

LETTING DATE
10/20/2026

V:\ReelLibrary\CADDStandards\Beniley\Organization-Civil\ISMA - Standards\2024\Pen Tables\data.tbl
CRDColor\Hatch\Highway\PCF_Plane

A1 [Sheet]

7/27/2025
2:28:01 PM

mbsreeds
V:\Projects\2025\125.1070.01\NCADD\CD_125.1070_A1.dgn

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.



TRANSPORTATION DEVELOPMENT DIVISION ROADWAY IMPROVEMENT PLANS FOR MARSHALL COUNTY

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

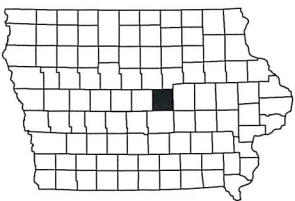
RURAL ROAD SYSTEM
PCC PAVEMENT - GRADE AND NEW
RFM-C064(149)--54-64

REFER TO PROPOSAL FORM LIST OF APPLICABLE SPECIFICATIONS

BEGIN PROJECT
STA 36+08.65



VICINITY MAP



INDEX OF SHEETS

- A.1-A.2 TITLE SHEET
- B.1-B.3 TYPICAL SECTIONS
- C.1-C.28 QUANTITIES, TABLES, ESTIMATE REFERENCE INFORMATION
- D.1-D.3 MAINLINE PLAN AND PROFILE SHEETS
- E.1-E.6 SIDEROAD PLAN AND PROFILE SHEETS
- F.1-F.5 REMOVAL PLAN SHEETS
- G.1-G.3 SURVEY SHEET
- J.1-J.13 TRAFFIC CONTROL AND STAGING SHEETS
- J.14-J.16 PAVEMENT MARKING LAYOUT
- L.1-L.11 GEOMETRIC AND STAKING LAYOUT
- M.1-M.2 STORM SEWER SHEETS
- RR.1-RR.5 EROSION CONTROL PLANS
- W.1-W.22 US 30 CROSS SECTIONS
- X.1-X.20 BINFORD AVE CROSS SECTIONS
- Y.1-Y.26 245TH ST CROSS SECTIONS

END PROJECT
STA 338+91.87

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.

Andrew G. Burke 7/21/2026
Andrew G. Burke, P.E. Date

License Number P19498
My License Renewal Date is December 31, 2026

Pages or sheets covered by this seal:
A.1-A.2, B.1-B.3, C.1-C.28, D.1-D.3, E.1-E.6,
F.1-F.5, G.1-G.3, J.1-J.16, L.1-L.11, M.1-M.2,
RR.1-RR.5, W.1-W.22, X.1-X.20, Y.1-Y.26

TOTAL SHEETS
152

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/27/2026		
RFM-C064(149)--54-64			T-R-S:
Project No. 125.1070.01			Sheet A.1

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

MARSHALL COUNTY, IOWA

TITLE SHEET

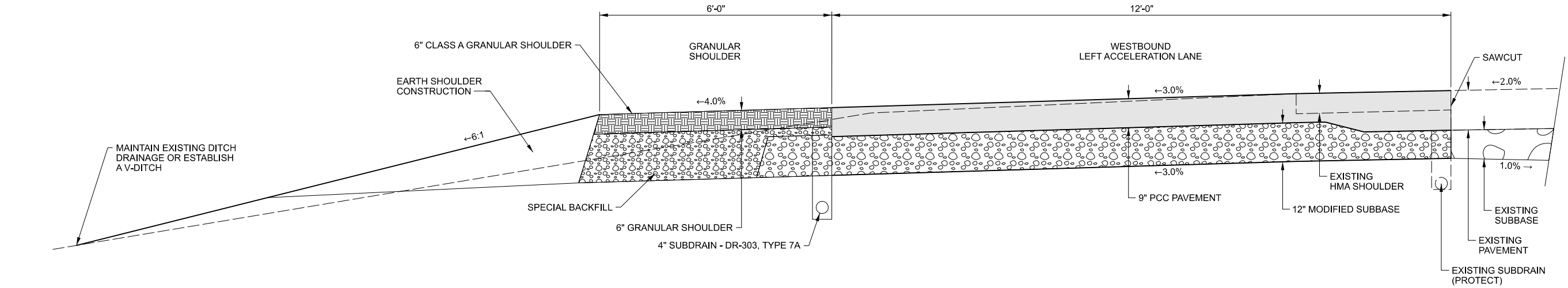
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



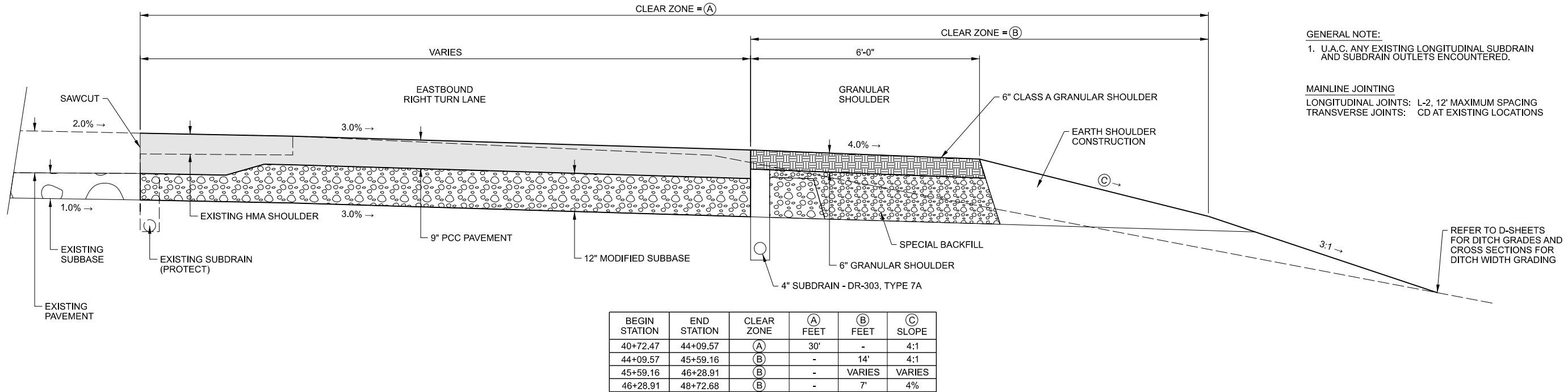
Project No: 125.1070.01
Sheet A.1

ORDS\W\14\Weight\PDF\plc\g V:\RefLibrary\CADStandards\Bentley\Organization\Civil\ISA\Standards\2024\Pen Tables\data.ctb 7/21/2026 11:56:17 AM mbaerends V:\Projects\2025\125,1070\01\CADD\CD - 125,1070_B1.dgn

MAINLINE JOINTING
LONGITUDINAL JOINTS: L-2, 12' MAXIMUM SPACING
TRANSVERSE JOINTS: CD AT EXISTING LOCATIONS



1 US 30 WESTBOUND ACCELERATION LANE IN DIRECTION OF TRAVEL
B.1 NO SCALE



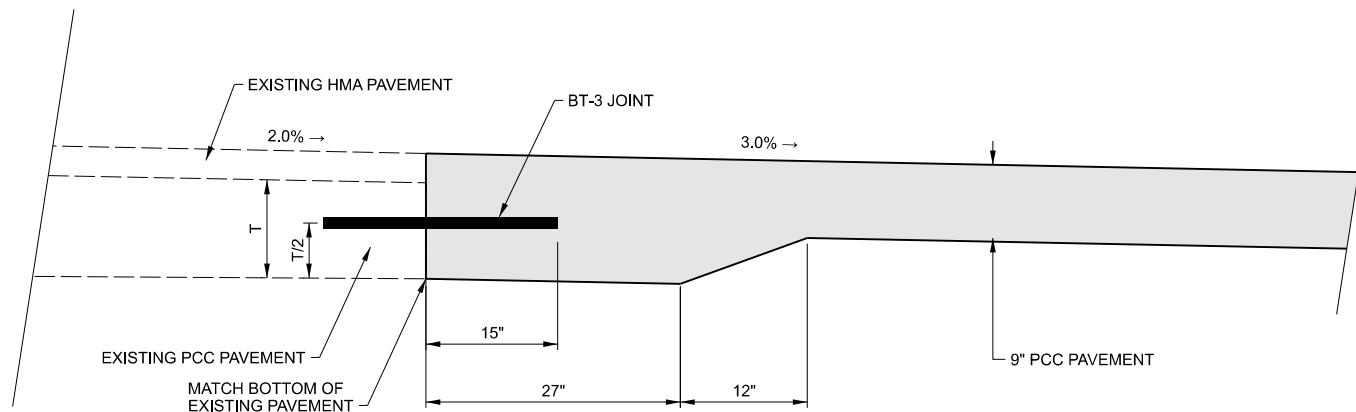
GENERAL NOTE:
1. U.A.C. ANY EXISTING LONGITUDINAL SUBDRAIN AND SUBDRAIN OUTLETS ENCOUNTERED.

MAINLINE JOINTING
LONGITUDINAL JOINTS: L-2, 12' MAXIMUM SPACING
TRANSVERSE JOINTS: CD AT EXISTING LOCATIONS

REFER TO D-SHEETS FOR DITCH GRADES AND CROSS SECTIONS FOR DITCH WIDTH GRADING

BEGIN STATION	END STATION	CLEAR ZONE	(A) FEET	(B) FEET	(C) SLOPE
40+72.47	44+09.57	(A)	30'	-	4:1
44+09.57	45+59.16	(B)	-	14'	4:1
45+59.16	46+28.91	(B)	-	VARIES	VARIES
46+28.91	48+72.68	(B)	-	7'	4%

2 US 30 EASTBOUND LANES IN THE DIRECTION OF TRAVEL
B.1



3 US 30 THICKENED EDGE TIE-IN
B.1

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

TYPICAL SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

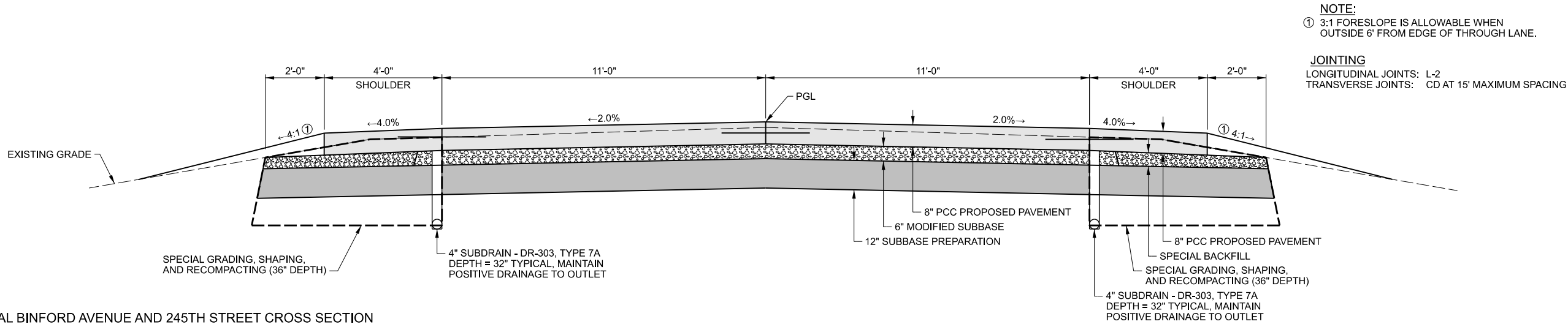


Project No: 125,1070.01

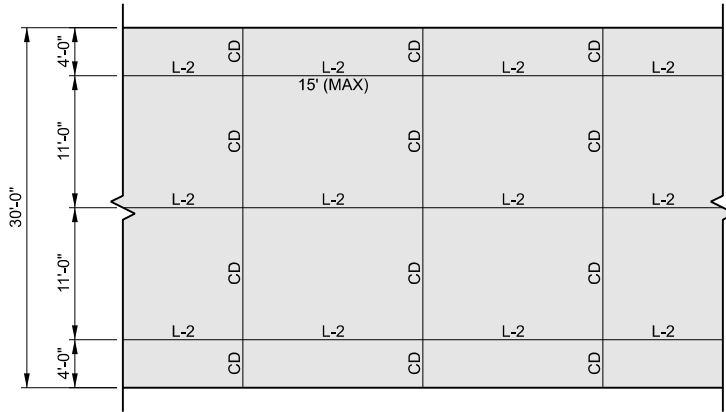
Sheet B.1

Sheet B.1

\\r\ref\Library\CADDStandards\Bentley\Organization\Civil3A_Standards\2024\Pen Tables\data.ctb 7/21/2026 11:56:19 AM mbeierends V:\Projects\2025\125.1070.01\CADD\CD_125.1070_B2.dgn



1
B.2 TYPICAL BINFORD AVENUE AND 245TH STREET CROSS SECTION



NOTES:
REFER TO L SHEETS FOR JOINTING AT INTERSECTIONS AND SPECIAL AREAS.
REFER TO L SHEETS FOR US 30 JOINTING PLAN.
ADJUSTMENTS TO BINFORD AVENUE AND 245TH STREET JOINTING REQUIRES REVIEW AND APPROVAL BY THE ENGINEER.

2
B.2 TYPICAL BINFORD AVENUE AND 245TH STREET JOINTING PLAN

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

TYPICAL SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet B.2

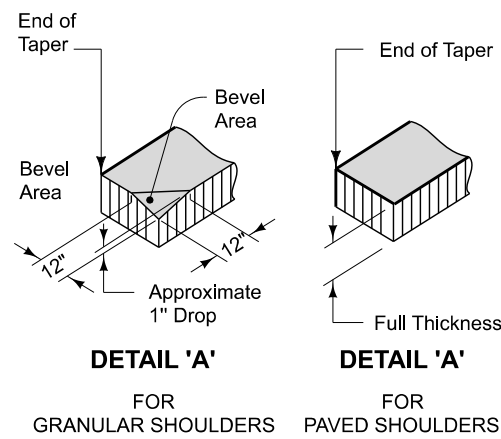


SNYDER
& ASSOCIATES

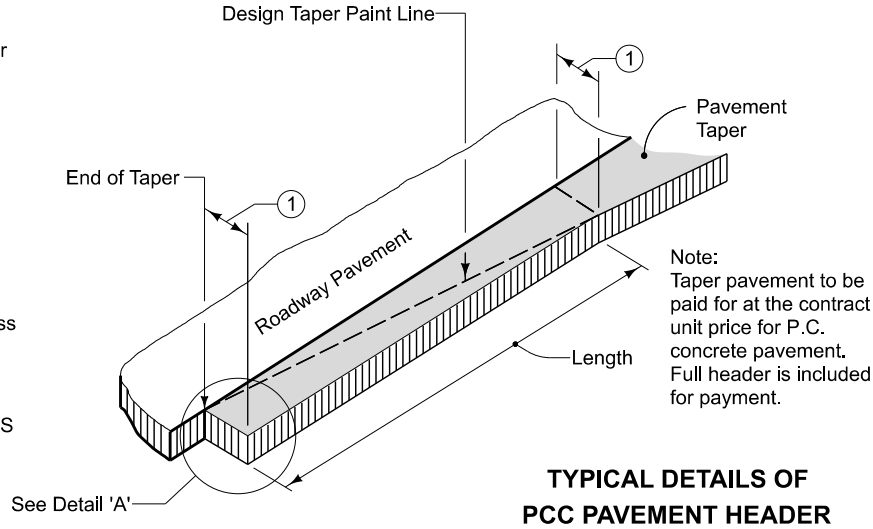
Project No: 125.1070.01

Sheet B.2

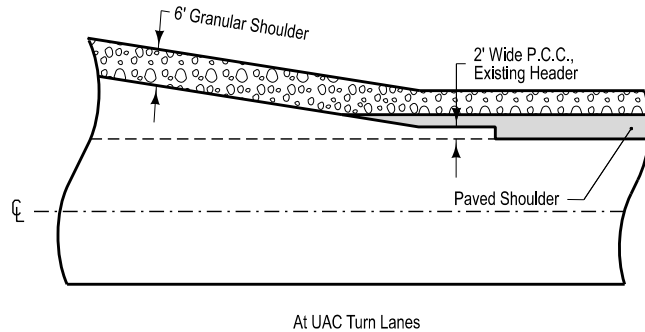
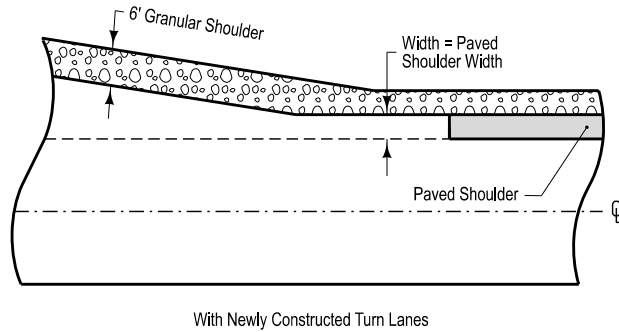
ORD:\Vital\Weight\PDF\plcig V:\RefLibrary\CA\DDStandards\Bentley\Organization\Civil\SAI_Standards\2024\Pen Tables\data.ctb 7/21/2026 11:56:21 AM mbeierends V:\Projects\2025\125,1070\01\CADD\CD_125,1070_B3.dgn



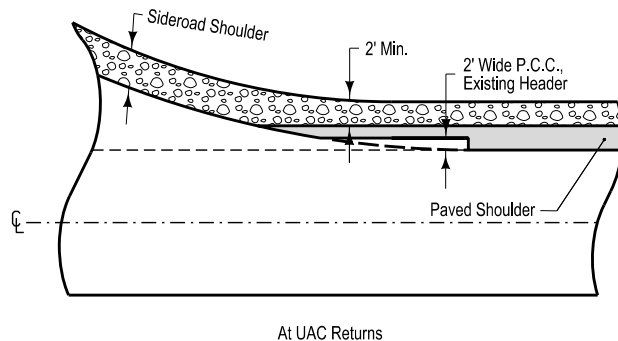
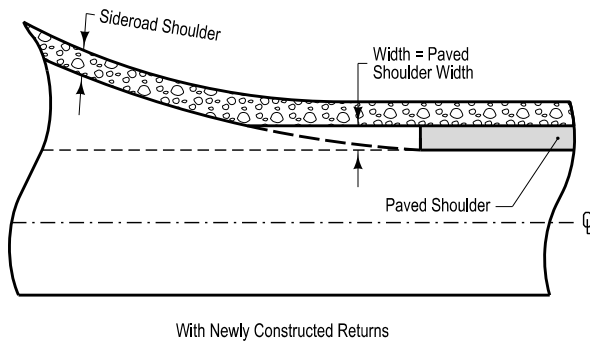
① Normal width is 4'-0". Refer to L-Sheets for additional information.



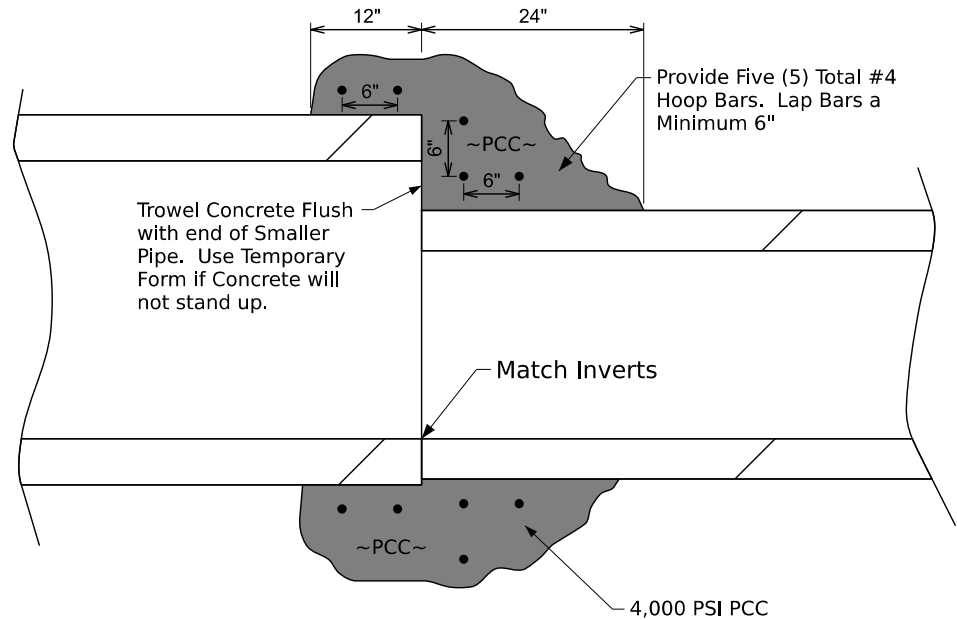
① PCC PAVEMENT HEADER (DETAIL 7101)
B.3 NO SCALE



② PAVED SHOULDER DETAIL AT TURN LANES (DETAIL 7151A)
B.3 NO SCALE



③ PAVED SHOULDER DETAIL AT RETURNS (DETAIL 7151A)
B.3 NO SCALE



④ STORM PIPE CONCRETE COLLAR FOR DISSIMILAR PIPE SIZES
B.3 NO SCALE

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

TYPICAL SECTIONS MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023

515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



Project No: 125,1070.01

Sheet B.3

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-0064(49)-5464	T-R-S:		
Project No: 125,1070.01			
			Sheet B.3

INDEX OF TABULATIONS				111_25 4/21/26
Line No.	Tabulation	Tabulation Title	Sheet No.	
1.0	111_25	INDEX OF TABULATIONS	C.1	
2.0	100_01D	PROJECT DESCRIPTION	C.2	
3.0	100_01C	ESTIMATED PROJECT QUANTITIES	C.3-C.4	
4.0	100_04A	ESTIMATE REFERENCE INFORMATION	C.5-C.6	
5.0	100_18	SILT FENCES FOR DITCH CHECKS	C.7-C.8	
6.0	100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	C.9	
7.0	100_23	ROCK EROSION CONTROL	C.10	
8.0	100_24	PCC PAVEMENT	C.11	
9.0	102_05	EXISTING PAVEMENT	C.12	
10.0	104_03	DRAINAGE STRUCTURE BY ROAD CONTRACTOR	C.13	
11.0	104_05B	STORM SEWER	C.14	
12.0	105_04	STANDARD ROAD PLANS	C.15	
13.0	108_22	PAVEMENT MARKING LINE TYPES	C.16	
14.0	108_29	PAVEMENT MARKING SYMBOLS AND LEGENDS	C.17	
15.0	110_01	REMOVAL OF PAVEMENT	C.18	
16.0	110_12	POLLUTION PREVENTION PLAN	C.19-C.20	
17.0	110_14	SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL	C.21	
18.0	112_09	SHOULDERS	C.22	
19.0	104_09A	LONGITUDINAL SUBDRAIN SHOULDER	C.23	
20.0	190_25	REFERENCE LOCATION SIGNS AND DELINEATORS	C.24	
21.0	108_13A	SAFETY CLOSURES	C.25	
22.0	190_51	MATERIALS FOR TYPE A SIGNS	C.26	
23.0	190_62	EXISTING SIGNS TO BE REMOVED	C.27	
24.0	190_66	SUMMARY OF TYPE A SIGNS	C.28	

		100 01D 8/15/22
PROJECT DESCRIPTION		
Project involves two divisions of roadway improvements taking place on US 30, Binford Avenue, and 245th St in Marshall County, IA. Division 1 includes the roadway improvements for US 30, including 1000' of roadway improvements on EB US 30 for the construction of a 9" PCC offset right turn lane to Binford Avenue and the intersection of US 30 and Binford Avenue until 97.5' south of US 30. Division 1 also includes 1,325 LF of improvements for the construction of a 9" PCC acceleration lane for left turning traffic from Binford Avenue to WB US 30 as well as all relevant ditch, subdrain, stormwater, and subgrade improvements needed for the construction of the acceleration and offset right turn lane. Division 2 involves paving 1.2 miles of 8" PCC roadway from 97.5' south of the intersection of US 30 and Binford Avenue to the pavement termination point on 245th Street, approximately 300' west of Brown Avenue. Division 2 includes all necessary ditch construction, field access, driveway, stormwater, and subgrade improvements needed for construction of the paved road.		

FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	MARSHALL	COUNTY	PROJECT NUMBER	RFM-C064(149) - -54-64	SHEET NUMBER	C.2
----------	---------	-------------	--------------------------------	-----------------	--------	----------------	-------------------------------	--------------	------------

ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

DIVISION 1: CST-030-5(332)--4C-64
NHSN-030-5(330)--2R-64
RP-030-5(331)--16-64
DIVISION 2: RFM-C064(149)--54-64

100.01C
4/30/25

Item No.	Item Code	Item	Unit	Division 1	Division 2	Total	As Built Division 1	As Built Division 2
1	2102-0425070	SPECIAL BACKFILL	TON	877.60	1711.00	2588.60		
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	2055.00		2055.00		
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	1195.00	5705.00	6900.00		
4	2102-2710090	EXCAVATION, CL 10, WASTE	CY		3990.00	3990.00		
5	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	1787.00	2611.00	4398.00		
6	2107-0875000	COMPACTION W/MOISTUREDENSITY CONTROL	CY	2974.00	14556.00	17530.00		
7	2109-8225100	SPECIAL COMPACTION OF SUBGRADE	STA		63.00	63.00		
8	2115-0100000	MODIFIED SUBBASE	CY	1606.00	2997.00	4603.00		
9	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	433.70		433.70		
10	2122-5190008	PAVED SHOULDER, P.C. CONCRETE, 8 IN.	SY	118.60	5435.00	5553.60		
11	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	21.20		21.20		
12	2213-7100400	RELOCATION OF MAIL BOX	EA		4.00	4.00		
13	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 8 IN.	SY		15264.00	15264.00		
14	2301-1033090	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9 IN.	SY	4243.00		4243.00		
15	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON		221.00	221.00		
16	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON	16.00	433.00	449.00		
17	2402-2720000	EXCAVATION, CLASS 20	CY	117.00	492.00	609.00		
18	2416-0100015	APRONS, CONCRETE, 15 IN. DIA.	EA		1.00	1.00		
19	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EA	2.00	1.00	3.00		
20	2416-0102218	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 18 IN.	EA		1.00	1.00		
21	2416-0102224	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 24 IN.	EA	1.00	4.00	5.00		
22	2416-0102236	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 36 IN.	EA		3.00	3.00		
23	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF	112.00		112.00		
24	2416-1200224	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 24 IN.	LF	20.00	78.00	98.00		
25	2416-1200236	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 36 IN.	LF		40.60	40.60		
26	2417-0330015	APRONS, SAFETY SLOPE, 15 IN DIA.	EA		6.00	6.00		
27	2417-0330018	APRONS, SAFETY SLOPE, 18 IN DIA.	EA		2.00	2.00		
28	2417-0330024	APRONS, SAFETY SLOPE, 24 IN DIA.	EA		4.00	4.00		
29	2417-1040015	CULV, CMP ENT, 15	LF		231.50	231.50		
30	2417-1040018	CULV, CMP ENT, 18	LF		68.10	68.10		
31	2417-1040024	CULV, CMP ENT, 24	LF		91.20	91.20		
32	2435-0700020	CONNECTION TO EXISTING INTAKE	EA		4.00	4.00		
33	2502-8212034	SUBDRAIN, LONGITUDINAL, SHOULDER, 4 IN	LF	2496.00	12895.00	15391.00		
34	2502-8221306	SUBDRAIN OUTLET, DR-306	EA	10.00	56.00	66.00		
35	2503-0114215	STORM SWR G-MAIN,TRENCHED, RCP 2000D,15	LF		47.00	47.00		
36	2503-0114224	STORM SWR G-MAIN,TRENCHED, RCP 2000D,24	LF		126.00	126.00		
37	2503-0116318	STORM SEWER GRAVITY MAIN, TRENCHED , 2000D LOW CLEARANCE CONCRETE PIPE, EQ. DIAMETER 18 IN	LF		40.00	40.00		
38	2503-0116336	STORM SEWER GRAVITY MAIN, TRENCHED , 2000D LOW CLEARANCE CONCRETE PIPE, EQ. DIAMETER 36 IN	LF		76.00	76.00		
39	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	82.00	866.00	948.00		
40	2507-6800061	REVETEMENT, CLASS E	TON	20.80	98.00	118.80		
41	2510-6745850	REMOVAL OF PAVEMENT	SY	1135.00		1135.00		
42	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY		167.00	167.00		
43	2515-2475008	DRIVEWAY, P.C. CONCRETE, 8 IN.	SY		1713.30	1713.30		
44	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY		145.20	145.20		
45	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EA	7.00	6.00	13.00		
46	2524-6765015	REMOVE AND REINSTALL DELINEATOR POSTS	EA	4.00		4.00		
47	2524-9275222	WOOD POST-TYPE A/B SIGN, 4X6	LF	88.00	121.00	209.00		
48	2524-9276010	PERFORATED SQUARE STEEL TUBE POST	LF	11.00		11.00		
49	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	EA	1.00		1.00		
50	2524-9325001	TYPE A SIGN, SHEET ALUM	SF		44.80	44.80		
51	2526-8285010	CONSTRUCTION SURVEY, MONUMENT PRESERVATION	LS	0.20	0.80	1.00		
52	2526-8285020	CONSTRUCTION SURVEY, CONTROL POINT SURVEY	LS	0.20	0.80	1.00		
53	2526-8285030	CONSTRUCTION SURVEY, RIGHT OF WAY	LS	0.20	0.80	1.00		
54	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	0.20	0.80	1.00		
55	2527-9263143	PAINTED SYMBOLS AND LEGENDS, DURABLE	EA	4.00		4.00		

ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

DIVISION 1: CST-030-5(332)--4C-64
NHSN-030-5(330)--2R-64
RP-030-5(331)--16-64
DIVISION 2: RFM-C064(149)--54-64

100.01C
4/30/25

Item No.	Item Code	Item	Unit	Division 1	Division 2	Total	As Built Division 1	As Built Division 2
56	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE	STA	60.63	152.20	212.83		
57	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	60.63	152.20	212.83		
58	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	EA	4.00		4.00		
59	2528-2518000	SAFETY CLOSURE	EA	2.00	20.00	22.00		
60	2528-8445110	TRAFFIC CONTROL	LS	0.50	0.50	1.00		
61	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	50.00	50.00	100.00		
62	2533-4980005	MOBILIZATION	LS	0.20	0.80	1.00		
63	2599-9999005	('EACH' ITEM) STORM PIPE CONCRETE COLLAR FOR DISSIMILAR PIPE SIZES	EA	1.00		1.00		
64	2599-9999005	('EACH' ITEM) APRONS, SAFETY SLOPE, 12 IN. DIA.	EA		4.00	4.00		
65	2599-9999009	('LINEAR FEET' ITEM) CULVERT, CORRUGATED METAL ENTRANCE PIPE, 12 IN. DIA.	LF		70.00	70.00		
66	2601-2634105	MULCHING, BONDED FIBER MATRIX	ACRE	2.00	4.00	6.00		
67	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	0.50	0.50	1.00		
68	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	SQ	321.00	781.00	1102.00		
69	2601-2640350	SPECIAL DITCH CONTROL, WOOD EXCELSIOR MAT	SQ	115.00	254.00	369.00		
70	2601-2643411	TURF REINFORCEMENT MAT, TYPE 1	SQ		15.00	15.00		
71	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	468.00	1617.00	2085.00		
72	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	468.00	1617.00	2085.00		
73	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	468.00	1617.00	2085.00		
74	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	2180.00	8586.00	10766.00		
75	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	2180.00	8586.00	10766.00		
76	2602-0010010	MOBILIZATION, EROSION CONTROL	EA	10.00	10.00	20.00		
77	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL	EA	1.00	1.00	2.00		

ESTIMATE REFERENCE INFORMATION			100_04A 6/2/23
Item No.	Item Code	Description	
1	2102-0425070	SPECIAL BACKFILL	
		Refer to typical sections on B-Sheets and Tab 112-09 for location and quantities. Recycled PCC pavement meeting Specifications is allowed for this material.	
2	2102-2625000	EMBANKMENT-IN-PLACE	
		Quantity paid shall be plan quantity. Item includes excavation, hauling, depositing, compacting, grading and work necessary to conform to the lines, grades, and slopes as shown in the plans, taking into account all staging of construction. The Embankment-In-Place bid item is to offset the additional fill material needed on the site. This item includes no shrink factor. Placement methods are to comply with Iowa DOT Standard Specification 2107. Bid item includes all labor, material and equipment associated with the building of the embankments. Items is to be paid as a plan quantity of 2055 CY of Embankment in Place along US 30, Division 1.	
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	
4	2102-2710090	EXCAVATION, CLASS 10, WASTE	
		Earthwork quantity includes 1,195 CY of template cut on US 30, 2,679 CY of template cut on Binford Avenue, and 3,026 CY of template cut on 245th Street. Item includes 3,866 CY of factored fill on US 30, 837 CY of factored fill on Binford Avenue, and 878 CY of factored fill on 245th Street. Fill quantities include an assumed 30% shrink factor. Item is plan quantity and no adjustments will be made. Special plowing, shaping, and recompacting per typical section and Specifications shall be incidental to this item.	
5	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	
		Quantity includes stripping of soil to a depth of 8 inches from the slope areas within the construction limits. Topsoil placement shall be a minimum of 6 inches over all disturbed areas. Fill quantities include an assumed 40% shrink factor. Additional topsoil may be may be stripped from the slopes to balance. Division 1 Topsoil along US 30 includes 1,787 CY of template strip and 1,484 CY of factored placement. Division 2 Topsoil includes 1,193 CY of template strip and 1,211 CY of factored placement along the Binford Avenue Corridor. Division 2 Topsoil includes 1,328 CY of template strip and 1,400 CY of factored placement along the 245th Street Corridor. Division 1 Total: 1,787 CY of topsoil, with 303 CY of waste. Division 2 Total: 2,611 CY of topsoil with 90 CY of waste.	
6	2107-0875000	COMPACTION WITH MOISTURE AND DENSITY CONTROL	
		Item is to be plan quantity and no adjustments will be made.	
7	2109-8225100	SPECIAL COMPACTION OF SUBGRADE	
		Refer to B Sheets.	
8	2115-0100000	MODIFIED SUBBASE	
		Refer to B-Sheets for location information. Refer to Tab 100-24 in the C-Sheets for locations and quantities. Recycled PCC pavement meeting Specifications is allowed for this material.	
9	2121-7425010	GRANULAR SHOULDERS, TYPE A	
		Refer to B-sheets and Tab 112-09 for locations and additional information.	
10	2122-5190008	PAVED SHOULDER, P.C. CONCRETE, 8 IN.	
		Refer to D and E-Sheets and Tab 112-09 for pavement location. This item requires certified plant inspections by the Contractor.	
11	2123-7450000	SHOULDER CONSTRUCTION, EARTH	
		Refer to B-sheets and Tab 112-09 for locations and additional information. Refer to Iowa DOT Specification 2102.D.2 for Suitable Soil specifications.	
12	2213-7100400	RELOCATION OF MAIL BOX	
		Refer to E-sheets. Item includes removal, temporary storage, and reinstallation of mailboxes.	
13	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 8 IN.	
14	2301-1033090	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9 IN.	
		Refer to Tab 100-24, B, D, E and L-Sheets for more information. This item requires certified plant	

ESTIMATE REFERENCE INFORMATION			100_04A 6/2/23
Item No.	Item Code	Description	
		inspections by the contractor.	
15	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	
		Refer to E-Sheets for locations and estimate infromation	
16	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	
		Refer to Tab E-Sheets for locations and estimate infromation	
17	2402-2720000	EXCAVATION, CLASS 20	
		See D and E-Sheets for more information. To be used for culvert extensions and replacements. Item includes excavation, hauling, depositing, compacting, grading, and work needed to conform lines, grades and slopes as shown in plans. Contractor is responsible for disposal of waste excavation offsite.	
18	2416-0100015	APRONS, CONCRETE, 15 IN. DIA.	
19	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	
20	2416-0102218	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 18 IN.	
21	2416-0102224	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 24 IN.	
22	2416-0102236	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 36 IN.	
		Refer to D and E-Sheets and Tab 104-03 for locations and additional information. Apron guards and footings are to be incidental to this bid item.	
23	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	
24	2416-1200224	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 24 IN.	
25	2416-1200236	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 36 IN.	
26	2417-0330015	APRONS, SAFETY SLOPE, 15 IN DIA.	
27	2417-0330018	APRONS, SAFETY SLOPE, 18 IN DIA.	
28	2417-0330024	APRONS, SAFETY SLOPE, 24 IN DIA.	
		Refer to D and E-Sheets and Tab 104-03 for locations and additional information. Type C-2 Connection per DR-122 to existing culverts is incidental to these bid items.	
29	2417-1040015	CULV, CMP ENT, 15	
30	2417-1040018	CULV, CMP ENT, 18	
31	2417-1040024	CULV, CMP ENT, 24	
		Refer to E-Sheets and Tab 104-03 for locations and additional information.	
32	2435-0700020	CONNECTION TO EXISTING INTAKE	
		Refer to E Sheets for additional information.	
33	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	
34	2502-8221306	SUBDRAIN OUTLET, DR-306	
		Refer to B and D-sheets for locations and additional information. Refer to Standard Road Plans DR-303 for detail information on subdrain. Refer to DR-306 for outlet details. Subdrain shall have corrugated exterior and smooth interior.	
35	2503-0114215	STORM SWR G-MAIN,TRENCHED, RCP 2000D,15	
36	2503-0114224	STORM SWR G-MAIN,TRENCHED, RCP 2000D,24	
37	2503-0116318	STORM SEWER GRAVITY MAIN, TRENCHED , 2000D LOW CLEARANCE CONCRETE PIPE, EQ. DIAMETER 18 IN	
38	2503-0116336	STORM SEWER GRAVITY MAIN, TRENCHED , 2000D LOW CLEARANCE CONCRETE PIPE, EQ. DIAMETER 36 IN	
		Refer to D and E-Sheets and Tab 104-03 for locations and additional information. Type C-2 Connection per DR-122 to existing culverts is incidental to these bid items.	
39	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	
		Refer to Tab. 110-14 in the C sheets and the F sheets for locations.	
40	2507-6800061	REVETEMENT, CLASS E	
		Refer to Tab 100_23 and D Sheets for locations and quantities.	

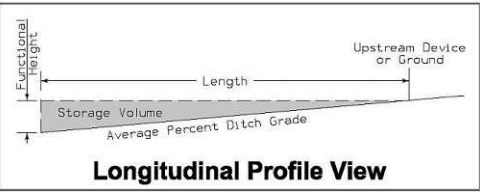
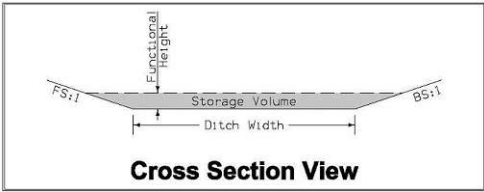
FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	MARSHALL COUNTY	PROJECT NUMBER	RFM-C064(149) - - 54-64	SHEET NUMBER	C.5
----------	---------	-------------	---------------------	-----------------	----------------	-------------------------	--------------	-----

ESTIMATE REFERENCE INFORMATION			100_04A 6/2/23
Item No.	Item Code	Description	
41	2510-6745850	REMOVAL OF PAVEMENT	
		Refer to Tab 110-01 and F-Sheets for pavement removal details and thickness information.	
42	2515-2475006	DRIVEWAY, PCC, 6 In.	
43	2515-2475008	DRIVEWAY, PCC, 8 In.	
		Refer to E-Sheets for information and locations. Use Class C concrete mix. Stage driveway construction. Class M mix is an approved equal to staged construction. No additional compensation will be provided for the use of class M mix. This item requires certified plant inspections. All driveways are 8-inch thick except for the driveways at: STA 21013.00, STA 21183.00, and STA. 315+75.00, which will be 6-inch.	
44	2515-6745600	REMOVAL OF PAVED DRIVEWAY	
		Refer to E and F-Sheets for locations. No additional payment or adjustment shall be made for variance in thickness. Existing pavement is assumed to be 6 inch PCC.	
45	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	
		Refer to Tab 190_62 and the J sheets for locations and quantities. Bid item will be paid for each Type 'A' sign assembly that is removed, stored, and reinstalled at the location indicated within the plans at the contract unit price for this bid item. No additional payment will be made to replace damage signs or components. Item includes all labor, equipment, and materials needed to remove, store, and reinstall Type 'A' sign assemblies. Additional signs attached to posts are considered incidental to the Type 'A' sign assemblies.	
46	2524-6765015	REMOVE AND REINSTALL DELINEATOR POSTS	
		Refer to Tab 190_25 and the J sheets for locations and quantities.	
47	2524-9275222	WOOD POST-TYPE A/B SIGN, 4X6	
		Refer to Tab 190_51 and the J sheets for locations and quantities.	
48	2524-9276010	PERFORATED SQUARE STEEL TUBE POST	
49	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	
50	2524-9325001	TYPE A SIGN, SHEET ALUM	
		Refer to Tabs 190_51, 190_62, 190_66, and the J sheets for locations and quanties.	
51	2526-8285010	CONSTRUCTION SURVEY, MONUMENT PRESERVATION	
52	2526-8285020	CONSTRUCTION SURVEY, CONTROL POINT SURVEY	
53	2526-8285030	CONSTRUCTION SURVEY, RIGHT OF WAY	
54	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	
55	2527-9263143	PAINTED SYMBOLS AND LEGENDS, DURABLE	
56	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE	
57	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	
58	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	
		Refer to Tab 108-22 and Tab 108-29 in the C-Sheets for locations and additional information. Coordinate with Engineer prior to grooving operations.	
59	2528-2518000	SAFETY CLOSURE	
		Refer to Tab 108-13A and J Sheets for additional information.	
60	2528-8445110	TRAFFIC CONTROL	
		Refer to J sheets for traffic control and staging information.	
61	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	
		Refer to J Sheets for additional information.	
62	2533-4980005	MOBILIZATION	
63	2599-9999005	('EACH' ITEM) STORM PIPE CONCRETE COLLAR FOR DISSIMILAR PIPE SIZES	
		Refer to D-Sheets for location information and Detail 4 on Sheet B.3 for additional details. Item is	

ESTIMATE REFERENCE INFORMATION			100_04A 6/2/23
Item No.	Item Code	Description	
		intended to connect existing 24 inch RCP pipe to 24 inch Equivalent Arch Pipe. The Contractor shall be paid the contract unit price for each concrete collar installed as detailed herein and as detailed in the contract documents. Item includes all material, labor, and equipment required to install concrete collar as per plan.	
64	2599-9999005	('EACH' ITEM) APRONS, SAFETY SLOPE, 12 IN DIA.	
		Refer to D and E-Sheets and Tab 104-03 for locations and additional information. Type C-2 Connection per DR-122 to existing culverts is incidental to these bid items. The Contractor shall be paid the contract unit price for each 12 inch safety slope apron installed as detailed herein and as detailed in the contract documents. Item includes all material, labor, and equipment required to install aprons as per plan.	
65	2599-9999009	('LINEAR FEET' ITEM) CULVERT, CORRUGATED METAL ENTRANCE PIPE, 12 IN. DIA.	
		Refer to E-Sheets and Tab 104-03 for locations and additional information. The Contractor shall be paid the contract unit price for each linear foot of 12 inch corrugated metal entrance pipe installed as detailed herein and as detailed in the contract documents. Item includes all material, labor, and equipment required to install pipe as per plan.	
66	2601-2634105	MULCHING, BONDED FIBER MATRIX	
		Item includes quantity for mulching areas of temporary seeding on all surface restoration areas within the construction limits and for temporary stabilization on all disturbed areas within the project to comply with NPDES permit. Not all quantity may be required for this project depending on need for temporary stabilization. Provide mulching tickets for quantity and quality verifications prior to each application.	
67	2601-2636043	SEEDING AND FERTILIZING (RURAL)	
		Item includes quantity of permanent seeding on all surface restoration areas, not specified for slope and ditch control matting, within the construction limits as shown in the plans. Refer to RR-Sheets for locations. Seeding areas outside of construction limits shall be the sole responsibility of the contractor at no additional cost to the County. Contractor shall provide seed and fertilization tickets for quantity verification prior to each application.	
68	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	
		Refer to RR-Sheets. Refer to Standard Road Plan EC-103. Prepare seedbed according to Article 2601.03, B, 4, of the Standard Specifications prior to seeding and fertilizing under the slope protection.	
69	2601-2640350	SPECIAL DITCH CONTROL, WOOD EXCELSIOR MAT	
70	2601-2643411	TURF REINFORCEMENT MAT, TYPE 1	
		Refer to RR-Sheets. Refer to Standard Road Plan EC-101 and EC-104 respectively. Prepare seedbed according to Article 2601.03, B, 4 of the Standard Specifications. Install Wood Excelsior Mat according to Article 2601.03, H, 2, of the Standard Specifications. Seed according to Article 2601.03, H, 2, of the Standard Specifications	
71	2602-0000030	SILT FENCE FOR DITCH CHECKS	
72	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	
73	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	
74	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	
75	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	
		Refer to Tab 100-19. Verify the specific locations with Engineer prior to beginning placement. Bid items includes 10% additional quantity of field adjustments and replacements.	
76	2602-0010010	MOBILIZATION, EROSION CONTROL	
77	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



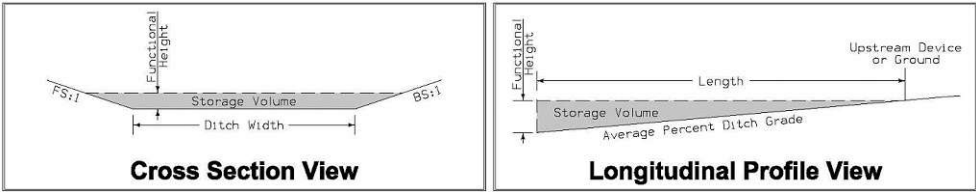
* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: $[0.5 \times \text{Spacing} \times (0.5 \times H^2 \times FS + DW \times H + 0.5 \times H^2 \times BS)]$

Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Spacing	Downstream	Volume (CF)	Remarks
		40+72.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		41+32.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		41+92.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		42+52.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		43+12.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		43+72.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		44+32.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		44+92.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		45+52.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		46+12.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		46+72.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		47+32.40	Right	22.0	22.0	22.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		47+92.40	Right	17.0	17.0	17.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		48+52.40	Right	15.0	15.0	15.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		48+90.00	Right	16.0	16.0	16.0	3.0	3.0	10.0	2.2	60	18.84	565.20	
		209+37.94	Right	14.0	14.0	14.0	3.0	3.0	4.0	0.6	155	10.78	835.45	
		210+84.47	Right	14.0	14.0	14.0	3.0	3.0	4.0	1.8	75	10.78	404.25	
		211+44.00	Right	16.0	16.0	16.0	3.0	3.0	4.0	1.8	75	10.78	404.25	
		212+39.82	Right	16.0	16.0	16.0	3.0	3.0	4.0	5.3	30	10.78	161.70	
		212+41.70	Left	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		212+79.70	Left	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		212+79.31	Right	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		213+14.30	Right	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		214+07.70	Right	16.0	16.0	16.0	3.0	3.0	4.0	1.0	155	10.78	835.45	
		215+00.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.0	155	10.78	835.45	
		215+26.88	Right	12.0	12.0	12.0	3.0	3.0	4.0	1.0	155	10.78	835.45	
		216+00.00	Right	12.0	12.0	12.0	3.0	3.0	4.0	1.0	155	10.78	835.45	
		218+81.25	Right	16.0	16.0	16.0	3.0	3.0	4.0	2.0	60	10.78	323.40	
		219+41.13	Right	16.0	16.0	16.0	3.0	3.0	4.0	2.0	60	10.78	323.40	
		220+01.25	Right	16.0	16.0	16.0	3.0	3.0	4.0	2.0	60	10.78	323.40	
		220+62.50	Right	16.0	16.0	16.0	3.0	3.0	4.0	4.0	40	10.78	215.60	
		221+00.00	Right	16.0	16.0	16.0	3.0	3.0	4.0	4.0	40	10.78	215.60	
		223+20.08	Left	15.0	15.0	15.0	3.0	3.0	4.0	2.0	75	10.78	404.25	
		223+25.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.9	75	10.78	404.25	
		223+95.10	Left	15.0	15.0	15.0	3.0	3.0	4.0	2.0	75	10.78	404.25	
		224+00.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.9	75	10.78	404.25	
		224+75.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.9	75	10.78	404.25	
		225+50.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.9	75	10.78	404.25	
		226+25.00	Right	13.0	13.0	13.0	3.0	3.0	4.0	1.9	75	10.78	404.25	
		233+23.27	Left	16.0	16.0	16.0	3.0	3.0	4.0	0.8	155	10.78	835.45	
		234+22.83	Left	16.0	16.0	16.0	3.0	3.0	4.0	0.8	155	10.78	835.45	
		301+41.14	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.5	60	10.78	323.40	
		301+60.28	Right	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		302+01.28	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.5	60	10.78	323.40	
		302+20.28	Right	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201

100_18
8/15/22



* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: $[0.5 \times \text{Spacing} \times (0.5 \times H^2 \times FS + DW \times H + 0.5 \times H^2 \times BS)]$

Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Spacing	Downstream	Volume (CF)	Remarks
		302+61.28	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.5	60	10.78	323.40	
		307+27.22	Left	14.0	14.0	14.0	3.0	3.0	4.0	1.2	100	10.78	539.00	
		307+27.22	Right	14.0	14.0	14.0	3.0	3.0	4.0	1.3	100	10.78	539.00	
		308+02.22	Left	14.0	14.0	14.0	3.0	3.0	4.0	1.2	100	10.78	539.00	
		308+02.22	Right	14.0	14.0	14.0	3.0	3.0	4.0	1.3	100	10.78	539.00	
		308+77.22	Left	14.0	14.0	14.0	3.0	3.0	4.0	1.2	100	10.78	539.00	
		308+77.22	Right	14.0	14.0	14.0	3.0	3.0	4.0	1.3	100	10.78	539.00	
		309+52.22	Right	14.0	14.0	14.0	3.0	3.0	4.0	1.3	100	10.78	539.00	
		310+94.85	Left	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		311+37.50	Left	16.0	16.0	16.0	3.0	3.0	4.0	5.0	35	10.78	188.65	
		312+50.00	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		313+10.00	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		313+70.00	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		314+30.00	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		314+90.00	Left	14.0	14.0	14.0	3.0	3.0	4.0	2.4	60	10.78	323.40	
		316+67.34	Left	16.0	16.0	16.0	3.0	3.0	4.0	2.6	50	10.78	269.50	
		318+42.96	Left	16.0	16.0	16.0	3.0	3.0	4.0	1.3	100	10.78	539.00	
		322+87.50	Left	16.0	16.0	16.0	3.0	3.0	4.0	4.8	35	10.78	188.65	
		327+58.58	Left	16.0	16.0	16.0	3.0	3.0	4.0	0.9	155	10.78	835.45	
		329+13.81	Left	16.0	16.0	16.0	3.0	3.0	4.0	0.9	155	10.78	835.45	
		330+37.50	Left	16.0	16.0	16.0	3.0	3.0	4.0	2.2	60	10.78	323.40	
		330+97.50	Left	16.0	16.0	16.0	3.0	3.0	4.0	2.2	60	10.78	323.40	

TOTALS
DIVISION 1: 312 LF
DIVISION 2: 1078 LF
BID QUANTITY = TOTAL * 1.5
DIV 1 BID QUANTITY = 468 LF
DIV 2 BID QUANTITY = 1617

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE Possible Standards: EC-204 100_19 10/15/24						
Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
36+28.57	41+04.38	Left	Perimeter and Slope	12 inch	490.00	Div. 1
40+73.81	49+08.46	Right	Perimeter and Slope	12 inch	840.00	Div. 1
42+10.38	49+14.78	Left	Perimeter and Slope	12 inch	710.00	Div. 1
49+71.88	50+64.81	Right	Perimeter and Slope	12 inch	110.00	Div. 1
48+91.86	48+91.86	Right	Perimeter and Slope	12 inch	30.00	Div. 1 -Place Around Inlet
208+67.76	209+35.93	Right	Perimeter and Slope	12 inch	68.60	
208+86.37	210+04.00	Left	Perimeter and Slope	12 inch	119.00	
210+20.42	211+65.73	Left	Perimeter and Slope	12 inch	150.00	
211+51.03	212+29.38	Right	Perimeter and Slope	12 inch	80.00	
211+95.00	211+95.00	Left	Perimeter and Slope	12 inch	15.70	Place Around Inlet
212+48.43	212+58.42	Right	Perimeter and Slope	12 inch	31.40	Place Around Inlet
213+03.09	214+61.44	Left	Perimeter and Slope	12 inch	160.00	
213+20.74	213+99.09	Right	Perimeter and Slope	12 inch	80.00	
215+10.00	220+12.80	Left	Perimeter and Slope	12 inch	500.00	
216+09.28	218+70.75	Right	Perimeter and Slope	12 inch	260.00	
220+20.31	2200+35.31	Right	Perimeter and Slope	12 inch	47.10	Place Around Inlet
220+38.55	222+36.90	Left	Perimeter and Slope	12 inch	200.00	
221+01.11	222+99.46	Right	Perimeter and Slope	12 inch	200.00	
222+91.75	222+91.75	Left	Perimeter and Slope	12 inch	15.70	Place Around Inlet
222+93.79	229+42.00	Left	Perimeter and Slope	12 inch	640.00	
226+27.84	228+37.50	Right	Perimeter and Slope	12 inch	210.00	
229+91.45	232+97.92	Left	Perimeter and Slope	12 inch	290.00	
2310+58.30	235+04.39	Right	Perimeter and Slope	12 inch	400.00	
233+04.85	235+12.30	Left	Perimeter and Slope	12 inch	210.00	
302+51.96	307+21.75	Right	Perimeter and Slope	12 inch	470.00	
302+78.47	307+24.23	Left	Perimeter and Slope	12 inch	450.00	
310+27.19	311+06.21	Right	Perimeter and Slope	12 inch	80.00	
310+28.04	310+76.63	Left	Perimeter and Slope	12 inch	50.00	
311+05.27	311+15.37	Left	Perimeter and Slope	12 inch	31.40	Place Around Inlet
311+18.40	313+94.66	Right	Perimeter and Slope	12 inch	280.00	
311+64.39	312+42.74	Left	Perimeter and Slope	12 inch	80.00	
314+14.68	316+97.24	Right	Perimeter and Slope	12 inch	290.00	
316+24.35	317+99.20	Left	Perimeter and Slope	12 inch	80.00	
317+64.15	321+26.01	Right	Perimeter and Slope	12 inch	365.00	
318+54.64	319+32.99	Left	Perimeter and Slope	12 inch	80.00	
319+34.97	319+42.97	Left	Perimeter and Slope	12 inch	25.10	Place Around Inlet
320+21.96	321+30.31	Left	Perimeter and Slope	12 inch	110.00	
321+31.82	321+39.82	Right	Perimeter and Slope	12 inch	25.10	Place Around Inlet
321+42.20	321+50.20	Left	Perimeter and Slope	12 inch	25.10	Place Around Inlet
322+16.06	323+05.37	Right	Perimeter and Slope	12 inch	90.00	
323+09.30	323+17.30	Right	Perimeter and Slope	12 inch	25.10	Place Around Inlet
323+15.82	323+23.82	Left	Perimeter and Slope	12 inch	25.10	Place Around Inlet
323+80.85	327+00.61	Left	Perimeter and Slope	12 inch	320.00	
323+97.23	325+95.82	Right	Perimeter and Slope	12 inch	200.00	
326+04.62	326+12.62	Right	Perimeter and Slope	12 inch	25.10	Place Around Inlet
327+01.21	329+62.25	Right	Perimeter and Slope	12 inch	260.00	
329+45.57	329+60.57	Left	Perimeter and Slope	12 inch	47.10	Place Around Inlet
330+17.28	330+27.28	Left	Perimeter and Slope	12 inch	31.40	Place Around Inlet
330+32.78	332+97.79	Right	Perimeter and Slope	12 inch	260.00	
331+18.23	332+76.58	Left	Perimeter and Slope	12 inch	160.00	
332+81.67	332+91.67	Left	Perimeter and Slope	12 inch	31.40	Place Around Inlet
333+49.37	338+90.77	Right	Perimeter and Slope	12 inch	540.00	
334+06.62	334+16.62	Left	Perimeter and Slope	12 inch	31.40	Place Around Inlet
334+97.43	338+87.23	Left	Perimeter and Slope	12 inch	420.00	

TOTAL PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE = 10,766 LF

Division 1 = 2,180 LF

Division 2 = 8,586

FILE NO.	ENGLISH	DESIGN TEAM	Snvder & Associates	MARSHALL COUNTY	PROJECT NUMBER	RFM-C064(149) -- 54-64	SHEET NUMBER	C.9	
----------	---------	-------------	--------------------------------	-----------------	----------------	-------------------------------	--------------	------------	--

ROCK EROSION CONTROL

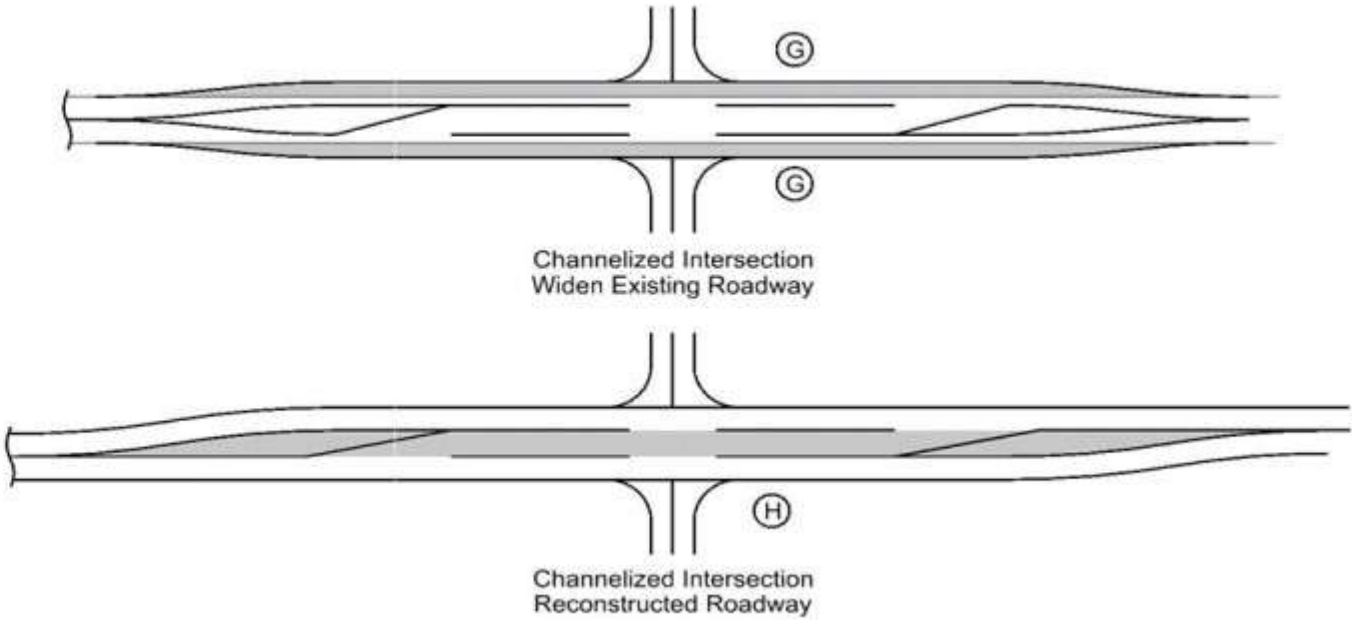
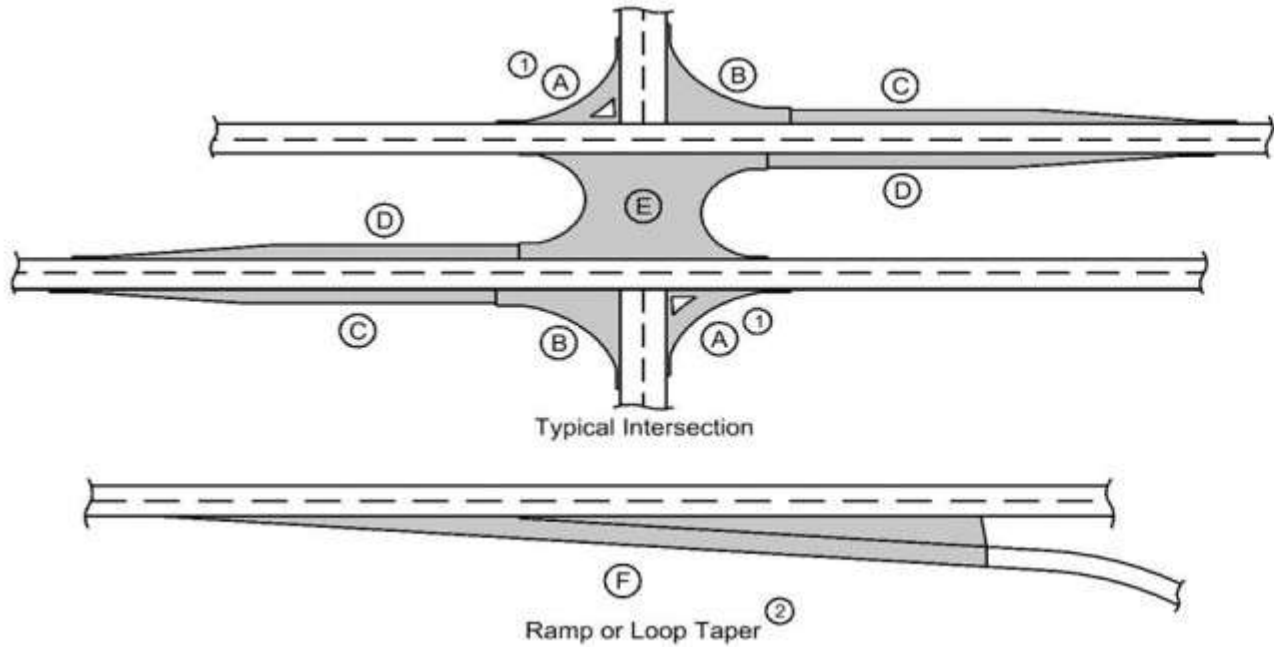
Refer to EC-301 and Detail 570-8

100_23
8/15/22

Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	Rock Erosion Control Type	Engineering Fabric (SY)	Class E Revetment (TON)	Erosion Stone (TON)	Remarks
1.0	US 30	50+08.66	50+27.82	Right	18.00	10.5	Type 4 - Rock Splash Basin	21.0	20.800		DIVISION 1
2.0	BINFORD AVE	220+34.05	220+21.38	Left	20.20	12.7	Type 4 - Rock Splash Basin	28.5	28.200		DIVISION 2
3.0	BINFORD AVE	220+22.81	220+32.81	Right	10.70	10.0	Type 4 - Rock Splash Basin	11.9	11.800		DIVISION 2
4.0	BINFORD AVE	212+62.62	212+50.95	Left	11.00	10.5	Type 4 - Rock Splash Basin	12.8	12.700		DIVISION 2
5.0	BINFORD AVE	212+58.18	212+48.18	Right	11.00	10.0	Type 4 - Rock Splash Basin	12.2	12.100		DIVISION 2
6.0	245TH ST	311+05.06	311+15.27	Left	10.70	10.0	Type 4 - Rock Splash Basin	11.9	11.800		DIVISION 2
7.0	245TH ST	311+05.90	311+16.76	Right	18.50	10.5	Type 4 - Rock Splash Basin	21.6	21.400		DIVISION 2

DIVISION 1 = 20.8 TONS
DIVISION 2 = 98.0 TONS
TOTAL CLASS E (TONS) = 118.8 TONS

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.

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E (SY)(3)	Area F(2) (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Polymer Grid (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
1.0	US 30	EB	40+72.47	48+73.00		800.53				1580.70						9.0				605.00		DIVISION 1
2.0	US 30	WB	36+08.65	49+32.48		1323.83					1755.20					9.0				682.00		DIVISION 1
3.0	US 30/BINFORD AVE	Both	234+90.12	235+87.58		97.46						907.10				9.0				319.00		DIVISION 1
4.0	BINFORD	Both	209+37.74	234+90.12	22.0	2552.40	6262.00									8.0				1229.50		DIVISION 2
5.0	245TH STREET	Both	301+11.02	337+11.81	22.0	3600.80	9002.00									8.0				1767.50		DIVISION 2

TOTALS:
DIVISION 1
9" PCC PAVEMENT= 4243 SY
MODIFIED SUBBASE: 1606 CY
DIVISION 2
8" PCC PAVEMENT = 15264.0 SY
MODIFIED SUBBASE = 2997.0 CY

102_05
9/29/23

EXISTING PAVEMENT																					
Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Marshall	US 30	WB			2010		NHSX-30-5(211)--3H-85	PCC	10.0		10.0	Mod-Sub	6.0							
2.0	Marshall	US 30	WB			2010	SHOULDER	NHSX-30-5(211)--3H-85	HMA	6.0						6.0					
3.0	Marshall	US 30	EB			1961		F-1065(3)	HMA	4.0											
4.0	Marshall	US 30	EB			1964		F-1065(12)	PCC	10.0	Granular	4.0									
5.0	Story	US 30	WB			2012		NHSX-30-5(240)--3H-85	HMA	2.0											Pavement Overlay

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

104_03
3/18/24

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
* Not a bid item
(1) Diameter or equivalent diameter
(2) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
(3) Backfill according to DR-101

Drainage Area (ACRE)	Location	Type	Size (IN) (1)	Pipe Classification	Kind of Pipe (2)	Length New Const. (LF)	Length of total that is Trenchless	Bedding Class	Design Cover (H) (FT)	Camber* (DR-102) (FT)	Apron No. (IN)	Apron No. (OUT)	Apron Guard* (DR-213) (No.)	Elbow* (DR-141) (No.)	Diaphragm* (DR-501) (No.)	Tee Section* (DR-142) (No.)	"D" Section* (DR-141) (No.)	Reducer* (No.)	Type 'C' Conn.* (DR-122)	Type 'C' Conn.* (No.)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain* (FT)	Flow Line Elevation LT.	Flow Line Elevation RT.	Flow Line Elevation Other	Flow Line Elevation Other	Dimensions Lineal Feet Total (Left)	Dimensions Lineal Feet Total (Right)	Dimensions Lineal Feet Extensions	Dimensions Lineal Feet Extensions	Skew Ahead Degrees (Left)	Skew Ahead Degrees (Right)	Dike Location	Dike Stat ion	Dike Elevation	Dike Type	Class 20 (CY)	Flowable Mortar	Floodable Backfill* (A)	Porous Backfill* (B)	Flooded Backfill(A+B)	Remarks				
	42+00.80		24.0	2000	LCP	20.0					1									1	Type 2			1100.99	1100.28	1099.95																		DIV1 - RCAP		
	211+84.00		12.0		CMP	23.5					1	1												1092.44	1092.17																			DIV2		
	212+54.76		24.0	2000	LCP	37.5					1	1												1091.29	1091.92			25.34	24.01			3.0	3.0												DIV2 - RCAP	
	220+27.77		36.0	2000	LCP	40.6					1	1												1086.28	1086.64			29.64	27.25																DIV2 - RCAP	
	222+67.60		12.0		CMP	46.5					1	1												1092.16	1093.93	1094.10																		BURY INLET SIDE 2" DEEP		
	235+25.97		24.0	2000	RCP	112.0					1	1												1102.10	1100.33			65.25	59.50			6.0	6.0												DIV1	
	311+10.69		24.0	2000	LCP	40.5					1	1												1109.91	1109.04			25.49	27.72			1.5	1.5												DIV2 - RCAP	
	319+75.00		18.0		CMP	68.1					1	1												1115.97	1112.98																				DIV2	
	321+71.50		15.0		CMP	70.0					1	1												1108.06	1106.51																				DIV2	
	321+77.00		24.0		CMP	49.1					1	1												1107.69	1105.40																				DIV2	
	323+47.00		24.0		CMP	42.1					1	1												1100.65	1100.07																				DIV2	
	323+52.00		15.0		CMP	69.3					1	1												1106.51	1100.30																				DIV2	
	326+45.00		15.0		CMP	92.2					1	1												1095.94	1094.74																					DIV2

NOTE: See B.3 Detail 4 for Culvert Connection Joint information at STA 42+00.85

TOTALS:
DIVISION 1
24" RCAP
APRONS: 1 EACH
LENGTH: 20 LF
24" RCP
APRONS: 2 EACH
LENGTH: 112 LF
DIVISION 2
12" CMP
APRONS: 4 EACH
LENGTH: 70 LF
15" CMP
APRONS: 6 EACH
LENGTH: 231.5 LF
18" CMP
APRONS: 2
LENGTH: 68.1 LF
24" CMP
APRONS: 4 EACH
LENGTH: 91.2 LF
24" RCAP
APRONS: 4 EACH
LENGTH: 78 LF

36" RCAP
APRONS: 2 EACH
LENGTH: 40.6 LF

104_05B
3/6/25

STORM SEWER

(1) Diameter or equivalent diameter
* Bid Item
** For SW-545
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 end of the Design Length to account for estimated length to center of structures.

No.	Location Station	Offset	Type or Standard Road Plan*	Form Grade Elev.	Bottom Well Elev.	Extension Length**	Notes	Line Number	Intake / Utility Access No. From	Intake / Utility Access No. To	Class 'D'	Pipe Size (1) (IN)	Bid Length* (FT)	Design Length (FT)	Slope %	Connected Pipe Joint (DR-121)	Flow Line Inlet Elev.	Flow Line Outlet Elev.	Flow Line Other Elev.	Pipe Profile Sheet No.	Notes
	329+85.66		ARCH PIPE								2000	36.0	76	74.3	2.3	Type 2	1091.45	1089.51		E.6	36" RCP ARCH PIPE EQUIVALENT
	330+22.57		ARCH PIPE								2000	18.0	40	38.0	1.0	Type 2	1092.72	1092.29		E.6	18" RCP ARCH PIPE EQUIVALENT
	332+92.64										2000	15.0	47	45.0	6.5	Type 2	1092.34	1089.00		E.6	15" RCP
	333+20.00										2000	24.0	126	123.8	2.1	Type 2	1091.95	1089.31		E.6	24" RCP

TOTALS
DIVISION 2
36" RCAP
APRONS: 1 EACH
LENGTH: 76 LF
18" RCAP
APRONS: 1 EACH
LENGTH: 40 LF
15" RCP
APRONS: 1 EACH
LENGTH: 47 LF
24" RCP
APRONS: 1 EACH
LENGTH: 126 LF

105_04 4/21/26 STANDARDS The following Standards apply to construction work on this project.		
Number	Date	Title
DR-101	4/18/2017	Pipe Culvert (Bedding and Backfill)
DR-102	4/21/2015	Pipe Culvert (Cover and Camber)
DR-103	4/21/2015	Pipe Culvert (Installation Details)
DR-104	4/19/2016	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-122	10/18/2016	Construction of Type 'C' Concrete Adaptors for Pipe Culvert Connections
DR-201	10/17/2023	Concrete Aprons
DR-202	4/21/2020	Low Clearance Concrete Pipe Aprons
DR-203	4/21/2020	Metal Pipe Aprons and Beveled Ends
DR-303	10/17/2017	Subdrains (Longitudinal)
DR-305	4/19/2022	Subdrain Outlets (Standard Subdrain, Pressure Release and Special)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
DR-601	4/18/2017	Reinforced Concrete Pipe Culvert
DR-621	4/18/2017	Pipe Extension
EC-101	4/19/2016	Wood Excelsior Mat for Ditch Protection
EC-103	4/21/2015	Wood Excelsior Mat for Slope Protection
EC-201	10/17/2017	Silt Fence
EC-204	10/19/2021	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-502	4/21/2015	Seeding in Rural Areas
EW-101	10/17/2017	Embankment and Rebuilding Embankments
EC-104	04-17-18	Turf Reinforced Mat (TRM)
EW-105	4/21/2015	Reshaping Slopes and Ditches
EW-501	10/17/2023	Rural Entrance
EW-502	4/18/2017	Safety Ramp
EW-503	10/20/2015	Side Road Grading
PM-110	10/15/2024	Line Types
PM-116	4/16/2024	Grooving for Symbols and Legends
PM-111	4/21/2020	Symbols and Legends
PM-115	4/15/2025	Grooving for Line Types
PM-120	10/15/2024	Stop Lines and Islands
PV-101	1/1/2026	Joints
PV-105	10/21/2014	PCC Pavement Widening
SI-101	4/19/2016	Locations - Type 'A' Signs
PV-121	10/21/2025	Jointing PCC Pavement Widening
SI-111	4/19/2016	Support Structures - Wood Posts
SI-131	10/18/2016	Installation - Type 'A' Signs
SI-133	10/17/2017	Installation - Type 'A' Sign Shim
SI-881	4/16/2019	Special Signs for Workzones
SW-211	10/21/2025	Storm Sewer Pipe Connections
TC-1	4/16/2013	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-233	10/17/2017	Pavement Marking Operations Two-Lane
TC-251	4/18/2023	Temporary Road Closure
TC-252	10/21/2025	Routes Closed to Traffic
TC-402	4/21/2015	Work Within 15 FT of Traveled Way
TC-418	4/18/2023	Lane Closure on Divided Highway
TC-433	10/17/2017	Pavement Marking Operations

108_22

11/25/25

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

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

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

***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

BCY6: Broken Centerline (Yellow) @ 0.25

BLC6: Broken Line Contrast (White/Black) @ 0.50

BLW4: Broken Lane Line (White) @ 0.17

BLW6: Broken Lane Line (White) @ 0.25

CBW6: Crosswalk Bar (White) @ 10.00

CHW8: Channelizing Line (White) @ 1.33

CHW10: Channelizing Line (White) @ 1.67

CHY8: Channelizing Line (Yellow) @ 1.33

CHY10: Channelizing Line (Yellow) @ 1.67

CLW6: Crosswalk Line (White) @ 2.00

DCY4: Double Centerline (Yellow) @ 1.34

DCY6: Double Centerline (Yellow) @ 2.00

DDY4: Double Dotted Line (Yellow) @ 0.44

DDY6: Double Dotted Line (Yellow) @ 0.67

DLW4: Dotted Line (White) @ 0.22

DLW6: Dotted Line (White) @ 0.33

DLY4: Dotted Line (Yellow) @ 0.22

DLY6: Dotted Line (Yellow) @ 0.33

ELW4: Edge Line Right (White) @ 0.67

ELW6: Edge Line Right (White) @ 1.00

ELY4: Edge Line Left (Yellow) @ 0.67

ELY6: Edge Line Left (Yellow) @ 1.00

LDW8: Lane Drop (White) @ 0.33

LDW10: Lane Drop (White) @ 0.42

MNY6: Median Nose (Yellow) @ 1.00

NPY4: No Passing Zone Line (Yellow) @ 0.84

NPY6: No Passing Zone Line (Yellow) @ 1.25

RLW4: Ramp Edge Line Right (White) @ 0.67

RLW6: Ramp Edge Line Right (White) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SLW2: Stop Line (White) @ 4.00

SLW4: Solid Lane Line (White) @ 0.67

SLW6: Solid Lane Line (White) @ 1.00

SPW4: Sloped Curb 4" (White) @ 2.16

SPW6: Sloped Curb 6" (White) @ 2.28

SPY4: Sloped Curb 4" (Yellow) @ 2.16

SPY6: Sloped Curb 6" (Yellow) @ 2.28

STW6: Standard Curb 6" (Yellow) @ 2.03

STY6: Standard Curb 6" (Yellow) @ 2.03

YLW2: Yield Line (White) @ 1.15

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	CHW10 (STA)	CHW10 Factored (STA)	DCY4 (STA)	DCY4 Factored (STA)	DLW6 (STA)	DLW6 Factored (STA)	ELW4 (STA)	ELW4 Factored (STA)	ELW6 (STA)	ELW6 Factored (STA)	ELY6 (STA)	ELY6 Factored (STA)	NPY4** (STA)	NPY4** Factored (STA)	SLW2 (STA)	SLW2 Factored (STA)	YLW2 (STA)	YLW2 Factored (STA)	Remarks
US-30	36+08.65	39+08.41	WB	Durable Paint			X	Yes	0.99					3.00	0.99													DIV 1
US-30	36+08.65	48+08.60	WB	Durable Paint	X			Yes	12.00											12.00	12.00							DIV 1
US-30	39+08.41	48+68.65	WB	Durable Paint			X	Yes	9.60									9.60	9.60									DIV 1
US-30	40+72.47	48+72.24	EB	Durable Paint			X	Yes	8.00									8.00	8.00									DIV 1
US-30	40+72.47	42+73.63	EB	Durable Paint		X		Yes	2.00					2.00	0.67													DIV 1
US-30	42+73.63	48+72.68	EB	Durable Paint		X		Yes	25.77	15.43	25.77																	DIV 1
US-30	49+17.41	49+86.88	WB	Durable Paint		X		Yes	3.27	1.96	3.27																	DIV 1
US-30	49+52.98	49+78.03	WB	Durable Paint		X		Yes	0.33																	0.29	0.33	DIV 1
Binford Avenue	209+37.94	235+57.29	SB	Durable Paint			X	Yes	17.76							26.50	17.76											DIV 2
Binford Avenue	209+37.94	209+88.27	NB	Durable Paint			X	Yes	0.54							0.80	0.54											DIV 2
Binford Avenue	209+37.94	215+00.00	Both	Durable Paint		X		Yes	7.53			5.62	7.53															DIV 2
Binford Avenue	210+09.78	235+81.38	NB	Durable Paint			X	Yes	17.86							26.66	17.86											
Binford Avenue	215+00.00	220+80.00	Both	Durable Paint		X		Yes	4.87													5.80	4.87					DIV 2
Binford Avenue	220+80.00	222+55.00	Both	Durable Paint		X		Yes	2.35			1.75	2.35															DIV 2
Binford Avenue	222+55.00	232+80.00	Both	Durable Paint		X		Yes	8.61													10.25	8.61					DIV 2
Binford Avenue	232+80.00	235+73.46	Both	Durable Paint		X		Yes	3.93			2.93	3.93															DIV 2
Binford Avenue	235+60.00	235+73.46	NB	Durable Paint		X		Yes	1.80															0.45	1.80			DIV 2
245th Street	301+61.51	337+11.81	EB	Durable Paint			X	Yes	23.79							35.50	23.79											DIV 2
245th Street	301+62.28	337+11.81	WB	Durable Paint			X	Yes	23.79							35.50	23.79											DIV 2
245th Street	301+62.28	301+62.28	WB	Durable Paint		X		Yes	0.44															0.11	0.44			DIV 2
245th Street	301+62.28	316+30.00	Both	Durable Paint		X		Yes	19.67			14.68	19.67															DIV 2
245th Street	316+30.00	324+95.00	Both	Durable Paint		X		Yes	7.27													8.65	7.27					DIV 2
245th Street	324+95.00	327+30.00	Both	Durable Paint		X		Yes	3.15			2.35	3.15															DIV 2
245th Street	327+30.00	335+95.00	Both	Durable Paint		X		Yes	7.27													8.65	7.27					DIV 2
245th Street	335+95.00	337+11.81	Both	Durable Paint		X		Yes	1.57			1.17	1.57															DIV 2

TOTALS
DIVISION 1: 60.63 STA (FACTORED)
DIVISION 2: 152.20 STA (FACTORED)

PAVEMENT MARKING SYMBOLS AND LEGENDS						108_29 4/15/25
Refer to PM-111						
Roadway Identification	Station	Side	Pavement Symbol	Quantity (EA)	Groove Marking Needed?	Remarks
US-30	43+14.44	Right	RTAW	1	Yes	
US-30	45+64.04	Right	RTAW	1	Yes	
US-30	47+13.77	Right	RTAW	1	Yes	
US-30	48+63.46	Right	RTAW	1	Yes	

TOTAL
DIVISION 1: 4 EA
DIVISION 2: 0

REMOVAL OF PAVEMENT Refer to Tabulation 102-5.						110_01 4/5/24
* Not a bid item.						
Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
36+08.65	48+00.00	Left	HMA	521.9	1191.3	DIVISION 1 - 6 INCH SHOULDER
48+00.00	49+32.51	Both	PCC	158.0	182.1	DIVISION 1 - 10 INCH
40+72.46	50+69.37	Right	HMA	455.1	1006.2	DIVISION 1 - 6 INCH SHOULDER

REMOVAL OF PAVEMENT TOTAL: 1144.2 SY
DIVISION 1: 1135 SY
DIVISION 2: 0 SY
SAW CUT TOTAL: 2379.6 LF
DIVISION 1: 2379.6 LF
DIVISION 2: 0 LF

110_12 1/13/23 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 during construction, 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 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 RESPONSIBILITES A. Designer: - Prepares Base PPP included in the project plan. - Prepares Notice of Intent (NOI) submitted to Iowa DNR. - Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required. B. Contractor: - Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. 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. - Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications. - Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications. - Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231). - Supervises and implements good housekeeping practices according to Paragraph III, C, 2. - Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports. - Complies with training and certification requirements of Section 2602 of the Standard Specifications. - Submits amended PPP site map according to Section 2602 of the Standard Specifications. C. Subcontractors: - Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or perorming work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). 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. - Implement good housekeeping practices according to Paragraph III, C, 2. D. RCE/Project Engineer: - Is Project Storm Water Manager. - On projects where DOT is the Contracting Authority, is current with erosion control training or certification. - Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance. - Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit. - Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors. - Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements. - Is familiar with the Project PPP and storm water site map. - On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies. - Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements. - Is signature authority on Notice of Discontinuation. - Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231). - Makes information to determine permit compliance available to the DNR upon their request.				110_12 1/13/23 POLLUTION PREVENTION PLAN E. Inspector: - Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project. - Makes information to determine permit compliance available to the DNR upon their request. - Conducts joint required inspections of the site with the contractor/subcontractor. - Completes an inspection report after each inspection. - Is signature authority on storm water inspection reports. II. PROJECT SITE DESCRIPTION A. This Pollution Prevention Plan (PPP) is for the construction of US 30 Roadway Improvements and Roadway paving on Binford Ave and 245th St. B. This PPP covers approximately 9.4 acres with an estimated 9.4 acres being disturbed. The portion of the PPP covered by this contract has 9.4 acres disturbed. C. The PPP is located in an area of Clarion - Nicollet - Webster soil association. The estimated weighted average runoff coefficient number for this PPP after completion will be *Provide runoff coefficient Number*. D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets. E. The base storm water 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 and amended PPP site map. F. Runoff from this work will flow into Clear Creek. III. CONTROLS A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications 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, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site 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 of the Standard Specifications. 1. EROSION AND SEDIMENT CONTROLS a. Stabilization Practices - Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized. - Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have: - Permanently ceased on any portion of the site, or - Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. - 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. - Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets. - Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips. - 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 in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications. b. Structural Practices - 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. - Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all					
FILE NO.	ENGLISH	DESIGN TEAM	Snvder & Associates		MARSHALL COUNTY	PROJECT NUMBER	RFM-C064(149) - -54-64	SHEET NUMBER	C.19

7/27/2026 1:36:35 PM

D5eAno0nABER2@IOWAID

110_12 1/13/23 POLLUTION PREVENTION PLAN other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets. c. Storm Water Management 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 storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, 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 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. a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways. b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use. c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving. d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit. e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state. f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. 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. g. 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. h. 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. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants. j. 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's inspector at least once every seven calendar days. Storm water site 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 of 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. Identification of corrective actions required to maintain or modify erosion and sediment control measures. B. Include storm water site 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 and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.				110_12 1/13/23 POLLUTION PREVENTION PLAN 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 headwalls or 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. B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request. C. Fieldbook Entries - 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 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 Paul Geilenfeldt, P.E. Printed or Typed Name Signature Andy Burke, P.E. Printed or Typed Name								
FILE NO.		ENGLISH	DESIGN TEAM	Snvder & Associates		MARSHALL COUNTY	PROJECT NUMBER	RFM-C064(149) - -54-64		SHEET NUMBER	C.20	

7/21/2026 3:59:07 PM

D5eANo0nABER2@IOWAID

110_14
7/11/24

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

* Not a bid item

Line No.	Location Description	Sewer and Work Type	≤ 36 inch Diameter (LF)	> 36 inch Diameter (LF)	Plug Quantity (EA)	* Flowable Mortar or CLSM (CY)	Remarks
1.0	4200	Storm Sewer - Removal	14.0				DIVISION 1
2.0	4957.96	Storm Sewer - Removal	68.0				DIVISION 1
3.0	21181.79	Storm Sewer - Removal	28.0				DIVISION 2
4.0	21254.76	Storm Sewer - Removal	37.0				DIVISION 2
5.0	22027.77	Storm Sewer - Removal	36.0				DIVISION 2
6.0	31110.69	Storm Sewer - Removal	40.0				DIVISION 2
7.0	31977	Storm Sewer - Removal	77.0				DIVISION 2
8.0	32173.42	Storm Sewer - Removal	75.0				DIVISION 2
9.0	32180.43	Storm Sewer - Removal	58.0				DIVISION 2
10.0	32347.86	Storm Sewer - Removal	56.0				DIVISION 2
11.0	32350.52	Storm Sewer - Removal	75.0				DIVISION 2
12.0	32657.22	Storm Sewer - Removal	98.0				DIVISION 2
13.0	32983	Storm Sewer - Removal	75.0				DIVISION 2
14.0	33022.57	Storm Sewer - Removal	38.0				DIVISION 2
15.0	33296.64	Storm Sewer - Removal	49.0				DIVISION 2
16.0	33320	Storm Sewer - Removal	124.0				DIVISION 2

TOTAL
DIVISION 1 = 82 LF
DIVISION 2 = 866 LF

SHOULDERS																	112.09 4/21/26
(1) Lane(s) to which the shoulder is adjacent. (2) See Typ. 7156, 7157, or 7158. (3) Bid Item. (4) Applies only for Paved Shoulders constructed on project with existing granular shoulders. (5) Bid Item. Typ. 7156, 7157, or 7158. (6) Does not include shrink. (7) Paved shoulder thickness specified in Remarks. (8) Subbase type specified in Remarks.																	
Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Start Width (FT)	P End Width (FT)	G Start Width (FT)	G End Width (FT)	L Length (FT)	Paved Shoulder (3) (SY)	Special Backfill Cross Section Area PCC (SF)	Special Backfill Unit Weight (lbs-cf)	Granular Shoulder Cross Section Area (SF)	Granular Shoulder Unit Weight (lbs-cf)	Granular Shoulder (3) (TON)	Earth Shoulder Const. Alt (3) (STA)	Remarks
US 30	WB	36+08.65	41+31.80	Median	0.0	0.0	0.0	0.0	523.15							5.20	DIVISION 1
US 30	WB	36+08.65	37+08.83	Median	0.0	0.0	0.0	6.0	100.18		5.50	140	1.500	140	10.519		DIVISION 1
US 30	WB	37+08.83	49+22.01	Median	0.0	0.0	6.0	6.0	1213.18		5.50	140	3.000	140	254.768		DIVISION 1
US 30	EB	40+72.48	48+72.01	Right	0.0	0.0	0.0	0.0	799.53							8.00	DIVISION 1
US 30	EB	40+72.46	48+72.24	Right	0.0	0.0	6.0	6.0	799.78		5.50	140	3.000	140	167.954		DIVISION 1
US 30	WB	41+67.70	49+16.13	Median	0.0	0.0	0.0	0.0	748.43							8.00	DIVISION 1
US 30	EB	48+72.01	49+11.49	Right	6.0	4.0	0.0	0.0	49.20	29.3	5.50	140					DIVISION 2
US 30	EB	49+11.49	49+34.55	Right	4.0	4.0	0.0	0.0	44.80	18.7	5.50	140					DIVISION 2
US 30	EB	49+65.56	50+69.27	Right	4.0	4.0	0.0	0.0	162.80	70.6	5.50	140					DIVISION 2
BINFORD AVENUE	SB	209+37.94	234+90.12	Left	4.0	4.0	0.0	0.0	2543.24	1134.8	2.00	140					DIVISION 2
BINFORD AVENUE	NB	209+37.94	209+87.93	Right	4.0	4.0	0.0	0.0	73.05	33.9	2.00	140					DIVISION 2
BINFORD AVENUE	NB	210+09.95	234+90.12	Right	4.0	4.0	0.0	0.0	2496.20	1111.1	2.00	140					DIVISION 2
245TH STREET	WB	301+62.28	337+11.81	Left	4.0	4.0	0.0	0.0	3549.53	1577.6	2.00	140					DIVISION 2
245TH STREET	EB	301+62.06	337+11.81	Right	4.0	4.0	0.0	0.0	3549.75	1577.6	2.00	140					DIVISION 2

TOTALS
PAVED SHOULDERS 8":
DIVISION 1: 118.6 SY
DIVISION 2: 5435.0 SY
SPECIAL BACKFILL:
DIVISION 1: 877.6 TONS
DIVISION 2: 1711 TONS
GRANULAR SHOULDERS
DIVISION 1: 433.7 TONS
DIVISION 2: 0 TONS
EARTH SHOULDERS
DIVISION 1: 21.2 STA
DIVISION 2: 0 STA
Earth Construction is not an alternate.

104_09A
5/6/24

LONGITUDINAL SUBDRAIN SHOULDER

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
1.0	US 30	36+08.65	41+96.84	Left	32.0	4.0	622.0	36+08.65	DR-306	500.0	DIVISION 1
2.0	US 30	27+24.23	29+57.86	Left	32.0	4.0	728.0	27+24.23	DR-306	585.0	DIVISION 1
3.0	US 30	40+72.46	44+71.99	Right	32.0	4.0	460.0	40+72.46	DR-306	370.0	DIVISION 1
4.0	US 30	44+72.99	49+16.17	Right	32.0	4.0	505.0	44+72.99	DR-306	406.0	DIVISION 1
5.0	US 30	49+68.88	50+50.06	Right	32.0	4.0	181.0	49+68.88	DR-306	146.0	DIVISION 1
6.0	BINFORD AVE	209+37.94	212+52.93	Left	32.0	4.0	335.0	212+52.93	DR-306	269.0	DIVISION 2
7.0	BINFORD AVE	210+10.39	212+49.69	Right	32.0	4.0	285.0	212+49.69	DR-306	229.0	DIVISION 2
8.0	BINFORD AVE	212+56.43	217+09.51	Right	32.0	4.0	478.0	217+09.51	DR-306	384.0	DIVISION 2
9.0	BINFORD AVE	212+60.17	215+17.41	Left	32.0	4.0	284.0	212+60.17	DR-306	228.0	DIVISION 2
10.0	BINFORD AVE	215+18.41	220+23.13	Left	32.0	4.0	529.0	220+23.13	DR-306	425.0	DIVISION 2
11.0	BINFORD AVE	217+10.51	220+23.13	Right	32.0	4.0	335.0	220+23.13	DR-306	269.0	DIVISION 2
12.0	BINFORD AVE	220+32.05	225+23.11	Left	32.0	4.0	511.0	220+32.05	DR-306	411.0	DIVISION 2
13.0	BINFORD AVE	220+32.05	225+23.11	Right	32.0	4.0	508.0	220+32.05	DR-306	408.0	DIVISION 2
14.0	BINFORD AVE	225+24.11	230+23.11	Left	32.0	4.0	514.0	225+24.11	DR-306	413.0	DIVISION 2
15.0	BINFORD AVE	225+24.11	230+23.11	Right	32.0	4.0	512.0	225+24.11	DR-306	411.0	DIVISION 2
16.0	BINFORD AVE	230+24.11	235+17.87	Left	32.0	4.0	537.0	230+24.11	DR-306	431.0	DIVISION 2
17.0	BINFORD AVE	230+24.11	235+23.82	Right	32.0	4.0	554.0	230+24.11	DR-306	445.0	DIVISION 2
18.0	245TH STREET	301+12.57	306+00.00	Right	32.0	4.0	533.0	301+12.57	DR-306	428.0	DIVISION 2
19.0	245TH STREET	301+66.70	306+05.70	Left	32.0	4.0	455.0	301+66.70	DR-306	366.0	DIVISION 2
20.0	245TH STREET	306+01.43	311+07.72	Right	32.0	4.0	531.0	306+01.43	DR-306	427.0	DIVISION 2
21.0	245TH STREET	306+06.70	311+06.70	Left	32.0	4.0	525.0	306+06.70	DR-306	422.0	DIVISION 2
22.0	245TH STREET	311+13.70	315+13.70	Left	32.0	4.0	421.0	311+13.70	DR-306	338.0	DIVISION 2
23.0	245TH STREET	311+14.72	315+13.70	Right	32.0	4.0	428.0	311+14.72	DR-306	344.0	DIVISION 2
24.0	245TH STREET	315+14.70	319+00.43	Left	32.0	4.0	405.0	319+00.43	DR-306	325.0	DIVISION 2
25.0	245TH STREET	315+14.70	319+00.43	Right	32.0	4.0	411.1	319+00.43	DR-306	330.0	DIVISION 2
26.0	245TH STREET	319+01.43	324+00.43	Left	32.0	4.0	523.0	324+00.43	DR-306	420.0	DIVISION 2
27.0	245TH STREET	319+01.43	324+00.43	Right	32.0	4.0	527.0	324+00.43	DR-306	423.0	DIVISION 2
28.0	245TH STREET	324+01.43	329+00.43	Left	32.0	4.0	522.0	329+00.43	DR-306	419.0	DIVISION 2
29.0	245TH STREET	324+01.43	329+00.43	Right	32.0	4.0	527.0	329+00.43	DR-306	423.0	DIVISION 2
30.0	245TH STREET	329+01.43	334+00.42	Left	32.0	4.0	519.0	334+00.42	DR-306	417.0	DIVISION 2
31.0	245TH STREET	329+01.43	333+00.36	Right	32.0	4.0	424.0	333+00.36	DR-306	341.0	DIVISION 2
32.0	245TH STREET	333+09.67	337+11.81	Right	32.0	4.0	430.0	337+11.81	DR-306	346.0	DIVISION 2
33.0	245TH STREET	334+01.42	337+11.81	Left	32.0	4.0	332.0	337+11.81	DR-306	267.0	DIVISION 2

TOTAL :
DIVISION 1:
4" SUBDRAIN: 2496 LF
DR-306: 10 EA
DIVISION 2
4" SUBDRAIN: 12895 LF
DR-306: 56 EA

REFERENCE LOCATION SIGNS AND DELINEATORS Refer to SI-171, SI-172 and SI-173.																						190_25 2/10/23
Line No.	Station From	Station To	Location	Reference Location Sign Type	Quantity (EA)	Enhanced Reference Location Sign Type	Quantity (EA)	Intermediate Reference Location Sign Type	Quantity (EA)	Type I Delineator White (EA)	Type I Delineator Yellow (EA)	Type IA Delineator White (EA)	Type IA Delineator Yellow (EA)	Type II Delineator White (EA)	Type II Delineator Yellow (EA)	Type III Delineator White (EA)	Type III Delineator Yellow (EA)	Object Marker Type 1 (EA)	Object Marker Type 2 (EA)	Object Marker Type 3 (EA)	Installation Type	Installation Offset
1.0	40+75.00	48+65.00	RT							4											SI-172	10.0

108_13A 3/27/25 SAFETY CLOSURES Refer to Section 2528 of the Standard Specifications			
Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
49+50.00	1		US-30 Stages 1 & 2
49+50.00	1		US-30 Stages 1 & 2
210+25.00	1		Binford/245th Stage 1
211+84.00	1		Binford/245th Stage 1
229+35.00	1		Binford/245th Stage 1
230+87.00	1		Binford/245th Stage 1
235+90.00	1		Binford/245th Stage 1
209+35.00	1		Binford/245th Stage 2
210+13.00	1		Binford/245th Stage 2
211+65.00	1		Binford/245th Stage 2
315+75.00	1		Binford/245th Stage 2
317+28.00	1		Binford/245th Stages 2, 3, & 4
319+75.00	1		Binford/245th Stage 3
321+71.50	1		Binford/245th Stage 3
321+77.00	1		Binford/245th Stage 3
323+47.00	1		Binford/245th Stages 3 & 4
326+45.00	1		Binford/245th Stages 4 & 5
334+63.00	1		Binford/245th Stage 5

TOTALS
DIVISION 1: 2 EA
DIVISION 2: 20 EA

190.51
2/10/23

MATERIALS FOR TYPE 'A' SIGNS
Refer to SI-101, SI-111, SI-119 and N Sheets.

Line No.	Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
1.0	SI-101	Binford Avenue Sign	EB	47+10.00	2	22.0								REINSTALLATION OF EXISTING SIGN	Division 1
2.0	SI-101	R5-1	NB	48+20.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 1
3.0	SI-101	R5-1	SB	48+20.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 1
4.0	SI-101	R1-2, R6-1	SB	48+60.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 1
5.0	SI-101	R6-1	SB	48+95.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 1
6.0	SI-101	R1-1, R6-1, R6-3	NB	49+98.00	2	22.0								REINSTALLATION OF EXISTING SIGN	Division 1
7.0	SI-101	D3-1		49+97.90				11.0			1			REINSTALLATION OF EXISTING SIGN	Division 1
8.0	SI-101	W3-1	NB	228+35.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 2
9.0	SI-101	W1-7	WB	300+70.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 2
10.0	SI-101	2439		300+71.00										REINSTALLATION OF EXISTING SIGN, REUSE POST	Division 2
11.0	SI-101	D3-1		301+32.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 2
12.0	SI-101	R1-1	WB	301+62.00	1	11.0								REINSTALLATION OF EXISTING SIGN	Division 2
13.0	SI-101	1146		326+23.00										REINSTALLATION OF EXISTING SIGN, REUSE POST	Division 2
14.0	SI-101	W14-3	NB	209+37.94	1	11.0							12.0	PROPOSED SIGN	Division 2
15.0	SI-101	W14-3	NB	220+80.00	1	11.0							12.0	PROPOSED SIGN	Division 2
16.0	SI-101	W14-3	SB	222+55.00	1	11.0							12.0	PROPOSED SIGN	Division 2
17.0	SI-101	W14-3	SB	234+75.00	1	11.0							12.0	PROPOSED SIGN	Division 2
18.0	SI-101	W14-3	EB	301+62.00										PROPOSED SIGN - PLACE ON BACK OF STOP SIGN	Division 2
19.0	SI-101	W14-3	EB	324+85.00	1	11.0							12.0	PROPOSED SIGN	Division 2
20.0	SI-101	W14-3	WB	327+40.00	1	11.0							12.0	PROPOSED SIGN	Division 2
21.0	SI-101	W14-3	WB	337+11.81	1	11.0							12.0	PROPOSED SIGN	Division 2

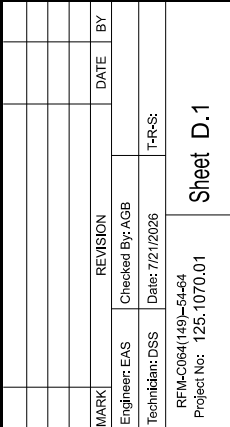
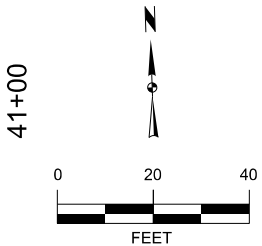
TOTALS:
DIVISION 1-
Wooden Posts (4x6) - 88 LF
Perforated Square Steel Tube Post - 11 LF
Perforated Square Steel Post Anchor - 1 EA
Division 2 -
Wooden Posts (4x6) - 121 LF
Perforated Square Steel Tube Post - 0 LF
Perforated Square Steel Post Anchor - 0 EA

EXISTING SIGNS TO BE REMOVED											190.62 2/13/23	
Sign Number or Description	Location Station	Direction of Travel	Type 'A' Sign Assembly (RA) (EA)	Type 'B' Sign Assembly (RB) (EA)	Type 'A' Remove and Reinstall (RR) (EA)	Type 'B' Remove and Reinstall (RR) (EA)	Concrete Foundation (RF) (EA)	Support Structure & Foundation (RS) (EA)	Applicable	Signing	Notes	Remarks
Binford Avenue Sign	47+10.00	EB			1					Includes Entire Sign Assembly		Div 1
R5-1 - Do Not Enter	48+22.08	WB			1					Includes Entire Sign Assembly		Div 1
R5-1 - Do Not Enter	48+22.73	WB			1					Includes Entire Sign Assembly		Div 1
D3-1 - Binford Avenue/245th	235+39.35	Both			1					Includes Entire Sign Assembly		Div 1
R6-1 - One Way	235+49.63	SB			1					Includes Entire Sign Assembly		Div 1
R1-1 - Stop, R6-1 - One Way, R6-3 Div. Highway	235+49.68	Both			1					Includes Entire Sign Assembly		Div 1
R1-2 - Yield, R6-1 - One Way	236+29.74	SB			1					Includes Entire Sign Assembly		Div 1
W3-1 - Stop Ahead	228+40.00	NB			1					Includes Entire Sign Assembly		Div 2
W1-7, Intersection Warning	300+70.47	WB			1					Includes Entire Sign Assembly		Div 2
2439	300+71.16	Both			1					Includes Entire Sign Assembly		Div 2
D3-1 - Binford Avenue/245th	301+32.74	Both			1					Includes Entire Sign Assembly		Div 2
R1-1 - Stop	301+53.31	WB			1					Includes Entire Sign Assembly		Div 2
1146	326+23.09	Both			1					Includes Entire Sign Assembly		Div 2

Division 1 Totals -
Remove and Reinstall Sign As Per Plan: 7 EA
Division 2 Totals -
Remove and Reinstall Sign As Per Plan: 6 EA
*NOTE: Removal and Reinstallation of Sign as Per Plan includes the removal and eventual reinstallation of all signs attached to the post indicated for removal. Post replacement will be paid for separately.

SUMMARY OF TYPE 'A' SIGNS						
Line No.	Sign Number	Non-Standard Sign Number or Name	Quantity (EA)	Size (IN)	Total Sign Area (SF)	Remarks
1.0	W14-3	NO PASSING ZONE	8	48 X 48 X 36	44.8	Division 2 - Proposed Signs

DIVISION 1 TOTALS: 0 SF
DIVISION 2 TOTALS: 44.8 SF



US 30 PLAN AND PROFILE MARSHALL COUNTY, IOWA

ORD\\B\\H\\A\\Weight\\PDF\\p\\c\\fig V:\\Ref\\Library\\CADD\\Standards\\Bentley\\Organization\\Civil\\ISA_Standards\\2024\\Pen Tables\\data.tbl 7/21/2026 5:03:45 PM mbeier\\dms V:\\Projects\\2025\\125.1070.01\\CADD\\CDD_125.1070.01\\D1+03_US30.dgn

STA. 42+00 WBL
EXISTING 24" X 60" RCP
FL LT = 1098.77
FL RT = 1100.29

STA. 42+00.85 WBL
REMOVE EXISTING RT APRON
EXTEND WITH 20 LF OF 24" RCAP
FL OTHER = 1099.97
FL RT = 1100.28
FL END WALL = 1100.99
CONSTRUCTION A DISSIMILAR
PIPE CONNECTION PER DETAIL 4
ON SHEET B.3.
CONSTRUCT END WALL ON 24"
RCAP APRON PER DR-206.

CONTRACTOR TO REVIEW EXISTING PIPE JOINT
LOCATIONS IN THE FIELD AND COORDINATE
WITH THE ENGINEER ON FINDINGS PRIOR TO
PIPE EXTENSION WORK

PRECAST SUBDRAIN OUTLET
PER STANDARD ROAD PLAN DR-306

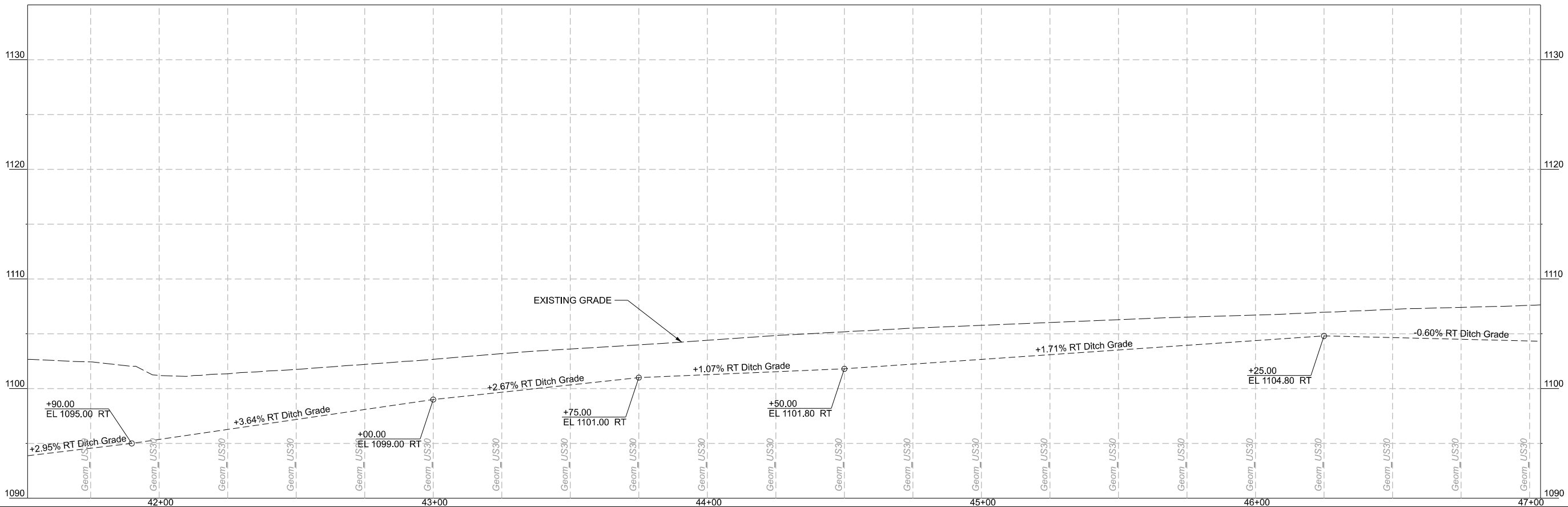
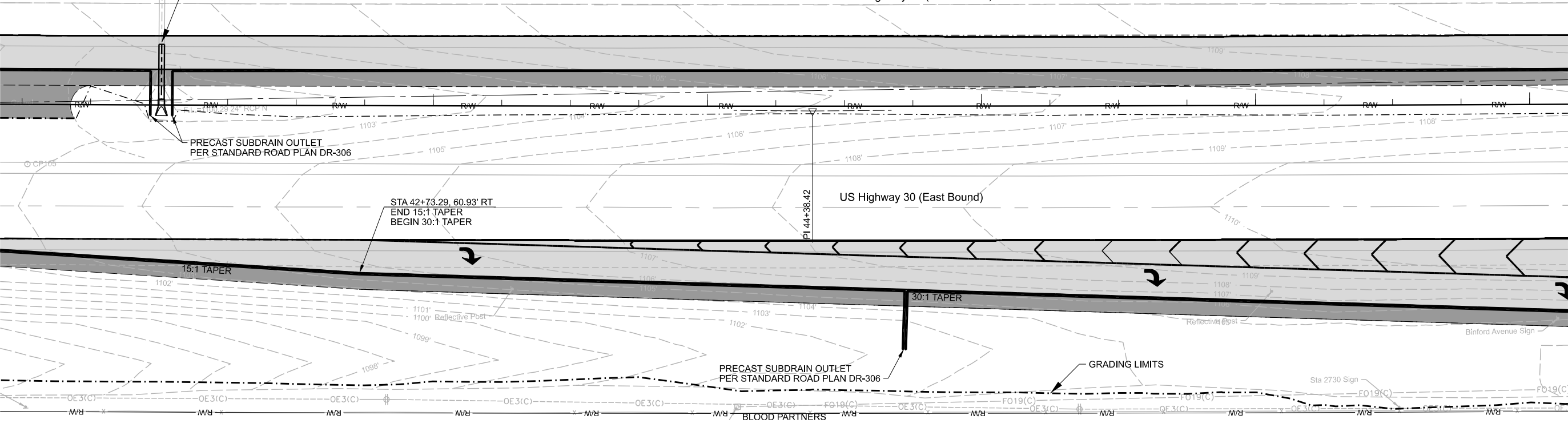
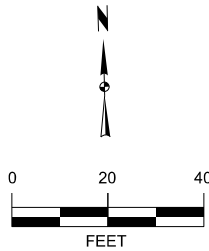
STA 42+73.29, 60.93' RT
END 15:1 TAPER
BEGIN 30:1 TAPER

PI 44+38.42
 $\Delta 00^{\circ}53'45"$ (LT)
T 447.92'
L 895.81'
R 57300.00' US Highway 30 (West Bound)

US Highway 30 (East Bound)

LEGEND

- ROADWAY PCC PAVING
- GRANULAR SHOULDER
- PAVED SHOULDER



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 PLAN AND PROFILE

MARSHALL COUNTY, IOWA

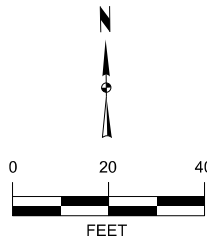
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

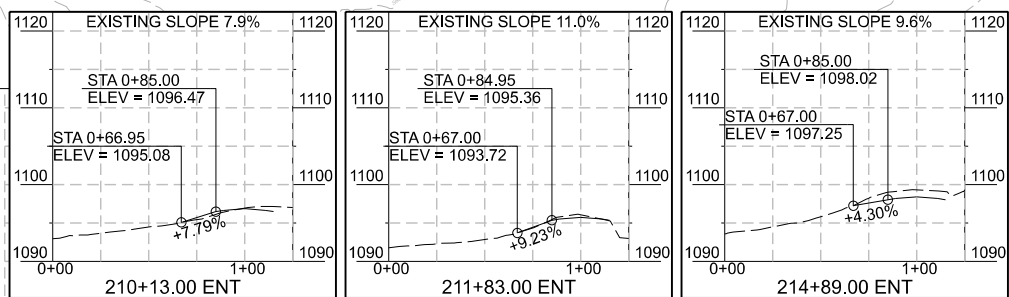
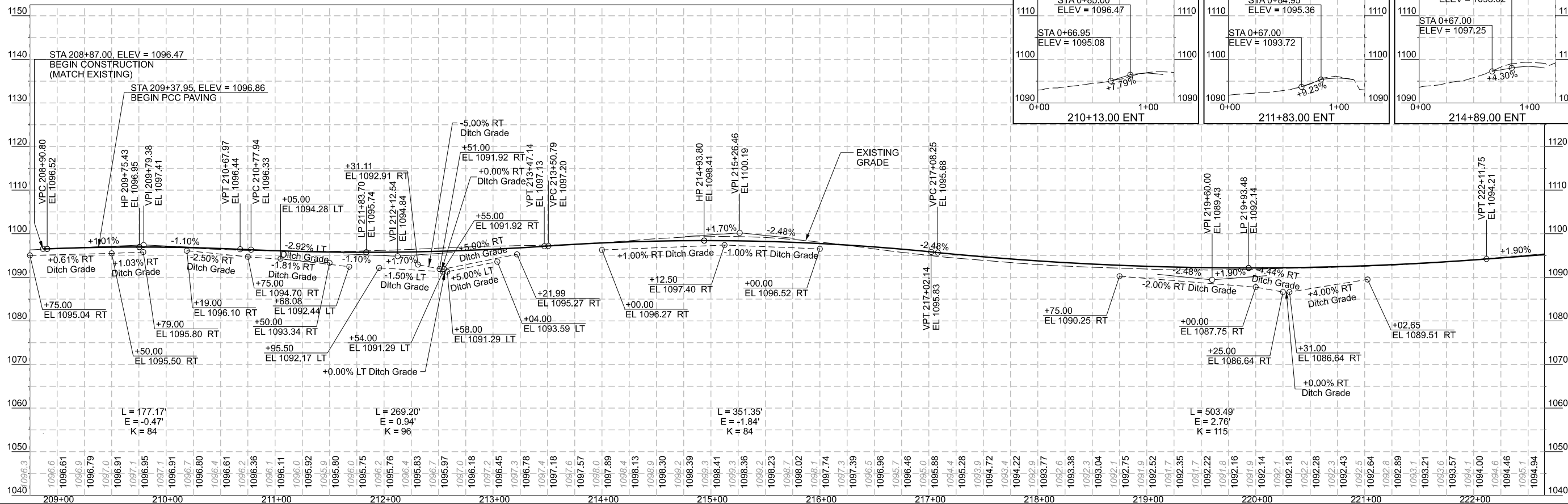


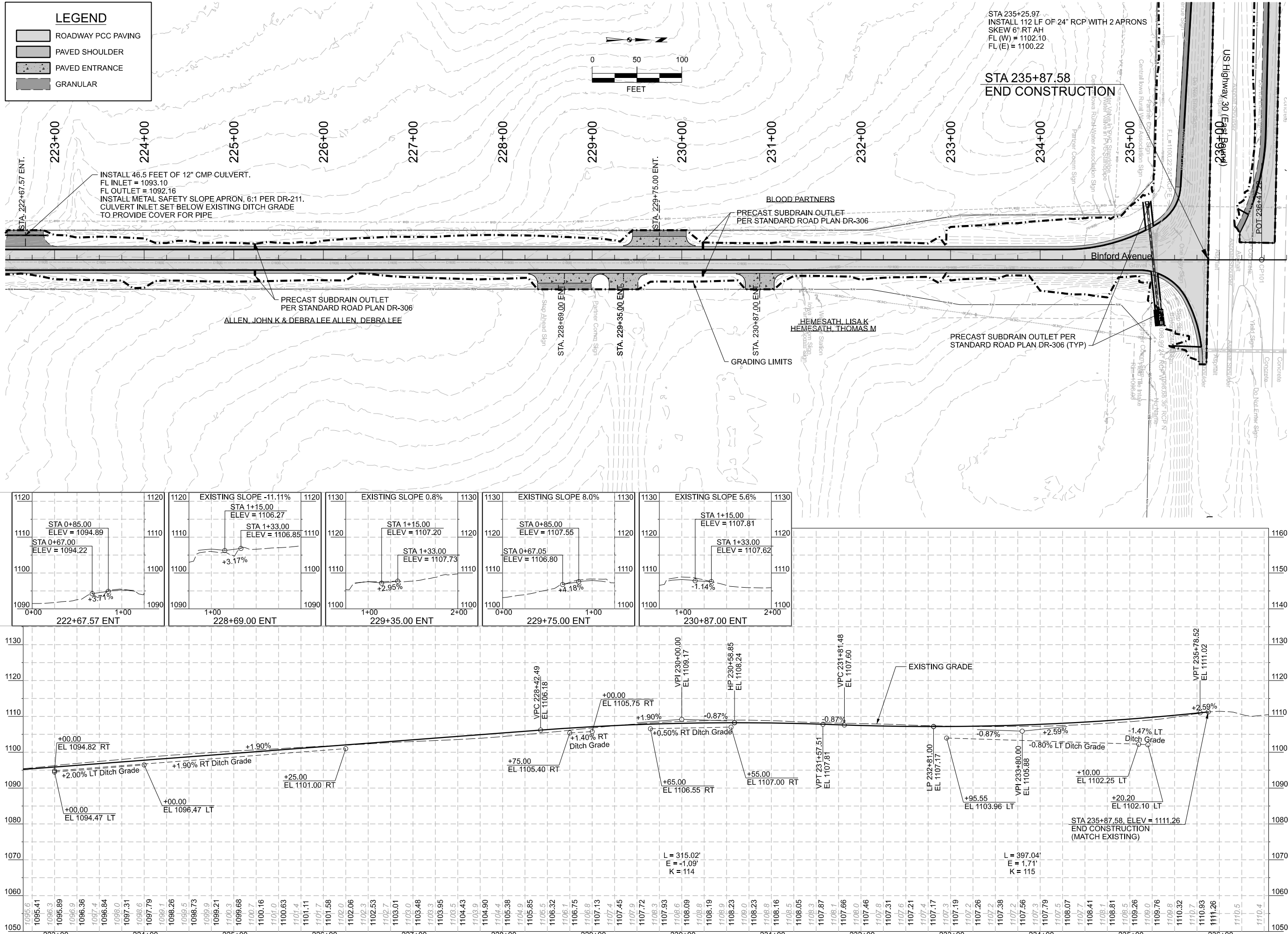
Project No: 125.1070.01

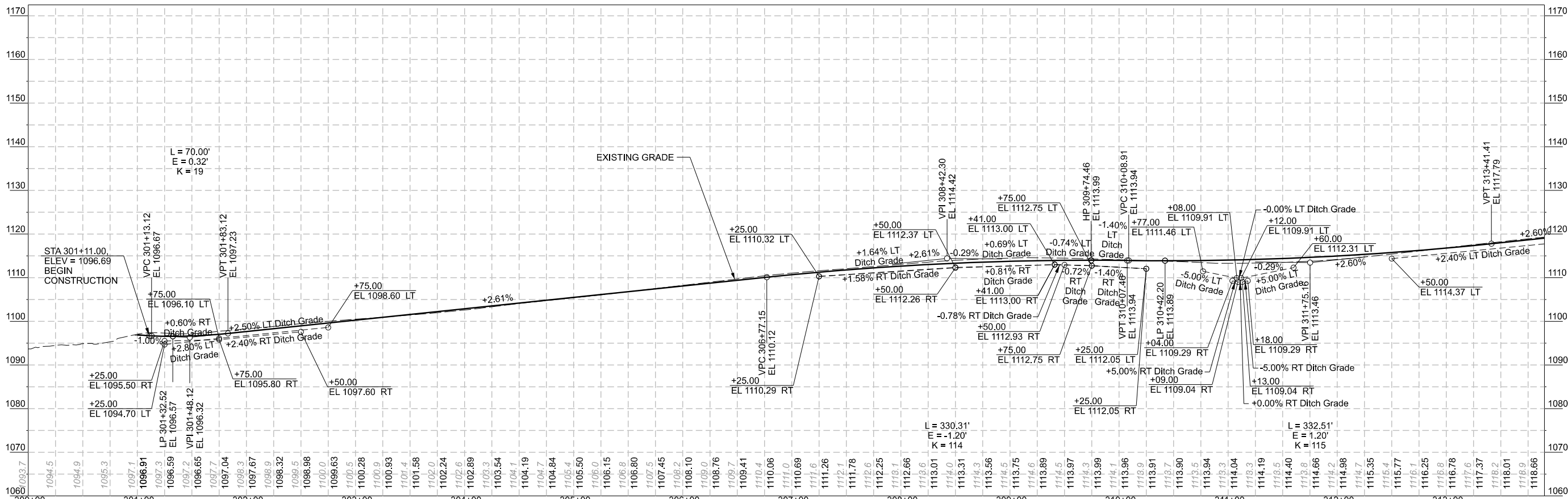
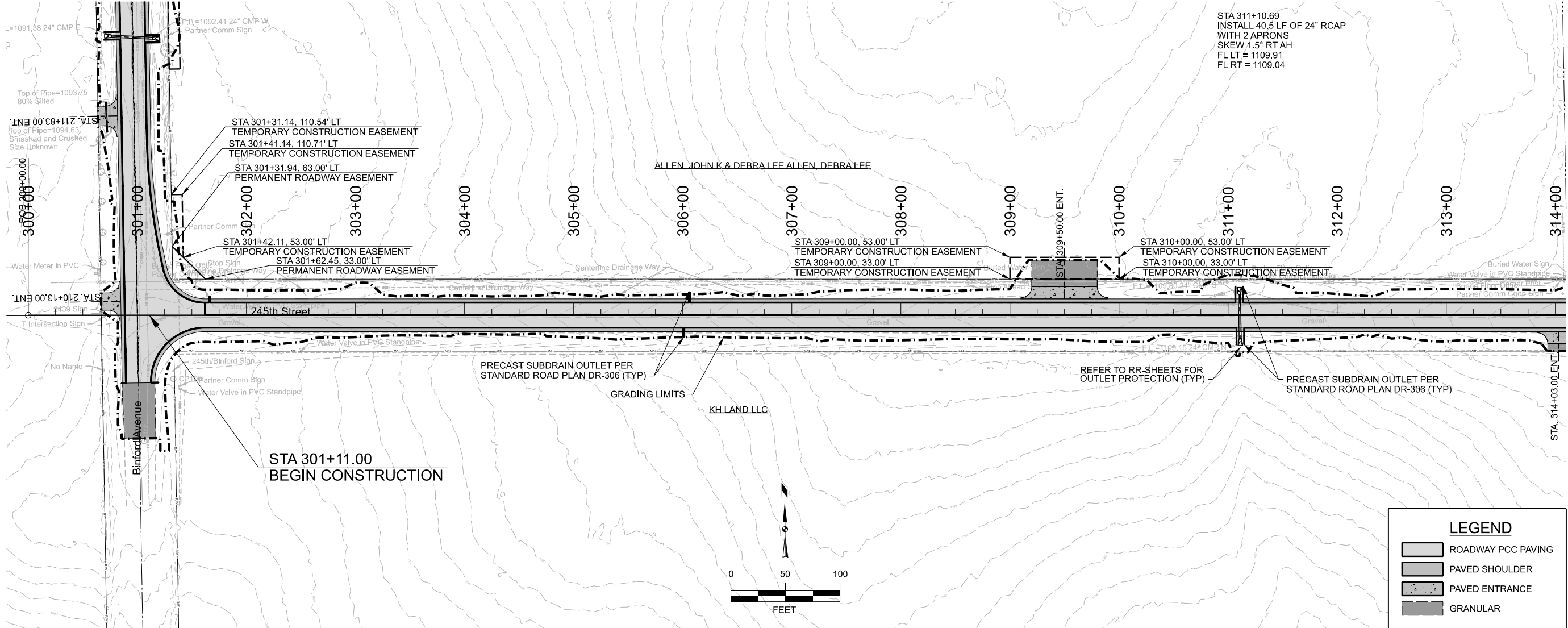
Sheet D.2

MARK	ENGINEER	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB			
Technician: DSS	Date: 7/21/2026			
RFM-0064(149)-5464				Sheet D.2
Project No: 125.1070.01				









REVISION		DATE	BY
MARK	Engineer: EAS	Checked By: AGB	
	Technician: DSS	Date: 7/21/2026	T-R-S:

Sheet E.3

Project No: 125.1070.01

RFM-0064(49)-5464

Project No: 125.1070.01

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

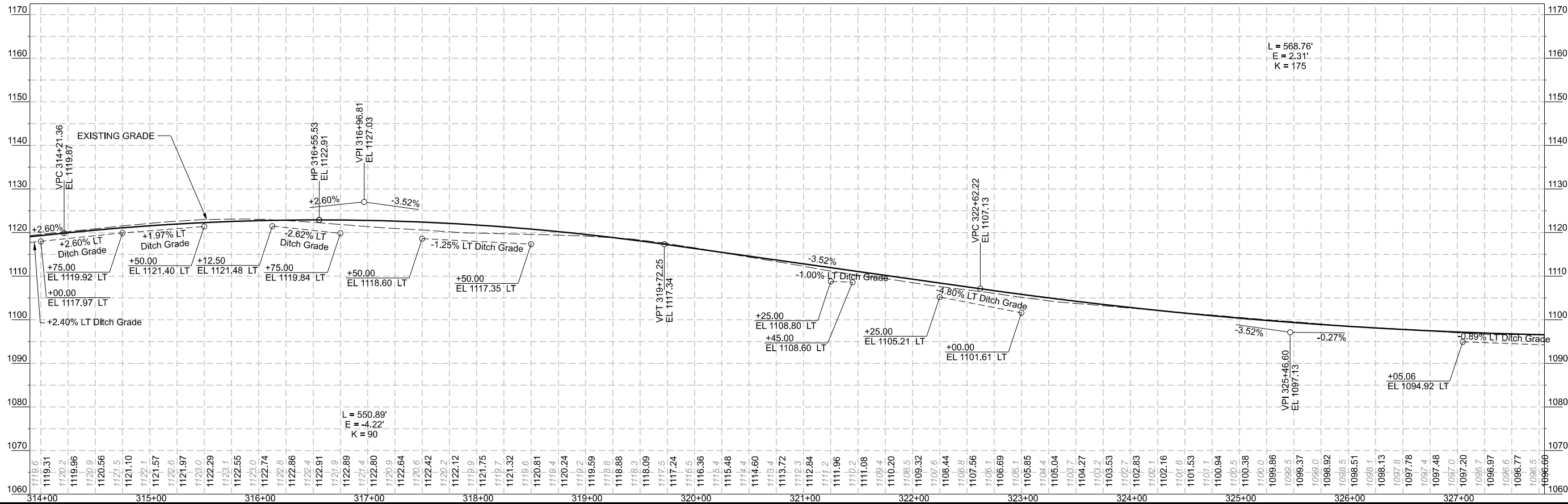
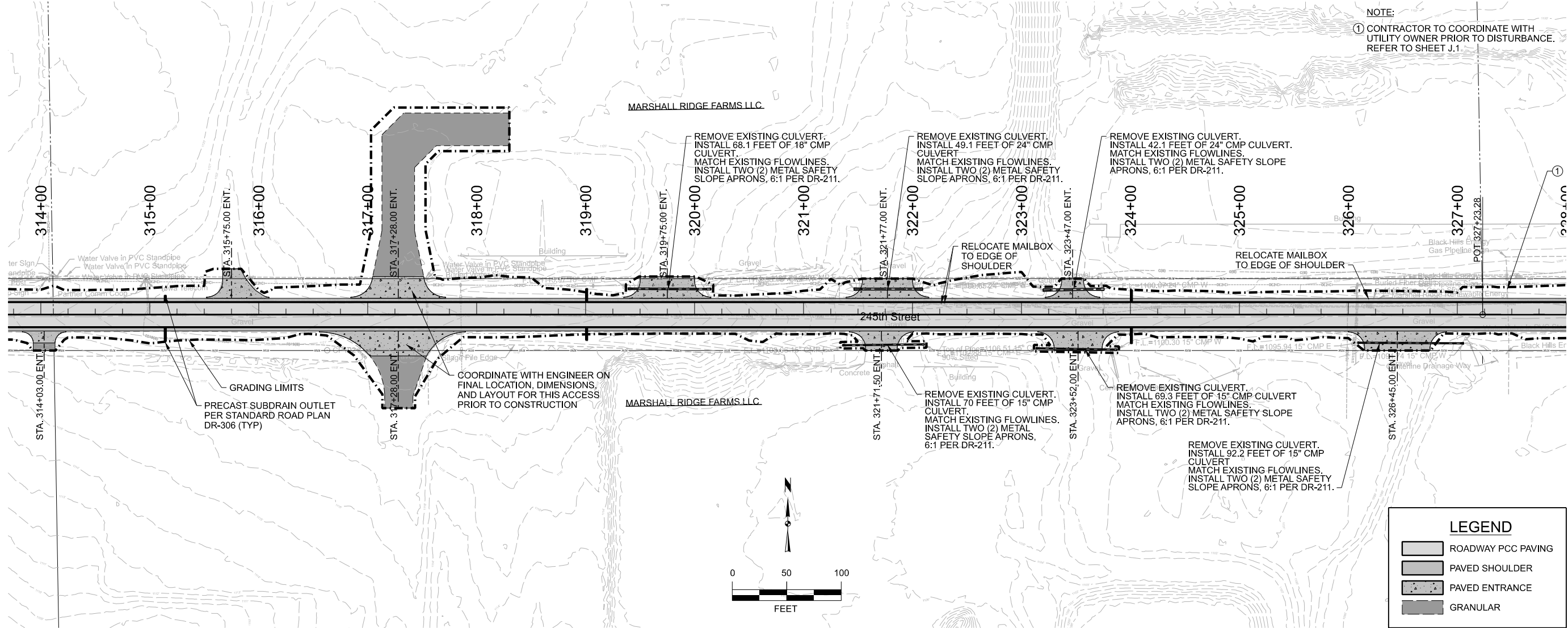
SNYDER & ASSOCIATES, INC.

245TH ST PLAN AND PROFILE

MARSHALL COUNTY, IOWA

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

SNYDER & ASSOCIATES



NOTE:
① CONTRACTOR TO COORDINATE WITH UTILITY OWNER PRIOR TO DISTURBANCE. REFER TO SHEET J.1

LEGEND

- ROADWAY PCC PAVING
- PAVED SHOULDER
- PAVED ENTRANCE
- GRANULAR

REVISION		DATE	BY

MARSHALL COUNTY, IOWA	
Engineer: EAS	Checked By: AGB
Technician: DSS	Date: 7/21/2026
T-R-S:	

Sheet E.4	
RFM-0064(149)-5464	Project No: 125.1070.01

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST PLAN AND PROFILE

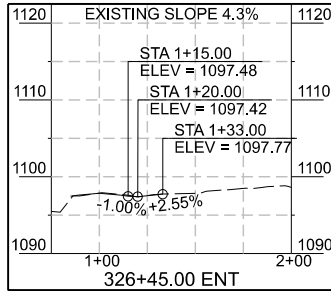
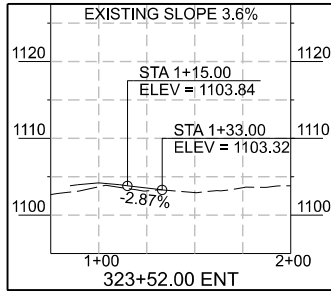
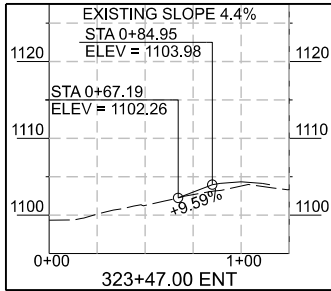
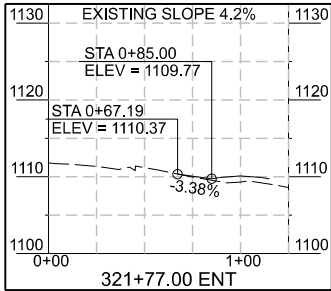
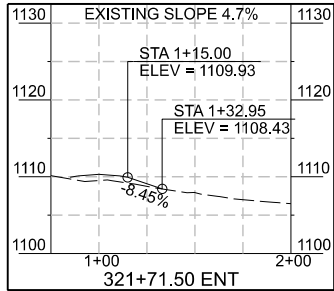
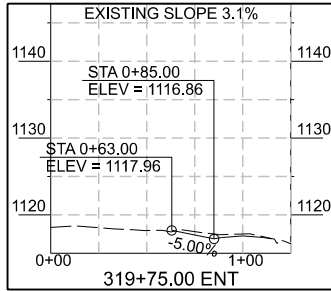
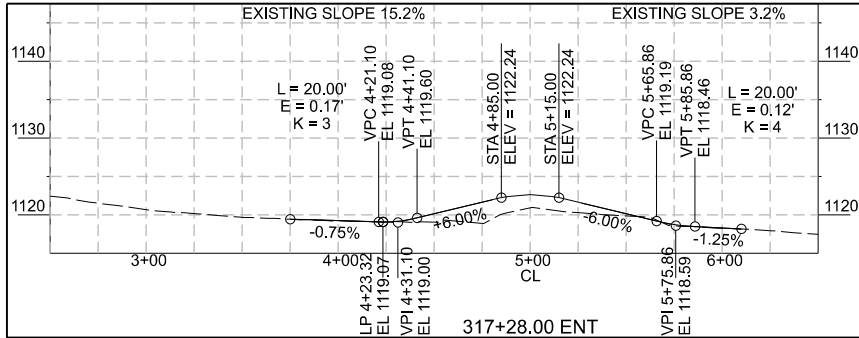
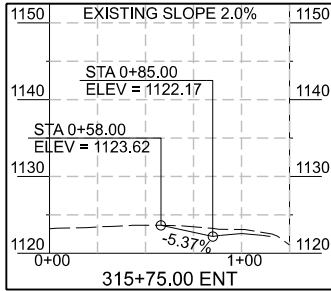
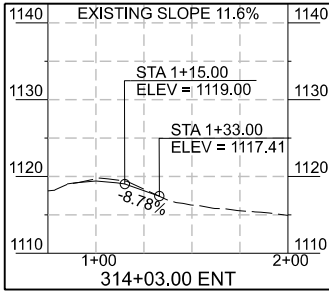
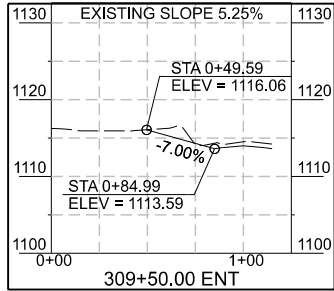
SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 125.1070.01

Sheet E.4



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST PLAN AND PROFILE

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

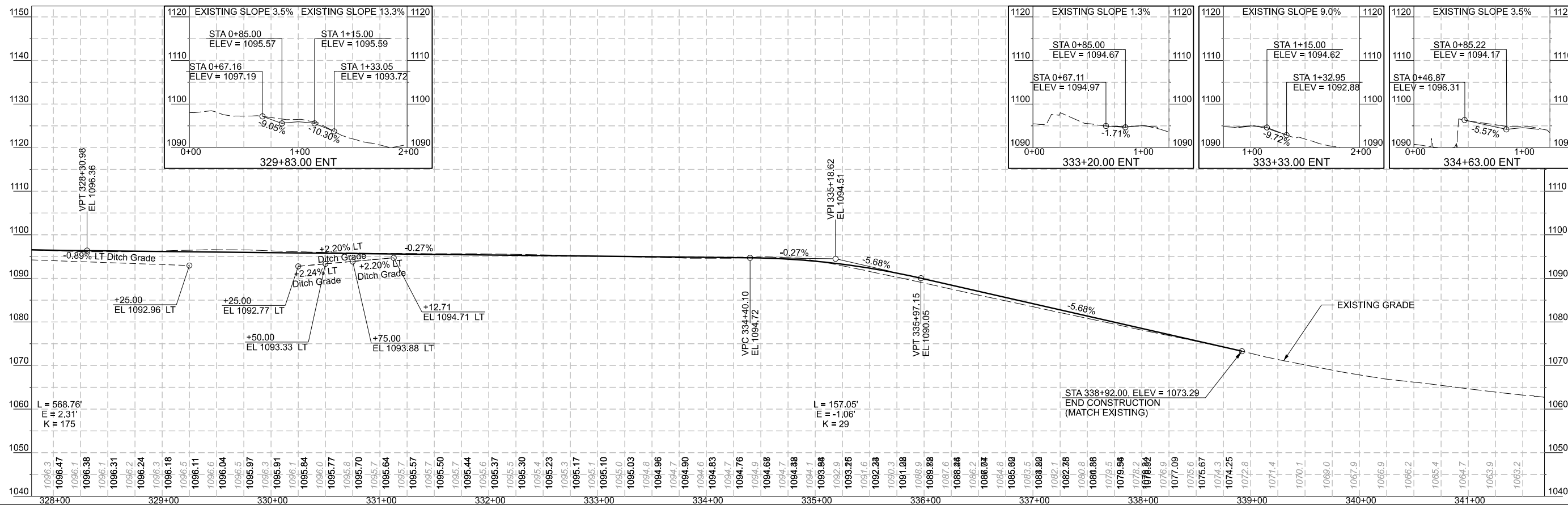
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

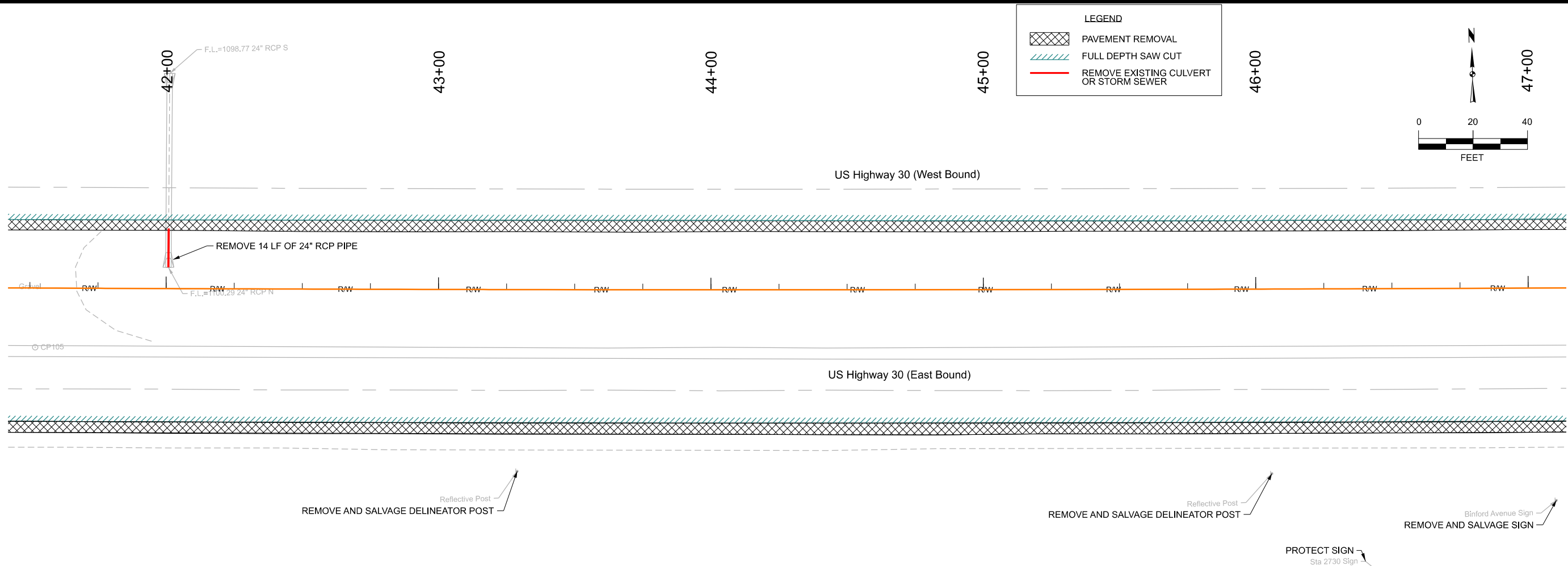
**SNYDER**
& ASSOCIATES

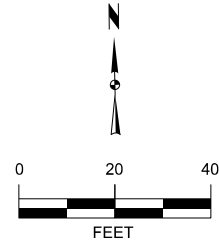
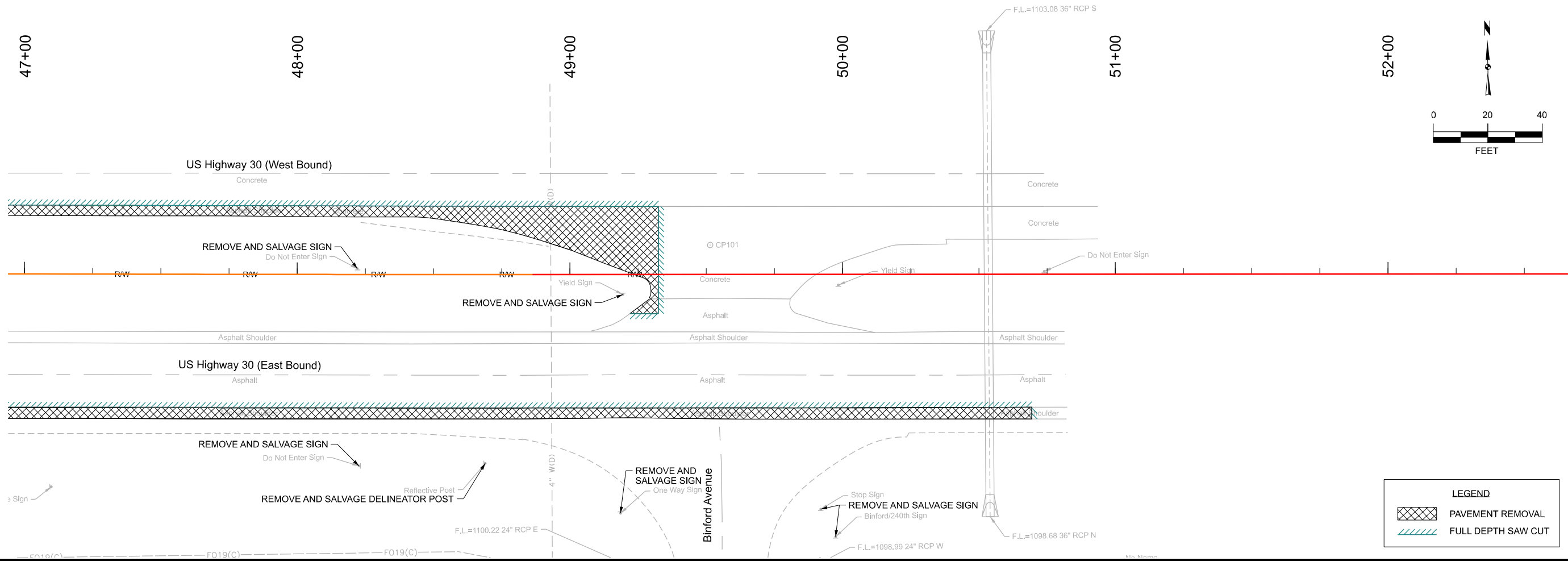
Project No: 125,1070.01

Sheet E.5

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-0064(49)-5464			Sheet E.5
Project No: 125,1070.01			





[illegible]

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

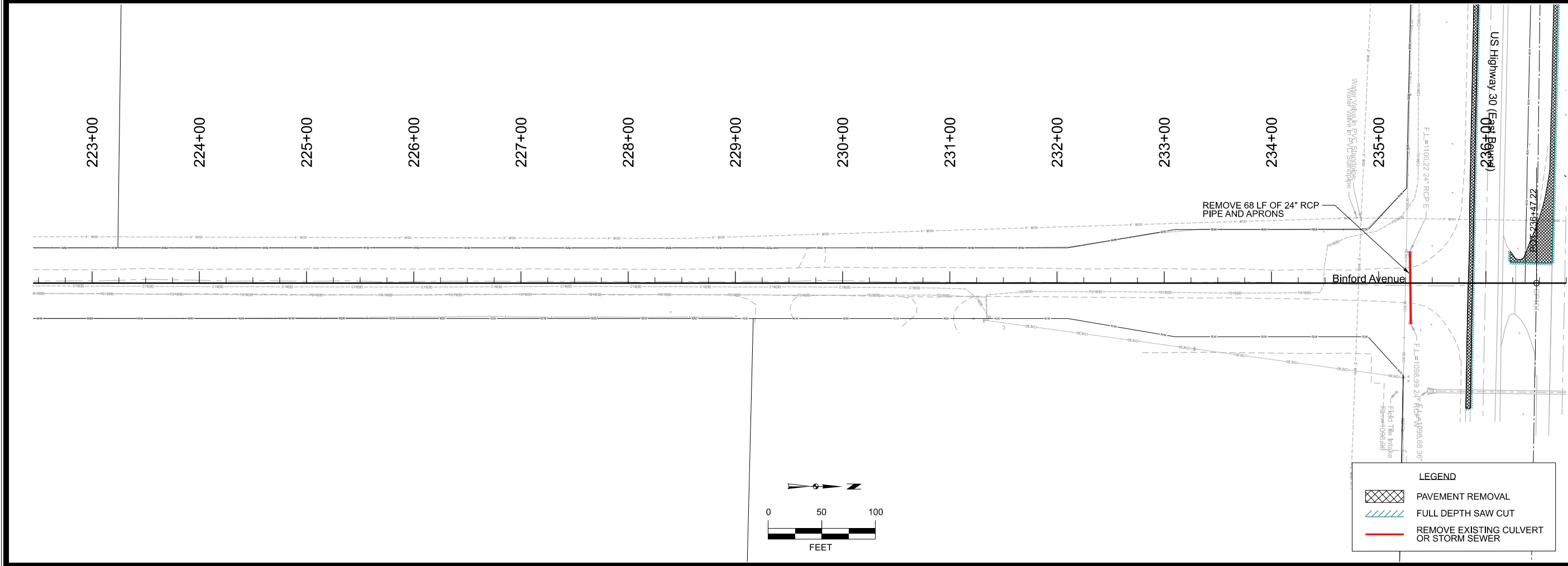
US 30 REMOVAL PLANS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



Project No: 125.1070.01

Sheet F.2



BINFORD AVE REMOVAL PLANS

SNYDER & ASSOCIATES, INC.

515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

RFM-CU64(149)-54-64
Project No: 125.1070.01

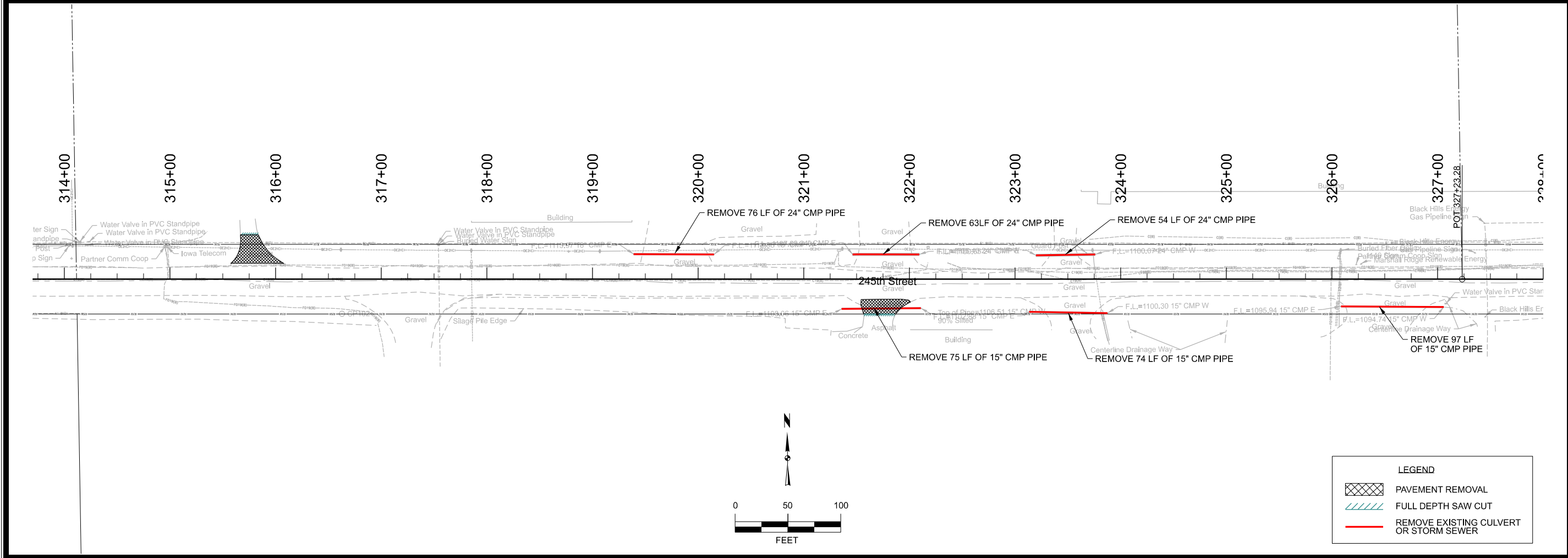
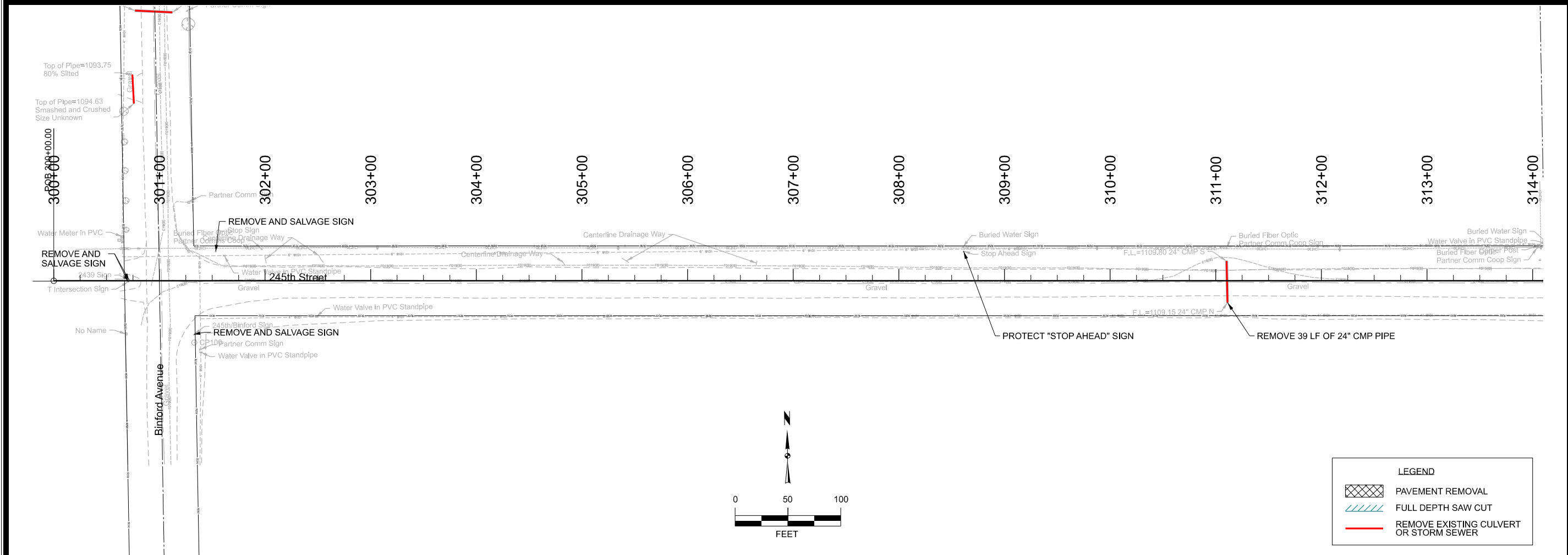
Sheet F.3

7/21/2026 12:42:33 PM mbearends V:\Projects\2025\125.1070\01\CADD\CD - 125.1070_F4\F5_245TH.dgn

W:\Library\CADDStandards\Bentley\Organization-Civil\SAI_Standards\2024Pen Tables\data.ctb

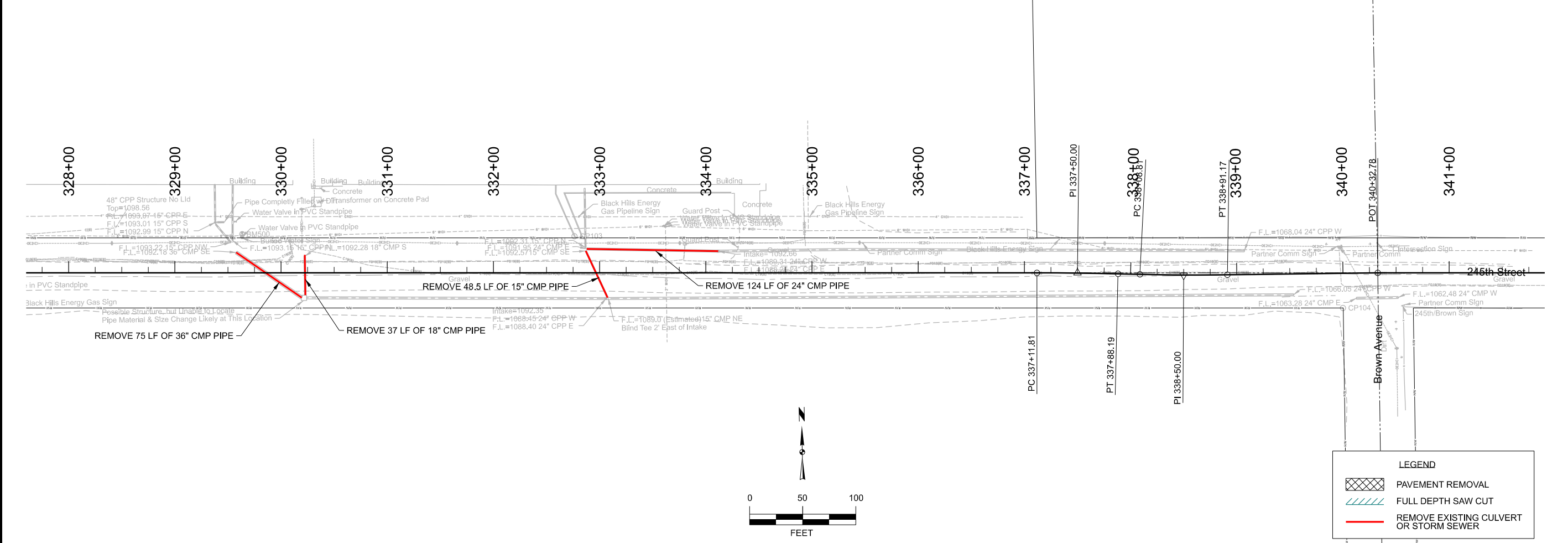
ORC\Corral\Weight\PDF.plt

Geom_245th - Plan F4 [Sheet]



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS			
245TH ST REMOVAL PLANS			
MARSHALL COUNTY, IOWA		Sheet F.4	
2727 SW SNYDER BLVD ANKENY, IA 50023 515-964-2020 WWW.SNYDER-ASSOCIATES.COM		RFM-0064149-5464 Project No: 125.1070.01	
Snyder & Associates, Inc.		Sheet F.4	

REVISION		DATE	
MARK	Engineer: EAS	Checked By: AGB	BY
	Technician: DSS	Date: 7/21/2026	T-R-S:





SNYDER & ASSOCIATES

Project No: 125,1070.01

Sheet F.5

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST REMOVAL PLANS

SNYDER & ASSOCIATES, INC.

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK

Engineer: EAS

Checked By: AGB

DATE

REVISION

BY

RFM-0064 (49)-5464

Project No: 125,1070.01

Sheet F.5



SEPTEMBER 15, 2025

CP102	N=783809.10 E=19392169.94 Z=1096.33 SET 1/2" REBAR WITH RED PLASTIC CAP, SOUTHEAST QUADRANT OF BINFORD AVENUE AND 245TH STREET, +/-5' SOUTH OF STREET SIGN.
CP103	N=7840735.23 E=19392129.91 Z=1110.30 FOUND MAG SPIKE IN MEDIAN Crossover AT BINFORD AVENUE AND HIGHWAY 30, +/-CENTERLINE AND +/-15' SOUTH OF SOUTH EDGE WEST BOUND LANE.
CP104	N=7838033.46 E=19393699.99 Z=1120.51 SET 1/2" REBAR WITH RED PLASTIC CAP, WEST OF WEST ENTRANCE TO FACILITY, SOUTH SIDE OF 245TH STREET INLINE WITH POWER POLE ON NORTH SIDE.
CP105	N=7838078.13 E=19395314.27 Z=1095.48 SET CUT "X" ON SOUTHWEST CORNER OF CUNNETTE, NORTH SIDE OF 245TH STREET, +/-125' WEST OF EAST DRIVE ON NORTH SIDE OF 245TH STREET.
CP106	N=7838000.43 E=19396036.91 Z=1067.51 FOUND 1/2" REBAR WITH BLUE PLASTIC CAP #22259, SOUTHWEST QUADRANT OF 245TH STREET AND BROWN AVENUE.
CP107	N=7840720.30 E=19391329.90 Z=1102.89 SET MAG NAIL, NORTH SIDE OF EAST BOUND LANES ON ASPHALT SHOULDER +/-CENTERLINE OF MEDIAN Crossover TO HOUSE #1047.
CP108	N=7840774.11 E=19390180.27 Z=1076.03 SET 1/2" REBAR WITH RED PLASTIC CAP IN MEDIAN, +/-10' SOUTH OF REINFORCED CONCRETE PIPE CULVERT FLOWLINE NORTH.

BM500 N=7838084.46 E=19395001.46 Z=1098.64
UPPER EAST BOLT ON HYDRANT, NORTH SIDE OF 245TH STREET AT DRIVE,
SOUTH SIDE EAST-WEST CATTLE BUILDING.

Alignment Name: Geom_US30
 Alignment Description:
 Alignment Style: Alignment\Geom_Baseline
 Station Northing Easting

Element: Linear
 START (START) 0+00.00 7840800.13 19387179.89
 PC (PC) 10+54.40 7840818.96 19388234.12
 Tangential Direction: N88.98°E
 Tangential Length: 1054.40

Element: Circular			
PC (PC)	10+54.40	7840818.96	19388234.12
HPI (HPI)	14+80.74	7840826.57	19388660.39
CC (CC)		7823631.70	19388541.12
PT (PT)	19+06.90	7840813.05	19389086.51

Radius: 17190.00
Delta: 02°50'29.25" Right
Degree of Curvature (Arc): 00°19'59.91"
Length: 852.50
Tangent: 426.34
Chord: 852.41
Middle Ordinate: 5.28
External: 5.29
Back Tangent Direction: N88.98°E
Back Radial Direction: S1.02°E
Chord Direction: S89.60°E
Ahead Radial Direction: S1.82°W
Ahead Tangent Direction: S88.18°E

Element: Linear
PT (PT) 19+06.90 7840813.05 19389086.51
PC (PC) 39+90.51 7840746.94 19391169.07
Tangential Direction: S88.18°E
Tangential Length: 2083.61

Element: Circular			
PC (PC)	39+90.51	7840746.94	19391169.07
HPI (HPI)	44+38.42	7840732.73	19391616.76
CC (CC)		7898018.09	19392987.06
PT (PT)	48+86.32	7840725.52	19392064.62

Radius: 57300.00
Delta: 00°53'44.69" Left
Degree of Curvature (Arc): 00°05'59.97"
Length: 895.81
Tangent: 447.92
Chord: 895.80
Middle Ordinate: 1.75
External: 1.75
Back Tangent Direction: S88.18"E
Back Radial Direction: S1.82"W
Chord Direction: S88.63"E
Ahead Radial Direction: S0.92"W
Ahead Tangent Direction: S89.08"E

Element: Linear
PT (PT) 48+86.32 7840725.52 19392064.62
HPI (HPI) 76+96.00 7840680.29 19394873.94
Tangential Direction: S89.08°E
Tangential Length: 2809.68

Element: Linear
HPI (GeomBL2) 76+96.00 7840680.29 19394873.94
END (END) 101+92.95 7840640.09 19397370.56
Tangential Direction: S89.08°E
Tangential Length: 2496.95

Alignment Name: Geom_Binford
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
--	---------	----------	---------

Element: Linear
 START (START) 200+00.00 7837087.96 19392141.06
 HPI (HPI) 210+00.00 7838087.96 19392137.76
 Tangential Direction: N0.19°W
 Tangential Length: 1000.00

Element: Linear
HPI (GeomBL) 210+00.00 7838087.96 19392137.76
HPI (HPI) 236+47.22 7840735.16 19392129.96
Tangential Direction: N0.17°W
Tangential Length: 2647.22

Element: Linear
HPI (GeomBL1) 236+47.22 7840735.16 19392129.96
END (END) 238+97.22 7840985.16 19392129.22
Tangential Direction: N0.17°W
Tangential Length: 250.00

Alignment Name: Geom_245th
 Alignment Description:
 Alignment Style: Alignment\Geom_Baseline

Station	Northing	Easting
---------	----------	---------

Element: Linear
 START (START) 300+00.00 7838089.35 19392037.77
 HPI (HPI) 327+23.28 7838051.44 19394760.79
 Tangential Direction: S89.20°E
 Tangential Length: 2723.28

Element: Linear
HPI (GeomBL) 327+23.28 7838051.44 19394760.79
HPI (HPI) 340+32.75 7838032.99 19396070.13
Tangential Direction: S89.19°E
Tangential Length: 1309.47

Element: Linear
HPI (GeomBL1) 340+32.75 7838032.99 19396070.13
END (END) 353+40.74 7838014.55 19397377.99
Tangential Direction: S89.19°E
Tangential Length: 1307.99

[illegible]

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
0 | WWW.SNYDER-ASSOCIATES.COM



SNYDER
& ASSOCIATES

Project No: 125.1070.01

Sheet G.1

ALIGNMENT COORDINATES																				101_16 10/25/24
Line No.	Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
1.0	1	Geom_US30		7840800.128	19387179.89															
2.0	2	Geom_US30							10+54.40	7840818.959	19388234.12	14+80.74	7840826.573	19388660.39	19+06.90	7840813.046	19389086.51			
3.0	4	Geom_US30							39+90.51	7840746.939	19391169.07	44+38.42	7840732.727	19391616.76	48+86.32	7840725.517	19392064.62			
4.0	6	Geom_US30	76+96.00	7840680.285	19394873.94															
5.0	6	Geom_US30	101+92.95	7840640.088	19397370.56															
6.0	1	Geom_Binford	200+00.00	7837087.961	19392141.06															
7.0	2	Geom_Binford	210+00.00	7838087.956	19392137.76															
8.0	3	Geom_Binford	236+47.22	7840735.164	19392129.96															
9.0	3	Geom_Binford	238+97.22	7840985.163	19392129.22															
10.0	1	Geom_245th	300+00.00	7838089.348	19392037.77															
11.0	2	Geom_245th	327+23.28	7838051.442	19394760.79															
12.0	3	Geom_245th							337+11.81	7838037.512	19395749.22	337+50.00	7838036.974	19395787.4	337+88.19	7838035.552	19395825.57			
13.0	5	Geom_245th							338+08.81	7838034.784	19395846.18	338+50.00	7838033.251	19395887.34	338+91.17	7838033.192	19395928.52			
14.0	7	Geom_245th	340+32.78	7838032.989	19396070.13															
15.0	7	Geom_245th	353+40.77	7838014.55	19397377.99															

101_17 1/17/24																	
SPIRAL OR CIRCULAR CURVE DATA																	
Line No.	Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
1.0	C1	Geom_US30										2.841	426.337	852.5	17190	5.286	
2.0	C2	Geom_US30										0.896	447.916	895.813	57300	1.751	
3.0	C1	Geom_245th										1.326	38.192	76.381	3300	0.221	
4.0	C2	Geom_245th										2.052	41.183	82.356	2300	0.369	

TRAFFIC CONTROL PLAN		108_23A 8/15/22
1. TRAFFIC CONTROL ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 13. 2. THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL WITH OTHER PROJECTS IN THE AREA. 3. THE CONTRACTOR IS ALLOWED TO SUBMIT A REVISED STAGING PLAN, BUT MUST PROVIDE THE ENGINEER 5 DAYS TO REVIEW THE PLANS. FINAL APPROVAL MUST BE GIVEN BY ENGINEER. 4. MAJOR STAGES OF CONSTRUCTION ARE SHOWN IN THE STAGING AND TRAFFIC CONTROL PLAN. CHANGES TO THE STAGING PLAN MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR ALL STAGES OF WORK. WRITTEN NOTICE SHALL BE PROVIDED TO THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ROADWAY CLOSURES AND STAGE TRANSITIONS. 5. ALL PERMANENT PAVEMENT MARKINGS AND SIGNING SHALL BE INSTALLED PRIOR TO OPENING ROADWAYS TO TRAFFIC, UNLESS OTHERWISE NOTED. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SAFE STORAGE AREA FOR EQUIPMENT AND MATERIALS TO BE USED ON THE PROJECT. 7. INGRESS AND EGRESS FROM THE WORK AREA WILL BE ALLOWED ONLY AT LOCATIONS SPECIFIED IN THE CONTRACT DOCUMENTS OR AS APPROVED BY THE ENGINEER. ALL TRUCKS HAULING MATERIAL TO AND FROM THE WORK AREA SHALL DISPLAY A 16"X48" RETRO REFLECTIVE SIGN WITH THE WORDS "DO NOT FOLLOW INTO THE WORK AREA". THE SIGN SHALL BE ORANGE WITH BLACK LETTERING (4" HEIGHT) AND BE COMPRISED OF TYPE VII SHEETING. 8. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, CLEANED, AND REMOVED BY THE CONTRACTOR. ALL TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 9. WHERE POSSIBLE, ALL POST MOUNTED SIGNS SHALL BE PLACED AT LEAST 2 FEET BEYOND THE EDGE OF THE SHOULDER. ALL SIGNS TO BE IN PLACE LONGER THAN THREE DAYS SHALL BE POST MOUNTED. 10. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF THE TEMPORARY SIGNING AND WHICH IS NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE ENGINEER. 11. THE CONTRACTOR MAY SUBMIT ALTERNATE SIGNING DETAILS TO COINCIDE WITH THE SCHEDULE OF OPERATIONS FOR ANY VARIATIONS APPROVED OR ORDERED BY THE CONTRACTING AUTHORITY. 12. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE NAME, AND 24-HOUR PHONE NUMBER OF THE CONTRACTOR'S REPRESENTATIVE IN CHARGE OF TRAFFIC CONTROL. CHANGES TO THE TRAFFIC CONTROL CONFIGURATION, INCLUDING ADDITIONAL SIGNS, CONES, BARRELS, BARRICADES, ETC. THAT ARE REQUIRED, SHALL BE DELIVERED AND INSTALLED AT THE PROJECT SITE WITHIN FOUR (4) HOURS OF NOTIFICATION, INCLUDING WEEKENDS. 13. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CURRENT TRAFFIC CONTROL THROUGHOUT CONSTRUCTION. 14. CONTRACTOR SHALL PROVIDE 10-DAY NOTICE TO IOWA 511 REGARDING THE PROJECT AND CHANGES TO TRAFFIC PATTERNS AND TRAFFIC CONTROL. 15. BLACK HILLS ENERGY IS REQUIRED TO BE ON STANDBY DURING CONSTRUCTION OVER GAS MAIN. CONTRACTOR TO PROVIDE 5-BUSINESS DAYS NOTICE TO BLACK HILLS ENERGY, AND COORDINATE WITH CHUCK WOODS (545-343-2037) PRIOR TO CONSTRUCTION OVER THE UNDERGROUND CROSSING LOCATED NEAR STA. 327+50. REFER TO SHEET E.4. 16. CONTRACTOR TO COORDINATE A POLE HOLD DURING CONSTRUCTION NEAR THE ALLIANT ENERGY POLE LOCATED NEAR STA. 333+75. CONTRACTOR TO PROVIDE 5-BUSINESS DAYS NOTICE TO ALLIANT ENERGY, AND COORDINATE DIRECTLY WITH BILL FARRINGTON (641-754-5811) PRIOR TO WORK AROUND THE POLE. REFER TO SHEET E.6.		

STAGING NOTES

GENERAL STAGING NOTES:

CONTRACTOR SHALL NOT START WORK UNTIL AFTER TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE ENGINEER. CONTRACTOR TO COORDINATE CLOSURES OF ACCESS DRIVES WITH PROPERTY OWNERS.

DIVISION 1

STAGE 1 - RIGHT TURN LANE CONSTRUCTION AND BINFORD ACCESS

- TRAFFIC CONTROL TO BE INSTALLED PER IOWA DOT STANDARD ROAD PLAN TC-418. SEE SHEET J.4 FOR ADDITIONAL INFORMATION. ACCESS TO BINFORD AVE TO BE MAINTAINED.
- PAVEMENT ALONG US 30 TO BE REMOVED PER F SHEETS
- OFFSET RIGHT TURN LANE TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND BEGIN STAGE 2

STAGE 2 - ACCELERATION LANE CONSTRUCTION

- TRAFFIC CONTROL TO BE INSTALLED PER IOWA DOT STANDARD ROAD PLAN TC-418. SEE SHEET J.5 FOR ADDITIONAL INFORMATION.
- PAVEMENT ALONG US 30 TO BE REMOVED PER F SHEETS
- ACCELERATION LANE TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND RESTORE TRAFFIC

DIVISION 2

STAGE 1 - BINFORD AVENUE

- SAFETY CLOSURE TO BE PLACED AT BINFORD AVE AND US 30 INTERSECTION. SEE J.6 FOR ADDITIONAL INFORMATION.
- GRAVEL ROAD BED IS TO BE PREPPED FOR PAVEMENT CONSTRUCTION.
- BINFORD AVENUE AND DRIVEWAYS TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND RESTORE ACCESS TO BINFORD AVE

STAGE 2 - 245TH STREET PART 1

- REFER TO SHEET J.7 AND J.8 FOR TRAFFIC CONTROL INFORMATION
- GRAVEL ROAD BED IS TO BE PREPPED FOR PAVEMENT CONSTRUCTION.
- 245TH STREET SEGMENT AND DRIVEWAYS TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND PROCEED TO STAGE 3.

STAGE 3 - 245TH STREET PART 2

- REFER TO SHEET J.9 FOR TRAFFIC CONTROL INFORMATION
- GRAVEL ROAD BED IS TO BE PREPPED FOR PAVEMENT CONSTRUCTION.
- 245TH STREET SEGMENT AND DRIVEWAYS TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND PROCEED TO STAGE 4.

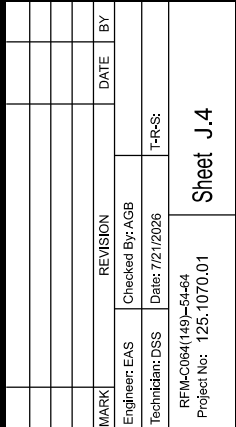
STAGE 4 - 245TH STREET PART 3

- REFER TO SHEET J.10 FOR TRAFFIC CONTROL INFORMATION
- GRAVEL ROAD BED IS TO BE PREPPED FOR PAVEMENT CONSTRUCTION.
- 245TH STREET SEGMENT AND DRIVEWAYS TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND PROCEED TO STAGE 5.

STAGE 5 - 245TH STREET PART 4

- REFER TO SHEET J.11 FOR TRAFFIC CONTROL INFORMATION
- GRAVEL ROAD BED IS TO BE PREPPED FOR PAVEMENT CONSTRUCTION.
- 245TH STREET SEGMENT AND DRIVEWAYS TO BE CONSTRUCTED PER PLANS
- REMOVE TRAFFIC CONTROL AND RESTORE ALL TRAFFIC TO PROJECT AREAS.

FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	MARSHALL COUNTY	PROJECT NUMBER	RFM-C064(149) -- 54-64	SHEET NUMBER	J.3
----------	---------	-------------	--------------------------------	------------------------	----------------	-------------------------------	--------------	------------



US 30 TRAFFIC CONTROL AND STAGING

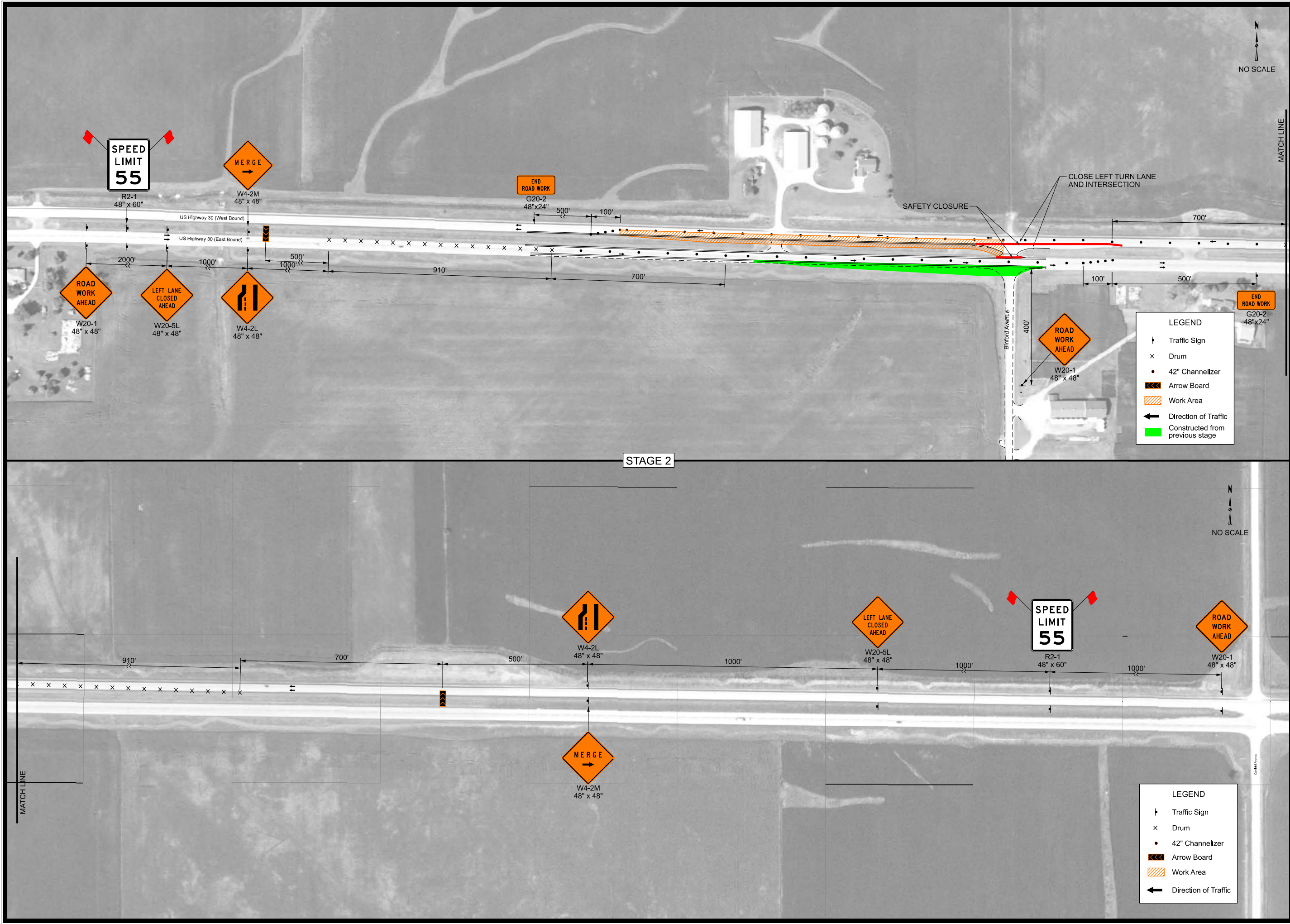


SNYDER
& ASSOCIATES

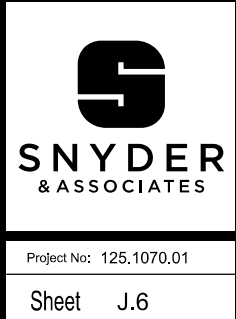
Project No: 125.1070.01

Sheet J.4

7/21/2026 12:43:10 PM
mbeierends V:\Projects\2025\125,1070.01\CADD\CD - 125,1070_02_US30.dgn
V:\RefLibrary\CADDStandards\Bentley\Organization-Civil\ISA Standards\2024\Pen Tables\data.ctb
Sheet 125,1070.01

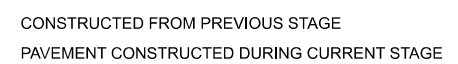


US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS		MARSHALL COUNTY, IOWA	
US 30 TRAFFIC CONTROL AND STAGING		SNYDER & ASSOCIATES, INC.	
Project No: 125,1070.01		Sheet J.5	
7/21/2026 12:43:10 PM		2727 SW SNYDER BLVD ANKENY, IA 50023 515-964-2020 WWW.SNYDER-ASSOCIATES.COM	
mbeierends V:\Projects\2025\125,1070.01\CADD\CD - 125,1070_02_US30.dgn		V:\RefLibrary\CADDStandards\Bentley\Organization-Civil\ISA Standards\2024\Pen Tables\data.ctb	





US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS			
BINFORD AVE AND 245TH ST TRAFFIC CONTROL AND STAGING MARSHALL COUNTY, IOWA			
SNYDER & ASSOCIATES, INC. 2727 SW SNYDER BLVD ANKENY, IA 50023 515-964-2020 WWW.SNYDER-ASSOCIATES.COM			
MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS		Date: 7/21/2026	T-R-S:
RFW-C064(149)-54-64		Sheet J.7	
Project No: 125.1070.01			

Project No: 125.1070.01



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 245TH ST TRAFFIC CONTROL AND STAGING MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.



SNYDER & ASSOCIATES

Project No: 125,1070.01

Sheet J.9

MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

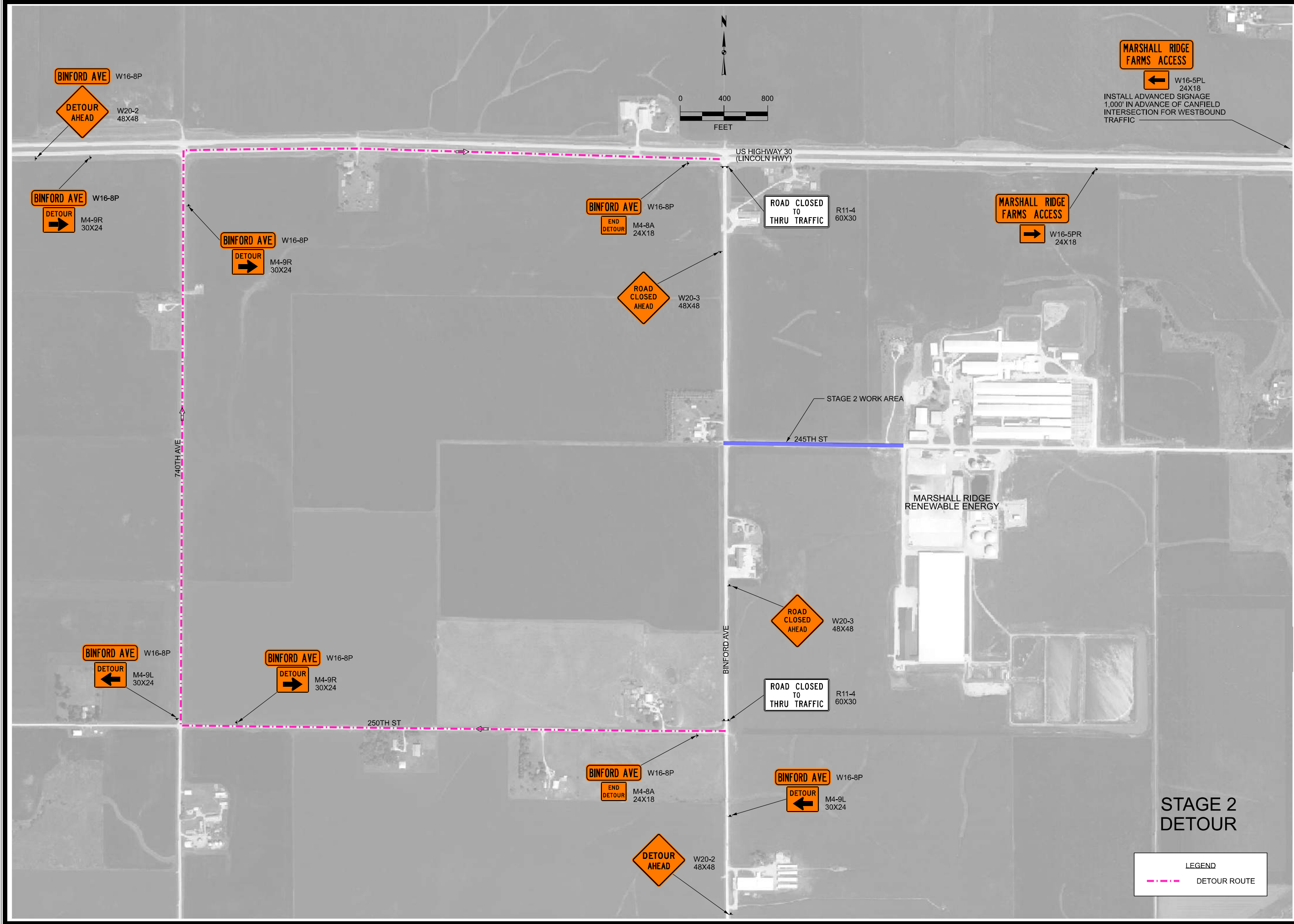
DATE

BY

RFM-0064(49)-5464

Project No: 125,1070.01

Sheet J.9



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 245TH ST TRAFFIC CONTROL AND STAGING MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

DATE

T-R-S:

BY

Project No: 125,1070.01

Sheet J.10

Sheet J.10

SNYDER & ASSOCIATES

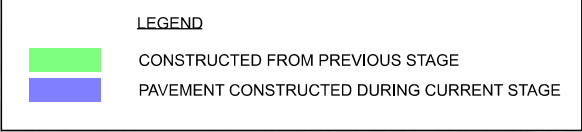
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125,1070.01

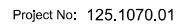
Sheet J.10

© 2024 Microsoft Corporation. All rights reserved. Microsoft, the Microsoft Dynamics logo, and the Microsoft Dynamics ribbon are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.





SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-984-2020 | WWW.SNYDER-ASSOCIATES.COM



Sheet J.12

MARK	REVISION	DATE	BY
	Engineer: EAS		
	Checked By: AGB		
	Date: 7/21/2026		
	Technician: DSS		

RFM-C084(149)-F454

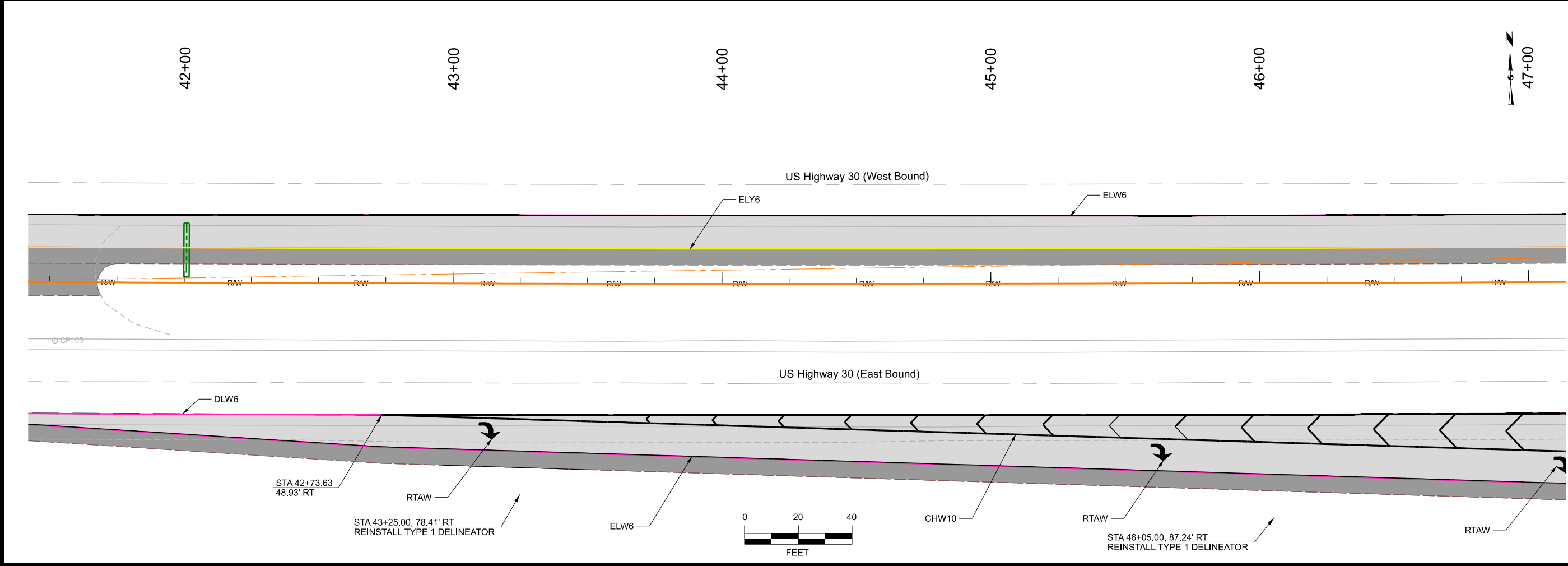
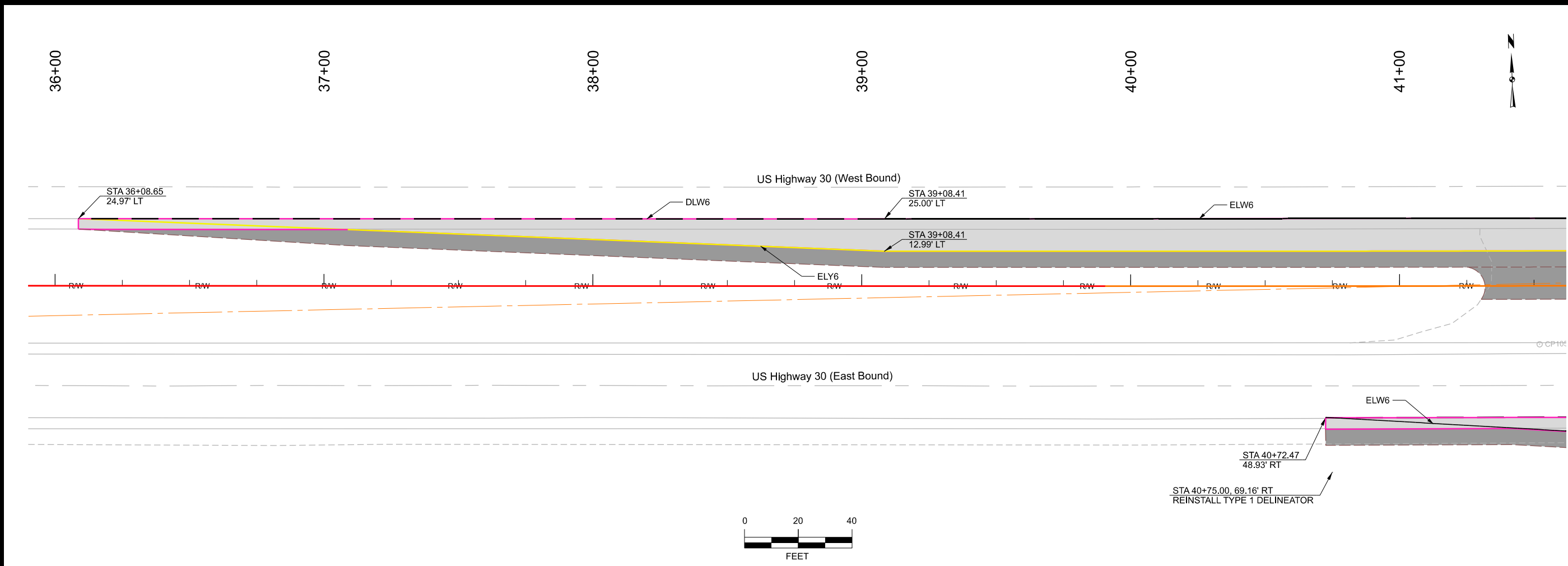
Project No: 125,1070.01

Sheet J.12



The logo for Snyder & Associates is centered in the upper half of the page. It consists of a large, bold, black stylized letter 'S' with a horizontal bar extending from its center. Below the 'S' is the company name 'SNYDER & ASSOCIATES' in a bold, black, sans-serif font.

7/21/2026 12:43:49 PM
mbeierends
V:\Projects\2025\125,107\01\ICADD\ICD_125,107_01\11_US30.dgn
Geom_US30 - Plan J10 [Sheet]
V:\RefLibrary\CADDStandards\Bentley\Organization\Civil\SAI_standards\2024\Pen Tables\data.ctb
ORDCaloria\WegHPDF.plt;cig



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 PAVEMENT MARKING LAYOUT



SNYDER
& ASSOCIATES

Project No: 125,1070.01

Sheet J.14

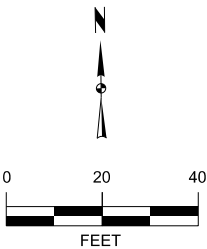
MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet J.14

RFM-0064(149)-54-64
Project No: 125,1070.01

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
T-R-S:			

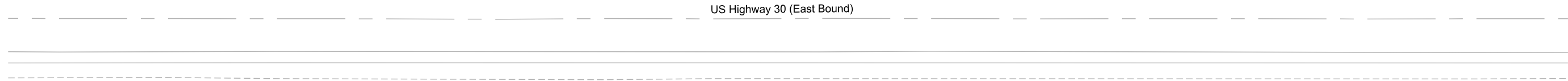


SNYDER
& ASSOCIATES

Project No: 125.1070.01

Sheet J.15





Project No: 125.1070.01

Project No: 125.1070.01



SNYDER
& ASSOCIATES

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
0 | WWW.SNYDER-ASSOCIATES.COM

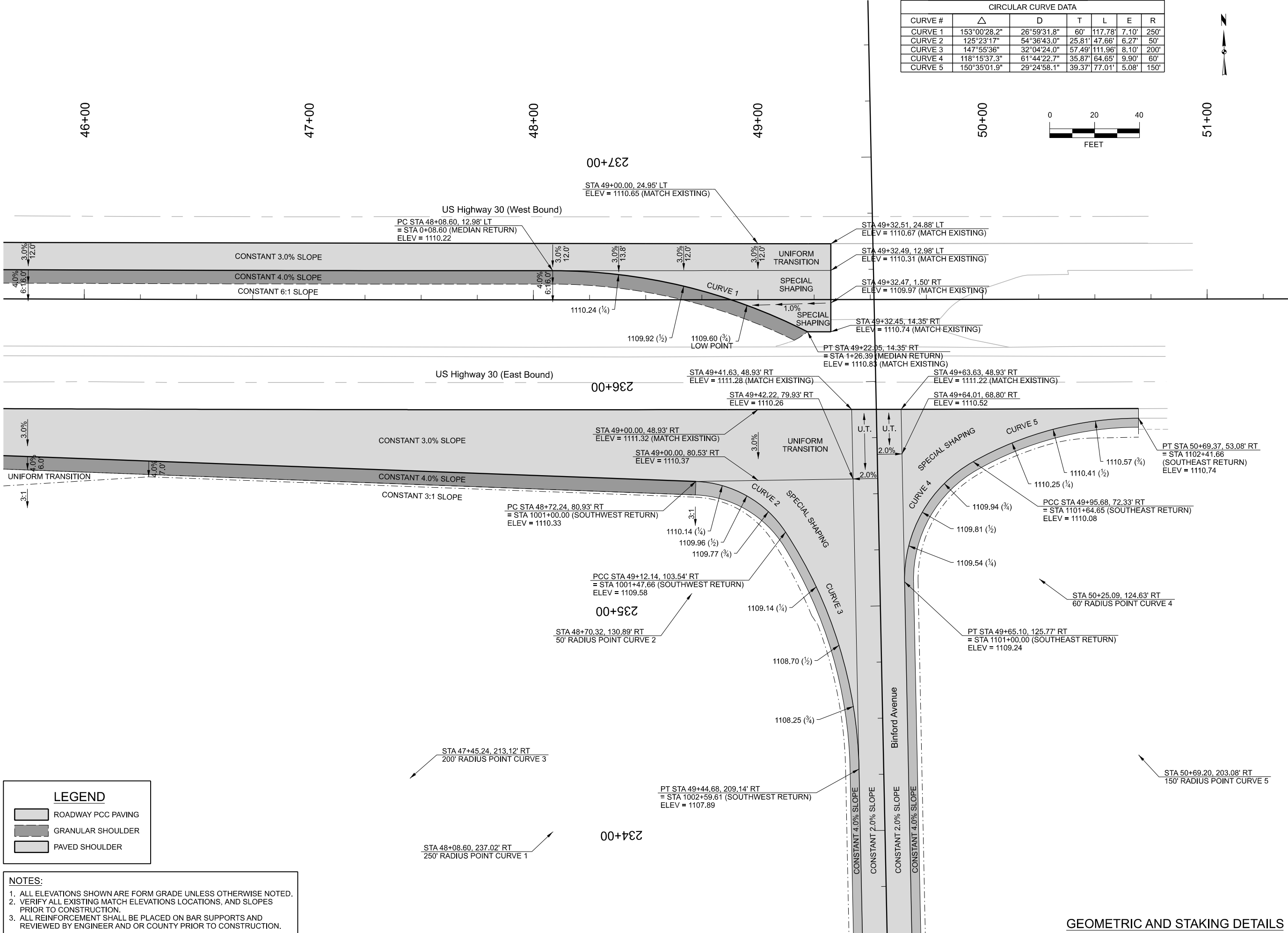
	MARK	REVISION	DATE	BY
	Engineer: EAS	Checked By: AGB		
	Technician: DSS	Date: 7/21/2026	T-R-S;	
	RFW-C064(149)-S4-B4			
	Project No: 125.1070.01		Sheet L.1	



SNYDER
& ASSOCIATES

Project No: 125.1070.01

Sheet L.2



LEGEND

ROADWAY PCC PAVING

GRANULAR SHOULDER

PAVED SHOULDER

- NOTES:
1. ALL ELEVATIONS SHOWN ARE FORM GRADE UNLESS OTHERWISE NOTED.

2. VERIFY ALL EXISTING MATCH ELEVATIONS LOCATIONS, AND SLOPES PRIOR TO CONSTRUCTION.

3. ALL REINFORCEMENT SHALL BE PLACED ON BAR SUPPORTS AND REVIEWED BY ENGINEER AND OR COUNTY PRIOR TO CONSTRUCTION.

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 GEOMETRIC AND STAKING LAYOUT

MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

DATE

T-R-S:

BY

Project No: 125,1070.01

Sheet L.3

SNYDER

& ASSOCIATES

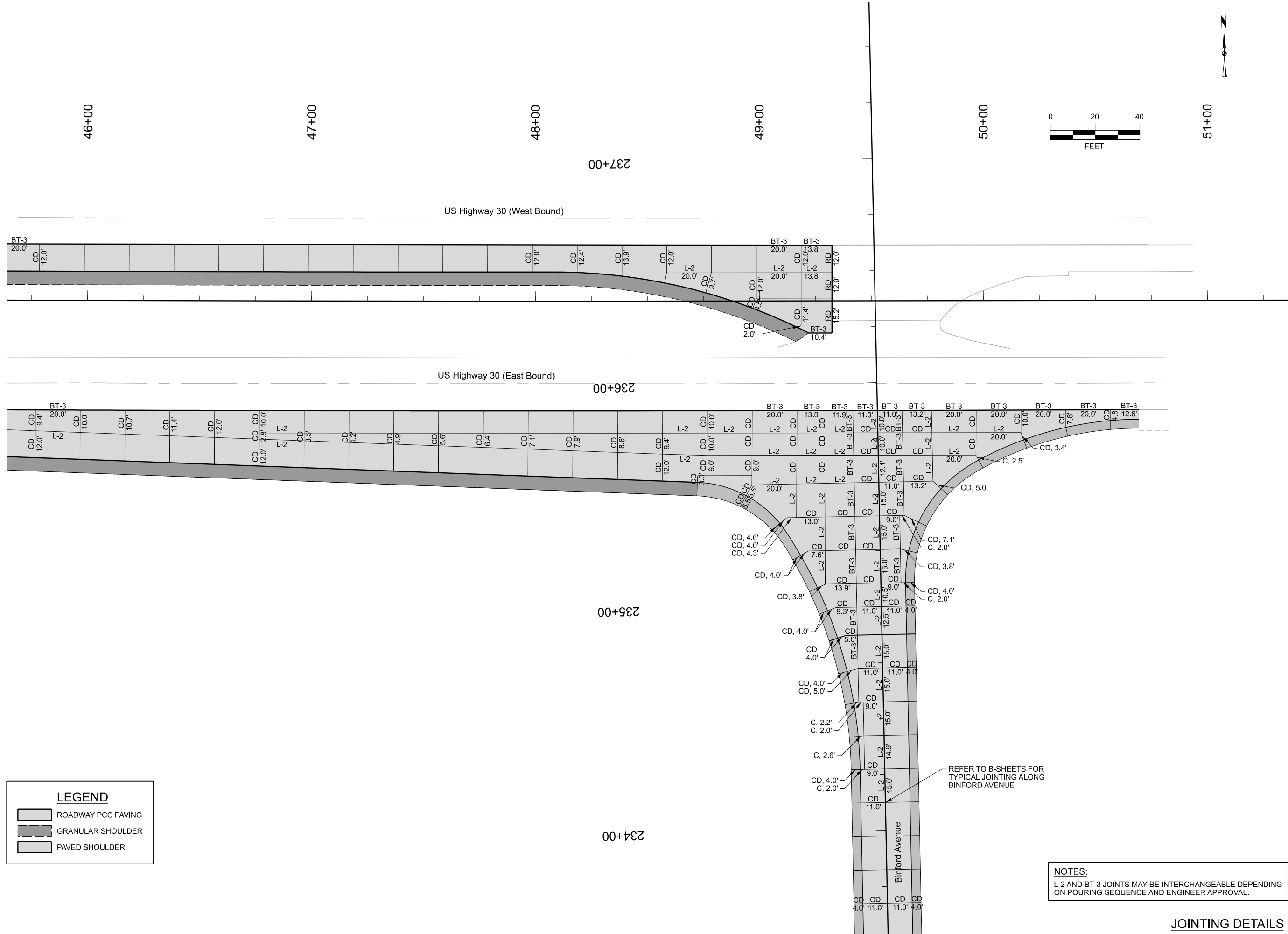
Project No: 125,1070.01

Sheet L.3

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 GEOMETRIC AND STAKING LAYOUT

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



JOINTING DETAILS

NOTES:

L-2 AND BT-3 JOINTS MAY BE INTERCHANGEABLE DEPENDING ON POURING SEQUENCE AND ENGINEER APPROVAL.

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 JOINTING LAYOUT

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



SNYDER
& ASSOCIATES

Project No: 125.1070.01

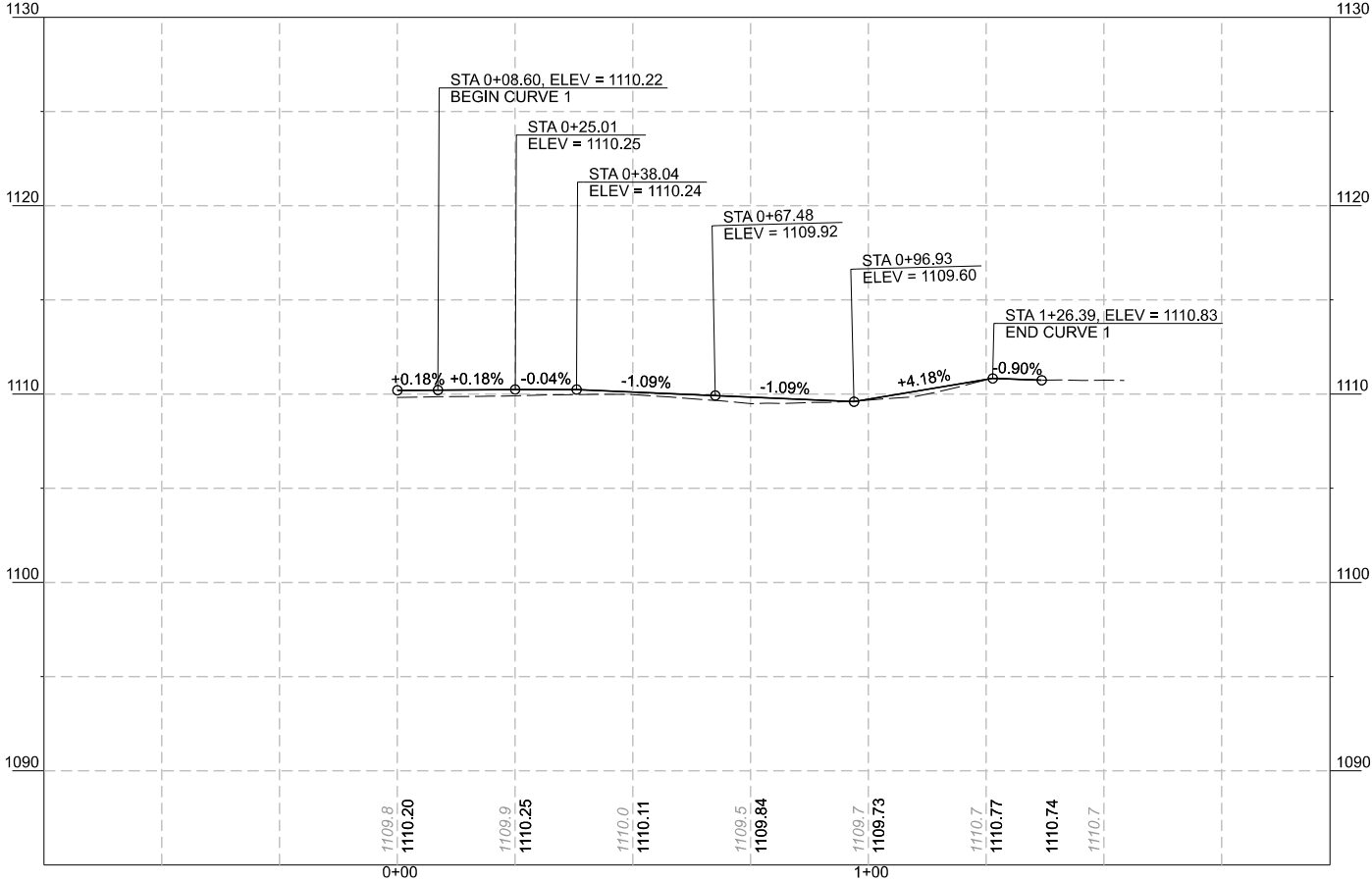
Sheet L.4

[illegible]

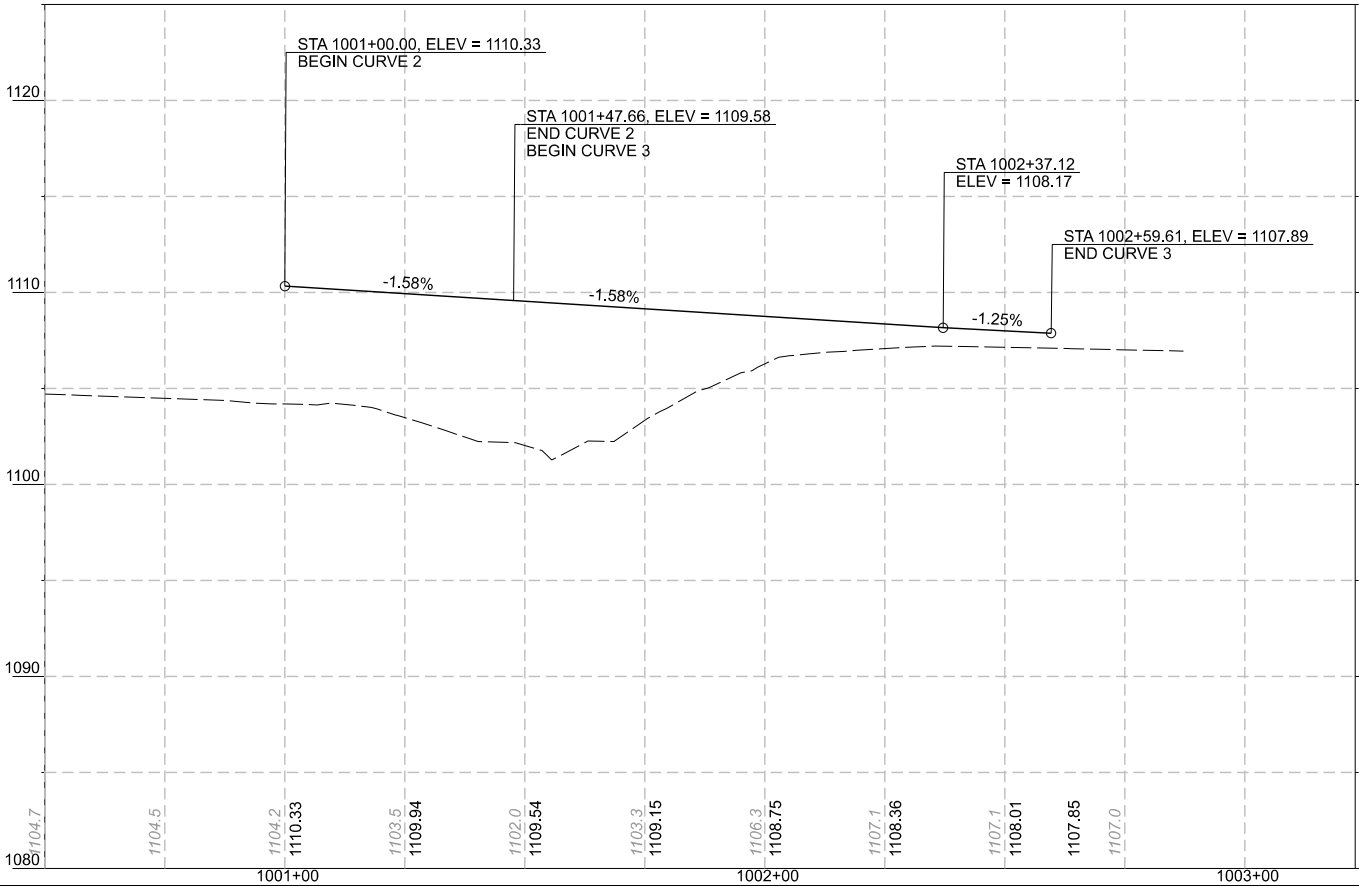
7/21/2026 11:56:59 AM V:\Projects\25125.1070.01\CADD\CD - 125.1070_L5_Curves.dgn mbeierends V:\Projects\25125.1070.01\CADD\CD - 125.1070_L5_Curves.dgn V:\RefLibrary\CADDStandards\Bentley\Organization-Civil\USA_Standards\2024\Pen Tables\data.ctb ORD\Bentley\Weight\PDF.plt

Return_US30_Profiles

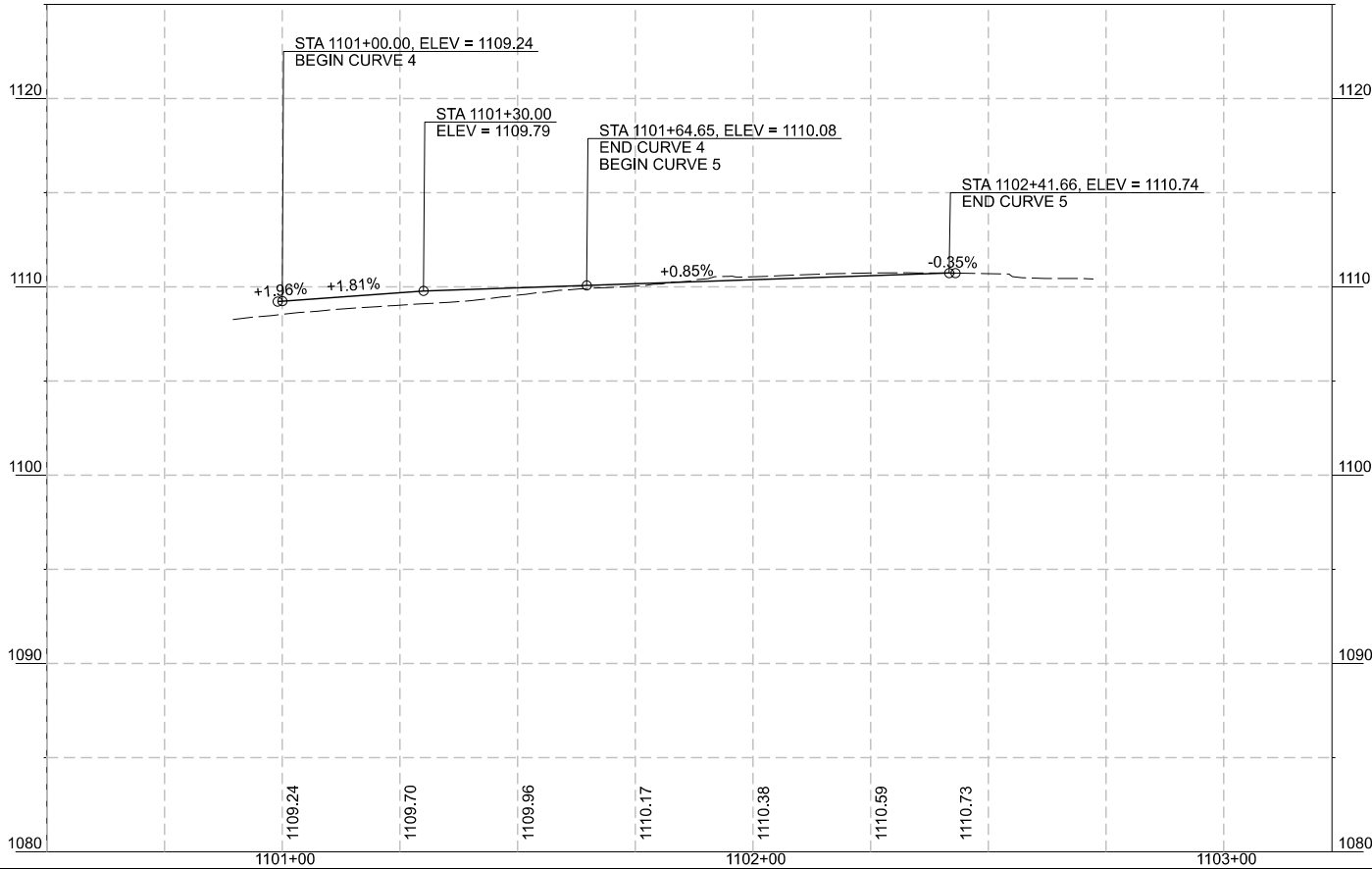
MEDIAN RETURN
CURVE 1



SOUTHWEST RETURN
CURVES 2 AND 3



SOUTHEAST RETURN
CURVES 4 AND 5



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 EDGE RETURN PROFILE

SNYDER & ASSOCIATES, INC.

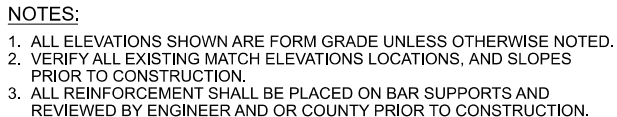
MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125.1070.01

Sheet L.5

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-0064(49)-5464		Sheet L.5	
Project No: 125.1070.01			



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 145TH ST GEOMETRIC AND STAKING LAYOUT MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

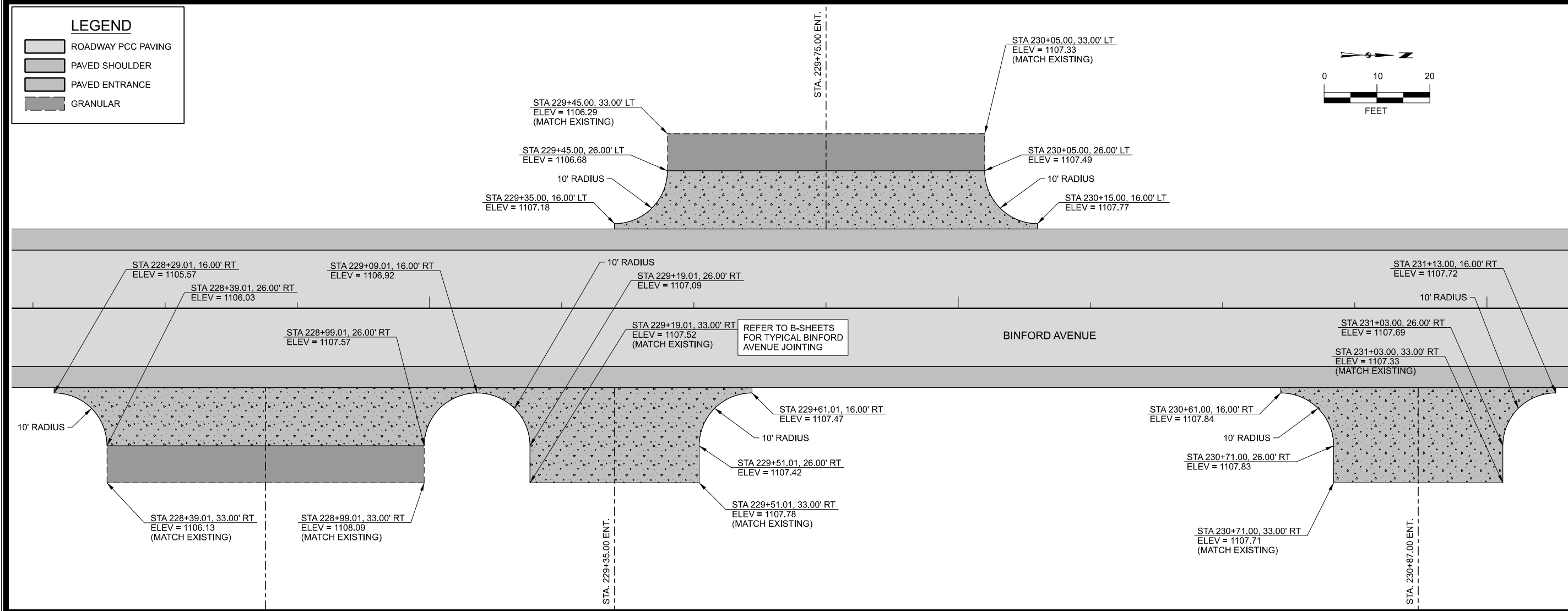
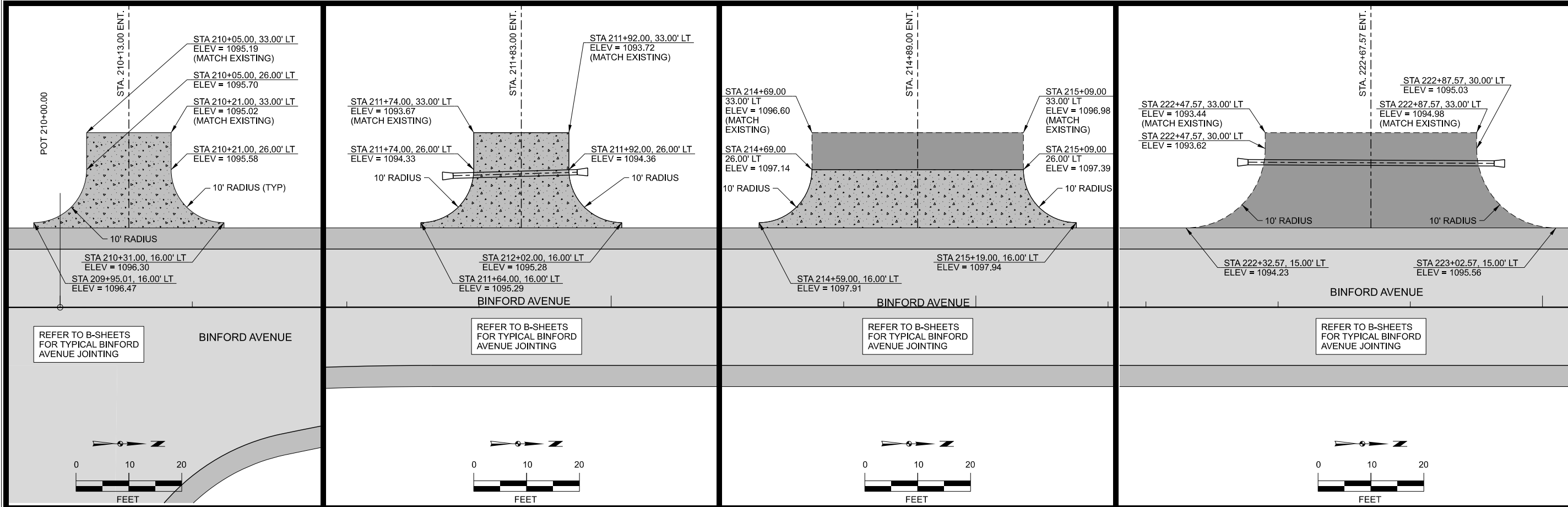


ORD\\vital\\Weight\\PDF\\plc\\g_VitalLibrary\\CADDStandards\\Bentley\\Organization\\C\\I\\ISA\\Standards\\2024\\Pen Tables\\data.ctb

[Sheet L07]

7/21/2026
11:57:05 AM

mbeierends
V:\\Projects\\2025\\125,107\\01\\CADD\\CDD_1251070_L7_Entrances Biford.dgn



REVISION		DATE	BY

MARK	Engineer: EAS	Checked By: AGB	Date: 7/21/2026	T-R-S:

RFM-0064(149)-5464	Project No: 125,1070.01	Sheet L.7

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

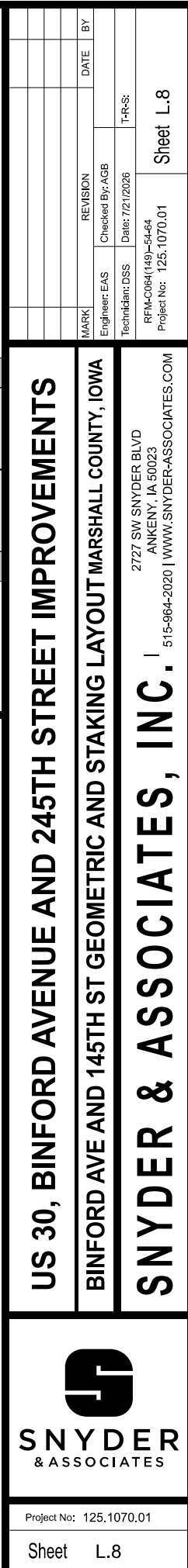
BINFORD AVE AND 145TH ST GEOMETRIC AND STAKING LAYOUT MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125,1070.01

Sheet L.7



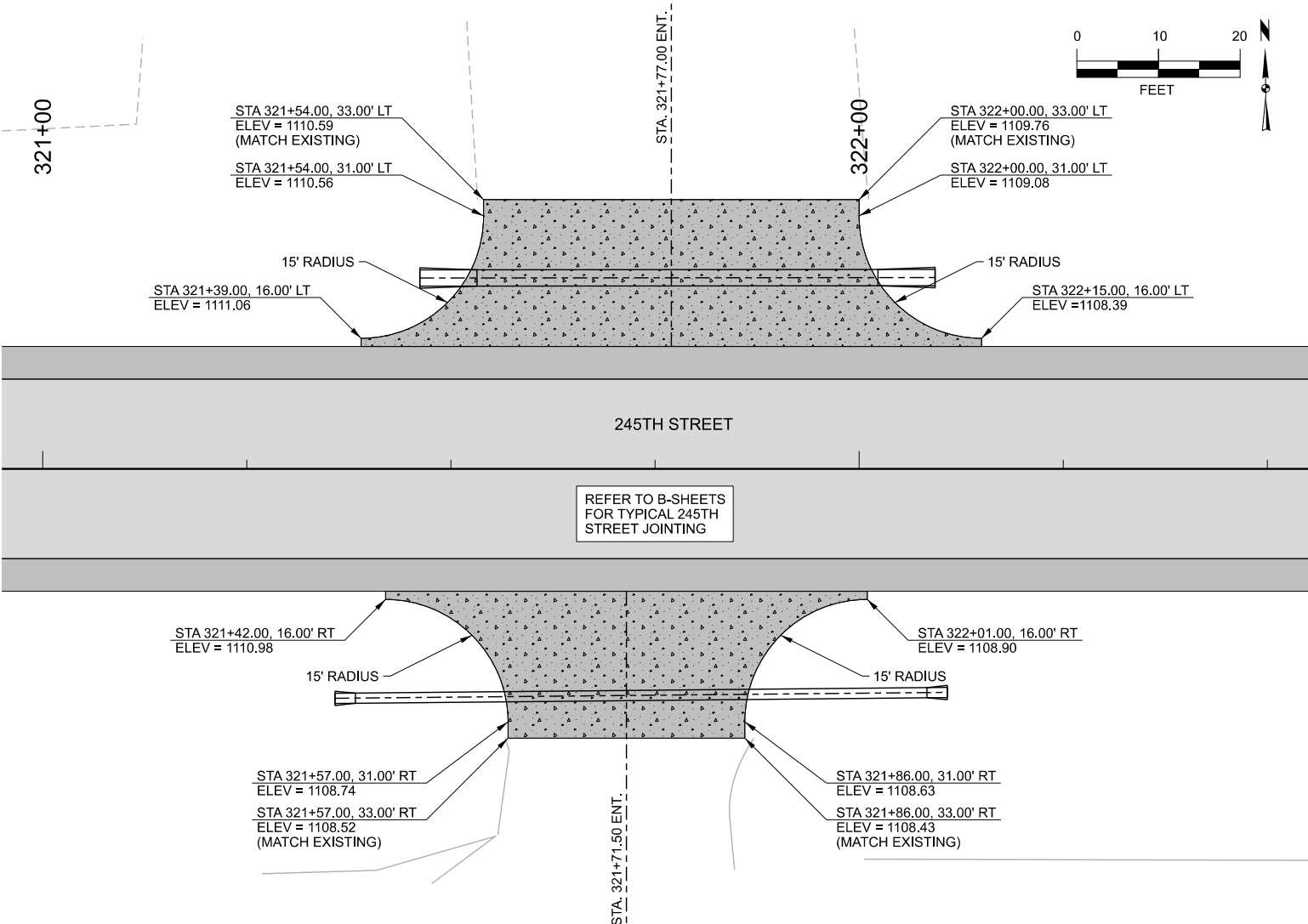
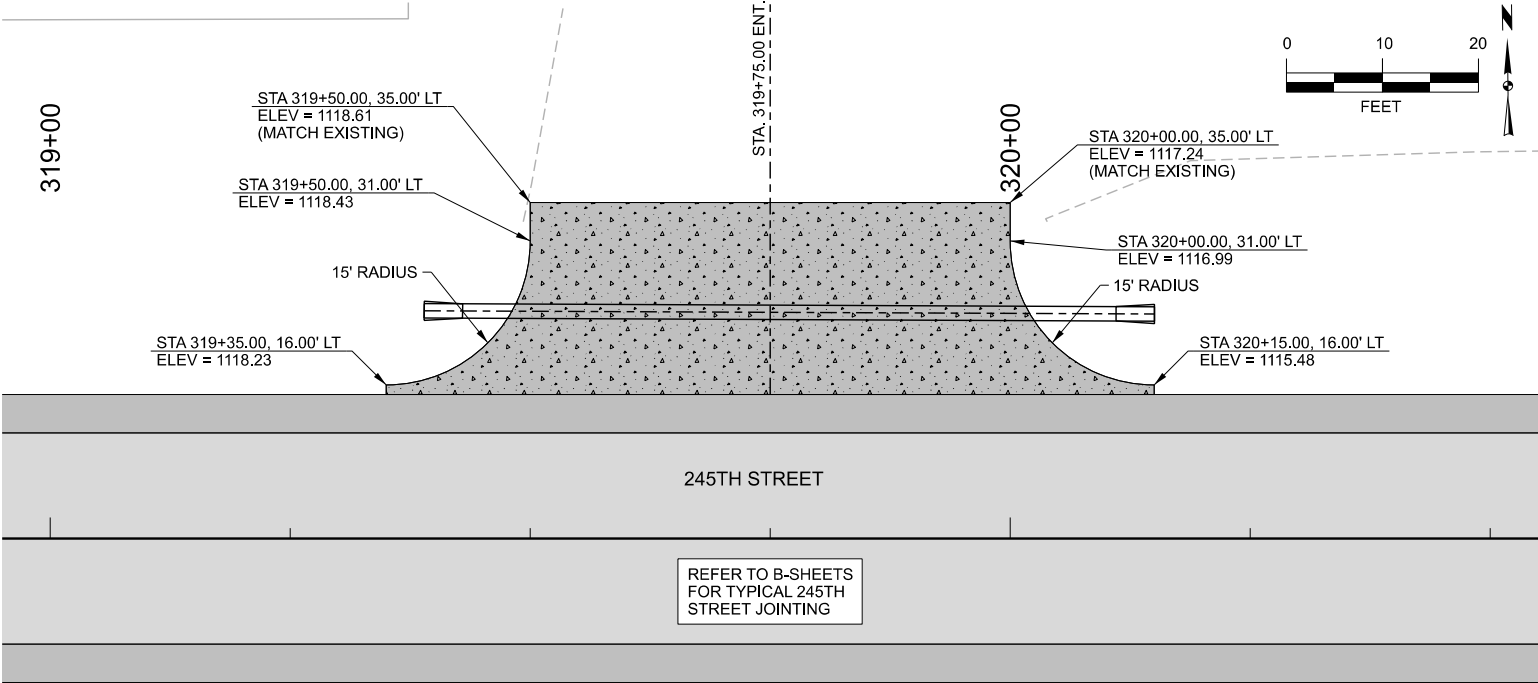
LEGEND

ROADWAY PCC PAVING

PAVED SHOULDER

PAVED ENTRANCE

GRANULAR



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 145TH ST GEOMETRIC AND STAKING LAYOUT MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

RFM-0064(149)-5464
Project No: 125,1070.01

Project No: 125,1070.01

Sheet L.9

MARK

Engineer: EAS

Technician: DSS

REVISION

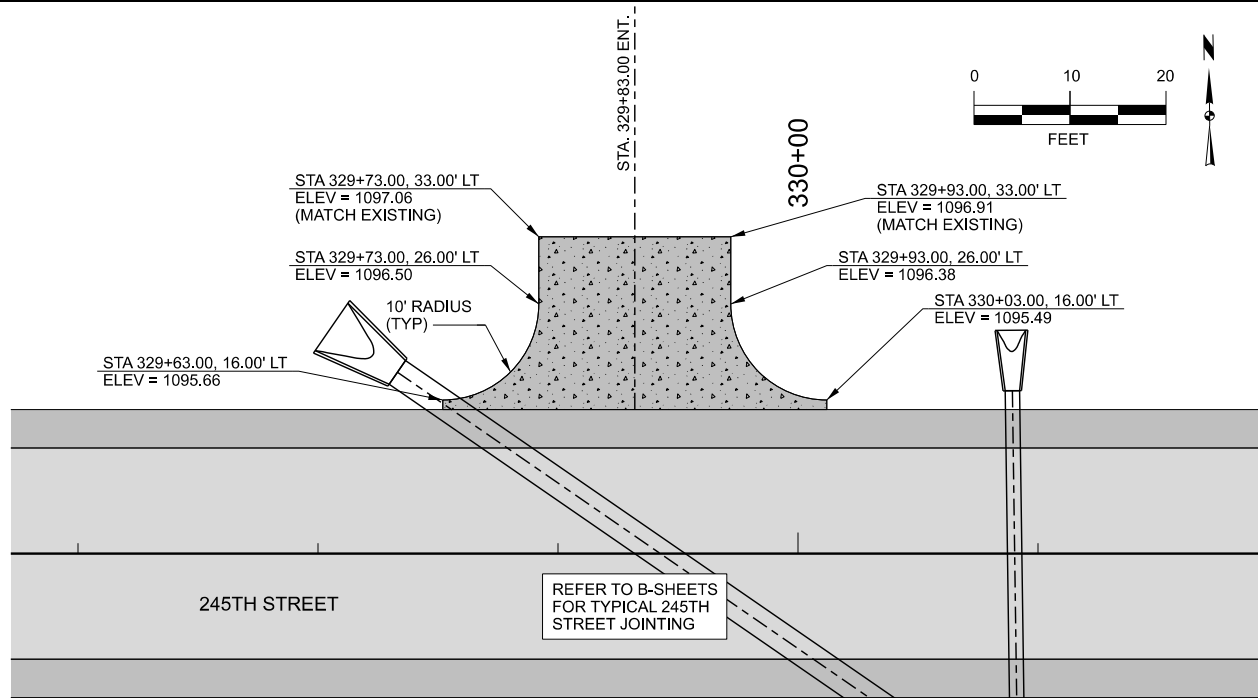
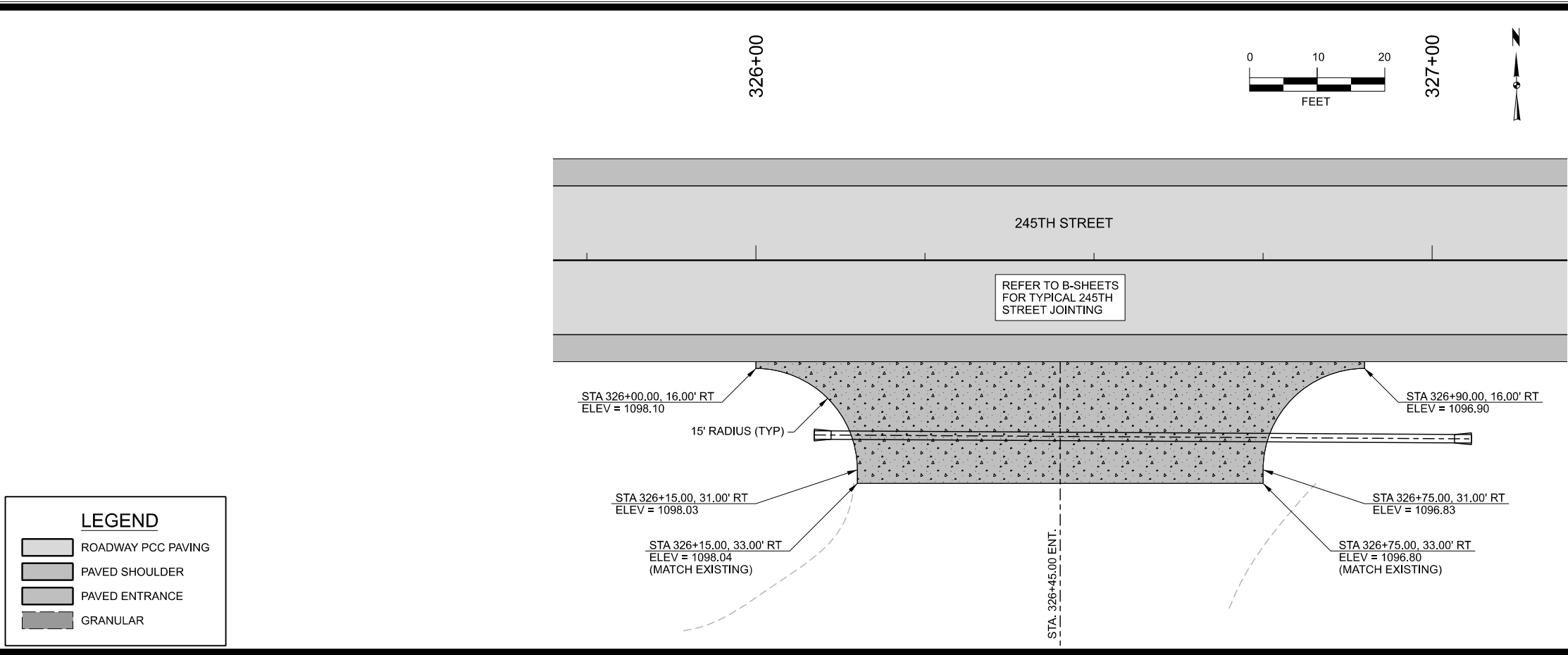
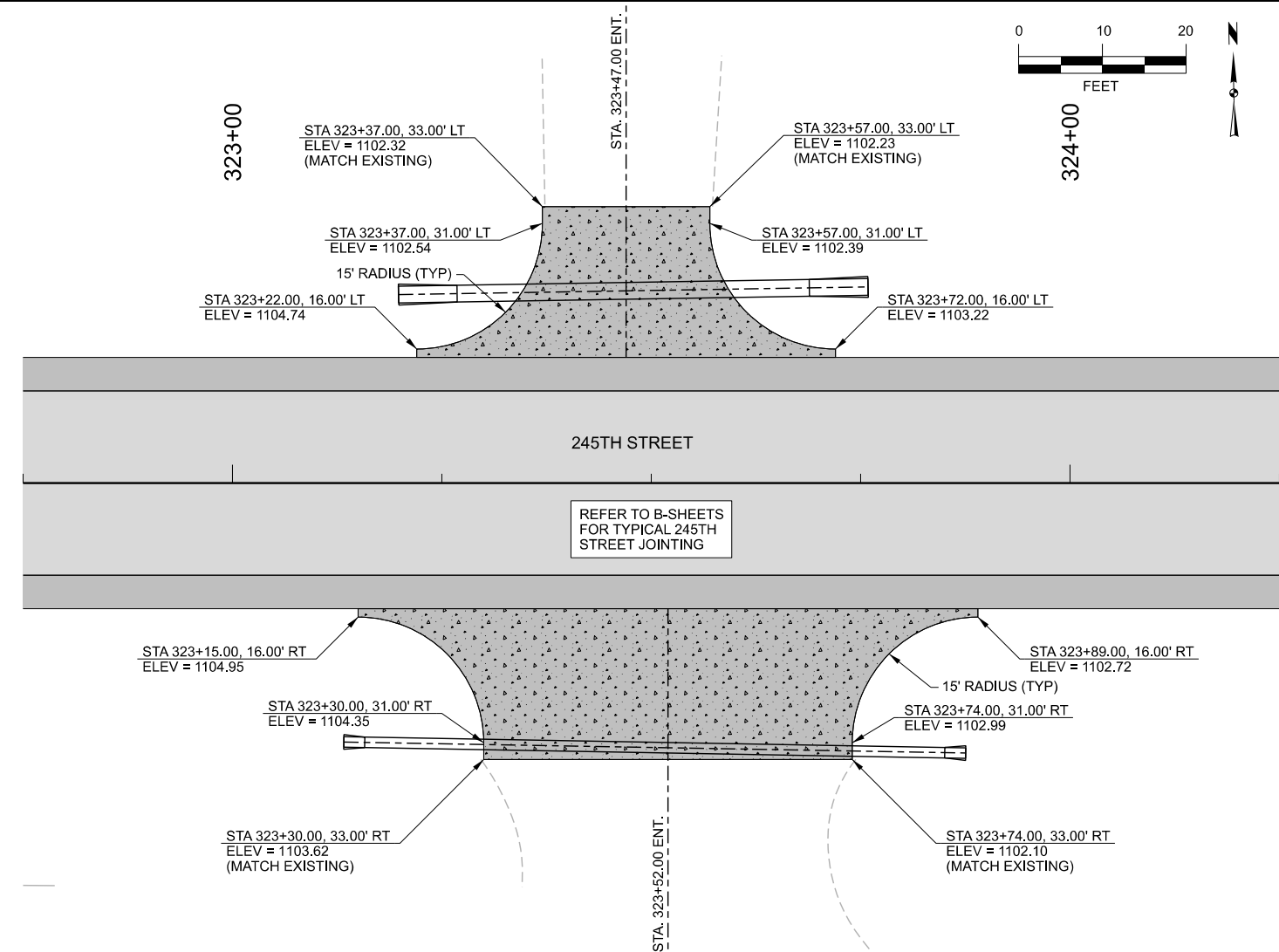
Checked By: AGB

Date: 7/21/2026

DATE

BY

Sheet L.9



Project No: 125.1070.01

Sheet L.10

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 145TH ST GEOMETRIC AND STAKING LAYOUT MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023

515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet L.10

RFM-0064(149)-5464
Project No: 125.1070.01

Checked By: AGB
Date: 7/21/2026
T-R-S:

REVISION
MARK
Engineer: EAS
Technician: DSS

DATE
BY



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE AND 145TH ST GEOMETRIC AND STAKING LAYOUT MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

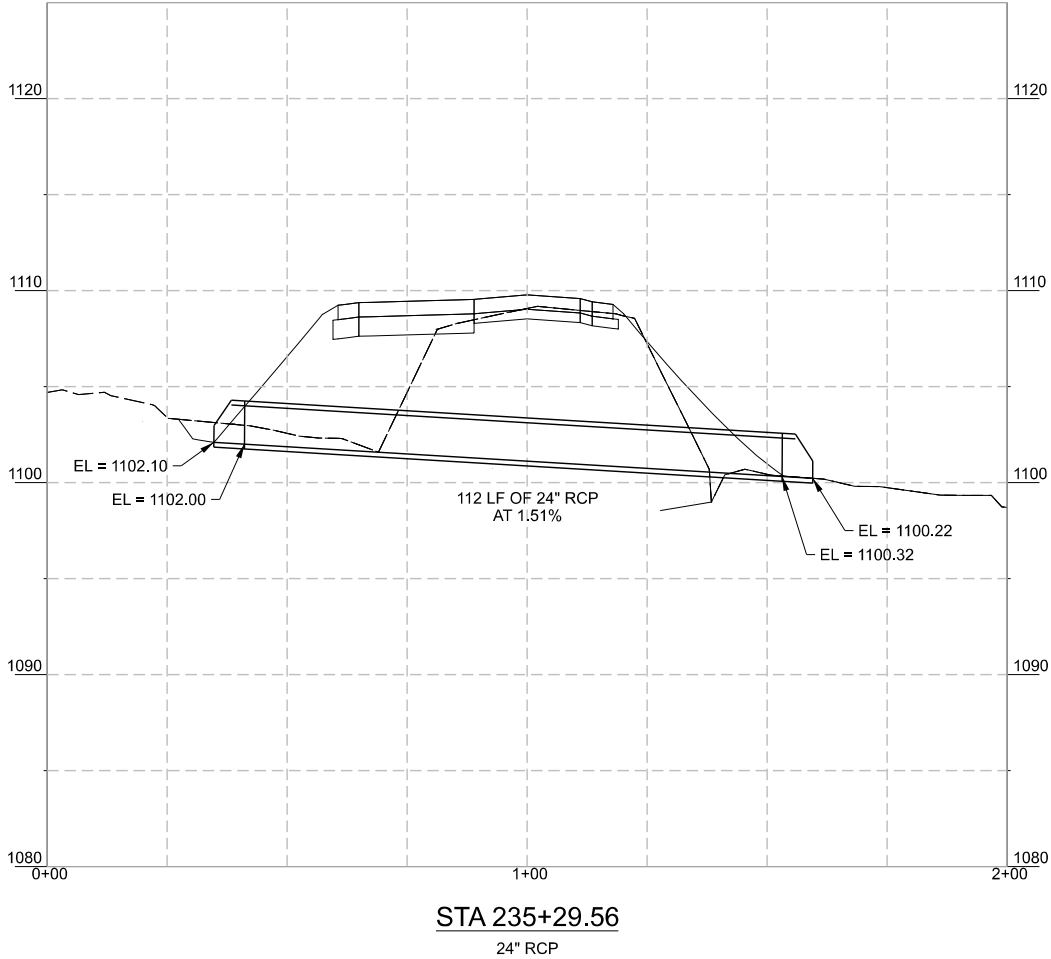
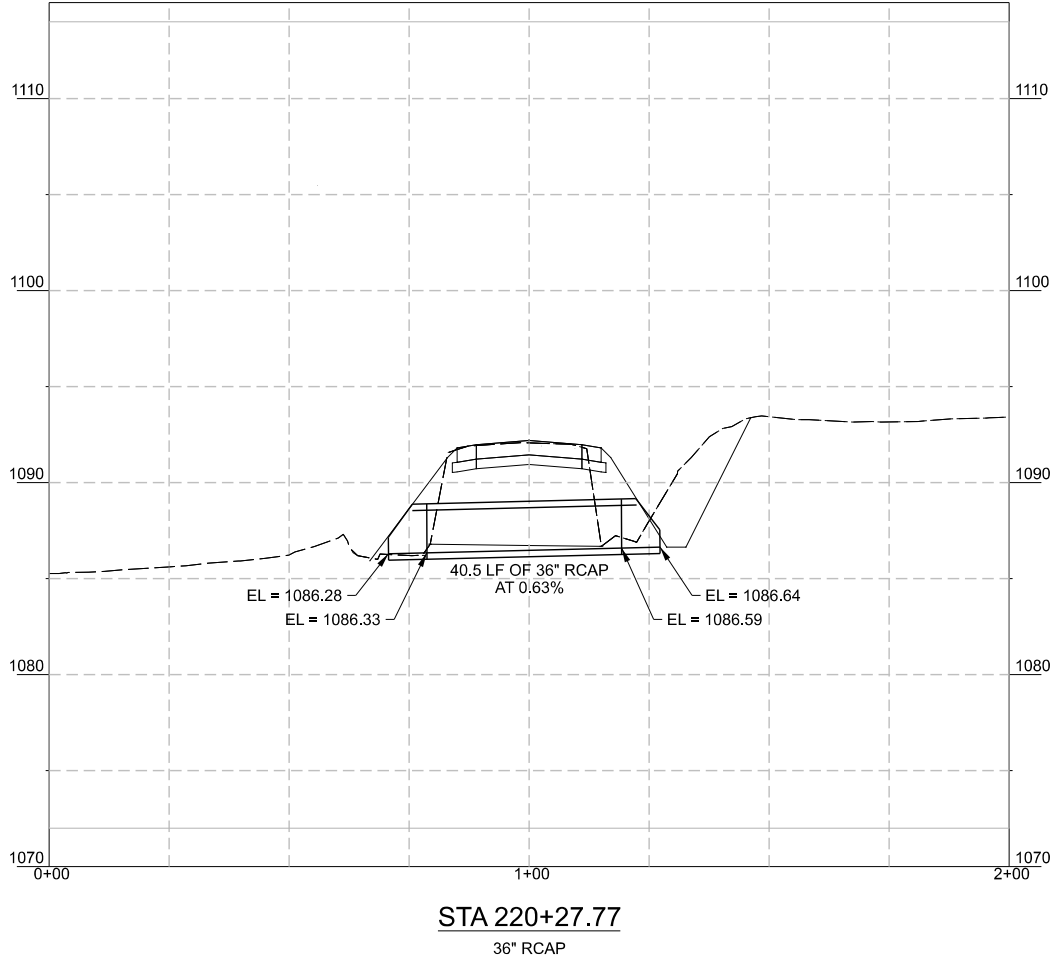
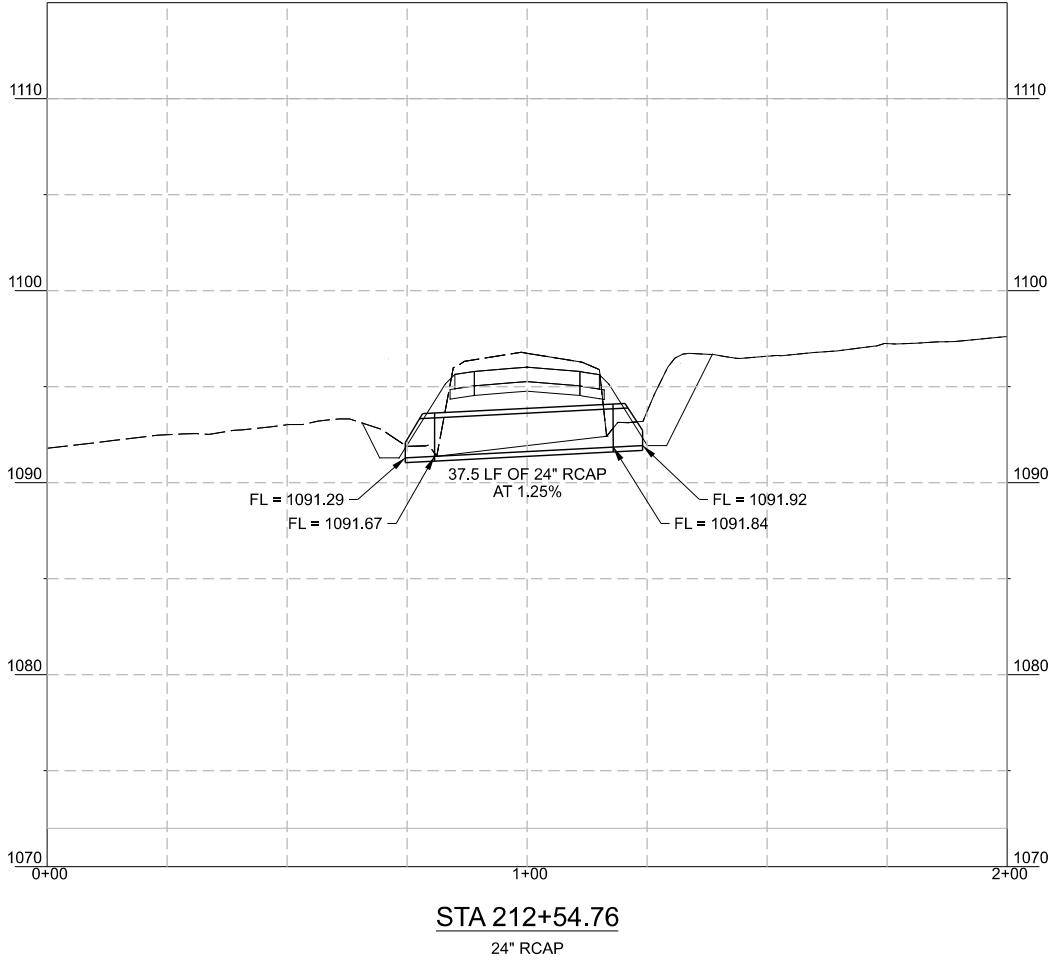
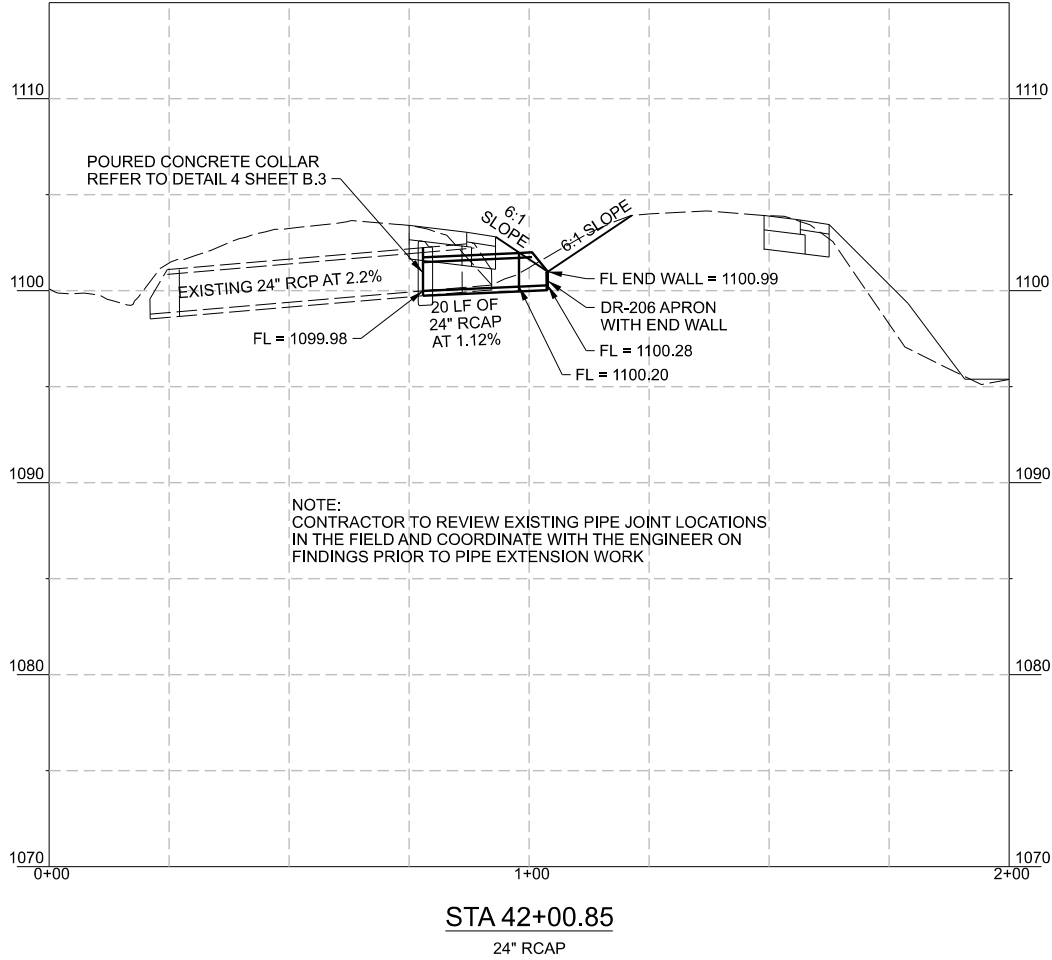
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



SNYDER
& ASSOCIATES

Project No: 125.1070.01

Sheet L.11



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

STORM SEWER

SNYDER & ASSOCIATES

7/21/2026 11:57:11 AM

Sheet M.1

Project No: 125,1070.01

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

STORM SEWER

SNYDER & ASSOCIATES

7/21/2026 11:57:11 AM

Sheet M.1

Project No: 125,1070.01

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

STORM SEWER

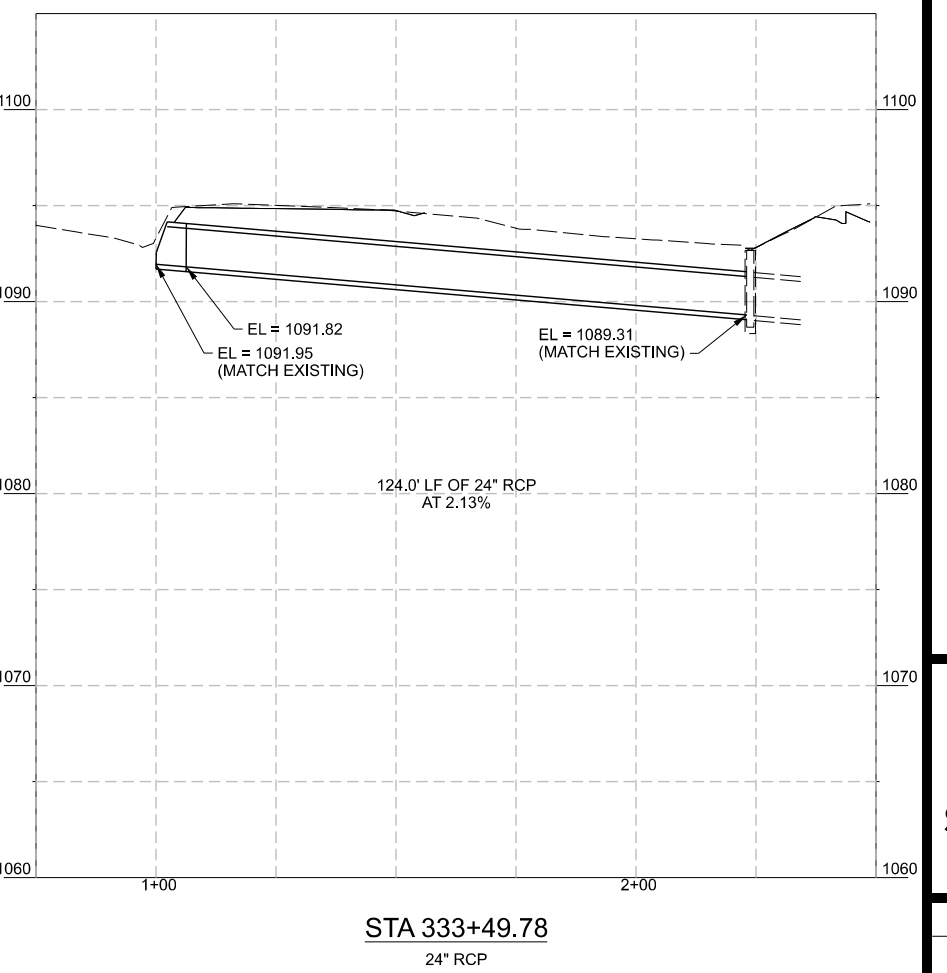
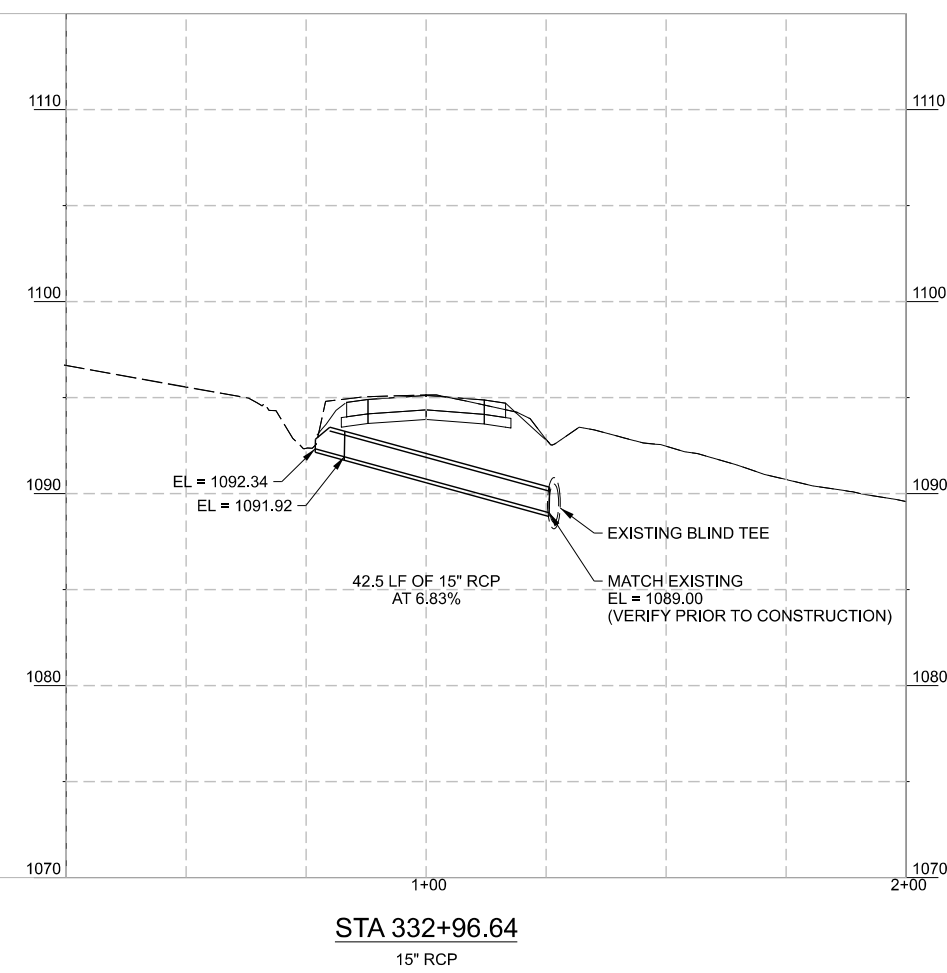
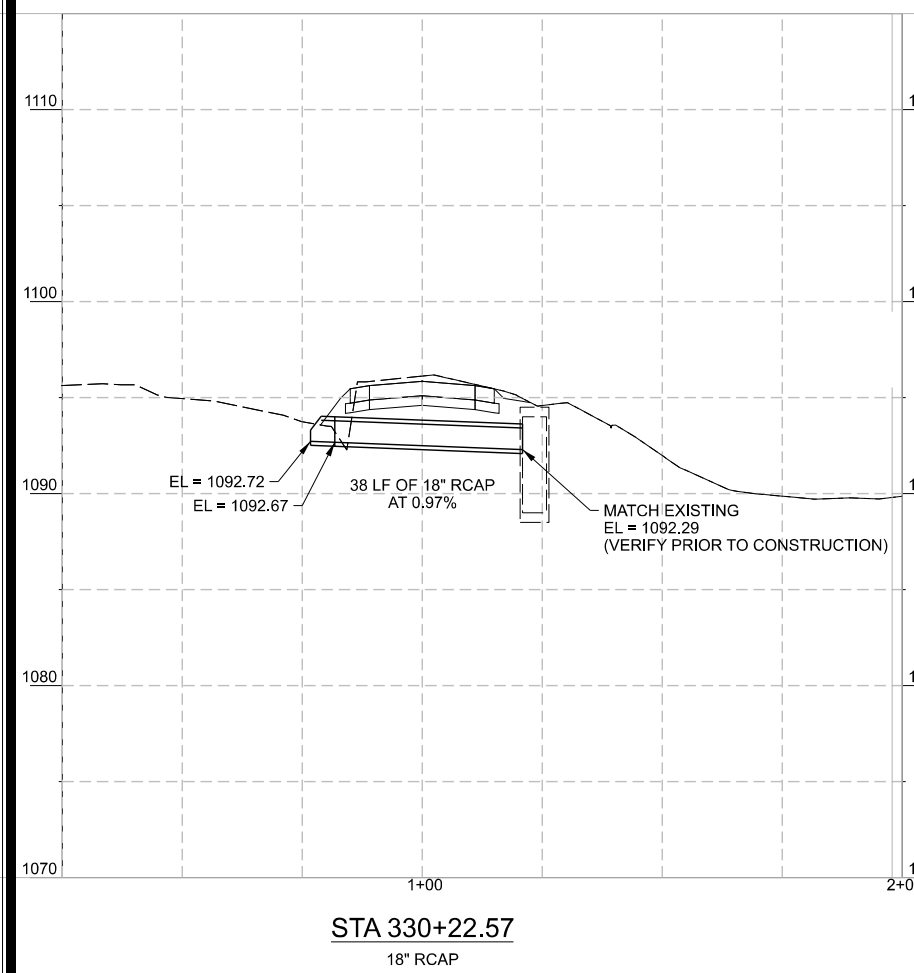
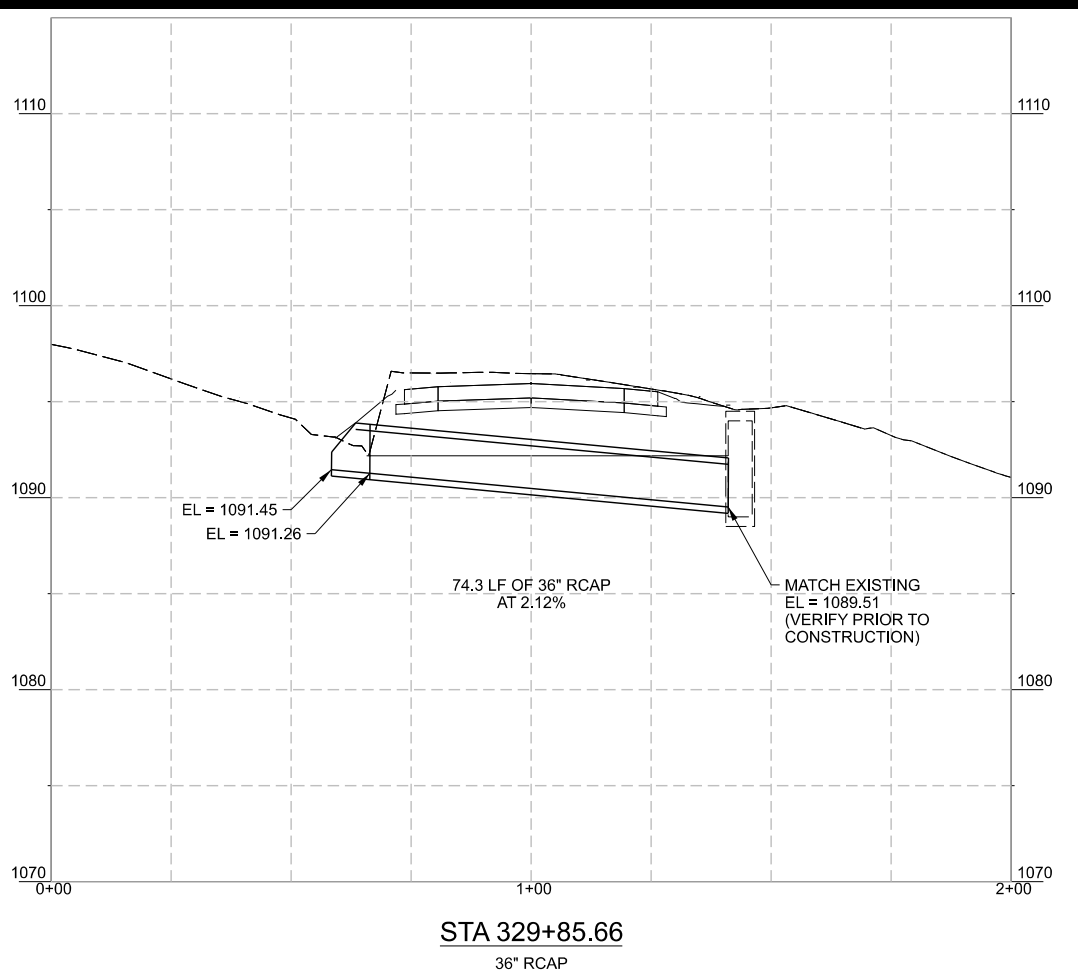
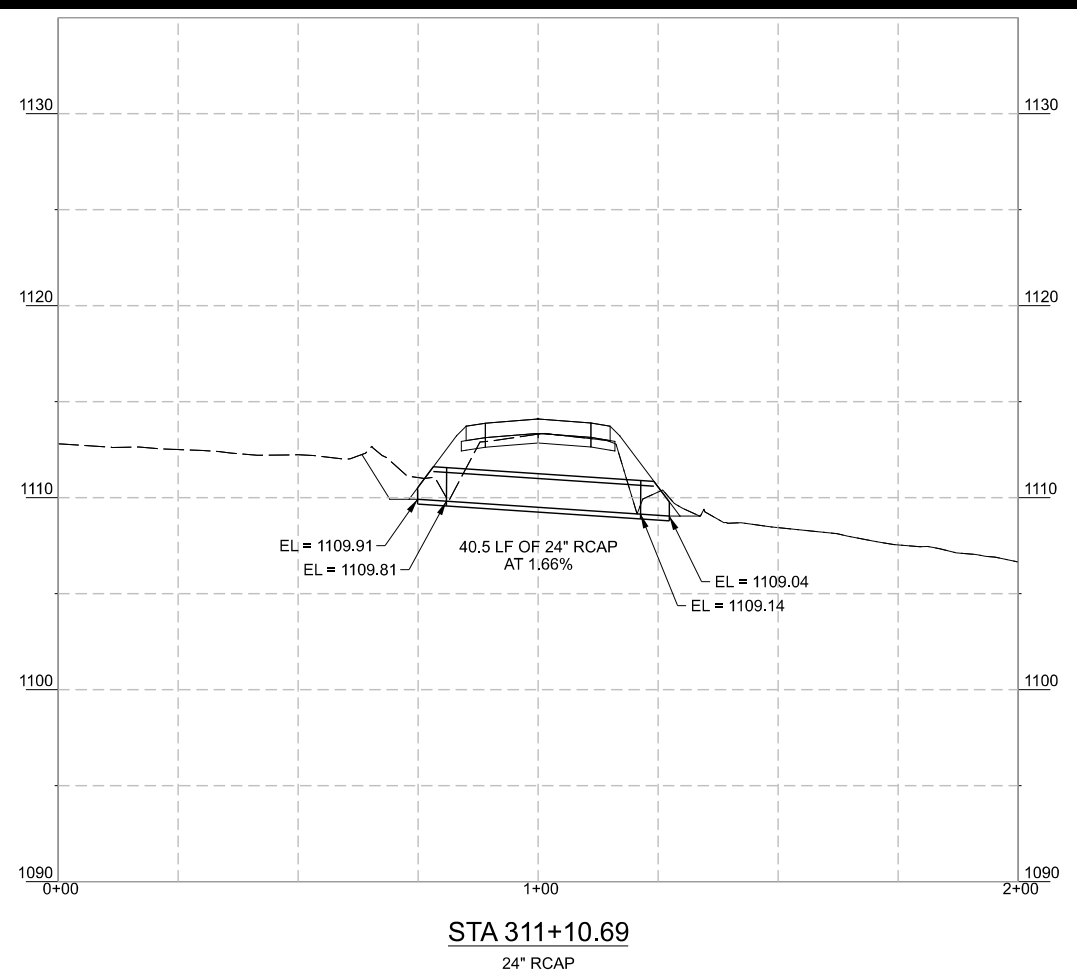
SNYDER & ASSOCIATES

7/21/2026 11:57:11 AM

Sheet M.1

Project No: 125,1070.01

7/21/2026 11:57:11 AM mbeierends V:\Projects\2025\125,1070\11CADD\125,1070_M1+M2_Culverts.dgn V:\RefLibrary\CA\DDStandards\Bentley\Organization\Civil\ISA\Standards\2024\Pen Tables\data.ctb ORD\Bentley\Weight\PDF.plt



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

STORM SEWER

SNYDER & ASSOCIATES

Project No: 125,1070.01

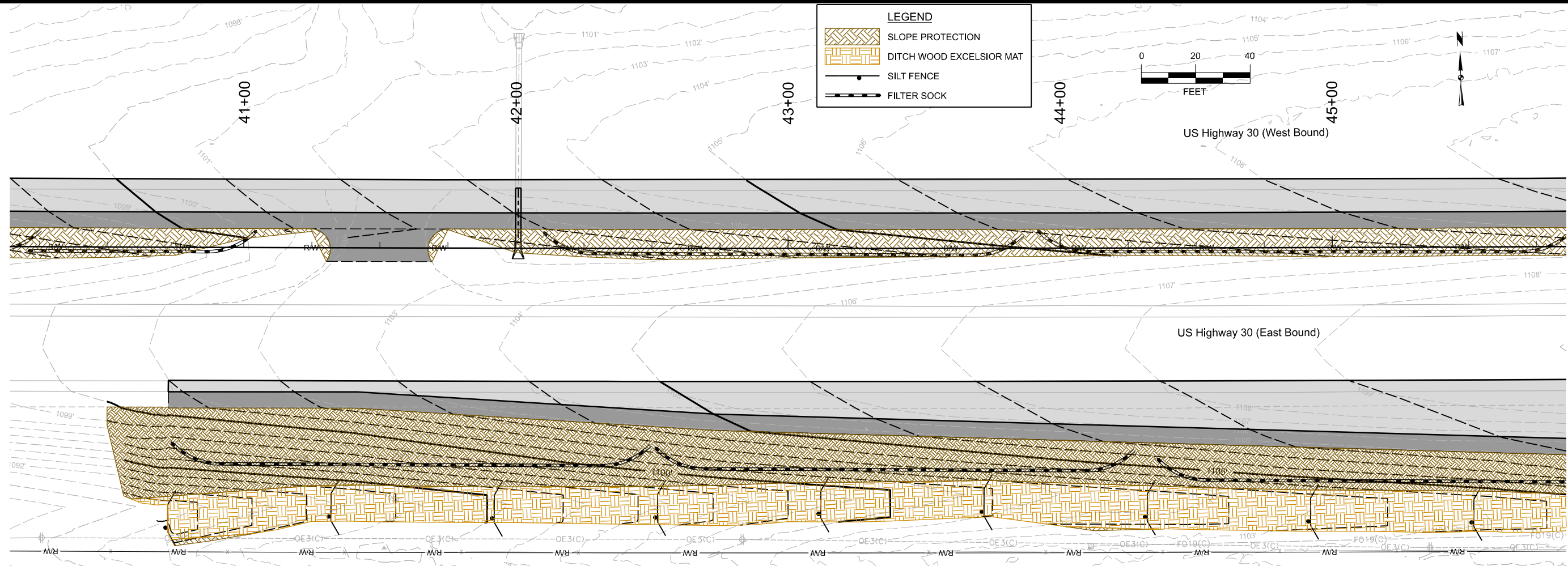
Sheet M.2

Sheet M.2

MARSHALL COUNTY, IOWA

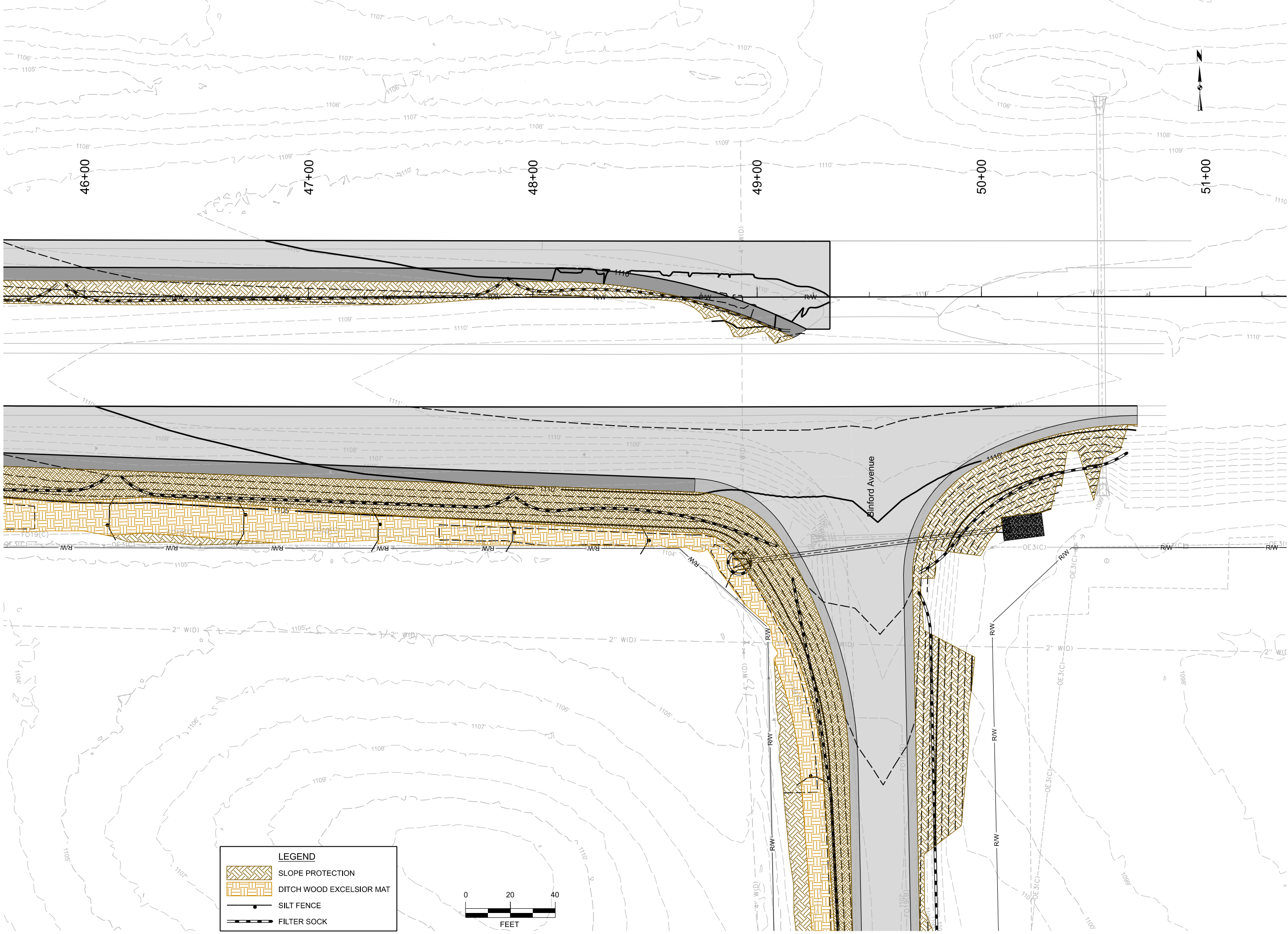
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026	T-R-S:	



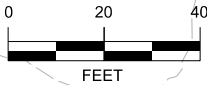
 SNYDER & ASSOCIATES		US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS					
		US 30 EROSION CONTROL PLANS		MARSHALL COUNTY, IOWA			
SNYDER & ASSOCIATES, INC. 515-964-2020 WWW.SNYDER-ASSOCIATES.COM		2727 SW SNYDER BLVD ANKENY, IA 50023		RRM-C064(149)-54-64 Project No: 125.1070.01		Sheet RR.1	
		T-R-S:		T-R-S:		T-R-S:	
		Technician: DSS		Date: 7/21/2026		T-R-S:	
		Engineer: EAS		Checked By: AGB		T-R-S:	
MARK		REVISION		DATE		BY	

7/21/2026 12:44:21 PM mbeierends V:\Projects\2025\125.1070.01\CADD\CD - 125.1070_RR1+RR2_US30.dgn W:\RefLibrary\CADDStandards\Bentley\Organization-Civil\ISA_Standards\2024\Pen Tables\data.ctb ORC\Color\Weight\PDF.plt



LEGEND

- SLOPE PROTECTION
- DITCH WOOD EXCELSIOR MAT
- SILT FENCE
- FILTER SOCK





SNYDER & ASSOCIATES

Project No: 125.1070.01

Sheet **RR.2**

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US 30 EROSION CONTROL PLANS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

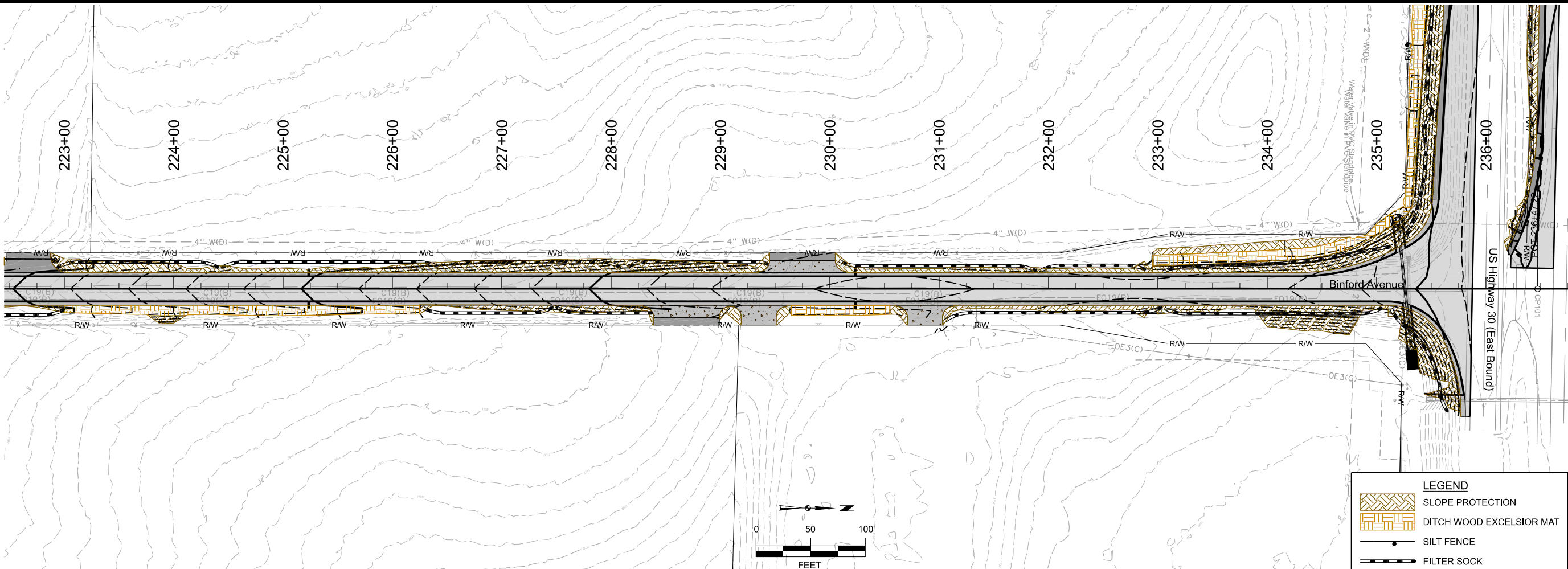
REVISION		DATE	BY
MARK	Engineer: EAS	Checked By: AGB	
	Technician: DSS	Date: 7/21/2026	T-R-S:

RFM-0064149-5464
Project No: 125.1070.01

Sheet RR.2

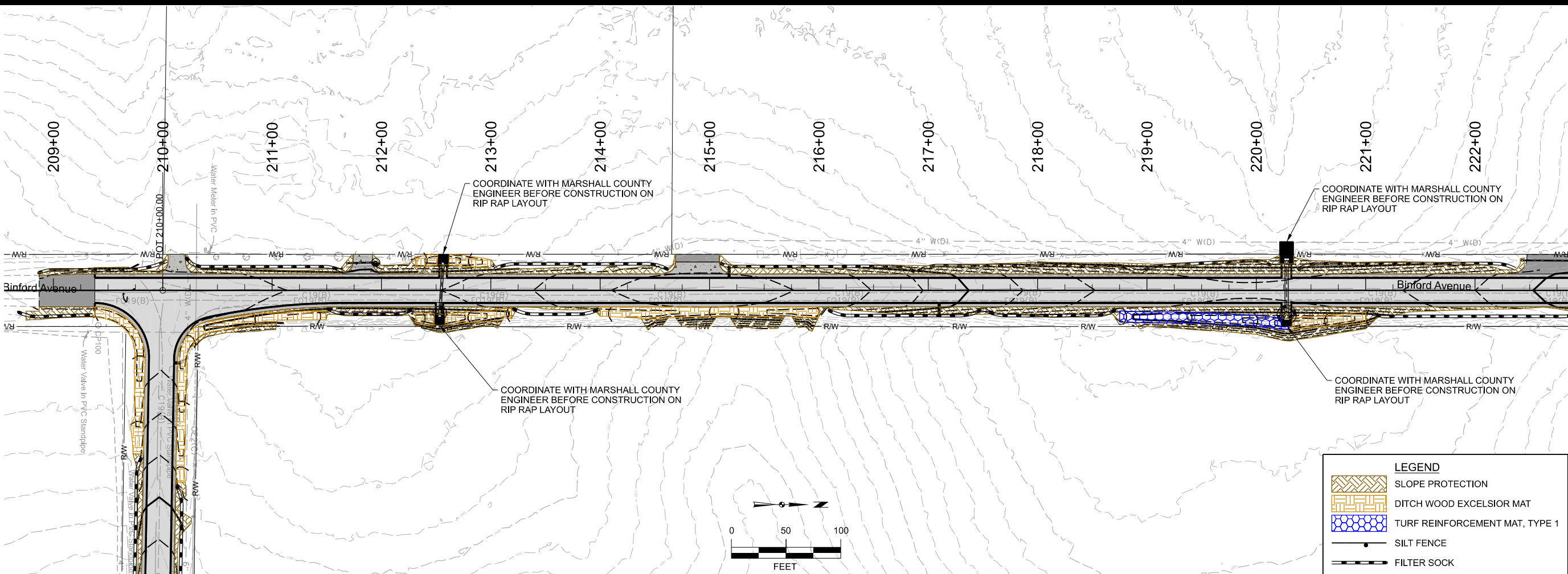
mbearends V:\Projects\2025\125.1070\11CAD\125.1070_RR3_BINFORD.dgn 7/21/2026 1:11:42 PM V:\RefLibrary\CADDStandards\Bentley\Organization\Civil\ISA Standards\2024\Pen Tables\data.ctb ORCADigitalWeightPDF.plt

Geom_Binford - Plan RR3 (Sheet)



LEGEND

- SLOPE PROTECTION
- DITCH WOOD EXCELSIOR MAT
- SILT FENCE
- FILTER SOCK



LEGEND

- SLOPE PROTECTION
- DITCH WOOD EXCELSIOR MAT
- TURF REINFORCEMENT MAT, TYPE 1
- SILT FENCE
- FILTER SOCK



SNYDER & ASSOCIATES

Project No: 125.1070.01

Sheet **RR.3**

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE EROSION CONTROL PLANS

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

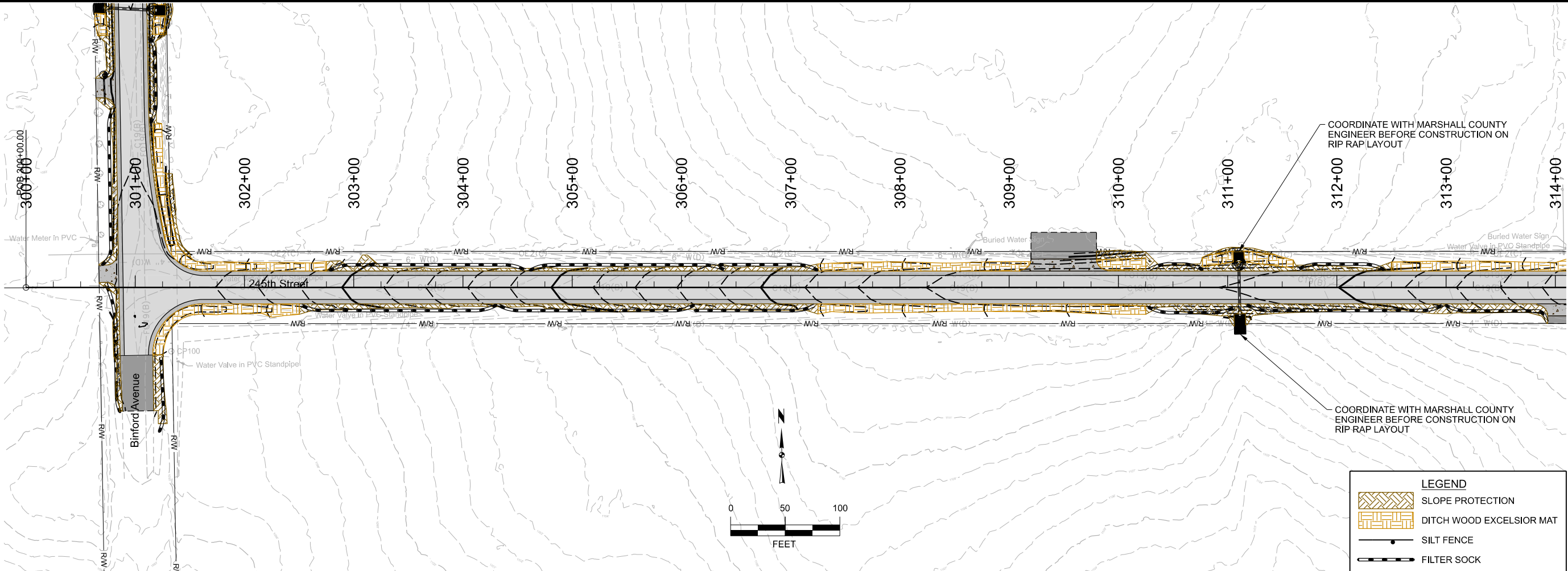
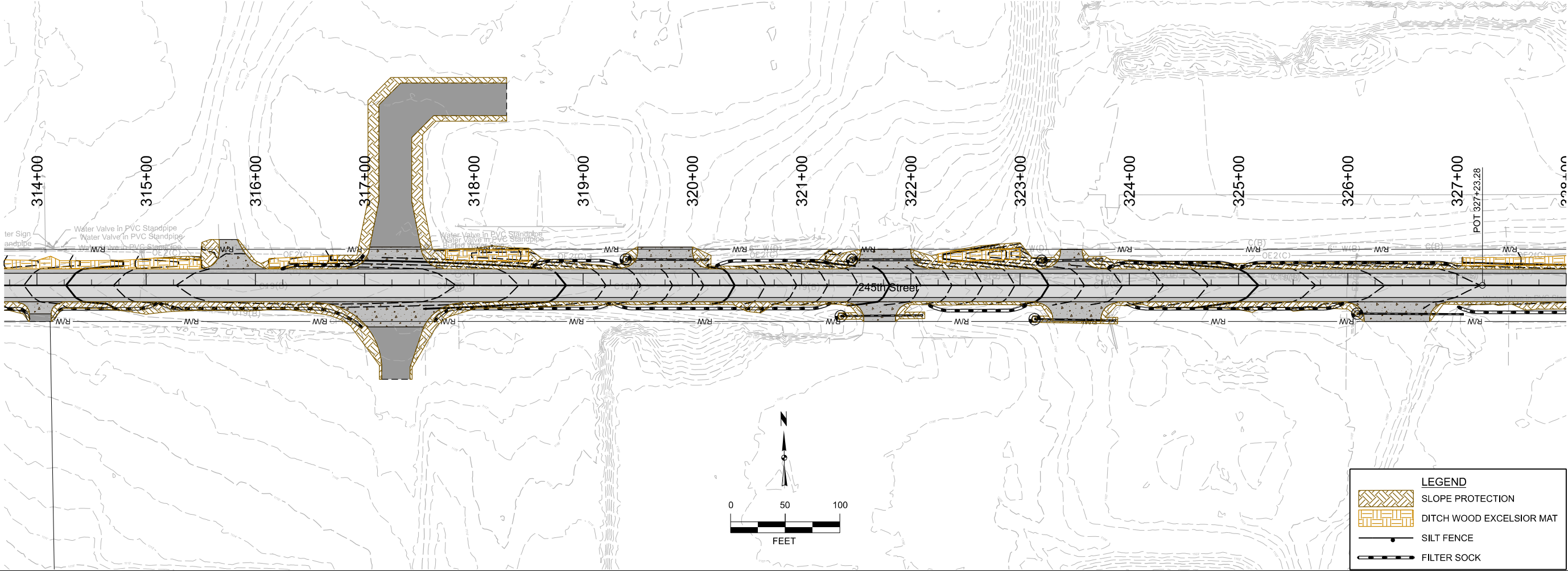
MARSHALL COUNTY, IOWA

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		

RFM-004(149)-5464
Project No: 125.1070.01

Sheet RR.3

7/21/2026 12:44:28 PM
mbearends
V:\Projects\2025\125.1070\101CADD\CD - 125.1070_RR4-RIS_245TH.dgn
Geom_245th - Plan RR4 (Sheet)
V:\RefLibrary\CADDStandards\Bentley\Organization-Civil\ISA Standards\2024\Pen Tables\data.ctb
ORC\Civil\Weight\PDF.plt



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST EROSION CONTROL PLANS

MARSHALL COUNTY, IOWA



Project No: 125.1070.01

Sheet RR.4

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026	T-R-S:	
RFM-004(149)-5464			Sheet RR.4
Project No: 125.1070.01			



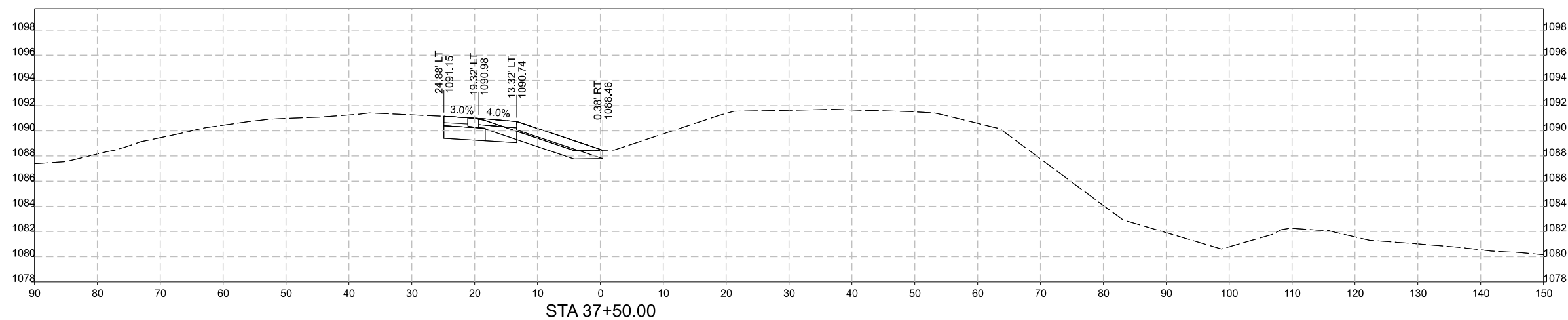
245TH ST EROSION CONTROL PLANS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

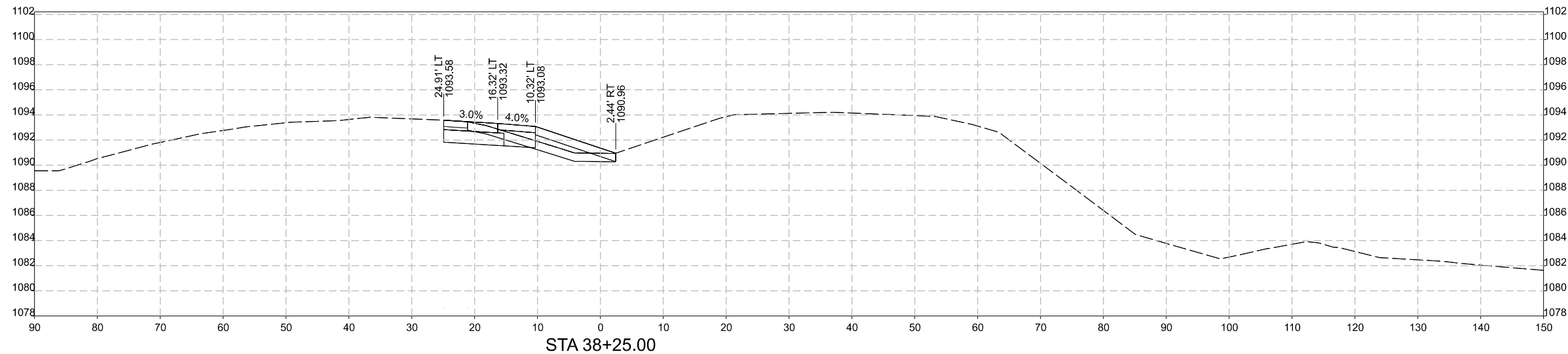
[illegible]

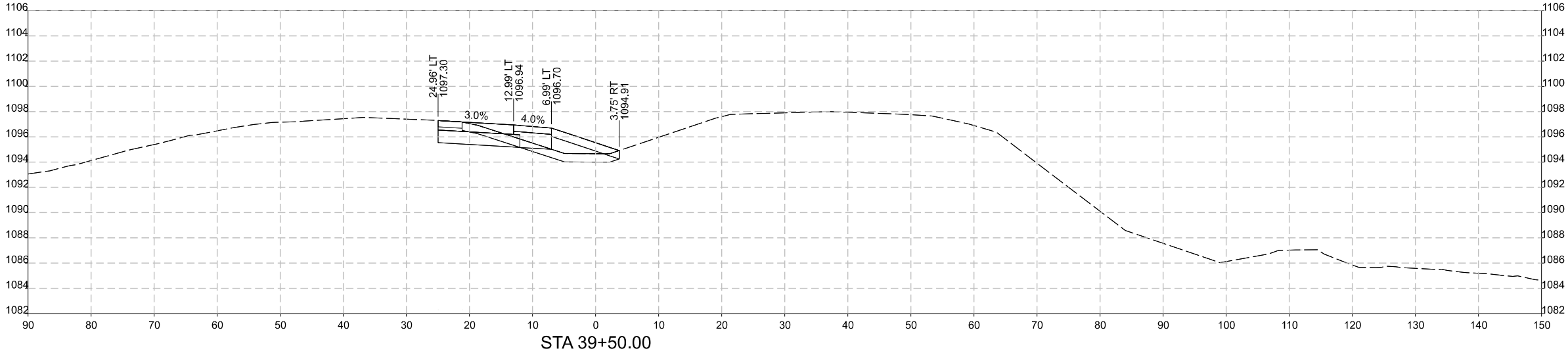
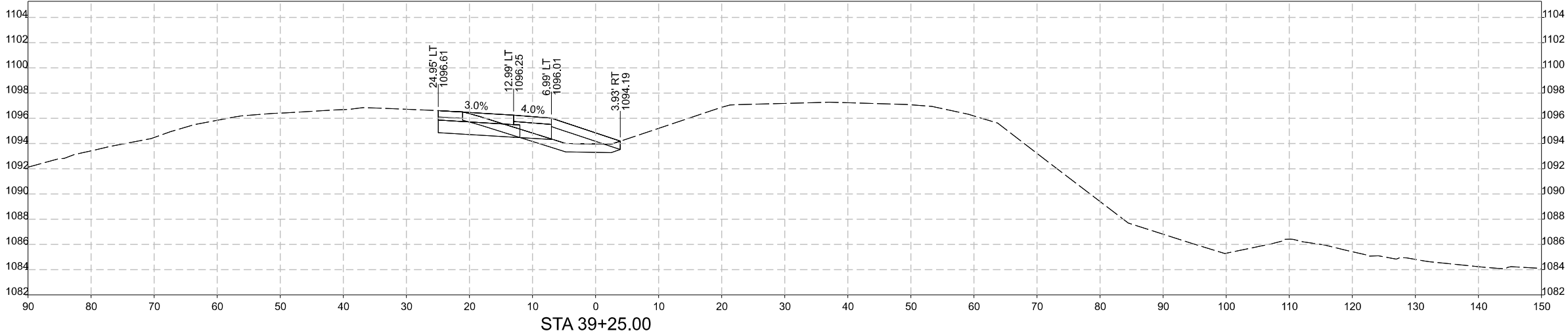
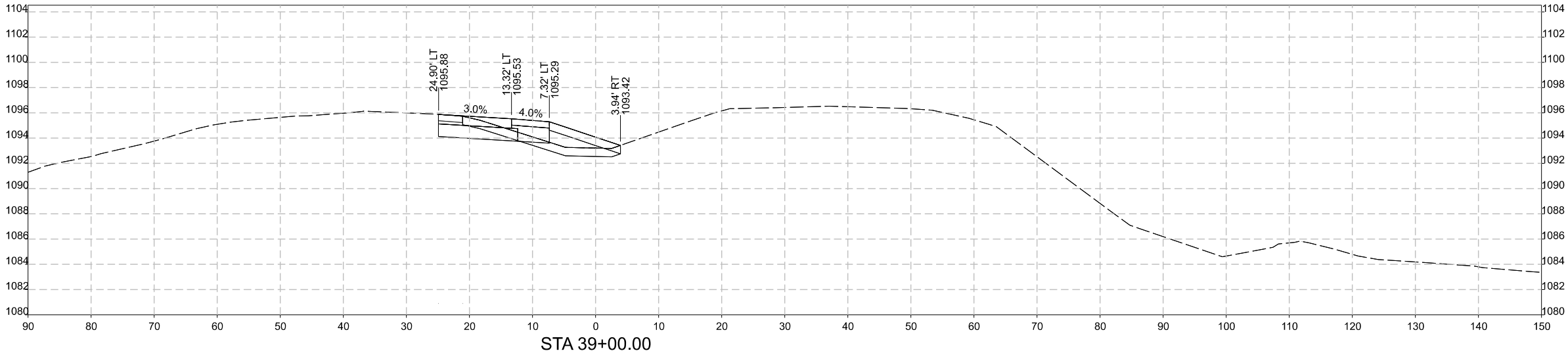
Project No: 125.1070.01

Sheet RR.5



	MARK	REVISION	DATE	BY
	Engineer: EAS	Checked By: AGB		
	Technician: DSS	Date: 7/21/2026	T-R-S:	
	RFM-C084(1149)-54-64 Project No: 125,1070.01			
	Sheet W.3			





Project No: 125,1070.01

Sheet W.5

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

US-30 CROSS SECTIONS

MARSHALL COUNTY, IOWA

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

Sheet W.5

RFM-0064(149)-5464
Project No: 125,1070.01

T-R-S:

Date: 7/21/2026

Checked By: AGB

Engineer: EAS

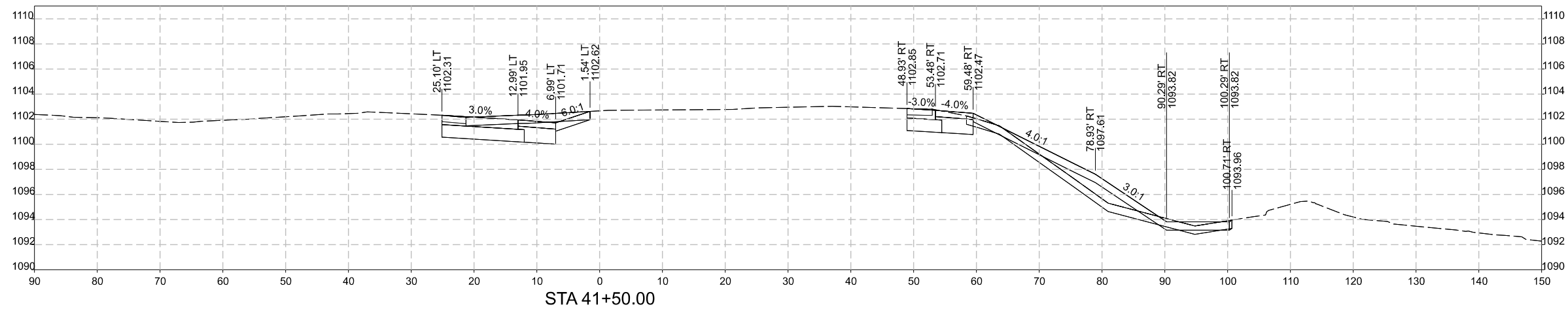
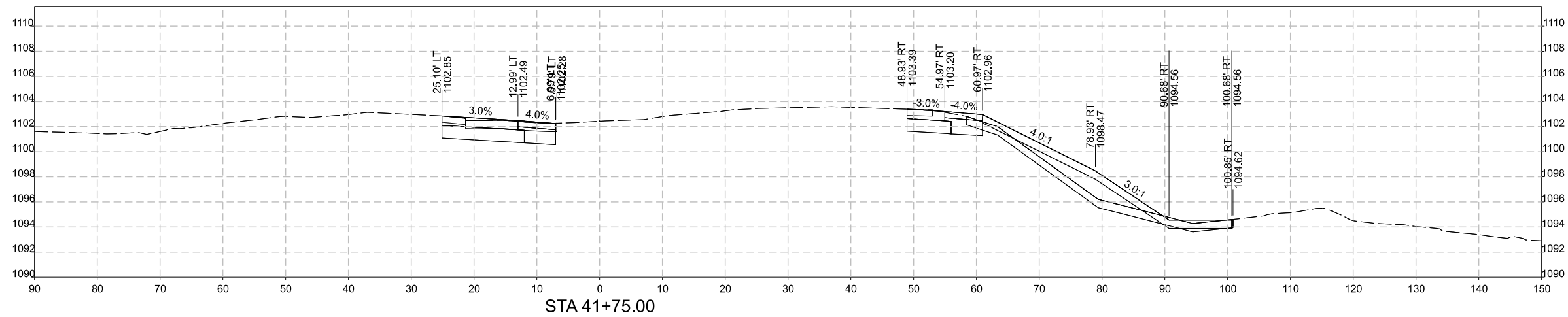
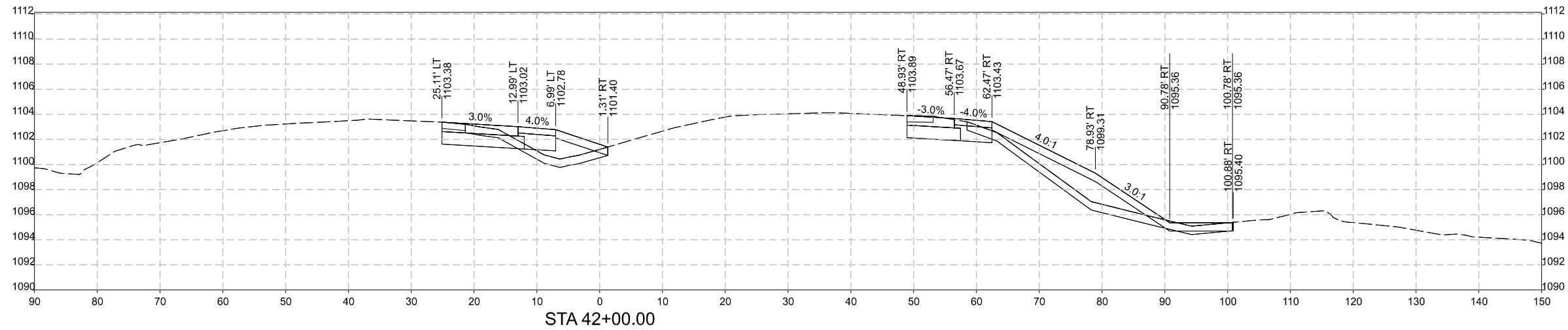
Technician: DSS

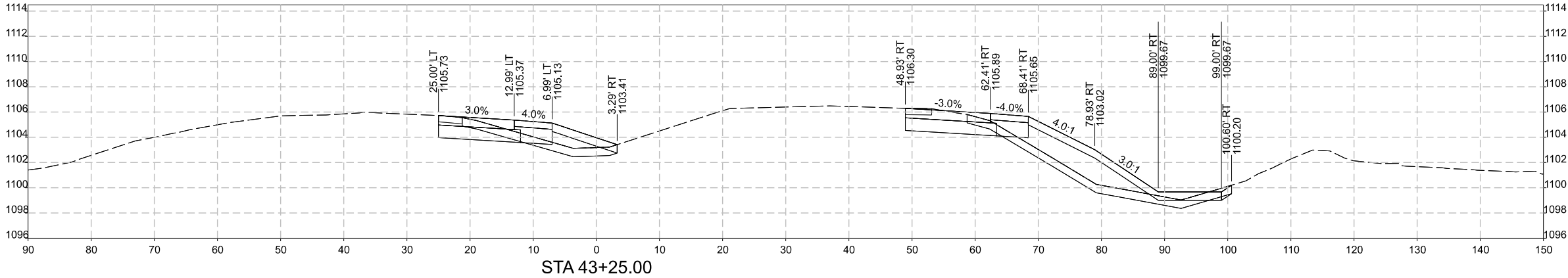
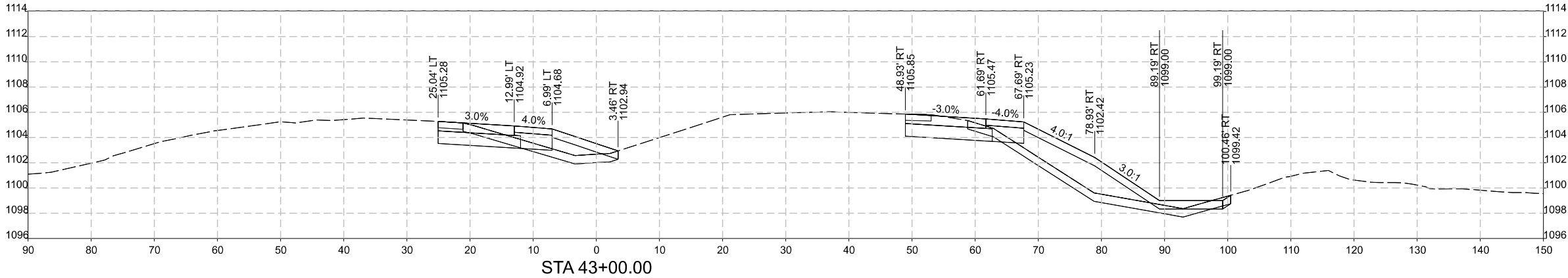
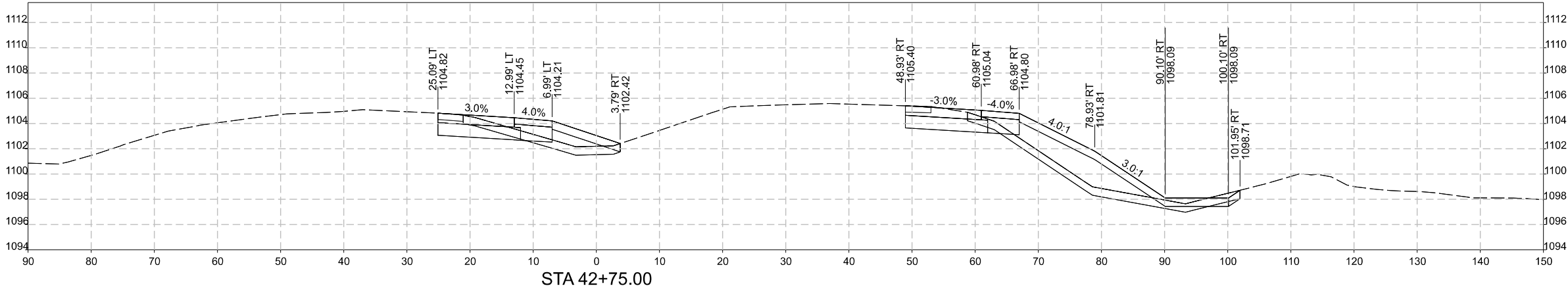
MARK

REVISION

DATE

BY





Project No: 125.1070.01

Sheet W.11

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023

515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet W.11

MARSHALL COUNTY, IOWA

Engineer: EAS
Checked By: AGB

Technician: DSS
Date: 7/21/2026

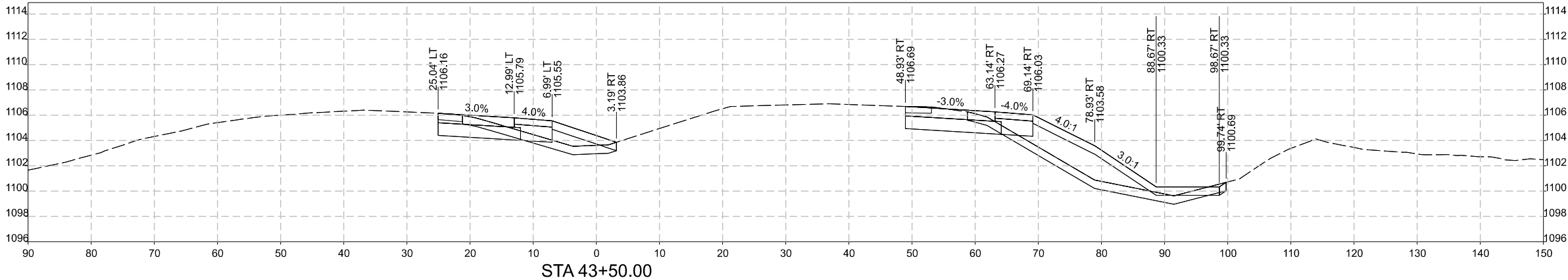
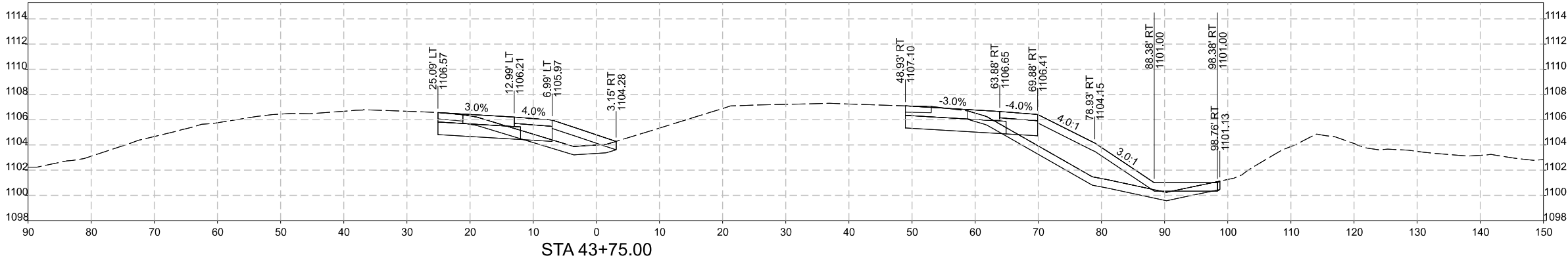
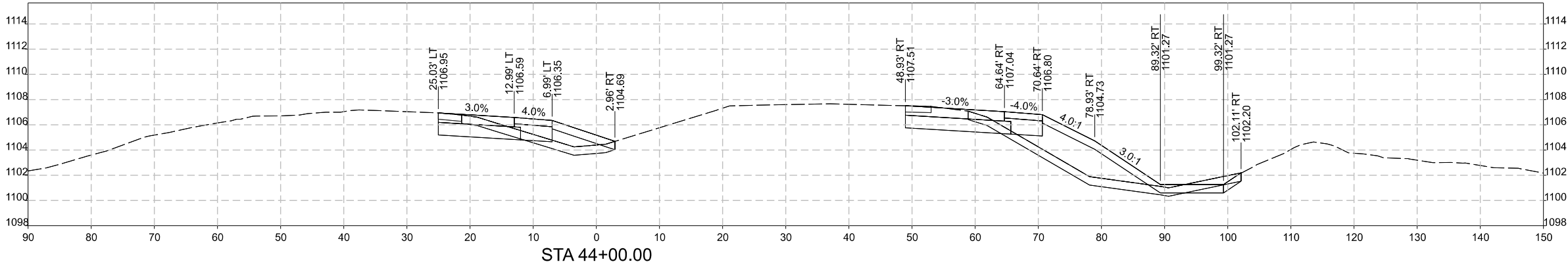
RFM-0064(49)-5464
Project No: 125.1070.01

MARSHALL COUNTY, IOWA

Engineer: EAS
Checked By: AGB

Technician: DSS
Date: 7/21/2026

RFM-0064(49)-5464
Project No: 125.1070.01





Project No: 125,1070.01

Sheet W.12

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS

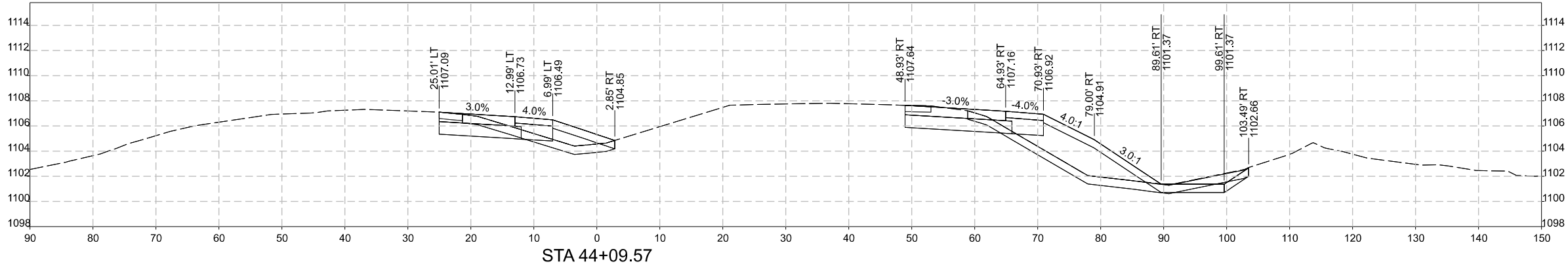
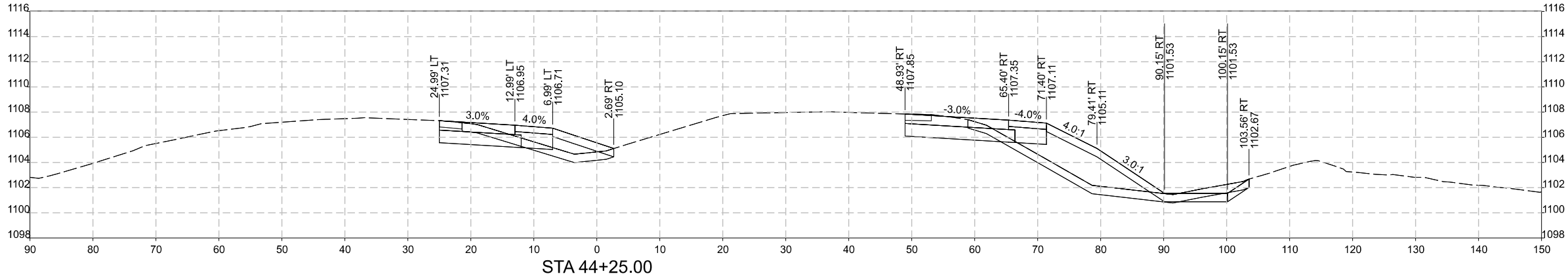
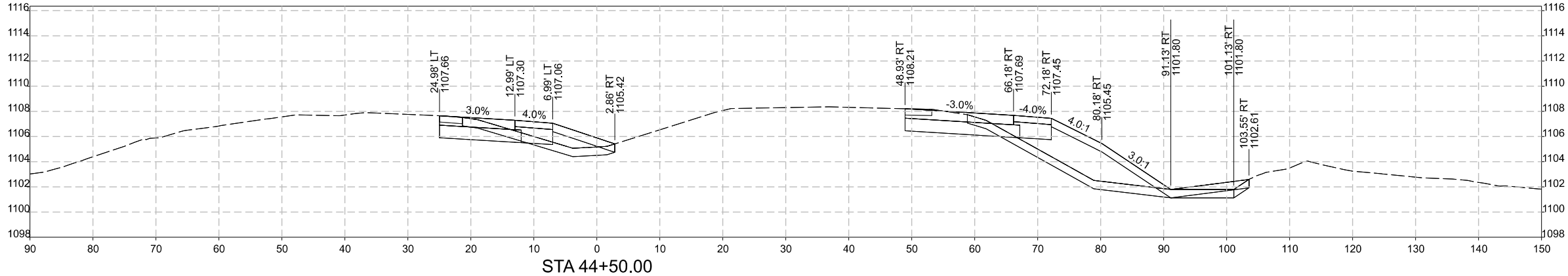
SNYDER & ASSOCIATES, INC.

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet W.12

MARK	REVISION	DATE	BY
	Engineer: EAS	Checked By: AGB	
	Technician: DSS	Date: 7/21/2026	
		T-R-S:	



MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

DATE

T-R-S:

BY

US-30 CROSS SECTIONS

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

SNYDER

& ASSOCIATES

Project No: 125.1070.01

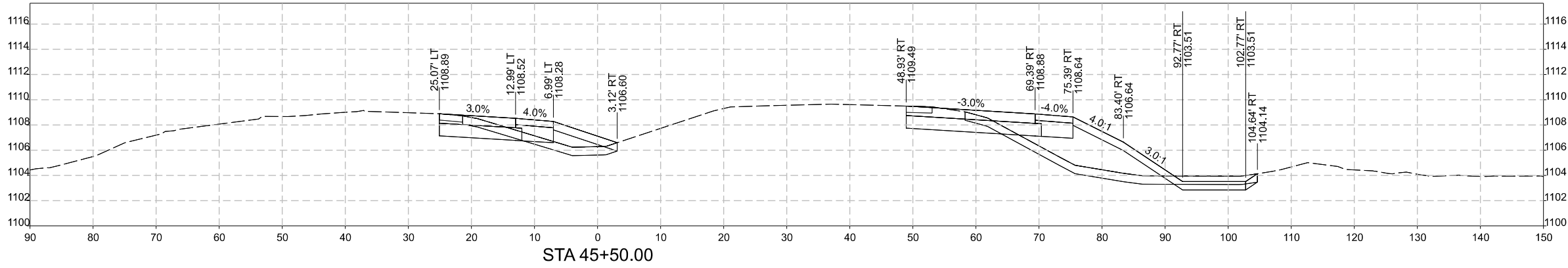
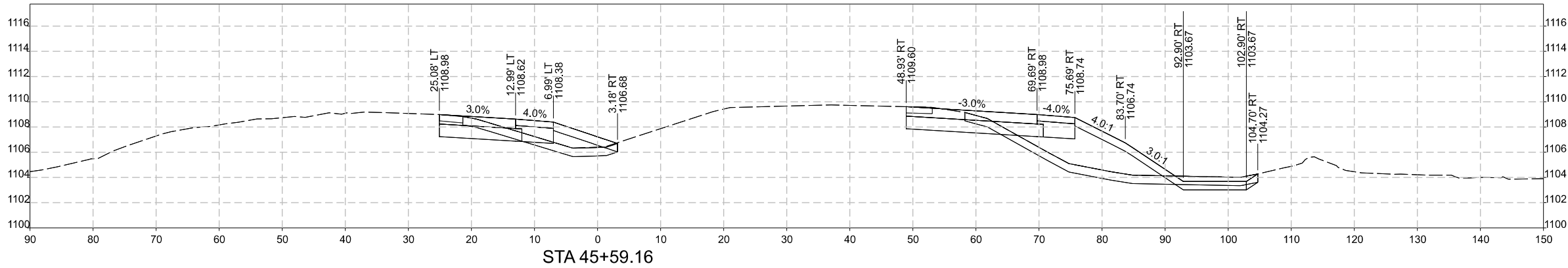
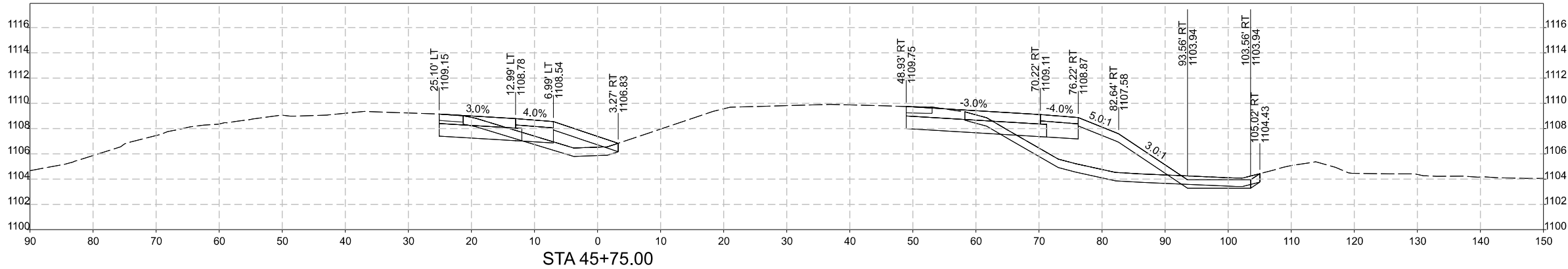
Sheet W.13

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet W.13

MARSHALL COUNTY, IOWA

RFM-0064(49)-54-64
Project No: 125.1070.01





Project No: 125.1070.01

Sheet W.15

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS

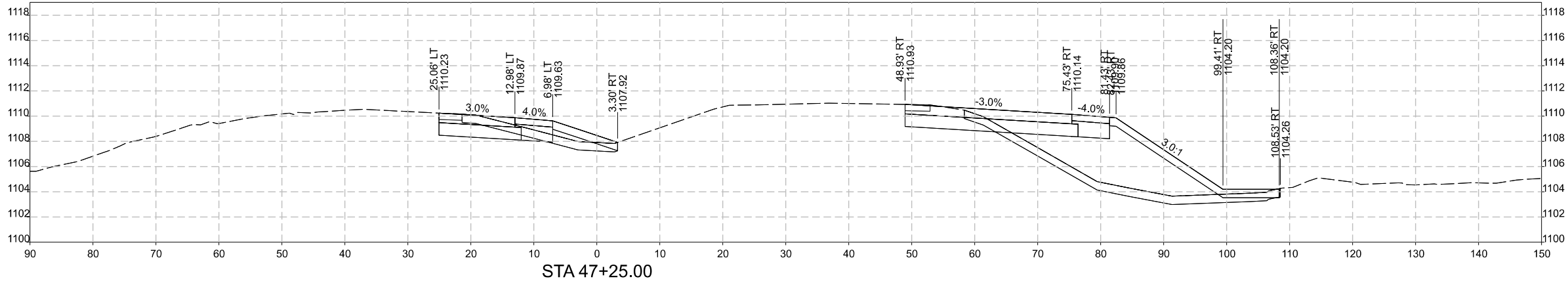
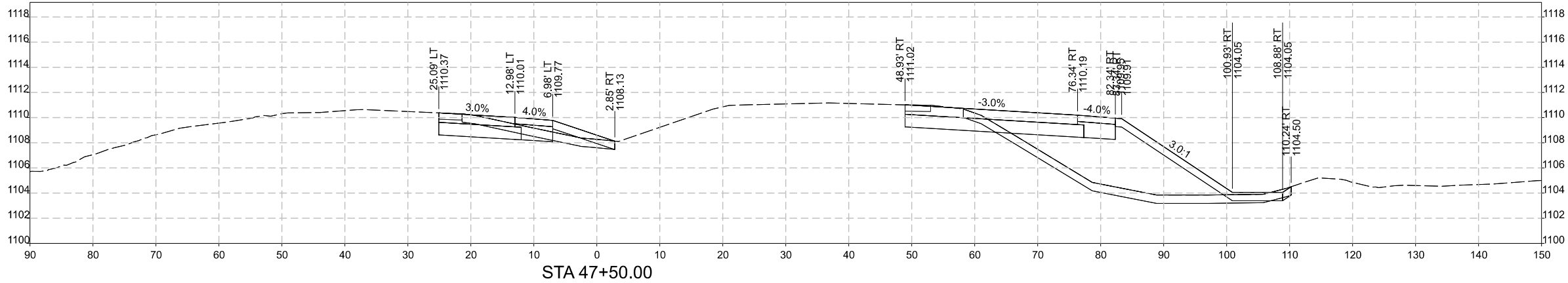
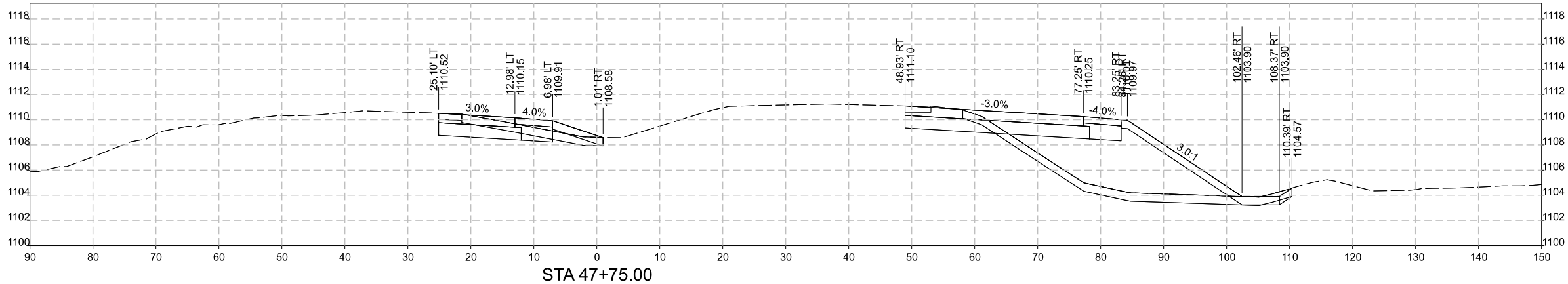
SNYDER & ASSOCIATES, INC.

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet W.15

MARK	REVISION	DATE	BY
	Engineer: EAS	Checked By: AGB	
	Technician: DSS	Date: 7/21/2026	
		T-R-S:	



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS



SNYDER
& ASSOCIATES

Project No: 125.1070.01

Sheet W.18

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

RFM-0064(49)-5464
Project No: 125.1070.01

Sheet W.18

MARK

Engineer: EAS

Technician: DSS

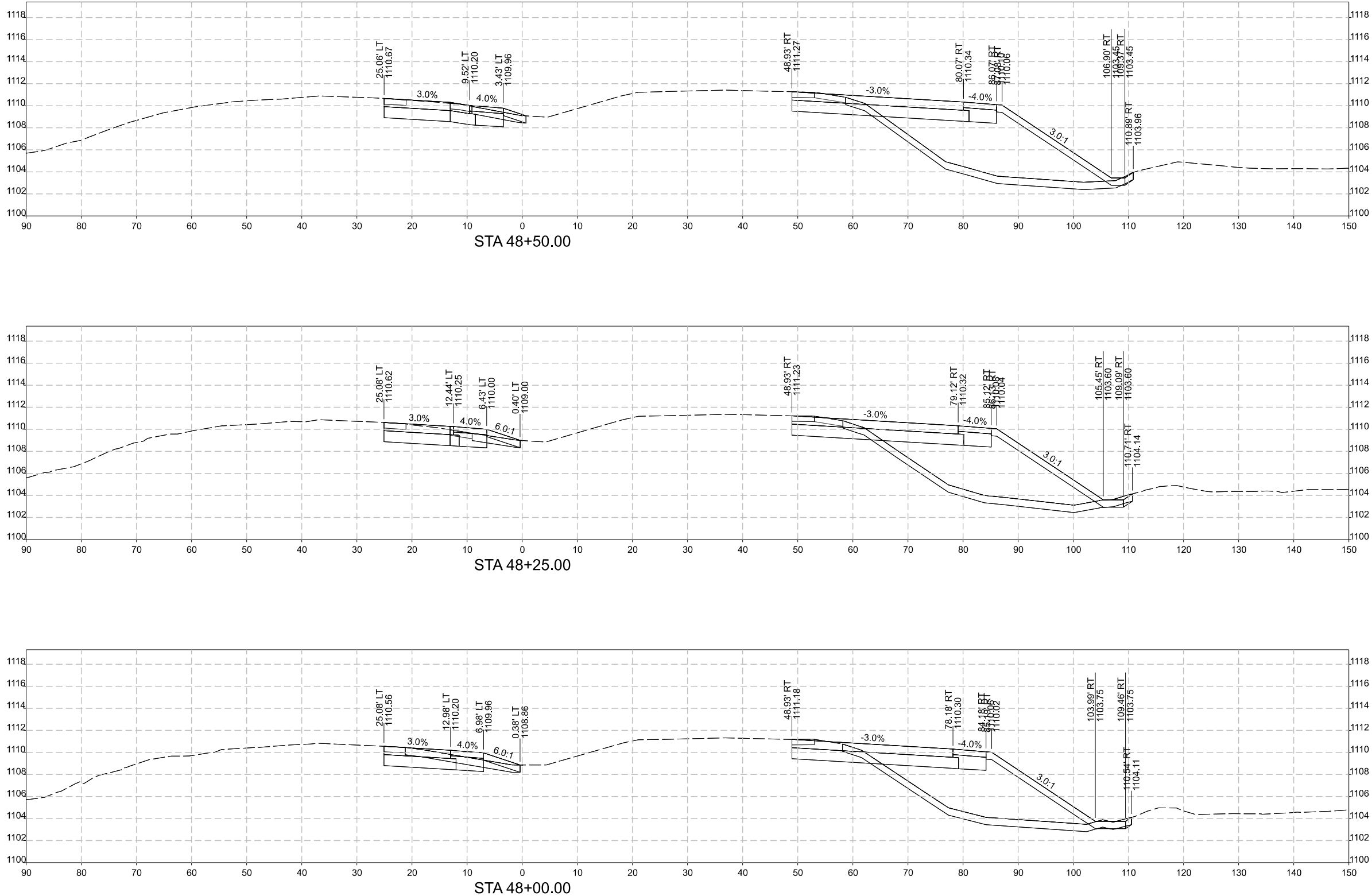
REVISION

Checked By: AGB

Date: 7/21/2026

DATE

BY





Sheet W.19

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS

SNYDER & ASSOCIATES, INC.

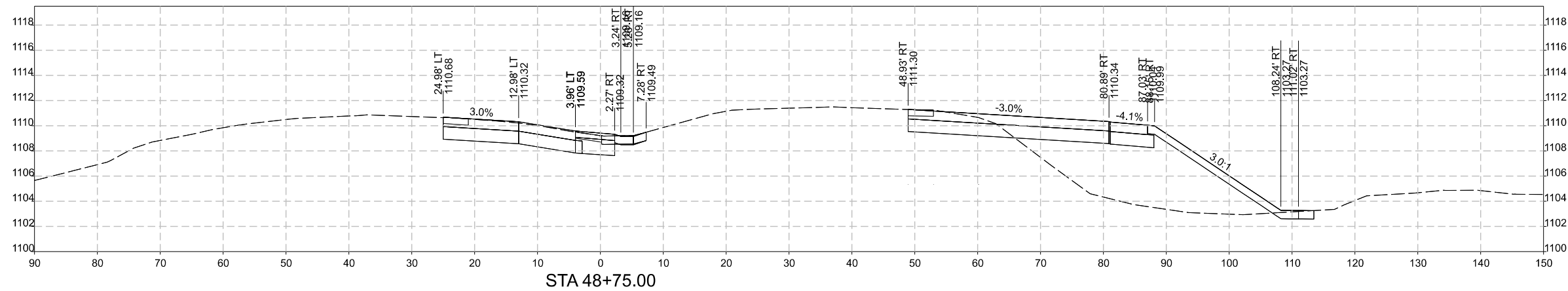
Project No: 125,1070.01

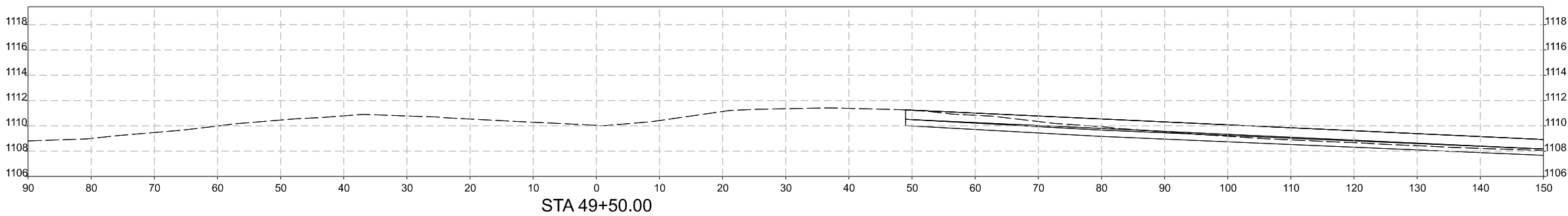
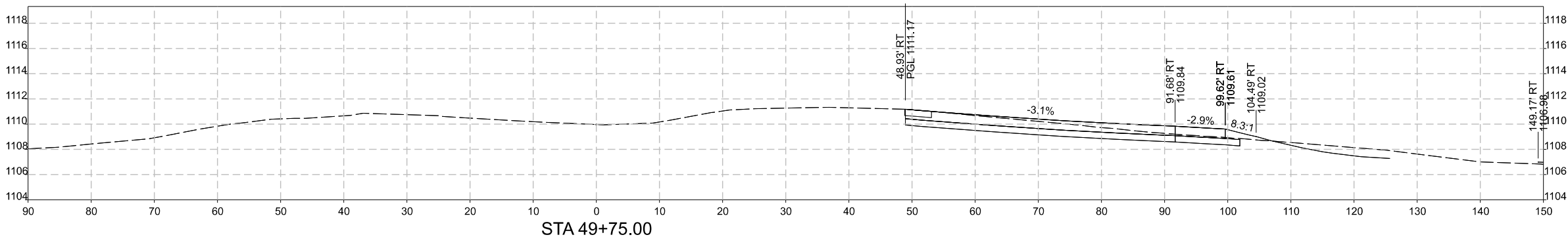
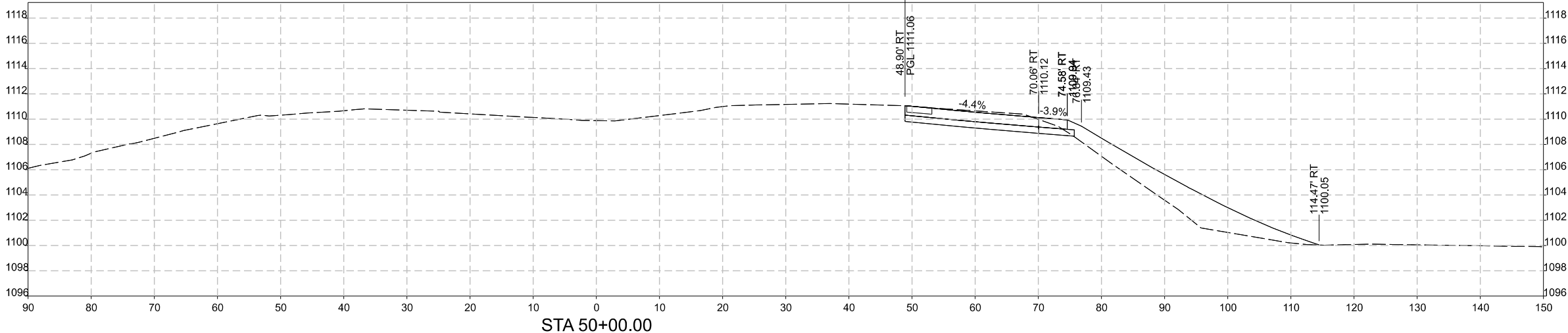
Sheet W.19

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-C064(49)-54-64		Sheet W.19	
Project No: 125,1070.01			







SNYDER & ASSOCIATES

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

US-30 CROSS SECTIONS

MARSHALL COUNTY, IOWA

Project No: 125,1070.01

Sheet W.21

RFM-0064(49)-54-64
Project No: 125,1070.01

Sheet W.21

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

US-30 CROSS SECTIONS

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

MARK

REVISION

DATE

BY

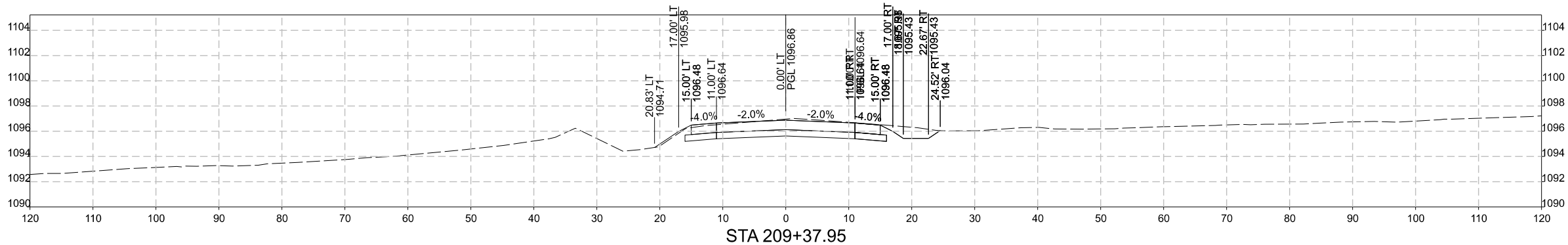
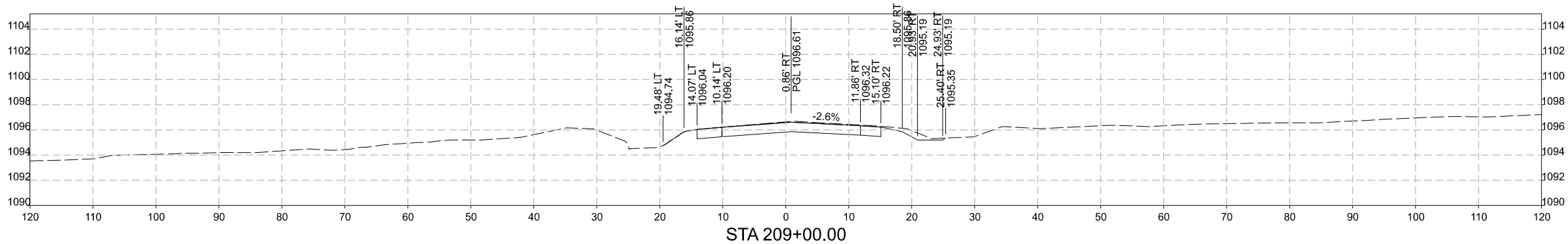
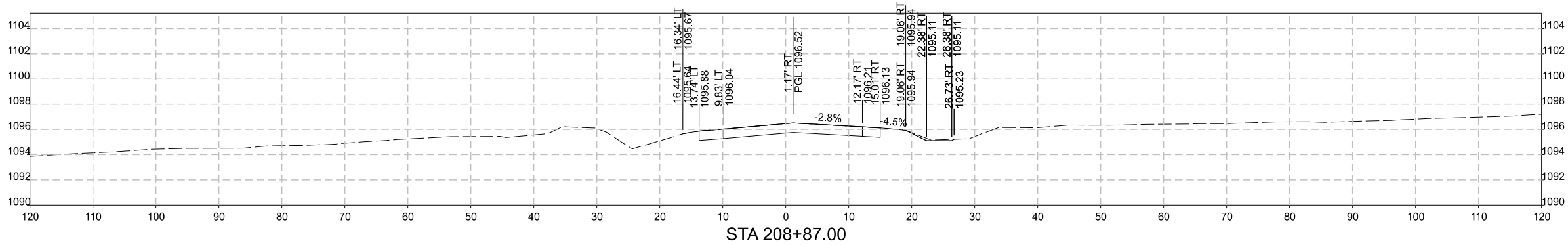
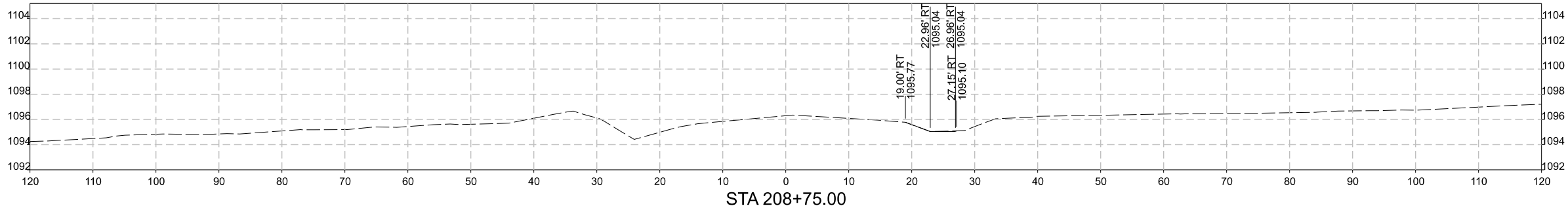
Engineer: EAS

Checked By: AGB

Technician: DSS

Date: 7/21/2026

T-R-S:





Project No: 125.1070.01

Sheet X.1

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

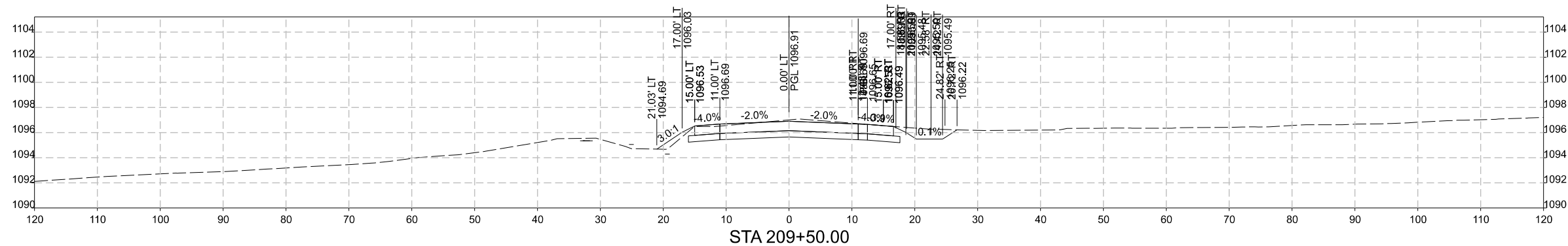
BINFORD AVE CROSS SECTIONS

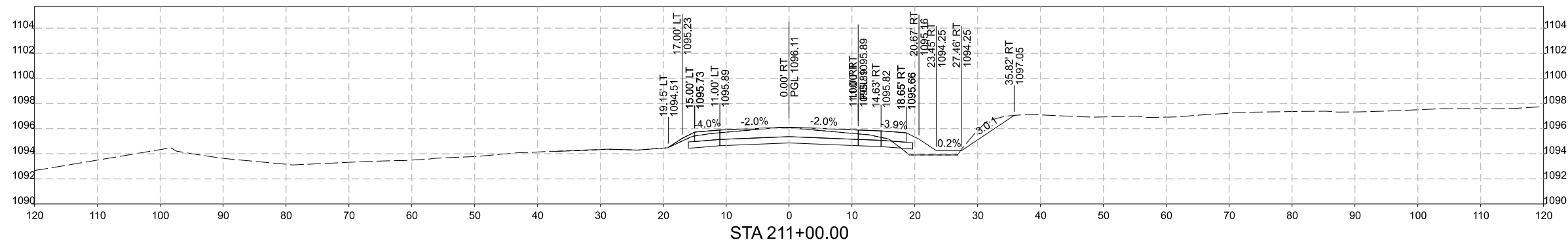
SNYDER & ASSOCIATES, INC.

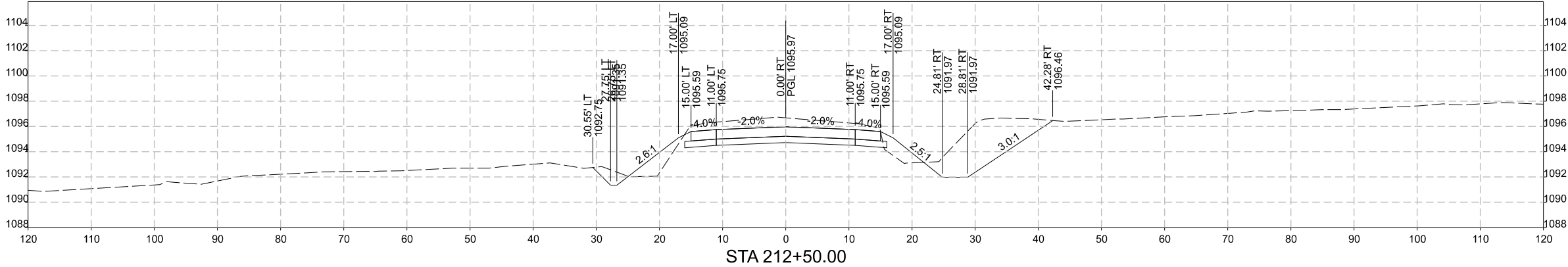
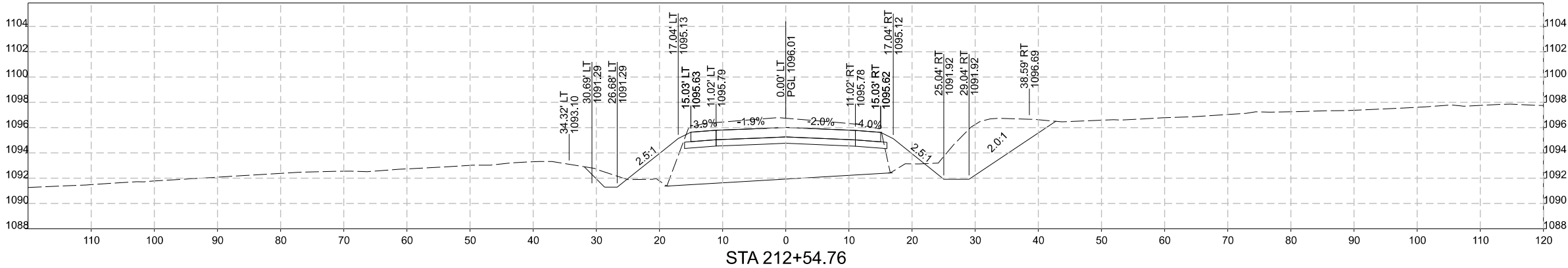
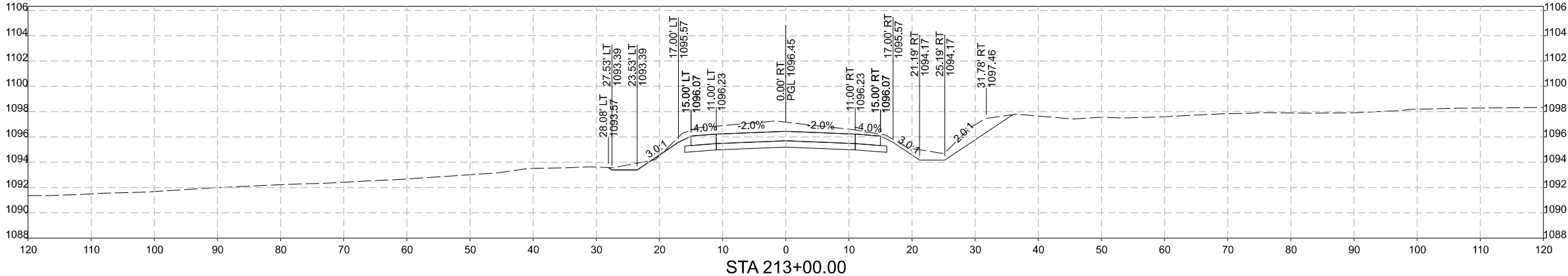
MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-0064149-5464			Sheet X.1
Project No: 125.1070.01			







MARK

Engineer: EAS

Technician: DSS

RFM-0064(49)-5464

Project No: 125,1070.01

REVISION

Checked By: AGB

Date: 7/21/2026

T-R-S:

DATE

BY

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE CROSS SECTIONS

MARSHALL COUNTY, IOWA

SNYDER

& ASSOCIATES

Project No: 125,1070.01

Sheet X.4

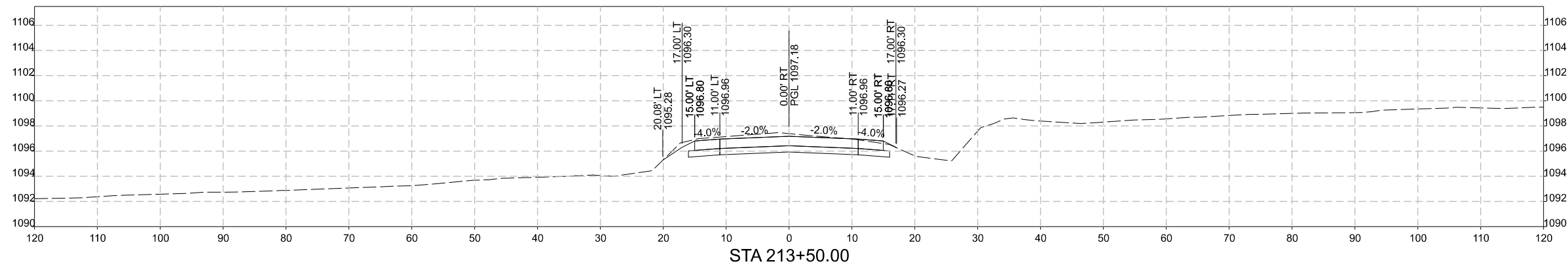
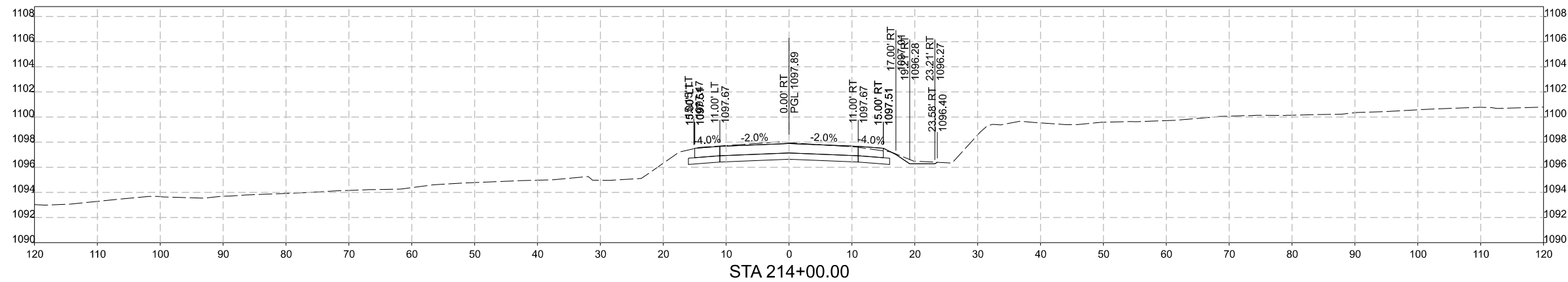
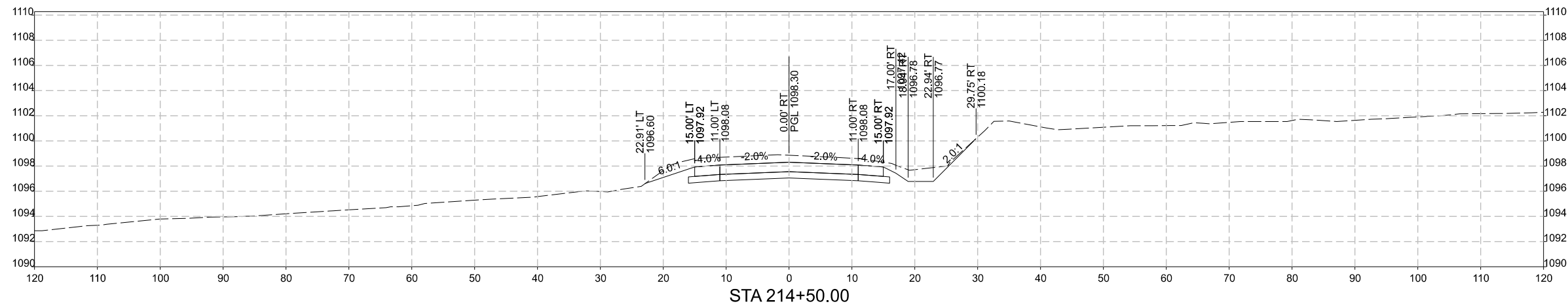
2727 SW SNYDER BLVD

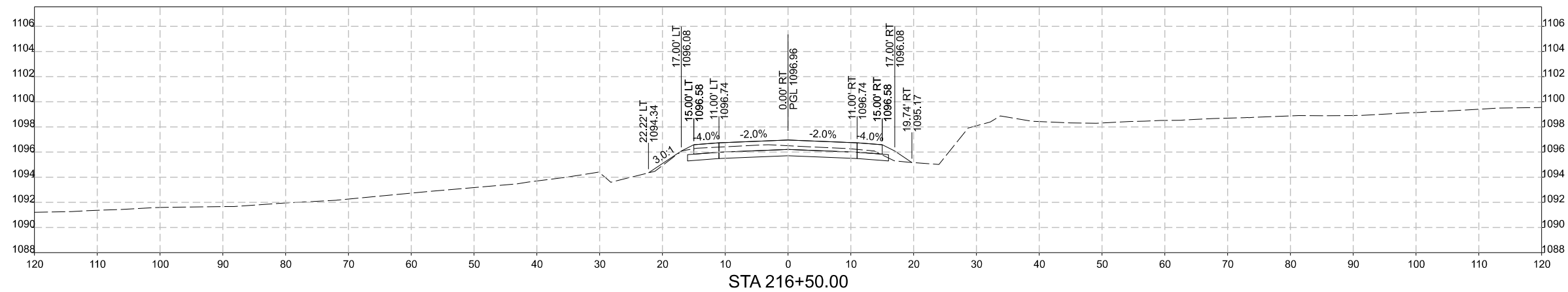
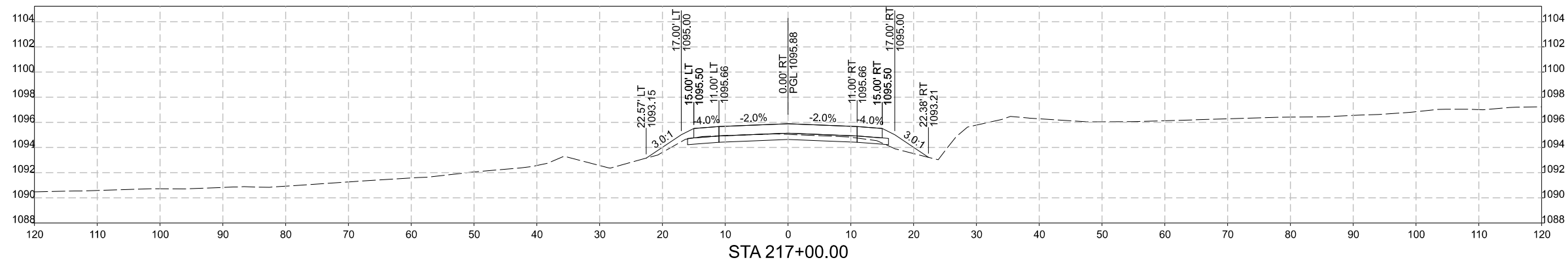
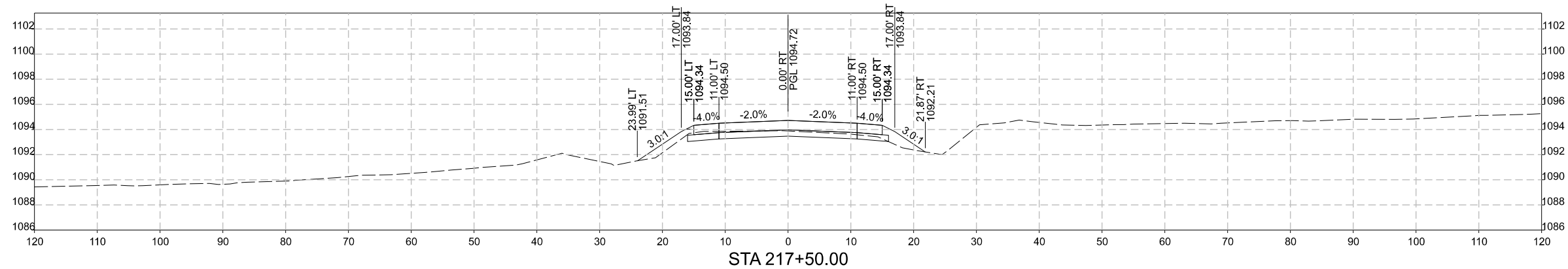
ANKENY, IA 50023

515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES, INC.

Sheet X.4





Project No: 125.1070.01

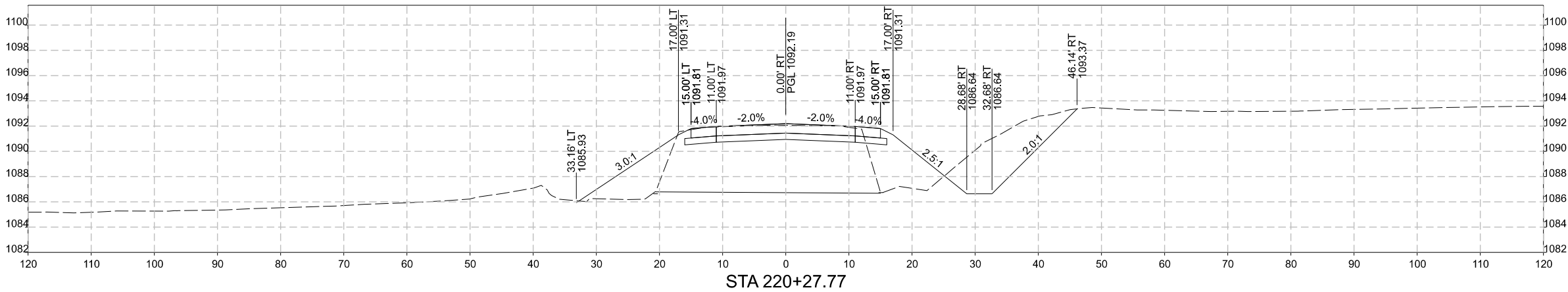
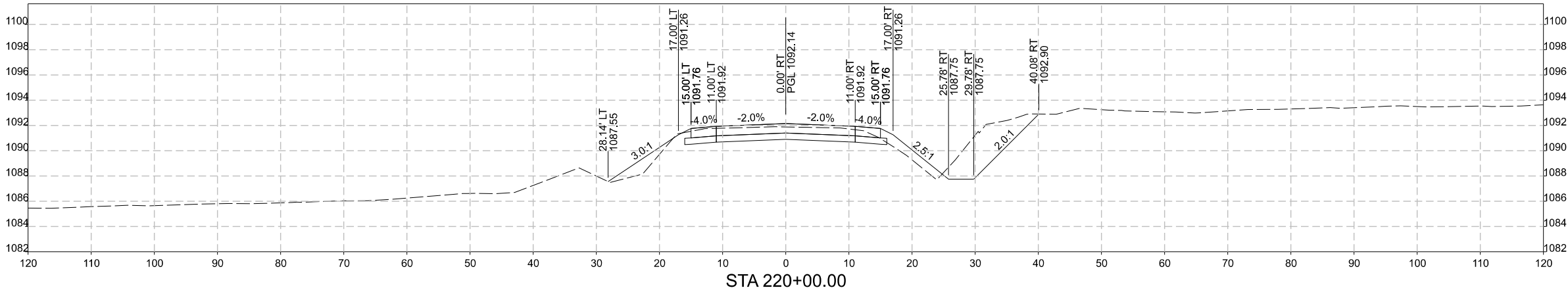
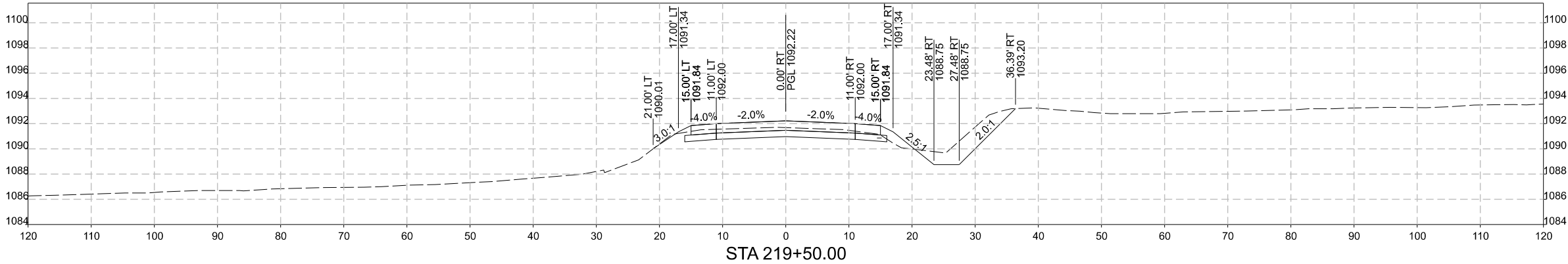
Sheet X.7

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026	T-R-S:	
RFIM-C084(149)-54-64 Project No: 125.1070.01			Sheet X.7



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

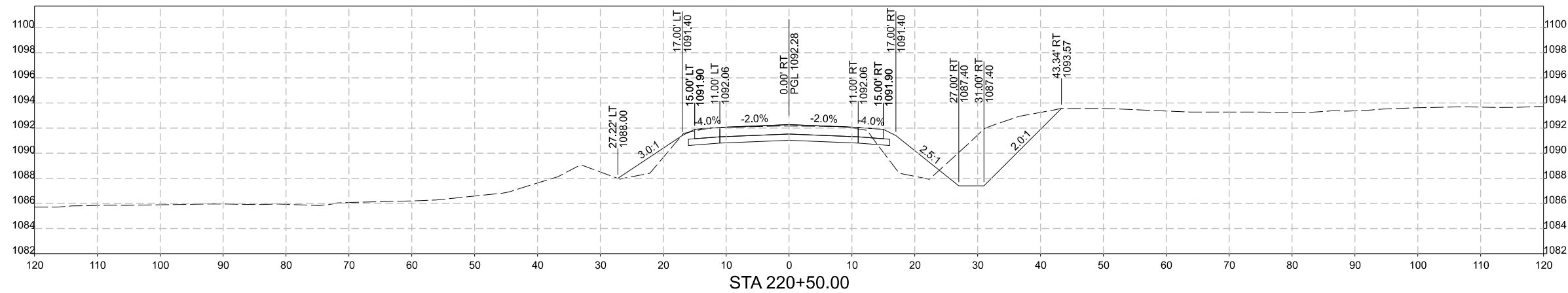
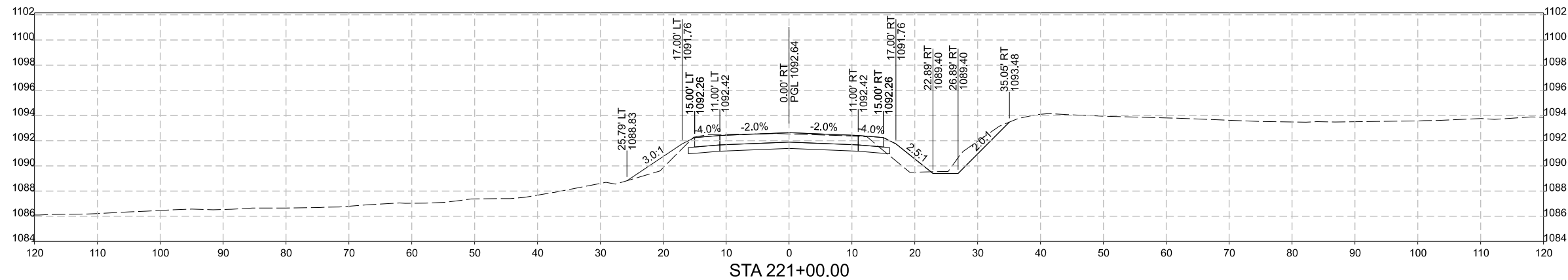
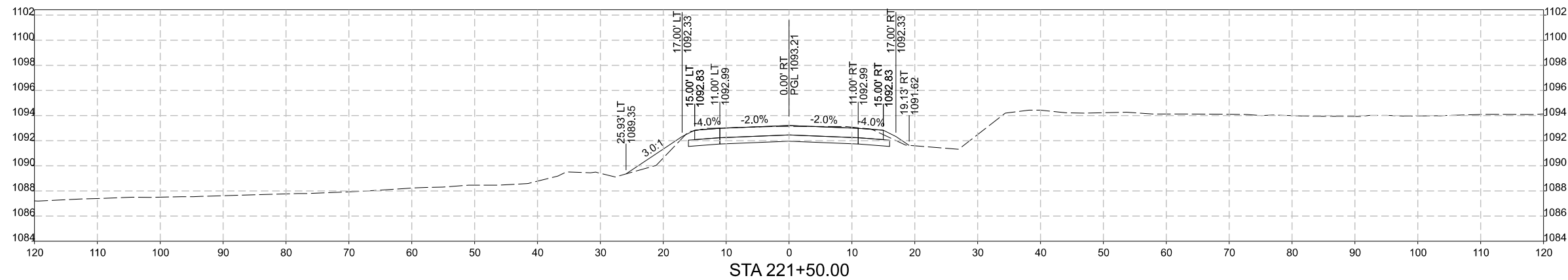
BINFORD AVE CROSS SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
RFM-C064(149)-5464			
Project No: 125,1070.01			
			Sheet X.9



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE CROSS SECTIONS

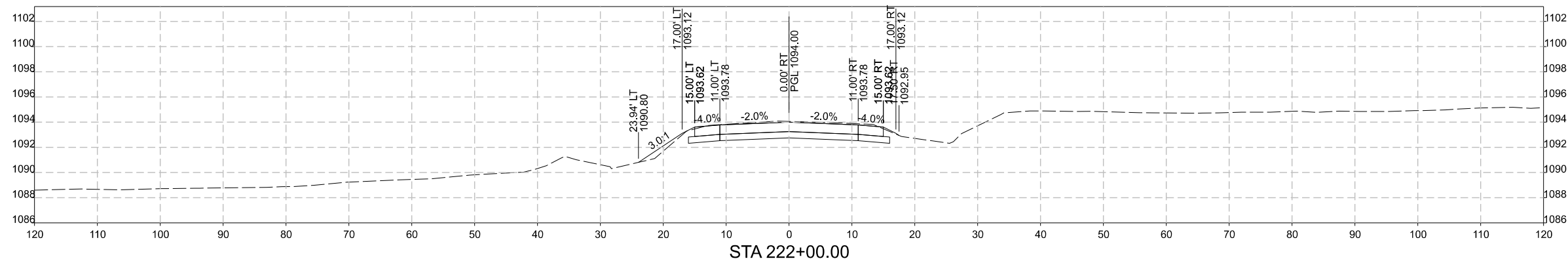
SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

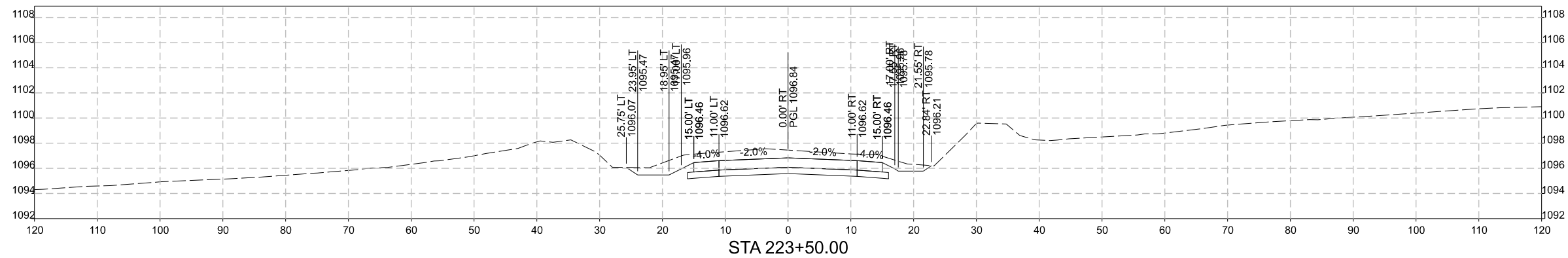
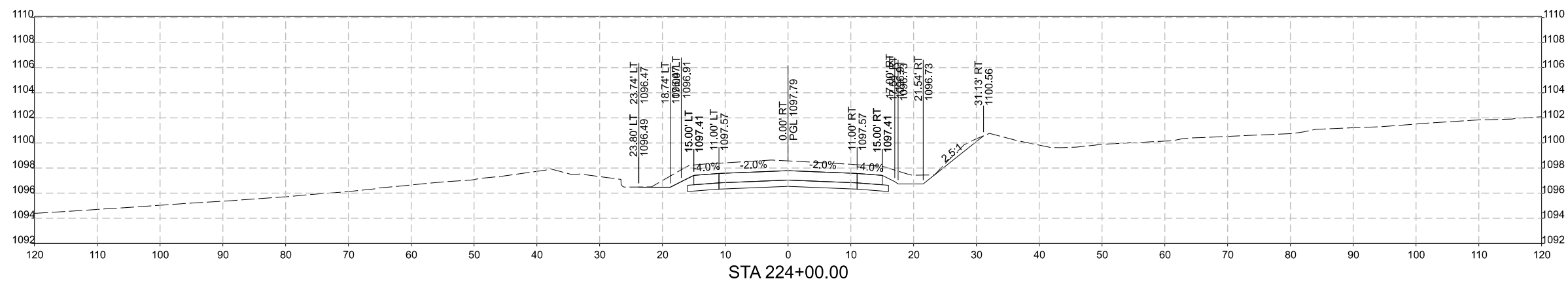
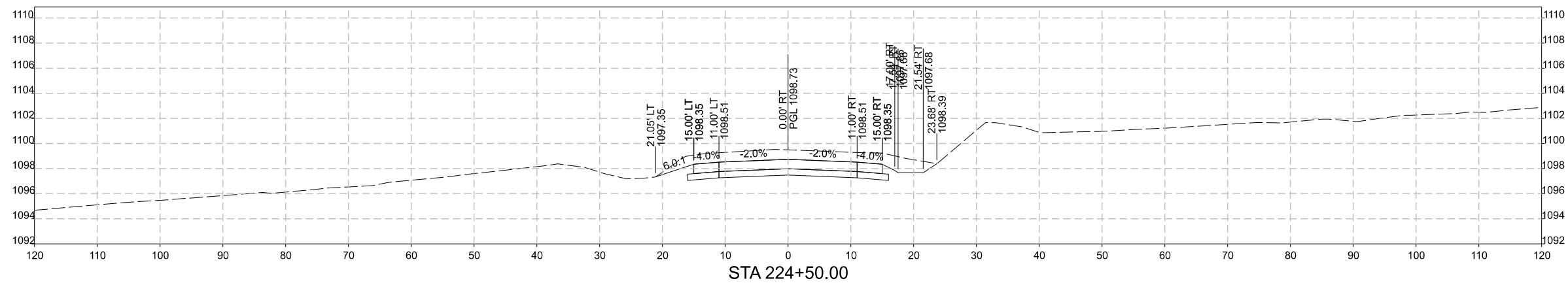


Project No: 125.1070.01

Sheet X.10

MARK		REVISION	DATE	BY
Engineer: EAS	Checked By: AGB			
Technician: DSS	Date: 7/21/2026			
RFM-C084(149)-54-64 Project No: 125.1070.01		Sheet X.10		





Project No: 125.1070.01

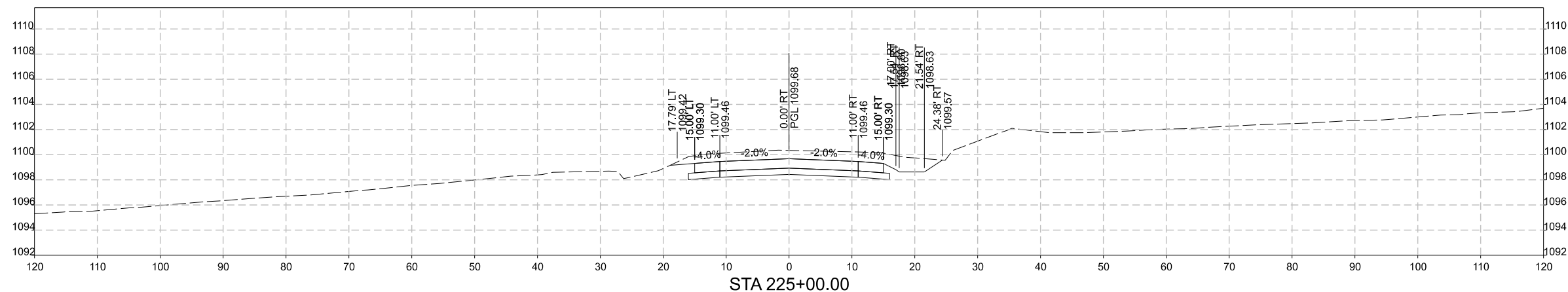
Sheet X.12

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK		REVISION	DATE	BY
Engineer: EAS	Checked By: AGB			
Technician: DSS	Date: 7/21/2026			
			T-R-S:	
RFM-C064(149)-54-64		Sheet X.12		
Project No: 125.1070.01				



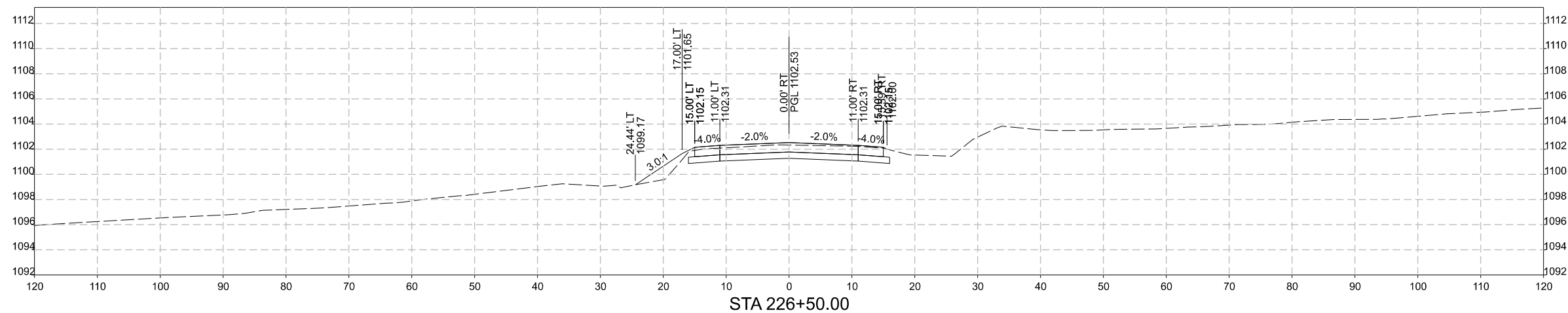
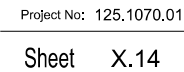
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

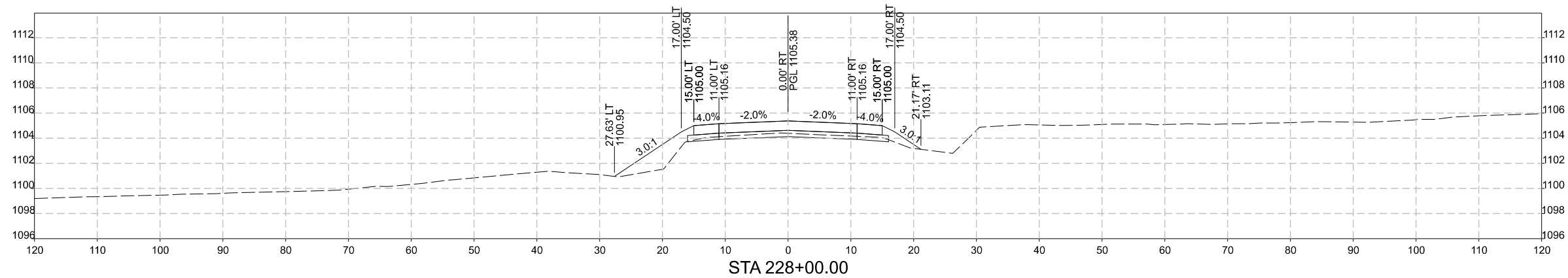
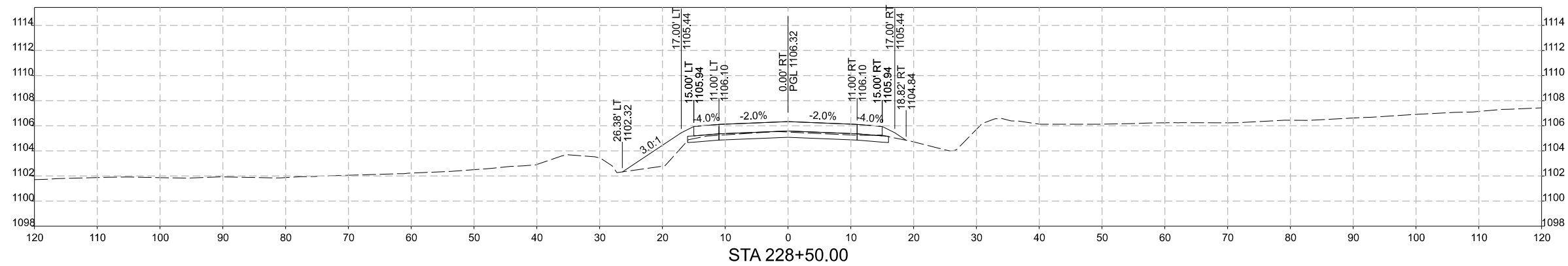
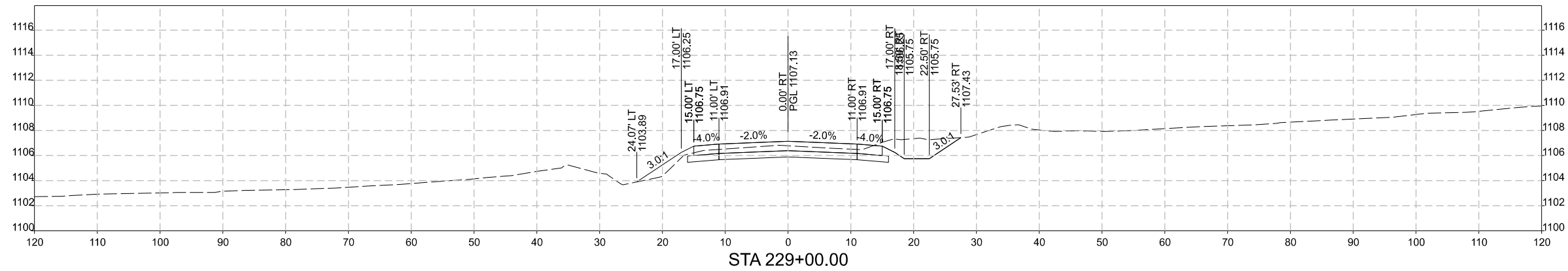


Project No: 125.1070.01

Sheet X.13

[illegible]

[illegible]



Project No: 125.1070.01

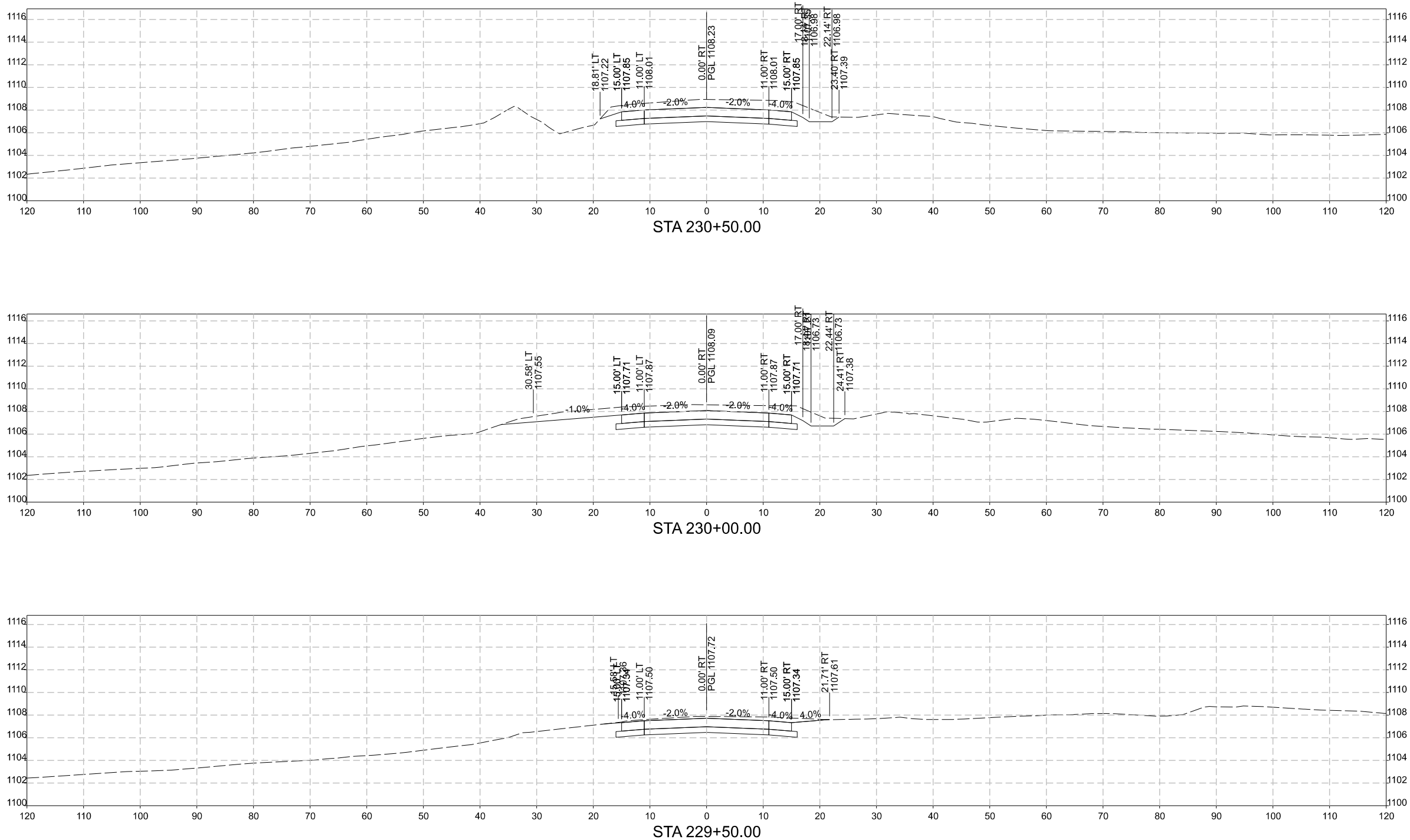
Sheet X.15

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

BINFORD AVE CROSS SECTIONS

SNYDER & ASSOCIATES, INC. 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]





Project No: 125,1070.01

Sheet X.16

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

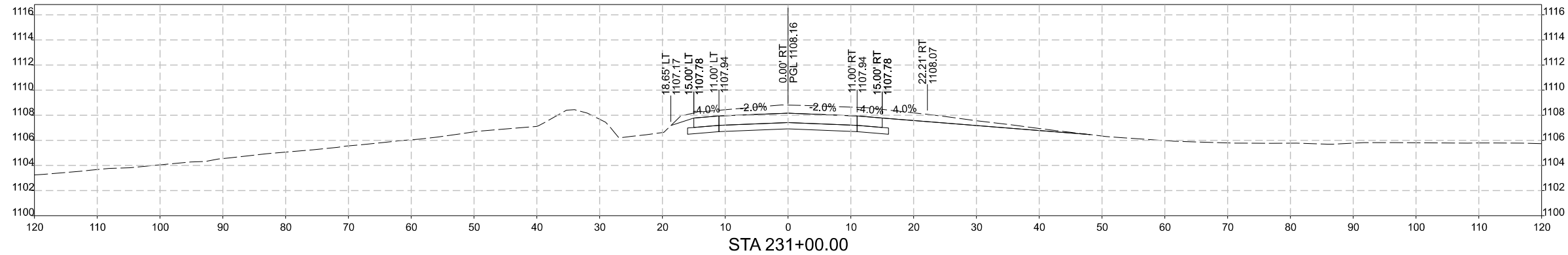
BINFORD AVE CROSS SECTIONS

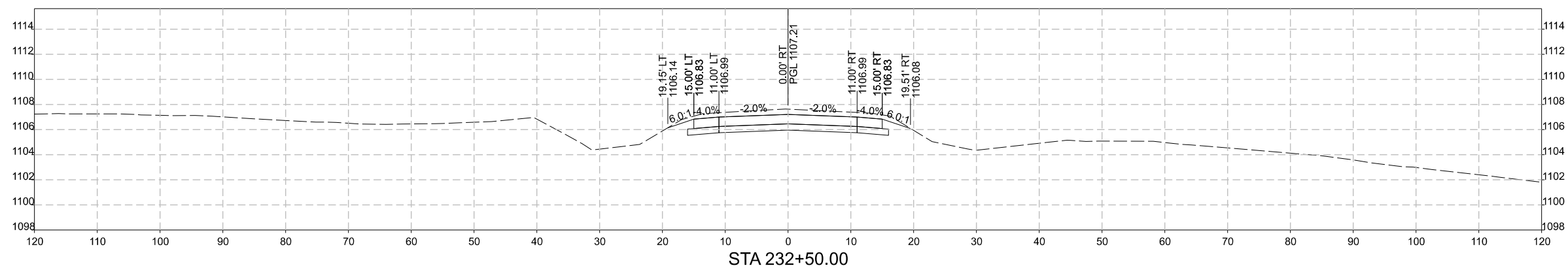
SNYDER & ASSOCIATES, INC.

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
T-R-S:			
RFM-0064(149)-54-64			
Project No: 125,1070.01		Sheet X.16	



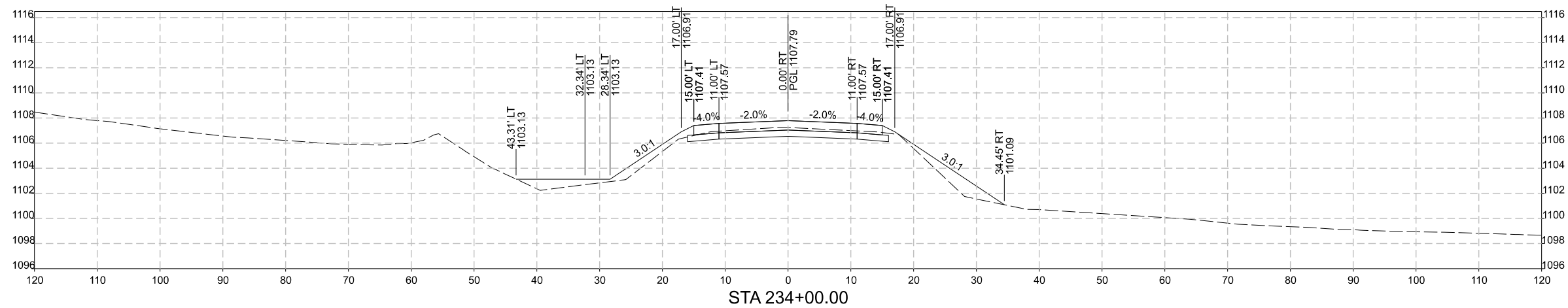
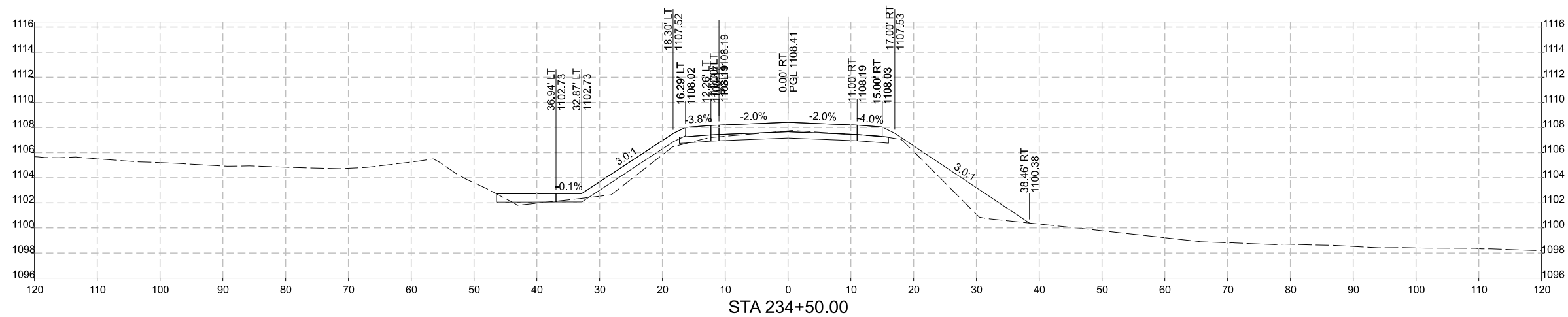
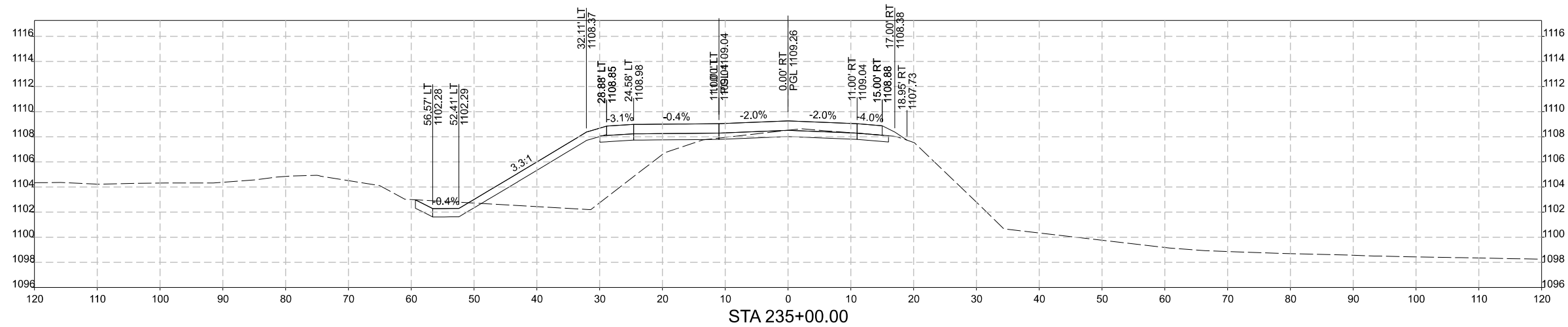


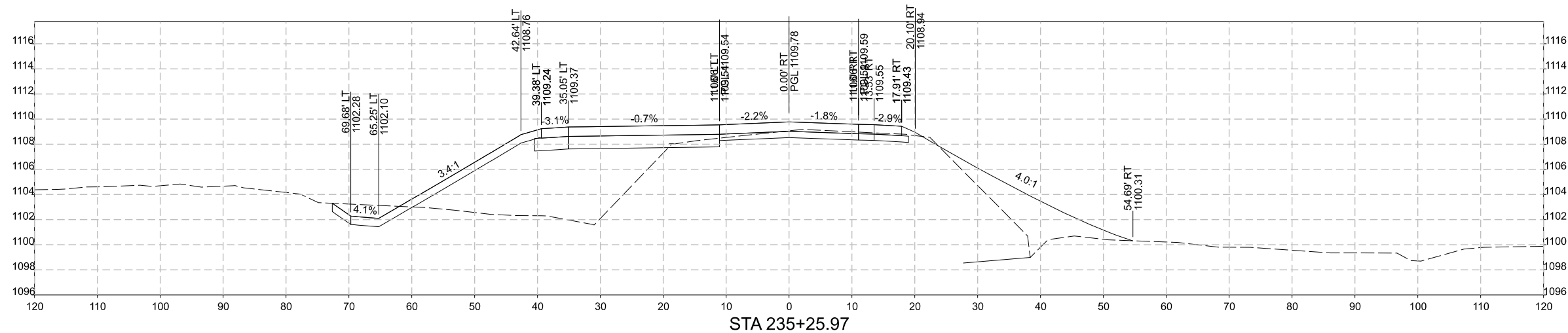
MARK		REVISION	DATE	BY
Engineer: EAS	Checked By: AGB			
Technician: DSS	Date: 7/21/2026			
RFM-C084(149)-54-64 Project No: 125.1070.01		T-R-S: Sheet X.18		

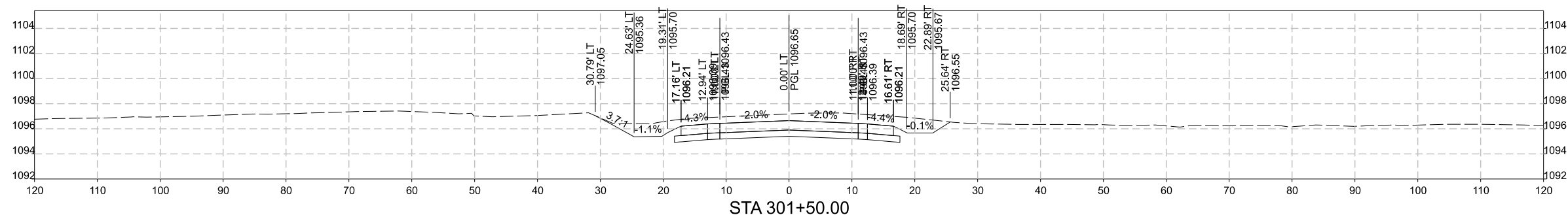


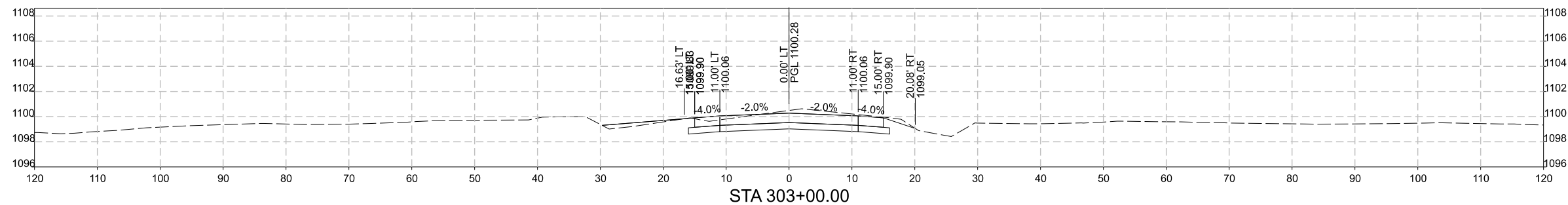
Project No: 125.1070.01

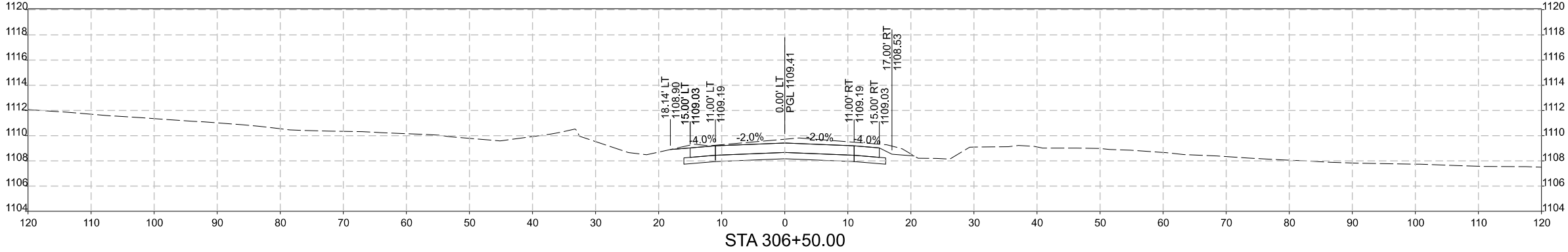
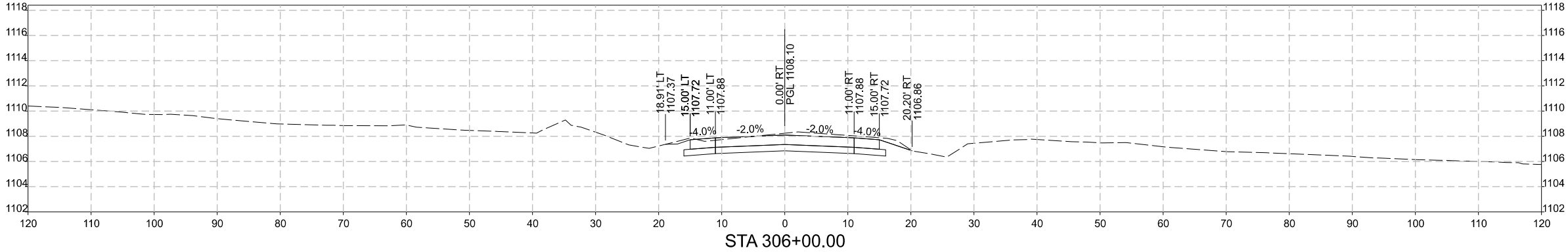
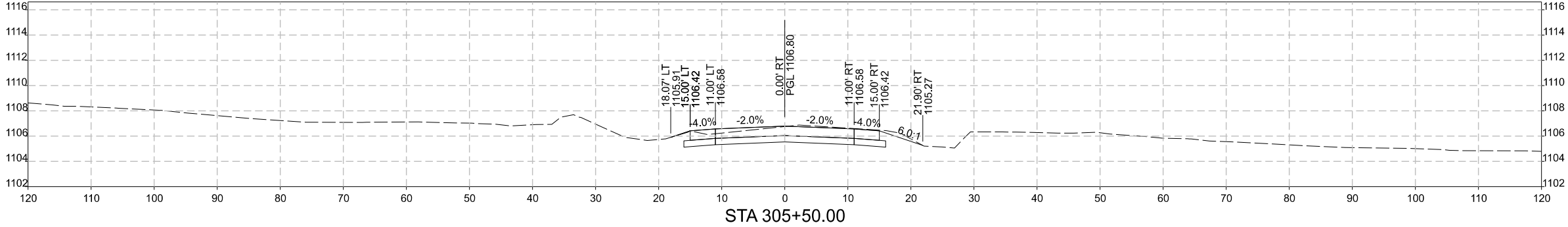
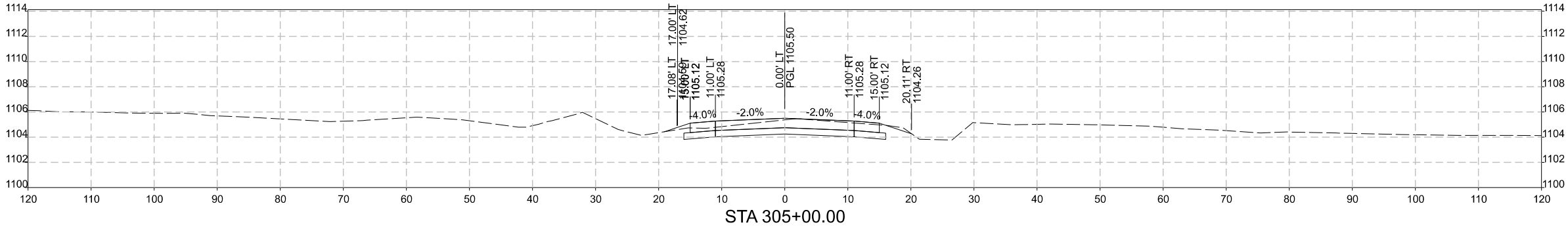
Sheet X.18







[illegible]



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

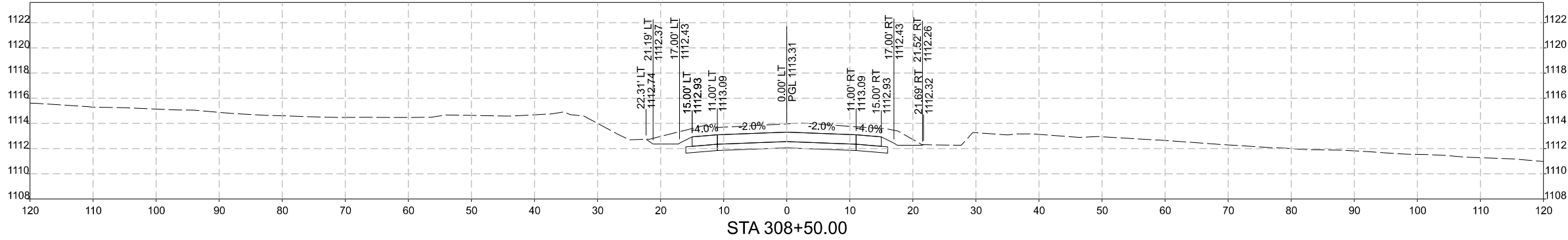
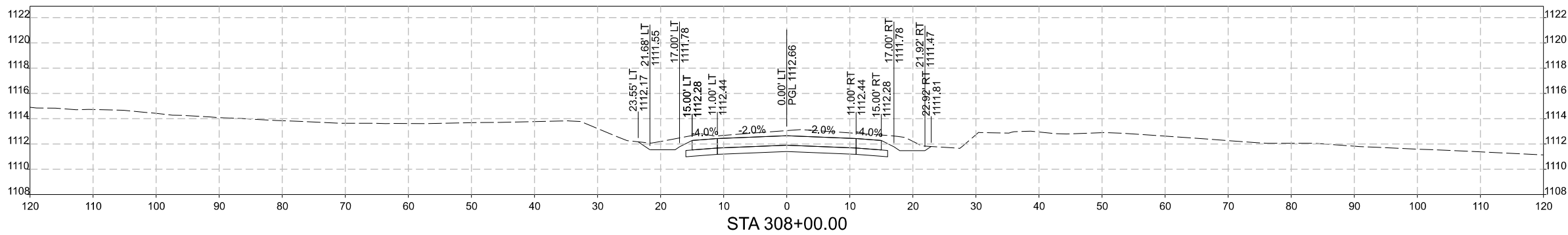
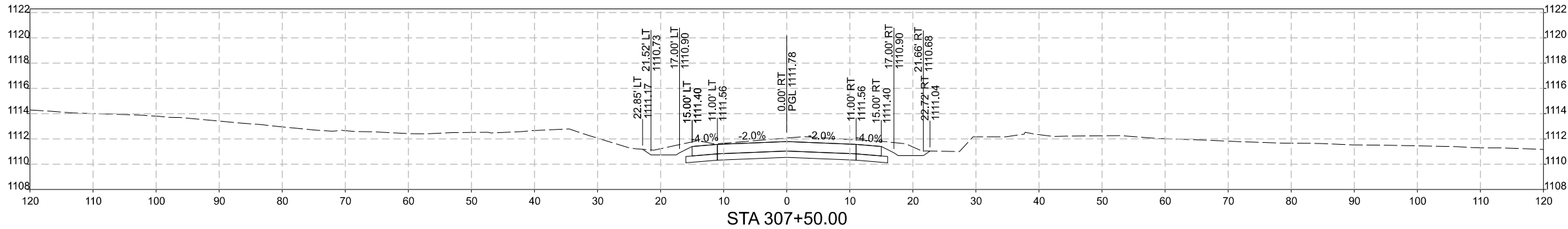
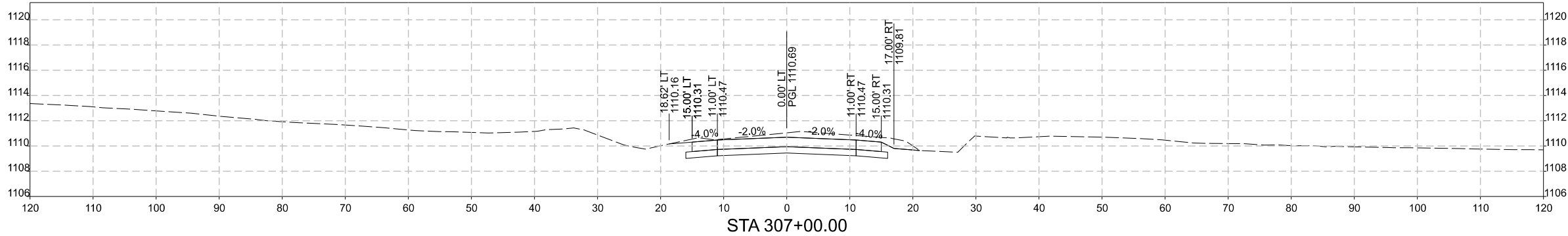
2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125,1070.01

Sheet Y.3

Sheet Y.3

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
T-R-S:			
RFM-0064149-5464			
Project No: 125,1070.01			



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

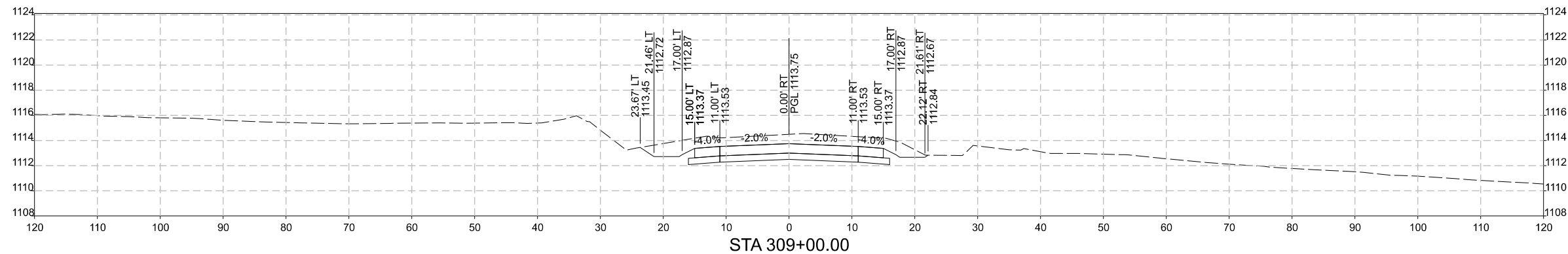
245TH ST CROSS SECTIONS

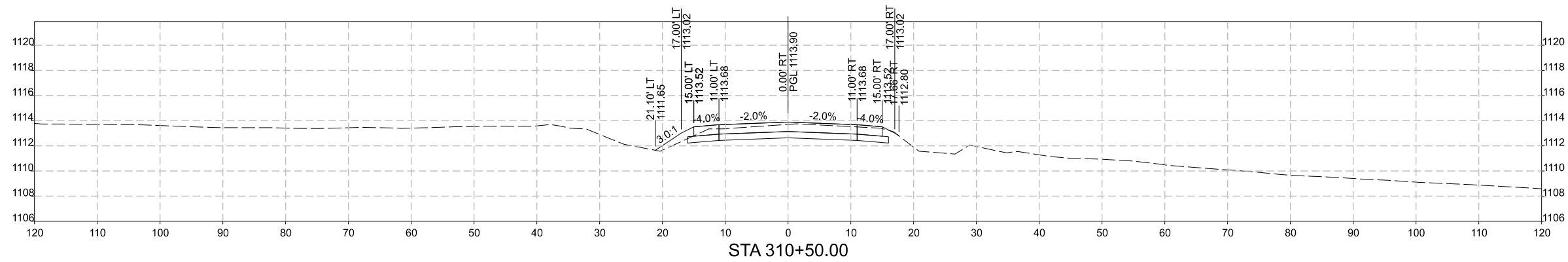
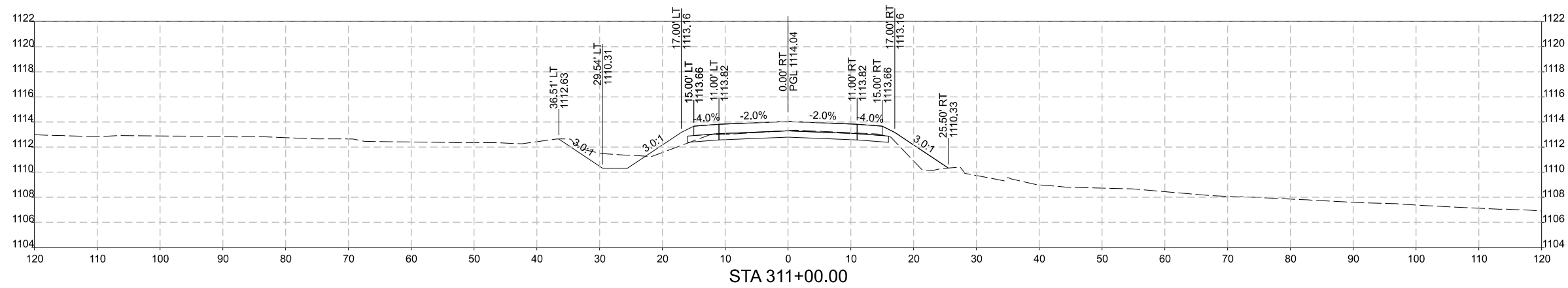
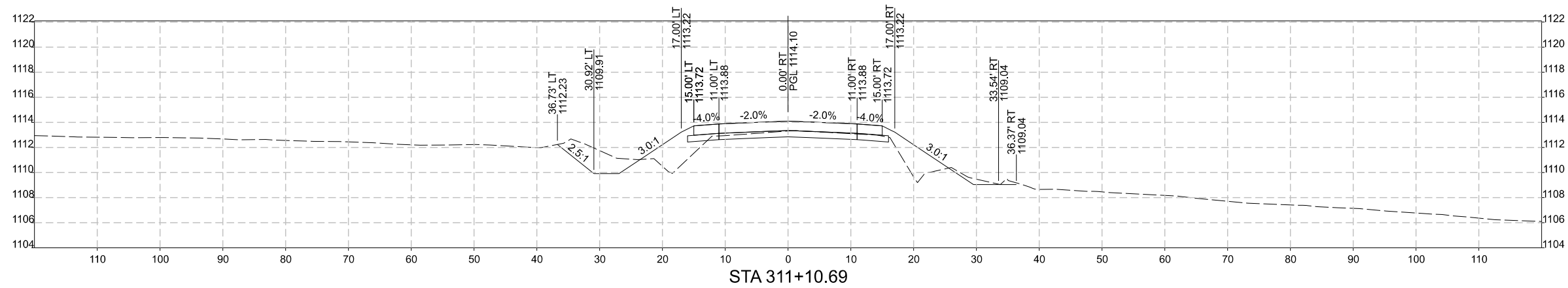
MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026		
T-R-S:			Sheet Y.4
RFM-0064(49)-5464			Project No: 125,1070.01





Project No: 125.1070.01

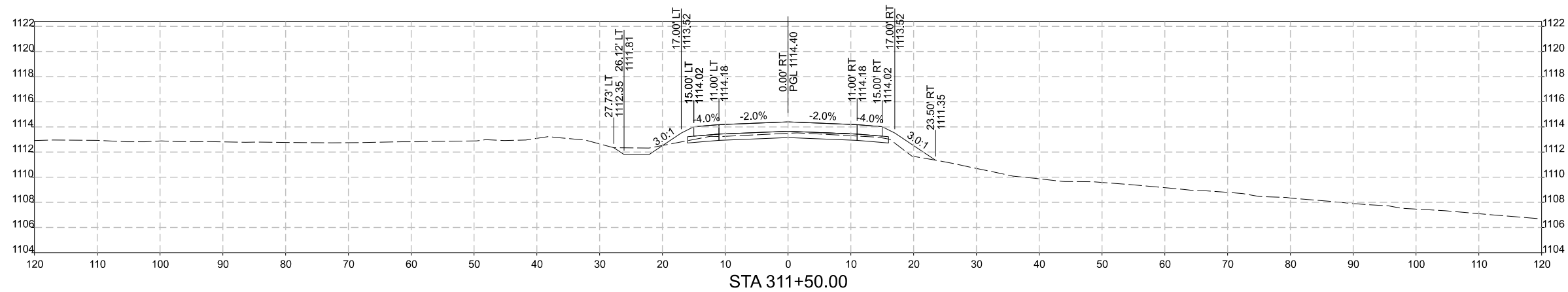
Sheet Y.6

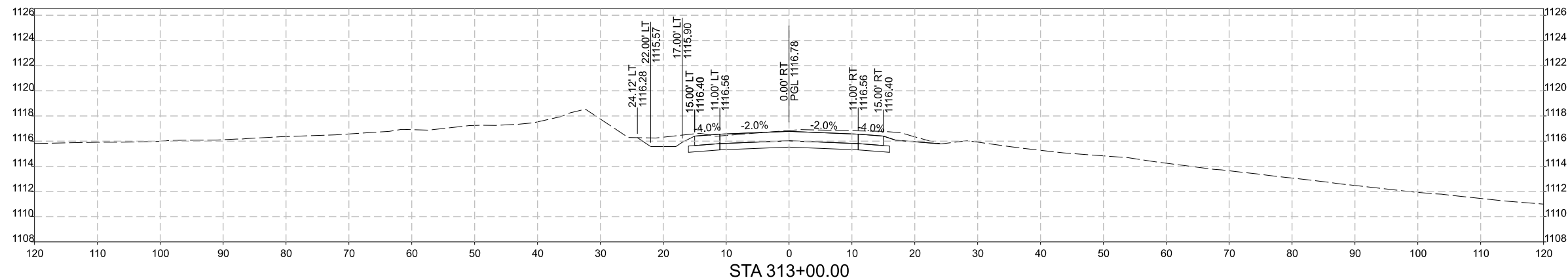
US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

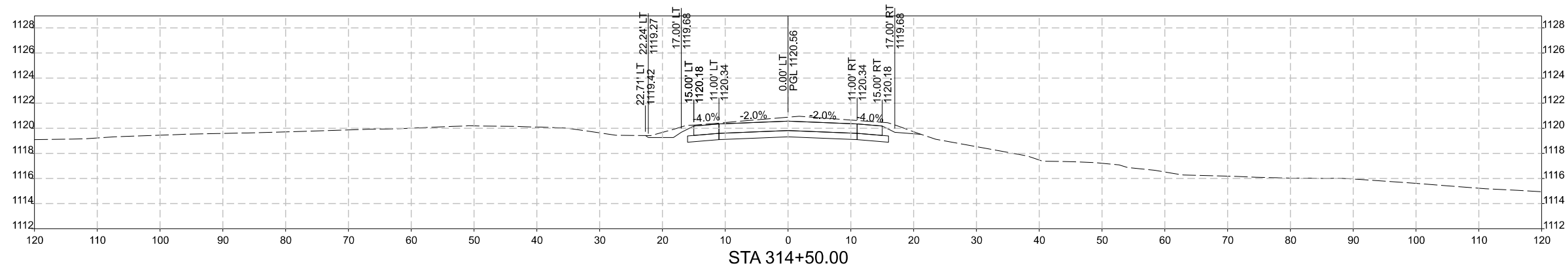
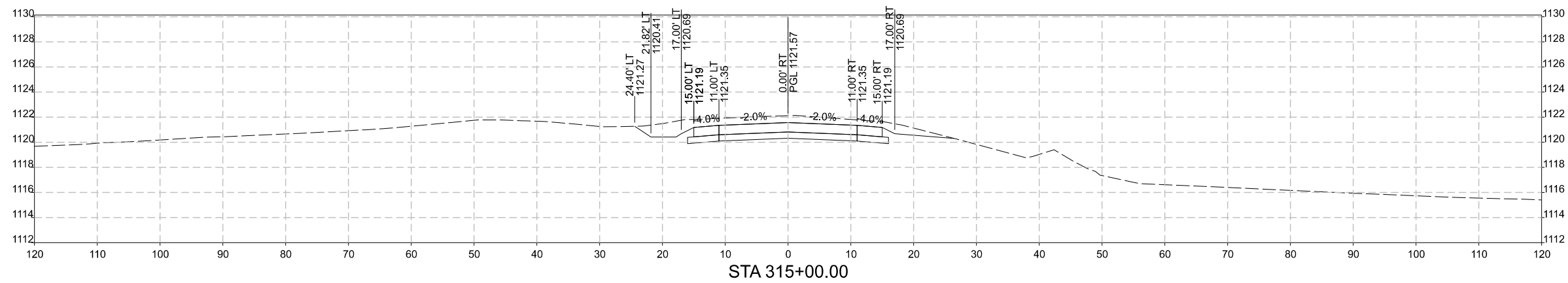
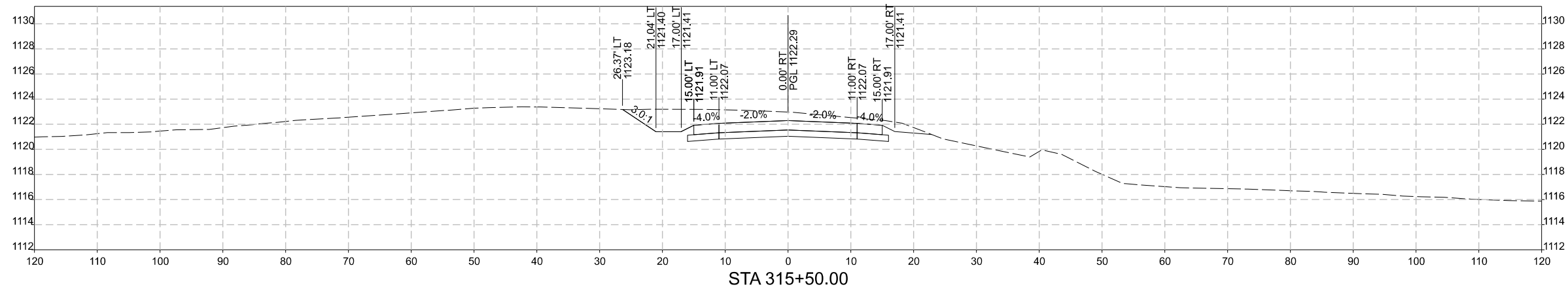
SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]





MARK		REVISION		DATE	BY
	Engineer: EAS	Checked By: AGB			
	Technician: DSS	Date: 7/21/2026		T-R-S:	
RFM-C064(149)-54-64					
Project No: 125.1070.01					
				Sheet Y.8	



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

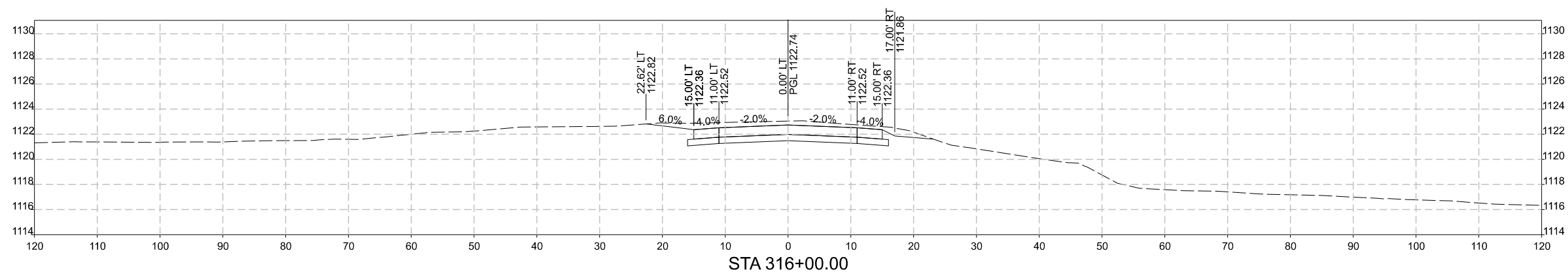
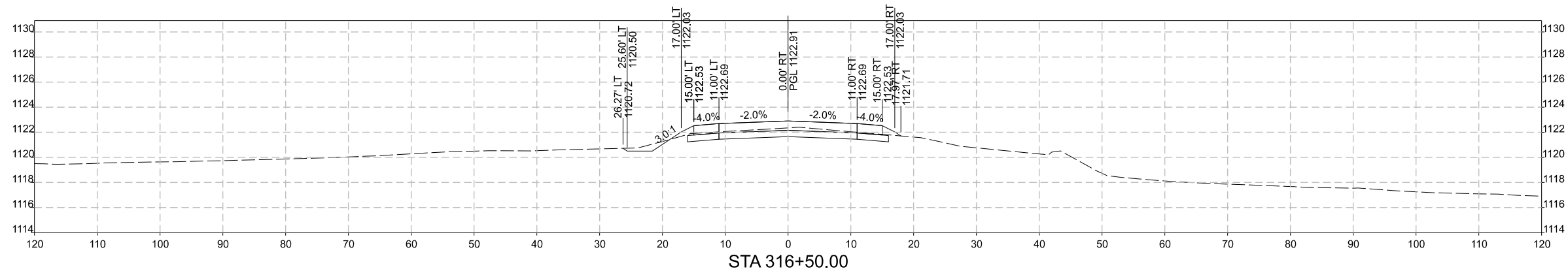
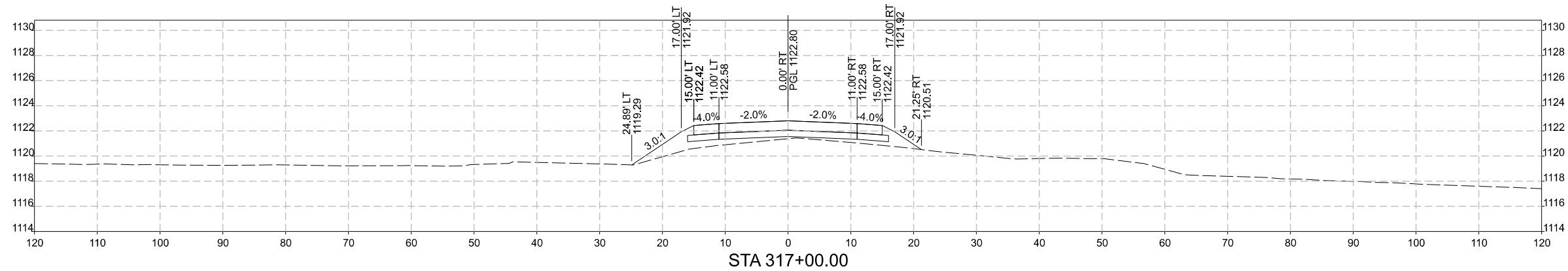
MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
WWW.SNYDER-ASSOCIATES.COM

Sheet Y.9

MARK		REVISION		DATE	BY
Engineer: EAS	Checked By: AGB				
Technician: DSS	Date: 7/21/2026			T-R-S	
RFM-C084(149)-54-64					Sheet Y.9
Project No: 125.1070.01					



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

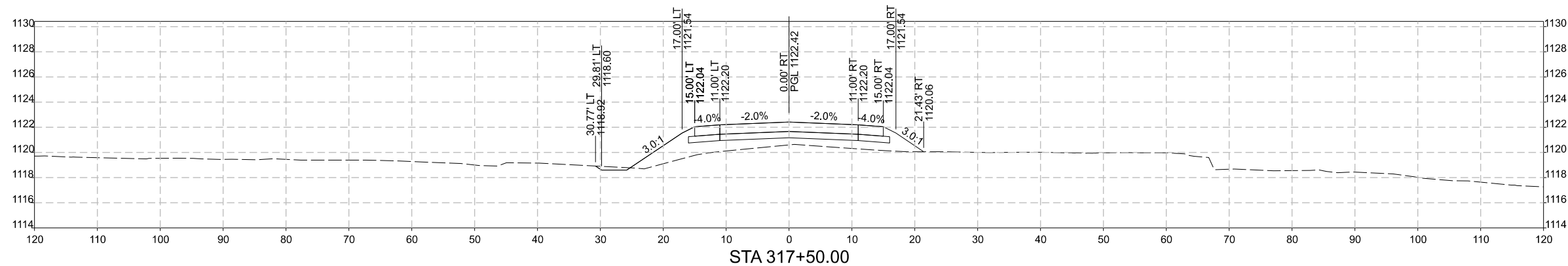
245TH ST CROSS SECTIONS

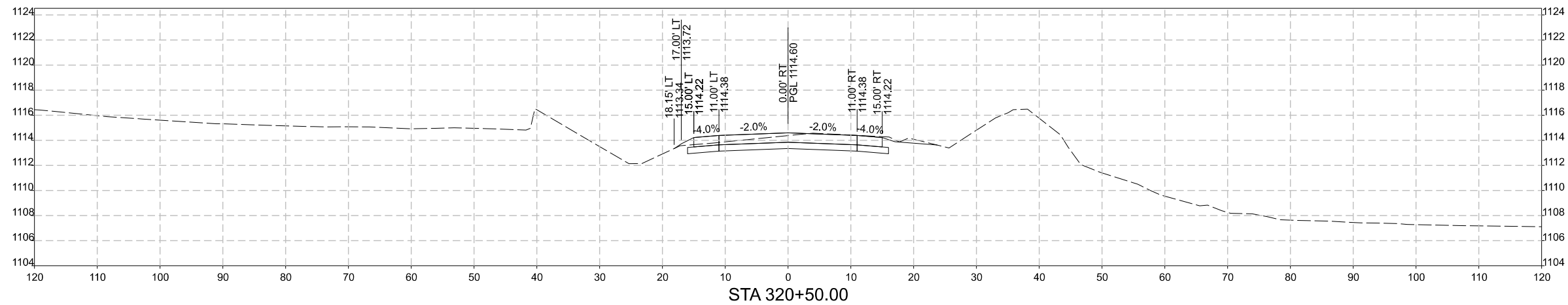
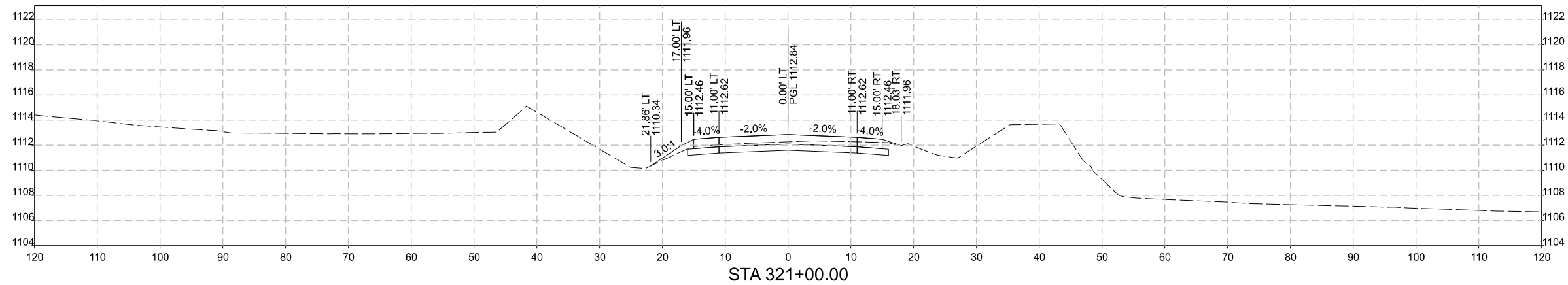
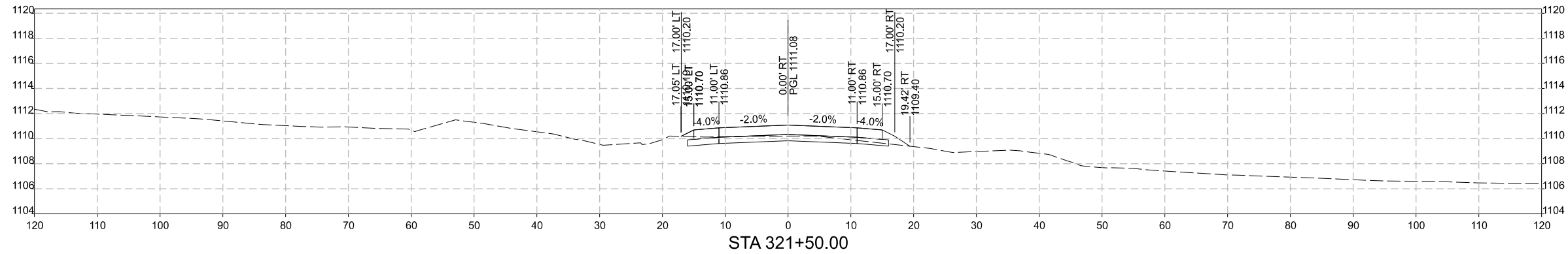
MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
0 | WWW.SNYDER-ASSOCIATES.COM

[illegible]





Project No: 125.1070.01

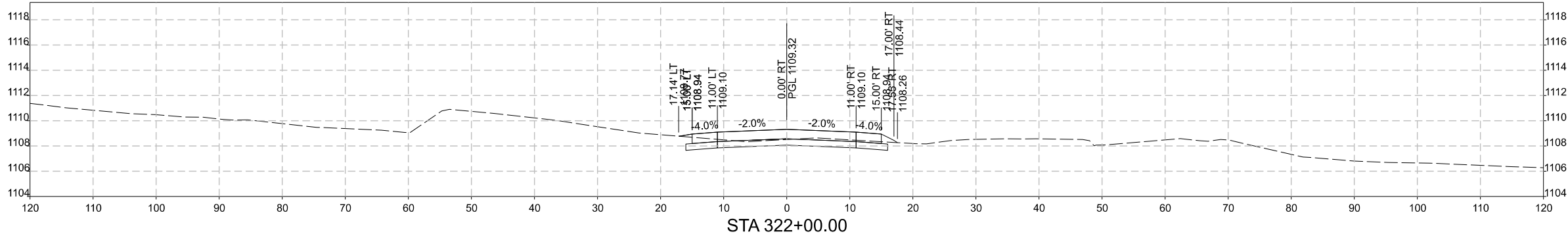
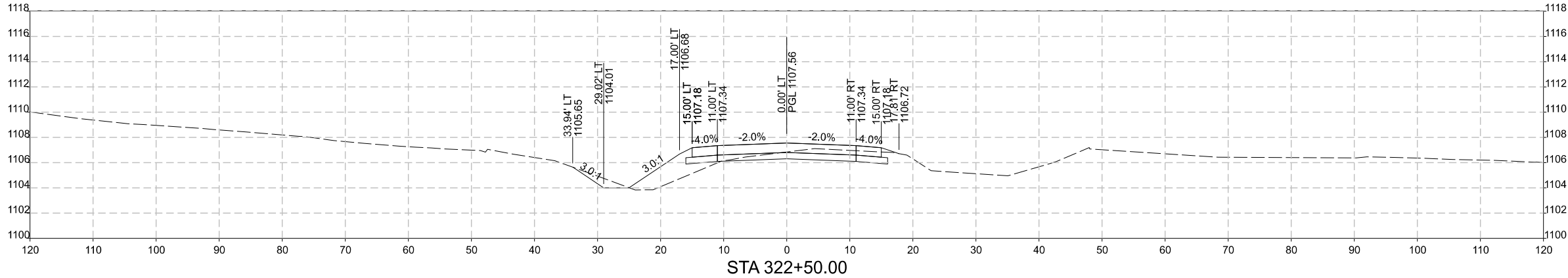
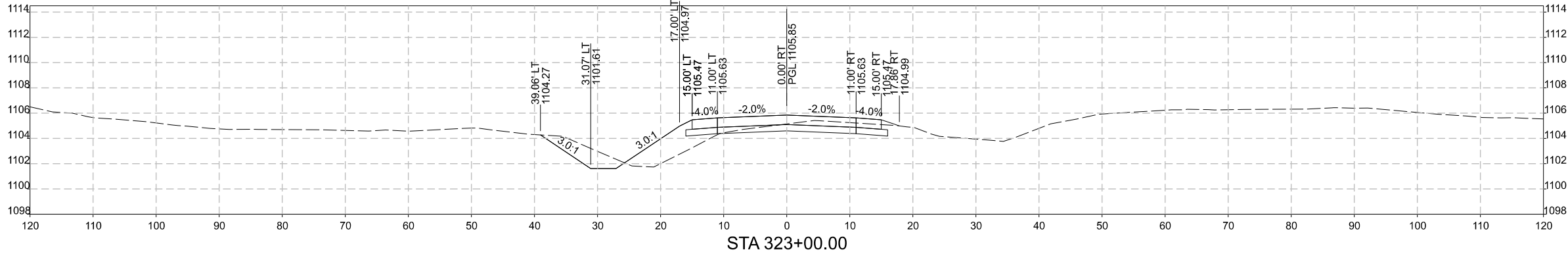
Sheet Y.13

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

MARSHALL COUNTY, IOWA

Sheet Y.14

Project No: 125,1070.01

RFM-0064(149)-5464

Project No: 125,1070.01

Sheet Y.14

Project No: 125,1070.01

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

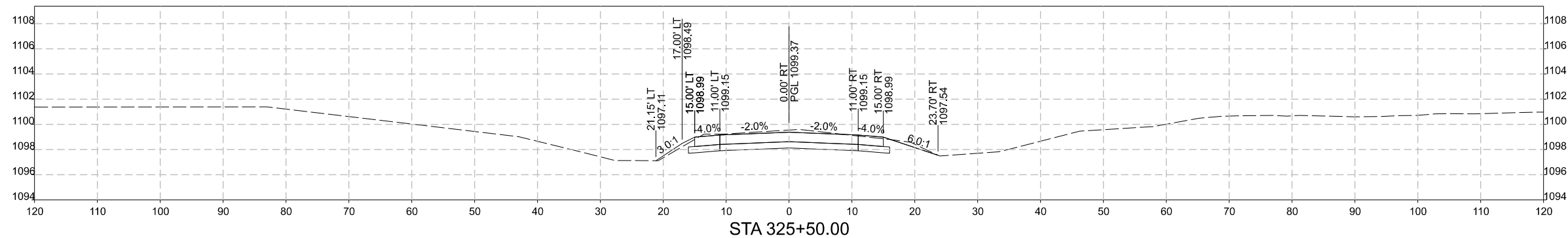
7/21/2026
12:50:16 PM

Geom_245TH-1 - 322+00.000 [Sheet]

V:\RefLibrary\CADDStandards\Bentley\Organization\Civil3A_Standards\2024Pen Tables.dwg

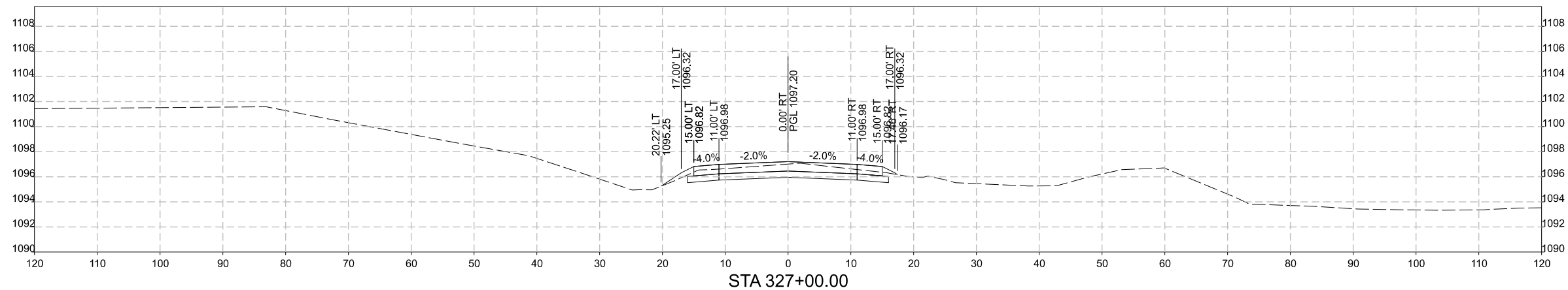
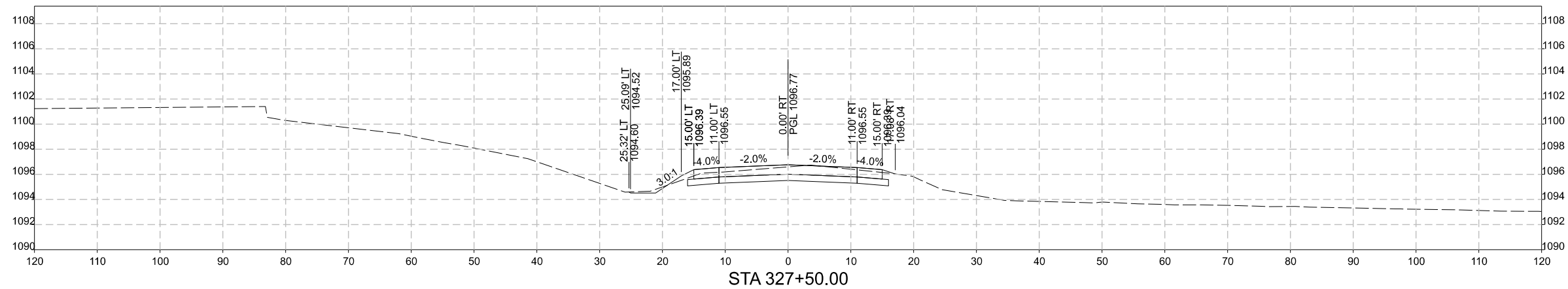
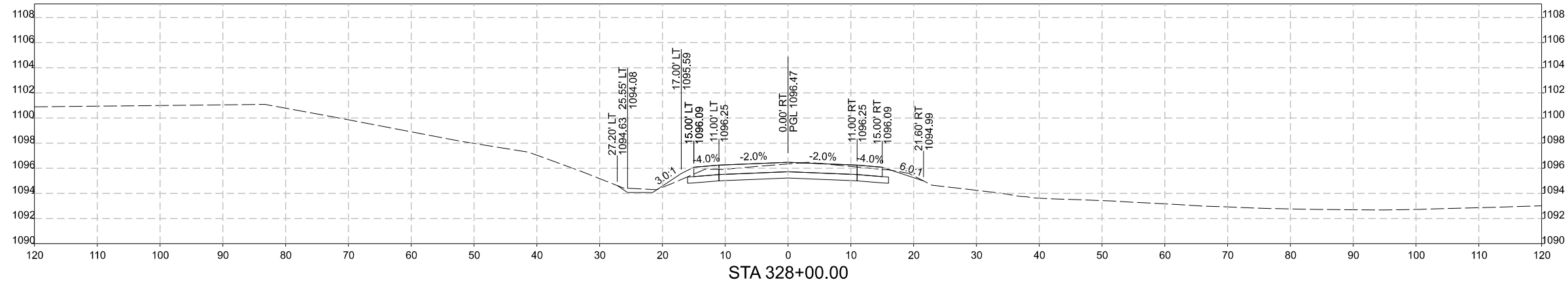
ORD\Bentley\Weight\PDF.plt;cig

 SNYDER & ASSOCIATES	Project No: 125.1070.01		Sheet Y.15	
	US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS			
	245TH ST CROSS SECTIONS			
	MARSHALL COUNTY, IOWA			
SNYDER & ASSOCIATES, INC.				
2727 SW SNYDER BLVD ANKENY, IA 50023 515-964-2020 WWW.SNYDER-ASSOCIATES.COM				
MARK	REVISION	DATE	BY	
Engineer: EAS	Checked By: AGB			
Technician: DSS	Date: 7/21/2026			
RFM-C064(149)-54-64 Project No: 125.1070.01			Sheet Y.15	



Technician: DSS	Date: 7/21/2026	I-Y-S:
RFM-C064(149)-54-64		Sheet Y.16
Project No: 125.1070.01		

[illegible]



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IA 50023
WWW.SNYDER-ASSOCIATES.COM

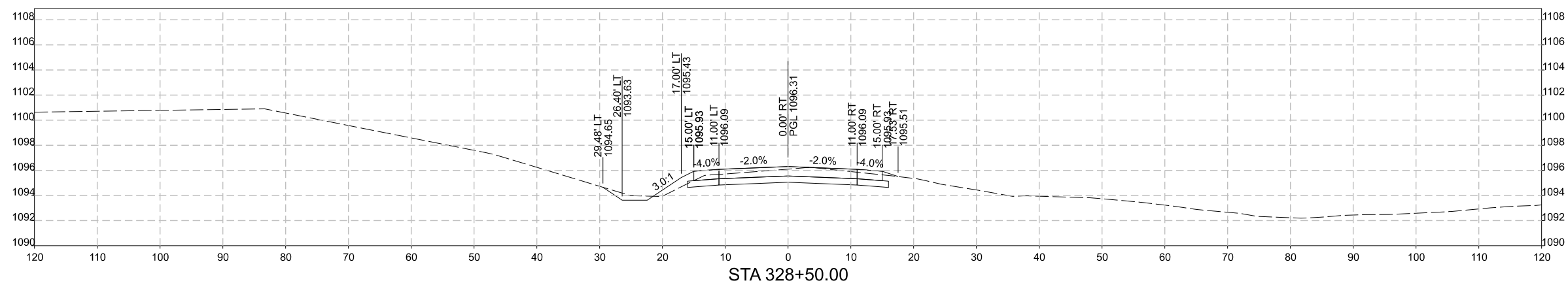
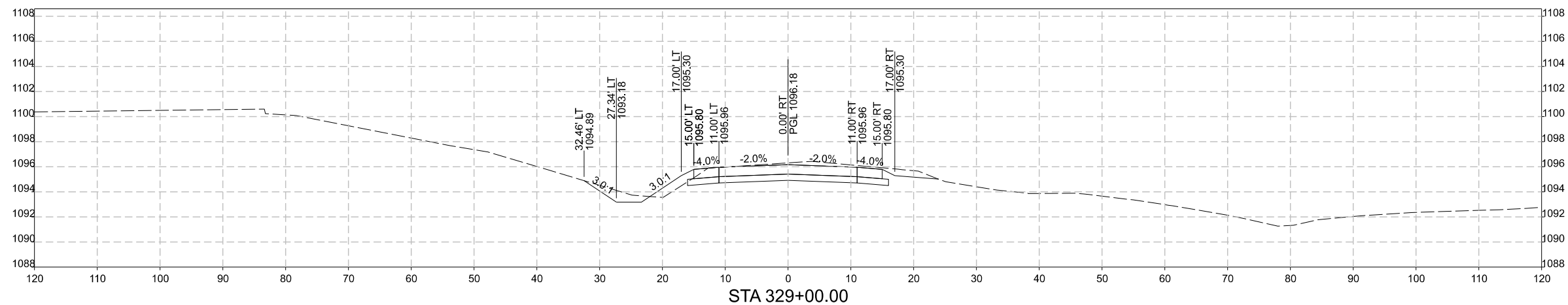
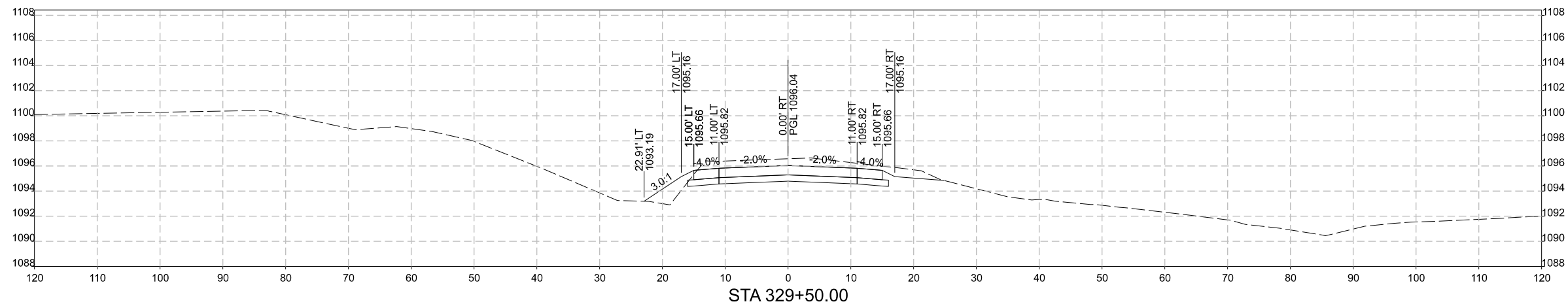
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES, INC.

[illegible]

Project No: 125.1070.01

Sheet Y.17



Project No: 125.1070.01

Sheet Y.18

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

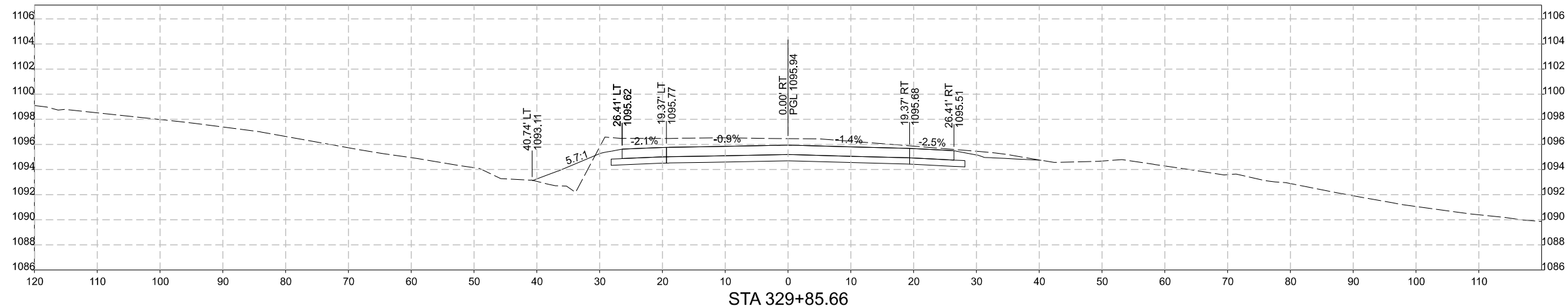
Sheet Y.18

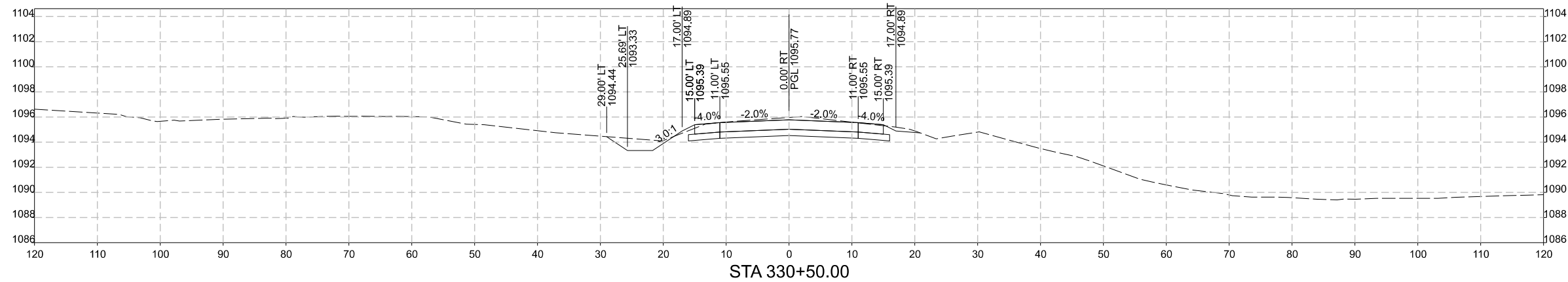
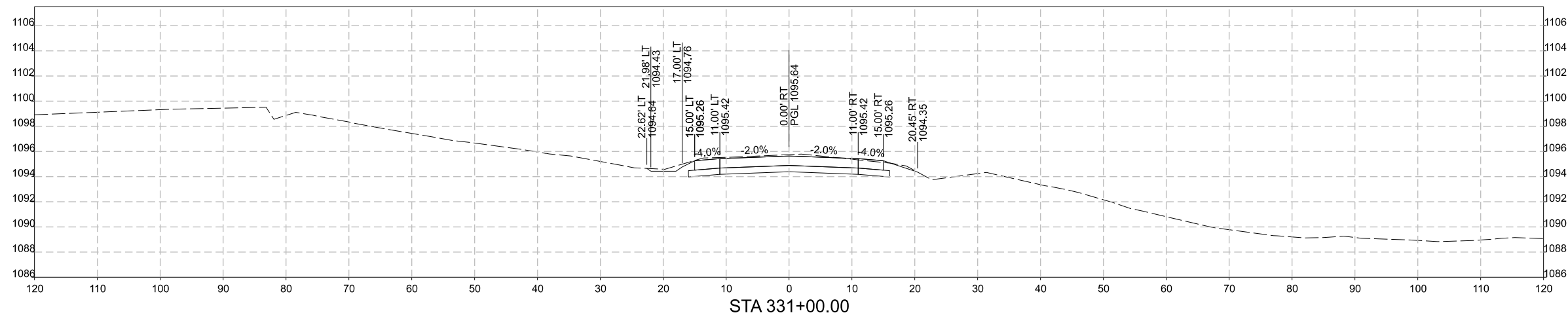
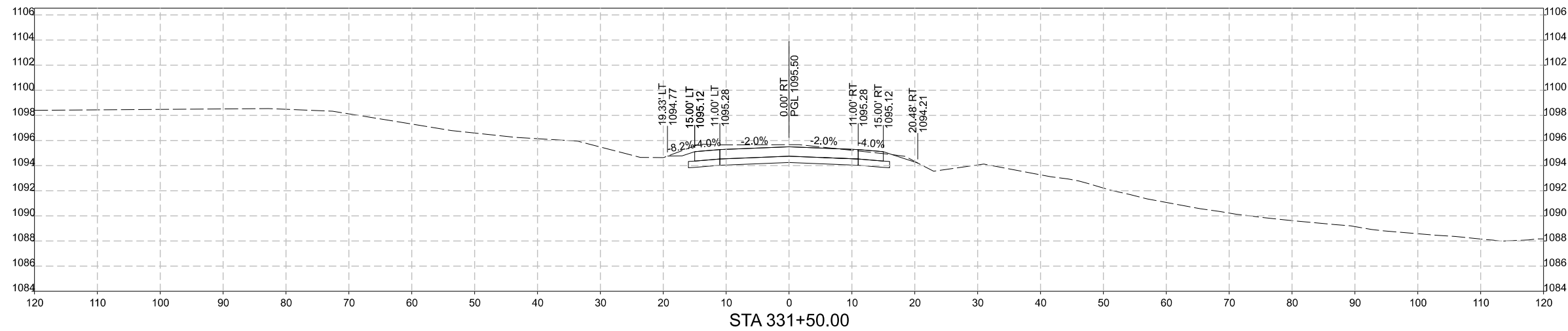
MARK	REVISION	DATE	BY
Engineer: EAS	Checked By: AGB		
Technician: DSS	Date: 7/21/2026	T-R-S:	

RFM-C0864(149)-54-64

Project No: 125-1070.01

Sheet Y.18



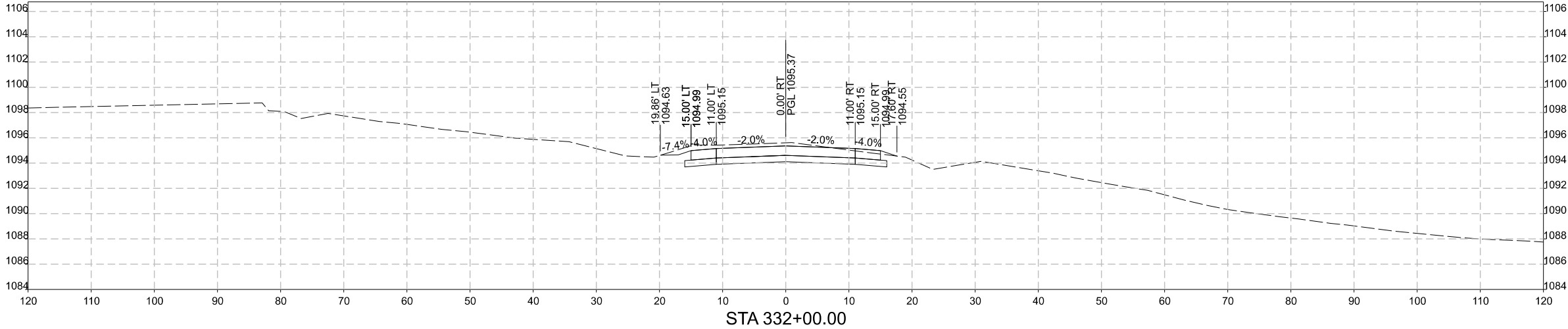
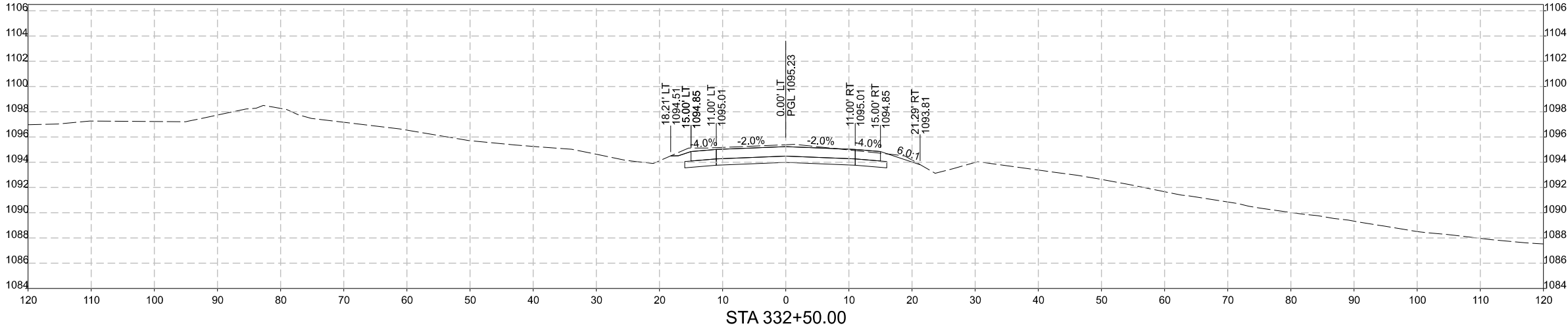
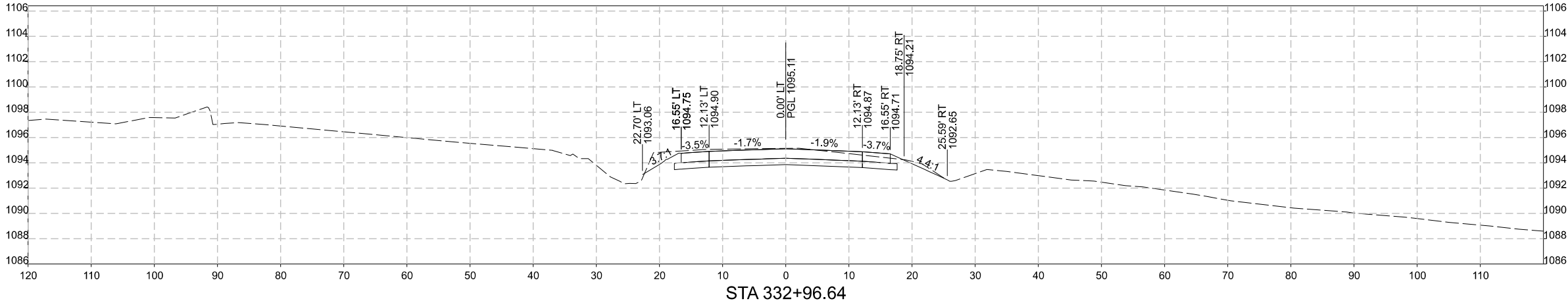


US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]



MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

DATE

T-R-S:

BY

RFM-0064(49)-5464

Project No: 125,1070.01

Sheet Y.21

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

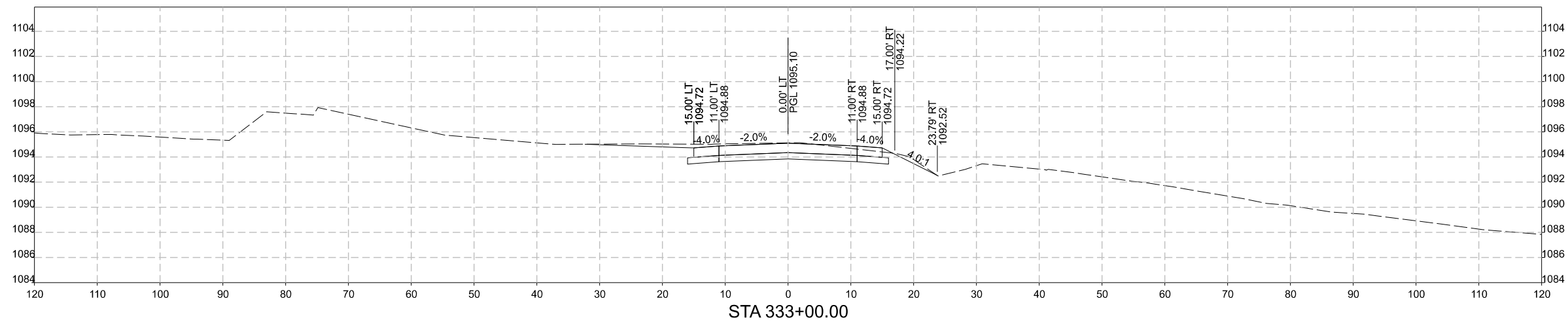
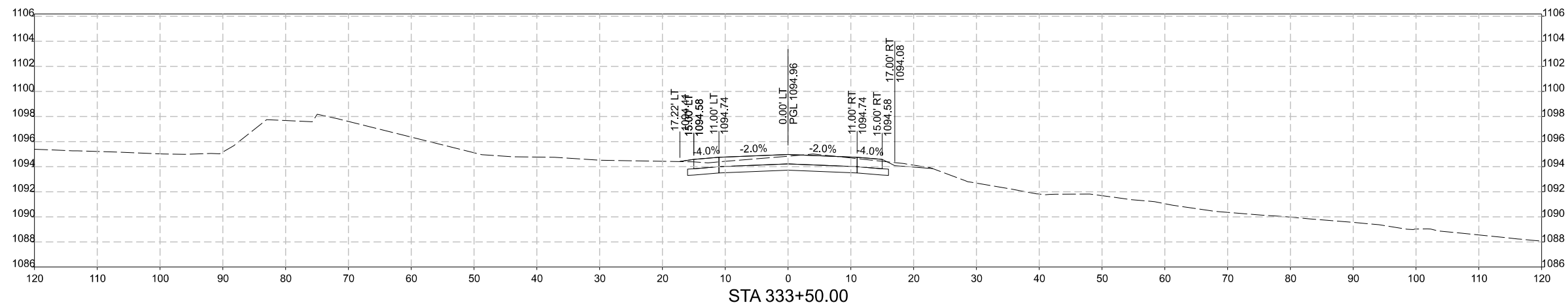
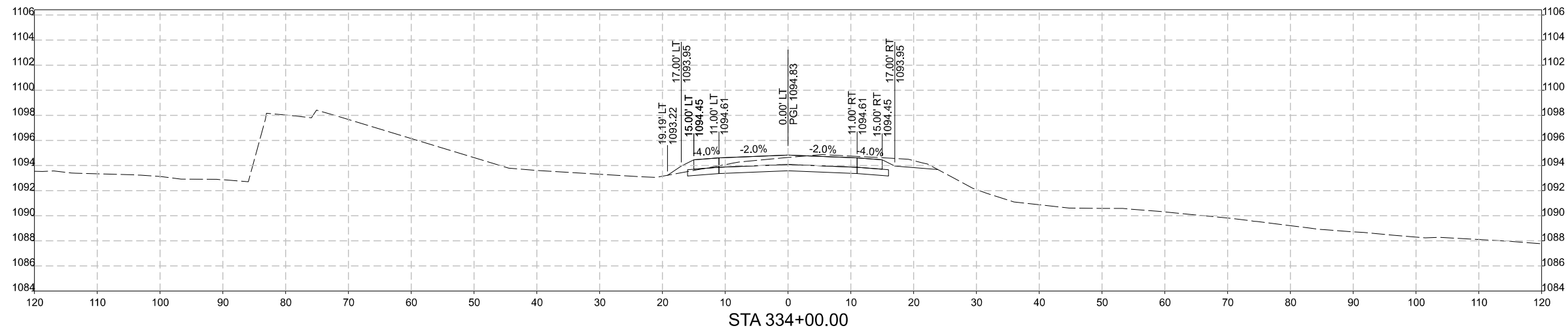
MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125,1070.01

Sheet Y.21

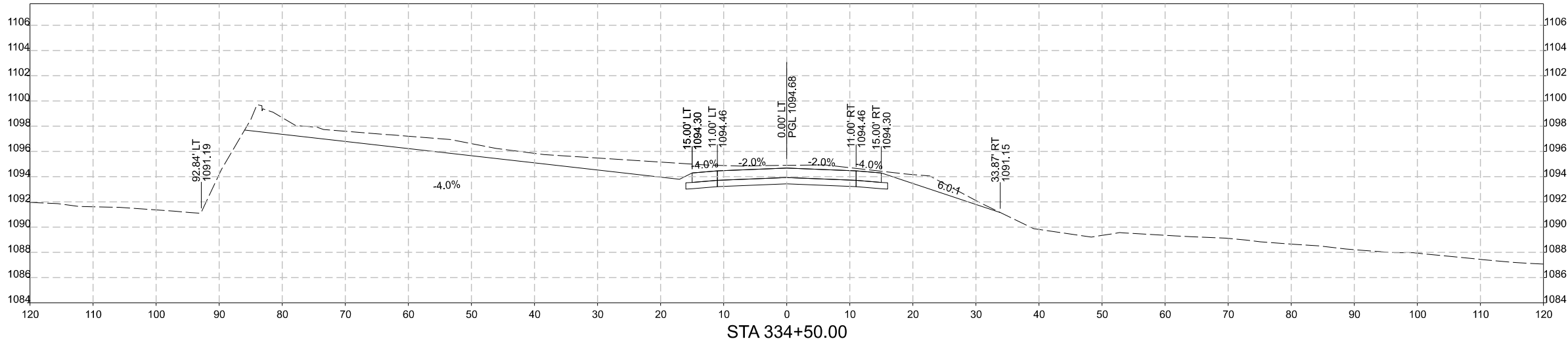
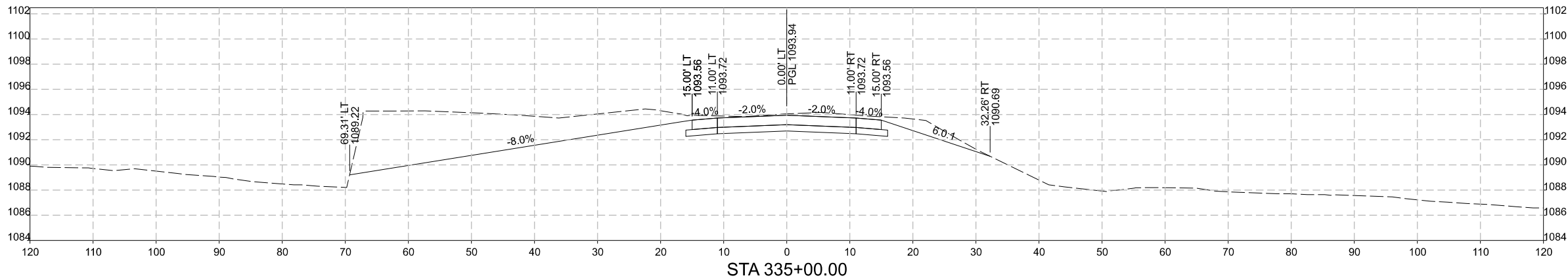
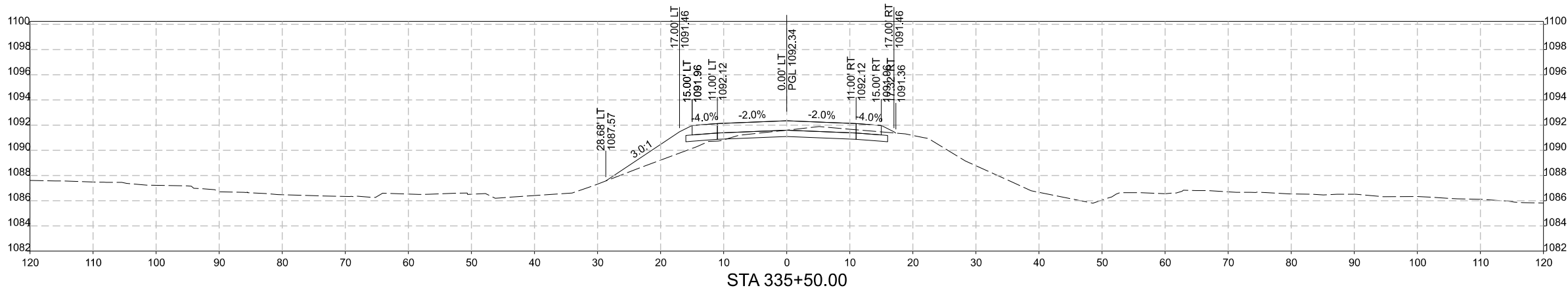


US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]



MARK

Engineer: EAS

Technician: DSS

RFM-0064(149)-5464
Project No: 125,1070.01

REVISION

Checked By: AGB

Date: 7/21/2026

T-R-S:

DATE

BY

Sheet Y.23

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

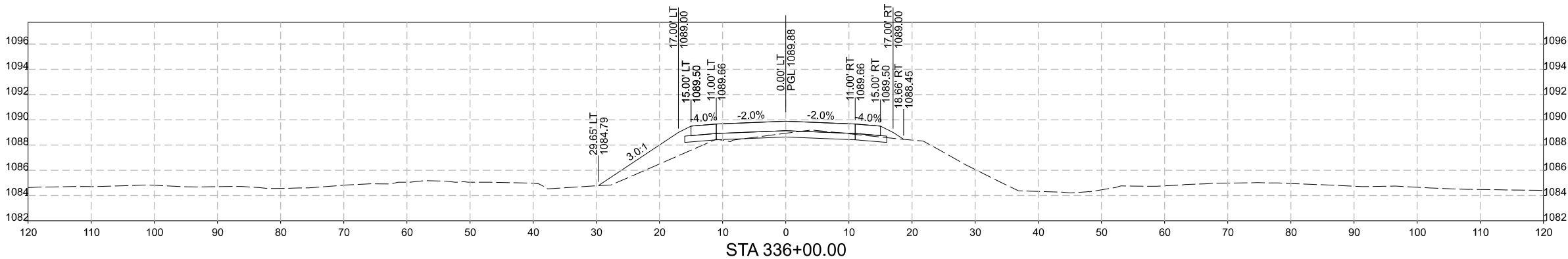
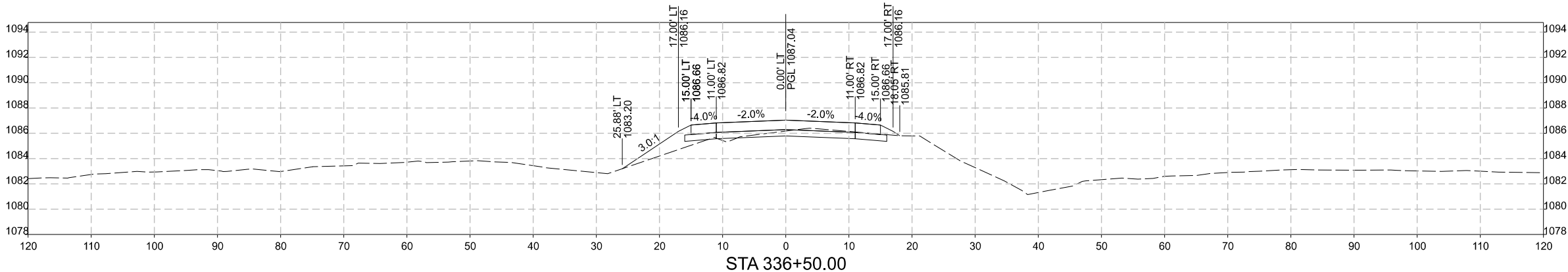
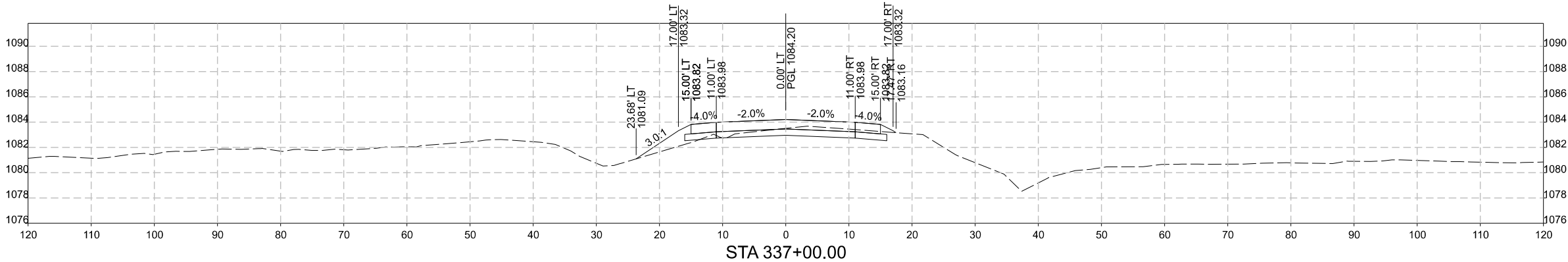
SNYDER & ASSOCIATES, INC.

MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 125,1070.01

Sheet Y.23



MARK

Engineer: EAS

Technician: DSS

REVISION

Checked By: AGB

Date: 7/21/2026

DATE

T-R-S:

BY

RFM-0064(49)-5464

Project No: 125,1070.01

Sheet Y.24

SNYDER & ASSOCIATES

US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

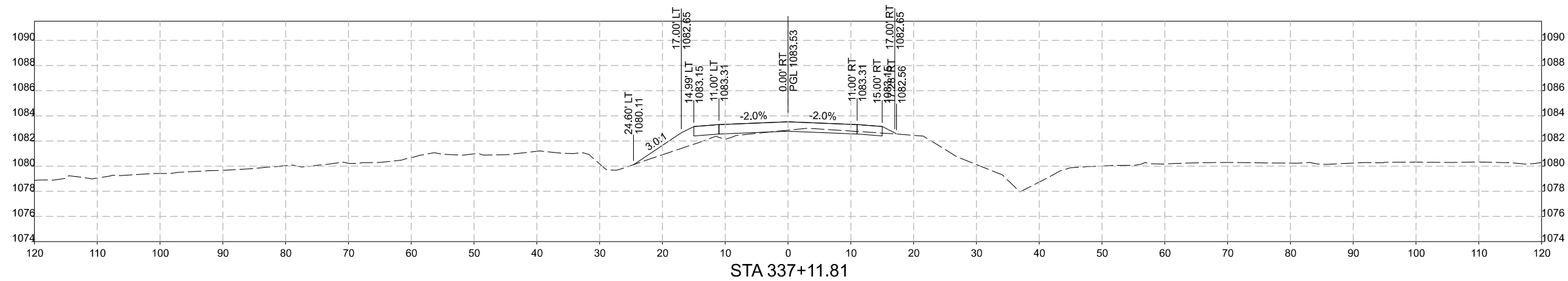
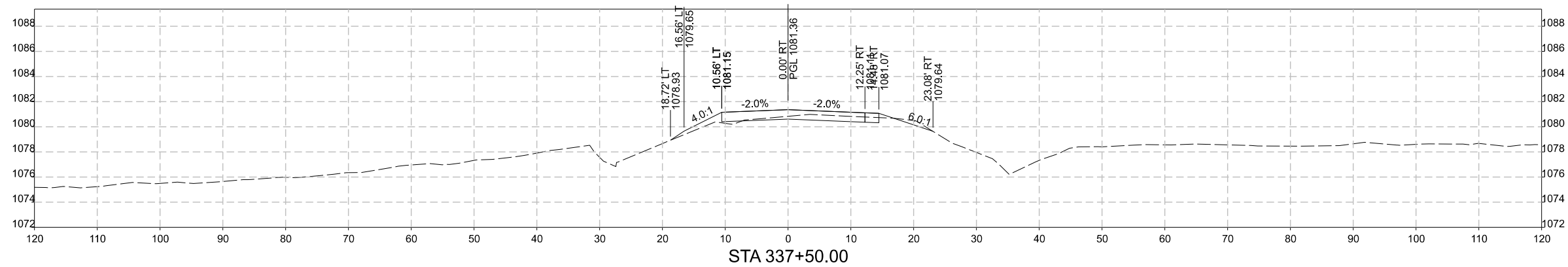
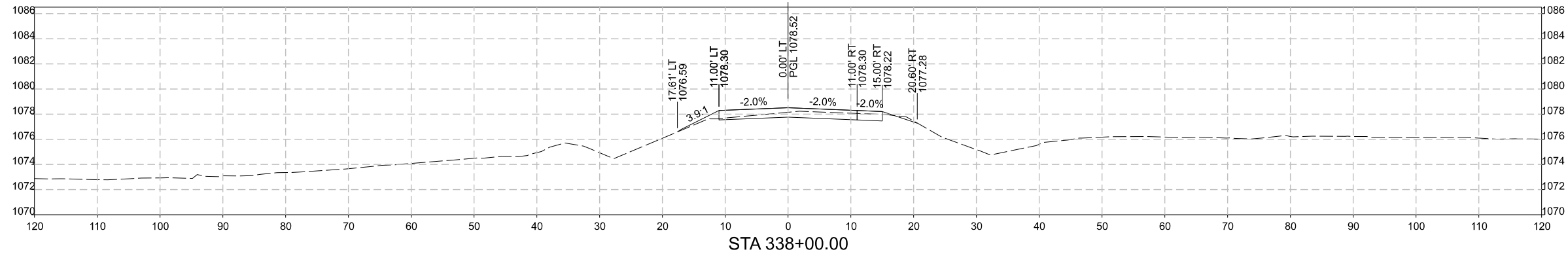
MARSHALL COUNTY, IOWA

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES, INC.

Project No: 125,1070.01

Sheet Y.24



Project No: 125.1070.01

Sheet Y.25

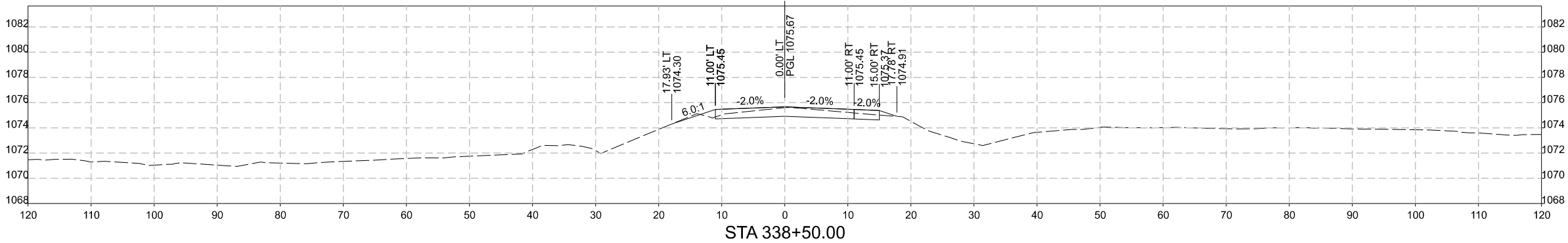
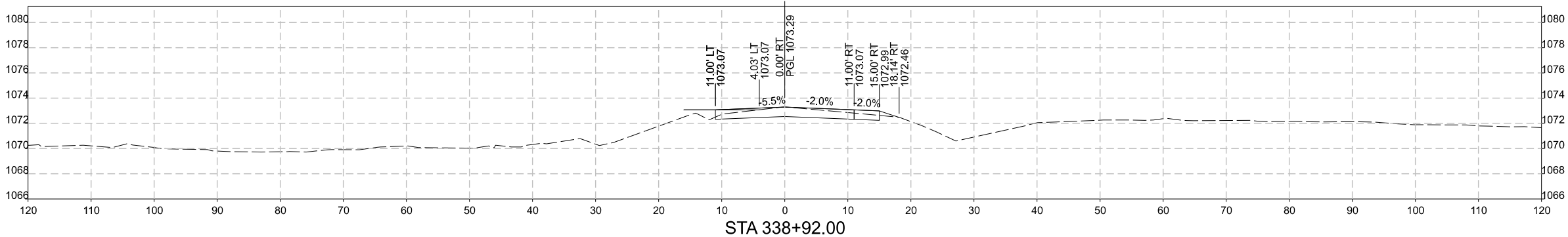
US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

MARSHALL COUNTY, IOWA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

[illegible]



US 30, BINFORD AVENUE AND 245TH STREET IMPROVEMENTS

245TH ST CROSS SECTIONS

2727 SW SNYDER BLVD
ANKENY, IA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Sheet Y.26

Sheet Y.26

Project No: 125,1070.01

Sheet Y.26

Project No: 125,1070.01