WKE

Nov 2017

PROJECT ID: 2230-00-74

WITH: 2984-04-71

COUNTY: MILWAUKEE

ORDER OF SHEETS

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

TOTAL SHEETS = 322

15

N

DESIGN DESIGNATION

A.A.D.T.	2018	=	12,300
A.A.D.T.	2038	=	13,500
D.H.V.	2038	=	1,391
D.D.		=	59/41
T.		=	4.5%
DESIGN SPEED		=	35 MPH
ESALS		=	2,114,100

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
FENCE
GUARD RAIL
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA
STREAM OR WATER EDGE
BUSH
PINE TREE (SIZE)
TREE (SIZE)
TRAFFIC SIGNAL CONTROL CABINET
TRAFFIC SIGNAL
TRAFFIC SIGNAL MAST-ARM
TRAFFIC SIGNAL WITH LIGHT
EXISTING PULL BOX
BOLLARD

COMBUSTIBLE FLUIDS — CAUTION
UNDERGROUND UTILITIES
GAS (SIZE) G
COMBINED SANITARY & STORM SEWER (SIZE) SAN
STORM SEWER (SIZE) SS
WATER (SIZE) W
ELECTRIC E
TELEPHONE T
FIBER OPTIC FO
CABLE TELEVISION TV
FORCE MAIN FM
CITY UNDERGROUND CONDUIT C
MANHOLE MH
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE HH
POWER POLE
TELEPHONE POLE
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE (TYPE)
CURB STOP CS
EXISTING CULVERT (SIZE, TYPE)
PROPOSED CULVERT (Box or Pipe)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WEST GREENFIELD AVENUE

S 35TH ST TO S CESAR E CHAVEZ DR

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2230-00-74

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2230-00-74	WISC 2017511	1

BEGIN PROJECT 2230-00-74
STA. 102+57.00
Y = 377,315.4724
X = 2,546,255.8204

END PROJECT 2230-00-74
STA. 167+15.00

LAYOUT
SCALE 0 1/2 MILE

EXCEPTION TO NET CENTERLINE LENGTH
STA. 127+70.58 TO STA. 128+71.52
S LAYTON BLVD INTERSECTION

TOTAL NET LENGTH OF CENTERLINE = 1.204 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD27 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

3/24/17 Glossan Richard
DATE COMMISSIONER OF PUBLIC WORKS

ORIGINAL PLANS PREPARED BY
R.A. Smith National
Beyond Surveying and Engineering

WISCONSIN
JOHN A. ELKIN
E-27876
BROOKFIELD
WI
PROFESSIONAL ENGINEER

3/24/17 (Date) John A Elkin (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor NAV (R.A.SMITH NATIONAL)
Designer JAE/AJA (R.A.SMITH NATIONAL)
Management Consultant DAAR ENGINEERING

APPROVED FOR THE DEPARTMENT
DATE: 4/26/17 Todd D Bank
Management Consultant Signature

E

STANDARD ABBREVIATIONS

AC	ACRE		
ADJ	ADJUST	NC	NORMAL CROWN
AH	AHEAD	N	NORTH
ASPH	ASPHALTIC	NTS	NOT TO SCALE
AVG	AVERAGE	Y	NORTH GRID COORDINATE
ADT	AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
AMC	ADJUSTING MANHOLE COVER	NO	NUMBER
ASMC	ADJUSTING SANITARY MANHOLE COVER	OD	OUTSIDE DIAMETER
AWV	ADJUSTING WATER VALVE	PAVT	PAVEMENT
BK	BACK	PLE	PERMANENT LIMITED EASEMENT
BAD	BASE AGGREGATE DENSE	PT	POINT
BM	BENCHMARK	PC	POINT OF CURVATURE
BMP	BEST MANAGEMENT PRACTICE	PI	POINT OF INTERSECTION
CB	CATCH BASIN	PT	POINT OF TANGENCY
C/L	CENTER LINE	PVC	POLYVINYL CHLORIDE
Δ	CENTRAL ANGLE OR DELTA	PCC	PORTLAND CEMENT CONCRETE
CIR	CIRCULAR	LB	POUND
CL	CLASS	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONST	CONSTRUCTION	PE	PRIVATE ENTRANCE
CABC	CRUSHED AGGREGATE BASE COURSE	PGL	PROFILE GRADE LINE
CE	COMMERCIAL ENTRANCE	PL	PROPERTY LINE
CFS	CUBIC FEET PER SECOND	R	RADIUS
CY	CUBIC YARD	R	RANGE
C&G	CURB AND GUTTER	R/L	REFERENCE LINE
D	DEGREE OF CURVE	REINF	REINFORCING OR REINFORCEMENT
DHV	DESIGN HOUR VOLUME	REQD	REQUIRED
DIA	DIAMETER	RT	RIGHT
DD	DIRECTIONAL DISTRIBUTION	R/W	RIGHT-OF-WAY
DWY	DRIVEWAY	RD	ROAD
E	EAST	RDWY	ROADWAY
X	EAST GRID COORDINATE	SEC	SECTION
EB	EASTBOUND	SHLDR	SHOULDER
EL	ELEVATION	S	SOUTH
ESALS	EQUIVALENT SINGLE AXLE LOADS	SB	SOUTHBOUND
EXC	EXCAVATION	SCH	SCHEDULE
EBS	EXCAVATION BELOW SUBGRADE	SQ	SQUARE
EX	EXISTING	SF	SQUARE FEET
FPS	FEET PER SECOND	SW	SIDEWALK
FERT	FERTILIZE	SY	SQUARE YARD
FL	FLOW LINE	SDD	STANDARD DETAIL DRAWINGS
FT	FOOT	STH	STATE TRUNK HIGHWAYS
HES	HIGH EARLY STRENGTH	STA	STATION
HP	HIGH POINT	SS	STORM SEWER
HMA	HOT MIX ASPHALT	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
CWT	HUNDREDWEIGHT	ST	STREET
HYD	HYDRANT	STR	STRUCTURE OR STRUCTURAL
INL	INLET	SE	SUPERELEVATION
IC	INLET COVERS TYPE H	T	TANGENT
IS	INLETS 2X3 AND INLET COVERS TYPE H	TEMP	TEMPORARY
ID	INSIDE DIAMETER	TI	TEMPORARY INTEREST
I	INTERSECTION ANGLE	TLE	TEMPORARY LIMITED EASEMENT
INV	INVERT	T	TOWN
IP	IRON PIPE OR PIN	T%	TRUCKS (PERCENT OF)
LT	LEFT	TYP	TYPICAL
LF	LINEAR FOOT	VAR	VARIABLE
LP	LOW POINT	VERT	VERTICAL
LS	LUMP SUM	V	DESIGN SPEED
MH	MANHOLE	VOL	VOLUME
MAX	MAXIMUM	WM	WATERMAIN
MGAL	MEGAGALLON	WV	WATER VALVE
MPH	MILES PER HOUR	W	WEST
MIN	MINIMUM	WB	WESTBOUND
MON	MONUMENT	YD	YARD

GENERAL NOTES

1 THE LOCATIONS 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.

2 ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. GRANULAR BACKFILL SHALL BE INCIDENTAL TO CONSTRUCTION.

3 NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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

5 CURB AND GUTTER GRADES ARE MEASURED AT THE FLANGE LINE UNLESS OTHERWISE NOTED.
CURB AND GUTTER STATIONS, OFFSETS, AND RADII ARE MEASURED AT THE FACE OF CURB UNLESS OTHERWISE NOTED.

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

7 EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S "ECIP" AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER REQUIRED.

8 THE LIMITS OF SIDEWALK AND DRIVEWAY REMOVALS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.

9 SLOPE INTERCEPTS ARE AT THE BACK OF SIDEWALK UNLESS SHOWN OTHERWISE.

10 THE EXACT LOCATION OF COMMERCIAL AND PRIVATE ENTRANCES AND DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

11 HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

PAVEMENT DEPTH	LAYERS
3-INCH	1.5" 5LT 58-28S UPPER LAYER 1.5" 5LT 58-28S LOWER LAYER
4-INCH	1.75" 4LT 58-28S UPPER LAYER 2.25" 3LT 58-28S LOWER LAYER

12 PIPE AND INLET ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER.

13 DRAINAGE STRUCTURE RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS.
DRAINAGE STRUCTURE RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
STORM SEWER & EROSION CONTROL
CITY UNDERGROUND CONDUIT
LIGHTING
TRAFFIC SIGNAL REMOVALS
TEMPORARY TRAFFIC SIGNALS
TRAFFIC SIGNALS
TRAFFIC SIGNALS INTERCONNECT
PAVEMENT MARKING
TRAFFIC CONTROL & CONSTRUCTION STAGING
ALIGNMENT

THE FOLLOWING ENTITIES HAVE PREPARED DESIGNS FOR THIS PROJECT:

CITY OF MILWAUKEE:
- CITY UNDERGROUND CONDUIT (CUC)
- LIGHTING
- TRAFFIC SIGNALS INTERCONNECT

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

UTILITIES

GAS

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MILWAUKEE COUNTY TRANSIT SYSTEM

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CITY OF MILWAUKEE

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MILWAUKEE COUNTY SURVEYOR

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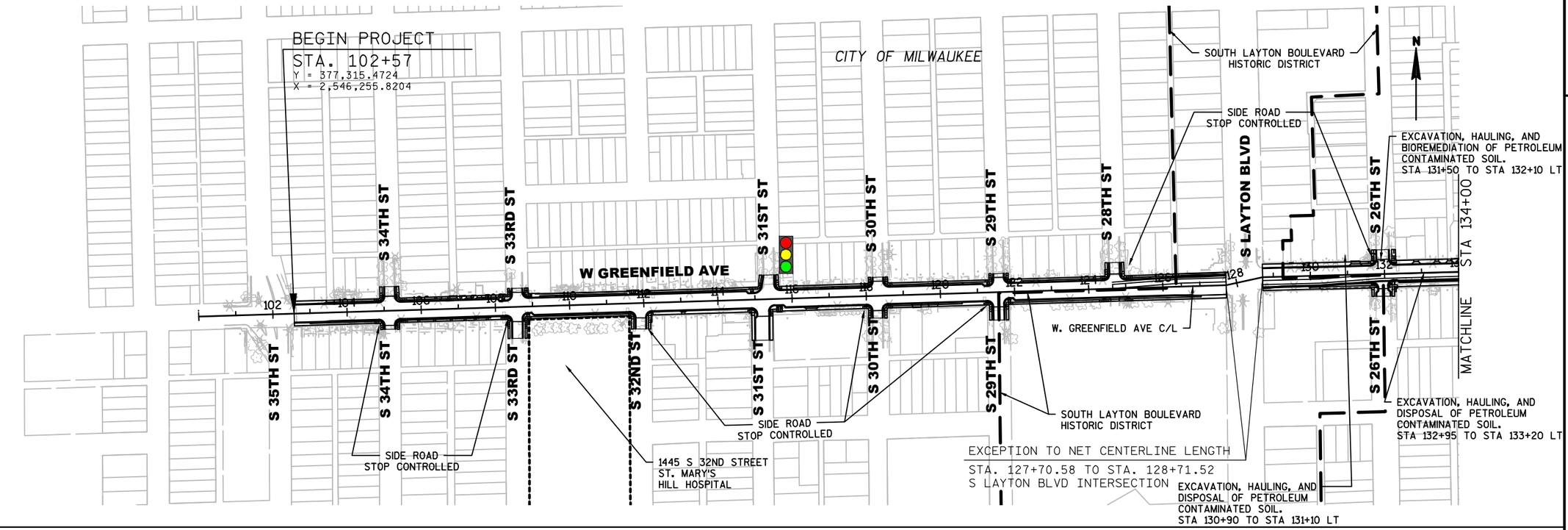
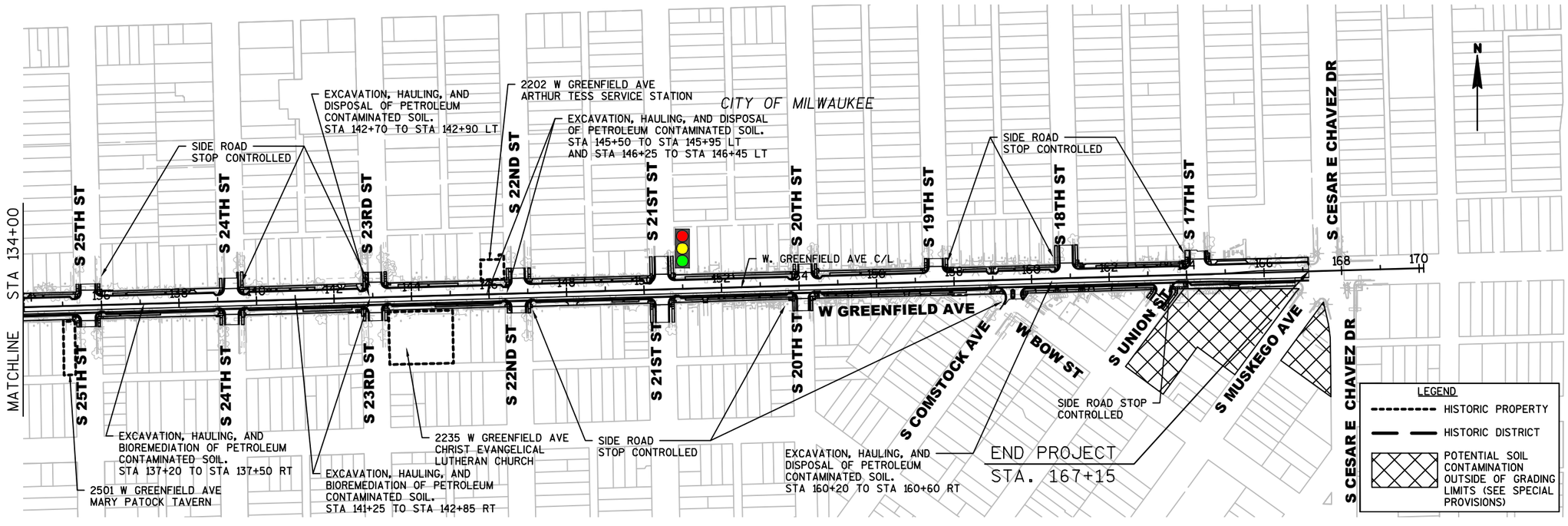
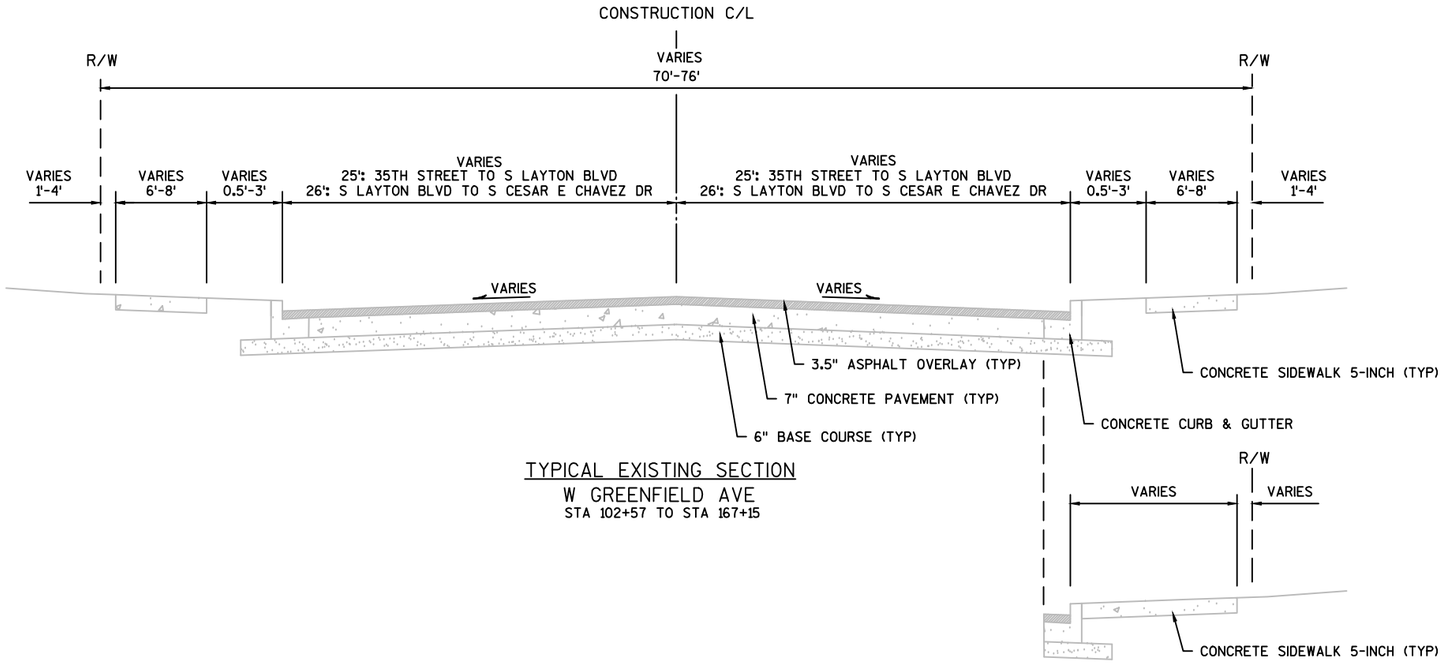




PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN: PROJECT OVERVIEW	SHEET 4	E

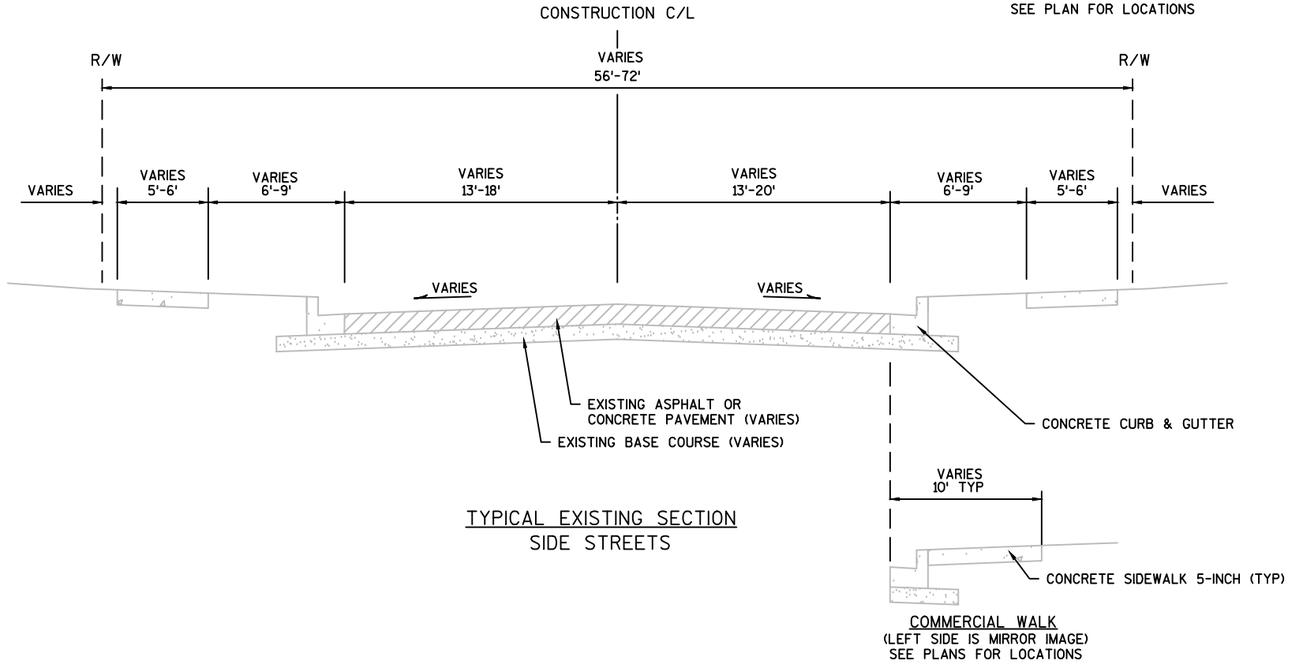
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-PO - S-01
PLOT DATE : 4/10/2017 2:28 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:300 FT
WISDOT/CADDS SHEET 42

2



TYPICAL EXISTING SECTION
W GREENFIELD AVE
STA 102+57 TO STA 167+15

COMMERCIAL WALK AREAS
(LEFT SIDE IS MIRROR IMAGE)
SEE PLAN FOR LOCATIONS



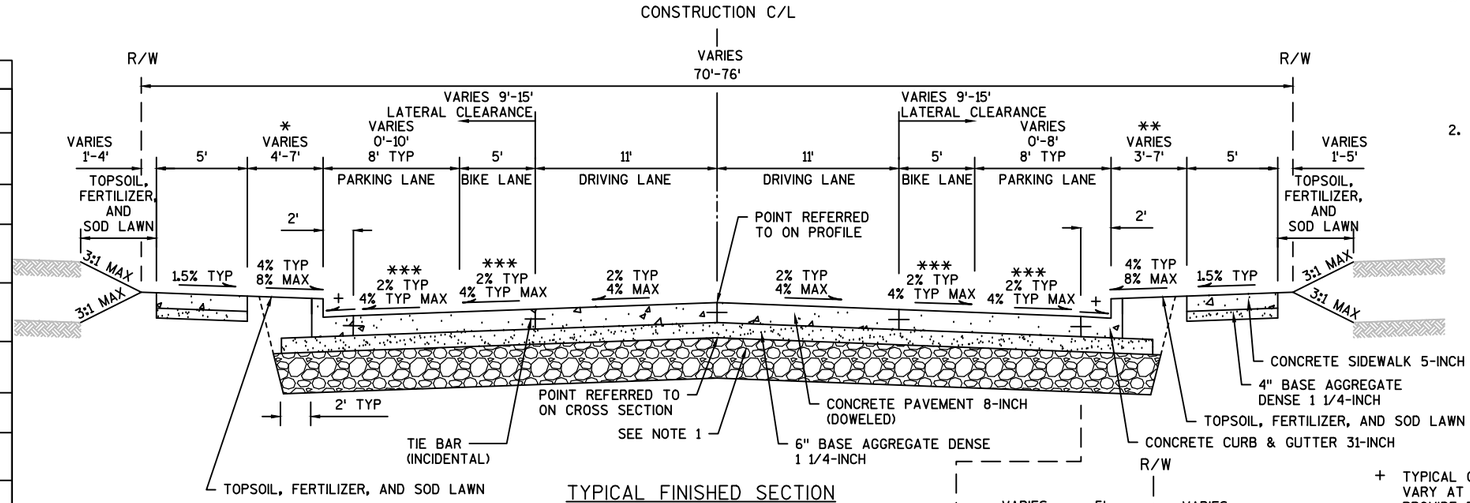
TYPICAL EXISTING SECTION
SIDE STREETS

COMMERCIAL WALK
(LEFT SIDE IS MIRROR IMAGE)
SEE PLANS FOR LOCATIONS

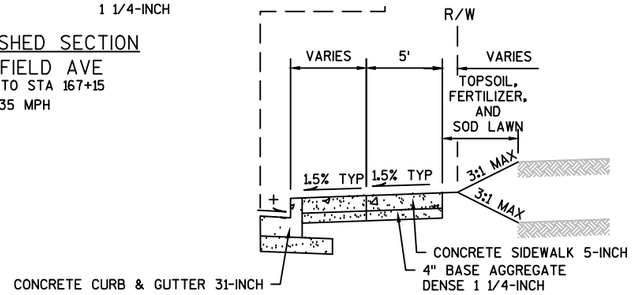
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN: TYPICAL SECTION	SHEET 5	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-TS - S-01
PLOT DATE : 4/10/2017 2:28 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1:10
WISDOT/CADDS SHEET 42

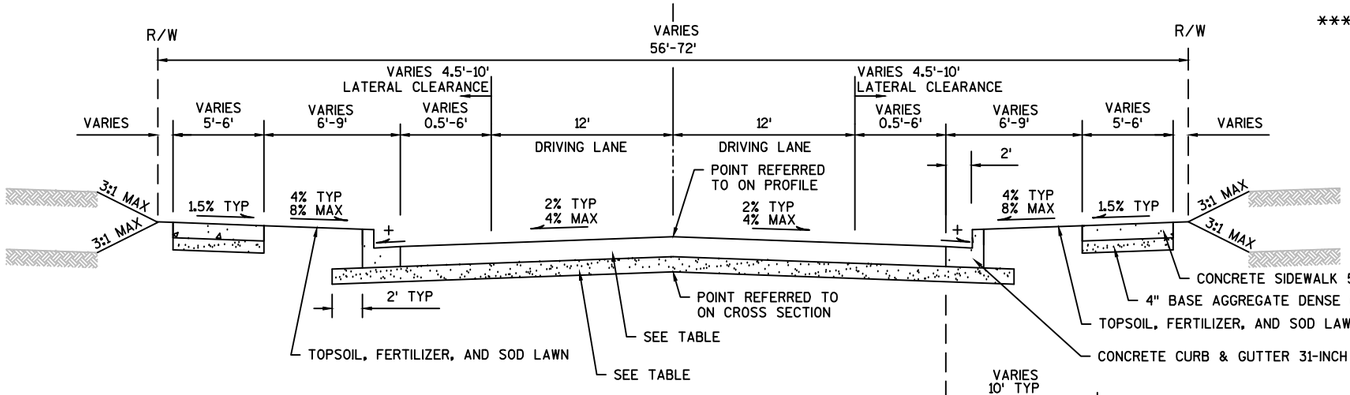
SIDE ROAD PAVEMENT STRUCTURES		
SIDE ROAD	NORTH/SOUTH OF W GREENFIELD AVE	PAVEMENT STRUCTURE
34TH	SOUTH	ASPHALTIC SURFACE MILLING BUTT JOINTS 1.5" 5LT 58-28S HMA PAVEMENT OVER 1.5" 5LT 58-28S HMA PAVEMENT
	NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
33RD	SOUTH/NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
32ND	SOUTH/NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
31ST	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
30TH	SOUTH/NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
29TH	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
28TH	SOUTH/NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
26TH	SOUTH/NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
25TH	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	ASPHALTIC SURFACE MILLING BUTT JOINTS 1.5" 5LT 58-28S HMA PAVEMENT OVER 1.5" 5LT 58-28S HMA PAVEMENT
24TH	SOUTH/NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
23RD	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
22ND	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
21ST	SOUTH/NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
20TH	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
	NORTH	ASPHALTIC SURFACE MILLING BUTT JOINTS 1.5" 5LT 58-28S HMA PAVEMENT OVER 1.5" 5LT 58-28S HMA PAVEMENT
19TH	NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
COMSTOCK AVE	SOUTH	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
18TH	NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
UNION STREET	SOUTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH
17TH	NORTH	1.75" 4LT 58-28S HMA PAVEMENT OVER 2.25" 3LT 58-28S HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH



TYPICAL FINISHED SECTION
W. GREENFIELD AVE
STA 102+57 TO STA 167+15
V = 35 MPH



COMMERCIAL WALK AREAS
(LEFT SIDE IS MIRROR IMAGE)
SEE PLANS FOR LOCATIONS



TYPICAL FINISHED SECTION
SIDE ROADS
V = 30 MPH

COMMERCIAL WALK
(LEFT SIDE IS MIRROR IMAGE)
SEE PLANS FOR LOCATIONS

NOTES:
1. PRIOR TO EXCAVATION FOR SUBGRADE IMPROVEMENT AND EXCAVATION BELOW SUBGRADE, TEST-ROLL THE ENTIRE PROJECT LENGTH. EXCAVATION FOR SUBGRADE IMPROVEMENT AND EXCAVATION BELOW SUBGRADE SHALL BE AT THE DISCRETION OF THE ENGINEER. DEPTH OF EXCAVATION VARIES 12"-24" TYPICAL AND 36" TYPICAL MAXIMUM.
2. SEE CONSTRUCTION DETAILS FOR EBS LOCATIONS.

\+ TYPICAL GUTTER SLOPE IS 4%. THIS MAY VARY AT CURB RAMPS AND DRIVEWAYS. PROVIDE DRAINAGE AWAY FROM CURB RAMPS AND DRIVEWAYS.

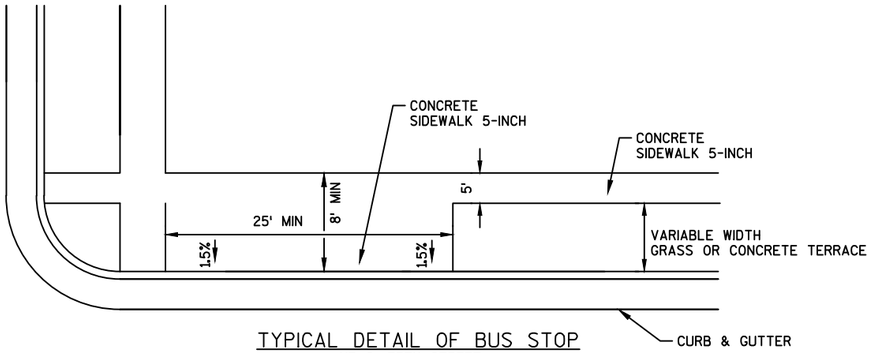
* TERRACE WIDTHS ARE APPROXIMATE. SEE CROSS SECTIONS FOR ACTUAL WIDTHS.
4' - 35TH STREET TO S. LAYTON BLVD
5' - 18TH STREET TO 17TH STREET (VARIES 5' - 6')
6' - S. LAYTON BLVD TO 24TH STREET
19TH STREET TO 18TH STREET
7' - 24TH STREET TO 19TH STREET

** TERRACE WIDTHS ARE APPROXIMATE. SEE CROSS SECTIONS FOR ACTUAL WIDTHS.
3' - 35TH STREET TO 31ST STREET
UNION STREET TO S. CESAR E. CHAVEZ DR
4' - 31ST STREET TO 29TH STREET
5' - 29TH STREET TO S. LAYTON BLVD
23RD STREET TO COMSTOCK AVE
6' - 26TH STREET TO 23RD STREET
COMSTOCK AVE TO UNION STREET
7' - S. LAYTON BLVD TO 26TH STREET

*** 6% MAX AT THE FOLLOWING LOCATIONS:
STA 127+25 TO STA 127+65 RT
STA 131+00 TO STA 131+50 RT
STA 135+05 TO STA 135+40 RT
STA 136+15 TO STA 136+55 LT
STA 142+00 TO STA 142+75 LT
STA 143+00 TO STA 143+80 LT
STA 143+40 TO STA 143+60 RT
STA 144+75 TO STA 145+40 LT
STA 155+75 TO STA 156+20 LT
STA 157+95 TO STA 158+75 LT
STA 158+10 TO STA 158+75 RT
STA 160+00 TO STA 160+50 RT
STA 161+25 TO STA 161+60 RT

SIDE ROAD PAVING MATCH
FROM EDGE OF W GREENFIELD AVE TO END OF CURB RETURN PAVEMENT SHALL CONSIST OF CONCRETE PAVEMENT 8-INCH ON 6" OF BASE AGGREGATE DENSE 1 1/4-INCH.

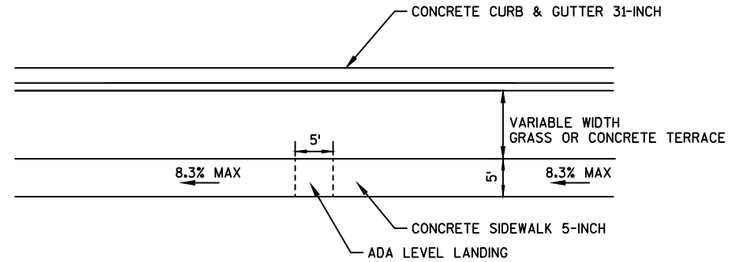
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN: TYPICAL SECTION	SHEET 6	E



TYPICAL DETAIL OF BUS STOP

NE S. 35TH STREET
SW S. 33RD STREET
NE S. 33RD STREET
SW S. 31ST STREET
NE S. 31ST STREET
SW S. 29TH STREET
NE S. 29TH STREET
SW S. LAYTON BOULEVARD
NE S. LAYTON BOULEVARD
SW S. 25TH STREET
NE S. 25TH STREET
SW S. 23RD STREET
NE S. 23RD STREET
SW S. 21ST STREET
NE S. 21ST STREET
NE S. 19TH STREET
SW S. COMSTOCK AVE
NE S. 18TH STREET
SW S. MUSKEGO AVE

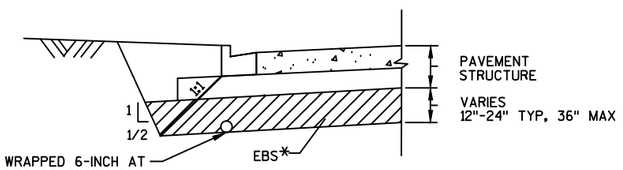
NOTES:
1. SLOPE OF ADA BUS STOP SHALL BE 1.5%.
2. NON SLIP SURFACE REQUIRED (BROOM FINISH).



NOTES:
1. SLOPE OF ADA LEVEL LANDING SHALL BE 1.5% IN ALL DIRECTIONS (2% MAX).
2. NONSLIP SURFACE REQUIRED (BROOM FINISH)

TYPICAL DETAIL OF ADA LEVEL LANDING

SEE PLAN FOR LOCATIONS AND GRADES



PIPE UNDERDRAIN WRAPPED 6-INCH AT ROADWAY LOW POINTS AS SHOWN IN THE MISC. QUANTITIES. CONNECT TO NEAREST INLET (INCIDENTAL TO PIPE UNDERDRAIN).

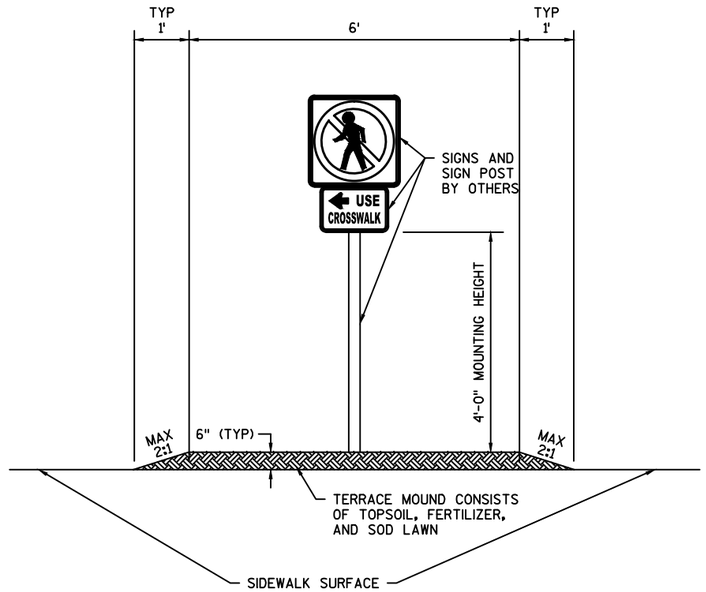
NOTES:
1. USE AS DIRECTED BY ENGINEER FOR AREAS OF UNSTABLE SUBGRADE.
2. NO EBS WILL BE ALLOWED IN THE FIELD WITHOUT A FAILED PROOF ROLL
3. EBS SHALL BE PAID FOR AS COMMON EXCAVATION.

EXCAVATION BELOW SUBGRADE (EBS)

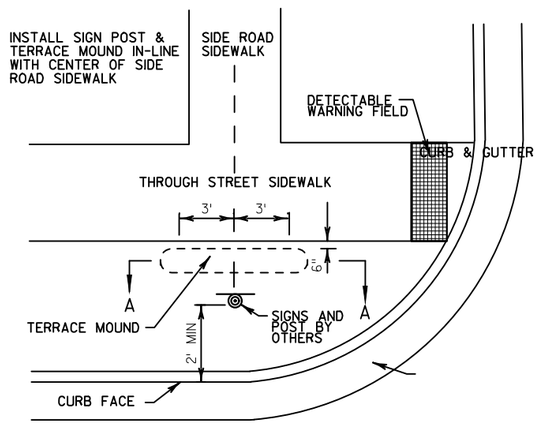
FINAL LOCATIONS AND DEPTHS TO BE DETERMINED BY THE ENGINEER

*EBS BACKFILL
TYPICAL 12" EBS WITH BASE AGGREGATE DENSE 1 1/4" BACKFILL
STA 112+78 TO STA 116+72
STA 129+25 TO STA 132+94
STA 139+95 TO STA 143+69
STA 151+29 TO STA 154+87
TYPICAL 24" EBS WITH BASE AGGREGATE DENSE 1 1/4" BACKFILL
STA 102+57 TO STA 104+85
STA 120+96 TO STA 125+15
STA 147+58 TO STA 151+29
STA 154+86 TO STA 159+05

UNDISTRIBUTED EBS AMOUNT IS ESTIMATED AT A 12" DEPTH WITH BASE AGGREGATE DENSE 3" BACKFILL FOR 50% OF THE TOTAL LENGTH OF THE 24" EBS STATION RANGES LISTED ABOVE.



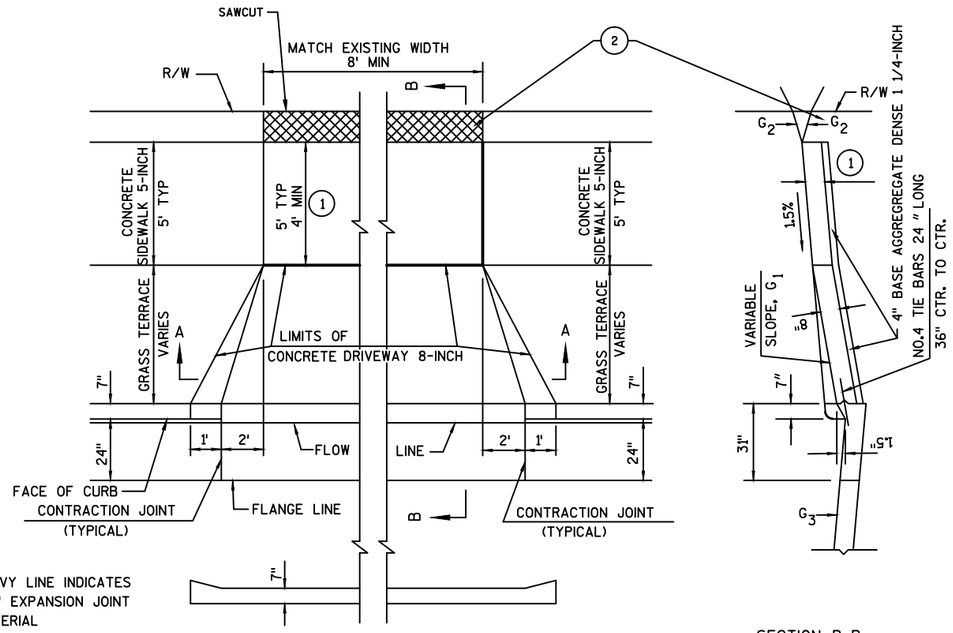
ELEVATION VIEW
SECTION A-A



TERRACE MOUND AND SIGN LOCATION DETAIL

PEDESTRIAN CROSSWALK CLOSURE

STA 157+25, 30' LT
STA 159+82, 30' RT
STA 163+10, 30' RT
STA 163+72, 30' RT
STA 164+60, 29' LT



SECTION A-A

SECTION B-B

HEAVY LINE INDICATES
1/2" EXPANSION JOINT
MATERIAL

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

CONCRETE DRIVEWAY FLARED

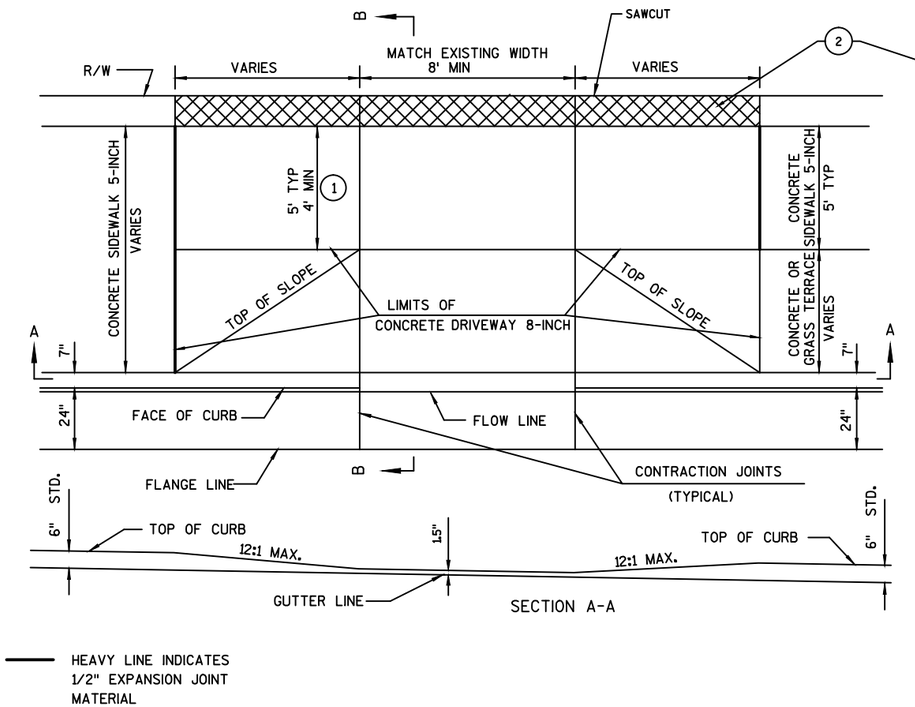
COMMERCIAL ENTRANCE	PRIVATE ENTRANCE
STA 119+36 RT	STA 151+57 RT
STA 119+80 RT	STA 152+25 LT
STA 124+71 RT	STA 155+30 RT
STA 126+36 LT	STA 155+95 RT
STA 148+60 LT	STA 156+77 RT
STA 160+27 RT	STA 157+25 RT
STA 161+06 RT	STA 161+41 RT
STA 162+59 LT	STA 161+83 RT
S 26TH ST (NORTH OF W GREENFIELD AVE, WEST SIDE)	STA 163+41 LT
S 23RD ST (NORTH OF W GREENFIELD AVE, WEST SIDE)	STA 163+56 LT
S UNION ST (EAST SIDE)	

MAXIMUM
G_1 & G_2 = 15%
DESIRABLE MAXIMUM = 10%

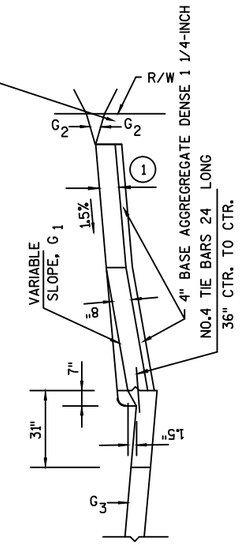
MAXIMUM DIFFERENCE BETWEEN
G_1 AND G_2 IN FILL = 14%
G_1 AND G_3 = 14%

(1) LOCATIONS PER PLAN:
USE CONCRETE DRIVEWAY 8-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH FOR COMMERCIAL PROPERTY AND CONCRETE SIDEWALK 5-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH FOR RESIDENTIAL PROPERTY.

(2) THIS AREA TO BE REPLACED IN KIND WITH A MINIMUM SECTION OF:
3" ASPHALTIC SURFACE DRIVEWAYS OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
OR
CONCRETE DRIVEWAY 8-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
OR
6" BASE AGGREGATE DENSE 1 1/4-INCH



SECTION A-A



SECTION B-B

HEAVY LINE INDICATES
1/2" EXPANSION JOINT
MATERIAL

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

COMMERCIAL WALK CONCRETE DRIVEWAY

COMMERCIAL ENTRANCE	PRIVATE ENTRANCE
STA 103+56 LT	STA 106+65 LT
STA 106+88 LT	STA 107+29 LT
STA 116+52 RT	STA 107+58 LT
STA 129+91 LT	STA 111+90 LT
STA 130+12 RT	STA 113+06 RT
STA 131+23 LT	STA 133+42 LT
STA 132+86 LT	STA 134+21 LT
STA 133+76 LT	STA 138+36 LT
STA 141+93 LT	
STA 142+46 LT	
STA 145+95 LT	
STA 148+15 RT	
STA 165+17 LT	
STA 165+23 RT	

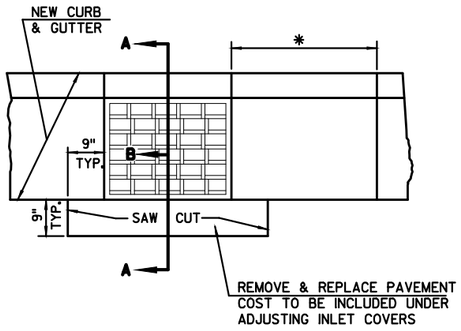
MAXIMUM
G & G = 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN
G_1 AND G_2 IN FILL = 14%
G_1 AND G_3 = 14%

(1) LOCATIONS PER PLAN:
USE CONCRETE DRIVEWAY 8-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH FOR COMMERCIAL PROPERTY AND CONCRETE SIDEWALK 5-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH FOR RESIDENTIAL PROPERTY.

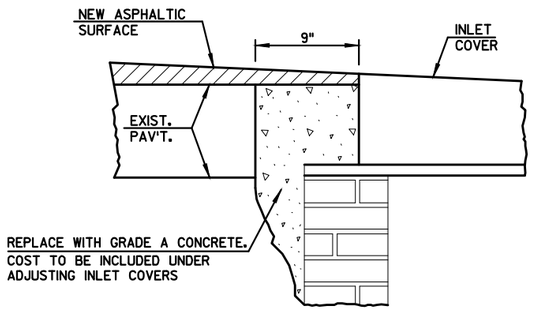
(2) THIS AREA TO BE REPLACED IN KIND WITH A MINIMUM SECTION OF:
3" ASPHALTIC SURFACE DRIVEWAYS OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
OR
CONCRETE DRIVEWAY 8-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
OR
6" BASE AGGREGATE DENSE 1 1/4-INCH

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

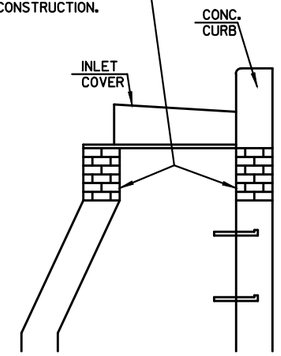


PLAN VIEW

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.

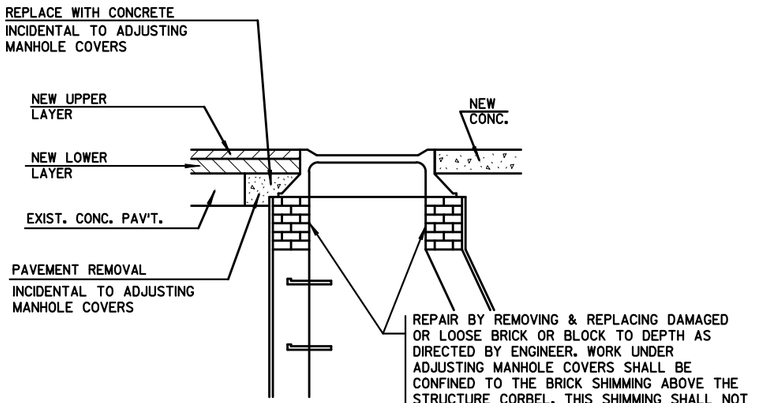


SECTION A-B

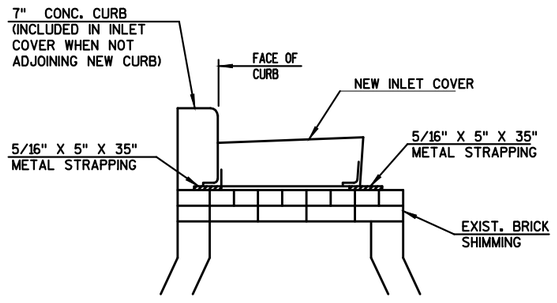


SECTION A-A

ADJUSTING OR NEW INLET COVERS
(EXISTING STRUCTURES)



ADJUSTING MANHOLE COVERS

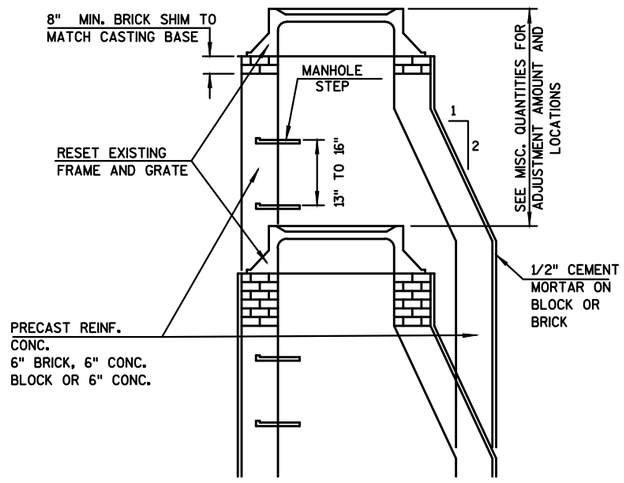


EXIST. DRAINAGE STRUCTURE

NOTES:

1. METAL STRAPPING TO BE 5/16" X 5" X 35" FLAT STEEL, HOT ROLLED (ASTM A36).
2. METAL STRAPPING TO BE PLACED ACROSS EXISTING DRAINAGE STRUCTURE TO SUPPORT NEW COVER. THE METAL STRAPPING SHALL BE SET ON A BED OF MORTAR.
3. PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURE. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.
4. COST OF MATERIALS AND LABOR INCIDENTAL TO INLET COVER TYPE 57.

DETAIL FOR PLACING NEW INLET COVER ON EXISTING INLET USING METAL STRAPPING MATERIALS



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

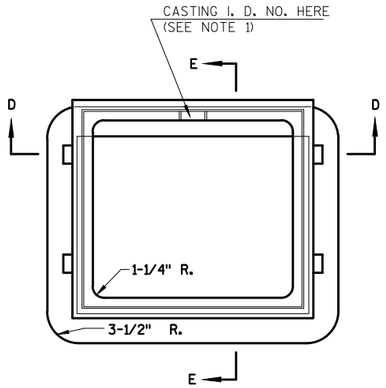
REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

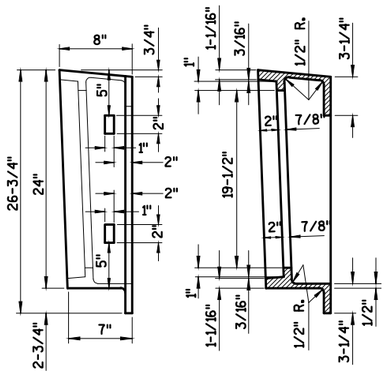
RECONSTRUCTING MANHOLES

CONSTRUCTION NOTES

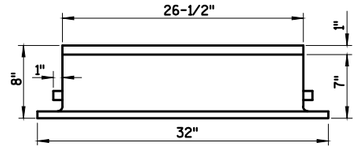
1. LOCATIONS OF STRUCTURES REFER TO CENTERLINE OF STRUCTURE.
2. PIPE LENGTHS GIVEN ARE CENTER TO CENTER OF STRUCTURE.
3. GRATE & RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
4. WHEN NEW COVERS 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.
5. MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED.
6. 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 1' BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.

2

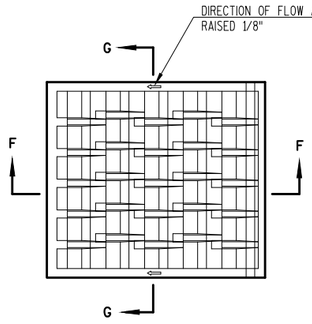


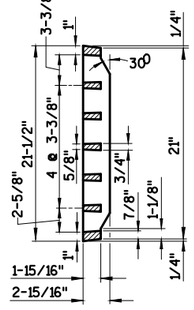


SECTION E-E



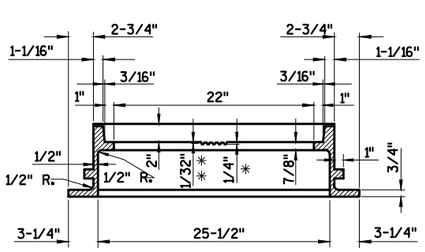
FRAME





GRATE

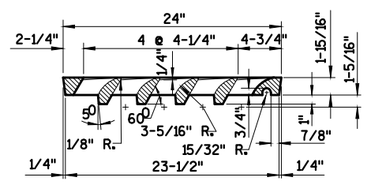
SECTION G-G



SECTION D-D

✳ DEPRESSION FOR LETTERS

✳ ✳ CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



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.

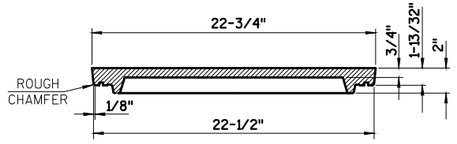
ON THE GRATE

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.

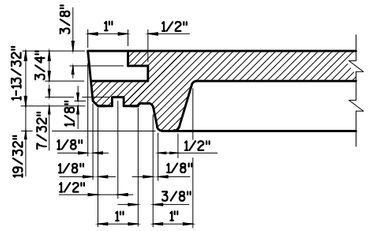
INLET COVER - TYPE 57

LID-145 LBS., FRAME-204 LBS.

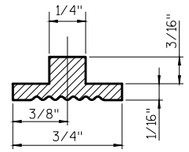
2

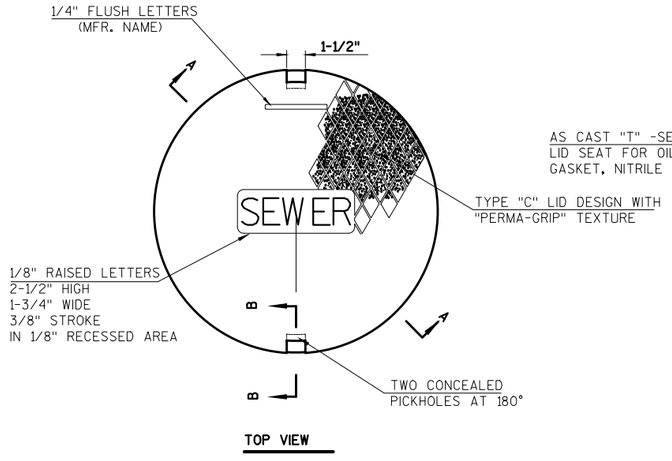


SECTION A-A

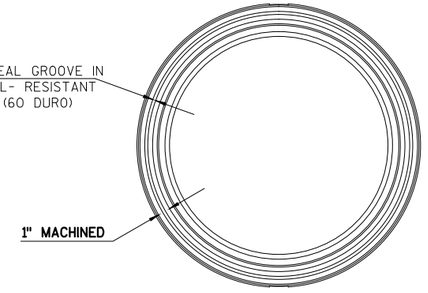


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58A

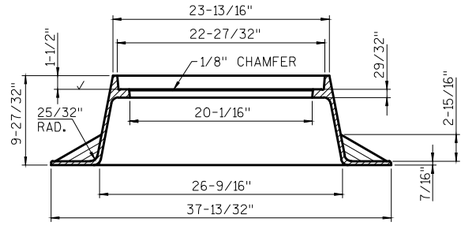
LID - 107 LBS.

NOTE:

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

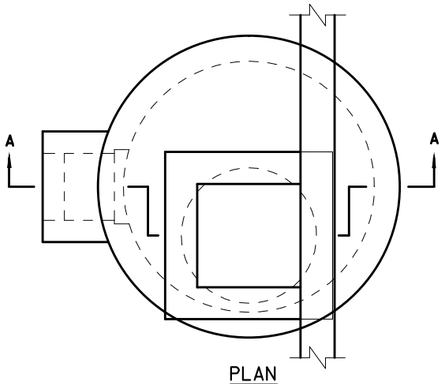
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

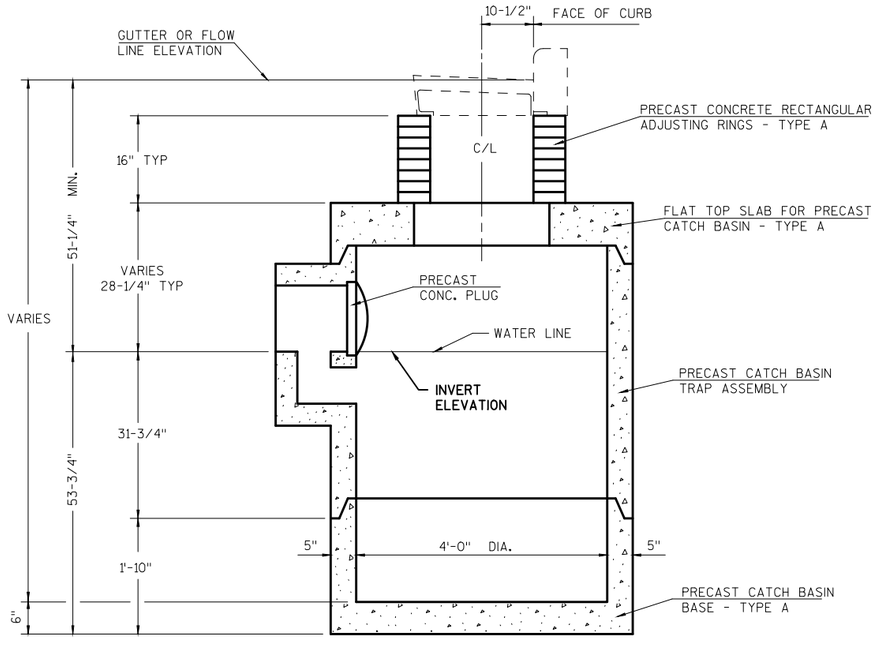


MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.



PLAN

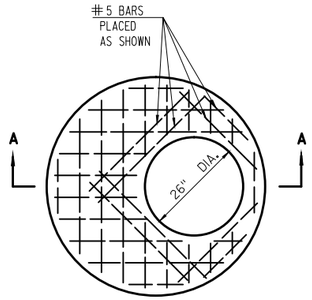


SECTION A-A

CATCH BASIN - TYPE 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.

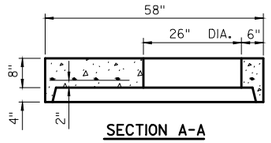


PLAN

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.

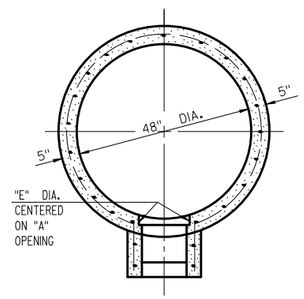
REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



SECTION A-A

TOP SLAB - TYPE A



SECTION A-A

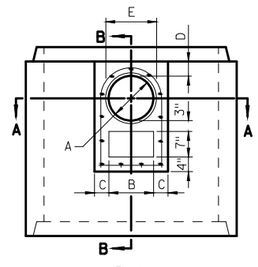
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

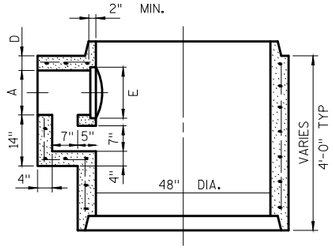
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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.



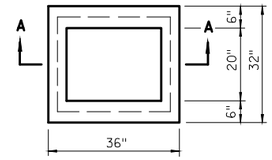
PLAN



SECTION B-B

A	12-1/4"
B	12-1/4"
C	4"
D	4"
E	14"

TRAP ASSEMBLY



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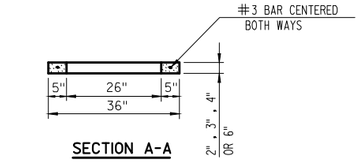
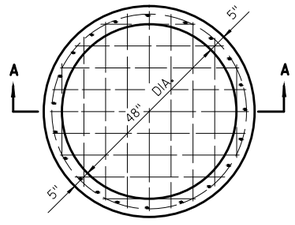


SECTION A-A

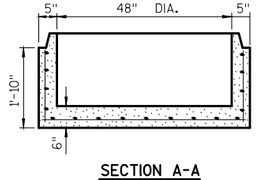
THE ADJUSTING RINGS SHALL BE 2" , 3" , 4" OR 6" IN HEIGHT.

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

RECTANGULAR ADJUSTING RING - TYPE A



PLAN



SECTION A-A

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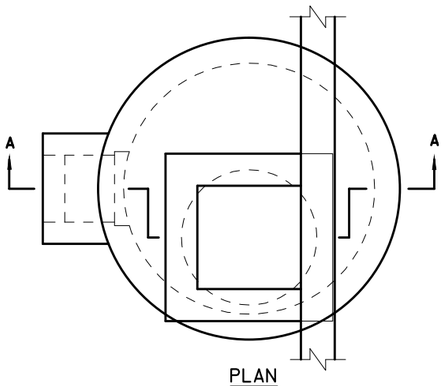
BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

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

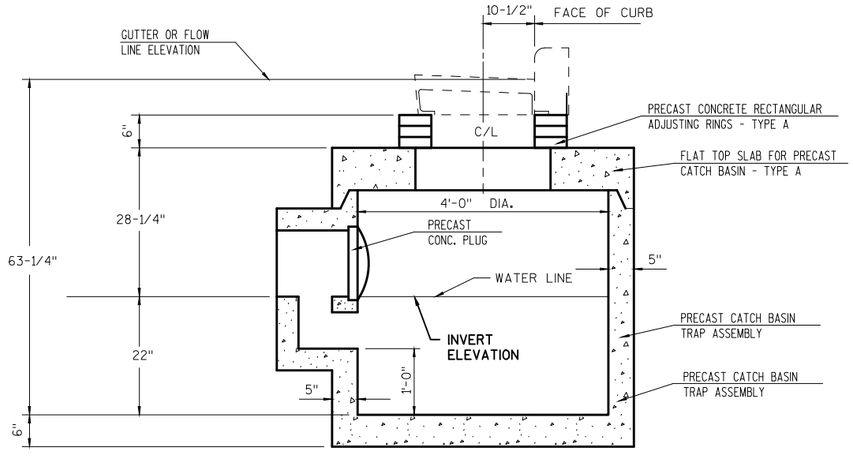
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

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

BASE - TYPE A



PLAN

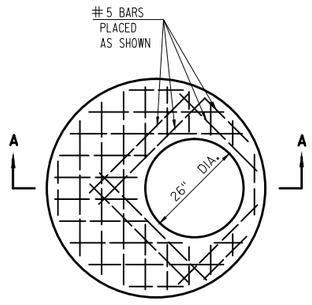


SECTION A-A

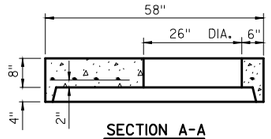
CATCH BASIN - TYPE 44B

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



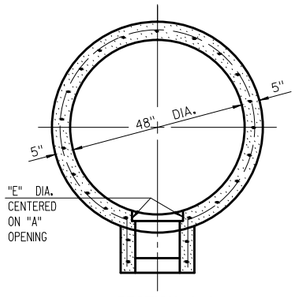
SECTION A-A

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.



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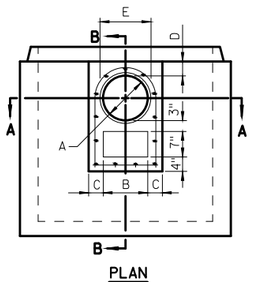

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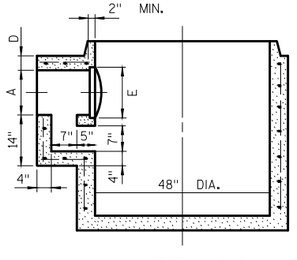

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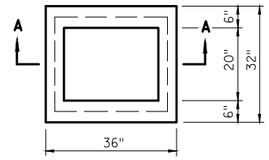
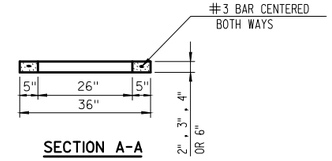


PLAN



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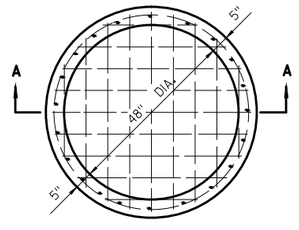

PLAN

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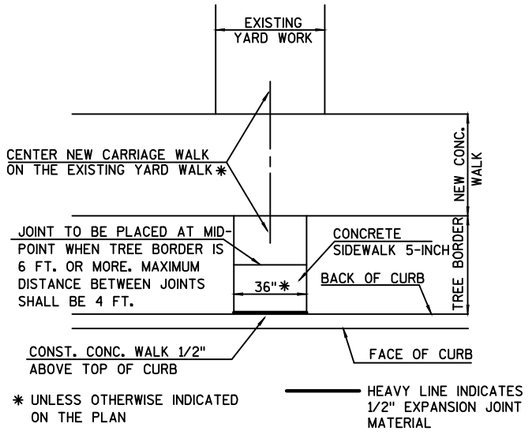
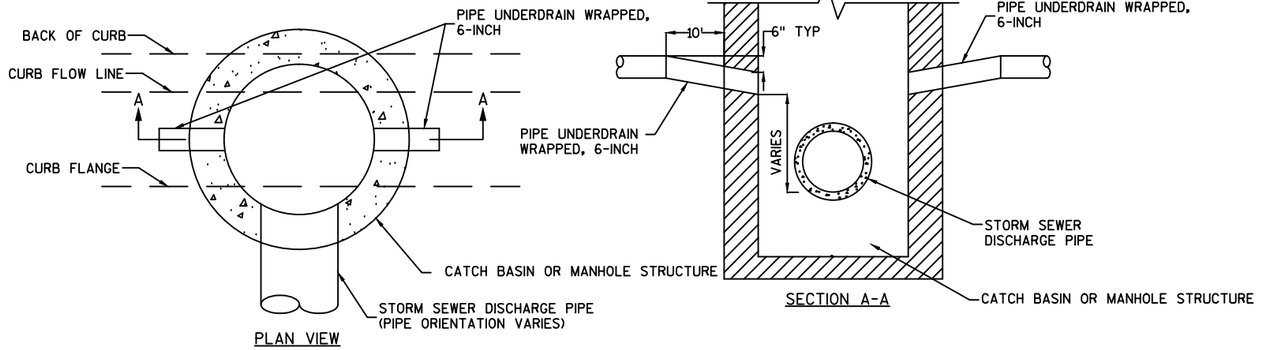


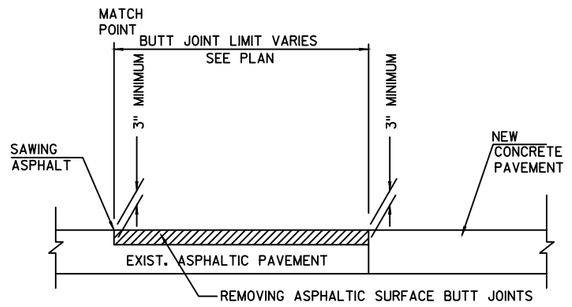
CARRIAGE WALK

NOTES:
1. MINIMUM SLOPE OF UNDERDRAIN PIPE IS 0.3%.
2. CONNECT UNDERDRAIN TO THE CATCH BASIN OR MANHOLE ABOVE THE INVERT OF THE STORM SEWER DISCHARGE PIPE.
3. CONNECTION OF UNDERDRAIN TO CATCH BASIN OR MANHOLE IS INCIDENTAL TO PIPE UNDERDRAIN



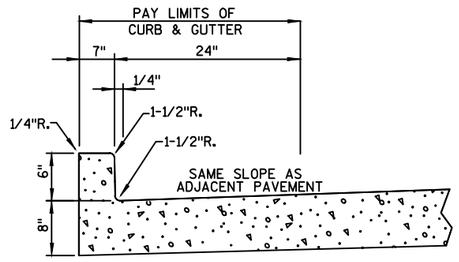
UNDERDRAIN OUTFALL

SEE MISC. QUANTITIES FOR PIPE UNDERDRAIN LOCATIONS



REMOVING ASPHALTIC SURFACE BUTT JOINTS

S. 34TH STREET (SOUTH OF W. GREENFIELD AVENUE)
S. 25TH STREET (NORTH OF W. GREENFIELD AVENUE)
S. 20TH STREET (NORTH OF W. GREENFIELD AVENUE)



CONCRETE CURB & GUTTER INTEGRAL 31-INCH

STA 126+79.50 TO STA 127+70.58 RT

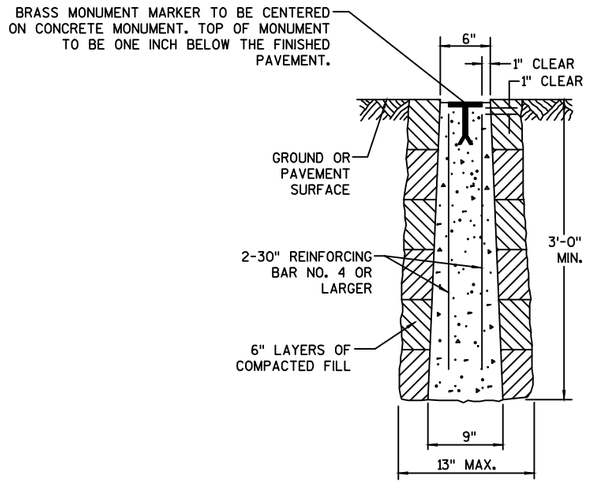
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 14	E

GENERAL NOTES

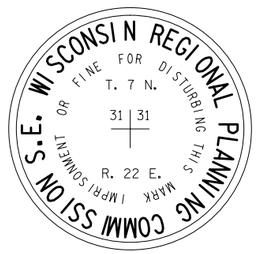
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION.

INSTALLATION OF PRECAST MONUMENT TO BE SUPERVISED BY CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION FOR ACCURACY OF LOCATION.



PRECAST CONCRETE MONUMENT



MONUMENT MARKER LOGO
(TO BE FURNISHED BY OTHERS)

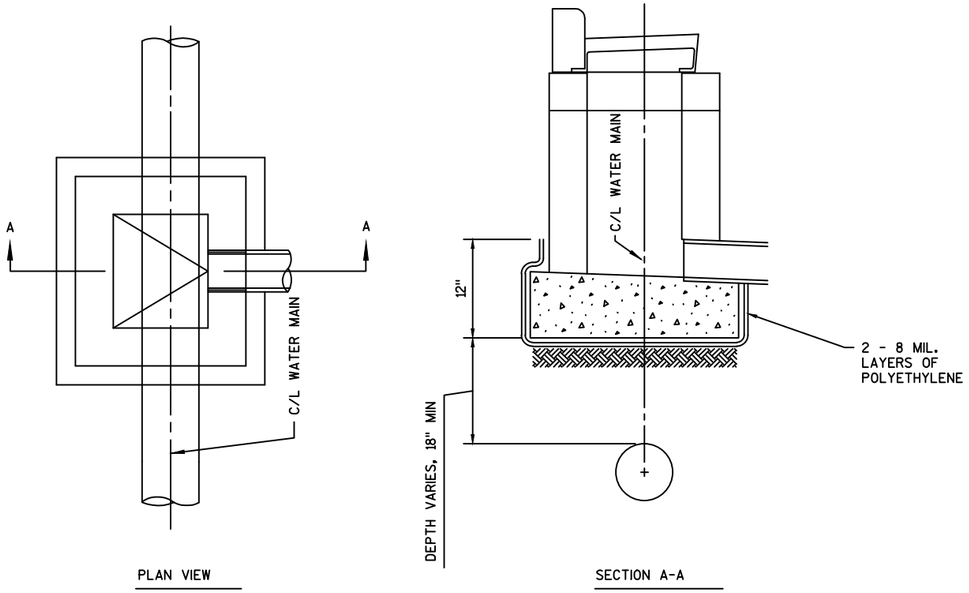
LANDMARK REFERENCE MONUMENT

W. GREENFIELD AVE - STA 154+50.72
(SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS)

CONSTRUCTION PERMITS

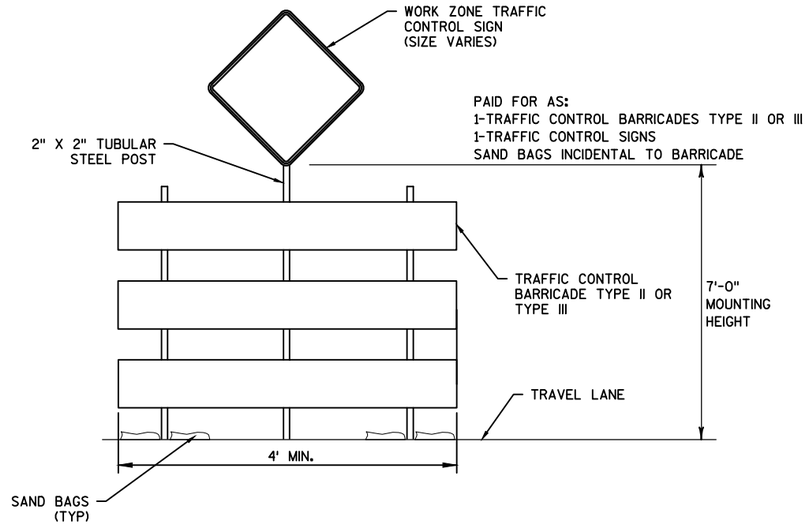
STATION	TAX KEY	ADDRESS	ASSOCIATED WORK
115+48 TO 118+01	458-0001-100	3023 W GREENFIELD AVE	CONCRETE SIDEWALK REPLACEMENT & GRADING
118+60 TO 118+91	458-0610-000	2935 W GREENFIELD AVE	GRADING
120+93 TO 121+28	435-0840-000	2902 W GREENFIELD AVE	GRADING
124+05 TO 124+41	435-0878-000	2802 W GREENFIELD AVE	GRADING
125+01 TO 125+42	435-0919-000	2734 W GREENFIELD AVE	GRADING
121+87 TO 127+70	458-1701-000	1501 S LAYTON BLVD	GRADING
134+99 TO 135+31	459-1214-100	2501 W GREENFIELD AVE	STAMPED-AND-COLORED CONCRETE SIDEWALK REMOVAL
147+11 TO 148+52	434-2371-000	1342 S 22ND ST	STAMPED-AND-COLORED CONCRETE SIDEWALK REMOVAL
150+81 TO 151+41	434-2115-000	2034 W GREENFIELD AVE	STAMPED-AND-COLORED CONCRETE SIDEWALK REMOVAL
160+27 TO 160+58	433-2056-000	1800 W GREENFIELD AVE	STAMPED-AND-COLORED CONCRETE SIDEWALK REMOVAL
164+61 TO 167+29	433-1838-112	1337 S CESAR E CHAVEZ DR	STAMPED-AND-COLORED CONCRETE SIDEWALK REMOVAL

2



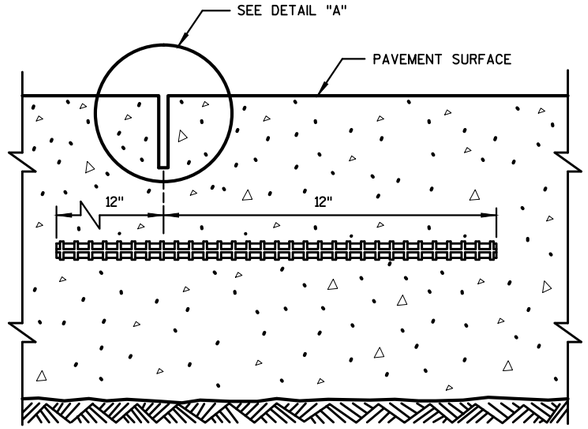
WATER MAIN PROTECTION

STA 118+43, 42' LT
STA 121+68, 49' RT



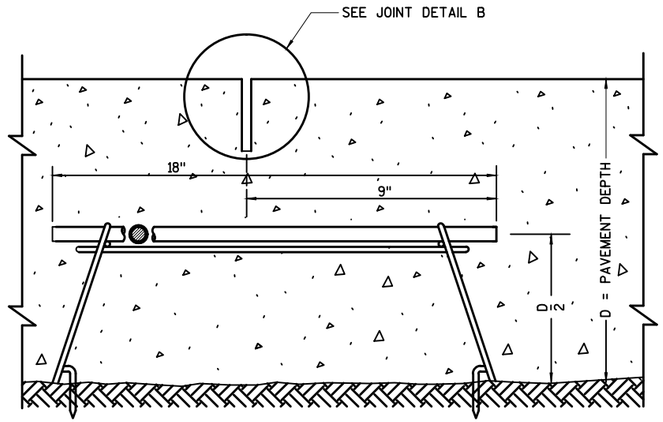
TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON TEMPORARY SUPPORT

CONTROL POINTS			
POINT NAME	Y COORD	X COORD	DESCRIPTION
101	377370.212	2547007.0861	MAG SPIKE
102	377336.857	2547802.3891	MAG SPIKE
103	377428.580	2548777.0311	MAG SPIKE
104	377408.984	2549585.7251	MAG SPIKE
105	377488.226	2550326.4950	MAG SPIKE
106	377504.742	2551012.6370	MAG SPIKE
107	377469.650	2551983.9420	MAG SPIKE
108	377484.639	2552802.4380	MAG SPIKE
109	377481.702	2552688.6600	MAG SPIKE
110	377546.600	2552723.8620	MAG SPIKE
111	377508.998	2551070.5390	MAG SPIKE
112	377445.561	2551071.3441	MAG SPIKE



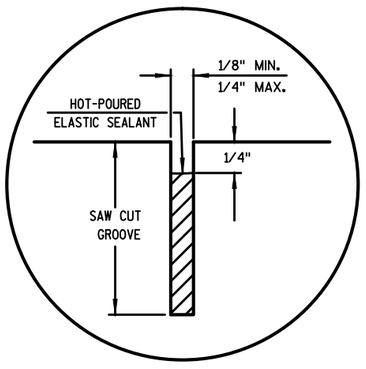
SAWED JOINT

NOTE: DETAIL "A" SHOWN IN S.D.D. CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES HAS BEEN REVISED AND SHOWN AS "JOINT DETAIL A".

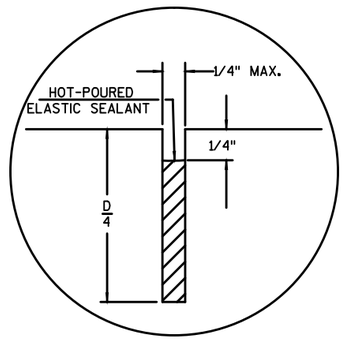


DOWELED CONTRACTION JOINT

NOTE: 'JOINT DETAIL' SHOWN IN S.D.D. URBAN DOWELED CONCRETE PAVEMENT HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL B".



JOINT DETAIL "A"



JOINT DETAIL "B"

JOINTS WITH HOT POURED SEALANT

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 OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DEVIATES FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT APPROVAL OF THE ENGINEER.

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

LOCATIONS OF THE CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED ON THE PLANS. 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 CONDUIT STREET CROSSING LOCATIONS BY STAMPING AND PAINTING WITH RED PAINT ON THE TOP OF CURB.

TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES SHALL BE AS FOLLOWS:
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2.5-INCH OR 3-INCH (AS NOTED) TO STREET LIGHTING METAL PEDESTAL
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 1.5-INCH TO STREET LIGHT POLE CABLE SLOT
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE

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

CONDUIT INSTALLED BEHIND CURB SHALL BE INSTALLED 6 INCHES BEHIND THE BACK OF CURB (MEASURED TO THE CENTER LINE OF CONDUIT), AND 18 INCHES BELOW THE FINISHED TOP OF CURB (MEASURED TO THE TOP OF CONDUIT).

WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH.

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

THE AREA BEHIND THE CURB AND/OR THE TRENCH FOR CONDUIT INSTALLATION SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION, AND APPROVAL OF THE CONDUIT BY THE CITY OF MILWAUKEE.

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

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

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 WILL NOT BE ACCEPTED.

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

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.).

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

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 ENGINEER.

WHEN ENDS OF CONDUIT DO NOT CONNECT TO A PULL BOX AND WILL END UP UNDER CONCRETE WALK, PROVIDE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH GRANULAR BACKFILL. GRANULAR BACKFILL IS INCIDENTAL TO THE ASSOCIATED CONDUIT.

ALL CONDUIT CROSSINGS AND PULL BOXES SHALL BE AT LEAST 5 FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE OR APPROVED BY THE ENGINEER.

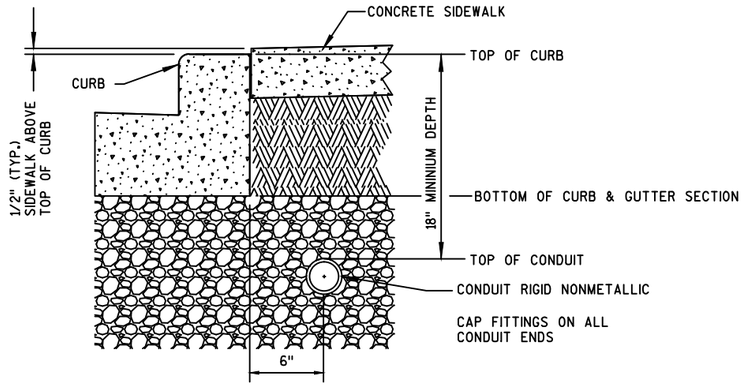
ALL STREET LIGHT POLES AND TRAFFIC SIGNAL POLES IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER.

COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. PROVIDE 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

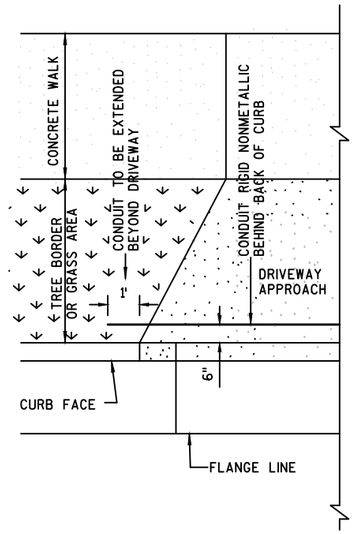
IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION 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

INSTALL CONDUIT AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

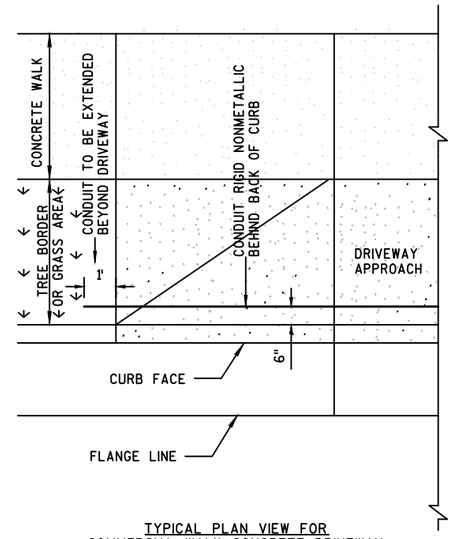
PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE TO SUBSECTION 651.3.1 OF THE STANDARD SPECIFICATIONS.



DETAIL "A"
NOT TO SCALE

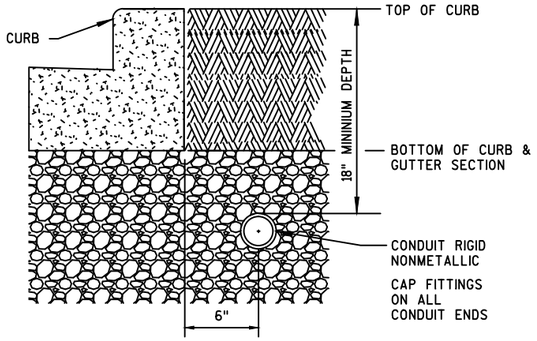


TYPICAL PLAN VIEW FOR
CONCRETE DRIVEWAY FLARED

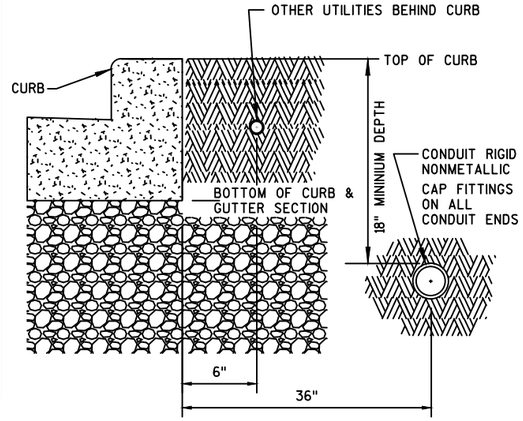


TYPICAL PLAN VIEW FOR
COMMERCIAL WALK CONCRETE DRIVEWAY

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

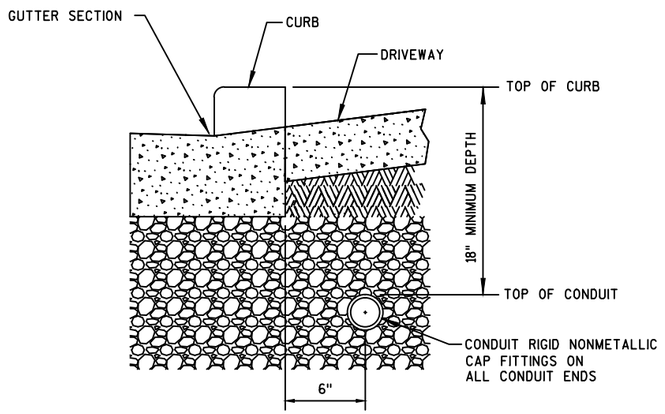


DETAIL "B"
NOT TO SCALE



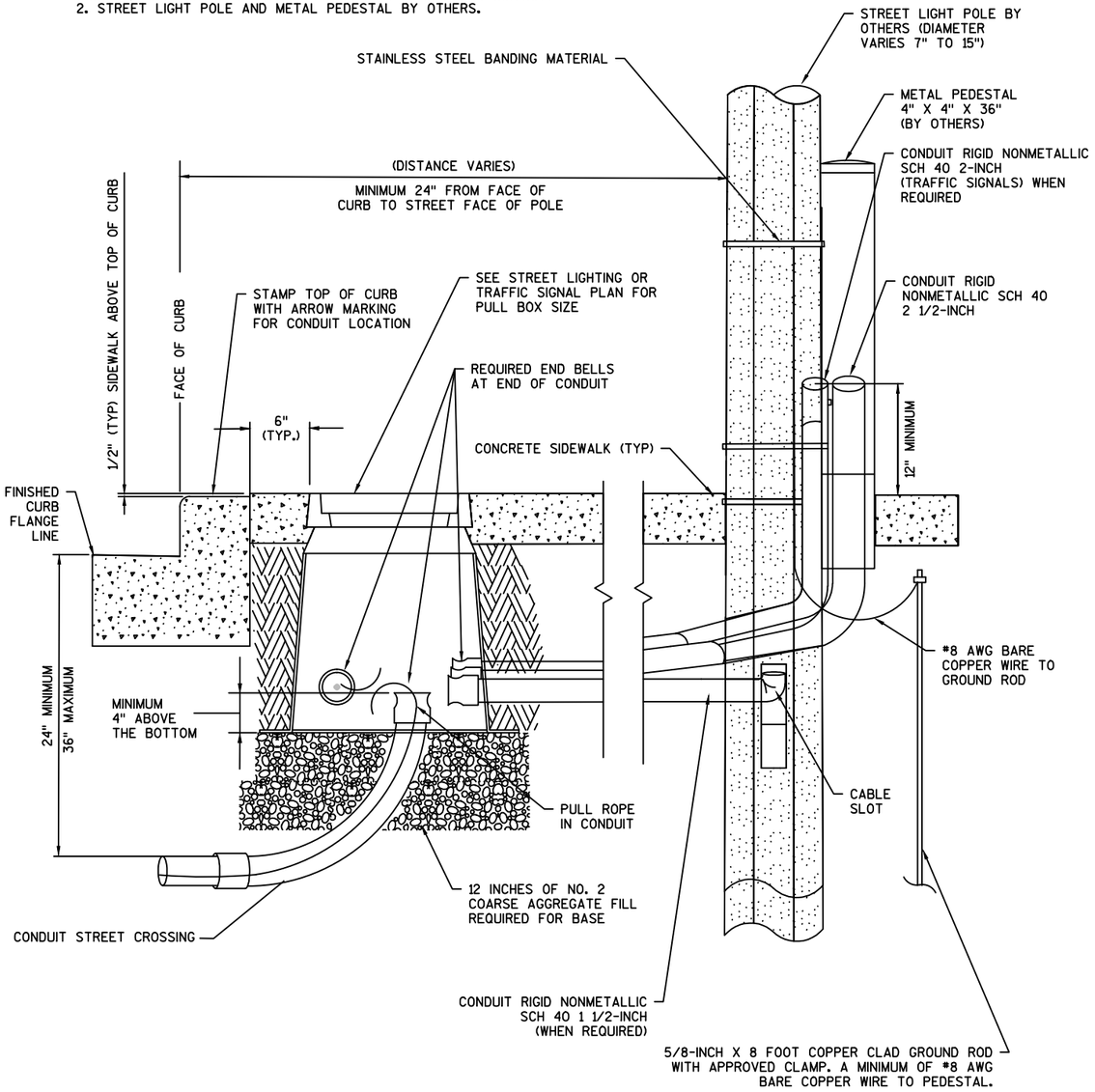
DETAIL "C"
NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB



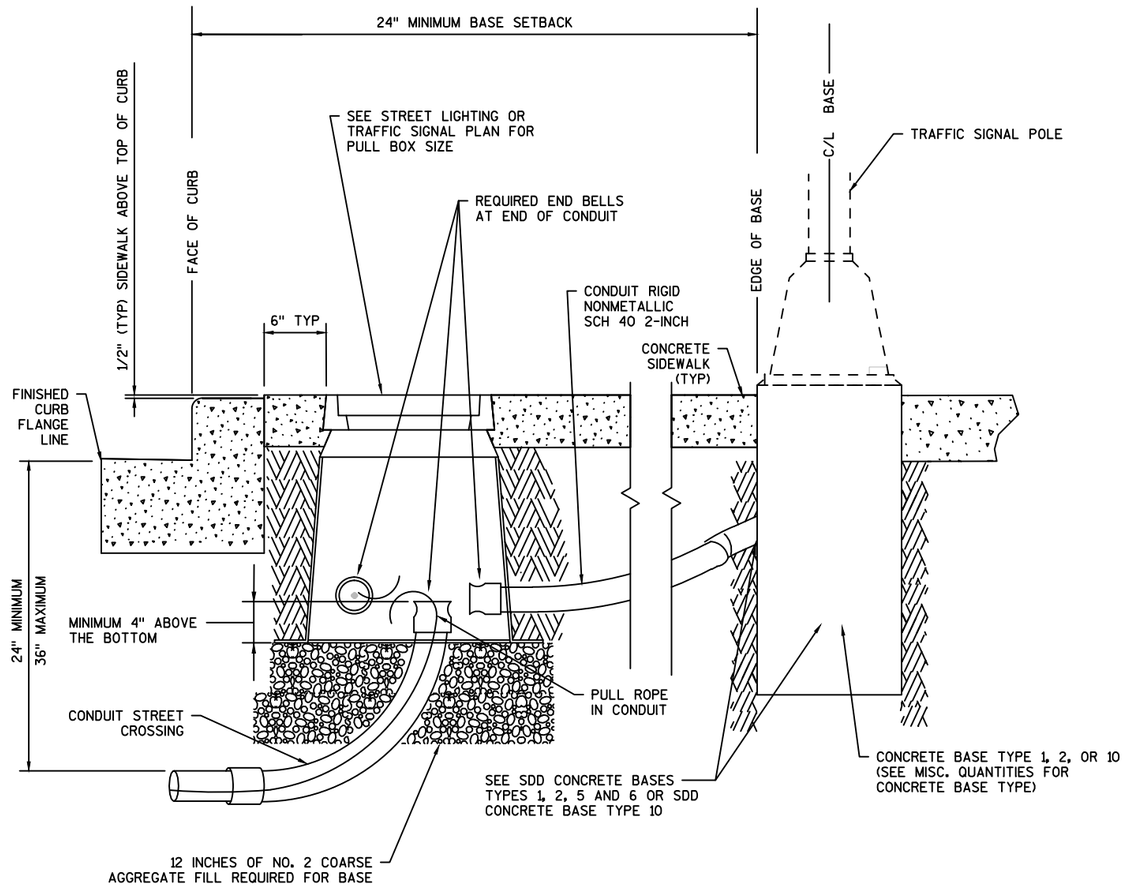
TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS
NOT TO SCALE

NOTES:
1. SEE LIGHTING PLAN OR TRAFFIC SIGNAL PLAN FOR STREET CROSSING LOCATIONS FOR CONDUIT, AND FOR SIZES AND TYPES OF STREET CROSSING CONDUIT.
2. STREET LIGHT POLE AND METAL PEDESTAL BY OTHERS.

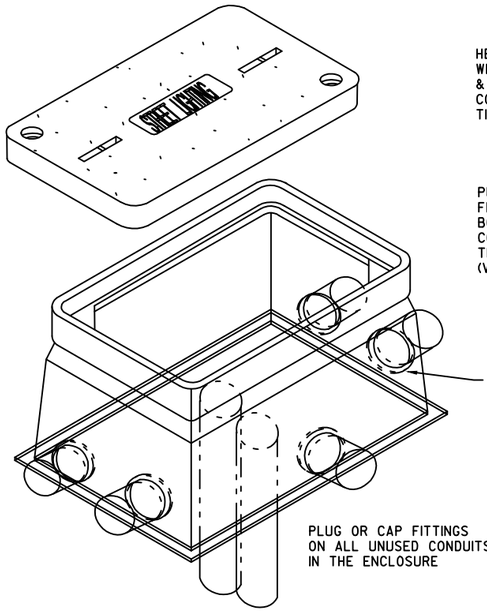


TYPICAL CONDUIT INSTALLATION
FROM PULL BOX TO STREET LIGHT POLE
NOT TO SCALE

NOTES:
1. SEE LIGHTING PLAN OR TRAFFIC SIGNAL PLAN FOR STREET CROSSING LOCATIONS AND SIZES FOR CONDUIT.



TYPICAL CONDUIT INSTALLATION
FROM PULL BOX TO TRAFFIC SIGNAL BASE
NOT TO SCALE

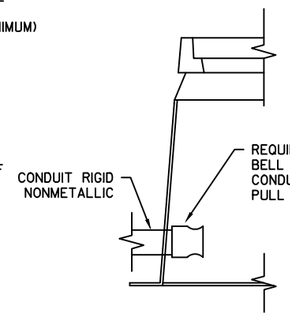


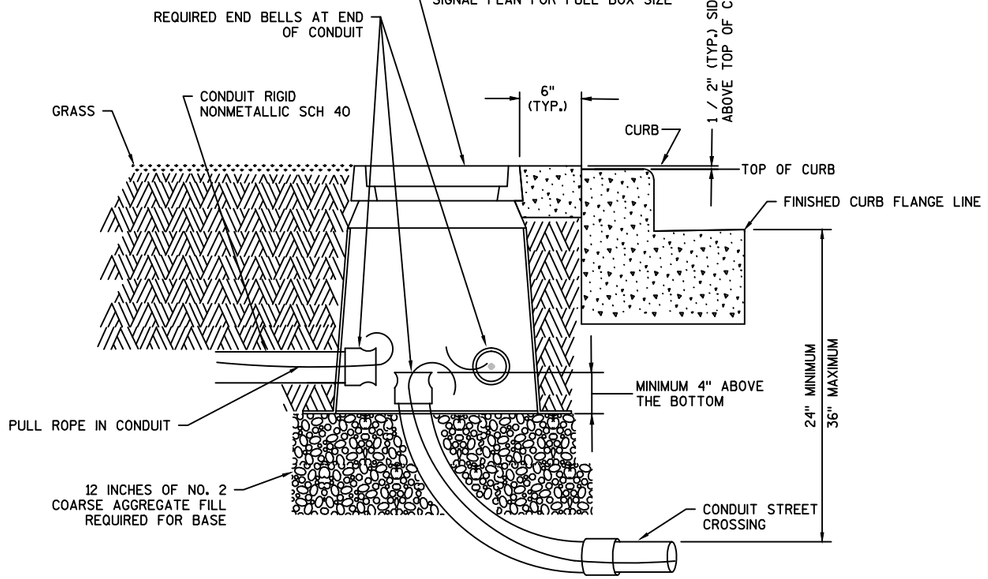
HEAVY DUTY COVER
WITH STREETLIGHTING LOGO
& WITH 2 BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

PULL BOX
FLARED WALL
BOX WITH NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)

REQUIRED END
BELLS AT END OF
CONDUIT

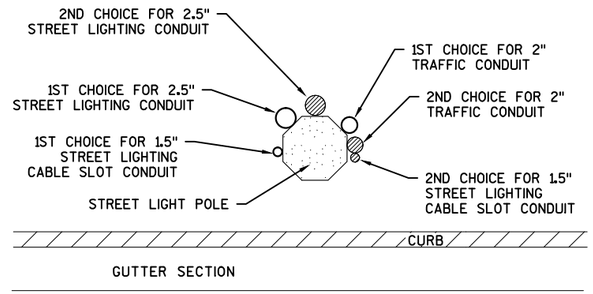
PLUG OR CAP FITTINGS
ON ALL UNUSED CONDUITS
IN THE ENCLOSURE





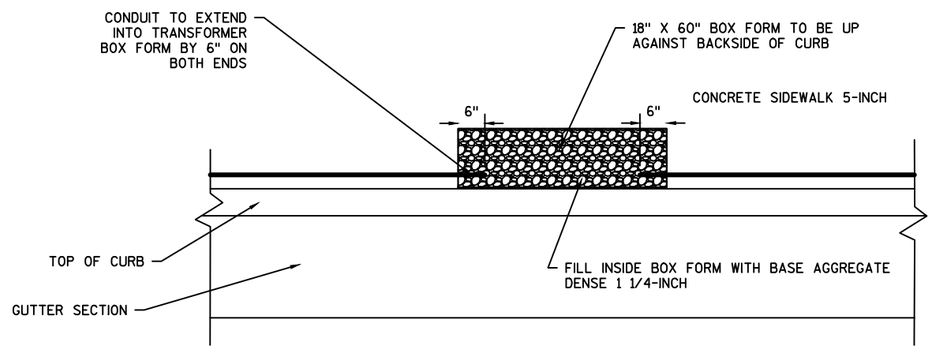
TYPICAL PULL BOX INSTALLATION
IN EITHER PAVEMENT OR GRASS AREAS
NOT TO SCALE

NOTES:
1. CAP FITTINGS ON CONDUIT ENDS



TRAFFIC SIGNAL RISER AND STREET LIGHTING
CONDUIT LOCATIONS ON LIGHT POLES
NOT TO SCALE

NOTES:
1. FORM OUT AN OPENING IN THE CONCRETE SIDEWALK BEFORE POURING CONCRETE AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
2. FILL IN THE FORMED OUT AREA OPENING WITH BASE AGGREGATE DENSE 1 1/4-INCH AFTER POURING THE CONCRETE SIDEWALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
3. CITY OF MILWAUKEE STREET LIGHTING FORCES WILL DETERMINE THE LOCATION OF THE TRANSFORMER BOX FORM.



TYPICAL 18" X 60" BOX FORM
FOR STREET LIGHTING TRANSFORMER
NOT TO SCALE

2

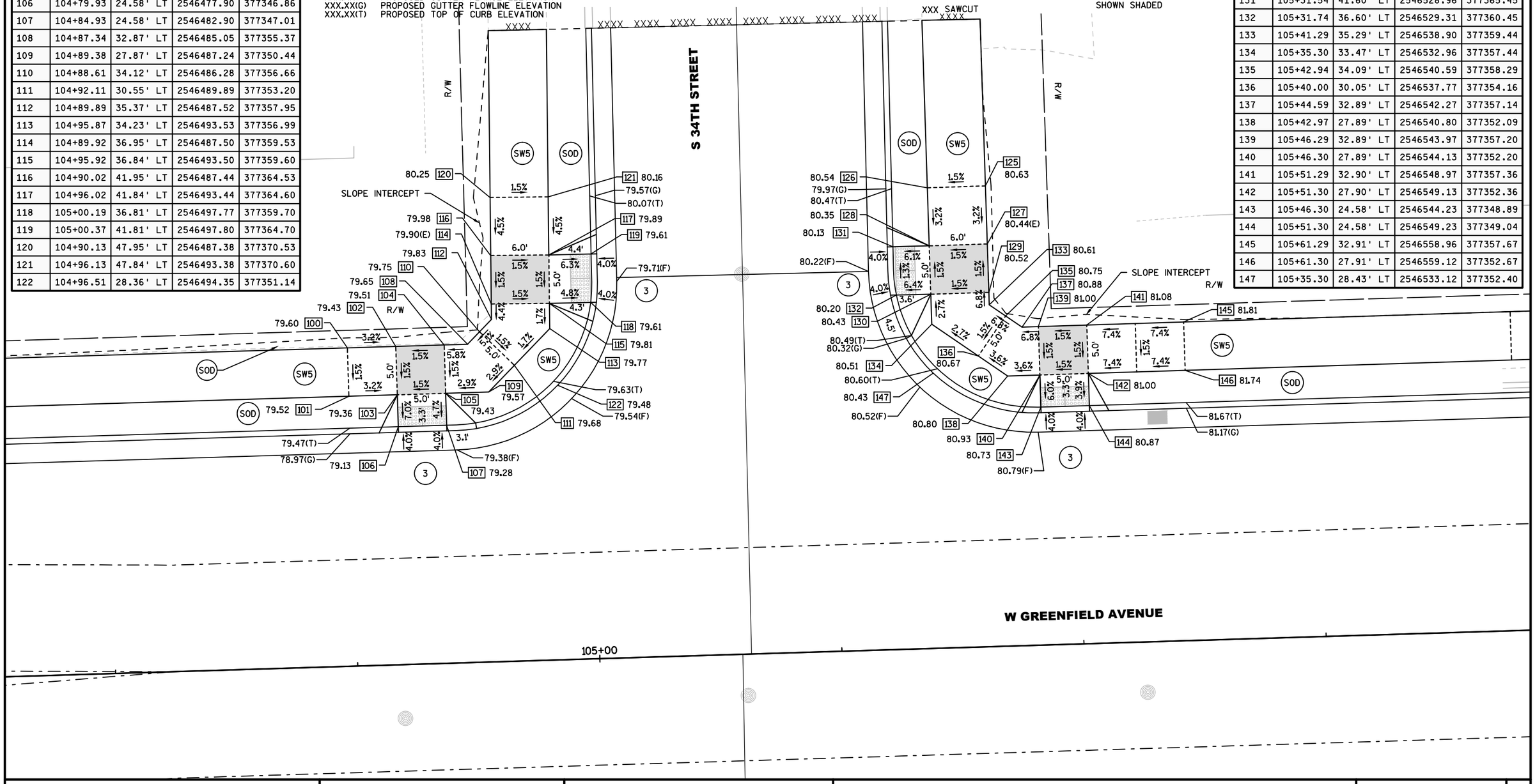
POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
100	104+74.94	32.88' LT	2546472.65	377355.00
101	104+74.93	27.88' LT	2546472.80	377350.00
102	104+79.94	32.87' LT	2546477.65	377355.15
103	104+79.93	27.87' LT	2546477.80	377350.15
104	104+84.94	32.87' LT	2546482.64	377355.30
105	104+84.93	27.87' LT	2546482.80	377350.30
106	104+79.93	24.58' LT	2546477.90	377346.86
107	104+84.93	24.58' LT	2546482.90	377347.01
108	104+87.34	32.87' LT	2546485.05	377355.37
109	104+89.38	27.87' LT	2546487.24	377350.44
110	104+88.61	34.12' LT	2546486.28	377356.66
111	104+92.11	30.55' LT	2546489.89	377353.20
112	104+89.89	35.37' LT	2546487.52	377357.95
113	104+95.87	34.23' LT	2546493.53	377356.99
114	104+89.92	36.95' LT	2546487.50	377359.53
115	104+95.92	36.84' LT	2546493.50	377359.60
116	104+90.02	41.95' LT	2546487.44	377364.53
117	104+96.02	41.84' LT	2546493.44	377364.60
118	105+00.19	36.81' LT	2546497.77	377359.70
119	105+00.37	41.81' LT	2546497.80	377364.70
120	104+90.13	47.95' LT	2546487.38	377370.53
121	104+96.13	47.84' LT	2546493.38	377370.60
122	104+96.51	28.36' LT	2546494.35	377351.14

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

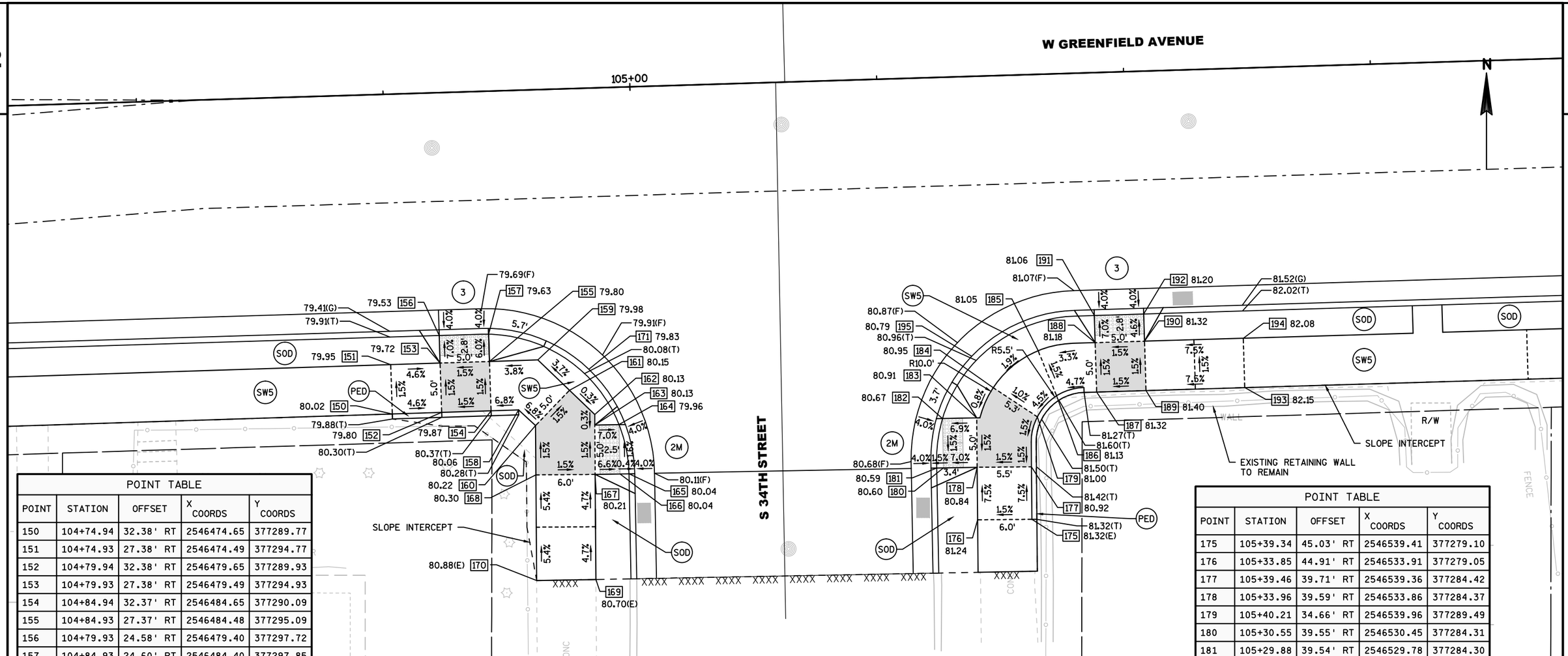
(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
125	105+41.27	47.58' LT	2546538.51	377371.73
126	105+35.27	47.57' LT	2546532.51	377371.53
127	105+41.28	41.58' LT	2546538.70	377365.73
128	105+35.28	41.57' LT	2546532.70	377365.54
129	105+41.29	36.58' LT	2546538.86	377360.73
130	105+35.29	36.57' LT	2546532.86	377360.54
131	105+31.54	41.60' LT	2546528.96	377365.45
132	105+31.74	36.60' LT	2546529.31	377360.45
133	105+41.29	35.29' LT	2546538.90	377359.44
134	105+35.30	33.47' LT	2546532.96	377357.44
135	105+42.94	34.09' LT	2546540.59	377358.29
136	105+40.00	30.05' LT	2546537.77	377354.16
137	105+44.59	32.89' LT	2546542.27	377357.14
138	105+42.97	27.89' LT	2546540.80	377352.09
139	105+46.29	32.89' LT	2546543.97	377357.20
140	105+46.30	27.89' LT	2546544.13	377352.20
141	105+51.29	32.90' LT	2546548.97	377357.36
142	105+51.30	27.90' LT	2546549.13	377352.36
143	105+46.30	24.58' LT	2546544.23	377348.89
144	105+51.30	24.58' LT	2546549.23	377349.04
145	105+61.29	32.91' LT	2546558.96	377357.67
146	105+61.30	27.91' LT	2546559.12	377352.67
147	105+35.30	28.43' LT	2546533.12	377352.40

2

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 34TH ST	SHEET 22	E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
150	104+74.94	32.38' RT	2546474.65	377289.77
151	104+74.93	27.38' RT	2546474.49	377294.77
152	104+79.94	32.38' RT	2546479.65	377289.93
153	104+79.93	27.38' RT	2546479.49	377294.93
154	104+84.94	32.37' RT	2546484.65	377290.09
155	104+84.93	27.37' RT	2546484.48	377295.09
156	104+79.93	24.58' RT	2546479.40	377297.72
157	104+84.93	24.60' RT	2546484.40	377297.85
158	104+87.74	32.36' RT	2546487.44	377290.18
159	104+89.84	27.36' RT	2546489.39	377295.25
160	104+89.40	33.99' RT	2546489.15	377288.60
161	104+92.94	30.53' RT	2546492.58	377292.17
162	104+95.42	33.07' RT	2546495.14	377289.71
163	104+95.40	34.13' RT	2546495.15	377288.65
164	104+97.85	34.16' RT	2546497.61	377288.69
165	104+98.71	39.17' RT	2546498.62	377283.71
166	104+97.79	39.16' RT	2546497.70	377283.69
167	104+95.28	39.13' RT	2546495.19	377283.65
168	104+89.28	38.99' RT	2546489.19	377283.60
169	104+95.03	49.77' RT	2546495.26	377273.00
170	104+89.03	49.69' RT	2546489.27	377272.90
171	104+96.39	27.05' RT	2546494.55	377294.31

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
175	105+39.34	45.03' RT	2546539.41	377279.10
176	105+33.85	44.91' RT	2546533.91	377279.05
177	105+39.46	39.71' RT	2546539.36	377284.42
178	105+33.96	39.59' RT	2546533.86	377284.37
179	105+40.21	34.66' RT	2546539.96	377289.49
180	105+30.55	39.55' RT	2546530.45	377284.31
181	105+29.88	39.54' RT	2546529.78	377284.30
182	105+30.61	34.55' RT	2546530.36	377289.31
183	105+34.07	34.59' RT	2546533.82	377289.37
184	105+35.84	31.58' RT	2546535.49	377292.43
185	105+40.49	27.98' RT	2546540.04	377296.18
186	105+42.23	32.59' RT	2546541.91	377291.62
187	105+46.29	32.34' RT	2546545.97	377292.00
188	105+46.30	27.34' RT	2546545.82	377296.99
189	105+51.29	32.34' RT	2546550.96	377292.15
190	105+51.30	27.34' RT	2546550.81	377297.14
191	105+46.30	24.58' RT	2546545.73	377299.75
192	105+51.30	24.58' RT	2546550.73	377299.90
193	105+61.29	32.35' RT	2546560.96	377292.44
194	105+61.30	27.35' RT	2546560.81	377297.44
195	105+33.76	28.33' RT	2546533.32	377295.62

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 34TH ST	SHEET 23	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
200	108+14.46	33.20' LT	2546812.00	377365.71
201	108+14.47	28.20' LT	2546812.16	377360.71
202	108+19.46	33.21' LT	2546817.00	377365.87
203	108+19.47	28.21' LT	2546817.16	377360.87
204	108+24.46	33.21' LT	2546822.00	377366.02
205	108+24.47	28.22' LT	2546822.16	377361.03
206	108+19.47	18.58' LT	2546817.45	377351.25
207	108+24.47	18.58' LT	2546822.45	377351.40
208	108+29.08	33.22' LT	2546826.62	377366.17
209	108+29.09	28.22' LT	2546826.78	377361.18
210	108+34.32	33.22' LT	2546831.86	377366.34
211	108+34.33	28.23' LT	2546832.02	377361.34
212	108+39.33	28.23' LT	2546837.02	377361.50
213	108+39.32	33.44' LT	2546836.85	377366.70
214	108+34.35	38.46' LT	2546831.73	377371.57
215	108+39.35	38.44' LT	2546836.72	377371.70
216	108+44.22	33.41' LT	2546841.75	377366.82
217	108+44.25	38.41' LT	2546841.63	377371.82
218	108+39.38	43.44' LT	2546836.60	377376.70
219	108+34.38	43.46' LT	2546831.60	377376.57
220	108+14.46	34.74' LT	2546811.96	377367.25
221	108+19.46	34.74' LT	2546816.95	377367.40
222	108+24.46	34.74' LT	2546821.95	377367.55
223	108+26.90	34.75' LT	2546824.39	377367.63
224	108+40.38	22.36' LT	2546838.24	377355.66

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

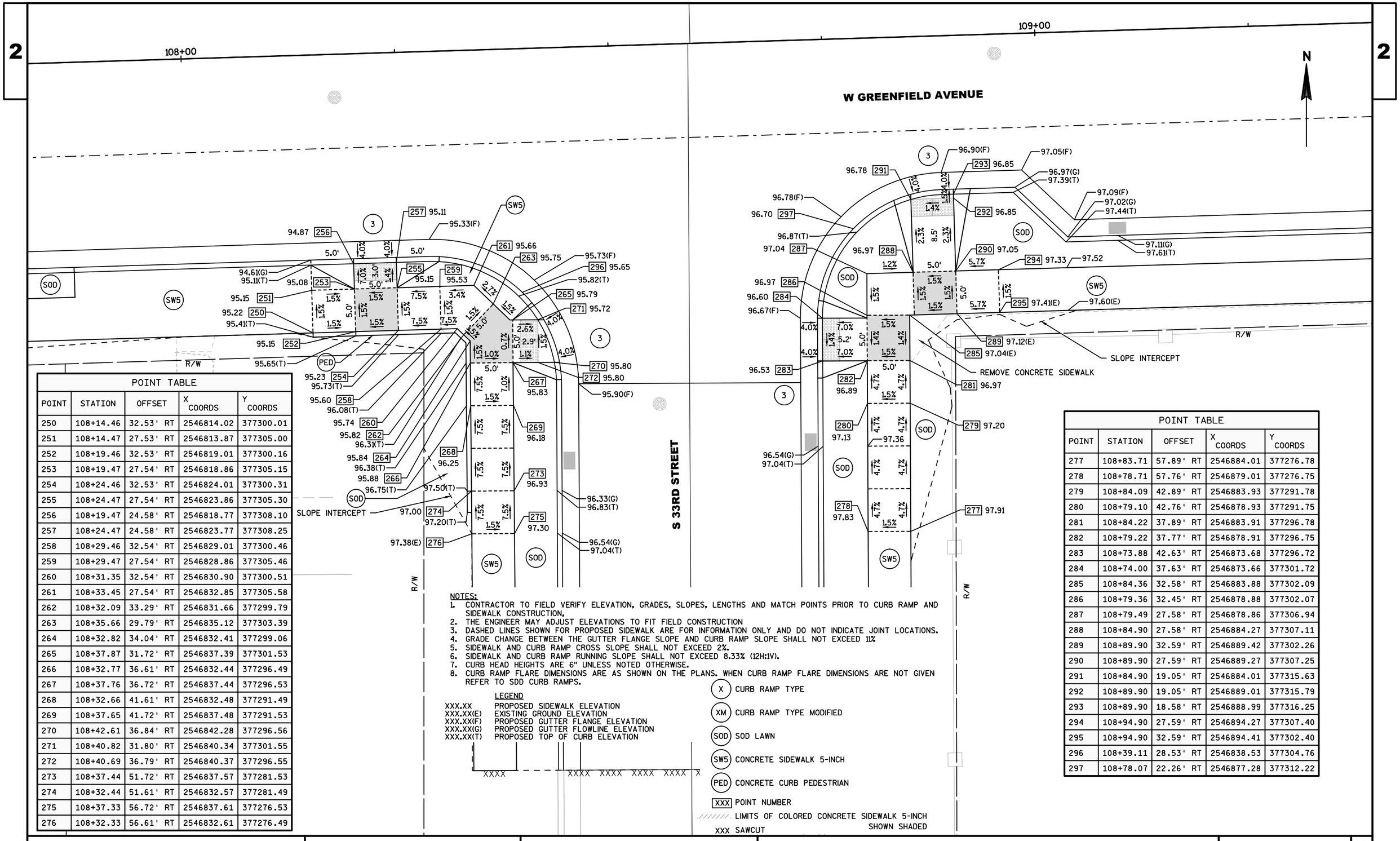
N

S 33RD STREET
R/W
CONC
TIMBER
SLOPE INTERCEPT
R/W
WOOD FENCE
W GREENFIELD AVENUE
108+00
109+00

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
225	108+84.95	43.15' LT	2546882.16	377377.81
226	108+79.95	43.19' LT	2546877.16	377377.69
227	108+84.92	38.15' LT	2546882.28	377372.81
228	108+79.92	38.19' LT	2546877.28	377372.69
229	108+89.35	43.12' LT	2546886.56	377377.91
230	108+89.32	38.12' LT	2546886.68	377372.92
231	108+76.67	38.21' LT	2546874.03	377372.61
232	108+75.45	38.21' LT	2546872.81	377372.58
233	108+76.64	33.21' LT	2546874.16	377367.61
234	108+79.88	33.19' LT	2546877.40	377367.69
235	108+84.92	33.17' LT	2546882.43	377367.83
236	108+84.90	28.17' LT	2546882.57	377362.83
237	108+89.92	33.16' LT	2546887.43	377367.98
238	108+89.90	28.16' LT	2546887.56	377362.98
239	108+84.90	25.46' LT	2546882.65	377360.12
240	108+89.90	25.46' LT	2546887.65	377360.27
241	108+89.90	24.58' LT	2546887.67	377359.40
242	108+89.92	34.75' LT	2546887.38	377369.56
243	108+94.92	34.73' LT	2546892.38	377369.70
244	108+94.92	33.15' LT	2546892.43	377368.11
245	108+98.42	34.72' LT	2546895.88	377369.79
246	108+98.42	33.13' LT	2546895.92	377368.21
247	108+94.90	28.15' LT	2546892.56	377363.11
248	108+98.40	28.13' LT	2546896.06	377363.21
249	108+79.20	28.43' LT	2546876.86	377362.91

2

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 33RD ST	SHEET 24	E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
250	108+14.46	32.53' RT	2546814.02	377300.01
251	108+14.47	27.53' RT	2546813.87	377305.00
252	108+19.46	32.53' RT	2546819.01	377300.16
253	108+19.47	27.54' RT	2546818.86	377305.15
254	108+24.46	32.53' RT	2546824.01	377300.31
255	108+24.47	27.54' RT	2546823.86	377305.30
256	108+19.47	24.58' RT	2546818.77	377308.10
257	108+24.47	24.58' RT	2546823.77	377308.25
258	108+29.46	32.54' RT	2546829.01	377300.46
259	108+29.47	27.54' RT	2546828.86	377305.46
260	108+31.35	32.54' RT	2546830.90	377300.51
261	108+33.45	27.54' RT	2546832.85	377305.58
262	108+32.09	33.29' RT	2546831.66	377299.79
263	108+35.66	29.79' RT	2546835.12	377303.39
264	108+32.82	34.04' RT	2546832.41	377299.06
265	108+37.87	31.72' RT	2546837.39	377301.53
266	108+32.77	36.61' RT	2546832.44	377296.49
267	108+37.76	36.72' RT	2546837.44	377296.53
268	108+32.66	41.61' RT	2546832.48	377291.49
269	108+37.65	41.72' RT	2546837.48	377291.53
270	108+42.61	36.84' RT	2546842.28	377296.56
271	108+40.82	31.80' RT	2546840.34	377301.55
272	108+40.69	36.79' RT	2546840.37	377296.55
273	108+37.44	51.72' RT	2546837.57	377281.53
274	108+32.44	51.61' RT	2546832.57	377281.49
275	108+37.33	56.72' RT	2546837.61	377276.53
276	108+32.33	56.61' RT	2546832.61	377276.49

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
277	108+83.71	57.89' RT	2546884.01	377276.78
278	108+78.71	57.76' RT	2546879.01	377276.75
279	108+84.09	42.89' RT	2546883.93	377291.78
280	108+79.10	42.76' RT	2546878.93	377291.75
281	108+84.22	37.89' RT	2546883.91	377296.78
282	108+79.22	37.77' RT	2546878.91	377296.75
283	108+73.88	42.63' RT	2546873.68	377296.72
284	108+74.00	37.63' RT	2546873.66	377301.72
285	108+84.36	32.58' RT	2546883.88	377302.09
286	108+79.36	32.45' RT	2546878.88	377302.07
287	108+79.49	27.58' RT	2546878.86	377306.94
288	108+84.90	27.58' RT	2546884.27	377307.11
289	108+89.90	32.59' RT	2546889.42	377302.26
290	108+89.90	27.59' RT	2546889.27	377307.25
291	108+84.90	19.05' RT	2546884.01	377315.63
292	108+89.90	19.05' RT	2546889.01	377315.79
293	108+89.90	18.58' RT	2546888.99	377316.25
294	108+94.90	27.59' RT	2546894.27	377307.40
295	108+94.90	32.59' RT	2546894.41	377302.40
296	108+39.11	28.53' RT	2546838.53	377304.76
297	108+78.07	22.26' RT	2546877.28	377312.22

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

XXXX XXXX XXXX XXXX XXXX

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 33RD ST	SHEET 25	E

2

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVE REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

N

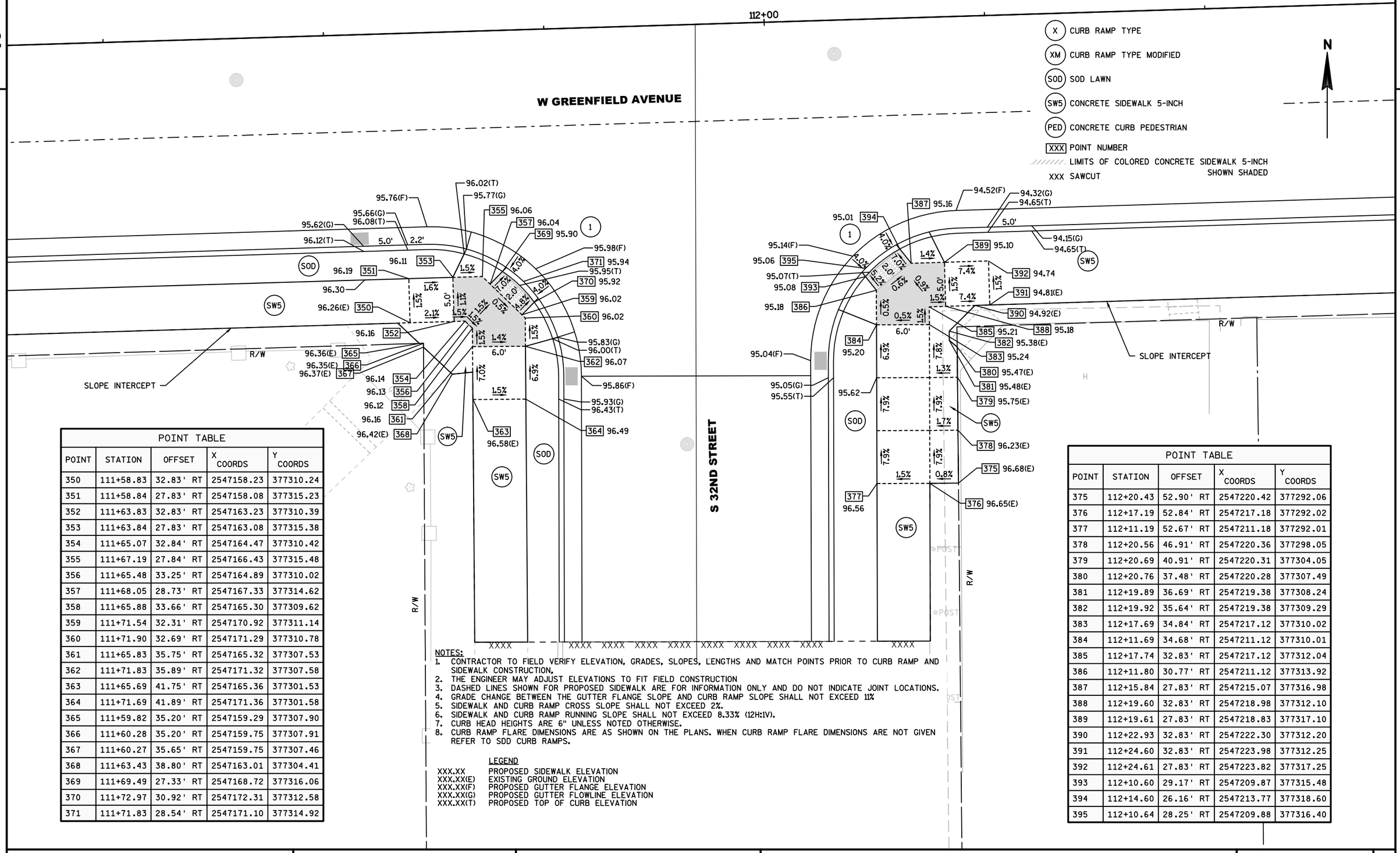
POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
300	111+68.50	24.58' LT	2547166.14	377367.92
301	111+73.50	24.58' LT	2547171.14	377368.07
302	111+68.50	27.31' LT	2547166.06	377370.64
303	111+73.50	27.31' LT	2547171.06	377370.80
304	111+68.50	32.31' LT	2547165.91	377375.64
305	111+73.50	32.31' LT	2547170.90	377375.79
306	111+63.50	32.31' LT	2547160.91	377375.49
307	111+63.50	27.31' LT	2547161.06	377370.49
308	111+63.50	34.80' LT	2547160.83	377377.98
309	111+68.50	34.80' LT	2547165.83	377378.13
310	111+73.50	34.80' LT	2547170.83	377378.28
311	111+78.50	34.80' LT	2547175.83	377378.44
312	111+78.50	32.31' LT	2547175.90	377375.95
313	111+78.50	27.31' LT	2547176.05	377370.95

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
325	112+08.40	24.58' LT	2547206.02	377369.14
326	112+13.40	24.58' LT	2547211.02	377369.29
327	112+08.40	27.31' LT	2547205.94	377371.87
328	112+13.40	27.31' LT	2547210.93	377372.02
329	112+08.39	32.31' LT	2547205.78	377376.87
330	112+13.39	32.31' LT	2547210.78	377377.02
331	112+03.40	32.31' LT	2547200.79	377376.71
332	112+03.40	27.31' LT	2547200.94	377371.71
333	112+18.39	32.31' LT	2547215.78	377377.17
334	112+18.41	27.32' LT	2547215.94	377372.19

H
CONC
BLOCK WALL
TIMBER
SLOPE INTERCEPT
R/W
SW5
SOD
PED
3M
5.0'
95.41 [300]
95.68 [304]
95.68 [307]
95.60 [302]
95.75(E) [306]
95.79(E) [308]
95.76(E) [309]
[310] 95.73(E)
[311] 95.59(E)
[312] 95.55(E)
[305] 95.63
[313] 95.48
[303] 95.55
95.44(T)
95.19(G)
[301] 95.36
95.04(E) [331]
95.04(T)
95.08(T)
95.15(T)
94.65 [329]
[330] 94.58
94.74(T)
[333] 94.74(E)
94.97 [332]
94.57 [327]
[328] 94.50
[334] 94.66
94.80(T)
94.47(G)
94.40 [325]
[326] 94.29
W GREENFIELD AVENUE
112+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 32ND ST	SHEET	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021103_ID-32ND.DWG
LAYOUT NAME - 021103_ID-32ND - S-PLAN 1 IN 10 FT
PLOT DATE : 4/11/2017 10:35 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
350	111+58.83	32.83' RT	2547158.23	377310.24
351	111+58.84	27.83' RT	2547158.08	377315.23
352	111+63.83	32.83' RT	2547163.23	377310.39
353	111+63.84	27.83' RT	2547163.08	377315.38
354	111+65.07	32.84' RT	2547164.47	377310.42
355	111+67.19	27.84' RT	2547166.43	377315.48
356	111+65.48	33.25' RT	2547164.89	377310.02
357	111+68.05	28.73' RT	2547167.33	377314.62
358	111+65.88	33.66' RT	2547165.30	377309.62
359	111+71.54	32.31' RT	2547170.92	377311.14
360	111+71.90	32.69' RT	2547171.29	377310.78
361	111+65.83	35.75' RT	2547165.32	377307.53
362	111+71.83	35.89' RT	2547171.32	377307.58
363	111+65.69	41.75' RT	2547165.36	377301.53
364	111+71.69	41.89' RT	2547171.36	377301.58
365	111+59.82	35.20' RT	2547159.29	377307.90
366	111+60.28	35.20' RT	2547159.75	377307.91
367	111+60.27	35.65' RT	2547159.75	377307.46
368	111+63.43	38.80' RT	2547163.01	377304.41
369	111+69.49	27.33' RT	2547168.72	377316.06
370	111+72.97	30.92' RT	2547172.31	377312.58
371	111+71.83	28.54' RT	2547171.10	377314.92

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
375	112+20.43	52.90' RT	2547220.42	377292.06
376	112+17.19	52.84' RT	2547217.18	377292.02
377	112+11.19	52.67' RT	2547211.18	377292.01
378	112+20.56	46.91' RT	2547220.36	377298.05
379	112+20.69	40.91' RT	2547220.31	377304.05
380	112+20.76	37.48' RT	2547220.28	377307.49
381	112+19.89	36.69' RT	2547219.38	377308.24
382	112+19.92	35.64' RT	2547219.38	377309.29
383	112+17.69	34.84' RT	2547217.12	377310.02
384	112+11.69	34.68' RT	2547211.12	377310.01
385	112+17.74	32.83' RT	2547217.12	377312.04
386	112+11.80	30.77' RT	2547211.12	377313.92
387	112+15.84	27.83' RT	2547215.07	377316.98
388	112+19.60	32.83' RT	2547218.98	377312.10
389	112+19.61	27.83' RT	2547218.83	377317.10
390	112+22.93	32.83' RT	2547222.30	377312.20
391	112+24.60	32.83' RT	2547223.98	377312.25
392	112+24.61	27.83' RT	2547223.82	377317.25
393	112+10.60	29.17' RT	2547209.87	377315.48
394	112+14.60	26.16' RT	2547213.77	377318.60
395	112+10.64	28.25' RT	2547209.88	377316.40

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 32ND ST	SHEET 27	E

2

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

N

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
400	114+85.31	33.00' LT	2547482.54	377386.02
401	114+85.32	28.00' LT	2547482.71	377381.02
402	114+90.31	33.01' LT	2547487.54	377386.18
403	114+90.32	28.01' LT	2547487.71	377381.19
404	114+95.31	33.03' LT	2547492.54	377386.35
405	114+95.32	28.03' LT	2547492.70	377381.35
406	114+90.32	18.58' LT	2547488.00	377371.76
407	114+95.32	18.58' LT	2547492.99	377371.92
408	115+01.02	33.04' LT	2547498.25	377386.54
409	115+01.04	28.04' LT	2547498.42	377381.55
410	115+06.77	33.06' LT	2547504.00	377386.74
411	115+06.79	28.06' LT	2547504.17	377381.74
412	115+10.29	34.53' LT	2547507.47	377388.31
413	115+13.83	30.99' LT	2547511.11	377384.88
414	115+15.43	33.09' LT	2547512.65	377387.03
415	115+11.76	38.10' LT	2547508.83	377391.93
416	115+16.76	38.09' LT	2547513.82	377392.07
417	115+17.50	33.09' LT	2547514.72	377387.10
418	115+18.51	38.10' LT	2547515.58	377392.13
419	115+11.77	43.10' LT	2547508.69	377396.93
420	115+16.77	43.09' LT	2547513.68	377397.07
421	115+11.45	22.58' LT	2547508.99	377376.40

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
425	115+58.61	50.15' LT	2547555.28	377405.40
426	115+64.61	50.12' LT	2547561.28	377405.56
427	115+58.55	38.15' LT	2547555.59	377393.41
428	115+64.55	38.12' LT	2547561.59	377393.56
429	115+54.78	38.15' LT	2547551.83	377393.29
430	115+56.02	38.15' LT	2547553.06	377393.33
431	115+56.02	33.15' LT	2547553.22	377388.33
432	115+58.55	33.15' LT	2547555.75	377388.41
433	115+64.54	35.39' LT	2547561.66	377390.83
434	115+61.00	30.32' LT	2547558.28	377385.66
435	115+65.52	34.27' LT	2547562.68	377389.74
436	115+62.91	28.14' LT	2547560.26	377383.54
437	115+66.50	33.15' LT	2547563.69	377388.65
438	115+67.91	28.14' LT	2547565.25	377383.69
439	115+67.90	33.15' LT	2547565.10	377388.70
440	115+62.91	26.04' LT	2547560.32	377381.44
441	115+67.91	26.04' LT	2547565.32	377381.59
442	115+67.91	24.65' LT	2547565.36	377380.19
443	115+72.91	28.14' LT	2547570.25	377383.84
444	115+72.90	33.15' LT	2547570.10	377388.85
445	115+58.52	28.43' LT	2547555.86	377383.69

S 31ST STREET

W GREENFIELD AVENUE

SLOPE INTERCEPT

REMOVE CONCRETE SIDEWALK

R/W

R10.0'

R5.0'

6.0'

5.0'

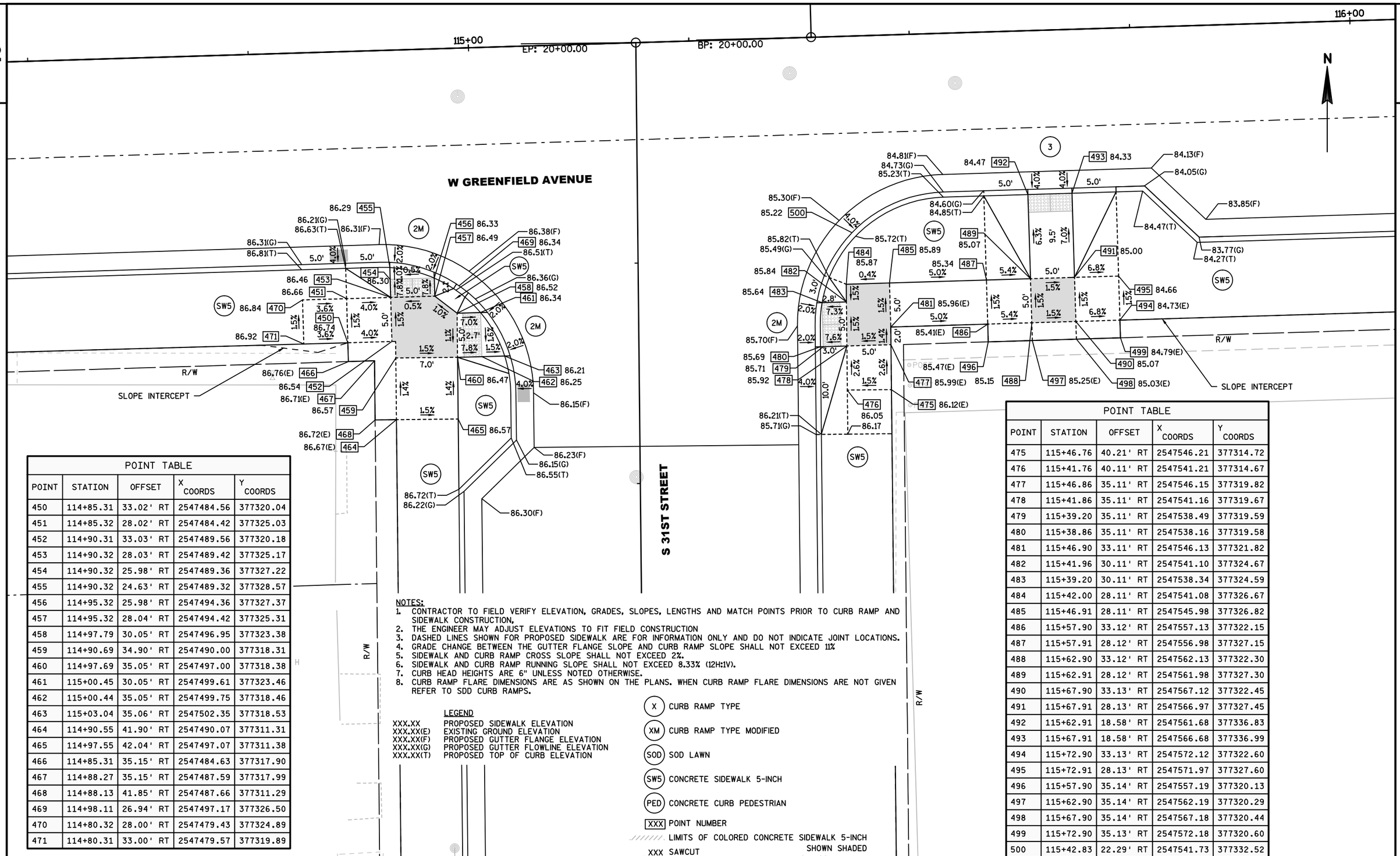
115+00

116+00

EP: 20+00.00

BP: 20+00.00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 31ST ST	SHEET 28	E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
450	114+85.31	33.02' RT	2547484.56	377320.04
451	114+85.32	28.02' RT	2547484.42	377325.03
452	114+90.31	33.03' RT	2547489.56	377320.18
453	114+90.32	28.03' RT	2547489.42	377325.17
454	114+90.32	25.98' RT	2547489.36	377327.22
455	114+90.32	24.63' RT	2547489.32	377328.57
456	114+95.32	25.98' RT	2547494.36	377327.37
457	114+95.32	28.04' RT	2547494.42	377325.31
458	114+97.79	30.05' RT	2547496.95	377323.38
459	114+90.69	34.90' RT	2547490.00	377318.31
460	114+97.69	35.05' RT	2547497.00	377318.38
461	115+00.45	30.05' RT	2547499.61	377323.46
462	115+00.44	35.05' RT	2547499.75	377318.46
463	115+03.04	35.06' RT	2547502.35	377318.53
464	114+90.55	41.90' RT	2547490.07	377311.31
465	114+97.55	42.04' RT	2547497.07	377311.38
466	114+85.31	35.15' RT	2547484.63	377317.90
467	114+88.27	35.15' RT	2547487.59	377317.99
468	114+88.13	41.85' RT	2547487.66	377311.29
469	114+98.11	26.94' RT	2547497.17	377326.50
470	114+80.32	28.00' RT	2547479.43	377324.89
471	114+80.31	33.00' RT	2547479.57	377319.89

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
475	115+46.76	40.21' RT	2547546.21	377314.72
476	115+41.76	40.11' RT	2547541.21	377314.67
477	115+46.86	35.11' RT	2547546.15	377319.82
478	115+41.86	35.11' RT	2547541.16	377319.67
479	115+39.20	35.11' RT	2547538.49	377319.59
480	115+38.86	35.11' RT	2547538.16	377319.58
481	115+46.90	33.11' RT	2547546.13	377321.82
482	115+41.96	30.11' RT	2547541.10	377324.67
483	115+39.20	30.11' RT	2547538.34	377324.59
484	115+42.00	28.11' RT	2547541.08	377326.67
485	115+46.91	28.11' RT	2547545.98	377326.82
486	115+57.90	33.12' RT	2547557.13	377322.15
487	115+57.91	28.12' RT	2547556.98	377327.15
488	115+62.90	33.12' RT	2547562.13	377322.30
489	115+62.91	28.12' RT	2547561.98	377327.30
490	115+67.90	33.13' RT	2547567.12	377322.45
491	115+67.91	28.13' RT	2547566.97	377327.45
492	115+62.91	18.58' RT	2547561.68	377336.83
493	115+67.91	18.58' RT	2547566.68	377336.99
494	115+72.90	33.13' RT	2547572.12	377322.60
495	115+72.91	28.13' RT	2547571.97	377327.60
496	115+57.90	35.14' RT	2547557.19	377320.13
497	115+62.90	35.14' RT	2547562.19	377320.29
498	115+67.90	35.14' RT	2547567.18	377320.44
499	115+72.90	35.13' RT	2547572.18	377320.60
500	115+42.83	22.29' RT	2547541.73	377332.52

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

- (X) CURB RAMP TYPE
- (XM) CURB RAMP TYPE MODIFIED
- (SOD) SOD LAWN
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- [XXX] POINT NUMBER
- ////////. LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
- XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 31ST ST	SHEET 29 E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
500	117+95.00	33.23' LT	2547792.08	377395.72
501	117+95.00	28.23' LT	2547792.24	377390.72
502	118+00.00	33.23' LT	2547797.08	377395.87
503	118+00.00	28.23' LT	2547797.24	377390.87
504	118+05.00	33.23' LT	2547802.08	377396.03
505	118+05.00	28.23' LT	2547802.23	377391.03
506	118+00.00	24.58' LT	2547797.35	377387.23
507	118+05.00	24.75' LT	2547802.34	377387.55
508	118+06.34	33.23' LT	2547803.42	377396.07
509	118+08.19	28.23' LT	2547805.42	377391.13
510	118+07.08	33.86' LT	2547804.14	377396.72
511	118+10.33	30.06' LT	2547807.50	377393.02
512	118+07.82	34.49' LT	2547804.86	377397.37
513	118+13.30	32.60' LT	2547810.39	377395.65
514	118+13.30	33.26' LT	2547810.38	377396.31
515	118+07.86	38.32' LT	2547804.78	377401.21
516	118+13.36	38.26' LT	2547810.28	377401.31
517	118+16.08	33.25' LT	2547813.15	377396.38
518	118+16.11	38.25' LT	2547813.03	377401.38
519	118+17.28	38.24' LT	2547814.20	377401.41
520	118+07.93	44.32' LT	2547804.66	377407.20
521	118+13.42	44.26' LT	2547810.16	377407.31
522	118+13.46	28.36' LT	2547810.69	377391.42

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
525	118+52.54	44.01' LT	2547849.27	377408.26
526	118+58.54	44.01' LT	2547855.27	377408.44
527	118+58.54	38.01' LT	2547855.45	377402.44
528	118+52.54	38.01' LT	2547849.45	377402.26
529	118+49.83	38.03' LT	2547846.74	377402.19
530	118+48.51	38.04' LT	2547845.42	377402.16
531	118+49.80	33.03' LT	2547846.86	377397.20
532	118+52.54	33.01' LT	2547849.60	377397.26
533	118+58.54	35.14' LT	2547855.54	377399.57
534	118+60.03	34.20' LT	2547857.05	377398.68
535	118+57.35	29.97' LT	2547854.51	377394.37
536	118+61.51	33.26' LT	2547858.56	377397.78
537	118+60.07	28.26' LT	2547857.27	377392.74
538	118+65.06	33.26' LT	2547862.11	377397.89
539	118+65.07	28.26' LT	2547862.27	377392.90
540	118+60.07	24.88' LT	2547857.38	377389.36
541	118+65.07	24.88' LT	2547862.37	377389.51
542	118+65.07	24.58' LT	2547862.38	377389.22
543	118+70.06	33.26' LT	2547867.11	377398.05
544	118+70.07	28.26' LT	2547867.27	377393.05
545	118+52.25	28.43' LT	2547849.45	377392.67

S 30TH STREET

W GREENFIELD AVENUE

R/W

SLOPE INTERCEPT

118+00

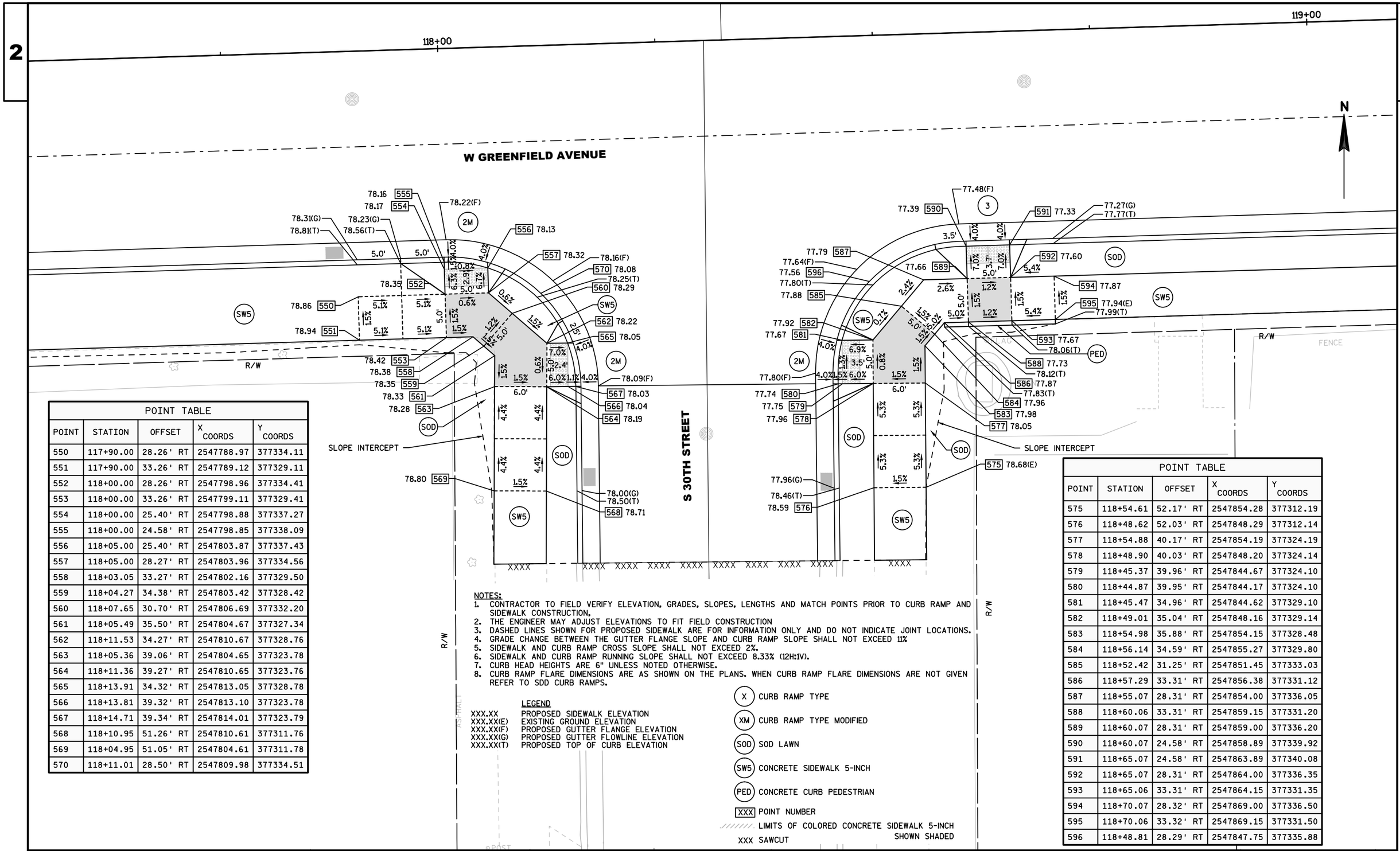
119+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 30TH ST	SHEET 30	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021105_ID-30TH.DWG
LAYOUT NAME - 021105_ID-30TH - S-PLAN 1 IN 10 FT

PLOT DATE : 4/10/2017 2:35 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
550	117+90.00	28.26' RT	2547788.97	377334.11
551	117+90.00	33.26' RT	2547789.12	377329.11
552	118+00.00	28.26' RT	2547798.96	377334.41
553	118+00.00	33.26' RT	2547799.11	377329.41
554	118+00.00	25.40' RT	2547798.88	377337.27
555	118+00.00	24.58' RT	2547798.85	377338.09
556	118+05.00	25.40' RT	2547803.87	377337.43
557	118+05.00	28.27' RT	2547803.96	377334.56
558	118+03.05	33.27' RT	2547802.16	377329.50
559	118+04.27	34.38' RT	2547803.42	377328.42
560	118+07.65	30.70' RT	2547806.69	377332.20
561	118+05.49	35.50' RT	2547804.67	377327.34
562	118+11.53	34.27' RT	2547810.67	377328.76
563	118+05.36	39.06' RT	2547804.65	377323.78
564	118+11.36	39.27' RT	2547810.65	377323.76
565	118+13.91	34.32' RT	2547813.05	377328.78
566	118+13.81	39.32' RT	2547813.10	377323.78
567	118+14.71	39.34' RT	2547814.01	377323.79
568	118+10.95	51.26' RT	2547810.61	377311.76
569	118+04.95	51.05' RT	2547804.61	377311.78
570	118+11.01	28.50' RT	2547809.98	377334.51

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
575	118+54.61	52.17' RT	2547854.28	377312.19
576	118+48.62	52.03' RT	2547848.29	377312.14
577	118+54.88	40.17' RT	2547854.19	377324.19
578	118+48.90	40.03' RT	2547848.20	377324.14
579	118+45.37	39.96' RT	2547844.67	377324.10
580	118+44.87	39.95' RT	2547844.17	377324.10
581	118+45.47	34.96' RT	2547844.62	377329.10
582	118+49.01	35.04' RT	2547848.16	377329.14
583	118+54.98	35.88' RT	2547854.15	377328.48
584	118+56.14	34.59' RT	2547855.27	377329.80
585	118+52.42	31.25' RT	2547851.45	377333.03
586	118+57.29	33.31' RT	2547856.38	377331.12
587	118+55.07	28.31' RT	2547854.00	377336.05
588	118+60.06	33.31' RT	2547859.15	377331.20
589	118+60.07	28.31' RT	2547859.00	377336.20
590	118+60.07	24.58' RT	2547858.89	377339.92
591	118+65.07	24.58' RT	2547863.89	377340.08
592	118+65.07	28.31' RT	2547864.00	377336.35
593	118+65.06	33.31' RT	2547864.15	377331.35
594	118+70.07	28.32' RT	2547869.00	377336.50
595	118+70.06	33.32' RT	2547869.15	377331.50
596	118+48.81	28.29' RT	2547847.75	377335.88

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 30TH ST	SHEET 31	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
600	121+22.23	33.42' LT	2548119.15	377405.92
601	121+22.23	28.42' LT	2548119.31	377400.92
602	121+27.23	33.43' LT	2548124.15	377406.08
603	121+27.23	28.43' LT	2548124.31	377401.08
604	121+32.23	33.43' LT	2548129.15	377406.23
605	121+32.23	28.43' LT	2548129.31	377401.24
606	121+27.23	19.18' LT	2548124.59	377391.84
607	121+27.23	18.58' LT	2548124.61	377391.24
608	121+32.23	19.18' LT	2548129.59	377391.99
609	121+38.20	28.43' LT	2548135.27	377401.42
610	121+38.23	33.65' LT	2548135.14	377406.64
611	121+32.23	33.68' LT	2548129.14	377406.49
612	121+32.26	38.68' LT	2548129.02	377411.49
613	121+38.26	38.65' LT	2548135.02	377411.63
614	121+42.54	33.62' LT	2548139.45	377406.74
615	121+42.56	38.62' LT	2548139.32	377411.74
616	121+38.30	44.65' LT	2548134.87	377417.63
617	121+32.30	44.68' LT	2548128.87	377417.48
618	121+38.69	22.36' LT	2548135.95	377395.37

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

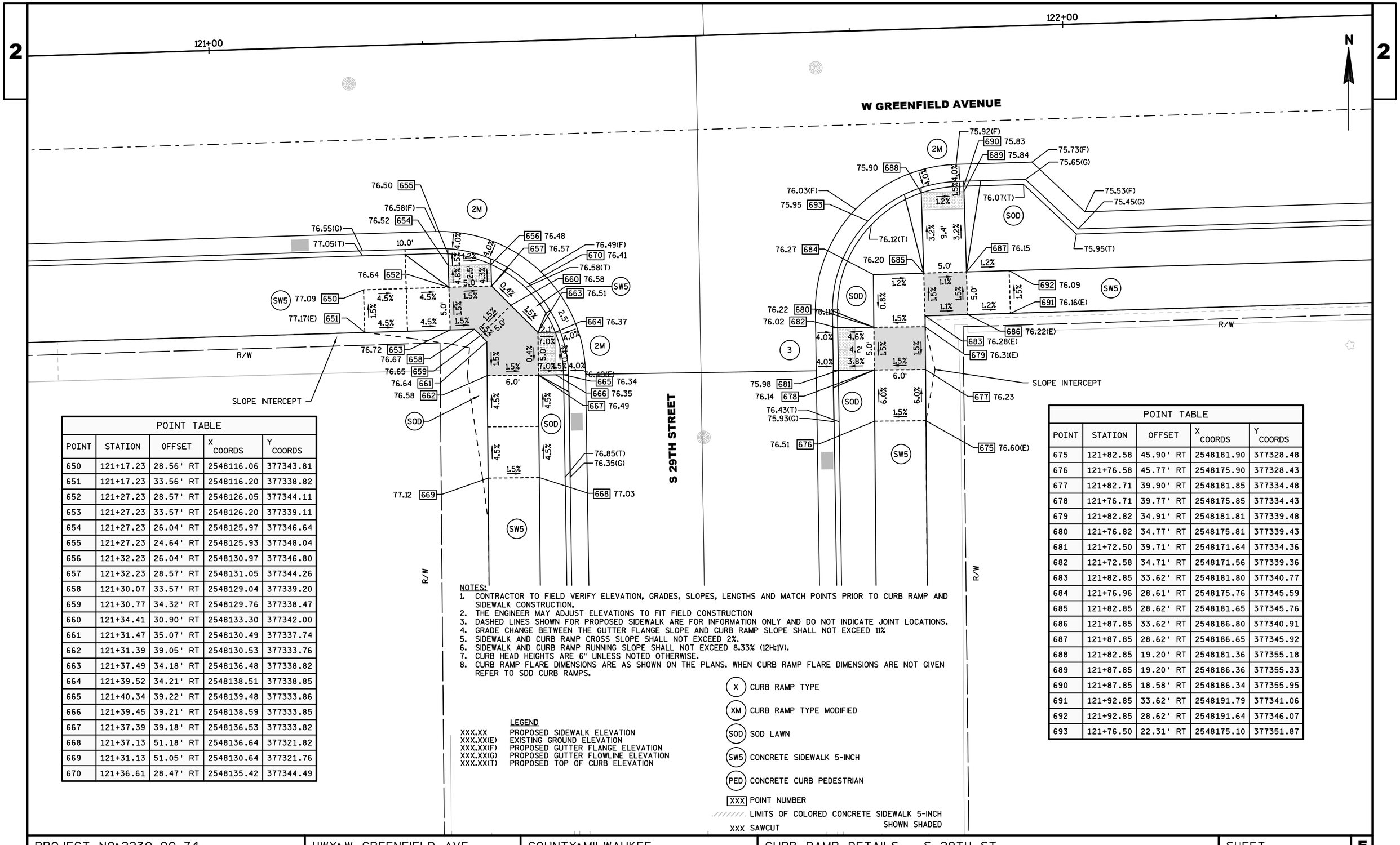
(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
625	121+84.17	44.39' LT	2548180.73	377418.78
626	121+78.17	44.43' LT	2548174.73	377418.63
627	121+84.14	38.39' LT	2548180.88	377412.78
628	121+78.14	38.43' LT	2548174.88	377412.63
629	121+74.90	38.44' LT	2548171.65	377412.55
630	121+73.75	38.45' LT	2548170.49	377412.52
631	121+74.87	33.44' LT	2548171.77	377407.55
632	121+78.11	33.43' LT	2548175.01	377407.63
633	121+84.11	34.36' LT	2548180.98	377408.75
634	121+84.56	33.89' LT	2548181.44	377408.29
635	121+80.93	30.45' LT	2548177.92	377404.74
636	121+85.00	33.42' LT	2548181.90	377407.84
637	121+87.86	33.42' LT	2548184.75	377407.92
638	121+82.85	28.42' LT	2548179.90	377402.78
639	121+87.85	28.42' LT	2548184.90	377402.92
640	121+82.85	25.62' LT	2548179.99	377399.97
641	121+87.85	25.62' LT	2548184.99	377400.13
642	121+87.85	24.59' LT	2548185.02	377399.10
643	121+92.85	28.41' LT	2548189.90	377403.07
644	121+92.86	33.41' LT	2548189.75	377408.07
645	121+77.51	28.42' LT	2548174.57	377402.61

S 29TH STREET
W GREENFIELD AVENUE
R/W
SLOPE INTERCEPT
2" CURB HEAD
121+00
122+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 29TH ST	SHEET 32	E

FILE NAME : T:\1142718\CIVIL3D\223000004\SHEETSPLAN\021106_ID-29TH.DWG
LAYOUT NAME - 021106_ID-29TH - S-PLAN 1 IN 10 FT
PLOT DATE : 4/10/2017 2:36 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
650	121+17.23	28.56' RT	2548116.06	377343.81
651	121+17.23	33.56' RT	2548116.20	377338.82
652	121+27.23	28.57' RT	2548126.05	377344.11
653	121+27.23	33.57' RT	2548126.20	377339.11
654	121+27.23	26.04' RT	2548125.97	377346.64
655	121+27.23	24.64' RT	2548125.93	377348.04
656	121+32.23	26.04' RT	2548130.97	377346.80
657	121+32.23	28.57' RT	2548131.05	377344.26
658	121+30.07	33.57' RT	2548129.04	377339.20
659	121+30.77	34.32' RT	2548129.76	377338.47
660	121+34.41	30.90' RT	2548133.30	377342.00
661	121+31.47	35.07' RT	2548130.49	377337.74
662	121+31.39	39.05' RT	2548130.53	377333.76
663	121+37.49	34.18' RT	2548136.48	377338.82
664	121+39.52	34.21' RT	2548138.51	377338.85
665	121+40.34	39.22' RT	2548139.48	377333.86
666	121+39.45	39.21' RT	2548138.59	377333.85
667	121+37.39	39.18' RT	2548136.53	377333.82
668	121+37.13	51.18' RT	2548136.64	377321.82
669	121+31.13	51.05' RT	2548130.64	377321.76
670	121+36.61	28.47' RT	2548135.42	377344.49

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
675	121+82.58	45.90' RT	2548181.90	377328.48
676	121+76.58	45.77' RT	2548175.90	377328.43
677	121+82.71	39.90' RT	2548181.85	377334.48
678	121+76.71	39.77' RT	2548175.85	377334.43
679	121+82.82	34.91' RT	2548181.81	377339.48
680	121+76.82	34.77' RT	2548175.81	377339.43
681	121+72.50	39.71' RT	2548171.64	377334.36
682	121+72.58	34.71' RT	2548171.56	377339.36
683	121+82.85	33.62' RT	2548181.80	377340.77
684	121+76.96	28.61' RT	2548175.76	377345.59
685	121+82.85	28.62' RT	2548181.65	377345.76
686	121+87.85	33.62' RT	2548186.80	377340.91
687	121+87.85	28.62' RT	2548186.65	377345.92
688	121+82.85	19.20' RT	2548181.36	377355.18
689	121+87.85	19.20' RT	2548186.36	377355.33
690	121+87.85	18.58' RT	2548186.34	377355.95
691	121+92.85	33.62' RT	2548191.79	377341.06
692	121+92.85	28.62' RT	2548191.64	377346.07
693	121+76.50	22.31' RT	2548175.10	377351.87

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////////. LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 29TH ST	SHEET 33	E

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
700	124+33.05	33.17' LT	2548429.84	377415.17
701	124+33.04	28.17' LT	2548429.99	377410.17
702	124+38.05	33.16' LT	2548434.84	377415.32
703	124+38.04	28.16' LT	2548434.98	377410.32
704	124+43.05	33.16' LT	2548439.83	377415.47
705	124+43.04	28.16' LT	2548439.98	377410.47
706	124+38.04	24.58' LT	2548435.09	377406.74
707	124+43.04	24.71' LT	2548440.09	377407.02
708	124+44.36	33.16' LT	2548441.14	377415.51
709	124+46.37	28.16' LT	2548443.31	377410.57
710	124+45.50	34.26' LT	2548442.25	377416.64
711	124+48.97	30.66' LT	2548445.83	377413.15
712	124+51.49	33.08' LT	2548448.27	377415.65
713	124+51.50	34.18' LT	2548448.25	377416.75
714	124+45.57	39.26' LT	2548442.17	377421.64
715	124+51.57	39.18' LT	2548448.16	377421.75
716	124+54.80	34.17' LT	2548451.55	377416.84
717	124+54.82	39.17' LT	2548451.42	377421.84
718	124+55.66	39.17' LT	2548452.25	377421.86
719	124+51.73	51.18' LT	2548447.95	377433.75
720	124+45.73	51.26' LT	2548441.96	377433.64
721	124+51.83	28.37' LT	2548448.76	377410.95

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
725	124+96.78	45.10' LT	2548493.18	377429.04
726	124+90.78	45.04' LT	2548487.18	377428.80
727	124+96.84	39.10' LT	2548493.42	377423.05
728	124+90.84	39.04' LT	2548487.42	377422.81
729	124+87.75	39.05' LT	2548484.33	377422.72
730	124+86.83	39.05' LT	2548483.41	377422.70
731	124+87.73	34.05' LT	2548484.46	377417.72
732	124+90.89	34.04' LT	2548487.62	377417.81
733	124+96.87	35.56' LT	2548493.56	377419.52
734	124+98.28	34.39' LT	2548495.00	377418.39
735	124+95.08	30.55' LT	2548491.92	377414.45
736	124+99.68	33.22' LT	2548496.44	377417.26
737	124+97.88	28.22' LT	2548494.79	377412.21
738	125+02.87	33.23' LT	2548499.62	377417.37
739	125+02.88	28.23' LT	2548499.79	377412.38
740	125+07.87	33.25' LT	2548504.62	377417.54
741	125+07.88	28.25' LT	2548504.79	377412.54
742	125+02.88	24.58' LT	2548499.90	377408.73
743	125+07.88	24.58' LT	2548504.90	377408.88
744	124+90.62	28.41' LT	2548487.52	377412.18

PLANTER

S 28TH STREET

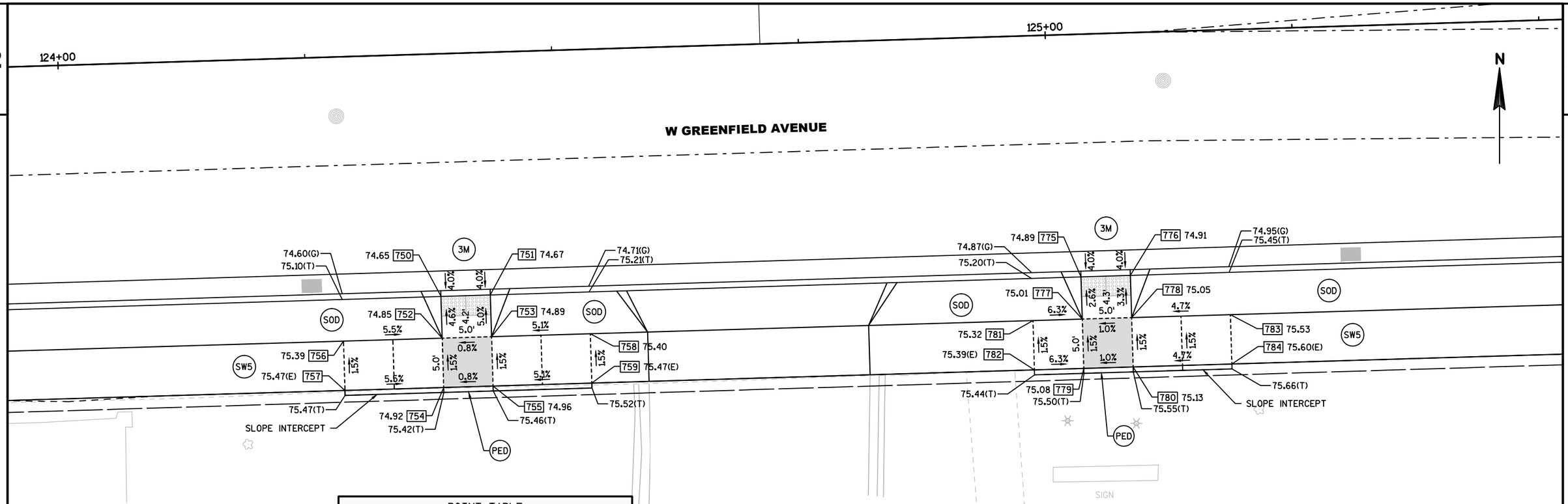
W GREENFIELD AVENUE

124+00

125+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 28TH ST	SHEET E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021107_ID-28TH.DWG
LAYOUT NAME - 021107_ID-28TH - S-PLAN 1 IN 10 FT
PLOT DATE : 4/10/2017 2:37 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
750	124+38.04	24.58' RT	2548436.60	377357.60
751	124+43.04	24.58' RT	2548441.59	377357.75
752	124+38.04	28.81' RT	2548436.73	377353.38
753	124+43.04	28.81' RT	2548441.72	377353.53
754	124+38.04	33.81' RT	2548436.88	377348.38
755	124+43.04	33.81' RT	2548441.87	377348.53
756	124+33.04	28.80' RT	2548426.73	377353.08
757	124+33.04	33.80' RT	2548426.88	377348.08
758	124+48.04	28.82' RT	2548451.72	377353.82
759	124+48.04	33.82' RT	2548451.87	377348.83

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
775	125+02.88	24.58' RT	2548501.40	377359.58
776	125+07.88	24.58' RT	2548506.40	377359.74
777	125+02.88	28.86' RT	2548501.53	377355.31
778	125+07.88	28.86' RT	2548506.53	377355.46
779	125+02.88	33.86' RT	2548501.68	377350.31
780	125+07.88	33.86' RT	2548506.68	377350.46
781	124+97.88	28.85' RT	2548496.54	377355.16
782	124+97.88	33.85' RT	2548496.69	377350.16
783	125+12.88	28.86' RT	2548516.53	377355.76
784	125+12.88	33.86' RT	2548516.68	377350.76

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 28TH ST	SHEET 35	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
800	131+62.47	34.55' LT	2549156.81	377456.11
801	131+62.47	29.55' LT	2549156.94	377451.11
802	131+65.17	29.55' LT	2549159.64	377451.18
803	131+65.17	27.02' LT	2549159.71	377448.65
804	131+65.17	24.73' LT	2549159.78	377446.36
805	131+71.17	27.02' LT	2549165.71	377448.82
806	131+71.17	29.54' LT	2549165.64	377451.34
807	131+66.11	36.88' LT	2549160.38	377458.53
808	131+71.18	34.54' LT	2549165.51	377456.34
809	131+74.04	29.53' LT	2549168.51	377451.41
810	131+74.05	34.53' LT	2549168.38	377456.41
811	131+76.90	34.53' LT	2549171.22	377456.49
812	131+57.47	34.56' LT	2549151.81	377455.97
813	131+57.47	29.56' LT	2549151.94	377450.97
814	131+66.48	38.55' LT	2549160.70	377460.22
815	131+72.48	38.56' LT	2549166.70	377460.39
816	131+66.47	47.55' LT	2549160.44	377469.21
817	131+72.47	47.56' LT	2549166.44	377469.39
818	131+73.14	27.76' LT	2549167.66	377449.61

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

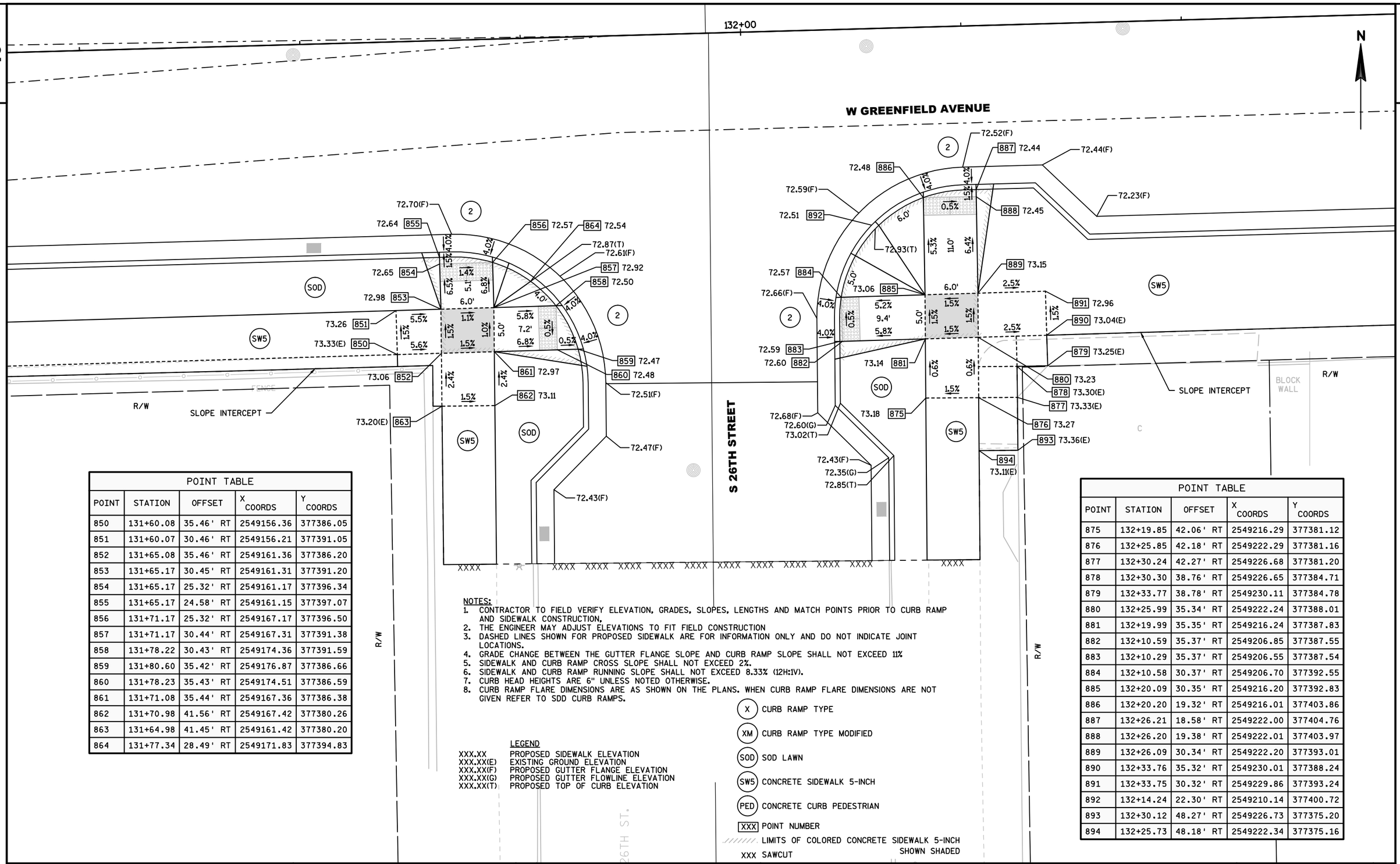
XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
825	132+31.26	47.32' LT	2549225.21	377470.79
826	132+26.78	47.34' LT	2549220.74	377470.68
827	132+20.78	47.36' LT	2549214.74	377470.53
828	132+31.22	41.32' LT	2549225.34	377464.79
829	132+26.76	41.34' LT	2549220.88	377464.68
830	132+20.76	41.36' LT	2549214.88	377464.54
831	132+31.19	37.14' LT	2549225.43	377460.60
832	132+26.74	35.34' LT	2549221.03	377458.68
833	132+20.74	35.35' LT	2549215.03	377458.52
834	132+17.72	35.35' LT	2549212.01	377458.44
835	132+15.28	35.35' LT	2549209.57	377458.38
836	132+17.72	30.35' LT	2549212.15	377453.44
837	132+20.72	30.35' LT	2549215.15	377453.52
838	132+20.69	27.41' LT	2549215.20	377450.59
839	132+26.66	24.82' LT	2549221.24	377448.17
840	132+26.69	27.35' LT	2549221.20	377450.69
841	132+26.72	30.34' LT	2549221.15	377453.68
842	132+32.75	37.14' LT	2549226.98	377460.65
843	132+32.74	35.33' LT	2549227.02	377458.84
844	132+32.73	30.33' LT	2549227.16	377453.84
845	132+18.58	28.42' LT	2549213.06	377451.53

S 26TH STREET
W GREENFIELD AVENUE
R/W
ASPHALT
SLOPE INTERCEPT
132+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 26TH ST	SHEET 36 E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
850	131+60.08	35.46' RT	2549156.36	377386.05
851	131+60.07	30.46' RT	2549156.21	377391.05
852	131+65.08	35.46' RT	2549161.36	377386.20
853	131+65.17	30.45' RT	2549161.31	377391.20
854	131+65.17	25.32' RT	2549161.17	377396.34
855	131+65.17	24.58' RT	2549161.15	377397.07
856	131+71.17	25.32' RT	2549167.17	377396.50
857	131+71.17	30.44' RT	2549167.31	377391.38
858	131+78.22	30.43' RT	2549174.36	377391.59
859	131+80.60	35.42' RT	2549176.87	377386.66
860	131+78.23	35.43' RT	2549174.51	377386.59
861	131+71.08	35.44' RT	2549167.36	377386.38
862	131+70.98	41.56' RT	2549167.42	377380.26
863	131+64.98	41.45' RT	2549161.42	377380.20
864	131+77.34	28.49' RT	2549171.83	377394.83

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
875	132+19.85	42.06' RT	2549216.29	377381.12
876	132+25.85	42.18' RT	2549222.29	377381.16
877	132+30.24	42.27' RT	2549226.68	377381.20
878	132+30.30	38.76' RT	2549226.65	377384.71
879	132+33.77	38.78' RT	2549230.11	377384.78
880	132+25.99	35.34' RT	2549222.24	377388.01
881	132+19.99	35.35' RT	2549216.24	377387.83
882	132+10.59	35.37' RT	2549206.85	377387.55
883	132+10.29	35.37' RT	2549206.55	377387.54
884	132+10.58	30.37' RT	2549206.70	377392.55
885	132+20.09	30.35' RT	2549216.20	377392.83
886	132+20.20	19.32' RT	2549216.01	377403.86
887	132+26.21	18.58' RT	2549222.00	377404.76
888	132+26.20	19.38' RT	2549222.01	377403.97
889	132+26.09	30.34' RT	2549222.20	377393.01
890	132+33.76	35.32' RT	2549230.01	377388.24
891	132+33.75	30.32' RT	2549229.86	377393.24
892	132+14.24	22.30' RT	2549210.14	377400.72
893	132+30.12	48.27' RT	2549226.73	377375.20
894	132+25.73	48.18' RT	2549222.34	377375.16

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 26TH ST	SHEET 37	E

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

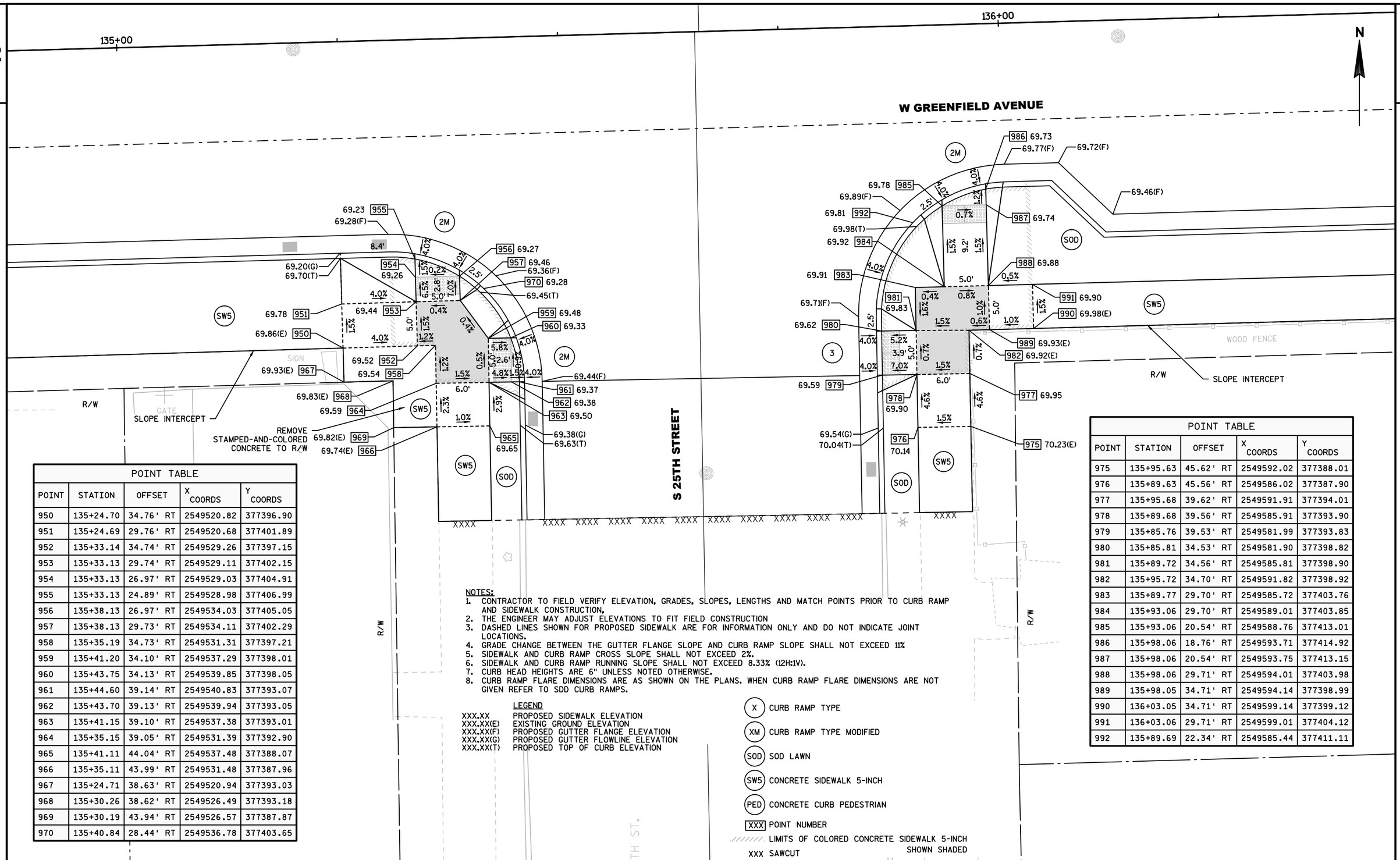
(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
900	135+28.14	34.99' LT	2549522.32	377466.71
901	135+28.13	29.99' LT	2549522.45	377461.71
902	135+33.14	34.99' LT	2549527.32	377466.85
903	135+33.13	29.98' LT	2549527.45	377461.84
904	135+33.13	20.39' LT	2549527.72	377452.25
905	135+33.13	18.72' LT	2549527.76	377450.59
906	135+38.13	20.39' LT	2549532.71	377452.39
907	135+38.13	29.98' LT	2549532.45	377461.98
908	135+35.89	34.98' LT	2549530.07	377466.92
909	135+41.81	29.98' LT	2549536.12	377462.08
910	135+41.86	32.73' LT	2549536.09	377464.83
911	135+45.62	32.71' LT	2549539.86	377464.92
912	135+45.65	37.71' LT	2549539.75	377469.92
913	135+41.94	37.73' LT	2549536.04	377469.83
914	135+35.95	37.84' LT	2549530.04	377469.77
915	135+42.05	43.73' LT	2549535.98	377475.83
916	135+36.05	43.83' LT	2549529.98	377475.77
917	135+41.78	22.36' LT	2549536.31	377454.47

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
925	135+96.67	40.38' LT	2549590.68	377474.00
926	135+90.67	40.42' LT	2549584.68	377473.88
927	135+90.65	37.46' LT	2549584.74	377470.92
928	135+88.45	37.47' LT	2549582.54	377470.87
929	135+86.91	37.48' LT	2549581.00	377470.83
930	135+88.42	32.47' LT	2549582.65	377465.87
931	135+90.61	32.46' LT	2549584.84	377465.92
932	135+96.63	34.96' LT	2549590.79	377468.59
933	135+93.06	29.97' LT	2549587.35	377463.49
934	135+93.06	27.17' LT	2549587.43	377460.70
935	135+98.06	24.96' LT	2549592.49	377458.62
936	135+98.06	27.17' LT	2549592.43	377460.84
937	135+98.06	29.97' LT	2549592.35	377463.63
938	135+98.06	34.97' LT	2549592.21	377468.63
939	136+01.29	40.34' LT	2549595.29	377474.10
940	136+01.25	37.31' LT	2549595.33	377471.06
941	136+12.68	37.30' LT	2549606.77	377471.37
942	136+24.21	37.29' LT	2549618.29	377471.68
943	135+90.60	28.42' LT	2549584.94	377461.88

S 25TH STREET
W GREENFIELD AVENUE
R/W
CONC
REMOVE STAMPED-AND-COLORED CONCRETE
SLOPE INTERCEPT
135+00
136+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 25TH ST	SHEET 38 E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
950	135+24.70	34.76' RT	2549520.82	377396.90
951	135+24.69	29.76' RT	2549520.68	377401.89
952	135+33.14	34.74' RT	2549529.26	377397.15
953	135+33.13	29.74' RT	2549529.11	377402.15
954	135+33.13	26.97' RT	2549529.03	377404.91
955	135+33.13	24.89' RT	2549528.98	377406.99
956	135+38.13	26.97' RT	2549534.03	377405.05
957	135+38.13	29.73' RT	2549534.11	377402.29
958	135+35.19	34.73' RT	2549531.31	377397.21
959	135+41.20	34.10' RT	2549537.29	377398.01
960	135+43.75	34.13' RT	2549539.85	377398.05
961	135+44.60	39.14' RT	2549540.83	377393.07
962	135+43.70	39.13' RT	2549539.94	377393.05
963	135+41.15	39.10' RT	2549537.38	377393.01
964	135+35.15	39.05' RT	2549531.39	377392.90
965	135+41.11	44.04' RT	2549537.48	377388.07
966	135+35.11	43.99' RT	2549531.48	377387.96
967	135+24.71	38.63' RT	2549520.94	377393.03
968	135+30.26	38.62' RT	2549526.49	377393.18
969	135+30.19	43.94' RT	2549526.57	377387.87
970	135+40.84	28.44' RT	2549536.78	377403.65

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
975	135+95.63	45.62' RT	2549592.02	377388.01
976	135+89.63	45.56' RT	2549586.02	377387.90
977	135+95.68	39.62' RT	2549591.91	377394.01
978	135+89.68	39.56' RT	2549585.91	377393.90
979	135+85.76	39.53' RT	2549581.99	377393.83
980	135+85.81	34.53' RT	2549581.90	377398.82
981	135+89.72	34.56' RT	2549585.81	377398.90
982	135+95.72	34.70' RT	2549591.82	377398.92
983	135+89.77	29.70' RT	2549585.72	377403.76
984	135+93.06	29.70' RT	2549589.01	377403.85
985	135+93.06	20.54' RT	2549588.76	377413.01
986	135+98.06	18.76' RT	2549593.71	377414.92
987	135+98.06	20.54' RT	2549593.75	377413.15
988	135+98.06	29.71' RT	2549594.01	377403.98
989	135+98.05	34.71' RT	2549594.14	377398.99
990	136+03.05	34.71' RT	2549599.14	377399.12
991	136+03.06	29.71' RT	2549599.01	377404.12
992	135+89.69	22.34' RT	2549585.44	377411.11

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 25TH ST	SHEET 39 E

X CURB RAMP TYPE

XM CURB RAMP TYPE MODIFIED

SOD SOD LAWN

SW5 CONCRETE SIDEWALK 5-INCH

PED CONCRETE CURB PEDESTRIAN

XXX POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1000	139+05.92	35.11' LT	2549899.95	377477.34
1001	139+05.92	30.11' LT	2549900.09	377472.34
1002	139+05.82	23.42' LT	2549900.18	377465.65
1003	139+05.76	19.36' LT	2549900.23	377461.58
1004	139+11.82	23.33' LT	2549906.18	377465.73
1005	139+11.92	30.12' LT	2549906.09	377472.51
1006	139+15.28	30.12' LT	2549909.45	377472.60
1007	139+15.72	35.12' LT	2549909.75	377477.61
1008	139+15.28	35.12' LT	2549909.31	377477.60
1009	139+11.92	35.12' LT	2549905.95	377477.51
1010	139+14.42	25.97' LT	2549908.70	377468.43

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1025	139+66.44	41.22' LT	2549960.27	377485.13
1026	139+60.44	41.24' LT	2549954.28	377484.97
1027	139+66.42	35.22' LT	2549960.43	377479.13
1028	139+60.42	35.20' LT	2549954.43	377478.94
1029	139+55.11	35.19' LT	2549949.12	377478.78
1030	139+54.85	35.19' LT	2549948.86	377478.77
1031	139+55.12	30.19' LT	2549949.27	377473.78
1032	139+60.42	30.20' LT	2549954.57	377473.94
1033	139+60.42	21.61' LT	2549954.81	377465.35
1034	139+66.42	18.86' LT	2549960.88	377462.78
1035	139+66.42	21.61' LT	2549960.81	377465.52
1036	139+66.42	30.22' LT	2549960.57	377474.13
1037	139+71.44	30.24' LT	2549965.58	377474.29
1038	139+71.42	35.24' LT	2549965.43	377479.28
1039	139+56.59	24.97' LT	2549950.88	377468.61

S 24TH STREET

W GREENFIELD AVENUE

R/W

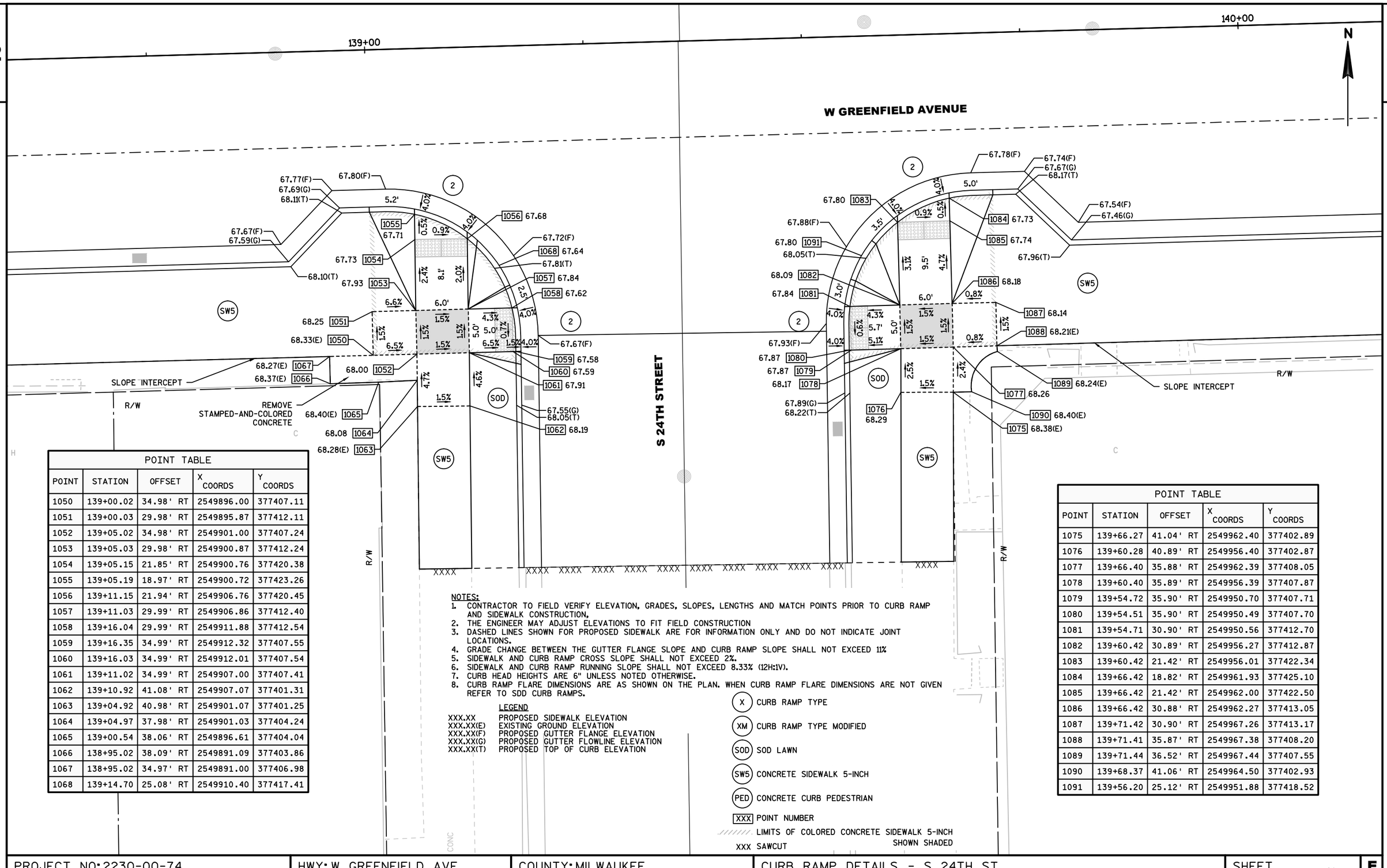
SLOPE INTERCEPT

139+00

140+00

N

PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 24TH ST	SHEET 40	E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1050	139+00.02	34.98' RT	2549896.00	377407.11
1051	139+00.03	29.98' RT	2549895.87	377412.11
1052	139+05.02	34.98' RT	2549901.00	377407.24
1053	139+05.03	29.98' RT	2549900.87	377412.24
1054	139+05.15	21.85' RT	2549900.76	377420.38
1055	139+05.19	18.97' RT	2549900.72	377423.26
1056	139+11.15	21.94' RT	2549906.76	377420.45
1057	139+11.03	29.99' RT	2549906.86	377412.40
1058	139+16.04	29.99' RT	2549911.88	377412.54
1059	139+16.35	34.99' RT	2549912.32	377407.55
1060	139+16.03	34.99' RT	2549912.01	377407.54
1061	139+11.02	34.99' RT	2549907.00	377407.41
1062	139+10.92	41.08' RT	2549907.07	377401.31
1063	139+04.92	40.98' RT	2549901.07	377401.25
1064	139+04.97	37.98' RT	2549901.03	377404.24
1065	139+00.54	38.06' RT	2549896.61	377404.04
1066	138+95.02	38.09' RT	2549891.09	377403.86
1067	138+95.02	34.97' RT	2549891.00	377406.98
1068	139+14.70	25.08' RT	2549910.40	377417.41

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1075	139+66.27	41.04' RT	2549962.40	377402.89
1076	139+60.28	40.89' RT	2549956.40	377402.87
1077	139+66.40	35.88' RT	2549962.39	377408.05
1078	139+60.40	35.89' RT	2549956.39	377407.87
1079	139+54.72	35.90' RT	2549950.70	377407.71
1080	139+54.51	35.90' RT	2549950.49	377407.70
1081	139+54.71	30.90' RT	2549950.56	377412.70
1082	139+60.42	30.89' RT	2549956.27	377412.87
1083	139+60.42	21.42' RT	2549956.01	377422.34
1084	139+66.42	18.82' RT	2549961.93	377425.10
1085	139+66.42	21.42' RT	2549962.00	377422.50
1086	139+66.42	30.88' RT	2549962.27	377413.05
1087	139+71.42	30.90' RT	2549967.26	377413.17
1088	139+71.41	35.87' RT	2549967.38	377408.20
1089	139+71.44	36.52' RT	2549967.44	377407.55
1090	139+68.37	41.06' RT	2549964.50	377402.93
1091	139+56.20	25.12' RT	2549951.88	377418.52

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLAN. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
////////// LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

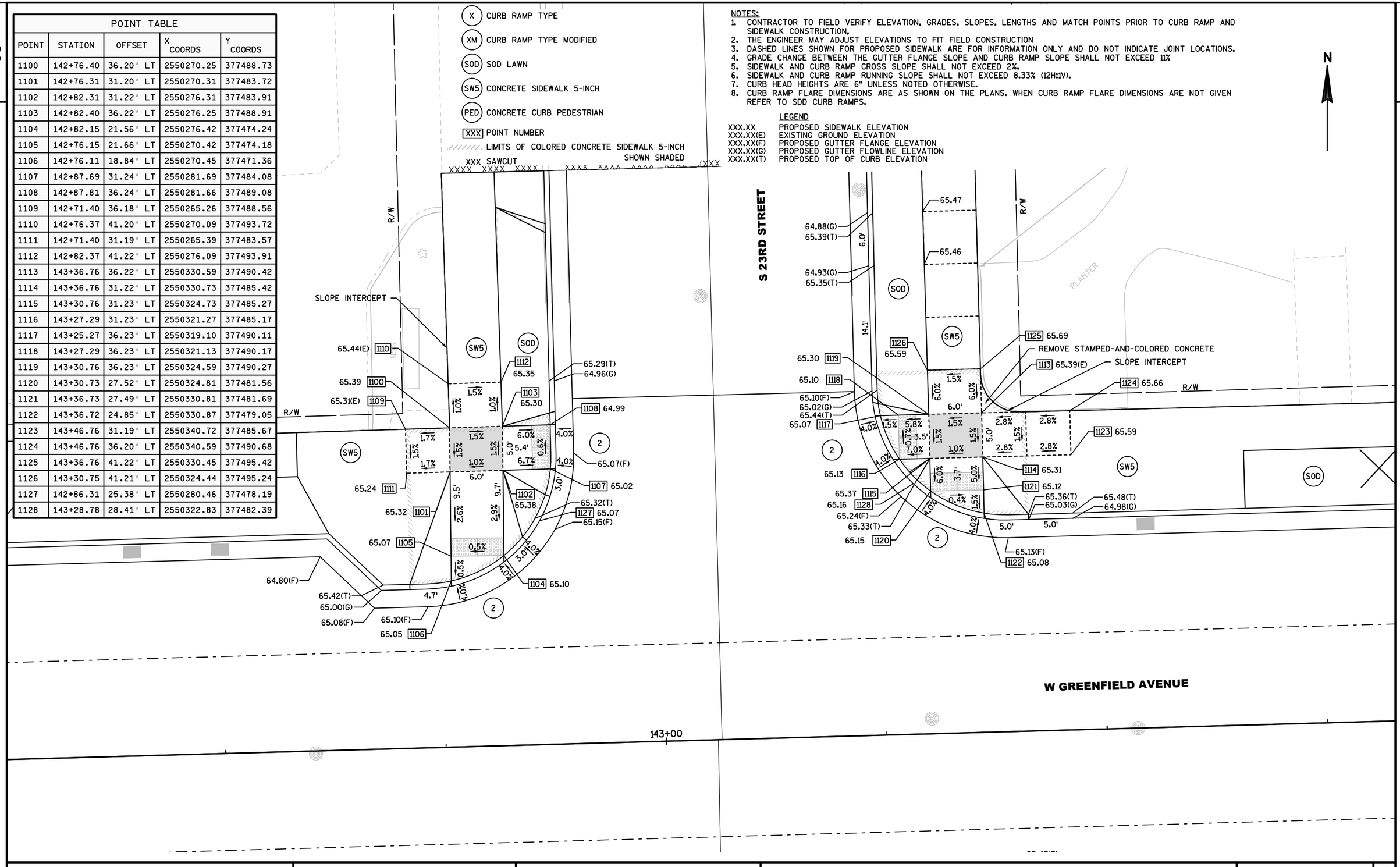
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 24TH ST	SHEET 41	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1100	142+76.40	36.20' LT	2550270.25	377488.73
1101	142+76.31	31.20' LT	2550270.31	377483.72
1102	142+82.31	31.22' LT	2550276.31	377483.91
1103	142+82.40	36.22' LT	2550276.25	377488.91
1104	142+82.15	21.56' LT	2550276.42	377474.24
1105	142+76.15	21.66' LT	2550270.42	377474.18
1106	142+76.11	18.84' LT	2550270.45	377471.36
1107	142+87.69	31.24' LT	2550281.69	377484.08
1108	142+87.81	36.24' LT	2550281.66	377489.08
1109	142+71.40	36.18' LT	2550265.26	377488.56
1110	142+76.37	41.20' LT	2550270.09	377493.72
1111	142+71.40	31.19' LT	2550265.39	377483.57
1112	142+82.37	41.22' LT	2550276.09	377493.91
1113	143+36.76	36.22' LT	2550330.59	377490.42
1114	143+36.76	31.22' LT	2550330.73	377485.42
1115	143+30.76	31.23' LT	2550324.73	377485.27
1116	143+27.29	31.23' LT	2550321.27	377485.17
1117	143+25.27	36.23' LT	2550319.10	377490.11
1118	143+27.29	36.23' LT	2550321.13	377490.17
1119	143+30.76	36.23' LT	2550324.59	377490.27
1120	143+30.73	27.52' LT	2550324.81	377481.56
1121	143+36.73	27.49' LT	2550330.81	377481.69
1122	143+36.72	24.85' LT	2550330.87	377479.05
1123	143+46.76	31.19' LT	2550340.72	377485.67
1124	143+46.76	36.20' LT	2550340.59	377490.68
1125	143+36.76	41.22' LT	2550330.45	377495.42
1126	143+30.75	41.21' LT	2550324.44	377495.24
1127	142+86.31	25.38' LT	2550280.46	377478.19
1128	143+28.78	28.41' LT	2550322.83	377482.39

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

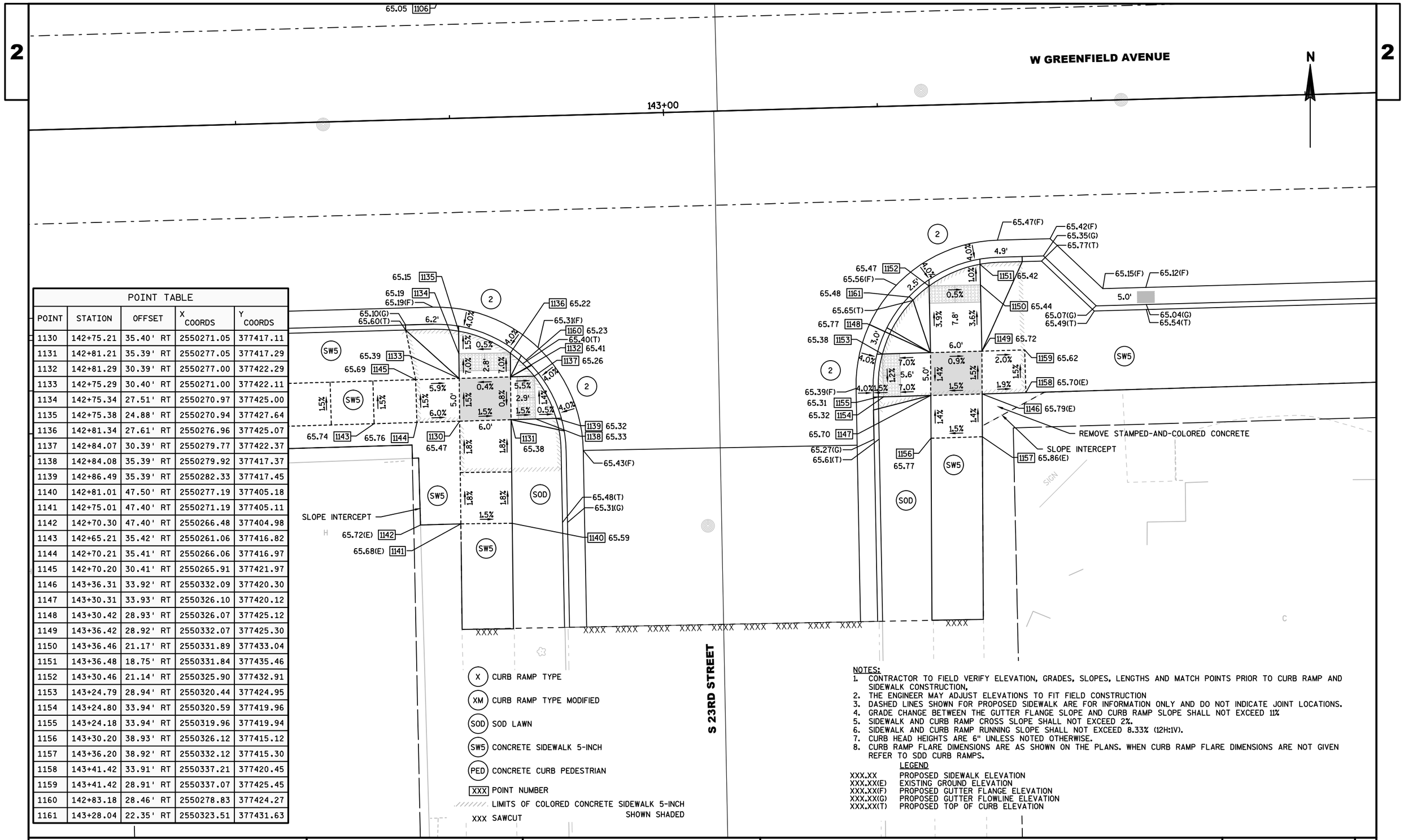
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND
XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 23RD ST	SHEET 42	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1130	142+75.21	35.40' RT	2550271.05	377417.11
1131	142+81.21	35.39' RT	2550277.05	377417.29
1132	142+81.29	30.39' RT	2550277.00	377422.29
1133	142+75.29	30.40' RT	2550271.00	377422.11
1134	142+75.34	27.51' RT	2550270.97	377425.00
1135	142+75.38	24.88' RT	2550270.94	377427.64
1136	142+81.34	27.61' RT	2550276.96	377425.07
1137	142+84.07	30.39' RT	2550279.77	377422.37
1138	142+84.08	35.39' RT	2550279.92	377417.37
1139	142+86.49	35.39' RT	2550282.33	377417.45
1140	142+81.01	47.50' RT	2550277.19	377405.18
1141	142+75.01	47.40' RT	2550271.19	377405.11
1142	142+70.30	47.40' RT	2550266.48	377404.98
1143	142+65.21	35.42' RT	2550261.06	377416.82
1144	142+70.21	35.41' RT	2550266.06	377416.97
1145	142+70.20	30.41' RT	2550265.91	377421.97
1146	143+36.31	33.92' RT	2550332.09	377420.30
1147	143+30.31	33.93' RT	2550326.10	377420.12
1148	143+30.42	28.93' RT	2550326.07	377425.12
1149	143+36.42	28.92' RT	2550332.07	377425.30
1150	143+36.46	21.17' RT	2550331.89	377433.04
1151	143+36.48	18.75' RT	2550331.84	377435.46
1152	143+30.46	21.14' RT	2550325.90	377432.91
1153	143+24.79	28.94' RT	2550320.44	377424.95
1154	143+24.80	33.94' RT	2550320.59	377419.96
1155	143+24.18	33.94' RT	2550319.96	377419.94
1156	143+30.20	38.93' RT	2550326.12	377415.12
1157	143+36.20	38.92' RT	2550332.12	377415.30
1158	143+41.42	33.91' RT	2550337.21	377420.45
1159	143+41.42	28.91' RT	2550337.07	377425.45
1160	142+83.18	28.46' RT	2550278.83	377424.27
1161	143+28.04	22.35' RT	2550323.51	377431.63



(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 23RD ST	SHEET 43	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1200	146+46.27	35.41' LT	2550640.00	377498.22
1201	146+52.27	35.40' LT	2550646.00	377498.37
1202	146+52.27	30.40' LT	2550646.15	377493.37
1203	146+46.27	30.41' LT	2550640.15	377493.22
1204	146+46.14	21.88' LT	2550640.25	377484.69
1205	146+46.10	18.91' LT	2550640.29	377481.72
1206	146+52.14	21.79' LT	2550646.25	377484.77
1207	146+57.29	30.38' LT	2550651.16	377493.50
1208	146+57.30	35.38' LT	2550651.04	377498.50
1209	146+57.55	35.38' LT	2550651.29	377498.50
1210	146+52.20	40.40' LT	2550645.79	377503.37
1211	146+46.26	40.41' LT	2550639.86	377503.22
1212	146+41.27	35.43' LT	2550635.01	377498.09
1213	146+41.26	30.43' LT	2550635.13	377493.09
1214	147+07.94	36.47' LT	2550701.62	377500.99
1215	147+01.83	36.48' LT	2550695.52	377500.83
1216	147+01.76	31.48' LT	2550695.58	377495.83
1217	147+07.76	31.47' LT	2550701.58	377495.98
1218	147+07.61	26.57' LT	2550701.57	377491.08
1219	147+07.55	24.68' LT	2550701.56	377489.20
1220	147+01.61	26.75' LT	2550695.57	377491.10
1221	146+96.88	31.49' LT	2550690.71	377495.71
1222	146+96.90	36.49' LT	2550690.58	377500.70
1223	146+94.97	36.50' LT	2550688.66	377500.65
1224	147+02.04	48.51' LT	2550695.39	377512.87
1225	147+08.04	48.47' LT	2550701.39	377512.98
1226	147+12.94	36.45' LT	2550706.62	377501.11
1227	147+12.93	31.45' LT	2550706.75	377496.12
1228	146+55.91	25.15' LT	2550649.92	377488.22
1229	146+98.52	28.42' LT	2550692.43	377492.68

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

N

S 22ND STREET

W GREENFIELD AVENUE

146+00

147+00

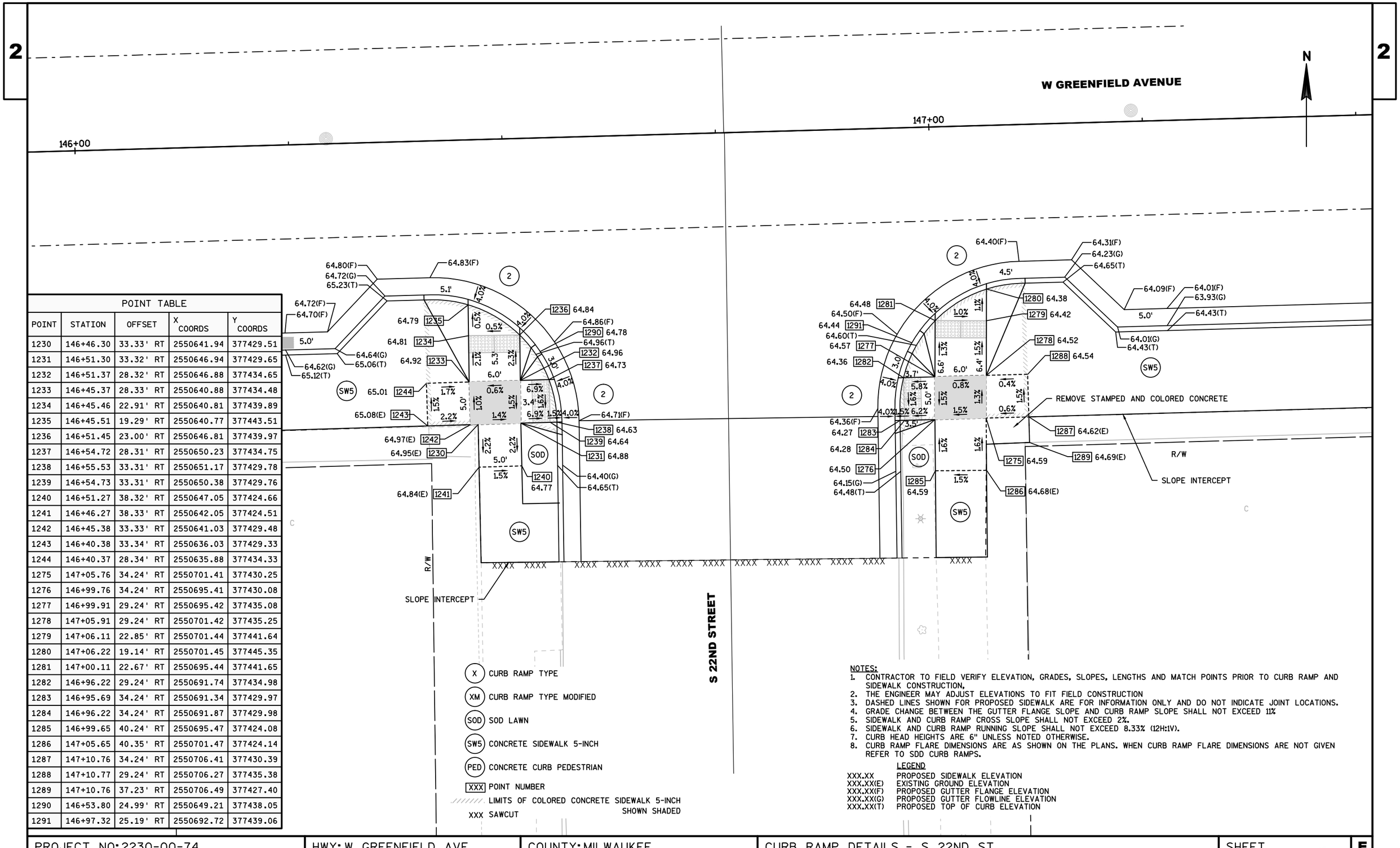
R/W

SLOPE INTERCEPT

REMOVE STAMPED-AND-COLORED CONCRETE TO R/W

PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 22ND ST	SHEET 44 E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021112_ID-22ND.DWG
LAYOUT NAME - 021112_ID-22ND - S-PLAN 1 IN 10 FT
PLOT DATE : 4/10/2017 2:42 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1230	146+46.30	33.33' RT	2550641.94	377429.51
1231	146+51.30	33.32' RT	2550646.94	377429.65
1232	146+51.37	28.32' RT	2550646.88	377434.65
1233	146+45.37	28.33' RT	2550640.88	377434.48
1234	146+45.46	22.91' RT	2550640.81	377439.89
1235	146+45.51	19.29' RT	2550640.77	377443.51
1236	146+51.45	23.00' RT	2550646.81	377439.97
1237	146+54.72	28.31' RT	2550650.23	377434.75
1238	146+55.53	33.31' RT	2550651.17	377429.78
1239	146+54.73	33.31' RT	2550650.38	377429.76
1240	146+51.27	38.32' RT	2550647.05	377424.66
1241	146+46.27	38.33' RT	2550642.05	377424.51
1242	146+45.38	33.33' RT	2550641.03	377429.48
1243	146+40.38	33.34' RT	2550636.03	377429.33
1244	146+40.37	28.34' RT	2550635.88	377434.33
1275	147+05.76	34.24' RT	2550701.41	377430.25
1276	146+99.76	34.24' RT	2550695.41	377430.08
1277	146+99.91	29.24' RT	2550695.42	377435.08
1278	147+05.91	29.24' RT	2550701.42	377435.25
1279	147+06.11	22.85' RT	2550701.44	377441.64
1280	147+06.22	19.14' RT	2550701.45	377445.35
1281	147+00.11	22.67' RT	2550695.44	377441.65
1282	146+96.22	29.24' RT	2550691.74	377434.98
1283	146+95.69	34.24' RT	2550691.34	377429.97
1284	146+96.22	34.24' RT	2550691.87	377429.98
1285	146+99.65	40.24' RT	2550695.47	377424.08
1286	147+05.65	40.35' RT	2550701.47	377424.14
1287	147+10.76	34.24' RT	2550706.41	377430.39
1288	147+10.77	29.24' RT	2550706.27	377435.38
1289	147+10.76	37.23' RT	2550706.49	377427.40
1290	146+53.80	24.99' RT	2550649.21	377438.05
1291	146+97.32	25.19' RT	2550692.72	377439.06

(X) CURB RAMP TYPE
(XM) CURB RAMP TYPE MODIFIED
(SOD) SOD LAWN
(SW5) CONCRETE SIDEWALK 5-INCH
(PED) CONCRETE CURB PEDESTRIAN
[XXX] POINT NUMBER
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 22ND ST	SHEET 45	E

2

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1300	150+11.45	35.78' LT	2551005.03	377508.74
1301	150+11.39	30.78' LT	2551005.12	377503.74
1302	150+16.45	35.77' LT	2551010.03	377508.86
1303	150+16.39	30.77' LT	2551010.11	377503.86
1304	150+22.45	35.75' LT	2551016.03	377509.02
1305	150+22.40	30.75' LT	2551016.12	377504.02
1306	150+16.33	24.40' LT	2551010.23	377497.49
1307	150+22.33	24.34' LT	2551016.23	377497.60
1308	150+16.29	20.20' LT	2551010.31	377493.30
1309	150+26.55	30.74' LT	2551020.27	377504.12
1310	150+26.56	35.74' LT	2551020.14	377509.12
1311	150+27.82	35.74' LT	2551021.40	377509.15
1312	150+22.49	40.75' LT	2551015.94	377514.02
1313	150+16.49	40.77' LT	2551009.94	377513.86

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1325	150+82.03	36.34' LT	2551075.57	377511.26
1326	150+82.02	31.34' LT	2551075.71	377506.26
1327	150+77.03	36.34' LT	2551070.57	377511.13
1328	150+77.02	31.34' LT	2551070.71	377506.13
1329	150+71.03	36.35' LT	2551064.58	377510.96
1330	150+71.02	31.35' LT	2551064.71	377505.96
1331	150+77.01	27.40' LT	2551070.80	377502.18
1332	150+76.99	24.82' LT	2551070.86	377499.61
1333	150+71.01	27.42' LT	2551064.80	377502.04
1334	150+67.36	31.35' LT	2551061.05	377505.86
1335	150+65.39	36.35' LT	2551058.94	377510.81
1336	150+67.36	36.35' LT	2551060.91	377510.86
1337	150+71.04	41.35' LT	2551064.44	377515.96
1338	150+77.04	41.34' LT	2551070.44	377516.12
1339	150+79.64	41.18' LT	2551073.05	377516.03
1340	150+80.96	39.82' LT	2551074.41	377514.71
1341	150+82.03	38.60' LT	2551075.51	377513.52
1342	150+25.15	26.86' LT	2551018.97	377500.20
1343	150+68.91	28.42' LT	2551062.67	377502.98

S 21ST STREET

W GREENFIELD AVENUE

150+00

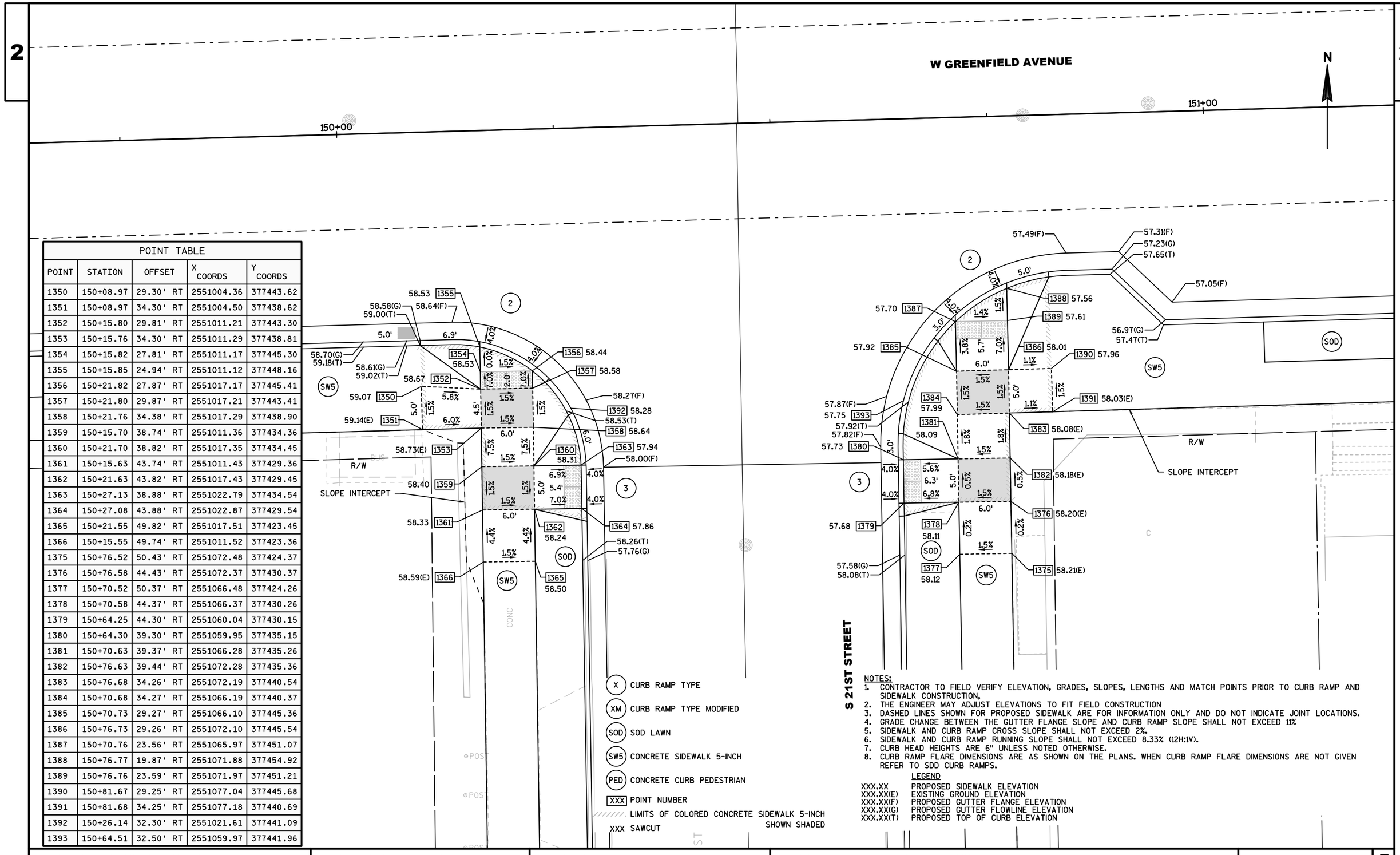
151+00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 21ST ST	SHEET	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021113_ID-21ST.DWG
LAYOUT NAME - 021113_ID-21ST - S-PLAN 1 IN 10 FT

PLOT DATE : 4/10/2017 2:43 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1350	150+08.97	29.30' RT	2551004.36	377443.62
1351	150+08.97	34.30' RT	2551004.50	377438.62
1352	150+15.80	29.81' RT	2551011.21	377443.30
1353	150+15.76	34.30' RT	2551011.29	377438.81
1354	150+15.82	27.81' RT	2551011.17	377445.30
1355	150+15.85	24.94' RT	2551011.12	377448.16
1356	150+21.82	27.87' RT	2551017.17	377445.41
1357	150+21.80	29.87' RT	2551017.21	377443.41
1358	150+21.76	34.38' RT	2551017.29	377438.90
1359	150+15.70	38.74' RT	2551011.36	377434.36
1360	150+21.70	38.82' RT	2551017.35	377434.45
1361	150+15.63	43.74' RT	2551011.43	377429.36
1362	150+21.63	43.82' RT	2551017.43	377429.45
1363	150+27.13	38.88' RT	2551022.79	377434.54
1364	150+27.08	43.88' RT	2551022.87	377429.54
1365	150+21.55	49.82' RT	2551017.51	377423.45
1366	150+15.55	49.74' RT	2551011.52	377423.36
1375	150+76.52	50.43' RT	2551072.48	377424.37
1376	150+76.58	44.43' RT	2551072.37	377430.37
1377	150+70.52	50.37' RT	2551066.48	377424.26
1378	150+70.58	44.37' RT	2551066.37	377430.26
1379	150+64.25	44.30' RT	2551060.04	377430.15
1380	150+64.30	39.30' RT	2551059.95	377435.15
1381	150+70.63	39.37' RT	2551066.28	377435.26
1382	150+76.63	39.44' RT	2551072.28	377435.36
1383	150+76.68	34.26' RT	2551072.19	377440.54
1384	150+70.68	34.27' RT	2551066.19	377440.37
1385	150+70.73	29.27' RT	2551066.10	377445.36
1386	150+76.73	29.26' RT	2551072.10	377445.54
1387	150+70.76	23.56' RT	2551065.97	377451.07
1388	150+76.77	19.87' RT	2551071.88	377454.92
1389	150+76.76	23.59' RT	2551071.97	377451.21
1390	150+81.67	29.25' RT	2551077.04	377445.68
1391	150+81.68	34.25' RT	2551077.18	377440.69
1392	150+26.14	32.30' RT	2551021.61	377441.09
1393	150+64.51	32.50' RT	2551059.97	377441.96



X CURB RAMP TYPE

XM CURB RAMP TYPE MODIFIED

SOD SOD LAWN

SW5 CONCRETE SIDEWALK 5-INCH

PED CONCRETE CURB PEDESTRIAN

XXX POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 21ST ST	SHEET 47	E

2

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1400	153+85.94	36.16' LT	2551379.37	377519.53
1401	153+88.11	31.16' LT	2551381.67	377514.59
1402	153+91.94	31.16' LT	2551385.50	377514.69
1403	153+97.70	31.15' LT	2551391.27	377514.85
1404	153+97.85	36.15' LT	2551391.28	377519.85
1405	153+91.94	36.16' LT	2551385.37	377519.69
1406	153+91.98	42.16' LT	2551385.24	377525.69
1407	153+85.98	42.19' LT	2551379.24	377525.56
1408	153+83.11	36.16' LT	2551376.54	377519.45
1409	153+83.11	31.16' LT	2551376.68	377514.45
1410	153+88.11	19.39' LT	2551382.00	377502.83
1411	153+83.11	18.58' LT	2551377.02	377501.88
1412	153+83.11	19.39' LT	2551377.00	377502.69
1413	153+78.76	31.16' LT	2551372.33	377514.34
1414	153+78.76	36.16' LT	2551372.19	377519.33
1415	154+46.66	36.03' LT	2551440.07	377521.09
1416	154+41.05	36.05' LT	2551434.46	377520.95
1417	154+41.05	31.05' LT	2551434.60	377515.95
1418	154+46.05	31.05' LT	2551439.60	377516.09
1419	154+46.05	21.30' LT	2551439.87	377506.34
1420	154+46.05	19.00' LT	2551439.94	377504.05
1421	154+41.05	21.30' LT	2551434.87	377506.21
1422	154+35.14	31.07' LT	2551428.69	377515.81
1423	154+35.02	36.07' LT	2551428.43	377520.81
1424	154+41.12	41.10' LT	2551434.39	377526.00
1425	154+46.73	41.03' LT	2551440.00	377526.09
1426	154+51.68	36.01' LT	2551445.09	377521.21
1427	154+51.66	31.01' LT	2551445.21	377516.21
1428	154+51.21	42.13' LT	2551444.45	377527.31
1429	154+80.41	30.91' LT	2551473.94	377516.90
1430	153+93.99	22.36' LT	2551387.80	377505.96
1431	154+38.78	22.42' LT	2551432.57	377507.27
1432	154+51.20	38.89' LT	2551444.53	377524.07
1433	154+53.22	38.89' LT	2551446.55	377524.13

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

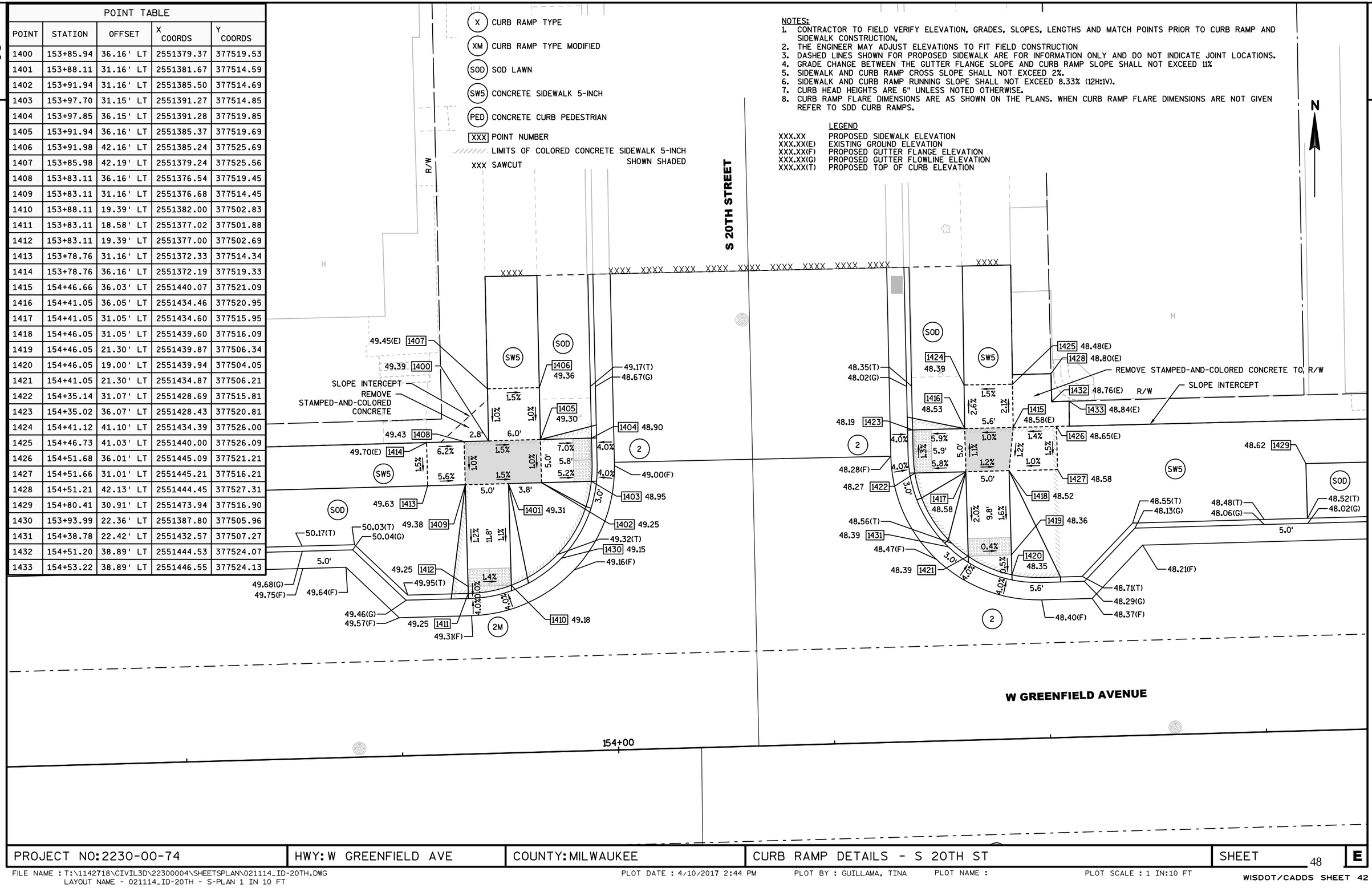
LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

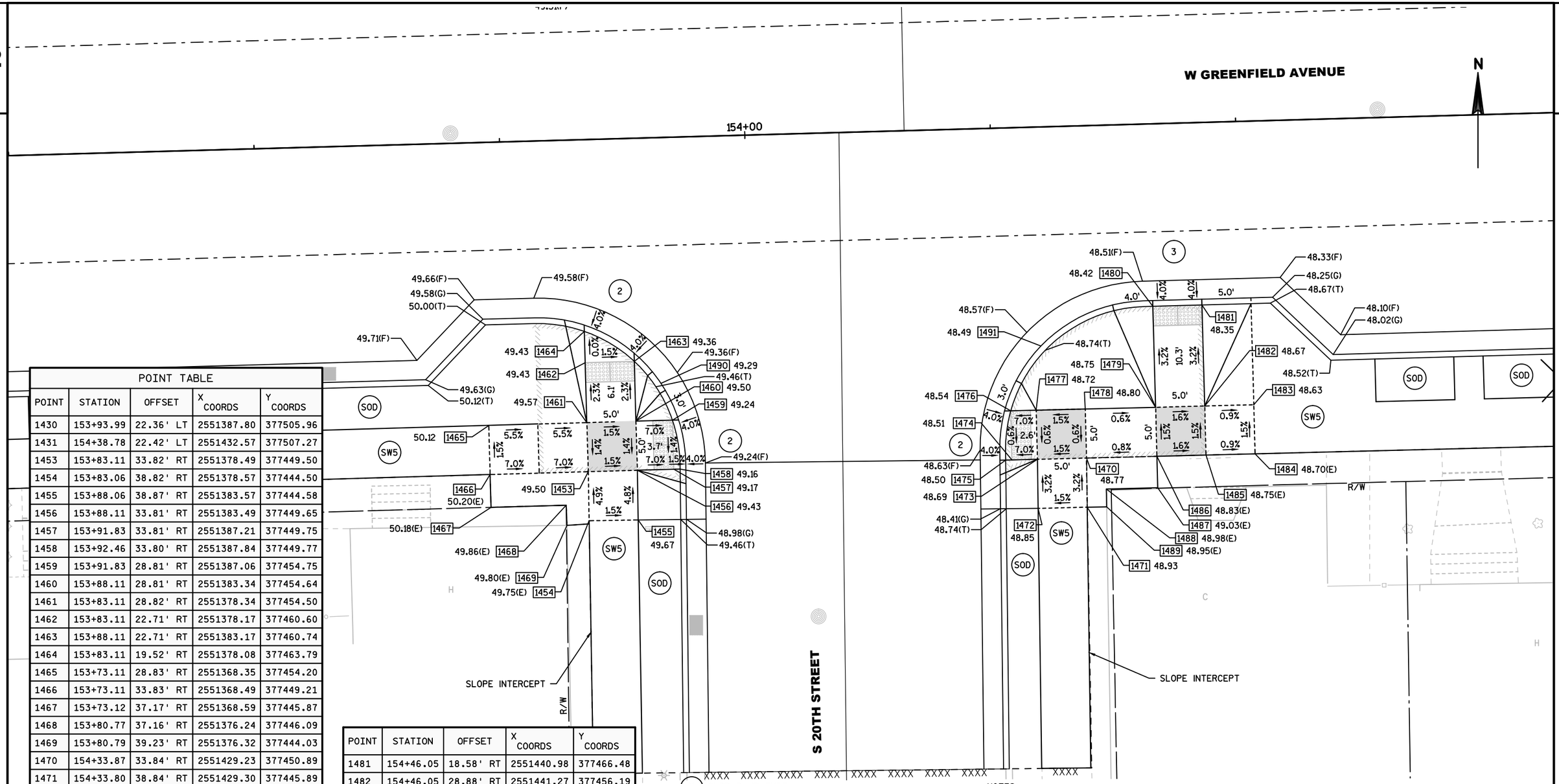


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 20TH ST	SHEET 48	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021114_ID-20TH.DWG
LAYOUT NAME - 021114_ID-20TH - S-PLAN 1 IN 10 FT

PLOT DATE : 4/10/2017 2:44 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1430	153+93.99	22.36' LT	2551387.80	377505.96
1431	154+38.78	22.42' LT	2551432.57	377507.27
1453	153+83.11	33.82' RT	2551378.49	377449.50
1454	153+83.06	38.82' RT	2551378.57	377444.50
1455	153+88.06	38.87' RT	2551383.57	377444.58
1456	153+88.11	33.81' RT	2551383.49	377449.65
1457	153+91.83	33.81' RT	2551387.21	377449.75
1458	153+92.46	33.80' RT	2551387.84	377449.77
1459	153+91.83	28.81' RT	2551387.06	377454.75
1460	153+88.11	28.81' RT	2551383.34	377454.64
1461	153+83.11	28.82' RT	2551378.34	377454.50
1462	153+83.11	22.71' RT	2551378.17	377460.60
1463	153+88.11	22.71' RT	2551383.17	377460.74
1464	153+83.11	19.52' RT	2551378.08	377463.79
1465	153+73.11	28.83' RT	2551368.35	377454.20
1466	153+73.11	33.83' RT	2551368.49	377449.21
1467	153+73.12	37.17' RT	2551368.59	377445.87
1468	153+80.77	37.16' RT	2551376.24	377446.09
1469	153+80.79	39.23' RT	2551376.32	377444.03
1470	154+33.87	33.84' RT	2551429.23	377450.89
1471	154+33.80	38.84' RT	2551429.30	377445.89
1472	154+28.80	38.83' RT	2551424.30	377445.76
1473	154+28.87	33.83' RT	2551424.23	377450.76
1474	154+26.27	33.82' RT	2551421.63	377450.69
1475	154+25.63	33.81' RT	2551420.99	377450.69
1476	154+26.28	28.82' RT	2551421.50	377455.69
1477	154+28.88	28.83' RT	2551424.10	377455.76
1478	154+33.88	28.84' RT	2551429.10	377455.88
1479	154+41.05	28.88' RT	2551436.27	377456.05
1480	154+41.05	18.58' RT	2551435.98	377466.34

POINT	STATION	OFFSET	X COORDS	Y COORDS
1481	154+46.05	18.58' RT	2551440.98	377466.48
1482	154+46.05	28.88' RT	2551441.27	377456.19
1483	154+51.05	28.89' RT	2551446.26	377456.32
1484	154+51.04	33.89' RT	2551446.39	377451.32
1485	154+46.04	33.87' RT	2551441.39	377451.19
1486	154+41.04	33.86' RT	2551436.39	377451.07
1487	154+41.03	37.06' RT	2551436.48	377447.87
1488	154+35.80	37.05' RT	2551431.25	377447.74
1489	154+35.78	38.87' RT	2551431.28	377445.92
1490	153+90.76	25.03' RT	2551385.89	377458.50
1491	154+29.54	22.31' RT	2551424.58	377462.30

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 20TH ST	SHEET 49	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1500	157+24.86	37.69' LT	2551718.12	377530.48
1501	157+30.86	37.60' LT	2551724.12	377530.56
1502	157+32.97	37.58' LT	2551726.23	377530.60
1503	157+34.38	37.57' LT	2551727.63	377530.62
1504	157+32.92	32.58' LT	2551726.31	377525.60
1505	157+30.79	32.60' LT	2551724.18	377525.56
1506	157+30.75	29.99' LT	2551724.22	377522.95
1507	157+24.81	30.01' LT	2551718.28	377522.80
1508	157+14.81	30.05' LT	2551708.28	377522.56
1509	157+14.82	35.05' LT	2551708.16	377527.56
1510	157+24.82	35.01' LT	2551718.15	377527.80
1511	157+25.04	49.69' LT	2551717.96	377542.48
1512	157+31.04	49.60' LT	2551723.96	377542.56
1513	157+93.76	24.58' LT	2551787.35	377519.29
1514	157+88.76	24.58' LT	2551782.35	377519.16
1515	157+88.76	29.88' LT	2551782.20	377524.45
1516	157+93.76	29.87' LT	2551787.20	377524.58
1517	157+93.76	34.87' LT	2551787.07	377529.58
1518	157+88.76	34.88' LT	2551782.07	377529.45
1519	157+84.59	29.88' LT	2551778.04	377524.34
1520	157+84.60	34.88' LT	2551777.91	377529.33
1521	157+78.60	29.88' LT	2551772.06	377524.17
1522	157+78.59	32.10' LT	2551771.98	377526.39
1523	157+75.40	32.13' LT	2551768.79	377526.33
1524	157+73.76	37.15' LT	2551767.01	377531.30
1525	157+75.45	37.13' LT	2551768.71	377531.33
1526	157+78.56	37.10' LT	2551771.81	377531.38
1527	157+84.59	37.13' LT	2551777.84	377531.58
1528	157+78.53	43.10' LT	2551771.61	377537.38
1529	157+84.56	43.13' LT	2551777.64	377537.58
1530	157+30.59	28.34' LT	2551724.10	377521.29
1531	157+77.38	28.45' LT	2551770.87	377522.70

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

N

S 19TH STREET

W GREENFIELD AVENUE

157+00

158+00

PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 19TH ST	SHEET 50	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021115_ID-19TH.DWG
LAYOUT NAME - 021115_ID-19TH - S-PLAN 1 IN 10 FT

PLOT DATE : 4/10/2017 2:46 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

W GREENFIELD AVENUE

N

157+00

158+00

3M

48.53 1550

1551 48.55

8.8'

5.0'

4.0%

5.0'

2.0%

2.0%

5.0'

4.0%

48.35(G)
48.85(T)

48.40(G)
48.67(T)

48.96 1552

1553 48.94

SOD

48.92 1559

0.8%

5.0'

2.3%

1554 49.05

48.83

SW5

1.5%

0.4%

1.5%

1.5%

5.0'

1.5%

SW5

0.8%

0.4%

2.3%

48.99(E) 1558

49.03(E) 1557

1556 49.01(E)

1555 49.13

49.15(E) 1561

R/W

1560 49.29(E)

SLOPE INTERCEPT

CONC

H

H

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1550	157+88.76	24.58' RT	2551783.72	377470.01
1551	157+93.76	24.58' RT	2551788.72	377470.15
1552	157+88.76	29.73' RT	2551783.86	377464.86
1553	157+93.76	29.75' RT	2551788.86	377464.99
1554	157+98.76	29.76' RT	2551793.86	377465.11
1555	157+98.74	34.76' RT	2551793.99	377460.11
1556	157+93.74	34.75' RT	2551788.99	377459.99
1557	157+88.74	34.73' RT	2551783.99	377459.86
1558	157+83.74	34.72' RT	2551778.99	377459.73
1559	157+83.76	29.72' RT	2551778.86	377464.73
1560	157+93.74	37.68' RT	2551789.06	377457.06
1561	158+32.07	37.74' RT	2551827.38	377458.06

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 19TH ST	SHEET 51	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021115_ID-19TH.DWG
LAYOUT NAME - 021115_ID-19TH - S-PLAN 1 IN 10 FT (2)
PLOT DATE : 4/10/2017 2:46 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1600	158+92.00	34.80' LT	2551885.27	377532.24
1601	158+92.00	29.80' LT	2551885.41	377527.24
1602	158+97.00	34.80' LT	2551890.27	377532.38
1603	158+97.00	29.80' LT	2551890.41	377527.38
1604	158+96.97	18.58' LT	2551890.69	377516.17
1605	159+02.00	34.80' LT	2551895.27	377532.51
1606	159+02.00	29.80' LT	2551895.41	377527.52
1607	159+02.00	18.58' LT	2551895.72	377516.31
1608	159+07.00	34.79' LT	2551900.27	377532.65
1609	159+07.00	29.79' LT	2551900.40	377527.65

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX PROPOSED SIDEWALK ELEVATION
XXX.XX(E) EXISTING GROUND ELEVATION
XXX.XX(F) PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G) PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T) PROPOSED TOP OF CURB ELEVATION

N

SLOPE INTERCEPT

R/W

FENCE

49.19(E) [1600] 49.19(E) [1602] [1605] 49.19(E) [1608] 49.16(E)

0.0% 0.1% 0.8% 1.5% 5.0'

49.11 [1601] [1609] 49.08

49.12 [1603] [1606] 49.12

3.8% 11.2' 3.8%

48.91(T) 48.49(G) 48.96(T) 48.46(G)

10.0'

48.57(F)

48.89(T) 48.39(G) 48.47(F)

48.67 [1604] [1607] 48.67

49.06(T) 48.64(G) 48.72(F)

4.0% 2.0% 4.0%

48.71(T) 48.74(F)

49.06(T) 48.64(G) 48.72(F)

SOD SW5 3M

W GREENFIELD AVENUE

159+00 160+00

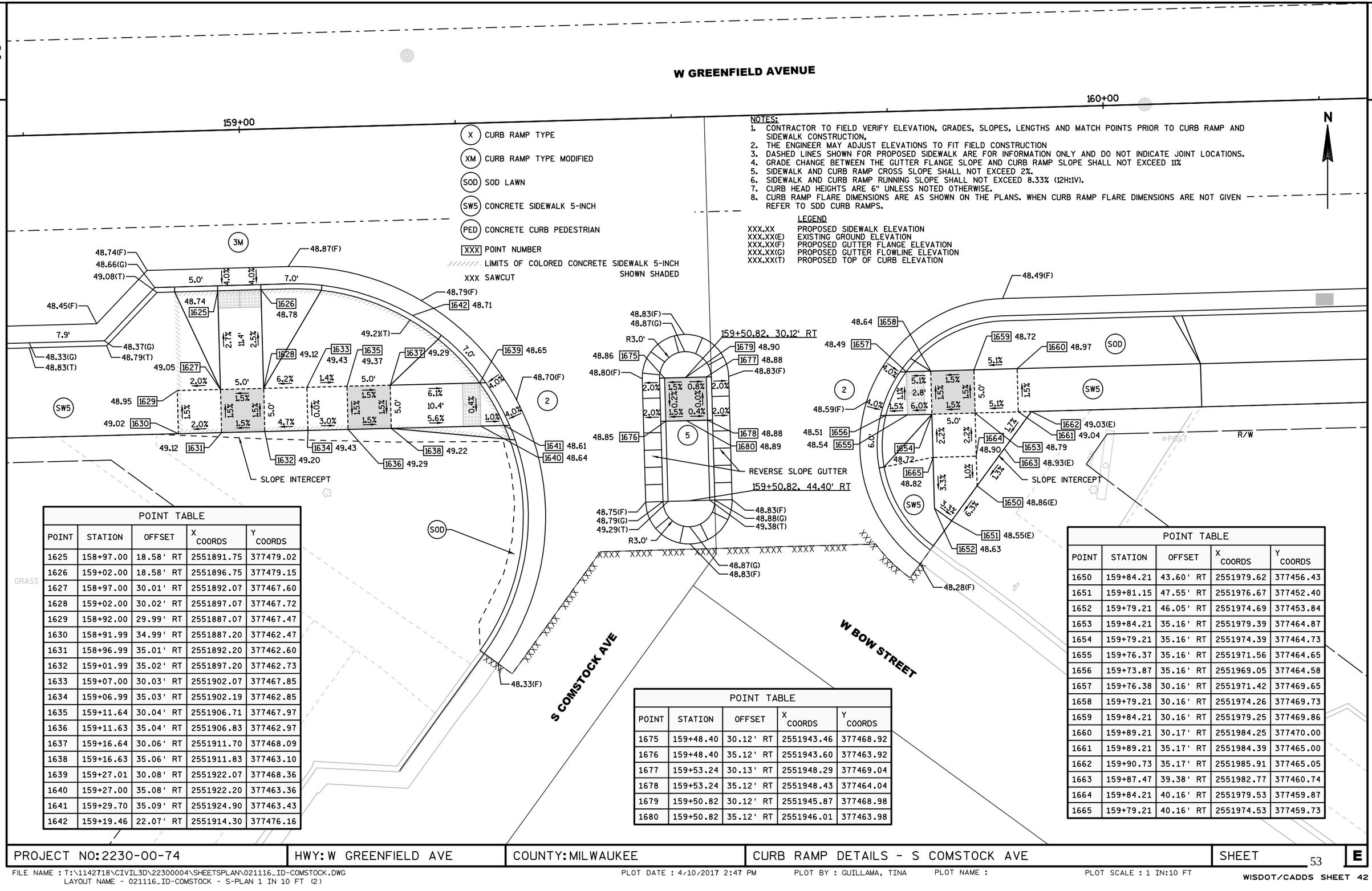
48.74(F) 48.87(F)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S COMSTOCK AVE	SHEET 52	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021116_ID-COMSTOCK.DWG
LAYOUT NAME - 021116_ID-COMSTOCK - S-PLAN 1 IN 10 FT

PLOT DATE : 4/10/2017 2:47 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1625	158+97.00	18.58' RT	2551891.75	377479.02
1626	159+02.00	18.58' RT	2551896.75	377479.15
1627	158+97.00	30.01' RT	2551892.07	377467.60
1628	159+02.00	30.02' RT	2551897.07	377467.72
1629	158+92.00	29.99' RT	2551887.07	377467.47
1630	158+91.99	34.99' RT	2551887.20	377462.47
1631	158+96.99	35.01' RT	2551892.20	377462.60
1632	159+01.99	35.02' RT	2551897.20	377462.73
1633	159+07.00	30.03' RT	2551902.07	377467.85
1634	159+06.99	35.03' RT	2551902.19	377462.85
1635	159+11.64	30.04' RT	2551906.71	377467.97
1636	159+11.63	35.04' RT	2551906.83	377462.97
1637	159+16.64	30.06' RT	2551911.70	377468.09
1638	159+16.63	35.06' RT	2551911.83	377463.10
1639	159+27.01	30.08' RT	2551922.07	377468.36
1640	159+27.00	35.08' RT	2551922.20	377463.36
1641	159+29.70	35.09' RT	2551924.90	377463.43
1642	159+19.46	22.07' RT	2551914.30	377476.16

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1675	159+48.40	30.12' RT	2551943.46	377468.92
1676	159+48.40	35.12' RT	2551943.60	377463.92
1677	159+53.24	30.13' RT	2551948.29	377469.04
1678	159+53.24	35.12' RT	2551948.43	377464.04
1679	159+50.82	30.12' RT	2551945.87	377468.98
1680	159+50.82	35.12' RT	2551946.01	377463.98

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1650	159+84.21	43.60' RT	2551979.62	377456.43
1651	159+81.15	47.55' RT	2551976.67	377452.40
1652	159+79.21	46.05' RT	2551974.69	377453.84
1653	159+84.21	35.16' RT	2551979.39	377464.87
1654	159+79.21	35.16' RT	2551974.39	377464.73
1655	159+76.37	35.16' RT	2551971.56	377464.65
1656	159+73.87	35.16' RT	2551969.05	377464.58
1657	159+76.38	30.16' RT	2551971.42	377469.65
1658	159+79.21	30.16' RT	2551974.26	377469.73
1659	159+84.21	30.16' RT	2551979.25	377469.86
1660	159+89.21	30.17' RT	2551984.25	377470.00
1661	159+89.21	35.17' RT	2551984.39	377465.00
1662	159+90.73	35.17' RT	2551985.91	377465.05
1663	159+87.47	39.38' RT	2551982.77	377460.74
1664	159+84.21	40.16' RT	2551979.53	377459.87
1665	159+79.21	40.16' RT	2551974.53	377459.73

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S COMSTOCK AVE	SHEET 53	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021116_ID-COMSTOCK.DWG
LAYOUT NAME - 021116_ID-COMSTOCK - S-PLAN 1 IN 10 FT (2)
PLOT DATE : 4/10/2017 2:47 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1700	160+61.57	34.68' LT	2552054.78	377536.84
1701	160+61.52	29.68' LT	2552054.87	377531.84
1702	160+67.57	34.68' LT	2552060.78	377537.00
1703	160+67.52	29.68' LT	2552060.87	377532.00
1704	160+71.70	34.68' LT	2552064.91	377537.11
1705	160+72.09	34.68' LT	2552065.30	377537.12
1706	160+71.70	29.68' LT	2552065.04	377532.11
1707	160+67.52	22.48' LT	2552061.07	377524.80
1708	160+61.52	22.48' LT	2552055.07	377524.63
1709	160+61.52	19.11' LT	2552055.16	377521.27
1710	160+70.54	25.30' LT	2552064.01	377527.71

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1725	161+09.74	35.44' LT	2552102.91	377538.93
1726	161+12.18	35.43' LT	2552105.35	377538.99
1727	161+12.15	30.43' LT	2552105.45	377533.99
1728	161+14.23	35.41' LT	2552107.39	377539.03
1729	161+14.20	30.41' LT	2552107.50	377534.03
1730	161+14.26	45.41' LT	2552107.15	377549.03
1731	161+20.26	45.39' LT	2552113.15	377549.17
1732	161+20.23	35.38' LT	2552113.39	377539.16
1733	161+20.20	30.38' LT	2552113.50	377534.16
1734	161+26.23	35.34' LT	2552119.39	377539.29
1735	161+31.23	35.31' LT	2552124.39	377539.40
1736	161+26.20	30.34' LT	2552119.50	377534.29
1737	161+31.20	30.31' LT	2552124.50	377534.40
1738	161+36.22	34.66' LT	2552129.40	377538.89
1739	161+36.20	30.28' LT	2552129.50	377534.51
1740	161+26.20	24.58' LT	2552119.66	377528.54
1741	161+31.20	24.58' LT	2552124.66	377528.68
1742	161+23.28	45.40' LT	2552116.17	377549.26
1743	161+23.24	37.77' LT	2552116.34	377541.64
1744	161+32.59	37.74' LT	2552125.68	377541.87
1745	161+32.59	34.70' LT	2552125.77	377538.82
1746	161+16.75	25.70' LT	2552110.19	377529.40

S. 18TH ST.

CONC

R/W

S 18TH STREET

W GREENFIELD AVENUE

SLOPE INTERCEPT

REMOVE STAMPED-AND-COLORED CONCRETE TO R/W

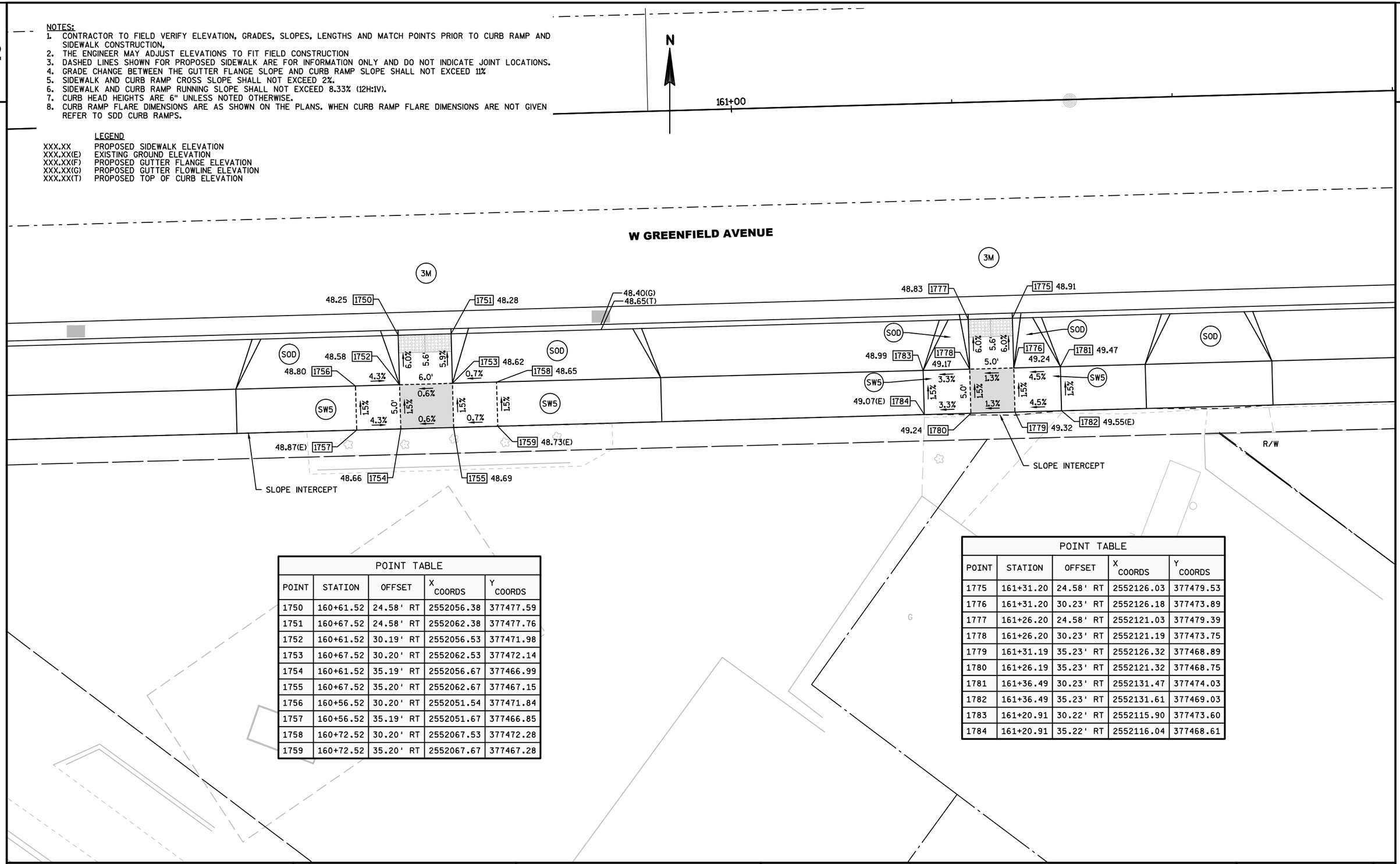
N

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 18TH ST	SHEET 54	E

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
7. CURB HEAD HEIGHTS ARE 6" UNLESS NOTED OTHERWISE.
8. CURB RAMP FLARE DIMENSIONS ARE AS SHOWN ON THE PLANS. WHEN CURB RAMP FLARE DIMENSIONS ARE NOT GIVEN REFER TO SDD CURB RAMPS.

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1750	160+61.52	24.58' RT	2552056.38	377477.59
1751	160+67.52	24.58' RT	2552062.38	377477.76
1752	160+61.52	30.19' RT	2552056.53	377471.98
1753	160+67.52	30.20' RT	2552062.53	377472.14
1754	160+61.52	35.19' RT	2552056.67	377466.99
1755	160+67.52	35.20' RT	2552062.67	377467.15
1756	160+56.52	30.20' RT	2552051.54	377471.84
1757	160+56.52	35.19' RT	2552051.67	377466.85
1758	160+72.52	30.20' RT	2552067.53	377472.28
1759	160+72.52	35.20' RT	2552067.67	377467.28

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1775	161+31.20	24.58' RT	2552126.03	377479.53
1776	161+31.20	30.23' RT	2552126.18	377473.89
1777	161+26.20	24.58' RT	2552121.03	377479.39
1778	161+26.20	30.23' RT	2552121.19	377473.75
1779	161+31.19	35.23' RT	2552126.32	377468.89
1780	161+26.19	35.23' RT	2552121.32	377468.75
1781	161+36.49	30.23' RT	2552131.47	377474.03
1782	161+36.49	35.23' RT	2552131.61	377469.03
1783	161+20.91	30.22' RT	2552115.90	377473.60
1784	161+20.91	35.22' RT	2552116.04	377468.61

PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY:MILWAUKEE	CURB RAMP DETAILS - S 18TH ST	SHEET 55 E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1825	163+75.29	46.85' RT	2552370.64	377464.06
1826	163+69.30	44.77' RT	2552364.59	377465.97
1827	163+75.32	35.42' RT	2552370.36	377475.49
1828	163+69.32	35.40' RT	2552364.36	377475.34
1829	163+62.69	35.38' RT	2552357.73	377475.17
1830	163+61.32	35.38' RT	2552356.36	377475.14
1831	163+62.70	30.38' RT	2552357.60	377480.17
1832	163+69.34	30.40' RT	2552364.23	377480.33
1833	163+75.34	30.42' RT	2552370.23	377480.49
1834	163+80.32	35.43' RT	2552375.36	377475.61
1835	163+80.34	30.43' RT	2552375.23	377480.61
1836	163+92.60	35.46' RT	2552387.63	377475.92
1837	163+97.60	35.48' RT	2552392.63	377476.04
1838	164+02.60	35.49' RT	2552397.63	377476.17
1839	163+87.60	35.45' RT	2552382.64	377475.79

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1840	163+87.60	30.45' RT	2552382.50	377480.79
1841	164+02.61	30.49' RT	2552397.50	377481.17
1842	163+97.60	30.48' RT	2552392.49	377481.04
1843	163+92.60	30.46' RT	2552387.50	377480.92
1844	163+92.60	18.58' RT	2552387.16	377492.79
1845	163+97.60	18.58' RT	2552392.16	377492.93
1846	163+66.42	23.86' RT	2552361.14	377486.79
1847	163+59.46	48.78' RT	2552354.87	377461.68

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1800	163+07.28	35.31' RT	2552302.34	377473.70
1801	163+07.28	30.31' RT	2552302.21	377478.70
1802	163+13.28	30.31' RT	2552308.20	377478.87
1803	163+13.28	35.31' RT	2552308.34	377473.87
1804	163+18.46	30.31' RT	2552313.38	377479.01
1805	163+18.46	35.31' RT	2552313.52	377474.01
1806	163+19.96	35.31' RT	2552315.02	377474.05
1807	163+07.28	39.15' RT	2552302.45	377469.86
1808	163+13.28	41.22' RT	2552308.50	377467.96
1809	163+19.36	30.76' RT	2552314.29	377478.59

W GREENFIELD AVENUE

163+00

164+00

S UNION STREET

R/W

SLOPE INTERCEPT

REMOVE STAMPED-AND-COLORED CONCRETE

SLOPE INTERCEPT

CONC

FENCE

X	CURB RAMP TYPE
XM	CURB RAMP TYPE MODIFIED
SOD	SOD LAWN
SW5	CONCRETE SIDEWALK 5-INCH
PED	CONCRETE CURB PEDESTRIAN
XXX	POINT NUMBER
	LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED
XXX	SAWCUT

LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION,
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%
5. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).
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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S UNION ST	SHEET 56	E

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1900	163+87.40	33.73' LT	2552380.51	377544.94
1901	163+87.40	28.73' LT	2552380.65	377539.94
1902	163+92.60	33.70' LT	2552385.71	377545.05
1903	163+92.60	28.70' LT	2552385.85	377540.06
1904	163+92.60	19.04' LT	2552386.12	377530.41
1905	163+92.60	18.58' LT	2552386.13	377529.95
1906	163+97.60	19.04' LT	2552391.12	377530.55
1907	163+97.60	28.66' LT	2552390.85	377540.16
1908	163+97.60	33.67' LT	2552390.71	377545.16
1909	164+03.58	28.69' LT	2552396.82	377540.35
1910	164+03.61	34.34' LT	2552396.69	377546.00
1911	163+97.61	34.31' LT	2552390.70	377545.81
1912	163+97.63	39.31' LT	2552390.58	377550.81
1913	164+03.63	39.34' LT	2552396.58	377551.00
1914	164+08.47	34.36' LT	2552401.55	377546.15
1915	164+08.45	39.36' LT	2552401.39	377551.15
1916	163+87.40	36.96' LT	2552380.42	377548.17
1917	163+97.62	36.95' LT	2552390.63	377548.45
1918	164+04.68	22.41' LT	2552398.10	377534.11

(X) CURB RAMP TYPE

(XM) CURB RAMP TYPE MODIFIED

(SOD) SOD LAWN

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

[XXX] POINT NUMBER

LIMITS OF COLORED CONCRETE SIDEWALK 5-INCH SHOWN SHADED

XXX SAWCUT

NOTES:
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LEGEND

XXX.XX	PROPOSED SIDEWALK ELEVATION
XXX.XX(E)	EXISTING GROUND ELEVATION
XXX.XX(F)	PROPOSED GUTTER FLANGE ELEVATION
XXX.XX(G)	PROPOSED GUTTER FLOWLINE ELEVATION
XXX.XX(T)	PROPOSED TOP OF CURB ELEVATION

N

S 17TH STREET

W GREENFIELD AVENUE

R/W

CONC

SLOPE INTERCEPT

REMOVE STAMPED-AND-COLORED CONCRETE AND ASPHALT PARKING LOT TO R/W

REMOVE STAMPED-AND-COLORED CONCRETE

164+00

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
1925	164+62.67	37.16' LT	2552455.66	377550.46
1926	164+62.67	32.16' LT	2552455.80	377545.46
1927	164+57.67	32.16' LT	2552450.80	377545.33
1928	164+57.67	37.16' LT	2552450.66	377550.32
1929	164+52.69	32.17' LT	2552445.82	377545.20
1930	164+52.68	34.53' LT	2552445.74	377547.56
1931	164+50.68	34.52' LT	2552443.74	377547.49
1932	164+49.61	39.52' LT	2552442.53	377552.46
1933	164+50.66	39.52' LT	2552443.59	377552.49
1934	164+52.66	39.53' LT	2552445.58	377552.56
1935	164+57.66	39.55' LT	2552450.58	377552.71
1936	164+52.64	44.53' LT	2552445.43	377557.55
1937	164+57.64	45.02' LT	2552450.41	377558.18
1938	164+55.79	54.54' LT	2552448.30	377567.65
1939	164+51.79	54.19' LT	2552444.31	377567.18
1940	164+61.00	54.55' LT	2552453.50	377567.80
1941	164+61.02	37.15' LT	2552454.00	377550.41
1942	164+61.01	44.55' LT	2552453.79	377557.81
1943	164+53.40	29.40' LT	2552446.61	377542.45

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CURB RAMP DETAILS - S 17TH ST	SHEET 57	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\021119_ID-17TH.DWG
LAYOUT NAME - 021119_ID-17TH - S-PLAN 1 IN 10 FT

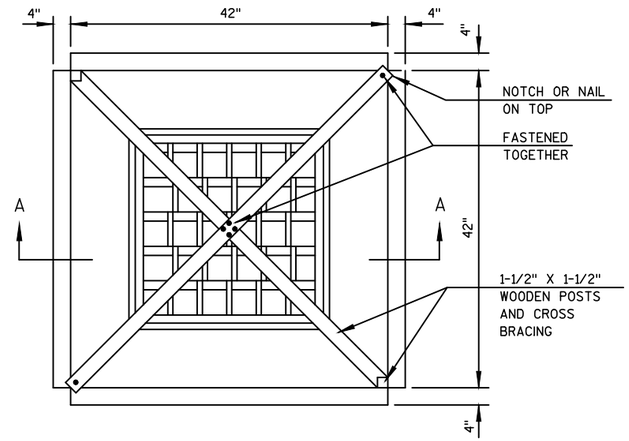
PLOT DATE : 4/10/2017 2:50 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT

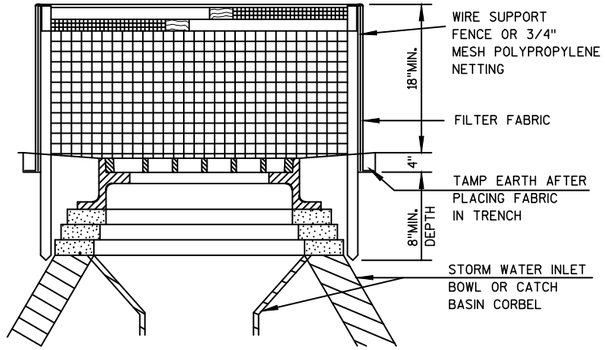
WISDOT/CADDS SHEET 42

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 12.08 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 11.24 ACRES

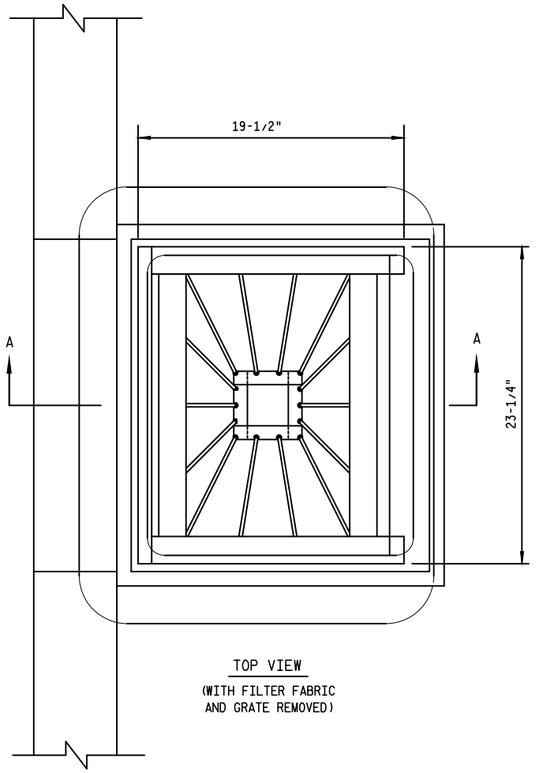




SECTION A-A

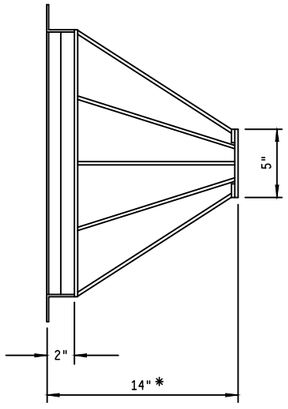
INLET SCREEN TYPE R

(NOT PAVED)



TOP VIEW

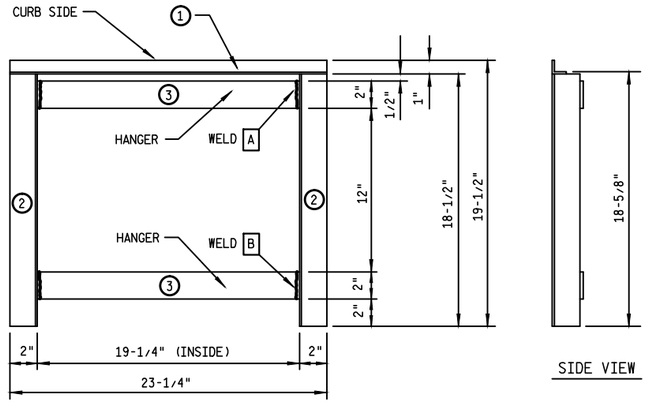
(WITH FILTER FABRIC AND GRATE REMOVED)



FRONT VIEW

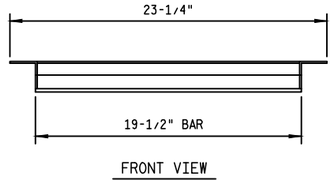
(BASKET ONLY)

* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH



TOP VIEW

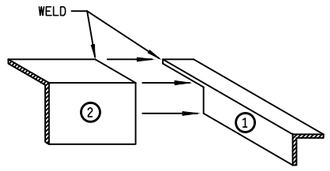
SIDE VIEW



FRONT VIEW

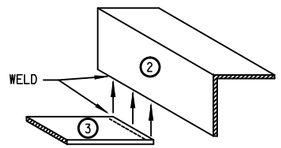
BAR SCHEDULE

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



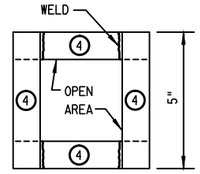
WELD CONNECTION - A

TOP FRAME



WELD CONNECTION - B

BASKET HANGER TO TOP FRAME



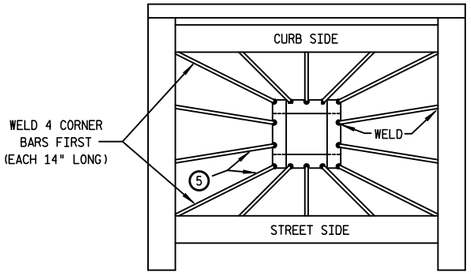
TOP VIEW

SIDE VIEW

BAR SCHEDULE

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

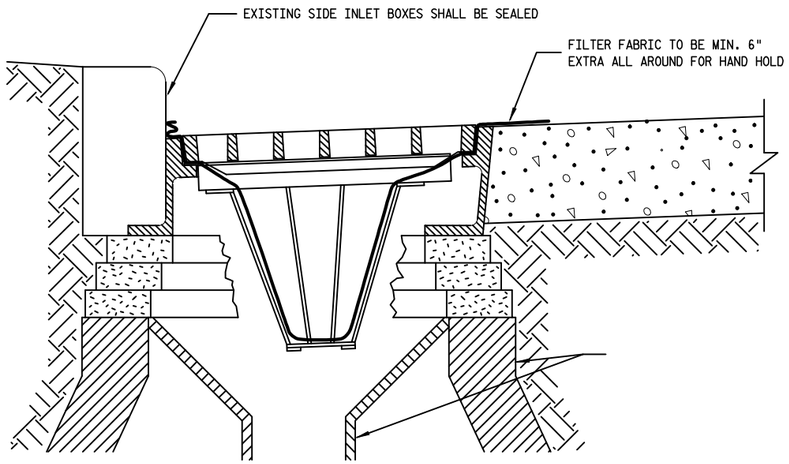
BASKET BOTTOM



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

INLET SCREEN TYPE M

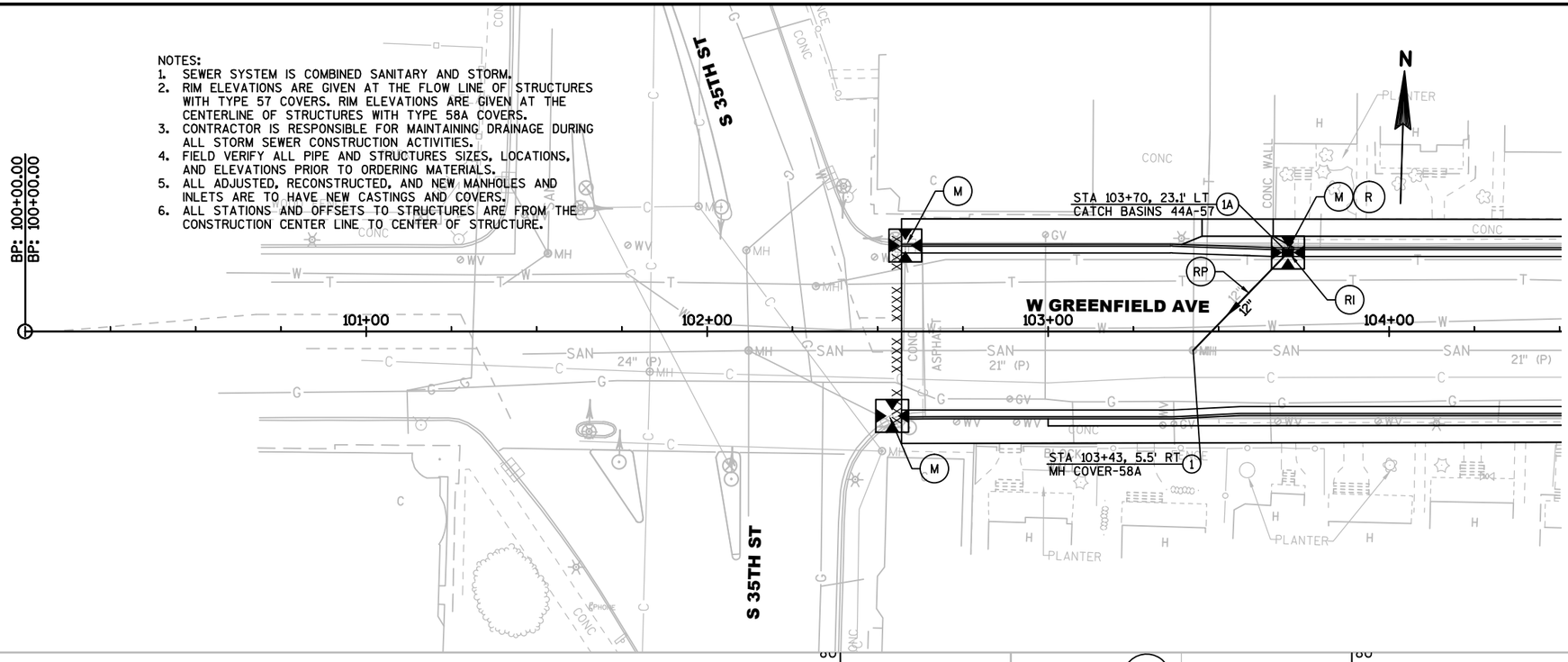
(PAVED)

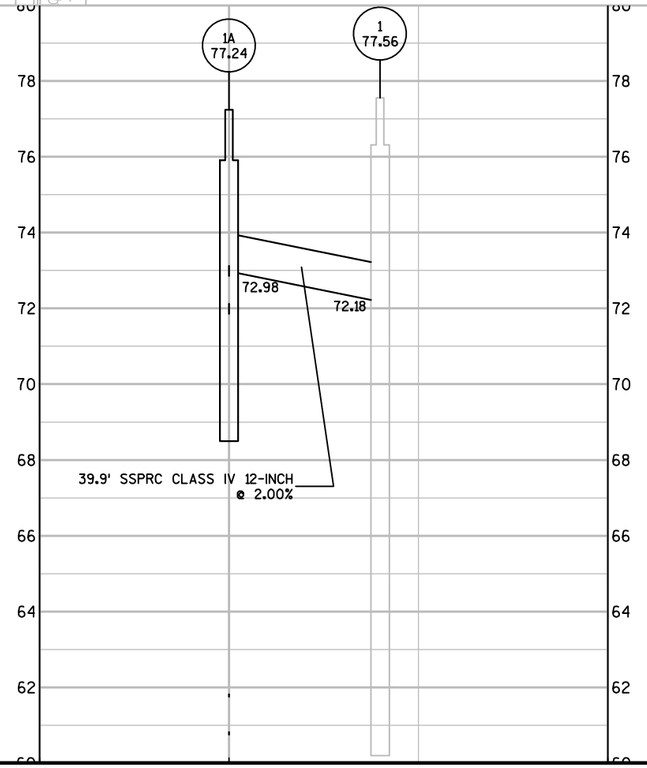
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER	SHEET 59	E

LEGEND

- (M) INLET SCREEN TYPE M
- (R) INLET SCREEN TYPE R
- (AI) ABANDONING INLETS
- (AM) ABANDONING MANHOLES
- (AS) ABANDONING SEWER
- (RI) REMOVING INLETS
- (RP) REMOVING STORM SEWER PIPE
- (SIZE) PROPOSED STORM SEWER PIPE

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 60	E

FILE NAME : T:\1142718\CIVIL3D\223000004\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 022501-SS - SS - (1)
PLOT DATE : 4/26/2017 3:36 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

S 34TH ST

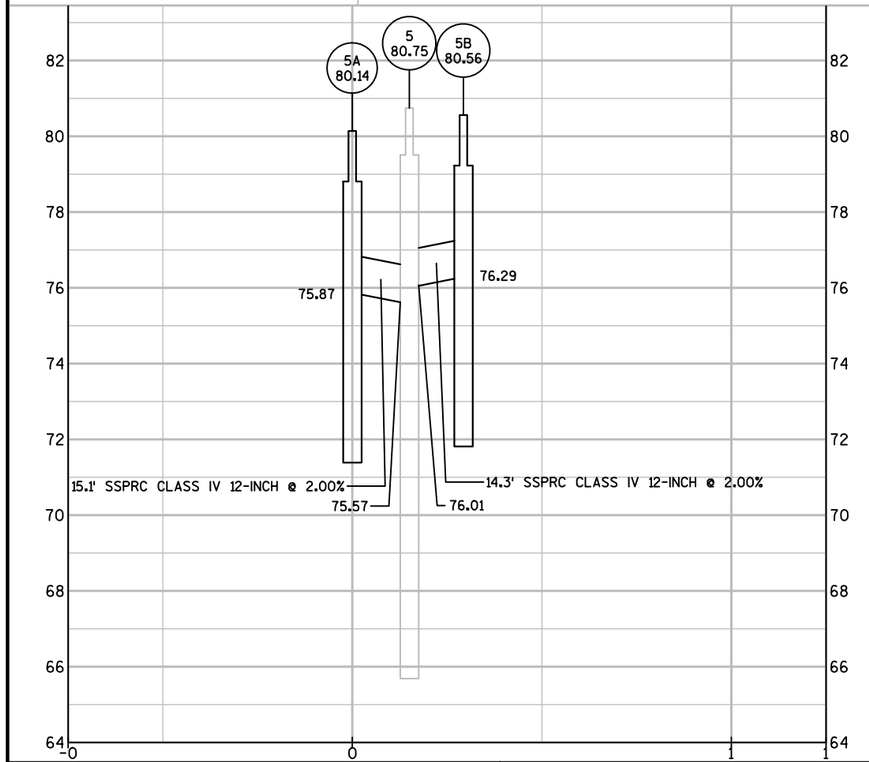
S 33RD ST

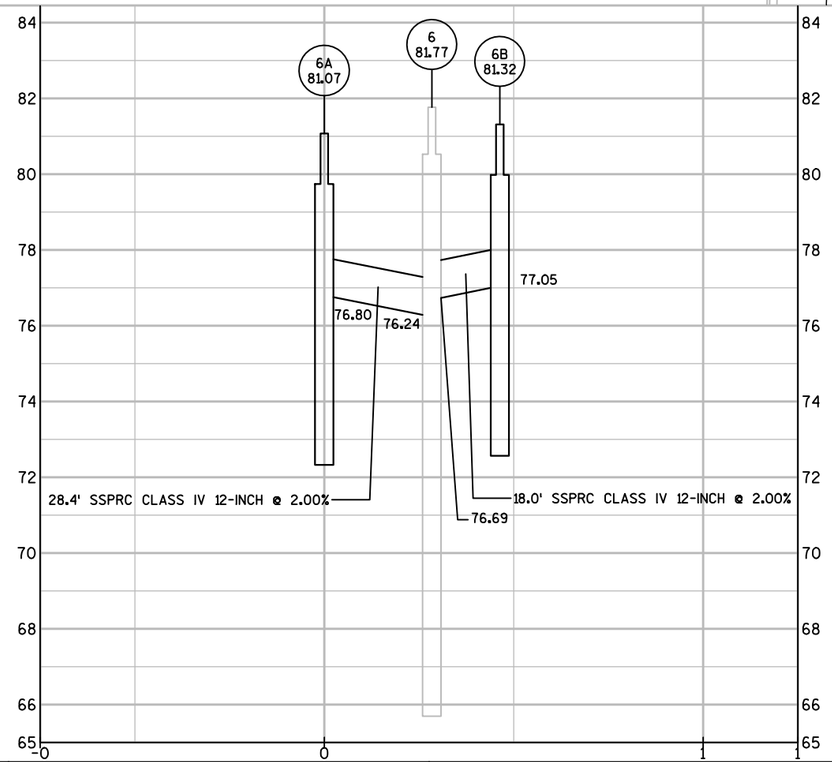
W GREENFIELD AVE

105+00 106+00 107+00 108+00 109+00 110+00

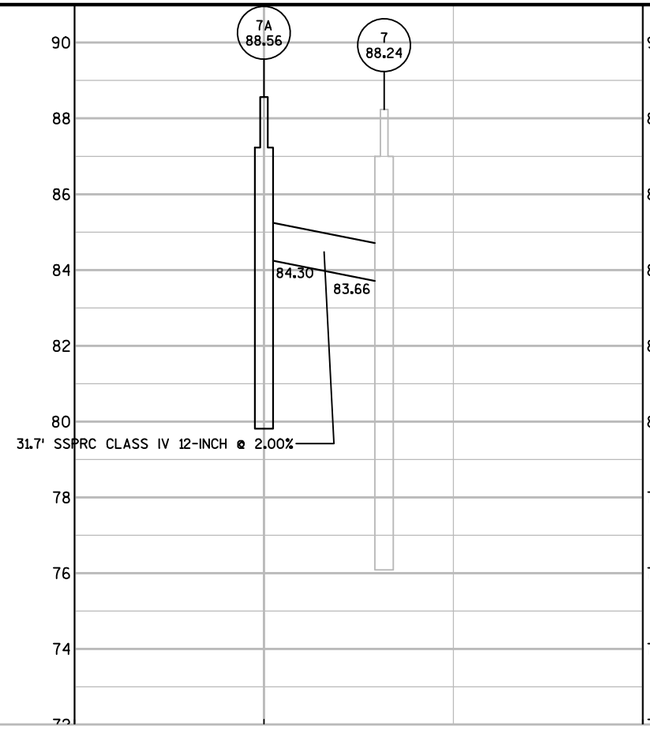
(4) STA 105+16, 39.2' LT
MH COVER-58A
(AI)
(6A) STA 105+58, 23.1' LT
CATCH BASINS 44A-57
(3) STA 105+15, 4.3' RT
MH COVER-58A
(2) STA 104+80, 5.6' RT
MH COVER-58A
(6) STA 105+56, 5.2' RT
ADJUSTING MH COVERS
(6B) STA 105+55, 23.1' RT
CATCH BASINS 44A-57
(5B) STA 105+28, 43.5' RT
CATCH BASINS 44A-57
(5) STA 105+15, 47.3' RT
MH COVER-58A
(5A) STA 105+00, 43.2' RT
CATCH BASINS 44A-57
STA 107+00, 23.1' LT
CATCH BASINS 44A-57 (7A)
STA 106+86, 5.5' RT
ADJUSTING MH COVERS (7)
STA 108+99, 23.1' LT
CATCH BASINS 44A-57 (71A)
STA 108+95, 2.3' RT
MH COVER-58A (71)
STA 109+09, 23.1' RT
CATCH BASINS 44A-57 (71B)
STA 108+18, 5.0' RT
ADJUSTING MH COVERS (8)
STA 108+44, 48.4' RT
CATCH BASINS 44A-57 (72A)
STA 108+55, 42.1' RT
MH COVER-58A (72)
STA 108+72, 47.1' RT
CATCH BASINS 44A-57 (72B)

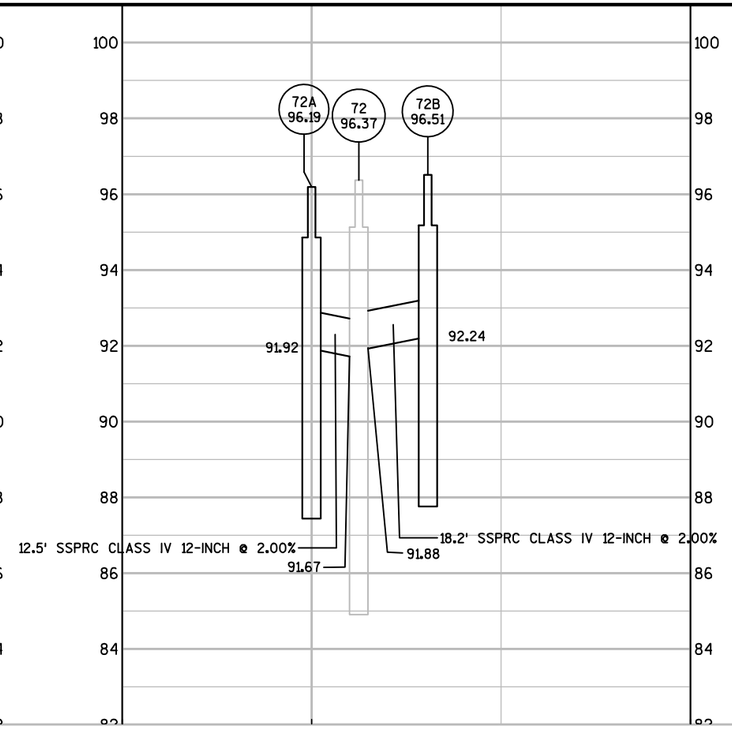
LEGEND
- (M) INLET SCREEN TYPE M
- (R) INLET SCREEN TYPE R
- (AI) ABANDONING INLETS
- (AM) ABANDONING MANHOLES
- (AS) ABANDONING SEWER
- (RI) REMOVING INLETS
- (RP) REMOVING STORM SEWER PIPE
- (SIZE) PROPOSED STORM SEWER PIPE

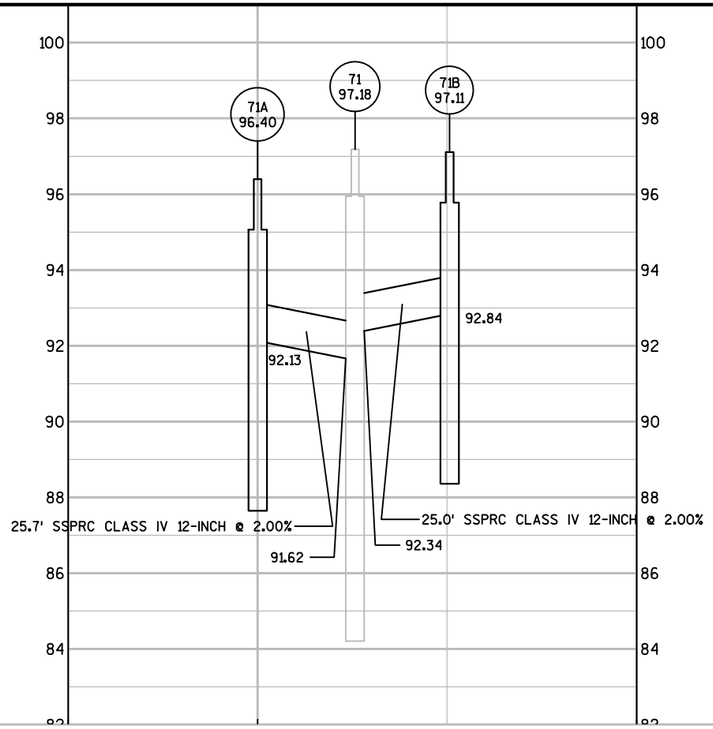




PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 61	E





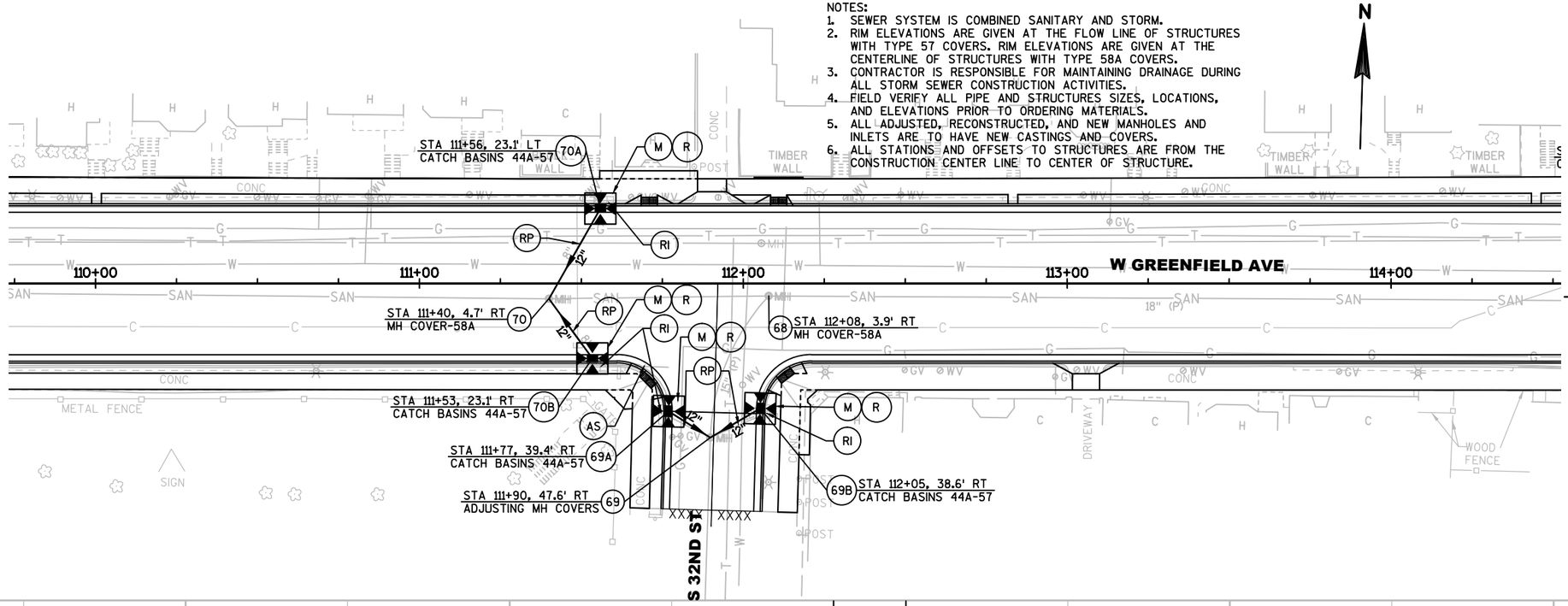


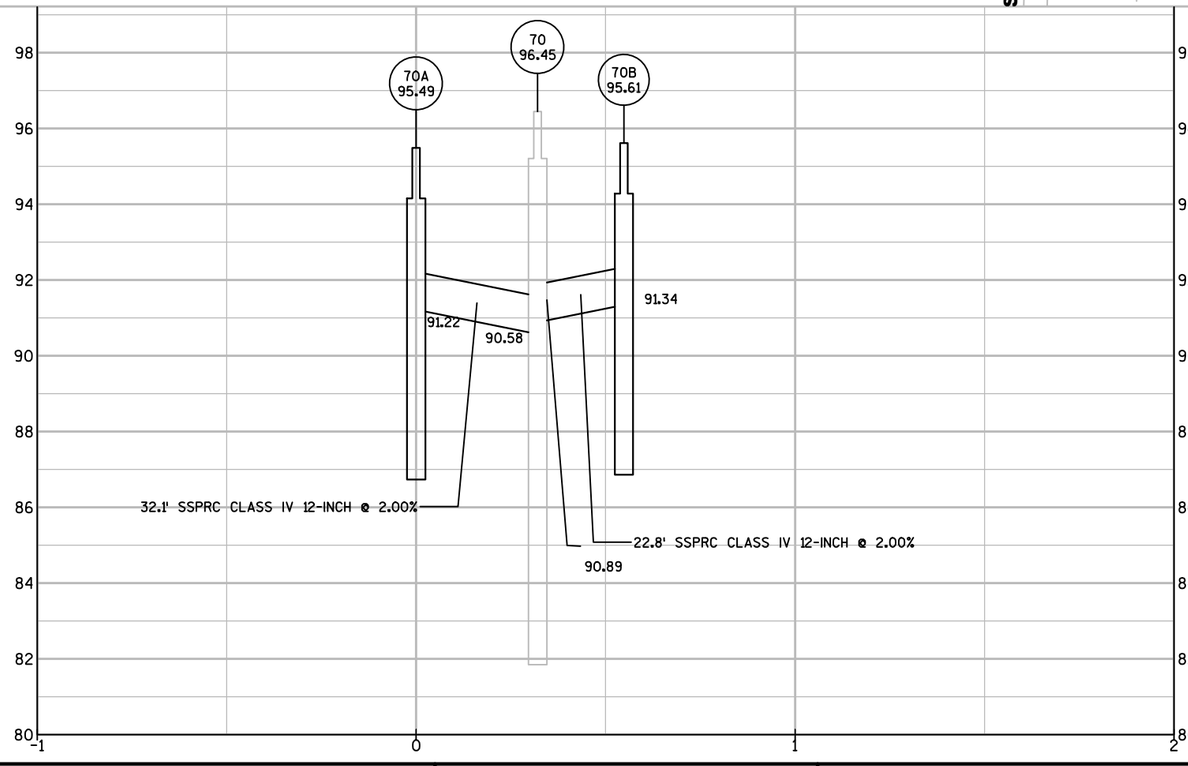
2

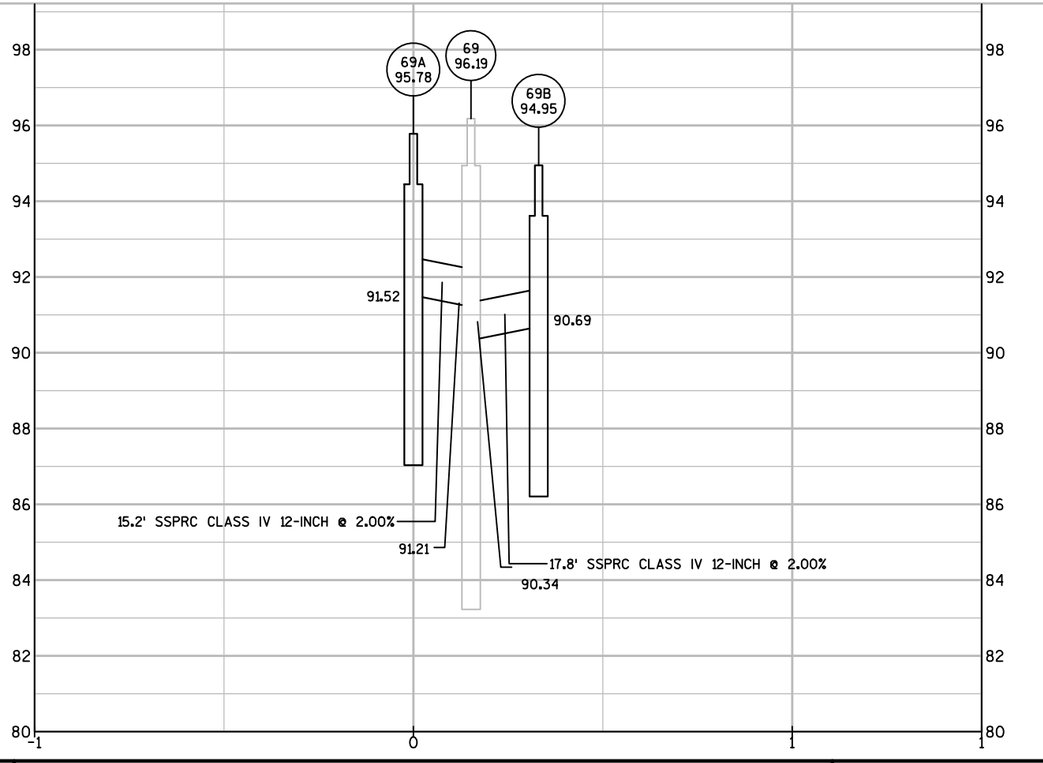
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 62	E

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

LEGEND
- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) — PROPOSED STORM SEWER PIPE

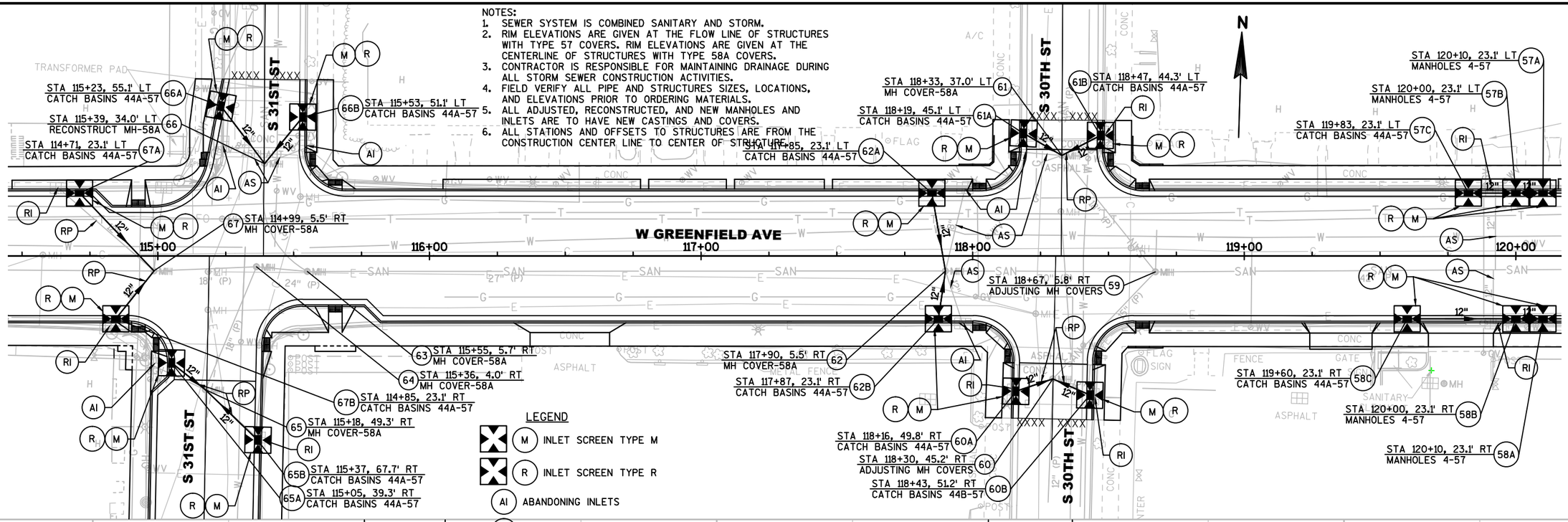


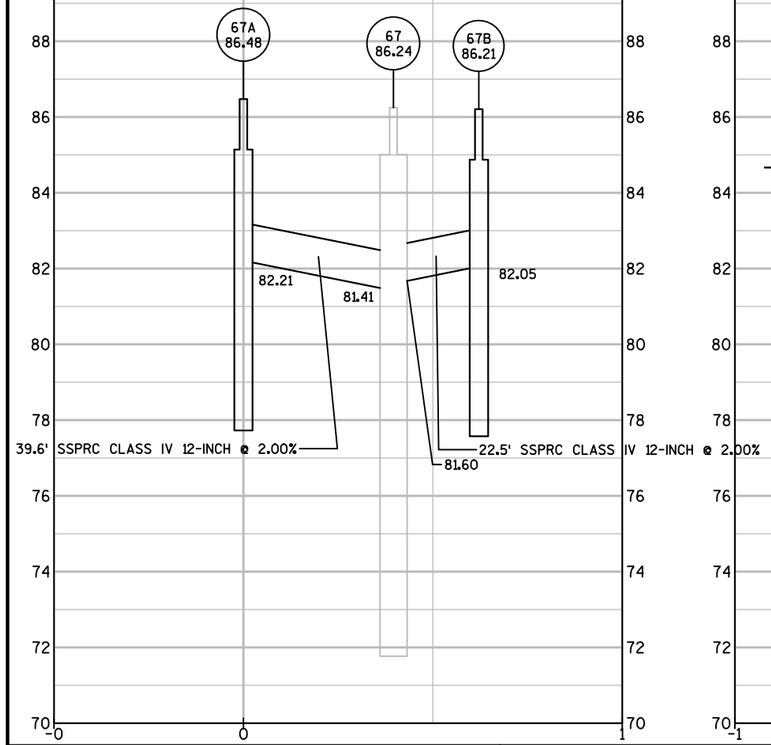


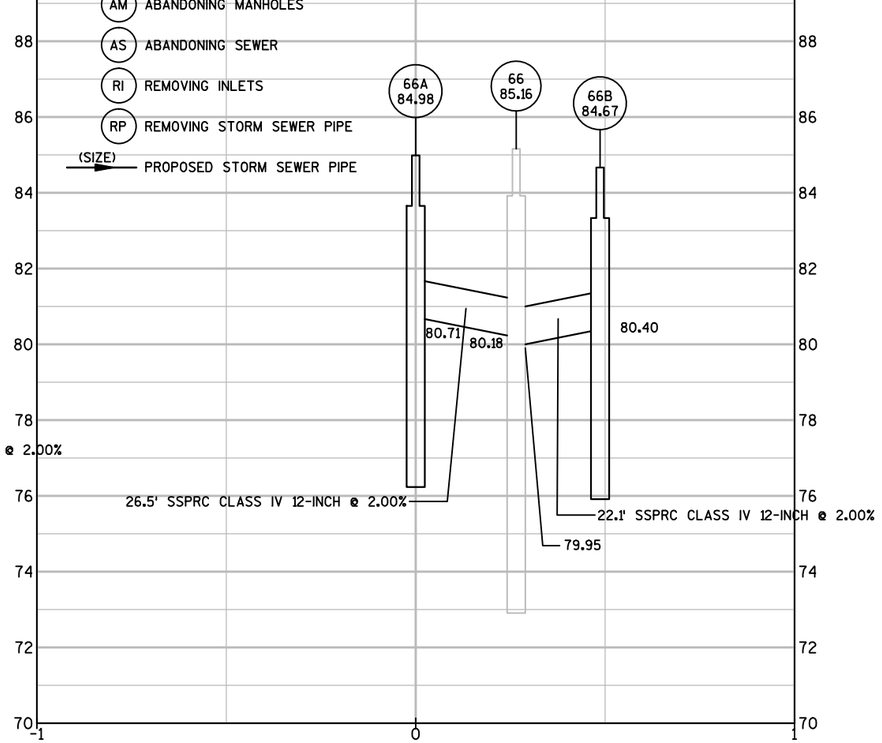


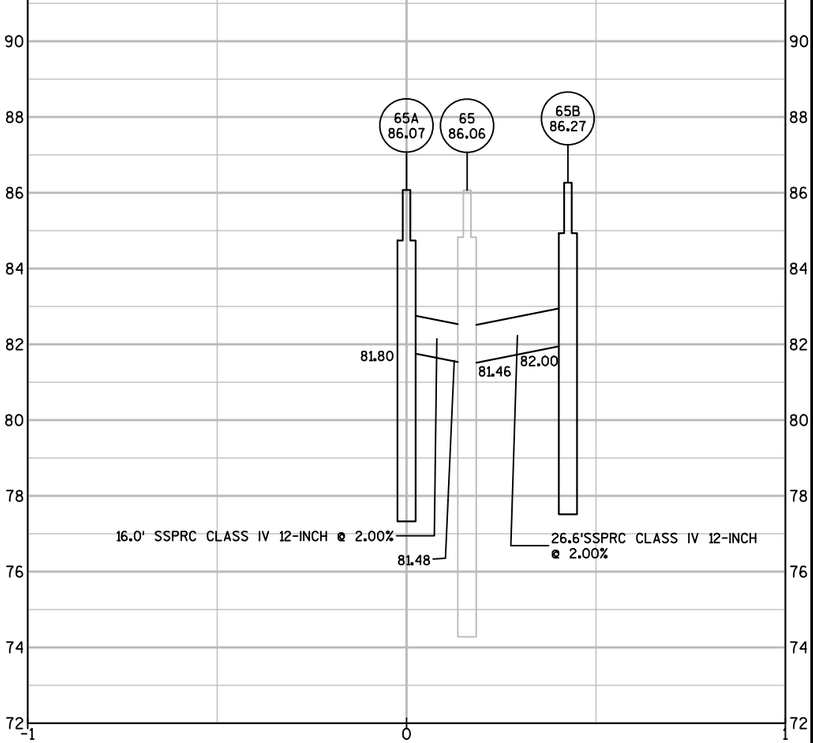
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 63	E

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

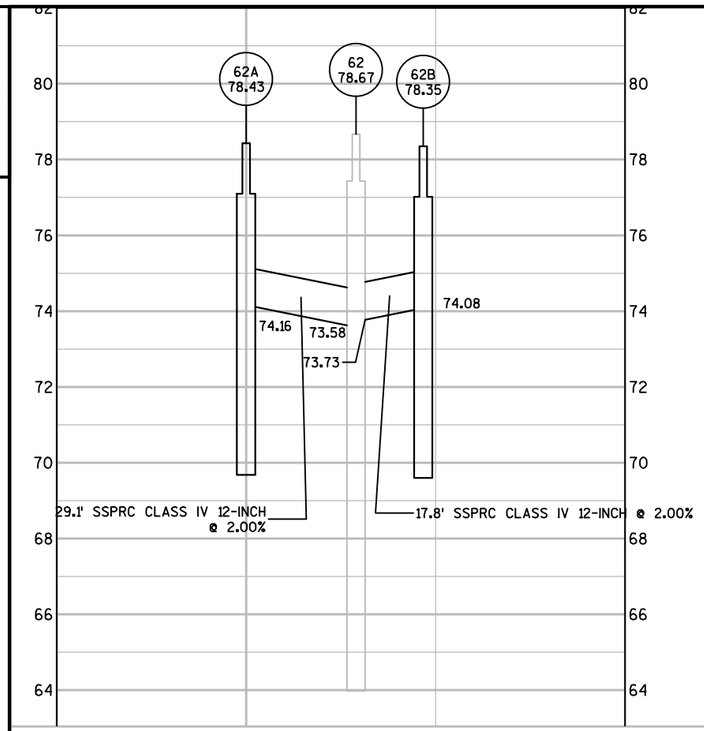


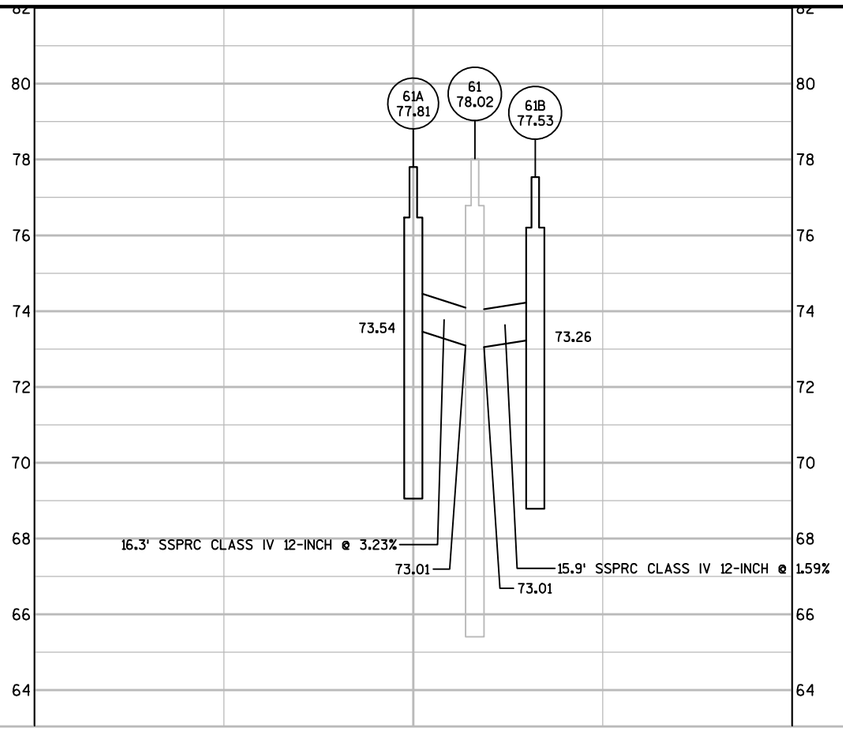


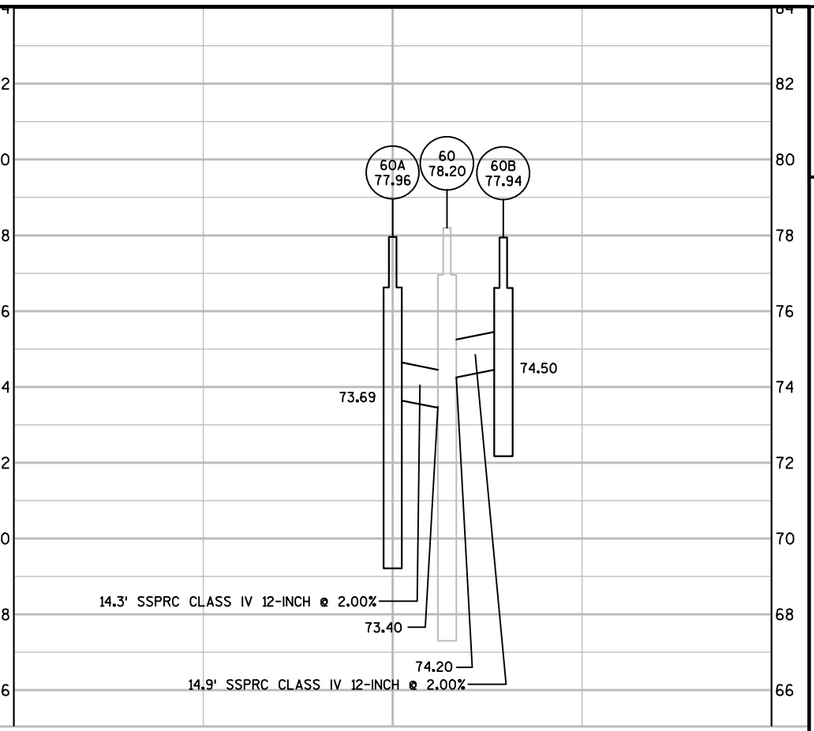


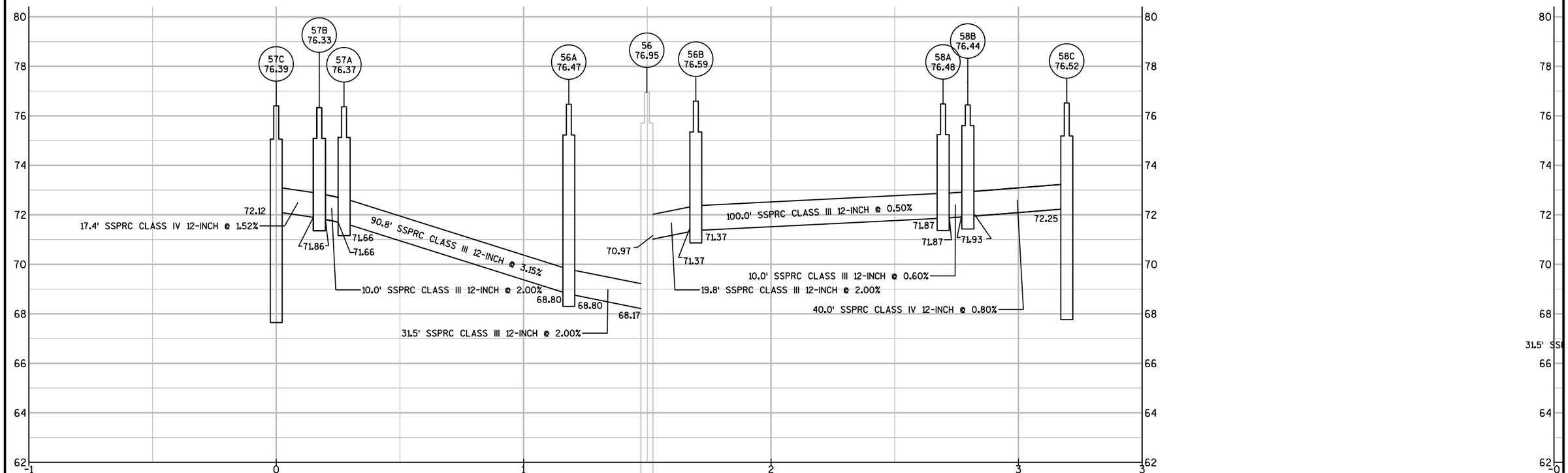


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 64	E



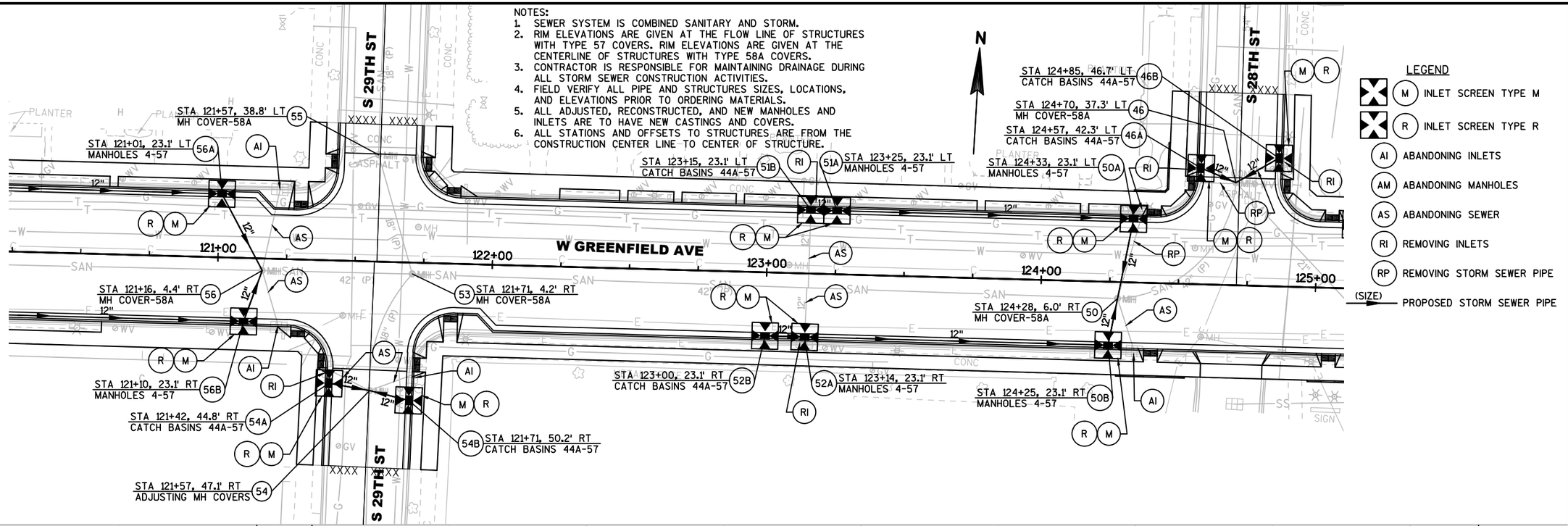


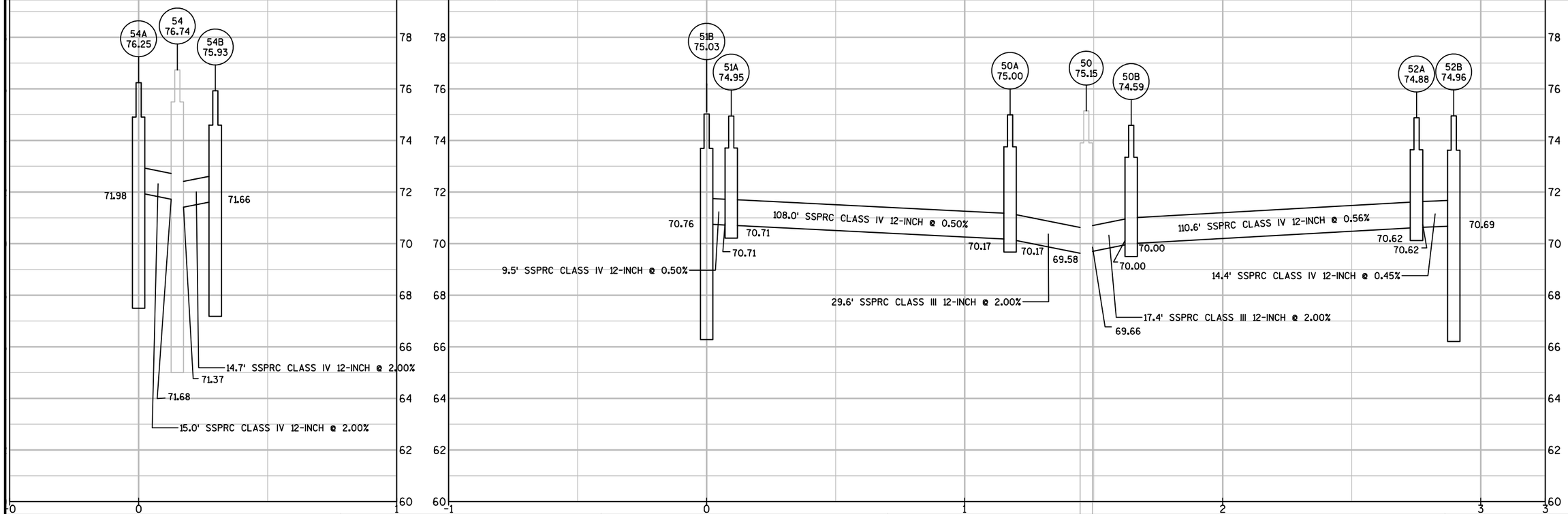




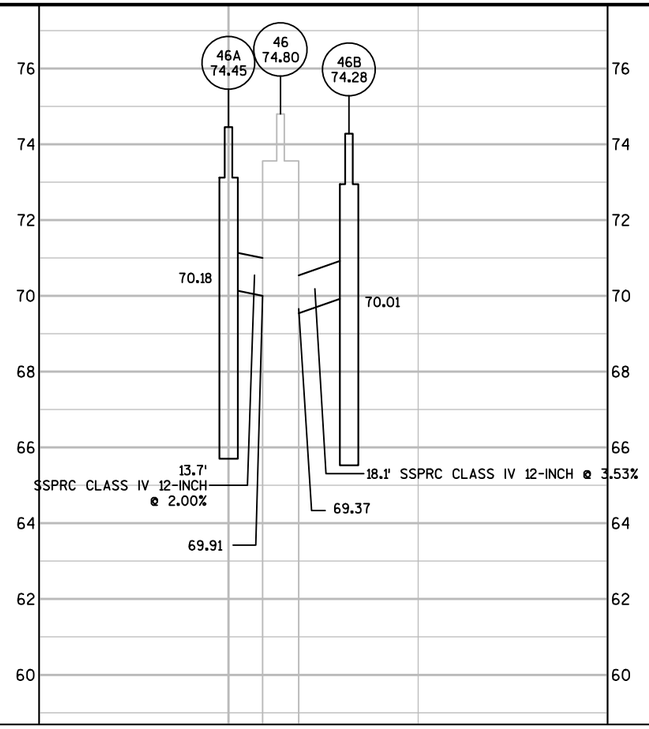
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 65	E

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 66	E



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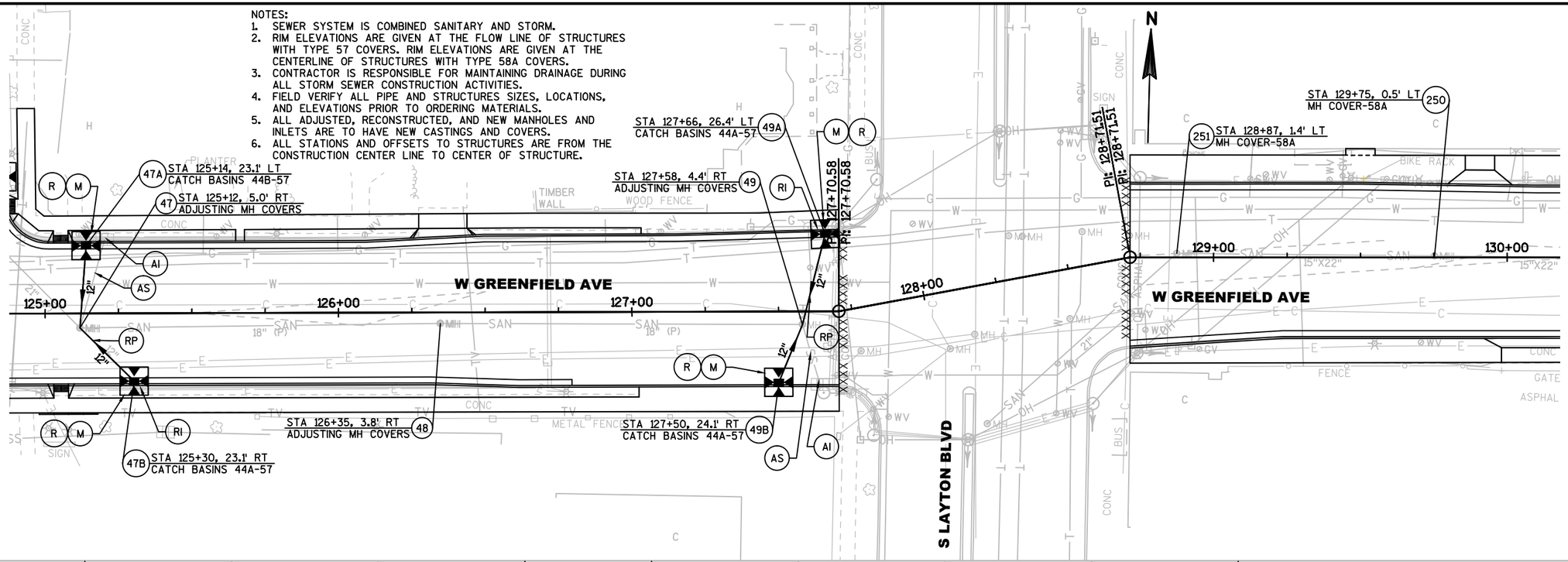
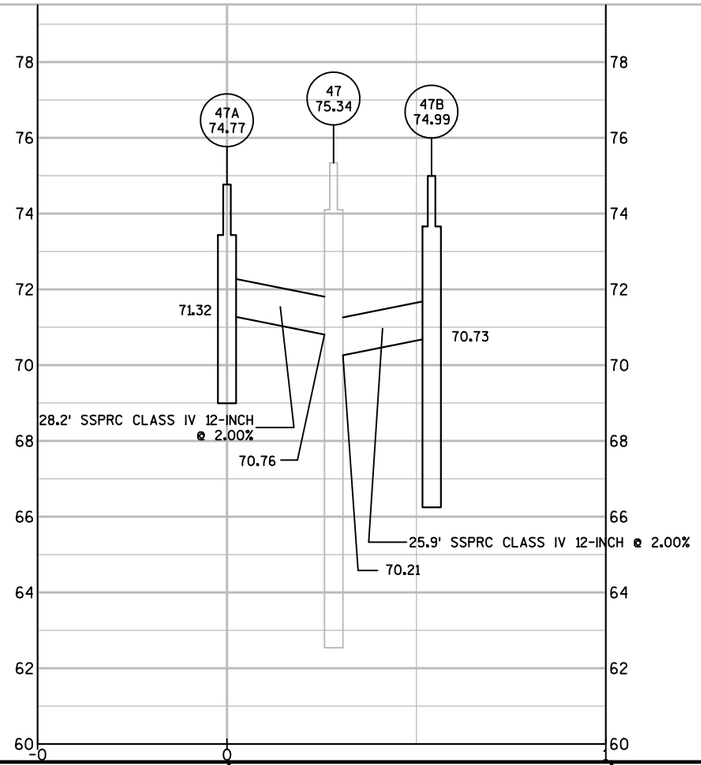
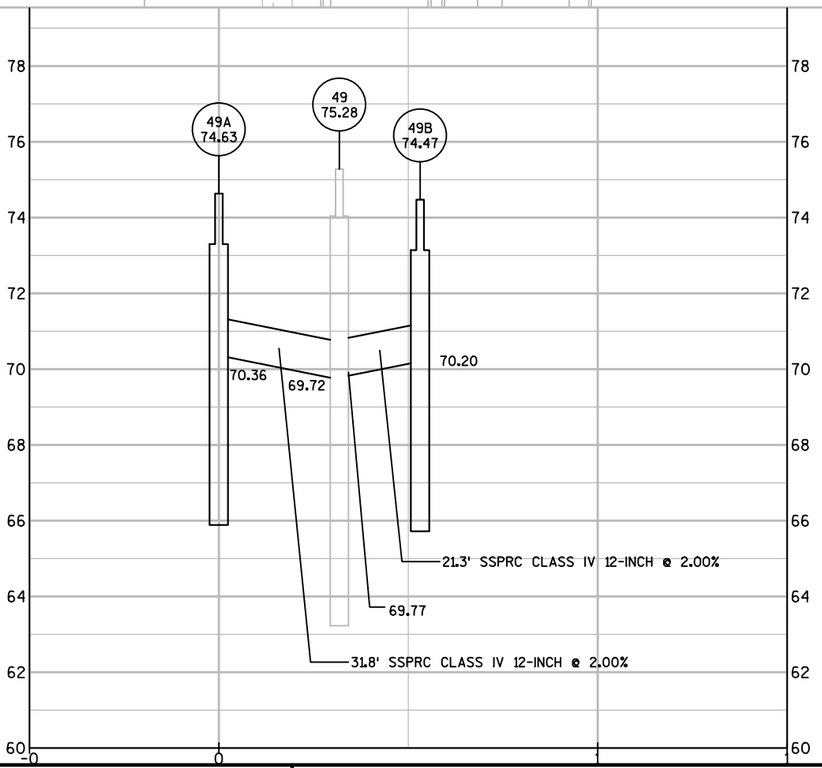
PROJECT NO:2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 67	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 022501-SS - SS - (5B)
PLOT DATE : 4/26/2017 3:39 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 41

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.







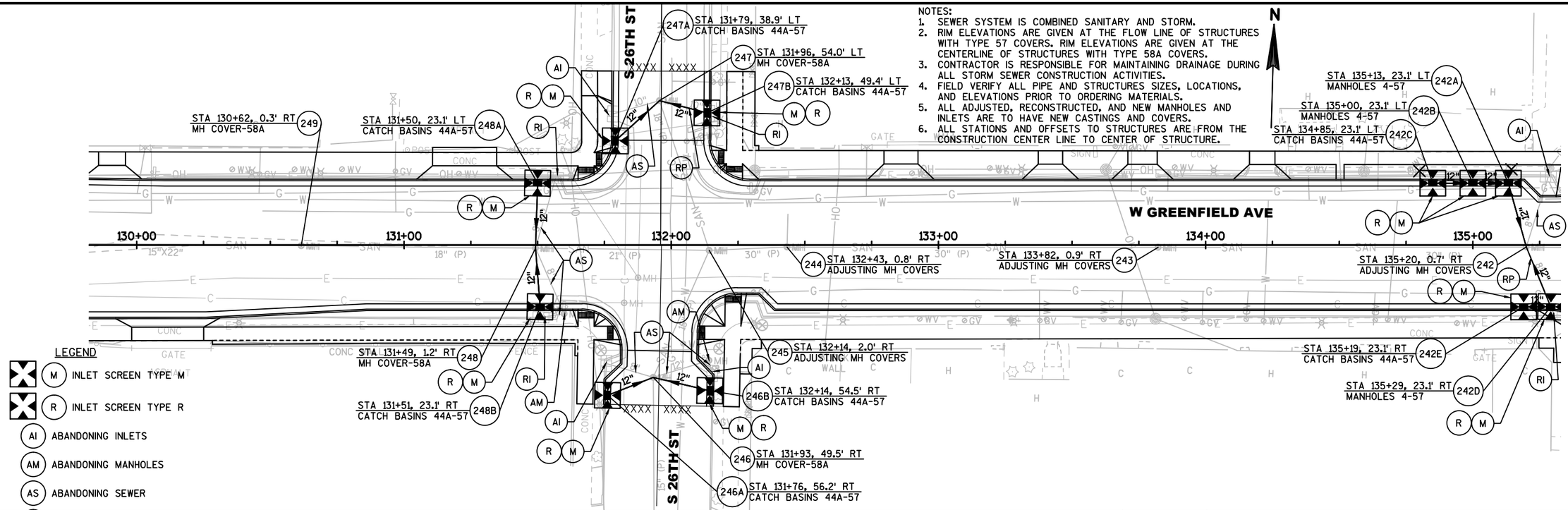
LEGEND

- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) — PROPOSED STORM SEWER PIPE

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 68	E

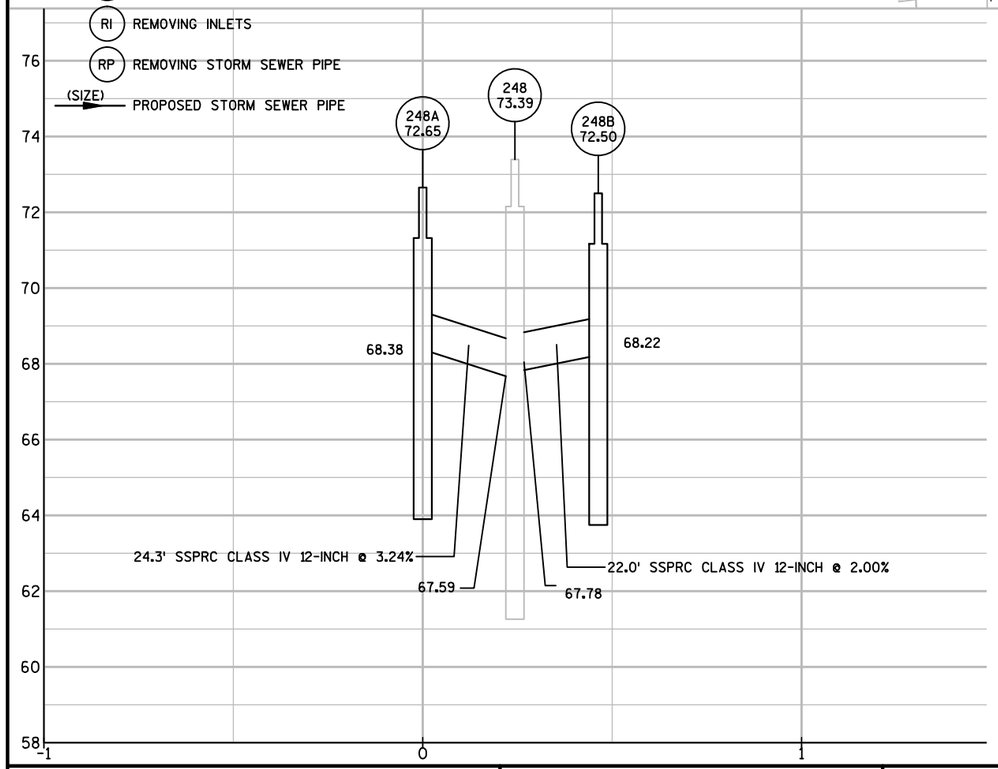
2

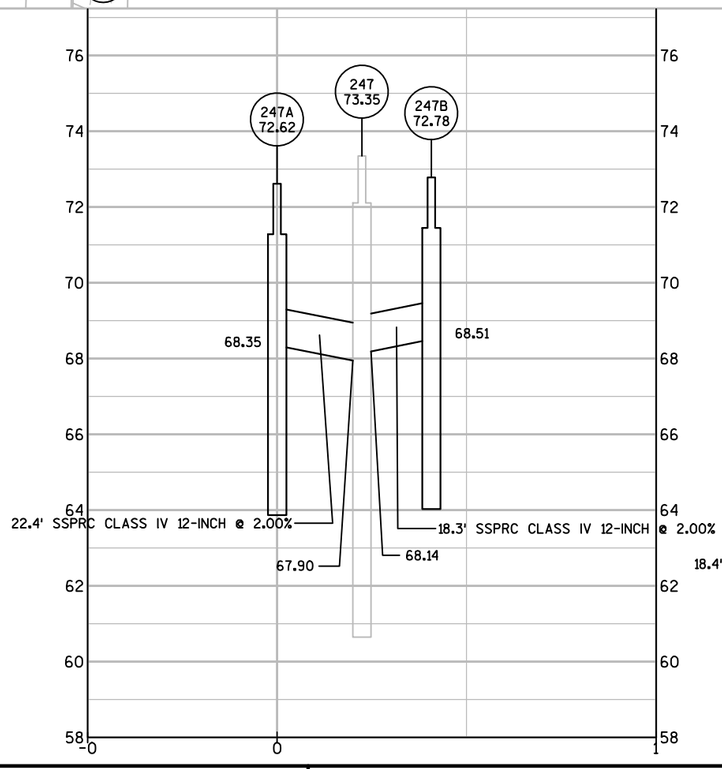
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

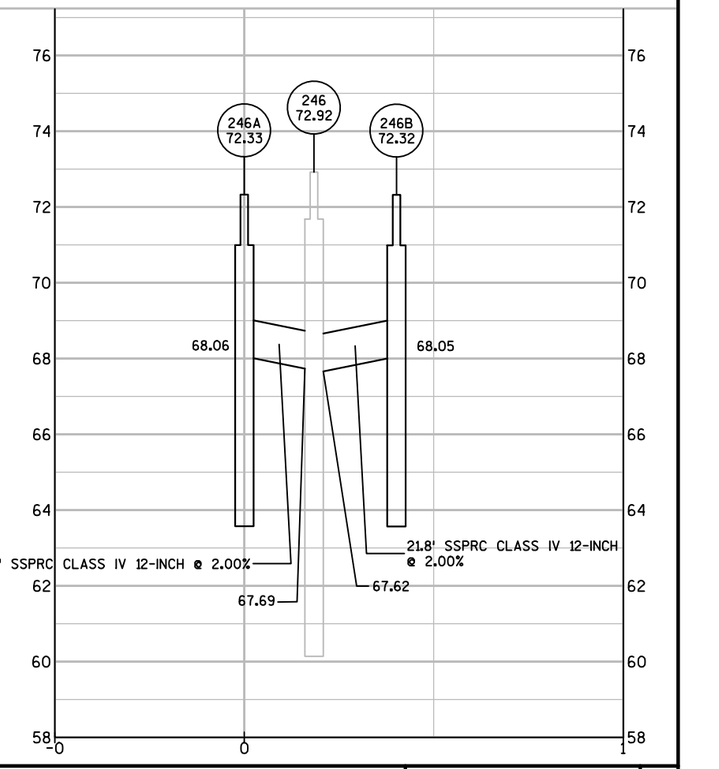


LEGEND

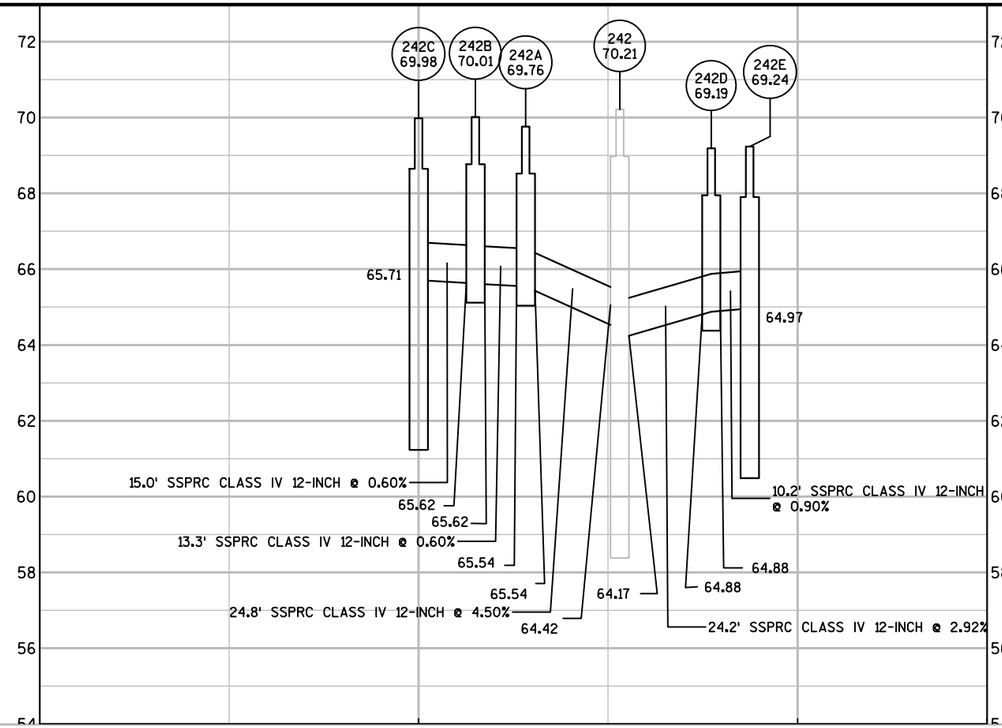
- (M) INLET SCREEN TYPE M
- (R) INLET SCREEN TYPE R
- (AI) ABANDONING INLETS
- (AM) ABANDONING MANHOLES
- (AS) ABANDONING SEWER
- (RI) REMOVING INLETS
- (RP) REMOVING STORM SEWER PIPE
- (SIZE) PROPOSED STORM SEWER PIPE







PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 69	E

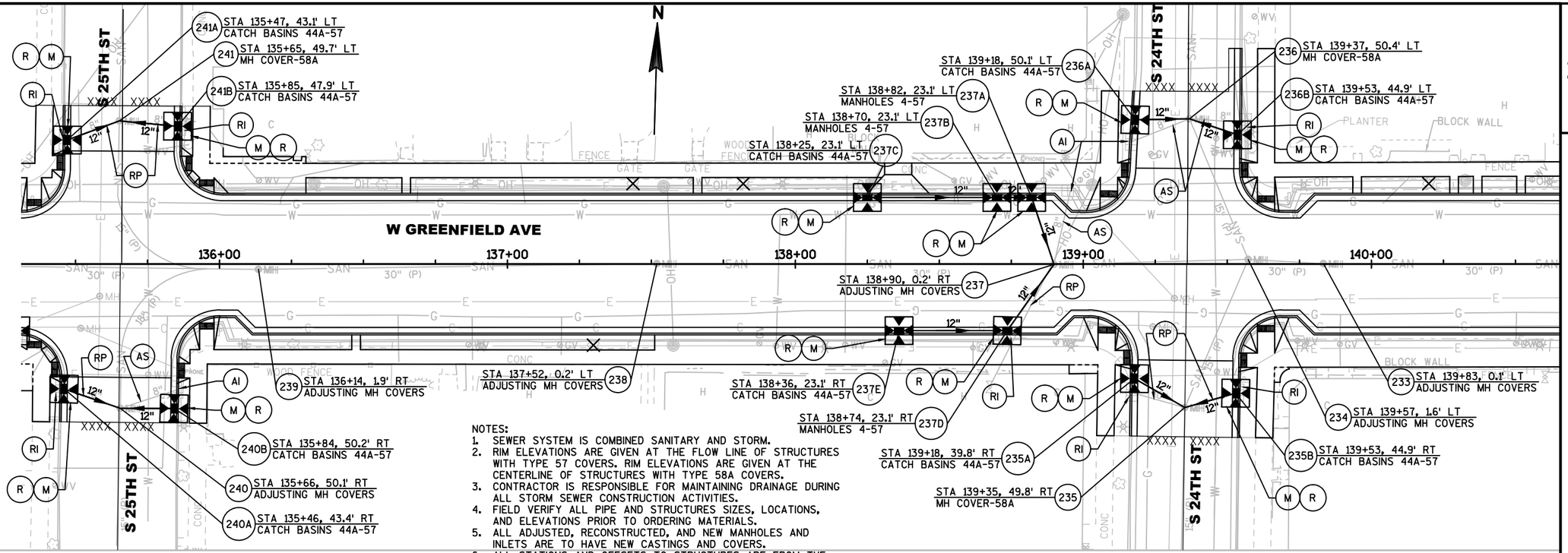


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 70	E

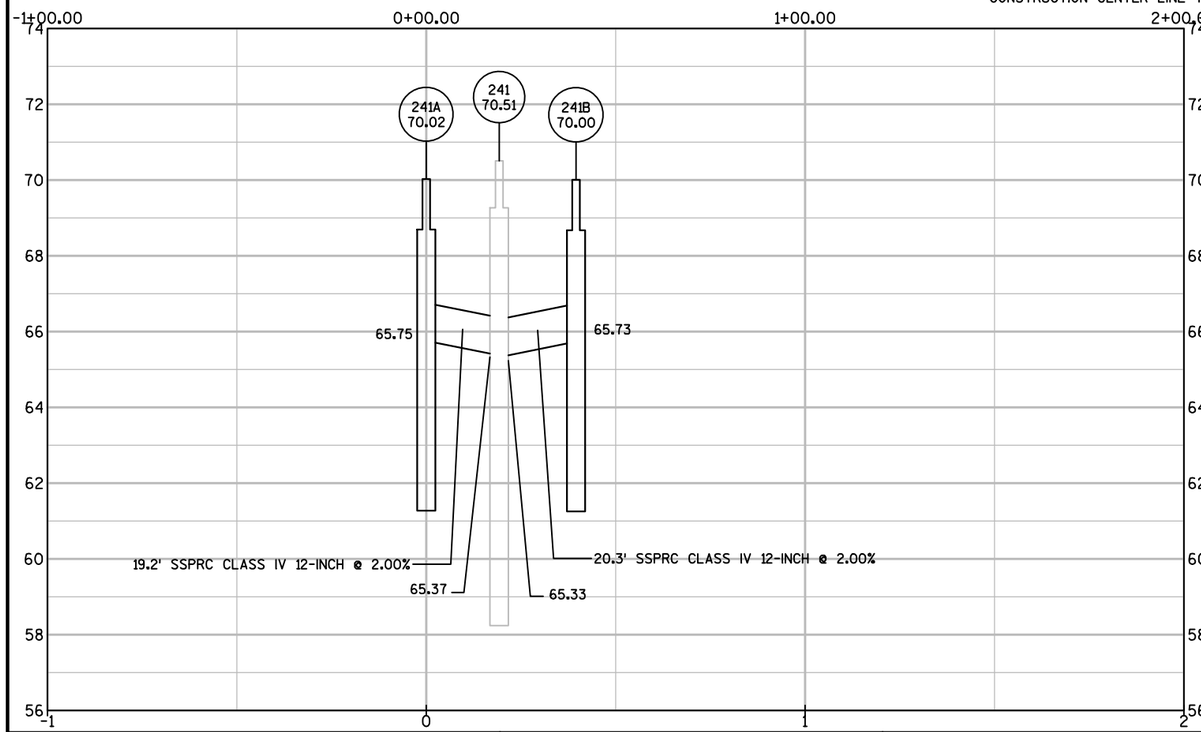
2

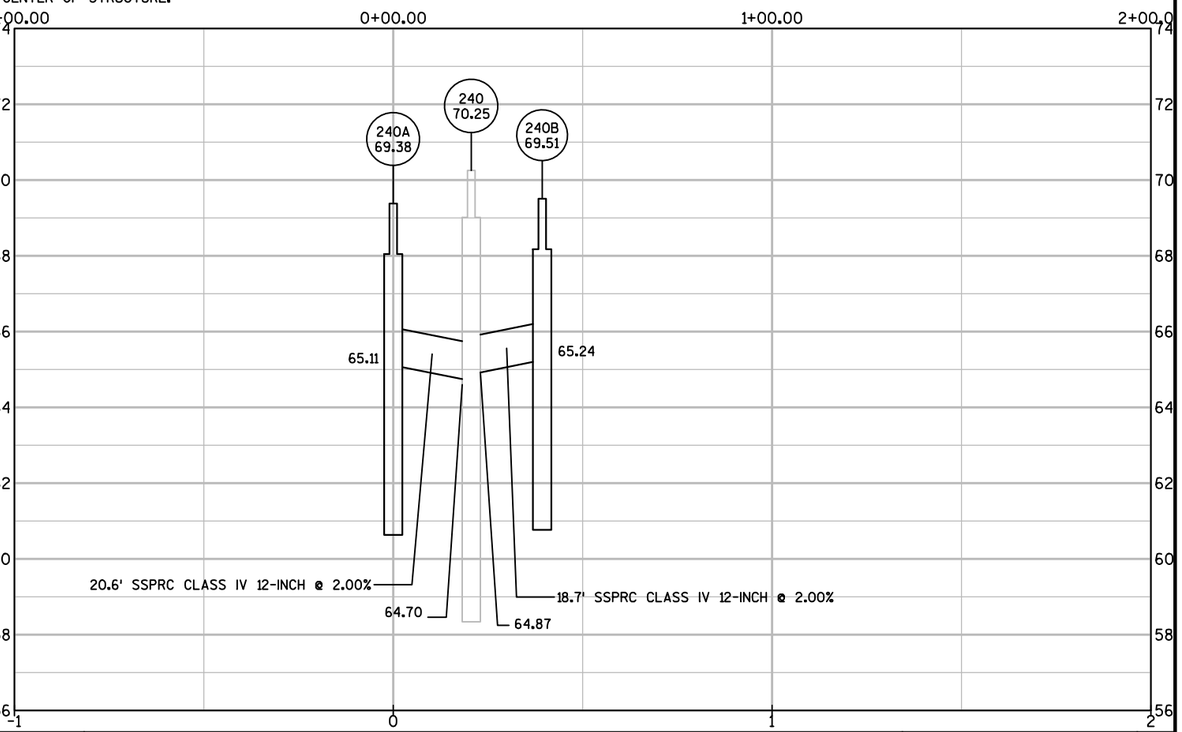
LEGEND

- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) — PROPOSED STORM SEWER PIPE

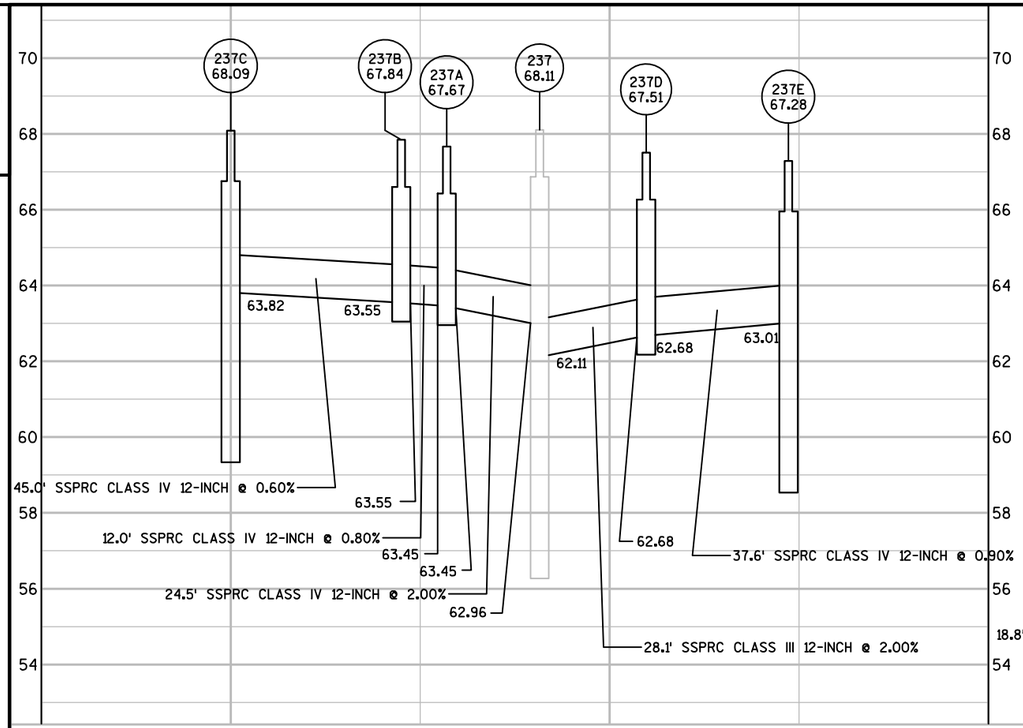


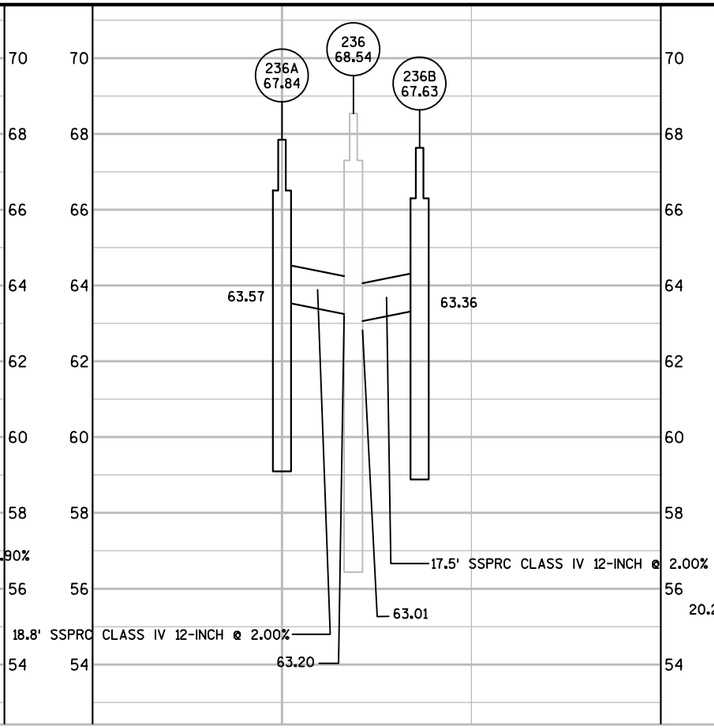
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

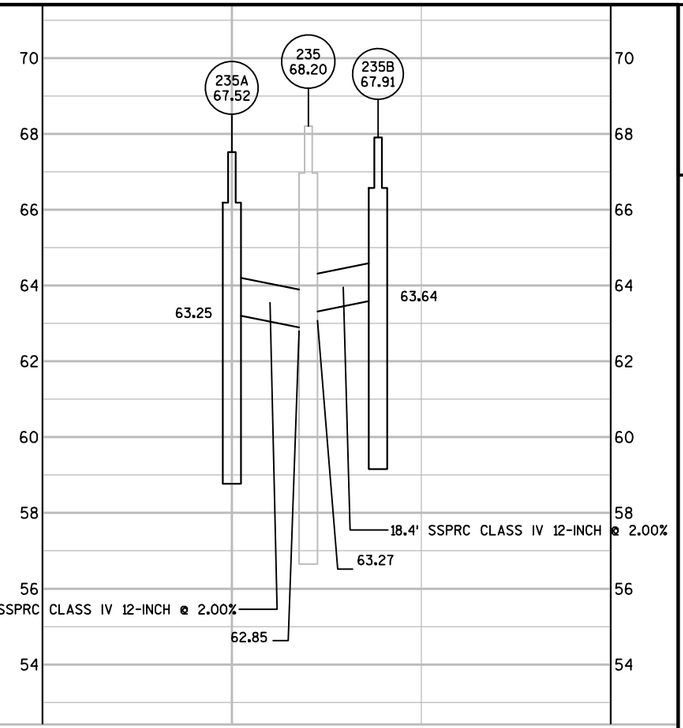




PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 71	E







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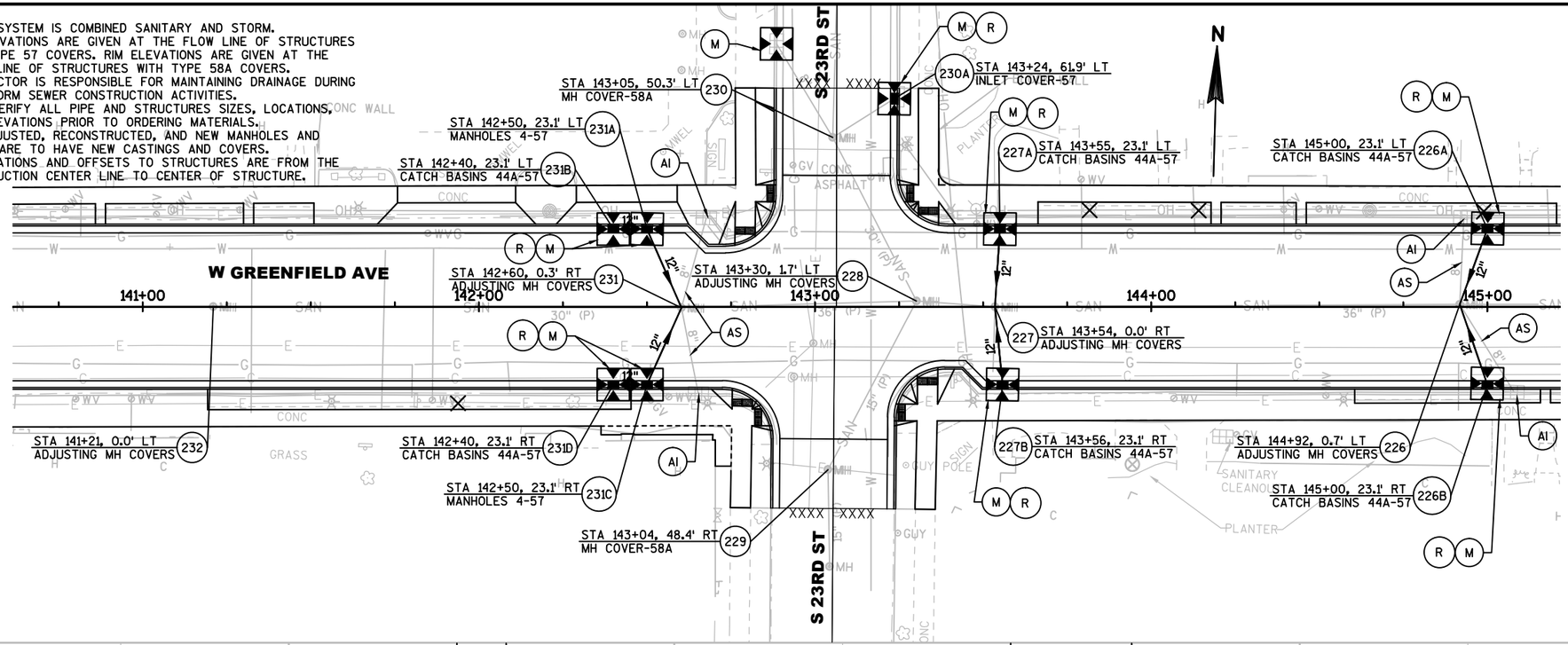
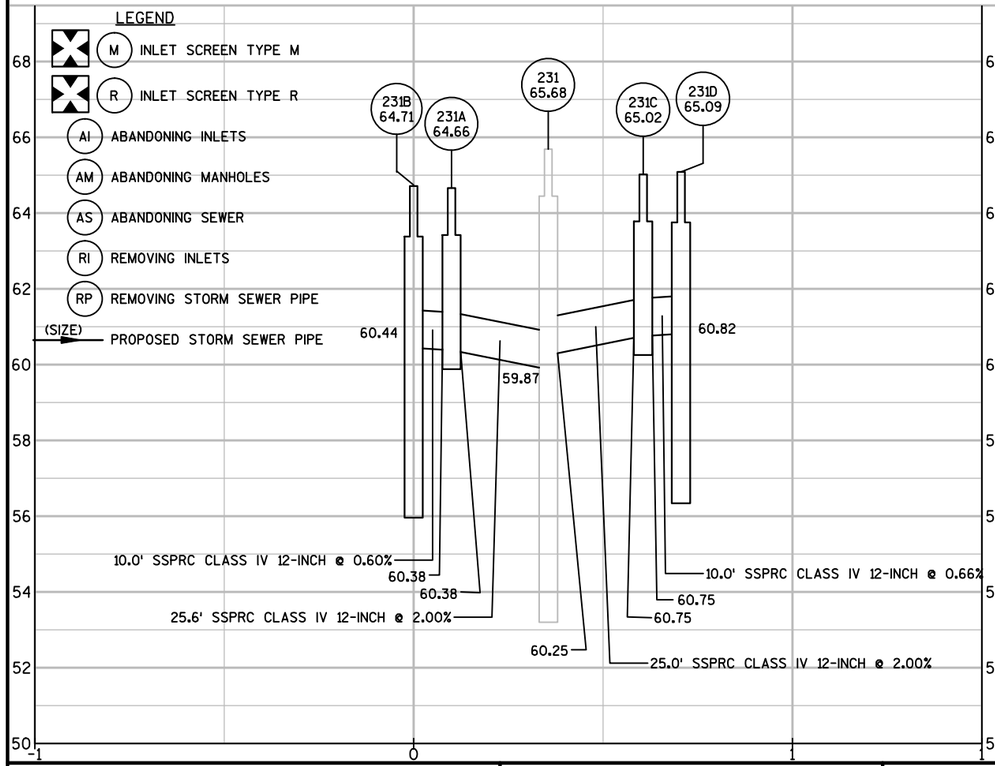
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 72	E

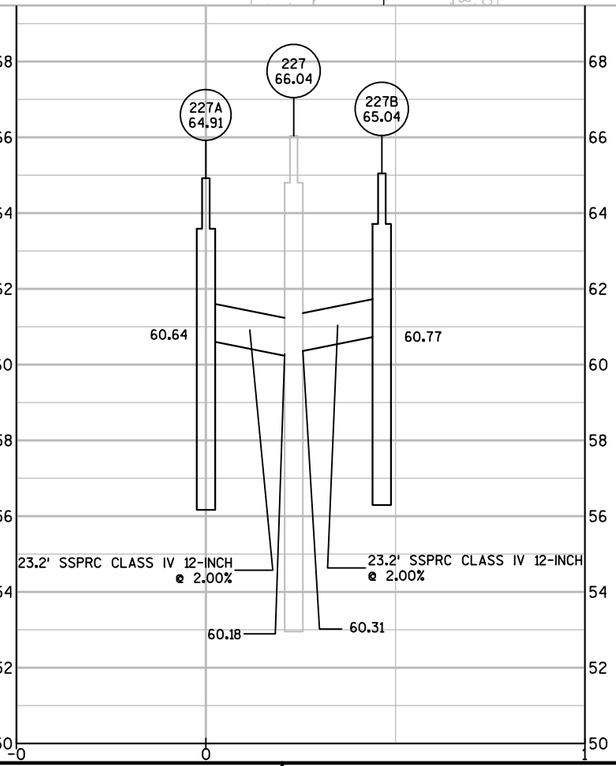
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

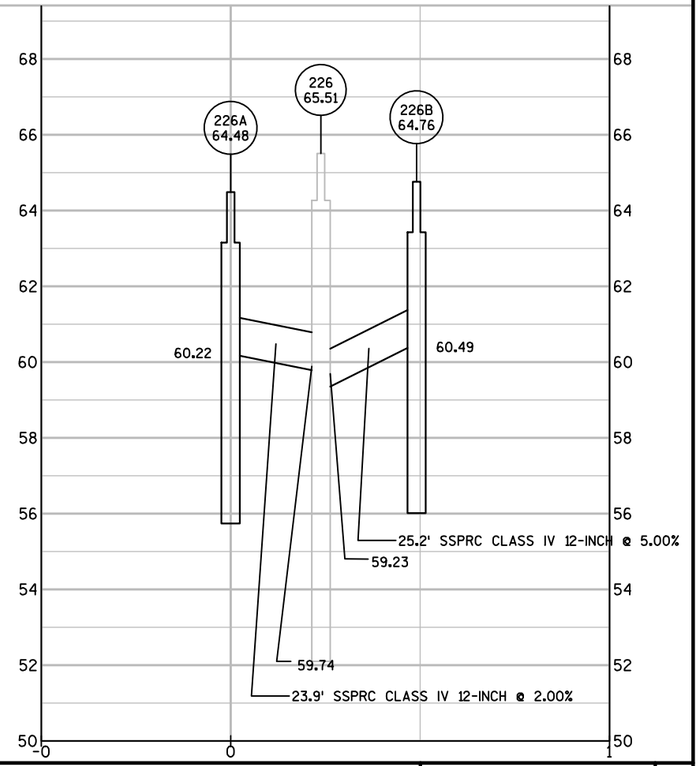


LEGEND

- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) → PROPOSED STORM SEWER PIPE

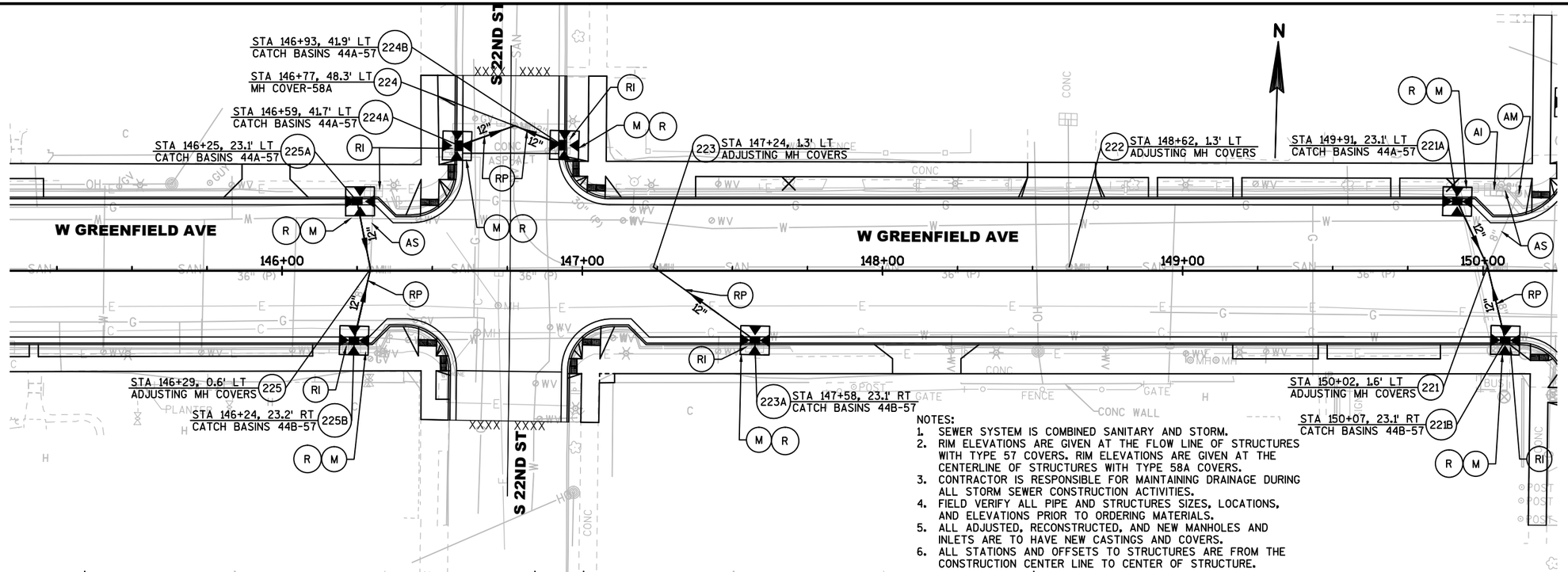






PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 73	E

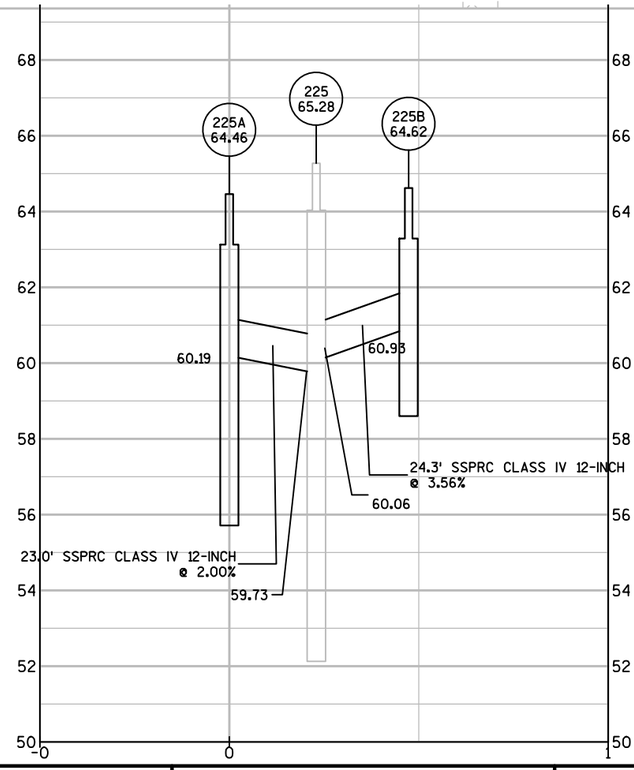
2

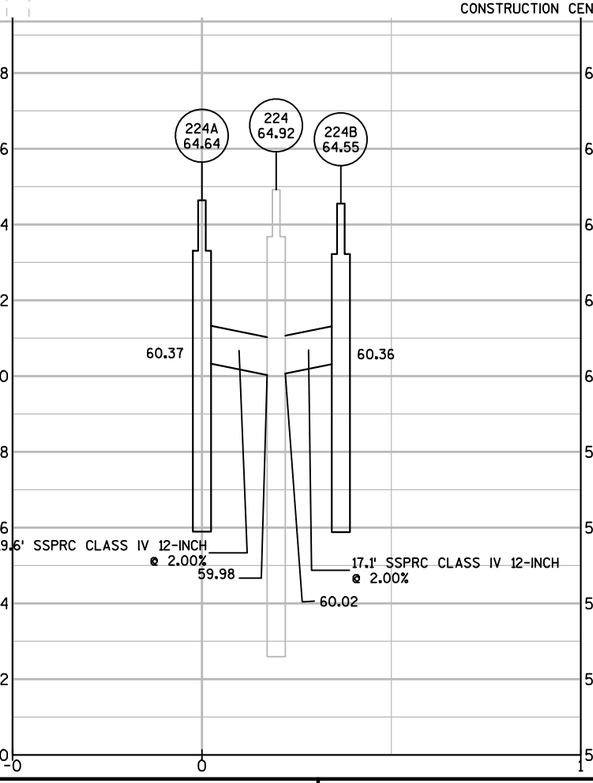


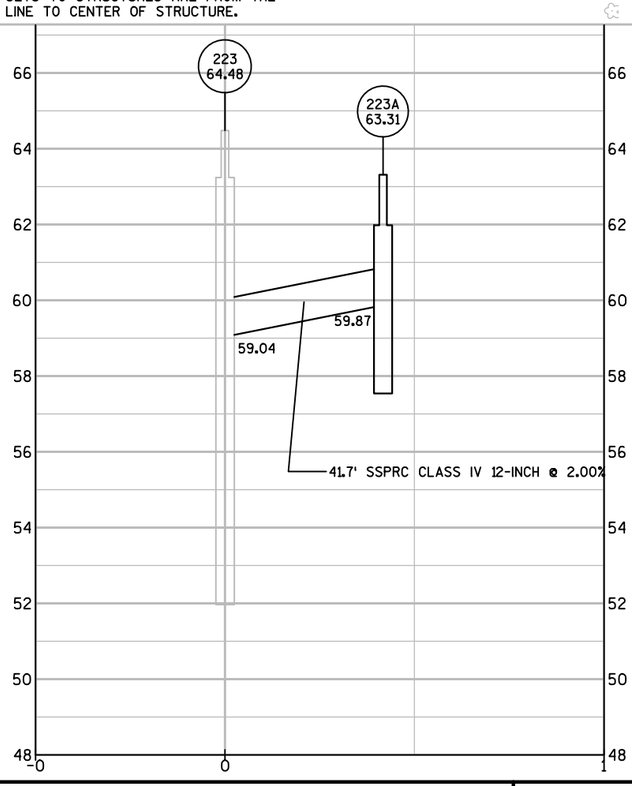
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

LEGEND

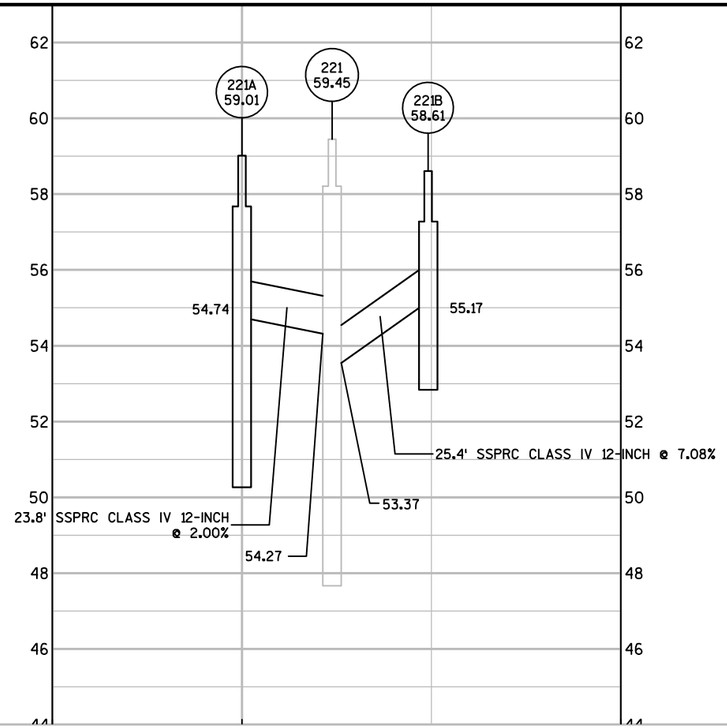
- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) — PROPOSED STORM SEWER PIPE







PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 74	E



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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 75	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 022501-SS - SS - (10B)
PLOT DATE : 4/26/2017 3:43 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 41

NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

N

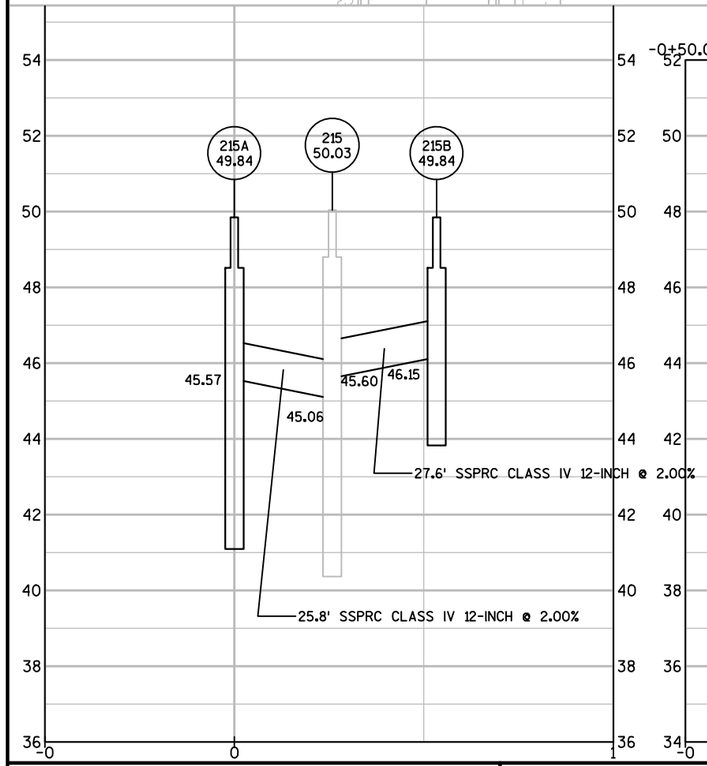
W GREENFIELD AVE

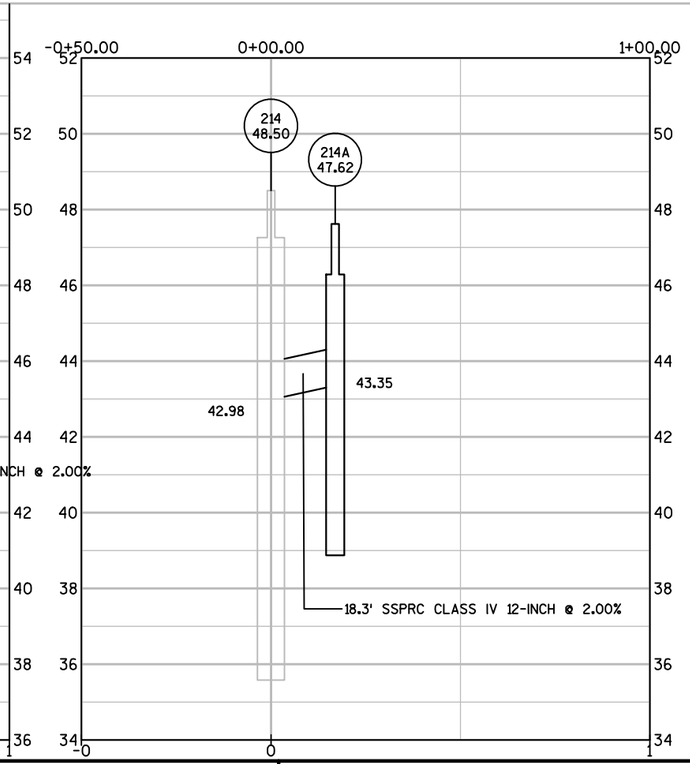
S 21ST ST

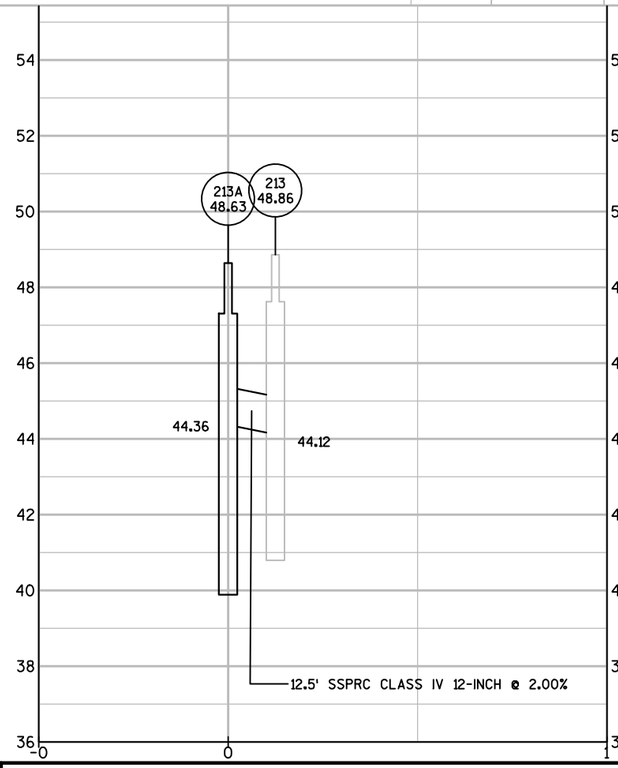
S 20TH ST

151+00 152+00 153+00 154+00 155+00

219 STA 150+46, 50.1' LT MH COVER-58A
219A STA 150+64, 48.5' LT INLET COVER-57
219B STA 150+30, 55.1' LT INLET COVER-57
217 STA 150+94, 1.0' LT ADJUSTING MH COVERS
218 STA 150+79, 0.0' LT ADJUSTING MH COVERS
220 STA 150+46, 48.6' RT ADJUSTING MH COVERS
216 STA 152+32, 1.4' LT ADJUSTING MH COVERS
215A STA 153+57, 23.1' LT CATCH BASINS 44A-57
215B STA 153+57, 23.1' RT CATCH BASINS 44B-57
215 STA 153+70, 1.0' LT ADJUSTING MH COVERS
213A STA 153+94, 49.7' RT CATCH BASINS 44A-57
213 STA 154+06, 49.2' RT ADJUSTING MH COVERS
214 STA 154+16, 49.3' LT MH COVER-58A
214A STA 154+34, 52.9' LT CATCH BASINS 44A-57
212A STA 154+93, 23.1' LT CATCH BASINS 44A-57
212 STA 154+64, 0.8' LT ADJUSTING MH COVERS
212B STA 154+93, 23.1' RT CATCH BASINS 44B-57

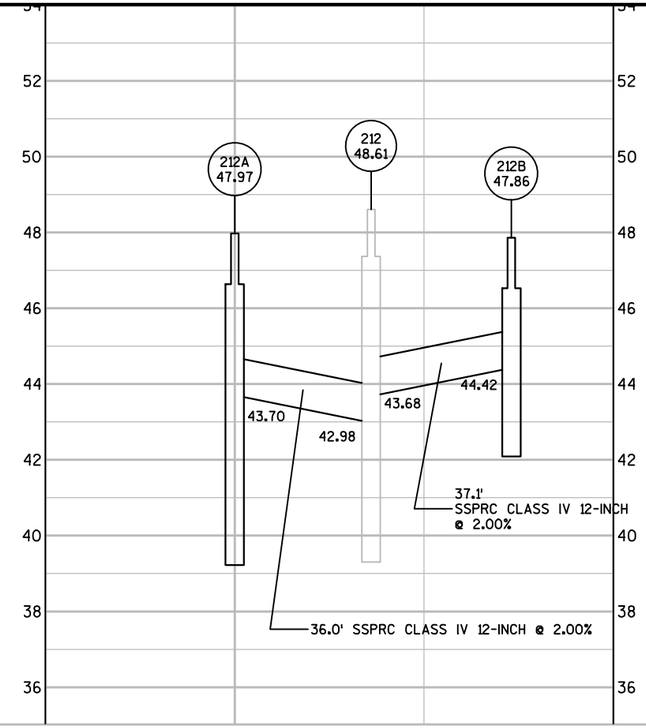






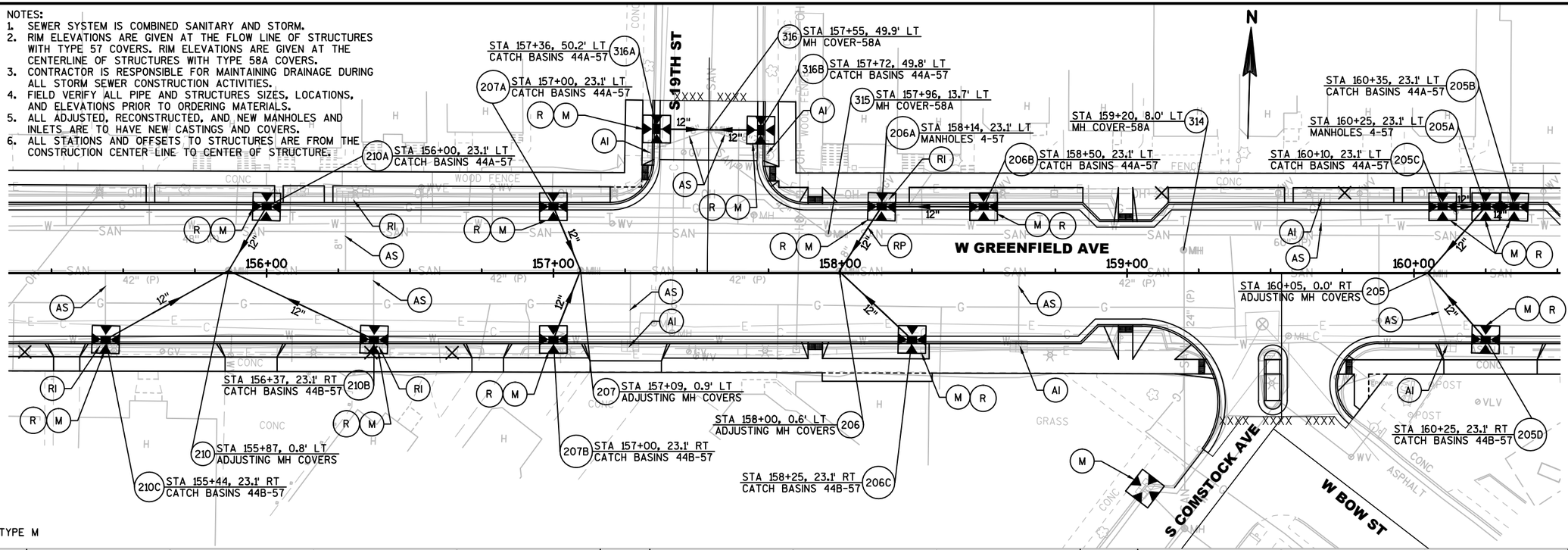
LEGEND
- M INLET SCREEN TYPE M
- R INLET SCREEN TYPE R
- AI ABANDONING INLETS
- AM ABANDONING MANHOLES
- AS ABANDONING SEWER
- RI REMOVING INLETS
- RP REMOVING STORM SEWER PIPE
- (SIZE) PROPOSED STORM SEWER PIPE

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 76 E



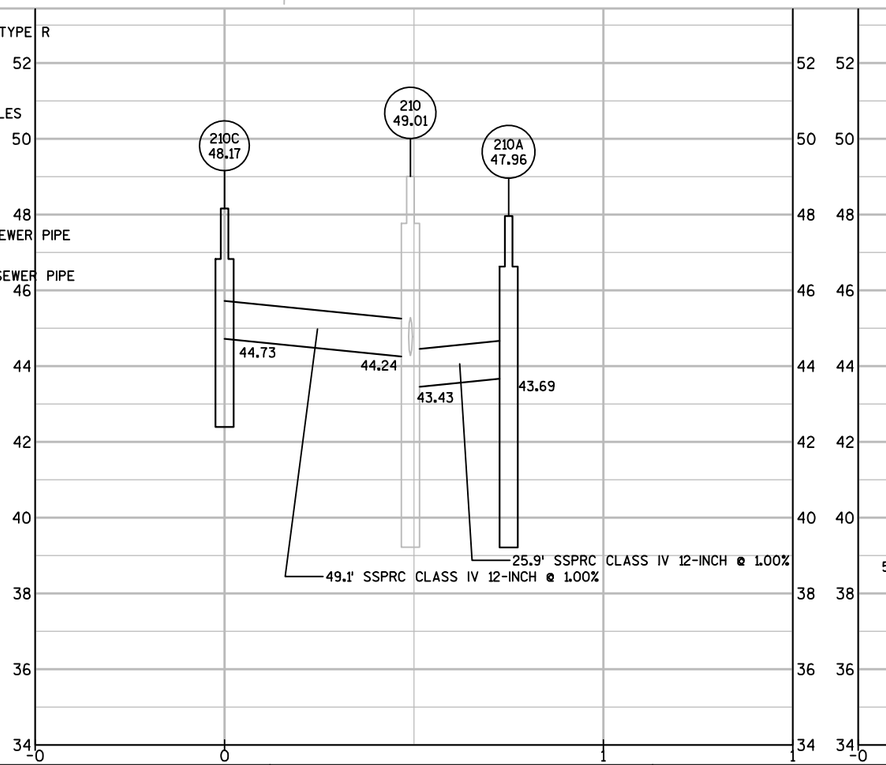
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 77	E

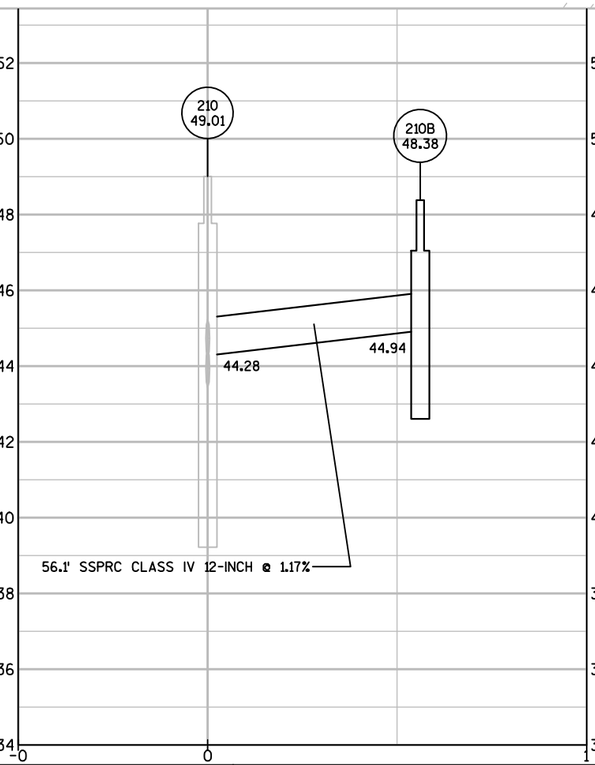
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

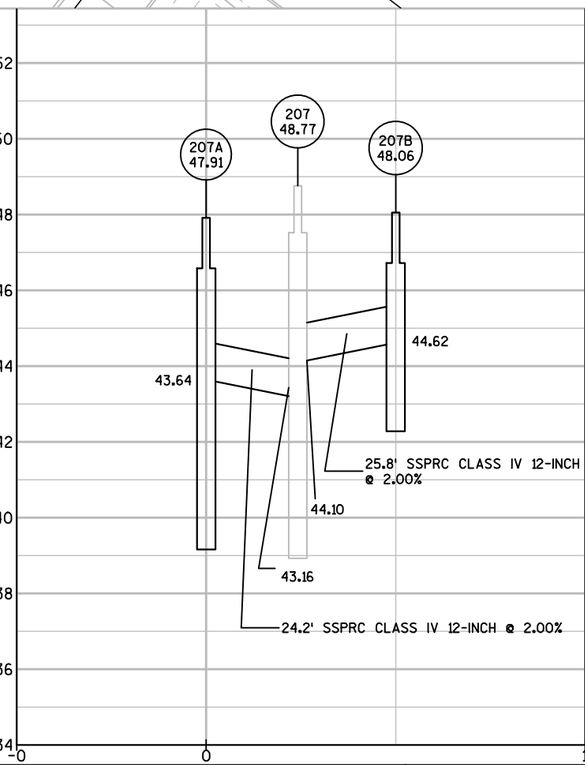


LEGEND

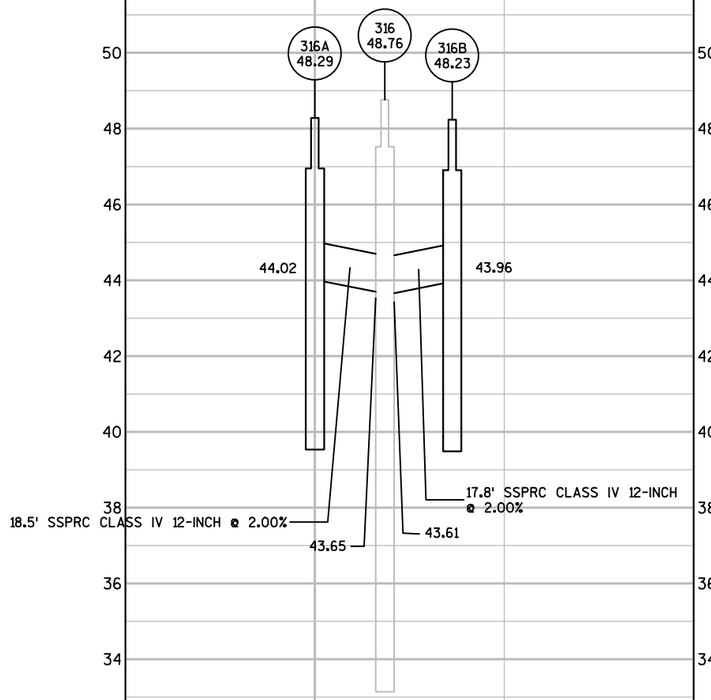
- (M) INLET SCREEN TYPE M
- (R) INLET SCREEN TYPE R
- (AI) ABANDONING INLETS
- (AM) ABANDONING MANHOLES
- (AS) ABANDONING SEWER
- (RI) REMOVING INLETS
- (RP) REMOVING STORM SEWER PIPE
- (SIZE) PROPOSED STORM SEWER PIPE

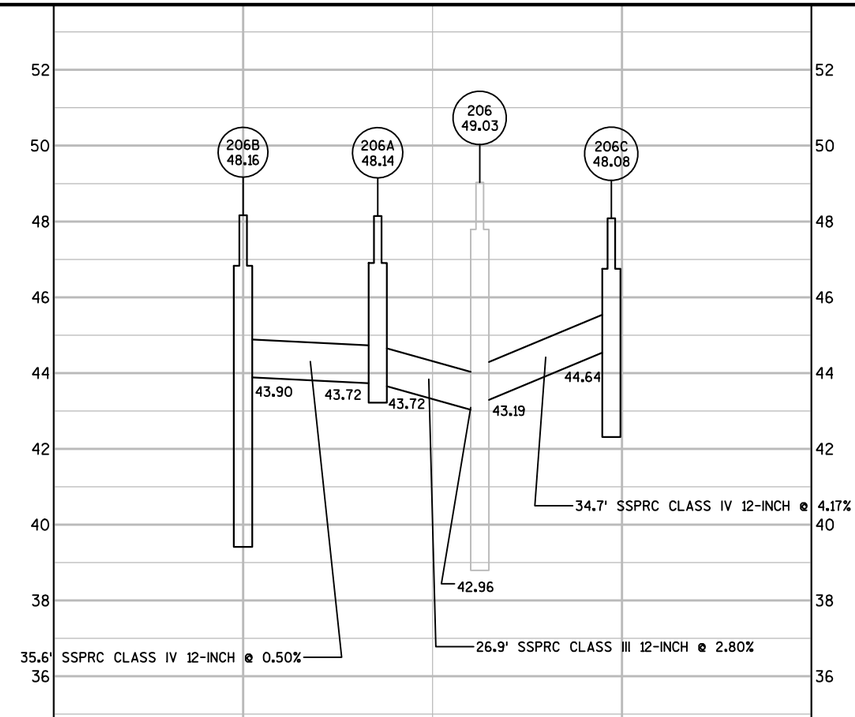


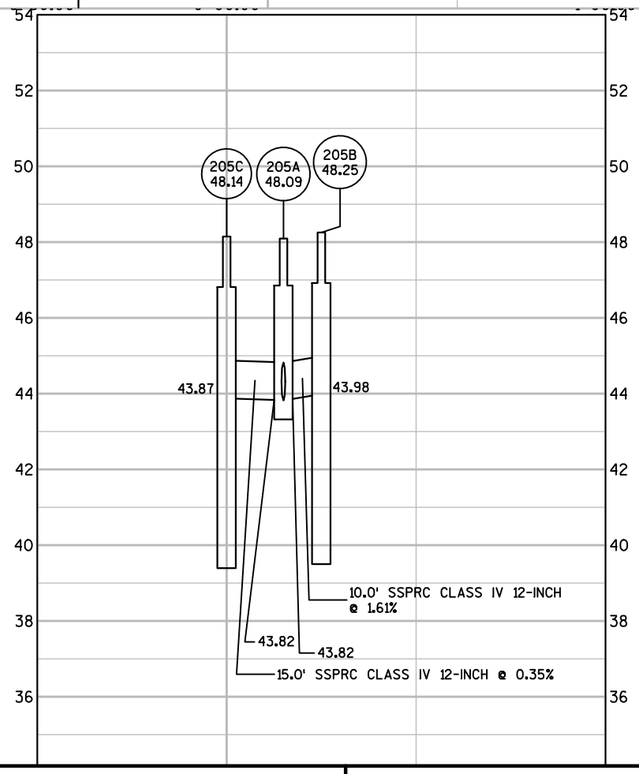


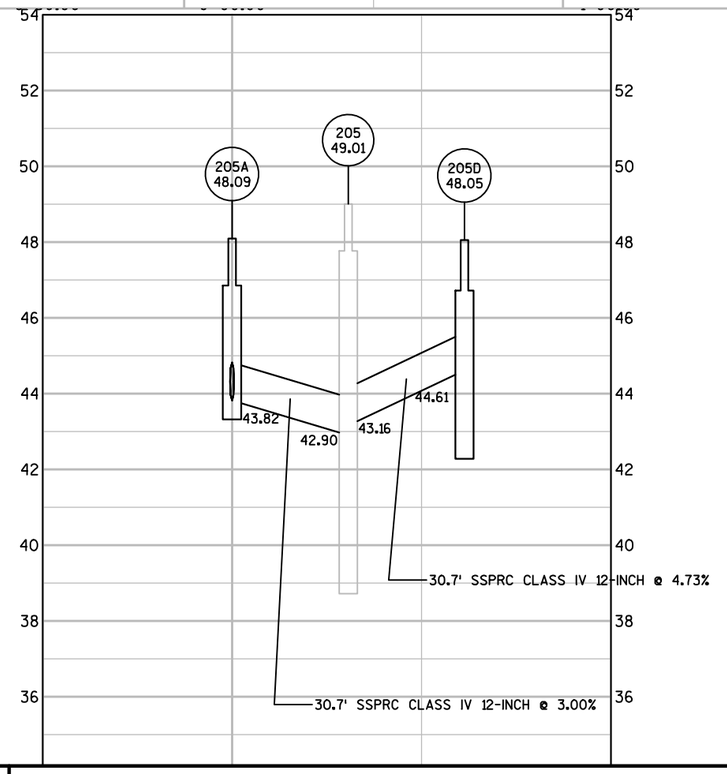


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 78	E



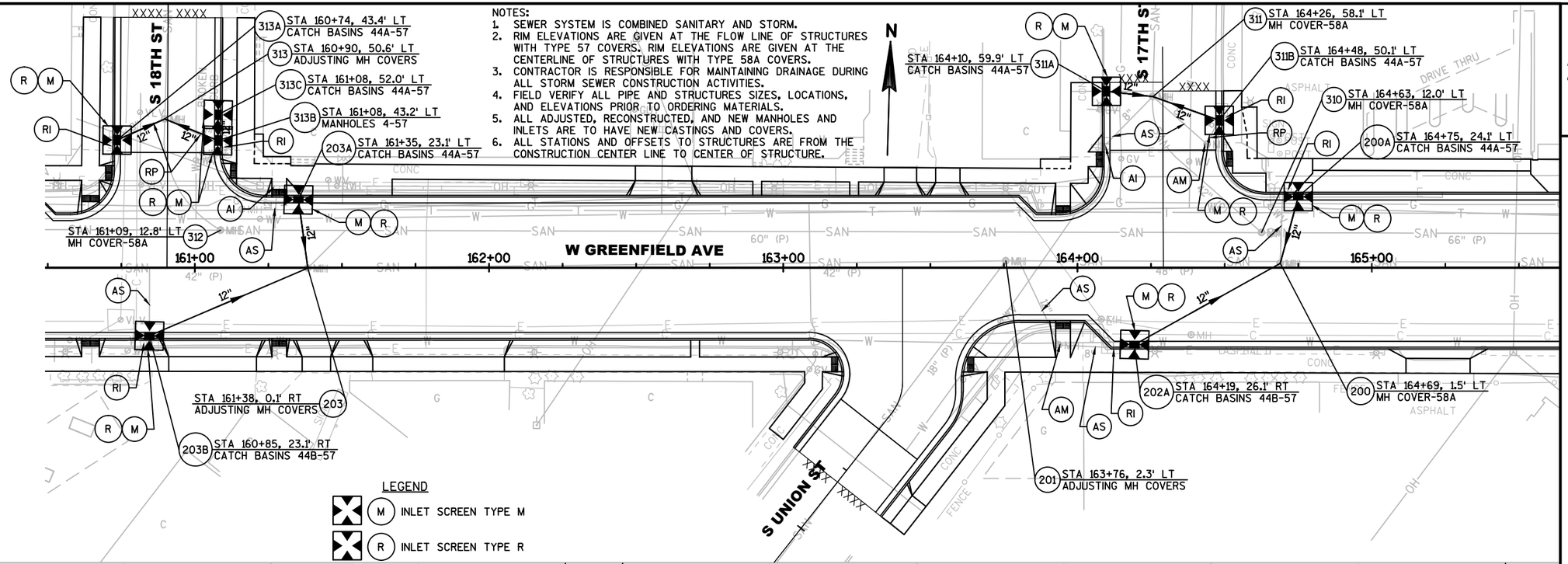






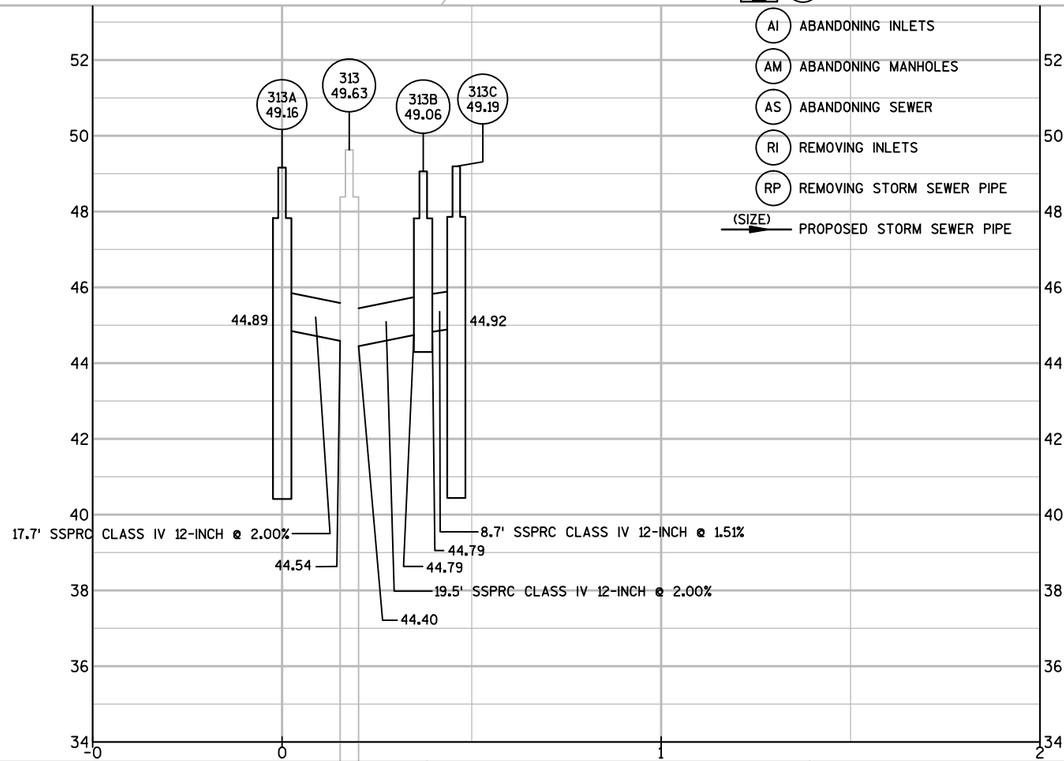
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 79	E

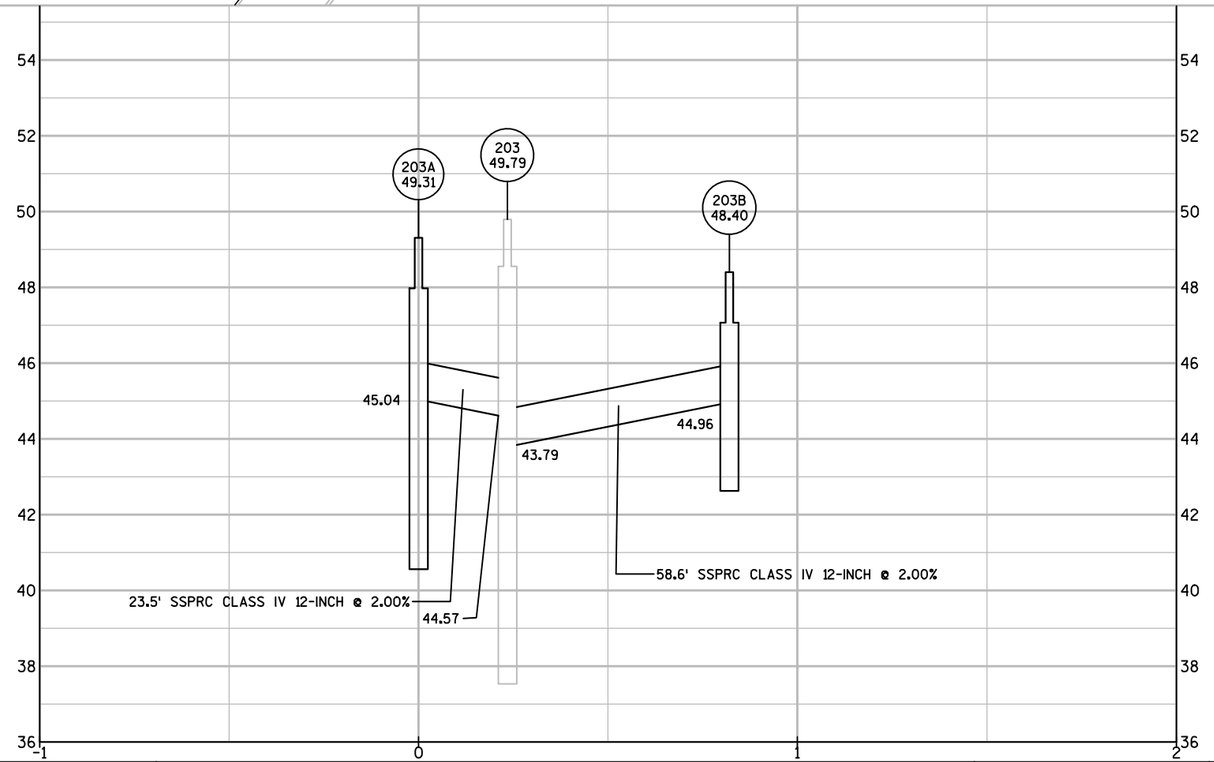
NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE DURING ALL STORM SEWER CONSTRUCTION ACTIVITIES.
4. FIELD VERIFY ALL PIPE AND STRUCTURES SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING MATERIALS.
5. ALL ADJUSTED, RECONSTRUCTED, AND NEW MANHOLES AND INLETS ARE TO HAVE NEW CASTINGS AND COVERS.
6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.



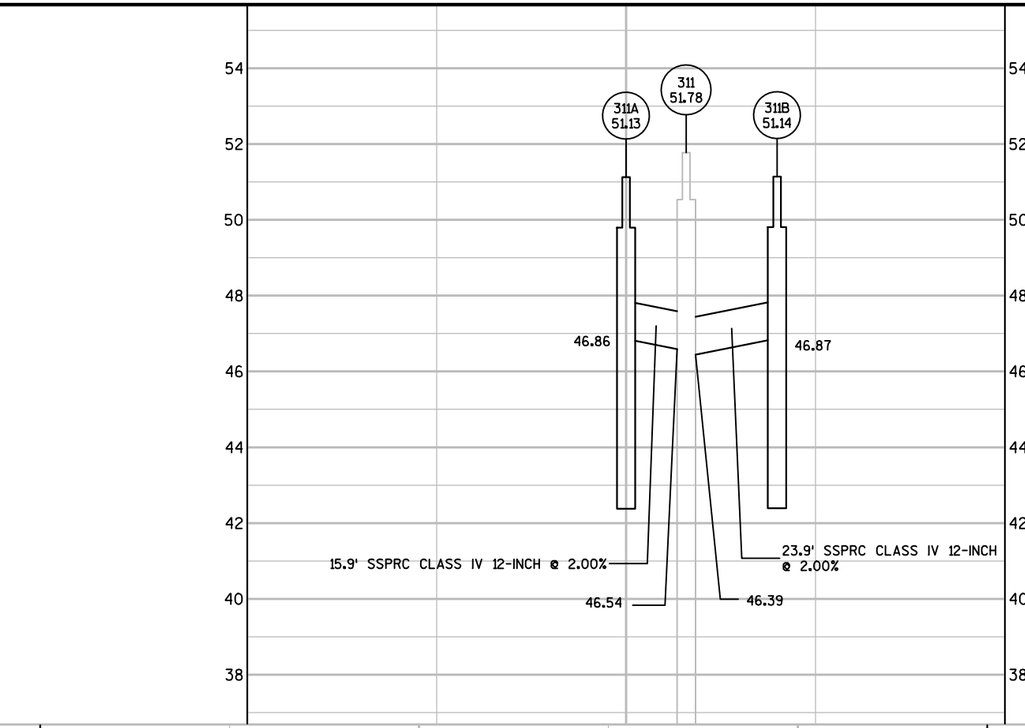
LEGEND

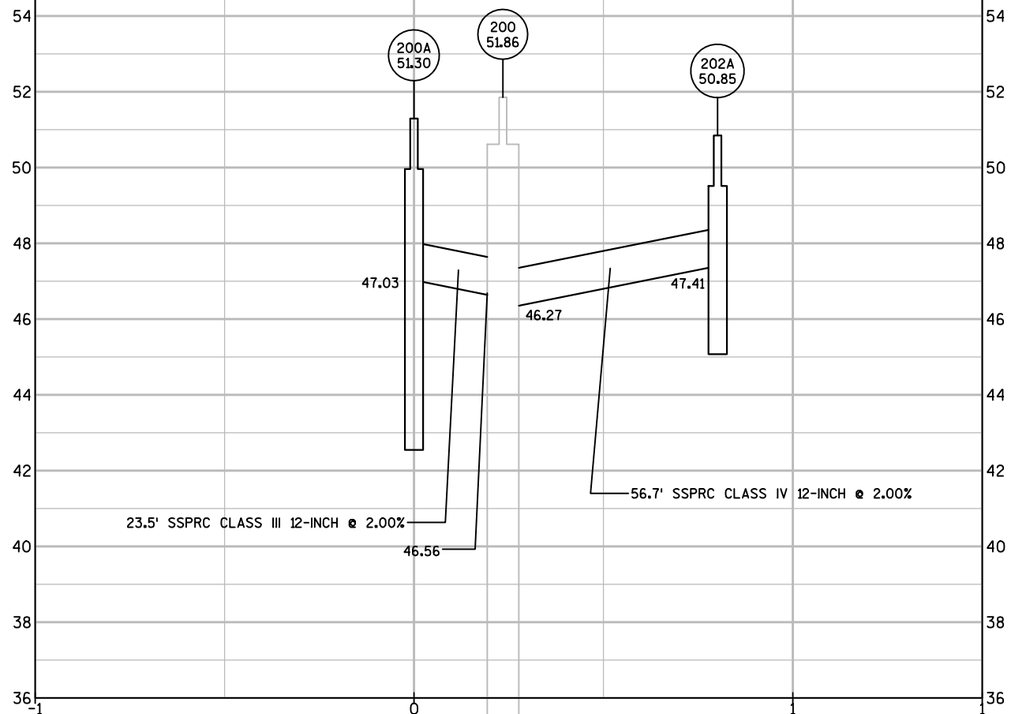
- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) — PROPOSED STORM SEWER PIPE



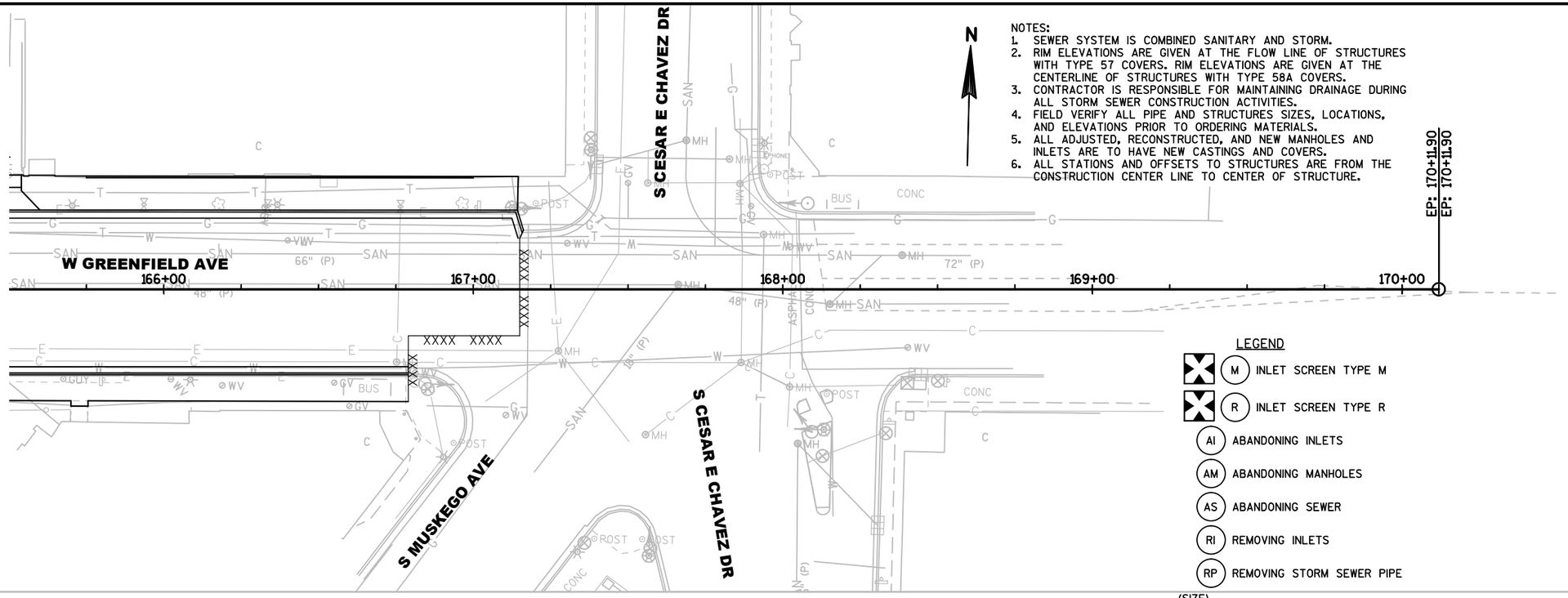


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 80 E


311A
51.13
311
51.78
311B
51.14
46.86
46.87
15.9' SSPRC CLASS IV 12-INCH @ 2.00%
23.9' SSPRC CLASS IV 12-INCH
@ 2.00%
46.54
46.39
54
52
50
48
46
44
42
40
38


200A
51.30
200
51.86
202A
50.85
47.03
47.41
46.27
56.7' SSPRC CLASS IV 12-INCH @ 2.00%
23.5' SSPRC CLASS III 12-INCH @ 2.00%
46.56
54
52
50
48
46
44
42
40
38
36
-1
0
1
1

2



NOTES:
1. SEWER SYSTEM IS COMBINED SANITARY AND STORM.
2. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
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6. ALL STATIONS AND OFFSETS TO STRUCTURES ARE FROM THE CONSTRUCTION CENTER LINE TO CENTER OF STRUCTURE.

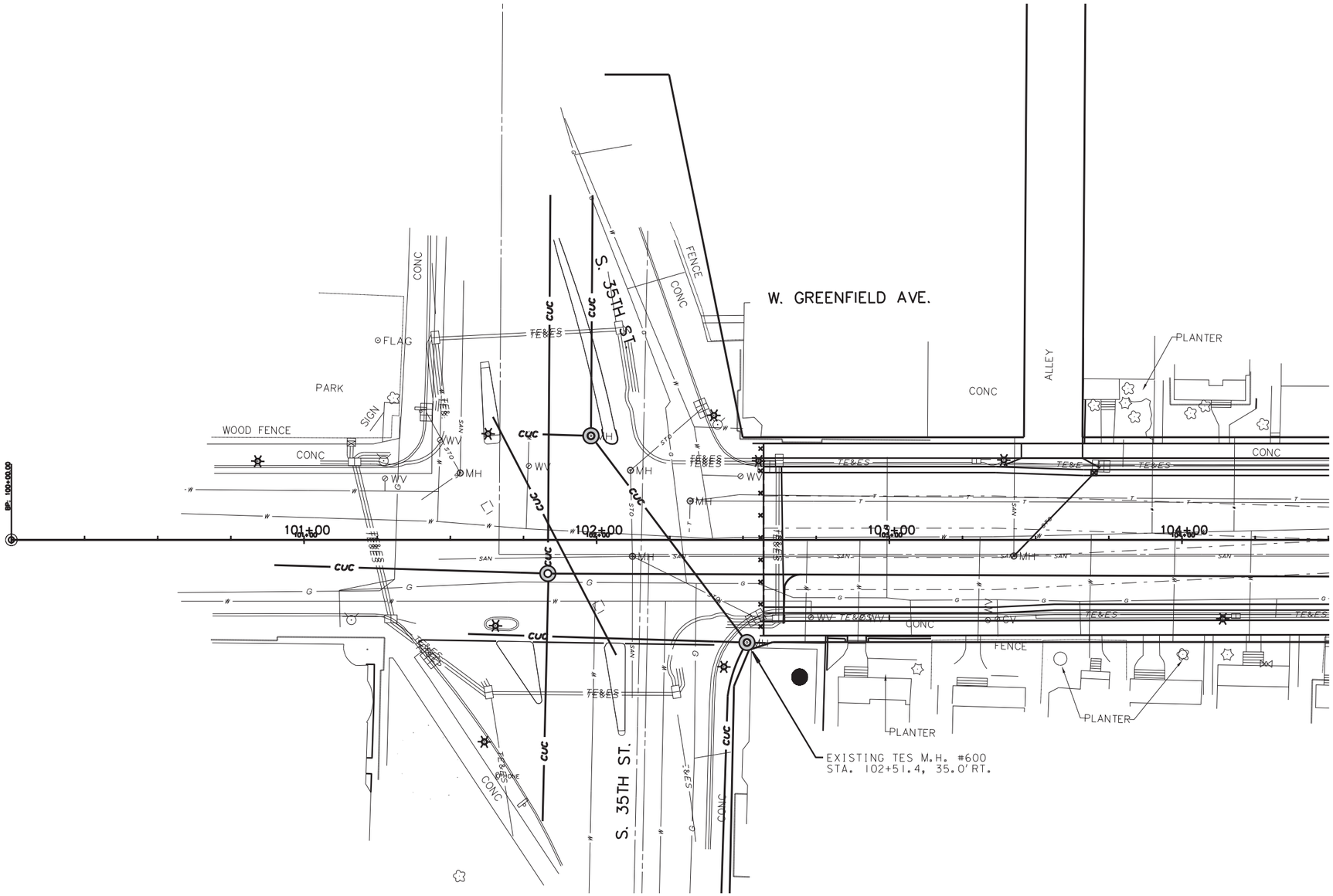
LEGEND

- M — INLET SCREEN TYPE M
- R — INLET SCREEN TYPE R
- AI — ABANDONING INLETS
- AM — ABANDONING MANHOLES
- AS — ABANDONING SEWER
- RI — REMOVING INLETS
- RP — REMOVING STORM SEWER PIPE
- (SIZE) → PROPOSED STORM SEWER PIPE

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	STORM SEWER & EROSION CONTROL	SHEET 82	E

2

N



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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 1 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 83 E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\100+00-104+50.DGN

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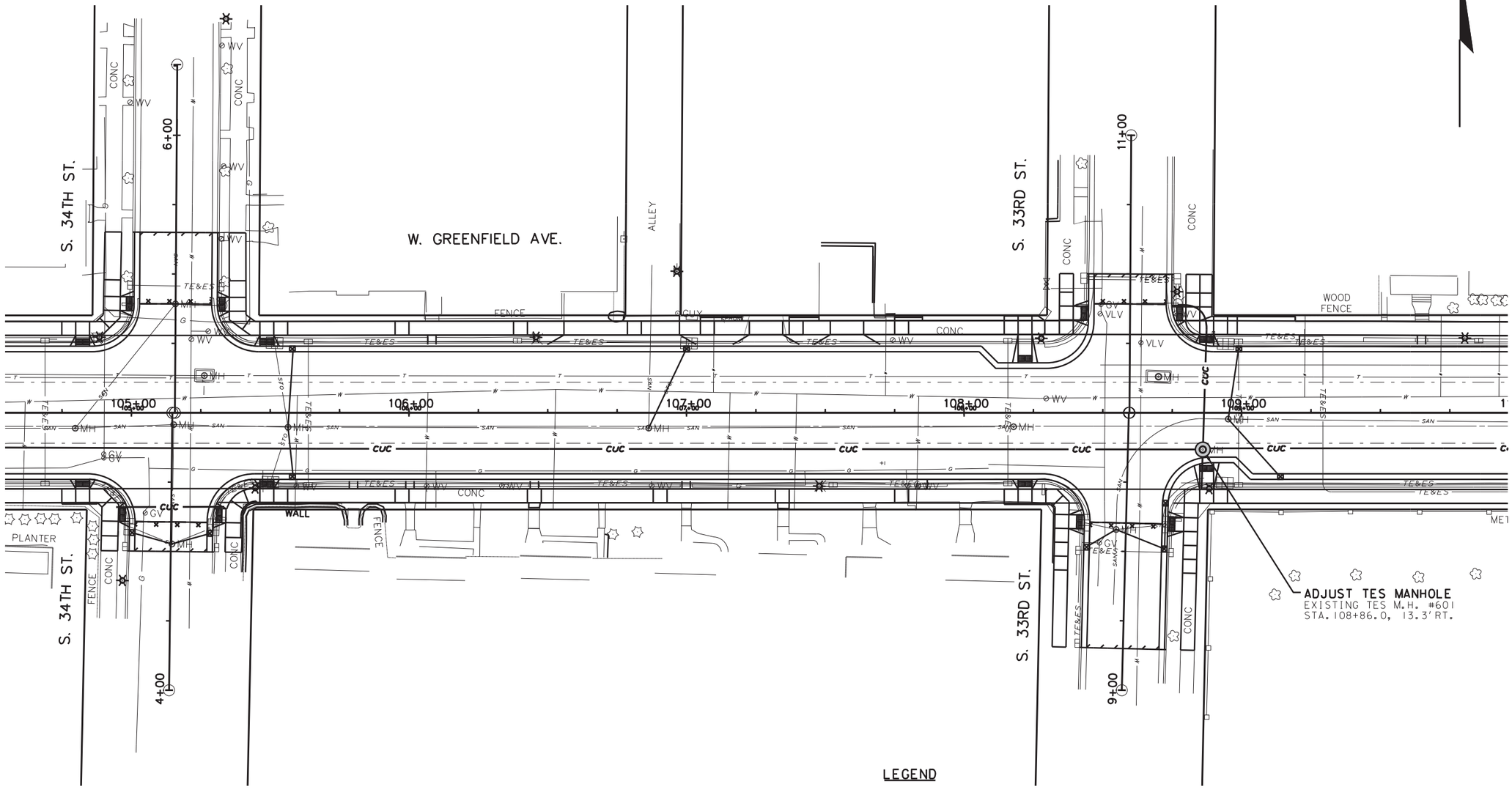

NOTES:

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 2 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 84	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\104+50-110+00.DGN

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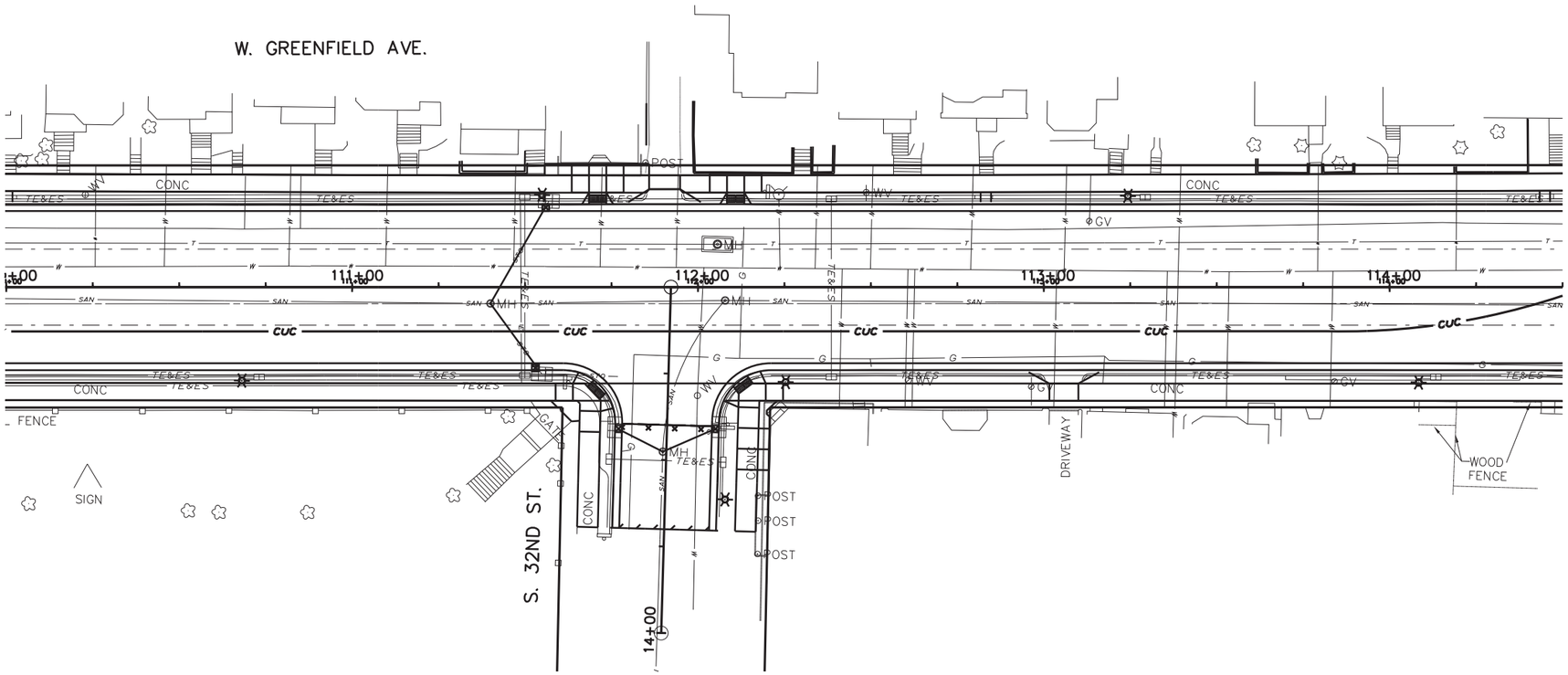
N



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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 3 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 85	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\110+00-114+50.DGN

2

N

77'-2-4" PVC CONDUIT
CEMENT ENCASED
SEE NOTE #6

EXISTING TRAFFIC CONTROL CABINET
STA. 114+57.2, 60.6'LT.
REMOVED & REPLACED BY OTHERS

18'-2-4" PVC CONDUIT
CEMENT ENCASED
TO PROPOSED POLICE CALL BOX
SEE INSTALLATION DETAIL

HUB 90°, 5' RAD.
STA. 115+54.0, 55.8'LT.

32'-2-4" PVC CONDUIT
CEMENT ENCASED
W/VENT PIPE
TO TRAFFIC CONTROL CABINET
SEE INSTALLATION DETAIL

37'-4-4" PVC
CONDUIT
CEMENT ENCASED

PROPOSED 4' DIAMETER TES MANHOLE #604
STA. 115+49.0, 32.4'LT.

ADJUST TES MANHOLE
EXISTING TES M.H. #606
STA. 118+58.3, 2.9'LT.

W. GREENFIELD AVE.

S. 31ST ST.

S. 30TH ST.

TRANSFORMER PAD

21+00

26+00

115+00 116+00 117+00 118+00 119+00 120+00

ABANDON MANHOLE
EXISTING TES M.H.#605
STA. 115+52.3, 22.4'LT.

EXISTING POLICE CALL BOX
RELOCATED BY OTHERS

ABANDON MANHOLE
EXISTING TES M.H. #603
STA. 115+37.2, 32.4'LT.

PROPOSED POLICE CALL BOX
STA. 114+88.0, 33.7'LT.
RELOCATED BY OTHERS

HUB 90°, 12.5' RAD.
STA. 114+70.3, 19.5'LT.

ADJUST TES MANHOLE
EXISTING TES M.H. #602
STA. 114+57.9, 0.8'LT.

WOOD FENCE

ASPHALT

METAL FENCE

FLAG SIGN

FENCE

GATE

SIGN

SANITARY CLEANOUT

PLANTER

19+00

24+00

NOTES:

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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
—CUC—	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 4 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 86	E

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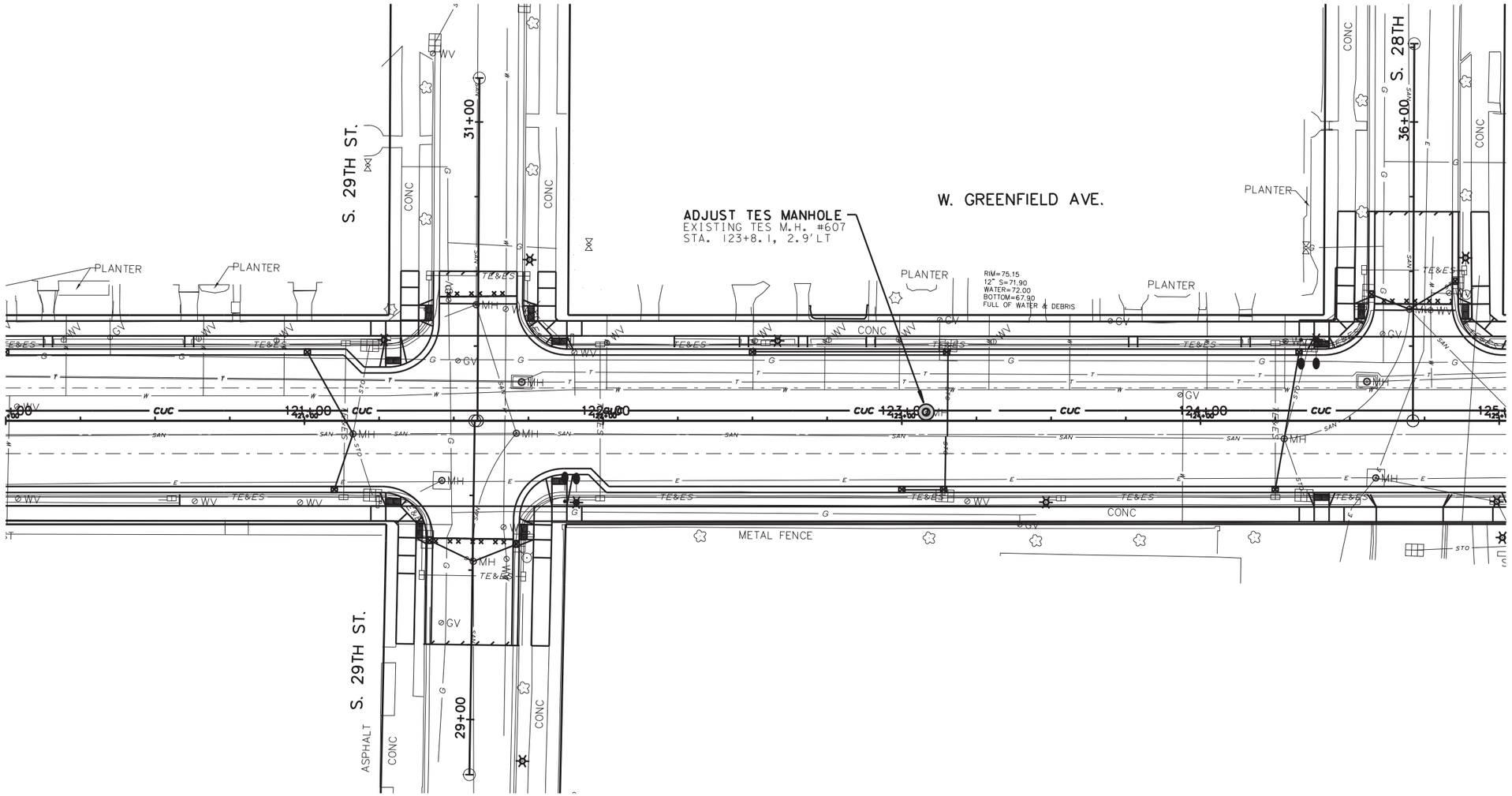

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 5 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 87	E

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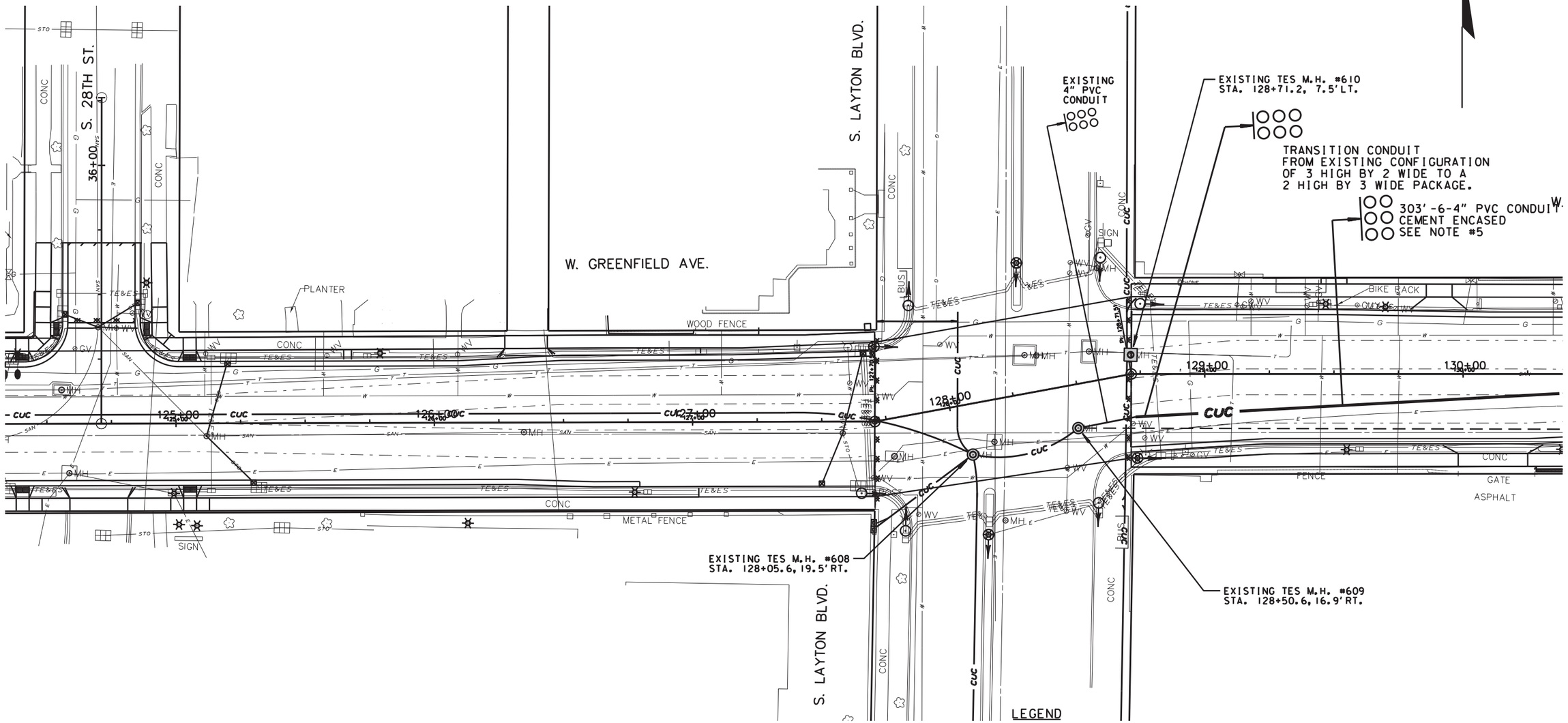

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●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 6 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 88	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\125+00-130+00.DGN

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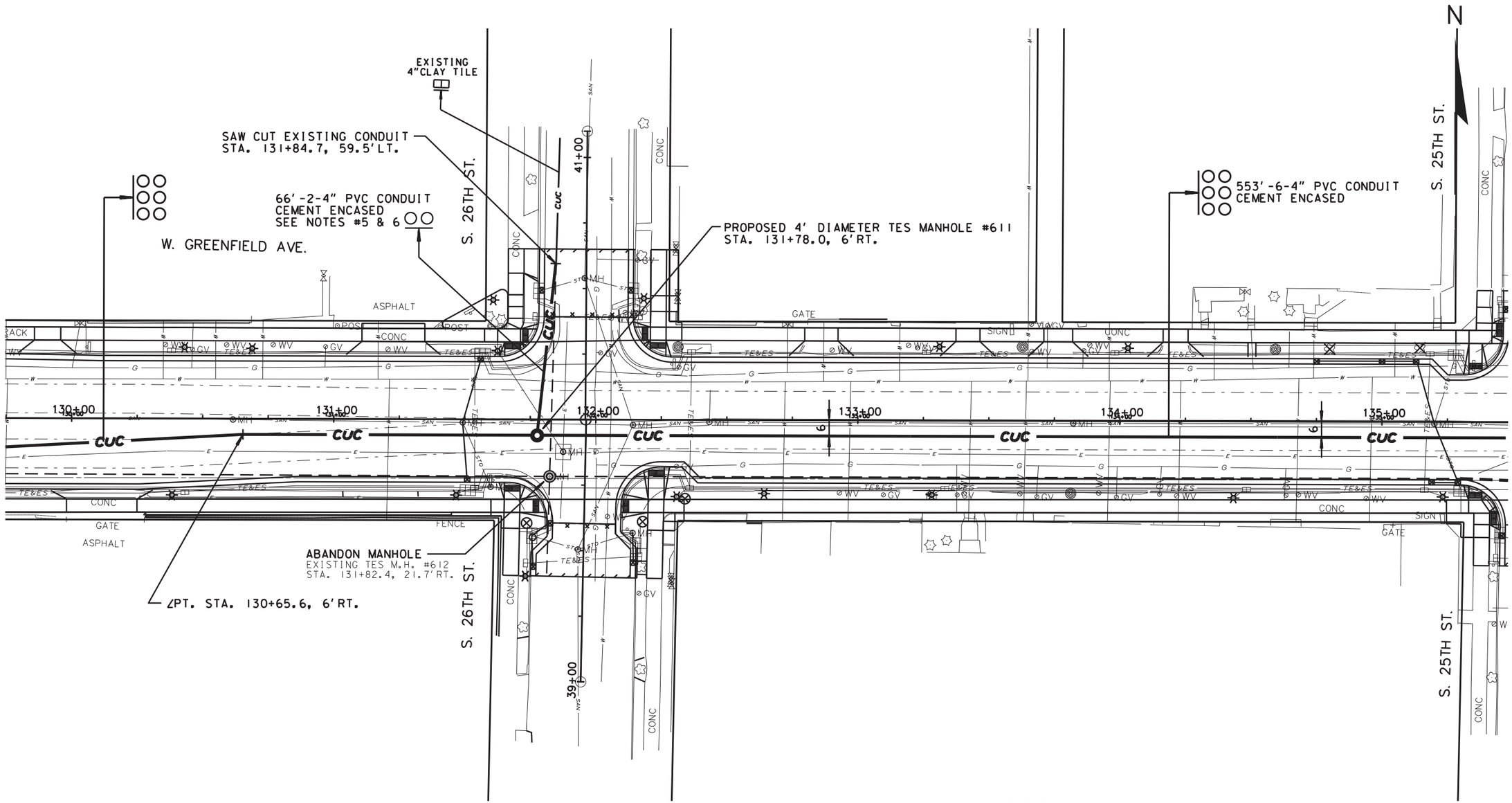

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●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 7 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 89	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\130+00-135+00.DGN

2

N

S. 25TH ST.

S. 24TH ST.

W. GREENFIELD AVE.

PROPOSED 4' DIAMETER TES M.H. #614
STA. 137+35.0, 6.0'RT.

553'-6-4" PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE
EXISTING TES M.H. #613
STA. 135+51.8, 22.4'RT.

ABANDON MANHOLE
EXISTING M.H. #615
STA. 139+24.2, 21.8'RT.

EXISTING POLICE
CALL BOX
REMOVED BY OTHERS

PLANTER

WOOD FENCE

GATE

SIGN

CONC

CUC

TE&ES

SAN

STO

WV

GV

MH

PHONE

46+00

44+00

49+00

51+00

135+00

136+00

137+00

138+00

139+00

140+00

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●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 8 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 90	E

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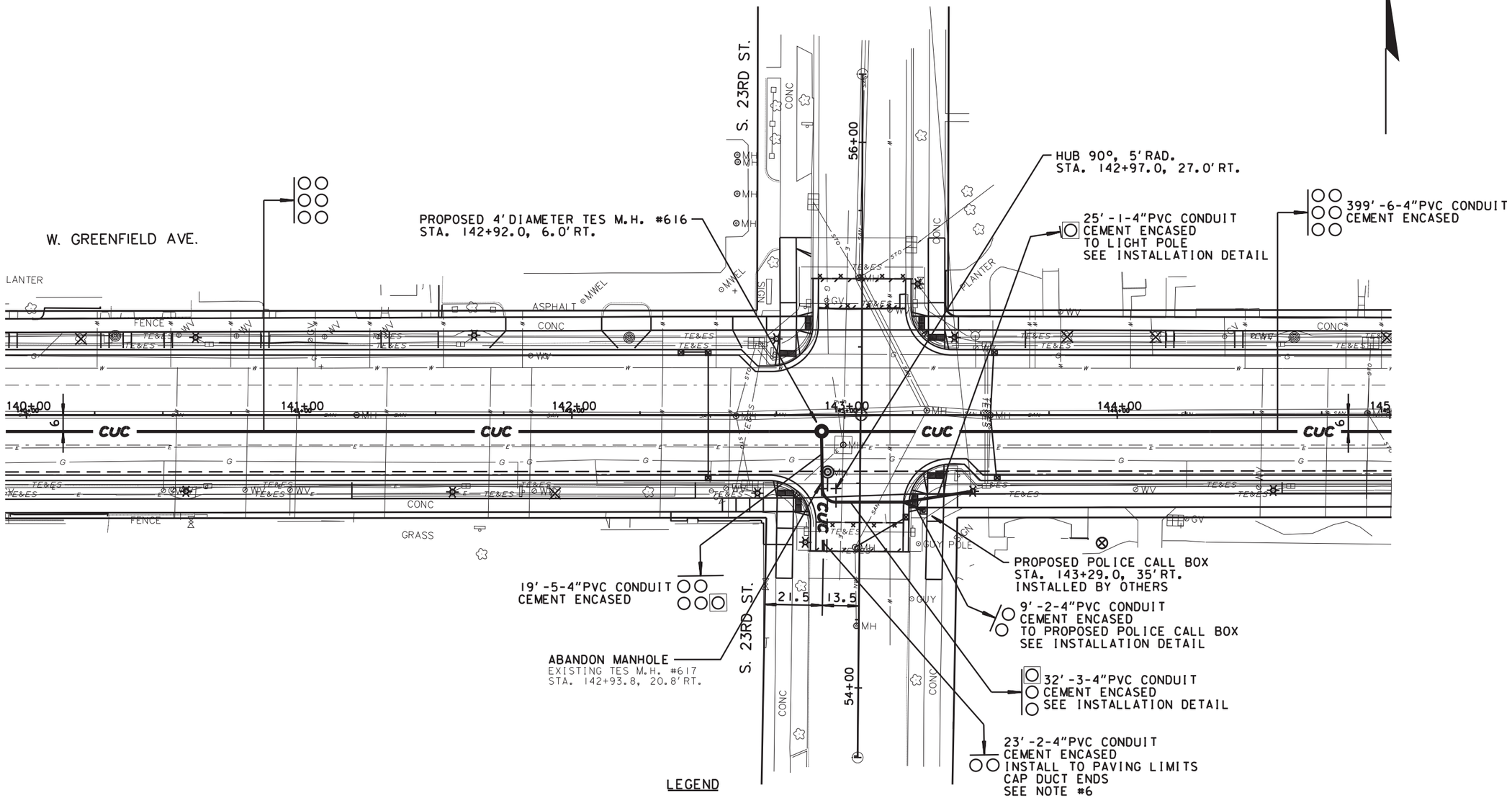

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — —	ABANDONED CONDUIT

SHEET 9 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 91	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\140+00-145+00.DGN

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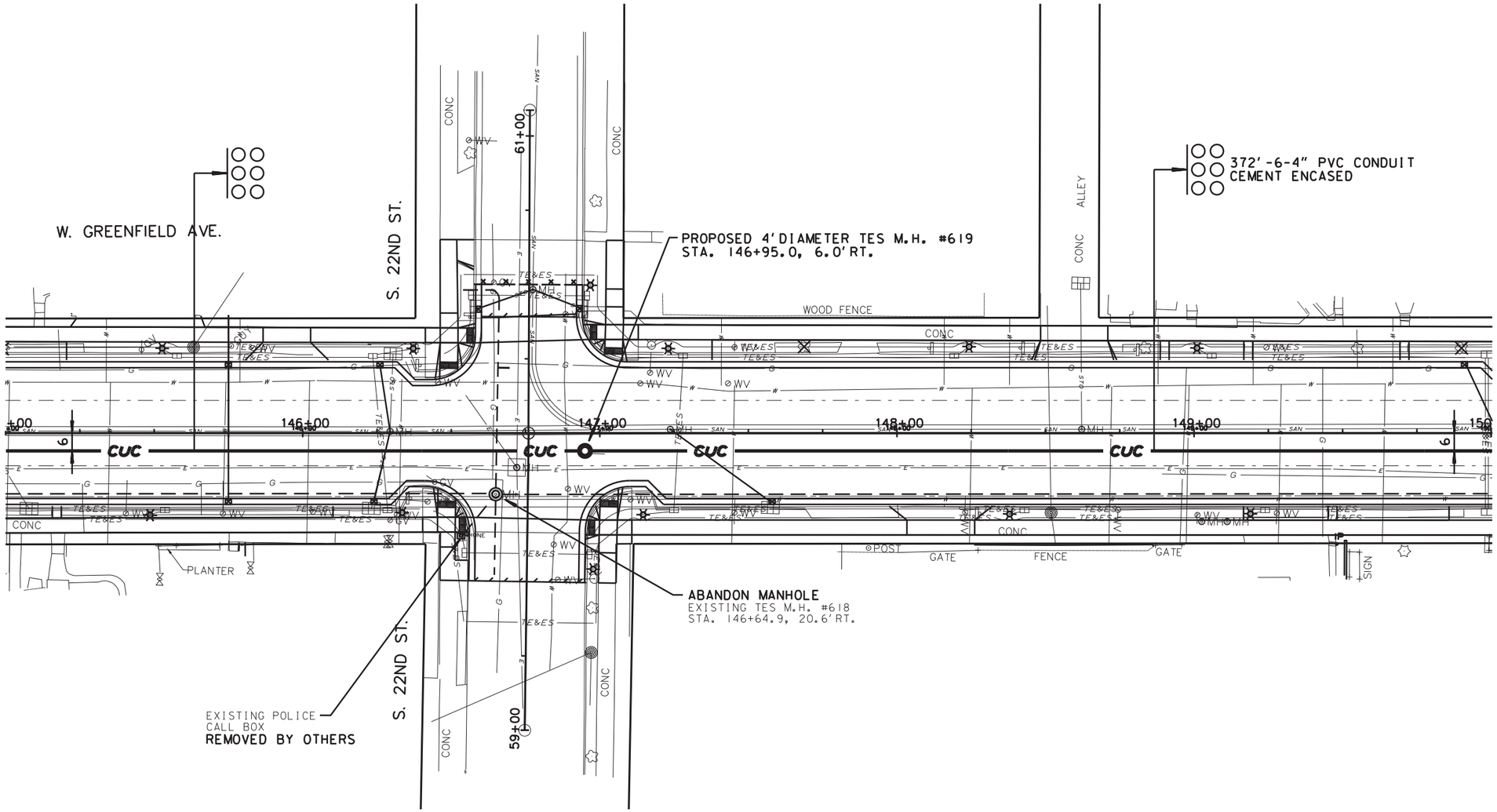

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●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 10 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 92	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\145+00-150+00.DGN

2

N

S. 21ST ST.

S. 20TH ST.

W. GREENFIELD AVE.

PROPOSED 4' DIAMETER TES M.H. #621
STA. 150+71.0, 6.0' RT.

523'-6-4" PVC CONDUIT
CEMENT ENCASED

RAMP

FENCE

CONC

66+00

71+00

64+00

69+00

151+00

152+00

153+00

154+00

155

CUC

ABANDON MANHOLE
EXISTING TES M.H. #620
STA. 150+32.3, 22.4' RT.

39'-2-4" PVC CONDUIT
CEMENT ENCASED
SEE INSTALLATION DETAIL

EXISTING TRAFFIC CONTROL CABINET
RELOCATED BY OTHERS

PLANTER

ABANDON MANHOLE
EXISTING TES M.H. #622
STA. 154+0.3, 17.4' RT.

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 11 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 93	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\150+00-155+00.DGN

2

N

PROPOSED 4'DIAMETER TES M.H. #623
STA. 155+98.0, 6.0'RT.

S. 19TH ST

W. GREENFIELD AVE.

524'-6-4" PVC CONDUIT
CEMENT ENCASED

WOOD FENCE

CONC

GRASS

155+00 156+00 157+00 158+00 159+00 160+00

CUC

ABANDON MANHOLE
EXISTING TES M.H. #624
STA. 157+41.4, 20.8'RT.

POST
EXISTING
POLICE
CALL BOX

TELEPHONE

W. BOW ST.

EXISTING
POLICE CALL BOX
REMOVED BY OTHERS

ABANDON MANHOLE
EXISTING TES M.H. #625
STA. 159+56.3, 21.9'RT.

MSTOCK AVE.

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 12 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 94	E

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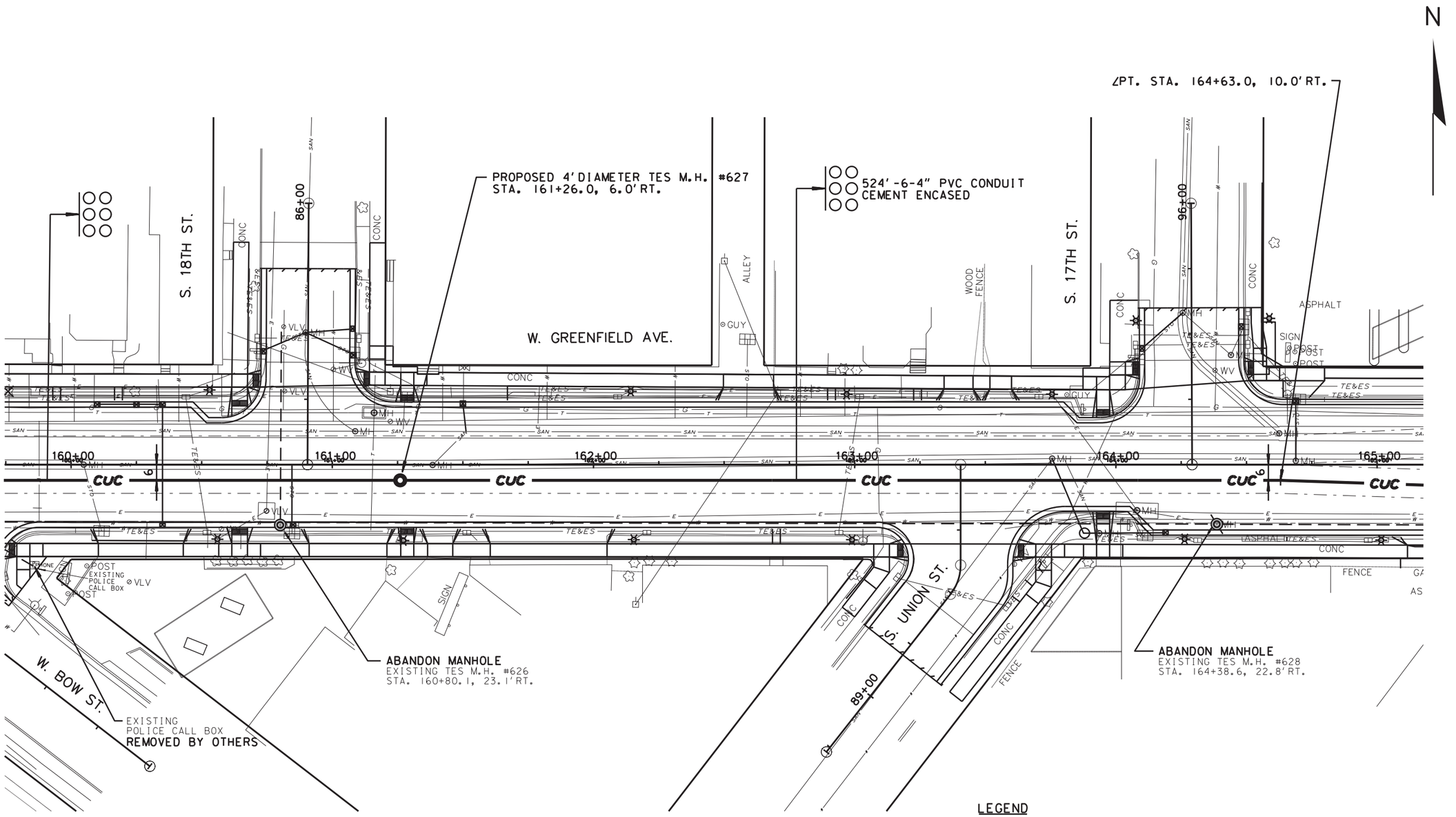

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◎	EXISTING TES MANHOLE
— cuc —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 13 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 95	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\160+00-165+00.DGN

2

N

℄PT. STA. 165+83.2, 10.0' RT.

PROPOSED 4' DIAMETER TES M.H. #629
STA. 166+54.1, 10.0' RT.

CESAR CHAVEZ DR.

137'-6-4" PVC CONDUIT
CEMENT ENCASED

W. GREENFIELD AVE.

ASPHALT

POST

CONC

BUS

FENCE

GATE

15'-2-4" PVC CONDUIT
CEMENT ENCASED
SEE INSTALLATION DETAIL

PROPOSED TRAFFIC CONTROL PULL BOX

HUB 90°, 5.0' RAD.
STA. 167+78.5,
75.0' RT.

S. MUSKEGO AVE.

ABANDON MANHOLE
EXISTING TES M.H. #630
STA. 166+75.3, 23.5' RT.

SIGN

WALL

CESAR CHAVEZ DR.

EXISTING TES M.H. #631
STA. 167+86.5, 25.1' RT.

165+00 166+00 167+00 168+00 169+00 170+00

EP - 170+11.90

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

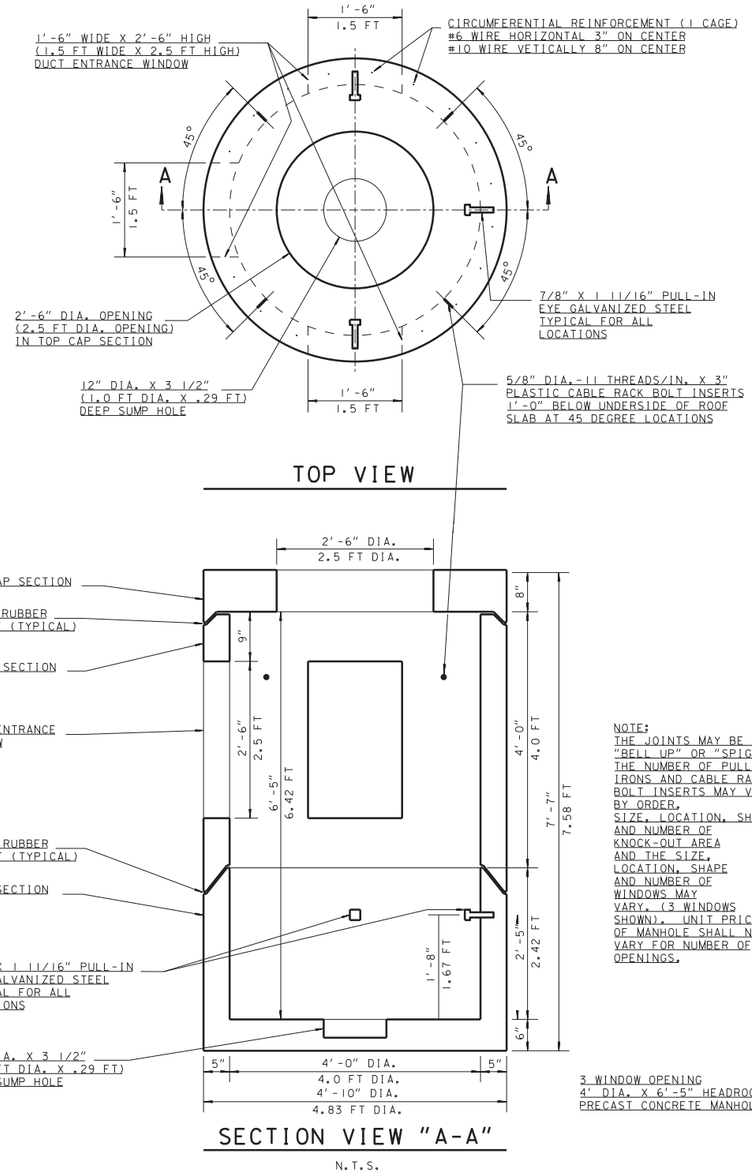
LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED TES MANHOLE
◎	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

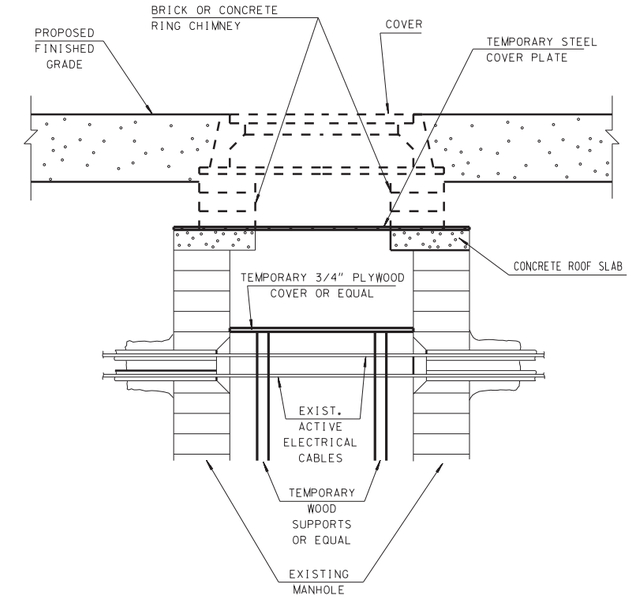
SHEET 14 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 96	E

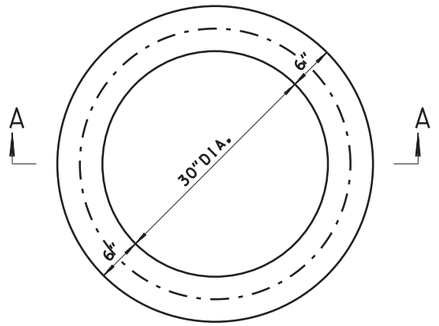
FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\165+00-170+00.DGN



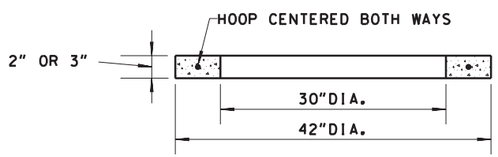
4' DIAMETER MANHOLE TYPE TES DETAIL



BLOCK OR PRECAST 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.

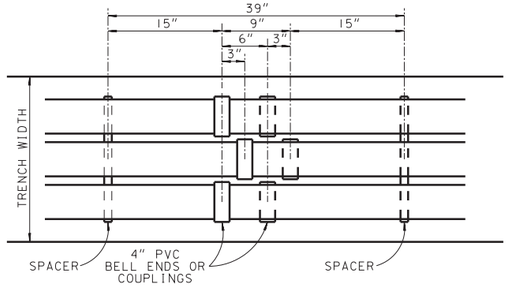
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING

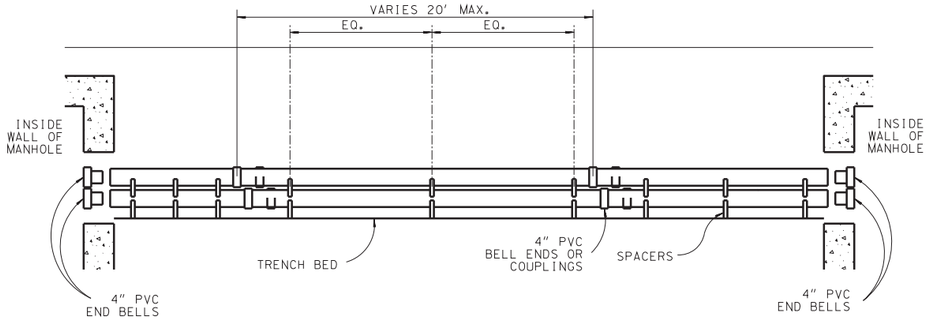
ADJUSTING TES MANHOLE COVERS

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 97	E

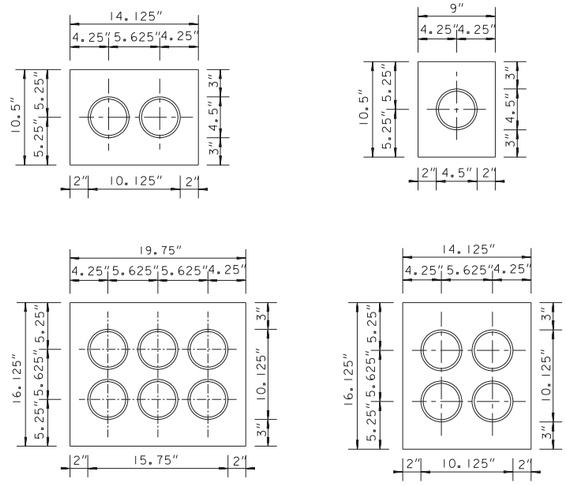
FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\GREENFIELD AVE DETAILS A.DGN



PLAN VIEW

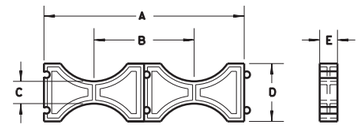


SECTION VIEW



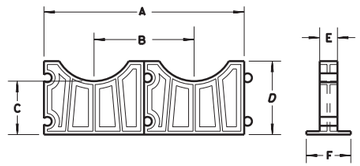
CROSS SECTION VIEW, TYP.
N.T.S.

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	1 ½"	1 ¼"
D	3 ¼"	3 ¼"
E	1"	1"



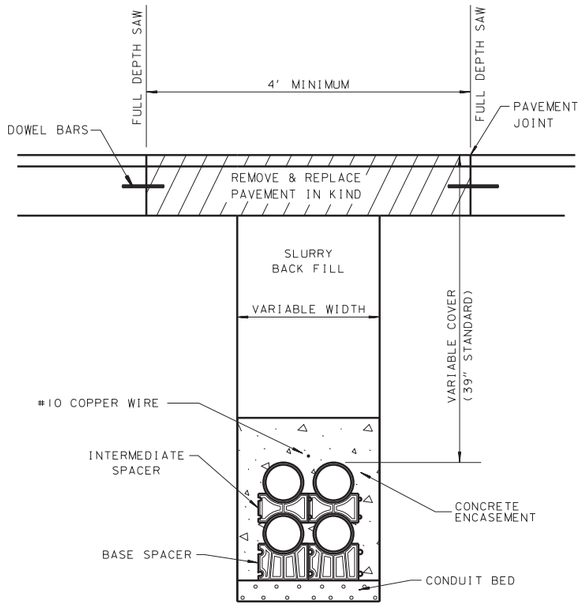
INTERMEDIATE SPACER

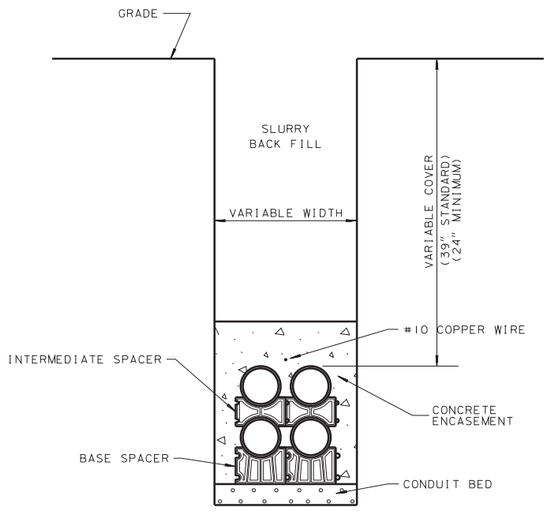
COND.	3"	4"
A	10"	11 ¼"
B	5"	5 ⅝"
C	3"	3"
D	3 ⅛"	4 ⅛"
E	1"	1"
F	2 ½"	2 ½"

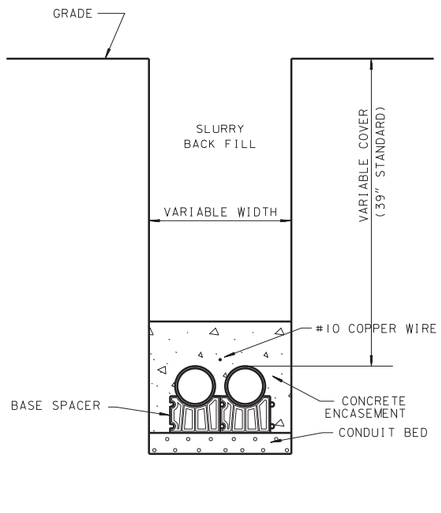


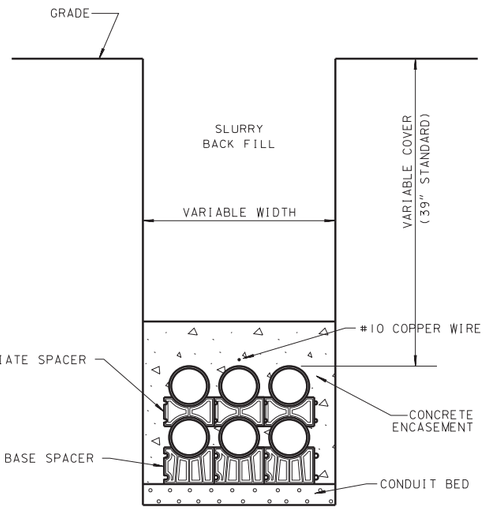
BASE SPACER

INTERMEDIATE AND BASE SPACER DETAIL







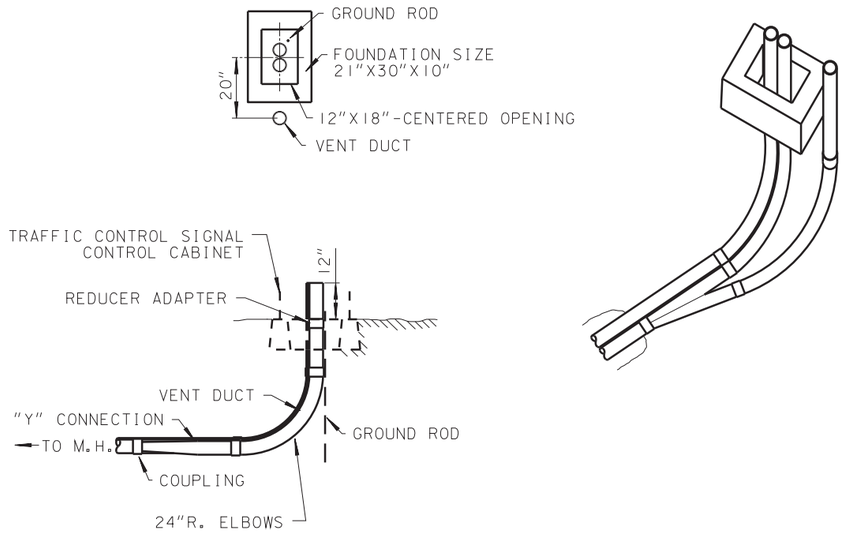


CROSS SECTION VIEW, TYP.
N.T.S.

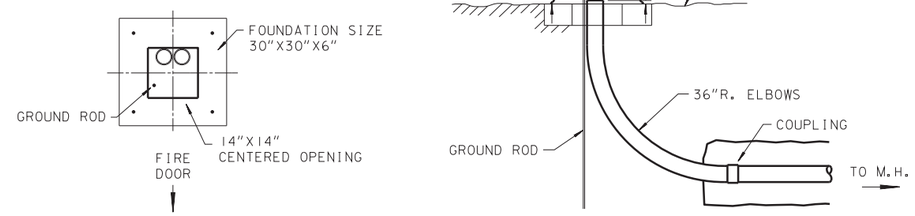
SHEET 16 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 98	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\GREENFIELD AVE DETAILS B.DGN

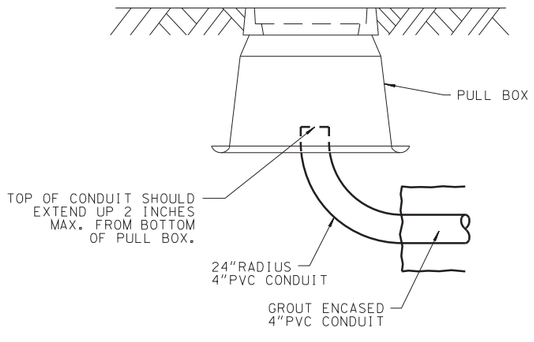


TRAFFIC CONTROL CABINET DETAIL

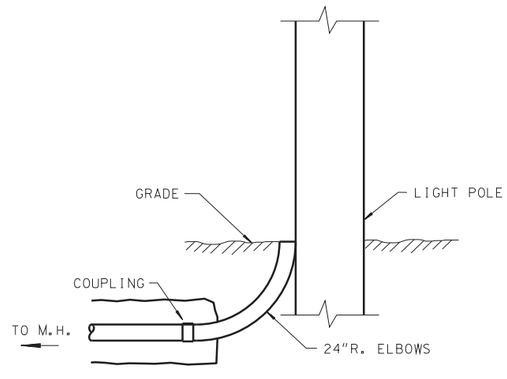


POLICE CALL BOX DETAIL

2



TRAFFIC CONTROL PULL BOX DETAIL



LIGHT POLE DETAIL

SHEET 17 OF 17

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 99	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\W GREENFIELD AVE_35_CHAVEZ\DGN\GREENFIELD AVE DETAILS C.DGN

NOTES:
COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL FIBERGLASS POLYMER CONCRETE PULL BOX SHOULD BE INSTALLED AT THE LOCATIONS 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 REQUIRED ON ALL EMPTY CONDUIT.

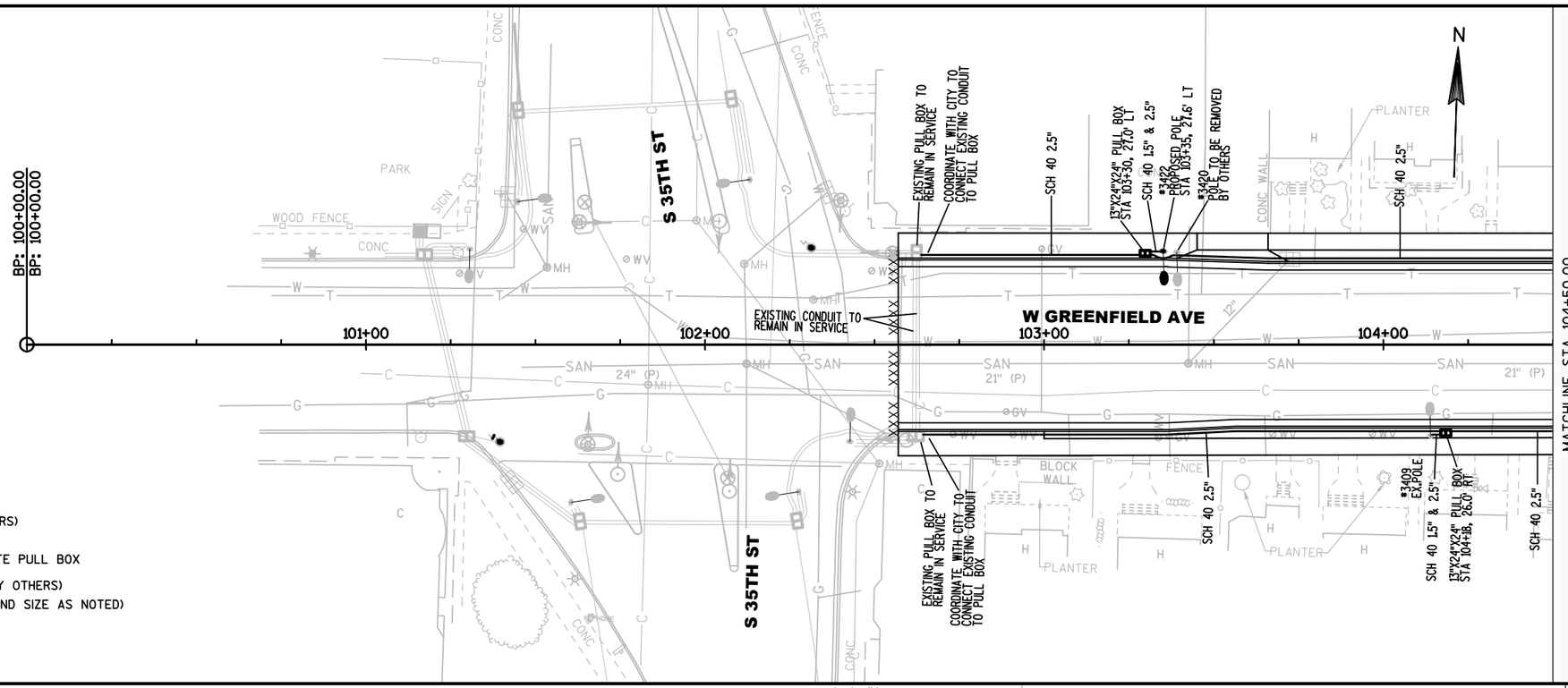
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

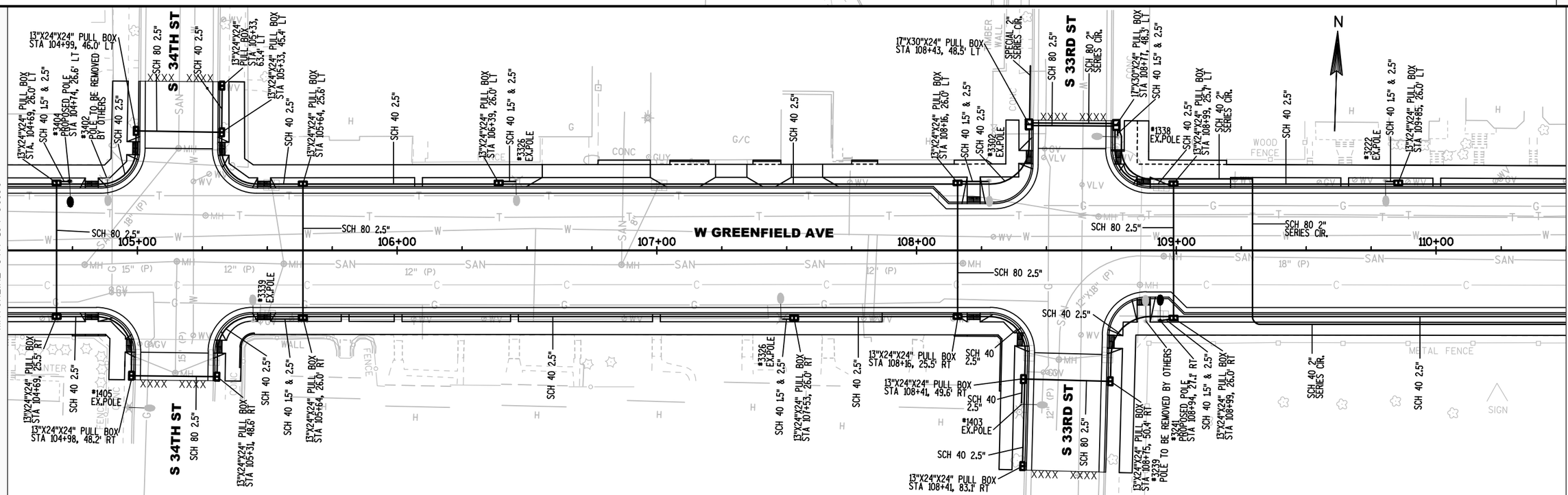
ALL POLES WILL BE RELOCATED BY CITY FORCES.

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

LEGEND

- EXISTING STREET LIGHT POLE
- PROPOSED STREET LIGHT POLE (BY OTHERS)
- EXISTING SIGNAL STANDARD
- PROPOSED FIBERGLASS POLYMER CONCRETE PULL BOX (SIZE AS NOTED)
- TRAFFIC CONTROL CABINET (FURNISHED BY OTHERS)
- CONDUIT RIGID NONMETALLIC (SCHEDULE AND SIZE AS NOTED)
- TRAFFIC SIGNAL BASE TO BE INSTALLED (SEE PERMANENT TRAFFIC SIGNAL PLANS)





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 100	E

2

MATCHLINE STA 110+50.00

W GREENFIELD AVE

111+00 112+00 113+00 114+00 115+00 116+00

EP: 20+08.00 BP: 20+00.00

S 32ND ST

S 31ST ST

S 31ST ST

19+00

MATCHLINE STA 116+50.00

2

MATCHLINE STA 116+50.00

W GREENFIELD AVE

117+00 118+00 119+00 120+00 121+00 122+00

S 30TH ST

S 30TH ST

S 29TH ST

S 29TH ST

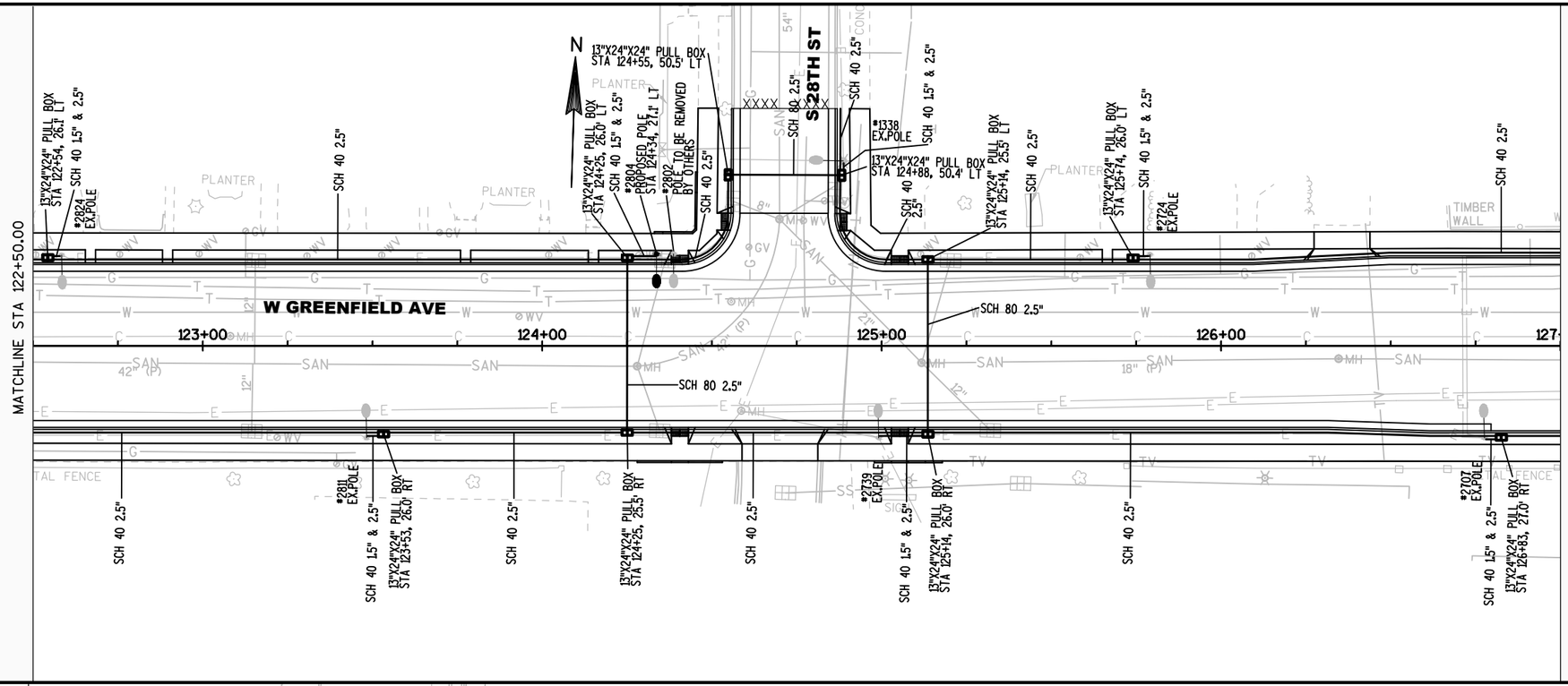
MATCHLINE STA 122+50.00

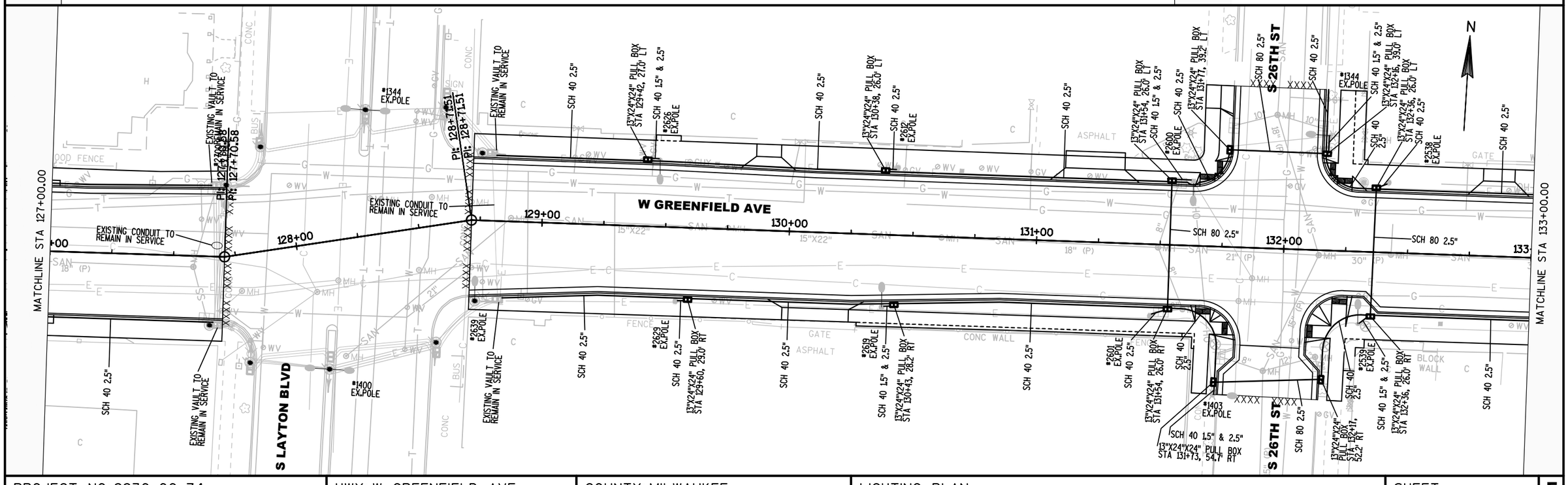
N

LEGEND

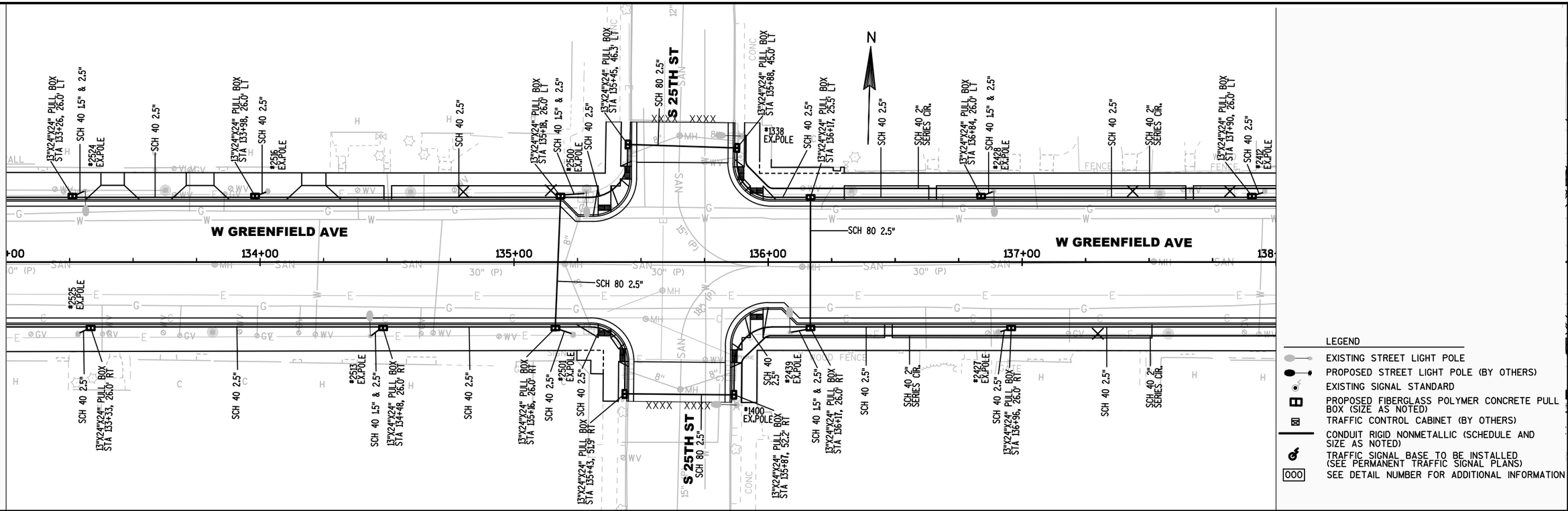
- EXISTING STREET LIGHT POLE
- PROPOSED STREET LIGHT POLE (BY OTHERS)
- EXISTING SIGNAL STANDARD
- PROPOSED FIBERGLASS POLYMER CONCRETE PULL BOX (SIZE AS NOTED)
- TRAFFIC CONTROL CABINET (FURNISHED BY OTHERS)
- CONDUIT RIGID NONMETALLIC (SCHEDULE AND SIZE AS NOTED)
- TRAFFIC SIGNAL BASE TO BE INSTALLED (SEE PERMANENT TRAFFIC SIGNAL PLANS)

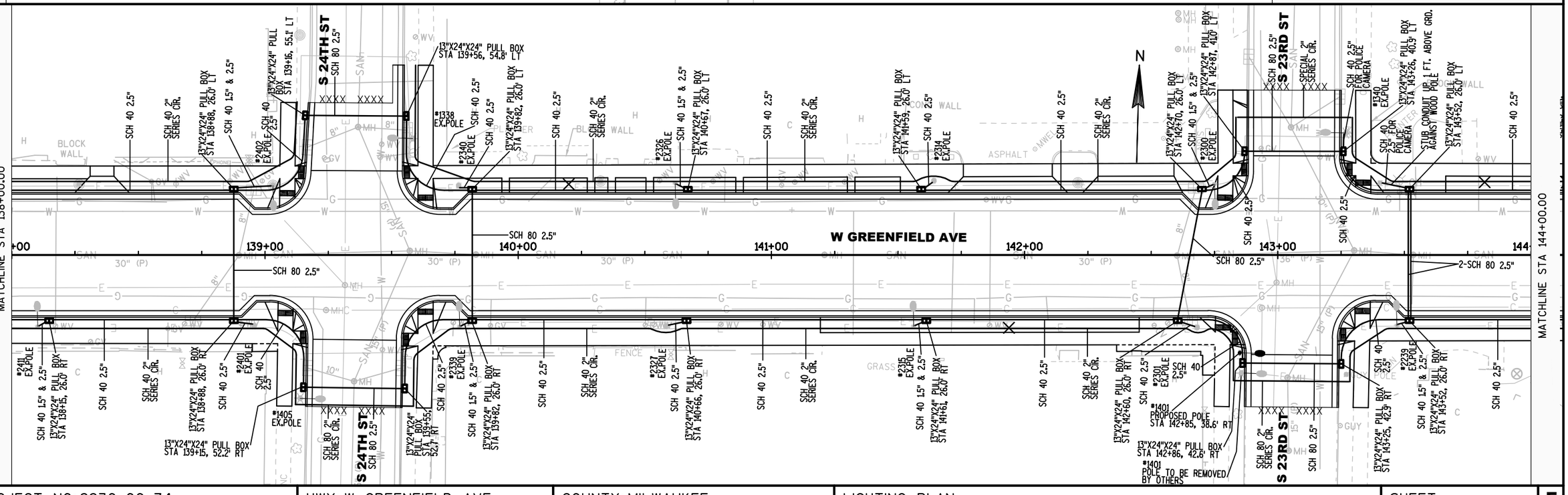
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 101	E





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 102	E





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 103	E

2

2

MATCHLINE STA 144+00.00

MATCHLINE STA 149+50.00

W GREENFIELD AVE

S 22ND ST

S 21ST ST

S 20TH ST

145+00 146+00 147+00 148+00 149+00

LEGEND

- EXISTING STREET LIGHT POLE
- PROPOSED STREET LIGHT POLE (BY OTHERS)
- EXISTING SIGNAL STANDARD
- PROPOSED FIBERGLASS POLYMER CONCRETE PULL BOX (SIZE AS NOTED)
- TRAFFIC CONTROL CABINET (FURNISHED BY OTHERS)
- CONDUIT RIGID NONMETALLIC (SCHEDULE AND SIZE AS NOTED)
- TRAFFIC SIGNAL BASE TO BE INSTALLED (SEE PERMANENT TRAFFIC SIGNAL PLANS)

MATCHLINE STA 149+50.00

MATCHLINE STA 155+00.00

W GREENFIELD AVE

150+00 151+00 152+00 153+00 154+00

BP: 65+00.00

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 104	E

2

MATCHLINE STA 155+00.00

MATCHLINE STA 160+00.00

MATCHLINE STA 160+00.00

MATCHLINE STA 165+50.00

W GREENFIELD AVE

S 19TH ST

S 18TH ST

S 17TH ST

S COMSTOCK AVE

W BOW ST

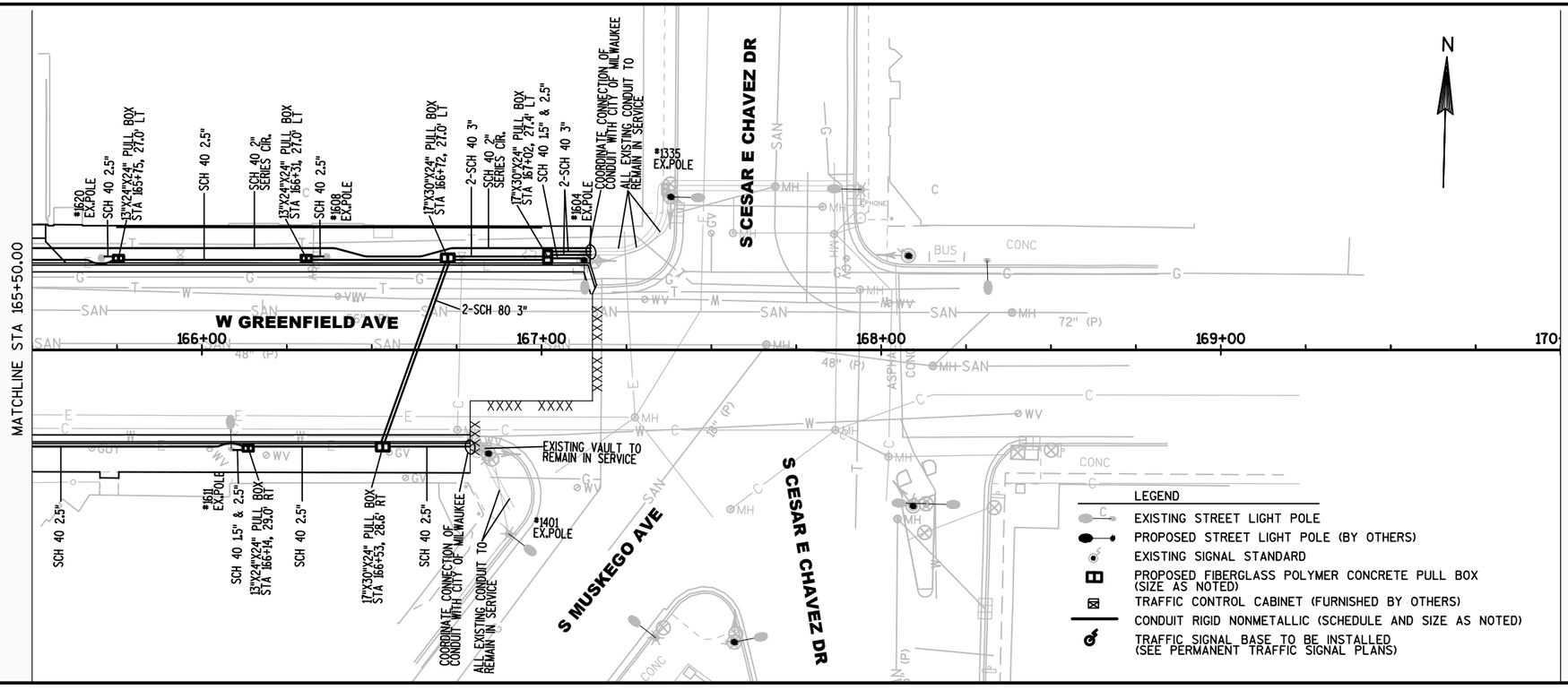
S UNION ST

N

LEGEND

- EXISTING STREET LIGHT POLE
- PROPOSED STREET LIGHT POLE (BY OTHERS)
- EXISTING SIGNAL STANDARD
- PROPOSED FIBERGLASS POLYMER CONCRETE PULL BOX (SIZE AS NOTED)
- TRAFFIC CONTROL CABINET (FURNISHED BY OTHERS)
- CONDUIT RIGID NONMETALLIC (SCHEDULE AND SIZE AS NOTED)
- TRAFFIC SIGNAL BASE TO BE INSTALLED (SEE PERMANENT TRAFFIC SIGNAL PLANS)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 105	E



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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 106	E

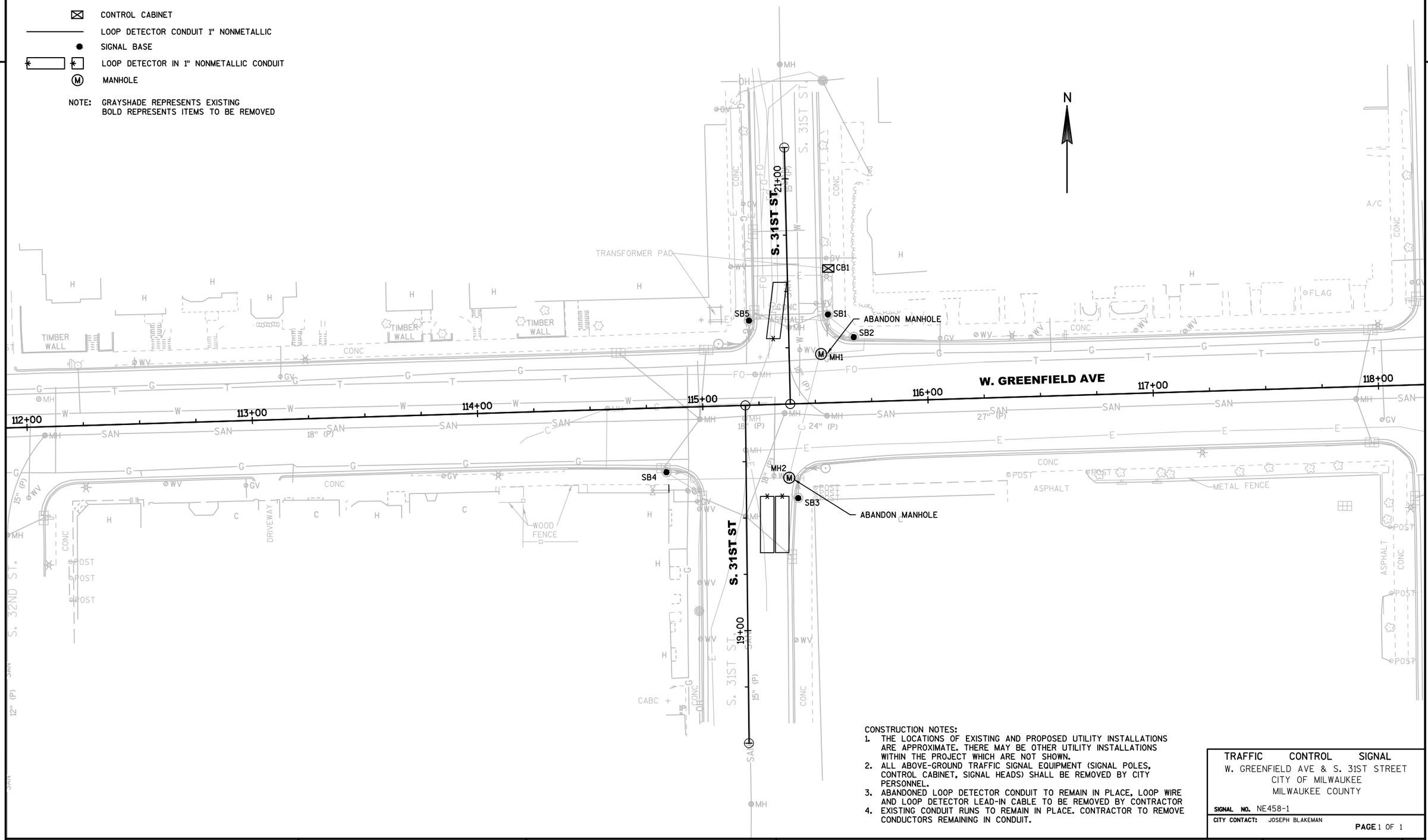
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\023501-LP.DWG
LAYOUT NAME - 023501-LP - LP - (7)
PLOT DATE : 4/10/2017 3:09 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

LEGEND

- CONTROL CABINET
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- MANHOLE

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ALL ABOVE-GROUND TRAFFIC SIGNAL EQUIPMENT (SIGNAL POLES, CONTROL CABINET, SIGNAL HEADS) SHALL BE REMOVED BY CITY PERSONNEL.
3. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE, LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY CONTRACTOR
4. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.

TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 31ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE458-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

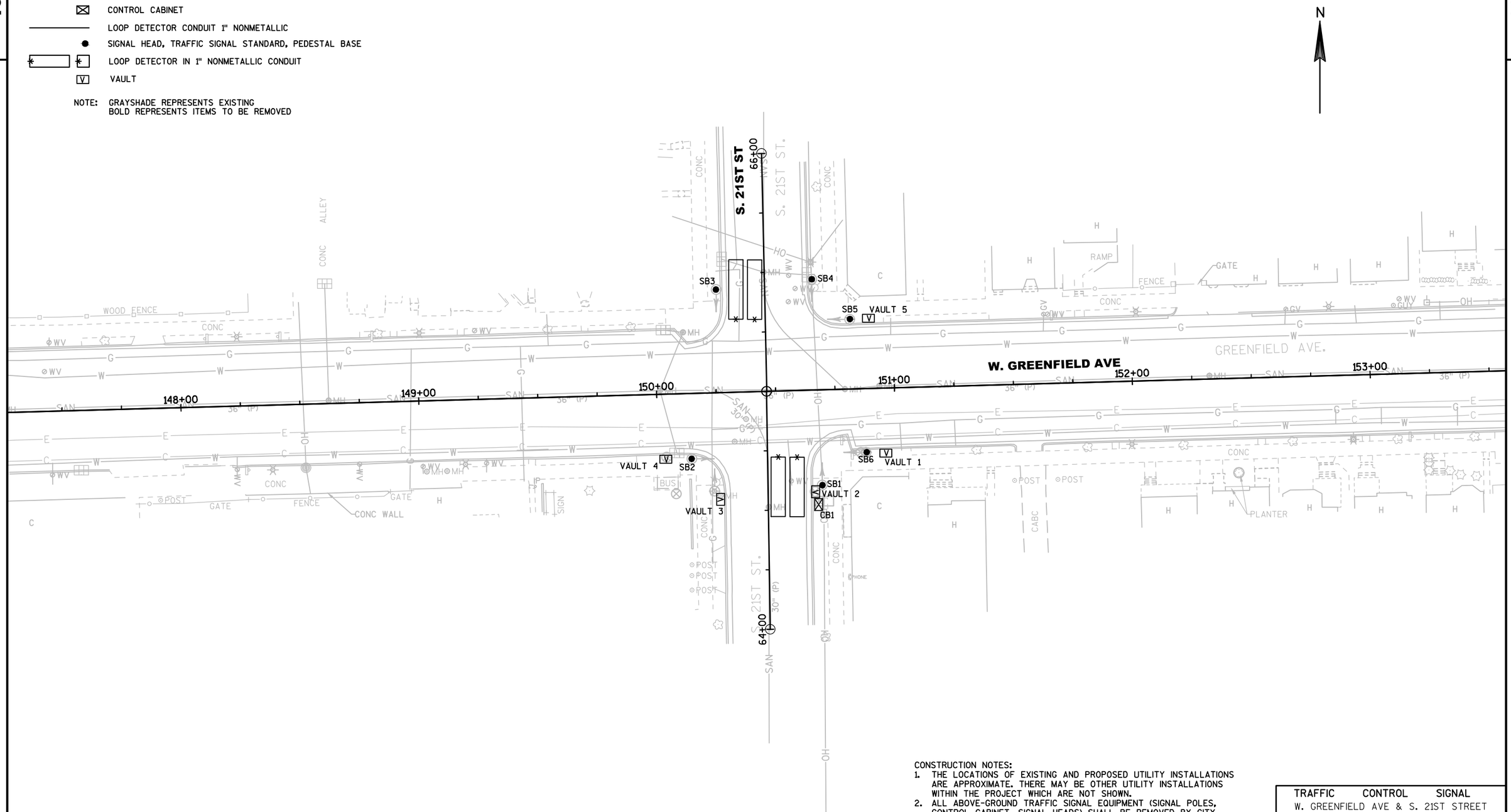
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN - S. 31ST ST	SHEET 107	E

2

LEGEND

- CONTROL CABINET
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VAULT

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ALL ABOVE-GROUND TRAFFIC SIGNAL EQUIPMENT (SIGNAL POLES, CONTROL CABINET, SIGNAL HEADS) SHALL BE REMOVED BY CITY PERSONNEL.
3. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE, LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY CONTRACTOR
4. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.

TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 21ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE459-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN - S. 21ST ST	SHEET 108	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024003-SR.DWG
LAYOUT NAME - 024003-SR - S-01 21ST

PLOT DATE : 4/10/2017 3:10 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

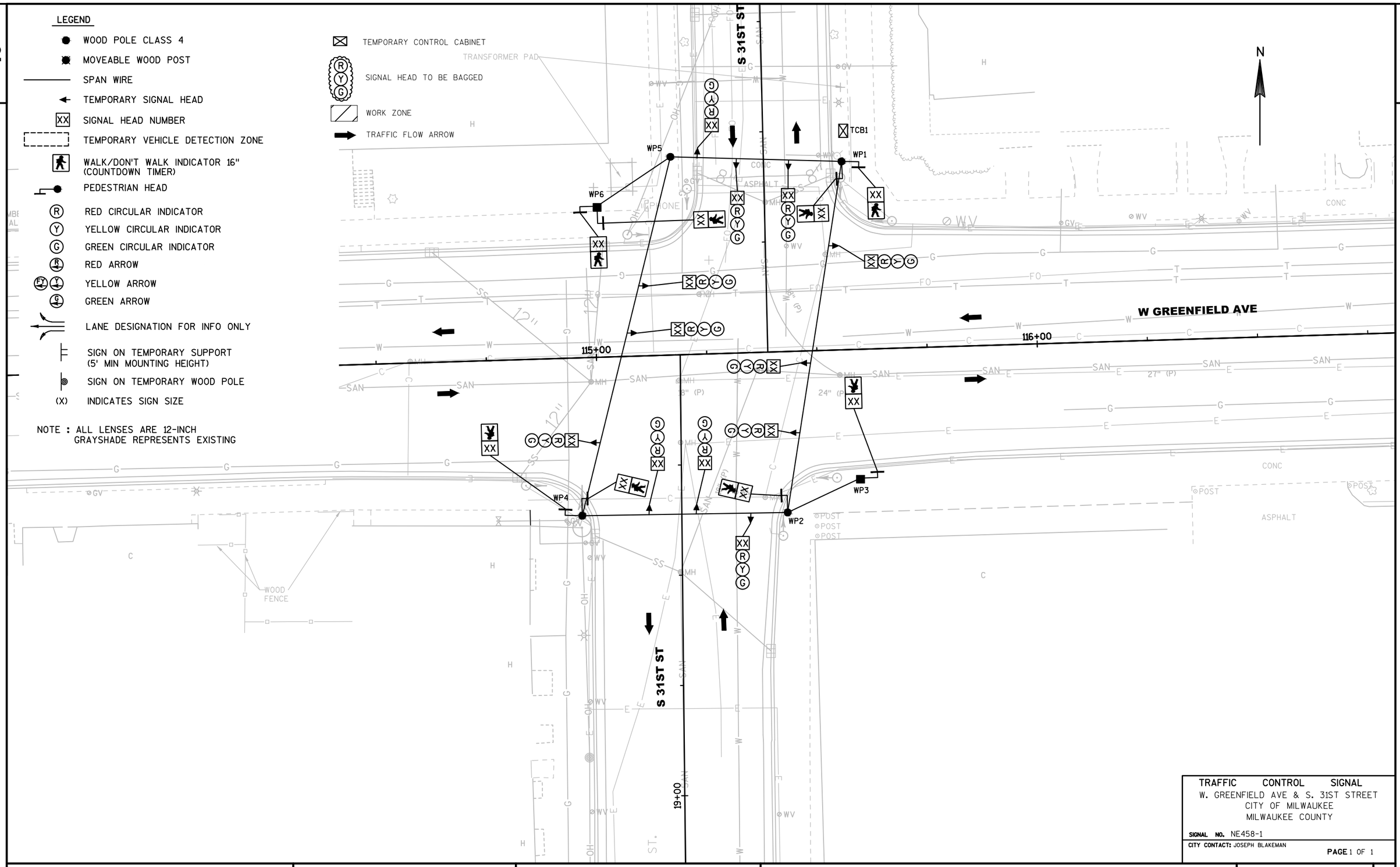
WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

NOTE : ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- TEMPORARY CONTROL CABINET
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 31ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE458-1
CITY CONTACT: JOSEPH BLAKEMAN
PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 1 (S. 31ST ST)	SHEET 109	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024101-ST-ST1.DWG
LAYOUT NAME - 024101-ST-ST1 - S-01 31ST

PLOT DATE : 4/10/2017 3:11 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

2

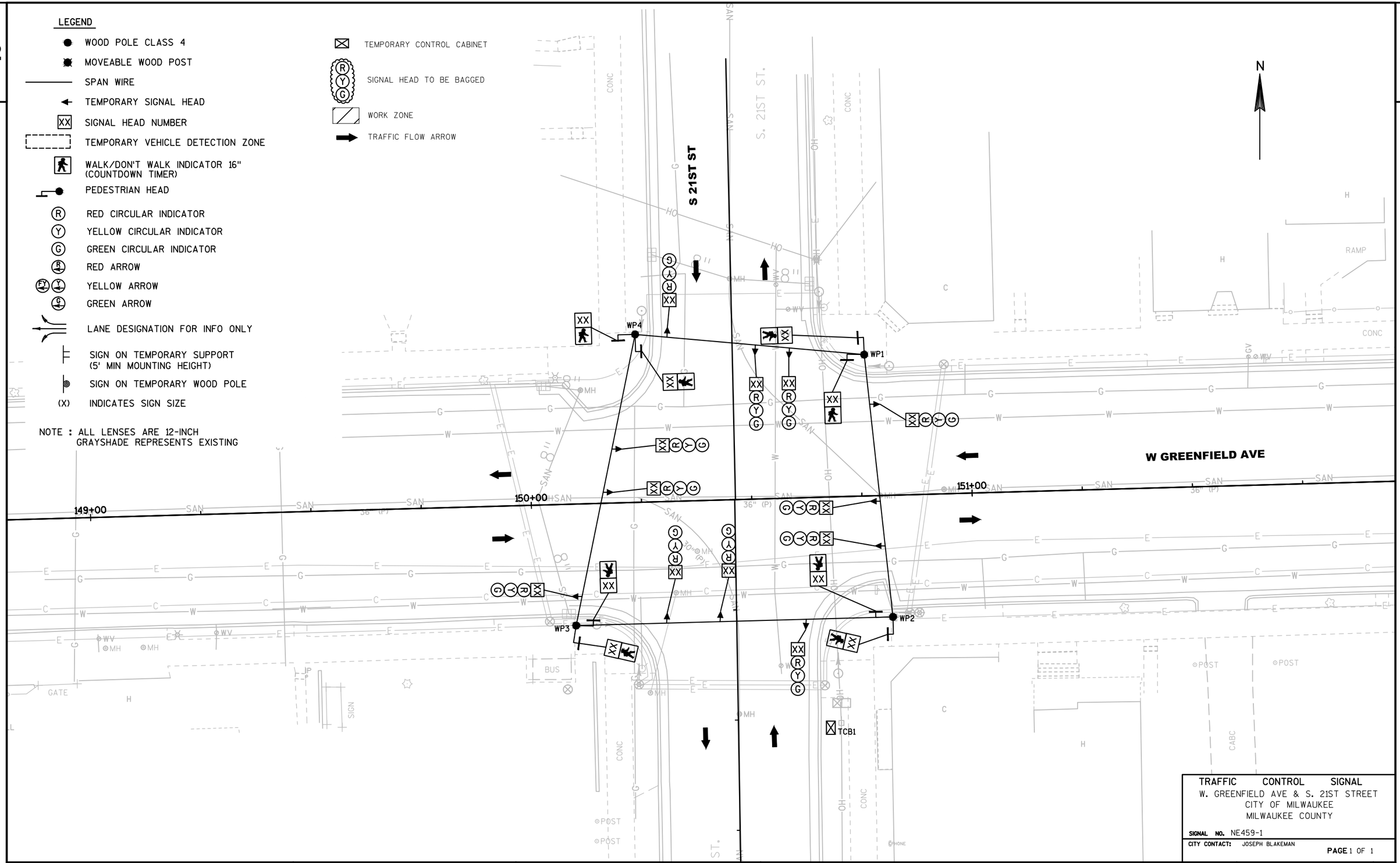
2

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

NOTE : ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- TEMPORARY CONTROL CABINET
- R Y G SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 21ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE459-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 1 (S. 21ST ST)	SHEET 110	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024103-ST-ST1.DWG
LAYOUT NAME - 024103-ST-ST1 - S-01 21ST

PLOT DATE : 4/10/2017 3:12 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

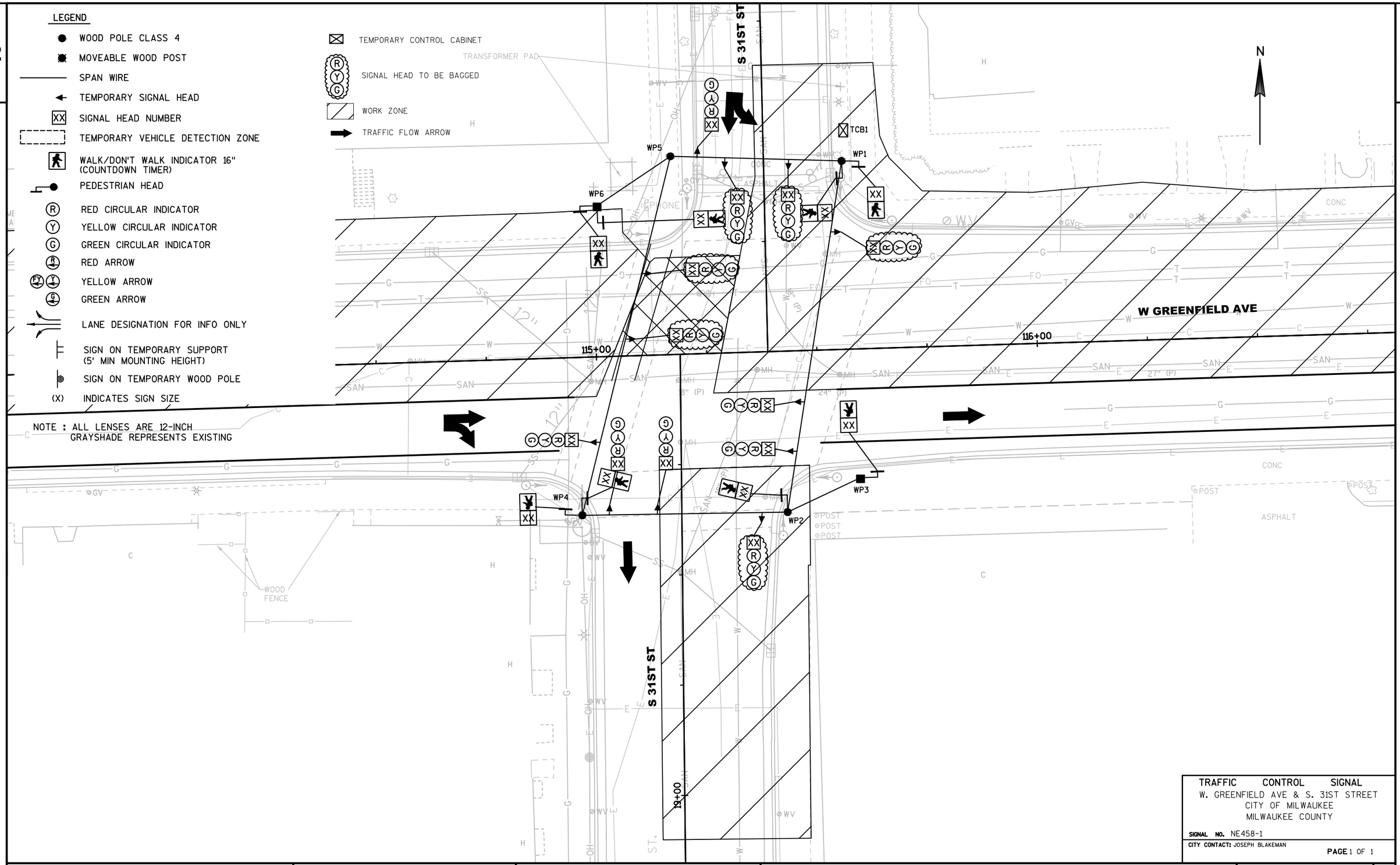
2

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- FY YA YELLOW ARROW
- GA GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

- TEMPORARY CONTROL CABINET
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE : ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 31ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE458-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 2 (S. 31ST ST)	SHEET 111	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024111-ST-ST2.DWG
LAYOUT NAME - 024111-ST-ST2 - S-01 31ST

PLOT DATE : 4/10/2017 3:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

2

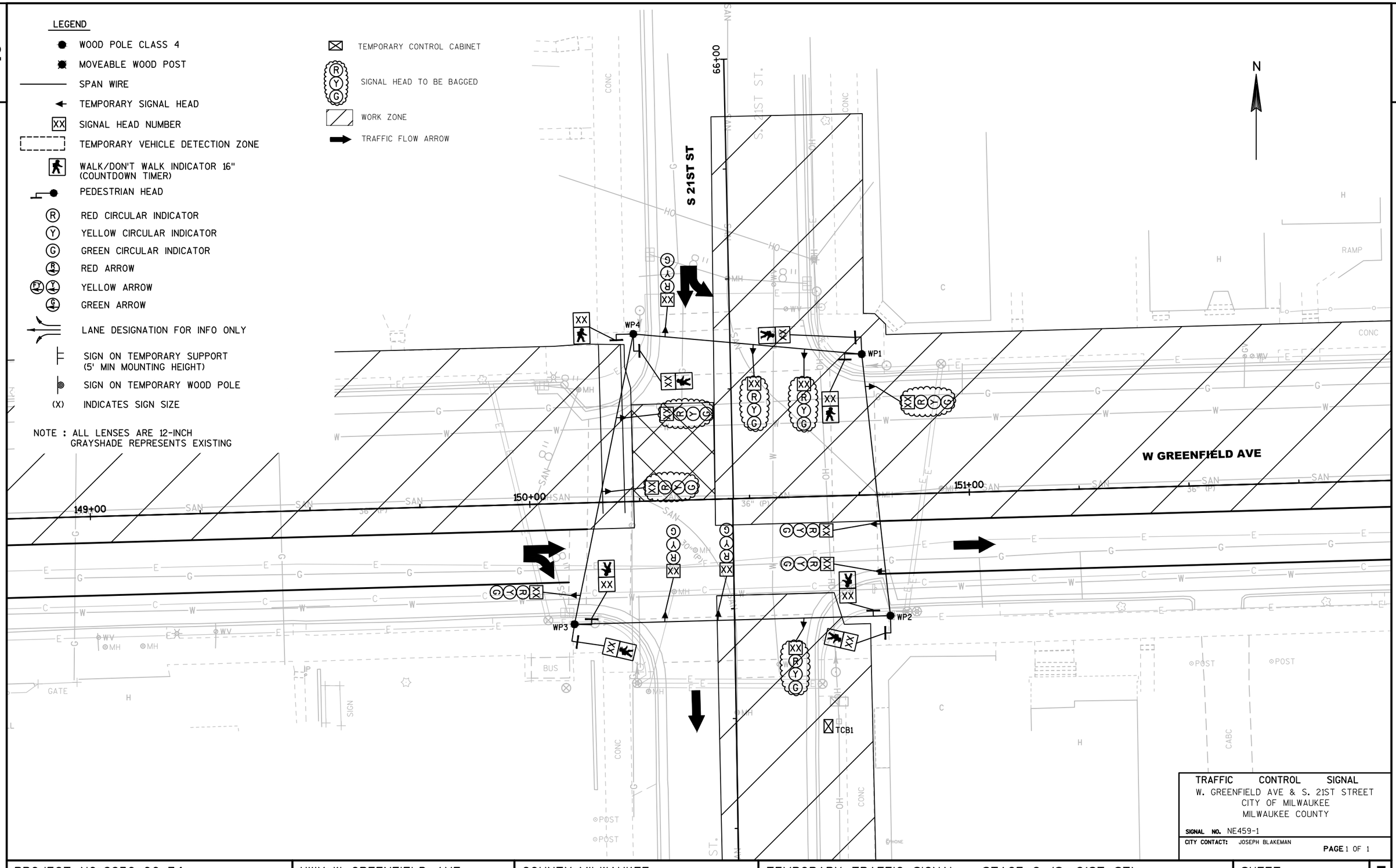
2

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

NOTE : ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- TEMPORARY CONTROL CABINET
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 21ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE459-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 2 (S. 21ST ST)	SHEET 112	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024113-ST-ST2.DWG
LAYOUT NAME - 024113-ST-ST2 - S-01 21ST

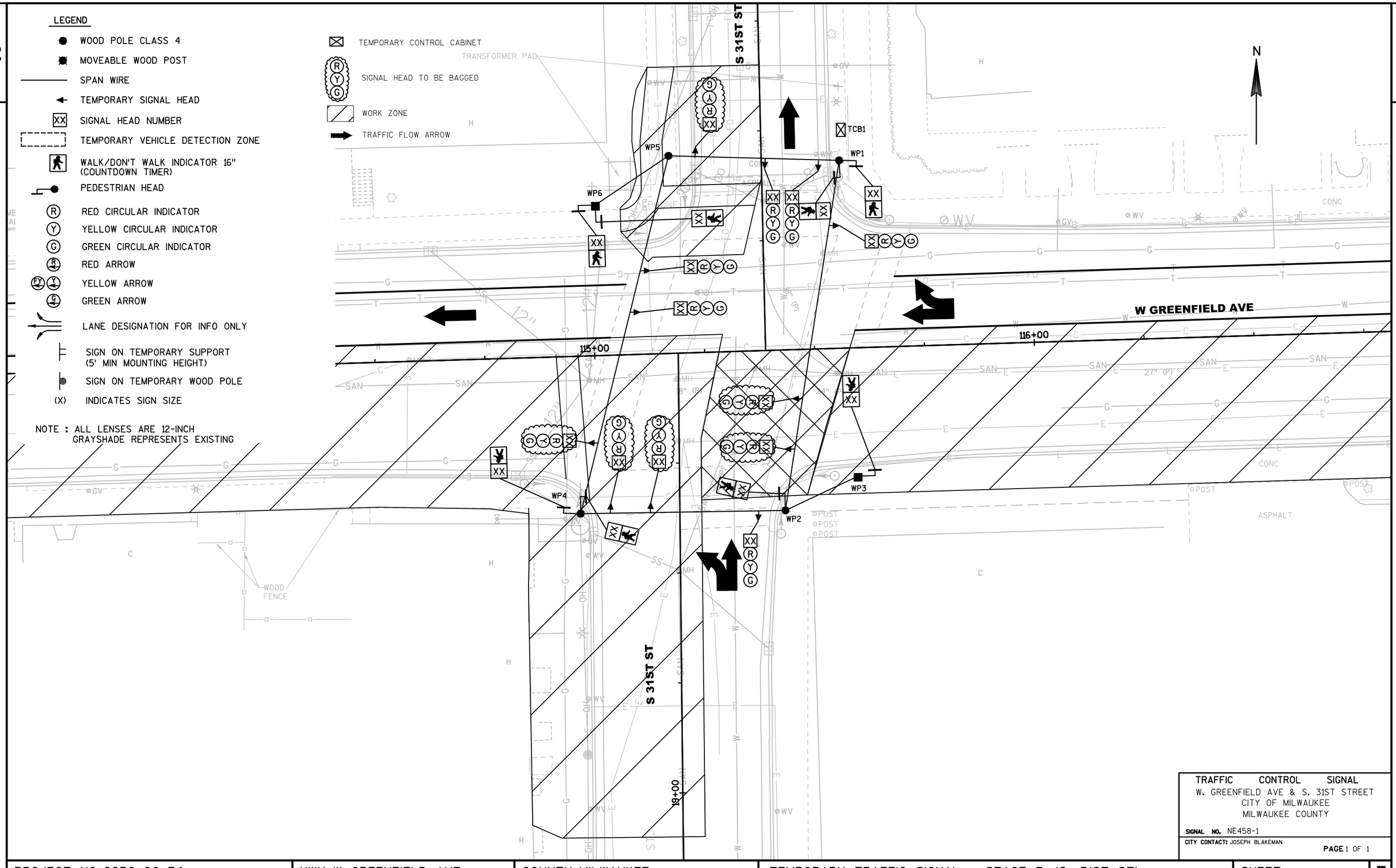
PLOT DATE : 4/10/2017 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

NOTE : ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- TEMPORARY CONTROL CABINET
- R Y G SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 31ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE458-1
CITY CONTACT: JOSEPH BLAKEMAN
PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 3 (S. 31ST ST)	SHEET 113	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024121-ST-ST3.DWG
LAYOUT NAME - 024121-ST-ST3 - S-01 31ST

PLOT DATE : 4/10/2017 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

2

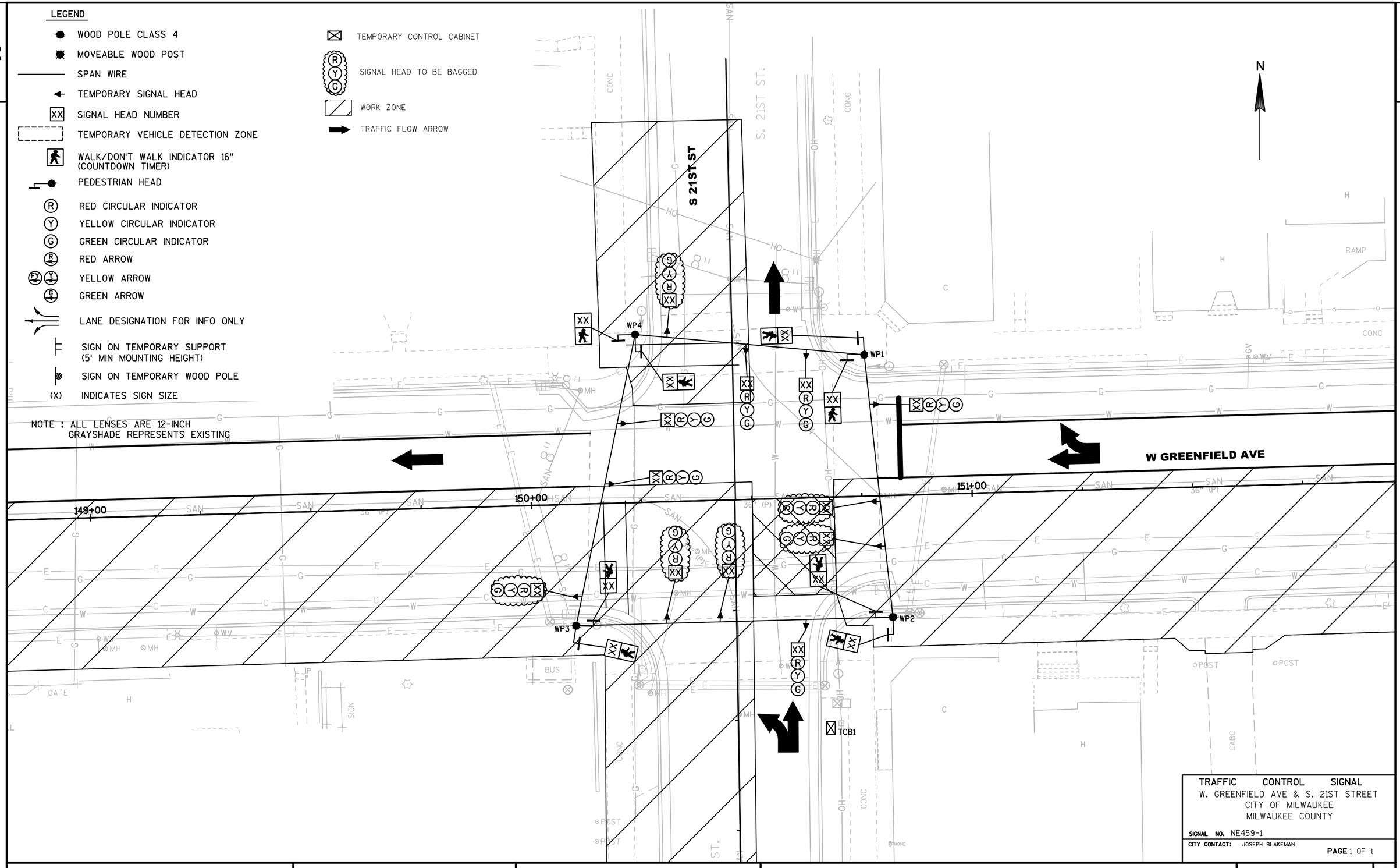
2

LEGEND

- WOOD POLE CLASS 4
- MOVEABLE WOOD POST
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- XX SIGNAL HEAD NUMBER
- TEMPORARY VEHICLE DETECTION ZONE
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- PEDESTRIAN HEAD
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- SIGN ON TEMPORARY WOOD POLE
- (X) INDICATES SIGN SIZE

- TEMPORARY CONTROL CABINET
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE : ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 21ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE459-1
CITY CONTACT: JOSEPH BLAKEMAN
PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL - STAGE 3 (S. 21ST ST)	SHEET 114	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024123-ST-ST3.DWG
LAYOUT NAME - 024123-ST-ST3 - S-01 21ST

PLOT DATE : 4/10/2017 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 (NO. OF RUNS AND SIZE AS NOTED), UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE (UNLESS OTHERWISE NOTED ON MISC QUANTITIES)
- SIGNAL HEAD, CO-LOCATED ON UTILITY POLE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- RADAR DETECTION AREA
- R RADAR DETECTOR
- FIBERGLASS POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

S 31ST ST

W GREENFIELD AVE

INSTALL CITY-FURNISHED TRAFFIC SIGNAL CABINET, TRAFFIC SIGNAL CONTROLLER, & FOUNDATION

CB1

PB1

PB2

PB3

PB4

PB5

PB6

PB7

PB8

SB-A

SB-B

SB-C

SB-D

SB-E

SB-EE

SB-F

SB-G

SB-H

SB-AA

1-2"

1-3"

2-3"

3-SCH 80 3"

2-SCH 80 3"

CO-LOCATE SB-G ON WE ENERGIES POLE

WOOD FENCE

ASPHALT

CONC

115+00

116+00

19+00

TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 31ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE458-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - S. 31ST ST	SHEET	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024201-SP.DWG
LAYOUT NAME - 024201-SP - S-01 31ST

PLOT DATE : 4/10/2017 3:16 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 (NO. OF RUNS AND SIZE AS NOTED), UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE (UNLESS OTHERWISE NOTED ON MISC QUANTITIES)
- SIGNAL HEAD, CO-LOCATED ON UTILITY POLE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- CONFIRMATION LIGHT
- RADAR DETECTION AREA
- R RADAR DETECTOR
- FIBERGLASS POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

S 21ST ST

W GREENFIELD AVE

149+00 150+00 151+00

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9

SB-A SB-B SB-C SB-D SB-E SB-F SB-G

CB1

2-SCH 80 3"

3-SPECIAL-3"

1-2" 2-3" 3-3"

25'

INSTALL CITY-FURNISHED TRAFFIC SIGNAL CABINET, TRAFFIC SIGNAL CONTROLLER & FOUNDATION

CO-LOCATE TRAFFIC SIGNALS ON WE ENERGIES POLE

TRAFFIC CONTROL SIGNAL
W. GREENFIELD AVE & S. 21ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NE459-1

CITY CONTACT: JOSEPH BLAKEMAN

PAGE 1 OF 1

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - S. 21ST ST	SHEET E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024203-SP.DWG
LAYOUT NAME - 024203-SP - S-01 21ST
PLOT DATE : 4/10/2017 3:17 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

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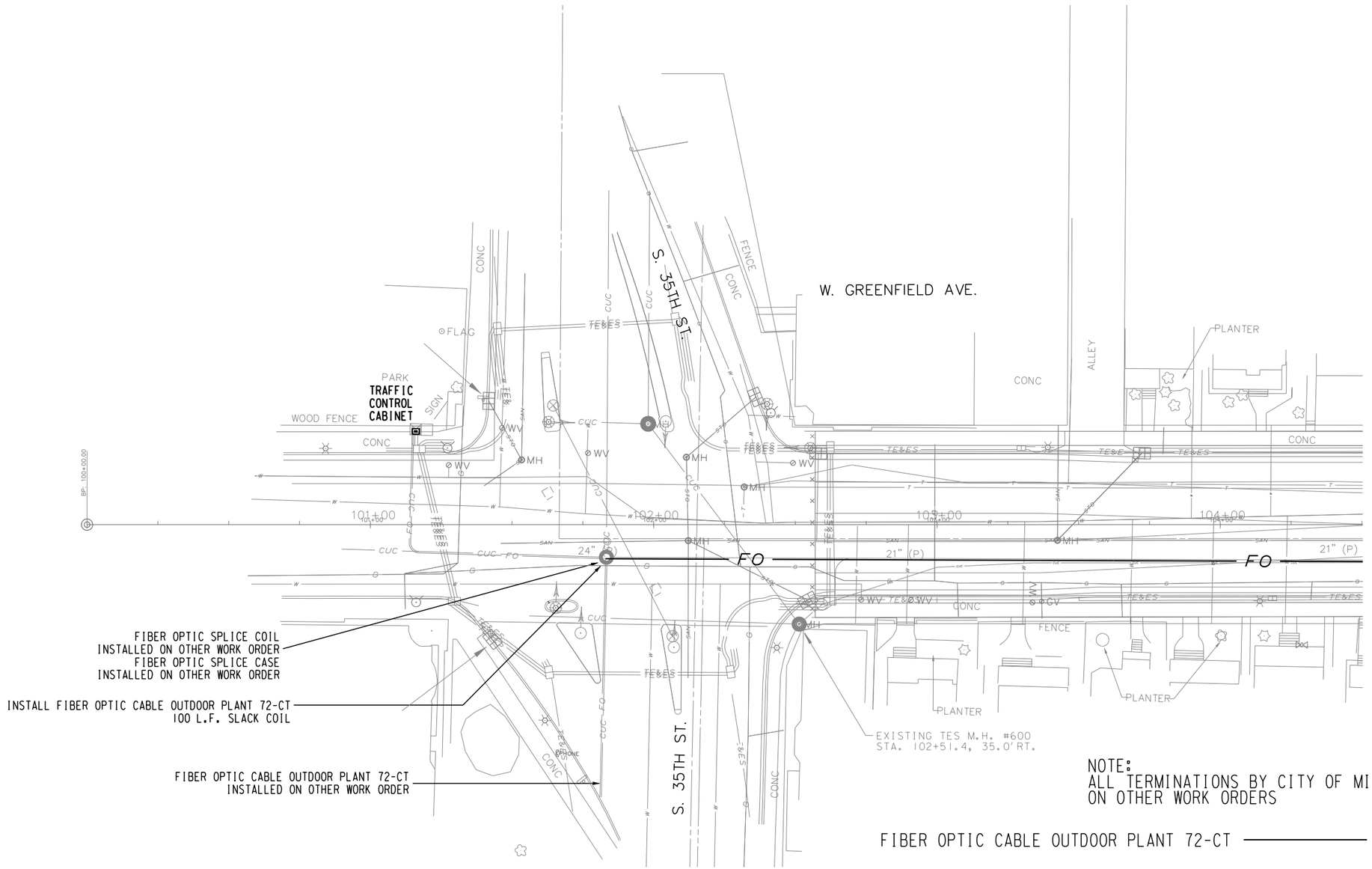

NOTE:
ALL TERMINATIONS BY CITY OF MILWAUKEE
ON OTHER WORK ORDERS

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
●	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

SCALE, FEET 0 40

SHEET 1 OF 14

2

N

S. 34TH ST.

W. GREENFIELD AVE.

S. 33RD ST.

ALLEY

105+00 106+00 107+00 108+00 109+00

4+00 6+00 9+00 11+00

FENCE WALL PLANTER WOOD FENCE CONC TE&ES SAN CUC FO WV MH GV VLV GUY PHONE

15" (P) 12" (P) 18" (P)

ADJUST TES MANHOLE
EXISTING TES M.H. #601
STA. 108+86.0, 13.3' RT.

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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.
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5) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
●	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

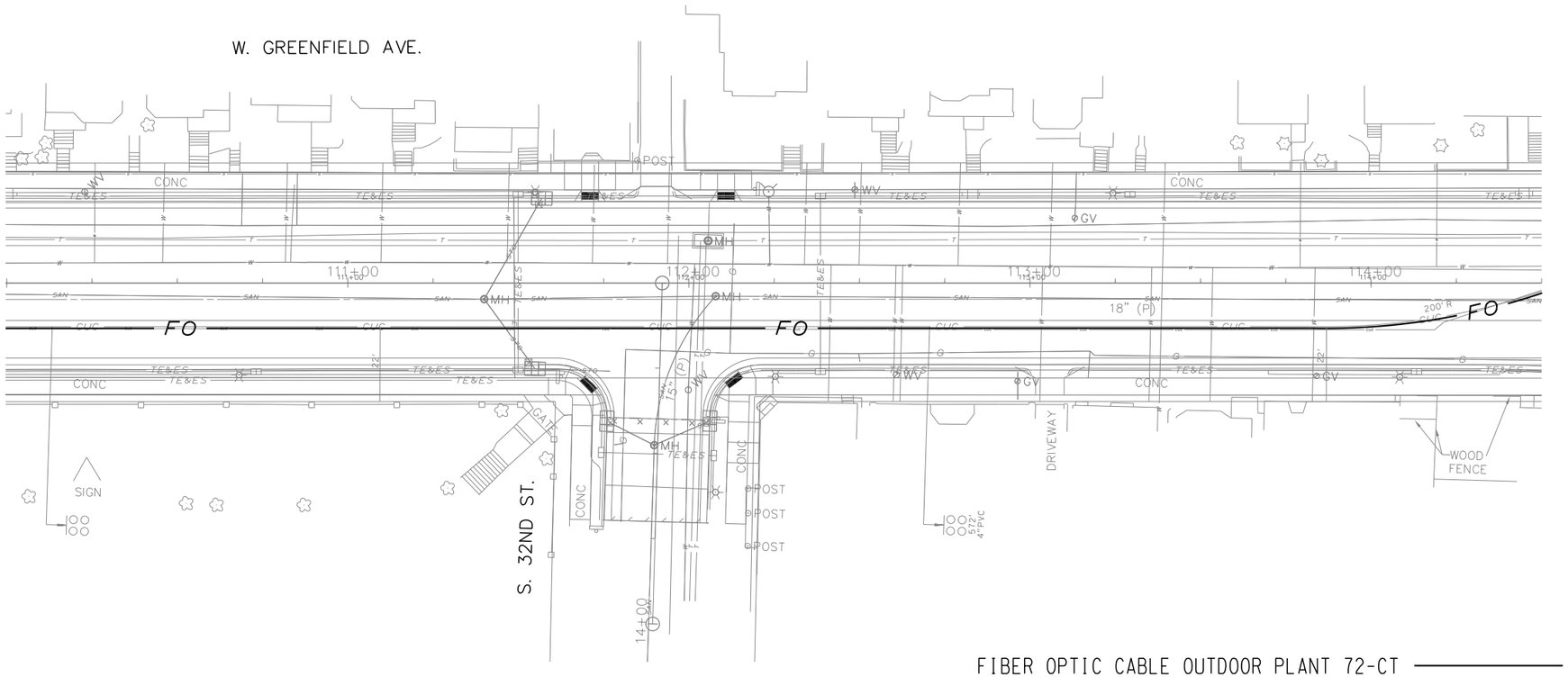
SHEET 2 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 118 E

FILENAME: DGNFILENAME

2

N



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
⊙	PROPOSED TES MANHOLE
⊙	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

SCALE, FEET 0 40

SHEET 3 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 119 E

FILENAME: DGNFILENAME

NOTE:
ALL TERMINATIONS BY CITY OF MILWAUKEE
ON OTHER WORK ORDERS

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

N

77'-2-4" PVC CONDUIT
CEMENT ENCASED
SEE NOTE #6

EXISTING TRAFFIC CONTROL CABINET
STA. 114+57.2, 60.6'LT.
REMOVED & REPLACED BY OTHERS

18'-2-4" PVC CONDUIT
CEMENT ENCASED
TO PROPOSED POLICE CALL BOX
SEE INSTALLATION DETAIL

HUB 90°, 5' RAD.
STA. 115+54.0, 55.8'LT.

32'-2-4" PVC CONDUIT
CEMENT ENCASED
W/VENT PIPE
TO TRAFFIC CONTROL CABINET
SEE INSTALLATION DETAIL

37'-4-4" PVC
CONDUIT
CEMENT ENCASED

TRANSFORMER PAD

PROPOSED 4' DIAMETER TES MANHOLE #604
STA. 115+49.0, 32.4'LT.

TRAFFIC CONTROL CABINET

S. 31ST ST.

S. 30TH ST.

W. GREENFIELD AVE.

ADJUST TES MANHOLE
EXISTING TES M.H. #606
STA. 118+58.3, 2.9'LT.

ABANDON MANHOLE
EXISTING TES M.H. #605
STA. 115+52.3, 22.4'LT.

EXISTING POLICE CALL BOX
RELOCATED BY OTHERS

ABANDON MANHOLE
EXISTING TES M.H. #603
STA. 115+37.2, 32.4'LT.

PROPOSED POLICE CALL BOX
STA. 114+88.0, 33.7'LT.
RELOCATED BY OTHERS

HUB 90°, 12.5' RAD.
STA. 114+70.3, 19.5'LT.

FIBER OPTIC SPLICE CASE
INSTALLED ON OTHER WORK ORDER

INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT
200 L.F. SLACK COIL

ADJUST TES MANHOLE
EXISTING TES M.H. #602
STA. 114+57.9, 0.8'LT.

WOOD FENCE

ASPHALT

METAL FENCE

FENCE

GATE

SIGN

SANITARY CLEANOUT

PLANTER

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

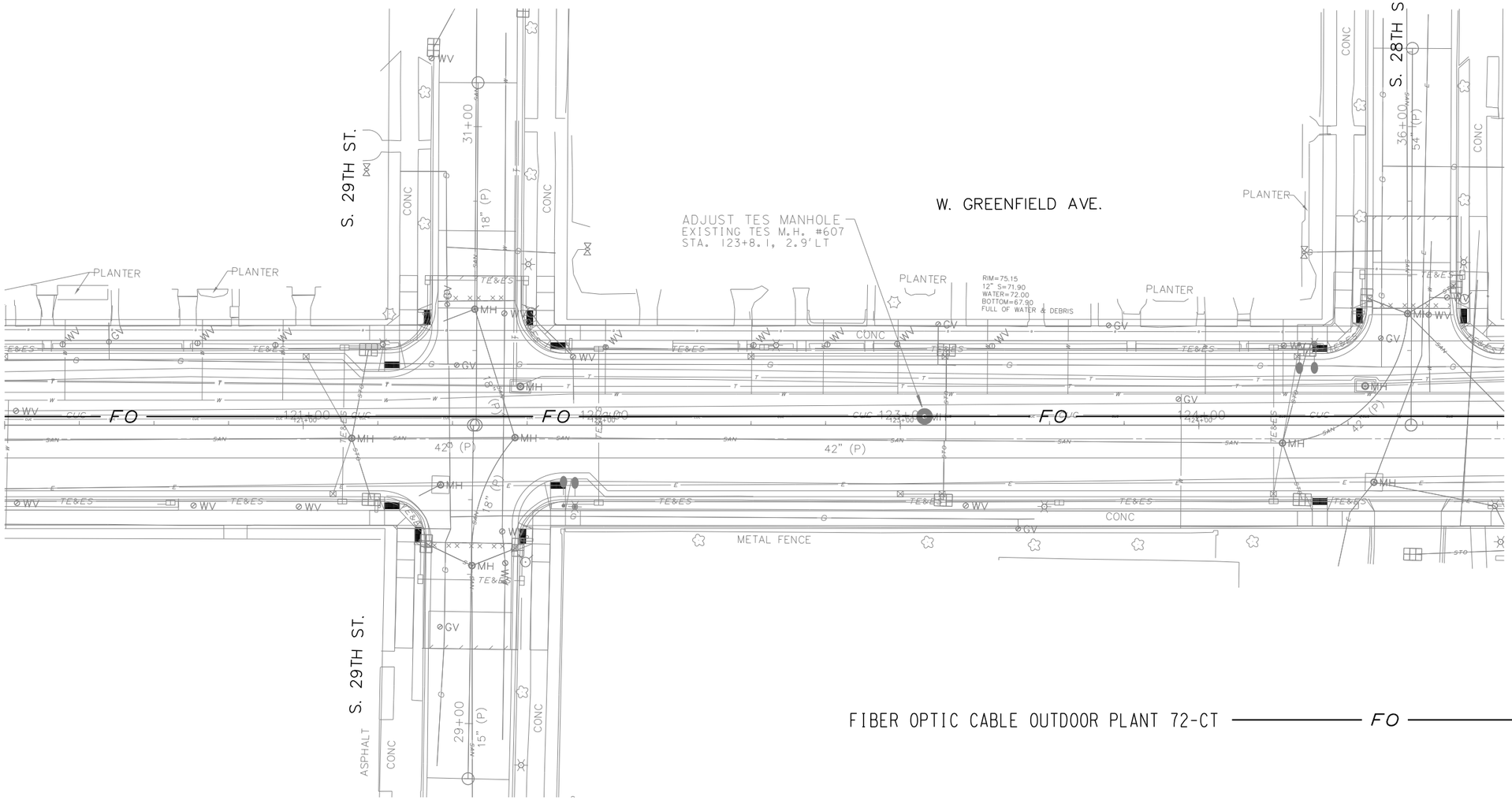
SHEET 4 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 120 E

FILENAME: DGNFILENAME

2

N



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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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6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

SHEET 5 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 121 E

FILENAME: DGNFILENAME

2

N

S. 28TH ST.

S. LAYTON BLVD.

W. GREENFIELD AVE.

S. LAYTON BLVD.

EXISTING 4" PVC CONDUIT

EXISTING TES M.H. #610
STA. 128+71.2, 7.5'LT.

TRANSITION CONDUIT
FROM EXISTING CONFIGURATION
OF 3 HIGH BY 2 WIDE TO A
2 HIGH BY 3 WIDE PACKAGE.

303'-6-4" PVC CONDUIT
CEMENT ENCASED
SEE NOTE #5

TRAFFIC CONTROL CABINET

EXISTING TES M.H. #608
STA. 128+05.6, 19.5'RT.

EXISTING TES M.H. #609
STA. 128+50.6, 16.9'RT.

FIBER OPTIC SPLICE CASE
INSTALLED ON OTHER WORK ORDER
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT
200 L.F. SLACK COIL

NOTE:
ALL TERMINATIONS BY CITY OF MILWAUKEE
ON OTHER WORK ORDERS

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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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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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

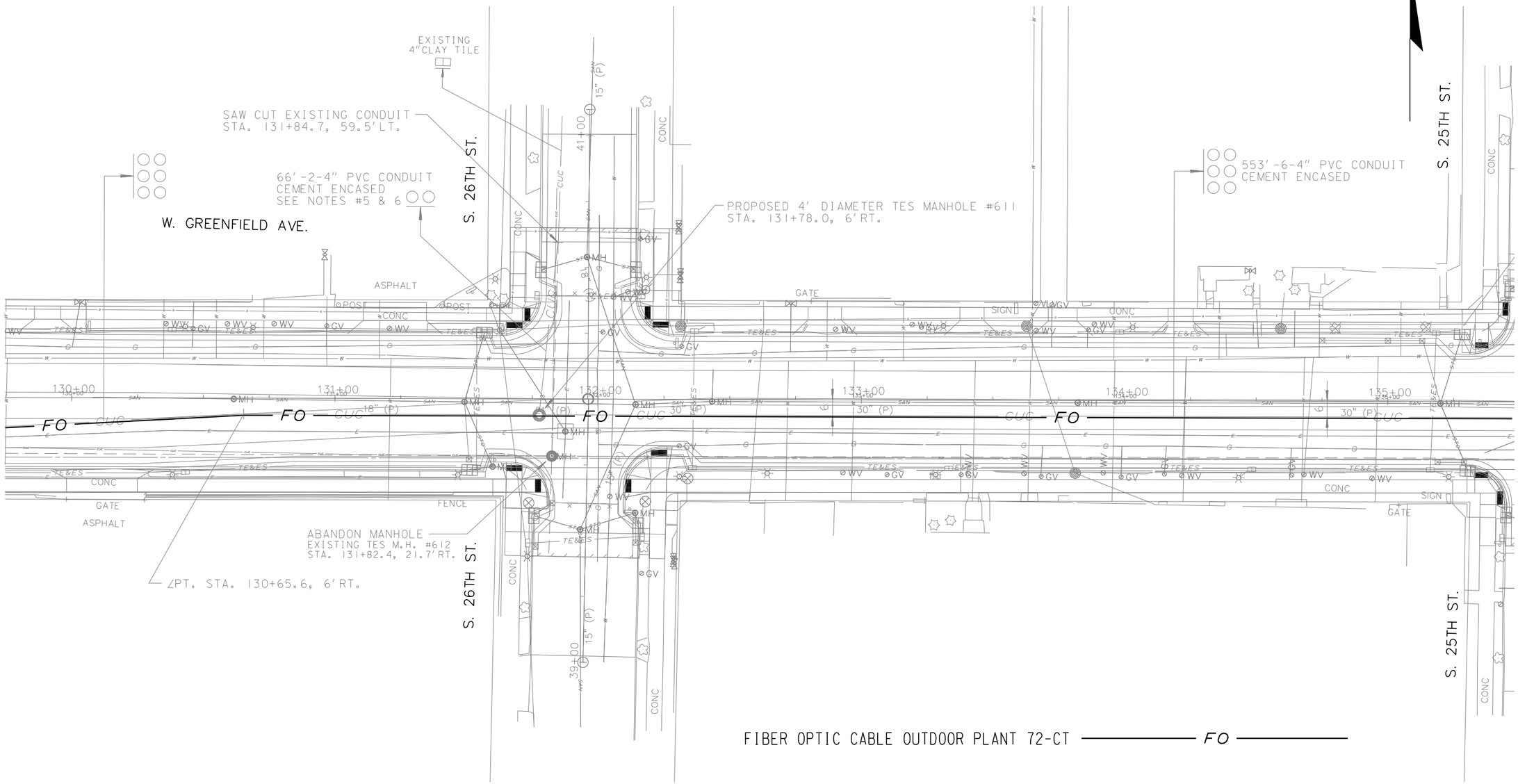
SCALE, FEET 0 40

SHEET 6 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 122 E

FILENAME: DGNFILENAME

2



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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) LOCATE EXISTING DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.
6) REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

SHEET 7 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 123 E

FILENAME: DGNFILENAME

2

N

S. 25TH ST.

W. GREENFIELD AVE.

S. 24TH ST.

PROPOSED 4' DIAMETER TES M.H. #614
STA. 137+35.0, 6.0'RT.

553'-6-4" PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE
EXISTING TES M.H. #613
STA. 135+51.8, 22.4'RT.

EXISTING POLICE
CALL BOX
REMOVED BY OTHERS

ABANDON MANHOLE
EXISTING M.H. #615
STA. 139+24.2, 21.8'RT.

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT — FO —

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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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

SHEET 8 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 124 E

FILENAME: DGNFILENAME

2

N

W. GREENFIELD AVE.

S. 23RD ST.

PROPOSED 4'DIAMETER TES M.H. #616
STA. 142+92.0, 6.0'RT.

HUB 90°, 5'RAD.
STA. 142+97.0, 27.0'RT.

25'-1-4"PVC CONDUIT
CEMENT ENCASED
TO LIGHT POLE
SEE INSTALLATION DETAIL

399'-6-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED POLICE CALL BOX
STA. 143+29.0, 35'RT.
INSTALLED BY OTHERS

9'-2-4"PVC CONDUIT
CEMENT ENCASED
TO PROPOSED POLICE CALL BOX
SEE INSTALLATION DETAIL

32'-3-4"PVC CONDUIT
CEMENT ENCASED
SEE INSTALLATION DETAIL

23'-2-4"PVC CONDUIT
CEMENT ENCASED
INSTALL TO PAVING LIMITS
CAP DUCT ENDS
SEE NOTE #6

19'-5-4"PVC CONDUIT
CEMENT ENCASED

ABANDON MANHOLE
EXISTING TES M.H. #617
STA. 142+93.8, 20.8'RT.

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

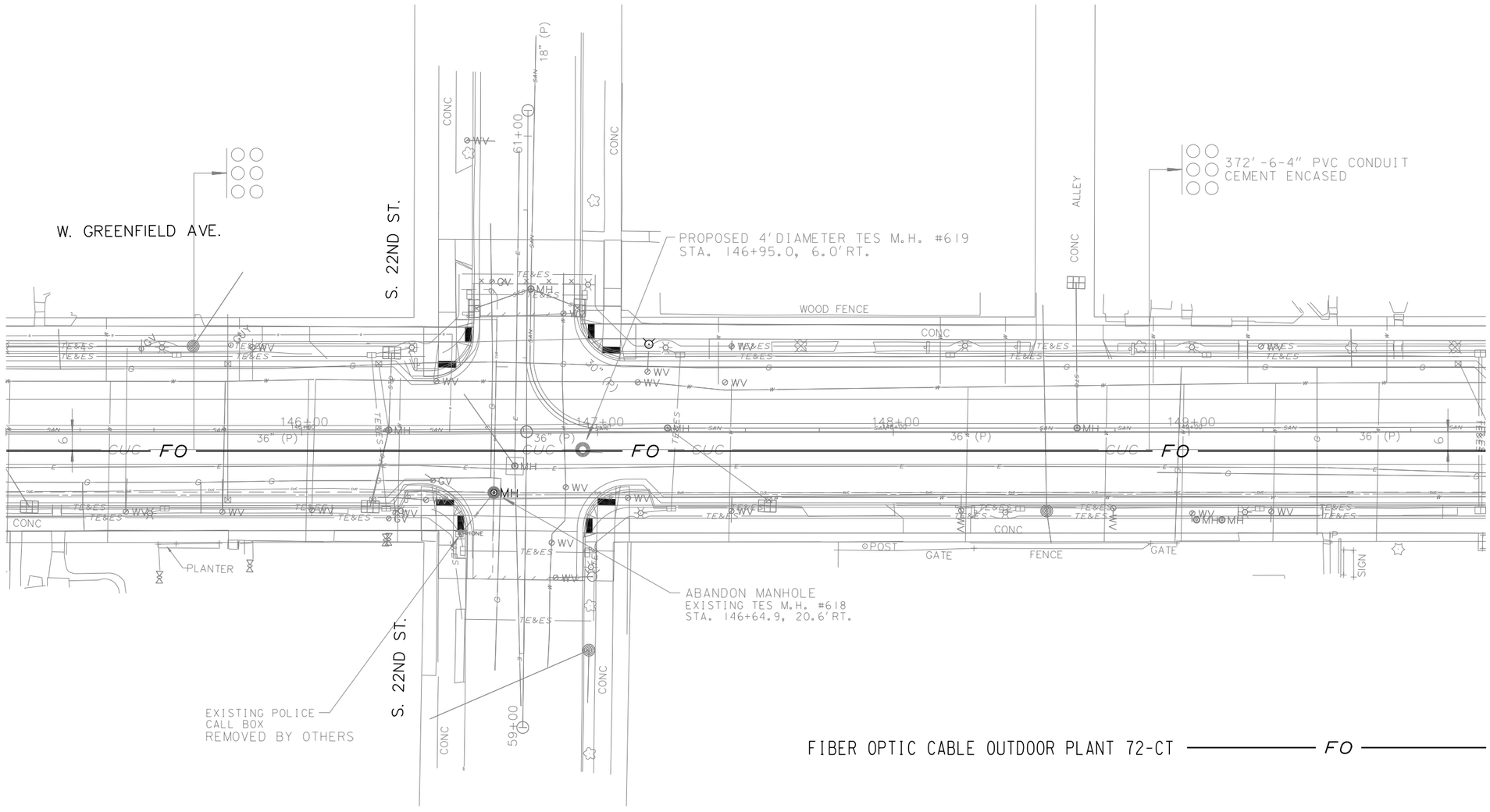
SHEET 9 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 125 E

FILENAME: DGNFILENAME

2

N



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

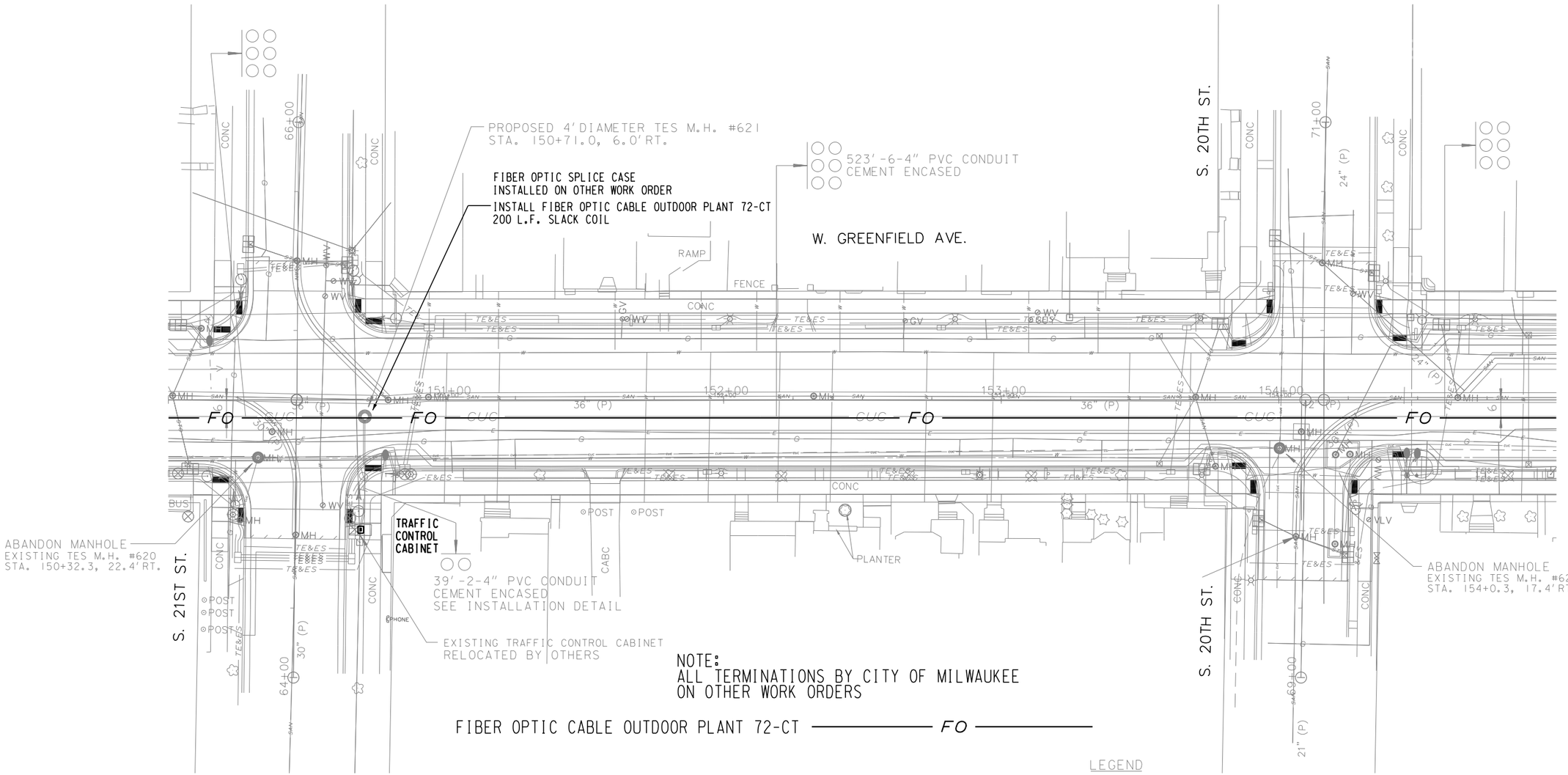
SHEET 10 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 126 E

FILENAME: DGNFILENAME

2

N



NOTE:
ALL TERMINATIONS BY CITY OF MILWAUKEE
ON OTHER WORK ORDERS

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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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LEGEND

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	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

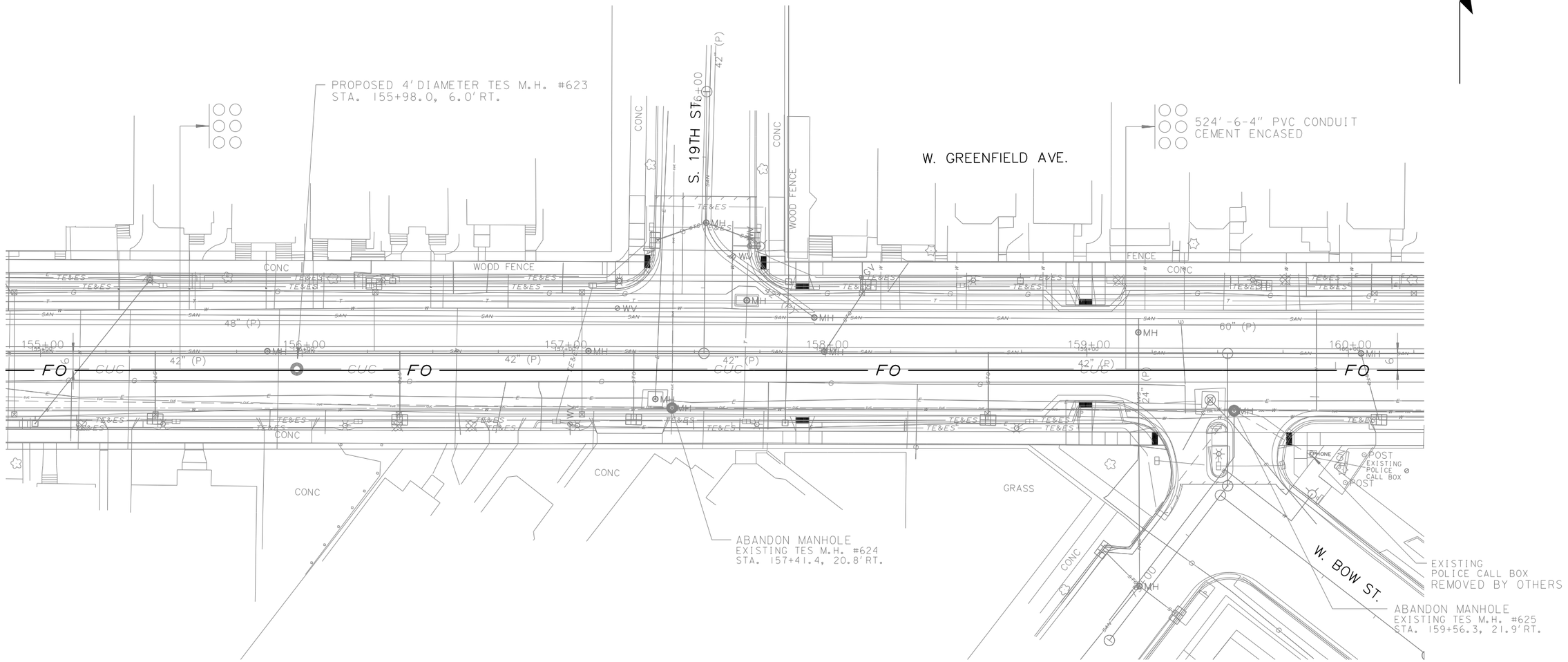
SHEET 11 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 127 E

FILENAME: DGNFILENAME

2

N



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTES:

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LEGEND

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	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

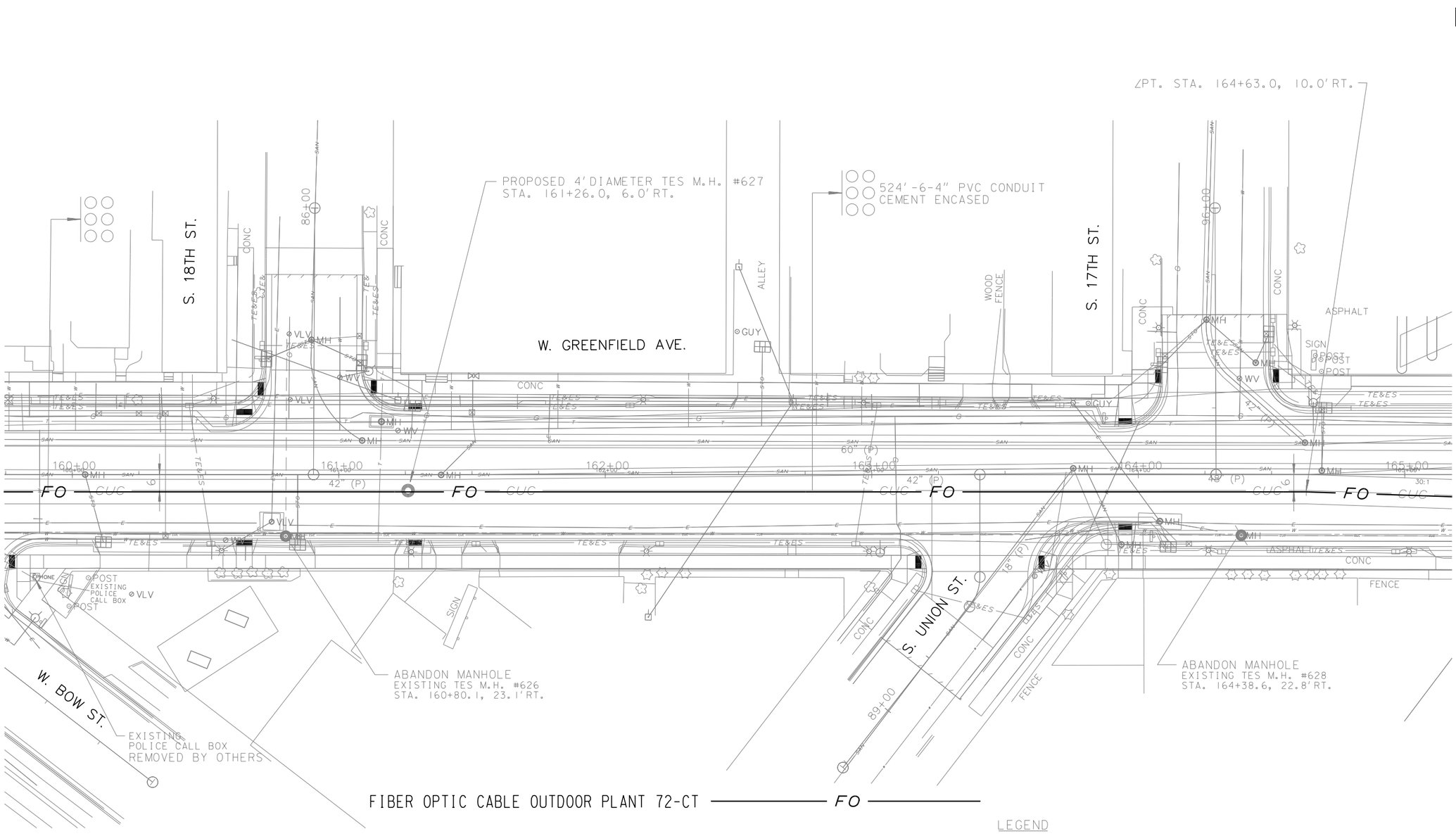
SCALE, FEET 0 40

SHEET 12 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 128 E

FILENAME: DGNFILENAME

2



FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTES:

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
○	PROPOSED TES MANHOLE
●	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

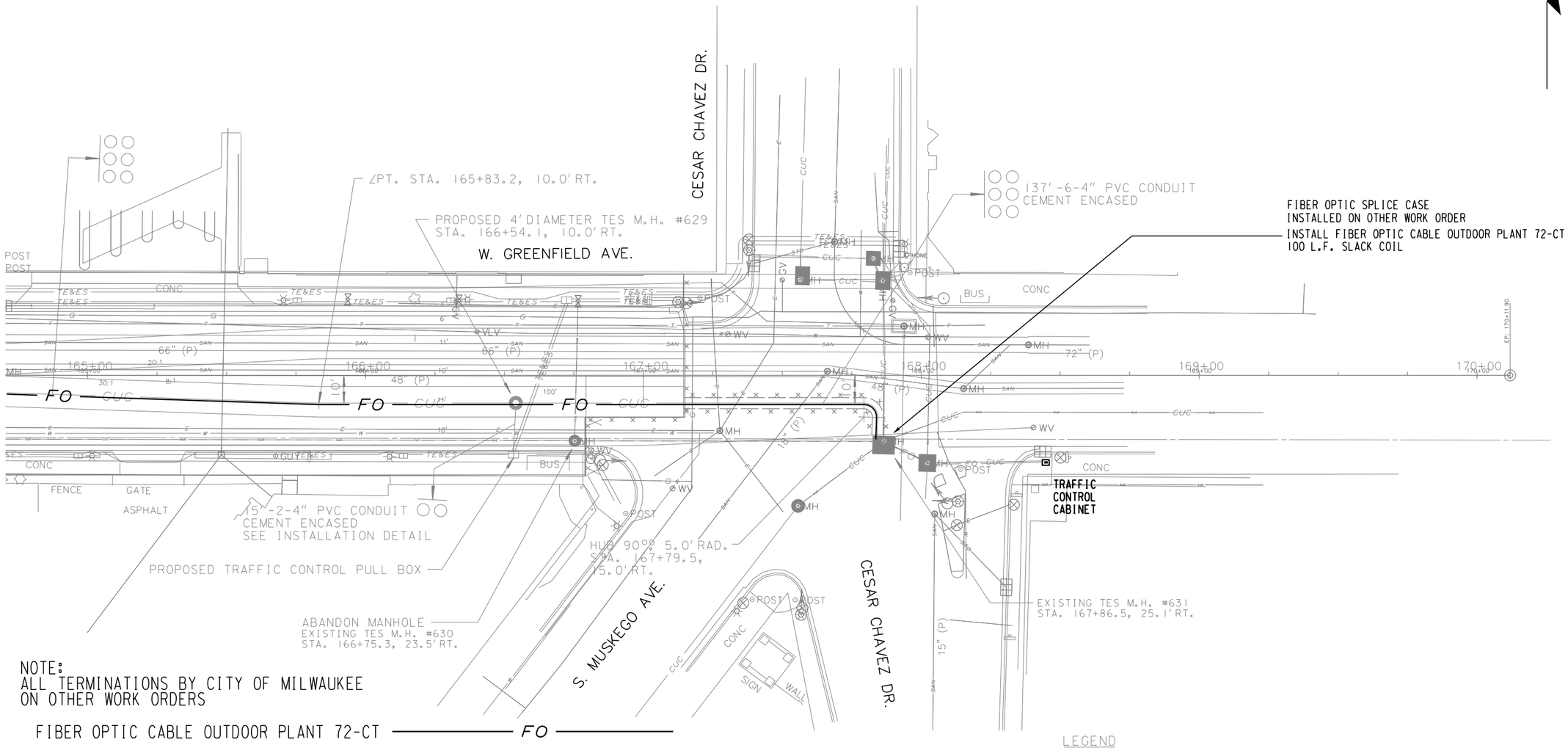
SCALE, FEET 0 40

SHEET 13 OF 14

STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 129 E

FILENAME: DGNFILENAME

2



NOTE:
ALL TERMINATIONS BY CITY OF MILWAUKEE
ON OTHER WORK ORDERS

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTES:

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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
	PROPOSED TES MANHOLE
	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SCALE, FEET 0 40

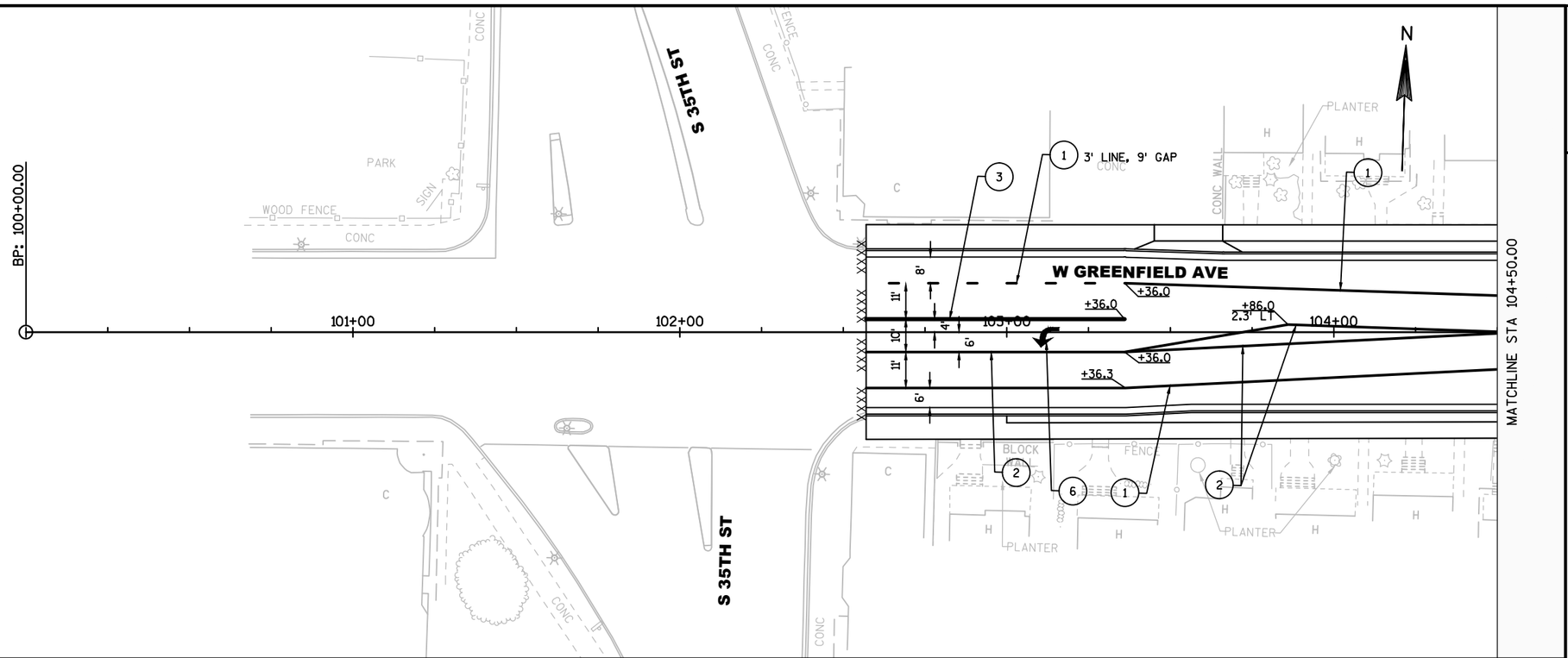
SHEET 14 OF 14

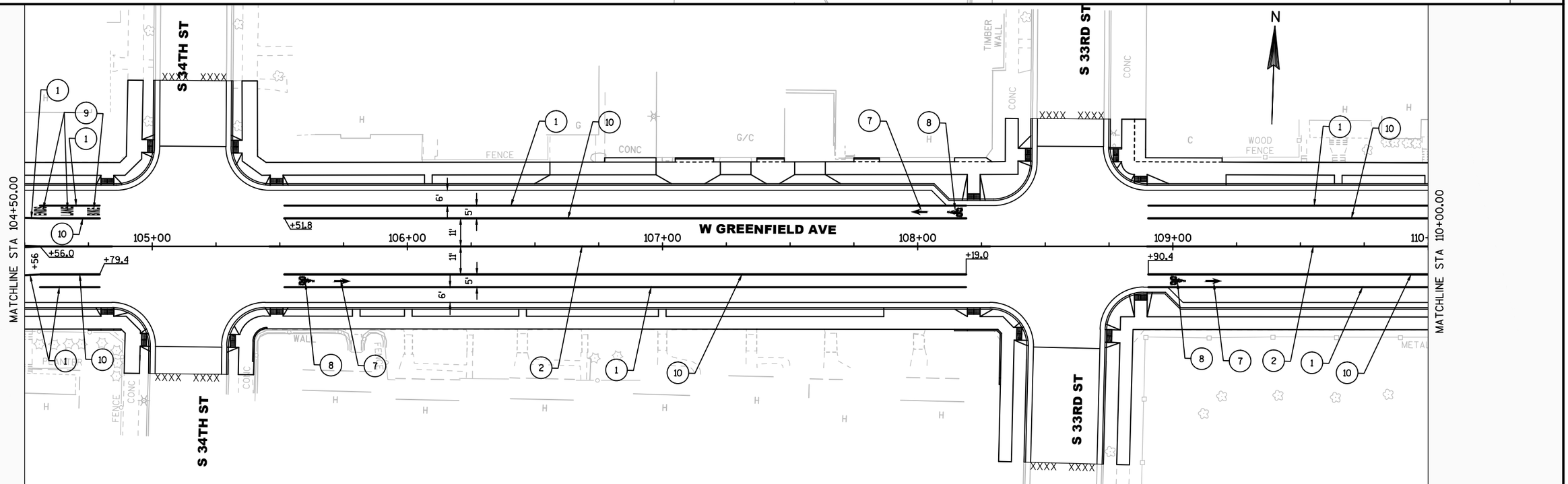
STATE PROJECT NUMBER 2230-00-74 - -	HWY: W GREENFIELD	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SCALE FEET	SHEET NO: 130 E

FILENAME: DGNFILENAME

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
4. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
5. PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
7. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
8. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)





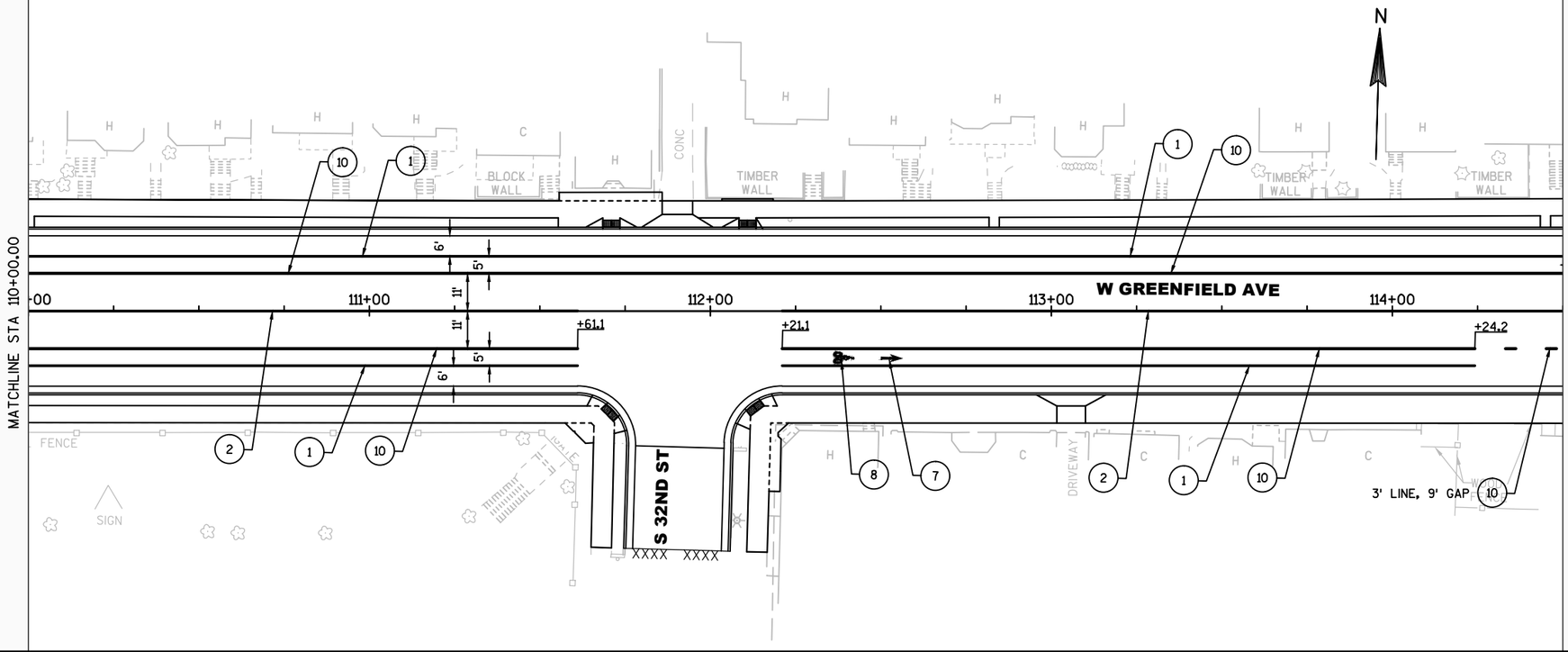
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 131	E

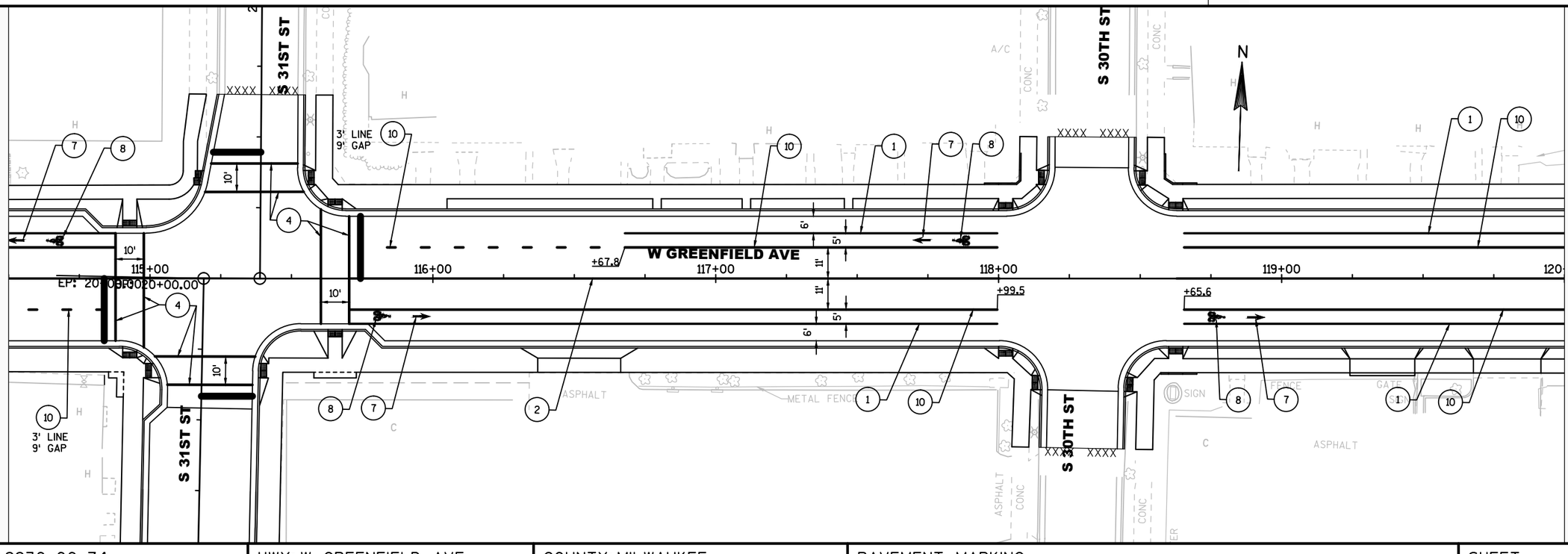
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-PM - PM - (1)

PLOT DATE : 4/10/2017 3:18 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2





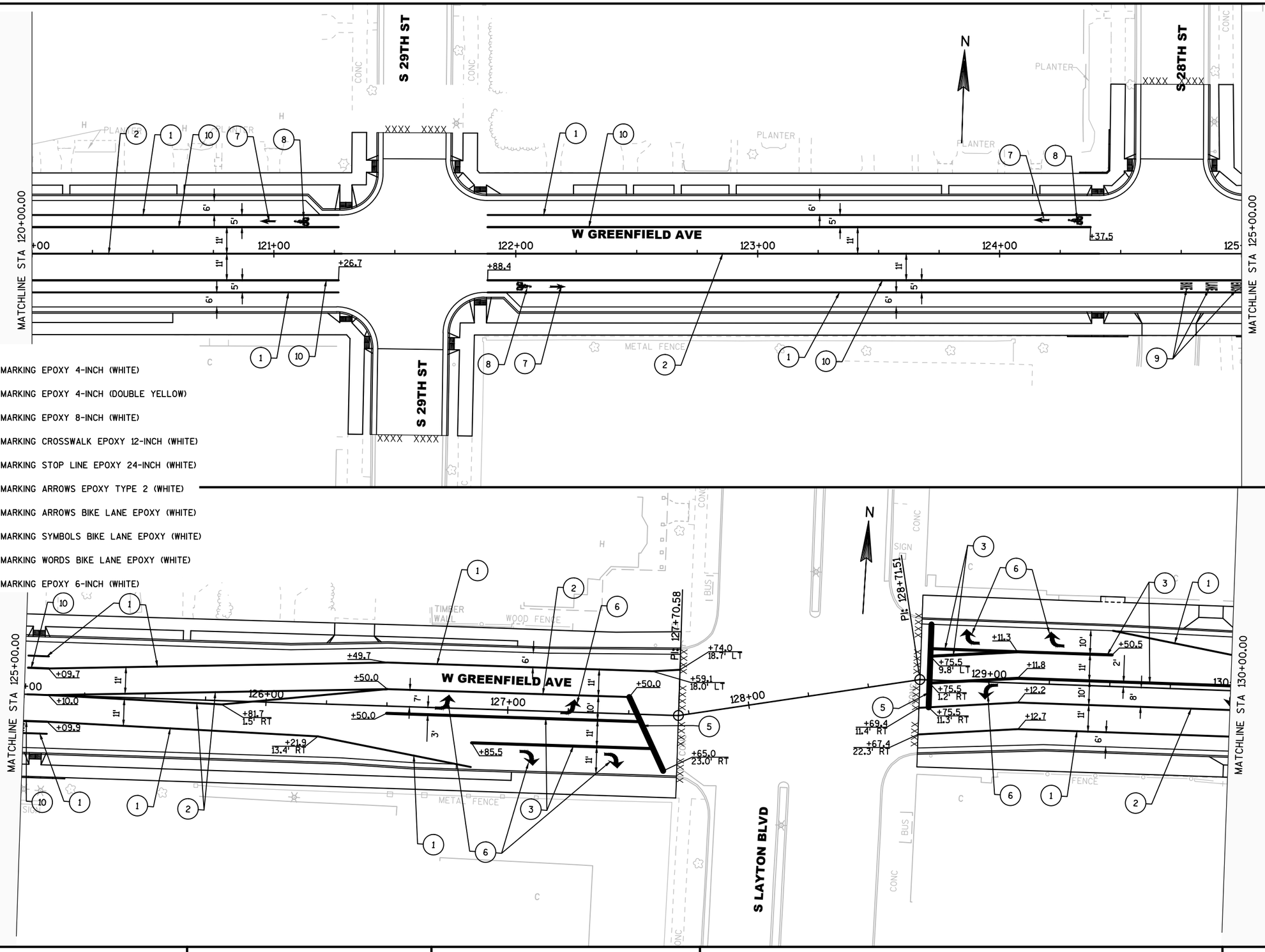
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
4. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
5. PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
7. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
8. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 132	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-PM - PM - (2)
PLOT DATE : 4/10/2017 3:19 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
4. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
5. PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
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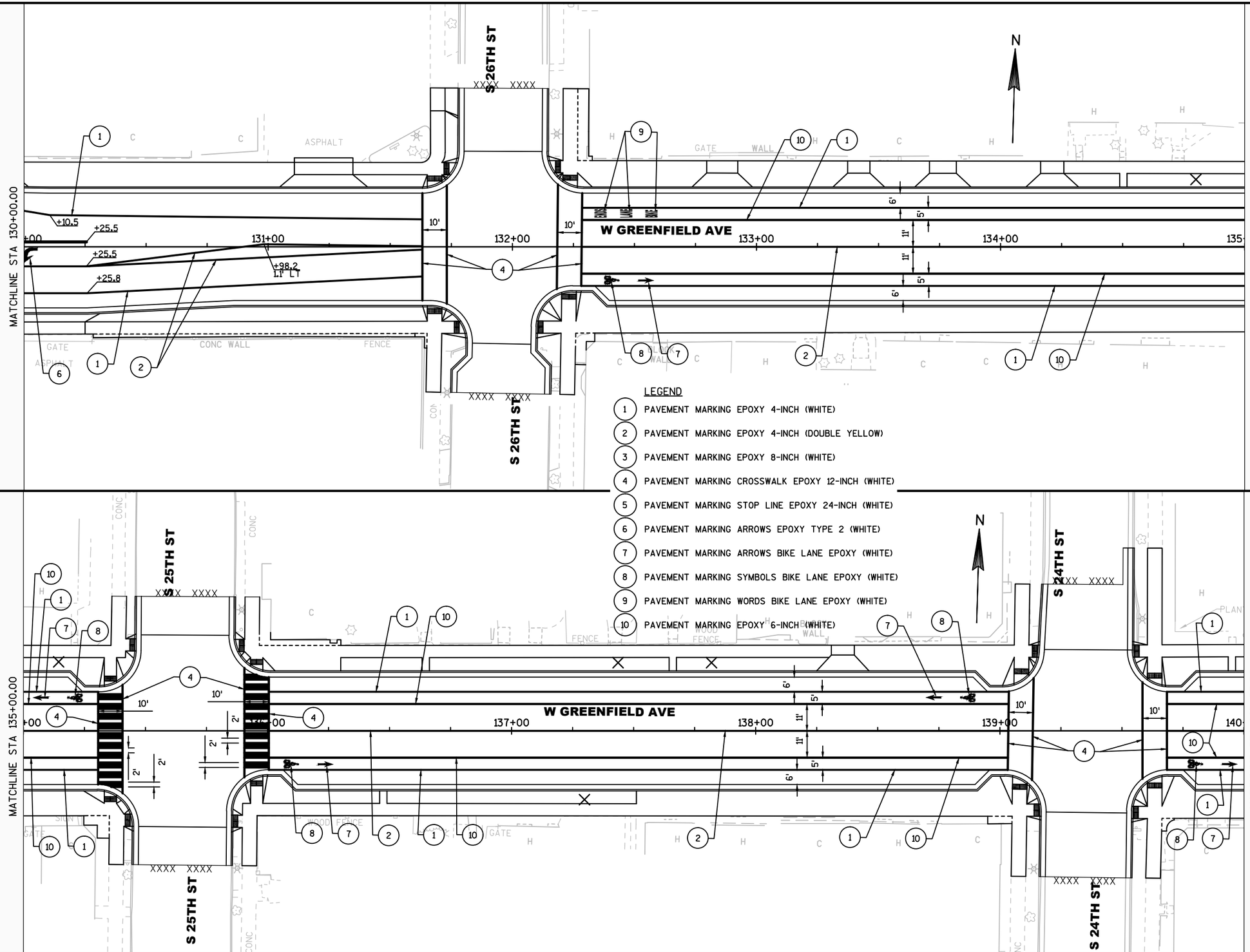
7. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
8. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 133	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
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6. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
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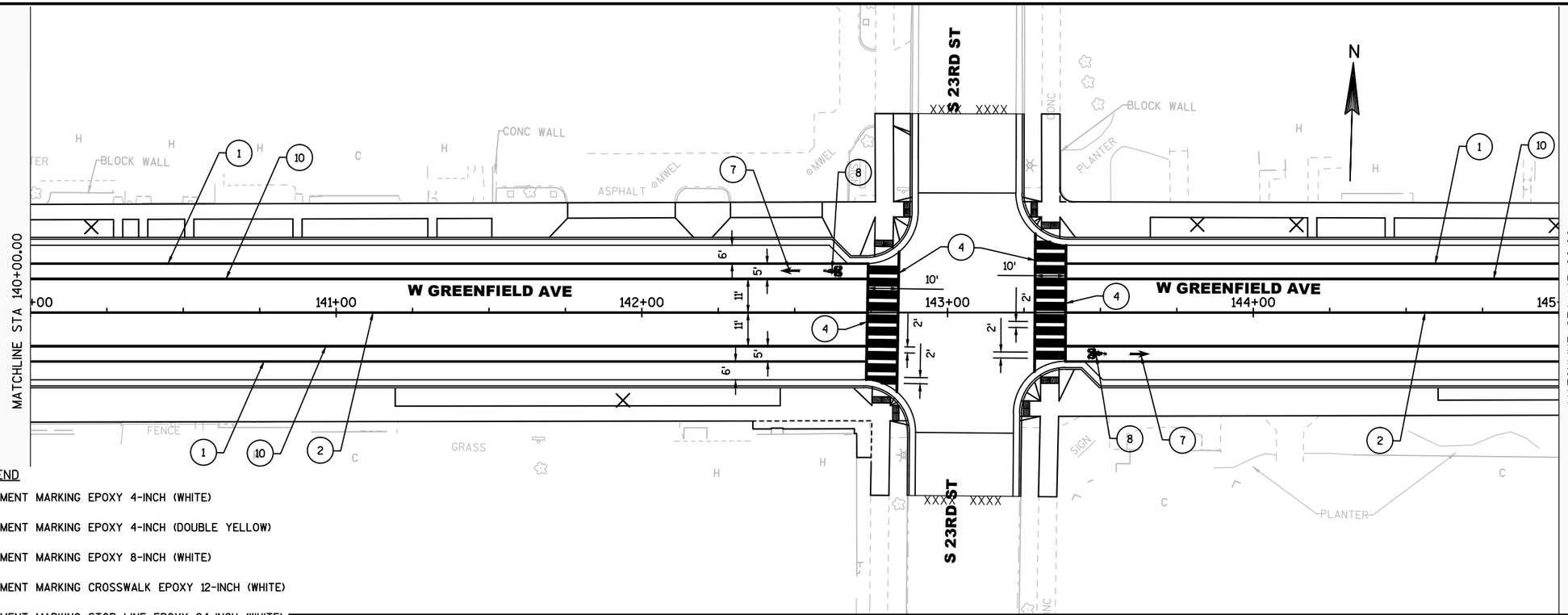
8. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 134	E



LEGEND

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3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
4. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
5. PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
7. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
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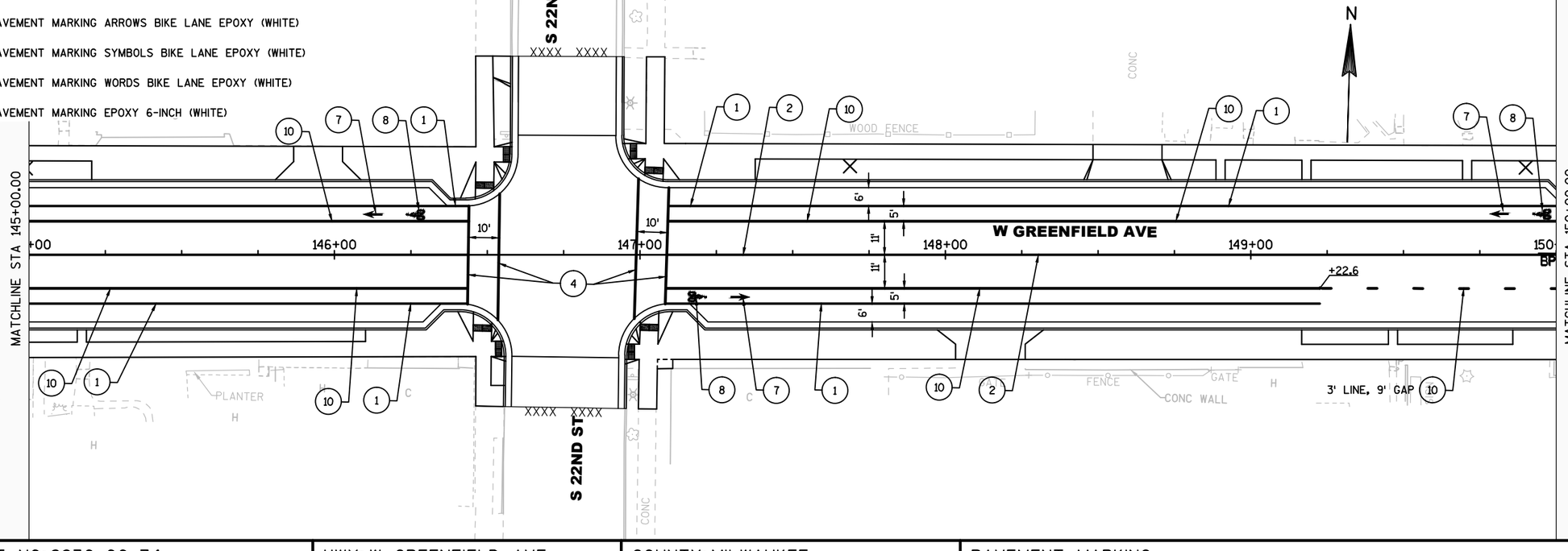
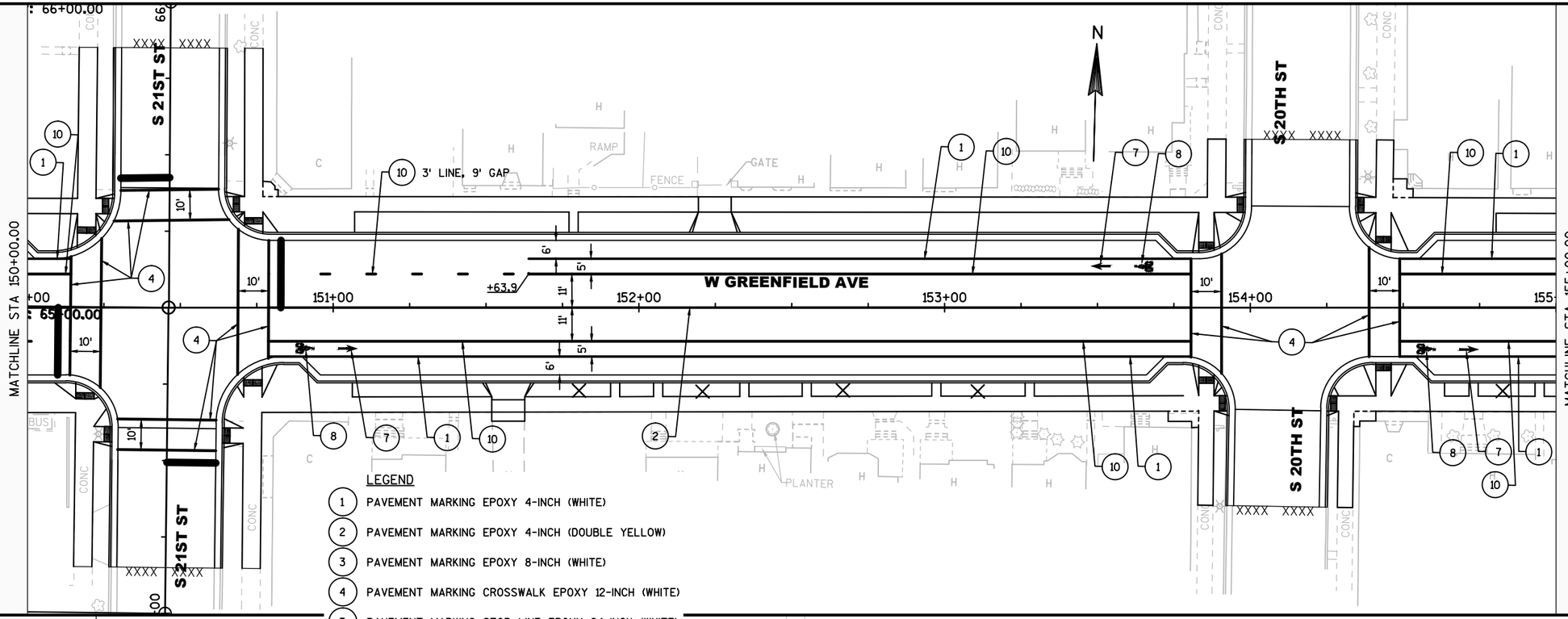
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 135	E

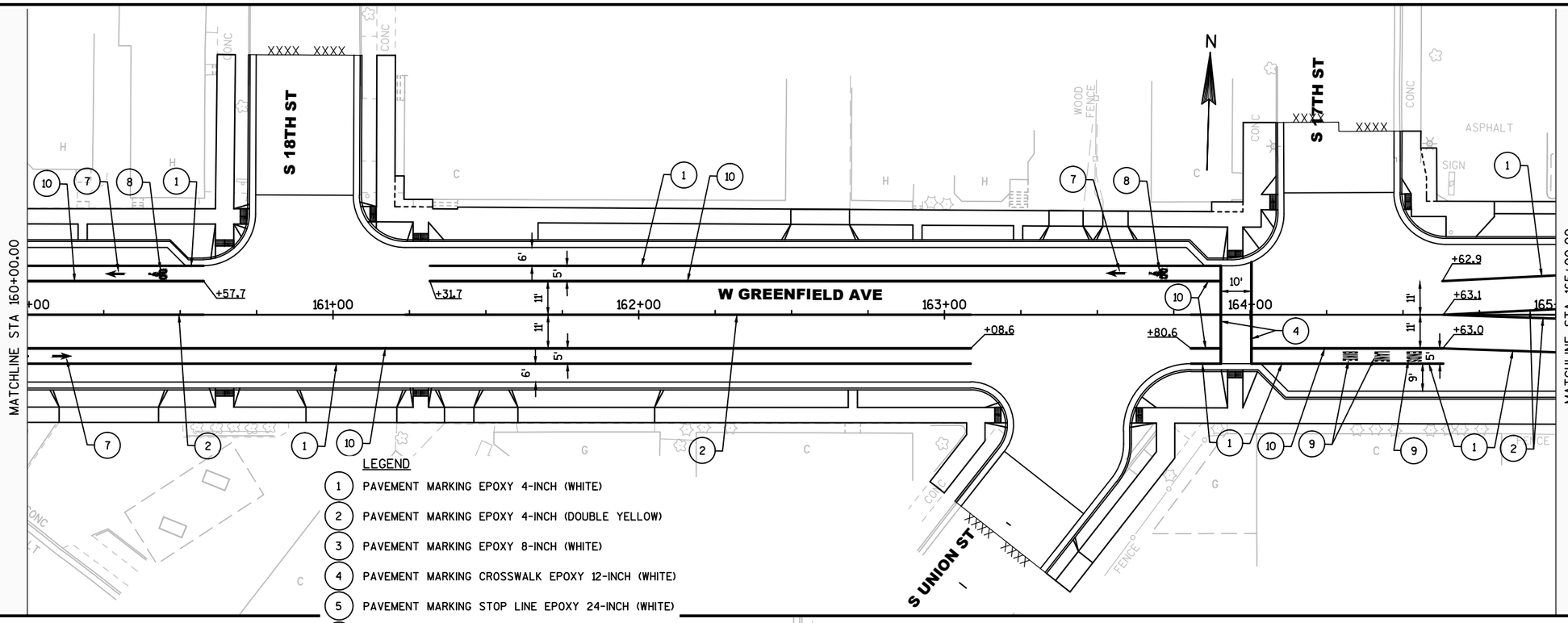
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-PM - PM - (5)

PLOT DATE : 9/5/2017 11:45 AM PLOT BY : AXT, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT



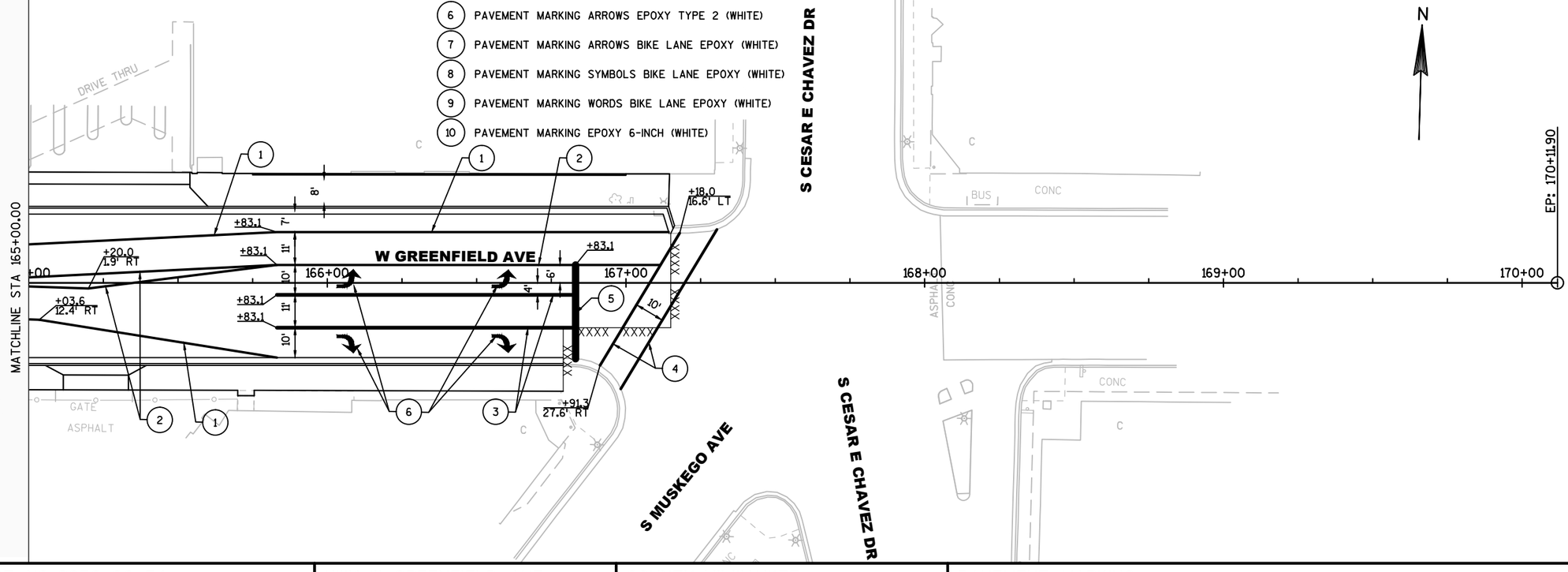
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 136	E

2

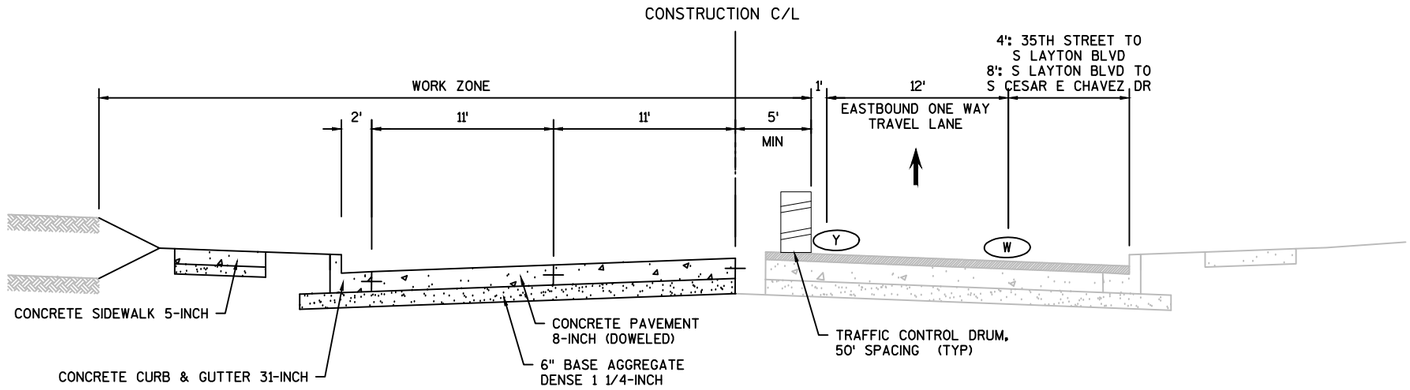


LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
4. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
5. PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
7. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
8. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
9. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING EPOXY 6-INCH (WHITE)



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 137	E



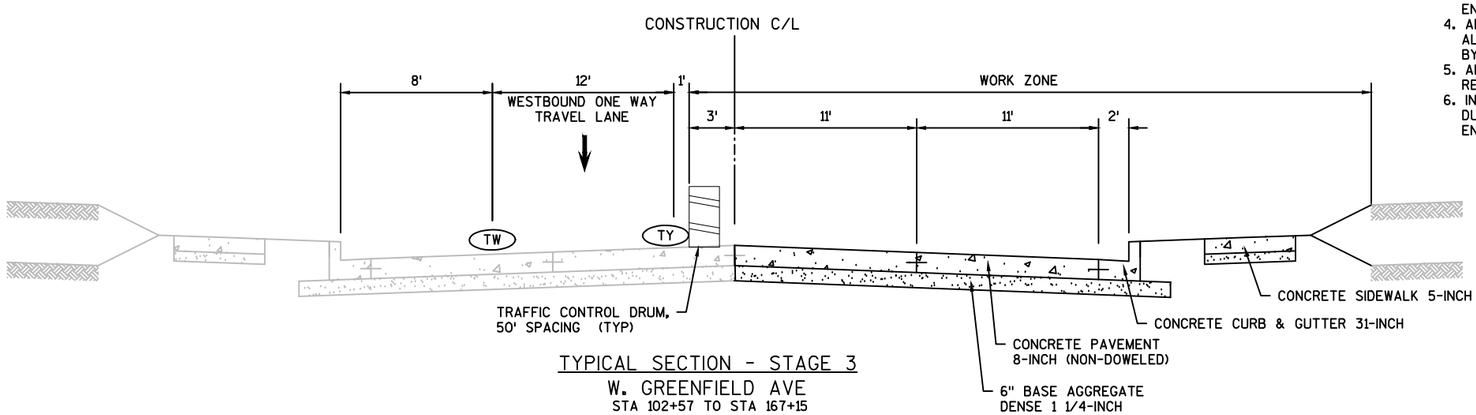
TYPICAL SECTION - STAGE 2
W GREENFIELD AVE
STA 102+57 TO STA 167+15

(Y) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)

(W) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

(TY) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

(TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)



TYPICAL SECTION - STAGE 3
W. GREENFIELD AVE
STA 102+57 TO STA 167+15

STAGING NOTES:

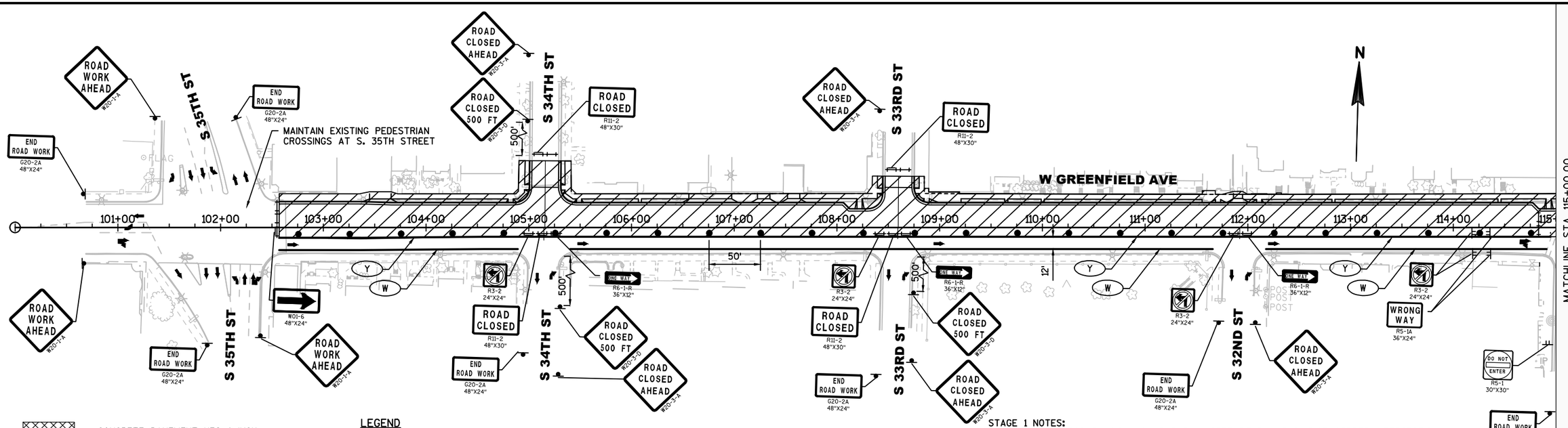
STAGE 1
- INSTALL TEMPORARY TRAFFIC SIGNALS. REMOVE EXISTING UNDERGROUND TRAFFIC SIGNAL EQUIPMENT. THE CITY OF MILWAUKEE WILL REMOVE ALL ABOVEGROUND TRAFFIC SIGNAL EQUIPMENT.

STAGE 2
- CONSTRUCT THE WESTBOUND LANES, STORM SEWER, CURB AND GUTTER, DRIVEWAYS, BUMP-OUTS, BUS STOPS AND SIDEWALKS.
- TRAFFIC WILL UTILIZE THE SOUTH SIDE OF W. GREENFIELD AVE WITH ONE 12' LANE IN THE EASTBOUND DIRECTION. MAINTAIN EXISTING BU STOPS ON THE SOUTH SIDE OF W GREENFIELD AVE.
- PARKING WILL NOT BE ALLOWED ON W. GREENFIELD AVE.
- WESTBOUND TRAFFIC WILL USE ALTERNATE ROUTES.
- BEGIN INSTALLATION OF THE PERMANENT TRAFFIC SIGNALS.

STAGE 3
- CONSTRUCT THE EASTBOUND LANES, STORM SEWER, CURB AND GUTTER, DRIVEWAYS, BUMP-OUTS, BUS STOPS AND SIDEWALKS.
- TRAFFIC WILL UTILIZE THE NORTH SIDE OF W. GREENFIELD AVE WITH ONE 12' LANE IN THE WESTBOUND DIRECTION. MAINTAIN THE NEWLY-CONSTRUCTED BUS STOPS ON THE NORTH SIDE OF W GREENFIELD AVE.
- PARKING WILL NOT BE ALLOWED ON W. GREENFIELD AVE.
- EASTBOUND TRAFFIC WILL USE ALTERNATE ROUTES.
- COMPLETE INSTALLATION OF THE PERMANENT TRAFFIC SIGNALS.

STAGE 4
- REMOVE TEMPORARY TRAFFIC SIGNALS.
- COMPLETE PERMANENT PAVEMENT MARKING AND RESTORATION.

GENERAL
1. MINIMUM CLEAR LANE WIDTH FOR MILWAUKEE COUNTY TRANSIT BUSES IS 11'.
2. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
3. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
4. ADEQUATE TURNING PROVISIONS SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AND BUSES, AS DIRECTED BY THE ENGINEER.
5. ALL EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.
6. INSTALL PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECTED BY THE ENGINEER.



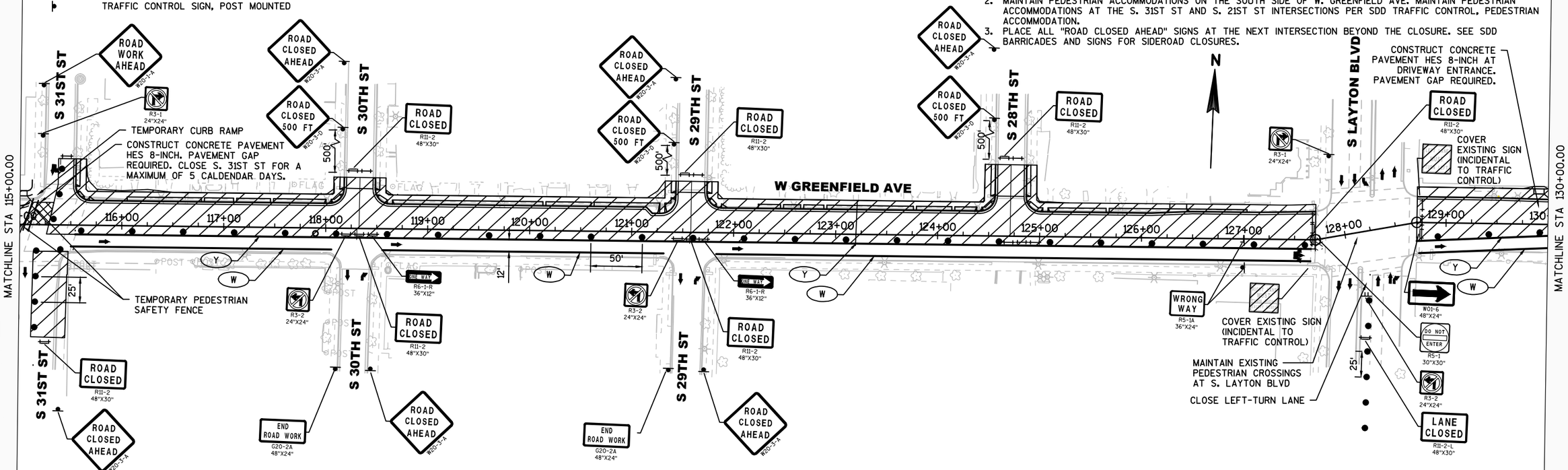
LEGEND

- CONCRETE PAVEMENT HES 8-INCH
- WORK AREA
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN, POST MOUNTED

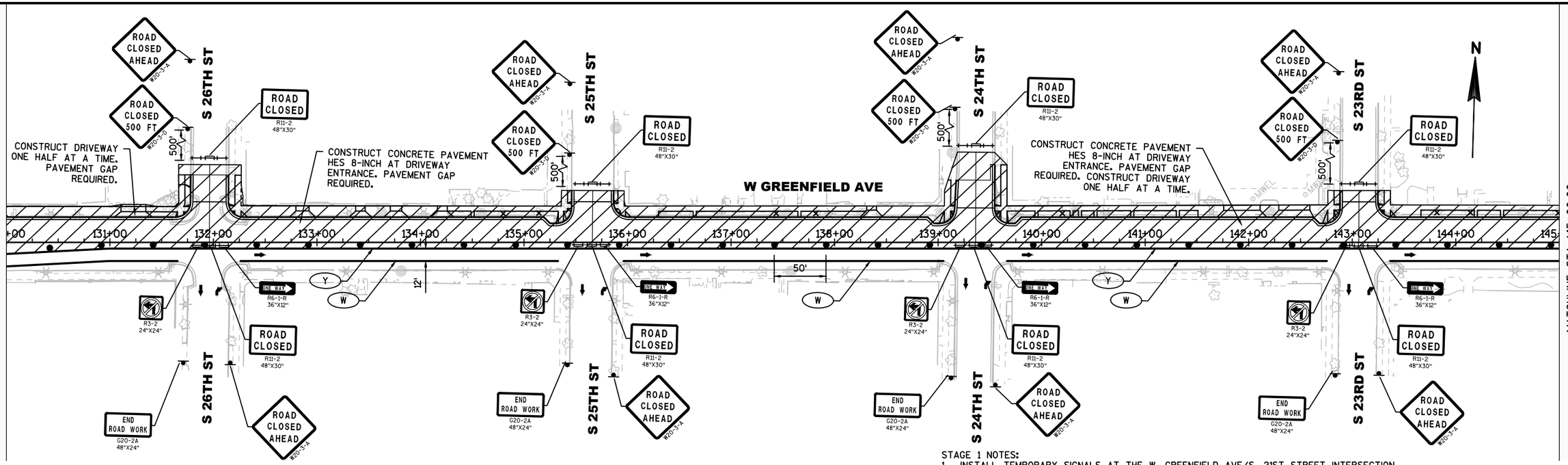
- (Y) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (T18) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

STAGE 1 NOTES:
1. INSTALL TEMPORARY SIGNALS AT THE W. GREENFIELD AVE/S. 31ST STREET INTERSECTION.
2. SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY FOR SINGLE LANE CLOSURE DURING INSTALLATION OF TEMPORARY TRAFFIC SIGNALS.
3. MAINTAIN PEDESTRIAN ACCOMMODATIONS.

STAGE 2 NOTES:
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
2. MAINTAIN PEDESTRIAN ACCOMMODATIONS ON THE SOUTH SIDE OF W. GREENFIELD AVE. MAINTAIN PEDESTRIAN ACCOMMODATIONS AT THE S. 31ST ST AND S. 21ST ST INTERSECTIONS PER SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
3. PLACE ALL "ROAD CLOSED AHEAD" SIGNS AT THE NEXT INTERSECTION BEYOND THE CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES.



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 139 E



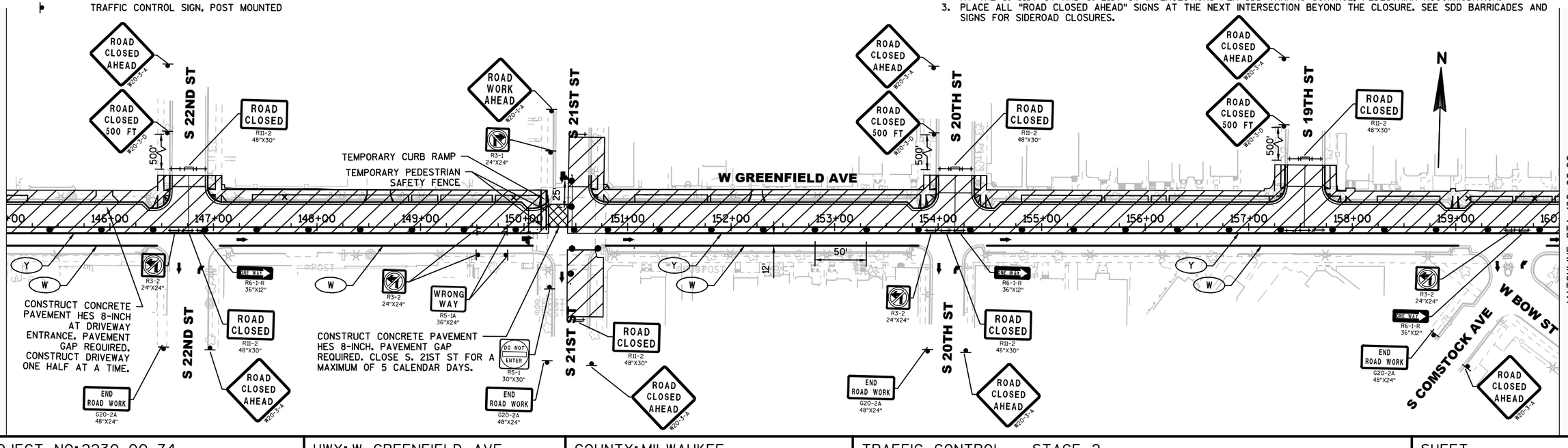
LEGEND

- CONCRETE PAVEMENT HES 8-INCH
- WORK AREA
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN, POST MOUNTED

- (Y) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (T18) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

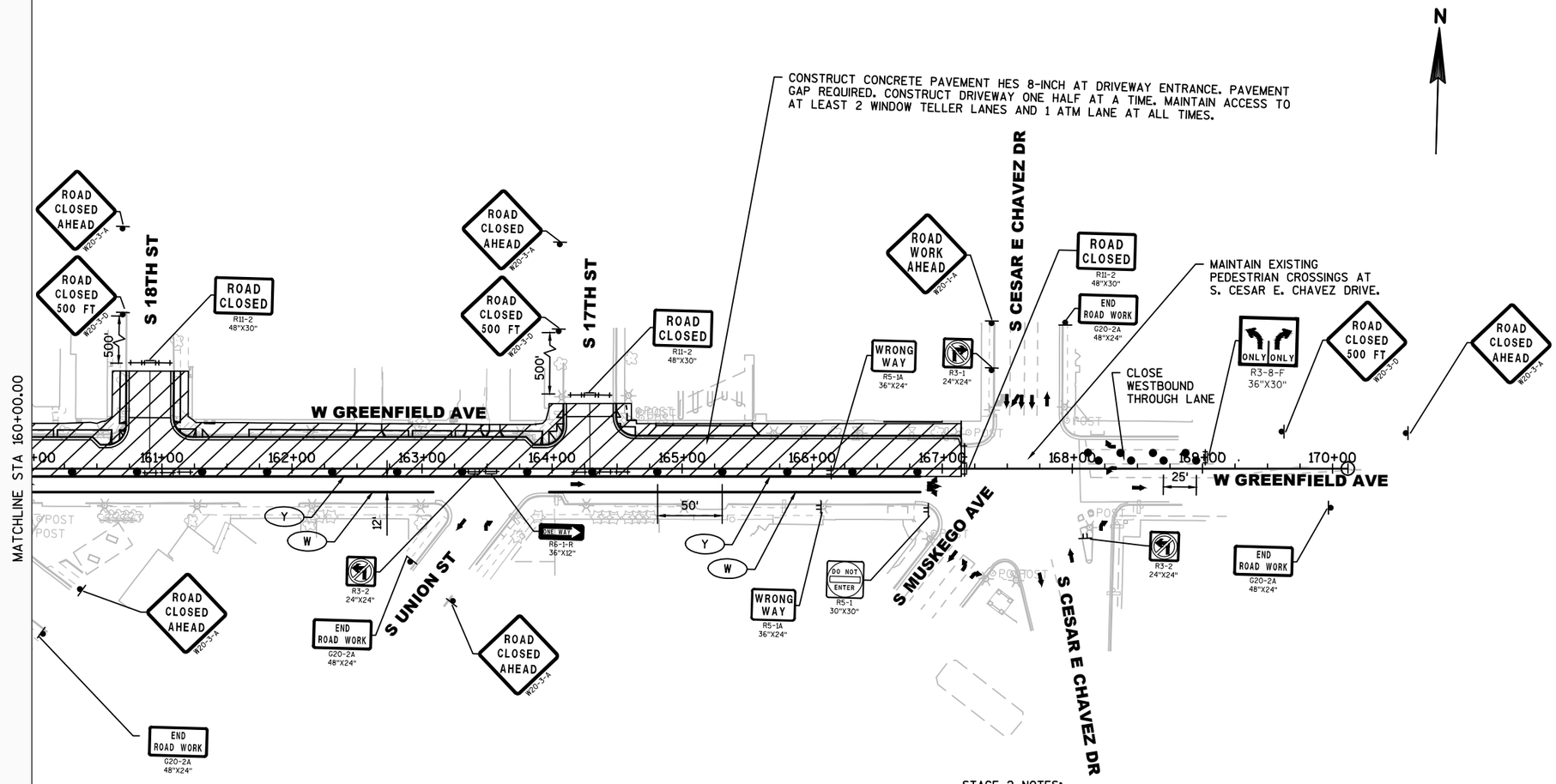
STAGE 1 NOTES:
1. INSTALL TEMPORARY SIGNALS AT THE W. GREENFIELD AVE/S. 21ST STREET INTERSECTION.
2. SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY FOR SINGLE LANE CLOSURE DURING INSTALLATION OF TEMPORARY TRAFFIC SIGNALS.
3. MAINTAIN PEDESTRIAN ACCOMMODATIONS.

STAGE 2 NOTES:
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
2. MAINTAIN PEDESTRIAN ACCOMMODATIONS ON THE SOUTH SIDE OF W. GREENFIELD AVE. MAINTAIN PEDESTRIAN ACCOMMODATIONS AT THE S. 31ST ST AND S. 21ST ST INTERSECTIONS PER SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
3. PLACE ALL "ROAD CLOSED AHEAD" SIGNS AT THE NEXT INTERSECTION BEYOND THE CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES.



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 140	E

2



STAGE 2 NOTES:

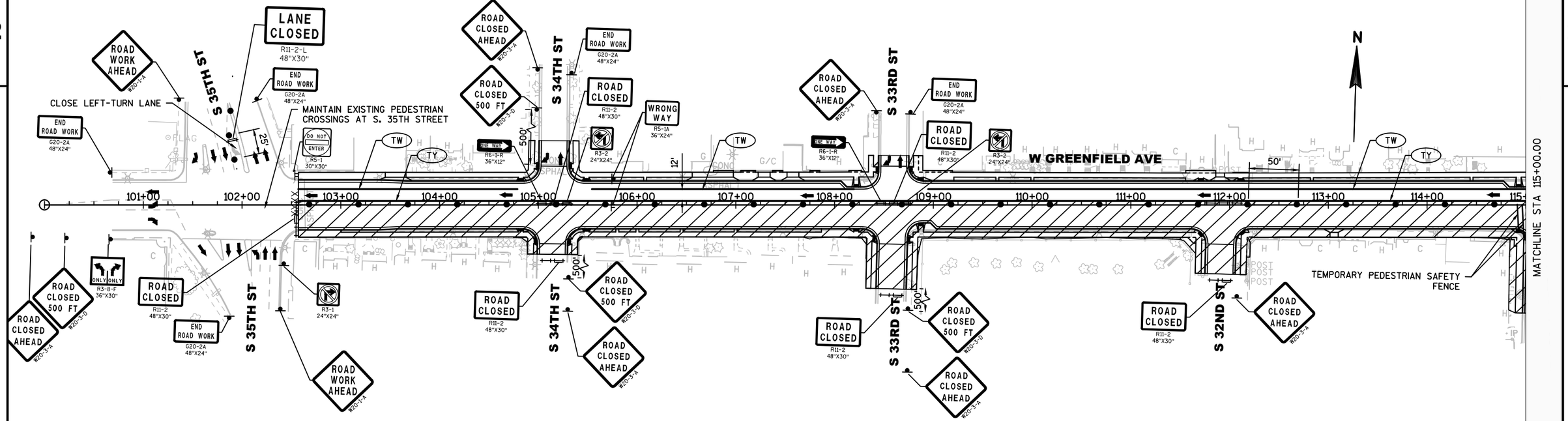
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
2. MAINTAIN PEDESTRIAN ACCOMMODATIONS ON THE SOUTH SIDE OF W. GREENFIELD AVE. MAINTAIN PEDESTRIAN ACCOMMODATIONS AT THE S. 31ST ST AND S. 21ST ST INTERSECTIONS PER SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
3. PLACE ALL "ROAD CLOSED AHEAD" SIGNS AT THE NEXT INTERSECTION BEYOND THE CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES.

LEGEND

- CONCRETE PAVEMENT HES 8-INCH
- WORK AREA
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN, POST MOUNTED

- (Y) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (T18) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 141	E

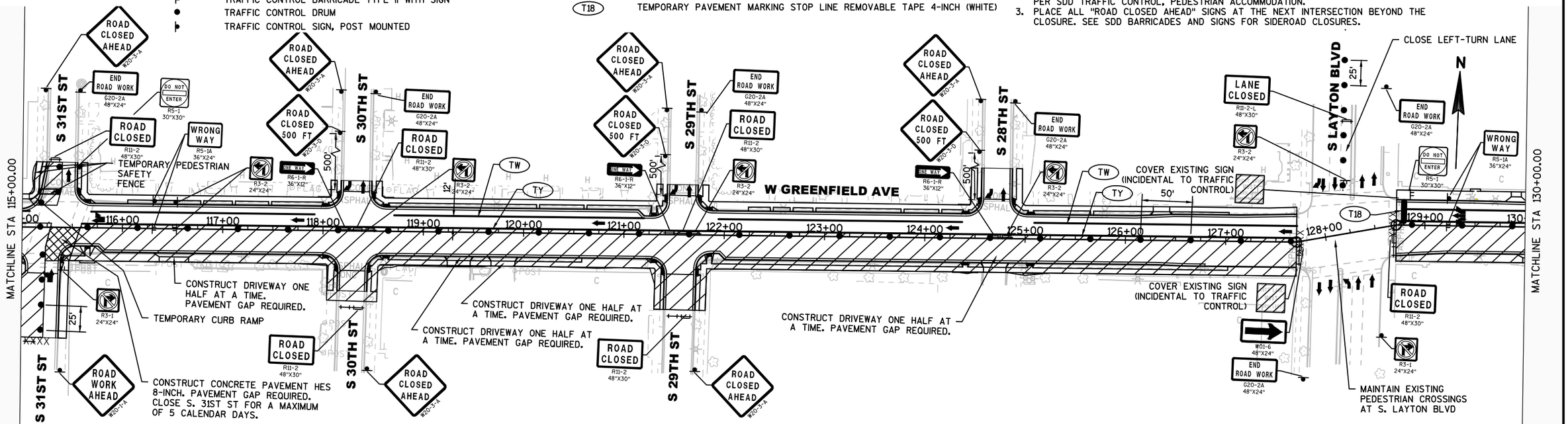


LEGEND

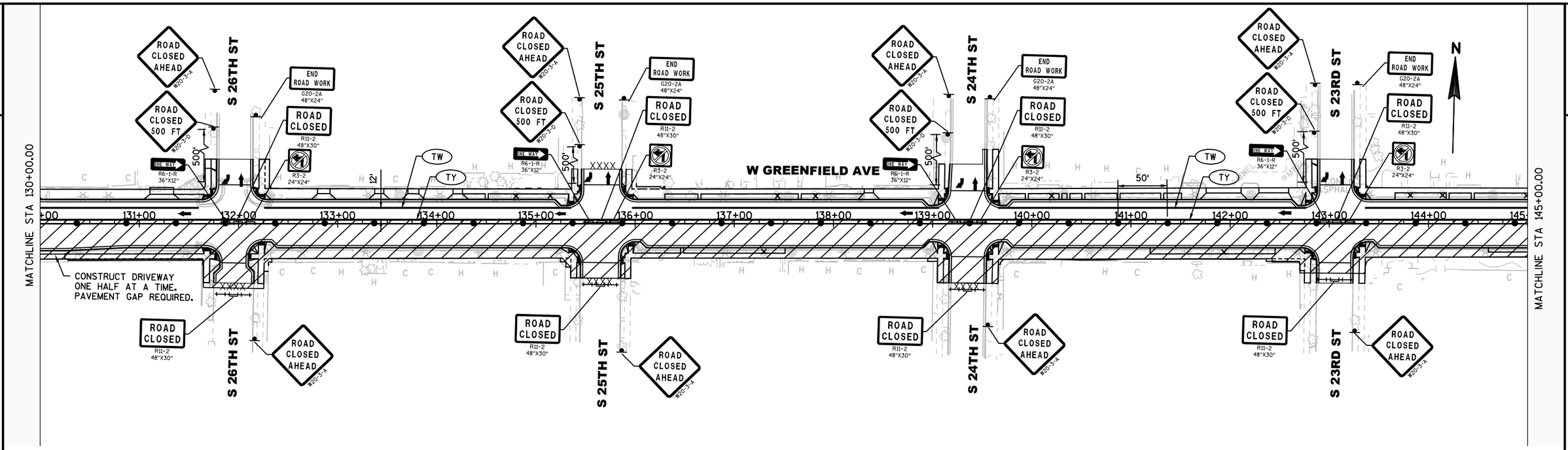
	CONCRETE PAVEMENT HES 8-INCH
	WORK AREA
→	TRAFFIC FLOW ARROW
↕	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
⊢	TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
●	TRAFFIC CONTROL DRUM
⊢●	TRAFFIC CONTROL SIGN, POST MOUNTED

Y	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
T18	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 4-INCH (WHITE)

STAGE 3 NOTES:
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
2. MAINTAIN PEDESTRIAN ACCOMMODATIONS ON THE NORTH SIDE OF W. GREENFIELD AVE. MAINTAIN PEDESTRIAN ACCOMMODATIONS AT THE S. 31 ST AND S. 21ST ST INTERSECTIONS PER SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
3. PLACE ALL "ROAD CLOSED AHEAD" SIGNS AT THE NEXT INTERSECTION BEYOND THE CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES.



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 142 E



LEGEND

	CONCRETE PAVEMENT HES 8-INCH
	WORK AREA
	TRAFFIC FLOW ARROW
	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL SIGN, POST MOUNTED

Y	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
T18	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 4-INCH (WHITE)

STAGE 3 NOTE:
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
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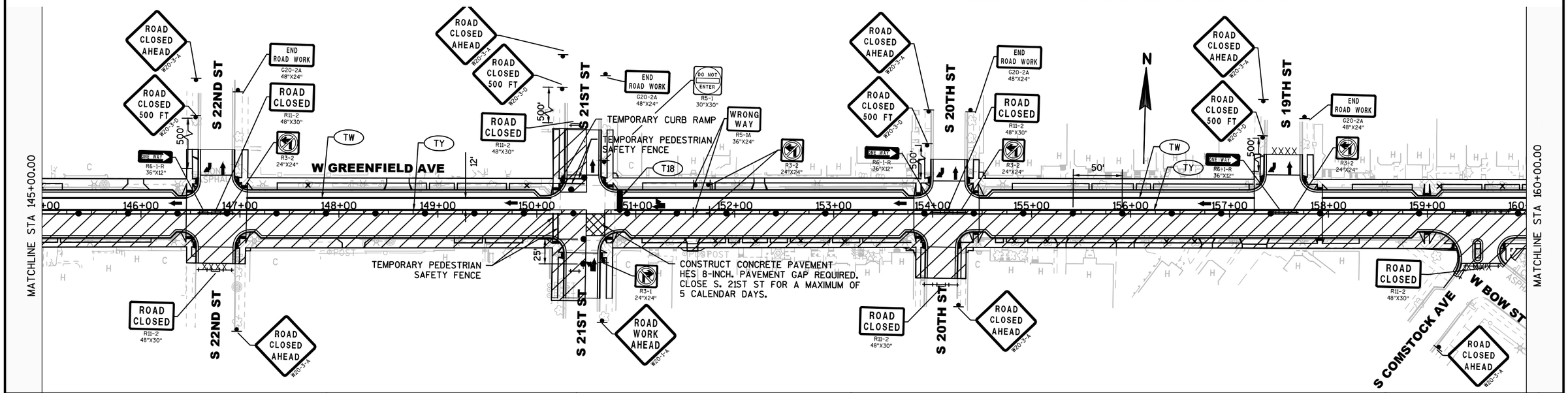

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 143 E

STAGE 3 NOTE:
1. CLOSURES OF SIDE STREETS MOVEMENTS ARE REQUIRED THROUGHOUT THE PROJECT TO ACCOMMODATE RECONSTRUCTION WORK. THESE CLOSURES WILL RESTRICT ALL MOVEMENTS TO AND FROM SIDE STREETS THAT ARE UNDER CONSTRUCTION WITH THE ADJACENT MAINLINE STAGE, WITH THE EXCEPTION OF S. 31ST AND S. 21ST WHICH WILL REMAIN PARTIALLY OPEN TO TRAFFIC.
2. MAINTAIN PEDESTRIAN ACCOMMODATIONS ON THE NORTH SIDE OF W. GREENFIELD AVE. MAINTAIN PEDESTRAIN ACCOMMODATIONS AT THE S. 31ST ST AND S. 21ST ST INTERSECTIONS PER SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
3. PLACE ALL "ROAD CLOSED AHEAD" SIGNS AT THE NEXT INTERSECTION BEYOND THE CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES.

LEGEND

- CONCRETE PAVEMENT HES 8-INCH
- WORK AREA
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN, POST MOUNTED

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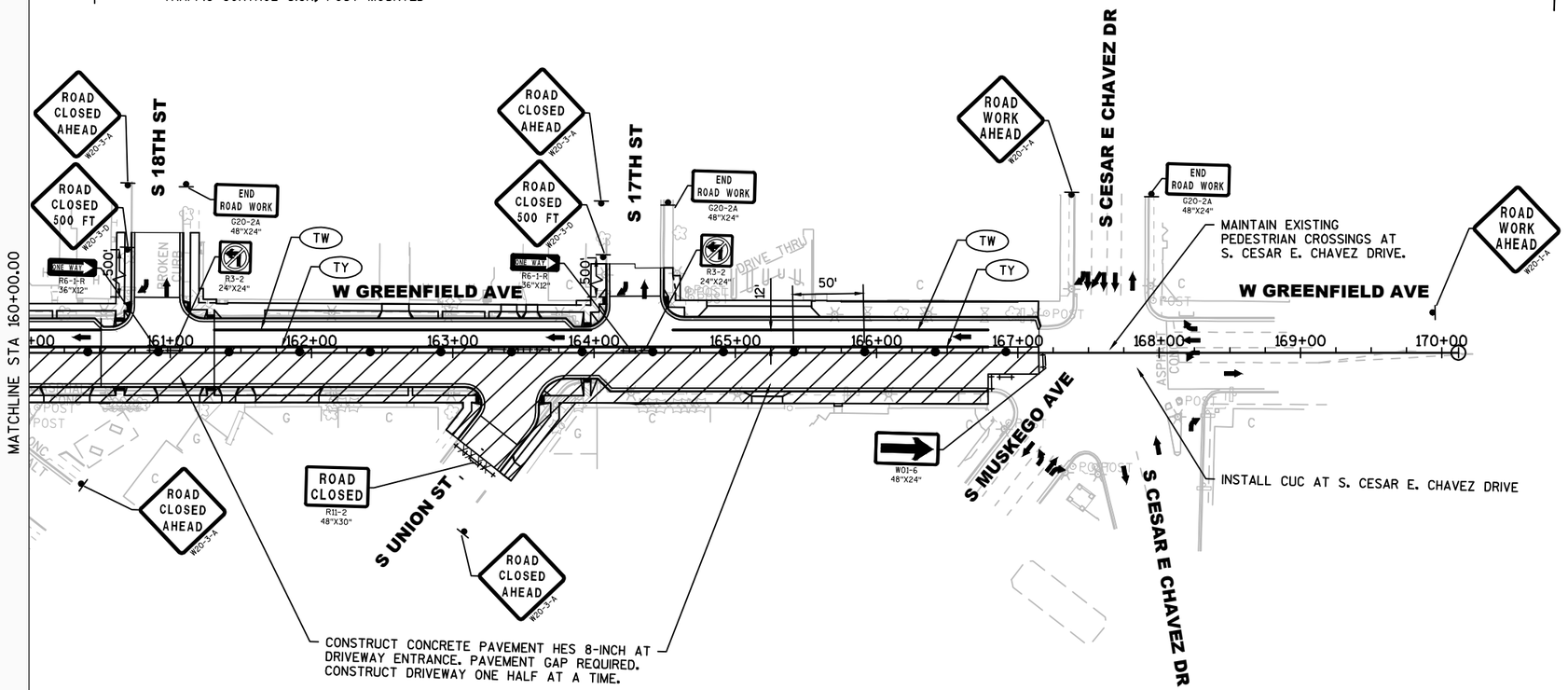
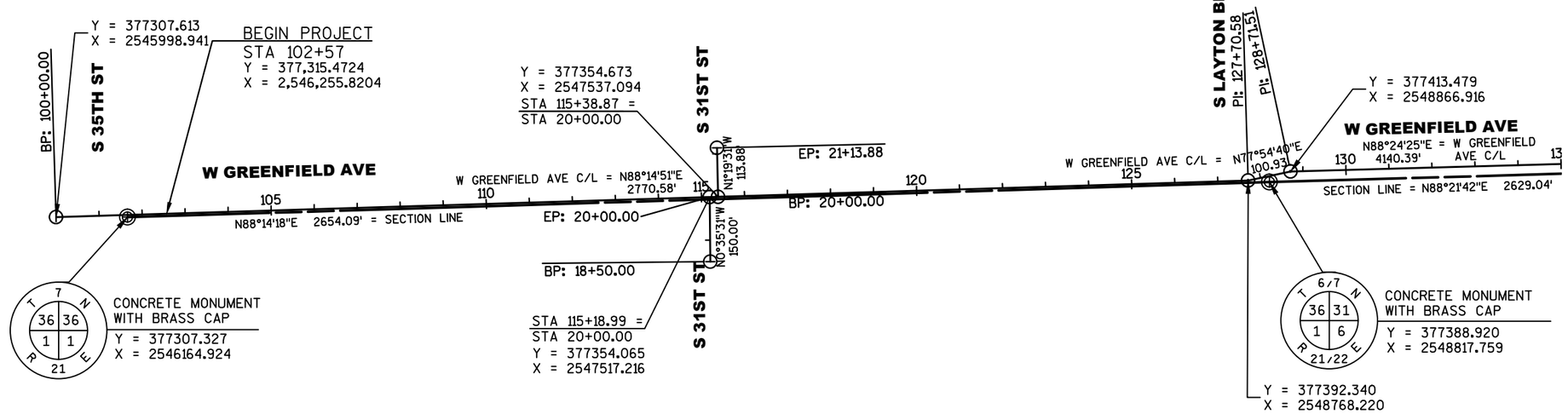
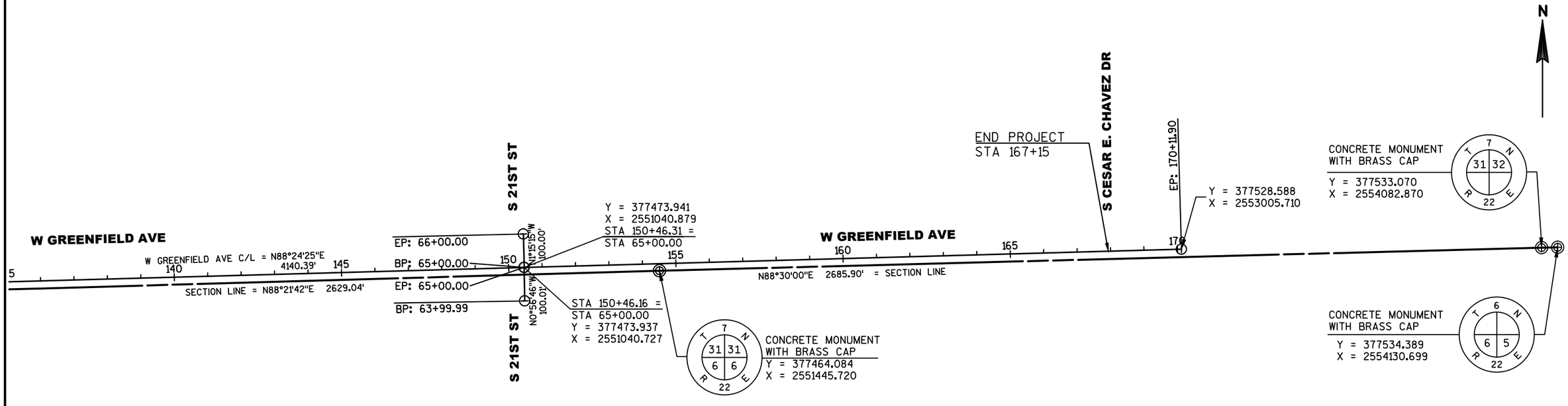
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (T18) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 4-INCH (WHITE)



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET 144 E





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 145	E

2230-00-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	15.000	15.000
0004	201.0120	Clearing	ID	4.000	4.000
0006	201.0205	Grubbing	STA	15.000	15.000
0008	201.0220	Grubbing	ID	4.000	4.000
0010	204.0100	Removing Pavement	SY	37,821.000	37,821.000
0012	204.0110	Removing Asphaltic Surface	SY	8.000	8.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	161.000	161.000
0016	204.0150	Removing Curb & Gutter	LF	1,293.000	1,293.000
0018	204.0155	Removing Concrete Sidewalk	SY	10,786.000	10,786.000
0020	204.0185	Removing Masonry	CY	3.000	3.000
0022	204.0195	Removing Concrete Bases	EACH	12.000	12.000
0024	204.0220	Removing Inlets	EACH	53.000	53.000
0026	204.0245	Removing Storm Sewer (size) 01. 8-INCH	LF	430.000	430.000
0028	204.0245	Removing Storm Sewer (size) 02. 10-INCH	LF	40.000	40.000
0030	204.0245	Removing Storm Sewer (size) 03. 12-INCH	LF	540.000	540.000
0032	204.0250	Abandoning Manholes	EACH	20.000	20.000
0034	204.0260	Abandoning Inlets	EACH	41.000	41.000
0036	204.0291.S	Abandoning Sewer	CY	38.000	38.000
0038	205.0100	Excavation Common	CY	30,851.000	30,851.000
0040	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	4,140.000	4,140.000
0044	213.0100	Finishing Roadway (project) 01. 2230-00-74	EACH	1.000	1.000
0048	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	39,510.000	39,510.000
0050	305.0130	Base Aggregate Dense 3-Inch	TON	3,710.000	3,710.000
0052	415.0080	Concrete Pavement 8-Inch	SY	32,616.000	32,616.000
0054	415.0210	Concrete Pavement Gaps	EACH	14.000	14.000
0056	415.1080	Concrete Pavement HES 8-Inch	SY	966.000	966.000
0058	416.0180	Concrete Driveway 8-Inch	SY	690.000	690.000
0060	416.0280	Concrete Driveway HES 8-Inch	SY	290.000	290.000
0062	416.0610	Drilled Tie Bars	EACH	140.000	140.000
0064	416.0620	Drilled Dowel Bars	EACH	107.000	107.000
0066	440.4410	Incentive IRI Ride	DOL	4,820.000	4,820.000
0068	455.0605	Tack Coat	GAL	270.000	270.000
0070	460.5223	HMA Pavement 3 LT 58-28 S	TON	269.000	269.000
0072	460.5224	HMA Pavement 4 LT 58-28 S	TON	213.000	213.000
0074	460.5225	HMA Pavement 5 LT 58-28 S	TON	31.000	31.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	2.000	2.000
0078	601.0331	Concrete Curb & Gutter 31-Inch	LF	13,956.000	13,956.000
0080	601.0600	Concrete Curb Pedestrian	LF	376.000	376.000
0082	602.0410	Concrete Sidewalk 5-Inch	SF	81,741.000	81,741.000

2230-00-74

Line	Item	Item Description	Unit	Total	Qty
0084	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	1,304.000	1,304.000
0086	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	387.000	387.000
0088	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	2,631.000	2,631.000
0090	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0092	611.2004	Manholes 4-FT Diameter	EACH	21.000	21.000
0094	611.8110	Adjusting Manhole Covers	EACH	43.000	43.000
0096	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	560.000	560.000
0098	619.1000	Mobilization	EACH	0.980	0.980
0100	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0102	623.0200	Dust Control Surface Treatment	SY	34,866.000	34,866.000
0104	624.0100	Water	MGAL	999.000	999.000
0106	625.0100	Topsoil	SY	4,398.000	4,398.000
0108	628.1104	Erosion Bales	EACH	100.000	100.000
0110	628.1504	Silt Fence	LF	200.000	200.000
0112	628.1520	Silt Fence Maintenance	LF	50.000	50.000
0114	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0116	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0118	628.2008	Erosion Mat Urban Class I Type B	SY	100.000	100.000
0120	628.7560	Tracking Pads	EACH	12.000	12.000
0122	629.0210	Fertilizer Type B	CWT	2.940	2.940
0124	631.0300	Sod Water	MGAL	116.000	116.000
0126	631.1000	Sod Lawn	SY	4,398.000	4,398.000
0128	632.0101	Trees (species) (size) (root) 01. RED MAPLE, B&B, 3.5"	EACH	4.000	4.000
0130	632.0101	Trees (species) (size) (root) 02. COMMON BALD CYPRESS, B&B 3"	EACH	6.000	6.000
0132	632.0101	Trees (species) (size) (root) 03. SUNBURST HONEY LOCUST, B&B, 3"	EACH	15.000	15.000
0134	632.0101	Trees (species) (size) (root) 04. UPRIGHT ENGLISH OAK, B&B, 3.5"	EACH	11.000	11.000
0136	632.0101	Trees (species) (size) (root) 05. CALLERY PEAR, B&B, 2.5"	EACH	12.000	12.000
0138	632.0101	Trees (species) (size) (root) 06. AUTUMN BLAZE MAPLE, B&B, 3.5"	EACH	18.000	18.000
0140	632.0101	Trees (species) (size) (root) 07. ACCOLADE ELM, B&B, 3"	EACH	6.000	6.000
0142	632.0101	Trees (species) (size) (root) 08. JAPANESE TREE LILAC, B&B, 3"	EACH	10.000	10.000
0144	632.0101	Trees (species) (size) (root) 09. TULIP TREE, B&B, 3"	EACH	4.000	4.000
0146	632.0101	Trees (species) (size) (root) 10. CUMULUS SERVICEBERRY, B&B, 3"	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0148	632.0101	Trees (species) (size) (root) 11. KENTUCKY COFFEETREE, B&B, 3"	EACH	5.000	5.000
0150	632.0101	Trees (species) (size) (root) 12. NORTHERN CATALPA, B&B, 3"	EACH	3.000	3.000
0152	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	10.000	10.000
0164	642.5401	Field Office Type D	EACH	1.000	1.000
0166	643.0100	Traffic Control (project) 01. 2230-00-74	EACH	1.000	1.000
0170	643.0300	Traffic Control Drums	DAY	30,735.000	30,735.000
0172	643.0410	Traffic Control Barricades Type II	DAY	1,510.000	1,510.000
0174	643.0420	Traffic Control Barricades Type III	DAY	19,930.000	19,930.000
0176	643.0705	Traffic Control Warning Lights Type A	DAY	39,855.000	39,855.000
0180	643.0900	Traffic Control Signs	DAY	27,024.000	27,024.000
0182	644.1420.S	Temporary Pedestrian Surface Plywood	SF	1,016.000	1,016.000
0184	644.1601.S	Temporary Curb Ramp	EACH	4.000	4.000
0186	644.1616.S	Temporary Pedestrian Safety Fence	LF	420.000	420.000
0188	646.0106	Pavement Marking Epoxy 4-Inch	LF	21,076.000	21,076.000
0190	646.0116	Pavement Marking Epoxy 6-Inch	LF	8,315.000	8,315.000
0192	646.0126	Pavement Marking Epoxy 8-Inch	LF	721.000	721.000
0194	646.0600	Removing Pavement Markings	LF	8,121.000	8,121.000
0196	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	13.000	13.000
0198	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	28.000	28.000
0200	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	28.000	28.000
0202	647.0406	Pavement Marking Words Bike Lane Epoxy	EACH	12.000	12.000
0204	647.0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	257.000	257.000
0206	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	2,608.000	2,608.000
0208	647.0955	Removing Pavement Markings Arrows	EACH	16.000	16.000
0210	647.0960	Removing Pavement Markings Symbols	EACH	15.000	15.000
0212	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	11,432.000	11,432.000
0214	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	11,646.000	11,646.000
0216	649.1200	Temporary Pavement Marking Stop Line Removable Tape 18-Inch	LF	37.000	37.000
0218	650.4000	Construction Staking Storm Sewer	EACH	116.000	116.000
0220	650.4500	Construction Staking Subgrade	LF	6,703.000	6,703.000
0222	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	13,956.000	13,956.000
0224	650.7000	Construction Staking Concrete Pavement	LF	6,423.000	6,423.000
0226	650.8500	Construction Staking Electrical Installations (project) 01. 2230-00-74	LS	1.000	1.000
0230	650.9910	Construction Staking Supplemental Control (project) 01. 2230-00-74	LS	1.000	1.000
0234	650.9920	Construction Staking Slope Stakes	LF	6,703.000	6,703.000
0236	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	650.000	650.000

Line	Item	Item Description	Unit	Total	Qty
0238	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	6,352.000	6,352.000
0240	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	13,420.000	13,420.000
0242	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,330.000	1,330.000
0244	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	435.000	435.000
0246	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	2,670.000	2,670.000
0248	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	970.000	970.000
0250	652.0605	Conduit Special 2-Inch	LF	290.000	290.000
0252	652.0615	Conduit Special 3-Inch	LF	116.000	116.000
0254	654.0101	Concrete Bases Type 1	EACH	8.000	8.000
0256	654.0102	Concrete Bases Type 2	EACH	4.000	4.000
0258	654.0110	Concrete Bases Type 10	EACH	4.000	4.000
0260	655.0230	Cable Traffic Signal 5-14 AWG	LF	997.000	997.000
0262	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,028.000	3,028.000
0264	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,933.000	1,933.000
0266	655.0900	Traffic Signal EVP Detector Cable	LF	901.000	901.000
0268	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. S. 31ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0270	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. S. 21ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0272	657.0100	Pedestal Bases	EACH	8.000	8.000
0274	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	4.000	4.000
0276	657.0305	Poles Type 2	EACH	4.000	4.000
0278	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	8.000	8.000
0280	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	26.000	26.000
0282	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	4.000	4.000
0284	658.0412	Pedestrian Signal Face 12-Inch	EACH	16.000	16.000
0286	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0288	658.0600	Led Modules 12-Inch Red Ball	EACH	26.000	26.000
0290	658.0605	Led Modules 12-Inch Yellow Ball	EACH	26.000	26.000
0292	658.0610	Led Modules 12-Inch Green Ball	EACH	26.000	26.000
0294	658.0660	Led Modules Countdwn Timer 12-Inch	EACH	16.000	16.000
0296	658.5069	Signal Mounting Hardware (location) 01. S. 31ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0298	658.5069	Signal Mounting Hardware (location) 02. S. 21ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0300	661.0200	Temporary Traffic Signals for Intersections (location) 01. S. 31ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0302	661.0200	Temporary Traffic Signals for Intersections (location) 02. S. 21ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0304	690.0150	Sawing Asphalt	LF	1,905.000	1,905.000
0306	690.0250	Sawing Concrete	LF	6,478.000	6,478.000

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Line	Item	Item Description	Unit	Total	Qty
0308	715.0415	Incentive Strength Concrete Pavement	DOL	10,075.000	10,075.000
0310	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0312	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,400.000	1,400.000
0316	SPV.0060	Special 02. Poles Type 9	EACH	4.000	4.000
0324	SPV.0060	Special 06. Fiberglass Polymer Concrete Pull Box 13-Inch X 24-Inch X 24-Inch	EACH	172.000	172.000
0326	SPV.0060	Special 07. Inlet Screen Type M	EACH	138.000	138.000
0330	SPV.0060	Special 09. CONSTRUCTION STAKING CURB RAMPS	EACH	127.000	127.000
0332	SPV.0060	Special 10. INLET SCREEN TYPE R	EACH	131.000	131.000
0334	SPV.0060	Special 11. CATCH BASINS TYPE 44A	EACH	81.000	81.000
0336	SPV.0060	Special 12. CATCH BASINS TYPE 44B	EACH	14.000	14.000
0338	SPV.0060	Special 13. MANHOLE COVERS TYPE 58A	EACH	42.000	42.000
0340	SPV.0060	Special 14. INLET COVERS TYPE 57	EACH	119.000	119.000
0342	SPV.0060	Special 15. ADJUSTING WATER BOXES	EACH	239.000	239.000
0344	SPV.0060	Special 16. WATER MAIN PROTECTION	EACH	2.000	2.000
0346	SPV.0060	Special 17. FIBERGLASS POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH	EACH	22.000	22.000
0348	SPV.0060	Special 18. ADJUSTING TES MANHOLE COVERS	EACH	13.000	13.000
0350	SPV.0060	Special 19. INSTALLING CONDUIT INTO EXISTING MANHOLE	EACH	2.000	2.000
0352	SPV.0060	Special 20. 4' DIAMETER MANHOLE TYPE TES	EACH	9.000	9.000
0354	SPV.0060	Special 21. SAWING CONCRETE-ENCASED DUCT PACKAGE	EACH	1.000	1.000
0356	SPV.0060	Special 22. PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH	EACH	16.000	16.000
0358	SPV.0060	Special 23. MONOTUBE ARMS 25-FT	EACH	4.000	4.000
0360	SPV.0060	Special 24. EVP DETECTOR HEAD	EACH	4.000	4.000
0362	SPV.0060	Special 25. EVP PHASE SELECTOR CARD	EACH	2.000	2.000
0364	SPV.0060	Special 26. EVP CONFIRMATION LIGHT ASSEMBLY	EACH	4.000	4.000
0366	SPV.0090	Special 01. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 6-DUCT	LF	3,888.000	3,888.000
0368	SPV.0090	Special 02. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 5-DUCT	LF	19.000	19.000
0370	SPV.0090	Special 03. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 4-DUCT	LF	37.000	37.000
0372	SPV.0090	Special 04. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 3-DUCT	LF	32.000	32.000
0374	SPV.0090	Special 05. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 2-DUCT	LF	279.000	279.000
0376	SPV.0090	Special 06. 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 1-DUCT	LF	25.000	25.000
0378	SPV.0090	Special 07. CABLE TYPE UF 2-14 AWG	LF	901.000	901.000

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Line	Item	Item Description	Unit	Total	Qty
0380	SPV.0090	Special 08. CONCRETE CURB & GUTTER INTEGRAL 31-INCH	LF	92.000	92.000
0382	SPV.0090	Special 09. Construction Staking Concrete Sidewalk	LF	10,898.000	10,898.000
0384	SPV.0090	Special 10. Fiber Optic Cable Outdoor Plant 72-CT	LF	7,450.000	7,450.000
0386	SPV.0105	Special 01. VEHICULAR MICROWAVE DETECTION SYSTEM S. 31ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0388	SPV.0105	Special 02. VEHICULAR MICROWAVE DETECTION SYSTEM S. 21ST ST & W. GREENFIELD AVE	LS	1.000	1.000
0390	SPV.0105	Special 03. INST CITY-FURN TRAF SIG CAB TRAF SIG CONT & FOUND S 31ST & W GREENFIELD AVE	LS	1.000	1.000
0392	SPV.0105	Special 04. INST CITY-FURN TRAF SIG CAB TRAF SIG CONT & FOUND S 21ST & W GREENFIELD AVE	LS	1.000	1.000
0394	SPV.0105	Special 05. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
0396	SPV.0165	Special 01. COLORED CONCRETE SIDEWALK 5-INCH	SF	8,422.000	8,422.000
0398	SPV.0170	Special 01. TEST ROLLING	STA	132.000	132.000
0400	SPV.0180	Special 01. JOINT SEALING	SY	33,582.000	33,582.000

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CLEARING AND GRUBBING
2230-00-74

LOCATION	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
102+57 - 104+50	---	---	---	---
104+50 - 110+00	---	---	---	---
110+00 - 114+50	---	---	---	---
114+50 - 120+00	---	---	---	---
120+00 - 125+00	---	---	---	---
125+00 - 130+00	---	---	---	---
130+00 - 135+00	1	---	1	---
135+00 - 140+00	2	---	2	---
140+00 - 145+00	4	---	4	---
145+00 - 150+00	1	4	1	4
150+00 - 155+00	4	---	4	---
155+00 - 160+00	3	---	3	---
160+00 - 165+00	---	---	---	---
165+00 - 167+15	---	---	---	---
PROJECT TOTAL	**15**	**4**	**15**	**4**

CONTAMINATED SOIL
2230-00-74

LOCATION	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL TON
STAGE 2	
130+90 - 131+10	130
131+50 - 132+10	1,280
132+95 - 133+20	65
142+70 - 142+90	85
145+50 - 145+95	405
146+25 - 146+45	180
STAGE 2 SUBTOTAL	2,145
STAGE 3	
137+20 - 137+60	255
141+25 - 142+85	1,535
160+20 - 160+60	205
STAGE 3 SUBTOTAL	1,995
PROJECT TOTAL	**4,140**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVALS
2230-00-74

LOCATION	204.0100 REMOVING PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0185 REMOVING MASONRY CY	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 8-INCH LF	204.0245.02 REMOVING STORM SEWER 10-INCH LF	204.0245.03 REMOVING STORM SEWER 12-INCH LF	* 204.0250 ABANDONING MANHOLES EACH	204.0260 ABANDONING INLETS EACH	204.0291.S ABANDONING SEWER CY
STAGE 2													
102+57 - 104+50	644	---	---	---	142	---	1	---	---	43	---	---	---
104+50 - 110+00	1,767	---	---	22	459	---	2	34	---	59	---	1	---
110+00 - 114+50	1,284	---	---	---	317	---	1	35	---	---	---	---	---
114+50 - 120+00	1,749	---	---	---	401	---	2	---	---	64	---	5	3
120+00 - 125+00	1,685	---	---	---	366	---	4	34	---	33	---	1	2
125+00 - 130+00	1,337	---	---	---	318	---	1	---	---	33	---	1	1
130+00 - 135+00	1,530	---	52	52	539	---	2	---	20	---	---	1	1
135+00 - 140+00	1,445	---	---	101	423	---	3	42	---	---	---	3	2
140+00 - 145+00	1,528	---	---	---	415	---	---	---	---	---	---	2	1
145+00 - 150+00	1,528	---	---	---	432	---	3	39	---	---	---	---	1
150+00 - 155+00	1,432	---	78	136	490	---	1	---	---	19	1	3	2
155+00 - 160+00	1,425	---	---	42	386	---	2	31	---	---	---	3	2
160+00 - 165+00	1,493	8	---	138	484	---	4	52	---	---	1	2	2
165+00 - 167+15	695	---	---	---	262	---	---	---	---	---	---	---	---
STAGE 2 SUBTOTAL	19,542	8	130	491	5,434	0	26	267	20	251	2	22	17
STAGE 3													
102+57 - 104+50	457	---	---	---	141	---	---	---	---	---	---	---	---
104+50 - 110+00	1,689	---	31	114	401	---	3	---	---	54	---	3	2
110+00 - 114+50	1,347	---	---	62	360	---	3	26	---	34	---	---	1
114+50 - 120+00	1,784	---	---	144	531	3	5	---	---	109	---	2	2
120+00 - 125+00	1,478	---	---	72	390	---	2	---	---	---	---	3	3
125+00 - 130+00	985	---	---	---	305	---	1	---	---	29	---	1	1
130+00 - 135+00	1,333	---	---	46	479	---	1	---	---	---	2	2	2
135+00 - 140+00	1,446	---	---	86	453	---	5	82	20	20	---	1	1
140+00 - 145+00	1,422	---	---	42	457	---	---	---	---	---	---	1	1
145+00 - 150+00	1,386	---	---	34	419	---	2	27	---	43	---	1	---
150+00 - 155+00	1,428	---	---	156	465	---	1	28	---	---	1	2	1
155+00 - 160+00	1,477	---	---	---	386	---	2	---	---	---	---	2	4
160+00 - 165+00	1,521	---	---	46	413	---	2	---	---	---	1	1	3
165+00 - 167+15	526	---	---	---	152	---	---	---	---	---	---	---	---
STAGE 3 SUBTOTAL	18,279	0	31	802	5,352	3	27	163	20	289	4	19	21
PROJECT TOTAL	**37,821**	**8**	**161**	**1,293**	**10,786**	**3**	**53**	**430**	**40**	**540**	**6**	**41**	**38**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "CITY UNDERGROUND CONDUIT".

REMOVING CONCRETE BASES
2230-00-74

LOCATION	ITEM NO.	204.0195 REMOVING CONCRETE BASES EACH
S. 31ST ST & W. GREENFIELD AVE	CB1	1
	B	1
	C	1
	D	1
	F	1
	H	1
	TOTAL	6
S. 21ST ST & W. GREENFIELD AVE	CB1	1
	B	1
	C	1
	D	1
	F	1
	H	1
	TOTAL	6
PROJECT TOTAL		**12**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

EARTHWORK SUMMARY

2230-00-74

CATEGORY 0010			A	B	C	D	E	F	G	H	I	J
			205.0100		*	*	*	*	*	*	*	624.0100
Division	From/To Station	Location	Excavation Common (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Expanded EBS Backfill (6) CY	Unexpanded Fill	Expanded Fill (7) CY	Mass Ordinate +/- (8)	Waste (9)	** WATER
			Cut CY	EBS (2) (3) CY	CY	CY	Factor 1.11	CY	Factor 1.11	CY	CY	MGAL
Stage 2												
W. Greenfield Avenue	102+57 - 127+71	West of S. Layton Blvd	3,787	1,735	2,036	1,751	2,298	7	8	1,743	3,814	12
	102+57 - 127+71	Undistributed		335								
	128+72 - 167+15	East of S. Layton Blvd	6,404	2,711	3,238	3,166	3,464	47	52	3,114	6,235	19
	128+72 - 167+15	Undistributed		410								
S. 31st Street	18+90 - 19+50	South of W. Greenfield Ave	56	0	40	16	0	0	0	16	16	1
	20+50 - 20+65	North of W. Greenfield Ave	14	0	4	10	0	0	0	10	10	1
S. 21st Street	64+15 - 64+50	South of W. Greenfield Ave	39	0	2	37	0	0	0	37	37	1
	65+50 - 65+85	North of W. Greenfield Ave	39	0	0	39	0	0	0	39	39	1
Stage 2 Subtotal			10,339	5,191	5,320	4,980	5,762	54	60	4,920	10,111	35
Stage 3												
W. Greenfield Avenue	102+57 - 127+71	West of S. Layton Blvd	3,823	1,784	2,036	1,787	2,353	5	6	1,781	3,900	12
	102+57 - 127+71	Undistributed		335								
	128+72 - 167+15	East of S. Layton Blvd	6,082	2,744	3,238	2,844	3,501	16	17	2,827	5,980	18
	128+72 - 167+15	Undistributed		410								
S. 31st Street	18+90 - 19+50	South of W. Greenfield Ave	50	0	40	10	0	0	0	10	10	1
	20+50 - 20+65	North of W. Greenfield Ave	15	0	4	11	0	0	0	11	11	1
S. 21st Street	64+15 - 64+50	South of W. Greenfield Ave	39	0	2	37	0	0	0	37	37	1
	65+50 - 65+85	North of W. Greenfield Ave	39	0	0	39	0	1	1	38	38	1
Stage 3 Subtotal			10,048	5,273	5,320	4,689	5,853	21	24	4,665	9,938	33
Subtotal			20,387	10,464								
Project Total			**30,851**		10,640	9,669	11,615	75	84	9,585	20,049	68

1) Common Excavation is the sum of the Cut (A) and EBS (B) columns. Item number 205.0100.
2) EBS (B) quantity includes an undistributed amount, which is estimated to be 50% of the total length of the 24" EBS station ranges at a 12" excavation depth (see EBS Construction Detail for station ranges). It is assumed that all EBS will be wasted.
3) EBS (B) to be backfilled with Base Aggregate Dense 1 1/4-Inch (Item #305.0120) when EBS is 12" or 24" deep. EBS (B) to be backfilled with Base Aggregate Dense 3-Inch (Item #305.0130) in EBS undistributed areas. See "Base Course Items" for quantities.
4) Salvaged/Unusuable Pavement Material (C) is included in Cut (A). This assumes the existing pavement is salvaged or wasted by the contractor.
5) Available Material (D) = Cut (A) - Salvaged/Unusuable Pavement Material (C).
6) Expanded EBS Backfill (E) - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
7) Expanded Fill (G) = Unexpanded Fill (F) x Fill Factor (1.11)
8) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.
9) Waste = EBS (B) + Mass Ordinate (H) and excludes salvaged/unusable pavement material (C)
* FOR INFORMATION ONLY
**ASSUMED 2 GAL/CY OF EXCAVATION COMMON. ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "BASE COURSE ITEMS" AND "TEST ROLLING" TABLES.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

BASE COURSE ITEMS
2230-00-74

LOCATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	** 305.0130 BASE AGGREGATE DENSE 3-INCH TON	*** 612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	**** 624.0100 WATER MGAL
STAGE 2				
102+57 - 104+50	1,282	---	---	26
104+50 - 110+00	885	---	---	18
110+00 - 114+50	508	---	---	11
114+50 - 120+00	706	---	---	15
120+00 - 125+00	2,518	---	130	51
125+00 - 130+00	822	---	---	17
130+00 - 135+00	3,014	---	---	61
135+00 - 140+00	693	---	---	14
140+00 - 145+00	1,548	---	100	31
145+00 - 150+00	2,415	---	---	49
150+00 - 155+00	2,154	---	25	44
155+00 - 160+00	2,500	---	25	50
160+00 - 165+00	779	---	---	16
165+00 - 167+15	305	---	---	7
STAGE 2 SUBTOTAL	20,129	0	280	410
STAGE 3				
102+57 - 104+50	941	---	---	19
104+50 - 110+00	908	---	---	19
110+00 - 114+50	600	---	---	12
114+50 - 120+00	890	---	---	18
120+00 - 125+00	2,450	---	130	49
125+00 - 130+00	601	---	---	13
130+00 - 135+00	1,213	---	---	25
135+00 - 140+00	1,012	---	---	21
140+00 - 145+00	3,170	---	100	64
145+00 - 150+00	1,747	---	---	35
150+00 - 155+00	2,204	---	25	45
155+00 - 160+00	2,488	---	25	50
160+00 - 165+00	930	---	---	19
165+00 - 167+15	227	---	---	5
STAGE 3 SUBTOTAL	19,381	0	280	394
UNDISTRIBUTED	---	3,710	---	75
PROJECT TOTAL	**39,510**	**3,710**	**560**	**879**

*QUANTITY INCLUDES BACKFILL FOR EBS AND CONTAMINATED SOILS. ASSUMED UNIT WEIGHT OF 2.0 TON/CY
**TO BE USED IN EBS BACKFILL AREAS AT DEPTHS BETWEEN 24 INCHES AND 36 INCHES. ASSUMED UNIT WEIGHT OF 2.2 TON/CY.
***FOR USE AT ROADWAY LOWPOINTS IN EBS AREAS AS DIRECTED BY ENGINEER. CONNECT TO NEAREST CATCH BASIN (INCIDENTAL TO PIPE UNDERDRAIN WRAPPED 6-INCH).
****ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TEST ROLLING" AND "EARTHWORK SUMMARY" TABLES.

HMA PAVEMENT ITEMS
2230-00-74

LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.5225 HMA PAVEMENT 5 LT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
STAGE 2					
102+57 - 104+50	---	---	---	---	---
104+50 - 110+00	4	5	4	---	---
110+00 - 114+50	---	---	---	---	---
114+50 - 120+00	---	---	---	---	---
120+00 - 125+00	---	---	---	---	---
125+00 - 130+00	---	---	---	---	---
130+00 - 135+00	12	12	10	---	1
135+00 - 140+00	20	14	11	11	---
140+00 - 145+00	---	---	---	---	---
145+00 - 150+00	---	---	---	---	---
150+00 - 155+00	29	22	17	14	---
155+00 - 160+00	10	11	8	---	---
160+00 - 165+00	30	33	26	---	---
165+00 - 167+15	---	---	---	---	---
STAGE 2 SUBTOTAL	105	97	76	25	1
STAGE 3					
102+57 - 104+50	---	---	---	---	---
104+50 - 110+00	20	17	14	6	---
110+00 - 114+50	11	12	9	---	---
114+50 - 120+00	31	33	26	---	1
120+00 - 125+00	13	14	11	---	---
125+00 - 130+00	---	---	---	---	---
130+00 - 135+00	9	10	8	---	---
135+00 - 140+00	20	21	17	---	---
140+00 - 145+00	9	10	8	---	---
145+00 - 150+00	8	9	7	---	---
150+00 - 155+00	32	34	27	---	---
155+00 - 160+00	1	1	1	---	---
160+00 - 165+00	11	11	9	---	---
165+00 - 167+15	---	---	---	---	---
STAGE 3 SUBTOTAL	165	172	137	6	1
PROJECT TOTAL	**270**	**269**	**213**	**31**	**2**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

CONCRETE ITEMS

2230-00-74

LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0210 CONCRETE PAVEMENT GAPS EACH	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	416.0180 CONCRETE DRIVEWAY 8-INCH SY	416.0280 CONCRETE DRIVEWAY HES 8-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	440.4410 INCENTIVE IRI RIDE DOL	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT DOL	SPV.0060.09 CONSTRUCTION STAKING CURB RAMPS EACH	SPV.0090.08 CONCRETE CURB & GUTTER INTEGRAL 31-INCH LF	SPV.0090.09 CONSTRUCTION STAKING CONCRETE SIDEWALK LF	SPV.0105.05 CONCRETE PAVEMENT JOINT LAYOUT LS	SPV.0165.01 COLORED CONCRETE SIDEWALK 5-INCH SF
STAGE 2																				
102+57 - 104+50	575	---	---	23	---	2	21	---	193	---	1,056	---	193	---	---	---	---	193	---	---
104+50 - 110+00	1,521	---	---	68	---	8	---	---	608	36	3,406	80	608	---	---	8	---	439	---	---
110+00 - 114+50	1,100	---	---	9	---	---	---	---	450	15	2,527	20	450	---	---	2	---	450	---	---
114+50 - 120+00	1,517	---	55	---	---	8	---	---	640	44	3,267	80	640	---	---	8	---	436	---	---
120+00 - 125+00	1,451	---	---	---	---	8	---	---	566	30	3,170	70	566	---	---	7	---	393	---	---
125+00 - 130+00	1,134	1	75	16	18	4	46	---	399	---	2,512	10	399	---	---	1	---	400	---	---
130+00 - 135+00	1,330	2	61	93	23	4	---	---	533	---	3,451	44	533	---	---	4	---	437	---	374
135+00 - 140+00	1,309	---	---	19	---	8	---	---	572	---	2,995	84	572	---	---	8	---	380	---	867
140+00 - 145+00	1,256	1	116	52	53	4	---	---	541	---	2,660	44	541	---	---	4	---	441	---	463
145+00 - 150+00	1,302	1	69	42	28	4	---	---	542	---	2,811	44	542	---	---	4	---	440	---	485
150+00 - 155+00	1,254	---	46	11	---	8	---	---	610	---	3,010	84	610	---	---	8	---	380	---	956
155+00 - 160+00	1,285	---	---	---	---	4	---	---	526	---	2,700	40	526	---	---	4	---	441	---	577
160+00 - 165+00	1,285	---	70	36	31	8	---	---	612	---	3,018	72	612	---	---	7	---	383	---	760
165+00 - 167+15	463	1	169	---	74	2	---	---	221	125	1,652	---	221	---	---	---	---	215	---	---
STAGE 2 SUBTOTAL	16,782	6	661	369	227	72	67	---	7,013	250	38,235	672	7,013	---	---	65	---	5,428	---	4,482
STAGE 3																				
102+57 - 104+50	390	---	---	---	---	2	12	---	193	---	1,057	---	193	---	---	---	---	193	---	---
104+50 - 110+00	1,455	---	---	---	---	8	---	---	647	68	3,550	80	647	---	---	8	---	441	---	---
110+00 - 114+50	1,166	---	---	8	---	4	---	---	499	---	3,333	20	499	---	---	2	---	394	---	---
114+50 - 120+00	1,445	3	84	82	---	8	---	---	677	13	4,826	80	677	---	---	8	---	441	---	---
120+00 - 125+00	1,270	1	---	25	---	4	---	---	567	25	3,128	50	567	---	---	5	---	449	---	---
125+00 - 130+00	857	---	---	---	---	4	28	---	309	20	2,566	10	309	---	---	1	92	400	---	---
130+00 - 135+00	1,189	1	---	29	---	4	---	---	545	---	4,163	44	545	---	---	4	---	441	---	384
135+00 - 140+00	1,309	---	---	---	---	8	---	---	557	---	3,593	84	557	---	---	8	---	380	---	910
140+00 - 145+00	1,281	---	---	---	---	4	---	---	532	---	3,993	44	532	---	---	4	---	440	---	433
145+00 - 150+00	1,246	---	---	31	---	4	---	---	517	---	3,355	44	517	---	---	4	---	442	---	376
150+00 - 155+00	1,246	---	46	9	---	8	---	---	636	---	3,113	84	636	---	---	8	---	390	---	1,021
155+00 - 160+00	1,308	1	---	44	---	4	---	---	517	---	2,717	40	517	---	---	5	---	446	---	520
160+00 - 165+00	1,284	1	88	93	38	4	---	---	568	---	2,811	52	568	---	---	5	---	433	---	296
165+00 - 167+15	388	1	87	---	25	2	---	---	179	---	1,301	---	179	---	---	---	---	180	---	---
STAGE 3 SUBTOTAL	15,834	8	305	321	63	68	40	---	6,943	126	43,506	632	6,943	---	---	62	92	5,470	---	3,940
PROJECT TOTAL	**32,616**	**14**	**966**	**690**	**290**	**140**	**107**	**4,820**	**13,956**	**376**	**81,741**	**1,304**	**13,956**	**6,423**	**10,075**	**127**	**92**	**10,898**	**1**	**8,422**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES

2230-00-74

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	STR DEPTH FEET	611.0420 RECONSTRUCTING MANHOLES EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.11 CATCH BASINS TYPE 44A EACH	SPV.0060.12 CATCH BASINS TYPE 44B EACH	SPV.0060.13 MANHOLE COVERS TYPE 58A EACH	SPV.0060.14 INLET COVERS TYPE 57 EACH	COMMENTS
1A	103+70	23.1' LT	77.24	72.98	6.33	---	---	---	1	1	---	---	1	---
1	103+43	5.5' RT	77.56	---	---	---	---	---	---	---	---	1	---	REPAIR TOP COURSE 8" BLOCK (1" VERTICAL ADJUSTMENT)
2	104+80	5.6' RT	79.74	---	---	---	---	---	---	---	---	1	---	---
3	105+15	4.3' RT	80.55	---	---	---	---	---	---	---	---	1	---	---
4	105+16	39.2' LT	79.96	---	---	---	---	---	---	---	---	1	---	---
5A	105+00	43.2' RT	80.14	75.87	6.33	---	---	---	1	1	---	---	1	---
5B	105+28	43.5' RT	80.56	76.29	6.33	---	---	---	1	1	---	---	1	---
5	105+15	47.3' RT	80.75	---	---	---	---	---	---	---	---	1	---	---
6A	105+58	23.1' LT	81.07	76.80	6.33	---	---	---	1	1	---	---	1	---
6B	105+55	23.1' RT	81.32	77.05	6.34	---	---	---	1	1	---	---	1	---
6	105+56	5.2' RT	81.76	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
7A	107+00	23.1' LT	88.56	84.30	6.33	---	---	---	1	1	---	---	1	---
7	106+86	5.5' RT	88.24	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 3 COURSES 3" BRICK (0.7" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
8	108+18	5' RT	95.07	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
72B	108+72	47.1' RT	96.51	92.24	6.33	---	---	---	1	1	---	---	1	---
72A	108+44	48.4' RT	96.19	91.92	6.33	---	---	---	1	1	---	---	1	---
72	108+55	42.1' RT	96.37	---	---	---	---	---	---	---	---	1	---	---
71B	109+09	23.1' RT	97.11	92.84	6.33	---	---	---	1	1	---	---	1	---
71A	108+99	23.1' LT	96.40	92.13	6.33	---	---	---	1	1	---	---	1	---
71	108+95	2.3' RT	97.18	---	---	---	---	---	---	---	---	1	---	---
70B	111+53	23.1' RT	95.62	91.34	6.34	---	---	---	1	1	---	---	1	---
70A	111+56	23.1' LT	95.49	91.22	6.33	---	---	---	1	1	---	---	1	---
70	111+40	4.7' RT	96.45	---	---	---	---	---	---	---	---	1	---	---
69B	112+05	38.6' RT	94.96	90.69	6.33	---	---	---	1	1	---	---	1	---
69A	111+77	39.4' RT	95.79	91.52	6.34	---	---	---	1	1	---	---	1	---
69	111+90	47.6' RT	96.19	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
68	112+08	3.9' RT	94.71	---	---	---	---	---	---	---	---	1	---	---
67B	114+85	23.1' RT	86.21	82.05	6.22	---	---	---	1	1	---	---	1	---
67A	114+71	23.1' LT	86.48	82.21	6.34	---	---	---	1	1	---	---	1	---
67	114+99	5.5' RT	86.24	---	---	---	---	---	---	---	---	1	---	---
66B	115+53	51.1' LT	84.67	80.40	6.34	---	---	---	1	1	---	---	1	---
66A	115+23	55.1' LT	84.98	80.71	6.33	---	---	---	1	1	---	---	1	---
66	115+39	34' LT	85.16	---	---	1	---	---	---	---	---	1	---	REPAIR TOP 5 COURSES 3" BRICK (0.5" VERTICAL ADJUSTMENT)
65B	115+37	67.7' RT	86.27	82.00	6.34	---	---	---	1	1	---	---	1	---
65A	115+05	39.3' RT	86.07	81.80	6.33	---	---	---	1	1	---	---	1	---
65	115+18	49.3' RT	86.06	---	---	---	---	---	---	---	---	1	---	---
64	115+36	4' RT	85.36	---	---	---	---	---	---	---	---	1	---	---
63	115+55	5.7' RT	84.87	---	---	---	---	---	---	---	---	1	---	---
62B	117+87	23.1' RT	78.35	74.08	6.33	---	---	---	1	1	---	---	1	---
62A	117+85	23.1' LT	78.43	74.16	6.34	---	---	---	1	1	---	---	1	---
62	117+90	5.5' RT	78.67	---	---	---	---	---	---	---	---	1	---	---
61B	118+47	44.3' LT	77.53	73.26	6.33	---	---	---	1	1	---	---	1	---
61A	118+19	45.1' LT	77.81	73.54	6.34	---	---	---	1	1	---	---	1	---
61	118+33	37' LT	78.02	---	---	---	---	---	---	---	---	1	---	---
60B	118+43	51.2' RT	77.94	74.50	4.18	---	---	---	1	---	1	---	1	---
60A	118+16	49.8' RT	77.96	73.69	6.33	---	---	---	1	1	---	---	1	---
60	118+30	45.2' RT	78.20	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (1.9" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
59	118+67	5.8' RT	77.60	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
58C	119+60	23.1' RT	76.52	72.25	6.34	---	---	---	1	1	---	---	1	---
58B	120+00	23.1' RT	76.44	71.93	3.43	---	1	---	1	---	---	---	1	---
SUBTOTALS						**1**	**1**	**6**	**28**	**26**	**1**	**16**	**28**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATCH BASIN TYPE 44A: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 47.75 INCHES
   CATCH BASIN TYPE 44B: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 22 INCHES
4. CASTING HEIGHT = 10" FOR TYPE 58A COVERS; 7" FOR TYPE 57 COVERS
5. ADJUSTMENT:
   MANHOLES & CATCH BASINS TYPE 44B: 6 INCHES
   CATCH BASINS TYPE 44A: 16 INCHES

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES (CONTINUED)

2230-00-74

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	STR DEPTH FEET	611.0420 RECONSTRUCTING MANHOLES EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.11 CATCH BASINS TYPE 44A EACH	SPV.0060.12 CATCH BASINS TYPE 44B EACH	SPV.0060.13 MANHOLE COVERS TYPE 58A EACH	SPV.0060.14 INLET COVERS TYPE 57 EACH	COMMENTS
58A	120+10	23.1' RT	76.48	71.87	3.53	---	1	---	1	---	---	---	1	---
57C	119+83	23.1' LT	76.40	72.12	6.34	---	---	---	1	1	---	---	1	---
57B	120+00	23.1' LT	76.33	71.86	3.39	---	1	---	1	---	---	---	1	---
57A	120+10	23.1' LT	76.37	71.66	3.63	---	1	---	1	---	---	---	1	---
56B	121+10	23.1' RT	76.59	71.37	4.14	---	1	---	1	---	---	---	1	---
56A	121+01	23.1' LT	76.47	68.80	6.59	---	1	---	1	---	---	---	1	---
56	121+16	4.4' RT	76.95	---	---	---	---	---	---	---	---	1	---	---
55	121+57	38.8' LT	76.25	---	---	---	---	---	---	---	---	1	---	---
54B	121+71	50.2' RT	75.93	71.66	6.33	---	---	---	1	1	---	---	1	---
54A	121+42	44.8' RT	76.25	71.98	6.34	---	---	---	1	1	---	---	1	---
54	121+57	47.1' RT	76.74	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 3 COURSES 3" BRICK (4.3" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
53	121+71	4.2' RT	76.41	---	---	---	---	---	---	---	---	1	---	REPAIR TOP COURSE 3" BRICK (2.9" VERTICAL ADJUSTMENT)
52B	123+00	23.1' RT	74.96	70.69	6.33	---	---	---	1	1	---	---	1	---
52A	123+14	23.1' RT	74.88	70.62	3.17	---	1	---	1	---	---	---	1	---
51B	123+15	23.1' LT	75.03	70.76	6.33	---	---	---	1	1	---	---	1	---
51A	123+25	23.1' LT	74.95	70.71	3.15	---	1	---	1	---	---	---	1	---
50B	124+25	23.1' RT	74.59	70.00	3.50	---	1	---	1	---	---	---	1	---
50A	124+33	23.1' LT	75.00	70.17	3.74	---	1	---	1	---	---	---	1	---
50	124+28	6' RT	75.15	---	---	---	---	---	---	---	---	1	---	---
49B	127+50	24.1' RT	74.47	70.20	6.33	---	---	---	1	1	---	---	1	---
49A	127+66	26.4' LT	74.63	70.36	6.33	---	---	---	1	1	---	---	1	---
49	127+58	4.4' RT	75.28	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 4" BLOCK (0" ADJUSTMENT) / REUSE EXISTING COVER
48	126+35	3.8' RT	75.67	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
47B	125+30	23.1' RT	75.00	70.73	6.34	---	---	---	1	1	---	---	1	---
47A	125+14	23.1' LT	74.77	71.32	4.19	---	---	---	1	---	1	---	1	---
47	125+12	5' RT	75.34	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
46B	124+85	46.7' LT	74.28	70.01	6.34	---	---	---	1	1	---	---	1	---
46A	124+57	42.3' LT	74.45	70.18	6.33	---	---	---	1	1	---	---	1	---
46	124+70	37.3' LT	74.80	---	---	---	---	---	---	---	---	1	---	REPAIR TOP 2 COURSES 3" BRICK (4.4" VERTICAL ADJUSTMENT)
251	128+87	1.4' LT	74.70	---	---	---	---	---	---	---	---	1	---	---
250	129+75	0.5' LT	74.26	---	---	---	---	---	---	---	---	1	---	---
249	130+62	0.3' RT	73.83	---	---	---	---	---	---	---	---	1	---	---
248B	131+51	23.1' RT	72.50	68.22	6.33	---	---	---	1	1	---	---	1	---
248A	131+50	23.1' LT	72.65	68.38	6.34	---	---	---	1	1	---	---	1	---
248	131+49	1.2' RT	73.39	---	---	---	---	---	---	---	---	1	---	---
247B	132+13	49.4' LT	72.78	68.51	6.33	---	---	---	1	1	---	---	1	---
247A	131+79	38.9' LT	72.62	68.35	6.34	---	---	---	1	1	---	---	1	---
247	131+96	54' LT	73.35	---	---	---	---	---	---	---	---	1	---	---
246B	132+14	54.5' RT	72.32	68.05	6.33	---	---	---	1	1	---	---	1	---
246A	131+76	56.2' RT	72.33	68.06	6.34	---	---	---	1	1	---	---	1	---
246	131+93	49.5' RT	72.92	---	---	---	---	---	---	---	---	1	---	---
245	132+14	2' RT	72.93	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
244	132+43	0.8' RT	72.74	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
243	133+82	0.9' RT	71.61	---	---	---	---	1	---	---	---	---	---	REPAIR TOP COURSE 3" BRICK (2.2" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
242E	135+19	23.1' RT	69.24	64.97	6.34	---	---	---	1	1	---	---	1	RECONNECT ROOF DRAIN ON SOUTH SIDE OF CATCH BASIN
242D	135+29	23.1' RT	69.19	64.88	3.23	---	1	---	1	---	---	---	1	---
242C	134+85	23.1' LT	69.98	65.71	6.33	---	---	---	1	1	---	---	1	---
242B	135+00	23.1' LT	70.01	65.62	3.31	---	1	---	1	---	---	---	1	---
242A	135+13	23.1' LT	69.76	65.54	3.14	---	1	---	1	---	---	---	1	---
242	135+20	0.7' RT	70.21	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER / RECONNECT ROOF DRAIN ON NORTH SIDE OF MANHOLE
SUBTOTALS						**0**	**12**	**8**	**31**	**18**	**1**	**11**	**31**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATCH BASIN TYPE 44A: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 47.75 INCHES
   CATCH BASIN TYPE 44B: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 22 INCHES
4. CASTING HEIGHT = 10" FOR TYPE 58A COVERS; 7" FOR TYPE 57 COVERS
5. ADJUSTMENT:
   MANHOLES & CATCH BASINS TYPE 44B: 6 INCHES
   CATCH BASINS TYPE 44A: 16 INCHES

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES (CONTINUED)

2230-00-74

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	STR DEPTH FEET	611.0420 RECONSTRUCTING MANHOLES EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.11 CATCH BASINS TYPE 44A EACH	SPV.0060.12 CATCH BASINS TYPE 44B EACH	SPV.0060.13 MANHOLE COVERS TYPE 58A EACH	SPV.0060.14 INLET COVERS TYPE 57 EACH	COMMENTS
241B	135+85	47.9' LT	70.00	65.73	6.33	---	---	---	1	1	---	---	1	---
241A	135+47	43.1' LT	70.02	65.75	6.33	---	---	---	1	1	---	---	1	---
241	135+65	49.7' LT	70.51	---	---	---	---	---	---	---	---	1	---	---
240B	135+84	50.2' RT	69.51	65.24	6.33	---	---	---	1	1	---	---	1	RECONNECT ROOF DRAIN ON EAST SIDE OF CATCH BASIN
240A	135+46	43.4' RT	69.38	65.11	6.33	---	---	---	1	1	---	---	1	---
240	135+66	50.1' RT	70.25	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
239	136+14	1.9' RT	70.11	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
238	137+52	0.2' LT	68.64	---	---	---	---	1	---	---	---	---	---	REPAIR TOP COURSE 3" BRICK (4.8" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
237E	138+36	23.1' RT	67.28	63.01	6.33	---	---	---	1	1	---	---	1	---
237D	138+74	23.1' RT	67.51	62.68	3.75	---	1	---	1	---	---	---	1	---
237C	138+25	23.1' LT	68.09	63.82	6.34	---	---	---	1	1	---	---	1	---
237B	138+70	23.1' LT	67.84	63.55	3.21	---	1	---	1	---	---	---	1	---
237A	138+82	23.1' LT	67.67	63.45	3.13	---	1	---	1	---	---	---	1	---
237	138+90	0.2' RT	68.11	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
236B	139+53	44.9' LT	67.63	63.36	6.33	---	---	---	1	1	---	---	1	---
236A	139+18	50.1' LT	67.84	63.57	6.33	---	---	---	1	1	---	---	1	---
236	139+37	50.4' LT	68.54	---	---	---	---	---	---	---	---	1	---	---
235B	139+53	44.9' RT	67.91	63.64	6.34	---	---	---	1	1	---	---	1	---
235A	139+18	39.8' RT	67.52	63.25	6.33	---	---	---	1	1	---	---	1	---
235	139+35	49.8' RT	68.20	---	---	---	---	---	---	---	---	1	---	---
234	139+57	1.6' LT	68.16	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
233	139+83	0.1' LT	68.05	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
232	141+21	0' LT	66.48	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (3.8" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
231D	142+40	23.1' RT	65.09	60.82	6.34	---	---	---	1	1	---	---	1	---
231C	142+50	23.1' RT	65.02	60.75	3.19	---	1	---	1	---	---	---	1	---
231B	142+40	23.1' LT	64.71	60.44	6.34	---	---	---	1	1	---	---	1	---
231A	142+50	23.1' LT	64.66	60.38	3.20	---	1	---	1	---	---	---	1	---
231	142+60	0.3' RT	65.68	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
230A	143+24	61.9' LT	64.87	---	---	---	---	---	---	---	---	---	1	---
230	143+05	50.3' LT	65.29	---	---	---	---	---	---	---	---	1	---	---
229	143+04	48.4' RT	65.62	---	---	---	---	---	---	---	---	1	---	---
228	143+30	1.7' LT	66.06	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
227B	143+56	23.1' RT	65.04	60.77	6.33	---	---	---	1	1	---	---	1	---
227A	143+55	23.1' LT	64.91	60.64	6.33	---	---	---	1	1	---	---	1	---
227	143+54	0' RT	66.04	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
226B	145+00	23.1' RT	64.76	60.49	6.33	---	---	---	1	1	---	---	1	---
226A	145+00	23.1' LT	64.49	60.22	6.34	---	---	---	1	1	---	---	1	---
226	144+92	0.7' LT	65.51	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
225B	146+24	23.2' RT	64.62	61.18	4.19	---	---	---	1	---	1	---	1	---
225A	146+25	23.1' LT	64.46	60.19	6.33	---	---	---	1	1	---	---	1	---
225	146+29	0.6' LT	65.28	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
224B	146+93	41.9' LT	64.63	60.36	6.33	---	---	---	1	1	---	---	1	---
224A	146+59	41.7' LT	64.64	60.37	6.33	---	---	---	1	1	---	---	1	---
224	146+77	48.3' LT	64.92	---	---	---	---	---	---	---	---	1	---	---
223A	147+58	23.1' RT	63.31	59.87	4.18	---	---	---	1	---	1	---	1	---
223	147+24	1.3' LT	64.48	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
222	148+62	1.3' LT	61.56	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
221B	150+07	23.1' RT	58.61	55.17	4.19	---	---	---	1	---	1	---	1	---
221A	149+91	23.1' LT	59.01	54.74	6.33	---	---	---	1	1	---	---	1	---
221	150+02	1.6' LT	59.45	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (2" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER / RECONNECT ROOF DRAIN ON SOUTH SIDE OF MANHOLE
SUBTOTALS						**0**	**5**	**15**	**28**	**20**	**3**	**6**	**29**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATCH BASIN TYPE 44A: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 47.75 INCHES
   CATCH BASIN TYPE 44B: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 22 INCHES
4. CASTING HEIGHT = 10" FOR TYPE 58A COVERS; 7" FOR TYPE 57 COVERS
5. ADJUSTMENT:
   MANHOLES & CATCH BASINS TYPE 44B: 6 INCHES
   CATCH BASINS TYPE 44A: 16 INCHES

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES (CONTINUED)

2230-00-74

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	STR DEPTH FEET	611.0420 RECONSTRUCTING MANHOLES EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.11 CATCH BASINS TYPE 44A EACH	SPV.0060.12 CATCH BASINS TYPE 44B EACH	SPV.0060.13 MANHOLE COVERS TYPE 58A EACH	SPV.0060.14 INLET COVERS TYPE 57 EACH	COMMENTS
220	150+46	48.6' RT	58.12	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
219B	150+30	55.1' LT	58.27	---	---	---	---	---	---	---	---	---	1	---
219A	150+64	48.5' LT	57.60	---	---	---	---	---	---	---	---	---	1	---
219	150+46	50.1' LT	58.29	---	---	---	---	---	---	---	---	1	---	---
218	150+79	0' LT	57.79	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
217	150+94	1' LT	57.40	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
216	152+32	1.4' LT	53.75	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
215B	153+57	23.1' RT	49.84	46.40	4.18	---	---	---	1	---	1	---	1	---
215A	153+57	23.1' LT	49.84	45.57	6.33	---	---	---	1	1	---	---	1	---
215	153+70	1' LT	50.03	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
214A	154+34	52.9' LT	47.62	43.35	6.34	---	---	---	1	1	---	---	1	---
214	154+16	49.3' LT	48.50	---	---	---	---	---	---	---	---	1	---	---
213A	153+94	49.7' RT	48.63	44.36	6.33	---	---	---	1	1	---	---	1	---
213	154+06	49.2' RT	48.86	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (4.8" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
212B	154+93	23.1' RT	47.86	44.42	4.19	---	---	---	1	---	1	---	1	---
212A	154+93	23.1' LT	47.97	43.70	6.33	---	---	---	1	1	---	---	1	---
212	154+64	0.8' LT	48.61	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
210C	155+44	23.1' RT	48.17	44.73	4.19	---	---	---	1	---	1	---	1	---
210	155+87	0.8' LT	49.01	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (5.4" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
210A	156+28	23.1' LT	47.96	43.69	6.33	---	---	---	1	1	---	---	1	---
210B	156+37	23.1' RT	48.38	44.94	4.19	---	---	---	1	---	1	---	1	---
207B	157+00	23.1' RT	48.06	44.62	4.19	---	---	---	1	---	1	---	1	---
207A	157+00	23.1' LT	47.91	43.64	6.33	---	---	---	1	1	---	---	1	---
207	157+09	0.9' LT	48.77	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
206C	158+25	23.1' RT	48.08	44.64	4.19	---	---	---	1	---	1	---	1	---
206B	158+50	23.1' LT	48.17	43.90	6.34	---	---	---	1	1	---	---	1	---
206A	158+14	23.1' LT	48.14	43.72	3.34	---	1	---	1	---	---	---	1	---
206	158+00	0.6' LT	49.03	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
205D	160+25	23.1' RT	48.05	44.61	4.19	---	---	---	1	---	1	---	1	---
205C	160+10	23.1' LT	48.14	43.87	6.33	---	---	---	1	1	---	---	1	---
205B	160+35	23.1' LT	48.25	43.98	6.33	---	---	---	1	1	---	---	1	---
205A	160+25	23.1' LT	48.09	43.82	3.19	---	1	---	1	---	---	---	1	---
205	160+05	0' RT	49.01	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
203B	160+85	23.1' RT	48.40	44.96	4.19	---	---	---	1	---	1	---	1	---
203A	161+35	23.1' LT	49.31	45.04	6.34	---	---	---	1	1	---	---	1	---
203	161+38	0.1' RT	49.79	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
202A	164+19	26.1' RT	50.85	47.41	4.19	---	---	---	1	---	1	---	1	---
201	163+76	2.3' LT	51.22	---	---	---	---	1	---	---	---	---	---	REUSE EXISTING COVER
200A	164+75	24.1' LT	51.30	47.03	6.34	---	---	---	1	1	---	---	1	---
200	164+69	1.5' LT	51.86	---	---	---	---	---	---	---	---	1	---	---
316B	157+72	49.8' LT	48.23	43.96	6.33	---	---	---	1	1	---	---	1	---
316A	157+36	50.2' LT	48.29	44.02	6.34	---	---	---	1	1	---	---	1	---
316	157+55	49.9' LT	48.76	---	---	---	---	---	---	---	---	1	---	---
315	157+96	13.7' LT	48.67	---	---	---	---	---	---	---	---	1	---	---
314	159+20	8' LT	49.02	---	---	---	---	---	---	---	---	1	---	REPAIR TOP COURSE 4" BLOCK (2.8" VERTICAL ADJUSTMENT)
313C	161+08	52' LT	49.19	44.92	6.33	---	---	---	1	1	---	---	1	---
313B	161+08	43.2' LT	49.06	44.79	3.19	---	1	---	1	---	---	---	1	---
313A	160+74	43.4' LT	49.16	44.89	6.33	---	---	---	1	1	---	---	1	---
313	160+90	50.6' LT	49.63	---	---	---	---	1	---	---	---	---	---	REPAIR TOP 2 COURSES 3" BRICK (5.4" VERTICAL ADJUSTMENT) / REUSE EXISTING COVER
312	161+09	12.8' LT	49.34	---	---	---	---	---	---	---	---	1	---	REPAIR TOP COURSE 3" BRICK (1.8" VERTICAL ADJUSTMENT)
SUBTOTALS						**0**	**3**	**14**	**27**	**15**	**9**	**7**	**29**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATCH BASIN TYPE 44A: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 47.75 INCHES
   CATCH BASIN TYPE 44B: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 22 INCHES
4. CASTING HEIGHT = 10" FOR TYPE 58A COVERS; 7" FOR TYPE 57 COVERS
5. ADJUSTMENT:
   MANHOLES & CATCH BASINS TYPE 44B: 6 INCHES
   CATCH BASINS TYPE 44A: 16 INCHES

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

STORM SEWER STRUCTURES (CONTINUED)

2230-00-74

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	INVERT ELEV	STR DEPTH FEET	611.0420 RECONSTRUCTING MANHOLES EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.11 CATCH BASINS TYPE 44A EACH	SPV.0060.12 CATCH BASINS TYPE 44B EACH	SPV.0060.13 MANHOLE COVERS TYPE 58A EACH	SPV.0060.14 INLET COVERS TYPE 57 EACH	COMMENTS
311B	164+48	50.1' LT	51.14	46.87	6.33	---	---	---	1	1	---	---	1	---
311A	164+10	59.9' LT	51.13	46.86	6.33	---	---	---	1	1	---	---	1	---
311	164+26	58.1' LT	51.78	---	---	---	---	---	---	---	---	1	---	---
310	164+63	12' LT	51.63	---	---	---	---	---	---	---	---	1	---	---
SUBTOTALS						**0**	**0**	**0**	**2**	**2**	**0**	**2**	**2**	
PROJECT TOTAL						**1**	**21**	**43**	**116**	**81**	**14**	**42**	**119**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLOW LINE OF STRUCTURES WITH TYPE 57 COVERS. RIM ELEVATIONS ARE GIVEN AT THE CENTERLINE OF STRUCTURES WITH TYPE 58A COVERS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATCH BASIN TYPE 44A: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 47.75 INCHES
   CATCH BASIN TYPE 44B: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 22 INCHES
4. CASTING HEIGHT = 10" FOR TYPE 58A COVERS; 7" FOR TYPE 57 COVERS
5. ADJUSTMENT:
   MANHOLES & CATCH BASINS TYPE 44B: 6 INCHES
   CATCH BASINS TYPE 44A: 16 INCHES

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER PIPES

2230-00-74

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF
1A	1	72.98	72.18	0.0200	---	39.9
1	EXIST	---	---	---	---	---
2	1	---	---	---	---	---
3	2	---	---	---	---	---
4	2	---	---	---	---	---
5A	5	75.87	75.57	0.0200	---	15.1
5B	5	76.29	76.01	0.0200	---	14.3
5	3	---	---	---	---	---
6A	6	76.80	76.24	0.0200	---	28.4
6B	6	77.05	76.69	0.0200	---	18.0
6	3	---	---	---	---	---
7A	7	84.30	83.66	0.0200	---	31.7
7	6	---	---	---	---	---
8	7	---	---	---	---	---
72B	72	92.24	91.88	0.0200	---	18.2
72A	72	91.92	91.67	0.0200	---	12.5
72	71	---	---	---	---	---
71B	71	92.84	92.34	0.0200	---	25.0
71A	71	92.13	91.62	0.0200	---	25.7
71	70	---	---	---	---	---
70B	70	91.34	90.89	0.0200	---	22.8
70A	70	91.22	90.58	0.0200	---	32.1
70	68	---	---	---	---	---
69B	69	90.69	90.34	0.0200	---	17.8
69A	69	91.52	91.21	0.0200	---	15.2
69	68	---	---	---	---	---
68	67	---	---	---	---	---
67B	67	82.05	81.60	0.0200	---	22.5
67A	67	82.21	81.41	0.0200	---	39.6
67	64	---	---	---	---	---
66B	66	80.40	79.95	0.0200	---	22.1
66A	66	80.71	80.18	0.0200	---	26.5
66	63	---	---	---	---	---
65B	65	82.00	81.46	0.0200	---	26.6
65A	65	81.80	81.48	0.0200	---	16.0
65	64	---	---	---	---	---
64	63	---	---	---	---	---
63	62	---	---	---	---	---
62B	62	74.08	73.73	0.0200	---	17.8
62A	62	74.16	73.58	0.0200	---	29.1
62	59	---	---	---	---	---
61B	61	73.26	73.01	0.0159	---	15.9
61A	61	73.54	73.01	0.0323	---	16.3
61	59	---	---	---	---	---
60B	60	74.50	74.20	0.0200	---	14.9
60A	60	73.69	73.40	0.0200	---	14.3
60	59	---	---	---	---	---
59	56	---	---	---	---	---
58C	58B	72.25	71.93	0.0080	---	40.0
58B	58A	71.93	71.87	0.0060	10.0	---
SUBTOTALS					**10**	**618**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.

STORM SEWER PIPES (CONTINUED)

2230-00-74

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF
58A	56B	71.87	71.37	0.0050	100.0	---
57C	57B	72.12	71.86	0.0152	---	17.4
57B	57A	71.86	71.66	0.0200	10.0	---
57A	56A	71.66	68.80	0.0315	90.8	---
56B	56	71.37	70.97	0.0200	19.8	---
56A	56	68.80	68.17	0.0200	31.5	---
56	53	---	---	---	---	---
55	53	---	---	---	---	---
54B	54	71.66	71.37	0.0200	---	14.7
54A	54	71.98	71.68	0.0200	---	15.0
54	53	---	---	---	---	---
53	50	---	---	---	---	---
52B	52A	70.69	70.62	0.0045	---	14.4
52A	50B	70.62	70.00	0.0056	---	110.6
51B	51A	70.76	70.71	0.0050	---	9.5
51A	50A	70.71	70.17	0.0050	---	108.0
50B	50	70.00	69.66	0.0200	17.4	---
50A	50	70.17	69.58	0.0200	29.6	---
50	46	---	---	---	---	---
49B	49	70.20	69.77	0.0200	---	21.3
49A	49	70.36	69.72	0.0200	---	31.8
49	48	---	---	---	---	---
48	47	---	---	---	---	---
47B	47	70.73	70.21	0.0200	---	25.9
47A	47	71.32	70.76	0.0200	---	28.2
47	46	---	---	---	---	---
46B	46	70.01	69.37	0.0353	---	18.1
46A	46	70.18	69.91	0.0200	---	13.7
46	EXIST	---	---	---	---	---
251	250	---	---	---	---	---
250	249	---	---	---	---	---
249	248	---	---	---	---	---
248B	248	68.22	67.78	0.0200	---	22.0
248A	248	68.38	67.59	0.0324	---	24.3
248	245	---	---	---	---	---
247B	247	68.51	68.14	0.0200	---	18.3
247A	247	68.35	67.90	0.0200	---	22.4
247	245	---	---	---	---	---
246B	246	68.05	67.62	0.0200	---	21.8
246A	246	68.06	67.69	0.0200	---	18.4
246	245	---	---	---	---	---
245	244	---	---	---	---	---
244	243	---	---	---	---	---
243	242	---	---	---	---	---
242E	242D	64.97	64.88	0.0090	---	10.2
242D	242	64.88	64.17	0.0292	---	24.2
242C	242B	65.71	65.62	0.0060	---	15.0
242B	242A	65.62	65.54	0.0060	---	13.3
242A	242	65.54	64.42	0.0450	---	24.8
242	239	---	---	---	---	---
SUBTOTALS					**299**	**643**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER PIPES (CONTINUED)

2230-00-74

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF
241B	241	65.73	65.33	0.0200	---	20.3
241A	241	65.75	65.37	0.0200	---	19.2
241	239	---	---	---	---	---
240B	240	65.24	64.87	0.0200	---	18.7
240A	240	65.11	64.70	0.0200	---	20.6
240	239	---	---	---	---	---
239	238	---	---	---	---	---
238	237	---	---	---	---	---
237E	237D	63.01	62.68	0.0090	---	37.6
237D	237	62.68	62.11	0.0200	28.1	---
237C	237B	63.82	63.55	0.0060	---	45.0
237B	237A	63.55	63.45	0.0080	---	12.0
237A	237	63.45	62.96	0.0200	---	24.5
237	234	---	---	---	---	---
236B	236	63.36	63.01	0.0200	---	17.5
236A	236	63.57	63.20	0.0200	---	18.8
236	234	---	---	---	---	---
235B	235	63.64	63.27	0.0200	---	18.4
235A	235	63.25	62.85	0.0200	---	20.2
235	234	---	---	---	---	---
234	233	---	---	---	---	---
233	232	---	---	---	---	---
232	231	---	---	---	---	---
231D	231C	60.82	60.75	0.0066	---	10.0
231C	231	60.75	60.25	0.0200	---	25.0
231B	231A	60.44	60.38	0.0060	---	10.0
231A	231	60.38	59.87	0.0200	---	25.6
231	228	---	---	---	---	---
230A	230	---	---	---	---	---
230	228	---	---	---	---	---
229	228	---	---	---	---	---
228	227	---	---	---	---	---
227B	227	60.77	60.31	0.0200	---	23.2
227A	227	60.64	60.18	0.0200	---	23.2
227	226	---	---	---	---	---
226B	226	60.49	59.23	0.0500	---	25.2
226A	226	60.22	59.74	0.0200	---	23.9
226	225	---	---	---	---	---
225B	225	61.18	60.31	0.0356	---	24.3
225A	225	60.19	59.73	0.0200	---	23.0
225	223	---	---	---	---	---
224B	224	60.36	60.02	0.0200	---	17.1
224A	224	60.37	59.98	0.0200	---	19.6
224	223	---	---	---	---	---
223A	223	59.87	59.04	0.0200	---	41.7
223	222	---	---	---	---	---
222	221	---	---	---	---	---
221B	221	55.17	53.37	0.0708	---	25.4
221A	221	54.74	54.27	0.0200	---	23.8
221	218	---	---	---	---	---
SUBTOTALS					**28**	**614**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.

STORM SEWER PIPES (CONTINUED)

2230-00-74

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF
220	EXIST	---	---	---	---	---
219B	219	---	---	---	---	---
219A	219	---	---	---	---	---
219	218	---	---	---	---	---
218	217	---	---	---	---	---
217	216	---	---	---	---	---
216	215	---	---	---	---	---
215B	215	46.40	45.85	0.0200	---	27.6
215A	215	45.57	45.06	0.0200	---	25.8
215	212	---	---	---	---	---
214A	214	43.35	42.98	0.0200	---	18.3
214	EXIST	---	---	---	---	---
213A	213	44.36	44.12	0.0200	---	12.5
213	212	---	---	---	---	---
212B	212	44.42	43.68	0.0200	---	37.1
212A	212	43.70	42.98	0.0200	---	36.0
212	210	---	---	---	---	---
210C	210	44.73	44.24	0.0100	---	49.1
210	207	---	---	---	---	---
210A	210	43.69	43.43	0.0100	---	25.9
210B	210	44.94	44.28	0.0117	---	56.1
207B	207	44.62	44.10	0.0200	---	25.8
207A	207	43.64	43.16	0.0200	---	24.2
207	206	---	---	---	---	---
206C	206	44.64	43.19	0.0416	---	34.7
206B	206A	43.90	43.72	0.0050	---	35.6
206A	206	43.72	42.96	0.0280	26.9	---
206	205	---	---	---	---	---
205D	205	44.61	43.16	0.0473	---	30.7
205C	205A	43.87	43.82	0.0035	---	15.0
205B	205A	43.98	43.82	0.0161	---	10.0
205A	205	43.82	42.90	0.0300	---	30.7
205	204	---	---	---	---	---
203B	203	44.96	43.79	0.0200	---	58.6
203A	203	45.04	44.57	0.0200	---	23.5
203	201	---	---	---	---	---
202A	200	47.41	46.27	0.0200	---	56.7
201	200	---	---	---	---	---
200A	200	47.03	46.56	0.0200	23.5	---
200	EXIST	---	---	---	---	---
316B	316	43.96	43.61	0.0200	---	17.8
316A	316	44.02	43.65	0.0200	---	18.5
316	315	---	---	---	---	---
315	312	---	---	---	---	---
314	EXIST	---	---	---	---	---
313C	313B	44.92	44.79	0.0151	---	8.7
313B	313	44.79	44.40	0.0200	---	19.5
313A	313	44.89	44.54	0.0200	---	17.7
313	312	---	---	---	---	---
312	310	---	---	---	---	---
SUBTOTALS					**50**	**716**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.

STORM SEWER PIPES (CONTINUED)

2230-00-74

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF
311B	311	46.87	46.39	0.0200	---	23.9
311A	311	46.86	46.54	0.0200	---	15.9
311	310	---	---	---	---	---
310	EXIST	---	---	---	---	---
SUBTOTALS					**0**	**40**
PROJECT TOTAL					**387**	**2,631**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

MOBILIZATION
2230-00-74

LOCATION	619.1000 MOBILIZATION EACH
PROJECT TOTAL	**0.98**

LANDMARK REFERENCE MONUMENTS
2230-00-74

LOCATION	DESCRIPTION	621.0100 LANDMARK REFERENCE MONUMENTS EACH
STA 154+50.72, 21.1' RT S 1/4 OF SEC 31, T7N, R22E N 1/4 OF SEC 6, T6N, R22E	CONCRETE WITNESS MONUMENT WITH BRASS CAP	1
PROJECT TOTAL		**1**

TRAFFIC CONTROL ITEMS
2230-00-74

LOCATION	* ESTIMATED DURATION DAYS	643.0100 TRAFFIC CONTROL 2230-00-74 EACH	643.0300 DRUMS * EACH	DAYS	643.0410 BARRICADES TYPE II * EACH	DAYS	643.0420 BARRICADES TYPE III * EACH	DAYS	643.0705 WARNING LIGHTS TYPE A * EACH	DAYS	643.0900 TRAFFIC CONTROL SIGNS * EACH	DAYS	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF
STAGE 1	6	---	40	240	---	---	---	---	---	---	12	72	---	---	---
STAGE 2	100	---	154	15,400	8	800	99	9,900	198	19,800	130	13,000	308	2	140
STAGE 3	100	---	142	14,200	6	600	96	9,600	192	19,200	133	13,300	708	2	280
STAGE 4	7	---	40	280	---	---	---	---	---	---	12	84	---	---	---
UNDISTRIBUTED	---	---	40	855	5	110	20	430	40	855	30	640	---	---	---
PROJECT TOTAL	**213**	**1**		**30,735**		**1,510**		**19,930**		**39,855**		**27,024**	**1,016**	**4**	**420**

* FOR INFORMATION PURPOSES ONLY

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EROSION CONTROL ITEMS

2230-00-74

LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7560 TRACKING PADS EACH	SPV.0060.07 INLET SCREEN TYPE M EACH	SPV.0060.10 INLET SCREEN TYPE R EACH
STAGE 2										
102+57 - 104+50	575	---	---	---	---	---	---	1	2	1
104+50 - 110+00	1,554	---	---	---	---	---	---	---	3	3
110+00 - 114+50	1,100	---	---	---	---	---	---	---	1	1
114+50 - 120+00	1,517	---	---	---	---	---	---	1	9	9
120+00 - 125+00	1,451	---	---	---	---	---	---	---	6	6
125+00 - 130+00	1,134	---	---	---	---	---	---	2	2	2
130+00 - 135+00	1,430	---	---	---	---	---	---	---	6	6
135+00 - 140+00	1,476	---	---	---	---	---	---	---	7	7
140+00 - 145+00	1,256	---	---	---	---	---	---	---	6	5
145+00 - 150+00	1,302	---	---	---	---	---	---	---	4	4
150+00 - 155+00	1,496	---	---	---	---	---	---	1	6	5
155+00 - 160+00	1,368	---	---	---	---	---	---	---	9	9
160+00 - 165+00	1,535	---	---	---	---	---	---	---	7	7
165+00 - 167+15	463	---	---	---	---	---	---	1	---	---
STAGE 2 SUBTOTAL	17,657	0	0	0	0	0	0	6	68	65
STAGE 3										
102+57 - 104+50	390	---	---	---	---	---	---	1	1	---
104+50 - 110+00	1,622	---	---	---	---	---	---	---	6	6
110+00 - 114+50	1,258	---	---	---	---	---	---	---	3	3
114+50 - 120+00	1,703	---	---	---	---	---	---	1	9	9
120+00 - 125+00	1,378	---	---	---	---	---	---	---	6	6
125+00 - 130+00	857	---	---	---	---	---	---	2	2	2
130+00 - 135+00	1,264	---	---	---	---	---	---	---	5	5
135+00 - 140+00	1,476	---	---	---	---	---	---	---	6	6
140+00 - 145+00	1,356	---	---	---	---	---	---	---	4	4
145+00 - 150+00	1,313	---	---	---	---	---	---	---	3	3
150+00 - 155+00	1,513	---	---	---	---	---	---	1	4	3
155+00 - 160+00	1,316	---	---	---	---	---	---	---	6	5
160+00 - 165+00	1,376	---	---	---	---	---	---	---	2	2
165+00 - 167+15	388	---	---	---	---	---	---	1	---	---
STAGE 3 SUBTOTAL	17,209	0	0	0	0	0	0	6	57	54
UNDISTRIBUTED	---	100	200	50	10	5	100	---	13	12
PROJECT TOTAL	**34,866**	**100**	**200**	**50**	**10**	**5**	**100**	**12**	**138**	**131**

RESTORATION ITEMS

2230-00-74

LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
STAGE 2				
102+57 - 104+50	31	0.02	1	31
104+50 - 110+00	158	0.10	4	158
110+00 - 114+50	122	0.08	3	122
114+50 - 120+00	220	0.14	5	220
120+00 - 125+00	211	0.14	5	211
125+00 - 130+00	65	0.05	2	65
130+00 - 135+00	80	0.06	2	80
135+00 - 140+00	185	0.12	5	185
140+00 - 145+00	211	0.14	5	211
145+00 - 150+00	248	0.16	6	248
150+00 - 155+00	309	0.20	7	309
155+00 - 160+00	243	0.16	6	243
160+00 - 165+00	185	0.12	5	185
165+00 - 167+15	---	---	---	---
STAGE 2 SUBTOTAL	2,268	1.49	56	2,268
STAGE 3				
102+57 - 104+50	45	0.03	2	45
104+50 - 110+00	191	0.13	5	191
110+00 - 114+50	98	0.07	3	98
114+50 - 120+00	73	0.05	2	73
120+00 - 125+00	201	0.13	5	201
125+00 - 130+00	89	0.06	2	89
130+00 - 135+00	109	0.07	3	109
135+00 - 140+00	130	0.09	3	130
140+00 - 145+00	132	0.09	3	132
145+00 - 150+00	93	0.06	3	93
150+00 - 155+00	222	0.14	5	222
155+00 - 160+00	154	0.10	4	154
160+00 - 165+00	193	0.13	5	193
165+00 - 167+15	---	---	---	---
STAGE 3 SUBTOTAL	1,730	1.15	45	1,730
UNDISTRIBUTED	400	0.30	15	400
PROJECT TOTAL	**4,398**	**2.94**	**116**	**4,398**

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ALL ITEMS CATEGORY 0010 UNLESS NOTED

TREES

2230-00-74

LOCATION		COMMON NAME	SCIENTIFIC NAME	SIZE PLANTED	ROOT ZONE MODE	HEIGHT	BALL (MIN. SIZE) DIA.	BALL (MIN. SIZE) DEPTH	HOLE (MIN. SIZE) DIA.	HOLE (MIN. SIZE) DEPTH	BRACE OR GUY	MULCH RING DIAMETER	REMARKS
STA 103+69	RT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 104+00	RT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 104+14	LT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 104+60	LT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 104+62	RT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 105+70	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 105+76	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 106+16	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 106+23	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 107+60	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 107+95	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 109+11	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 109+37	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 109+56	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 110+18	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 110+65	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 110+92	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 111+10	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 111+38	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 112+18	LT	TULIP TREE	LIRIODENDRON TULIPIFERA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 112+55	LT	TULIP TREE	LIRIODENDRON TULIPIFERA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 113+00	LT	TULIP TREE	LIRIODENDRON TULIPIFERA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 113+94	LT	TULIP TREE	LIRIODENDRON TULIPIFERA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 116+60	LT	NORTHERN CATALPA	CATALPA SPECIOSA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 117+25	LT	NORTHERN CATALPA	CATALPA SPECIOSA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 117+75	LT	NORTHERN CATALPA	CATALPA SPECIOSA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 118+90	RT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 119+04	LT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 119+47	LT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 120+36	RT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 120+45	LT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 120+84	LT	COMMON BALD CYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 122+33	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 122+33	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 122+80	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 123+04	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 123+26	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 123+48	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 123+70	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 123+96	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 124+15	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 125+32	RT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 125+45	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 125+70	RT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 126+03	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 126+08	RT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 126+15	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 126+53	RT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 134+72	LT	CUMULUS SERVICEBERRY	AMELANCHIER ARBOERA	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TREES (CONT.)

2230-00-74

LOCATION		COMMON NAME	SCIENTIFIC NAME	SIZE PLANTED	ROOT ZONE MODE	HEIGHT	BALL (MIN. SIZE) DIA.	BALL (MIN. SIZE) DEPTH	HOLE (MIN. SIZE) DIA.	HOLE (MIN. SIZE) DEPTH	BRACE OR GUY	MULCH RING DIAMETER	REMARKS
STA 136+72	RT	RED MAPLE	ACER RUBRUM "MORGAN"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA 137+29	RT	RED MAPLE	ACER RUBRUM "MORGAN"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA 137+29	LT	RED MAPLE	ACER RUBRUM "MORGAN"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA 137+80	LT	RED MAPLE	ACER RUBRUM "MORGAN"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA 140+12	LT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 140+72	LT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 141+19	LT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 141+40	RT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 141+90	RT	JAPANESE TREE LILAC	SYRINGA RETICULATA " IVORY SILK"	2.5" CAL.	B&B	10'-15'	28"	17"	52"	17"	BRACE	64"	SPECIMEN QUALITY
STA 143+84	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 144+30	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 144+70	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 145+10	LT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 145+34	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 145+90	RT	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 147+38	RT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 147+52	LT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 147+83	RT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 148+05	LT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 149+36	LT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 149+72	RT	ACCOLADE ELM	ULMUS CARPINIFOLIA "ACCOLADE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 151+12	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 151+58	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 151+84	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 152+24	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 152+46	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 152+61	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 153+00	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 153+12	RT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 153+47	LT	AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B&B	10'-15'	38"	23"	62"	23"	BRACE	74"	SPECIMEN QUALITY
STA 154+84	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 155+09	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 155+15	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 155+66	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 156+59	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 156+60	LT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 157+50	RT	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS "INERMIS"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 158+31	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 158+83	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 159+25	LT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 161+85	LT	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 162+32	LT	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 162+36	RT	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 162+62	RT	UPRIGHT ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 162+88	RT	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY
STA 163+12	LT	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	10'-15'	32"	19"	56"	19"	BRACE	68"	SPECIMEN QUALITY

ALL ITEMS CATEGORY 0010 UNLESS NOTED

LANDSCAPE ITEMS

2230-00-74

	632.0101.01 RED MAPLE B&B 3.5" EACH	632.0101.02 COMMON BALD CYPRESS B&B 3" EACH	632.0101.03 SUNBURST HONEY LOCUST B&B 3" EACH	632.0101.04 UPRIGHT ENGLISH OAK B&B 3.5" EACH	632.0101.05 CALLERY PEAR B&B 2.5" EACH	632.0101.06 AUTUMN BLAZE MAPLE B&B 3.5" EACH	632.0101.07 ACCOLADE ELM B&B 3" EACH	632.0101.08 JAPANESE TREE LILAC B&B 3" EACH	632.0101.09 TULIP TREE B&B 3" EACH	632.0101.10 CUMULUS SERVICEBERRY B&B 3" EACH	632.0101.11 KENTUCKY COFFEETREE B&B 3" EACH	632.0101.12 NORTHERN CATALPA B&B 3" EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH
PROJECT TOTAL	**4**	**6**	**15**	**11**	**12**	**18**	**6**	**10**	**4**	**1**	**5**	**3**	**10**

PAVEMENT MARKING

2230-00-74

LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0116 EPOXY 6-INCH WHITE LF	646.0126 EPOXY 8-INCH WHITE LF	647.0166 ARROWS EPOXY TYPE 2 WHITE EACH	647.0206 ARROWS BIKE LANE EPOXY WHITE EACH	647.0306 SYMBOLS BIKE LANE EPOXY WHITE EACH	647.0406 WORDS BIKE LANE EPOXY WHITE EACH	647.0576 STOP LINE EPOXY 24-INCH WHITE EACH	647.0776 CROSSWALK EPOXY 12-INCH WHITE EACH
102+57 - 104+50	327	618	---	79	1	---	---	---	---	---
104+50 - 110+00	818	870	804	---	---	3	3	3	---	---
110+00 - 114+50	816	782	822	---	---	1	1	---	---	---
114+50 - 120+00	670	812	703	---	---	4	4	---	80	291
120+00 - 125+00	816	766	816	---	---	3	3	3	---	---
125+00 - 130+00	638	1,038	19	416	8	---	---	---	69	---
130+00 - 135+00	872	1,148	544	26	---	1	1	3	---	174
135+00 - 140+00	734	732	734	---	---	4	4	---	---	715
140+00 - 145+00	874	872	874	---	---	2	2	---	---	570
145+00 - 150+00	794	872	812	---	---	3	3	---	---	160
150+00 - 155+00	638	738	662	---	---	3	3	---	76	453
155+00 - 160+00	826	682	826	---	---	1	2	---	---	64
160+00 - 165+00	775	654	699	---	---	3	2	3	---	66
165+00 - 167+15	300	594	---	200	4	---	---	---	32	115
SUBTOTAL	9,898	11,178	---	---	---	---	---	---	---	---
PROJECT TOTAL	**21,076**		**8,315**	**721**	**13**	**28**	**28**	**12**	**257**	**2,608**

TEMPORARY PAVEMENT MARKING

2230-00-74

LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0960 REMOVING PAVEMENT MARKINGS SYMBOLS EACH	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0402 PAINT 4-INCH WHITE LF	649.0402 PAINT 4-INCH YELLOW LF	649.1200 STOP LINE REMOVABLE TAPE 18-INCH WHITE LF
STAGE 2								
102+57 - 115+00	1,528	2	2	---	---	1,133	1,238	---
115+00 - 130+00	1,646	5	4	---	---	1,242	1,341	---
130+00 - 145+00	2,036	4	4	---	---	1,256	1,501	---
145+00 - 160+00	1,998	3	3	---	---	1,221	1,435	---
160+00 - 167+15	913	2	2	---	---	595	684	---
STAGE 2 SUBTOTAL	8,121	16	15	0	0	5,447	6,199	0
STAGE 3								
102+57 - 115+00	---	---	---	1,094	1,243	---	---	---
115+00 - 130+00	---	---	---	1,108	1,342	---	---	19
130+00 - 145+00	---	---	---	1,252	1,500	---	---	---
145+00 - 160+00	---	---	---	1,236	1,436	---	---	18
160+00 - 167+15	---	---	---	542	679	---	---	---
STAGE 3 SUBTOTAL	0	0	0	5,232	6,200	0	0	37
SUBTOTAL	---	---	---	5,232	6,200	5,447	6,199	---
PROJECT TOTAL	**8,121**	**16**	**15**	**11,432**		**11,646**		**37**

LIGHTING

2230-00-74

LOCATION	652.0220 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH LF	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	652.0330 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2 1/2-INCH LF	652.0335 * CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	SPV.0060.06 FIBERGLASS POLYMER CONCRETE PULL BOX 13-INCH X 24-INCH X 24-INCH X EACH	SPV.0060.17 ** FIBERGLASS POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH X EACH
PROJECT TOTAL	**650**	**6,200**	**13,420**	**345**	**435**	**2,670**	**202**	**290**	**172**	**5**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "TRAFFIC SIGNAL CONDUIT" TABLE.
**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "PULL BOXES" TABLE.

CONSTRUCTION STAKING

2230-00-74

LOCATION	650.4500 SUBGRADE LF	650.8500 ELECTRICAL INSTALLATIONS 2230-00-74 LS	650.9910 SUPPLEMENTAL CONTROL 2230-00-74 LS	650.9920 SLOPE STAKES LF
PROJECT TOTAL	**6,703**	**1**	**1**	**6,703**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TRAFFIC SIGNAL CONDUIT

2230-00-74

LOCATION	FROM	TO	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF.	652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF.	652.0335 * CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
S. 31ST ST & W. GREENFIELD AVE	CB1	PB1	---	18	---	---
	PB1	PB2	---	141	---	---
	PB2	PB3	---	---	153	---
	PB3	PB4	---	128	---	---
	PB4	PB5	---	---	78	---
	PB5	PB6	---	74	---	---
	PB6	PB7	---	---	150	---
	PB7	PB8	---	189	---	---
	PB8	PB1	---	---	105	---
	PB7	A	---	11	---	---
	PB7	AA	29	---	---	---
	PB8	B	9	---	---	---
	PB1	C	13	---	---	---
	PB2	D	13	---	---	---
	PB3	E	---	13	---	---
	PB3	EE	19	---	---	---
	PB4	F	7	---	---	---
	PB5	G	5	---	---	---
	PB6	H	13	---	---	---
	TOTAL		108	574	486	0
S. 21ST ST & W. GREENFIELD AVE	CB1	PB1	---	15	---	---
	PB1	PB2	---	18	---	---
	PB2	PB3	---	---	---	116
	PB3	PB4	---	98	---	---
	PB4	PB5	---	---	102	---
	PB5	PB6	---	82	---	---
	PB6	PB7	---	---	80	---
	PB7	PB8	---	80	---	---
	PB8	PB9	---	---	100	---
	PB9	PB1	---	99	---	---
	PB5	A	---	14	---	---
	PB6	B	3	---	---	---
	PB7	C	2	---	---	---
	PB8	D	14	---	---	---
	PB9	E	---	5	---	---
	PB1	EE	3	---	---	---
	PB3	F	8	---	---	---
	PB4	G	14	---	---	---
	TOTAL		44	411	282	116
PROJECT TOTAL			**152**	**985**	**768**	**116**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "LIGHTING" TABLE.

CONCRETE BASES

2230-00-74

LOCATION	BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
S. 31ST ST & W. GREENFIELD AVE	A	114+89	26.7' LT	---	---	1
	AA	115+04	27.3' LT	1	---	---
	B	115+17	41.1' LT	---	1	---
	C	115+57	39.6' LT	1	---	---
	D	115+69	27.2' LT	1	---	---
	E	115+70	26.7' RT	---	---	1
	EE	115+56	27.2' RT	1	---	---
	F	115+41	42.2' RT	---	1	---
	G	114+99	40.0' RT	---	---	---
	H	114+89	27.0' RT	1	---	---
			TOTAL	5	2	2
S. 21ST ST & W. GREENFIELD AVE	A	150+15	28.7' LT	---	---	1
	B	150+26	43.4' LT	---	1	---
	C	150+68	48.8' LT	1	---	---
	D	150+79	29.3' LT	1	---	---
	E	150+78	27.8' RT	---	---	1
	EE	150+69	51.3' RT	---	---	---
	F	150+25	47.0' RT	---	1	---
	G	150+14	28.5' RT	1	---	---
			TOTAL	3	2	2
PROJECT TOTAL				**8**	**4**	**4**

ELECTRICAL SERVICE

2230-00-74

LOCATION	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (S. 31ST ST & W. GREENFIELD AVE) LS	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL (S. 21ST ST & W. GREENFIELD AVE) LS
S. 31ST ST & W. GREENFIELD AVE	1	---
S. 21ST ST & W. GREENFIELD AVE	---	1
PROJECT TOTAL	**1**	**1**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TRAFFIC SIGNAL & LOOP CABLE

2230-00-74

LOCATION	LOC. TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0900 EVP DETECTOR CABLE L.F.	SPV.0090.07 CABLE TYPE UF 2-14 AWG L.F.
S. 31ST ST & W. GREENFIELD AVE	CB1	A	---	173	81	228	228
	CB1	AA	---	191	---	---	---
	CB1	B	---	93	---	---	---
	CB1	C	---	47	---	---	---
	CB1	D	---	109	---	---	---
	CB1	E	---	175		230	230
	CB1	EE	---	191	---	---	---
	CB1	F	---	248	---	---	---
	CB1	G	---	285	---	---	---
	CB1	H	---	241	---	---	---
	A	AA	---	---	65	---	---
	AA	B	---	---	140	---	---
	B	C	---	---	97	---	---
	C	D	---	---	113	---	---
	D	E	---	---	117	---	---
	E	EE	---	---	67	---	---
	EE	F	---	---	140	---	---
	F	G	---	---	91	---	---
	G	H	---	---	95	---	---
	H	A	---	---	115	---	---
	A	HEAD 6	50	---	---	---	---
	A	HEAD 22	26	---	---	---	---
	AA	HEAD 8	21	---	---	---	---
	B	HEAD 9	21	---	---	---	---
	B	HEAD 11	21	---	---	---	---
	B	HEAD 15	21	---	---	---	---
	C	HEAD 10	21	---	---	---	---
	C	HEAD 16	21	---	---	---	---
	D	HEAD 4	21	---	---	---	---
	D	HEAD 17	21	---	---	---	---
	E	HEAD 3	50	---	---	---	---
	E	HEAD 18	26	---	---	---	---
	EE	HEAD 12	21	---	---	---	---
	F	HEAD 7	21	---	---	---	---
	F	HEAD 13	21	---	---	---	---
	F	HEAD 19	21	---	---	---	---
	G	HEAD 14	21	---	---	---	---
	G	HEAD 20	21	---	---	---	---
	H	HEAD 1	21	---	---	---	---
	H	HEAD 5	21	---	---	---	---
	H	HEAD 21	21	---	---	---	---
SUBTOTAL			509	1,753	1,121	458	458

TRAFFIC SIGNAL & LOOP CABLE (CONT.)

2230-00-74

LOCATION	LOC. TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0900 EVP DETECTOR CABLE L.F.	SPV.0090.07 CABLE TYPE UF 2-14 AWG L.F.
S. 21ST ST & W. GREENFIELD AVE	CB1	A	---	249	---	304	304
	CB1	B	---	256	---	---	---
	CB1	C	---	200	---	---	---
	CB1	D	---	157	---	---	---
	CB1	E	---	84	---	139	139
	CB1	EE	---	33	---	---	---
	CB1	F	---	113	---	---	---
	CB1	G	---	183	---	---	---
	A	B	---	---	98	---	---
	B	C	---	---	86	---	---
	C	D	---	---	97	---	---
	D	E	---	---	109	---	---
	E	EE	---	---	81	---	---
	EE	F	---	---	111	---	---
	F	G	---	---	111	---	---
	G	A	---	---	119	---	---
	A	HEAD 3	50	---	---	---	---
	A	HEAD 14	26	---	---	---	---
	B	HEAD 8	21	---	---	---	---
	B	HEAD 10	21	---	---	---	---
	B	HEAD 20	21	---	---	---	---
	C	HEAD 9	21	---	---	---	---
	C	HEAD 15	21	---	---	---	---
	D	HEAD 1	21	---	---	---	---
	D	HEAD 5	21	---	---	---	---
	D	HEAD 13	21	---	---	---	---
	E	HEAD 6	50	---	---	---	---
	E	HEAD 17	26	---	---	---	---
	EE	HEAD 7	21	---	---	---	---
	EE	HEAD 11	21	---	---	---	---
	EE	HEAD 16	21	---	---	---	---
	F	HEAD 12	21	---	---	---	---
	F	HEAD 19	21	---	---	---	---
	G	HEAD 2	21	---	---	---	---
	G	HEAD 4	21	---	---	---	---
	G	HEAD 18	21	---	---	---	---
SUBTOTAL			488	1,275	812	443	443
PROJECT TOTAL			**997**	**3,028**	**1,933**	**901**	**901**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

SIGNAL BASES AND POLES

2230-00-74

LOCATION	SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.02 POLES TYPE 9 EACH	SPV.0060.23 MONOTUBE ARMS 25-FT EACH
S. 31ST ST & W. GREENFIELD AVE	A	---	---	---	---	1	1	1
	AA	1	---	---	1	---	---	---
	B	---	1	1	---	---	---	---
	C	1	---	---	1	---	---	---
	D	1	---	---	1	1	---	---
	E	---	---	---	---	1	1	1
	EE	1	---	---	1	---	---	---
	F	---	1	1	---	---	---	---
	G	---	---	---	---	---	---	---
	H	1	---	---	1	1	---	---
	TOTAL	5	2	2	5	4	2	2
S. 21ST ST & W. GREENFIELD AVE	A	---	---	---	---	1	1	1
	B	---	1	1	---	---	---	---
	C	1	---	---	1	---	---	---
	D	1	---	---	1	1	---	---
	E	---	---	---	---	1	1	1
	EE	---	---	---	---	---	---	---
	F	---	1	1	---	---	---	---
	G	1	---	---	1	1	---	---
	TOTAL	3	2	2	3	4	2	2
PROJECT TOTAL		**8**	**4**	**4**	**8**	**8**	**4**	**4**

PULL BOXES

2230-00-74

LOCATION	VAULT NO.	STATION	LOCATION	* SPV.0060.17 FIBERGLASS POLYMER CONCRETE PULL BOX 17-INCH X 30-INCH X 24-INCH EACH
S. 31ST ST & W. GREENFIELD AVE	PB1	115+57	53.1' LT	1
	PB2	115+84	26.3' LT	1
	PB3	115+85	26.3' RT	1
	PB4	115+39	50.3' RT	1
	PB5	115+00	45.6' RT	1
	PB6	114+75	26.0' RT	1
	PB7	114+75	26.0' LT	1
	PB8	115+20	50.8' LT	1
			TOTAL	8
S. 21ST ST & W. GREENFIELD AVE	PB1	150+66	48.2' RT	1
	PB2	150+66	57.1' RT	1
	PB3	150+25	56.8' RT	1
	PB4	149+99	26.4' RT	1
	PB5	149+99	26.3' LT	1
	PB6	150+26	47.7' LT	1
	PB7	150+68	45.5' LT	1
	PB8	150+94	25.7' LT	1
	PB9	150+85	24.4' RT	1
			TOTAL	9
PROJECT TOTAL				**17**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "LIGHTING" TABLE.

SIGNAL MOUNTING HARDWARE

2230-00-74

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE (S. 31ST ST & W. GREENFIELD AVE) LS	658.5069.02 SIGNAL MOUNTING HARDWARE (S. 21ST ST & W. GREENFIELD AVE) LS
S. 31ST ST & W. GREENFIELD AVE	1	---
S. 21ST ST & W. GREENFIELD AVE	---	1
PROJECT TOTAL	**1**	**1**

TEMPORARY TRAFFIC SIGNALS

2230-00-74

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (S. 31ST ST & W. GREENFIELD AVE) LS	661.0200.02 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (S. 21ST ST & W. GREENFIELD AVE) LS
S. 31ST ST & W. GREENFIELD AVE	1	---
S. 21ST ST & W. GREENFIELD AVE	---	1
PROJECT TOTAL	**1**	**1**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TRAFFIC SIGNAL FACES, BACKPLATES, AND MODULES

2230-00-74

LOCATION	SIGNAL HEAD NO.	SIGNAL BASE NO.	TYPE OF MOUNT	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0412 PED-ESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.22 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0660 LED MODULES COUNTDOWN TIMER 12-INCH EACH
S. 31ST ST & W. GREENFIELD AVE	1	D	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	2	H	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	3	AA	MONOTUBE ARM MOUNT VERTICAL	1	1	---	---	1	1	1	---
	4	H	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	5	D	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	6	EE	MONOTUBE ARM MOUNT VERTICAL	1	1	---	---	1	1	1	---
	7	F	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	8	A	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	9	B	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	10	C	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	11	B	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	12	E	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	13	F	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	14	G	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	15	D	PEDESTRIAN	---	---	1	1	---	---	---	1
	16	A	PEDESTRIAN	---	---	1	1	---	---	---	1
	17	C	PEDESTRIAN	---	---	1	1	---	---	---	1
	18	EE	PEDESTRIAN	---	---	1	1	---	---	---	1
	19	E	PEDESTRIAN	---	---	1	1	---	---	---	1
	20	H	PEDESTRIAN	---	---	1	1	---	---	---	1
	21	G	PEDESTRIAN	---	---	1	1	---	---	---	1
	22	AA	PEDESTRIAN	---	---	1	1	---	---	---	1
	TOTAL			14	2	8	8	14	14	14	8
S. 21ST ST & W. GREENFIELD AVE	1	D	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	2	H	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	3	A	MONOTUBE ARM MOUNT VERTICAL	1	1	---	---	1	1	1	---
	4	H	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	5	D	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	6	E	MONOTUBE ARM MOUNT VERTICAL	1	1	---	---	1	1	1	---
	7	F	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	8	B	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	9	C	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	10	B	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	11	F	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	12	G	POST MOUNT VERTICAL	1	---	---	---	1	1	1	---
	13	D	PEDESTRIAN	---	---	1	1	---	---	---	1
	14	A	PEDESTRIAN	---	---	1	1	---	---	---	1
	15	C	PEDESTRIAN	---	---	1	1	---	---	---	1
	16	F	PEDESTRIAN	---	---	1	1	---	---	---	1
	17	E	PEDESTRIAN	---	---	1	1	---	---	---	1
	18	H	PEDESTRIAN	---	---	1	1	---	---	---	1
	19	G	PEDESTRIAN	---	---	1	1	---	---	---	1
	20	B	PEDESTRIAN	---	---	1	1	---	---	---	1
	TOTAL			12	2	8	8	12	12	12	8
PROJECT TOTAL				**26**	**4**	**16**	**16**	**26**	**26**	**26**	**16**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EMERGENCY VEHICLE PREEMPTION

2230-00-74

LOCATION	SPV.0060.24 EVP DETECTOR HEAD EACH	SPV.0060.25 EVP PHASE SELECTOR CARD EACH	SPV.0060.26 EVP CONFIRMATION LIGHT ASSEMBLY EACH
S. 31ST ST & W. GREENFIELD AVE	2	1	2
S. 21ST ST & W. GREENFIELD AVE	2	1	2
PROJECT TOTAL	**4**	**2**	**4**

MICROWAVE DETECTION SYSTEM

2230-00-74

LOCATION	SPV.0105.01 VEHICULAR MICROWAVE DETECTION SYSTEM (S. 31ST ST & W. GREENFIELD AVE) LS	SPV.0105.02 VEHICULAR MICROWAVE DETECTION SYSTEM (S. 21ST ST & W. GREENFIELD AVE) LS
S. 31ST ST & W. GREENFIELD AVE	1	---
S. 21ST ST & W. GREENFIELD AVE	---	1
PROJECT TOTAL	**1**	**1**

INSTALL CITY-FURNISHED TRAFFIC SIGNAL CABINET, CONTROLLER, & FOUNDATION

2230-00-74

LOCATION	SPV.0105.03 INSTALL CITY-FURNISHED TRAFFIC SIGNAL CABINET, TRAFFIC SIGNAL CONTROLLER, & FOUNDATION (S. 31ST ST & W. GREENFIELD AVE) LS	SPV.0105.04 INSTALL CITY-FURNISHED TRAFFIC SIGNAL CABINET, TRAFFIC SIGNAL CONTROLLER, & FOUNDATION (S. 21ST ST & W. GREENFIELD AVE) LS
S. 31ST ST & W. GREENFIELD AVE	1	---
S. 21ST ST & W. GREENFIELD AVE	---	1
PROJECT TOTAL	**1**	**1**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

SAWING

2230-00-74

LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
STAGE 2		
102+57 - 104+50	---	162
104+50 - 110+00	26	343
110+00 - 114+50	9	166
114+50 - 120+00	---	160
120+00 - 125+00	---	160
125+00 - 130+00	---	253
130+00 - 135+00	89	374
135+00 - 140+00	88	244
140+00 - 145+00	79	146
145+00 - 150+00	110	187
150+00 - 155+00	64	300
155+00 - 160+00	34	132
160+00 - 165+00	140	387
165+00 - 167+15	76	21
STAGE 2 SUBTOTAL	715	3,035
STAGE 3		
102+57 - 104+50	---	81
104+50 - 110+00	52	77
110+00 - 114+50	26	300
114+50 - 120+00	151	324
120+00 - 125+00	50	30
125+00 - 130+00	96	90
130+00 - 135+00	247	289
135+00 - 140+00	69	329
140+00 - 145+00	32	253
145+00 - 150+00	35	334
150+00 - 155+00	60	285
155+00 - 160+00	62	233
160+00 - 165+00	56	141
165+00 - 167+15	79	87
STAGE 3 SUBTOTAL	1,015	2,853
UNDISTRIBUTED	175	590
PROJECT TOTAL	**1,905**	**6,478**

* UNDISTRIBUTED AMOUNT TO BE USED FOR ANY ADDITIONAL SAWING NEEDED DURING CONSTRUCTION STAGING AS DIRECTED BY THE ENGINEER.

TEST ROLLING

2230-00-74

LOCATION	* 624.0100 WATER MGAL	** SPV.0170.01 TEST ROLLING STA
STAGE 2		
102+57 - 104+50	1	3
104+50 - 110+00	2	5
110+00 - 114+50	2	5
114+50 - 120+00	2	5
120+00 - 125+00	2	5
125+00 - 130+00	2	5
130+00 - 135+00	2	5
135+00 - 140+00	2	5
140+00 - 145+00	2	5
145+00 - 150+00	2	5
150+00 - 155+00	2	5
155+00 - 160+00	2	5
160+00 - 165+00	2	5
165+00 - 167+15	1	3
STAGE 2 SUBTOTAL	26	66
STAGE 3		
102+57 - 104+50	1	3
104+50 - 110+00	2	5
110+00 - 114+50	2	5
114+50 - 120+00	2	5
120+00 - 125+00	2	5
125+00 - 130+00	2	5
130+00 - 135+00	2	5
135+00 - 140+00	2	5
140+00 - 145+00	2	5
145+00 - 150+00	2	5
150+00 - 155+00	2	5
155+00 - 160+00	2	5
160+00 - 165+00	2	5
165+00 - 167+15	1	3
STAGE 3 SUBTOTAL	26	66
PROJECT TOTAL	**52**	**132**

*APPLICATION RATE ESTIMATED AT 250 GAL/STA. ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "BASE COURSE ITEMS" AND "EARTHWORK SUMMARY" TABLES.

**MEASURED ALONG THE CONSTRUCTION CENTER LINE FOR EACH CONSTRUCTION STAGE WHERE THIS ITEM IS REQUIRED.

JOINT SEALING

2230-00-74

LOCATION	SPV.0180.01 JOINT SEALING SY
STAGE 2	
102+57 - 104+50	575
104+50 - 110+00	1,521
110+00 - 114+50	1,100
114+50 - 120+00	1,572
120+00 - 125+00	1,451
125+00 - 130+00	1,209
130+00 - 135+00	1,391
135+00 - 140+00	1,309
140+00 - 145+00	1,372
145+00 - 150+00	1,371
150+00 - 155+00	1,300
155+00 - 160+00	1,285
160+00 - 165+00	1,355
165+00 - 167+15	632
STAGE 2 SUBTOTAL	17,443
STAGE 3	
102+57 - 104+50	390
104+50 - 110+00	1,455
110+00 - 114+50	1,166
114+50 - 120+00	1,529
120+00 - 125+00	1,270
125+00 - 130+00	857
130+00 - 135+00	1,189
135+00 - 140+00	1,309
140+00 - 145+00	1,281
145+00 - 150+00	1,246
150+00 - 155+00	1,292
155+00 - 160+00	1,308
160+00 - 165+00	1,372
165+00 - 167+15	475
STAGE 3 SUBTOTAL	16,139
PROJECT TOTAL	**33,582**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CITY UNDERGROUND CONDUIT

2230-00-74

LOCATION	* 204.0250 ABANDONING MANHOLES EACH	** SPV.0060.18 ADJUSTING TES MANHOLE COVERS EACH	SPV.0060.19 INSTALLING CONDUIT INTO EXISTING MANHOLE EACH	SPV.0060.20 4' DIAMETER MANHOLE TYPE TES EACH	SPV.0060.21 SAWING CONCRETE-ENCASED DUCT PACKAGE EACH	SPV.0090.01 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT 6-DUCT LF	SPV.0090.02 5-DUCT LF	SPV.0090.03 4-DUCT LF	SPV.0090.04 3-DUCT LF	SPV.0090.05 2-DUCT LF	SPV.0090.06 1-DUCT LF	SPV.0090.10 FIBER OPTIC CABLE OUTDOOR PLANT 72-CT LF
MANHOLE 600 - STA 102+51.4, 35.0' RT (OUT OF PAVING)	---	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 601 - STA 108+86.0, 13.3' RT	---	1	---	---	---	---	---	---	---	---	---	---
MANHOLE 602 - STA 114+57.9, 0.8' LT	---	1	1	---	---	---	---	---	---	---	---	---
MANHOLE 602 to STA 114+70.3, 32.0' LT	---	---	---	---	---	---	---	37	---	---	---	---
STA 114+70.3, 32.0' LT to POLICE CALL BOX	---	---	---	---	---	---	---	---	---	18	---	---
STA 114+70.3, 32.0' LT to MANHOLE 604	---	---	---	---	---	---	---	---	---	77	---	---
MANHOLE 603 - STA 115+37.2, 32.4' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 604 - STA 115+49.0, 32.4' LT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 604 to TRAFFIC CONTROL CABINET	---	---	---	---	---	---	---	---	---	32	---	---
MANHOLE 605 - STA 115+52.3, 22.4' LT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 606 - STA 118+58.3, 2.9' LT	---	1	---	---	---	---	---	---	---	---	---	---
MANHOLE 607 - STA 123+08.1, 2.9' LT	---	1	---	---	---	---	---	---	---	---	---	---
MANHOLE 608 - STA 128+05.6, 19.5' LT (OUT OF PAVING)	---	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 609 - STA 128+50.6, 16.9' RT (OUT OF PAVING)	---	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 610 - STA 128+71.2, 7.5' LT (OUT OF PAVING)	---	---	---	---	---	---	---	---	---	---	---	---
STA 128+73.0, 16.7' RT to MANHOLE 611	---	---	---	---	---	303	---	---	---	---	---	---
MANHOLE 611 - STA 131+78.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 611 to 131+84.7, 59.5' LT	---	---	---	---	1	---	---	---	---	66	---	---
MANHOLE 611 to MANHOLE 614	---	---	---	---	---	553	---	---	---	---	---	---
MANHOLE 612 - STA 131+82.4, 21.7' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 613 - STA 135+51.8, 22.4' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 614 - STA 137+35.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 614 to MANHOLE 616	---	---	---	---	---	553	---	---	---	---	---	---
MANHOLE 615 - STA 139+24.2, 21.8' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 616 - STA 142+92.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 616 to STA 142+92.0, 27.0' RT	---	---	---	---	---	---	19	---	---	---	---	---
STA 142+92.0, 27.0' RT to PAVING LIMITS	---	---	---	---	---	---	---	---	---	23	---	---
STA 142+92.0, 27.0' RT to STA 143+21.5, 32.0' RT	---	---	---	---	---	---	---	---	32	---	---	---
STA 143+21.5, 32.0' RT to PROPOSED POLICE CALL BOX	---	---	---	---	---	---	---	---	---	9	---	---
STA 143+21.5, 32.0' RT to EXISTING STREET LIGHT POLE	---	---	---	---	---	---	---	---	---	---	25	---
MANHOLE 616 to MANHOLE 619	---	---	---	---	---	399	---	---	---	---	---	---
MANHOLE 617 - STA 142+93.8, 20.8' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 618 - STA 146+64.9, 20.6' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 619 - STA 146+95.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 619 to MANHOLE 621	---	---	---	---	---	372	---	---	---	---	---	---
MANHOLE 620 - STA 150+32.3, 22.4' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 621 - STA 150+71.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 621 - PROPOSED TRAFFIC CONTROL CABINET	---	---	---	---	---	---	---	---	---	39	---	---
MANHOLE 621 to MANHOLE 623	---	---	---	---	---	523	---	---	---	---	---	---
MANHOLE 622 - STA 154+0.3, 17.4' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 623 - STA 155+98.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 623 to MANHOLE 627	---	---	---	---	---	524	---	---	---	---	---	---
MANHOLE 624 - STA 157+41.4, 20.8' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 625 - STA 159+53.3, 21.9' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 626 - STA 160+80.1, 23.1' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 627 - STA 161+26.0, 6.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 627 to MANHOLE 629	---	---	---	---	---	524	---	---	---	---	---	---
MANHOLE 628 - STA 164+38.6, 22.8' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 629 - STA 166+54.1, 10.0' RT	---	1	---	1	---	---	---	---	---	---	---	---
MANHOLE 629 - PROPOSED TRAFFIC CONTROL VAULT	---	---	---	---	---	---	---	---	---	15	---	---
MANHOLE 629 to MANHOLE 631	---	---	---	---	---	137	---	---	---	---	---	---
MANHOLE 630 - STA 166+75.3, 23.5' RT	1	---	---	---	---	---	---	---	---	---	---	---
MANHOLE 631 - STA 167+86.5, 25.1' RT	---	---	1	---	---	---	---	---	---	---	---	---
PROJECT TOTAL	**14**	**13**	**2**	**9**	**1**	**3,888**	**19**	**37**	**32**	**279**	**25**	**7,450**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE "REMOVALS" TABLE.
**ALL ADJUSTED TES MANHOLE COVERS SHALL RECEIVE A NEW FRAME.

WATER MAIN ITEMS

2230-00-74

CATEGORY 0020 LOCATION	SPV.0060.15 ADJUSTING WATER BOXES EACH	SPV.0060.16 WATER MAIN PROTECTION EACH
STAGE 2		
102+57 - 104+50	---	---
104+50 - 110+00	10	---
110+00 - 114+50	13	---
114+50 - 120+00	14	1
120+00 - 125+00	17	---
125+00 - 130+00	9	---
130+00 - 135+00	12	---
135+00 - 140+00	7	---
140+00 - 145+00	8	---
145+00 - 150+00	8	---
150+00 - 155+00	10	---
155+00 - 160+00	8	---
160+00 - 165+00	7	---
165+00 - 167+15	1	---
STAGE 2 SUBTOTAL	124	1
STAGE 3		
102+57 - 104+50	5	---
104+50 - 110+00	10	---
110+00 - 114+50	4	---
114+50 - 120+00	7	---
120+00 - 125+00	6	1
125+00 - 130+00	4	---
130+00 - 135+00	8	---
135+00 - 140+00	8	---
140+00 - 145+00	7	---
145+00 - 150+00	14	---
150+00 - 155+00	6	---
155+00 - 160+00	5	---
160+00 - 165+00	4	---
165+00 - 167+15	2	---
STAGE 3 SUBTOTAL	90	1
UNDISTRIBUTED	25	---
PROJECT TOTAL (CATEGORY 0020)	**239**	**2**

* UNDISTRIBUTED AMOUNT TO BE USED FOR ANY ADDITIONAL WATER BOXES NEEDING ADJUSTMENT DURING CONSTRUCTION STAGING.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 11	104+27.89, 37.23' RT	NE CORNER OF 1ST STEP AT 3407 GREENFIELD AVE	79.755
BM 12	101+16.99, 26.81' RT	NE FLANGE BOLT OF HYD AT SW CORNER OF GREENFIELD AVE AND 35TH STREET	76.626

LEGEND
- TREE REMOVAL
- XXX SAWCUT
- (PED) CONCRETE CURB PEDESTRIAN
- EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
- EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
- POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS

BEGIN PROJECT 2230-00-74
STA. 102+57
Y = 377,315.4724
X = 2,546,255.8204

MATCH PROJECT ID 2100-02-71
CONSTRUCTED IN 2016

BP: 100+00.00
BP: 100+00.00

101+00 102+00 103+00 104+00

BM 12 BM 11

S 35TH ST

1322 MORA
1328 ASAD INVESTMENTS LLC
3414 ROSADO
3408 ALDAPE
3429 JUNGMANN
3425 VANG
3419 RAMIREZ-MARTINEZ
3415 MARTINEZ-SANCHEZ
3411 ORTIZ
3407 STEINMETZ

BUS STOP
R/W
21' CE
SLOPE INTERCEPT
W GREENFIELD AVE
W GREENFIELD AVE C/L
CROWN LOCATION

75.82(E) 76.00(E) 76.24(E) 76.34(E) 75.97(E) 75.76(E)
76.43 76.64 76.93 77.03 76.68 76.48
77.17 77.33 77.55 77.64 77.26 77.04
77.36 77.58 77.88 78.35 78.02 77.77
77.55 77.87 78.26 78.69 78.35 78.02 77.77
77.85 78.25 78.69 79.19 79.20 78.98 78.76
78.31 78.75

MATCHLINE STA 104+50.00

VCL = 105.00
K = 110.75

STA 102+57.00 EL 76.24
STA 103+10.00 EL 77.09
VPC STA 103+47.50 VPC EL 77.52
VPI STA 104+00.00 VPI EL 78.13

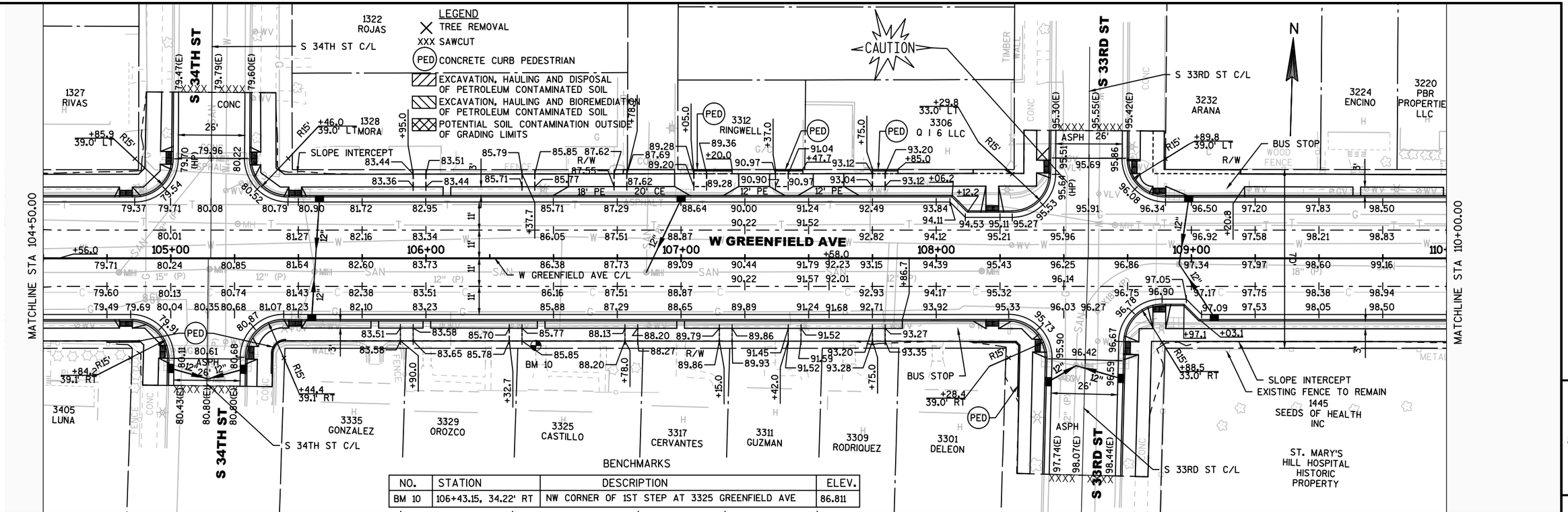
EXISTING PROFILE
FINISHED PROFILE
1.60%
1.16%

EXISTING PROFILE ELEVATION
FINISHED PROFILE ELEVATION

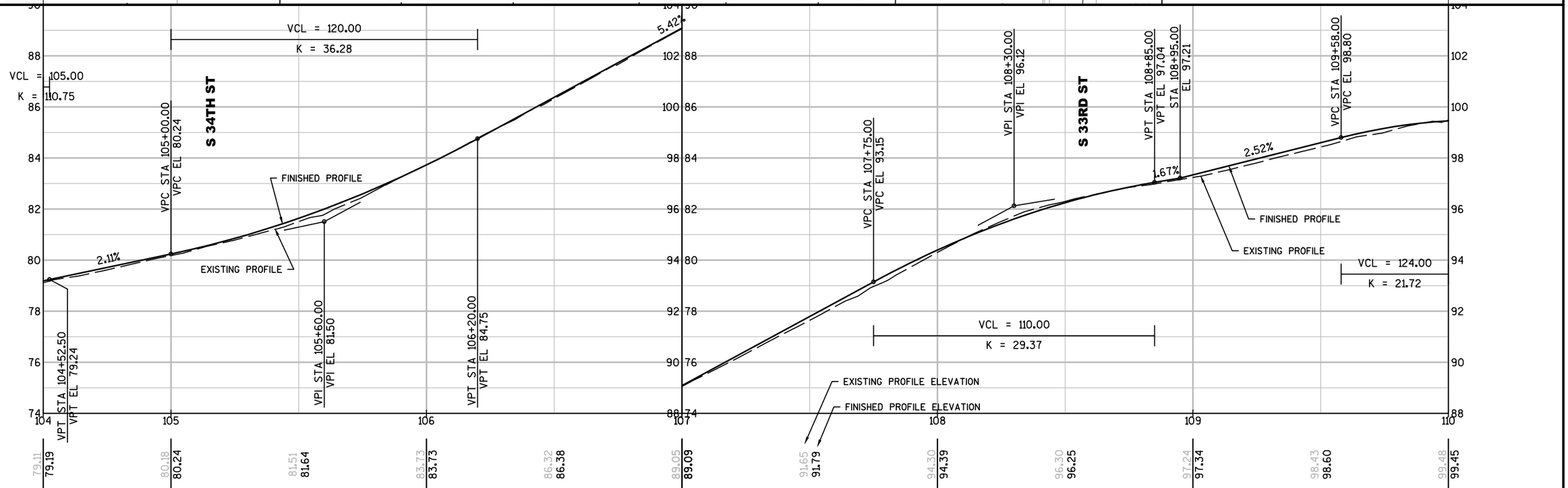
74.49 75.41 76.14 76.23 77.11 76.93 77.62 77.55 78.19 78.26 79.11 79.19

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-PP - PP - (1)
PLOT DATE : 4/26/2017 3:50 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



NO.	STATION	DESCRIPTION	ELEV.
BM 10	106+43.15, 34.22' RT	NW CORNER OF 1ST STEP AT 3325 GREENFIELD AVE	86.811

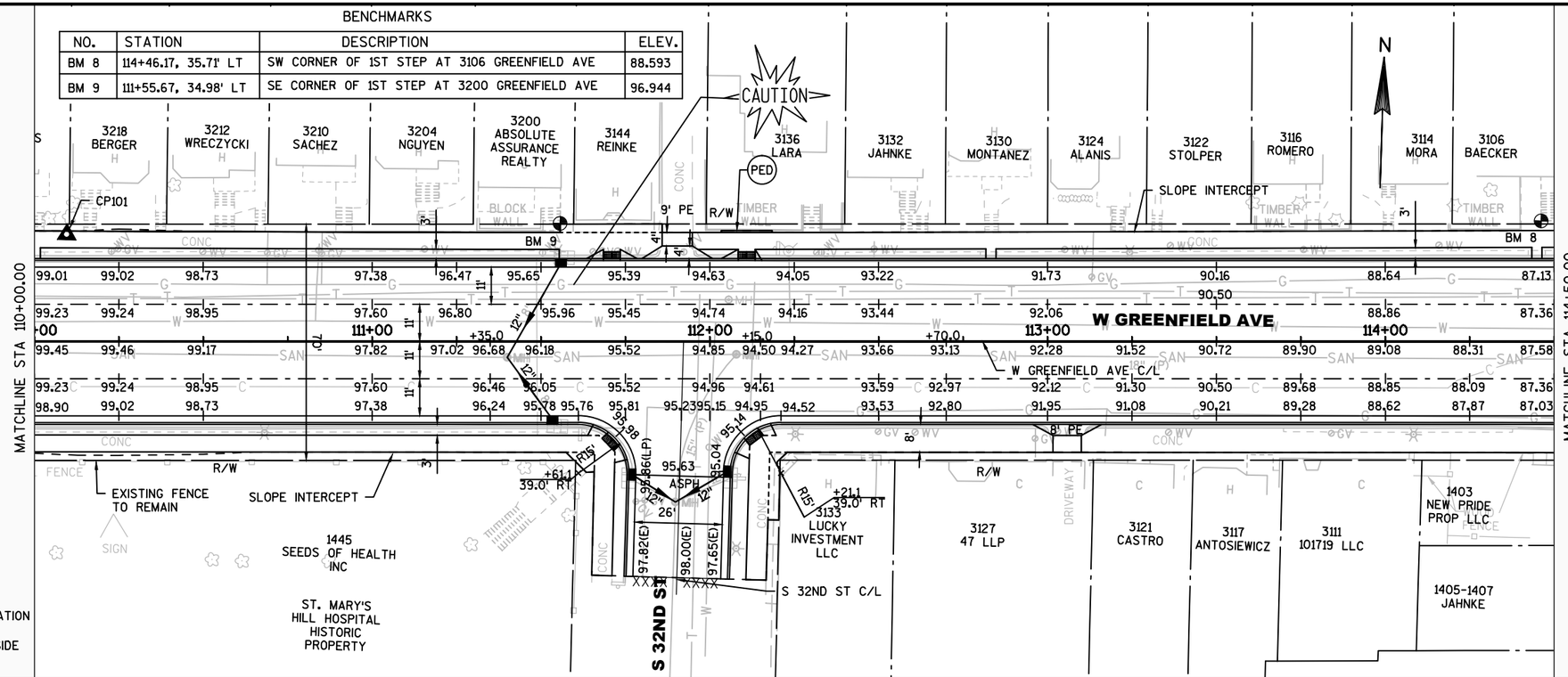


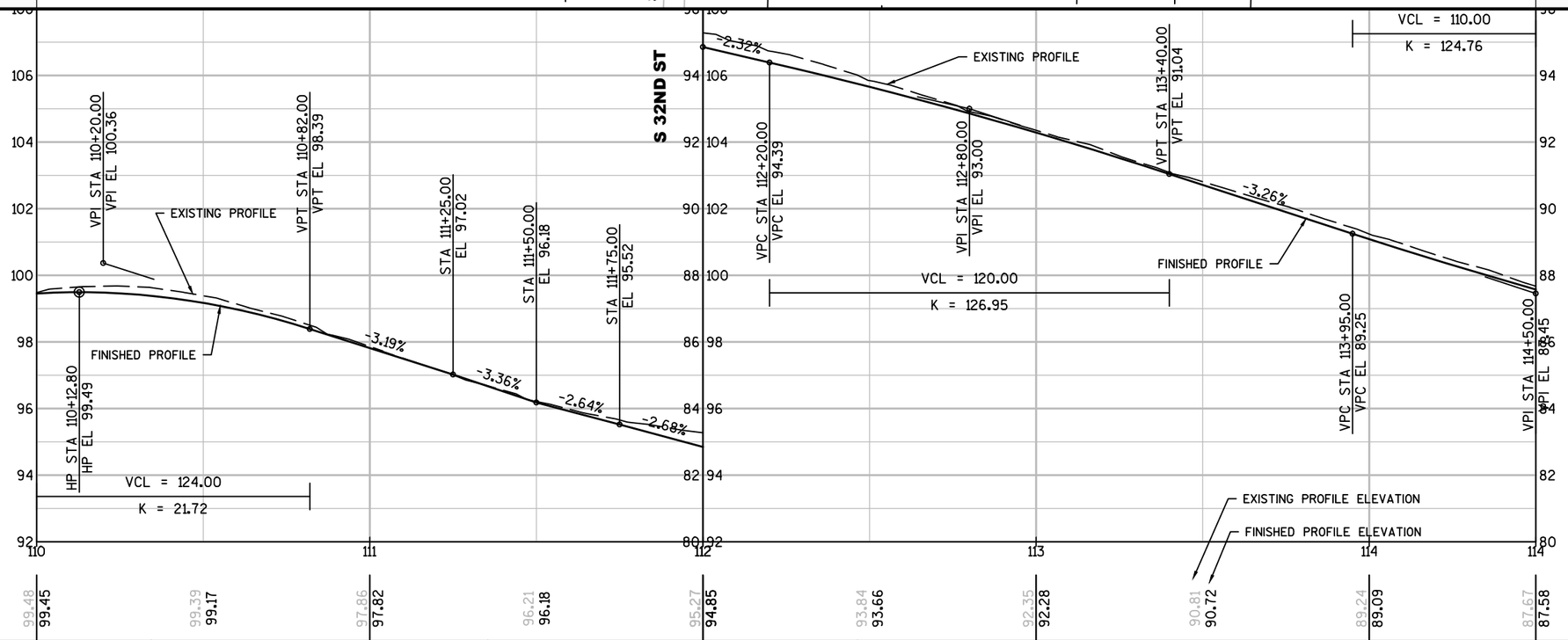
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 177 E

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 8	114+46.17, 35.71' LT	SW CORNER OF 1ST STEP AT 3106 GREENFIELD AVE	88.593
BM 9	111+55.67, 34.98' LT	SE CORNER OF 1ST STEP AT 3200 GREENFIELD AVE	96.944

LEGEND
- TREE REMOVAL
- XXX SAWCUT
- (PED) CONCRETE CURB PEDESTRIAN
- EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
- EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
- POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS





PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 178	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-PP - PP - (3)
PLOT DATE : 4/26/2017 3:51 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

MATCHLINE STA 114+50.00

MATCHLINE STA 120+00.00

5

5

N

W GREENFIELD AVE

W GREENFIELD AVE C/L

S 31ST ST

S 30TH ST

S 31ST ST C/L
SEE S 31ST ST
PLAN & PROFILE SHEET

S 30TH ST C/L

BUS STOP +05.0

BUS STOP +89.2
39.0' RT

SLOPE INTERCEPT

CAUTION

REMOVE BOULDER
(INCIDENTAL TO
EXCAVATION COMMON)

SAWCUT AND
REMOVE ASPHALTIC
CURB AT R/W
(PAID AS SAWING
ASPHALT)

SAWCUT AND
REMOVE
CONCRETE PAD
AT R/W
(PAID AS
REMOVING
MASONRY)

3106
BAECKER

3026
SALATY

3024
JIMENEZ

3018
JIMENEZ

3014
MUNOZ

3010
SARABIA-GARCIA

3006
GARCIA

3000
VALDIVIESO

2930
ESPARZA

2928
RODRIGUEZ

2922
WILMINGTON
SAVINGS FUND

2918
ROZEWICZ

1403
NEW PRIDE
PROP LLC

1405-1407
JAHNKE

1409-1411
SHARMA & SUSHILA

3023
S PRICE REAL
ESTATE HOLDINGS
458-0001-100

2935
WISCONSIN
DISTRICT OF
THE WESLEYAN
CHURCH

2925
LARES

2907
BLUE KANGAROO
PROPERTIES,LLC

458-0610-000

LEGEND

- TREE REMOVAL
- XXX SAWCUT
- (PED) CONCRETE CURB PEDESTRIAN
- EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
- EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
- POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS

VCL = 110.00
K = 124.76

VCL = 110.00
K = 342.93

VCL = 110.00
K = 52.95

VCL = 105.00
K = 106.30

-2.38%

-2.70%

-0.62%

EXISTING PROFILE

FINISHED PROFILE

FINISHED PROFILE ELEVATION

EXISTING PROFILE ELEVATION

VPI STA 114+50.00 VPI EL 87.45

VPT STA 115+05.00 VPT EL 86.15

VPC STA 115+20.00 VPC EL 85.79

VPI STA 115+75.00 VPI EL 84.48

VPT STA 116+30.00 VPT EL 83.00

VPC STA 117+60.00 VPC EL 79.49

VPI STA 118+15.00 VPI EL 78.00

VPT STA 118+70.00 VPT EL 77.66

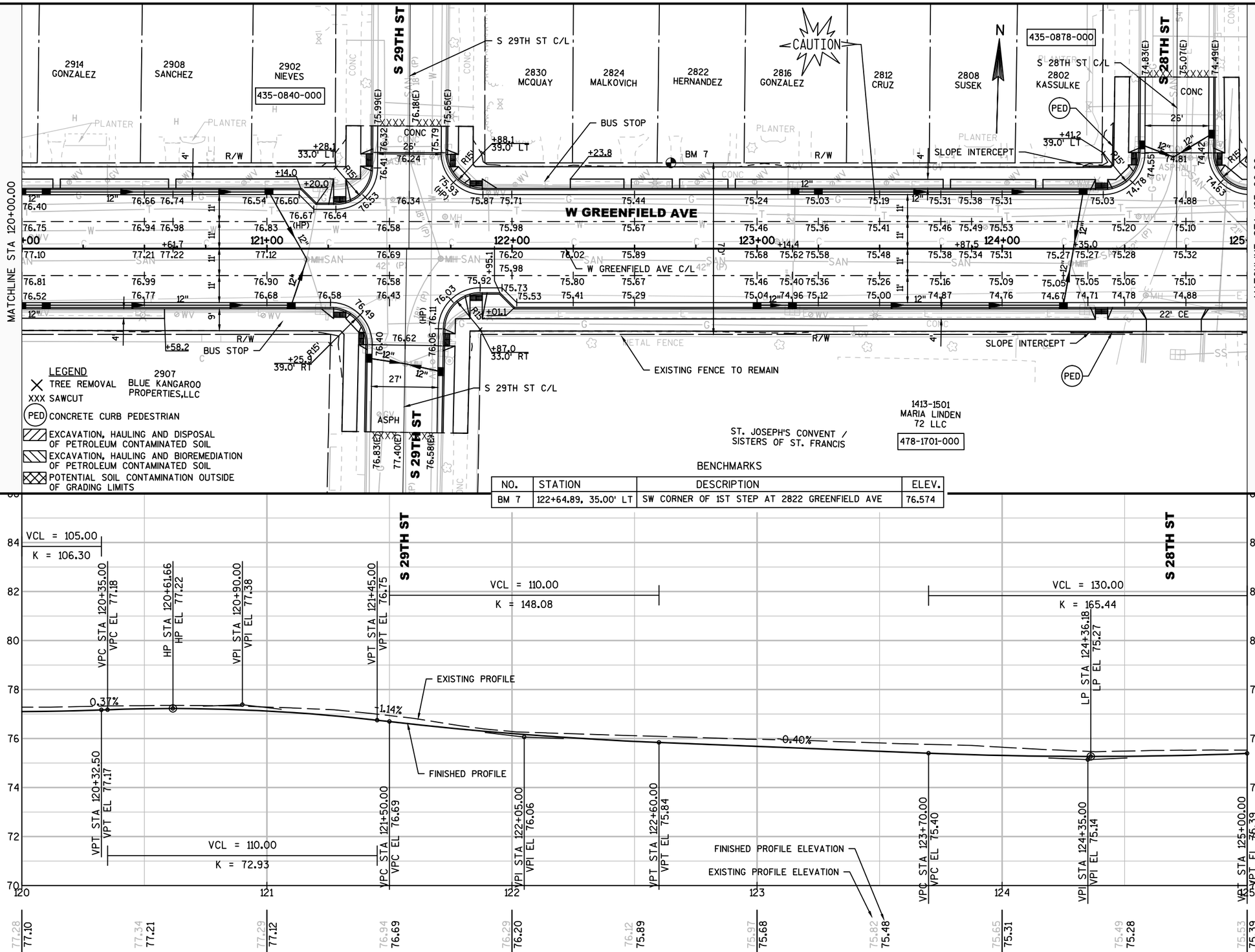
VPC STA 119+27.50 VPC EL 77.30

VPI STA 119+80.00 VPI EL 76.97

LP STA 119+93.65 LP EL 77.10

87.67	87.58	86.30	86.27	85.22	85.06	83.80	83.79	82.36	82.46	81.10	81.11	79.88	79.76	78.84	78.56	78.20	77.82	77.72	77.47	77.46	77.18	77.28	77.10

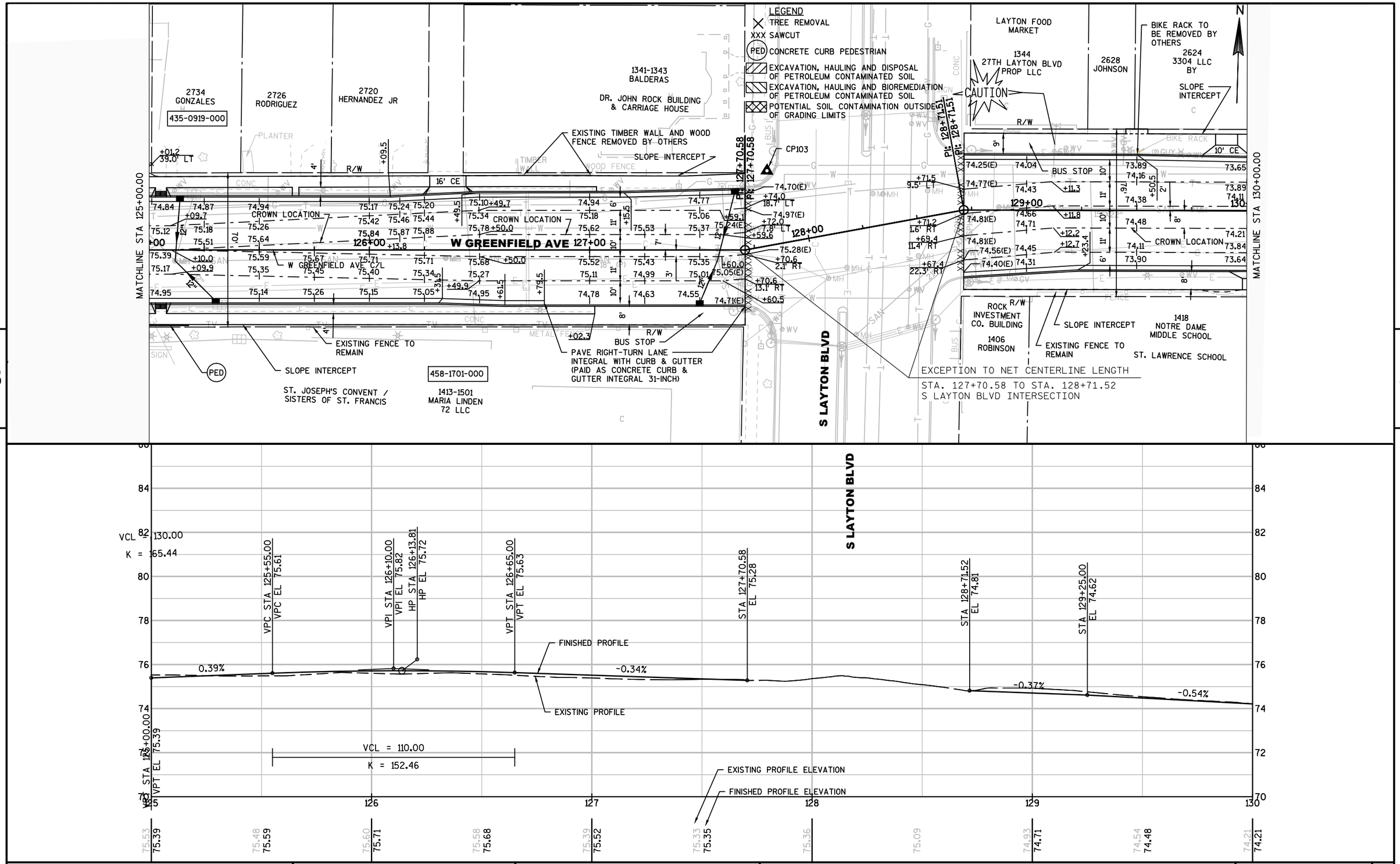
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 179	E



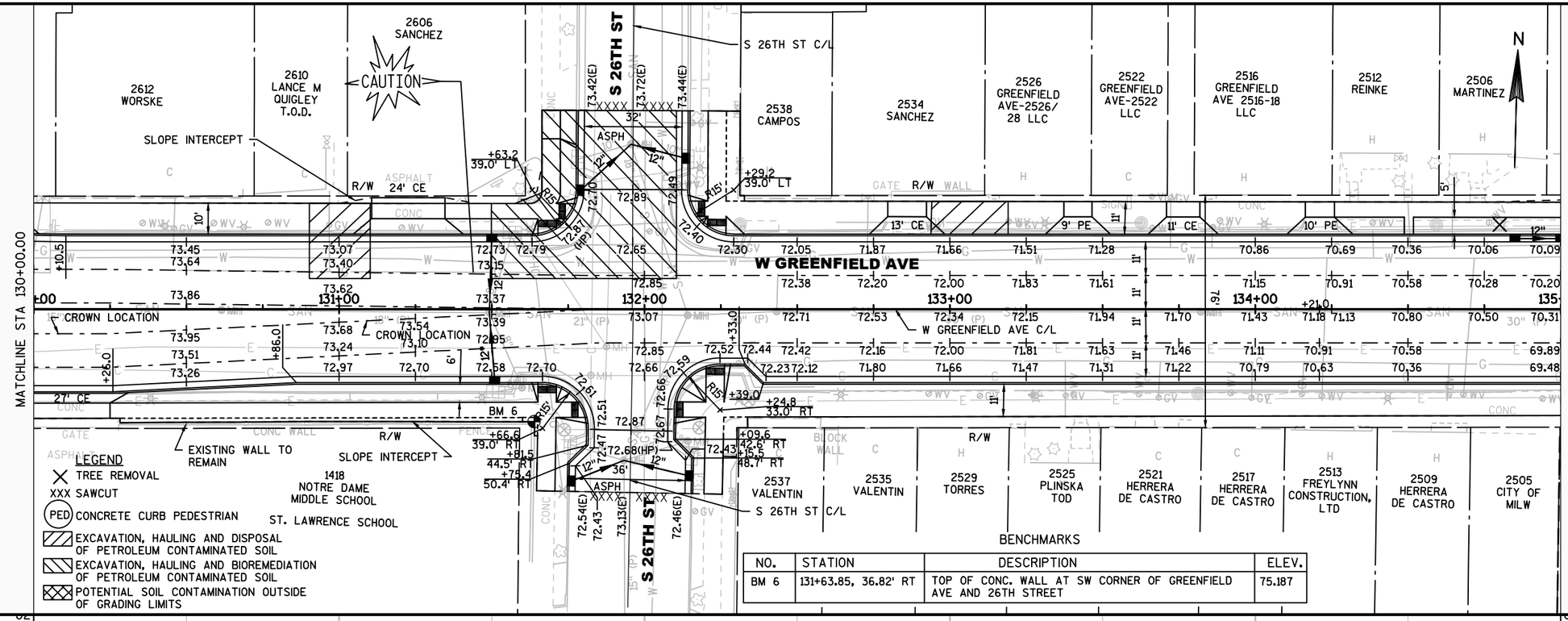
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 7	122+64.89, 35.00' LT	SW CORNER OF 1ST STEP AT 2822 GREENFIELD AVE	76.574

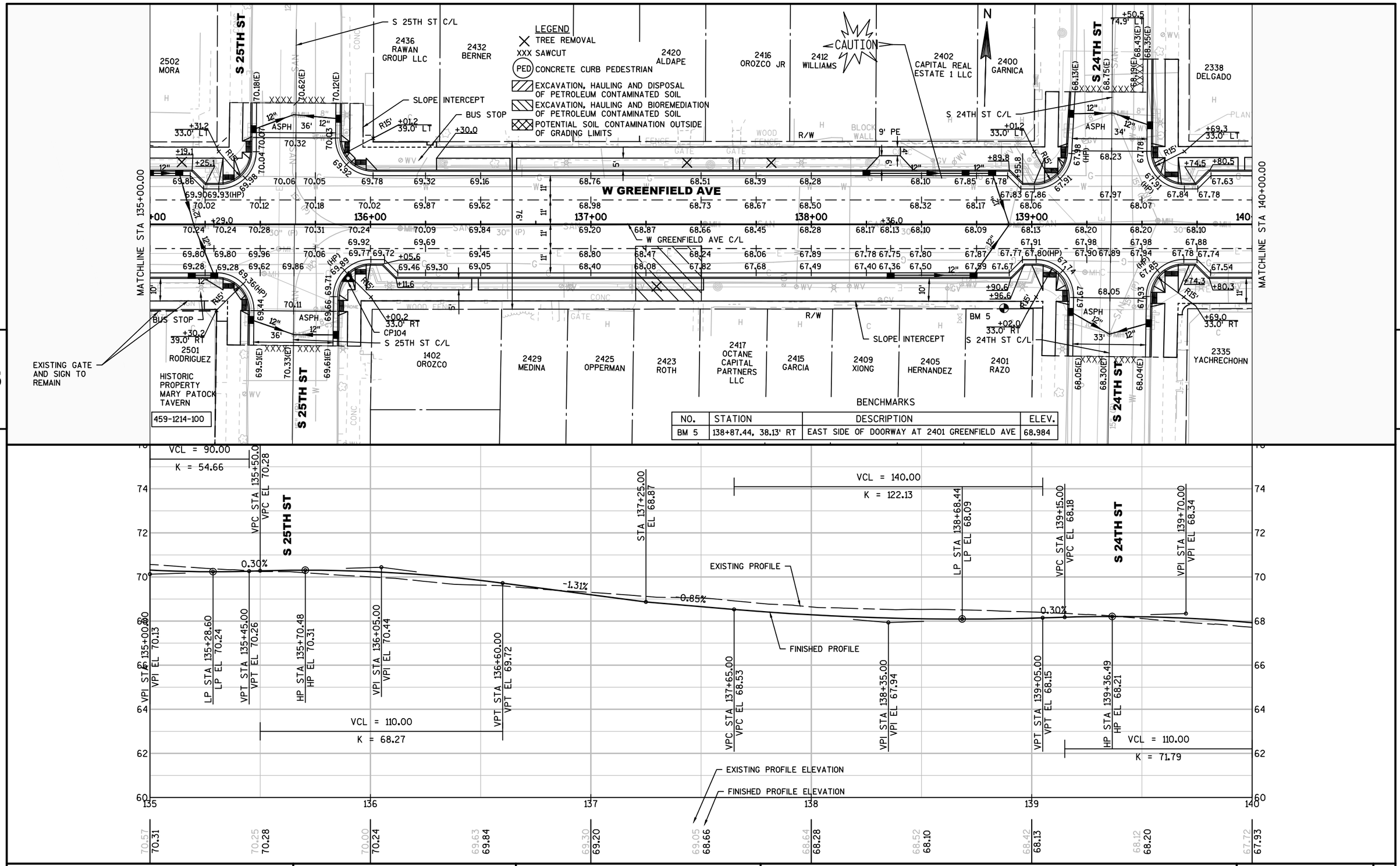
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 180	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 181 E



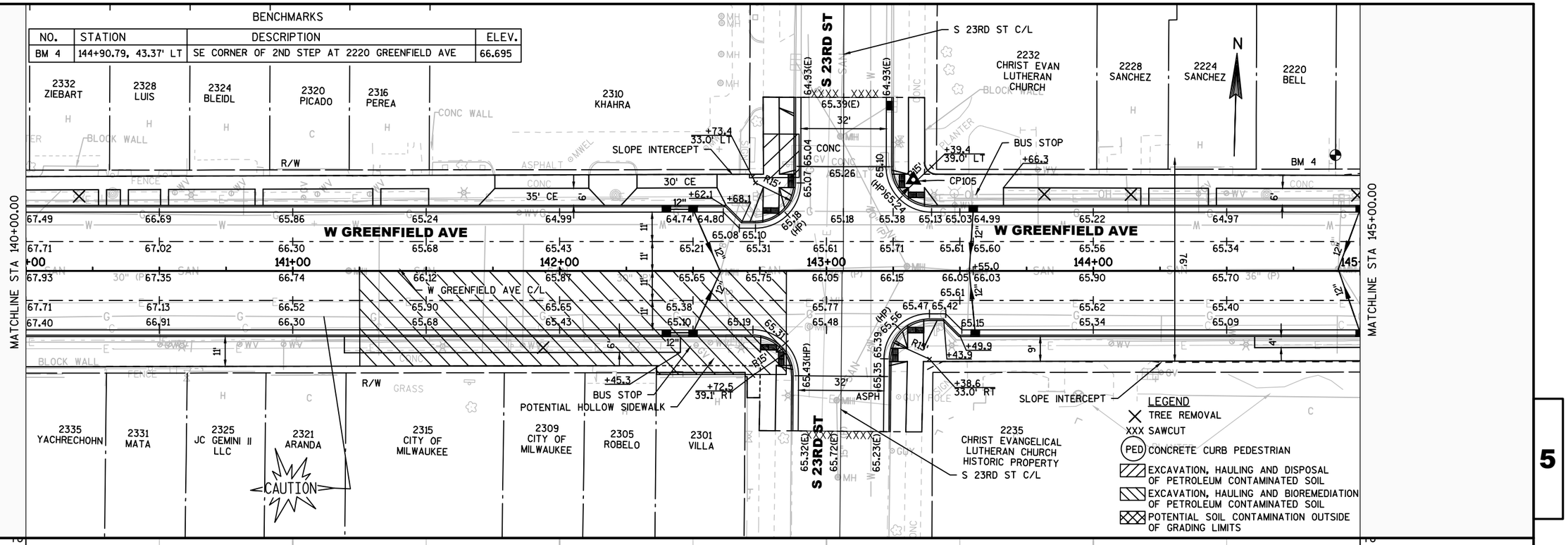
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 182 E

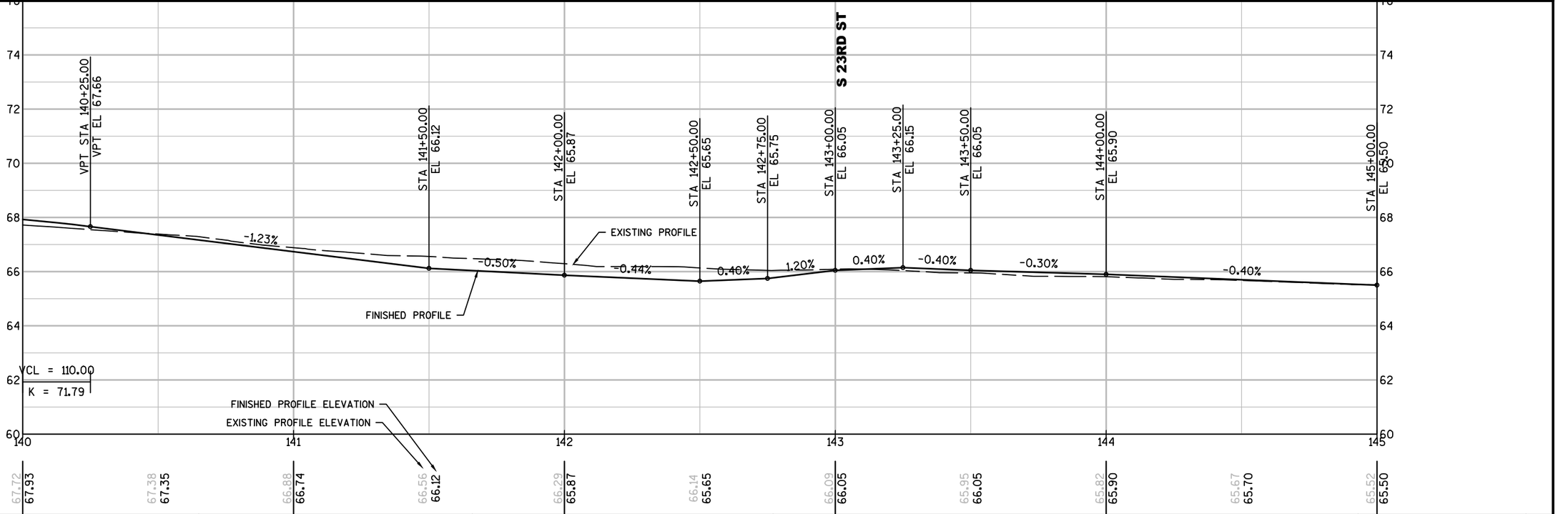


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 183 E

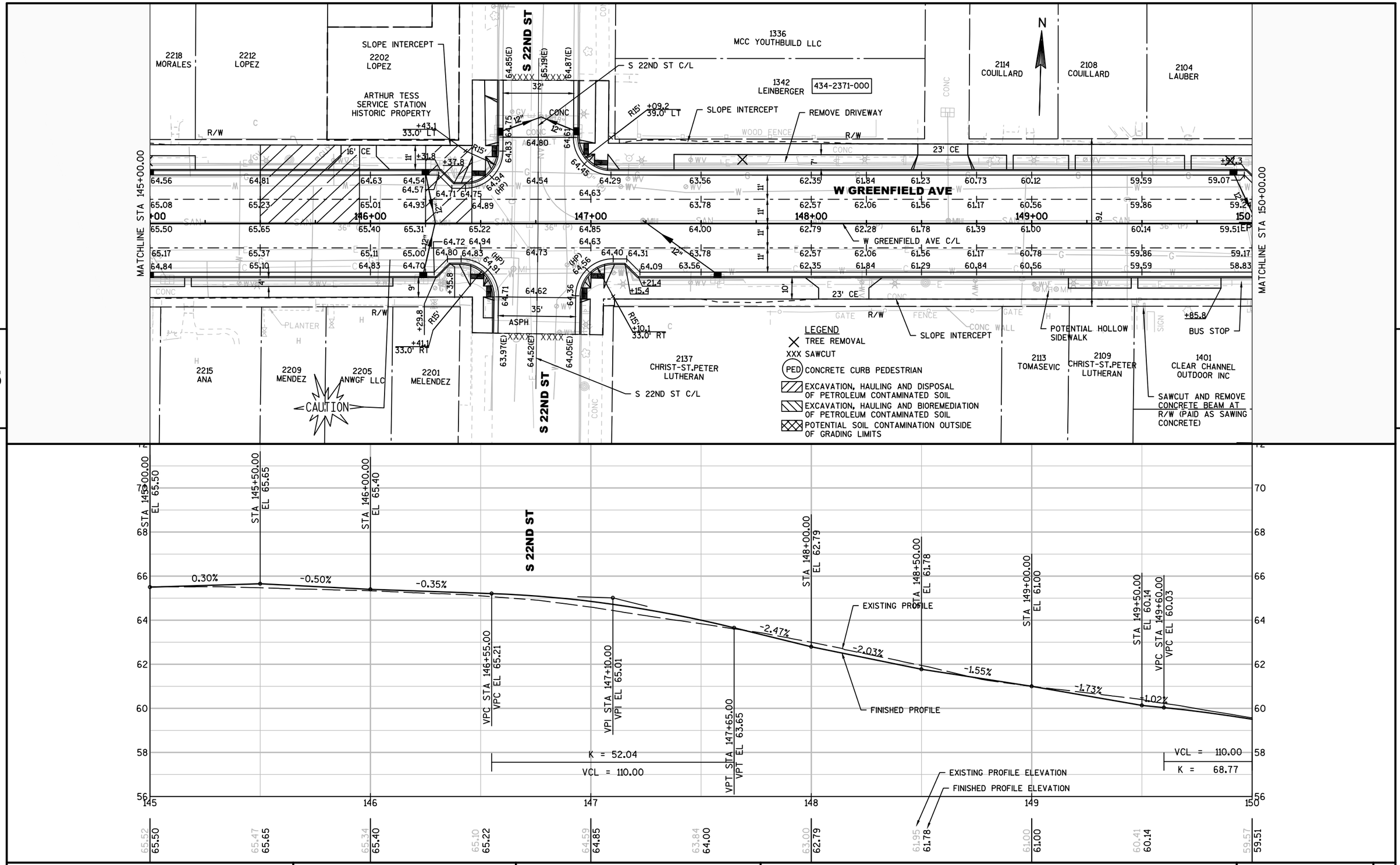
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 4	144+90.79, 43.37' LT	SE CORNER OF 2ND STEP AT 2220 GREENFIELD AVE	66.695





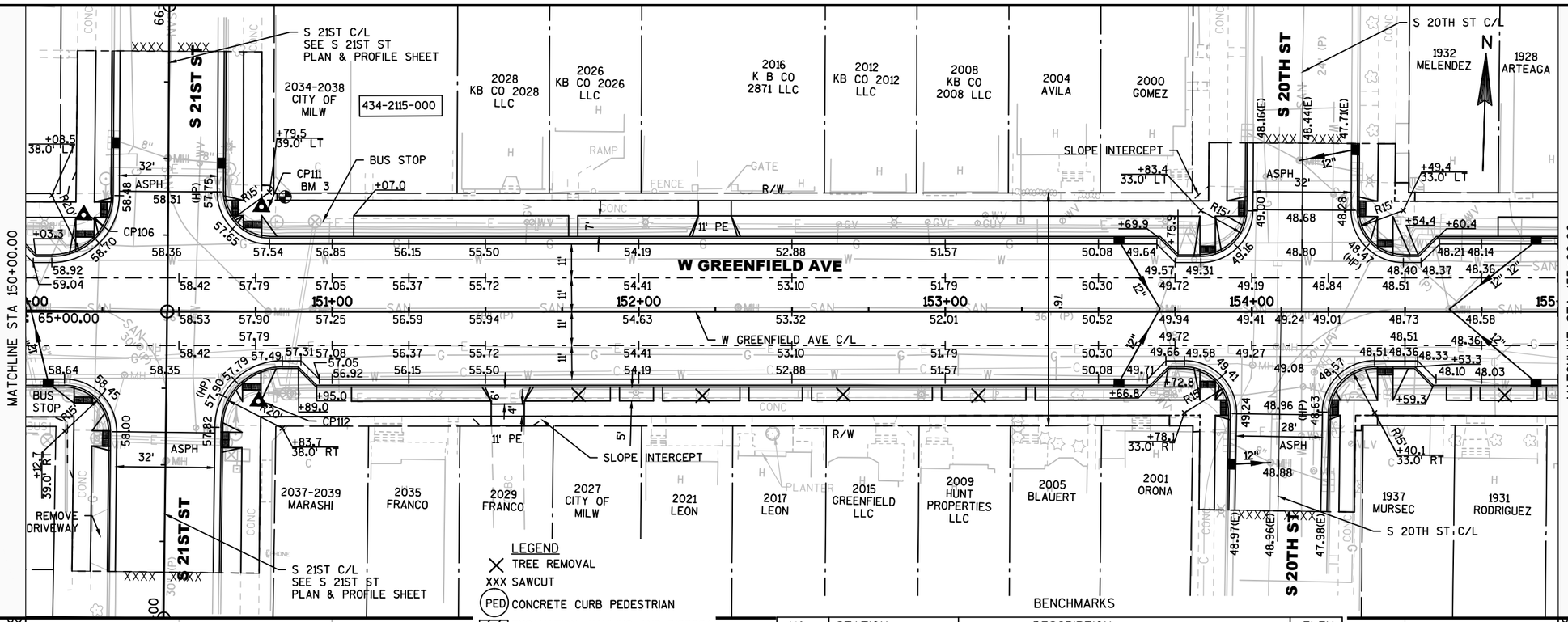
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 184 E



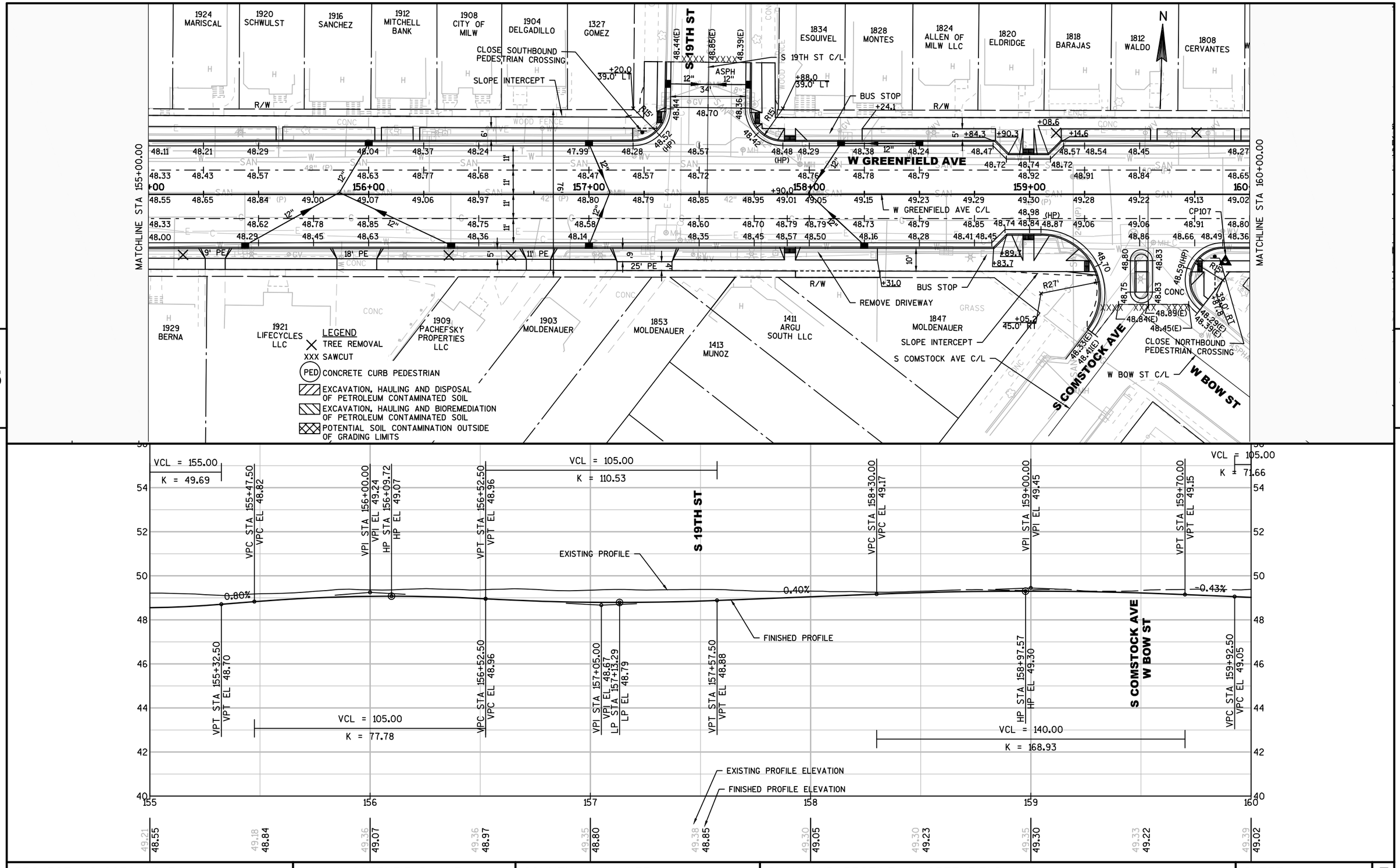
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 185 E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-PP - PP - (10)

PLOT DATE : 4/26/2017 3:55 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 186	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 187 E

5

1334 FERRER

1804 GREENFIELD LLC

1800 MAKAREWICZ
433-2056-000

S 18TH ST

ASPH

S 18TH ST C/L

POTENTIAL HOLLOW SIDEWALK
+23.7
39.0' LT

1720 FLEEGE

BUS STOP +67.0

SLOPE INTERCEPT

R/W

1714 TSITIRIDIS

1708 RODRIGUEZ

1700 GREENFIELD AVE 1700 LLC

POTENTIAL HOLLOW SIDEWALK

S 17TH ST

433-1838-112

1337 16TH STREET COMMUNITY

ASPHALT

S 17TH ST C/L

CLOSE SOUTHBOUND PEDESTRIAN CROSSING

19' CE

11' PE

8' PE

W GREENFIELD AVE

W GREENFIELD AVE C/L

MATCHLINE STA 160+00.00

MATCHLINE STA 165+00.00

161+00

162+00

163+00

164+00

33' CE

30' CE

10' PE

45' PE

R/W

BM 2

1717 KOSTRZEWSKI

CLOSE NORTHBOUND PEDESTRIAN CROSSING

1801 MUHAMMAD REHAN PROPERTY

1421-1425 KOSTRZEWSKI

1417 TSITIRIDIS

S UNION ST

ASPH

SLOPE INTERCEPT

1400-1430 UNION STREET HOLDINGS LLC

CLOSE NORTHBOUND PEDESTRIAN CROSSING

S UNION ST C/L

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 2	162+67.48, 35.58' RT	NW CORNER OF 1ST STEP AT 1717 GREENFIELD AVE	51.258

LEGEND
- TREE REMOVAL
- XXX SAWCUT
- (PED) CONCRETE CURB PEDESTRIAN
- EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
- EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
- POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS

VCL = 105.00
K = 71.66

LP STA 160+23.22
LP EL 48.98

VPI STA 160+45.00
VPI EL 48.82

VPT STA 160+97.50
VPT EL 49.37

STA 161+50.00
EL 49.91

STA 162+25.00
EL 50.33

STA 163+50.00
EL 51.13

STA 164+00.00
EL 51.34

STA 164+50.00
EL 51.81

EXISTING PROFILE
FINISHED PROFILE

1.04% 0.56% 0.64% 0.41% 0.94% 0.43%

EXISTING PROFILE ELEVATION
FINISHED PROFILE ELEVATION

49.39	49.02	49.31	49.03	49.66	49.40	49.94	49.91	50.28	50.19	50.62	50.49	50.84	50.81	51.13	51.13	51.29	51.34	51.57	51.81	51.82	52.03		

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 188	E

433-1838-112

1337
16TH STREET COMMUNITY

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM 1	167+09.64, 36.45' LT	CHISELED BOX 1.7' UP ON WATER TABLE 20' WEST OF SE BUILDING CORNER	54.905

MATCHLINE STA 165+00.00

W GREENFIELD AVE

W GREENFIELD AVE C/L

S CESAR E CHAVEZ DR

S MUSKEGO AVE

1400-1430
UNION STREET HOLDINGS, LLC

BUS STOP

SLOPE INTERCEPT

SAVE TREE

HOLLOW SIDEWALK

POTENTIAL HOLLOW SIDEWALK

CP110

CP109

CP108

BM 1

74' CE

22' CE

CROWN LOCATION

EP: 170+11.90

LEGEND
- TREE REMOVAL
- XXX SAWCUT
- PED CONCRETE CURB PEDESTRIAN
- EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
- EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
- POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS

STA 165+50.00
EL 52.24

STA 166+79.00
EL 52.63

STA 167+15.00
EL 53.00

END PROJECT 2230-00-74
STA. 167+15

FINISHED PROFILE

EXISTING PROFILE

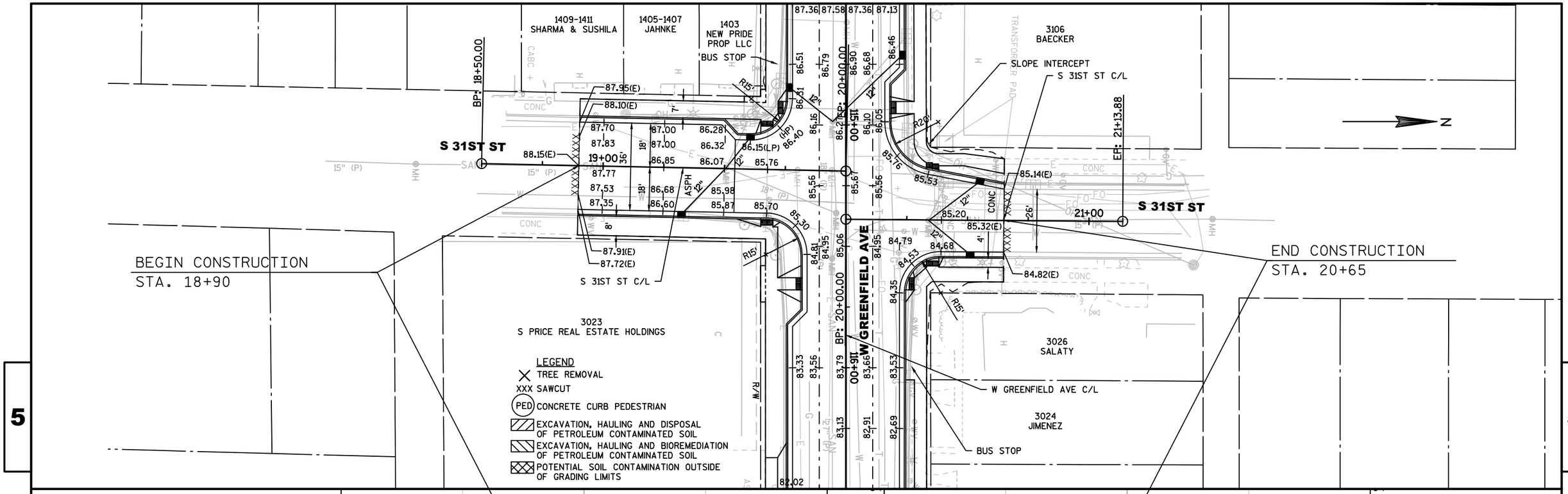
0.43%

0.30%

1.03%

51.82	52.08	52.33	52.50	52.86	53.31	53.33	53.14
52.03	52.24	52.39	52.54	52.85			

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W GREENFIELD AVE	SHEET 189	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: S. 31ST ST	SHEET 190 E

LEGEND
TREE REMOVAL
XXX SAWCUT
PED CONCRETE CURB PEDESTRIAN
EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL
EXCAVATION, HAULING AND BIOREMEDIATION OF PETROLEUM CONTAMINATED SOIL
POTENTIAL SOIL CONTAMINATION OUTSIDE OF GRADING LIMITS

BEGIN CONSTRUCTION
STA. 64+15

END CONSTRUCTION
STA. 65+85

1409 HANSON
1401 CLEAR CHANNEL OUTDOOR INC
2104 LAUBER
2037-2039 MARASHI
2035 FRANCO
2034-2038 CITY OF MILW

BP: 63+99.99
EP: 65+00.00
REMOVE DRIVEWAY
SLOPE INTERCEPT
S 21ST C/L
64+00
65+00
66+00
S 21ST ST
W GREENFIELD AVE
W GREENFIELD AVE C/L
BUS STOP
ASPH
CONC
SIGN
N

W GREENFIELD AVE

STA 64+15.00 EL 57.70
STA 64+78.00 EL 58.35
STA 65+00.00 EL 58.62
STA 65+00.00 EL 58.61
STA 65+11.00 EL 58.49
STA 65+22.00 EL 58.36
STA 65+55.00 EL 58.27
STA 65+85.00 EL 58.47

1.04%
1.22%
-1.12%
-1.19%
-0.26%
0.66%

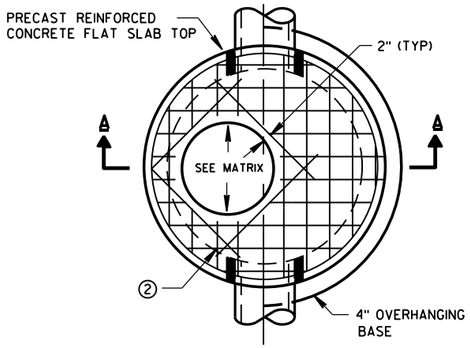
EXISTING PROFILE
FINISHED PROFILE
EXISTING PROFILE ELEVATION
FINISHED PROFILE ELEVATION

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: S. 21ST ST	SHEET 191 E

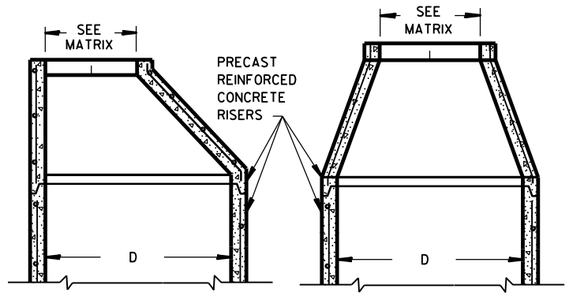
Standard Detail Drawing List

08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D05-18A	CURB RAMPS TYPES 1 AND 1-A
08D05-18B	CURB RAMPS TYPES 2 AND 3
08D05-18C	CURB RAMPS TYPES 4A AND 4A1
08D05-18D	CURB RAMPS TYPE 4B AND 4B1
08D05-18E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-01	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
09B02-09	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-09	CONCRETE BASE TYPE 10
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-14A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-13A	PAVEMENT MARKING SYMBOLS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

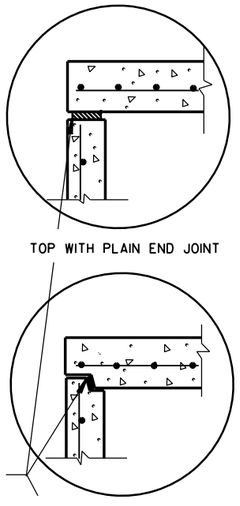


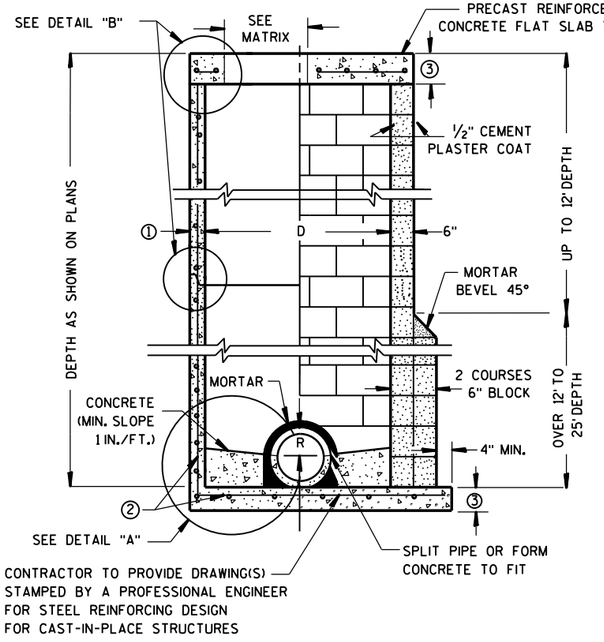
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

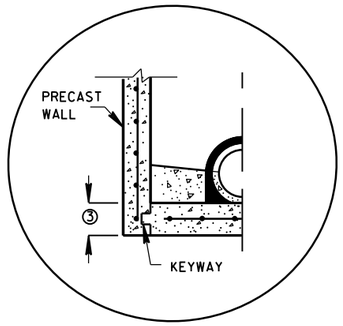
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



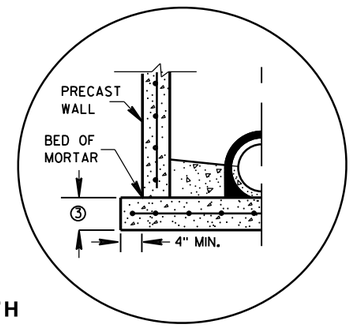


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

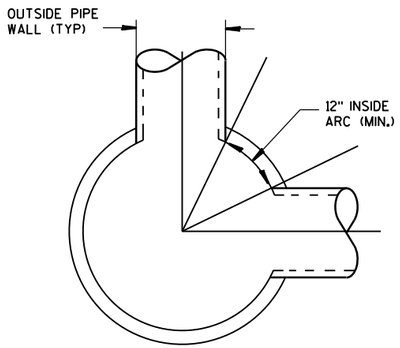


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

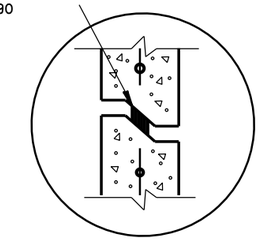


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

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

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

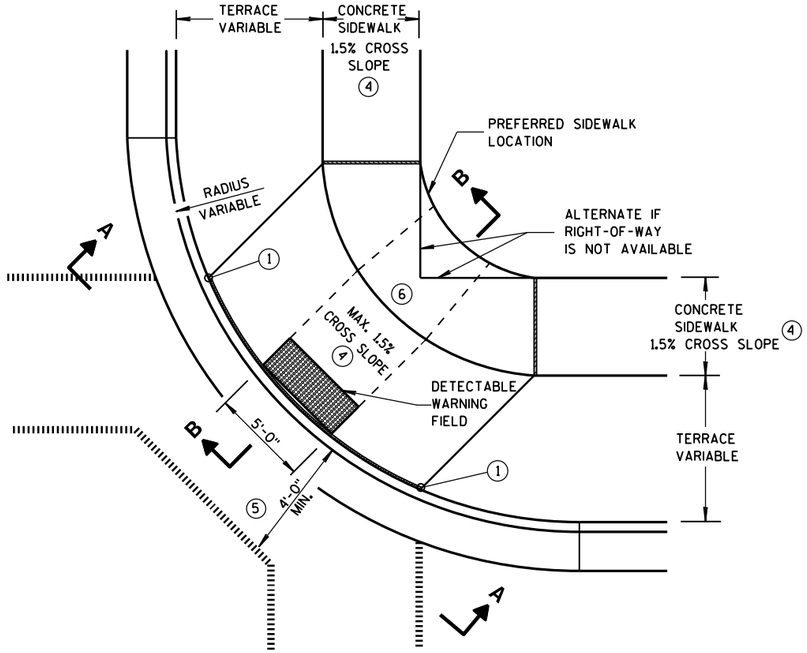
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

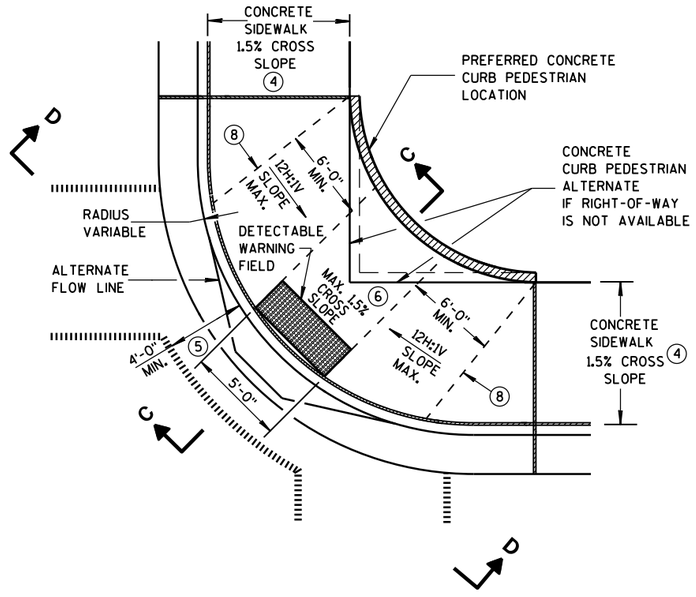
6
S.D.D. 8 B 9-1



PLAN VIEW

TYPE 1 RAMP

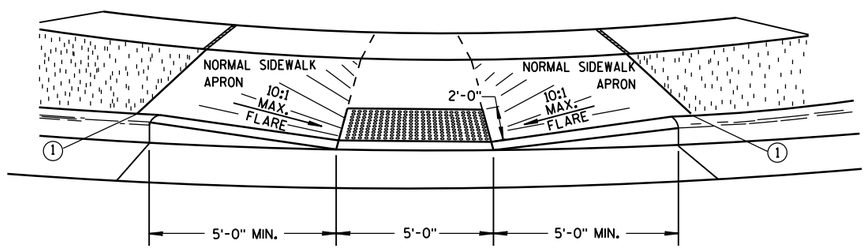
(CENTER OF CORNER RADIUS)



PLAN VIEW

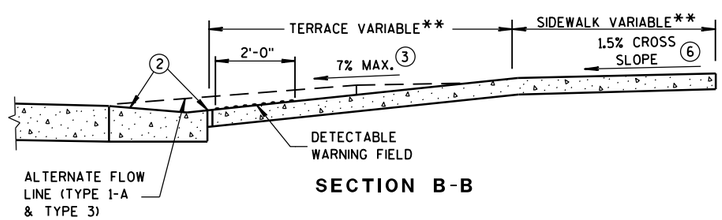
TYPE 1-A RAMP

(NO TERRACE)

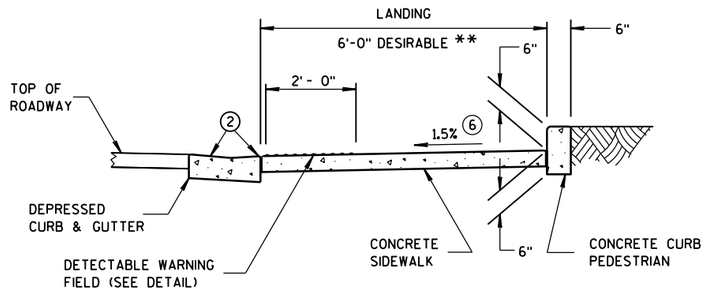


VIEW A-A

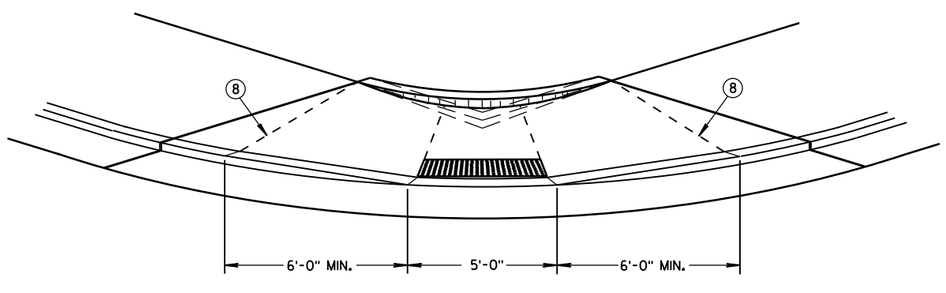
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

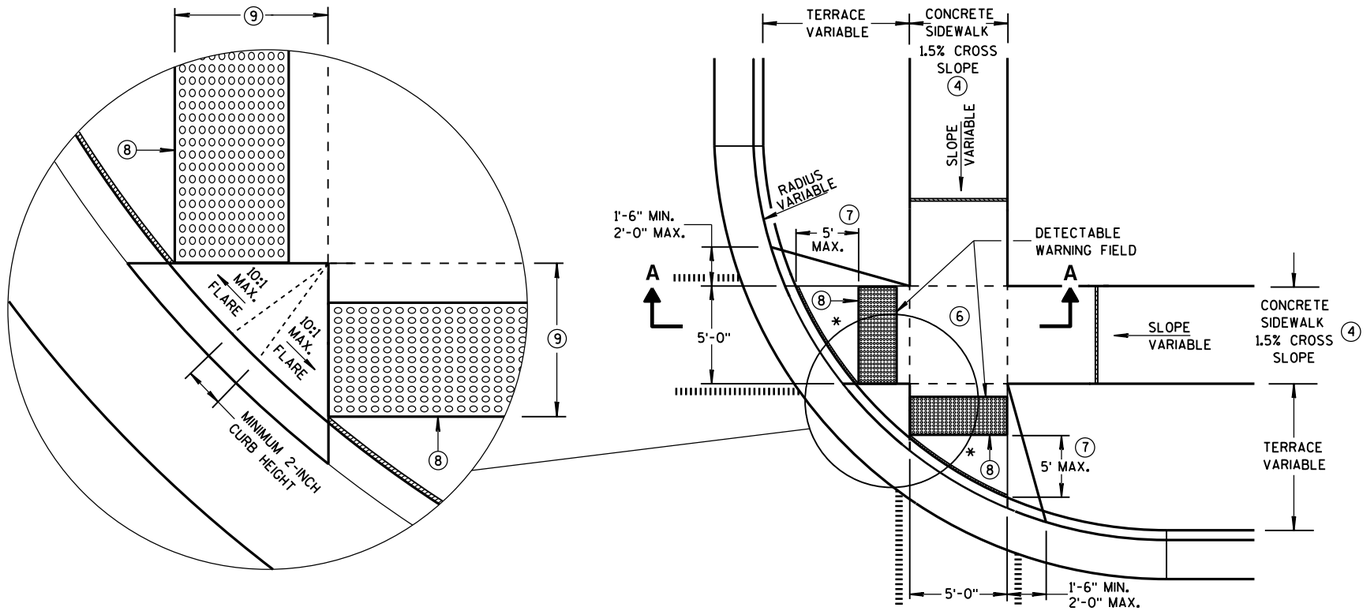
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-18a

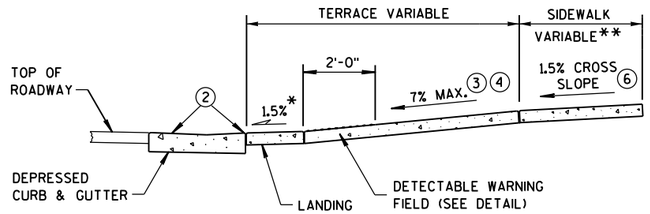


PLAN VIEW

TYPE 2 RAMP

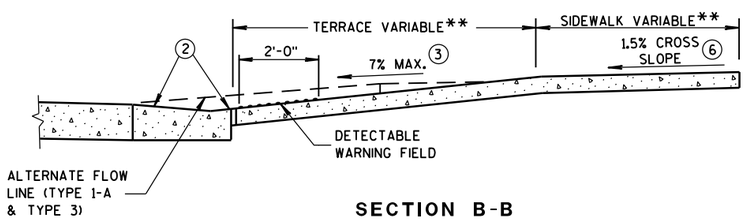
(ON LINE WITH SIDEWALK)

* 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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

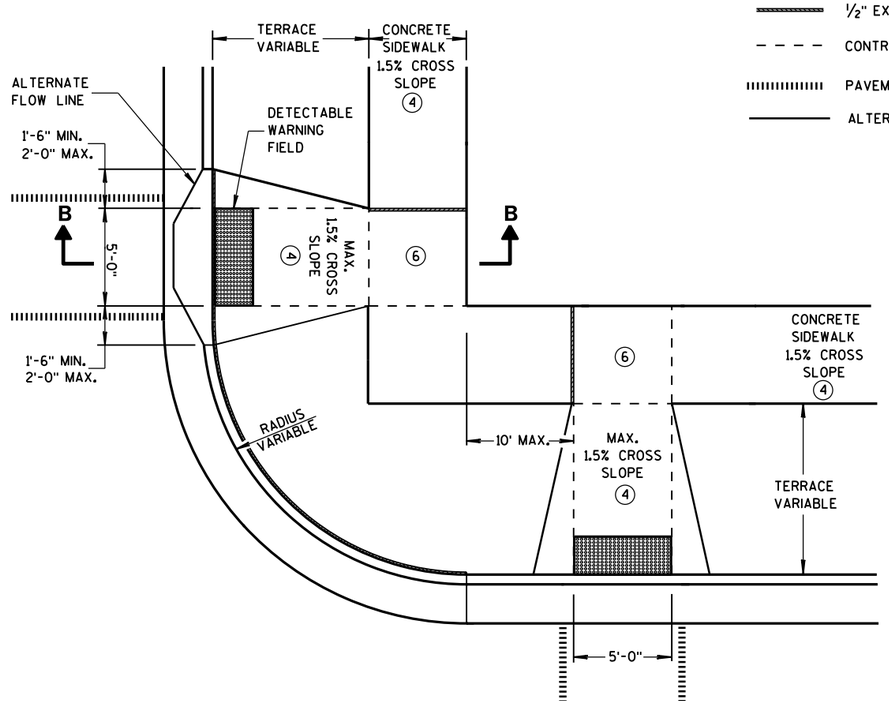
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

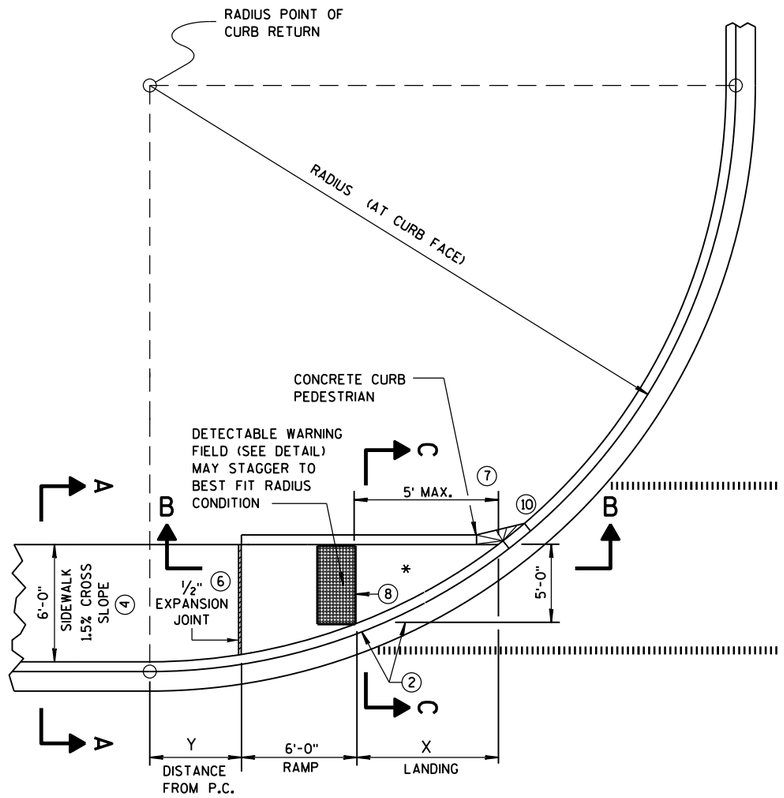
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

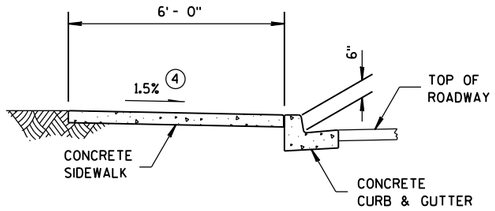
S.D.D. 8 D 5-18b



CURB RAMP TYPE 4A
PLAN VIEW

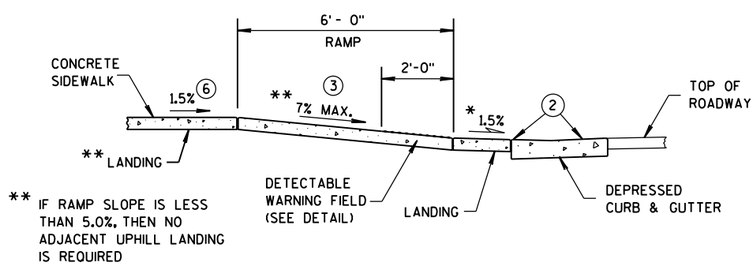
RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

INTERMEDIATE RADII CAN BE INTERPOLATED

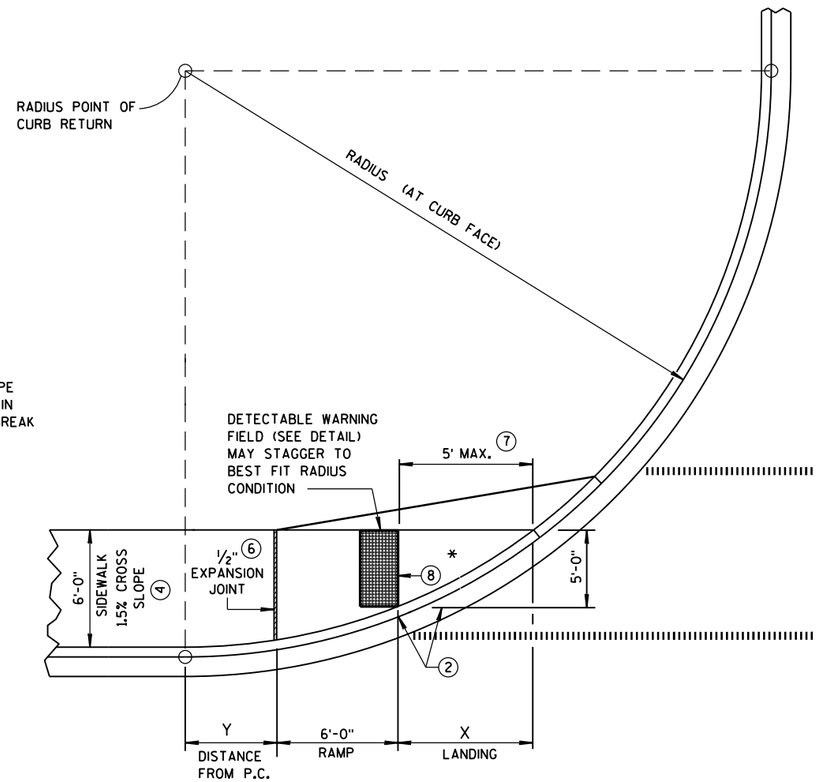


SECTION A-A FOR TYPE 4A

SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

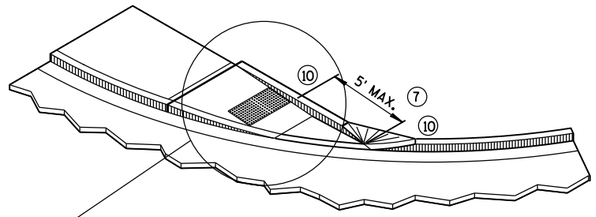
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

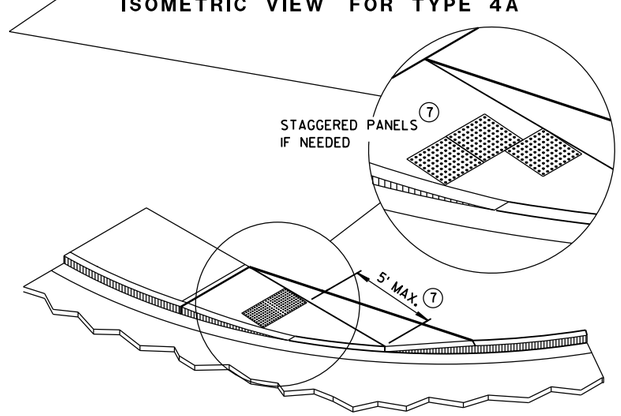
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

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

CURB RAMPS TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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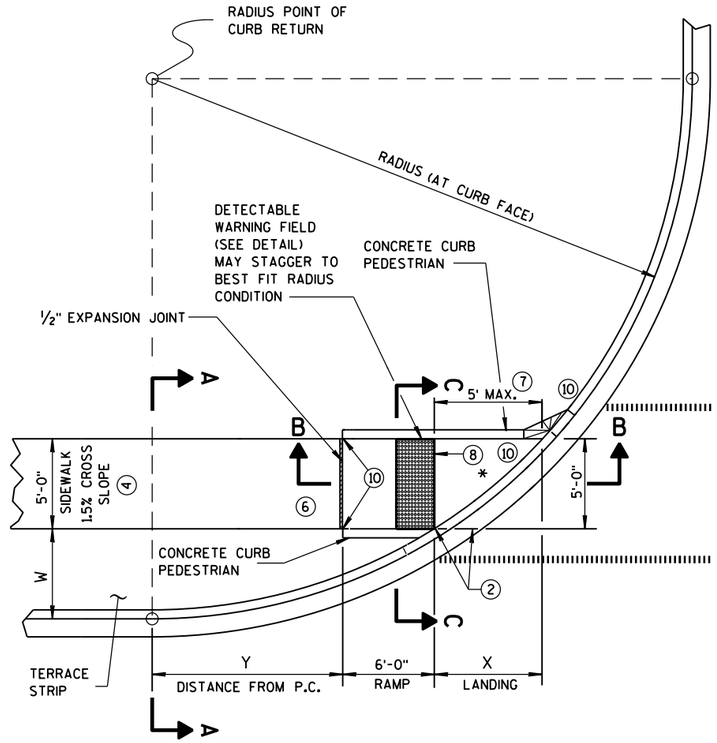
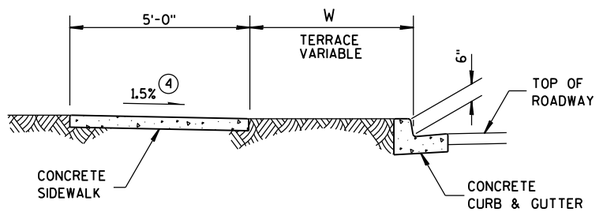
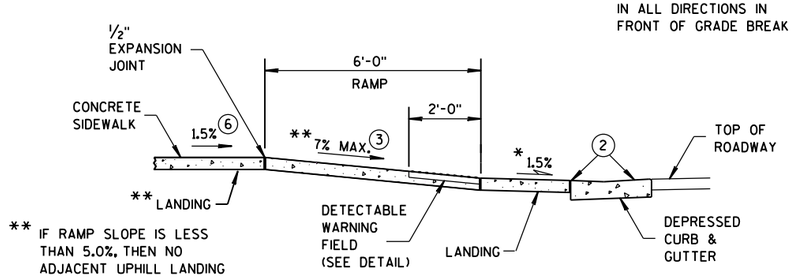
S.D.D. 8 D 5-18c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



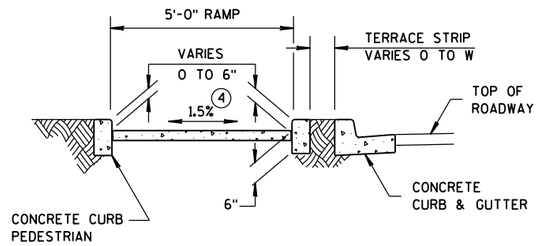
SECTION B-B FOR TYPE 4B

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'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

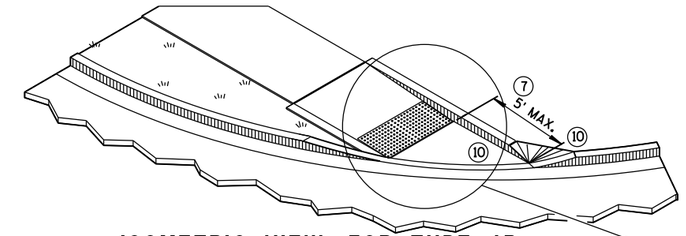
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

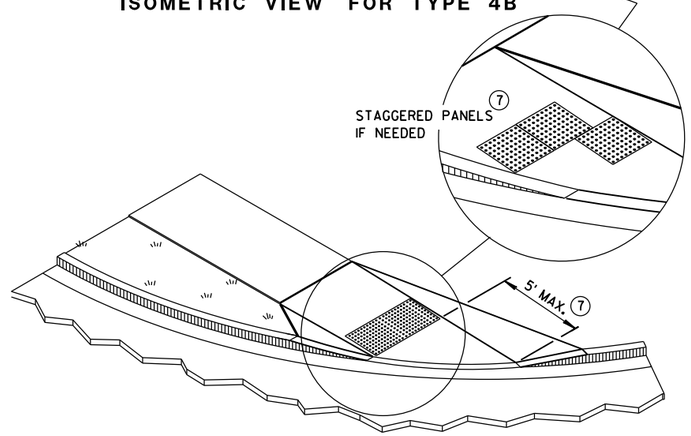
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

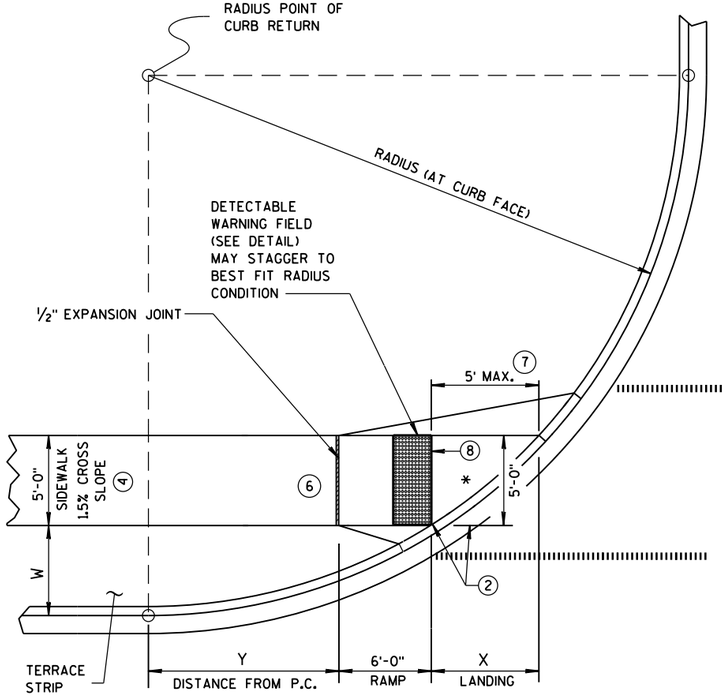
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



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 TRANSPOI

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S.D.D. 8 D 5-18d

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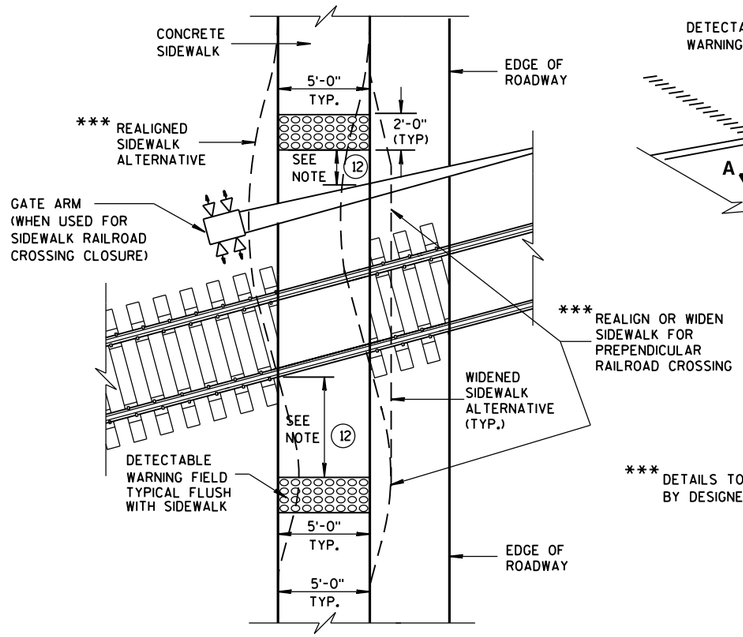
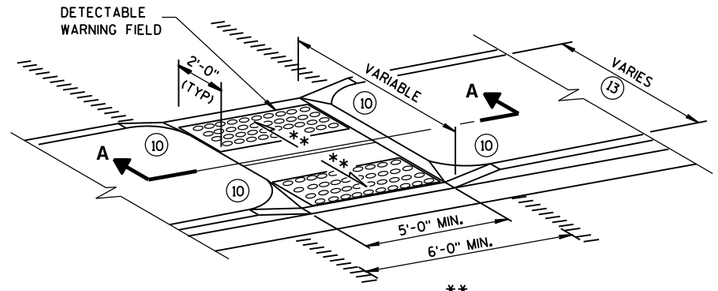
S.D.D. 8 D 5-18d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

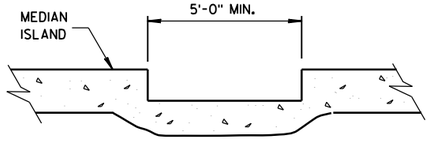
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

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

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

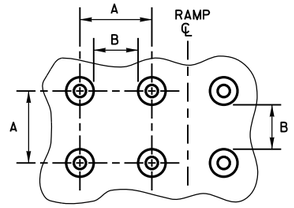
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



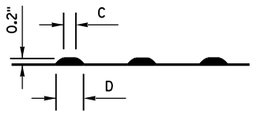
SECTION A-A

	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.

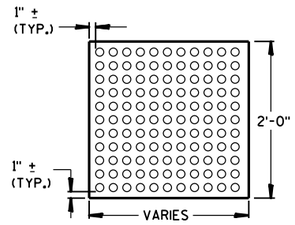


PLAN VIEW

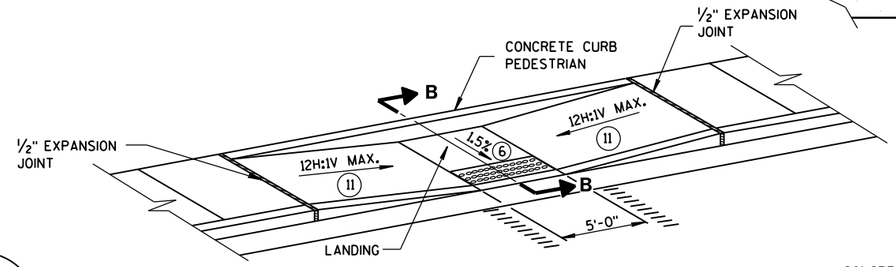


ELEVATION VIEW

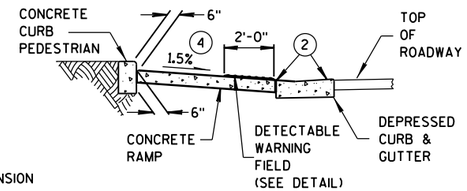
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

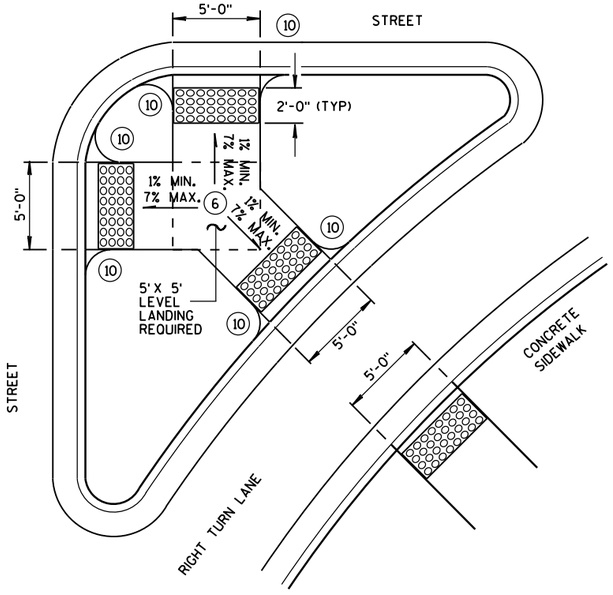


MID-BLOCK CROSSING
TYPE 7A

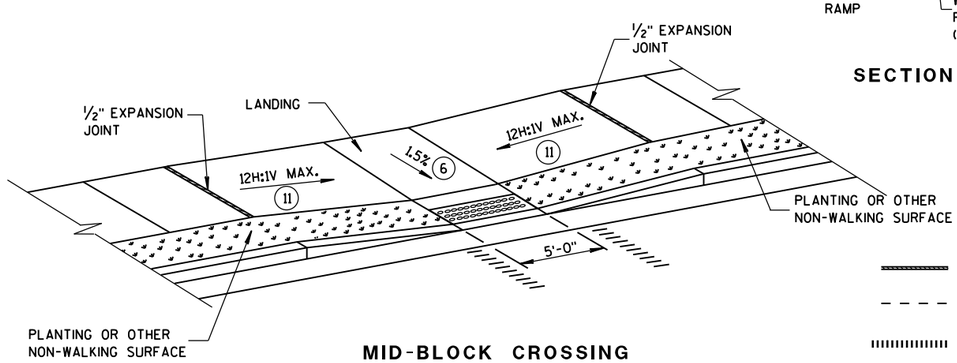


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

- 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
Sept., 2016
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV

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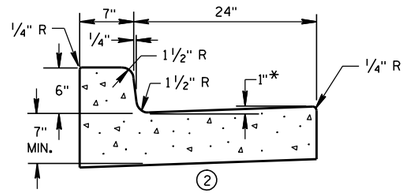
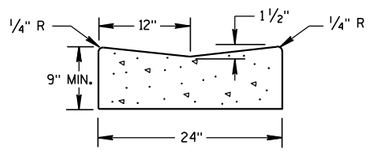
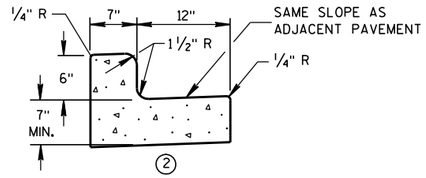


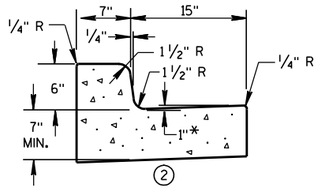
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

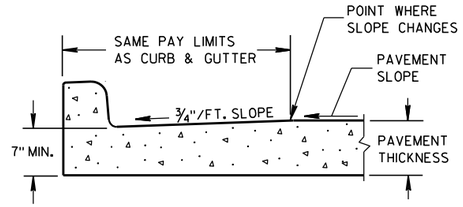


① CONCRETE CURB & GUTTER 19"



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.

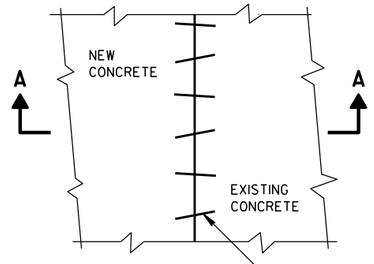
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

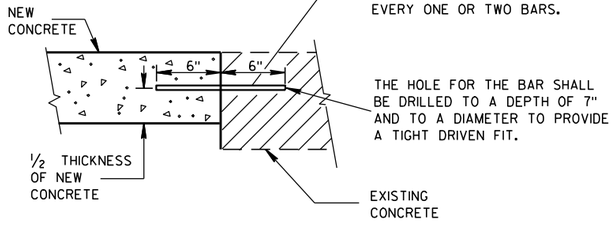
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

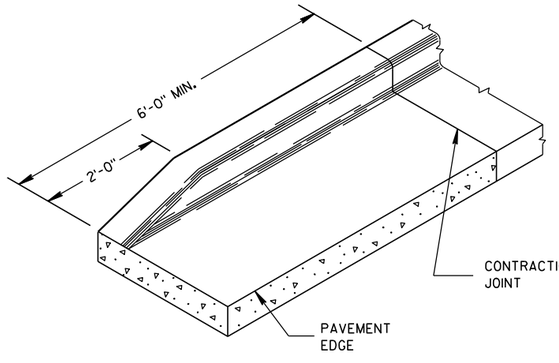
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



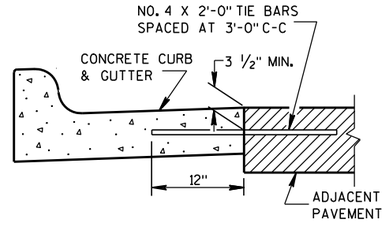
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

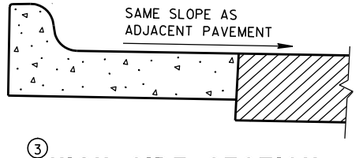
PAVEMENT TIES



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 Zogg — ROADWAY STANDARDS ENGINEER

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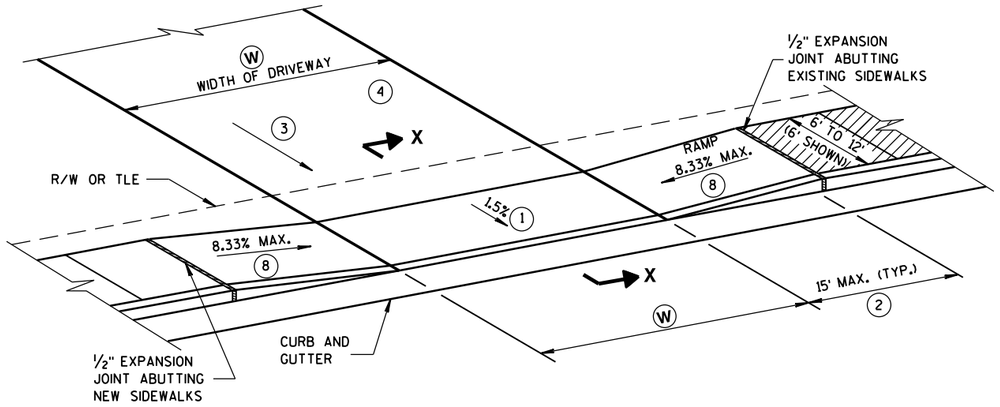
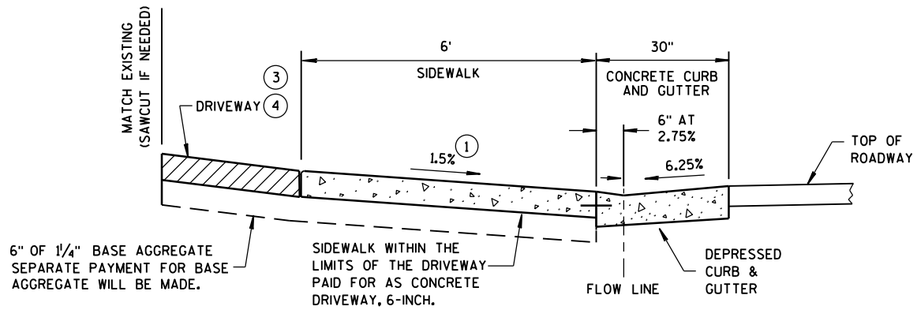
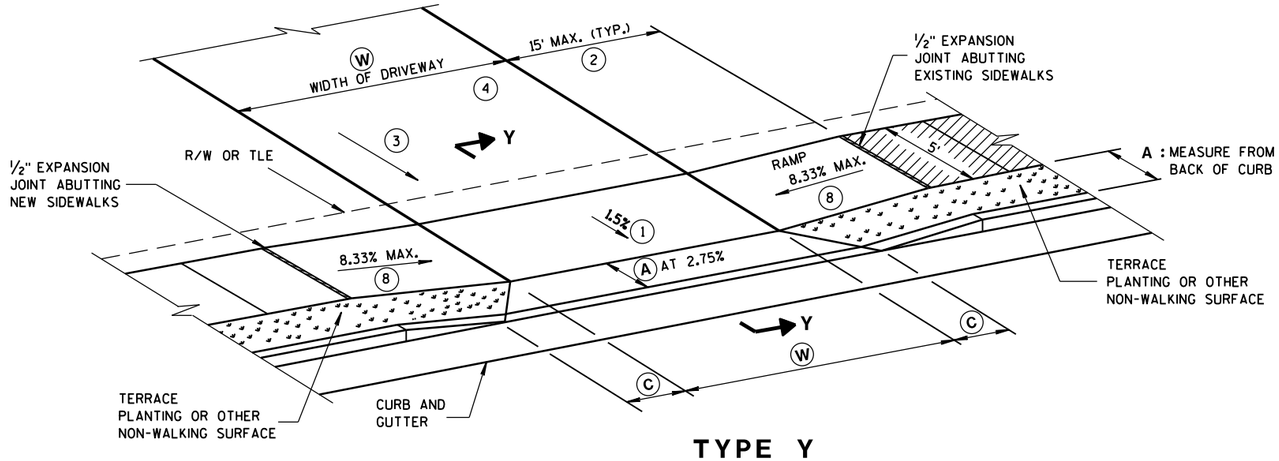


TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X

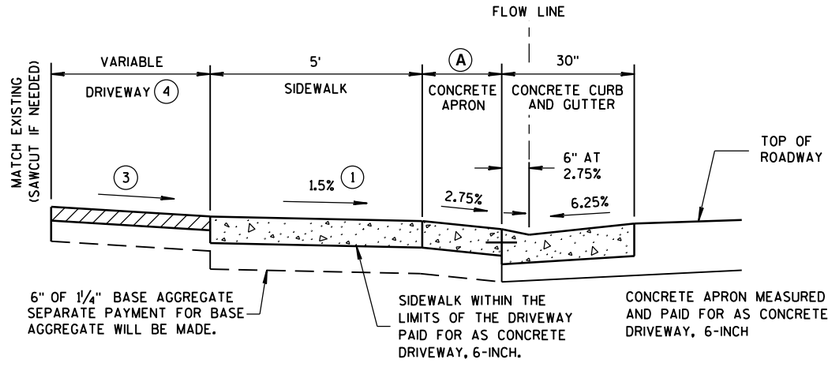


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
2. THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
3. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   - 10.5% UP AWAY FROM SIDEWALK (SAG)
   - 8.5% DOWN AWAY FROM SIDEWALK (CREST)
   - ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
4. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
   - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
   - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)
5. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
6. (W) IS SHOWN ON PLAN AND PROFILE SHEETS.
7. OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.
8. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — /S/ Rodney Taylor
DATE — ROADWAY STANDARDS UNIT SUPERV

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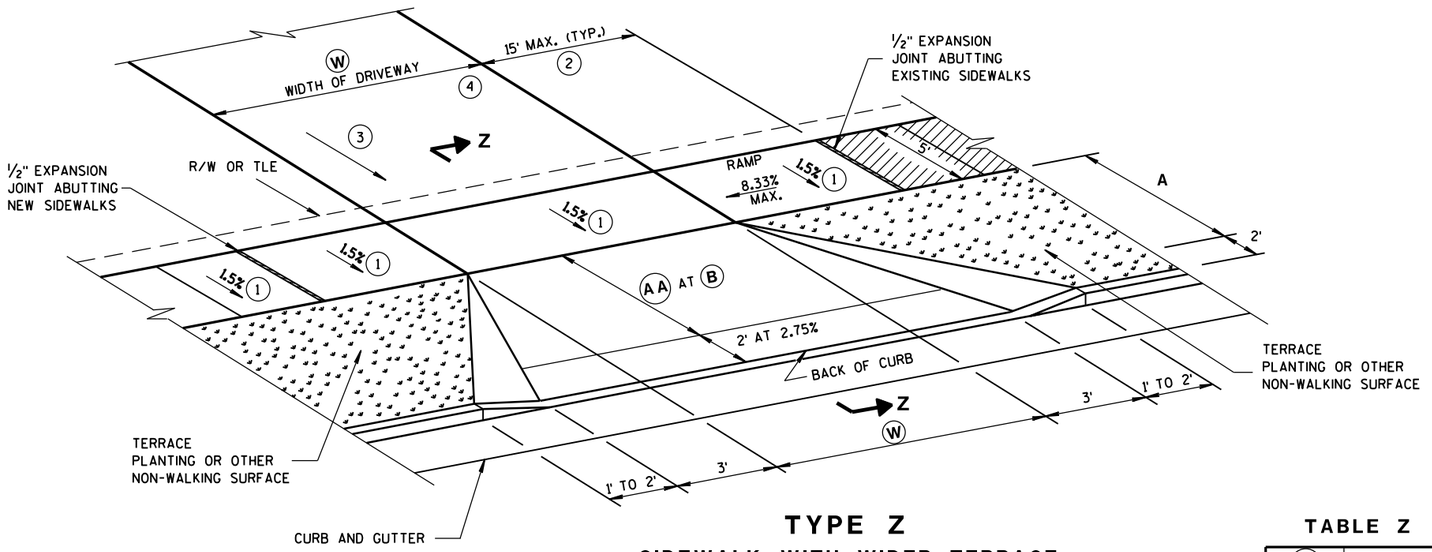
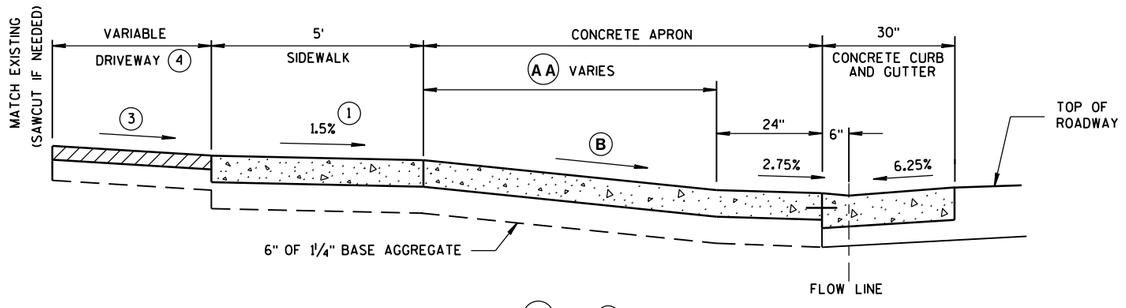


TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) %
4.5'	11.5%
5.5'	9-11.5%
6.5'	8-11.5%
7.5'	7-11.5%
8.5'	6-11.5%
9.5'	5-11.5%



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, 6-INCH

SECTION Z-Z

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

2. THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

3. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   10.5% UP AWAY FROM SIDEWALK (SAG)
   8.5% DOWN AWAY FROM SIDEWALK (CREST)
   ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

4. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
   - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
   - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)

5. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

6. (W) IS SHOWN ON PLAN AND PROFILE SHEETS.

7. OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

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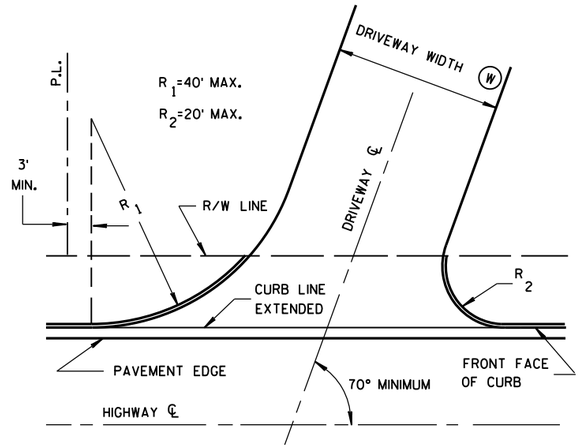
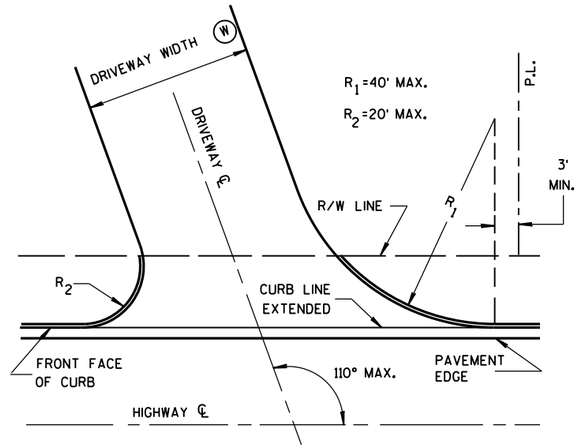
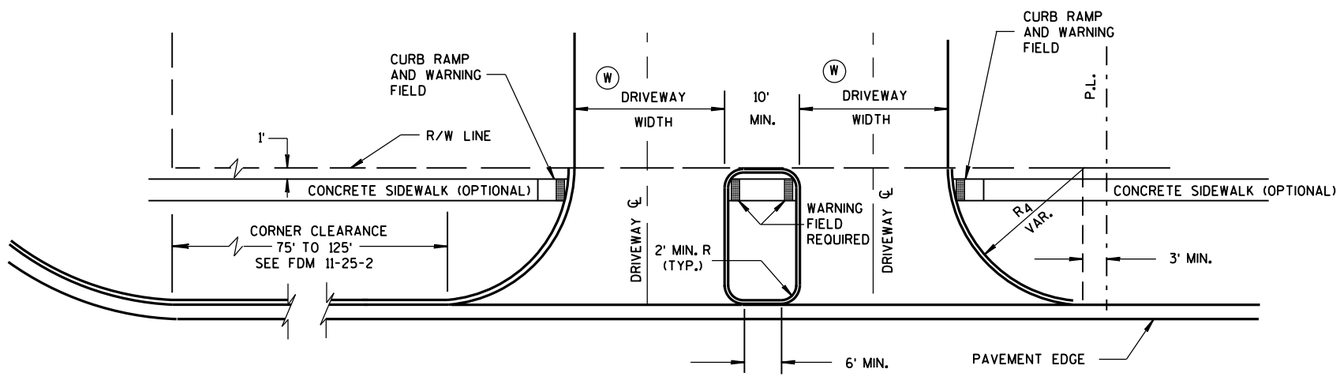
S.D.D. 8 D 19-1





SKEWED DRIVEWAY DETAILS
(COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

Ⓦ DRIVEWAY WIDTHS:

COMMERCIAL - 35' MAX., 16' MIN.

RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

DRIVEWAYS WITH CURB & GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
FHWA

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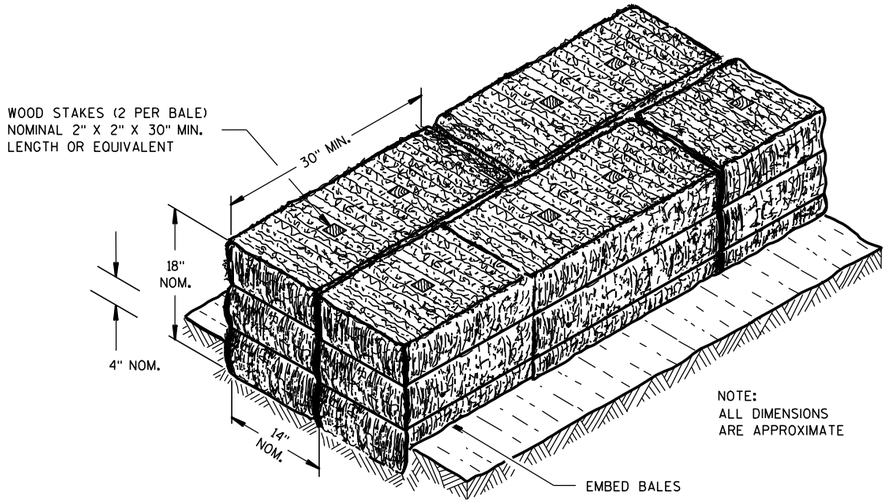
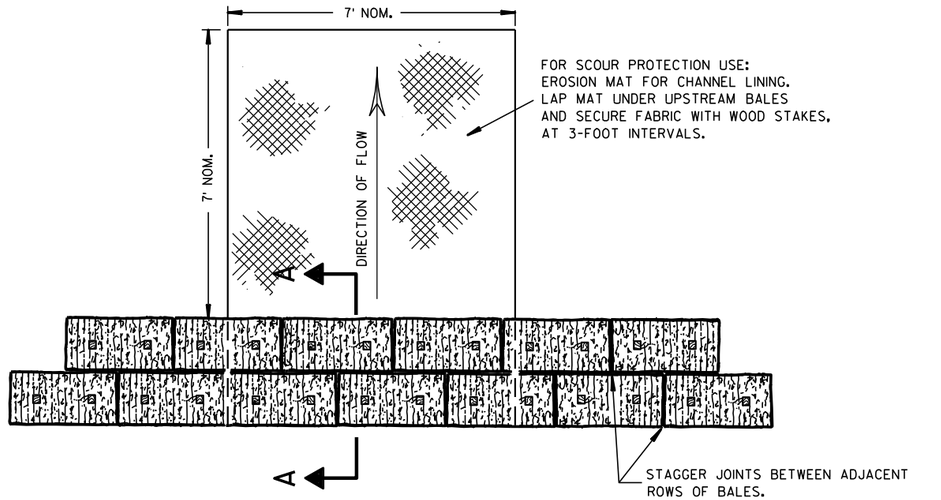
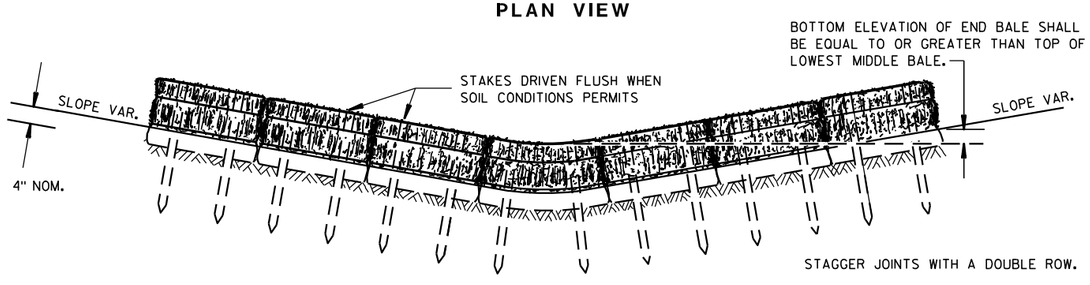
S.D.D. 8 D 20-1



SECTION A-A



PLAN VIEW



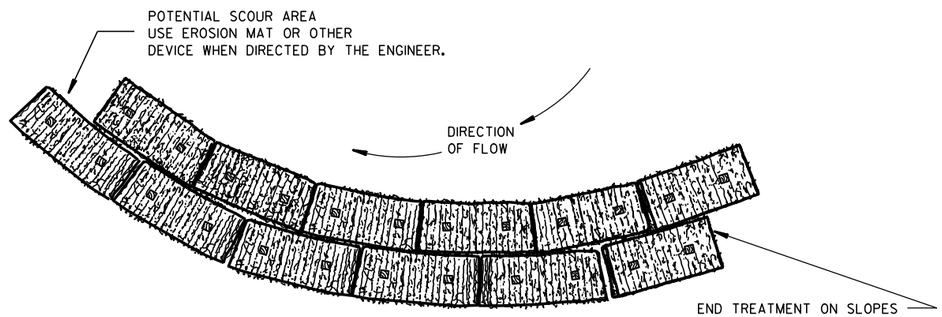
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

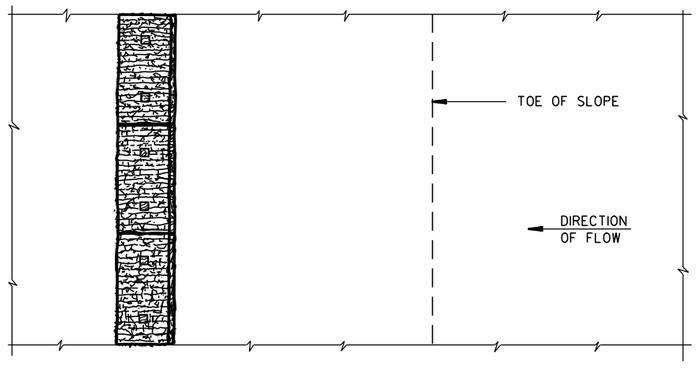
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

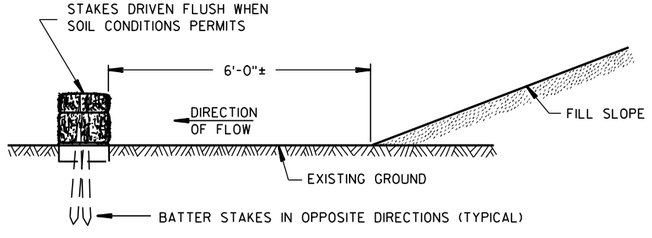


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 8-3

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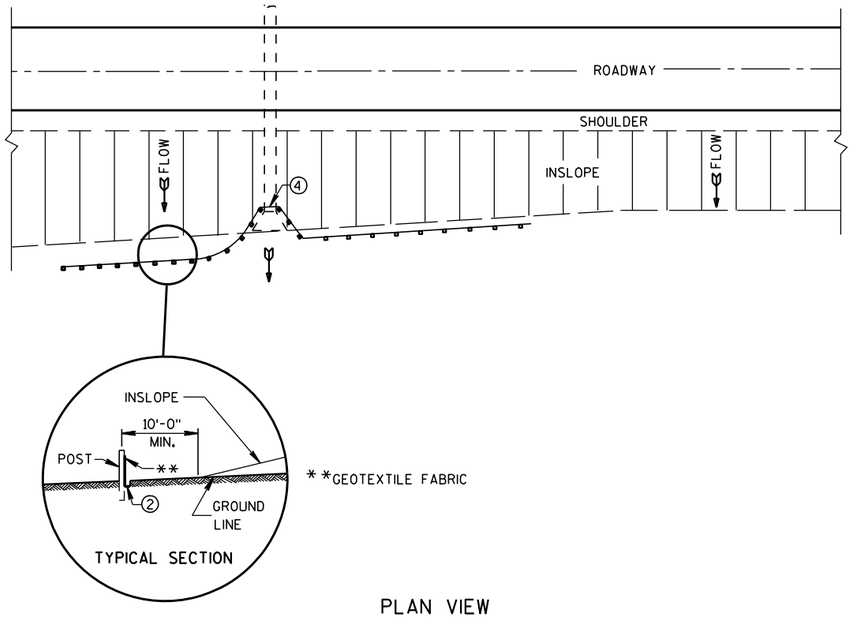
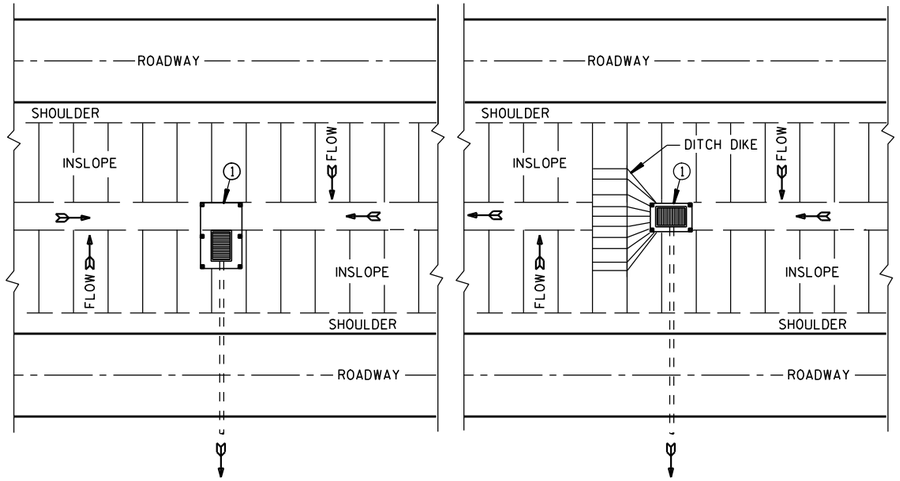


PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



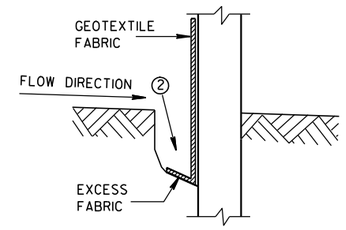
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

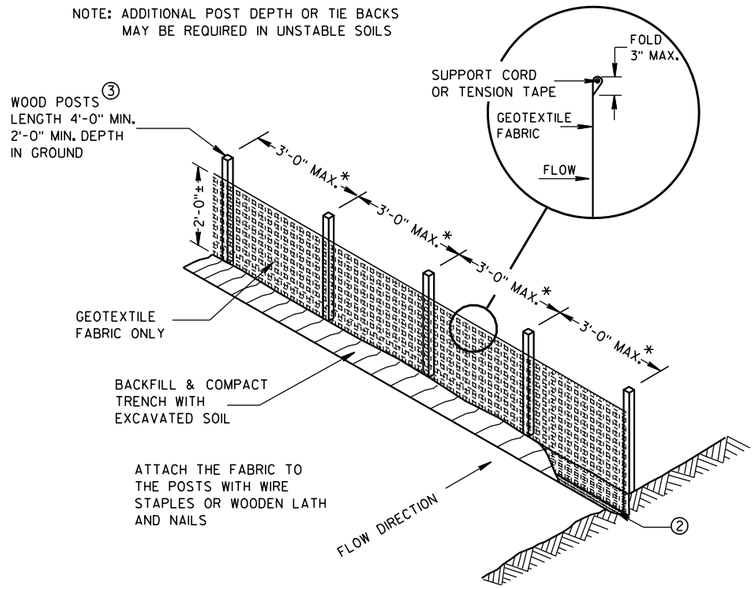
GENERAL NOTES

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

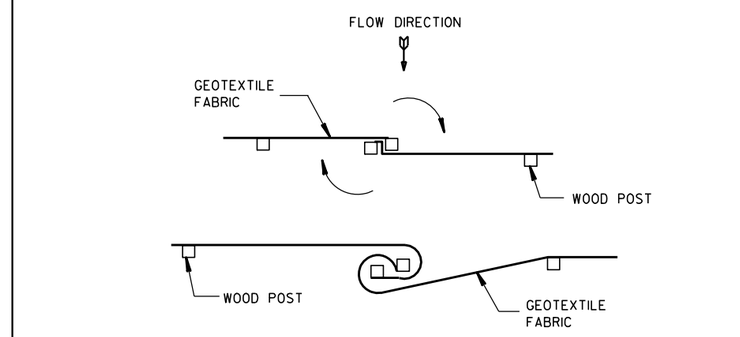
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



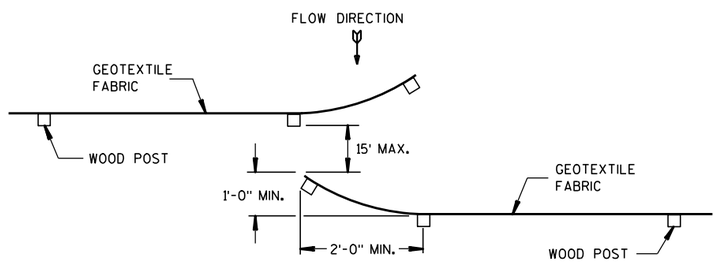
TRENCH DETAIL



SILT FENCE

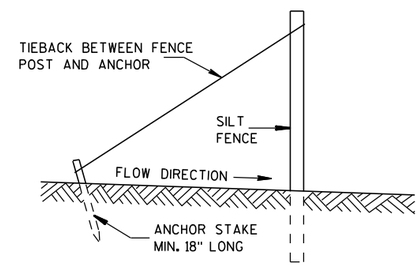


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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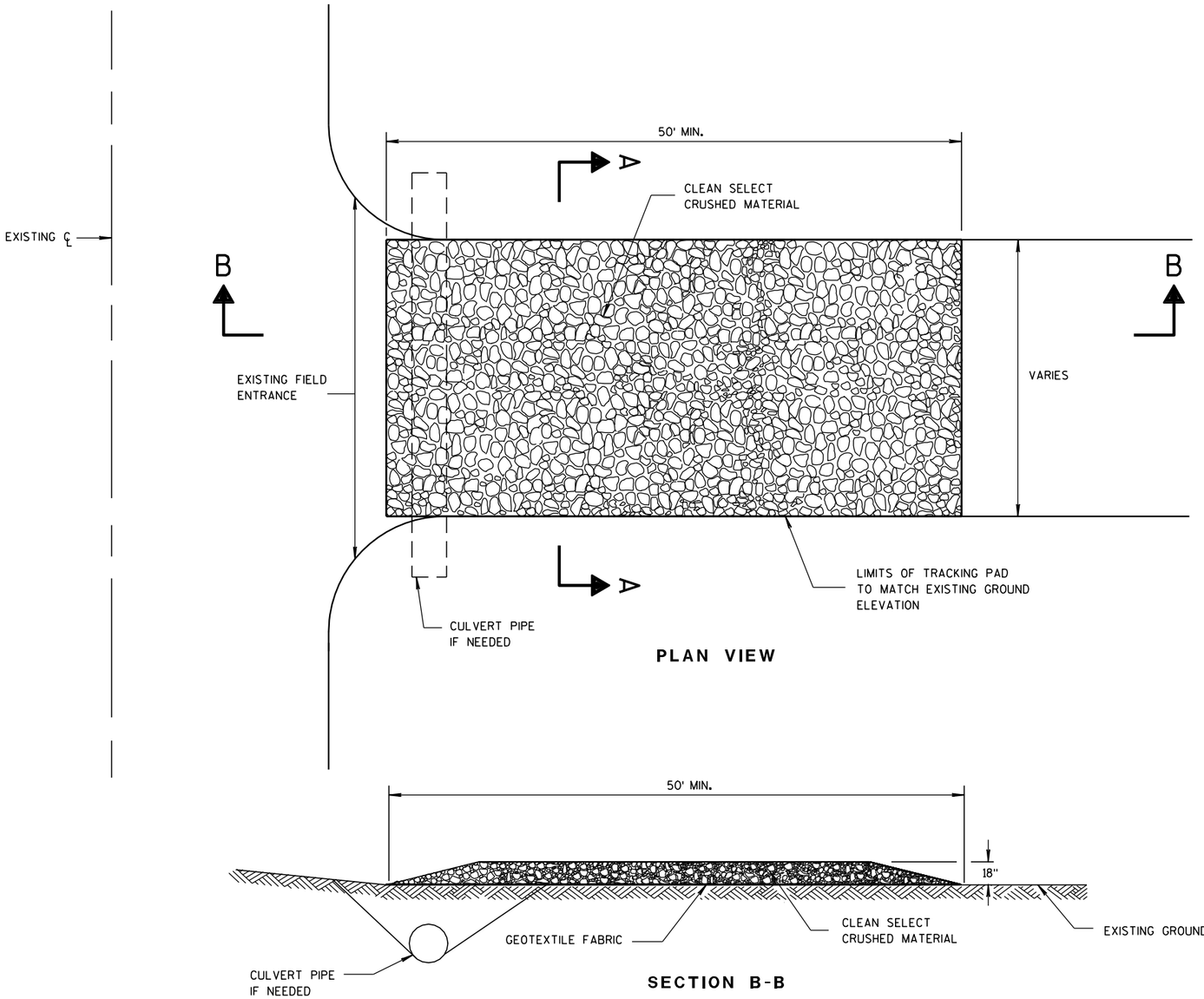
S.D.D. 8 E 9-6



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

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

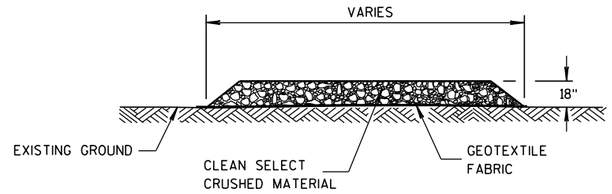
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A-A

TRACKING PAD

6

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TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

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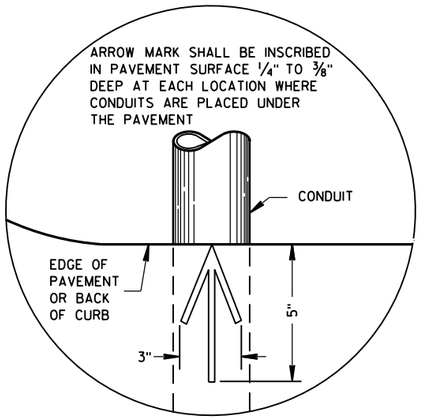
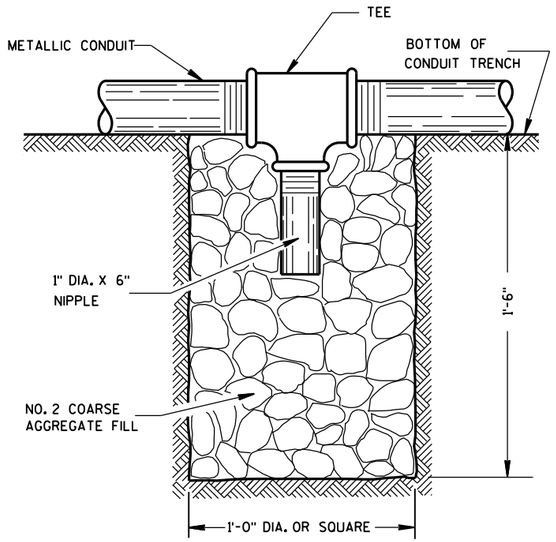
S.D.D. 8 E 14-1



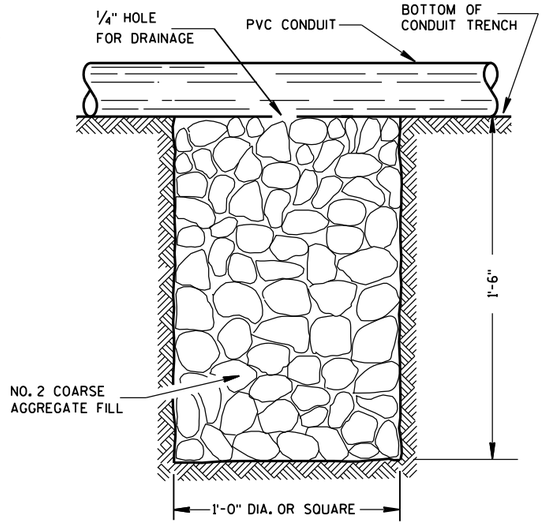
PLAN VIEW

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.

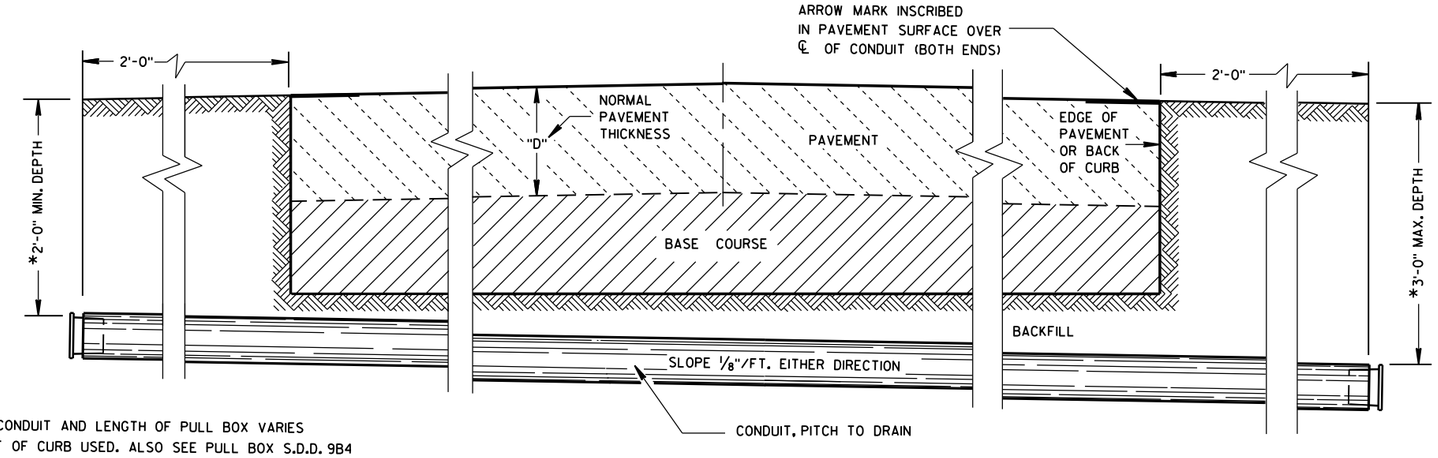
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

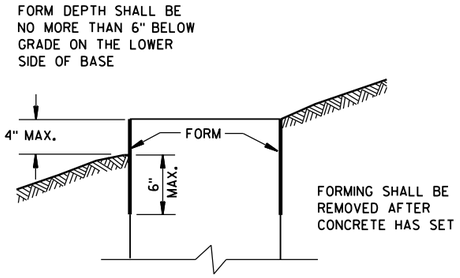
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 2-9



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

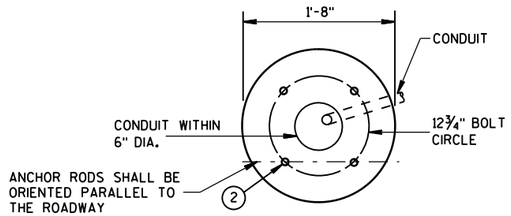
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

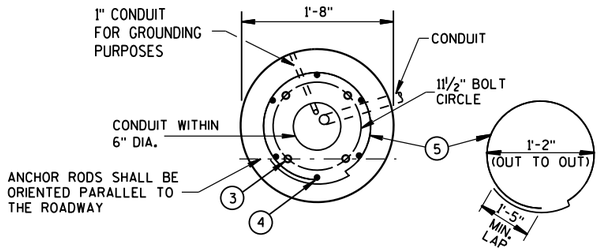
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

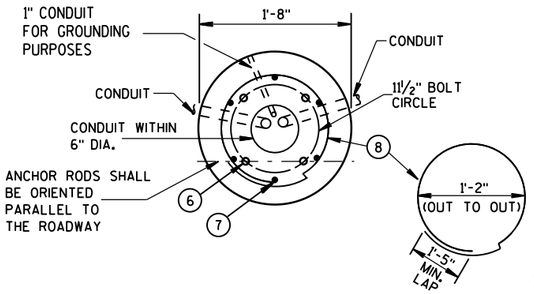
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

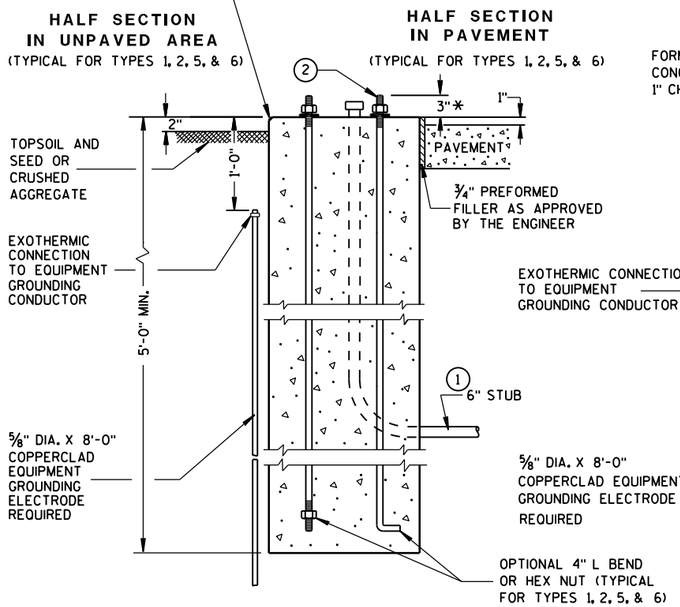
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.





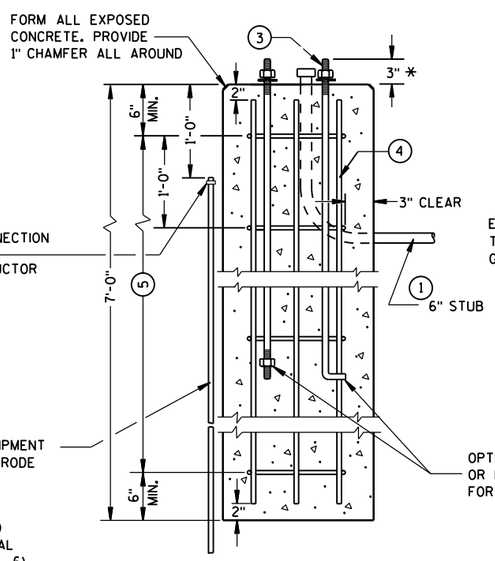


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

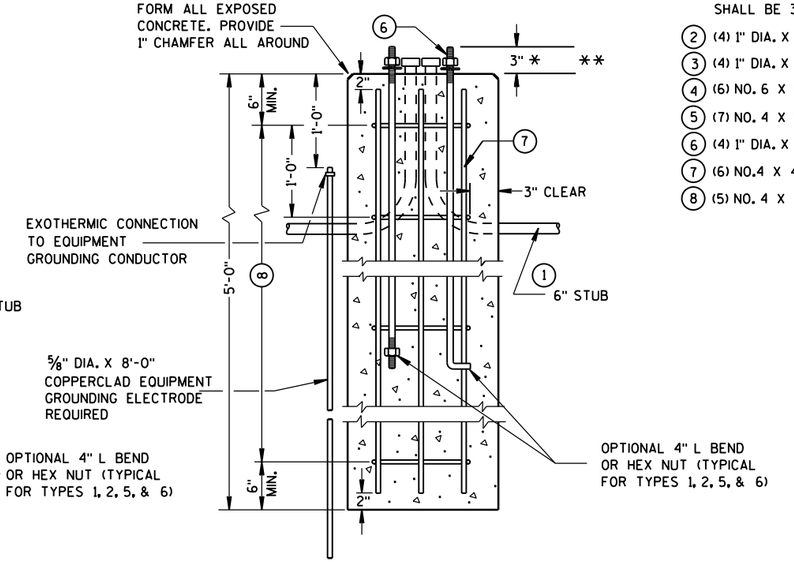


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)

TYPE 2



TYPE 5 & 6



CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 9 C 2-7

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

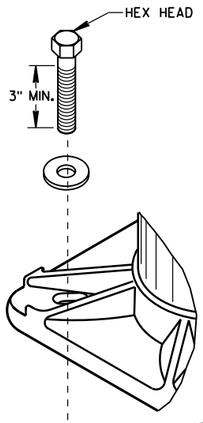
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

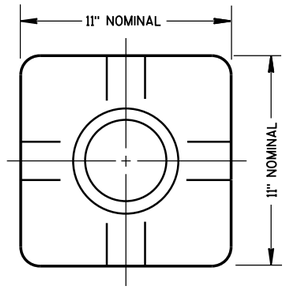
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

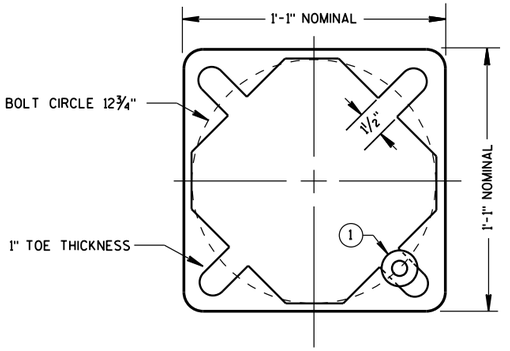
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

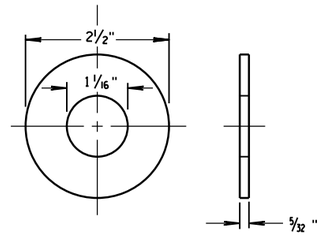




TOP VIEW
(PEDESTAL BASE)

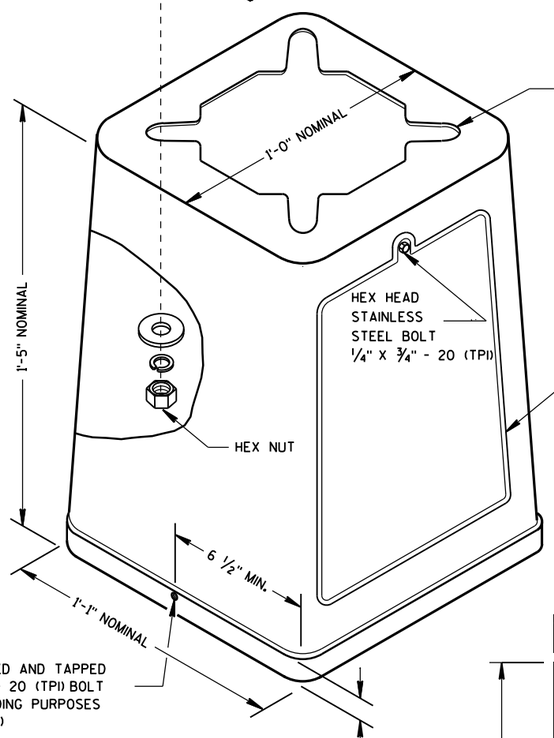


BOTTOM VIEW
(PEDESTAL BASE)

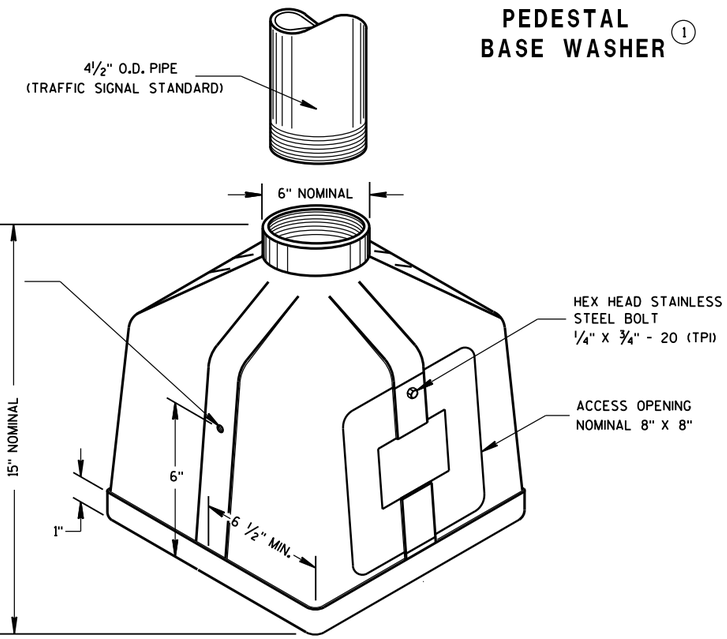


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

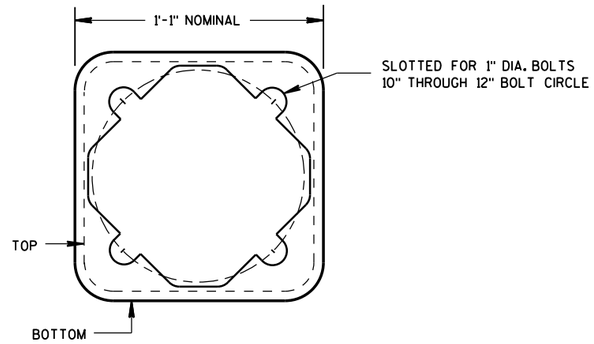


ISOMETRIC VIEW

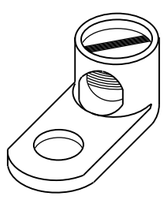


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

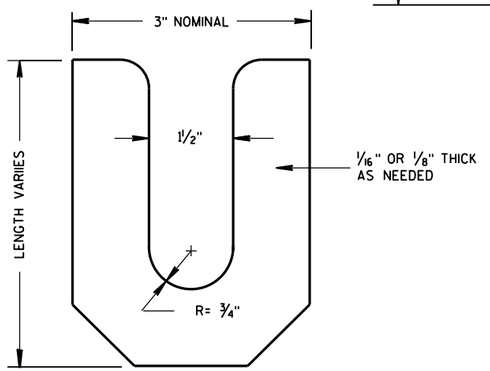


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

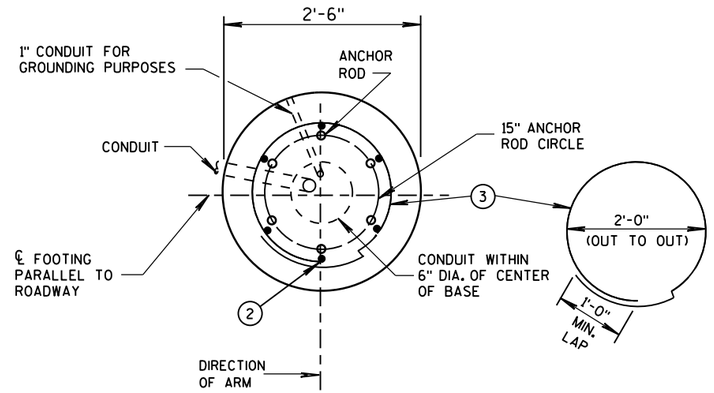
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

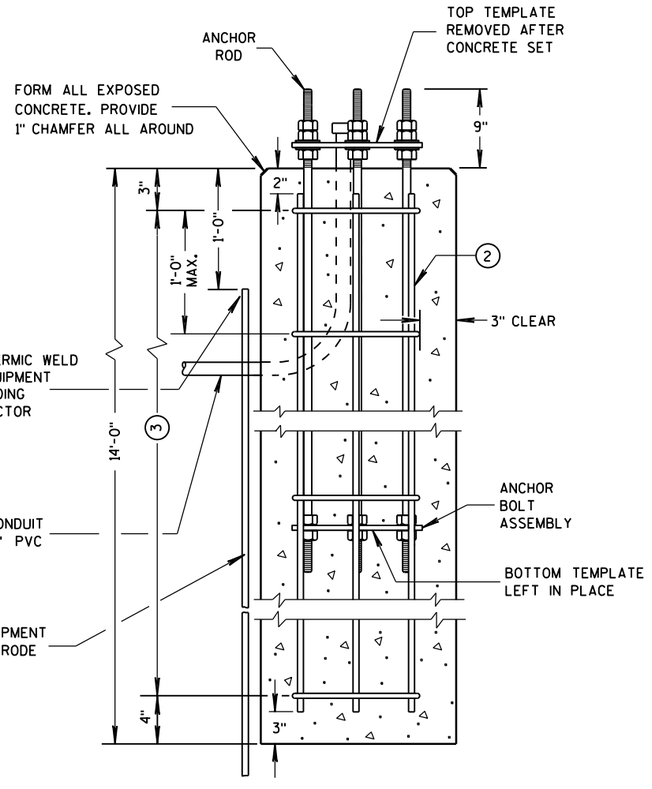
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

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

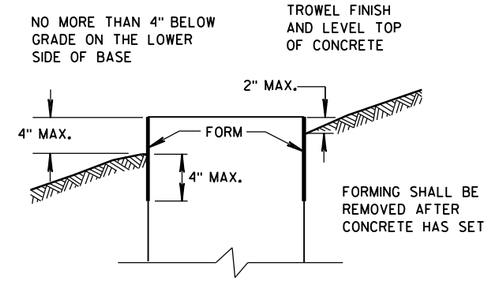
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



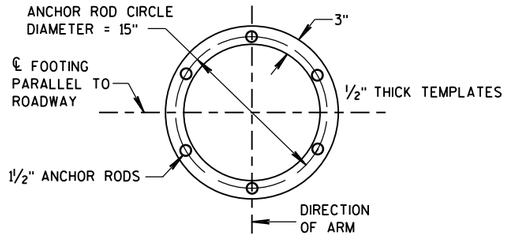


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

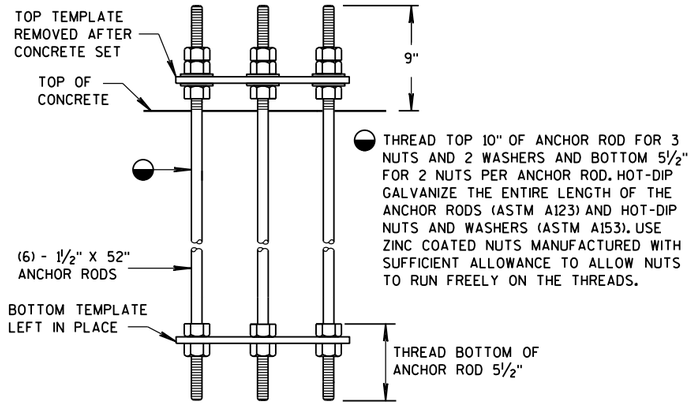
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

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

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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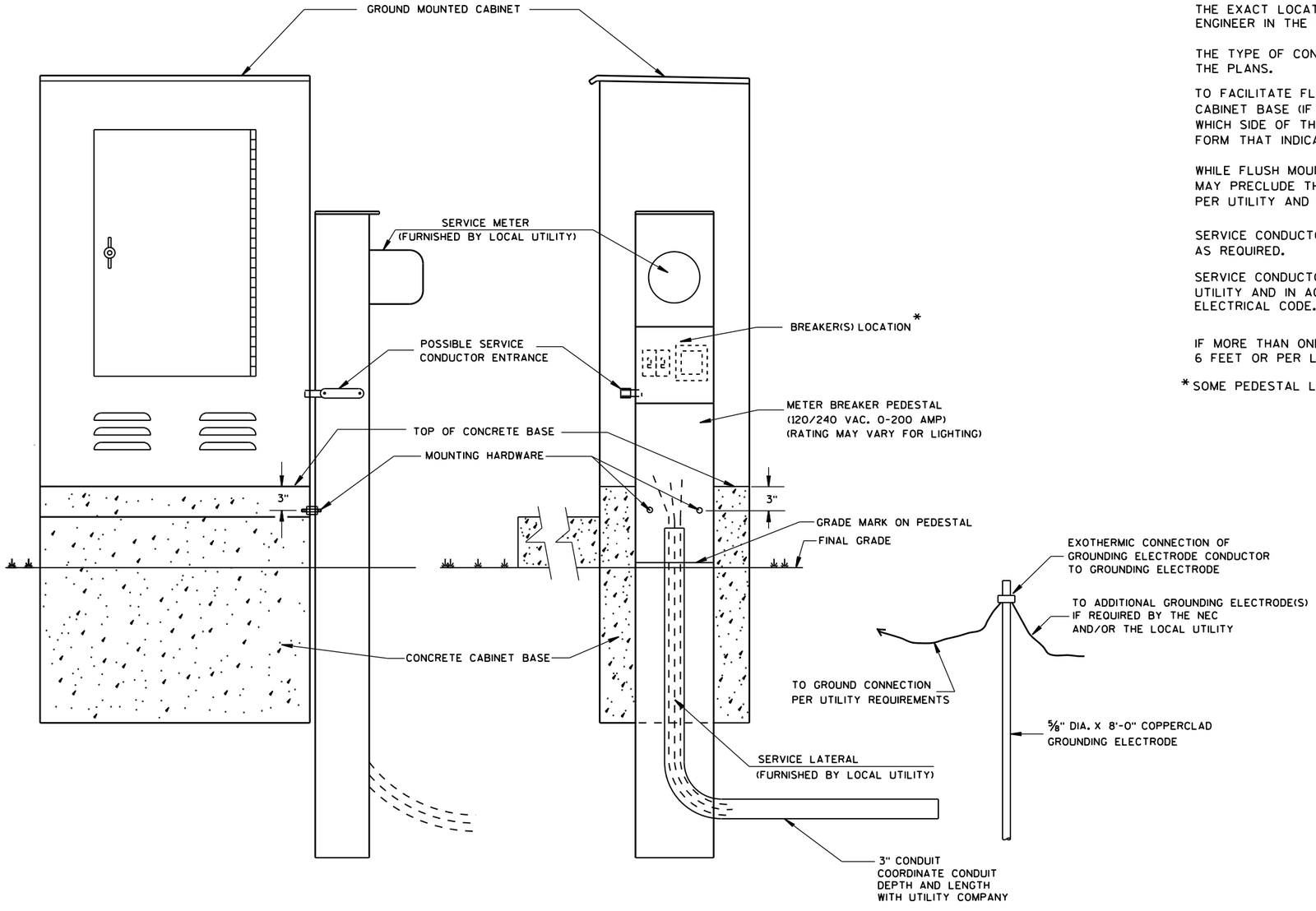

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

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

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

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

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

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

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

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

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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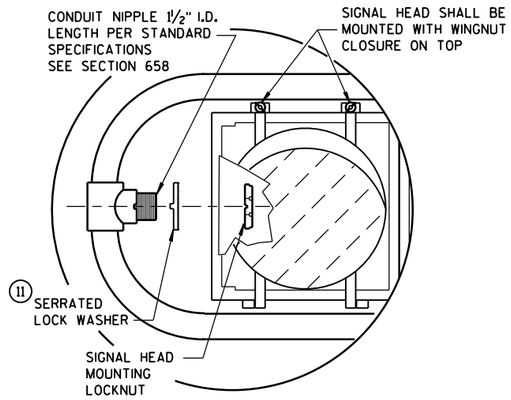
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

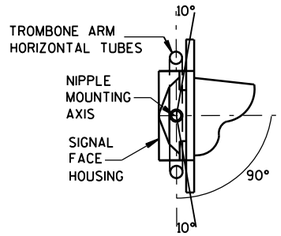
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA



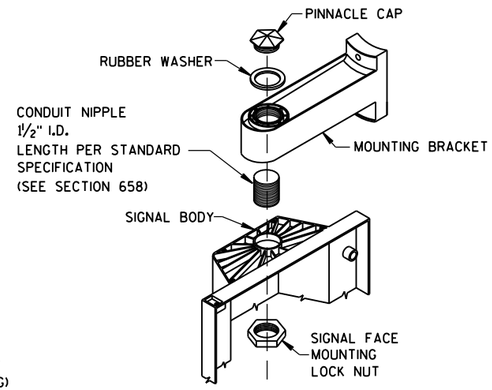
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

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

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

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652 SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG - 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

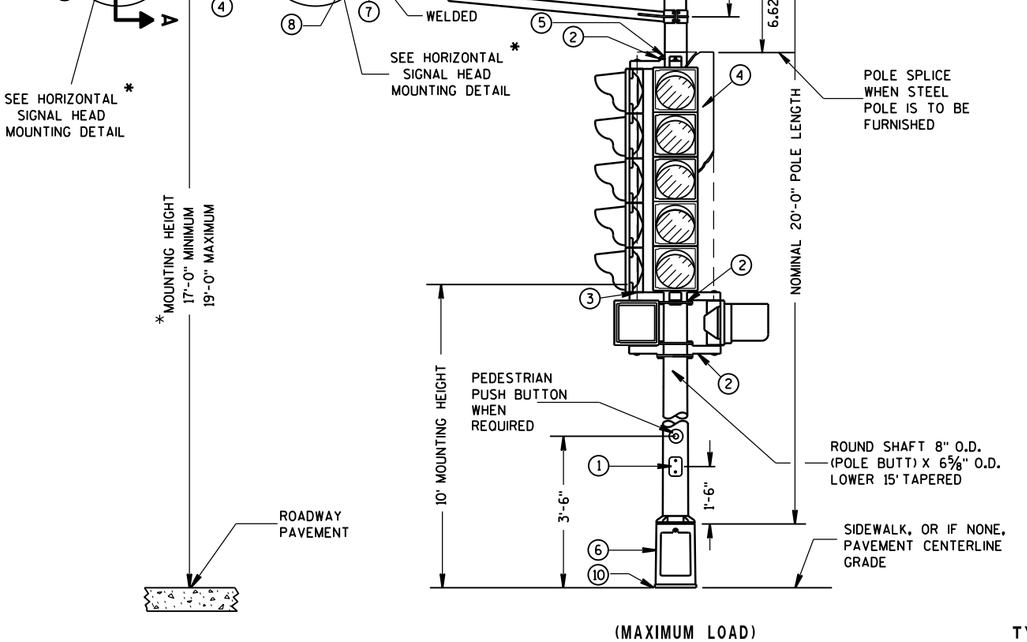
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

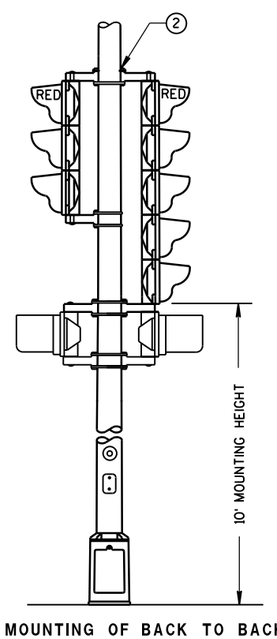
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

FOR MANUFACTURERS USE ONLY

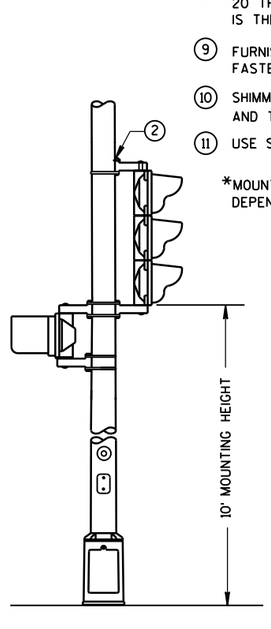
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



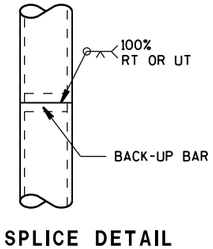
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



POLE SPLICE DETAIL

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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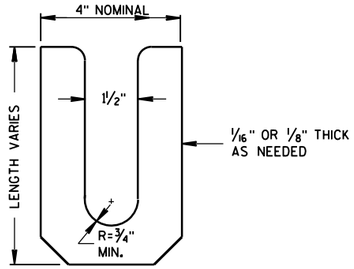
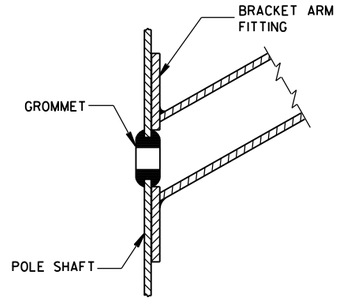
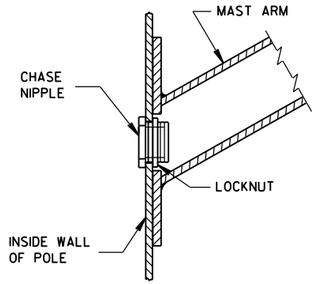


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

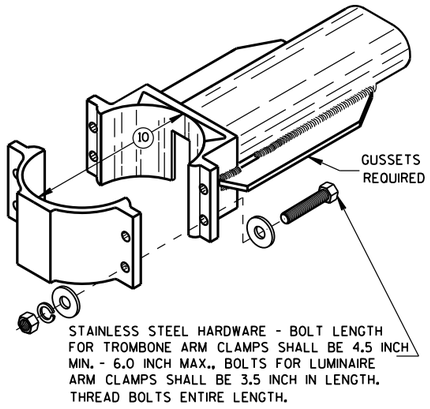
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

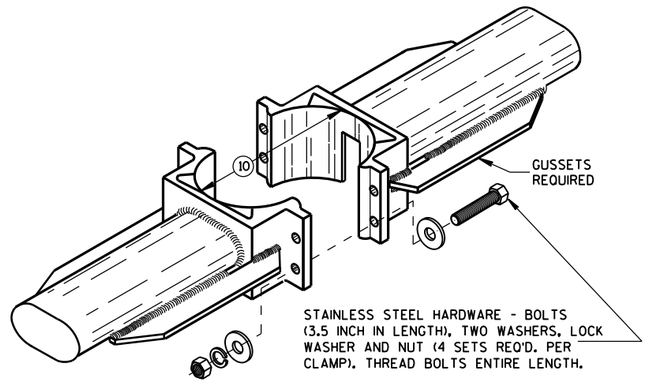
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

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

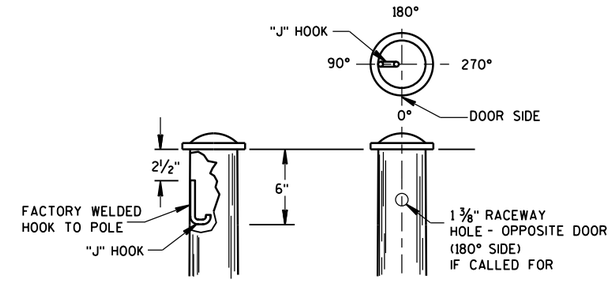
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



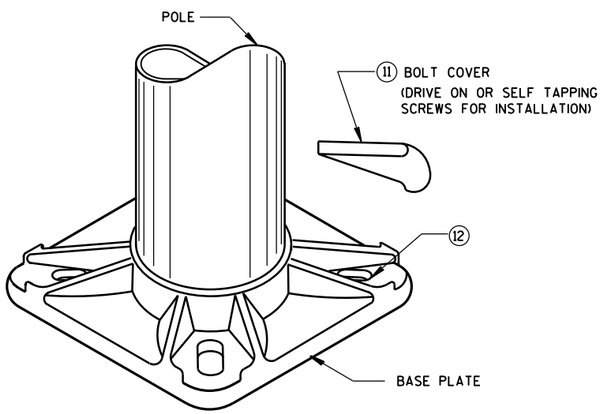
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



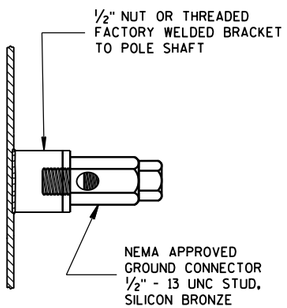
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

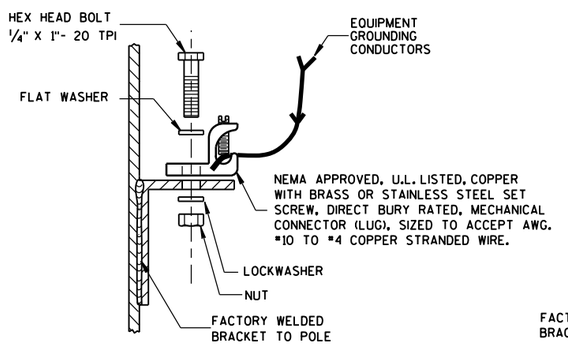


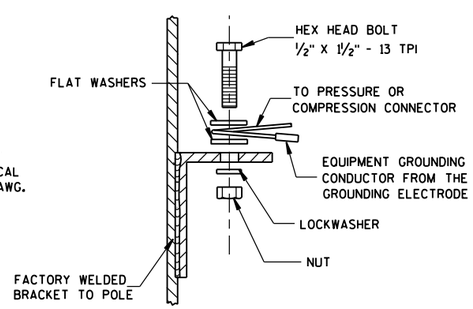
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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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.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

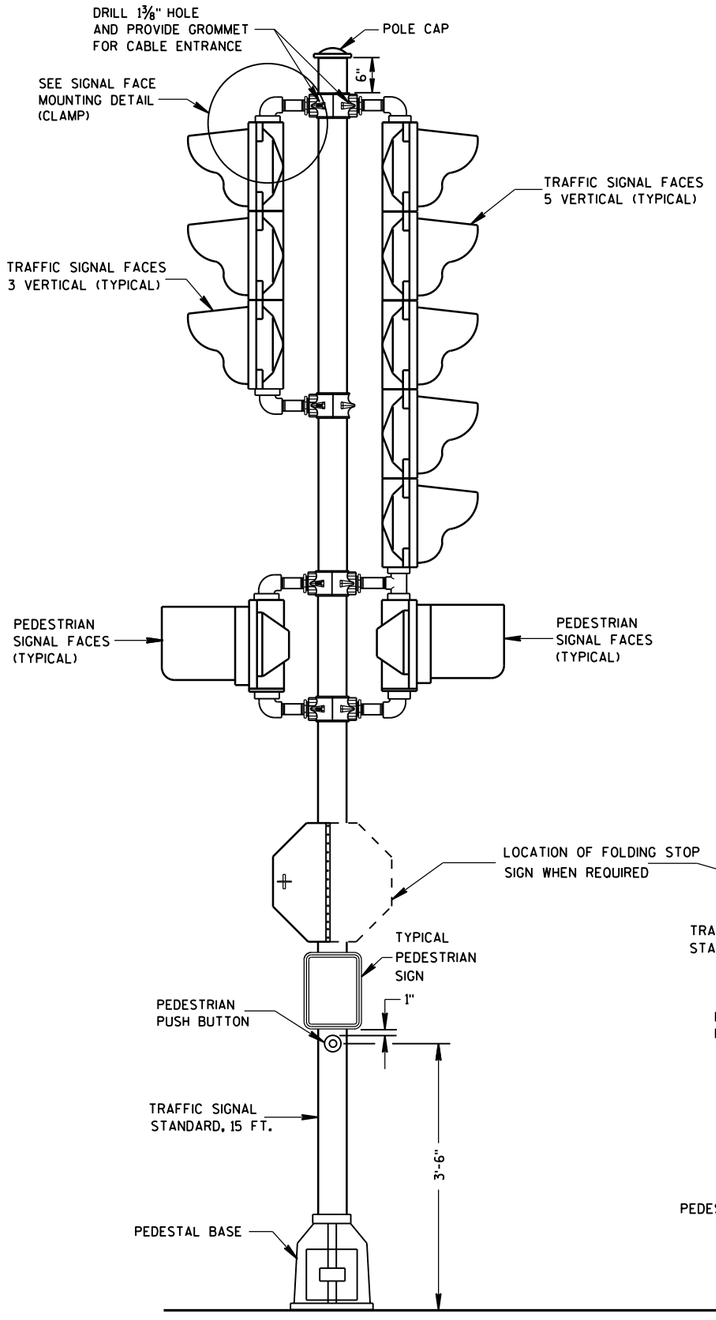
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

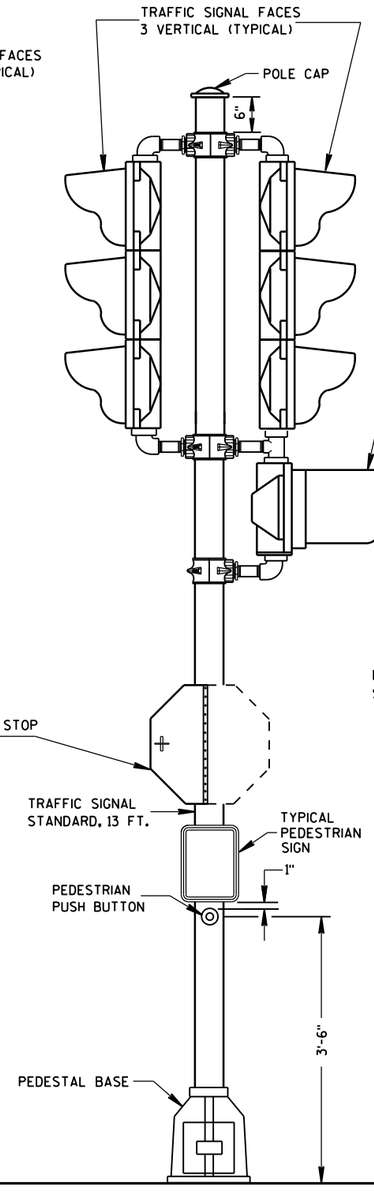
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

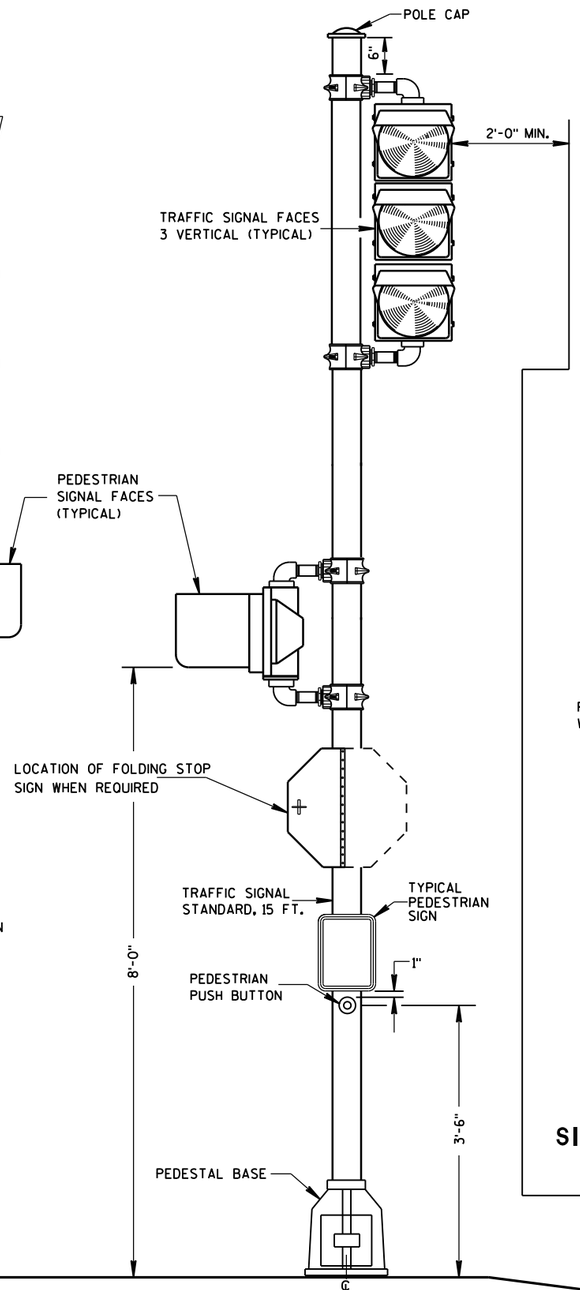
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



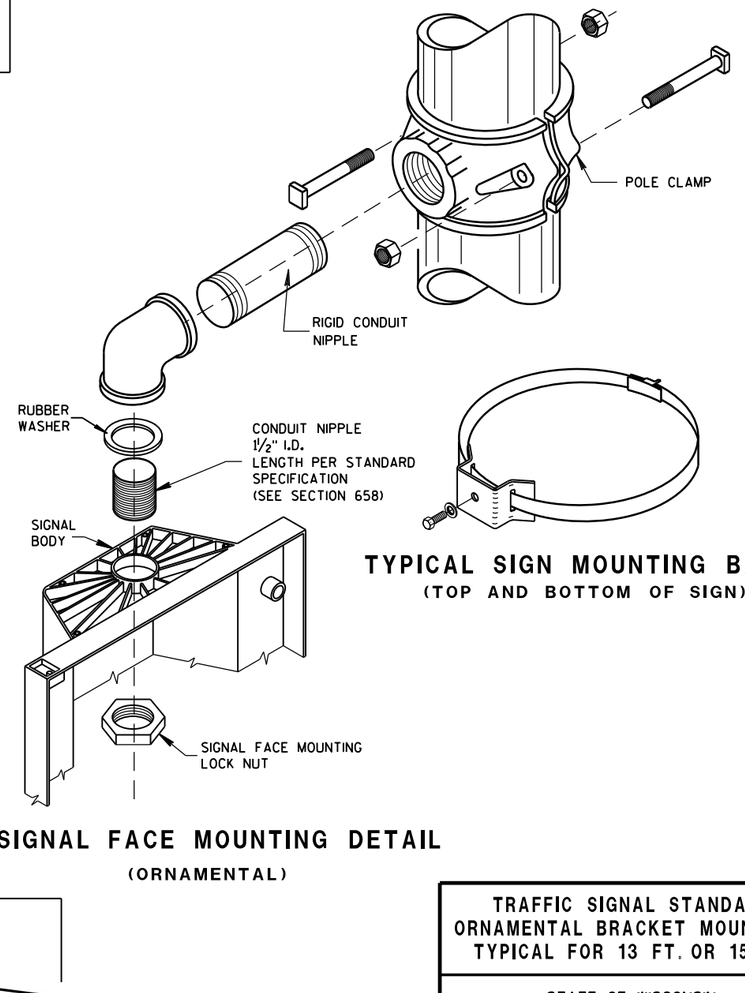
TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)



SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
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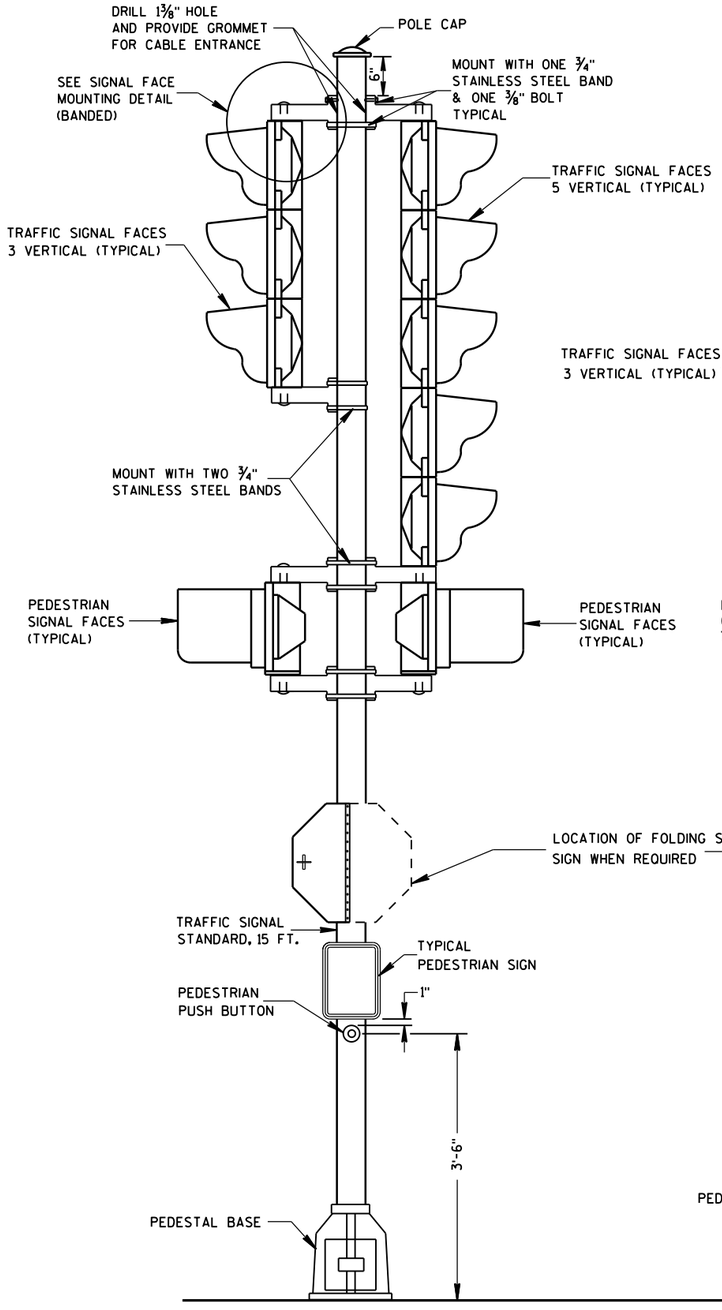
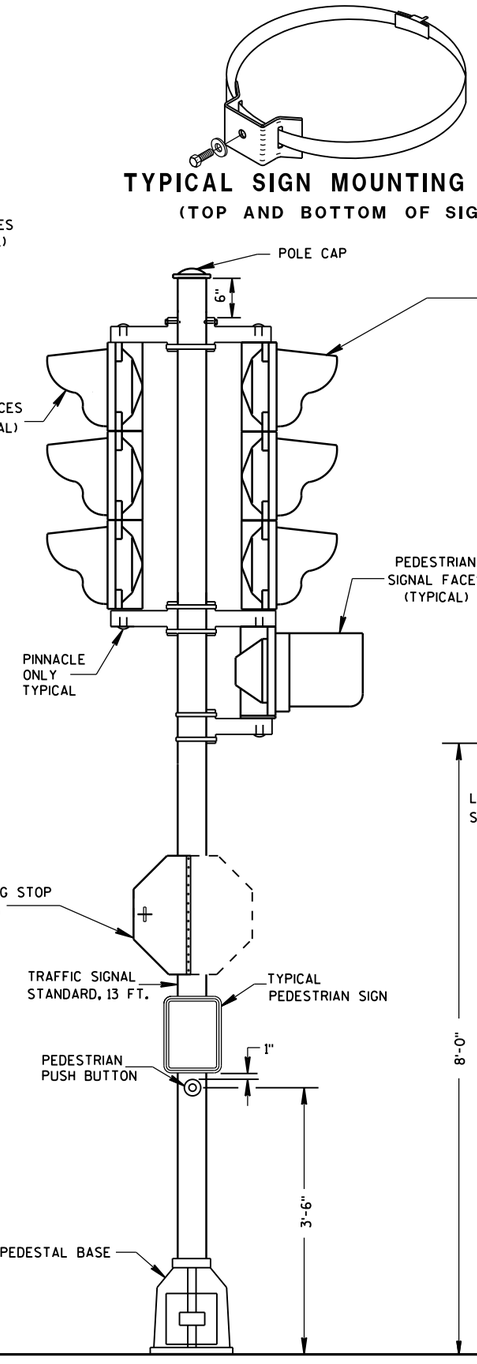
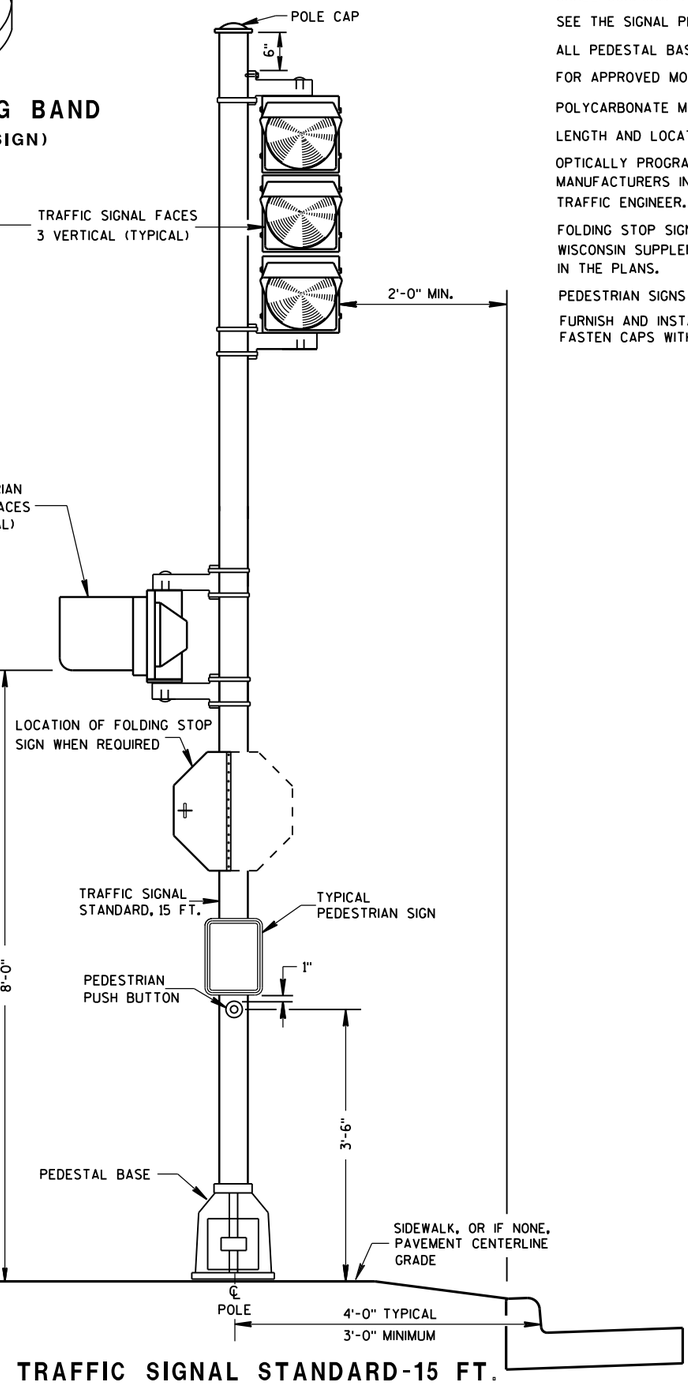


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

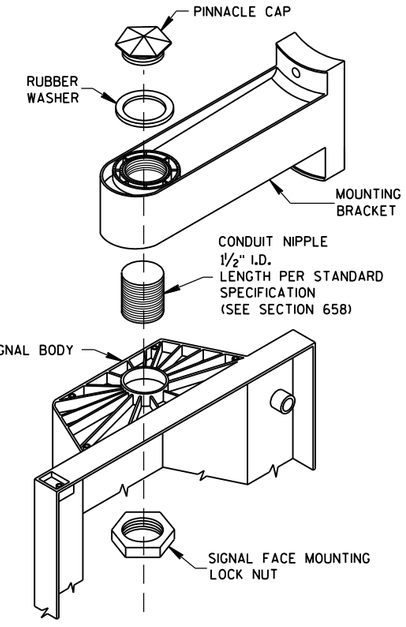
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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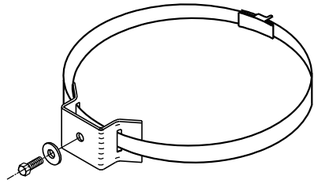
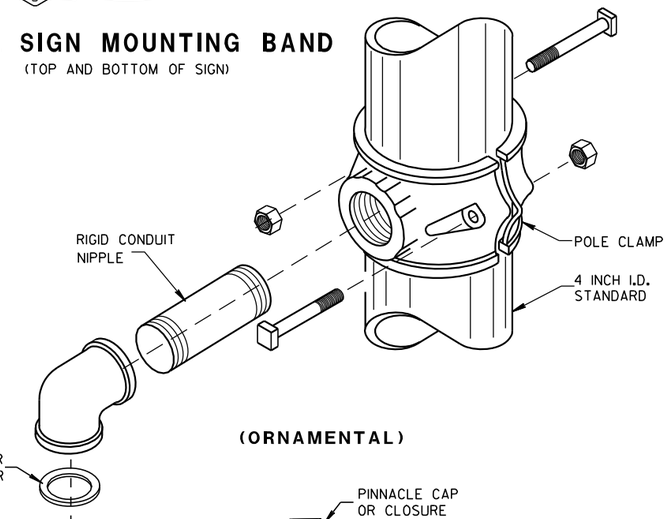
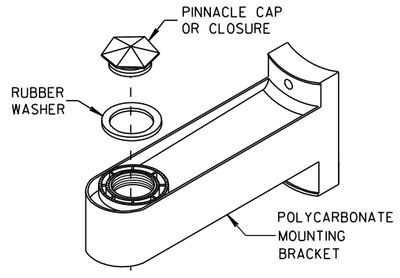


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



(ORNAMENTAL)



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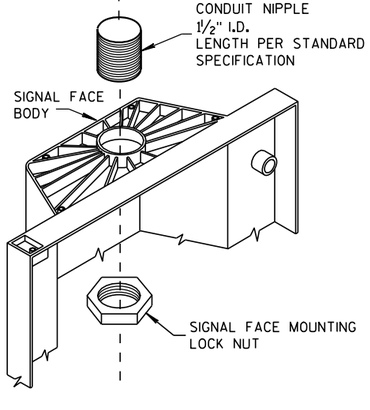
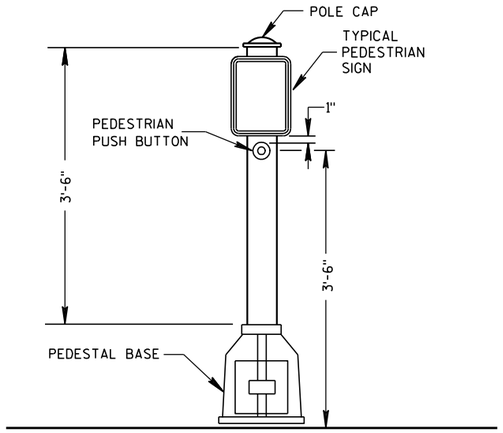
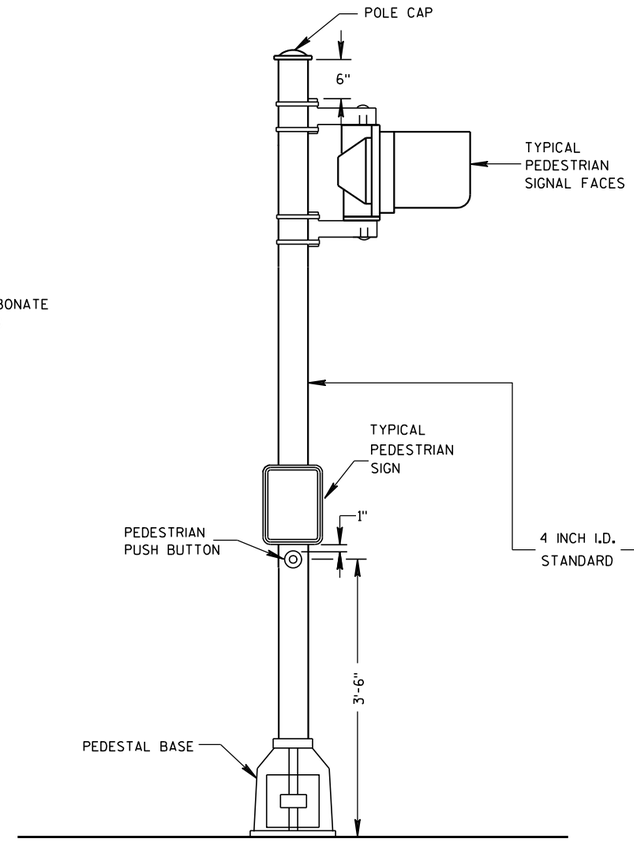


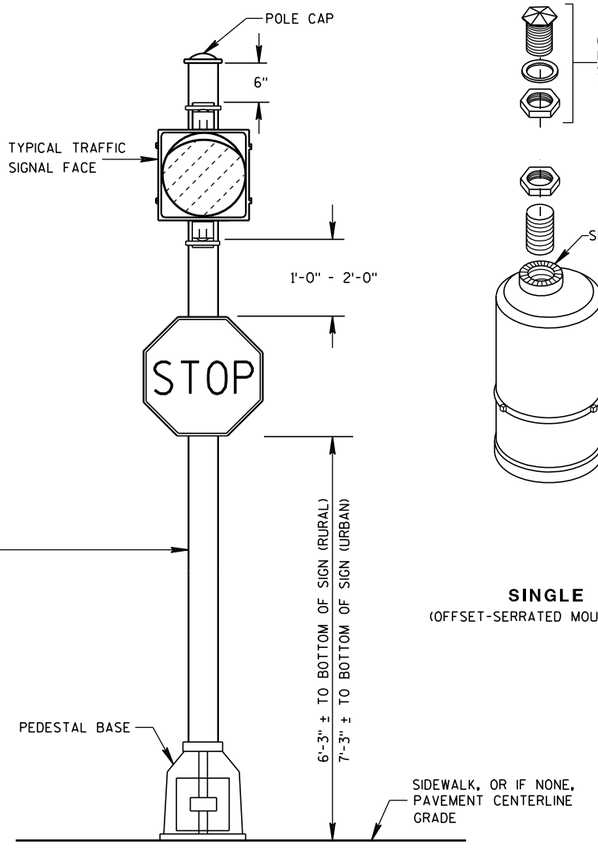
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

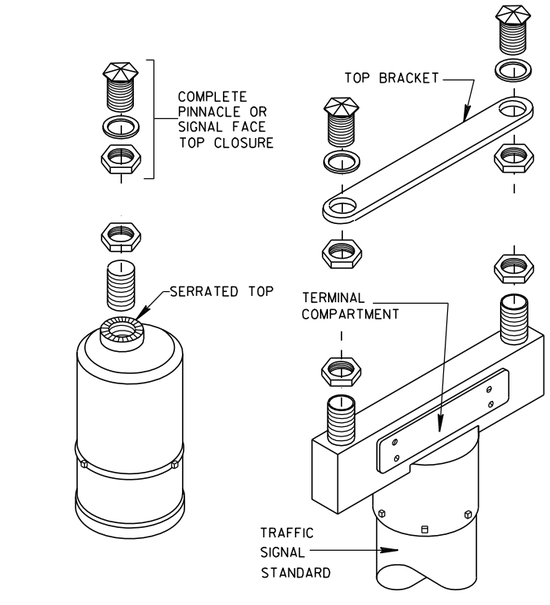
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 215

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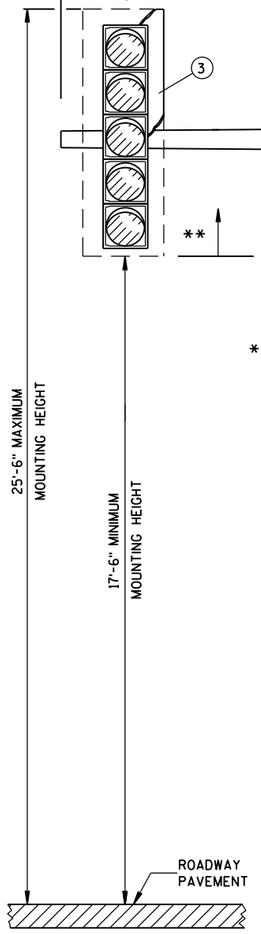
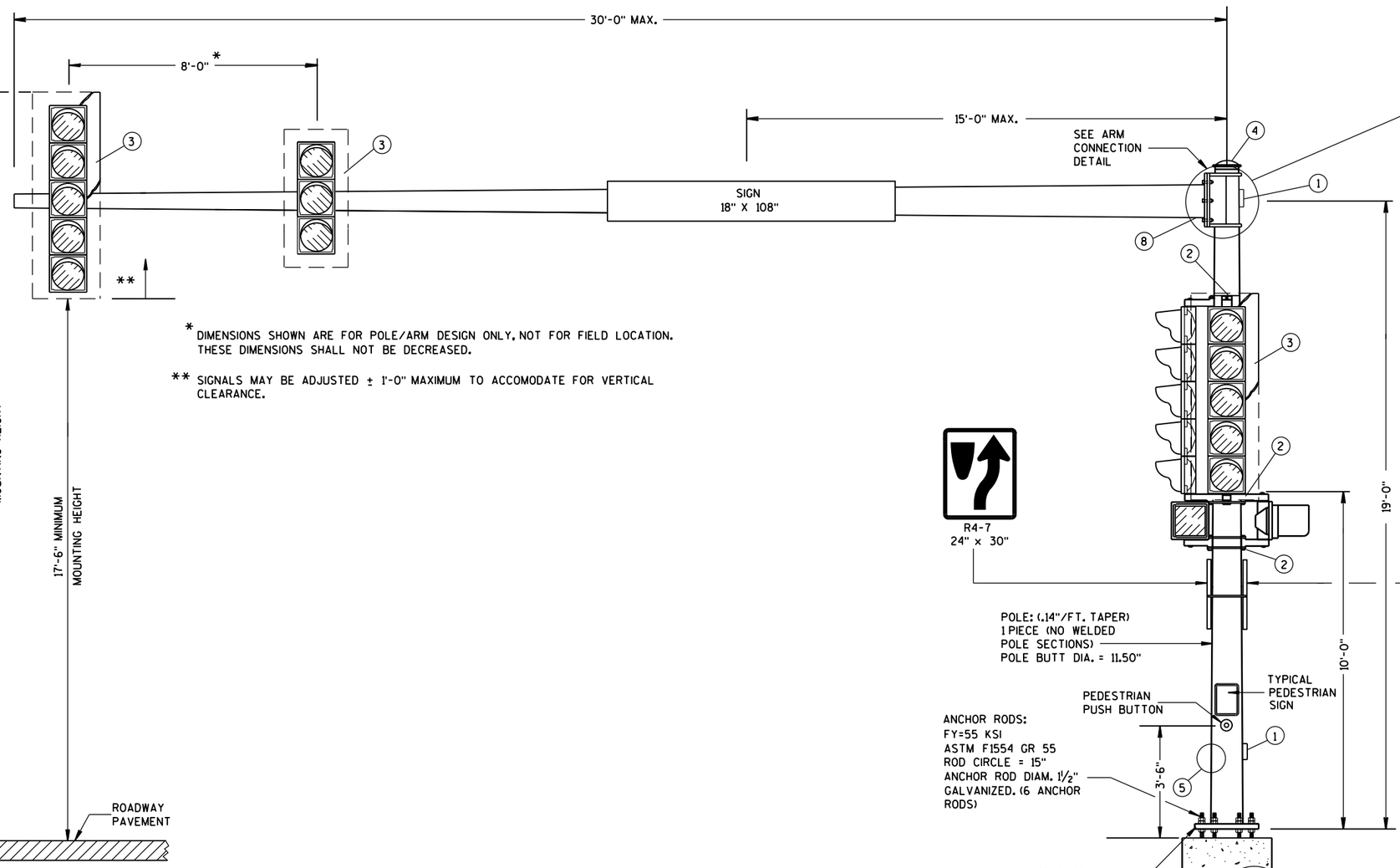
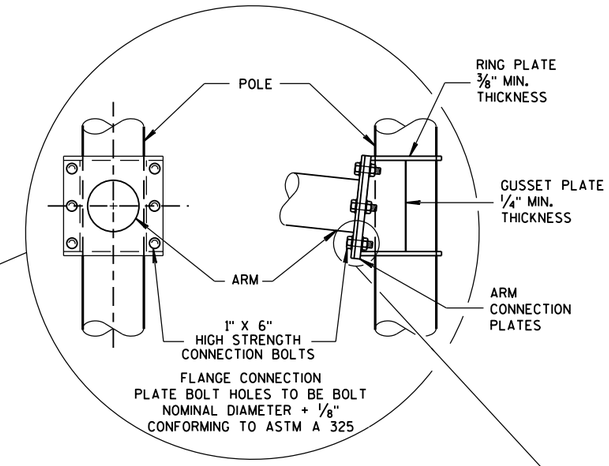


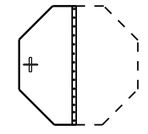


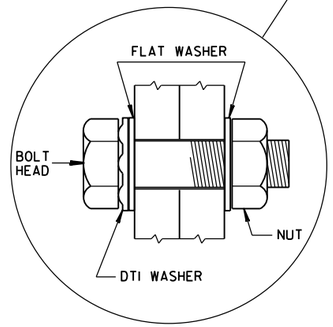
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

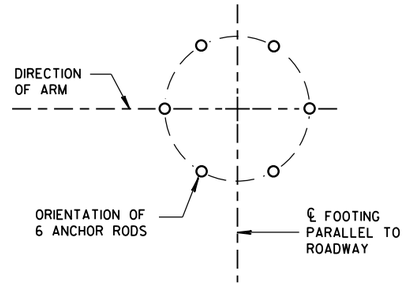


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

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

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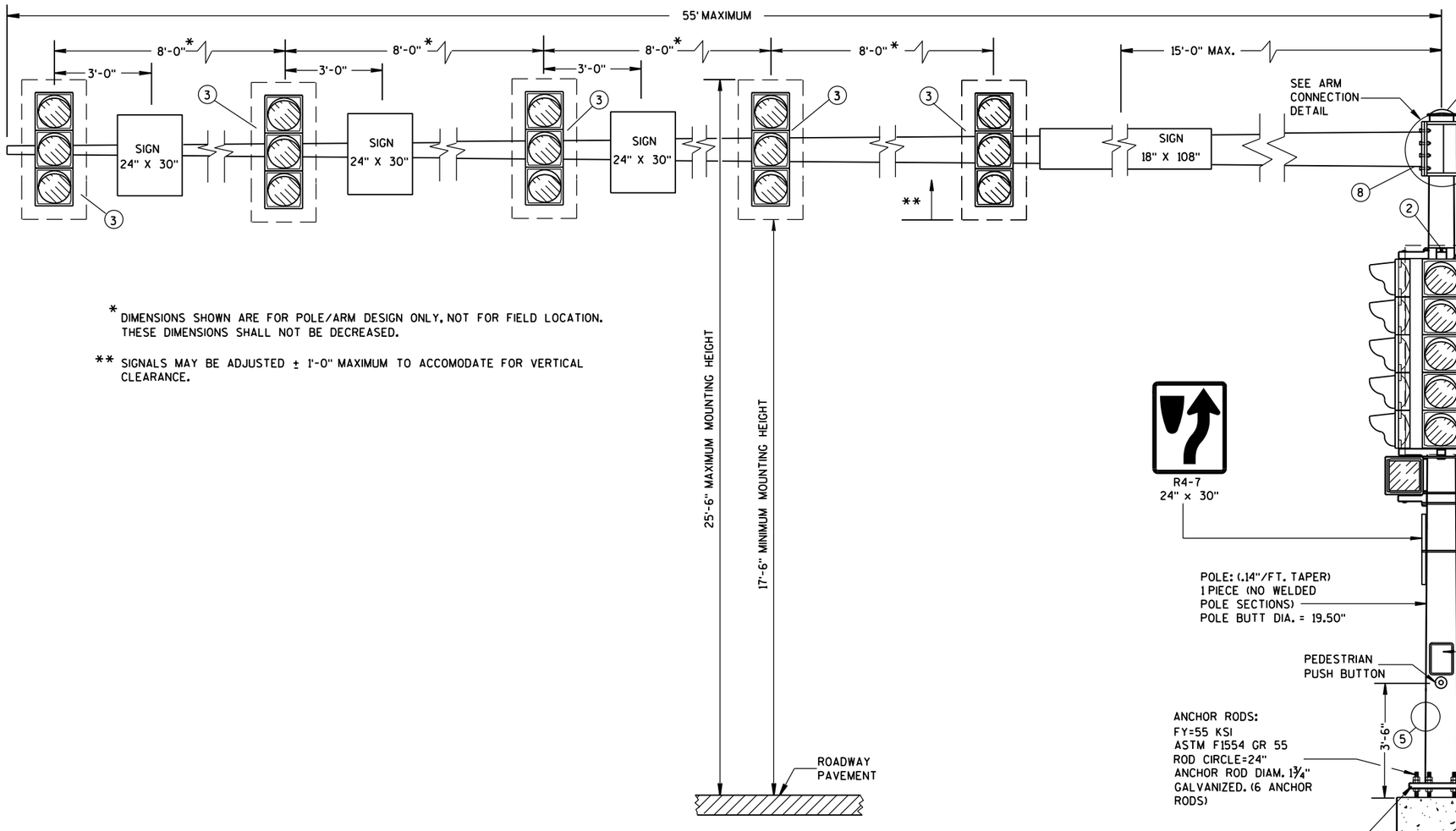
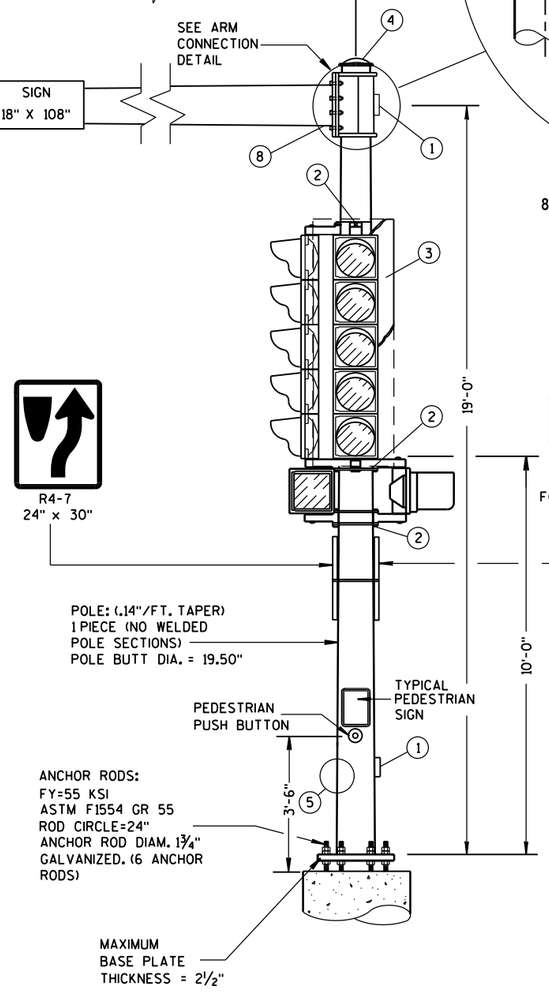
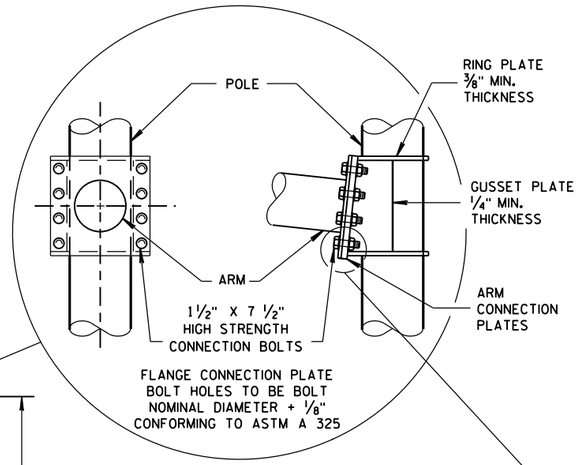


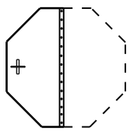
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

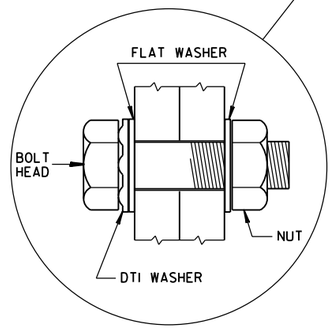
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



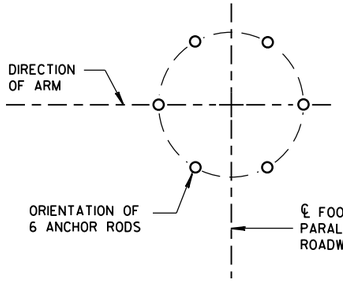


8 BOLT ARM CONNECTION DETAIL





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
May, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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

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.

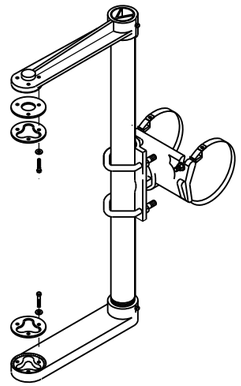
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

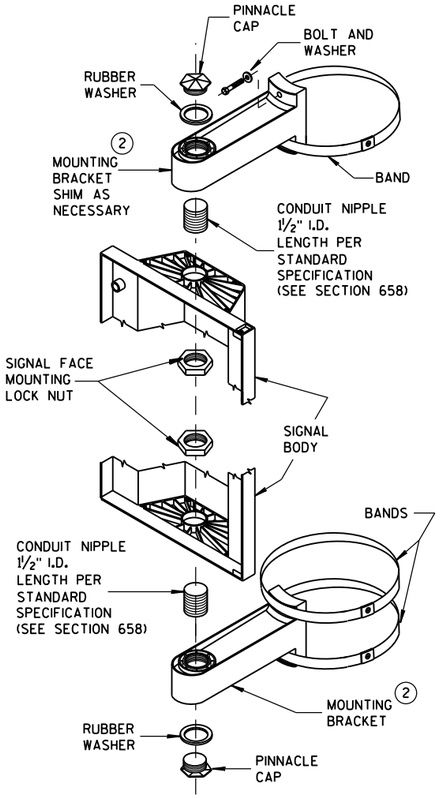
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

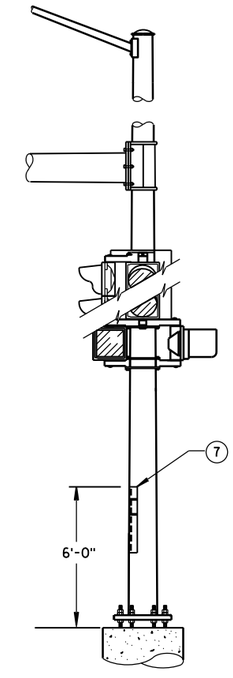


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

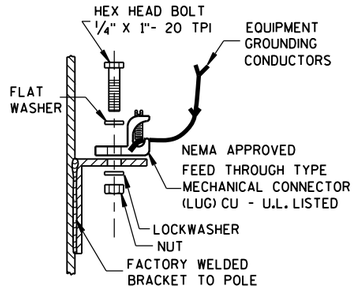
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

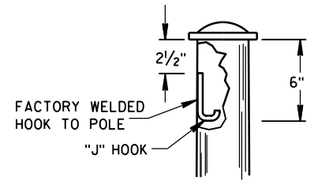


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



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

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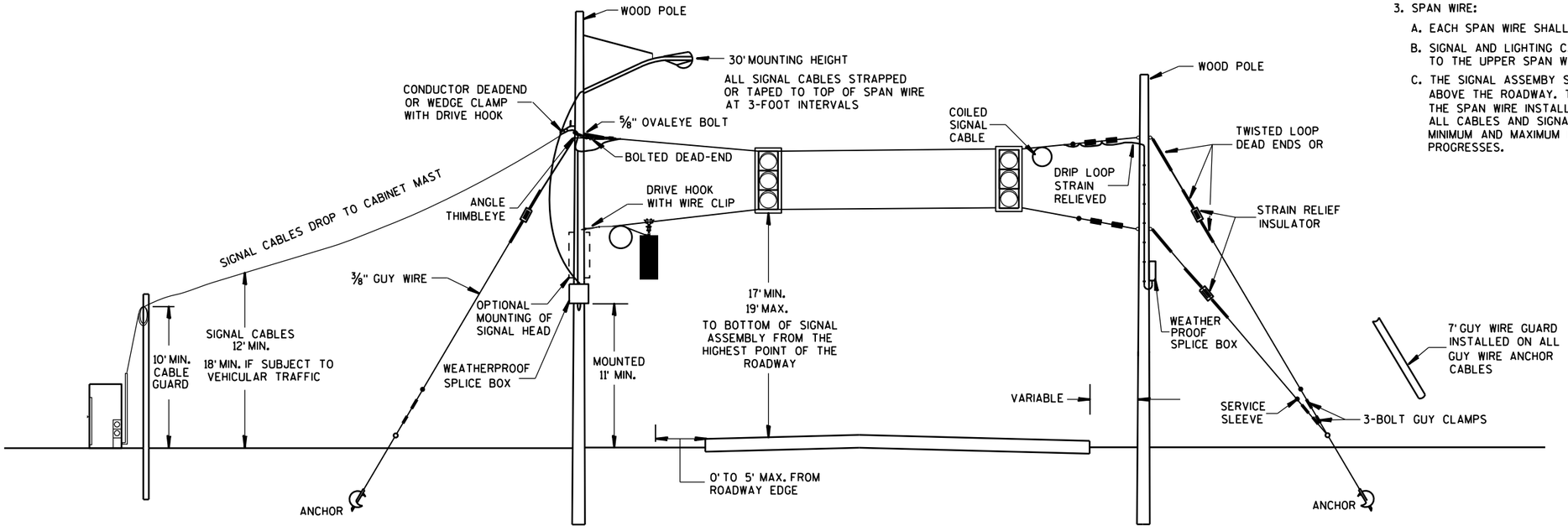
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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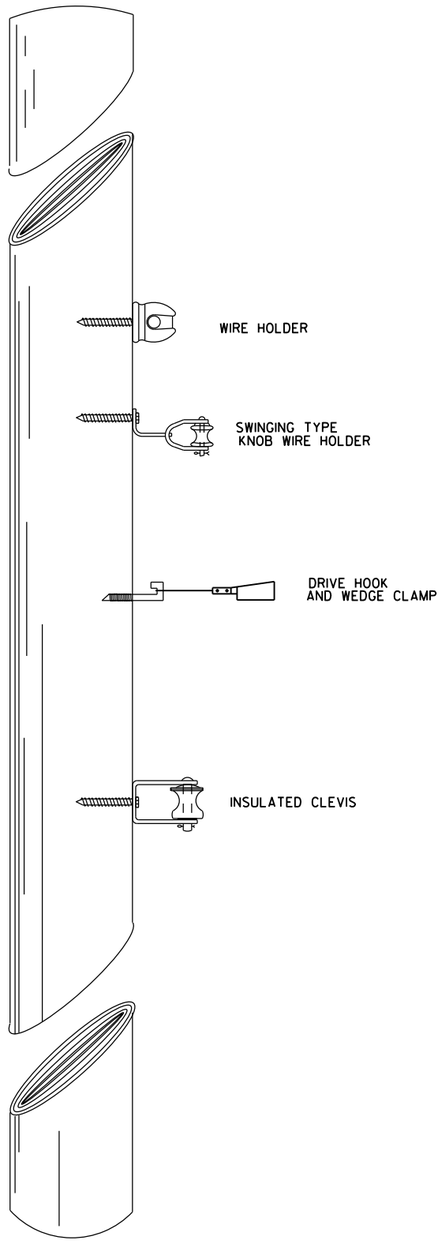
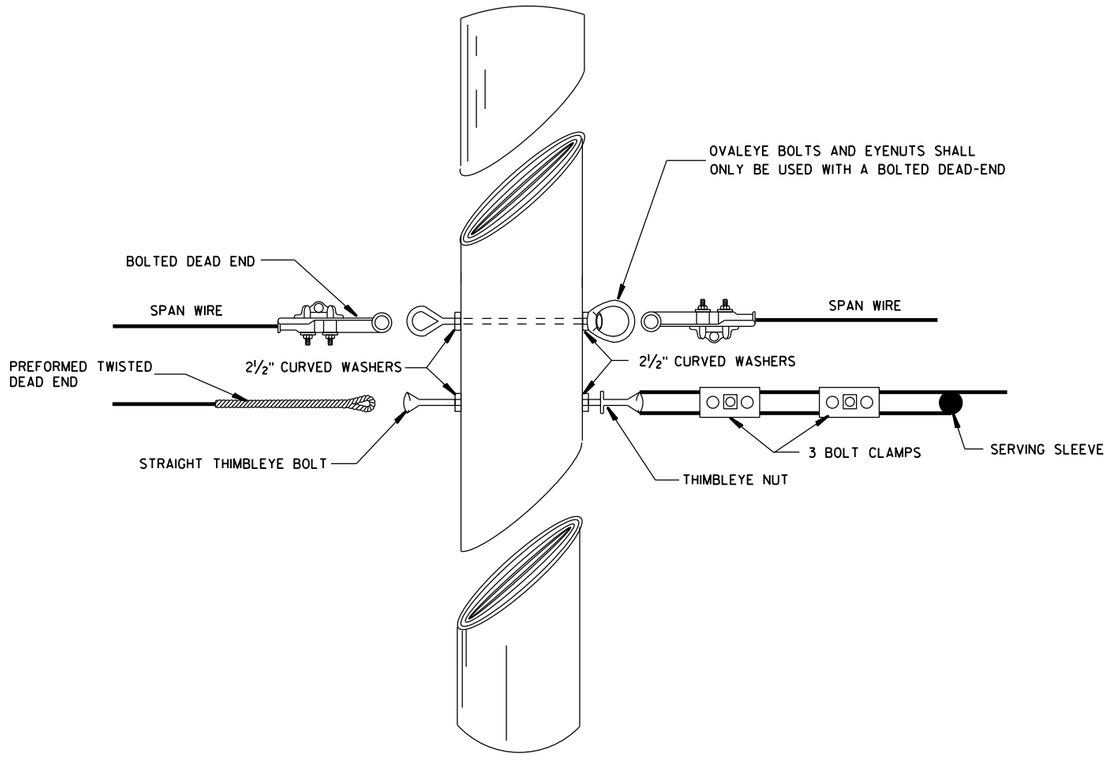


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
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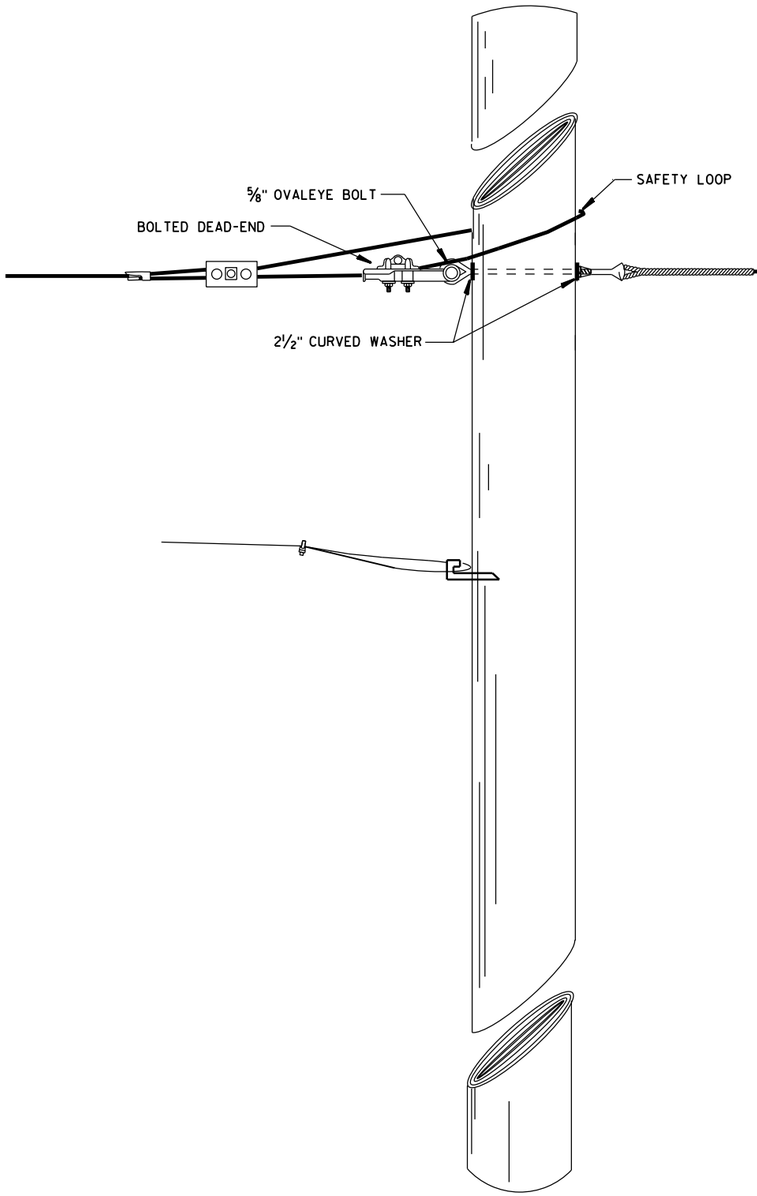
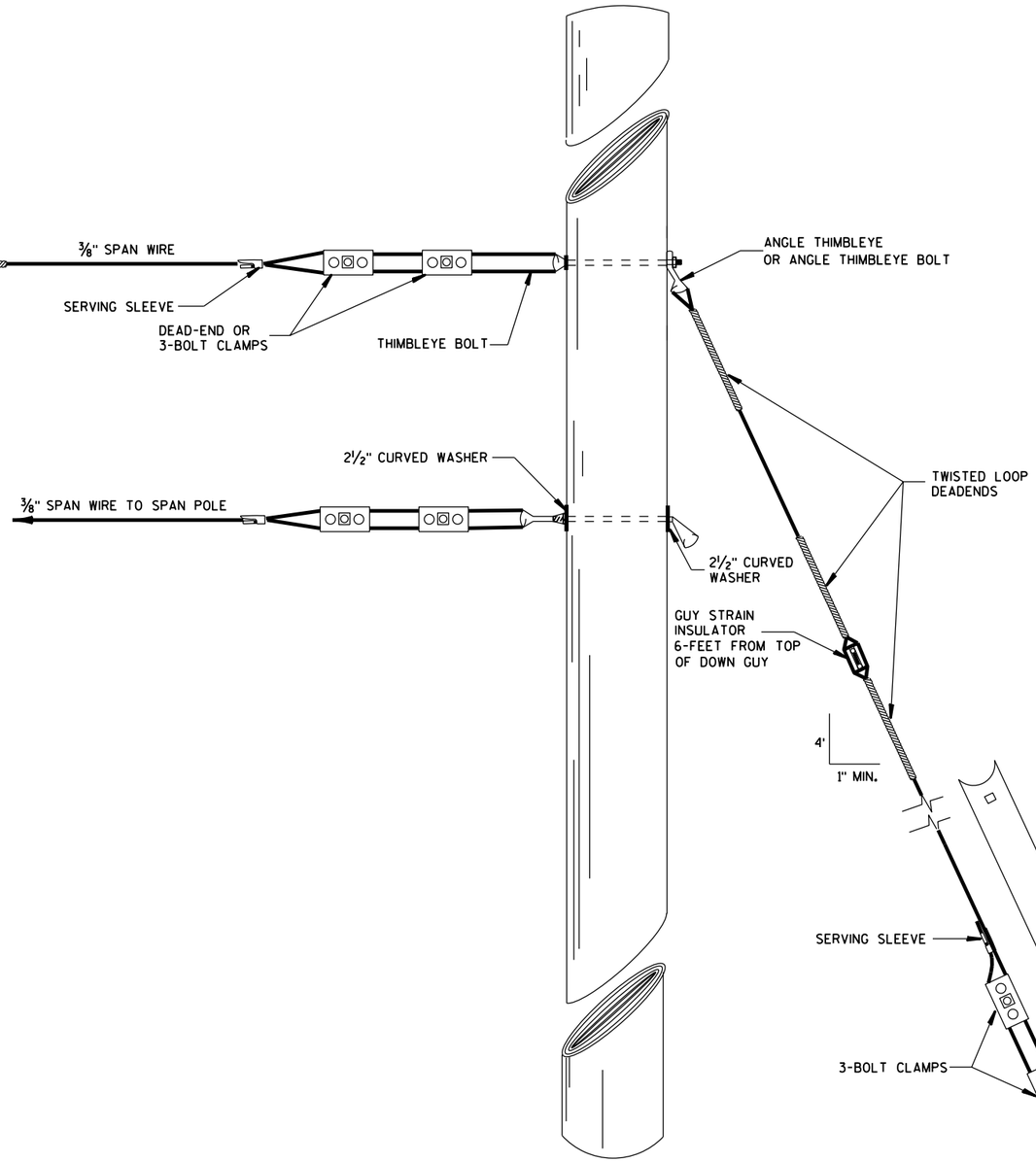
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June. 2015 (DATE) /S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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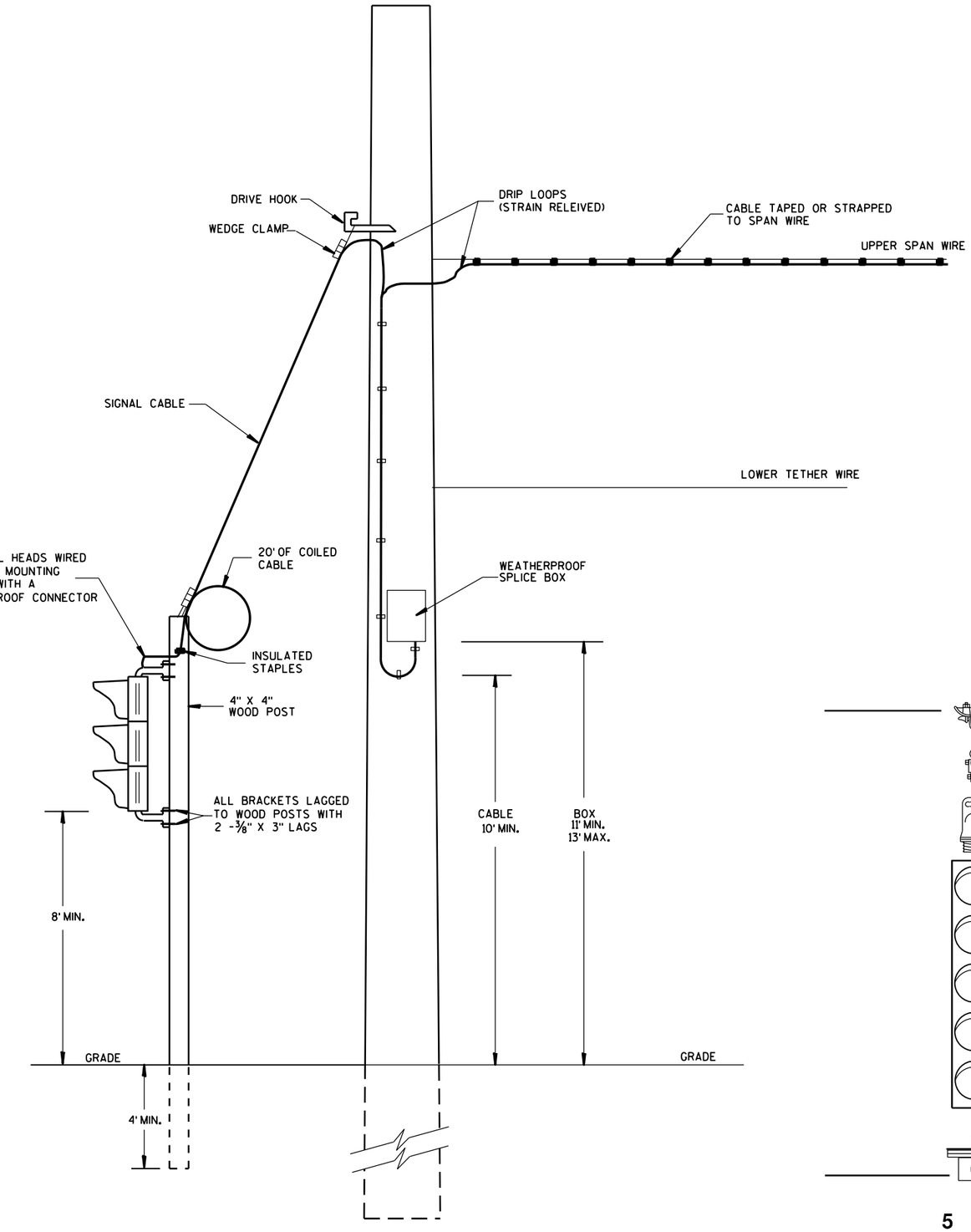
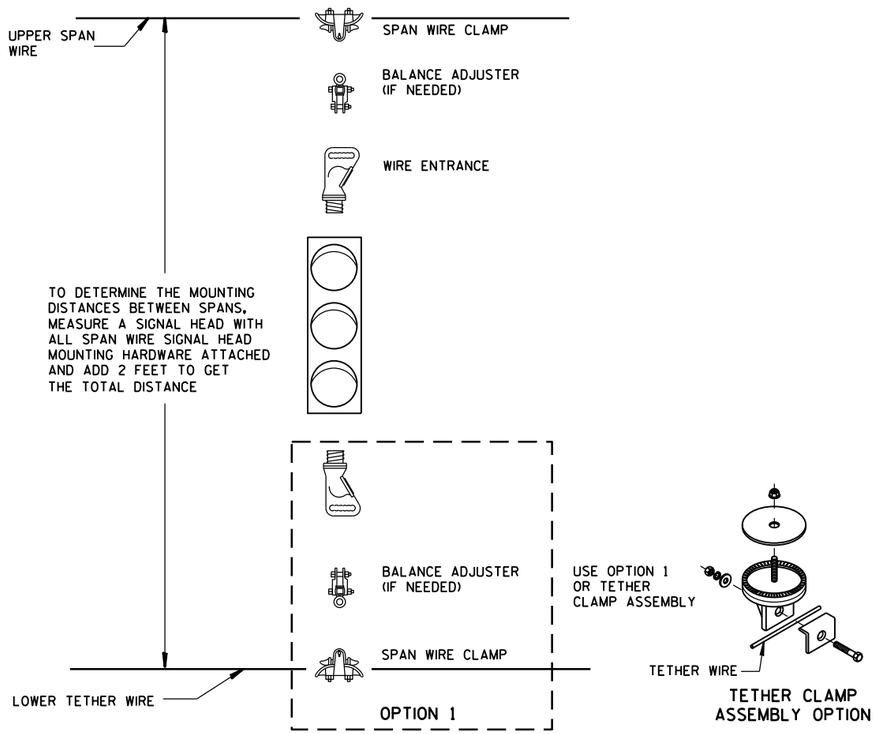
S.D.D. 9 G 1-4e

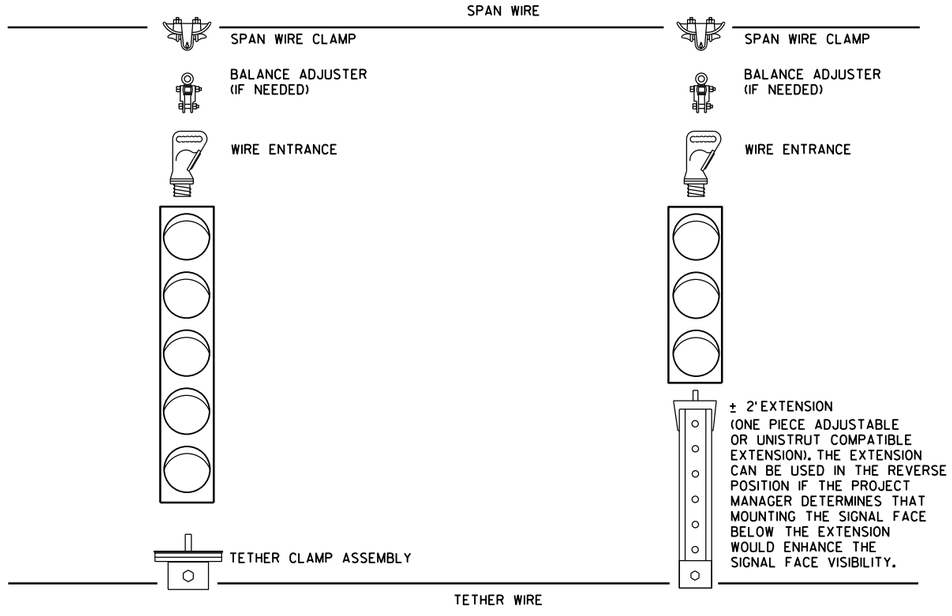


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June. 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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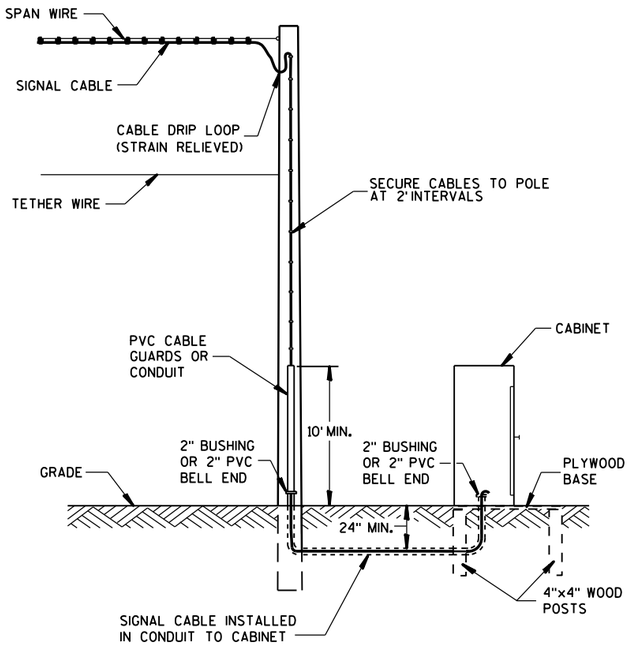
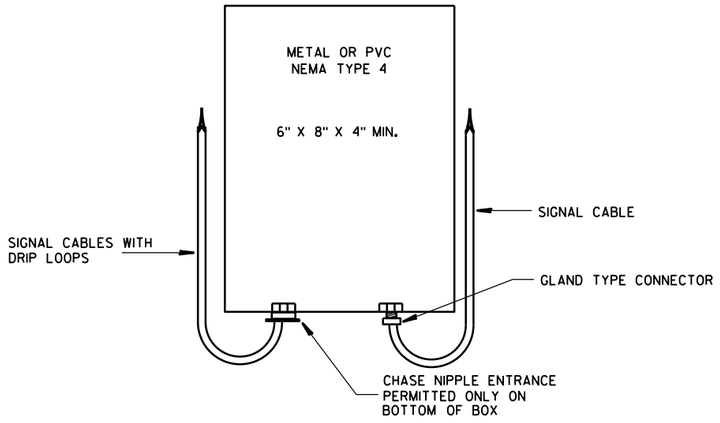
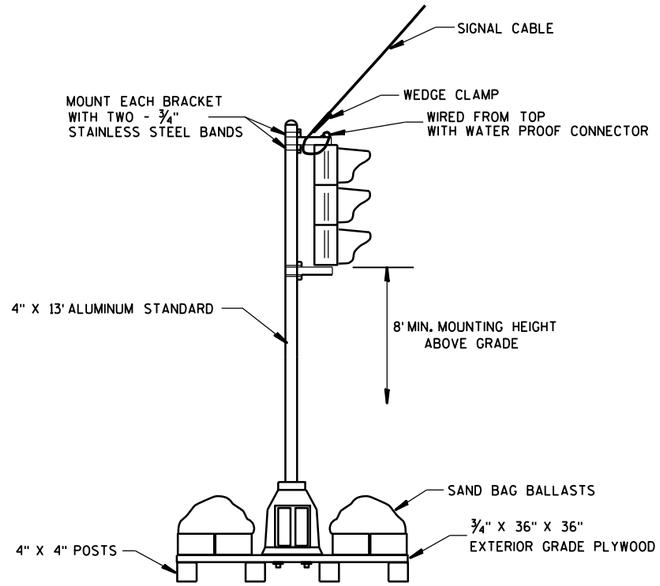
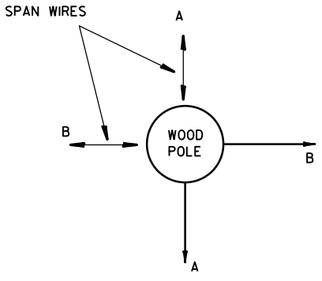




SPLICE BOX

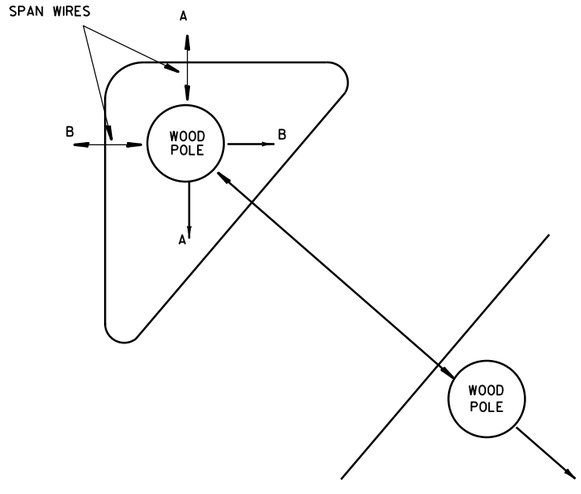


TYPICAL SKID TYPE TEMPORARY

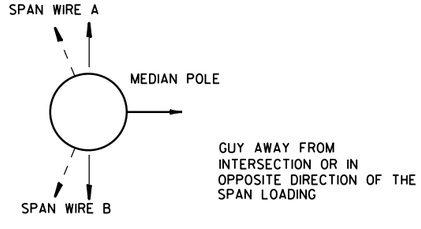


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 G 1-4g

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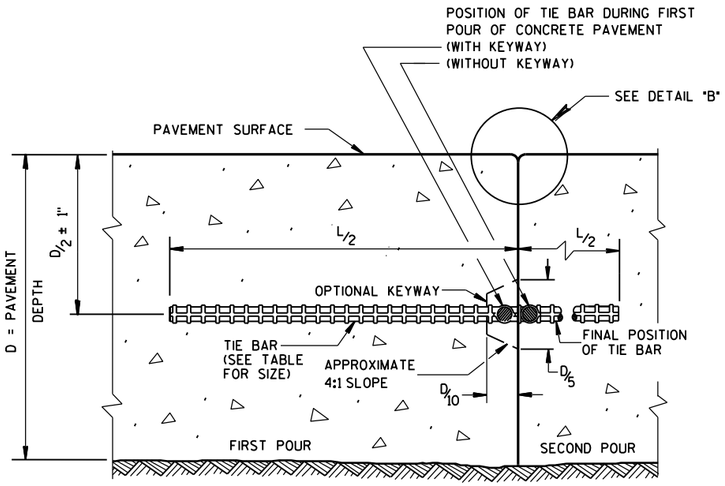
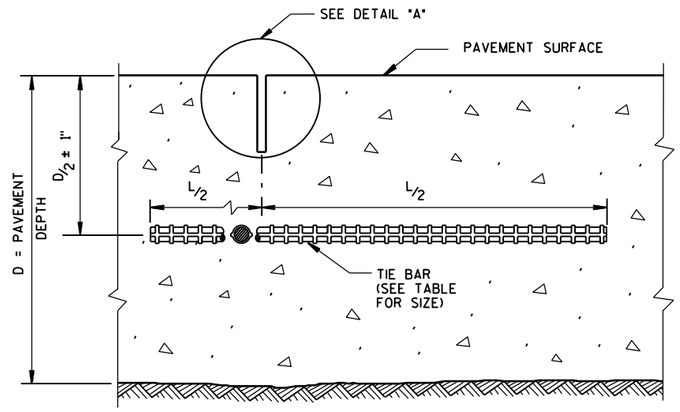
S.D.D. 9 G 1-4g



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"

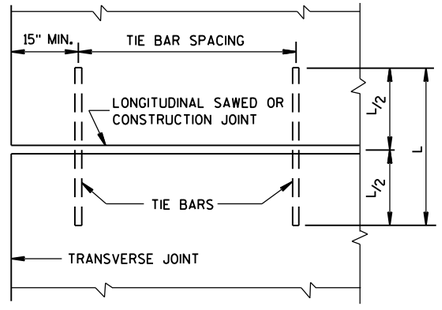
DETAIL "C"

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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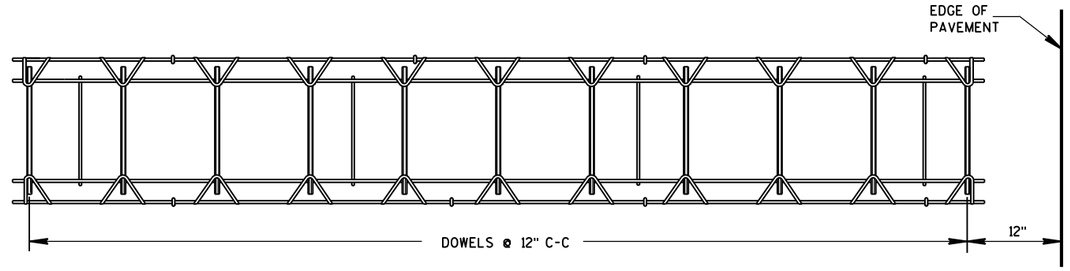
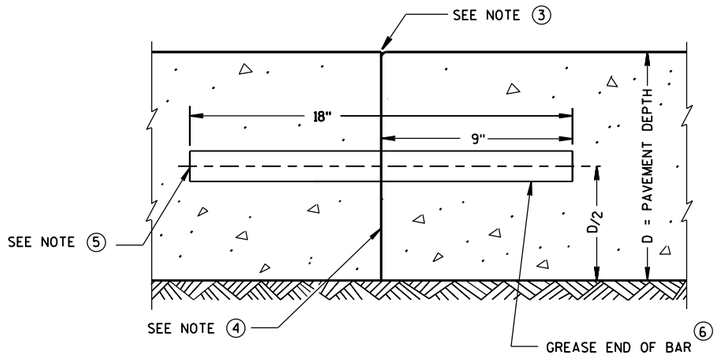
S.D.D. 13 C 1-18



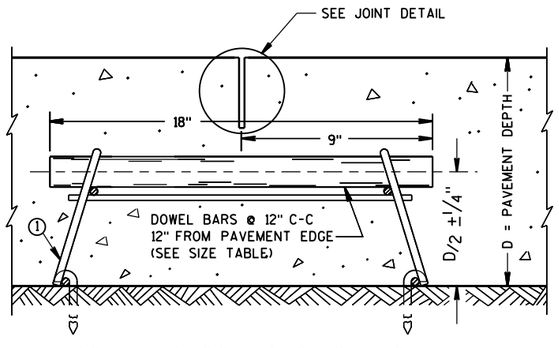
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



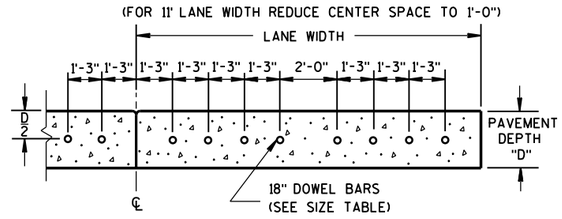
TRANSVERSE CONSTRUCTION JOINT



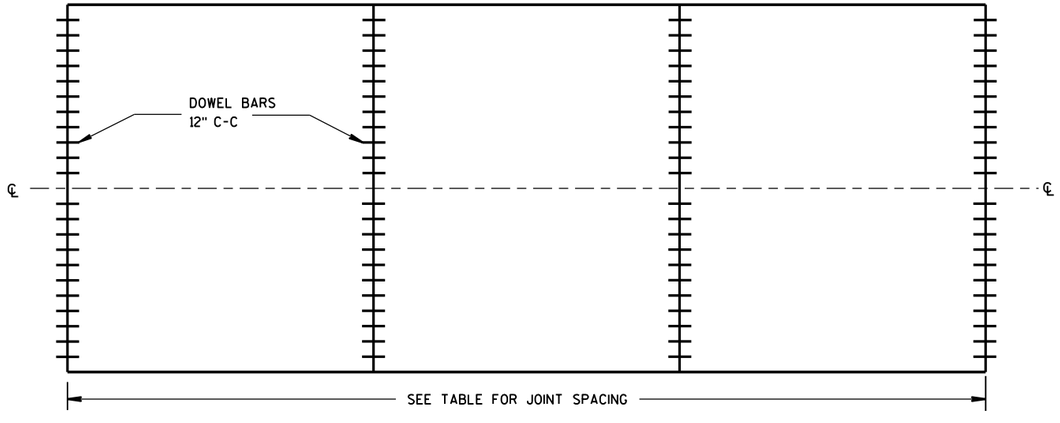
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

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

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

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

CONSTRUCTION JOINTS

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

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

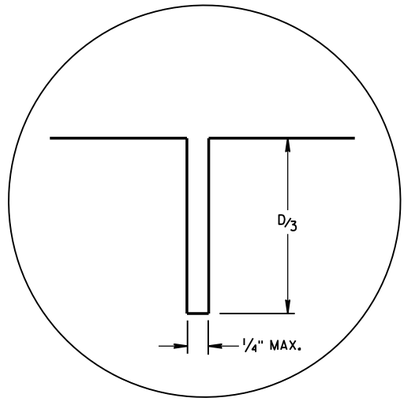
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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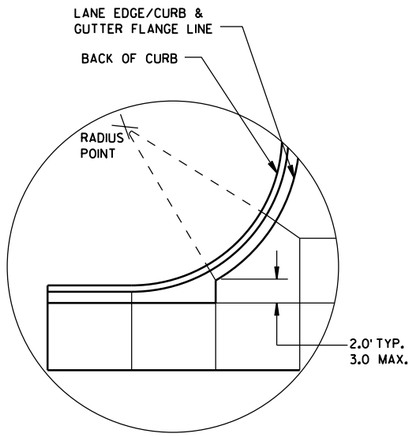
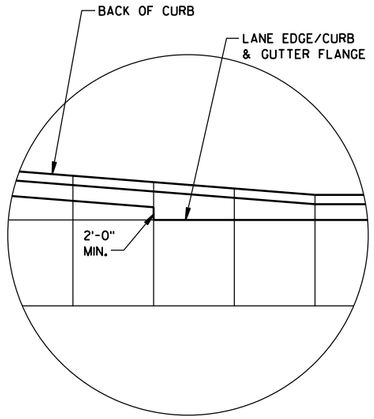
S.D.D. 13 C 13-8



DETAIL "A"



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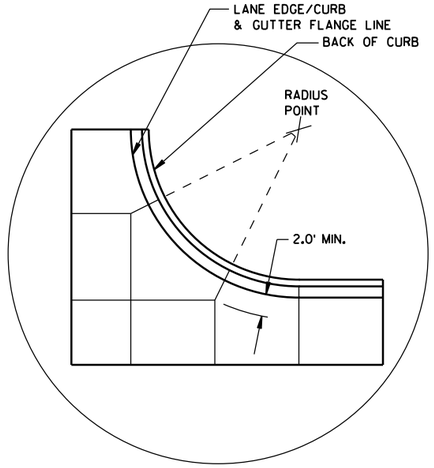
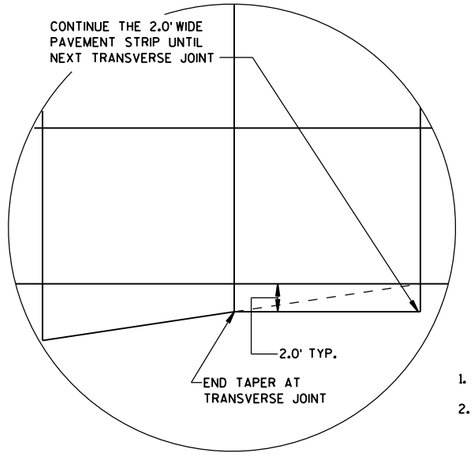


DETAIL "C"



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.

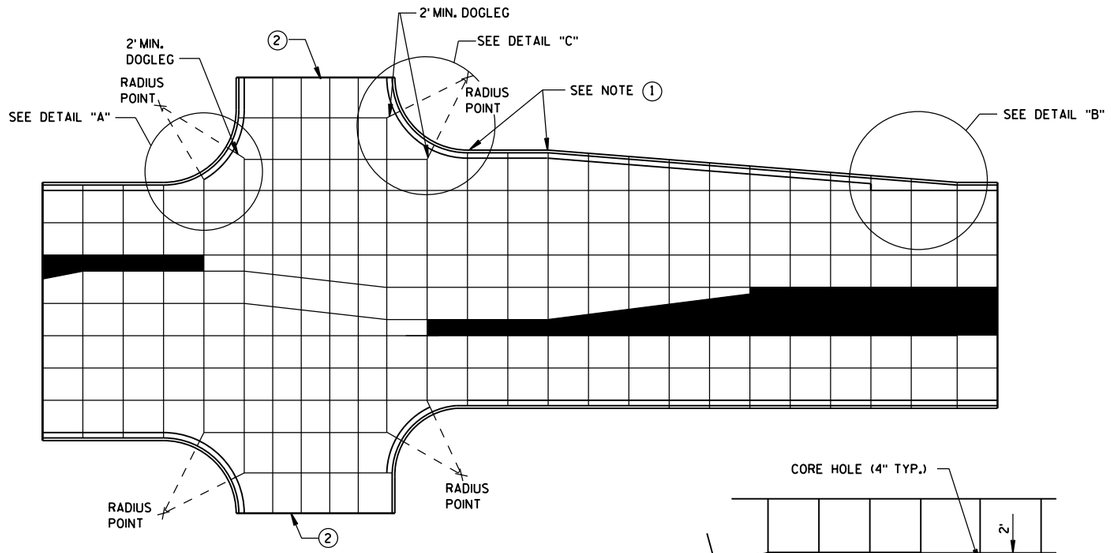
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

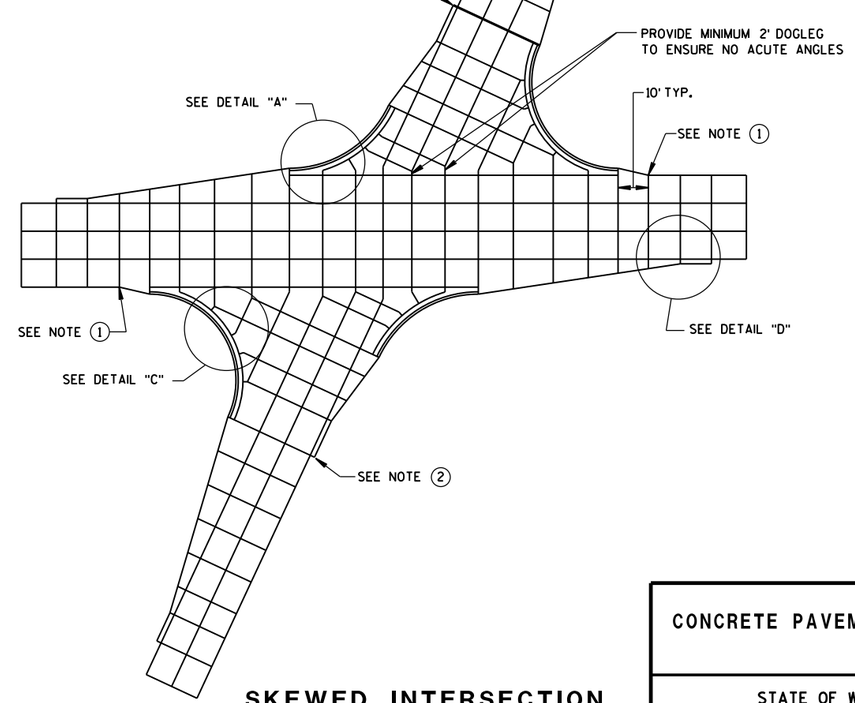
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



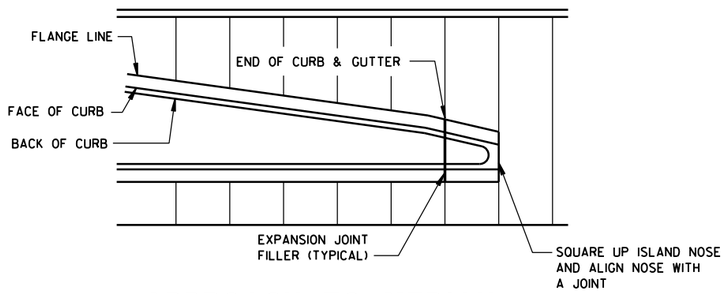
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

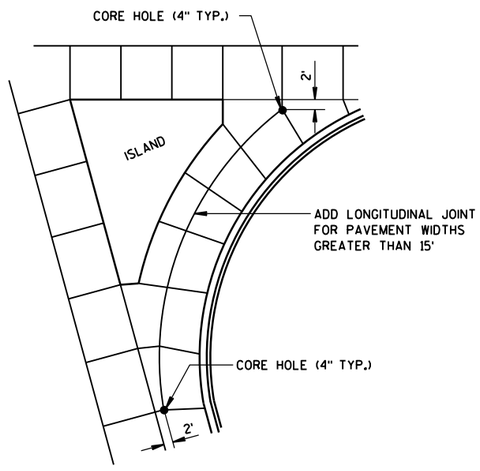
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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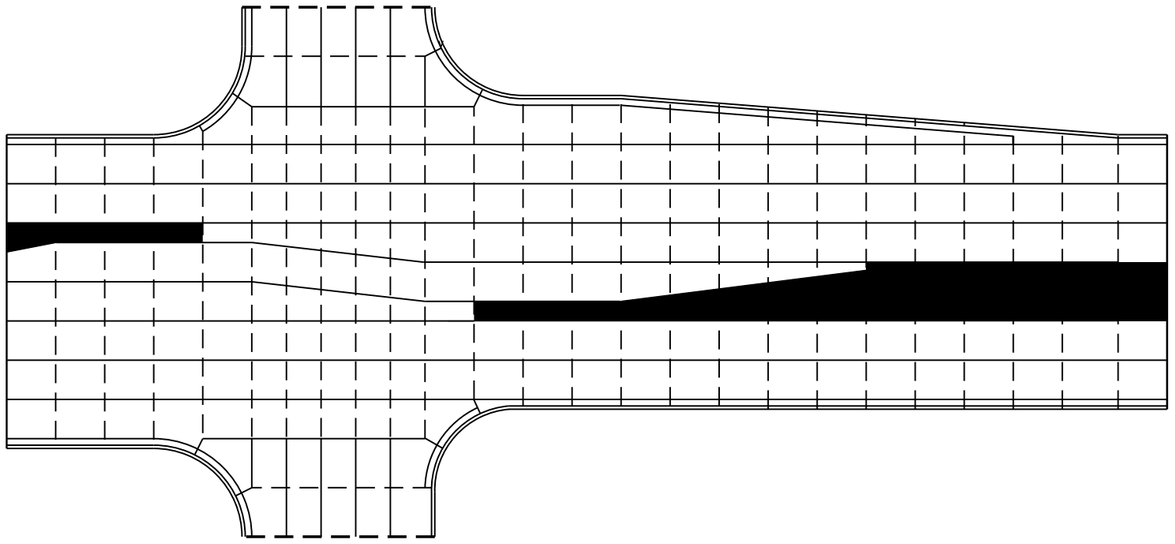
S.D.D. 13 C 18-5a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

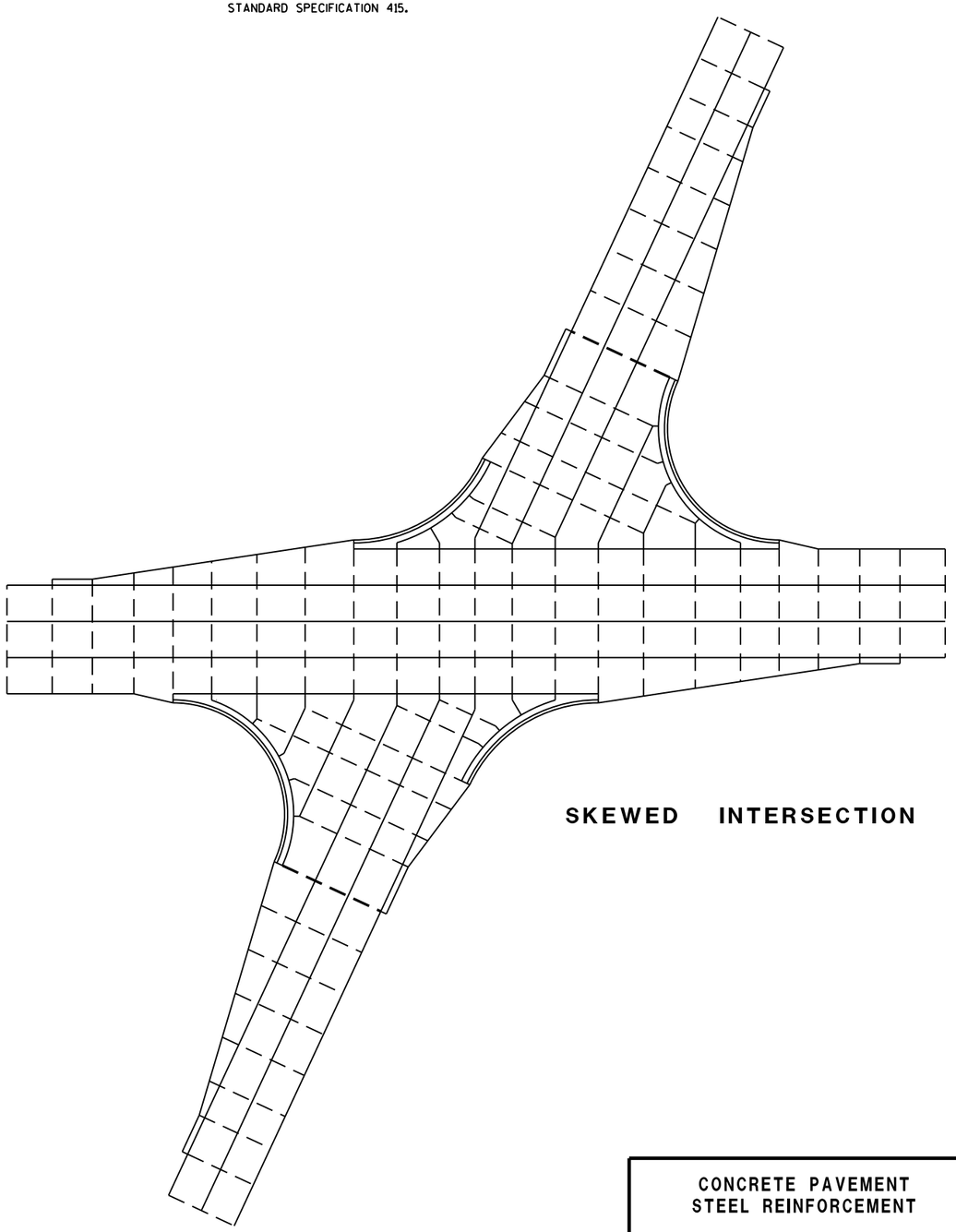
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 C 18-5b

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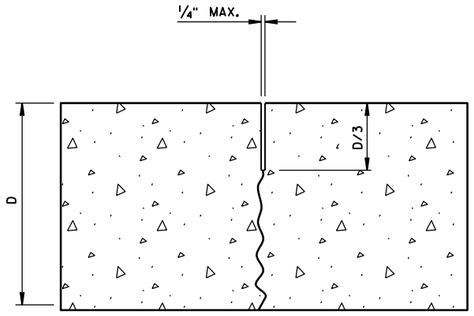
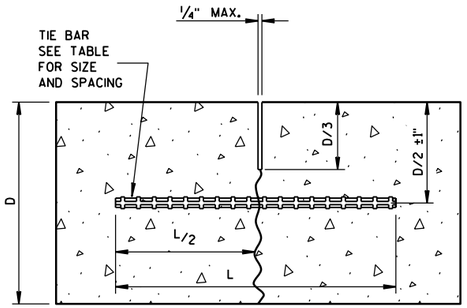
S.D.D. 13 C 18-5b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

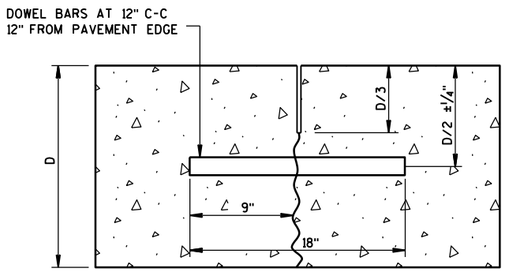
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

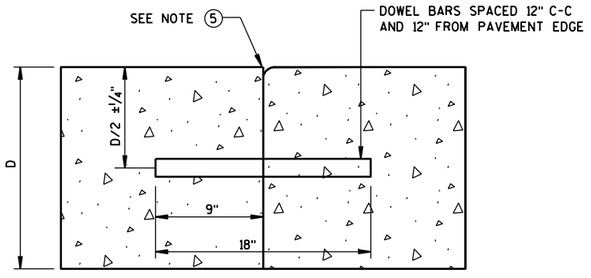
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



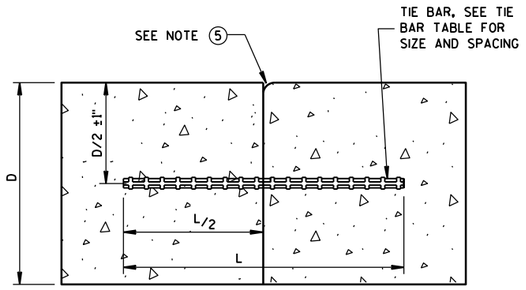
DOWELED-TRANSVERSE

CONTRACTION JOINTS

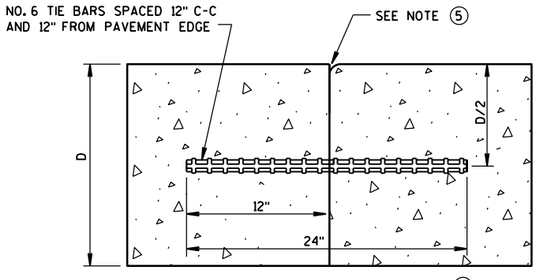
SEE NOTE (2)



DOWELED TRANSVERSE (3)

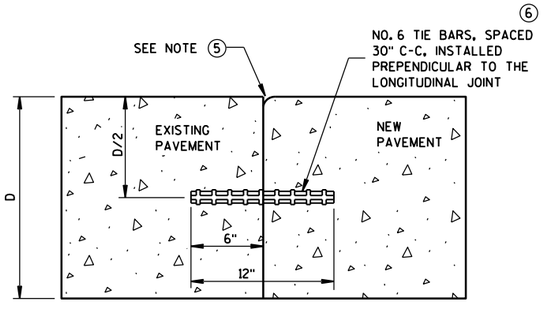


TIED LONGITUDINAL



TIED TRANSVERSE (3)

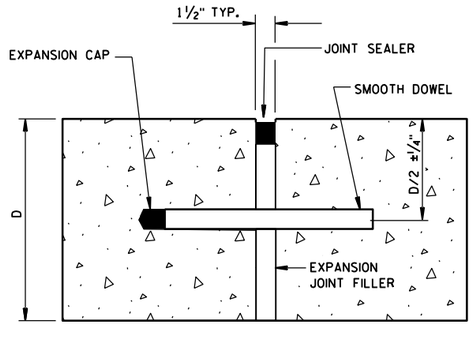
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

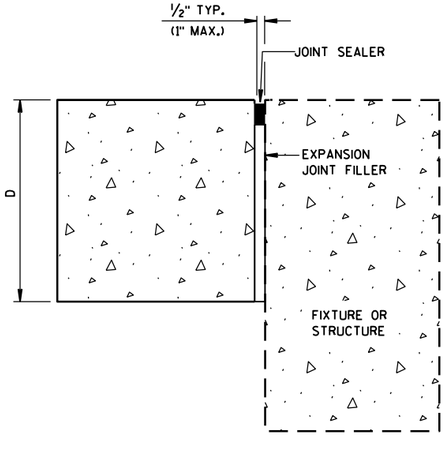
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

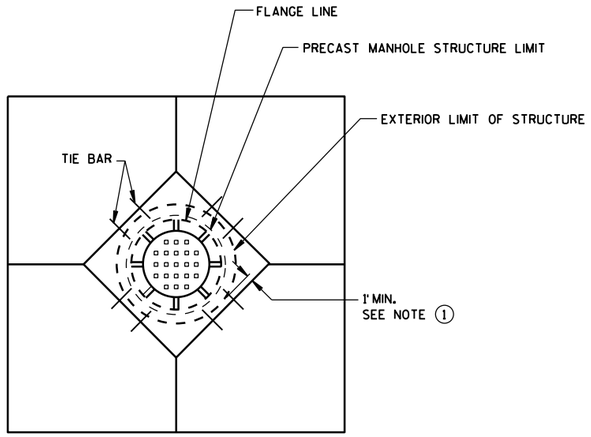
6

S.D.D. 13 C 18-5c

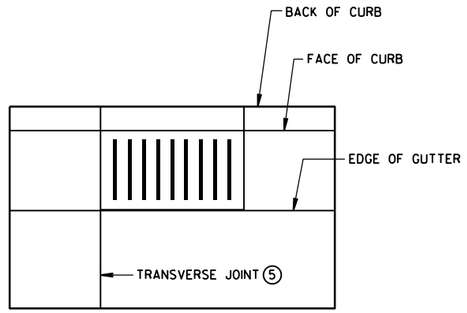
S.D.D. 13 C 18-5c

CONCRETE PAVEMENT
JOINT TYPES

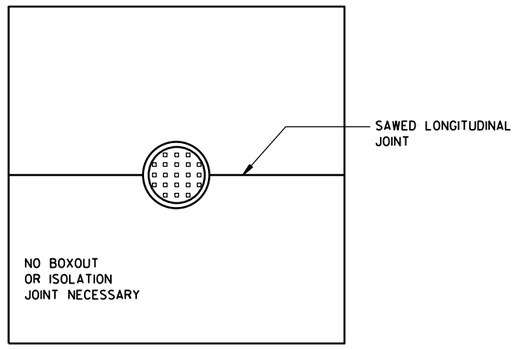
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



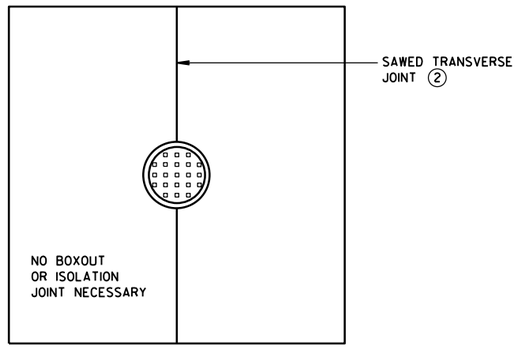
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



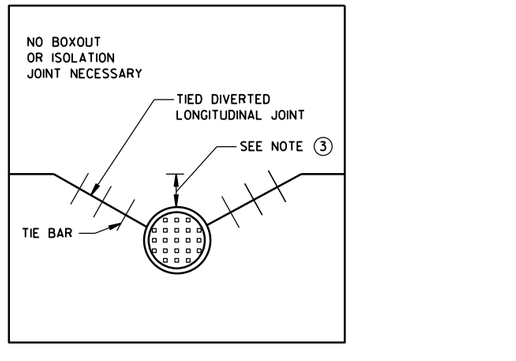
INLET WITH TRANSVERSE JOINT



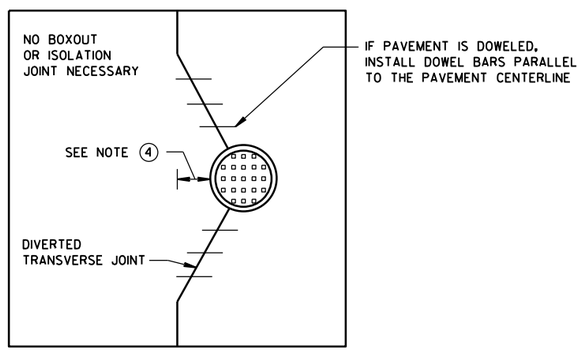
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

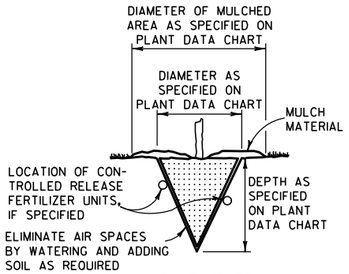
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

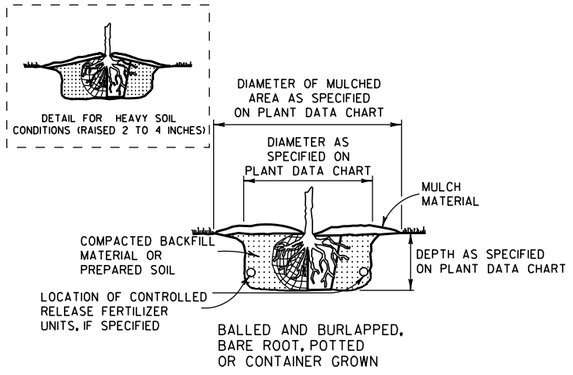
APPROVED
December, 2016 — /S/ Peter Kemp, P.E.
DATE — PAVEMENT SUPEF
FHWA

6

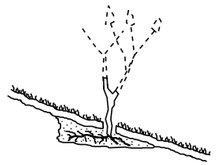
S.D.D. 13 C 18-5d



MACHINE MOVED

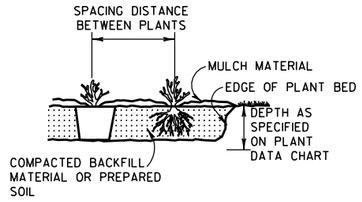


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



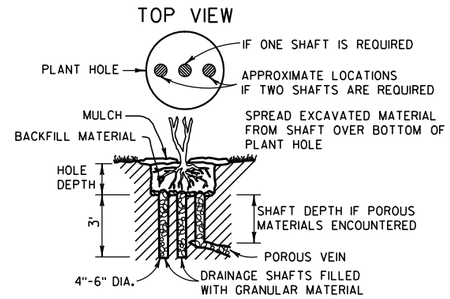
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



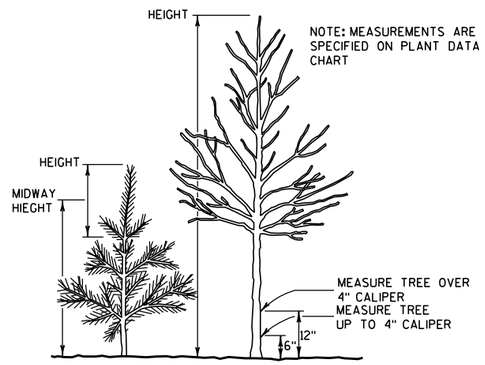
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

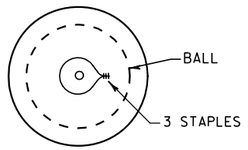


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

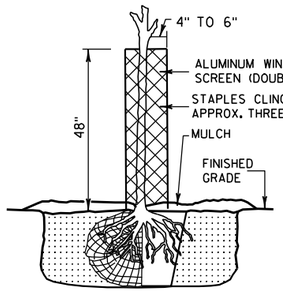
DRAINING



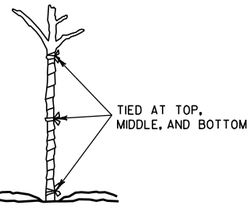
MEASURING



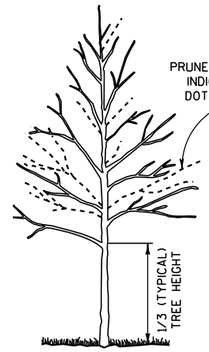
TOP VIEW



RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

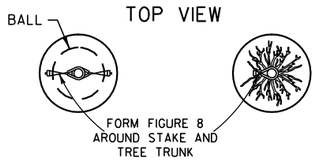
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

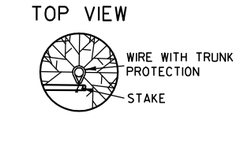
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

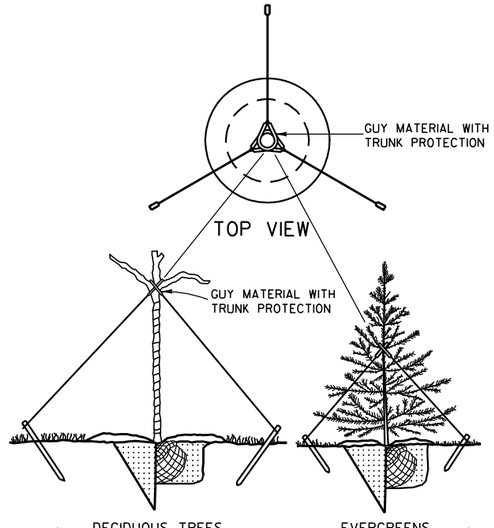
PRUNING





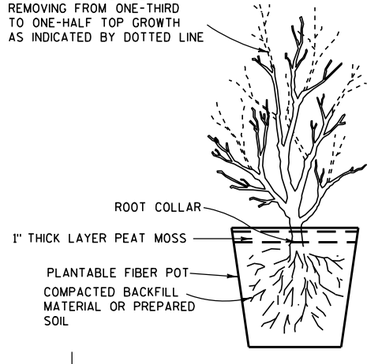
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

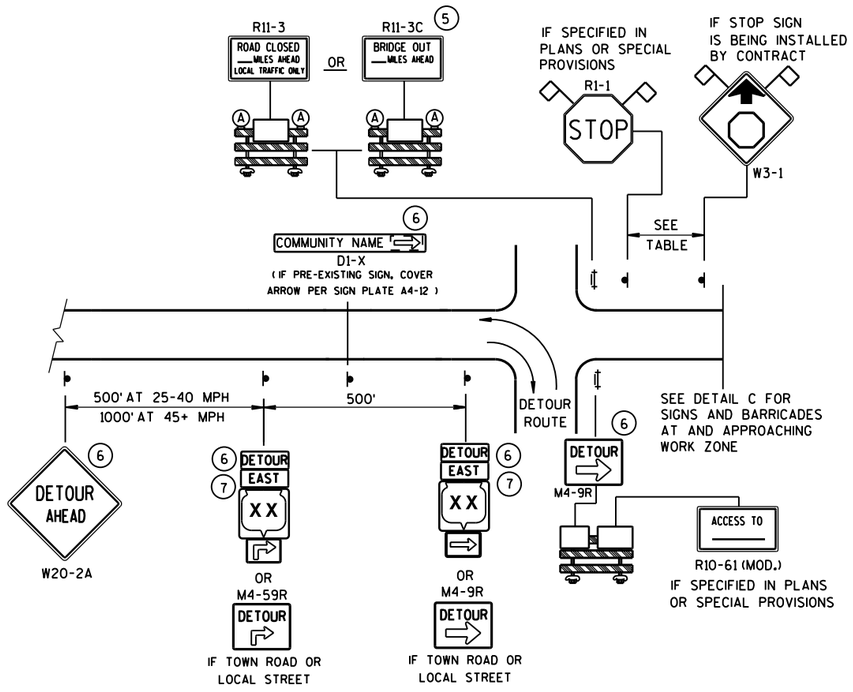
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

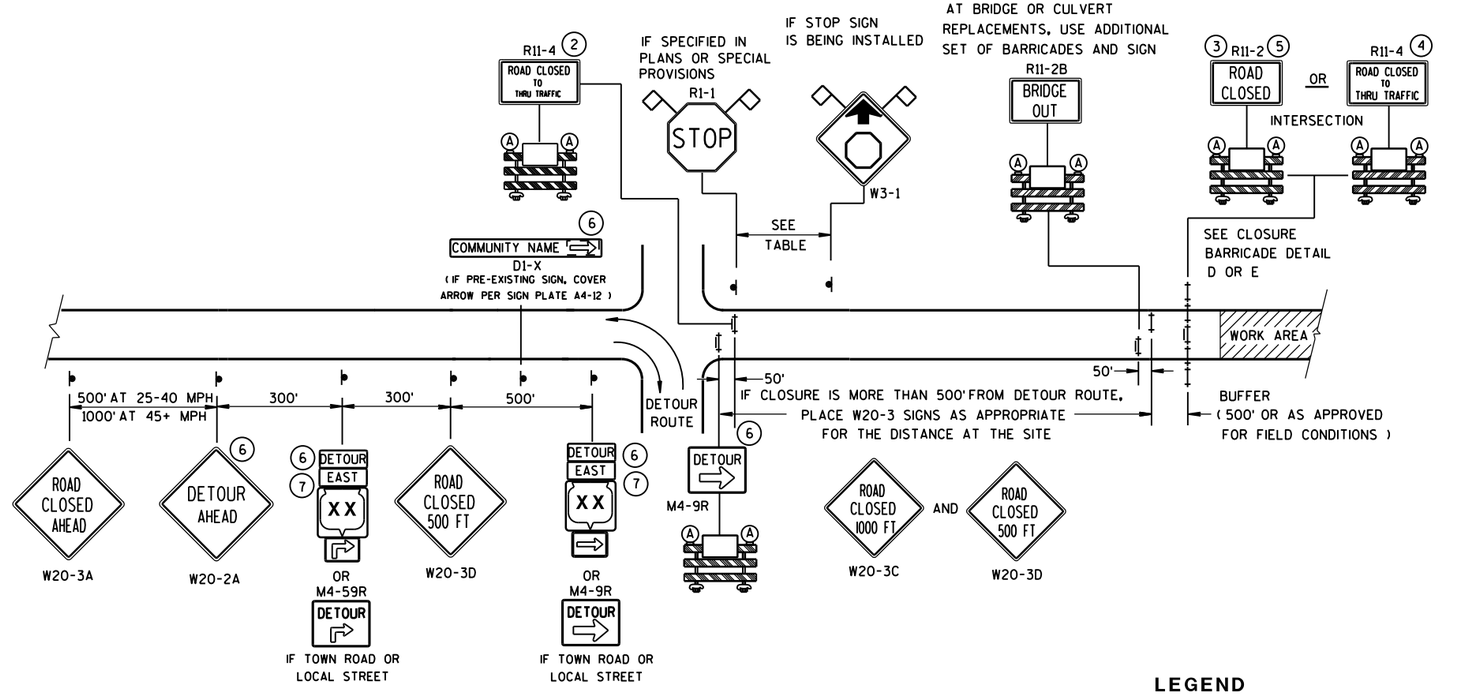
6

S.D.D. 14 A 2-1



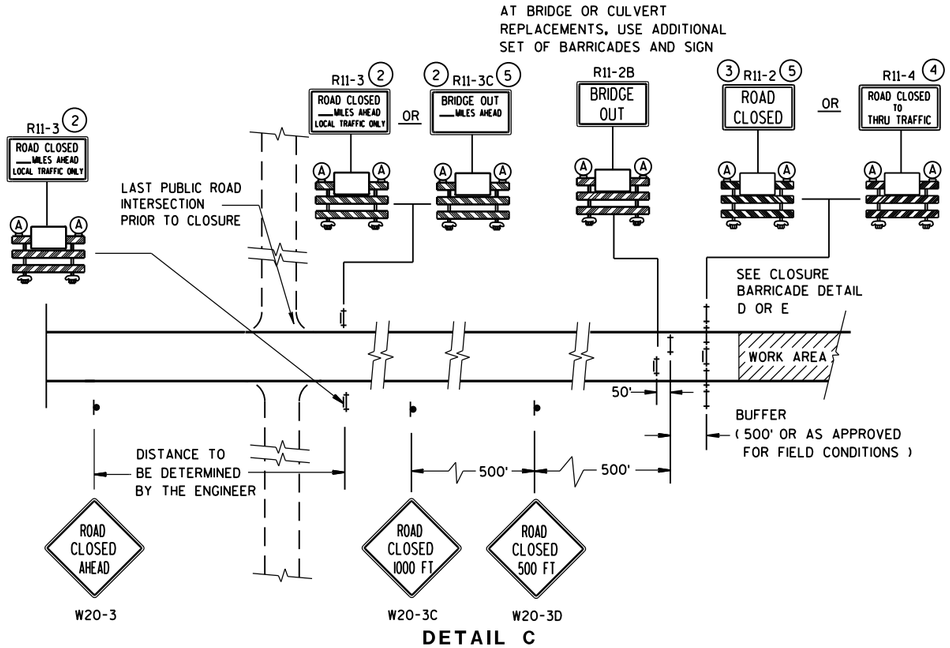
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

LEGEND

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

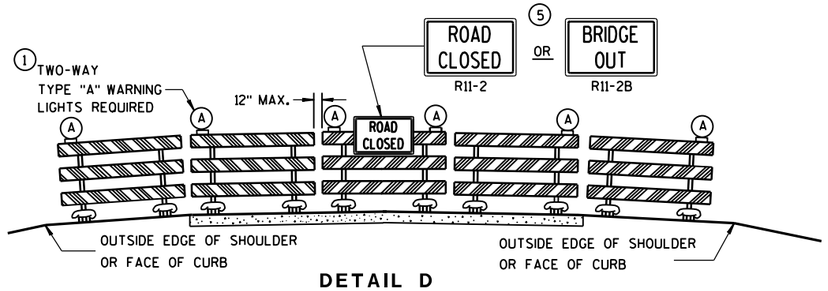
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

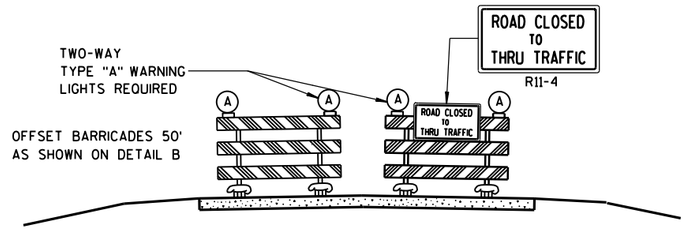
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

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

FHWA

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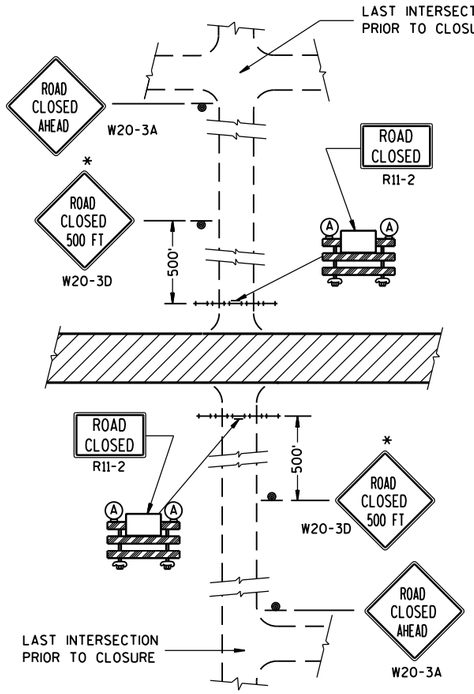
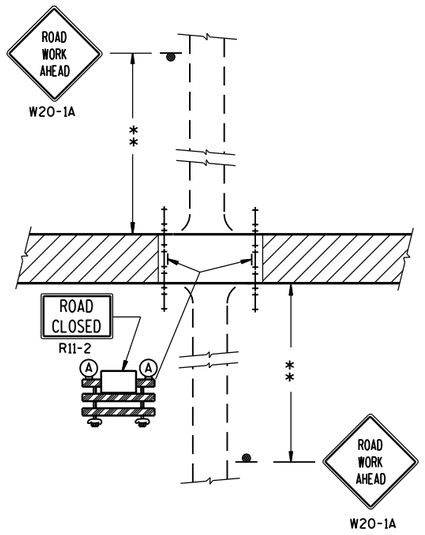
S.D.D. 15 C 2-6b



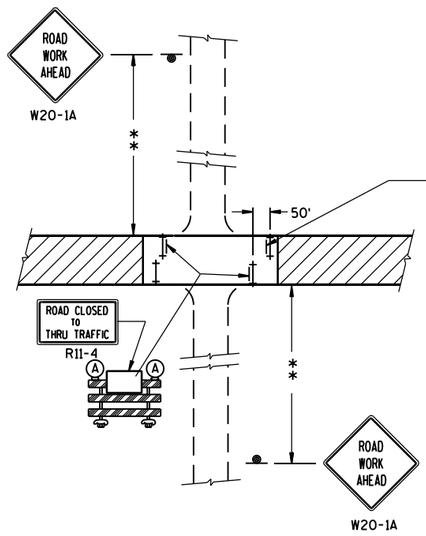
DETAIL 1

(NO ACCESS TO PROJECT)



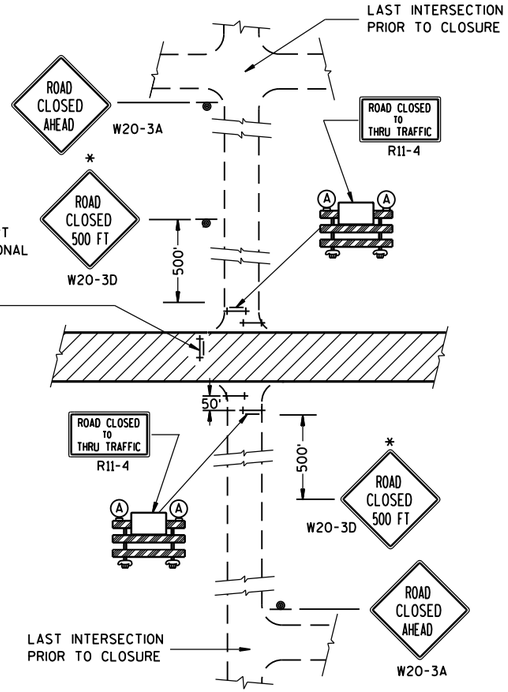
DETAIL 2

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



DETAIL 3

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



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

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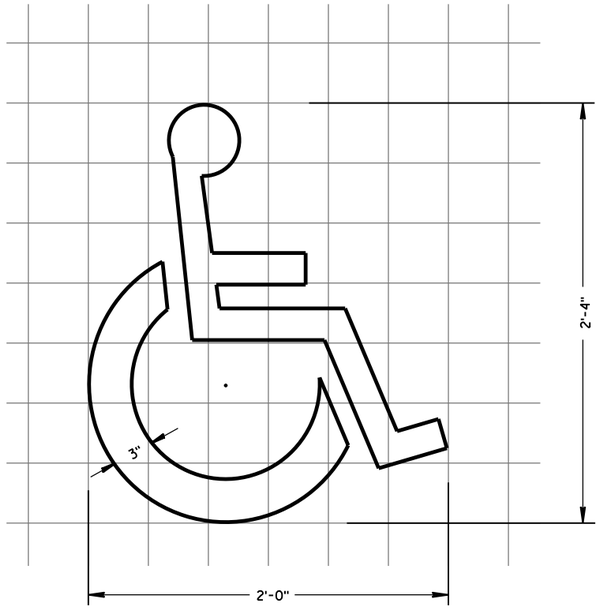
S.D.D. 15 C 3-3

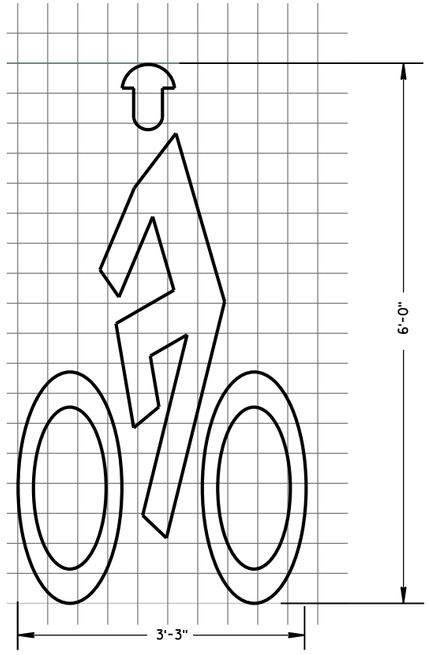
6

S.D.D. 15 C 3-3

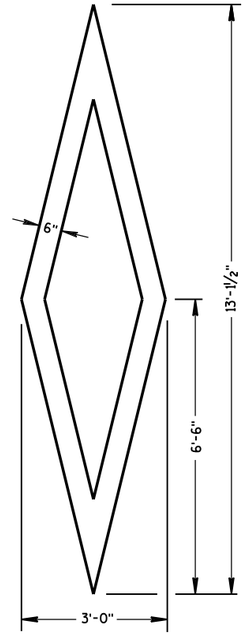
GENERAL NOTES

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





BIKE CROSSING SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/18/16	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MARKING ENGINEER

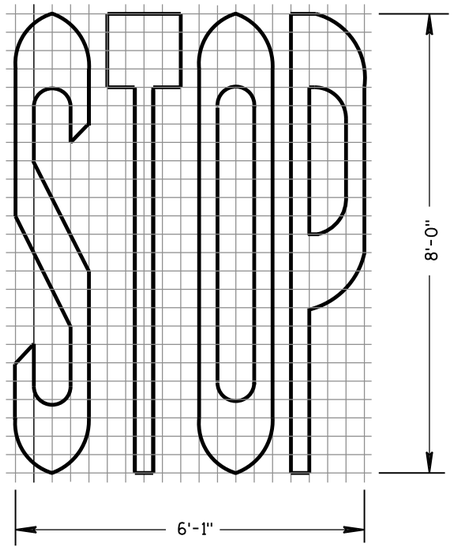
FHWA

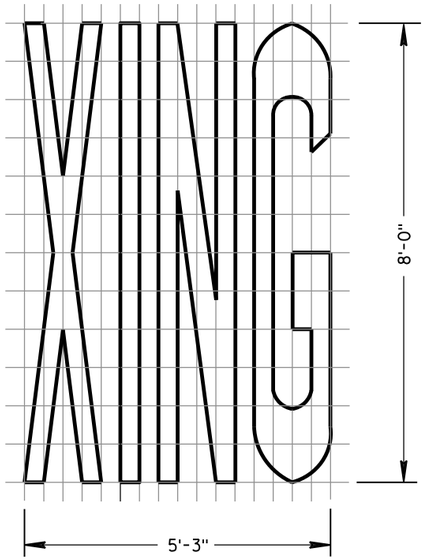
6

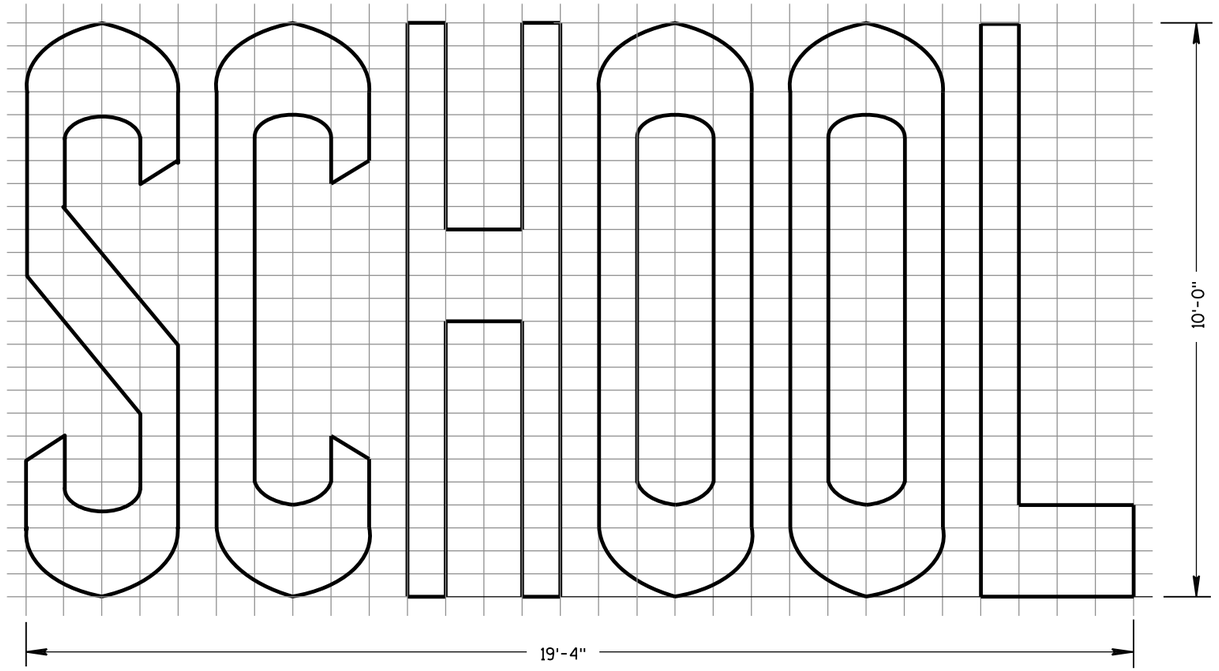
S.D.D. 15 C 7-13a

GENERAL NOTES

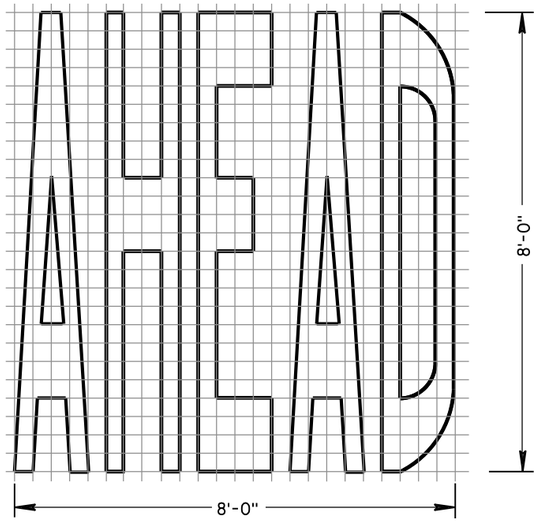
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

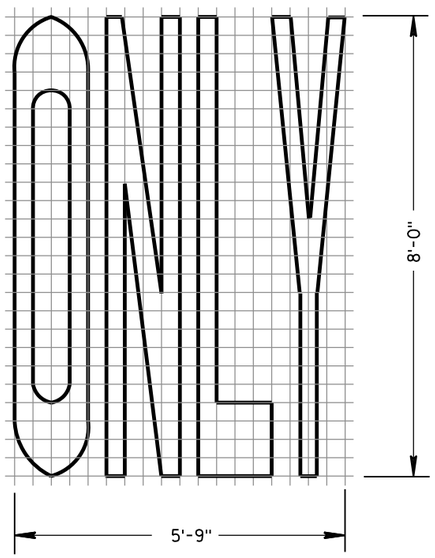


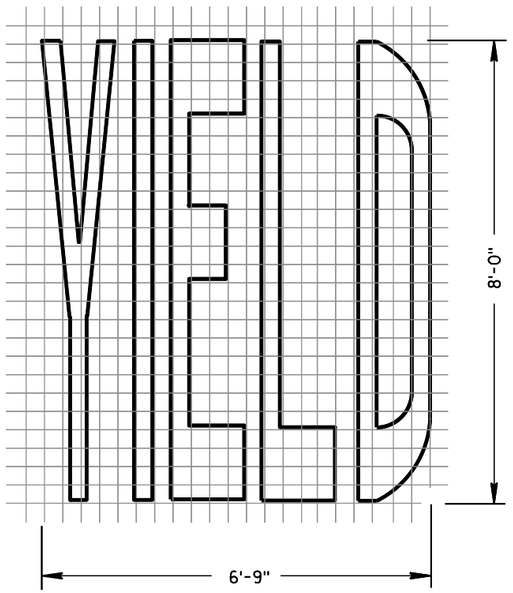


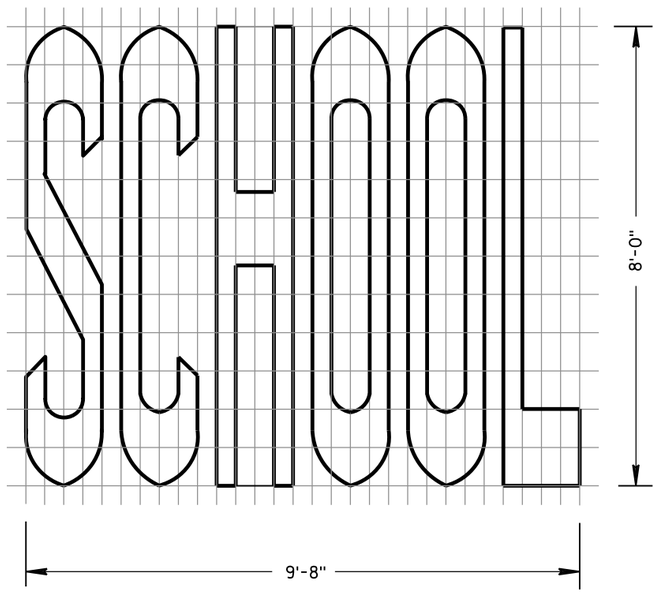


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

FHWA

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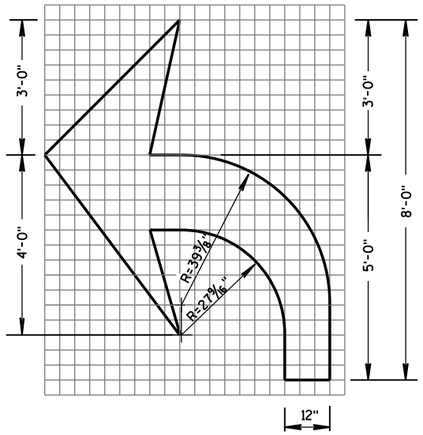
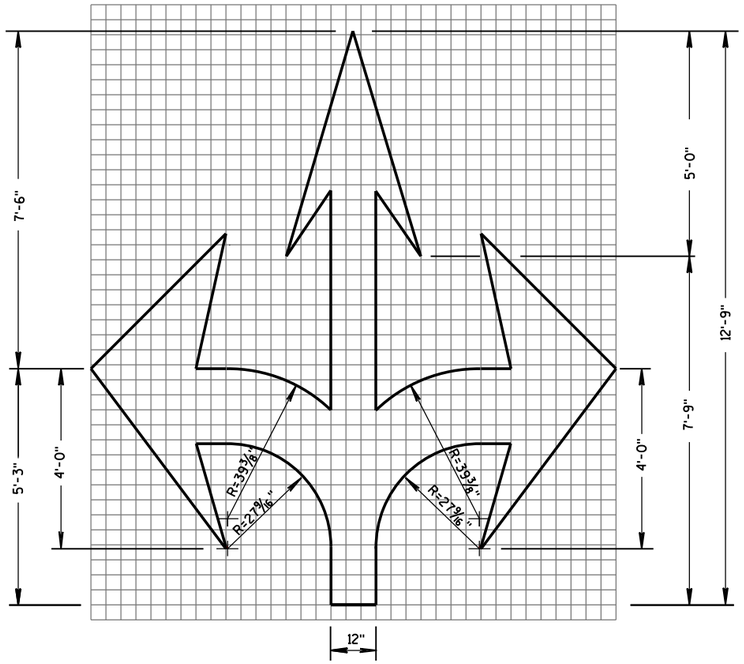
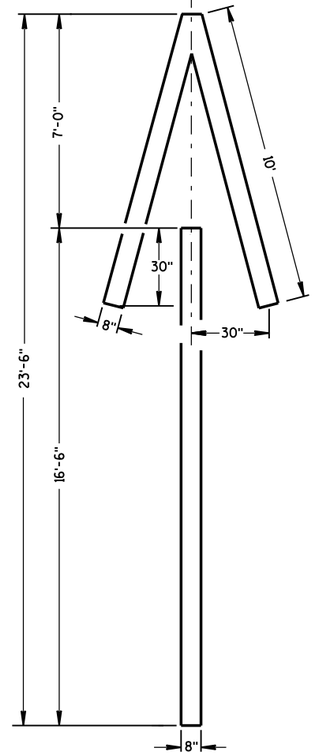
S.D.D. 15 C 7-13b



TYPE 2



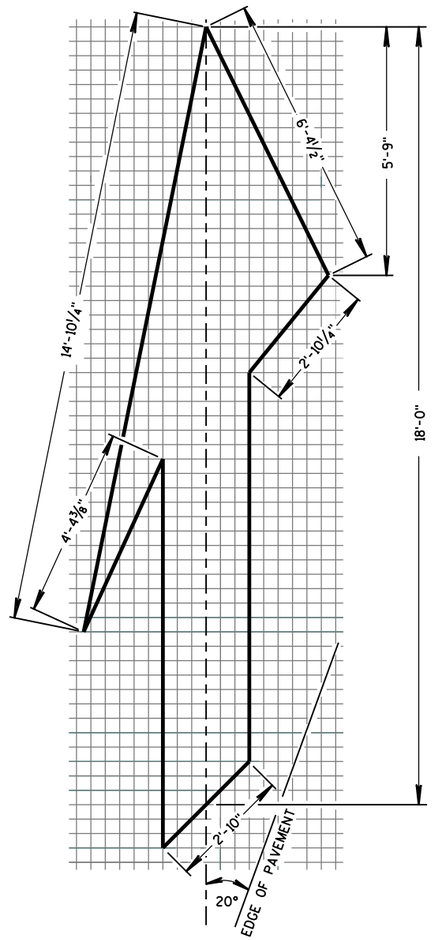
TYPE 6



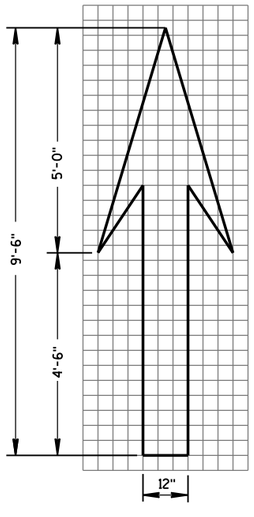
TYPE 4

GENERAL NOTES

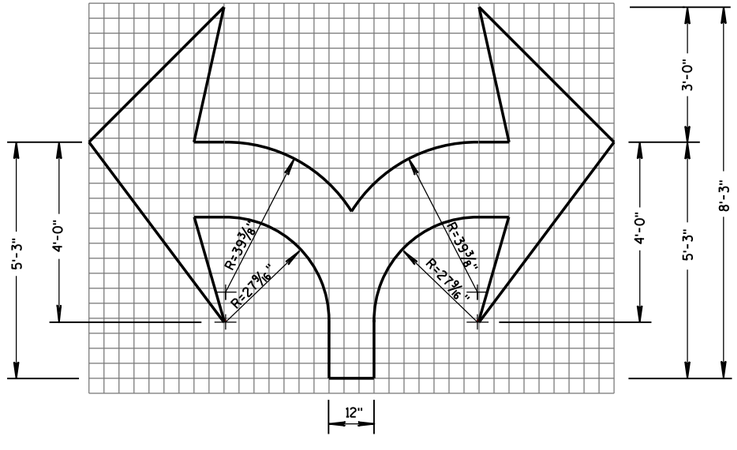
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



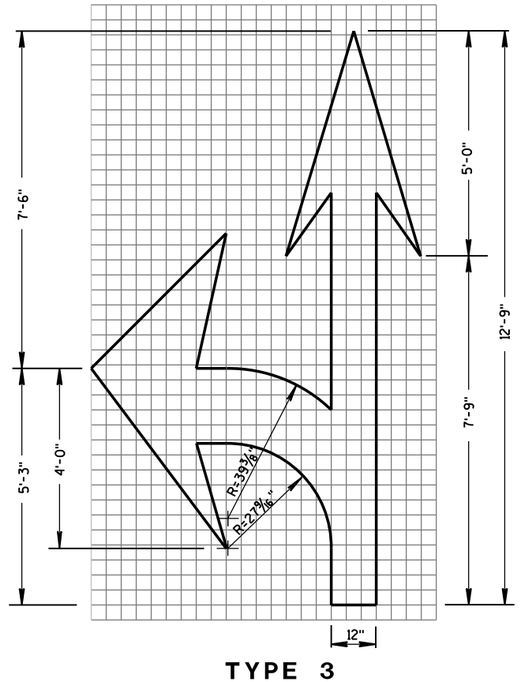
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER
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S.D.D. 15 C 7-13c

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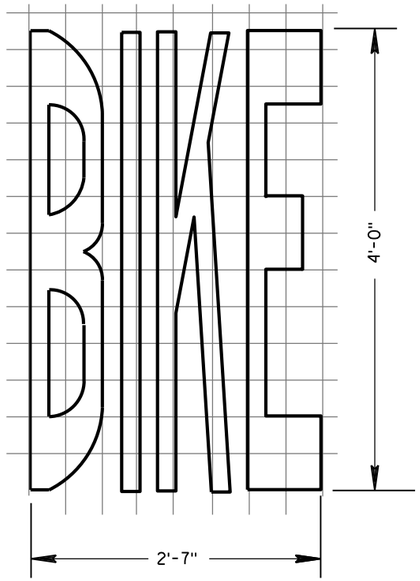
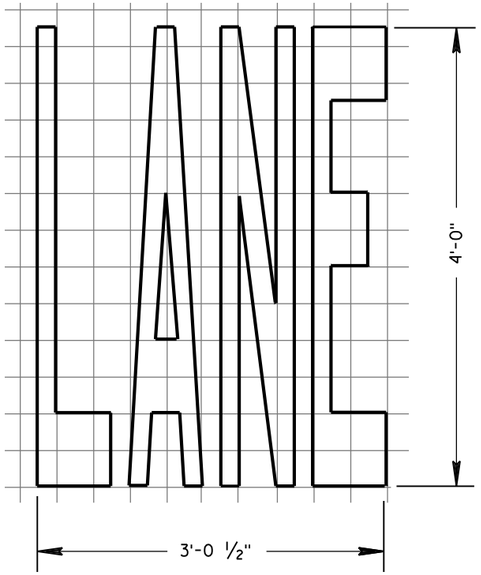
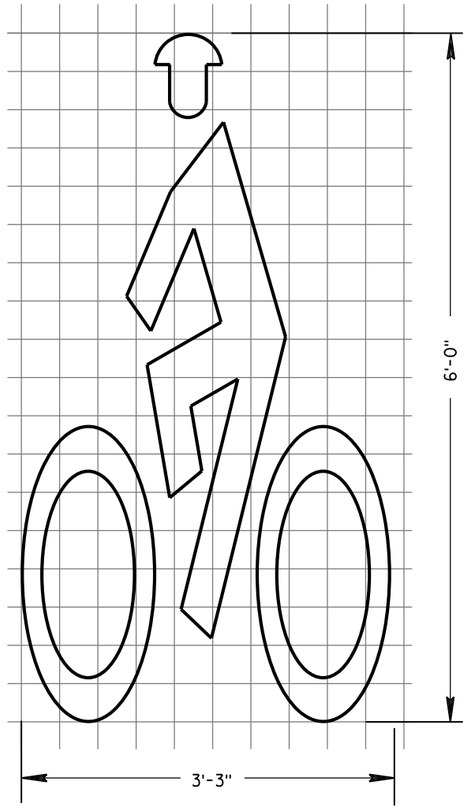
S.D.D. 15 C 7-13c

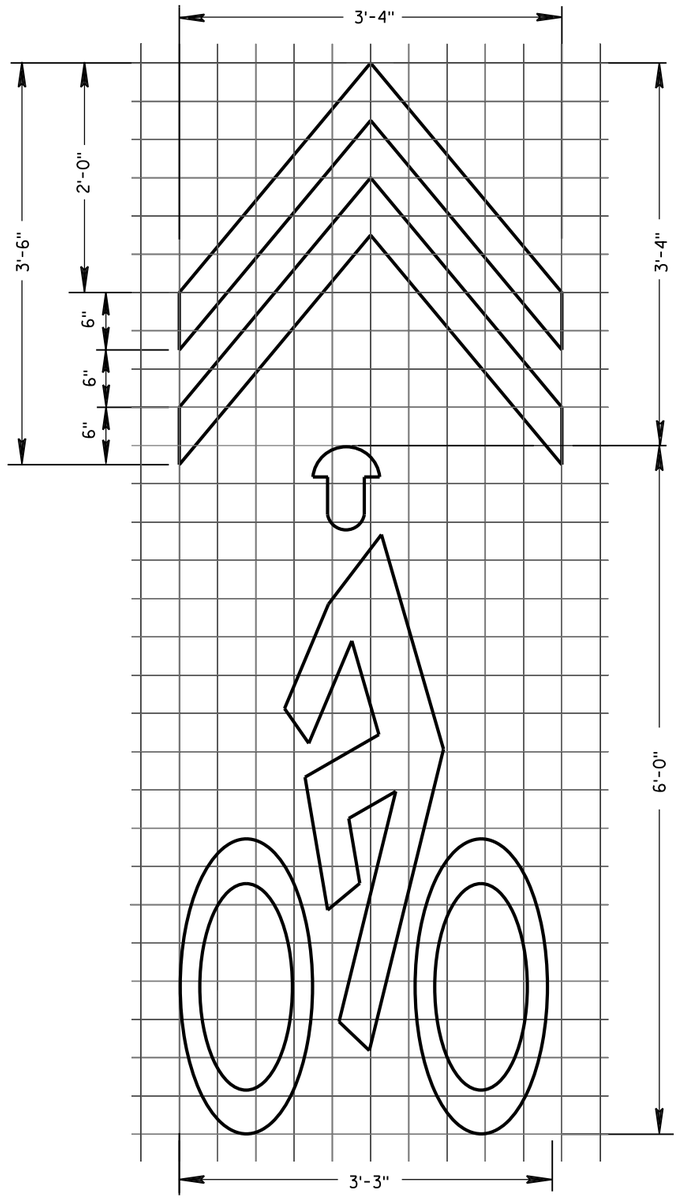




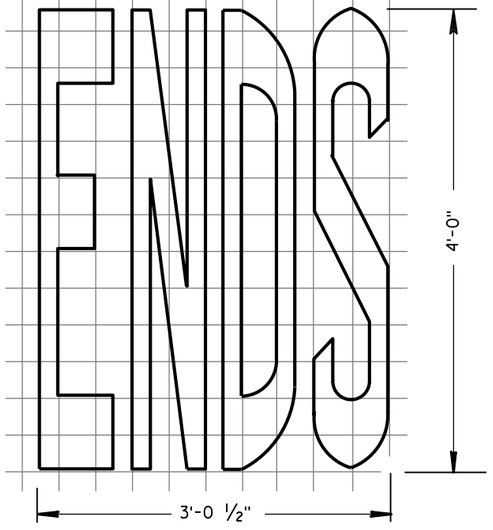
BIKE LANE WORDS



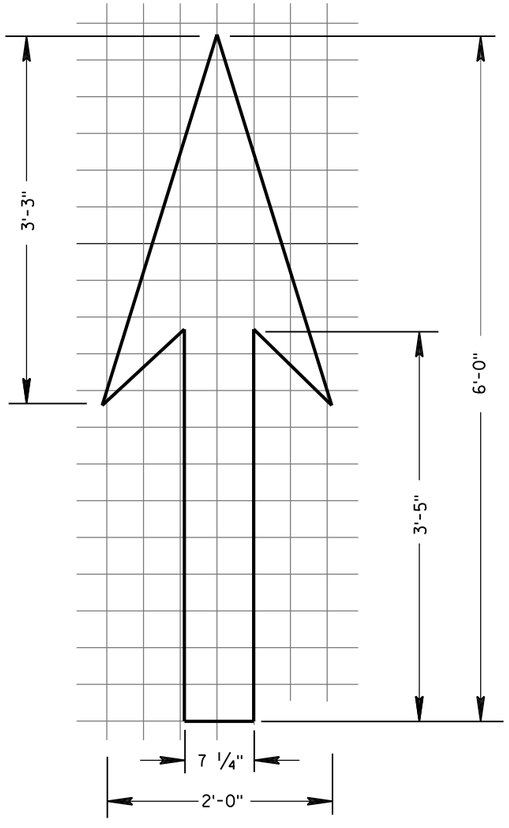
BIKE LANE SYMBOL



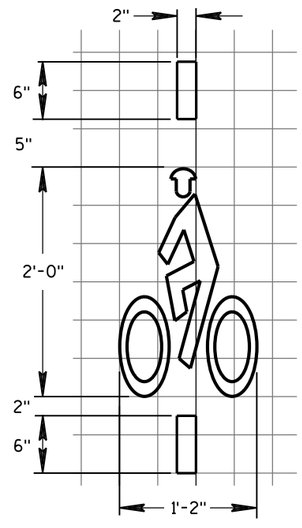
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

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

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARK ENGINEER

FHWA

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S.D.D. 15 C 7-13e

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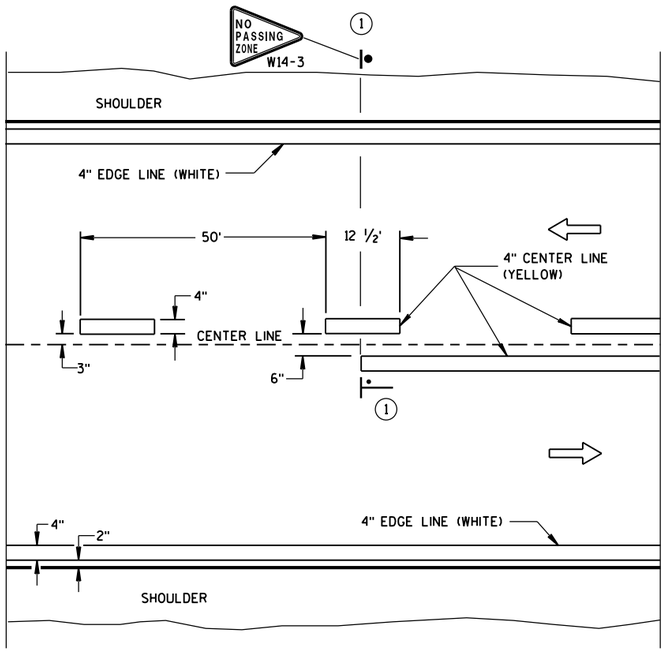
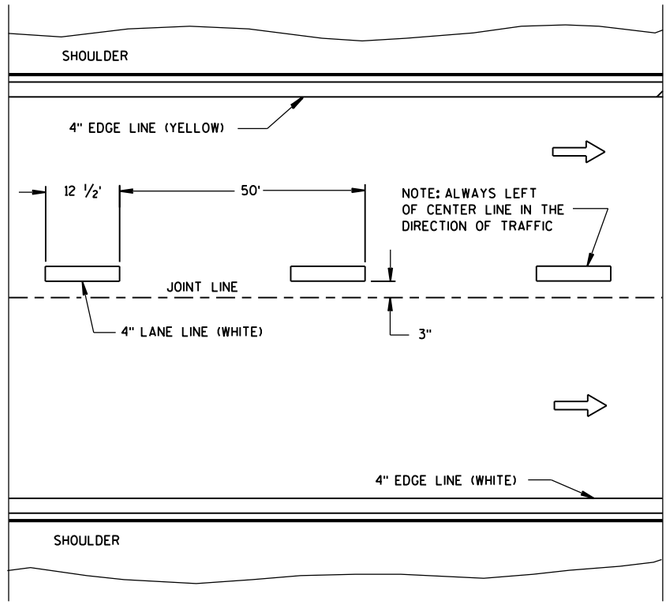
S.D.D. 15 C 7-13e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

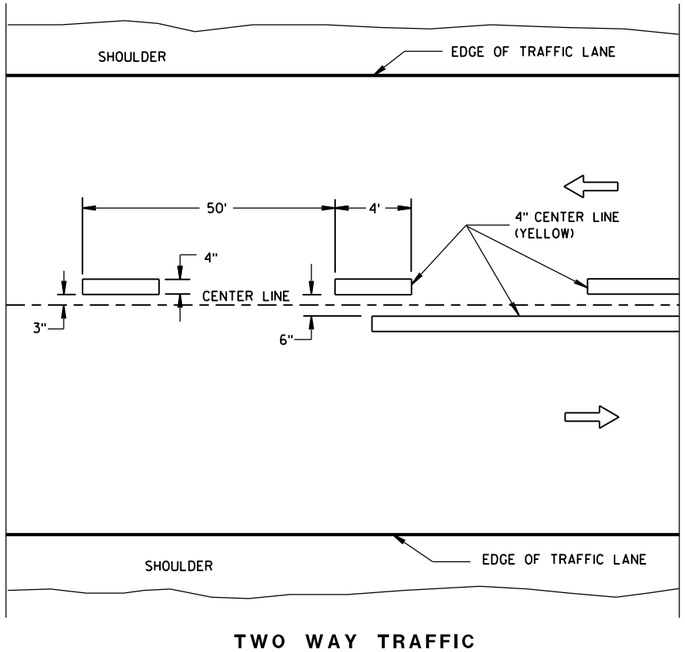
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

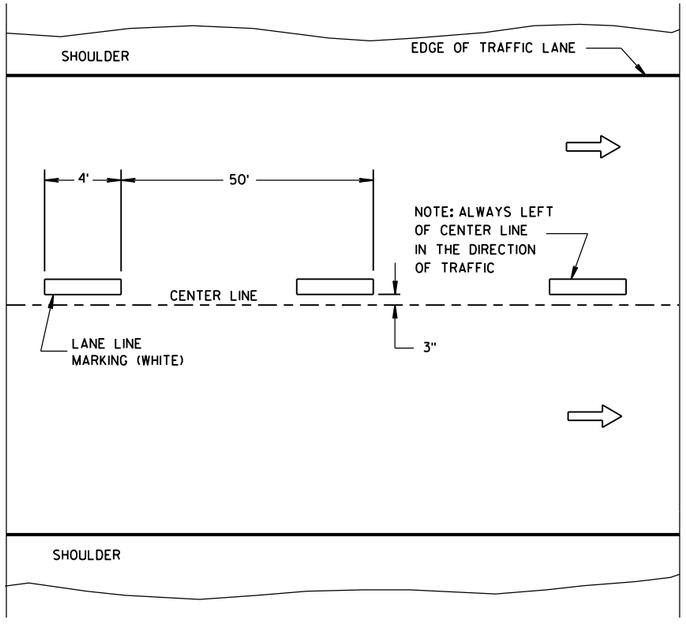
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

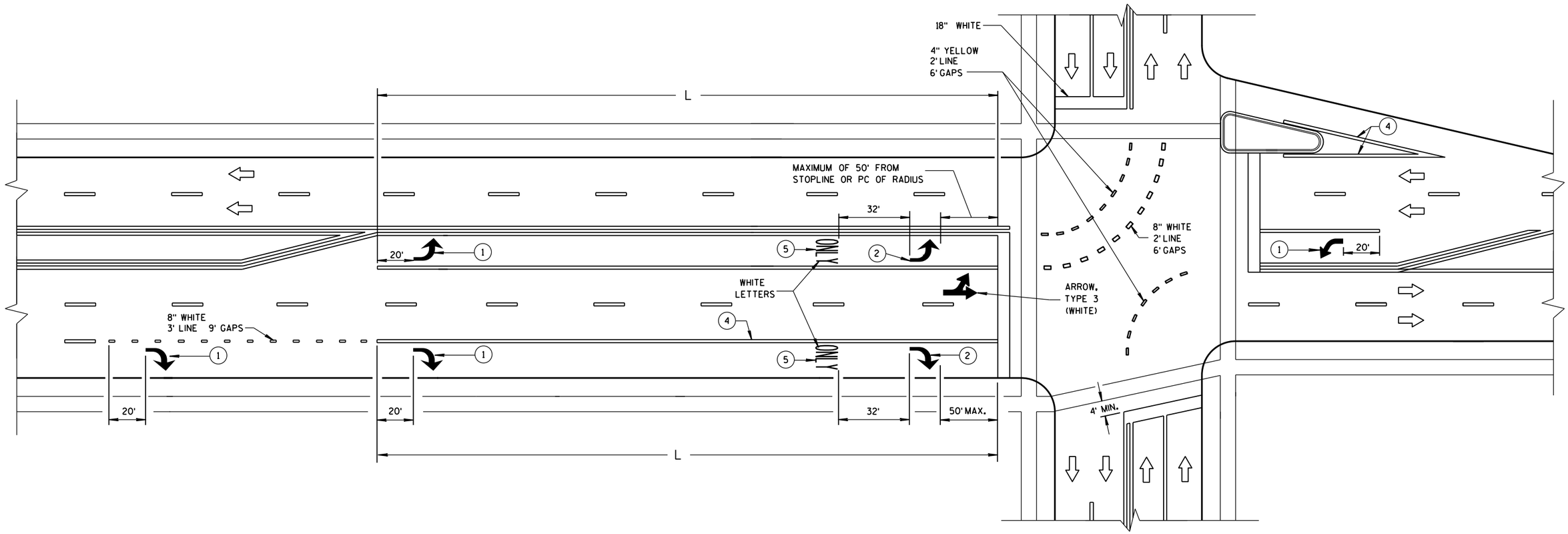
LONGITUDINAL MARKING (MAINLINE)

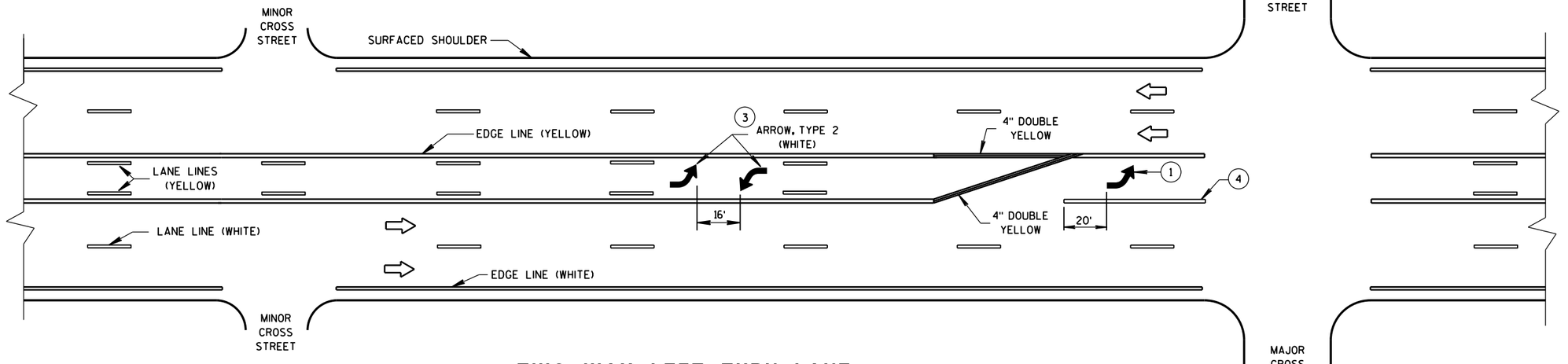
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

S.D.D. 15 C 8-17a

6





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

TWO WAY LEFT TURN LANE

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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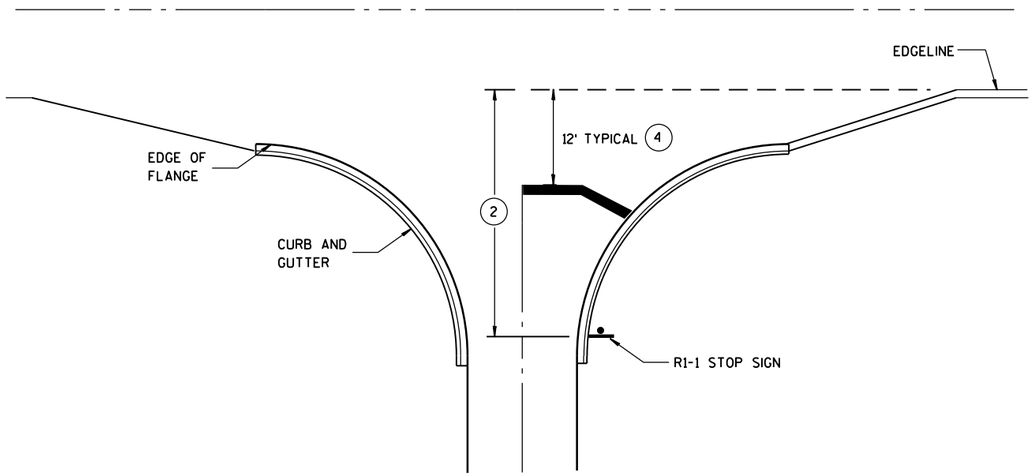
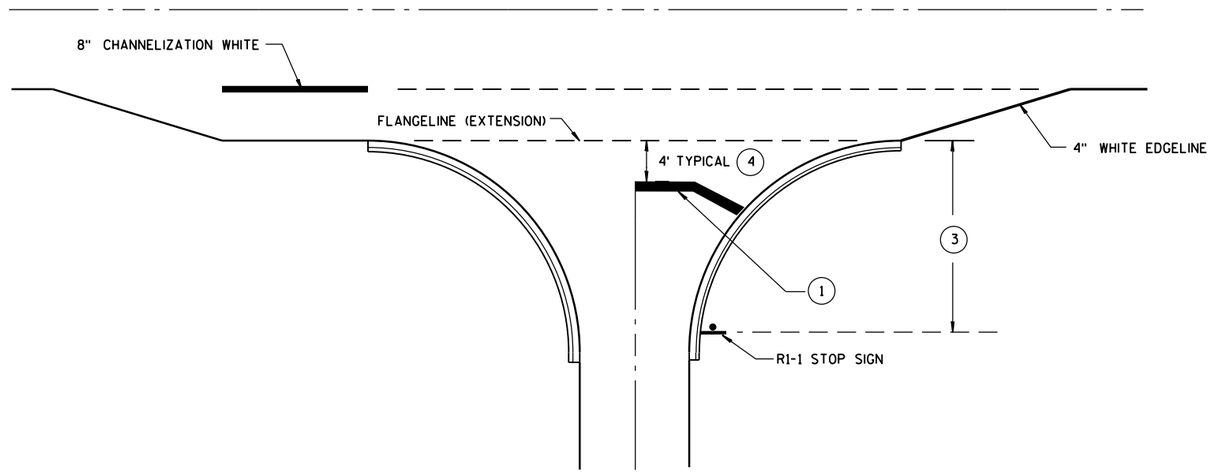
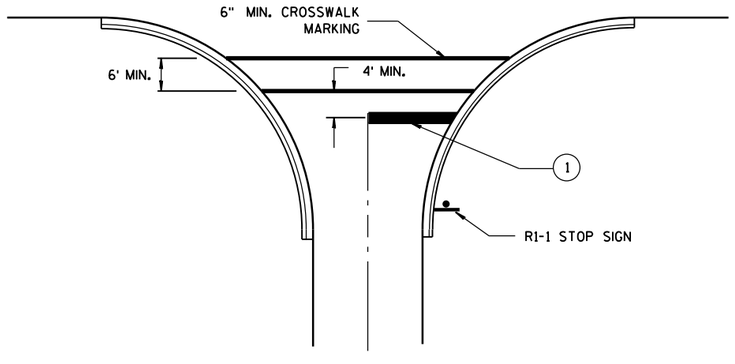
S.D.D. 15 C 8-17b



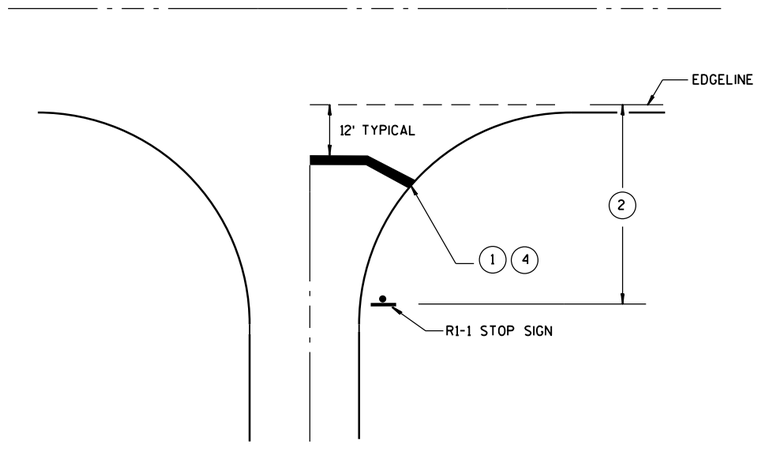
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

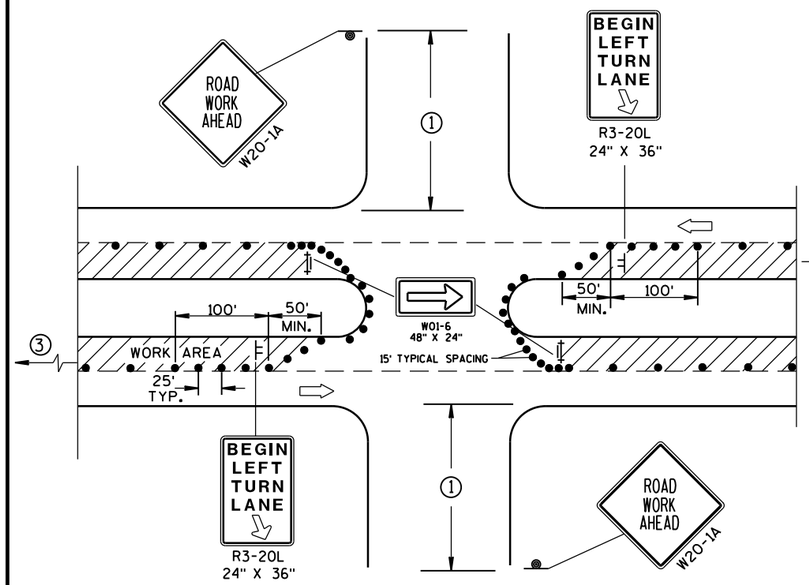
4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 240 NEER

FHWA

6

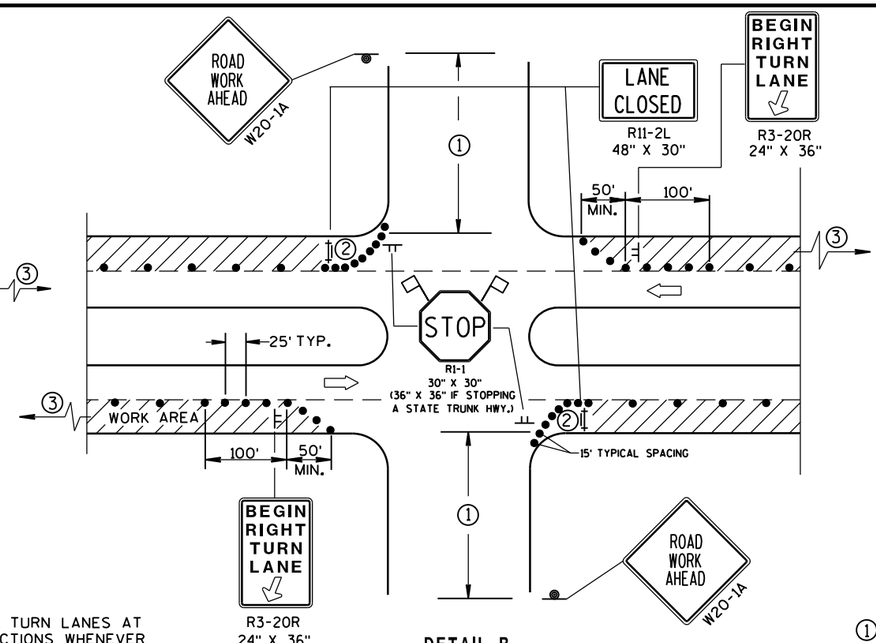
S.D.D. 15 C 33-2



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.

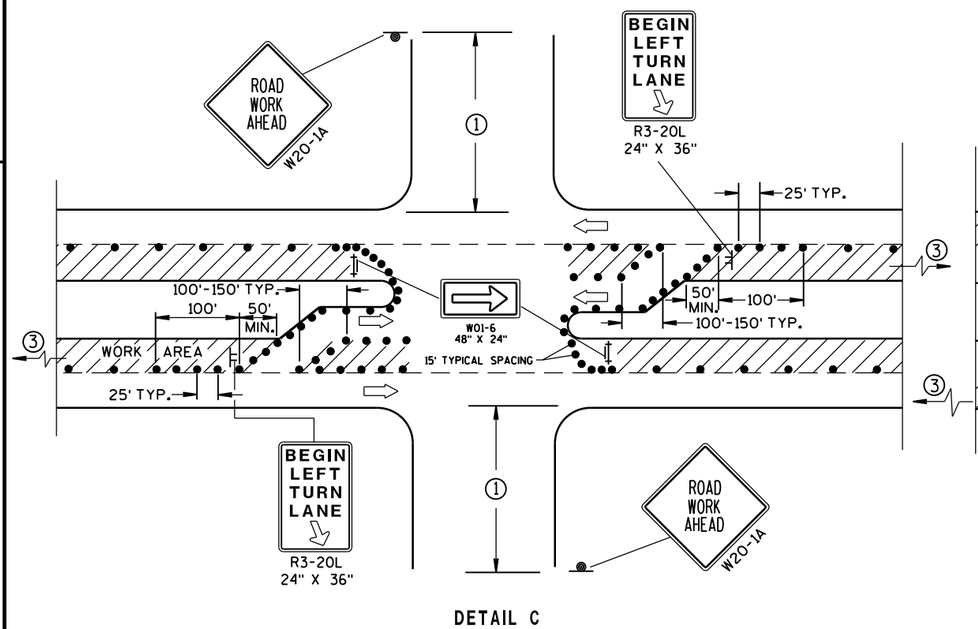
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

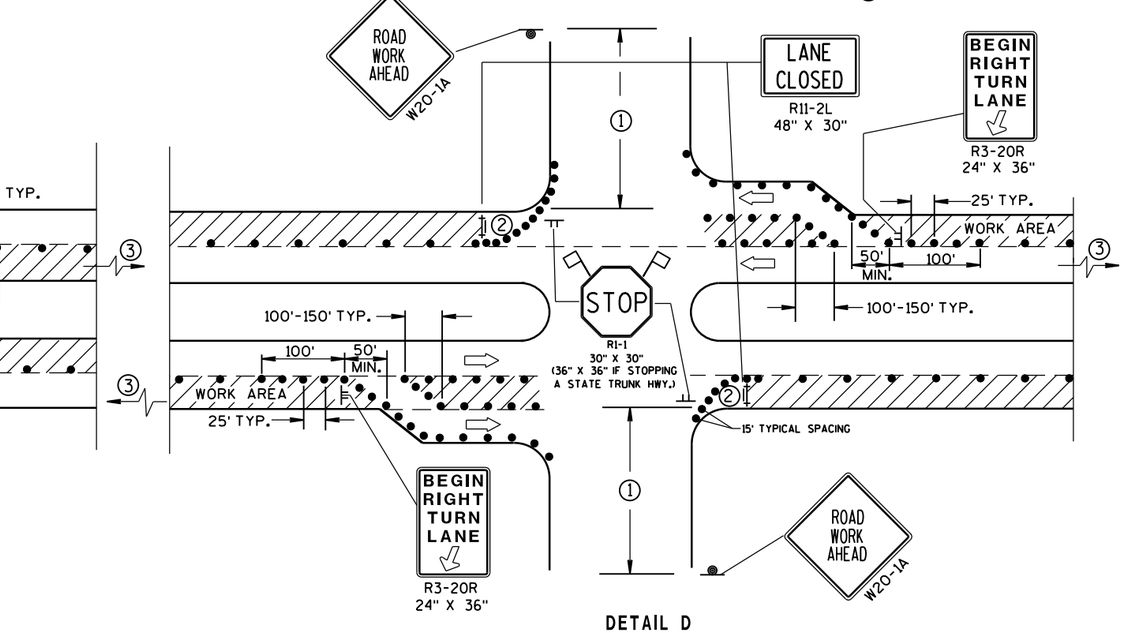
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 21-4

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S.D.D. 15 D 21-4

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

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

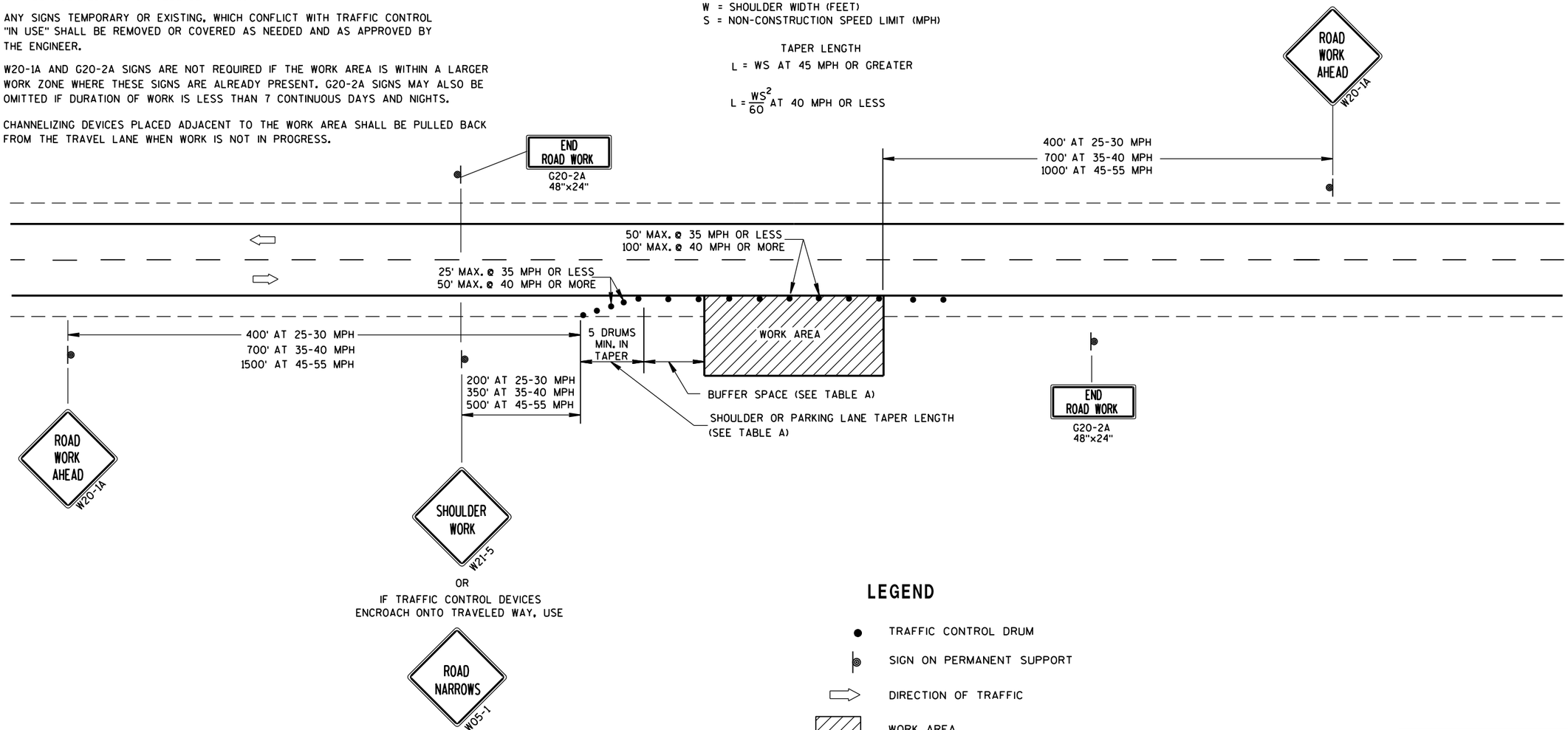
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

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

FHWA

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S.D.D. 15 D 28-3

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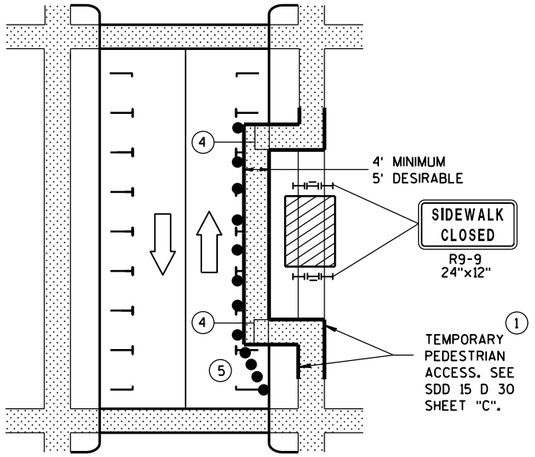
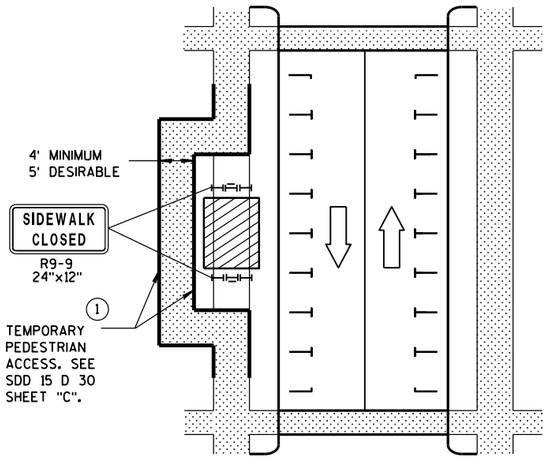
S.D.D. 15 D 28-3

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

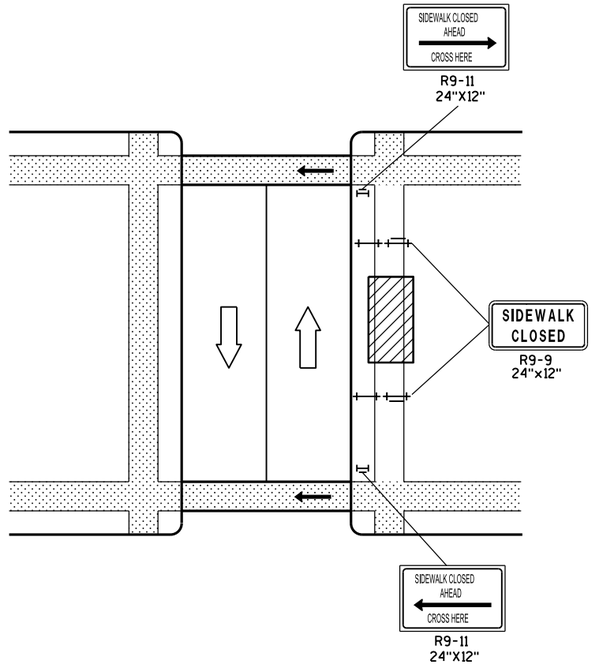


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

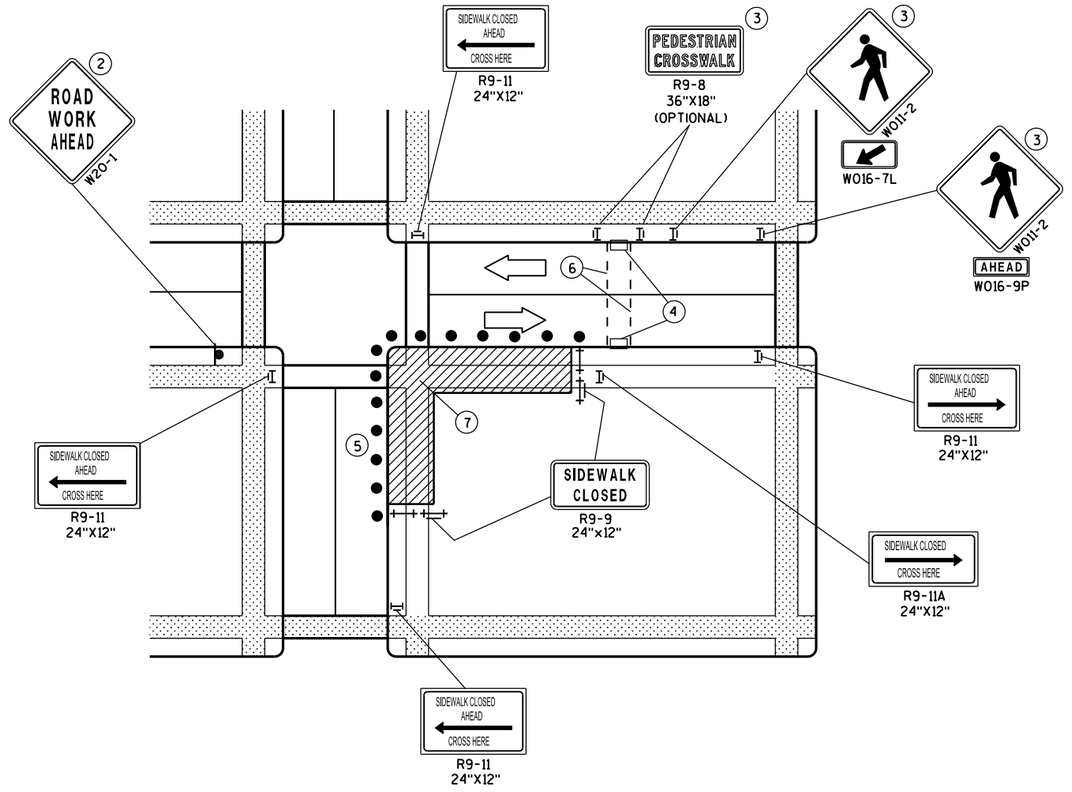
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

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

LEGEND

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

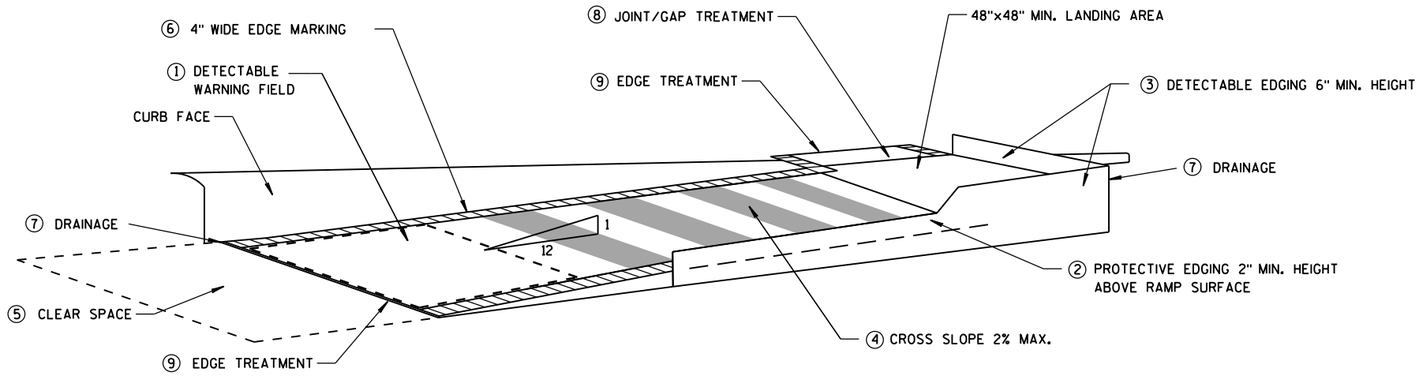
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

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



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

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

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

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

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

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

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

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

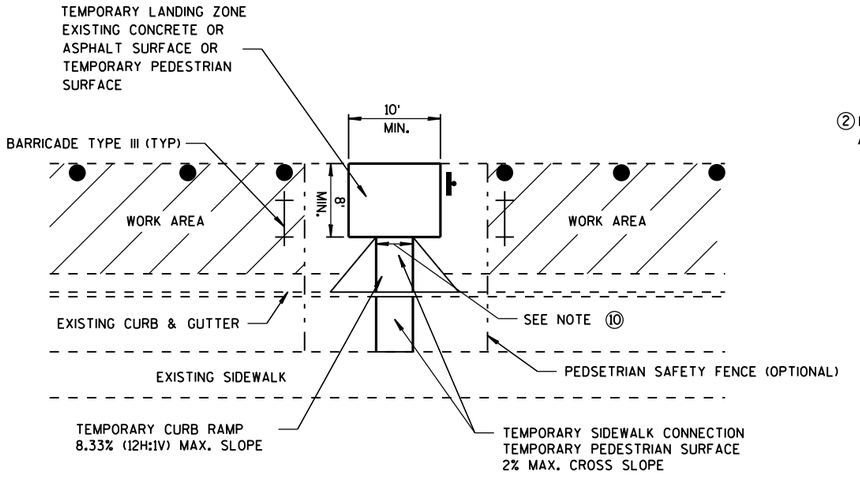
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

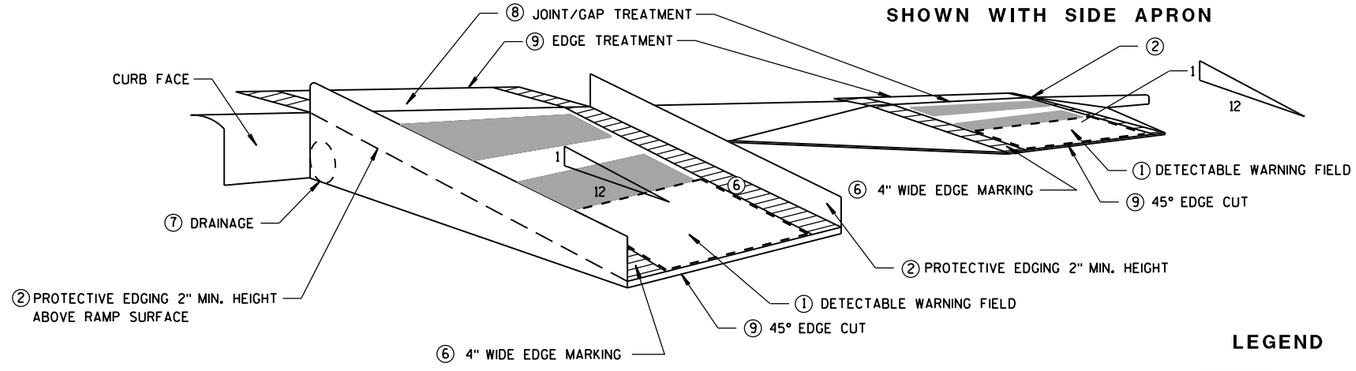
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

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



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

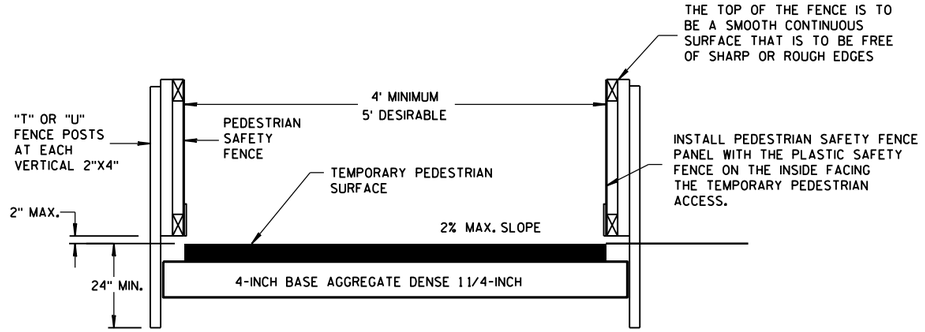
FHWA

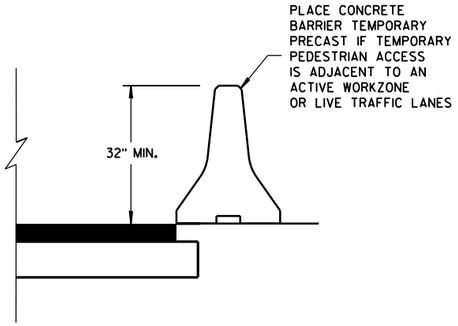
6

S.D.D. 15 D 30-3b

6

S.D.D. 15 D 30-3b

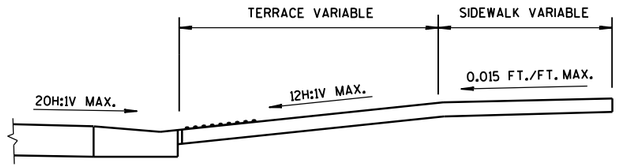




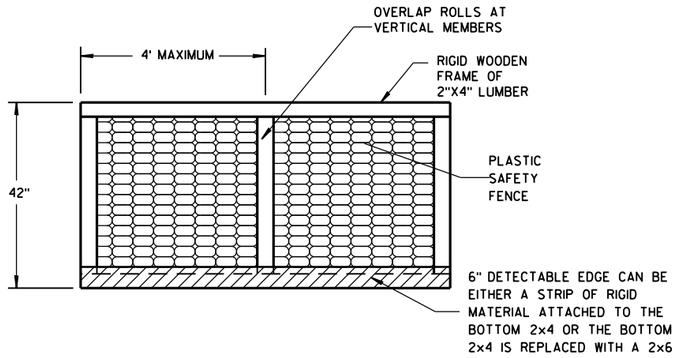
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

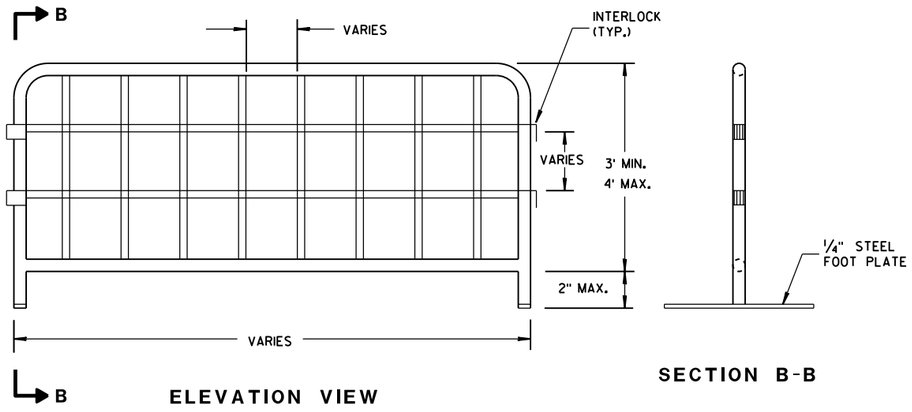
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



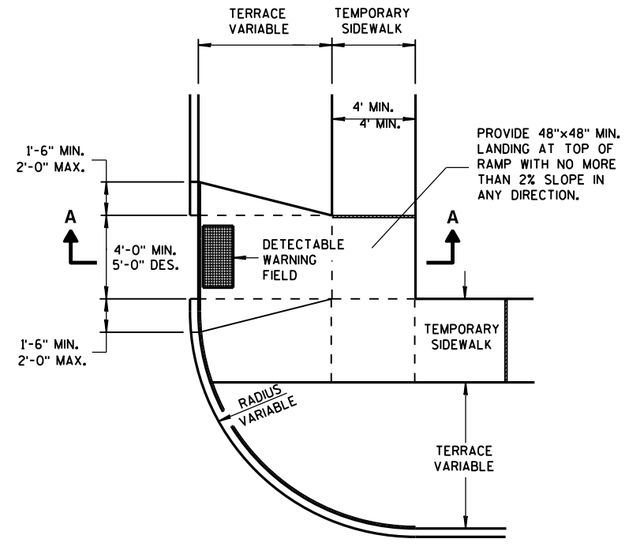
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

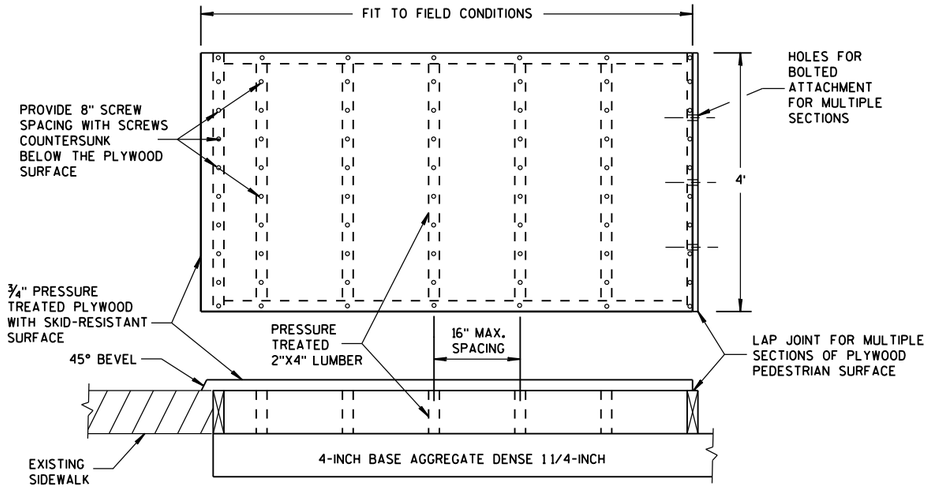
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



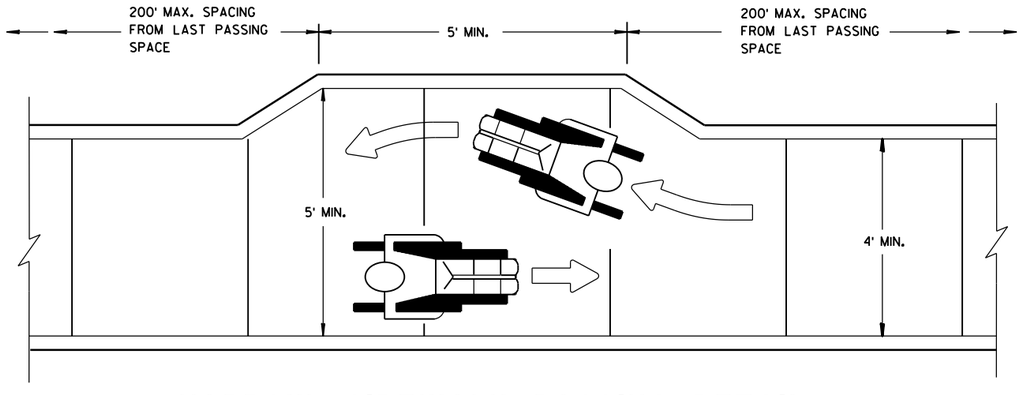
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

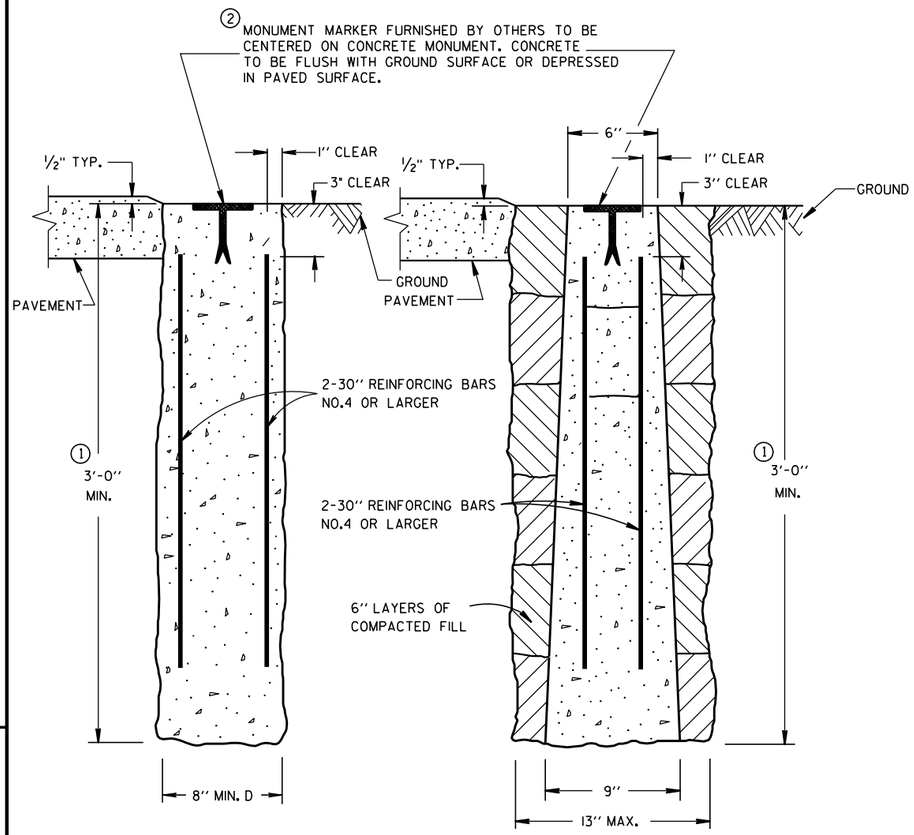
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

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

6

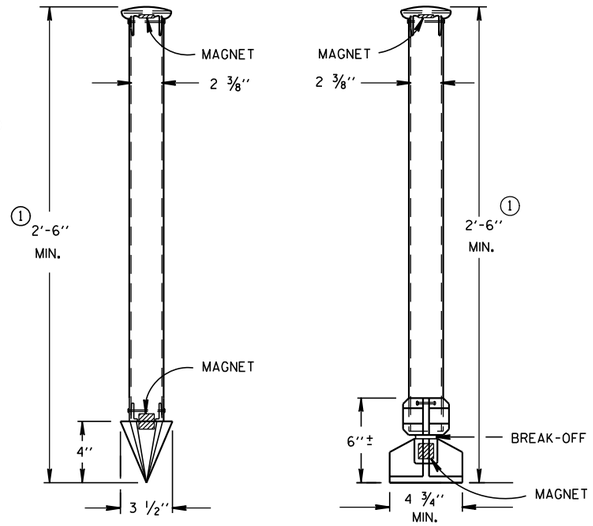
S.D.D. 15 D 30-3c



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

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

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

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

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

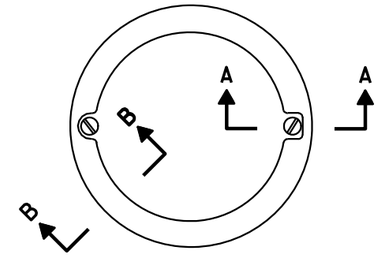
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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

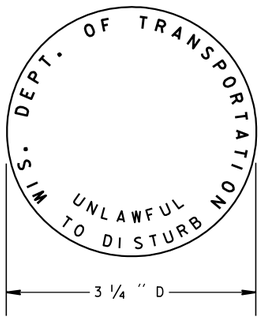
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

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

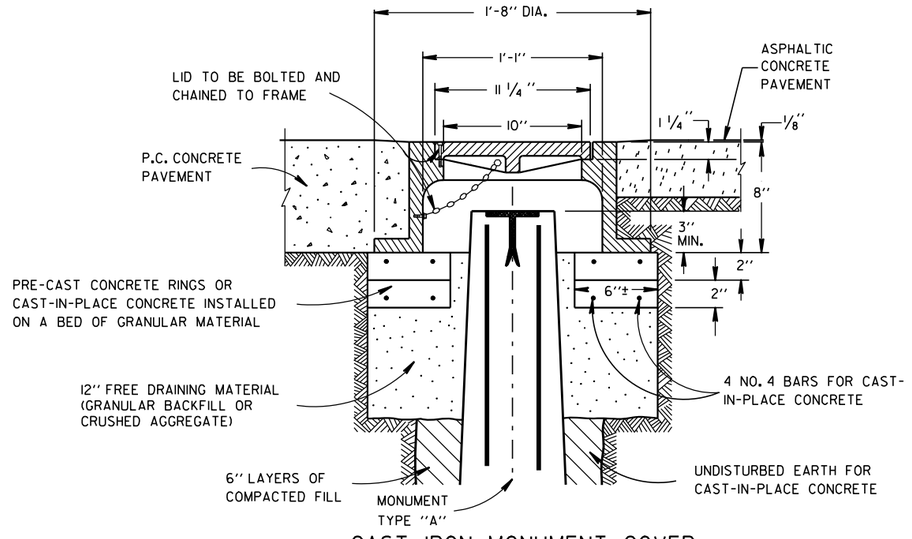
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

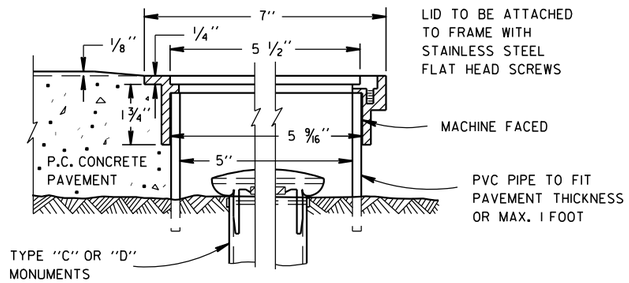


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 16 A 1-6

W. GREENFIELD AVENUE (WEST OF S. LAYTON BLVD) - STAGE 2

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
102+57 AH	47.76	0.00	55.45	0	0	0	0	0	0	0
103+00	46.96	0.00	55.85	75	0.0	89	75	0	99	75
103+50	39.53	0.00	55.08	80	0.0	103	155	0	213	155
104+00	37.44	0.08	56.52	71	0.1	103	226	0	327	226
104+50	34.76	0.12	55.01	67	0.2	103	293	0	442	293
105+00	78.89	0.00	0.00	105	0.1	51	398	0	498	398
105+15	79.09	0.00	0.00	44	0.0	0	442	0	498	442
105+50	32.21	0.00	0.00	72	0.0	0	514	0	498	514
106+00	37.24	0.00	0.00	64	0.0	0	578	0	498	578
106+50	34.01	0.31	0.00	66	0.3	0	644	1	498	643
107+00	33.11	0.18	0.00	62	0.5	0	706	1	498	705
107+50	34.21	0.00	0.00	62	0.2	0	768	1	498	767
108+00	35.00	0.10	0.00	64	0.1	0	832	2	498	830
108+50	54.90	0.00	0.00	83	0.1	0	915	2	498	913
108+59	57.05	0.00	0.00	19	0.0	0	934	2	498	932
109+00	37.45	0.00	0.00	71	0.0	0	1,005	2	498	1,003
109+50	34.33	0.01	0.00	66	0.0	0	1,071	2	498	1,069
110+00	38.87	0.00	0.00	68	0.0	0	1,139	2	498	1,137
110+50	39.90	0.00	0.00	73	0.0	0	1,212	2	498	1,210
111+00	34.72	0.03	0.00	69	0.0	0	1,281	2	498	1,279
111+50	35.76	0.00	0.00	65	0.0	0	1,346	2	498	1,344
112+00	39.80	0.05	0.00	70	0.0	0	1,416	2	498	1,414
112+50	40.40	0.00	0.00	74	0.0	0	1,490	2	498	1,488
113+00	37.54	0.00	26.34	72	0.0	24	1,562	2	525	1,560
113+50	38.83	0.00	26.34	71	0.0	49	1,633	2	579	1,631
114+00	38.68	0.03	26.34	72	0.0	49	1,705	2	634	1,703
114+50	36.18	0.18	26.87	69	0.2	49	1,774	2	688	1,772
115+00	22.28	0.00	20.63	54	0.2	44	1,828	2	737	1,826
115+19	56.92	0.00	27.04	28	0.0	17	1,856	2	756	1,854
115+39	53.29	0.00	26.49	41	0.0	20	1,897	2	778	1,895
115+50	56.73	0.00	25.79	23	0.0	11	1,920	2	790	1,918
116+00	31.75	0.00	26.37	82	0.0	48	2,002	2	844	2,000
116+50	31.35	0.28	26.34	58	0.3	49	2,060	3	898	2,057
117+00	33.84	0.10	0.00	60	0.4	24	2,120	3	925	2,117
117+50	35.83	0.26	0.00	65	0.3	0	2,185	3	925	2,182
118+00	37.05	0.00	0.00	67	0.2	0	2,252	4	925	2,248
118+31	68.02	0.00	0.00	60	0.0	0	2,312	4	925	2,308
118+50	70.92	0.00	0.00	50	0.0	0	2,362	4	925	2,358
119+00	39.50	0.47	0.00	102	0.4	0	2,464	4	925	2,460
119+50	39.53	0.28	0.00	73	0.7	0	2,537	5	925	2,532
120+00	39.66	0.01	0.00	73	0.3	0	2,610	5	925	2,605
120+50	38.99	0.27	0.00	73	0.3	0	2,683	5	925	2,678
121+00	39.98	0.07	54.86	73	0.3	51	2,756	6	981	2,750
121+50	61.35	0.00	52.81	94	0.1	100	2,850	6	1,092	2,844
122+00	37.72	0.02	53.90	92	0.0	99	2,942	6	1,202	2,936
122+50	39.38	0.18	54.85	71	0.2	101	3,013	6	1,314	3,007
123+00	41.74	0.00	55.01	75	0.2	102	3,088	6	1,427	3,082
123+50	41.51	0.00	54.93	77	0.0	102	3,165	6	1,541	3,159
124+00	35.04	0.24	54.85	71	0.2	102	3,236	6	1,654	3,230
124+50	64.19	0.00	52.45	92	0.2	99	3,328	7	1,764	3,321
125+00	33.27	0.00	52.59	90	0.0	97	3,418	7	1,871	3,411
125+50	35.61	0.04	0.00	64	0.0	49	3,482	7	1,926	3,475
126+00	32.59	0.50	0.00	63	0.5	0	3,545	7	1,926	3,538
126+50	38.67	0.01	0.00	66	0.5	0	3,611	8	1,926	3,603
127+00	38.73	0.00	0.00	72	0.0	0	3,683	8	1,926	3,675
127+50	39.83	0.00	0.00	73	0.0	0	3,756	8	1,926	3,748
127+71 BK	42.16	0.00	0.00	31	0.0	0	3,787	8	1,926	3,779
TOTAL				**3,787**	**7.1**	**1,735**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

9

9

W. GREENFIELD AVENUE (EAST OF S. LAYTON BLVD) - STAGE 2 (CONT.)

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
128+72 AH	52.75	0.00	0.00	0	0	0	0	0	0	0
129+00	54.32	0.00	0.00	56	0.0	0	56	0	0	56
129+50	50.65	0.00	24.92	97	0.0	23	153	0	26	153
130+00	45.81	0.00	24.92	89	0.0	46	242	0	77	242
130+50	41.82	0.00	24.98	81	0.0	46	323	0	128	323
131+00	40.27	0.00	25.71	76	0.0	47	399	0	180	399
131+50	36.83	0.22	26.23	71	0.2	48	470	0	233	470
131+96	79.32	0.00	26.67	99	0.2	45	569	0	283	569
132+00	79.04	0.00	26.41	12	0.0	4	581	0	287	581
132+50	38.22	0.00	26.34	109	0.0	49	690	0	342	690
133+00	30.98	0.00	0.00	64	0.0	24	754	0	369	754
133+50	32.86	0.00	0.00	59	0.0	0	813	0	369	813
134+00	33.36	0.00	0.00	61	0.0	0	874	0	369	874
134+50	36.90	0.47	0.00	65	0.4	0	939	1	369	938
135+00	38.00	0.78	0.00	69	1.2	0	1,008	2	369	1,006
135+50	50.90	0.00	0.00	82	0.7	0	1,090	3	369	1,087
135+66	52.45	0.00	0.00	31	0.0	0	1,121	3	369	1,118
136+00	23.10	0.00	0.00	48	0.0	0	1,169	3	369	1,166
136+50	29.81	0.76	0.00	49	0.7	0	1,218	4	369	1,214
137+00	37.83	0.41	0.00	63	1.1	0	1,281	5	369	1,276
137+50	38.89	0.56	0.00	71	0.9	0	1,352	6	369	1,346
138+00	37.44	0.36	0.00	71	0.9	0	1,423	7	369	1,416
138+50	38.83	0.00	0.00	71	0.3	0	1,494	7	369	1,487
139+00	29.47	1.27	0.00	63	1.2	0	1,557	9	369	1,548
139+36	66.53	0.00	0.00	64	0.8	0	1,621	10	369	1,611
139+50	67.27	0.00	0.00	35	0.0	0	1,656	10	369	1,646
140+00	28.17	1.70	26.34	88	1.6	24	1,744	11	395	1,733
140+50	36.11	0.48	26.34	60	2.0	49	1,804	14	450	1,790
141+00	37.75	0.71	26.34	68	1.1	49	1,872	15	504	1,857
141+50	47.81	0.50	26.34	79	1.1	49	1,951	16	558	1,935
142+00	47.50	0.00	26.34	88	0.5	49	2,039	17	613	2,022
142+50	48.92	0.00	26.35	89	0.0	49	2,128	17	667	2,111
143+00	98.64	0.00	26.84	137	0.0	49	2,265	17	722	2,248
143+06	99.21	0.00	26.80	23	0.0	6	2,288	17	728	2,271
143+50	38.60	0.00	26.38	112	0.0	43	2,400	17	776	2,383
144+00	33.66	1.20	0.00	67	1.1	24	2,467	18	803	2,449
144+50	34.66	1.05	0.00	63	2.1	0	2,530	20	803	2,510
145+00	36.87	0.34	0.00	66	1.3	0	2,596	21	803	2,575
145+50	37.56	0.00	0.00	69	0.3	0	2,665	22	803	2,643
146+00	46.21	0.00	0.00	78	0.0	0	2,743	22	803	2,721
146+50	47.88	0.00	0.00	87	0.0	0	2,830	22	803	2,808
146+76	84.96	0.00	0.00	64	0.0	0	2,894	22	803	2,872
147+00	34.66	0.12	0.00	53	0.1	0	2,947	22	803	2,925
147+50	30.60	0.87	0.00	60	0.9	0	3,007	23	803	2,984
148+00	41.75	0.17	54.93	67	1.0	51	3,074	24	859	3,050
148+15	38.92	0.23	54.93	22	0.1	30	3,096	24	892	3,072
148+50	41.76	0.00	53.69	53	0.2	71	3,149	24	971	3,125
149+00	39.32	0.78	54.90	75	0.7	101	3,224	25	1,083	3,199
149+50	41.00	0.77	54.98	74	1.4	102	3,298	27	1,197	3,271
150+00	32.01	2.98	60.96	68	3.5	107	3,366	31	1,315	3,335
150+46	60.57	0.00	53.31	79	2.5	98	3,445	33	1,424	3,412
150+50	75.38	0.00	52.84	10	0.0	8	3,455	33	1,433	3,422
151+00	40.83	0.00	53.86	108	0.0	99	3,563	33	1,543	3,530
151+50	40.48	0.40	27.47	75	0.4	75	3,638	34	1,626	3,604
152+00	40.48	0.99	27.34	75	1.3	51	3,713	35	1,683	3,678
152+50	43.66	0.81	26.95	78	1.7	50	3,791	37	1,738	3,754
153+00	46.67	0.93	26.34	84	1.6	49	3,875	39	1,793	3,836
SUBTOTAL				**3,875**	**35.0**	**1,615**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backkill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

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W. GREENFIELD AVENUE (EAST OF S. LAYTON BLVD) - STAGE 2 (CONT.)

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
153+50	52.56	0.54	26.73	92	1.4	49	3,967	40	1,847	3,927
154+00	69.42	0.00	27.21	113	0.5	50	4,080	41	1,903	4,039
154+10	74.93	0.00	26.66	26	0.0	10	4,106	41	1,914	4,065
154+16	76.98	0.00	26.02	19	0.0	6	4,125	41	1,920	4,084
154+50	49.01	0.00	31.80	79	0.0	36	4,204	41	1,960	4,163
155+00	51.98	0.10	55.00	94	0.1	80	4,298	41	2,049	4,257
155+50	45.87	0.31	54.82	91	0.4	102	4,389	41	2,162	4,348
156+00	41.23	1.07	54.72	81	1.3	101	4,470	43	2,274	4,427
156+50	44.61	0.45	54.85	79	1.4	101	4,549	44	2,387	4,505
157+00	50.94	0.03	54.96	88	0.4	102	4,637	45	2,500	4,592
157+50	88.55	0.00	53.19	129	0.0	100	4,766	45	2,611	4,721
157+54	89.11	0.00	53.38	12	0.0	7	4,778	45	2,618	4,733
158+00	41.57	0.00	53.82	112	0.0	92	4,890	45	2,721	4,845
158+50	40.03	0.29	54.85	76	0.3	101	4,966	45	2,833	4,921
159+00	39.18	0.00	58.83	73	0.3	105	5,039	46	2,949	4,993
159+50	38.39	0.17	0.00	72	0.2	54	5,111	46	3,009	5,065
159+54	39.17	0.20	0.00	5	0.0	0	5,116	46	3,009	5,070
160+00	45.34	0.11	0.00	72	0.3	0	5,188	46	3,009	5,142
160+50	34.96	2.36	0.00	74	2.3	0	5,262	49	3,009	5,213
161+00	131.72	0.00	0.00	154	2.2	0	5,416	51	3,009	5,365
161+50	33.85	0.00	0.00	153	0.0	0	5,569	51	3,009	5,518
162+00	34.62	0.18	0.00	63	0.2	0	5,632	51	3,009	5,581
162+50	40.18	0.00	0.00	69	0.2	0	5,701	51	3,009	5,650
163+00	34.86	0.10	0.00	69	0.1	0	5,770	51	3,009	5,719
163+50	31.56	0.06	0.00	62	0.1	0	5,832	52	3,009	5,780
164+00	43.33	0.00	0.00	69	0.1	0	5,901	52	3,009	5,849
164+29	68.27	0.00	0.00	60	0.0	0	5,961	52	3,009	5,909
164+50	68.44	0.00	0.00	53	0.0	0	6,014	52	3,009	5,962
165+00	29.09	0.00	0.00	90	0.0	0	6,104	52	3,009	6,052
165+50	31.72	0.00	0.00	56	0.0	0	6,160	52	3,009	6,108
166+00	40.45	0.00	0.00	67	0.0	0	6,227	52	3,009	6,175
166+50	40.69	0.00	0.00	75	0.0	0	6,302	52	3,009	6,250
166+79	44.73	0.00	0.00	46	0.0	0	6,348	52	3,009	6,296
167+00	47.54	0.00	0.00	36	0.0	0	6,384	52	3,009	6,332
167+15 BK	24.59	0.00	0.00	20	0.0	0	6,404	52	3,009	6,352
SUBTOTAL				**2,529**	**11.6**	**1,096**				
TOTAL				**6,404**	**46.6**	**2,711**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

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S. 31ST STREET (SOUTH OF W. GREENFIELD AVENUE) - STAGE 2

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
18+90 AH	22.68	0.00	0.00	0	0	0	0	0	0	0
19+00	24.68	0.00	0.00	9	0	0	9	0	0	9
19+50 BK	25.68	0.00	0.00	47	0	0	56	0	0	56
TOTAL				**56**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 31ST STREET (NORTH OF W. GREENFIELD AVENUE) - STAGE 2

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
20+50 AH	22.87	0.47	0.00	0	0	0	0	0	0	0
20+65 BK	27.00	0.00	0.00	14	0	0	14	0	0	14
TOTAL				**14**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 21ST STREET (SOUTH OF W. GREENFIELD AVENUE) - STAGE 2

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
64+15 AH	30.00	0.09	0.00	0	0	0	0	0	0	0
64+50 BK	29.48	0.45	0.00	39	0	0	39	0	0	39
TOTAL				**39**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 21ST STREET (NORTH OF W. GREENFIELD AVENUE) - STAGE 2

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
65+50 AH	31.48	0.00	0.00	0	0	0	0	0	0	0
65+85 BK	28.43	0.22	0.00	39	0	0	39	0	0	39
TOTAL				**39**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

W. GREENFIELD AVENUE (WEST OF S. LAYTON BLVD) - STAGE 3

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
102+57 AH	30.51	0.00	60.62	0	0	0	0	0	0	0
103+00	29.83	0.00	60.33	48	0.0	96	48	0	107	48
103+50	29.94	0.01	61.12	55	0.0	112	103	0	231	103
104+00	31.64	0.00	59.39	57	0.0	112	160	0	355	160
104+50	34.39	0.00	55.00	61	0.0	106	221	0	473	221
105+00	51.99	0.00	0.00	80	0.0	51	301	0	529	301
105+15	53.47	0.00	0.00	29	0.0	0	330	0	529	330
105+50	31.38	0.00	0.00	55	0.0	0	385	0	529	385
106+00	37.27	0.00	0.00	64	0.0	0	449	0	529	449
106+50	37.38	0.00	0.00	69	0.0	0	518	0	529	518
107+00	34.70	0.00	0.00	67	0.0	0	585	0	529	585
107+50	34.09	0.00	0.00	64	0.0	0	649	0	529	649
108+00	34.13	0.00	0.00	63	0.0	0	712	0	529	712
108+50	105.06	0.00	0.00	129	0.0	0	841	0	529	841
108+59	103.84	0.00	0.00	36	0.0	0	877	0	529	877
109+00	29.31	0.13	0.00	100	0.1	0	977	0	529	977
109+50	33.12	0.02	0.00	58	0.1	0	1,035	0	529	1,035
110+00	37.57	0.00	0.00	65	0.0	0	1,100	0	529	1,100
110+50	42.16	0.00	0.00	74	0.0	0	1,174	0	529	1,174
111+00	31.63	0.29	0.00	68	0.3	0	1,242	1	529	1,241
111+50	24.02	0.82	0.00	52	1.0	0	1,294	2	529	1,292
112+00	72.56	0.00	0.00	89	0.8	0	1,383	3	529	1,380
112+50	33.29	0.00	0.00	98	0.0	0	1,481	3	529	1,478
113+00	34.34	0.00	26.34	63	0.0	24	1,544	3	556	1,541
113+50	37.17	0.00	26.34	66	0.0	49	1,610	3	611	1,607
114+00	39.08	0.00	26.34	71	0.0	49	1,681	3	665	1,678
114+50	37.49	0.00	26.34	71	0.0	49	1,752	3	719	1,749
115+00	39.63	0.00	29.30	71	0.0	52	1,823	3	777	1,820
115+19	68.50	0.00	26.72	38	0.0	20	1,861	3	799	1,858
115+39	61.07	0.00	29.60	48	0.0	21	1,909	3	823	1,906
115+50	29.00	0.00	21.43	19	0.0	11	1,928	3	835	1,925
116+00	35.93	0.00	26.34	60	0.0	44	1,988	3	884	1,985
116+50	33.03	0.00	26.34	64	0.0	49	2,052	3	938	2,049
117+00	38.14	0.00	0.00	66	0.0	24	2,118	3	965	2,115
117+50	42.59	0.00	0.00	75	0.0	0	2,193	3	965	2,190
118+00	43.85	0.00	0.00	80	0.0	0	2,273	3	965	2,270
118+31	87.46	0.00	0.00	74	0.0	0	2,347	3	965	2,344
118+50	63.68	0.00	0.00	54	0.0	0	2,401	3	965	2,398
119+00	40.56	0.20	0.00	97	0.2	0	2,498	3	965	2,495
119+50	38.82	0.29	0.00	74	0.5	0	2,572	3	965	2,569
120+00	39.77	0.13	0.00	73	0.4	0	2,645	4	965	2,641
120+50	38.97	0.04	0.00	73	0.2	0	2,718	4	965	2,714
121+00	41.09	0.00	53.88	74	0.0	50	2,792	4	1,020	2,788
121+50	88.47	0.00	52.84	120	0.0	99	2,912	4	1,130	2,908
122+00	34.94	0.44	57.94	114	0.4	103	3,026	4	1,244	3,022
122+50	39.51	0.10	54.80	69	0.5	104	3,095	5	1,360	3,090
123+00	42.11	0.00	54.91	76	0.1	102	3,171	5	1,473	3,166
123+50	43.55	0.00	55.06	79	0.0	102	3,250	5	1,586	3,245
124+00	43.18	0.01	55.06	80	0.0	102	3,330	5	1,699	3,325
124+50	38.77	0.42	54.92	76	0.4	102	3,406	6	1,813	3,400
125+00	37.55	0.00	54.50	71	0.4	101	3,477	6	1,925	3,471
125+50	31.50	0.03	0.00	64	0.0	50	3,541	6	1,980	3,535
126+00	34.32	0.00	0.00	61	0.0	0	3,602	6	1,980	3,596
126+50	34.39	0.00	0.00	64	0.0	0	3,666	6	1,980	3,660
127+00	33.85	0.00	0.00	63	0.0	0	3,729	6	1,980	3,723
127+50	37.34	0.00	0.00	66	0.0	0	3,795	6	1,980	3,789
127+71 BK	36.53	0.00	0.00	28	0.0	0	3,823	6	1,980	3,817
TOTAL				**3,823**	**5.4**	**1,784**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

W. GREENFIELD AVENUE (EAST OF S. LAYTON BLVD) - STAGE 3 (CONT.)

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
128+72 AH	28.31	0.00	0.00	0	0	0	0	0	0	0
129+00	29.84	0.00	0.00	31	0.0	0	31	0	0	31
129+50	30.22	0.00	32.18	56	0.0	30	87	0	33	87
130+00	25.71	0.00	31.45	52	0.0	59	139	0	99	139
130+50	24.12	0.31	32.41	46	0.3	59	185	0	164	185
131+00	30.86	1.13	31.38	51	1.3	59	236	2	230	234
131+50	30.68	1.60	28.49	57	2.5	55	293	5	291	288
131+96	71.10	0.00	26.71	87	1.4	47	380	6	343	374
132+00	72.70	0.00	26.63	11	0.0	4	391	6	347	385
132+50	37.24	0.00	26.58	102	0.0	49	493	6	402	487
133+00	37.50	0.00	0.00	69	0.0	25	562	6	430	556
133+50	32.17	0.00	0.00	65	0.0	0	627	6	430	621
134+00	34.43	0.00	0.00	62	0.0	0	689	6	430	683
134+50	40.20	0.00	0.00	69	0.0	0	758	6	430	752
135+00	44.48	0.00	0.00	78	0.0	0	836	6	430	830
135+50	70.08	0.00	0.00	106	0.0	0	942	6	430	936
135+66	68.71	0.00	0.00	41	0.0	0	983	6	430	977
136+00	20.17	0.00	0.00	56	0.0	0	1,039	6	430	1,033
136+50	32.21	0.86	0.00	49	0.8	0	1,088	7	430	1,081
137+00	42.67	0.25	0.00	69	1.0	0	1,157	8	430	1,149
137+50	48.19	0.00	0.00	84	0.2	0	1,241	8	430	1,233
138+00	45.80	0.00	0.00	87	0.0	0	1,328	8	430	1,320
138+50	43.16	0.00	0.00	82	0.0	0	1,410	8	430	1,402
139+00	35.96	0.00	0.00	73	0.0	0	1,483	8	430	1,475
139+36	73.28	0.00	0.00	73	0.0	0	1,556	8	430	1,548
139+50	62.65	0.00	0.00	36	0.0	0	1,592	8	430	1,584
140+00	32.85	0.00	26.34	88	0.0	24	1,680	8	456	1,672
140+50	37.24	0.00	26.34	65	0.0	49	1,745	8	511	1,737
141+00	38.12	0.00	26.34	70	0.0	49	1,815	8	565	1,807
141+50	43.15	0.00	26.34	75	0.0	49	1,890	8	619	1,882
142+00	41.88	0.33	26.46	79	0.3	49	1,969	9	674	1,960
142+50	49.10	0.00	26.48	84	0.3	49	2,053	9	728	2,044
143+00	76.88	0.00	26.08	117	0.0	49	2,170	9	783	2,161
143+06	79.55	0.00	26.77	18	0.0	6	2,188	9	789	2,179
143+50	38.44	0.00	27.42	95	0.0	44	2,283	9	838	2,274
144+00	34.10	0.00	0.00	67	0.0	25	2,350	9	866	2,341
144+50	37.45	0.00	0.00	66	0.0	0	2,416	9	866	2,407
145+00	36.08	0.01	0.00	68	0.0	0	2,484	9	866	2,475
145+50	32.28	0.32	0.00	63	0.3	0	2,547	9	866	2,538
146+00	34.52	0.61	0.00	62	0.9	0	2,609	10	866	2,599
146+50	38.63	0.00	0.00	68	0.6	0	2,677	11	866	2,666
146+76	61.77	0.00	0.00	48	0.0	0	2,725	11	866	2,714
147+00	38.59	0.00	0.00	45	0.0	0	2,770	11	866	2,759
147+50	34.53	0.00	0.00	68	0.0	0	2,838	11	866	2,827
148+00	43.33	0.01	53.88	72	0.0	50	2,910	11	921	2,899
148+15	37.50	0.00	53.72	22	0.0	29	2,932	11	953	2,921
148+50	36.93	0.00	53.90	49	0.0	70	2,981	11	1,031	2,970
149+00	33.74	0.00	53.91	65	0.0	100	3,046	11	1,142	3,035
149+50	38.36	0.35	54.82	67	0.3	101	3,113	11	1,254	3,102
150+00	35.35	0.00	53.91	68	0.3	101	3,181	12	1,366	3,169
150+46	64.22	0.00	53.11	85	0.0	91	3,266	12	1,467	3,254
150+50	50.48	0.00	52.66	8	0.0	8	3,274	12	1,476	3,262
151+00	38.06	0.00	53.86	82	0.0	99	3,356	12	1,586	3,344
151+50	44.12	0.00	26.51	76	0.0	74	3,432	12	1,668	3,420
152+00	41.47	0.05	26.34	79	0.0	49	3,511	12	1,723	3,499
152+50	42.49	0.10	26.34	78	0.1	49	3,589	12	1,777	3,577
153+00	42.86	0.09	26.34	79	0.2	49	3,668	12	1,832	3,656
SUBTOTAL				**3,668**	**10.9**	**1,650**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backfill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

W. GREENFIELD AVENUE (EAST OF S. LAYTON BLVD) - STAGE 3 (CONT.)

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
153+50	48.80	0.00	26.89	85	0.1	49	3,753	12	1,886	3,741
154+00	105.55	0.00	27.21	143	0.0	50	3,896	12	1,941	3,884
154+10	104.61	0.00	26.26	37	0.0	9	3,933	12	1,951	3,921
154+16	101.50	0.00	26.19	25	0.0	6	3,958	12	1,958	3,946
154+50	47.53	0.00	32.57	93	0.0	37	4,051	12	1,999	4,039
155+00	49.84	0.00	54.87	90	0.0	81	4,141	12	2,089	4,129
155+50	39.79	0.30	54.80	83	0.3	102	4,224	13	2,202	4,211
156+00	44.86	0.00	53.54	78	0.3	100	4,302	13	2,313	4,289
156+50	40.86	0.12	54.87	79	0.1	100	4,381	13	2,424	4,368
157+00	48.22	0.00	54.92	82	0.1	102	4,463	13	2,537	4,450
157+50	45.44	0.14	54.72	87	0.1	102	4,550	13	2,651	4,537
157+54	45.13	0.19	54.75	6	0.0	7	4,556	13	2,658	4,543
158+00	39.64	0.00	53.79	73	0.2	93	4,629	13	2,762	4,616
158+50	33.16	0.06	53.93	67	0.1	100	4,696	14	2,873	4,682
159+00	39.33	0.00	57.62	67	0.1	103	4,763	14	2,987	4,749
159+50	75.56	0.00	0.00	106	0.0	53	4,869	14	3,046	4,855
159+54	71.78	0.00	0.00	10	0.0	0	4,879	14	3,046	4,865
160+00	44.84	0.00	0.00	100	0.0	0	4,979	14	3,046	4,965
160+50	44.23	0.15	0.00	82	0.1	0	5,061	14	3,046	5,047
161+00	43.69	0.00	0.00	81	0.1	0	5,142	14	3,046	5,128
161+50	36.73	0.43	0.00	74	0.4	0	5,216	14	3,046	5,202
162+00	40.83	0.00	0.00	72	0.4	0	5,288	15	3,046	5,273
162+50	38.58	0.67	0.00	74	0.6	0	5,362	15	3,046	5,347
163+00	37.05	0.51	0.00	70	1.1	0	5,432	17	3,046	5,415
163+50	102.22	0.11	0.00	129	0.6	0	5,561	17	3,046	5,544
164+00	33.39	0.00	0.00	126	0.1	0	5,687	17	3,046	5,670
164+29	42.04	0.00	0.00	41	0.0	0	5,728	17	3,046	5,711
164+50	37.73	0.00	0.00	31	0.0	0	5,759	17	3,046	5,742
165+00	35.19	0.00	0.00	68	0.0	0	5,827	17	3,046	5,810
165+50	34.49	0.00	0.00	65	0.0	0	5,892	17	3,046	5,875
166+00	33.94	0.00	0.00	63	0.0	0	5,955	17	3,046	5,938
166+50	34.63	0.00	0.00	63	0.0	0	6,018	17	3,046	6,001
166+79	35.63	0.00	0.00	38	0.0	0	6,056	17	3,046	6,039
167+00	12.92	0.00	0.00	19	0.0	0	6,075	17	3,046	6,058
167+15 BK	12.80	0.00	0.00	7	0.0	0	6,082	17	3,046	6,065
SUBTOTAL				**2,414**	**4.8**	**1,094**				
TOTAL				**6,082**	**15.7**	**2,744**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 31ST STREET (SOUTH OF W. GREENFIELD AVENUE) - STAGE 3

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
18+90 AH	21.00	0.00	0.00	0	0	0	0	0	0	0
19+00	21.86	0.00	0.00	8	0	0	8	0	0	8
19+50 BK	23.56	0.00	0.00	42	0	0	50	0	0	50
TOTAL				**50**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 31ST STREET (NORTH OF W. GREENFIELD AVENUE) - STAGE 3

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
20+50 AH	28.67	0.00	0.00	0	0	0	0	0	0	0
20+65 BK	26.21	0.07	0.00	15	0	0	15	0	0	15
TOTAL				**15**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

S. 21ST STREET (SOUTH OF W. GREENFIELD AVENUE) - STAGE 3

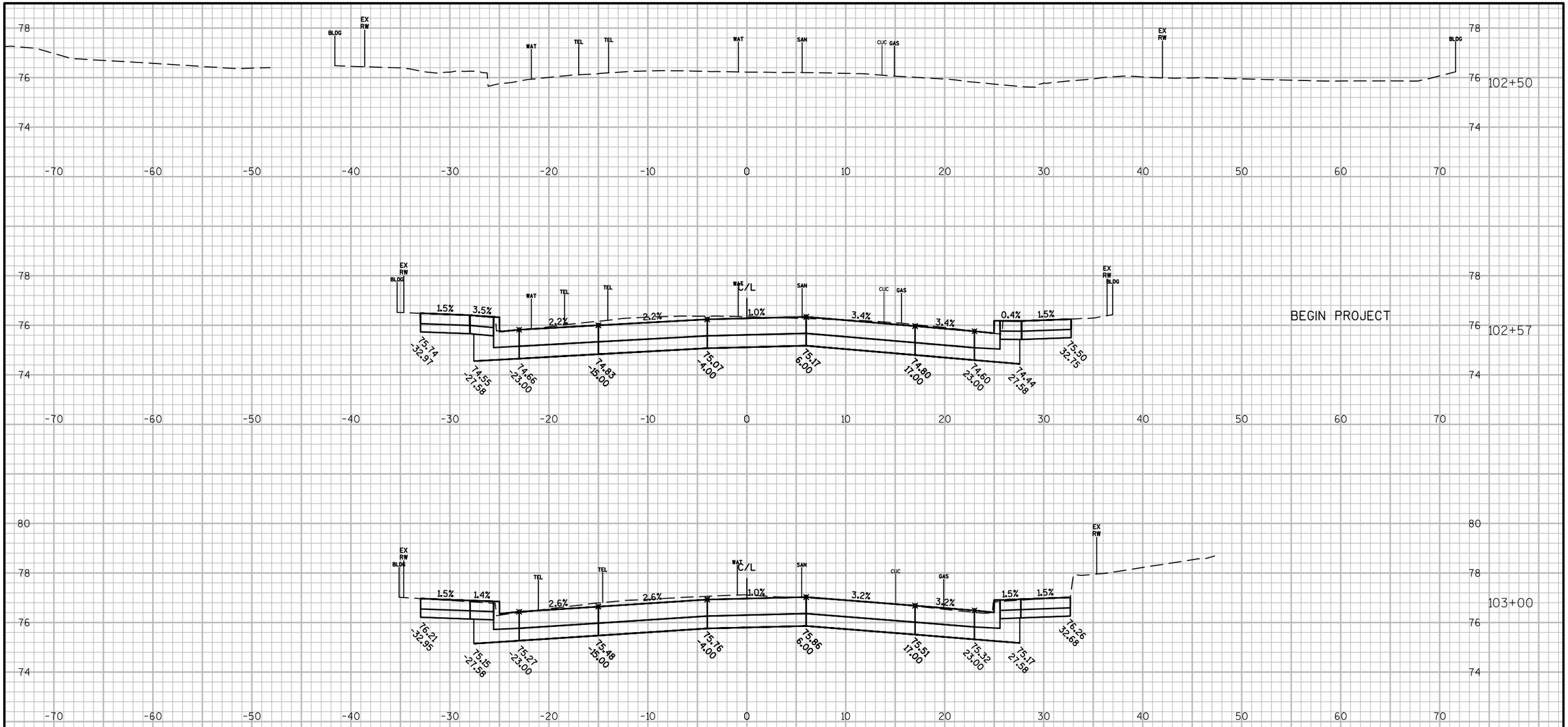
Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
64+15 AH	30.43	0.12	0.00	0	0	0	0	0	0	0
64+50 BK	30.39	0.26	0.00	39	0	0	39	0	0	39
TOTAL				**39**	**0**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.

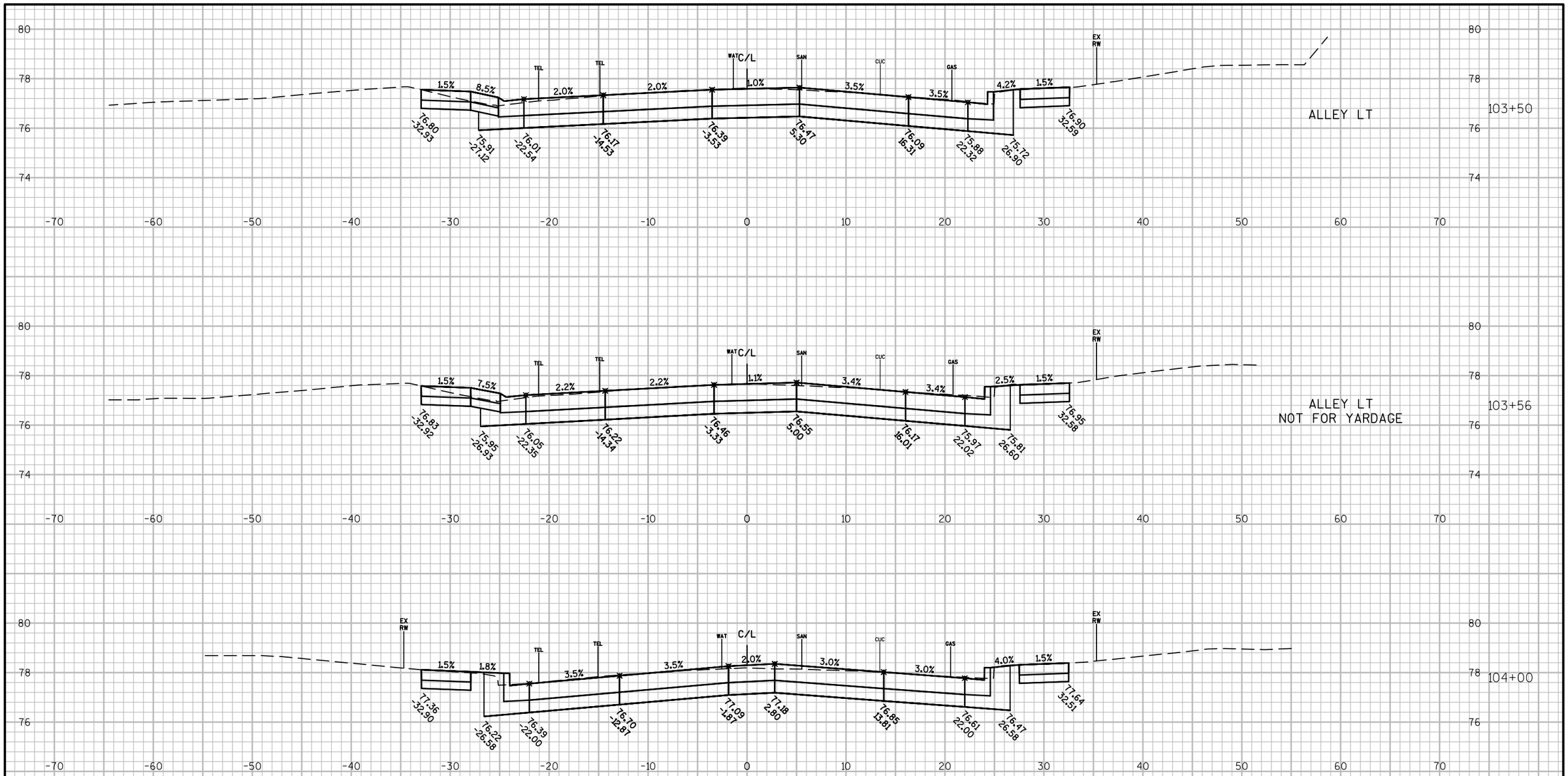
S. 21ST STREET (NORTH OF W. GREENFIELD AVENUE) - STAGE 3

Station	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate +/- (3)
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded Fill (1) 1.11	Expanded EBS Backfill (2) 1.11	
65+50 AH	29.80	0.36	0.00	0	0	0	0	0	0	0
65+85 BK	30.01	0.44	0.00	39	1	0	39	1	0	38
TOTAL				**39**	**1**	**0**				

1) Expanded Fill = Unexpanded Fill x Fill Factor (1.11)
2) Expanded EBS Backill - This is to be filled with Base Aggregate Dense 1 1/4-Inch. EBS Backfill Factor = 1.11
3) The Mass Ordinate + or - quantity is calculated for each stage. Positive quantity indicates an excess of material within the stage. Negative quantity indicates a shortage of material within the stage.



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 255	E



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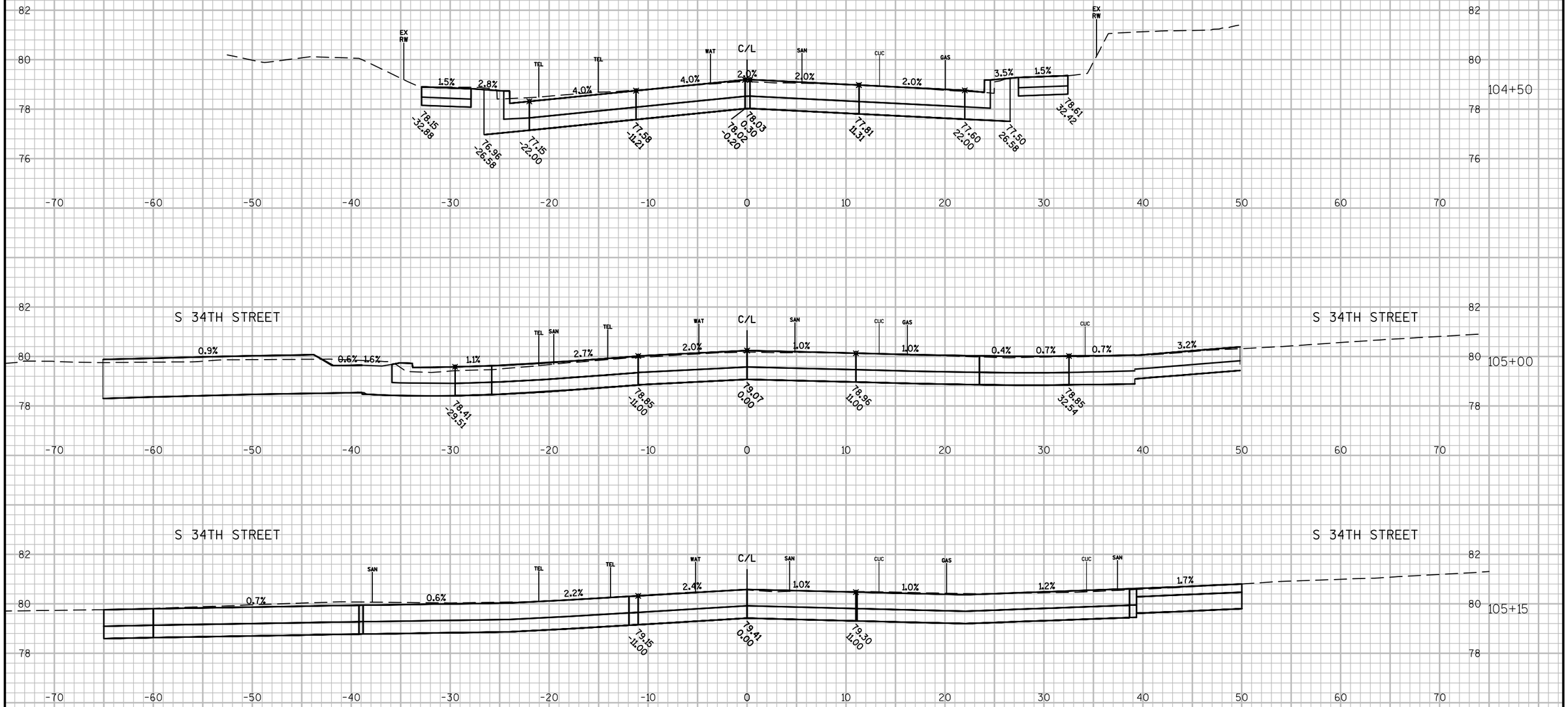
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 256	E



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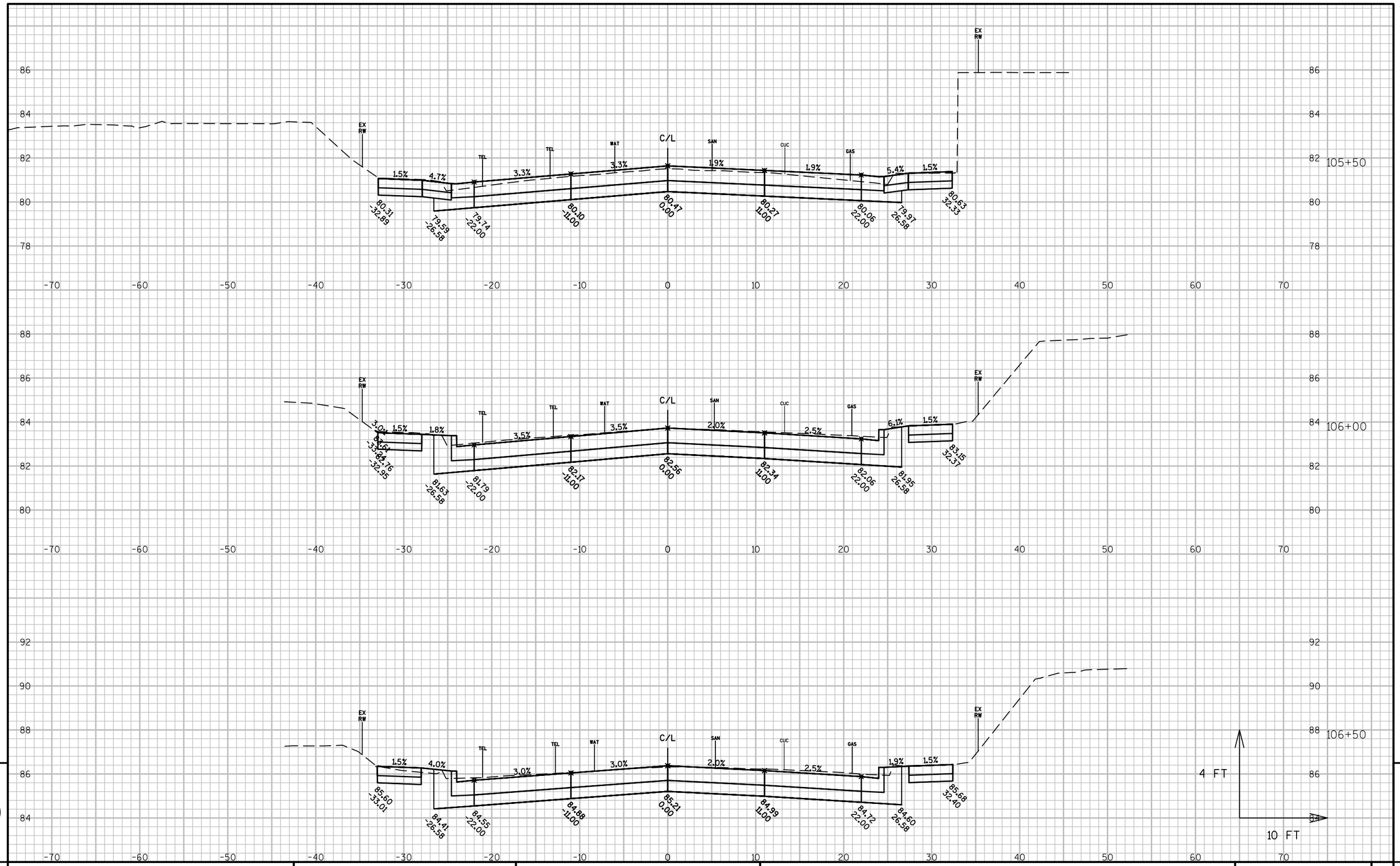
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 257	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:02 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

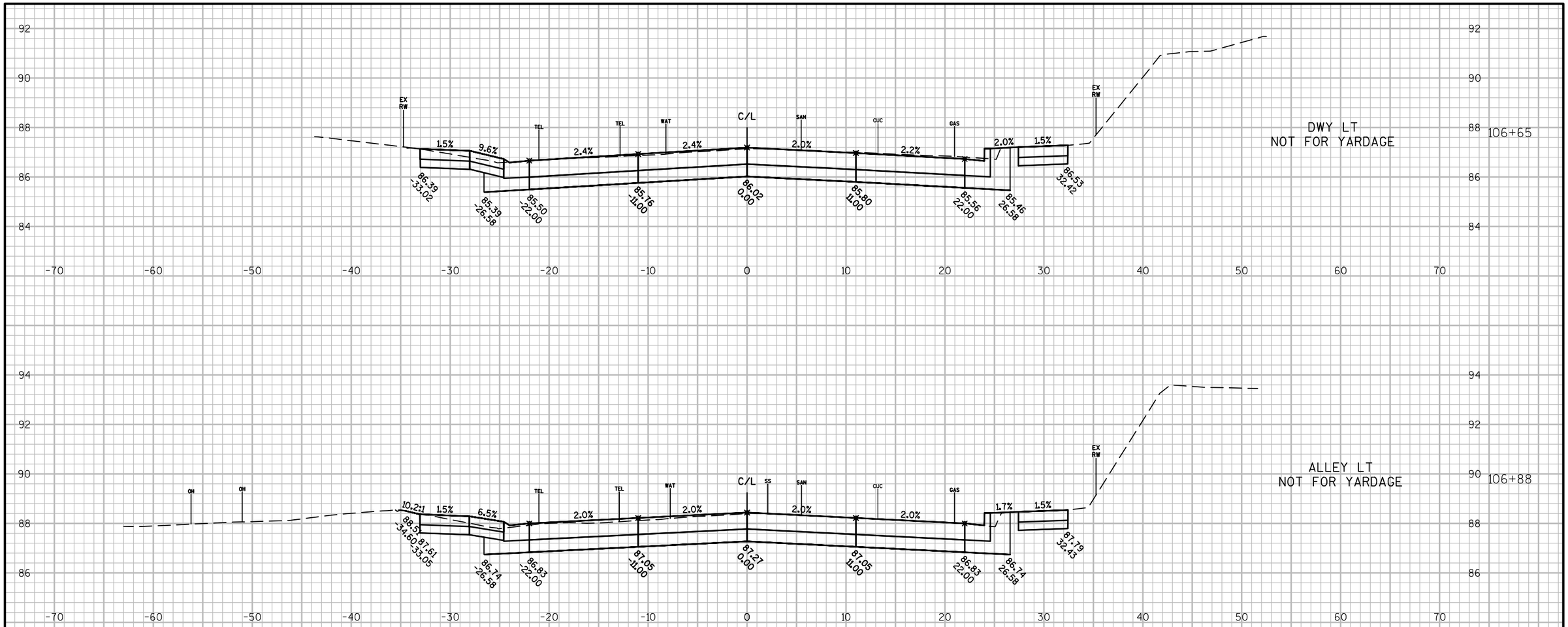
WISDOT/CADDS SHEET 49



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 258 E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:02 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



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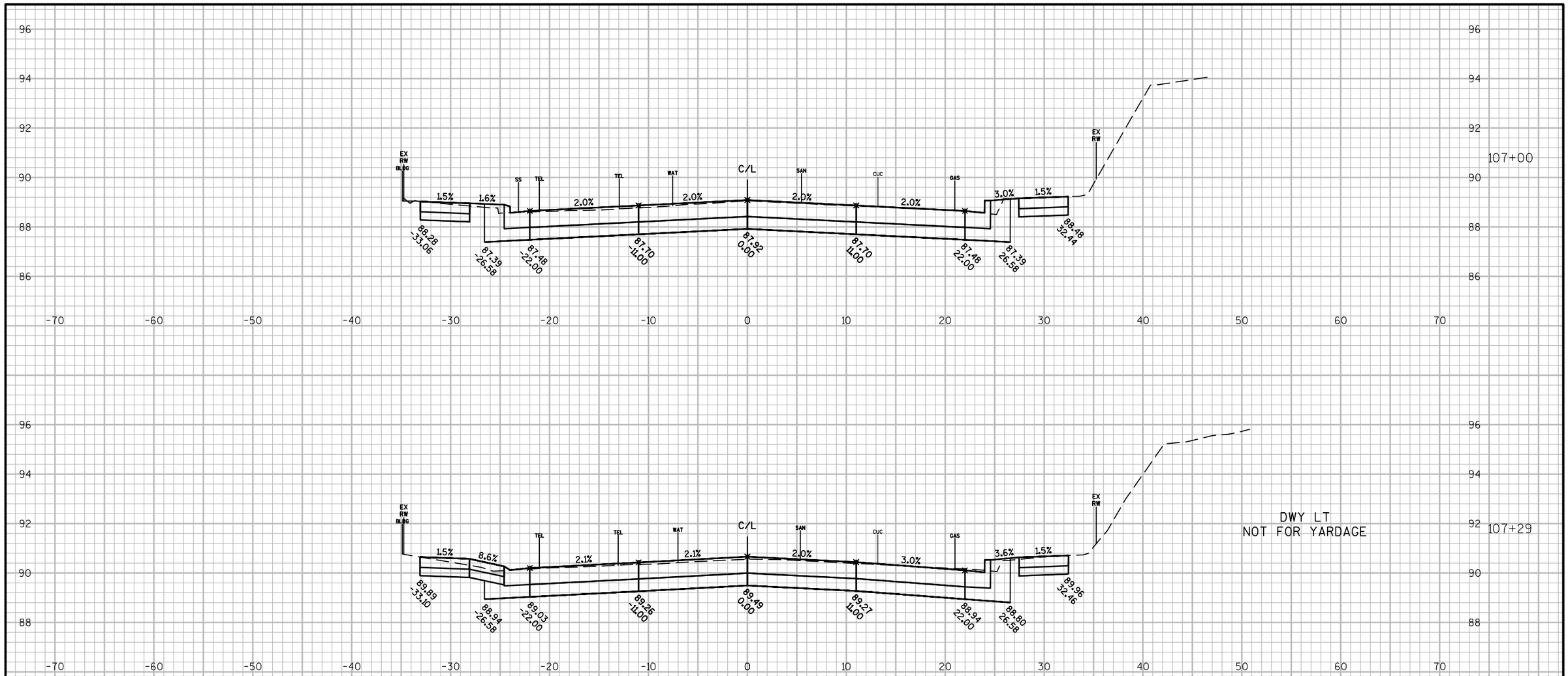
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 259	E



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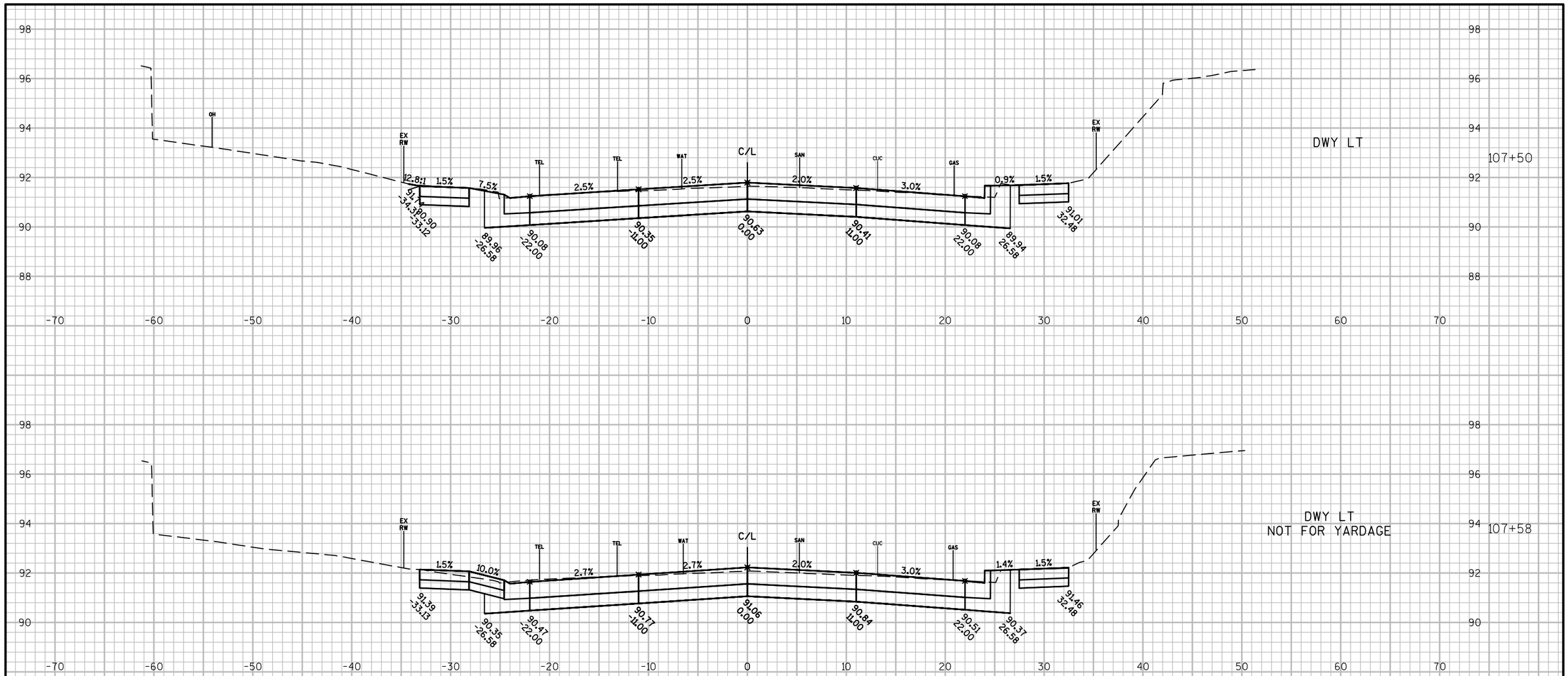
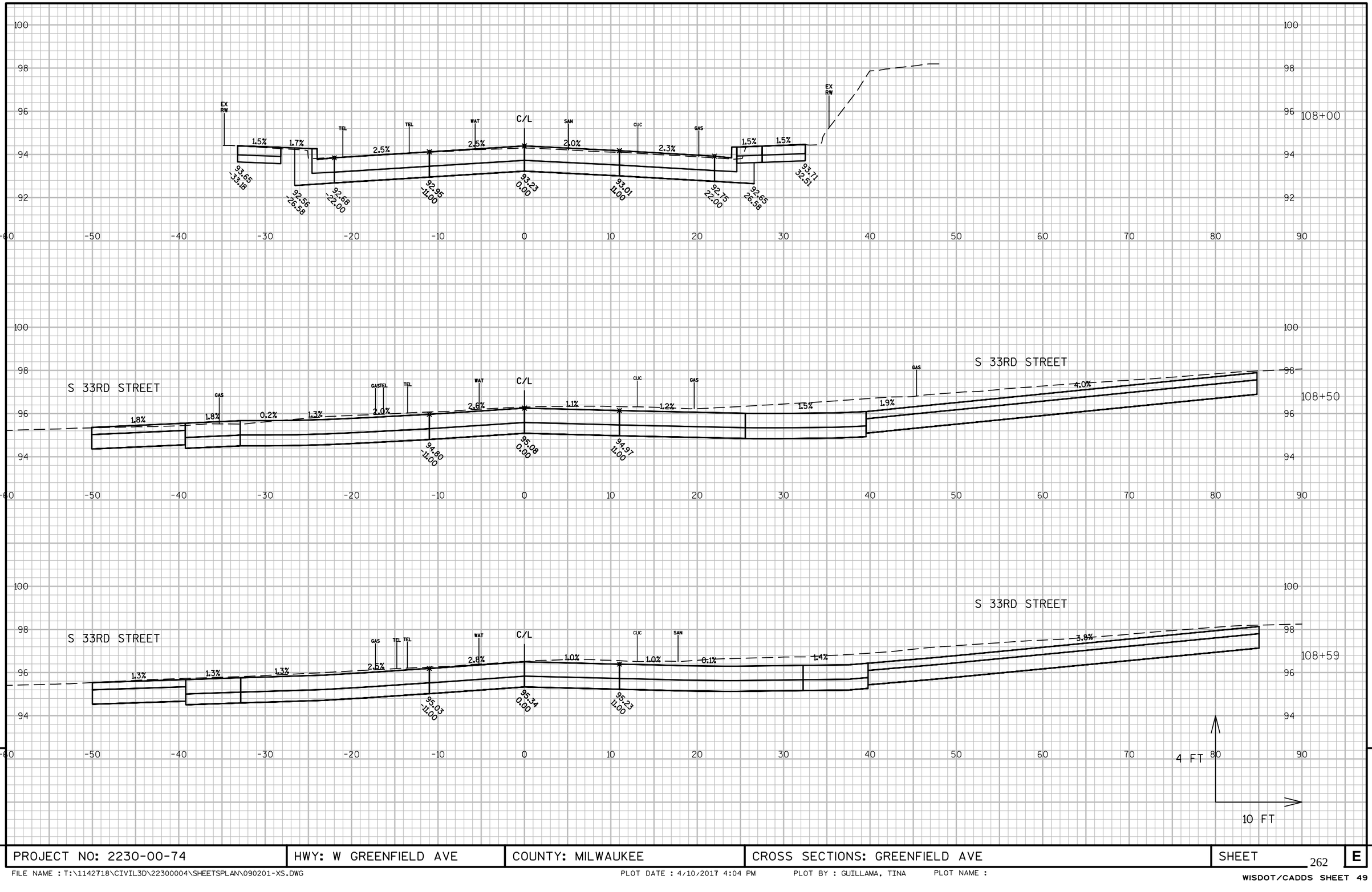
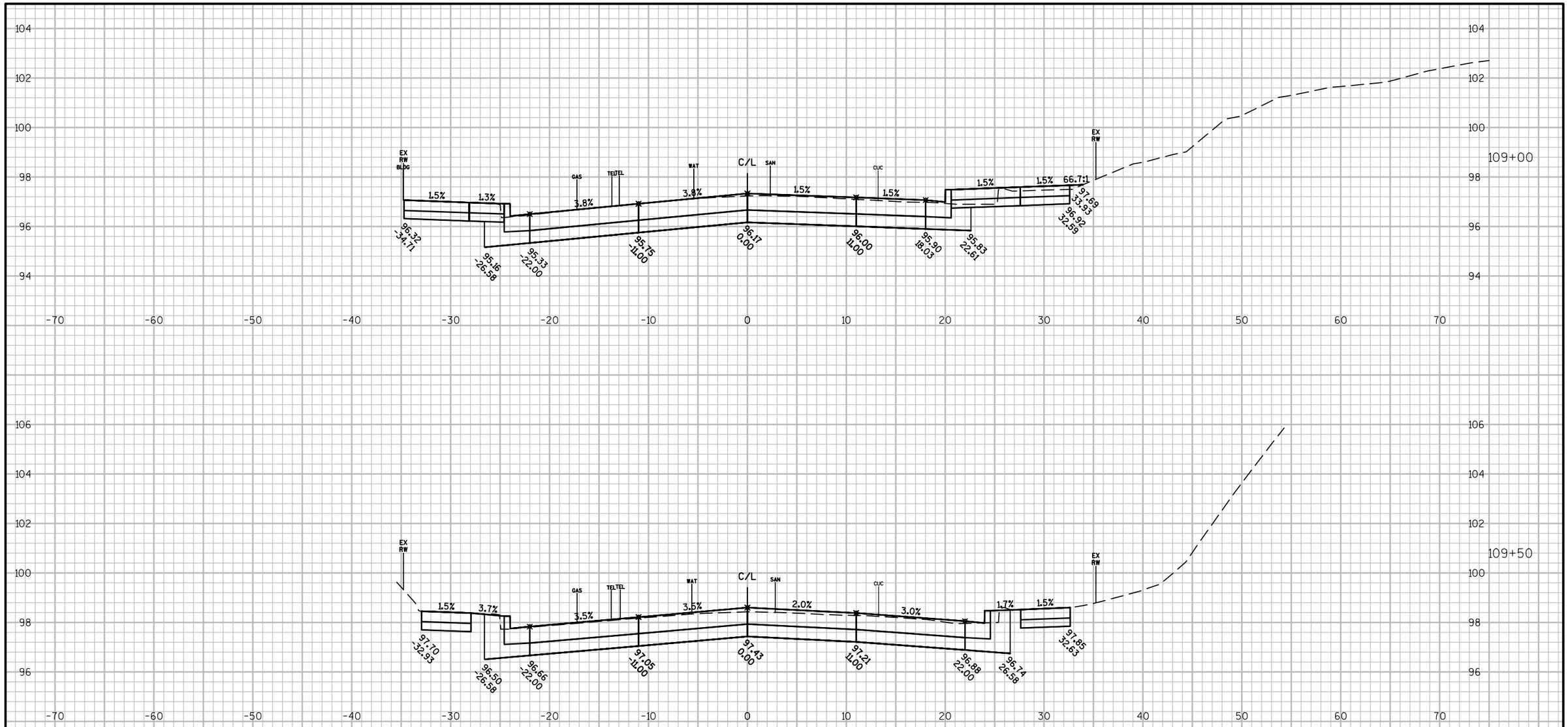
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 260	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 261	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 262	E



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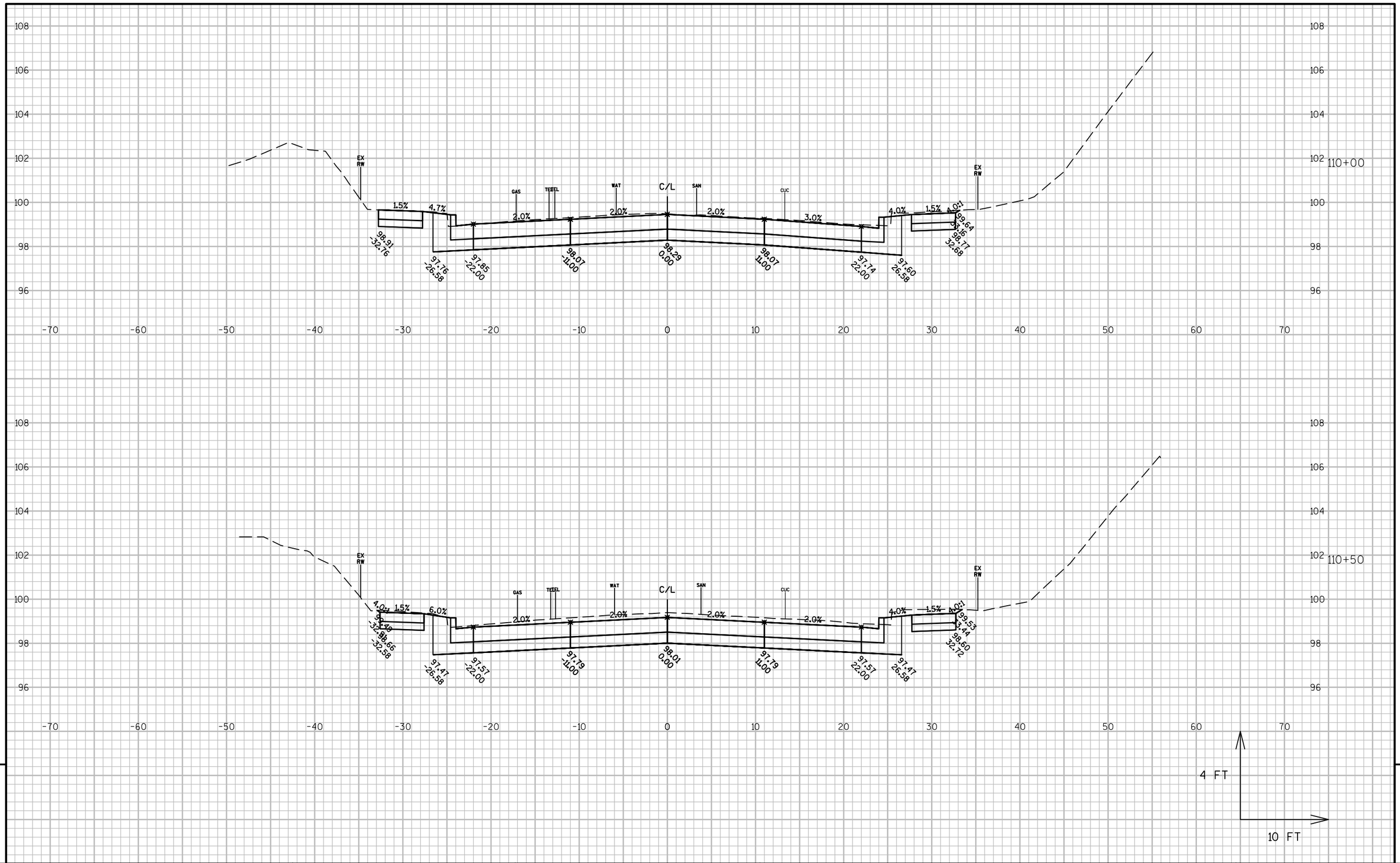
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 263	E



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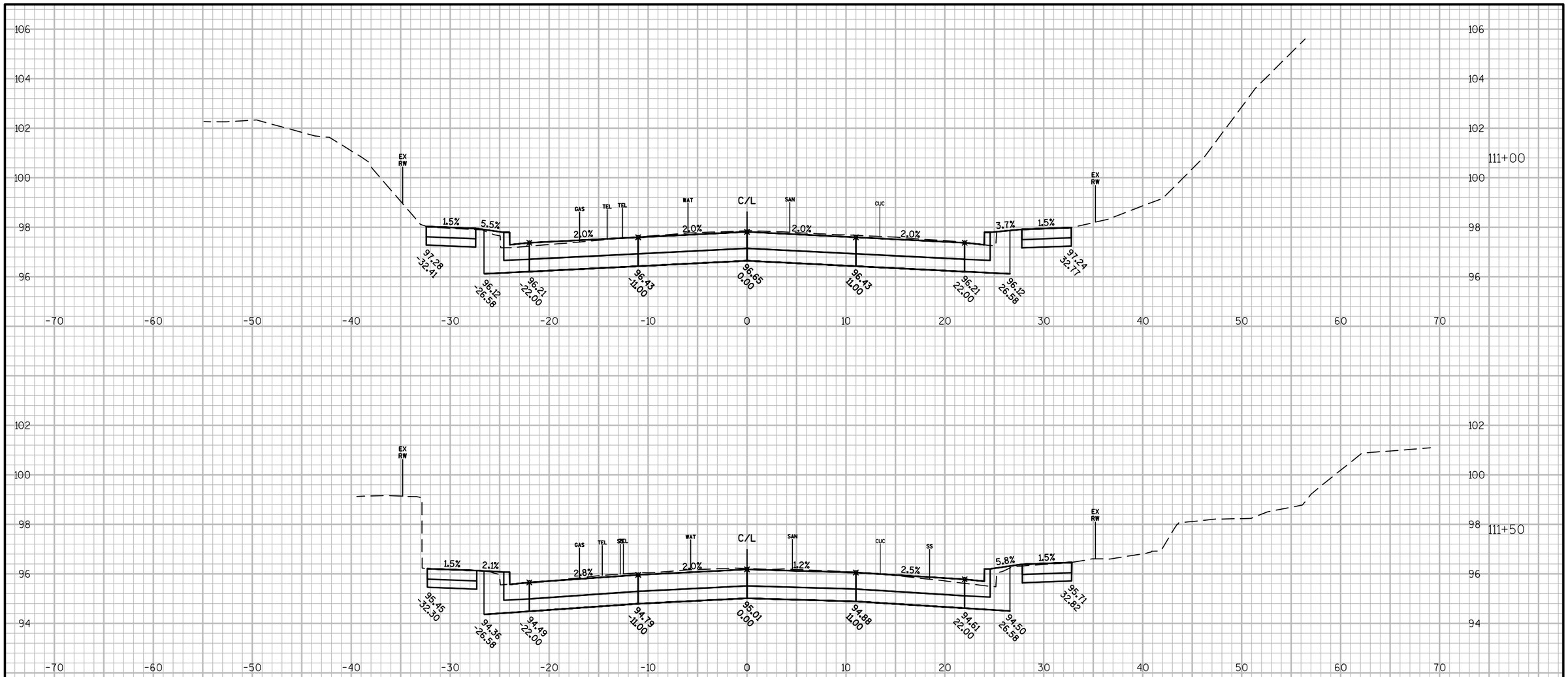
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 264	E



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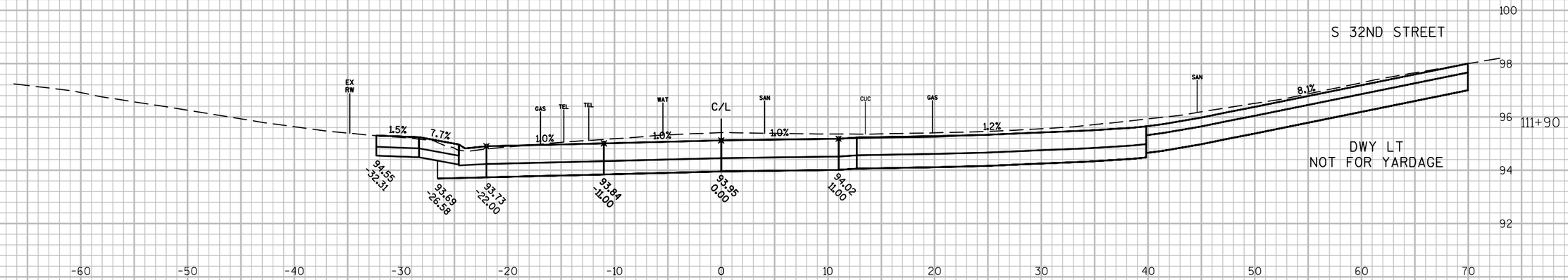
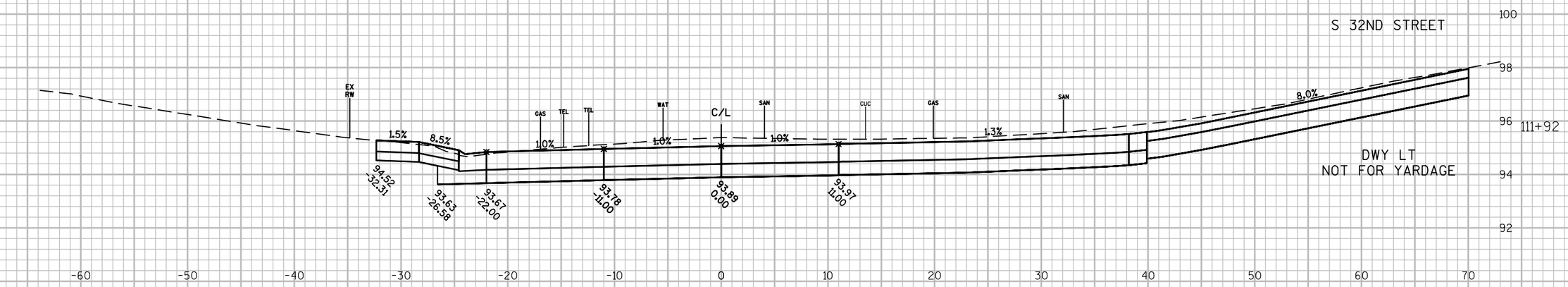
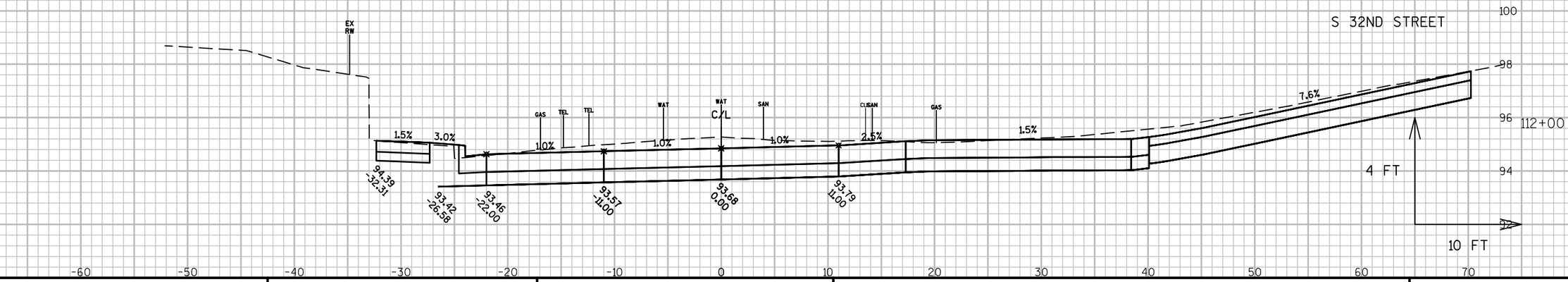
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 265	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:05 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



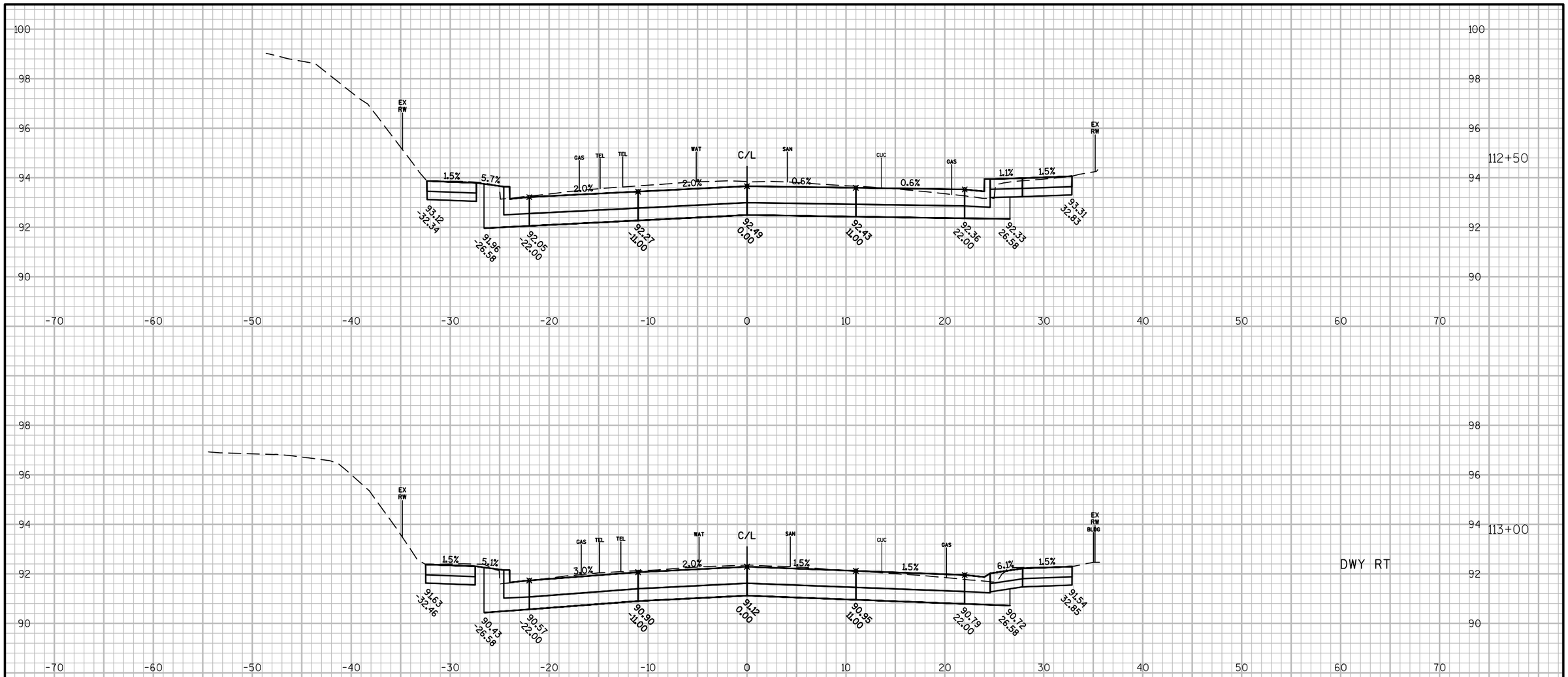


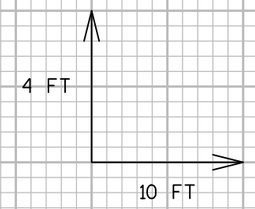


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 266	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:05 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49





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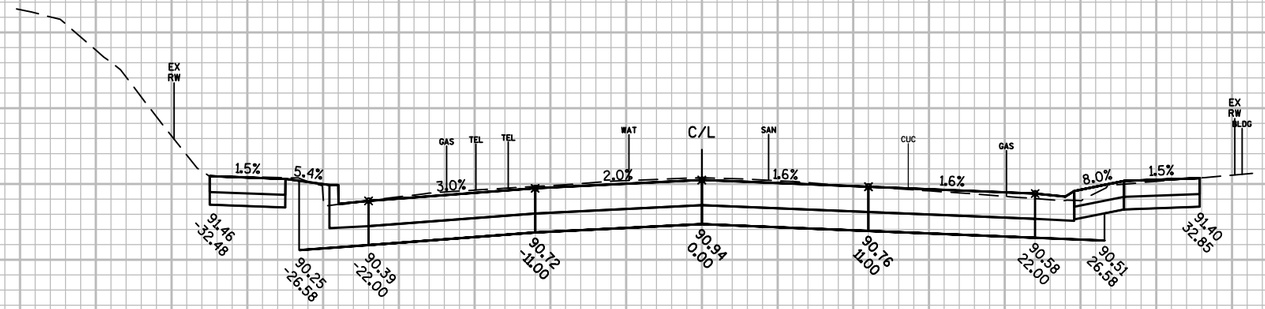
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 267	E

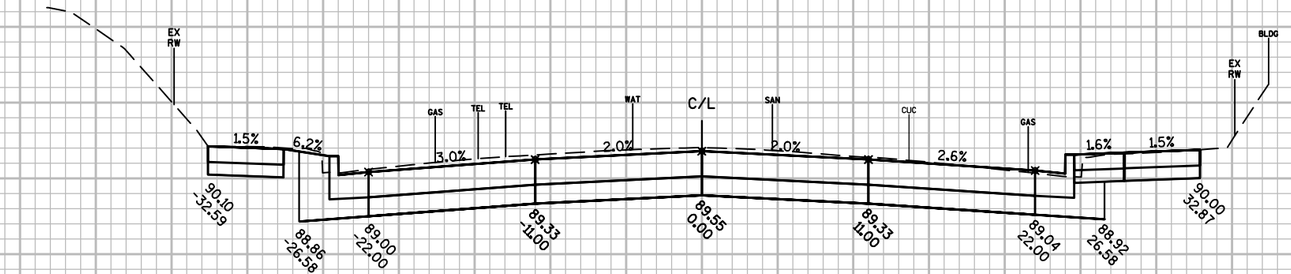
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:05 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



113+06

DWY RT
NOT FOR YARDAGE



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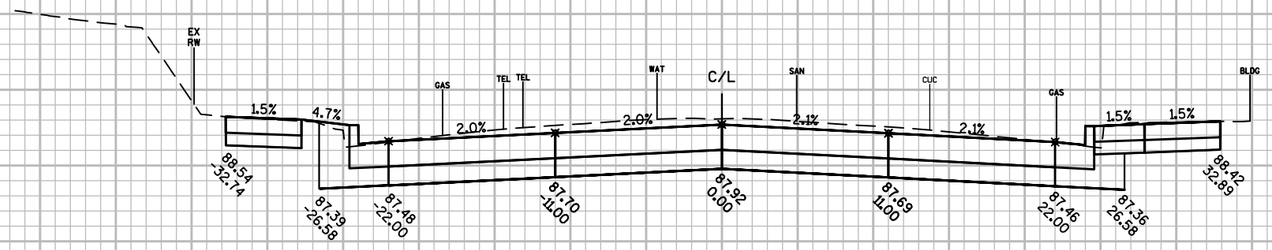

114+00

4 FT
10 FT

9

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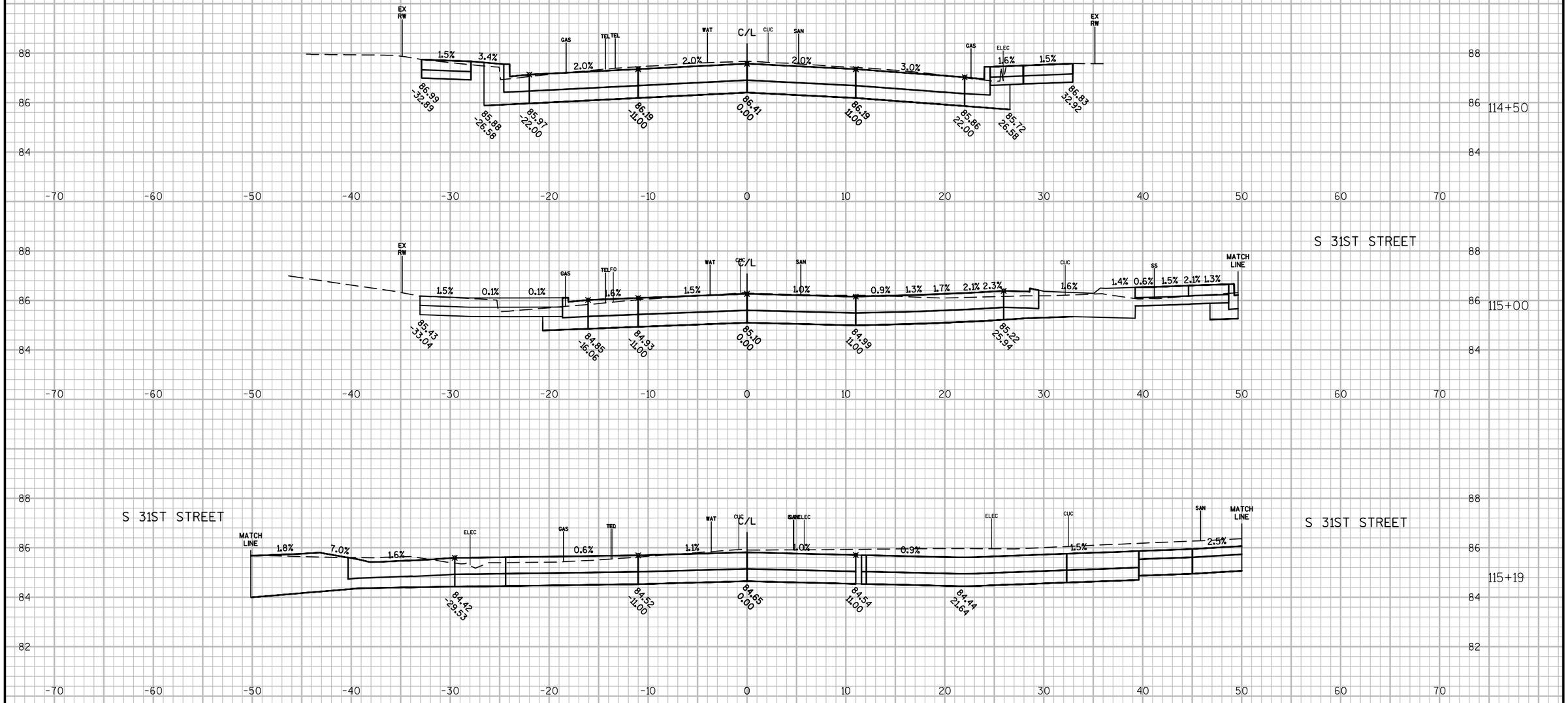
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 268	E

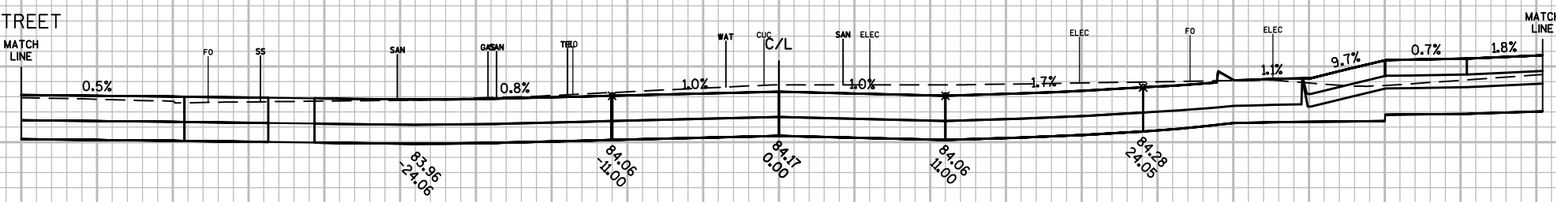
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:06 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



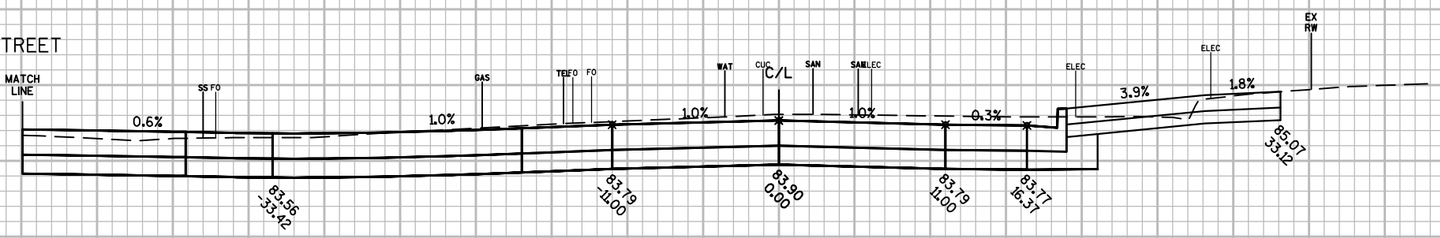
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 269	E

S 31ST STREET

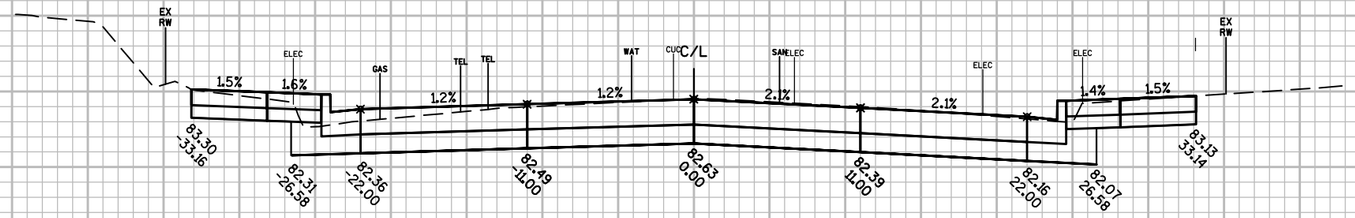


115+39

S 31ST STREET



115+50



116+00

4 FT

10 FT

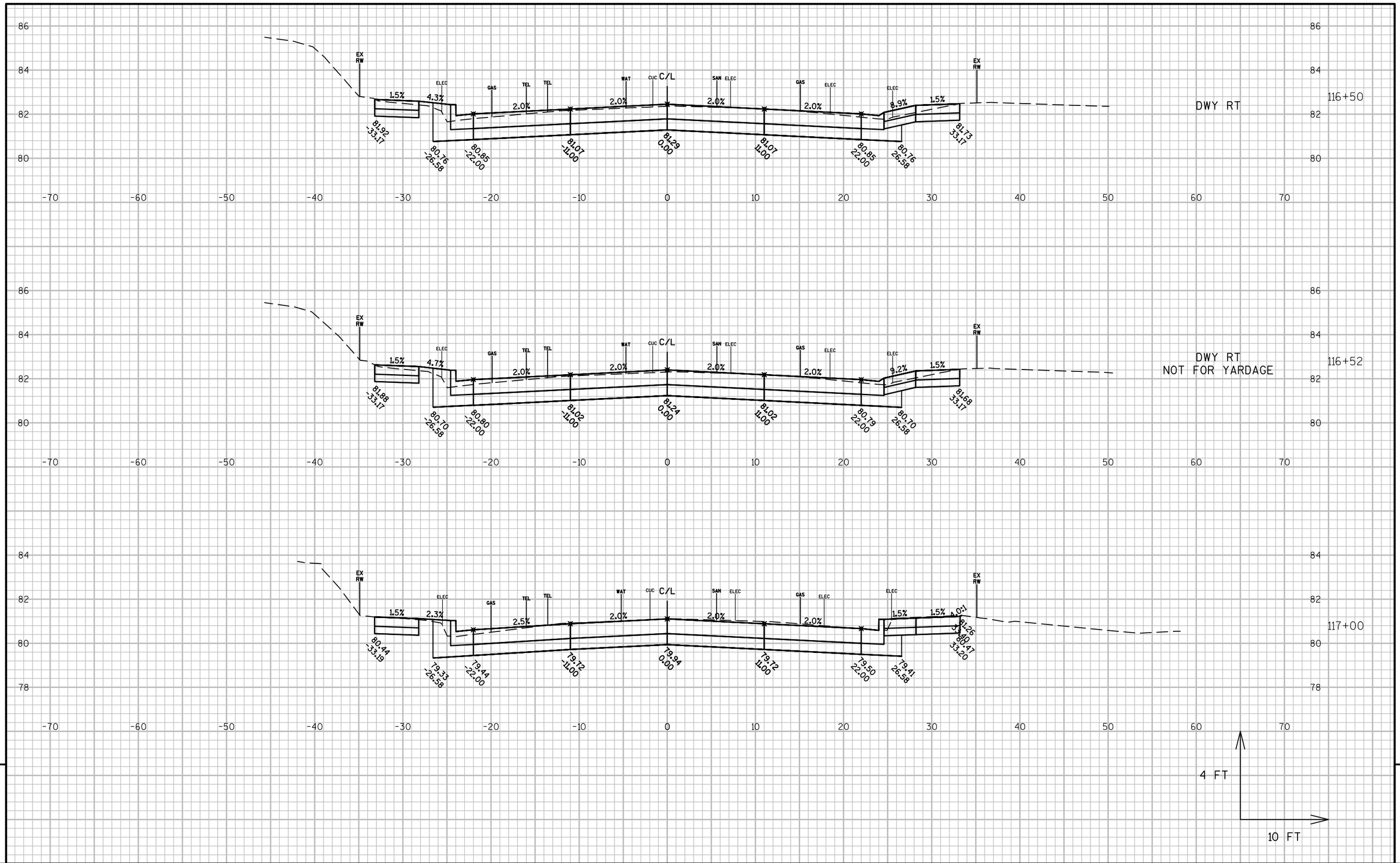
9

9

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 270	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:06 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

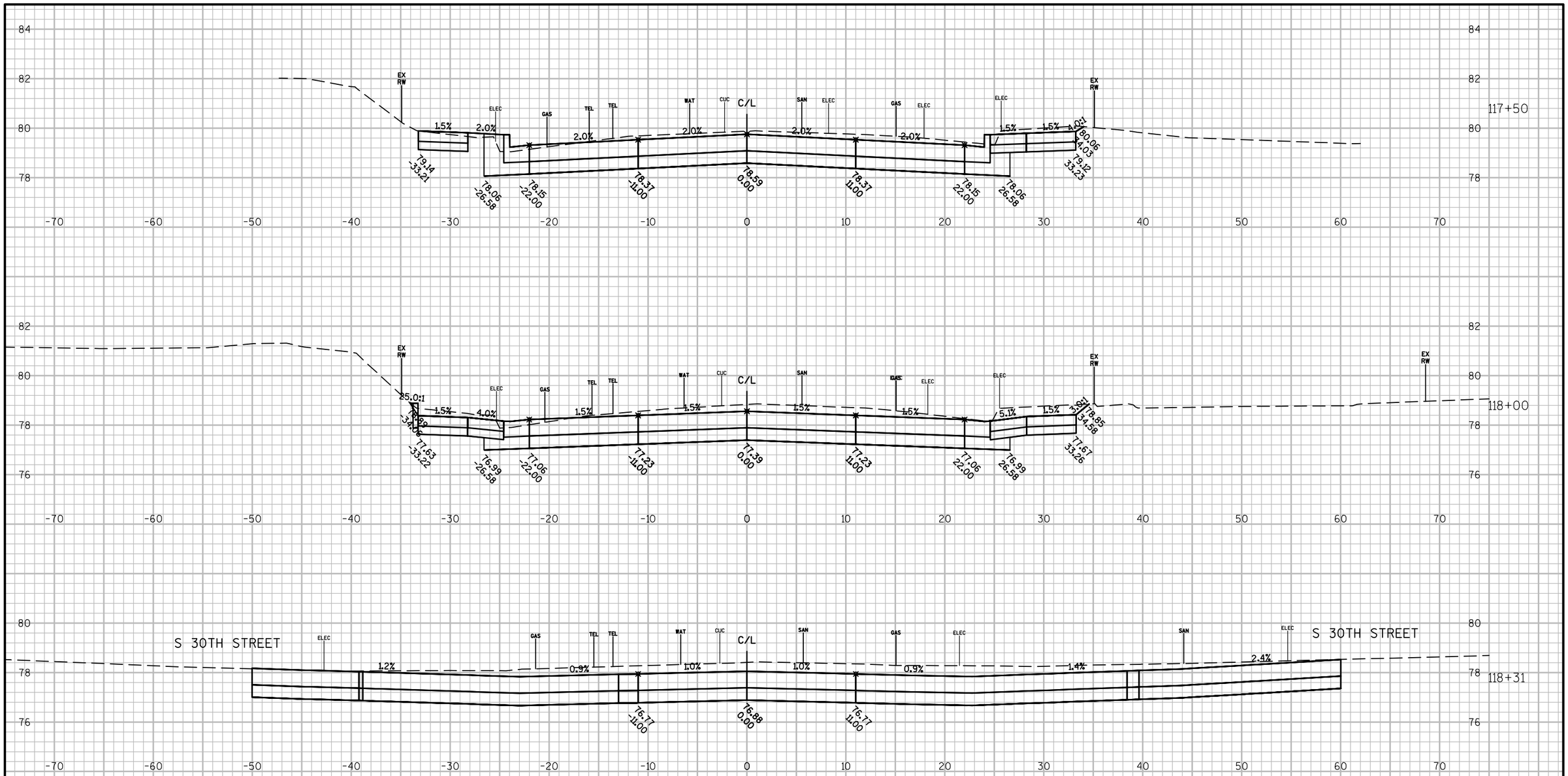
WISDOT/CADDS SHEET 49



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 271	E

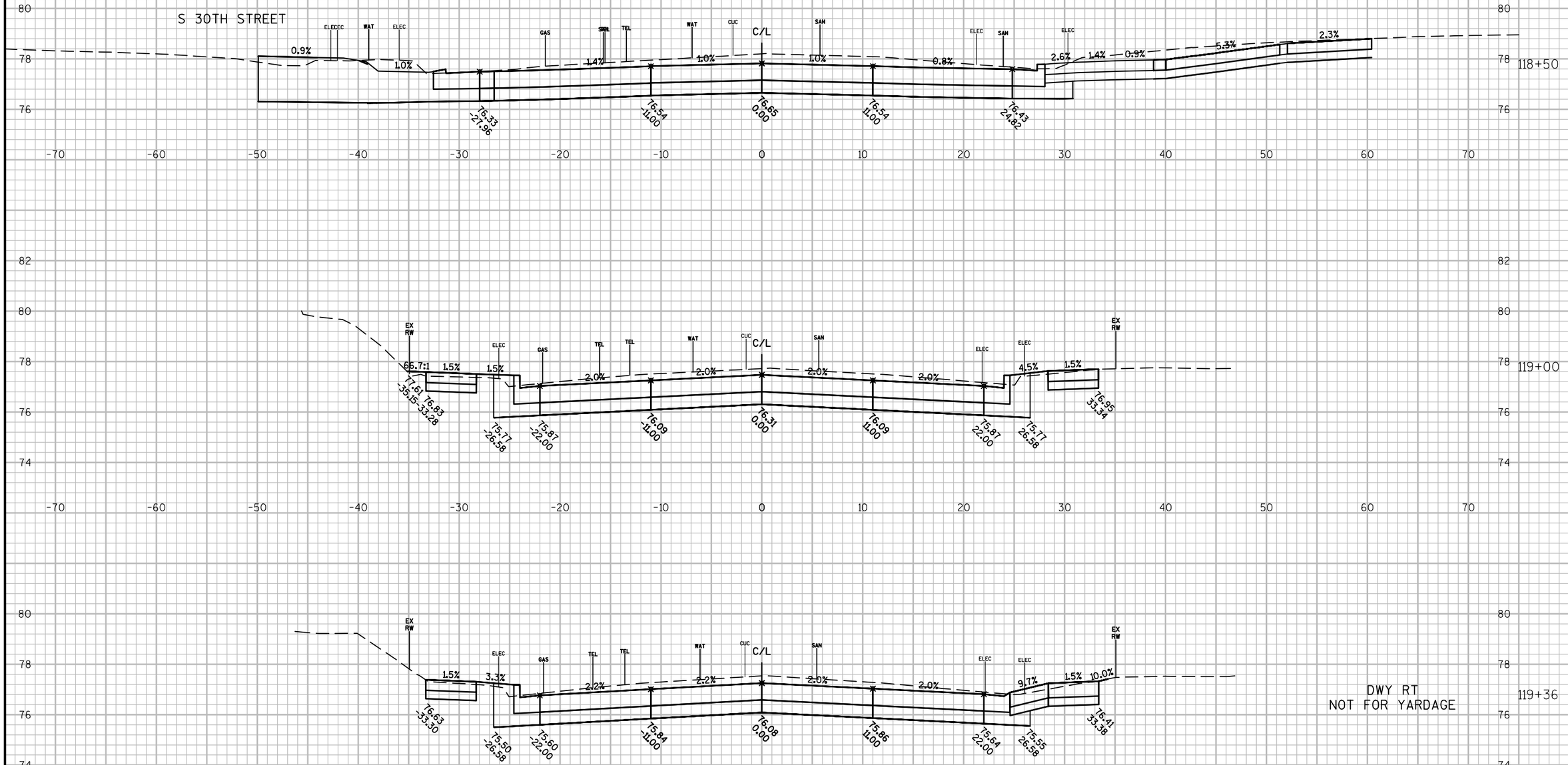
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:07 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 272	E

S 30TH STREET



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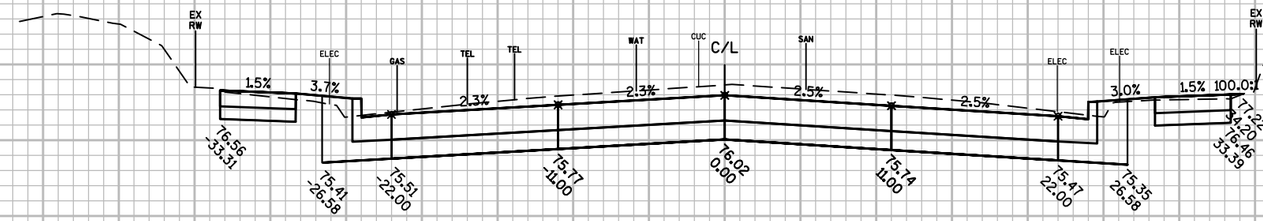
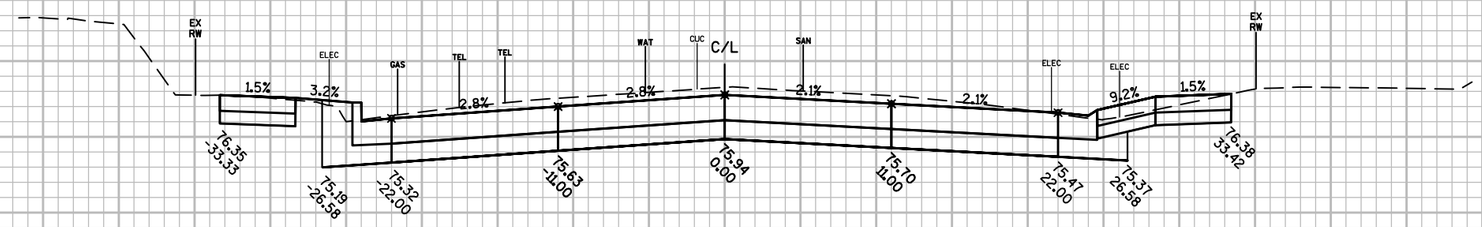
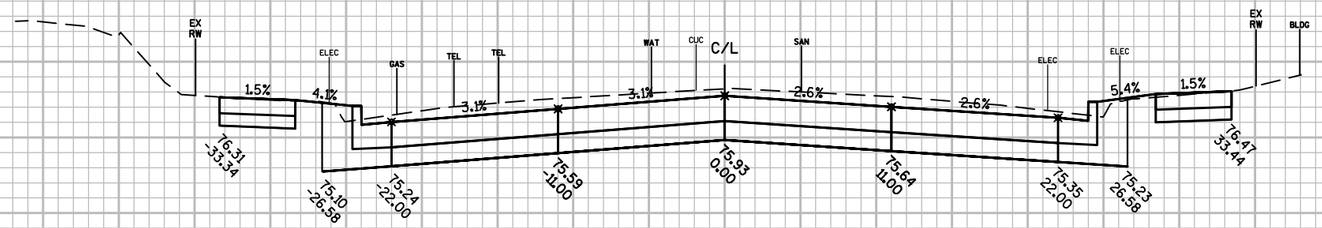
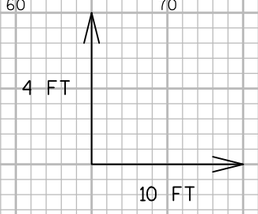
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 273	E





DWY RT
NOT FOR YARDAGE

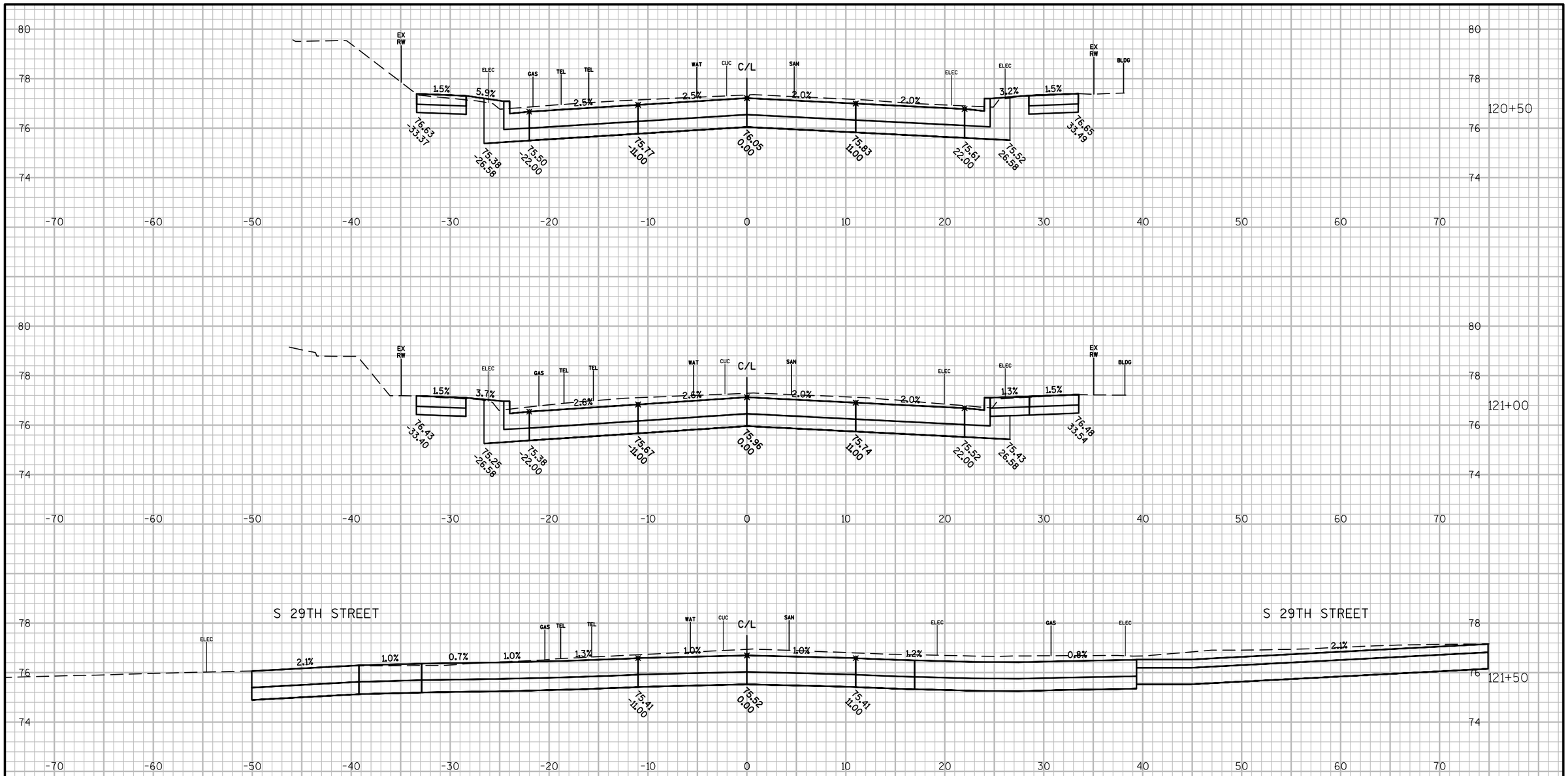




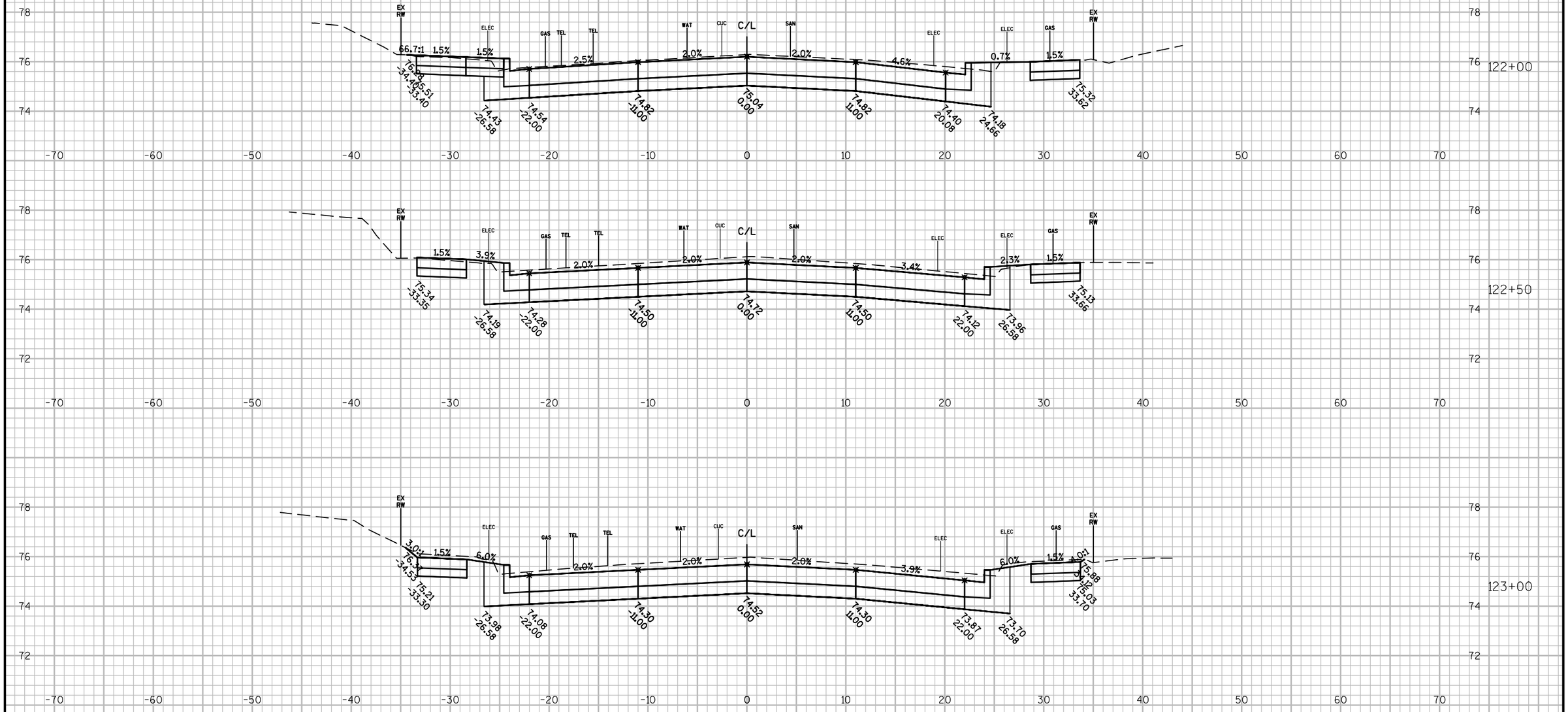
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 274	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:08 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

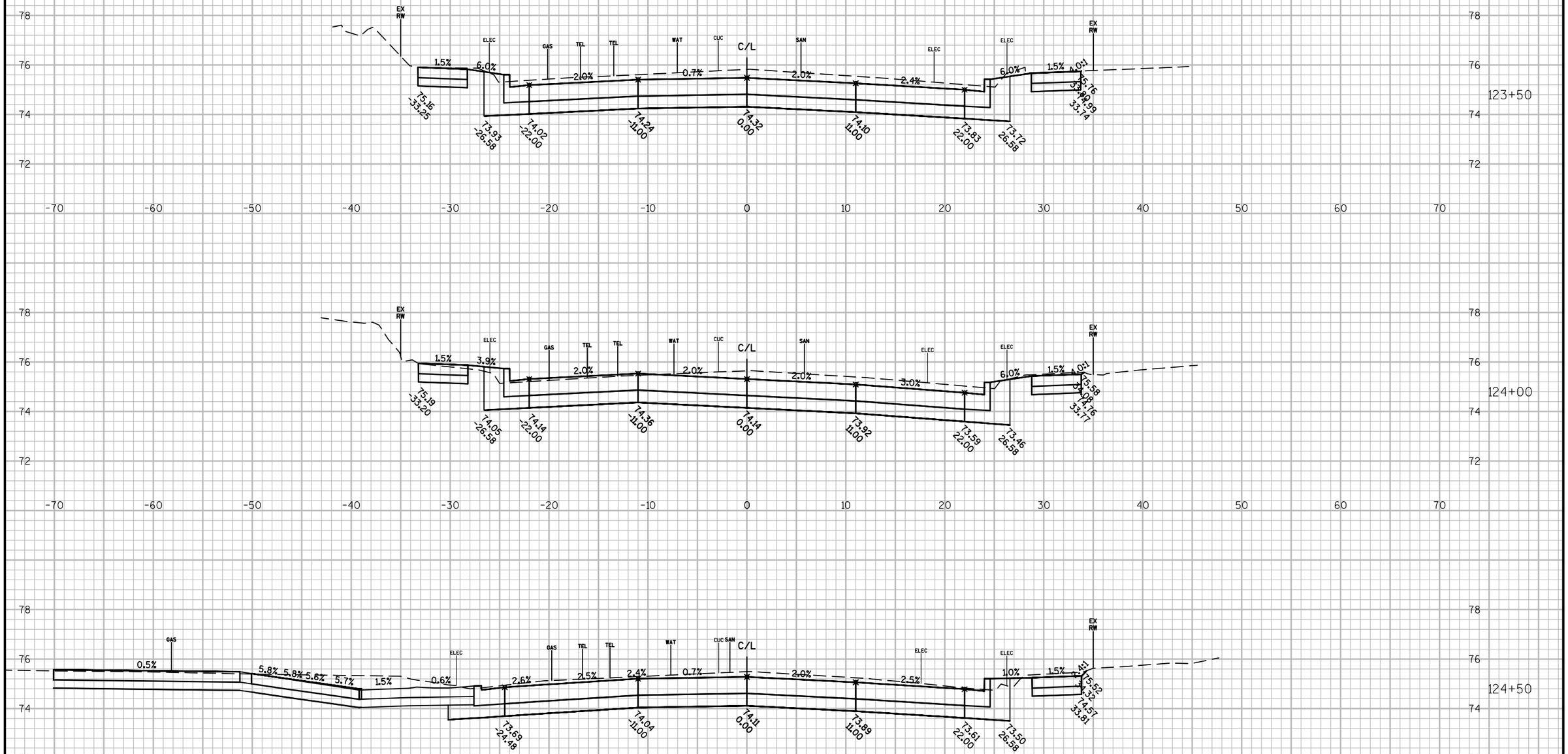
WISDOT/CADDS SHEET 49



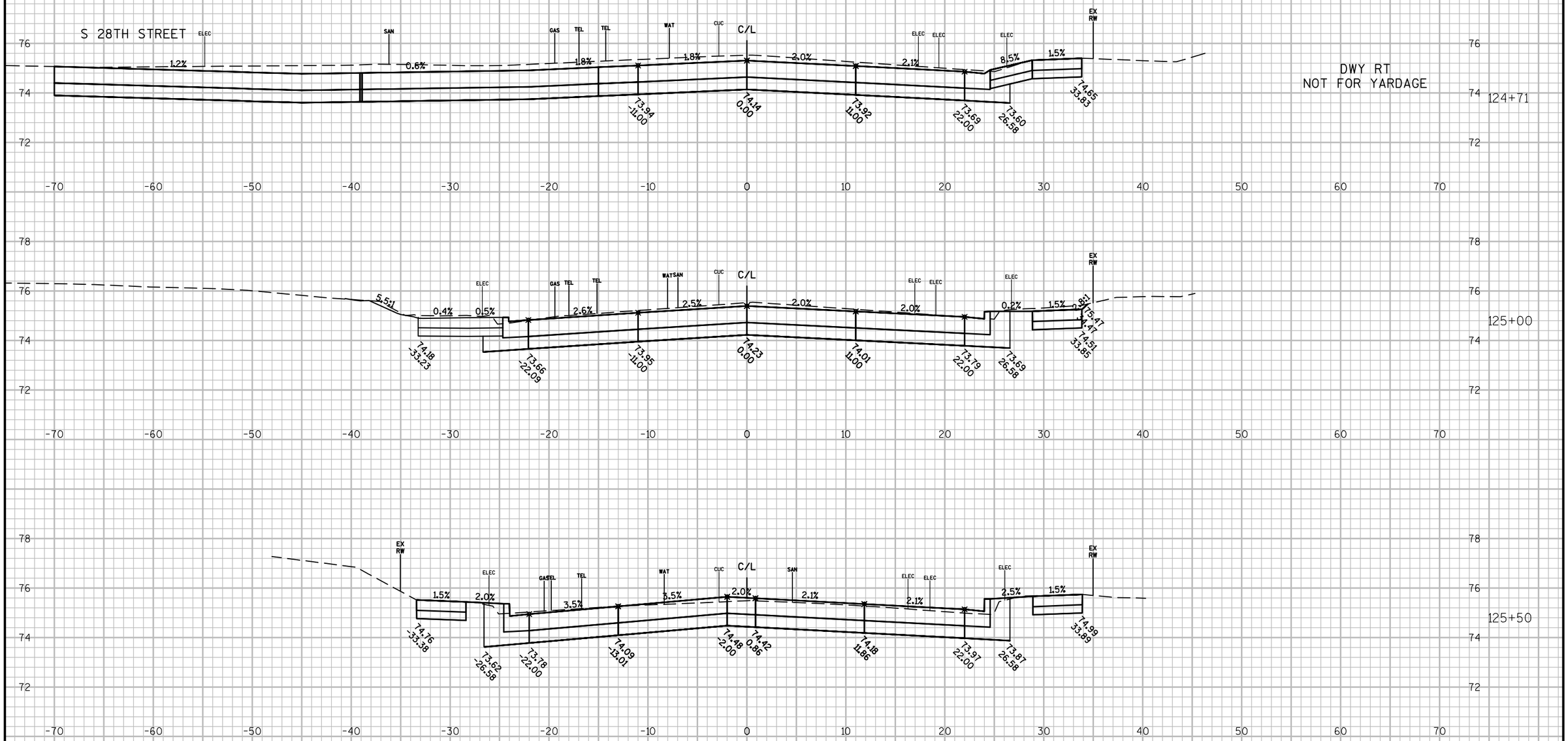
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 275	E



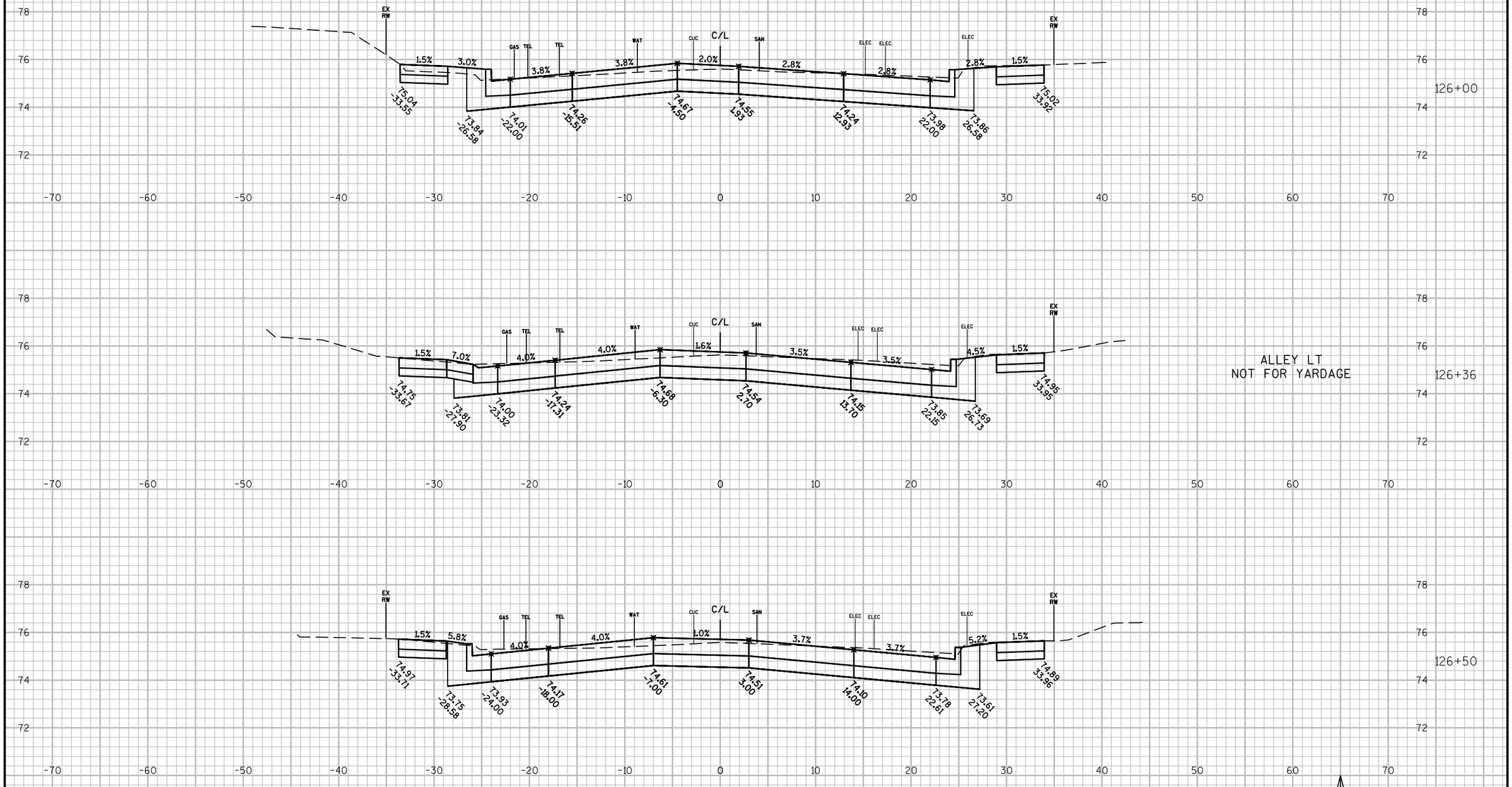
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 276	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 277	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 278	E



9

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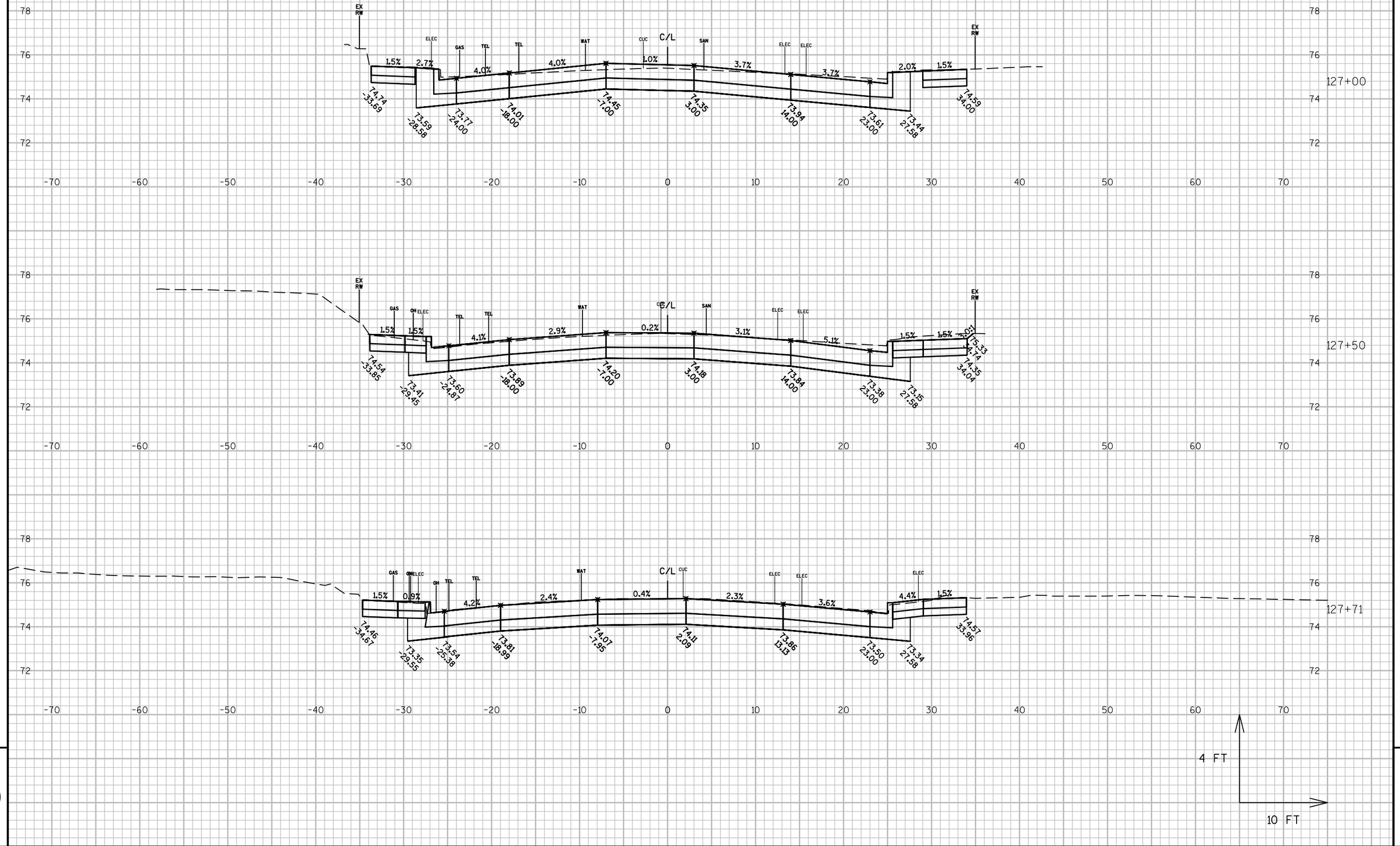
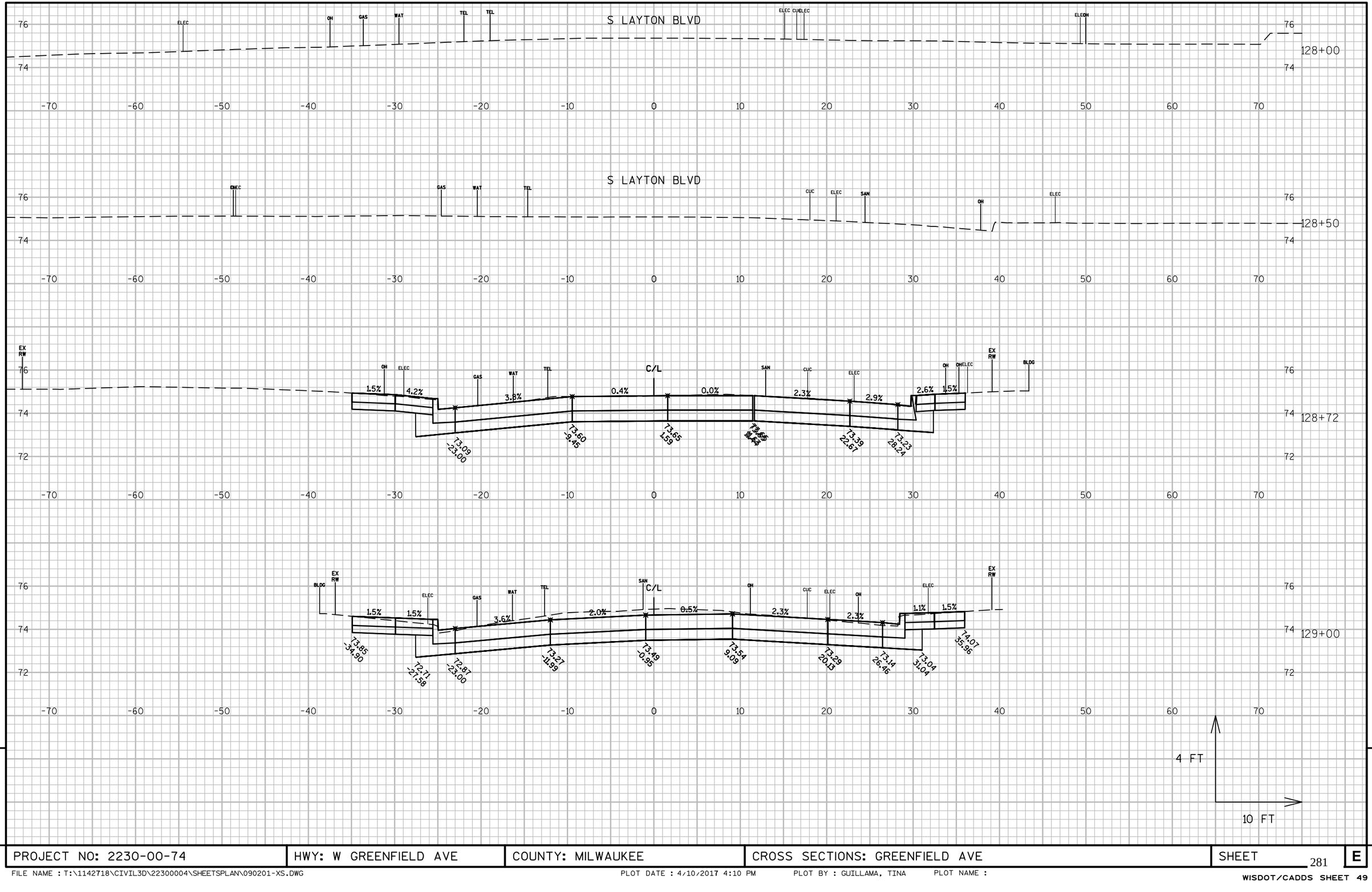
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 279	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:09 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



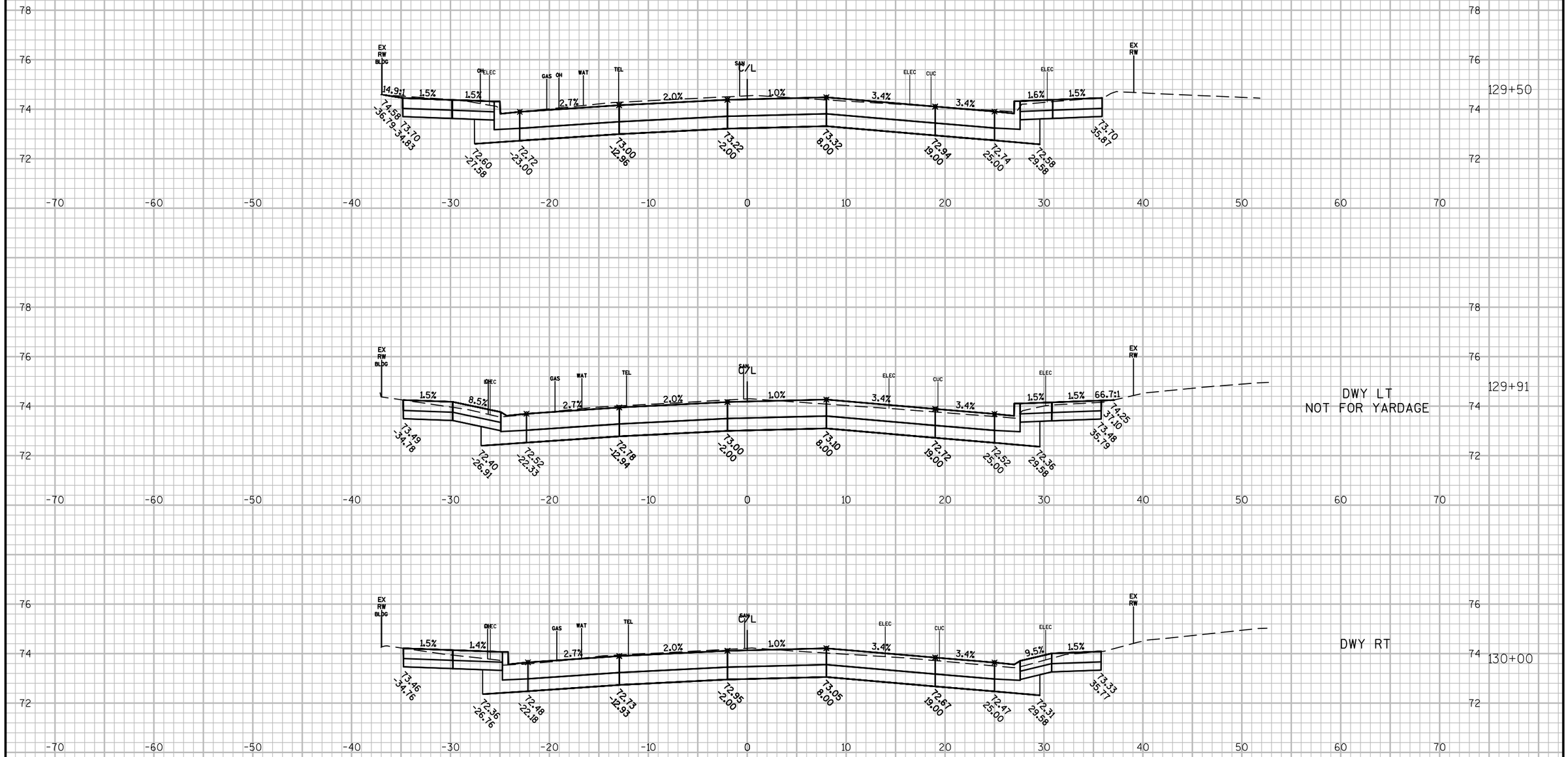
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 280	E



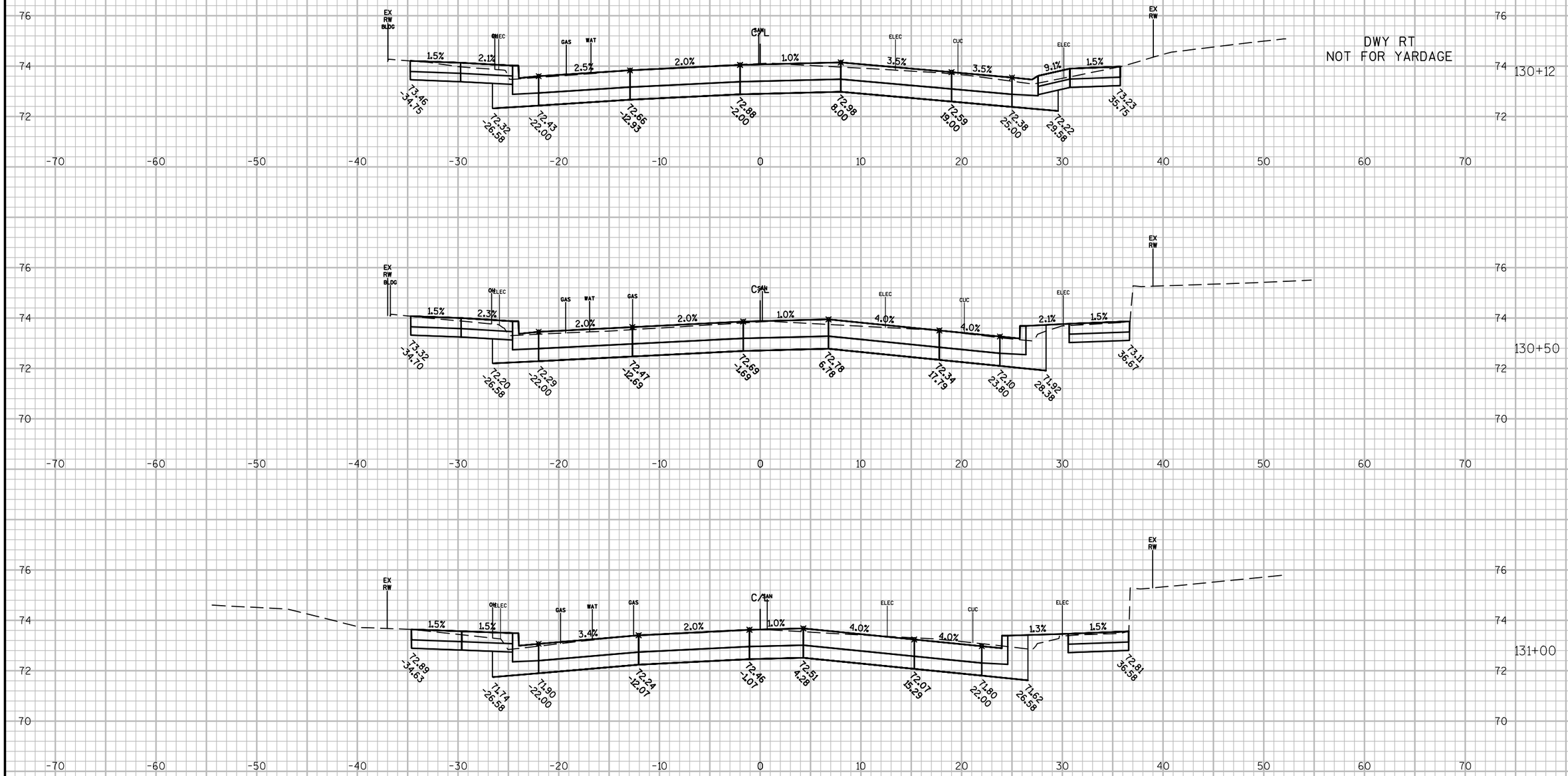
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 281	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:10 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

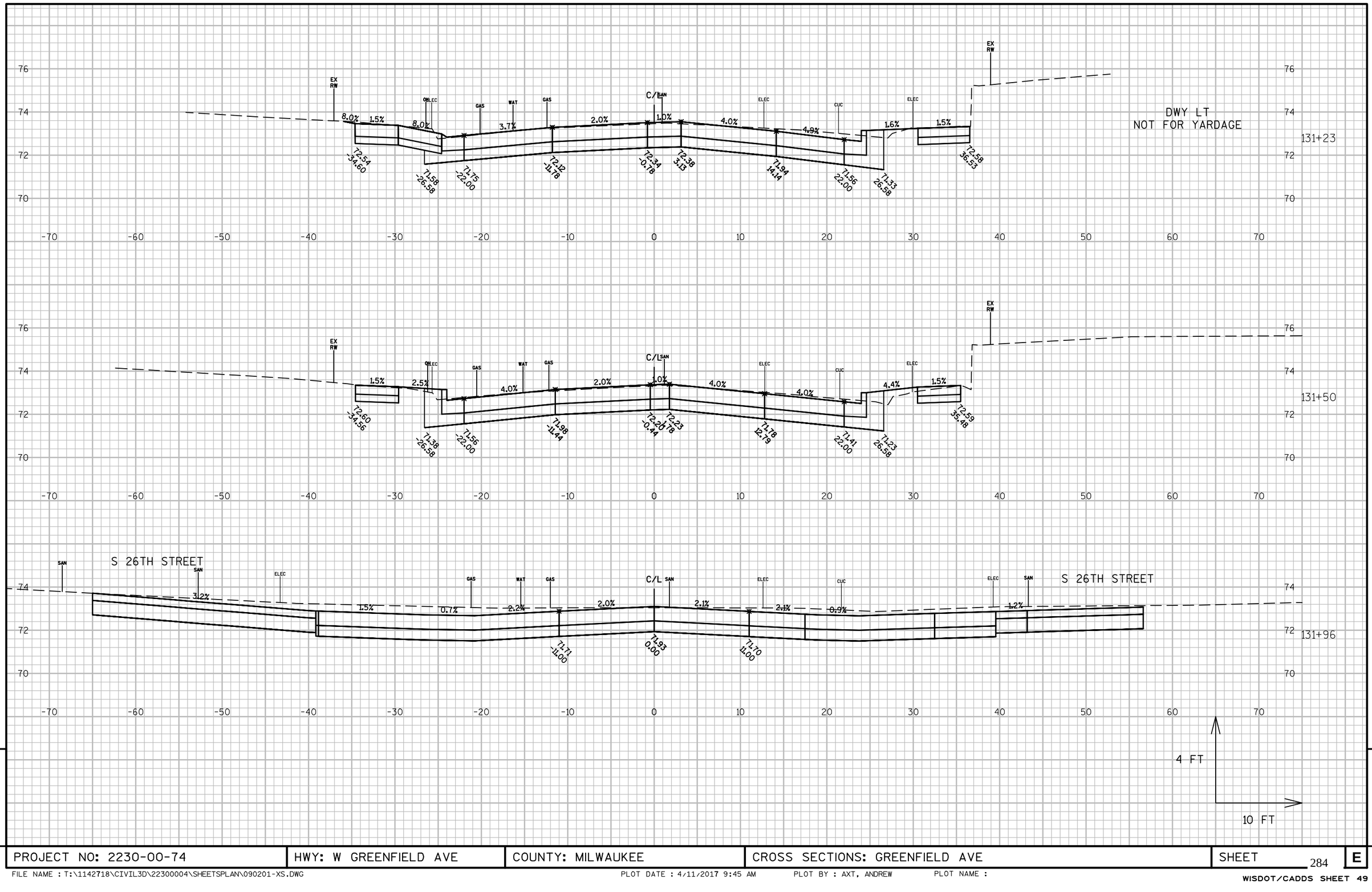
WISDOT/CADDS SHEET 49



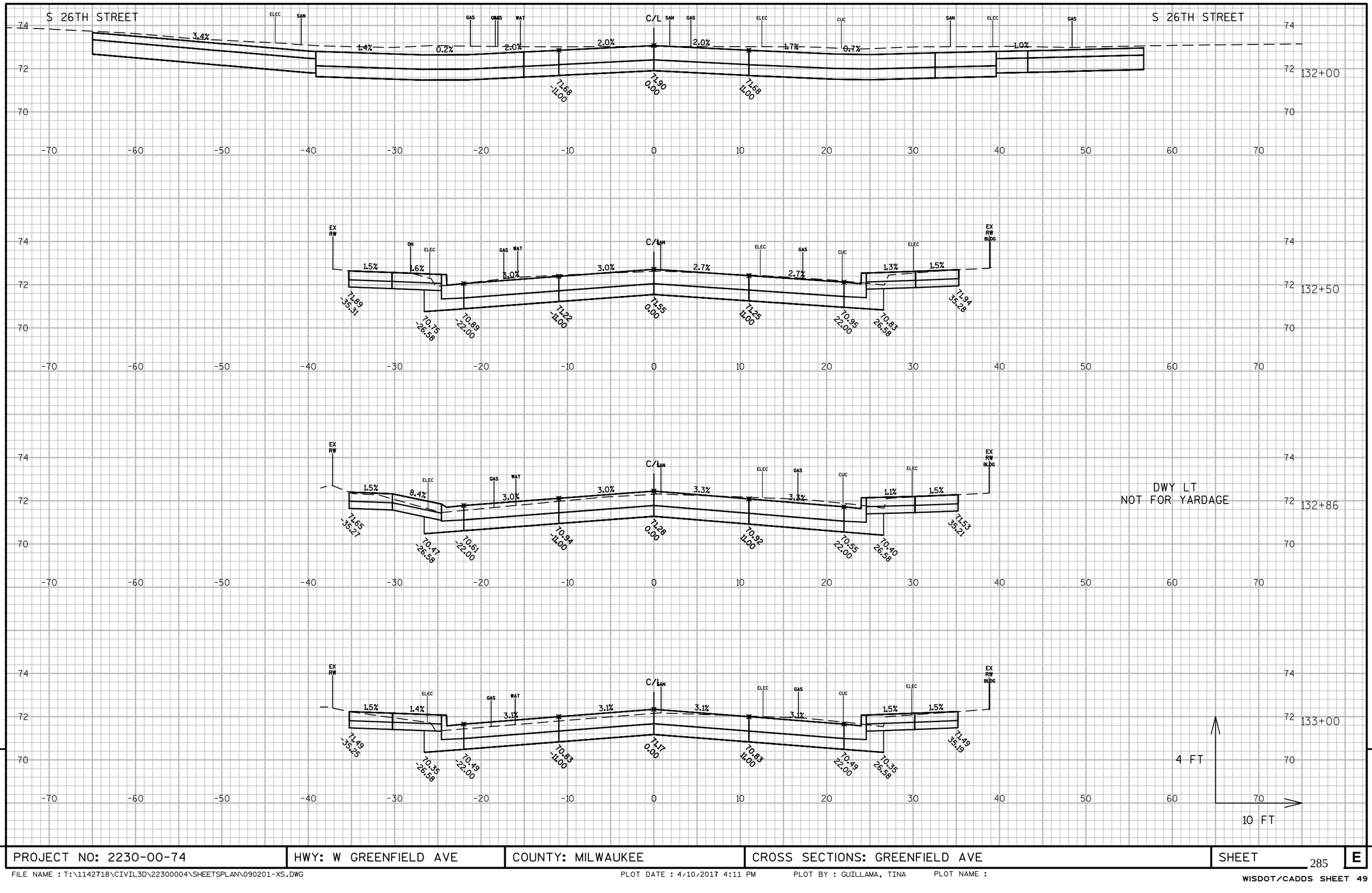
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 282	E



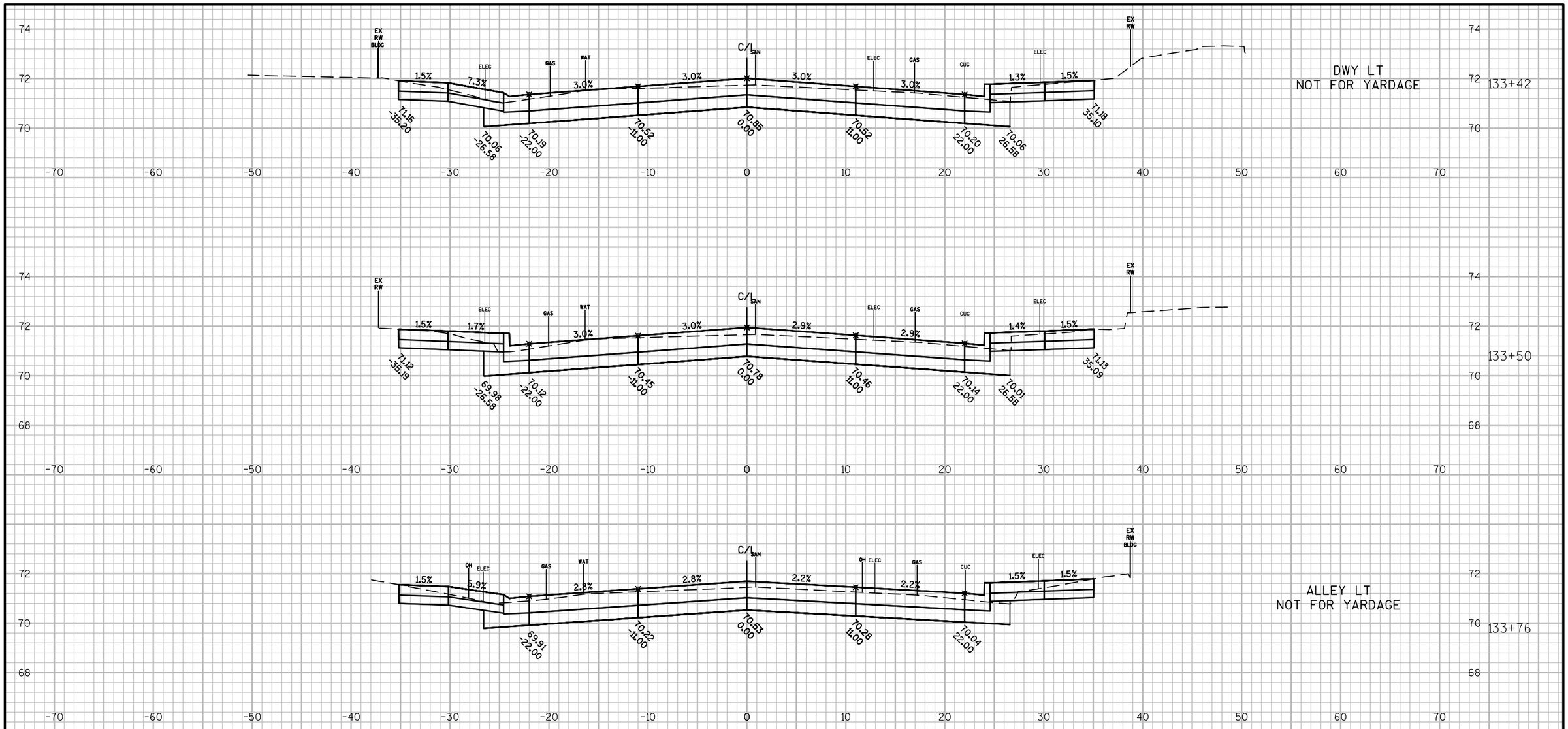
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 283	E



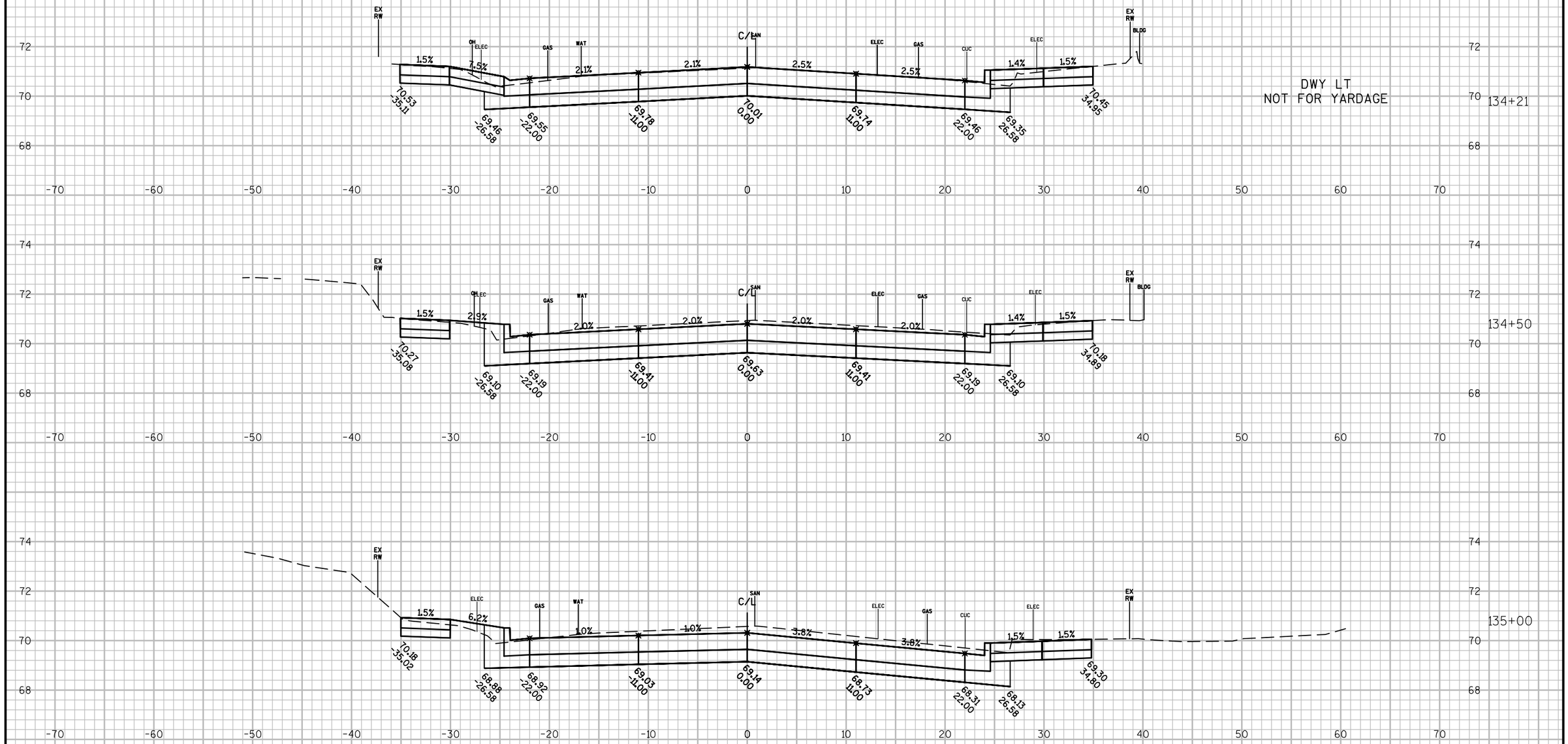
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 284	E



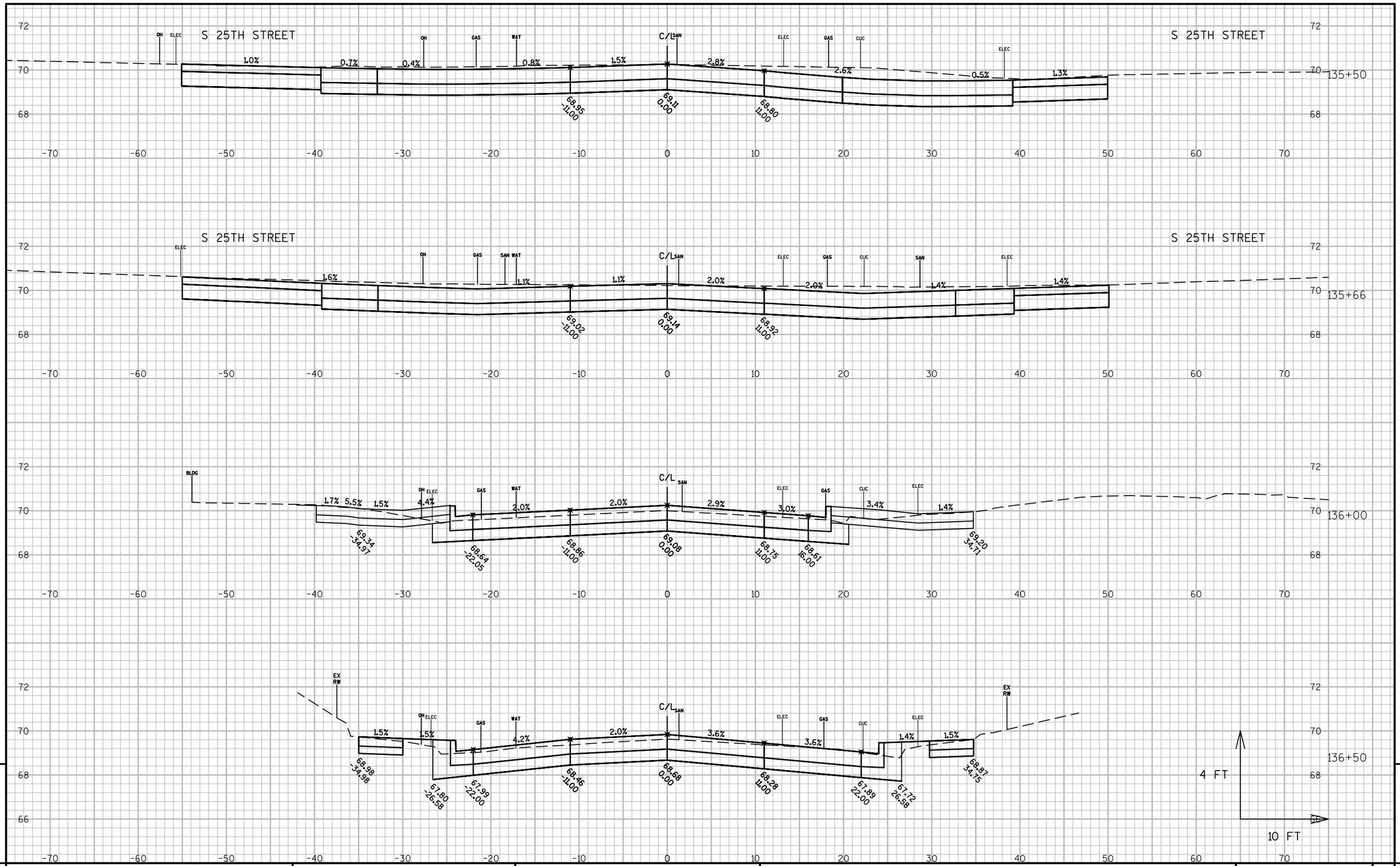
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 285	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 286	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 287	E



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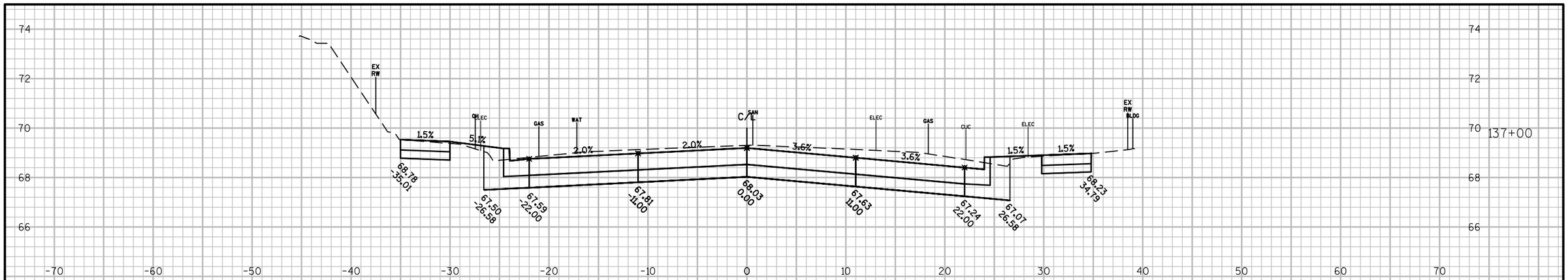
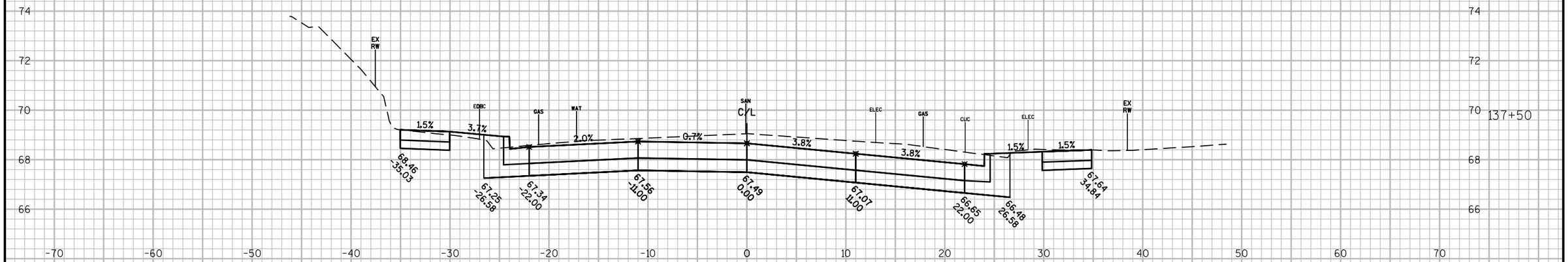
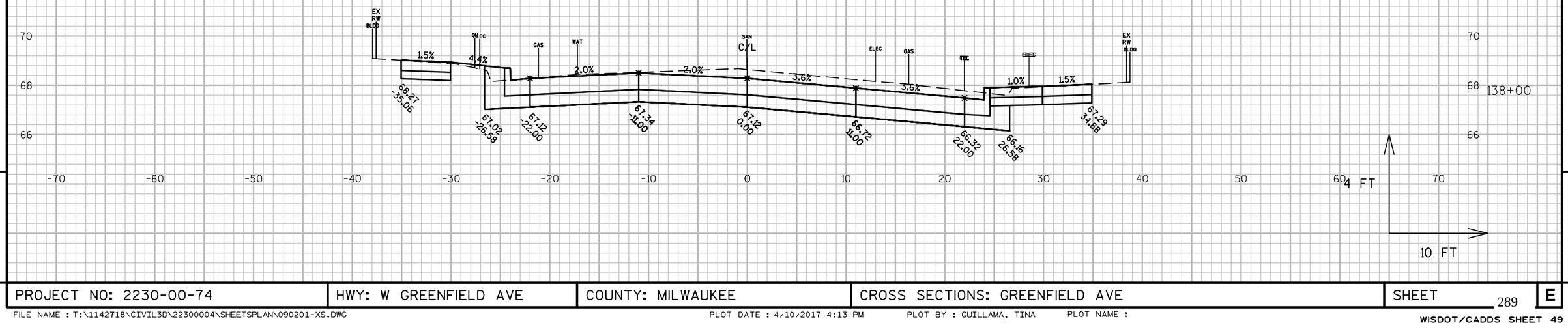
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 288	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:12 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49







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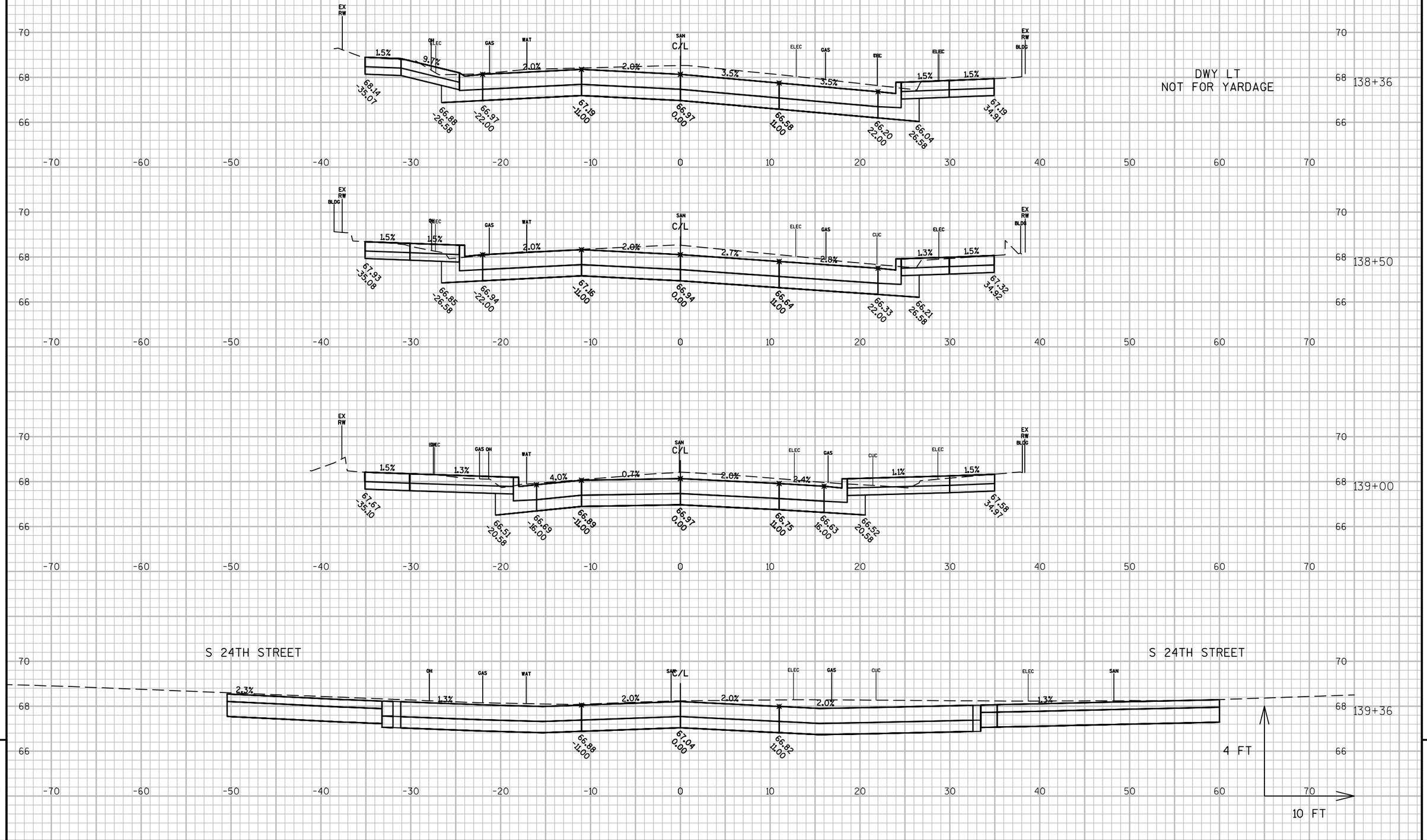
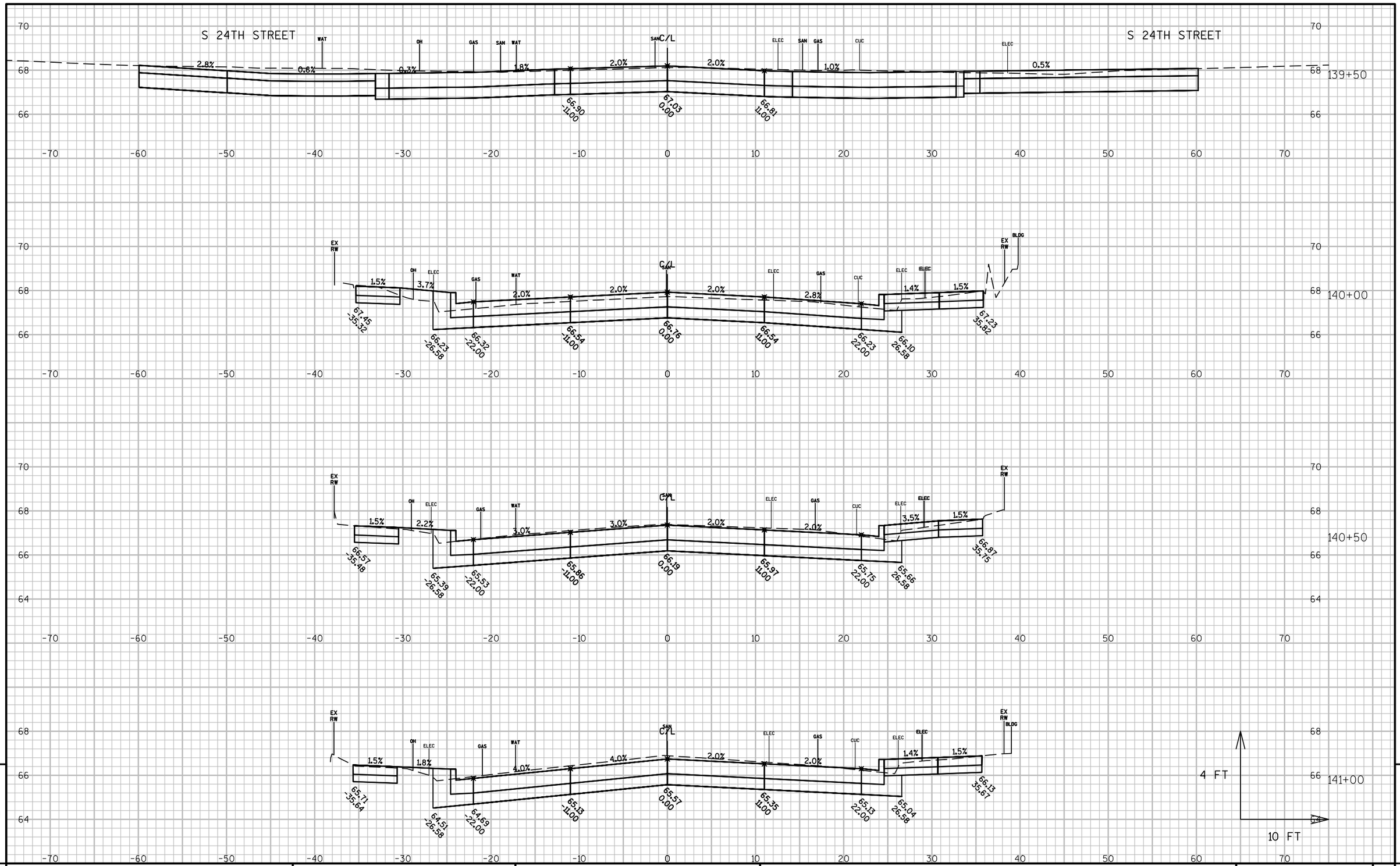
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 289	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



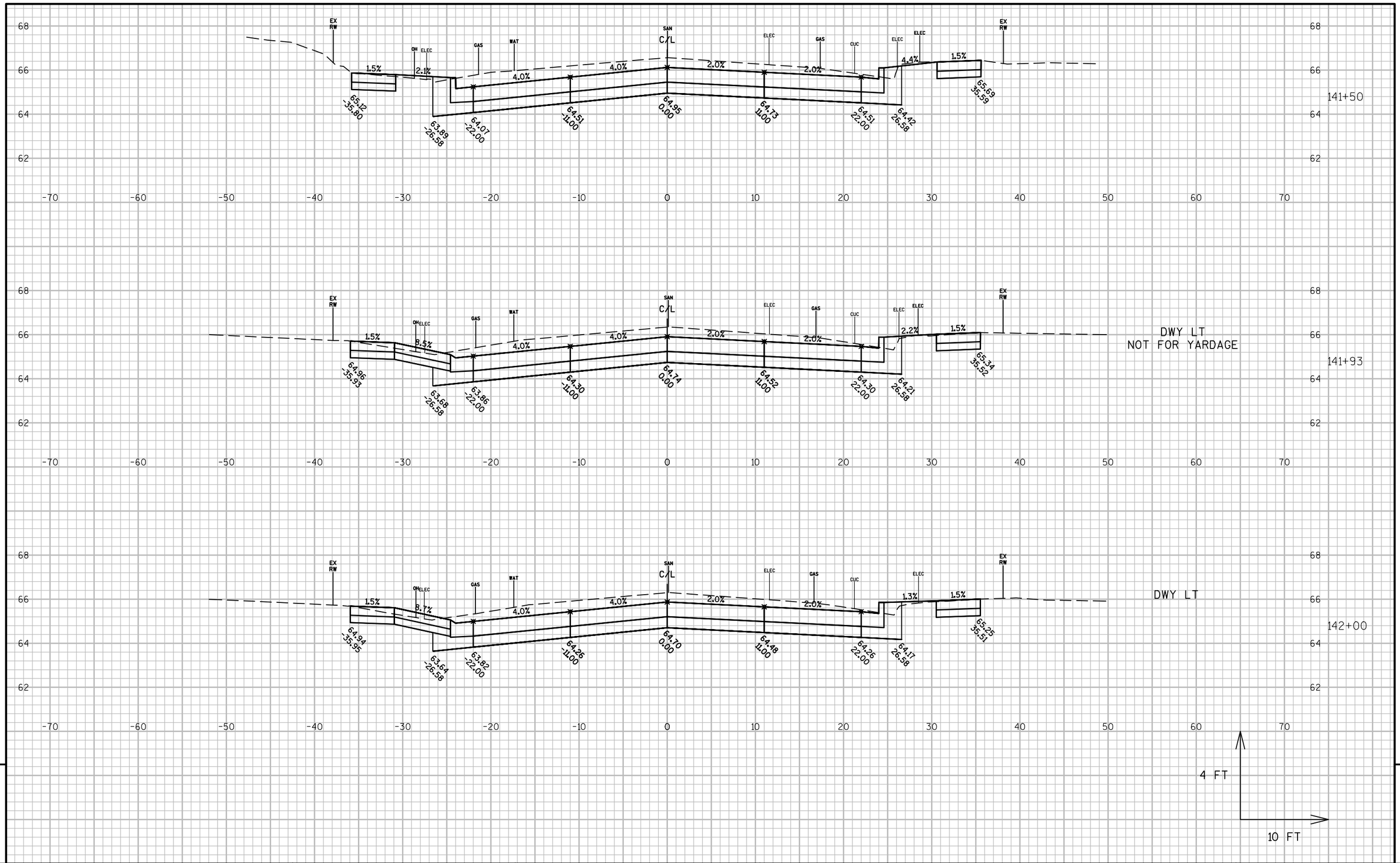
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 290	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 291 E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/11/2017 10:06 AM PLOT BY : AXT, ANDREW PLOT NAME :

WISDOT/CADDS SHEET 49



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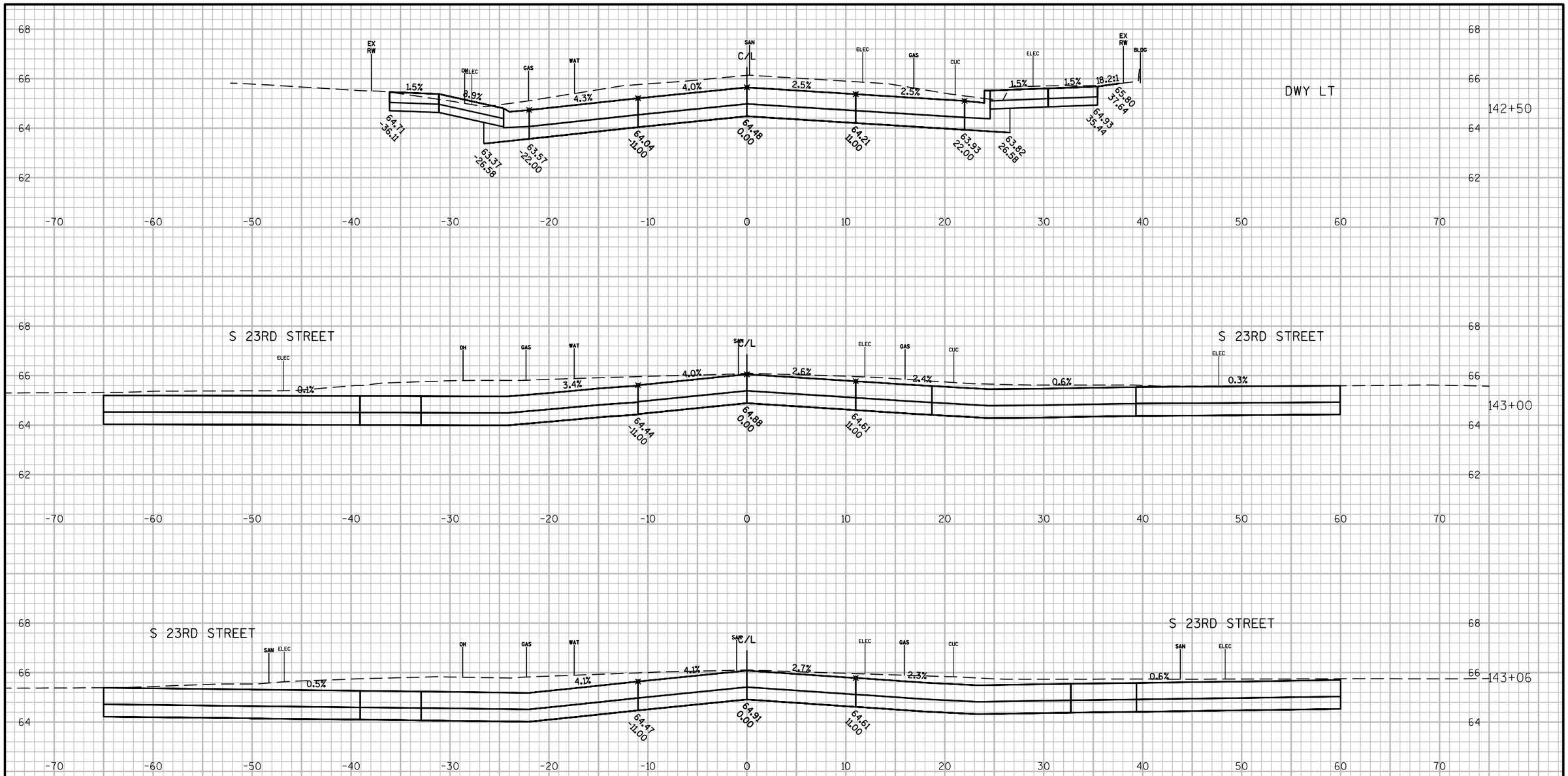
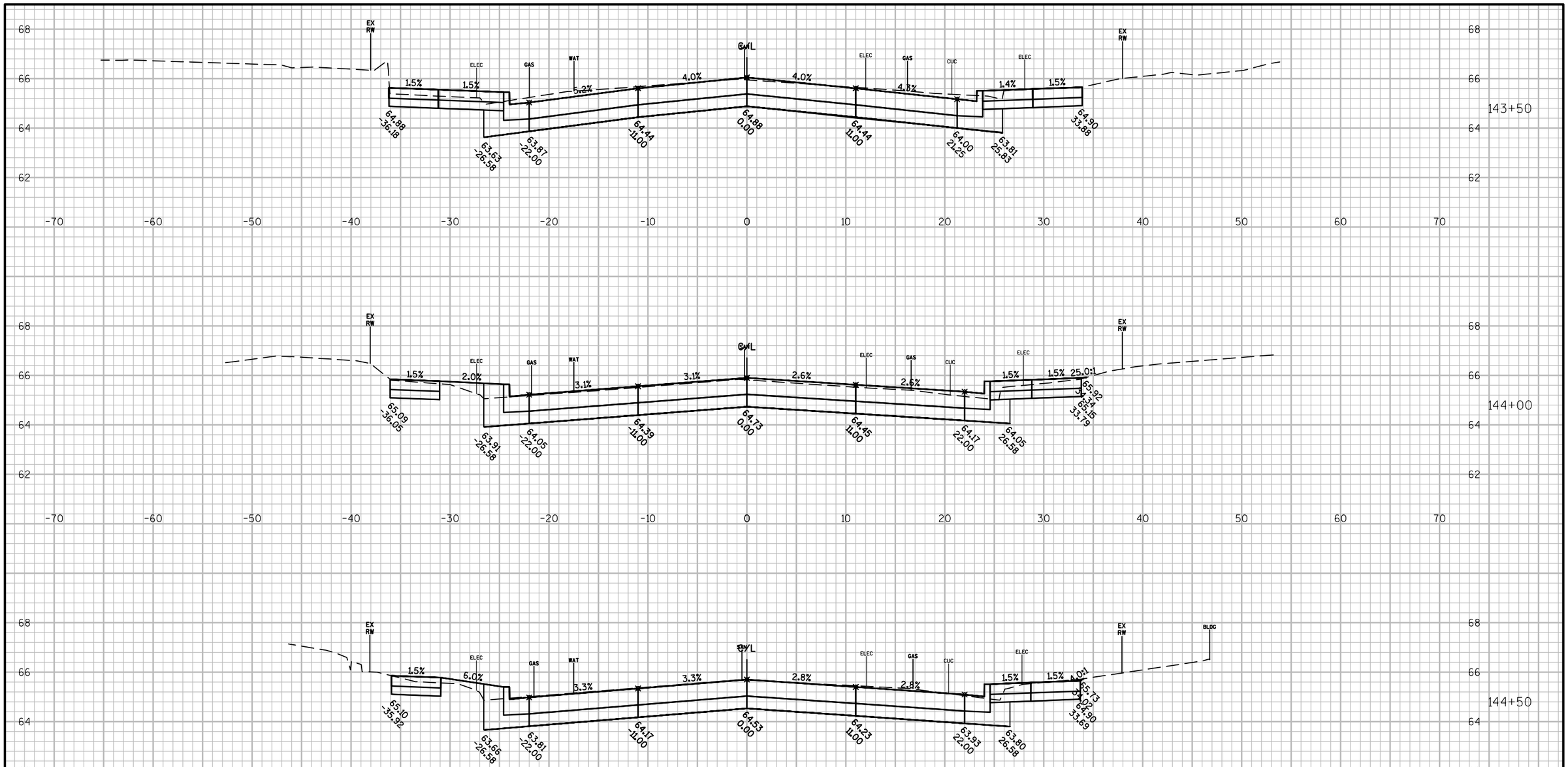
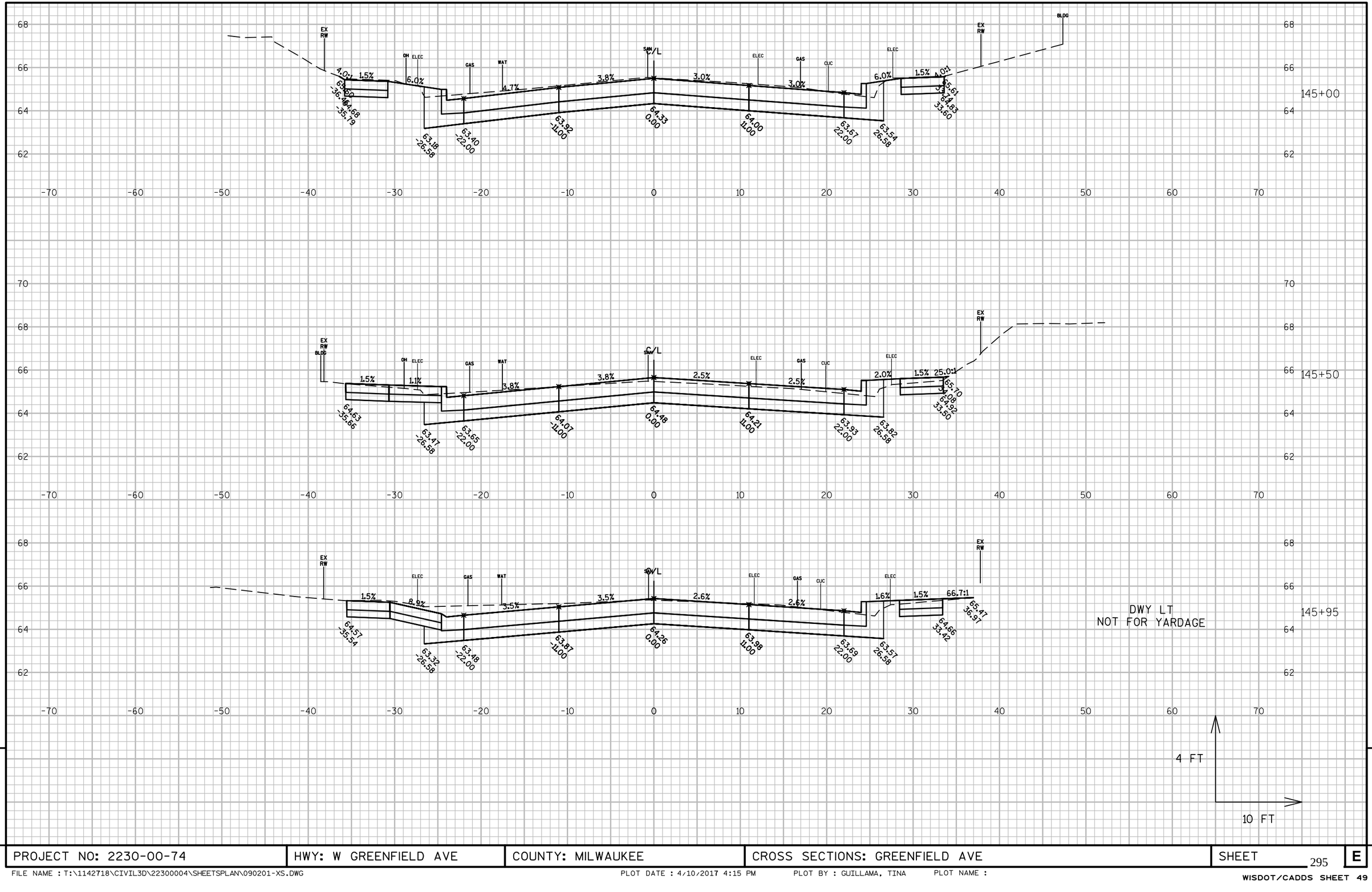
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 292	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 293	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 294	E



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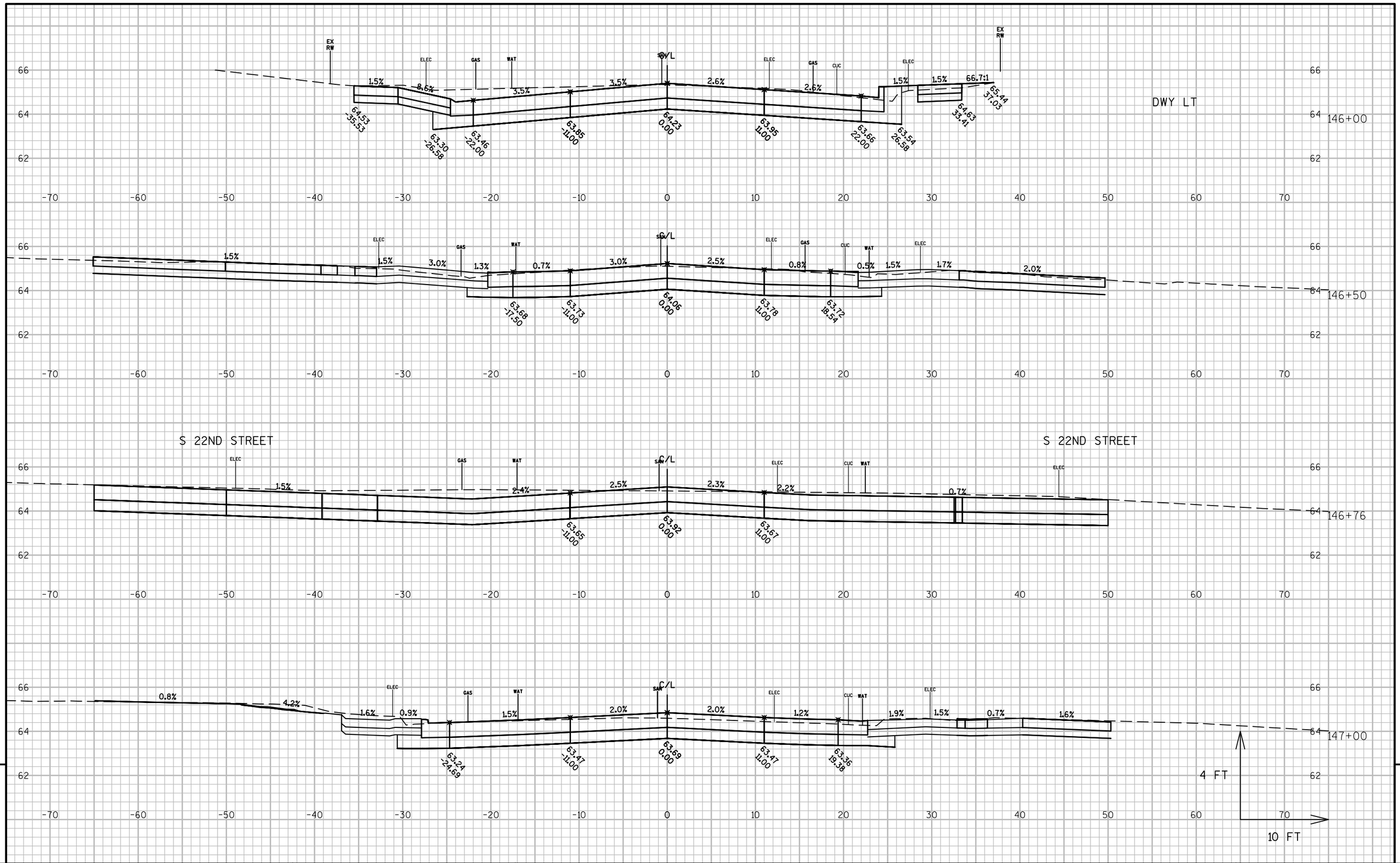
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 295	E

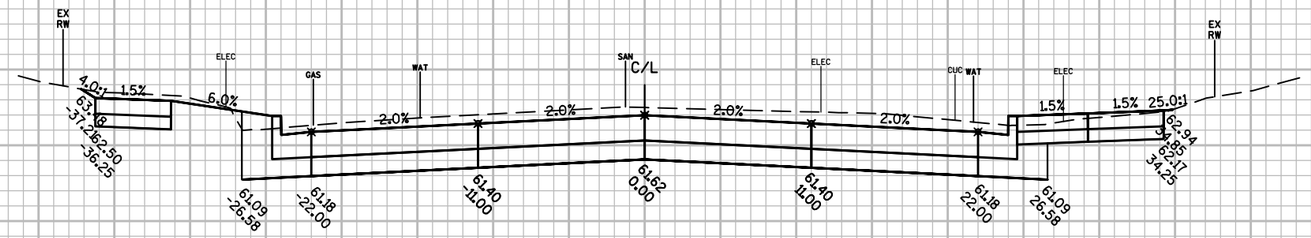
FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49

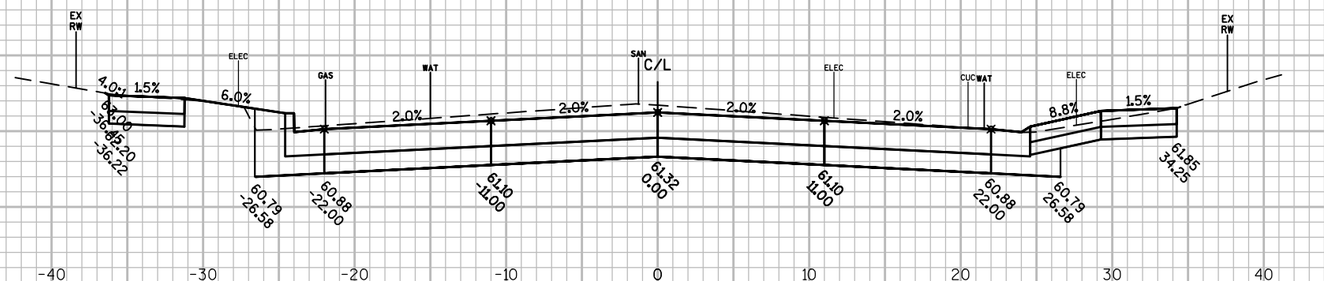


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 296	E

147+50



148+00

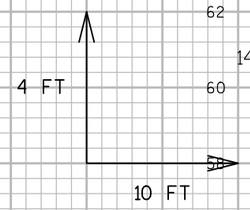


148+15

DWY RT
NOT FOR YARDAGE

148+50

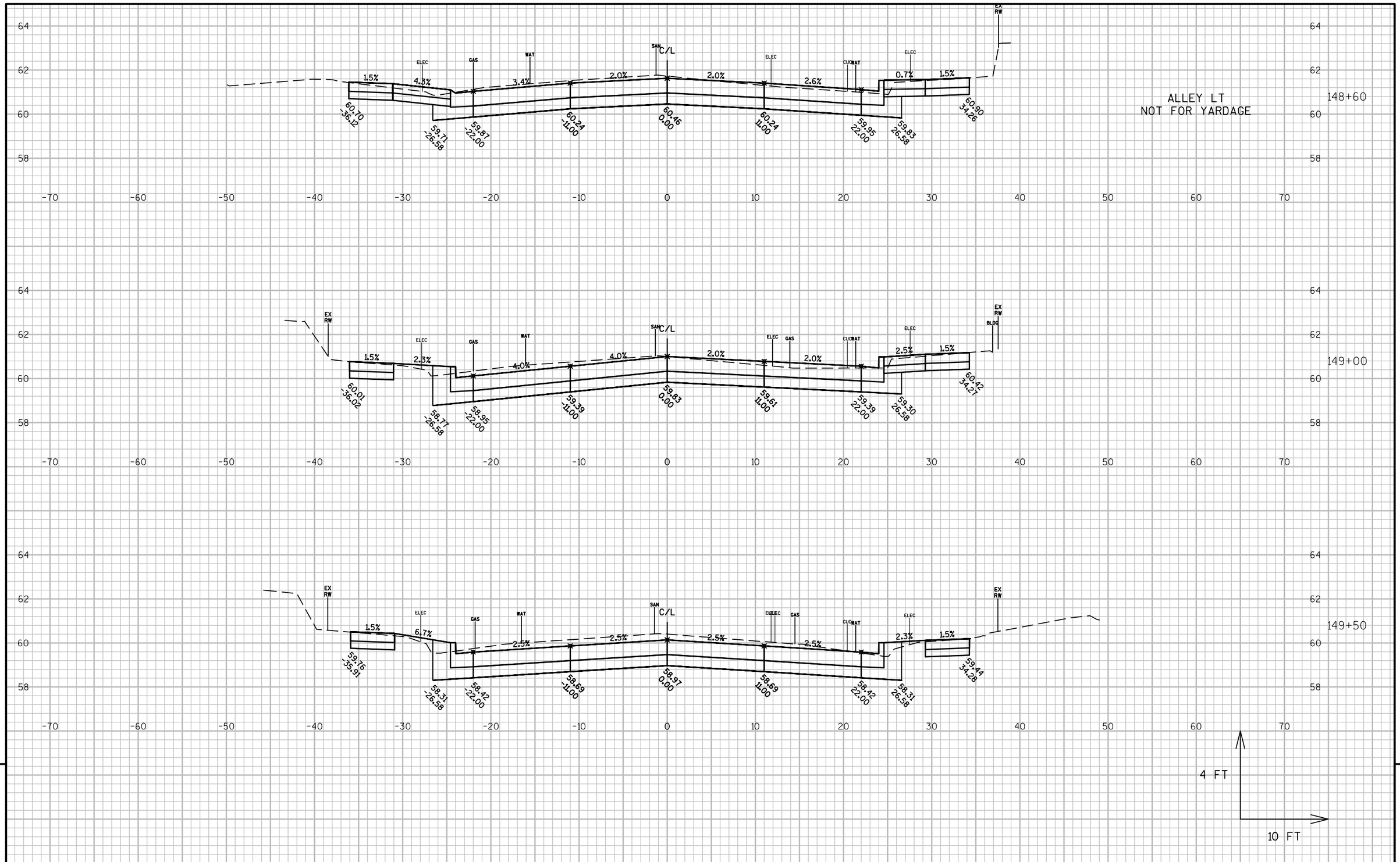
ALLEY LT



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 297	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



9

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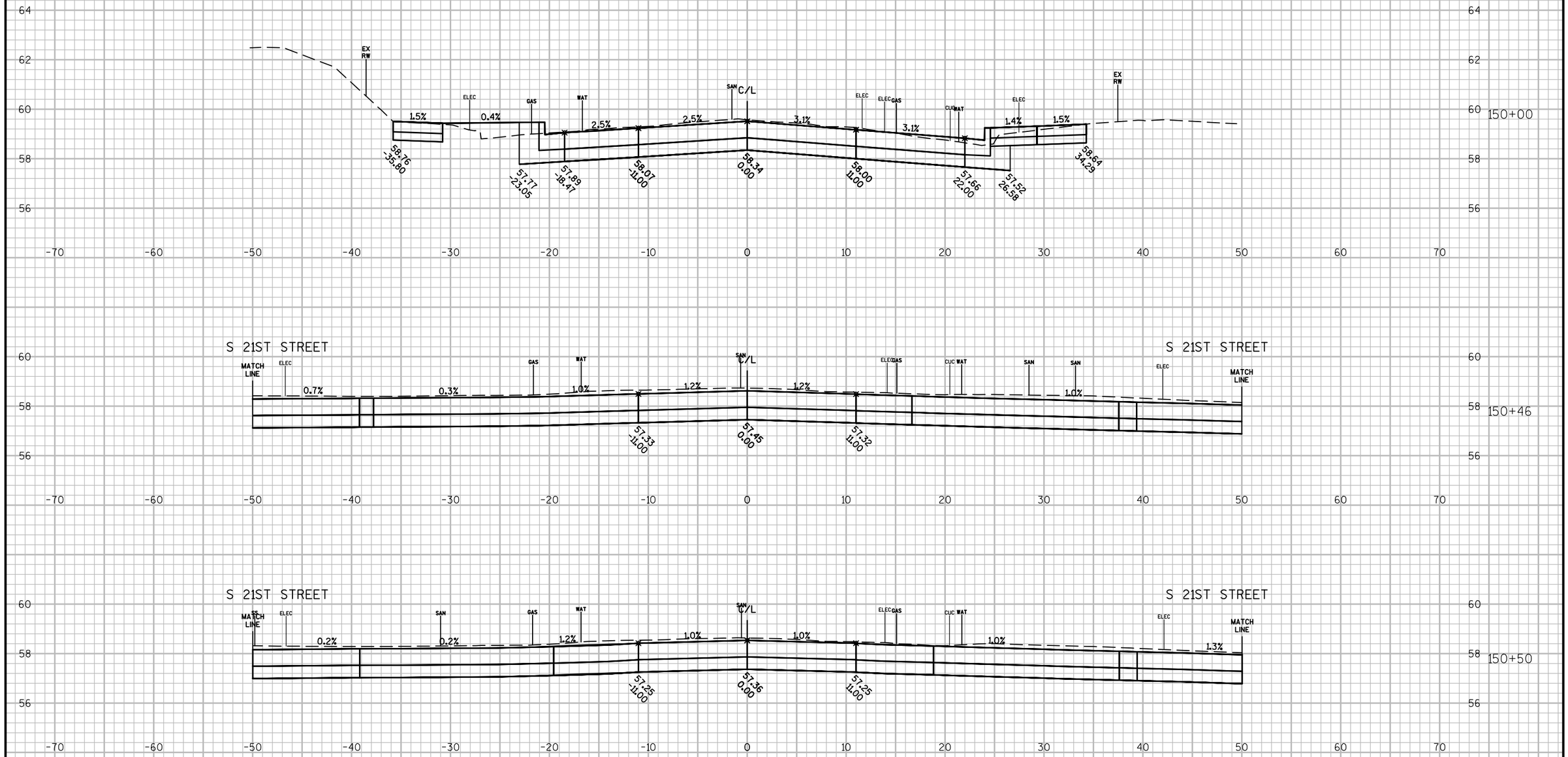
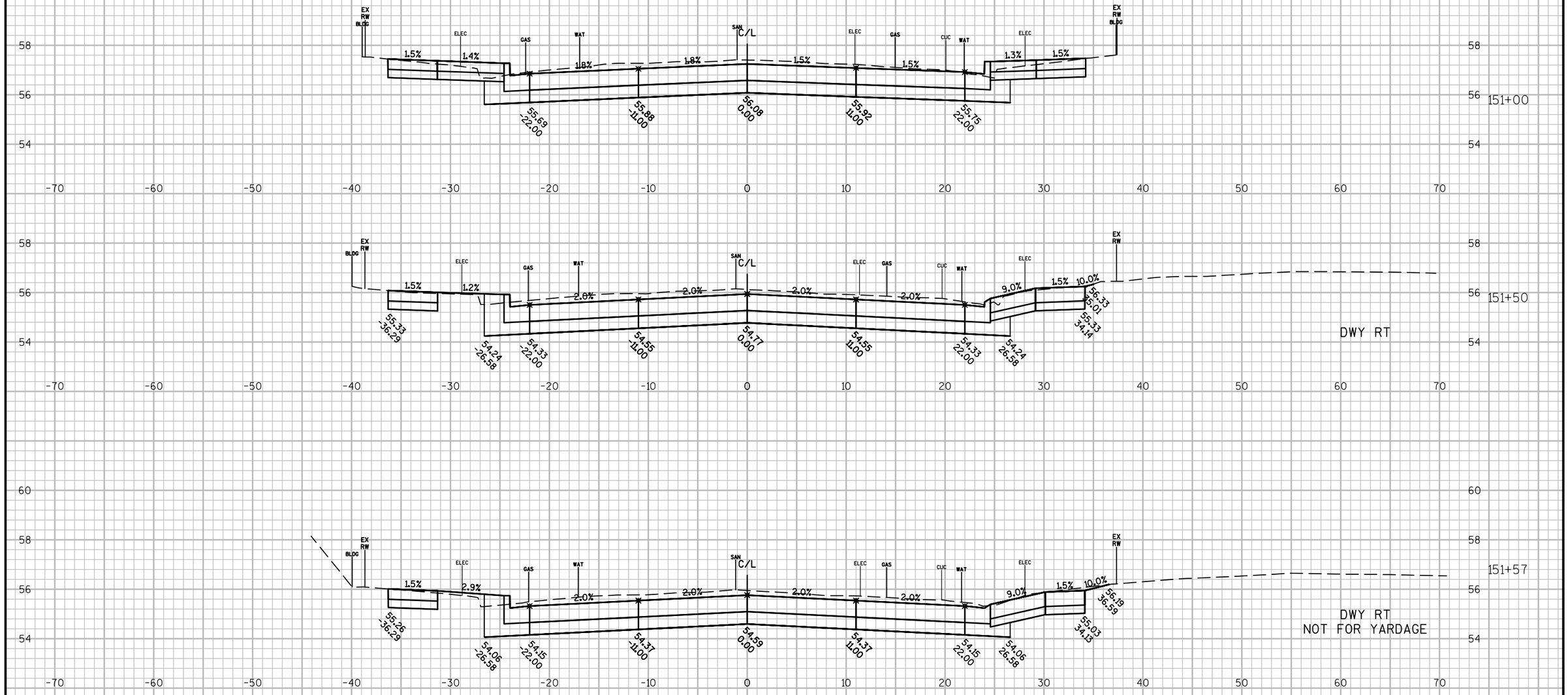
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 298	E



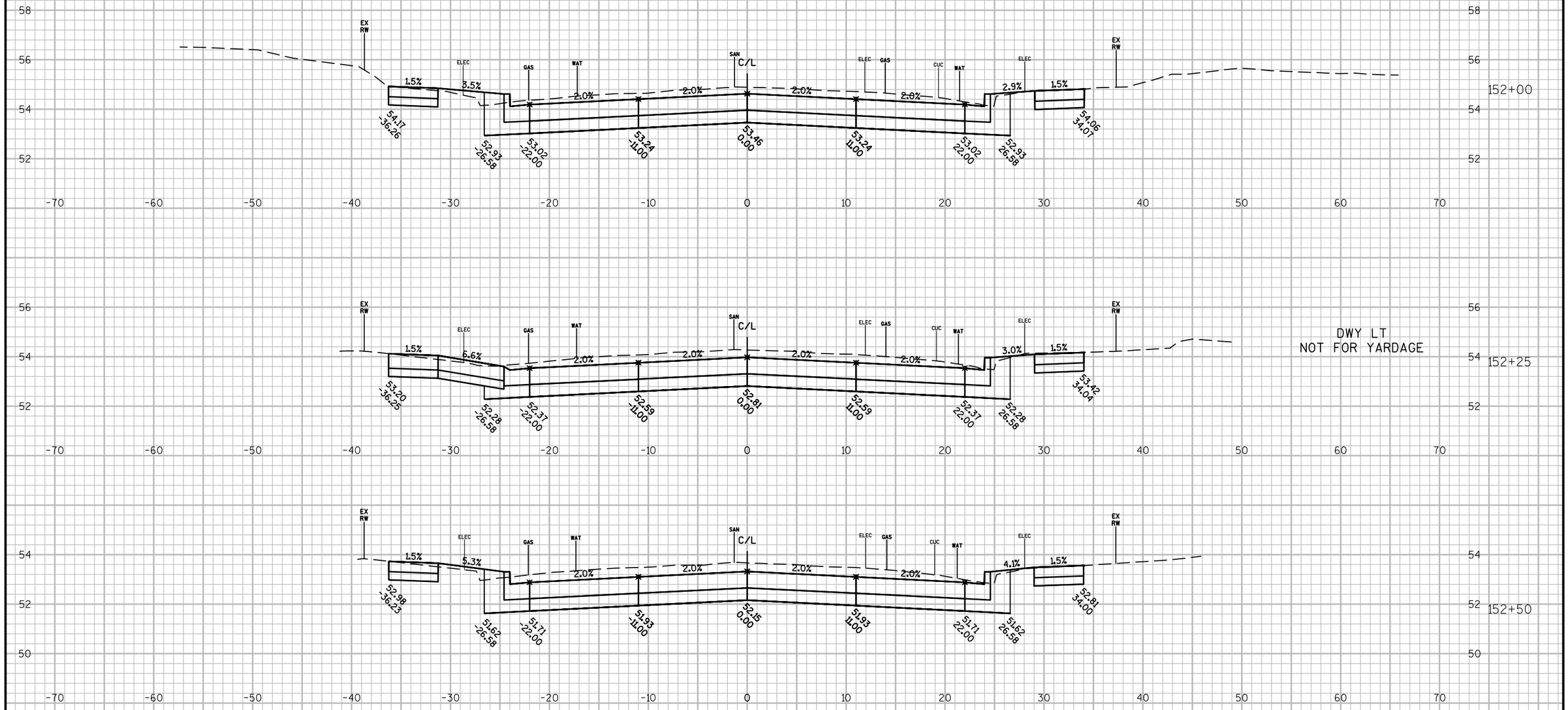
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 299	E



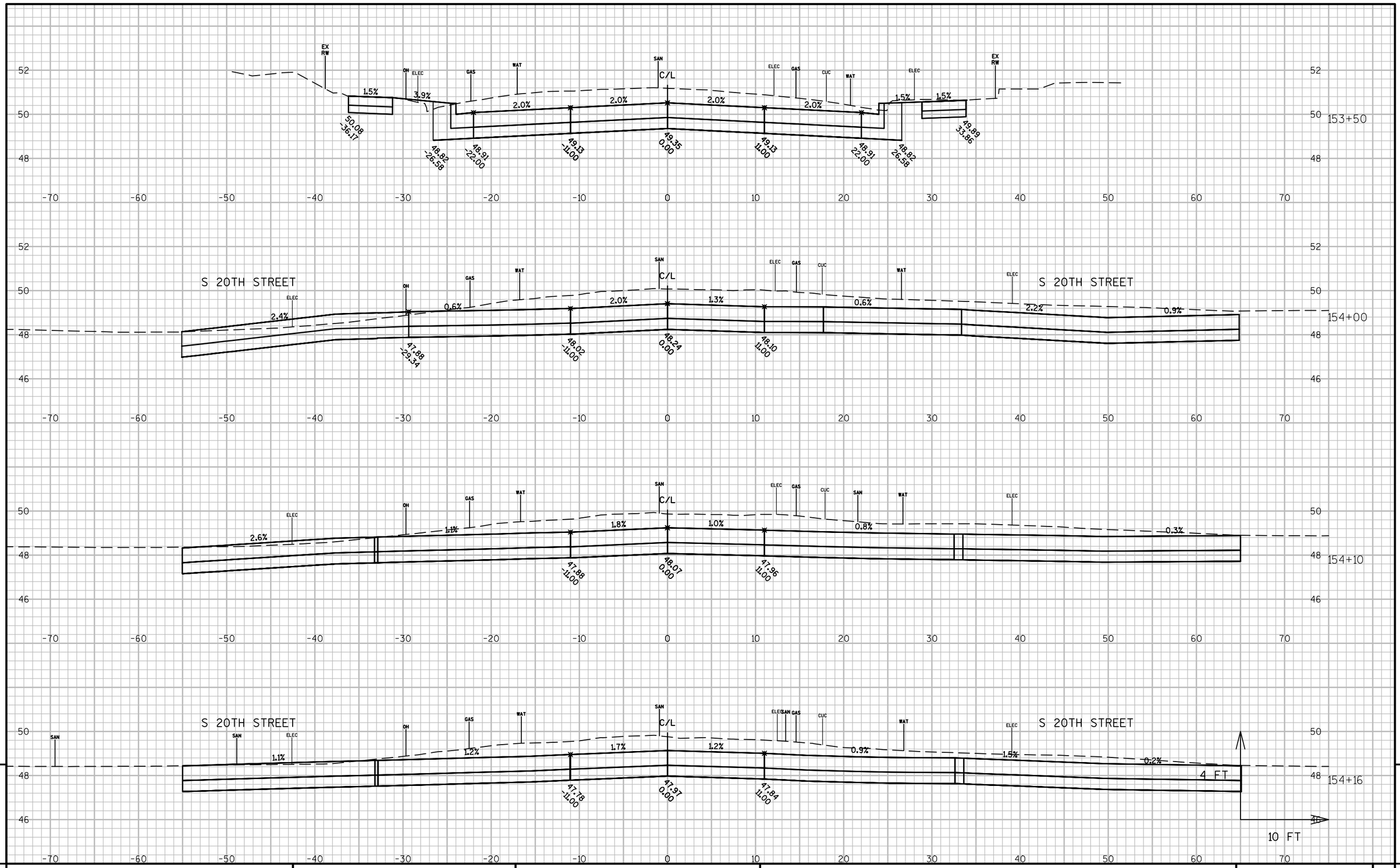
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 300	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:16 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49



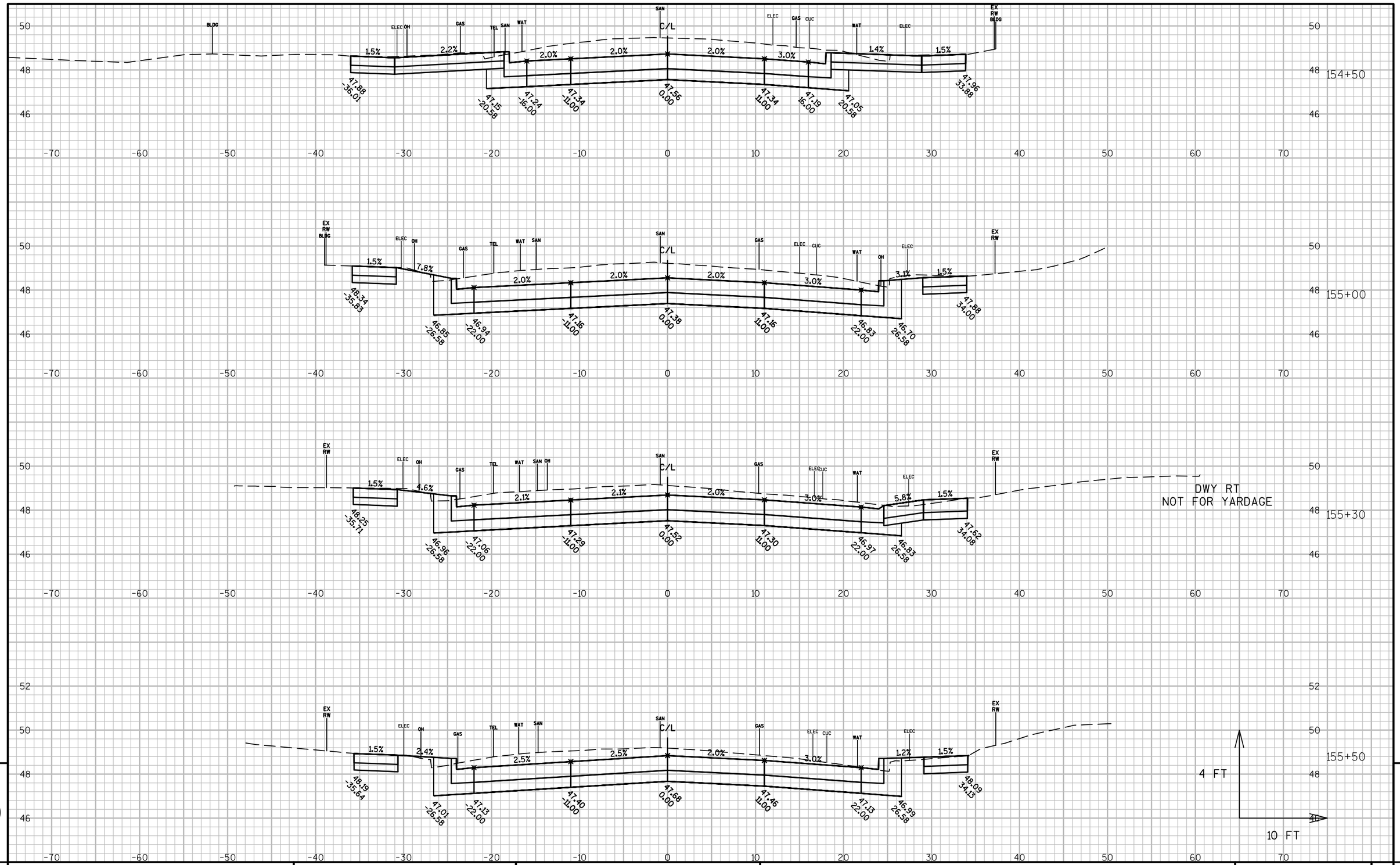
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 301	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 302	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/11/2017 9:48 AM PLOT BY : AXT, ANDREW PLOT NAME :

WISDOT/CADDS SHEET 49



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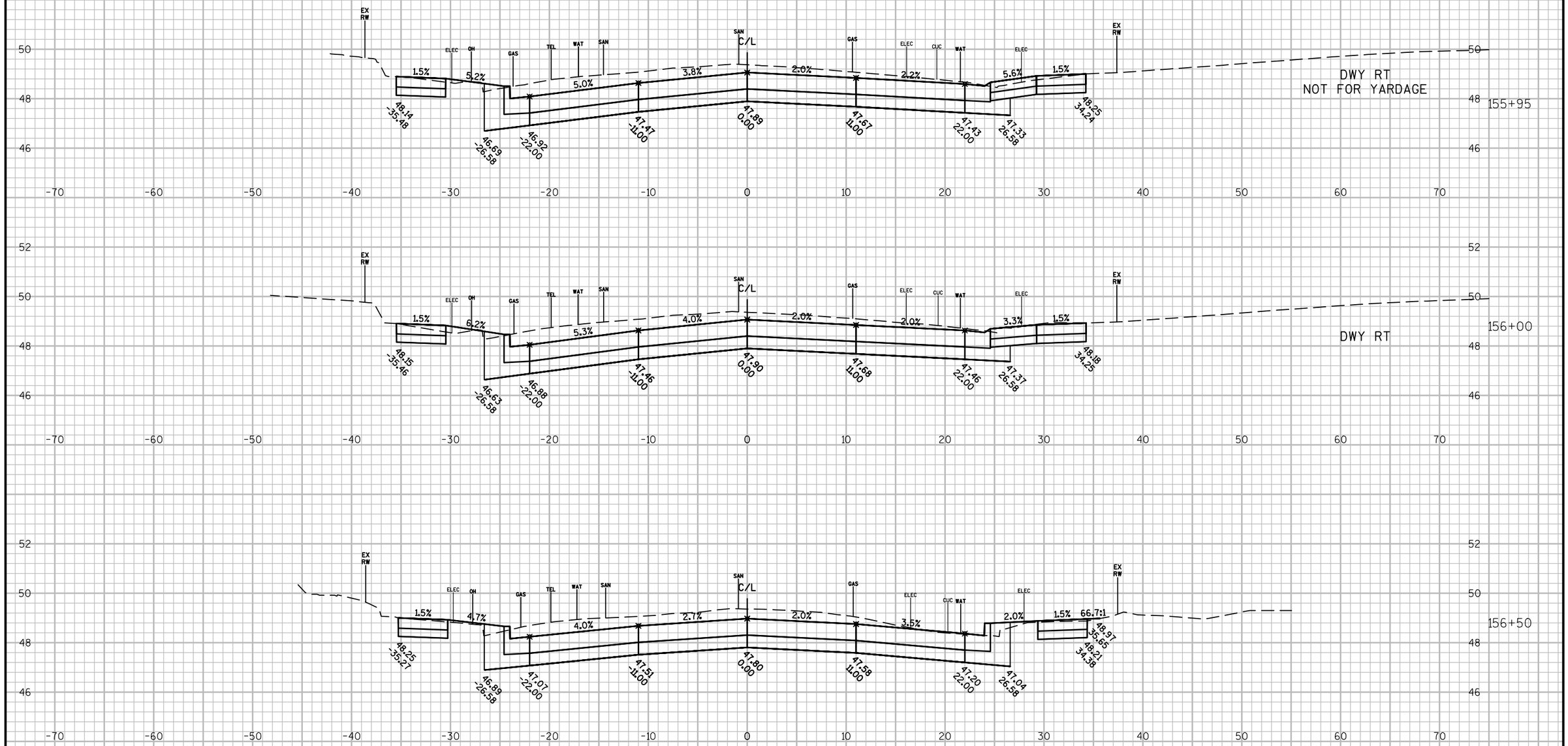
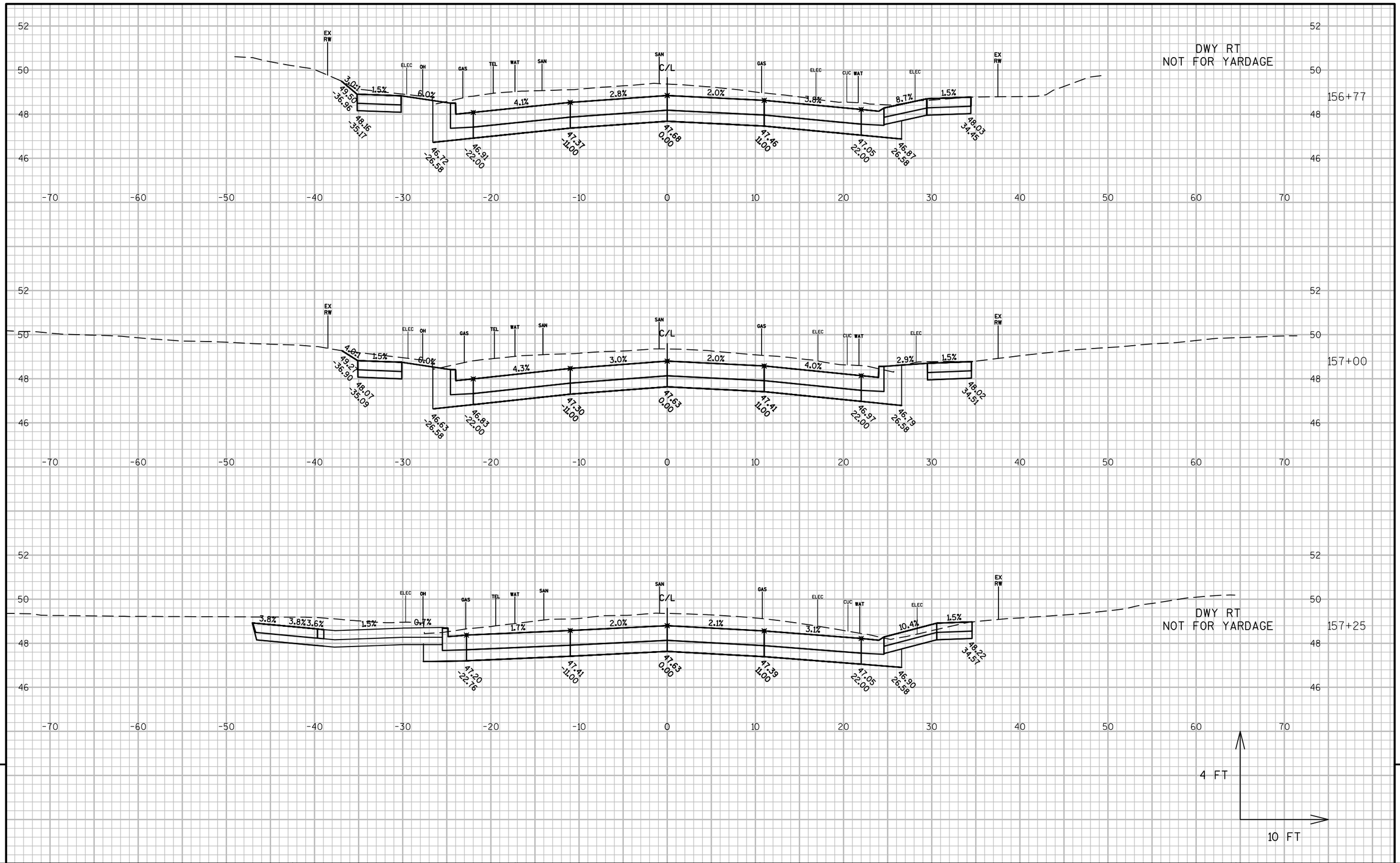
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 303	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:17 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

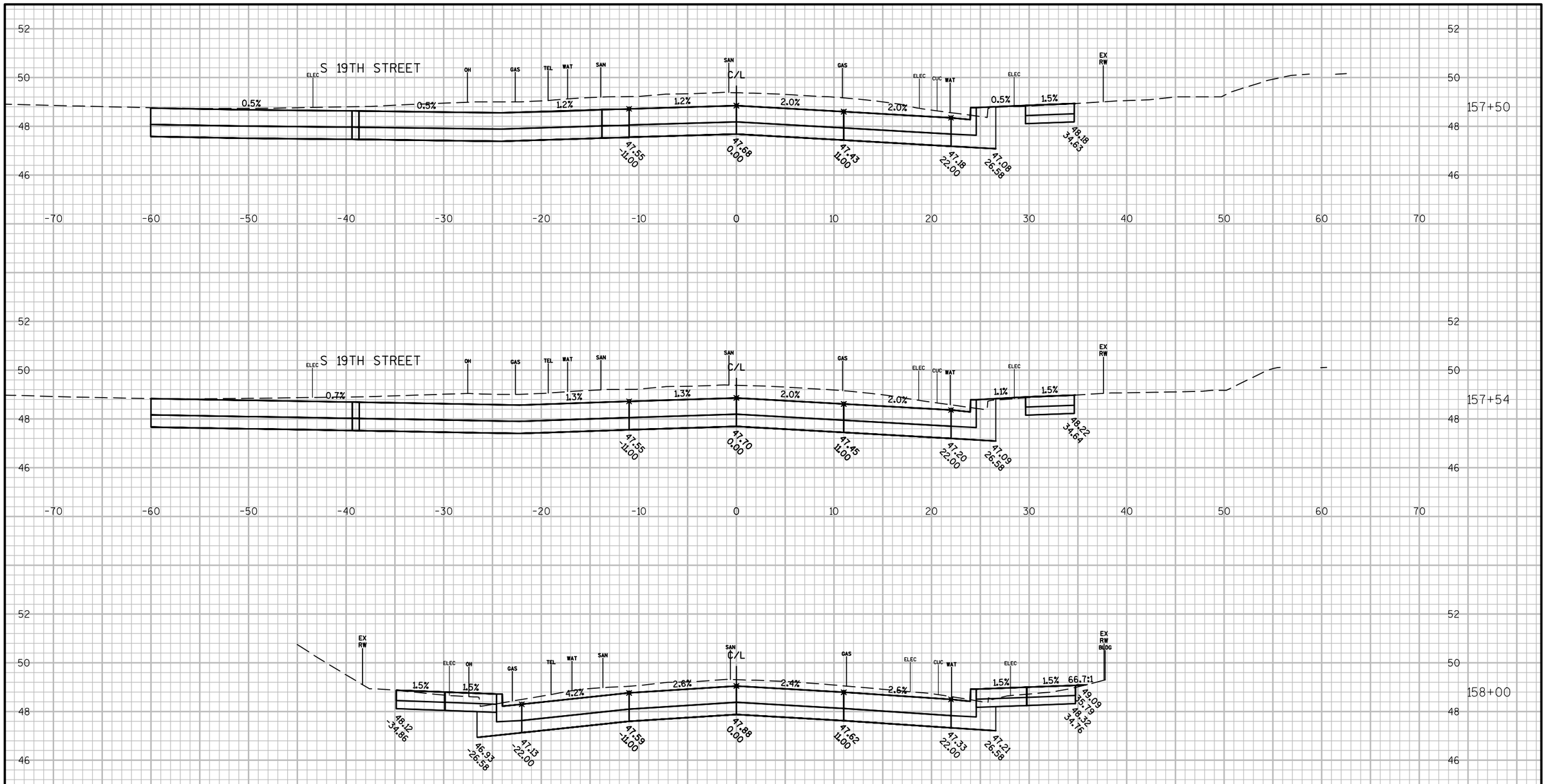
WISDOT/CADDS SHEET 49



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 304	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 305	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 306	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:18 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

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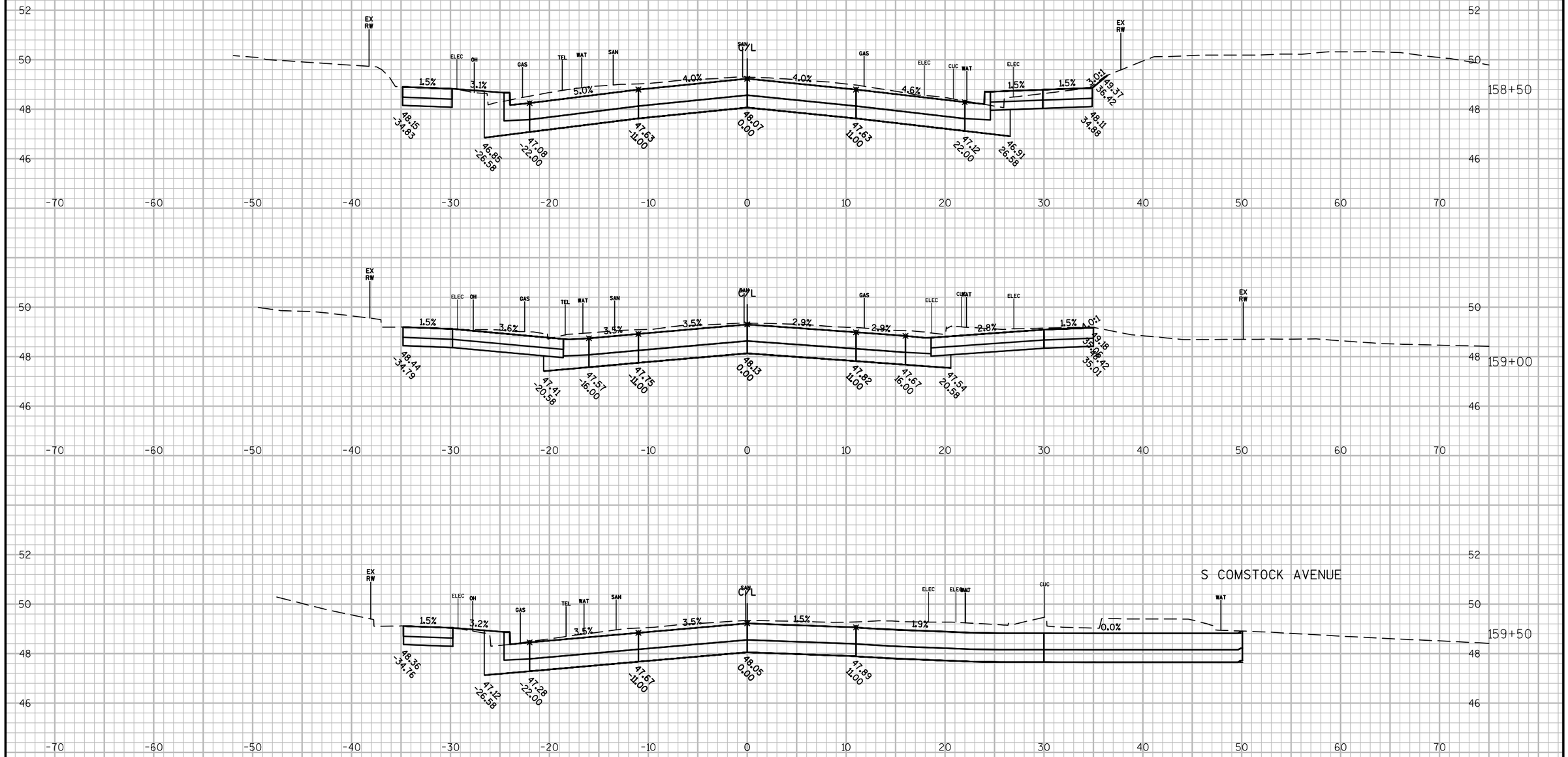
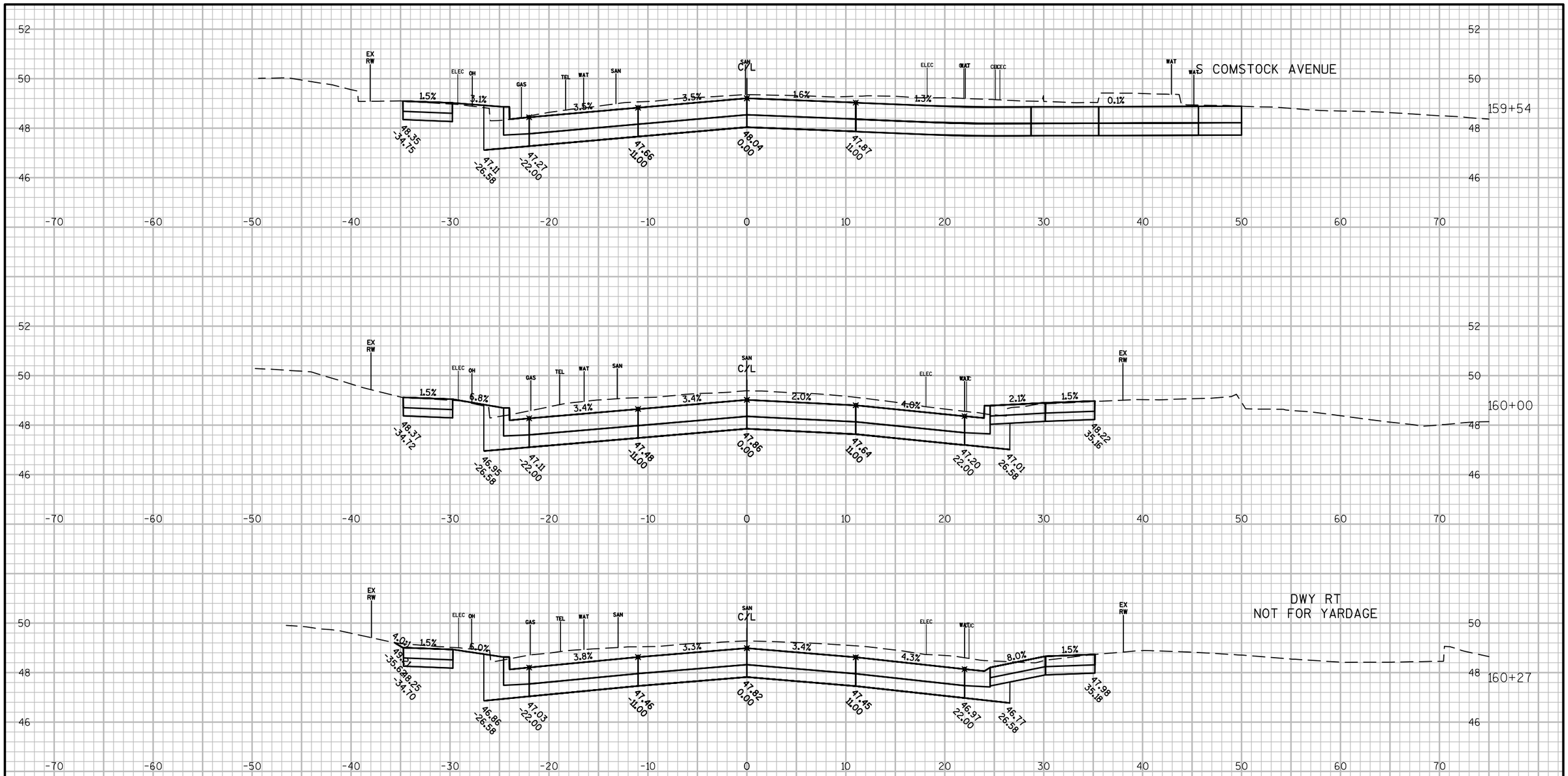


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 307	E



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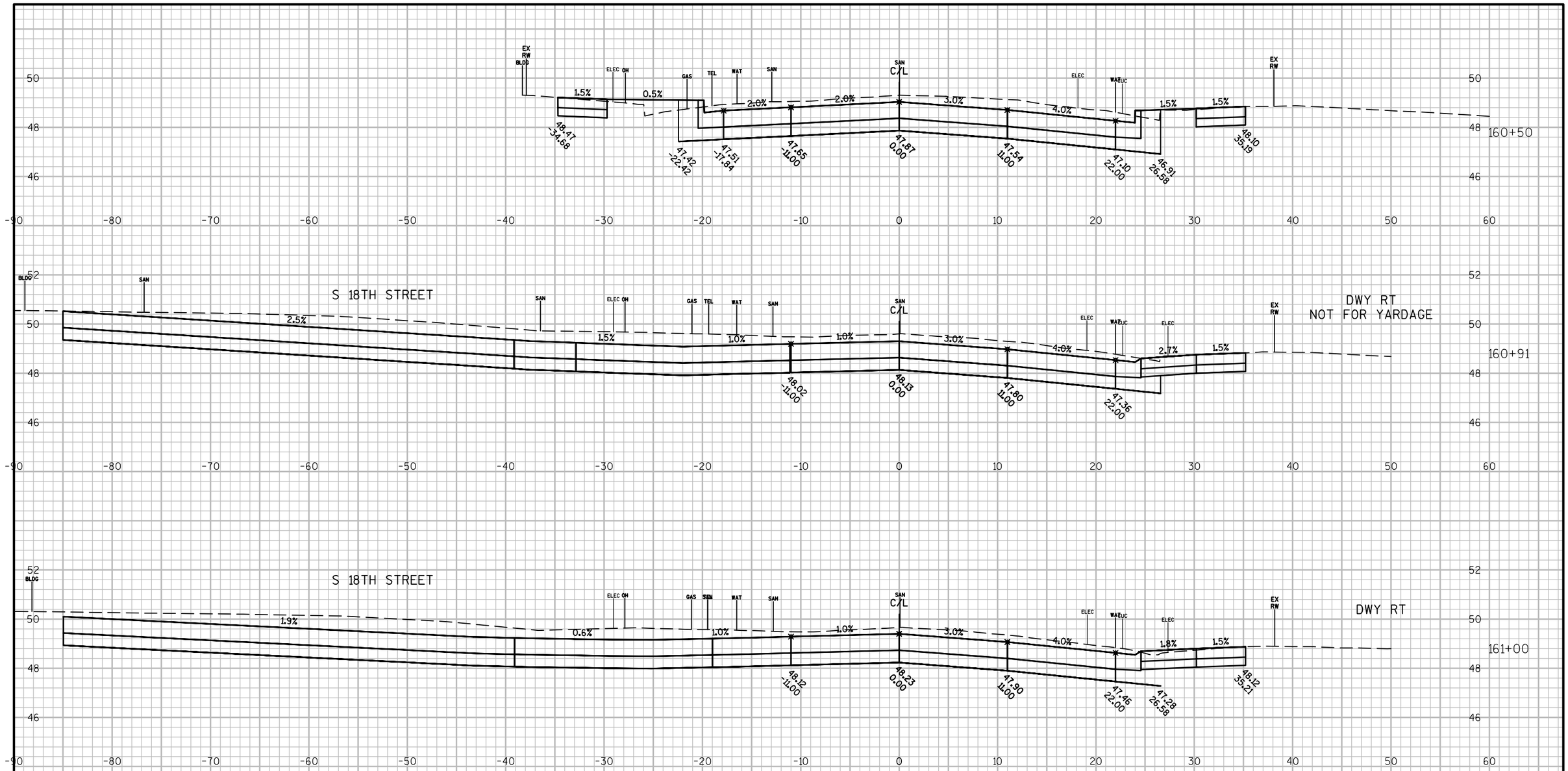

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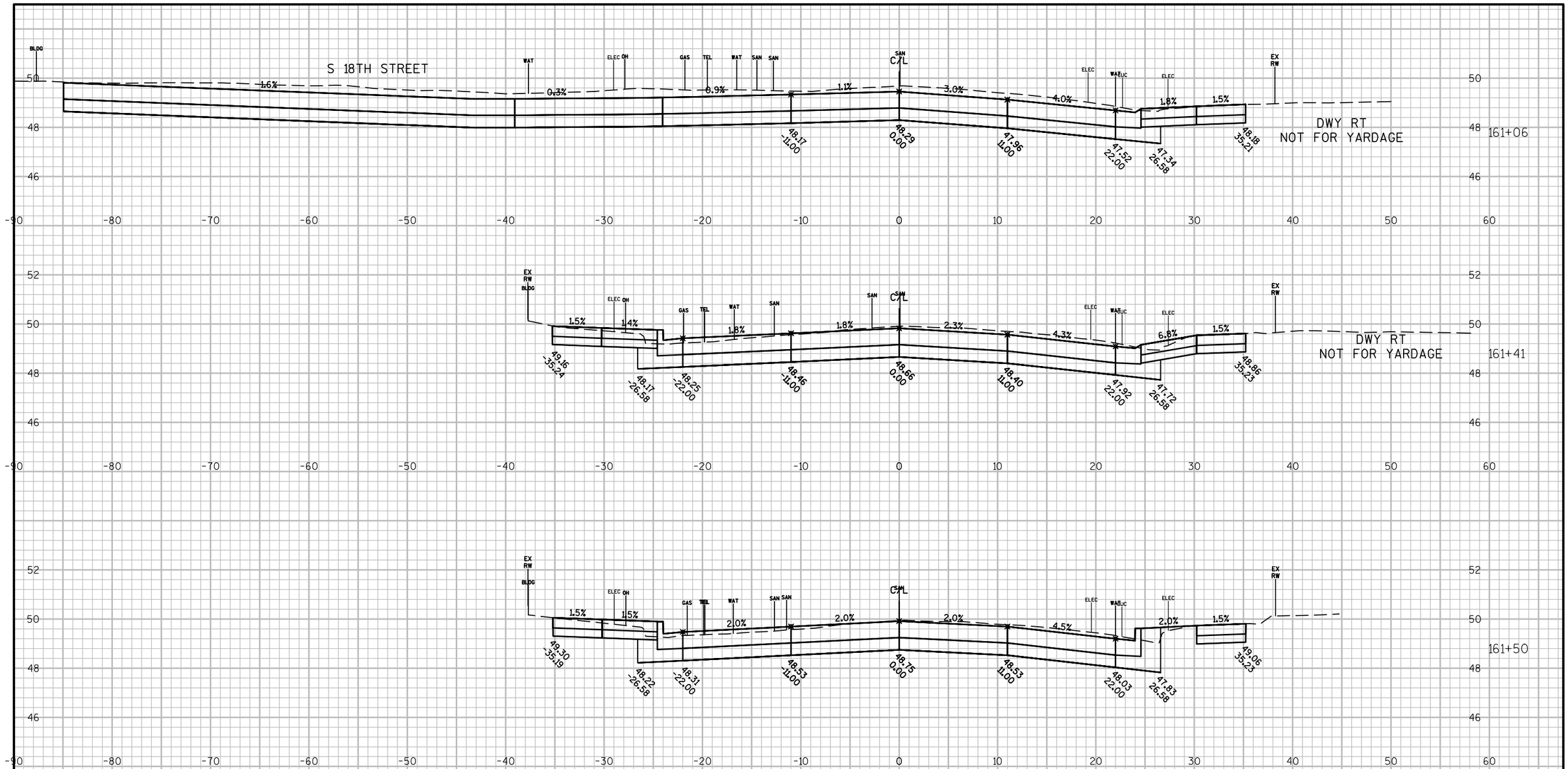
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 309	E



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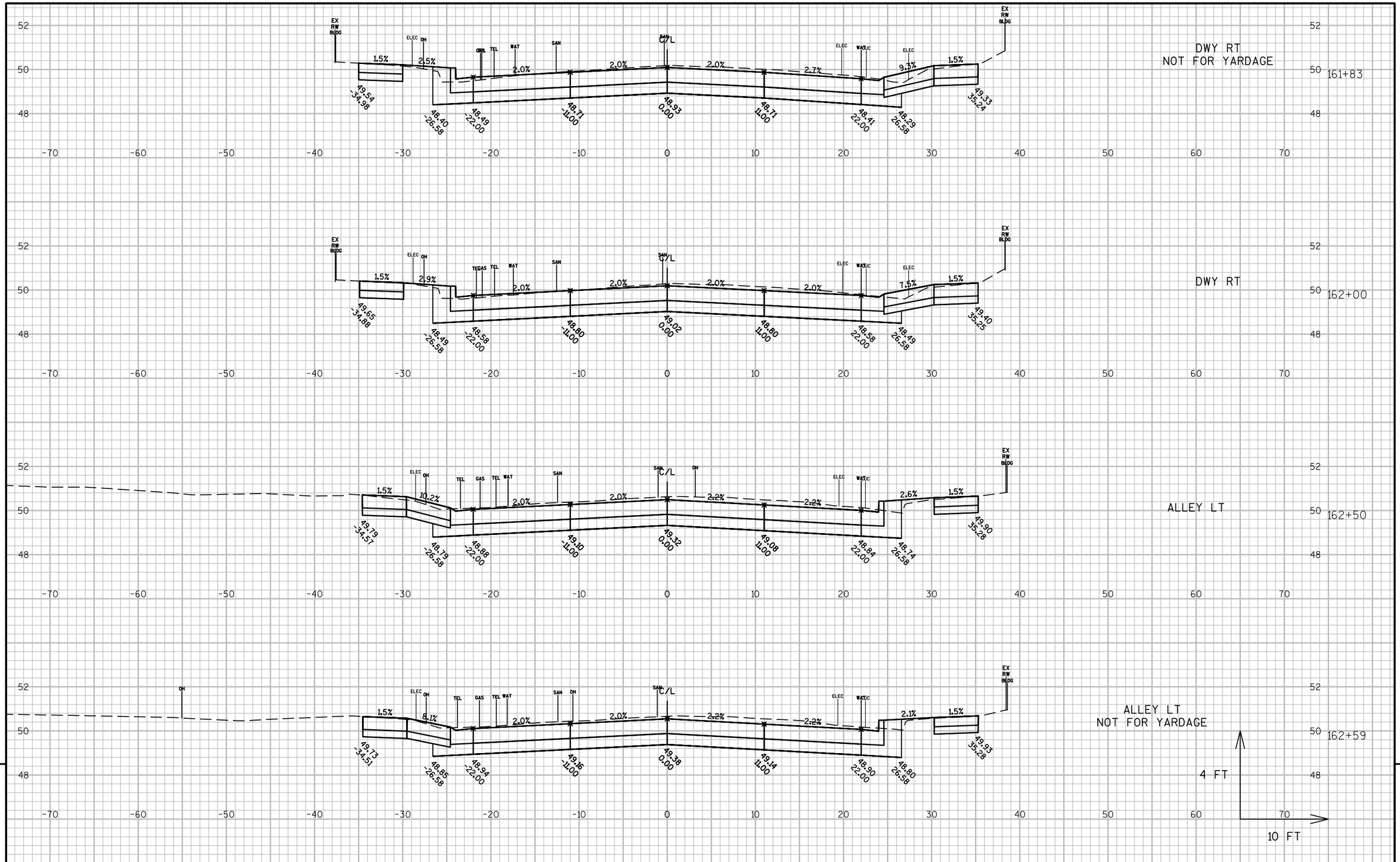

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 311	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:20 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

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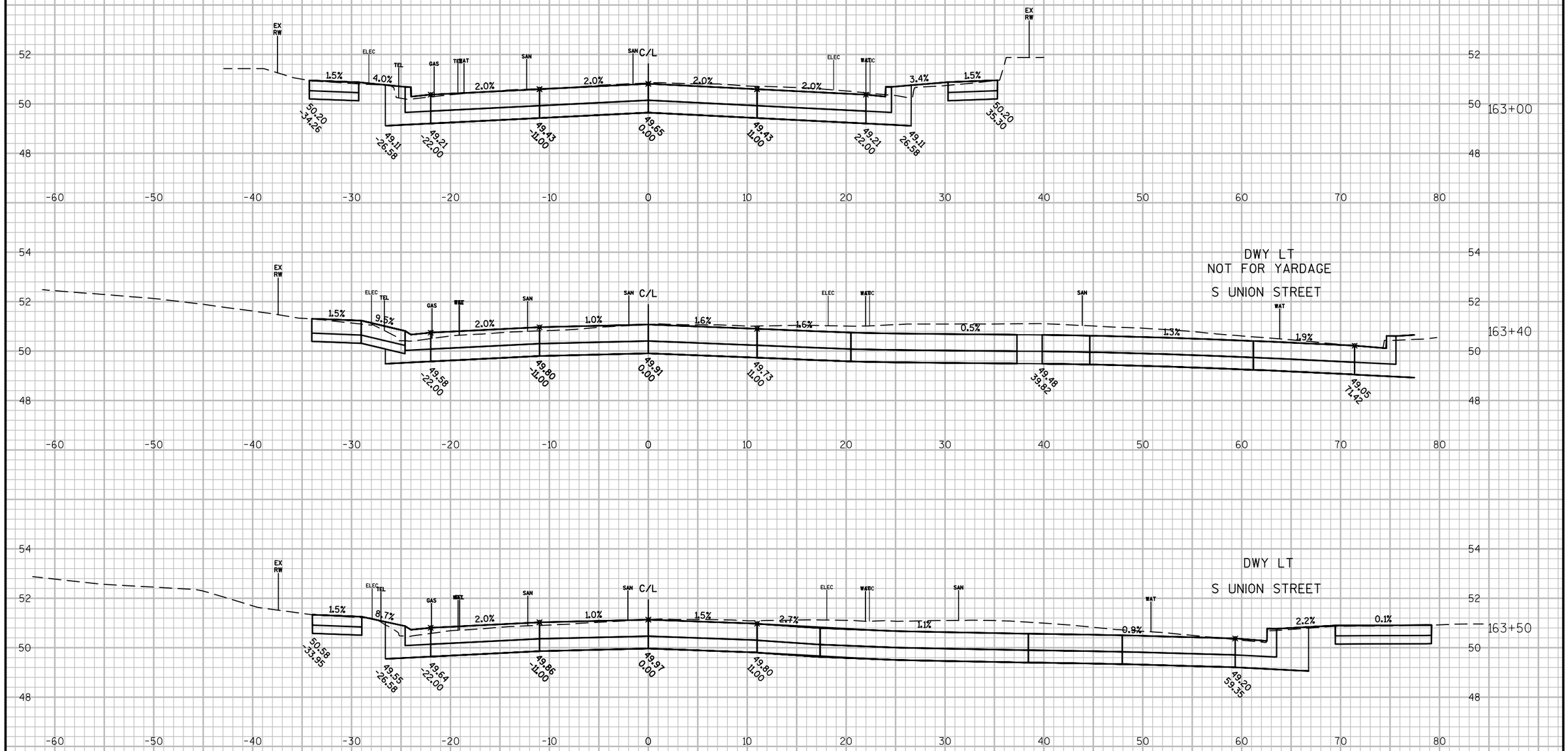

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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 312	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:20 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

WISDOT/CADDS SHEET 49

DWY LT
NOT FOR YARDAGE

S UNION STREET

163+56

EX RW
ELEC
TEL
GAS
WAT
SAN
C/L
1.5% 8.4% 2.0% 1.0% 1.6% 2.4% 1.4% 0.7% 3.0% 0.1%
50.58 -33.92
49.57 -26.58
49.66 -22.00
49.88 -11.00
49.99 0.00
49.82 11.00
49.24 51.45

164+00

EX RW BLDG
TEL ELEC
GAS
WAT
SAN
C/L
WATUC
1.5% 1.0% 1.6% 1.5% 1.2% 0.7% 1.3% 1.0% 2.0% 2.0% 0.7% 1.5%
49.98 -17.08
50.06 -11.00
50.17 0.00
49.95 11.00
49.85 16.00
49.76 20.58
50.85 35.48

164+29

S 17TH STREET

EX RW BLDG
SAN
ELEC
TEL
GAS
WAT
C/L
WATUC
1.5% 1.0% 1.1% 2.5% 2.5% 1.5% 1.5% 4.0%
50.33 -11.00
50.45 0.00
50.17 11.00
49.83 25.00
49.71 29.58
51.81 16.59
50.78 35.56

4 FT
10 FT

9

9

PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 313	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:21 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

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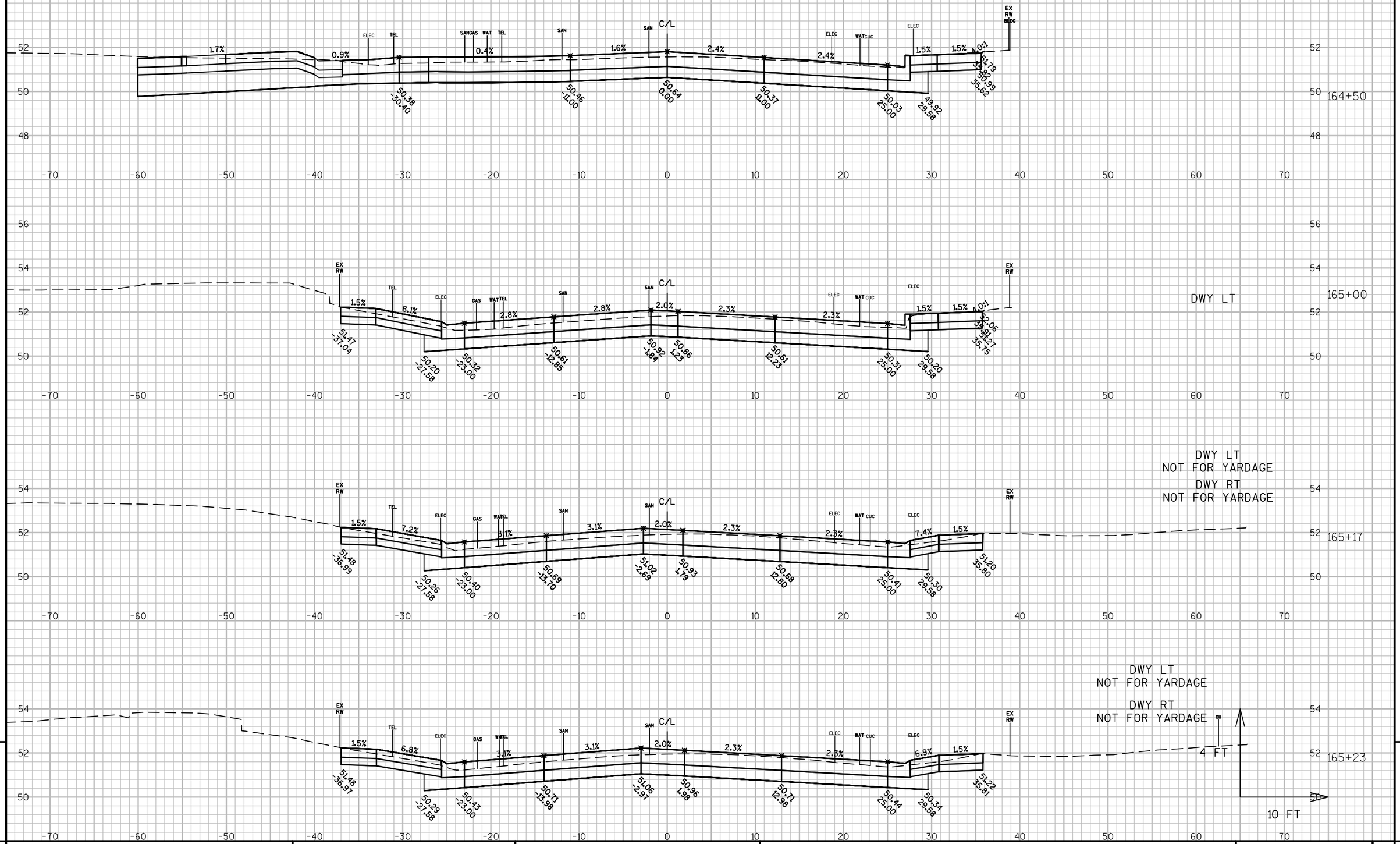

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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 314	E

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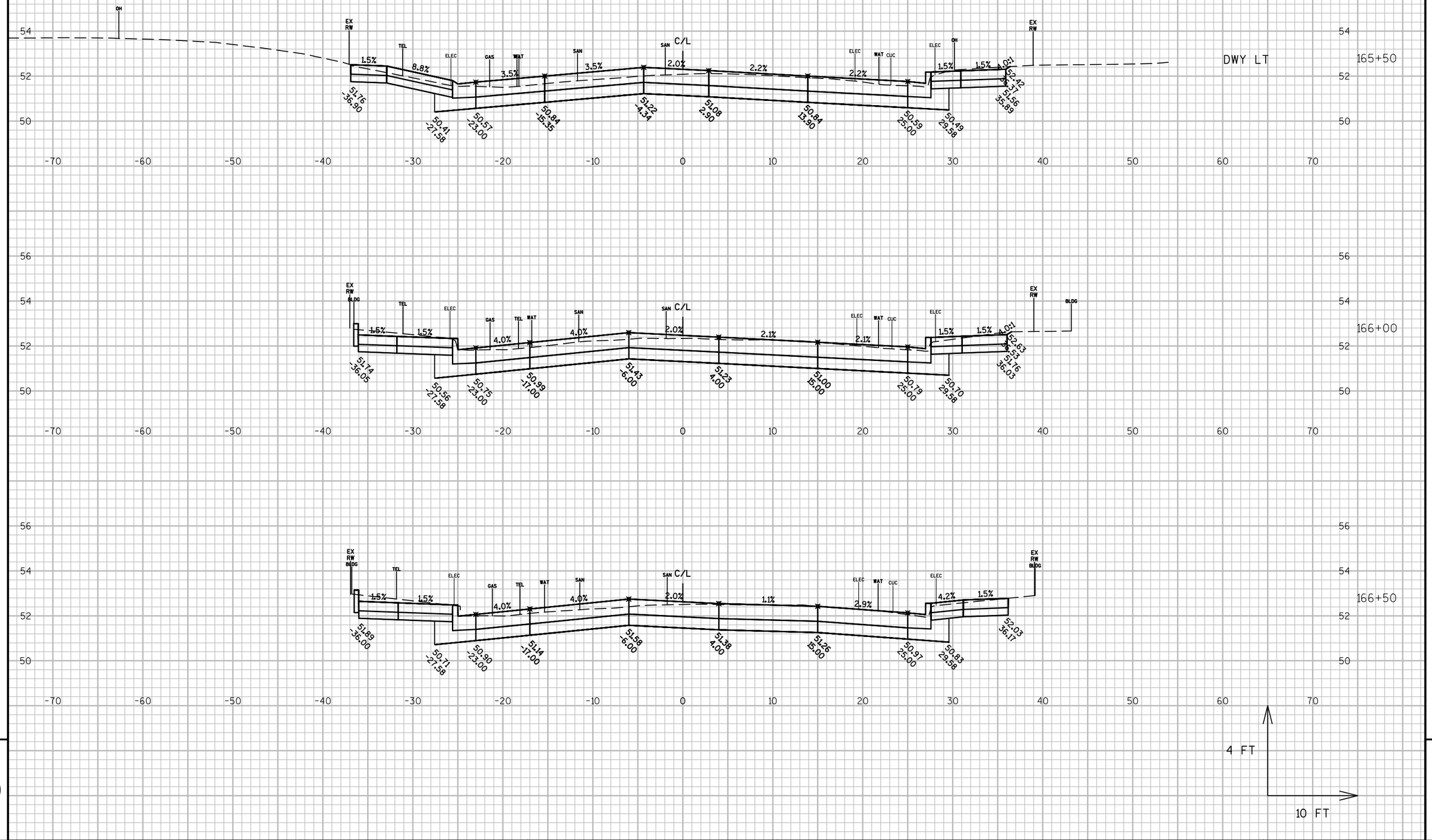

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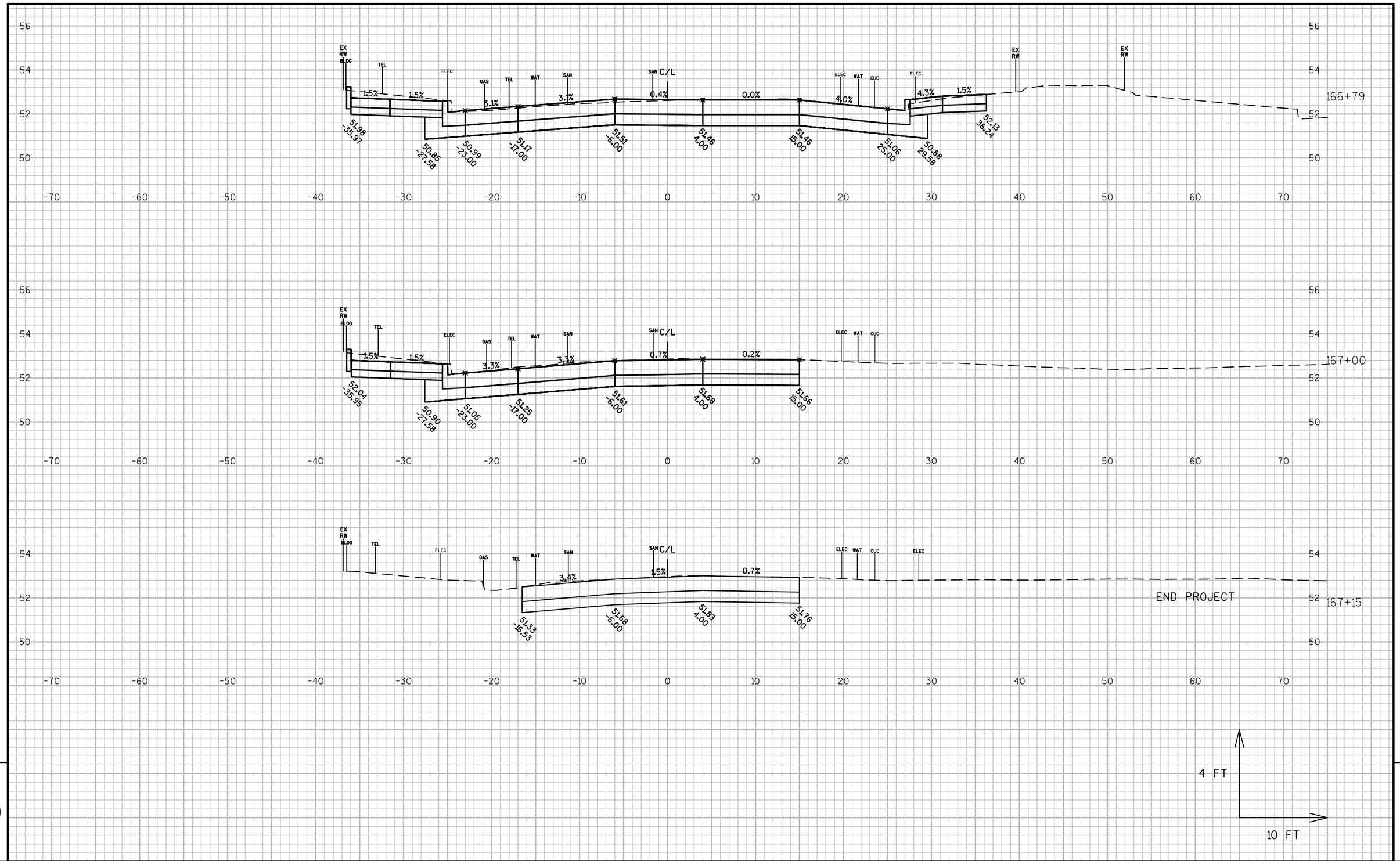

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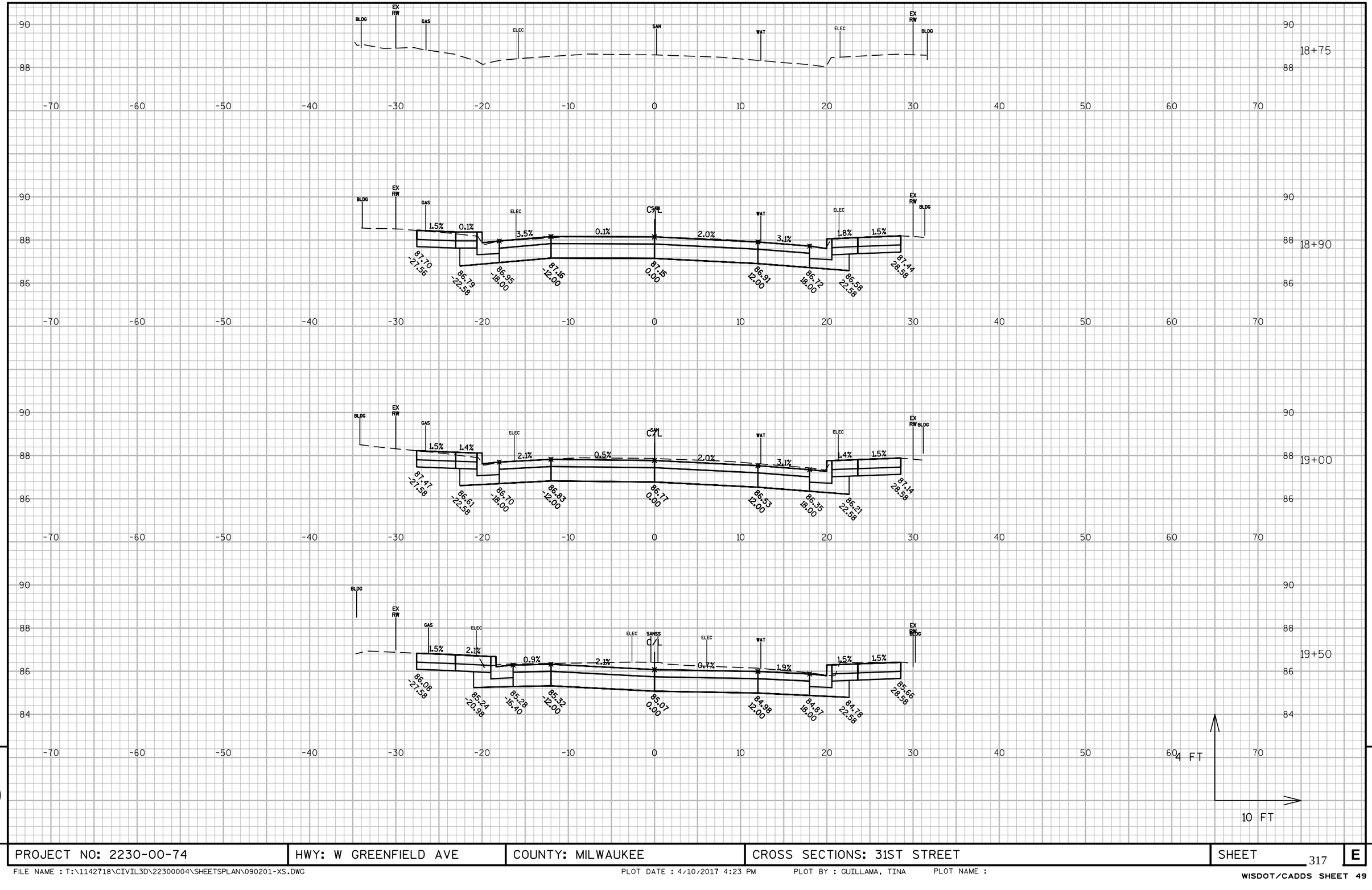
PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: GREENFIELD AVE	SHEET 316	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: 31ST STREET	SHEET 317	E

FILE NAME : T:\1142718\CIVIL3D\22300004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/10/2017 4:23 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

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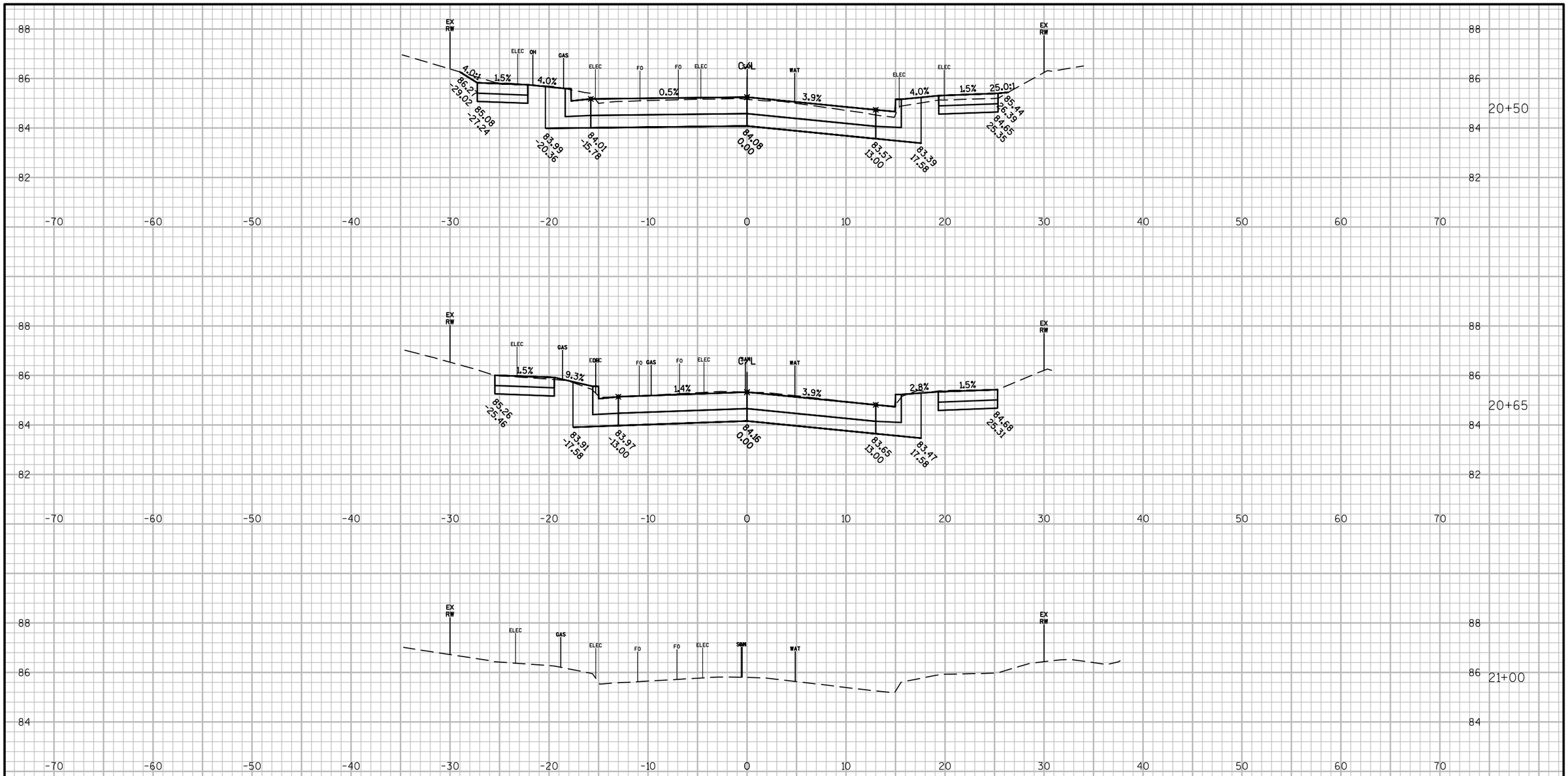

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PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: 31ST STREET	SHEET 318	E

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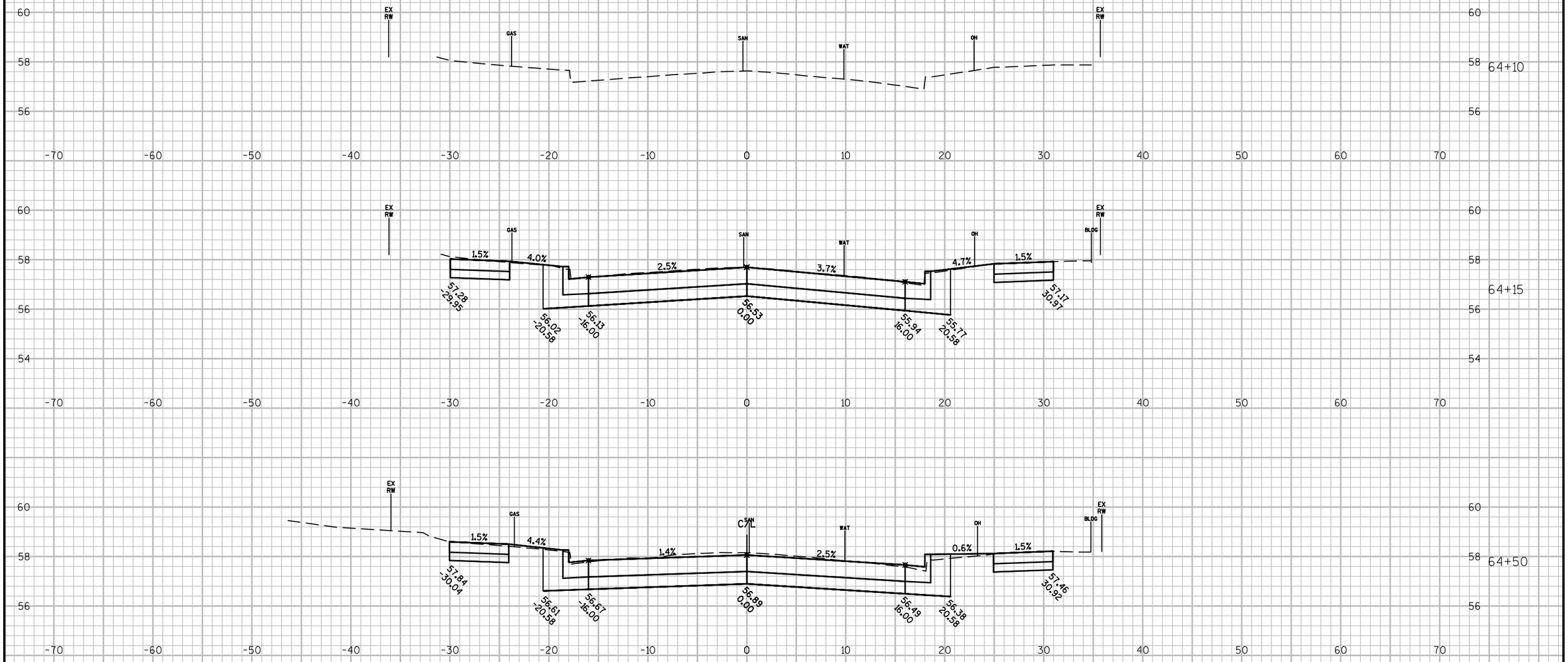
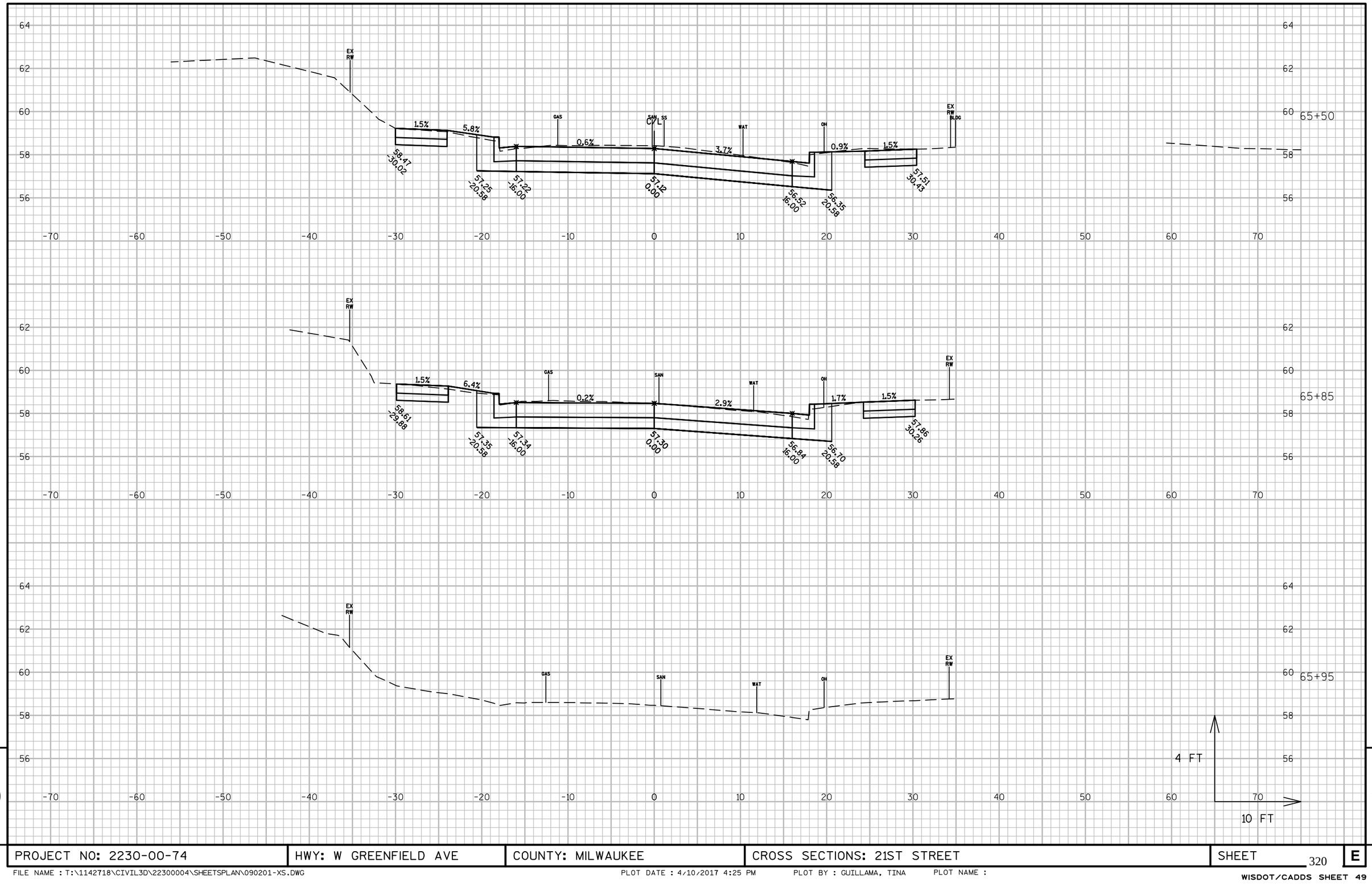


PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: 21ST STREET	SHEET 319	E



PROJECT NO: 2230-00-74	HWY: W GREENFIELD AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: 21ST STREET	SHEET 320	E

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE NOV 2017

PROJECT ID 2984-04-71
WITH: 2230-00-74

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: 56

15

COUNTY MILWAUKEE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

VARIOUS HIGHWAYS

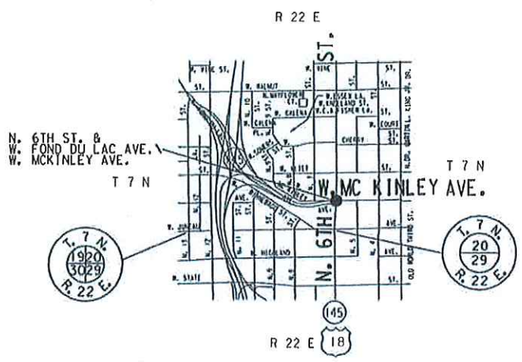
3 CONNECTING HWY INTERSECTIONS

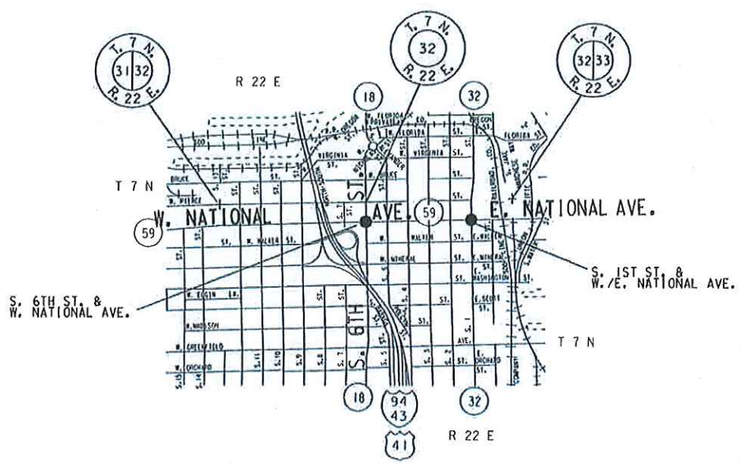
VARIOUS HIGHWAYS, MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2984-04-71	———	1

STATE PROJECT NUMBER
2984-04-71

N





DESIGN DESIGNATION

STREET 1	STREET 2	2012 A.D.T.
W. FOND DU LAC AVE. / W. MCKINLEY AVE.	N. 6TH ST.	42,200
E/W. NATIONAL AVE.	S. 1ST ST.	22,500
W. NATIONAL AVE.	S. 6TH ST.	21,200

CONVENTIONAL SIGNS

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

LAYOUT
SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI (URBAN)

Accepted For
City of Milwaukee

3/24/17 Gherssan Ikl
(Date) Commissioner of Public Works

Original Plans Prepared By

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

3/24/17 [signature]
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

APPROVED FOR THE DEPARTMENT
DATE: 5/3/17 Christine Hanna
(SIGNATURE)

E

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

REVISED DATE: 3-14-2017 BY ML

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.

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

3. TRANSVERSE JOINTS IN THE SIDEWALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHEREWISE DIRECTED BY THE ENGINEER.

4. 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 SHALL CONTACT DIGGERS HOTLINE AND EACH UTILITY FOR CURRENT STATUS OF UTILITIES WITHIN THE PROJECT LIMITS.

5. 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.

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

7. DESIGNER CONTACT: RATTAN MAHAY
   TEL. (414) 286-0486
   rattan.mahay@milwaukee.gov

STANDARD ABBREVIATIONS

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

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
UTILITY CONTACTS
PROJECT OVERVIEW
DRAINAGE DETAILS
INLET PROTECTION
TRAFFIC CONTROL
TRAFFIC SIGNAL CONDUIT DETAILS
PERMANENT SIGNING

2

Utility Contacts

City of Milwaukee, Utility Coordinator
Musa Abu-Khader
841 N. Broadway, Rm 701
Milwaukee, WI 53202
PH: 414-286-2432
Abu-Khader@milwaukee.gov

WE-Energies Gas
LaTroy Brumfield
333 W. Everett St.
Milwaukee, WI 53203
PH: 414-221-5617
Latroy.brumfield@we-energies.com

Field Contact
Dennis Sinjakovic
5400 N. Green Bay Rd.
Milwaukee, WI 53209
PH: 414-540-5715 / 262-391-4268
denis.sinjakovic@we-energies.com

WE-Energies Gas
LaTroy Brumfield
333 W. Everett St.
Milwaukee, WI 53203
PH: 414-221-5617
Latroy.brumfield@we-energies.com

Field Contact
Leonard Wilson
500 S. 116th St.
West Allis, WI 53214
PH: 414-944-5690
leonard.wilson@we-energies.com

Time Warner Cable
Steve Storm
1320 N. Dr. Martin Luther King Dr.
Milwaukee, WI 53204
PH: (414) 908-4789
Steve.storm@twcable.com

AT&T Wisconsin
Dean Herro
425 S. 95th St.
Milwaukee, WI 53214
PH: 414-678-2644 / 262-352-0131

Utility Contacts

American Transmission Company
Chris Dailey
P.O. Box 47
Waukesha, WI 53817
PH: 414-651-3950

TDS Metrocom
Mathew Schulte
16924 W. Victor Rd.
New Berlin, WI
Matt.schulte@tdstelecom.com

Windstream Communications, Inc.
Nathan Becker
13935 Bishops Dr.
Brookfield, WI 53005
PH: 262-792-7938 / 414-313-9032
Nathan.becker@windstream.com

Level 3 Communications
Nicki Worthington
1025 Eldarado Blvd.
Broomfield, CO 80021
PH: 720-888-0336
Level3.networkrelations@level3.com

Charter Communications
Steve Cramer
1320 N. Dr. Martin Luther King Dr.
Milwaukee, WI 53204
PH: (414) 277-4045
Steve.cramer@twcable.com

Other Contacts

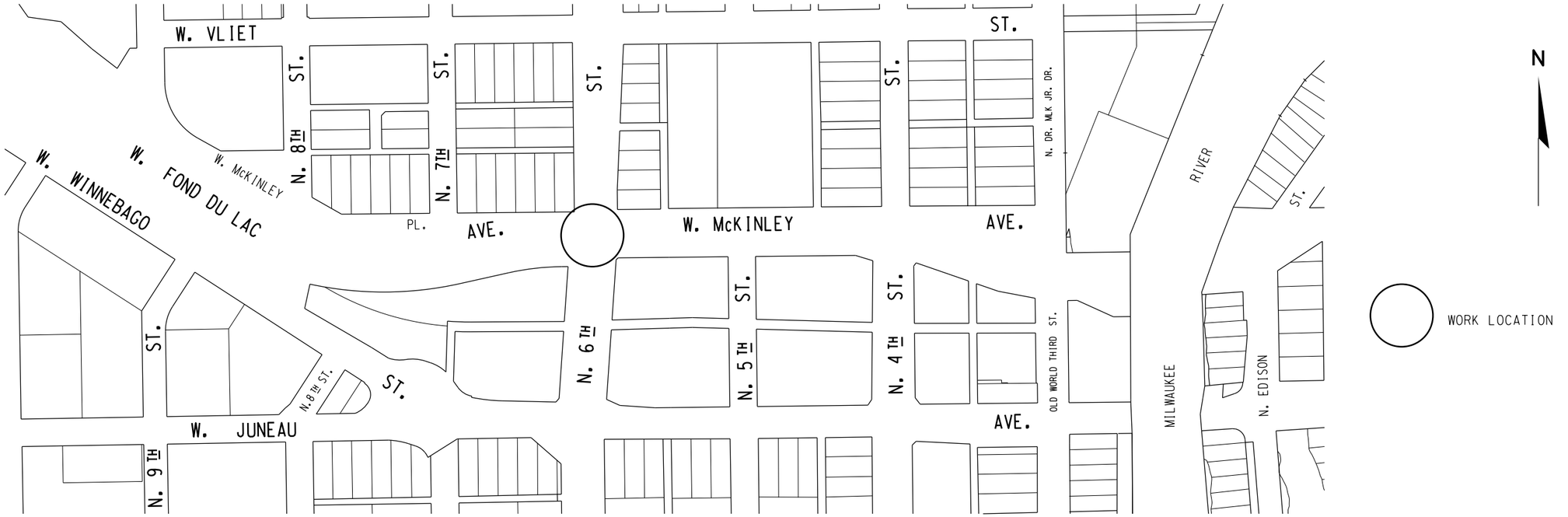
Wisconsin Department of Natural Resources
Kristina Betzold
2300 N. Dr. Martian Luther King Jr. Dr.
Milwaukee, WI 53212
PH: 414-507-4946
Kristina. Betzold@wisconsin.gov

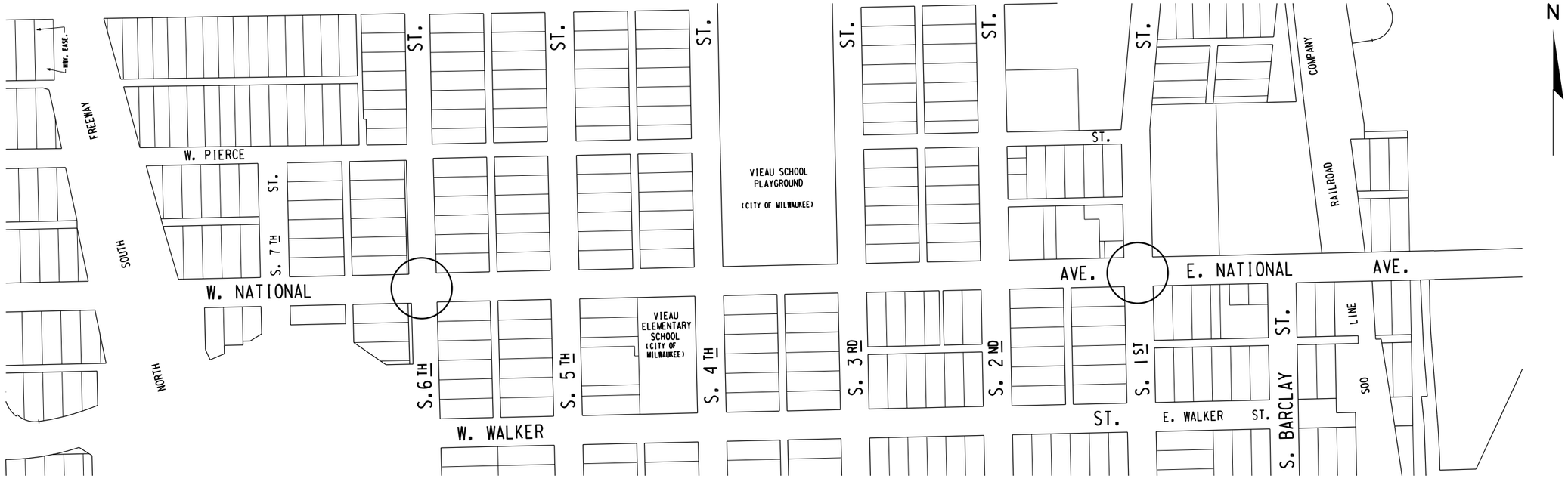
Milwaukee County Transit System
Melenie Mac Arthur
1942 N. 17th St.
Milwaukee, WI 53205
PH: 414-3431764
mmacarthur@mcts.org

Wisconsin Department of Transportation
Christine Hanna, Project Manager
141 NW Barstow St.
Waukesha, WI 53188
PH: 262-548-8809
Christine.hanna@dot.wi.gov

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

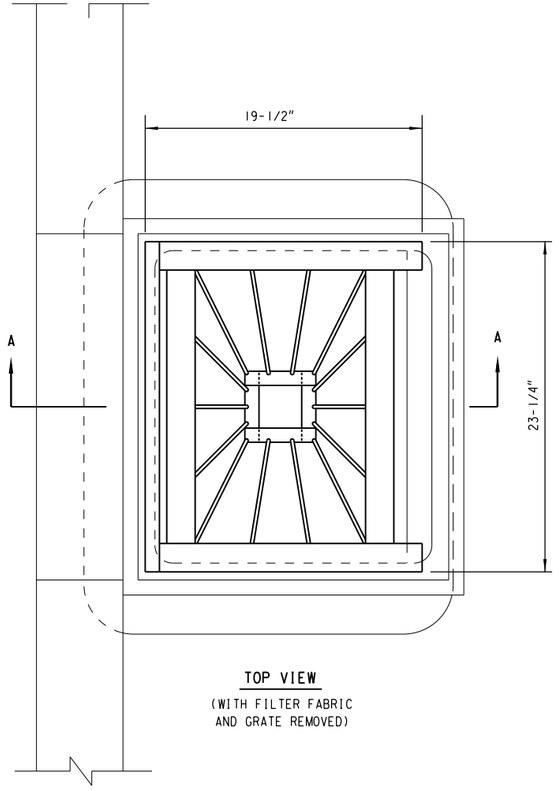
2





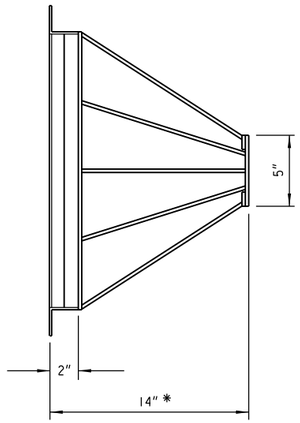
STATE PROJECT NUMBER 2984-04-71 - -	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 4	E

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



TOP VIEW

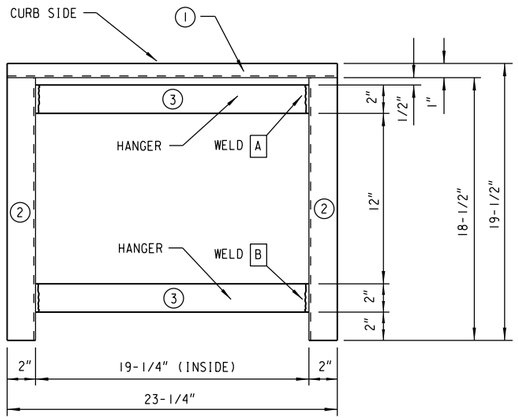
(WITH FILTER FABRIC AND GRATE REMOVED)



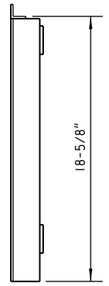
FRONT VIEW

(BASKET ONLY)

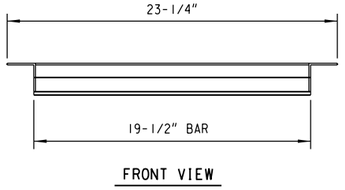
* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH



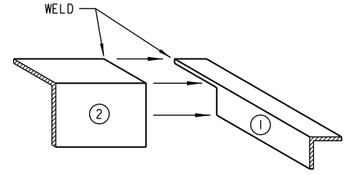
TOP VIEW



SIDE VIEW

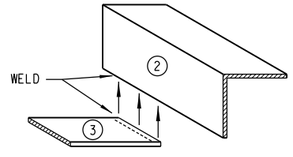


FRONT VIEW



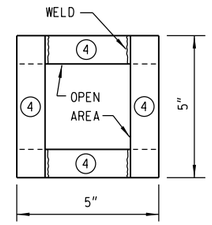
WELD CONNECTION - A

TOP FRAME



WELD CONNECTION - B

BASKET HANGER TO TOP FRAME



TOP VIEW

SIDE VIEW

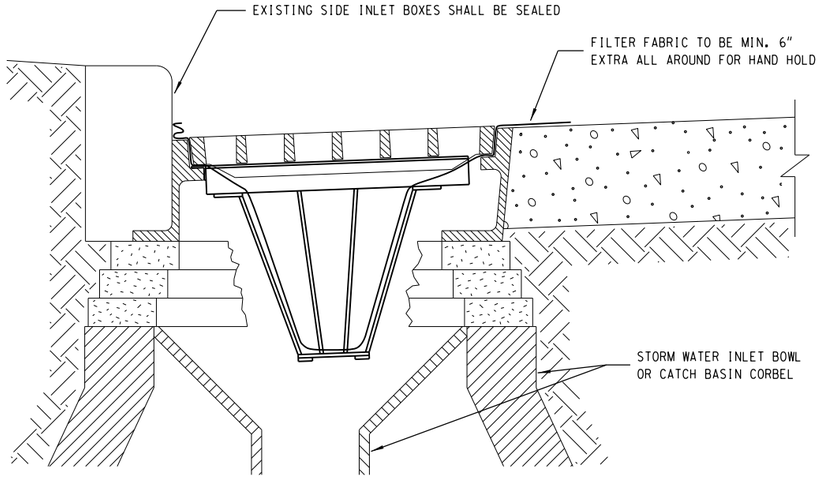
BAR SCHEDULE

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

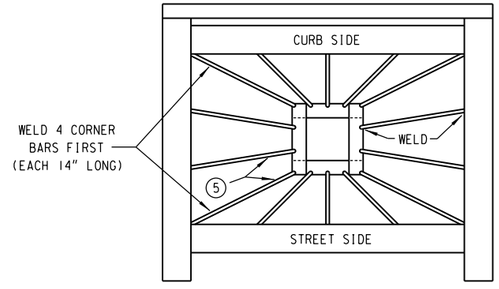
BASKET BOTTOM

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



SECTION A-A



ROD PLACEMENT

ROD SCHEDULE

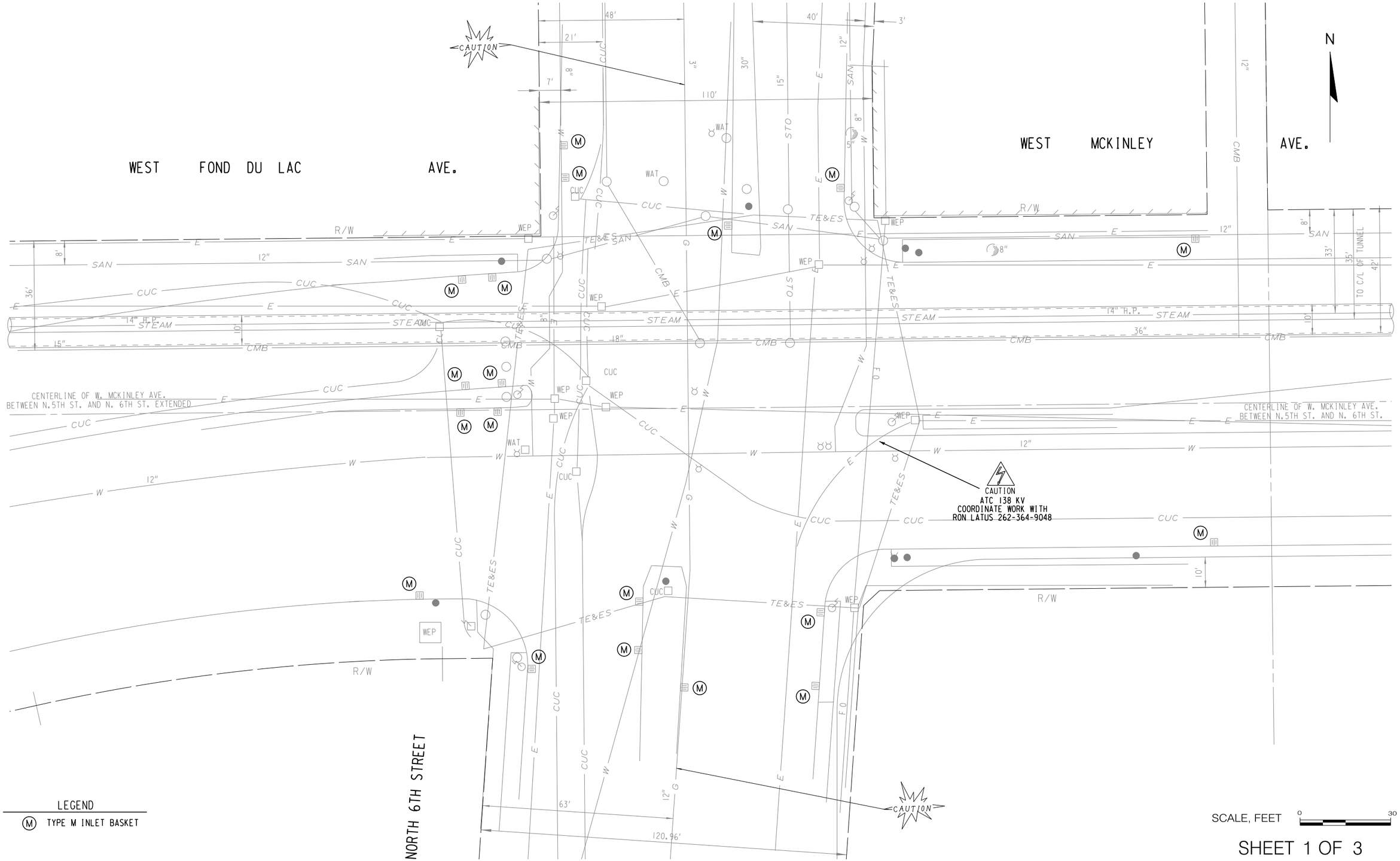
NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
5	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14

TYPE M
INLET / CATCH BASIN BASKET

STATE PROJECT NUMBER 2984-04-71 - -	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 5	E

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

2



LEGEND

(M) TYPE M INLET BASKET

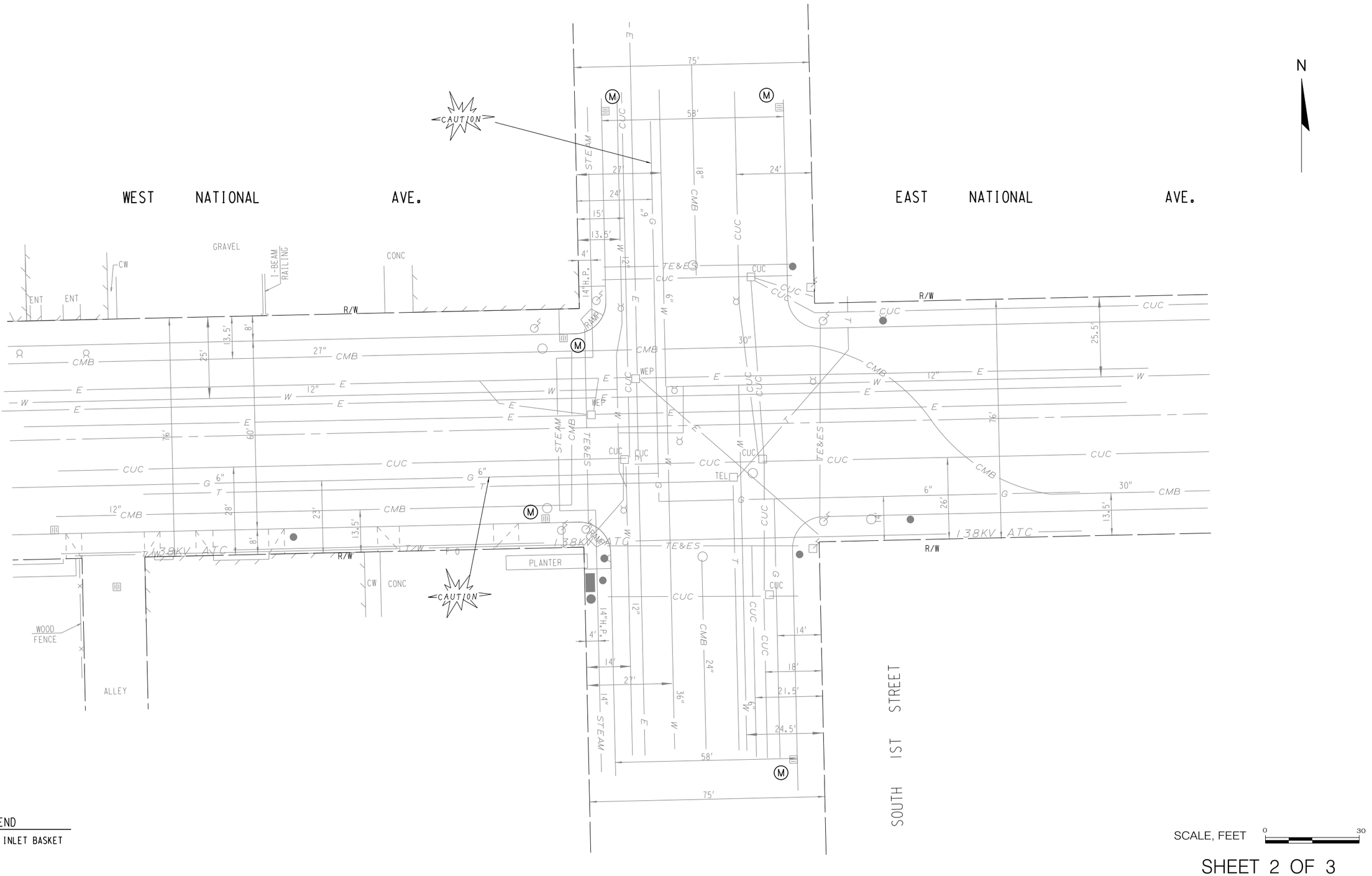
SCALE, FEET 0 30

SHEET 1 OF 3

PROJECT NO: 2984-04-71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET 6	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2984-04-91 Mast Arms at 3 intersections\2984-04-71 Inlet Protection.dgn PLOT DATE : 28-MAR-2016 10:16 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 29.904762:1.000000 WISDOT/CADDS SHEET 42

2



LEGEND

Ⓜ TYPE M INLET BASKET

SCALE, FEET 0 30

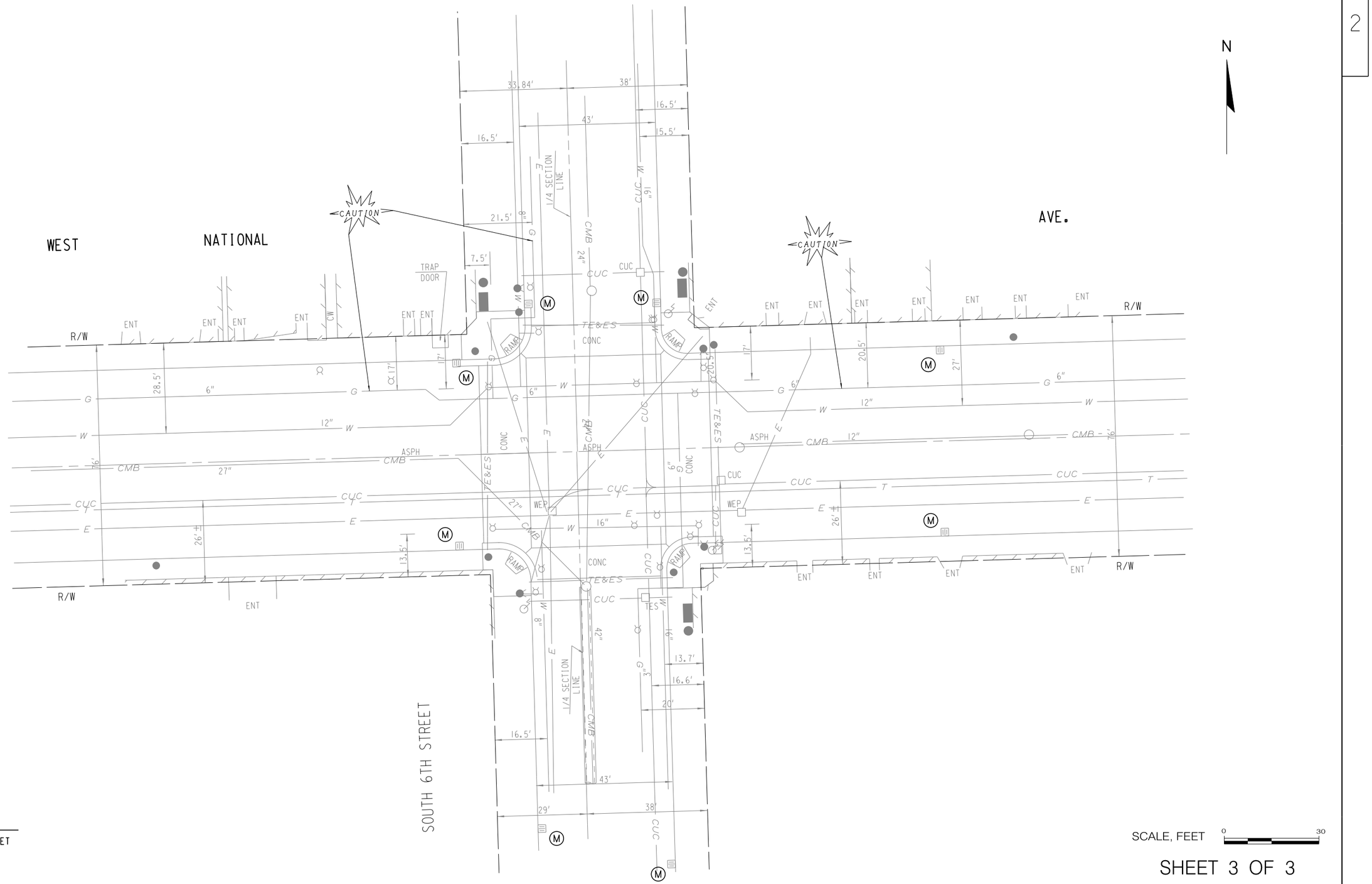
SHEET 2 OF 3

PROJECT NO: 2984–04–71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET 7	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\2984–04–71\2984–04–71 Inlet Protection.dgn PLOT DATE : 23–JAN–2015 08:30 PLOT BY : wfuchs PLOT NAME : PLOT SCALE : 30.000000:1.000000

WISDOT/CADDS SHEET 42

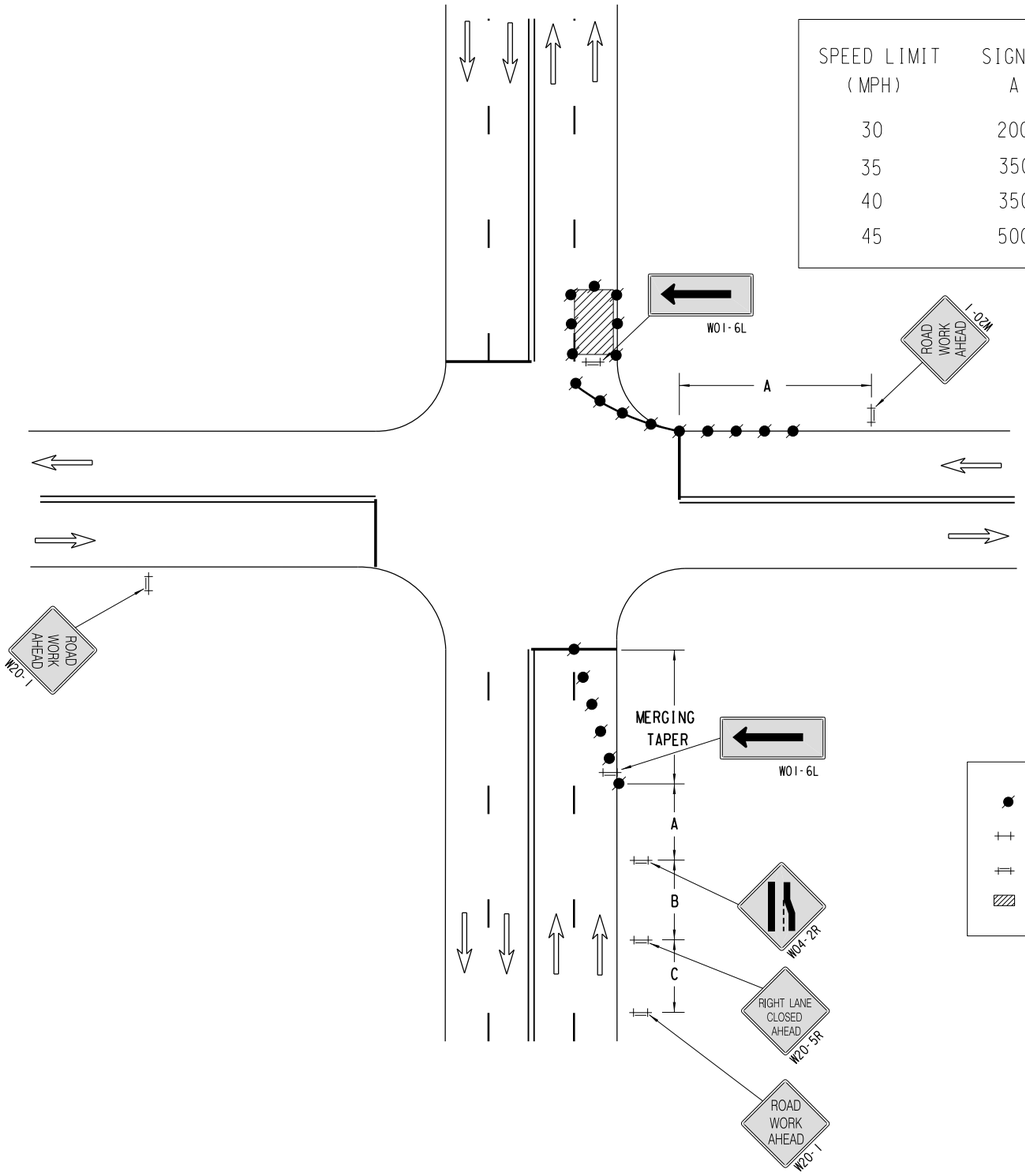
2



PROJECT NO: 2984–04–71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	INLET PROTECTION PLAN	SHEET 8	E

RIGHT LANE CLOSURE

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

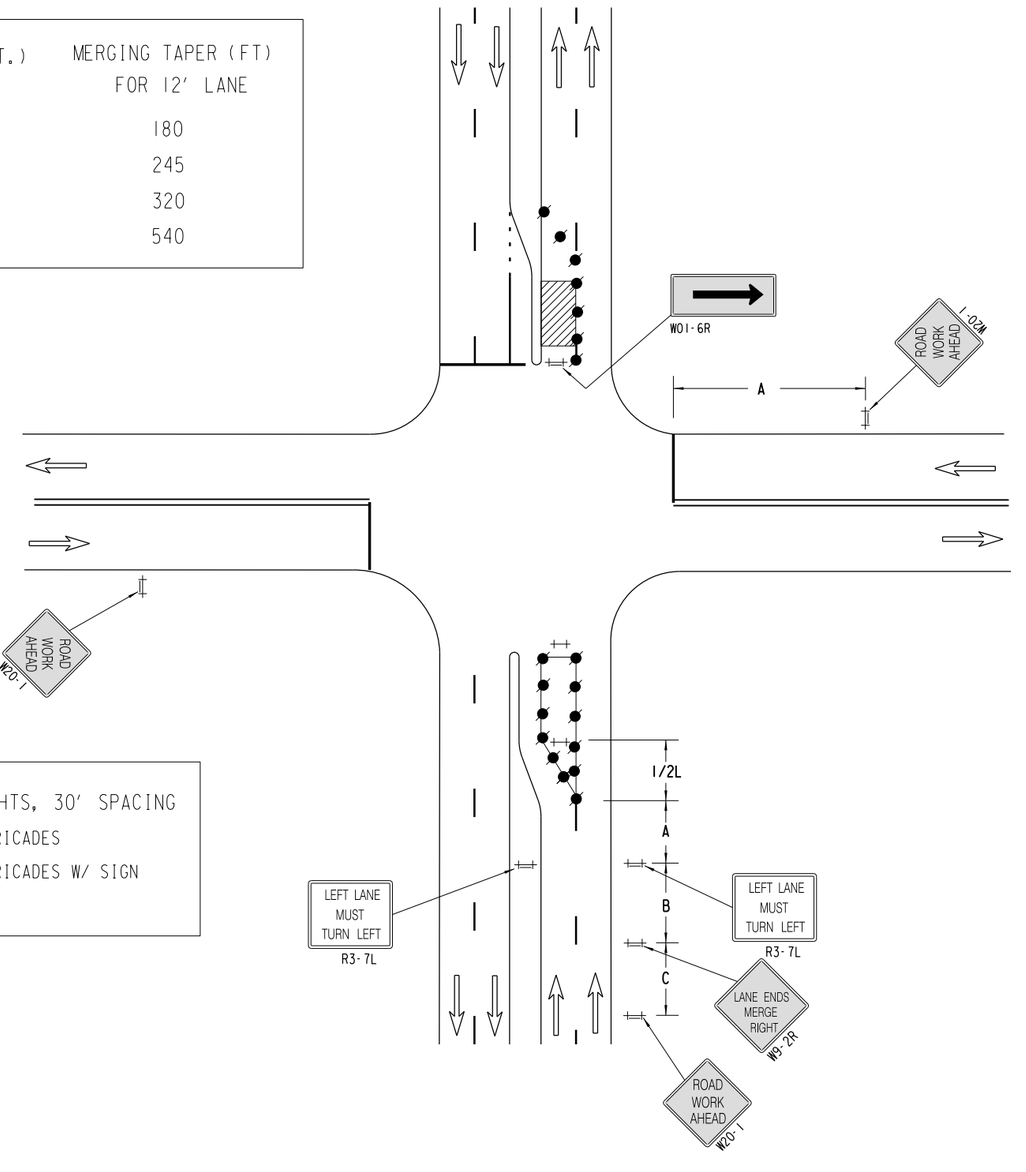


RIGHT LANE CLOSURE

W. FOND DU LAC AVE. / W. MC KINLEY AVE. AT N. 6TH ST.

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

LEFT LANE CLOSURE



LEFT LANE CLOSURE

W. FOND DU LAC AVE. / W. MC KINLEY AVE. AT N. 6TH ST.

STATE PROJECT NUMBER 2984-04-71 - -	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 9	E

FILE NAME: W:\SPR\MONOTUBE PROJRCTS\2984-04-71\TRAFFIC.DGN

REVISED: 1-23-2015

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:

2

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

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

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

UTILITY LINE CODE

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

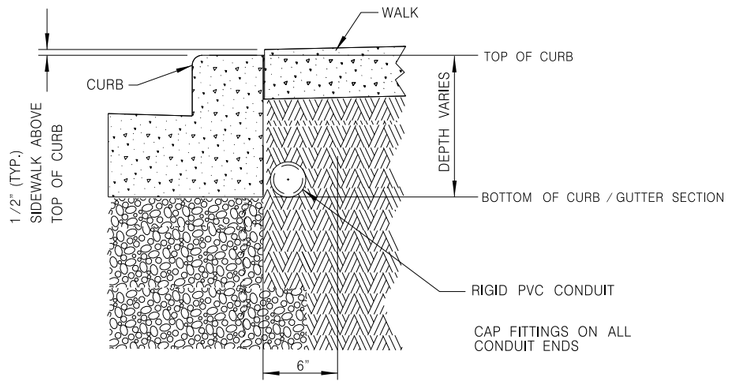
OTHER UTILITIES AS NOTED

SHEET 1 OF 5

PROJECT NO: 2984–04–71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	TRFFFIC SIGNAL CONDUIT DETAILS	SHEET 10	E

FILE NAME : W:\bes\special\2016–Project\3 Intersections for Mast Arms (2984–04–71)\Updated Signal Details (6th & McKinley) 12–8–16.dgn
PLOT DATE : 27–DEC–2016 09:16 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

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



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

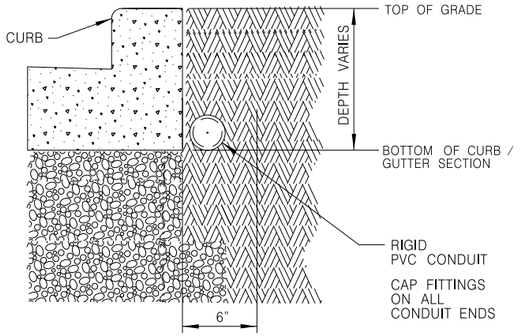
NOT TO SCALE

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

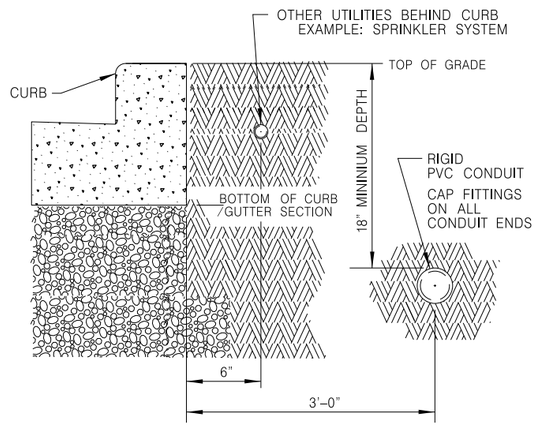
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



DETAIL "C"

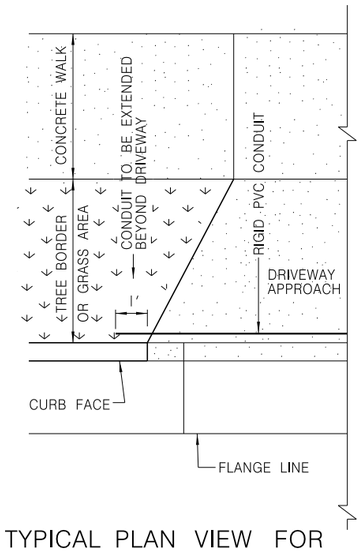


100 DETAIL "B" & "C"

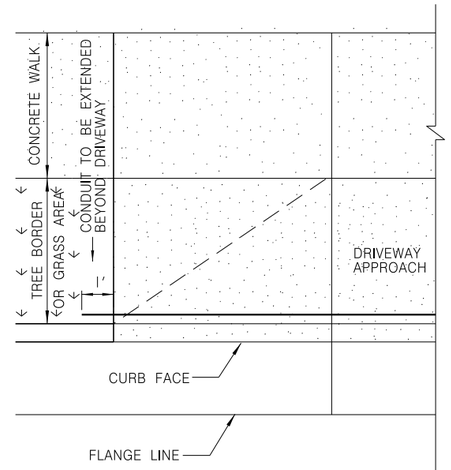
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

NOT TO SCALE

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

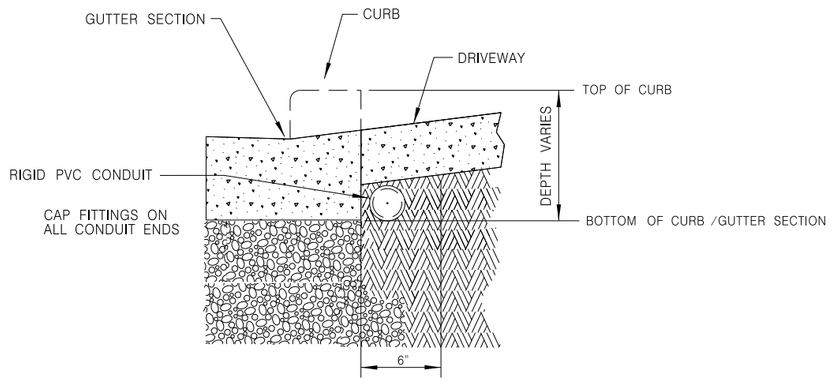


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

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



101 DETAIL

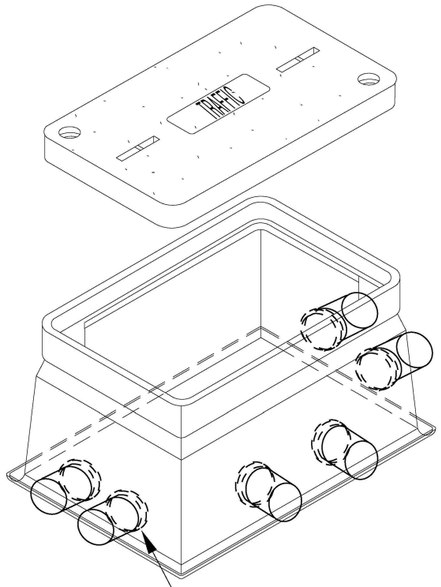
TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

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

SHEET 2 OF 5

PROJECT NO: 2984-04-71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 11	E

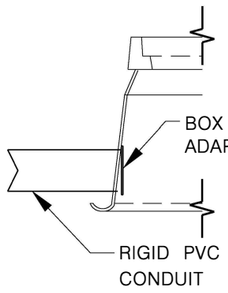


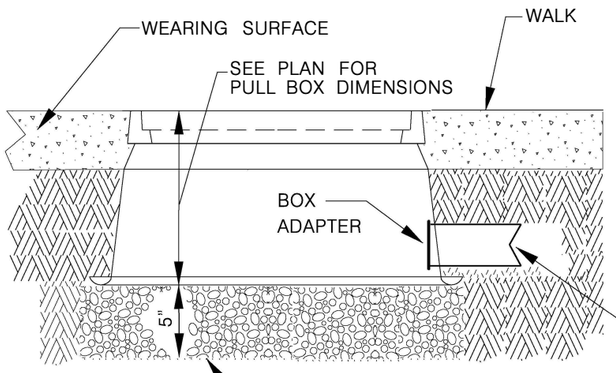
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W /2 BOLTS
COLOR: GRAY

ELECTRICAL PULLBOX
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





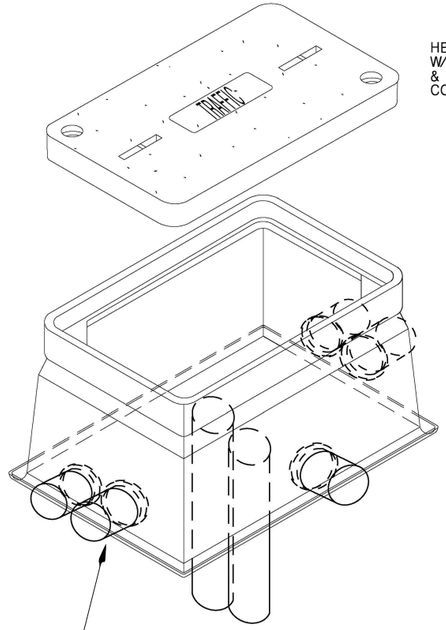
PREPARE THE EXCAVATION APPROXIMATELY 4 TO 5 INCHES
DEEPER THAN THE DEPTH OF THE BOX, THEN ADD 4 TO 5
INCHES OF NO.2 COARSE AGGREGATE FILL FOR DRAINAGE.

113 DETAIL — NOT TO SCALE

TYPICAL PULL BOX INSTALLATION INSIDE WALK

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

2



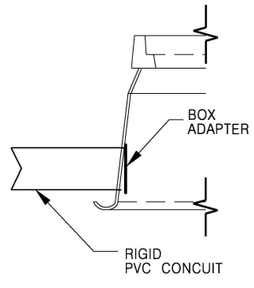
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

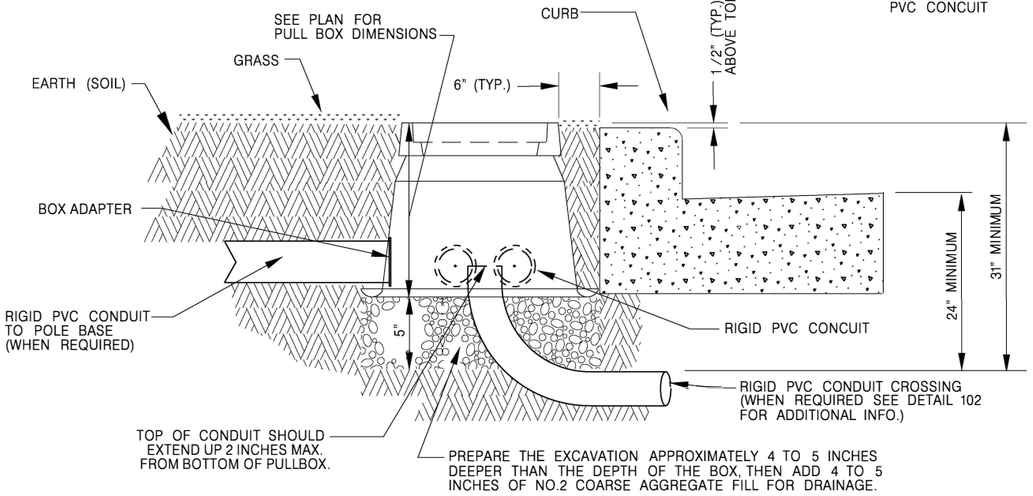
ELECTRICAL PULLBOX
FLARED WALL
BOX W / NO BASE COLOR:
GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

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





121 DETAIL — NOT TO SCALE

TYPICAL PULL BOX INSTALLATION IN GRASS AREA

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

SHEET 3 OF 5

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).

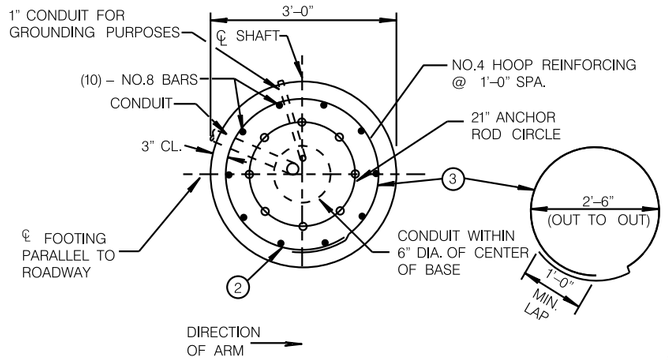
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

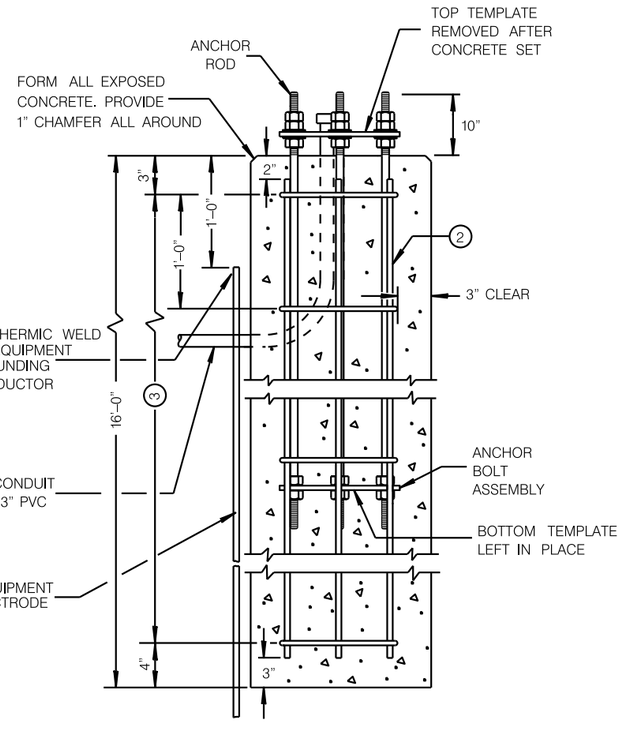
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

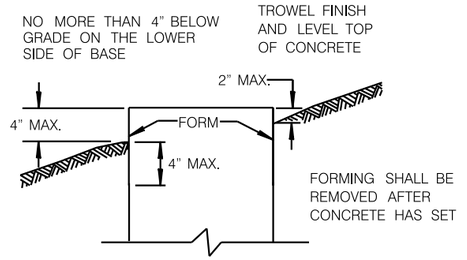
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

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.

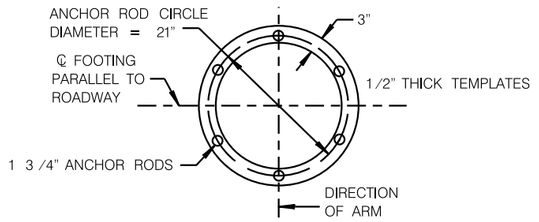




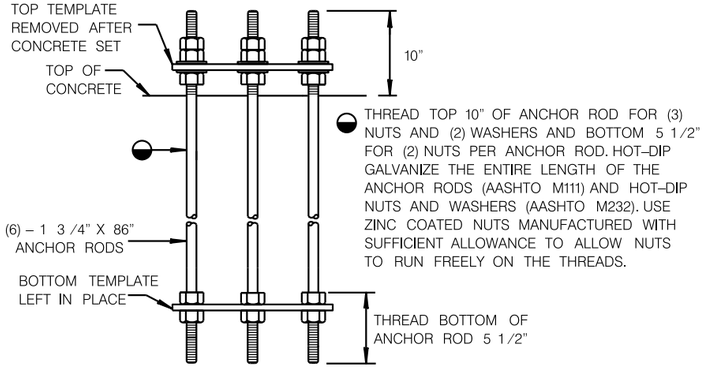
CONCRETE BASE TYPE 10 SPECIAL



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

SHEET 4 OF 5

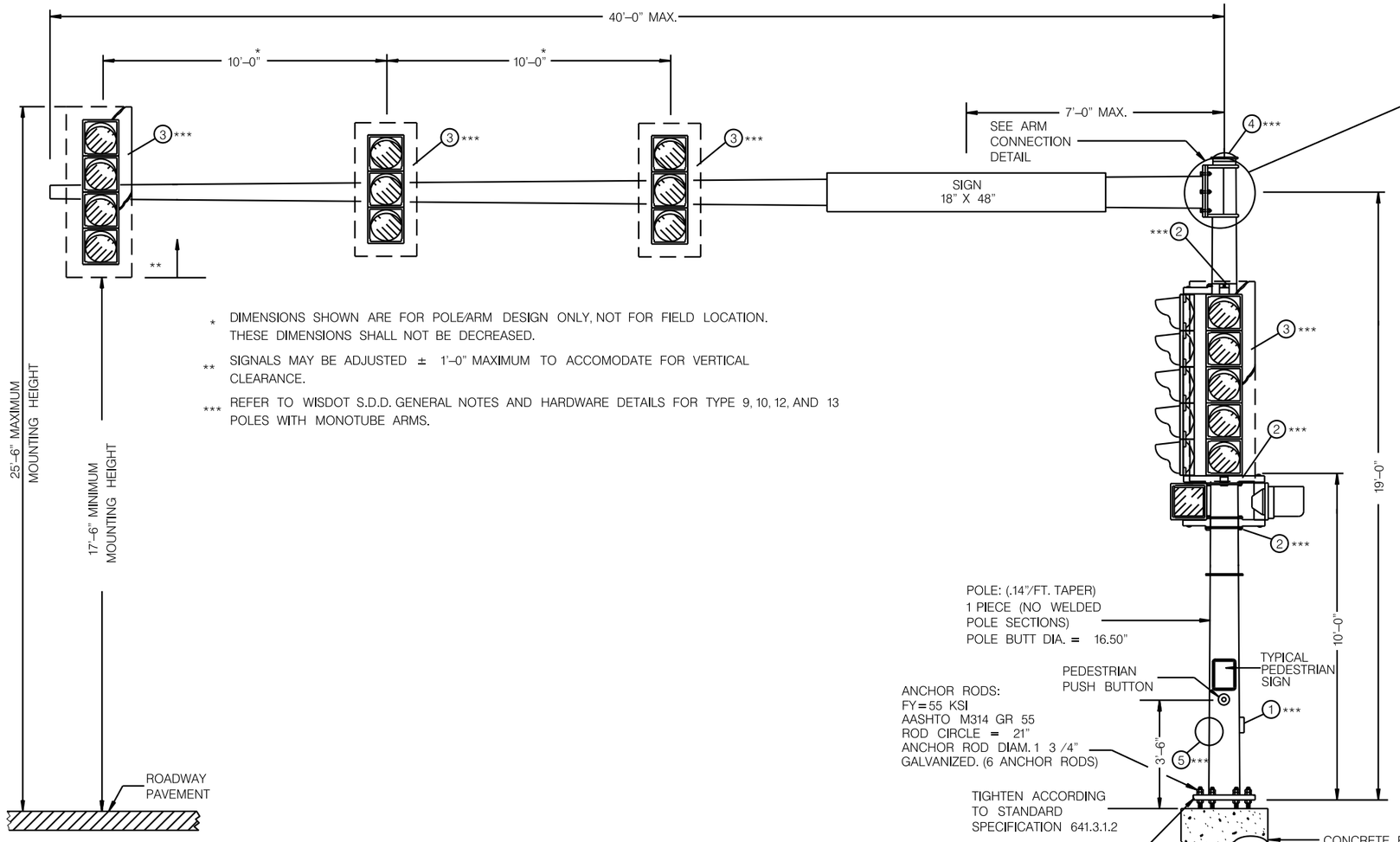
CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

FILE NAME : W:\bes\special\2016–Project\3 Intersections for Mast Arms (2984–04–71)\Updated Signal Details (6th & McKinley) 12–8–16.dgn
PLOT DATE : 27–DEC–2016 09:19
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

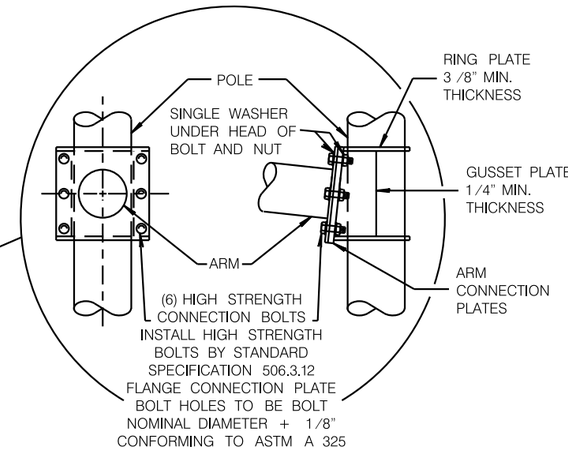
2



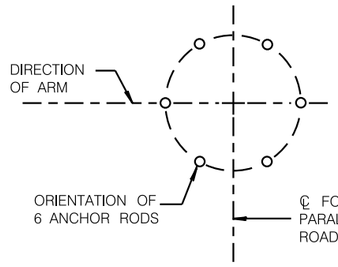
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

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



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

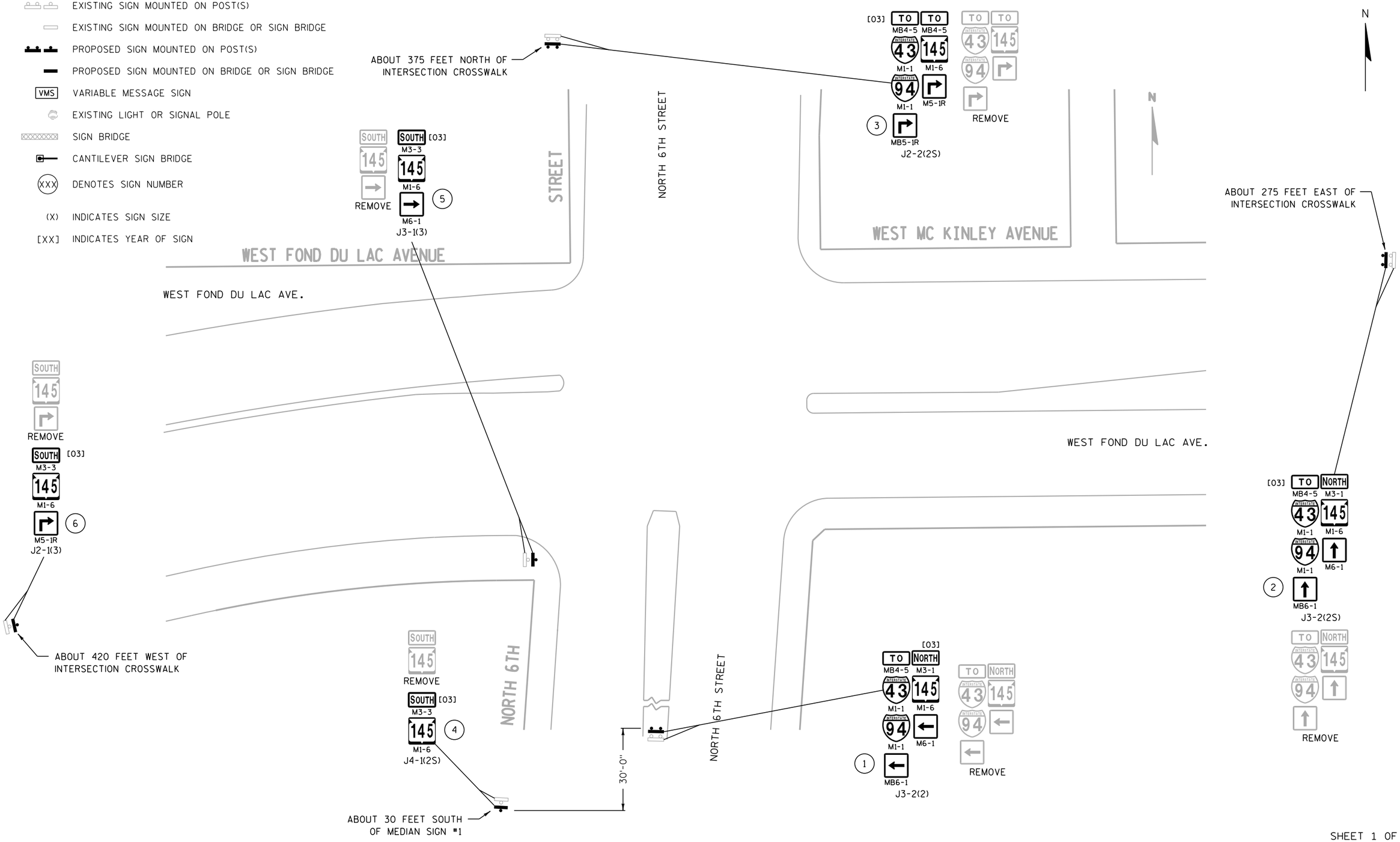
REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

SHEET 5 OF 5

PROJECT NO: 2984–04–71	HWY: VARIOUS HWY	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 14	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- [XX] — INDICATES YEAR OF SIGN



SHEET 1 OF 3

PROJECT NO: 2984-04-71	HWY: VARIOUS	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 15	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
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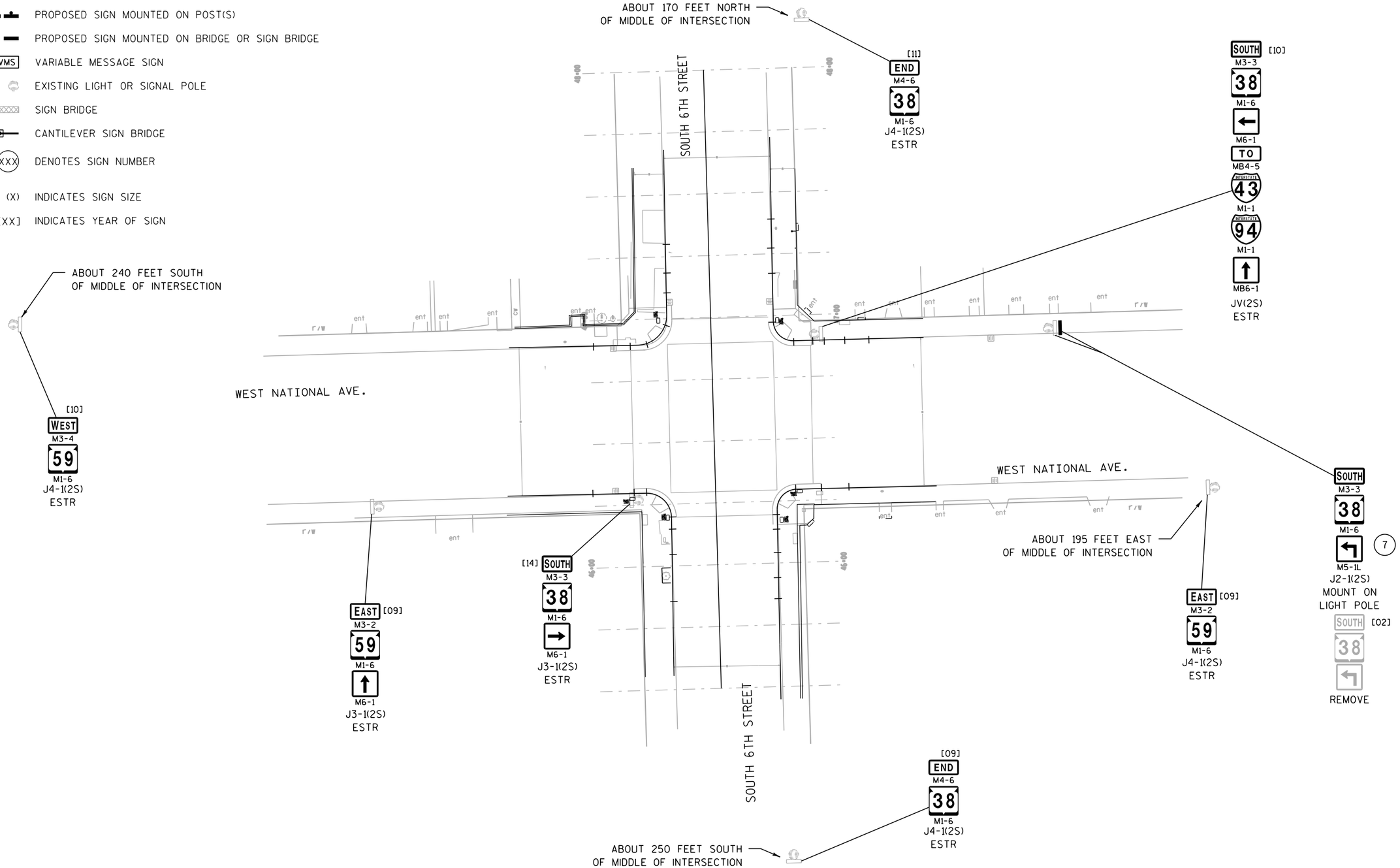


SHEET 2 OF 3

PROJECT NO: 2984-04-71	HWY: VARIOUS	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 16	E

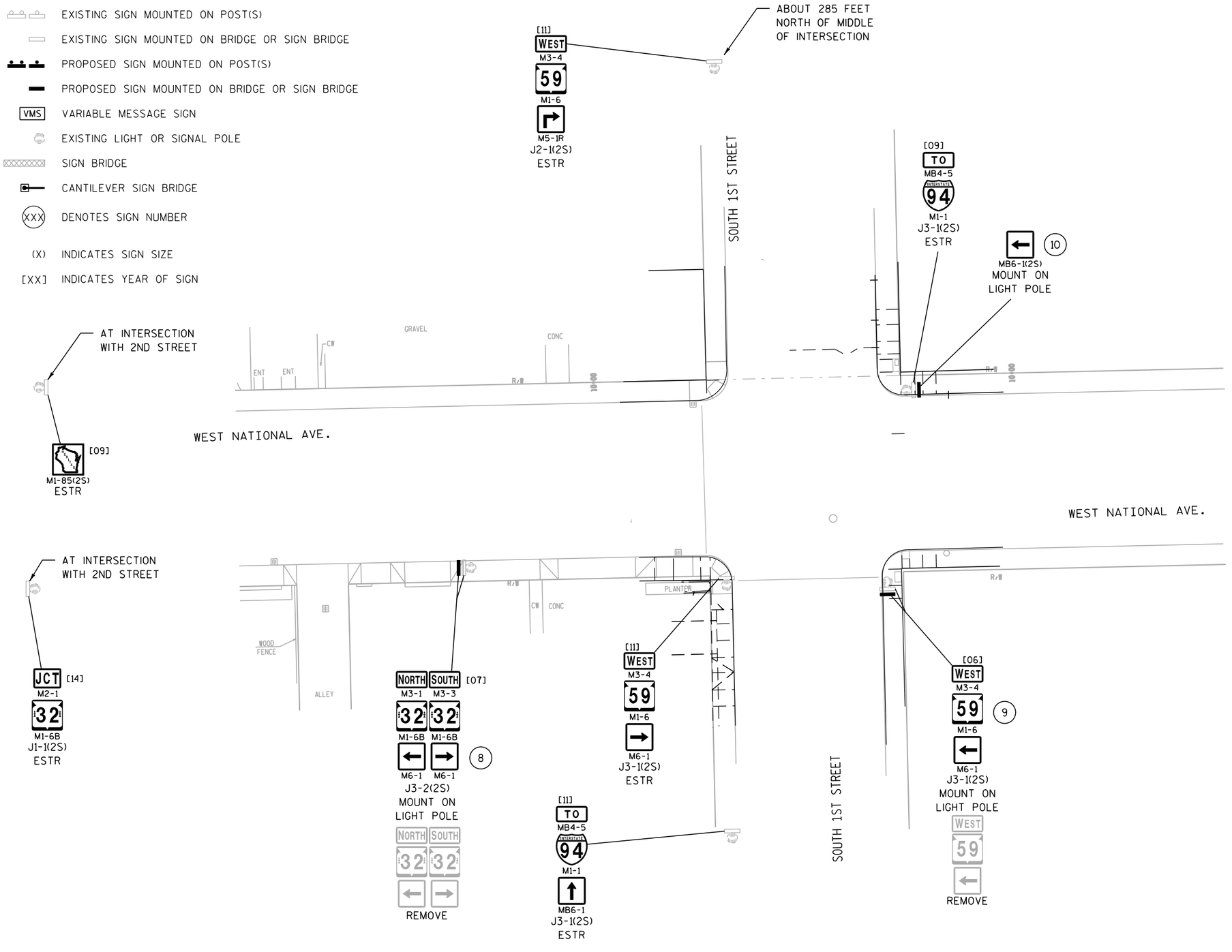
FILE NAME : J:\projects\d2_29840401\71\023202_ps.dgn PLOT DATE : 09-JAN-2017 09:37 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 3 OF 3

PROJECT NO: 2984-04-71	HWY: VARIOUS	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 17 E

2984-04-71

Line	Item	Item Description	Unit	Total	Qty
0018	204.0155	Removing Concrete Sidewalk	SY	10.000	10.000
0042	209.1100	Backfill Granular Grade 1	CY	17.000	17.000
0046	213.0100	Finishing Roadway (project) 02. 2984-04-71	EACH	1.000	1.000
0082	602.0410	Concrete Sidewalk 5-Inch	SF	27.000	27.000
0098	619.1000	Mobilization	EACH	0.020	0.020
0106	625.0100	Topsoil	SY	6.000	6.000
0122	629.0210	Fertilizer Type B	CWT	0.005	0.005
0126	631.1000	Sod Lawn	SY	6.000	6.000
0154	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	3.000	3.000
0156	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	9.000	9.000
0158	637.2210	Signs Type II Reflective H	SF	170.063	170.063
0160	638.2602	Removing Signs Type II	EACH	10.000	10.000
0162	638.3000	Removing Small Sign Supports	EACH	9.000	9.000
0168	643.0100	Traffic Control (project) 02. 2984-04-71	EACH	1.000	1.000
0170	643.0300	Traffic Control Drums	DAY	1,066.000	1,066.000
0174	643.0420	Traffic Control Barricades Type III	DAY	338.000	338.000
0176	643.0705	Traffic Control Warning Lights Type A	DAY	676.000	676.000
0178	643.0715	Traffic Control Warning Lights Type C	DAY	1,066.000	1,066.000
0180	643.0900	Traffic Control Signs	DAY	338.000	338.000
0228	650.8500	Construction Staking Electrical Installations (project) 02. 2984-04-71	LS	1.000	1.000
0232	650.9910	Construction Staking Supplemental Control (project) 02. 2984-04-71	LS	1.000	1.000
0242	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	40.000	40.000
0258	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
0306	690.0250	Sawing Concrete	LF	20.000	20.000
0314	SPV.0060	Special 01. Concrete Base Type 10 Special	EACH	3.000	3.000
0316	SPV.0060	Special 02. Poles Type 9	EACH	1.000	1.000
0318	SPV.0060	Special 03. Poles Type 12 Special	EACH	3.000	3.000
0320	SPV.0060	Special 04. Monotube Arms 30-Ft	EACH	1.000	1.000
0322	SPV.0060	Special 05. Monotube Arms 35-Ft	EACH	3.000	3.000
0324	SPV.0060	Special 06. Fiberglass Polymer Concrete Pull Box 13-Inch X 24-Inch X 24-Inch	EACH	1.000	1.000
0326	SPV.0060	Special 07. Inlet Screen Type M	EACH	32.000	32.000
0328	SPV.0060	Special 08. Utility Line Opening (ULO)	EACH	4.000	4.000
0402	SPV.0195	Special 01. Management Of Solid Waste	TON	30.000	30.000

TYPE II PERMANENT SIGNING - **Category Code 0010** **2984-04-71 Various Highways, Milwaukee, Connecting**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	SIGN SIZE H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	J3-2 (2S)		48	X	81	27.000		2		1		2		
	MB4-5		24	x	12									
	M1-1	IH 43	24	x	24									
	M1-1	IH 94	24	x	24									
	MB6-1		21	x	21									
	M3-1		24	x	12									
	M1-6	STH 145	24	x	24									
	M6-1		21	x	21									
2	J3-2 (2S)		48	X	81	27.000		2		1		2		
	MB4-5		24	x	12									
	M1-1	IH 43	24	x	24									
	M1-1	IH 94	24	x	24									
	MB6-1		21	x	21									
	M3-1		24	x	12									
	M1-6	STH 145	24	x	24									
	M6-1		21	x	21									
3	J2-2 (2S)		48	X	81	27.000		2		1		2		
	MB4-5		24	x	12									
	M1-1	IH 43	24	x	24									
	M1-1	IH 94	24	x	24									
	MB5-1R		21	x	21									
	M4-5		24	x	12									
	M1-6	STH 145	24	x	24									
	M5-1R		21	x	21									
4	J4-1 (2S)		24	X	36	6.000		1		1		1		
	M3-3		24	x	12									
	M1-6	STH 145	24	x	24									
5	J3-1 (3)		36	X	84	21.000		1		1		1		
	M3-3		36	x	18									
	M1-6	STH 145	36	x	36									
	M6-1		30	x	30									
6	J2-1 (3)		36	X	84	21.000		1		1		1		
	M3-3		36	x	18									
	M1-6	STH 145	36	x	36									
	M5-1R		30	x	30									

PROJECT NO: 2984-04-71	HWY: VARIOUS	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES—TYPE II PERMANENT SIGNING	SHEET:	E

TYPE II PERMANENT SIGNING - **Category Code 0010** **2984-04-71 Various Highways, Milwaukee, Connecting**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
7	J2-1 (2S)		24	X	57	9.500				1				MOUNT ON LIGHT POLE
	M3-3		24	x	12									
	M1-6	STH 38	24	x	24									
	M5-1L		21	x	21									
8	J3-2 (2S)		48	X	57	19.000				1				MOUNT ON LIGHT POLE
	M3-1		24	x	12									
	M1-6B	STH 32	24	x	24									
	M6-1		21	x	21									
	M3-3		24	x	12									
	M1-6B	STH 32	24	x	24									
	M6-1		21	x	21									
9	J3-1 (2S)		24	X	57	9.500				1				MOUNT ON LIGHT POLE
	M3-4		24	x	12									
	M1-6	STH 59	24	x	24									
	M6-1		21	x	21									
10	MB6-1 (2S)		21	X	21	3.063				1				MOUNT BELOW EXISTING ROUTE MARKER ON LIGHT POLE
UNDISTRIBUTED						--					3		--	--
TOTALS						170.063	0.000	9	0	10	3	9	--	--

SHEET: 2 OF 2

PROJECT NO: 2984-04-71	HWY: VARIOUS	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES—TYPE II PERMANENT SIGNING	SHEET:	E

Estimate of Traffic Control Items Required (0010 Participating)

Items		Right Lane Closure Average over 13 days (Each)	(Days)	Left Lane Closure Average over 13 days (Each)	(Days)	Total
(1)643.0300	Traffic Control Drums	44	572	38	494	1,066
(2)643.0420	Traffic Control Barricades Type III	12	156	14	182	338
643.0705	Traffic Control Warning Lights Type A	24	312	28	364	676
643.0715	Traffic Control Warning Lights Type C	44	572	38	494	1,066
643.0900	Traffic Control Signs	12	156	14	182	338
	* Represents total number of signs that will be needed on the project. Contractor may re-use signs on multiple intersections.					

NOTES:

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

(1) All Drums have one steady burning yellow light (type C)

(2) All Type III Barricades have 2 flashing yellow lights (type A)

Items	Right Lane	Left Lane	Size (")
W01-6R	0	2	24x48
W01-6L	2	0	24x48
R3-7L	0	4	36x36
WO20-1	6	6	48x48
WO4-2R	2	0	48x48
WO20-5R	2	0	48x48
W9-2R	0	2	48x48
Total	12	14	

3

3

MISCELLANEOUS LANDSCAPING ITEMS

LOCATION	TOPSOIL 625.0100 SY	SOD LAWN 631.1000 SY	FERTILIZER TYPE B 629.0210 CWT
N. 6th St. and W. McKinley Ave.	6	6	
GRAND TOTAL	**6**	**6**	**0.005**

ALL ITEMS CATEGORY 0010

MISCELLANEOUS ITEMS

	MANAGEMENT OF SOLID WASTE TON SPV.0195.01	FINISHING ROADWAY (PROJECT) EACH 213.0100	BACKFILL GRANULAR CY 209.1100	MOBILIZATION EACH 619.1000	TRAFFIC CONTROL (PROJECT) EACH 643.0100	INLET SCREEN TYPE M EACH SPV.0060.07
N. 6th St. and W. McKinley Ave.						
GRAND TOTAL	**30**	**1**	**17**	**0.02**	**1**	**32**

ALL ITEMS ARE CATEGORY 0010

3

REMOVALS

LOCATION	REMOVING CONCRETE SIDEWALK 204.0155 SY	SAWING CONCRETE 690.0250 LF
N. 6th St. and W. McKinley Ave.	10	20
GRAND TOTAL	**10**	**20**

ALL ITEMS ARE CATEGORY 0010

CONSTRUCTION STAKING ROADWAY ITEMS

LOCATION	CONST. STAKING ELECTRICAL INSTALLATIONS (PROJECT) 650.8500 LUMP SUM	CONST. STAKING SUPPLEMENTAL CONTROL (PROJECT) 650.9910 LUMP SUM
N. 6th St. and W. McKinley	1	1
GRAND TOTAL	**1**	**1**

ALL ITEMS ARE CATEGORY 0010

CONCRETE CONSTRUCTION ITEMS

LOCATION	CONCRETE SIDEWALK 5-INCH 602.0410 SF
N. 6th St. and W. McKinley Ave.	27
GRAND TOTALS	**27**

ALL ITEMS ARE CATEGORY 0010

TRAFFIC & LIGHTING MISCELLANEOUS QUANTITIES

Item No.	Description	Unit	Quantity
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	40
654.0110	Concrete Bases Type 10	Each	1
SPV.0060.01	Concrete Base Type 10 Special	Each	3
SPV.0060.02	Poles Type 9	Each	1
SPV.0060.03	Poles Type 12 Special	Each	3
SPV.0060.04	Monotube Arms 30-FT	Each	1
SPV.0060.05	Monotube Arms 35-FT	Each	3
SPV.0060.06	Fiberglass Polymer Concrete Pull Box 13-Inchx24-Inchx24-Inch	Each	1
SPV.0060.08	Utility Line Opening (ULO)	Each	4

ALL ITEMS CATEGORY 0010

2

NOTE:

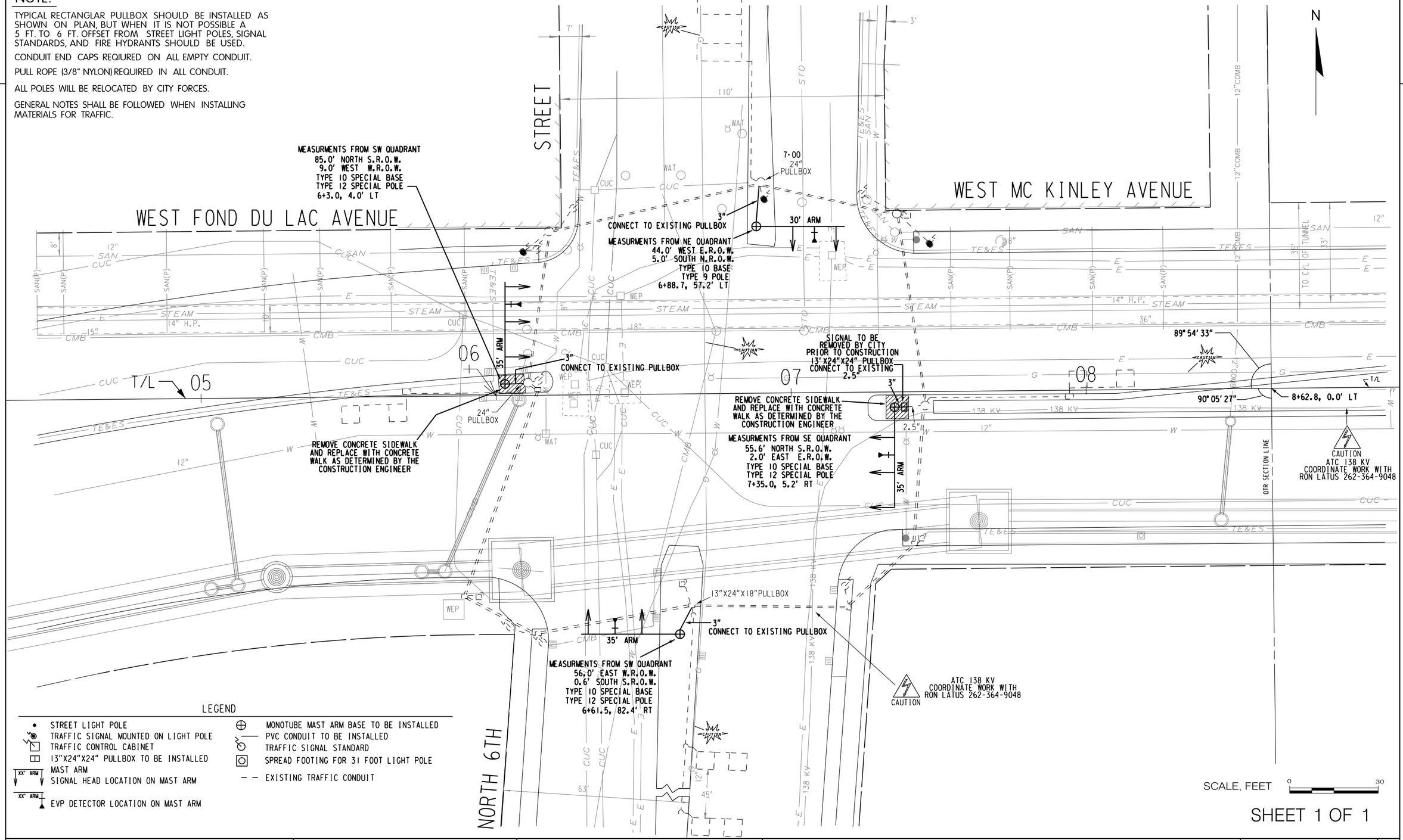
TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- TRAFFIC CONTROL CABINET
- 13"X24"X24" PULLBOX TO BE INSTALLED
- MAST ARM
- SIGNAL HEAD LOCATION ON MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- PVC CONDUIT TO BE INSTALLED
- TRAFFIC SIGNAL STANDARD
- SPREAD FOOTING FOR 31 FOOT LIGHT POLE
- EXISTING TRAFFIC CONDUIT

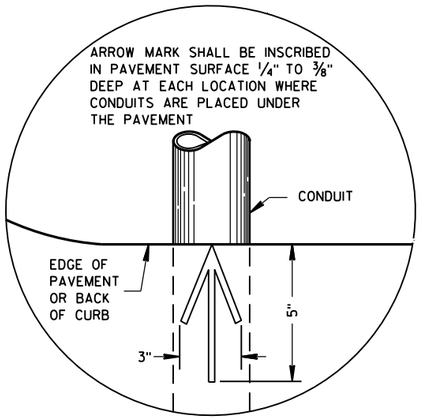
SCALE, FEET 0 30

SHEET 1 OF 1

PROJECT NO: 2984-04-71	HWY: S.T.H. 145 /S.T.H. 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL BASE AND CONDUIT PLAN	SHEET 24

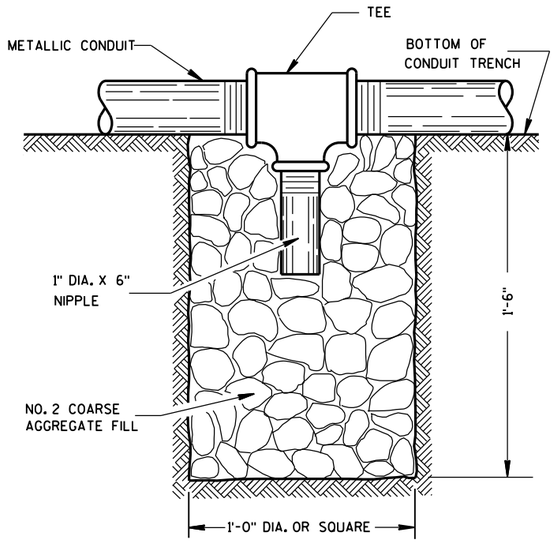
Standard Detail Drawing List

09B02-09	CONDUIT
09C11-09	CONCRETE BASE TYPE 10
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



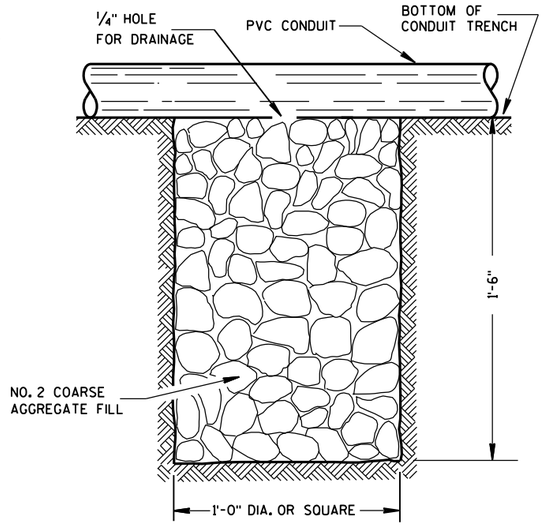
PLAN VIEW

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.

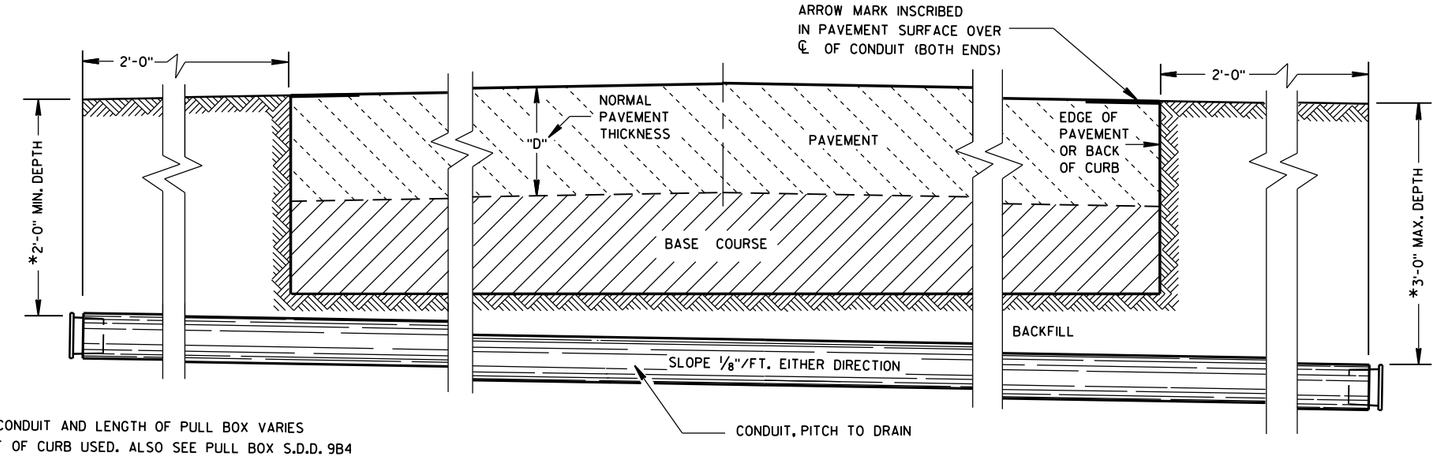
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

6

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).

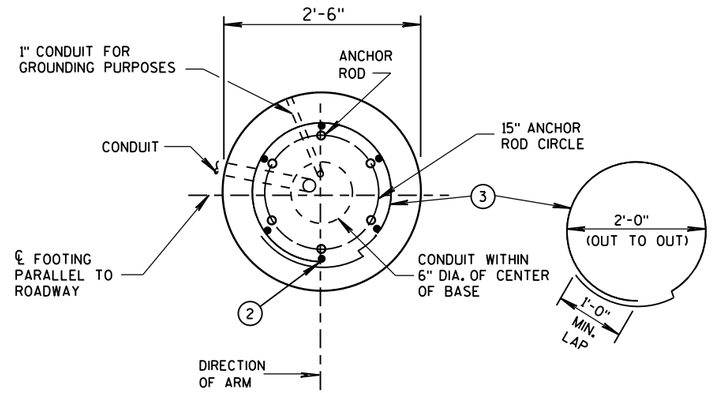
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

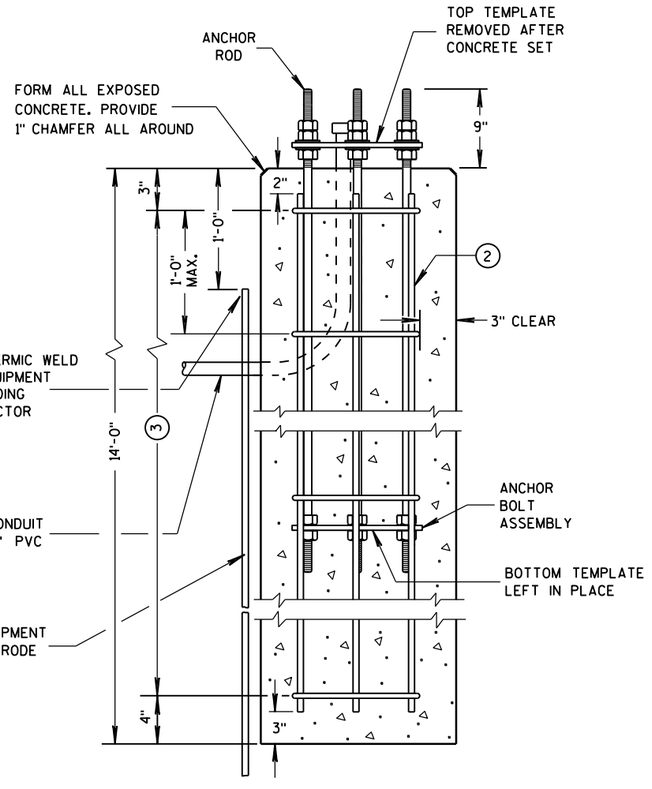
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

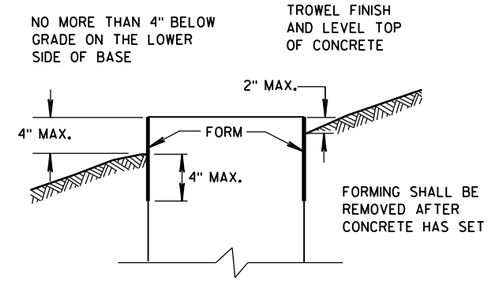
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



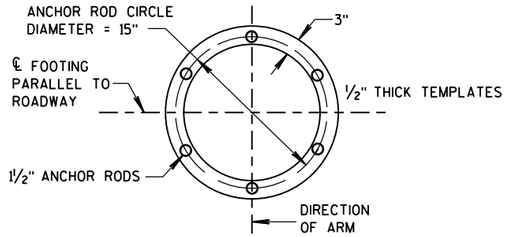


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

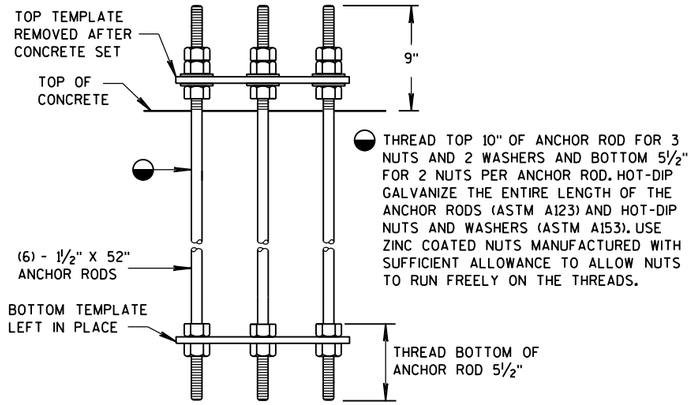
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

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

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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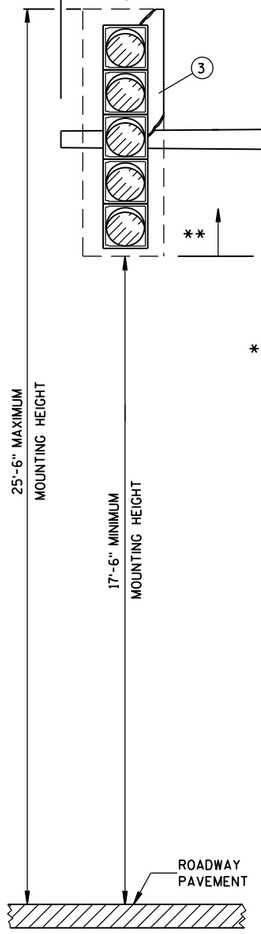
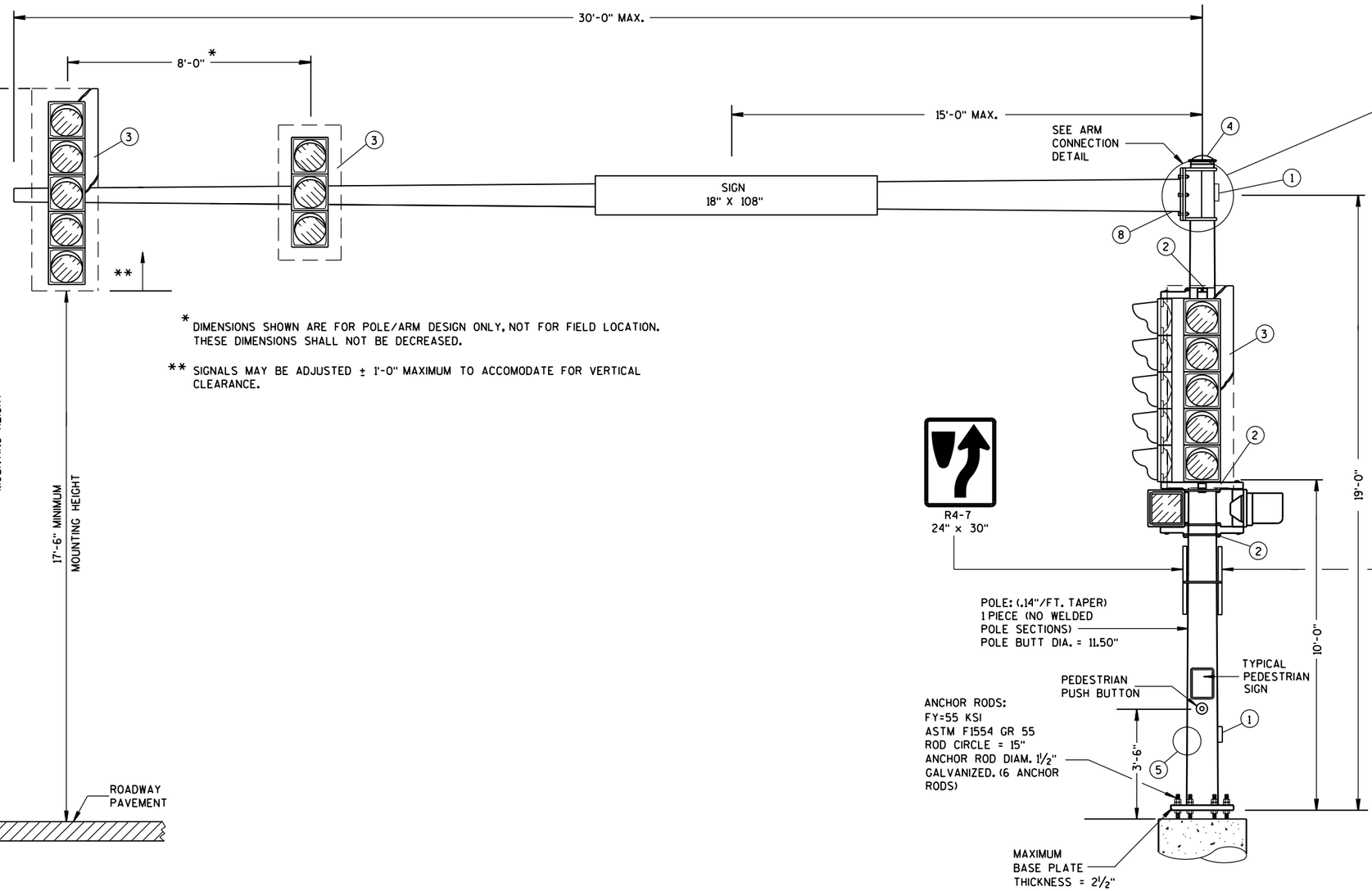
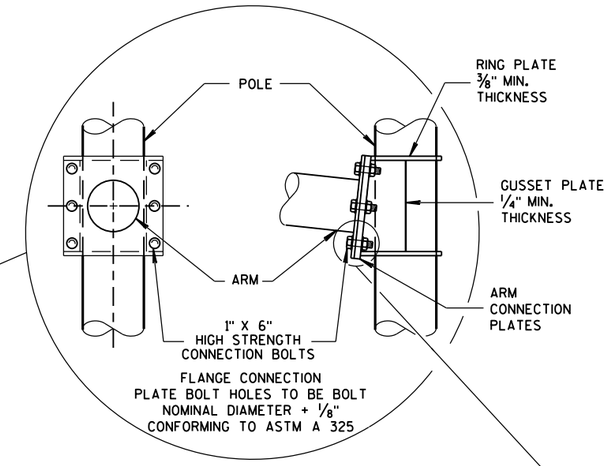
S.D.D. 9 C 11-9



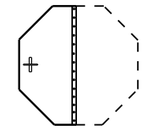


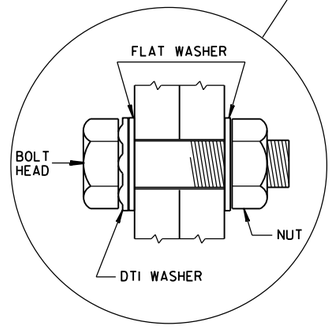
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

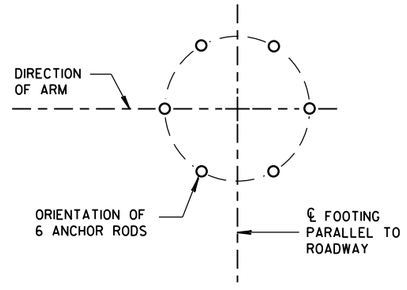


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

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

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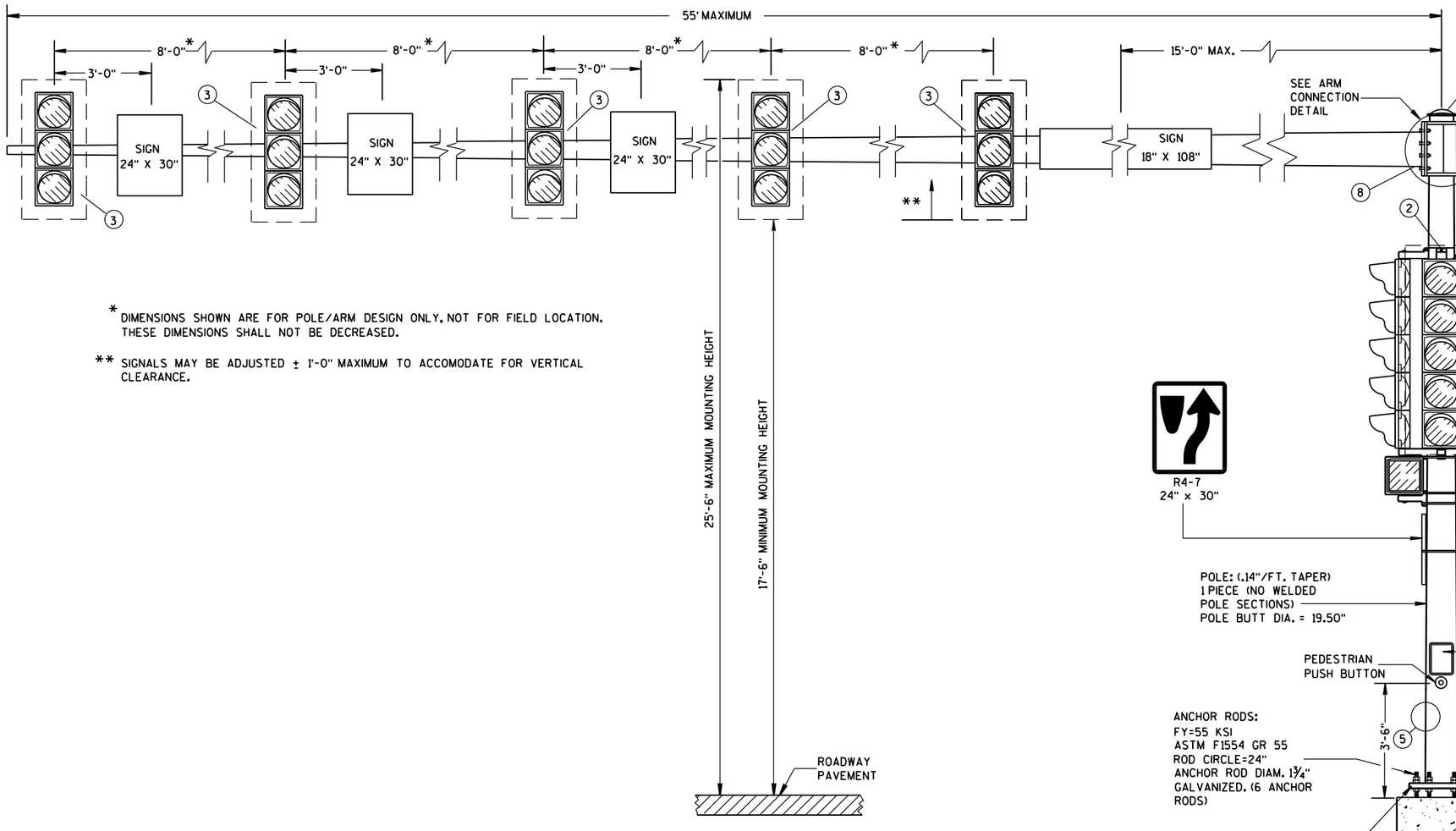

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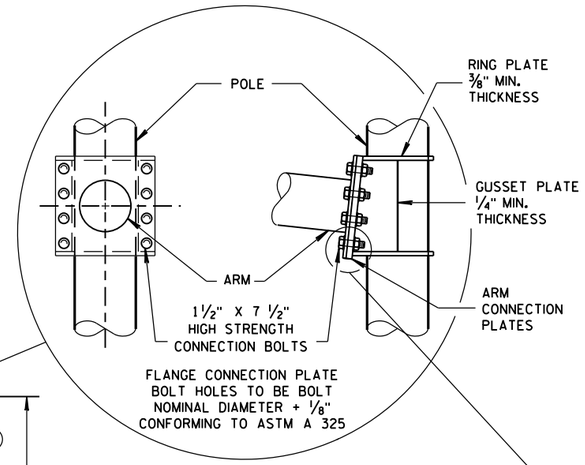
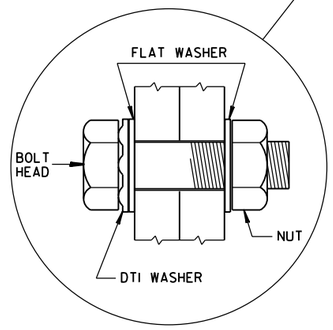
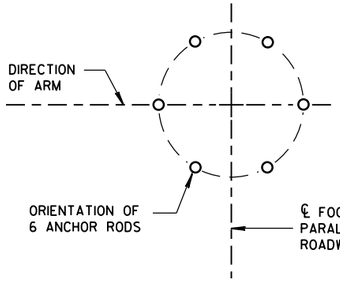


8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

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.

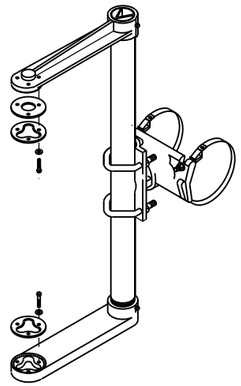
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

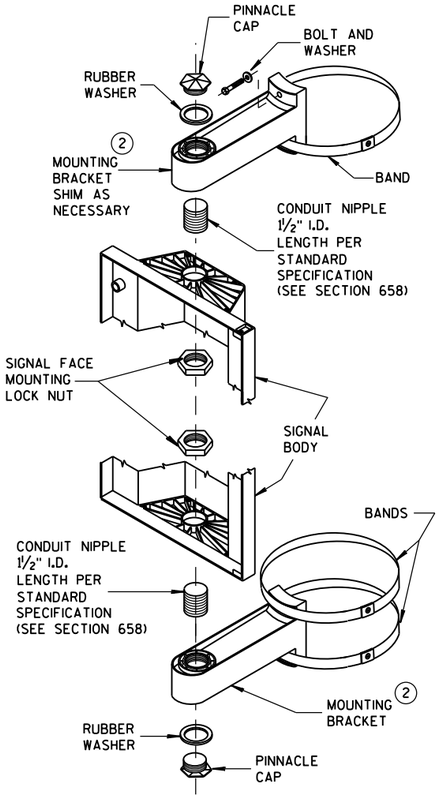
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

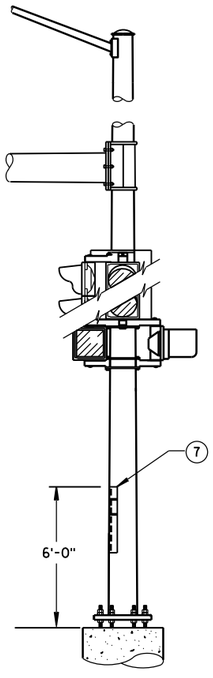


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

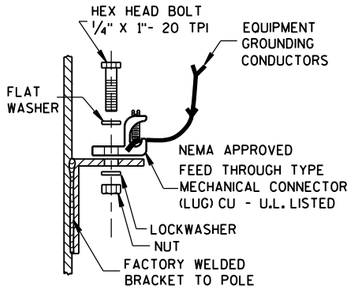
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

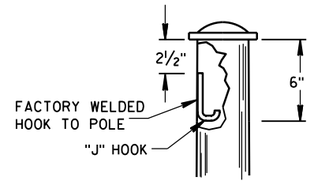


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

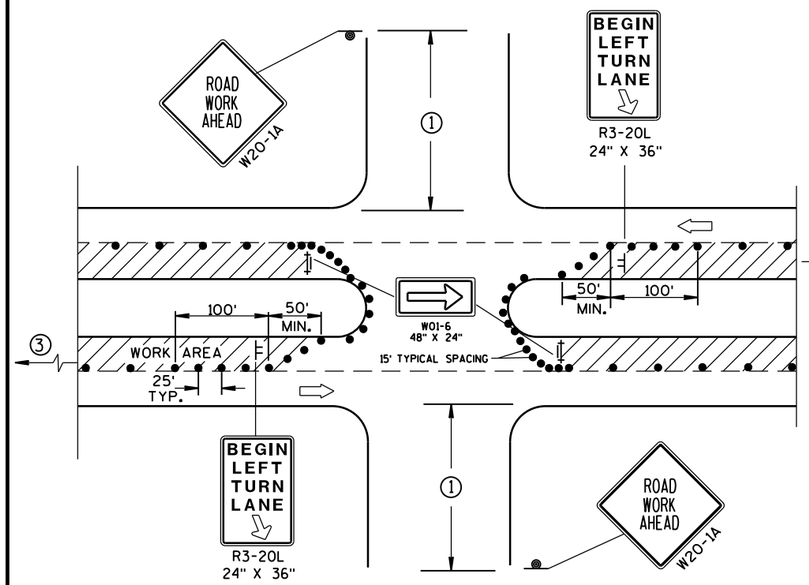
GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

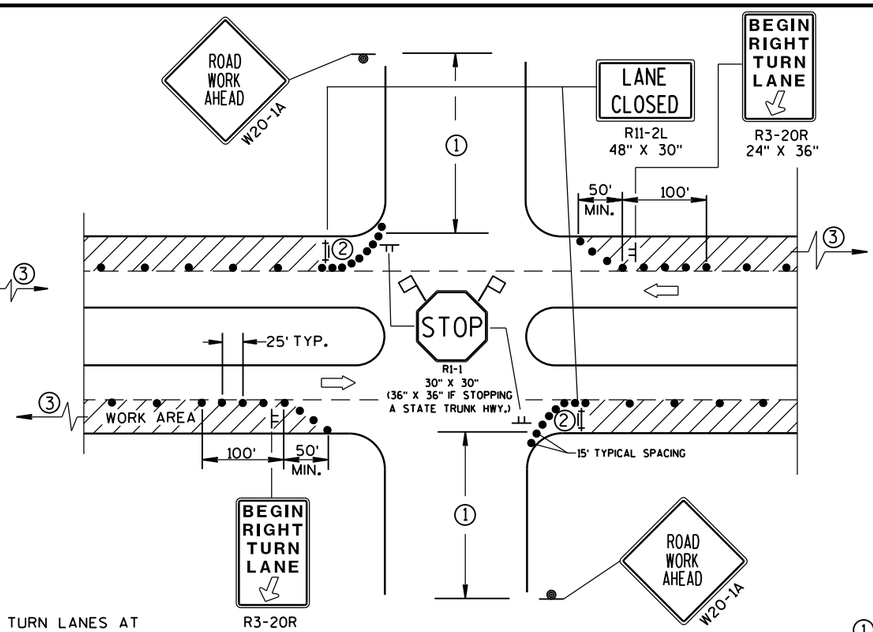
S.D.D. 9 E 8-8e



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.

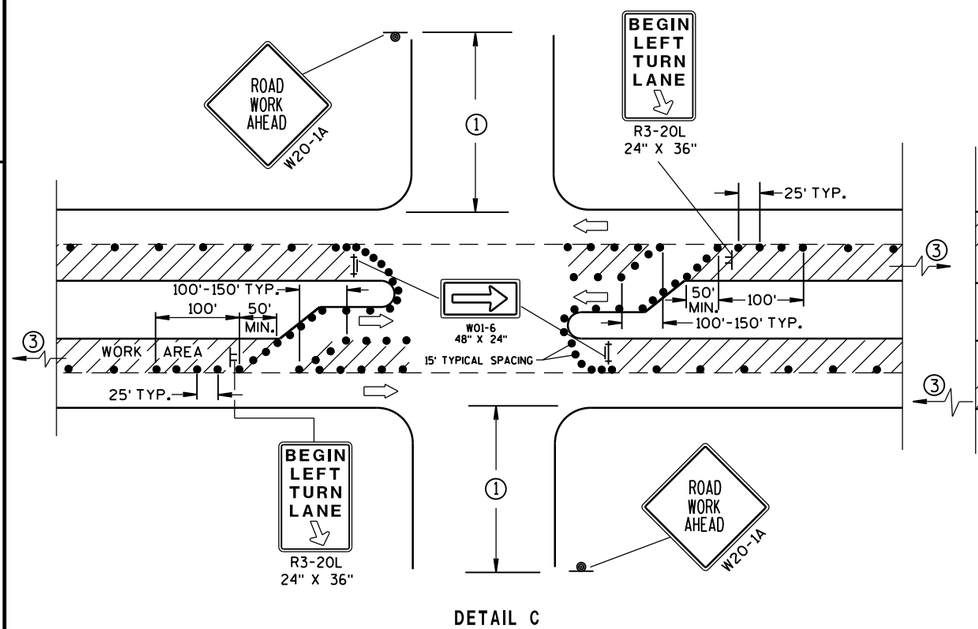
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

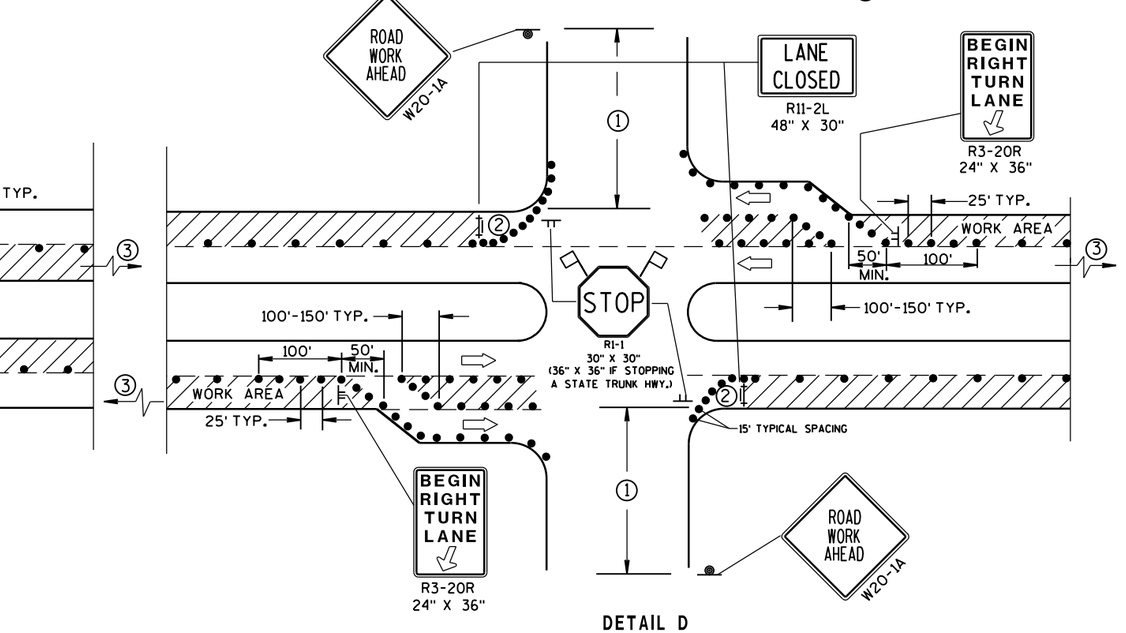
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

6

S.D.D. 15 D 21-4

6

S.D.D. 15 D 21-4

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

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

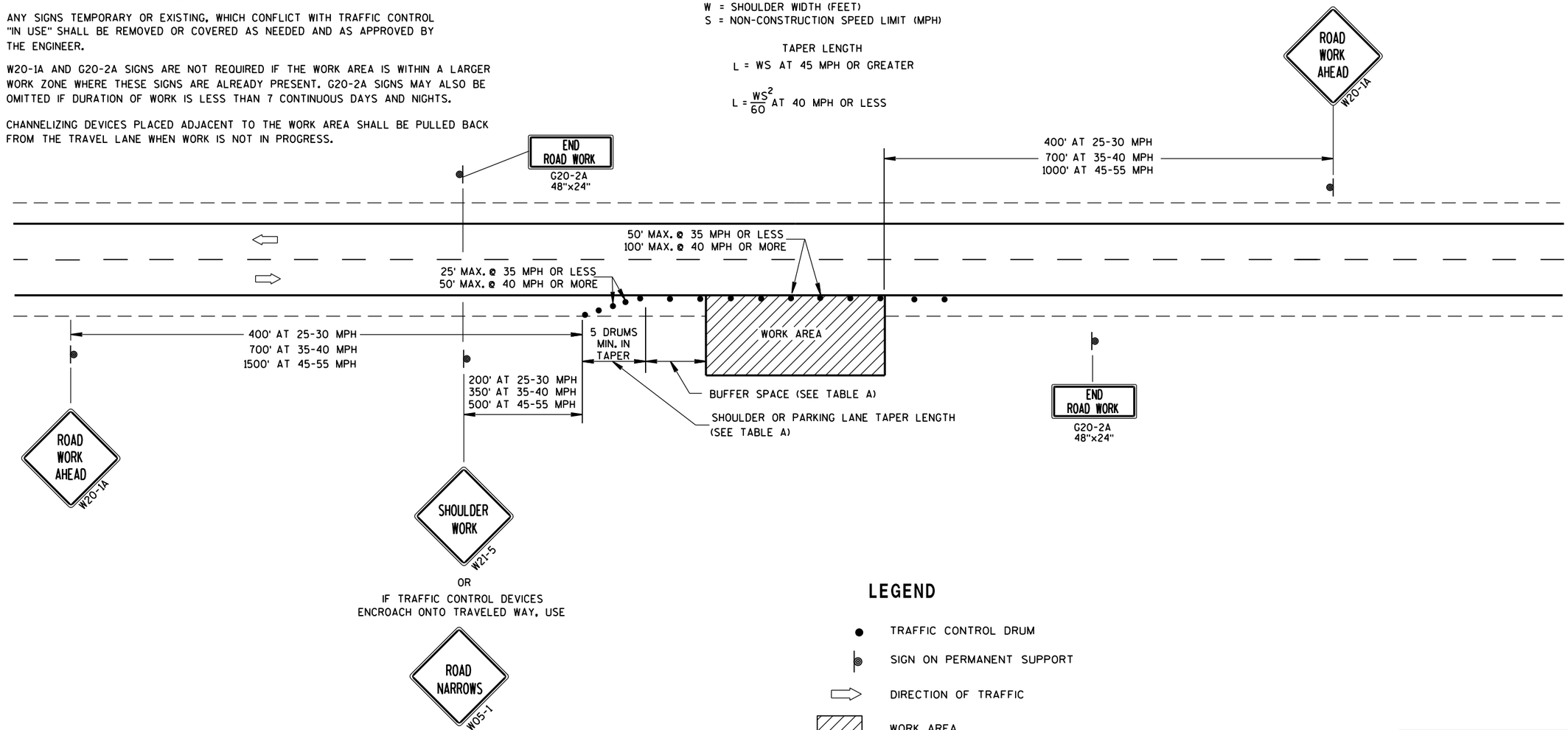
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

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

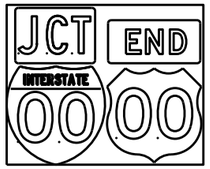
FHWA

6

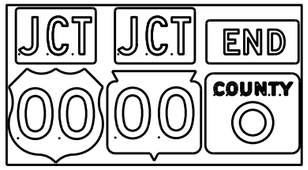
S.D.D. 15 D 28-3

TYPICAL ASSEMBLIES

J1-1

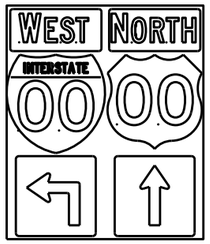


J1-2

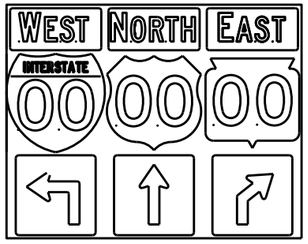


J1-3

J2-1



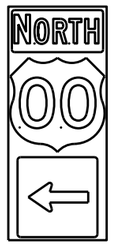
J2-2



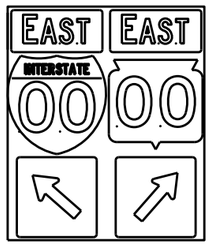
J2-3

JV

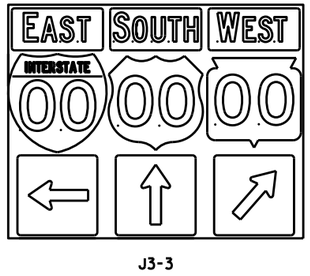
(Typical Vertical J-Assembly
See Note 10 and 11)



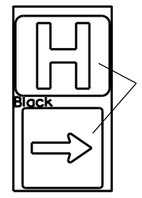
J3-1



J3-2

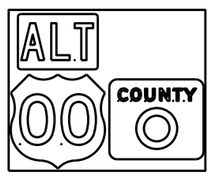


J3-3

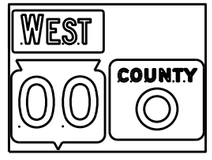


JH-1

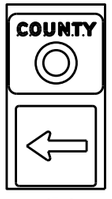
J4-1



J4-2



J4-2



J13-1

J12-1

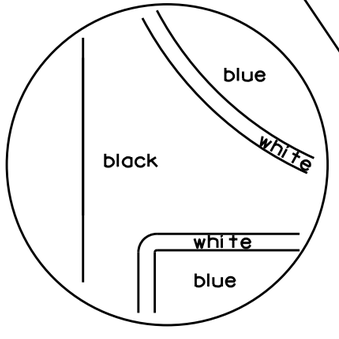
J32-1

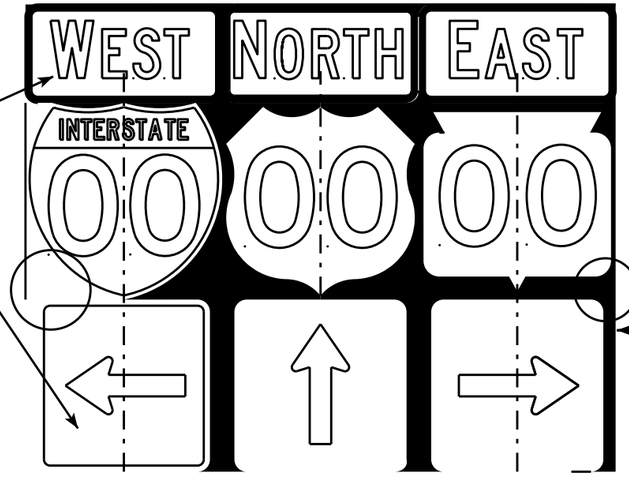
J33-1

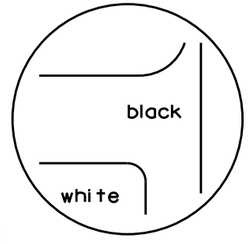
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

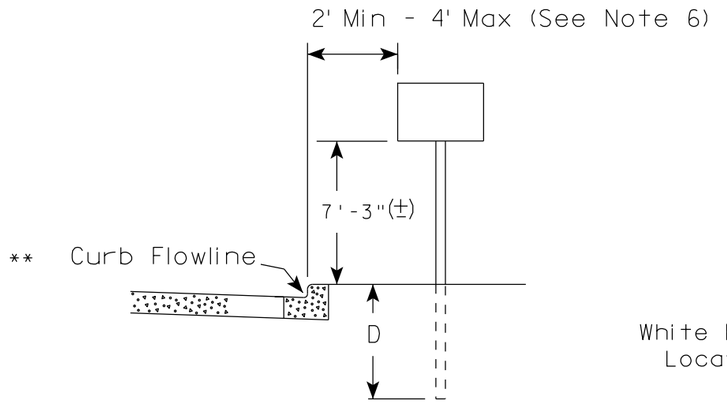
PROJECT NO:

SHEET NO: E

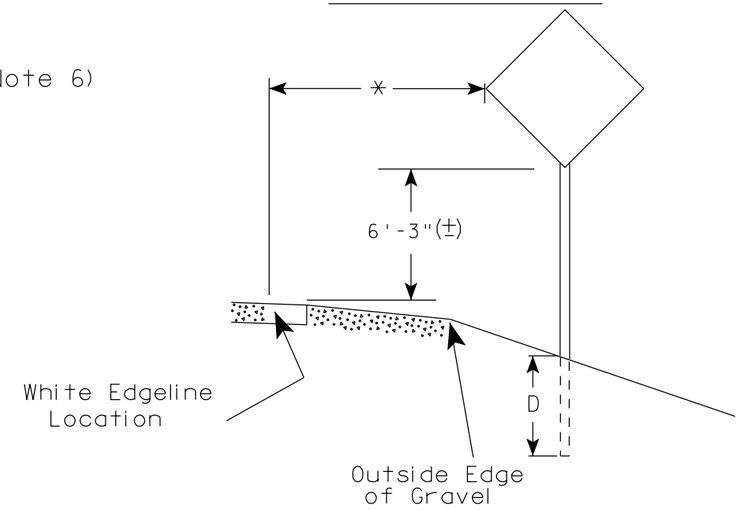
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

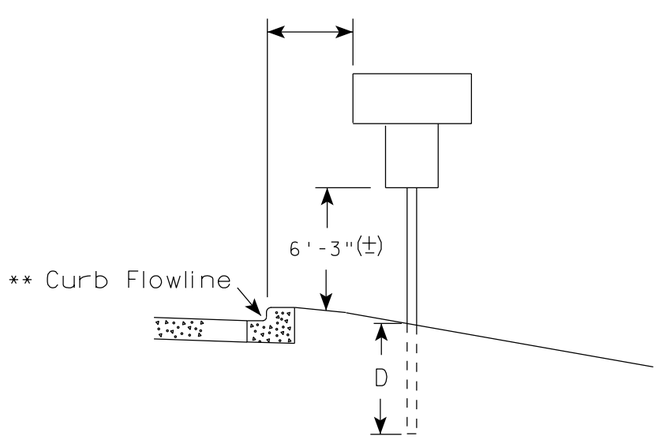
WISDOT/CADDS SHEET 42

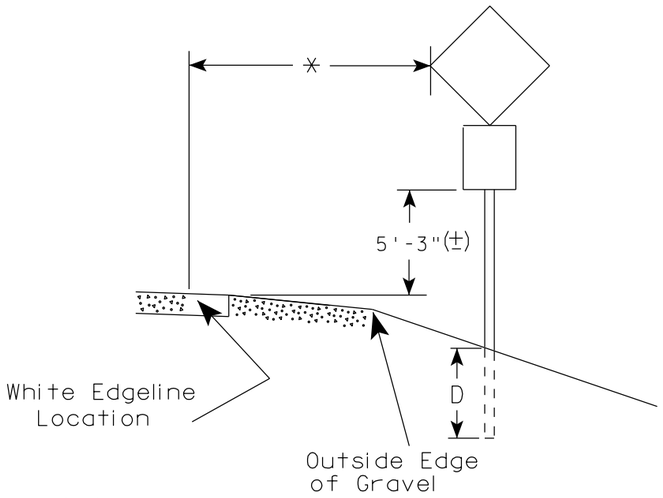
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

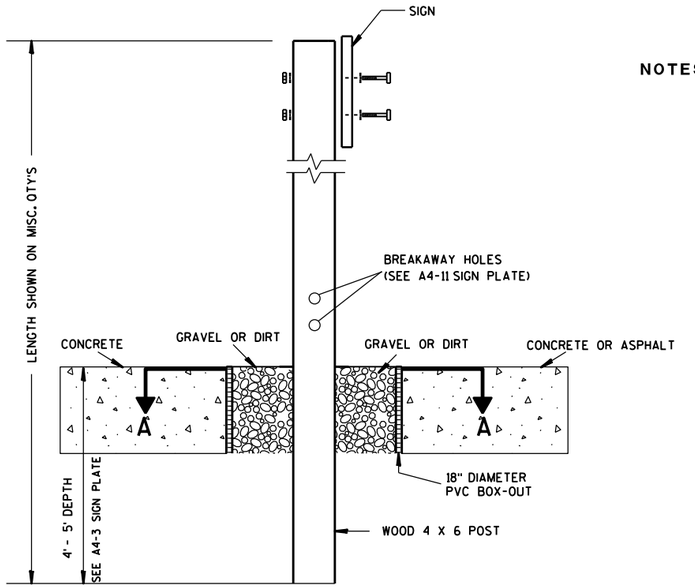
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

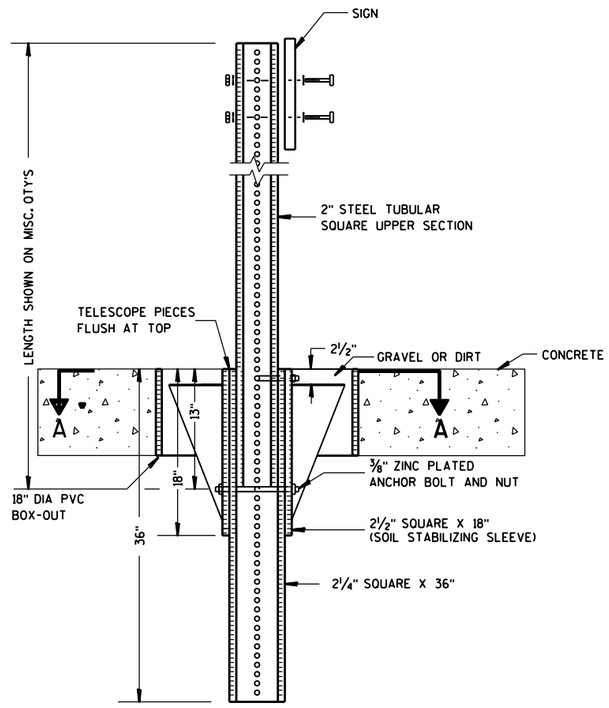
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

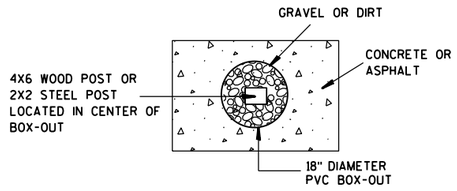
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

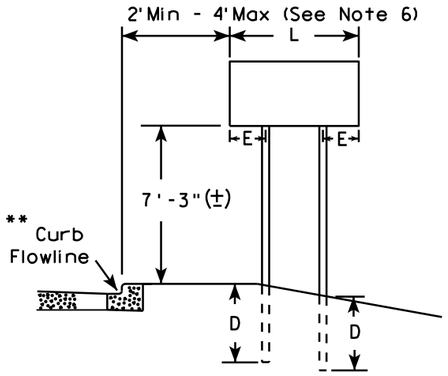
APPROVED Matthew R Rauch
for State Traffic Engineer

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

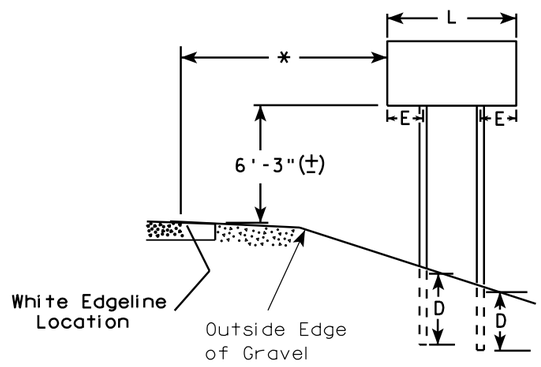
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

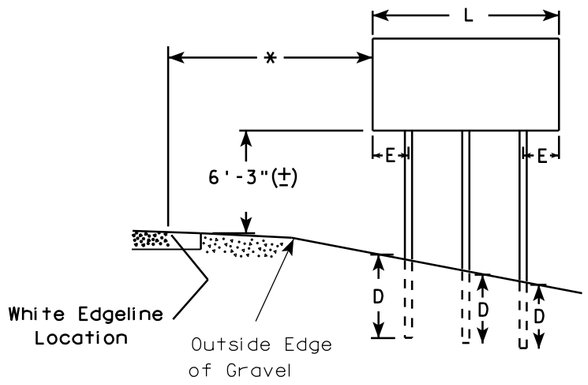
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

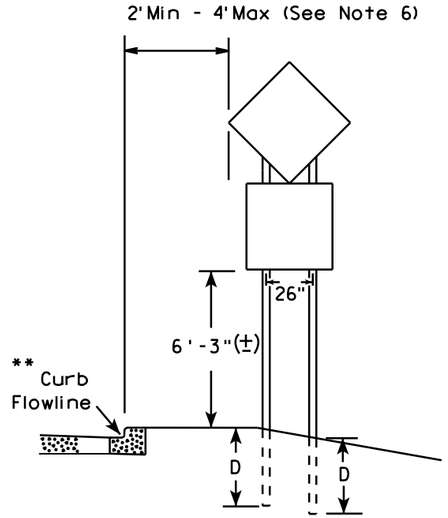
URBAN AREA



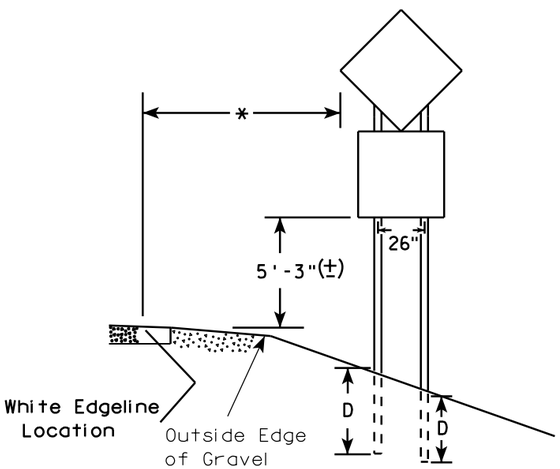
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

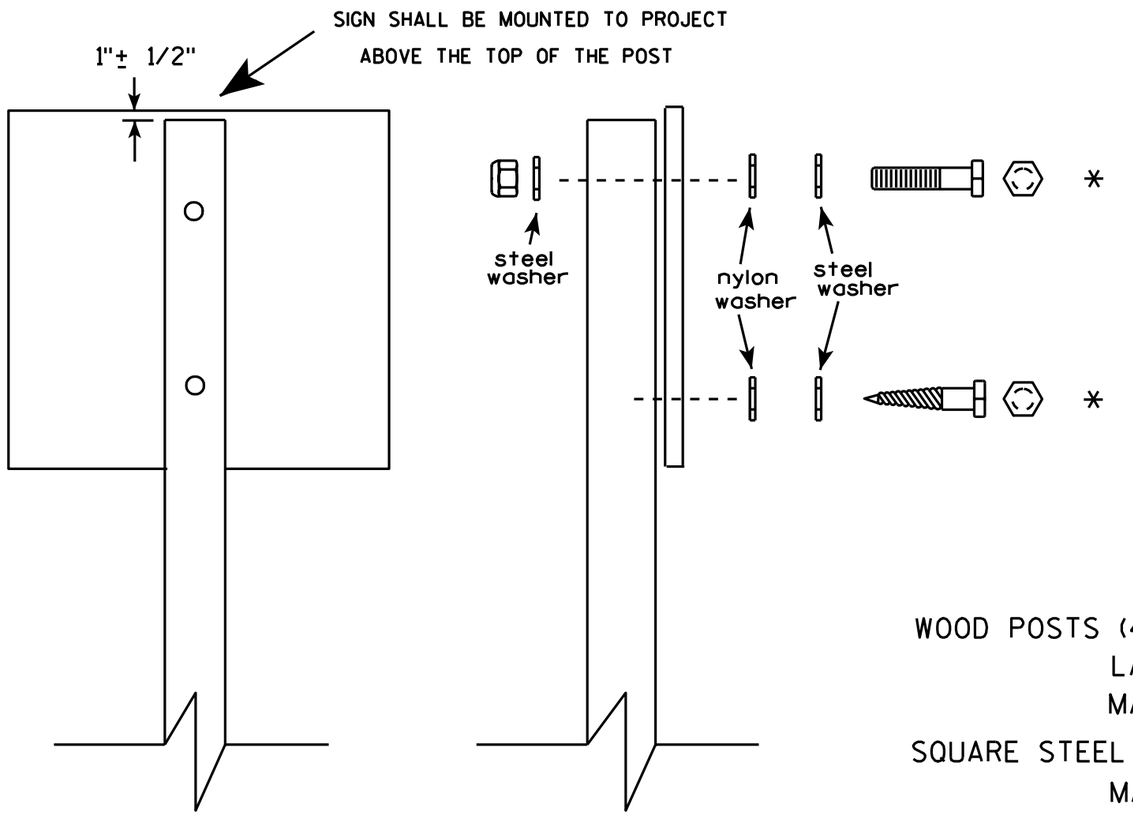
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 12-NOV-2014 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

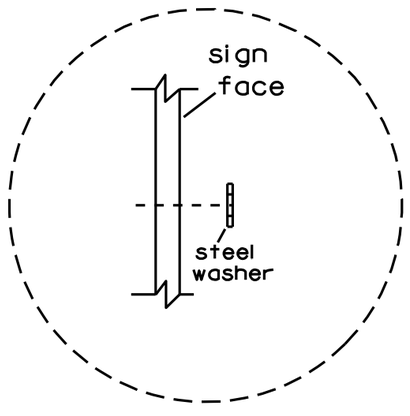
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

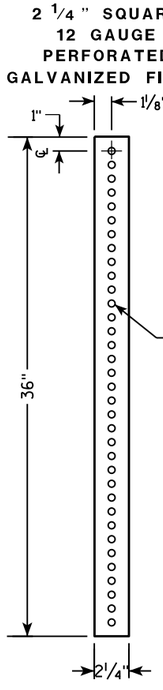
7

PROJECT NO:

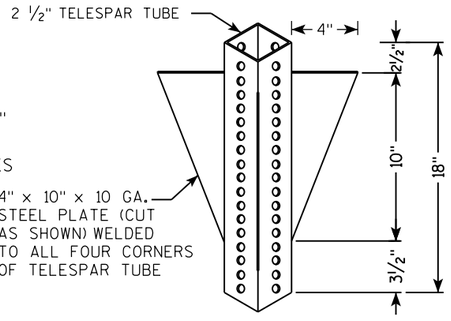
SHEET NO: 37 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

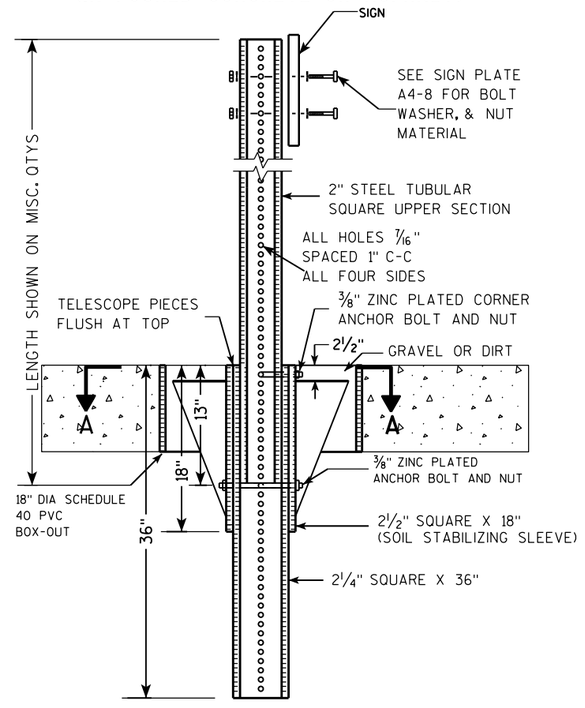
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



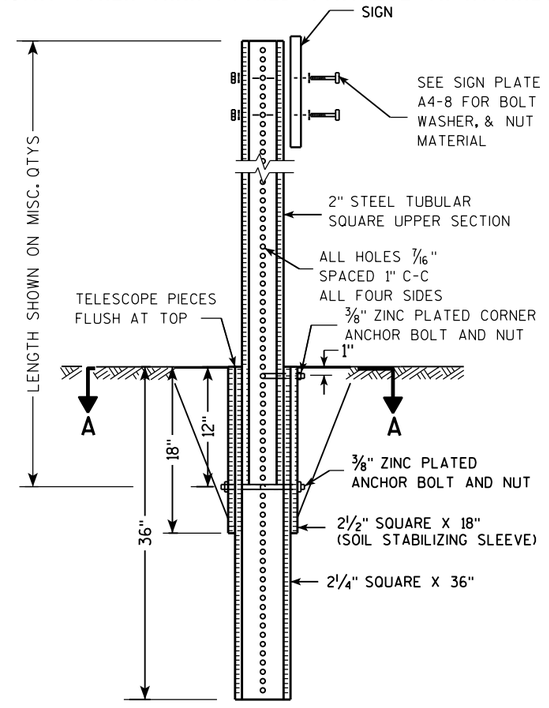
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

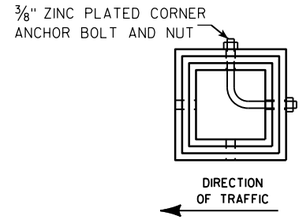


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

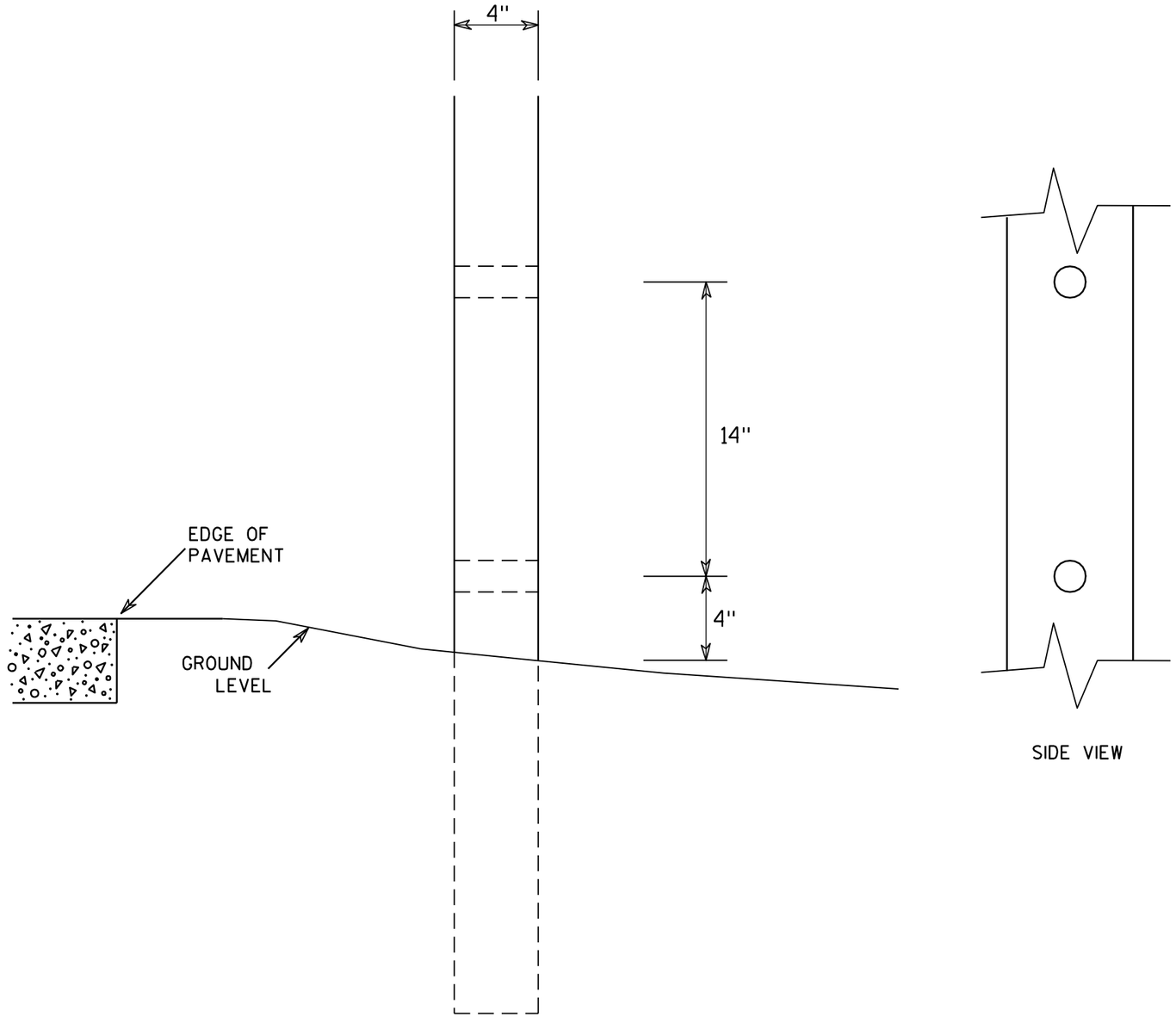
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

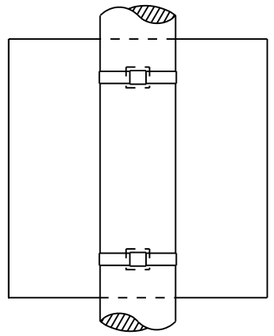
APPROVED Chester J Spang for State Traffic Engineer

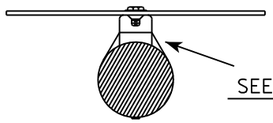
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 39	E

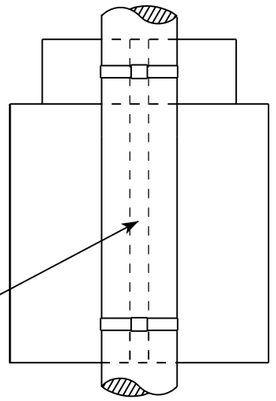
BANDING

SINGLE SIGN

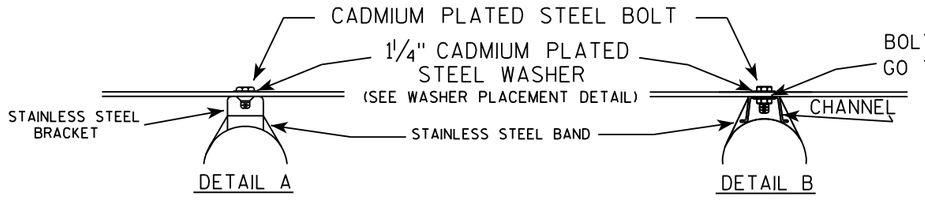




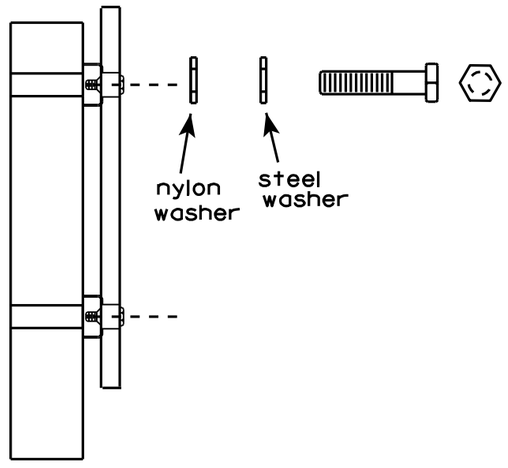
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL INSTALLATION SHEET



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

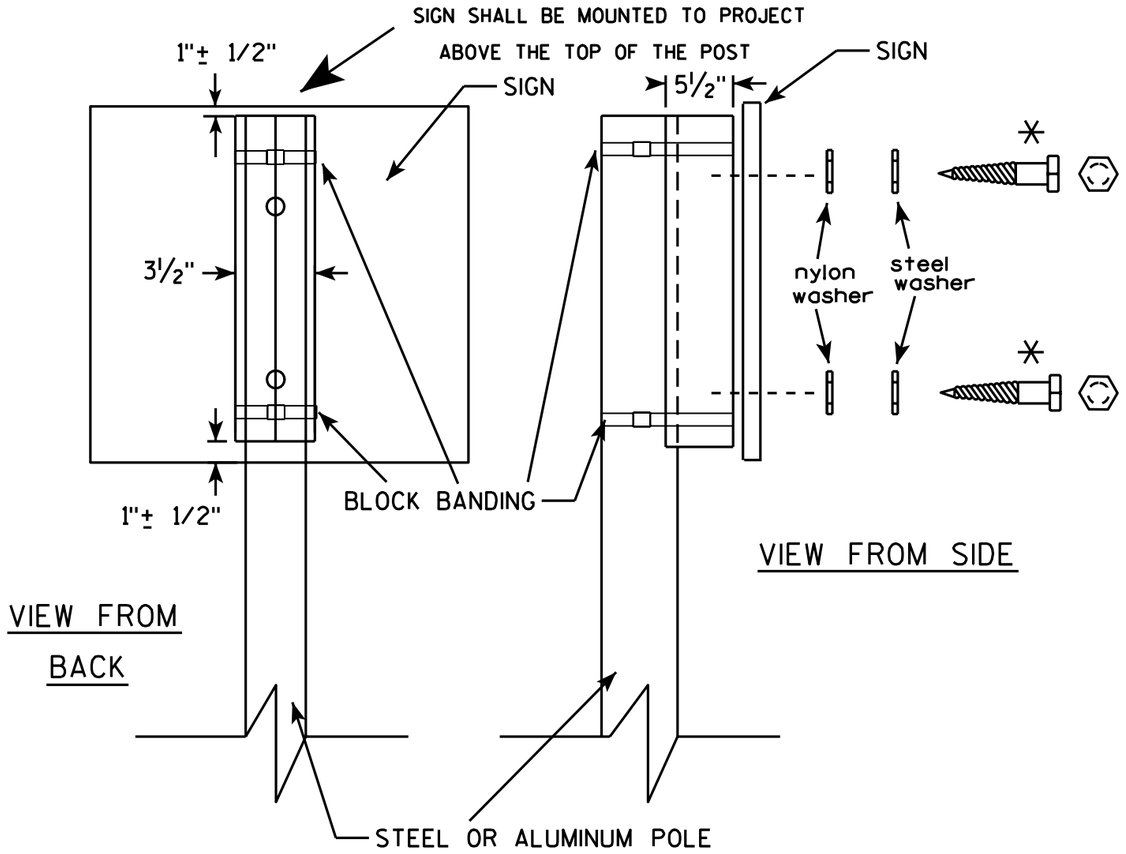
STANDARD SIGN
SIGN BANDING DETAILS

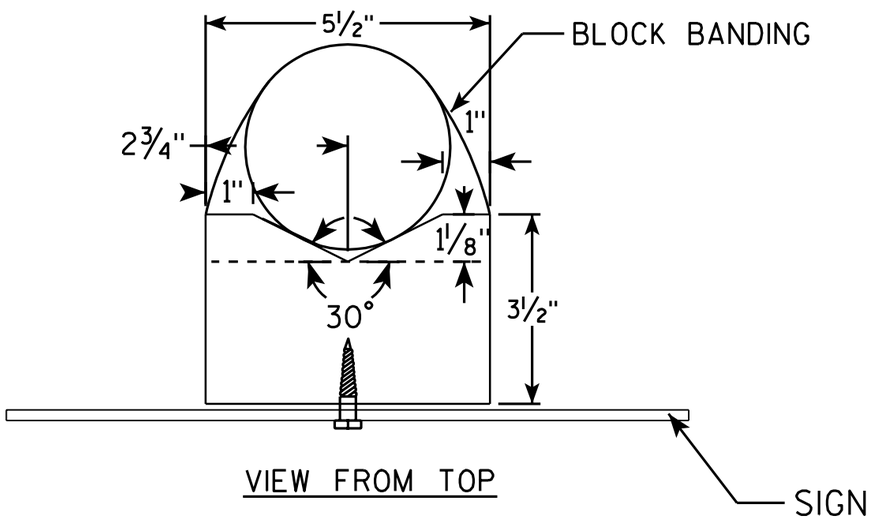
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 40	E





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

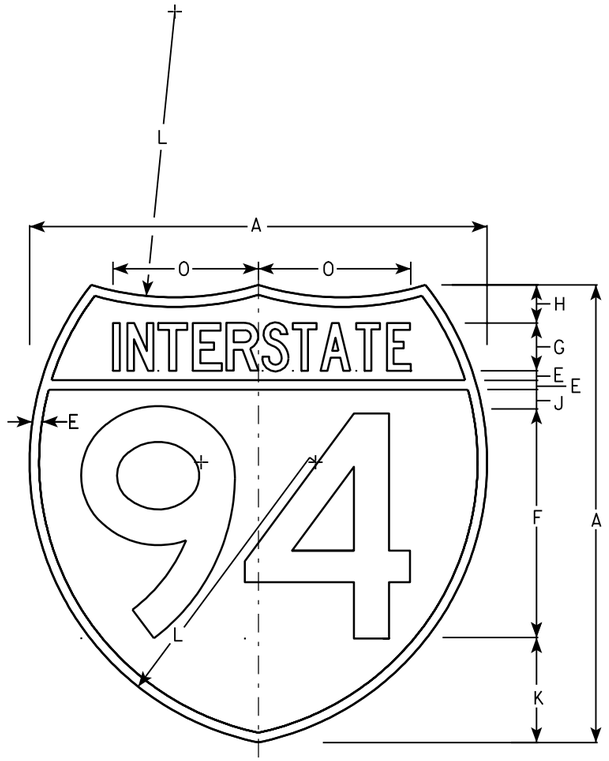
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

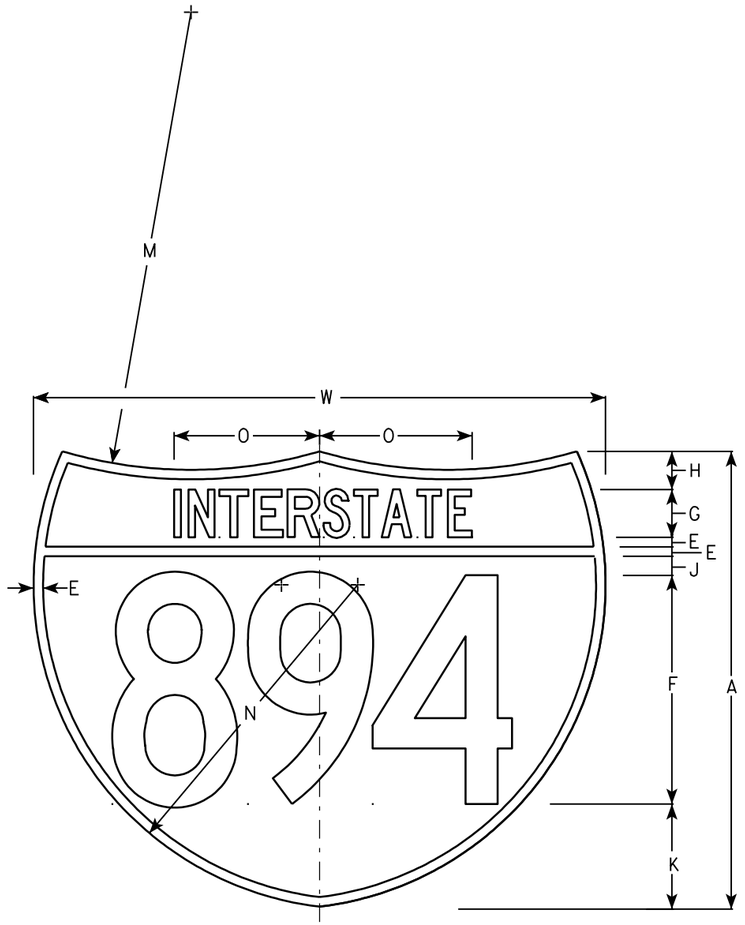
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 41 E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

7

7

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

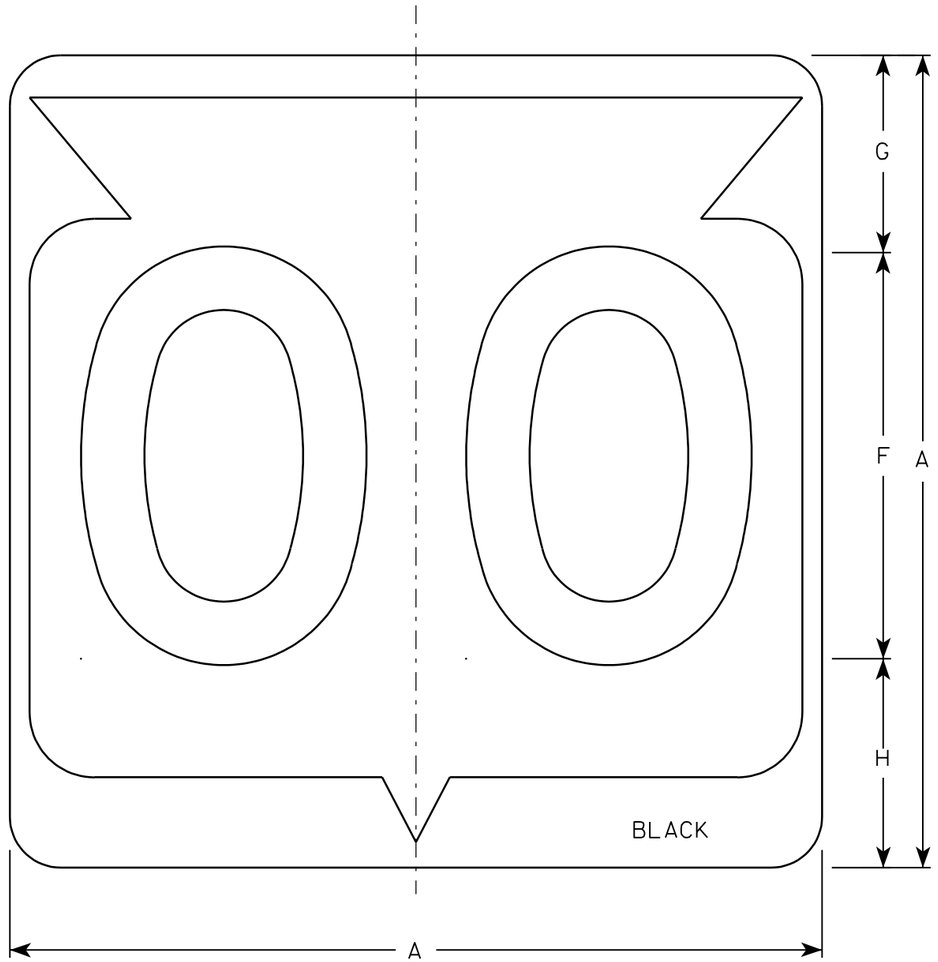
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

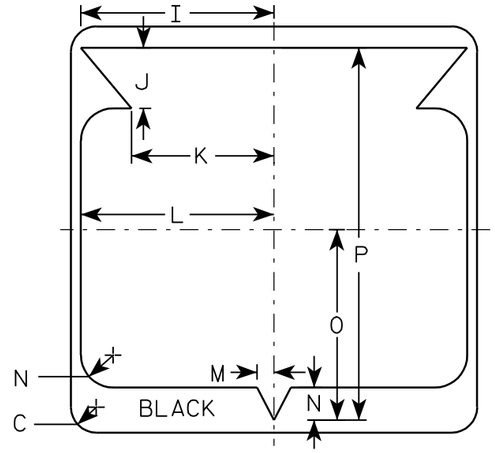
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

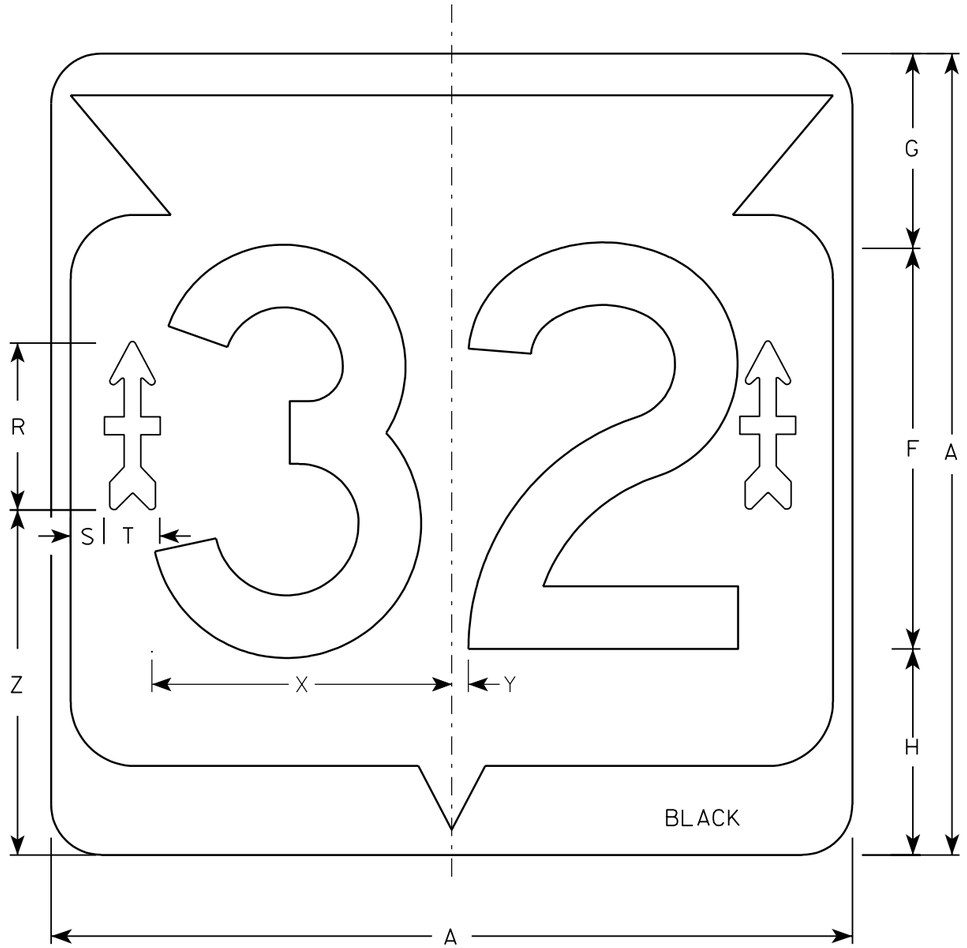
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

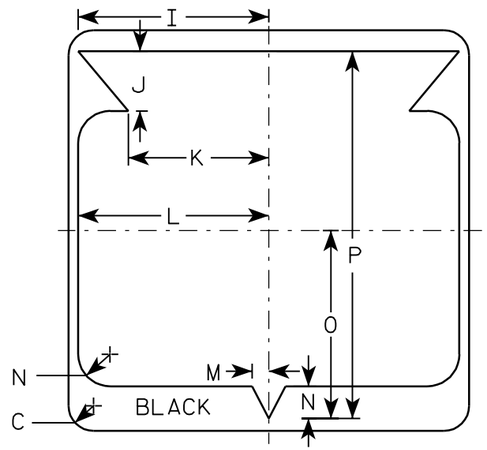
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	E



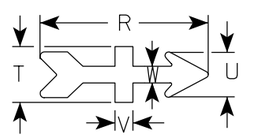
M1-6B

NOTES

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



32nd DIVISION ARROW
ACTUAL SIZE



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	24		1 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

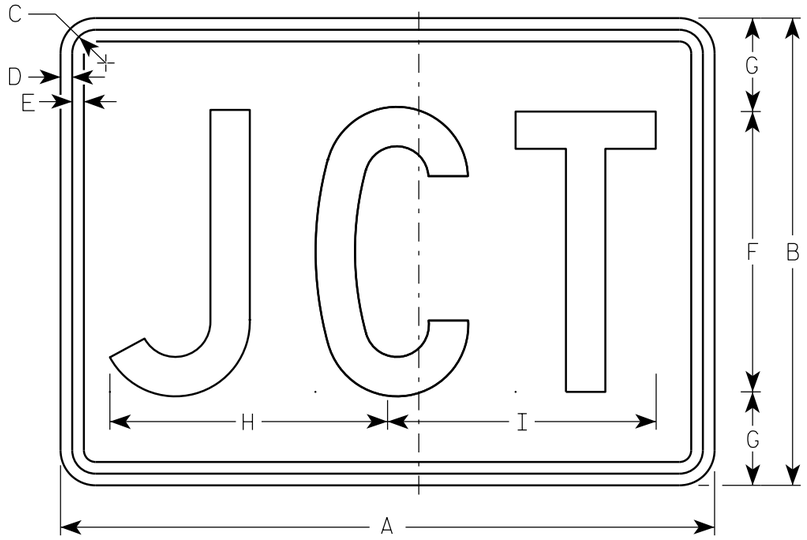
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

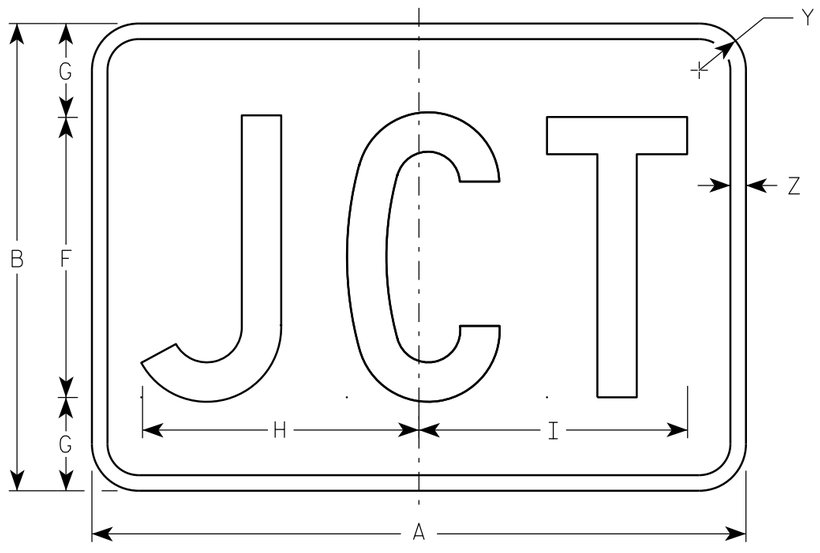
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 44 | E



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

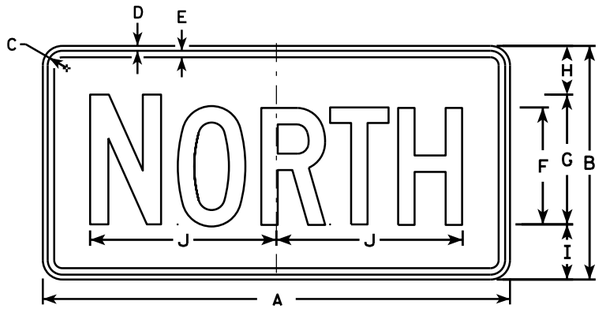
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

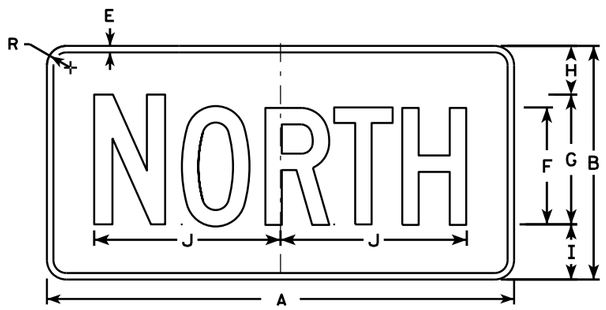
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 45 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



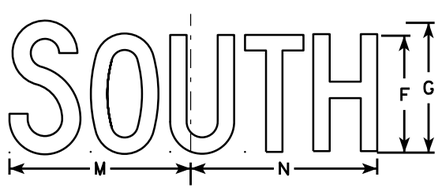
M3-1
MK3-1
MM3-1
MN3-1



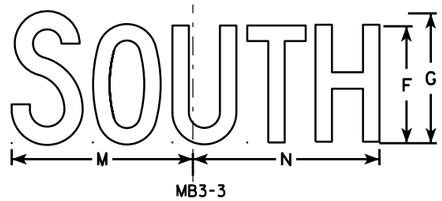
MB3-1

M3-2
MK3-2
MM3-2
MN3-2

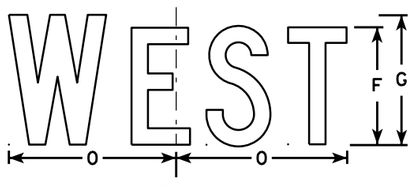
MB3-2



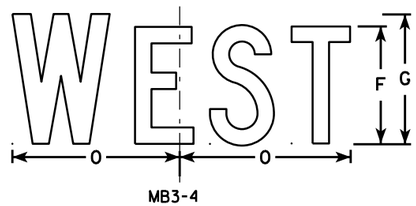
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

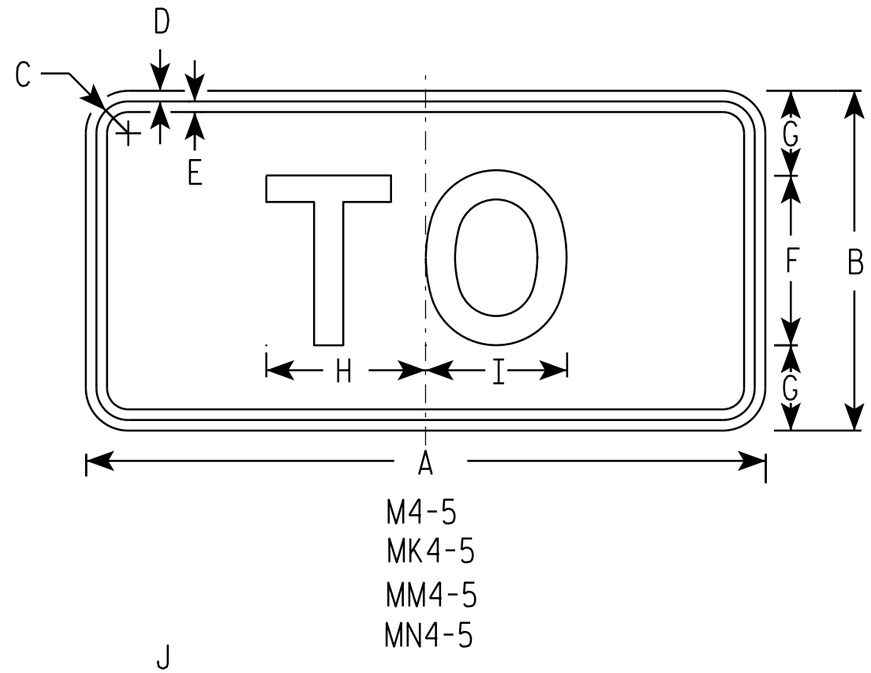
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

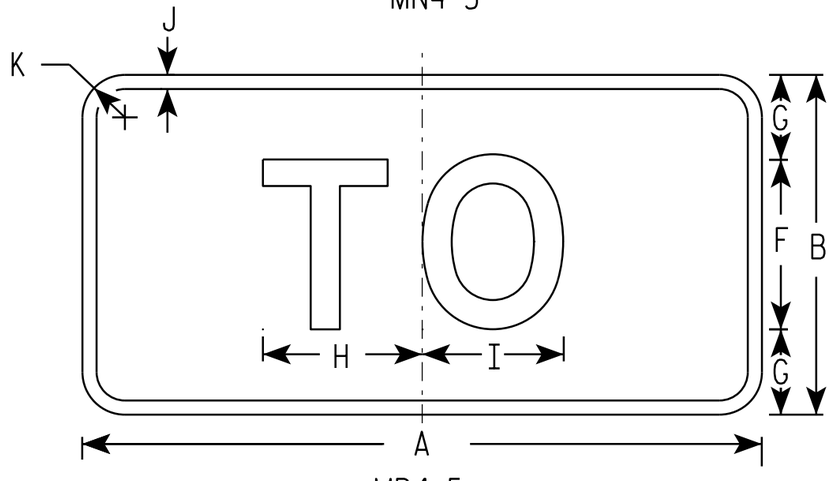
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

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



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

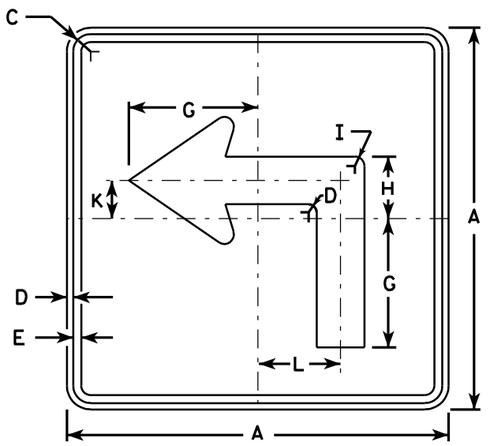
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

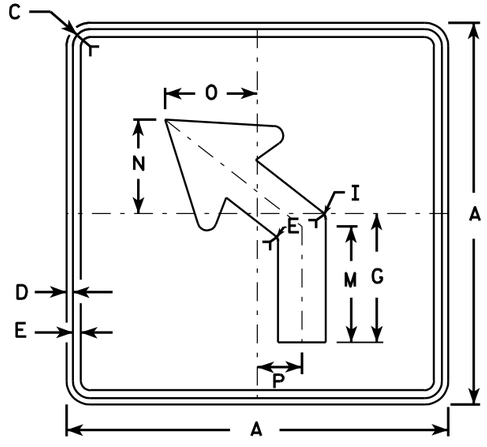
DATE 6/30/14 PLATE M4-5.7

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

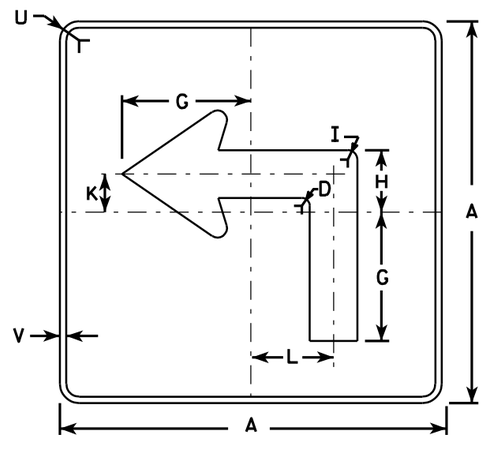
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 30-JUN-2014 12:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.351066:1.000000
WISDOT/CADDS SHEET 42



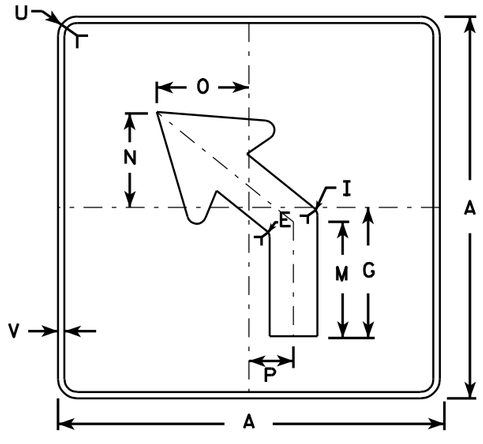
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



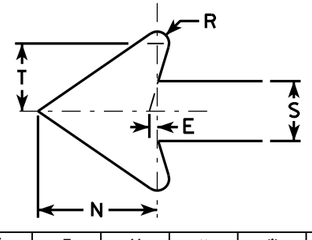
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

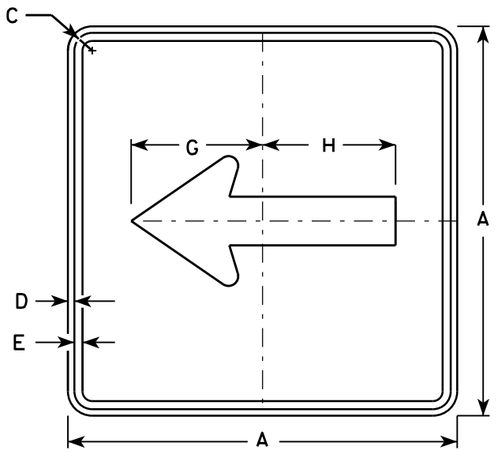
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

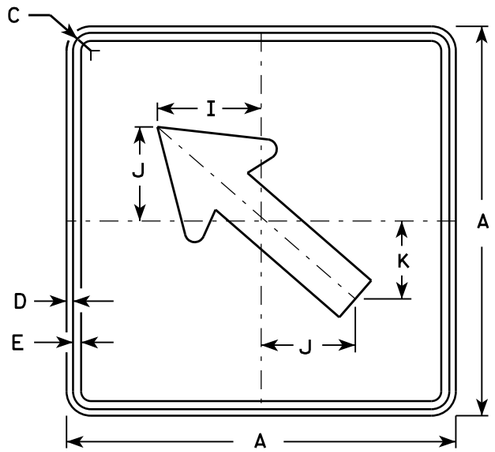
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 48 | E



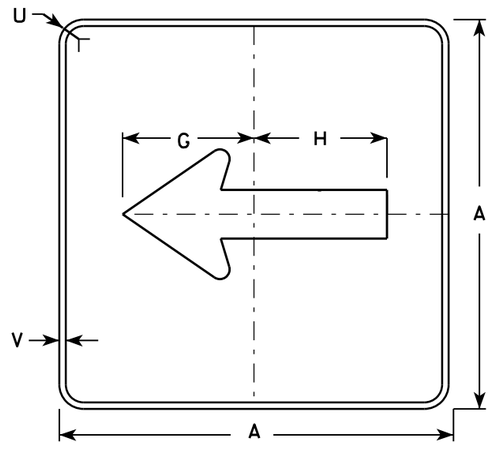
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



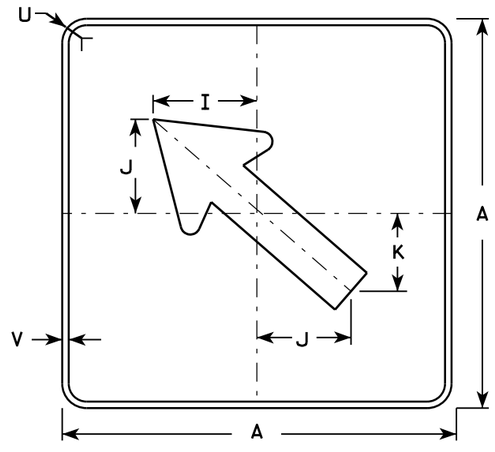
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

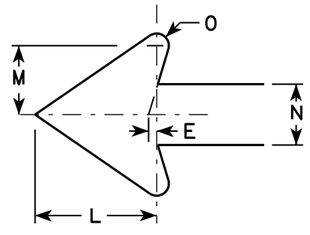
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

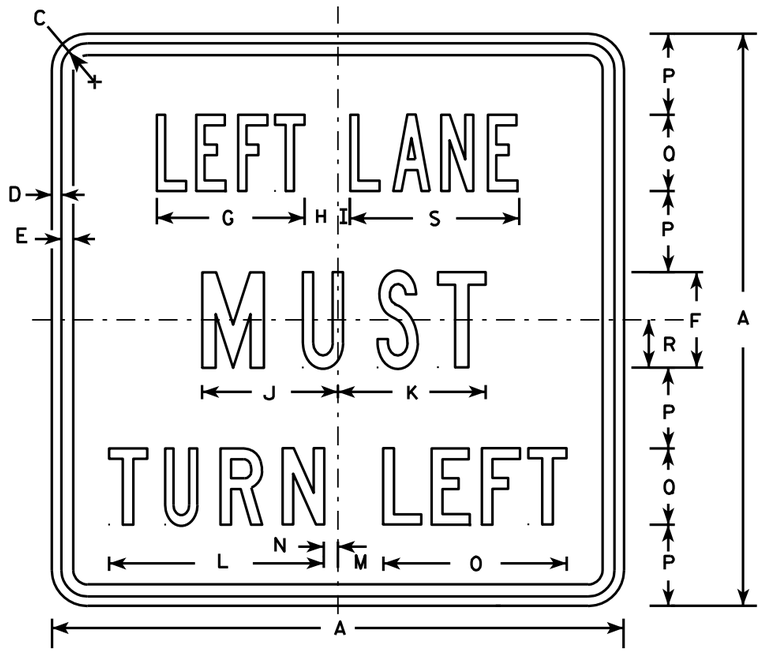
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

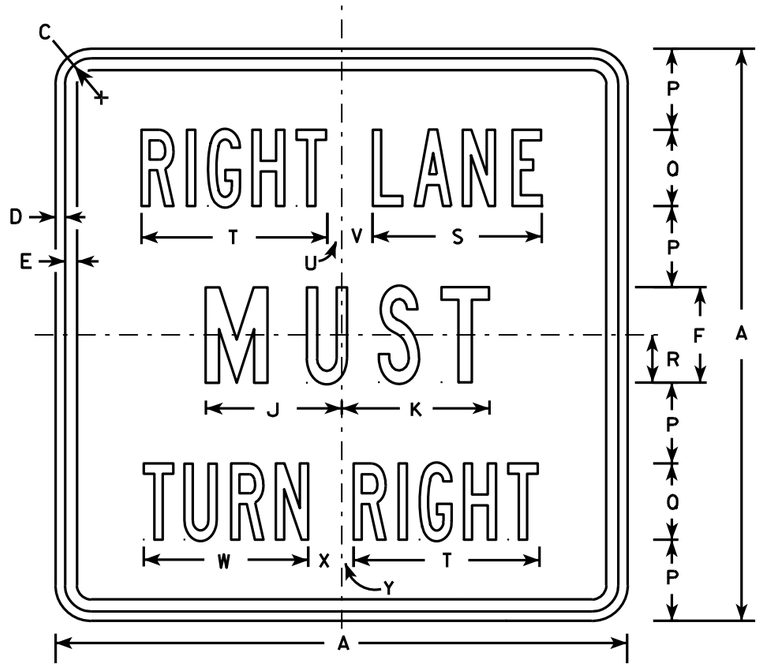
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 49 M6-1.14

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



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

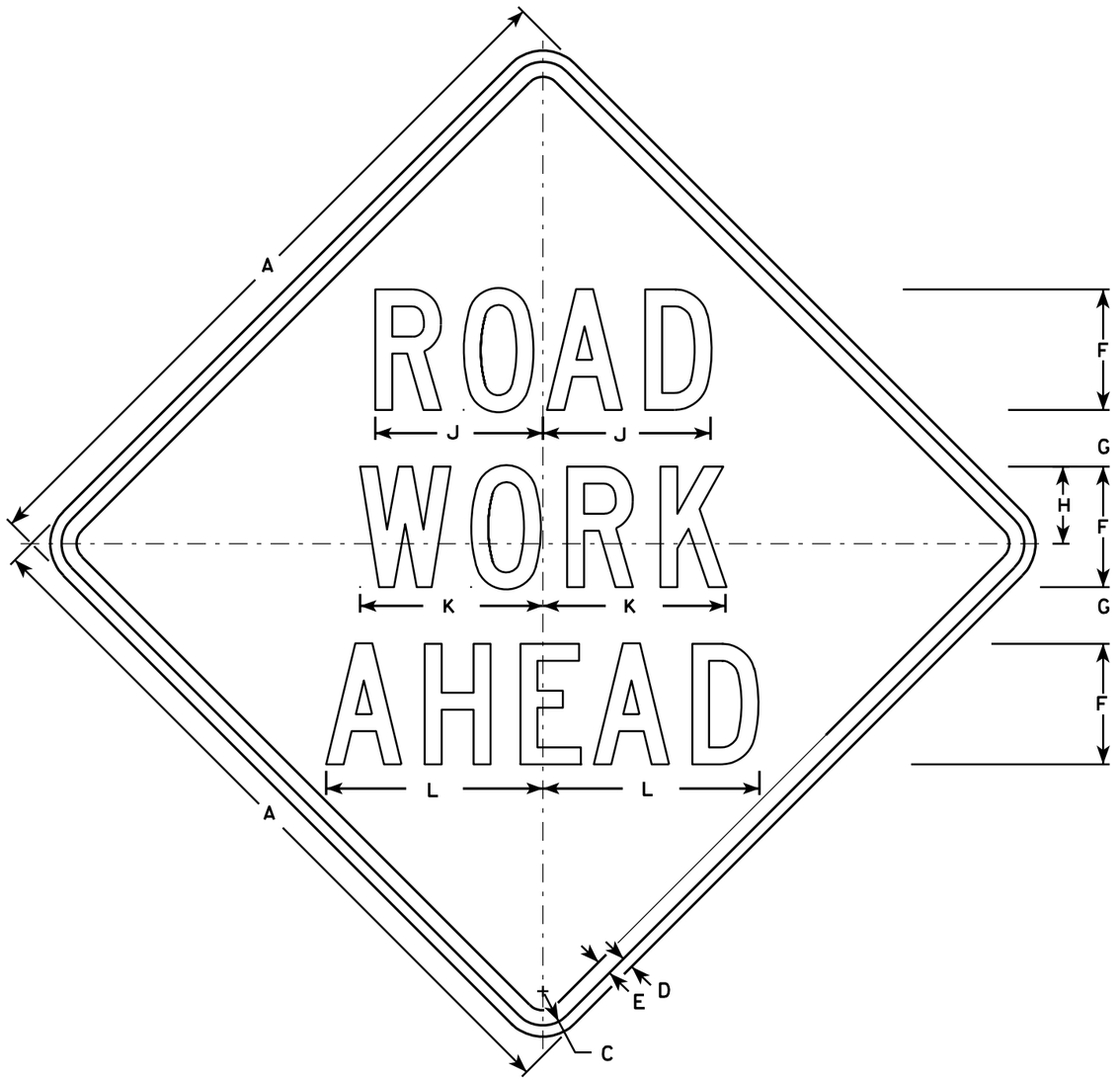
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

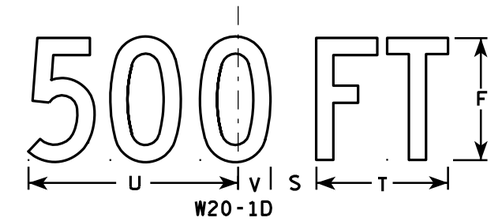
APPROVED Matthew R Rauch
for State Traffic Engineer

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

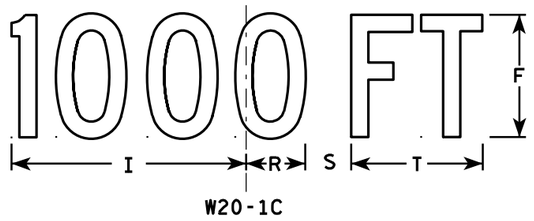
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 50	E



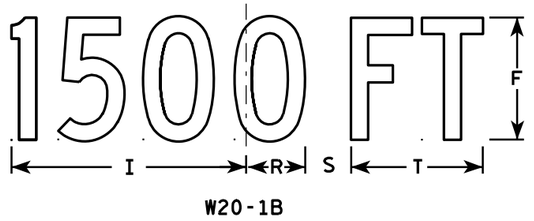
W20-1A



W20-1D

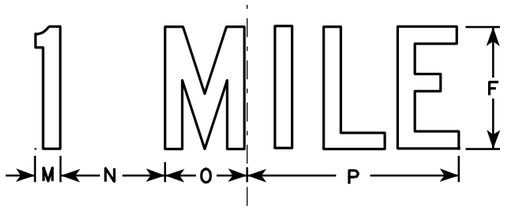


W20-1C



W20-1B

W20-1G



W20-1F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

PROJECT NO:

SHEET NO: 51 E

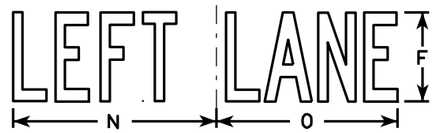
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

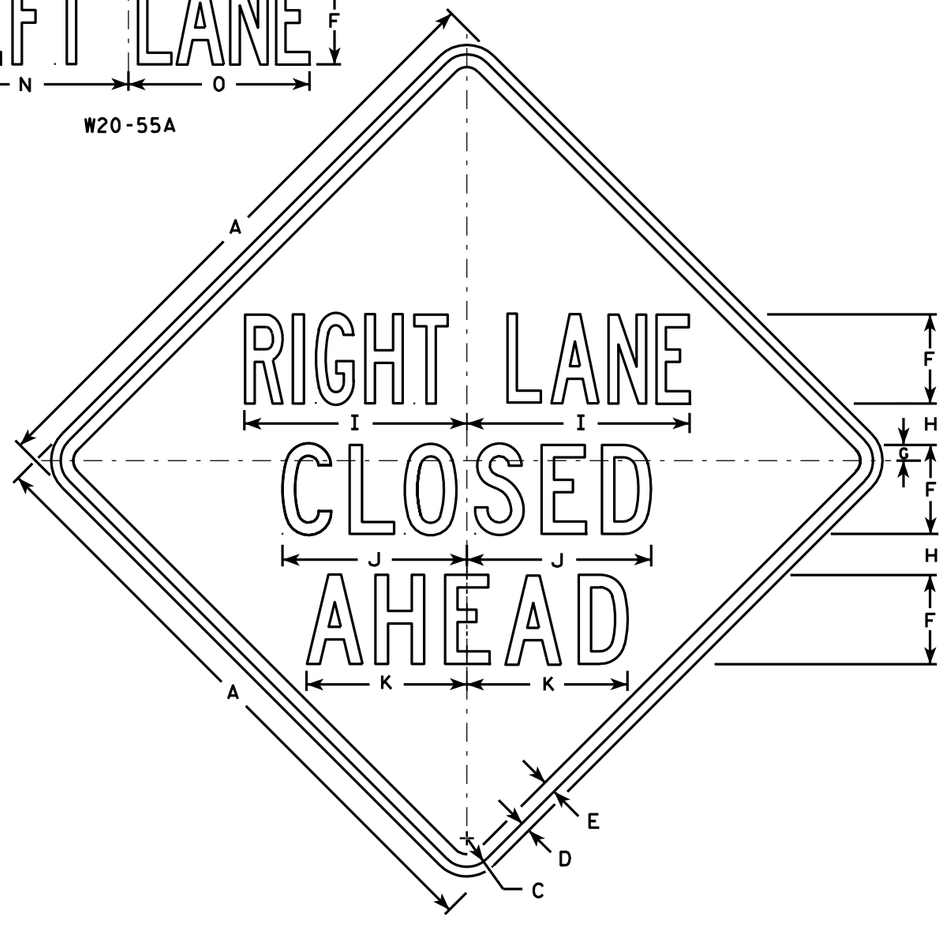
7

7

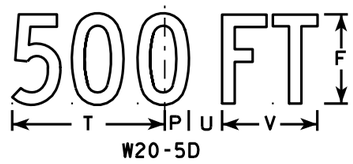
W20-56A



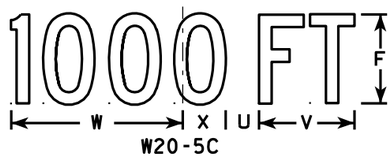
W20-55A



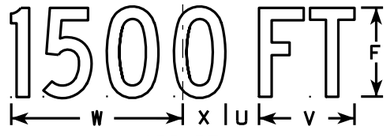
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

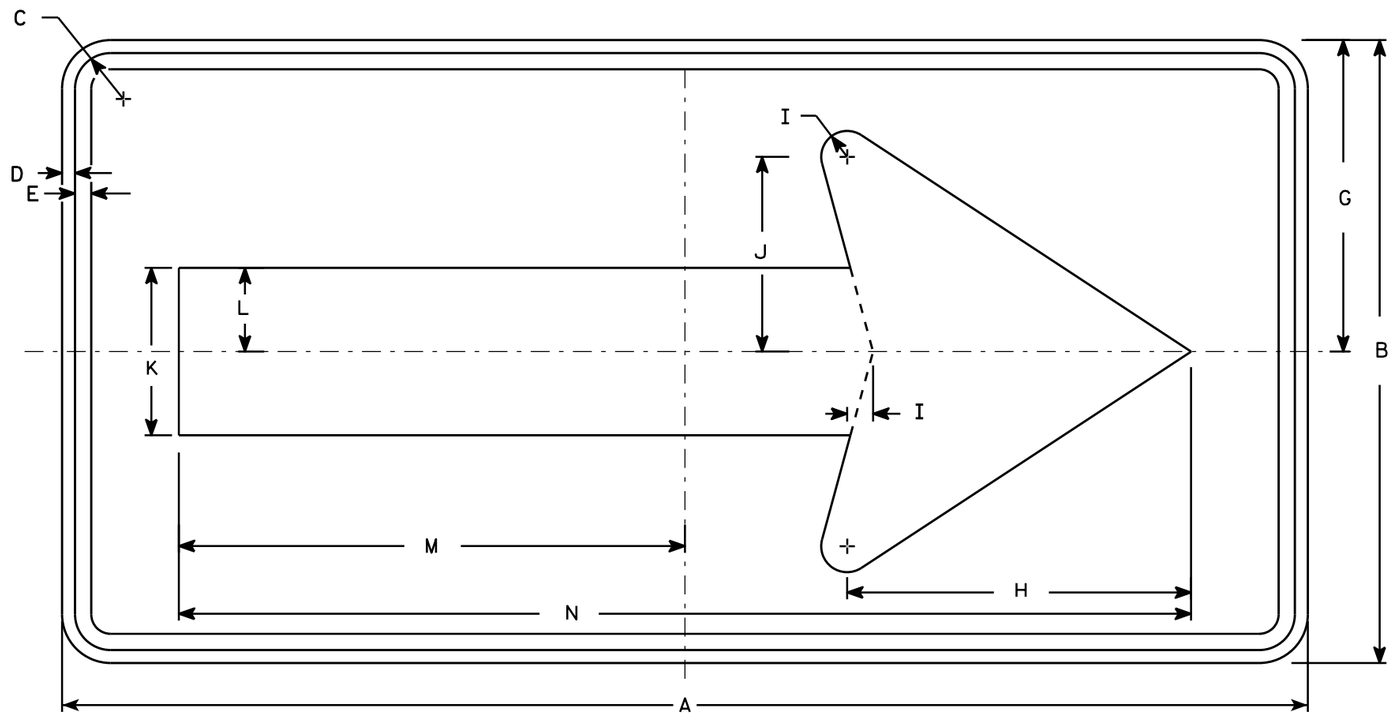
APPROVED Matthew R Rauch
for State Traffic Engineer

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

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

7

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



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

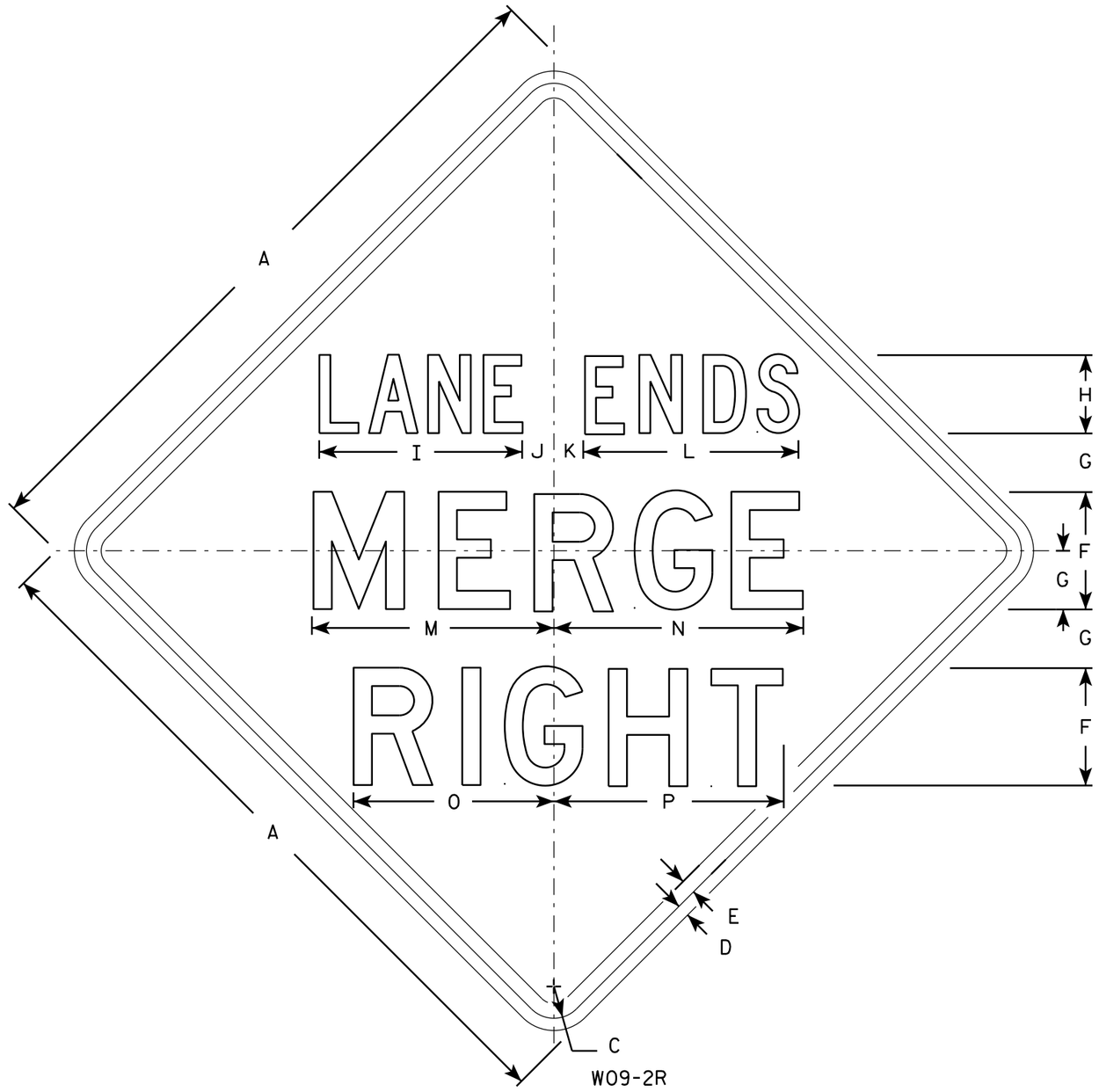
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

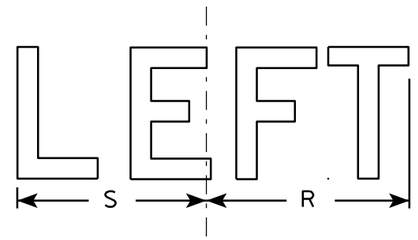
DATE 11/18/13 PLATE NO W01-6.1

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

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



W09-2R



W09-2L

NOTES

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

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

STANDARD SIGN
W09-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/02/13 PLATE NO W09-2.1

PROJECT NO: SHEET NO: E

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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