


SCOTT GO. P.C.C. PAVEMENT-GRADE AND REPLACE IM-NHS-074-1(207)5--03-82

LETTING DATE
03/17/2020

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* COLOR PLANS



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
SCOTT COUNTY
P.C.C. PAVEMENT - GRADE AND REPLACE
14TH ST AND MISSISSIPPI BLVD IN BETTENDORF

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.


MILEAGE SUMMARY				105-1 09-27-94
Div.	Location	Lin. Ft.	Miles	
	14TH ST Sta. 14+40.00 to Sta. 26+25.00	1185.00		
	MISSISSIPPI BLVD Sta. 16+06.69 to Sta. 19+30.00	323.31		
	Total Length of Roadway (Division 1)	1508.31	0.285	

For Project Location Map
Refer to Sheet No. A.2

DESIGN DATA URBAN		101-5
2015 AADT	--	V.P.D.
2035 AADT	9000	V.P.D.
2035 DHV	--	V.P.H.
TRUCKS	--	%
Total		
Design ESALs	--	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Chase A. Hollien	Primary Signature Block
G.1	Coventine Fidis	Reference Ties/Benchmarks
G.10	Jeffrey J. Tardy	Alignments
Q.1	Kipkoech K. Chepkoiit	Geotechnical Design
V.1	Robert Chantome	Retaining Wall Design

REVISIONS	TOTAL
	121
PROJECT IDENTIFICATION NUMBER	
03-82-074-010-03	
PROJECT NUMBER	
IM-NHS-074-1(207)5--03-82	
R.O.W. PROJECT NUMBER	
IM-074-1(144)5--13-82	



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: Chase A. Hollien Date: _____

Printed or Typed Name: _____

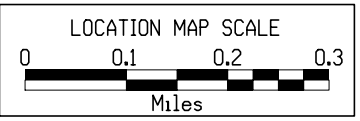
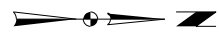
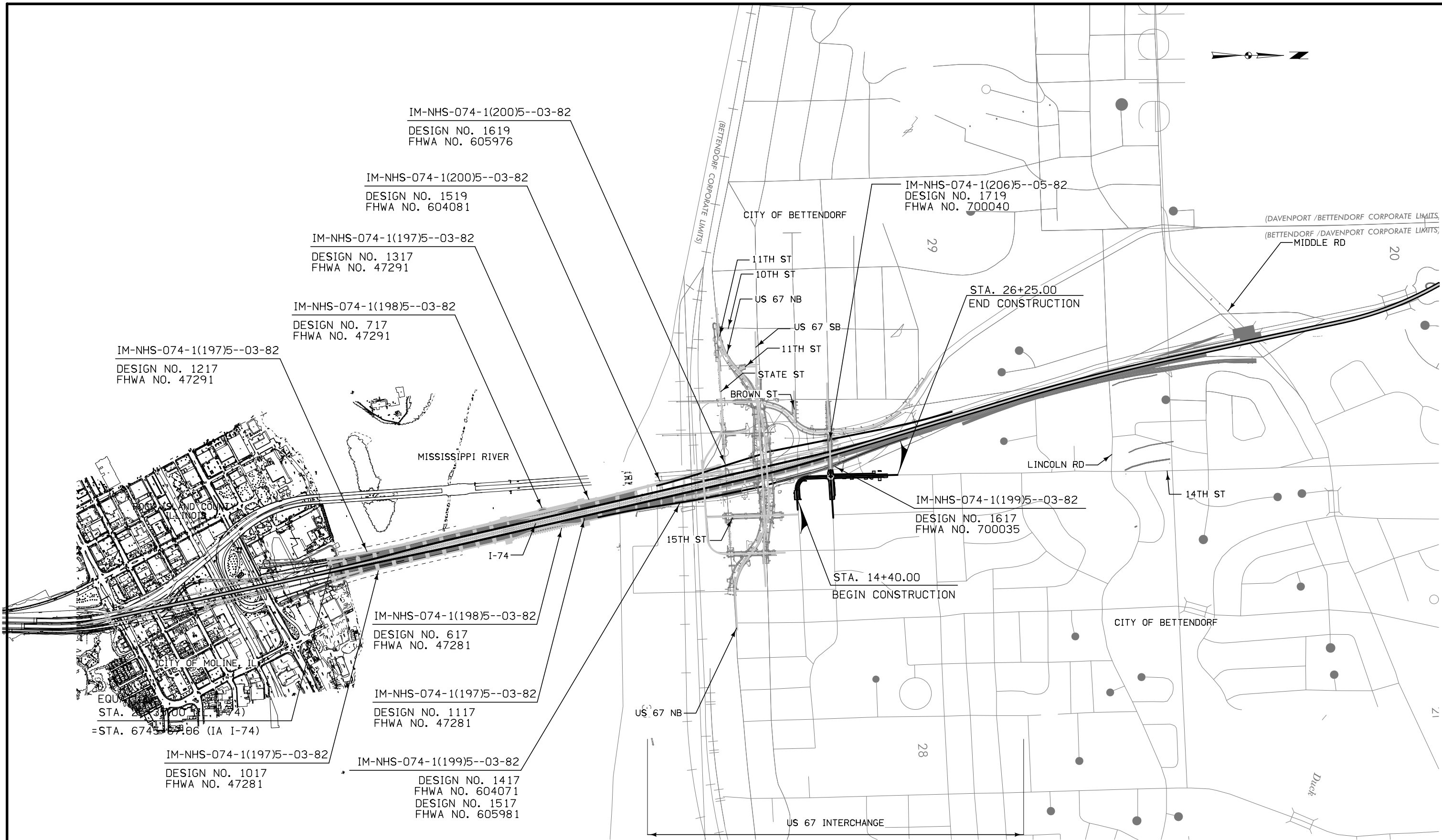
My license renewal date is December 31, 17

Pages or sheets covered by this seal: B.1, C.1-C.16, CS.1-CS.2, D.1-D.3, E.1-E.2, G.2-G.9, G.18, G.23-G.25, J.1-J.8, L.1-L.6, M.1-M.11, S.1-S.3, T.1, U.1-U.5, U.10, W.1-W.16, X.1-X.4



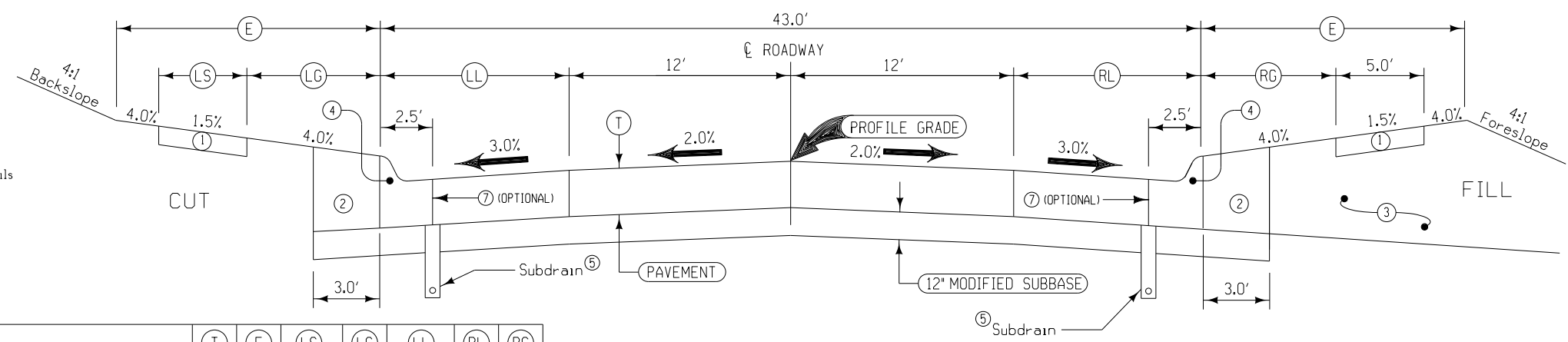
METHODS SUBMITTAL
(NOT FOR BID)

Date: 12-03-2019



PROJECT LOCATION

Notes:
Normal section shown may be appropriately modified for areas specifically designated by the engineer such as intersections or superelevated curves.
Refer to G sheets for superelevation details
Refer to other drawings for details of shoulder design and construction



- ① Refer to other drawings for details of shoulder and possible sidewalk construction
- ② Excavate and backfill 3.0'
- ③ Backfill
- ④ 6" Standard Curb (PV-102)
Left side of 14th St. - Construct 1 1/2" drop curb from Sta 14+40 to 15+40
- ⑤ Refer to Standard Road Plan DR-303
- ⑥ Refer to other drawings for limits of construction for this project.
- ⑦ "KT-2" or "L-2" Joint

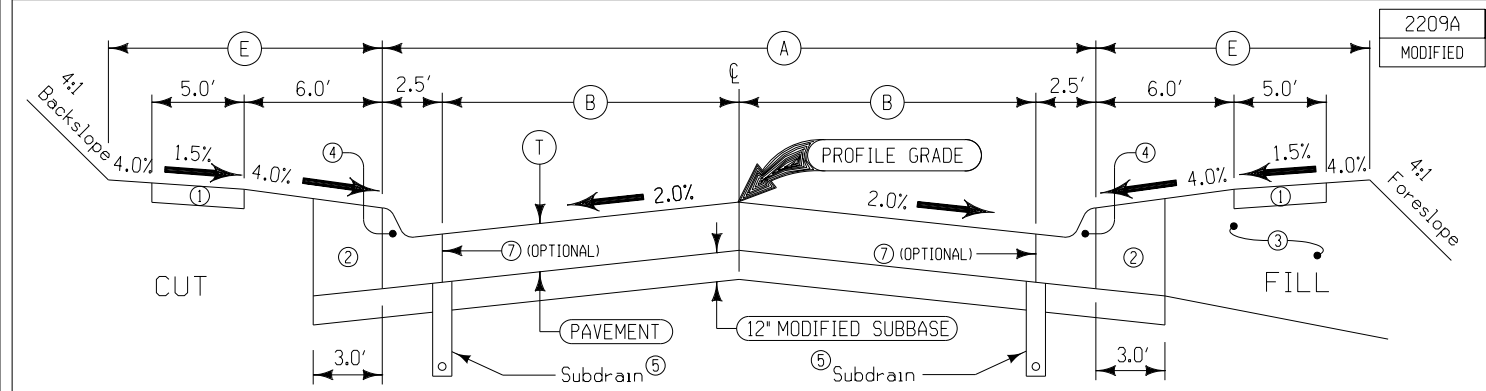
TYPICAL CROSS SECTION
2 LANE 43' B-B
WITH PARKING AND
2.5' CURB SECTION

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: KT-2

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged: KT-2
Transverse: C at 20' spacing

LOCATION ⑥			T	E	LS	LG	LL	RL	RG
ROAD IDENTIFICATION	STATION TO STATION		Inches	Feet	Feet	Feet	Feet	Feet	Feet
MISSISSIPPI BLVD	16+88.68	19+30.00	8	13	5	6	9.5	9.5	0
14TH STREET	14+40.00	15+45.40	8	11	4.0-4.4	0	6.5-7.0	10	4



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: KT-2

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

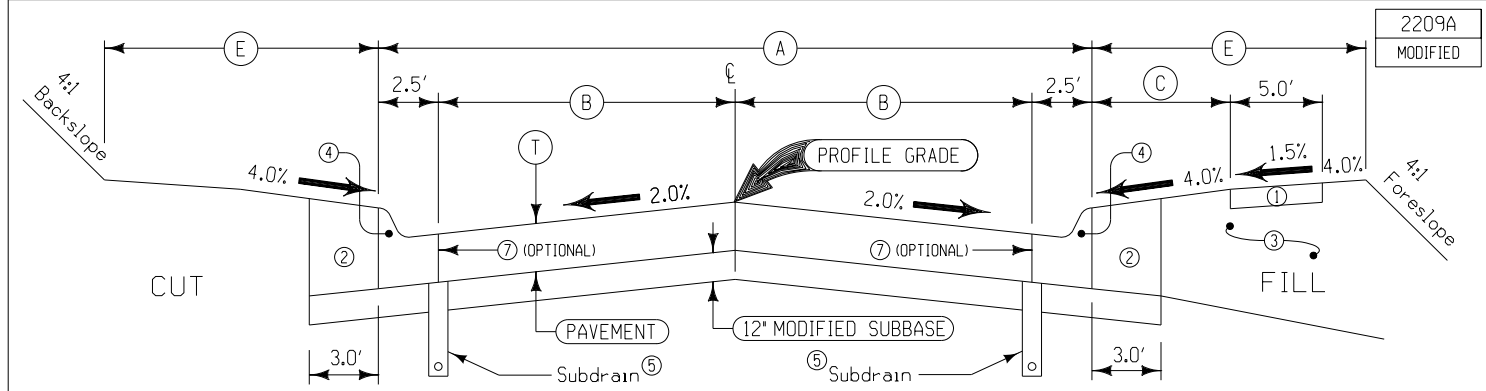
Single pour: L-2
Staged: KT-2
Transverse: C at 20' spacing

Notes:
Normal section shown may be appropriately modified for areas specifically designated by the engineer such as intersections or superelevated curves.
Refer to G sheets for superelevation details
Refer to other drawings for details of shoulder design and construction

TYPICAL CROSS SECTION
2 LANE ROADWAY WITH 2.5' CURB SECTION

LOCATION ⑥			A	B	E	T
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet	Inches
14TH ST.	20+06.00	24+92.00	29	12	13	8
MISSISSIPPI BLVD	16+06.69	16+64.67	29	12	13	8

- ① Refer to other drawings for details of shoulder and possible sidewalk construction
- ② Excavate and backfill 3.0'
- ③ Backfill
- ④ 6" Standard Curb (PV-102)
- ⑤ Refer to Standard Road Plan DR-303
- ⑥ Refer to other drawings for limits of construction for this project.
- ⑦ "KT-2" or "L-2" Joint



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: KT-2

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged: KT-2
Transverse: C at 20' spacing

Notes:
Normal section shown may be appropriately modified for areas specifically designated by the engineer such as intersections or superelevated curves.
Refer to G sheets for superelevation details
Refer to other drawings for details of shoulder design and construction

TYPICAL CROSS SECTION
2 LANE ROADWAY WITH 2.5' CURB SECTION

LOCATION ⑥			A	B	C	E	T
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet	Feet	Inches
14TH ST.	15+45.40	20+06.00	29	12	11.5-4.0	VARIES	8
14TH ST.	24+92.00	26+25.00	29	12	6.0	13	8

- ① Refer to other drawings for details of shoulder and possible sidewalk construction
- ② Excavate and backfill 3.0'
- ③ Backfill
- ④ 6" Standard Curb (PV-102)
Build 4" Sloped Curb from 16+74 to 18+83 on the left side of the road only (Standard 6" curb on right side)
Transition from 16+69 to 16+74 and 18+83 to 18+88 per PV-102
- ⑤ Refer to Standard Road Plan DR-303
- ⑥ Refer to other drawings for limits of construction for this project.
- ⑦ "KT-2" or "L-2" Joint

100-1D
10-18-05

PROJECT DESCRIPTION

This project is for the grading and paving of 14th Street and Mississippi Boulevard in Bettendorf in Scott County. The project includes storm sewers and Retaining Wall 175.

This project is being constructed as part of the new I-74 Bridge over the Mississippi River and I-74 Corridor reconstruction.

ESTIMATED PROJECT QUANTITIES (UP TO A 5 DIVISION PROJECT)

Division 1: 100% IOWA DOT COST
 Division 2: 100% CITY OF BETTENDORF COST (NON-PARTICIPATING)
 Division 3: 22% DOT AND 78% CITY OF BETTENDORF COST
 Division 4: 100% IOWA DOT COST: DESIGN 1120

Item No.	Item Code	Item	Unit	Quantities											
				Estimated					As Built						
				Division 1	Division 2	Division 3	Division 4	Division 5	Total	Division 1	Division 2	Division 3	Division 4	Division 5	
1	2102-0425071	SPECIAL BACKFILL	CY	148.3						148.3					
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	100						100					
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	3213						3213					
4	2102-2712015	EXCAVATION, CLASS 12, BOULDERS OR ROCK FRAGMENTS	CY	50						50					
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	2394.6						2394.6					
6	2107-0875100	COMPACTION WITH MOISTURE CONTROL	CY	1046						1046					
7	2109-8225100	SPECIAL COMPACTION OF SUBGRADE	STA	14.84						14.84					
8	2115-0100000	MODIFIED SUBBASE	CY	2108.9						2108.9					
9	2123-7450020	SHOULDER FINISHING, EARTH	STA	28.52						28.52					
10	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 8 IN.	SY	5351.3						5351.3					
11	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1						1					
12	2303-0122500	HOT MIX ASPHALT MIXTURE (300,000 ESAL), INTERMEDIATE OR SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION REQUIREMENTS	SY	470.6						470.6					
13	2303-1141500	HOT MIX ASPHALT HIGH TRAFFIC, BASE COURSE, 1/2 IN. MIX	SY	470.6						470.6					
14	2303-9093010	HOT MIX ASPHALT, DRIVEWAY	SY	81.4						81.4					
15	2304-0100000	DETOUR PAVEMENT	SY	44						44					
16	2401-6750001	REMOVALS, AS PER PLAN	LS						1						
17	2402-2720000	EXCAVATION, CLASS 20	CY						874						
18	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY						195.7						
19	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB						12870						
20	2435-0130148	MANHOLE, SANITARY SEWER, SW-301, 48 IN.	EACH				5								
21	2435-0140148	MANHOLE, STORM SEWER, SW-401, 48 IN.	EACH				2								
22	2435-0140160	MANHOLE, STORM SEWER, SW-401, 60 IN.	EACH				1								
23	2435-0140196	MANHOLE, STORM SEWER, SW-401, 96 IN.	EACH				2								
24	2435-0250100	INTAKE, SW-501	EACH				1								
25	2435-0250248	INTAKE, SW-502, 48 IN.	EACH	1			1								
26	2435-0250700	INTAKE, SW-507	EACH	3			2								
27	2435-0250800	INTAKE, SW-508	EACH				2								
28	2435-0251100	INTAKE, SW-511	EACH	1											
29	2435-0254100	INTAKE, SW-541	EACH				1								
30	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH	2											
31	2435-0700010	CONNECTION TO EXISTING MANHOLE	EACH	1			3								
32	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	3617						3617					
33	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	27						27					
34	2503-0114212	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 12 IN.	LF	23						23					
35	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.	LF	41			632			673					
36	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.	LF	45			139			184					
37	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.	LF	82			63			232					
38	2503-0114254	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 54 IN.	LF							201					
39	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	767						767					
40	2503-0200136	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.	LF	192						192					
41	2503-0200341	STORM SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA.	LF	44						44					
42	2504-0116006	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 6 IN.	LF				41			41					
43	2504-0116008	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 8 IN.	LF				1036			1036					
44	2504-0116010	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 10 IN.	LF				286			286					
45	2504-0200206	SANITARY SEWER SERVICE STUB, DUCTILE IRON, 6 IN.	LF				214			214					
46	2504-0240036	REMOVE SANITARY SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF				1438			1438					
47	2504-0240236	SANITARY SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA.	LF				448			448					
48	2506-4984000	FLOWABLE MORTAR	CY	11						11					
49	2510-6745850	REMOVAL OF PAVEMENT	SY	6834						6834					
50	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES	EACH	15			6			21					
51	2511-6745900	REMOVAL OF SIDEWALK	SY	459.4						459.4					
52	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	SY	993.9						993.9					
53	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY	230.3						230.3					
54	2511-7528101	DETECTABLE WARNINGS	SF	60						60					
55	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	713.4						713.4					
56	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	1067.9						1067.9					
57	2518-6910000	SAFETY CLOSURE	EACH	10						10					
58	2519-1001000	FENCE, CHAIN LINK, VINYL COATED	LF				261			261					
59	2519-3300700	FENCE, TEMPORARY	LF	386						386					
60	2520-3350015	FIELD OFFICE	EACH	1						1					
61	2526-8285000	CONSTRUCTION SURVEY	LS	1						1					
62	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	32.12						32.12					
63	2527-9263180	PAVEMENT MARKINGS REMOVED	STA	5.33						5.33					
64	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1100						1100					
65	2528-8445110	TRAFFIC CONTROL	LS	1						1					
66	2528-8445113	FLAGGERS	EACH	See Proposal						See Proposal					
67	2533-4980005	MOBILIZATION	LS	1						1					
68	2537-8900000	REMEDICATION OF PETROLEUM CONTAMINATED SOIL	CY	100						100					
69	2537-8900100	SAMPLE+TEST-PETRO CONTAM (REMEDICATION)	EACH	3						3					
70	2552-0000140	ROCK EXCAVATION	CY	60			481			796.7					
71	2601-2634105	MULCHING, BONDED FIBER MATRIX	ACRE	1.5						1.5					
72	2601-2636044	SEEDING AND FERTILIZING (URBAN)	ACRE	1.5						1.5					
73	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN)	ACRE	1.5						1.5					

**ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)**

Division 1: 100% IOWA DOT COST
Division 2: 100% CITY OF BETTENDORF COST (NON-PARTICIPATING)
Division 3: 22% DOT AND 78% CITY OF BETTENDORF COST
Division 4: 100% IOWA DOT COST: DESIGN 1120

Item No.	Item Code	Item	Unit	Quantities																
				Estimated					As Built											
				Division 1	Division 2	Division 3	Division 4	Division 5	Total	Division 1	Division 2	Division 3	Division 4	Division 5						
74	2602-0000020	SILT FENCE	LF	1875							1875									
75	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	188							188									
76	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	1875							1875									
77	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE, EC-303	LF	300							300									
78	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	262							262									
79	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	435							435									
80	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	LF	697							697									
81	2602-0000400	TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	18							18									
82	2602-0000410	MAINTENANCE OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	18							18									
83	2602-0000420	REMOVAL OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	18							18									
84	2602-0000500	OPEN-THROAT CURB INTAKE SEDIMENT FILTER, EC-602	LF	40							40									
85	2602-0000510	MAINTENANCE OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	8							8									
86	2602-0000520	REMOVAL OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	8							8									
87	2602-0010010	MOBILIZATION, EROSION CONTROL	EACH	1							1									
88	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL	EACH	1							1									

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-0425071	SPECIAL BACKFILL Item is for placing under new pavement behind Retaining Wall. See Sheet U.5 for additional information.
2	2102-2625000	EMBANKMENT-IN-PLACE Nominal Quantity provided to replace additional potentially contaminated soil at sites as described in the Estimate Reference information for: 2537-8900000 REMEDIATION OF PETRO CONTAMINATED SOIL
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW Class 10 Bid quantity of 3,213 CY includes: 1,046 CY Fill 2,167 CY Suitable Excavation Overhaul will not be measured or paid for, but shall be considered incidental to roadway excavation. Contractor is to stockpile excess cut to be used as I-74 mainline fill.
4	2102-2712015	EXCAVATION, CLASS 12, BOULDERS OR ROCK FRAGMENTS For boulders encountered in excavation. Existing rip rap is not included. See Tab 103-7 on CS Sheets. Overhaul will not be measured or paid for, but shall be considered incidental to roadway excavation. Blasting is Not allowed.
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD See Tab 103-10 on CS Sheets for locations and details.
6	2107-0875100	COMPACTION WITH MOISTURE CONTROL See Tab 103-6 on CS Sheets Cubic Yards shown on the contract documents as determined by the template volume See T-sheets for template quantities of Total Fill Compaction with moisture control is not required for class 12 excavation used as fill
7	2109-8225100	SPECIAL COMPACTION OF SUBGRADE See the Q Sheets for locations and details
8	2115-0100000	MODIFIED SUBBASE Refer to Typical on the B Sheets. See Tab 100-24 on the C Sheets for locations and details.
9	2123-7450020	SHOULDER FINISHING, EARTH The shoulder material is included in the Class 10 excavation bid item. No separate measurement or payment will be made for excavation or overhaul. Refer to Typical on B Sheets.
10	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 8 IN. Refer to Typical on B Sheets and Tab. 100-24 on C Sheets for locations and details. Water valve adjustments as shown on Tab. 104-10 on C Sheets shall be included in the bid price.
11	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES Refer to Tab 100-24 on the C Sheets
12	2303-1133500	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION REQUIREMENT Item is for new pavement behind Retaining Wall. See Sheet U.5 for additional information. Item is for 2" Surface Course. Binder is to be 58-285.
13	2303-1141500	HOT MIX ASPHALT HIGH TRAFFIC, BASE COURSE, 1/2 IN. MIX Item is for new pavement behind Retaining Wall. See Sheet U.5 for additional information. Item is for 2-2" Base Courses. Measured area will only be paid for once. Binder is to be 58-285.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
14	2303-9093010	HOT MIX ASPHALT, DRIVEWAY Item is for replacing existing HMA at 2 driveways. Refer to Tab 102-3 for locations. HMA shall be 1/2 inch Standard Traffic Mix. Thickness shall be 6 inches. The unit price for this item includes all materials and preparation of base. The engineering will measure the area of HMA driveway constructed. For each square yard of HMA Driveway constructed, the contractor will be paid the contract unit price.
15	2304-0100000	DETOUR PAVEMENT Item is for staging purposes for pavement that will be removed by the contractor. See J Sheets for locations. See Tab 100-24 on C Sheets for Tabulations. Detour pavement is to be 10.5" HMA or 8.5" PCC at the option of the Contractor. Modified Subbase under the pavement is to be 6 inches in thickness. Additional excavation is incidental if the HMA option is chosen.
16	2401-6750001	REMOVALS, AS PER PLAN See V sheets for details
17	2402-2720000	EXCAVATION, CLASS 20 For Retaining wall 175. Refer to V Sheets
18	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS) For Retaining wall 175. Refer to V Sheets
19	2404-7775005	REINFORCING STEEL, EPOXY COATED For Retaining wall 175. Refer to V Sheets
20	2435-0130148	MANHOLE, SANITARY SEWER, SW-301, 48 IN.
21	2435-0140148	MANHOLE, STORM SEWER, SW-401, 48 IN.
22	2435-0140160	MANHOLE, STORM SEWER, SW-401, 60 IN.
23	2435-0140196	MANHOLE, STORM SEWER, SW-401, 96 IN.
24	2435-0250100	INTAKE, SW-501
25	2435-0250248	INTAKE, SW-502, 48 IN.
26	2435-0250700	INTAKE, SW-507
27	2435-0250800	INTAKE, SW-508
28	2435-0251100	INTAKE, SW-511
29	2435-0254100	INTAKE, SW-541 See Tab. 104-5B on the M Sheets for locations and details. For any connections to existing pipes, the existing flowlines shall be field verified by the contractor prior to ordering the structures
30	2435-0600010	MANHOLE ADJUSTMENT, MINOR See Tab. 104-10 on C Sheets for locations and details.
31	2435-0700010	CONNECTION TO EXISTING MANHOLE Refer to the M Sheets for locations and details. Item is for connecting proposed storm sewer and sanitary sewer pipes to existing manholes.
32	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.
33	2502-8221303	SUBDRAIN OUTLET, DR-303 See Tab 104-9 on CS Sheets for locations and details.
34	2503-0114212	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 12 IN.
35	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
36	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.
37	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.
38	2503-0114254	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 54 IN. Refer to Tab. 104-5B on M sheets for locations and details.
39	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.
40	2503-0200136	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.
41	2503-0200341	STORM SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA. See Tab 110-14 on the C Sheets
42	2504-0116008	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 8 IN.
43	2504-0116010	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 10 IN.
44	2504-0116010	SANITARY SEWER GRAVITY MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 10 IN. See Tab 104-5B on the M Sheets for locations and details.
45	2504-0200206	SANITARY SEWER SERVICE STUB, DUCTILE IRON, 6 IN. Refer to Tab. WHKS-1 on C Sheet for locations and details. Temporary connections will be required due to project staging. Temporary connections shall be considered incidental.
46	2504-0240036	REMOVE SANITARY SEWER PIPE LESS THAN OR EQUAL TO 36 IN.
47	2504-0240236	SANITARY SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA. See Tab 110-14 on the C Sheets
48	2506-4984000	FLOWABLE MORTAR Item is for anti-seep collars around storm sewer pipes. Refer to M sheets.
49	2510-6745850	REMOVAL OF PAVEMENT See Tab. 110-1 on C Sheets and U Sheets for locations and details. See B Sheets and Tab. 102-5 on the C Sheets for available existing pavement information.
50	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES For bedding and backfill purposes under Primary Roads, use crushed rock or gravel material complying with Article 4120.04 of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435-03, A and Article 2552.03, E (Class I materials). Gravels must be 100% crushed produced by crushing material retained on a 1.5 inch or larger screen. See Tab 110-15 on C Sheets.
51	2511-6745900	REMOVAL OF SIDEWALK See Tab 110-5 on C Sheets for locations and details.
52	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.
53	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.
54	2511-7528100	DETECTABLE WARNINGS See Tab 113-1 on C Sheets for locations and details.
55	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN. See Tab 102-3 on C Sheets for locations and details.
56	2515-6745600	REMOVAL OF PAVED DRIVEWAY See Tab 110-8 on C Sheets for locations and details.
57	2518-6910000	SAFETY CLOSURE See Tab 108-13A on C Sheets for locations and details.
58	2519-1001000	FENCE, CHAIN LINK, VINYL COATED For Retaining wall 175. Refer to V Sheets
59	2519-3300700	FENCE, TEMPORARY Item is for constructing fence at Our Lady of Lourdes parking lot. Refer to U Sheets. Provide temporary fence as necessary to secure site. Temporary fence shall be installed at the Temporary Easement line. Temporary Fence shall be constructed as shown on the U Sheets. Method of Measurement: Measurement for Fence, Temporary will be in linear feet. Basis of Payment: Payment for Fence, Temporary will be at the contract unit price per linear foot. Payment is full compensation for: <ul style="list-style-type: none"> • Furnishing and placing concrete bases and steel posts • Furnishing and placing orange plastic fence fabric and ties • Furnishing and placing wooden 2x4 top and bottom rails • Maintenance of fence • Removal of fence • Site clean up after work is complete
60	2520-3350015	FIELD OFFICE
61	2526-8285000	CONSTRUCTION SURVEY
62	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED See Tab 108-22 on C Sheets for locations and details. See U Sheets for locations and details.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
63	2527-9263180	PAVEMENT MARKINGS REMOVED See Tab 108-22 on C Sheets for locations and details. All pavement marking removals on final pavement and bridge surfaces shall be by high-pressure water blasting. Vacuum blasting, vacuum dry grinding, wet grinding, and shot blasting will not be allowed on final surfaces.
64	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE See Tab. 108-33 on C Sheets for locations and details.
65	2528-8445110	TRAFFIC CONTROL See Traffic Control Plan on J Sheets for locations and details.
66	2528-8445113	FLAGGERS
67	2533-4980005	MOBILIZATION
68	2537-8900000	REMEDIATION OF PETRO CONTAMINATED SOIL See the U Sheets for potentially contaminated sites. All petroleum contaminated soil shall be disposed at a permitted sanitary landfill. Copies of the landfill receipts shall be submitted to the Engineer If testing indicates no contamination present, excavated volumes will not be paid for as item 2537-8900000. Quantity estimate of 100 CY is a nominal quantity for excavation at the location described below. Parcel 355 Parcel 386
69	2537-8900100	SAMPLE+TEST-PETRO CONTAM (REMEDIATION) A. See the U Sheets for potentially contaminated sites. B. The Contractor shall have an Iowa Groundwater Professional, certified in accordance with 567 IAC Chapter 134, on site during excavation activities on parcels 355 and 386. The Groundwater Professional shall monitor excavated material through soil vapor analysis and sampling. Samples shall be submitted to a laboratory accredited in accordance with 567 IAC Chapter 83 and analyzed for petroleum compounds using Iowa 0A-1 and 0A-2 testing procedures. Additional analyses may be added at the discretion of the Groundwater Professional and approved by the Engineer. C. The Groundwater professional shall be available on an on-call basis during all other excavation activities. The Contractor shall cease operations in the immediate area upon encountering suspect contamination and contact the Groundwater Professional for field review and sampling. D. Compensation for oversight by the Groundwater Professional, and sample analysis beyond petroleum compounds shall be negotiated and paid for in accordance with Article 1109.03, B, of the Standard Specifications. E. Samples shall be taken every 100' of excavation along properties shown on sheets U.7 to U.9. Parcel 355: 2 Samples Parcel 386: 1 Samples TOTAL=3 Samples

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
70	2552-0000140	<p>ROCK EXCAVATION Item is for estimated rock excavation encountered while excavating for Storm Sewer and Sanitary Sewer. See M Sheet profiles for approximate rock locations. Blasting is not allowed. Refer to U sheet "Rock Excavation Trench for Sewers" for the maximum allowable payment area. Quantities are estimated as follows based on approximate rock layer:</p> <p>Division 1: Structure 443 = 4.33 CY Structure 445 = 0.74 CY Structure 446 = 2.22 CY Structure 768 = 1.30 CY P443 = 21.49 CY P444 = 1.85 CY P445 = 2.96 CY P446 = 5.11 CY Total = 40.00 CY + 50% Contingency = 60.00 CY</p> <p>Division 2: Structure 205 = 2.67 CY Structure 207 = 6.00 CY Structure 206 = 5.33 CY Structure 203 = 3.33 CY Structure 442 = 0.67 CY P204 = 2.45 CY P208 = 61.00 CY P207 = 64.27 CY P206 = 5.92 CY P205 = 93.57 CY P203 = 53.99 CY P202 = 13.43 CY P442 = 4.67 CY P447 = 3.04 CY Total = 320.34 CY + 50% Contingency = 480.51 CY</p> <p>Division 3: Structure 463 = 9.26 CY Structure 745 = 3.70 CY Structure 909 = 5.44 CY Structure 745 = 24.07 CY P745 = 86.71 CY P909 = 41.30 CY Total = 170.49 CY + 50% Contingency = 255.72 CY</p>
71	2601-2634105	<p>MULCHING, BONDED FIBER MATRIX A Bonded Fiber Matrix shall be applied as the mulch for all areas designated as Seeding and Fertilizing (Urban). The seed and fertilizer for the area to be covered shall be applied before the Bonded Fiber Matrix Hydraulic Mulch application. Application rate shall be a minimum of 3000 lbs per acre.</p>
72	2601-2636044	<p>SEEDING AND FERTILIZING (URBAN) Included for all urban disturbed areas following the final construction as designated by the engineer.</p>
73	2601-2642120	<p>STABILIZING CROP - SEEDING AND FERTILIZING (URBAN) Item is included for temporary seeding during construction activities.</p>
74	2602-0000020	<p>SILT FENCE Refer to Tab. 100-17 on C Sheets for locations and details. The tabulation includes estimated locations for placement of Silt Fence to address possible erosion during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.</p>
75	2602-0000071	<p>REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS This item is included for silt fence removal required for staging reasons, for replacement (replacement to be paid separately), or for areas that have achieved 70% permanent growth.</p>
76	2602-0000101	<p>MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS This item is included for cleanout and repair of the silt fence during the project.</p>
77	2602-0000150	<p>STABILIZED CONSTRUCTION ENTRANCE, EC-303 Refer to EC-303 for details. 50 LF is included for entering and exiting the construction area in each stage.</p>
78	2602-0000312	<p>PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA. To be placed around intakes and manholes after the tops or lids are installed. See Tab 100-19 on C Sheets for locations and details.</p>
79	2602-0000320	<p>PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA. See Tab. 100-19 on C Sheets for locations and details. Item is for Design Detail 570-5 Installations. Refer to U Sheets for additional information.</p>
80	2602-0000350	<p>REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE This item is included for Perimeter and Slope Sediment Control Device removal required for staging reasons or for areas that have achieved 70% permanent growth.</p>

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
81	2602-0000400	<p>TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY See Tab. 100-11 on C Sheets for locations. See Design Detail 570-5 on U Sheets for additional information.</p> <p>Method of Measurement for Temporary Intake or Manhole Cover Assembly will be by Count.</p> <p>Basis of Payment for Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each device installed.</p>
82	2602-0000410	<p>MAINTENANCE OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY See Tab. 100-11 on C Sheets for locations. See Design Detail 570-5 on U Sheets for additional information.</p> <p>Method of Measurement for Maintenance of Temporary Intake or Manhole Cover Assembly will be by Count.</p> <p>Basis of Payment for Maintenance of Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each occurrence. Payment is full compensation for inspecting fabric sock and replacing when flow capacity has been reduced to 50%.</p>
83	2602-0000420	<p>REMOVAL OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY See Tab. 100-11 on C Sheets for locations. See Design Detail 570-5 on U Sheets for additional information.</p> <p>Method of Measurement for Removal of Temporary Intake or Manhole Cover Assembly will be by Count.</p> <p>Basis of Payment for Removal of Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each device removed.</p>
84	2602-0000500	<p>OPEN-THROAT CURB INTAKE SEDIMENT FILTER, EC-602</p>
85	2602-0000510	<p>MAINTENANCE OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER</p>
86	2602-0000520	<p>REMOVAL OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER These items are for installing, maintaining and removing sediment filters in intakes with tops installed. See Tab. 100-36 for locations and additional information.</p>
87	2602-0010010	<p>MOBILIZATION, EROSION CONTROL Count will be on a per contract basis</p>
88	2602-0010020	<p>MOBILIZATION, EMERGENCY EROSION CONTROL Count will be on a per contract basis</p>

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
DR-121	10-17-17	Connected Pipe Joints
DR-213	10-17-17	Pipe Apron Guard
DR-303	10-17-17	Subdrains (Longitudinal)
EC-201	10-15-19	Silt Fence
EC-204	04-18-17	Perimeter and Slope Sediment Control Devices
EW-101	10-17-17	Embankment and Rebuilding Embankments
EC-303	10-16-18	Stablized Construction Entrance
EC-602	10-16-18	Open-Throat Curb Intake Sediment Filter
MI-210	10-20-15	PCC Driveways and Alleys
MI-220	10-20-15	Detectable Warnings and Pedestrian Ramp
PM-110	10-16-18	Line Types
PM-111	04-21-15	Symbols and Legends
PM-620	10-15-19	Two-Lane Roadway with no Turn Lanes (Four-Way Stop Condition)
PV-101	04-16-19	Joints
PV-102	10-18-16	PCC Curb Details
PV-103	04-19-11	Manhole Boxouts in PCC Pavement
SI-101	04-19-16	Locations - Type 'A' Signs
SI-121	10-16-18	Fabrication - Sign Legend Components
SI-182	04-19-16	Permanent Road Closure - Urban
SI-881	04-16-19	Special Signs for Workzones
SI-882	10-18-16	Special Signs for Restricted Width Traffic Control Zones
SW-101	04-17-18	Trench Bedding and Backfill Zones
SW-102	04-16-19	Rigid Gravity Pipe Trench Bedding
SW-401	04-17-18	Circular Storm Sewer Manhole
SW-507	04-17-18	Single Open-Throat Intake, Small Box
SW-508	04-17-18	Single Open-Throat Intake, Large Box
SW-511	04-17-18	Rectangular Area Intake
SW-602	04-21-15	Castings for Storm Sewer Manholes
SW-603	10-16-18	Castings for Grate Intakes
SW-604	04-17-18	Castings for Area Intakes
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-81	10-15-19	Restricted Width Signing (Less Than 14.5 Feet)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-213	10-15-19	Lane Closure with Flaggers
TC-251	10-15-19	Temporary Road Closure
TC-252	04-19-16	Routes Closed to Traffic
TC-601	10-15-19	Pedestrian Detour

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100-36	Open-Throat Curb Intake Sediment Filter	C.10
100-17	Tabulation of Silt Fences	C.10
100-19	Perimeter and Slope Sediment Control Device	C.10
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POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITIES**A. Designer:**

1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Signature authority on the Base PPP and NOI.

B. Contractor/Subcontractor:

1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. Affected contractors/subcontractors are anyone responsible for sediment or erosion controls or involved in land disturbing activities. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Submit an Erosion Control Implementation Plan (ECIP) according to Specifications Section 2602 and any additional plan notes.
3. Install and maintain appropriate controls.
4. Supervise and implement good housekeeping practices.
5. Conduct joint required inspections of the site with inspection staff.
6. Comply with training and certification requirements of Specifications Section 2602.
7. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.

C. RCE/Inspector:

1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
2. Maintain an up-to-date record that identifies contractors and subcontractors as co-permittees.
3. Make these plans available to the DNR upon their request.
4. Conduct joint required inspections of the site with the contractor/subcontractor.
5. Complete an inspection report after each inspection.
6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a I-74 mainline, ramps, and local roads.

B. This PPP covers approximately 76 acres with an estimated 70 acres being disturbed. The portion of the PPP covered by this contract has 2 acres disturbed.

C. The PPP is located in an area of Fayette soil association.

The estimated weighted average runoff coefficient number for this PPP after completion will be 0.43

D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:

1. Drainage patterns - Plan and Profile sheets and Situation plans.
2. Proposed Slopes - Cross Sections.
3. Areas of Soil Disturbance - construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls - Tabulations on C sheets.
5. Locations of Non-structural Controls - Tabulations on C sheets.
6. Locations of Stabilization Practices - generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) - Project Location Map and Plan and Profile sheets.
8. Locations where storm water is discharged - Plan and Profile sheets.

E. The base site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries.

F. Runoff from this work will flow into Mississippi River.

III. CONTROLS

A. The contractor's ECIP specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.

1. EROSION AND SEDIMENT CONTROLS**a. Stabilization Practices**

- 1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
- 2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
 - a) Permanently ceased on any portion of the site, or
 - b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
- 3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
- 4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan.

POLLUTION PREVENTION PLAN

Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation.

- 5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
- 6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional information may be found in Tabulations in the C or T sheets of the plans or is referenced in Standard Specifications Section 2105.

b. Structural Practices

- 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
- 2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plans or are referenced in the Standard Road Plans Tabulation.

c. Storm Water Management

- 1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS

a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

- 1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
- 2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
- 3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
- 4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
- 5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
- 6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
- 7) Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
- 8) Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water.
- 9) Litter Management - Ensure employees properly dispose of litter.
- 10) Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS

During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:

1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identify corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.

POLLUTION PREVENTION PLAN

- B. Amended PPP - May include Plan Revisions or Contract Modifications for new items, storm water monitoring inspection reports, and fieldbook entries made by the inspector.
- C. IDR - Inspector's Daily Report - this contains the inspector's daily diary and bid item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
- E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Printed or Typed Name

Signature

Printed or Typed Name

232-10 04-18-17
EMERALD ASH BORER
Any living, dead, cut or fallen material of the ash (<i>Fraxinus</i> spp.) including trees, nursery stock, logs, firewood, stumps, roots, branches, and composted or uncomposted ash chips can be freely moved within the yellow areas of the most recent Federal EAB Quarantine & Authorized Transit.
https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab_quarantine_map.pdf .
Obtain appropriate Compliance Agreements from USDA APHIS PPQ prior to moving any of the above listed ash articles to areas outside the yellow zone on the map.
For questions, concerns, and general assistance, contact:
USDA APHIS PPQ, Iowa office, 515-414-3295
Or
Iowa Department of Agriculture & Land Stewardship 515-725-1470 Entomology@IowaAgriculture.gov

252-1 10-16-12
TEMPORARY CROSSINGS AND DETOURS
Blading, shaping, and other work in preparation for maintaining temporary crossings or detours is incidental to other work. Furnish and spread additional granular surfacing needed for temporary crossings or detours during construction at the contract price.

262-5 10-18-05
UTILITIES (POINT 25 PROJECT)
This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

281-1 Modified
SECTION 404 PERMIT AND CONDITIONS
Construct this project according to the requirements of U.S. Army Corps of Engineers Individual Permit, Permit No. 2016-1217. A copy of this permit is available from the Iowa DOT website (http://www.envpermits.iowadot.gov/). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.
Construct this project according to the requirements of U.S. Army Corps of Engineers Nationwide Permit, Permit No. 14. A copy of this permit is available from the Iowa DOT website (http://www.envpermits.iowadot.gov/). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

254-1 10-02-01
INCIDENT MANAGEMENT
An incident management plan, provided by the District Office, will be discussed at the pre-construction conference.

290-01 04-15-14
SIDEWALK CONSTRAINTS
1. Widths: Widths listed in the S sheets are minimums.
2. Cross Slopes: Construct all sidewalks, curb ramps, and landings/turning spaces at a target cross slope of 1.5%. Cross slopes exceeding 2.0% will not be allowed, except for areas tying into existing pavement. In these areas, transition from existing pavement cross slope to a cross slope of less than 2.0% within one panel at a rate not to exceed 1.0% per foot.
3. Longitudinal Slopes: a. Sidewalk: i. Roadway slope exceeds 5.0%: Sidewalk longitudinal slope exceeding the roadway slope by more than 2.0% will not be allowed. ii. Roadway slope 5.0% or less: Sidewalk longitudinal slope exceeding 5.0% will not be allowed. b. Ramps: i. Ramps 15.0' in length or less: Longitudinal slope exceeding 8.3% will not be allowed. ii. Ramps greater than 15.0' in length: Construct with the longitudinal slope necessary to conform to the design.
4. Landing/Turning Spaces: Longitudinal slopes exceeding 2.0% will not be allowed.

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE							100-19 04-19-16
Possible Standards: EC-204							
Location			Length of Installation			Remarks	
Begin Station	End Station	Side	9 inch Dia	12 inch Dia	20 inch Dia		
			LF	LF	LF		
Mississippi	Blvd						
17+16.80		Lt		38.0		21.5 Lt - Curb Intake Div. (1)	
17+16.83		Rt			29.0	For Design Detail 570-5 Div. (1)	
17+16.80		Rt		32.0		33.0 Rt - Utility Access Div. (1)	
17+75.00		Rt		32.0		25.1 Rt - Utility Access Div. (1)	
14th St.							
15+37.18		Lt			22.0	For Design Detail 570-5 Div. (1)	
15+33.00		Rt		32.0		21.4 Rt - Curb Intake Div. (1)	
15+45.88		Rt			21.0	For Design Detail 570-5 Div. (1)	
16+84.23		Rt			22.0	For Design Detail 570-5 Div. (1)	
16+99.00		Rt			21.0	For Design Detail 570-5 Div. (1)	
16+99.00		Rt		32.0		13.9 Rt - Curb Intake Div. (1)	
16+84.20		Rt		32.0		31.3 Rt - Curb Intake Div. (1)	
18+25.00		Lt			22.0	For Design Detail 570-5 Div. (1)	
18+25.00		Lt			34.0	For Design Detail 570-5 Div. (1)	
19+66.43		Lt			34.0	For Design Detail 570-5 Div. (1)	
19+74.77		Rt			25.0	For Design Detail 570-5 Div. (1)	
20+54.90		Lt		32.0		29.8 Lt - Utility Access Div. (1)	
20+55.00		Lt			25.0		
20+55.00		Lt			24.0	For Design Detail 570-5 Div. (1)	
20+55.00		Rt			22.0	For Design Detail 570-5 Div. (1)	
23+25.00		Lt			24.0	For Design Detail 570-5 Div. (1)	
23+25.00		Rt			22.0	For Design Detail 570-5 Div. (1)	
25+60.00		Lt			21.0	For Design Detail 570-5 Div. (1)	
25+60.00		Lt			24.0	For Design Detail 570-5 Div. (1)	
25+60.00		Lt		32.0		22.8 Lt - Utility Access Div. (1)	
25+68.00		Rt			22.0	For Design Detail 570-5 Div. (1)	
25+71.16		Lt			21.0	For Design Detail 570-5 Div. (1)	
				Total	262.0	435.0	

EROSION CONTROL FOR INTAKE OR MANHOLE WELL						100-11 04-18-17
Possible Detail: 570-5						
Location Station	Side	Cover Assembly			Remarks	
		Installation	Maintenance	Removal		
		EACH	EACH	EACH		
14th Street						
15+37.18	Lt.	1	1	1		
15+45.88	Rt.	1	1	1		
16+84.23	Rt.	1	1	1		
16+99.00	Rt.	1	1	1		
18+25.00	Lt.	1	1	1		
18+25.00	Lt.	1	1	1		
19+66.43	Lt.	1	1	1		
19+74.77	Rt.	1	1	1		
20+55.00	Lt.	1	1	1		
20+55.00	Lt.	1	1	1		
20+55.00	Rt.	1	1	1		
23+25.00	Lt.	1	1	1		
23+25.00	Rt.	1	1	1		
25+60.00	Lt.	1	1	1		
25+60.00	Lt.	1	1	1		
25+68.00	Rt.	1	1	1		
25+71.16	Lt.	1	1	1		
Mississippi						
17+16.83	Rt.	1	1	1		
		18	18	18		

OPEN-THROAT CURB INTAKE SEDIMENT FILTER						100-36 10-16-18
Possible Standard: EC-602						
Location Station	Side	Installation	Maintenance	Removal	Remarks	
		LF	EACH	EACH		
18+25.00	Lt.	5.0	1	1	14th St	
20+55.00	Lt.	5.0	1	1	14th St	
20+55.00	Rt.	5.0	1	1	14th St	
23+25.00	Lt.	5.0	1	1	14th St	
23+25.00	Rt.	5.0	1	1	14th St	
25+60.00	Lt.	5.0	1	1	14th St	
25+68.00	Rt.	5.0	1	1	14th St	
17+16.83	Rt.	5.0	1	1	Miss.	
		40.0	8	8		

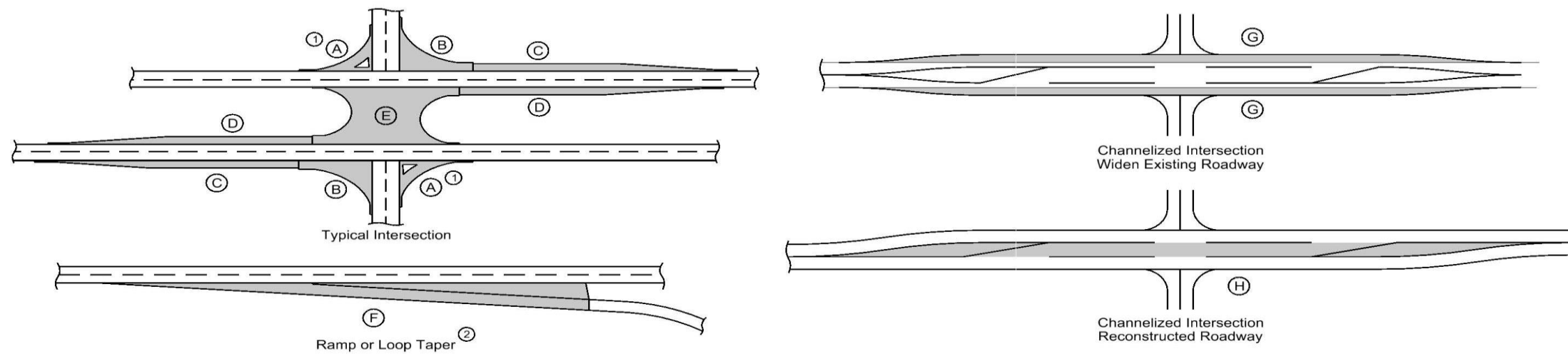
TABULATION OF SILT FENCES					100-17 04-20-10
Refer to EC-201					
Location			Length	Remarks	
Begin Station	End Station	Side	LF		
15+40.00	16+70.00	Lt.	130.0	Div. (1)	
17+70.00	19+70.00	Lt.	200.0	Div. (1)	
20+40.00	26+25.00	Lt.	585.0	Div. (1)	
20+40.00	26+25.00	Rt.	585.0	Div. (1)	
	TOTAL		1500.0		
	BID TOTAL		1875.0	Additional 25% for additional areas identified by the engineer	

PROPOSED POSTED SPEED LIMIT							100-27 04-17-18
Road Identification	Begin Station	End Station	Proposed Posted Speed Limit			Remarks	
			35 or less	40 - 45	over 45		
Mississippi Blvd	16+06.19	16+64.67	X			12' Lane Div. (1)	
Mississippi Blvd	16+06.19	16+64.67	X			12' Lane Div. (1)	
Mississippi Blvd	16+88.68	19+30.00	X			12' Lane Div. (1)	
Mississippi Blvd	16+88.68	19+30.00	X			12' Lane Div. (1)	
14th St.	14+40.00	26+25.00	X			12' Lane Div. (1)	
14th St.	14+40.00	26+25.00	X			12' Lane Div. (1)	

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class		
																				IN	
	Scott	Miss. B	Both					PCC	Est. 9												
	Scott	14th St	Both			1972	PCC	UN-67-1(13)--41-82	PCC	9			Granular	4							

PCC PAVEMENT



- ① Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

Road Identification	Location		Mainline				Area ③								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks
	Direction of Travel	Station to Station	Width	Length	Area	Area ③								SY						
						A ①	B	C	D	E	F ②	G	H	8 IN	11 IN					
			FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	CY	SY				
Stage 1																				
14th St.	Both	14+40.00	15+46.84	43.0	106.8	508.0											194.1	Includes 219.4 LF of C&G		
14th St.	Both	15+46.84	20+97.50	29.0	550.7	1728.4											686.6	Includes 934.3 LF of C&G		
Mississippi Blvd.	Both	16+06.69	16+65.00	29.0	58.3	227.9											90.9	Includes 138.3 LF of C&G		
Mississippi Blvd.	Both	16+89.07	19+30.00	42.0	240.9	1187.2											451.3	Includes 504.7 LF of C&G		
Stage 2																				
14th St.	SB	20+97.50	26+25.00	14.5	527.5	849.9											339.0	Includes 527.5 LF of C&G		
Stage 3																				
14th St.	NB	20+97.50	26+25.00	14.5	527.5	849.9											338.3	Includes 527.5 LF of C&G		
Detour Pavement (Stage 1)																				
14th St.	Both	20+97.50	21+22.50	Varies	25.0	44.0											8.7	Includes 25.1 LF of C&G; Detour Pavement		
TOTAL												5351.3		2100.2						

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.

- ① Refer to MI-210
- ② Refer to EW-501.
- ③ Refer to EW-501 or EW-502.

*Predetermined for access point not constructed with this project.

Location		Type	Length of Opening ①			Pipe Culvert ③			Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks					
Station	Side	A, B, C, Safety Ramp, or Predetermined*	Case	1½" Dropped Curb	3" Dropped Curb	W	PR	SR		H	Size			Pipe Length	Lt.	Rt.	HMA	PCC
			1 or 2	LF	LF	FT	FT	FT		FT	IN			LF	LF	LF	No.	SY
Mississippi 18+18.00	Blvd LT	B	1		167.0	158.0	6.0								197.4		Div. (1)	
14th St 14+54.94	LT	B	2	13.1		13.0									20.7		Div. (1)	
15+12.59	LT	B	2	29.8		3.0									9.8		Div. (1)	
21+53.00	RT	B	1		50.0	38.0	6.0								38.0		Div. (1)	
22+36.00	RT	B	1		46.0	34.0	6.0							43.4	24.8		HMA behind sidewalk Div. (1)	
23+90.00	RT	B	1	48.0		36.0	6.0								152.1		Div. (1)	
24+38.00	RT	B	1	19.0		14.0	6.0								18.9		Div. (1)	
24+54.00	RT	B	1	28.0		22.0	6.0								48.2		Div. (1)	
24+77.00	LT	B	1	42.0		30.0	6.0								97.1		Div. (1)	
25+40.00	RT	B	1	42.0		30.0	6.0								130.9		Div. (1)	
25+40.77	LT													37.9			Area for Parking Lot Div. (1)	
26+05.00	RT	B	1		50.0	40.0	6.0								53.0		Div. (1)	
Total													81.4	791.1				

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
1	16+05.25	Sanitary Manhole	Adjust up approx. 0.45' up
2	17+24.21	Sanitary Manhole	No adjustment anticipated
3	19+72.13	Water Valve	Adjust down approx. 0.29'
4	20+00.01	Water Valve	Adjust up approx. 0.34'
5	20+31.21	Water Valve	Adjust up approx. 0.28'
6	25+97.54	Water Valve	Adjust up approx. 0.70'
7	16+68.65	Storm Sewer Manhole	Adjust up approx. 0.53'
		Total	2

PAVEMENT MARKING LINE TYPES

See PM-110

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

BCY4: Broken Centerline (Yellow) @ 0.25

DCY4: Double Centerline (Yellow) @ 2.00

NPY4: No Passing Zone Line (Yellow) @ 1.25

BLW4: Broken Lane Line (White) @ 0.25

ELW4: Edge Line Right (White) @ 1.00

ELY4: Edge Line Left (Yellow) @ 1.00

CLW6: Crosswalk Line (White) @ 3.00

SLW2: Stop Line (White) @ 6.00

Road ID	Station to Station	Dir. of Travel	Marking Type	Location			Length by Line Type (Unfactored)												Remarks			
				Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4	CLW6	SLW2								
				L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA	STA
Stage 1																						
Mississippi	16+06.69	16+47.47	BOTH	Waterborne/Solvent Paint		X		0.41														
Mississippi	16+47.47		EB	Waterborne/Solvent Paint		X							0.16									
Mississippi	17+04.81		BOTH	Waterborne/Solvent Paint		X					0.48											
Mississippi	17+07.75	19+30.00	BOTH	Waterborne/Solvent Paint		X		2.22														
Mississippi	17+14.87		WB	Waterborne/Solvent Paint	X								0.22									
14th St.	14+40.00	19+77.87	BOTH	Waterborne/Solvent Paint		X		5.38														
14th St.	19+67.90		NB	Waterborne/Solvent Paint			X						0.16									
14th St.	19+75.25		BOTH	Waterborne/Solvent Paint		X					0.36											
14th St.	20+36.15		BOTH	Waterborne/Solvent Paint		X					0.36											
14th St.	20+39.05	20+97.50	SB	Waterborne/Solvent Paint		X		0.58														
14th St.	20+43.79		BOTH	Waterborne/Solvent Paint	X								0.15									
Stage 2																						
14th St.	20+97.50	26+30.00	NB	Waterborne/Solvent Paint	X						5.33											
Stage 3																						
14th St.	20+97.50	26+30.00	NB	Waterborne/Solvent Paint	X						5.33											
Final																						
14th St.	20+97.50	26+30.00	NB	Removal of Paint	X						5.33											
14th St.	20+97.50	26+25.00	BOTH	Waterborne/Solvent Paint		X		5.28														
Factored Total: Waterborne/Solvent Paint								2.00	11.72	-	-	-	10.66	3.60	4.14	-	-	-	-	-		
Factored Total: Removal of Paint								-	-	-	-	-	5.33	-	-	-	-	-	-	-		
Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based										32.12												
Bid Quantity: Pavement Markings Removed										5.33												

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
14th St.			
14+40.00	1		Stage 1 Div. (1)
19+77.00	1		Stage 1, Note 1 Div. (1)
20+30.00	1		Stage 1, Note 1 Div. (1)
21+25.00	1		Stage 1 Div. (1)
20+95.00	1		Stage 2 Div. (1)
26+25.00	1		Stage 2 Div. (1)
20+95.00	1		Stage 3 Div. (1)
26+25.00	1		Stage 3 Div. (1)
Mississippi			
12+20.00	1		Stage 1 Div. (1)
19+30.00	1		Stage 1 Div. (1)
		Note 1	Safety Closure is for work outside of the 40 calendar day closure

108-33
10-15-19

TEMPORARY BARRIER RAIL

Possible Standard: BA-401 Possible Detail: 560-7

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

No.	Station to Station	Length	(Select One)		Anchored* (Y/N)	Modular Glare Screen System (Y/N)	Remarks
			Concrete	Steel			
			BA-401	560-7			
1	20+79.75	26+29.94	550.0	X	No	No	Stage 2, Div. (1) Includes 1 tapered end section
2	20+79.75	26+29.94	550.0	X	No	No	Stage 3, Div. (1) Includes 1 tapered end section
			1100.0				

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

* Not a bid item

Location/Description	Sanitary or Storm Sewer	Abandonment, Plug Only or Abandonment, Plug and Fill or Removal	Length of Pipe		Fill Material*	Remarks
			≤ 36 inch diameter	> 36 inch diameter	Flowable Mortar or CLSM	
			LF	LF	CY	
14th St.						
P10186, 26+07.71, 26.51 Lt to 24+72.72, 28.22 Lt	Sanitary Sewer	Removal	135			8" Dia., approx. 5' deep Div. (2)
P10185, 24+72.72, 28.22 Lt to 21+44.84, 9.55 Lt	Sanitary Sewer	Removal	329			8" Dia., approx. 8' deep Div. (2)
P10184, 21+44.84, 9.55 Lt to 20+04.16, 2.92 Rt	Sanitary Sewer	Removal	142			8" Dia., approx. 8' deep Div. (2)
P10181, 20+04.16, 2.92 Rt to 18+13.28, 12.95 Rt	Sanitary Sewer	Removal	192			10" Dia., approx. 6' deep Div. (2)
P10377, 18+13.28, 12.95 Rt to 18+13.69, 0.67 Lt	Sanitary Sewer	Removal	10			10" Dia., approx. 7' deep Div. (2)
P10176, 18+13.69, 0.67 Lt to 17+17.06, 8.73' Lt	Sanitary Sewer	Removal	99			10" Dia., approx. 7' deep Div. (2)
P10407, 16+45.43, 43.08 Lt to 16+09.83, 12.65 Lt	Sanitary Sewer	Removal	226			8" Dia., approx. 7' deep Div. (2)
Mississippi Blvd.						
P10380, 19+30.00, 1.33 Rt to 16+79.55, 1.91 Rt	Sanitary Sewer	Removal	250			8" Dia., approx. 6' deep Div. (2)
P10182, 16+25.00, 1.64 Rt to 16+79.55, 1.91 Rt	Sanitary Sewer	Removal	55			8" Dia., approx. 6' deep Div. (2)
P10174, 12+30.05, 191.06 Rt to 16+76.67, 192.31 Rt	Sanitary Sewer	Abandonment, Plug and Fill	448		5.8	8" Dia., approx. 8' deep Div. (2)
14th St.						
P25880, 25+73.66, 17.92 Lt to 25+61.68, 17.95 Lt	Storm Sewer	Removal	12			15" Dia., approx. 5' deep Div. (1)
P25529, 25+63.45, 16.23 Rt to 25+61.68, 17.95 Lt	Storm Sewer	Removal	34			12" Dia., approx. 3' deep Div. (1)
P25847, 25+61.68, 17.95 Lt to 23+61.21, 58.58 Lt	Storm Sewer	Removal	210			15" Dia., approx. 4' deep Div. (1)
P25167, 23+61.21, 58.58 Lt to 23+14.10, 35.77 Lt	Storm Sewer	Removal	52			15" Dia., approx. 4' deep Div. (1)
P25703, 21+84.51, 20.06 Lt to 20+93.42, 42.86 Lt	Storm Sewer	Removal	94			18" Dia., approx. 4' deep Div. (1)
P28164, 20+93.42, 42.86 Lt to 20+21.33, 51.27 Lt	Storm Sewer	Removal	73			18" Dia., approx. 4' deep Div. (1)
P26051, 19+67.38, 22.73 Lt to 18+13.21, 16.77 Lt	Storm Sewer	Removal		154		40" Dia., approx. 9' deep Div. (1)
P26264, 18+13.21, 16.77 Lt to 17+74.86, 17.31 Lt	Storm Sewer	Removal		38		40" Dia., approx. 9' deep Div. (1)
P24536, 16+18.96, 41.12 Lt to 16+35.53, 11.19 Lt	Storm Sewer	Removal	36			15" Dia., approx. 6' deep Div. (1)
P24781, 16+35.53, 11.19 Lt to 16+69.30, 11.13 Lt	Storm Sewer	Removal	36			15" Dia., approx. 5' deep Div. (1)
P26452, 16+69.30, 11.13 Lt to 16+74.20, 24.25 Lt	Storm Sewer	Removal	14			15" Dia., approx. 4' deep Div. (1)
Mississippi Blvd						
P25984, 16+25.49, 15.64 Lt to 16+05.82, 15.68 Rt	Storm Sewer	Removal	37			18" Dia., approx. 4' deep Div. (1)
P25335, 17+29.88, 20.89 Lt to 17+29.57, 3.43 Rt	Storm Sewer	Removal	24			24" Dia., approx. 4' deep Div. (1)
P25335, 17+29.57, 3.43 Rt to 17+29.24, 24.96 Rt	Storm Sewer	Abandonment, Plug and Fill	22		2.6	24" Dia., approx. 4' deep Div. (1)
TP400, 17+29.57, 3.43 Rt to 17+16.83, 17.92 Rt	Storm Sewer	Abandonment, Plug and Fill	22		2.6	24" Dia., approx. 4' deep Div. (1)
P26444, 17+92.27, 24.11 Lt to 17+29.24, 24.96 Rt	Storm Sewer	Removal	63			12" Dia., approx. 7' deep Div. (1)
P26443, 17+29.24, 24.96 Rt to 17+01.85, 30.29 Rt	Storm Sewer	Removal	33			24" Dia., approx. 7' deep Div. (1)
P25656, 17+01.85, 30.29 Rt to 16+54.39, 38.88 Rt	Storm Sewer	Removal	49			36" Dia., approx. 7' deep Div. (1)
		Total Removal Storm	767	192		
		Total Abandonment Storm	44			
		Total Removal Sanitary	1438			
		Total Abandonment Sanitary	448			

REMOVAL OF CONCRETE DRIVES

* Not a Bid Item

Location	Area	Saw Cut*	Remarks
Station	Side	SY	LF
14th St.			
14+54.94	Lt.	20.7	2.3
15+12.60	Lt.	9.8	1.1
18+11.34	Lt.	26.6	3.0
18+64.51	Lt.	55.7	6.2
19+40.03	Lt.	42.3	4.7
21+53.00	Rt.	51.6	5.7
22+36.00	Rt.	84.7	9.4
23+90.00	Rt.	52.7	5.9
24+38.00	Rt.	28.3	3.1
24+55.00	Rt.	64.8	7.2
25+40.00	Rt.	143.6	16.0
25+41.00	Lt.	117.3	13.0
26+05.00	Rt.	51.1	5.7
Brown St.			
15+13.00	Lt.	20.4	2.3
14th St. Stationing			Div. (1)
Mississippi			
18+76.00	Lt.	298.3	33.1
Total		1067.9	

SIDEWALK REMOVAL

* Not a bid item

Begin Station	End Station	Area	Saw Cut*	Remarks
		SY	LF	
14th St.		#VALUE!		
14+40.00	Brown St.Int.	92.2		22
14+40.00	Brown St.Int.	85.7		18
17+61.03	19+64.23	107.7		10
Mississippi		#VALUE!		
16+06.70	16+56.40	26.4		10
16+24.70	16+44.70	18.3		10
16+99.10	19+30.00	111.5		10
18+89.30	19+30.00	17.6		10
TOTAL		459.4		

REMOVAL OF PAVEMENT

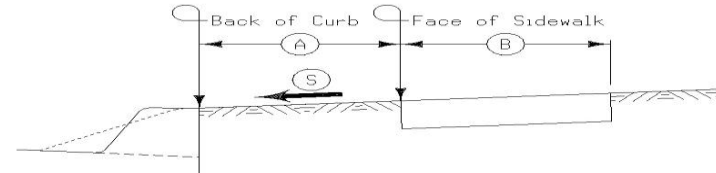
Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
14+40.00	16+60.92	Both	PCC	1074.5	43.9	Stage 1, Ex. Brown St. Div. (1)
16+41.54	20+06.00	Both	PCC	1327.9	82.9	Stage 1, Ex. 14th St. Div. (1)
NE Quad. Of	14th/Miss.	Right	PCC	187.8	0.0	Stage 1, Ex. Temp. Connection Div. (1)
Area behind	Prop. Retain.	Wall	HMA	415.0	220.9	Stage 1, Our Lady of Lourdes Parking Lot Div. (1)
16+06.69	16+35.00	Both	PCC	93.6	56.0	Stage 1, Ex. Mississippi Blvd. Div. (1)
17+25.04	19+30.00	Both	PCC	949.6	254.9	Stage 1, Ex. Mississippi Blvd. Div. (1)
20+06.00	26+25.00	Left	PCC	1238.6	14.6	Stage 2, Ex. 14th St. Div. (1)
Kimberly Rd	NW of 14th St	and Miss.	PCC	36.5	0.0	Stage 2, to I-74 Ent. Ramp Div. (1)
Between Kimb.	and 14th St.		PCC	264.7	0.0	Stage 2 Div. (1)
24+62.00	24+92.00	Left	HMA	26.2	45.8	Stage 2, Parking Lot Pavement Div. (1)
20+06.00	26+25.00	Right	PCC	1219.6	14.5	Stage 3, Ex. 14th St. Div. (1)
		Total		6834.0		

SIDEWALKS

See MI-220 and S Sheets



Intersection/Road	Quadrant/Side	Length	(A)	(B)	(S)	4" PCC Sidewalk	6" PCC Sidewalk	8" PCC Sidewalk	10" PCC Sidewalk	Detectable Warnings	Remarks
			FT	FT	%	SY	SY	SY	SY	SF	
Mississippi	Rt.	40.37	6.00	5.00	4.00%	22.9					Div. (1)
Mississippi	Lt.	47.68	6.00	5.00	4.00%	24.8					Div. (1)
Mississippi	Rt.	14.82	6.00	5.00	4.00%		7.8			10	Div. (1)
Mississippi	Lt.	10.57	6.00	5.00	4.00%		5.5			10	Div. (1)
Mississippi	Rt.	7.63	0.00	5.00	N/A		3.3			10	Div. (1)
Mississippi	Lt.	7.35	6.00	5.00	4.00%		3.0			10	Div. (1)
Mississippi	Rt.	223.61	0.00	5.00	N/A	137.2					Div. (1)
Mississippi	Lt.	21.81	6.00	5.00	4.00%	12.0					Div. (1)
Mississippi	Lt.	158.36	6.00	5.00	4.00%		88.1				Div. (1)
Mississippi	Lt.	41.3	3.35	4.00	4.00%	21.3					Div. (1)
14th St.	Lt.	99.35	0.00	4.00	N/A	46.2					Div. (1)
14th St.	Rt.	533.26	4.00	5.00	4.00%	276.6					Div. (1)
14th St.	Lt.	15.03	0.00	6.50	N/A	10.8					Div. (1)
14th St.	Rt.	10.46	4.00	5.00	4.00%		5.2			10	Div. (1)
14th St.	Rt.	9.77	6.00	5.00	4.00%		4.8			10	Div. (1)
14th St.	Lt.	423.65	6.00	5.00	4.00%	235.4					Div. (1)
14th St.	Rt.	394.46	6.00	5.00	4.00%	52.8					Div. (1)
14th St.	Rt.	338	6.00	5.00	4.00%		21.1				Div. (1)
14th St.	Rt.	46.6	6.00	5.00	4.00%	25.9					Div. (1)
14th St.	Rt.	34	6.00	5.00	4.00%		18.9				Div. (1)
14th St.	Rt.	119.77	6.00	5.00	4.00%	66.0					Div. (1)
14th St.	Rt.	35	6.00	5.00	4.00%		20.0				Div. (1)
14th St.	Rt.	23.19	6.00	5.00	4.00%	12.9					Div. (1)
14th St.	Rt.	34.8	6.00	5.00	4.00%		19.3				Div. (1)
14th St.	Lt.	30	6.00	5.00	4.00%		16.7				Div. (1)
14th St.	Rt.	60.03	6.00	5.00	4.00%	32.8					Div. (1)
14th St.	Rt.	30.03	6.00	5.00	4.00%		16.7				Div. (1)
14th St.	Rt.	30.58	6.00	5.00	4.00%	16.3					Div. (1)
					Total	993.8	230.3			60	

REMOVAL OF INTAKES AND UTILITY ACCESSES

No.	Location/Description	Type	Remarks
	14th St.		
10377	Sta 18+13.28, 13.0 Rt	Utilities	Sanitary Sewer Div. (2)
10176	Sta 18+13.69, 0.7 Lt	Utilities	Sanitary Sewer Div. (2)
10181	Sta 20+04.16, 2.9 Rt	Utilities	Sanitary Sewer Div. (2)
10184	Sta 21+44.84, 9.55 Lt	Utilities	Sanitary Sewer Div. (2)
10185	Sta 24+72.78, 28.2 Lt	Utilities	Sanitary Sewer Div. (2)
10186	Sta 26+07.65, 26.5 Lt	Utilities	Sanitary Sewer Div. (2)
	14th St.		
25529	Sta 25+63.45, 16.2 Rt	Intakes	Storm Sewer Div. (1)
25847	Sta 25+61.68, 18.0 Lt	Intakes	Storm Sewer Div. (1)
25167	Sta 23+61.21, 58.6 Lt	Intakes	Storm Sewer Div. (1)
25703	Sta 21+84.51, 20.1 Lt	Intakes	Storm Sewer Div. (1)
28164	Sta 20+93.42, 42.9 Lt	Intakes	Storm Sewer Div. (1)
26051	Sta 19+67.38, 22.7 Lt	Utilities	Storm Sewer Div. (1)
26264	Sta 18+13.21, 16.8 Lt	Utilities	Storm Sewer Div. (1)
26452	Sta 16+69.30, 11.1 Lt	Intakes	Storm Sewer Div. (1)
24781	Sta 16+35.42, 10.8 Lt	Intakes	Storm Sewer Div. (1)
24536	Sta 16+18.89, 41.0 Lt	Intakes	Storm Sewer Div. (1)
	Mississippi Blvd		
26488	Sta 16+05.82, 15.7 Rt	Intakes	Storm Sewer Div. (1)
25984	Sta 16+25.49, 15.6 Lt	Intakes	Storm Sewer Div. (1)
25656	Sta 17+01.85, 30.3 Rt	Utilities	Storm Sewer Div. (1)
26443	Sta 17+29.24, 25.0 Rt	Intakes	Storm Sewer Div. (1)
25335	Sta 17+29.88, 20.9 Lt	Intakes	Storm Sewer Div. (1)

SANITARY SEWER SERVICES

Number	Address	Approximate Station	Length		Remarks
			LF	Inches	
1	1423 Brown St.	14+82, Lt.	40.0	6.0	Measured to ROW line Div. (2)
2	1414 Mississippi Blvd.	Unknown	38.0	6.0	Measured to end of driveway construction Div. (2)
3	701 14th St.	24+63, Rt.	50.0	6.0	Measured to ROW line Div. (2)
4	711 14th St.	23+22, Rt.	68.0	6.0	Measured to Temp. Easement line Div. (2)
5	710 14th St.	24+51, Lt.	18.0	6.0	Measured to ROW line Div. (2)
		Total	214.0		
				Notes:	1. All Service stubs are connections to existing services
					2. Contractor is to verify location of service to buildings prior to the construction of Service Stubs
					3. Any fittings that may be necessary to connect Service Stubs to existing private services shall be considered incidental to the Sanitary Sewer Service bid item
					4. Location of service to 1414 Mississippi Blvd. is unknown. Contractor to locate prior to construction.

103-10
04-18-17

TOPSOIL STRIPPING AND PLACEMENT

Road Identification	Location			Topsoil Stripping	Topsoil Placement	Remarks
	Dir. of Traffic	Begin Station	End Station	Thickness	Thickness	
				IN	IN	
US 67 Ramp D	NB	4495+87.17	4495+91.85	N/A	8.0	Div. (1)
US 67 Ramp D	NB	4495+99.68	4496+34.48	N/A	8.0	Div. (1)
Mississippi Blvd	EB	16+06.46	16+44.66	N/A	8.0	Div. (1)
Mississippi Blvd	EB	16+06.46	16+44.66	N/A	8.0	Div. (1)
Mississippi Blvd	WB	16+06.46	16+39.89	N/A	8.0	Div. (1)
Mississippi Blvd	WB	16+06.46	16+39.89	N/A	8.0	Div. (1)
Mississippi Blvd	EB	17+07.93	19+29.84	N/A	8.0	Div. (1)
Mississippi Blvd	WB	17+09.15	17+30.34	N/A	8.0	Div. (1)
Mississippi Blvd	WB	17+09.15	17+29.96	N/A	8.0	Div. (1)
Mississippi Blvd	WB	18+88.60	19+30.00	N/A	8.0	Div. (1)
Mississippi Blvd	WB	18+89.01	19+30.00	N/A	8.0	Div. (1)
14th St.	EB	14+40.00	19+72.87	N/A	8.0	Div. (1)
14th St.	WB	14+40.00	19+73.14	N/A	8.0	Div. (1)
14th St.	WB	17+32.59	14+43.23	N/A	8.0	Div. (1)
14th St.	SB	19+77.72	19+90.85	N/A	8.0	Div. (1)
14th St.	SB	20+20.28	20+33.35	N/A	8.0	Div. (1)
14th St.	SB	20+38.38	24+62.00	N/A	8.0	Div. (1)
14th St.	SB	20+38.38	24+62.00	N/A	8.0	Div. (1)
14th St.	NB	20+39.79	21+34.25	N/A	8.0	Div. (1)
14th St.	NB	20+39.58	21+34.25	N/A	8.0	Div. (1)
14th St.	NB	21+72.25	22+18.85	N/A	8.0	Div. (1)
14th St.	NB	21+72.25	22+18.85	N/A	8.0	Div. (1)
14th St.	NB	22+85.85	23+71.62	N/A	8.0	Div. (1)
14th St.	NB	22+85.85	23+71.62	N/A	8.0	Div. (1)
14th St.	NB	24+07.62	24+30.81	N/A	8.0	Div. (1)
14th St.	NB	24+07.62	24+30.81	N/A	8.0	Div. (1)
14th St.	NB	24+65.61	25+24.64	N/A	8.0	Div. (1)
14th St.	NB	24+65.61	25+24.64	N/A	8.0	Div. (1)
14th St.	SB	24+92.00	26+25.00	N/A	8.0	Div. (1)
14th St.	NB	25+54.64	25+85.23	N/A	8.0	Div. (1)
14th St.	NB	25+54.64	25+85.23	N/A	8.0	Div. (1)
				N/A	8.0	Area for Pavement Removal Div. (1)
				N/A	8.0	Area for Pavement Removal Div. (1)

103-6
10-17-17

EMBANKMENT WITH MOISTURE CONTROL

Moisture Control is required for all Class 10 fill placed in all locations and depths. Stability berms placed outside the normal foreslope template and topsoil will not require Moisture Control.

103-7
08-01-08

SHRINKAGE DATA

Material	%	Remarks
TOPSOIL	50%	
CLASS 10	30%	
ROCK	0%	
		BOULDERS 50 Cu. Yds.
		excluding Class 12
		Rock Excavation

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

* Not a bid item. Bridge berm quantities assume a trench depth of 24 inches.

Line No.		Road or Lane Identification		Location Station to Station		Side	Longitudinal Subdrain (DR-303)						Subdrain Outlet		Porous* Backfill CY	Class "A"* Crushed Stone CY	Remarks
							Shoulder		Backslope		Bridge Berm (EW-203 or EW-204)		DR-303, DR-305 or DR-306				
						D	Size	Length	Size	Length	Standard Road Plan and Type	Size	Length	CY	CY		
							IN	IN	FT	IN	FT		IN				FT
1		MISS.		16+06.69	17+16.83	RT	30.0	4.0	150.1								
2		MISS.		17+16.83	19+30.00	RT	30.0	4.0	253.2								
3		MISS.		16+06.69	19+30.00	LT	30.0	4.0	363.3								CAP @ 19+30 TIE INTO EXISTING INTAKE
4		14TH ST		14+40.00	15+33.00	RT	24.0	4.0	133.0								CAP @ 14+40
5		14TH ST		15+33.00	16+99.00	RT	30.0	4.0	206.0								
6		14TH ST		16+99.00	20+55.00	RT	24.0	4.0	396.0								
7		14TH ST		20+55.00	23+25.00	RT	24.0	4.0	310.0								
8		14TH ST		23+25.00	25+68.00	RT	24.0	4.0	283.0								
9		14TH ST		25+68.00	26+25.00	RT	24.0	4.0	97.0								CAP @ 26+25
10		14TH ST		14+40.00	15+12.00	LT	30.0	4.0	112.0								CAP @ 14+40
11		14TH ST		15+12.00	18+25.00	LT	24.0	4.0	353.0								
12		14TH ST		18+25.00	20+55.00	LT	24.0	4.0	270.0								
13		14TH ST		20+55.00	23+25.00	LT	24.0	4.0	310.0								
14		14TH ST		23+25.00	25+60.00	LT	24.0	4.0	275.0								
15		14TH ST		25+60.00	26+25.00	LT	24.0	4.0	105.0								CAP @ 26+25 TIE INTO EXISTING SUBDRAIN
									3616.6								
NOTE: ALL ITEMS ARE DIVISION #1.																	
NOTE: ALL LOCAL ROAD SUBDRAINS ARE DR-303 TYPE 7A INSTALLATION.																	
ALL OUTLETS ARE DR-303 "INTAKE OUTLET" WITH THE OUTLET INTO STORM SEWER INTAKES.																	
NOTE: ANY EXISTING LONGITUDINAL SUBDRAINS, IF ENCOUNTERED, SHALL BE REMOVED IN THEIR ENTIRETY.																	
NOTE: ADJUST ALL SUBDRAINS AND OUTLETS IN FIELD AS NECESSARY AND APPROVED BY ENGINEER.																	
NOTE: WORK TO TIE PROPOSED SUBDRAIN TO EXISTING SUBDRAIN SHALL BE CONSIDERED INCIDENTAL TO LONGITUDINAL SUBDRAIN.																	

SURVEY SYMBOLS

UTILITY LEGEND

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS (ROAD)

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Luminaire
	Fruit Tree		Traffic Signal
	Shrub (Bushes)		Traffic Signal with Luminaire
	Timber		Telephone Pedestal
	Hedge		Television Pedestal
	Stump		Telephone Pole
	Swamp		Telephone Pole (Second Company)
	Rock Outcrop		Telephone Pole (Third Company)
	Broken Concrete		Telephone Pole (Fourth Company)
	Revetment (Rip Rap)		Telephone Pole (Fifth Company)
	Cemetery		Electrical Highline Tower (Metal or Concrete)
	Grave		Power Pole
	Cave		Power Pole (Second Company)
	Sink Hole		Power Pole (Third Company)
	Board Fence		Power Pole (Fourth Company)
	Chain Link or Security Fence		Power Pole (Fifth Company)
	Wire Fence		Telephone Riser Pole
	Terrace		Power Riser Pole
	Earth Dam or Dike (Existing)		Telegraph Pole
	Earth Dam or Dike (Proposed)		Satellite TV Dish
	Tile Outlet		Guardrail (Beam or Cable)
	Edge of Water		Guard Post (one or two)
	Existing Drainage		Guard Post (over two)
	Proposed Drainage		Filler Pipe
	Right of Way Rail or Lot Corner		Gas Valve
	Concrete Monument		Water Valve
	Well		Speed Limit Sign
	Windmill		Mile Marker Post
	Beehive Intake		Sign
	Existing Intake		Water Hook Up
	Proposed Intake		Radio Tower
	Existing Utility Access (Manhole)		Tower Anchor
	Proposed Utility Access (Manhole)		Electric Box
	Fire Hydrant		Traffic Signal Control Box
	Water Hydrant (Rural)		Rail Road Signal Control Box
			Telephone Switch Box

	F02	Existing Fiber Optics (Windstream)
	F03	Existing Fiber Optics (Centurylink)
	F07	Existing Fiber Optics (Windstream)
	E1	Existing Power Line (MidAmerican)
	E2	Existing Power Line (MidAmerican)
	E3	Existing Power Line (MidAmerican)
	E5	Existing Power Line (IowaDOT)
	G	Existing Gas Line (MidAmerican)
	G-HP	Existing High Pressure Gas Line (MidAmerican)
	San.	Existing Sanitary Sewer Line (Bettendorf)
	St.S	Existing Storm Storm Sewer
	T1	Existing Telephone Line (Century Link)
	TV2	Existing Cable Television Line (MediaCom)
	W	Existing Water Line (IA American)
	W(C)	Iowa American (Abandoned)

LINE WORK	Design Color No.		
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Previously Constructed Storm Sewer*
SHADING		Design Color No.	
Yellow	(4)		Highlight for Critical Notes or Features
Red	(3)		Delineates Restricted Areas
Lavender	(9)		Temporary Pavement Shading
Gray, Light	(48)		Proposed Bridge Shading
Gray, Med	(80)		Proposed Granular Shading
Gray, Dark	(112)		Proposed Pavement Shading
Brown, Light	(236)		Grading Shading
Brown, Dark	(237)		Previously Constructed Pavement*
Tan	(8)		Proposed Sidewalk Shading
Pink	(11)		Proposed Sidewalk Ramp Shading

TABULATION OF UTILITIES

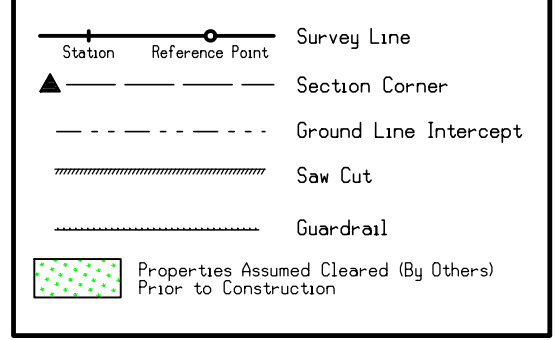
102-13A
10-29-02

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MediaCom Communications Dennis Jarding 3900 26th Avenue Moline, IL 61265 309-743-4750 djarding@mediacomcc.com	City of Bettendorf Dennis Snyder 4403 Devils Glen Road Bettendorf, IA 52722 563-344-4055 dsnyder@bettendorf.org
Windstream (formerly PAETEC & McLeod USA) Dale Graff 614 West Street South Grinnel, IA 50112 641-269-7725 (Office) dale.a.graff@windstream.com	IADOT Davenport Maintenance Garage Clyde Tobey 8721 N.W. Blvd. (P.O. Box 2646) Davenport, IA 52809 563-391-3920 clyde.tobey@dot.iowa.gov

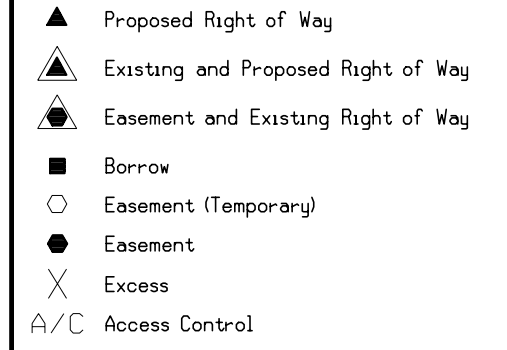
PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS (ROAD)

LINE WORK	Design Color No.		
Green	(2)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

CONVENTIONAL SIGNS



RIGHT OF WAY LEGEND



TABULATION OF UTILITIES

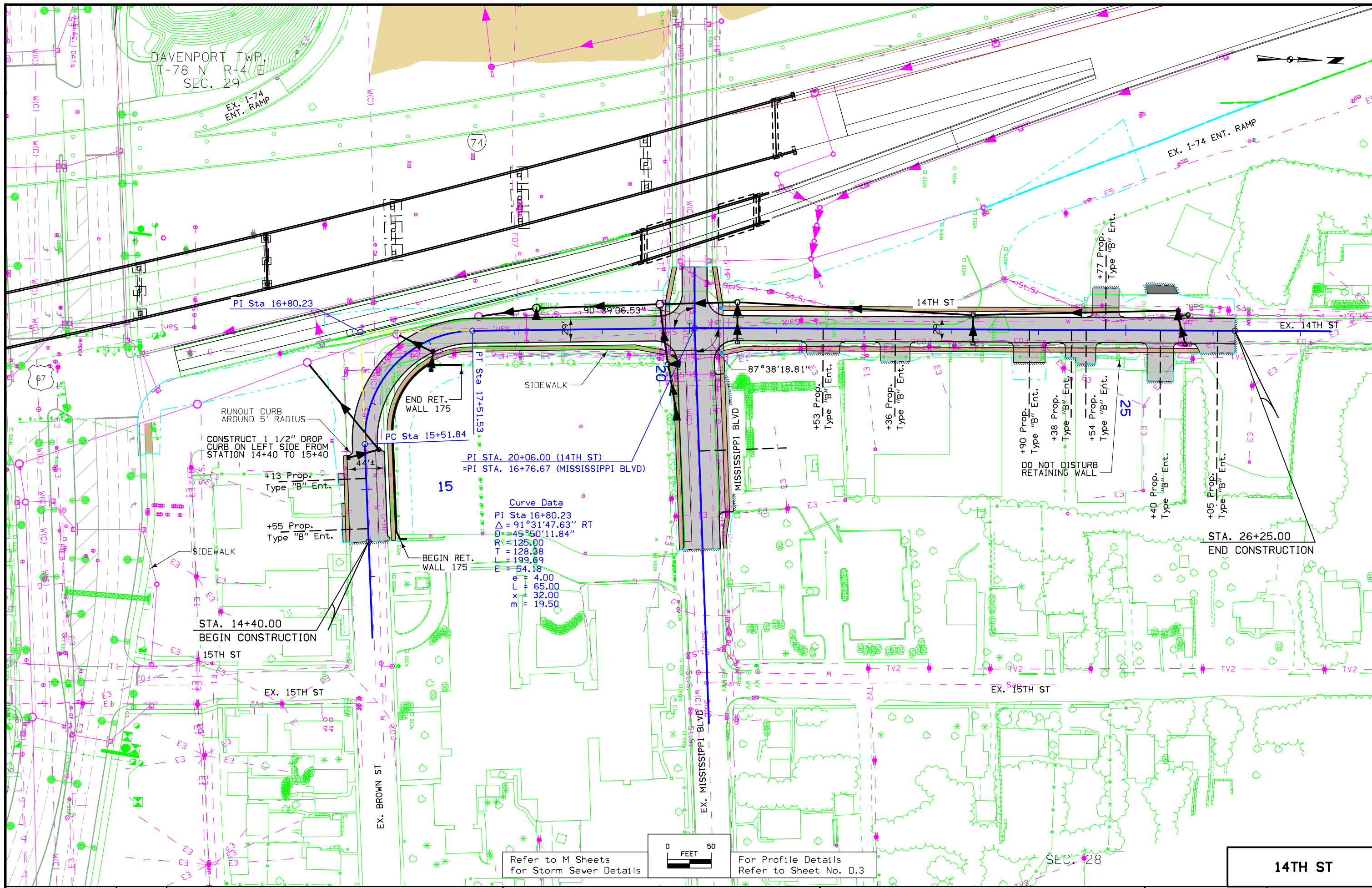
102-13A
10-29-02

AT&T Lennie Vohs 1425 Oak Street Kansas City, MO 64106 816-275-4014 lv2121@att.com	Iowa Network Services Jeff Klocko 4201 Corporate Drive West Des Moines, IA 50266 515-830-0445 jeff@netins.com
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Legend And Symbol Information Sheet

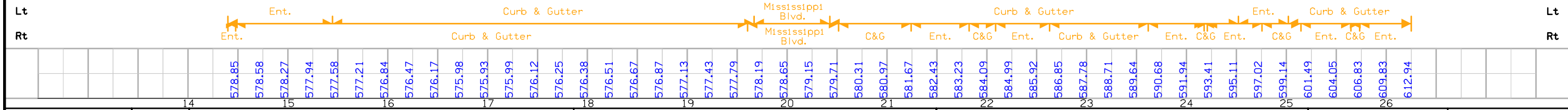
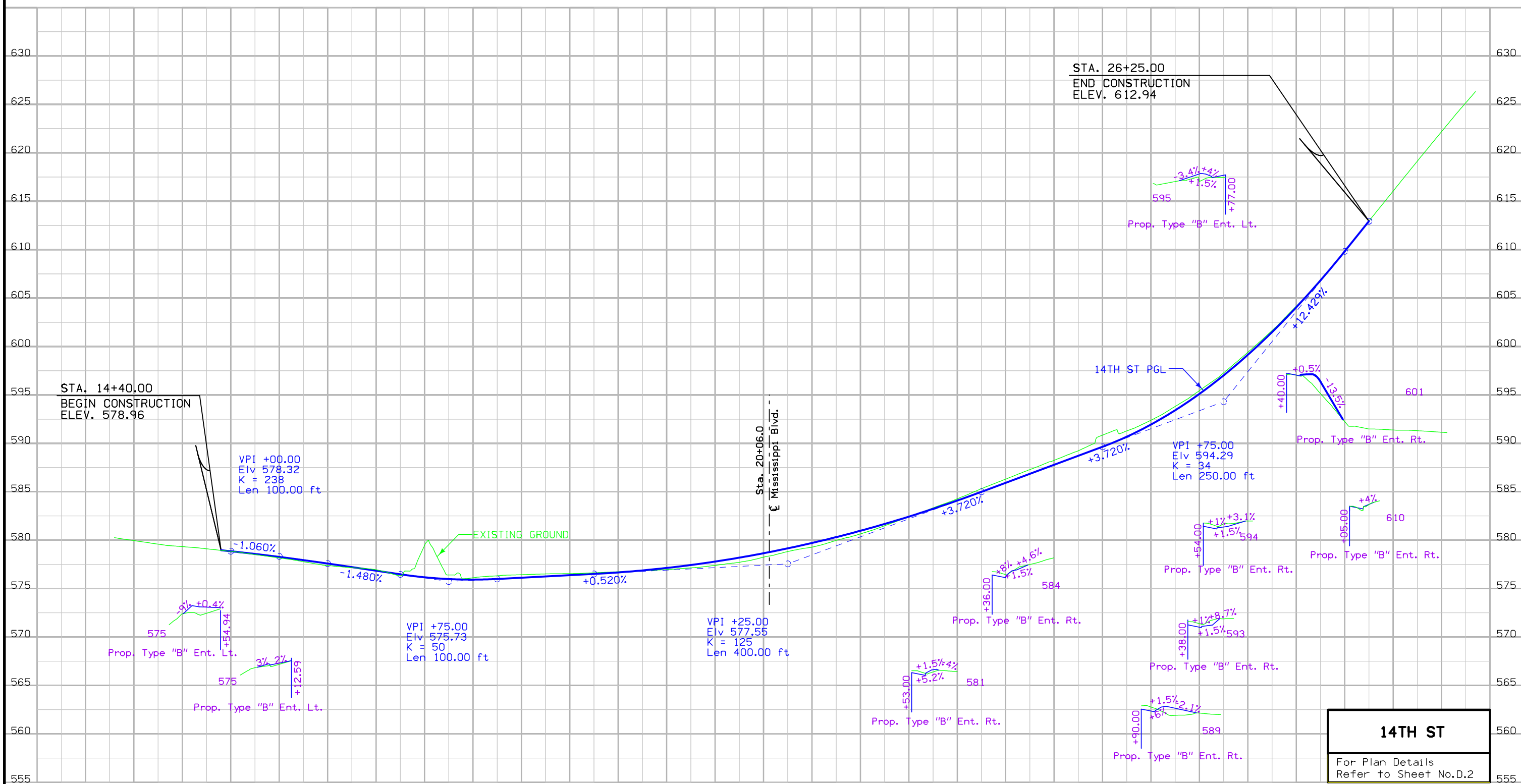
D, E, F, AND K SHEETS

(Symbols are Typical Only)



Fill+30% = 925 CY
 To Stockpile = $\frac{1,795}{2,720}$ CY

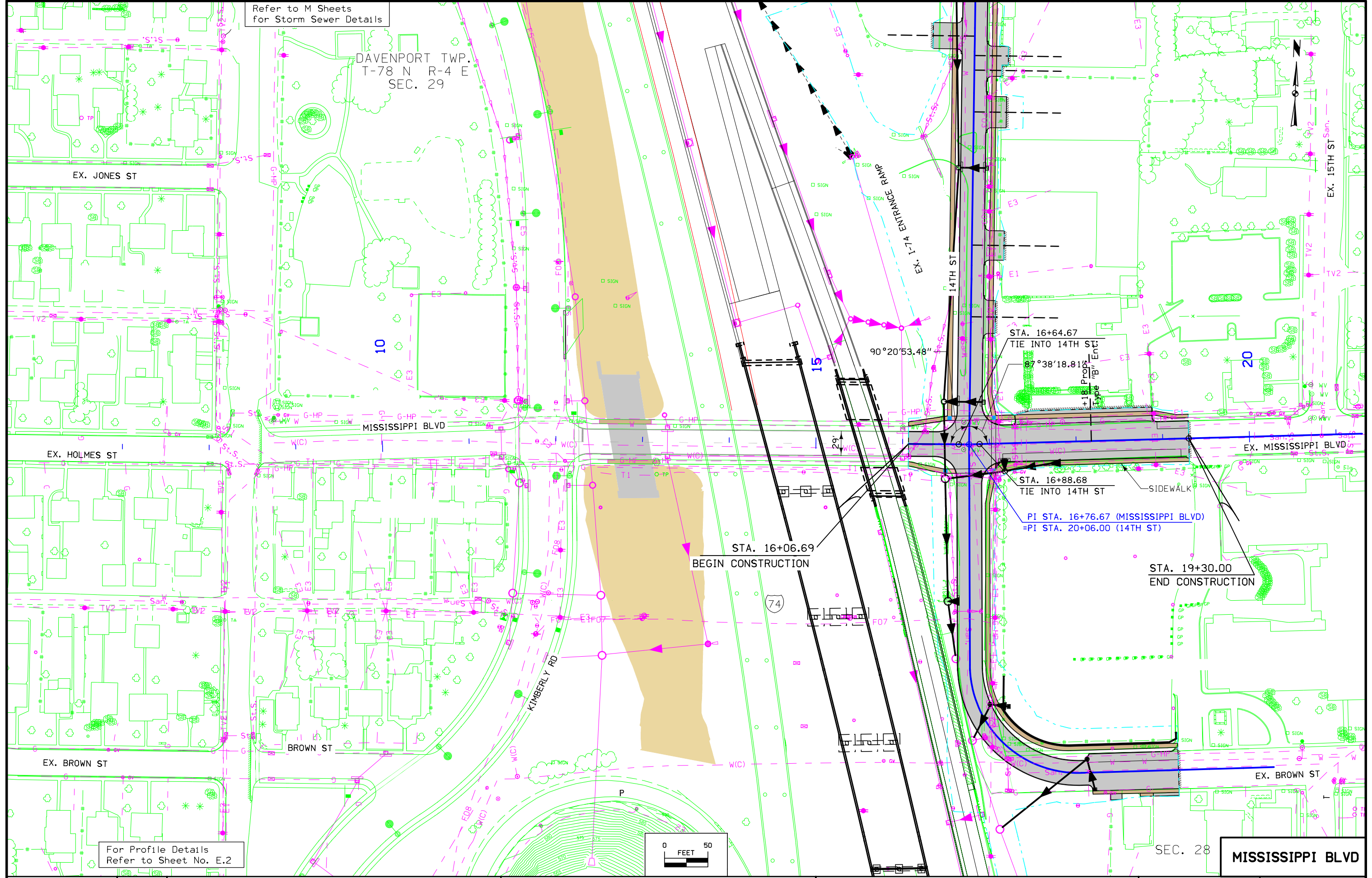
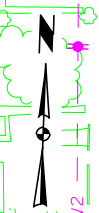
Cut = 2,720 CY



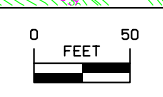
14TH ST
 For Plan Details
 Refer to Sheet No.D.2

Refer to M Sheets
for Storm Sewer Details

DAVENPORT TWP.
T-78 N R-4 E
SEC. 29



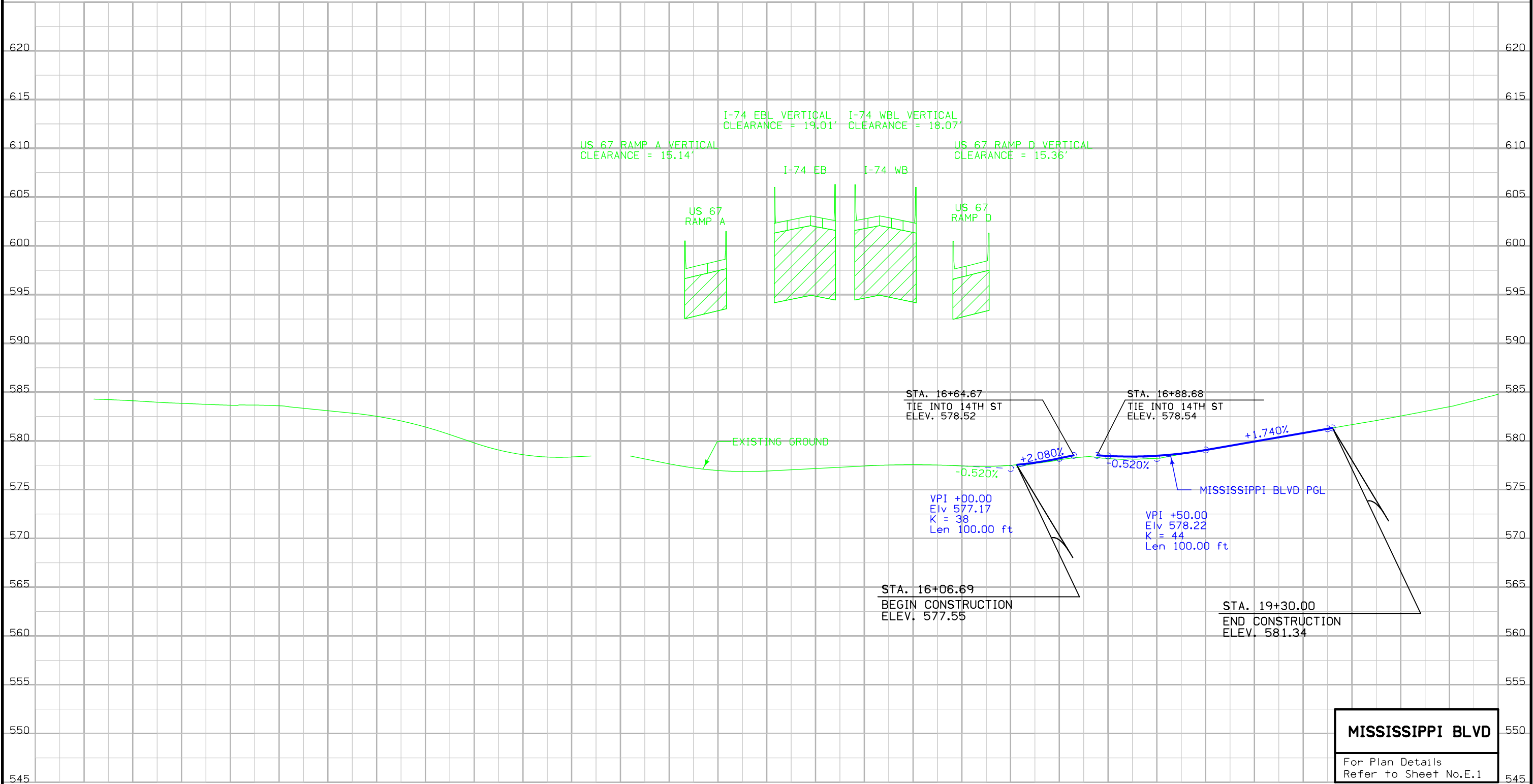
For Profile Details
Refer to Sheet No. E.2



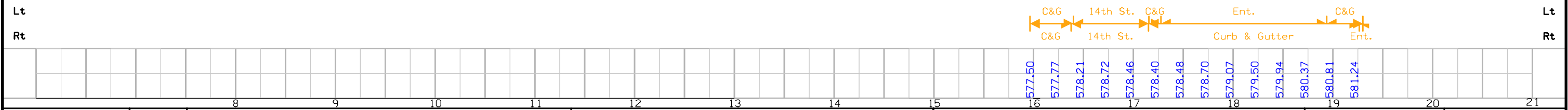
SEC. 28
MISSISSIPPI BLVD

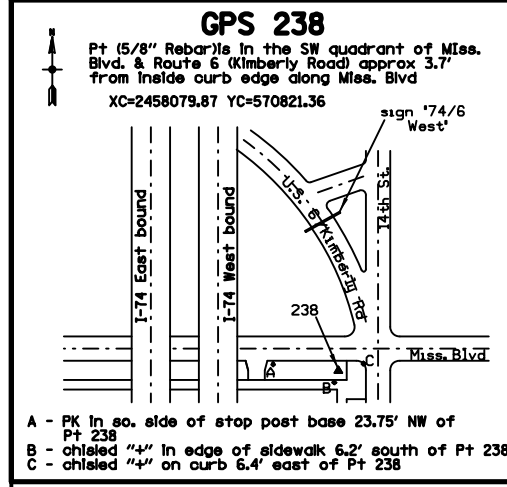
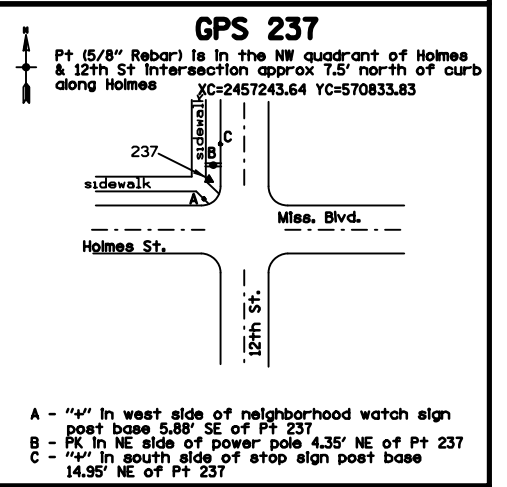
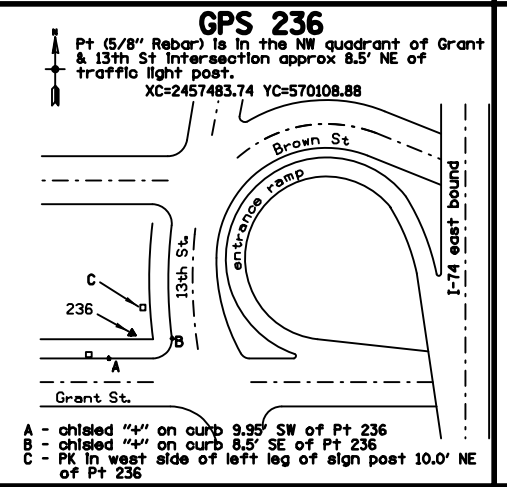
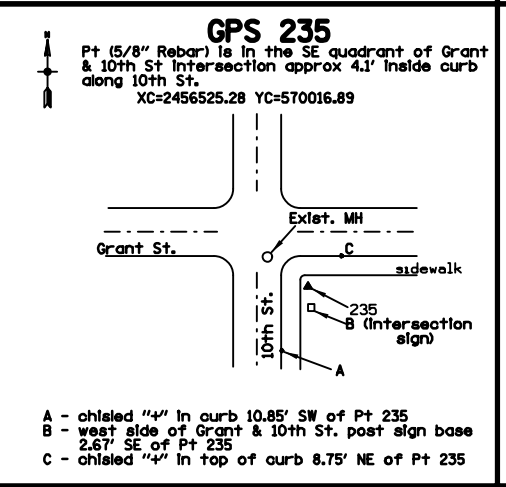
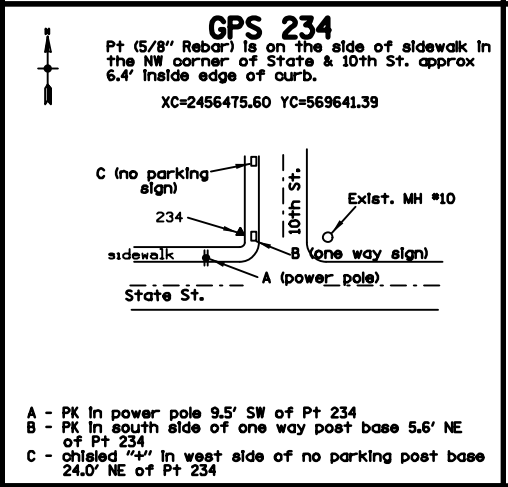
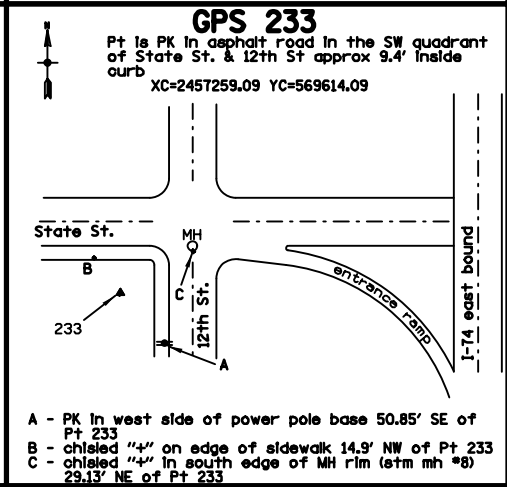
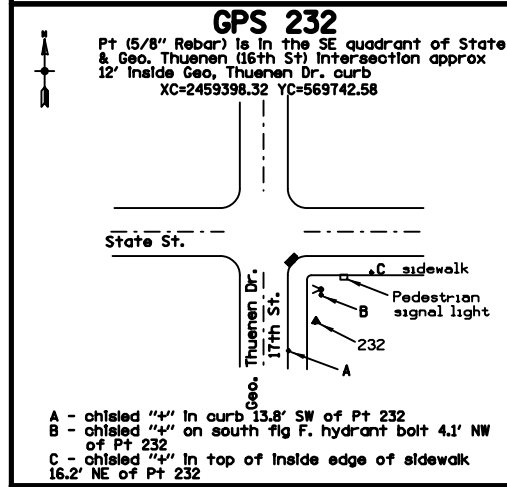
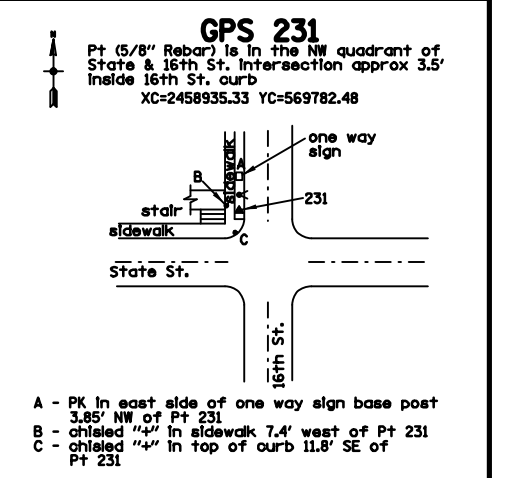
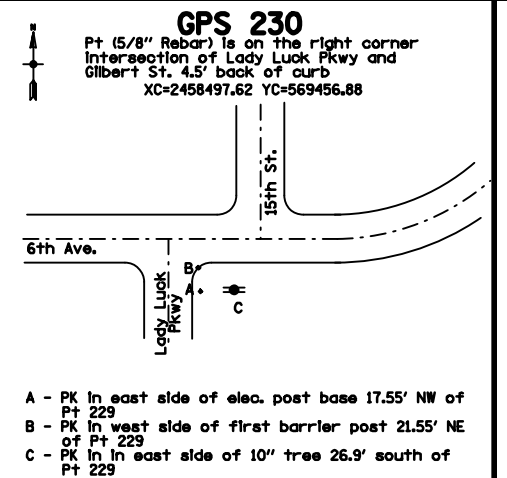
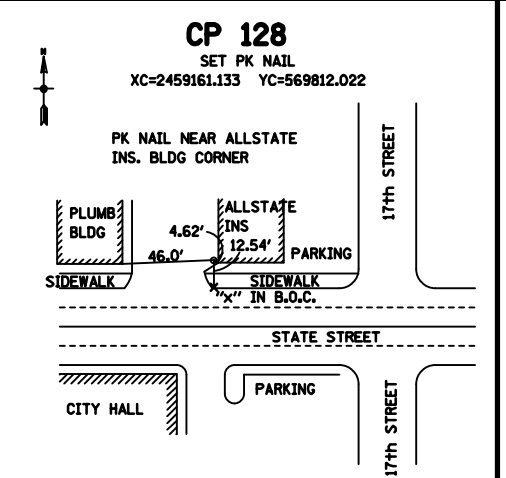
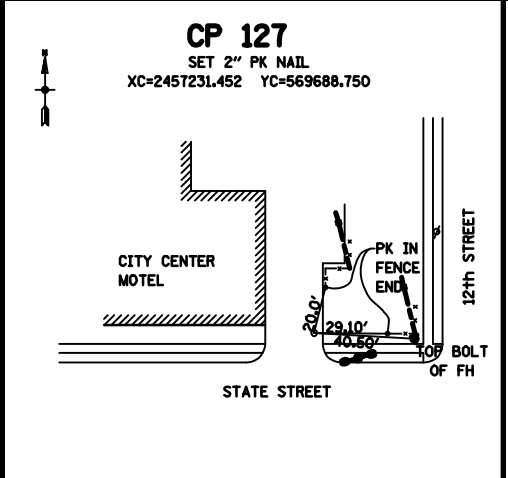
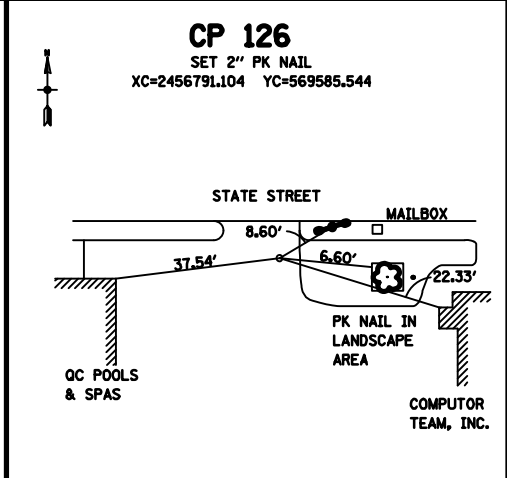
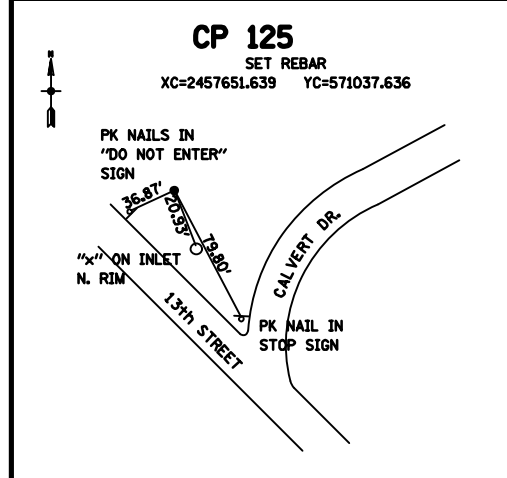
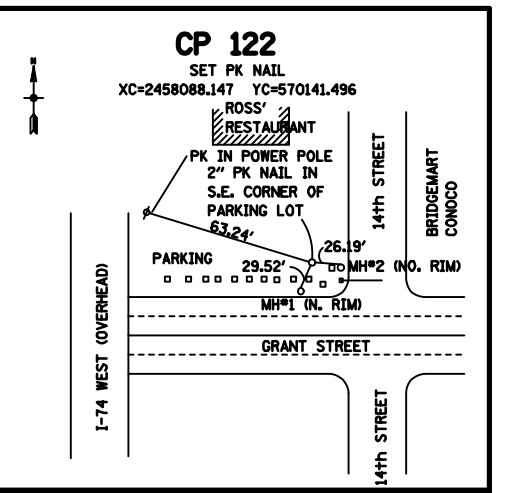
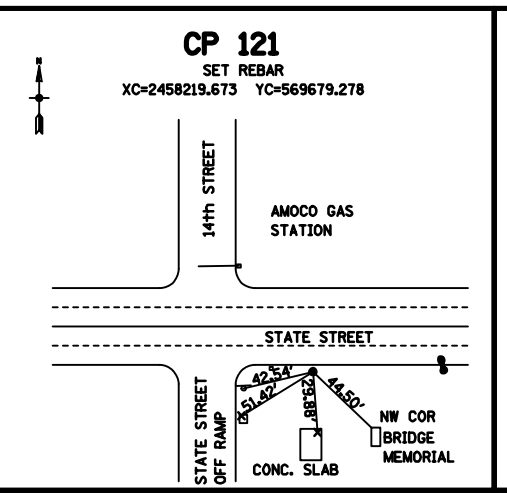
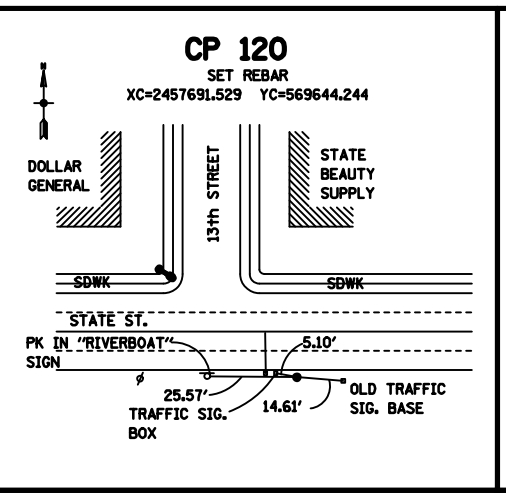
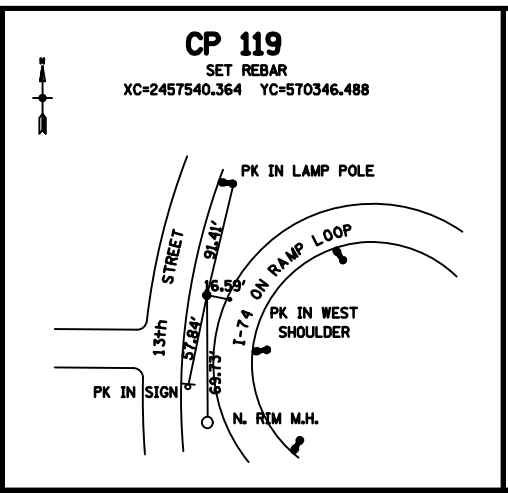
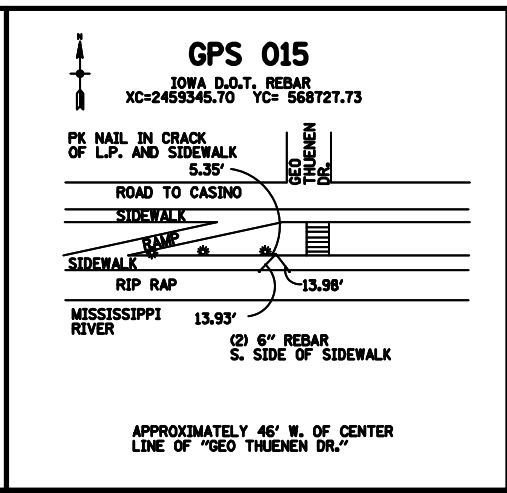
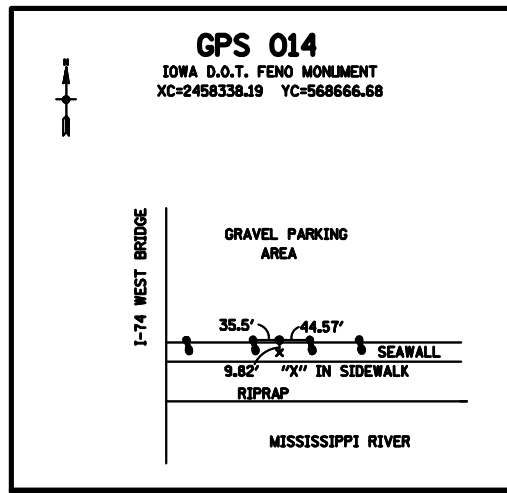
Fill+30% = 121 CY
 To Stockpile = 372 CY
 493 CY

Cut = 493 CY



MISSISSIPPI BLVD
 For Plan Details Refer to Sheet No.E.1





DATUM INFORMATION

THE DATUM PLANE FOR THIS SURVEY IS RELATIVE TO N.A.V.D. 88 DATUM. IN IOWA BENCHES WERE RUN FROM NGS BENCHMARK "DAVENPORT" TO NGS BENCHMARK "F 70 RESET". IN ILLINOIS A BENCH CHECK WAS RUN FROM NGS BENCHMARK "W 52" TO NGS BENCHMARK "Z 52", THEN DATUM WAS CARRIED SOUTH TO THE END OF PROJECT.

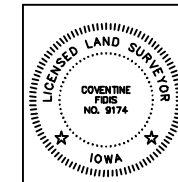
ALL CONTROL POINT COORDINATES SHOWN ARE LOCAL PROJECT PLANE (GROUND) COORDINATES.
CONVERSION EQUATION GRID TO GROUND: GROUND COORD = (STATE PLANE - HOLD POINT) 1/GRID FACTOR + HOLD POINT
CONVERSION EQUATION GROUND TO GRID: GRID COORD = (GROUND - HOLD POINT) GRID FACTOR + HOLD POINT

HOLD POINT = G021	NORTH	EAST	GRID FACTOR	1/GRID FACTOR
	580322.54	245535.37	0.999936506	1.000063498

BENCH MARKS

IOWA BENCHMARKS:

No.	Sta.	Description	ELEVATION	NORTHING	EASTING	STATION	OFFSET
No. 500	Sta.	CHISELED "X" IN BOLT E. SIDE CONC. STRUCTURE-----	575.797	N 568688.8797	E 2458216.7809	6781+18.92	161.19' LT.
No. 501	Sta.	CHISELED "X" IN S.W. FLANGE BOLT IN FHYD-----	568.923	N 569456.8395	E 2458524.4416	6787+97.99	311.34' RT.
No. 502	Sta.	CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD---	575.247	N 569737.4808	E 2458179.1280	6791+49.11	38.00' RT.
No. 503	Sta.	CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD---	580.282	N 570811.0288	E 2458144.2367	6801+93.58	255.44' RT.



I hereby certify that this plan was prepared by me or under my direct personal supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Iowa.

COVENTINE FIDIS
License number: 09174 DATE: _____
My license renewal date is December, 2016
Pages or sheets covered by this seal: G.1

Scott County
 IM-074-1(162)2--13-82
 I-74 From South of Lincoln Rd to North of 67th Street
 Pin 03-82-074-010-04
 SAP 0337.4

General Information

This survey is in English Units. The purpose of this survey was to re-observe and re-level all control. All Bench Marks on the Iowa side of the Mississippi River were re-leveled. All control on the Iowa side of the Mississippi River North of CP123 was re-observed. One new GPS calibration was generated using re-observed control, new supplemental project control, and re-leveled benchmarks along existing I-74. The purpose of this survey was to update old information, confirm the accuracy of old information then collect and verify information along I-74.

The IDOT GPS network control along I-74 was held fixed in the RTK calibration.
 Calibration points held fixed Horizontally and Vertically 5,6,10,17,20,25,100,101,102,103,111,153,243,560,612,
 Calibration points held fixed Vertically 7,21,106,108,109,110,116,157,250,252,254,255,556,563
 Calibration points held fixed Horizontally 12, 13,15.

The project coordinates are projected to the ground.

Vertical Datum

This survey is relative to NAVD 88 vertical datum. A new level loop originated and terminated on the original I-74 mark BM 503. The new level loop ran north to I-80 then returned to BM 503. Loops were also run on Lincoln, Middle road, Spruce Hills & 53rd Street.

Benchmarks were re-established on the new Lincoln Rd overpass bridge. Vertical differences between the 2003 CH2MHill marks and the newly established elevations are as follows, At the Middle Road intersection a vertical difference of 0.062 was found (SEE BM509 equation below). At the Spruce Hills intersection a vertical difference of 0.078 was found (SEE BM514 equation below). All elevations along 53rd street were originally leveled from BM 522, BM 522 has been destroyed in recent construction. Just West of the 53rd Street intersection a vertical difference of 0.066 was found (SEE BM560 equation below).

Vertical Equations;

BM # 503 this survey =BM # 503	Elev. = 580.282 (NAVD 88 English) 2011 Datum BM Elev. = 580.282 (NAVD 88 English) I-74 Consultant survey
BM # 509 this survey =BM # 509	Elev. = 677.516 (NAVD 88 English) 2011 Re-Leveled Elev. = 677.578 (NAVD 88 English) I-74 Consultant survey
BM # 514 this survey =BM # 514 =BM # 514	Elev. = 680.944 (NAVD 88 English) 2011 Re-Leveled Elev. = 681.022 (NAVD 88 English) I-74 Consultant survey Elev. = 681.022 (NAVD 88 English) 2009 WHKS Kimberly Road Survey
BM # 560 this survey =BM # 560	Elev. = 686.934 (NAVD 88 English) 2011 Re-Leveled Elev. = 687.000 (NAVD 88 English) 2008 WHKS 53rd St Survey
BM # 564 this survey =BM # 564	Elev. = 710.632 (NAVD 88 English) 2011 Re-Leveled Elev. = 710.688 (NAVD 88 English) 2008 WHKS 53rd St Survey
BM # 556 this survey =BM # 556	Elev. = 707.691 (NAVD 88 English) 2011 Re-Leveled Elev. = 707.745 (NAVD 88 English) 2008 WHKS 53rd St Survey
BM # 573 this survey =BM # 317 Scott Co Plan (I-74-1(5)2**01--82	Elev. = 624.321 (NAVD 88 English) 2011 Re-Leveled Elev. = 625.21 Datum Unknown
BM # 574 this survey =BM 320"A" Scott Co Plan (I-74-1(5)2--01--82	Elev. = 649.518 (NAVD 88 English) 2011 Re-Leveled Elev. = 649.36 Datum Unknown
BM # 575 this survey =BM 423"A" Scott Co Plan (I-74-1(5)2--01--82	Elev. = 653.550 (NAVD 88 English) 2011 Re-Leveled Elev. = 654.42 Datum Unknown
BM # 576 this survey =BM 328"A" Scott Co Plan (I-74-1(6)3**01-82	Elev. = 646.600 (NAVD 88 English) 2011 Re-Leveled Elev. = 647.61 Datum Unknown

Alignments

Alignments were provided from previous surveys.

Horizontal Datum & Project Coordinate Transformation

The IDOT observed a GPS Static control network for the I-74 Mississippi River Bridge.

GENERAL INFORMATION FOR GPS PROJECT : Sap 0337 IMN-74-1(123)0-0e-82

STATE PLANE COORDINATE ZONE 1402 (IOWA SOUTH LAMBERT)

STATE PLANE COORDINATES HELD AT POINT G021

AVERAGE PROJECT LATITUDE = 41 33 2.13112

RESULTING RADIUS = 6363530.832 (METERS)

MEAN PROJECT ELEVATION = 195.000 (METERS)

SEA LEVEL FACTOR = 0.999969358

AVERAGE PROJECT SCALE FACTOR = 0.999967147

COMBINED FACTOR (GRID) = 0.999936506

1 / GRID = 1.000063498

VERTICAL DATUM = NAVD 88 <> HORIZONTAL DATUM = NAD 83 (1996)

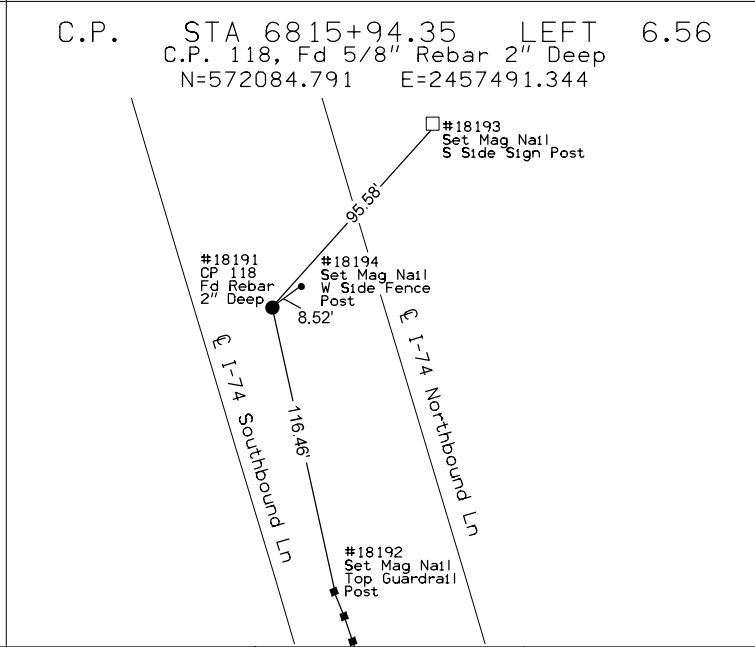
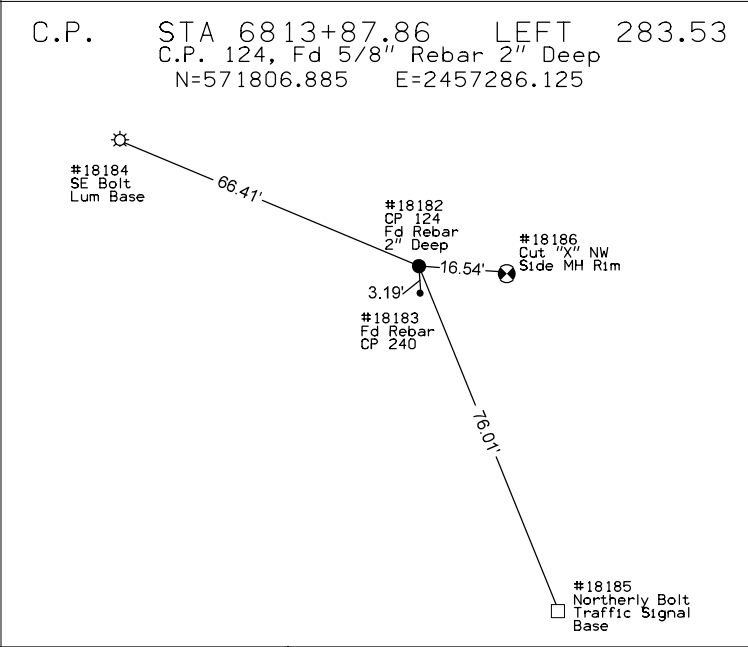
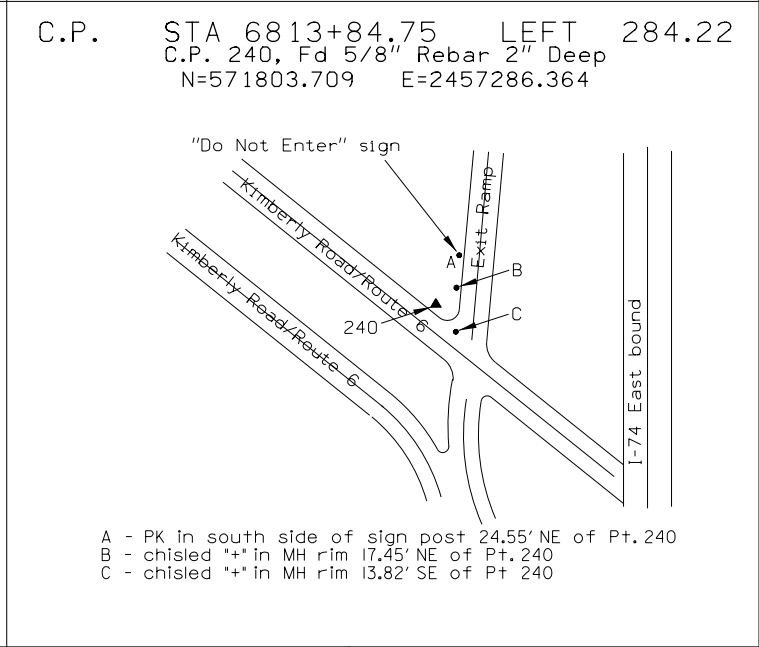
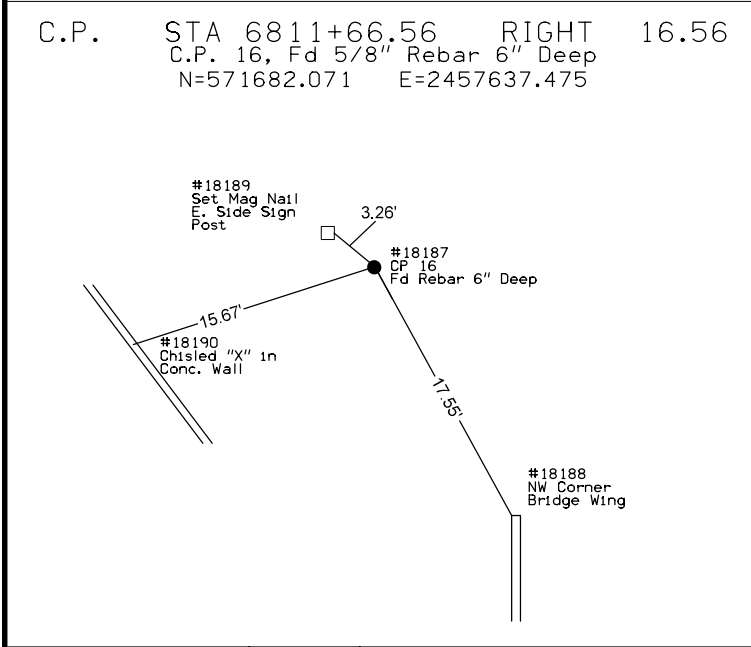
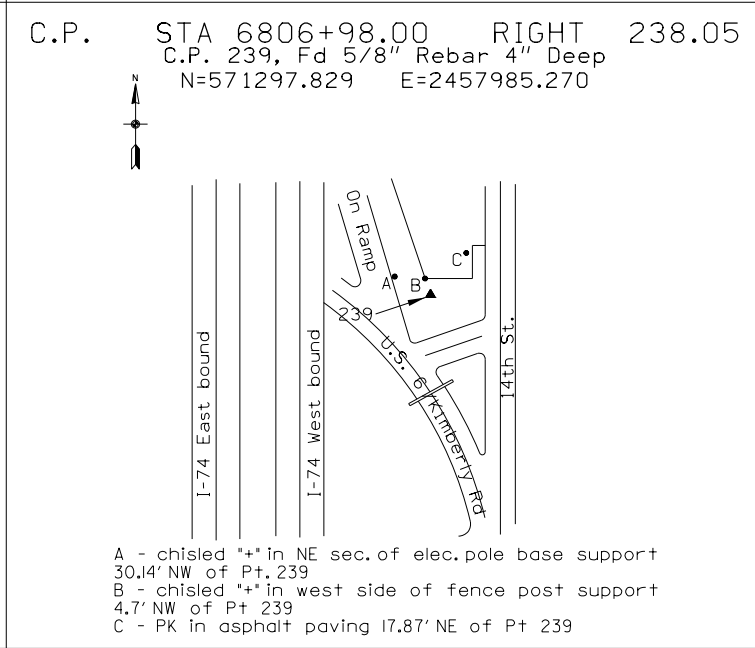
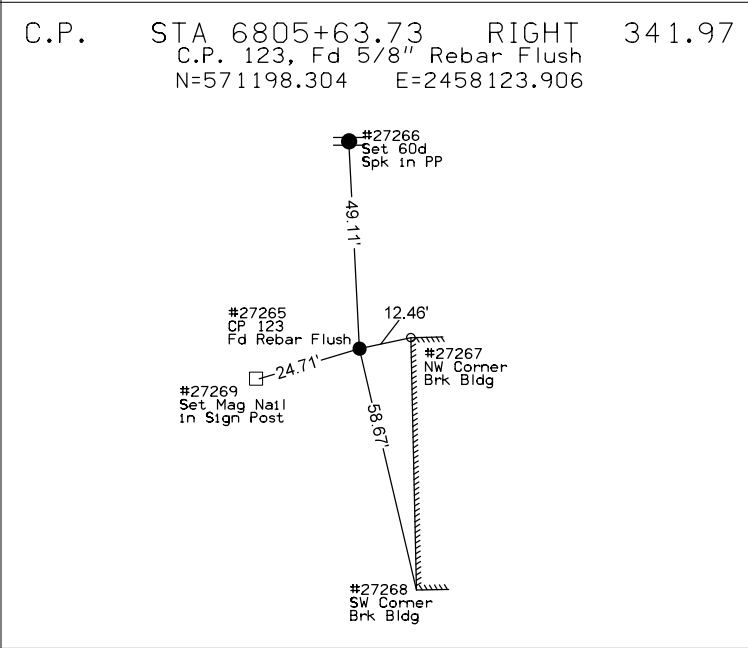
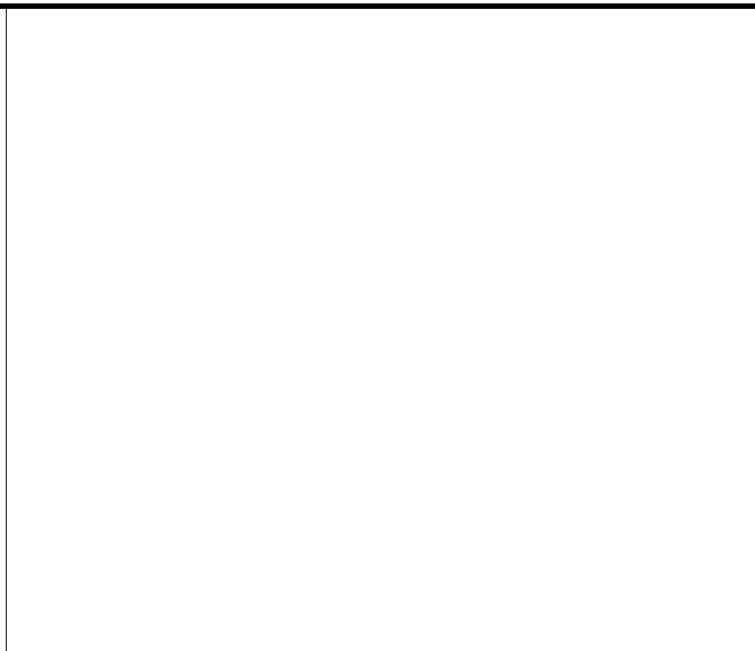
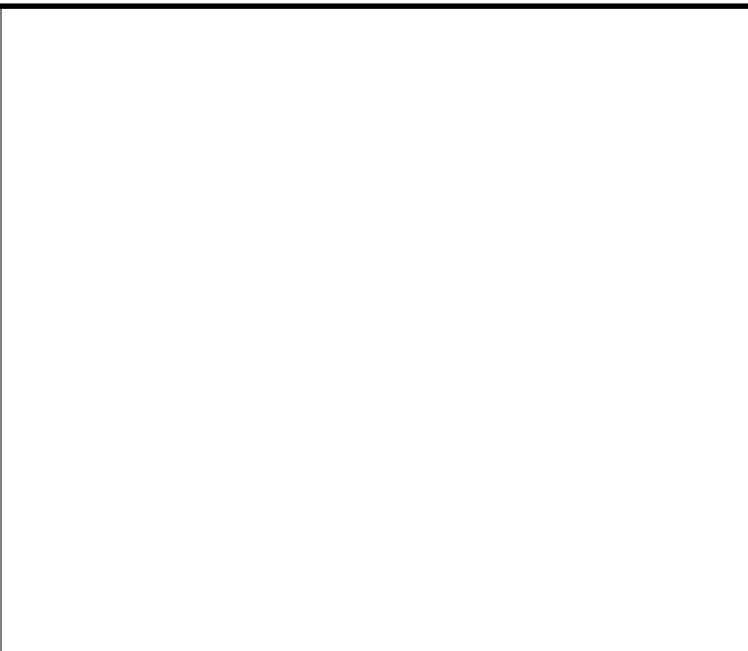
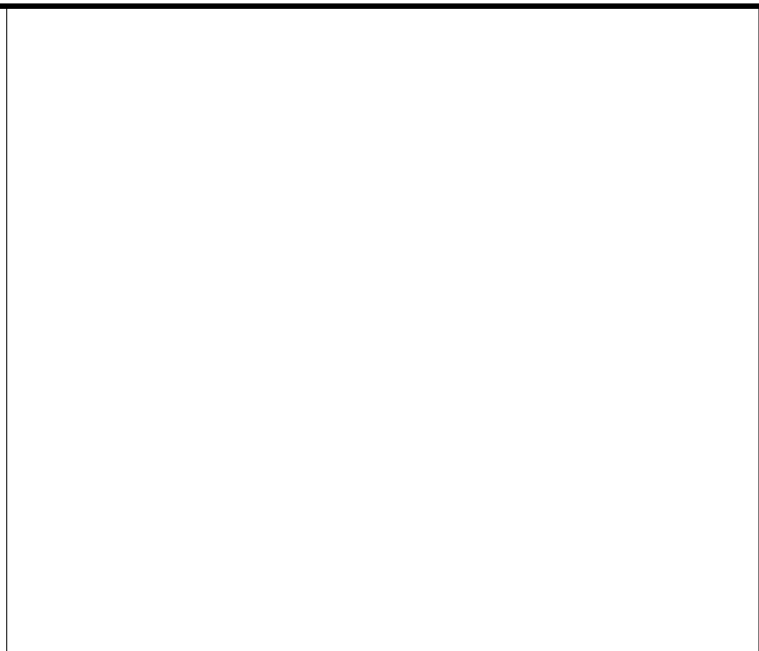
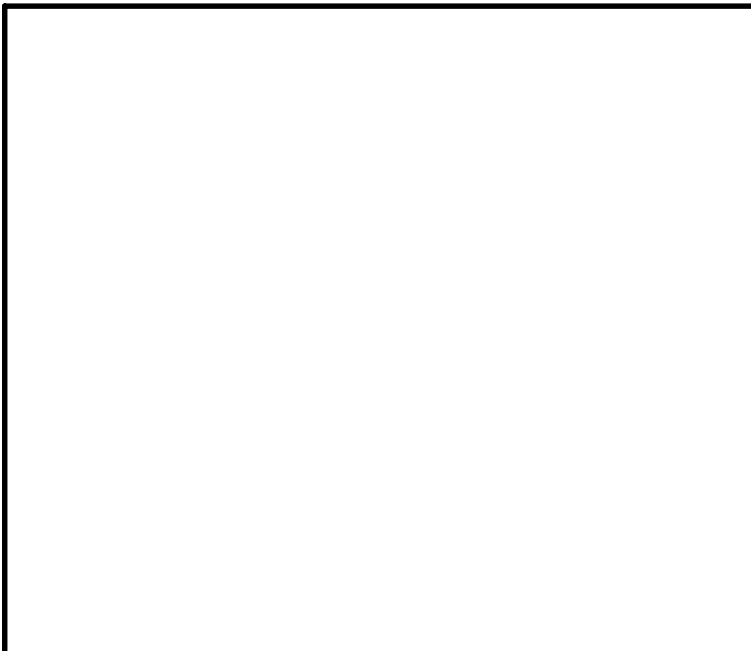
Local Project Plane Coordinate Conversion Equation:

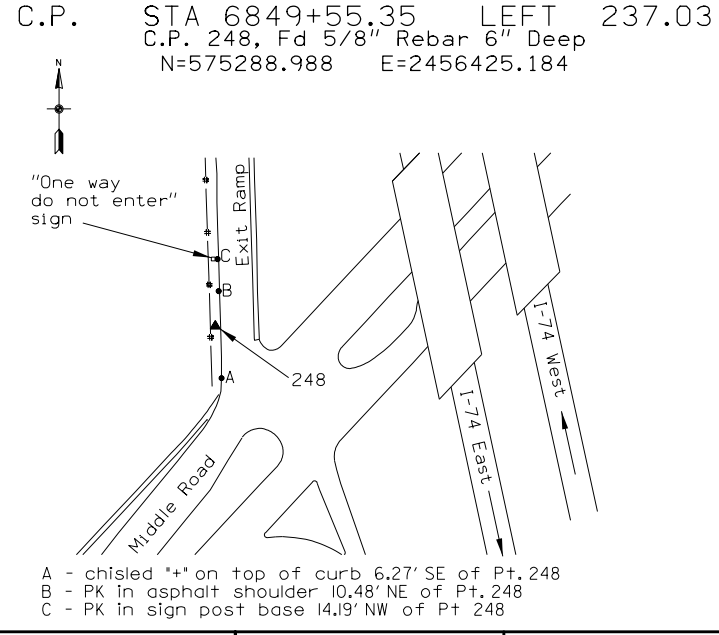
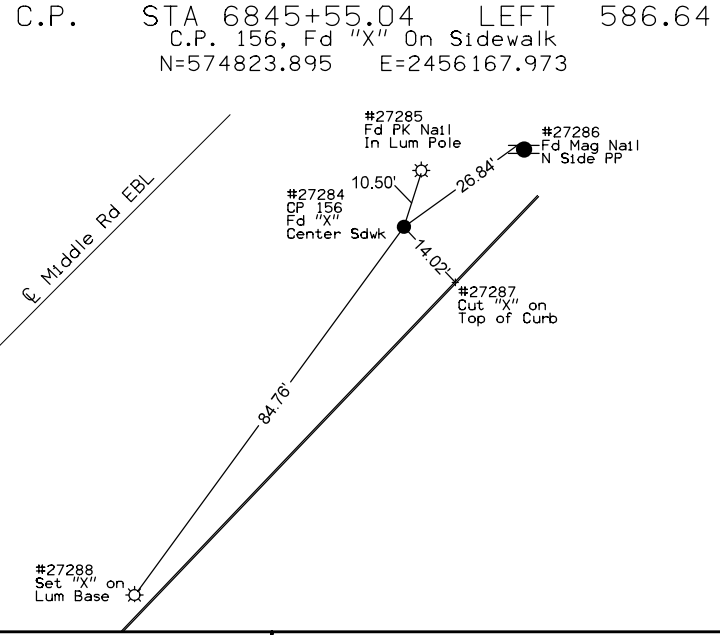
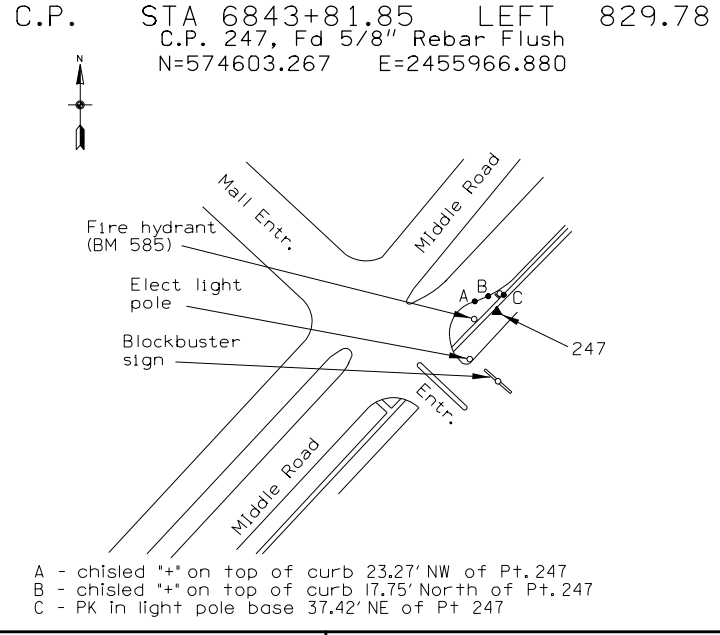
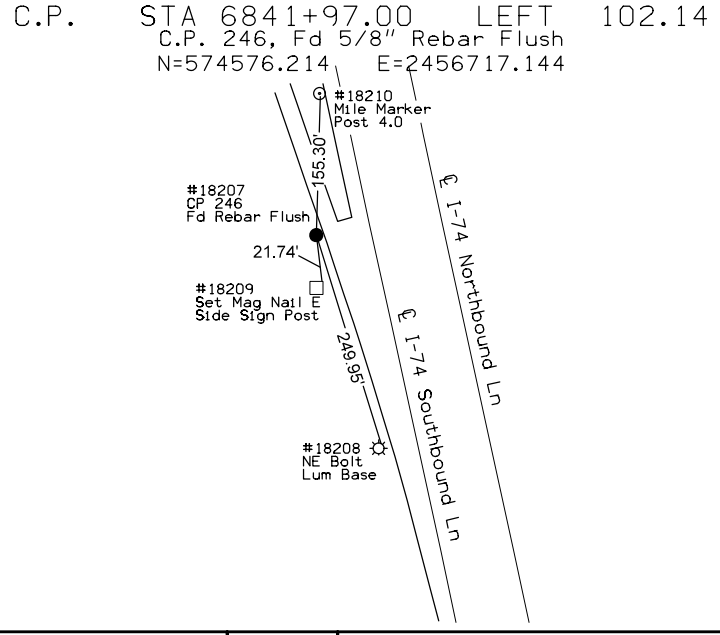
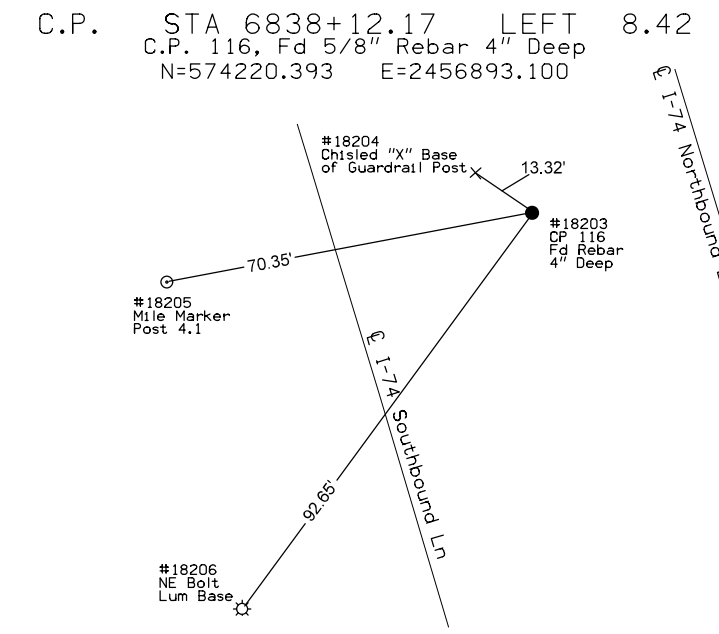
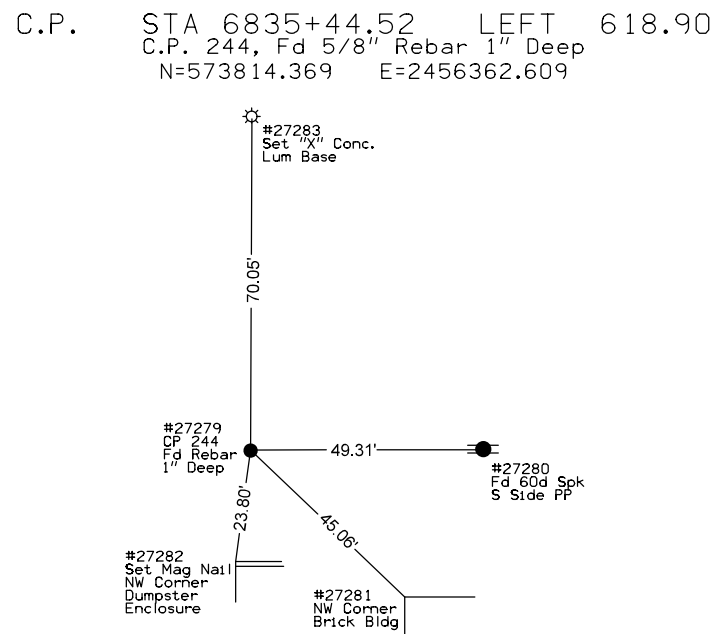
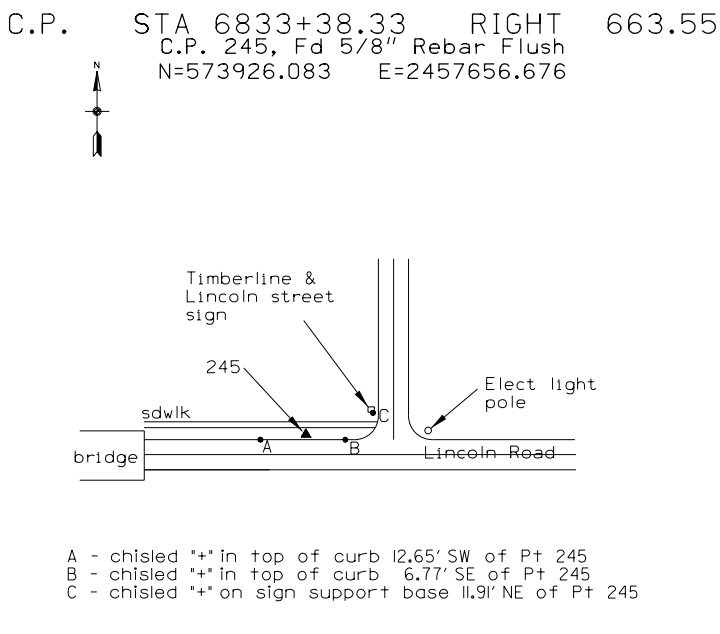
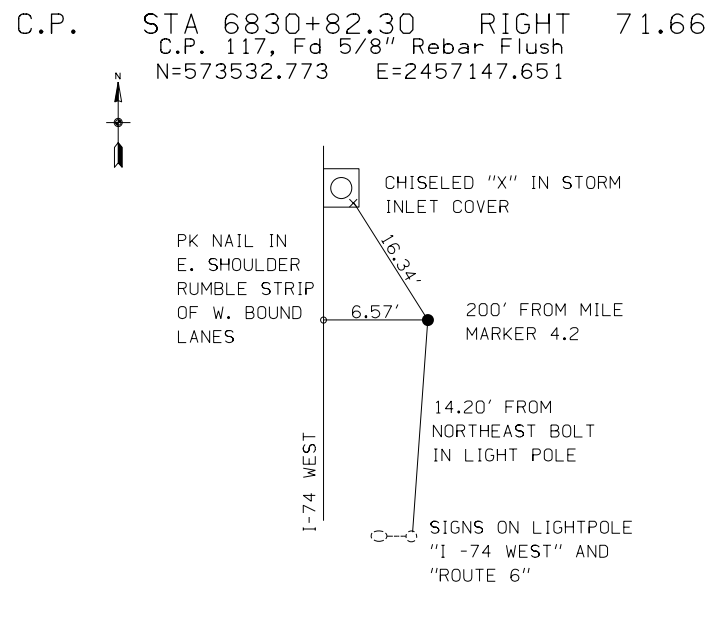
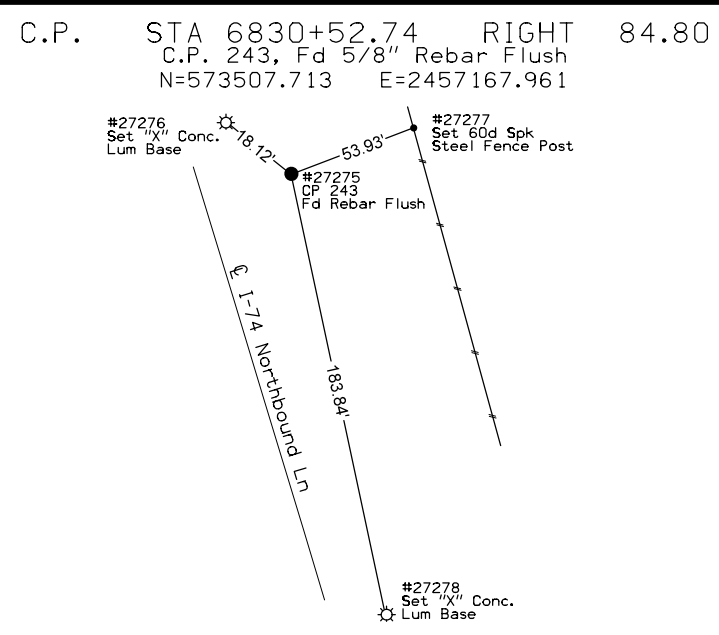
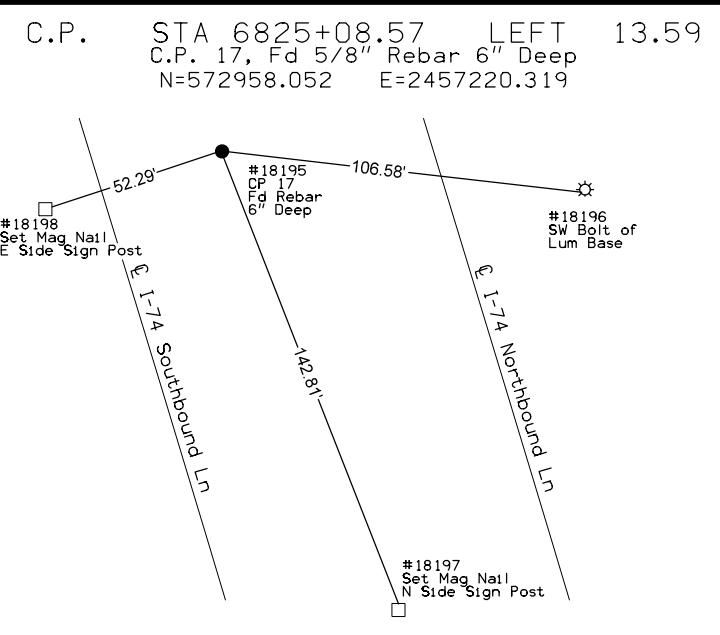
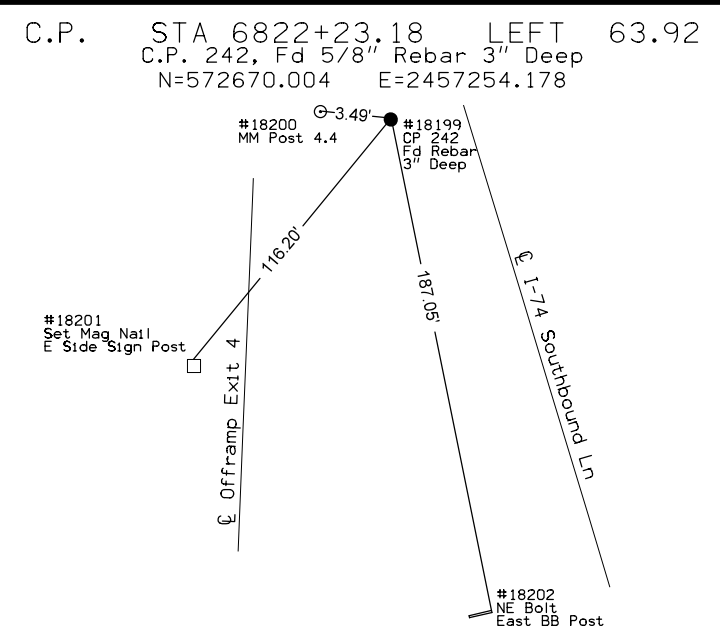
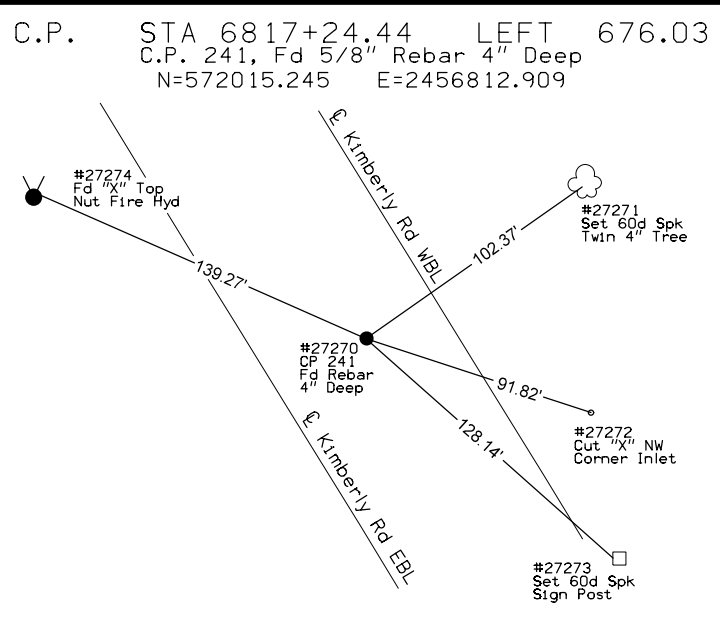
- a. Local Project Coord y = [(State Plane y - hold point y) 1/grid factor] + hold point y
- b. Local Project Coord x = [(State Plane x - hold point x) 1/grid factor] + hold point x

ALL COORDINATES CONVERTED TO ENGLISH UNITS

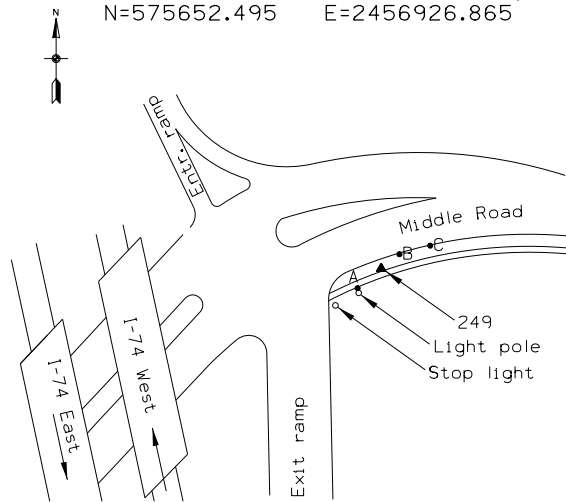
POINT	STATE PLANE COORD(Y)	STATE PLANE COORD(X)	POINT SCALE FACTOR	LOCAL PROJECT PLANE COORD(Y)	LOCAL PROJECT PLANE COORD(X)	Leveled Elevation
2	575101.117	2456247.982	0.99996155	575100.785	2456248.039	671.710
3	575305.685	2456670.142	0.99995733	575305.366	2456670.226	677.231
4	587761.953	2454890.061	0.99995075	587762.425	2454890.032	699.736
5	579548.598	2465909.733	0.99996337	579548.549	2465910.403	-----
6	592312.279	2465381.409	0.99996316	592313.040	2465382.046	-----
7	570852.050	2449647.188	0.99996322	570851.449	2449646.826	-----
10	566360.220	2467519.750	0.99996337	566359.333	2467520.523	-----
11	565294.190	2460631.000	0.99996316	565293.236	2460631.335	-----
12	564685.560	2459258.240	0.99996301	564684.567	2459258.488	-----
13	565480.250	2459044.560	0.99996322	565479.308	2459044.794	-----
14	568667.420	2458338.000	0.99996407	568666.680	2458338.190	575.724
15	568728.460	2459345.450	0.99996408	568727.724	2459345.703	576.878
16	571682.620	2457637.330	0.99996489	571682.071	2457637.475	625.186
17	572958.520	2457220.200	0.99996525	572958.052	2457220.319	658.505
Original Cp 18 has been destroyed						
19	576053.260	2456566.470	0.99996613	576052.989	2456566.547	659.900
20	577880.740	2455743.660	0.99996666	577880.585	2455743.685	626.865
21	580322.540	2455353.370	0.99996738	580322.540	2455353.370	677.568
22	582952.070	2455193.020	0.99996817	582952.237	2455193.010	688.928
Original Cp 23 has been destroyed						
24	590858.430	2455023.020	0.99997062	590859.099	2455022.999	727.114
25	593042.580	2454447.940	0.99997133	593043.388	2454447.883	748.901
26	595178.440	2454058.310	0.99997203	595179.383	2454058.228	732.221

BENCHMARKS		ELEVATION				
No. 500 Sta. 6781+18.803	161.128 Lt. Y: 568688.781 X:2458216.869	Fd "X" on bolt East side conc structure =CH2MHill BM500 EL=575.797	575.796	No. 570 Sta. 6975+27.062	133.539 Rt. Y: 587684.130 X:2455161.067	Fd IDOT Brass Button on SE BRG/SWK Barrier Rail (New BM on new Brg Addition)
No. 501 Sta. 6787+97.906	311.471 Rt. Y: 569456.791 X:2458524.591	Fd CHISELED "X" IN S.W. FLANGE BOLT IN Fire Hyd (FD Good Cond) =CH2MHill BM501 EL 568.923	568.926	No. 571 Sta. 6848+78.456	59.872 Lt. Y: 575251.235 X:2456614.586	BM Established in 2011 DOT BM Button on SW Barrier Rail of SBL Brg over Middle Rd
No. 502 Sta. 6791+49.022	38.344 Rt. Y: 569737.468 X:2458179.480	FD CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD (Leaning) =CH2MHill BM502 EL 575.247	575.247	No. 572 Sta. 6865+94.623	31.589 Lt. Y: 576920.853 X:2456245.148	BM Established in 2011 DOT BM Button on SW Barrier Rail of SBL Brg over Duck Creek
No. 503 Sta. 6801+93.632	255.412 Rt. Y: 570811.071 X:2458144.197	FD CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD (Leaning) =CH2MHill BM503 EL 580.282	580.282	No. 573 Sta. 6875+20.239	245.376 Rt. Y: 577875.339 X:2456080.499	BM Established in 2011 (X) on SW Bolt fire hyd Jct Hawthorne Dr & Cypress Drive =Plan BM 317 Plan Elev=625.21 (I-74-1(5)2**01--82 Fd on sheet 4 of 8
No. 504 Sta. 6809+00.595	189.731 Rt. Y: 571477.720 X:2457880.301	Fd "X" IN West side conc Luminaire Base =CH2MHill BM504 EL 602.945	602.920	No. 574 Sta. 6893+06.470	271.761 Rt. Y: 579499.349 X:2455688.689	BM Established in 2011 (x) on NW bolt of Fire Hyd Plan Elev =649.36 =Plan BM 320"A" (I-74-1(5)2--01--82 Fd on sheet 47A
No. 505 Sta. 6810+90.128	75.269 Rt. Y: 571625.939 X:2457715.814	Fd Square on NE Barrier Rail of NBL I-74 Bridge over Kimberly Rd =CH2MHill BM505 EL 621.93	621.906	No. 575 Sta. 6904+13.118	741.405 Lt. Y: 580507.579 X:2454577.542	BM Established in 2011 IHC BM on inlet Hdwl 4x4 RCB Plan Elev =654.42 =Plan BM 423"A" (I-74-1(5)2--01--82 Fd on sheet 47A
No. 506 Sta. 6822+67.473	84.778 Rt. Y: 572755.496 X:2457383.651	Fd "X" on West side Cir conc Lum Pole Base =CH2MHill BM506 EL 655.749	655.710	No. 576 Sta. 6955+96.514	74.251 Rt. Y: 585752.751 X:2455143.593	BM Established in 2011 =Plan BM 328"A" Plan calls for IHC This Survey Fd "X" on Inlet end 6x6 RCB Plan Plan Elev=647.61 (I-74-1(6)3**01-82 Fd on sheet 30
No. 507 Sta. 6834+05.076	68.762 Rt. Y: 573843.513 X:2457063.995	Not Found at given coordinates presumed destroyed CH2M Hill BM	668.133	No. 577 Sta. 6833+94.859	132.343 Rt. Y: 573849.206 X:2457128.132	BM Established in 2011 Fd PK nail in SE Barrier Rail of New bridge on Lincoln
No. 508 Sta. 6842+55.549	62.831 Rt. Y: 574668.276 X:2456866.038	Fd "X" on East side conc Lum Pole Base =CH2MHill BM508 EL 671.518	671.448	No. 578 Sta. 6835+04.164	126.319 Lt. Y: 573892.486 X:2456850.685	BM Established in 2011 Fd PK nail in NW Barrier Rail of New bridge on Lincoln
No. 509 Sta. 6851+85.690	59.105 Rt. Y: 575576.663 X:2456666.015	Fd IDOT BM Button on NE Barrier Rail of NBL Brg over Middle Rd =CH2MHill BM509 EL 677.578	677.516	No. 600 Sta. 6904+02.998	796.519 Lt. Y: 580492.406 X:2454523.600	Fd x on NE Bolt of lum pole base (Good Cond) equals SAP 0576 BM601 ZC=657.159--
No. 510 Sta. 6861+43.895	80.14 Rt. Y: 576518.994 X:2456482.513	Fd "X" on E Side conc Luminaire Base at AB Sta 2170+00+/- =CH2MHill BM510 EL 645.087	645.044	MISCELLANEOUS LOCATIONS		
No. 511 Sta. 6868+67.531	100.64 Rt. Y: 577225.907 X:2456261.874	Fd DOT BM Button on NE Barrier Rail of NBL Brg over Duck Creek =CH2MHill BM511 EL 638.647	638.614	BENCHMARKS along Kimberly Rd		
No. 512 Sta. 6882+39.229	73.974 Rt. Y: 578444.501 X:2455659.981	Fd "X" on Conc Base of W post of sign "exit 2" =CH2MHill BM512 EL 631.703	631.676	ELEVATION		
No. 513 Sta. 6892+34.511	84.403 Rt. Y: 579410.375 X:2455508.787	Fd "X" on top east end 48" RCP =CH2MHill BM513 EL 649.572 125' +/- N. of MM 3.1	649.537	No. 566 Sta. 7293+72.752	85.356 Lt. Y: 580808.174 X:2452917.397	IHC BM on Inlet Hdwl of Twin 14 x 14 RCB equals SAP 0576 BM505 ZC=632.189
No. 514 Sta. 6901+57.825	60.026 Rt. Y: 580327.480 X:2455399.144	Fd DOT BM Button on SE Barrier Rail of NBL Brg over Spruce Hills Rd =CH2MHill BM514 EL 781.022	680.944	No. 567 Sta. 7294+25.010	66.073 Rt. Y: 580650.413 X:2452889.591	"X" on Outlet Hdwl 30 x 15 Conc Arch equals SAP 0576 BM506 equals ZC=634.892--
No. 515 Sta. 6912+23.757	330.731 Rt. Y: 581413.875 X:2455570.133	Fd CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" =CH2MHill BM515 EL 683.991	683.924	No. 601 Sta. 7296+53.544	145.968 Lt. Y: 580724.974 X:2453192.177	Fd x on East bolt of lum base (Good Cond) equals SAP 0576 BM601 ZC=637.567--
No. 516 Sta. 6923+17.968	89.277 Lt. Y: 582468.666 X:2455061.538	Fd "X" on E side conc Lum Pole Base =CH2MHill BM516 EL 686.241	686.161	BENCHMARKS along Spruce Hills		
No. 518 Sta. 6934+40.127	101.985 Rt. Y: 583597.470 X:2455218.010	Fd "T" IN HDWL R.C.B. 2' from WHKS BM (#16589 Fd IHC inlet hdwl 4x5x175.9RCB)	668.280	ELEVATION		
No. 519 Sta. 6946+33.160	100.75 Lt. Y: 584785.834 X:2454989.491	Not Found at given coordinates presumed destroyed CH2M Hill BM	667.743	No. 600 Sta. 7310+89.997	68.872 Lt. Y: 580492.406 X:2454523.600	Fd x on NE Bolt of lum pole base (Good Cond) equals SAP 0576 BM601 ZC=657.159--
No. 520 Sta. 6956+41.991	87.183 Rt. Y: 585798.497 X:2455155.537	Fd "X" in Sign Base =CH2MHill BM520 EL 746.765	646.698	No. 575 Sta. 7311+44.092	83.488 Lt. Y: 580507.579 X:2454577.542	BM Established in 2011 IHC BM on inlet Hdwl 4x4 RCB Plan Elev =654.42 =Plan BM 423"A" (I-74-1(5)2--01--82 Fd on sheet 47A
No. 521 Sta. 6963+09.707	63.203 Rt. Y: 586465.537 X:2455117.105	Fd "X" on Lum Base =CH2MHill BM521 EL 660.130	660.059	BENCHMARKS along 53rd Street		
No. 522 Sta. 6974+87.011	80.483 Rt. Y: 587642.940 X:2455108.891	Not Found at given coordinates presumed destroyed CH2M Hill BM	679.620	ELEVATION		
No. 523 Sta. 6988+24.965	63.13 Rt. Y: 588980.204 X:2455062.572	Fd "X" on Lum Base =CH2MHill BM523 EL 700.669	700.594	No. 556 Sta. 5101+39.040	46.77 Lt. Y: 587664.694 X:2452092.820	Fd City of Davenport conc pad with disk (Good Cond)-Previous El=707.745
No. 524 Sta. 7000+10.296	63.463 Rt. Y: 590165.265 X:2455037.241	Fd "X" on Lum Base =CH2MHill BM524 EL 719.358	719.265	No. 557 Sta. 5109+03.090	61.092 Rt. Y: 587591.784 X:2452860.855	Fd RR spk N side PP 53rd & Ent to Wendys -Previous El=700.401
No. 525 Sta. 7010+07.602	91.313 Lt. Y: 591158.986 X:2454860.908	Fd "X" in Sign Base =CH2MHill BM525 EL 727.605	727.494	No. 559 Sta. 5119+68.333	62.324 Lt. Y: 587757.826 X:2453921.509	Fd "X" SW Bolt F Hyd-Previous El=697.692--
No. 526 Sta. 7019+95.564	98.784 Lt. Y: 592123.621 X:2454768.643	FD "X" on east side sign base =CH2MHill BM526 EL 731.873	731.766	No. 560 Sta. 5125+32.940	112.763 Rt. Y: 587587.849 X:2454490.316	Fd "X" on E side Lum Pole Base @ SW Quad 53rd & SBL on Ramp to I-74 Previous El=687.000
No. 527 Sta. 7033+00.191	150.317 Rt. Y: 593441.396 X:2454656.773	Fd RR Spk in w. side fence post =CH2MHill BM527 EL 738.163	738.026	No. 564 Sta. 5135+05.67	47.436 Lt. Y: 587788.155 X:2455457.106	Fd "X" on S side Lum Pole Base Previous El=710.688
No. 528 Sta. 7039+00.326	82.286 Rt. Y: 593998.080 X:2454422.481	Fd "X" in Sign Base =CH2MHill BM528 EL 733.087	732.973	No. 563 Sta. 5141+77.716	50.554 Rt. Y: 587718.639 X:2456132.692	Fd RR spk S side PP-Previous El=714.911--
No. 529 Sta. 7028+71.801	105.188 Rt. Y: 593017.636 X:2454734.117	Fd IHC BM on SE Cor 67th St. Bridge =CH2MHill BM529 EL 751.48	751.346	No. 561 Sta. 5144+84.792	67.902 Lt. Y: 587849.961 X:2456434.490	Fd "X" on S Traffic Signal Base Previous El=710.934
No. 533 Sta. 6975+42.730	2347.104 Rt. Y: 587747.722 X:2457373.774	Not Found at given coordinates presumed destroyed CH2M Hill BM City of Davenport B.M. BRASS Monu	711.250	No. 562 Sta. 5147+11.075	49.497 Rt. Y: 587742.225 X:2456665.530	Fd RR spk N side PP-Previous El=707.554--
No. 556 Sta. 6975+74.064	2934.409 Lt. Y: 587664.694 X:2452092.820	Fd City of Davenport conc pad with disk (Good Cond)-Previous El=707.745	707.691	BENCHMARKS Outside Project Limits		
No. 558 Sta. 6976+23.550	1683.44 Lt. Y: 587741.254 X:2453342.425	Not Found at given coordinates presumed destroyed BM from 53rd St Survey	709.391	ELEVATION		
No. 564 Sta. 6976+24.653	431.761 Rt. Y: 587788.155 X:2455457.106	Fd "X" on S side Lum Pole Base	710.632	No. 612 Sta. 6923+98.048	12492.508 Lt. Y: 581906.735 X:2442670.591	Fd "X" NE Cor Coc Base(=BM612 J Krieger 2007 Rd Survey ZC=680.814)=(BM612 2009 Kimberly Rd Survey ZC=680.884)
No. 565 Sta. 6934+41.901	101.993 Rt. Y: 583599.244 X:2455217.979	Fd IHC BM on inlet hdwl 4x5x175.9 RCB Note:This BM is 2' from CH2MHill #518	668.319	No. 999 Sta. 6826+44.943	15993.986 Lt. Y: 568672.694 X:2441824.208	Fd 60 spk in SWK crack near electrical access lid approx 500' NE of station "Davenport" the swk is along west side of Perry Street just north of E 4th St.
No. 568 Sta. 6976+08.417	131.511 Rt. Y: 587765.422 X:2455157.278	Fd IDOT Brass Button on NE BRG/SWK Barrier Rail	708.326			
No. 569 Sta. 6976+03.140	118.937 Lt. Y: 587754.724 X:2454907.003	Fd IDOT Brass Button on NW BRG/SWK Barrier Rail	703.120			



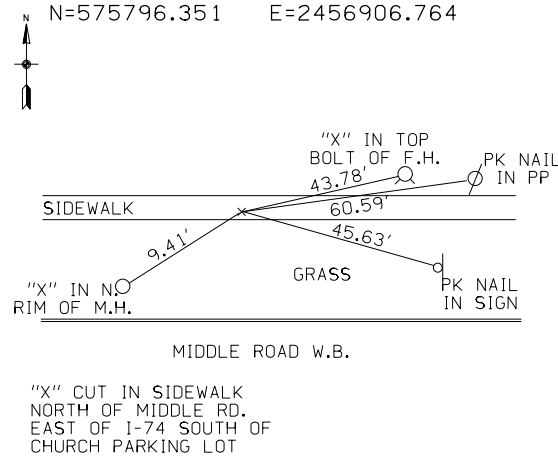


C.P. STA 6852+04.74 RIGHT 330.09
 C.P. 249, Fd 5/8" Rebar 2" Deep
 N=575652.495 E=2456926.865



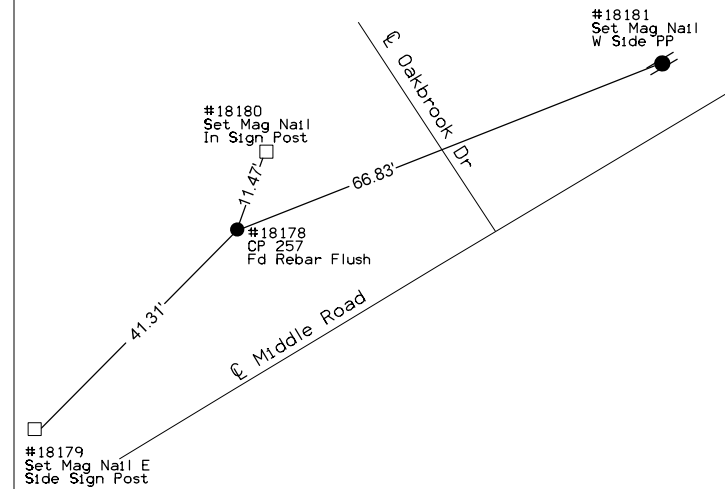
A - PK in light pole support base 16.23' SW of Pt. 249
 B - chisled "+" on top of curb 6.0' NE of Pt. 249
 C - chisled "+" on top of curb 10.45' NE of Pt. 249

C.P. STA 6853+49.60 RIGHT 340.81
 C.P. 157, Fd "X" On Sidewalk
 N=575796.351 E=2456906.764

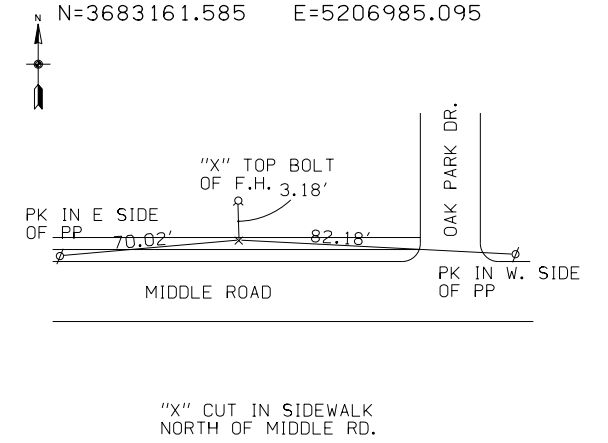


"X" CUT IN SIDEWALK
 NORTH OF MIDDLE RD.
 EAST OF I-74 SOUTH OF
 CHURCH PARKING LOT

C.P. STA 6855+70.34 RIGHT 980.42
 C.P. 257, Fd 5/8" Rebar Flush
 N=576147.162 E=2457485.347

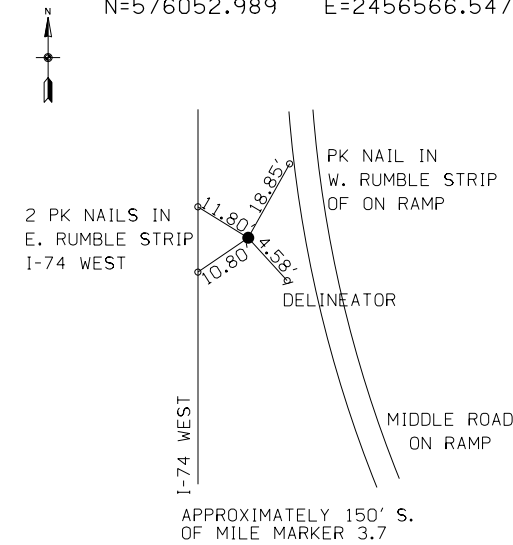


C.P. STA 6856+35.60 RIGHT 1511.93
 C.P. 158, Fd "X" On Sidewalk
 N=3683161.585 E=5206985.095



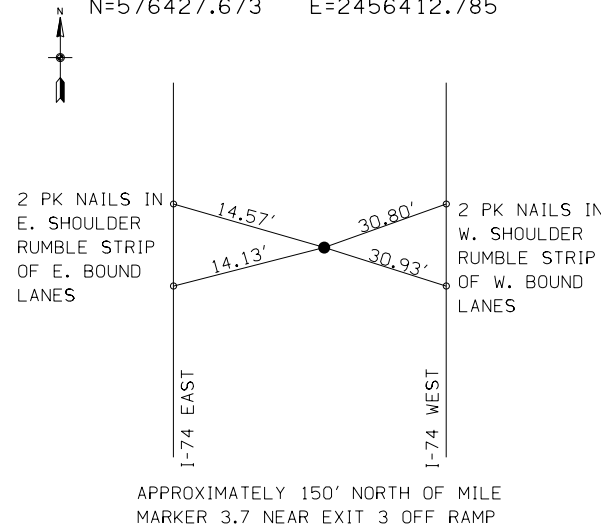
"X" CUT IN SIDEWALK
 NORTH OF MIDDLE RD.

C.P. STA 6856+72.28 RIGHT 62.45
 C.P. 19, Fd 5/8" Rebar Flush
 N=576052.989 E=2456566.547



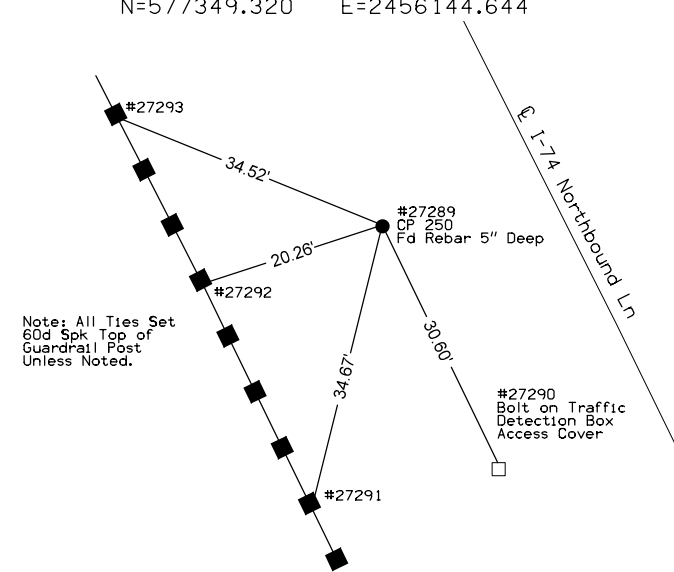
APPROXIMATELY 150' S.
 OF MILE MARKER 3.7

C.P. STA 6860+71.06 LEFT 8.34
 C.P. 115, Fd 5/8" Rebar Flush
 N=576427.673 E=2456412.785



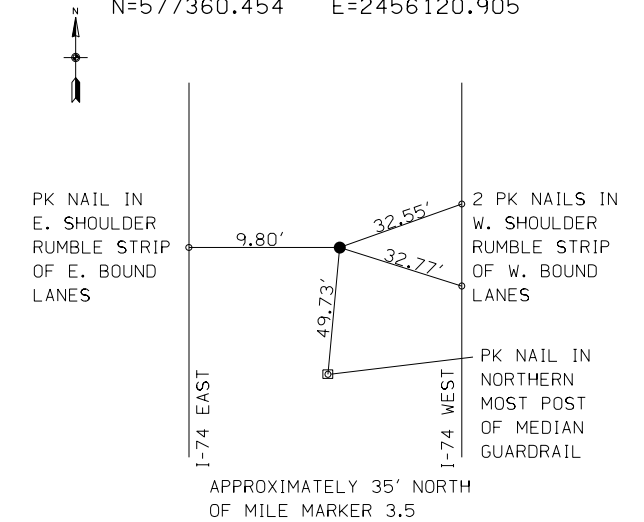
APPROXIMATELY 150' NORTH OF MILE
 MARKER 3.7 NEAR EXIT 3 OFF RAMP

C.P. STA 6870+26.49 RIGHT 49.15
 C.P. 250, Fd 5/8" Rebar 5" Deep
 N=577349.320 E=2456144.644



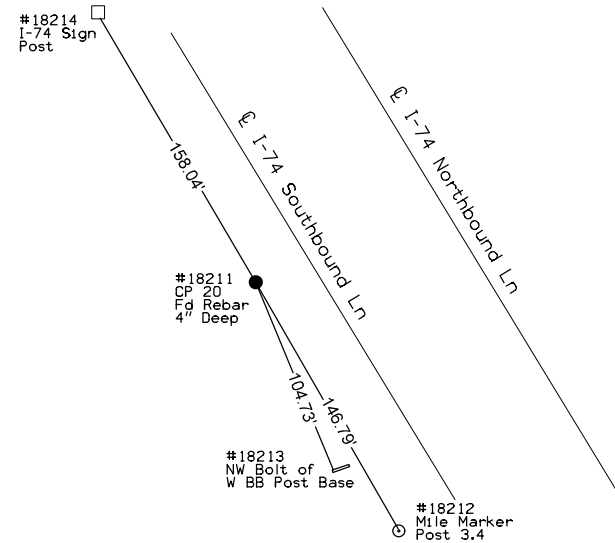
Note: All Ties Set
 60d Spk Top of
 Guardrail Post
 Unless Noted.

C.P. STA 6870+47.07 RIGHT 33.17
 C.P. 114, Fd 5/8" Rebar 6" Deep
 N=577360.454 E=2456120.905

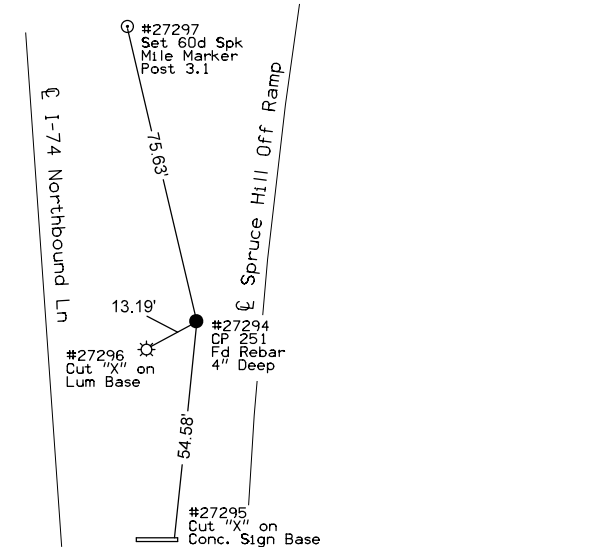


APPROXIMATELY 35' NORTH
 OF MILE MARKER 3.5

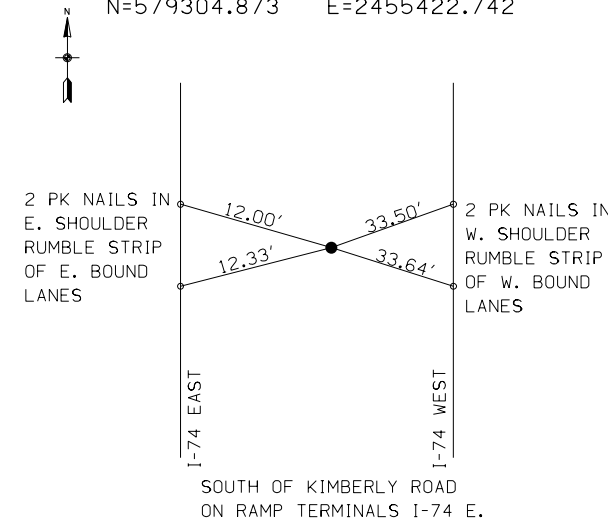
C.P. STA 6876+81.07 LEFT 52.62
 C.P. 20, Fd 5/8" Rebar 4" Deep
 N=577880.585 E=2455743.685



C.P. STA 6890+20.99 RIGHT 78.88
 C.P. 251, Fd 5/8" Rebar 4" Deep
 N=579197.558 E=2455523.116

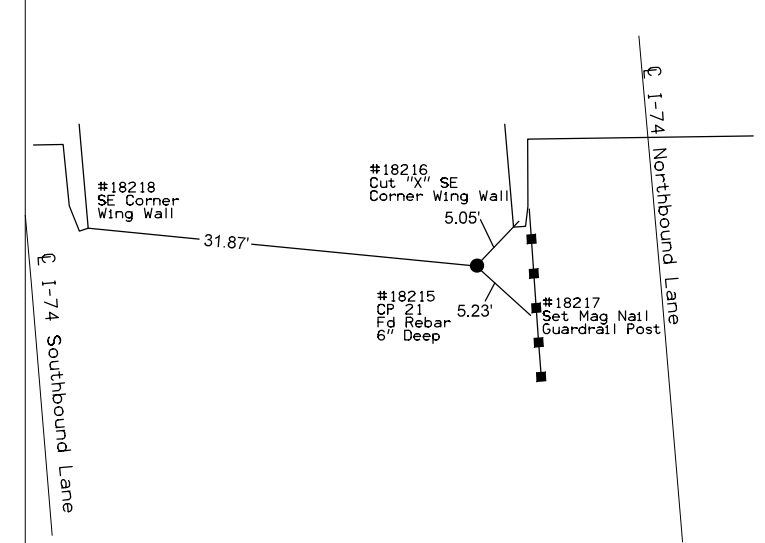


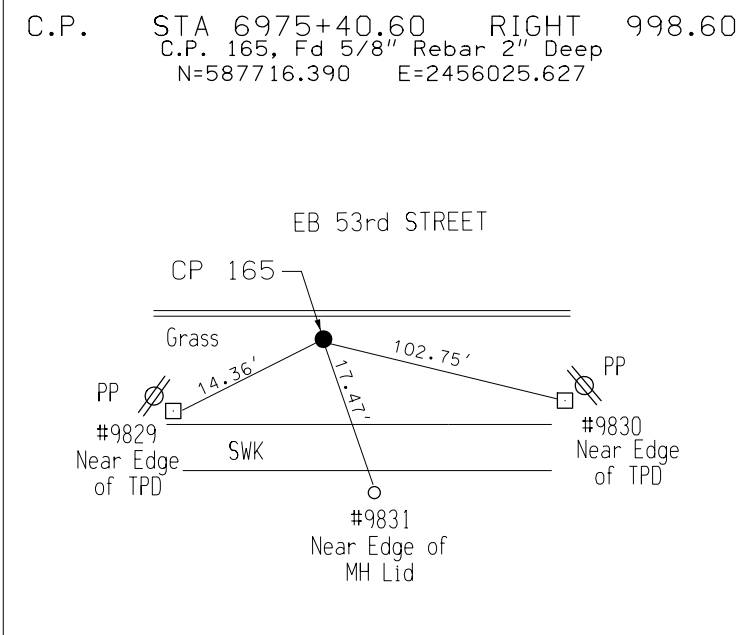
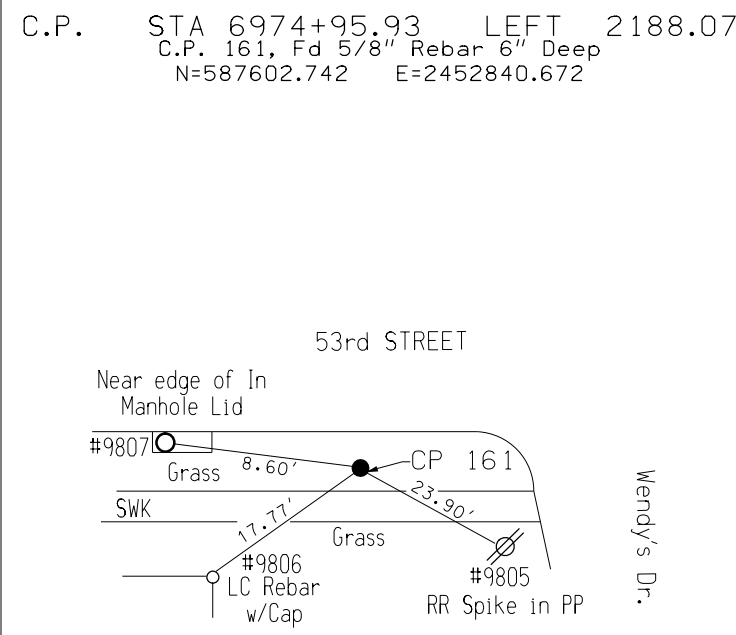
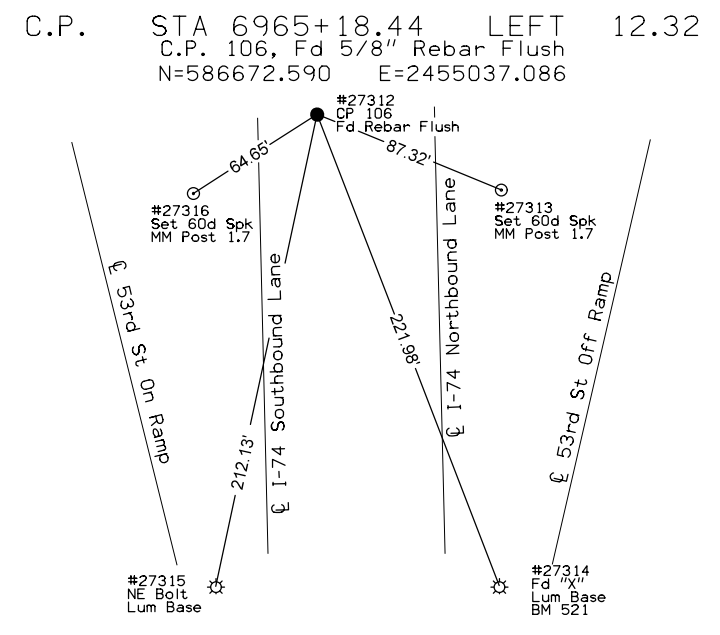
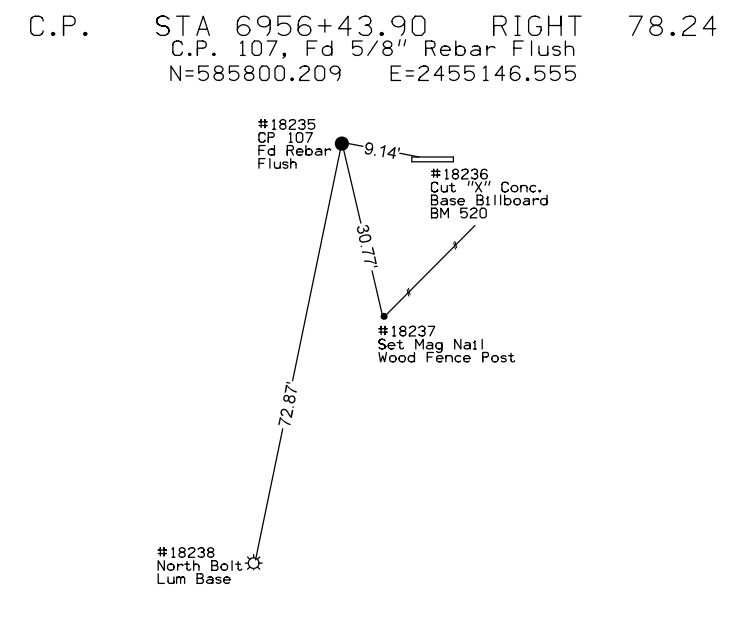
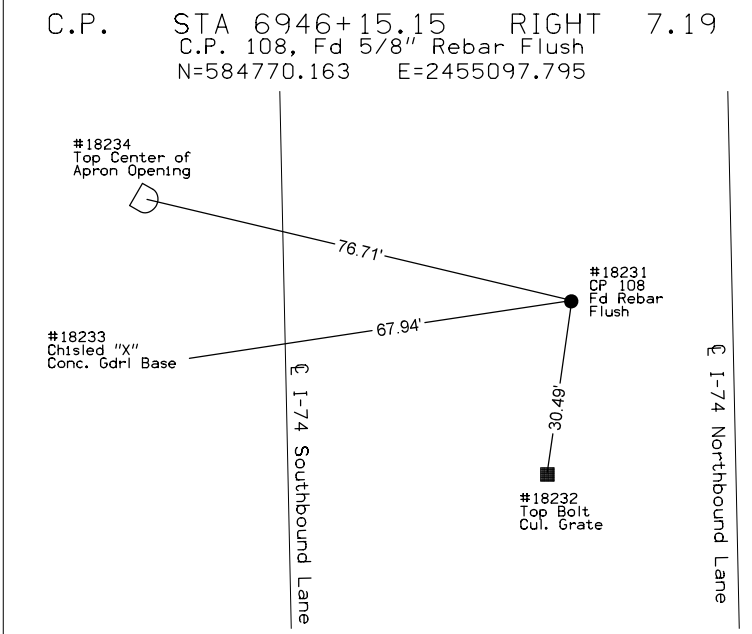
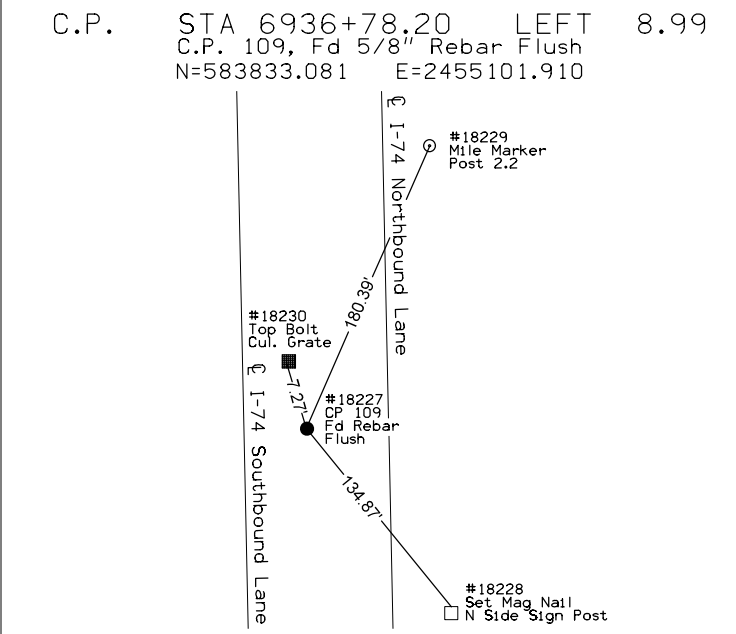
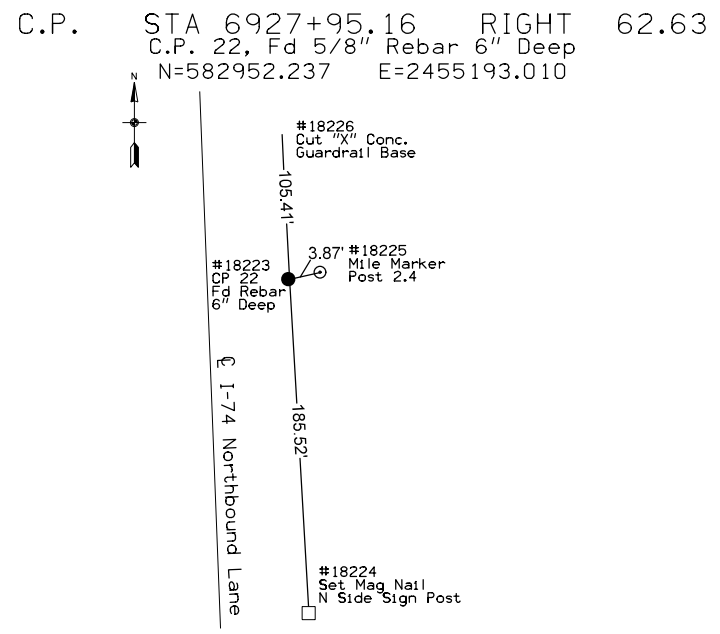
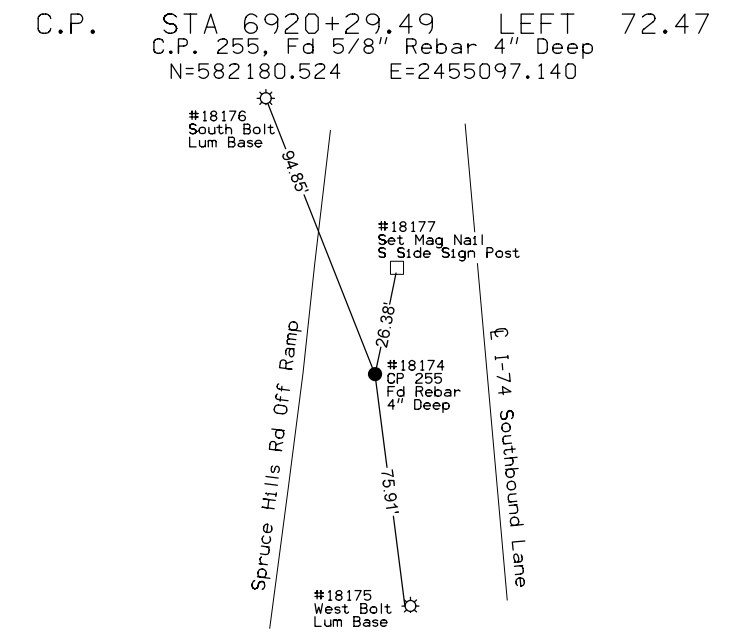
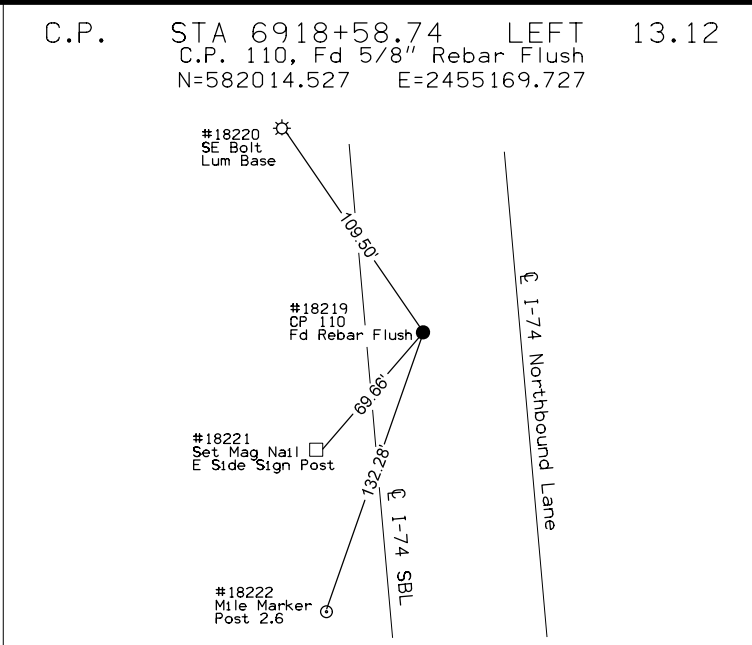
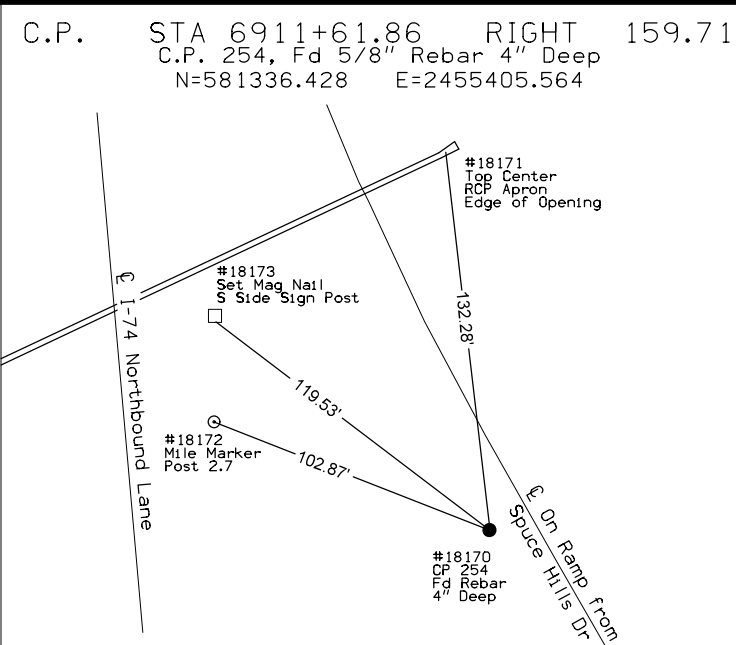
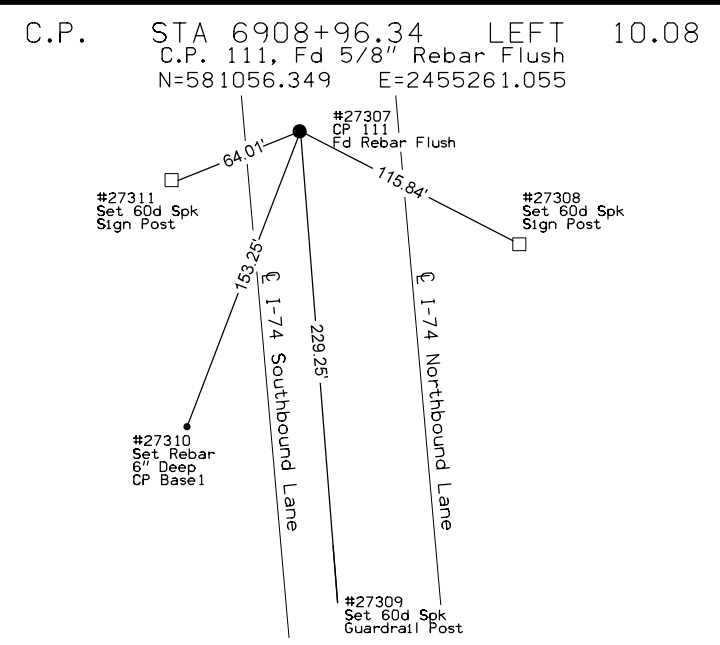
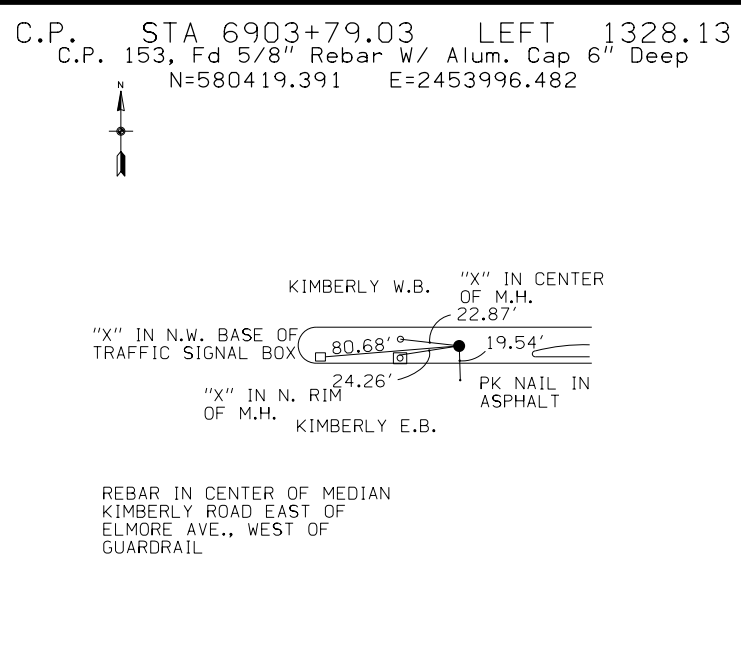
C.P. STA 6891+37.42 LEFT 11.03
 C.P. 112, Fd 5/8" Rebar Flush
 N=579304.873 E=2455422.742



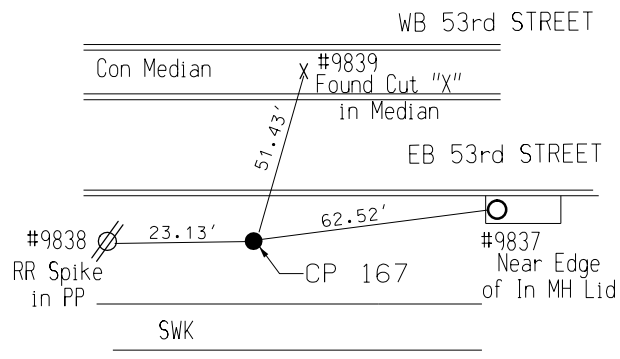
SOUTH OF KIMBERLY ROAD
 ON RAMP TERMINALS I-74 E.

C.P. STA 6901+57.14 RIGHT 13.99
 C.P. 21, Fd 5/8" Rebar 6" Deep
 N=580322.540 E=2455353.370

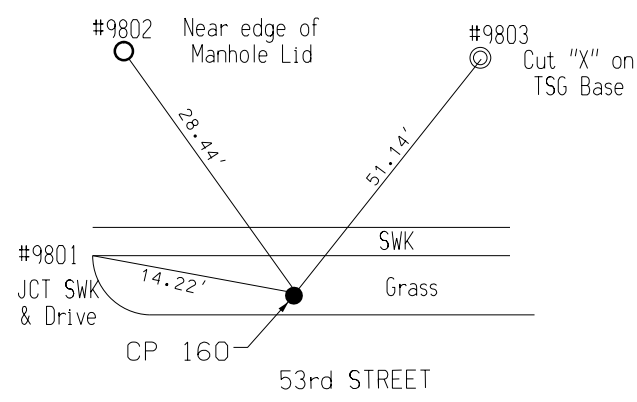




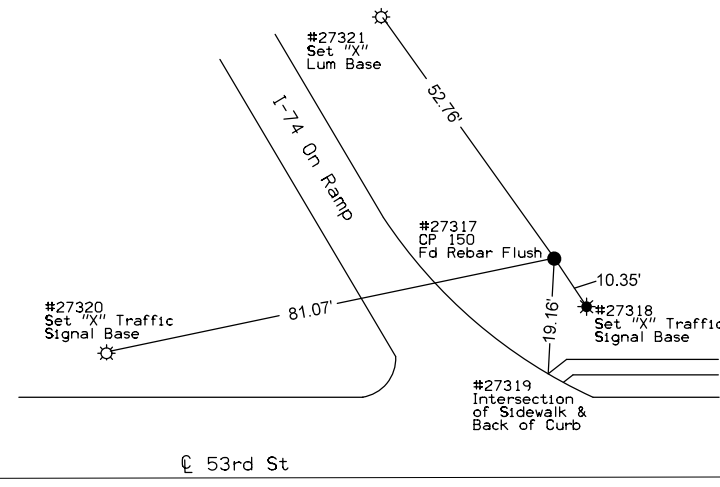
C.P. STA 6975+52.11 RIGHT 1662.05
 C.P. 167, Fd 5/8" Rebar 2" Deep
 N=587742.271 E=2456688.676



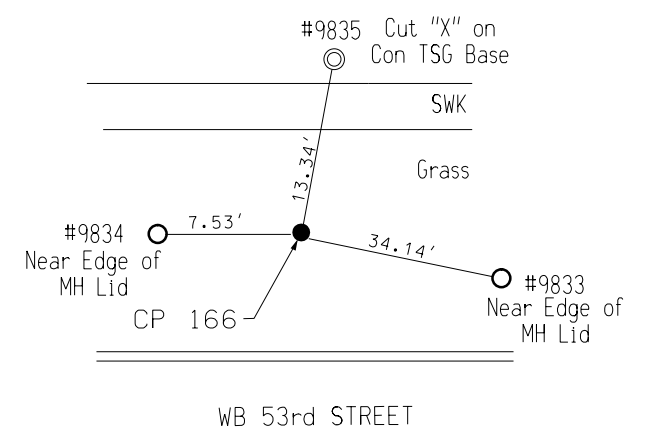
C.P. STA 6975+70.06 LEFT 2804.40
 C.P. 160, Fd 5/8" Rebar 6" Deep
 N=587663.506 E=2452222.884



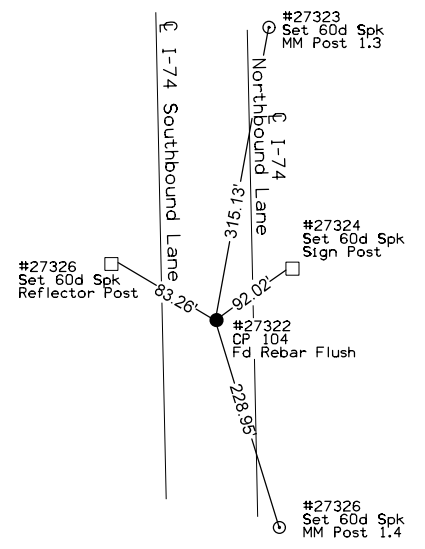
C.P. STA 6976+44.37 RIGHT 573.00
 C.P. 150, Fd 5/8" Rebar Flush
 N=587810.926 E=2455597.884



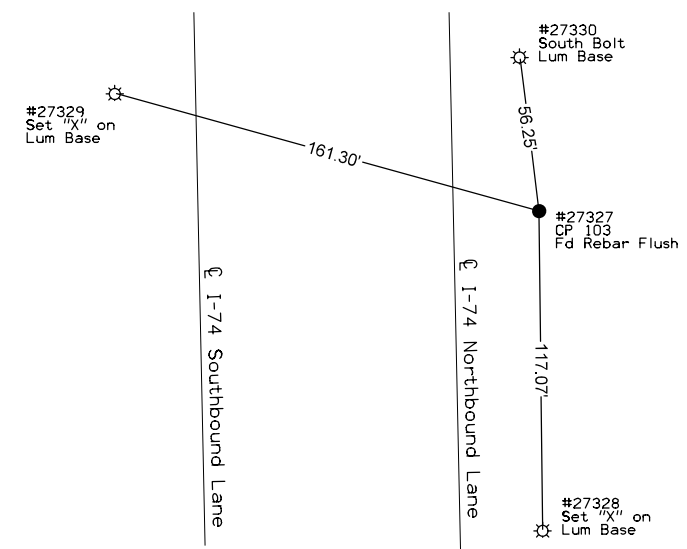
C.P. STA 6976+51.94 RIGHT 1412.05
 C.P. 166, Fd 5/8" Rebar 2" Deep
 N=587836.658 E=2456436.574



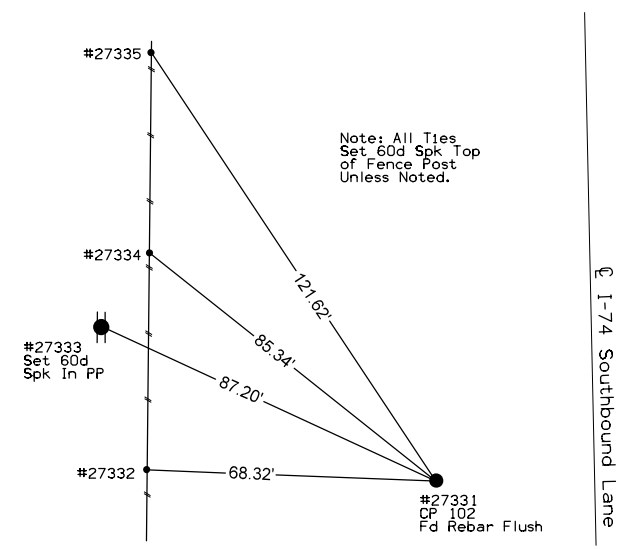
C.P. STA 6982+84.79 RIGHT 4.28
 C.P. 104, Fd 5/8" Rebar Flush
 N=588438.877 E=2455015.428



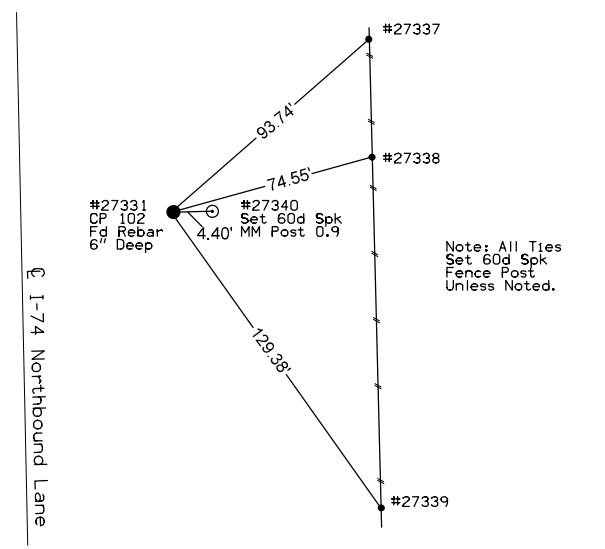
C.P. STA 6992+48.29 RIGHT 78.52
 C.P. 103, Fd 5/8" Rebar Flush
 N=589403.767 E=2455068.788



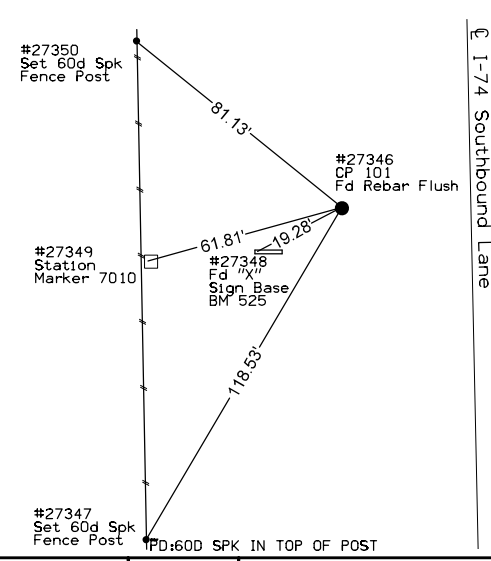
C.P. STA 7001+79.21 LEFT 70.50
 C.P. 102, Fd 5/8" Rebar Flush
 N=590331.233 E=2454899.652



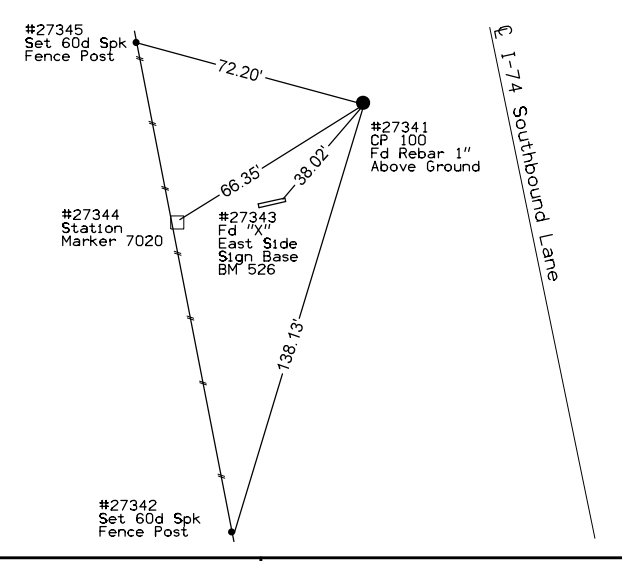
C.P. STA 7007+04.28 RIGHT 64.25
 C.P. 24, Fd 5/8" Rebar 6" Deep
 N=590859.099 E=2455022.999



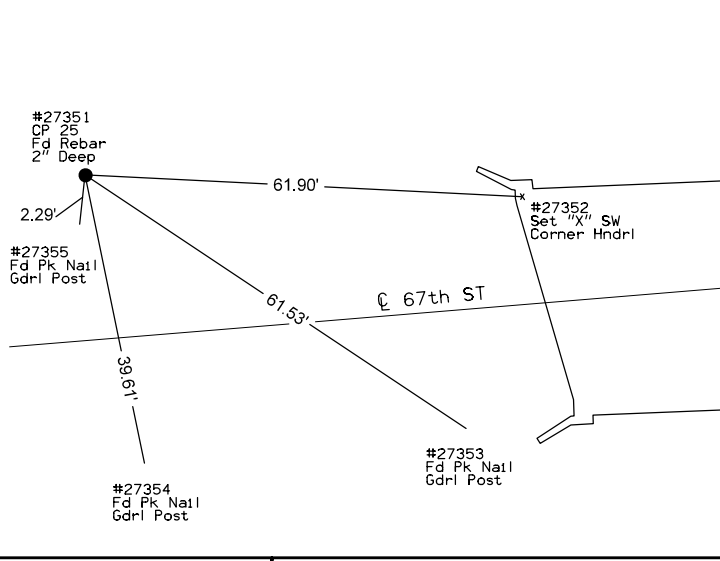
C.P. STA 7010+14.55 LEFT 73.33
 C.P. 101, Fd 5/8" Rebar Flush
 N=591166.323 E=2454878.741



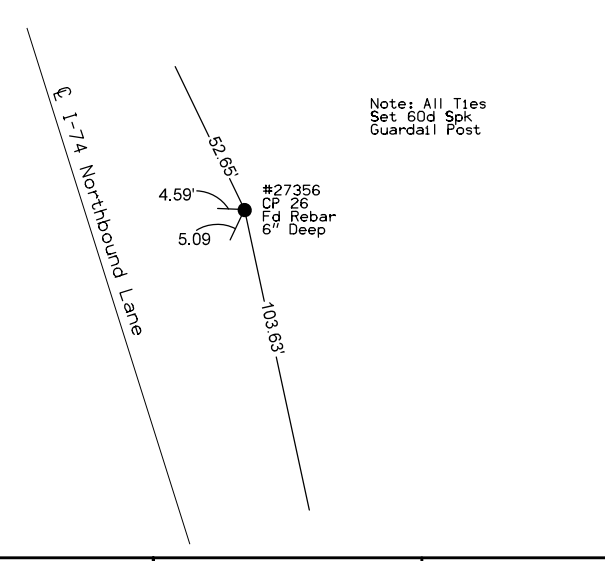
C.P. STA 7020+19.32 LEFT 68.71
 C.P. 100, Fd 5/8" Rebar 1" Above Ground
 N=592152.498 E=2454793.368



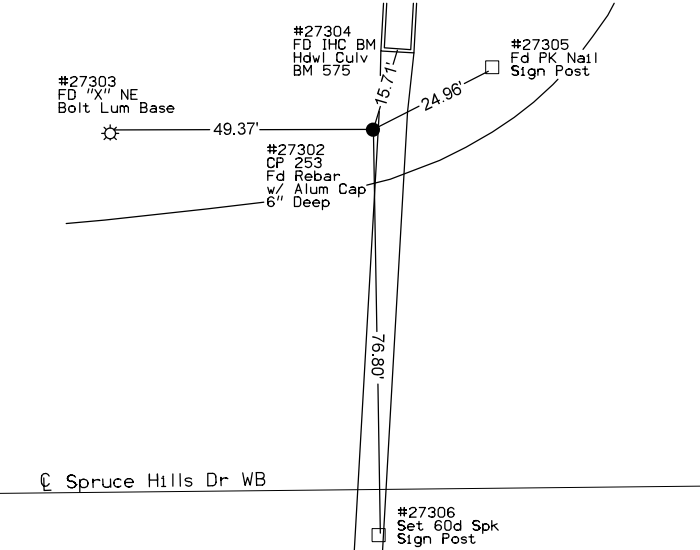
C.P. STA 7029+77.12 LEFT 162.21
 C.P. 25, Fd 5/8" Rebar 2" Deep
 N=593043.388 E=2454447.883



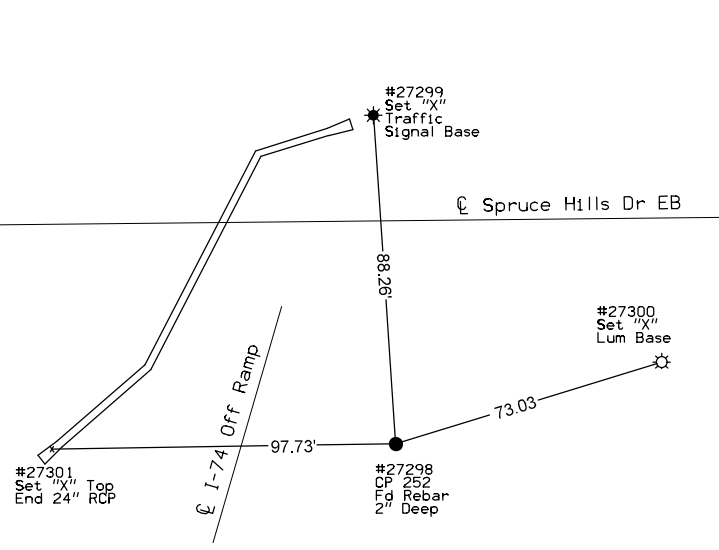
C.P. STA 7051+36.40 RIGHT 65.46
 C.P. 26, Fd 5/8" Rebar 6" Deep
 N=595179.383 E=2454058.228



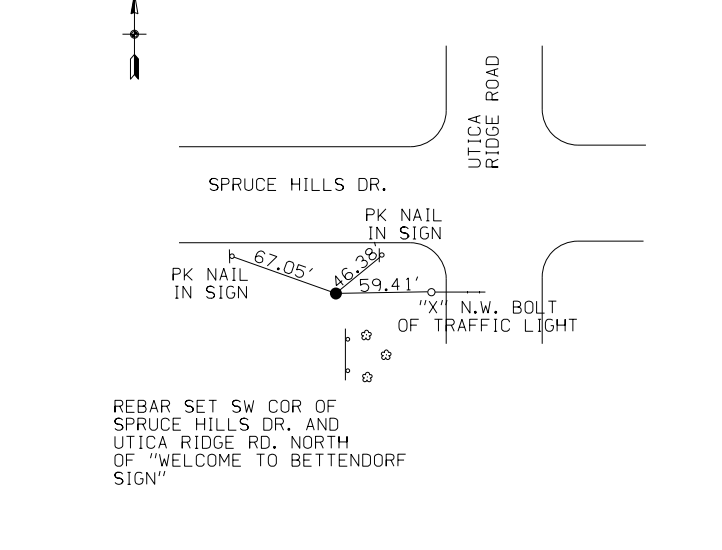
C.P. STA 7311+39.37 LEFT 68.51
 C.P. 253, Fd 5/8" Rebar W/ Alum Cap 6" Deep
 N=580492.550 E=2454572.971



C.P. STA 7324+99.56 RIGHT 87.97
 C.P. 252, Fd 5/8" Rebar 2" Deep
 N=580350.094 E=2455934.705



C.P. STA 7329+18.19 RIGHT 82.06
 C.P. 154, Fd 5/8" Rebar Flush
 N=580360.047 E=2456350.758

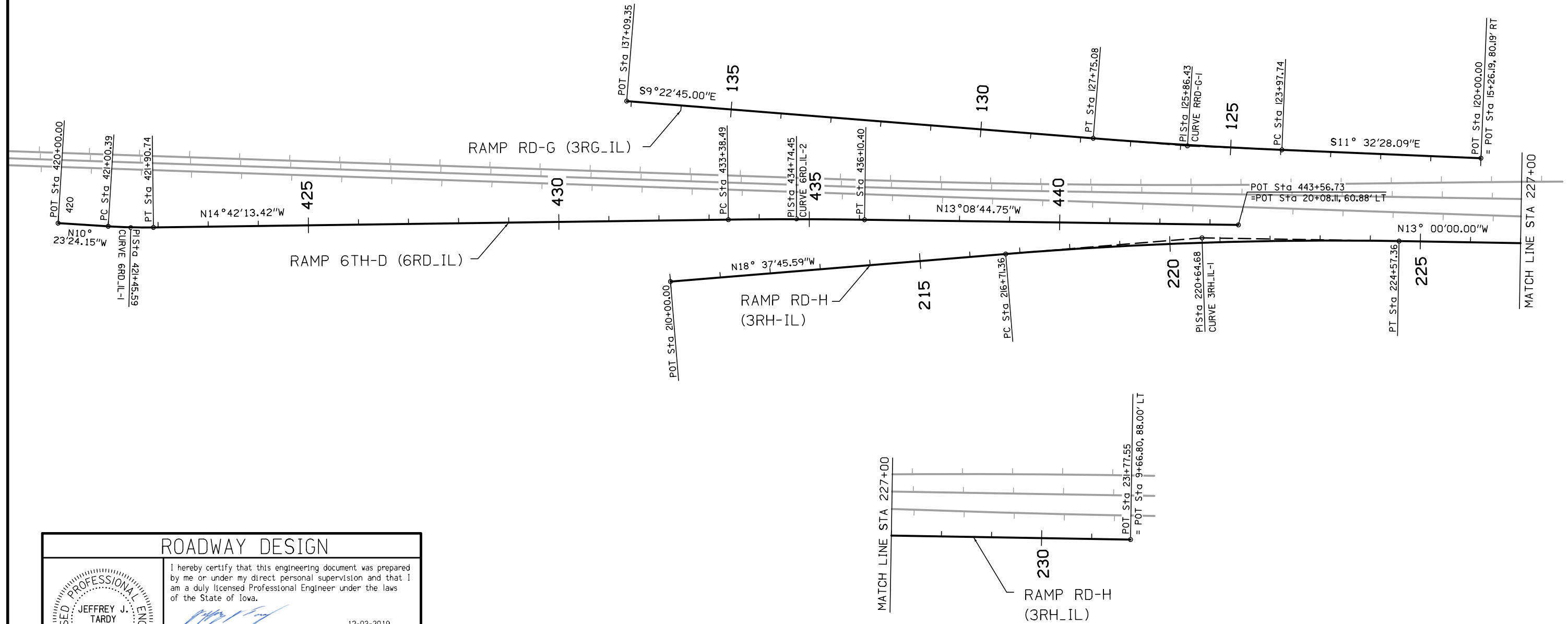


Curve 6RD_IL-1 (6TH-D)
 PISTA. = 421+45.59
 $\Delta = 4^\circ 18' 49.27''$ (LT)
 $D = 4^\circ 46' 28.73''$
 $R = 1,200.00'$
 $T = 45.19'$
 $L = 90.35'$
 $E = 0.85'$

Curve 6RD_IL-2 (6TH-D)
 PISTA. = 434+74.45
 $\Delta = 1^\circ 33' 28.68''$ (RT)
 $D = 0^\circ 34' 22.65''$
 $R = 10,000.00'$
 $T = 135.97'$
 $L = 271.92'$
 $E = 0.92'$

Curve RRD-G-1 (RD-G)
 PISTA. = 125+86.43
 $\Delta = 2^\circ 09' 43.09''$ (RT)
 $D = 0^\circ 34' 22.65''$
 $R = 10,000.00'$
 $T = 188.69'$
 $L = 377.33'$
 $E = 1.78'$

Curve 3RH_IL-1 (RD-H)
 PISTA. = 220+64.68
 $\Delta = 5^\circ 37' 45.59''$ (RT)
 $D = 0^\circ 42' 58.31''$
 $R = 8,000.00'$
 $T = 393.32'$
 $L = 786.00'$
 $E = 9.66'$



ROADWAY DESIGN

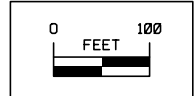
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Jeffrey J. Tardy
 Signature
 Jeffrey J. Tardy
 Printed or Typed Name

12-03-2019
 Date

My license renewal date is December 31, 21

Pages or sheets covered by this seal: A.1-A.2, G.10-G.17, G.19-G.22, G.24, U.6-U.9



ALIGNMENTS
 Illinois Ramps

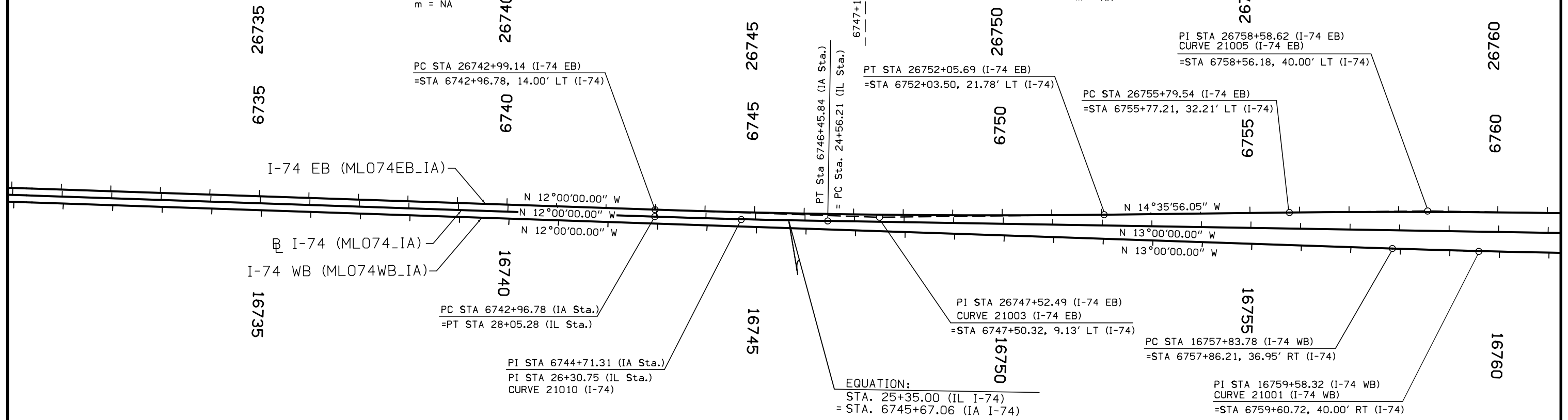


Curve 21010 (I-74)
 PI Sta 6744+71.31 (IA Sta.)
 PI Sta 26+30.75 (IL Sta.)
 $\Delta = 01^{\circ}00'00.00''$ LT
 $D = 0^{\circ}17'11.32''$
 $R = 20000.00'$
 $T = 174.54'$
 $L = 349.07'$
 $E = 0.76'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve 21003 (I-74 EB)
 PI Sta 26747+52.49
 $\Delta = 2^{\circ}35'56.05''$ (LT)
 $D = 0^{\circ}17'12.05''$
 $R = 19,986.00'$
 $T = 453.35'$
 $L = 906.55'$
 $E = 5.14'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve 21005 (I-74 EB)
 PI Sta 26758+58.62
 $\Delta = 1^{\circ}35'56.05''$ (RT)
 $D = 0^{\circ}17'11.32''$
 $R = 20,000.00'$
 $T = 279.08'$
 $L = 558.12'$
 $E = 1.95'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

ILLINOIS JURISDICTION | IOWA JURISDICTION



PC STA 26742+99.14 (I-74 EB)
 =STA 6742+96.78, 14.00' LT (I-74)

PT STA 26752+05.69 (I-74 EB)
 =STA 6752+03.50, 21.78' LT (I-74)

PI STA 26758+58.62 (I-74 EB)
 CURVE 21005 (I-74 EB)
 =STA 6758+56.18, 40.00' LT (I-74)

PC STA 26755+79.54 (I-74 EB)
 =STA 6755+77.21, 32.21' LT (I-74)

PC STA 6742+96.78 (IA Sta.)
 =PT STA 28+05.28 (IL Sta.)

PI STA 26747+52.49 (I-74 EB)
 CURVE 21003 (I-74 EB)
 =STA 6747+50.32, 9.13' LT (I-74)

PC STA 16757+83.78 (I-74 WB)
 =STA 6757+86.21, 36.95' RT (I-74)

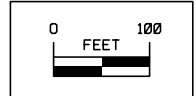
PI STA 6744+71.31 (IA Sta.)
 PI STA 26+30.75 (IL Sta.)
 CURVE 21010 (I-74)

EQUATION:
 STA. 25+35.00 (IL I-74)
 = STA. 6745+67.06 (IA I-74)

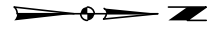
PI STA 16759+58.32 (I-74 WB)
 CURVE 21001 (I-74 WB)
 =STA 6759+60.72, 40.00' RT (I-74)

Curve 21001 (I-74 WB)
 PI Sta 16759+58.32
 $\Delta = 1^{\circ}00'00''$ (LT)
 $D = 0^{\circ}17'11.32''$
 $R = 20,000.00'$
 $T = 174.54'$
 $L = 349.07'$
 $E = 0.76'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

FOR RAMP RD-H, RD-G
 6TH-C, AND 6TH-D,
 REFER TO ILLINOIS
 CONTRACT 64E26



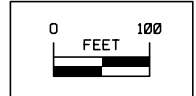
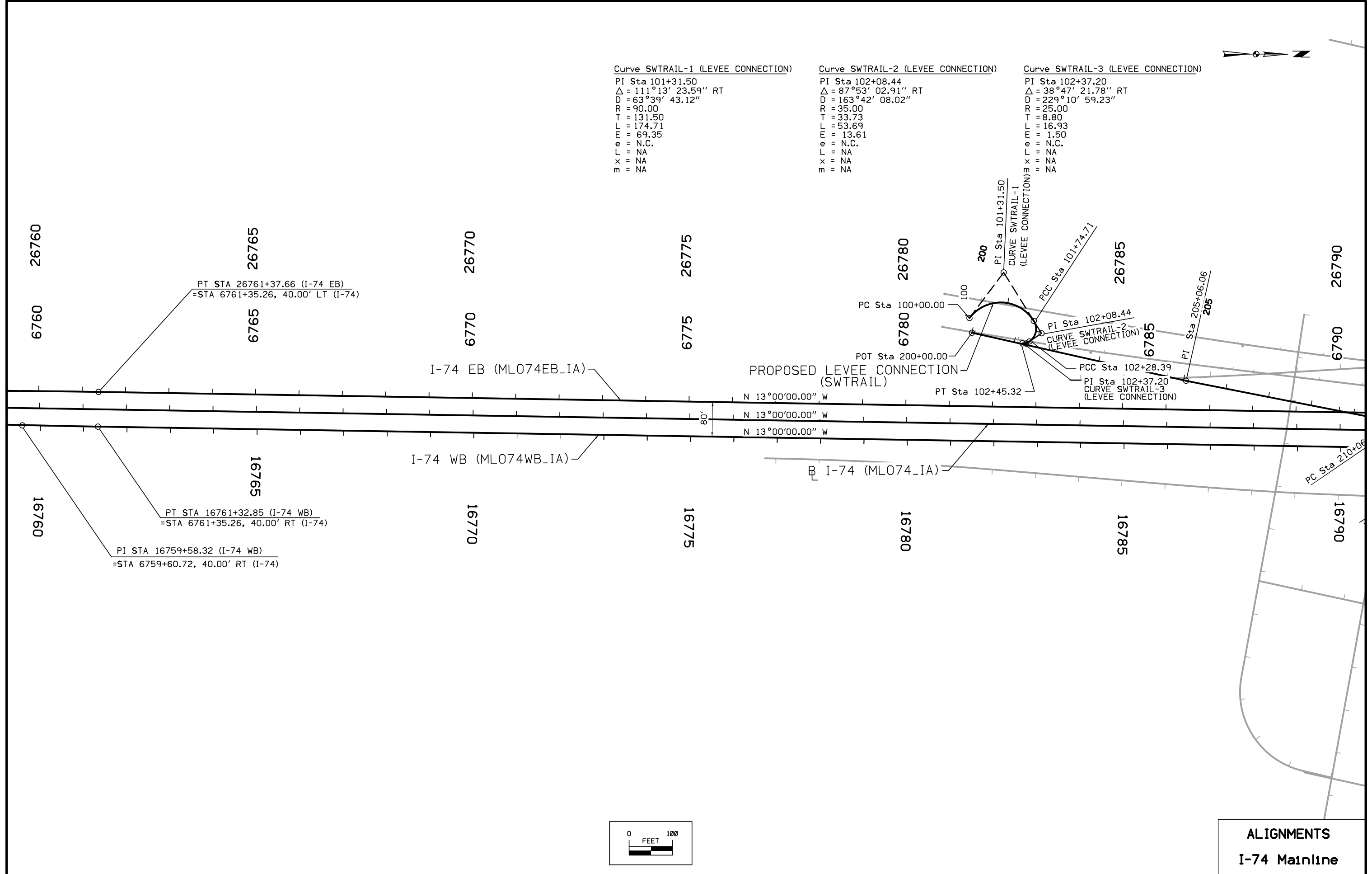
ALIGNMENTS
 I-74 Mainline



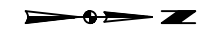
Curve SWTRAIL-1 (LEVEE CONNECTION)
 PI Sta 101+31.50
 $\Delta = 111^\circ 13' 23.59''$ RT
 $D = 63^\circ 39' 43.12''$
 $R = 90.00$
 $T = 131.50$
 $L = 174.71$
 $E = 69.35$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve SWTRAIL-2 (LEVEE CONNECTION)
 PI Sta 102+08.44
 $\Delta = 87^\circ 53' 02.91''$ RT
 $D = 163^\circ 42' 08.02''$
 $R = 35.00$
 $T = 33.73$
 $L = 53.69$
 $E = 13.61$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve SWTRAIL-3 (LEVEE CONNECTION)
 PI Sta 102+37.20
 $\Delta = 38^\circ 47' 21.78''$ RT
 $D = 229^\circ 10' 59.23''$
 $R = 25.00$
 $T = 8.80$
 $L = 16.93$
 $E = 1.50$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$



ALIGNMENTS
I-74 Mainline



Curve 21015 (I-74)
 PI Sta 6801+41.31
 $\Delta = 03^{\circ}50'58.23''$ LT
 $D = 0^{\circ}24'33.32''$
 $R = 14000.00$
 $T = 470.48$
 $L = 940.61$
 $E = 7.90$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

Curve 21017 (I-74 EB)
 PI Sta 26805+14.75
 $\Delta = 03^{\circ}50'58.22''$ LT
 $D = 0^{\circ}24'33.32''$
 $R = 14000.00$
 $T = 470.48$
 $L = 940.61$
 $E = 7.90$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

PC STA. 26800+44.27 (I-74 EB)
 =POC STA. 6800+42.84, 35.07 LT (I-74)

PT STA. 16802+38.00 (I-74 WB)
 =POC STA. 6802+39.05, 19.96 RT (I-74)

PI STA. 26805+14.75 (I-74 EB)
 CURVE 21017 (I-74 EB)
 =STA. 6805+13.74, 14.66 LT (I-74)

PT STA. 26809+84.88 (I-74 EB)
 =POC STA. 6809+84.33, 15.00 LT (I-74)

N $16^{\circ}50'58.23''$ W
 N $16^{\circ}50'58.23''$ W
 N $16^{\circ}50'58.23''$ W

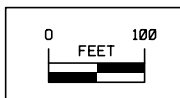
PI STA. 16797+67.87 (I-74 WB)
 CURVE 21016 (I-74 WB)
 =STA. 6797+70.00, 40.35 RT (I-74)

PC STA. 16792+97.39 (I-74 WB)
 =POC STA. 6792+99.80, 40.00 RT (I-74)

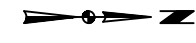
Curve RAMPFI4-1
 PI Sta 210+91.66
 $\Delta = 46^{\circ}03'11.72''$ (RT)
 $D = 28^{\circ}38'52.40''$
 $R = 200.00$
 $T = 85.00$
 $L = 160.76$
 $E = 17.31$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

Curve RAMPFI4-2
 PI Sta 212+40.24
 $\Delta = 51^{\circ}47'52.03''$ (LT)
 $D = 38^{\circ}11'49.87''$
 $R = 150.00$
 $T = 72.83$
 $L = 135.61$
 $E = 16.75$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

Curve 21016 (I-74 WB)
 PI Sta 16797+67.87
 $\Delta = 03^{\circ}50'58.24''$ LT
 $D = 0^{\circ}24'33.32''$
 $R = 14000.00$
 $T = 470.48$
 $L = 940.61$
 $E = 7.90$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA



ALIGNMENTS
 I-74 Mainline



Curve 21020 (I-74)
 PI Sta 6832+57.30
 $\Delta = 4^\circ 39' 39.15''$ RT
 $D = 0^\circ 14' 56.80''$
 $R = 23000.00'$
 $T = 936.01'$
 $L = 1871.00'$
 $E = 19.04'$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

Curve 21022 (I-74 EB)
 PI STA. = 26832+58.47
 $\Delta = 4^\circ 39' 39.15''$ (RT)
 $D = 0^\circ 14' 56.22''$
 $R = 23015.00'$
 $T = 936.62'$
 $L = 1872.22'$
 $E = 19.05'$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

Curve 21021 (I-74 WB)
 PI STA. = 16832+56.13
 $\Delta = 4^\circ 39' 39.15''$ (RT)
 $D = 0^\circ 14' 57.39''$
 $R = 22985.00'$
 $T = 935.40'$
 $L = 1869.78'$
 $E = 19.03'$
 $e =$ N.C.
 $L =$ NA
 $x =$ NA
 $m =$ NA

PI STA. 26832+58.47 (I-74 EB)
 CURVE 21022 (I-74 EB)
 =STA. 6832+56.79, 34.05' LT (I-74)

PI STA. 16832+56.13 (I-74 WB)
 CURVE 21021 (I-74 WB)
 =STA. 6832+56.79, 4.03' LT (I-74)

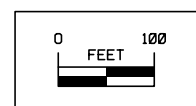
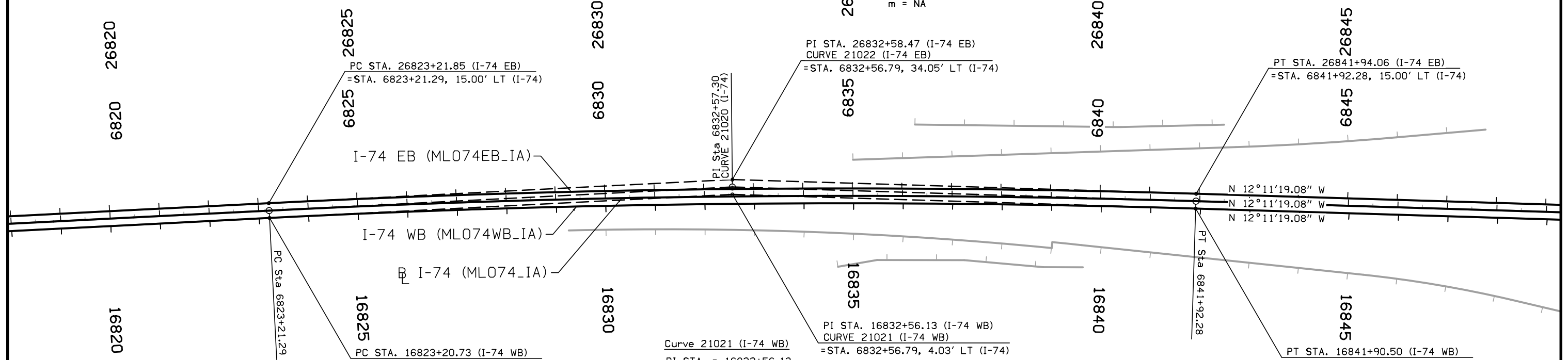
PC STA. 26823+21.85 (I-74 EB)
 =STA. 6823+21.29, 15.00' LT (I-74)

PC STA. 16823+20.73 (I-74 WB)
 =STA. 6823+21.29, 15.00' RT (I-74)

PT STA. 26841+94.06 (I-74 EB)
 =STA. 6841+92.28, 15.00' LT (I-74)

PT STA. 16841+90.50 (I-74 WB)
 =STA. 6841+92.28, 15.00' RT (I-74)

N 12°11'19.08" W
 N 12°11'19.08" W
 N 12°11'19.08" W



ALIGNMENTS
 I-74 Mainline



Curve 20110 (RAMP C)
 PI Sta 3586+05.19
 $\Delta = 3^\circ 17' 46.82''$ (LT)
 $D = 0^\circ 42' 58.31''$
 $R = 8000.00'$
 $T = 230.19'$
 $L = 460.26'$
 $E = 3.31'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

STA. 6783+75.00, 104.00 LT (I-74)
 = PC STA. 3583+75.00 (RAMP C)

POT STA. 1496+21.97 (RAMP A)
 = POT STA. 205+20.00 (US 67 SB)

POT STA. 3595+59.96 (RAMP C)
 = POT STA. 1608+50.00 (US 67 NB)

PI Sta 2579+42.72
 CURVE 20060 (RAMP B)

PI Sta 3586+05.19
 CURVE 20110 (RAMP C)

PT Sta 3588+35.26

PC Sta 2586+35.44

PT Sta 2589+74.70

PI Sta 2588+05.10
 CURVE 20065 (RAMP B)

POT Sta 14498+50.00

STA. 6776+75.00, 88.00 RT (I-74)
 = PC STA. 2576+75.00 (RAMP B)

PT Sta 2582+10.23

$N 9^\circ 10' 00.00'' W$

POT STA. 4495+45.77 (RAMP D)
 = POT STA. 208+75.00 (US 67 SB)

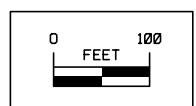
$N 11^\circ 35' 47.23'' W$

$N 15^\circ 15' 47.26'' W$

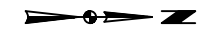
Curve 20060 (RAMP B)
 PI Sta 2579+42.72
 $\Delta = 3^\circ 50' 00.00''$ RT
 $D = 0^\circ 42' 58.31''$
 $R = 8000.00'$
 $T = 267.72'$
 $L = 535.23'$
 $E = 4.48'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve 20065 (RAMP B)
 PI Sta 2588+05.10
 $\Delta = 2^\circ 25' 47.23''$ LT
 $D = 0^\circ 42' 58.31''$
 $R = 8000.00'$
 $T = 169.66'$
 $L = 339.26'$
 $E = 1.80'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

POT STA. 2595+01.88 (RAMP B)
 = POT STA. 1612+00.00 (US 67 NB)



ALIGNMENTS
US 67 Ramps



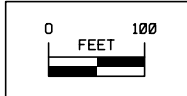
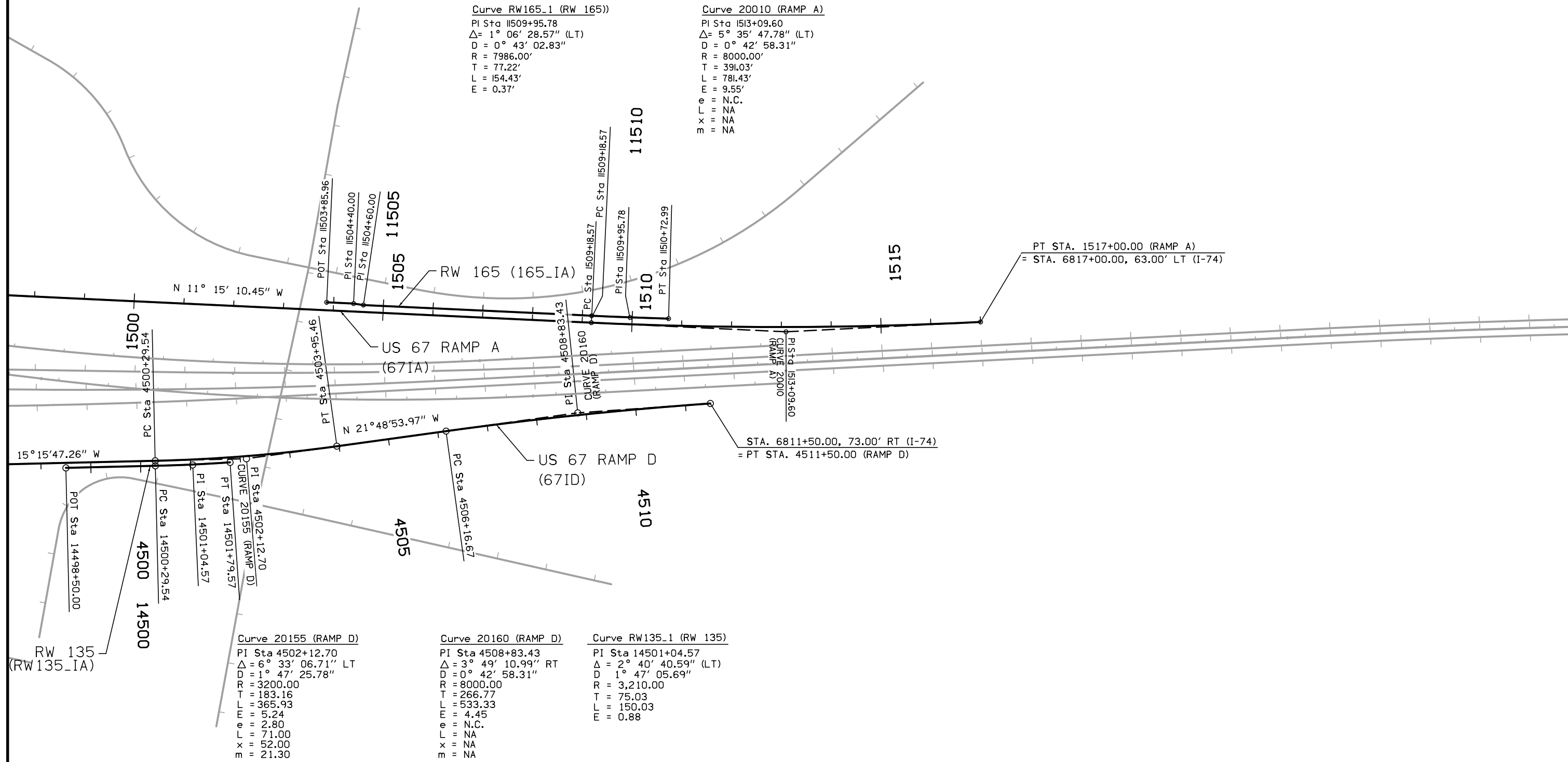
Curve RW165_1 (RW 165))
 PI Sta 11509+95.78
 $\Delta = 1^\circ 06' 28.57''$ (LT)
 $D = 0^\circ 43' 02.83''$
 $R = 7986.00'$
 $T = 77.22'$
 $L = 154.43'$
 $E = 0.37'$

Curve 20010 (RAMP A)
 PI Sta 1513+09.60
 $\Delta = 5^\circ 35' 47.78''$ (LT)
 $D = 0^\circ 42' 58.31''$
 $R = 8000.00'$
 $T = 391.03'$
 $L = 781.43'$
 $E = 9.55'$
 $\phi =$ N.C.
 $L =$ NA
 $X =$ NA
 $B =$ NA

Curve 20155 (RAMP D)
 PI Sta 4502+12.70
 $\Delta = 6^\circ 33' 06.71''$ LT
 $D = 1^\circ 47' 25.78''$
 $R = 3200.00'$
 $T = 183.16'$
 $L = 365.93'$
 $E = 5.24'$
 $\phi =$ 2.80
 $L =$ 71.00
 $X =$ 52.00
 $B =$ 21.30

Curve 20160 (RAMP D)
 PI Sta 4508+83.43
 $\Delta = 3^\circ 49' 10.99''$ RT
 $D = 0^\circ 42' 58.31''$
 $R = 8000.00'$
 $T = 266.77'$
 $L = 533.33'$
 $E = 4.45'$
 $\phi =$ N.C.
 $L =$ NA
 $X =$ NA
 $B =$ NA

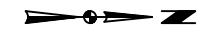
Curve RW135_1 (RW 135)
 PI Sta 14501+04.57
 $\Delta = 2^\circ 40' 40.59''$ (LT)
 $D = 1^\circ 47' 05.69''$
 $R = 3,210.00'$
 $T = 75.03'$
 $L = 150.03'$
 $E = 0.88'$



ALIGNMENTS
US 67 Ramps

Curve MDIC_01-1 (INTERIM RAMP C)

PI Sta. = 3544+35.84
 $\Delta = 3^\circ 06' 08.24''$ (LT)
 $D = 0^\circ 57' 17.75''$
 $R = 6,000.00'$
 $T = 162.48'$
 $L = 324.87'$
 $E = 2.20'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$



POT Sta 3535+00.00 (INTERIM RAMP C)
 Sta 6835+00.00, 73.00' LT (I-74)

MIDDLE ROAD INTERIM RAMP C
 (MDIC_01)

$N15^\circ 50' 21.39'' W$

PC Sta 3542+73.36

PT Sta 3545+98.23

POT Sta 3547+78.45

PI Sta 2534+13.55
 CURVE MDIB_01-1

PC Sta 2529+25.00 (INTERIM RAMP B)
 Sta. 6829+25.00, 63.00' RT (I-74)

PT Sta 2539+00.89

PT Sta 2539+60.65
 PI Sta 2539+30.77
 CURVE MDIB_01-2
 PC Sta 2539+00.89

$N7^\circ 55' 44.15'' W$

PI Sta 3544+35.84
 CURVE MDIC_01-1

PI Sta 2546+82.88
 CURVE MDIB_01-3

$N0^\circ 43' 03.31'' W$

POT Sta 2550+66.79

PC Sta 2545+31.65

PT Sta 2548+33.71

MIDDLE ROAD INTERIM RAMP B
 (MDIB_01)

Curve MDIB_01-1 (INTERIM RAMP B)

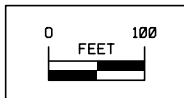
PI Sta. = 2534+13.55
 $\Delta = 6^\circ 59' 21.45''$ (RT)
 $D = 0^\circ 42' 58.31''$
 $R = 8,000.00'$
 $T = 488.55'$
 $L = 975.89'$
 $E = 14.90'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve MDIB_01-2 (INTERIM RAMP B)

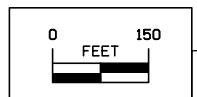
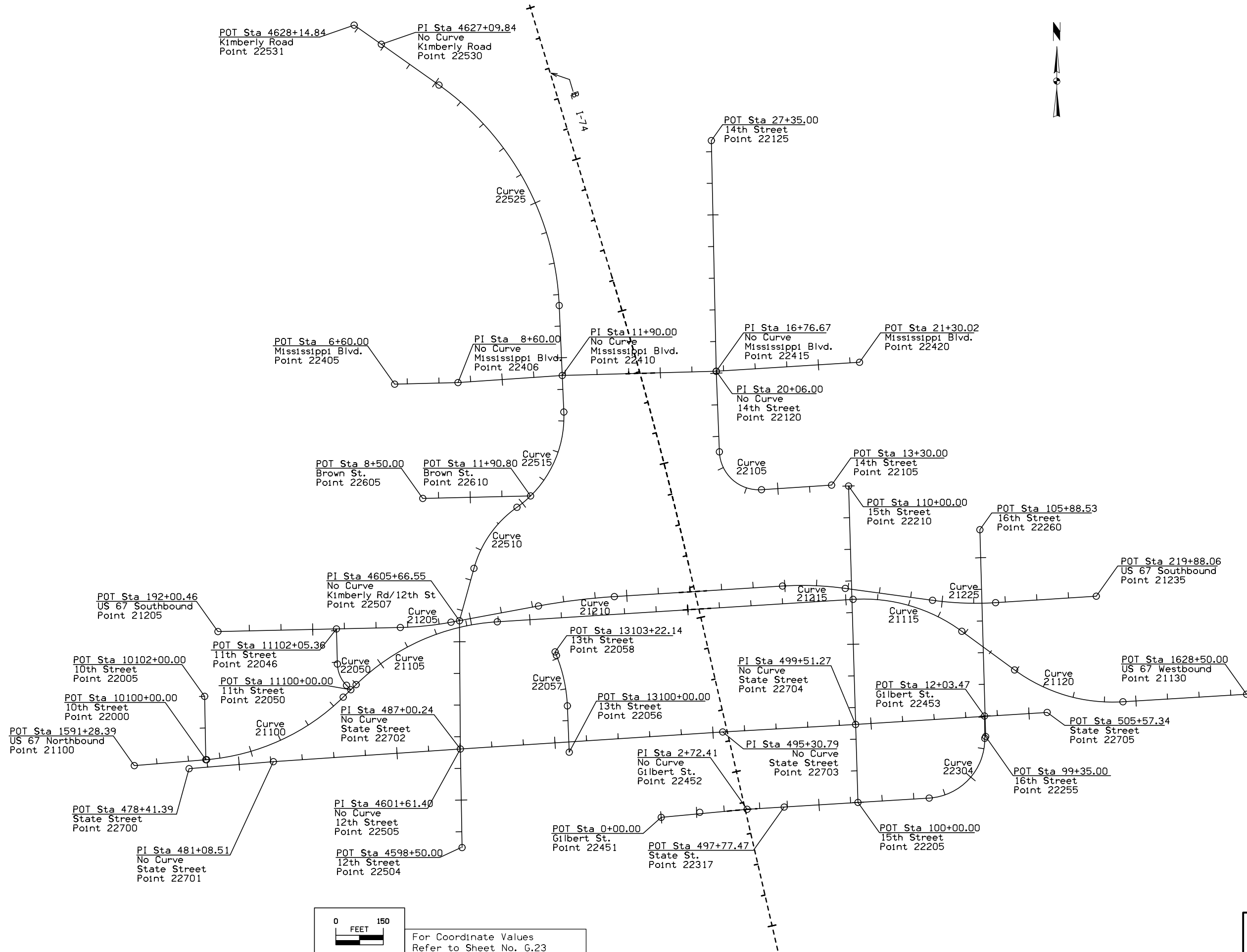
PI Sta. = 2539+30.77
 $\Delta = 0^\circ 25' 38.55''$ (RT)
 $D = 0^\circ 42' 54.45''$
 $R = 8,012.00'$
 $T = 29.88'$
 $L = 59.76'$
 $E = 0.06'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve MDIB_01-3 (INTERIM RAMP B)

PI Sta. = 2546+82.88
 $\Delta = 7^\circ 12' 40.84''$ (RT)
 $D = 2^\circ 23' 14.37''$
 $R = 2,400.00'$
 $T = 151.23'$
 $L = 302.07'$
 $E = 4.76'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

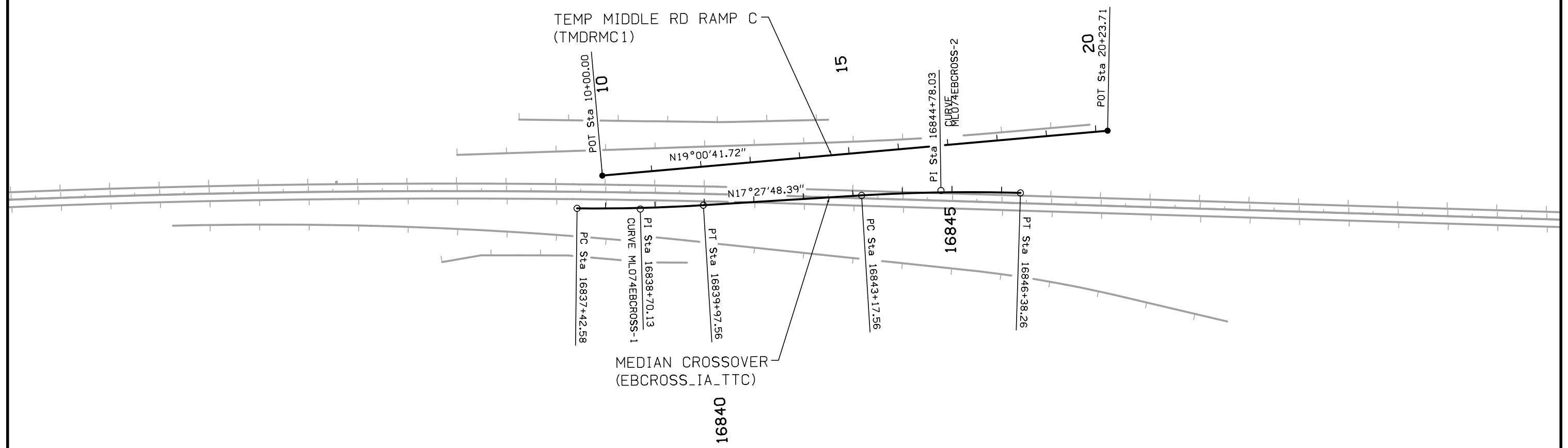
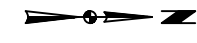


ALIGNMENTS
 Middle Rd Ramps



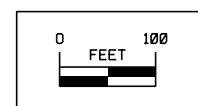
For Coordinate Values
Refer to Sheet No. G.23

**ALIGNMENTS
IOWA LOCAL ROADS**

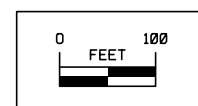
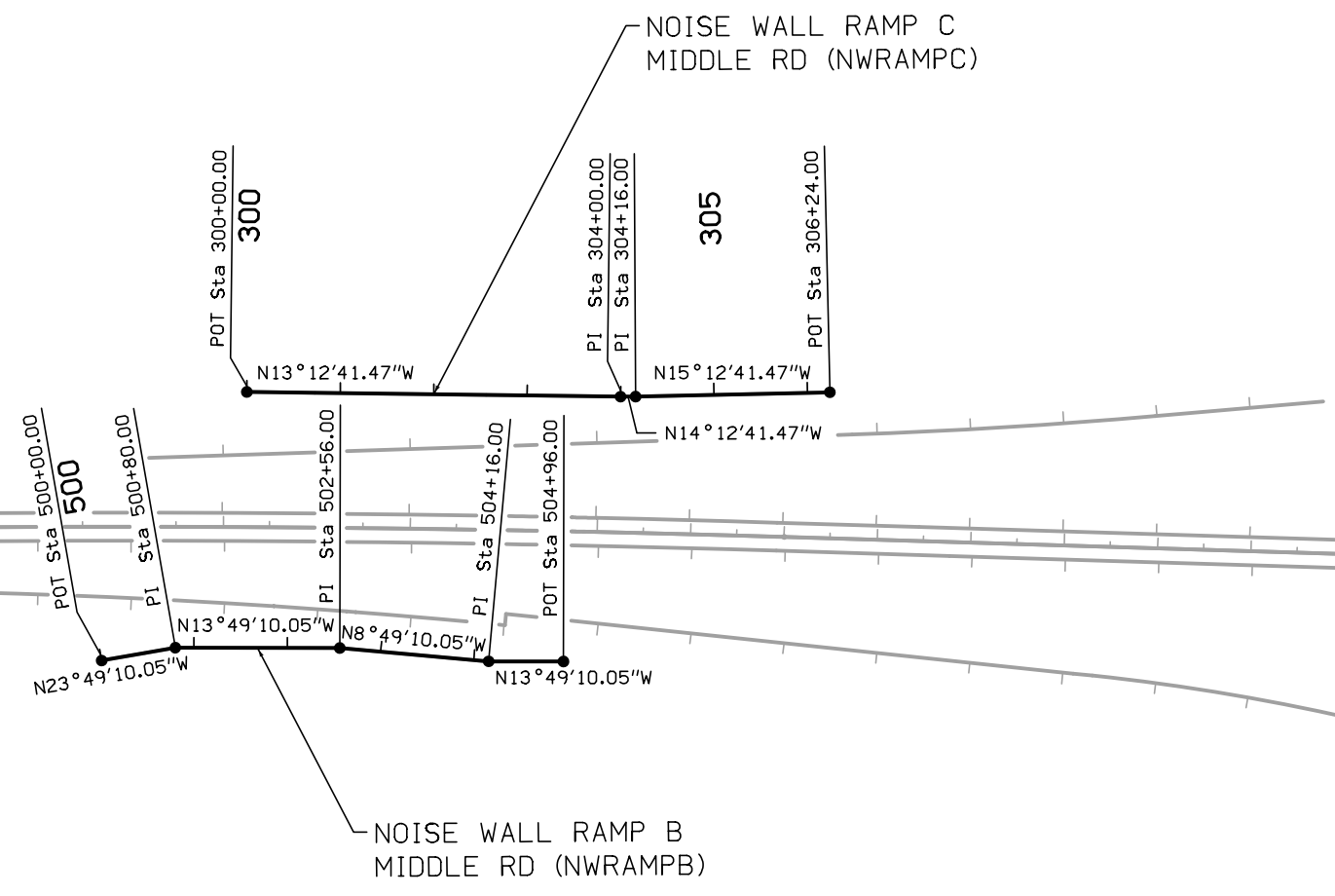
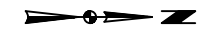


Curve ML074EBCROSS-1
 PI Sta. = 16838+70.13
 $\Delta = 4^{\circ}09' 16.35''$ (LT)
 $D = 1^{\circ}37' 45.63''$
 $R = 3,516.5'$
 $T = 127.55'$
 $L = 254.98'$
 $E = 2.31'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$

Curve ML074EBCROSS-2
 PI Sta. = 16844+78.03
 $\Delta = 5^{\circ} 16' 29.32''$ (RT)
 $D = 1^{\circ} 38' 41.19''$
 $R = 3,483.5'$
 $T = 160.46'$
 $L = 320.70'$
 $E = 3.69'$
 $e = \text{N.C.}$
 $L = \text{NA}$
 $x = \text{NA}$
 $m = \text{NA}$



ALIGNMENTS
 DETOUR



ALIGNMENTS
Noise Walls

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
SWTRAIL-1	PROPOSED LEVEE						100+00.00	568692.07	2458131.98	101+31.50	568743.30	2458010.87	101+74.71	568837.65	2458102.47				
SWTRAIL-2	CONNECTION						101+74.71	568837.65	2458102.47	102+08.44	568861.85	2458125.97	102+28.39	568839.27	2458151.02				
SWTRAIL-3							102+28.39	568839.27	2458151.02	102+37.20	568833.37	2458157.56	102+45.32	568824.69	2458158.96				
NWRAMPB	NOISEWALL RAMP B																		
NW30	MIDDLE RD	500+00.00	573923.91	2457120.59															
NW31		500+80.00	573997.10	2457088.28															
NW32		502+56.00	574168.01	2457046.24															
NW33		504+16.00	574326.11	2457021.71															
NW34		504+96.00	574403.80	2457002.60															
NWRAMP C	NOISEWALL RAMP C																		
NW10	MIDDLE RD	300+00.00	574005.49	2456804.27															
NW11		304+00.00	574394.90	2456712.85															
NW12		304+16.00	574410.42	2456708.92															
NW13		306+24.00	574611.13	2456654.35															
RW135-IA	RET WALL 135																		
RW100		14498+50.00	570458.52	2458133.23															
RW135_1							14500+29.54	570631.73	2458085.97	14501+04.57	570704.11	2458066.22	14501+79.57	570775.49	2458043.10				
RF154	TEMP RAMP B	200+00.00	568705.76	2458163.39															
RF155	TEMP RAMP B	205+06.06	569211.69	2458151.94															
RAMP RF14-1	TEMP RAMP B						210+06.65	569711.68	2458127.46	210+91.66	569796.58	2458123.30	211+67.41	569858.50	2458181.55				
RAMP RF14-2	TEMP RAMP B						211+67.41	569858.50	2458181.55	212+40.24	569911.55	2458231.45	213+03.02	569983.57	2458220.63				
RF156	TEMP RAMP B	213+70.54	570050.35	2458210.59															

SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ _{scs}	Horizontal Alignment Data												Remarks			
			Spiral Data					Curve Data										
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ _c	T	L	R		E		
ML074_IA 21010	I-74 MAINLINE													1°00'00.00" LT	174.54'	349.07'	20,000.00'	0.76'
21015														3°50'58.23" LT	470.48'	940.61'	14,000.00'	7.90'
21020														4°39'39.15" RT	936.01'	1,871.00'	23,000.00'	19.04'
ML074EB_IA 21003	I-74 EB													2°35'56.05" LT	453.35'	906.55'	19,986.00'	5.14'
21005														1°35'56.05" RT	279.08'	558.12'	20,000.00'	1.95'
21017														3°50'58.22" LT	470.48'	940.61'	14,000.00'	7.90'
21022														4°39'39.15" RT	936.62'	1,872.22'	23,015.00'	19.05'
ML074WB_IA 21001	I-74 WB													1°00'00.00" LT	174.54'	349.07'	20,000.00'	0.76'
21016														3°50'58.24" LT	470.48'	940.61'	14,000.00'	7.90'
21021														4°39'39.15" RT	935.40'	1,869.78'	22,985.00'	19.03'
671A 20010	RAMP A													5°35'47.78" LT	391.03'	781.43'	8,000.00'	9.55'
671B 20060 20065	RAMP B													3°50'00.00" RT	267.72'	535.23'	8,000.00'	4.48'
														2°25'47.23" LT	169.66'	339.26'	8,000.00'	1.80'
671C 20110	RAMP C													3°17'46.82" LT	230.19'	460.26'	8,000.00'	3.31'
671D 20155 20160	RAMP D													6°33'06.71" LT	183.16'	365.93'	3,200.00'	5.24'
														3°49'10.99" RT	266.77'	533.33'	8,000.00'	4.45'
3RG_IL RRD-G-1	RAMP RD-G													2°09'43.09" RT	188.69'	377.33'	10,000.00'	1.78'
3RH_IL 3RHIL-1	RAMP RD-H													5°37'45.59" RT	393.32'	786.00'	8,000.00'	9.66'
6RD_IL 6RDIL-1 6RDIL-2	RAMP 6TH-D													4°18'49.27" LT	45.19'	90.35'	1,200.00'	0.85'
														1°33'28.68" RT	135.97'	271.92'	10,000.00'	0.92'
RW165_IA RW165 1	RET WALL 165													1°06'28.57" LT	77.22'	154.43'	7,986.00'	0.37'
MDIB 01 MDIB 01-1 MDIB 01-2 MDIB 01-3	MIDDLE RD RAMP B													6°59'21.45" RT	488.55'	975.89'	8000.00'	14.9'
														0°25'38.55" RT	29.88'	59.76'	8012.00'	0.06'
														7°12'40.84" RT	151.23'	302.07'	2400.00'	4.76'
MDIC 01 MDIC 01-1	MIDDLE RD RAMP C													3°06'08.24" LT	162.48'	324.87'	6000.00'	2.20'
EBCROSS_IA.TTC ML074EBCROSS-1 ML074EBCROSS-2	TEMP MEDIAN CROSS OVER													4°09'16.35" LT	127.55'	254.98'	3516.50'	2.31'
														5°16'29.32" RT	160.46'	320.70'	3483.50'	3.69'
SWTRAIL-1 SWTRAIL-2 SWTRAIL-3	PROPOSED LEVEE CONNECTION													111°13'23.59" RT	131.50'	174.71'	90.00'	69.35'
														87°53'02.91" RT	33.73'	53.69'	35.00'	13.61'
														38°47'21.78" RT	8.80'	16.93'	25.00'	1.50'
RW135_IA RW135 1	RET WALL 135													2°40'40.59" LT	75.03'	150.03'	3,210.00'	0.88'
RAMPRF14-1 RAMPRF14-2	TEMP RAMP B													46°03'11.72" RT	85.00'	160.76'	200.00'	17.31'
	TEMP RAMP B													51°47'52.03" LT	72.83'	135.61'	150.00'	16.75'

SUPERELEVATION DATA

See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e	L	x														
			FT	%	FT														
14th St.	Curve 22105	125	4.0	65	32	PV-301	14+74.34 18+29.03	15+06.34 17+97.03	15+38.34 17+65.03	15+71.34 17+32.03			15+51.84 17+51.53			15+06.34 17+97.03			

STAGING NOTES

STAGE 1

Construction
 Outside of 40 Calendar Day Critical Closure:
 All work on Brown Street and 14th Street south of Mississippi Blvd. No lane closures will be allowed on Mississippi Blvd at this time.

40 Calendar Day Critical Closure:
 All work on Mississippi Blvd, including sidewalk and driveway construction
 All work on 14th Street north of Mississippi Blvd, including the detour pavement in the northbound lane
 Maintain a walking path between the school/parking lot south of Mississippi Blvd and the day care on the north side of the street

Traffic Control
 14th St., South of Mississippi Blvd., to be closed to through traffic. Access to residences, business and adjacent properties to be maintained by the Contractor.
 A 40 calendar day critical closure will be in effect for the work on Mississippi Blvd and 14th Street north of Mississippi Blvd.
 No closures will be allowed on Mississippi Blvd or 14th Street north of Mississippi Blvd outside of the 40 calendar day critical closure.
 Lane closures on Mississippi Blvd. after the 40 calendar days shall be limited to flagger set-ups and between the hours of 9 am and 2 pm.
 Sidewalk on Mississippi Blvd shall be maintained on one side at all times except during the 40 day closure. A detour route must be provided during that time, refer to Sheet No. J.3 for detour route.

STAGE 2

Construction
 Construct west side of 14th St.

Traffic Control
 14th St. will be reduced to one lane of traffic. Access to residences, business and adjacent properties to be maintained by the Contractor using staged construction at each entrance.
 I-74 Entrance loop will be closed and traffic will be routed to 10th St.

STAGE 3

Construction
 Construct the east lane of 14th St.

Traffic Control
 14th St. will be reduced to one lane of traffic. Access to residences, business and adjacent properties to be maintained by the Contractor using staged construction at each entrance.
 I-74 Entrance loop will be closed and traffic will be routed to 12th St. to use I-74 SB entrance ramp off State St.

TRAFFIC CONTROL PLAN

Refer to Sheet Nos. J.3 to J.8 for additional details of each individual stage.

For additional complementary information, refer to part 6 of the Manual on Uniform Traffic Control Devices and to the current Standard Specifications.

COORDINATED OPERATIONS










Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
BRFIM-074-1(197)5--05-82	EB & WB Approach Spans - River Bridge
BRFIM-074-1(198)5--05-82	EB & WB Main Arch Spans - River Bridge
BRFIM-074-1(199)5--05-82	WB IA Viaduct, Ramps B & D
BRFIM-074-1(200)5--05-82	EB IA Viaduct, Ramps A & C
IM-74-1(220)5--13-82	Signing
ITS-074-1(222)5--25-82	Fiber Optics
ITS-074-1(221)5--25-82	ITS Deployment and Integretion
IMN-74-1(241)5-0E-82	Structural Health Monitoring
IMN-074-1(208)5-0E-82	Light Pole Supply
IMN-074-1(209)5-0E-82	Luminaire Supply
IMN-74-1(235)5-0E-82	Aesthetic Lighting Supply

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med		Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS



	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White		Pavement Markings, White

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

●	Channelizing Device	■	Crash Cushion
✕	Drum	○→	Traffic Signal
■	Temporary Lane Separator	⌚	Flagger
◆	Tubular Marker	⊙	Temporary Floodlighting
♦	Channelizer Marker	⊥	Traffic Sign
△	Concrete Barrier Marker	⊥	Type III Barricade
◁	Delineator	☀	Type A Warning Light
▬	Temporary Barrier Rail	←	Direction of Traffic
	Pavement Removal		Safety Closure

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

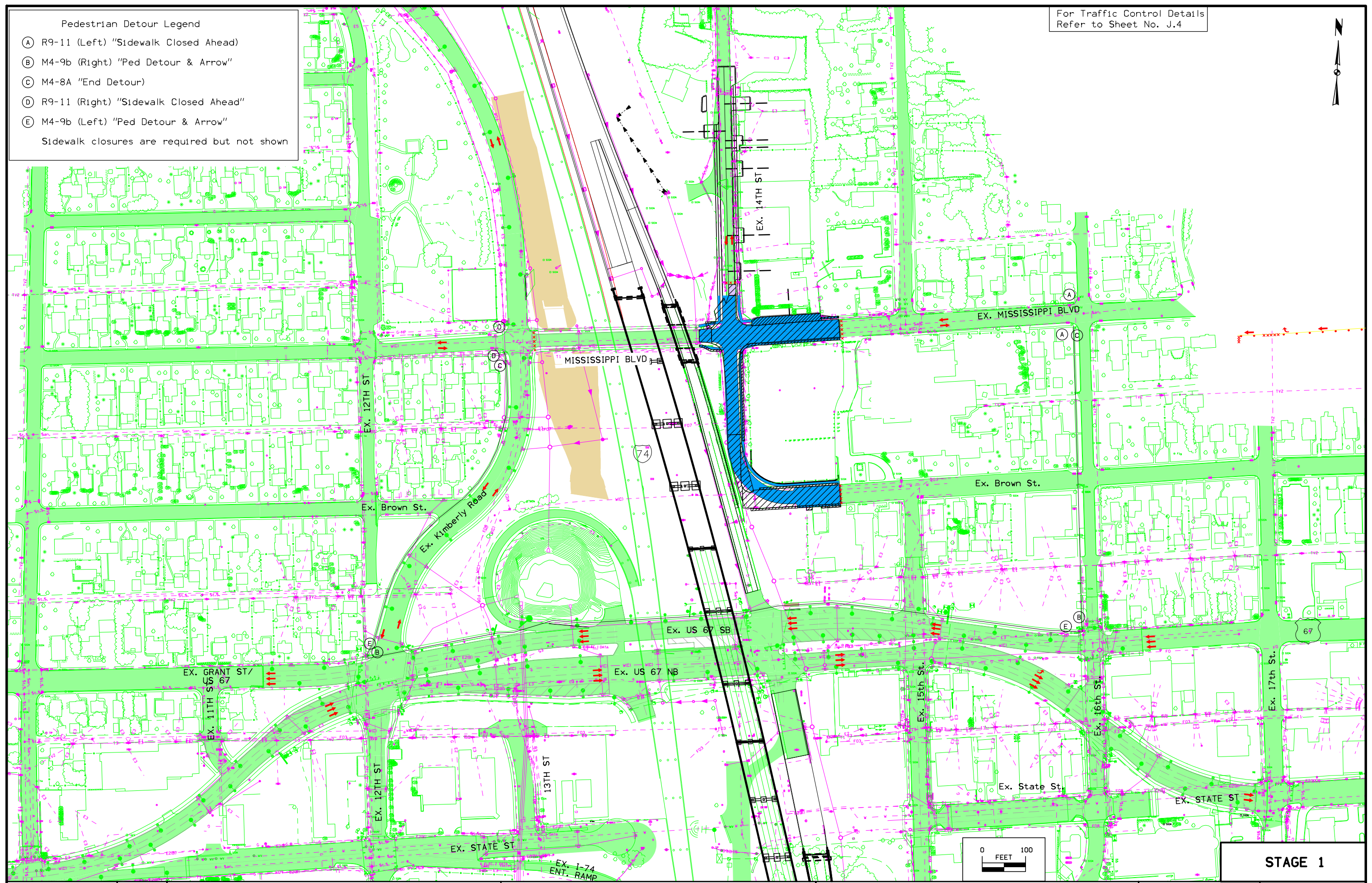
TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

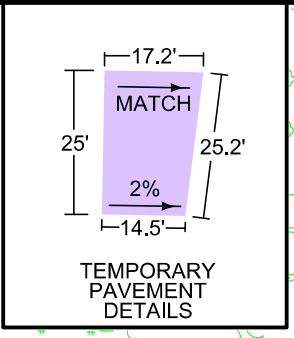
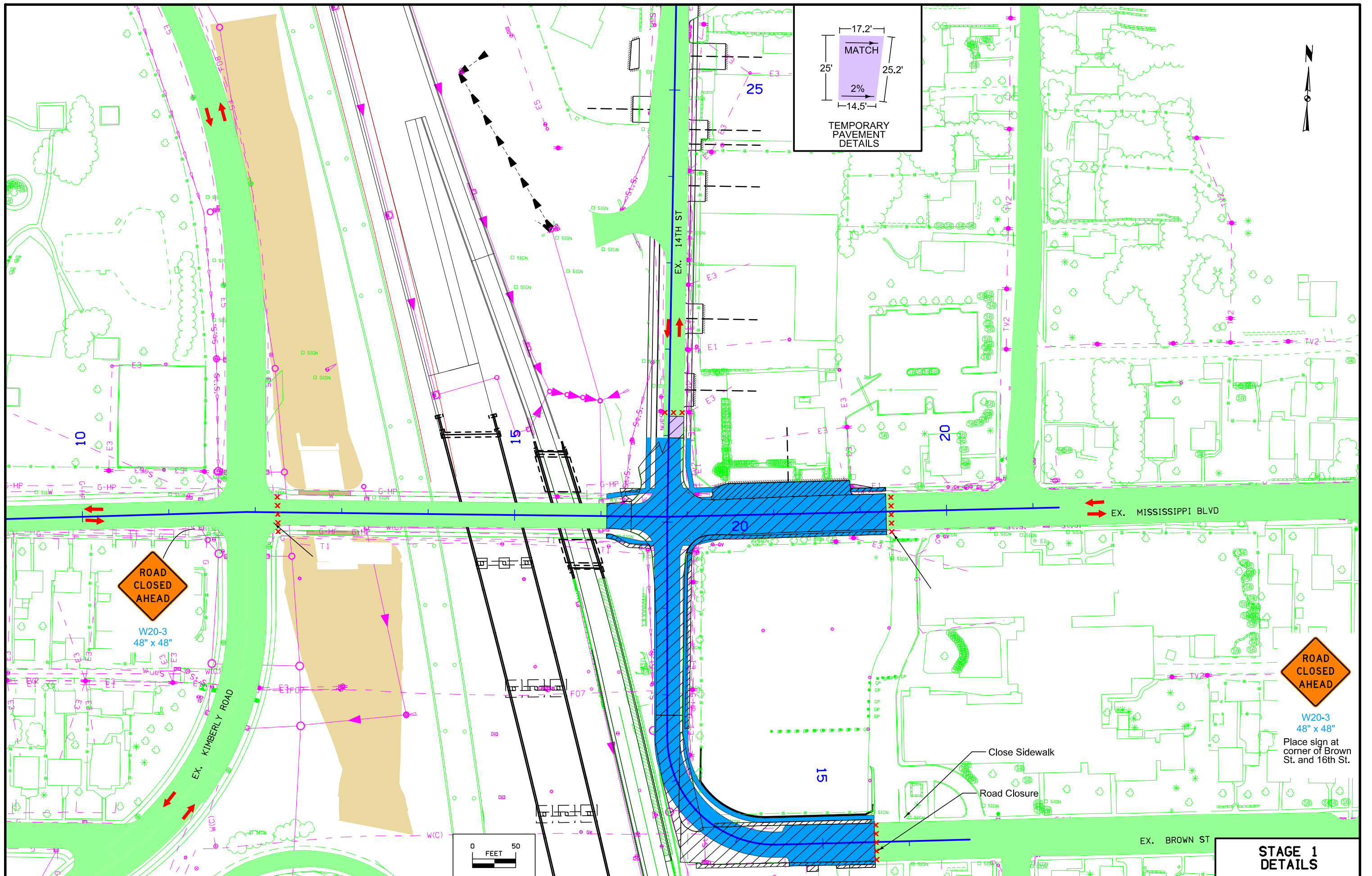
(COVERS SHEET SERIES J)

For Traffic Control Details
Refer to Sheet No. J.4



- Pedestrian Detour Legend
- (A) R9-11 (Left) "Sidewalk Closed Ahead"
 - (B) M4-9b (Right) "Ped Detour & Arrow"
 - (C) M4-8A "End Detour"
 - (D) R9-11 (Right) "Sidewalk Closed Ahead"
 - (E) M4-9b (Left) "Ped Detour & Arrow"
- Sidewalk closures are required but not shown





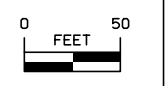
ROAD
CLOSED
AHEAD

W20-3
48" x 48"

ROAD
CLOSED
AHEAD

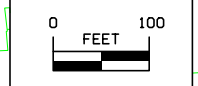
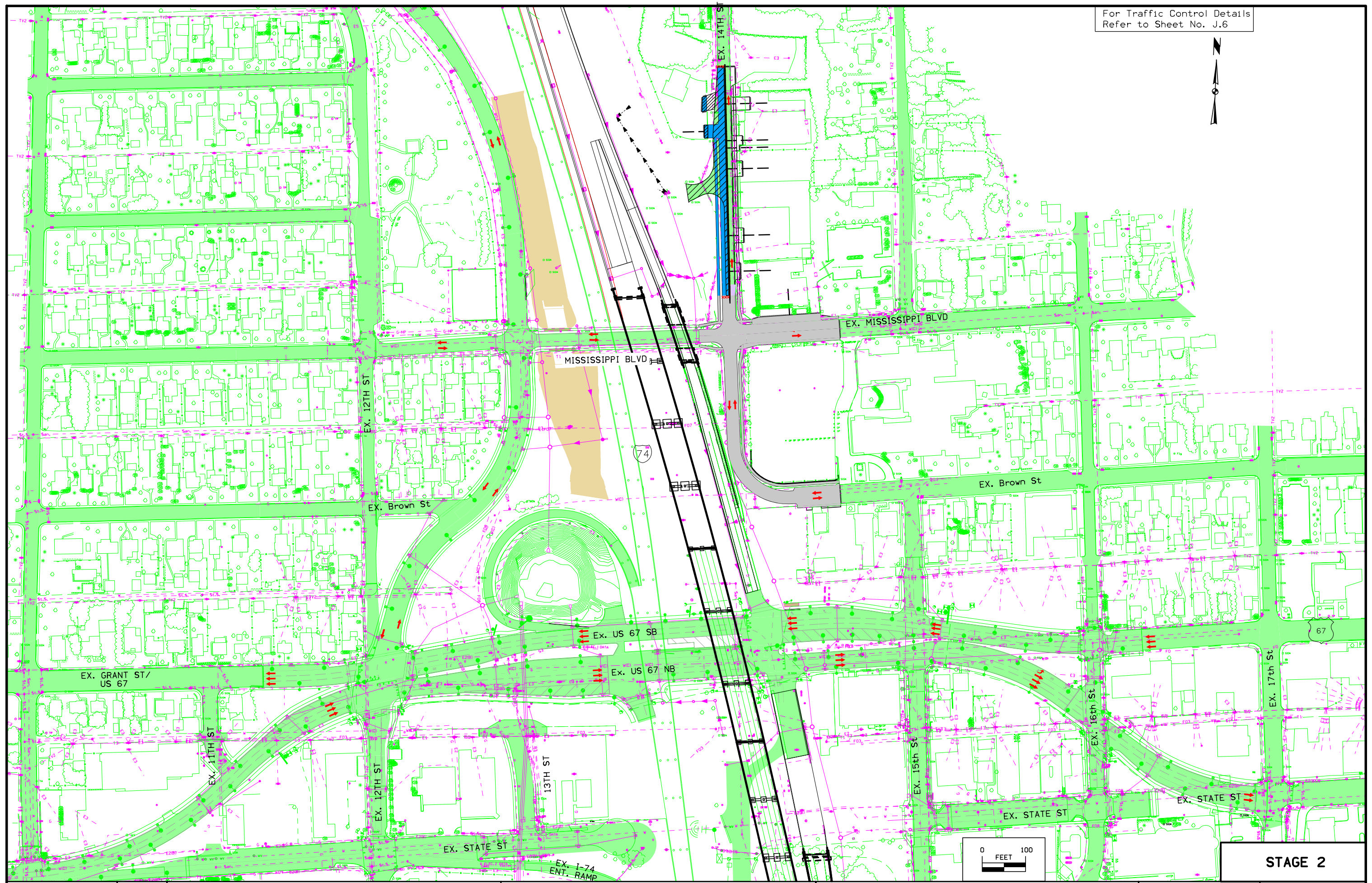
W20-3
48" x 48"

Place sign at
corner of Brown
St. and 16th St.

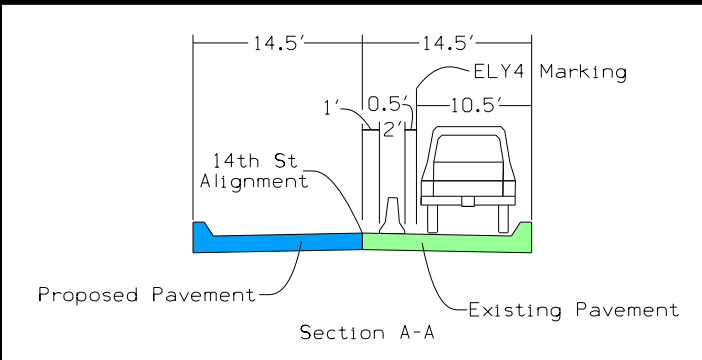
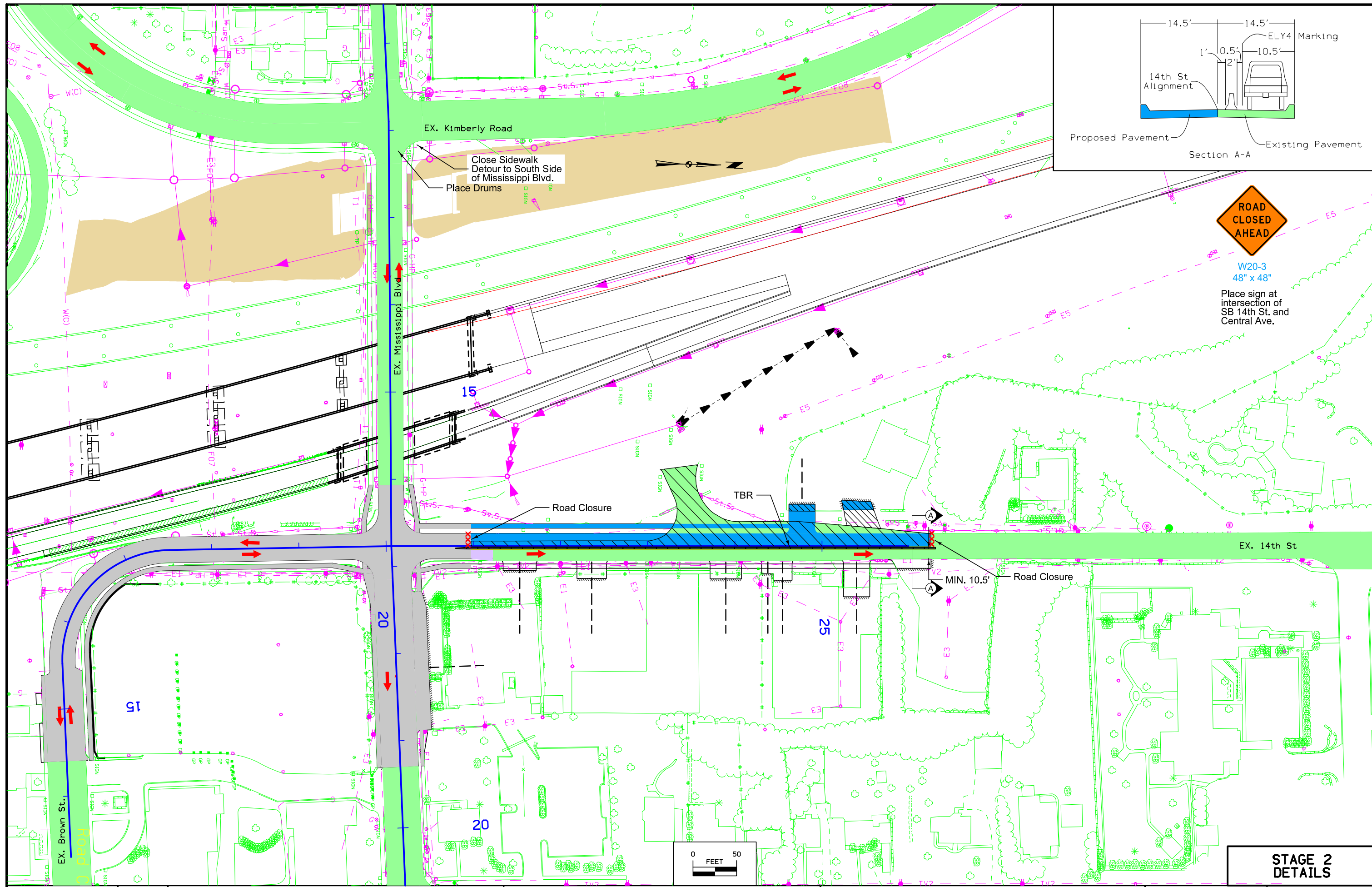


STAGE 1
DETAILS

For Traffic Control Details
Refer to Sheet No. J.6

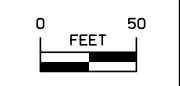


STAGE 2



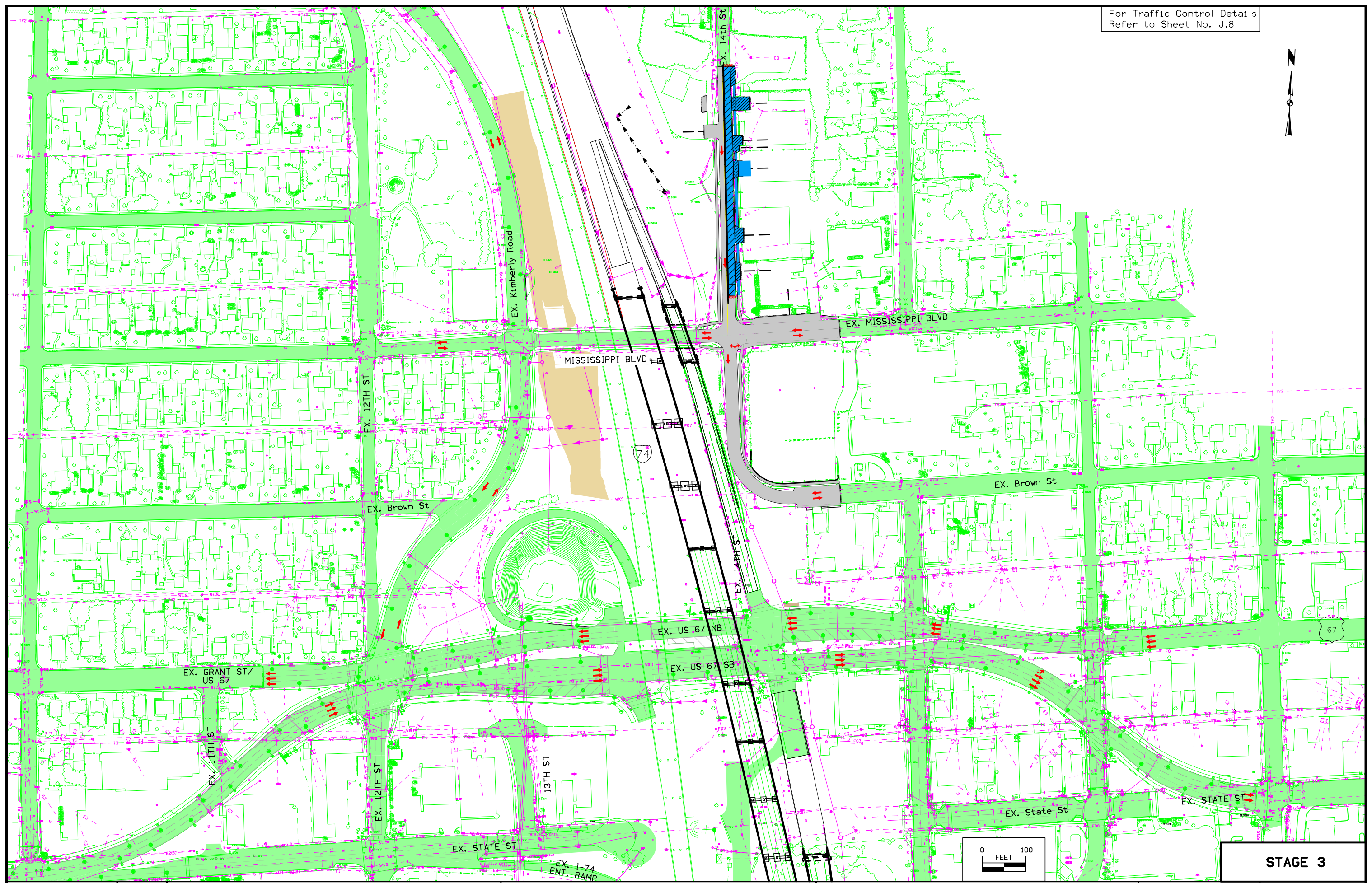
W20-3
48" x 48"

Place sign at
intersection of
SB 14th St. and
Central Ave.

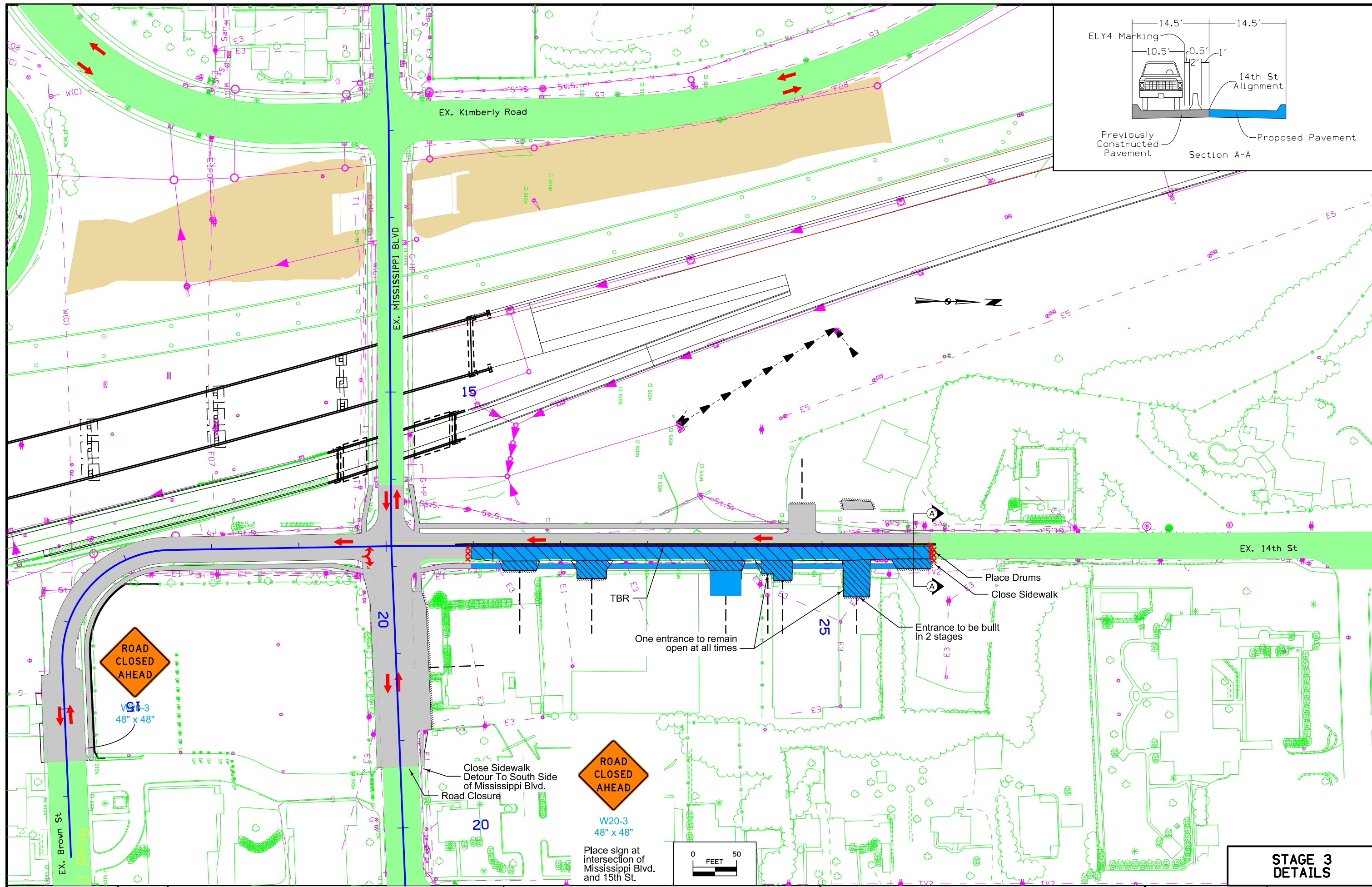


**STAGE 2
DETAILS**

For Traffic Control Details
Refer to Sheet No. J.8



STAGE 3



**STAGE 3
DETAILS**

INTERSECTION CURVE COORDINATES

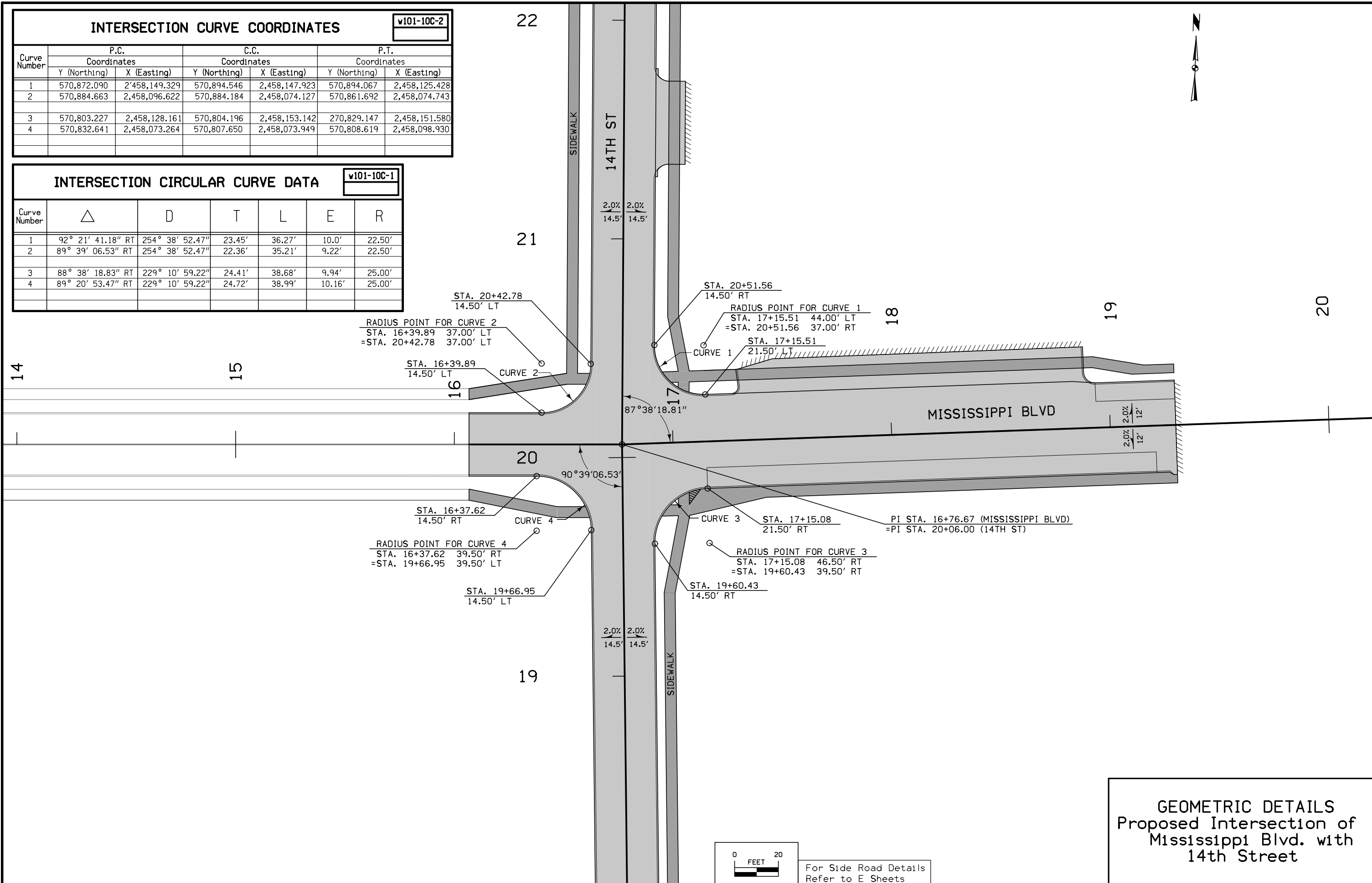
W101-10C-2

Curve Number	P.C. Coordinates		C.C. Coordinates		P.T. Coordinates	
	Y (Northing)	X (Easting)	Y (Northing)	X (Easting)	Y (Northing)	X (Easting)
	1	570,872.090	2,458,149.329	570,894.546	2,458,147.923	570,894.067
2	570,884.663	2,458,096.622	570,884.184	2,458,074.127	570,861.692	2,458,074.743
3	570,803.227	2,458,128.161	570,804.196	2,458,153.142	270,829.147	2,458,151.580
4	570,832.641	2,458,073.264	570,807.650	2,458,073.949	570,808.619	2,458,098.930

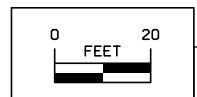
INTERSECTION CIRCULAR CURVE DATA

W101-10C-1

Curve Number	Δ	D	T	L	E	R
1	92° 21' 41.18" RT	254° 38' 52.47"	23.45'	36.27'	10.0'	22.50'
2	89° 39' 06.53" RT	254° 38' 52.47"	22.36'	35.21'	9.22'	22.50'
3	88° 38' 18.83" RT	229° 10' 59.22"	24.41'	38.68'	9.94'	25.00'
4	89° 20' 53.47" RT	229° 10' 59.22"	24.72'	38.99'	10.16'	25.00'



GEOMETRIC DETAILS
 Proposed Intersection of
 Mississippi Blvd. with
 14th Street



For Side Road Details
 Refer to E Sheets

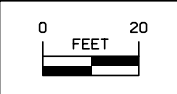
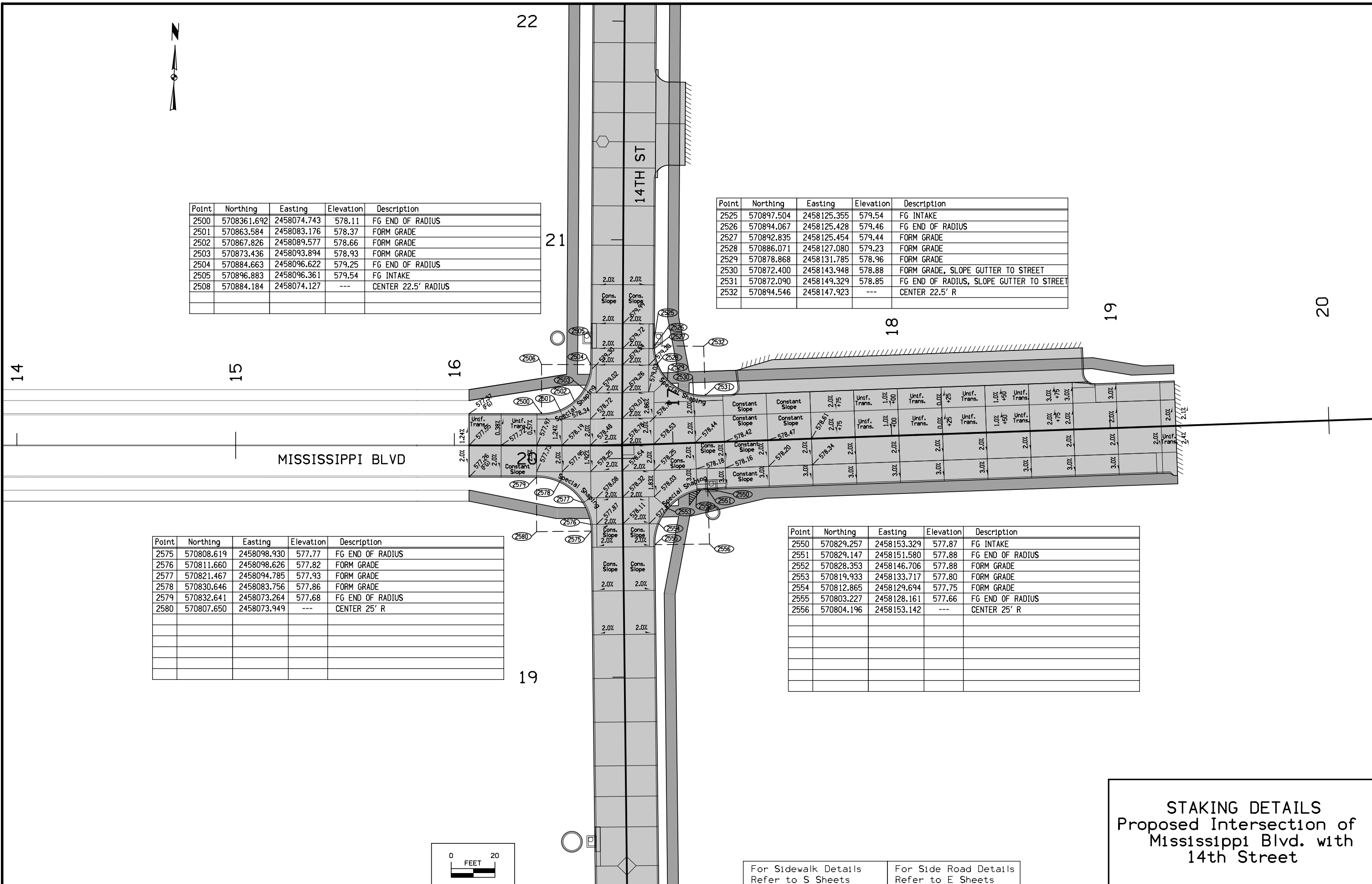


Point	Northing	Easting	Elevation	Description
2500	5708361.692	2458074.743	578.11	FG END OF RADIUS
2501	570863.584	2458083.176	578.37	FORM GRADE
2502	570867.826	2458089.577	578.66	FORM GRADE
2503	570873.436	2458093.894	578.93	FORM GRADE
2504	570884.663	2458096.622	579.25	FG END OF RADIUS
2505	570896.883	2458096.361	579.54	FG INTAKE
2508	570884.184	2458074.127	---	CENTER 22.5' RADIUS

Point	Northing	Easting	Elevation	Description
2525	570897.504	2458125.355	579.54	FG INTAKE
2526	570894.067	2458125.428	579.46	FG END OF RADIUS
2527	570892.835	2458125.454	579.44	FORM GRADE
2528	570886.071	2458127.080	579.23	FORM GRADE
2529	570878.868	2458131.785	578.96	FORM GRADE
2530	570872.400	2458143.948	578.88	FORM GRADE, SLOPE GUTTER TO STREET
2531	570872.090	2458149.329	578.85	FG END OF RADIUS, SLOPE GUTTER TO STREET
2532	570894.546	2458147.923	---	CENTER 22.5' R

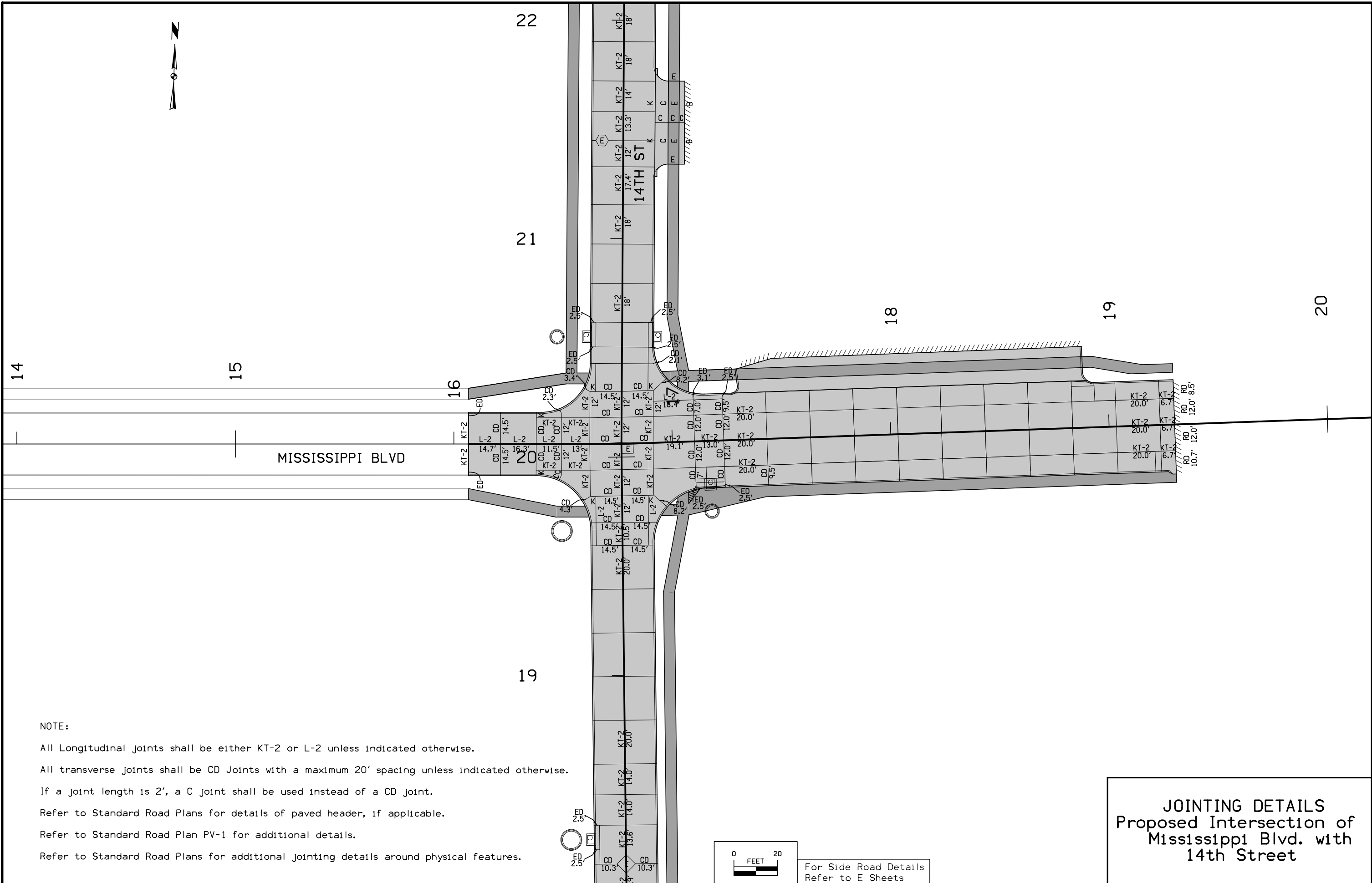
Point	Northing	Easting	Elevation	Description
2575	570808.619	2458098.930	577.77	FG END OF RADIUS
2576	570811.660	2458098.626	577.82	FORM GRADE
2577	570821.467	2458094.785	577.93	FORM GRADE
2578	570830.646	2458083.756	577.86	FORM GRADE
2579	570832.641	2458073.264	577.68	FG END OF RADIUS
2580	570807.650	2458073.949	---	CENTER 25' R

Point	Northing	Easting	Elevation	Description
2550	570829.257	2458153.329	577.87	FG INTAKE
2551	570829.147	2458151.580	577.88	FG END OF RADIUS
2552	570828.353	2458146.706	577.88	FORM GRADE
2553	570819.933	2458133.717	577.80	FORM GRADE
2554	570812.865	2458129.694	577.75	FORM GRADE
2555	570803.227	2458128.161	577.66	FG END OF RADIUS
2556	570804.196	2458153.142	---	CENTER 25' R



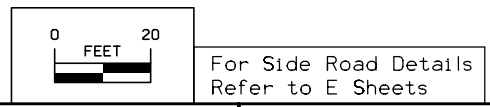
STAKING DETAILS
Proposed Intersection of
Mississippi Blvd. with
14th Street

For Sidewalk Details Refer to S Sheets For Side Road Details Refer to E Sheets

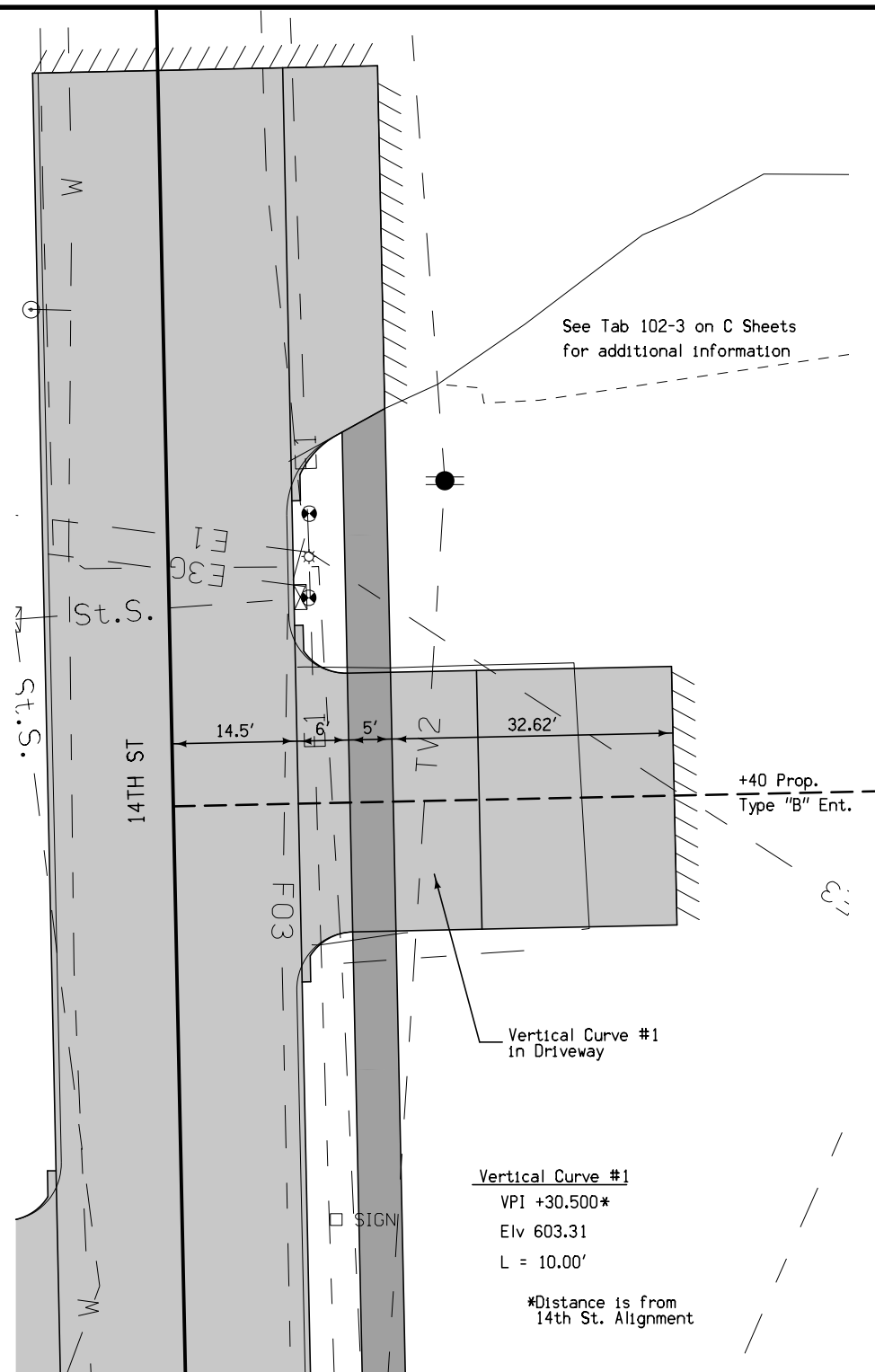


NOTE:

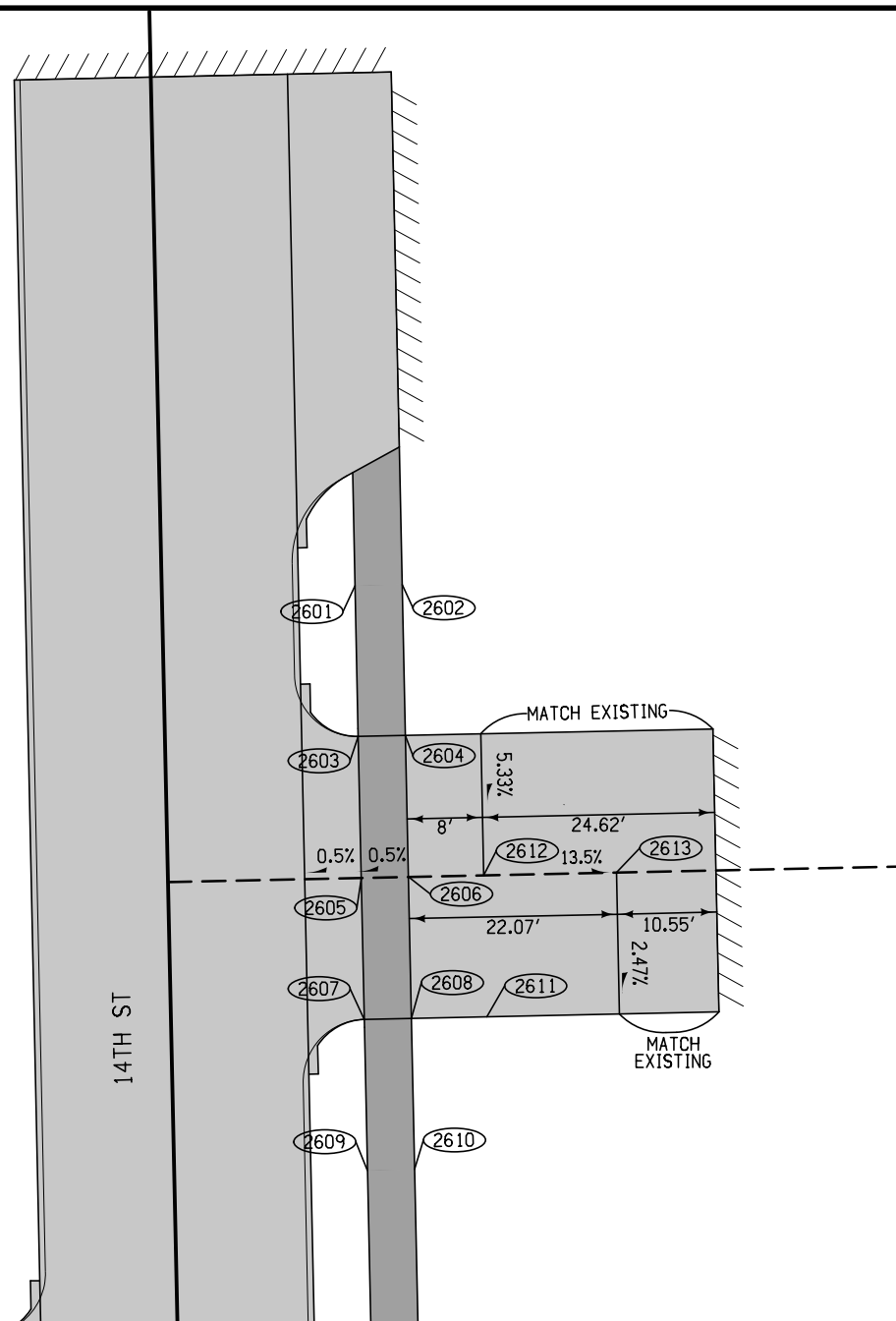
- All Longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
- All transverse joints shall be CD Joints with a maximum 20' spacing unless indicated otherwise.
- If a joint length is 2', a C joint shall be used instead of a CD joint.
- Refer to Standard Road Plans for details of paved header, if applicable.
- Refer to Standard Road Plan PV-1 for additional details.
- Refer to Standard Road Plans for additional jointing details around physical features.



JOINTING DETAILS
 Proposed Intersection of
 Mississippi Blvd. with
 14th Street

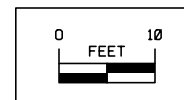


GEOMETRICS



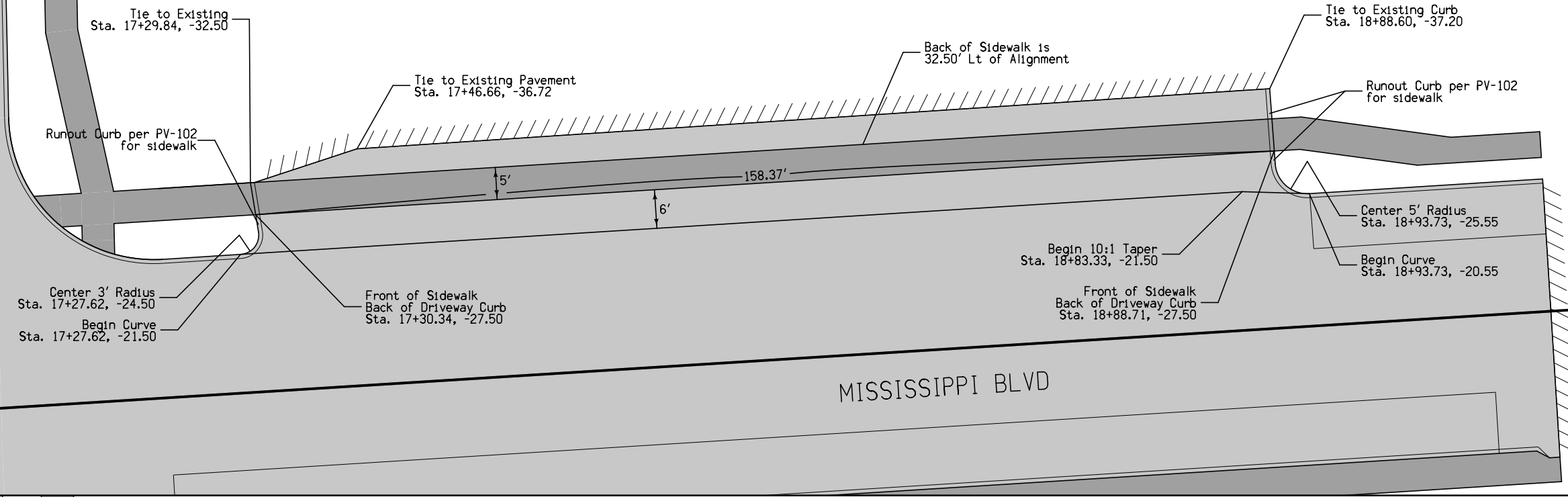
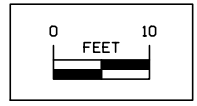
Point	Northing	Easting	Elevation	Description
2601	571413.152	2458120.362	607.06	FRONT OF SIDEWALK
2602	571413.258	2458125.361	607.14	BACK OF SIDEWALK
2603	571397.155	2458120.703	604.78	FRONT OF SIDEWALK
2604	571397.262	2458125.702	604.80	BACK OF SIDEWALK
2605	571382.159	2458121.023	602.83	FRONT OF SIDEWALK
2606	571382.265	2458126.022	602.86	BACK OF SIDEWALK
2607	571367.162	2458121.343	601.80	FRONT OF SIDEWALK
2608	571367.269	2458126.342	601.82	BACK OF SIDEWALK
2609	571351.166	2458121.684	600.89	FRONT OF SIDEWALK
2610	571351.272	2458126.683	600.97	BACK OF SIDEWALK
2611	571367.439	2458134.340	601.52	EDGE OF DRIVEWAY
2612	571382.436	2458134.020	601.78	CENTERLINE OF DRIVEWAY
2613	571382.736	2458148.087	599.88	CENTERLINE OF DRIVEWAY

STAKING

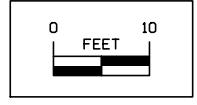
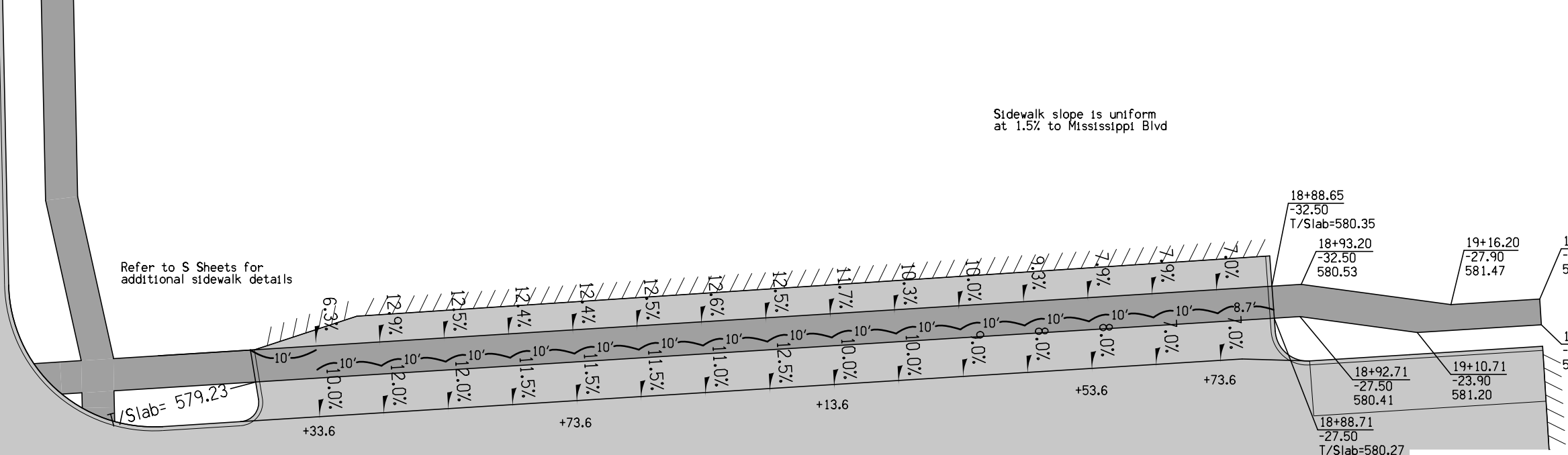


JOINTING

GEOMETRIC, STAKING AND JOINTING DETAILS
Entrance on 14th Street at Sta 25+40

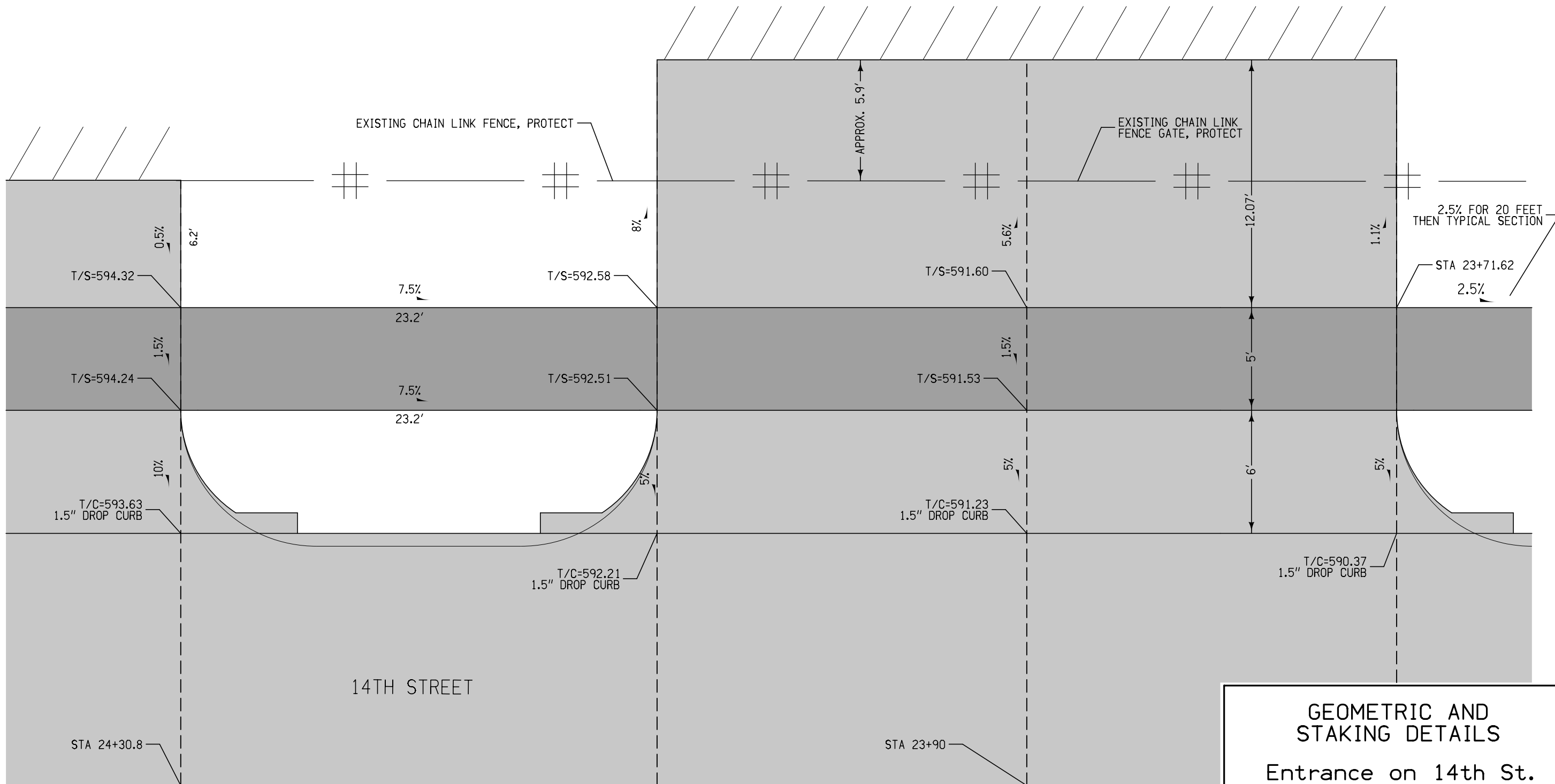
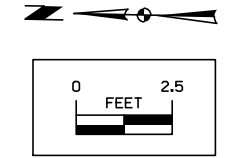


GEOMETRICS



STAKING

GEOMETRIC AND STAKING DETAILS
 Entrance on Mississippi Blvd. East of 14th St.



GEOMETRIC AND STAKING DETAILS
 Entrance on 14th St.
 Station 23+90

STORM SEWER

① Diameter or equivalent diameter

* Bid Item
** For SW-545

INTAKES AND UTILITY ACCESSES							PIPES													
							Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 2 ft length is added to each side of the Design Length to account for estimated length to center of structures.													
No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade	Bottom Well	Extension Length**	Notes	Line Number	Intake/Utility Access No.		Class 'D'	Pipe Size	Bid* Length	Design Length	Slope %	Connected Pipe Joint (DR-121)	Flow Lines			Pipe Profile Sheet No.	Notes
			Elev.	Elev.	FT			From	To							Inlet Elevation	Outlet Elevation	Other Elevation		
693	25+68.00, 14.50' Rt.	SW-507L	605.74	599.65		14TH ST Div. (2)	P693	693	694	2000D	15	35	30.1	0.9641		600.15	599.86		M.6	Div. (2)
694	25+60.00, 14.50' Lt.	SW-508R	604.85	599.26		14TH ST Div. (2)	P694	694	460	2000D	15	7	2.3	2.5974		599.76	599.7		M.6	Div. (2)
695	25+71.16, 17.93' Lt.	48" SW-401	606.74	599.61		14TH ST Div. (2)	P695	695	694	2000D	15	12	7.3	3.4388		600.11	599.86		M.6	Div. (2)
460	25+60.00, 22.81' Lt.	48" SW-401	605.68	599.1		14TH ST Div. (2)	P460	460	447	2000D	15	236	231.1	6.6857		599.6	584.15		M.6	Div. (2)
448	23+25.00, 14.50' Rt.	SW-507L	588.42	583.94		14TH ST Div. (2)	P448	448	447	2000D	15	33	29.0	1		584.44	584.15		M.6	Div. (2)
447	23+25.00, 14.50' Lt.	SW-508R	588.42	583.55		14TH ST Div. (2)	P447	447	909	2000D	15	271	266.5	4.0008		584.05	573.39		M.6	Div. (2)
445	20+55.00, 14.50' Rt.	SW-507L	579.54	574.25		14TH ST Div. (1)	P445	445	446	2000D	15	33	29.0	3.7241		574.75	573.67		M.6	Div. (1)
446	20+55.00, 14.50' Lt.	SW-507R	579.54	572.36		14TH ST Div. (1)	P446	446	909	2000D	24	15	10.3	1.7527		572.86	572.68		M.6	Div. (1)
909	20+54.88, 29.77' Lt.	60" SW-401	579.86	572.08		14TH ST Div. (3)	P909	909	463	2000D	24	87	83.0	2.3861		572.58	570.6		M.6	Div. (3)
							P744	eP-2	459	2000D	24	63	58.8	2.1613		574.87	573.6		M.4	Div. (2) Note 1
455	17+16.83, 21.50' Rt.	SW-541S	577.92	573.6		MISS BLVD Div. (2)	P455	455	459	2000D	18	12	7.8	1.2837		574.1	574		M.4	Div. (2)
459	17+17.10, 32.20' Rt.	60" SW-401	578.2	573		MISS BLVD Div. (2)	P459	459	463	2000D	24	67	62.9	2.0041		573.5	572.24		M.4	Div. (1)
463	19+66.43, 27.68' Lt.	96" SW-401	578.8	567.6		14TH ST Div. (3)	P463##	463	745	2000D	54	138	133.5	0.3971		568.1	567.57		M.6	Div. (3)
768	18+25.00, 14.50' Lt.	SW-507R	576.26	572.26		14TH ST Div. (1)	P768	768	745	2000D	15	8	3.5	1.7143		572.78	572.72		M.6	Div. (1)
745	18+25.00, 25.00' Lt.	96" SW-401	577.18	566.97		14TH ST Div. (3)	P745##	745	e10	2000D	54	63	58.8	0.2211		567.47	567.34		M.6	Div. (3)
444	16+84.23, 31.30' Rt.	SW-511	580.94	574.7		14TH ST Div. (1)	P444	444	443	2000D	12	23	18.5	20.788		575.2	571.35		M.6	Div. (1) Note 2
443	16+99.00, 14.50' Rt.	48" SW-502	575.35	570.6		14TH ST Div. (1)	P443	443	e11	2000D	18	45	40.5	0.9138		571.1	570.73		M.6	Div. (1)
441	15+37.18, 19.48' Lt.	SW-501	577.67	573.09	Note 3	14TH ST Div. (2)	P441	441	442	2000D	15	38	33.0	1.7262		573.59	573.02		M.6	Div. (2)
442	15+45.88, 16.16' Rt.	48" SW-502	577.3	572.27		14TH ST Div. (2)	P442	442	e12	2000D	18	127	123.0	1.0813		572.77	571.44		M.6	Div. (2)
Existing Structures (For Information Only)							# Gasketed/Sealed sewer pipes required													
e10	17+58.78, 16.16' Lt.	SW-401			UAC, connect P745 to Structure		Existing Pipes (For Information Only)													
e11	16+74.19, 25.16' Lt.	SW-401			UAC, connect P443 to Structure		eP-1	Ex.	Ex.		15		232.0	11.2		628.01	601.95		Tie-in to Proposed Manhole 695 (Elev. at 695 = 603.24)	
e12	16+11.08, 85.45' Lt.	SW-401			UAC, connect P442 to Structure		eP-2	Ex.	Ex.		24		322.0	1.43		578.77	574.18		Tie-in to Pipe P743 at 17+92, 24.12 Note 1	
							eP-3	25335	26443		24		42.6	1.76		574.63	573.88		Note 5	
Notes:							<p>1 Provide 2 "D" Sections per Standard Road Plan DR-141 to tie into existing storm sewer pipe</p> <p>2 Pipe extends through retaining wall, see U sheets for add't details & locations of hole in ret wall</p> <p>3 Structure 441 is to include an SW-603, Type Q casting for driveways</p> <p>4 Storm Sewer staging is to follow general order of roadway construction. Stage 1 - Build storm sewer south of Mississippi Blvd. and in the intersection Stage 2 - Build storm sewer along the west side of 14th St. and stubs across 14th St. Stage 3 - Build storm sewer east side of 14th St. connecting stubs to prop. intakes east side of 14th</p> <p>5 Contractor is to field verify all existing pipe sizes and elevations prior to construction.</p>													

SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Luminaire
	Fruit Tree		Traffic Signal
	Shrub (Bushes)		Traffic Signal with Luminaire
	Timber		TP Telephone Pedestal
	Hedge		TVP Television Pedestal
	Stump		Telephone Pole
	Swamp		Telephone Pole (Second Company)
	Rock Outcrop		Telephone Pole (Third Company)
	Broken Concrete		Telephone Pole (Fourth Company)
	Revetment (Rip Rap)		Telephone Pole (Fifth Company)
	Cemetery		Power Pole
	Grave		Power Pole (Second Company)
	Cave		Power Pole (Third Company)
	Sink Hole		Power Pole (Fourth Company)
	Board Fence		Power Pole (Fifth Company)
	Chain Link or Security Fence		Electrical Highline Tower (Metal or Concrete)
	Wire Fence		Telephone Riser Pole
	Terrace		Power Riser Pole
	Earth Dam or Dike (Existing)		Telegraph Pole
	Earth Dam or Dike (Proposed)		Satellite TV Dish
	Tile Outlet		Guardrail (Beam or Cable)
	Edge of Water		GP Guard Post (one or two)
	Existing Drainage		Guard Post (over two)
	Proposed Drainage		FP Filler Pipe
	Right of Way Rail or Lot Corner		GV Gas Valve
	Concrete Monument		WV Water Valve
	Well		SL Speed Limit Sign
	Windmill		MM Mile Marker Post
	Beehive Intake		SIGN Sign
	Existing Intake		WHU Water Hook Up
	Proposed Intake		RT Radio Tower
	Existing Utility Access (Manhole)		TA Tower Anchor
	Proposed Utility Access (Manhole)		EB Electric Box
	Fire Hydrant		TCB Traffic Signal Control Box
	Water Hydrant (Rural)		RRB Rail Road Signal Control Box
			TSB Telephone Switch Box

UTILITY LEGEND

— F0 —	Existing Fiber Optics (Central Scott)
— F02 —	Existing Fiber Optics (McLeod USA)
— F03 —	Existing Fiber Optics (Qwest)
— F04 —	Existing Fiber Optics (ATT)
— F06 —	Existing Fiber Optics (MediaCom)
— F08 —	Existing Fiber Optics (Bettendorf)
— F09 —	Existing Fiber Optics (IowaDOT)
— E —	Existing Power Line (MidAmerican)
— E2 —	Existing Power Line (MidAmerican)
— E3 —	Existing Power Line (MidAmerican)
— E4 —	Existing Power Line (MidAmerican)
— E5 —	Existing Power Line (IowaDOT)
— G —	Existing Gas Line (MidAmerican)
— G-HP —	Existing High Pressure Gas Line (MidAmerican)
— San. —	Existing Sanitary Sewer Line (Bettendorf)
— San.2 —	Existing Sanitary Sewer Line (Davenport)
— T —	Existing Telephone Line (Qwest)
— TV —	Existing Cable Television Line (MediaCom)
— TV2 —	Existing Cable Television Line (MediaCom)
— W —	Existing Water Line (IA American)

PLAN VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	Description
Gray, Dark	(112)	Existing Topographic Features, Utilities, and Labels
Black	(17)	Proposed Storm Sewer Details, Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING	Design Color No.	Description
Gray, Light	(48)	Proposed Pavement Shading

PROFILE VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	Description
Gray, Dark	(112)	Existing Ground Line Profile and Existing Utilities Information
Black	(17)	Proposed Pipes and Intakes

PLAN VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

	Plug and Abandon Existing Pipe or Structure
	Removal of Existing Pipe or Structure
	Previously Constructed Pipe or Structure
	Direction of Pipe Flow

PROFILE VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

	Existing Ground
	Proposed Ground
	Previously Constructed Pipe or Structure
	Proposed Pipe or Structure

Reference Point

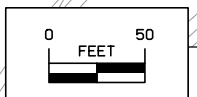
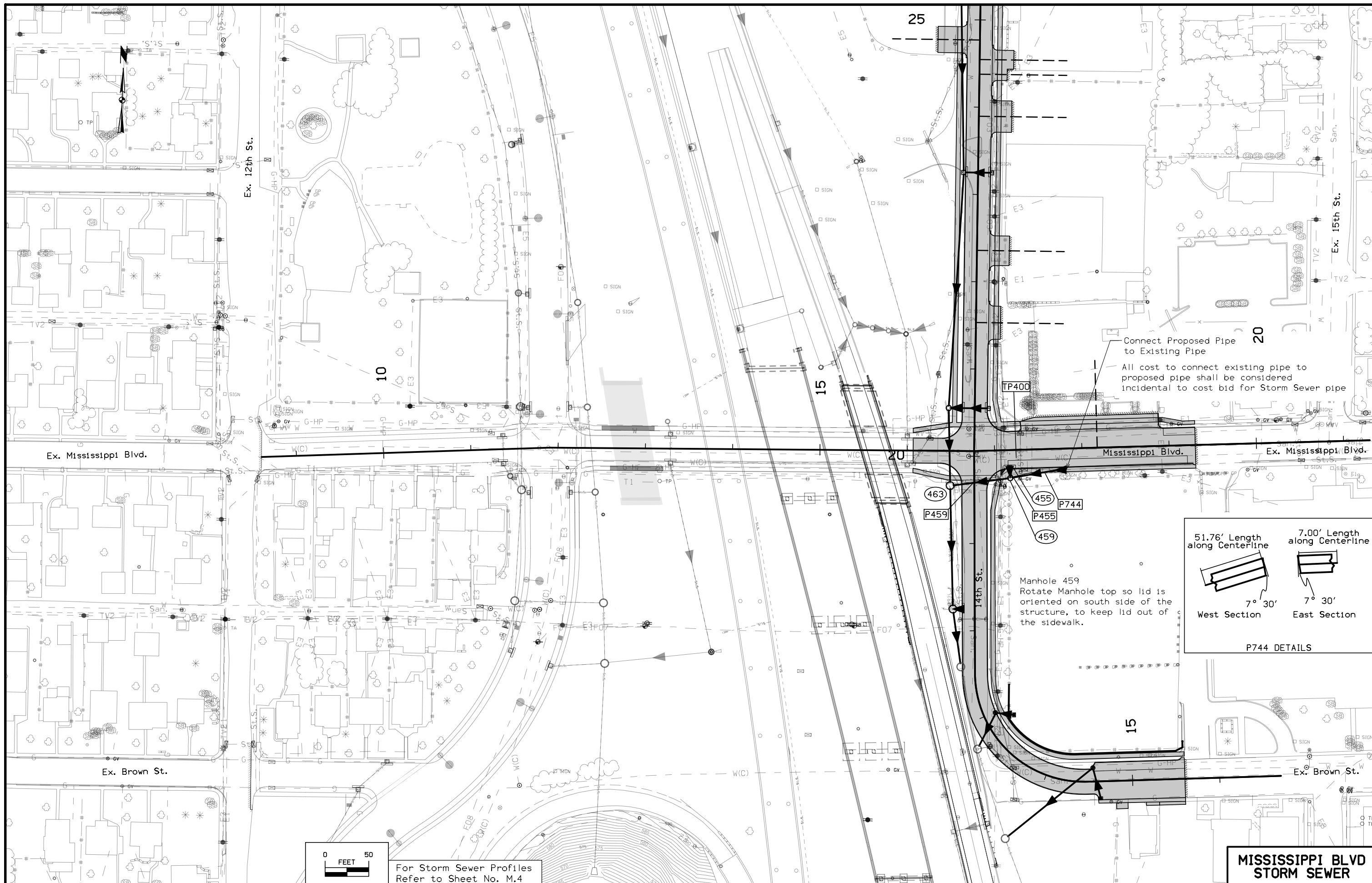
	Station
	Section Corner
	Ground Line Intercept
	Saw Cut
	Guardrail
	Clearing & Grubbing Area
	Pavement Removal

RIGHT-OF-WAY LEGEND

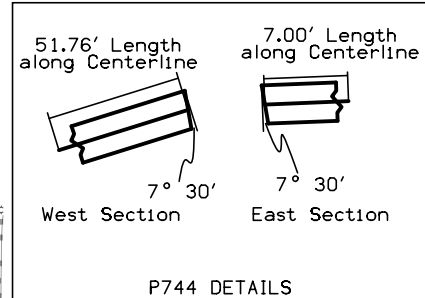
	Proposed Right-of-Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Borrow
	Easement (Temporary)
	Easement
	Excess
	A/C Access Control

**STORM SEWER
LEGEND AND SYMBOL
INFORMATION SHEET**

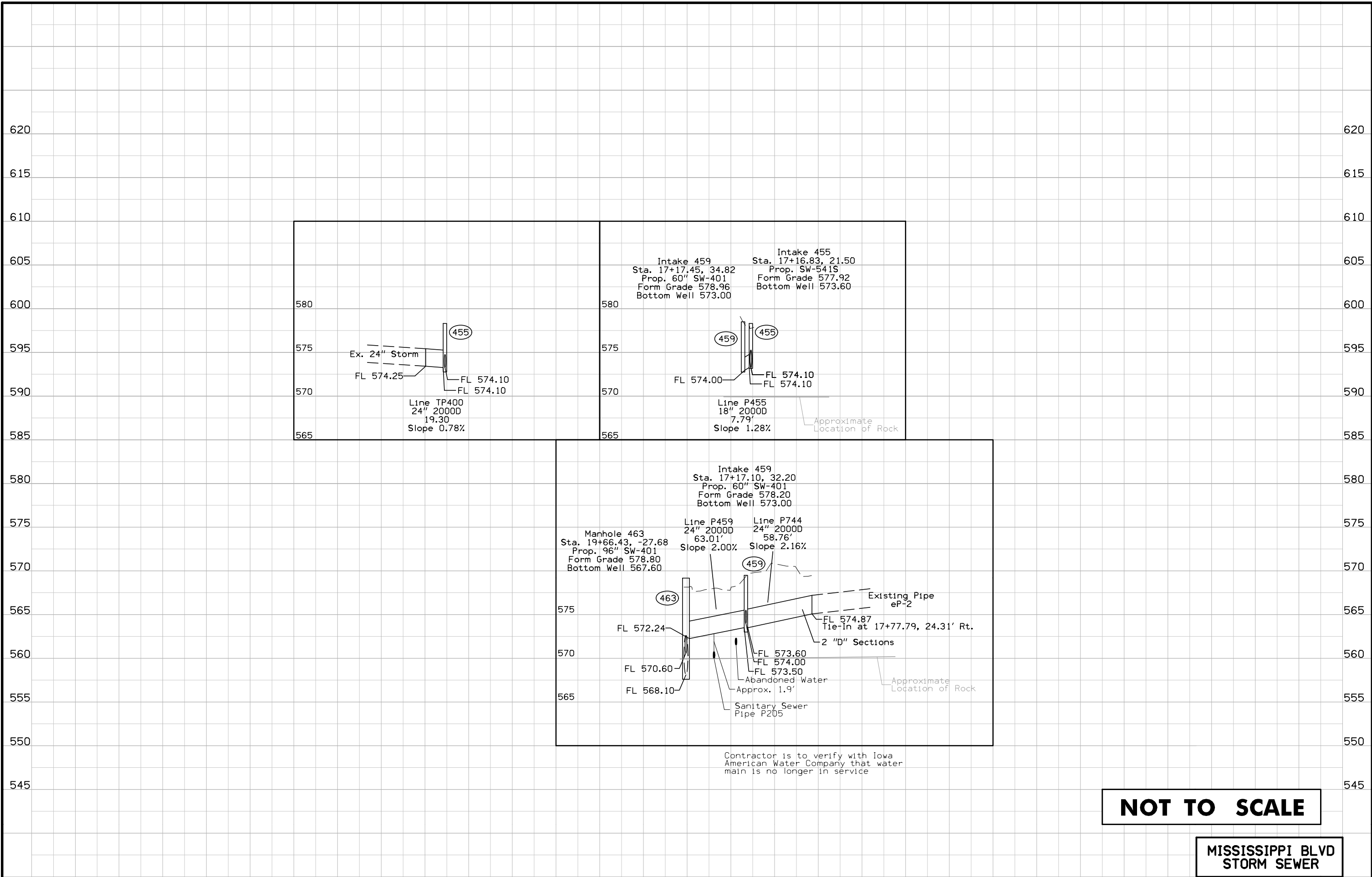
(COVERS SHEET SERIES M)



For Storm Sewer Profiles Refer to Sheet No. M.4

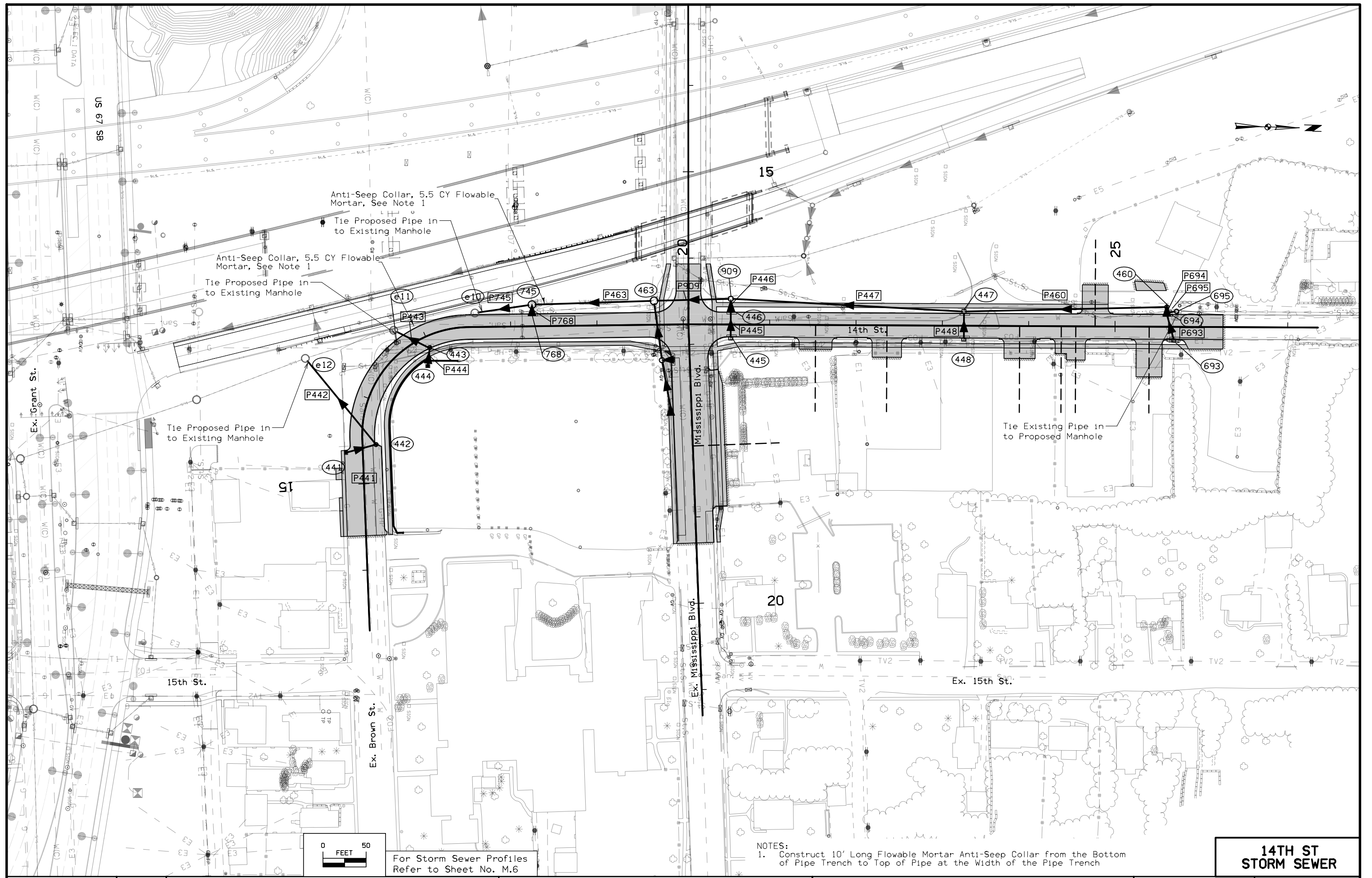


**MISSISSIPPI BLVD
STORM SEWER**



NOT TO SCALE

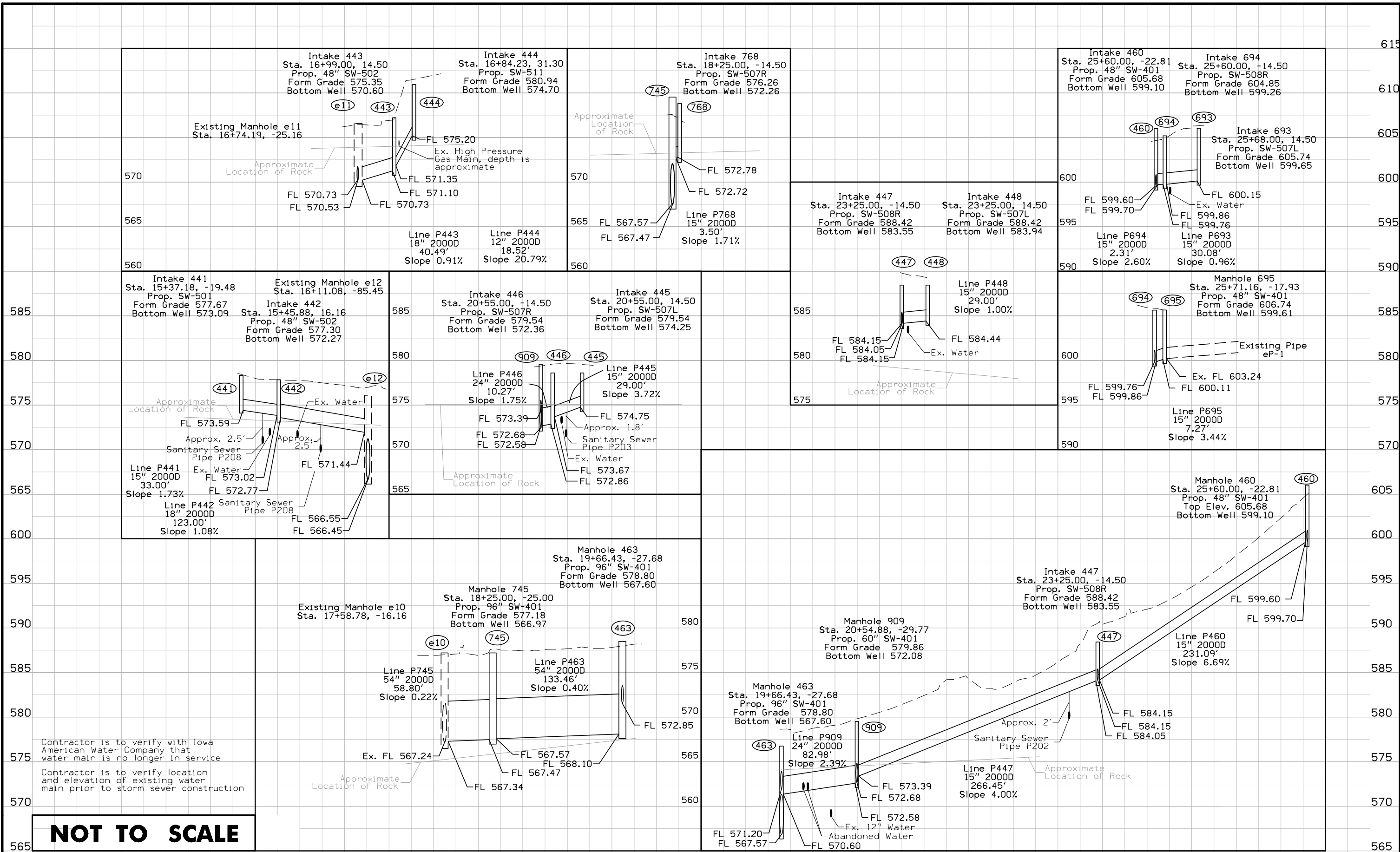
**MISSISSIPPI BLVD
STORM SEWER**



For Storm Sewer Profiles Refer to Sheet No. M.6

NOTES:
 1. Construct 10' Long Flowable Mortar Anti-Seep Collar from the Bottom of Pipe Trench to Top of Pipe at the Width of the Pipe Trench

**14TH ST
 STORM SEWER**



NOT TO SCALE

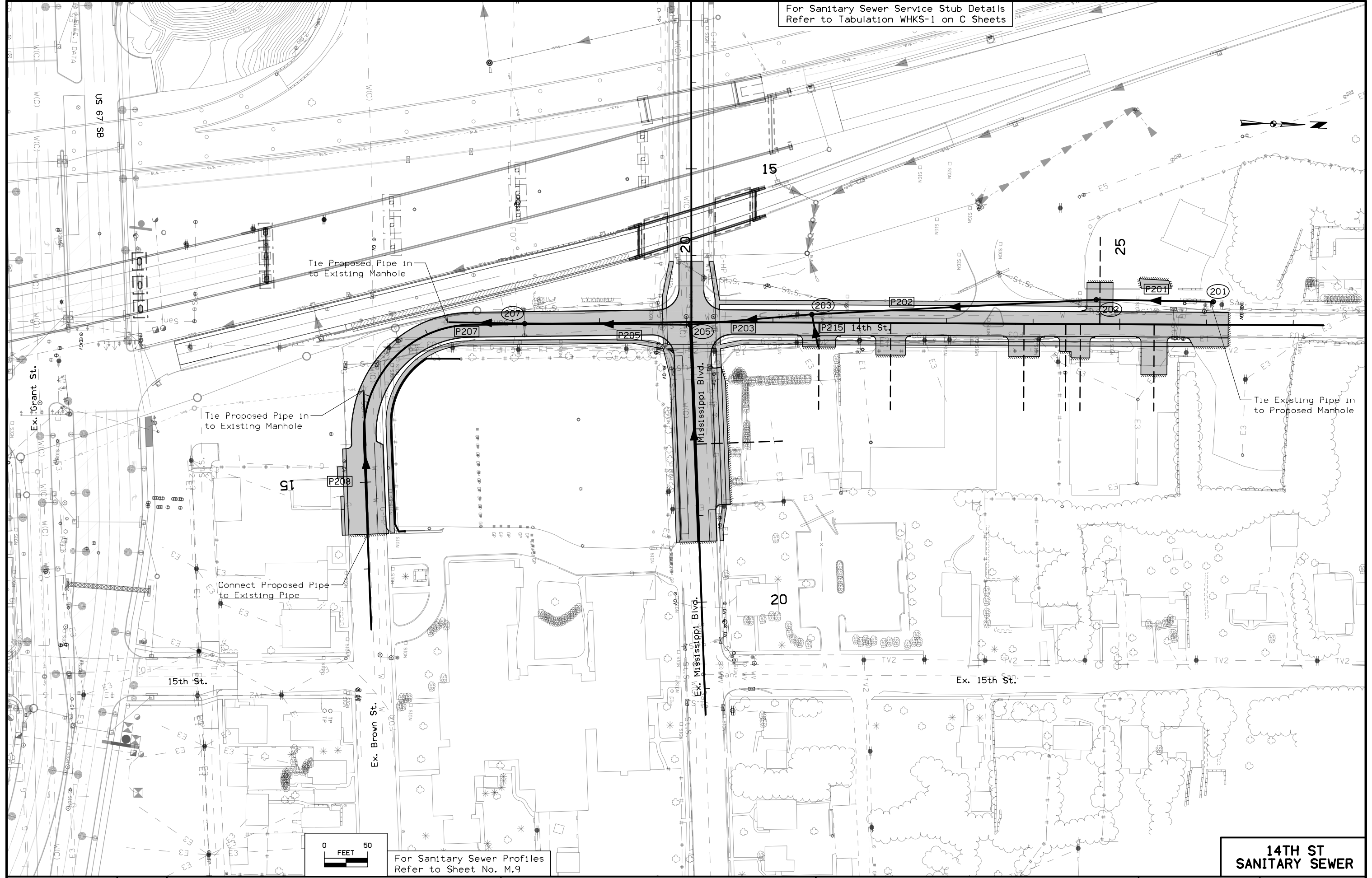
**14TH ST
STORM SEWER**

SANITARY SEWER

* Bid Item

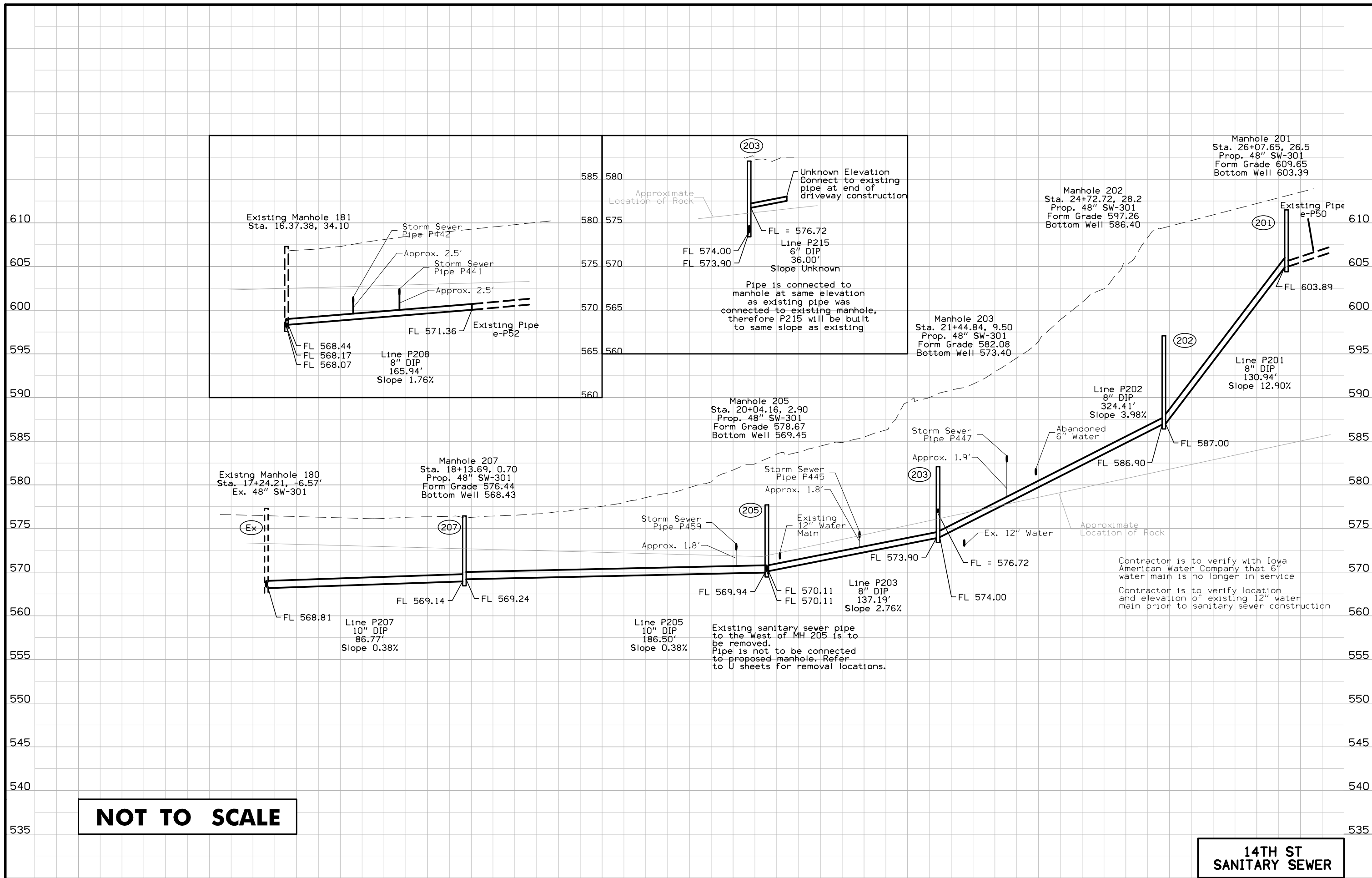
UTILITY ACCESSES							PIPES													
							Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.													
No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade	Bottom Well	Extension Length**	Notes	Line Number	Intake/Utility Access No.		Class 'D'	Pipe Diameter	Bid* Length	Design Length	Slope %	Flow Lines			Pipe Profile Sheet No.	Notes	
			Elev.	Elev.	FT			IN	FT		FT	Inlet Elevation	Outlet Elevation		Other Elevation					
201	26+07.65, 26.50' Lt	48" SW-301	609.65	603.4		14th STREET	Div. (2)	P201	201	202	DIP	8	137	131	12.90	603.89	587.00		M.9	Div. (2)
202	24+72.72, 28.20' Lt	48" SW-301	597.26	568.4		14th STREET	Div. (2)	P202	202	203	DIP	8	330	324	3.98	586.90	574.00		M.9	Div. (2)
203	21+44.84, 9.50' Lt.	48" SW-301	582.08	573.4		14th STREET	Div. (2)	P215	Ex.	203	DIP	6	41	36	Unk.	Unknown	576.72		M.9	Div. (2), Note 1
								P203	203	205	DIP	8	143	137	2.76	573.90	570.11		M.9	Div. (2)
205	20+04.16, 2.90' Rt.	48" SW-301	578.67	569.4		14th STREET	Div. (2)	P204	Ex.	205	DIP	8	254	248	2.10	575.34	570.11		M.11	Div. (2)
207	18+13.69, 0.70' Lt.	48" SW-301	576.44	568.4		14th STREET	Div. (2)	P205	205	207	DIP	10	193	187	0.38	569.94	569.24		M.9	Div. (2)
								P207	207	e180	DIP	10	93	87	0.38	569.14	568.81		M.9	Div. (2)
								P208	Ex.	e181	DIP	8	171.94	165.94	1.7579	571.357	568.44		M.9	Div. (2)
Existing Structures (For Information Only)							Existing Pipes (For Information Only)													
e180	17+24.21, 6.57' Lt.	SW-301				UAC, connect P208 to Structure		e-P50	Ex.	Ex.		8		281		632.28	604.94			Tie-in to Proposed Manhole 201
e181	16+37.38, 34.10' Rt.	SW-301				UAC, connect P207 to Structure		e-P51	Ex.	Ex.		8		404		577.9	571.8			Tie-in to Pipe P204 at 19+30, 1.33 (Mississippi Blvd.)
								e-P52	Ex.	Ex.		8		410		573.43	565.15			Tie-in to Pipe P208 at 14+40, 0.69 (14th St.)
Notes:							<p>1 6" pipe acts as service to 619 14th St. SE. Build P215 from MH 203 to the end of driveway construction (36 LF). All fittings required to connect P215 to existing sanitary sewer pipe shall be considered incidental to sanitary sewer pipe bid item.</p> <p>2 Contractor is to field verify all pipe sizes and inverts prior to construction.</p> <p>3 Sanitary sewer staging is to follow general work staging. Stage 1 work is to include all work south of manhole 205 and the south 92 LF of P203. Stage 2 work is to include the remaining sanitary sewer work, expect service tie-ins. Stage 3 work is to include remaining service work, including tie-ins to existing.</p> <p>4 By pass pumping will be required during construction and shall be considered incidental to sanitary sewer pipe construction.</p>													

For Sanitary Sewer Service Stub Details
Refer to Tabulation WHKS-1 on C Sheets

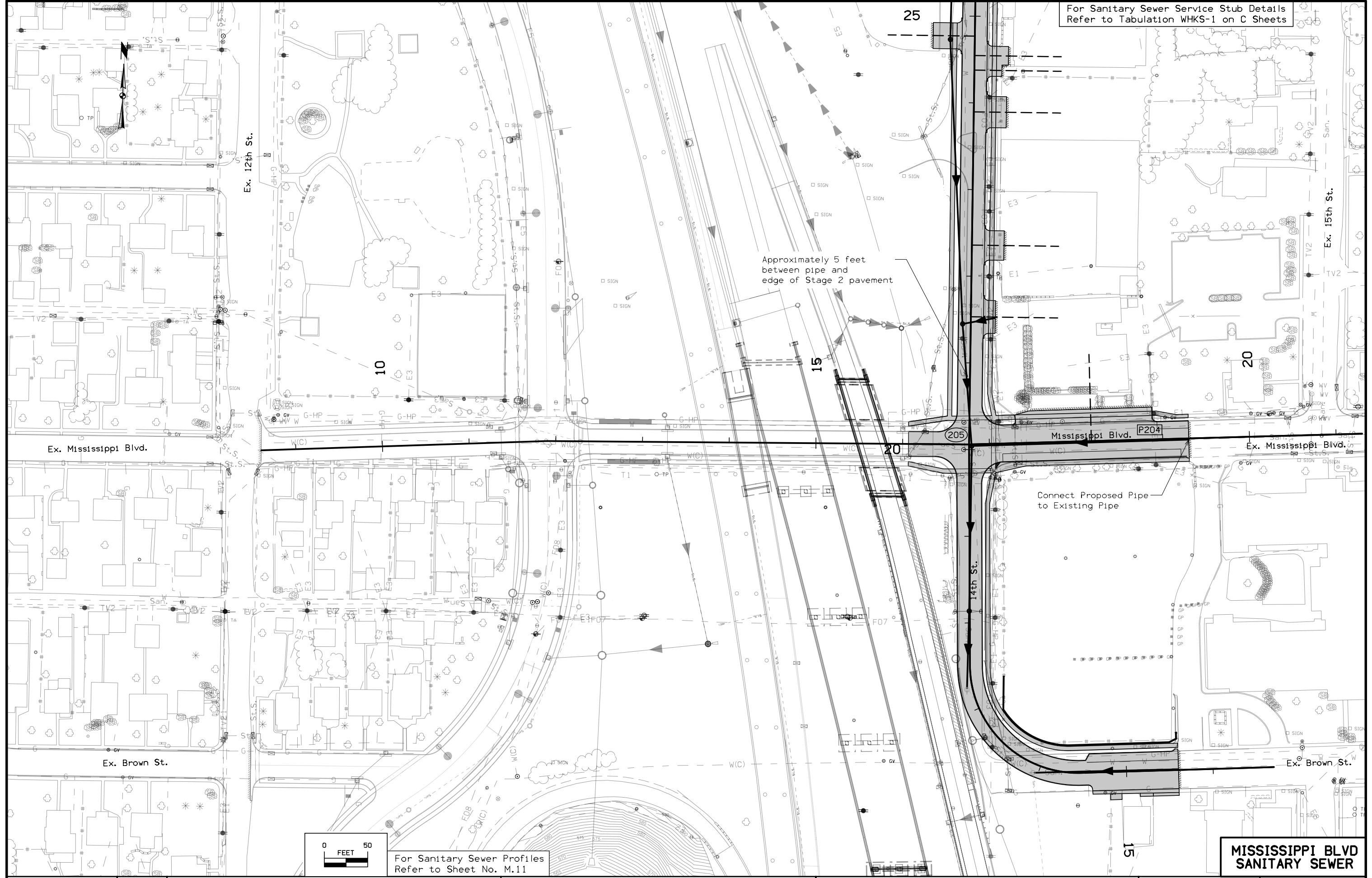


For Sanitary Sewer Profiles
Refer to Sheet No. M.9

**14TH ST
SANITARY SEWER**

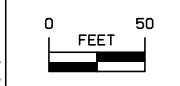


For Sanitary Sewer Service Stub Details
Refer to Tabulation WHKS-1 on C Sheets



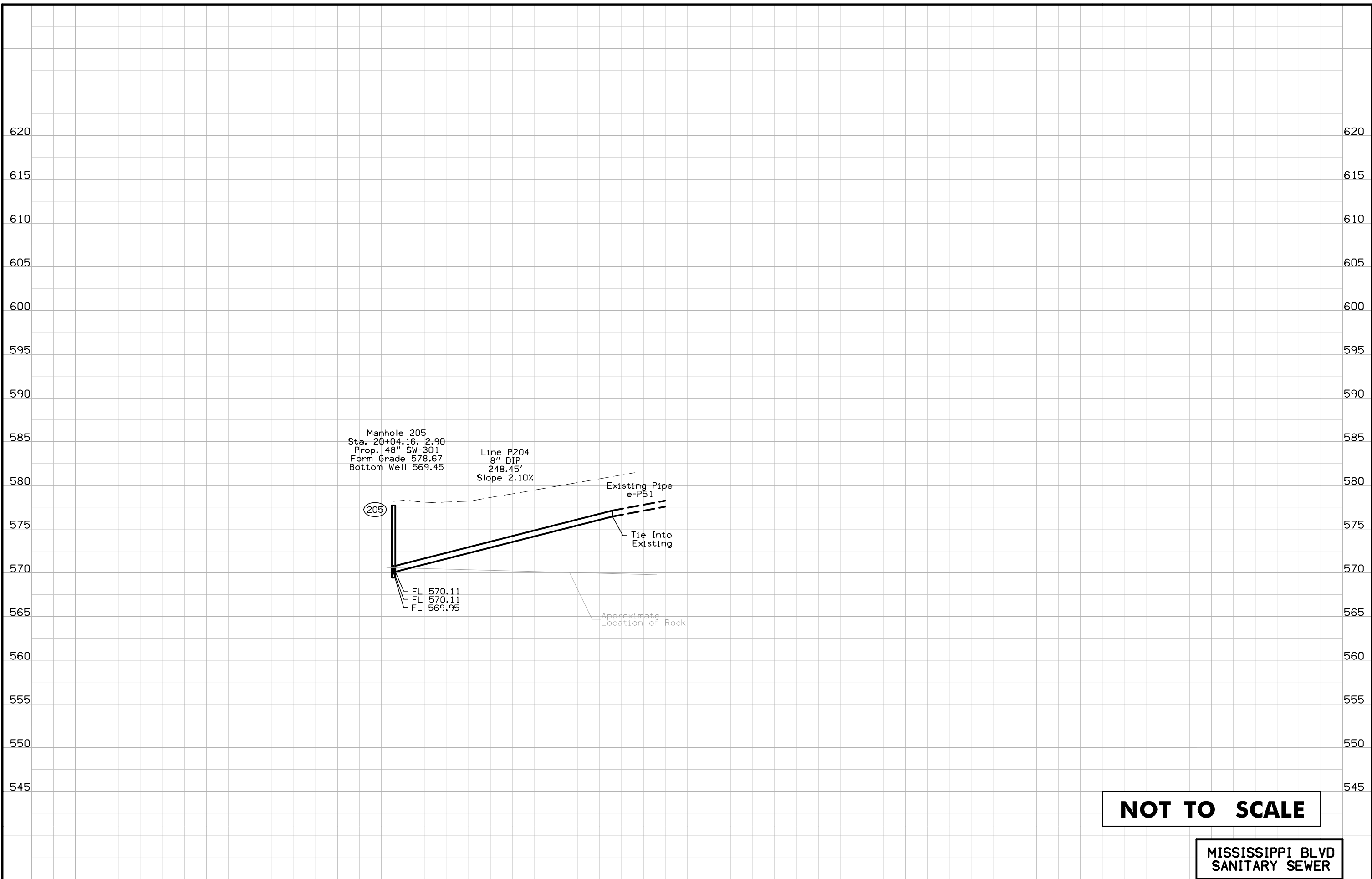
Approximately 5 feet
between pipe and
edge of Stage 2 pavement

Connect Proposed Pipe
to Existing Pipe



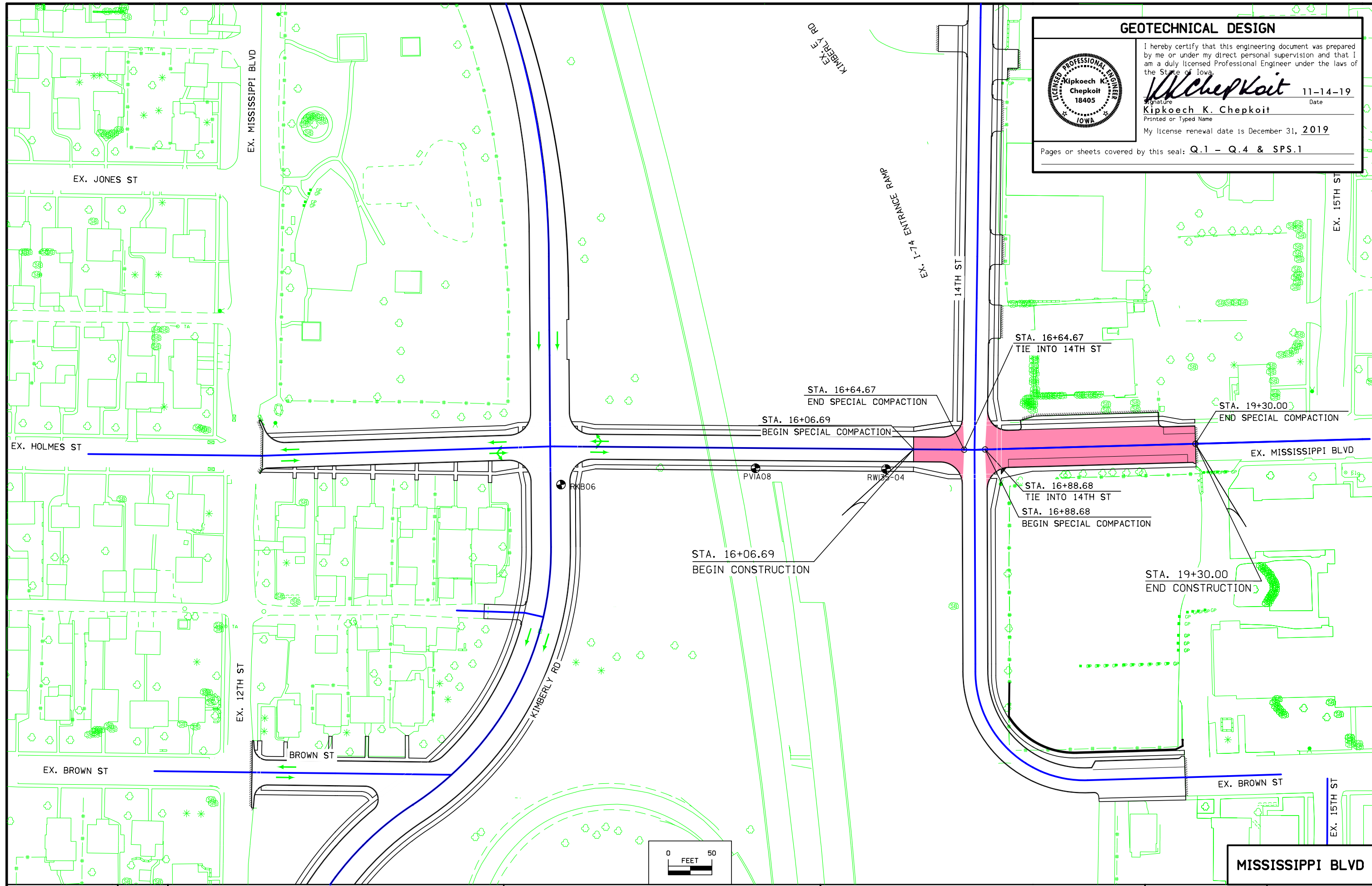
For Sanitary Sewer Profiles
Refer to Sheet No. M.11

**MISSISSIPPI BLVD
SANITARY SEWER**



NOT TO SCALE

**MISSISSIPPI BLVD
SANITARY SEWER**



GEOTECHNICAL DESIGN

LICENSED PROFESSIONAL ENGINEER
 Kipkoech K. Chepkait
 18405
 IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Kipkoech K. Chepkait 11-14-19
 Signature Date

Kipkoech K. Chepkait
 Printed or Typed Name

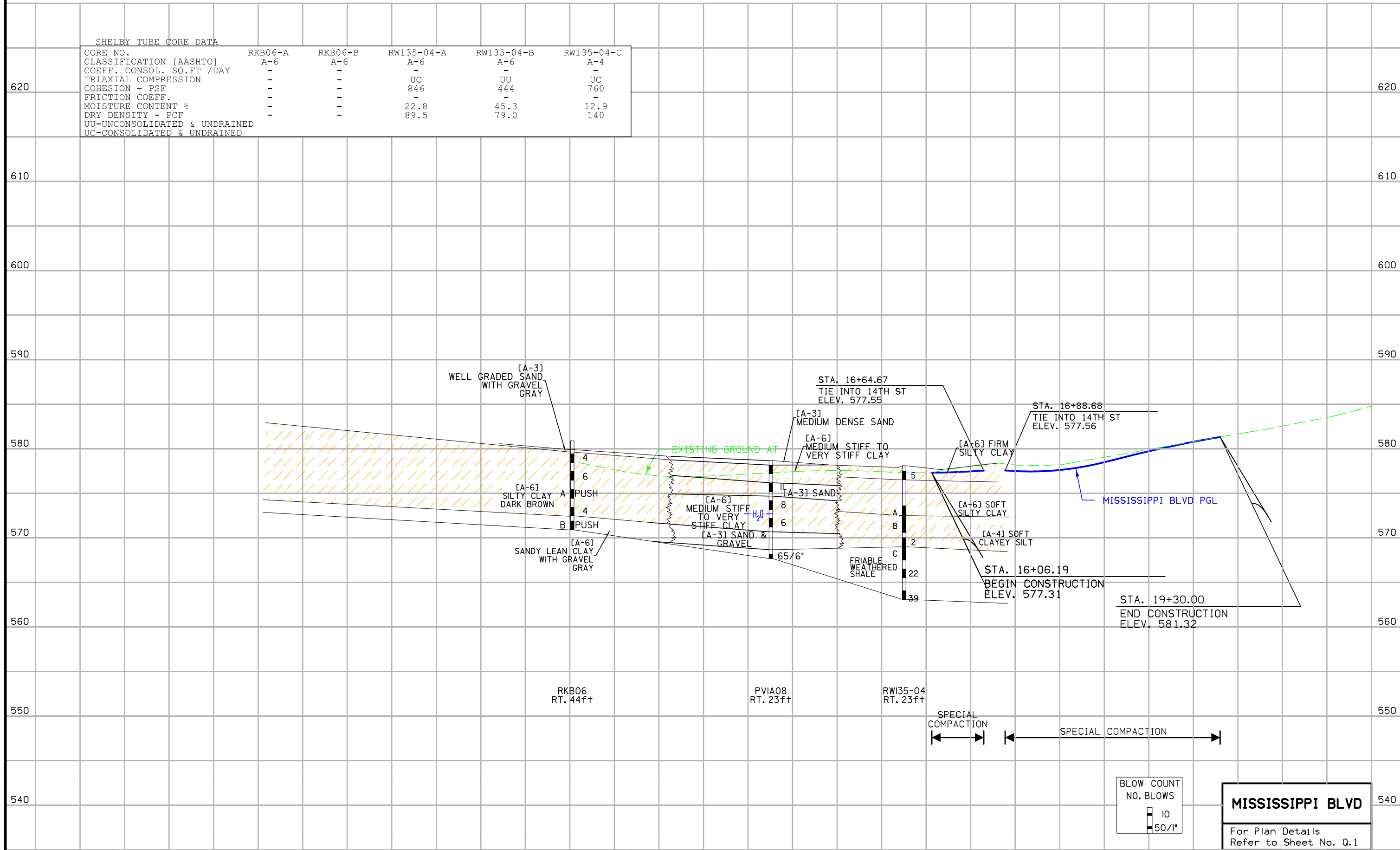
My license renewal date is December 31, 2019

Pages or sheets covered by this seal: **Q.1 - Q.4 & SPS.1**

CUT MOISTURE
 CUT DENSITY (lb/cu ft)
 PLASTIC LIMIT

SHELBY TUBE CORE DATA

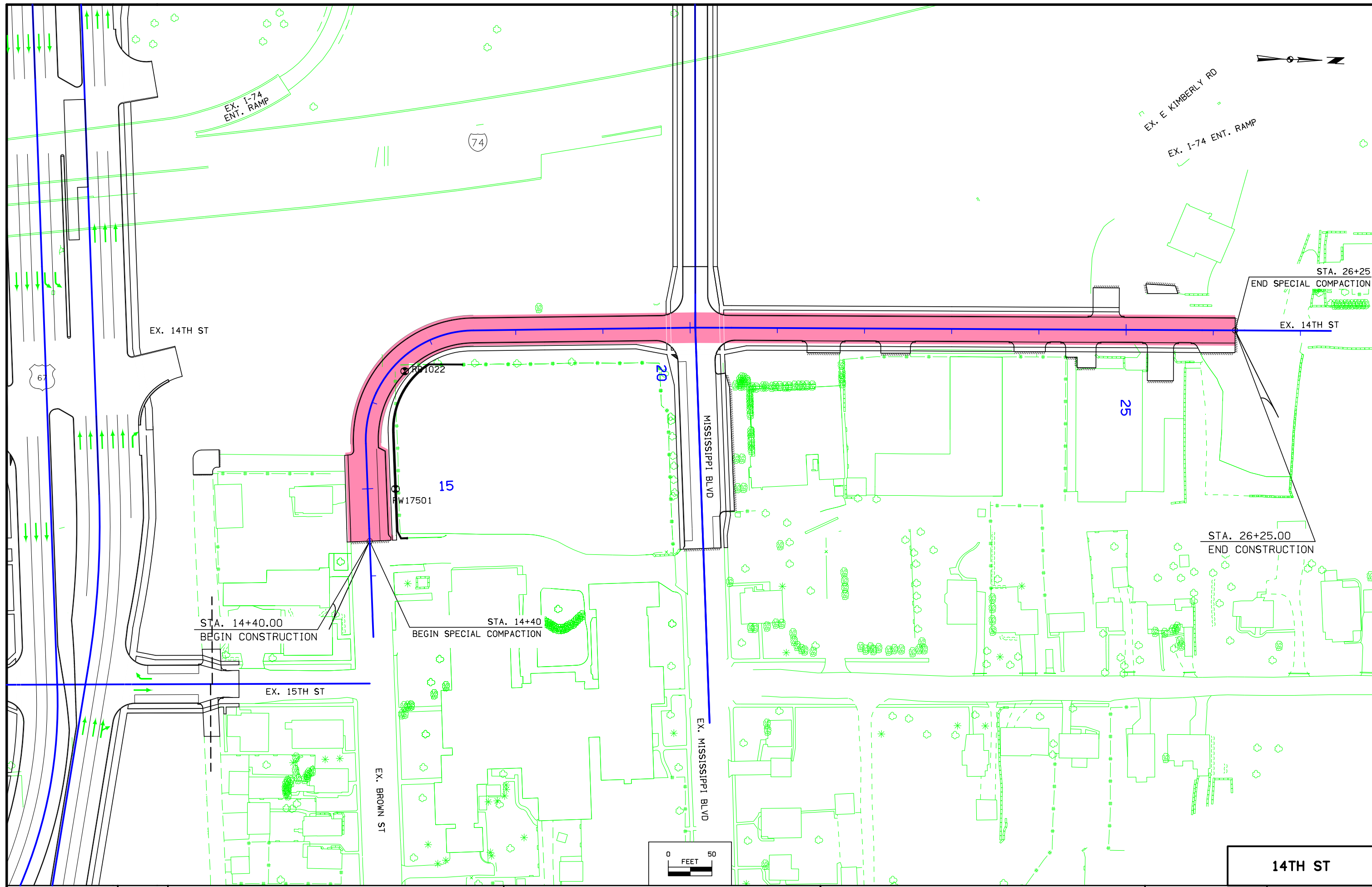
CORE NO.	RKB06-A	RKB06-B	RW135-04-A	RW135-04-B	RW135-04-C
CLASSIFICATION [AASHTO]	A-6	A-6	A-6	A-6	A-4
COEFF. CONSOL. SQ.FT /DAY	-	-	-	-	-
TRIAxIAL COMPRESSION	-	-	UC	UU	UC
COHESION - PSF	-	-	846	444	760
FRICITION COEFF.	-	-	-	-	-
MOISTURE CONTENT %	-	-	22.8	45.3	12.9
DRY DENSITY - PCF	-	-	89.5	79.0	140
UU-UNCONSOLIDATED & UNDRAINED	-	-	-	-	-
UC-CONSOLIDATED & UNDRAINED	-	-	-	-	-



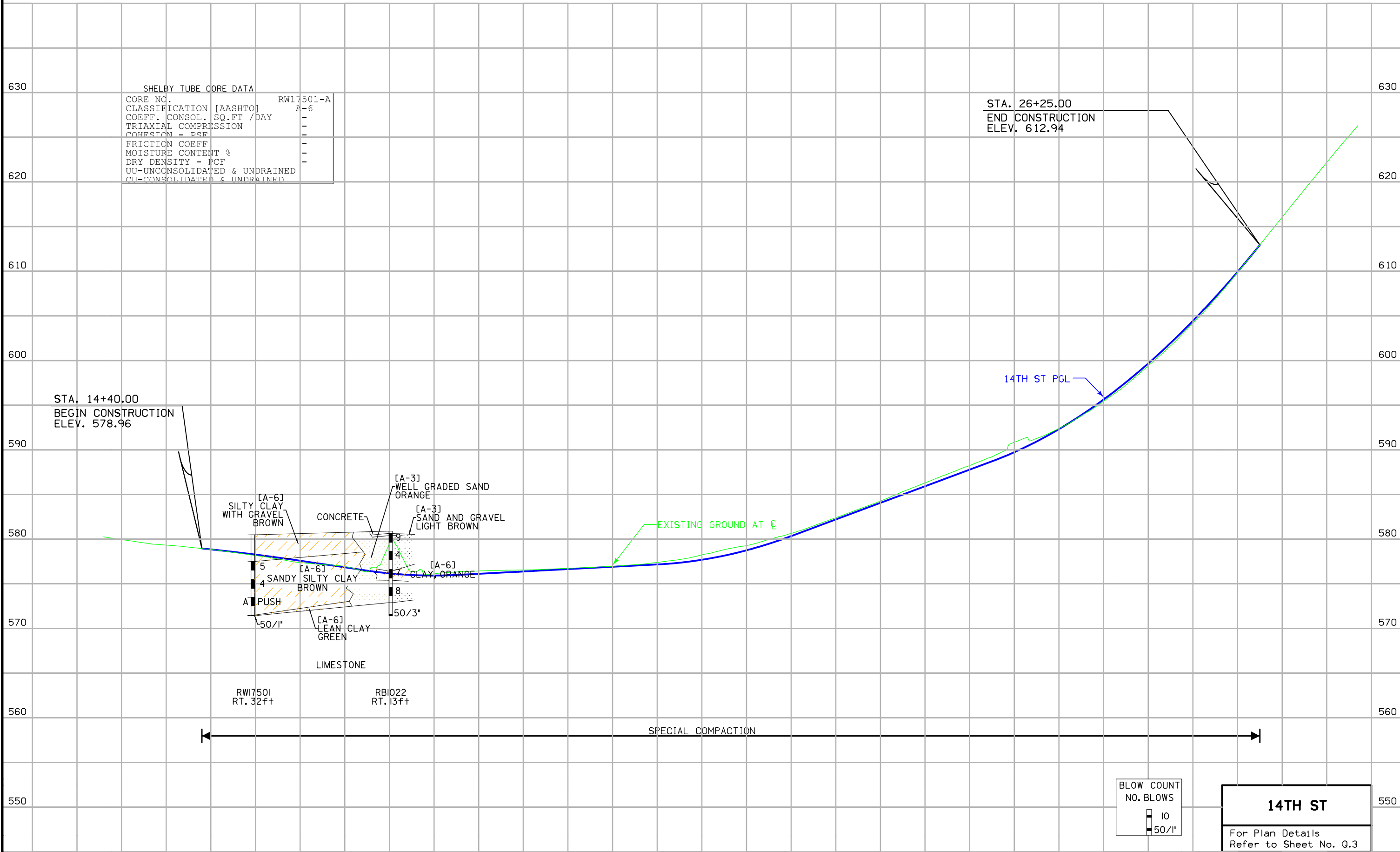
- UNSUITABLE
- SUBGRADE TREATMENT
- SHALE
- ROCK
- SELECT SOIL
- SANDY SOIL
- DENS. CORE
- SELECT SAND
- SHELBY
- BLOW
- SAMPLE
- PLUGGED
- WATER
- MOISTURE

BLOW COUNT
 NO. BLOWS
 10
 50/1'

MISSISSIPPI BLVD
 For Plan Details
 Refer to Sheet No. Q.1



CUT MOISTURE
 CUT DENSITY (lb/cu ft)
 PLASTIC LIMIT

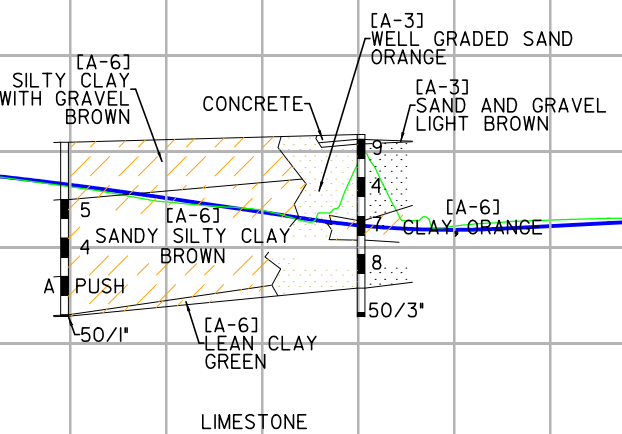


SHELBY TUBE CORE DATA

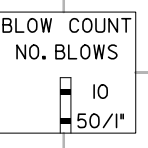
CORE NO.	RW17501-A
CLASSIFICATION [AASHTO]	A-6
COEFF. CONSOL. SQ.FT /DAY	-
TRIAxIAL COMPRESSION	-
COHESION - PSF	-
FRICITION COEFF	-
MOISTURE CONTENT %	-
DRY DENSITY - PCF	-
UU-UNCONSOLIDATED & UNDRAINED	-
CU-CONSOLIDATED & UNDRAINED	-

STA. 26+25.00
 END CONSTRUCTION
 ELEV. 612.94

STA. 14+40.00
 BEGIN CONSTRUCTION
 ELEV. 578.96



SPECIAL COMPACTION



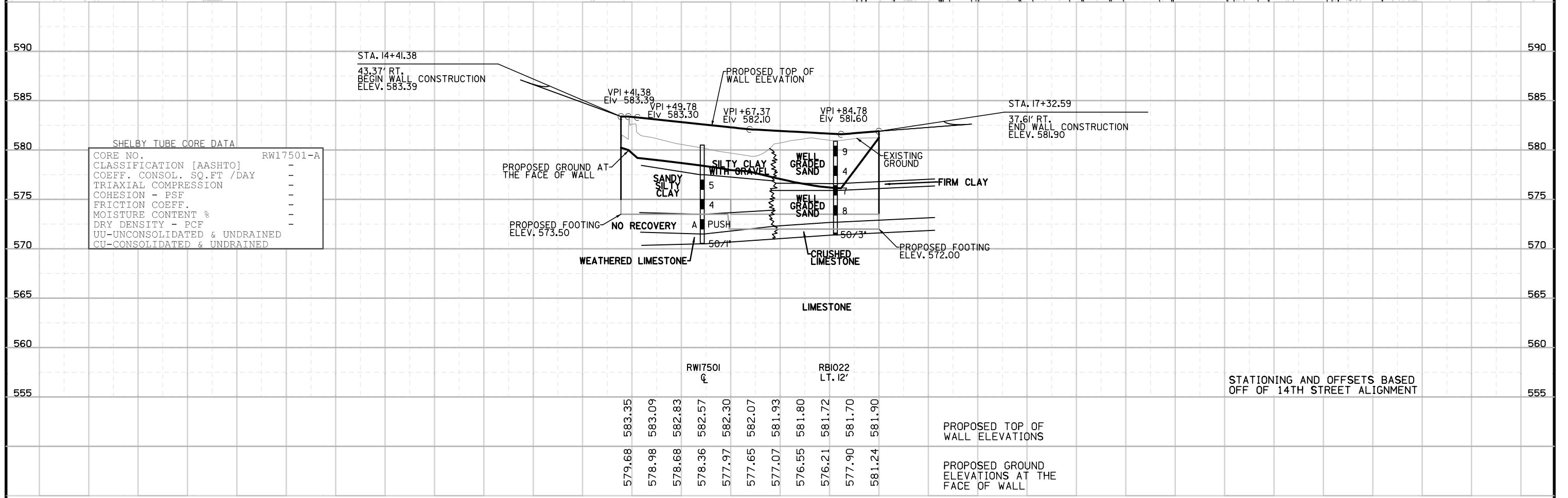
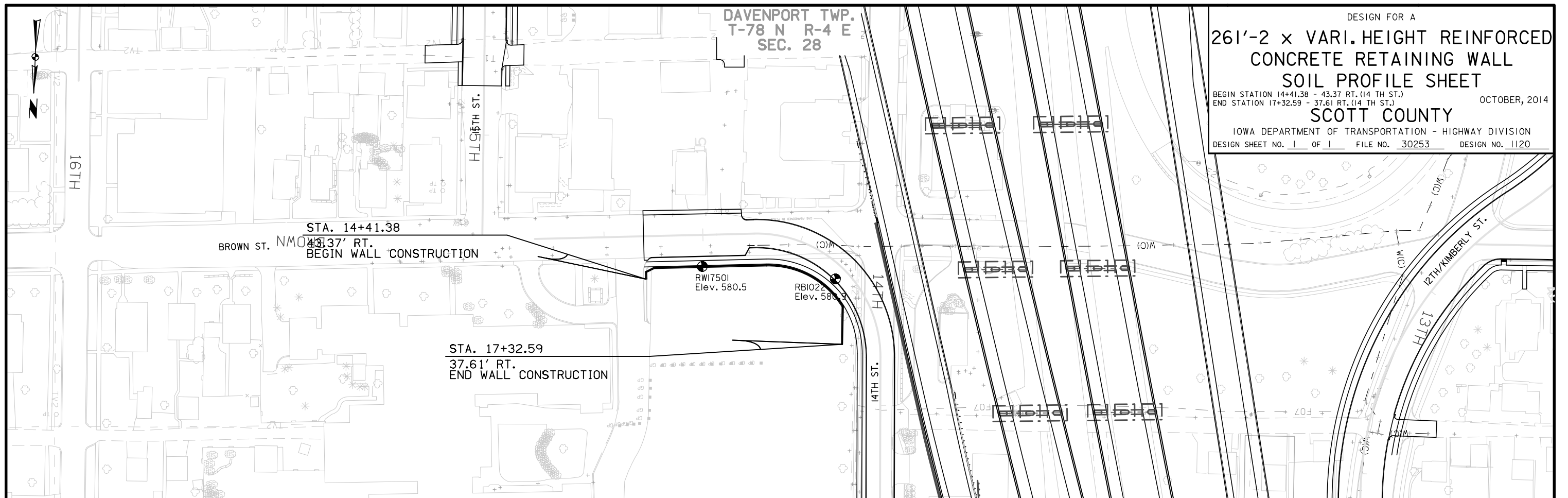
14TH ST
 For Plan Details
 Refer to Sheet No. Q.3

- UNSATURABLE
- SUBGRADE TREATMENT
- SHALE
- ROCK
- SELECT SOIL
- SANDY SOIL
- DENS. CORE
- SELECT SAND
- SHELBY
- BLOW
- SAMPLE
- PLUGGED
- WATER
- MOISTURE

DAVENPORT TWP.
T-78 N R-4 E
SEC. 28

DESIGN FOR A
**261'-2 x VARI. HEIGHT REINFORCED
CONCRETE RETAINING WALL
SOIL PROFILE SHEET**

BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
OCTOBER, 2014
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 1 FILE NO. 30253 DESIGN NO. 1120



SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Luminaire
	Fruit Tree		Traffic Signal
	Shrub (Bushes)		Traffic Signal with Luminaire
	Timber		Telephone Pedestal
	Hedge		Television Pedestal
	Stump		Telephone Pole
	Swamp		Telephone Pole (Second Company)
	Rock Outcrop		Telephone Pole (Third Company)
	Broken Concrete		Telephone Pole (Fourth Company)
	Revetment (Rip Rap)		Telephone Pole (Fifth Company)
	Cemetery		Power Pole
	Grave		Power Pole (Second Company)
	Cave		Power Pole (Third Company)
	Sink Hole		Power Pole (Fourth Company)
	Board Fence		Power Pole (Fifth Company)
	Chain Link or Security Fence		Electrical Highline Tower (Metal or Concrete)
	Wire Fence		Telephone Riser Pole
	Terrace		Power Riser Pole
	Earth Dam or Dike (Existing)		Telegraph Pole
	Earth Dam or Dike (Proposed)		Satellite TV Dish
	Tile Outlet		Guardrail (Beam or Cable)
	Edge of Water		Guard Post (one or two)
	Existing Drainage		Guard Post (over two)
	Proposed Drainage		Filler Pipe
	Right of Way Rail or Lot Corner		Gas Valve
	Concrete Monument		Water Valve
	Well		Speed Limit Sign
	Windmill		Mile Marker Post
	Beehive Intake		Sign
	Existing Intake		Water Hook Up
	Proposed Intake		Radio Tower
	Existing Utility Access (Manhole)		Tower Anchor
	Proposed Utility Access (Manhole)		Electric Box
	Fire Hydrant		Traffic Signal Control Box
	Water Hydrant (Rural)		Rail Road Signal Control Box
			Telephone Switch Box

UTILITY LEGEND

	Existing Fiber Optics (Central Scott)
	Existing Fiber Optics (McLeod USA)
	Existing Fiber Optics (Qwest)
	Existing Fiber Optics (ATT)
	Existing Fiber Optics (MediaCom)
	Existing Fiber Optics (Bettendorf)
	Existing Fiber Optics (IowaDOT)
	Existing Power Line (MidAmerican)
	Existing Power Line (MidAmerican)
	Existing Power Line (MidAmerican)
	Existing Power Line (MidAmerican)
	Existing Power Line (IowaDOT)
	Existing Gas Line (MidAmerican)
	Existing High Pressure Gas Line (MidAmerican)
	Existing Sanitary Sewer Line (Bettendorf)
	Existing Sanitary Sewer Line (Davenport)
	Existing Telephone Line (Qwest)
	Existing Cable Television Line (MediaCom)
	Existing Cable Television Line (MediaCom)
	Existing Water Line (IA American)

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	Design Color No.	
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading
Brown, Light	(236)	Grading Shading

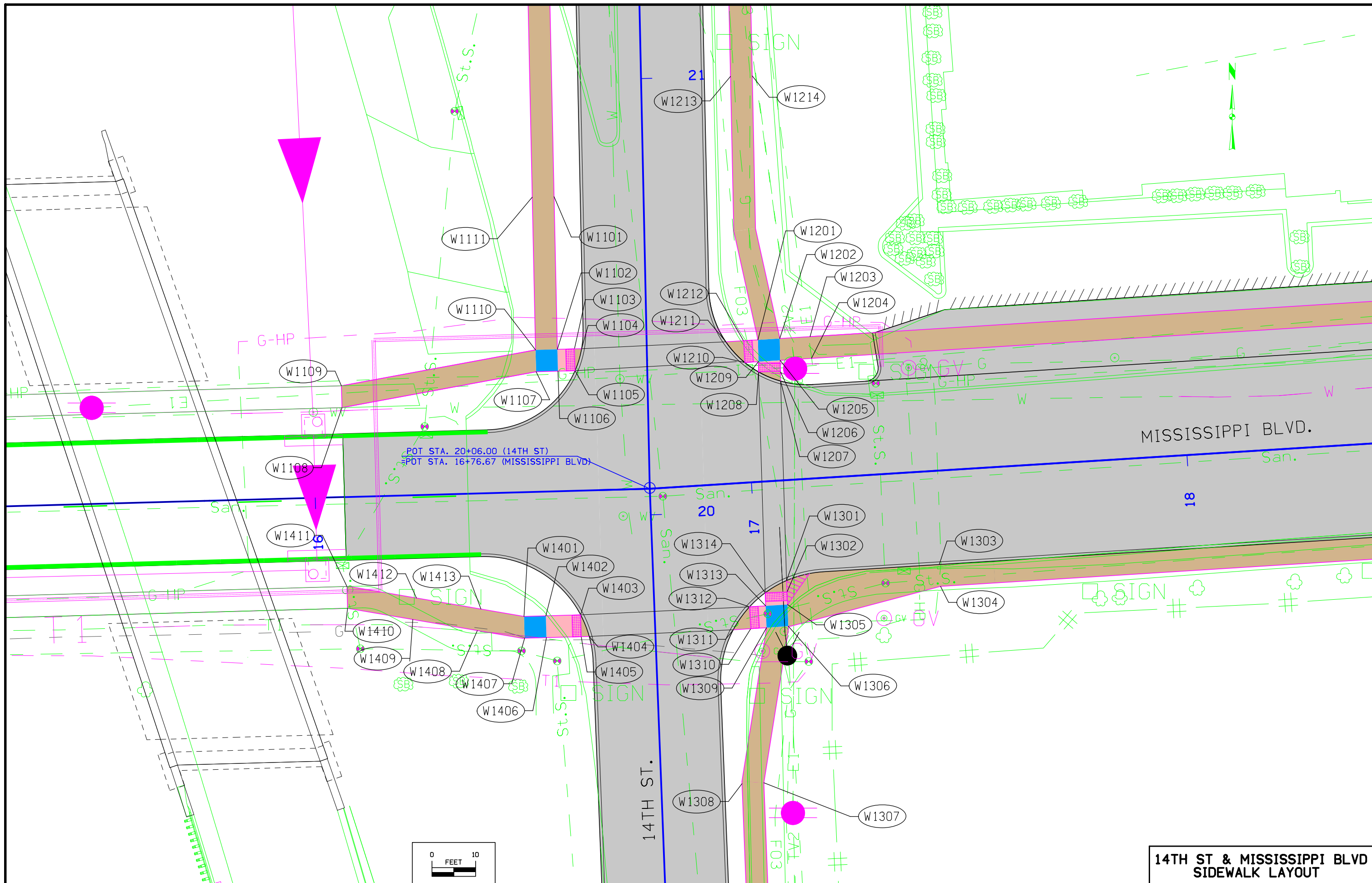
Reference Point	Survey Line

RIGHT-OF-WAY LEGEND

	Proposed Right-of-Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Borrow
	Easement (Temporary)
	Easement
	Excess
	A/C Access Control

SIDEWALK LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES S)



**14TH ST & MISSISSIPPI BLVD
SIDEWALK LAYOUT**

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
 ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
 ② Refer to tabulation 113-01 for bid quantities.






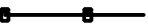


Point to Point	Sidewalk Designation	" PCC Sidewalk ②	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope %	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES				
											Point	Station	Offset	Elevation	
											FT	FT	%	Pos. or Neg.	
W1101	W1102	Sidewalk Running Slope	4	35.00	-1.37	-3.9%	0.5% to 5.0%				W1101	20+73.38	-20.50	580.72	
W1101	W1111	Sidewalk Cross Slope	4	5.00	0.08	1.5%	0.5% to 2.0%				W1102	20+38.38	-20.50	579.35	
W1102	W1103	Ramp Running Slope	6	3.92	-0.25	-6.3%	0.5% to 8.3%				W1103	20+38.40	-16.58	579.11	
W1102	W1106	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1104	20+38.41	-14.93	579.17	
W1102	W1110	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1105	20+33.40	-16.55	579.03	
W1103	W1104	Sidewalk Running Slope	4	1.65	0.06	3.9%	0.5% to 5.0%				W1106	20+33.38	-20.47	579.28	
W1103	W1105	Sidewalk Cross Slope	4	5.00	-0.08	-1.5%	0.5% to 2.0%				W1107	20+33.34	-25.47	579.35	
W1105	W1106	Ramp Running Slope	6	3.92	0.25	6.3%	0.5% to 8.3%				W1108	20+26.08	-70.10	577.92	
W1106	W1107	Landing/Turning Space	4	5.00	0.08	1.5%	0.1% to 2.0%				W1109	20+31.08	-70.13	578.00	
W1107	W1108	Sidewalk Running Slope	4	45.22	-1.43	-3.2%	0.5% to 5.0%				W1110	20+38.35	-25.50	579.43	
W1107	W1110	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1111	20+73.38	-25.50	580.80	
W1108	W1109	Sidewalk Cross Slope	4	5.00	0.08	1.5%	0.5% to 2.0%								
W1109	W1110	Sidewalk Running Slope	4	45.22	1.43	3.2%	0.5% to 5.0%								
W1110	W1111	Sidewalk Running Slope	4	35.00	1.37	3.9%	0.5% to 5.0%								
W1201	W1202	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1201	20+39.58	25.50	579.10	
W1201	W1209	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1202	20+39.79	30.50	579.18	
W1201	W1212	Ramp Running Slope	6	3.31	-0.10	-2.9%	0.5% to 8.3%				W1203	20+40.07	37.47	579.11	
W1201	W1213	Sidewalk Running Slope	4	60.99	2.32	3.8%	0.5% to 5.0%				W1204	20+35.08	37.68	579.06	
W1202	W1203	Sidewalk Running Slope	4	6.98	-0.07	-0.9%	0.5% to 5.0%				W1205	20+34.78	30.50	579.10	
W1202	W1205	Landing/Turning Space	4	5.00	-0.07	-1.5%	0.1% to 2.0%				W1206	20+32.23	30.50	578.92	
W1202	W1214	Sidewalk Running Slope	4	60.99	2.32	3.8%	0.5% to 5.0%				W1207	20+30.02	30.50	578.76	
W1203	W1204	Sidewalk Cross Slope	4	5.00	-0.05	-1.1%	0.5% to 2.0%				W1208	20+32.23	25.50	578.86	
W1204	W1205	Sidewalk Running Slope	4	7.19	0.04	0.6%	0.5% to 5.0%				W1209	20+34.56	25.50	579.03	
W1205	W1206	Ramp Running Slope	6	2.56	-0.19	-7.3%	0.5% to 8.3%				W1210	20+34.45	22.40	578.93	
W1205	W1209	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1211	20+39.28	18.15	579.11	
W1206	W1207	Ramp Running Slope	6	2.20	-0.16	-7.1%	0.5% to 8.3%				W1212	20+39.44	22.19	579.01	
W1206	W1208	Ramp Cross Slope	6	5.00	-0.06	-1.1%	0.1% to 2.0%				W1213	21+00.08	20.50	581.42	
W1208	W1209	Ramp Running Slope	6	2.35	0.17	7.1%	0.5% to 8.3%				W1214	21+00.08	25.50	581.50	
W1209	W1210	Ramp Running Slope	6	3.11	-0.10	-3.1%	0.5% to 8.3%								
W1210	W1212	Ramp Cross Slope	6	5.00	0.07	1.5%	0.1% to 2.0%								
W1211	W1212	Sidewalk Running Slope	4	4.04	-0.10	-2.5%	0.5% to 5.0%								
W1213	W1214	Sidewalk Cross Slope	4	5.00	0.07	1.5%	0.5% to 2.0%								
W1301	W1302	Sidewalk Running Slope	4	2.61	0.04	1.7%	0.5% to 5.0%				W1301	19+83.75	30.50	577.90	
W1302	W1305	Ramp Running Slope	6	2.88	0.19	6.5%	0.5% to 8.3%				W1302	19+81.14	30.50	577.95	
W1302	W1314	Sidewalk Cross Slope	4	5.00	-0.08	-1.5%	0.5% to 2.0%				W1303	19+86.05	65.00	578.41	
W1303	W1304	Sidewalk Cross Slope	4	5.00	0.08	1.5%	0.5% to 2.0%				W1304	19+81.06	65.72	578.49	
W1304	W1306	Sidewalk Running Slope	4	36.09	-0.28	-0.8%	0.5% to 5.0%				W1305	19+78.26	30.50	578.13	
W1305	W1306	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1306	19+73.26	30.50	578.21	
W1305	W1313	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1307	19+37.65	23.50	577.63	
W1306	W1307	Sidewalk Running Slope	4	36.31	-0.58	-1.6%	0.5% to 5.0%				W1308	19+37.65	18.50	577.55	
W1306	W1309	Landing/Turning Space	4	5.00	-0.07	-1.5%	0.1% to 2.0%				W1309	19+73.14	25.50	578.13	
W1307	W1308	Sidewalk Cross Slope	4	5.00	-0.08	-1.5%	0.5% to 2.0%				W1310	19+73.06	21.89	577.92	
W1308	W1309	Sidewalk Running Slope	4	36.19	0.58	1.6%	0.5% to 5.0%				W1311	19+72.96	17.87	577.81	
W1309	W1310	Ramp Running Slope	6	3.61	-0.21	-5.8%	0.5% to 8.3%				W1312	19+78.05	21.77	577.85	
W1309	W1313	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1313	19+78.14	25.50	578.06	
W1310	W1311	Sidewalk Running Slope	4	4.02	-0.11	-2.8%	0.5% to 5.0%				W1314	19+81.14	25.50	577.87	
W1310	W1312	Sidewalk Cross Slope	4	5.00	-0.08	-1.5%	0.5% to 2.0%								
W1312	W1313	Ramp Running Slope	6	3.73	0.21	5.6%	0.5% to 8.3%								
W1313	W1314	Ramp Running Slope	6	3.00	-0.19	-6.3%	0.5% to 8.3%								
W1401	W1402	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%				W1401	19+77.87	-29.94	578.38	
W1401	W1407	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1402	19+77.81	-24.94	578.30	
W1401	W1413	Sidewalk Running Slope	4	10.00	-0.15	-1.5%	0.5% to 5.0%				W1403	19+77.72	-16.94	577.95	
W1402	W1403	Ramp Running Slope	6	8.00	-0.35	-4.4%	0.5% to 8.3%				W1404	19+72.70	-15.17	577.89	
W1402	W1406	Landing/Turning Space	4	5.00	0.08	1.5%	0.1% to 2.0%				W1405	19+72.72	-17.00	577.88	
W1403	W1405	Ramp Cross Slope	6	5.00	-0.08	-1.5%	0.1% to 2.0%				W1406	19+72.81	-25.00	578.38	
W1404	W1405	Sidewalk Running Slope	4	1.83	-0.01	-0.6%	0.5% to 5.0%				W1407	19+72.87	-30.00	578.45	
W1405	W1406	Ramp Running Slope	6	8.00	0.50	6.3%	0.5% to 8.3%				W1408	19+75.05	-40.76	578.29	
W1406	W1407	Landing/Turning Space	4	5.00	0.07	1.5%	0.1% to 2.0%				W1409	19+78.16	-55.43	578.06	
W1407	W1408	Sidewalk Running Slope	4	10.99	-0.16	-1.5%	0.5% to 5.0%				W1410	19+81.30	-70.27	577.84	
W1408	W1409	Sidewalk Running Slope	4	15.00	-0.23	-1.5%	0.5% to 5.0%				W1411	19+86.30	-70.21	577.76	
W1408	W1413	Sidewalk Cross Slope	4	5.00	-0.06	-1.2%	0.5% to 2.0%				W1412	19+83.05	-54.40	578.00	
W1409	W1410	Sidewalk Running Slope	4	15.17	-0.23	-1.5%	0.5% to 5.0%				W1413	19+79.94	-39.72	578.23	
W1409	W1412	Sidewalk Cross Slope	4	5.00	-0.06	-1.2%	0.5% to 2.0%								
W1410	W1411	Sidewalk Cross Slope	4	5.00	-0.08	-1.5%	0.5% to 2.0%								
W1411	W1413	Sidewalk Running Slope	4	16.16	0.47	2.9%	0.5% to 5.0%								
W1412	W1413	Sidewalk Running Slope	4	15.00	0.23	1.5%	0.5% to 5.0%								

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Road Plans EW-101 and EW-102.

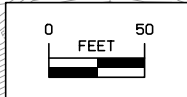
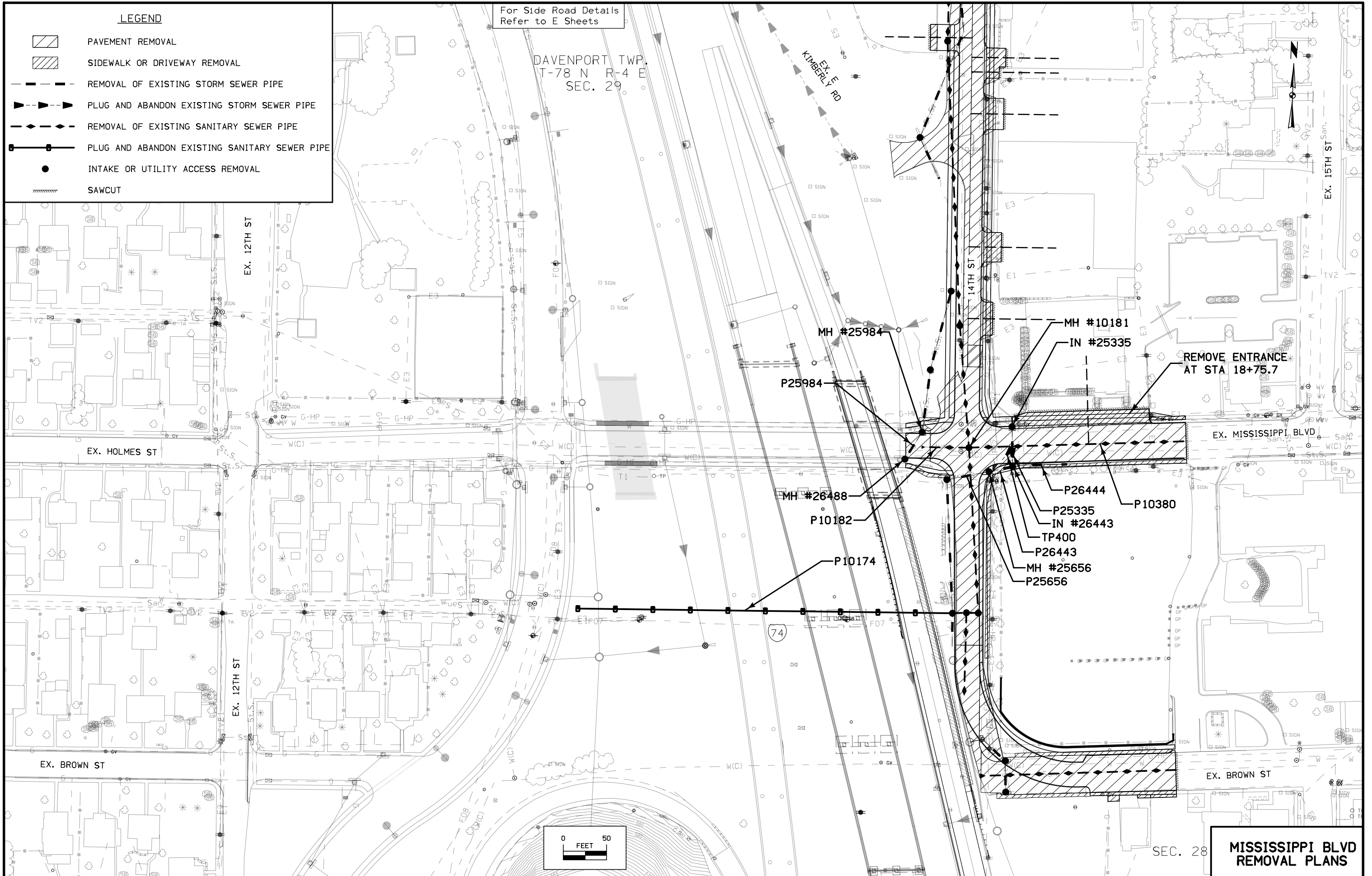
STATION	TOTAL CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK									STATION	TOTAL CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK								
																												14th St.	
14+40.00	24	24	24	5	7	7									16+06.69	23	23	23	7	9	9								
14+50.00	62	62	62	14	18	18									16+25.00	23	23	23	10	13	13								
14+74.34	52	52	52	14	18	18									16+50.00	54	54	54	21	27	27								
15+00.00	11	11	11	3	4	4									17+25.00	34	34	34	7	9	9								
15+06.34	31	31	31	10	13	13									17+50.00	41	41	41	5	7	7								
15+25.00	20	20	20	7	9	9									17+75.00	48	48	48	5	7	7								
15+38.34	15	15	15	8	10	10									18+00.00	49	49	49	6	8	8								
15+50.00	25	25	25	20	26	26									18+25.00	50	50	50	6	8	8								
15+71.34	5	5	5	4	5	5									18+50.00	51	51	51	6	8	8								
15+75.00	136	136	136	38	49	49									18+75.00	55	55	55	7	9	9								
16+25.00	145	145	145	18	23	23									19+00.00	55	55	55	10	13	13								
16+50.00	156	156	156	17	22	22									19+25.00	10	10	10	2	3	3								
16+75.00	109	109	109	36	47	47									19+30.00			493			121								
17+00.00	91	91	91	32	42	42																							
17+25.00	24	24	24	2	3	3																							
17+32.03	56	56	56	5	7	7																							
17+50.00	41	41	41	4	5	5																							
17+65.03	26	26	26	2	3	3																							
17+75.00	54	54	54	5	7	7																							
17+97.03	7	7	7																										
18+00.00	56	56	56	6	8	8																							
18+25.00	9	9	9	1	1	1																							
18+29.03	47	47	47	7	9	9																							
18+50.00	46	46	46	7	9	9																							
18+75.00	36	36	36	7	9	9																							
19+00.00	31	31	31	7	9	9																							
19+25.00	23	23	23	7	9	9																							
19+50.00	7	7	7	4	5	5																							
19+60.00	4	4	4	2	3	3																							
19+67.00	5	5	5	2	3	3																							
19+75.00	6	6	6	2	3	3																							
19+86.00	2	2	2																										
19+92.00	2	2	2																										
20+00.00	6	6	6																										
20+20.00	3	3	3																										
20+29.00	9	9	9	3	4	4																							
20+43.00	6	6	6	4	5	5																							
20+52.00	15	15	15	12	16	16																							
20+75.00	29	29	29	11	14	14																							
21+00.00	42	42	42	9	12	12																							
21+25.00	54	54	54	12	16	16																							
21+53.00	45	45	45	10	13	13																							
21+75.00	56	56	56	14	18	18																							
22+00.00	56	56	56	25	33	33																							
22+25.00	23	23	23	14	18	18																							
22+36.00	31	31	31	19	25	25																							
22+50.00	60	60	60	44	57	57																							
22+75.00	136	136	136	48	62	62																							
23+00.00	319	319	319	72	94	94																							
23+50.00	80	80	80	17	22	22																							
23+75.00	28	28	28	5	7	7																							
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25+50.00	35	35	35	18	23	23																							
25+75.00	35	35	35	10	13	13																							
26+00.00	32	32	32	6	8	8																							
26+25.00																													
			2,720			925																							

LEGEND

-  PAVEMENT REMOVAL
-  SIDEWALK OR DRIVEWAY REMOVAL
-  REMOVAL OF EXISTING STORM SEWER PIPE
-  PLUG AND ABANDON EXISTING STORM SEWER PIPE
-  REMOVAL OF EXISTING SANITARY SEWER PIPE
-  PLUG AND ABANDON EXISTING SANITARY SEWER PIPE
-  INTAKE OR UTILITY ACCESS REMOVAL
-  SAWCUT









For Side Road Details Refer to E Sheets

DAVENPORT TWP.
T-78 N R-4 E
SEC. 29



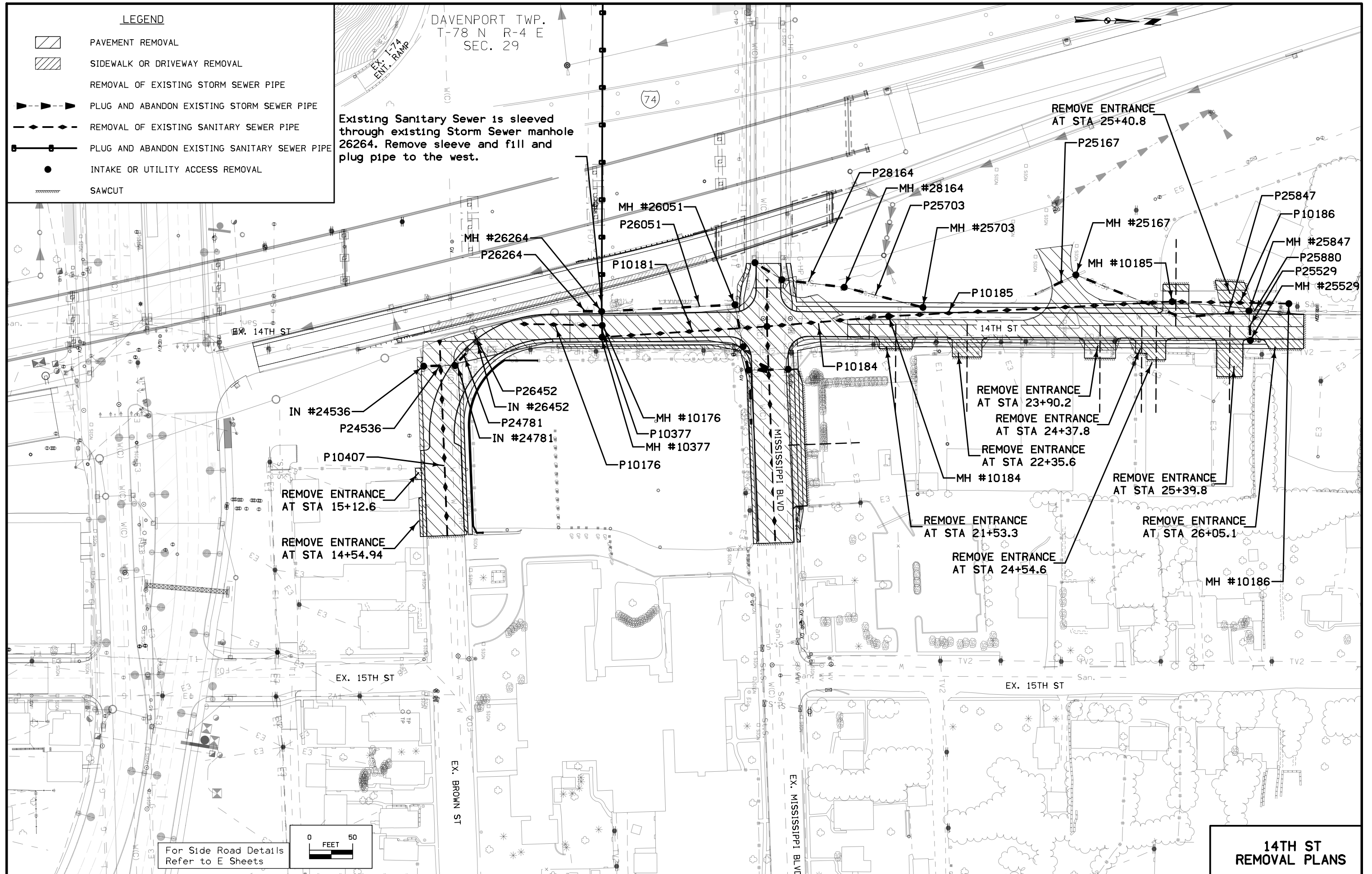
**MISSISSIPPI BLVD
REMOVAL PLANS**

LEGEND

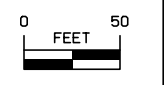
-  PAVEMENT REMOVAL
-  SIDEWALK OR DRIVEWAY REMOVAL
-  REMOVAL OF EXISTING STORM SEWER PIPE
-  PLUG AND ABANDON EXISTING STORM SEWER PIPE
-  REMOVAL OF EXISTING SANITARY SEWER PIPE
-  PLUG AND ABANDON EXISTING SANITARY SEWER PIPE
-  INTAKE OR UTILITY ACCESS REMOVAL
-  SAWCUT

DAVENPORT TWP.
T-78 N R-4 E
SEC. 29




Existing Sanitary Sewer is sleeved through existing Storm Sewer manhole 26264. Remove sleeve and fill and plug pipe to the west.



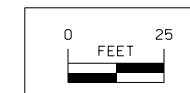
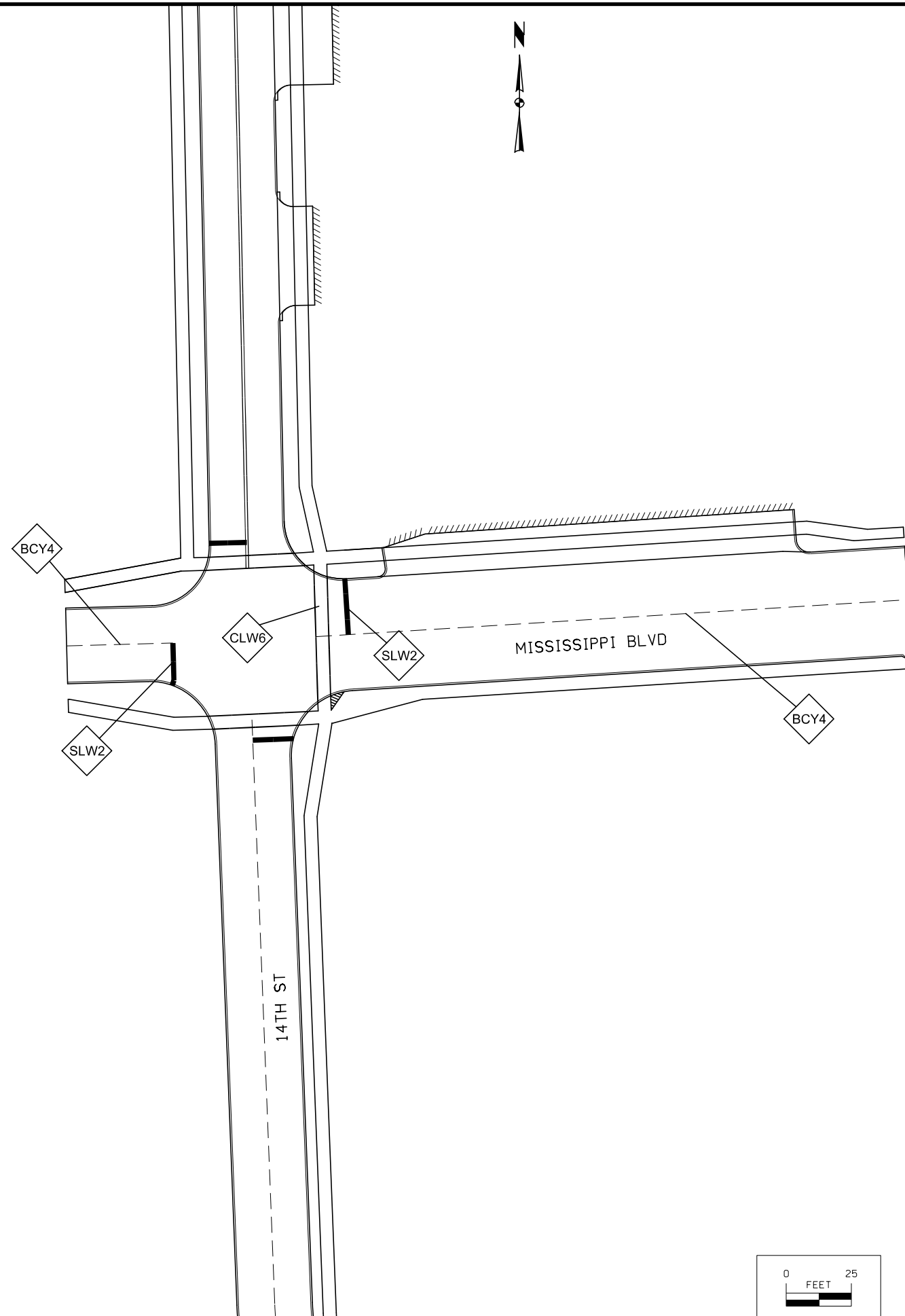
For Side Road Details
Refer to E Sheets



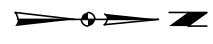
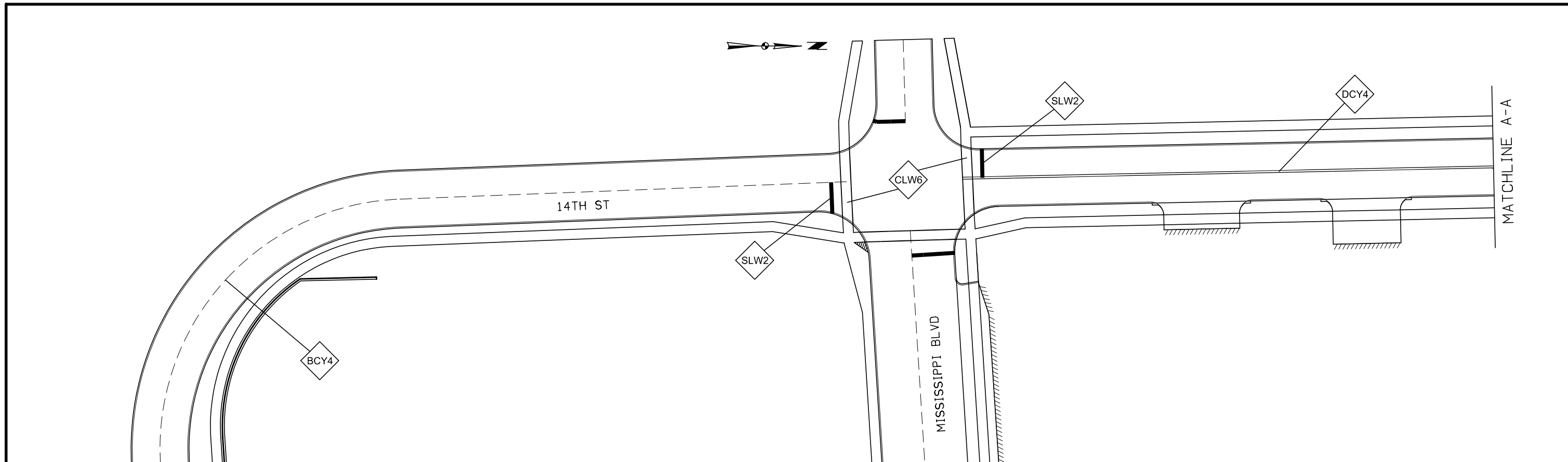
**14TH ST
REMOVAL PLANS**

-  BROKEN CENTERLINE (YELLOW)*
-  CROSSWALK LINE (WHITE)*
-  STOP LINE (WHITE)*

*SEE PM-110 FOR PAVEMENT MARKING DETAILS



**MISSISSIPPI BLVD
FINAL PAVEMENT MARKINGS**



MATCHLINE A-A

14TH ST

MISSISSIPPI BLVD

BCY4

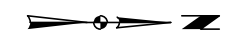
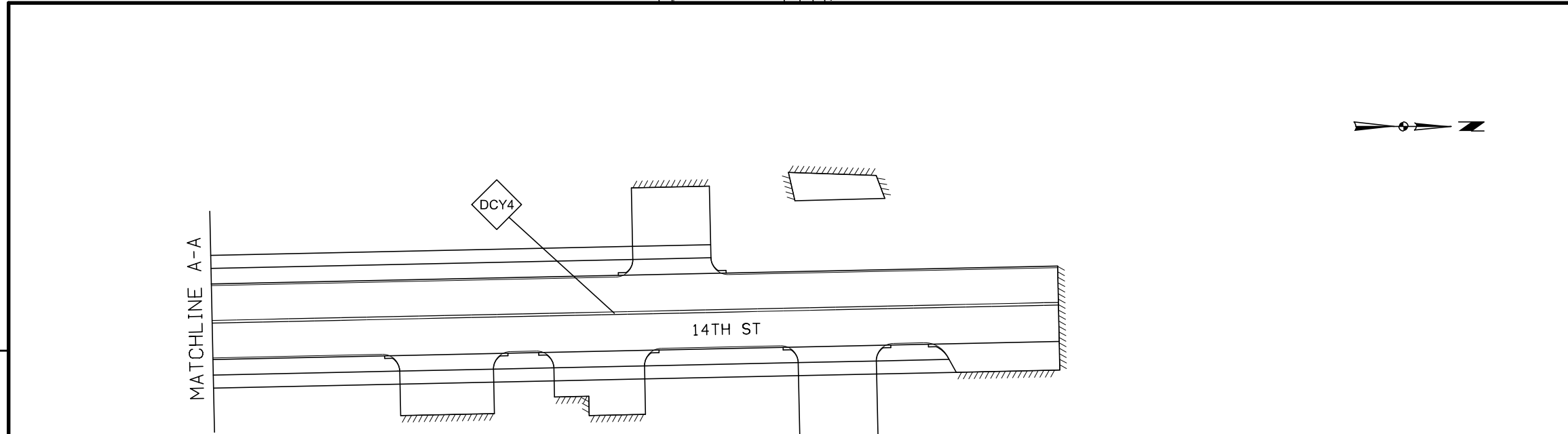
SLW2

CLW6

SLW2

DCY4

*SEE PM-110 FOR PAVEMENT MARKING DETAILS



MATCHLINE A-A

14TH ST

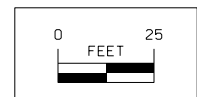
DCY4

BCY4 BROKEN CENTERLINE (YELLOW)*

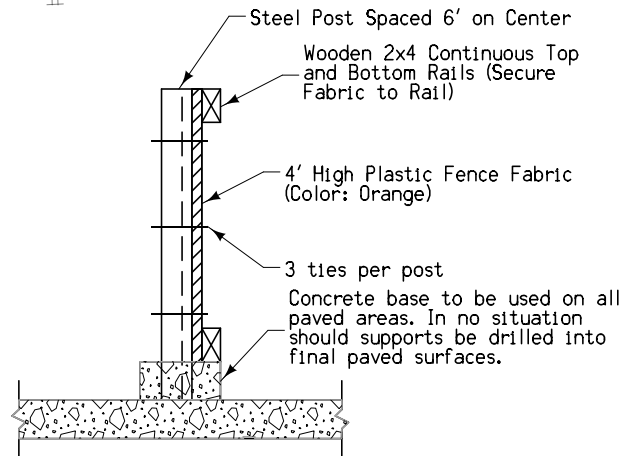
DCY4 DOUBLE CENTERLINE (YELLOW)*

CLW6 CROSSWALK LINE (WHITE)*

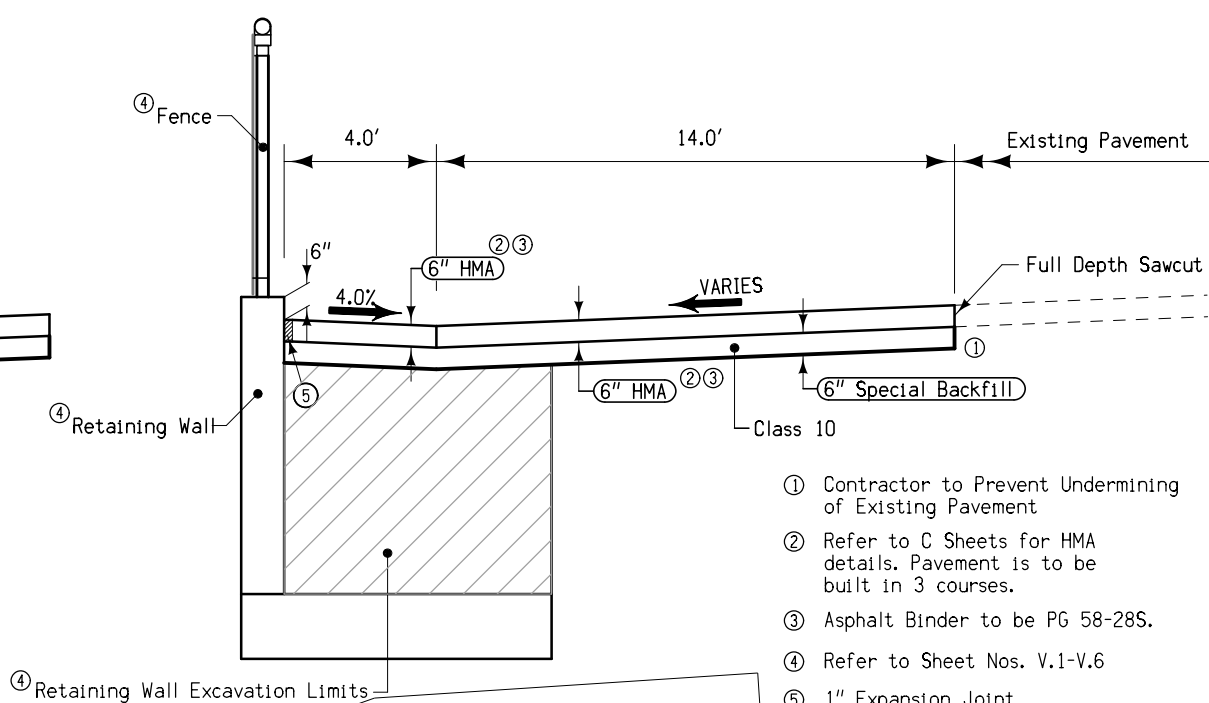
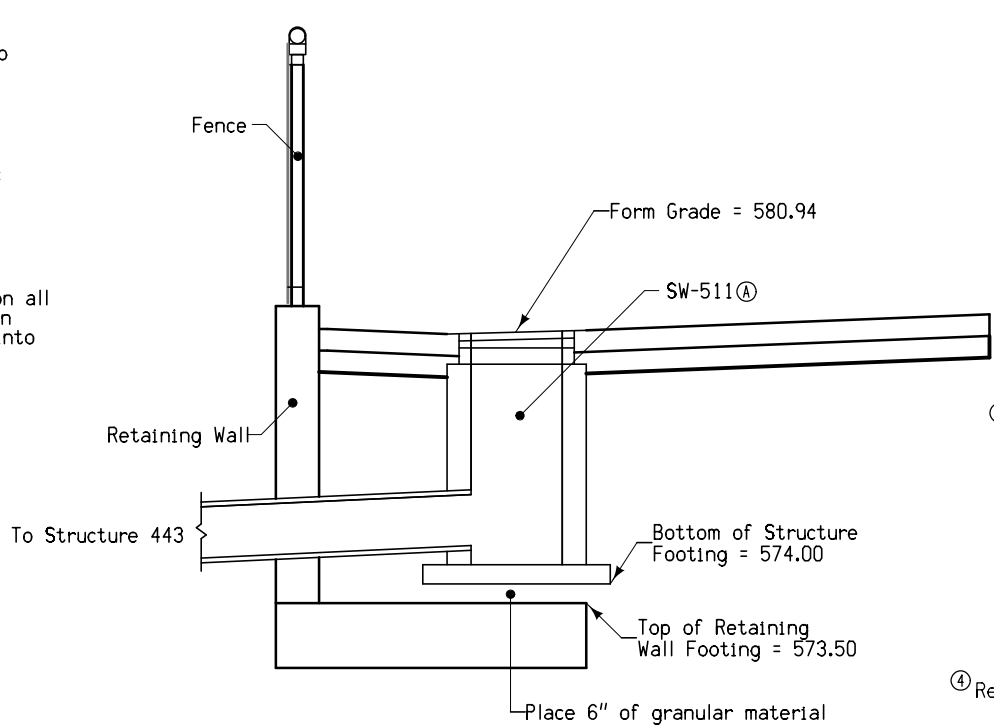
SLW2 STOP LINE (WHITE)*



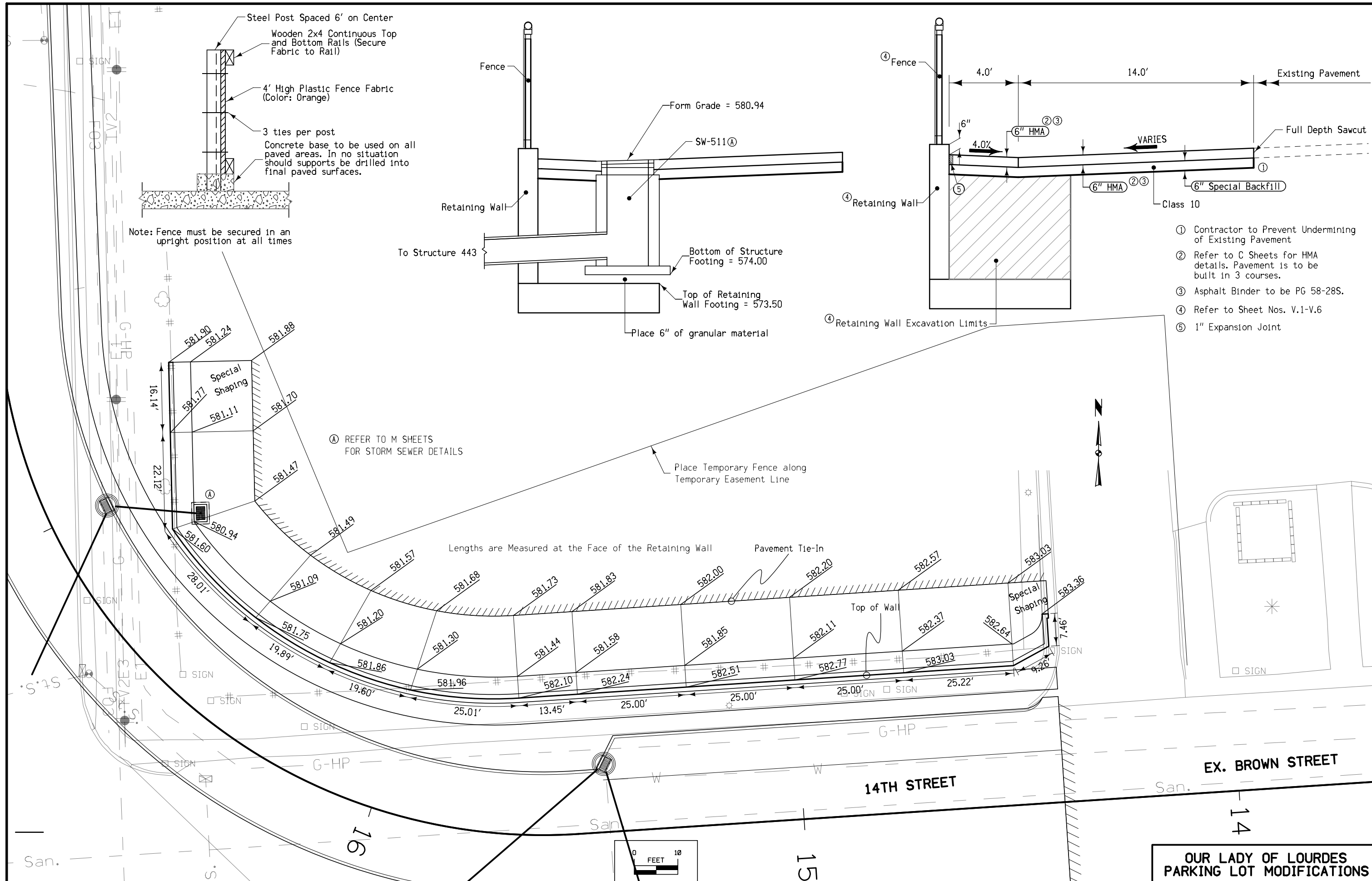
**14TH ST
FINAL PAVEMENT MARKINGS**



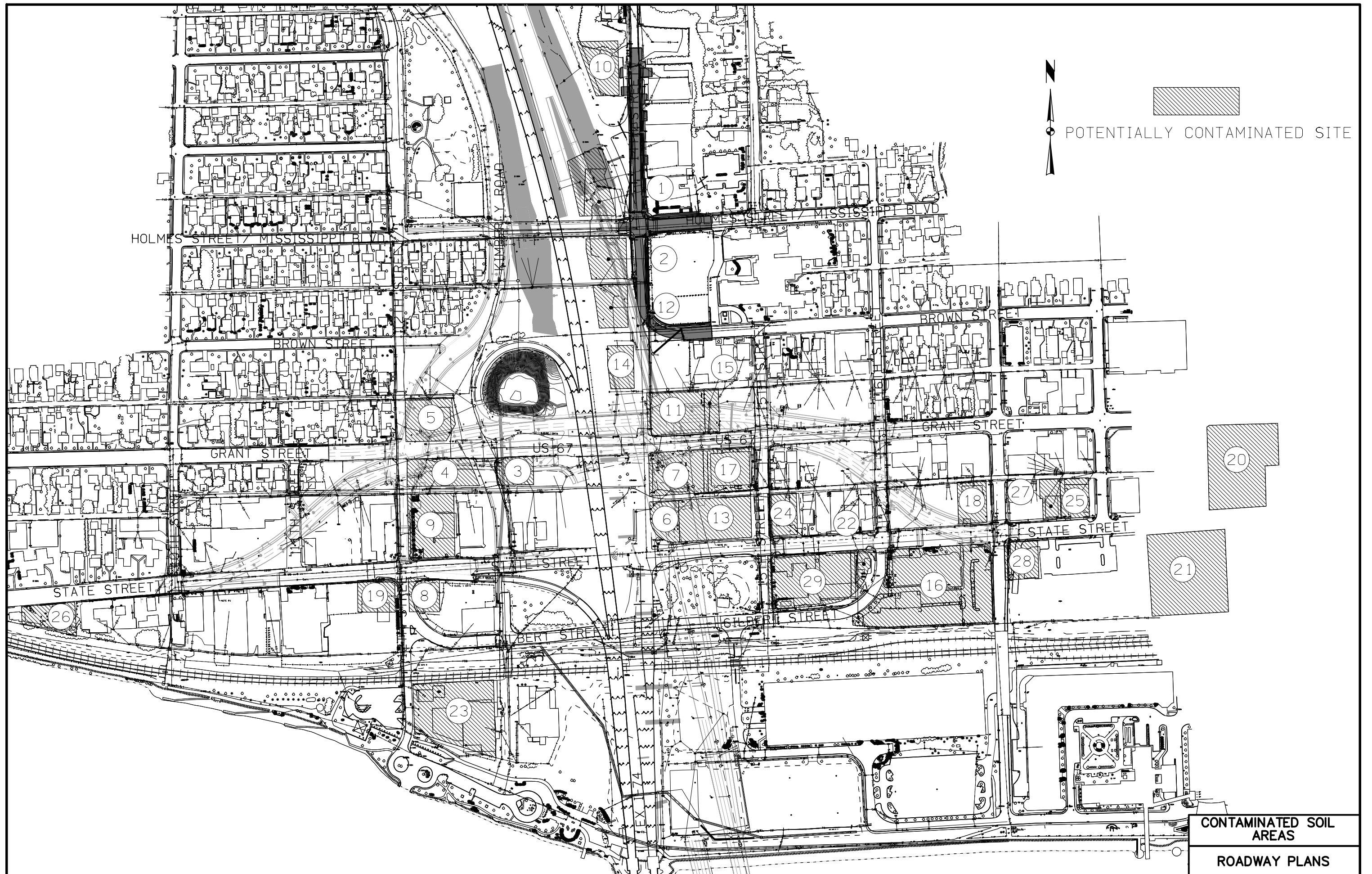
Note: Fence must be secured in an upright position at all times



- ① Contractor to Prevent Undermining of Existing Pavement
- ② Refer to C Sheets for HMA details. Pavement is to be built in 3 courses.
- ③ Asphalt Binder to be PG 58-28S.
- ④ Refer to Sheet Nos. V.1-V.6
- ⑤ 1" Expansion Joint

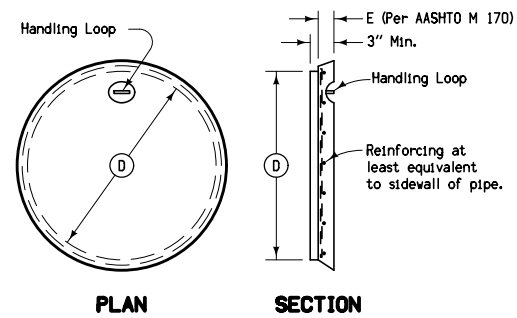
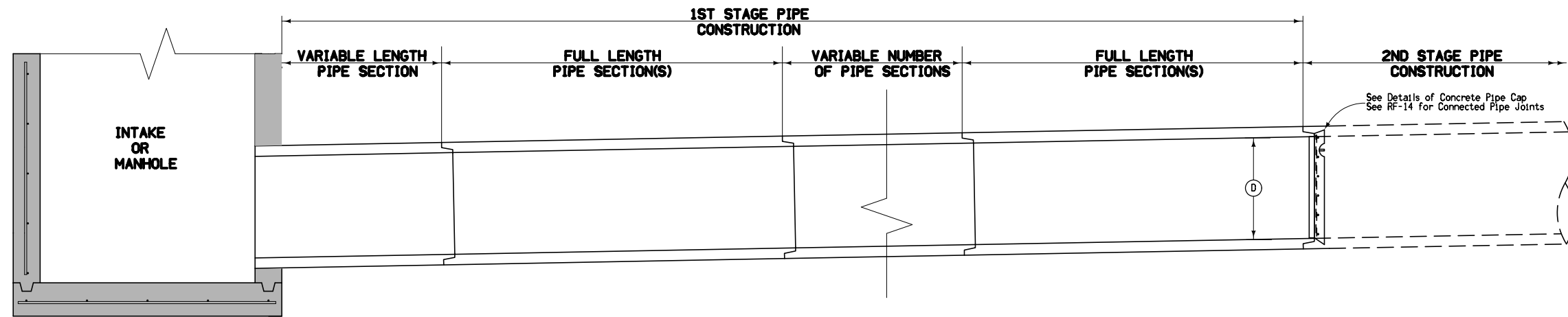


**OUR LADY OF LOURDES
PARKING LOT MODIFICATIONS**



Contaminated Soil Summary				PCSS-1
				SPECIAL
Location	Parcel # See H Sheets	Description and Address	Site Impacted by this Contract Yes/No	Remarks
1	380	H & H Car Care Center	No	4 UST removed 1990.
		612 14th Street		DNR - "No Action Req'd" Feb. 2005. Petroleum contamination in soil boring.
2	374	Dale Snapp Co.	No	2 UST removed 1998.
		536 14th Street		Petroleum contamination in recent soil boring.
3	345	Crescent Economy Inc. 1303 Grant Street	No	No tanks. Dry cleaning chemicals present. DNR statewide standards exceeded (Oct. 2005).
4	346	Showboat Car Wash 1215 Grant Street	No	3 UST removed 1992. DNR - "No Action Req'd" Aug. 2003.
5	353	Hoyt & Son Automotive 1210 Grant Street	No	5 UST removed 1996. Previous soil removal project DNR - "No Action Req'd" July 2003.
6	341		No	Total of 9 UST: 5 removed 1989 and 4 active; DOT to request owners to remove tanks. DNR - "No Action Req'd" Sep. 2004. Petroleum contamination in soil boring.
		Johnny's Amoco BP/QC Mart 1402 State Street		
7	341A	Twin Bridges 66/Shell Oil	No	Total of 4 UST: 1 removed 1993 and 3 active; DOT to request owners to remove tanks; if not removed then Iowa DOT OLE to remove prior to letting. Petroleum contamination in recent soil boring.
		333 14th Street		
8	312	Adel Parking Lot 1207 State Street	No	Former gas station. Now part of QCA Spa. Petroleum contamination in ground water from monitoring wells.
9	324	Village Inn 1210 State Street	No	Petroleum contamination in recent soil borings.
10	386	Great American Window Co 710 14th Street	Yes	Petroleum contamination in ground water from monitoring wells.
11	355	Dart Mart/Big 10 Mart	Yes	Total of 5 UST: 1 removed 1990 and 4 active; DOT to request owners to remove tanks; if not removed then Iowa DOT OLE to remove prior to letting.
		411 14th Street		Contamination documented in monitoring wells.

Contaminated Soil Summary				PCSS-1
				SPECIAL
Location	Parcel # See HE Sheets	Description and Address	Site Impacted by this Contract Yes/No	Remarks
12	372	Ross' Drive Through 512 14th Street	No	No action necessary. No contamination identified.
13	320	Knox Corporation 1416 State Street	No	No action necessary. No contamination identified.
14	367	Ross' Restaurant Inc 430 14th Street	No	Contamination documented in monitoring wells.
15	357	Handy Shop 1430 Grant Street	No\	3 UST removed 1992, 2005. Increasing contamination levels in monitoring wells. DNR "No Action Req'd" March 2001.
16	311	City Hall	No	Total of 5 UST: 3 UST removed 1988 and one active. Petroleum contamination in recent soil boring.
		1609 State Street		
17	339	US West 1437 Grant Street	No	1 UST removed 1993. No contamination identified.
18	331	Car Quest 312 17th Street	No	Contamination documented in monitoring wells.
19	NA	Adel Parking Lot 1159 State Street	No	Owner denied access to property. Potential UST.
20	NA	Lindquist Ford 1910 State Street	No	8 UST removed 1997. DNR "No Action Req'd" Nov. 1998.
21	NA	Plaza Building 1823 State Street	No	Petroleum contamination identified.
22	NA	Kelley's Gas 1543 State Street	No	Total of 5 UST: 2 removed 2000 and 3 active (2 - 6000 gal and 1- 8200 gal); Contamination documented in monitoring wells.
23	NA	Twin Bridges Truck City 131 12th Street	No	2 UST removed 1990. DNR "No Action Req'd" Jan. 1996.
24	NA	Nextel Phone 1504 State Street	No	Former gas station. No documented information.
25	NA	Rapid Lube and Oil 1740 State Street	No	Former gas station. 6 UST removed 1981 to 1987.
26	NA	US Petro Mart 845 State Street	No	Operating gas station identified as LUST site. 4 UST (3-10,000 gal and 1-8,000)
27	NA	Hans Body Shop 1720 State Street	No	Former gas station. No documented information.
28	NA	Bettendorf Auto 1705-1719 State Street	No	No contamination identified.
29	NA	Twin Bridges Motor Inn 221 15th Street	No	No contamination identified.



DETAILS OF CONCRETE PIPE CAP

CONCRETE PIPE CAP:

The use of an approved pipe cap is required when so indicated on the detail project plans. The dimensions of the pipe cap shall be such as to neatly fit the groove end of the appropriate size of pipe.

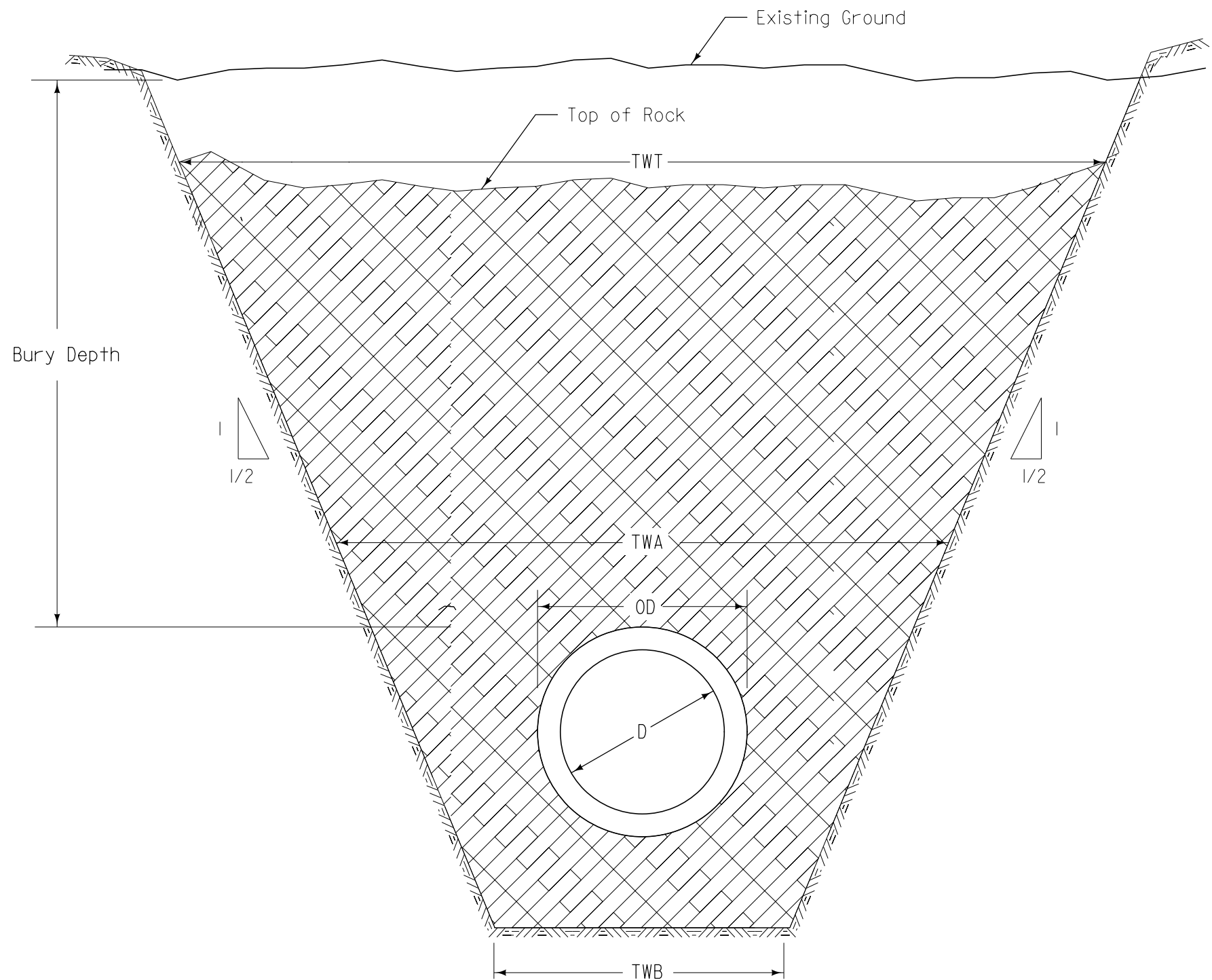
The cap must be precast and an approved bituminous joint material shall be placed between the cap and the pipe.

The Pipe Cap placement or removal shall not be paid for directly, but when specified, shall be considered to be incidental to other pipe work on the project.

1st Stage: Install Concrete Pipe Cap where specified.

2nd Stage: Remove Concrete Pipe Cap prior to connecting to existing pipes.

DETAIL OF STAGED STORM SEWER
PIPE CONSTRUCTION
AND CONCRETE PIPE CAP



Legend

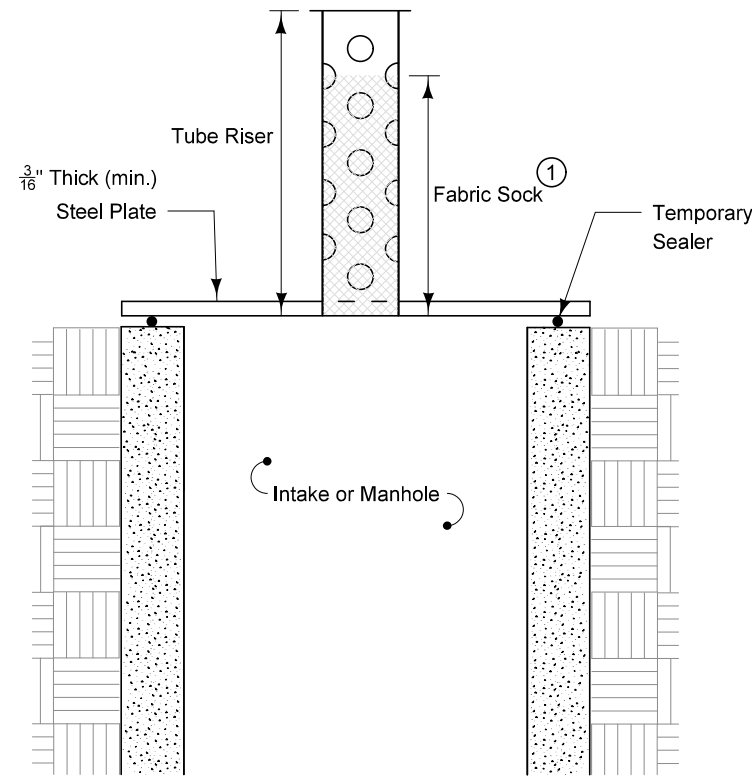


Maximum allowable payment area for Rock Excavation

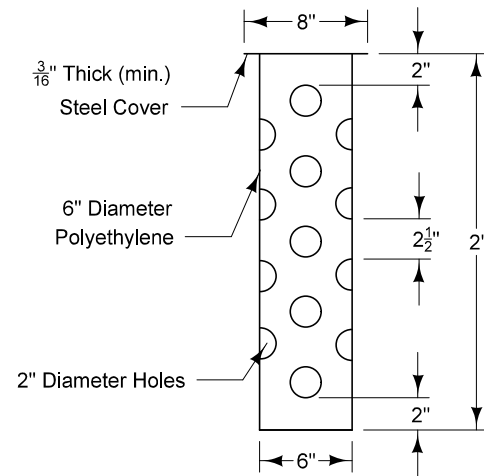
Key

- OD = Outside diameter of pipe
- D = Inside diameter of pipe
- TWT = Trench width at top of rock
- TWB = Trench width at bottom (Max= $1.25 \times OD + 12$ inches or 54 inches (whichever is greater))
- TWA = Average trench width

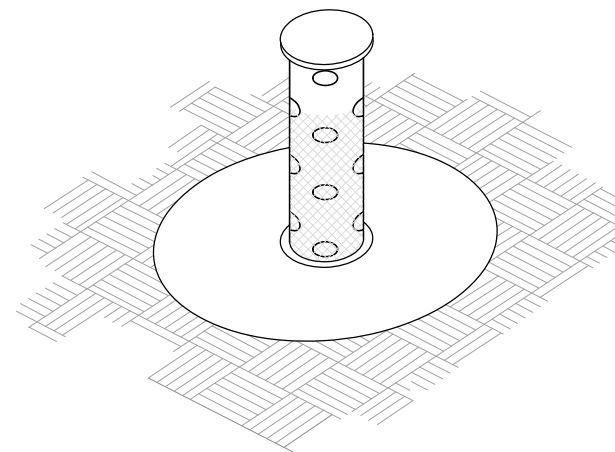
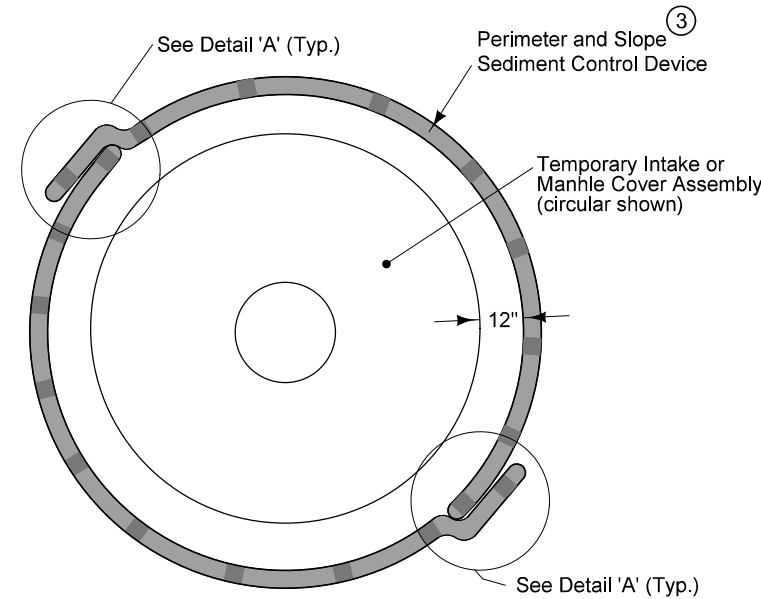
Rock Excavation Trench
for Sewers



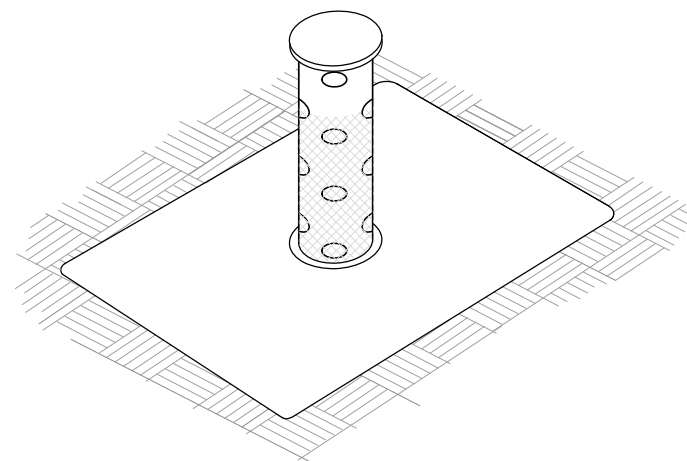
SECTION VIEW



TUBE RISER

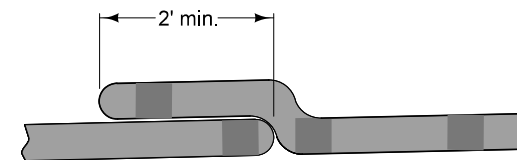


ISOMETRIC VIEW
(Circular)



ISOMETRIC VIEW
(Rectangular)

TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY



DETAIL 'A'
(Overlap Joint)

PERIMETER AND SLOPE SEDIMENT CONTROL

Method of Measurement for Temporary Intake or Manhole Cover Assembly will be by count.

Basis of Payment for Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each device installed.

Method of Measurement for Maintenance of Temporary Intake or Manhole Cover Assembly will be by count.

Basis of Payment for Maintenance of Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each occurrence. Payment is full compensation for inspecting fabric sock and replacing when flow capacity has been reduced to 50%.

Method of Measurement for Removal of Temporary Intake or Manhole Cover Assembly will be by count.

Basis of Payment for Removal of Temporary Intake or Manhole Cover Assembly will be at the contract unit price for each device removed.

- ① Wrap fabric sock around tube riser. Use fabric complying with Article 4196.01, B, 1 with a minimum flow rate of 90 gallons per minute per square foot. Ensure top of sock is below form grade elevation.
- ② Tube riser may be such that it can be pushed down and pulled up.
- ③ Place Perimeter and Slope Sediment Control Devices around all intake or manhole wells. Use 20 inch diameter device.
- ④ Extra material required to install overlaps will not be included in the installation length.

Possible Contract Items:

- Temporary Intake or Manhole Cover Assembly
- Maintenance of Temporary Intake or Manhole Cover Assembly
- Removal of Temporary Intake or Manhole Cover Assembly
- Perimeter and Slope Sediment Control Device

Possible Tabulations:

- 100-11
- 100-19

ROAD DESIGN DETAIL	REVISION	
	1	04-18-17
	570-5	
		SHEET 1 of 1
REVISIONS: Add bid items for maintenance and removal. Added basis of payment and method of measurement.		

**EROSION CONTROL FOR INTAKE
OR MANHOLE WELL**

GENERAL NOTES:

IT IS THE INTENT OF THESE PLANS TO CONSTRUCT A 261'-2 x VARIABLE HEIGHT REINFORCED CONCRETE RETAINING WALL WHICH TIES INTO AN EXISTING RETAINING WALL.

FAINT LINES ON PLANS INDICATE THE EXISTING STRUCTURE.

THE CITY AND UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

ALL EXPOSED CORNERS 90 DEGREES OR SHARPER SHALL BE FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP.

THE REINFORCEMENT SUPPLIED FOR THIS STRUCTURE SHALL BE GRADE 60. REINFORCING BAR CLEARANCES WILL BE AS FOLLOWS:
 CAST AGAINST EARTH 3"
 CONCRETE AGAINST FORMS 2"

CLASS 20 EXCAVATION MATERIAL UNSUITABLE FOR BACKFILLING SHALL BE DISPOSED OF IN A MANNER THAT WILL LEAVE THE SITE IN A NEAT CONDITION.

KEYWAY DIMENSIONS SHOWN ON THE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS STATED OTHERWISE. IN ADDITION, THE BEVEL USED ON THE KEYWAY SHALL BE LIMITED TO A MAXIMUM OF 10 DEGREES FROM VERTICAL.

SEE TRAFFIC CONTROL PLAN ELSEWHERE IN THESE PLANS.

STRUCTURAL CONCRETE FOR THE FOOTING AND WALL SHALL BE CLASS "C".

ALL COSTS ASSOCIATED WITH EXPANSION AND CONSTRUCTION JOINTS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "STRUCTURAL CONCRETE (MISCELLANEOUS)."

BACKFILLING OPERATIONS SHALL BE IN ACCORDANCE WITH ARTICLE 2402.03, H OF THE STANDARD SPECIFICATIONS. ARTICLE 2403.03, N, OF THE STANDARD SPECIFICATIONS, SHALL BE FOLLOWED WITH RESPECT TO SUBJECTING WALLS AND FOOTINGS TO EXTERIOR LOADS.

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5G1 IS 5/8 INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

SPECIFICATIONS:

DESIGN: AASHTO SERIES OF 2002.

CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2012 PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2002. REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60. CONCRETE IN ACCORDANCE WITH SECTION 8, f'c = 3,500 PSI.

WALLS AND FOOTINGS WERE DESIGNED BASED ON THE FOLLOWING REQUIREMENTS:

MAXIMUM ALLOWABLE BEARING PRESSURE = 3,000 PSF
 SOIL UNIT WEIGHT = 120 PCF
 SOIL EQUIVALENT ACTIVE EARTH FLUID PRESSURE W/O WATER = 36 PCF
 COEFFICIENT OF SLIDING FRICTION (FOOTING) = 0.4



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DESIGN TEAM HANSON PROFESSIONAL SERVICES

10:24:52 AM

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8239085001

BENCH MARK NO. 503: US 67 RAMP D STA. 4501+81.78, RT. 117.13', ELEV. 580.28', CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD.

ESTIMATED STRUCTURE QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2401-6750001	REMOVAL, AS PER PLAN	LS	1	
2	2402-2720000	EXCAVATION, CLASS 20	CY	874	
3	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	195.7	
4	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	12870	
5	2519-1001000	FENCE, CHAIN LINK, VINYL COATED	LF	261	

ITEM NO.	ESTIMATE REFERENCE INFORMATION
1	INCLUDES ALL WORK FOR REMOVAL AND OFF-SITE DISPOSAL OF PART OF THE EXISTING MODULAR BLOCK RETAINING WALL TO THE LIMITS SHOWN ON THE PLANS. REMOVAL OF SCHEDULED ITEMS SHALL BE IN ACCORDANCE WITH SECTION 2401, OF THE STANDARD SPECIFICATIONS. ANY DAMAGE TO MATERIAL NOT TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRED AT NO EXTRA COST TO THE STATE. IT ALSO INCLUDES ANY TEMPORARY REMOVAL, STOCKPILING, AND REASSEMBLING OF OTHER PORTIONS OF THE EXISTING WALL THAT MAY INTERFERE WITH CONSTRUCTION OF THE PROPOSED REINFORCED CONCRETE WALL.
3	INCLUDES PERFORATED PIPE, POROUS BACKFILL, FILTER FABRIC, GRANULAR BACKFILL, PREFORMED JOINT FILLER AND WATER SEAL. INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING EXPANSION AND CONSTRUCTION JOINTS. INCLUDES DOWEL BAR ASSEMBLIES FOR FOOTINGS, AND PREFORMED JOINT FILLER. INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING NEOPRENE WATERSTOPS. INCLUDES ALL COSTS ASSOCIATED WITH FORM LINER PANELS FOR WALLS.
5	INCLUDES BASE PLATES AND ANCHOR BOLTS.

CAST IN PLACE CONCRETE WALL PANEL FINISH NOTES:

- SUBMIT SHOP DRAWINGS INDICATING FORM LINER LAYOUT AND TERMINATION DETAILS FOR ALL PANELS. INDICATE BACKUP, RUSTICATION, REVEAL, AND CHAMFER STRIP LOCATIONS. INCLUDE JOINTING, PATTERN PLACEMENT AND ORIENTATION. CONTRACTOR RESPONSIBLE FOR DESIGN OF FORMWORK AND BACK-UP OF FORM LINER FOR STRUCTURAL STABILITY AND SUFFICIENCY.
- SUBMIT 12 INCH BY 12 INCH SAMPLE OF PATTERN INDICATED. SAMPLE MAY BE EITHER ACTUAL FORM LINER MATERIALS OR FOAM CASTINGS FROM LINER PROPOSED FOR USE ON THE PROJECT.
- PROVIDE 4'x4'x6 INCH (MIN.) FULL SCALE SAMPLE PANEL USING ACTUAL JOB SPECIFIC MATERIALS, METHODS AND WORKMANSHIP. THESE INCLUDE CONCRETE MIX [CEMENT TYPE, AGGREGATE GRADATION, SLUMP, WATER/CEMENT RATIOS, PLASTICIZERS AND ADDITIVES], FORMING SYSTEM [LINER AND FORMWORK], FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, FORMWORK AND JOINT SEALING, VIBRATING AND STRIPPING PRACTICES. THE TOP 1 FOOT OF THE SAMPLE SHALL DEPICT THE 4-INCH PROJECTED UPPER WALL SURFACE. THE SAMPLE PANEL SHALL BE CAST VERTICALLY. IN ADDITION, DEMONSTRATE PATCHING AND REPAIR PROCEDURES FOR SPALLED CONCRETE, AND VOIDS CAUSED BY HONEYCOMBING OR BUGHOLES. ACCEPTED SAMPLE PANELS WILL BE STANDARD BY WHICH REMAINING WORK WILL BE EVALUATED FOR TECHNICAL AND AESTHETIC MERIT. CONTRACTOR SHALL STORE ACCEPTED SAMPLE PANELS ON SITE FOR REFERENCE UNTIL SUBSTANTIAL COMPLETION. ACCEPTED SAMPLE PANELS ARE A PREREQUISITE TO BEGINNING JOB FORMWORK. SUBMIT VARIATIONS FROM SAMPLE PANEL MATERIALS OR TECHNIQUES FOR APPROVAL PRIOR TO USE.
- COVER FORM LINERS TO PROTECT FROM OIL, DIRT AND UV EXPOSURE.
- HANDLE RIGID FORM LINER PANELS WITH CARE AT TEMPERATURES BELOW 25°F.
- APPROVED MANUFACTURERS OF FORM LINERS MATERIALS AND ACCESSORIES

BASIS OF DESIGN:

TYPE 2-
SCOTT SYSTEM PATTERN 120 -
SANDBLAST #2

SCOTT SYSTEM, INC.
10777 EAST 45TH AVENUE
DENVER, CO 80239
333-373-2500
WWW.SCOTTSYSTEM.COM

ALLOWABLE ALTERNATES:

TYPE 2 -
FITZGERALD FORMLINERS PATTERN I6991 -
MEDIUM SANDBLAST

FITZGERALD FORMLINERS, INC.
1500 EAST CHESTNUT AVENUE
SANTA ANA, CA 92701
800-547-7760
WWW.FORMLINERS.COM

TYPE 2 -
AMERICAN FORMLINERS PATTERN 1200 -
LIGHT/MEDIUM SANDBLAST

AMERICAN FORMLINERS, INC.
1567 FRONTENAC ROAD
NAPERVILLE, IL 60563
630-615-2170
WWW.AMERICANFORMLINERS.COM

7. ON MULTIPLE USE LINERS, CLEAN LINER BEFORE EACH USE. REPLACE DAMAGED LINER WHOSE CONTINUED USE OR REPAIR WOULD NEGATIVELY IMPACT THE AESTHETICS OF THE CONCRETE FINISH.

8. APPLY FORM LINER COMPATIBLE RELEASE AGENT AT RATE RECOMMENDED BY MANUFACTURER. ATTEMPT TO SCHEDULE CONCRETE POUR SOON AFTER APPLICATION OF RELEASE AGENT TO AVOID PRECIPITATION, DUST, AND DEBRIS. PROTECT REINFORCING STEEL FROM EXPOSURE TO RELEASE AGENTS.

9. SEAL FORM LINER JOINTS TO PREVENT MORTAR LEAKAGE.

10. PROVIDE SOLID BACKING AT FORM LINER BUTT JOINTS TO PREVENT DEFLECTION.

11. CONSTRUCT FORM LINER AND ACCESSORIES TO SIZES, SHAPES, LINES AND DIMENSIONS SHOWN.

12. INSTALL BACKUP STRIPS AS REQUIRED TO PREVENT DEFLECTION OF THE LINER DUE TO FORM PRESSURES.

STRUCTURAL DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *Robert Chantome* Date: 11/14/2019

Printed or Typed Name: Robert Chantome

My license renewal date is December 31, 2019

Pages or sheets covered by this seal: V.1 - V.6

DESIGN FOR A

261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL
GENERAL NOTES AND QUANTITIES

BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
 END STATION 17+32.59 - 37.61 RT. (14 TH ST.)

SCOTT COUNTY

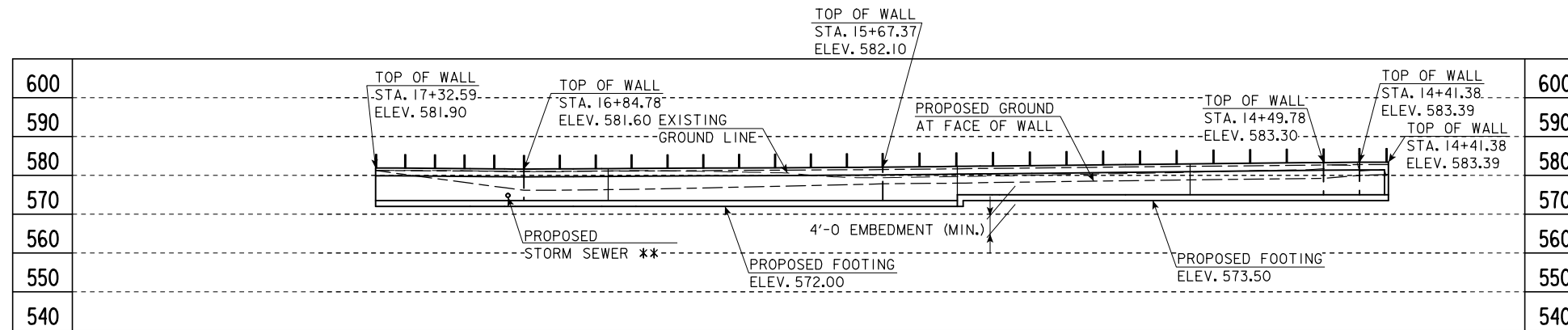
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 6 FILE NO. 30253 DESIGN NO. 1120

SCOTT COUNTY

PROJECT NUMBER IM-NHS-074-1(207)5--03-82

SHEET NUMBER V.1

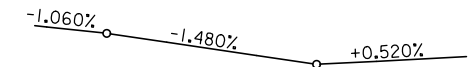
BENCH MARK NO. 503: US 67 RAMP D STA. 4501+81.78, RT. 117.13',
ELEV. 580.28', CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHYD.



ELEVATION ALONG FRONT FACE OF RETAINING WALL 175

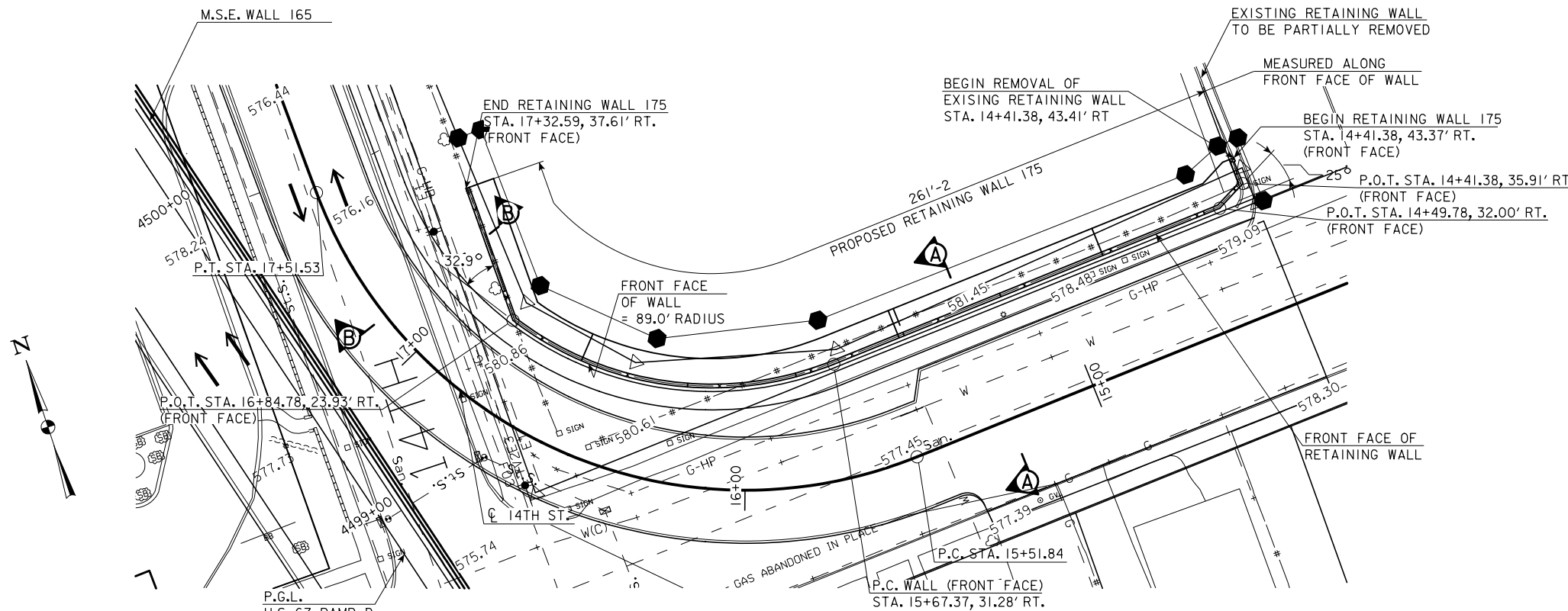
** SEE M SHEETS FOR PROPOSED STORM SEWER DETAILS.

PROPOSED PROFILE GRADE
14TH STREET



VPI STA = 15+00.00 VPI STA = 16+75.00
VPI ELEV = 578.32 VPI ELEV = 575.73
VC = 100' VC = 100'

NOTES:
ALL DIMENSIONS ARE SHOWN IN FEET UNLESS NOTED OTHERWISE.
PROPOSED RETAINING WALL TO TIE INTO EXISTING RETAINING WALL AT NORTHEAST END.



SITUATION PLAN

14TH STREET CURVE DATA

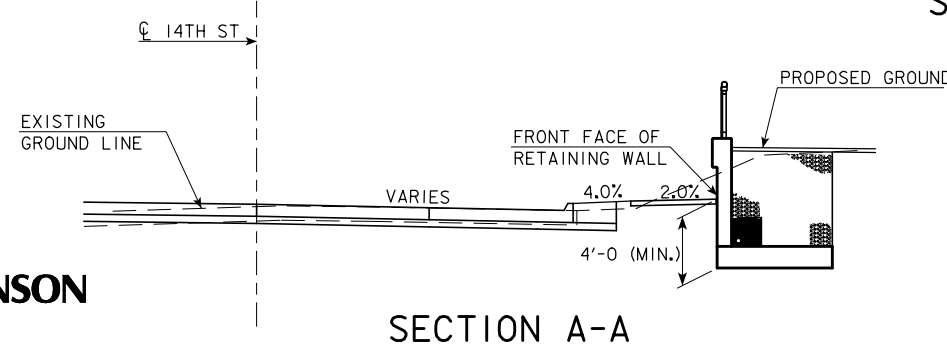
PI STA 16+80.23
Δ = 91°31'47.63" (RT)
D = 45°50'11.84"
R = 125.00'
T = 128.38'
L = 199.69'
E = 54.18'
e = 4.00
I = 65.00
x = 32.00
m = 19.50

LOCATION

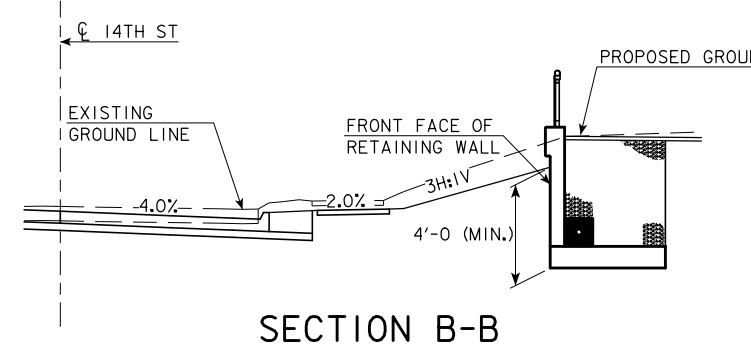
14TH STREET
T 78 N R 4 E
SECTION 28
DAVENPORT TOWNSHIP
CITY OF BETTENDORF
SCOTT COUNTY
LATITUDE: 41.527332
LONGITUDE: -90.512189

TRAFFIC ESTIMATE

14TH ST.
A.A.D.T. = 8800 VPD (2002)
A.A.D.T. = 9000 VPD (2035)



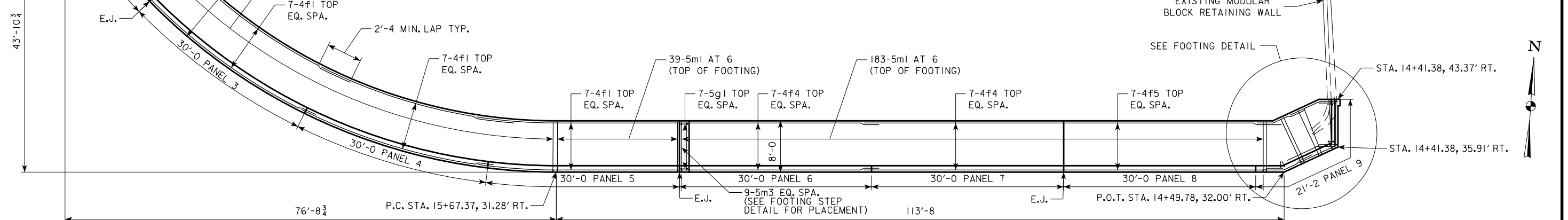
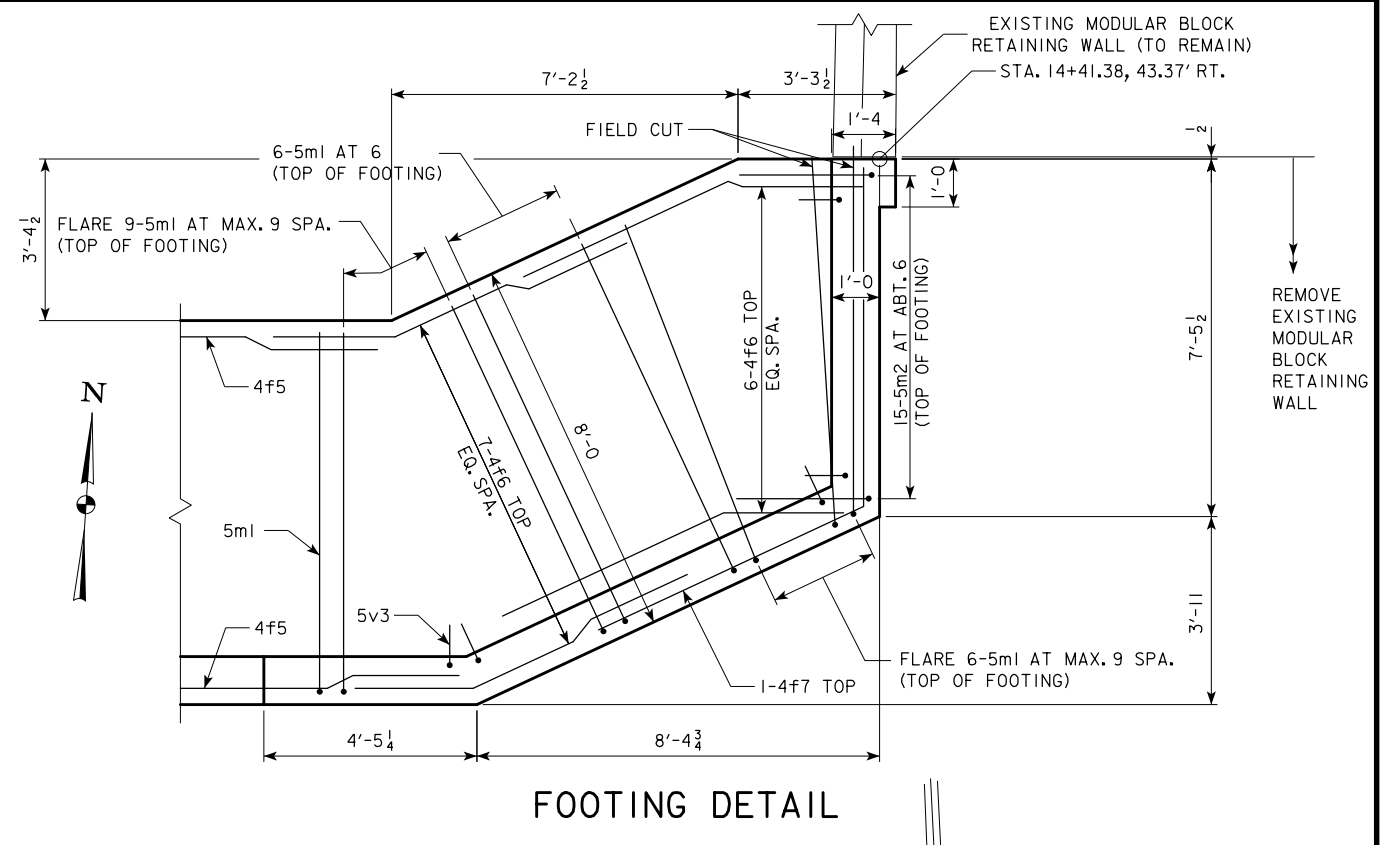
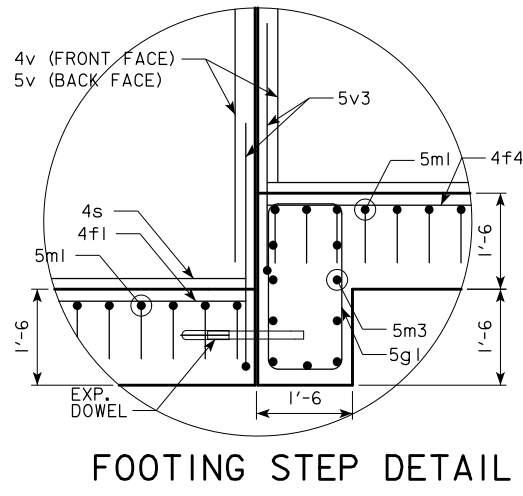
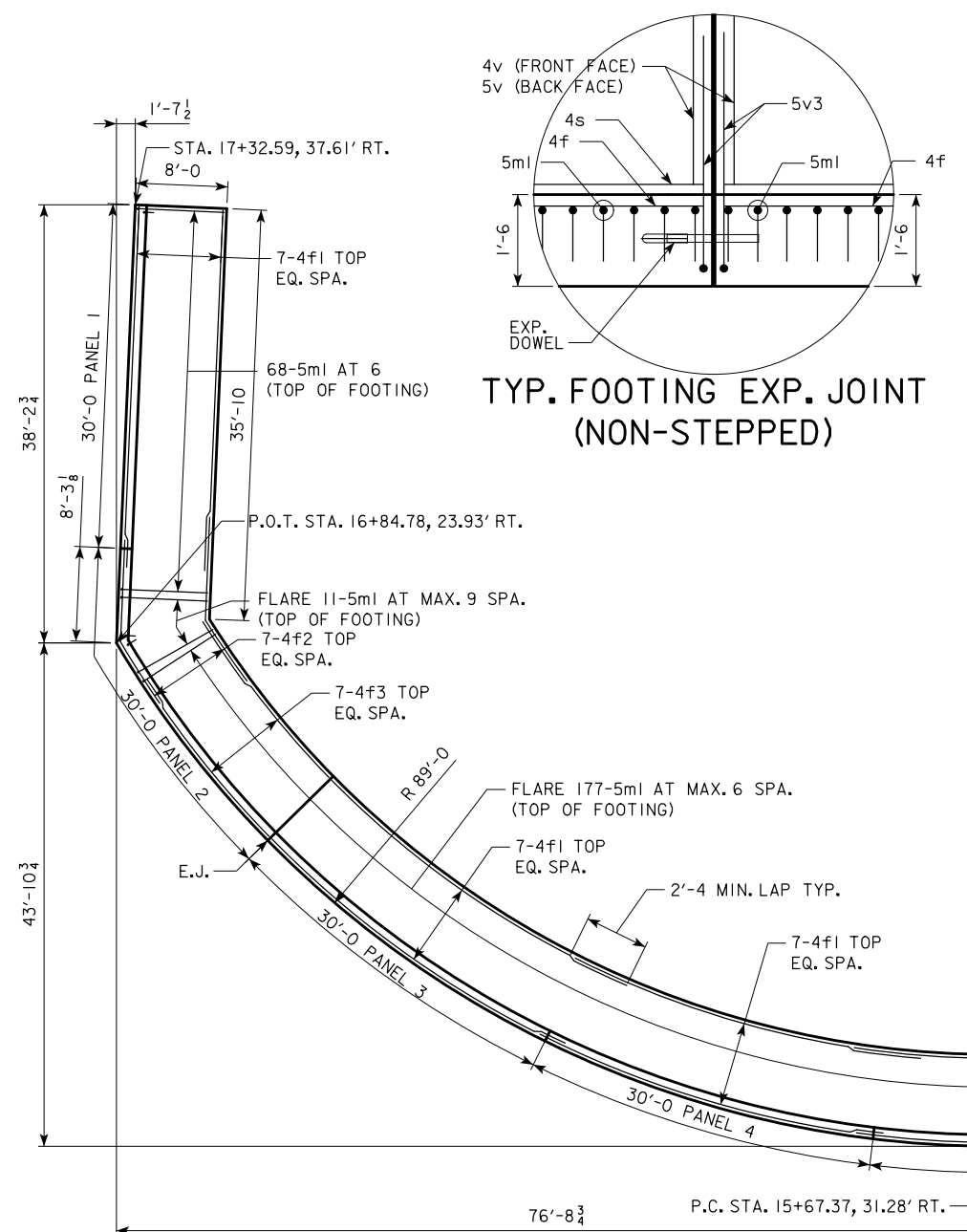
SECTION A-A



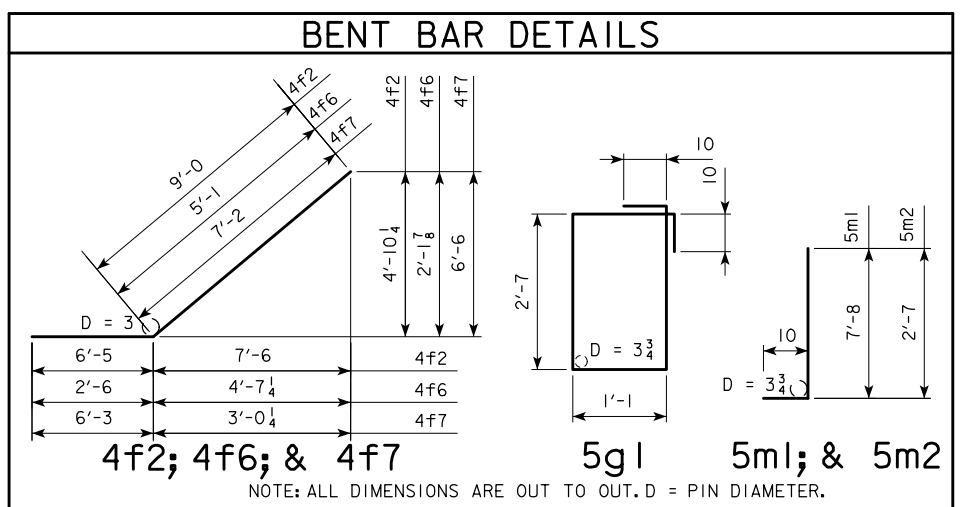
SECTION B-B

DESIGN FOR A
261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL
SITUATION PLAN
BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
OCTOBER, 2014
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 6 FILE NO. 30253 DESIGN NO. 1120





WALL OFFSETS ARE MEASURED FROM ϕ 14TH ST. TO THE FRONT FACE OF THE WALL



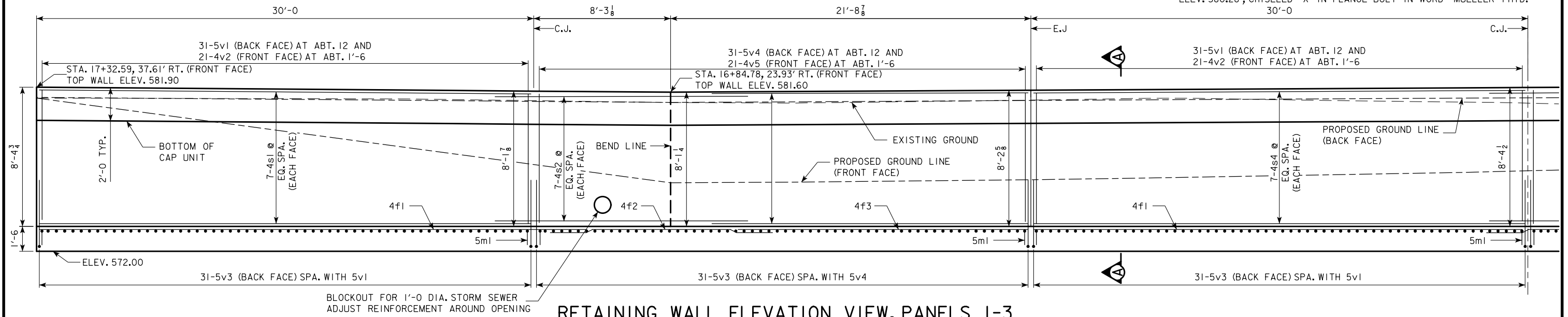
REINFORCING BAR LIST - WALL FOOTING						
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	
4f1	LONG. FOOTING	—	28	31'-6	589	
4f2	LONG. FOOTING	∩	7	15'-5	72	
4f3	LONG. FOOTING	—	7	17'-5	81	
4f4	LONG. FOOTING	—	14	31'-0	290	
4f5	LONG. FOOTING	—	7	34'-2	160	
4f6	LONG. FOOTING	∩	13	7'-7	66	
4f7	LONG. FOOTING	∩	1	13'-5	9	
5g1	TRANS. FOOTING STEP	□	7	9'-0	66	
5m1	TRANS. FOOTING TOP	—	499	8'-6	4424	
5m2	TRANS. FOOTING TOP	—	15	3'-5	53	
5m3	TRANS. FOOTING STEP	—	9	7'-8	72	
EPOXY COATED REINFORCING STEEL - TOTAL (LBS.)					5890	

NOTE: SAW CUT OR NEATLY SPLIT EXISTING WALL BLOCKS ALONG REMOVAL LINE. ATTACH 2' WIDE STRIP OF GEOTEXTILE FABRIC TO BACK OF WALL CENTERED ACROSS JOINT.

DESIGN FOR A
261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL
FOOTING PLAN
 BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
 END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 3 OF 6 FILE NO. 30253 DESIGN NO. 1120

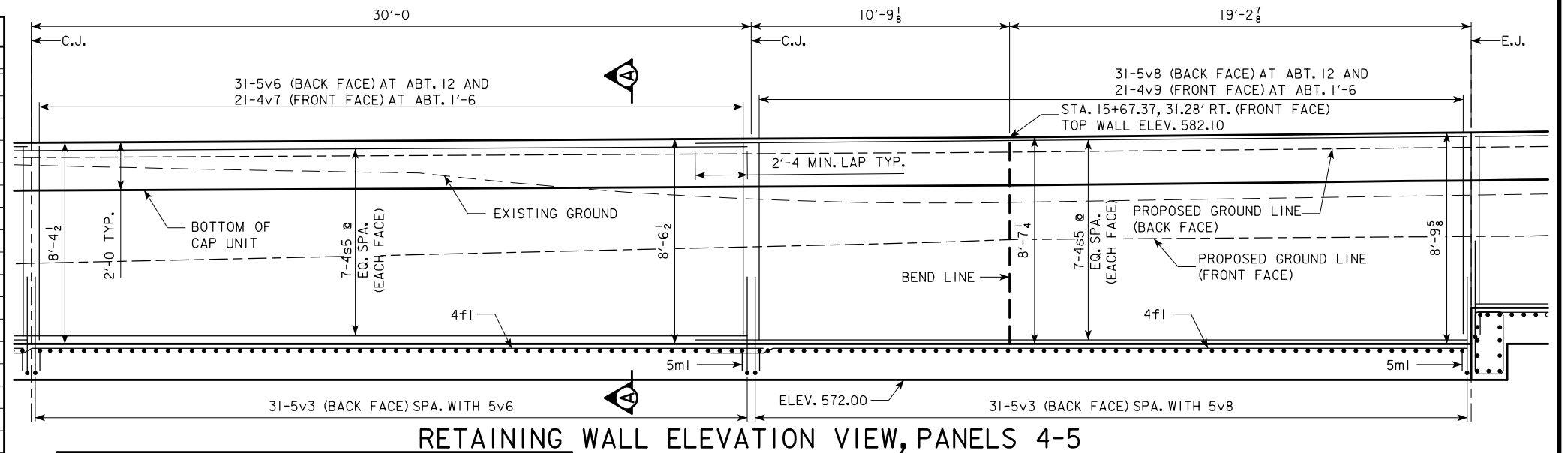


BENCH MARK NO. 503: US 67 RAMP D STA. 4501+81.78, RT. 117.13',
ELEV. 580.28', CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHVD.
30'-0"

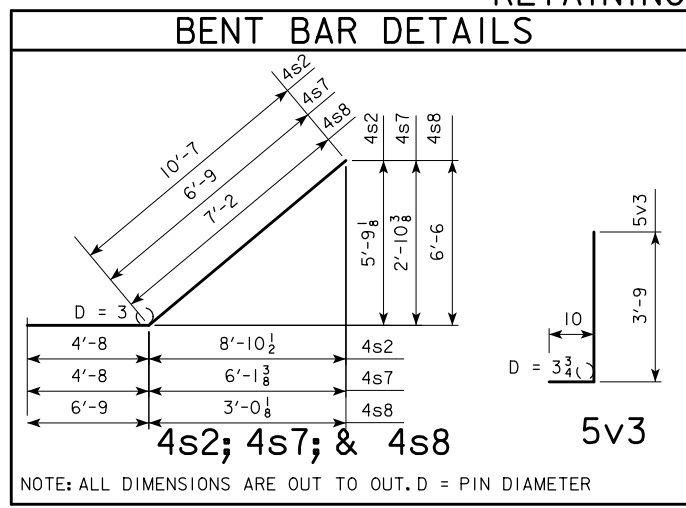


RETAINING WALL ELEVATION VIEW, PANELS 1-3

REINFORCING BAR LIST - WALL STEM					
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
4s1	WALL HORIZONTAL	—	40	29'-8	793
4s2	WALL HORIZONTAL	<	14	15'-3	143
4s3	WALL HORIZONTAL	—	14	19'-0	178
4s4	WALL HORIZONTAL	—	14	29'-4	274
4s5	WALL HORIZONTAL	—	28	32'-6	608
4s6	WALL HORIZONTAL	—	12	32'-2	258
4s7	WALL HORIZONTAL	<	14	11'-5	107
4s8	WALL HORIZONTAL	<	14	13'-11	130
5v1	WALL VERTICAL, BACK FACE	—	62	7'-10	507
4v2	WALL VERTICAL, FRONT FACE	—	42	7'-10	220
5v3	WALL VERTICAL, BACK FACE	—	270	4'-7	1361
5v4	WALL VERTICAL, BACK FACE	—	31	7'-9	251
4v5	WALL VERTICAL, FRONT FACE	—	21	7'-9	109
5v6	WALL VERTICAL, BACK FACE	—	31	8'-0	259
4v7	WALL VERTICAL, FRONT FACE	—	21	8'-0	112
5v8	WALL VERTICAL, BACK FACE	—	31	8'-2	264
4v9	WALL VERTICAL, FRONT FACE	—	21	8'-2	115
5v10	WALL VERTICAL, BACK FACE	—	31	6'-11	224
4v11	WALL VERTICAL, FRONT FACE	—	21	6'-11	97
5v12	WALL VERTICAL, BACK FACE	—	31	7'-3	234
4v13	WALL VERTICAL, FRONT FACE	—	21	7'-3	102
5v14	WALL VERTICAL, BACK FACE	—	31	7'-7	245
4v15	WALL VERTICAL, FRONT FACE	—	21	7'-7	106
5v16	WALL VERTICAL, BACK FACE	—	22	7'-11	182
4v17	WALL VERTICAL, FRONT FACE	—	15	7'-11	79
EPOXY COATED REINFORCING STEEL - TOTAL (LBS.)				6980	



RETAINING WALL ELEVATION VIEW, PANELS 4-5



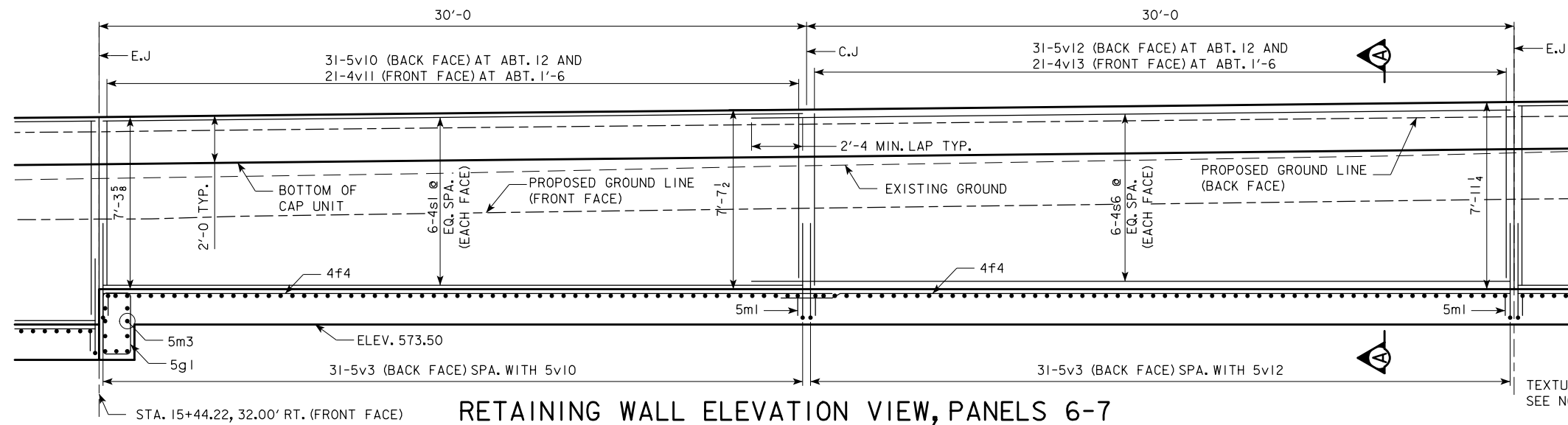
NOTE: FRONT FACE OF WALL BELOW 4-INCH PROJECTION INCLUDES CONCRETE FORM LINER TEXTURE. SEE NOTES ON DESIGN SHEET 1.

DESIGN FOR A
261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL ELEVATIONS
BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 4 OF 6 FILE NO. 30253 DESIGN NO. 1120

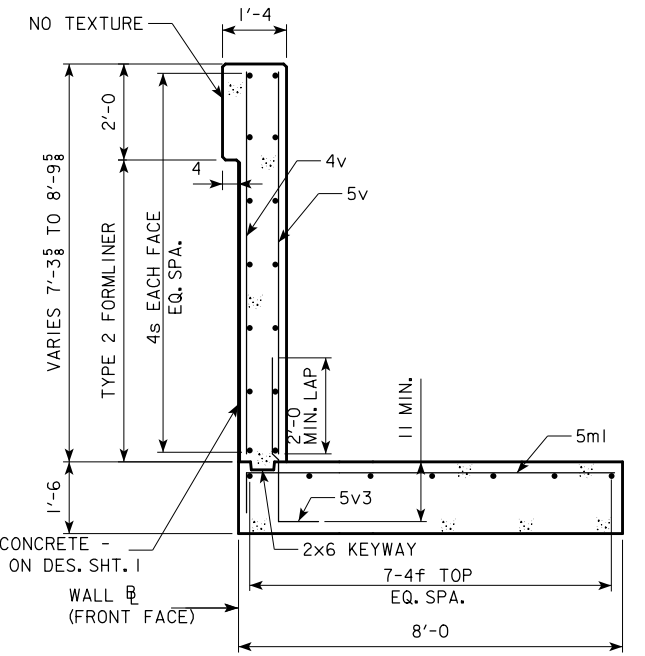


NOTE:
C.J. = CONSTRUCTION JOINT
E.J. = EXPANSION JOINT

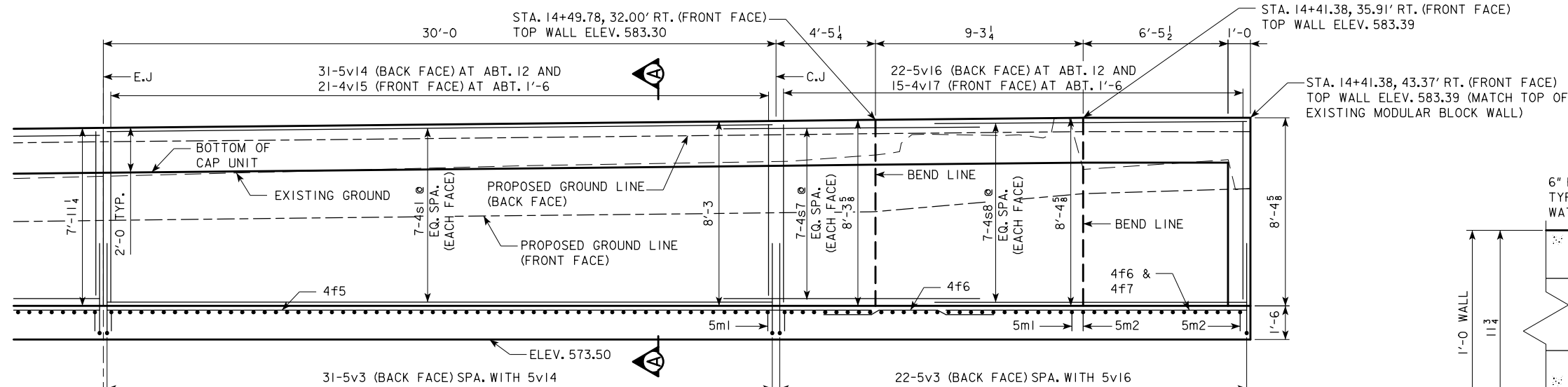
BENCH MARK NO. 503: US 67 RAMP D STA. 4501+81.78, RT. 117.13',
ELEV. 580.28'; CHISELED "X" IN FLANGE BOLT IN WORD "MUELLER" FHVD.



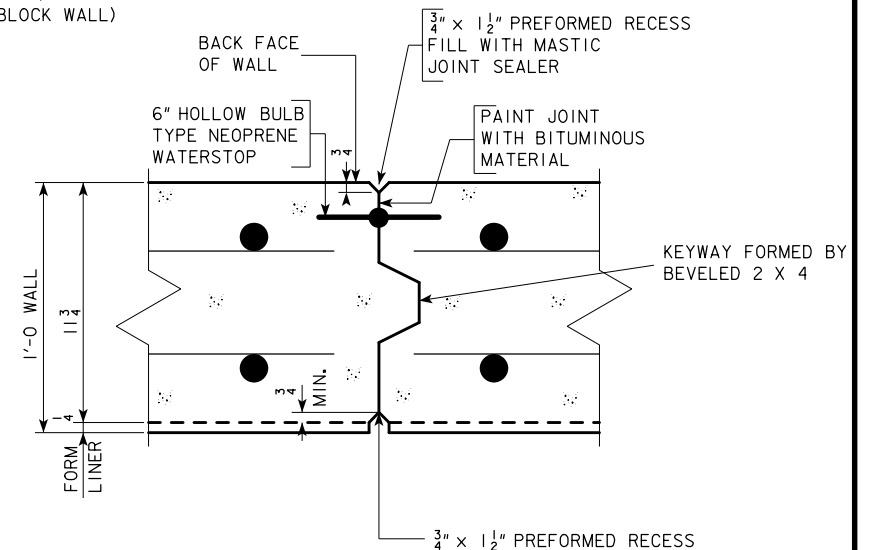
RETAINING WALL ELEVATION VIEW, PANELS 6-7



SECTION A-A



RETAINING WALL ELEVATION VIEW, PANELS 8-9



WALL CONSTRUCTION JOINT

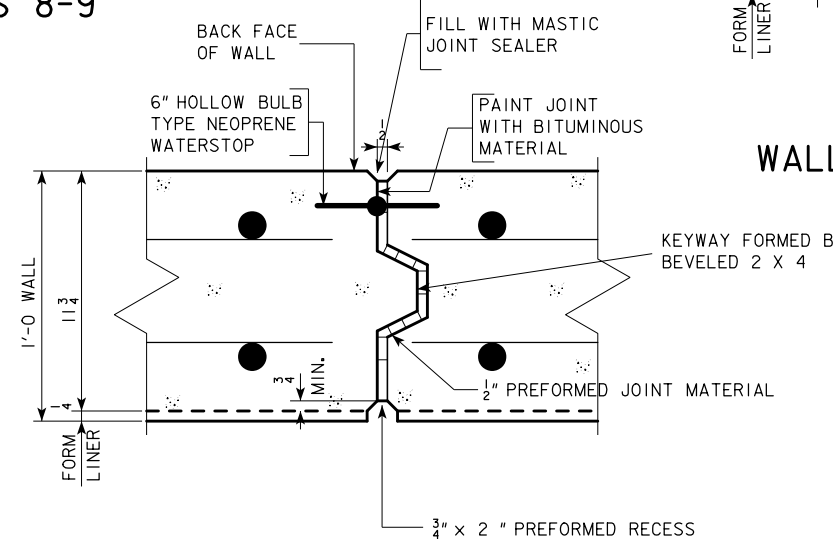
NOTES :

WATERSTOP TO BE CENTER BULB TYPE AS MANUFACTURED BY AFCO, BURKE, WILLIAMS PRODUCTS OR APPROVED EQUAL.

WATERSTOPS ARE TO EXTEND FROM TOP OF FOOTINGS TO 6" BELOW TOP OF WALLS.

WALL EXPANSION JOINTS AND WALL CONSTRUCTION JOINTS EXTEND FROM TOP OF FOOTING TO TOP OF WALL.

WALL EXPANSION JOINTS ARE LOCATED DIRECTLY OVER FOOTING EXPANSION JOINTS.



WALL EXPANSION JOINT

NOTE: FRONT FACE OF WALL BELOW 4-INCH PROJECTION INCLUDES CONCRETE FORM LINER TEXTURE. SEE NOTES ON DESIGN SHEET 1.

DESIGN FOR A
261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL ELEVATIONS
 BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
 END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 5 OF 6 FILE NO. 30253 DESIGN NO. 1120



NOTE:
 C.J. = CONSTRUCTION JOINT
 E.J. = EXPANSION JOINT

FENCE NOTES :

CONSTRUCTION OF CHAIN LINK FENCE ON CONCRETE RETAINING WALL SHALL BE IN CONFORMANCE WITH CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. DETAILS SHOWN ON THE SHEET ARE TYPICAL. ALTERNATE DETAILS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

ANCHOR BOLTS (5/8" DIAMETER) SHALL HAVE A MINIMUM PULL OUT STRENGTH OF 9000 POUNDS BASED ON 3500 PSI CONCRETE, SHALL MEET THE REQUIREMENTS OF I.D.O.T. MATERIALS I.M. 453.09, AND SHALL BE GALVANIZED AND INSTALLED ACCORDING TO RECOMMENDATIONS OF THE MANUFACTURER.

BASE PLATES SHALL BE GALVANIZED AFTER WELDING AND PRIOR TO INSTALLATION.

POST SIZE AND SPACING SHALL BE AS SHOWN ON MI-102.

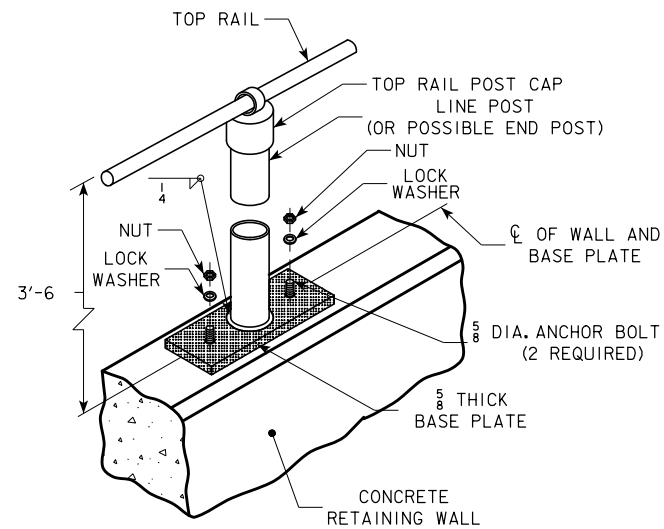
BOTTOM TENSION WIRE, PLACEMENT OF STRETCHER BAR CLAMPS, FASTENING OF CHAIN LINK FABRIC TO POSTS, TOP RAIL SLEEVE, ETC., SHALL BE AS INDICATED ON MI-102.

GROUNDING REQUIREMENTS SHALL BE AS DETERMINED BY SECTION 2519 OF THE STANDARD SPECIFICATIONS.

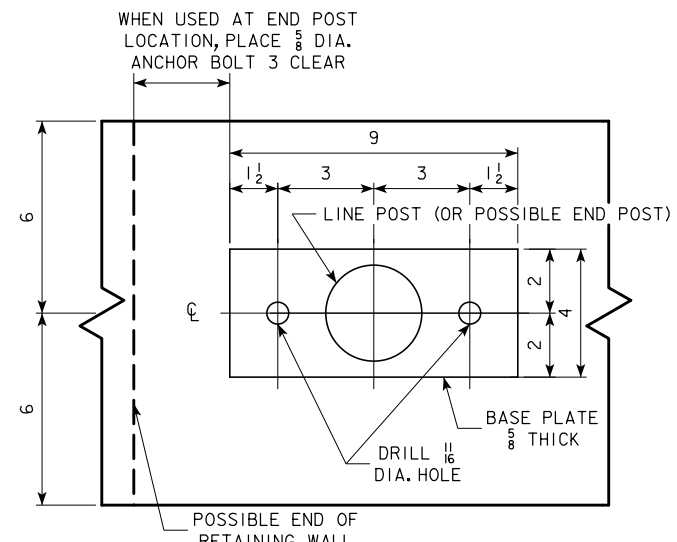
CHAIN LINK FABRIC SHALL BE KNUCKLED SELVAGE AT TOP AND BOTTOM OF FENCE.

PRICE BID FOR "FENCE, CHAIN LINK, VINYL COATED" SHALL BE CONSIDERED FULL COMPENSATION FOR FABRICATION AND CONSTRUCTION OF FENCING AS DETAILED HEREON, AS REQUIRED BY PROJECT PLANS, AND AS PER SECTION 2519 OF THE STANDARD SPECIFICATIONS.

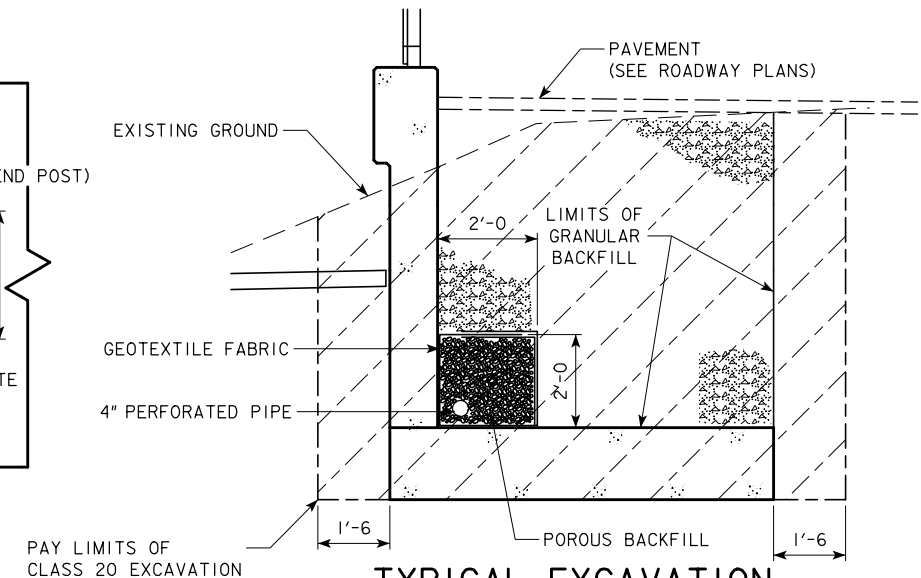
CHAIN LINK FABRIC IS TO BE PVC COATED BLACK IN ACCORDANCE WITH ASTM F668, CLASS 2B.



TYPICAL INSTALLATION BASE PLATE

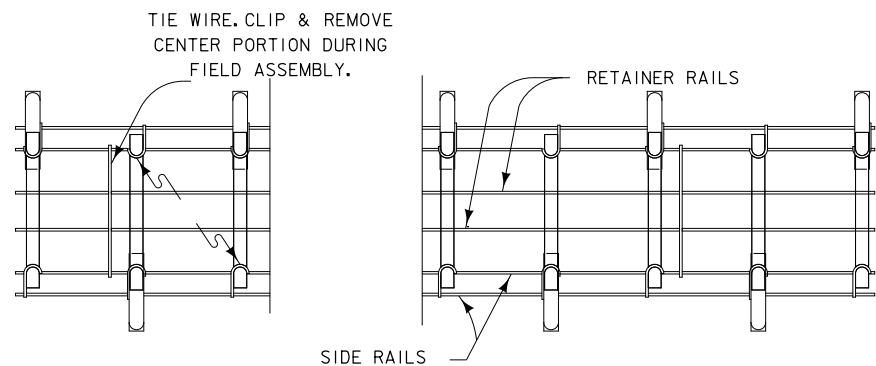


PLAN OF BASE PLATE

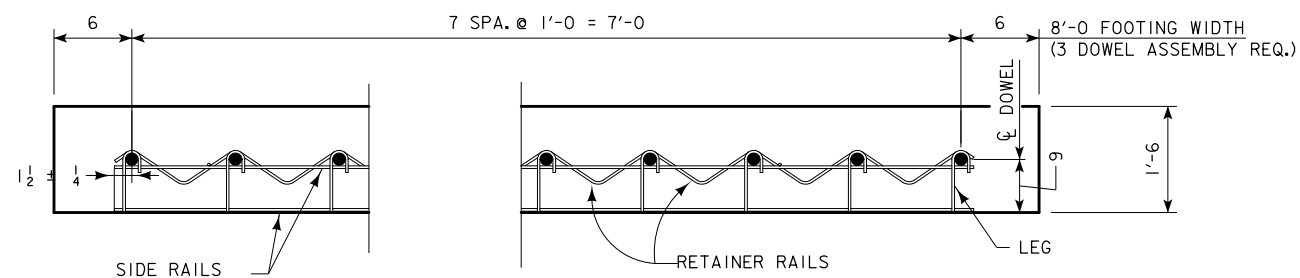


TYPICAL EXCAVATION, BACKFILL, AND DRAINAGE

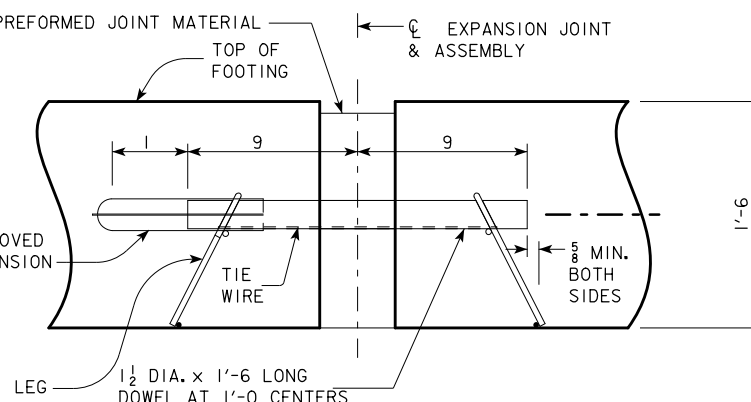
PERFORATED PIPE DRAIN SHALL BE CONNECTED TO STORM SEWER INLET AT STA. 16+81 WITH 4" SOLID PIPE. PROVIDE TWO SEPARATE CONNECTIONS.



DOWEL ASSEMBLY PLAN



DOWEL ASSEMBLY ELEVATION



SECTION THROUGH FOOTING EXPANSION JOINT

EXPANSION DOWEL NOTES:

EXPANSION DOWEL ARE REQUIRED AT EACH FOOTING EXPANSION JOINT.

ALL COST ASSOCIATED WITH EXPANSION DOWELS AND DOWEL SUPPORT ASSEMBLIES SHALL BE INCIDENTAL TO THE PRICE BID FOR "STRUCTURAL CONCRETE (MISCELLANEOUS)".

EXPANSION DOWEL BARS SHALL BE 1 1/2" DIAMETER, 18" LONG. CENTER TO CENTER SPACING OF DOWELS SHALL BE PARALLEL TO THE OTHER DOWELS IN THE ASSEMBLY WITHIN 1/8". WHEN EXPANSION JOINT IS LOCATED BETWEEN FOOTINGS OF DIFFERENT SIZE, THE DOWEL SUPPORT ASSEMBLY SHALL BE SIZED FOR THE SMALLER FOOTING.

EACH DOWEL BAR SHALL BE FITTED WITH APPROVED 6" LONG EXPANSION TUBE AT ONE END. EXPANSION TUBE SHALL BE POSITIONED TO PROVIDE 1" CLEAR SPACE FOR DOWEL MOVEMENT. THE EXPANSION SIDE OF THE DOWEL SHALL BE COATED TO PREVENT BOND WITH THE FOOTING. THE OPPOSITE SIDE OF THE DOWEL SHALL BE WELDED TO THE WIRE DOWEL SUPPORT ASSEMBLY. DOWEL BARS SHALL BE PLACED TO ALTERNATE FIXED ENDS AND EXPANSION TUBE ENDS ALONG THE LENGTH OF THE SUPPORT ASSEMBLY.

WIRE SIZES SHOWN ARE THE MINIMUM REQUIRED. WIRES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 50 KSI. WELD ALTERNATELY THROUGHOUT.

DOWEL ASSEMBLY	
LABEL	MINIMUM WIRE SIZE
SIDE RAILS	#1/0 GAUGE (0.306 INCH DIA.)
LEG	#1/0 GAUGE (0.306 INCH DIA.)
TIE WIRE	#10 GAUGE (0.135 INCH DIA.)
RETAINER RAILS	0.250 INCH DIA.

CLIP AND REMOVE CENTER PORTION OF TIE WIRE DURING FIELD ASSEMBLY.

A MINIMUM OF 8 ANCHOR PINS (4 PER SIDE, EVENLY SPACED) ARE REQUIRED AT EACH EXPANSION JOINT TO PREVENT MOVEMENT OF EXPANSION DOWEL ASSEMBLY. SEE ROAD STANDARD PV-101 FOR TYPICAL ANCHOR PIN DETAIL.



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DESIGN TEAM HANSON PROFESSIONAL SERVICES

10:28:38 AM

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8239085006

DESIGN FOR A
261'-2 x VARI. HEIGHT REINFORCED CONCRETE RETAINING WALL DETAILS
 BEGIN STATION 14+41.38 - 43.37 RT. (14 TH ST.)
 END STATION 17+32.59 - 37.61 RT. (14 TH ST.)
SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 6 OF 6 FILE NO. 30253 DESIGN NO. 1120

SCOTT COUNTY

PROJECT NUMBER IM-NHS-074-1(207)5--03-82

SHEET NUMBER V,6

OCTOBER, 2014

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- Existing Ground Line
- ===== Proposed Template
- ===== Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- ===== Pavement
- Existing Pipe\RCB
- ===== Proposed Pipe\RCB
- ===== Proposed Dike
- ===== All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS----- Topsoil (Class 10)
- TS A----- Topsoil (Type A Disposal)
- TS B----- Topsoil (Type B Disposal)
- TS C----- Topsoil (Type C Disposal)
- CL 10----- Class 10 Materials
- SEL LO----- Select Loams And Clay-Loams
- SEL SA----- Select Sand
- UNS A----- Unsuitable Type A Disposal
- UNS B----- Unsuitable Type B Disposal
- UNS C----- Unsuitable Type C Disposal
- SHALE----- Shale
- WASTE----- Waste
- B&W LS----- Broken and Weathered Rock
- ROCK----- Solid Rock
- BLDRS----- Boulders

Note: All layer lines and descriptions identify layers above the line.

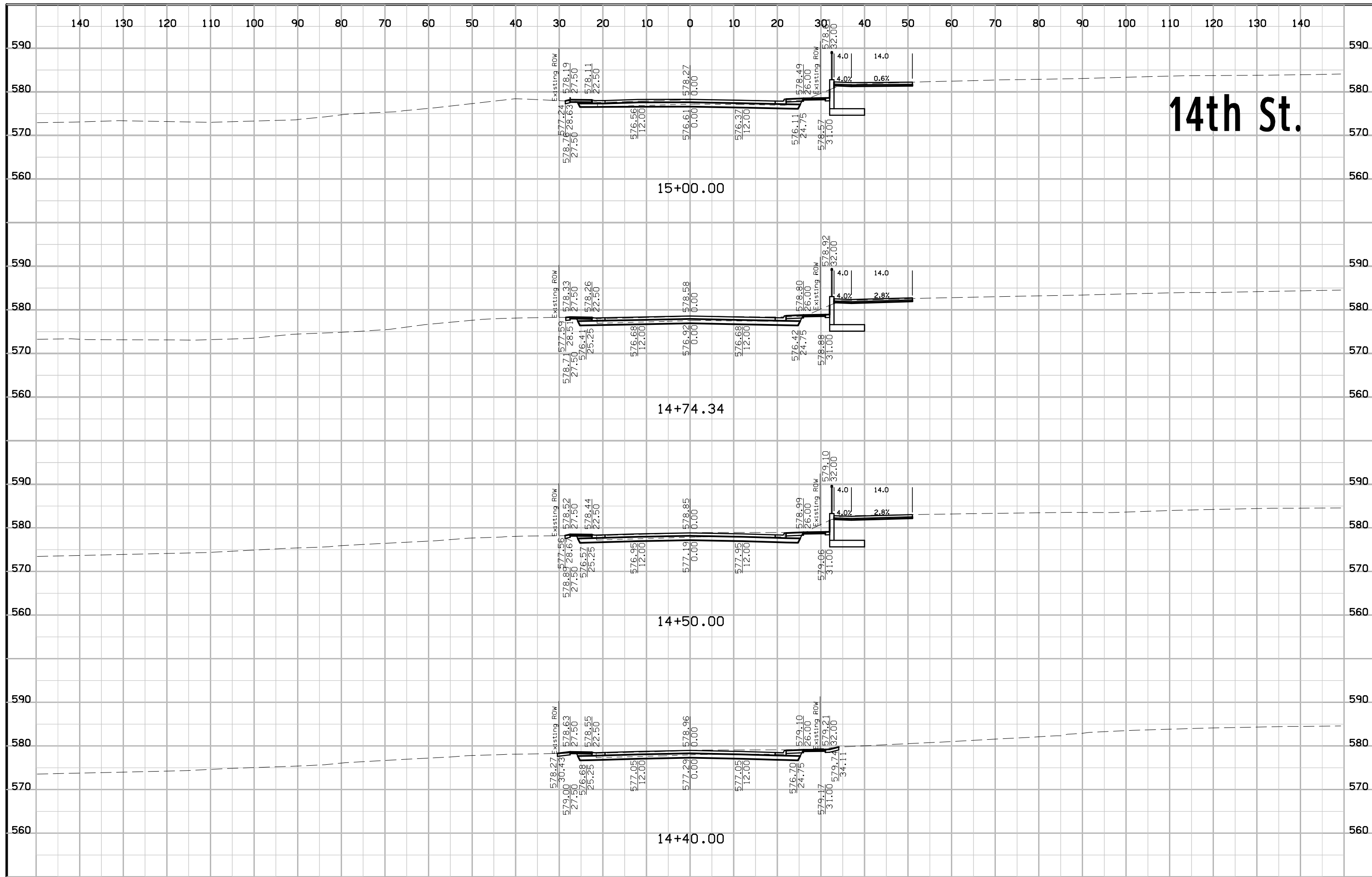
Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

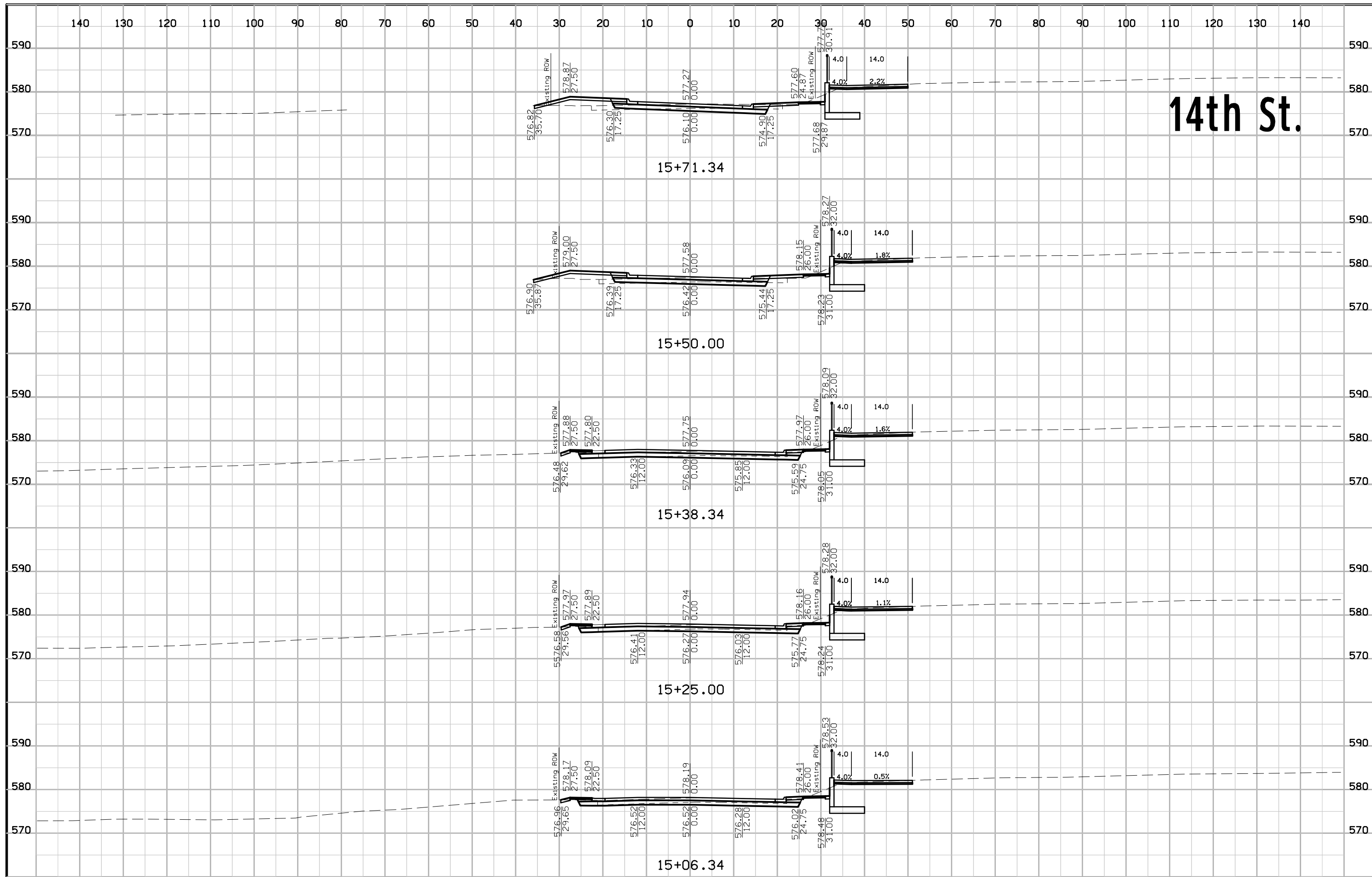
SYMBOL LEGEND OF CROSS SECTION SHEETS

- Existing ROW
----- Existing Right-of-Way Limit
- Proposed ROW
----- Proposed Right-of-Way Limit
- Temporary ROW
----- Temporary Right-of-Way Limit

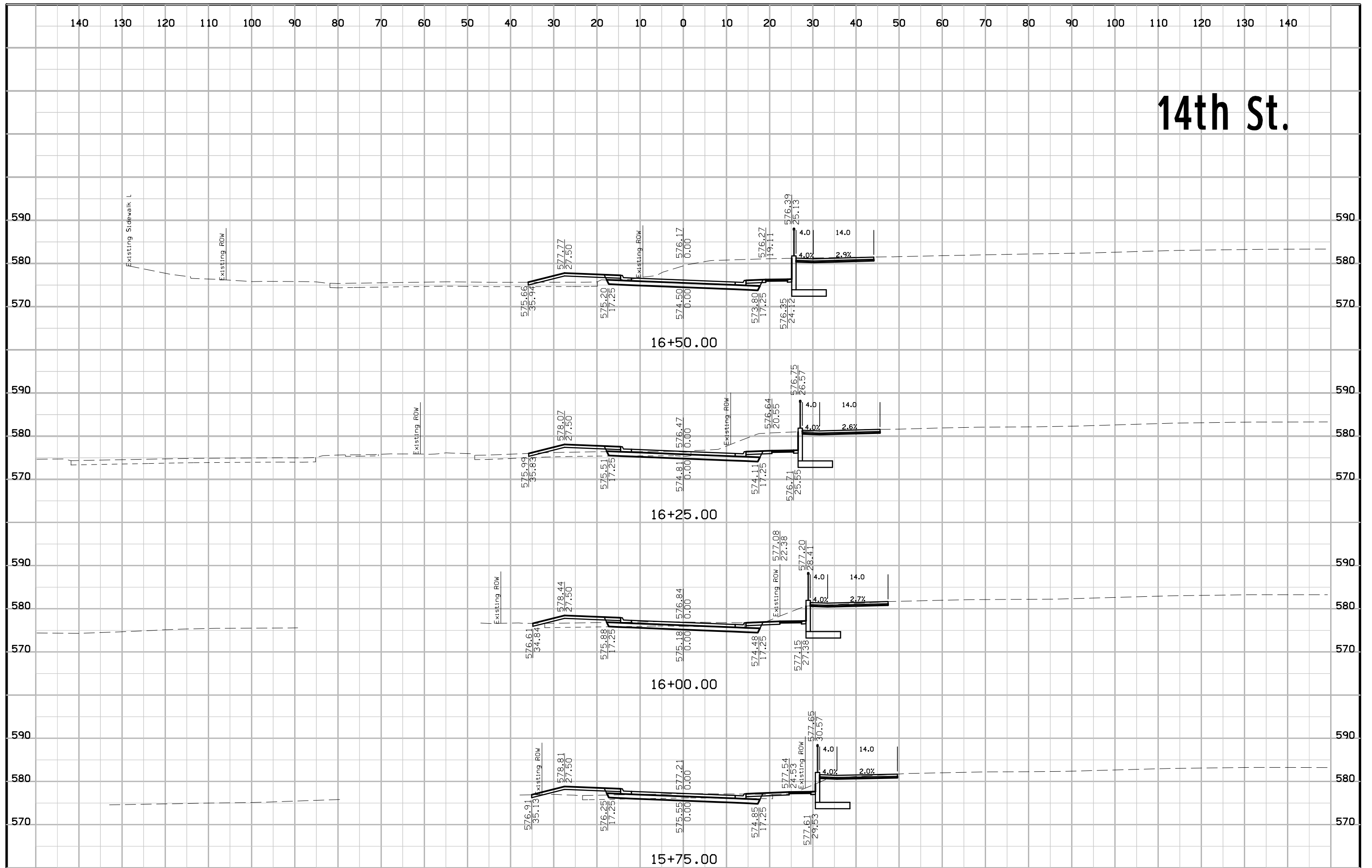
**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

(COVERS SHEET SERIES W & X)

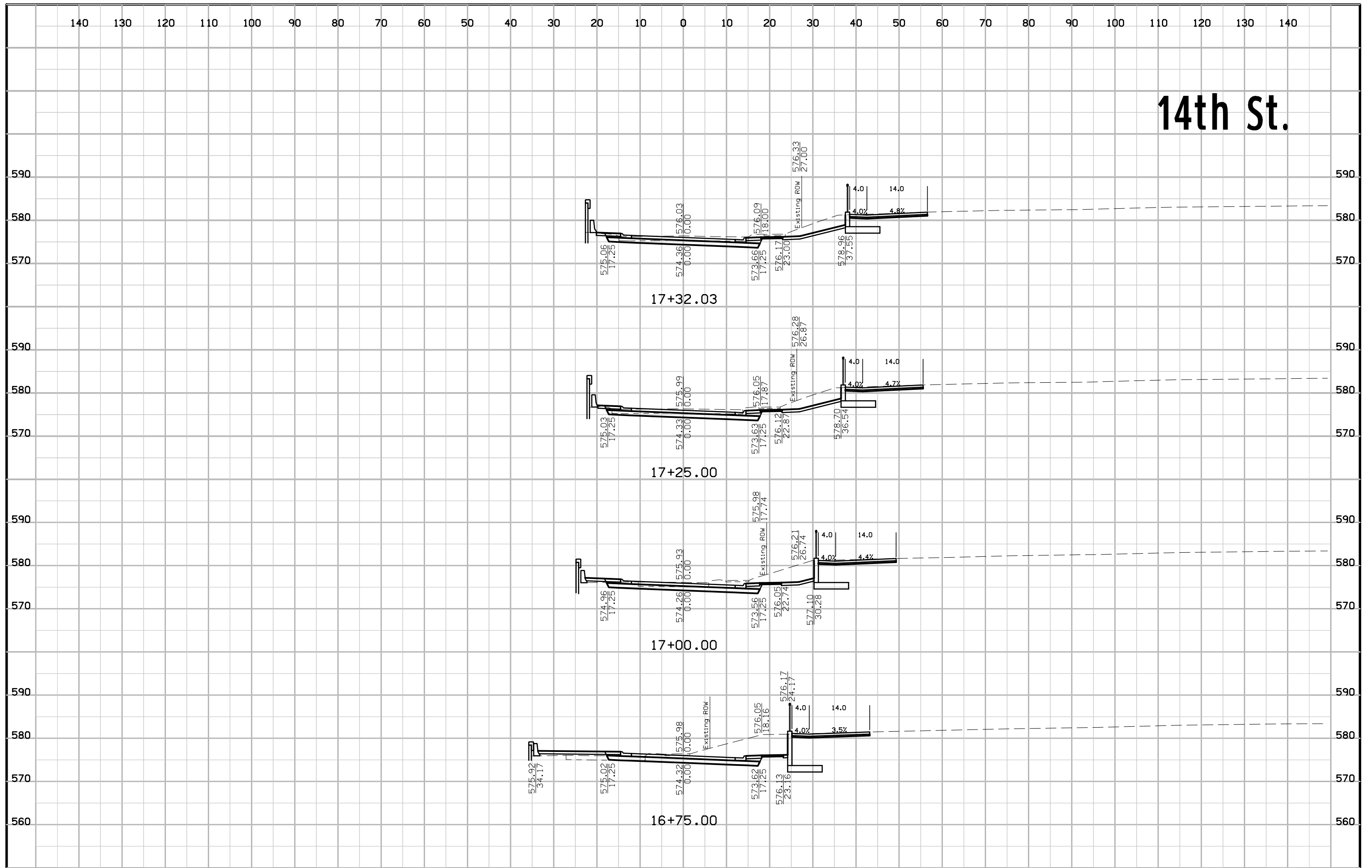




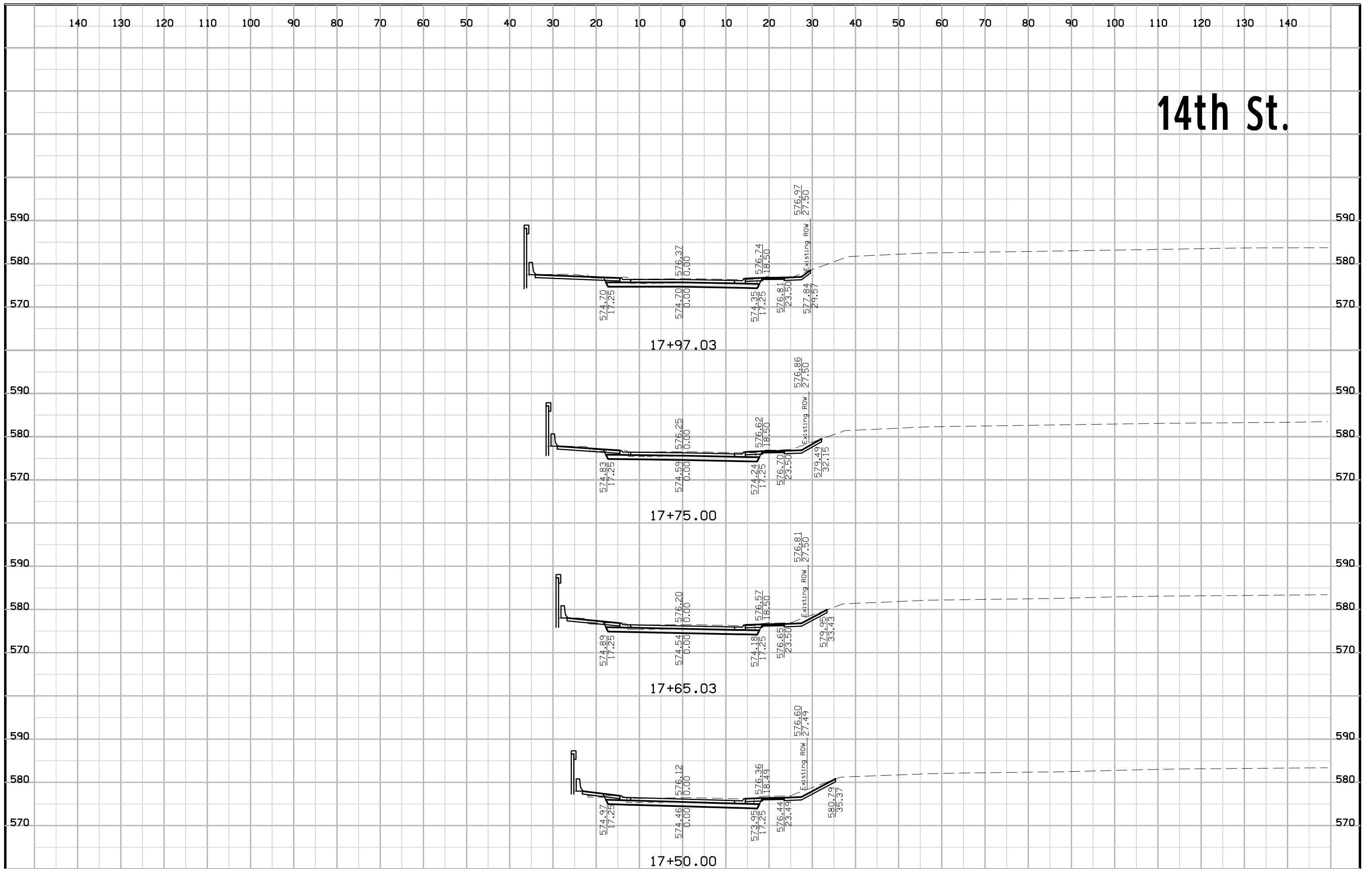
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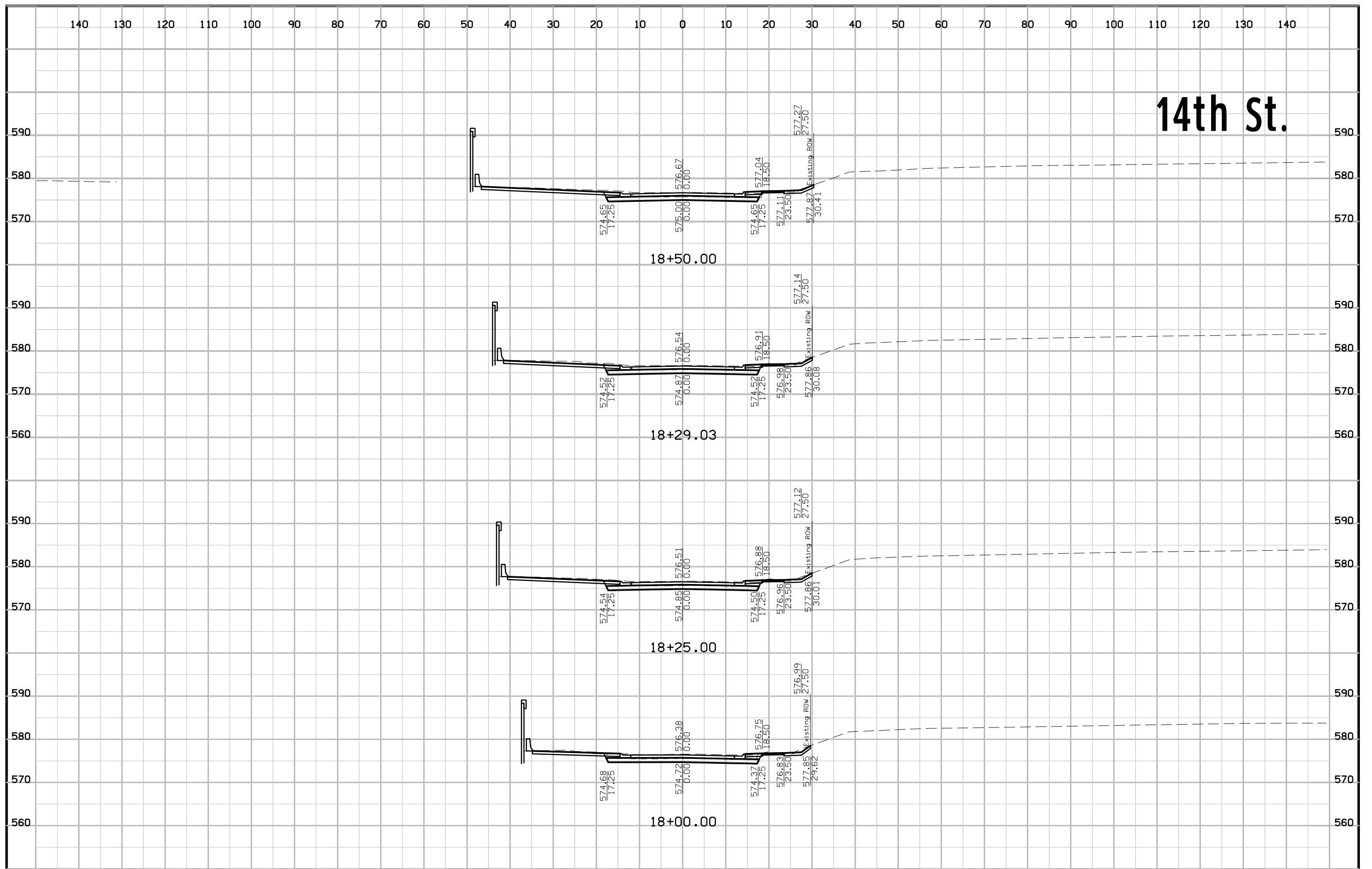
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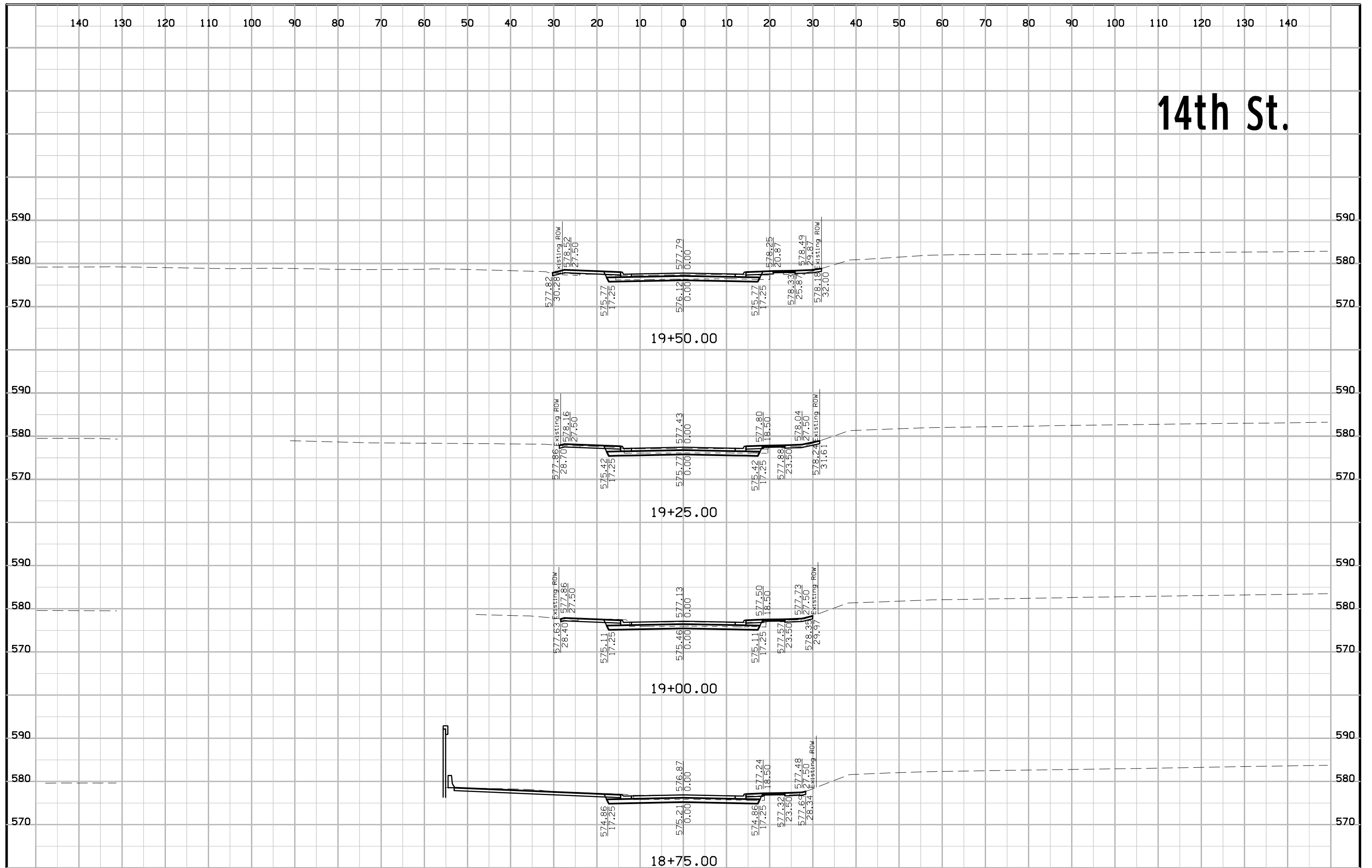
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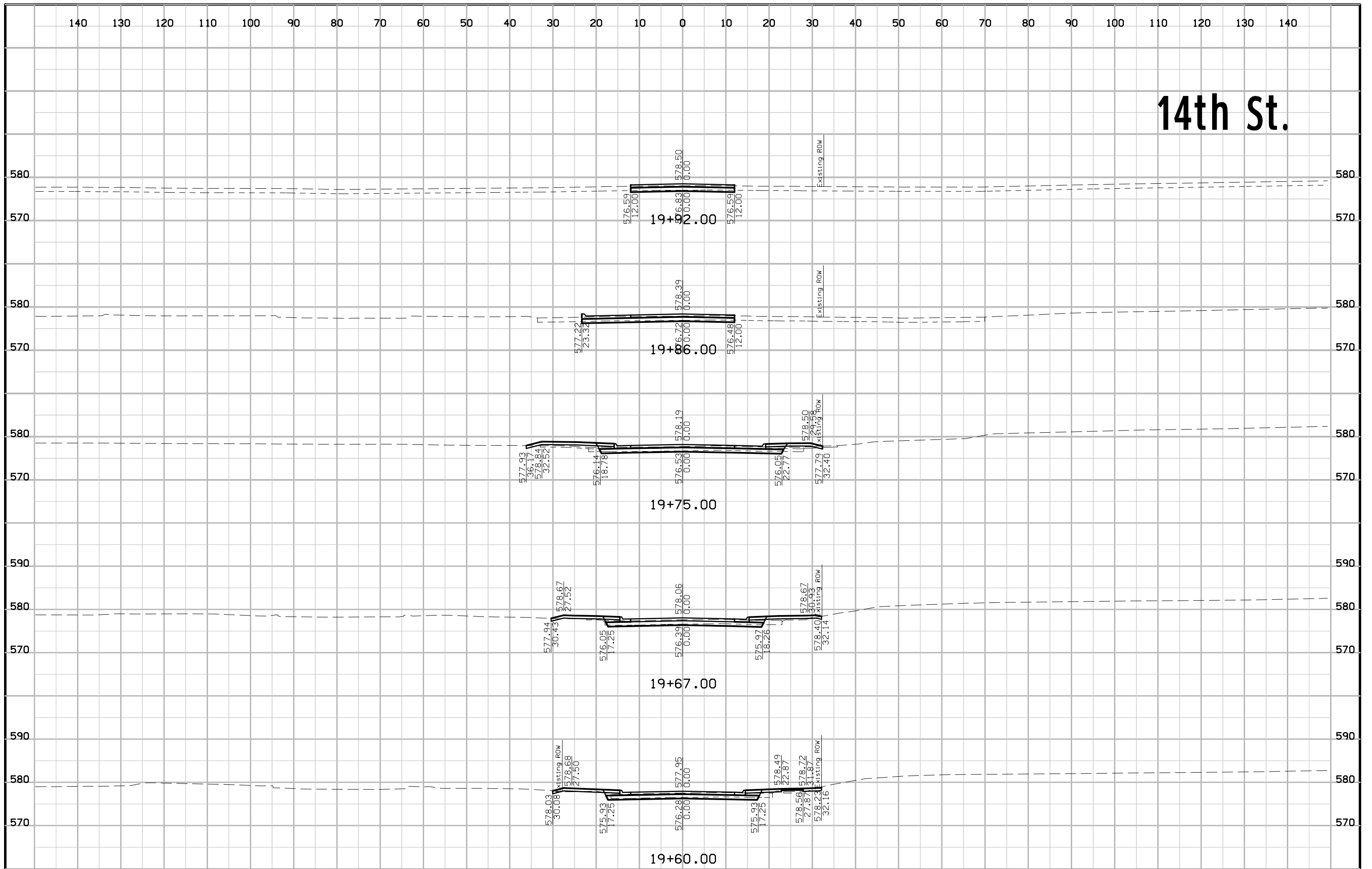
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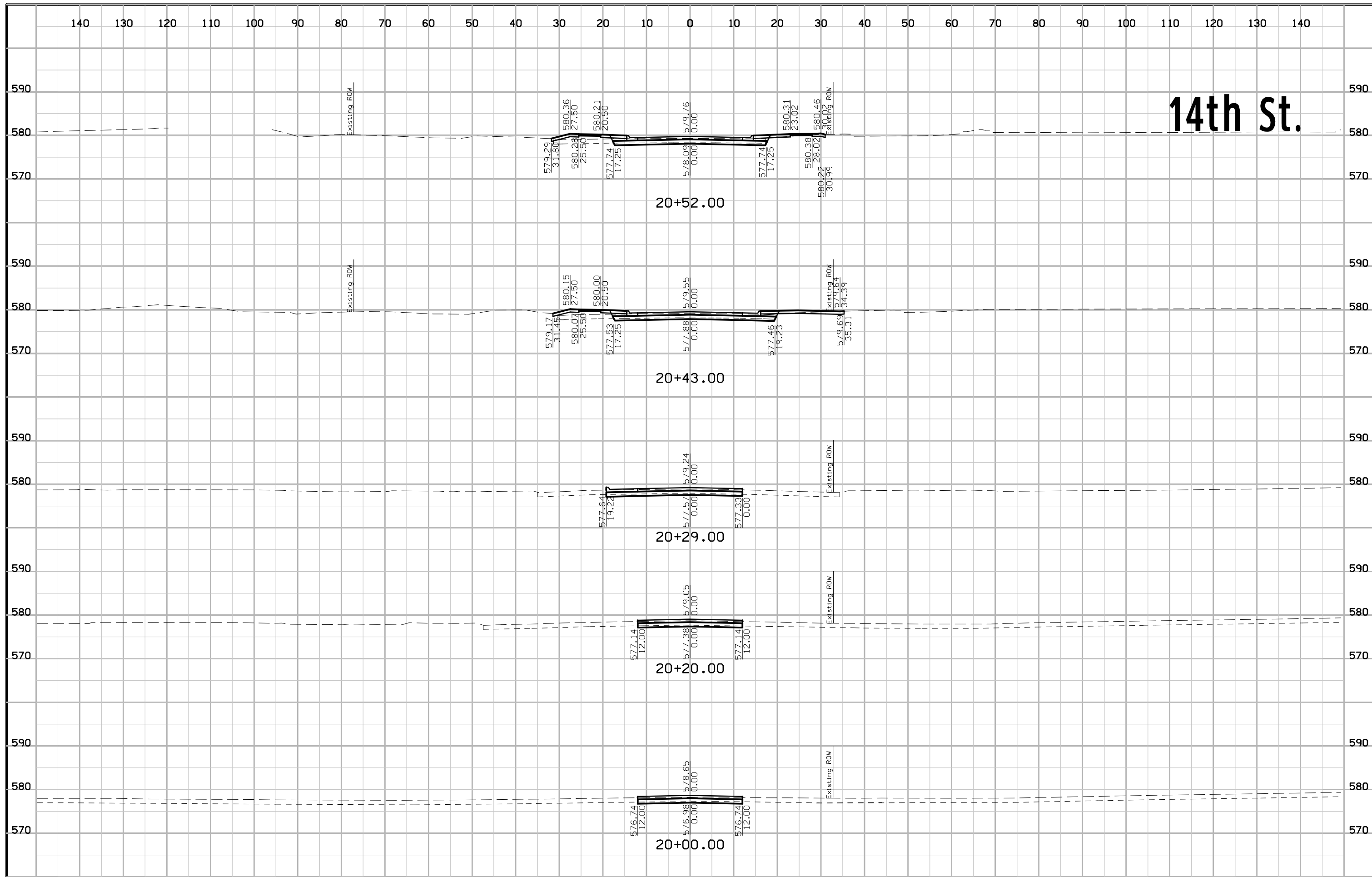


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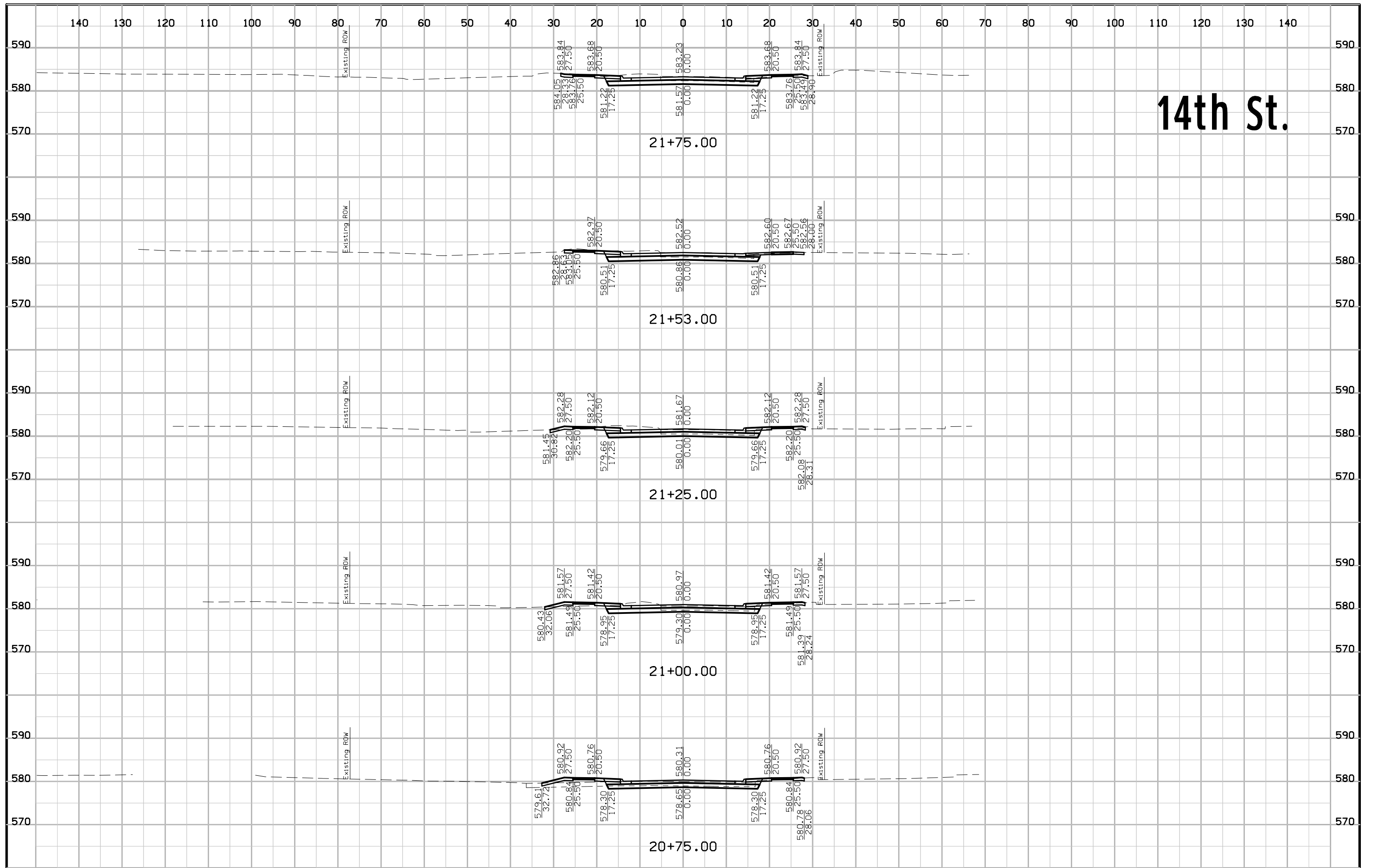


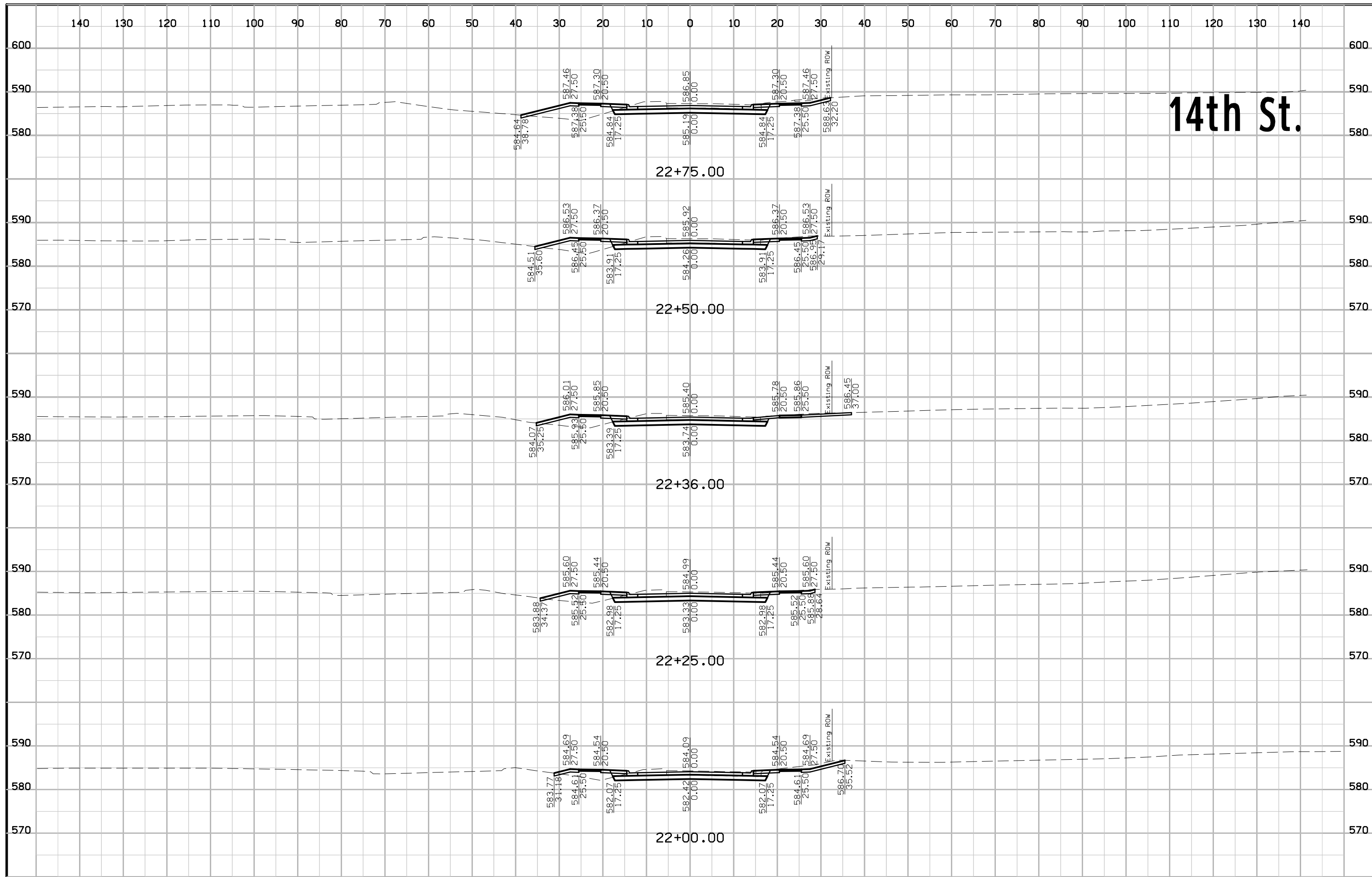
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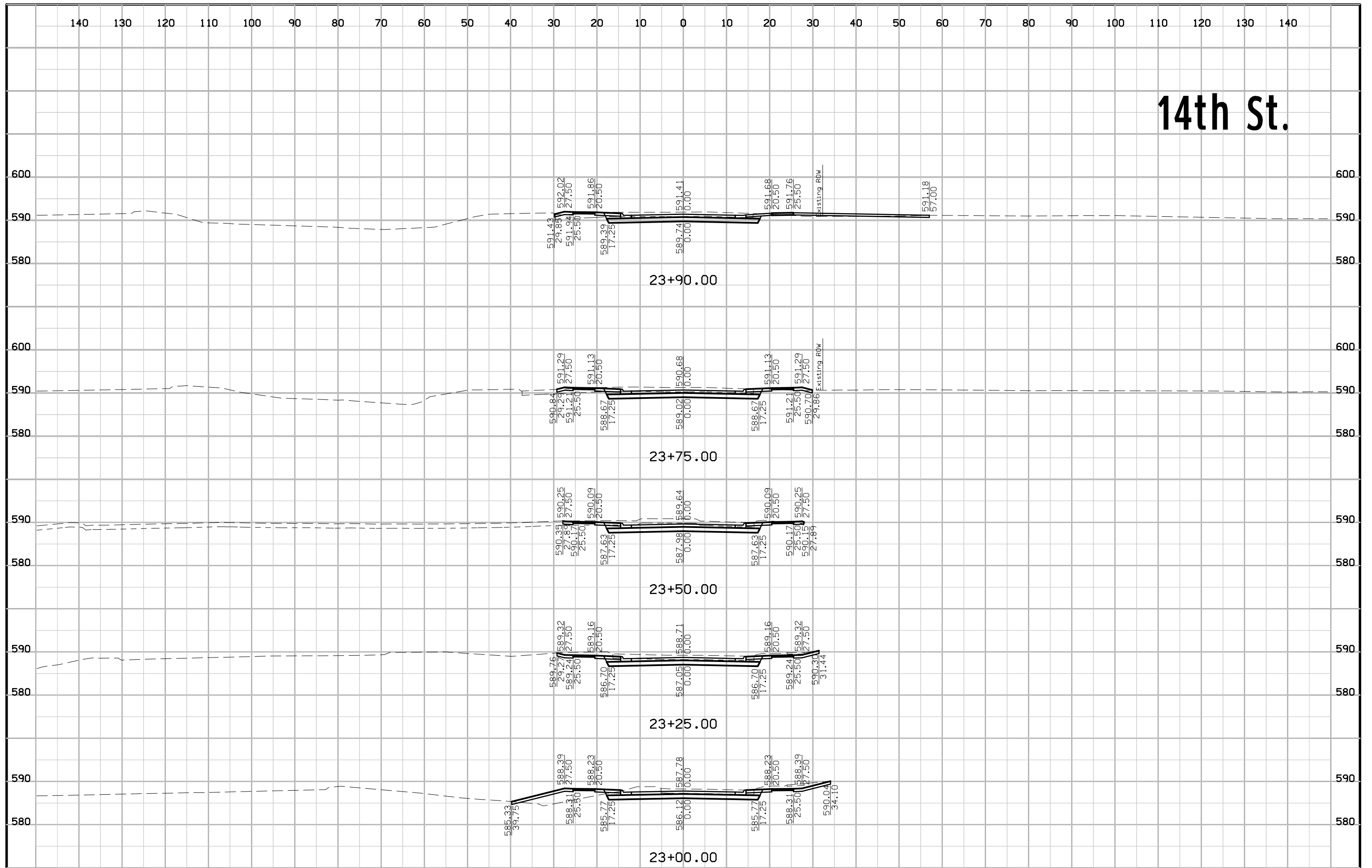


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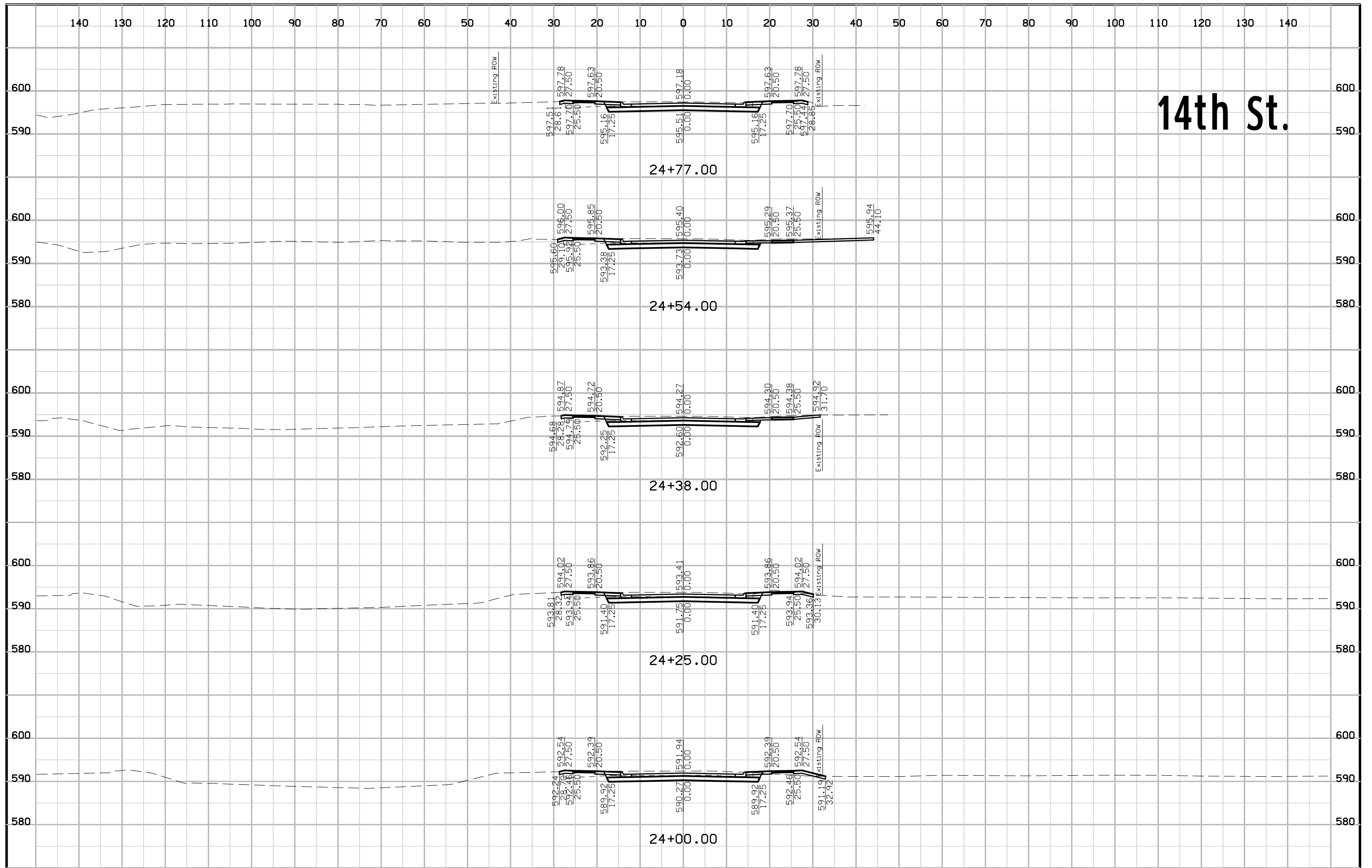


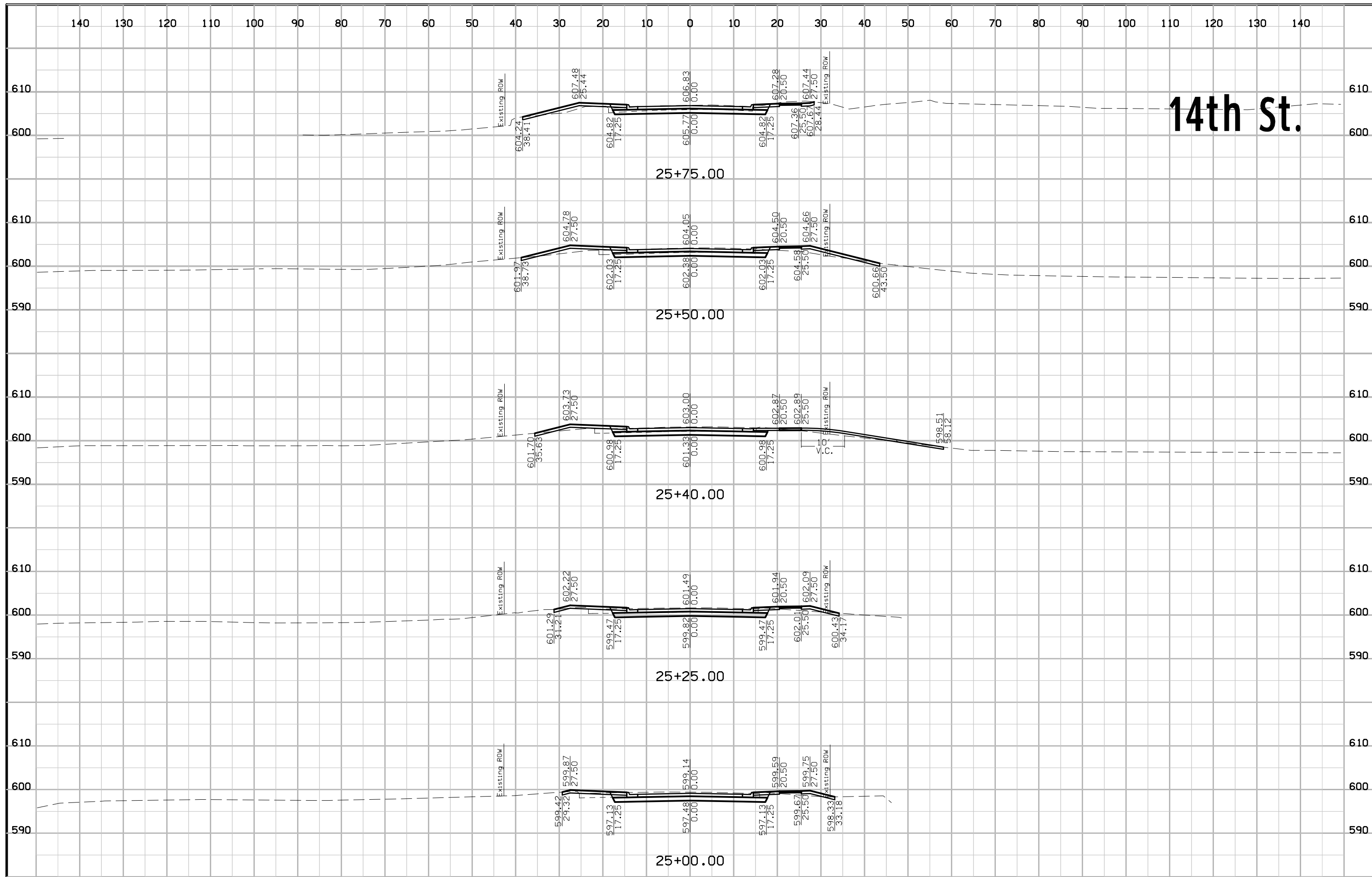


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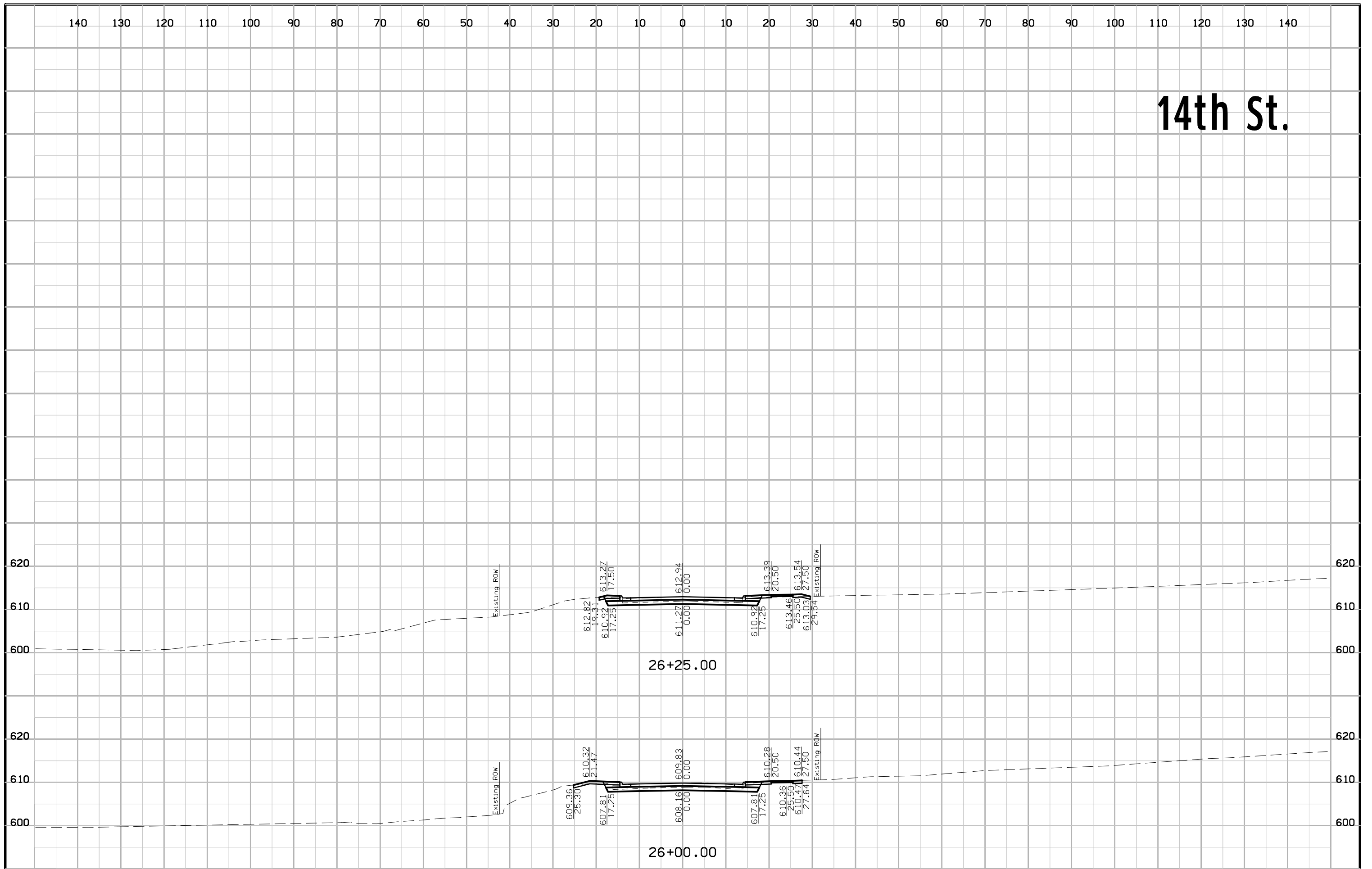


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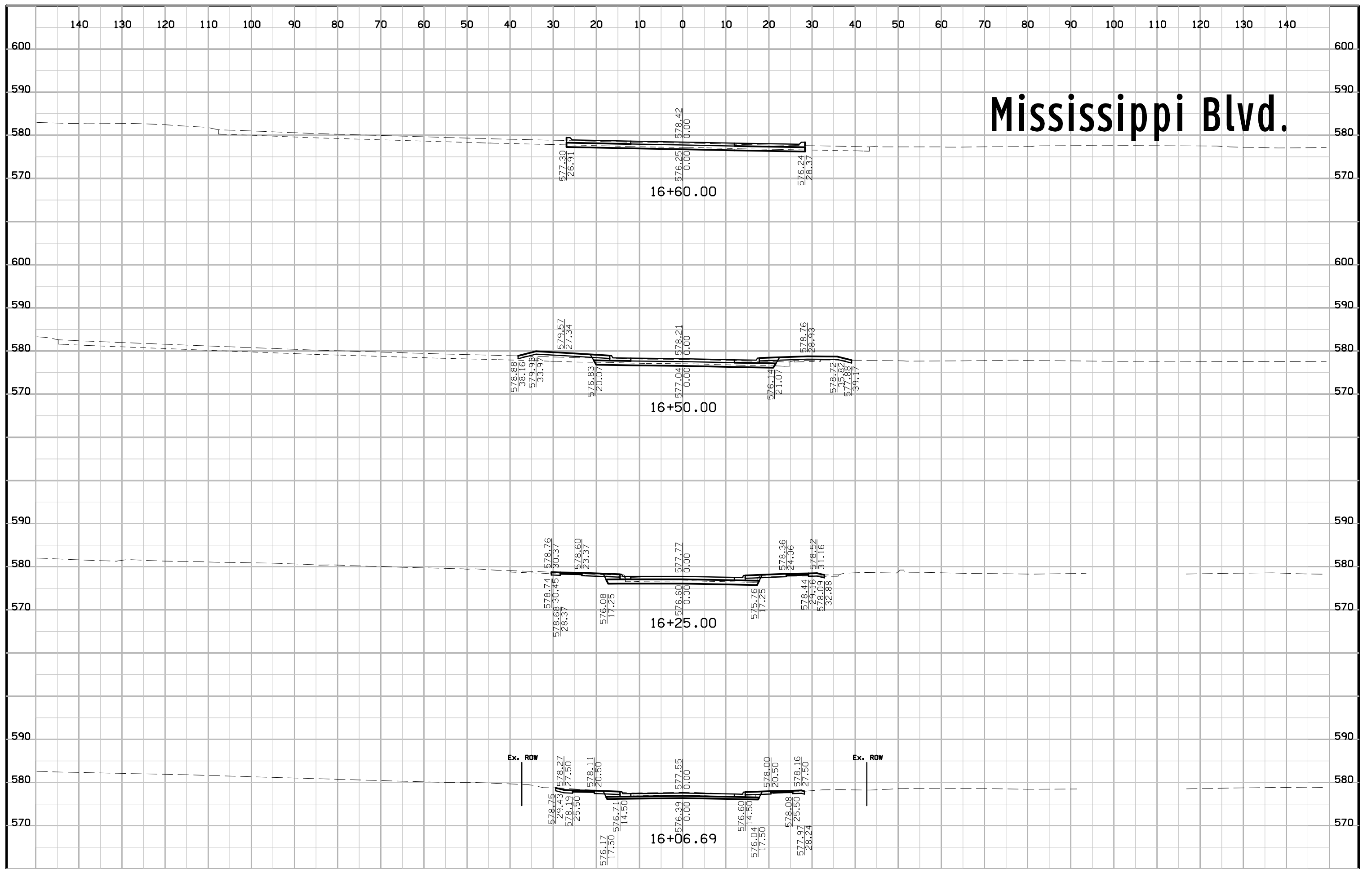


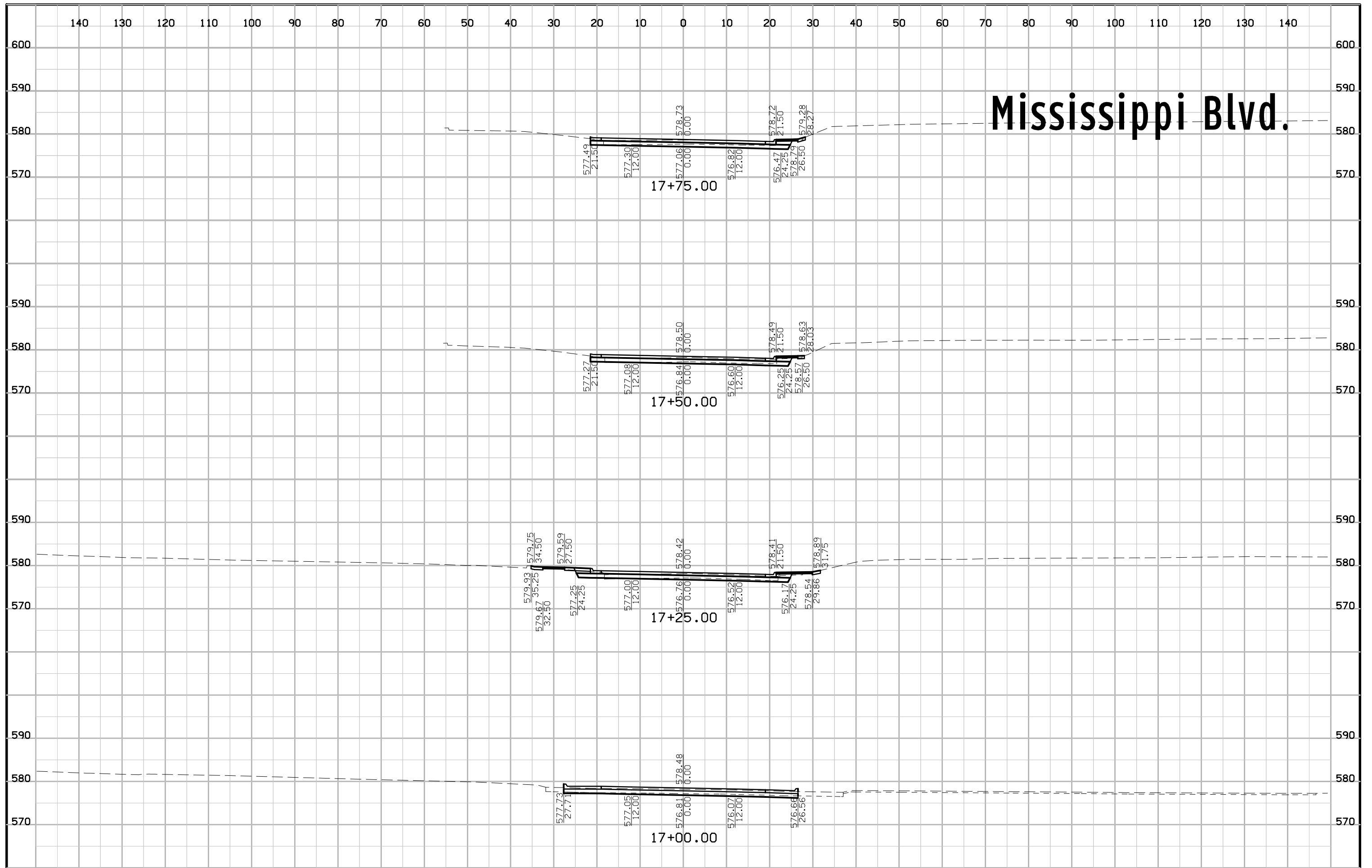


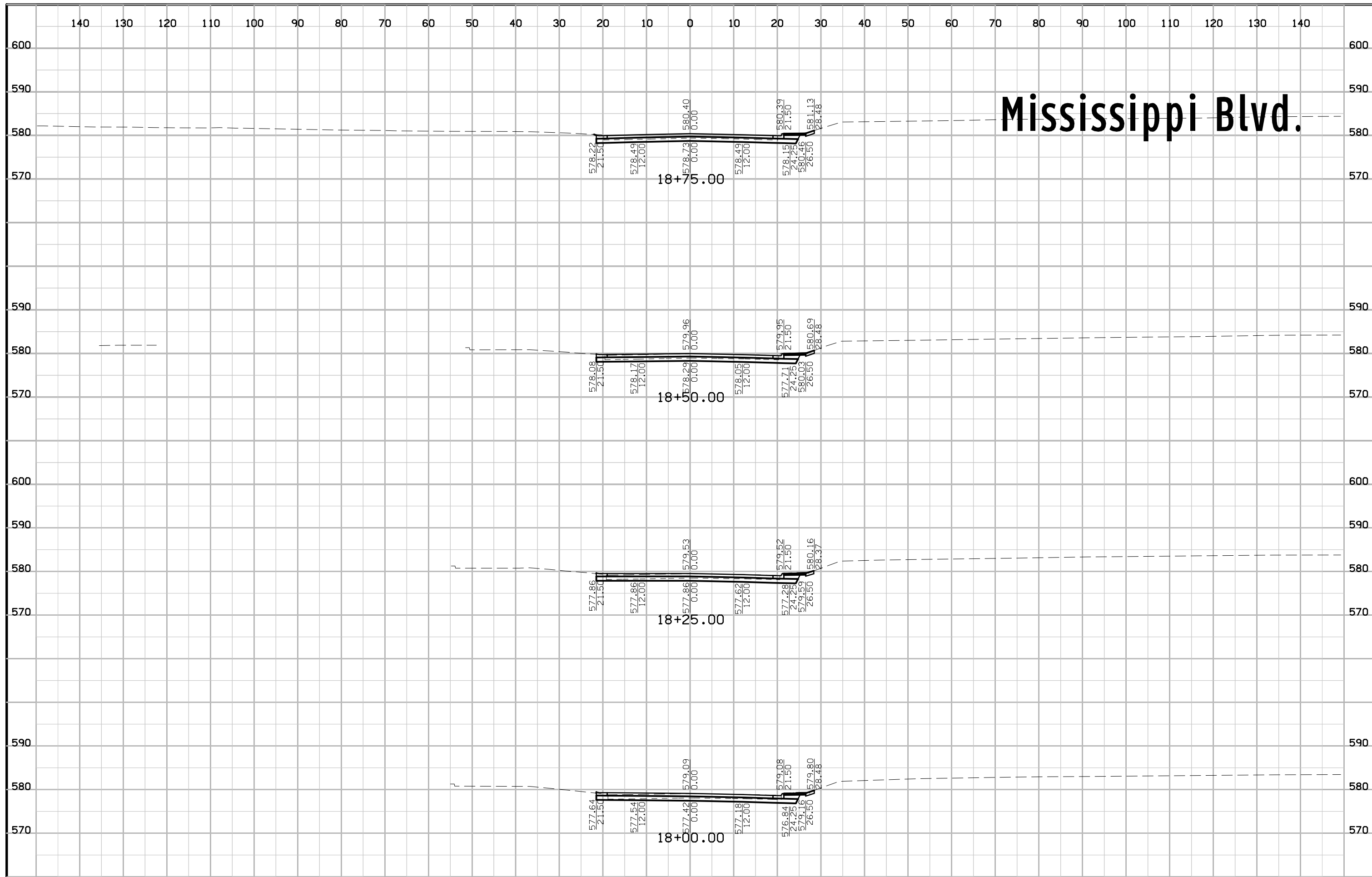
14th St.



Mississippi Blvd.







Mississippi Blvd.

