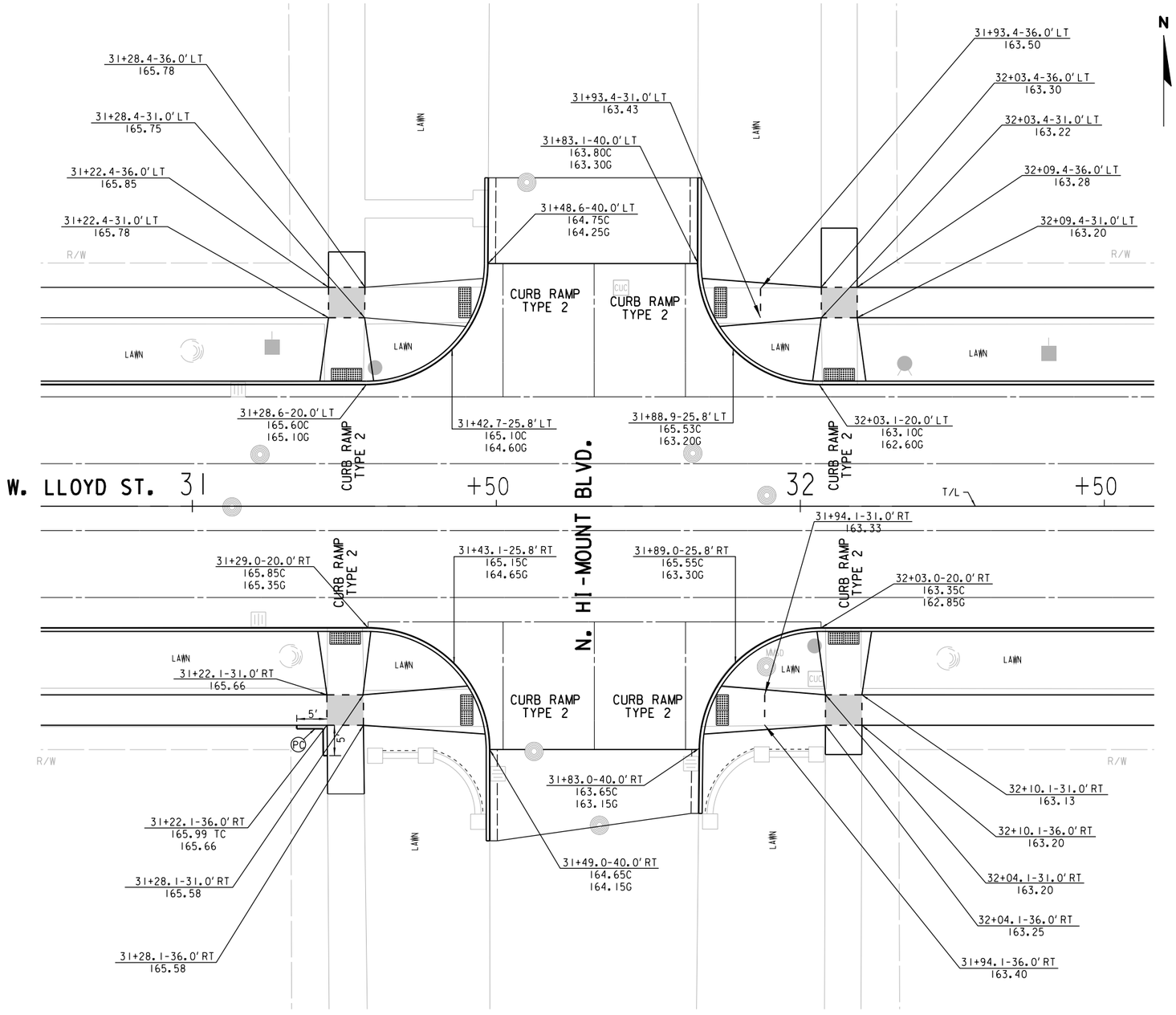
CURB RAMP DETAILS - W. LLOYD ST. AND N. 51ST ST.

REVISED: 10-07-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 22	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. HI-MOUNT BLVD.

LANDING AREA

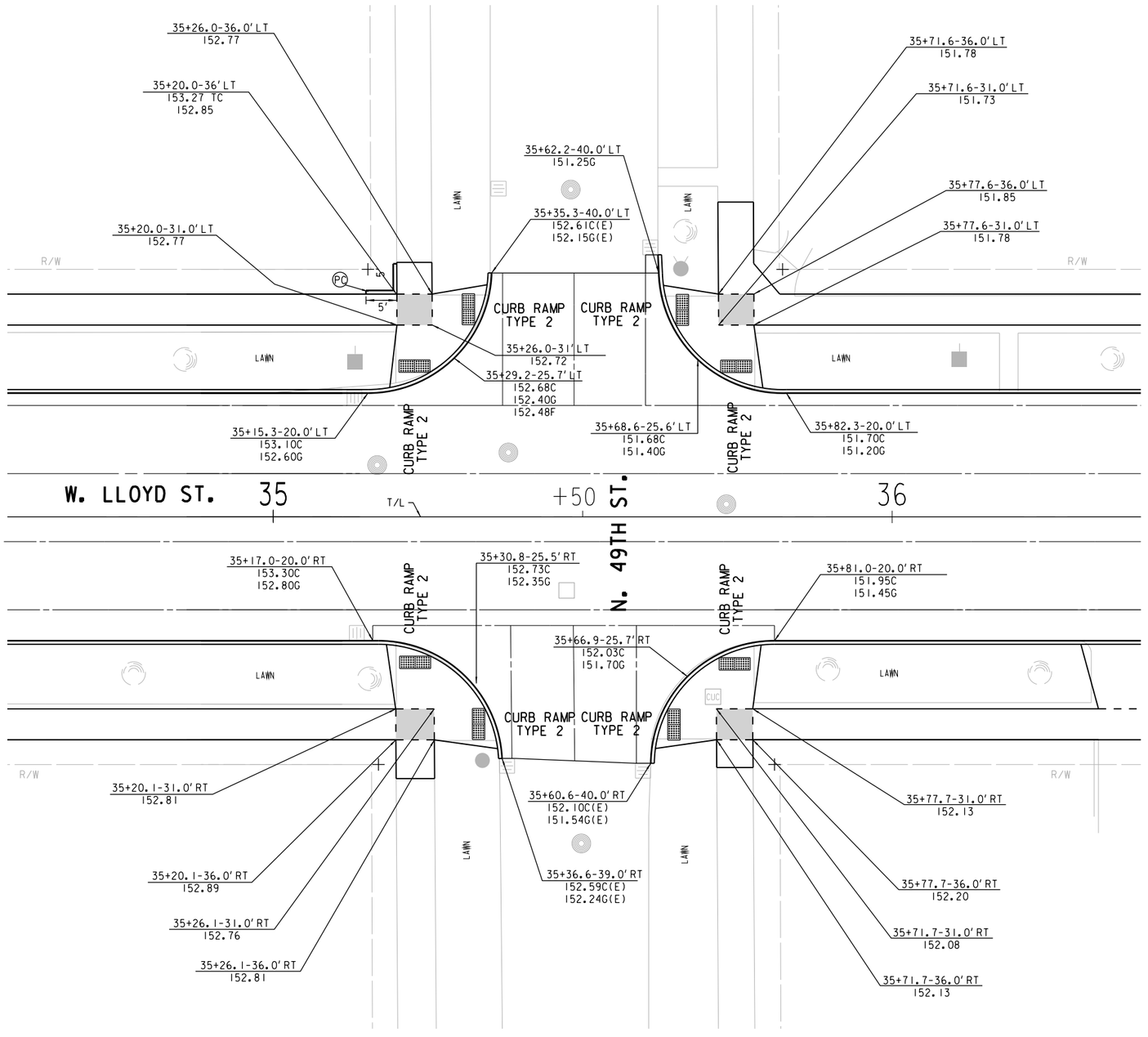
PC CONST. CONC. PEDESTRIAN CURB

REVISED: 10-05-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 23	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



CURB RAMP DETAILS - W. LLOYD ST. AND N. 49TH ST.

LANDING AREA

(E) - EXISTING GRADE

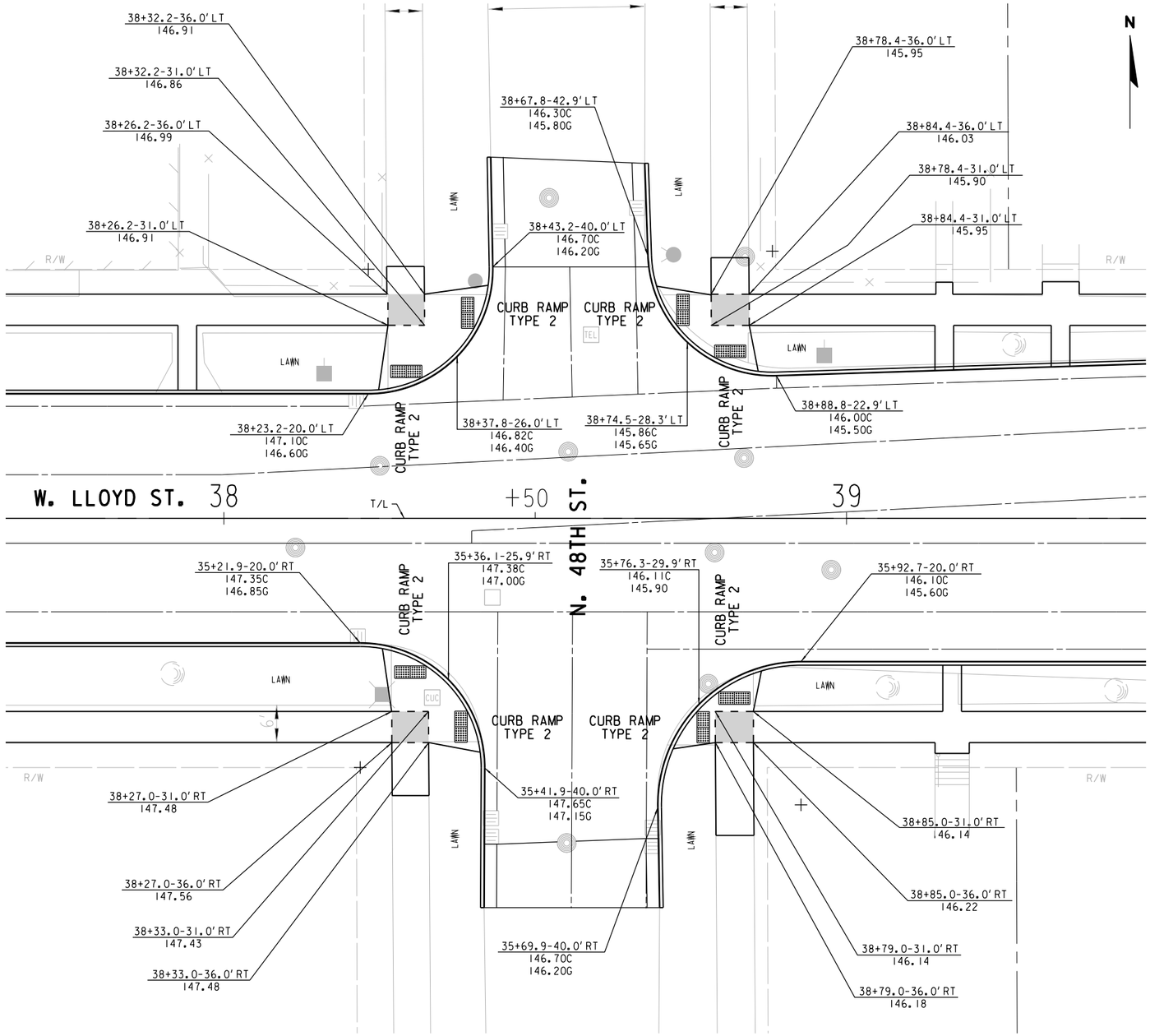
(PC) CONST. CONC. PEDESTRIAN CURB

REVISED: 10-06-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 24	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2



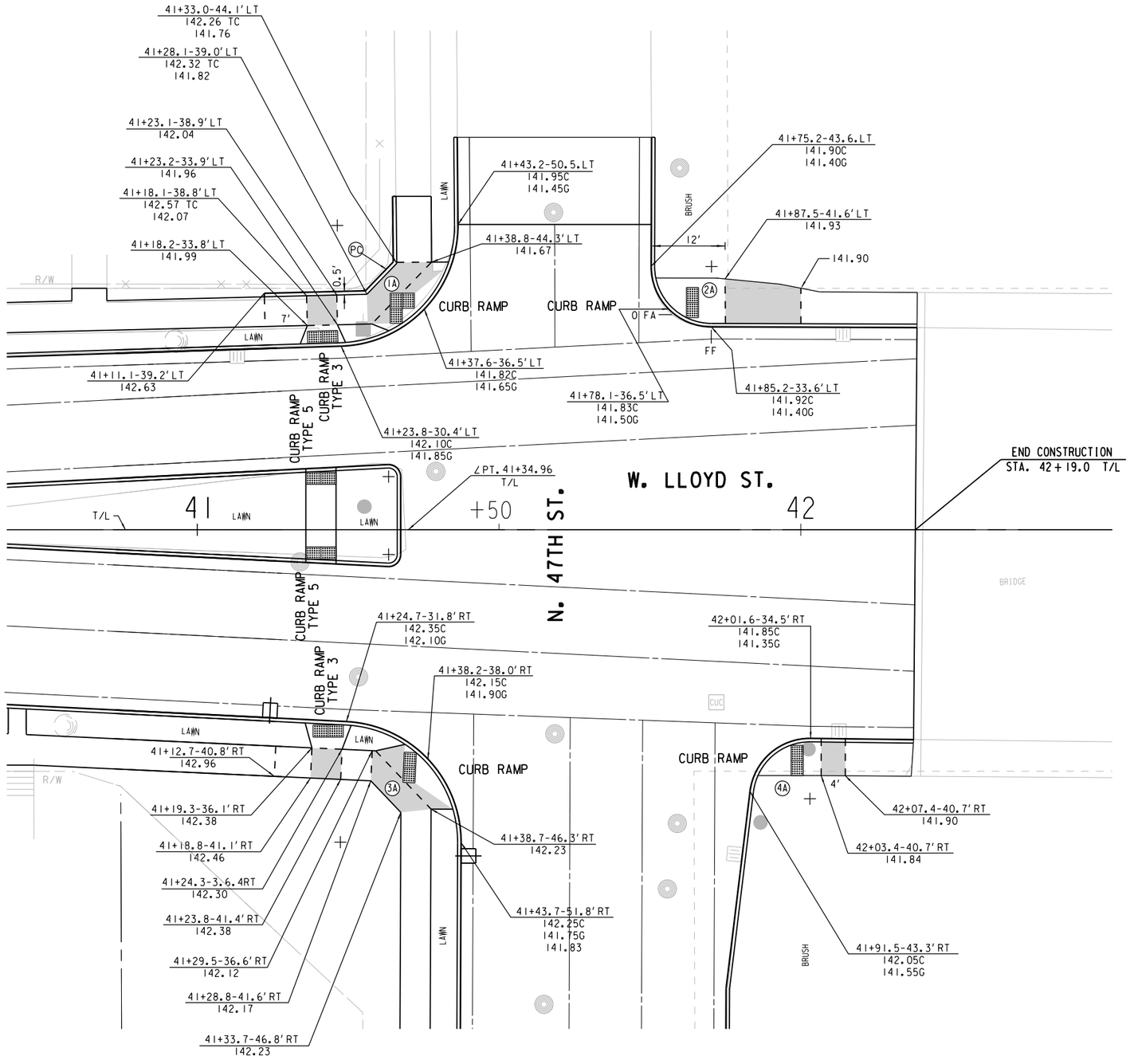
CURB RAMP DETAILS - W. LLOYD ST. AND N. 48TH ST.

REVISED: 10-06-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 25	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

2

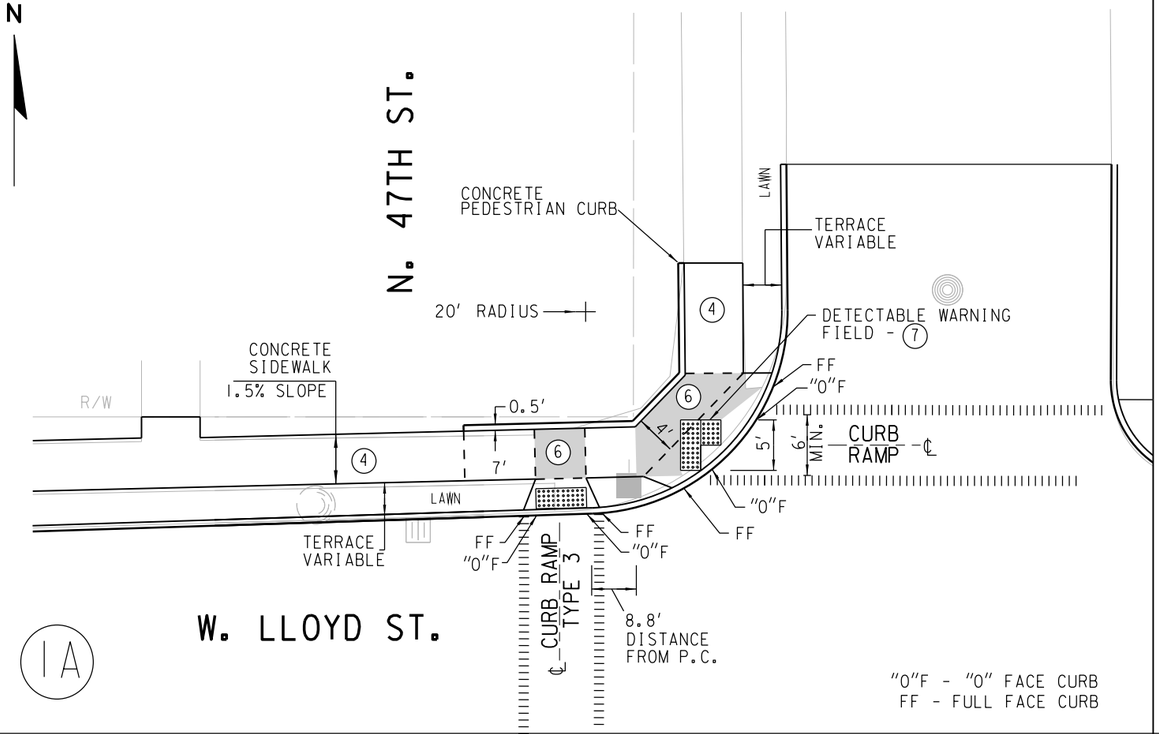


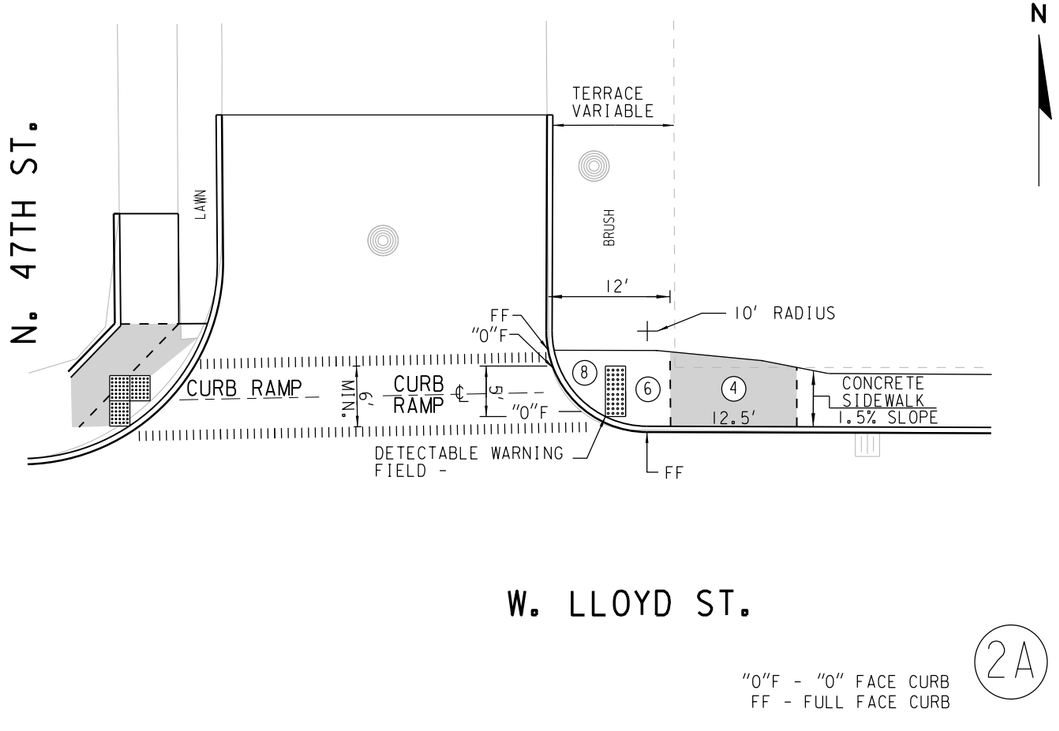
CURB RAMP DETAILS - W. LLOYD ST. AND N. 47TH ST.

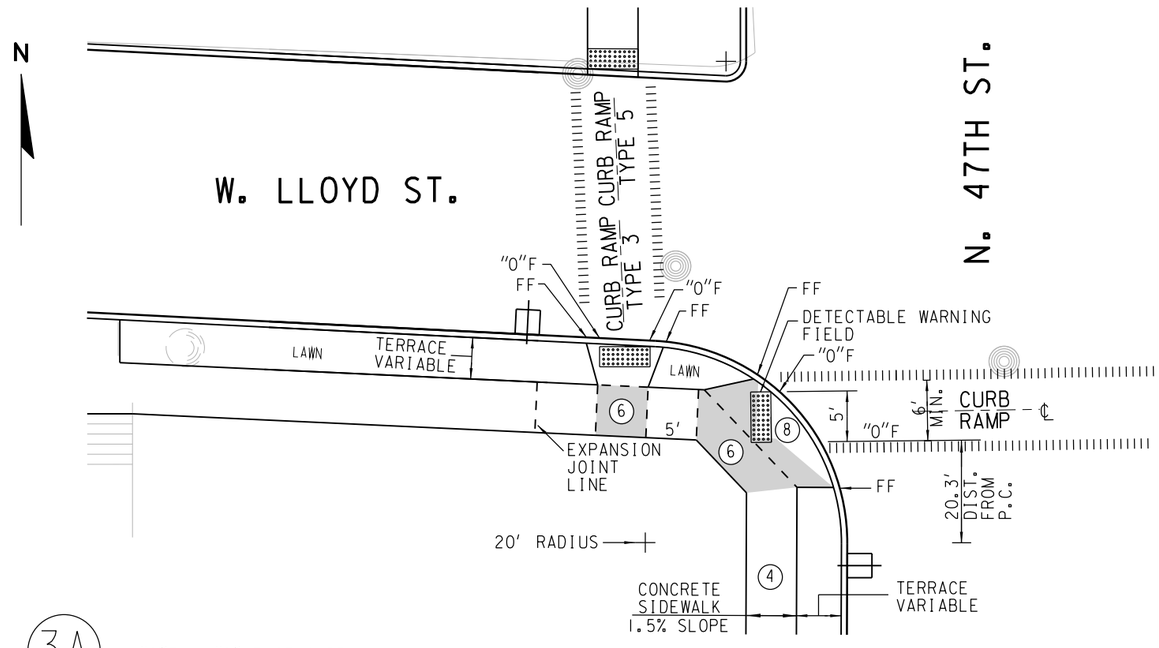
REVISED: 10-07-2015

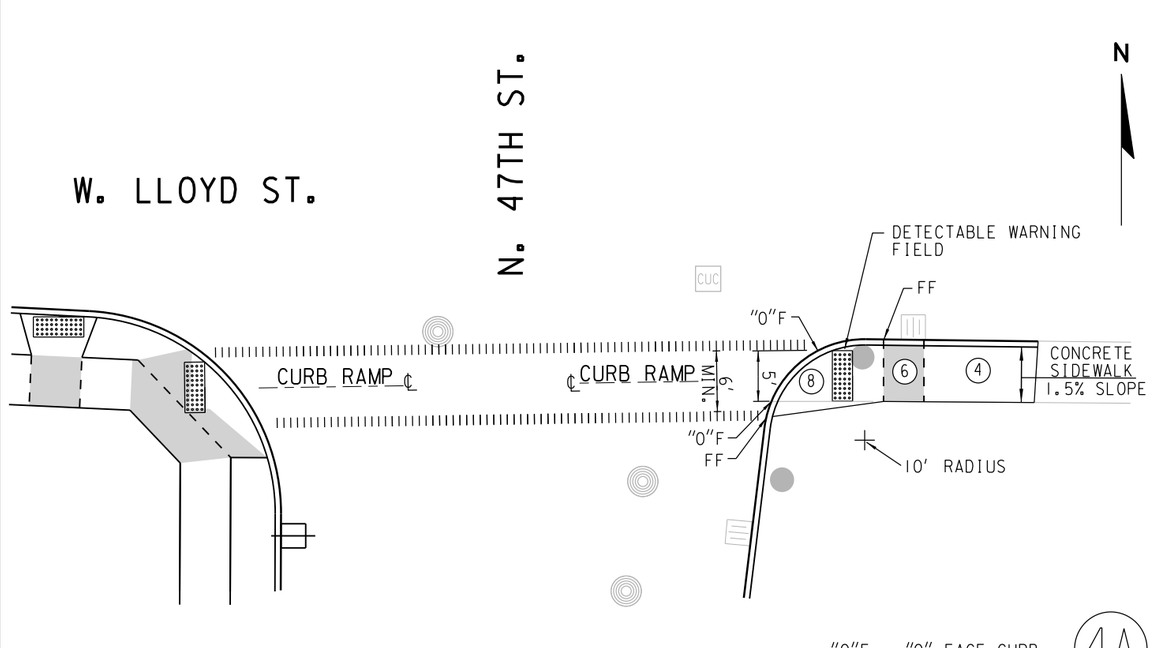
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 26	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN







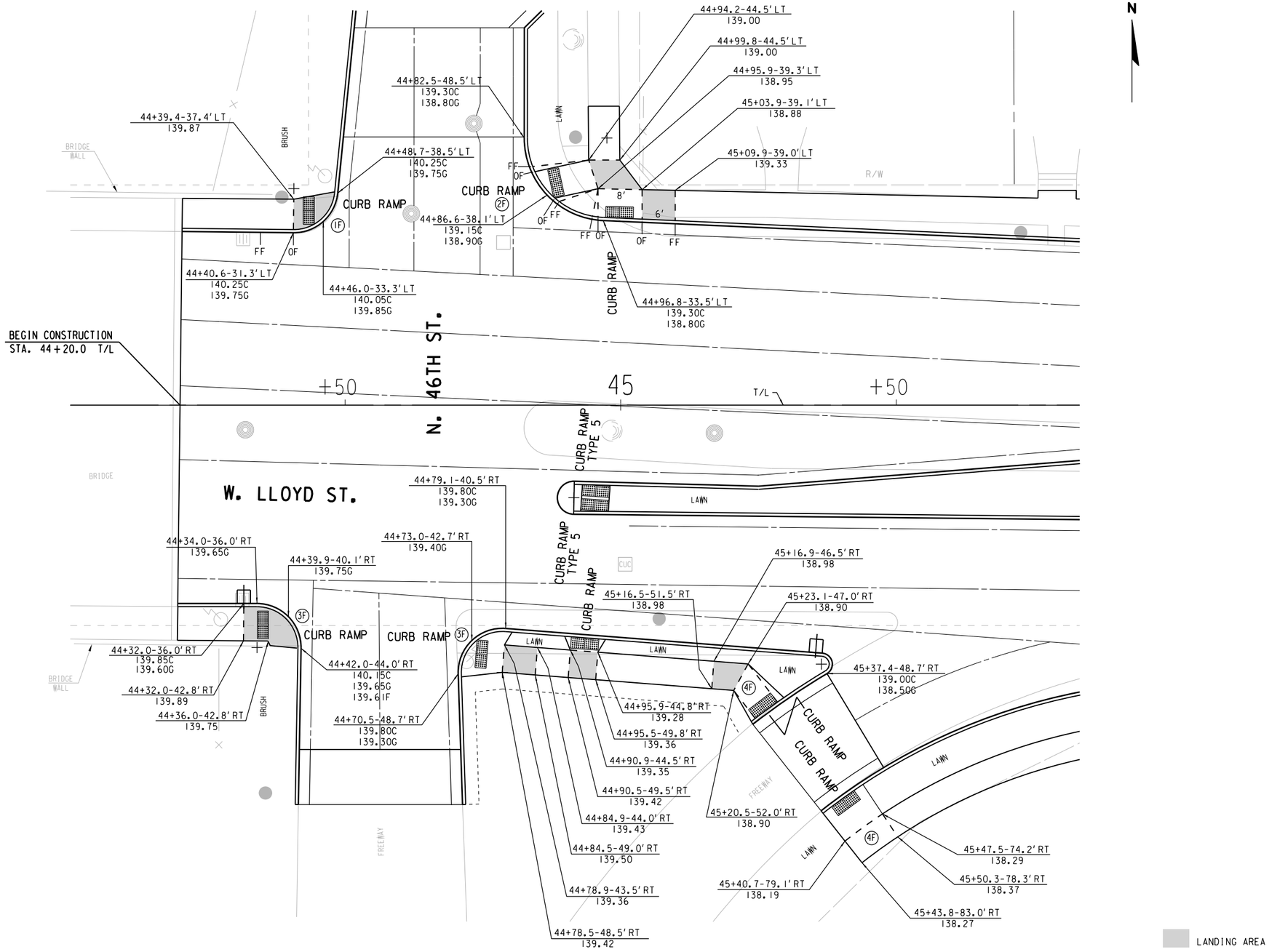


CURB RAMP DETAILS - W. LLOYD ST. AND N. 47TH ST.

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 27 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN

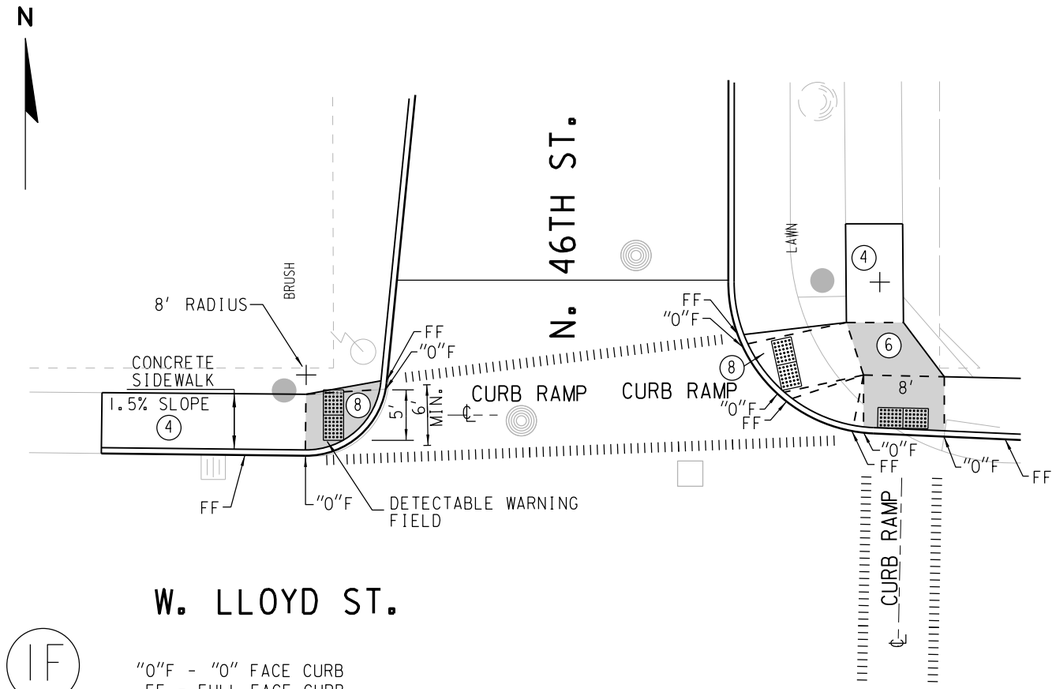


CURB RAMP DETAILS - W. LLOYD ST. AND N. 46TH ST., INCLUDING FREEWAY EXIT RAMPS

REVISED: 10-30-2015

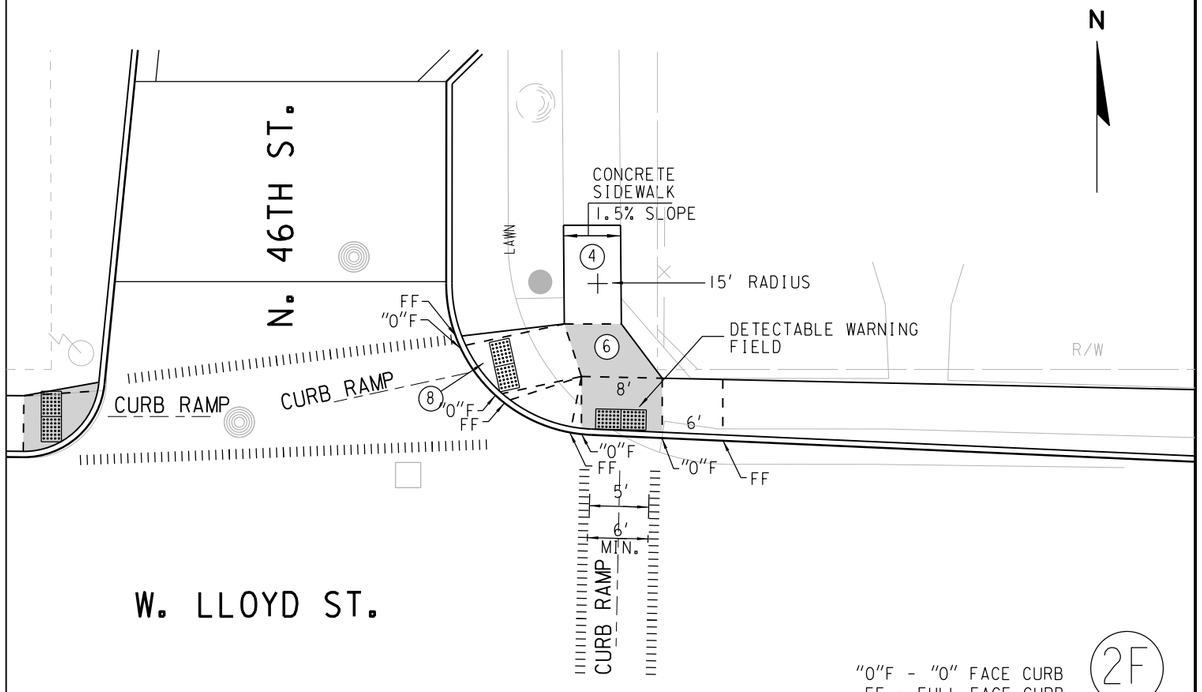
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 28	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN



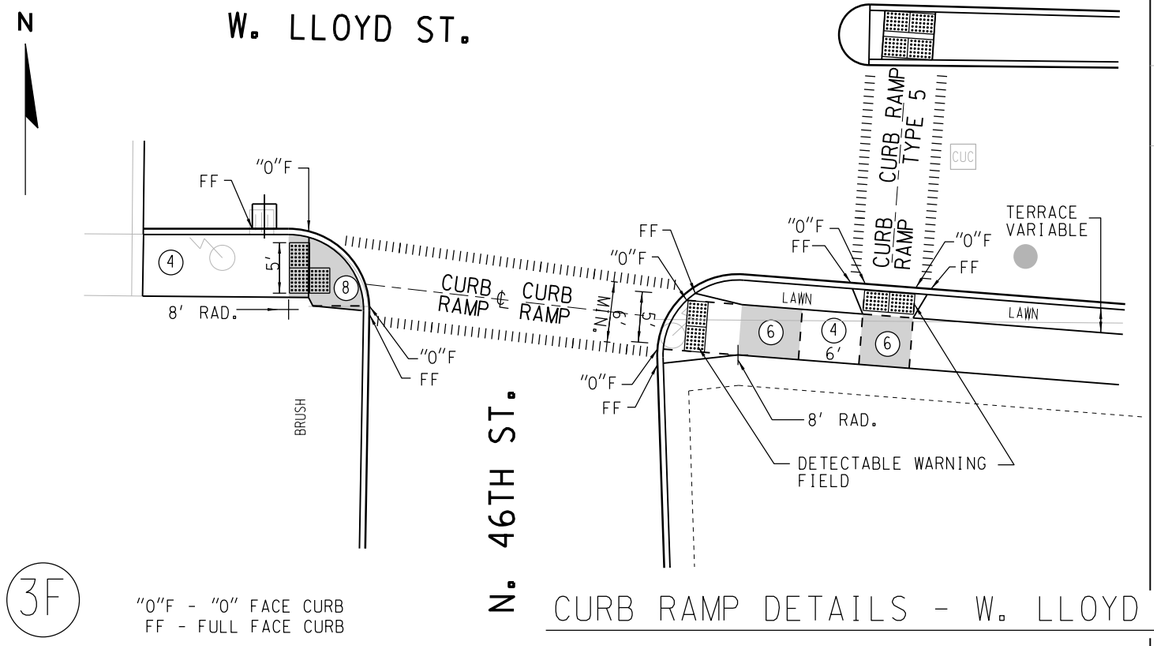
1F

"0"F - "0" FACE CURB
FF - FULL FACE CURB



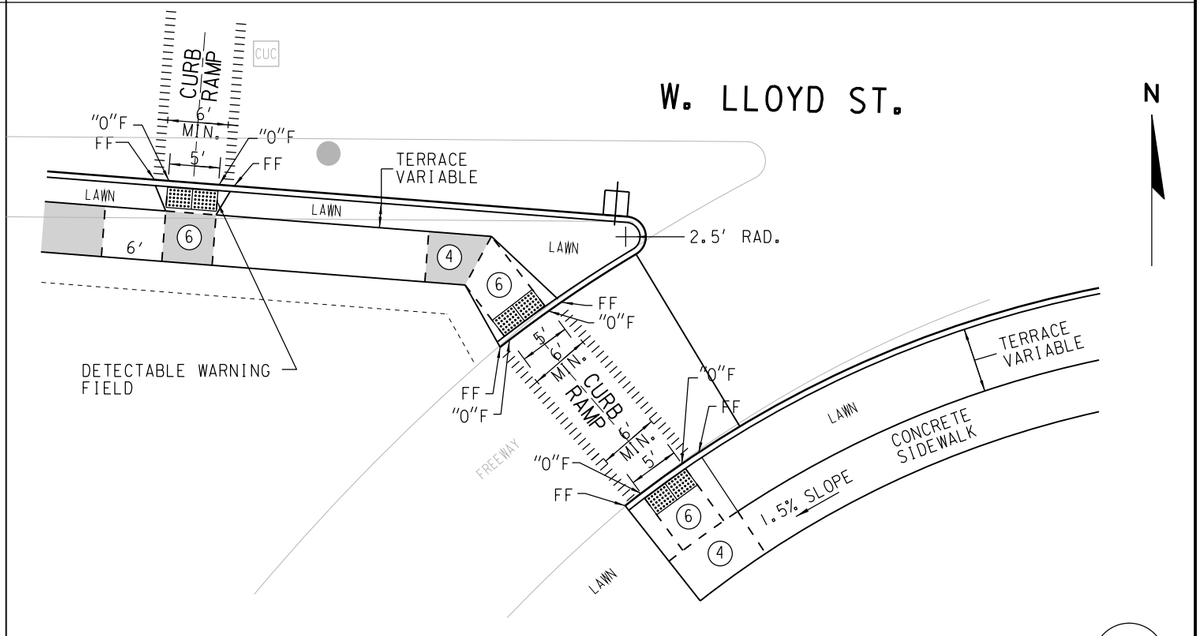
2F

"0"F - "0" FACE CURB
FF - FULL FACE CURB



3F

"0"F - "0" FACE CURB
FF - FULL FACE CURB



4F

"0"F - "0" FACE CURB
FF - FULL FACE CURB

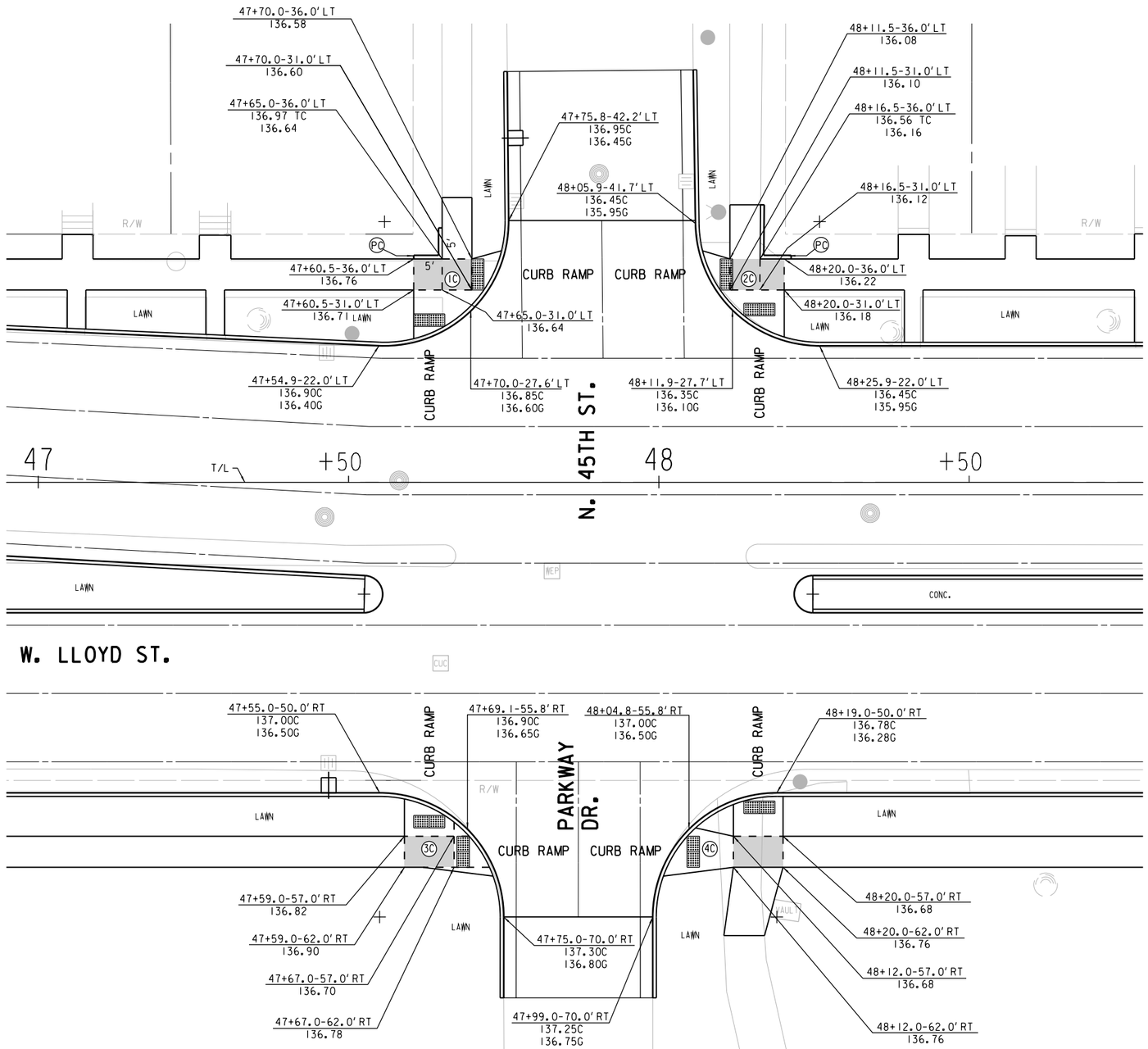
REVISED: 01-20-2016

CURB RAMP DETAILS - W. LLOYD ST. AND N. 46TH ST., PLUS EXIT RAMPS

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 29 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN

2



LANDING AREA

PC CONST. CONC. PEDESTRIAN CURB

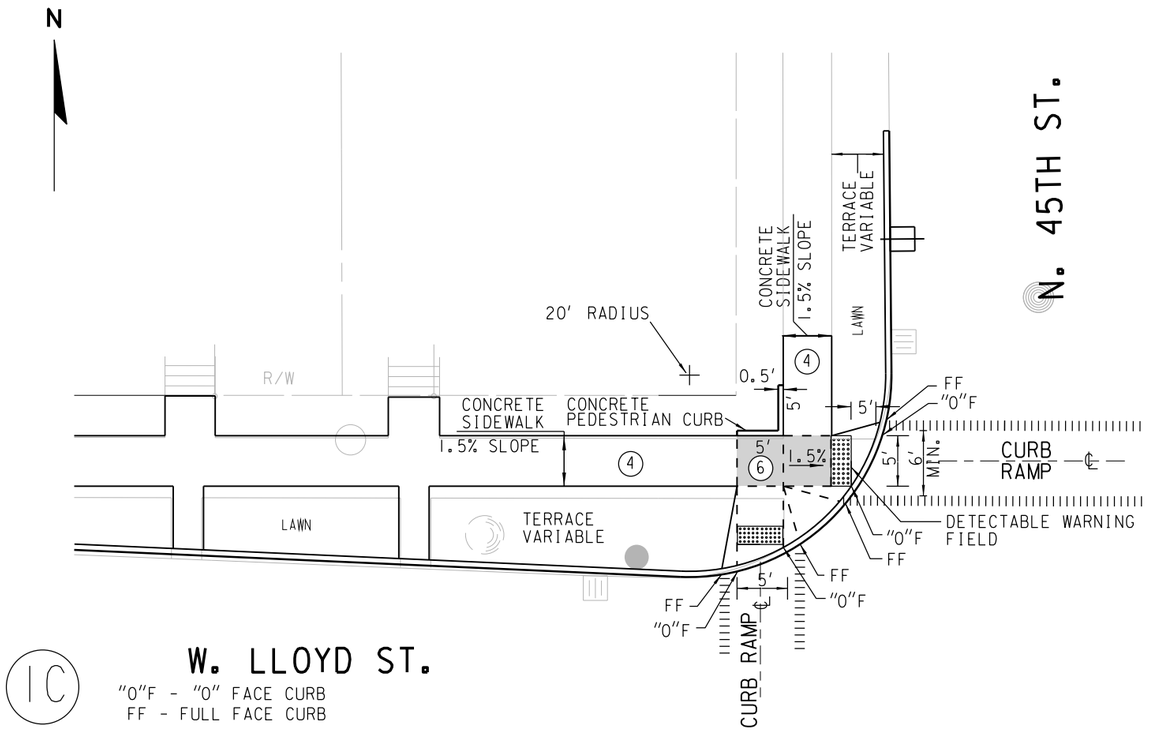
1C SEE RAMP DETAILS

CURB RAMP DETAILS - W. LLOYD ST. AND N. 45TH ST., INCLUDING PARKWAY DR.

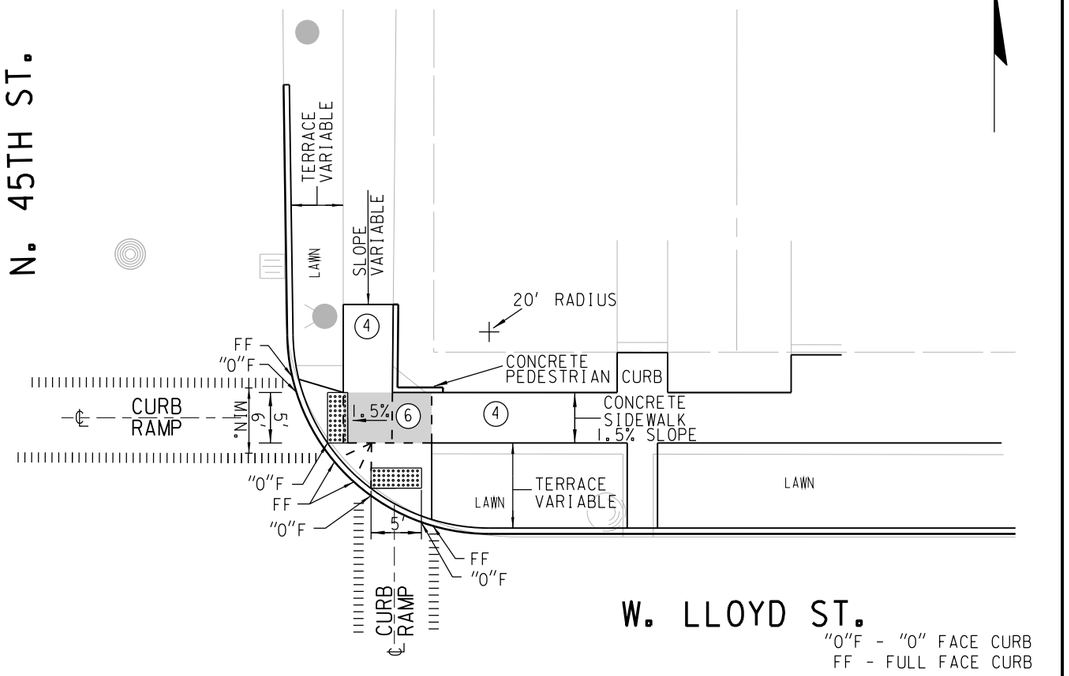
REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 30	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN



1C



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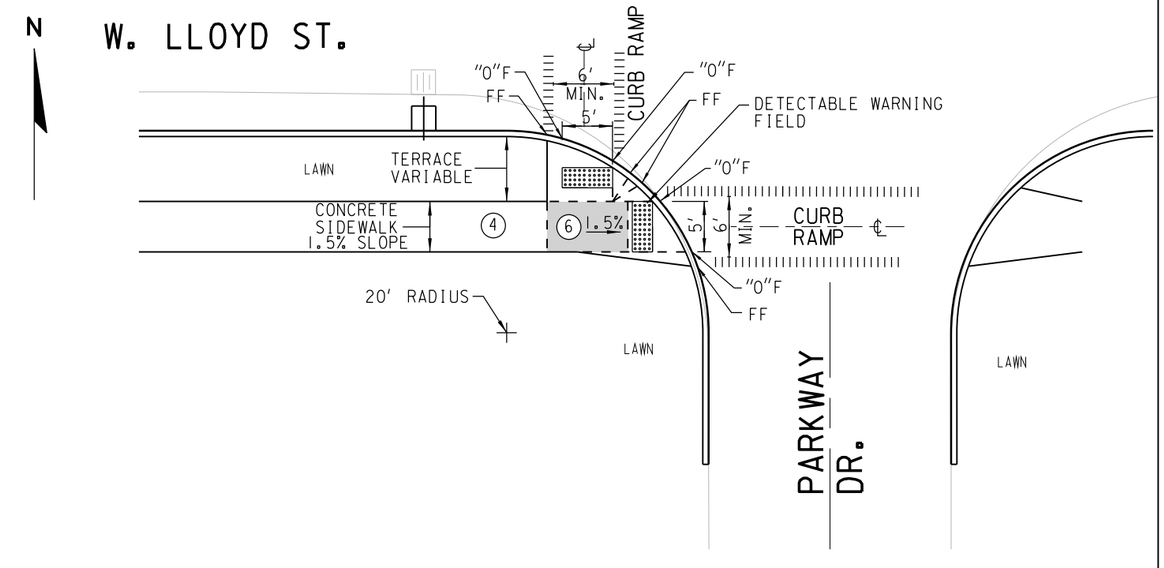
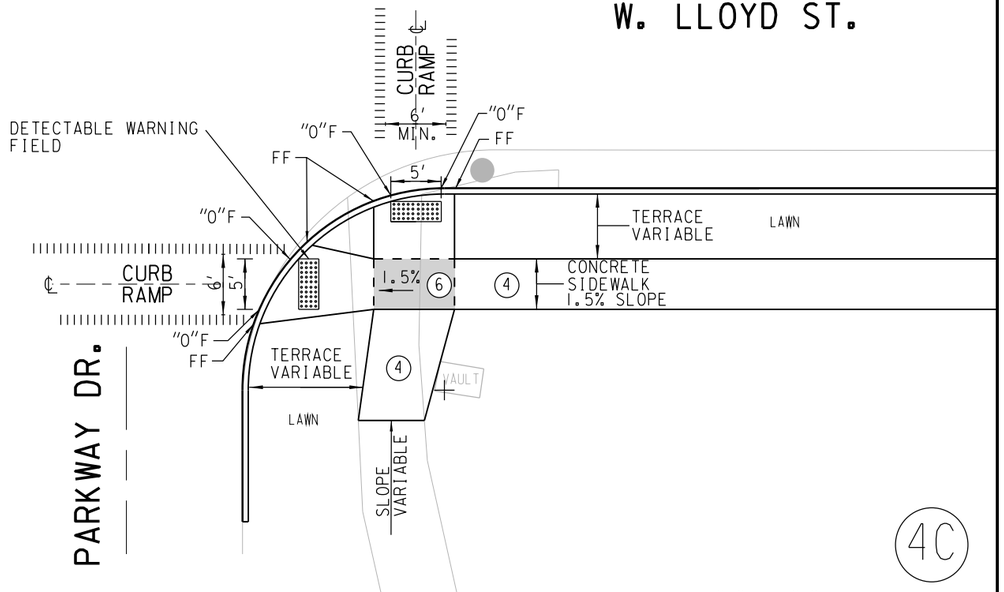


3C

"0"F - "0" FACE CURB
FF - FULL FACE CURB



4C

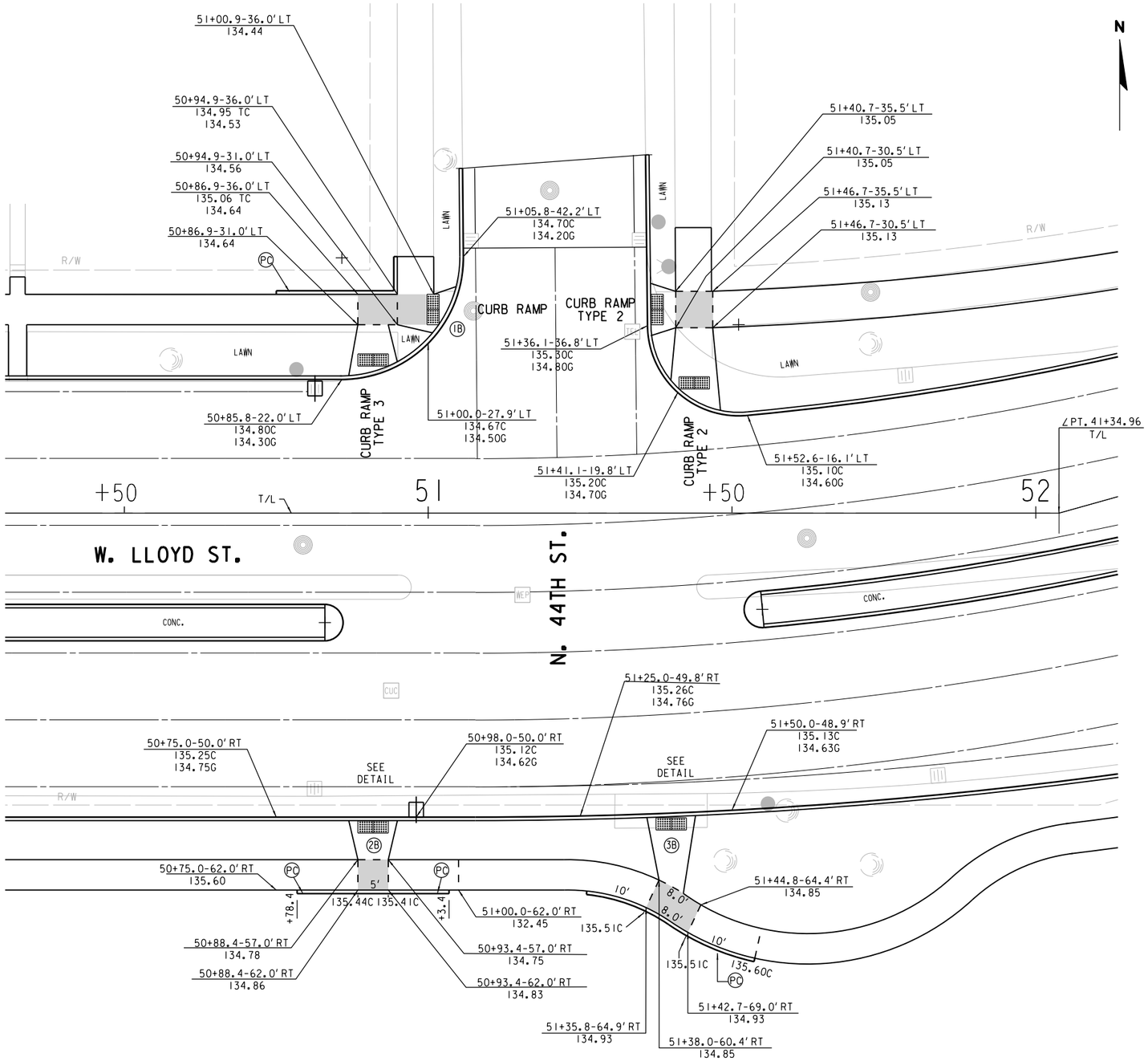
"0"F - "0" FACE CURB
FF - FULL FACE CURB

CURB RAMP DETAILS - W. LLOYD ST. AND N. 45TH ST., INCLUDING PARKWAY DR.

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET	SHEET NO: 31 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN

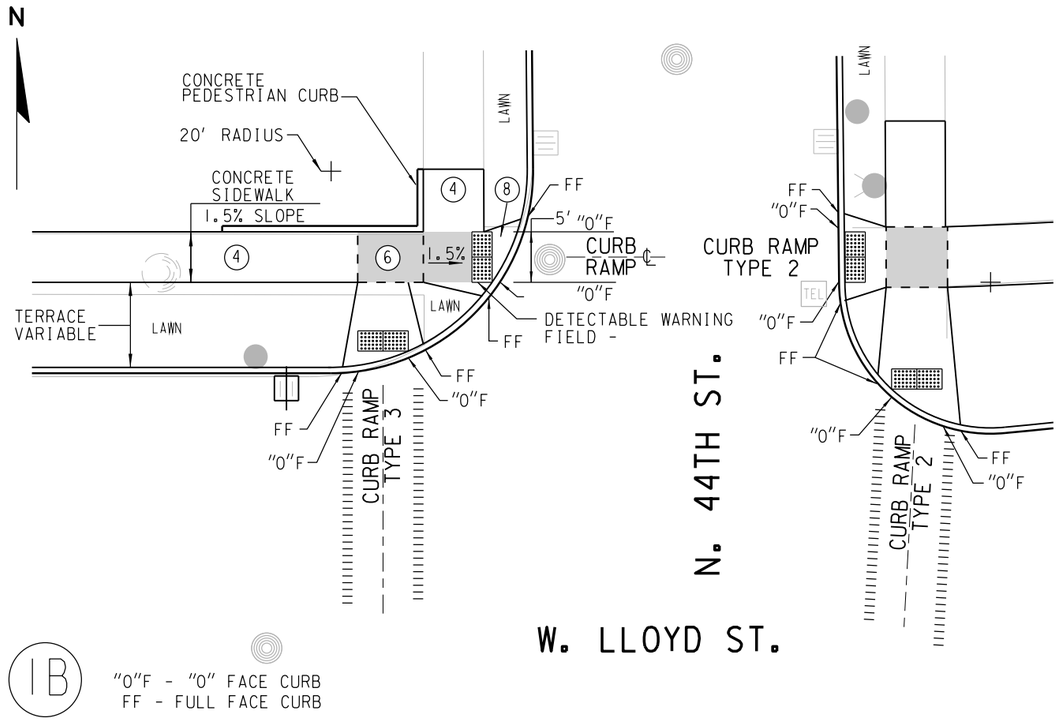


CURB RAMP DETAILS - W. LLOYD ST. AND N. 44TH ST.

REVISED: 10-27-2015

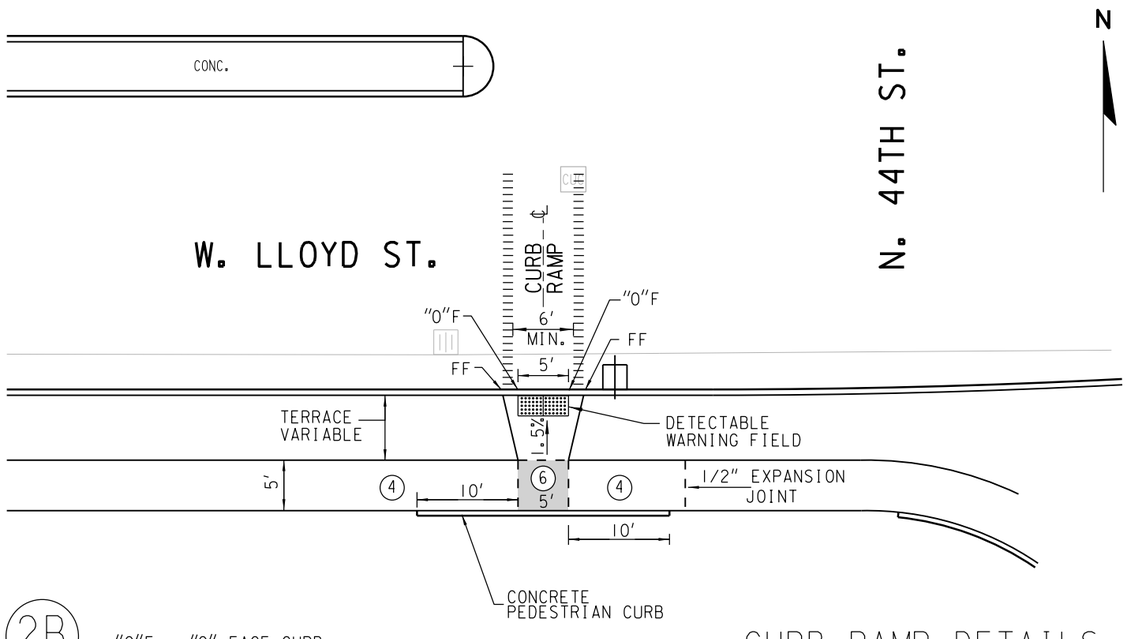
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 32	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN



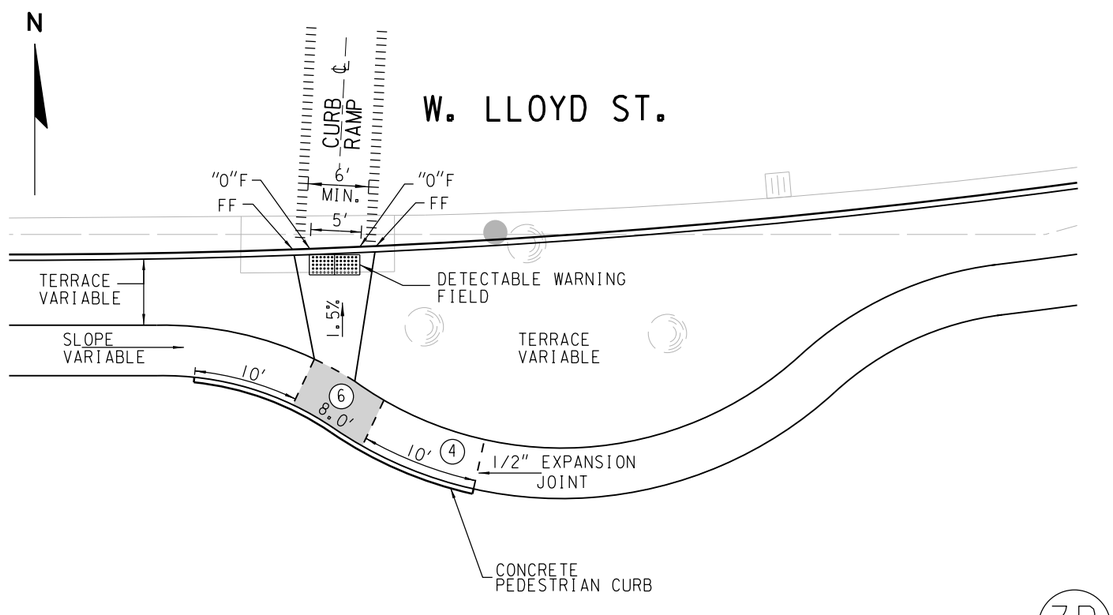
1B

"0"F - "0" FACE CURB
FF - FULL FACE CURB



2B

"0"F - "0" FACE CURB
FF - FULL FACE CURB



3B

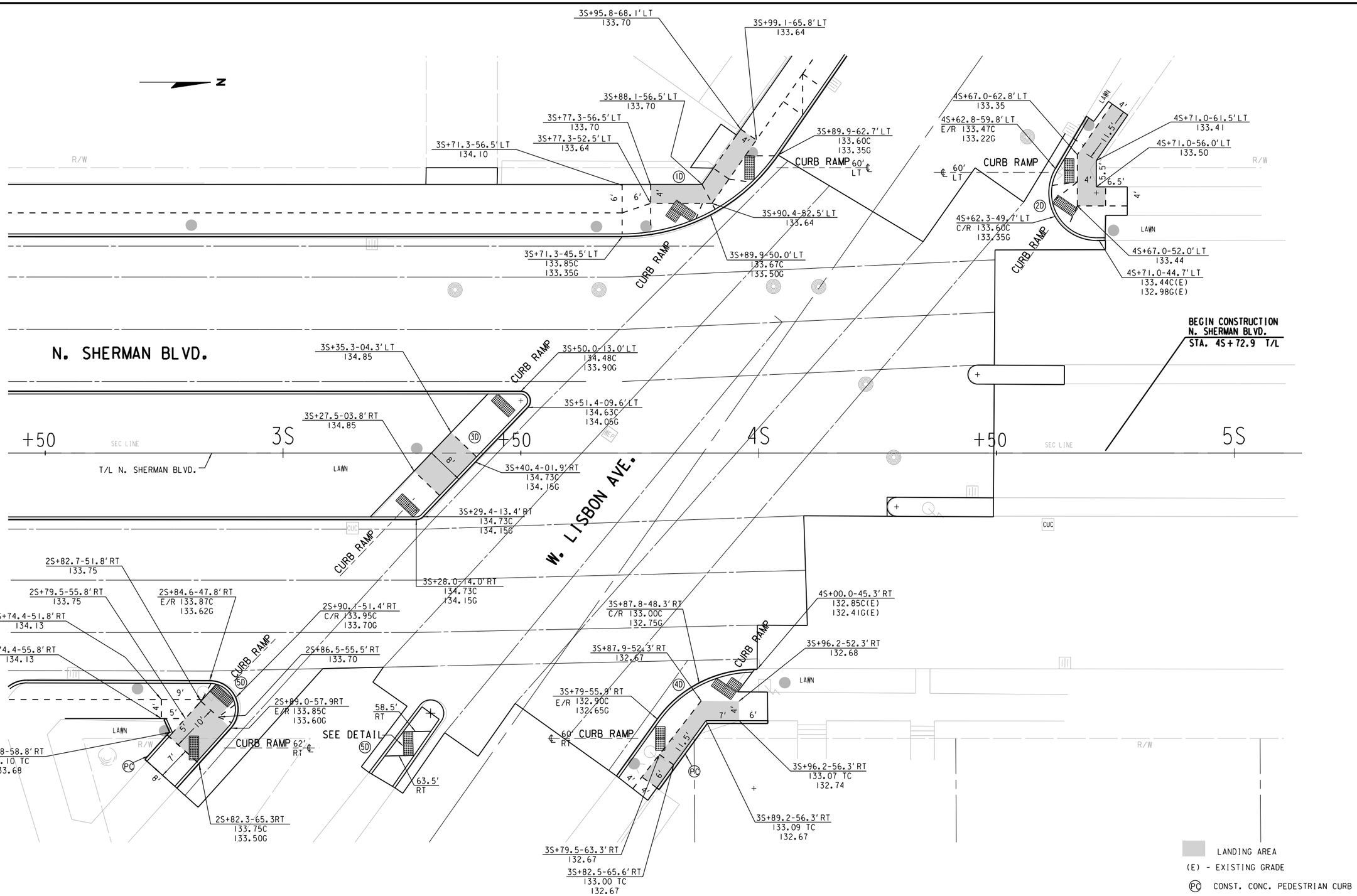
"0"F - "0" FACE CURB
FF - FULL FACE CURB

CURB RAMP DETAILS - W. LLOYD ST. AND N. 44TH ST.

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 33 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN



CURB RAMP DETAILS - N. SHERMAN BLVD. AND W. LISBON AVE.

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 34	E

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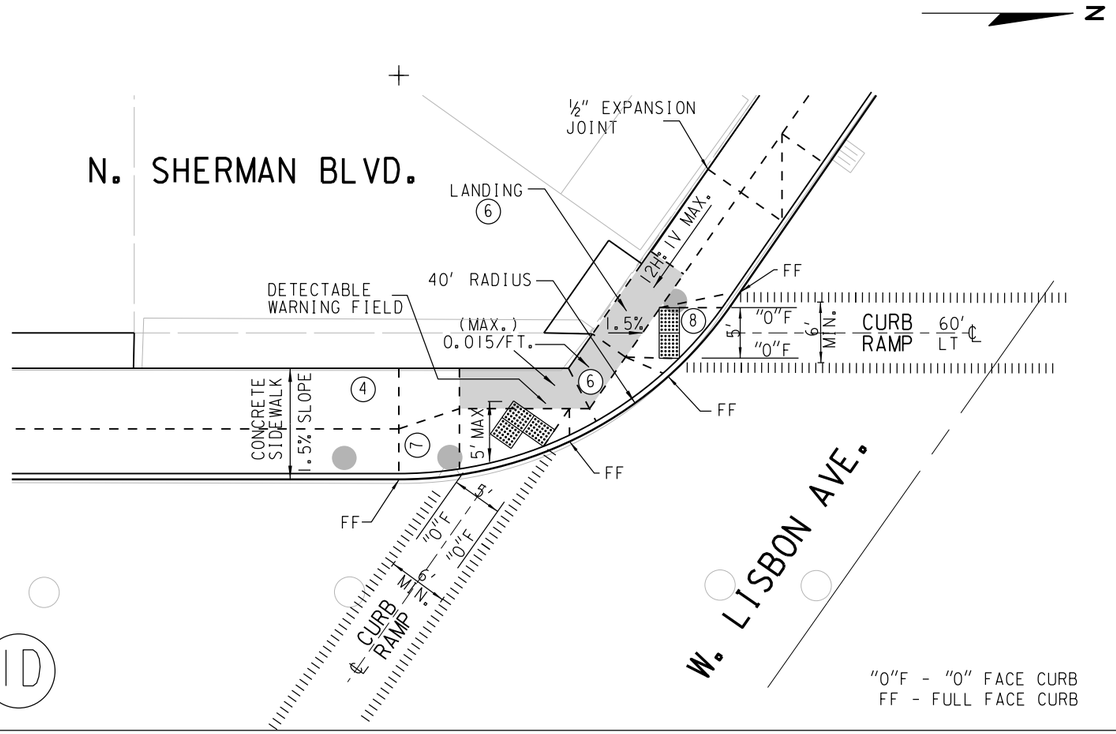
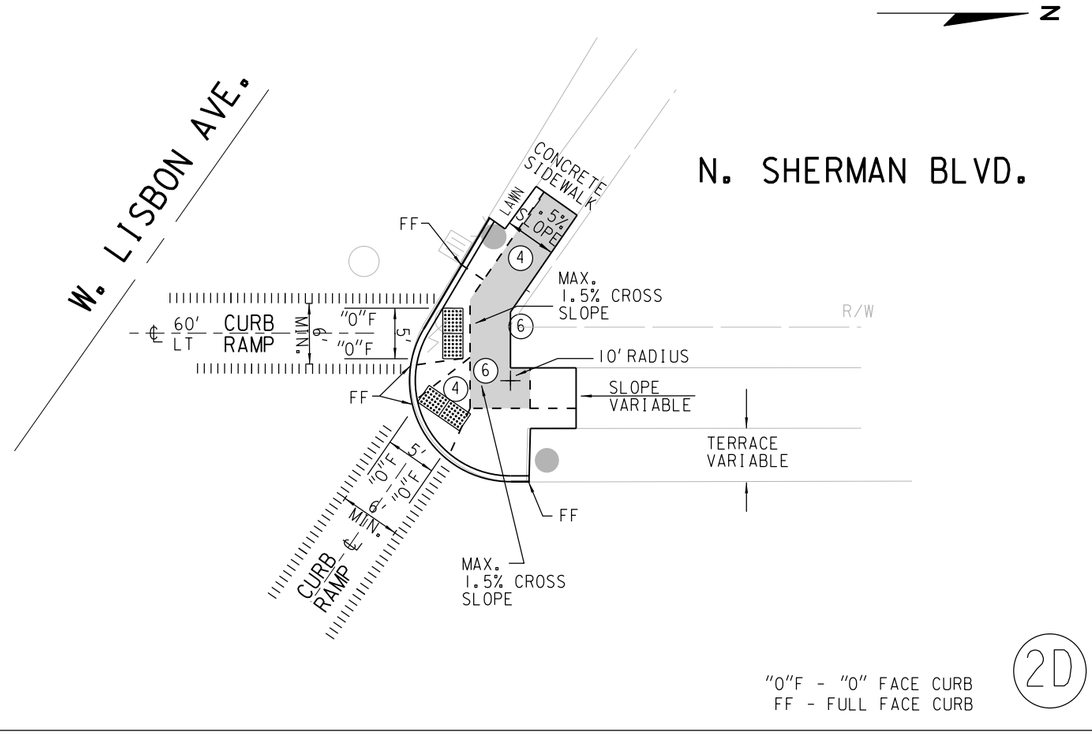
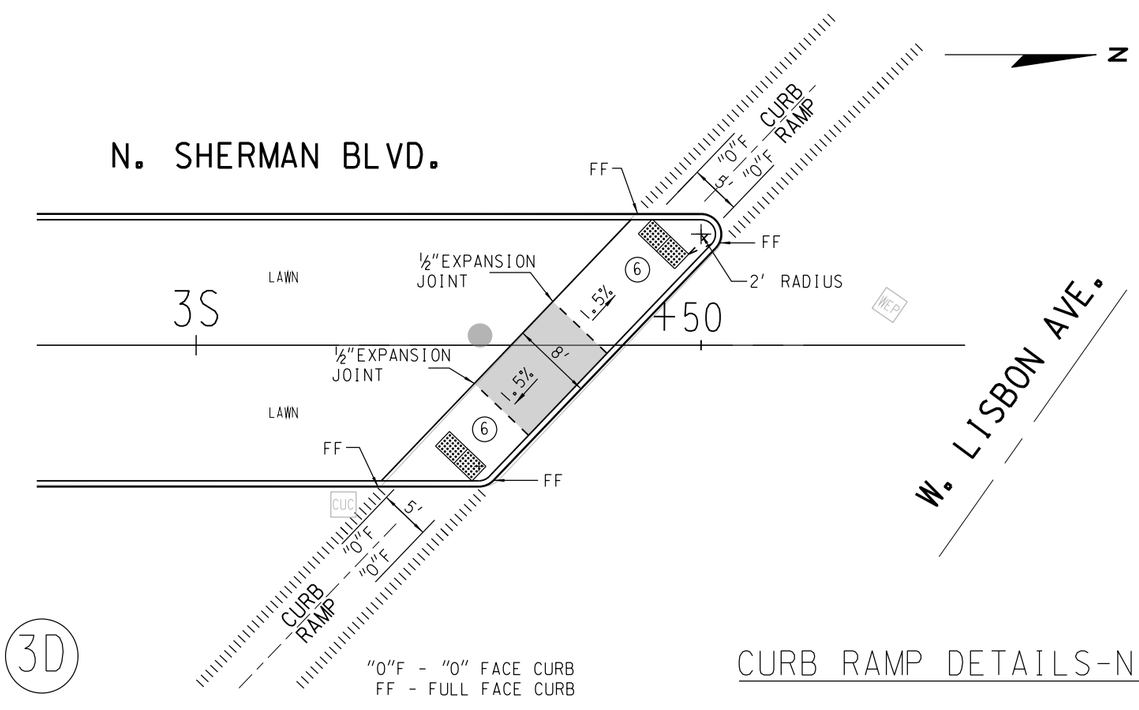
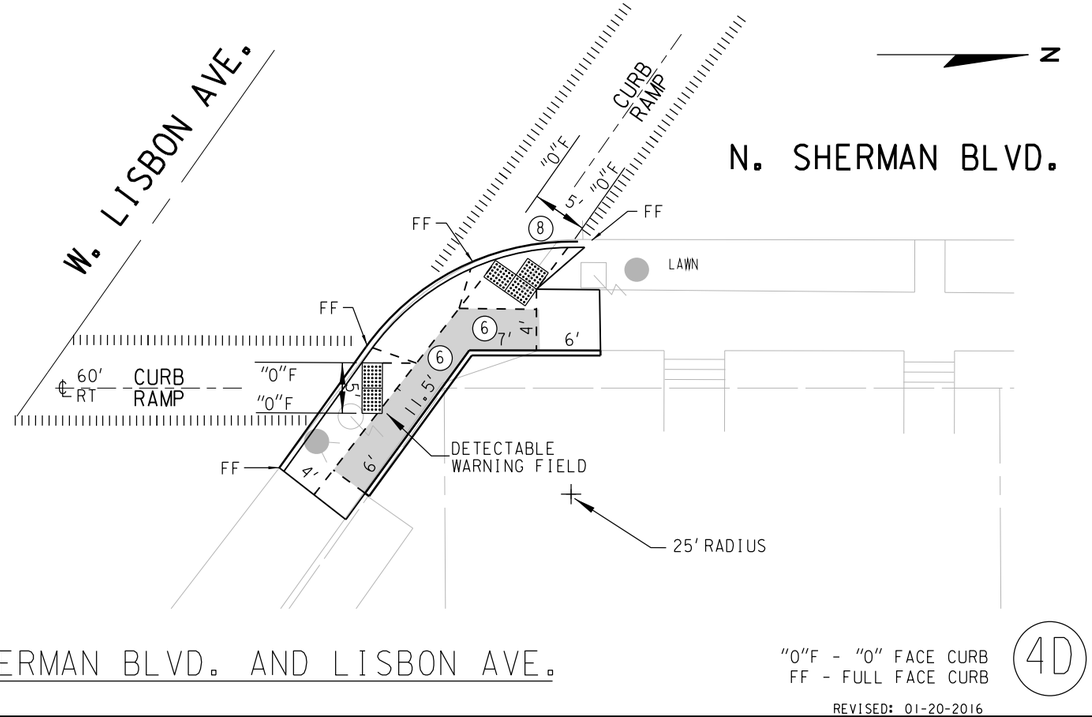






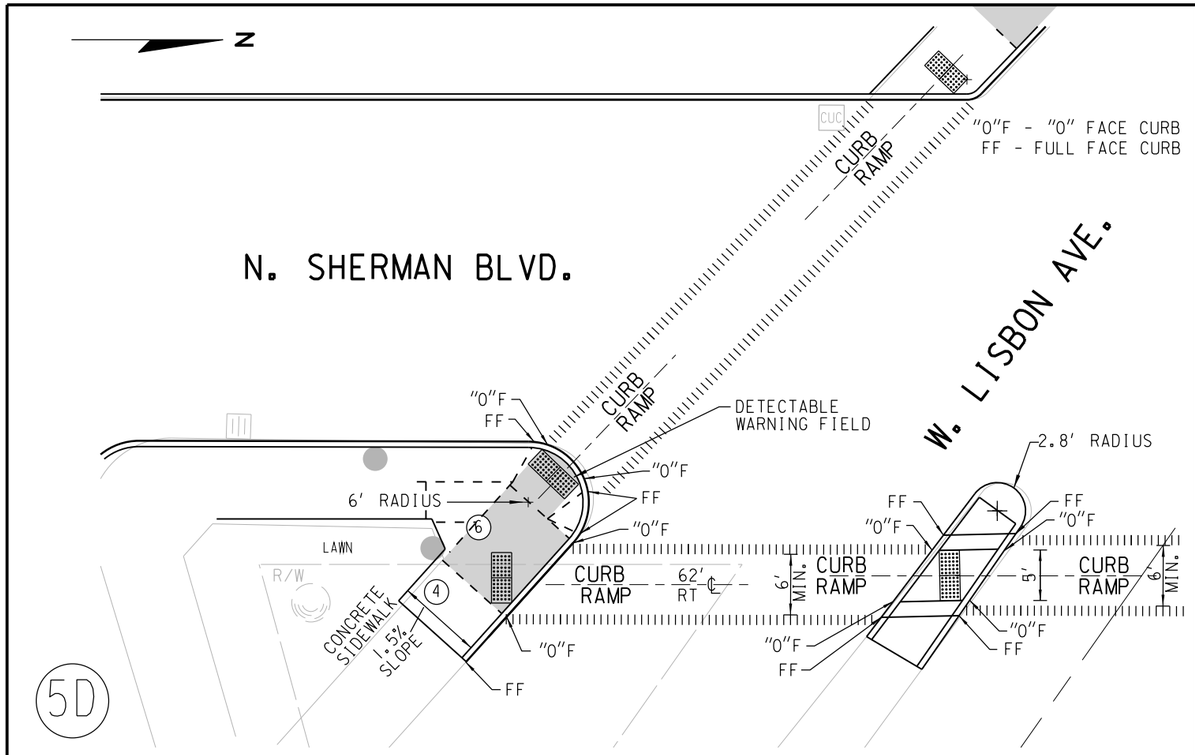


CURB RAMP DETAILS-N. SHERMAN BLVD. AND LISBON AVE.

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15	SHEET NO: 35 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN



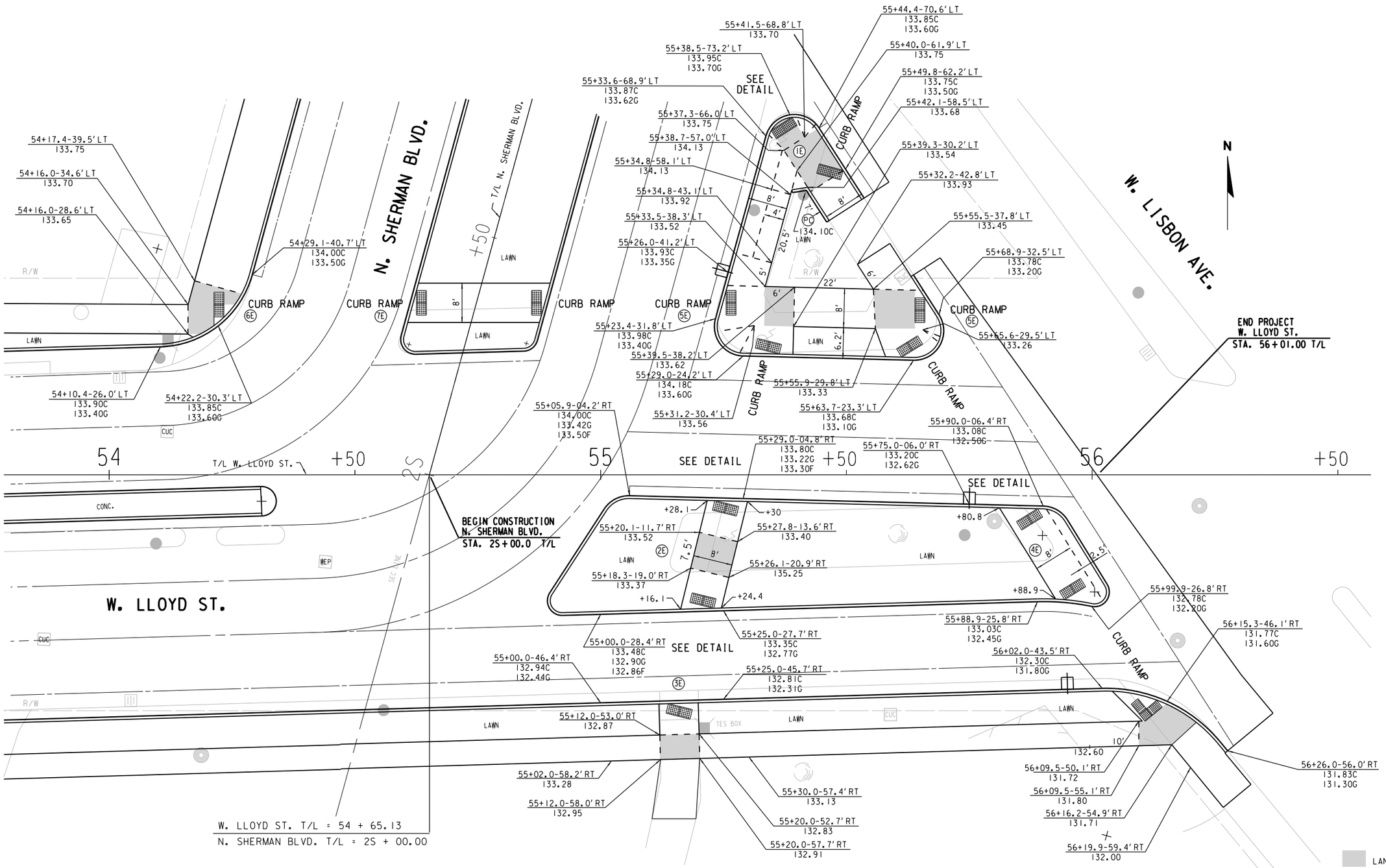
CURB RAMP DETAILS-N. SHERMAN BLVD. AND LISBON AVE.

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 36 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN

2



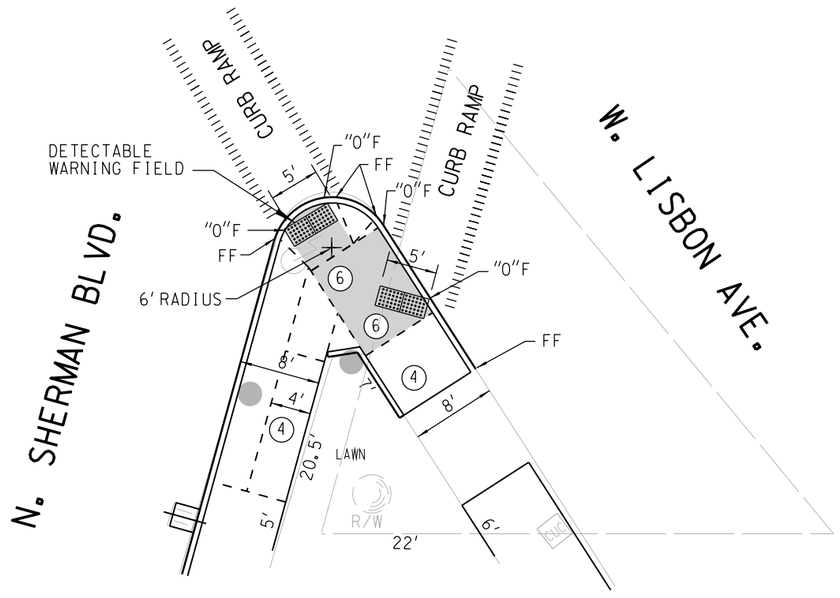
CURB RAMP DETAILS - W. LLOYD ST. AND N. SHERMAN BLVD. INCLUDING W. LISBON AVE. (ALSO TRIANGLE MEDIAN DETAIL)

REVISED: 10-27-2015

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 37	E

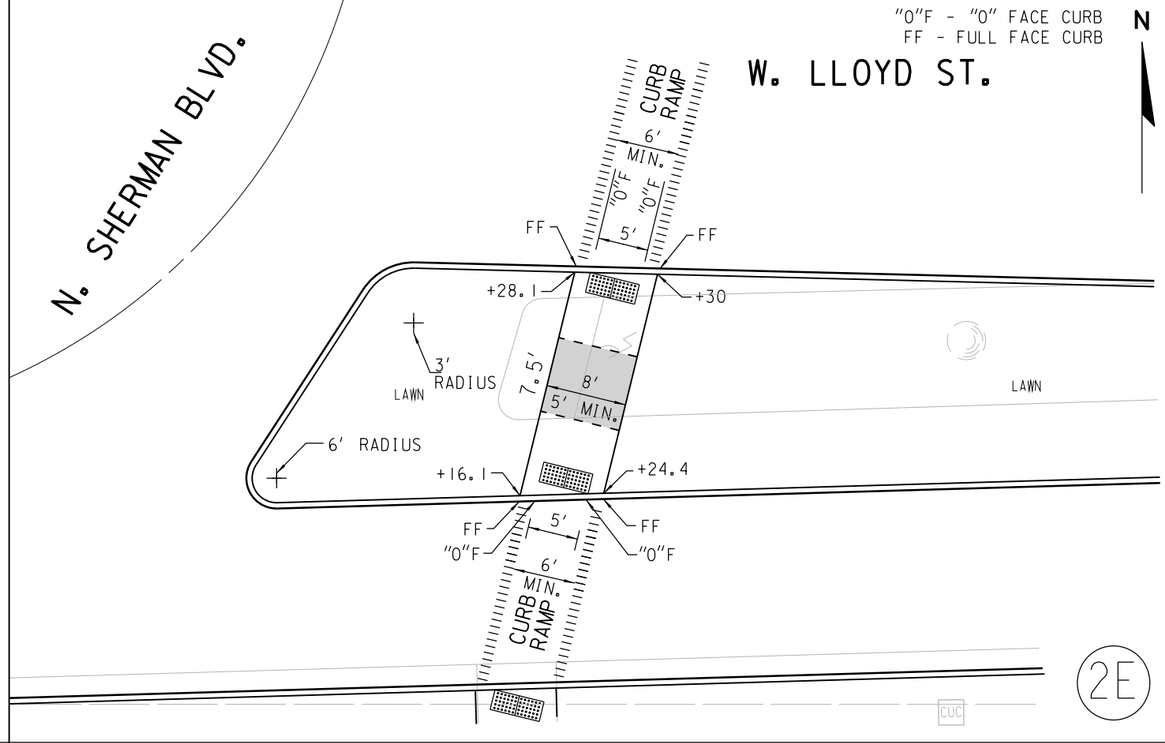
FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPDET.DGN

"0"F - "0" FACE CURB
FF - FULL FACE CURB

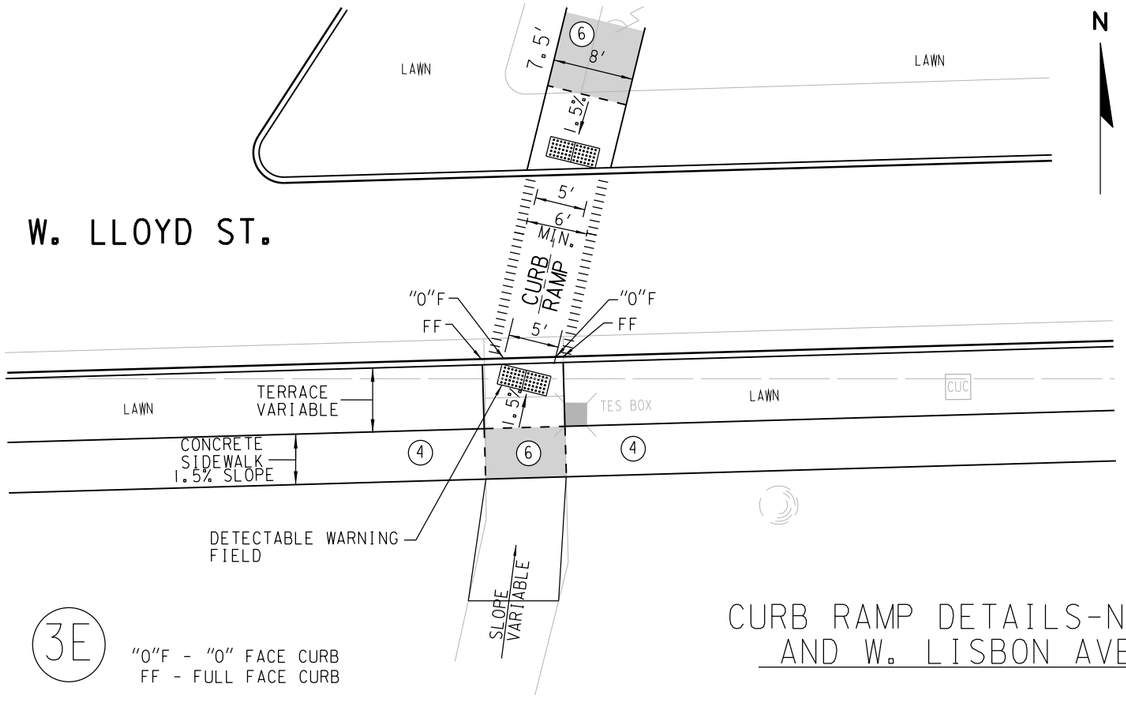


1E

"0"F - "0" FACE CURB
FF - FULL FACE CURB

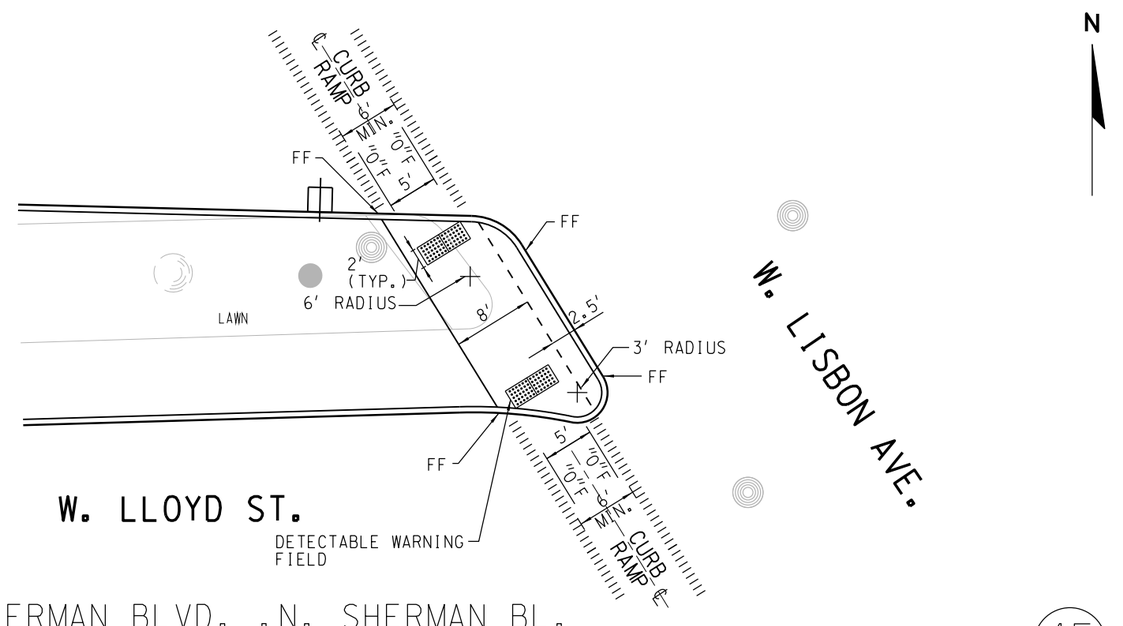


2E



3E

"0"F - "0" FACE CURB
FF - FULL FACE CURB



4E

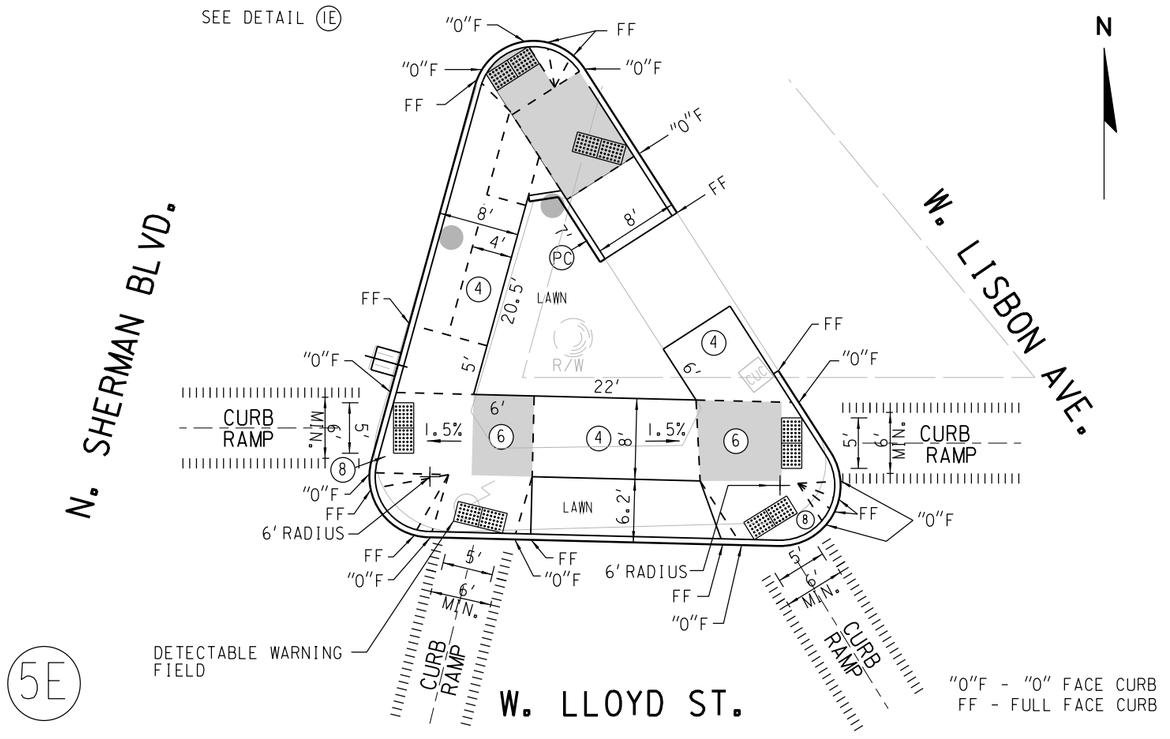
"0"F - "0" FACE CURB
FF - FULL FACE CURB

CURB RAMP DETAILS-N. SHERMAN BLVD. ,N. SHERMAN BL. AND W. LISBON AVE. (INCLUDES TRIANGLE MEDIAN)

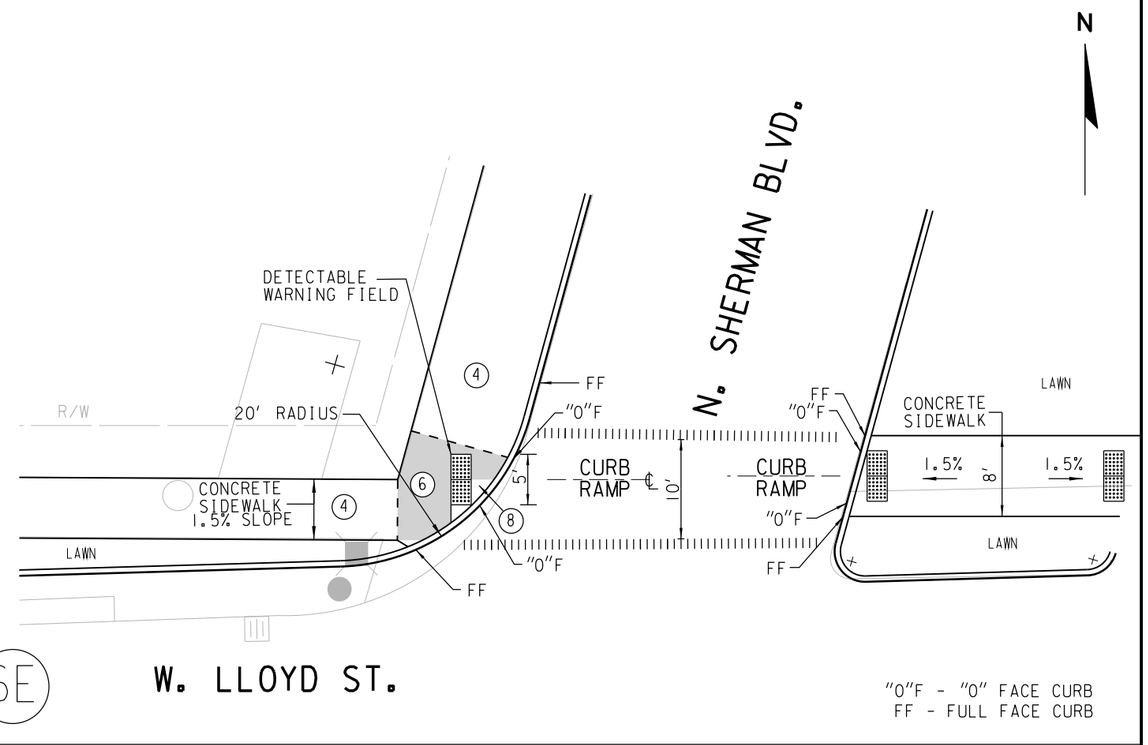
REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 38 E

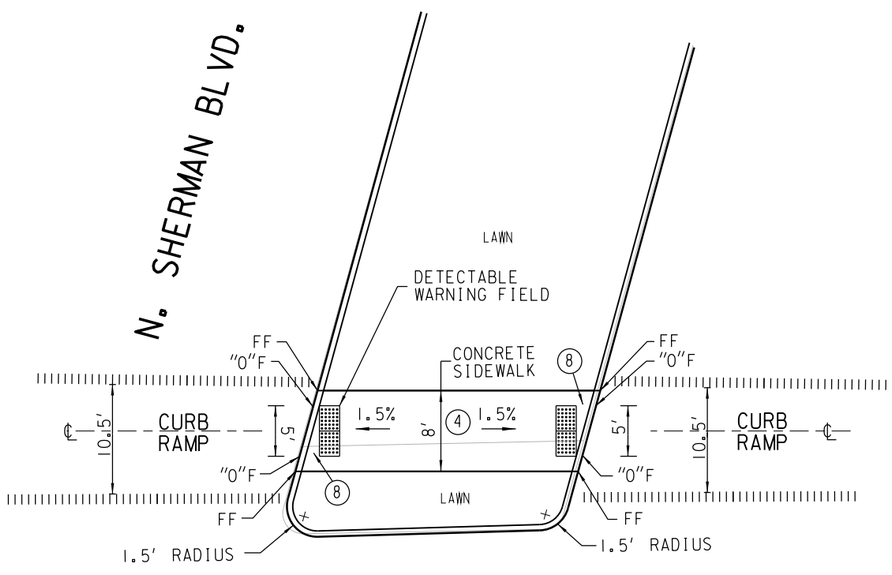
FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN



5E



6E



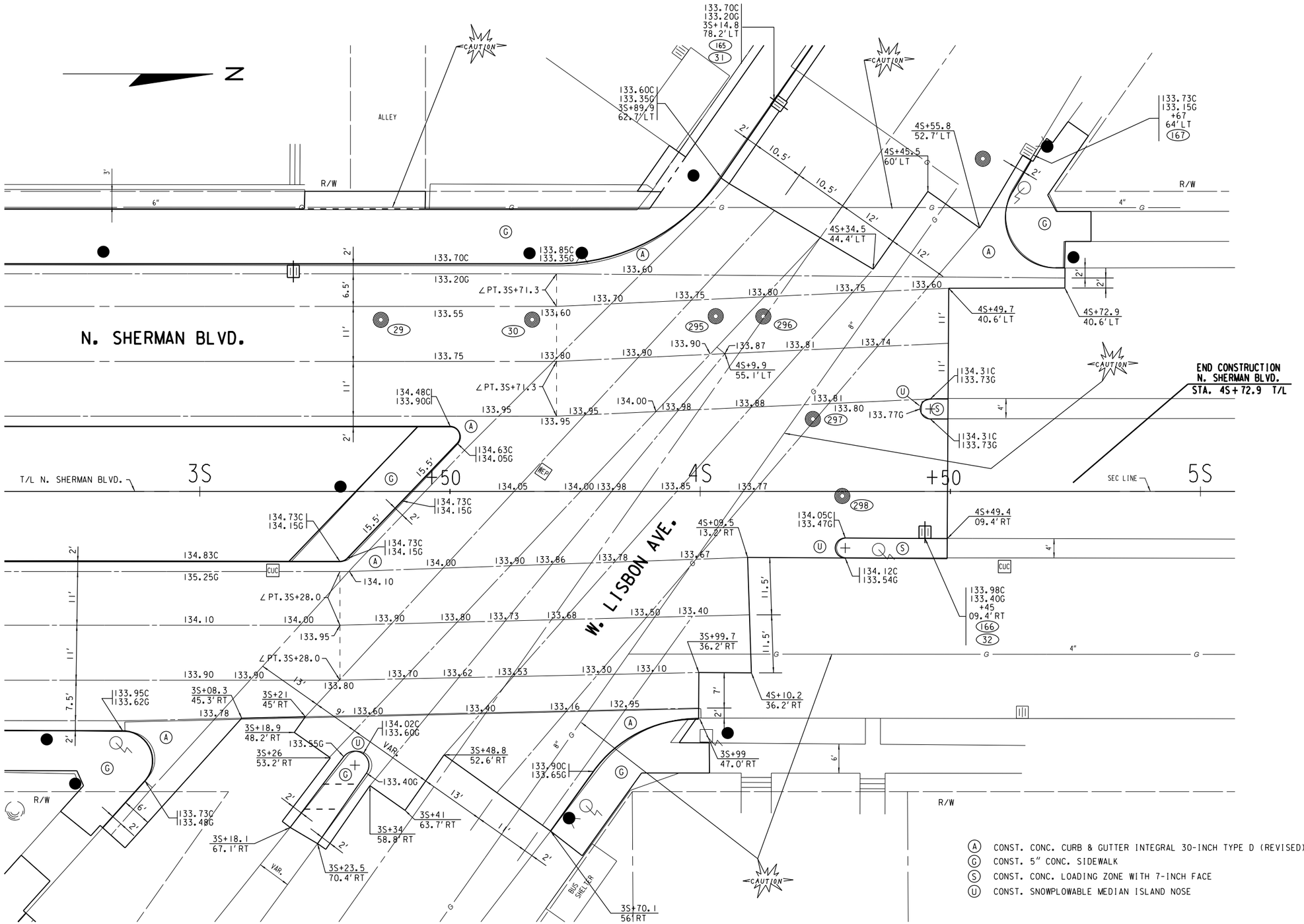
7E

CURB RAMP DETAILS-N. SHERMAN BLVD. ,N. SHERMAN BL. AND W. LLOYD ST. (INCLUDES TRIANGLE MEDIAN)

REVISED: 01-20-2016

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	RAMP DETAILS	SCALE FEET 0' 15'	SHEET NO: 39 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\RAMPD_DETAIL.DGN



Ⓐ CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
Ⓖ CONST. 5" CONC. SIDEWALK
Ⓢ CONST. CONC. LOADING ZONE WITH 7-INCH FACE
Ⓤ CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

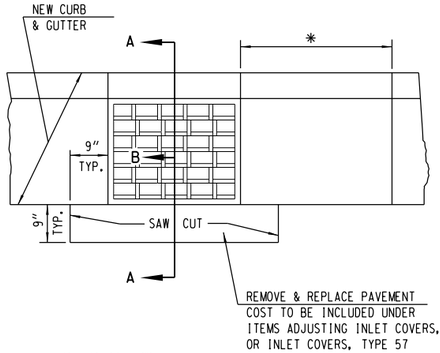
INTERSECTION DETAIL - N. SHERMAN BLVD. AND W. LISBON AVE.

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 40	E

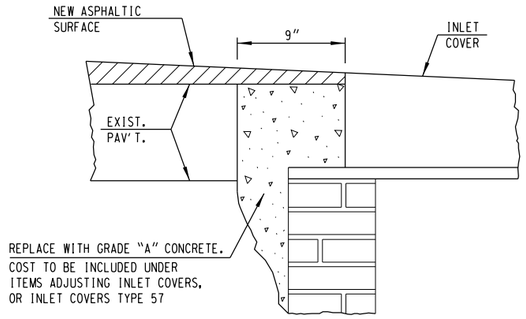
FILE NAME: W:\SPR\LLOYD 47TH 60TH\CONDET.DGN

2

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

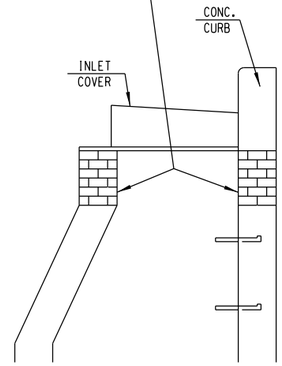


PLAN VIEW



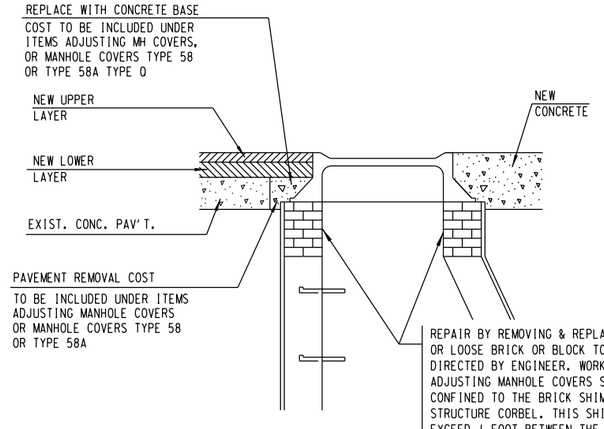
SECTION A-B

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.

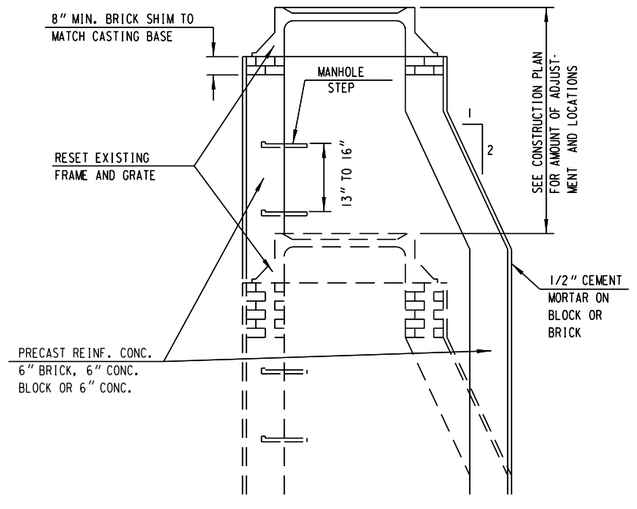


SECTION A-A

ADJUSTING INLET COVERS



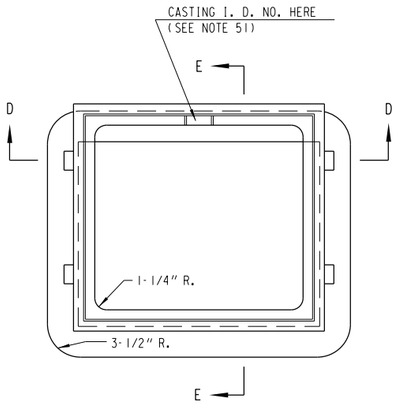
ADJUSTING MANHOLE COVERS OR MANHOLE COVERS TYPE 58A

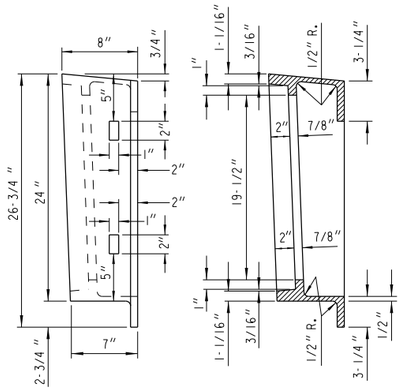


RECONSTRUCTING MANHOLES AND INLETS

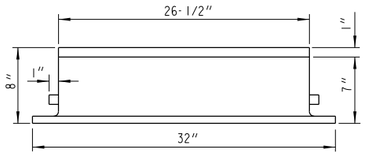
CONSTRUCTION NOTES

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.

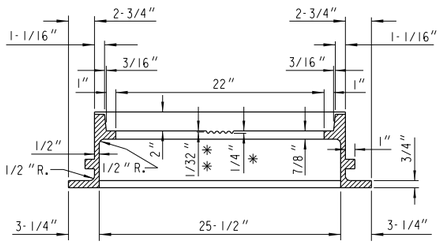




SECTION E-E



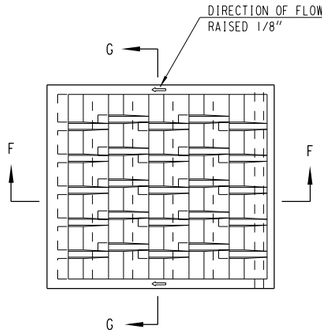
FRAME



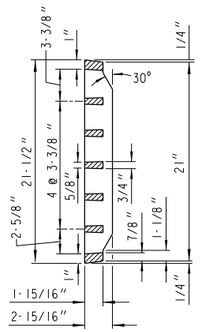
SECTION D-D

* DEPRESSION FOR LETTERS

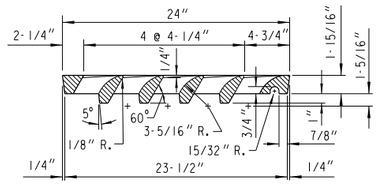
** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



GRATE



SECTION G-G



SECTION F-F

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

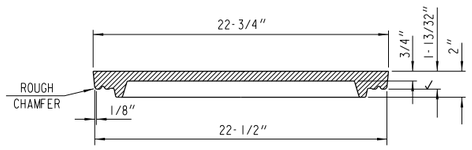
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

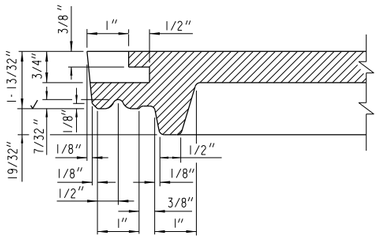
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

INLET COVER - TYPE 57

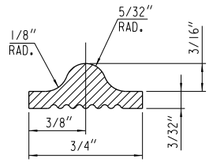
LID-145 LBS., FRAME-204 LBS.



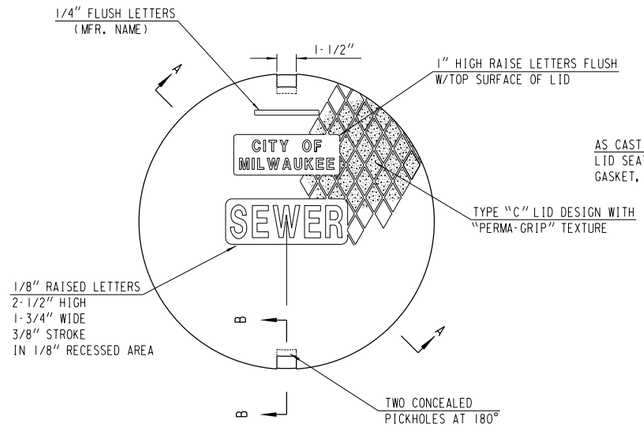
SECTION A-A



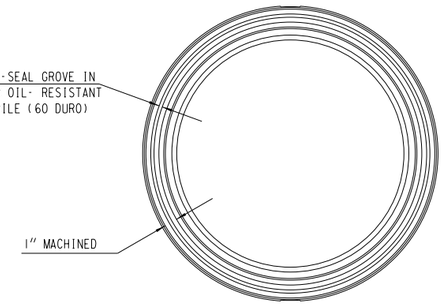
SECTION B-B



"T" GASKET DETAIL



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

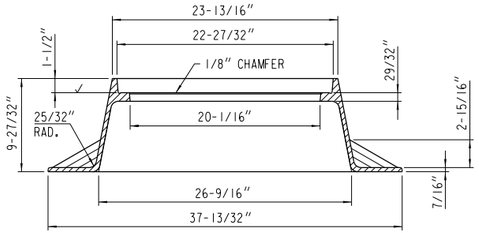
LID - 107 LBS.

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.

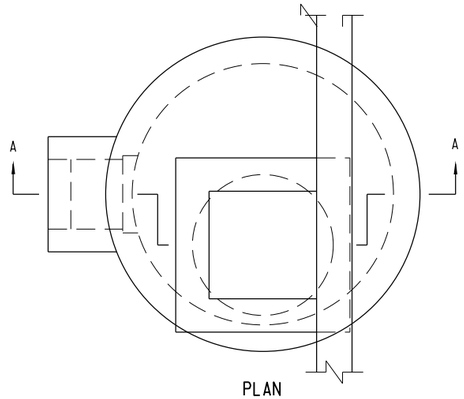


MANHOLE FRAME - TYPE MS21

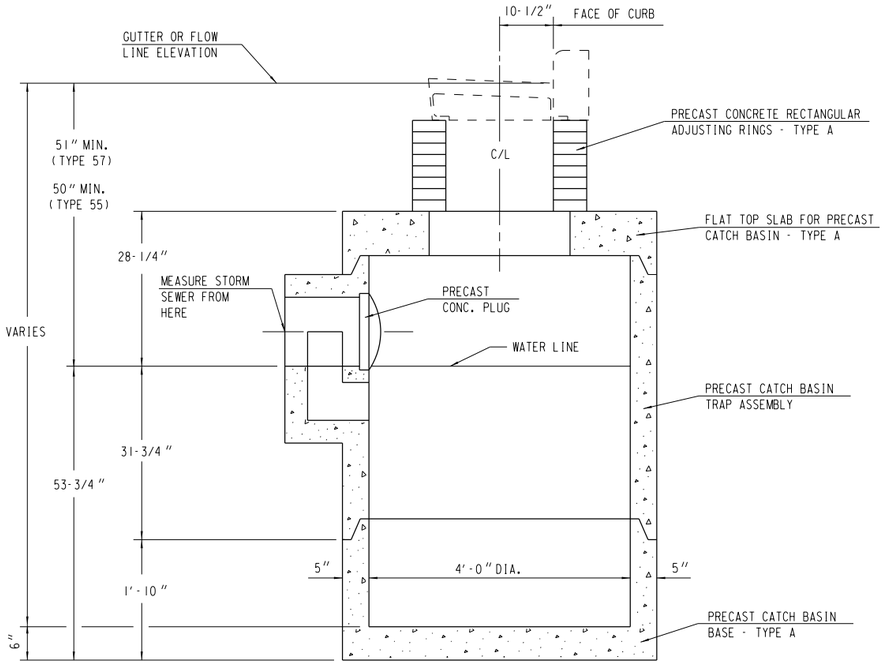
FRAME - 182 LBS.

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 42	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\DRAINDET.DGN



PLAN

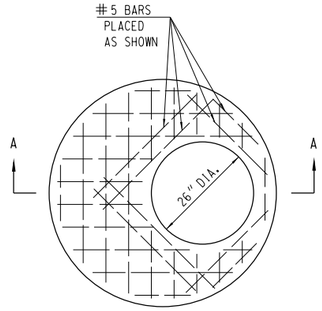


SECTION A-A

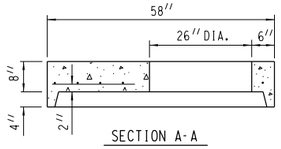
CATCH BASIN - TYPE 44A

GENERAL NOTES

1. REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
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.
5. A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.



PLAN



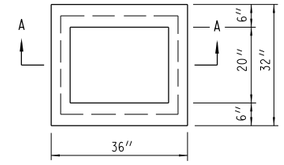
SECTION A-A

TOP SLAB - TYPE A

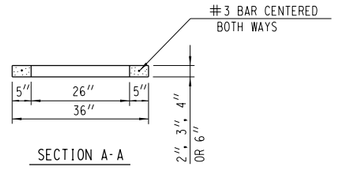
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

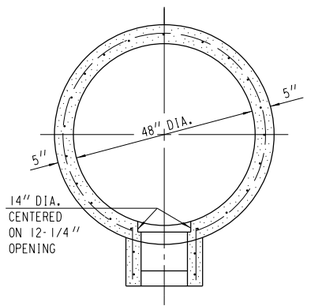


SECTION A-A

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.



SECTION A-A

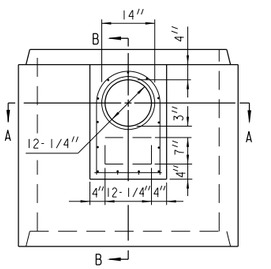
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

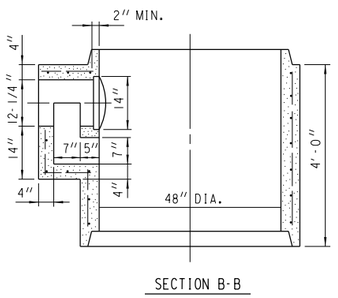
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

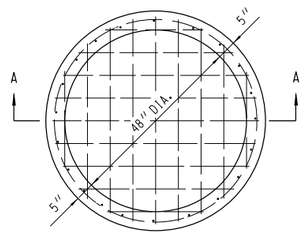


PLAN



SECTION B-B

TRAP ASSEMBLY



PLAN

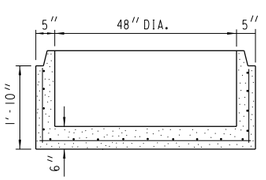
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

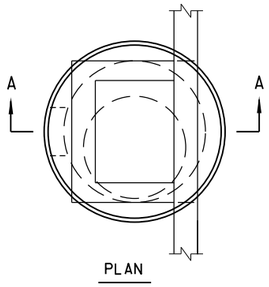
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

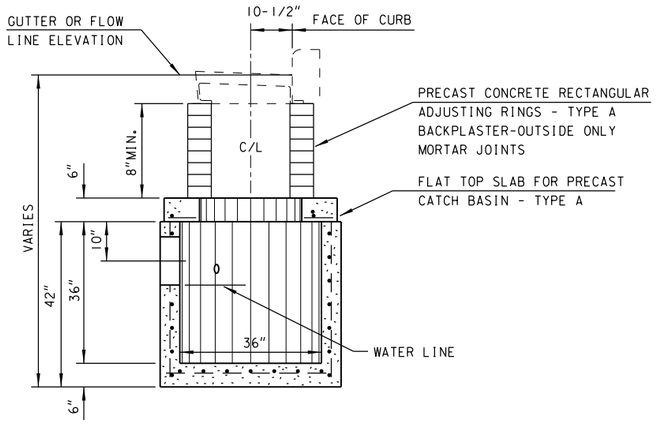


SECTION A-A

BASE - TYPE A



PLAN



SECTION A-A

CATCH BASIN - TYPE 45A

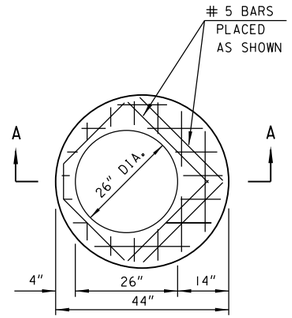
GENERAL NOTES

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.

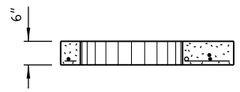
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

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

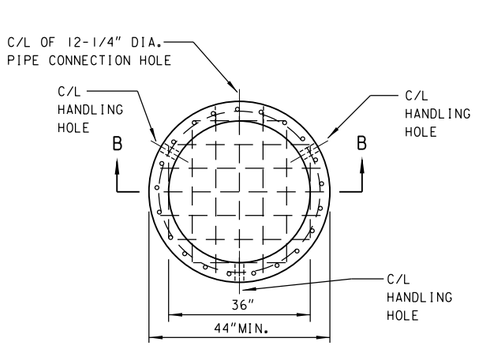
TOP SLAB - TYPE A

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.

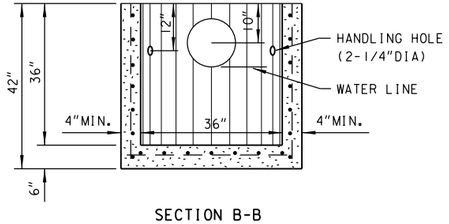
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

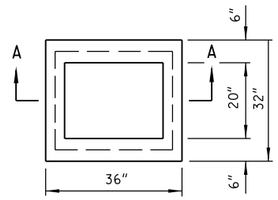
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



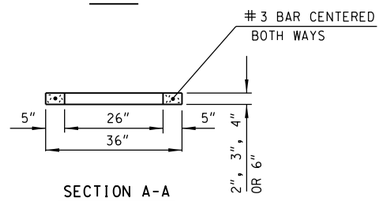
RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B



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.

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.

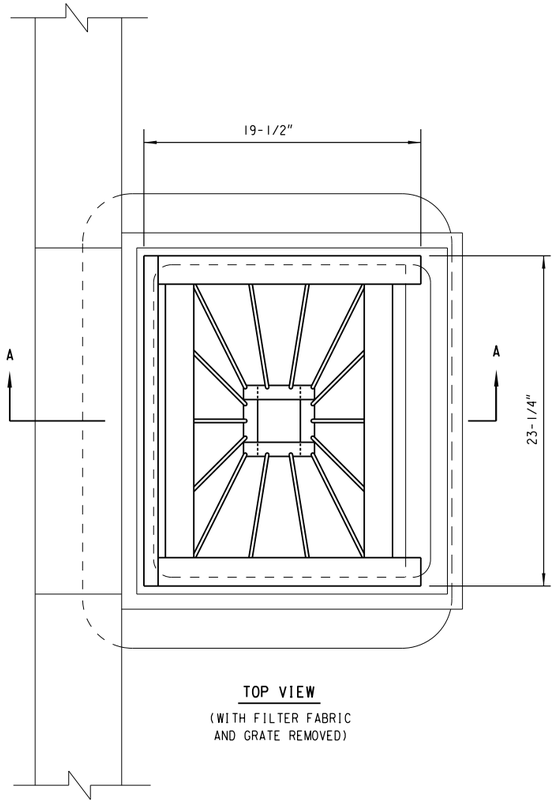
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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.

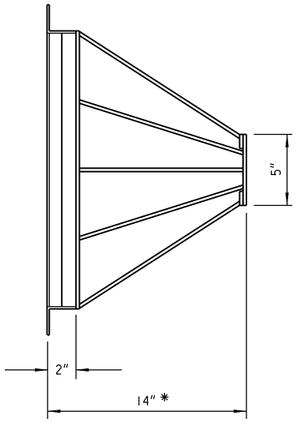
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

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



TOP VIEW

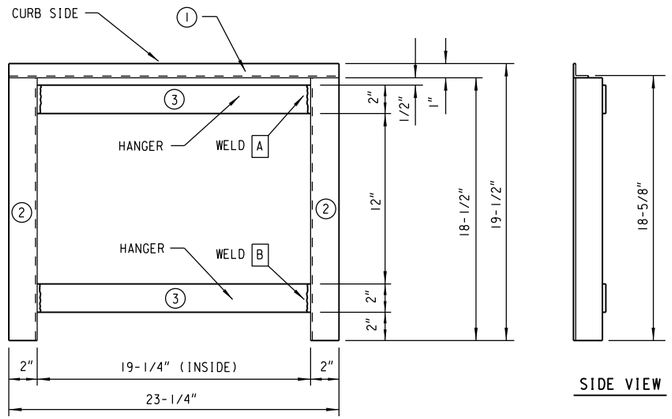
(WITH FILTER FABRIC AND GRATE REMOVED)



FRONT VIEW

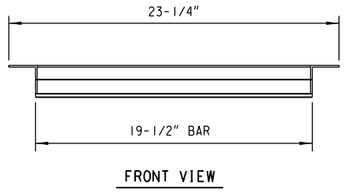
(BASKET ONLY)

* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH



TOP VIEW

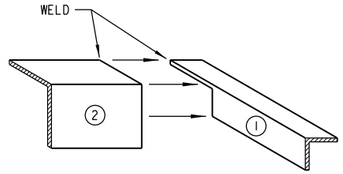
SIDE VIEW



FRONT VIEW

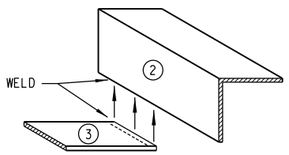
BAR SCHEDULE

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



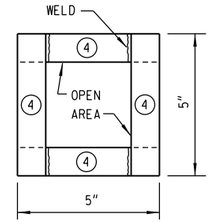
WELD CONNECTION - A

TOP FRAME



WELD CONNECTION - B

BASKET HANGER TO TOP FRAME



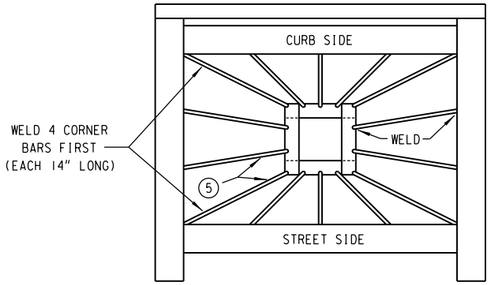
TOP VIEW

SIDE VIEW

BAR SCHEDULE

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

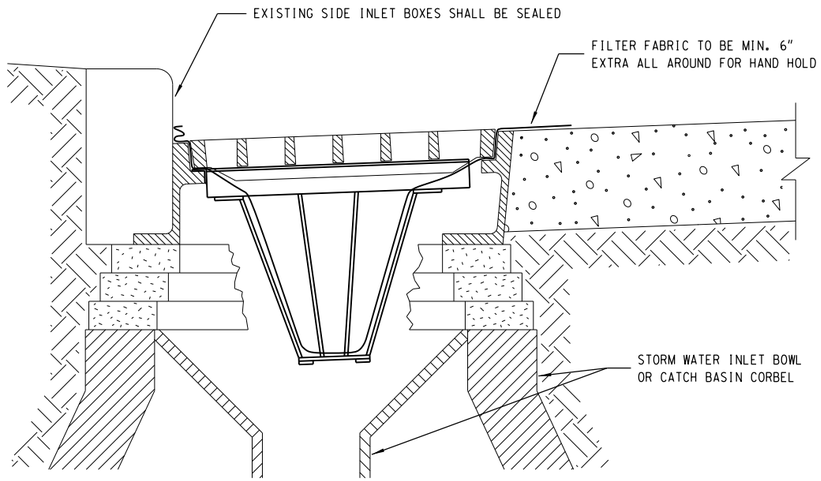
BASKET BOTTOM



ROD PLACEMENT

ROD SCHEDULE

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



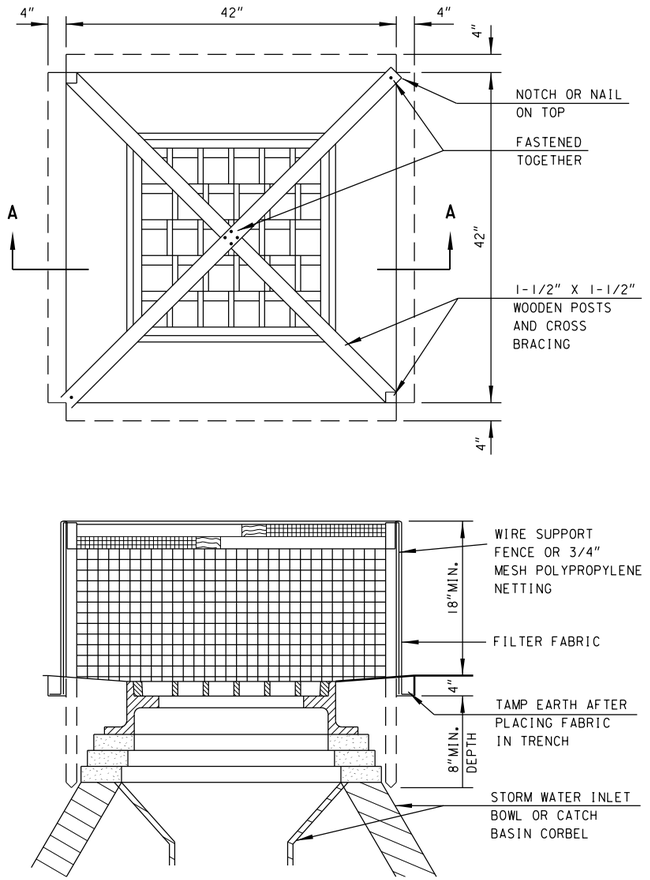
SECTION A-A

TYPE M
INLET / CATCH BASIN BASKET

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 45	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\DRAINDET.DGN

2



SECTION A-A

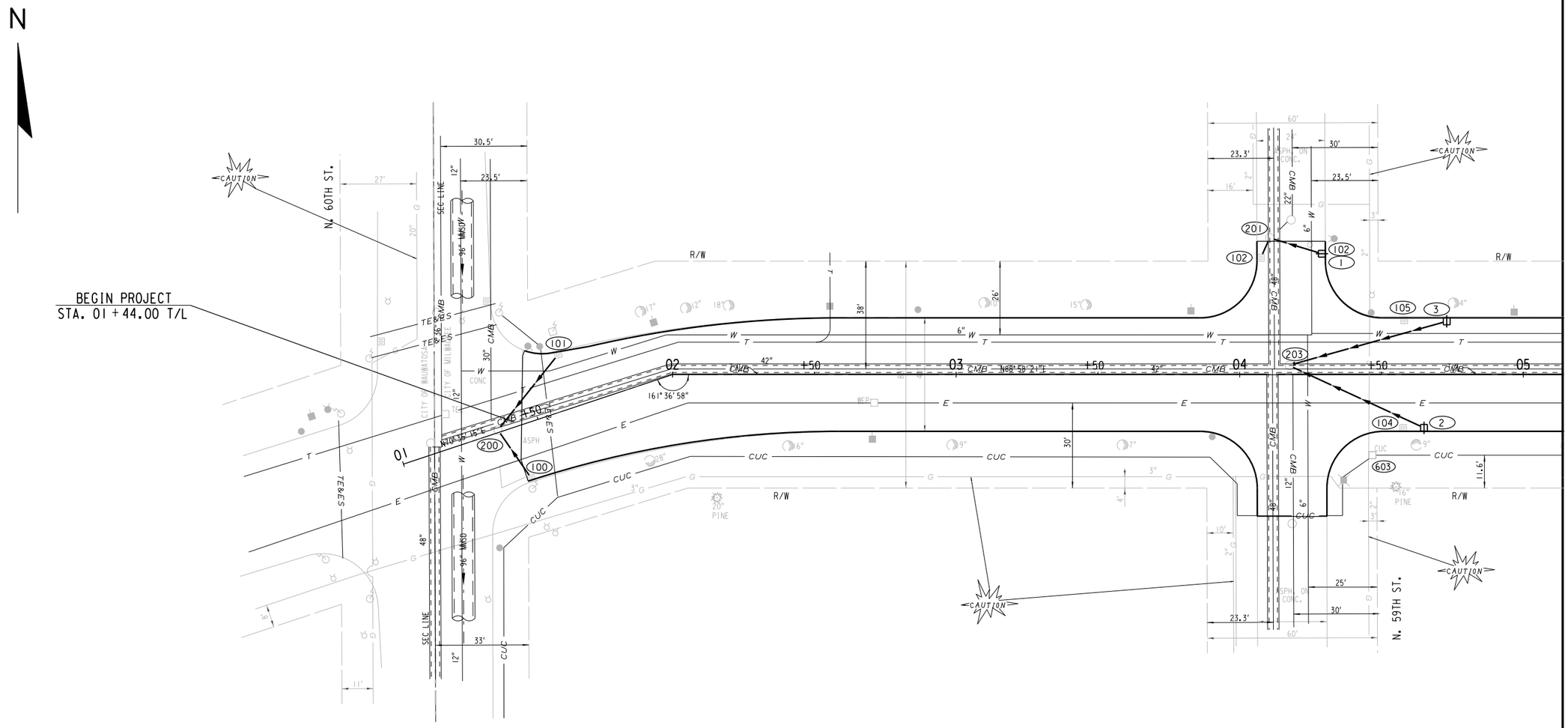
INLET SCREEN

(NOT PAVED) (TYPE R)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 46	E

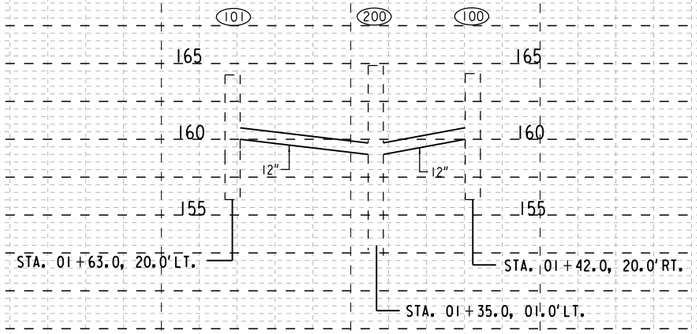
FILE NAME: W:\SPR\LLOYD 47TH 60TH\DRAINDET.DGN

WEST LLOYD STREET



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 47	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 01_05.DGN



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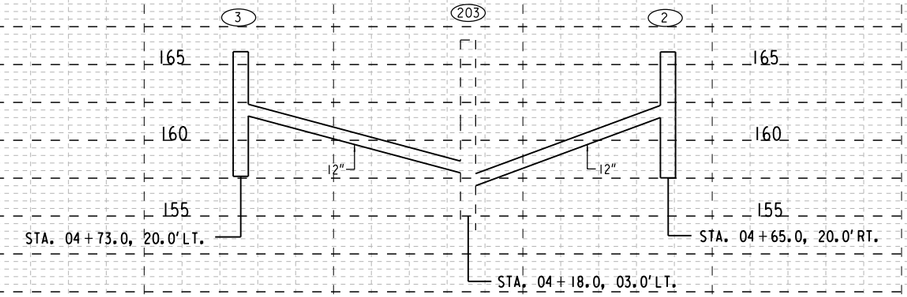

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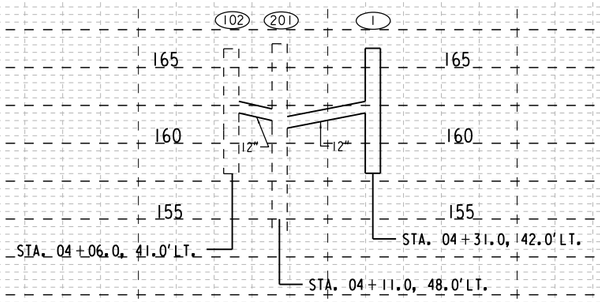
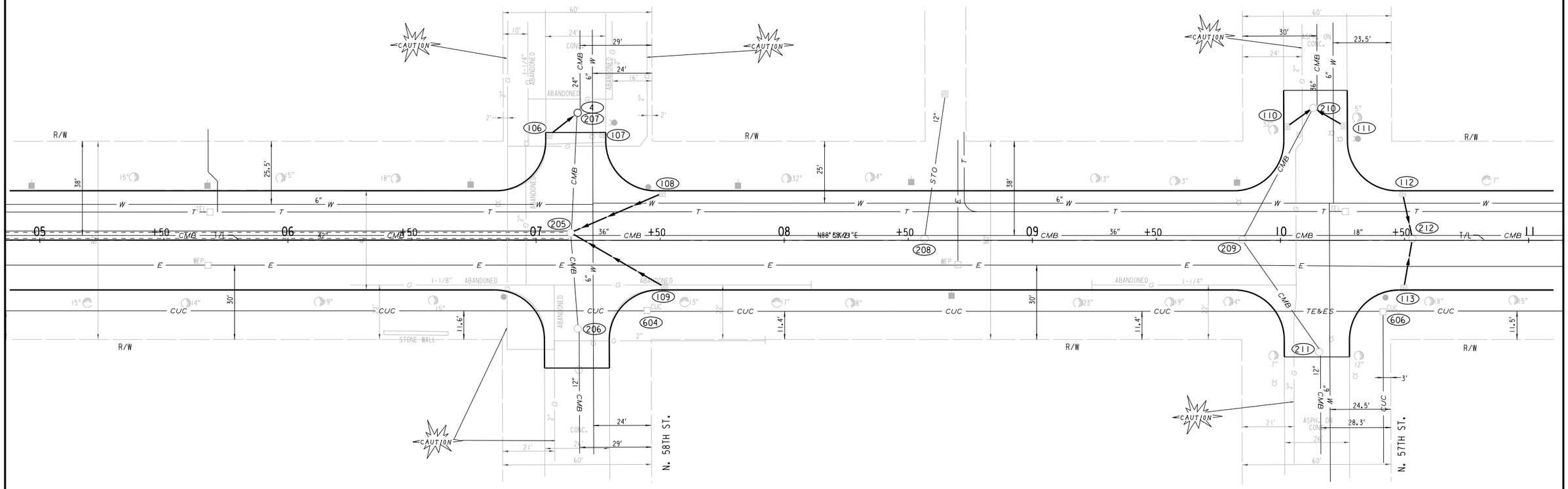


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 48	E

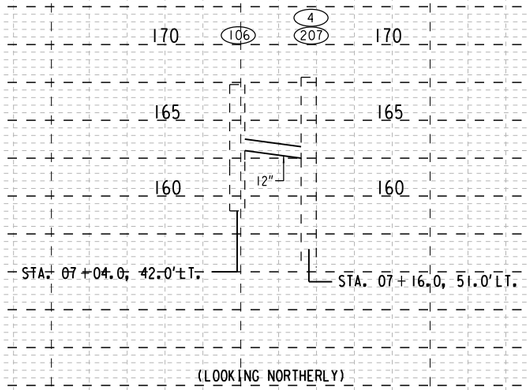
FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 01_05.DGN

WEST LLOYD STREET



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 49	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 05_11.DGN



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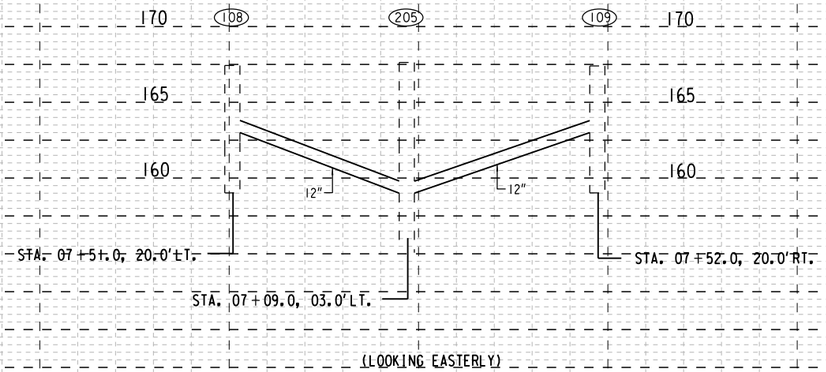

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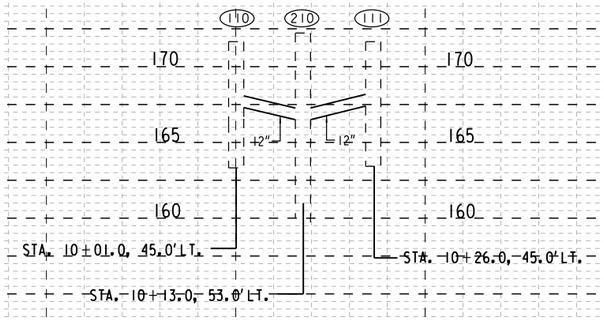
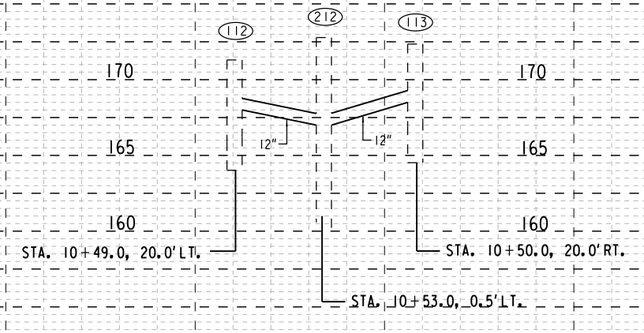


(LOOKING NORTHERLY)



(LOOKING EASTERLY)

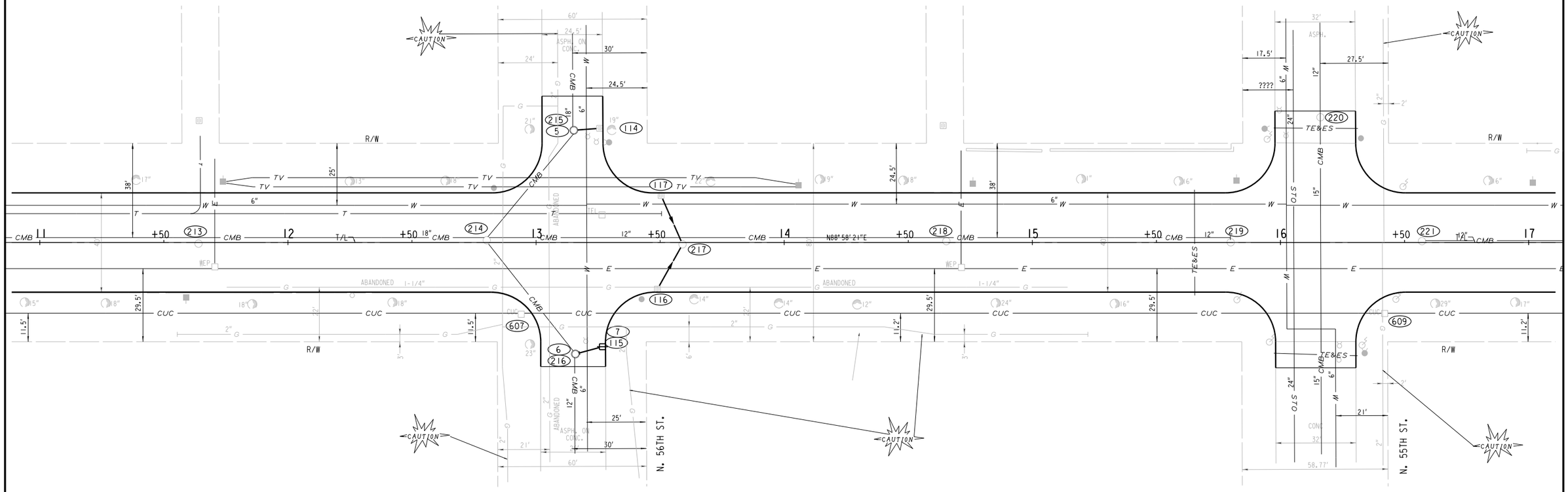
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 50	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH UTIL\05_11.DGN

2

WEST LLOYD STREET

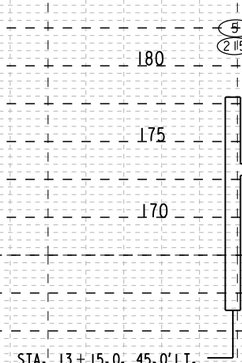
2



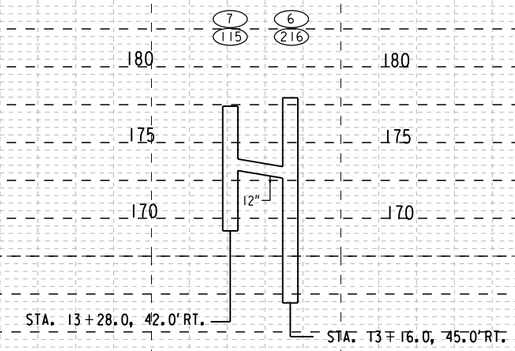
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 51	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 11_17.DGN

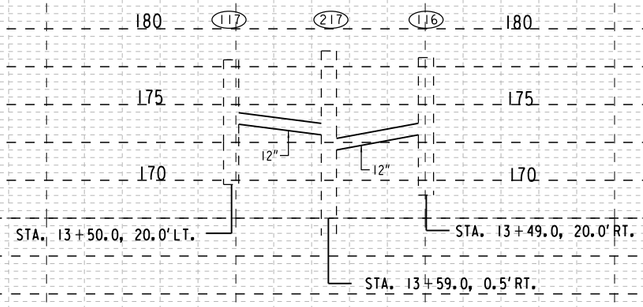
2



(LOOKING NORTHERLY)



(LOOKING SOUTHERLY)



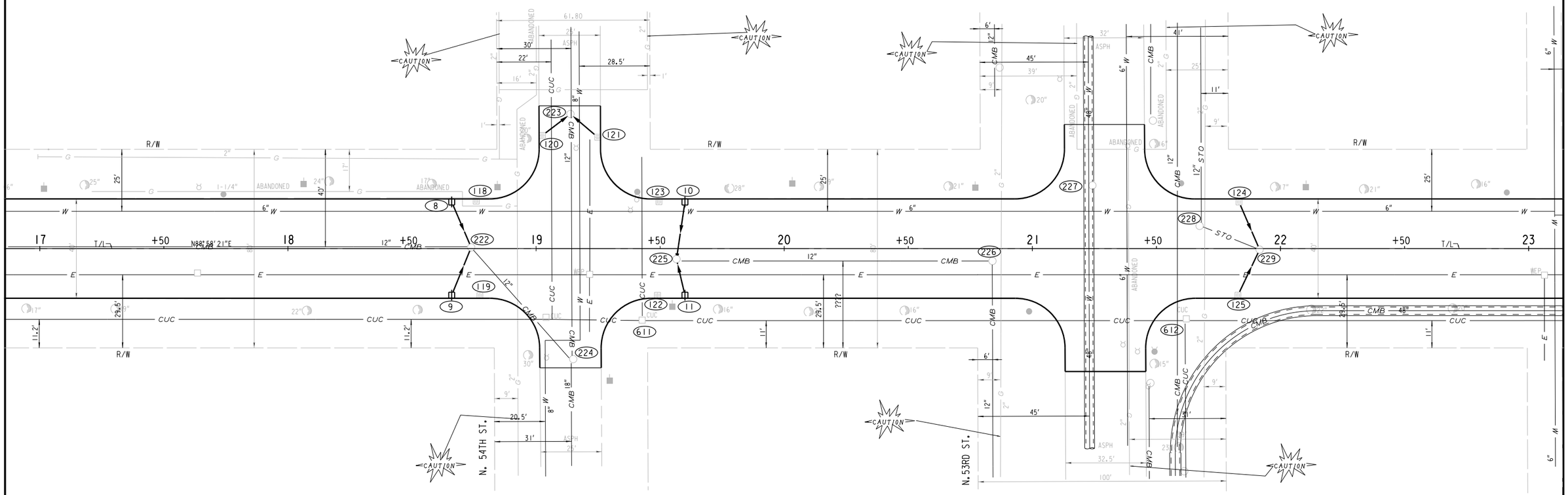
(LOOKING EASTERLY)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 52	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH UTIL\11_17.DGN

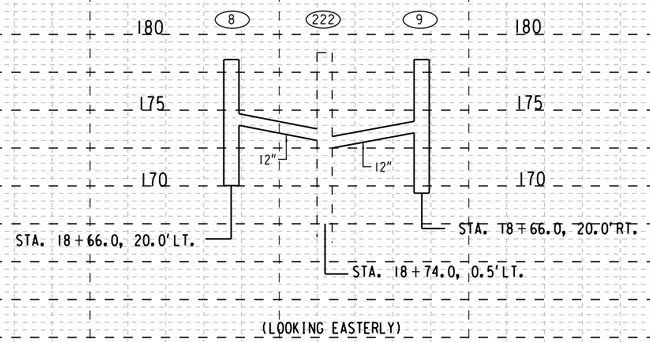
WEST LLOYD STREET

N



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 53	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 17_23.DGN



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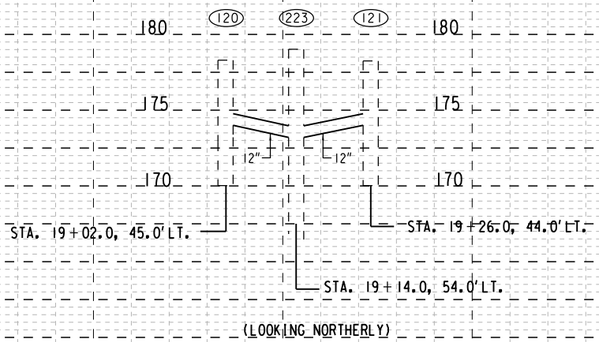

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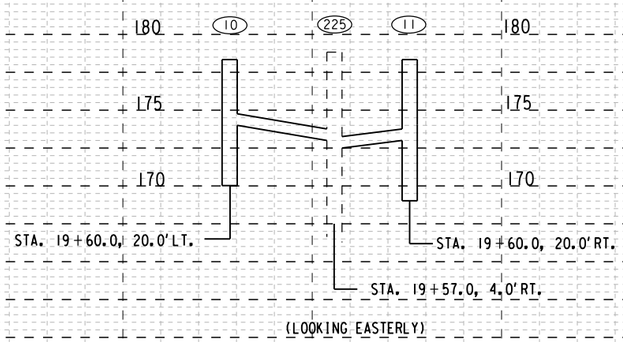

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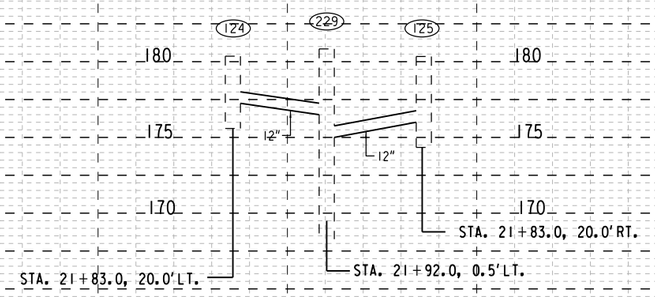


(LOOKING EASTERLY)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGEPLAN AND	SCALE FEET	SHEET NO: 54	E

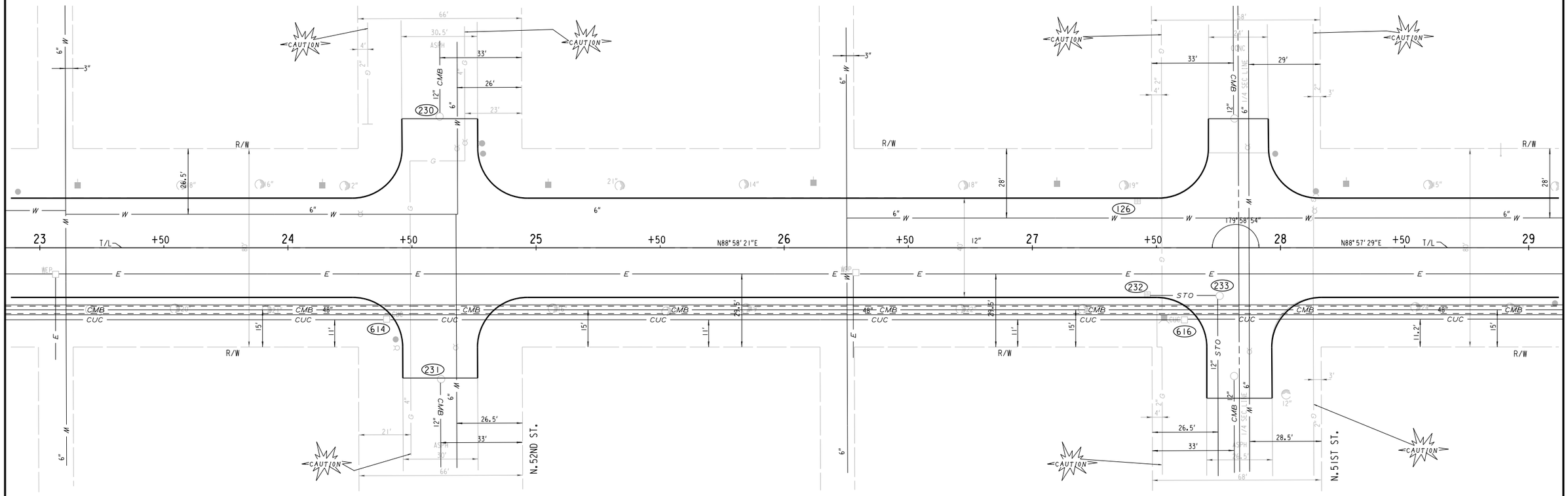
FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 17_23.DGN

2

WEST LLOYD STREET

2

N



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 55	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 23_29.DGN

2

2

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 56	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 23_29.DGN

WEST LLOYD STREET

N

CAUTION

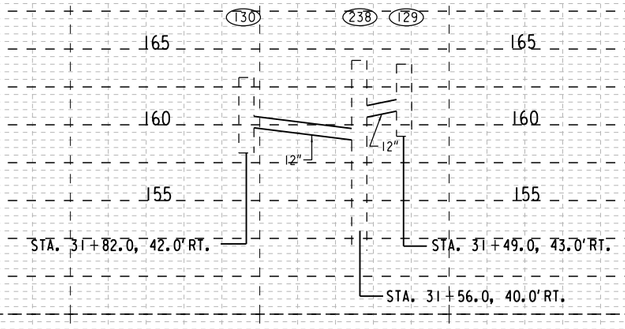
100'
47'
12" ASPH
12" CMP ABND
45'
40'
21.4'
2" G
4'
CUC
6" W
39" STO
617
127
237
240
241
236
128
238
239
129
130
242
618
STONE WALL
30" STO
21" STO
21" CMP
39.5'
45'
49.6'
41'
N. HI-MOUNT BLVD.

R/W
ABANDONED
G
1-1/8"
W
STO
CMB
CUC
E
WEP
T/L
I/L
12" STO
30" STO
15" CMB
48" CMB
N88° 57' 29"E
8'
12" STO
24"
30"
20"
16"
39.4'
32'
22'
35.5'
28'
29.5'
14.6'
11.2'
15'

29 +50 30 +50 31 +50 32 +50 33 +50 34 +50 35

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 57	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 29_35.DGN



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 58	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH UTIL 29 35.DGN

WEST LLOYD STREET

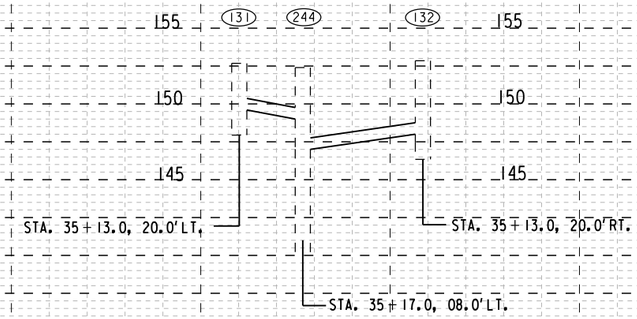
N

N. 49TH ST.

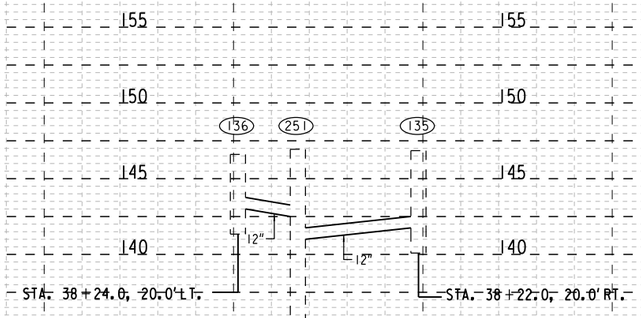
N. 48TH ST.

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 59	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 35_41.DGN



(LOOKING EASTERLY)



(LOOKING EASTERLY)

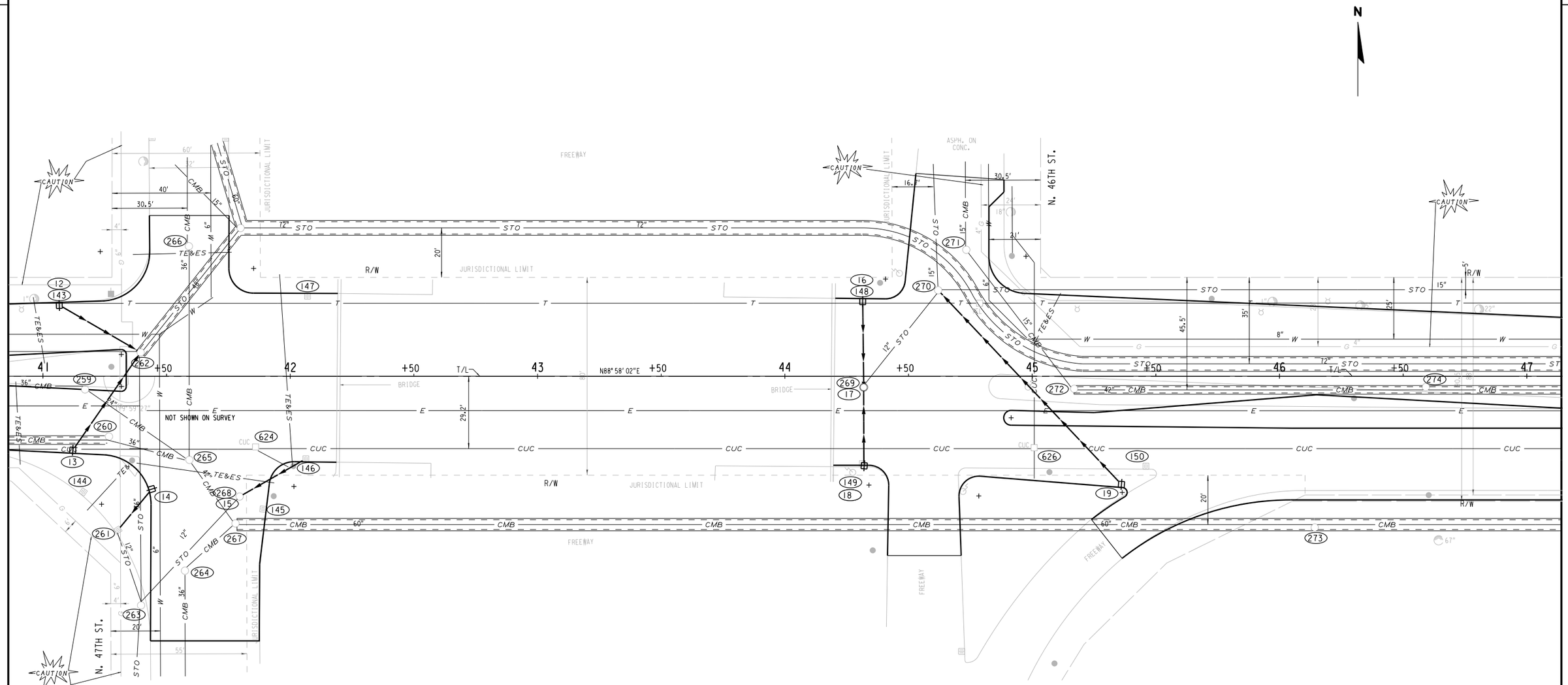
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 60	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 35_41.DGN

2

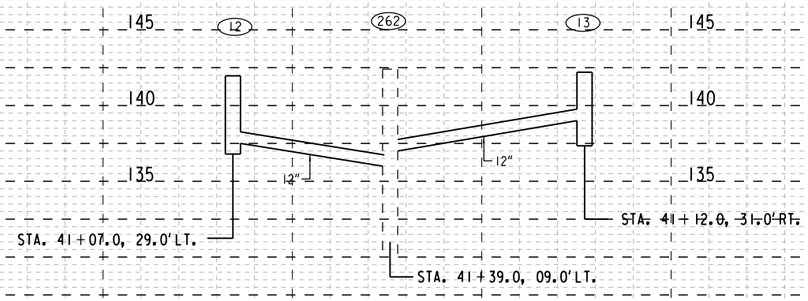
WEST LLOYD STREET

2

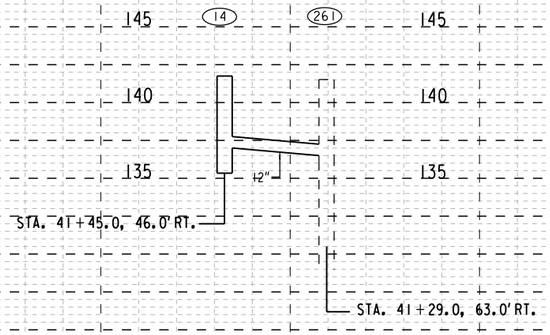


STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 61	E

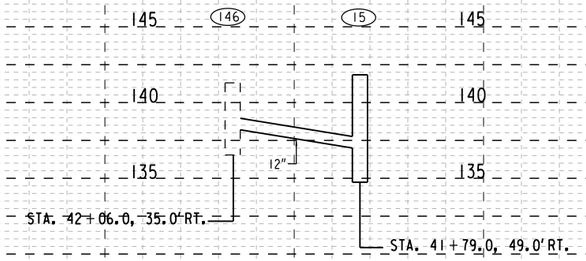
FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 41_47.DGN



(LOOKING EASTERLY)



(LOOKING SOUTHERLY)



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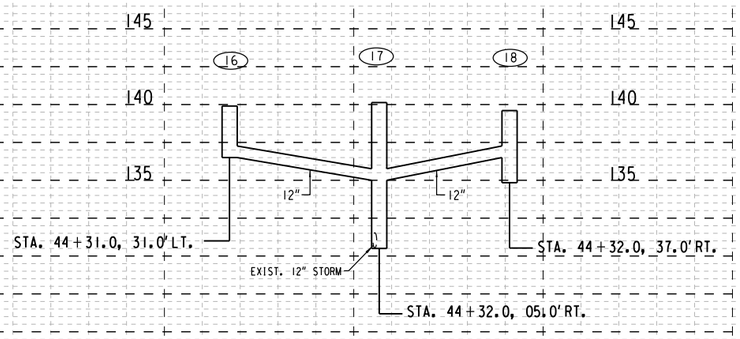

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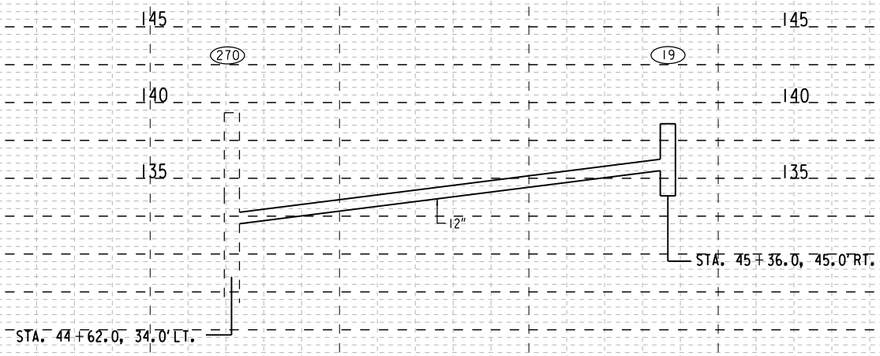
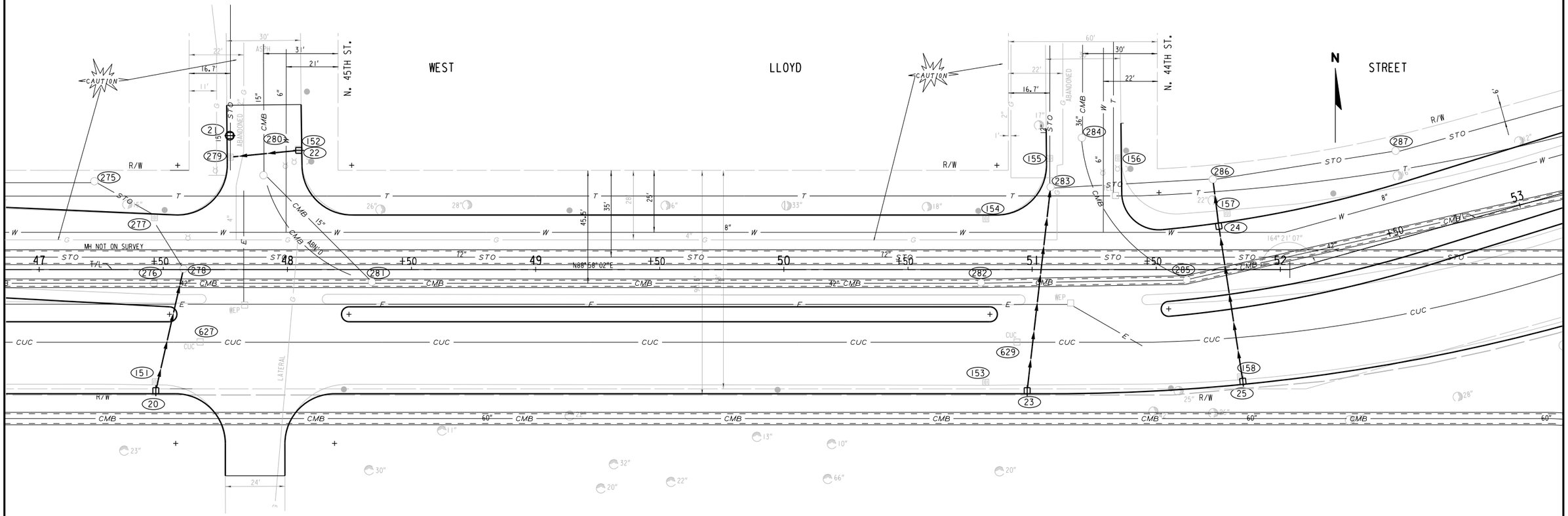


(LOOKING EASTERLY)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 62	E

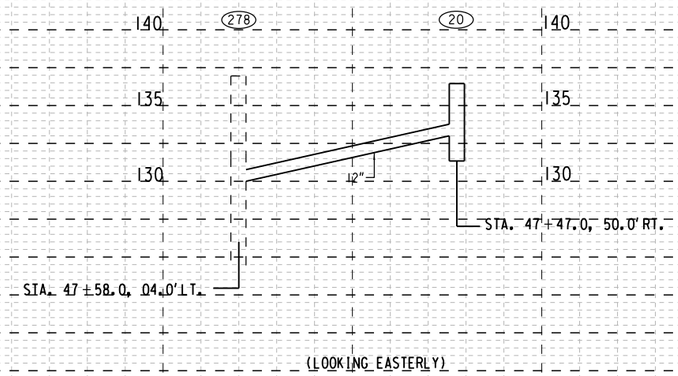
FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 41_47.DGN

2



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 63	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 47_53.DGN



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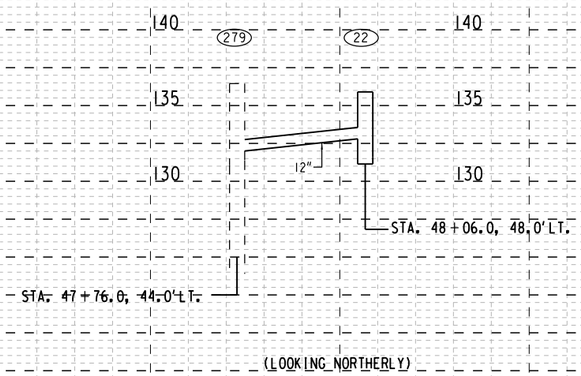
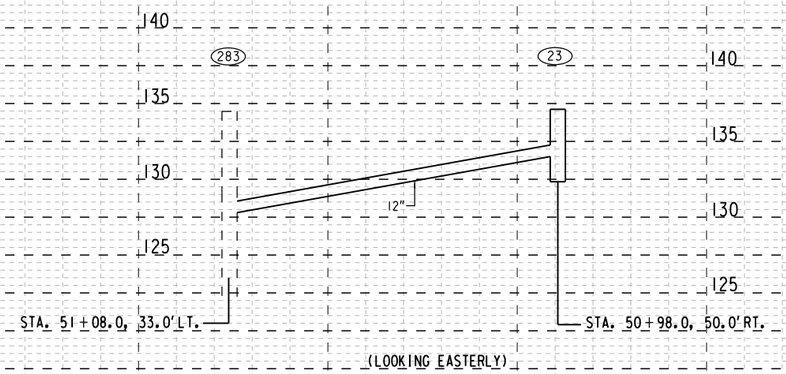


(LOOKING NORTHERLY)



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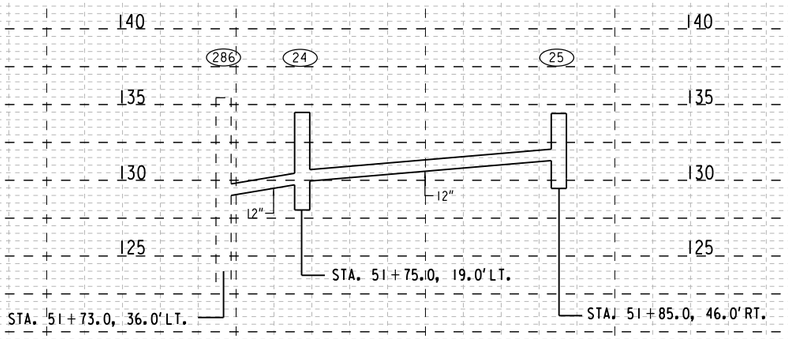


(LOOKING EASTERLY)

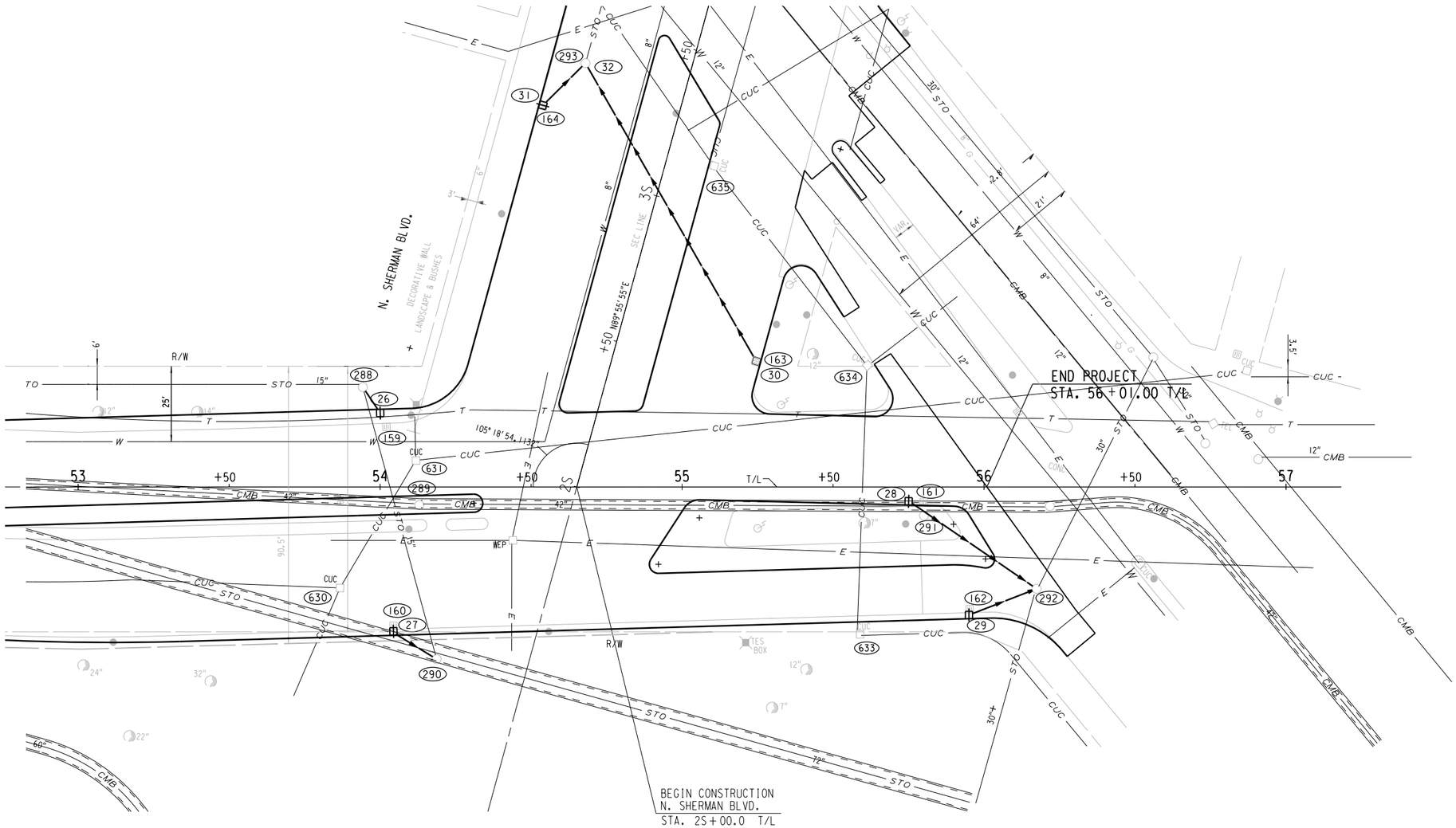
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 64	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 47_53.DGN

2

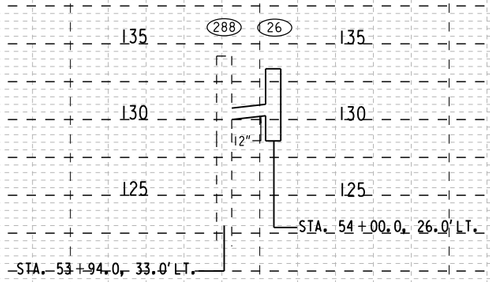
N

SEE N. SHERMAN BLVD. UTILITIES AND DRAINAGE PLAN SHEET
(STA 2S + 00 TO 4S + 72.9)

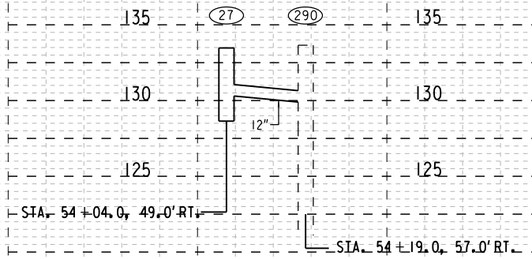


STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 65	E

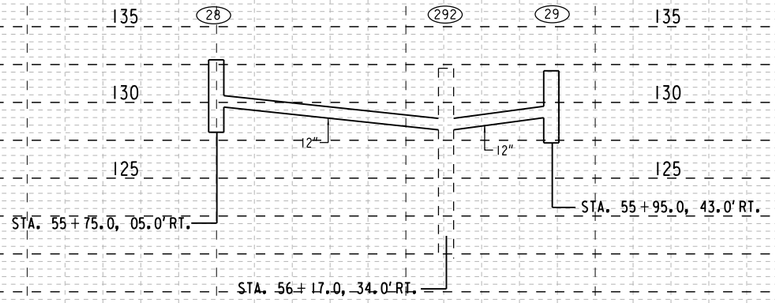
FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 53_57.DGN



(LOOKING NORTHEASTERLY)



(LOOKING NORTHEASTERLY)



(LOOKING NORTHEASTERLY)

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 66	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH UTIL 53 57.DGN

2

NORTH

SHERMAN

BLVD.

N

WEST

LLOYD

ST.

N. SHERMAN BLVD.

W. LISBON AVE.

+50 T/L W. LLOYD ST.

+50 N89°55'55"E

T/L N. SHERMAN BLVD.

SEC LINE

2S

3S

4S

5S

DECORATIVE WALL
LANDSCAPE & BUSHES

CAUTION

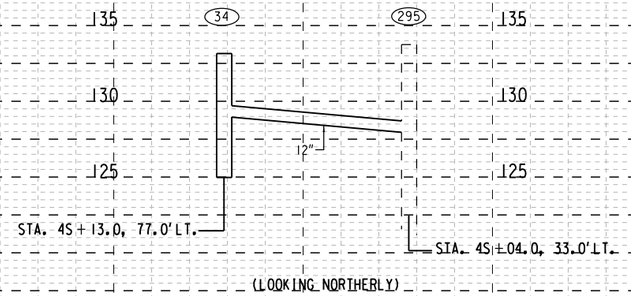
BEGIN CONSTRUCTION
N. SHERMAN BLVD.
STA. 2S+00.0 T/L

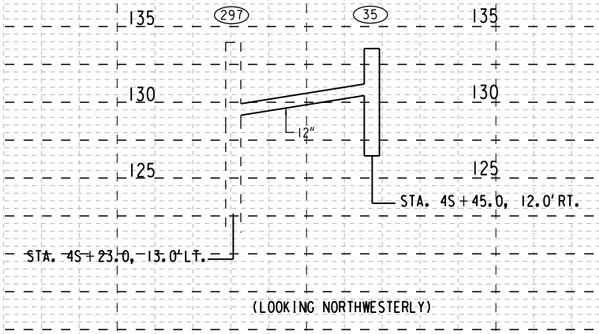
END CONSTRUCTION
N. SHERMAN BLVD.
STA. 4S+72.9 T/L

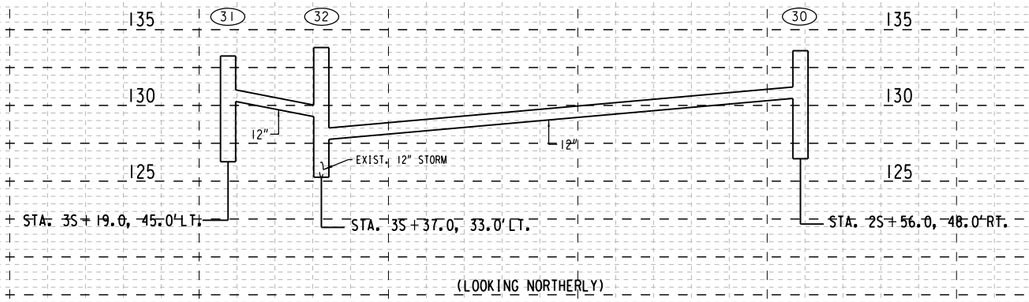
END PROJECT
W. LLOYD ST.
STA. 56+01.00 T/L

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 67	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\UTIL 2S 5S.DGN





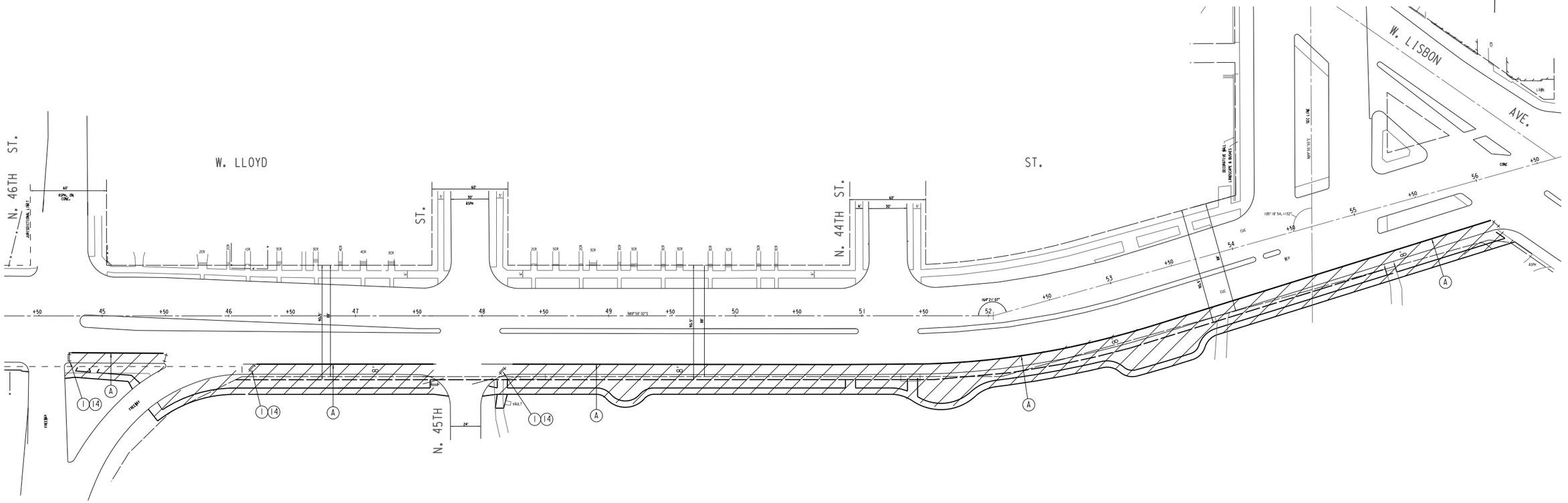


STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 68	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH UTIL 53 57.DGN

PRE STAGE I

2



W1-6-L
1
24" X48"

A TPM, REFLECTIVE PAINT, 4" WHITE

LEGEND

- DRUMS W/LIGHTS 30' SPACING
- TYPE III BARRICADES — 14
- TYPE III BARRICADES W/ SIGNS — 14 X
- WORK AREA

ROAD WORK AHEAD WILL BE SIGNED WITH
ANTICIPATED STATE BRIDGE WORK BEING DONE

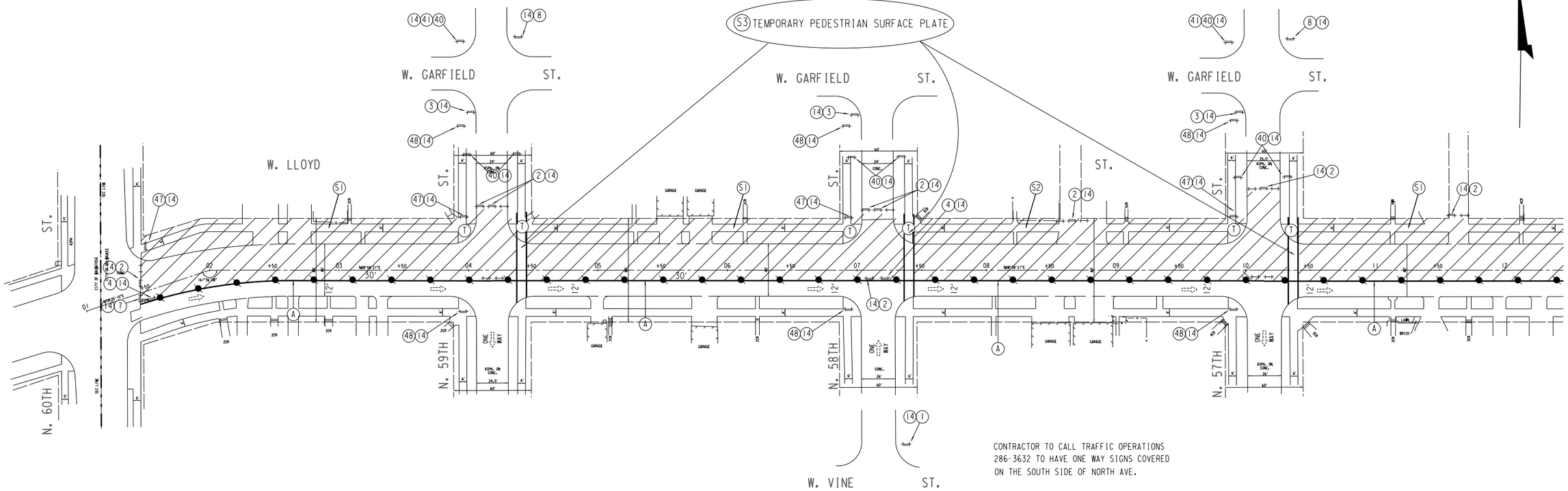
SHEET 1 OF 19

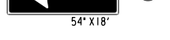
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 69	E

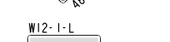
FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

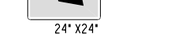
12-21-2015

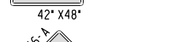
STAGE I

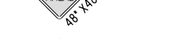


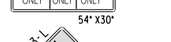


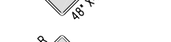


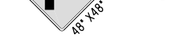


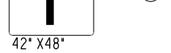


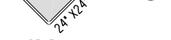












NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

- DRUMS W/LIGHTS 30' SPACING — 13
- TYPE III BARRICADES — 14
- TYPE III BARRICADES W/ SIGNS — 14X
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- S3 TEMPORARY PEDESTRIAN SURFACE PLATE
- T TEMPORARY CURB RAMP

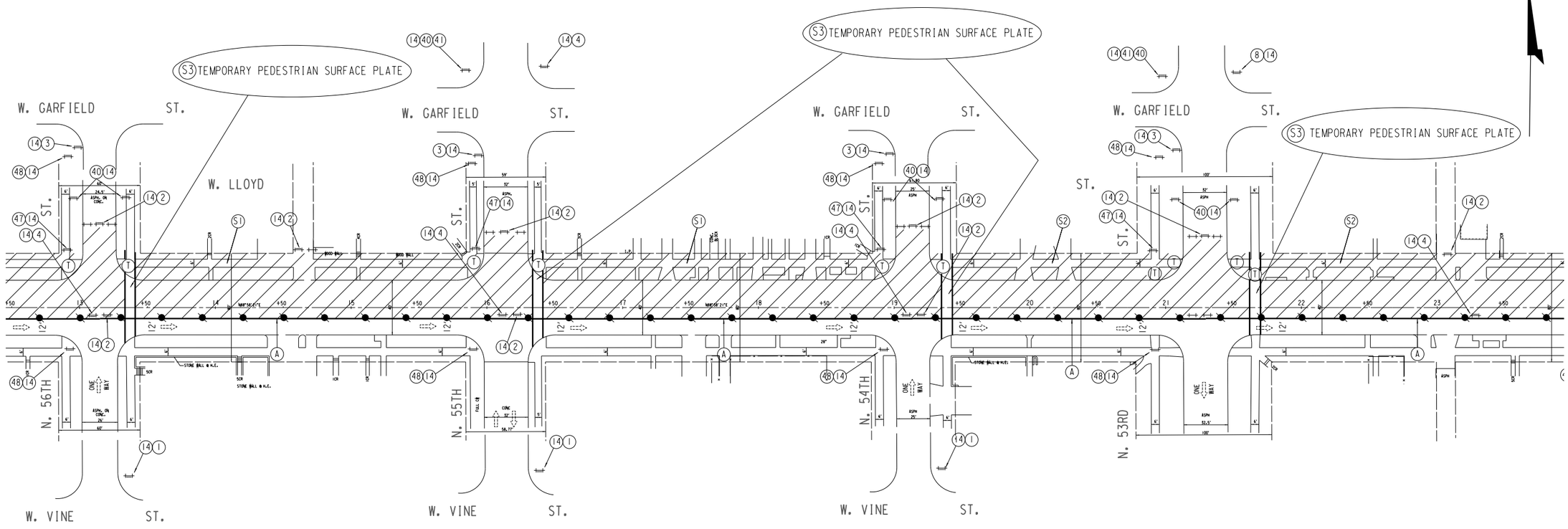
- A TPM, REFLECTIVE PAINT, 4" WHITE
- B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- C TPM, REMOVABLE TAPE 4" WHITE
- D TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- I TPM, ARROWS, REMOVABLE TAPE
- J TPM, WORDS, REMOVABLE TAPE
- F TPM, REFLECTIVE PAINT, 8' WHITE
- G TPM, ARROWS, REFLECTIVE PAINT
- H TPM, WORDS, REFLECTIVE PAINT
- K TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- L TPM, REMOVABLE TAPE, 8" WHITE
- S1 TEMPORARY PEDESTRIAN SURFACE ASPHALT
- S2 TEMPORARY PEDESTRIAN SURFACE PLYWOOD

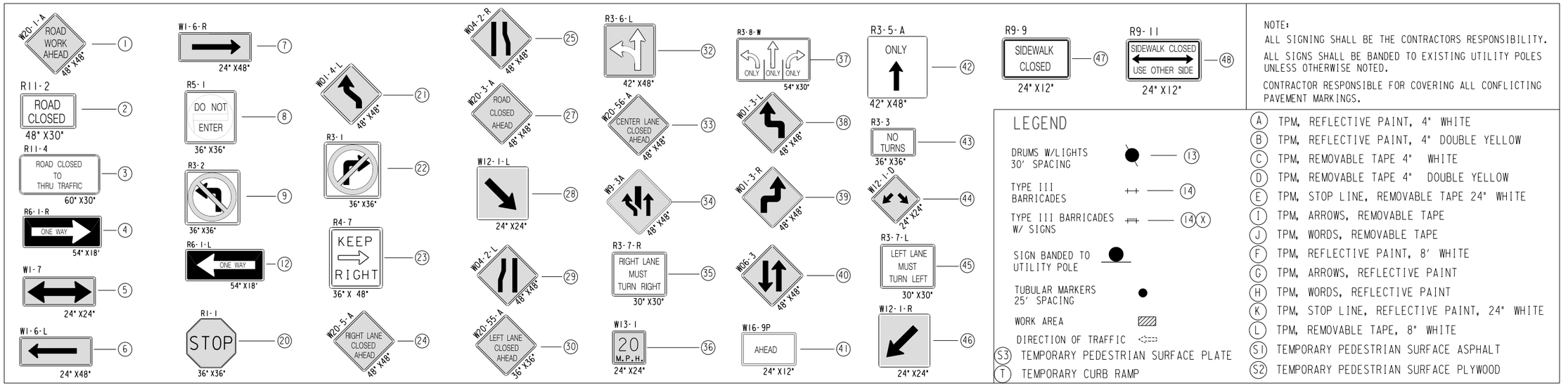
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 70 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

REVISED 11-21-2015

STAGE I





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ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

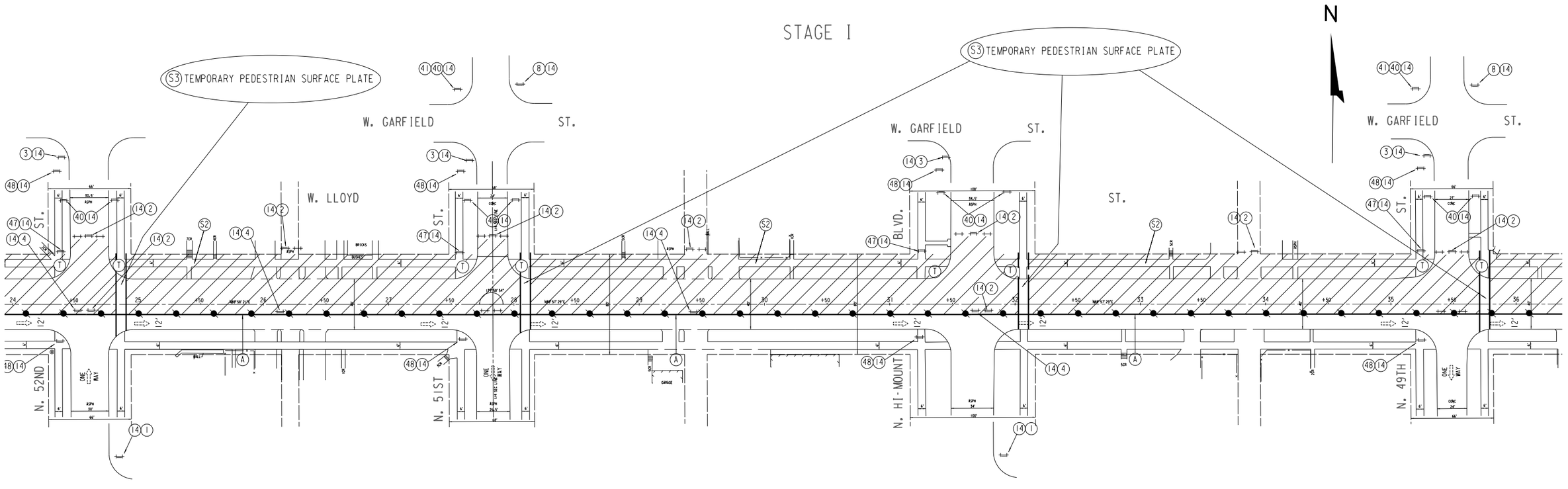
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

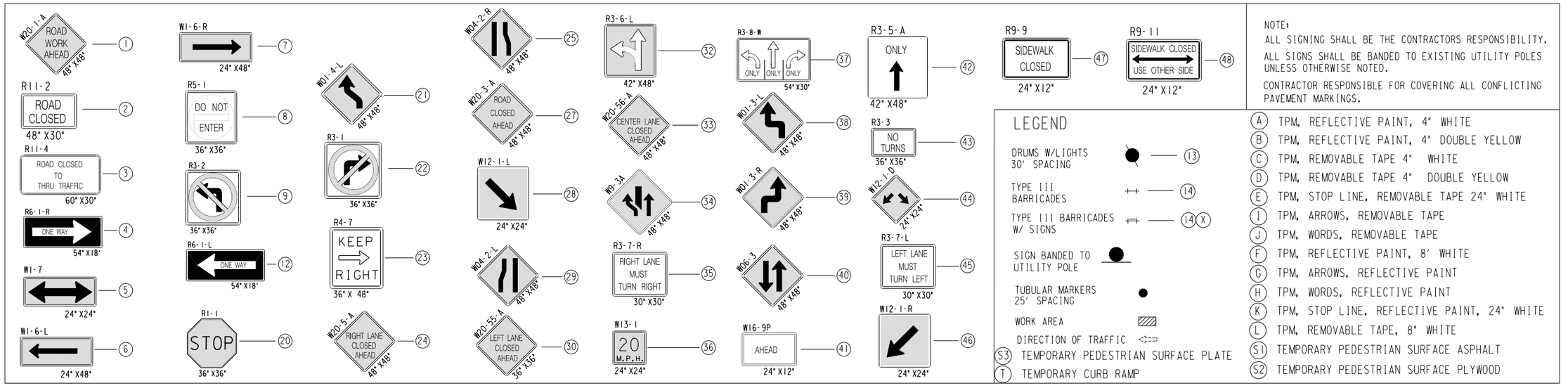
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 71 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE I





NOTE:
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ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

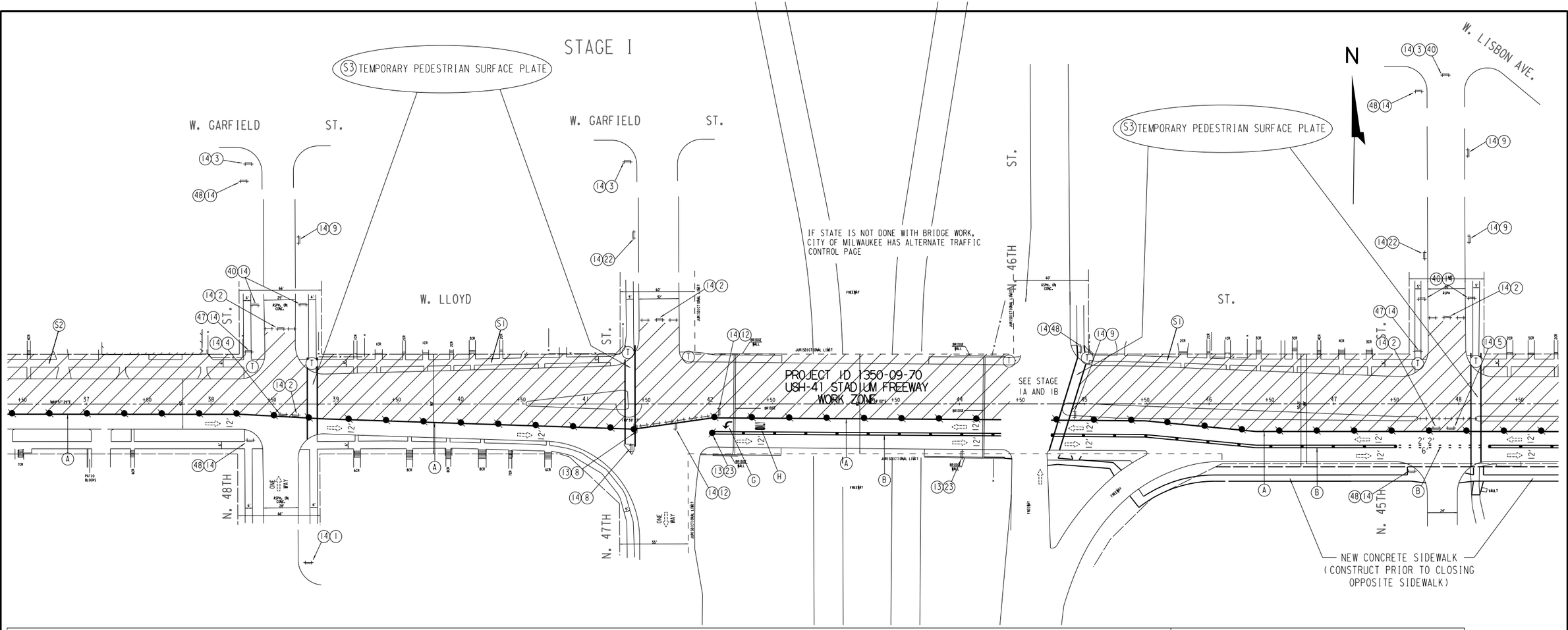
LEGEND

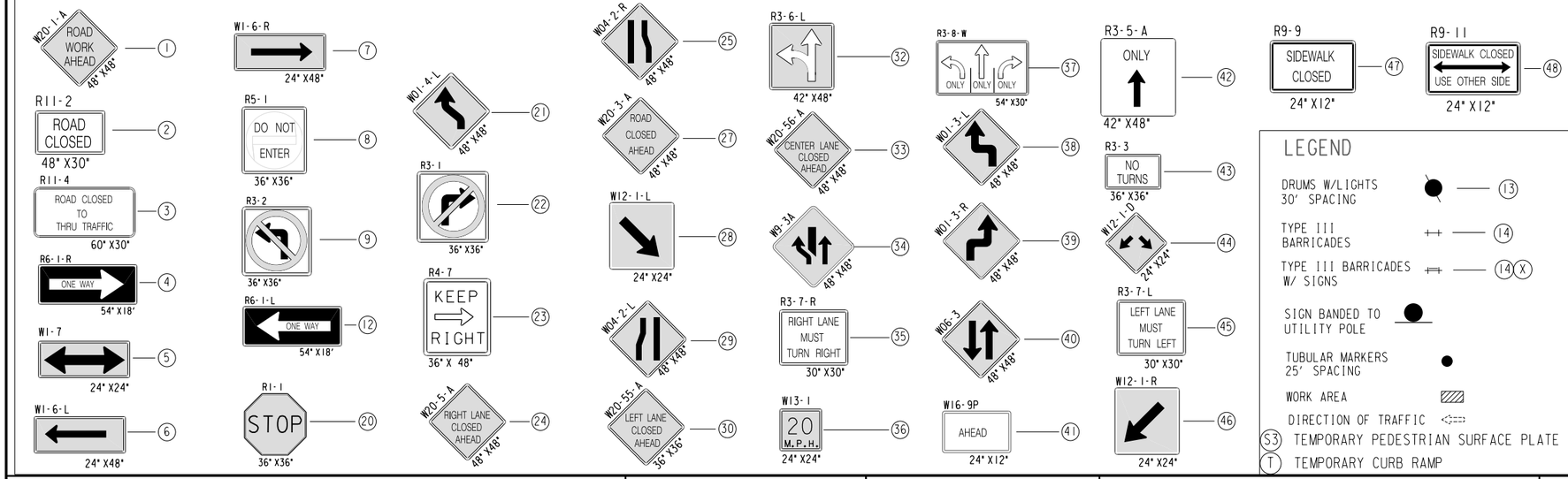
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 72	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE I





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ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

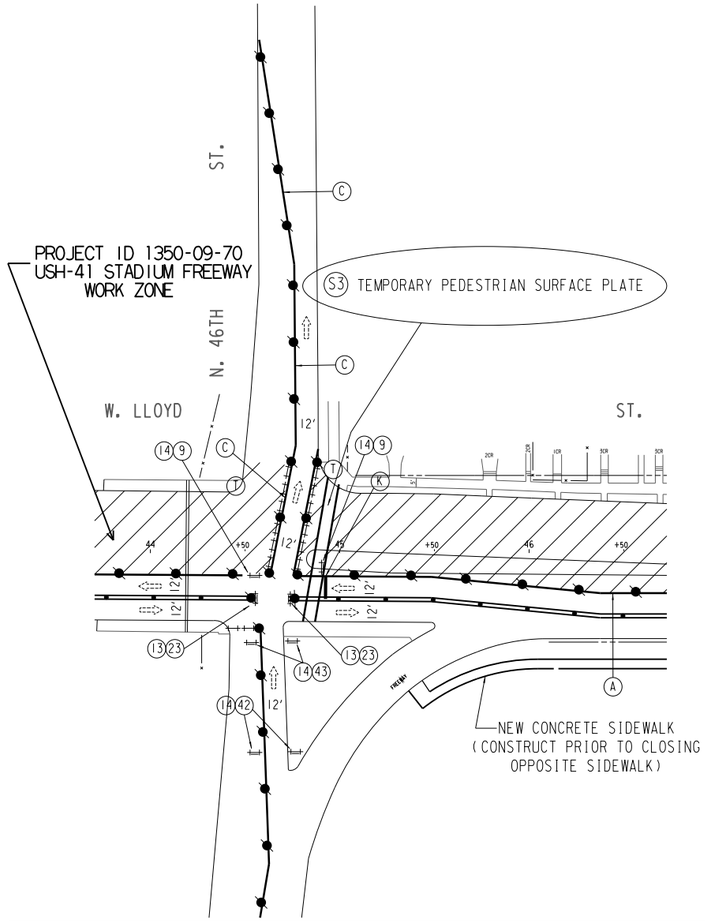
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

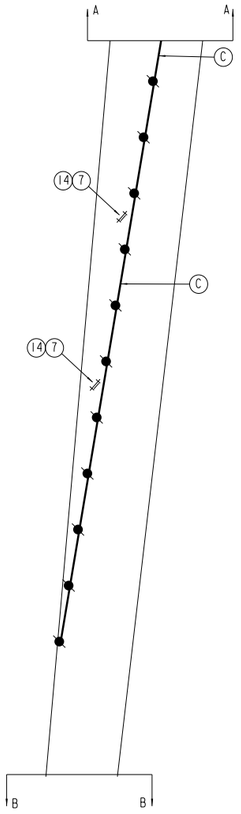
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

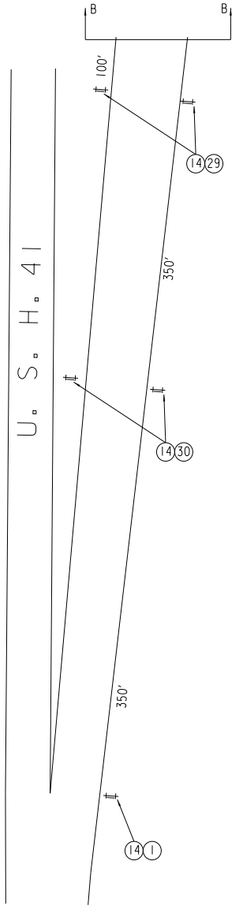
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 73 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE 1A







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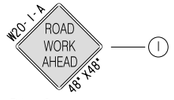
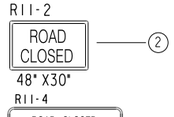
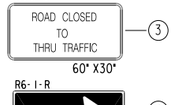
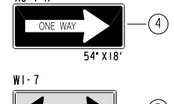
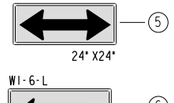
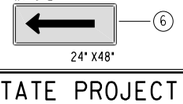


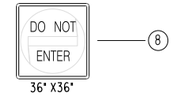


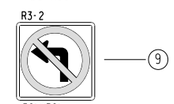


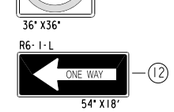


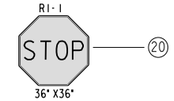


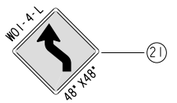


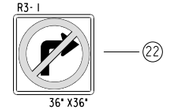


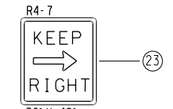


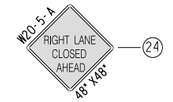


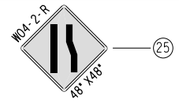


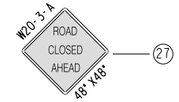


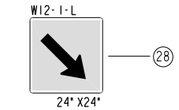


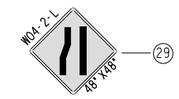


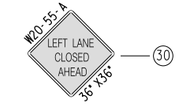


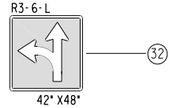


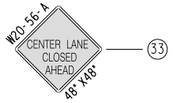


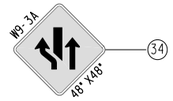


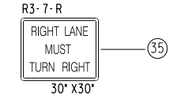


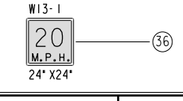


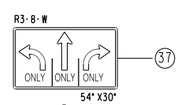


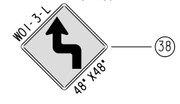


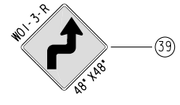


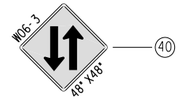


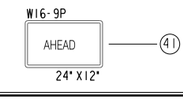


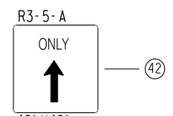


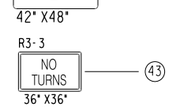


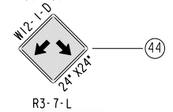


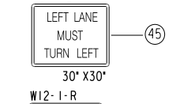


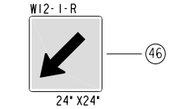


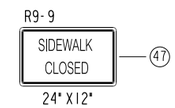


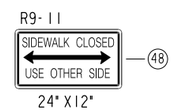












NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

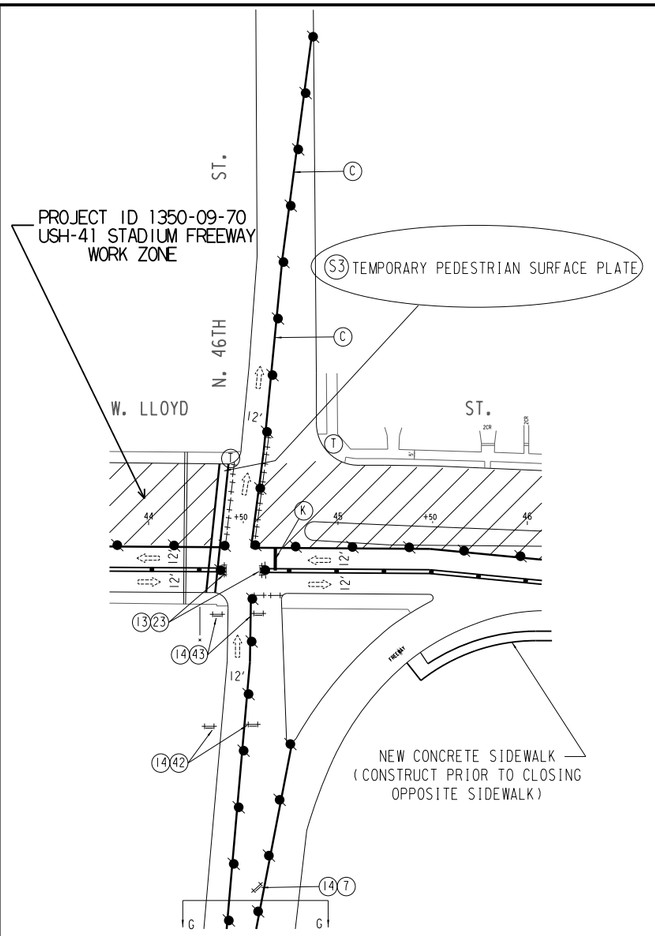
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

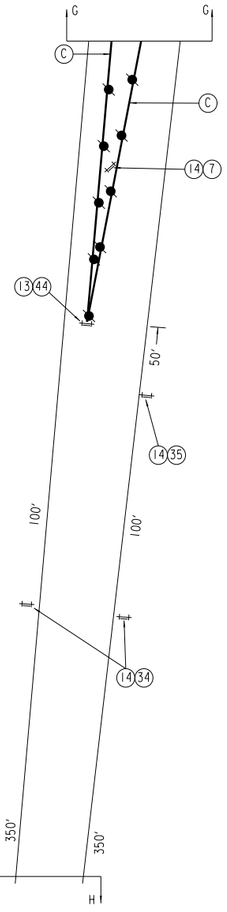
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

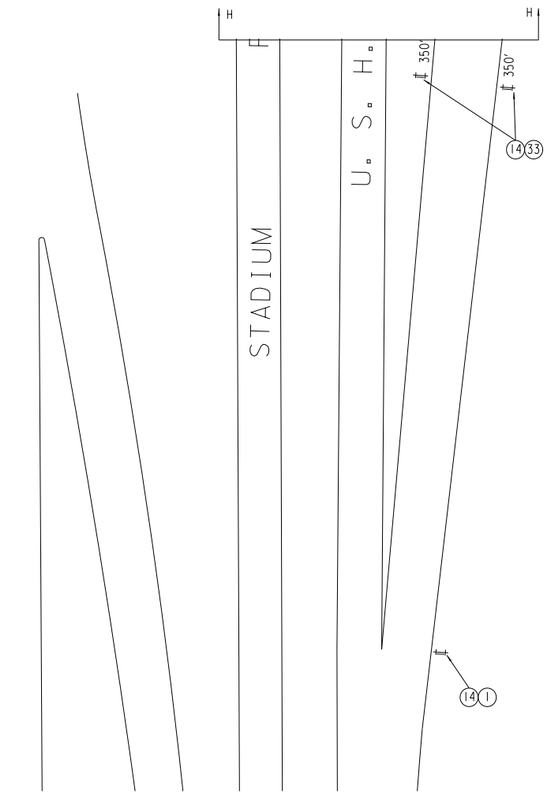
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 74	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE 1B







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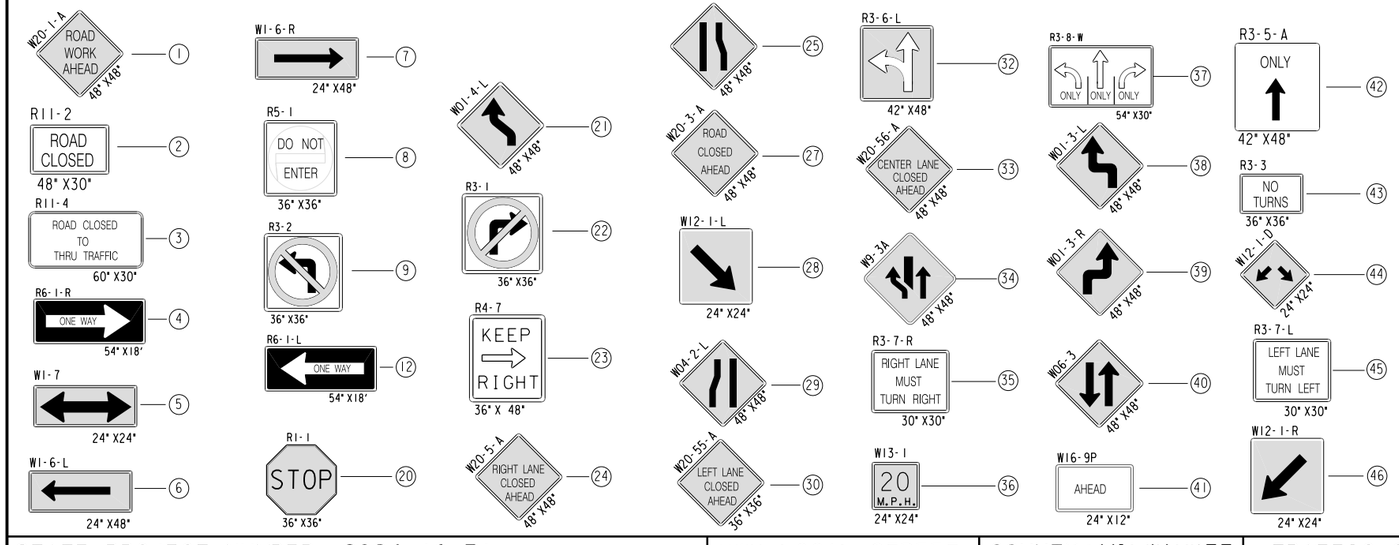


NOTE:
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

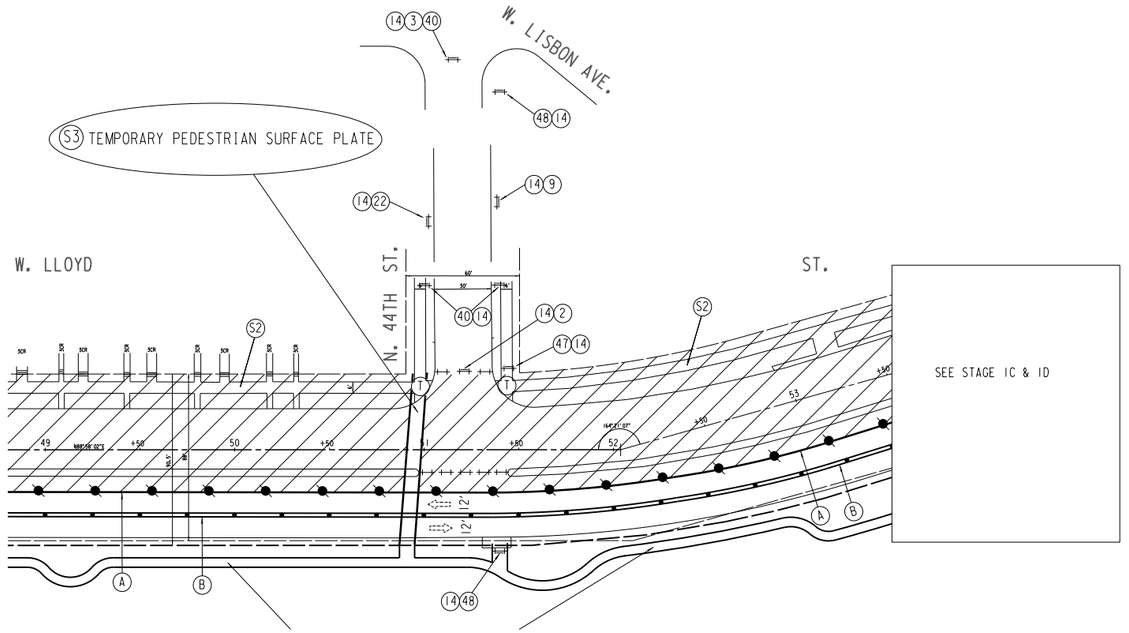
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

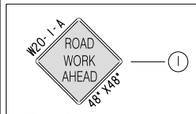
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

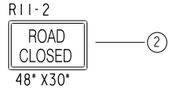
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 75	E

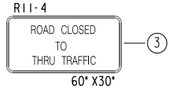
FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

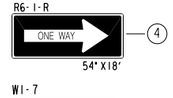
STAGE I

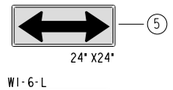


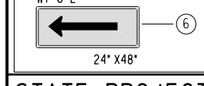


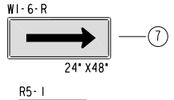


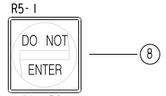


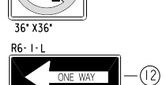


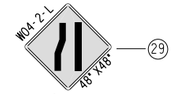


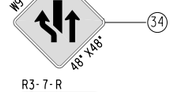


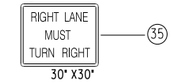


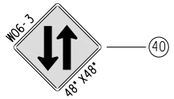


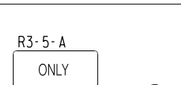


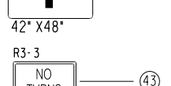


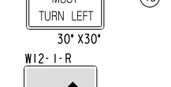


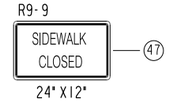


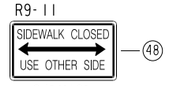












NOTE:
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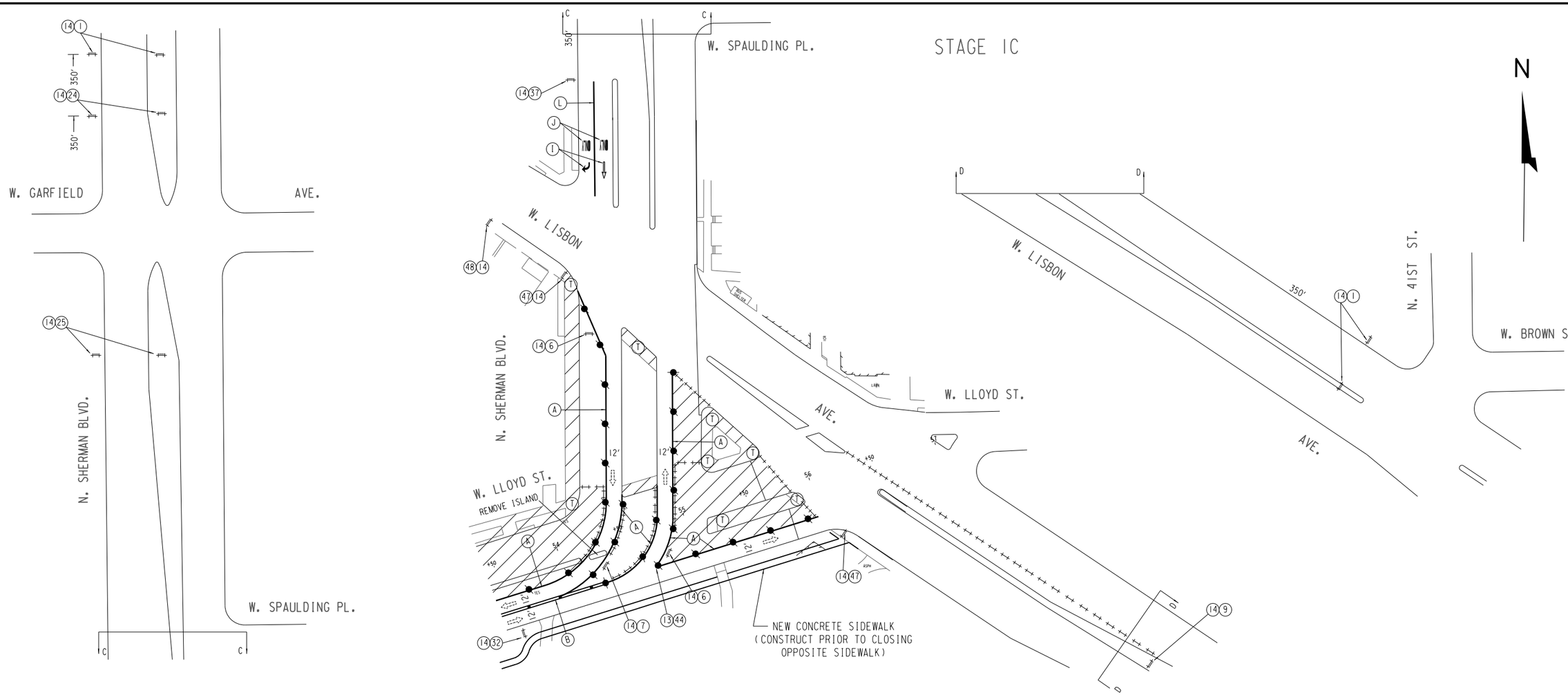
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

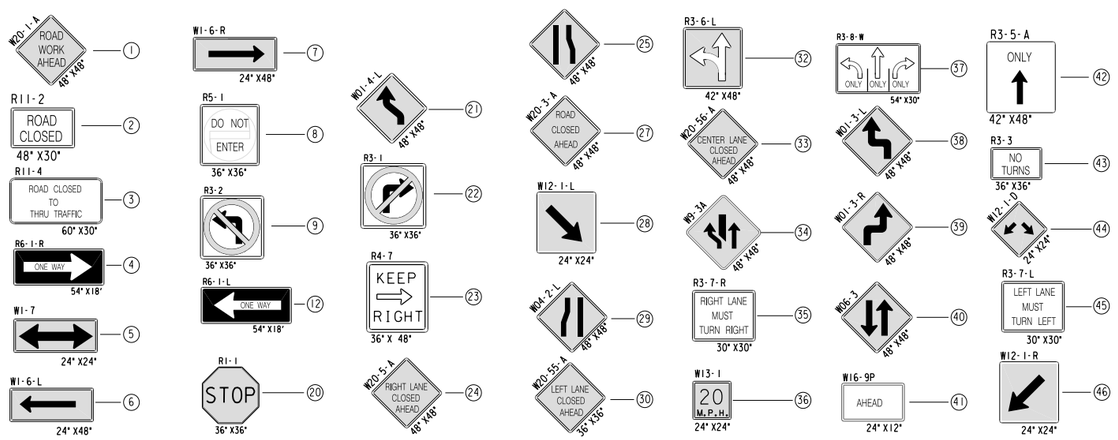
LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STAGE IC





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC

(S3) TEMPORARY PEDESTRIAN SURFACE PLATE
(T) TEMPORARY CURB RAMP
(S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
(S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

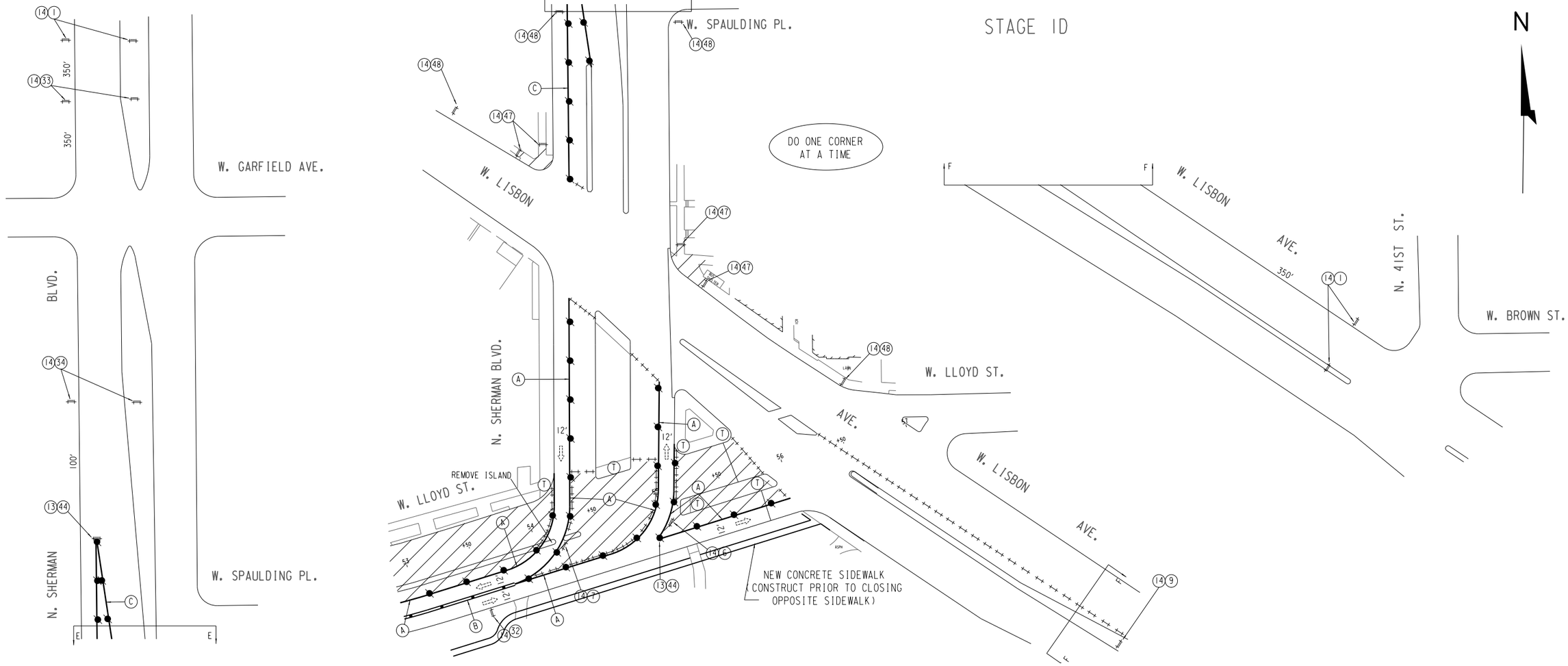
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE 4" WHITE
(D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(F) TPM, REFLECTIVE PAINT, 8" WHITE
(G) TPM, ARROWS, REFLECTIVE PAINT
(H) TPM, WORDS, REFLECTIVE PAINT
(K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
(L) TPM, REMOVABLE TAPE, 8" WHITE

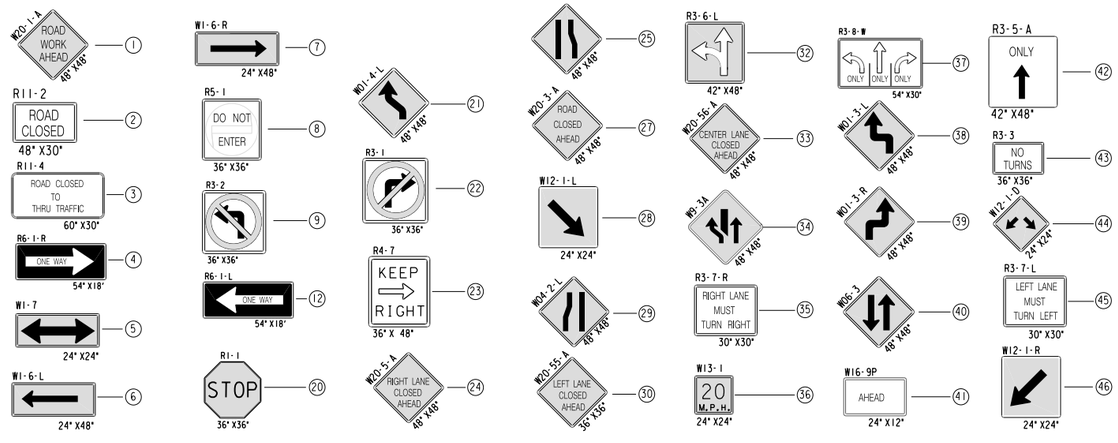
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 77 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

2

STAGE ID





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC

(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE 4" WHITE
(D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(F) TPM, REFLECTIVE PAINT, 8' WHITE
(G) TPM, ARROWS, REFLECTIVE PAINT
(H) TPM, WORDS, REFLECTIVE PAINT
(K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
(L) TPM, REMOVABLE TAPE, 8" WHITE

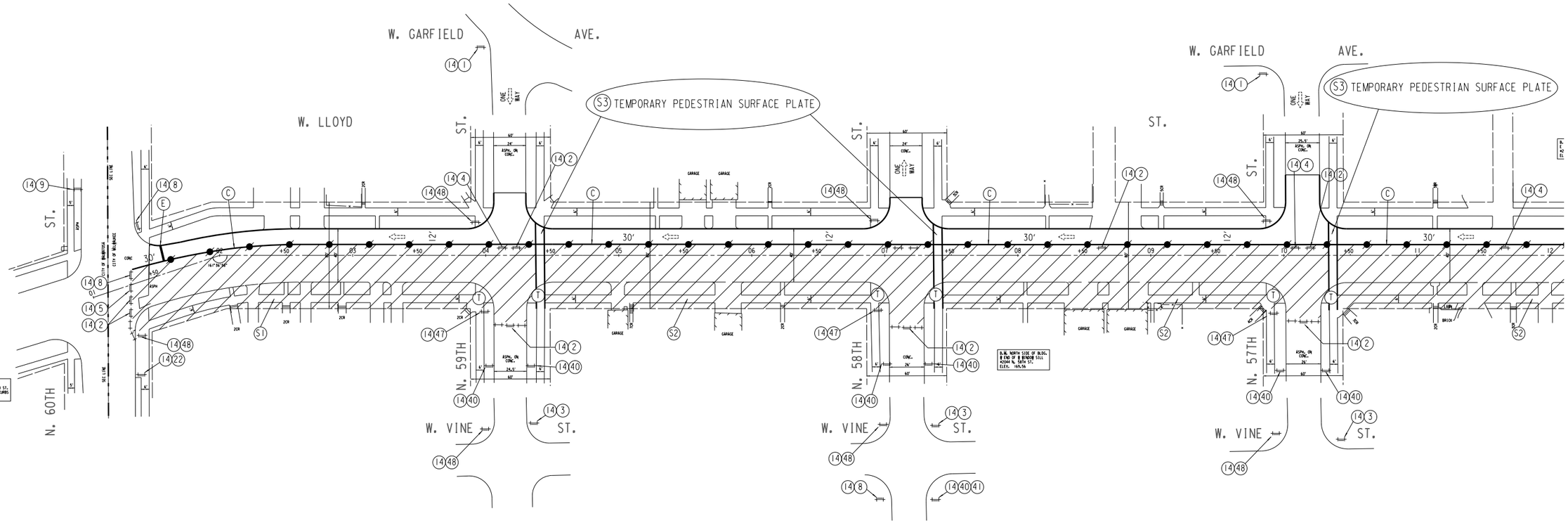
(S3) TEMPORARY PEDESTRIAN SURFACE PLATE
(T) TEMPORARY CURB RAMP
(S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
(S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

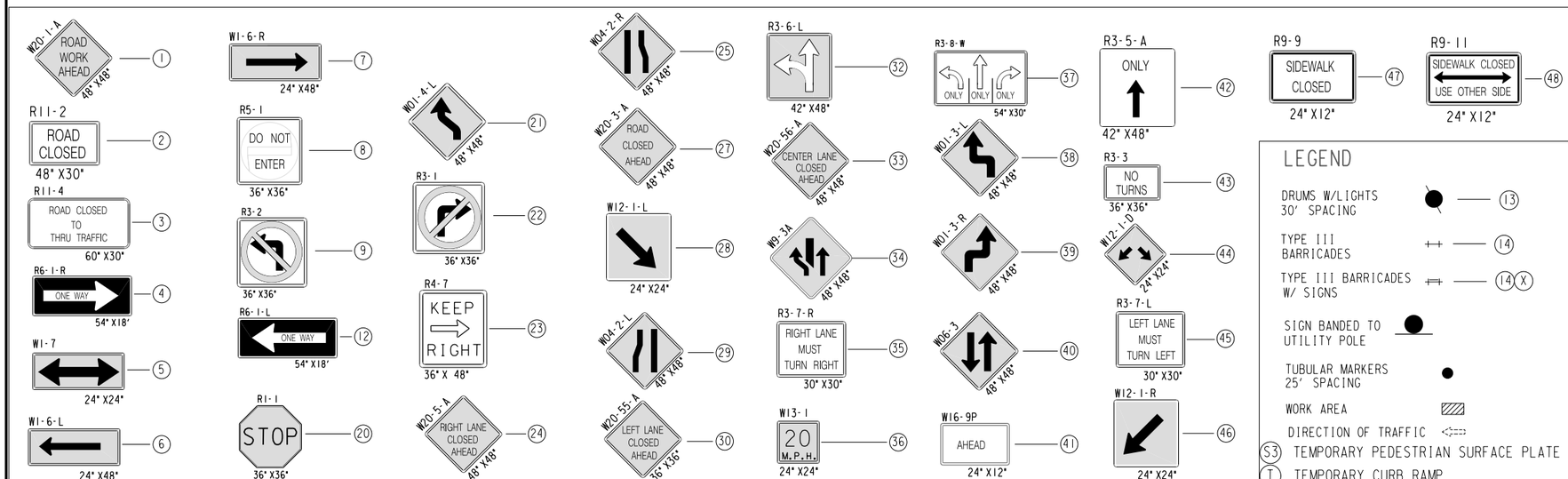
SHEET 10 OF 19

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 78 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE II





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

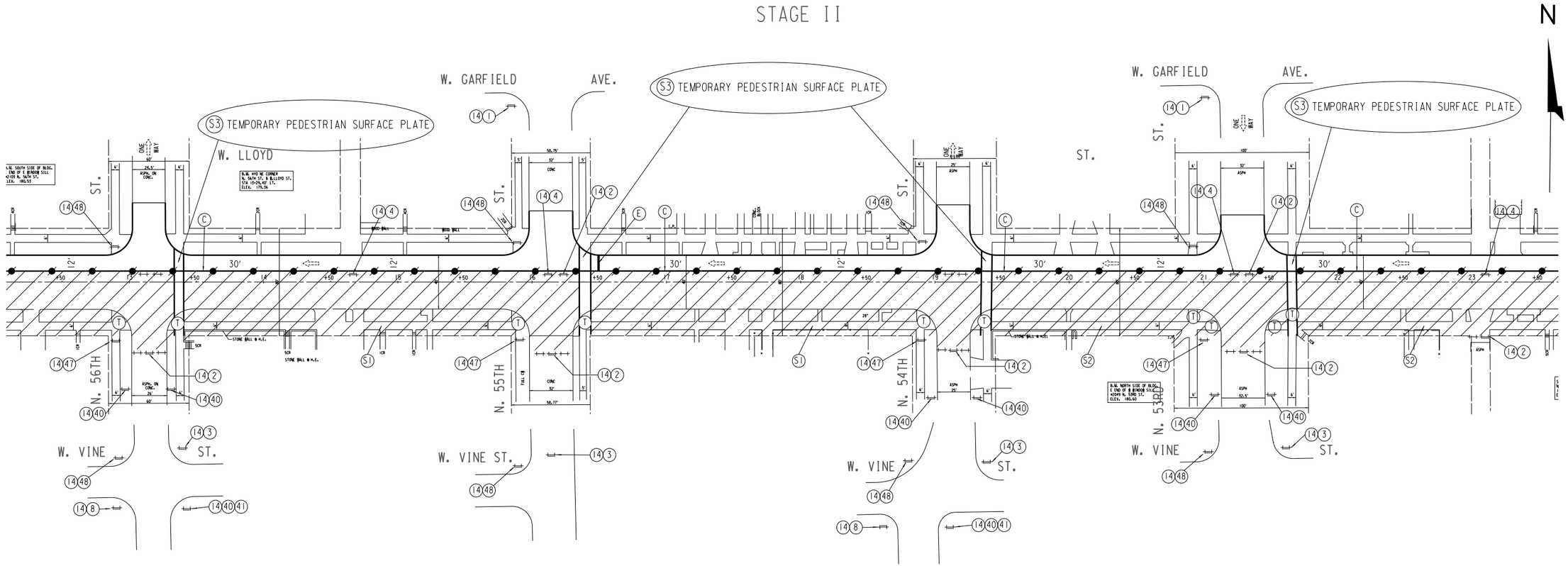
- (13) DRUMS W/LIGHTS 30' SPACING
- (14) TYPE III BARRICADES
- (14X) TYPE III BARRICADES W/ SIGNS
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

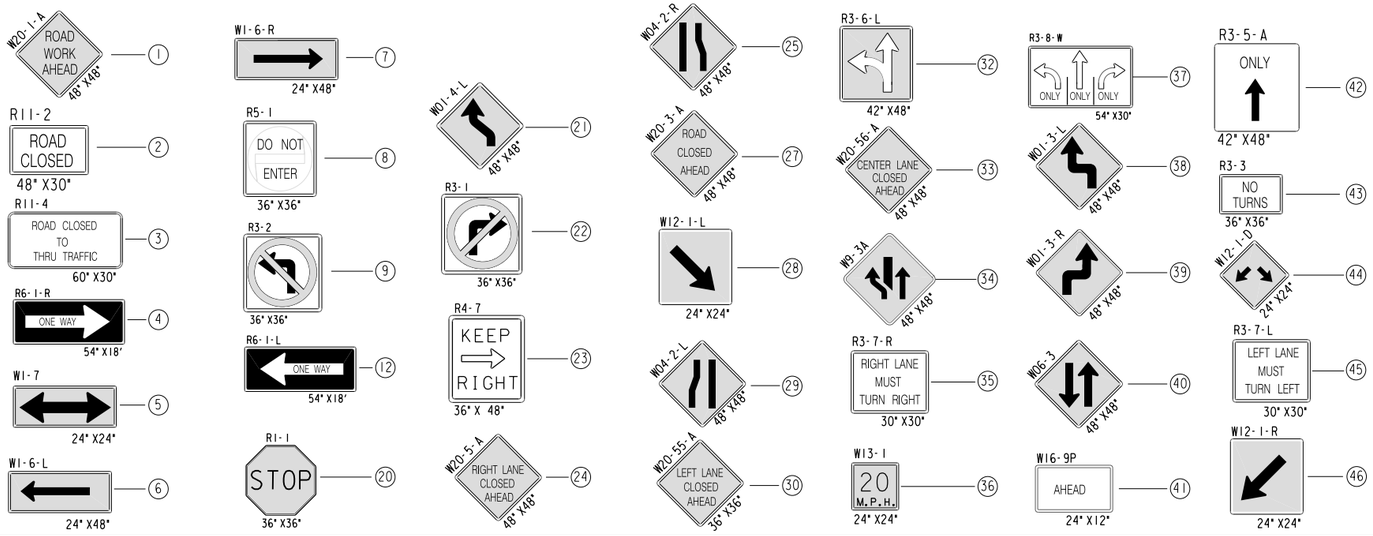
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 79 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE II





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14)(X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

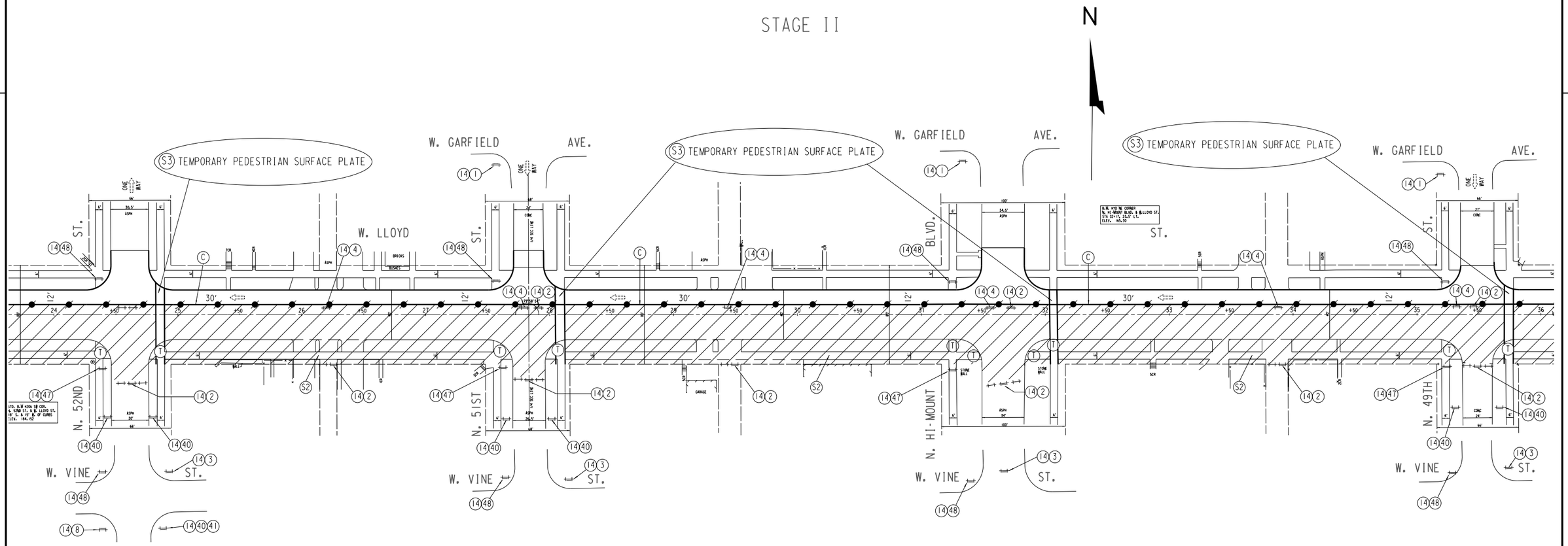
SHEET 12 OF 19

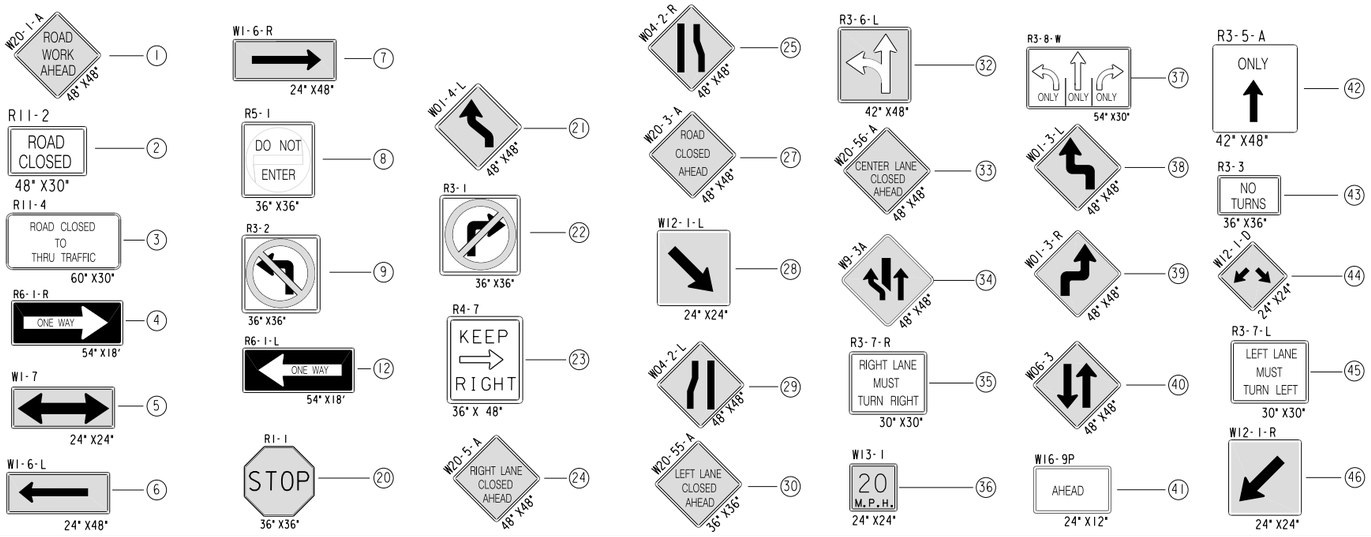
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 80 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

-21-2015

STAGE II





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LEGEND

- DRUMS W/LIGHTS 30' SPACING — 13
- TYPE III BARRICADES — 14
- TYPE III BARRICADES W/ SIGNS — 14X
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- S3 TEMPORARY PEDESTRIAN SURFACE PLATE
- T TEMPORARY CURB RAMP

- A TPM, REFLECTIVE PAINT, 4" WHITE
- B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- C TPM, REMOVABLE TAPE 4" WHITE
- D TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- I TPM, ARROWS, REMOVABLE TAPE
- J TPM, WORDS, REMOVABLE TAPE
- F TPM, REFLECTIVE PAINT, 8' WHITE
- G TPM, ARROWS, REFLECTIVE PAINT
- H TPM, WORDS, REFLECTIVE PAINT
- K TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- L TPM, REMOVABLE TAPE, 8" WHITE
- S1 TEMPORARY PEDESTRIAN SURFACE ASPHALT
- S2 TEMPORARY PEDESTRIAN SURFACE PLYWOOD

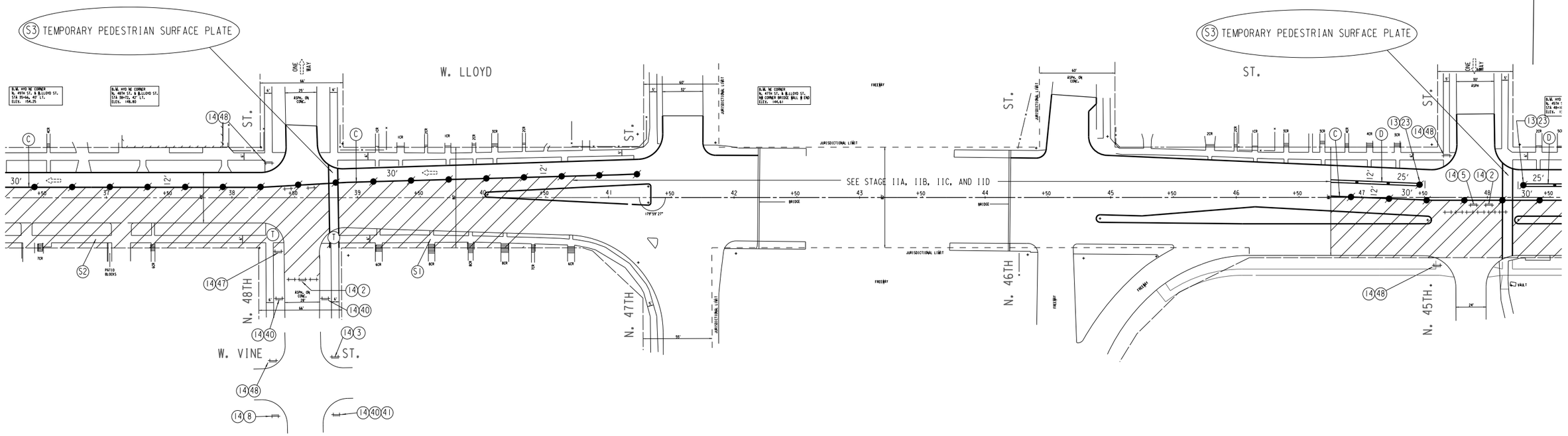
SHEET 13 OF 19

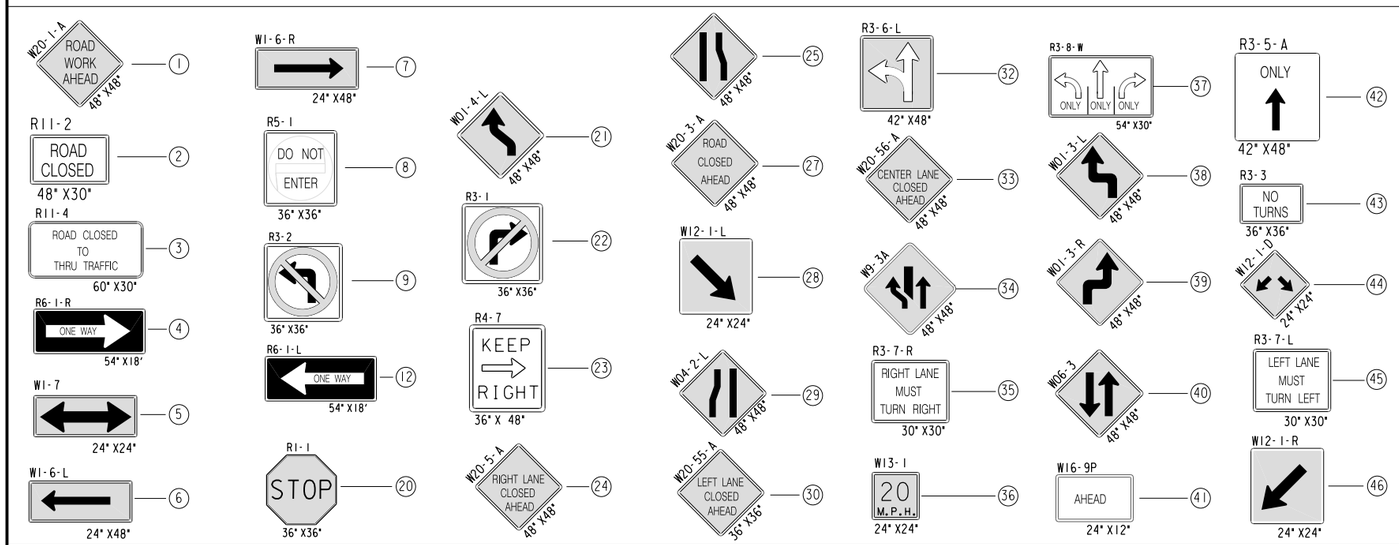
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 81 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

2

STAGE II





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

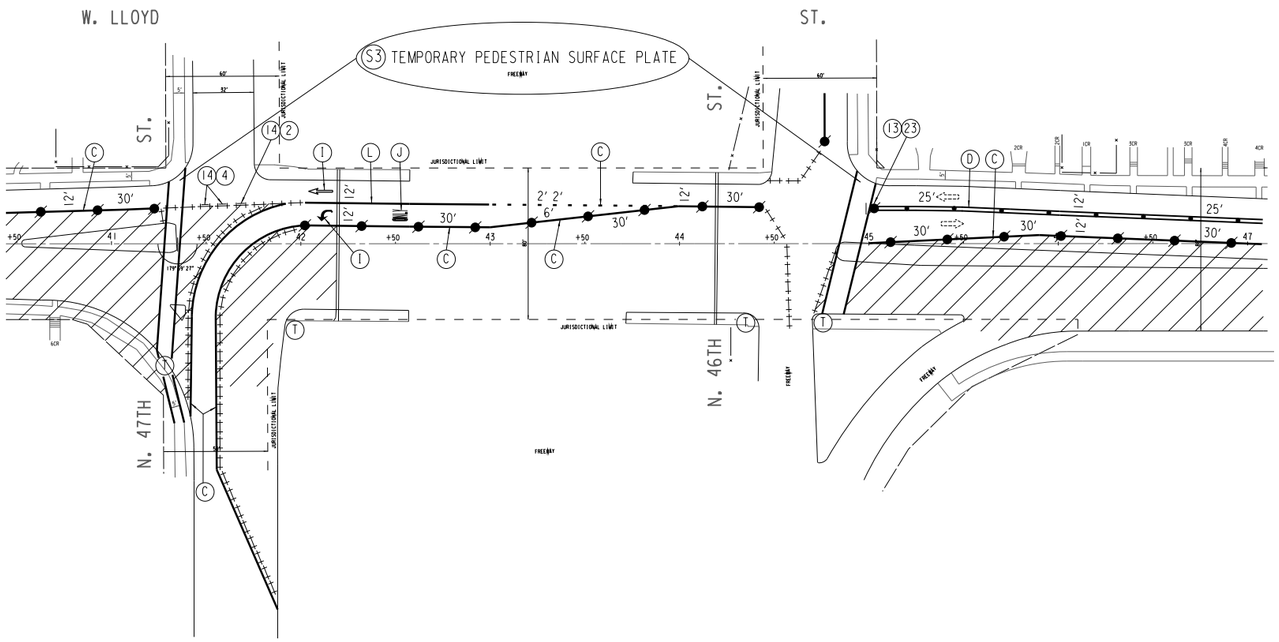
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 82	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE IIA



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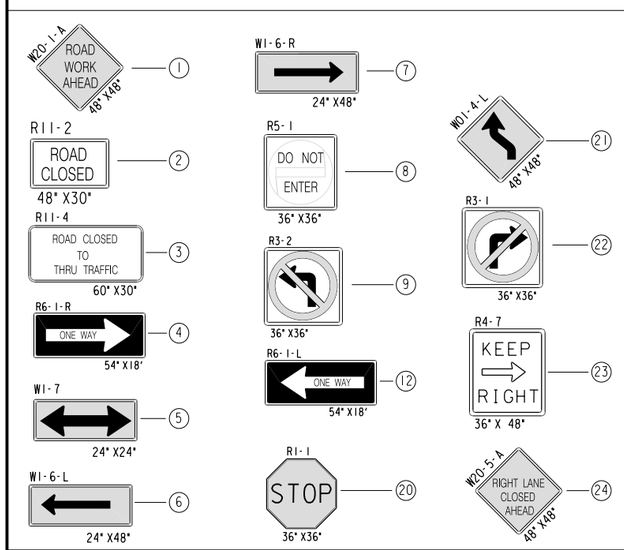

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ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

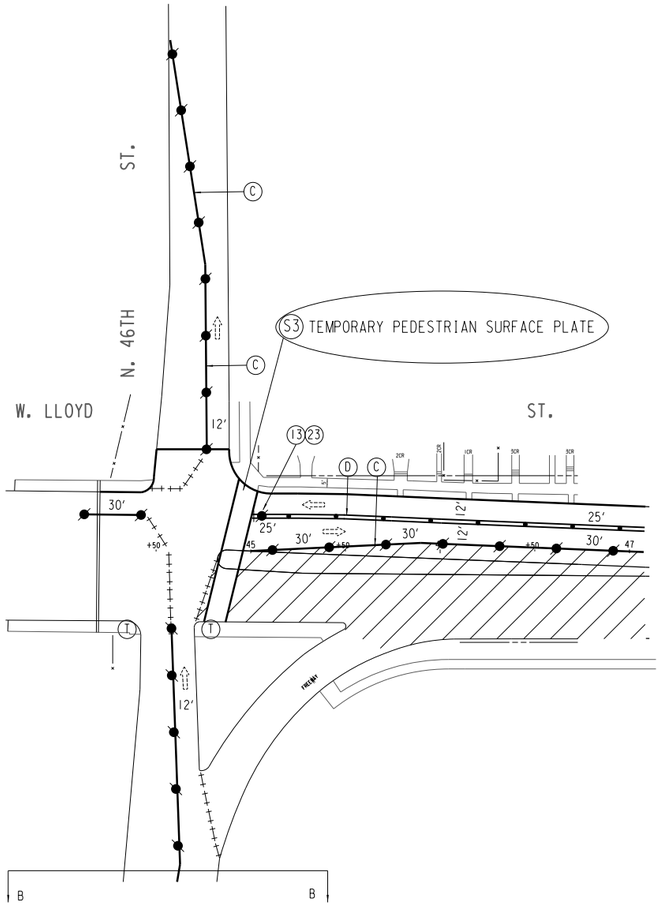
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

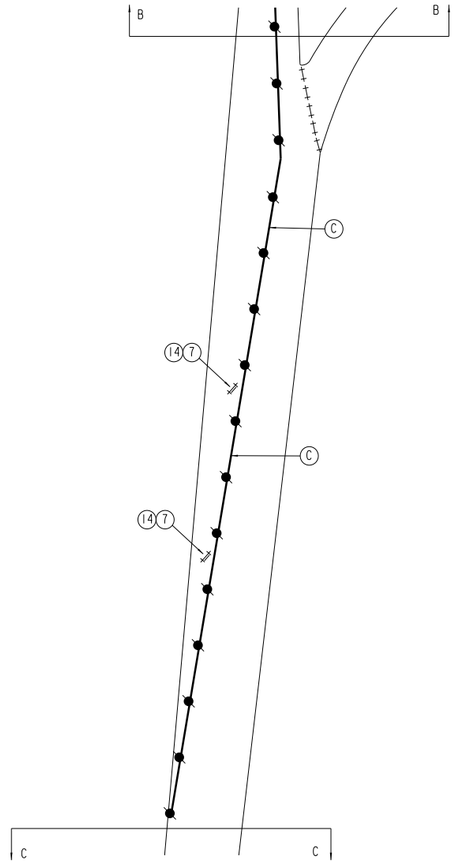
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 83 E

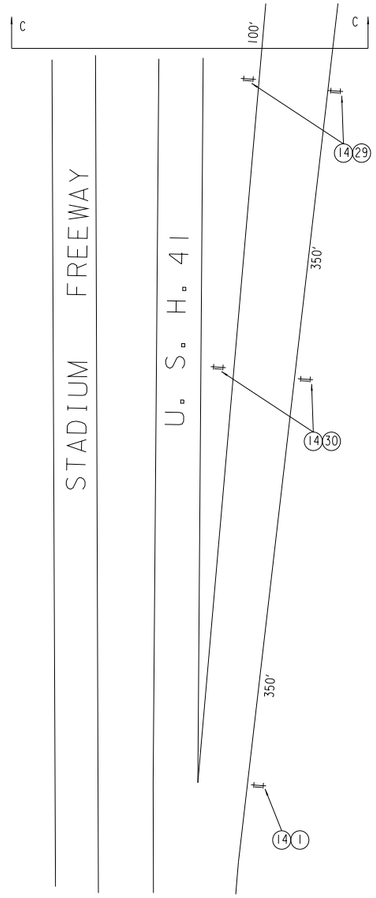
FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

2





STAGE IIB



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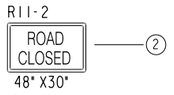

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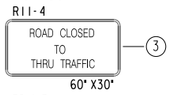

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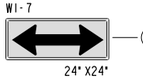

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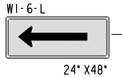

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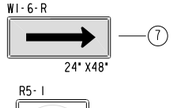

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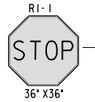

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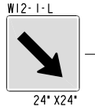

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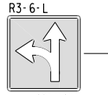

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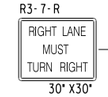

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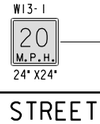

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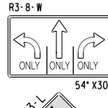

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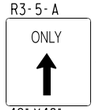

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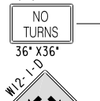

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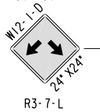

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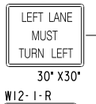

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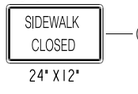

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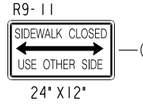


48

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.

LEGEND

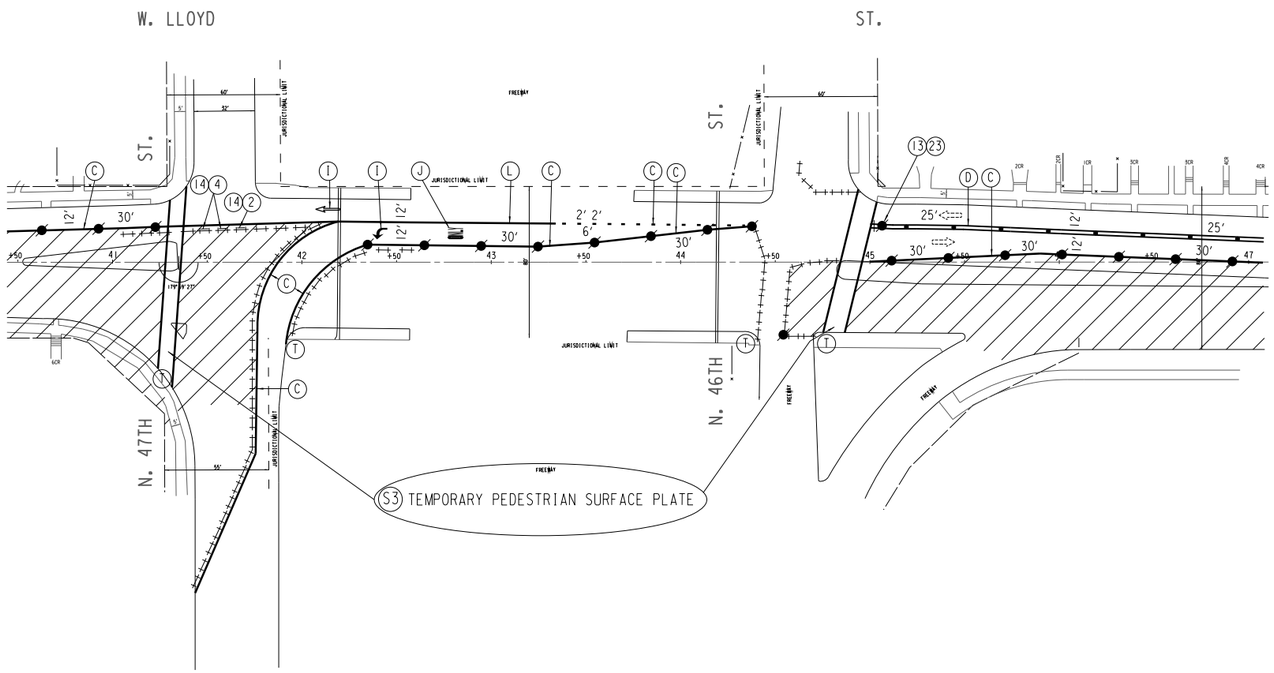
- DRUMS W/LIGHTS 30' SPACING — 13
- TYPE III BARRICADES — 14
- TYPE III BARRICADES W/ SIGNS — 14X
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- S3 TEMPORARY PEDESTRIAN SURFACE PLATE
- T TEMPORARY CURB RAMP

- A TPM, REFLECTIVE PAINT, 4" WHITE
- B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- C TPM, REMOVABLE TAPE 4" WHITE
- D TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- I TPM, ARROWS, REMOVABLE TAPE
- J TPM, WORDS, REMOVABLE TAPE
- F TPM, REFLECTIVE PAINT, 8' WHITE
- G TPM, ARROWS, REFLECTIVE PAINT
- H TPM, WORDS, REFLECTIVE PAINT
- K TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- L TPM, REMOVABLE TAPE, 8" WHITE
- S1 TEMPORARY PEDESTRIAN SURFACE ASPHALT
- S2 TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 84 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

STAGE IIC



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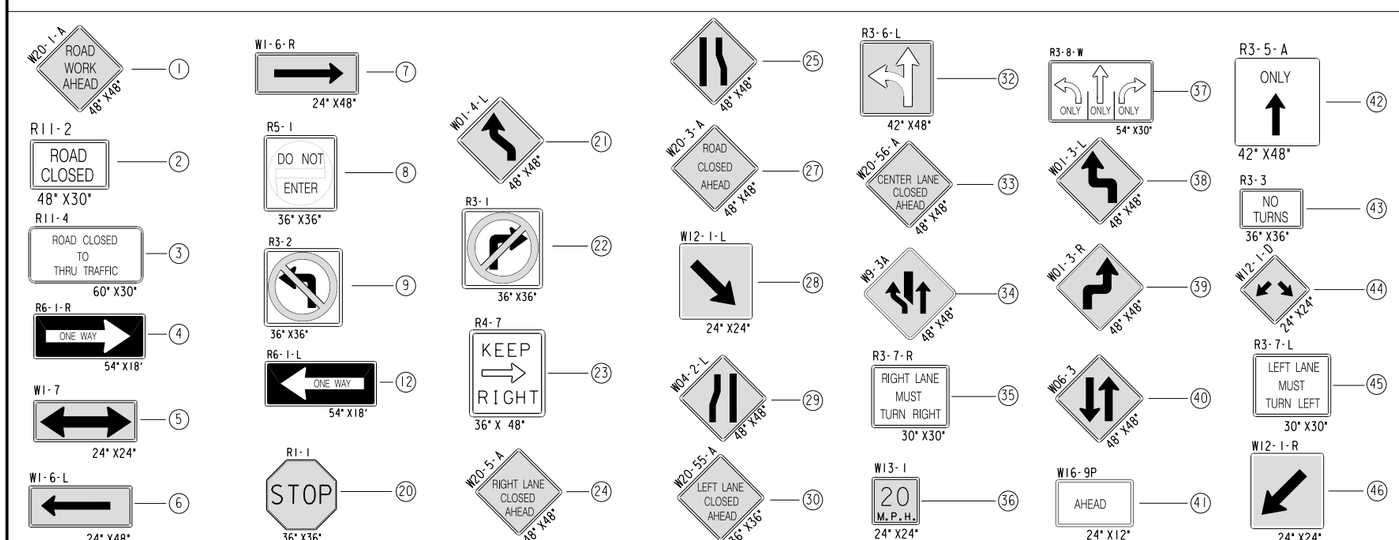

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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

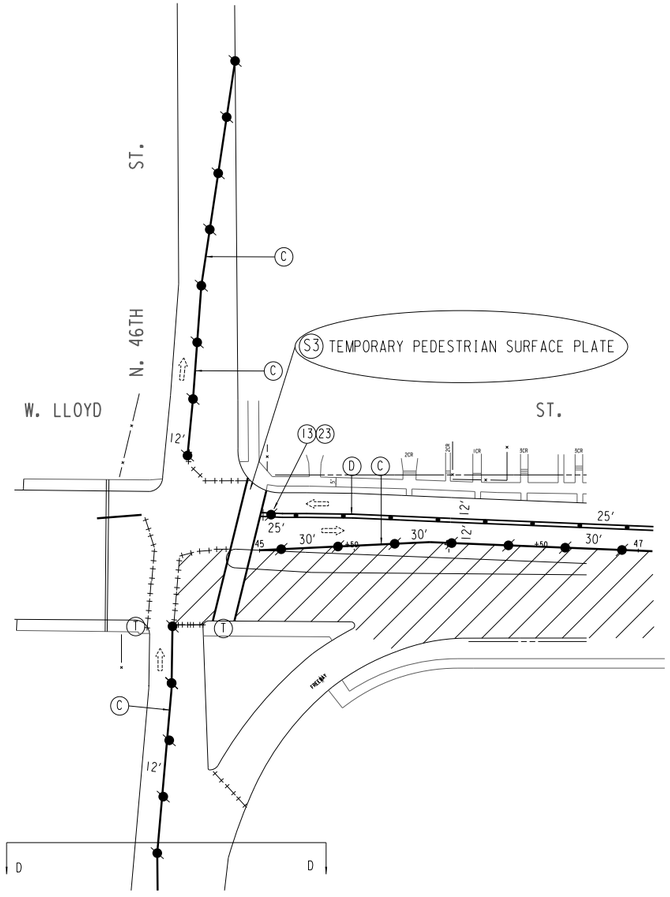
- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

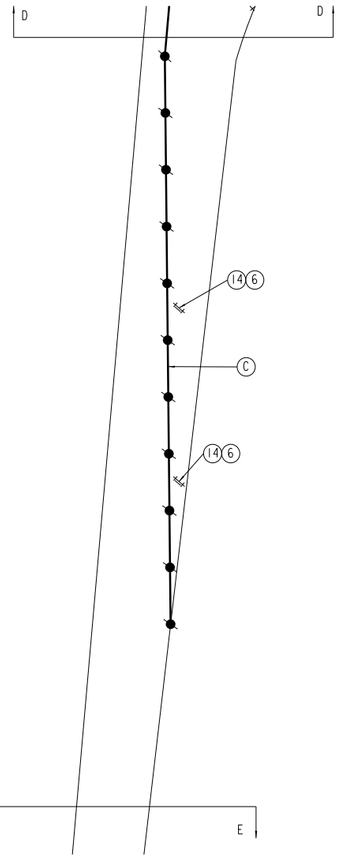
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 85 E

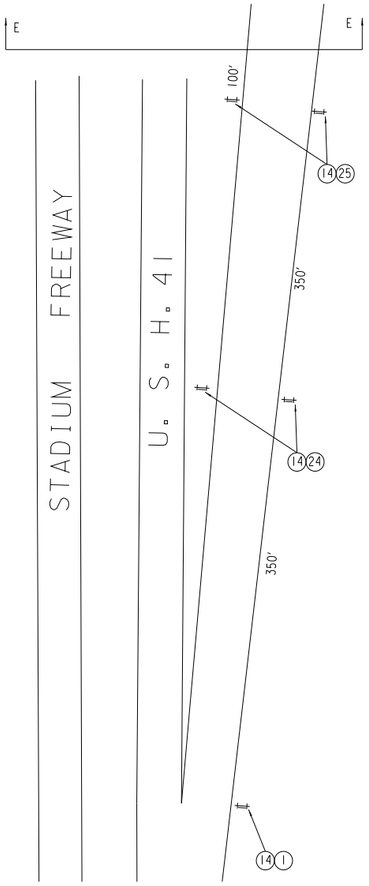
FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

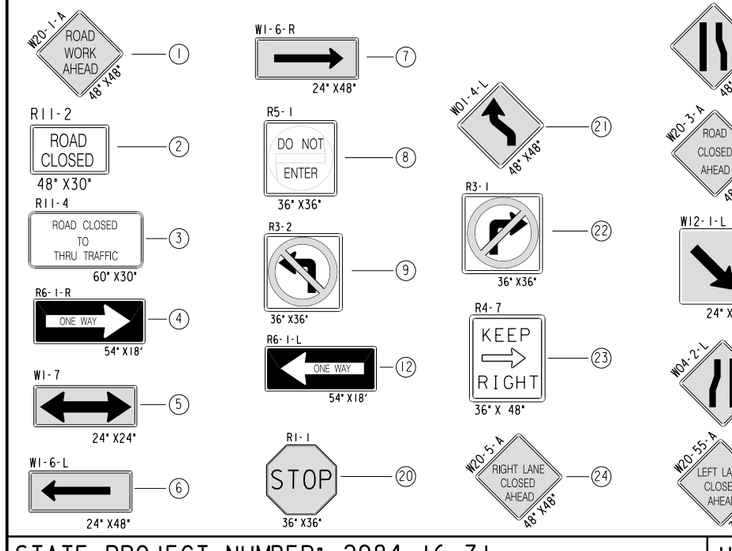
-21-2015





STAGE IID





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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

LEGEND

- DRUMS W/LIGHTS 30' SPACING — 13
- TYPE III BARRICADES — 14
- TYPE III BARRICADES W/ SIGNS — 14X
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- S3 TEMPORARY PEDESTRIAN SURFACE PLATE
- T TEMPORARY CURB RAMP

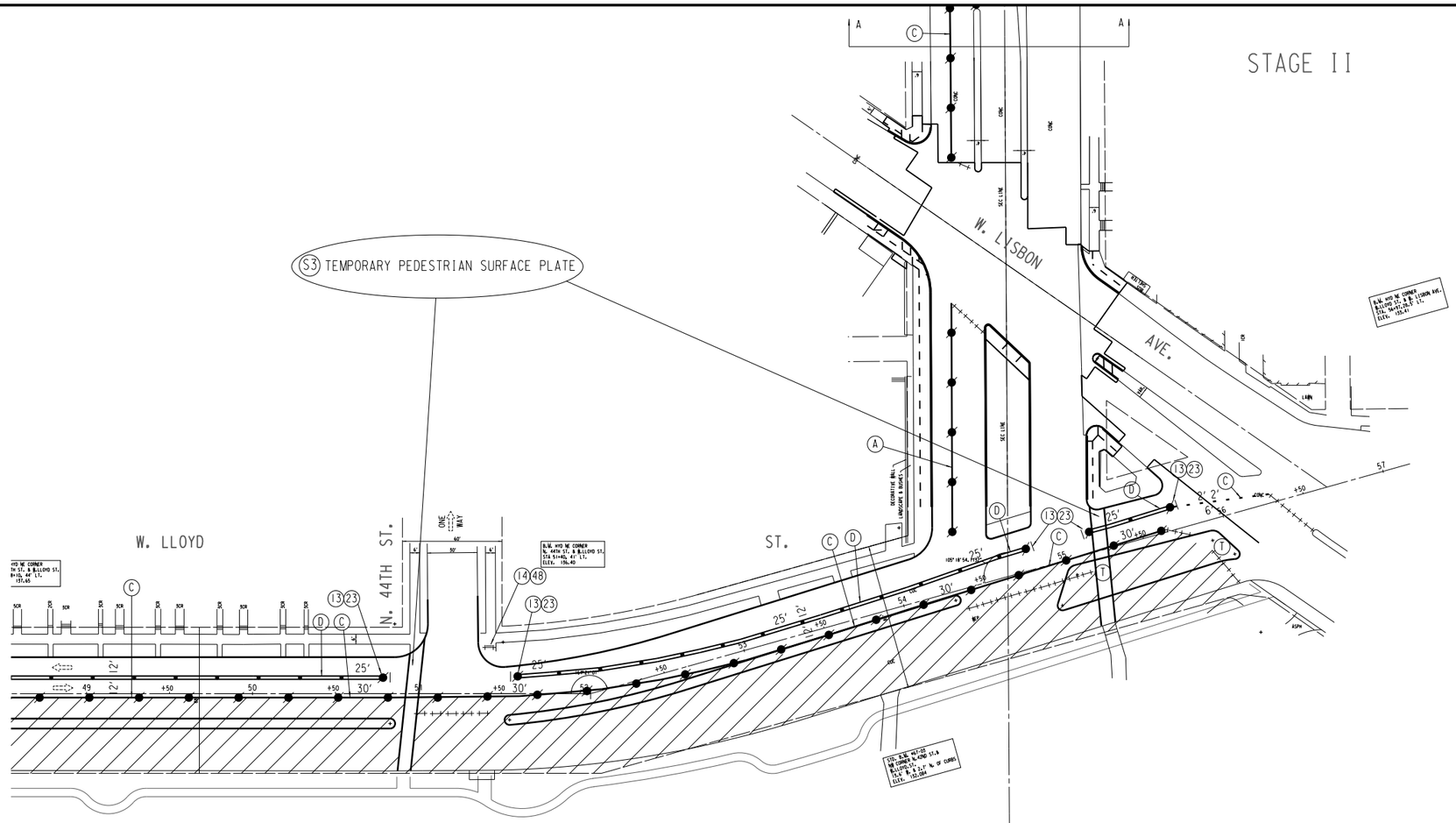
- A TPM, REFLECTIVE PAINT, 4" WHITE
- B TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- C TPM, REMOVABLE TAPE 4" WHITE
- D TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- E TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- I TPM, ARROWS, REMOVABLE TAPE
- J TPM, WORDS, REMOVABLE TAPE
- F TPM, REFLECTIVE PAINT, 8' WHITE
- G TPM, ARROWS, REFLECTIVE PAINT
- H TPM, WORDS, REFLECTIVE PAINT
- K TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- L TPM, REMOVABLE TAPE, 8" WHITE
- S1 TEMPORARY PEDESTRIAN SURFACE ASPHALT
- S2 TEMPORARY PEDESTRIAN SURFACE PLYWOOD

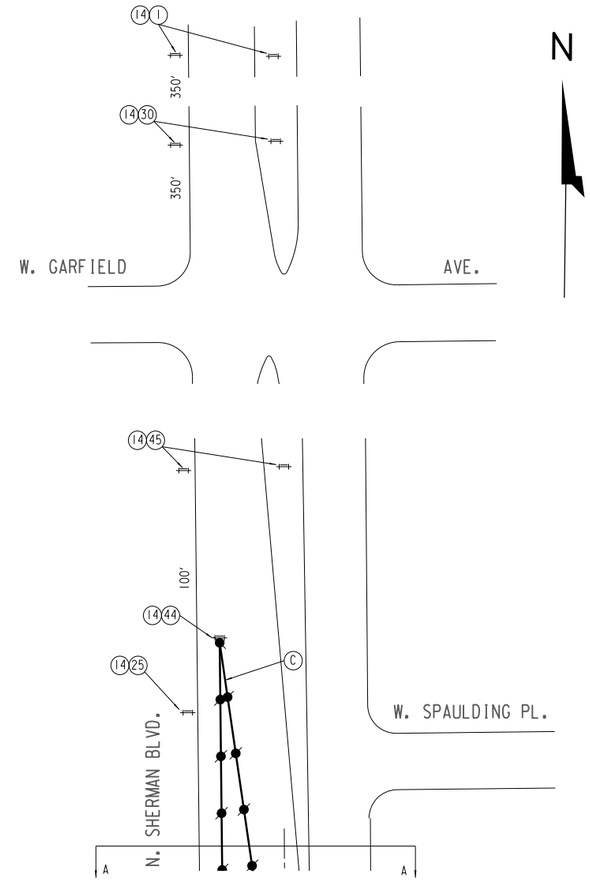
STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 86 E

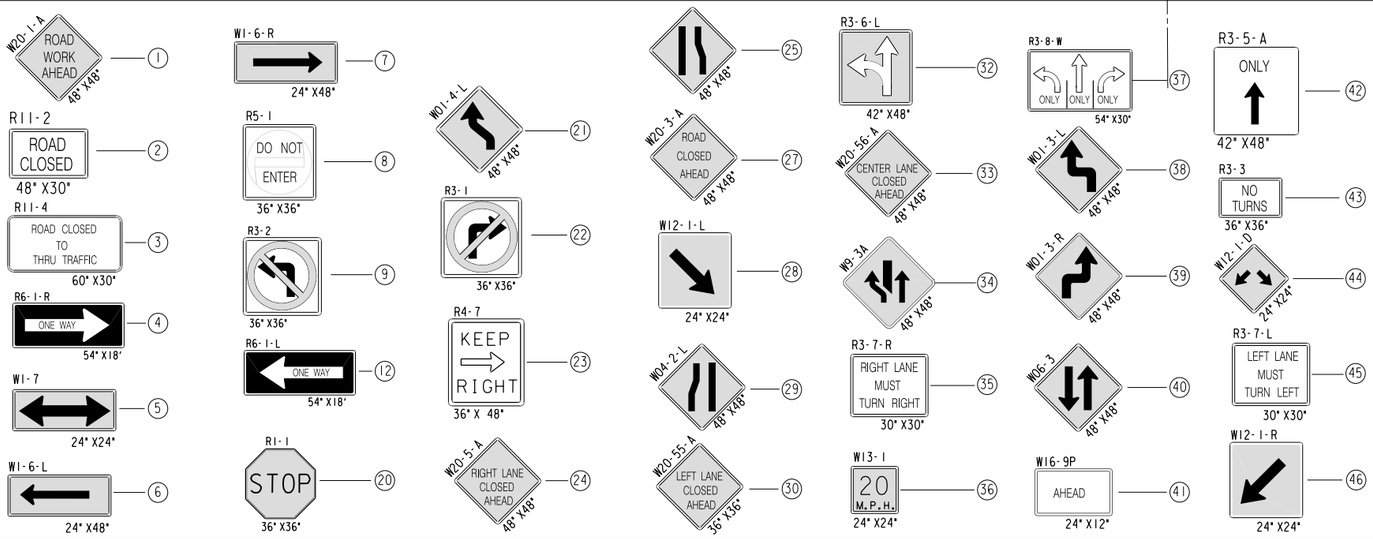
FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

2

STAGE II







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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

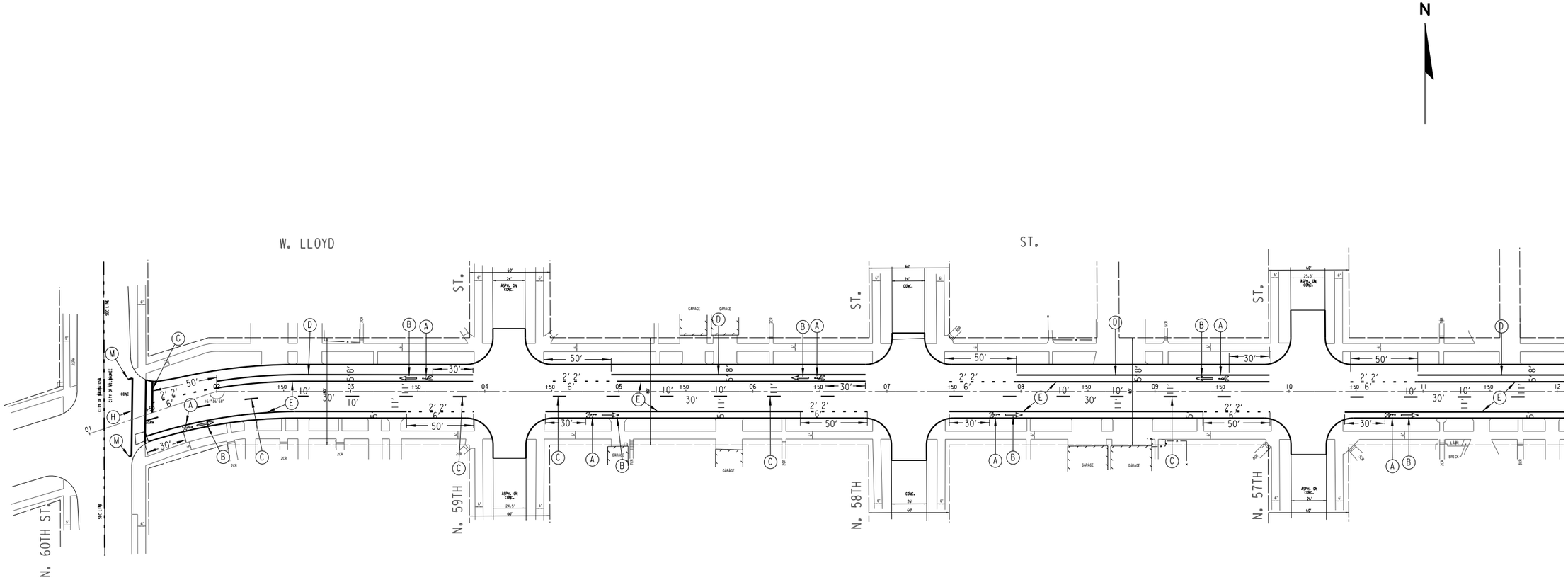
LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGNS — (14)(X)
- SIGN BANDED TO UTILITY POLE
- TUBULAR MARKERS 25' SPACING
- WORK AREA
- DIRECTION OF TRAFFIC
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE 4" WHITE
- (D) TPM, REMOVABLE TAPE 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (F) TPM, REFLECTIVE PAINT, 8' WHITE
- (G) TPM, ARROWS, REFLECTIVE PAINT
- (H) TPM, WORDS, REFLECTIVE PAINT
- (K) TPM, STOP LINE, REFLECTIVE PAINT, 24" WHITE
- (L) TPM, REMOVABLE TAPE, 8" WHITE
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD

STATE PROJECT NUMBER: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 87 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\TRAFFIC.DGN

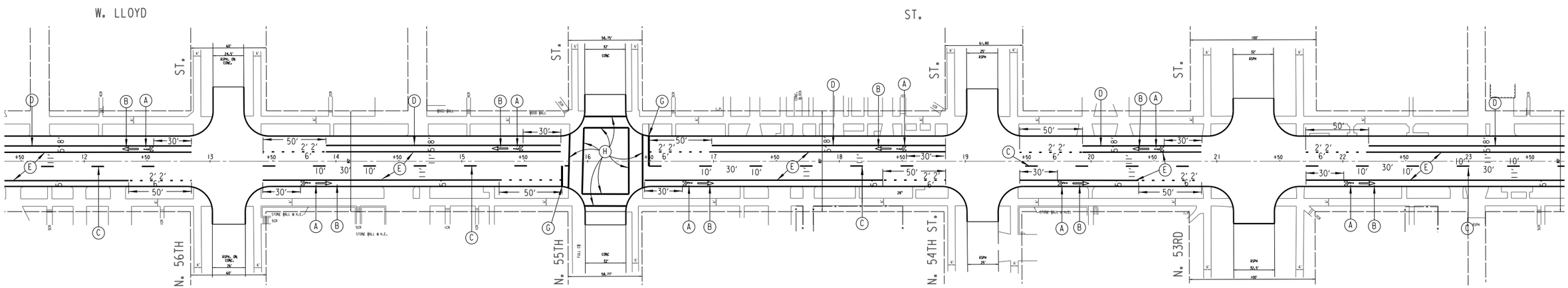


(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY "ONLY"
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH)
(M) MATCH EXISTING
(N) PAVEMENT MARKING ARROWS, EPOXY TYPE 2 (RIGHT TURN)
(P) SKID/ SLIP RESISTANT, GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL & ARROW

STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 88	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

REVISED: 12-15-2015

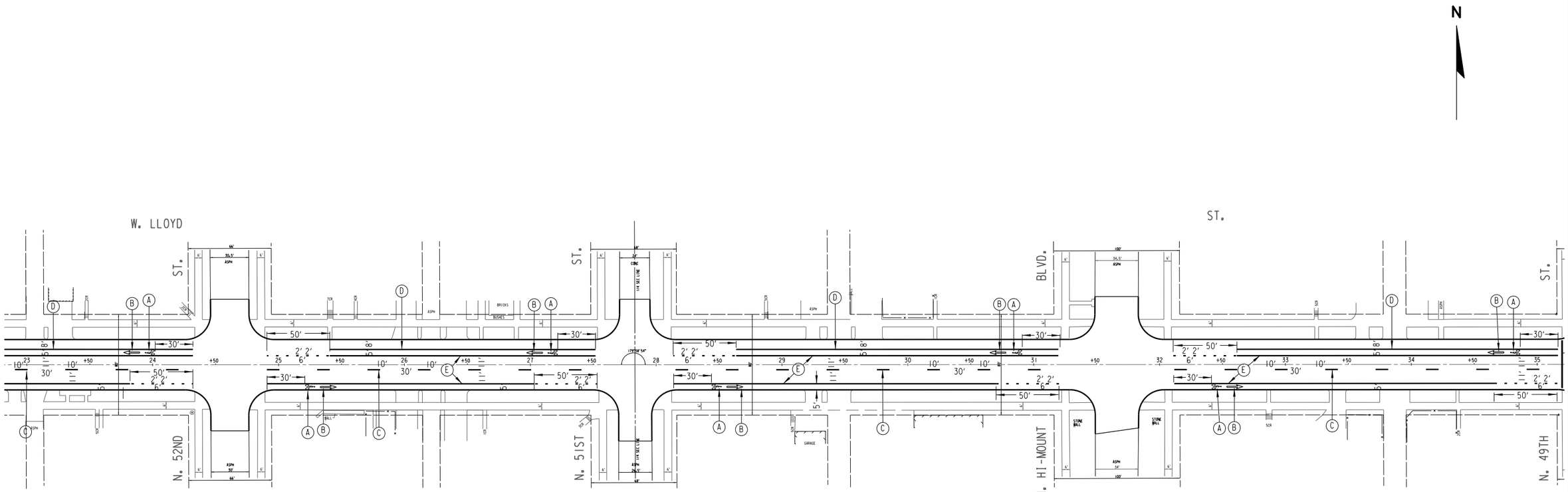


(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY "ONLY"
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH)
(M) MATCH EXISTING
(N) PAVEMENT MARKING ARROWS, EPOXY TYPE 2 (RIGHT TURN)
(P) SKID/ SLIP RESISTANT, GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL & ARROW

STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 89	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

REVISED: 12-15-2015

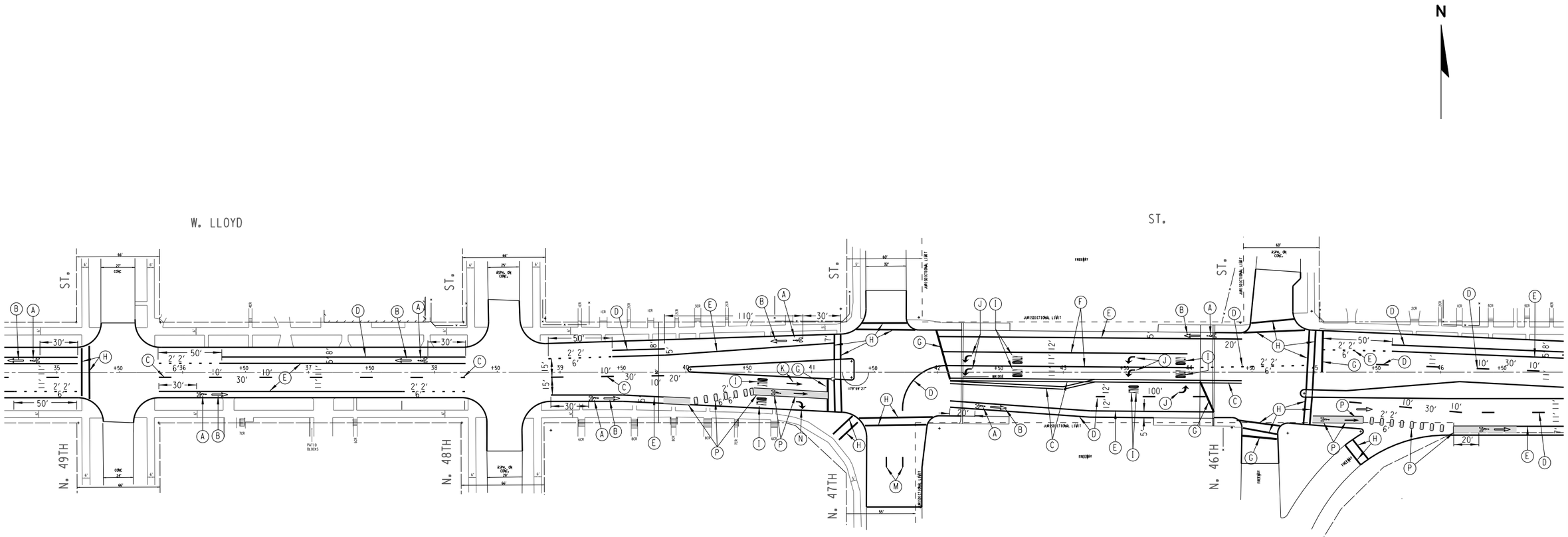


(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY "ONLY"
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH)
(M) MATCH EXISTING
(N) PAVEMENT MARKING ARROWS, EPOXY TYPE 2 (RIGHT TURN)
(P) SKID/ SLIP RESISTANT, GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL & ARROW

STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 90	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

REVISED: 12-15-2015

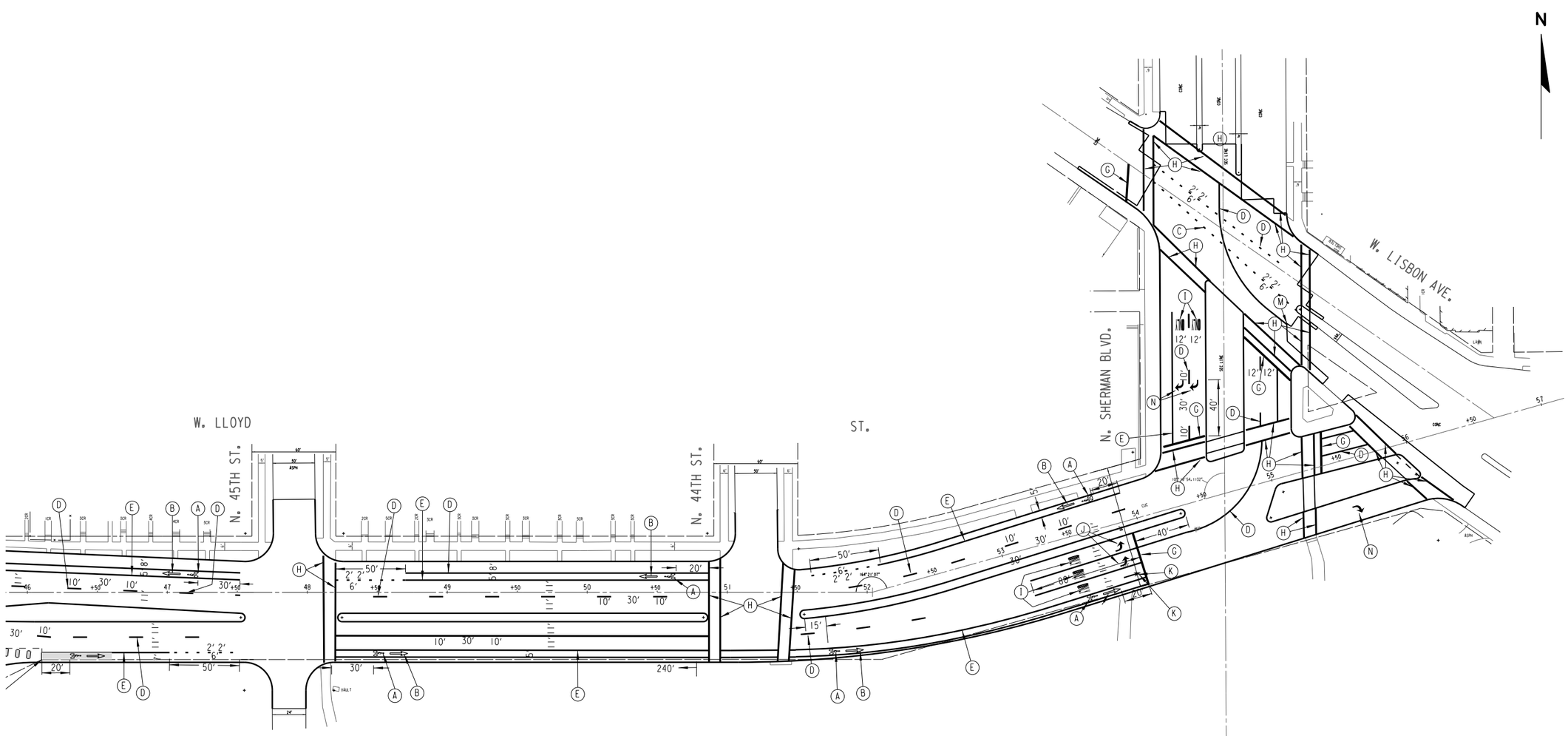


(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY "ONLY"
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH)
(M) MATCH EXISTING
(N) PAVEMENT MARKING ARROWS, EPOXY TYPE 2 (RIGHT TURN)
(P) SKID/ SLIP RESISTANT, GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL & ARROW

STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 91	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

REVISED: 12-15-2015



(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
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(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
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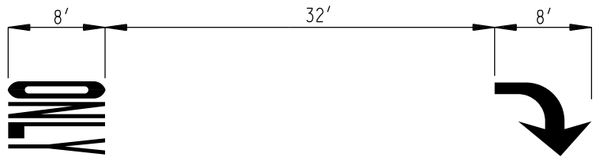
(I) PAVEMENT MARKING WORDS EPOXY "ONLY"
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH)
(M) MATCH EXISTING
(N) PAVEMENT MARKING ARROWS, EPOXY TYPE 2 (RIGHT TURN)
(P) SKID/ SLIP RESISTANT, GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL & ARROW

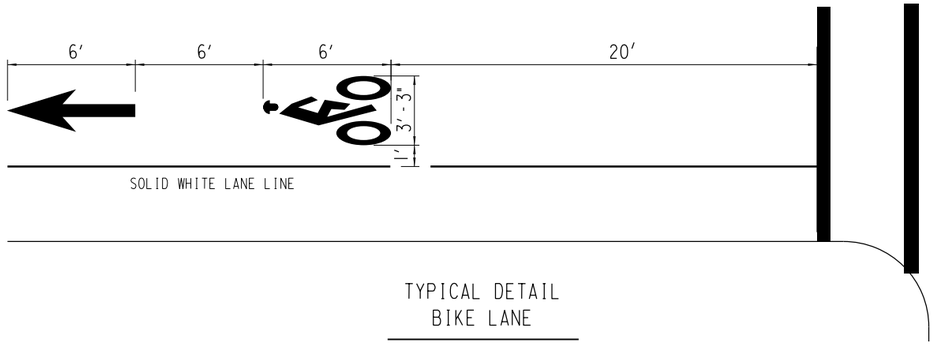
STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 92	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

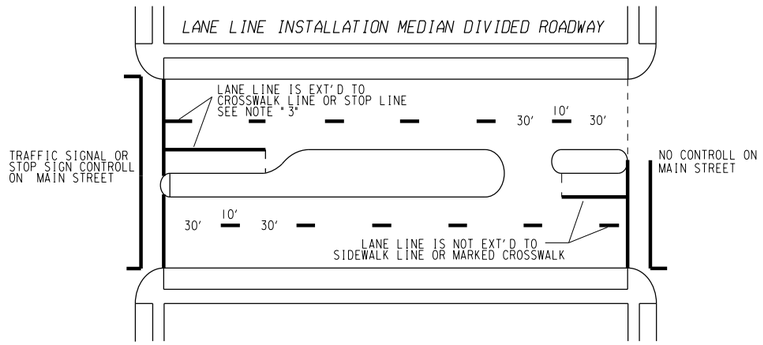
REVISED: 12-15-2015



TYPICAL DETAIL
ARROW AND ONLY

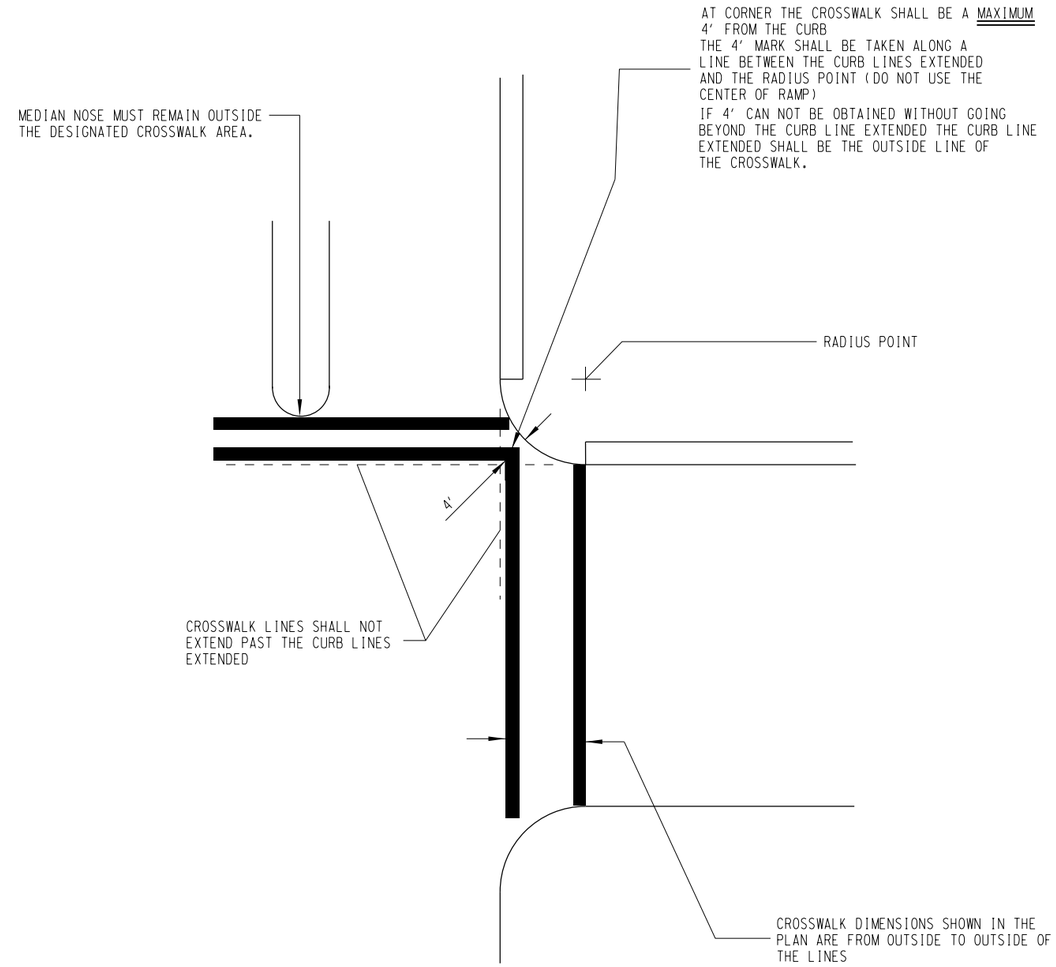


TYPICAL DETAIL
BIKE LANE



PAVEMENT MARKING NOTES

1. DASHED YELLOW CENTER LINES AND WHITE LANE LINES ARE 10 FEET LONG WITH A 30 FOOT GAP.
2. ALL DASHED CENTER LINES AND LANE LINES ARE 4 INCHES WIDE. ALL DOUBLE YELLOW CENTER LINES HAVE A 4 INCH SPACE BETWEEN TWO 4 INCH LINES.
3. AT CONTROLLED INTERSECTION IF LANE LINE IS LESS THAN 10 FEET, THE PRECEEDING LINE IS EXTENDED TO THE STOP LINE OR CROSSWALK LINE. THIS BALANCE LINE SHOULD NOT EXCEED 49 FEET. THIS POLICY APPLIES TO LANE LINES ONLY AT TRAFFIC SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTIONS AND CENTER LINES AT ALL LOCATIONS.
4. ALL DIMENSIONS ARE FROM THE FACE OF THE CURB TO THE CENTER OF THE MARKING UNLESS OTHERWISE NOTED.
5. TEMPORARY PAVEMENT MARKINGS MUST BE PLACED ON THE PAVEMENT IF PERMANENT MARKINGS ARE NOT INSTALLED AFTER THE COMPLETION OF PAVING.



TYPICAL
CROSSWALK INSTALLATION

STATE PROJECT NUMBER: 2984-16-71 - -	HWY: S.T.H. 241	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 93	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\PAVEMARK.DGN

REVISED: 10-12-2015

2

STREET LIGHTING & TRAFFIC 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 A DISTANCE OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND 18 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, 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 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) 414-286-5941 (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.

LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE (CITY FURNISHED)
- EXISTING TRAFFIC SIGNAL BASE
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- EXISTING PVC CONDUIT
- NEW PVC CONDUIT
- EXISTING VAULT
- NEW VAULT
- EXISTING TRAFFIC CONTROL CABINET
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- XX' ARM SIGNAL HEAD LOCATION ON MAST ARM
- CONCRETE BOX JOINT AROUND FACILITIES
- XX' ARM EVP DETECTOR LOCATION ONB MAST ARM
- BOX FORM FILLED WITH ASPHALT

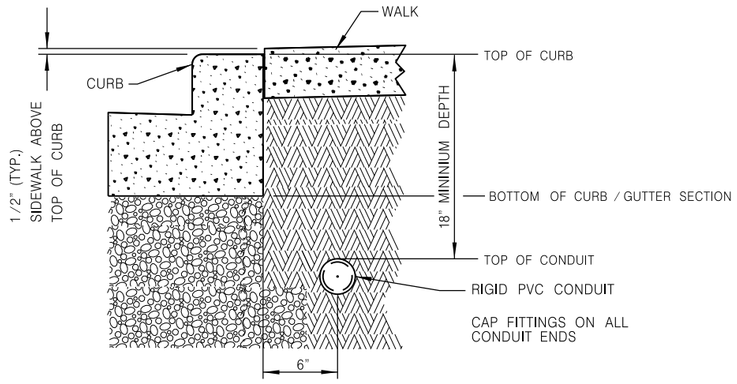
UTILITY LINE CODE

- 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

SHEET 1 OF 12

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 94	E

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A" NOT TO SCALE

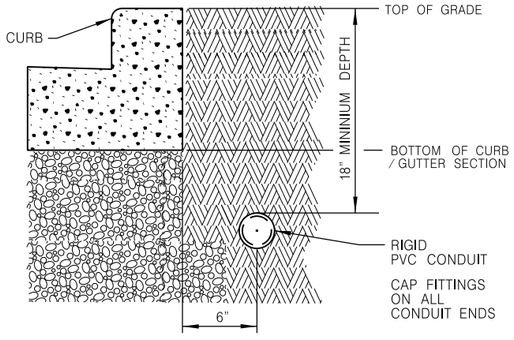
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

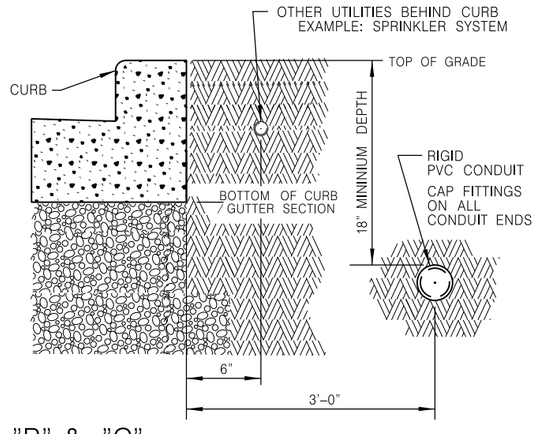
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED 6" ON CENTER DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



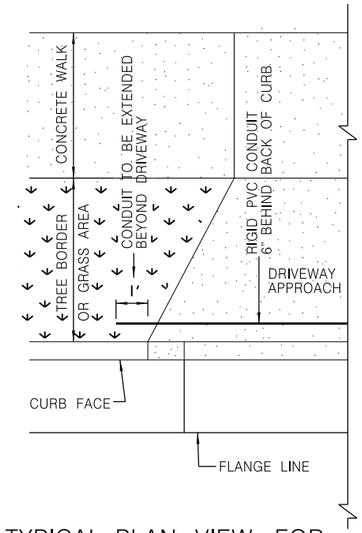
DETAIL "C"



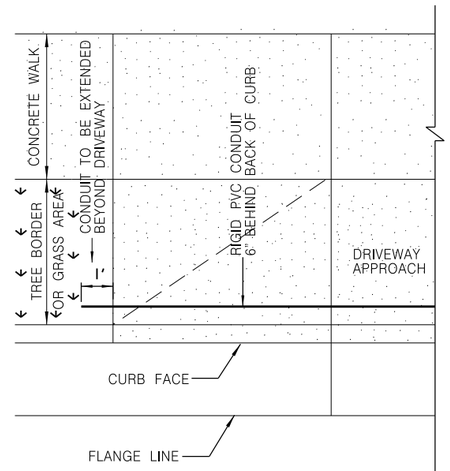
100 DETAIL "B" & "C" NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

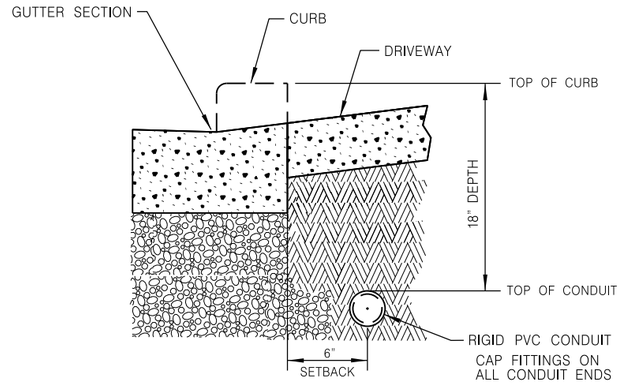


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

PROJECT NO: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 95	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St- Sherman to 60th\2984-16-71 wLloyd - Sherman to 60th Conduit.dgn
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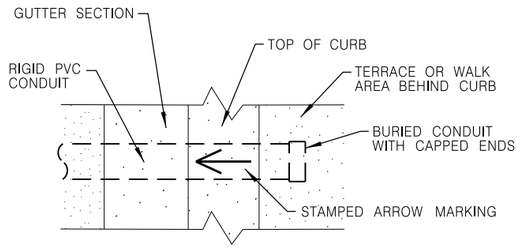
WISDOT/CADDS SHEET 42

2

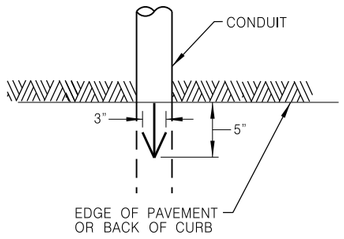


TOP VIEW OF CURB STAMPING

NOT TO SCALE

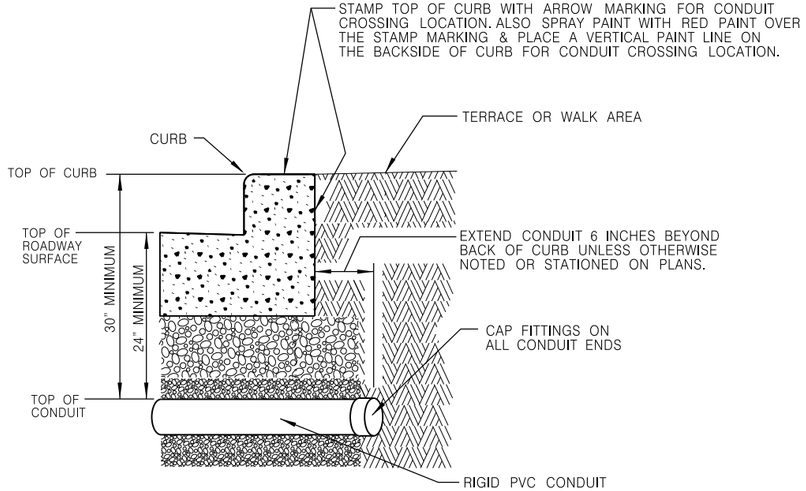
NOTE:

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

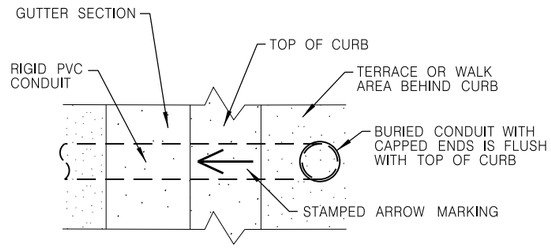


102 DETAIL VERSION #1

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.

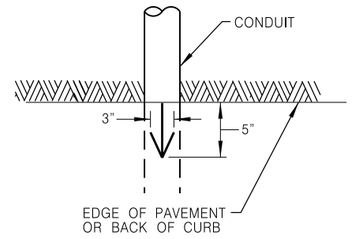


TOP VIEW OF CURB STAMPING

NOT TO SCALE

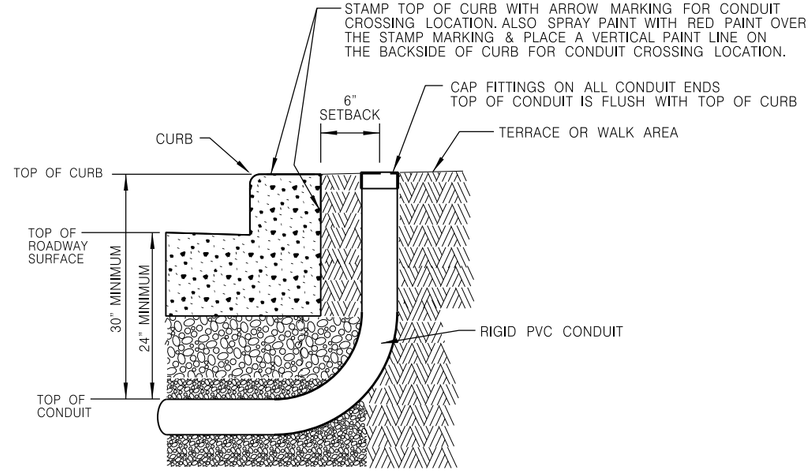
NOTE:

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

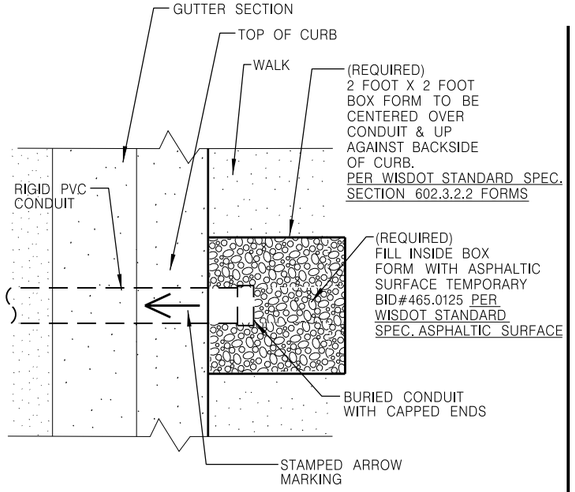


102 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

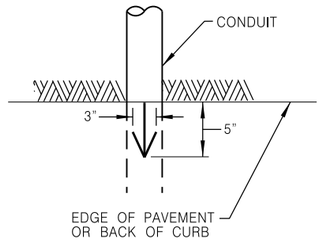
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



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.

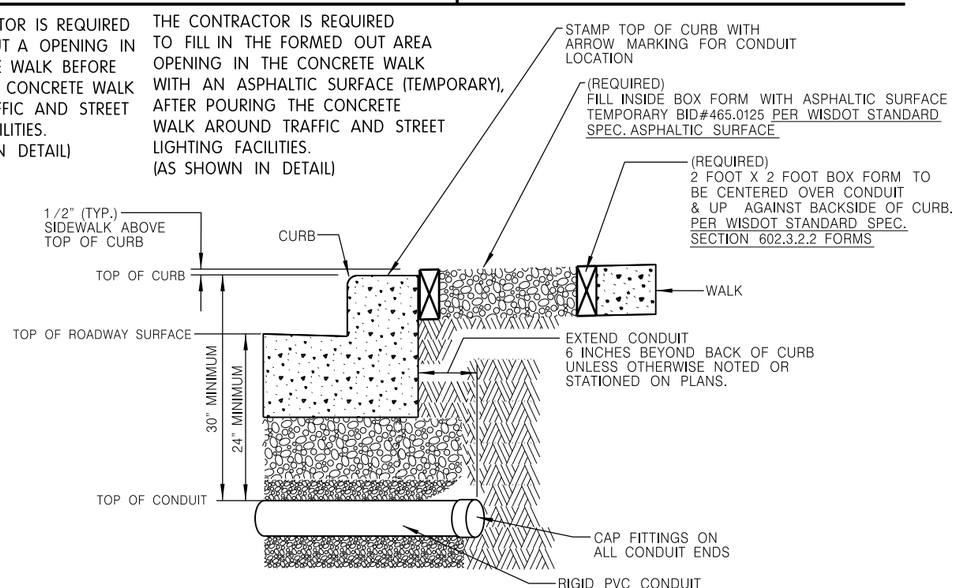


ARROW MARK

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 AN ASPHALTIC SURFACE (TEMPORARY), AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)



103

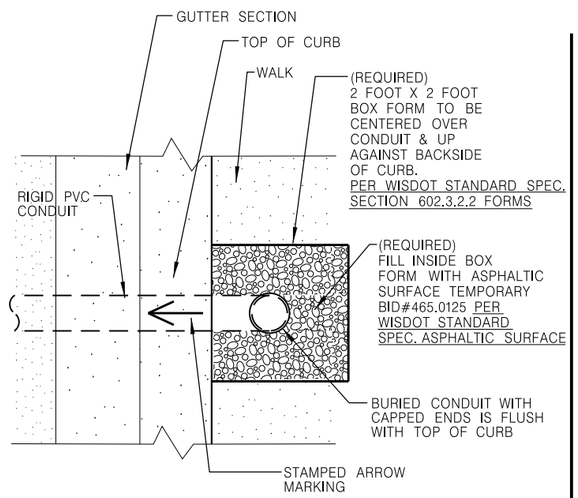
DETAIL VERSION #1

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.

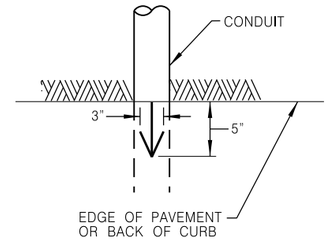
2



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.

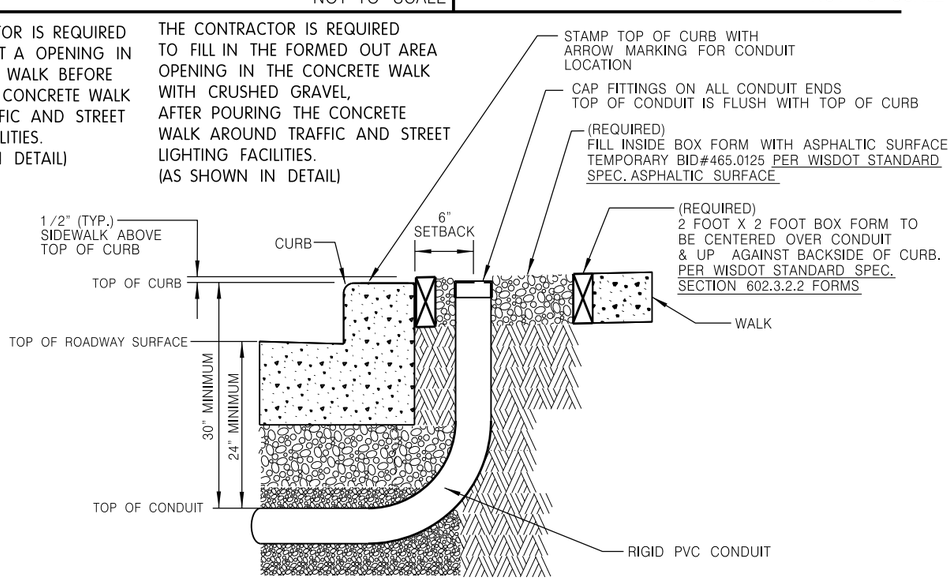


ARROW MARK

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

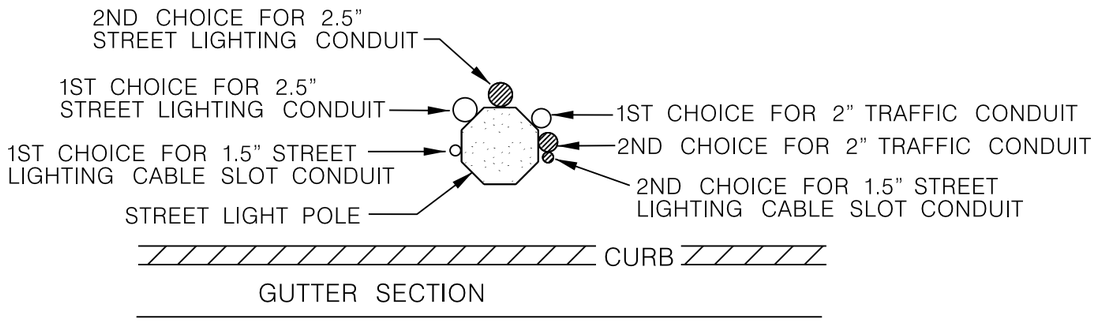
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

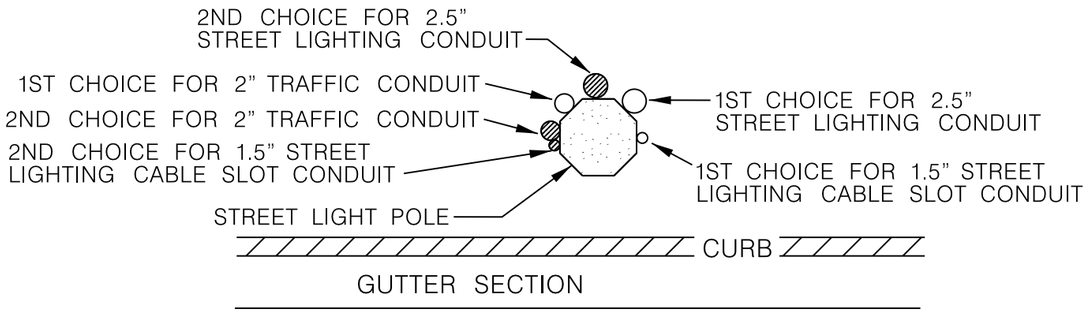
PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 97	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:42
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE: CAP FITTINGS ON CONDUIT ENDS



DIRECTION OF TRAFFIC AT CURB



DIRECTION OF TRAFFIC AT CURB

104 DETAIL

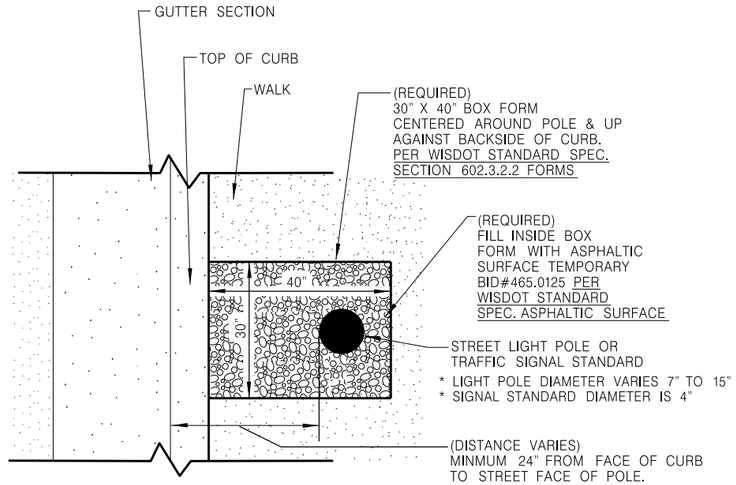
TYPICAL TRAFFIC SIGNAL RISER AND STREET LIGHTING CONDUIT LOCATIONS ON LIGHT POLES DEPENDING ON DIRECTION OF TRAFFIC AT CURB

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 AN ASPHALTIC SURFACE (TEMPORARY), AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

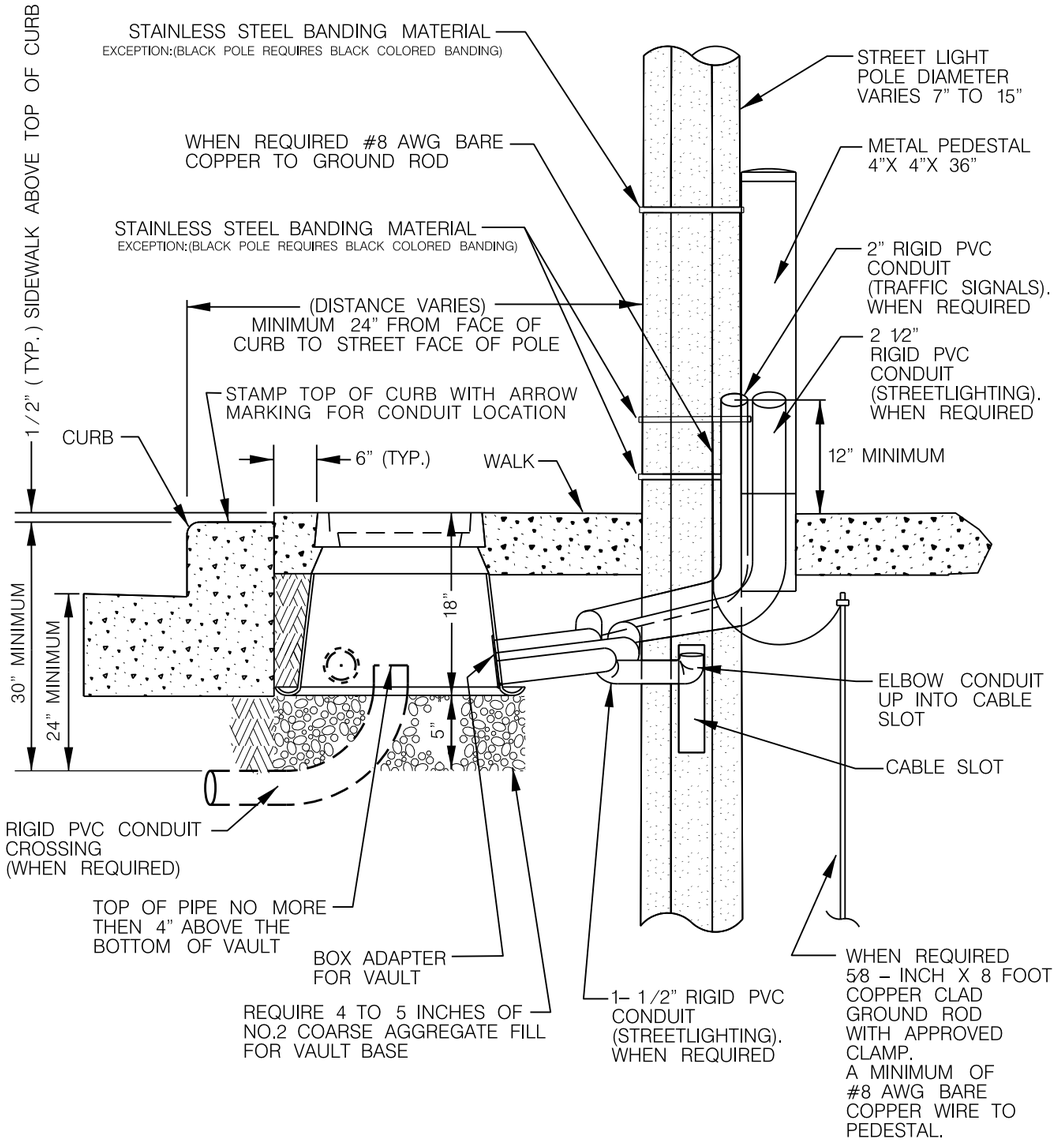


105 DETAIL

TYPICAL 30" X 40" 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

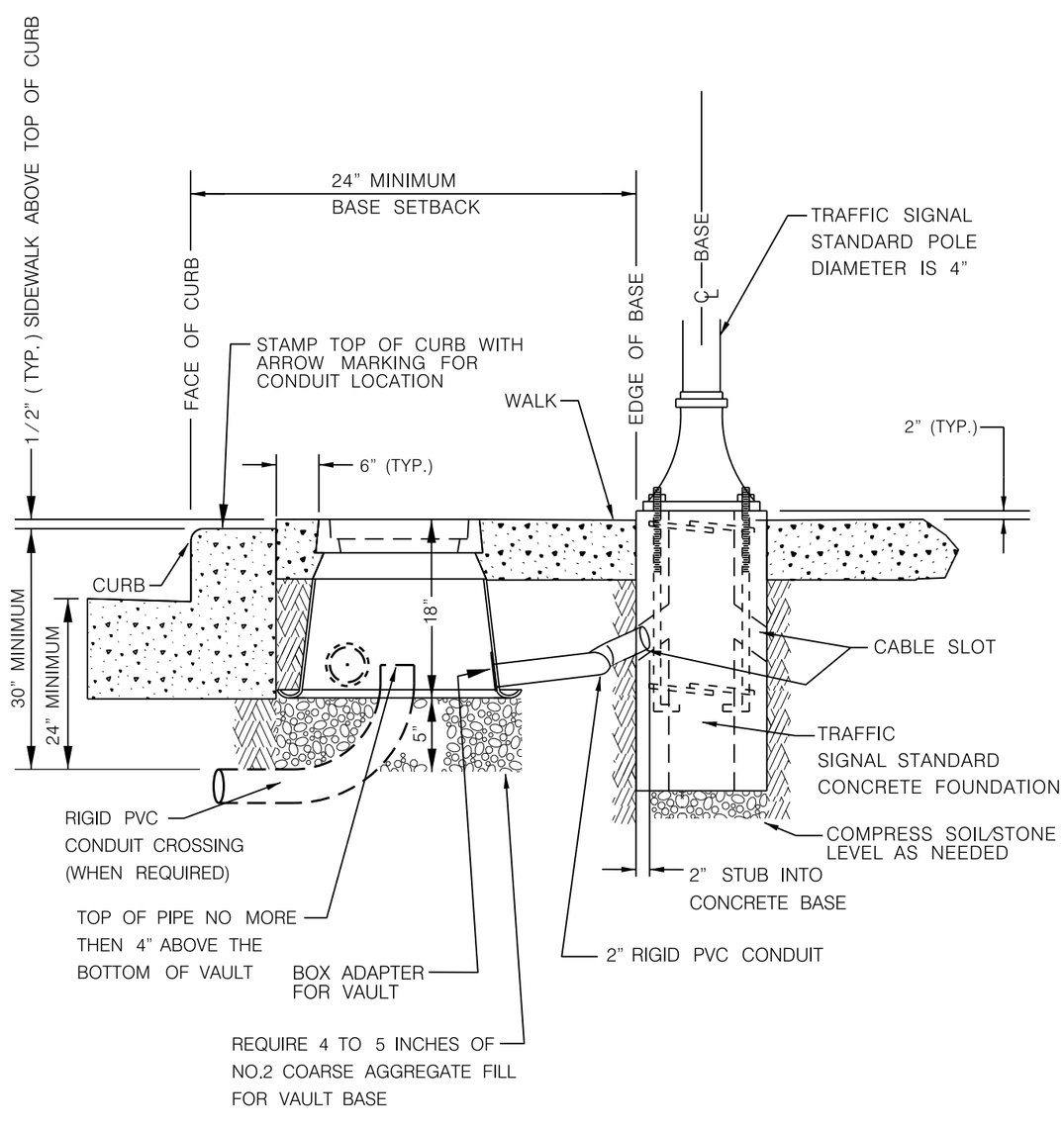


108 DETAIL VERSION #1

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

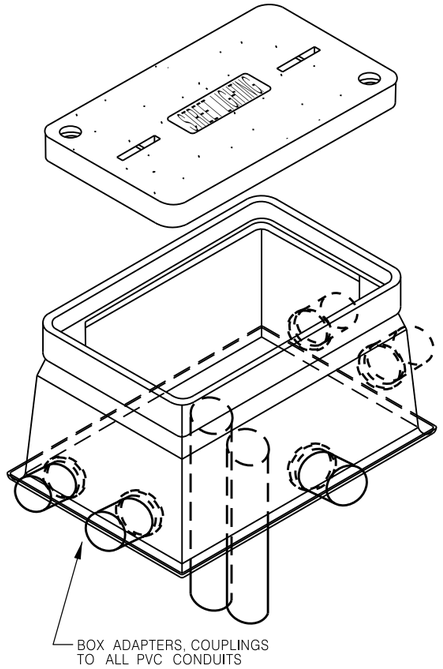
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

SHEET 6 OF 12

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 99	E



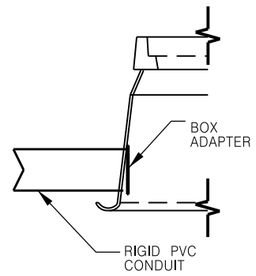
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

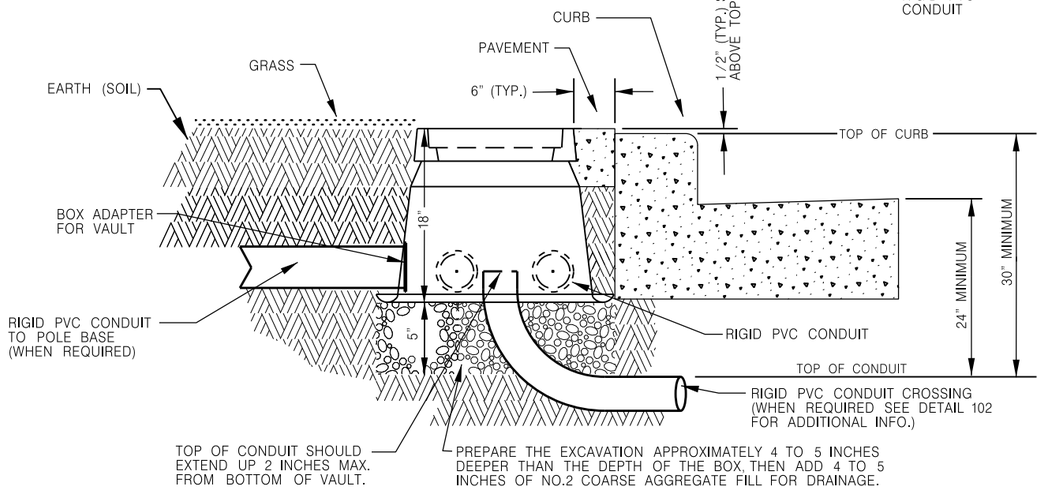
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



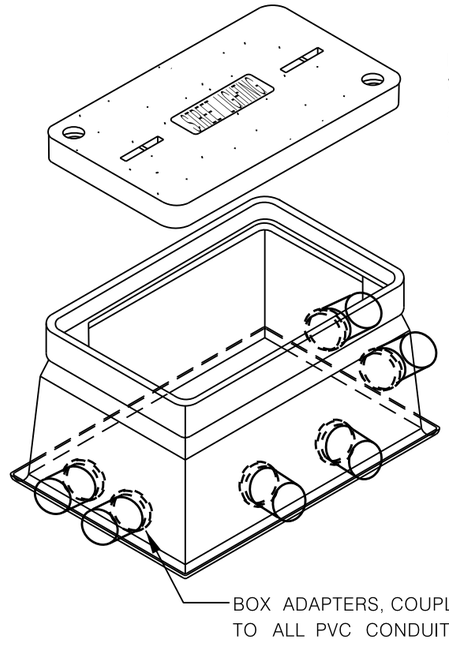


112 DETAIL

NOT TO SCALE

TYPICAL VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

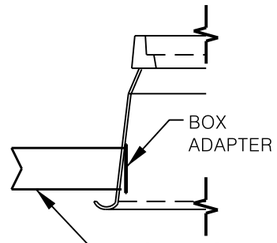


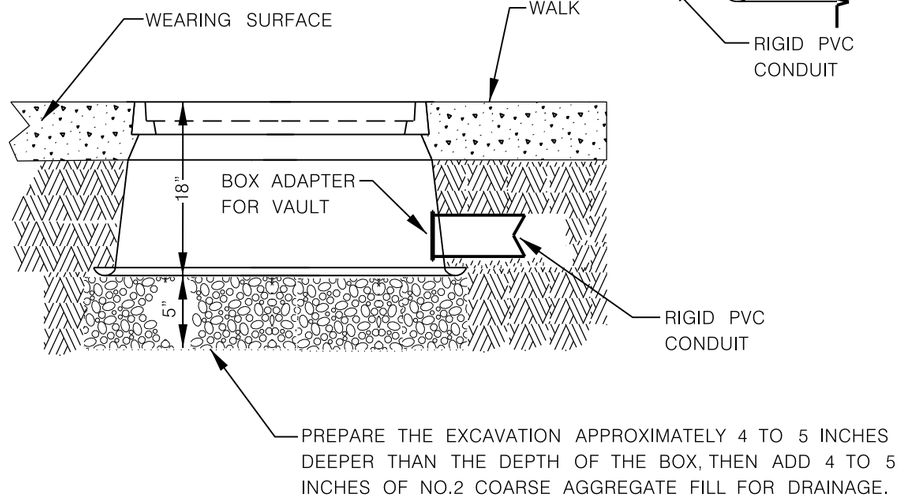
HEAVY DUTY COVER
W/ STREET LIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

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

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

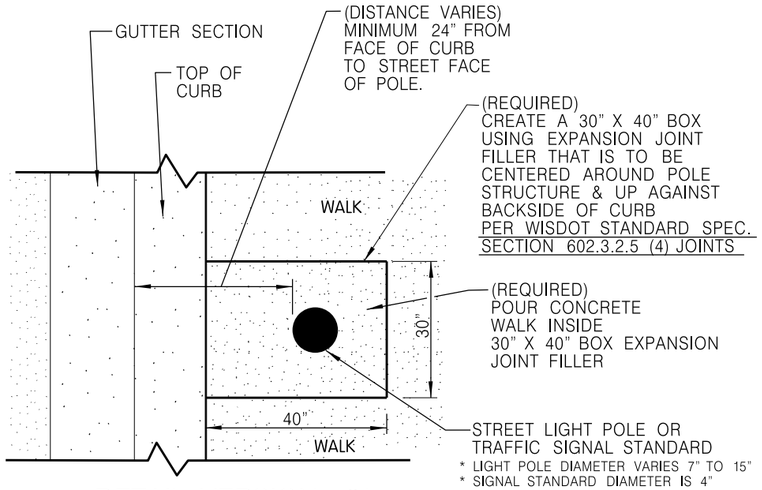
NOT TO SCALE

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 100	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:42
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

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.



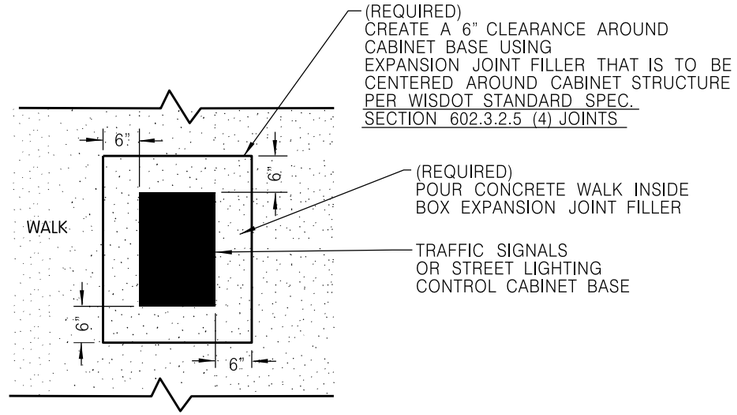
122 DETAIL VERSION #1 NOT TO SCALE

TYPICAL 30" X 40" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES

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.

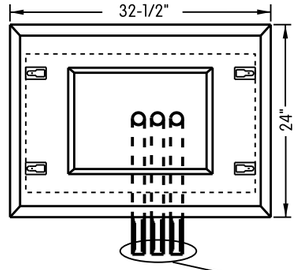
THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #2 NOT TO SCALE

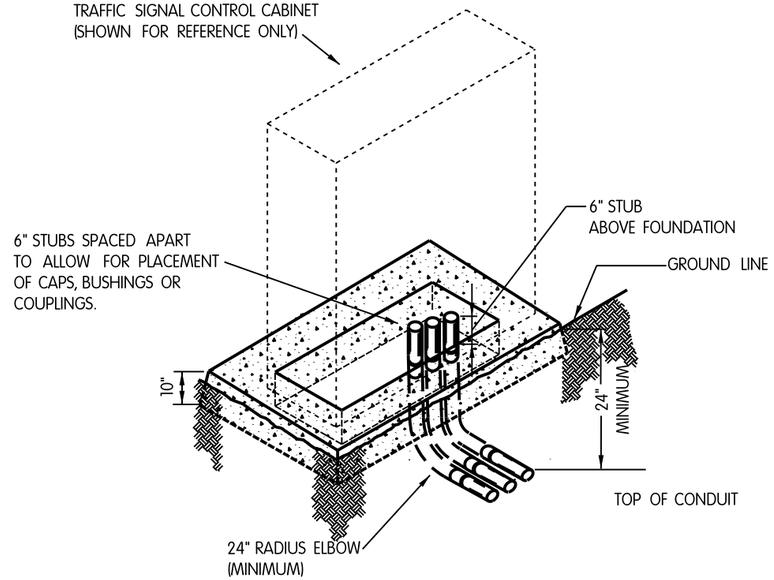
TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



NOTE:
REFER TO STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT PLAN FOR THE QUANTITY & SIZE OF CONDUIT REQUIRED IN THE CONCRETE CONTROL CABINET BASE

PLAN VIEW



ISOMETRIC VIEW

125A

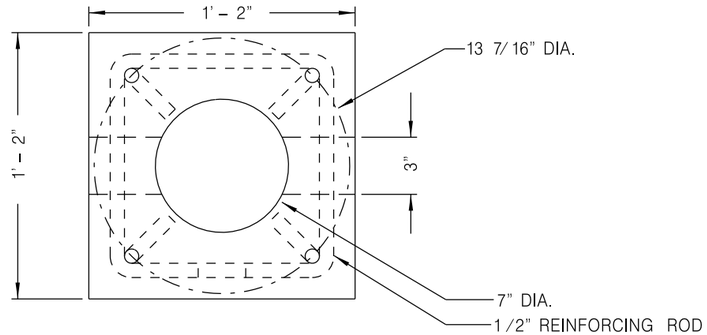
TYPICAL DETAIL

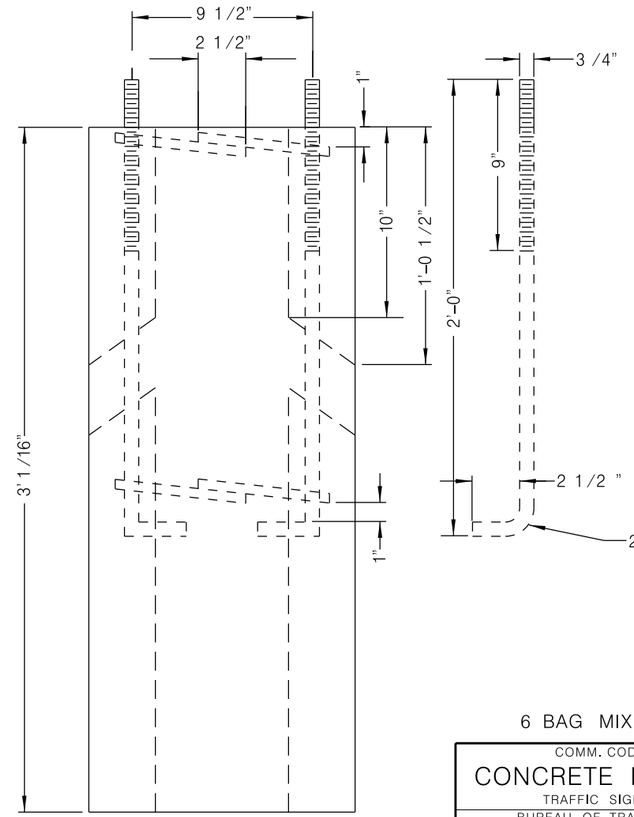
CONDUIT INSTALLATION TO TRAFFIC CONTROL CABINET CONCRETE FOUNDATION

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





NOT TO SCALE

6 BAG MIX #1 STONE

126

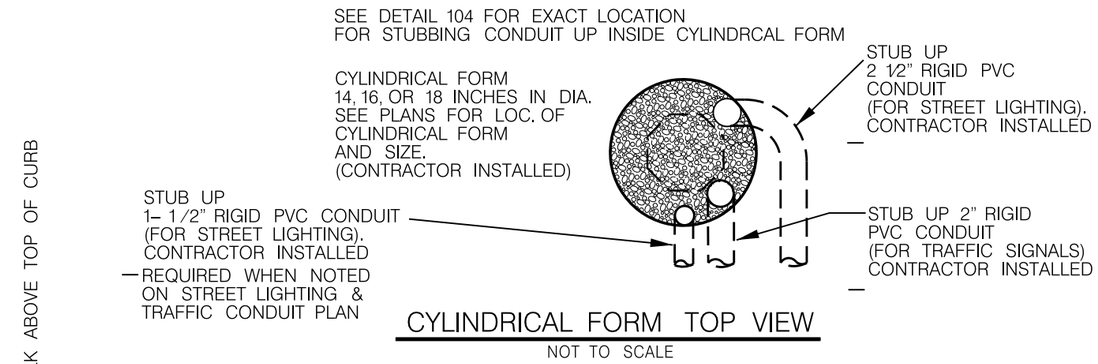
DETAIL

TYPICAL TRAFFIC SIGNAL STANDARD CONCRETE FOUNDATION

COMM. CODE 1238–936				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL STANDARD				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4–18–75	SCALE Not To Scale	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES	REVISED DATE 07–29–03	DRG. C–75–563–T		
SUPERSEDED BY	NEW DRG. F–82–535–T			

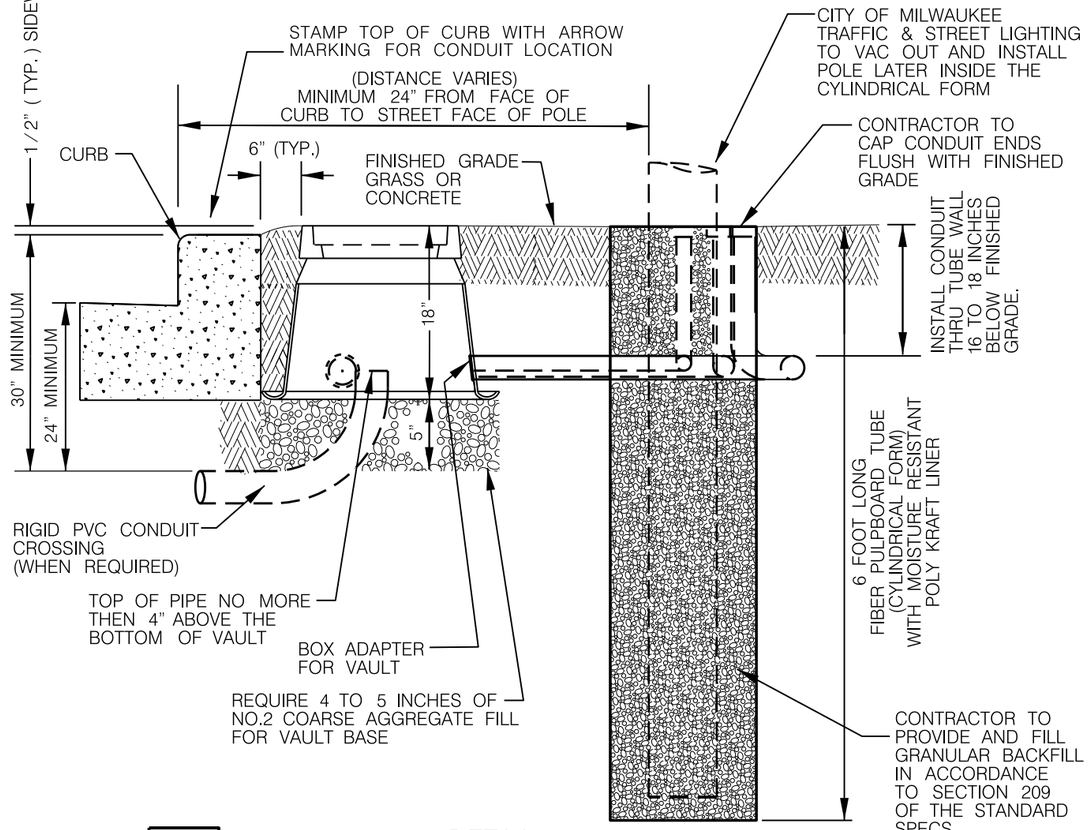
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC SIGNAL FORCES.
CONTACT DISPATCHER AT (414) 286–3687 FOR SHOP SUPERVISOR.

2



CYLINDRICAL FORM TOP VIEW

NOT TO SCALE



138 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM VAULT TO CYLINDRICAL FORM

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.

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 103	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St– Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:43
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
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).

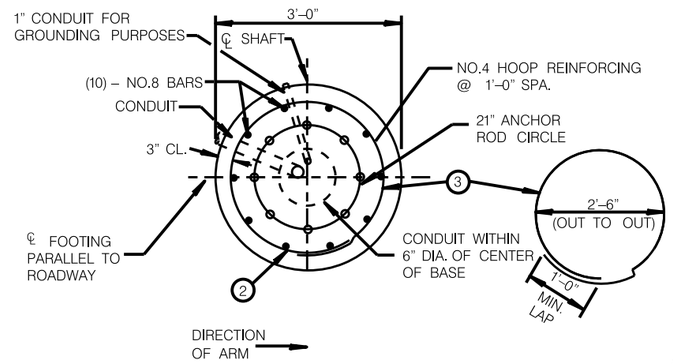
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

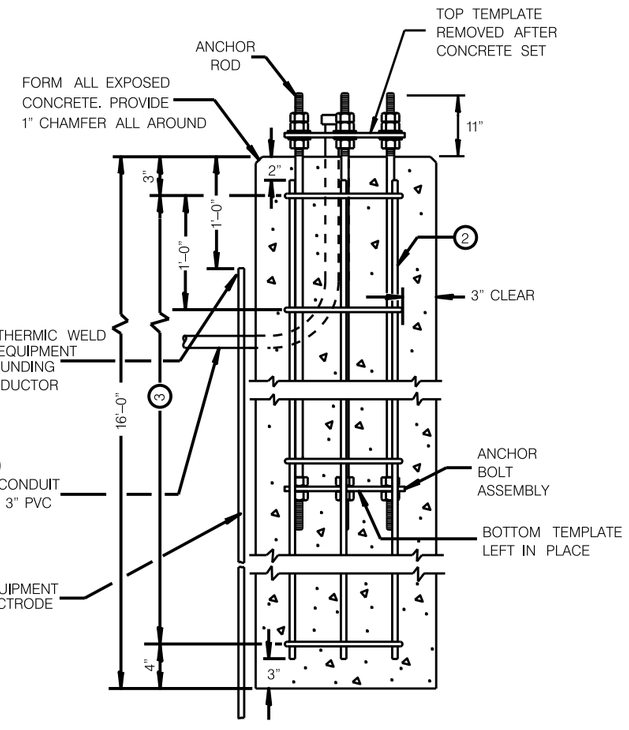
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

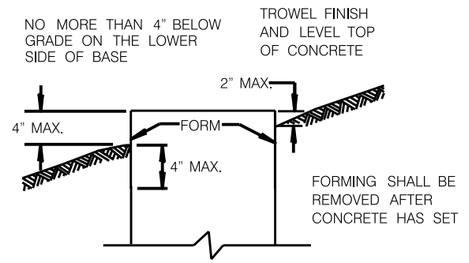
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

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.

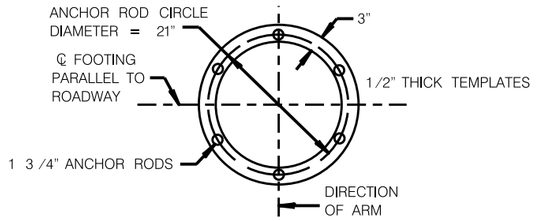




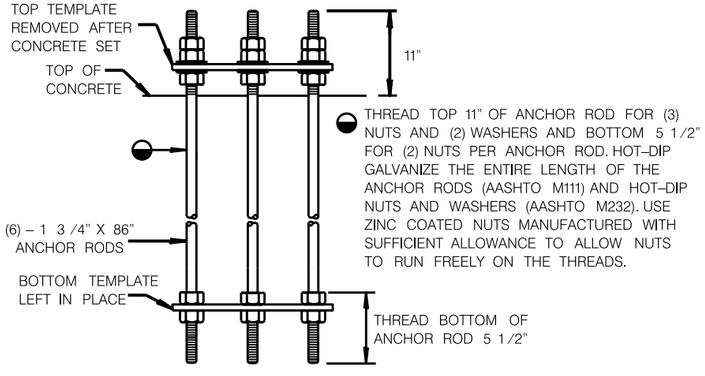
CONCRETE BASE TYPE 10 SPECIAL



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

CONCRETE BASE TYPE 10 SPECIAL

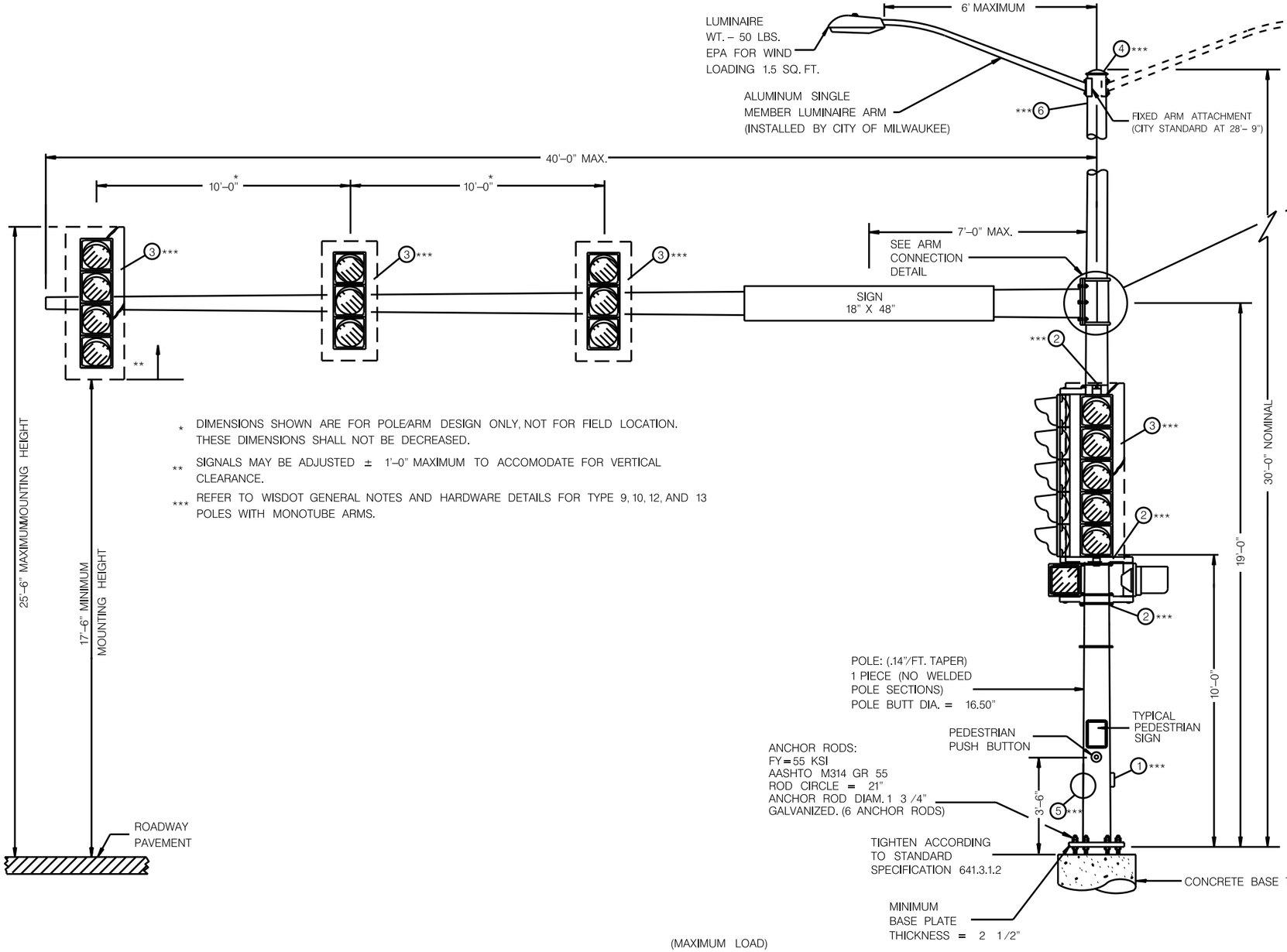
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

SHEET 11 OF 12

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 104	E

2



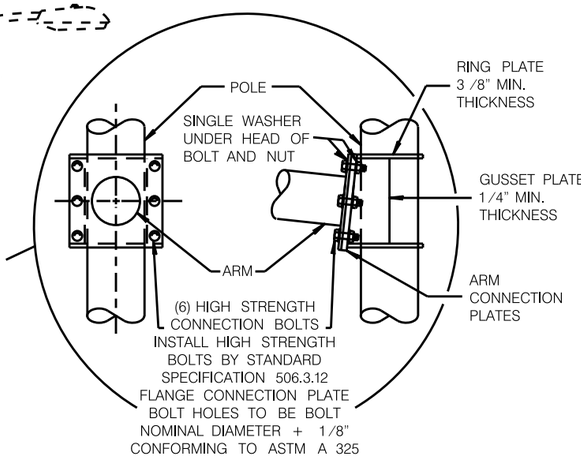
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

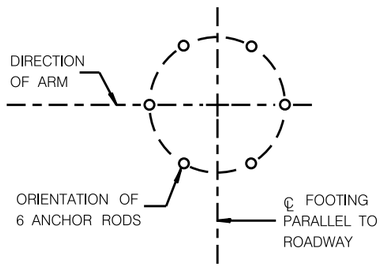
*** REFER TO WISDOT GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

SHEET 12 OF 12

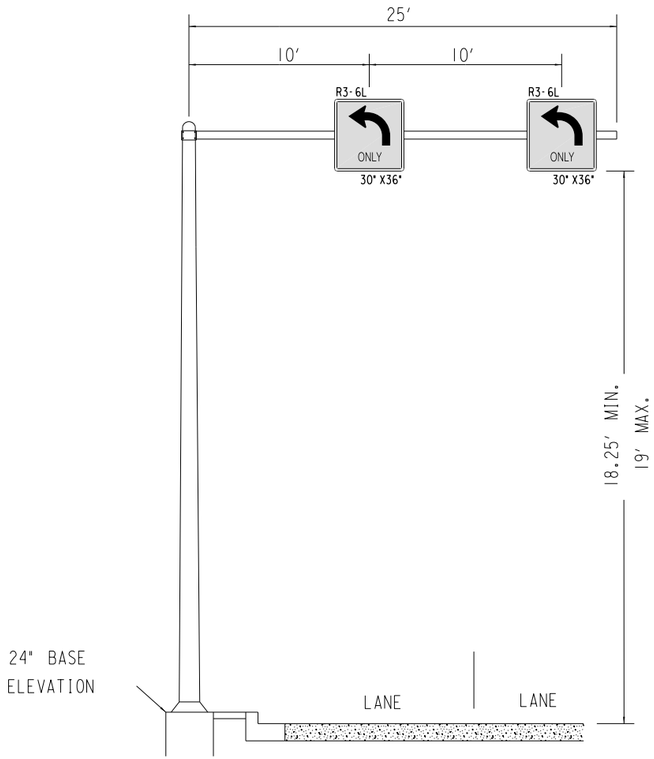
TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

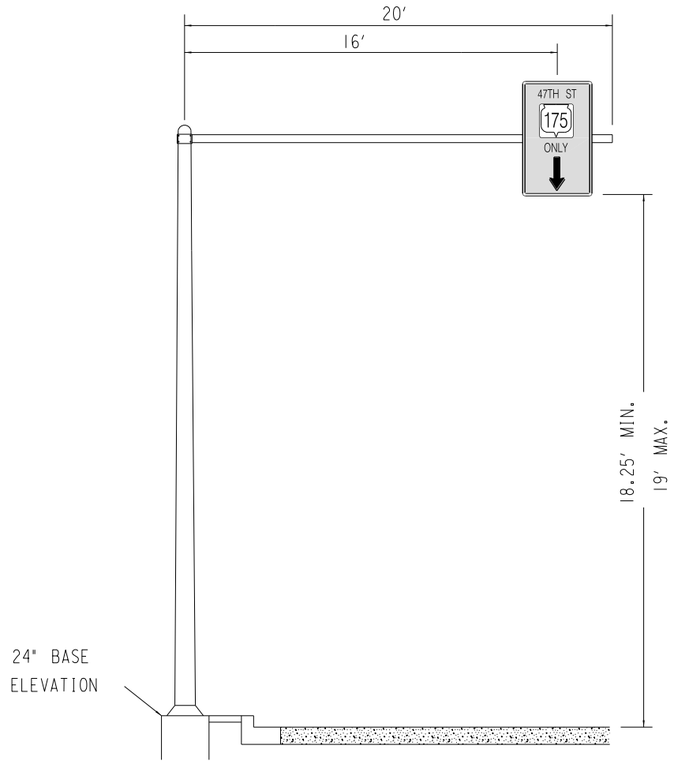
PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 105	E

SIGN DETAILS



W. LLOYD ST. AND N. SHERMAN BLVD. - EASTBOUND

53 + 17



W. LLOYD ST. AND N. 46TH ST. - WESTBOUND

53 + 17

GENERAL NOTES:

FOR 24" BASE, REFER TO 24" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE S.D.D.(S.D.D. 15C22-02)
FOR 30" BASE, REFER TO 30" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE S.D.D.(S.D.D. 15C23-02)
FOR 36" BASE, REFER TO 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE S.D.D.(S.D.D. 15C24-02)
MOUNTING BRACKETS FOR SIGNS TO BE APPROVED FROM PRODUCT LIST FOR TYPE II SIGNS.

CONTRACTOR SHALL:

SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT, FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
PROVIDE DESIGN CALCULATION.
SHOW SIGNS ON SHOP DRAWINGS.
ID PLAQUE INCIDENTAL TO SIGN SUPPORT.
SIX ANCHOR RODS SHALL BE USED PER S.D.D.S 15C22-02 AND 15C24-02.

REVISED: - -

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	OVERHEAD SIGN SUPPORT DETAIL	SCALE FEET	SHEET NO: 106	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\OVERHEAD_SIGN.DGN

2

WEST LLOYD STREET

N

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

N. 60TH ST.

CITY OF WAUWATOSA

CITY OF MILWAUKEE

17"X30"X18" VAULT 01+62.1 25.1 LT.

112

100

108

125A

3-3"

2"

2.5" (SERIES SECONDARY)

01+77

2.5" SERIES CIR.

3" CAP END AT PAVING LIMIT

01+58.9

01+61.1

01+47.2

2.5" SPECIAL SERIES CIR. SPECIAL

3" SPECIAL

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

101

02

03

+50

CMB

CUC

WEP

COM

ASPH

CONC

RAMP

TE&ES

109

2-2"

STUB UP & CAP END 01+42.4, 28.1'RT.

13"X24"X18" VAULT

STD. B.M #205 SW COR. N. 60TH ST. & W. LLOYD ST. 10.7' S. & 15' W. OF CURBS ELEV. 164.867

SEC LINE

27'

30.5'

23.5'

42"

80'

40'

15.0

5.0

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

SHEET 1 OF 21

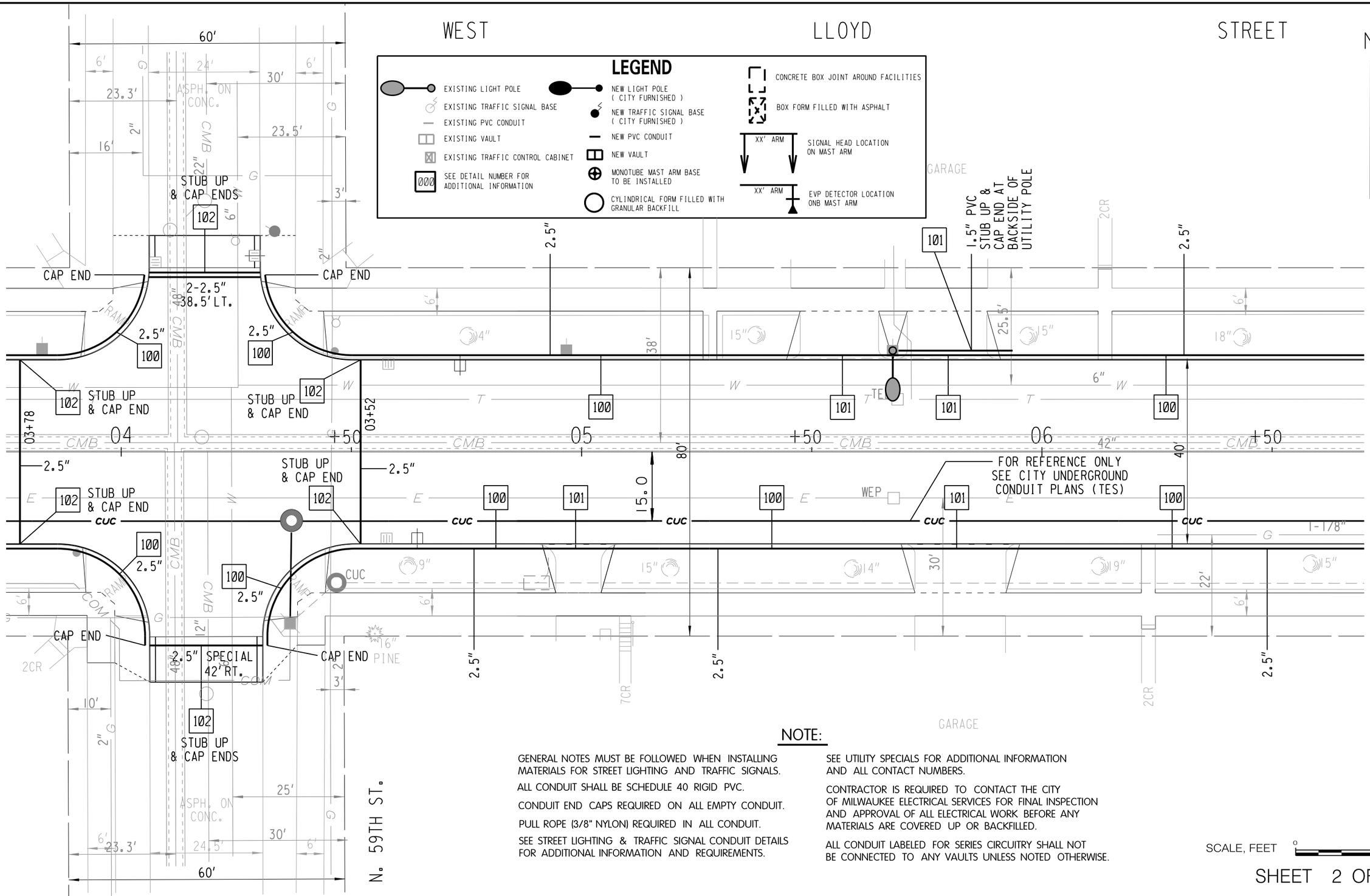
PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 107	E

WEST LLOYD STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 2 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 108	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:43
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

WEST LLOYD STREET

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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N

60′ 10′ 24′ 29′ 6′ 16′ 2′ 36″ 24″ 6″ 2″ 1-1/4″ 3CR 5CR 12″ 2.5″ 6′ 25′ 38′ 32″ 4″ 13″ 3″ 7″ 8″ 23″ 19 22′ 30′ 47.5′RT. 21′ 26′

CONC. CMB W G T E STO WEP CUC TES RAMP

ABANDONED

CAP END AT PAVING LIMIT

CAP END

STUB UP & CAP END

STUB UP & CAP ENDS

100 101 102

07 08 09

+50 06+80 07+69 80′

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

GARAGE

B.M. NORTH SIDE OF BLDG.
W END OF W WINDOW SILL
#2044 N. 58TH ST.
ELEV. 169.56

N. 58TH ST.

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX′ ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX′ ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

SHEET 3 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 109	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn PLOT DATE : 01–OCT–2015 10:43 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

WEST LLOYD STREET

N

B.M. SOUTH SIDE OF BLDG.
E END OF E WINDOW SILL
#2103 N. 56TH ST.
ELEV. 180.53

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

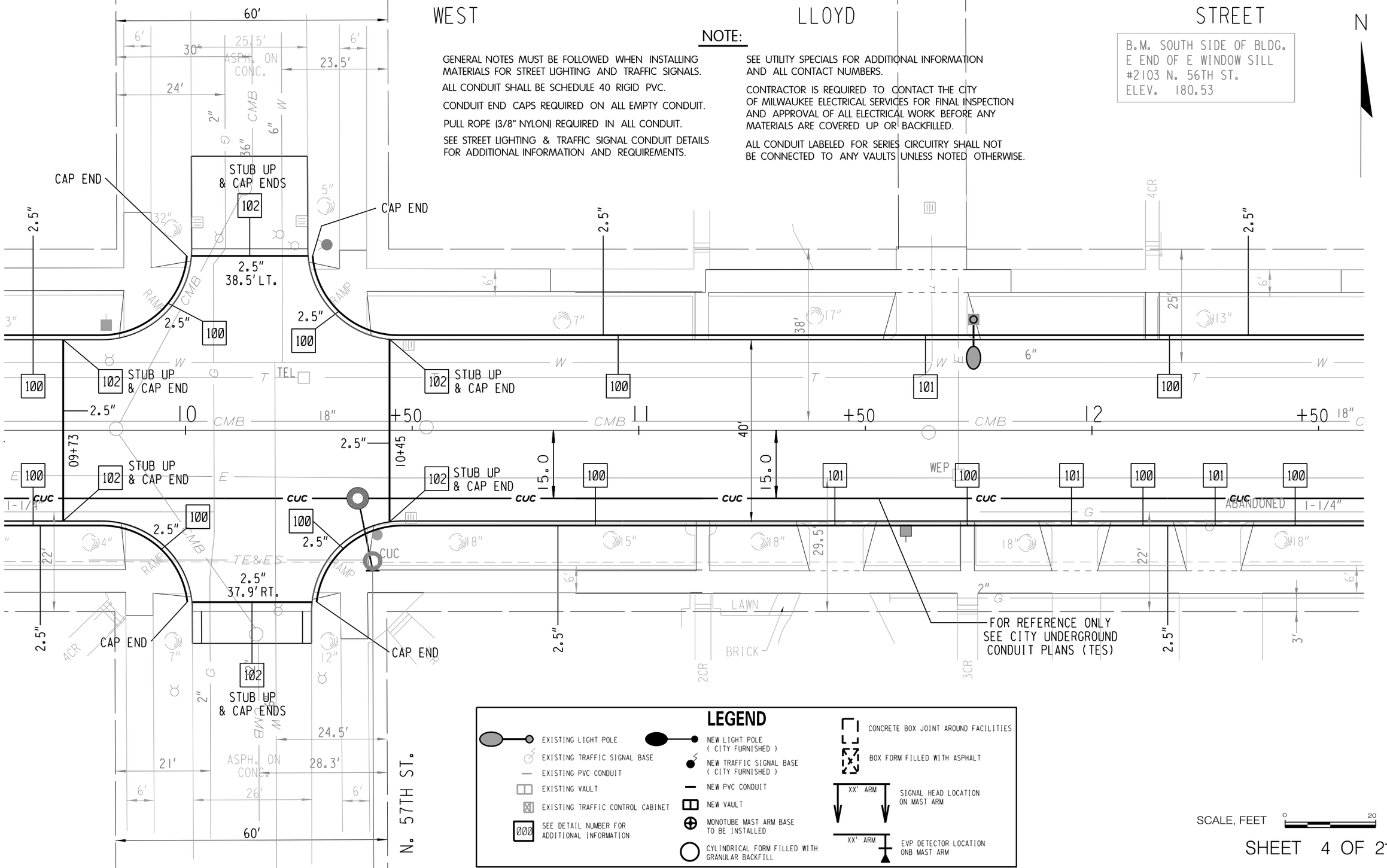
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.



LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

SHEET 4 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 110	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:43
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

WEST LLOYD STREET

N

B.M. HYD NE CORNER
N. 56TH ST. & W.LLOYD ST.
STA 13+29,40' LT.
ELEV. 179.36

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

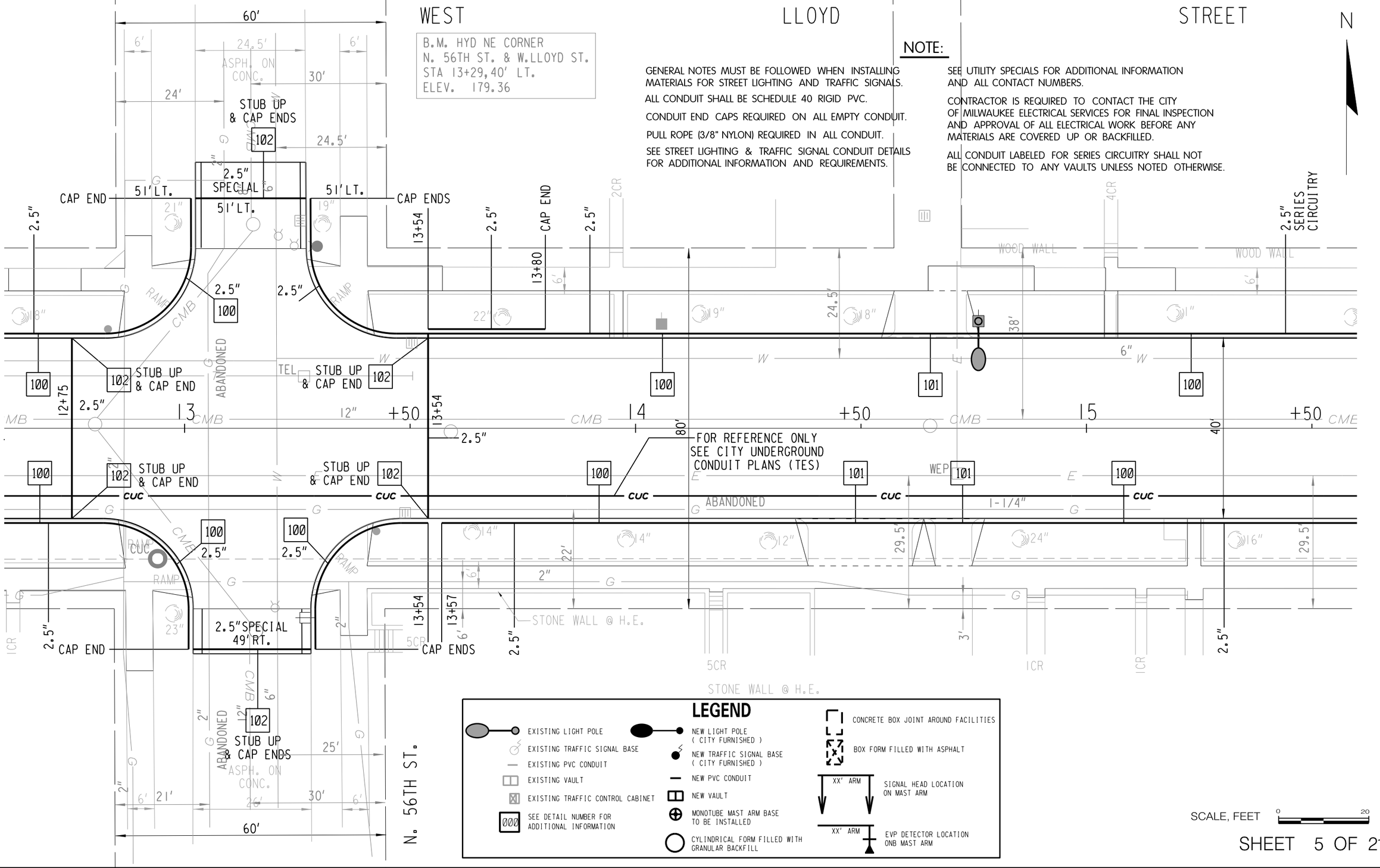
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.



LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

SHEET 5 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 111	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:43
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

WEST LLOYD STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

17"X30"X18" VAULT 25.9'LT. 112
48'LT. ???? STUB UP & CAP ENDS 102
45'LT. CAP END
CAP END 109
2" 2.5" SPECIAL 2-3" 108 2"
15+94.4 39'LT.
16+32.3 39'LT.
125A 2-3" 3-3"
17"X30"X18" VAULT 112
2.5" SERIES CIR. 100
2-2"
2.5" SERIES CIRCUITRY 100
2" 109
13"X24"X18" VAULT 16+46.2, 24'LT. 112
2.5" SERIES CIRCUITRY
2-3" 102
13"X24"X18" VAULT 15+68, 21.4'RT. 112
CITY FORCES TO REMOVE TRAFFIC SIGNAL POLE PRECONSTRUCTION
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 16+50.4, 22.5'RT.
FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 17+66.2, 23'RT.
30"X40" BOX OUT 105
13"X24"X18" VAULT 16+47, 24.1'RT. 112
13"X24"X18" VAULT 16+33.4, 49'RT. 112
49'RT.
2'X 2' BOX OUT 103
13"X24"X18" VAULT 15+48.5, 49'RT. 112
2' LONG STUB CAP & SEAL END CONNECT TO VAULT
CAP END AT PAVING LIMIT
2.5" SERIES CIRCUITRY 50.3'RT.
2.5" SERIES CIRCUITRY
2.5" SERIES CIRCUITRY
2.5" SERIES CIRCUITRY
N. 55TH ST.
I.P.
ABANDONED
1-1/4"
CONC. BLOCK
CONC
CMB
CUC
TE&ES
WEP
58.77'

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

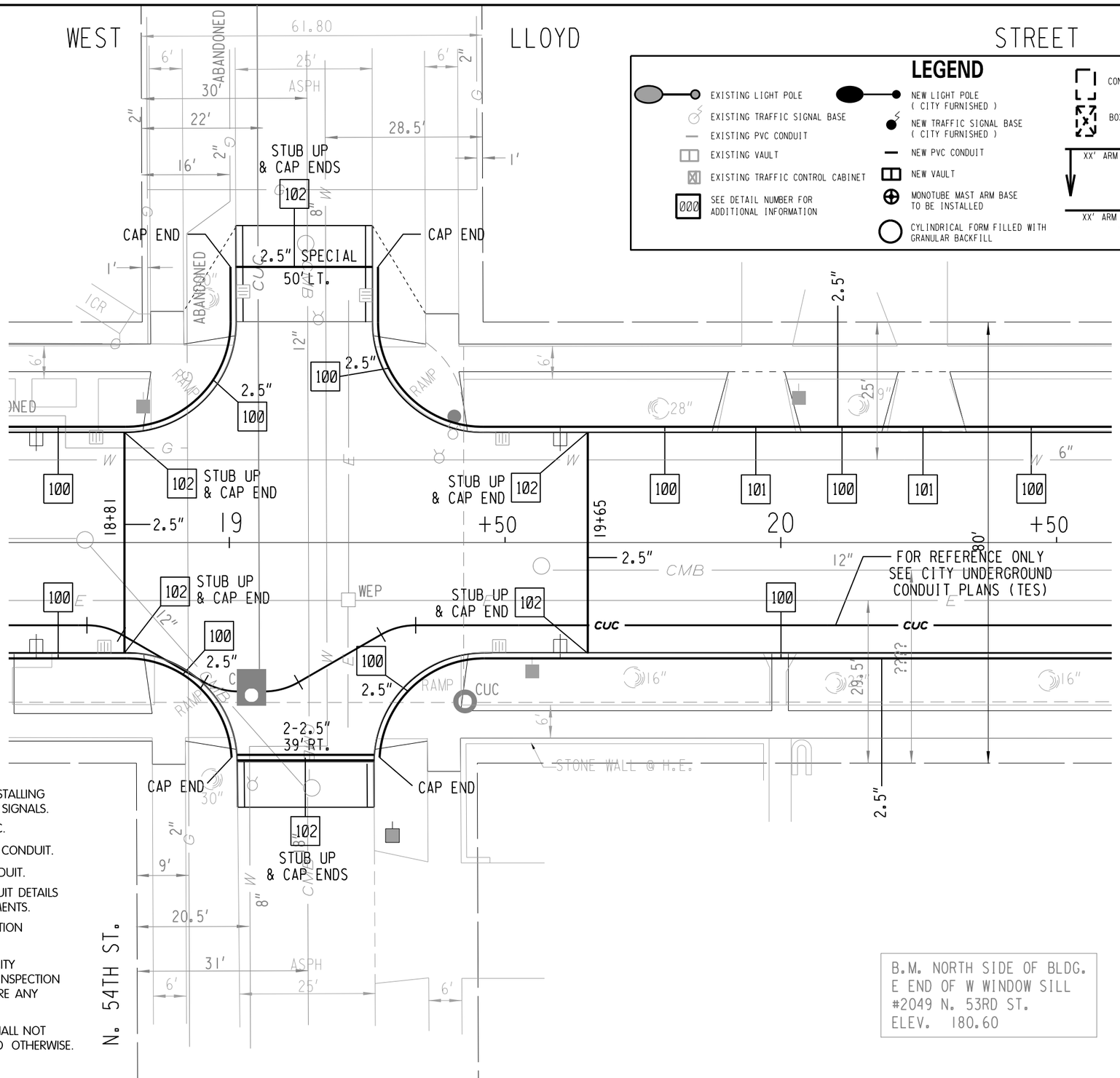
ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 6 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 112	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St– Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn
PLOT DATE : 01–OCT–2015 10:43 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

B.M. NORTH SIDE OF BLDG.
E END OF W WINDOW SILL
#2049 N. 53RD ST.
ELEV. 180.60

SCALE, FEET 0 20

SHEET 7 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 113	E

WEST LLOYD STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

STUB UP & CAP ENDS 102
CAP END
2.5" SPECIAL 47' LT.
ABANDONED
RAMP
2.5" WAT
100
STUB UP & CAP END 102
20+81
21
+50
22
40'
21+76
FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)
101
23
23+42
20+78
20+75
20+98
CAP END
1.5" CAP ENDS
44' RT.
2-2.5" SPECIAL
STUB UP & CAP ENDS
N. 53RD ST.
100'

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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SCALE, FEET 0 20

SHEET 8 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 114	E

WEST

LLOYD

STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

66'
6'
30.5'
6'
4'
ASPH
33'
2" G
4" G
26'
STUB UP & CAP ENDS
102
6" CMB
23'
CAP END
2.5" SPECIAL
46' LT.
CAP END
2CR
7CR
4CR
2.5"
RAMP
2.5"
100
2.5"
100
RAMP
2.5"
2.5"
101
8"
6"
12"
6"
21"
14"
6"
6"
6"
100
102 STUB UP & CAP END
100
STUB UP & CAP END 102
101
101
STUB UP & CAP END 102
24
2.5"
+50
25
2.5"
+50
26
+50
80'
24+17
24+98
26+55
2.5"
100
102 STUB UP & CAP END
STUB UP & CAP END 102
100
FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)
101
101
STUB UP & CAP END 102
CUC
CUC
CUC
CUC
CUC
CUC
2.5"
100
100
2.5"
2" CMB 48"
CUC
RAMP
CMB
RAMP
CMB
29.5'
9"
48" CMB
15'
6"
11'
6"
15'
WALL
101
2.5"
2.5"
2.5"
CAP END
45' RT.
2-2.5" SPECIAL
CAP END
102
STUB UP & CAP ENDS
4" G
6" M
12"
26.5'
21'
33'
ASPH
30'
6'
6'
66'
N.52ND ST.

STD. B.M #206 SW COR.
N. 52ND ST. & W. LLOYD ST.
18' S. & 15' W. OF CURBS
ELEV. 184.152

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 9 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 115	E

WEST LLOYD STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

68' 6' 24' 6' 33' 29' 2" 4' 2" 3' CONC CURB 1/4 SEC LINE

STUB UP & CAP ENDS 102 6" 2.5" 44' LT.

CAP END CAP END

BRICKS BUSHES ASPH WALL

2.5" 6' 28' 18" 19" 15" 16" RAMP RAMP

100 100 100 100 102 STUB UP & CAP END 102 STUB UP & CAP END 101 101

27 27+26 +50 28 28+33 +50 29 +50

40' 12" 80' 2.5"

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

102 STUB UP & CAP END 102 STUB UP & CAP END

CUC CUC CUC CUC CUC

STO CMB RAMP 22" 74" 48" 29.5' 15' 1CR 3CR 5CR

2-2.5"SPECIAL 12" 45' RT. CAP END CAP END

102 STUB UP & CAP ENDS 1/4 SEC LINE 12" 6" 2" G 4' 26.5' 33' 6' 28.5' 26.5' 6' 3' 68'

N. 51ST ST.

GARAGE

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

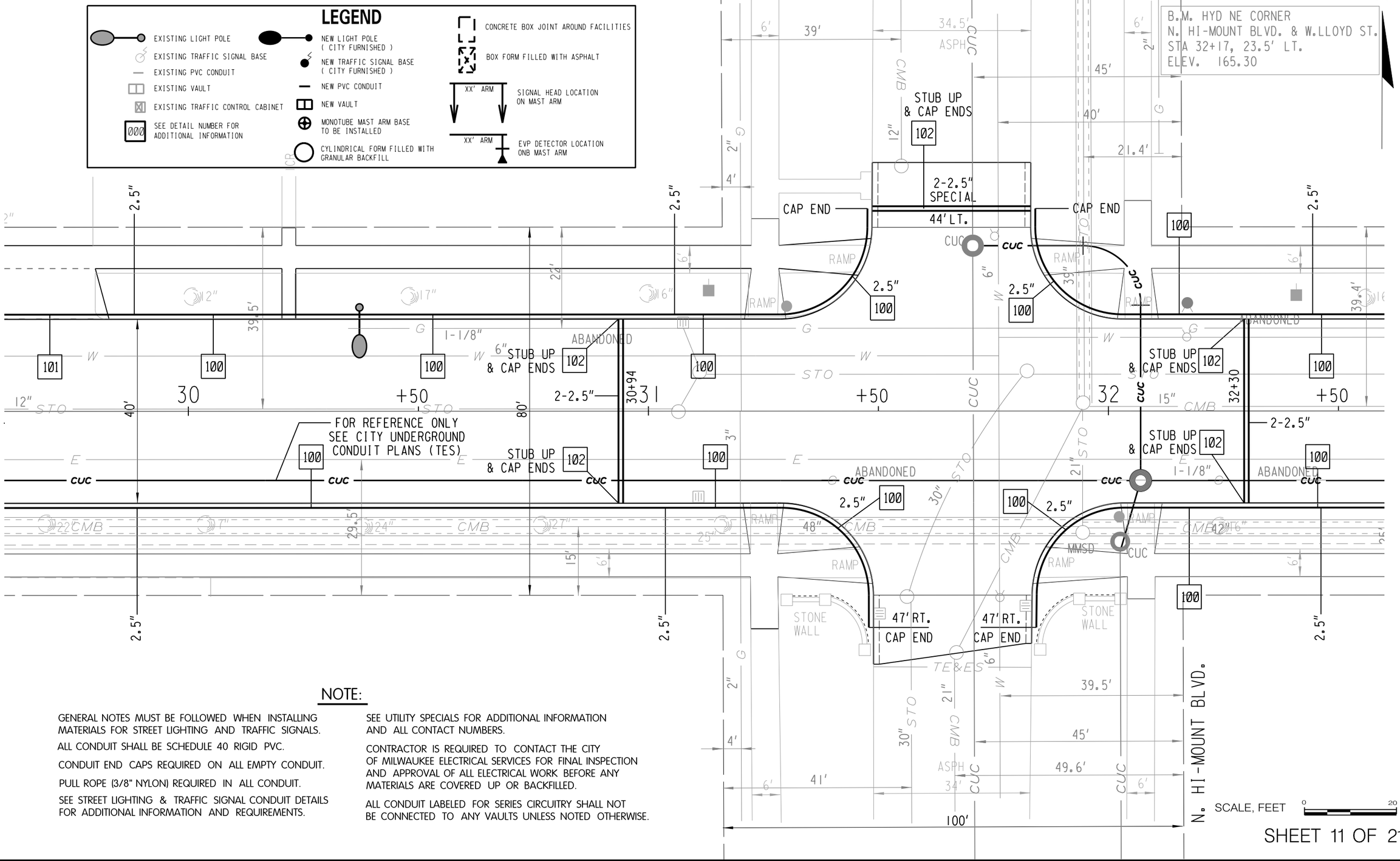
SHEET 10 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 116	E

WEST LLOYD STREET N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SHEET 11 OF 21

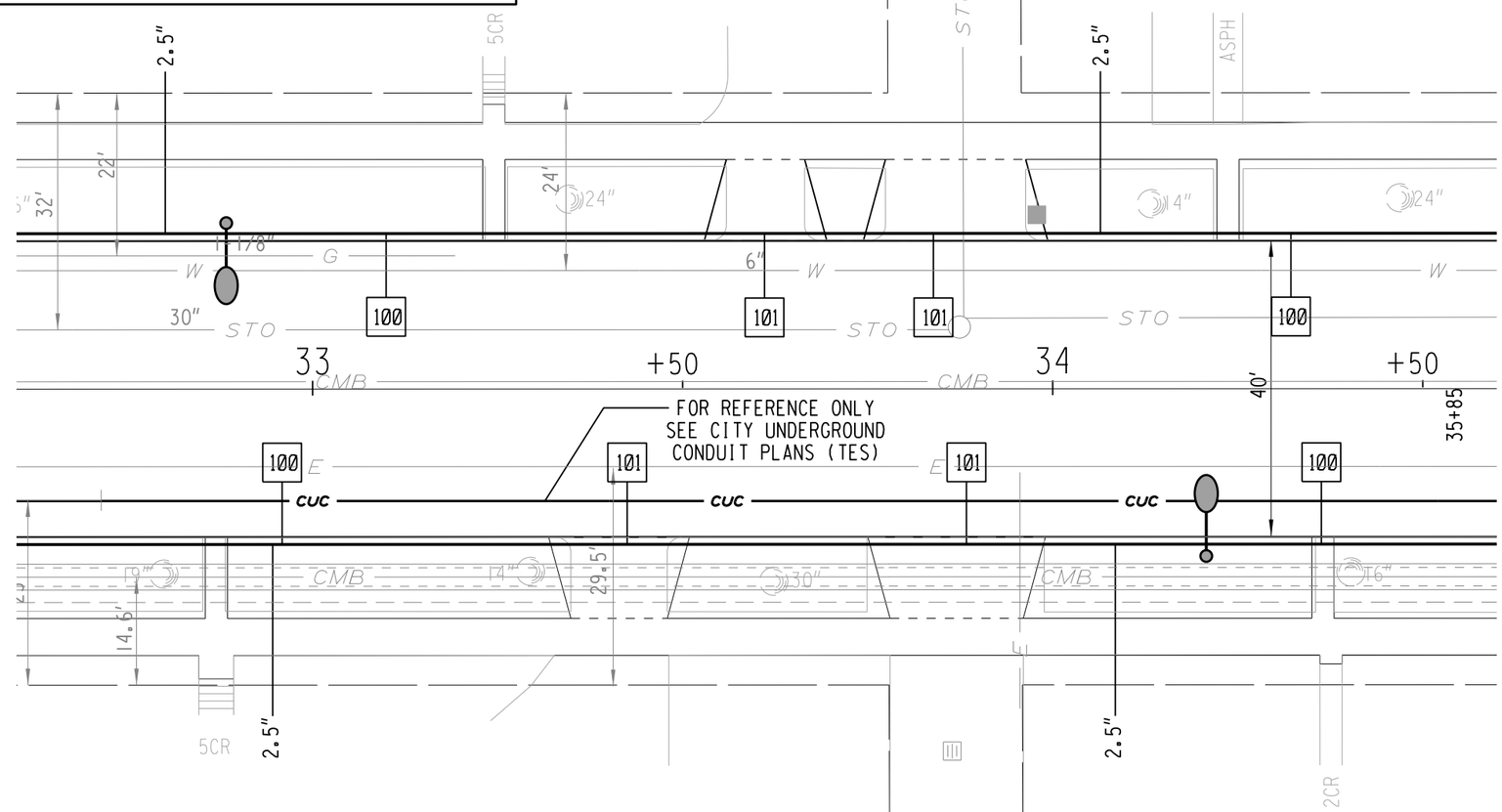
PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 117	E

WEST LLOYD STREET

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 12 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 118	E

WEST

LLOYD

STREET

N

B.M. HYD NE CORNER
N. 49TH ST. & W.LLOYD ST.
STA 35+66, 40' LT.
ELEV. 154.25

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

66' 27' 6' 27' CONC 6' 32.7' 23.5' 12' 1-1/4" G 3" G CMB W

102 2-2.5" SPECIAL 48'LT. CAP END CAP END 30"

2.5" 2.5" 2.5" 2.5"

STUB UP & CAP ENDS 102 STUB UP & CAP ENDS 102 STUB UP & CAP ENDS 102 STUB UP & CAP ENDS 102

100 100 100 100 100 101 100

RAMP STO 6" CMB 12" 6" W G 30" STO 24" 30" 5" 24" 6CR

35 35+05 +50 36 35+85 +50 37 +50

2-2.5" 15.0' CMB 40' 24" 35+85

E CUC WEP

42" 8" CMB 36" 29.5' 14.6' 6' 3" 16" 6" 15" 18" 8" 42" 12" 22" 18" 28' 7CR 6CR

2-2.5" SPECIAL 45'RT. CAP END 39'RT. CAP END 39.8'RT. CUC

11' 20.3' 30' CONC 24' 27.5' 6' 6' 66'

N. 49TH ST.

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

CITY FORCES TO INSTALL POLE PRECONSTRUCTION 36+95.3, 22.5'RT.

PATIO BLOCKS

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 13 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 119	E

2

WEST

B.M. HYD NE CORNER
N. 48TH ST. & W.LLOYD ST.
STA 38+72, 42' LT.
ELEV. 148.80

LLOYD STREET

N

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

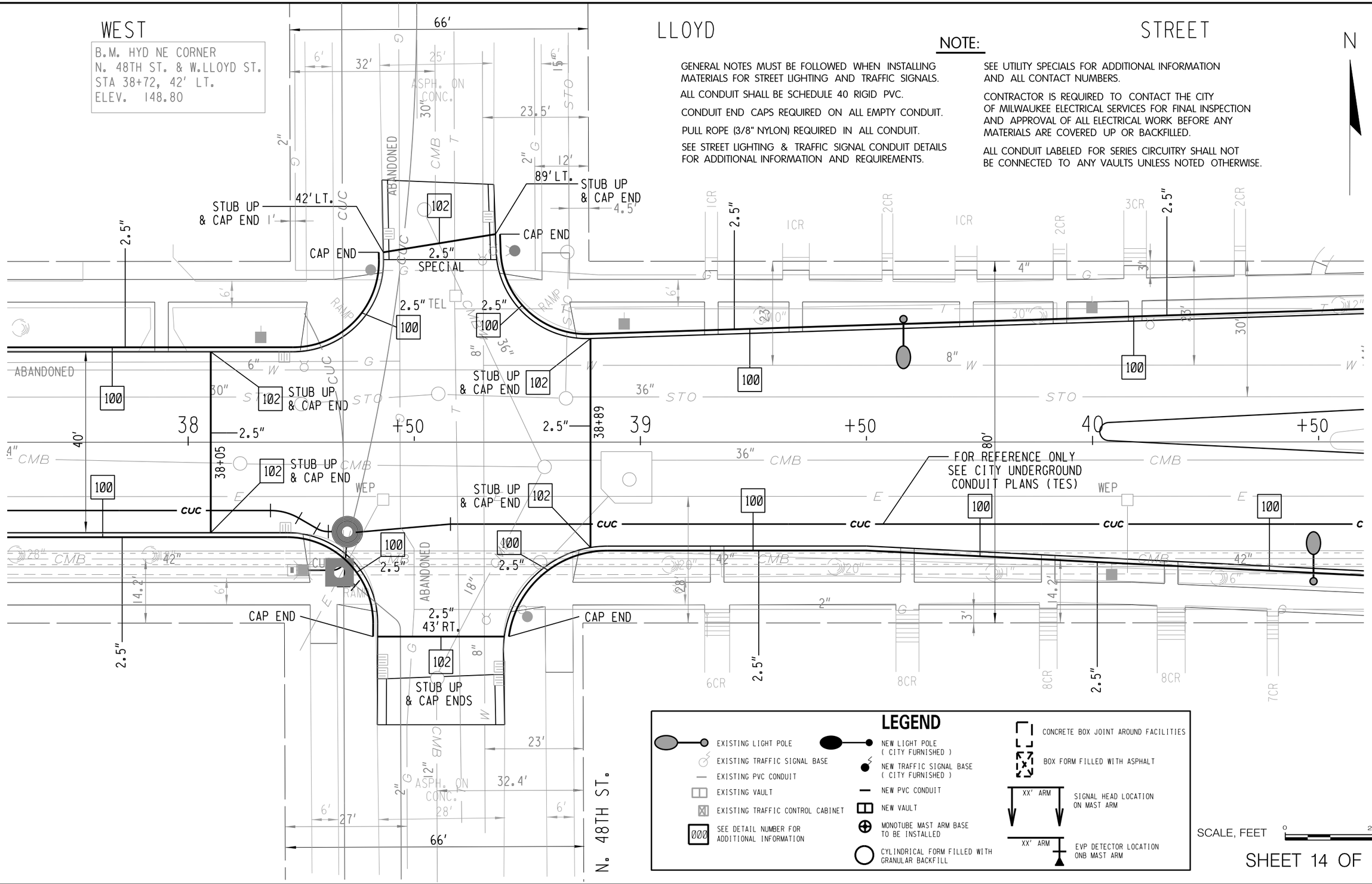
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.



LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

SHEET 14 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 120	E

2

WEST

LLOYD

STREET

B.M. NE CORNER
N. 47TH ST. & W.LLOYD ST.
NW CORNER BRIDGE WALL W END
ELEV. 144.61

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

108 CITY FORCES TO INSTALL POLE PRECONSTRUCTION 41+16.5, 32.7'LT.

CAP ENDS AT PAVING LIMIT

100 2.5"

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 126 41+40.1, 49.3'LT.

109 2"

102 2-3" 46'LT.

2-3" 17"X30"X18" VAULT 112

100 2-3"

JURISDICTIONAL LIMIT

112 2.5"

CONNECT TO EXISTING 2.5" CONDUIT IN BRIDGE WALK APPROXIMATELY 5' BACK OF FACE OF CURB

END CONSTRUCTION
STA. 42+19.0 T/L

17"X30"X18" VAULT 41+99.7 35.2'RT.

2016
STADIUM FREEWAY
(STATE STREET TO LISBON AVENUE)
STATE ID: 1350-09-70
STRUCTURE # B-40-60
WEST LLOYD STREET BRIDGE

100 2.5" 17"X30"X18" VAULT 41+12 112 1.5",2" 2.5" 108

25' ARM 105 30"X40" BOX OUT

113 17"X30"X18" VAULT 41+12, 3'RT.

2-3" 109 2"

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 126 41+17, 3'LT.

EXISTING TRAFFIC SIGNAL BASE

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

41 +50 42 +50 43 +50

2-3"

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

BRIDGE

18.0' TYPE 10 BASE TYPE 9 POLE 41+09, @T/L

30' ARM

17"X30"X18" VAULT 112 42+12.1, 36.2'RT.

NOT SHOWN ON SURVEY

2-3" TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 126 41+17, 35'RT.

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

2.5" CONNECT TO EXISTING 2.5" CONDUIT IN BRIDGE WALK APPROXIMATELY 5' BACK OF FACE OF CURB

3-3" 125A

JURISDICTIONAL LIMIT

112 17"X30"X18" VAULT 41+ 7.7, 32.5'RT.

TYPE 10 BASE TYPE 9 POLE 41+24, 49'RT.

30' ARM

2" 60'RT. CAP END 100

17"X30"X18" VAULT 41+92.9, 43.9'RT. 112

TYPE 10 BASE TYPE 9 POLE 41+96, 44'RT.

108 1.5" 2" 2.5"

2" 100

112 17"X30"X18" VAULT 42+12.1, 36.2'RT.

N. 47TH ST.

ONE WAY

JURISDICTIONAL LIMIT

20'

55'

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- XX' ARM SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM EVP DETECTOR LOCATION ONB MAST ARM
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT

SCALE, FEET 0 20

SHEET 15 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 121	E

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

WEST LLOYD STREET

N

FOR LEGEND SEE GENERAL NOTES ON PAGE 1 OF 12 IN STREET LIGHTING & TRAFFIC SIGNALS CONDUIT DETAILS

ASPH. ON CONC.

JURISDICTIONAL LIMIT

N. 46TH ST.

CAP ENDS AT PAVING LIMIT

ONE WAY

17"X 30" X 18" VAULT 44+49.5' 62.1'LT. [112]

[102] 2-3"

17"X 30" X 18" VAULT 44+90.3', 59.1'LT. [112]

3-3" [125A]

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 45+4.6, 40.5'RT. [126]

[105] BOX OUT 30" X WIDTH OF CONCRETE TERRACE AREA

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

CONNECT TO EXISTING 2.5" CONDUIT IN BRIDGE WALK APPROXIMATELY 5' BACK OF FACE OF CURB

BEGIN CONSTRUCTION STA. 44+20.0 T/L

20' ARM

TYPE 10 BASE TYPE 9 POLE 44+45, 45'LT.

TYPE 13 BASE TYPE 13 POLE 44+38, 38'LT.

CITY FORCES TO INSTALL LUMINAIRE & BRACKET ON MAST ARM

13"X 24" X 18" VAULT 45+64', 32'LT. [112]

CITY FORCES TO INSTALL POLE PRECONSTRUCTION 45+69.6, 52.6'LT.

17"X 30" X 18" VAULT 45+6.3', 34.4'LT. [112]

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

44 +50 45 +50 46 +50

2016 BRIDGE
STADIUM FREEWAY
(STATE STREET TO LISBON AVENUE)
STATE ID: 1350-09-70
STRUCTURE # B-40-60
WEST LLOYD STREET BRIDGE

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 44+99.3 16.8'RT. [126]

45' ARM

17"X 30" X 18" VAULT 45+6.3' 17'RT. [113]

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 44+75.7 50.1'RT. [126]

17"X 30" X 18" VAULT 44+23.9, 38.3'RT. [112]

FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)

CONNECT TO EXISTING 2.5" CONDUIT IN BRIDGE WALK APPROXIMATELY 5' BACK OF FACE OF CURB

35' ARM

17"X 30" X 18" VAULT 45+3.9', 44'RT. [112]

CITY FORCES TO REMOVE POLE PRECONSTRUCTION

SIGN BRIDGE 30" BASE 20' ARM I-TYPE I SIGN 36" X 48" 46+29, 18'RT.

CAP END 49.6'RT.

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR RT. [126]

17"X 30" X 18" VAULT 44+72, 52.1'RT. [112]

TYPE 10 BASE SPECIAL TYPE 13 POLE SPECIAL 44+99.5, 52'RT. CITY FORCES TO INSTALL LUMINAIRE & BRACKET ON MAST ARM

CAP END 68.1'RT.

TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 44+37.4, 47.3'RT. [126]

17"X 30" X 18" VAULT 44+40.3, 51.9'RT. [112]

[102] STUB UP & CAP END 45+34.6, 49.6'RT.

[102] STUB UP & CAP END 45+45.8, 68.1'RT.

SCALE, FEET 0 20

SHEET 16 OF 21

PROJECT NO: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 122	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St - Sherman to 60th\2984-16-71 wLloyd - Sherman to 60th Conduit.dgn PLOT DATE : 01-OCT-2015 10:44 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

WEST LLOYD STREET

N

N. 45TH ST.

B.M. HYD NE CORNER
N. 45TH ST. & W.LLOYD ST.
STA 48+10, 44' LT.
ELEV. 137.65

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

STUB UP & CAP ENDS 102
2.5" SPECIAL 60' LT.
CAP END
ABANDONED
RAMP
MH NOT ON SURVEY
47 STO +50 48 STO +50 49
47+40
48+29
WEP
FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)
CUC
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 46+63.3, 52.6' RT.
STUB UP & CAP END 102
2.5" 65' RT.
CAP END
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
STUB UP & CAP ENDS 102
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 48+27, 52.7' RT.
VAULT
LATERAL
CMB
42" CMB
72" STO
24'

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SCALE, FEET 0 20

SHEET 17 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 123	E

WEST LLOYD STREET

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

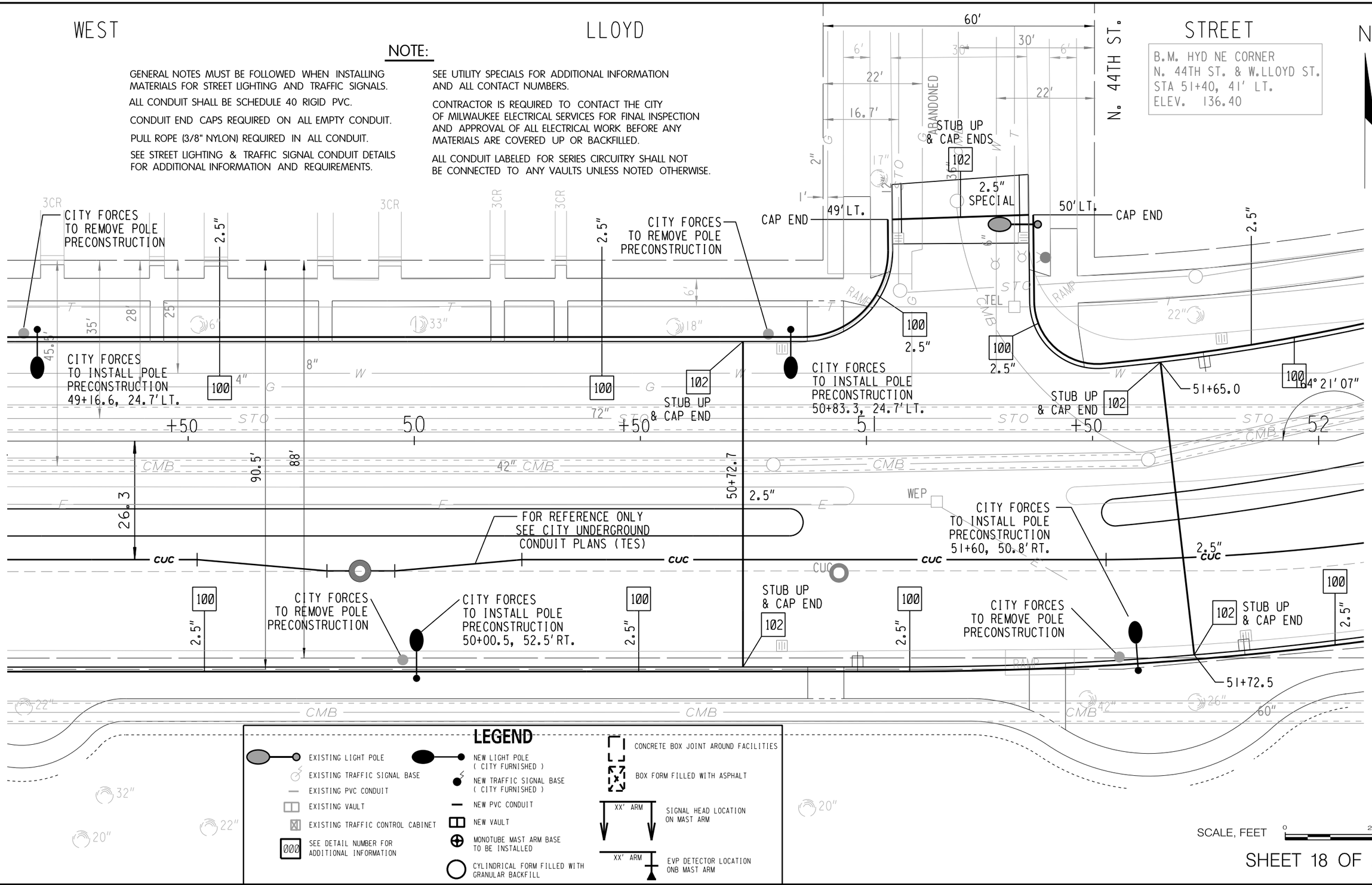
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.



LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

SCALE, FEET 0 20

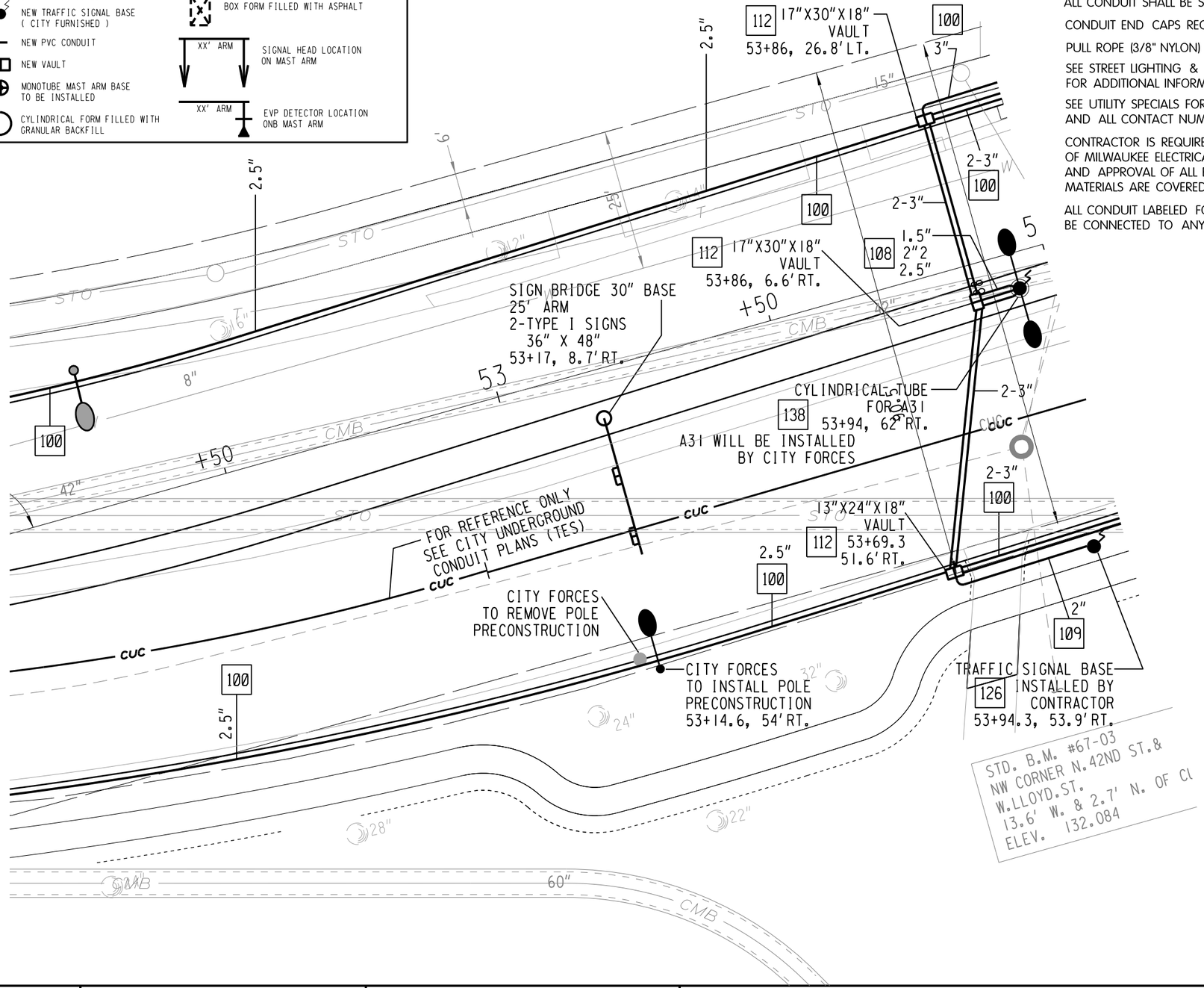
SHEET 18 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 124	E

WEST LLOYD STREET

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

N

SCALE, FEET 0 20

SHEET 19 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 125	E

2

N. SHERMAN BLVD.

13"X24"X18" VAULT 2S+85, 47'LT. 112
2-3" 100
1.5" 2.5" 108
105 30"X40" BOX OUT
2-3" 100
105 30"X40" BOX OUT
109 2"
17"X30"X18" VAULT 2S+30.6, 47'LT. 112
2-3"
100 2-3"
3"
TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 126 2S+28.1, 49.8'LT.
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
TYPE 10 BASE TYPE 9 POLE 54+03, 29'RT.
30' ARM
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 54+60.1, 50.1'RT.
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
CUC
112 17"X30"X18" VAULT 54+53.3, 49.3'LT.
TRAFFIC SIGNAL BASE 126 INSTALLED BY CONTRACTOR 54+30.6, 52.9'RT.
2" 109
1.5" 2" 2.5" 108
100 2-3"
WEST

30"X40" BOX OUT
CITY FORCES TO INSTALL POLE PRECONSTRUCTION 2S+25.1, 50.3'RT.
105 108
CITY FORCES TO REMOVE POLE PRECONSTRUCTION
17"X30"X18" VAULT 2S+30.9, 0.2'RT. 113
112 17"X30"X18" VAULT 2S+49.5, 49.3'RT.
1.5" 2" 2.5" 108
109 2"
30"X40" BOX OUT 105
FOR REFERENCE ONLY SEE CITY UNDERGROUND CONDUIT PLANS (TES)
TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 126 55+40.6 28.7'LT.
TRAFFIC SIGNAL BASE TO BE REMOVED BY CONTRACTOR
TYPE 10 BASE TYPE 9 POLE 55+30, 15'RT.
25' ARM
125A 3-3"
TES BOX
17"X30"X18" VAULT 55+30, 47'LT. 112
TRAFFIC SIGNAL BASE INSTALLED BY CONTRACTOR 55+21.9, 59.2'RT. 126
LLOYD

100 2-3"
CONNECT TO 3" EXISTING CONDUIT 100
17"X30"X18" VAULT 2S+87.7 57.1'RT. 112
17"X30"X18" VAULT 2S+72.2, 57.2'RT. 113
13"X24"X18" VAULT 2S+59.9 57.2'RT. 113
CYLINDRICAL TUBE FOR AT3IR 138 2S+71.6, 62'RT.
13"X24"X18" VAULT 55+63.1 24.1'LT. 112
17"X30"X18" VAULT 55+48 25.2'LT. 112
17"X30"X18" VAULT 55+38.1 15.2'RT. 112
13"X24"X18" VAULT 112 55+69.9 12.6'RT.
13"X24"X18" VAULT 55+85.5, 45.5'RT. 112
13"X24"X18" VAULT 112 56+28.4, 60'RT. CONNECT TO EXISTING CONDUIT
100 CONNECT TO EXISTING CONDUIT
ASPH 2-2.5"
STREET
W. LISBON AVE.
EXISTING VAULT
WEP
CMB
CONC
RAMP
STO

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

N

LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM

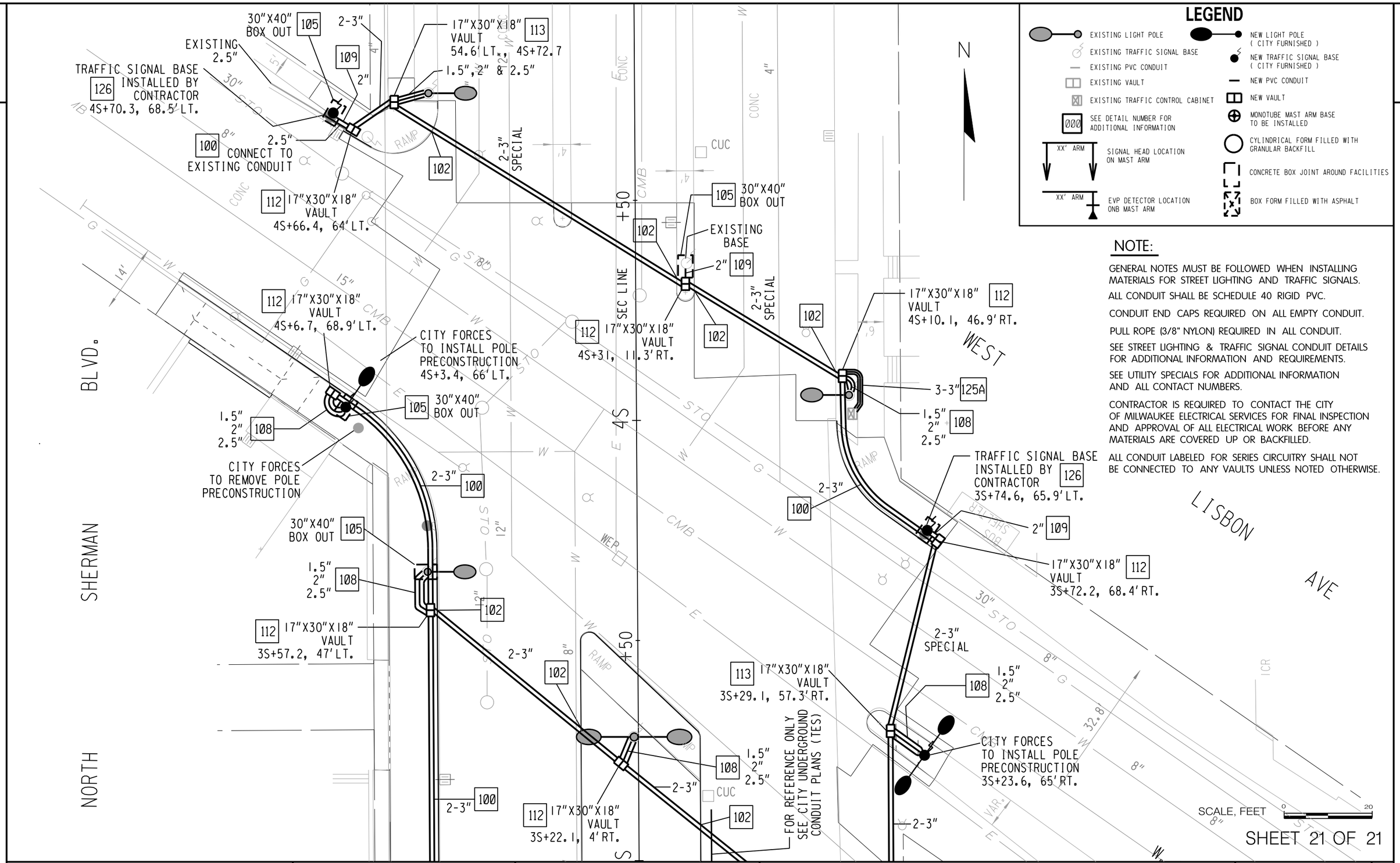
SCALE, FEET 0 20

SHEET 20 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 126	E

FILE NAME : W:\bes\pavings\2015work\wLloyd St – Sherman to 60th\2984–16–71 wLloyd – Sherman to 60th Conduit.dgn PLOT DATE : 01–OCT–2015 10:44 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42



LEGEND

- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL BASE
- EXISTING PVC CONDUIT
- EXISTING VAULT
- EXISTING TRAFFIC CONTROL CABINET
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ONB MAST ARM
- NEW LIGHT POLE (CITY FURNISHED)
- NEW TRAFFIC SIGNAL BASE (CITY FURNISHED)
- NEW PVC CONDUIT
- NEW VAULT
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- CYLINDRICAL FORM FILLED WITH GRANULAR BACKFILL
- CONCRETE BOX JOINT AROUND FACILITIES
- BOX FORM FILLED WITH ASPHALT

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

ALL CONDUIT SHALL BE SCHEDULE 40 RIGID PVC.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

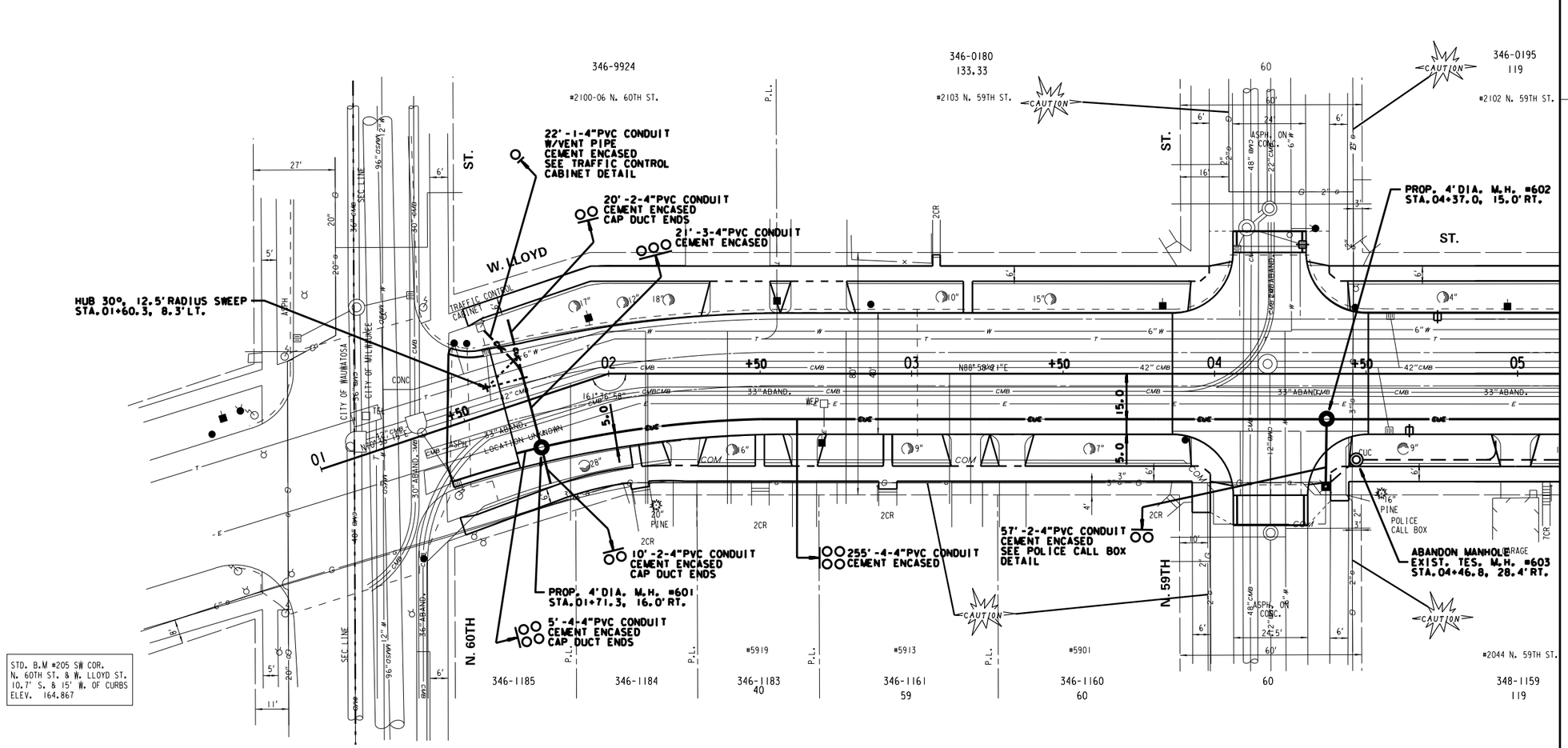
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

ALL CONDUIT LABELED FOR SERIES CIRCUITRY SHALL NOT BE CONNECTED TO ANY VAULTS UNLESS NOTED OTHERWISE.

SHEET 21 OF 21

PROJECT NO: 2984–16–71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT PLAN	SHEET 127	E



NOTES:

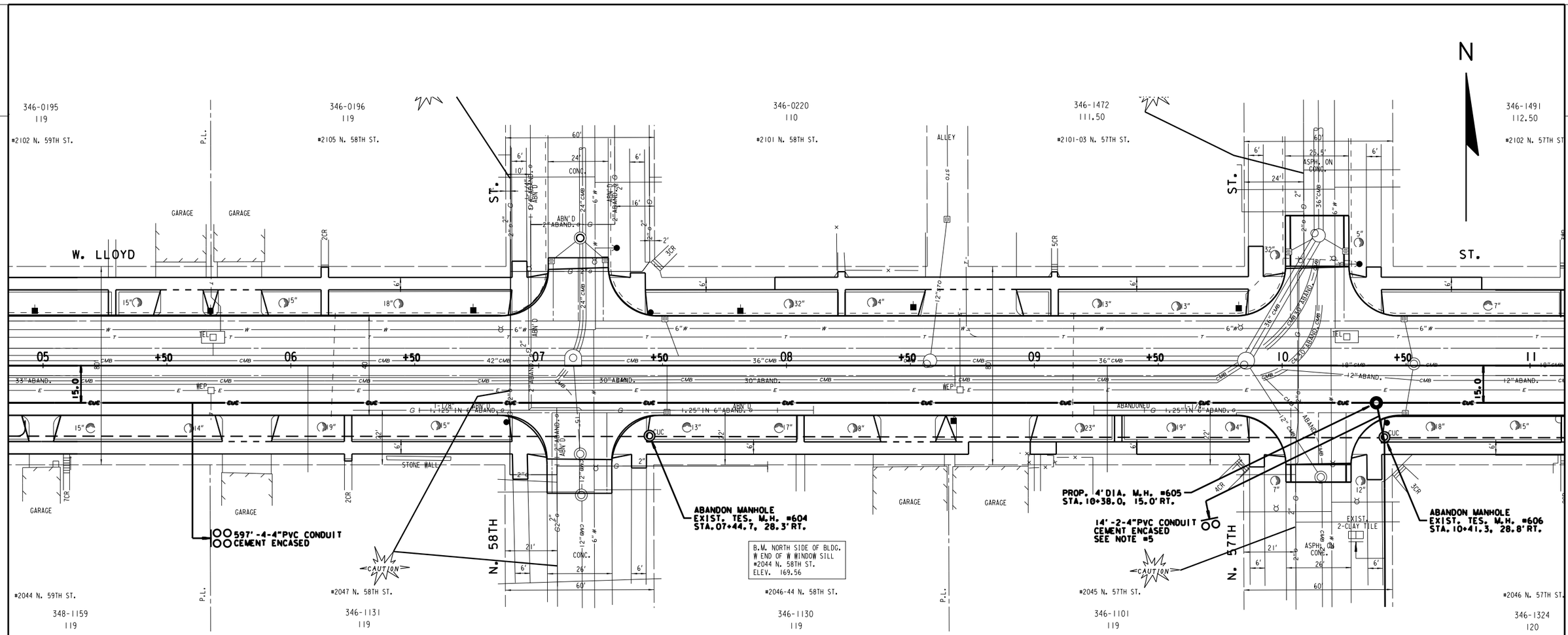
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS 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.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXITING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
O	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 1 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 128	E



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.
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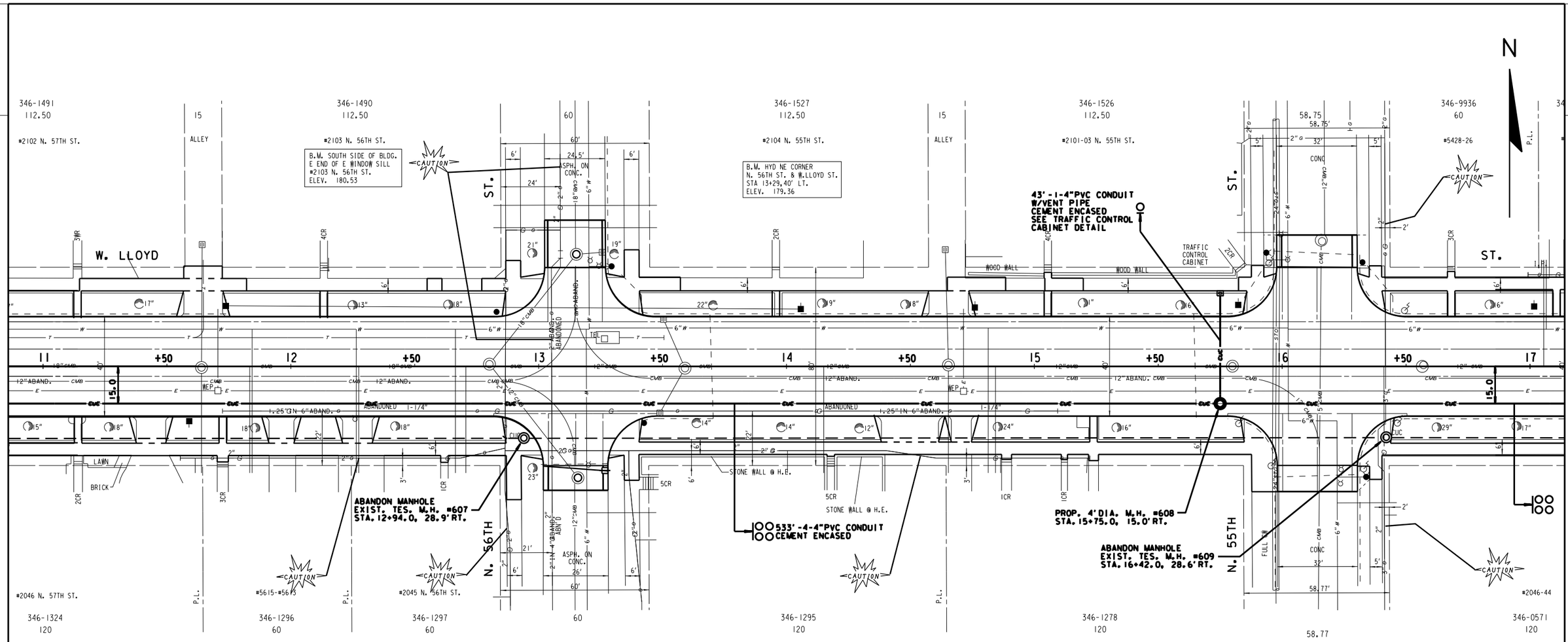
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXITING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 2 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 129	E



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.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXITING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

2

N

346-9937 33 #5422 | 346-9938 33 #5416 | 346-9939 34 #5412 | 346-9940 40 #5408-06 | 346-9941 40 #5404-02 | 346-9947 62 #2102 N. 54TH ST. | 346-9948 71 #2103 N. 53RD ST. | 346-9999 120.30 #2106 N. 53RD ST.

W. LLOYD ST.

N. 54TH ST.

N. 53RD ST.

ALLEY

313'-4-4"PVC CONDUIT CEMENT ENCASED

259'-4-4"PVC CONDUIT CEMENT ENCASED

HUB STA. 19+01.7, 14.5'RT. 30°, 12.5'R. SWEEP

HUB STA. 19+06.3, 14.5'RT. 30°, 12.5'R. SWEEP

HUB STA. 18+74.2, 27.5'RT. 30°, 12.5'R. SWEEP

EXIST. TES. M.H. #610 STA. 19+04.0, 27.7'RT. SEE NOTE #6

ABANDON MANHOLE EXIST. TES. M.H. #611 STA. 19+42.8, 28.8'RT.

HUB STA. 19+33.8, 27.5'RT. 30°, 12.5'R. SWEEP

PROP. 4'DIA. M.H. #613 STA. 21+64.0, 15.0'RT.

13'-2-4"PVC CONDUIT CEMENT ENCASED SEE NOTE #5

ABANDON MANHOLE EXIST. TES. M.H. #612 STA. 21+62.1, 28.3'RT.

B.M. NORTH SIDE OF BLDG. E END OF W WINDOW SILL #2049 N. 53RD ST. ELEV. 180.60

EXIST. 2-CLAY TILE

346-0571 120 | #2046-44 | 346-0544 120 | #2045 N. 54TH ST. | 346-9909 133 | #2049 N. 53RD ST. | 346-9922 120.30 | #2044 N. 53RD 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.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXISTING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

LEGEND

- — CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED TES MANHOLE
- — CUC — EXISTING CONDUIT
- — — — — ABANDONED CONDUIT

2

346-1651
115

#2101-03 N. 52ND ST.

ALLEY

346-1670
120

#5126

ALLEY

346-1669
120

#5106

347-1078
120

#2102 N. 51ST ST.

N

W. LLOYD ST.

ABANDON MANHOLE
EXIST. TES. M.H. #614
STA. 24+39.8, 28.8' RT.

591'-4-4"PVC CONDUIT
CEMENT ENCASED

PROP. 4' DIA. M.H. #615
STA. 27+59.0, 15.0' RT.

ABANDON MANHOLE
EXIST. TES. M.H. #616
STA. 27+61.3, 29.0' RT.

15'-2-4"PVC CONDUIT
CEMENT ENCASED
SEE POLICE CALL
BOX DETAIL

POLICE CALL BOX

BRICKS

BUSHES

WALL

179°58'54"

STD. B.M #206 SW COR.
N. 52ND ST. & W. LLOYD ST.
18' S. & 15' W. OF CURBS
ELEV. 184.152

#2045 N. 52ND ST.

346-1716
115

#2046-44 N. 52ND ST.

346-1715
120

#2047 N. 51ST ST.

346-1688
120

#2046-44 N. 51ST ST.

347-0025
120

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.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXITING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

STATE PROJECT NUMBER 2984-16-17	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 132	E

2

N

347-1077
161.82
18
ALLEY
#2105 N. HI MOUNT BLVD.
100
347-1103
151.82
18
ALLEY
#2102-04 N. HI MOUNT BLVD.
347-1102
120
#2105 N. 49TH ST.

CAUTION

B.M. HYD NE CORNER
N. HI-MOUNT BLVD. & W.LLOYD ST.
STA 32+17, 23.5' LT.
ELEV. 165.30

EXIST. TES. M.H. #617
STA. 31+70.5, 36.0' LT.

HUB 90°, 12.5' R.
STA. 31+94.5, 23.5' LT.

78'-4-4"PVC CONDUIT
CEMENT ENCASED

PROP. 4' DIA. M.H. #619
STA. 32+07.0, 15.0' RT.

W. LLOYD ST.

BLVD.

N. HI-MOUNT

14'-2-4"PVC CONDUIT
CEMENT ENCASED
SEE NOTE #5

ABANDON MANHOLE
EXIST. TES. M.H. #618
STA. 32+02.6, 28.3' RT.

444'-4-4"PVC CONDUIT
CEMENT ENCASED

GARAGE

STONE WALL

EXIST. 2-CLAY TILE

#2049 N. HI MOUNT BLVD.
#2048 N. HI MOUNT BLVD.
#2045 N. 49TH ST.

347-0001
161.82
18
100
347-0053
161.82
18

NOTES:

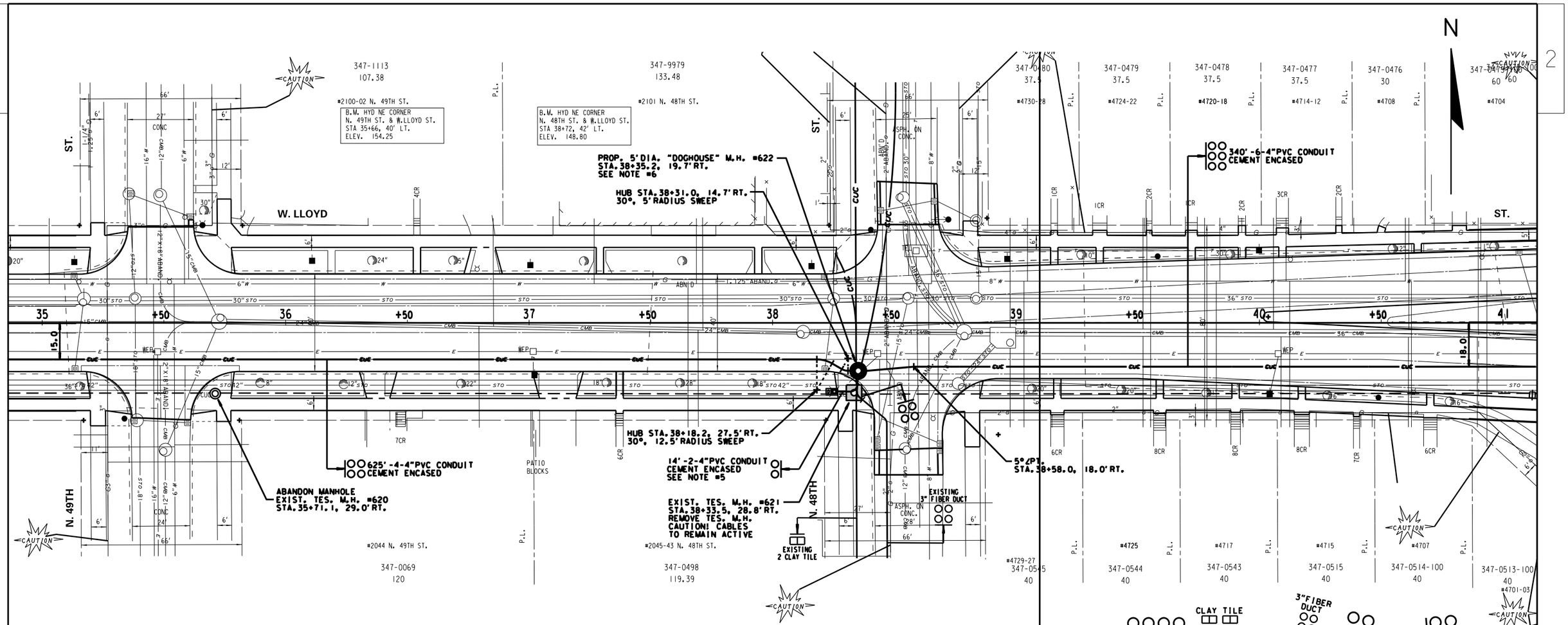
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS 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.
5) ATTACH PROPOSED 4" PVC TO EXISTING DUCTS (3" FIBER, 3" GALVANIZED PIPE OR CLAY TILE) USING APPROPRIATE ADAPTOR. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.
6) CONDUIT ENTERING AND EXITING MANHOLE SHALL BE INSTALLED AT 180° TO EACH OTHER.

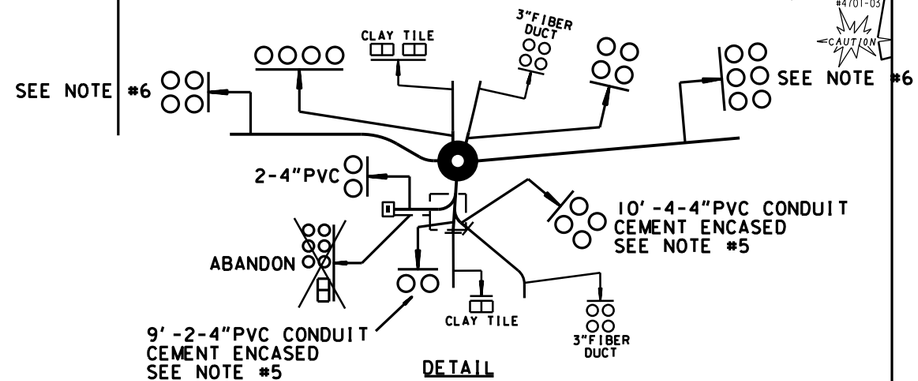
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 6 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 133 E





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LEGEND

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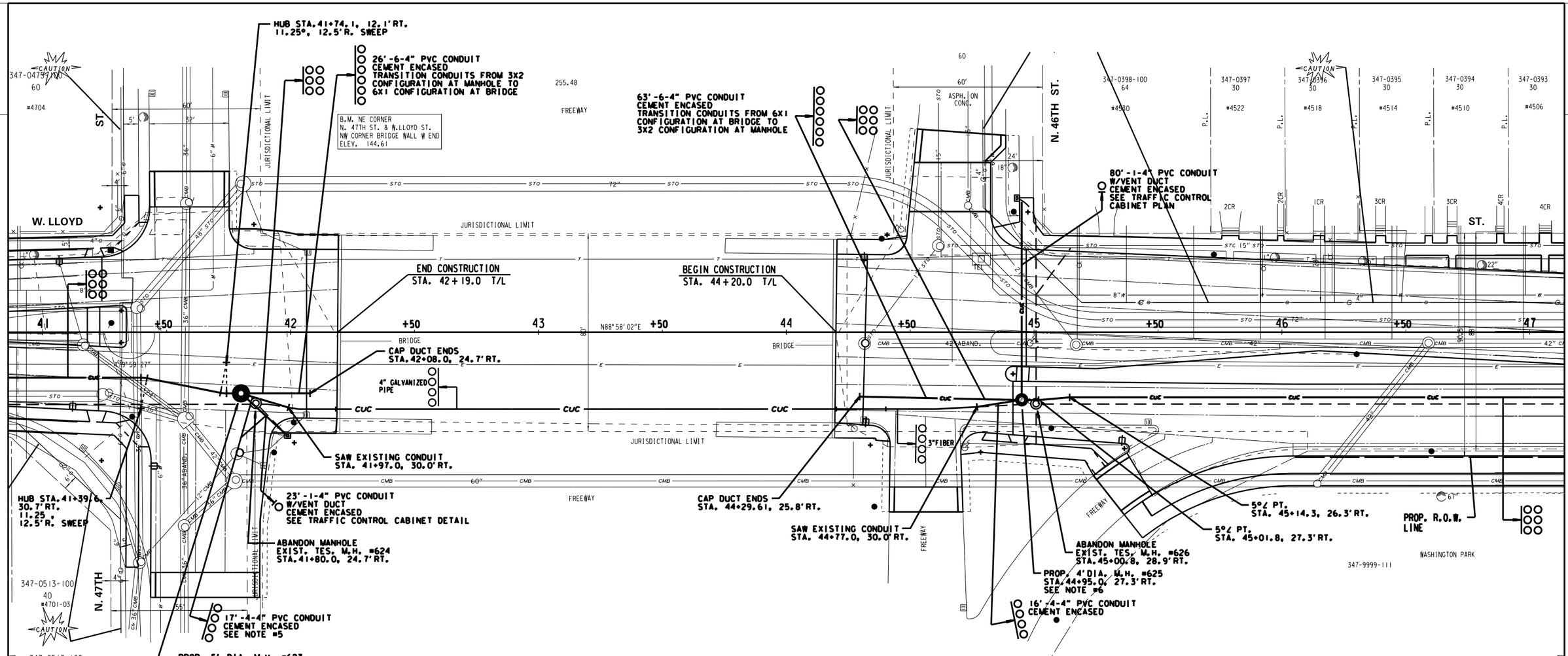
○	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 7 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 134	E



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LEGEND

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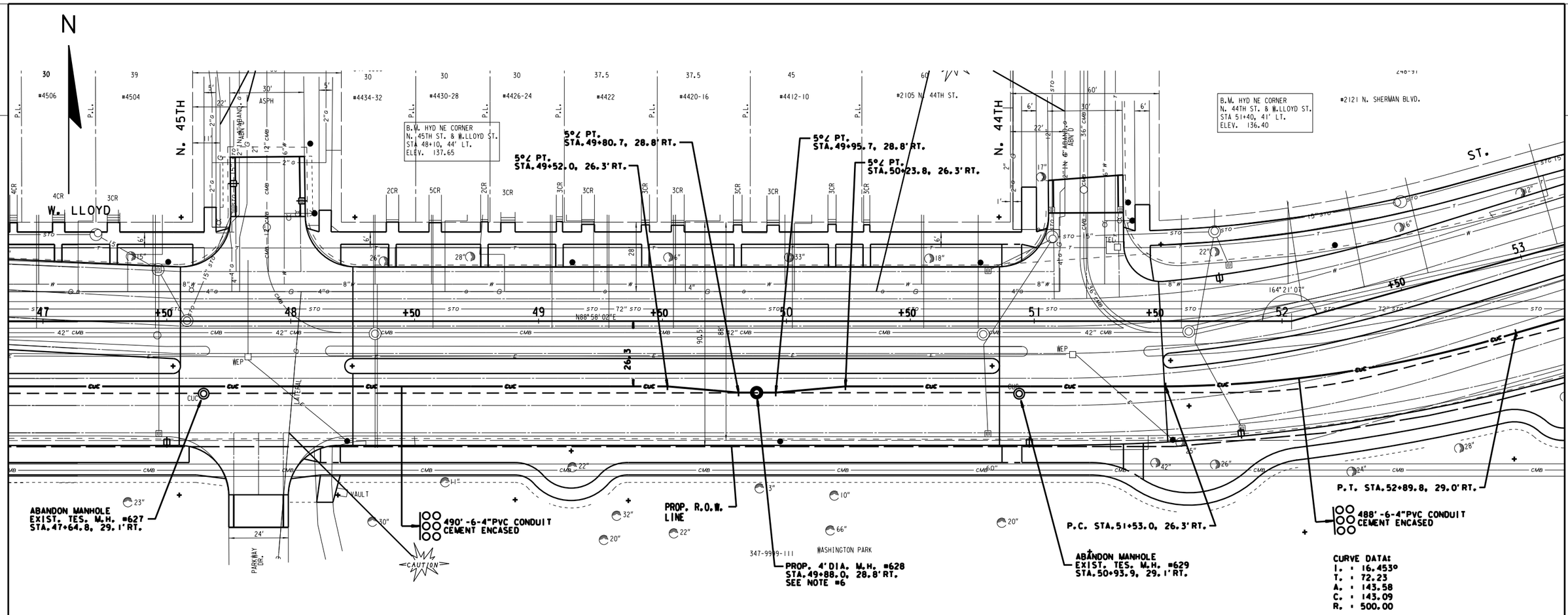
●	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 135 E



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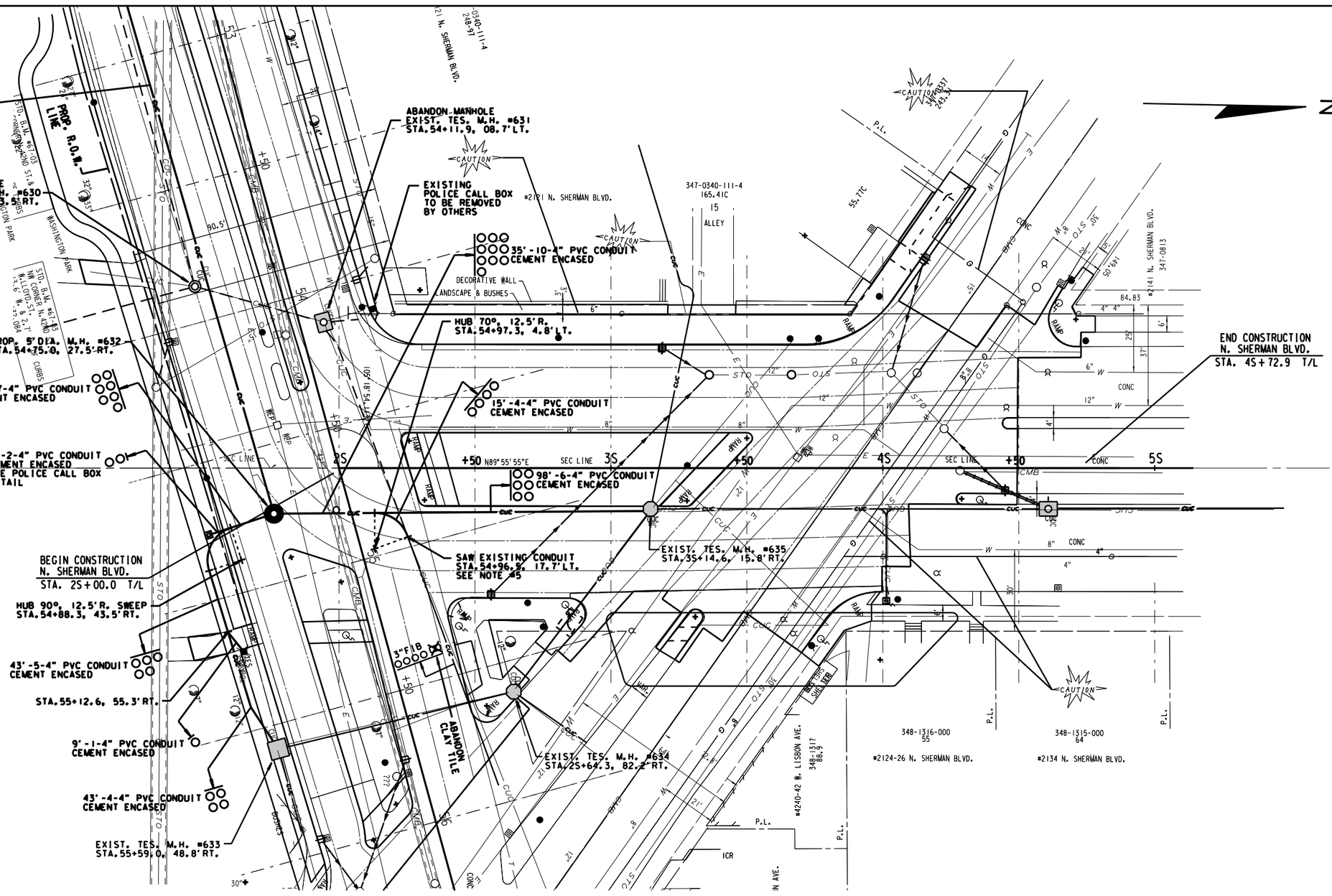
⊙	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 9 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 136	E

2



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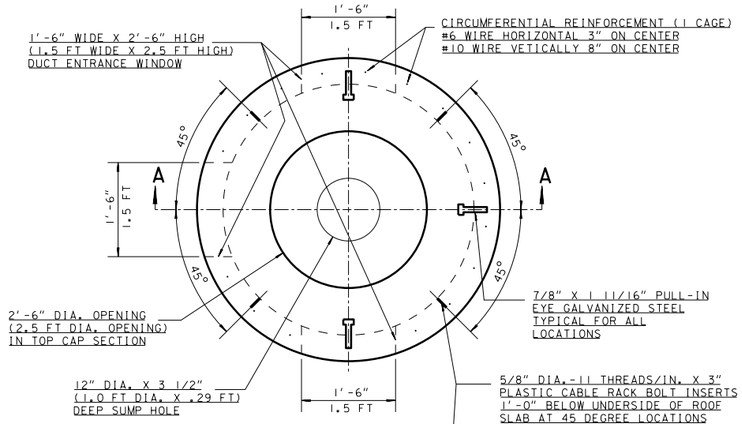
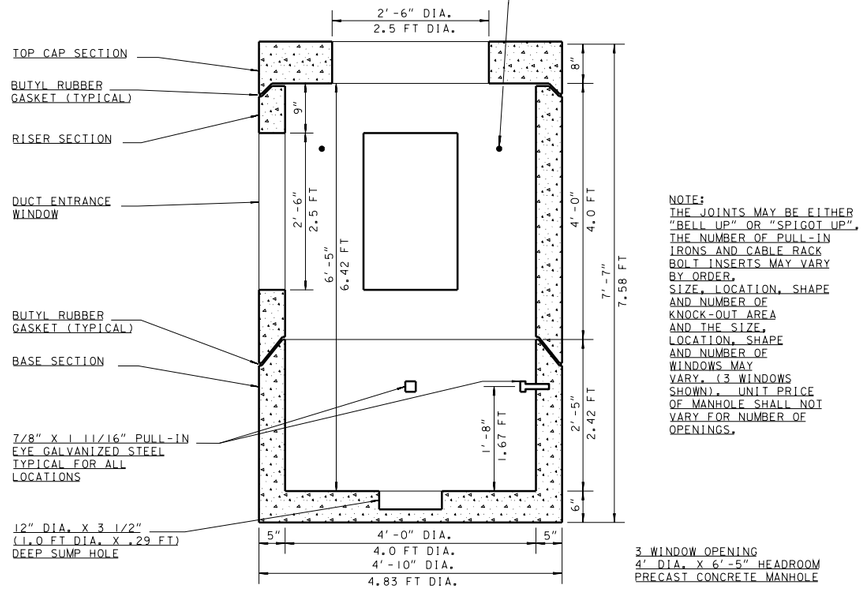
●	PROPOSED TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 10 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO:	E



TOP VIEW



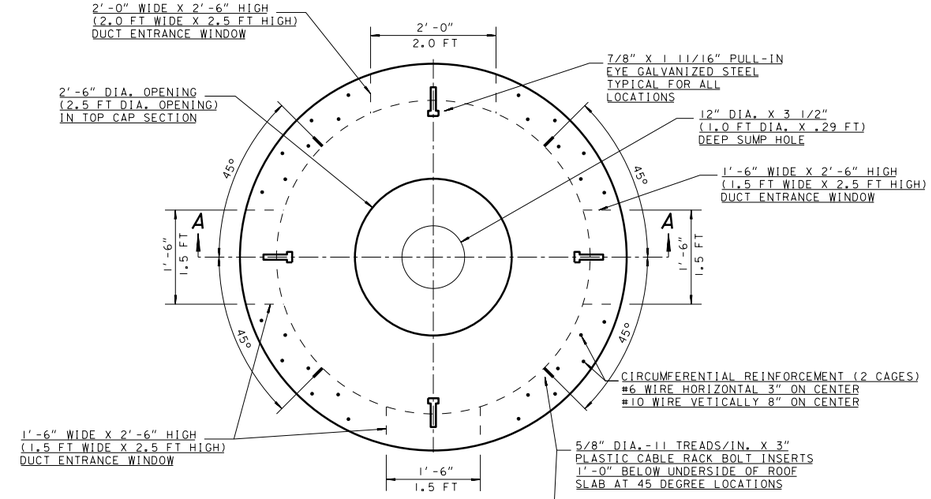
NOTE:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP", THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER, SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREA AND THE SIZE, LOCATION, SHAPE AND NUMBER OF WINDOWS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
4' DIA. X 6'-5" HEADROOM
PRECAST CONCRETE MANHOLE

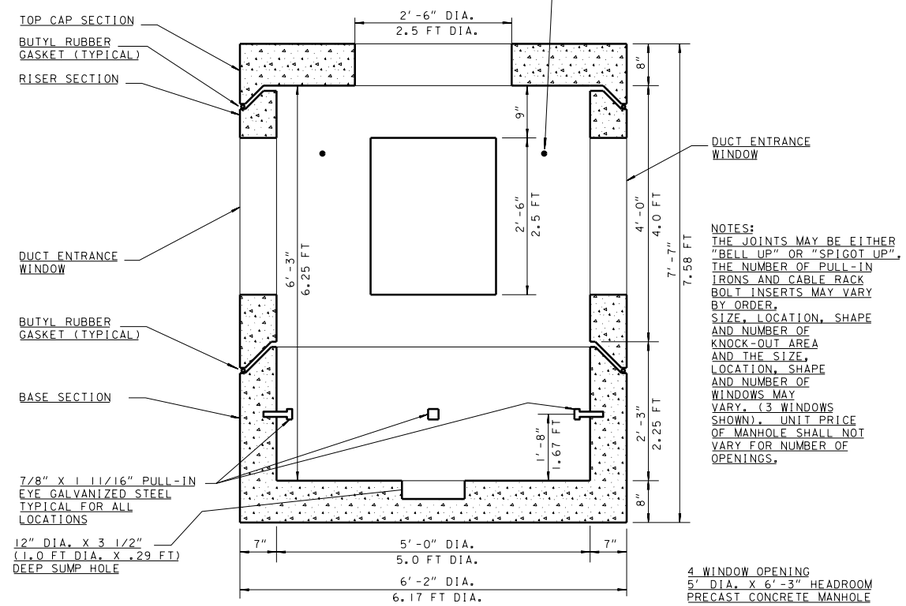
SECTION VIEW "A-A"

N.T.S.

4' DIAMETER MANHOLE TYPE TES DETAIL



TOP VIEW



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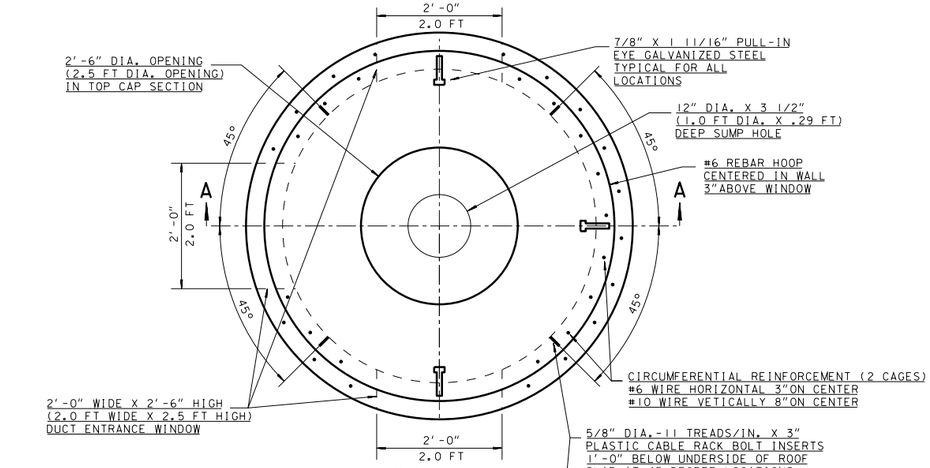
4 WINDOW OPENING
5' DIA. X 6'-3" HEADROOM
PRECAST CONCRETE MANHOLE

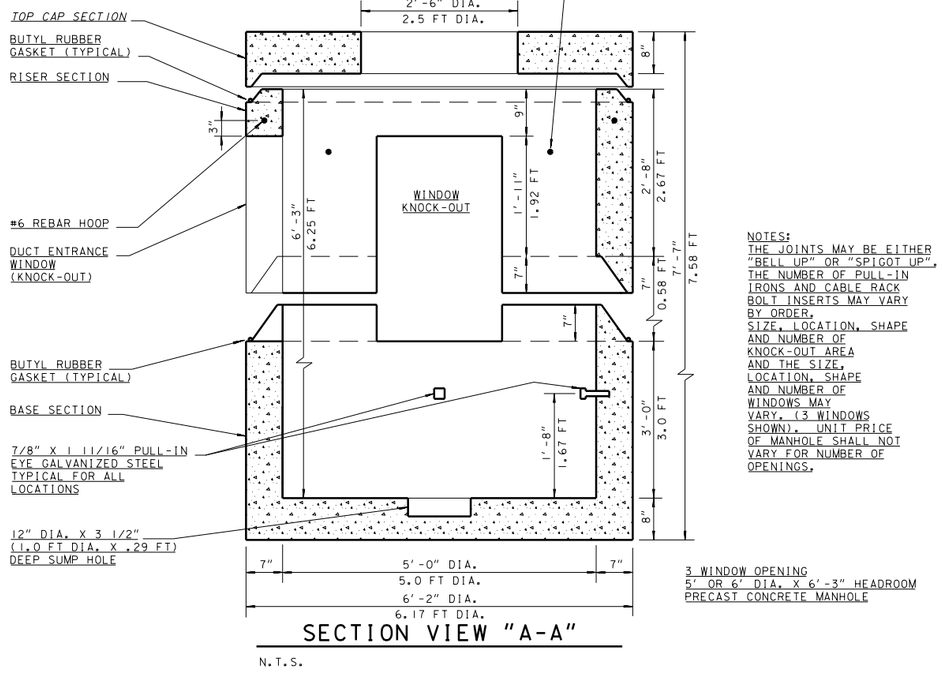
SECTION VIEW "A-A"

N.T.S.

5' DIAMETER MANHOLE TYPE TES DETAIL



TOP VIEW



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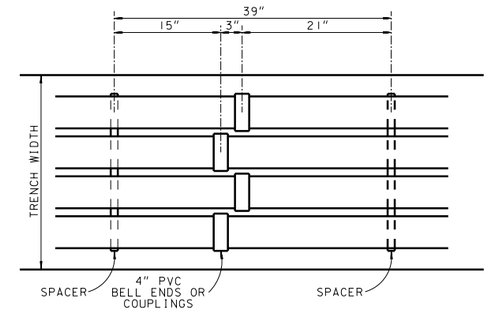
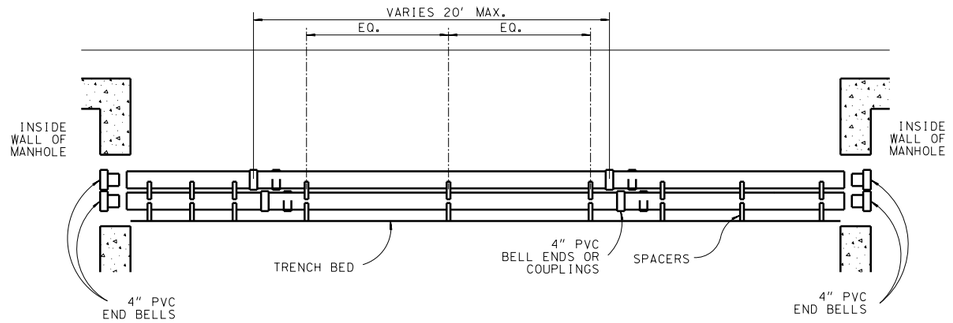
3 WINDOW OPENING
5' OR 6' DIA. X 6'-3" HEADROOM
PRECAST CONCRETE MANHOLE

SECTION VIEW "A-A"
N.T.S.

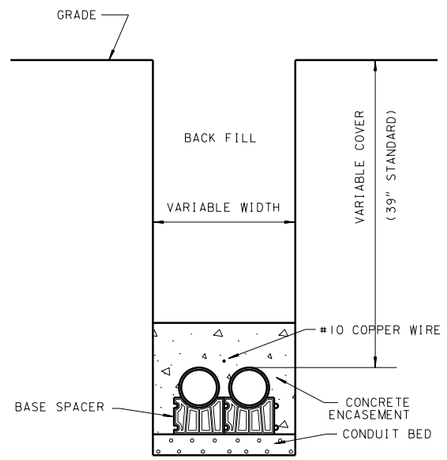
5' DIAMETER "DOGHOUSE" MANHOLE TYPE TES DETAIL

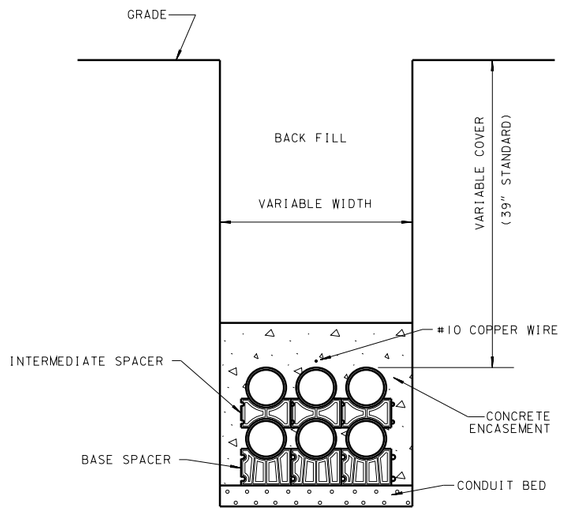


PLAN VIEW
N.T.S.



SECTION VIEW
N.T.S.

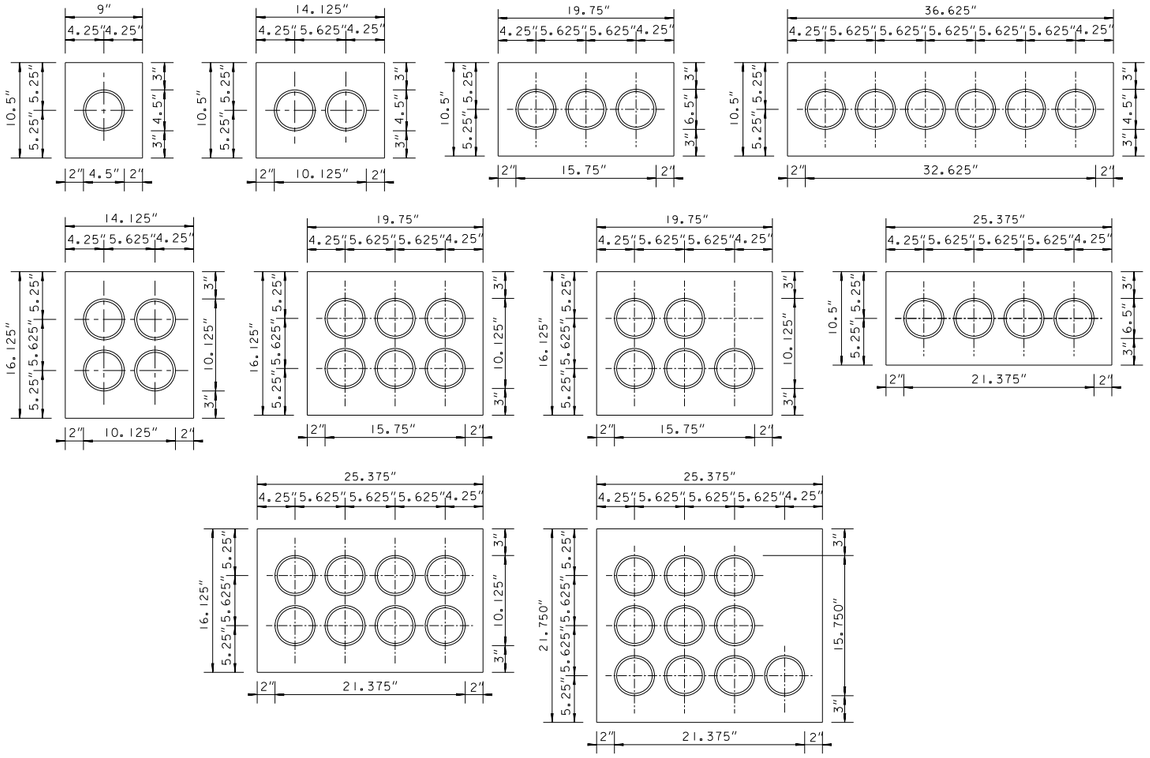




CROSS SECTION VIEW, TYP.
N.T.S.

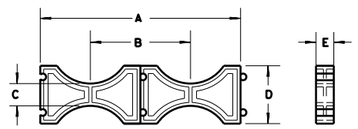
SHEET 12 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET 0' 40'	SHEET NO: 139	E



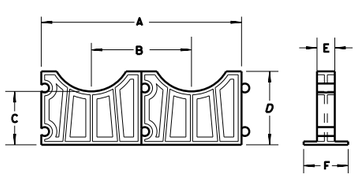
CROSS SECTION VIEW
N.T.S.

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	1 ½"	1 ½"
D	3 ½"	3 ½"
E	1"	1"



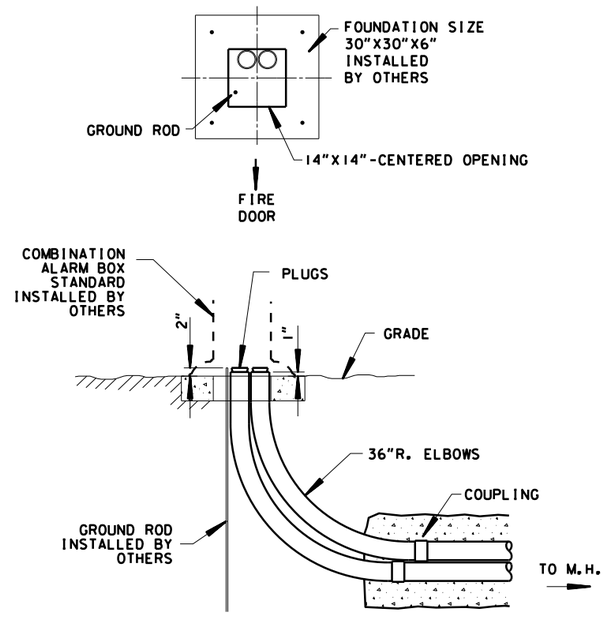
INTERMEDIATE SPACER

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	3"	3"
D	3 ½"	4 ½"
E	1"	1"
F	2 ½"	2 ½"

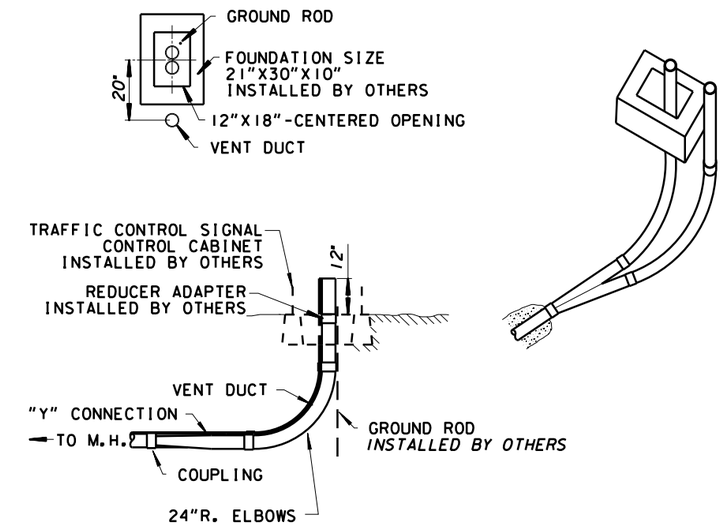


BASE SPACER

INTERMEDIATE AND BASE SPACER DETAIL



POLICE CALL BOX DETAIL



TRAFFIC CONTROL CABINET DETAIL

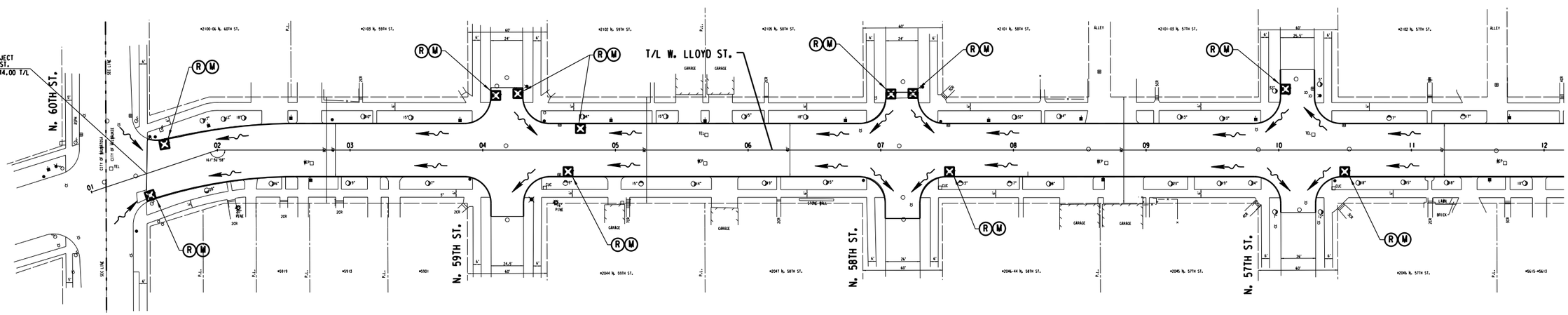
SHEET 13 OF 13

STATE PROJECT NUMBER 2984-16-71	HWY: W. LLOYD ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET 0' 40'	SHEET NO: 140	E

2

N

WEST LLOYD STREET



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

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.

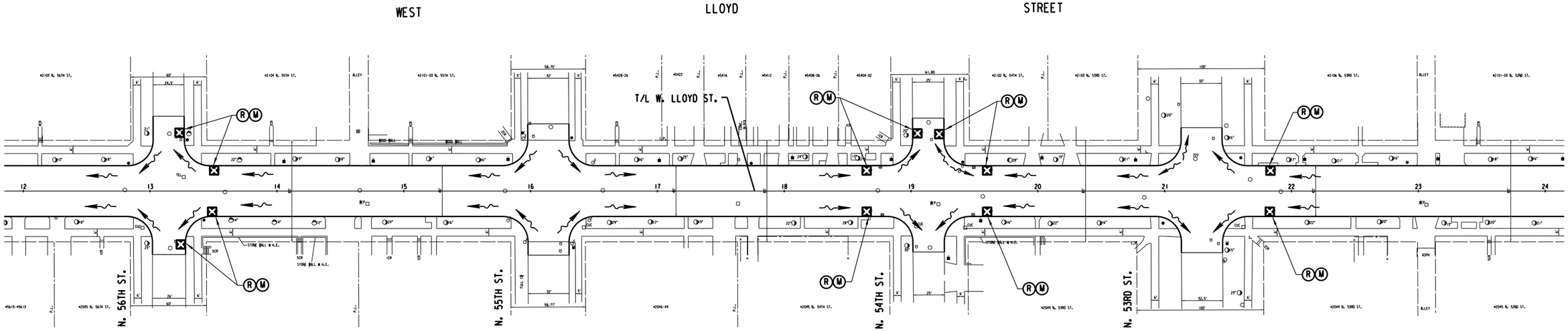
LEGEND

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

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 141 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\EROSION.DGN

2



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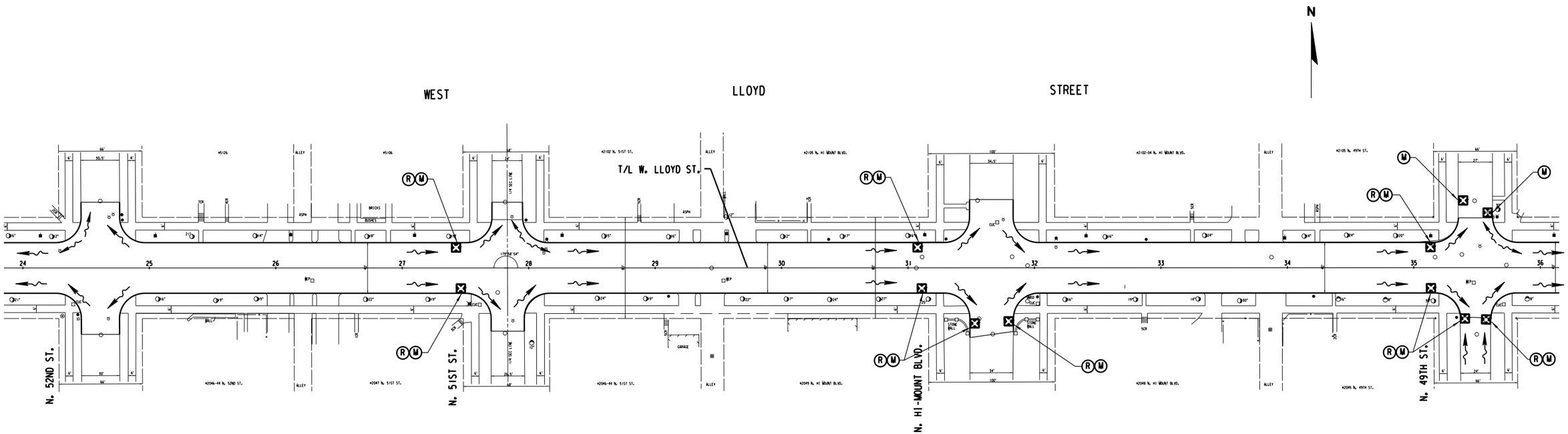
LEGEND

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

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 142 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\EROSION.DGN

2



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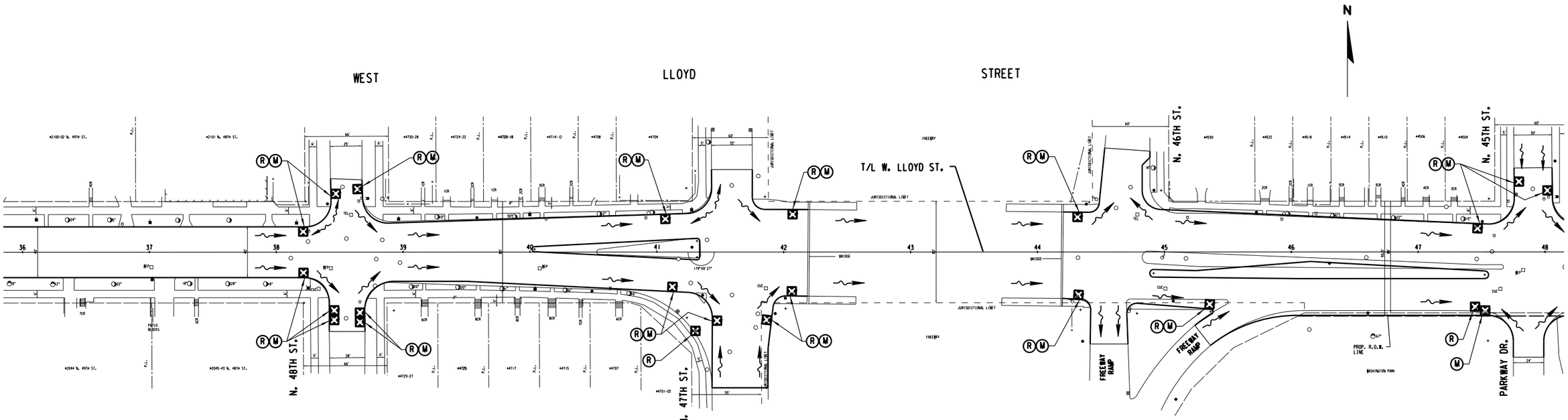
LEGEND

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

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 143 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\EROSION.DGN

2



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LEGEND

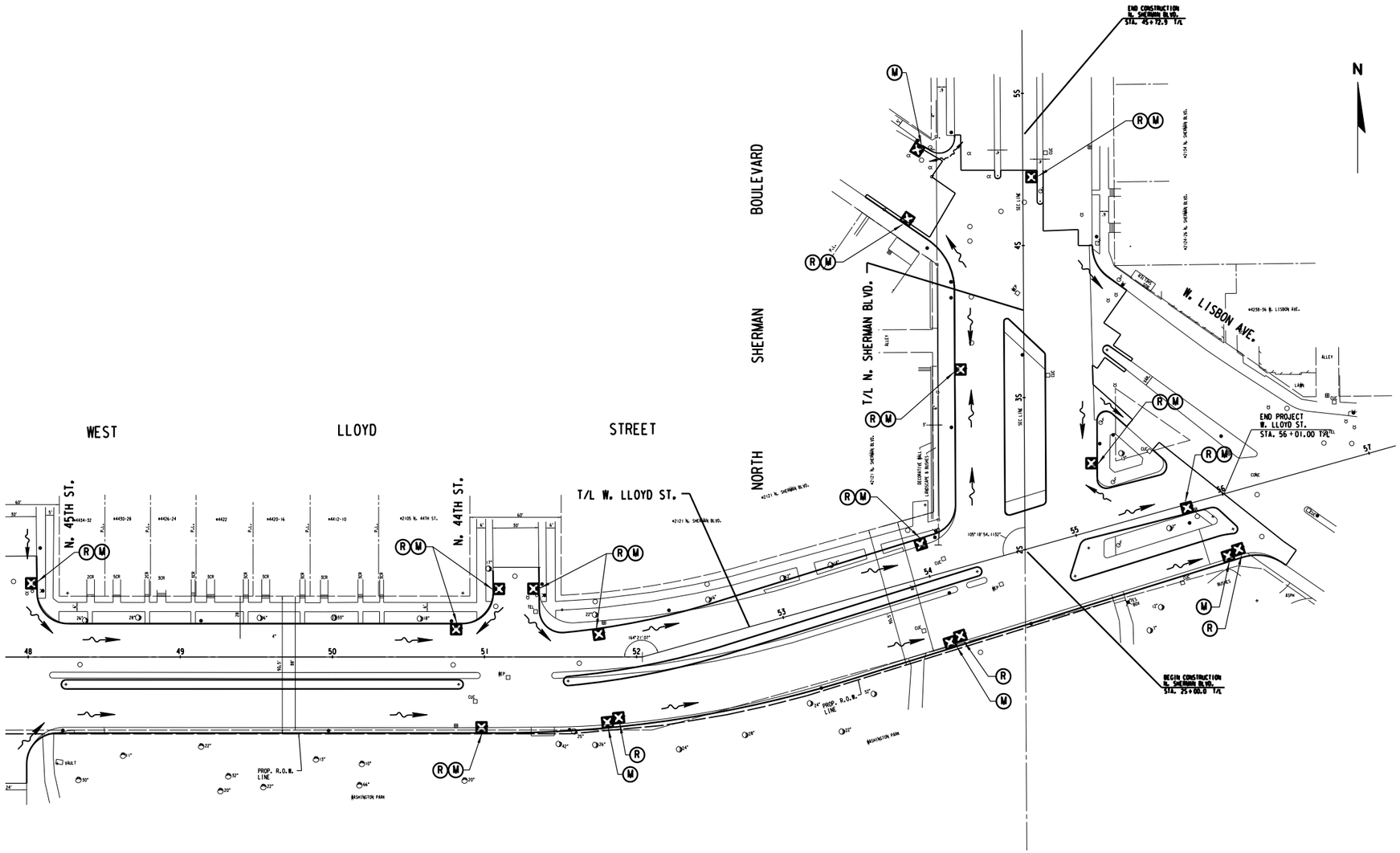
- (R) INLET SCREEN TYPE R
- (M) INLET BASKET TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 144 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\EROSION.DGN

2

WEST LLOYD STREET



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LEGEND

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

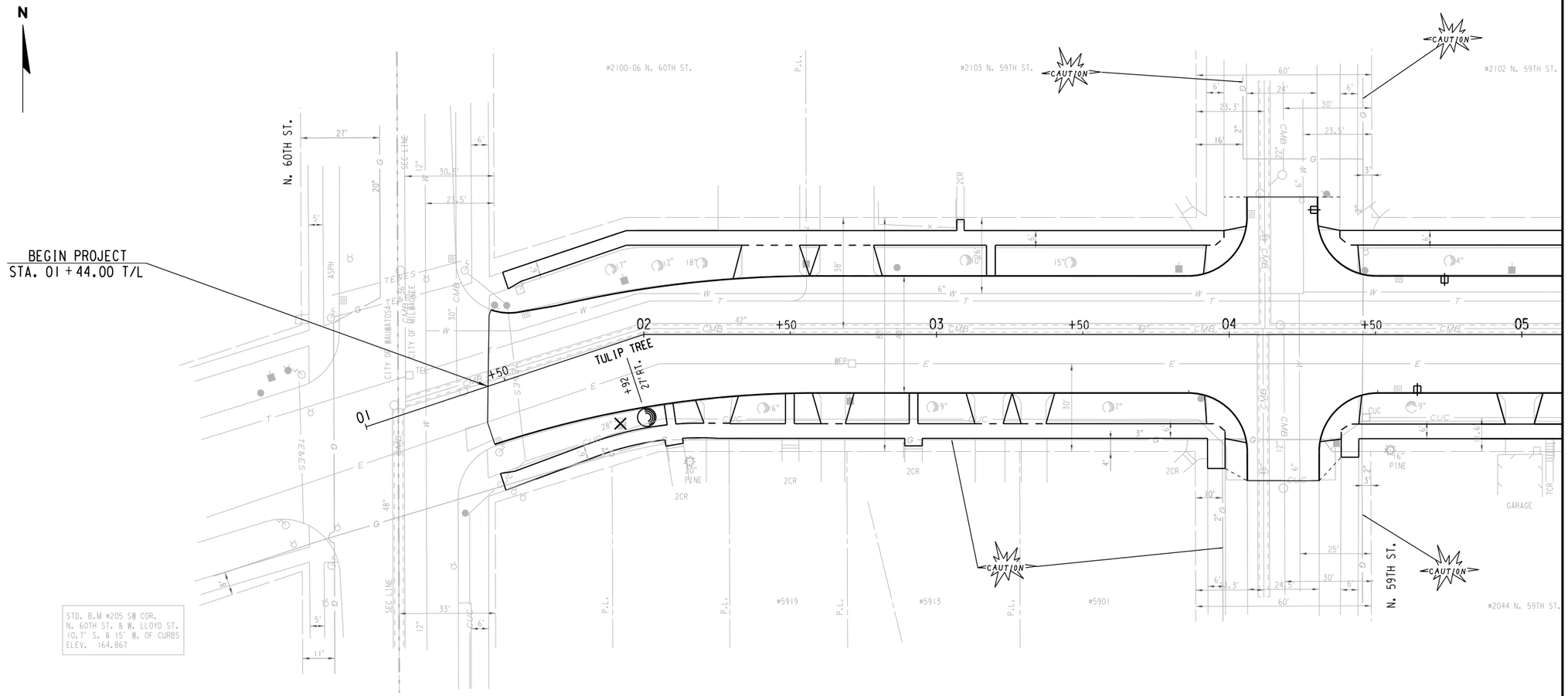
5 OF 5

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 80'	SHEET NO: 145 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\EROSION.DGN

WEST LLOYD STREET

2



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
TULIP TREE	LIRIODENDRON TULIPIFERA	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

1 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 146	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

WEST LLOYD STREET

N

CAUTION

#2102 N. 59TH ST. | P.L. | #2105 N. 58TH ST. | #2101 N. 58TH ST. | ALLEY | #2101-03 N. 57TH ST.

GARAGE GARAGE

05 +50 06 +50 07 +50 08 +50 09 +50 10 +50 11

ABANDONED

STONE WALL

CAUTION

#2044 N. 59TH ST. | P.L. | #2047 N. 58TH ST. | N. 58TH ST.

B.M. NORTH SIDE OF BLDG.
W END OF W WINDOW SILL
#2044 N. 58TH ST.
ELEV. 169.56

#2046-44 N. 58TH ST. | P.L. | #2045 N. 57TH ST. | N. 57TH ST. | #2046 N. 57TH ST.

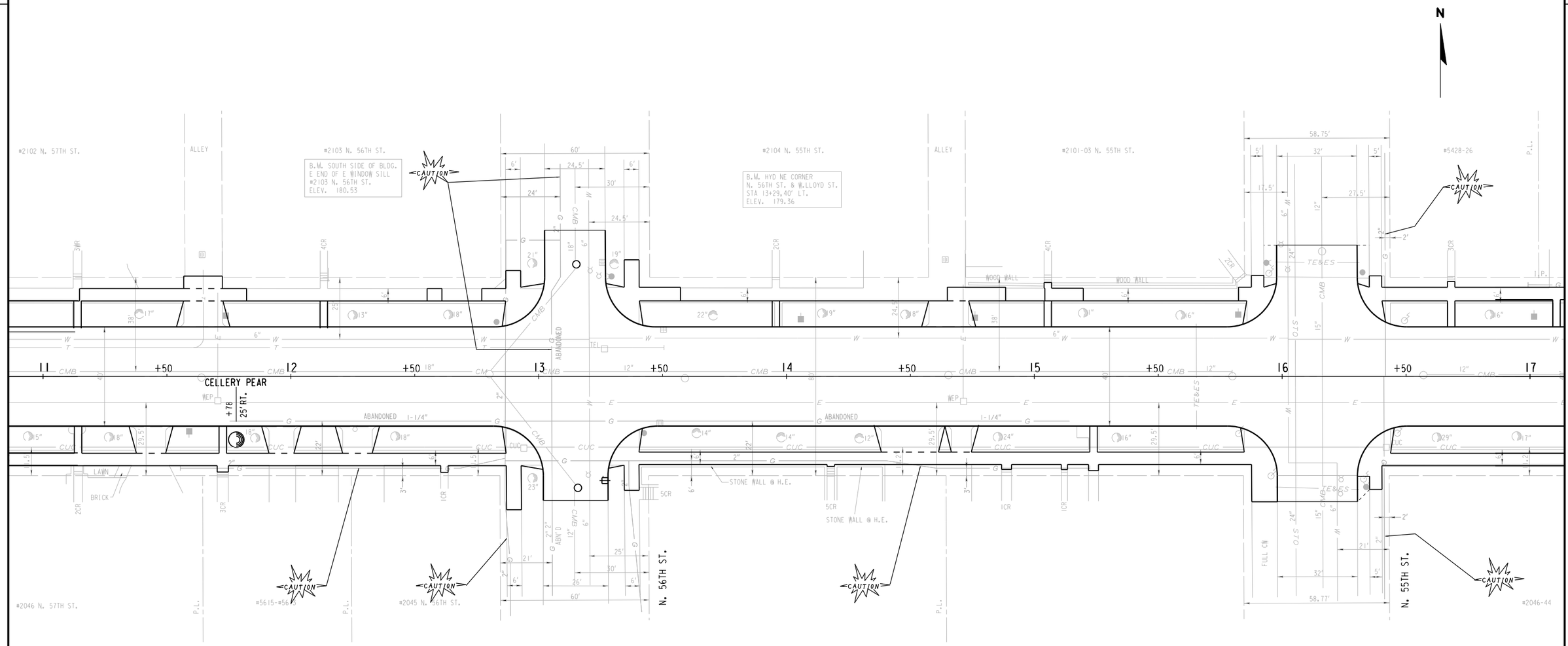
2 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 147 E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

WEST LLOYD STREET

2



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

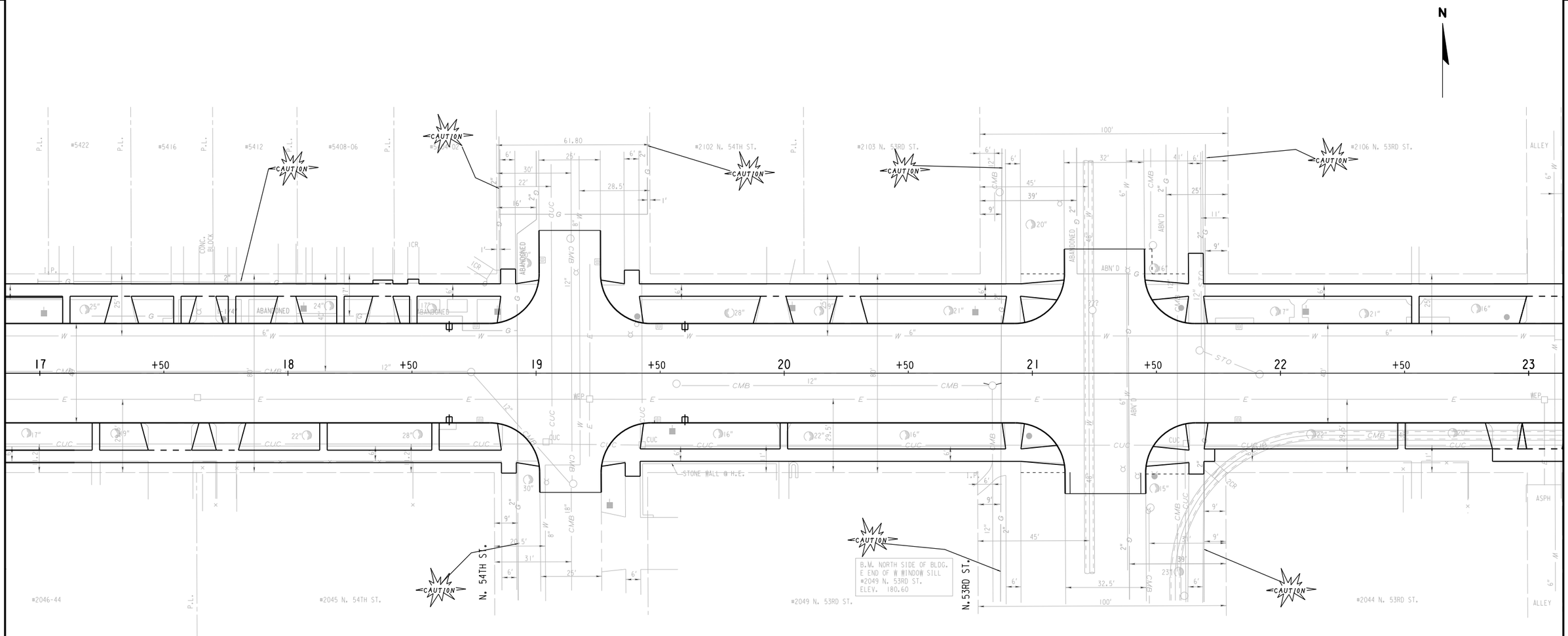
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 148	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2

WEST LLOYD STREET

2



4 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 149	E

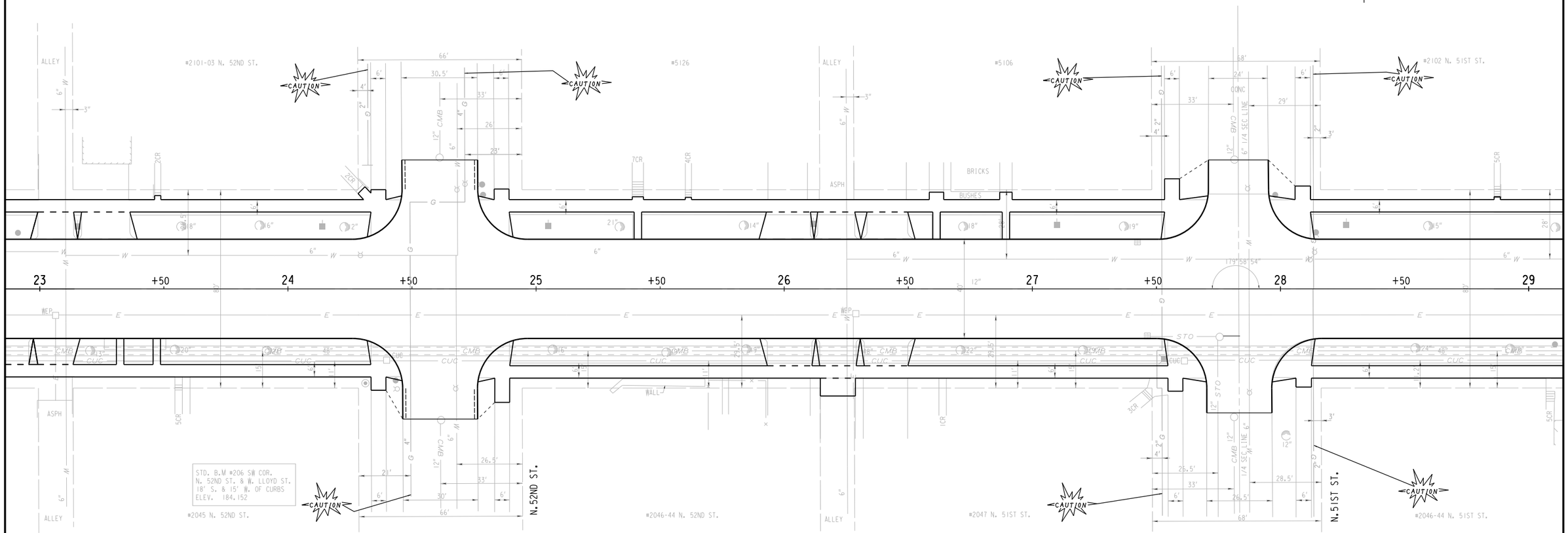
FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2

WEST LLOYD STREET

2

N



5 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 150	E

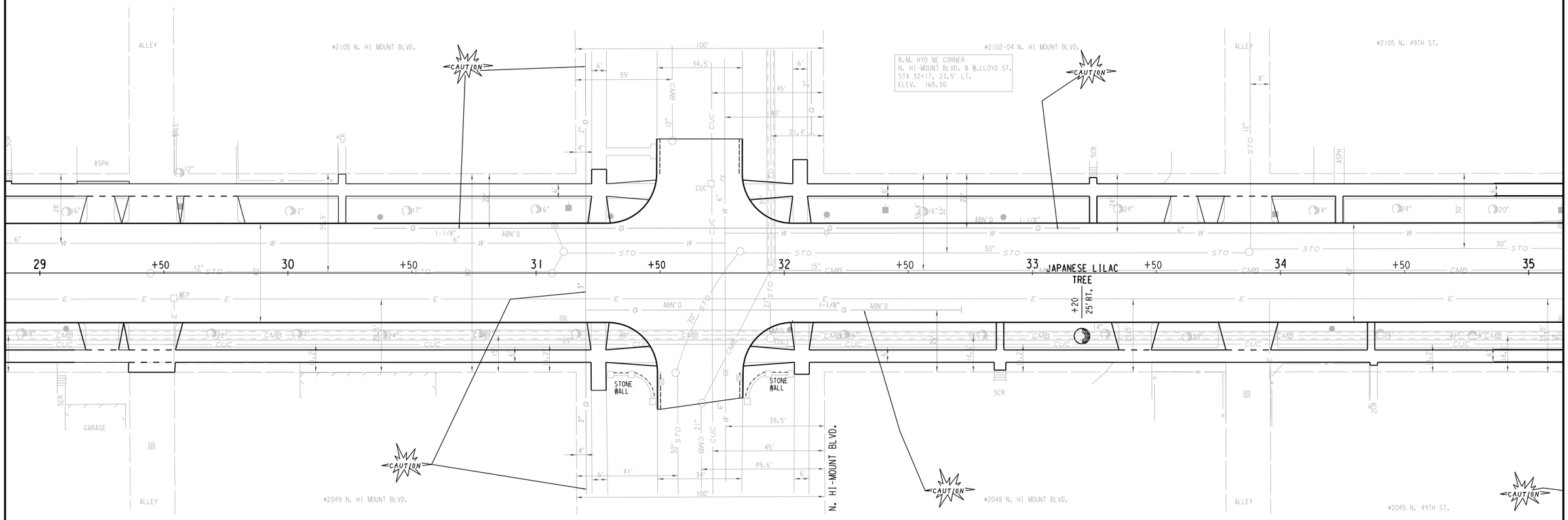
FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2

WEST LLOYD STREET

2

N



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT			PLANT HOLE						
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	ROOT SPREAD	DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 151	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2

WEST LLOYD STREET

N

CAUTION

#2100-02 N. 49TH ST.

B.M. HYD NE CORNER
N. 49TH ST. & W.LLOYD ST.
STA 35+66, 40' LT.
ELEV. 154.25

#2101 N. 48TH ST.

B.M. HYD NE CORNER
N. 48TH ST. & W.LLOYD ST.
STA 38+72, 42' LT.
ELEV. 148.80

#4730-28 #4724-22 #4720-18 #4714-12 #4708 #4704

35 +50 36 +50 37 +50 38 +50 39 +50 40 +50 41

N. 49TH ST.

#2044 N. 49TH ST. #2045-43 N. 48TH ST.

N. 48TH ST.

#4729-27 #4725 #4717 #4715 #4707

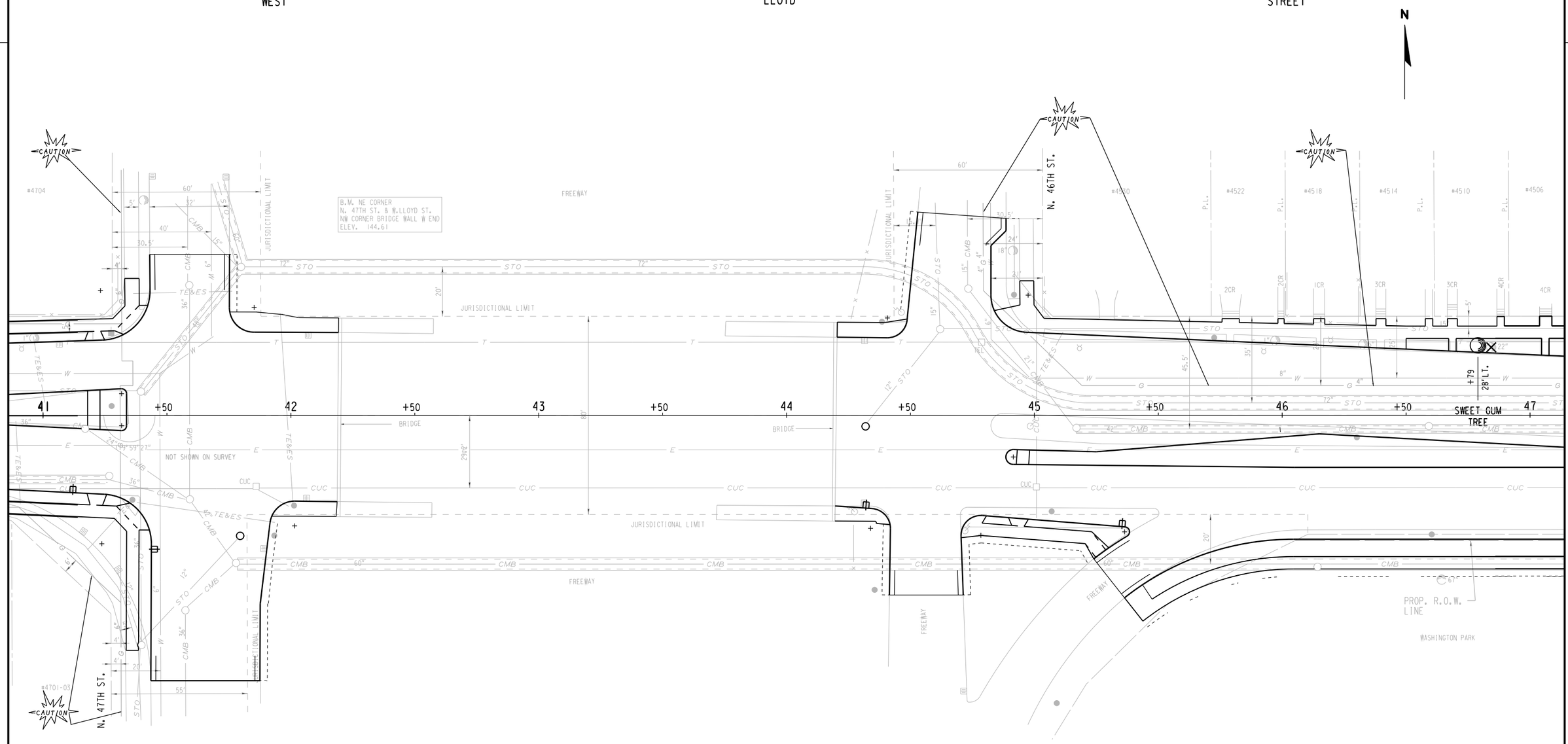
PATIO BLOCKS

7 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 152	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

WEST LLOYD STREET



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

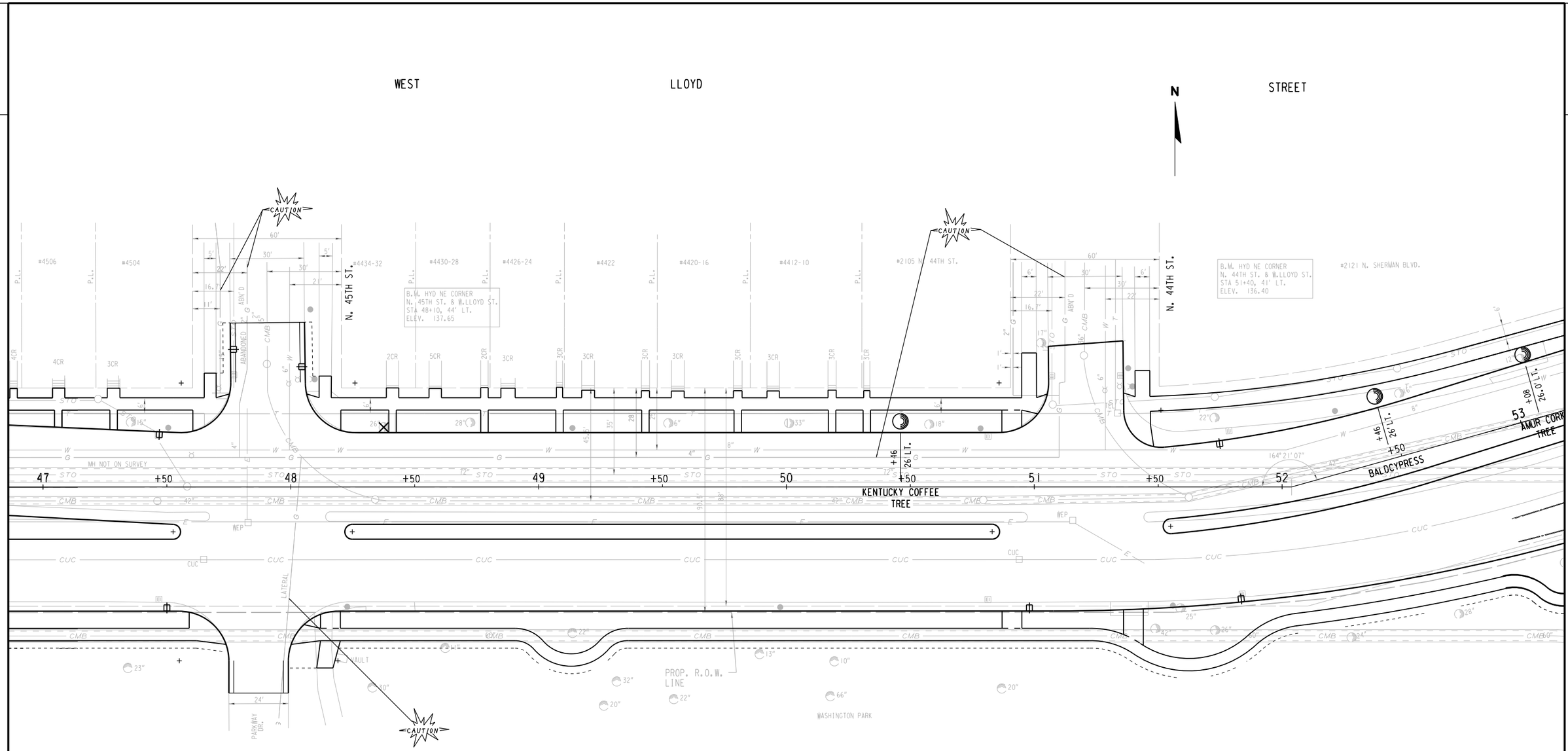
PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT			PLANT HOLE						
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	ROOT SPREAD	DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
SWEET GUM TREE	NYSSA SYLVATICA	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 153	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

PLANTING DATA CHART

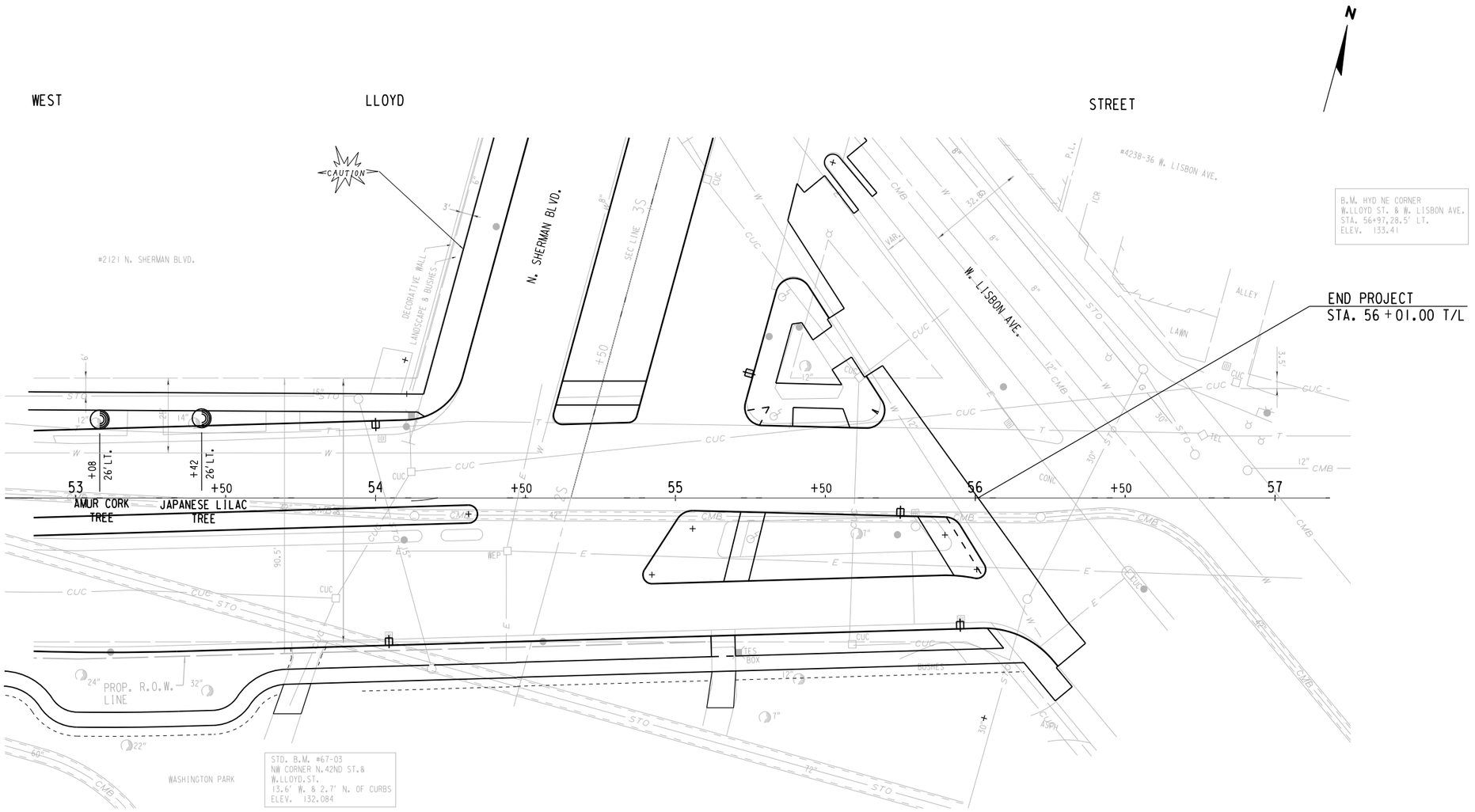
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
AMUR CORK TREE	MAACKIA AMURENSIS	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
BALDCYPRESS	TAXODIUM DISTICHUM	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 154	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2



PLANT NEW TREE (TYPE)

TREE TO BE REMOVED (CLEARING & GRUBBING)

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
AMUR CORK TREE	MAACKIA AMURENSIS	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 155	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

2

N

NORTH SHERMAN BOULEVARD

WEST LLOYD STREET

BEGIN CONSTRUCTION
N. SHERMAN BLVD.
STA. 2S+00.0 T/L

END CONSTRUCTION
N. SHERMAN BLVD.
STA. 4S+72.9 T/L

CAUTION

#2141 N. SHERMAN BLVD.

ALLEY

DECORATIVE WALL
LANDSCAPE & BUSHES

WASHINGTON PARK

STD. B.M. #67-03
N.W. CORNER N. 42ND ST.&
W. LLOYD ST. & 2.7' N. OF CURBS
ELEV. = 632.084

2S +50 SEC LINE 3S +50 4S +50 SEC LINE 5S

54 +50 55 +50 56 +50

W. LISBON AVE.

#4240-42 W. LISBON AVE.

#2124-26 N. SHERMAN BLVD.

#2134 N. SHERMAN BLVD.

BUS SHELTER

P.L.

ICR

CONC

11 OF 11

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 156	E

FILENAME: W:\SPR\LLOYD 47TH 60TH\TREES.DGN

DATE 06JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2984-16-71 QUANTITY
0010	201.0120	Clearing	ID	206.000	206.000
0020	201.0220	Grubbing	ID	206.000	206.000
0030	204.0100	Removing Pavement	SY	33,400.000	33,400.000
0040	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,000.000	1,000.000
0050	204.0150	Removing Curb & Gutter	LF	800.000	800.000
0060	204.0155	Removing Concrete Sidewalk	SY	7,800.000	7,800.000
0070	204.0210	Removing Manholes	EACH	7.000	7.000
0080	204.0220	Removing Inlets	EACH	14.000	14.000
0090	204.0250	Abandoning Manholes	EACH	18.000	18.000
0100	204.0255	Abandoning Catch Basins	EACH	6.000	6.000
0110	204.0260	Abandoning Inlets	EACH	6.000	6.000
0120	205.0100	Excavation Common **P**	CY	15,067.000	15,067.000
0140	209.0100	Backfill Granular	CY	1.000	1.000
0150	213.0100	Finishing Roadway (project) 01. 2984-16-71	EACH	1.000	1.000
0160	305.0110	Base Aggregate Dense 3/4-Inch	TON	200.000	200.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,000.000	12,000.000
0180	415.0080	Concrete Pavement 8-Inch	SY	22,300.000	22,300.000
0190	415.0310	Concrete Alley	SY	11.000	11.000
0200	415.1080	Concrete Pavement HES 8-Inch	SY	7,020.000	7,020.000
0210	416.0170	Concrete Driveway 7-Inch	SY	1,110.000	1,110.000
0220	416.0610	Drilled Tie Bars	EACH	183.000	183.000
0230	455.0605	Tack Coat	GAL	41.000	41.000
0240	465.0105	Asphaltic Surface	TON	175.000	175.000
0250	465.0125	Asphaltic Surface Temporary	TON	2.000	2.000
0260	601.0322	Concrete Curb & Gutter 22-Inch	LF	260.000	260.000
0270	601.0331	Concrete Curb & Gutter 31-Inch	LF	6,510.000	6,510.000
0280	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	6,330.000	6,330.000
0290	602.0410	Concrete Sidewalk 5-Inch	SF	64,400.000	64,400.000
0300	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	1,200.000	1,200.000
0310	611.0420	Reconstructing Manholes	EACH	15.000	15.000
0320	611.2004	Manholes 4-FT Diameter	EACH	9.000	9.000
0330	611.3230	Inlets 2x3-FT	EACH	2.000	2.000
0340	611.9705	Salvaged Manhole Covers	EACH	74.000	74.000
0350	611.9710	Salvaged Inlet Covers	EACH	27.000	27.000
0360	619.1000	Mobilization	EACH	0.940	0.940
0370	620.0300	Concrete Median Sloped Nose	SF	240.000	240.000
0380	623.0200	Dust Control Surface Treatment	SY	29,320.000	29,320.000
0390	624.0100	Water	MGAL	120.000	120.000
0400	625.0100	Topsoil	SY	9,550.000	9,550.000
0410	631.1000	Sod Lawn	SY	9,550.000	9,550.000
0420	632.0101	Trees (species) (size) (root) 01. BALD CYPRESS, B&B, 3" CAL	EACH	1.000	1.000
0430	632.0101	Trees (species) (size) (root) 02. SWEET GUM, B&B, 3" CAL	EACH	1.000	1.000
0440	632.0101	Trees (species) (size) (root) 03. CALLERY PEAR, B&B, 3" CAL	EACH	1.000	1.000
0450	632.0101	Trees (species) (size) (root) 04. IVORY SILK, B&B, 3" CAL	EACH	2.000	2.000
0460	632.0101	Trees (species) (size) (root) 05. KENTUCKY COFFEE, B&B, 3" CAL	EACH	1.000	1.000
0470	632.0101	Trees (species) (size) (root) 06. TULIP, B&B, 3" CAL	EACH	1.000	1.000

3

DATE 06JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2984-16-71 QUANTITY
0480	632.0101	Trees (species) (size) (root) 07. AMUR, B&B, 3" CAL	EACH	1.000	1.000
0490	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	24.000	24.000
0500	641.8100	Overhead Sign Support (structure) 01. W Lloyd St & N 46th St	LS	1.000	1.000
0510	641.8100	Overhead Sign Support (structure) 02. W Lloyd St and N Sherman Bl	LS	1.000	1.000
0520	642.5001	Field Office Type B	EACH	0.940	0.940
0530	643.0100	Traffic Control (project) 01. 2984-16-71	EACH	1.000	1.000
0550	643.0300	Traffic Control Drums	DAY	35,264.000	35,264.000
0560	643.0420	Traffic Control Barricades Type III	DAY	44,618.000	44,618.000
0570	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	94.000	94.000
0580	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	94.000	94.000
0590	643.0705	Traffic Control Warning Lights Type A	DAY	89,236.000	89,236.000
0600	643.0715	Traffic Control Warning Lights Type C	DAY	35,264.000	35,264.000
0610	643.0900	Traffic Control Signs	DAY	26,670.000	26,670.000
0620	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	11,000.000	11,000.000
0630	644.1420.S	Temporary Pedestrian Surface Plywood	SF	19,390.000	19,390.000
0640	644.1430.S	Temporary Pedestrian Surface Plate	SF	6,160.000	6,160.000
0650	644.1601.S	Temporary Curb Ramp	EACH	136.000	136.000
0660	646.0106	Pavement Marking Epoxy 4-Inch	LF	5,440.000	5,440.000
0670	646.0116	Pavement Marking Epoxy 6-Inch	LF	7,276.000	7,276.000
0680	646.0126	Pavement Marking Epoxy 8-Inch	LF	552.000	552.000
0690	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	13.000	13.000
0700	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	33.000	33.000
0710	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	33.000	33.000
0720	647.0356	Pavement Marking Words Epoxy	EACH	12.000	12.000
0730	647.0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	335.000	335.000
0740	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	2,285.000	2,285.000
0750	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	13,968.000	13,968.000
0760	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	11,575.000	11,575.000
0770	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	300.000	300.000
0780	649.1300	Temporary Pavement Marking Stop Line 24-Inch	LF	24.000	24.000
0790	649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	24.000	24.000
0800	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	6.000	6.000
0810	649.1802	Temporary Pavement Marking Arrows Paint	EACH	1.000	1.000
0820	649.2000	Temporary Pavement Marking Words Removable Tape	EACH	4.000	4.000
0830	649.2002	Temporary Pavement Marking Words Paint	EACH	1.000	1.000
0840	650.4500	Construction Staking Subgrade	LF	5,440.000	5,440.000
0850	650.7000	Construction Staking Concrete Pavement	LF	5,440.000	5,440.000
0860	650.8500	Construction Staking Electrical Installations (project) 01. 2984-16-71	LS	1.000	1.000
0880	650.9910	Construction Staking Supplemental Control (project) 01. 2984-16-71	LS	1.000	1.000
0900	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	385.000	385.000

3

DATE 06JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2984-16-71 QUANTITY
0910	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	240.000	240.000
0920	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	11,793.000	11,793.000
0930	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	4,693.000	4,693.000
0940	652.0610	Conduit Special 2 1/2-Inch	LF	710.000	710.000
0950	652.0615	Conduit Special 3-Inch	LF	250.000	250.000
0960	654.0110	Concrete Bases Type 10	EACH	6.000	6.000
0970	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0980	690.0150	Sawing Asphalt	LF	295.000	295.000
0990	690.0250	Sawing Concrete	LF	1,360.000	1,360.000
1000	715.0415	Incentive Strength Concrete Pavement	DOL	6,790.000	6,790.000
1030	SPV.0060	Special 01. INLET COVERS TYPE 57	EACH	44.000	44.000
1040	SPV.0060	Special 02. MANHOLE COVERS TYPE 58A	EACH	18.000	18.000
1050	SPV.0060	Special 03. CATCH BASINS TYPE 44A	EACH	8.000	8.000
1060	SPV.0060	Special 04. INLETS TYPE 45A	EACH	16.000	16.000
1070	SPV.0060	Special 05. ADJUSTING WATER BOXES	EACH	100.000	100.000
1080	SPV.0060	Special 06. Water Main Protection	EACH	1.000	1.000
1090	SPV.0060	Special 07. Inlet Screen Type M	EACH	74.000	74.000
1100	SPV.0060	Special 08. Inlet Screen Type R	EACH	72.000	72.000
1110	SPV.0060	Special 09. Adjusting TES Manhole Covers	EACH	18.000	18.000
1120	SPV.0060	Special 10. Removing TES Manholes	EACH	1.000	1.000
1130	SPV.0060	Special 11. Sawing Concrete-Encased Duct Package	EACH	2.000	2.000
1140	SPV.0060	Special 12. Installing Conduit Into Existing Manhole	EACH	3.000	3.000
1150	SPV.0060	Special 13. 5' Diameter "Doghouse" Manhole Type TES	EACH	1.000	1.000
1160	SPV.0060	Special 14. 4' Diameter Manhole Type TES	EACH	9.000	9.000
1170	SPV.0060	Special 15. 5' Diameter Manhole Type TES	EACH	2.000	2.000
1180	SPV.0060	Special 16. Install Traffic Signal Base	EACH	26.000	26.000
1190	SPV.0060	Special 17. Concrete Base Type 10 Special	EACH	1.000	1.000
1200	SPV.0060	Special 18. Install 18 Inch Diameter X 6 Feet High Cylinderical Column Form	EACH	1.000	1.000
1210	SPV.0060	Special 19. Rectangular Polymer Concrete Vault 13-Inch x 24-Inch x 18-Inch	EACH	13.000	13.000
1220	SPV.0060	Special 20. Rectangular Polymer Concrete Vault 17-Inch x 30-Inch x 18-Inch	EACH	43.000	43.000
1230	SPV.0060	Special 21. Monotube Arms 20-FT	EACH	1.000	1.000
1240	SPV.0060	Special 22. Monotube Arms 25-FT	EACH	2.000	2.000
1250	SPV.0060	Special 23. Monotube Arms 30-FT	EACH	3.000	3.000
1260	SPV.0060	Special 24. Monotube Arms 35-FT	EACH	1.000	1.000
1280	SPV.0060	Special 26. Monotube Arms 45-FT	EACH	1.000	1.000
1290	SPV.0060	Special 27. Poles Type 9	EACH	6.000	6.000
1320	SPV.0060	Special 30. Poles Type 13	EACH	1.000	1.000
1330	SPV.0060	Special 31. Poles Type 13 Special	EACH	1.000	1.000
1340	SPV.0060	Special 32. Utility Line Opening	EACH	9.000	9.000
1350	SPV.0060	Special 33. Construction Staking Curb Ramps	EACH	83.000	83.000
1360	SPV.0090	Special 01. CONSTRUCTION STAKING CONCRETE SIDEWALK	LF	7,950.000	7,950.000

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DATE 06JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2984-16-71 QUANTITY
1370	SPV.0090	Special 02. STORM SEWER PIPE CORRUGATED 12-INCH	LF	1,613.000	1,613.000
1380	SPV.0090	Special 03. 10-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	35.000	35.000
1390	SPV.0090	Special 04. 7-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	14.000	14.000
1400	SPV.0090	Special 05. 6-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	2,130.000	2,130.000
1410	SPV.0090	Special 06. 5-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	43.000	43.000
1420	SPV.0090	Special 07. 4-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	3,176.000	3,176.000
1430	SPV.0090	Special 08. 3-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	21.000	21.000
1440	SPV.0090	Special 09. 2-Duct Conduit, Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	LF	175.000	175.000
1450	SPV.0090	Special 10. 1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF	177.000	177.000
1460	SPV.0165	Special 01. Skid/Skip Resistant Green Preformed Thermoplastic Integrated Bike Lane	SF	1,000.000	1,000.000
1470	SPV.0180	Special 01. JOINT SEALING	SY	29,320.000	29,320.000

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REMOVAL CONSTRUCTION ITEMS

2984-16-71

ITEM NO.		CLEARING 201.0120	GRUBBING 201.0220	REMOVING PAVEMENT 204.0100	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115	REMOVING CURB AND GUTTER 204.0150	REMOVING CONCRETE SIDEWALK 204.0155
UNIT PAY		ID	ID	SY	SY	LF	SY
CATEGORY		0010	0010	0010	0010	0010	0010
LOCATION							
STA 01+44 TO 5+00	LT			860	50	30	270
STA 5+00 TO 11+00	LT			1540	50	40	440
STA 11+00 TO 17+00	LT			1550	90	70	300
STA 17+00 TO 23+00	LT			1540	70	50	540
STA 23+00 TO 29+00	LT			1580	40	20	500
STA 29+00 TO 35+00	LT			1480	50	30	490
STA 35+00 TO 41+00	LT	74	74	1690	40	40	430
STA 41+00 TO 47+00	LT	22	22	1570	80	50	260
STA 47+00 TO 53+00	LT	26	26	1680	110	80	420
STA 53+00 TO 56+01	LT			930			200
STA 2S+00 TO 4S+72.9	LT			1870		90	380
SUBTOTALS (LEFT)		**122**	**122**	**16290**	**580**	**500**	**4230**
STA 01+44 TO 5+00	RT	28	28	840	70	40	280
STA 5+00 TO 11+00	RT			1570	20	10	460
STA 11+00 TO 17+00	RT			1590	20	20	500
STA 17+00 TO 23+00	RT			1540	50	30	380
STA 23+00 TO 29+00	RT			1550	60	50	480
STA 29+00 TO 35+00	RT			1470	40	30	490
STA 35+00 TO 41+00	RT	56	56	1740	30	20	430
STA 41+00 TO 47+00	RT			2190	100	70	310
STA 47+00 TO 53+00	RT			3100	30	30	160
STA 53+00 TO 56+01	RT			1520			80
STA 2S+00 TO 4S+72.9	RT						
SUBTOTALS (RIGHT)		**84**	**84**	**17110**	**420**	**300**	**3570**
GRAND TOTALS		**206**	**206**	**33,400**	**1,000**	**800**	**7,800**

2984-16-71

PAVEMENT RELATED CONSTRUCTION ITEMS

		BASE AGGREGATE DENSE 3/4 INCH	BASE AGGREGATE DENSE 1-1/4 INCH	CONCRETE PAVEMENT 8-INCH	CONCRETE ALLEY	CONCRETE PAVEMENT 8-INCH HES	CONCRETE DRIVEWAY 7-INCH	DRILLED TIE BARS	TACK COAT	ASPHALTIC SURFACE	CONCRETE CURB AND GUTTER 22-INCH	CONCRETE CURB AND GUTTER 31-INCH	CONCRETE CURB AND GUTTER INTEGRAL 30-INCH TYPE D	CONCRETE SIDEWALK 5-INCH	CURB RAMP DETECTABLE WARNING FIELD YELLOW	CONCRETE MEDIAN SLOPED NOSE
ITEM NO.		305.0110	305.0120	415.0080	415.0310	415.1080	416.0170	416.0610	455.0605	465.0105	601.0322	601.0331	601.0452	602.0410	602.0505	620.0300
UNIT PAY		TON	TON	SY	SY	SY	SY	EA	GAL	TON	LF	LF	LF	SF	SF	SF
CATEGORY		0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010
LOCATION																
STA 01+44 TO 5+00	LT		310	750			50		2	10	10	290	60	1780	30	
STA 5+00 TO 11+00	LT		570	950		420	90	8	2	10		510	130	2880	70	
STA 11+00 TO 17+00	LT		570	1180		200	60		4	15	40	490	130	1700	60	
STA 17+00 TO 23+00	LT		560	920		440	80		3	10	30	480	130	3450	60	
STA 23+00 TO 29+00	LT		570	950		450	120	8	1	10	20	480	130	3180	60	
STA 29+00 TO 35+00	LT		540	1050		250	130		2	10	30	520	60	3040	30	
STA 35+00 TO 41+00	LT		600	980		440	10		2	10	30	700		4090	60	10
STA 41+00 TO 47+00	LT		560	710		710	0		3	10		420	100	2580	60	10
STA 47+00 TO 53+00	LT		610	970		520	0	8	4	15		390	280	3650	60	
STA 53+00 TO 56+01	LT		350	910			0	116				80	200	1510	60	20
STA 2S+00 TO 4S+72.9	LT		670	1710			40					500	110	3430	100	40
SUBTOTALS (LEFT)			**5910**	**11080**	**0**	**3430**	**580**	**140**	**23**	**100**	**160**	**4860**	**1330**	**31290**	**650**	**80**
STA 01+44 TO 5+00	RT		310	740			60		3	10	20	20	330	1950	30	
STA 5+00 TO 11+00	RT		570	940		450	90	9	1			40	590	3010	60	
STA 11+00 TO 17+00	RT		580	1210		210	90	11	1			20	610	3460	60	
STA 17+00 TO 23+00	RT		560	920		440	50		2	10	20	20	590	2760	60	
STA 23+00 TO 29+00	RT		560	940	11	430	100		3	10	30	20	590	3080	60	
STA 29+00 TO 35+00	RT		540	1050		250	110		2	10	30		590	3010	30	
STA 35+00 TO 41+00	RT		620	1030		450	30		1	10		360	360	3570	60	30
STA 41+00 TO 47+00	RT		800	910		950			4	15		650	360	3870	90	60
STA 47+00 TO 53+00	RT		1020	2320		410		23	1	10		30	610	5540	50	70
STA 53+00 TO 56+01	RT		530	1160								490	370	2860	50	
STA 2S+00 TO 4S+72.9	RT															
SUBTOTALS (RIGHT)		**200**	**6090**	**11220**	**11**	**3590**	**530**	**43**	**18**	**75**	**100**	**1650**	**5000**	**33110**	**550**	**160**
GRAND TOTALS		**200**	**12,000**	**22,300**	**11**	**7,020**	**1,110**	**183**	**41**	**175**	**260**	**6,510**	**6,330**	**64,400**	**1,200**	**240**

CONSTRUCTION ITEMS

2984-16-71

ITEM NO.		*DUST CONTROL SURFACE TREATMENT 623.0200	WATER 624.0100	TOP SOIL 625.0100	SOD LAWN 631.1000	CONST. STAKING SUBGRADE 650.4500	CONST. STAKING CONC. PAVEMENT 650.7000	SAWING ASPHALT 690.0150	*SAWING CONCRETE 690.0250	*INLET SCREEN TYPE M SPV.0060.07	*INLET SCREEN TYPE R SPV.0060.08	CONST. STAKING CURB RAMPS SPV.0060.33	CONST. STAKING CONC. SIDEWALK SPV.0090.01	JOINT SEALING SPV.0180.01
UNIT PAY		SY	MGAL	SY	SY	LF	LF	LF	LF	EACH	EACH	EACH	LF	SY
CATEGORY		0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0020
LOCATION														
STA 01+44 TO 5+00	LT	750		350	350	170	170		30	4	4	2	300	750
STA 5+00 TO 11+00	LT	1370		520	520	300	300		130	3	3	4	290	1370
STA 11+00 TO 17+00	LT	1380		550	550	300	300		360	2	2	4	190	1380
STA 17+00 TO 23+00	LT	1360		560	560	300	300	50	10	5	5	4	440	1360
STA 23+00 TO 29+00	LT	1400		530	530	300	300	30	50	1	1	4	470	1400
STA 29+00 TO 35+00	LT	1300		580	580	300	300	20	40	1	1	2	500	1300
STA 35+00 TO 41+00	LT	1420		470	470	300	300		60	6	4	4	480	1420
STA 41+00 TO 47+00	LT	1420		140	140	200	200		70	3	3	5	230	1420
STA 47+00 TO 53+00	LT	1490		550	550	300	300	75	60	7	7	4	480	1490
STA 53+00 TO 56+01	LT	910		60	60	150	150			1	1		160	910
STA 2S+00 TO 4S+72.9	LT	1710		50	50	200	200		60	5	4	12	310	1710
SUBTOTALS (LEFT)		**14510**		**4360**	**4360**	**2820**	**2820**	**175**	**870**	**38**	**35**	**45**	**3850**	**14510**
STA 01+44 TO 5+00	RT	740		310	310	170	170		40	2	2	2	300	740
STA 5+00 TO 11+00	RT	1390		510	510	300	300		110	2	2	4	290	1390
STA 11+00 TO 17+00	RT	1410		500	500	300	300		80	2	2	4	480	1410
STA 17+00 TO 23+00	RT	1360		530	530	300	300	50	110	3	3	4	440	1360
STA 23+00 TO 29+00	RT	1370		560	560	300	300	30	30	1	1	4	470	1370
STA 29+00 TO 35+00	RT	1300		610	610	300	300		40	6	6	2	500	1300
STA 35+00 TO 41+00	RT	1480		510	510	300	300		60	8	8	4	480	1480
STA 41+00 TO 47+00	RT	1870		360	360	200	200		20	6	7	6	250	1870
STA 47+00 TO 53+00	RT	2730		710	710	300	300	20		3	3	4	540	2730
STA 53+00 TO 56+01	RT	1160		590	590	150	150	20		3	3	4	350	1160
STA 2S+00 TO 4S+72.9	RT													
SUBTOTALS (RIGHT)		**14810**		**5190**	**5190**	**2620**	**2620**	**120**	**490**	**36**	**37**	**38**	**4100**	**14810**
GRAND TOTALS		**29,320**	**120**	**9,550**	**9,550**	**5,440**	**5,440**	**295**	**1,360**	**74**	**72**	**83**	**7,950**	**29,320**

*Additional quantities found in Project ID 2984-04-77, Various Intersections

SALVAGED MANHOLE COVERS				
GROUP CODE	No	Location STATION	OFFSET	PROPOSED ELEVATION
0010	200	1+35	1' Left	164.87
0010	203	4+18	3' Left	166.62
0010	205	7+09	3' Left	167.63
0010	206	7+15	36' Right	167.05
0010	208	8+57	0.5' Right	169.37
0010	209	9+85	0	176.61
0010	210	10+13	53' Left	172.22
0010	211	10+16	45' Right	171.79
0010	213	11+64	0.5' Right	175.09
0010	214	12+80	0.5' Left	177.48
0010	218	14+65	0.5' Left	179.38
0010	220	16+16	50' Left	181.43
0010	223	19+14	54' Left	179.02
0010	224	19+15	45' Right	178.56
0010	226	20+86	4' Right	180.28
0010	227	21+24	25' Left	180.34
0010	228	21+67	9' Left	180.53
0010	229	21+92	0.5' Left	180.84
0010	230	24+66	52' Left	183.61
0010	231	24+67	52' Right	183.61
0010	233	27+75	19' Right	179.2
0010	234	29+24	10' Right	173.54
0010	235	29+45	0	171.82
0010	236	31+07	0	166.22
0010	237	31+11	8' Left	165.93
0010	238	31+56	40' Right	164.25
0010	240	31+82	9' Left	163.89
0010	241	31+95	1.5' Left	163.27
0010	242	31+95	26' Right	165.35
0010	243	33+87	8' Left	156.35
0010	244	35+17	8' Left	152.40
0010	245	35+37	40' Right	152.24
0010	246	35+38	10' Left	152.52
0010	249	35+73	2' Left	151.87
0010	250	38+12	5' Right	147.34
0010	251	38+25	8' Left	146.94
0010	252	38+52	51' Left	146.47
0010	254	38+55	10' Left	146.58
0010	255	38+77	27' Right	145.86
0010	256	38+79	6' Right	146.24
0010	257	38+84	9' Left	146.08
0010	258	38+98	8' Right	145.75
0010	259	41+17	6' Right	142.64
0010	260	41+27	25' Right	142.25
0010	261	41+29	63' Right	141.52
0010	262	41+39	9' Left	142.40
0010	263	41+40	92' Right	142.94
0010	264	41+57	79' Right	142.46
0010	265	41+59	34' Right	142.01
0010	266	41+59	52' Left	141.69
0010	267	41+78	60' Right	141.93
0010	270	44+62	34' Left	139.33
0010	271	44+73	50' Left	138.95
0010	272	45+17	6' Right	139.63
0010	274	46+59	5' Right	137.96
0010	275	47+22	35' Left	136.35
0010	276	47+47	6' Right	137.18
0010	278	47+58	4' Left	136.95
0010	280	47+90	34' Left	136.30
0010	281	48+34	5' Right	136.70
0010	282	50+79	6' Right	135.14
0010	283	51+08	33' Left	134.48
0010	285	51+62	4' Right	135.20
0010	286	51+73	36' Left	135.45
0010	287	52+58	35' Left	134.95
0010	288	53+94	33' Left	134.19
0010	289	54+13	6' Right	134.65
0010	290	54+19	57' Right	133.65
0010	291	55+80	10' Right	133.13
0010	292	56+17	34' Right	132.06
0010	295	4S+04	33' Left	133.79
0010	296	4S+14	33' Left	133.83
0010	297	4S+23	13' Left	133.81
0010	298	4S+28	2' Right	133.70

74 Salvaged Manhole Covers (611.9705) (0010 - Participating)

Reconstruct Manholes					
GROUP CODE	No	Location STATION	OFFSET	PROPOSED ELEVATION	Vertical Depth of Repair (Inches)
0010	205	7+09	3' Left	167.63	14
0010	212	10+53	0.5' Left	172.78	17
0010	213	11+64	0.5' Right	175.09	16
0010	214	12+80	0.5' Left	177.48	33
0010	217	13+59	0.5' Right	178.54	22
0010	225	19+57	4' Right	178.83	15
0010	239	31+66	52' Right	164.09	22
0010	241	31+95	1.5' Left	163.27	15
0010	242	31+95	26' Right	165.35	72
0010	262	41+39	9' Left	142.40	24
0010	264	41+57	79' Right	142.46	33
0010	265	41+59	34' Right	142.01	27
0010	266	41+59	52' Left	141.69	18
0010	267	41+78	60' Right	141.93	30
0010	298	4S+28	2' Right	133.7	15

15 Reconstructing Manholes (611.0420) (0010 - Participating)

NEW MANHOLE COVERS					
GROUP CODE	No	Location STATION	OFFSET	PROPOSED ELEVATION	COVER TYPE
0010	201	4+11	48' Left	166.57	58A
0010	212	10+53	0.5' Left	172.78	58A
0010	217	13+59	0.5' Right	178.54	58A
0010	219	15+80	0	180.49	58A
0010	221	16+57	0.5' Left	180.35	58A
0010	222	18+74	0.5' Left	178.8	58A
0010	225	19+57	4' Right	178.83	58A
0010	232	27+46	20' Right	179.35	57
0010	239	31+66	52' Right	164.09	58A
0010	253	38+55	52' Right	147.36	58A
0010	273	46+14	61' Right	138.56	58A
0010	277	47+47	21' Left	136.41	57
0010	279	47+76	44' Left	136.45	57
0010	284	51+20	53' Left	135.3	58A

11 Manhole Covers Type 58A (SPV.0060.02) (0010 - Participating)
3 Inlet Covers Type 57 (SPV.0060.01) (0010 - Participating)

Remove Manholes			
GROUP CODE	NO.	LOCATION STATION	OFFSET
0010	207	7+16	51' Left
0010	215	13+15	45' Left
0010	216	13+16	45' Right
0010	268	41+79	49' Right
0010	269	44+32	5' Right
0010	293	3S+37	33' Left
0010	294	3S+67	33' Left

7 Removing Manholes (204.0210) (0010 - Participating)

Remove Inlets			
GROUP CODE	NO.	LOCATION STATION	OFFSET
0010	103	4+31	42' Left
0010	115	13+28	42' Right
0010	143	41+07	29' Left
0010	148	44+32	37' Right
0010	149	44+31	31' Left
0010	151	47+47	46' Right
0010	152	48+06	48' Left
0010	158	51+84	44' Right
0010	160	54+04	47' Right
0010	162	55+95	41' Right
0010	163	2S+56	48' Right
0010	164	3S+19	45' Left
0010	165	4S+13	77' Left
0010	166	4S+45	12' Right

14 Removing Inlets (204.0220) (0010 - Participating)

ABANDONING DRAINAGE STRUCTURES				
GROUP CODE	NO.	LOCATION STATION	OFFSET	REMARKS
0010	104	4+58	20' Right	Catch Basin
0010	105	4+59	20' Left	Catch Basin
0010	118	18+76	20' Left	Catch Basin
0010	119	18+77	20' Right	Catch Basin
0010	122	19+49	20' Right	Catch Basin
0010	123	19+49	20' Left	Catch Basin
0010	144	41+16	48' Right	Inlet
0010	150	45+46	38' Right	Inlet
0010	153	50+81	47' Right	Inlet
0010	157	51+79	24' Left	Inlet
0010	159	54+02	21' Left	Inlet
0010	161	55+80	5' Right	Inlet

6 Abandoning Catch Basins (204.0255) (0010 - Participating)
6 Abandoning Inlets (204.0260) (0010 - Participating)

ADJUST INLETS AND DRAINS

DRAINAGE								PVC PIPE, STORM SEWER					
		LOCATION						CONNECTION STRUCTURE				INVERT ELEV.	
GROUP CODE	No.	STATION	OFFSET	COVER ELEV.	EXISTING STRUCTURE	FRAME & LID	DEPTH (FT)	FROM	TO	SIZE (IN)	LENGTH (FT)	INLET	OUTLET
0010	100	1+42	20' Right	164.34	Catch Basin	57	8.32	100	200	12	22	160.00	159.00
0010	101	1+63	20' Left	164.25	Catch Basin	57	8.23	101	200	12	34	160.00	159.00
0010	102	4+06	41' Left	166.27	Catch Basin	Salvage	8.25	102	201	12	9	162.00	161.50
0010	106	7+04	42' Left	167.36	Catch Basin	57	8.34	106	207	12	15	163.00	162.50
0010	107	7+29	42' Left	167.96	Catch Basin	Salvage							
0010	108	7+51	20' Left	167.43	Catch Basin	Salvage	8.41	108	205	12	45	163.00	159.00
0010	109	7+52	20' Right	167.40	Catch Basin	Salvage	8.38	109	205	12	49	163.00	159.00
0010	110	10+01	45' Left	171.65	Catch Basin	Salvage	8.33	110	210	12	14	167.30	166.50
0010	111	10+26	45' Left	171.65	Catch Basin	Salvage	8.23	111	210	12	15	167.40	166.50
0010	112	10+49	20' Left	171.3	Catch Basin	Salvage	7.28	112	212	12	20	168.00	167.00
0010	113	10+50	20' Right	172.35	Catch Basin	Salvage	7.83	113	212	12	21	168.50	167.00
0010	114	13+27	46' Left	177.62	Catch Basin	57	8.25	114	215	12	12	173.35	172.75
0010	116	13+49	20' Right	178.1	Catch Basin	57	9.08	116	217	12	22	173.00	172.00
0010	117	13+50	20' Left	177.95	Catch Basin	57	8.23	117	217	12	22	173.70	173.00
0010	120	19+02	45' Left	178.3	Catch Basin	57	8.28	120	223	12	15	174.00	173.20
0010	121	19+26	44' Left	178.25	Catch Basin	57	8.23	121	223	12	16	174.00	173.20
0010	124	21+83	20' Left	180.36	Inlet	57	4.77	124	229	12	21	177.25	176.50
0010	125	21+83	20' Right	180.34	Inlet	57	6.00	125	229	12	22	176.00	175.00
0010	126	27+42	20' Left	179.25	Inlet	Salvage							
0010	127	31+08	20' Left	166.55	Inlet	Salvage							
0010	128	31+11	20' Right	166.75	Inlet	Salvage							
0010	129	31+49	43' Right	164.00	Inlet	Salvage	4.76	129	238	12	8	160.90	160.50
0010	130	31+82	42' Right	163.12	Inlet	Salvage	4.98	130	238	12	26	159.80	159.00
0010	131	35+13	20' Left	152.68	Inlet	Salvage	4.74	131	244	12	13	149.6	149
0010	132	35+13	20' Right	152.85	Inlet	Salvage	6.51	132	244	12	28	148	147
0010	133	35+61	41' Right	151.58	Inlet	Salvage							
0010	134	35+62	43' Left	151.29	Inlet	Salvage							
0010	135	38+22	20' Right	146.85	Inlet	Salvage	6.76	135	251	12	28	141.75	141.00
0010	136	38+24	20' Left	146.60	Inlet	Salvage	5.26	136	251	12	12	143.00	142.50
0010	137	38+42	48' Right	147.20	Inlet	57							
0010	138	38+42	51' Right	147.20	Inlet	57							
0010	139	38+45	46' Left	146.10	Inlet	Salvage							
0010	140	38+68	49' Left	145.85	Inlet	Salvage							
0010	141	38+70	50' Right	146.70	Inlet	Salvage							
0010	142	38+70	53' Right	146.92	Inlet	Salvage							
0010	145	41+90	54' Right	141.65	Inlet	Salvage							
0010	146	42+06	35' Right	141.30	Inlet	Salvage	4.76	146	15	12	30	138.20	137.00
0010	147	42+07	33' Left	141.25	Inlet	Salvage							
0010	154	50+81	21' Left	134.25	Inlet	Salvage							
0010	155	51+06	45' Left	134.20	Inlet	57							
0010	156	51+36	45' Left	134.70	Inlet	57							
0010	167	4S+67	64' Left	133.24	Inlet	57							

15 Inlet Covers Type 57 (SPV.0060.01) (0010 - Participating) *Item also found in "New Structures" and "New Manhole Covers" Tables
519 LF Storm Sewer Pipe Corrugated PVC 12" (SPV.0090.02) (0010 - Participating) *Item also found in "Adjust Inlets and Drains" Table
27 Salvaged Inlet Covers (611.9710) (0010 - Participating)

New Structures													
DRAINAGE								PVC PIPE, STORM SEWER					
GROUP CODE	No.	LOCATION		COVER ELEV.	STRUCT.	FRAME & LID	DEPTH (FT)	CONNECTION STRUCTURE		SIZE (IN)	LENGTH (FT)	INVERT ELEV.	
		STATION	OFFSET					FROM	TO			INLET	OUTLET
0010	1	4+31	42' Left	166.27	44A	57	8.25	1	201	12	21	162.00	161.00
0010	2	4+65	20' Right	165.83	44A	57	8.31	2	203	12	52	161.50	157.00
0010	3	4+73	20' Left	165.85	44A	57	8.23	3	203	12	58	161.60	157.85
0010	4	7+16	51' Left	167.84	4'-0" MH	58A	10.84						157.00
0010	5	13+15	45' Left	177.93	4'-0" MH	58A	14.07						163.86
0010	6	13+16	45' Right	177.95	4'-0" MH	58A	13.54						164.41
0010	7	13+28	42' Right	177.4	44A	57	8.23	7	216	12	12	173.15	172.65
0010	8	18+66	20' Left	178.34	44A	57	8.32	8	222	12	21	174.00	173.00
0010	9	18+66	20' Right	178.34	44A	57	8.82	9	222	12	22	173.50	172.50
0010	10	19+60	20' Left	178.34	44A	57	8.32	10	225	12	24	174.00	173.00
0010	11	19+60	20' Right	178.34	44A	57	9.32	11	225	12	16	173.00	172.50
0010	12	41+07	29' Left	141.96	2x3 FT Inlet	57	5.16	12	262	12	38	137.50	136.00
0010	13	41+12	31' Right	142.20	45A	57	4.86	13	262	12	48	139.00	137.00
0010	14	41+45	46' Right	141.75	45A	57	6.41	14	261	12	23	137.00	136.50
0010	15	41+79	49' Right	141.83	4'-0" MH	58A	7.09						134.74
0010	16	44+31	31' Left	139.70	2x3 FT Inlet	57	3.20	16	17	12	36	136.50	135.00
0010	17	44+32	5' Right	140.13	4'-0" MH	58A	9.63						130.50
0010	18	44+32	37' Right	139.6	45A	57	4.76	18	17	12	32	136.50	135.00
0010	19	45+36	45' Right	138.60	45A	57	4.76	19	270	12	112	135.50	132.00
0010	20	47+47	50' Right	136.45	45A	57	5.11	20	278	12	55	133.00	130.00
0010	21	47+76	54' Left	136.2	4'-0" MH	57	6.74						129.46
0010	22	48+06	48' Left	135.9	45A	57	4.76	22	279	12	30	132.80	132.00
0010	23	50+98	50' Right	134.62	45A	57	4.78	23	283	12	84	131.50	127.80
0010	24	51+75	19' Left	134.48	4'-0" MH	57	6.44	24	286	12	17	129.70	129.00
0010	25	51+85	46' Right	134.41	45A	57	4.77	25	24	12	64	131.30	129.95
0010	26	54+00	26' Left	133.35	45A	57	4.76	26	288	12	9	130.25	130.00
0010	27	54+04	49' Right	133.47	45A	57	4.83	27	290	12	17	130.30	129.90
0010	28	55+75	5' Right	132.62	45A	57	4.78	28	292	12	57	129.50	128.00
0010	29	55+95	43' Right	131.9	45A	57	4.76	29	292	12	24	128.80	128.00
0010	30	2S+56	48' Right	133.35	45A	57	7.13	30	32	12	123	130.20	127.50
0010	31	3S+19	45' Left	133.00	45A	57	6.98	31	32	12	21	130.00	129.00
0010	32	3S+37	33' Left	133.56	4'-0" MH	58A	8.56						125.00
0010	33	3S+67	33' Left	133.65	4'-0" MH	58A	8.85						124.80
0010	34	4S+13	77' Left	133.20	45A	57	8.18	34	295	12	45	129.00	128.00
0010	35	4S+45	12' Right	133.40	45A	57	7.08	35	297	12	33	130.30	129.00

26 Inlet Covers Type 57 (SPV.0060.01) (0010 - Participating) *Item also found in "Adjust Inlets and Drains" and in " New Manhole Covers"
7 Manhole Covers Type 58A (SPV.0060.02) (0010 - Participating) *Item also found in "New Manhole Covers"
8 Catch Basins Type 44A (SPV.0060.03) (0010 - Participating)
16 Inlets Type 45A (SPV.0060.04) (0010 - Participating)
1094 LF Storm Sewer Pipe Corrugated PVC 12" (SPV.0090.02) (0010 - Participating)
9 Manholes 4-FT Diameter (611.2004) (0010 - Participating)
2 Inlets 2x3-FT (611.3230) (0010-Participating)

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2984-16-71

TRAFFIC CONTROL ITEMS

CATEGORY 0010

	ITEMS	PRE STAGE 1		STAGE 1		STAGE 1A		STAGE 1B		STAGE 2		STAGE 2A		STAGE 2B		TOTAL	
		EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY		
#	***TRAFFIC CONTROL DRUMS (643.0300)**	38	380	174	12,528	65	2340	76	2,736	185	13,320	59	2,124	51	1,836	**35,264**	DAY
##	***TRAFFIC CONTROL BARRICADES TYPE III (643.0420)**	5	50	211	15,192	106	3816	109	3,924	208	14,976	92	3,312	93	3,348	**44,618**	DAY
	***TRAFFIC CONTROL WARNING LIGHTS TYPE A (FLASHING) (643.0705)**	10	100	422	30,384	212	7632	218	7,848	416	29,952	184	6,624	186	6,696	**89,236**	DAY
	***TRAFFIC CONTROL WARNING LIGHTS TYPE C (STEADY) (643.0715)**	38	380	174	12,528	65	2340	76	2,736	185	13,320	59	2,124	51	1,836	**35,264**	DAY
	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (643.0500)	0	EACH	42	EACH	13	EACH	0	EACH	23	EACH	16	EACH	0	EACH	**94**	EACH
	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (643.0600)	0	EACH	42	EACH	13	EACH	0	EACH	23	EACH	16	EACH	0	EACH	**94**	EACH
###	*TEMPORARY PAVEMENT MARKING ITEMS:*																
####	TEMPORARY PAVEMENT MARKING PAINT 4-INCH, WHITE (649.0402)	990		5,071		1,039		1,045		0		0		0		8,145	LF
####	TEMPORARY PAVEMENT MARKING PAINT 4-INCH, YELLOW (649.0402)	0		2,104		729		597		0		0		0		3,430	LF
	TOTAL PAINT 4-INCH (649.0402)			7,175		1,768		1,642		0		0		0		**11,575**	LF
####	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, WHITE (649.0400)	0		0		831		1,122		5,314		1,922		1,634		10,823	LF
####	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, YELLOW (649.0400)	0		0		0		0		1,390		824		931		3,145	LF
	TOTAL REMOVABLE TAPE 4-INCH (649.0400)			0		831		1,122		6,704		2,746		2,565		**13,968**	LF
####	**TEMPORARY PAVEMENT MARKING REMOVEABLE TAPE 8-INCH (649.0801)**	0		0		88		0		0		97		115		**300**	LF
####	**TEMPORARY PAVEMENT MARKING STOP LINE 24-INCH (649.1300)**	0		0		12		12		0		0		0		**24**	LF
####	**TEMPORARY PAVEMENT MARKING STOP LINE REMOVALBE TAPE 24-INCH (649.1400)**	0		0		0		0		24		0		0		**24**	LF
####	**TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE (649.1800)**	**0**		0		2		0		0		2		2		**6**	EACH
####	**TEMPORARY PAVEMENT MARKING ARROWS PAINT (649.1802)**	**0**		1		0		0		0		0		0		**1**	EACH
####	**TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE (649.2000)**	**0**		0		2		0		0		1		1		**4**	EACH
####	**TEMPORARY PAVEMENT MARKING WORDS PAINT (649.2002)**	**0**		1		0		0		0		0		0		**1**	EACH

\# ALL DRUMS HAVE ONE STEADY BURNING YELLOW LIGHT (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

ALL TYPE III BARRICADES HAVE TWO (2) FLASHING YELLOW LIGHTS (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

WHEN PLACING TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, THE TAPE SHALL BE SLICED OR CUT ACROSS IT'S WIDTH EVERY TWENTY FIVE (25) FEET

ALL TEMPORARY PAVEMENT MARKINGS MUST BE REMOVED PRIOR TO FINAL ACCEPTANCE OF PROJECT

SOME ITEMS FROM STAGE 1A AND 2A ARE USED IN 1B AND 2B

*Additional quantities found in Project ID 2984-04-77, Various Intersections

TRAFFIC CONTROL SIGNS

2984-16-71

CATEGORY 0010

ITEM	SIZE	DESCRIPTION	PRE STAGE 1	STAGE 1	STAGE 1A	STAGE 1B	STAGE 2	STAGE 2A	STAGE 2B	**TOTAL**
W020-1	48"x48"	"ROAD WORK AHEAD"	0	6	5	5	9	1	1	**27**
R11-2	48"x30"	"ROAD CLOSED"	0	34	0	0	26	1	1	**62**
R11-4	30"x48"	"ROAD CLOSED TO THRU TRAFFIC"	0	15	0	0	12	0	0	**27**
R6-1R	24"x48"	"ONE WAY RIGHT ARROW"	0	12	0	0	13	2	2	**29**
W01-7	24"x12"	"GO LEFT OR RIGHT DOUBLE ARROW"	0	1	0	0	2	0	0	**3**
W01-6L	24"x48"	"GO LEFT ARROW"	3	0	2	1	0	0	2	**5**
W01-6R	24"x48"	"GO RIGHT ARROW"	0	1	3	2	0	2	0	**8**
R5-1	36"x36"	"DO NOT ENTER"	0	7	0	0	7	0	0	**14**
R3-2	36"x36"	"NO LEFT TURN SYMBOL"	0	5	3	0	1	0	0	**9**
R6-1L	24"x48"	"ONE WAY LEFT ARROW"	0	2	0	0	0	0	0	**2**
R3-1	36"x36"	"NO RIGHT TURN SYMBOL"	0	3	0	0	1	0	0	**4**
R4-7A	36"x48"	"KEEP RIGHT"	0	2	2	2	7	2	2	**17**
W020-5R	48"x48"	"RIGHT LANE CLOSED AHEAD"	0	0	2	0	0	0	2	**4**
W04-2R	48"X48"	"MERGE LEFT"	0	0	2	0	1	0	2	**5**
W04-2L	48"X48"	"MERGE RIGHT"	0	0	2	0	0	2	0	**4**
W020-5L	36"X36"	"LEFT LANE CLOSED AHEAD"	0	0	2	0	2	2	0	**6**
R3-6L	30"X36"	"THRU OR LEFT TURN"	0	0	1	1	0	0	0	**2**
W20-5	48"X48"	"CENTER LANE CLOSED AHEAD"	0	0	0	4	0	0	0	**4**
W09-3A	48"X48"	"CENTER LANE CLOSED"	0	0	0	4	0	0	0	**4**
R3-7R	36"X36"	"RIGHT LANE MUST TURN RIGHT"	0	0	0	1	0	0	0	**1**
R3-8B	48"X30"	"ADVANCE INTERSECTION LANE CONTROL"	0	0	1	0	0	0	0	**1**
W06-3	48"X48"	"TWO-WAY TRAFFIC"	0	34	0	0	25	0	0	**59**
W16-9P	24"X12"	"AHEAD PLAQUE"	0	6	0	0	5	0	0	**11**
R3-5A	30"X36"	"MANDATORY MOVEMENT LANE CONTROL (THRU MOVEMENT ONLY)"	0	0	2	2	0	0	0	**4**
R3-3	36"X36"	"NO TURNS"	0	0	2	2	0	0	0	**4**
W12-1	30"X30"	"DOUBLE ARROW"	0	0	1	3	1	0	0	**5**
R3-7L	24"X12"	"LEFT LANE MUST TURN LEFT"	0	0	0	0	2	0	0	**2**
R9-9	24"X12"	"SIDEWALK CLOSED"	0	15	2	4	12	0	0	**33**
R9-10	24"X12"	"SIDEWALK CLOSED USE OTHER SIDE"	0	28	1	4	27	0	0	**60**
TRAFFIC CONTROL SIGNS		***643.0900 TRAFFIC CONTROL SIGNS TOTAL**	**3** 30	171 12,312	33 1,188	35 1,260	153 11,016	12 432	12 432	416 **26,670 DAY**
				"W0" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.						

NOTE:
SIGN LAYOUT SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTARTION (FHWA) MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE PROVIDED IN THE PLAN.

*Additional quantities found in Project ID 2984-04-77, Various Intersections

ITEM NO. UNIT PAY **CATEGORY** LOCATION		TEMP. PED. SURFACE ASPHALT 644.1410.S SF 0010	TEMP. PED. SURFACE PLYWOOD 644.1420.S SF 0010	TEMP. PED. SURFACE PLATE 644.1430.S SF 0010	TEMPORARY CURB RAMPS 644.1601.S EA 0010
STA 01+44 TO 5+00	LT	800	975	240	6
STA 5+00 TO 11+00	LT	840	975	240	6
STA 11+00 TO 17+00	LT	1100	800	320	8
STA 17+00 TO 23+00	LT	1220	800	320	8
STA 23+00 TO 29+00	LT		1860	320	8
STA 29+00 TO 35+00	LT		1860	320	8
STA 35+00 TO 41+00	LT	1000	500	520	8
STA 41+00 TO 47+00	LT	1000	500	520	8
STA 47+00 TO 53+00	LT		960	140	4
STA 53+00 TO 56+01	LT	920	960	140	16
STA 2S+00 TO 4S+72.9	LT				
SUBTOTALS (LEFT)		**6880**	**10190**	**3080**	**80**
STA 01+44 TO 5+00	RT	500	1280	240	6
STA 5+00 TO 11+00	RT	500	1280	240	6
STA 11+00 TO 17+00	RT	1000	860	320	8
STA 17+00 TO 23+00	RT	1000	860	320	8
STA 23+00 TO 29+00	RT		1960	320	8
STA 29+00 TO 35+00	RT		1960	320	8
STA 35+00 TO 41+00	RT	560	500	520	6
STA 41+00 TO 47+00	RT	560	500	520	6
STA 47+00 TO 53+00	RT			140	
STA 53+00 TO 56+01	RT			140	
STA 2S+00 TO 4S+72.9	RT				
SUBTOTALS (RIGHT)		**4120**	**9200**	**3080**	**56**
GRAND TOTALS		**11000**	**19390**	**6160**	**136**

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PAVEMENT MARKING QUANTITIES											
Category		0010 -Participating									
Item Number		646.0106	646.0116	646.0126	647.0166	647.0206	647.0306	647.0356	647.0576	647.0776	SPV.0165.01
Description		Pavement Marking Epoxy 4-inch	Pavement Marking Epoxy 6-inch	Pavement Marking Epoxy 8-inch	Pavement Marking Arrows Epoxy Type 2	Pavement Marking Arrows Bike Lane Epoxy	Pavement Marking Symbols Bike Lane Epoxy	Pavement Marking Words Epoxy	Pavement Marking Stop Line 24-Inch	Pavement Marking Crosswalk Epoxy 12-inch	Skid/Slip Resistant Green Preformed ThermoPlastic Integrated Bike Lane Symbols
Unit Pay		LF	LF	LF	Each	Each	Each	Each	LF	LF	SF
Station to Station	Sta. 1+44 to Sta. 12+00	990	1621			6	6		24	105	
	Sta. 12+00 to Sta. 23+50	951	1,530			8	8		41	330	
	Sta. 23+50 to Sta. 35+00	1,027	1,622			7	7				
	Sta. 35+00 to Sta. 46+00	1,570	1,335	392	7	6	6	7	100	646	1000
	Sta. 46+00 to Sta. 56+00 and Sta. 2S+00 to Sta. 4S+72.90	902	1168	160	6	6	6	5	170	1204	
Total		**5,440**	**7,276**	**552**	**13**	**33**	**33**	**12**	**335**	**2,285**	**1,000**

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EARTH WORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (3)	Available Material (4)	Unexpanded Fill	Expanded Fill (5)	Mass Ordinate +/- (6)	Waste	Borrow
		Cut (2)	EBS Excavation				1.20 Factor			
		CY	CY	CY	CY	CY	CY	CY	CY	CY
01+44 to 56+01	West Lloyd Street	15,067	-	12,060	3,007	193	232	3,702	14,857	-

1) No EBS is anticipated, if EBS is required it will be paid as Excavation Common, Item Number 205.0100 and Item Number 305.0120, Base Aggregate Dense 1-1/4 inch would be used for backfill
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) Salvaged/Unusable Pavement Material
4) Available Material = Cut - Salvaged/Unusuable Pavement Material
5) Expanded Fill. Factor = 1.20
6) 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.
See Section 9 of Plan for Cut & Fill Quantities

CITY UNDERGROUND CONDUIT

CATEGORY 0020 - NON PARTICIPATING

LOCATION	ABANDON MANHOLES	ADJUSTING TES MANHOLE COVERS		REMOVE TES MANHOLE	SAWING CONCRETE ENCASED DUCT PACKAGE	INSTALLING CONDUIT INTO EXISTING MANHOLE	5' DIAMETER "DOGHOUSE" MANHOLE TYPE TES	5' DIAMETER MANHOLE TYPE TES	4' DIAMETER MANHOLE TYPE TES	10-DUCT CONDUIT CEMENT ENCASED DB-60	7-DUCT CONDUIT CEMENT ENCASED DB-60	6-DUCT CONDUIT CEMENT ENCASED DB-60	5-DUCT CONDUIT CEMENT ENCASED DB-60	4-DUCT CONDUIT CEMENT ENCASED DB-60	3-DUCT CONDUIT CEMENT ENCASED DB-60	2-DUCT CONDUIT CEMENT ENCASED DB-60	1-DUCT CONDUIT CEMENT ENCASED DB-60
	204.0250	SPV.0060.09		SPV.0060.10	SPV.0060.11	SPV.0060.12	SPV.0060.13	SPV.0060.15	SPV.0060.14	SPV0090.03	SPV0090.04	SPV0090.05	SPV0090.06	SPV0090.07	SPV0090.08	SPV0090.09	SPV0090.10
	EACH	EACH		EACH	EACH	EACH	EACH	EACH	EACH	LF	LF	LF	LF	LF	LF	LF	LF
PAVING LIMITS to MANHOLE 601														5			
MANHOLE 601 - STA 01 + 71.3, 16.0 RT		1							1								
MANHOLE 601 to STA 01 + 70.5, 28.3 RT																10	
MANHOLE 601 to STA 01 + 72.8, 07.5 LT															21		
STA 01 + 72.8, 07.5 LT to TRAFFIC CONTROL CABINET																	22
STA 01 + 72.8, 07.5 LT to STA 01 + 74.0, 27.6 LT																20	
MANHOLE 601 to MANHOLE 602														255			
MANHOLE 602 - STA 04 + 37.0, 15.0 RT		1							1								
MANHOLE 602 to POLICE CALL BOX																57	
MANHOLE 602 to MANHOLE 605														597			
MANHOLE 603 - STA 04 + 46.8, 28.4 RT	1																
MANHOLE 604 - STA 07 + 44.7, 28.3 RT	1																
MANHOLE 605 - STA 10 + 38.0, 15.0 RT		1							1								
MANHOLE 605 to EXISTING CLAY TILE DUCT																14	
MANHOLE 605 to MANHOLE 608														533			
MANHOLE 606 - STA 10+ 41.3, 28.8 RT	1																
MANHOLE 607 - STA 12 + 94.0, 28.9 RT	1																
MANHOLE 608 - STA 15 + 75.0, 15.0 RT		1							1								
MANHOLE 608 to TRAFFIC CONTROL CABINET																	43
MANHOLE 608 to MANHOLE 610														313			
MANHOLE 609 - STA 16 + 42.0, 28.6 RT	1																
MANHOLE 610 - STA 19 + 04.0, 27.7 RT		1	NEW COVER			2											
MANHOLE 610 to MANHOLE 613														259			
MANHOLE 611 - STA 19 + 42.8, 28.8 RT	1																
MANHOLE 612 - STA 21 + 62.1, 28.3 RT	1																
MANHOLE 613 - STA 21 + 64.0, 15.0 RT		1							1								
MANHOLE 613 to EXISTING CLAY TILE DUCT																13	
MANHOLE 613 to MANHOLE 615														591			
MANHOLE 614 - STA 24 + 39.8, 28.8 RT	1																
MANHOLE 615 - STA 27 + 59.0, 15.0 RT		1							1								
MANHOLE 615 to POLICE CALL BOX																15	
MANHOLE 615 to MANHOLE 619														444			
MANHOLE 616 - STA 27 + 61.3, 29.0 RT	1																
MANHOLE 617 - STA 31 + 70.5, 09.5 LT		1	NEW COVER			1											
MANHOLE 617 to MANHOLE 619														78			
MANHOLE 618 - STA 32 + 02.6, 28.3 RT	1																
MANHOLE 619 - STA 32 + 07.0, 15.0 RT		1							1								
MANHOLE 619 - EXISTING CLAY TILE DUCT																14	
MANHOLE 619 to MANHOLE 622												625					
MANHOLE 620 - STA 35 + 71.1, 29.0 RT	1																
MANHOLE 621 - STA 38 + 33.5, 28.7 RT				1													
MANHOLE 622 - STA 38 + 35.2, 19.7 RT		1					1										
MANHOLE 622 to POLICE CALL BOX																14	
MANHOLE 622 to EXISTING CLAY TILE DUCT																9	
MANHOLE 622 to EXISTING 3" FIBER DUCT														10			
MANHOLE 622 to MANHOLE 623												340					
MANHOLE 623 - STA 41 + 80.0, 24.7 RT		1						1									
MANHOLE 623 to TRAFFIC CONTROL CABINET																	23
MANHOLE 623 - STA 41 + 97.0, 30.0 RT					1									17			
MANHOLE 623 - STA 42 + 08.0, 24.7 RT												26					
MANHOLE 624 - STA 41 + 86.0, 28.6 RT	1																
STA 44 + 29.6, 25.8 RT to MANHOLE 625												63					
STA 44 + 77.0, 30.0 RT to MANHOLE 625					1									16			
MANHOLE 625 - STA 44 + 95.0, 27.3 RT		1							1								
MANHOLE 625 to TRAFFIC CONTROL CABINET																	80
MANHOLE 625 to MANHOLE 628												490					
MANHOLE 626 - STA 45 + 00.8, 28.9 RT	1																
MANHOLE 627 - STA 47 + 64.8, 29.1 RT	1																
MANHOLE 628 - STA 49 + 88.0, 28.8 RT		1							1								
MANHOLE 628 - MANHOLE 632												488					
MANHOLE 629 - STA 50 + 93.9, 29.1 RT	1																
MANHOLE 630 - STA 53 + 86.7, 33.5 RT	1																
MANHOLE 631 - STA 54 + 11.9, 08.7 LT	1																
MANHOLE 632 - STA 54 + 75.0, 27.5 RT	1							1									
MANHOLE 632 to STA 54 + 75.8, 43.5 RT											14						
STA 54 + 75.8, 43.5 RT to POLICE CALL BOX																9	
STA 54 + 75.8, 43.5 RT to ST 55 + 12.6, 55.3 RT													43				
STA 55 + 12.7, 55.3 RT to TRAFFIC CONTROL CABINET																	9
STA 55 + 12.7, 55.3 RT to MANHOLE 633														43			
MANHOLE 632 to STA 54 + 84.5, 08.3 LT										35							
STA 54 + 84.5, 08.3 LT to STA 54 + 96.5, 17.7 LT														15			
STA 54 + 84.5, 08.3 LT to MANHOLE 635												98					
MANHOLE 633 - STA 55 + 59.0, 48.8 RT		1	NEW COVER														
MANHOLE 634 - STA 25 + 64.5, 82.2 RT		1															
MANHOLE 635 - STA 35 + 14.6, 15.8 RT		1															
TOTAL	18	18		1	2	3	1	2	9	35	14	2130	43	3176	21	175	177

3

TREE PLANTING ITEMS

2984-16-71

ITEM NO.		.01 BALD CYPRESS, B&B, 3" CAL 632.0101	.02 SWEET GUM, B&B, 3" CAL 632.0101	.03 CALLERY PEAR, B&B, 3" CAL 632.0101	.04 IVORY SILK, B&B, 3" CAL 632.0101	.05 KENTUCKY COFFEE, B&B, 3" CAL 632.0101	.06 TULIP, B&B, 3" CAL 632.0101	.07 AMUR, B&B, 3" CAL 632.0101
UNIT PAY		EA	EA	EA	EA	EA	EA	EA
CATEGORY		0010	0010	0010	0010	0010	0010	0010
LOCATION								
STA 01+44 TO 5+00	LT							
STA 5+00 TO 11+00	LT							
STA 11+00 TO 17+00	LT							
STA 17+00 TO 23+00	LT							
STA 23+00 TO 29+00	LT							
STA 29+00 TO 35+00	LT							
STA 35+00 TO 41+00	LT							
STA 41+00 TO 47+00	LT		1					
STA 47+00 TO 53+00	LT	1				1		
STA 53+00 TO 56+01	LT				1			1
STA 2S+00 TO 4S+72.9	LT							
SUBTOTALS (LEFT)		**1**	**1**	**0**	**1**	**1**	**0**	**1**
STA 01+44 TO 5+00	RT						1	
STA 5+00 TO 11+00	RT							
STA 11+00 TO 17+00	RT			1				
STA 17+00 TO 23+00	RT							
STA 23+00 TO 29+00	RT							
STA 29+00 TO 35+00	RT				1			
STA 35+00 TO 41+00	RT							
STA 41+00 TO 47+00	RT							
STA 47+00 TO 53+00	RT							
STA 53+00 TO 56+01	RT							
STA 2S+00 TO 4S+72.9	RT							
SUBTOTALS (RIGHT)		**0**	**0**	**1**	**1**	**0**	**1**	**0**
GRAND TOTALS		**1**	**1**	**1**	**2**	**1**	**1**	**1**

SIGNALS AND STREET LIGHTING ITEMS 2984-16-71				
GROUP CODE	BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	QUANTITY
0010	209.0100	BACKFILL GRANULAR	CY	**1**
0010	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	**2**
0010	641.8100	OVERHEAD SIGN SUPPORT	LS	**2**
0010	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT)	LS	**1**
0010	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	**385**
0010	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	**240**
0010	652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF	**11,793**
0010	*652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	**4,693**
0010	652.0610	CONDUIT SPECIAL 2.5-INCH	LF	**710**
0010	652.0615	CONDUIT SPECIAL 3-INCH	LF	**250**
0010	*654.0110	CONCRETE BASES TYPE 10	EACH	**6**
0010	654.0113	CONCRETE BASES TYPE 13	EACH	**1**
0010	SPV.0060.16	INSTALL TRAFFIC SIGNAL BASES	EACH	**26**
0010	SPV.0060.17	CONCRETE BASES TYPE 10 SPECIAL	EACH	**1**
0010	SPV.0060.18	INSTALL 18-INCH DIAMETER X 6 FT HIGH CYLINDRICAL COLUMN FORM	EACH	**1**
0010	*SPV.0060.19	RECTANGULAR POLYMER CONCRETE VAULT 13-INCH X 24-INCH X 18-INCH	EACH	**13**
0010	SPV.0060.20	RECTANGULAR POLYMER CONCRETE VAULT 17-INCH X 30-INCH X 18-INCH	EACH	**43**
0010	*SPV.0060.21	MONOTUBE ARMS 20-FT	EACH	**1**
0010	*SPV.0060.22	MONOTUBE ARMS 25-FT	EACH	**2**
0010	*SPV.0060.23	MONOTUBE ARMS 30-FT	EACH	**3**
0010	*SPV.0060.24	MONOTUBE ARMS 35-FT	EACH	**1**
0010	SPV.0060.26	MONOTUBE ARMS 45-FT	EACH	**1**
0010	*SPV.0060.27	POLES TYPE 9	EACH	**6**
0010	SPV.0060.30	POLES TYPE 13	EACH	**1**
0010	*SPV.0060.31	POLES TYPE 13 SPECIAL	EACH	**1**
0010	*SPV.0060.32	UTILITY LINE OPENING	EACH	**9**

MILWAUKEE WATER WORKS ITEMS				
GROUP CODE	BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	QUANTITY
0020	SPV.0060.05	ADJUSTING WATER BOXES	EACH	**100**
0020	SPV.0060.06	WATER MAIN PROTECTION	EACH	**1**

*Additional quantities found in Project ID 2984-04-77, Various Intersections

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2984-16-01		
FEDERAL PROJECT NUMBER	4.1	5
N/A		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

N. 60TH ST. - W. LISBON AVE.

W. LLOYD STREET — MILWAUKEE CO.

CONSTRUCTION PROJECT NUMBER
2984-16-71

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN ● (IF UNLESS NOTED)
R/W MONUMENT • (SET)
R/W STANDARD ▲ (SET)
SIGN SIGN
SECTION CORNER MONUMENT ●
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT RWB2D
PARCEL NUMBER 102
UTILITY PARCEL NUMBER 92
SIGN NUMBER (OFF PREMISE) 21-N
BUILDING

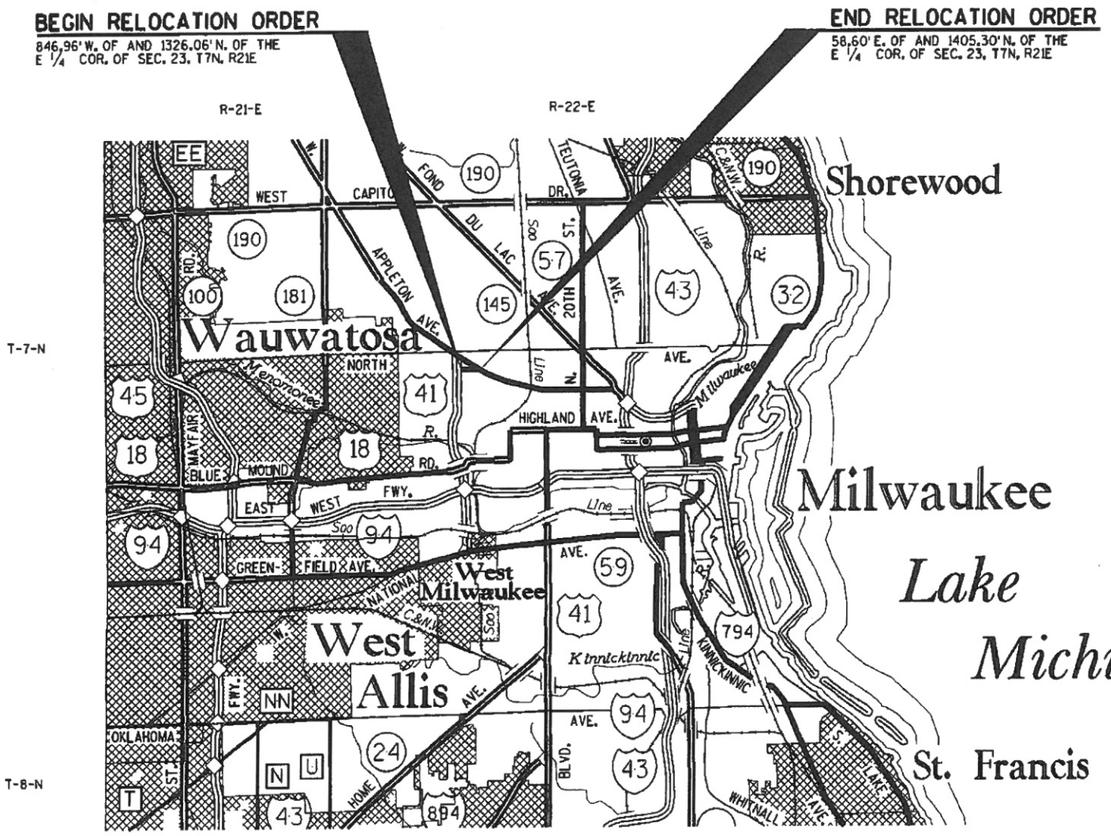
PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

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

BEGIN RELOCATION ORDER
846.96' W. OF AND 1326.06' N. OF THE E 1/4 COR. OF SEC. 23, T7N, R21E

END RELOCATION ORDER
58.60' E. OF AND 1405.30' N. OF THE E 1/4 COR. OF SEC. 23, T7N, R21E



NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD 83 (2011) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

N

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.027 MILES

CORRE — Structure Environment Highway Transportation

I, MICHAEL C. CANNIFF, REGISTERED LAND SURVEYOR, S-1836, HEREBY CERTIFY THAT I HAVE SURVEYED THE LAND DESCRIBED HEREON AND THAT THE MAP HEREON IS A CORRECT REPRESENTATION OF THAT SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN — MICHAEL C. CANNIFF — S-1836 — BEAVER DAM, WI — LAND SURVEYOR

DATE: 8/14/15 (Name)

REVISION DATE	CITY OF MILWAUKEE
9/22/15	APPROVED BY THE CITY DATE: 8/20/15 (Signature)

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSED ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL OWNER	OWNER(S)	INTEREST REQUIRED	RIGHT OF WAY SF REQUIRED NEW	REMNANT	TOTAL	TLE SF	PLE SF
1	MILWAUKEE COUNTY	FEE, PLE & TLE	2,072	48	2,024	7,072	9,182

4

4

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET	Y	X
100	54+51.98	48.00	306331.506	590453.337
101	55+10.08	48.01	306346.748	590509.397
102	54+64.12	49.34	306333.406	590465.397
103	54+13.82	50.78	306318.813	590417.240
104	53+65.38	52.09	306304.841	590370.834
105	53+00.99	53.74	306286.355	590309.135
106	52+72.87	53.11	306279.582	590281.838
107	52+58.92	52.28	306276.731	590268.154
108	52+46.96	51.56	306274.287	590256.423
109	52+04.55	46.96	306267.593	590214.294
110	51+59.45	50.25	306262.808	590156.517
111	46+06.75	49.77	306267.508	589603.843
112	46+10.35	48.00	306269.249	589607.452
113	52+03.82	48.46	306264.656	590207.449
P100	55+12.11	48.01	306347.279	590511.353
P101	55+12.16	53.91	306341.592	590512.950
P102	56+07.85	48.59	306371.830	590603.895
P103	56+11.87	53.38	306368.270	590609.033
P104	54+74.15	61.03	306324.749	590478.143
P105	53+43.83	58.62	306292.885	590351.752
P106	53+33.01	59.61	306289.089	590341.580
P107	53+21.67	64.48	306281.413	590331.909
P108	52+82.85	65.08	306270.649	590294.604
P109	52+70.66	60.54	306271.841	590281.655
P110	52+55.89	60.15	306268.337	590267.294
P111	52+09.79	55.07	306261.149	590221.482
P112	52+01.18	54.43	306258.307	59019B.216
P113	51+84.80	61.50	306251.362	590181.778
P114	51+41.23	64.30	306248.898	590138.189
P115	51+24.05	59.38	306253.947	590121.047
P116	49+87.41	59.36	306255.014	589984.418
P117	49+23.34	56.78	306258.079	589920.310
P118	49+13.68	56.76	306258.154	589910.707
P119	48+72.65	56.39	306256.860	589869.668
P120	48+62.91	58.39	306256.936	589859.930
P121	47+38.62	58.37	306257.907	589735.637
P122	46+35.90	58.35	306258.710	589632.927
P123	45+89.51	58.25	306259.158	589586.533
P124	45+99.63	53.27	306264.060	589596.696
P125	46+35.91	53.35	306263.710	589632.970
P126	47+38.62	53.37	306262.907	589735.676
P127	48+63.01	53.39	306261.935	589860.066
P128	48+72.56	53.39	306261.861	589869.609
P129	49+13.58	51.78	306263.155	589910.647
P130	49+23.44	51.78	306263.078	589920.509
P131	49+87.51	54.36	306260.014	589984.557
P132	51+24.05	54.38	306258.947	590121.086
P133	51+43.87	60.06	306253.120	590140.867
P134	51+81.63	57.63	306255.256	590178.641
P135	52+00.54	49.48	306263.270	590197.610
P136	52+10.43	50.11	306266.102	590220.791
P137	52+56.23	55.16	306273.245	590266.312
P138	52+70.79	55.54	306276.699	590280.470
P139	52+86.02	61.22	306275.209	590296.656
P140	53+18.37	60.72	306284.179	590327.744
P141	53+32.56	54.64	306293.774	590339.832
P142	53+42.64	53.62	306297.666	590350.262
P143	54+74.06	56.03	306329.552	590476.141
T100	56+21.66	65.01	306359.614	590621.525
T101	53+51.54	65.00	306288.749	590360.867
T102	53+51.54	73.00	306281.029	590362.966
T103	52+03.82	73.05	306241.576	590217.848
T104	51+10.94	71.01	306242.418	590107.852
T105	51+10.94	63.01	306250.417	590107.913
T106	48+02.00	63.01	306252.782	589798.980
T107	48+02.00	70.01	306245.782	589798.927
T108	47+72.00	70.01	306246.012	589768.927
T109	47+72.00	63.01	306253.012	589768.981
T110	45+79.85	63.00	306254.482	589576.842

COURSE TABLE - FEE

POINT - POINT	COURSE	DISTANCE
100 - 101	N 74°47'26" E	58.10'
101 - 102	S 73°07'56" W	45.98'
102 - 103	S 73°08'30" W	50.32'
103 - 104	S 73°14'37" W	48.46'
104 - 105	S 73°19'16" W	64.41'
105 - 106	S 76°03'50" W	28.12'
106 - 107	S 78°13'53" W	13.98'
107 - 108	S 78°13'53" W	11.98'
108 - 109	S 80°58'18" W	42.66'
109 - 110	S 85°15'59" W	57.98'
110 - 111	N 89°30'46" W	552.69'
111 - 112	N 64°14'52" E	4.01'
112 - 113	S 89°33'41" E	600.01'
113 - 100	N 74°47'26" E	254.81'

COURSE TABLE - PLE SIDEWALK

POINT - POINT	COURSE	DISTANCE
100 - P100	N 74°47'26" E	60.12'
P100 - P101	S 15°41'28" E	5.91'
P101 - P102	N 71°36'30" E	95.84'
P102 - P103	S 55°16'56" E	6.25'
P103 - P104	S 71°36'30" W	137.94'
P104 - P105	S 75°51'00" W	130.35'
P105 - P106	S 69°32'15" W	10.86'
P106 - P107	S 51°33'32" W	12.35'
P107 - P108	S 73°54'19" W	38.83'
P108 - P109	N 84°44'25" W	13.00'
P109 - P110	S 76°17'21" W	14.78'
P110 - P111	S 81°04'57" W	46.37'
P111 - P112	S 83°02'09" W	23.44'
P112 - P113	S 67°05'42" W	17.85'
P113 - P114	S 86°45'53" W	43.66'
P114 - P115	N 73°35'18" W	17.87'
P115 - P116	N 89°33'08" W	136.63'
P116 - P117	N 87°15'39" W	64.12'
P117 - P118	N 89°33'08" W	9.66'
P118 - P119	S 88°11'37" W	41.06'
P119 - P120	N 89°33'08" W	9.74'
P120 - P121	N 89°33'08" W	124.30'
P121 - P122	N 89°33'08" W	102.71'
P122 - P123	N 89°26'50" W	46.40'
P123 - P124	N 64°14'52" E	11.28'
P124 - P125	S 89°26'50" E	36.28'
P125 - P126	S 89°33'08" E	102.71'
P126 - P127	S 89°33'08" E	124.39'
P127 - P128	S 89°33'08" E	9.54'
P128 - P129	N 88°11'37" E	41.06'
P129 - P130	S 89°33'08" E	9.86'
P130 - P131	S 87°15'39" E	64.12'
P131 - P132	S 89°33'08" E	136.53'
P132 - P133	S 73°35'18" E	20.62'
P133 - P134	N 86°45'53" E	37.83'
P134 - P135	N 67°05'42" E	20.59'
P135 - P136	N 83°02'09" E	23.35'
P136 - P137	N 81°04'57" E	46.08'
P137 - P138	N 76°17'21" E	14.57'
P138 - P139	S 84°44'25" E	16.25'
P139 - P140	N 73°54'19" E	32.36'
P140 - P141	N 51°33'32" E	15.43'
P141 - P142	N 69°32'15" E	11.13'
P142 - P143	N 75°51'00" E	130.44'
P143 - P101	N 71°36'30" E	38.16'

COURSE TABLE - PLE UTILITIES

POINT - POINT	COURSE	DISTANCE
100 - P100	N 74°47'26" E	60.12'
P100 - P101	S 15°41'28" E	5.91'
P101 - P143	S 71°36'30" W	38.16'
P143 - P142	S 75°51'00" W	130.44'
P142 - P141	S 69°32'15" W	11.13'
P141 - P140	S 51°33'32" W	15.43'
P140 - P139	S 73°54'19" W	32.36'
P139 - P138	N 84°44'25" W	16.25'
P138 - P137	S 76°17'21" W	14.57'
P137 - P136	S 81°04'57" W	46.08'
P136 - P135	S 83°02'09" W	23.35'
P135 - P134	S 67°05'42" W	20.59'
P134 - P133	S 86°45'53" W	37.83'
P133 - P132	N 73°35'18" W	20.62'
P132 - P131	N 89°33'08" W	136.53'
P131 - P130	N 87°15'39" W	64.12'
P130 - P129	N 89°33'08" W	9.86'
P129 - P128	S 88°11'37" W	41.06'
P128 - P127	N 89°33'08" W	9.54'
P127 - P126	N 89°33'08" W	124.39'
P126 - P125	N 89°33'08" W	102.71'
P125 - P124	N 89°26'50" W	36.28'
P124 - 111	N 64°14'52" E	7.94'
111 - 110	S 89°30'46" E	552.69'
110 - 109	N 85°15'59" E	57.98'
109 - 108	N 80°58'18" E	42.66'
108 - 107	N 78°13'53" E	11.98'
107 - 106	N 78°13'53" E	13.98'
106 - 105	N 76°03'50" E	28.13'
105 - 104	N 73°19'16" E	64.41'
104 - 103	N 73°14'37" E	48.46'
103 - 102	N 73°08'30" E	50.32'
102 - 101	N 73°07'56" E	45.98'
101 - P100	N 74°47'26" E	2.03'

COURSE TABLE - TLE

POINT - POINT	COURSE	DISTANCE
100 - P100	N 74°47'26" E	60.12'
P100 - P101	S 15°41'28" E	5.91'
P101 - P102	N 71°36'30" E	95.84'
P102 - P103	S 55°16'56" E	6.25'
P103 - P104	S 71°36'30" W	137.94'
P104 - P105	S 75°51'00" W	130.35'
P105 - P106	S 69°32'15" W	10.86'
P106 - P107	S 51°33'32" W	12.35'
P107 - P108	S 73°54'19" W	38.83'
P108 - P109	N 84°44'25" W	13.00'
P109 - P110	S 76°17'21" W	14.78'
P110 - P111	S 81°04'57" W	46.37'
P111 - P112	S 83°02'09" W	23.44'
P112 - P113	S 67°05'42" W	17.85'
P113 - P114	S 86°45'53" W	43.66'
P114 - P115	N 73°35'18" W	17.87'
P115 - P116	N 89°33'08" W	136.63'
P116 - P117	N 87°15'39" W	64.12'
P117 - P118	N 89°33'08" W	9.66'
P118 - P119	S 88°11'37" W	41.06'
P119 - P120	N 89°33'08" W	9.74'
P120 - P121	N 89°33'08" W	124.30'
P121 - P122	N 89°33'08" W	102.71'
P122 - P123	N 89°26'50" W	46.40'
P123 - T110	S 64°14'52" W	10.76'
T110 - T109	S 89°33'41" E	192.15'
T109 - T108	S 00°26'15" W	7.00'
T108 - T107	S 89°33'41" E	30.00'
T107 - T106	N 00°26'15" E	7.00'
T106 - T105	S 89°33'41" E	308.94'
T105 - T104	S 00°26'19" W	8.00'
T104 - T103	S 89°33'41" E	110.00'
T103 - T102	N 74°47'26" E	150.39'
T102 - T101	N 15°12'34" W	8.00'
T101 - T100	N 74°47'26" E	270.12'
T100 - P103	N 55°16'56" W	15.20'

CURVE C1
PC: N 306289.09, E 590341.58
PI: N 306266.82, E 590335.50
PT: N 306281.41, E 590331.91
RADIUS: 20.00
DELTA: 35°57'27" LEFT
DEGREE: 286°28'44"
LENGTH: 12.55
TANGENT: 6.49
CHORD: 12.35
CHORD DIRECTION: S 51°33'32" W

CURVE C2
PC: N 306281.41, E 590331.81
PI: N 306260.20, E 590317.82
PT: N 306270.65, E 590294.60
RADIUS: 30.00
DELTA: 80°39'01" RIGHT
DEGREE: 190°59'09"
LENGTH: 42.23
TANGENT: 25.46
CHORD: 38.83
CHORD DIRECTION: S 73°54'19" W

CURVE C3
PC: N 306270.65, E 590294.60
PI: N 306273.47, E 590288.33
PT: N 306271.84, E 590281.66
RADIUS: 20.00
DELTA: 37°56'28" LEFT
DEGREE: 286°28'44"
LENGTH: 13.24
TANGENT: 6.88
CHORD: 13.00
CHORD DIRECTION: N 84°44'25" W

CURVE C4
PC: N 306258.31, E 590198.22
PT: N 306257.18, E 590189.01
PT: N 306251.36, E 590181.78
RADIUS: 32.49
DELTA: 31°52'55" LEFT
DEGREE: 176°21'20"
LENGTH: 18.08
TANGENT: 9.28
CHORD: 17.85
CHORD DIRECTION: S 67°05'42" W

CURVE C5
PC: N 306251.36, E 590181.78
PI: N 306234.52, E 590160.87
PT: N 306248.90, E 590138.19
RADIUS: 37.49
DELTA: 71°13'18" RIGHT
DEGREE: 152°50'03"
LENGTH: 46.60
TANGENT: 26.85
CHORD: 43.66
CHORD DIRECTION: S 86°45'53" W

CURVE C6
PC:N 306248.90, E 590138.19
PI:N 306253.87, E 590130.34
PT:N 306253.95, E 590121.05
RADIUS: 32.49
DELTA: 31°55'40" LEFT
DEGREE: 176°21'20"
LENGTH: 18.10
TANGENT: 9.29
CHORD: 17.87
CHORD DIRECTION: N 73°35'18" W

CURVE C7
PC: N 306258.95, E 590121.09
PI: N 306258.86, E 590131.81
PT: N 306253.12, E 590140.87
RADIUS: 37.49
DELTA: 31°55'40" RIGHT
DEGREE: 152°50'04"
LENGTH: 20.89
TANGENT: 10.72
CHORD: 20.62
CHORD DIRECTION: S 73°35'18" E

CURVE C8
PC: N 306253.12, E 590140.87
PI: N 306240.66, E 590160.52
PT: N 306255.26, E 590178.64
RADIUS: 32.49
DELTA: 71°13'18" LEFT
DEGREE: 176°21'19"
LENGTH: 40.39
TANGENT: 23.27
CHORD: 37.83
CHORD DIRECTION: N 86°45'53" E

CURVE C9
PC: N 306255.26, E 590178.64
PI: N 306261.97, E 590186.96
PT: N 306263.27, E 590197.61
RADIUS: 37.49
DELTA: 31°52'55" RIGHT
DEGREE: 152°50'04"
LENGTH: 20.86
TANGENT: 10.73
CHORD: 20.59
CHORD DIRECTION: N 67°05'42" E

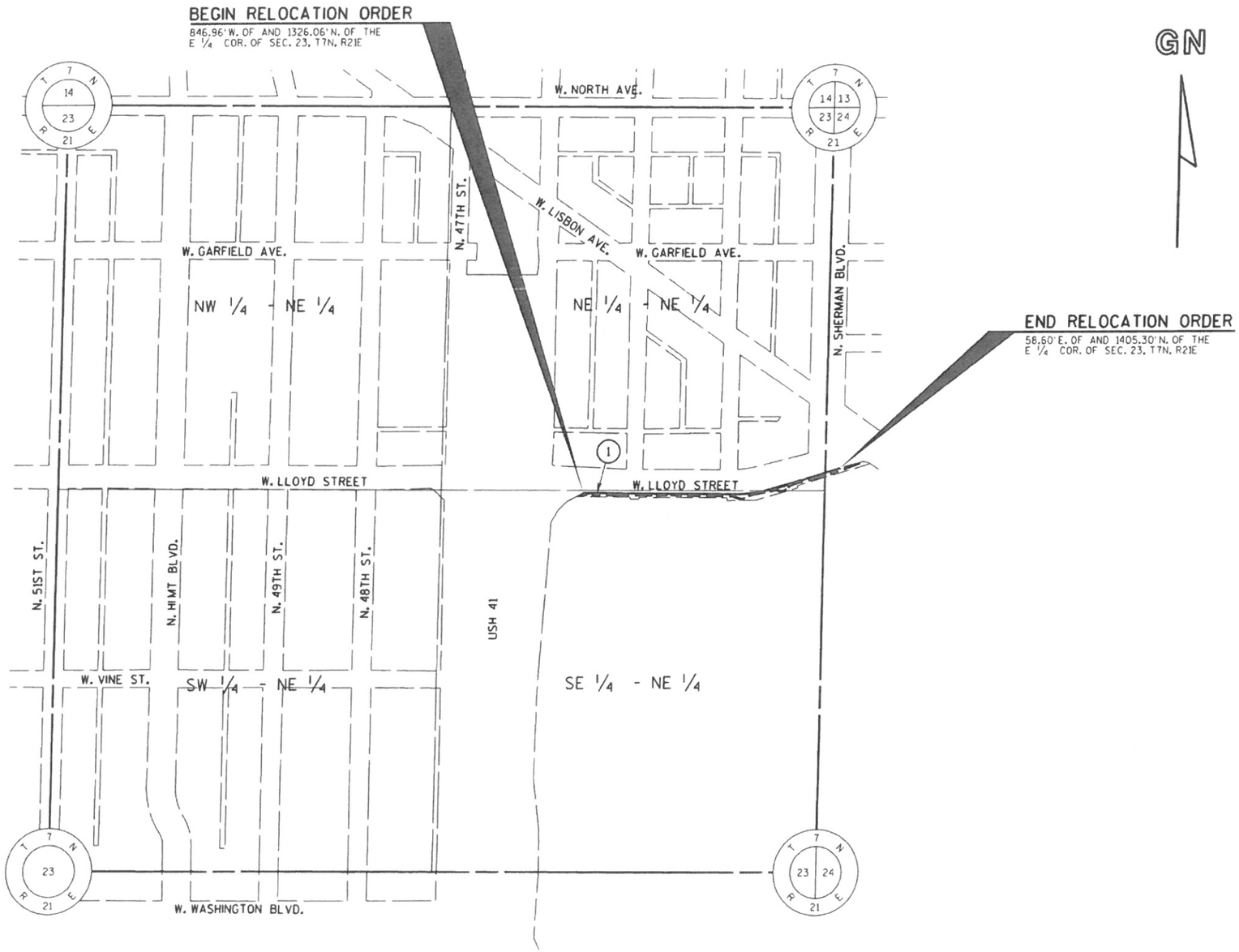
CURVE C10
PC: N 306276.70, E 590280.47
PI: N 306278.74, E 590288.82
PT: N 306275.21, E 590296.66
RADIUS: 25.00
DELTA: 37°56'28" RIGHT
DEGREE: 229°10'59"
LENGTH: 16.56
TANGENT: 8.59
CHORD: 16.25
CHORD DIRECTION: S 84°44'25" E

CURVE C11
PC: N 306275.21, E 590296.66
PI: N 306266.50, E 590335.01
PT: N 306284.18, E 590327.74
RADIUS: 25.00
DELTA: 80°39'01" LEFT
DEGREE: 229°10'59"
LENGTH: 35.19
TANGENT: 21.22
CHORD: 32.36
CHORD DIRECTION: N 73°54'19" E

CURVE C12
PC: N 306284.18, E 590327.74
PI: N 306290.94, E 590332.23
PT: N 306293.77, E 590339.83
RADIUS: 25.00
DELTA: 35°57'27" RIGHT
DEGREE: 229°10'59"
LENGTH: 15.69
TANGENT: 8.11
CHORD: 15.43
CHORD DIRECTION: N 51°33'32" E

REVISION DATE	DATE	SCALE: FEET	HWY: W. LLOYD STREET	STATE R/W PROJECT NUMBER 2984-16-01	PLAT SHEET 4.02	
9/22/15		0 N/A	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2984-16-71	PS&E SHEET	E

FILE NAME : S:\Real Estate\1- Local Program\LLoyd St\Plat\Plat\040102_rw.20.dgn PLOT DATE : 7/7/2015 PLOT BY : $$...diotuser...$$ PLOT NAME : PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 60

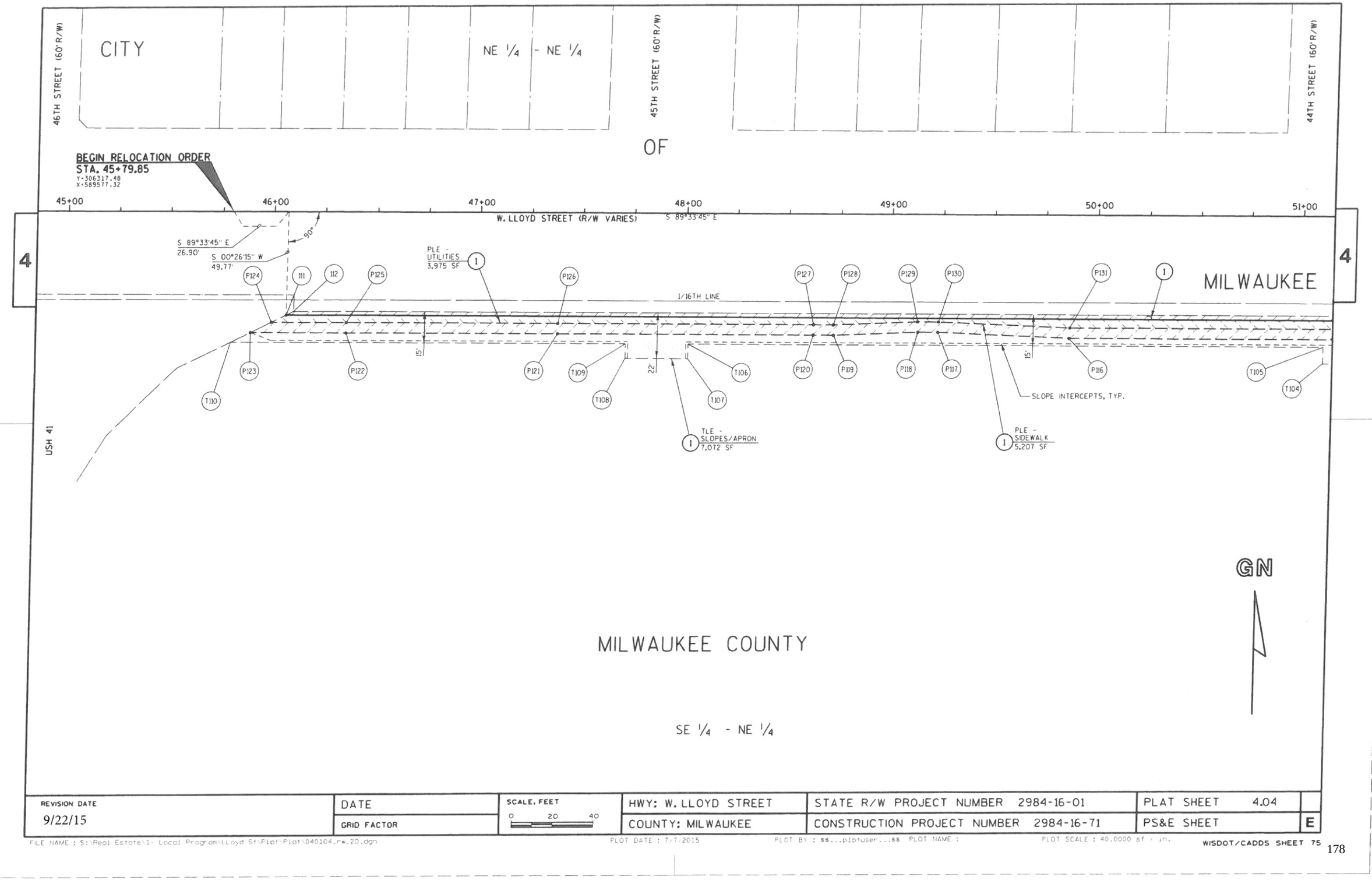


4

4

REVISION DATE	DATE	NOT TO SCALE	HWY: W. LLOYD STREET	STATE R/W PROJECT NUMBER 2984-16-01	PLAT SHEET 4.03	
9/22/15			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2984-16-71	PS&E SHEET	E

FILE NAME : S:\Real Estate\1- Local Program\LLoyd St\Plat\Plat\040103_rw_20.dgn PLOT DATE : 7/7/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 400.0000 sf / in. WISDOT/CADDS SHEET 70



REVISION DATE	DATE	SCALE. FEET	HWY: W. LLOYD STREET	STATE R/W PROJECT NUMBER 2984-16-01	PLAT SHEET 4.04	
9/22/15	GRID FACTOR	0 20 40	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2984-16-71	PS&E SHEET	E

FILE NAME : S:\Real Estate\1- Local Program\Lloyd St\Plat\Plat\040104_rw_20.dgn PLOT DATE : 7/7/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 75

CITY

GN

NE 1/4 - NE 1/4

OF

MILWAUKEE

4

4

44TH STREET (60' R/W)

SHERMAN BLVD. (120' R/W)

W. LLOYD STREET (R/W VARIES)

W. LISBON AVE. (R/W VARIES)

NE CORNER OF THE NE 1/4, SEC. 23 T7N, R21E

T 7 N
R 21 E
14 13
23 24

END RELOCATION ORDER
STA. 56+21.66
Y=306422.34
X=590604.47

S 00°06'16" W 1265.14' FROM MON. TO EXISTING R/W (P.O.B.)

S 00°06'16" W 1.76' FROM P.O.B. TO PROPOSED R/W

STA. 54+65.13

N 14°41'22" E

N 00°06'16" E 49.77'

P.O.B. 100

PI STA 52+03.82

PI = 52+03.82
Y 306,312.719
X 590,201.272
Δ = 15°38'53", LT

51+00 52+00 53+00 54+00 55+00 56+00

S 89°33'45" E

PLE - UTILITIES 3,975 SF (1)

REMNANT - TO BE VACATED BY CITY OF MILWAUKEE 48 SF (1)

PLE - SIDEWALK 5,207 SF (1)

TLE - SLOPES/APRON 7,072 SF (1)

SLOPE INTERCEPTS, TYP.

1/16TH LINE

23'

17'

N 00°06'16" E 1388.31' FROM MON. TO PROPOSED R/W

P100 P101 P102 P103 P104 P105 P106 P107 P108 P109 P110 P111 P112 P113 P114 P115 P132 P133 P134 P135 P136 P137 P138 P139 P140 P141 P142 P143

T100 T101 T102 T103 T104 T105

100 101 102 103 104 105 106 107 108 109 110 113

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

MILWAUKEE COUNTY

SE 1/4 - NE 1/4

N

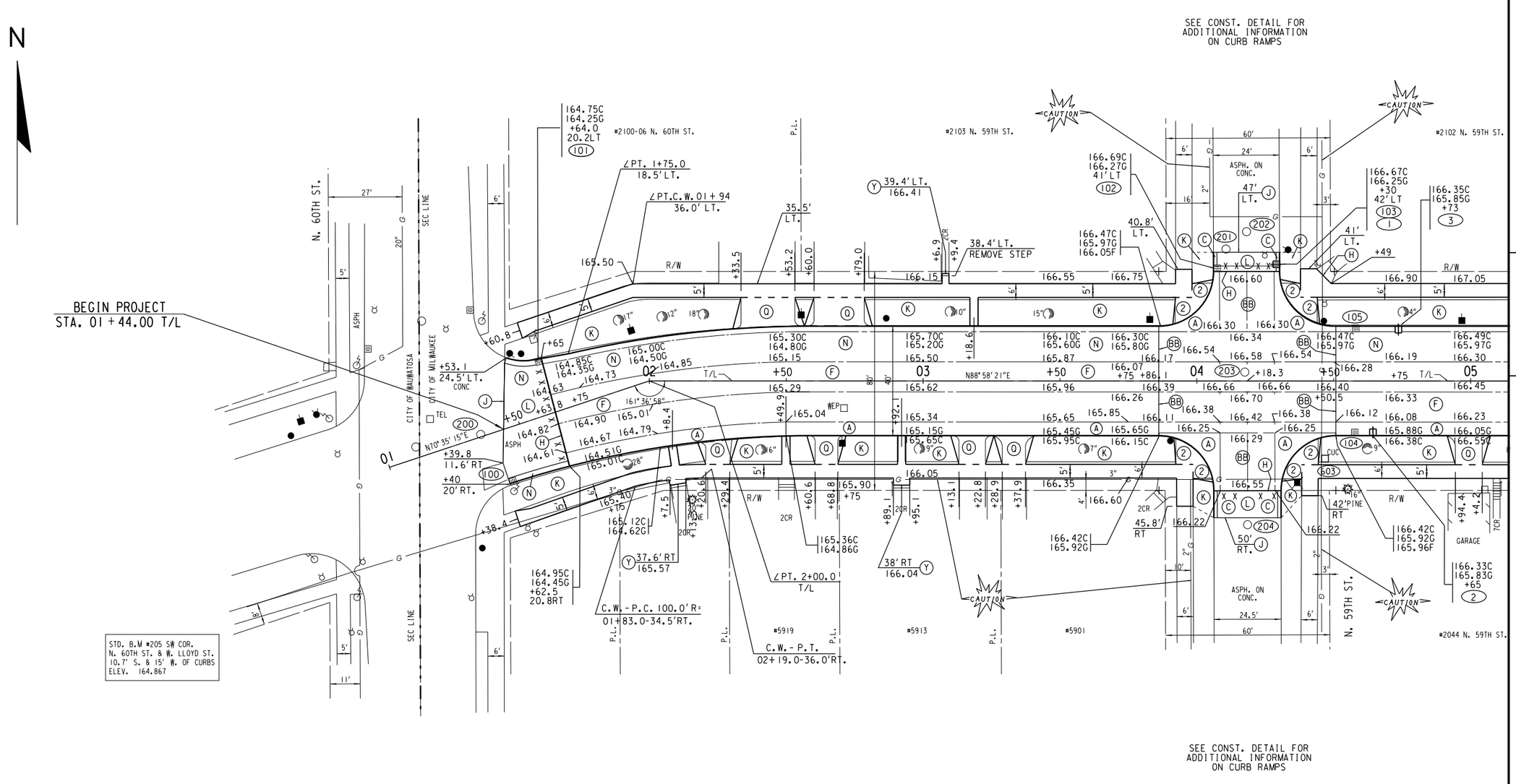
SE CORNER OF THE NE 1/4, SEC. 23 T7N, R21E

T 7 N
R 21 E
23 24

REVISION DATE	DATE	SCALE: FEET	HWY: W. LLOYD STREET	STATE R/W PROJECT NUMBER 2984-16-01	PLAT SHEET 4.05	
9/22/15	GRID FACTOR	0 20 40	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2984-16-71	PS&E SHEET	E

FILE NAME : S:\Real Estate\1- Local Program\LLoyd St\Plat\Plat\040105_rw_20.dgn PLOT DATE : 7/7/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 75

WEST LLOYD STREET



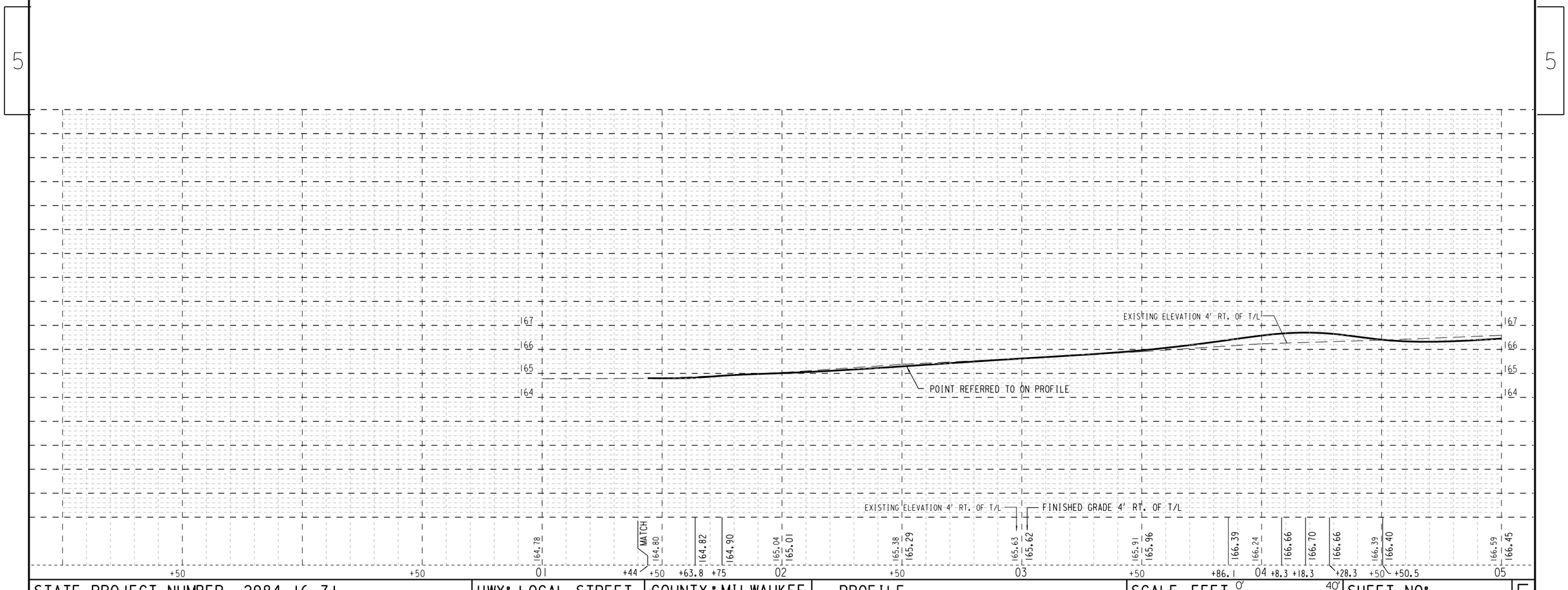
SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(C) CONST. CONC. CURB & GUTTER 22-INCH
(F) CONST. 8-INCH CONC. PAVEMENT
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

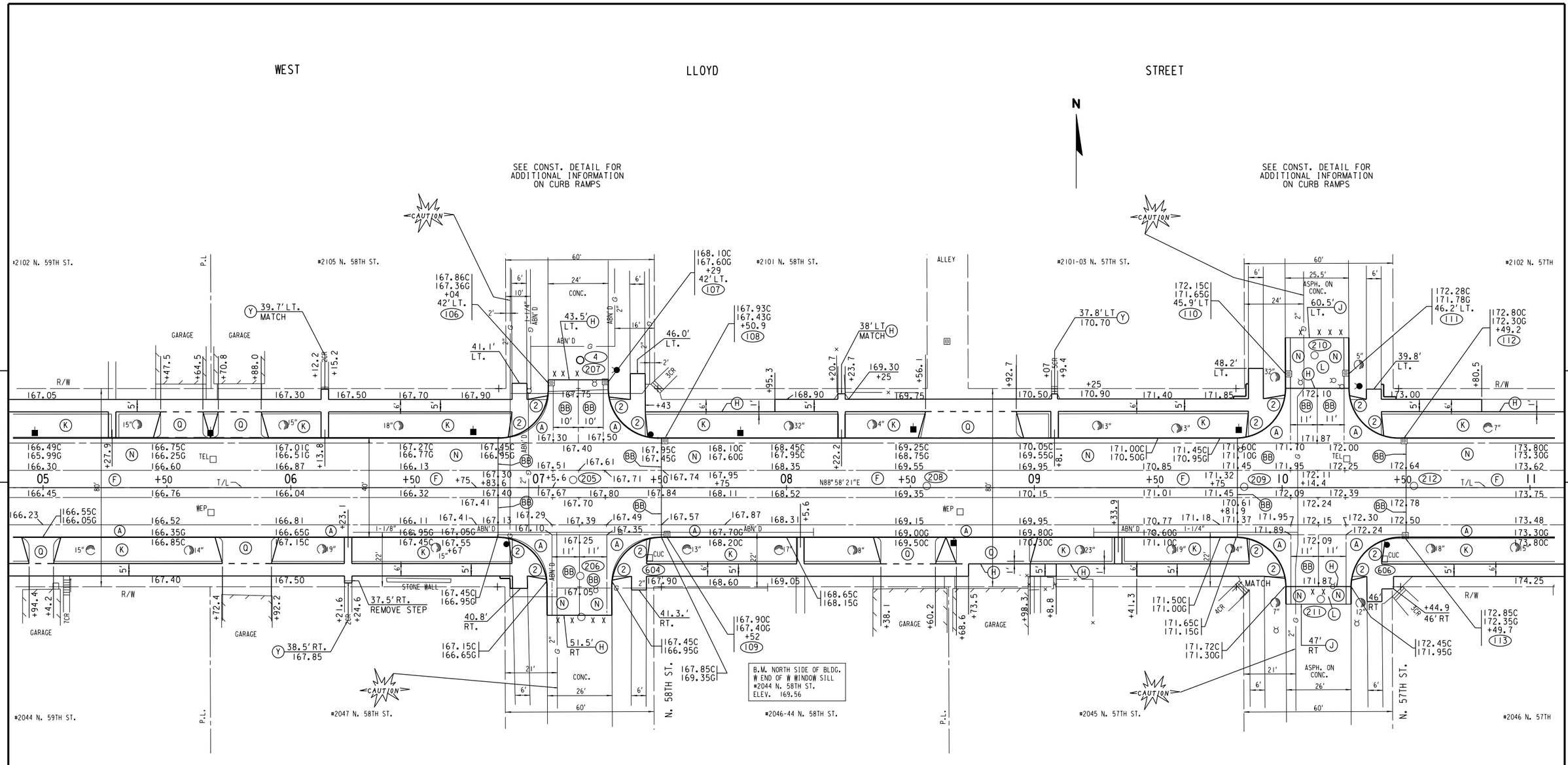
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 180	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\01_05.DGN



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 181 E

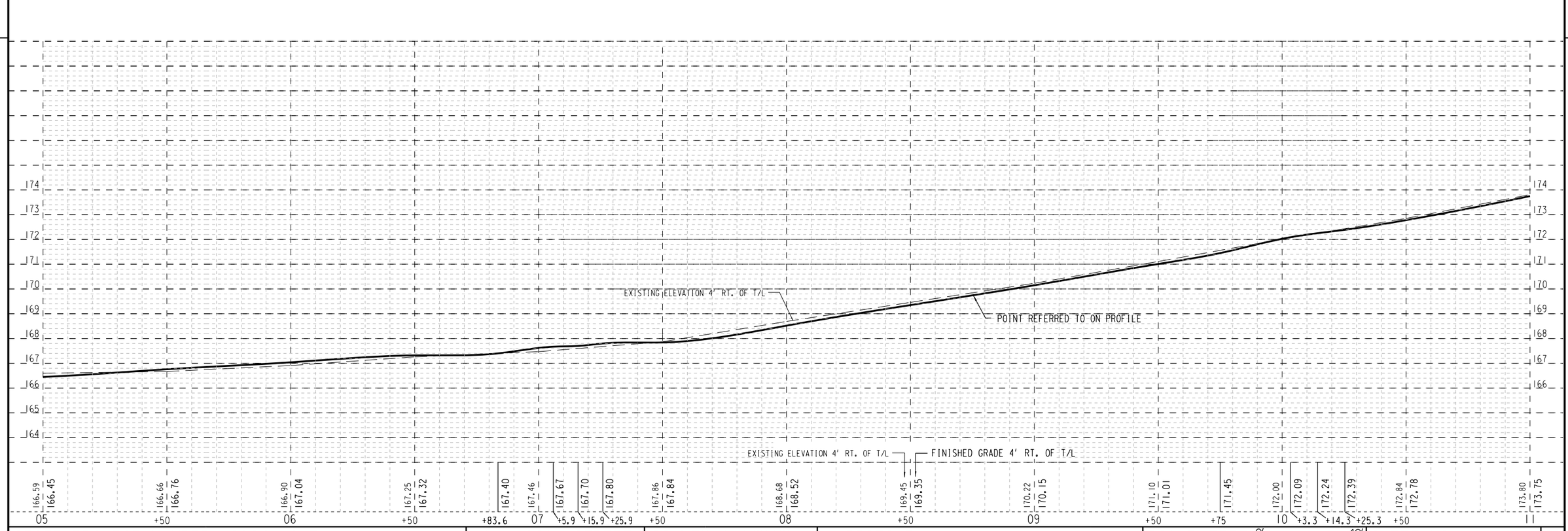
FILE NAME: W:\SPR\LLOYD 47TH 60TH\01_05.DGN



(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(F) CONST. 8-INCH CONC. PAVEMENT
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 182	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\05_11.DGN



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 183 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\05_11.DGN

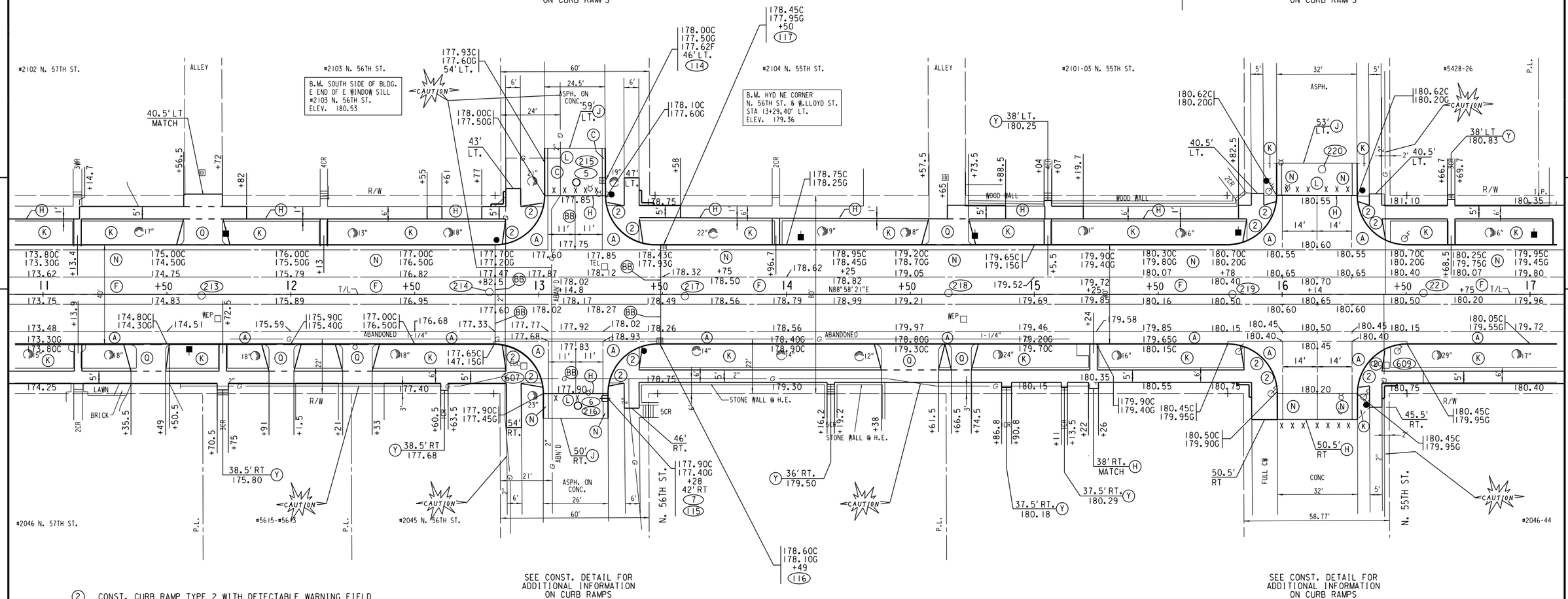
WEST LLOYD STREET

N

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS



(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(C) CONST. CONC. CURB & GUTTER 22-INCH
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 184	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\11_17.DGN

EXISTING ELEVATION 4' RT. OF T/L

POINT REFERRED TO ON PROFILE

EXISTING ELEVATION 4' RT. OF T/L

FINISHED GRADE 4' RT. OF T/L

| | | |

WEST LLOYD STREET

N

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

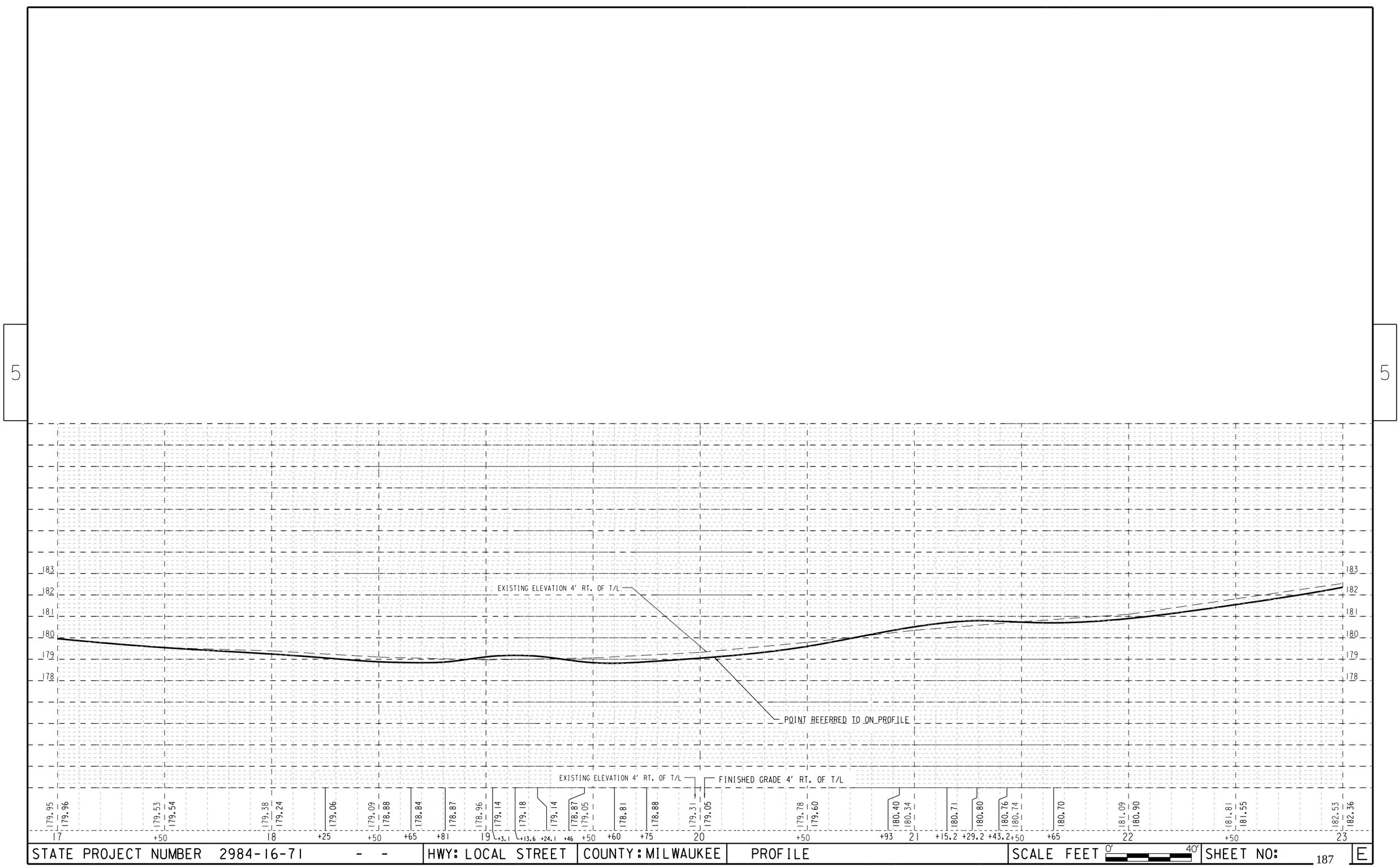
SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.W. NORTH SIDE OF BLDG. E END OF W WINDOW SILL #2049 N. 53RD ST. ELEV. 180.60

- (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
- (A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
- (C) CONST. CONC. CURB & GUTTER 22-INCH
- (F) CONST. 8-INCH CONC. PAVEMENT
- (H) SAWING CONCRETE
- (J) SAWING ASPHALT
- (K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
- (N) CONST. CONC. CURB & GUTTER 31-INCH
- (Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
- (Y) SAWING CONCRETE AT BASE OF CONC. STEP
- (BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 186 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\17_23.DGN



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 187	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\17_23.DGN

WEST LLOYD STREET

N

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

STD. B.W. #206 SW COR. N. 52ND ST. & W. LLOYD ST. 18' S. & 15' W. OF CURBS ELEV. 184.152

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

(2M) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD (MODIFIED)
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(D) CONST. CONC. CURB & GUTTER 22-INCH (COVERED FLANGE)
(F) CONST. 8-INCH CONC. PAVEMENT
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(W) CONST. 7-INCH CONC. PAVEMENT
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 188 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\23_29.DGN

EXISTING ELEVATION 4' RT. OF T/L

PROFILE REFERRED TO ON PROFILE

EXISTING ELEVATION 4' RT. OF T/L

FINISHED GRADE 4' RT. OF T/L

| | | |

WEST LLOYD STREET

N

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.W. HYD NE CORNER
N. HI-MOUNT BLVD. & W.LLOYD ST.
STA 32+17, 23.5' LT.
ELEV. 165.30

ALLEY
#2105 N. HI MOUNT BLVD.
#2102-04 N. HI MOUNT BLVD.
ALLEY
#2105 N. 49TH ST.
CAUTION
37' LT
39.8' LT.
170.22
42' LT
54' LT
45.5' LT
39.4' LT
100'
34.5'
ASPH
6'
4'
2"
50.3' LT.
47.3' LT.
7.5' 7.5'
15' 15'
20'
5'
6'
R/W
WALL
SLR
GRADE
ASPH
CUC
MSDI
STONE WALL
GARAGE
50R
20R

29 30 31 32 33 34 35
T/L
N88°57'29"E
ABN'D
1-1/8"
WEP

40' RT
55' RT
50.5' RT
47' RT
40.5' RT
38' RT
155.60
39' RT. -MATCH TOP OF STEP

#2049 N. HI MOUNT BLVD.
#2048 N. HI MOUNT BLVD.
#2045 N. 49TH ST.
N. HI-MOUNT BLVD.

166.05C 165.55G +8.0 (127)
164.75C 164.25G
163.90C 163.40G
164.34 CUC
164.19 MSDI CUC
163.87 (617)
164.25
166.30C 165.80G
166.25C 165.75G +11 (128)
164.50C 164.00G 164.12F 44' RT (129)
163.62C 163.12G 163.24F 42' RT (130)
166.20 (237)
164.90
164.45
164.06
164.25 (238)
163.72
164.00 (240)
164.55
164.00 (241)
163.90 (242)
163.00
163.10C 162.60G
162.25C 162.75G
161.35C 160.85G
161.25
161.10G
161.00
162.50
162.15
163.35C 162.85G
163.65C 163.15G
165.85C 163.35G
164.65C 164.15G
166.05G
166.55C
166.40
165.70 165.20 164.20 163.20 162.35 161.45
165.60C 165.10G
165.50 165.00 164.55 163.00 162.15 161.25
165.00 ABN'D 164.55 163.00 ABN'D 161.25
164.70 163.70
164.75 +03.2
164.65 +66.1
+28.7
162.80 161.90 160.10 159.20 158.35
162.90 162.00 160.20 159.25 158.35
162.62 161.60C
162.50 161.10G
160.80C 159.30G
159.65 159.45 159.05G 159.85C
157.85 157.65 157.75C 157.25G
158.00C 157.50G
157.10C 156.60G
156.95 156.75 156.15 155.95 156.30C 155.80G
155.35 155.15 155.25C 154.75G
154.80C 154.30G
154.65 154.45 154.55C 154.05G
153.85 153.45 153.25 153.10G 153.60C 153.35C 152.85G
175.30 174.65C 174.15G 174.47 174.60 174.40 174.25G 174.75C 175.05
173.70C 173.20G 172.85C 172.35G 172.70C 172.20G 172.55 172.70 172.50
170.50C 170.00G 170.40 170.60 170.40 170.25G 170.75C
168.40C 167.90G 168.30 168.50 168.30 168.15G 168.65C 170.15 169.10 167.00
169.90 +25
168.85
166.75
+15 +19 +30 +36 +55 +58 +79.3 +20.5 +23.5 +46 +23 +26 +56 +67 +78 +96 +18.5 +31.7 +54 +84.7 +89.4 +34.7 +47.7 +95 +36 +39
+86.8
+38
+22
+25
+50
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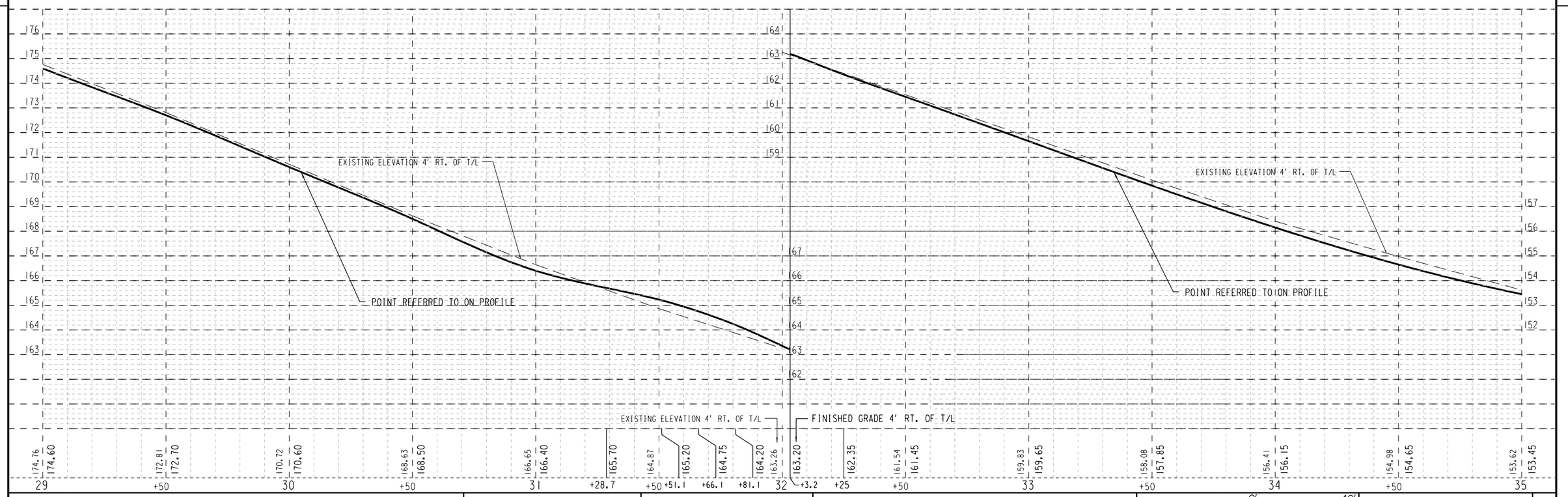
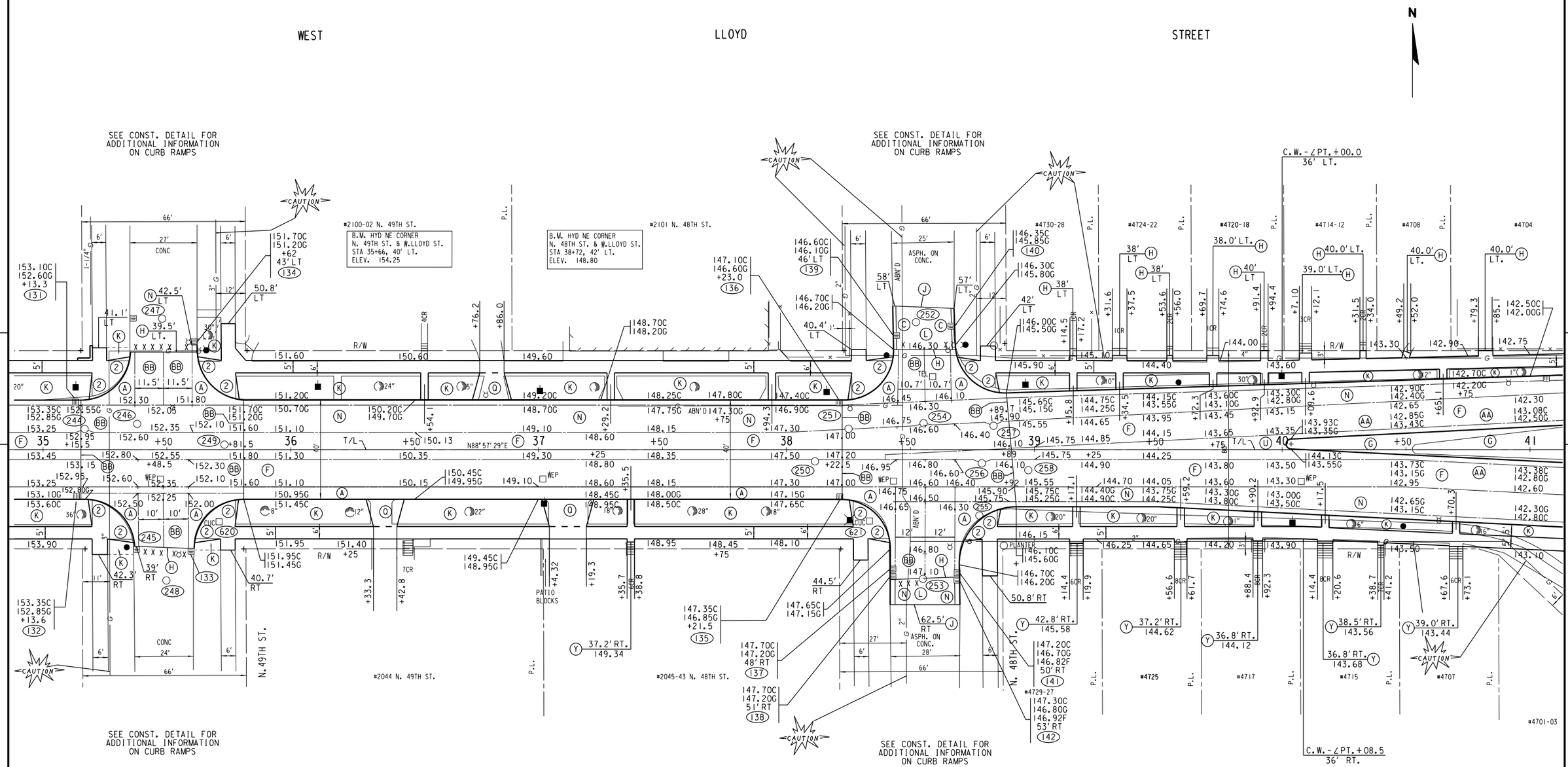
+25
+50
+25
+50



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 191 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\29_35.DGN

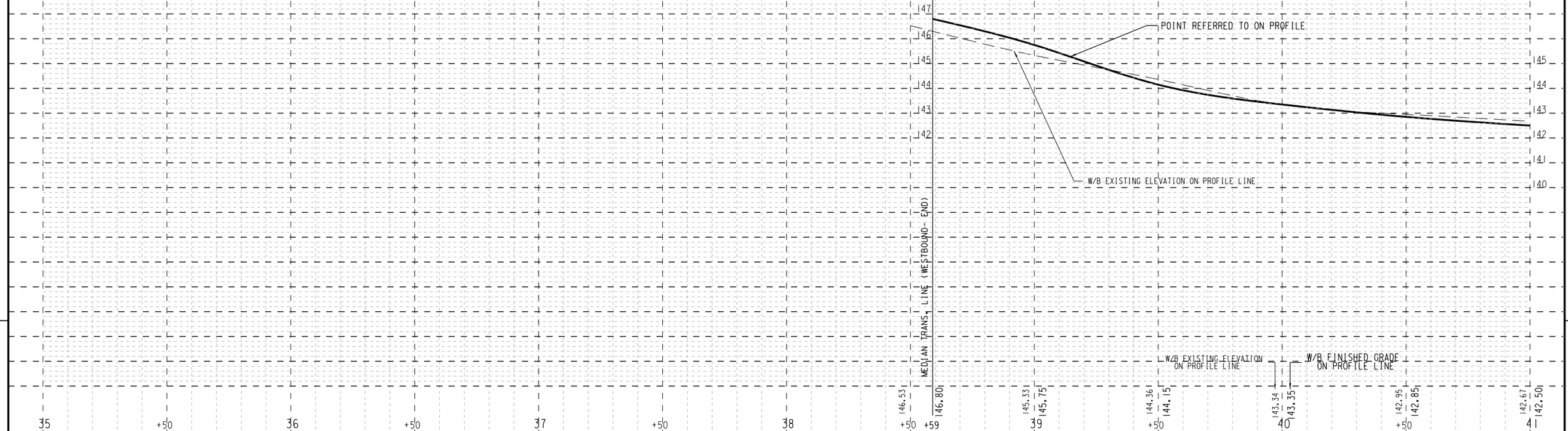


(2M) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD (MODIFIED)
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(C) CONST. CONC. CURB & GUTTER 22-INCH
(F) CONST. 8-INCH CONC. PAVEMENT
(G) CONST. 5" CONC. SIDEWALK
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(Q) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(U) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(AA) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

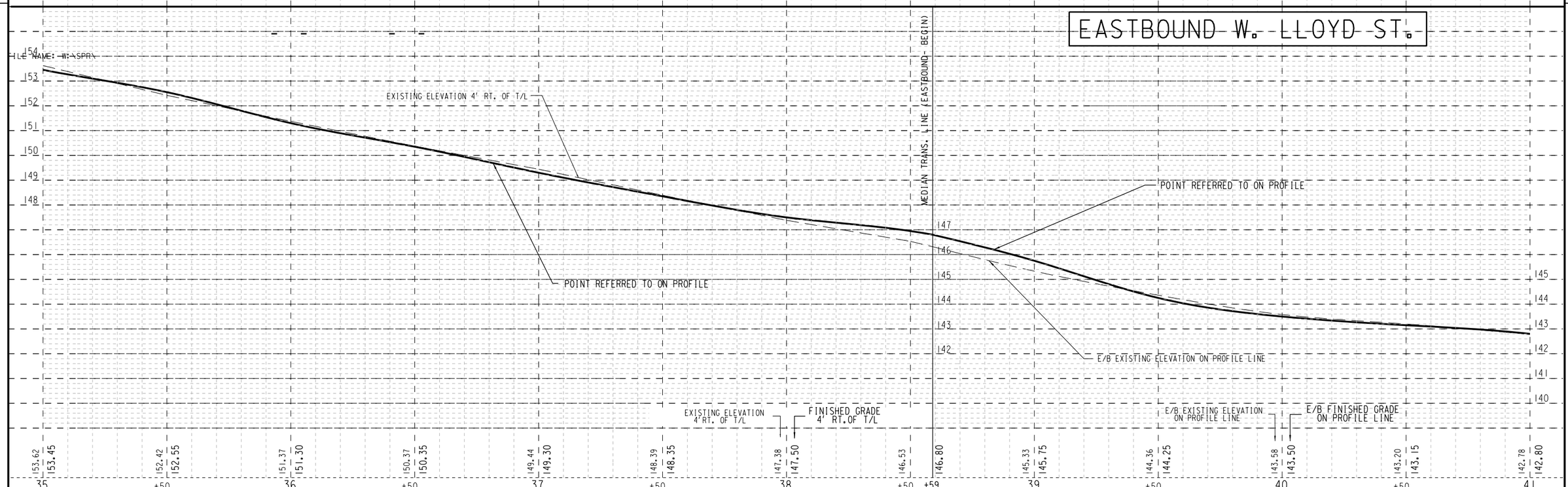
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 192 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\35_41.DGN

WESTBOUND W. LLOYD ST.



EASTBOUND W. LLOYD ST.



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 193 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\35_41.DGN

WEST LLOYD STREET

N

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.M. NE CORNER N. 47TH ST. & W. LLOYD ST. NW CORNER BRIDGE WALL W END ELEV. 144.61

FREEWAY

JURISDICTIONAL LIMIT

END CONSTRUCTION STA. 42+19.0 T/L

BEGIN CONSTRUCTION STA. 44+20.0 T/L

SEE DETAIL "A"

SEE DETAIL "B"

N88°58'02"E

N. 47TH ST.

#4701-03 CAUTION

#4704 #4530 #4522 #4518 #4514 #4510 #4506

WASHINGTON PARK 347-9999-111

PROP. R.O.W. LINE

C.W. - CTR. 98.0' R= +04.5 -160.0 RT

DETAIL "A"

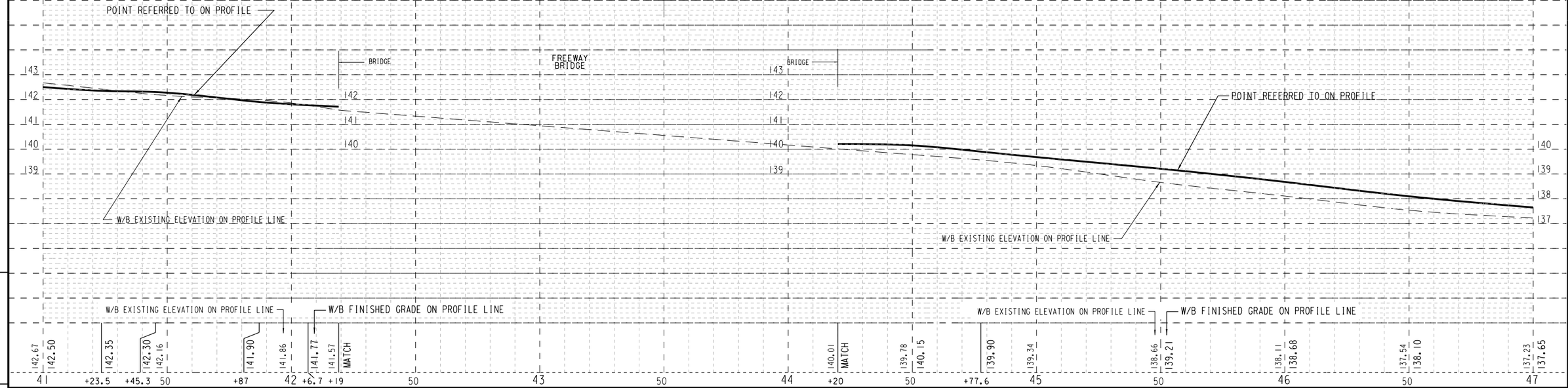
DETAIL "B"

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(2M) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD (MODIFIED)
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(5) CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(7M) CONST. CURB RAMP TYPE 7 WITH DETECTABLE WARNING FIELD (MODIFIED)
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(F) CONST. 8-INCH CONC. PAVEMENT
(G) CONST. 5" CONC. SIDEWALK
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(N) CONST. CONC. CURB & GUTTER 31-INCH
(U) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Y) SAWING CONCRETE AT BASE OF CONC. STEP
(AA) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

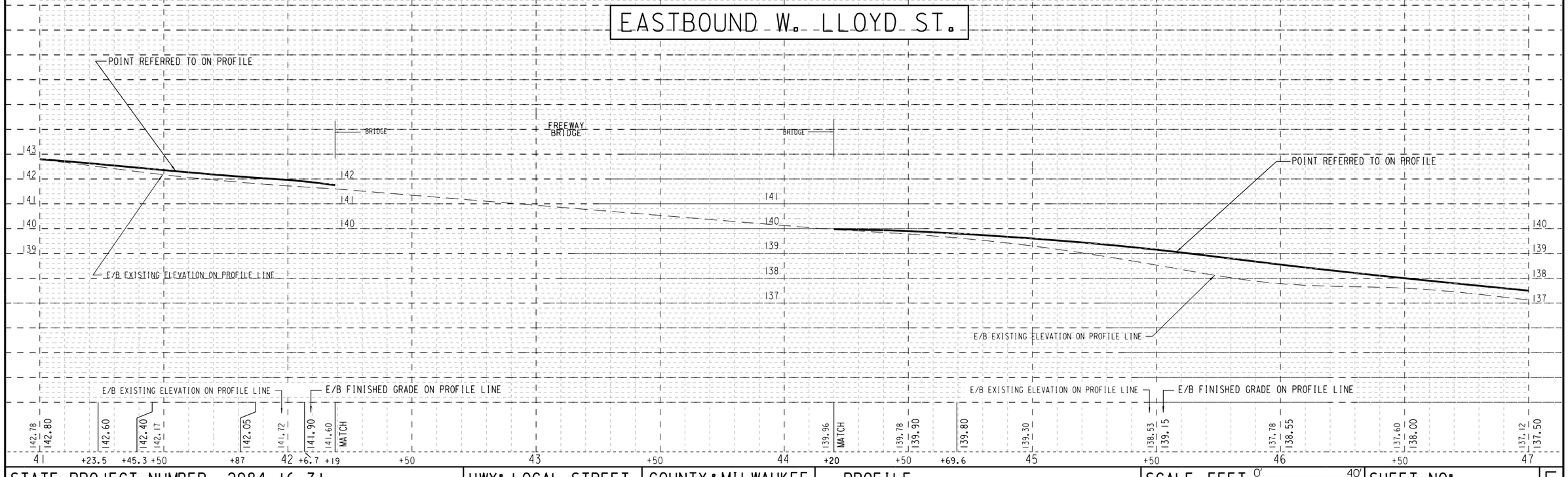
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 194	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\41_47.DGN

WESTBOUND W. LLOYD ST.



EASTBOUND W. LLOYD ST.



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 195	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH 41 47.DGN

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

WEST LLOYD STREET

N. 45TH ST.

N. 44TH ST.

#4506 #4504 #4434-32 #4430-28 #4426-24 #4422 #4420-16 #4412-10 #2105 N. 44TH ST. #2121 N. SHERMAN BLVD.

B.M. HYD NE CORNER N. 45TH ST. & W. LLOYD ST. STA 48+0, 44' LT. ELEV. 37.65

B.M. HYD NE CORNER N. 44TH ST. & W. LLOYD ST. STA 51+40, 41' LT. ELEV. 136.40

P.C. - WALK +46.6-36.5/LT.

P.T. - WALK +84.1-35.4'LT.

℄PT. 52+02.77 T/L

530' R.

P.R.C. +05.6-56.0'RT.

P.R.C. - +75.4 62.7'RT. - 134.60

797.3' R.

PROP. R.O.W. LINE

WASHINGTON PARK

PARKWAY DR.

VAULT

CAUTION

CTR. 10' & 15' R= +90.5-72.0'RT.

CTR. 15' & 20' R= +13.2-52.3'RT.

CTR. 10' & 15' R= +35.8-72.0'RT.

CTR. 30' & 35' R= +22.4-91.9'RT.

CTR. 35' & 40' R= +62.3-34.1'RT.

CTR. 30' & 35' R= +09.2-85.8'RT.

CTR. 15' & 20' R= +75.4-77.7'RT.

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD

(2M) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD (MODIFIED)

(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD

(7M) CONST. CURB RAMP TYPE 7 WITH DETECTABLE WARNING FIELD (MODIFIED)

(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)

(F) CONST. 8-INCH CONC. PAVEMENT

(G) CONST. 5" CONC. SIDEWALK

(H) SAWING CONCRETE

(J) SAWING ASPHALT

(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER

(L) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY

(N) CONST. CONC. CURB & GUTTER 31-INCH

(U) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

(V) REMOVE & CONST. 2" WALK ON 3" CRUSHED STONE BASE

(Y) SAWING CONCRETE AT BASE OF CONC. STEP

(AA) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)

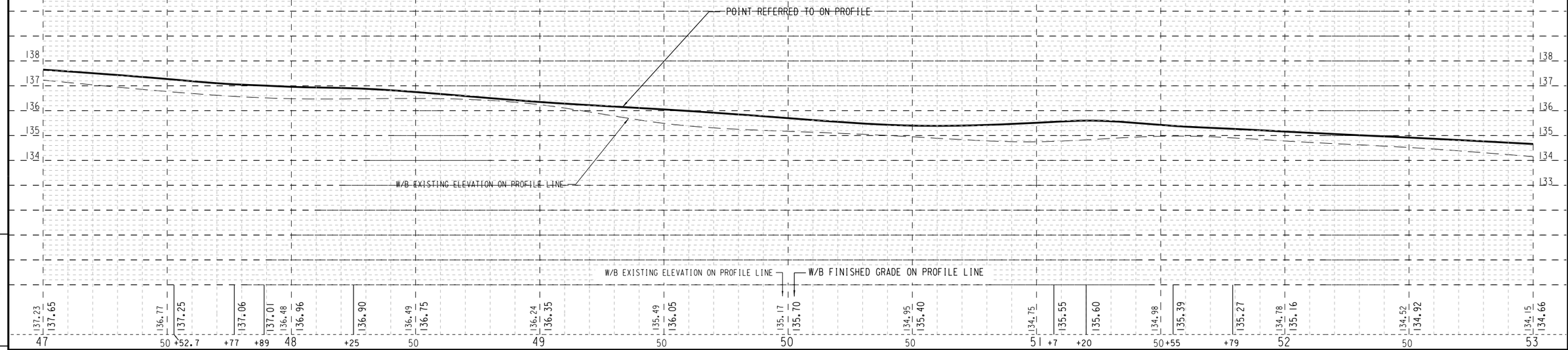
(BB) CONST. 8-INCH H.E.S. CONC. PAVEMENT ON 6-INCH BASE AGGREGATE

(PC) CONST. CONC. PEDESTRIAN CURB

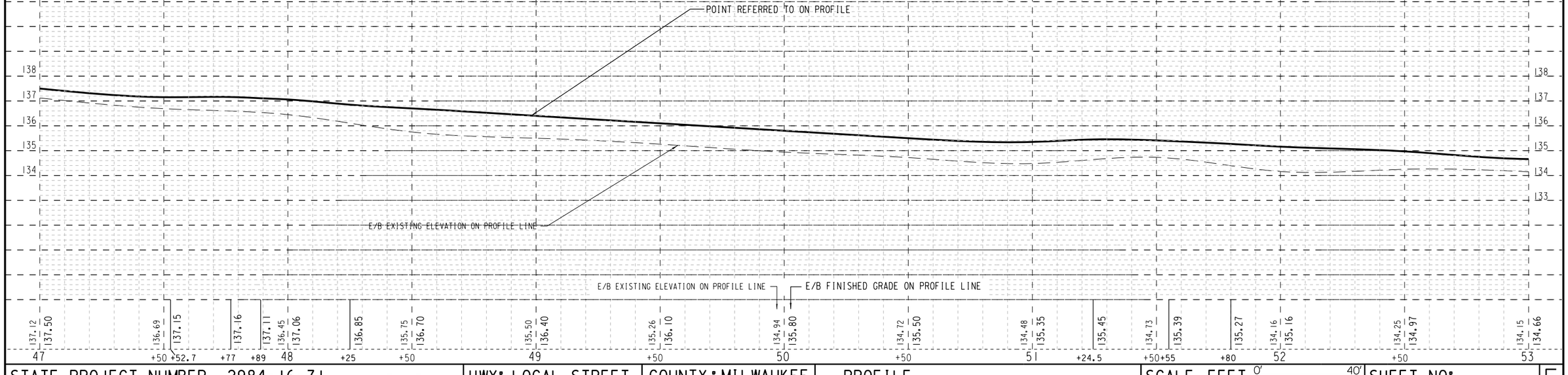
STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 196	E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\47_53.DGN

WESTBOUND W. LLOYD ST.

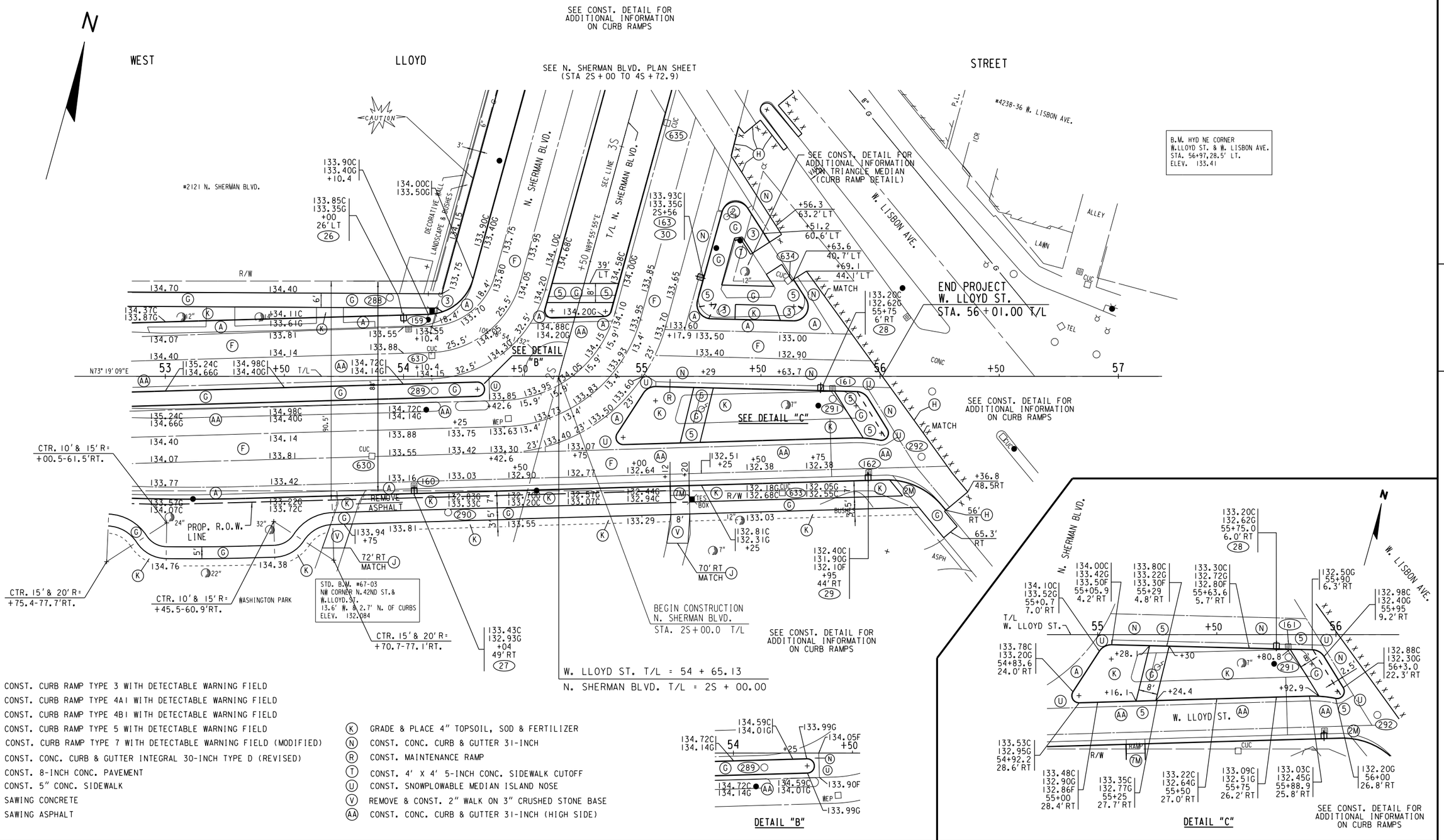


EASTBOUND W. LLOYD ST.



STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 197 E

FILE NAME: W:\SPR\LLOYD 47TH 60TH\47_53.DGN



(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(4AI) CONST. CURB RAMP TYPE 4AI WITH DETECTABLE WARNING FIELD
(4BI) CONST. CURB RAMP TYPE 4BI WITH DETECTABLE WARNING FIELD
(5) CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(7M) CONST. CURB RAMP TYPE 7 WITH DETECTABLE WARNING FIELD (MODIFIED)
(A) CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(F) CONST. 8-INCH CONC. PAVEMENT
(G) CONST. 5" CONC. SIDEWALK
(H) SAWING CONCRETE
(J) SAWING ASPHALT
(K) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. CONC. CURB & GUTTER 31-INCH
(R) CONST. MAINTENANCE RAMP
(T) CONST. 4' X 4' 5-INCH CONC. SIDEWALK CUTOFF
(U) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(V) REMOVE & CONST. 2" WALK ON 3" CRUSHED STONE BASE
(AA) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)

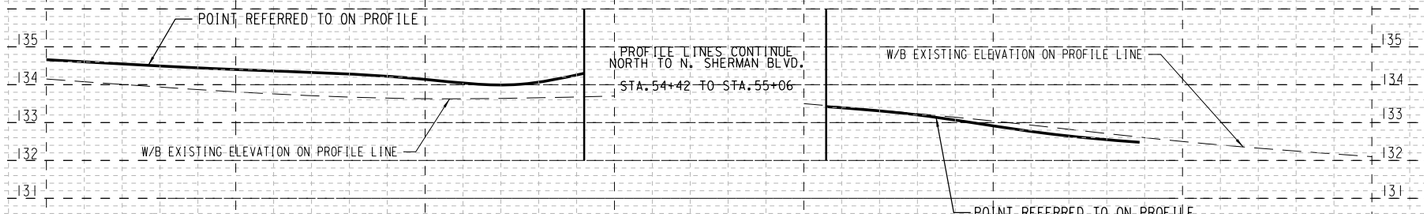
DETAIL "B"

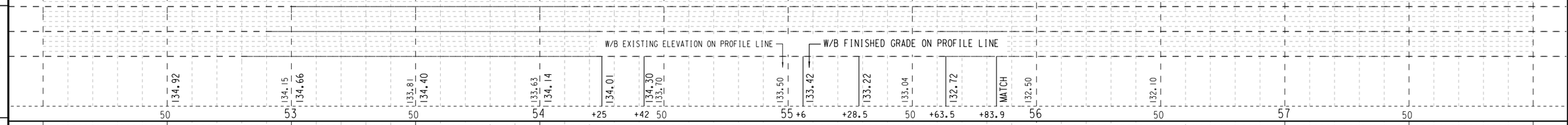
DETAIL "C"

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 198	E

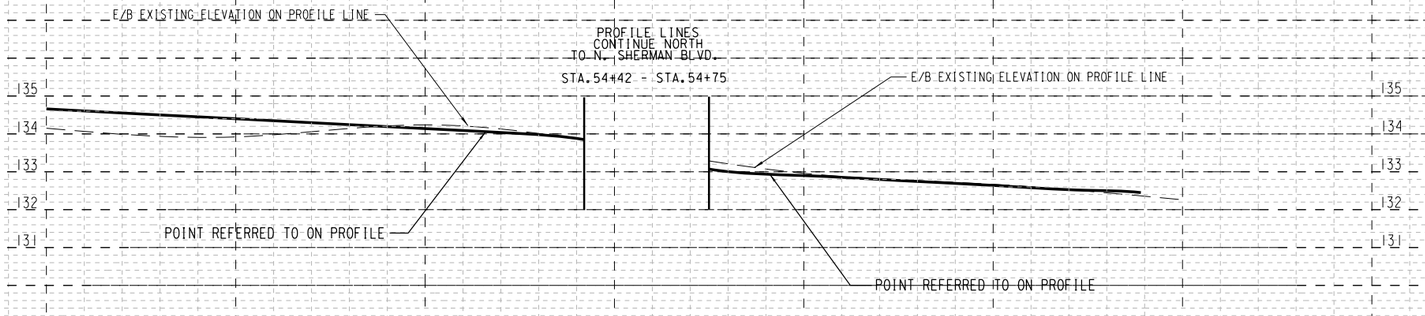
FILE NAME: W:\SPR\LLOYD 47TH 60TH\53_57.DGN

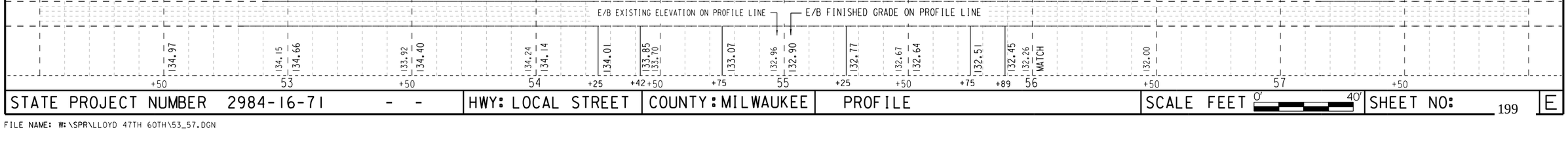
WESTBOUND W. LLOYD ST.





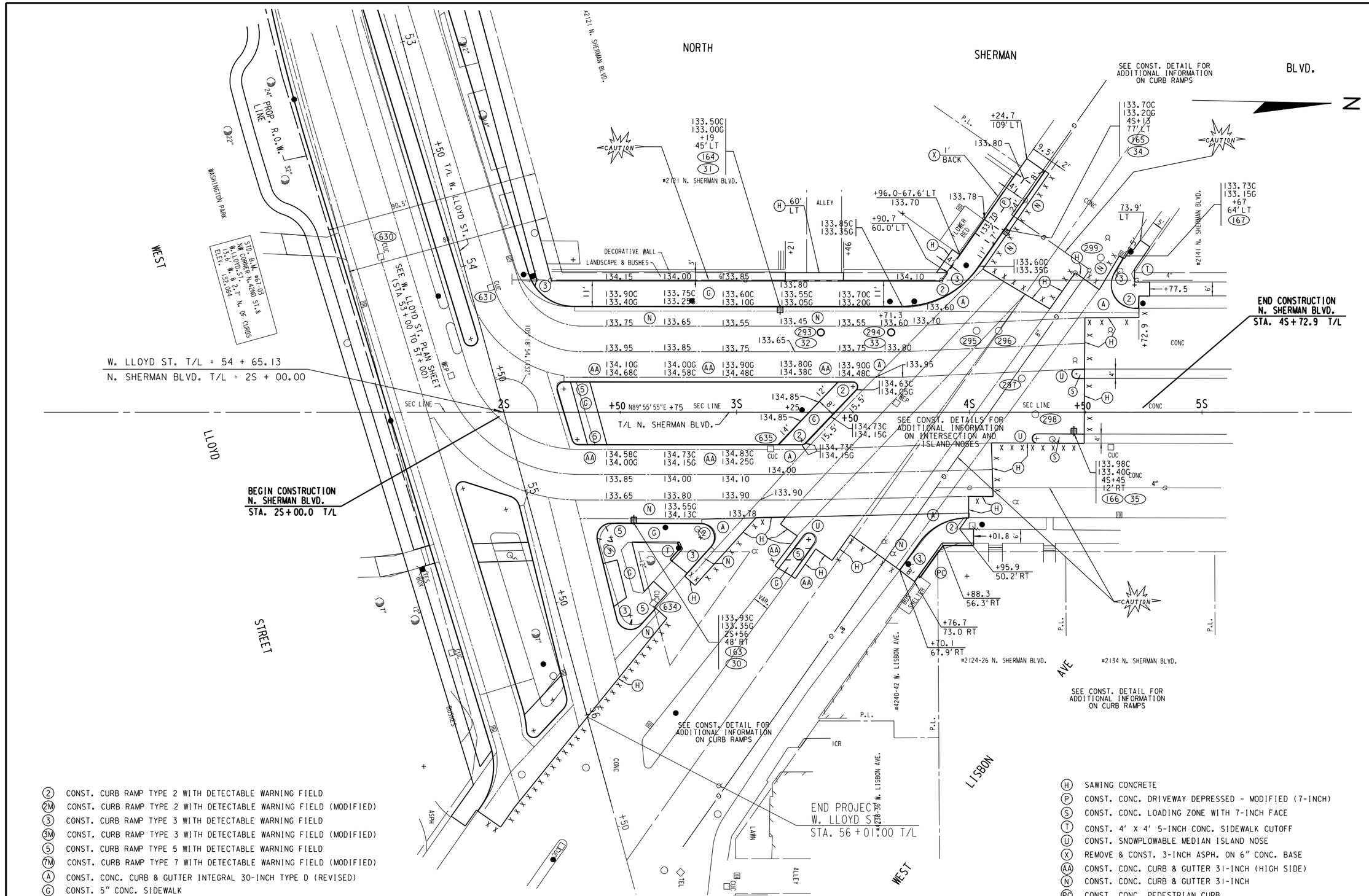
EASTBOUND W. LLOYD ST.





STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO:

FILE NAME: W:\SPR\LLOYD 47TH 60TH\53_57.DGN

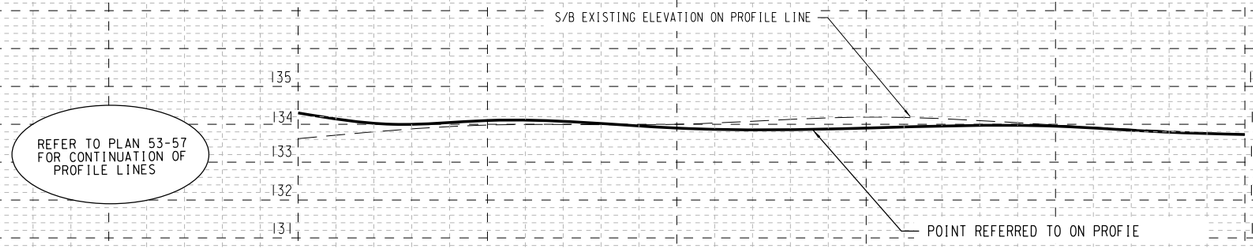


(2)	CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(2M)	CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD (MODIFIED)
(3)	CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(3M)	CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD (MODIFIED)
(5)	CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(7M)	CONST. CURB RAMP TYPE 7 WITH DETECTABLE WARNING FIELD (MODIFIED)
(A)	CONST. CONC. CURB & GUTTER INTEGRAL 30-INCH TYPE D (REVISED)
(G)	CONST. 5" CONC. SIDEWALK
(H)	SAWING CONCRETE
(P)	CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(S)	CONST. CONC. LOADING ZONE WITH 7-INCH FACE
(T)	CONST. 4' X 4' 5-INCH CONC. SIDEWALK CUTOFF
(U)	CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(X)	REMOVE & CONST. 3-INCH ASPH. ON 6" CONC. BASE
(AA)	CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(N)	CONST. CONC. CURB & GUTTER 31-INCH
(PC)	CONST. CONC. PEDESTRIAN CURB

STATE PROJECT NUMBER 2984-16-71 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION PLAN	SCALE FEET 0' 40' SHEET NO: 200 E

FILE NAME: W:\SPR\LLOYD 47TH-60TH\2S 5S.DGN

SOUTHBOUND N. SHERMAN BLVD.



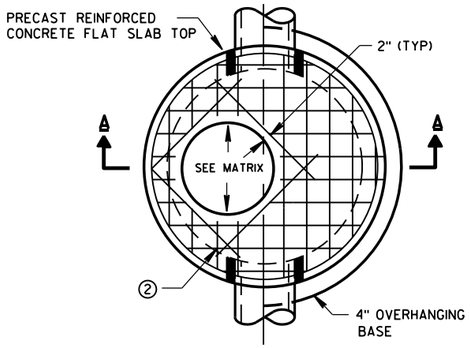
REFER TO PLAN 53-57 FOR CONTINUATION OF PROFILE LINES

S/B EXISTING ELEVATION ON PROFILE LINE — S/B FINISHED GRADE ON PROFILE LINE

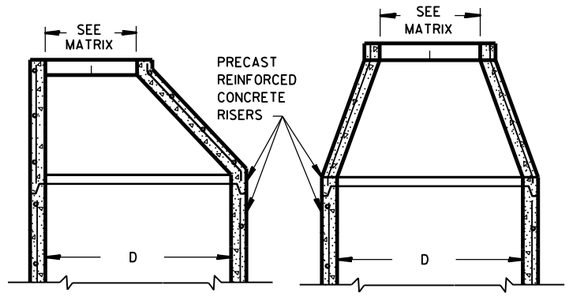
| | | |

Standard Detail Drawing List

08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
09B02-09	CONDUIT
09C11-06	CONCRETE BASE TYPE 10
09C12-06A	CONCRETE BASE TYPE 13
09C12-06B	CONCRETE BASE TYPE 13
09E08-07A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-07B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR 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
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C18-03	MEDIAN ISLAND MARKING
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING

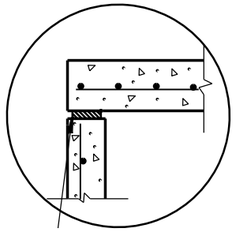


PLAN VIEW CIRCULAR OPENING

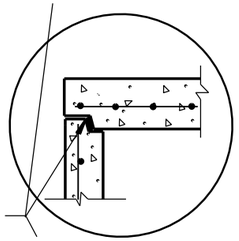


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

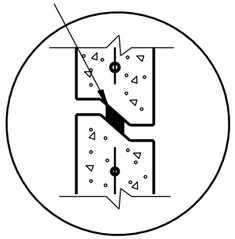


TOP WITH PLAIN END JOINT



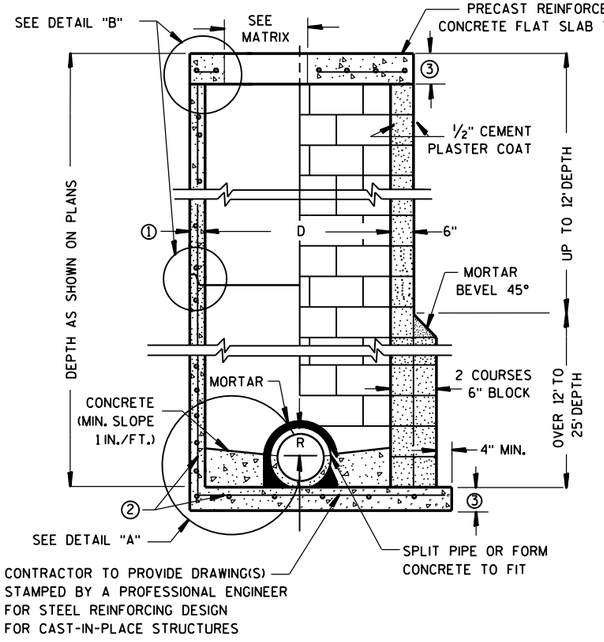
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



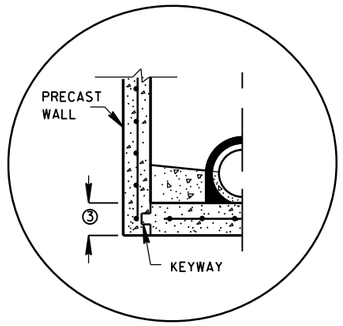
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

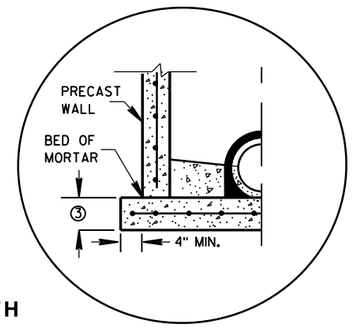


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

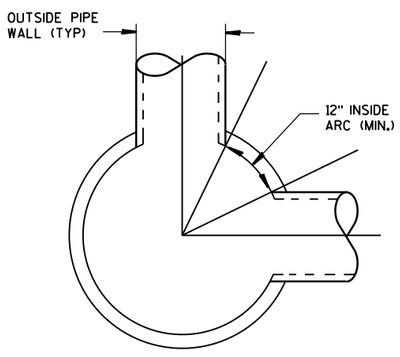


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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 GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 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

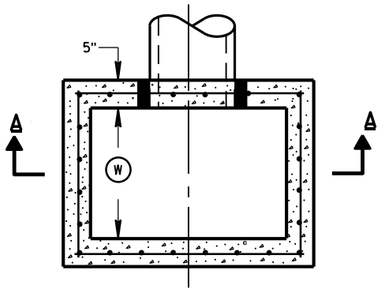
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

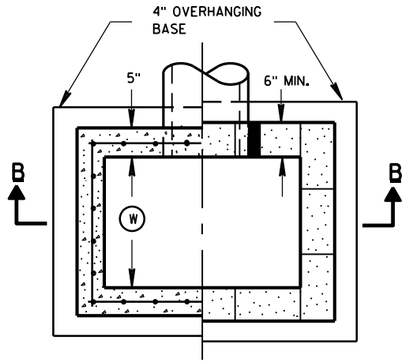
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

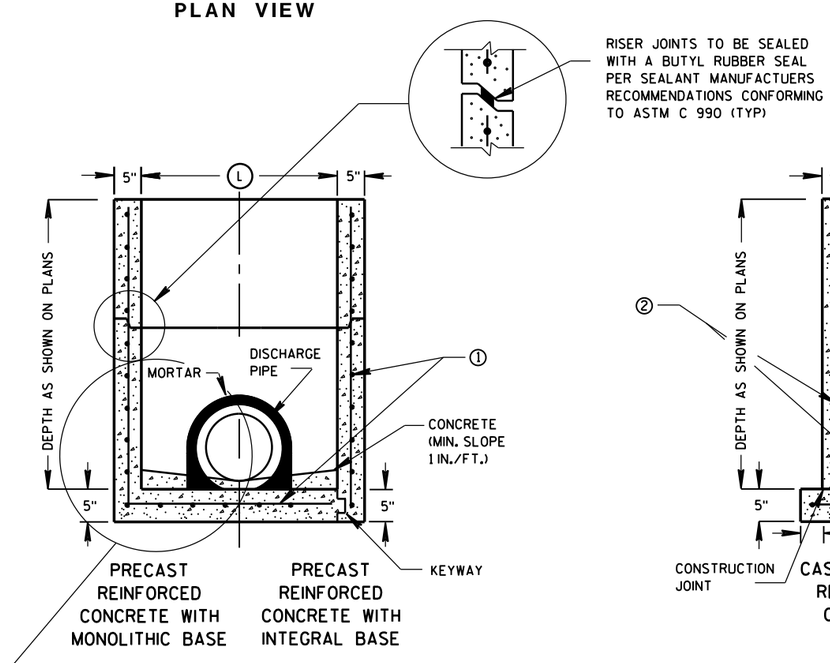
6
S.D.D. 8 B 9-1



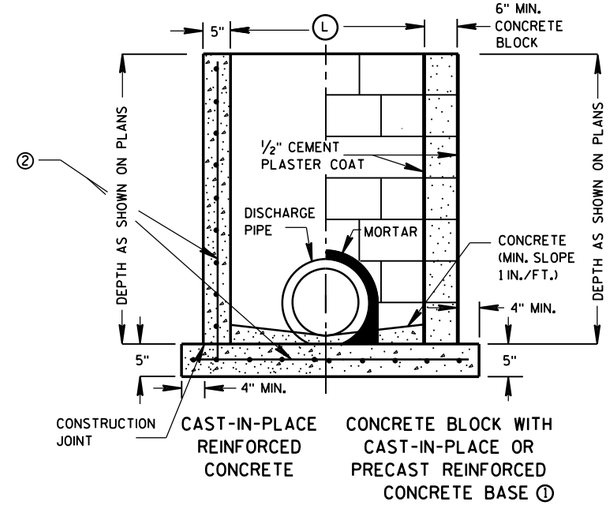
PLAN VIEW



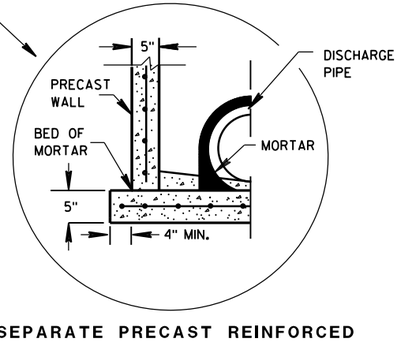
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

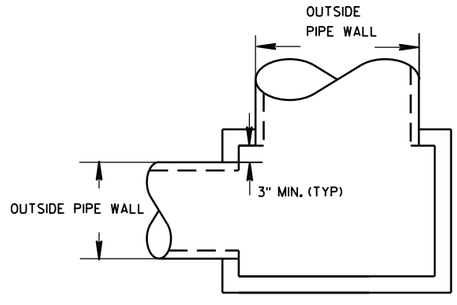
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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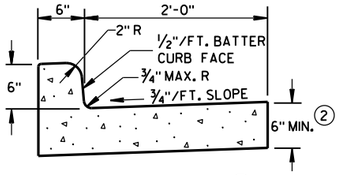
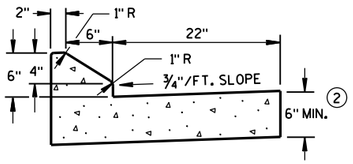
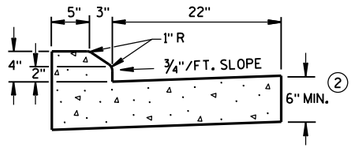


TYPES A & D ①

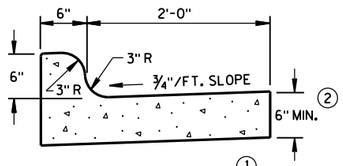


6" SLOPED CURB TYPES G & J ①

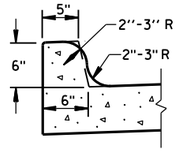


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

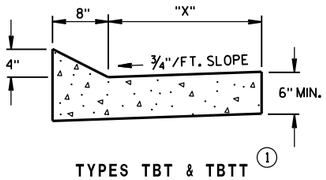


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

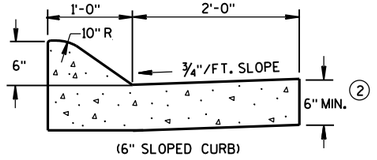
CONCRETE CURB & GUTTER 30"



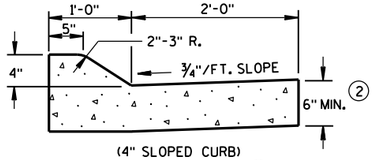
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

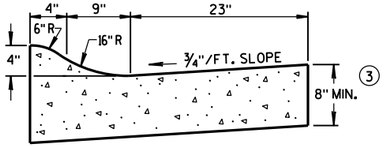


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

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

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

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

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

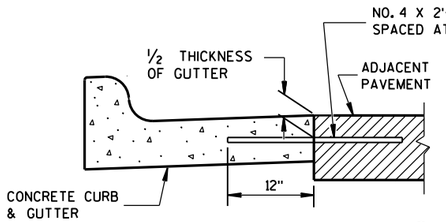
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

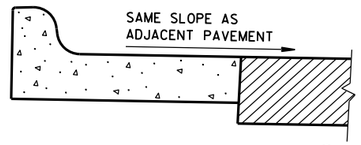
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

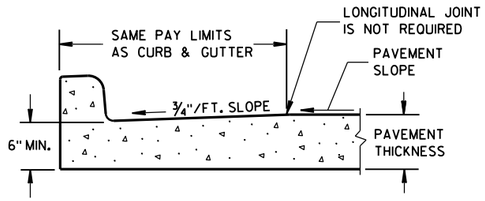
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



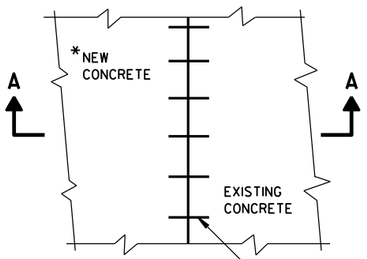
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

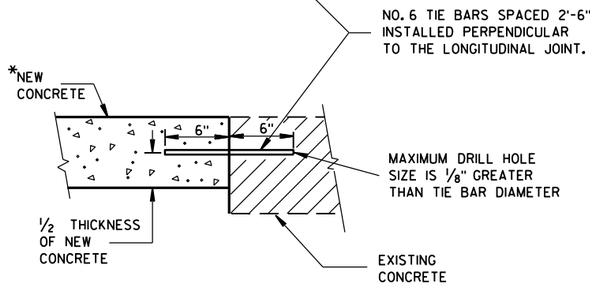


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



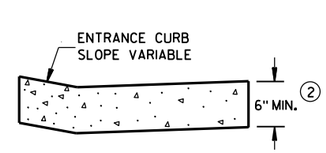
PLAN VIEW

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

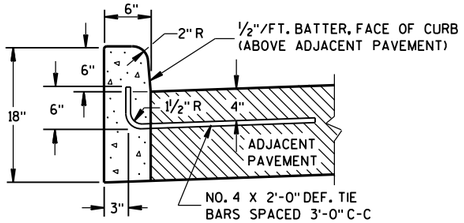


SECTION A-A

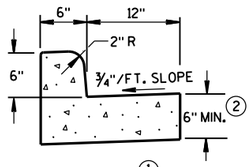
TIE BARS DRILLED
INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

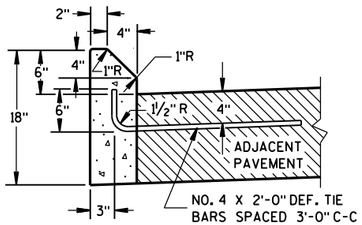


① TYPES A & D

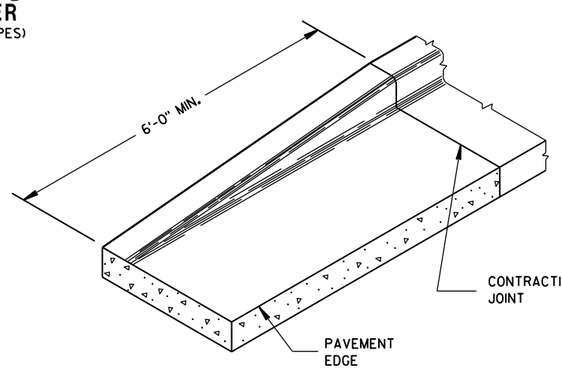


① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

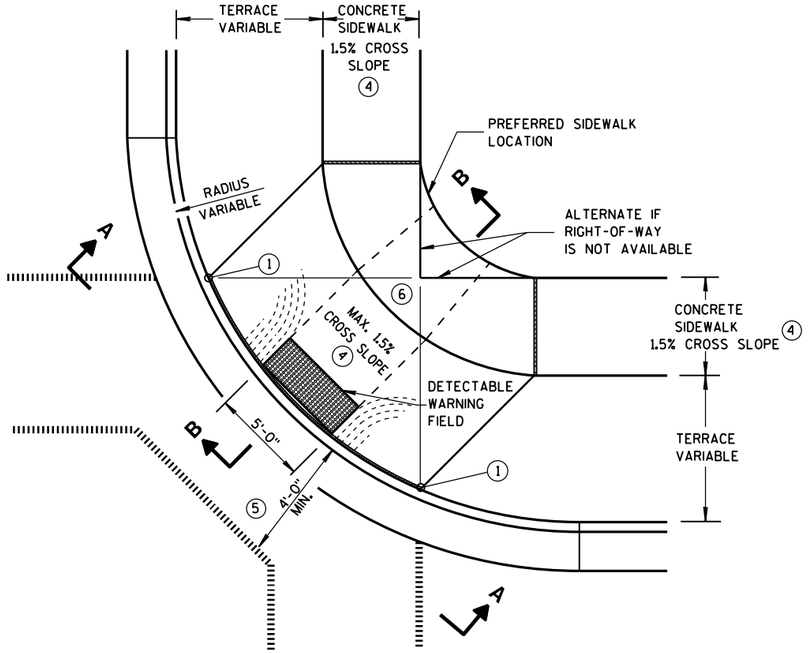
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

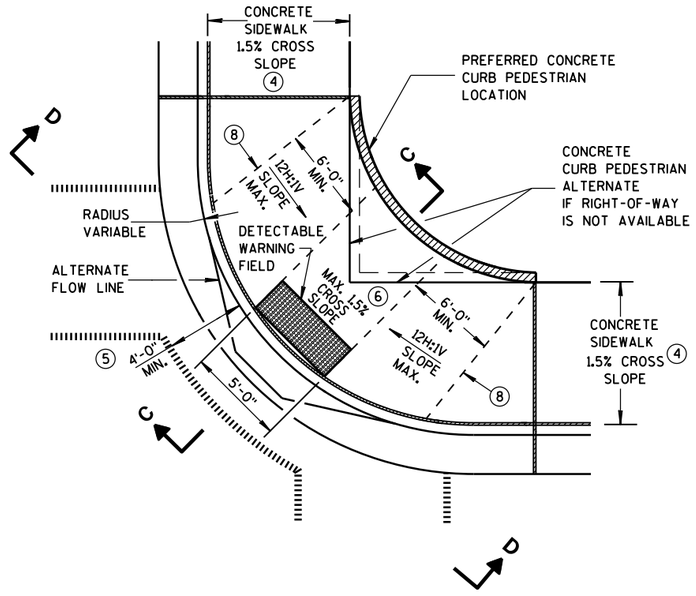
S.D.D. 8 D 1-18



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

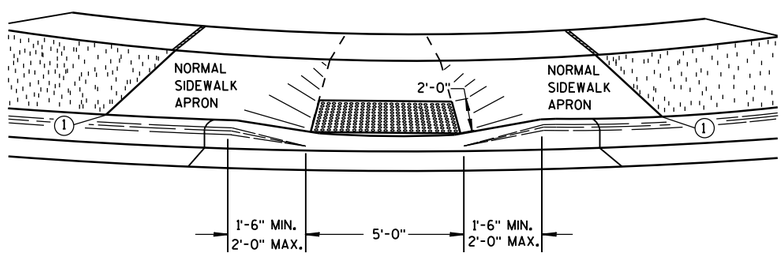
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

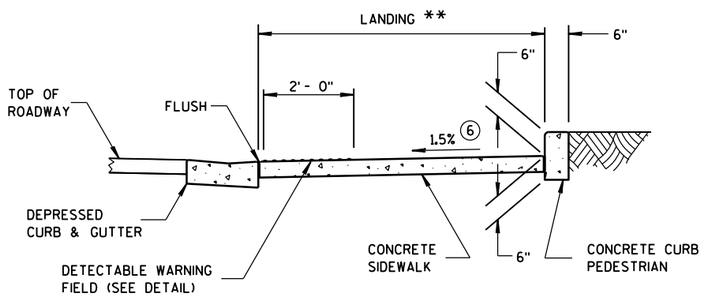
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

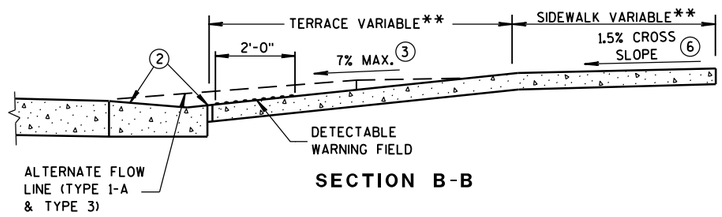
** WIDTH SHOWN ELSEWHERE IN THE PLANS



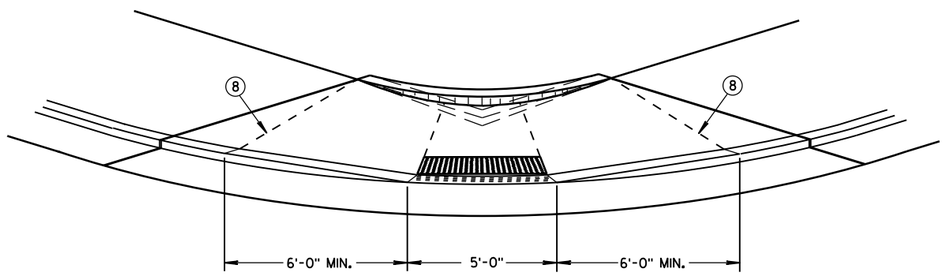
SECTION C-C

LEGEND

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



SECTION B-B



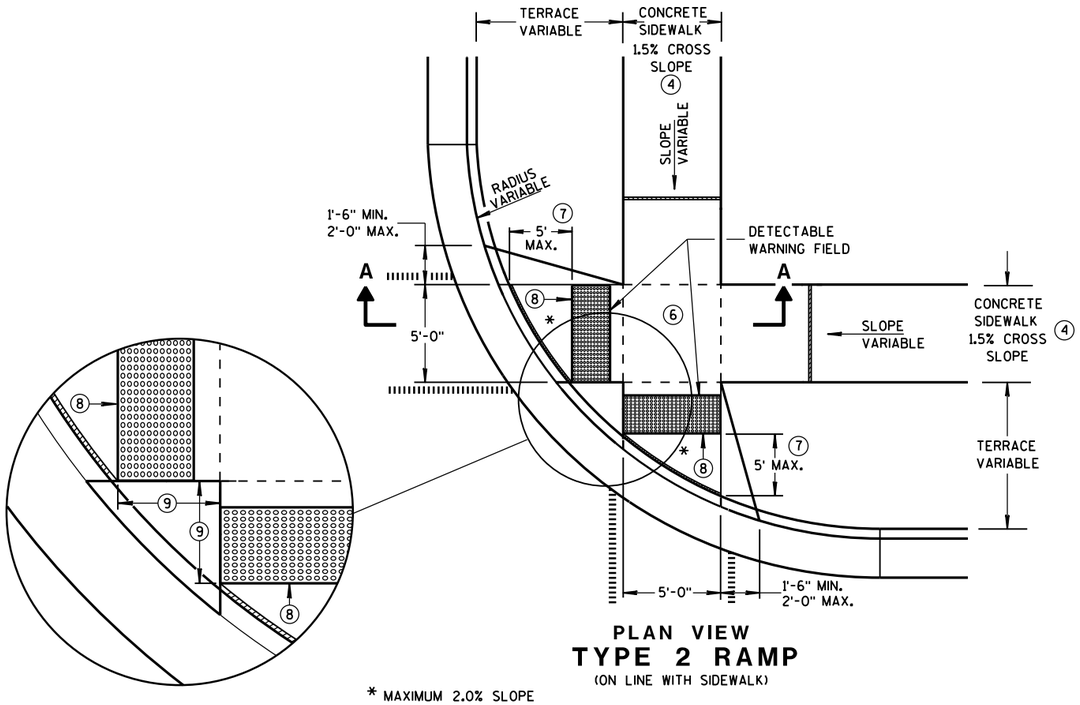
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

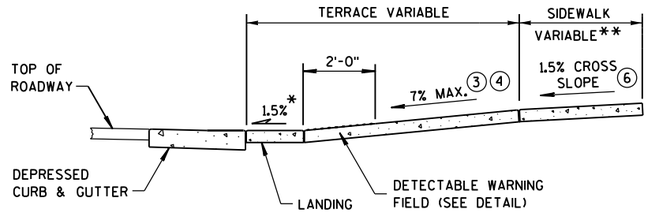


PLAN VIEW

TYPE 2 RAMP

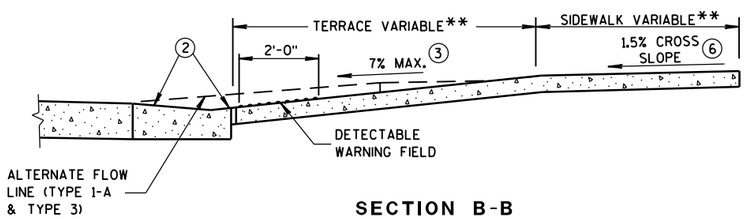
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(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 (MINIMUM 4 FEET X 4 FEET).

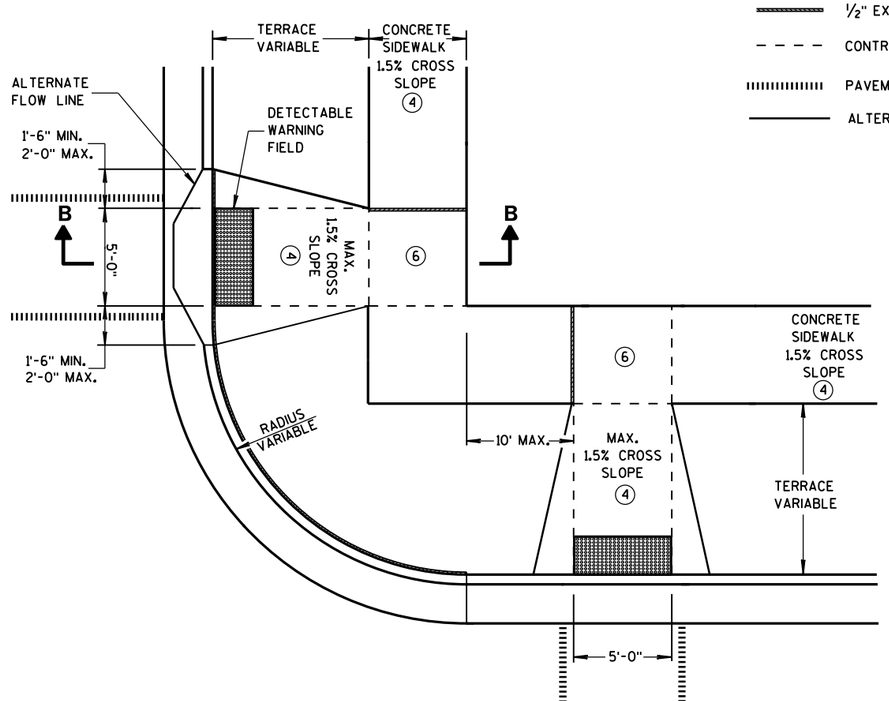
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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. 2" MINIMUM CURB HEIGHT.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

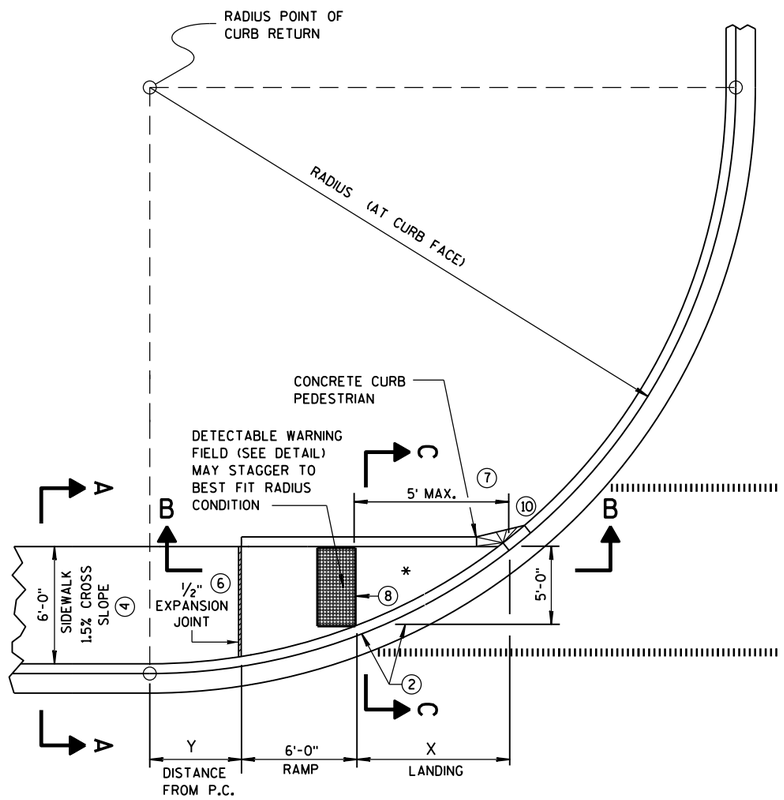
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

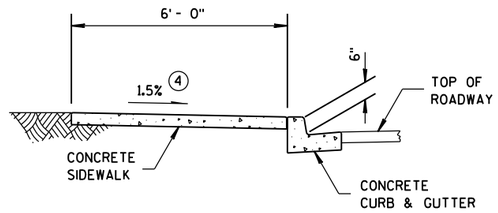
S.D.D. 8 D 5-16b



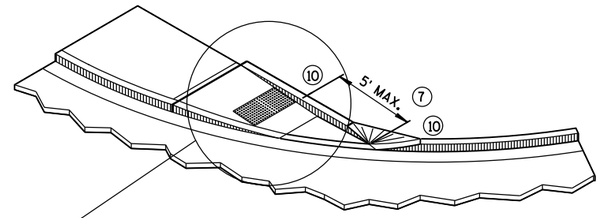
CURB RAMP TYPE 4A
PLAN VIEW

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

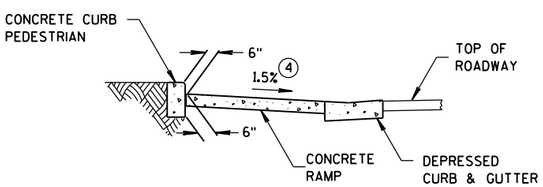
INTERMEDIATE RADII CAN BE INTERPOLATED



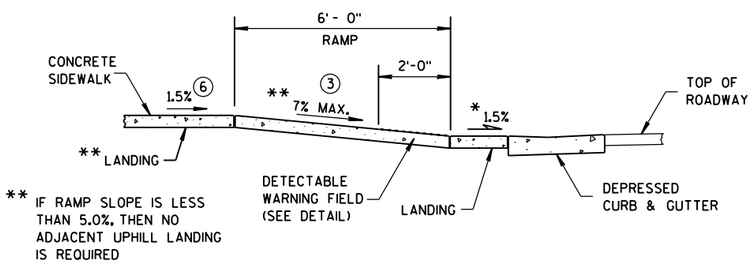
SECTION A-A FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A

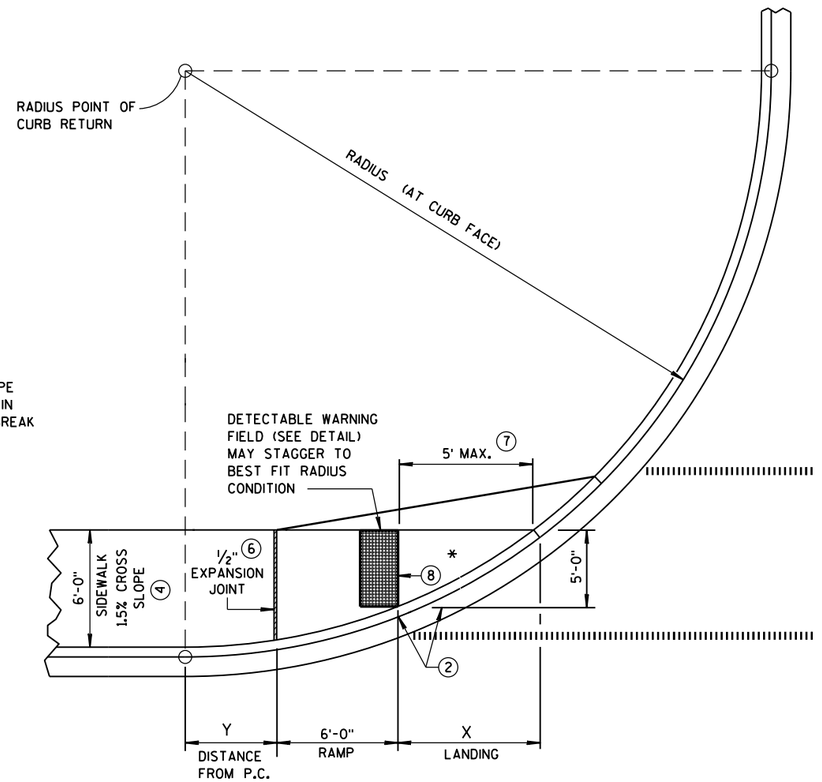


SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

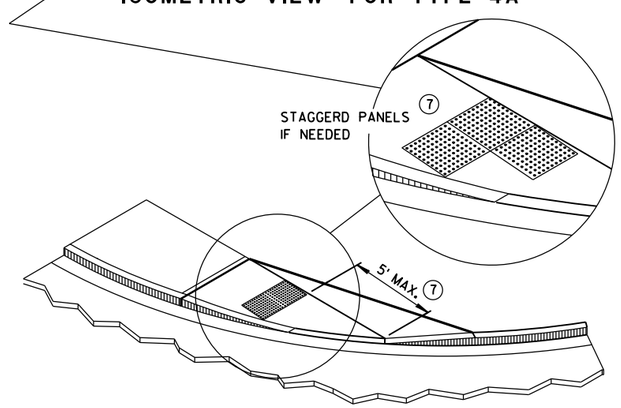
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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 4A1

LEGEND

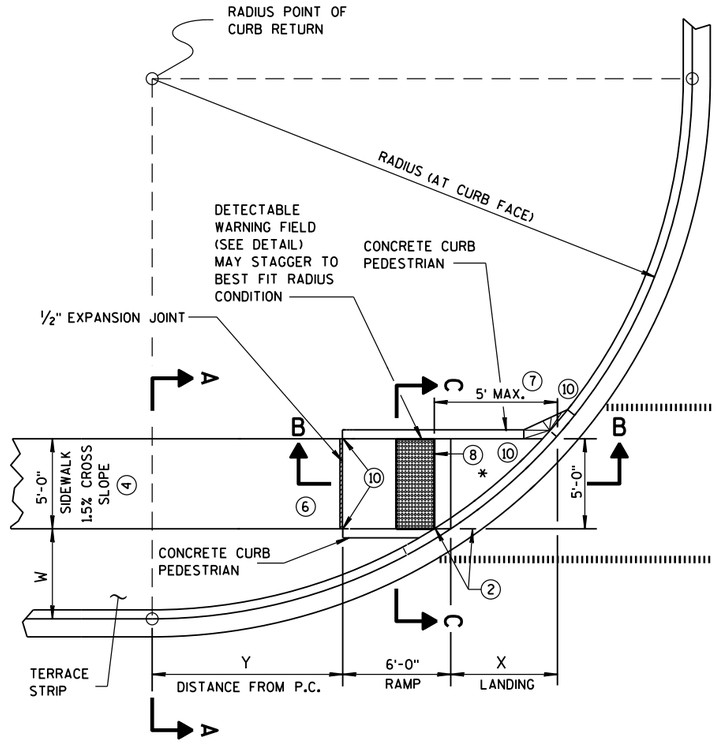
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

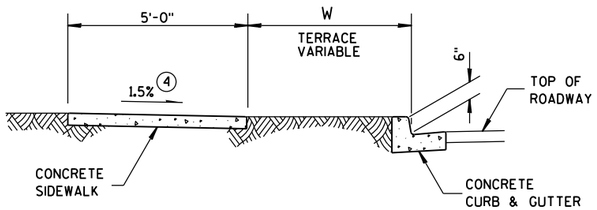
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

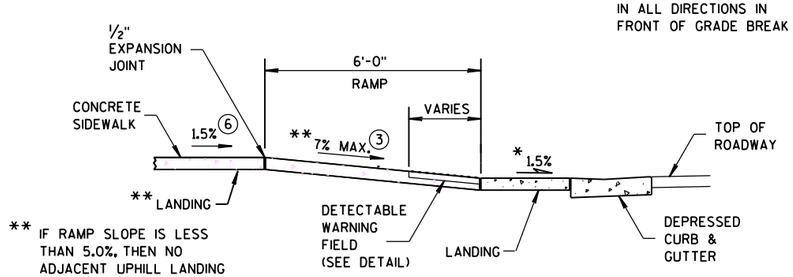
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



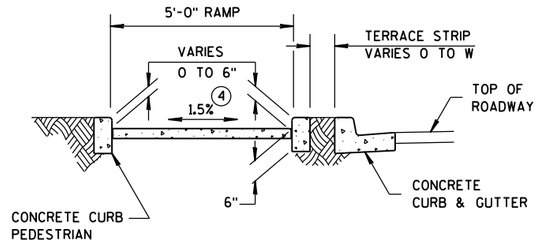
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

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

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

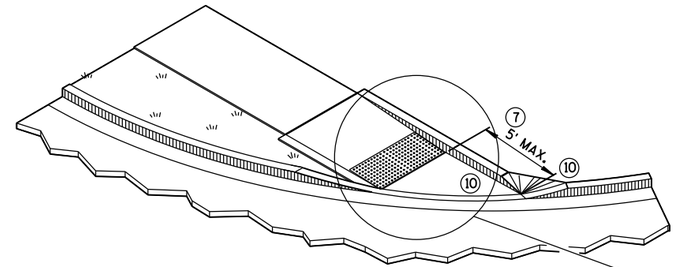
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

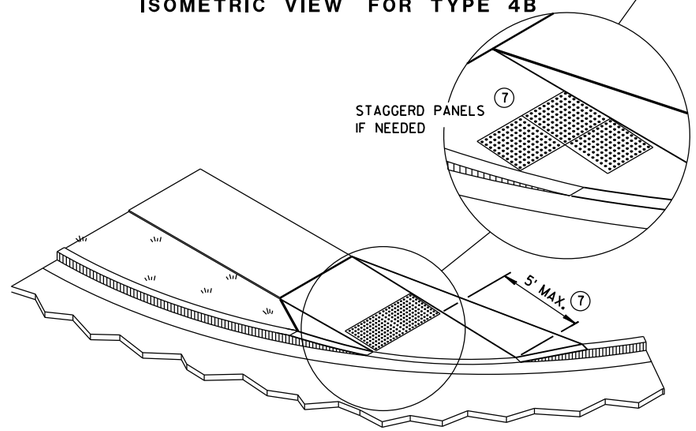
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

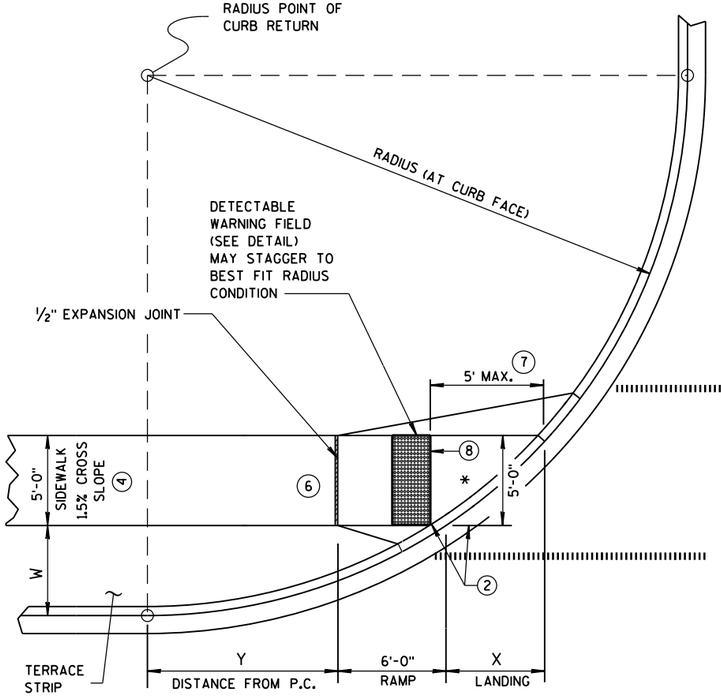
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

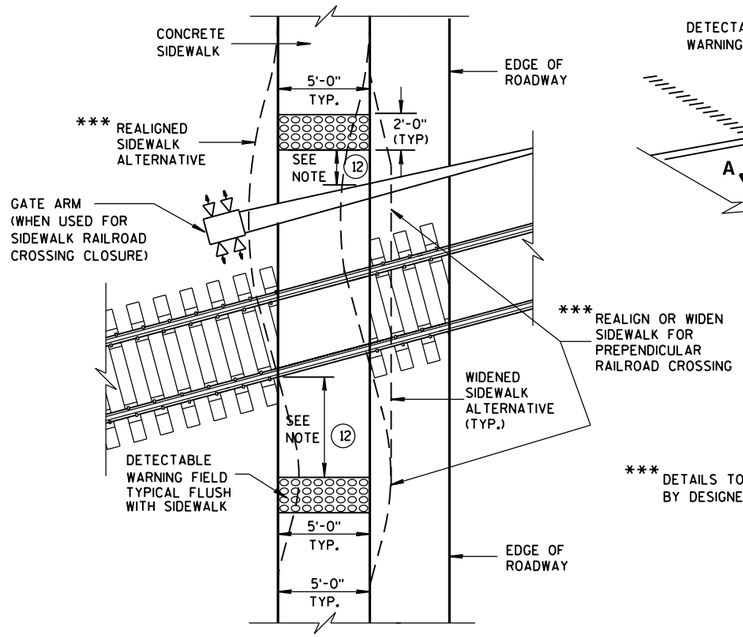
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16d

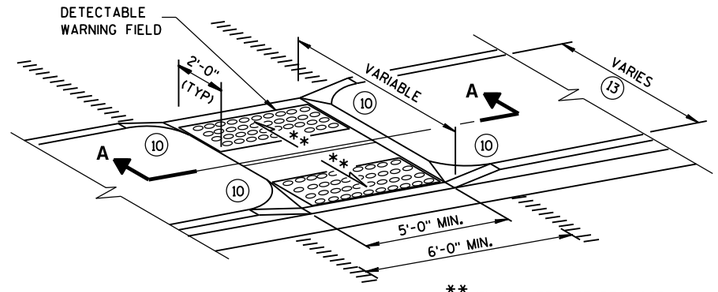
6

S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(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.

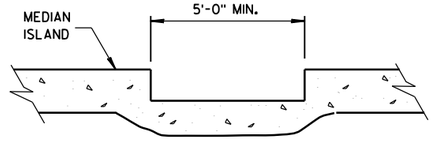
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

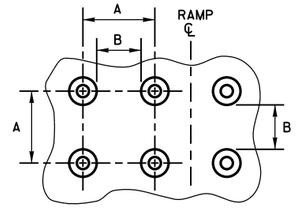
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



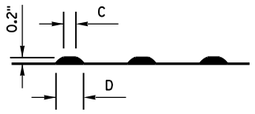
SECTION A-A

	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.

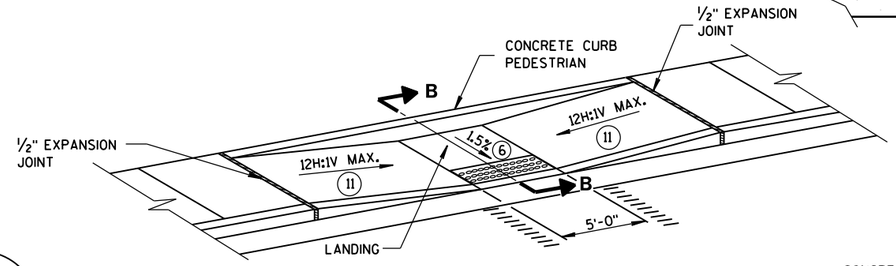


PLAN VIEW

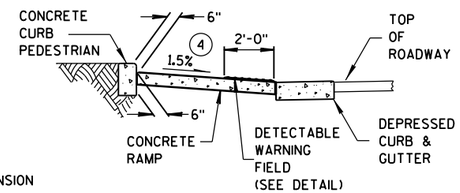


ELEVATION VIEW

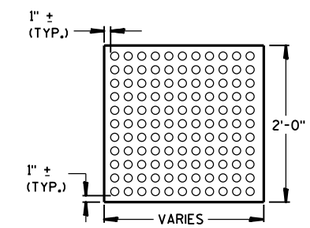
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A

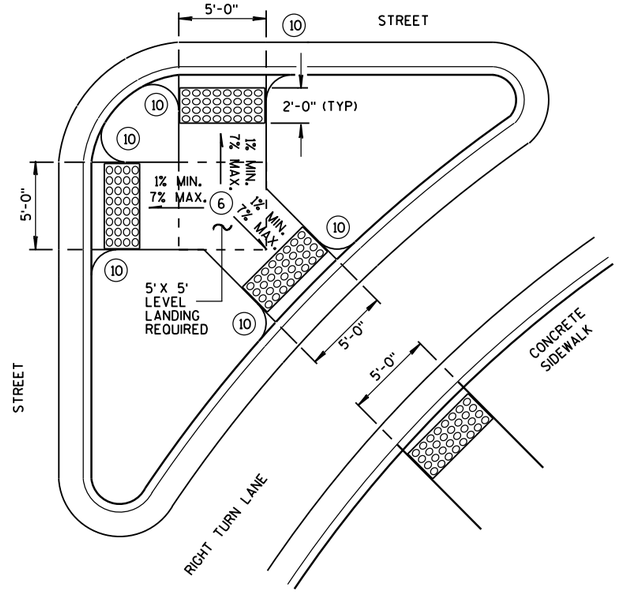


SECTION B-B

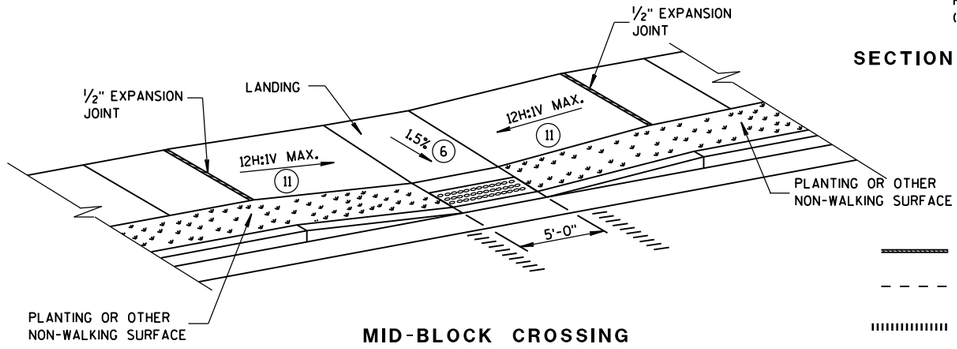


PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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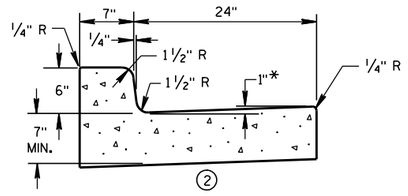
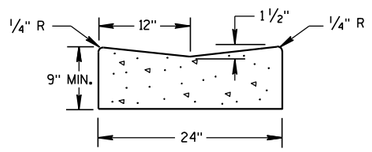
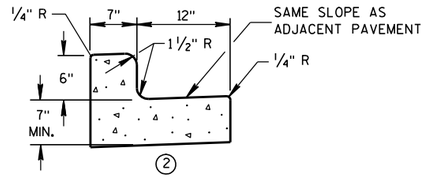


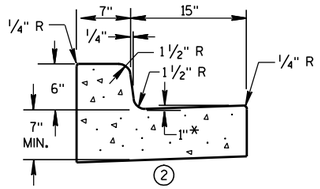
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

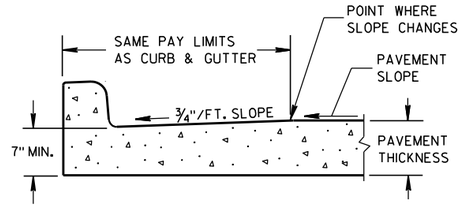


① CONCRETE CURB & GUTTER 19"



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.

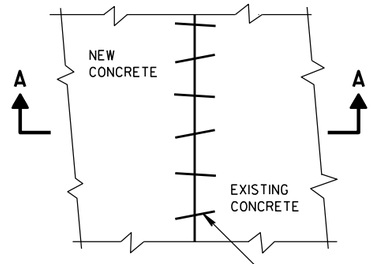
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

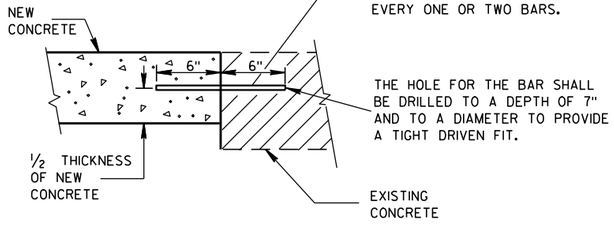
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

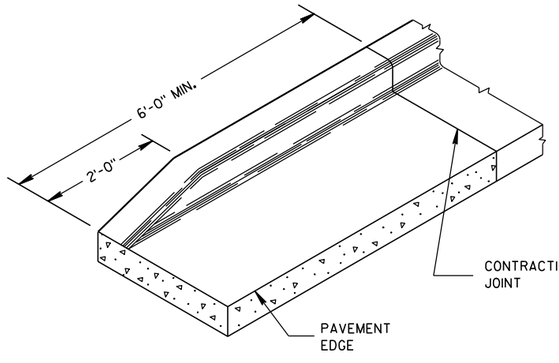
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



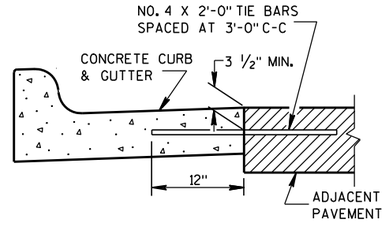
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

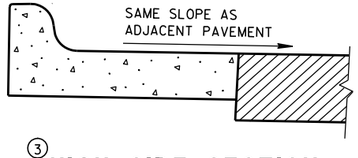
PAVEMENT TIES



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 Zoon — ROADWAY STANDARDS ENGINEER

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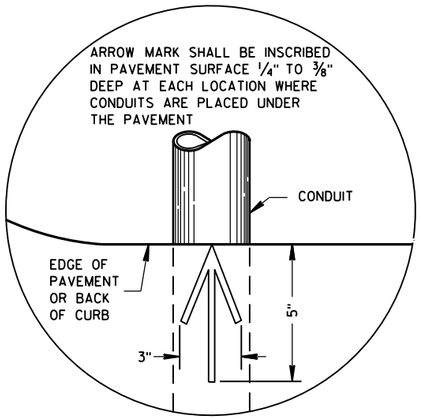
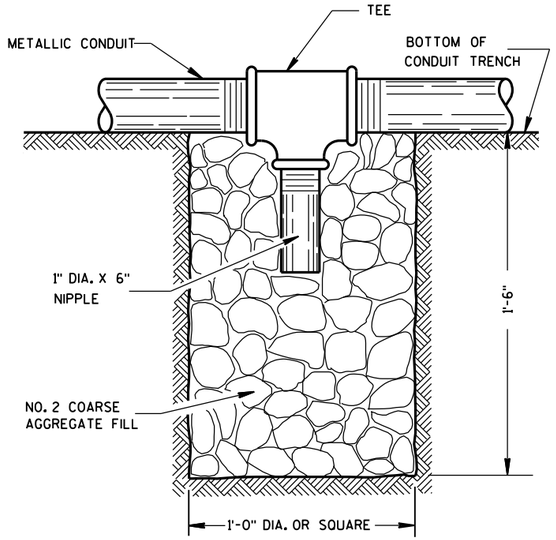


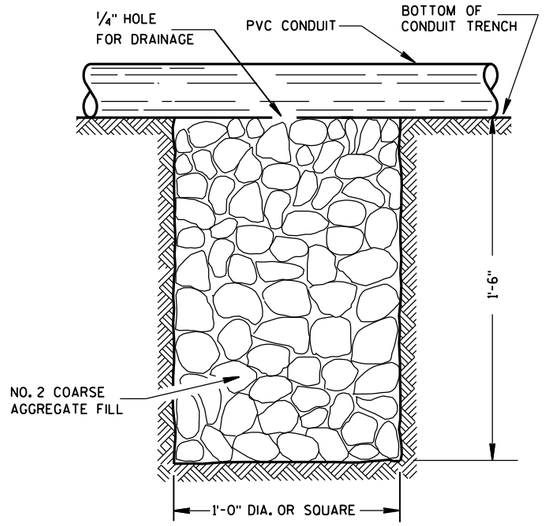
PLAN VIEW

ARROW MARK



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

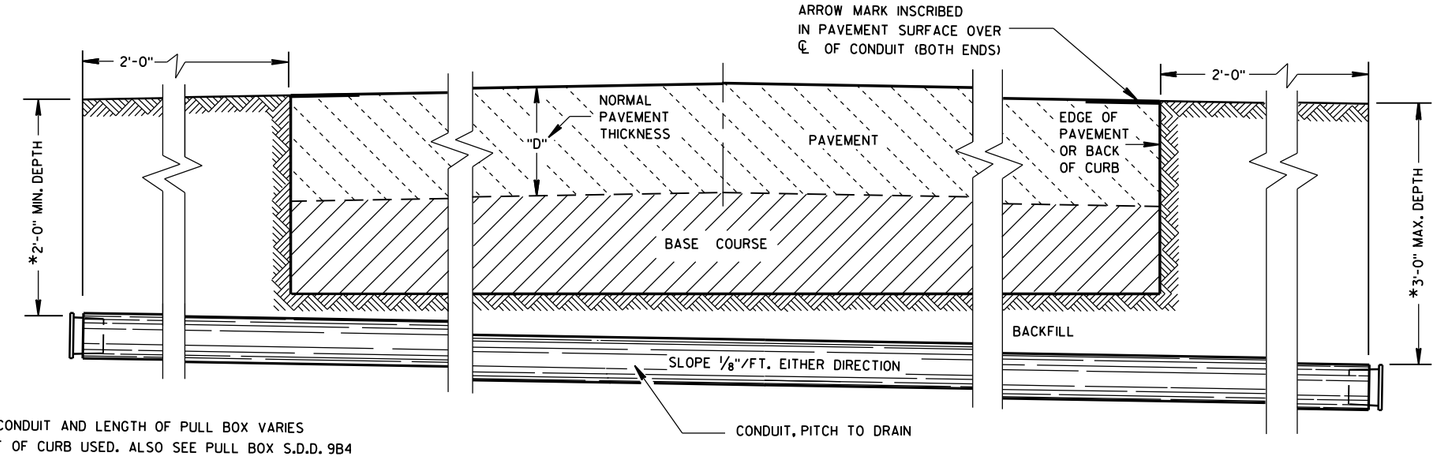
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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.



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

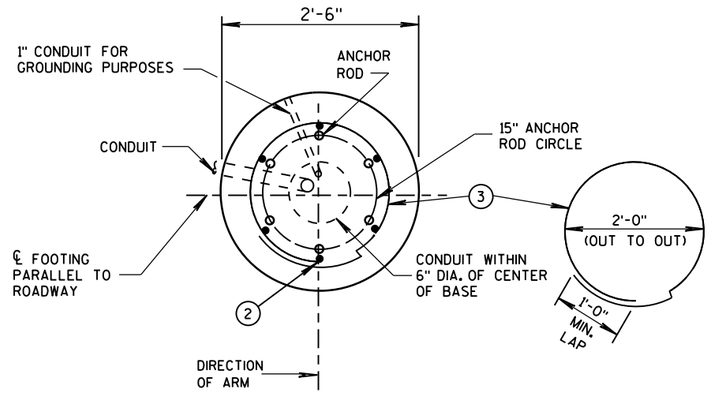
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

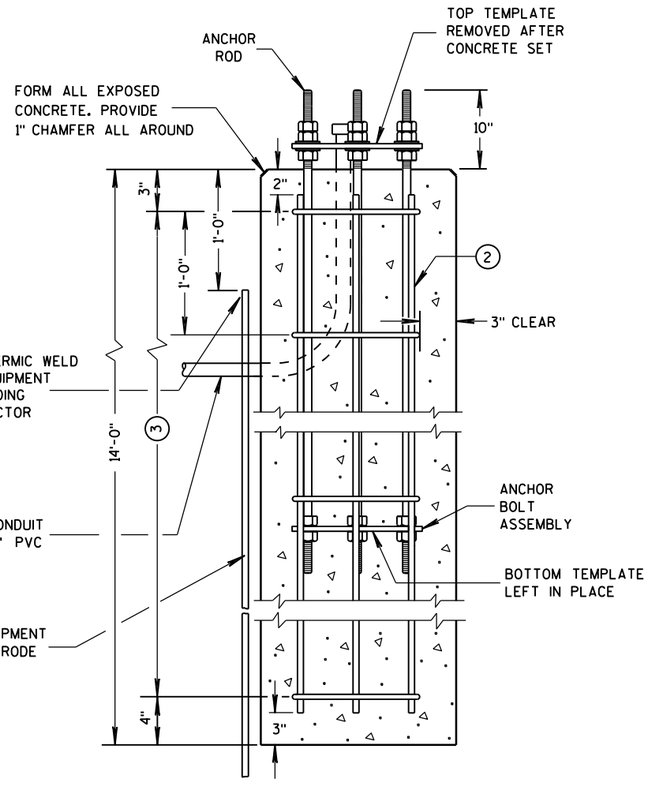
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

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

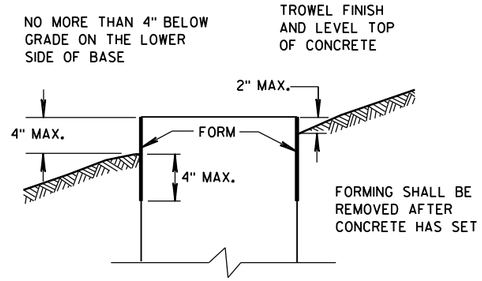
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



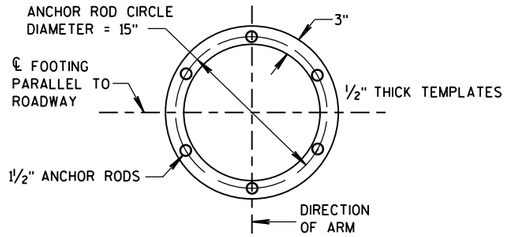


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

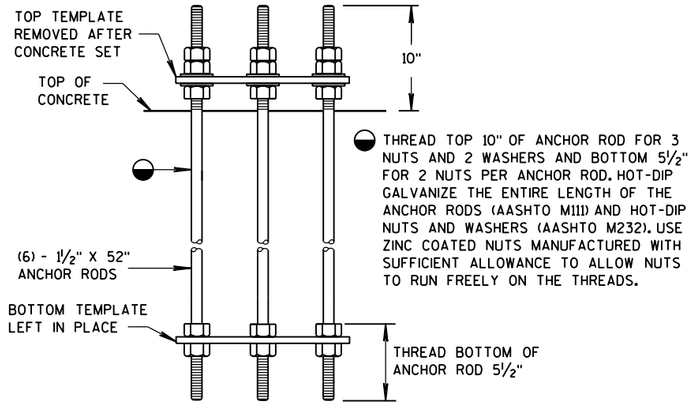
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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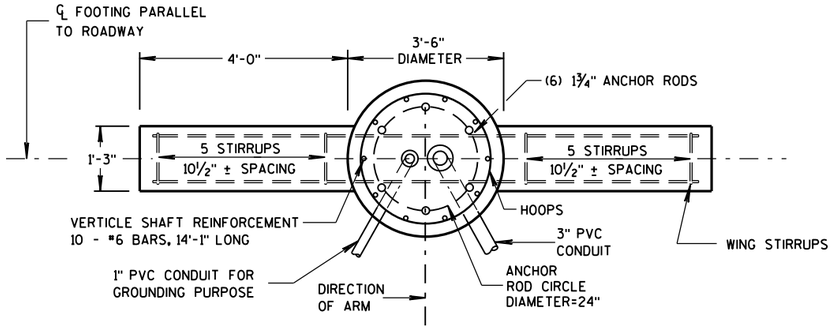
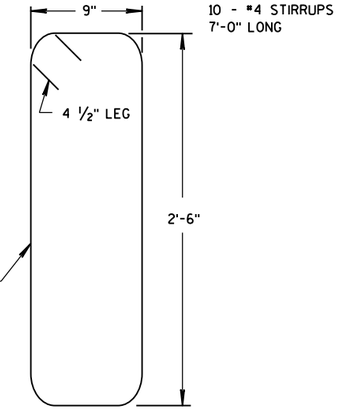
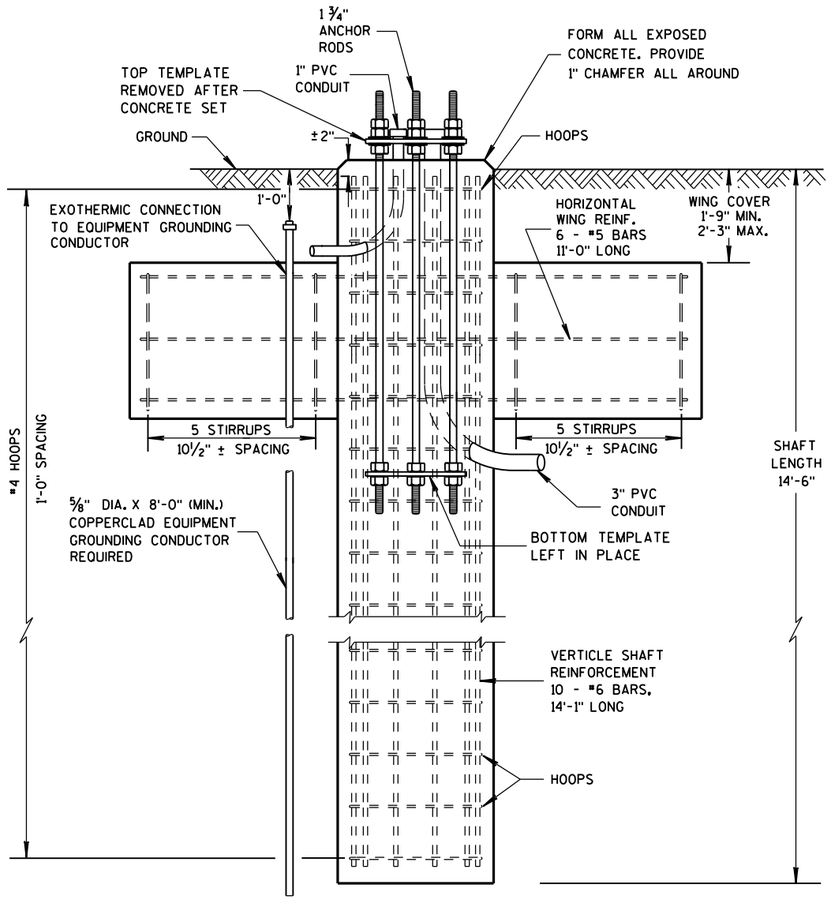


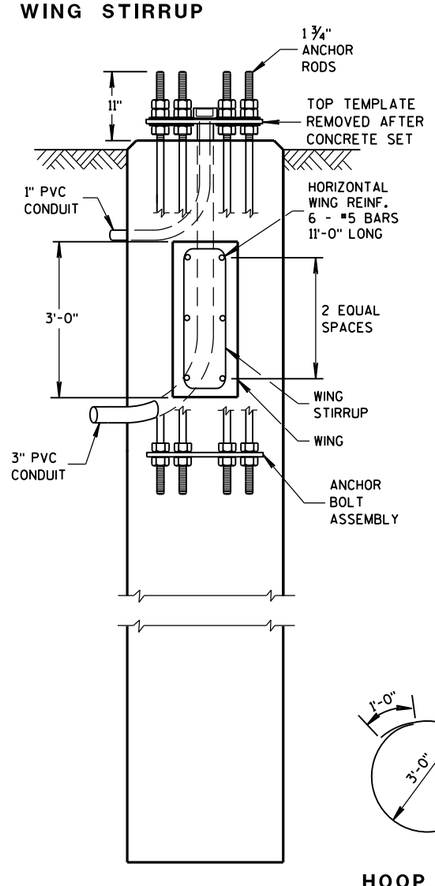
PLAN VIEW



WING STIRRUP

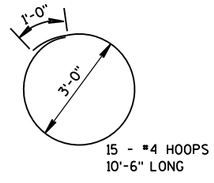


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

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

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

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

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

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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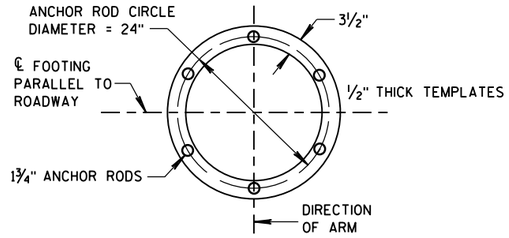
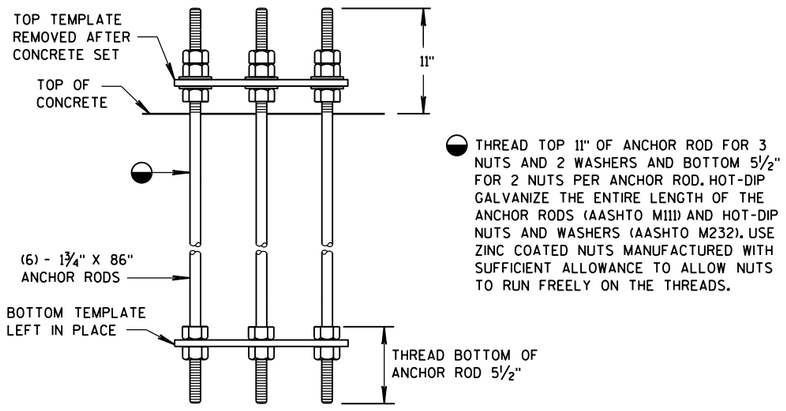
S.D.D. 9 C 12-6a

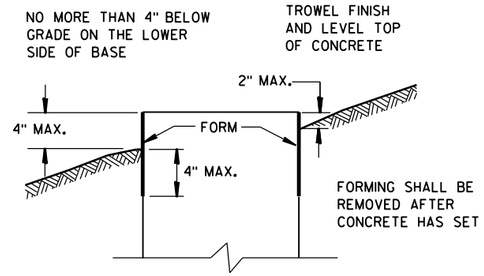


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Feb. 2015 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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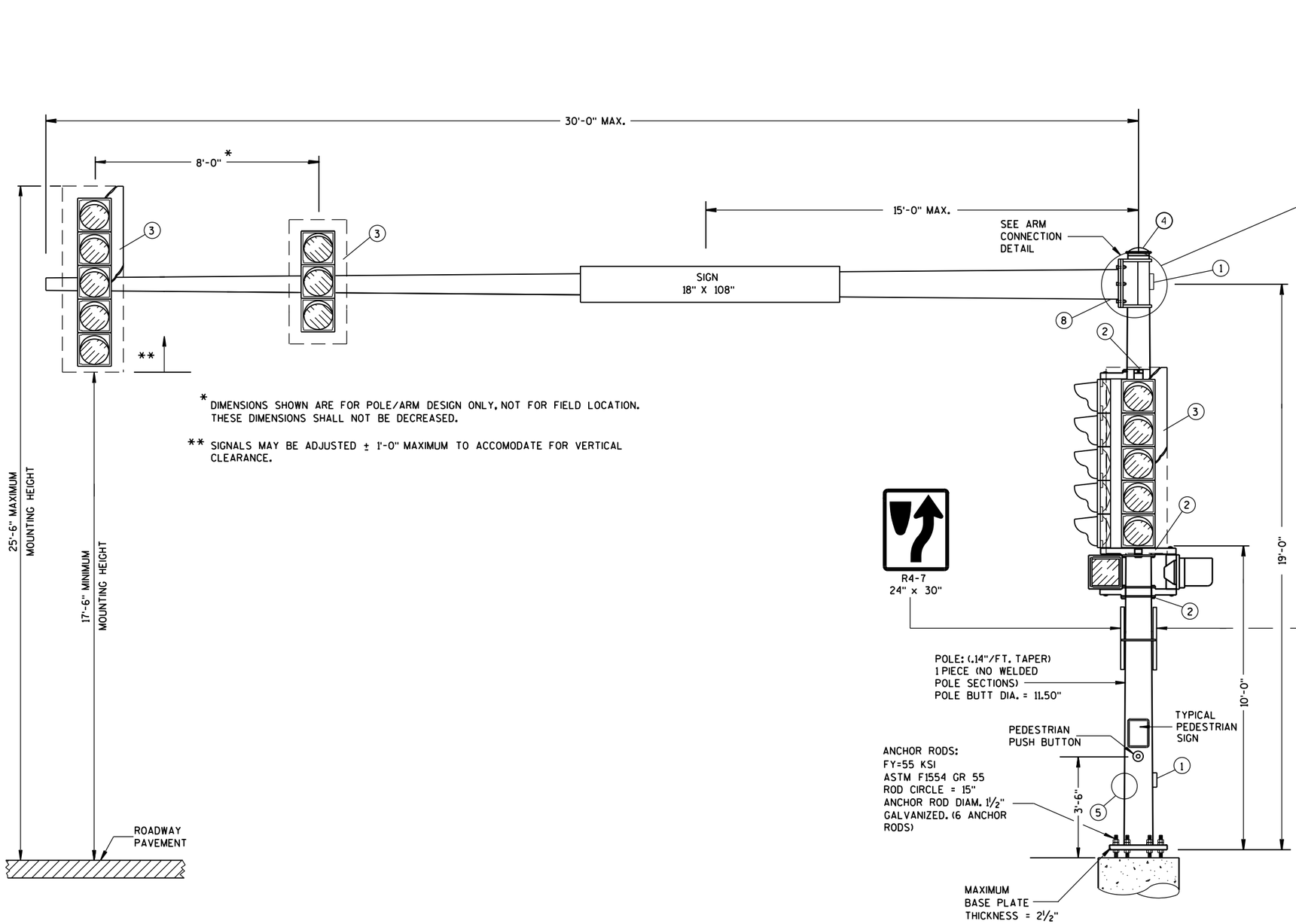
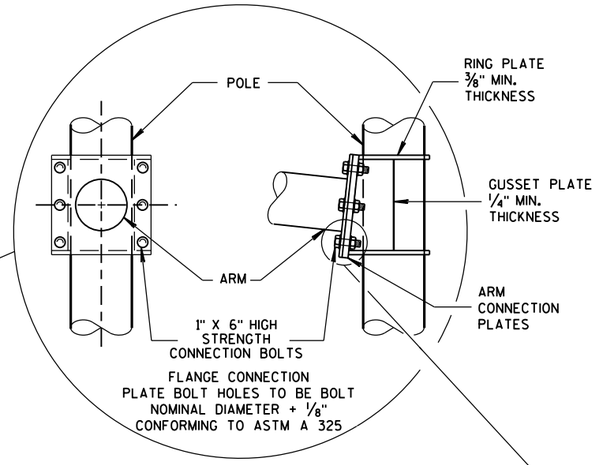
S.D.D. 9 C 12-6b

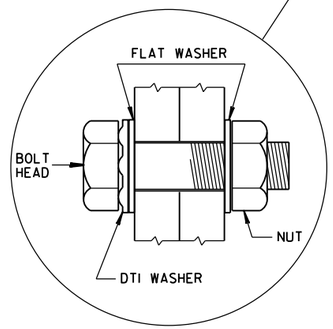


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

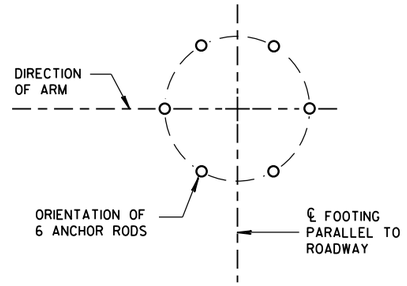
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



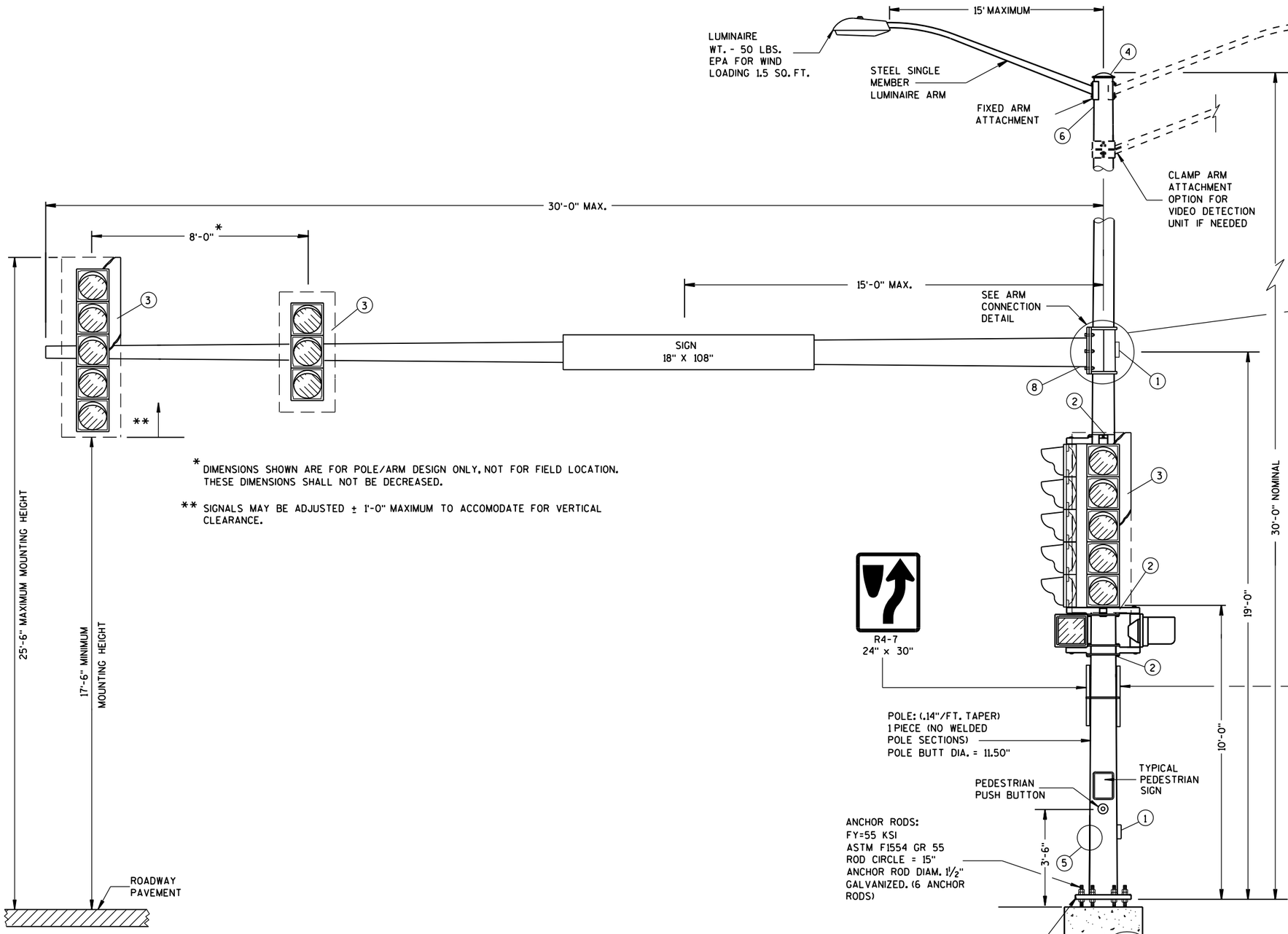
ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

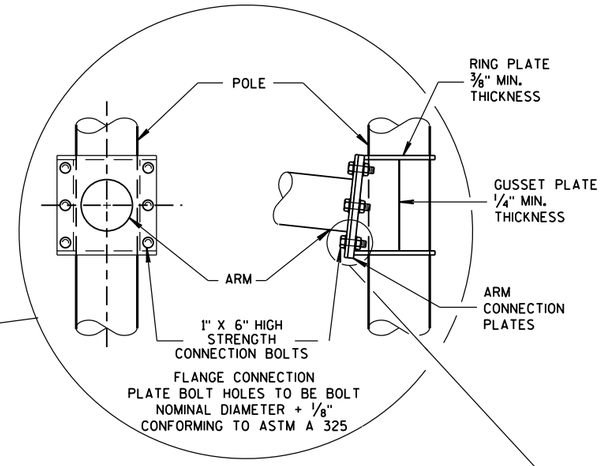
TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

S.D.D. 9 E 8-7a

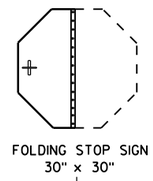


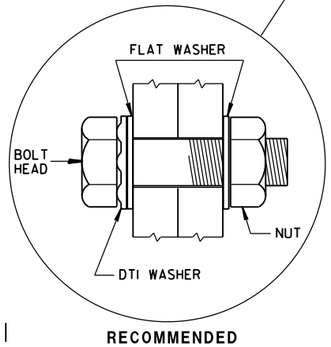
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

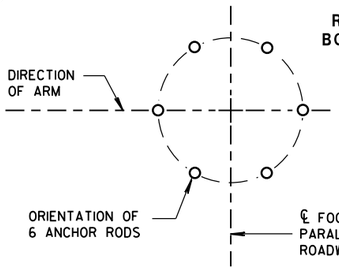


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 8-7b

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.

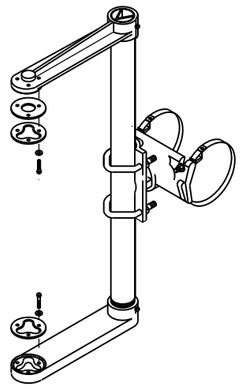
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

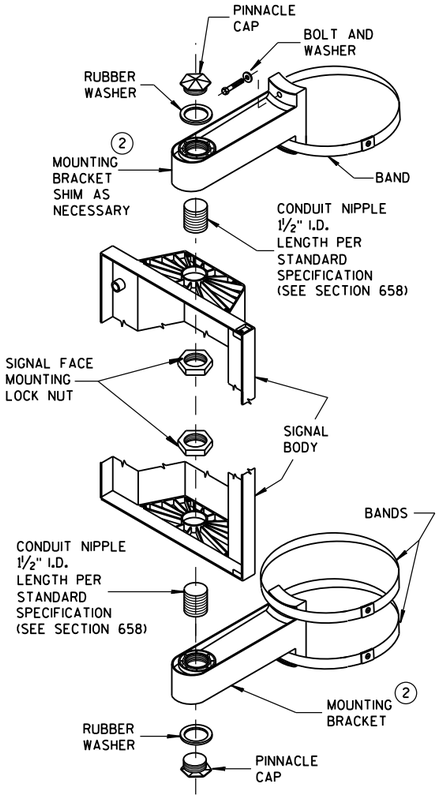
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

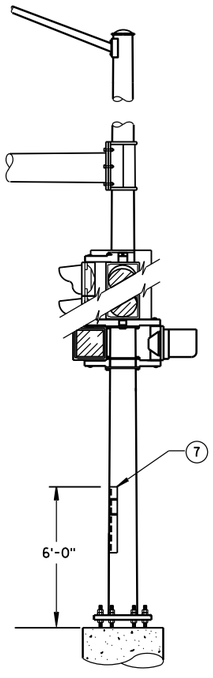


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

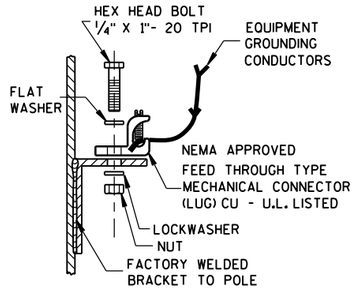
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

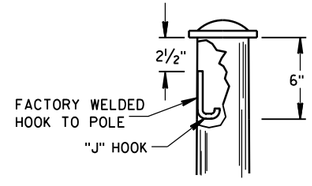


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



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

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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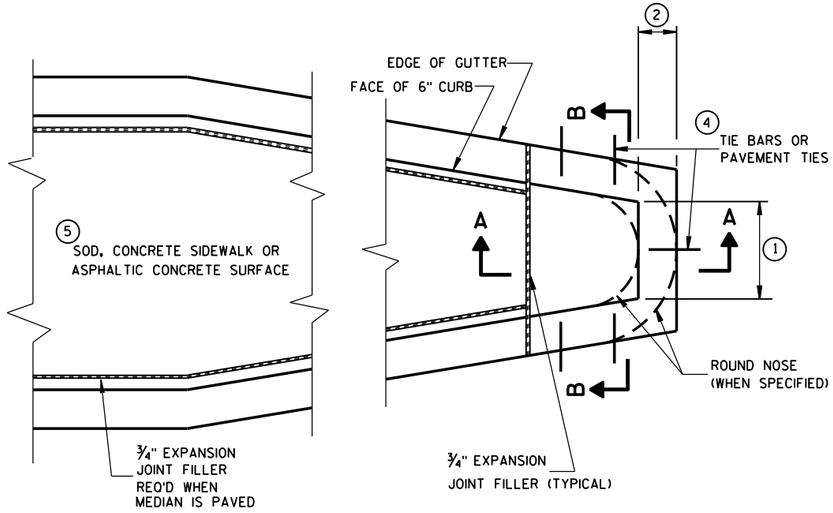
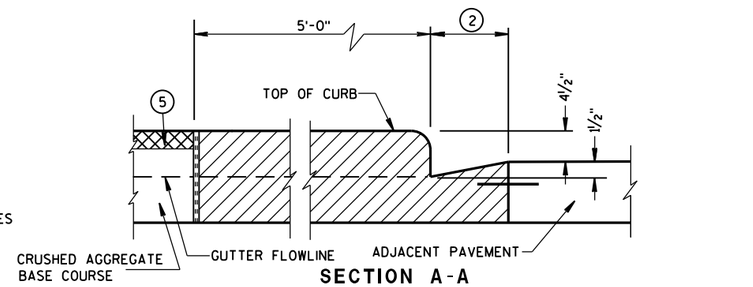
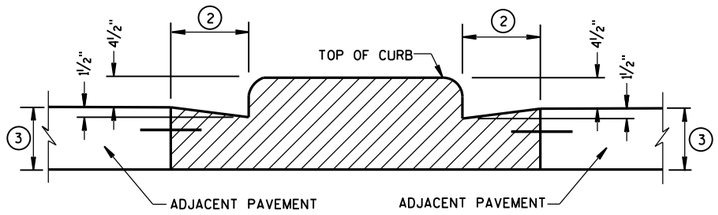
S.D.D. 9 E 8-7e







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.

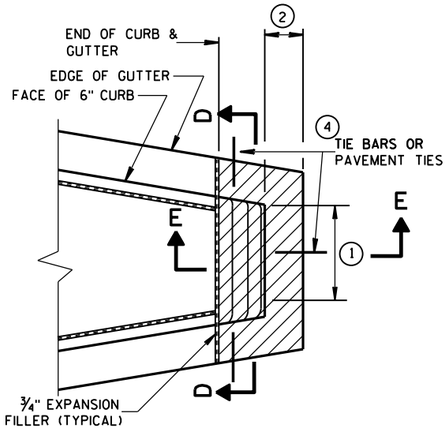
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

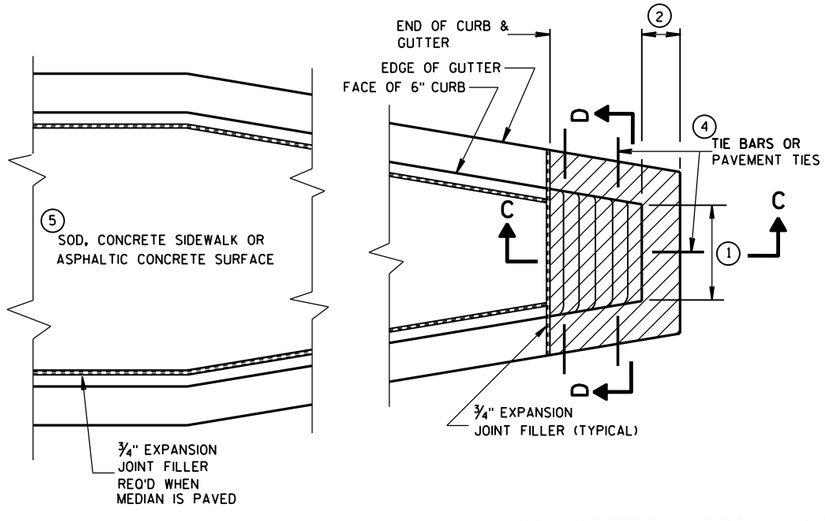
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

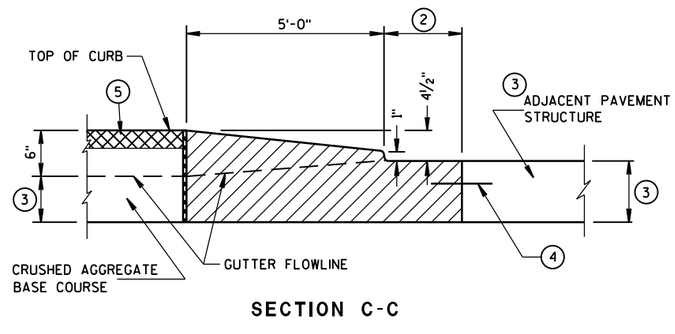
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

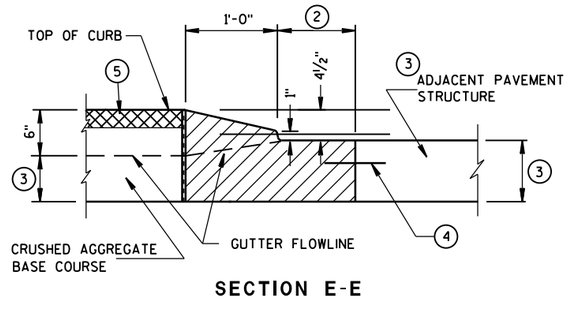
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



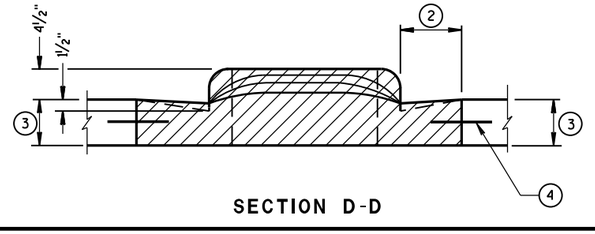






CONCRETE MEDIAN SLOPED NOSE TYPE 2

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 DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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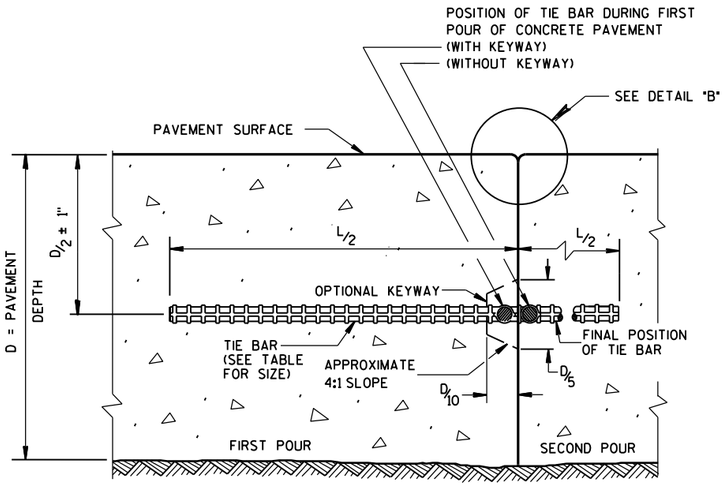
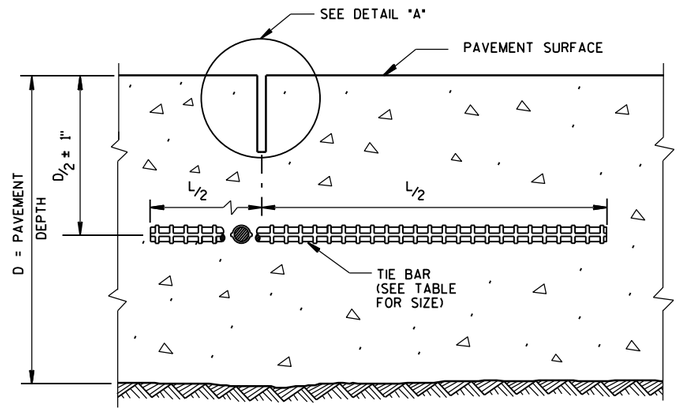
S.D.D. 11 B 2-2



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"

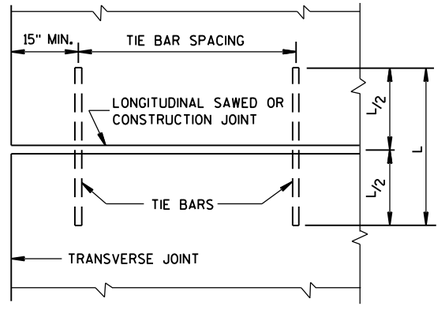
DETAIL "C"

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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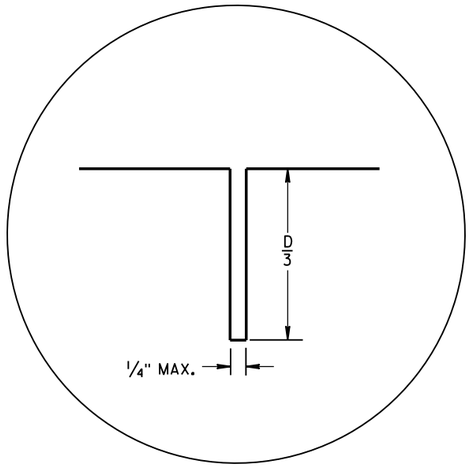
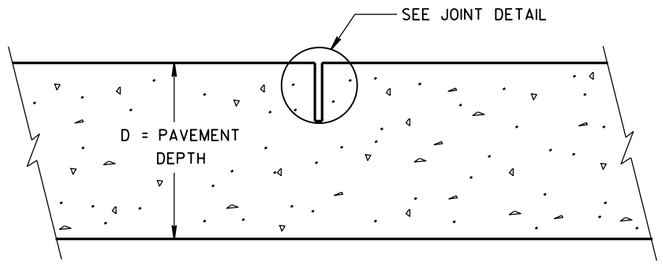
S.D.D. 13 C 1-18



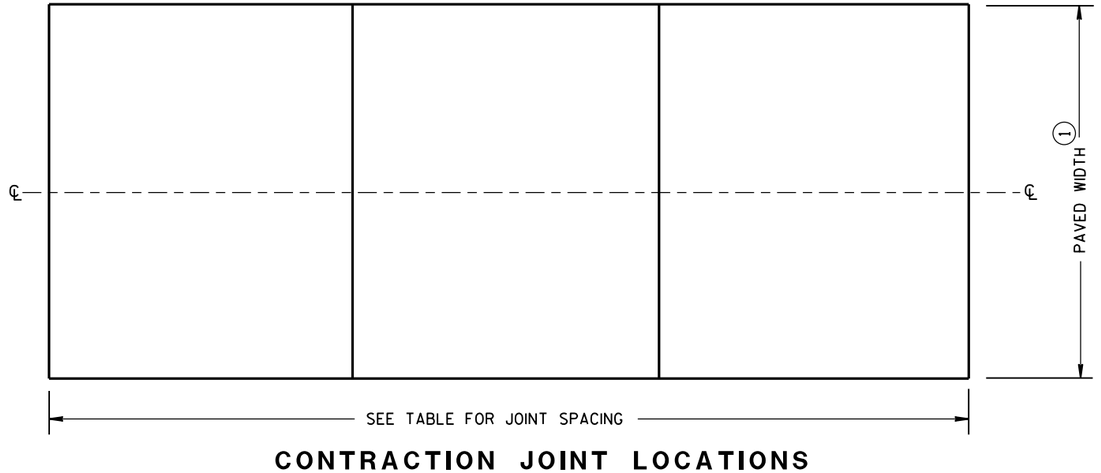
JOINT DETAIL



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

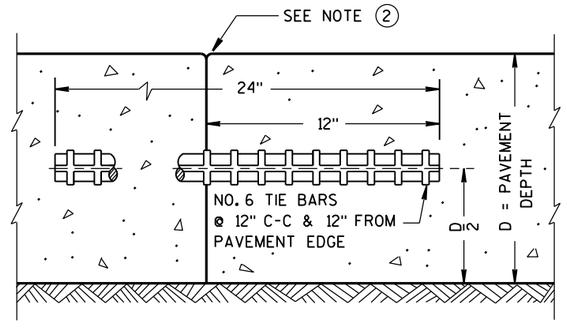
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

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

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S.D.D. 13 C 4-16

S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

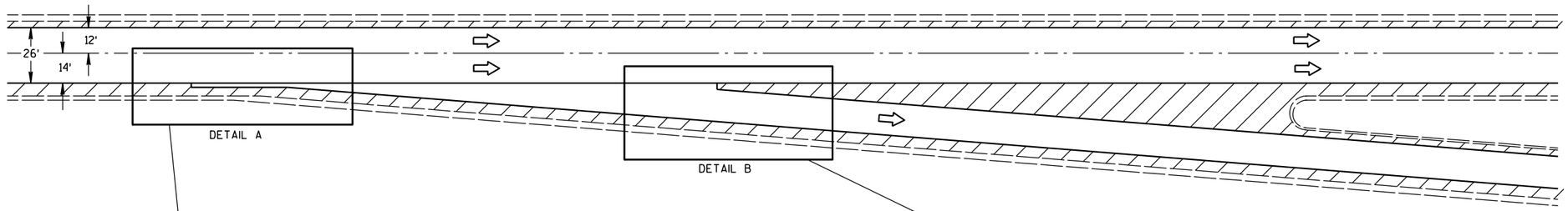
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013
DATE

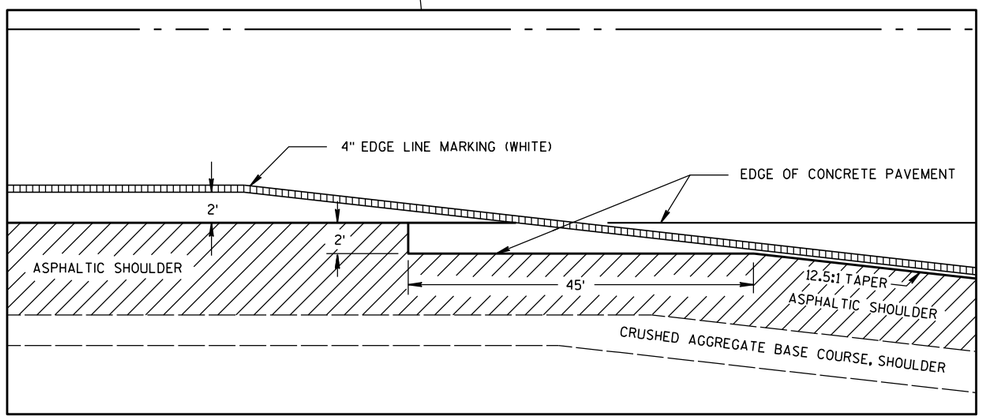
/S/ Deb Bischoff
PAVEMENT POLICY & DE

IEER

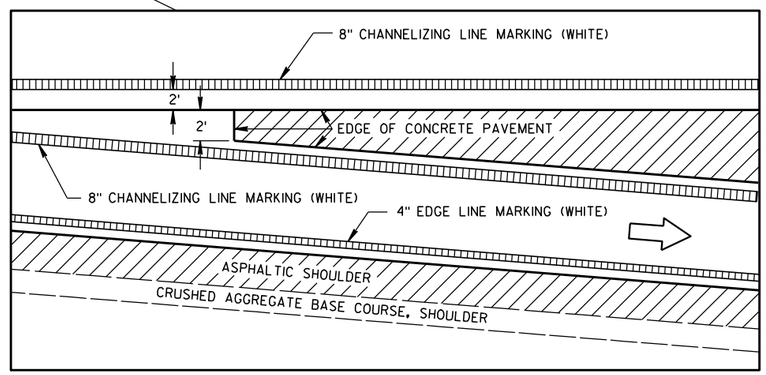
FHWA



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 17-1a

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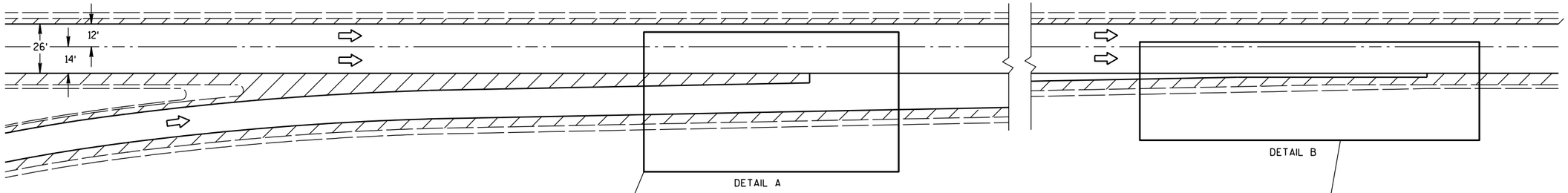
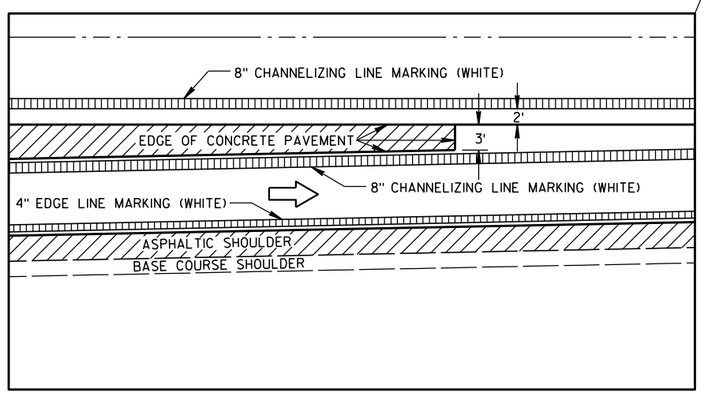
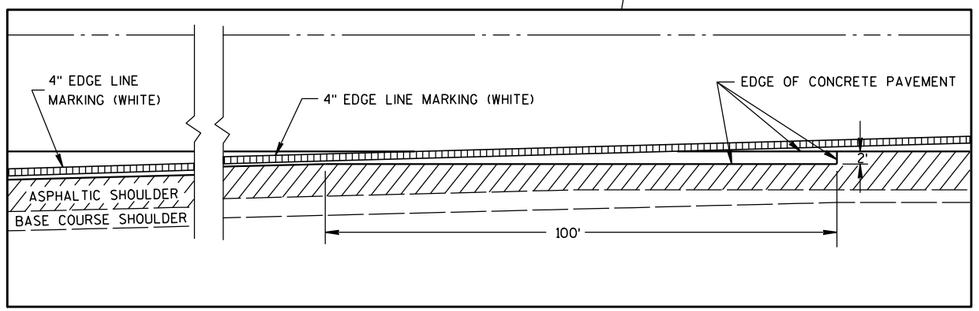
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 13 C 17-1b

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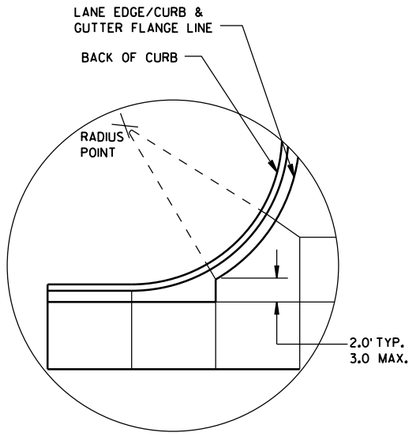
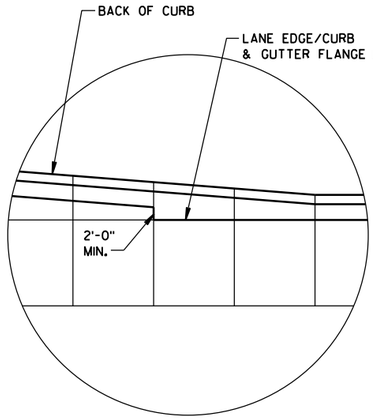
S.D.D. 13 C 17-1b



DETAIL "A"



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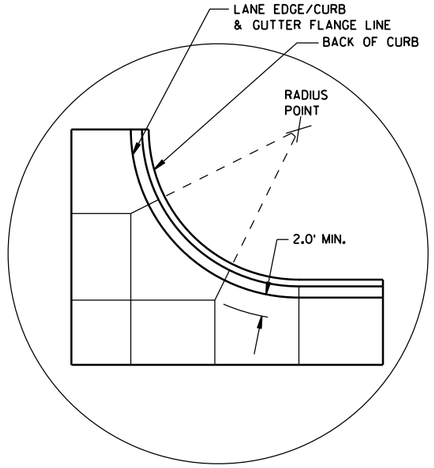
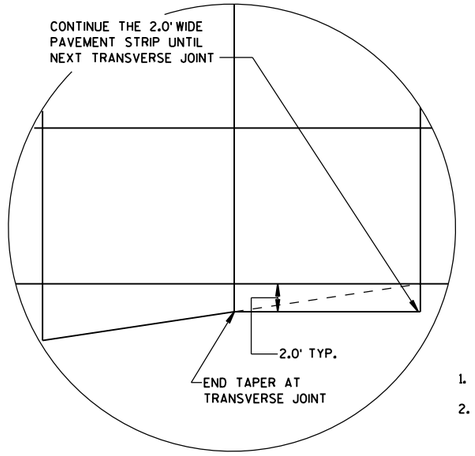


DETAIL "C"



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.

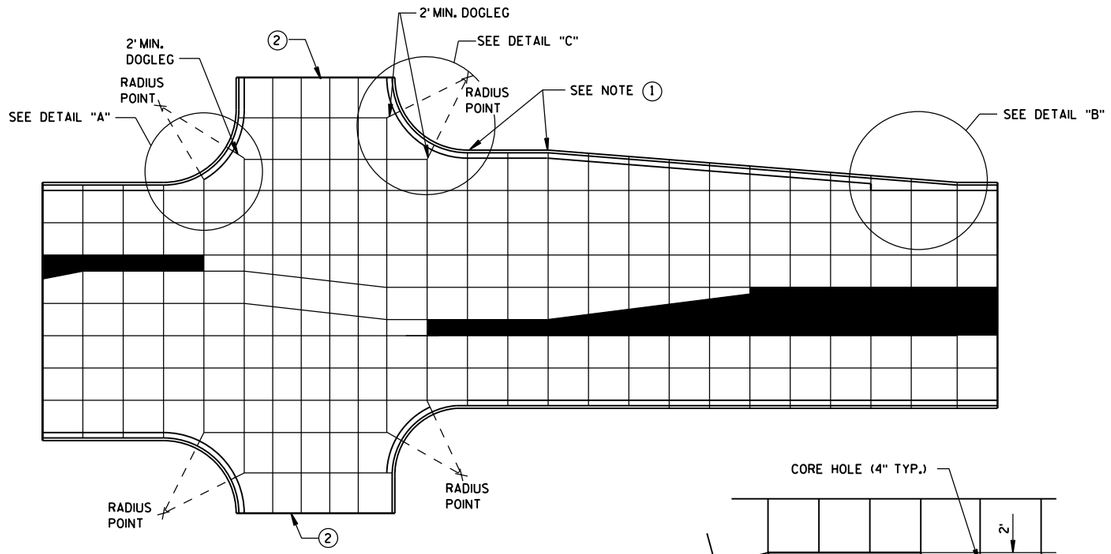
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

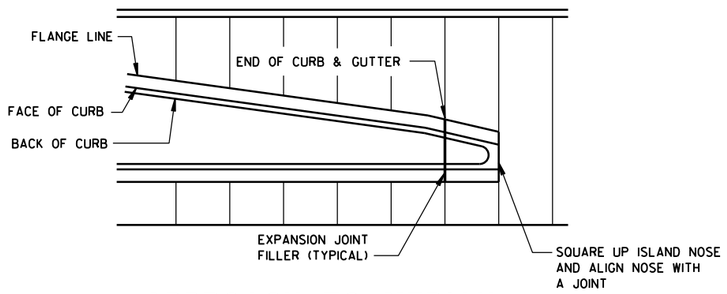
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



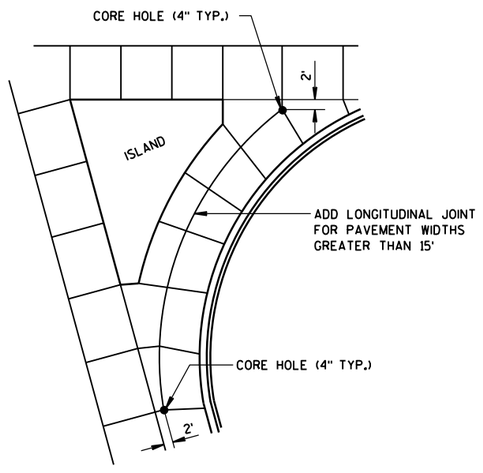
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

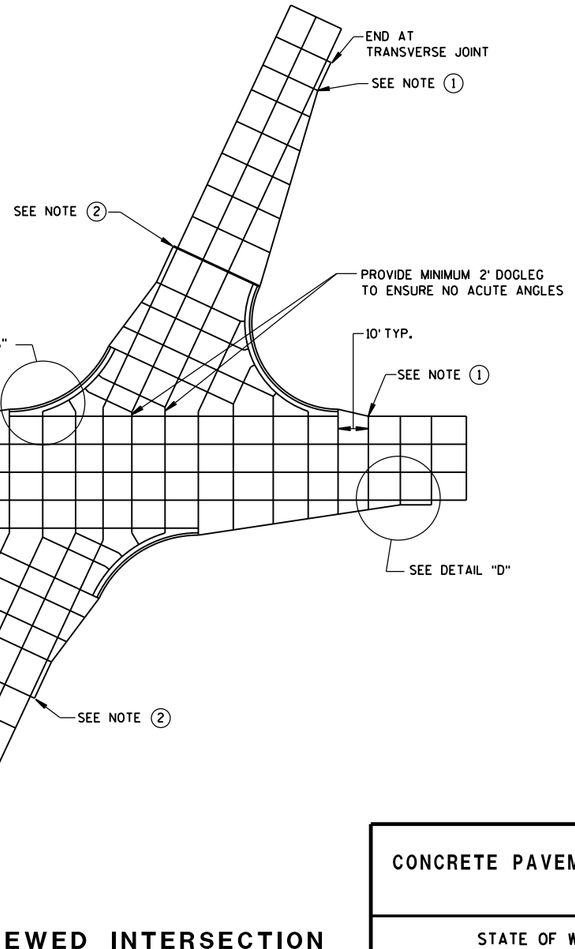
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 224

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S.D.D. 13 C 18-3a

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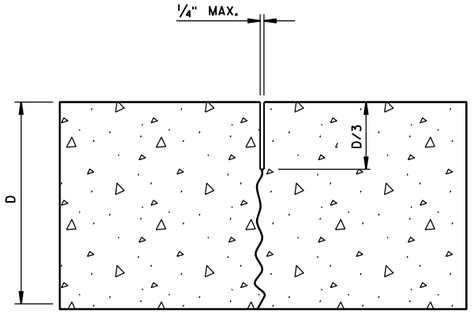
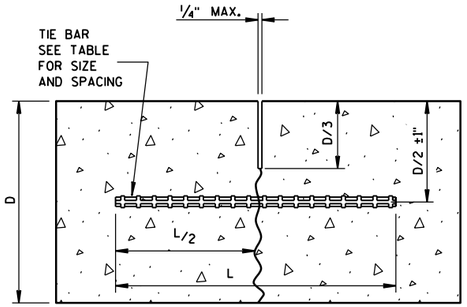
S.D.D. 13 C 18-3a



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

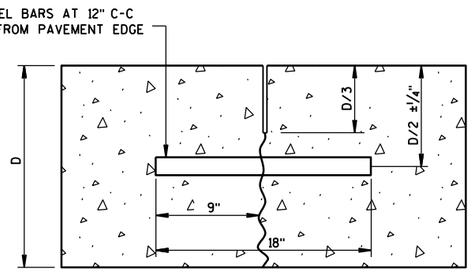
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* 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

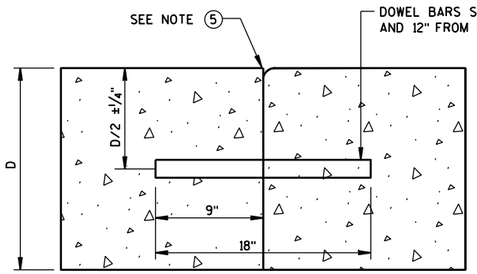
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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.



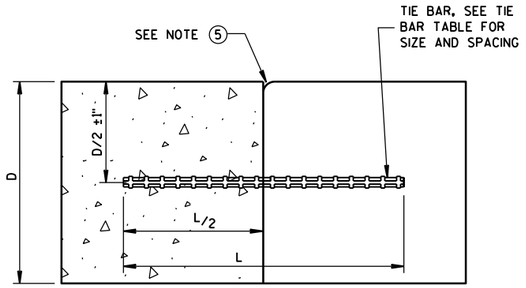
DOWELED-TRANSVERSE

CONTRACTION JOINTS

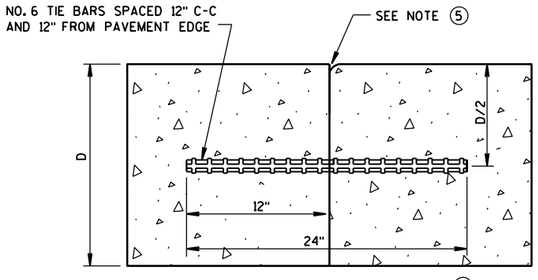
SEE NOTE (2)



DOWELED TRANSVERSE (3)

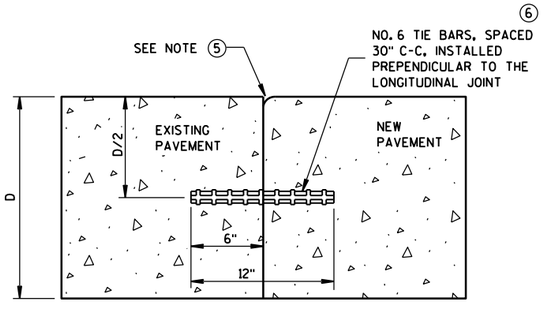


TIED LONGITUDINAL



TIED TRANSVERSE (3)

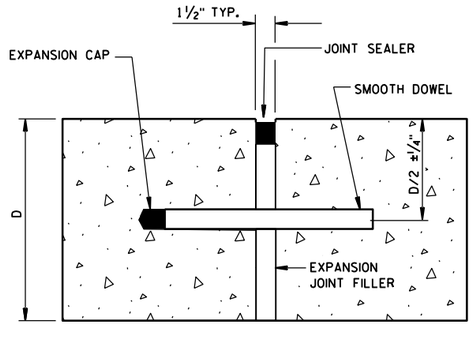
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

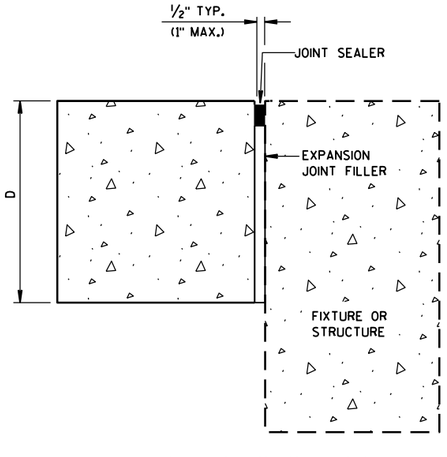
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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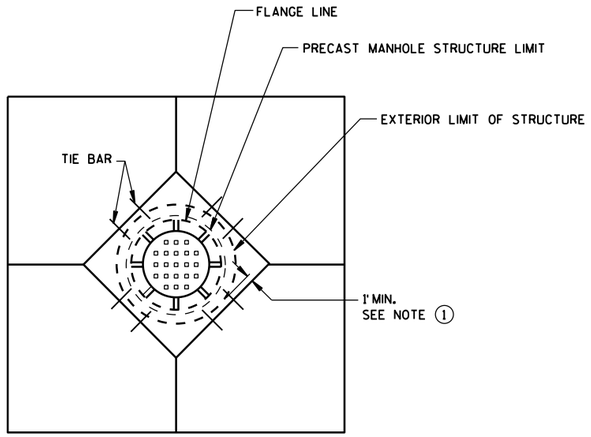
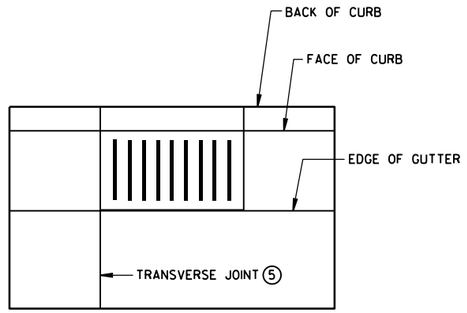
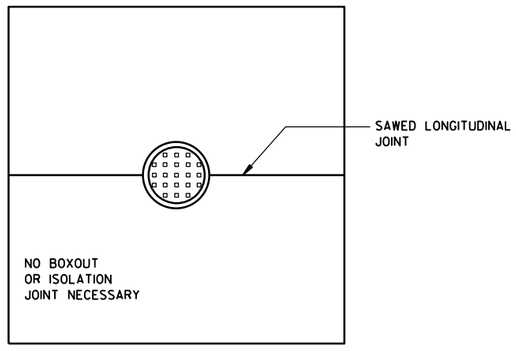
S.D.D. 13 C 18-3c



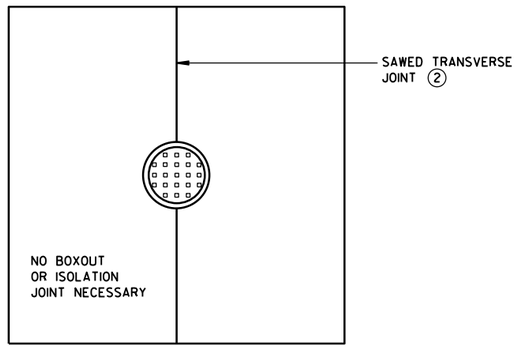
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



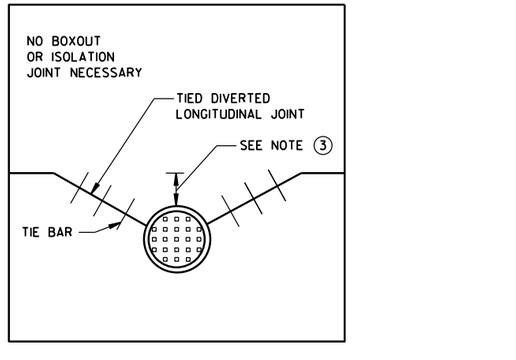
INLET WITH TRANSVERSE JOINT



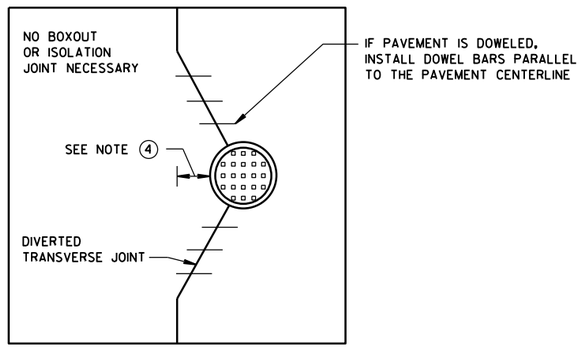
MANHOLE WITH LONGITUDINAL JOINT



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.

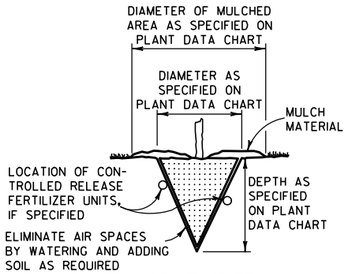
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

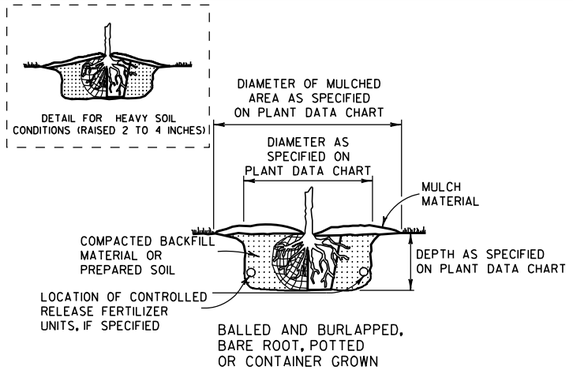
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

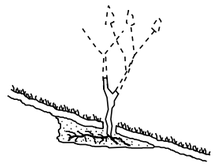
S.D.D. 13 C 18-3d



MACHINE MOVED

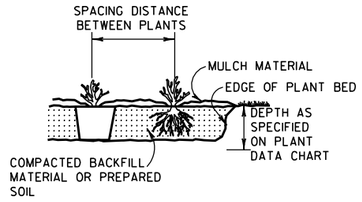


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



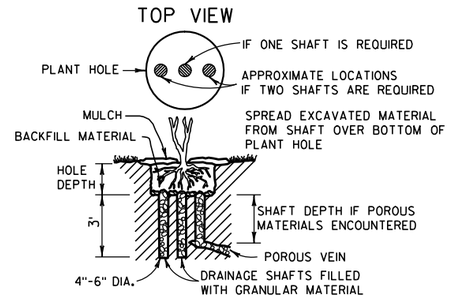
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

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



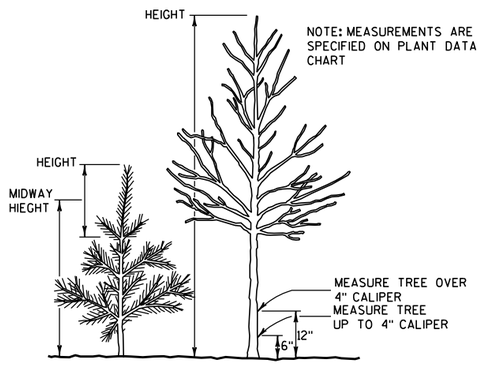
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

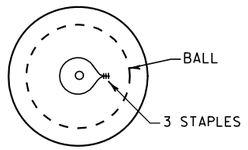


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

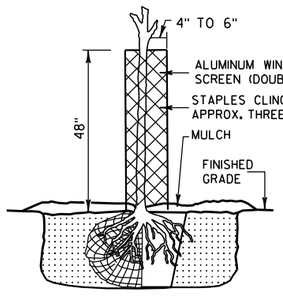
DRAINING



MEASURING



TOP VIEW



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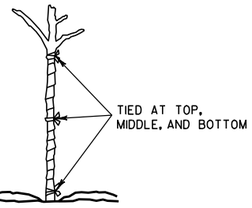
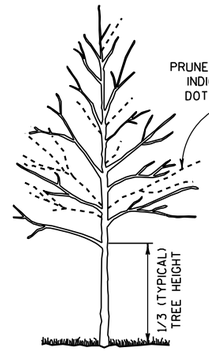


WRAPPING



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)

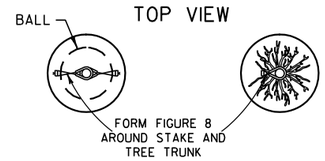
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

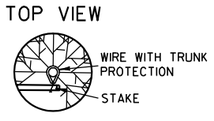
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

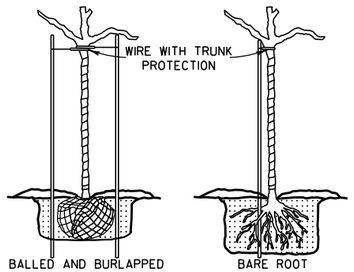
SUMAC

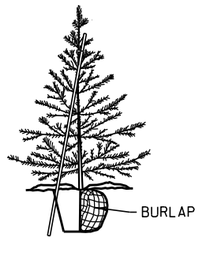
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



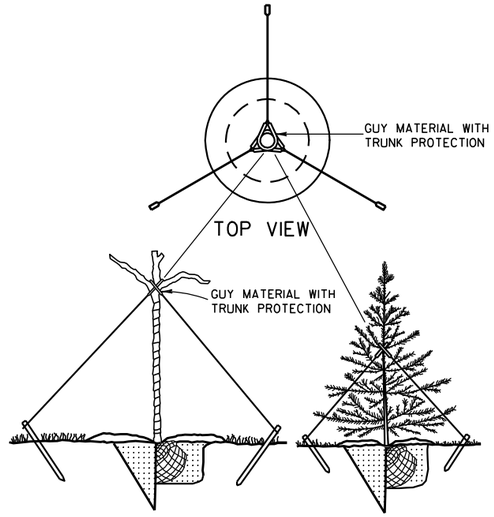






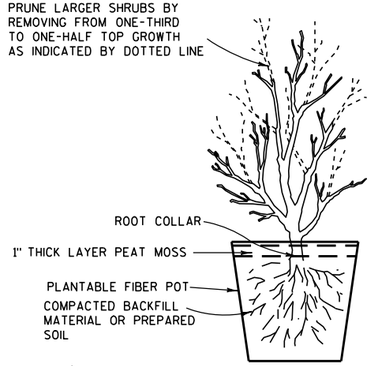
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE 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

6

S.D.D. 14 A 2-1

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.

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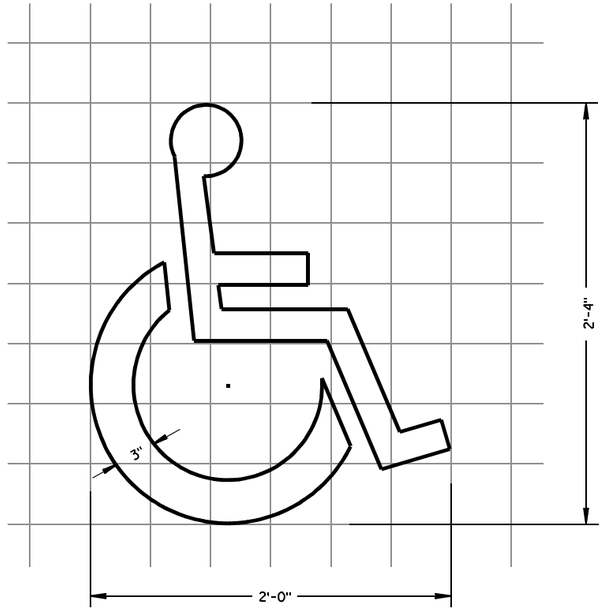
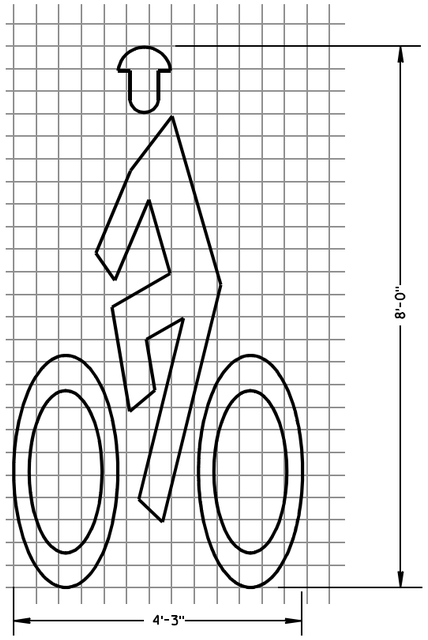
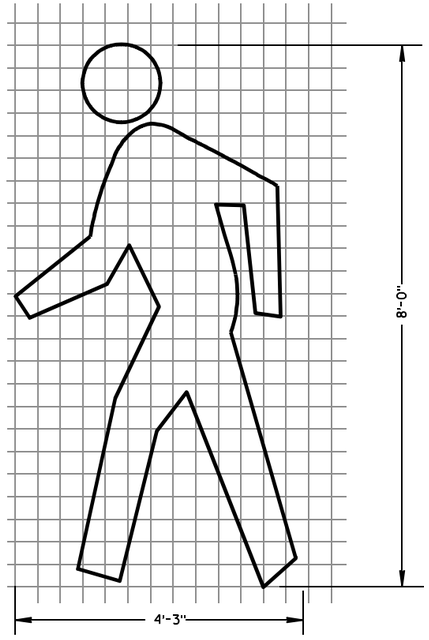
A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

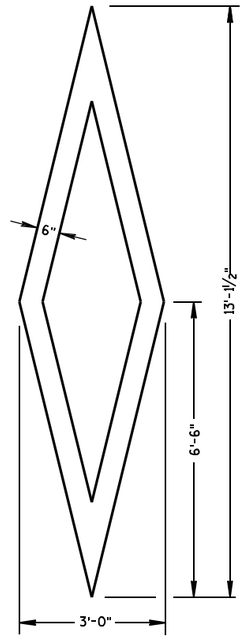




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12a

6

S.D.D. 15 C 7-12a

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.

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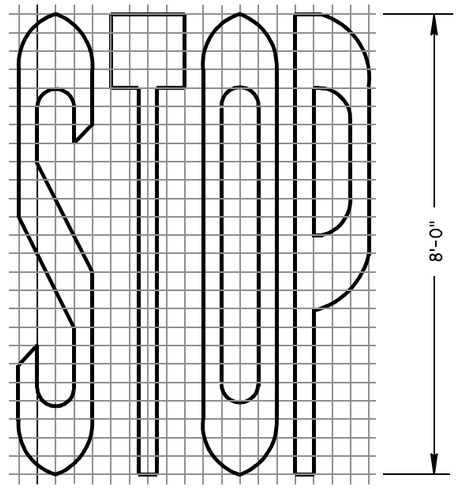
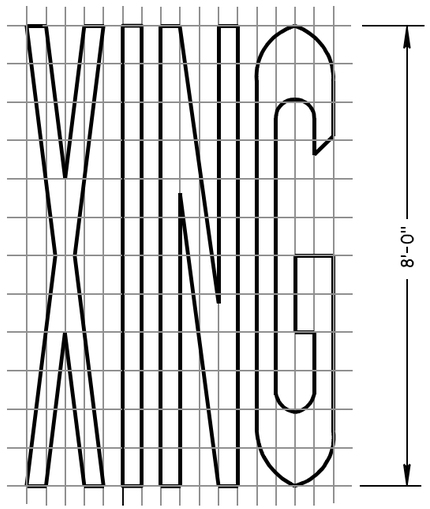
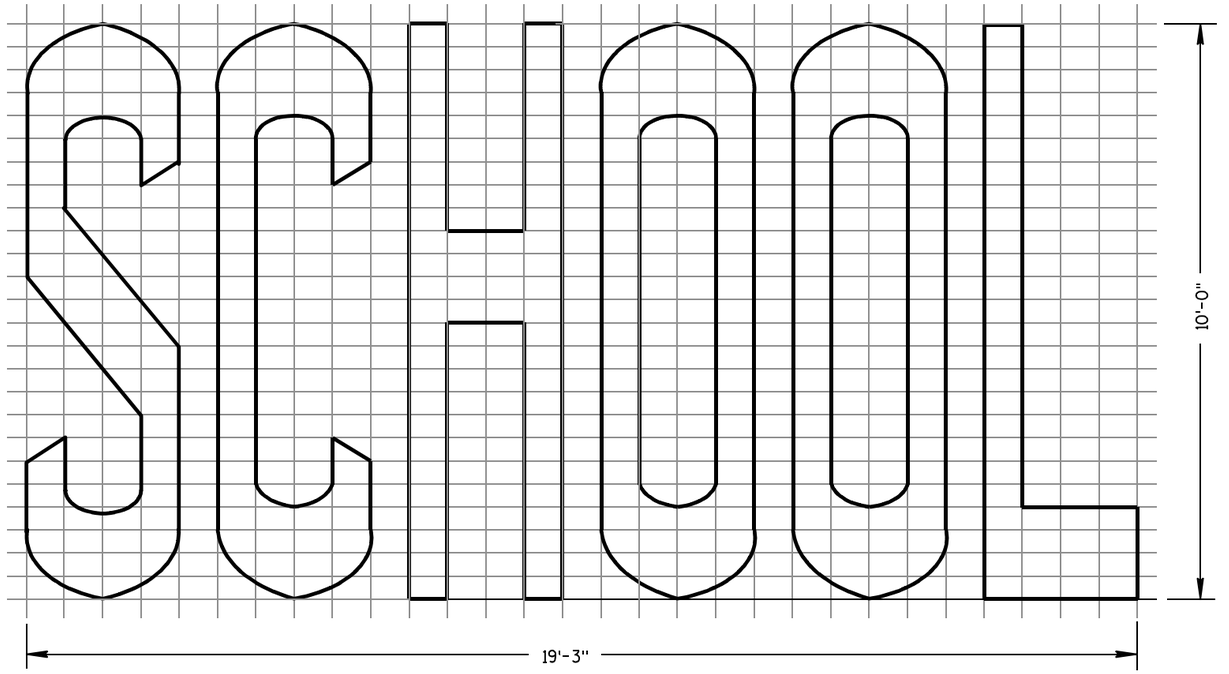
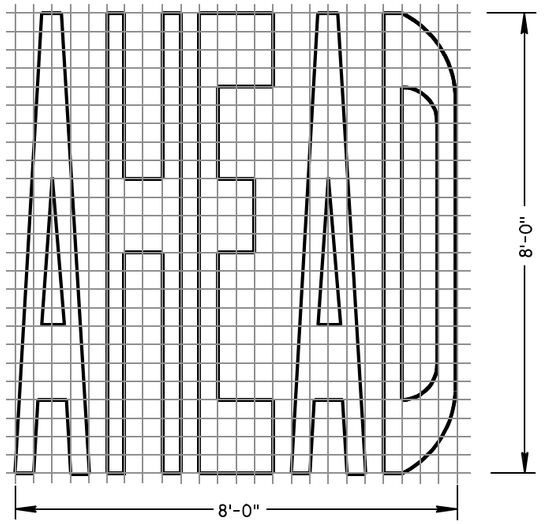
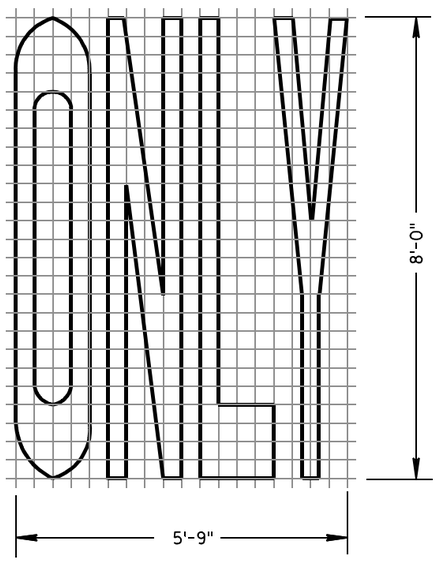


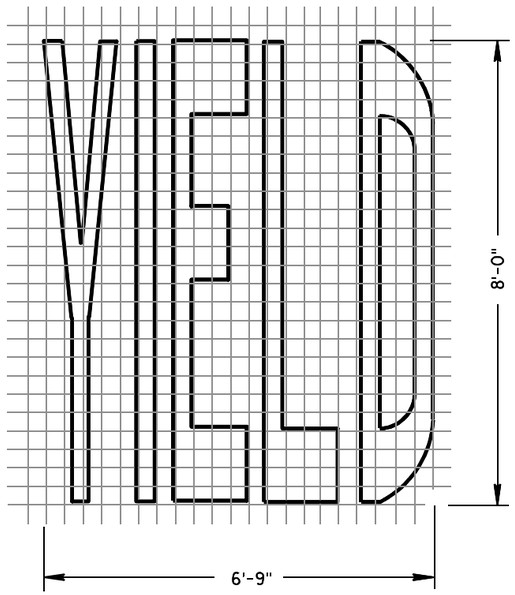


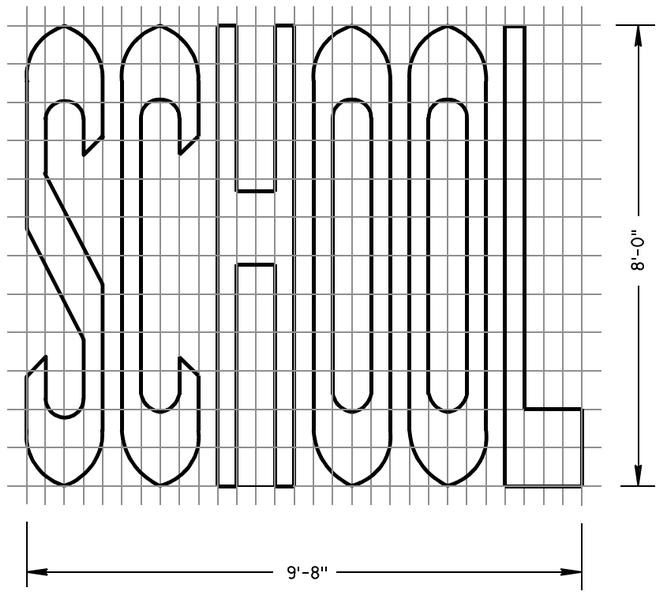


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

IGN

6

S.D.D. 15 C 7-12b

6

S.D.D. 15 C 7-12b

GENERAL NOTES

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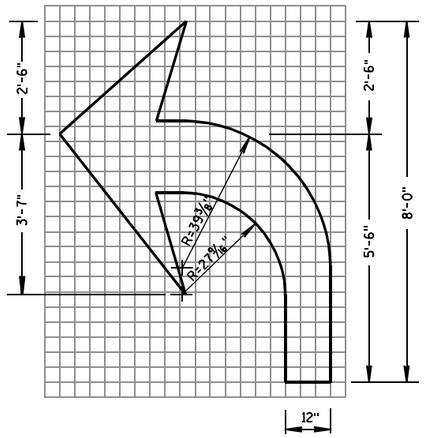
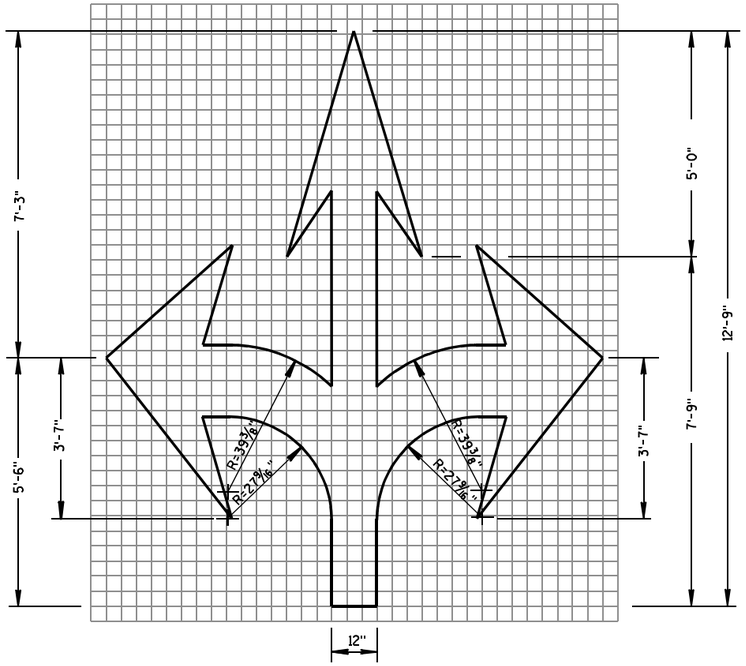
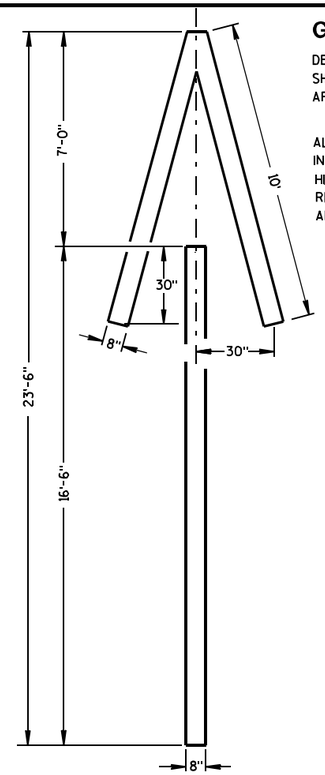


TYPE 2



TYPE 6



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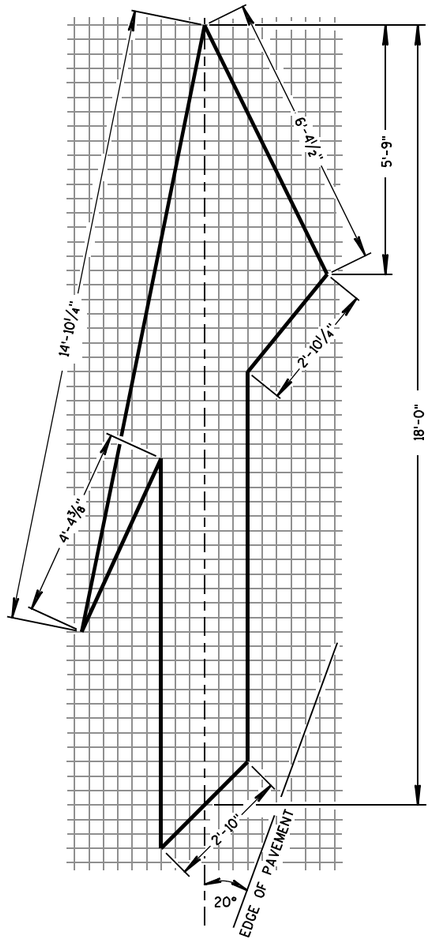
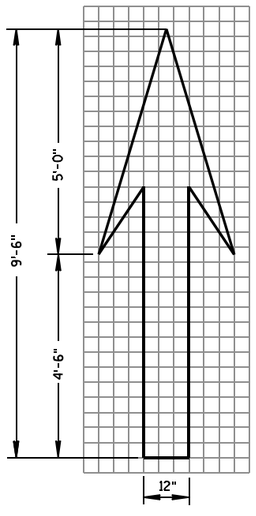
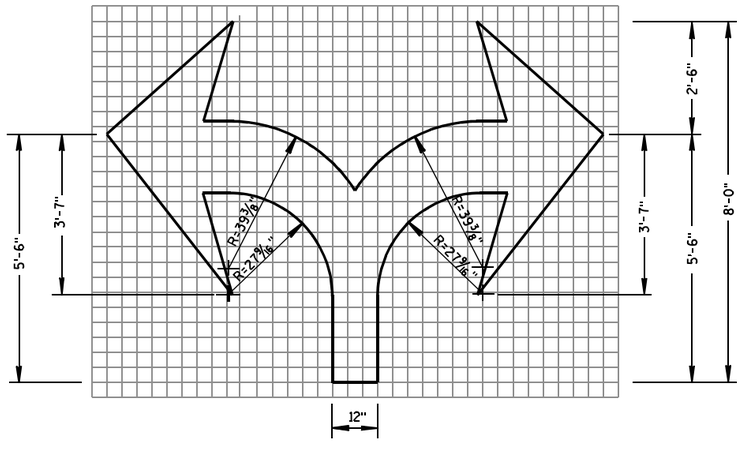


TYPE 5 LANE DROP ARROW



TYPE 1



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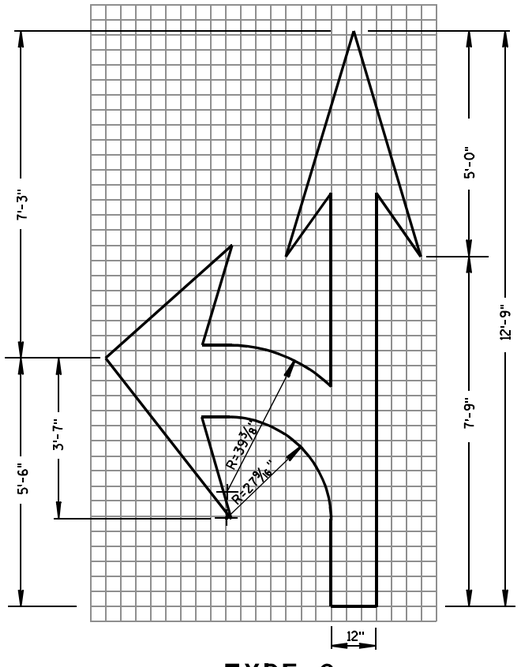

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12c

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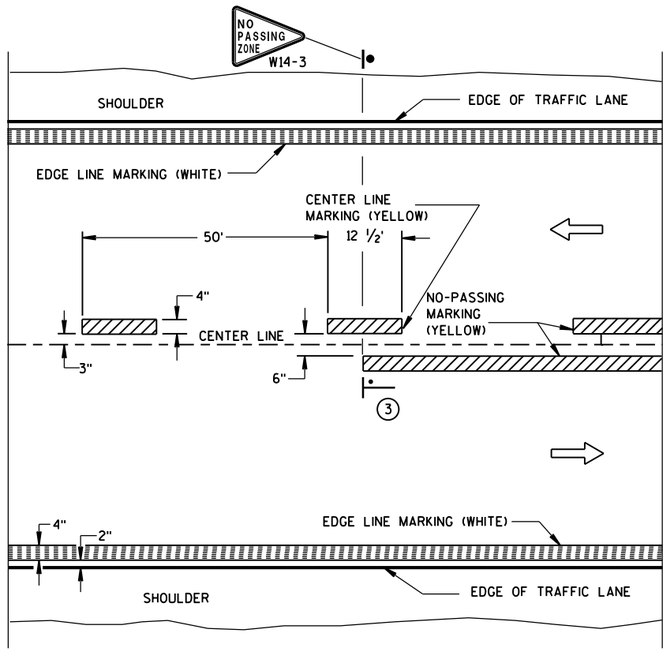
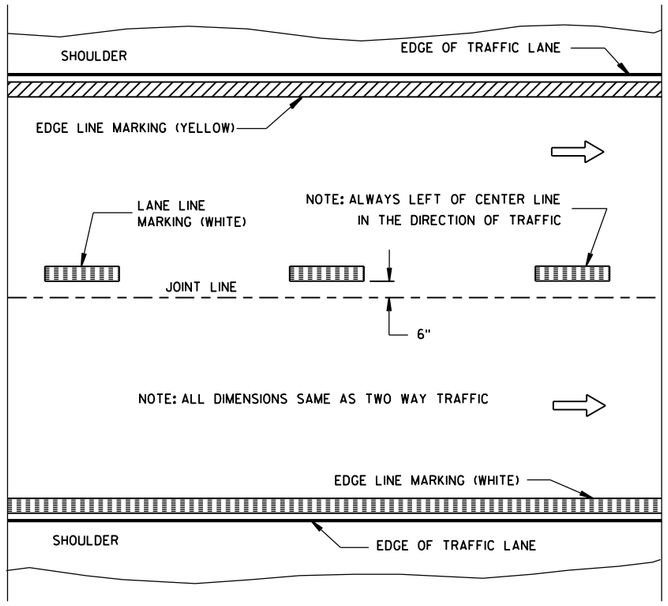
S.D.D. 15 C 7-12c

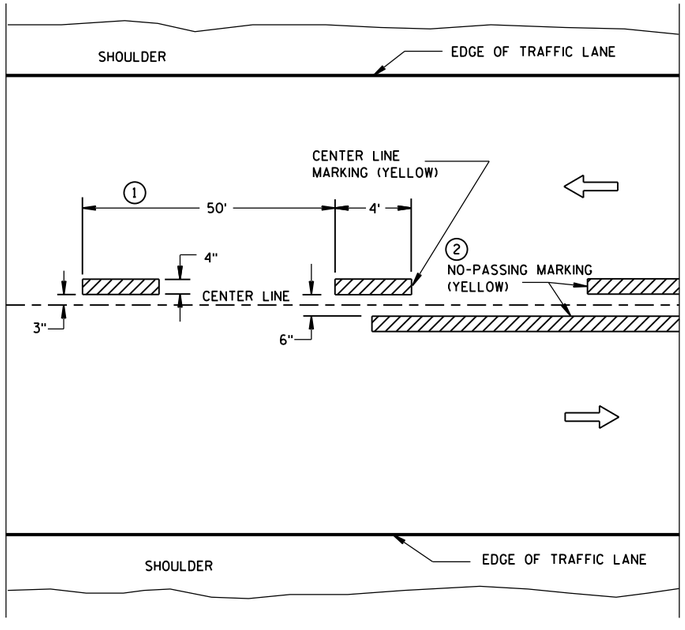


TWO WAY TRAFFIC

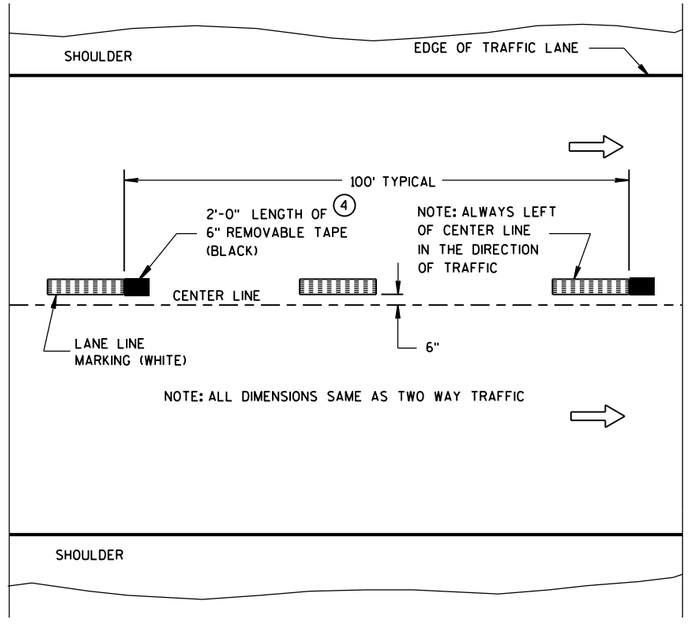


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

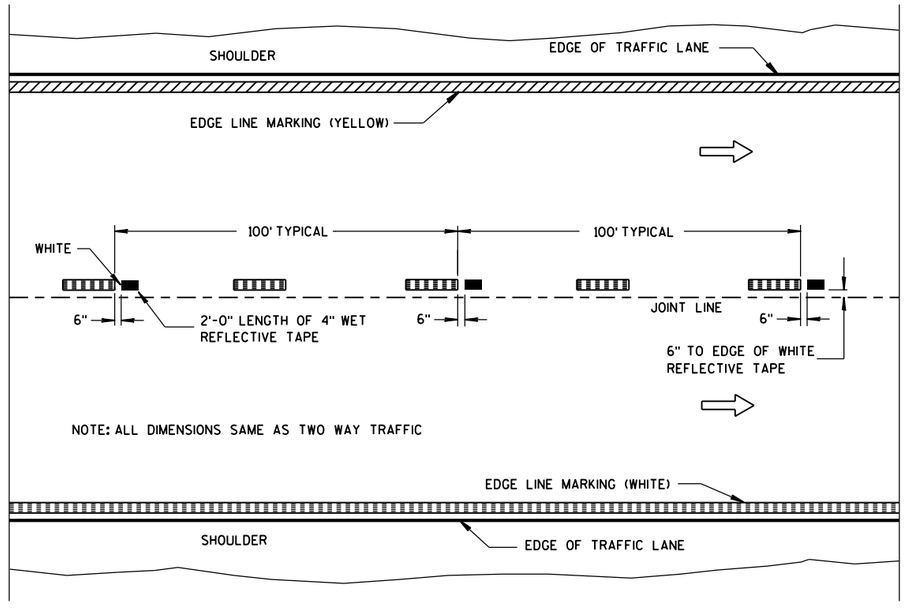
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

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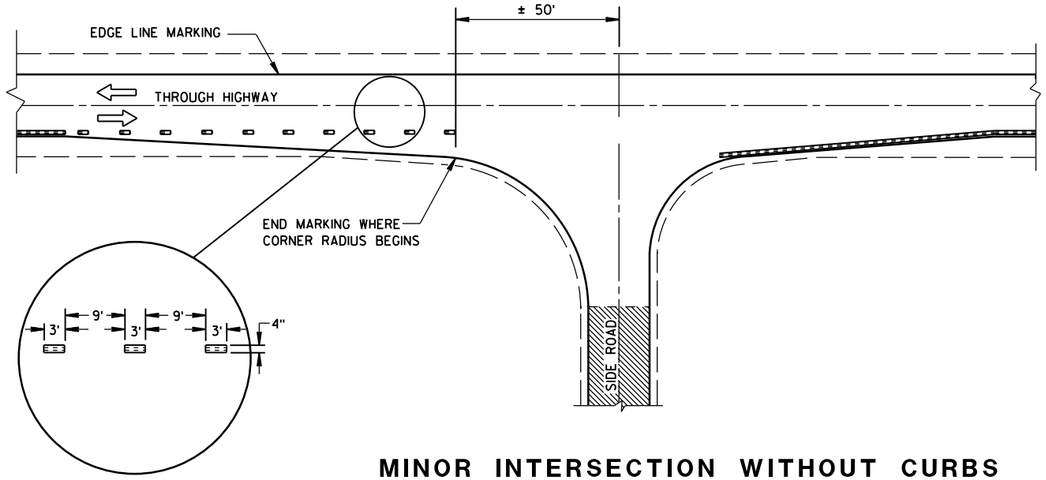
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

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

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

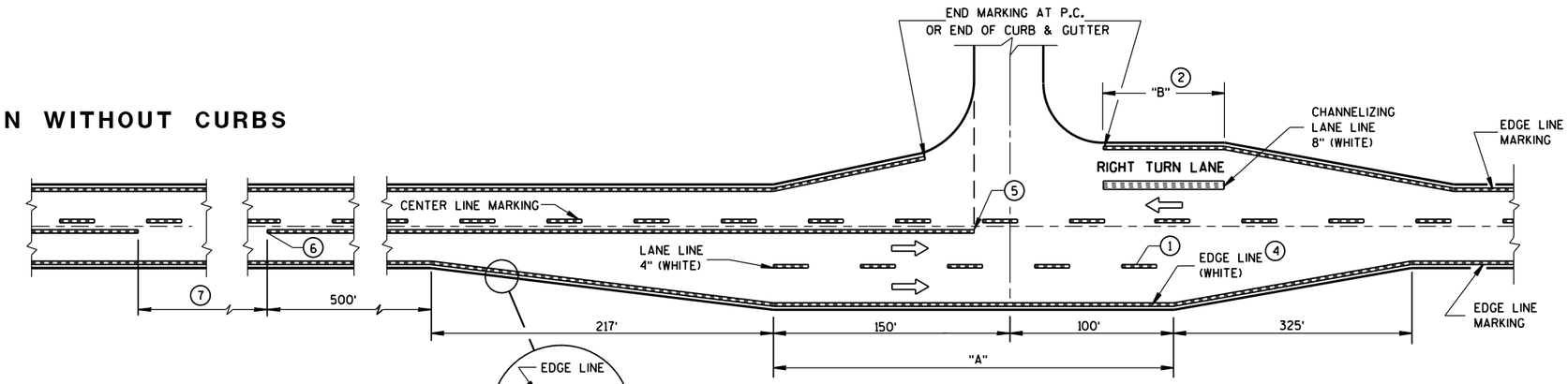
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

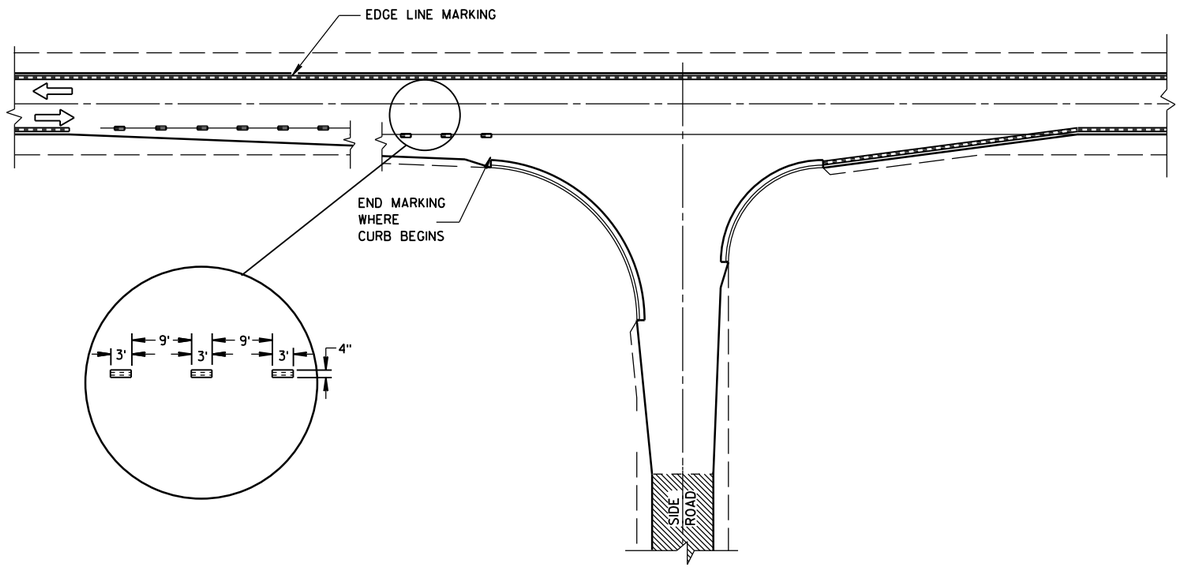
(7)

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



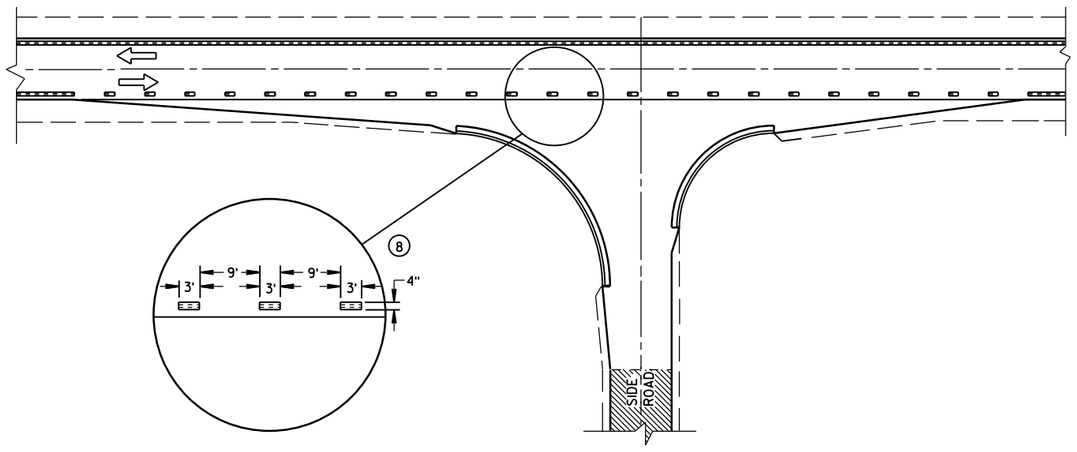
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

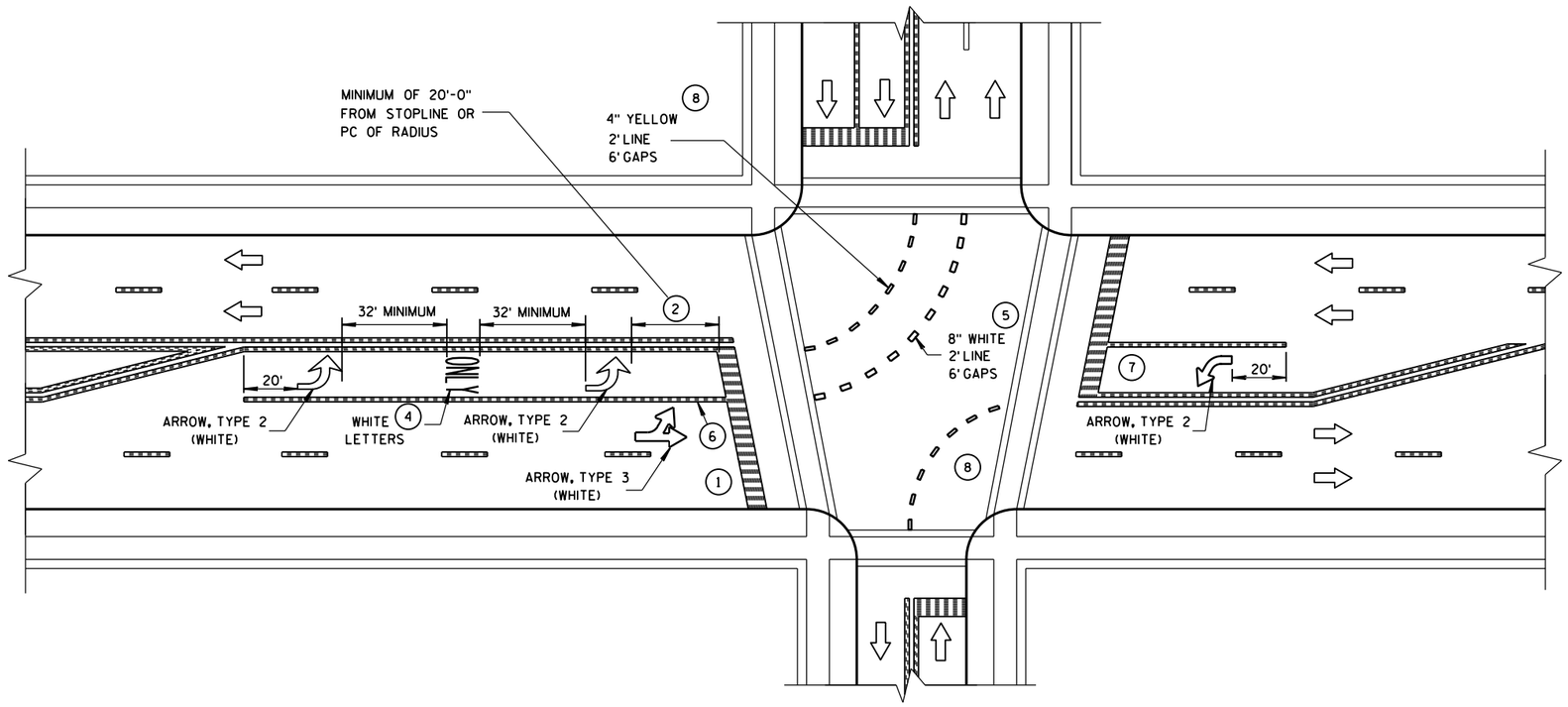
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 232

6

S.D.D. 15 C 8-16b

6

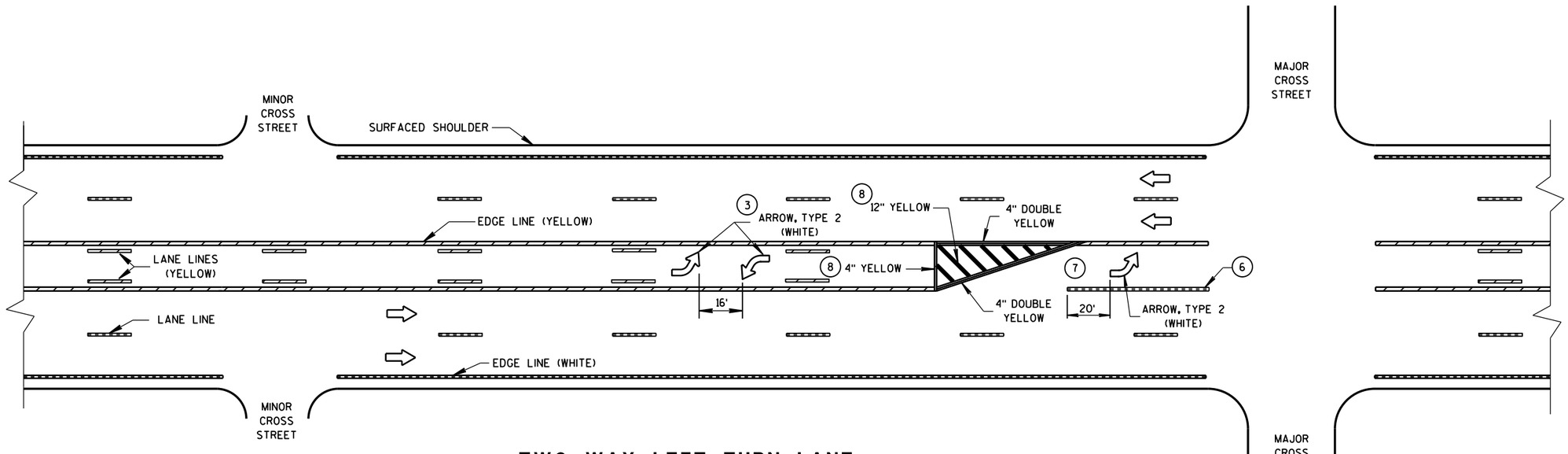
S.D.D. 15 C 8-16b



GENERAL NOTES

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

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-16e

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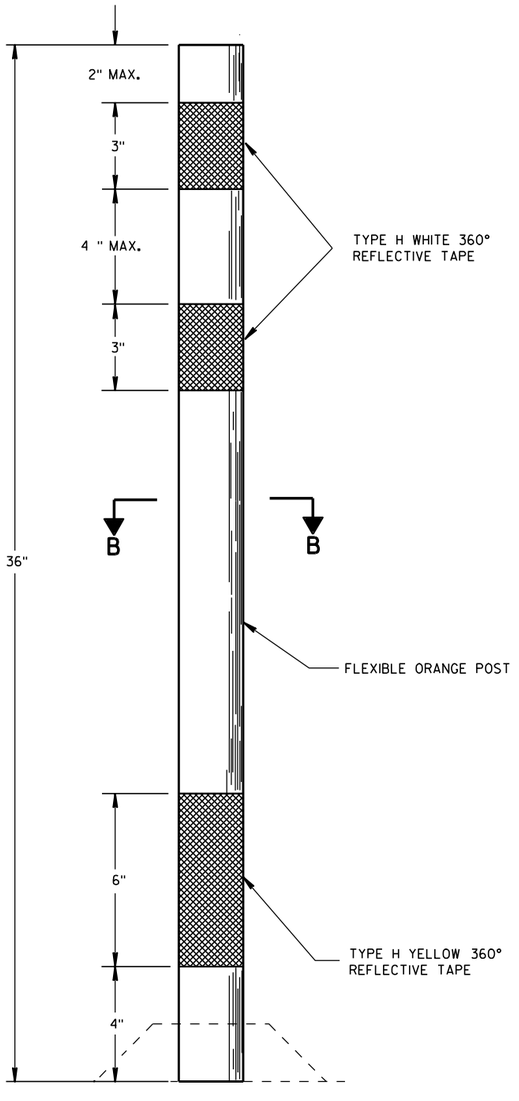
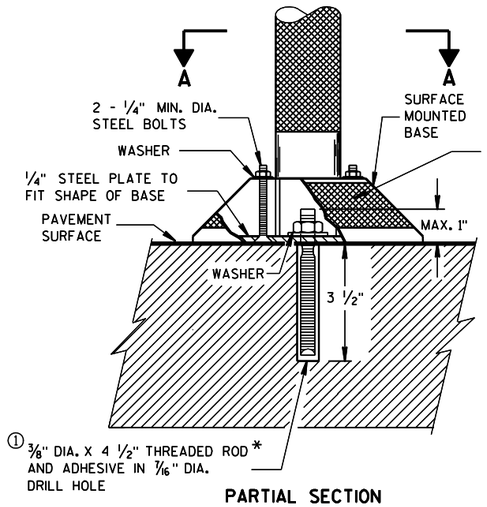
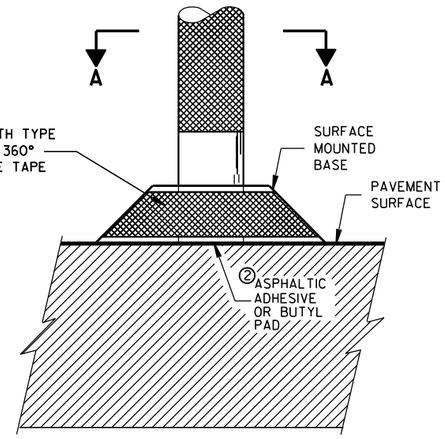
S.D.D. 15 C 8-16e



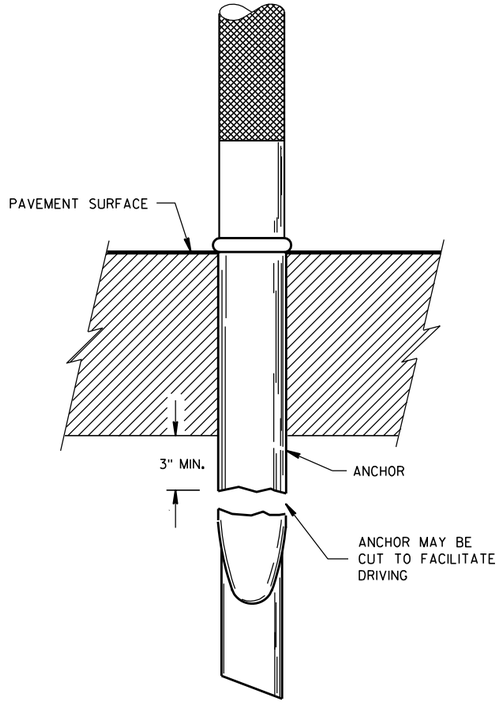
FLEXIBLE TUBULAR MARKER POST

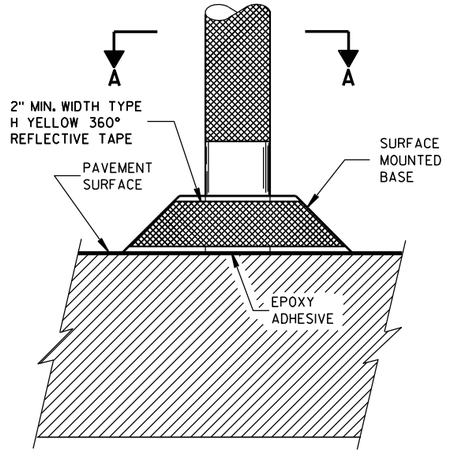


PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

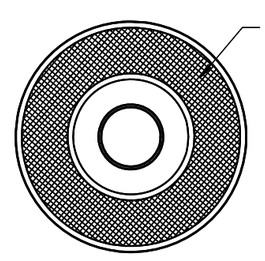
GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

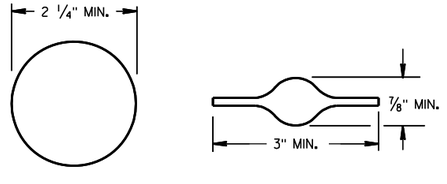
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

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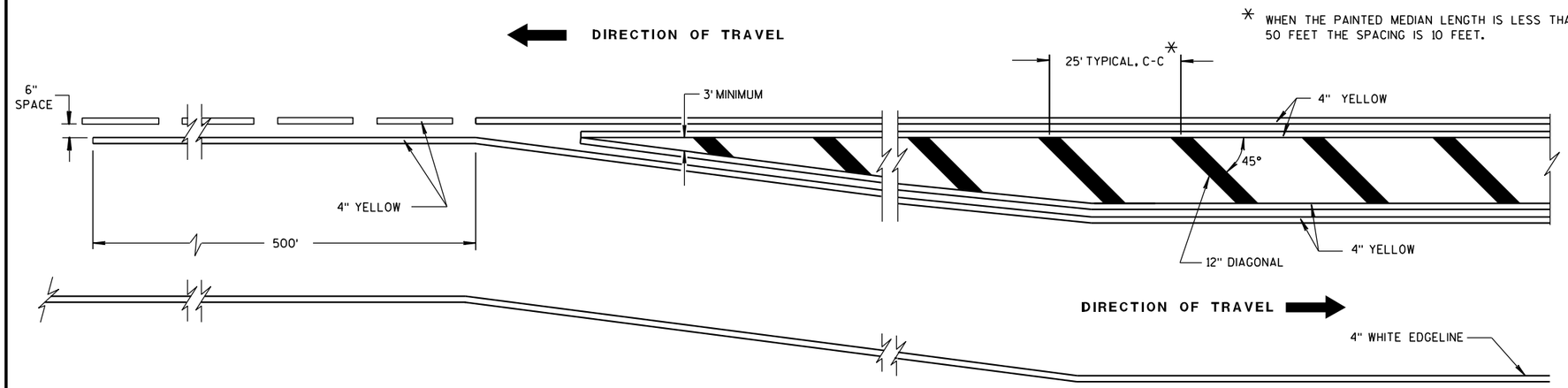
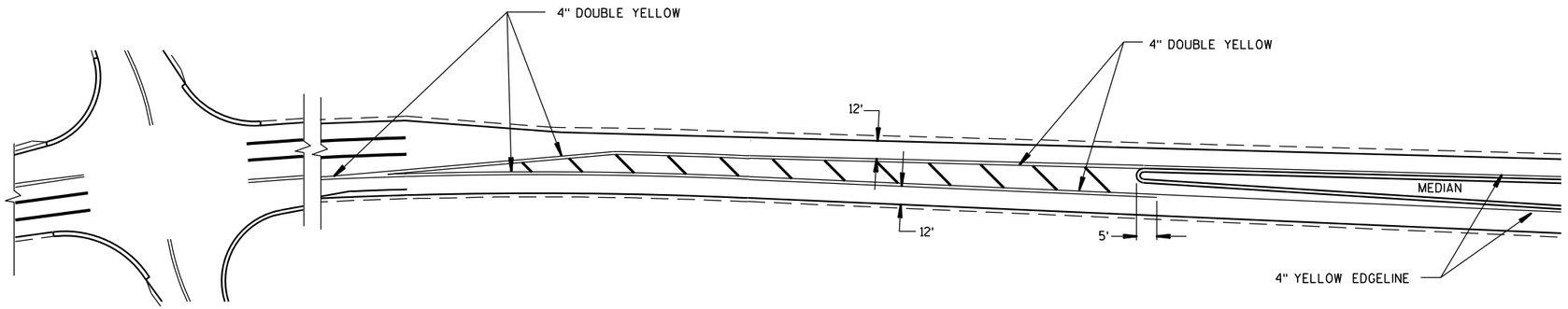
S.D.D. 15 C 11-5



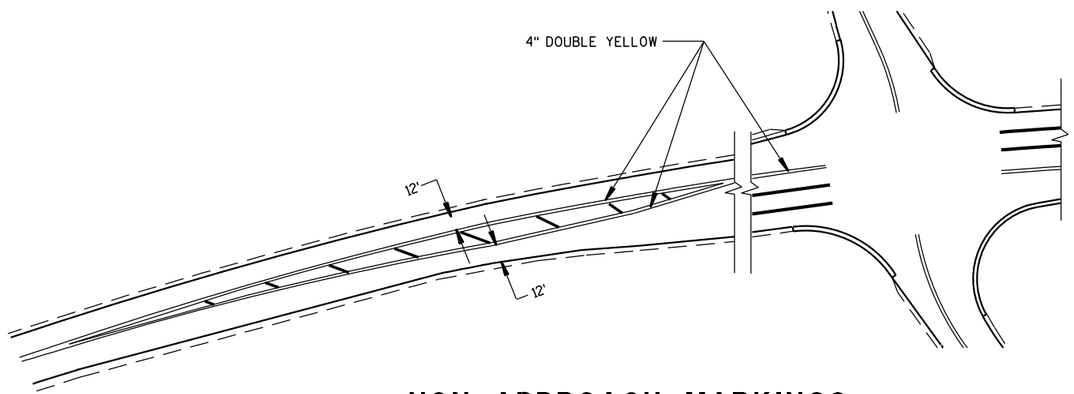
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER 235 IGN
FHWA	

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S.D.D. 15 C 18-3

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S.D.D. 15 C 18-3

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

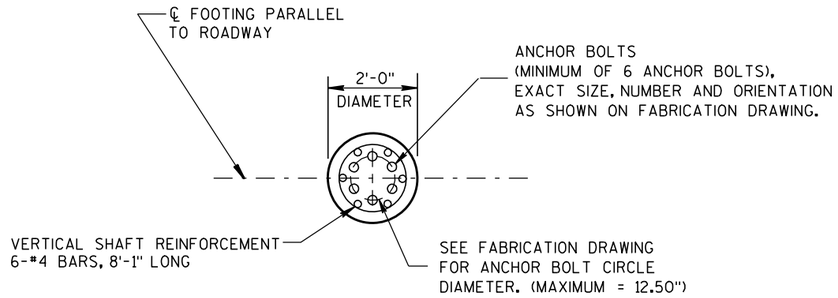
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

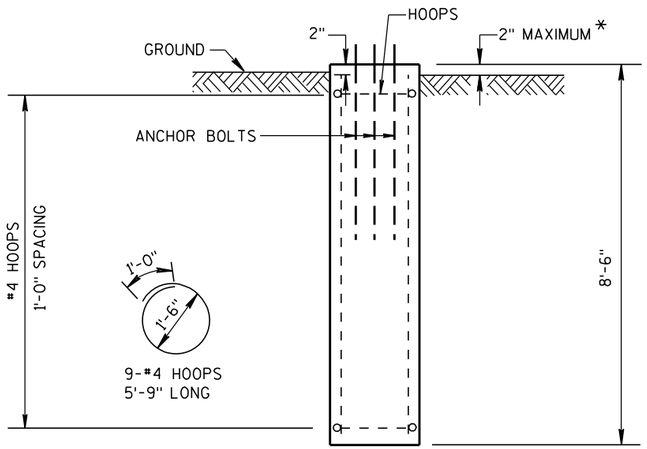
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.



ELEVATION VIEW

CONCRETE - 1.0 C.Y. PER FOOTING
H.S. REINFORCEMENT - 67 LBS. PER FOOTING

24" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-17-09	/S/ Thomas N. Nothohm
DATE	STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 22-2

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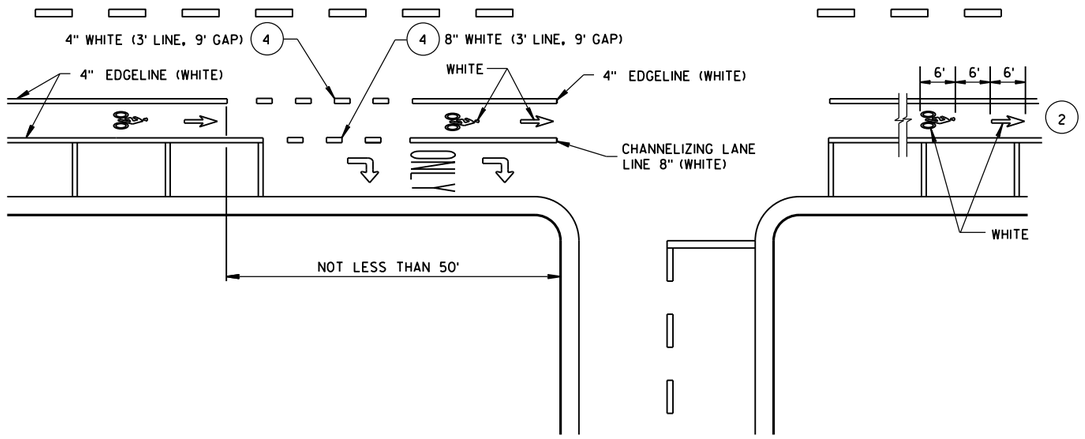
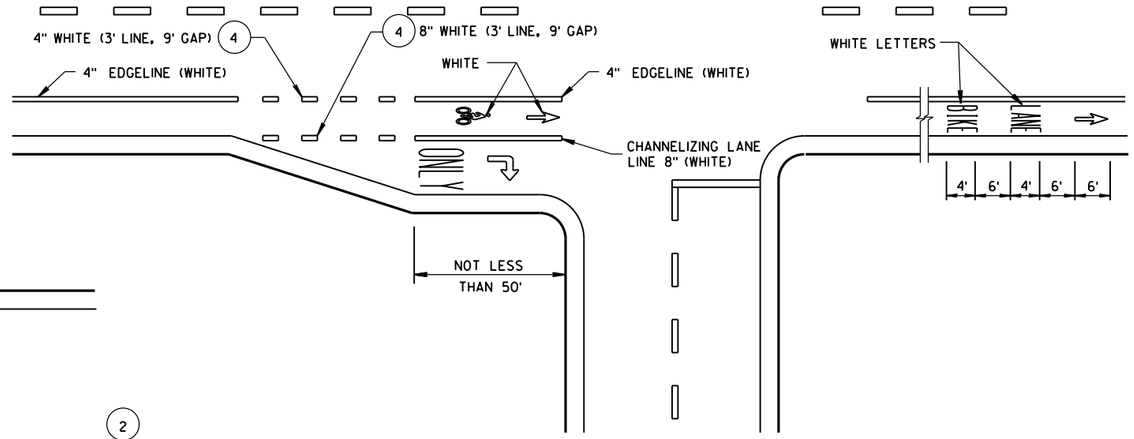
S.D.D. 15 C 22-2



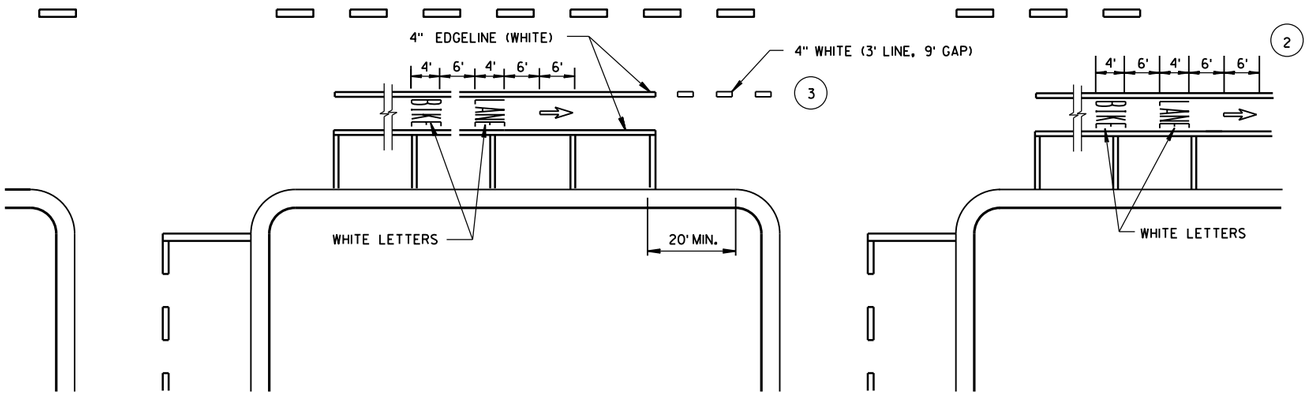
DESIGNATED BICYCLE LANE

GENERAL NOTES

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



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

6

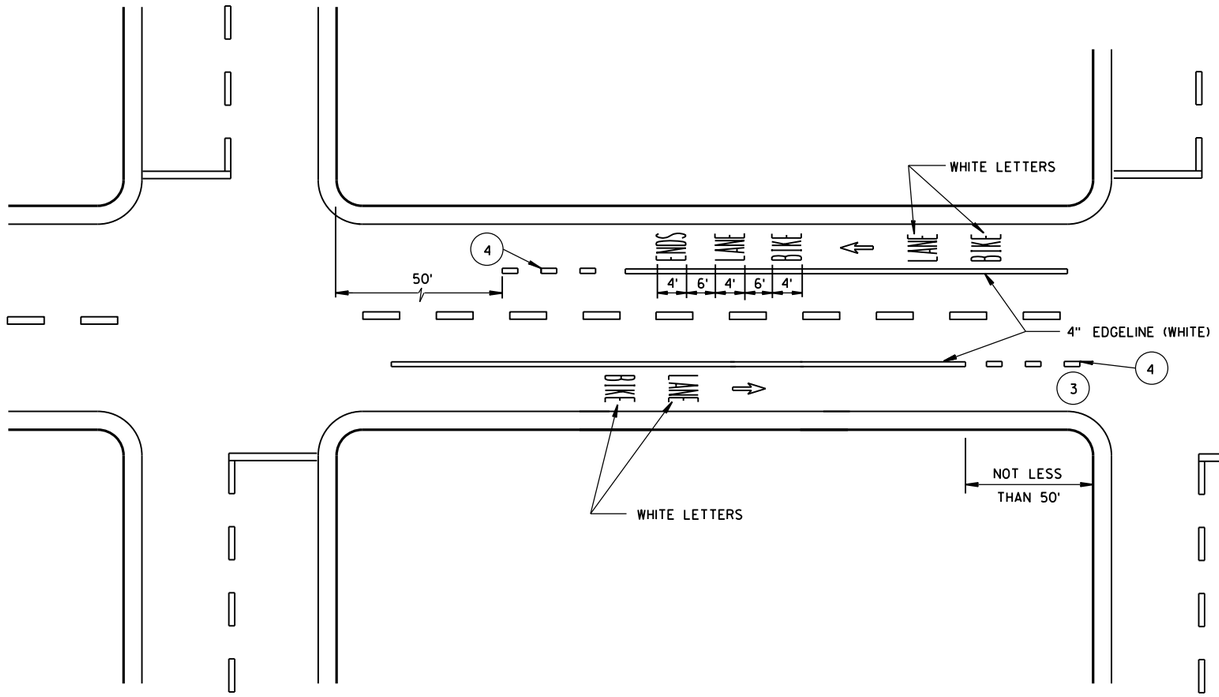
S.D.D. 15 C 29-3c

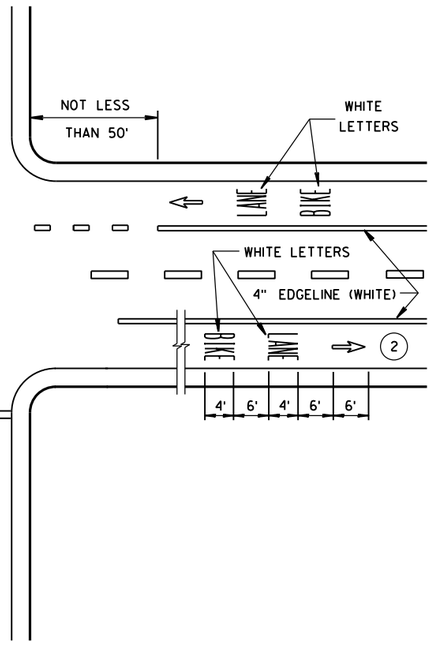
6

S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN 238

FHWA

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S.D.D. 15 C 29-3d

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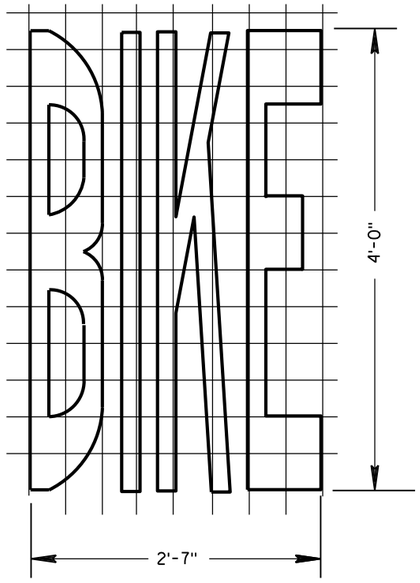
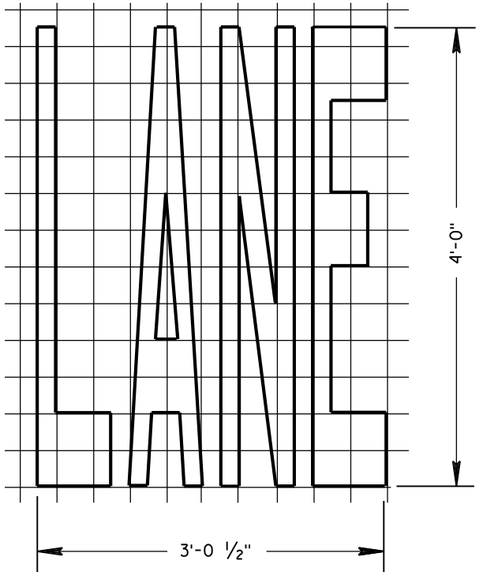
S.D.D. 15 C 29-3d

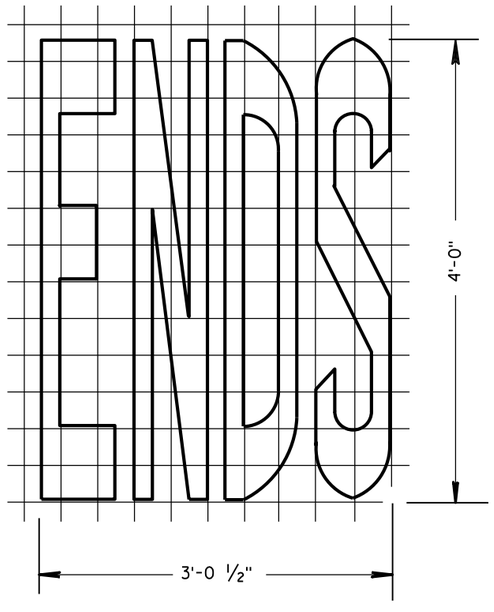
GENERAL NOTES

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

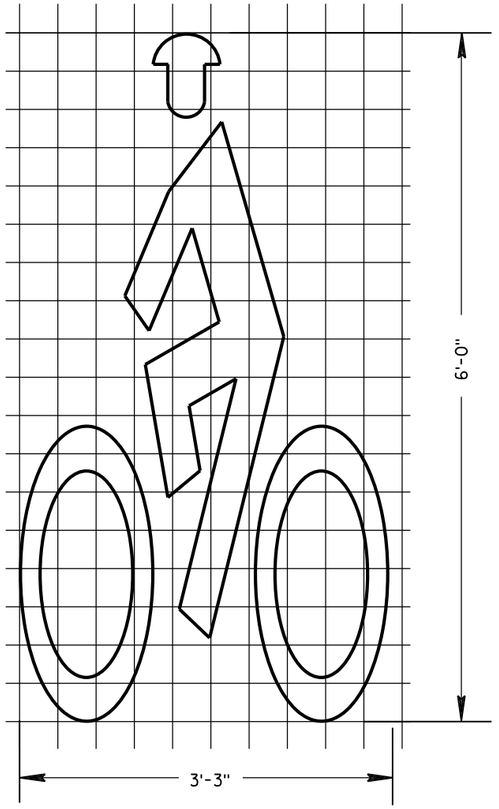
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



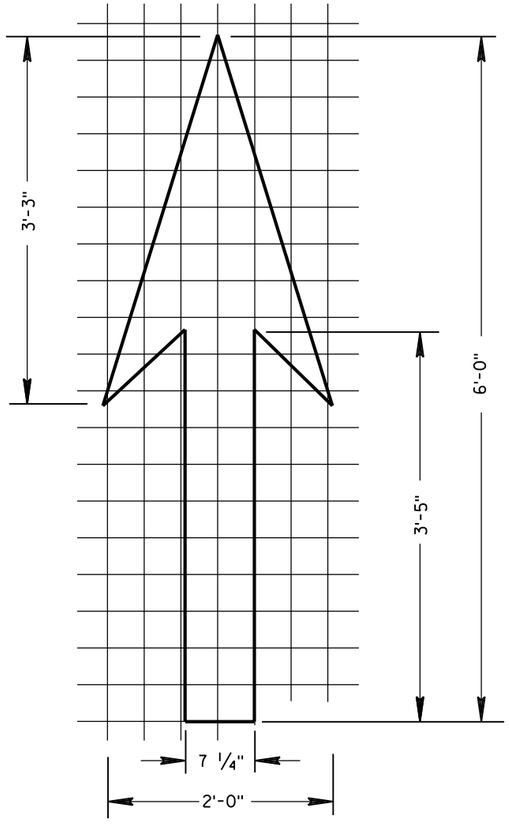




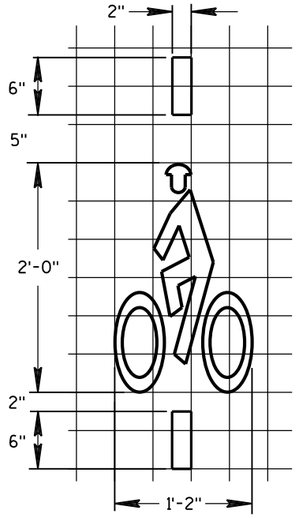
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3e

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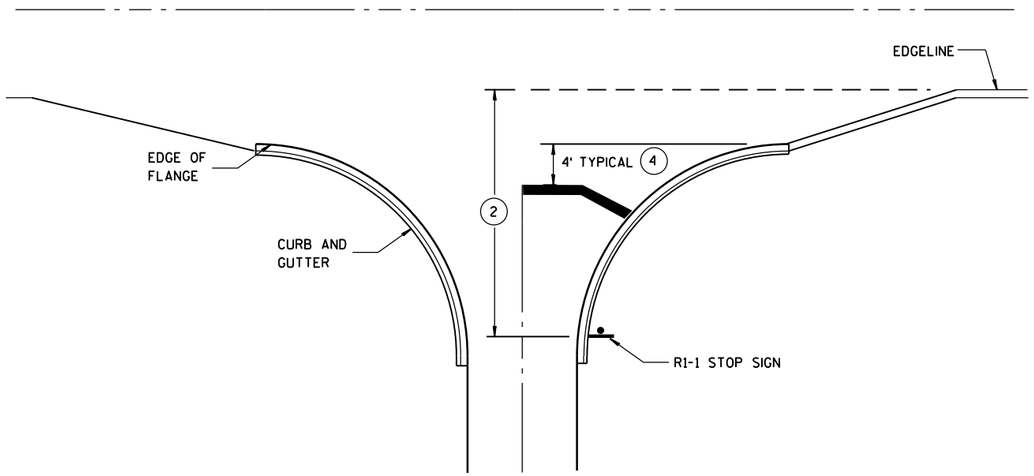
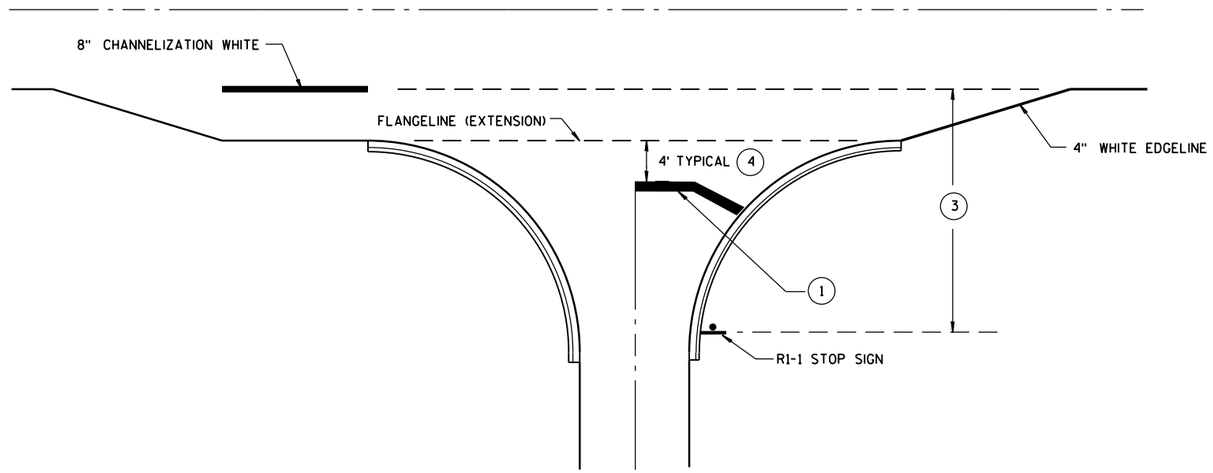
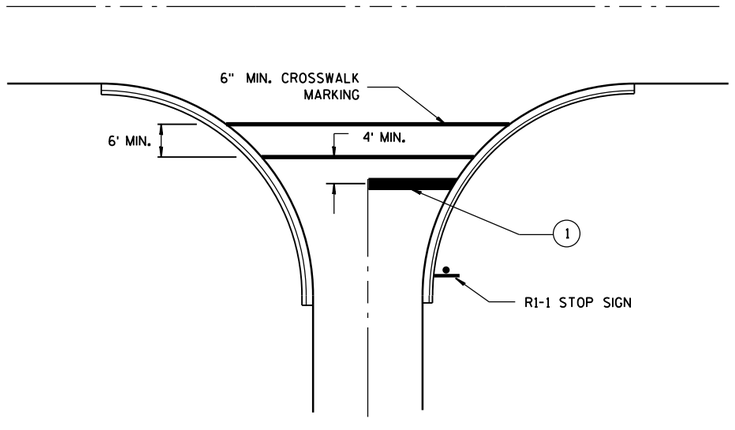


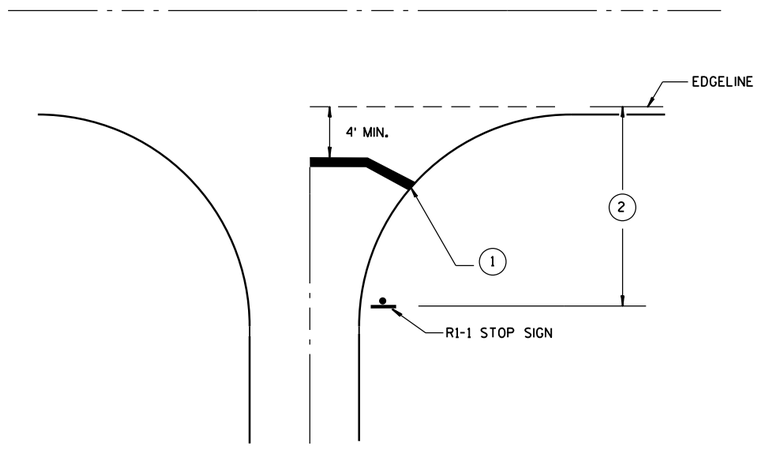
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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S.D.D. 15 C 33-1

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
1+64	0	0		
2+00	29	3	0.44	0.33
2+50	37	2	0.43	0.33
3+00	30	1	0.36	0.33
3+50	25	2	0.25	0.33
4+00	16	2	0.18	0.33
4+50	23	3	0.27	0.33
5+00	32	3	0.43	0.33
5+50	34	2	0.35	0.33
6+00	21	1	0.27	0.33
6+50	23	3	0.28	0.33
7+00	23	2	0.36	0.33
7+50	33	1	0.33	0.33
8+00	32	3	0.54	0.33
8+50	36	2	0.49	0.33
9+00	28	0	0.41	0.33
9+50	35	3	0.39	0.33
10+00	34	2	0.37	0.33
10+50	35	1	0.37	0.33
11+00	30	3	0.36	0.33
11+50	28	2	0.30	0.33
12+00	23	2	0.27	0.33
12+50	24	2	0.25	0.33
13+00	31	3	0.44	0.33
13+50	31	2	0.43	0.33
22+50	31	1	0.36	0.33
23+00	32	2	0.25	0.33
23+50	32	2	0.18	0.33
24+00	32	3	0.27	0.33
24+50	32	3	0.43	0.33
25+00	32	2	0.35	0.33
25+50	32	1	0.27	0.33
26+00	32	3	0.28	0.33
26+50	32	2	0.36	0.33
27+00	32	1	0.33	0.33
27+50	34	3	0.54	0.33
28+00	30	2	0.49	0.33
28+50	32	0	0.41	0.33
29+00	32	3	0.39	0.33
29+50	30	2	0.37	0.33
30+00	32	1	0.37	0.33
30+50	32	3	0.36	0.33
31+00	32	2	0.30	0.33
31+50	32	2	0.27	0.33
32+00	32	2	0.25	0.33
32+50	32	2	0.28	0.33
33+00	34	3	0.44	0.33
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35+00	32	2	0.18	0.33
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36+00	32	3	0.43	0.33
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37+50	32	3	0.28	0.33
38+00	32	2	0.36	0.33
38+50	32	1	0.33	0.33
39+00	34	3	0.54	0.33
39+50	32	2	0.49	0.33
40+00	33	0	0.41	0.33
40+50	32	3	0.39	0.33
41+00	34	2	0.37	0.33
41+50	32	1	0.37	0.33
42+00	32	3	0.36	0.33
42+50	32	2	0.30	0.33
43+00	32	2	0.27	0.33
43+50	32	2	0.25	0.33
44+00	31	3	0.44	0.33
44+50	33	2	0.43	0.33
45+00	31	1	0.36	0.33
45+50	31	2	0.25	0.33
46+00	33	2	0.18	0.33
46+50	34	3	0.27	0.33
47+00	33	3	0.43	0.33
47+50	33	2	0.35	0.33
48+00	33	1	0.27	0.33
48+50	33	3	0.42	0.33
49+00	33	2	0.42	0.33
49+50	33	1	0.42	0.33
50+00	33	3	0.42	0.33
50+50	31	2	0.42	0.33
51+00	31	0	0.42	0.33
51+50	31	3	0.42	0.33
52+00	31	1	0.42	0.33
52+50	31	3	0.42	0.33
53+00	31	2	0.42	0.33
53+50	52	0	0.42	0.33
54+00	53	3	0.42	0.33
54+50	52	7	0.42	0.33
55+00	56	6	0.42	0.33
55+50	56	9	0.42	0.33
56+00	52	10	0.42	0.33
TOTAL	3007	211		

EARTHWORK SUMMARY

COMMON EXCAVATION (205.0100)	15,067 CY
(Includes 12,061 CY Pav't Removal)	
Fill (Includes 20% shrinkage)	176 CY
Waste	14,857 CY

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PROJECT NO: 2984-16-71	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CUT AND FILL QUANTITIES	SHEET: 241	E

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

Wisconsin Department of Transportation

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