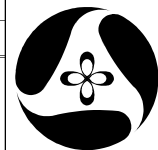


PCC PAVEMENT - GRADE AND REPLACE
IM-035-2(365)67--13-77
POLK CO.

LETTING DATE
 1/22/2014

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 7	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.1 - 2	Estimate Reference Information
C.3	Standard Road Plans
C.3	Index of Tabulations
C.4	Pollution Prevention Plan
C.5	General Notes
C.5 - 9	Tabulations
C.10 - 12	Tabulations
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 6	"Interstate 35"
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 3	"Grand Avenue"
G Sheets	Survey Sheets
G.1 - 9	Reference Ties and Bench Marks
G.10	Horizontal Control Tabulation
G.11 - 12	Superelevation Tabulation
H Sheets	Right-of-Way Sheets
H.1 - 6	"Interstate 35"
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
* J.2	Staging Notes Stage
* J.3	Tabulation of Special Events
* J.4	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.5 - 12	Staging and Traffic Control Sheets Stage ??
K Sheets	Interchange Sheets
* K.1 - 2	Interchange Layout Sheets
* K.3	"Grand Avenue" RAMP "A" Plan and Profile Sheets
* K.4	"Grand Avenue" RAMP "D" Plan and Profile Sheets
L Sheets	Geometric, Staking and Jointing Sheets
L.1	Geometric & Staking "Mainline or Side Road Name"
L.2	Edge Profiles "Mainline or Side Road Name"
L.3	Jointing "Mainline or Side Road Name"
M Sheets	Storm Sewer Sheets
M.1	Storm Sewer Tabulations
M.2	Storm Sewer Legend & Symbol Information Sheet
M.3 - 10	Storm Sewer Plan and Profile Sheets "Interstate 35"
M.11 - 14	Storm Sewer Plan and Profile Sheets "Grand Avenue"
Q Sheets	Soils Sheets
Q.1	Soils Legend & Symbol Information Sheet
Q.2	Soils Sheets "Mainline or Side Road Name"
R Sheets	Borrow Sheets
R.1	Borrow Sheets
T Sheets	Earthwork Quantity Sheets
T.1 - 9	Earthwork Quantity Sheets
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1 - 4	500 Series, Modified Standards and Detail Sheets
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 87	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 40	Side Road Cross Sections
Y Sheets	Ramp Cross Sections
Y.1 - 26	Ramp "A" Cross Sections
Y.27 - 50	Ramp "D" Cross Sections
	* Color Plan Sheets



Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

POLK COUNTY

PCC PAVEMENT - GRADE AND REPLACE

From Warren Co. Line N. to I-80/235 (NBL)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



MILEAGE SUMMARY			
Div.	Location	Lin. Ft.	Miles
	Sta. 1364+03.94 to Sta. 1550+62.56 (M.P. 68.11 to M.P. 71.64 I-35)	18,658.60	3.53
	OMIT IAIS RR Bridge & Approaches IAIS RR - Sta. 1380+17.07	351.36	0.067
	OMIT Grand Ave. Bridge & Approaches Grand Ave. - Sta. 1389+89.75	433.39	0.082
	OMIT EP True Bridge & Approaches EP True - Sta. 1512+67.70	597.38	0.113
	Bridge Length Total	1382.13	0.262
	TOTAL PROJECT LENGTH	17,276.50	3.268

Interstate 35			
DESIGN DATA URBAN			
2015	AADT	62,300	V.P.D.
2035	AADT	96,500	V.P.D.
2035	DHV	9,970	V.P.H.
	TRUCKS	14	%
	Total		
	Design ESALs	10,000,000	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Gabriel A. Nelson	Primary Signature Block

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.

PRELIMINARY

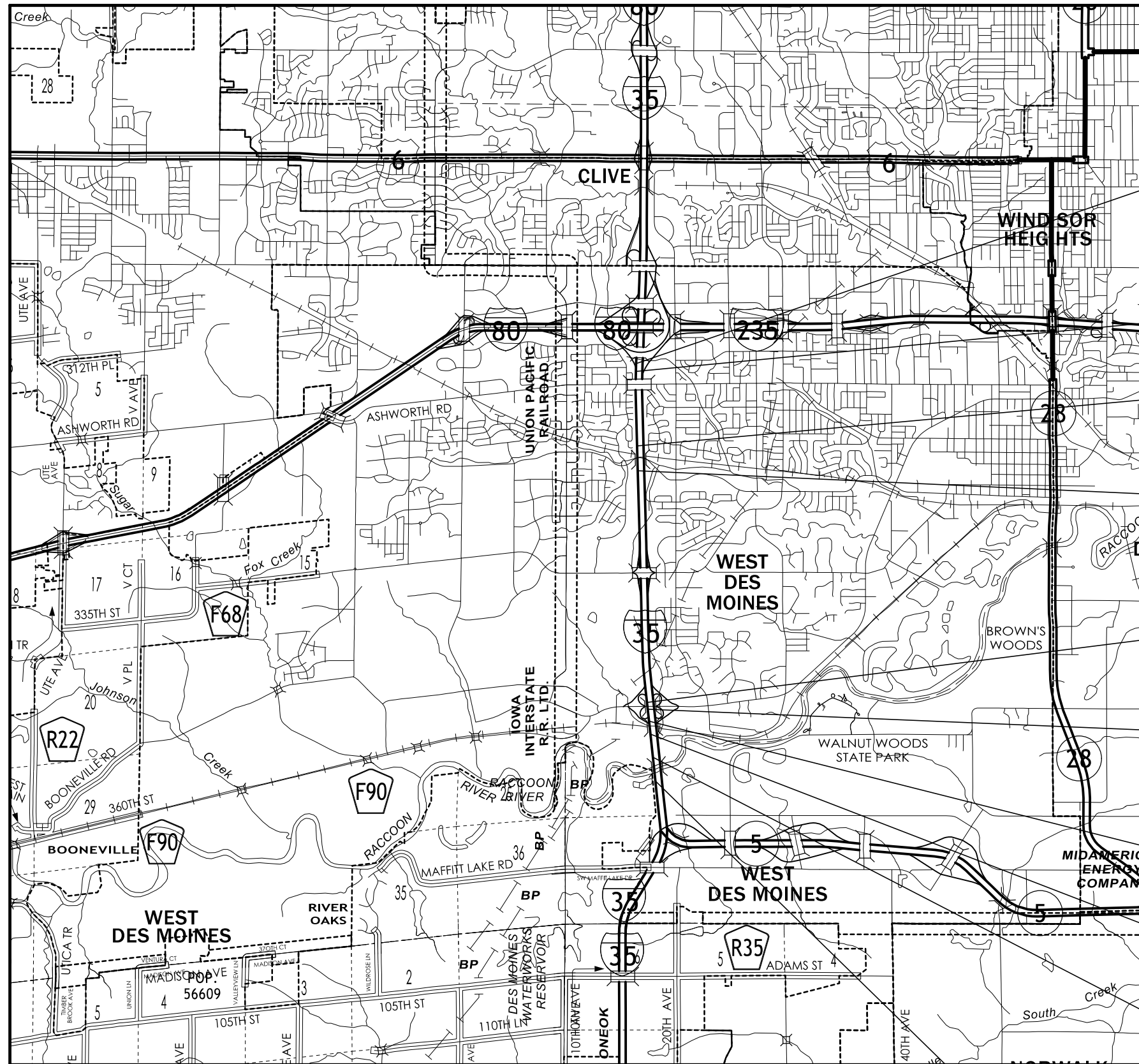
Date _____

My License Renewal Date is December 31, 2014

Pages or sheets covered by this seal: _____

TOTAL
PROJECT IDENTIFICATION NUMBER
96-77-035-010
PROJECT NUMBER
IM-035-2(365)67--13-77
R.O.W. PROJECT NUMBER
IMN-035-2(338)67--0E-77

For Project Location Map Refer to Sheet A.2



STA. 1560+75.00
END PROJECT

STA. 1550+62.56
END PAVING

STA. 1515+66.39
RESUME CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(361)72--05-77

STA. 1509+69.01
STOP CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(361)72--05-77

STA. 1392+06.45
RESUME CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(372)69--05-77

STA. 1387+73.06
STOP CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(372)69--05-77

STA. 1381+91.41
RESUME CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(370)69--05-77

STA. 1378+40.05
STOP CONSTRUCTION
Tie to Bridge Approach Pavement
BRFIM-035-2(370)69--05-77

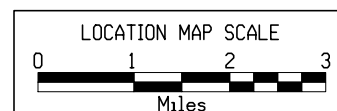
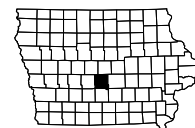
STA. 1364+03.94
BEGIN PAVING

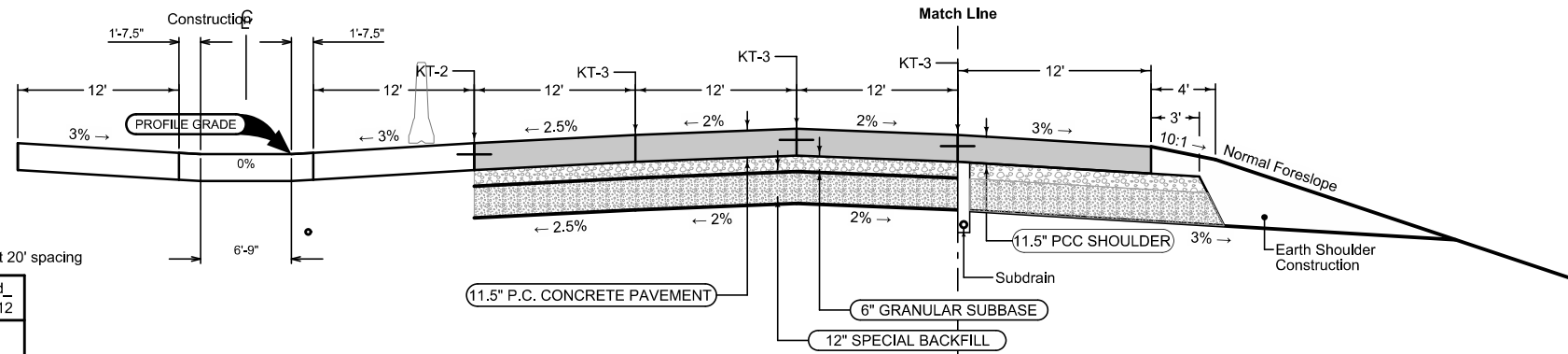
STA. 1356+00.00
BEGIN PROJECT

T-78N

R-26W

R-25W





Mainline Jointing:
Transverse joints: CD at 20' spacing

6DP_Closed_04-17-12	
BEGIN STATION	END STATION
1366+29.03	1378+40.05
1381+91.41	1387+73.06
1392+06.45	1409+50.00
1438+23.58	1493+83.86*

* NOTE: CURB SECTION NEEDED

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
NB	1409+50.00	1416+50.00	12
NB	1416+50.00	1419+50.00*	12

* TRANSITION OUT OF LANE TO 12' SHOULDER

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
NB	1364+03.94	1366+29.03	12
NB	1419+50.00	1438+23.58	12
NB	1493+83.86	1509+69.02	12
NB	1515+66.40	1550+62.56*	12

* NOTE: CURB SECTION NEEDED

Shoulder w/Curb

Longitudinal joint: L-2 or KT-2
Transverse joint: Match Mainline

4_Shldr_Curb_PCC_Modified			
Direction of Travel	BEGIN STATION	END STATION	(R) Feet

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

6D_Dprs_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
NB	1364+03.94	1378+40.00
NB	1381+91.41	1387+73.06
NB	1392+06.45	1406+03.56
NB	1418+00.06	1438+23.58
NB	1443+04.55	1509+69.02
NB	1515+66.40	1550+62.56

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

6D_Dprs_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
NB	1368+57.98	1375+00.00
NB	1406+03.56	1418+00.06

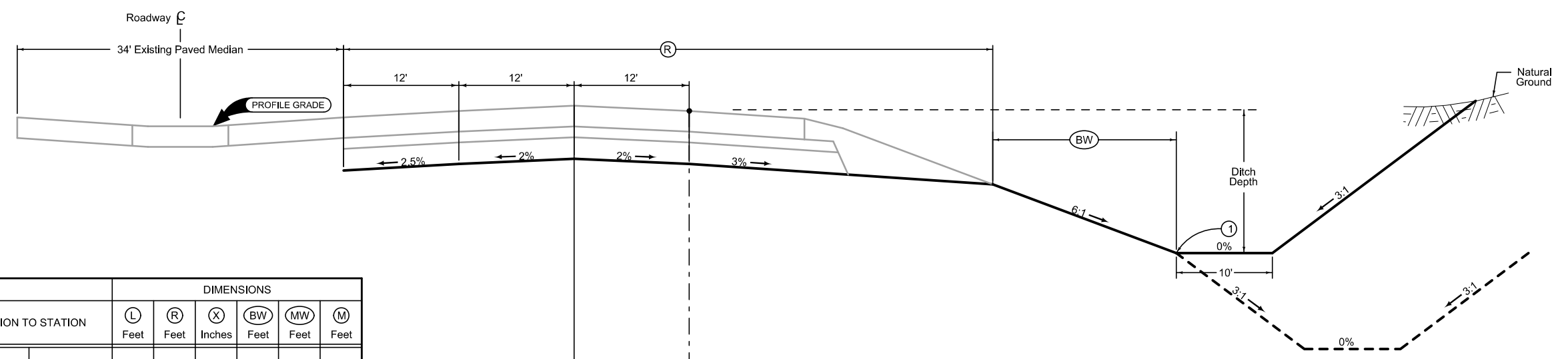
Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

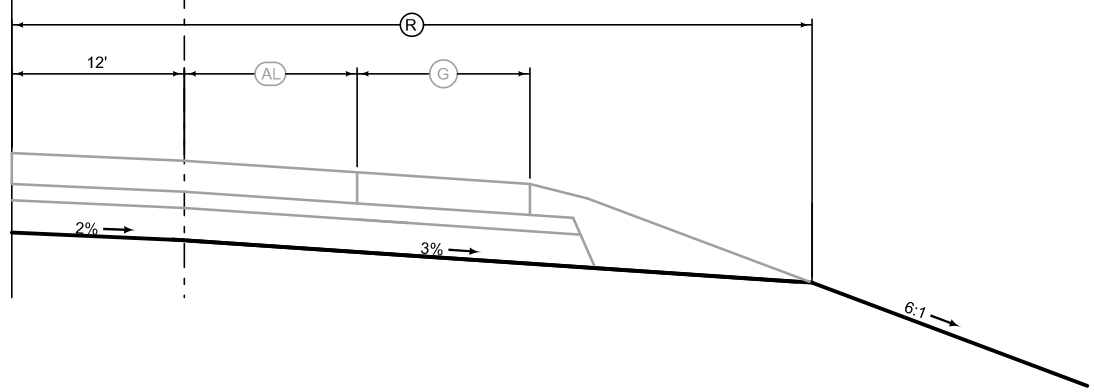
6D_Dprs_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
NB	1368+57.98	1375+00.00
NB	1406+03.56	1418+00.06

See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.
See Standard Road Plan PV-102 for 6" sloped curb details.

INTERSTATE 35 (Northbound Lanes)



LOCATION		DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet	



Auxiliary Lane Grading

LOCATION		(R) Feet
ROAD IDENTIFICATION	STATION TO STATION	

**6 LANE GRADING WITH AUXILLARY LANES
(Parrallel Subgrade)**

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

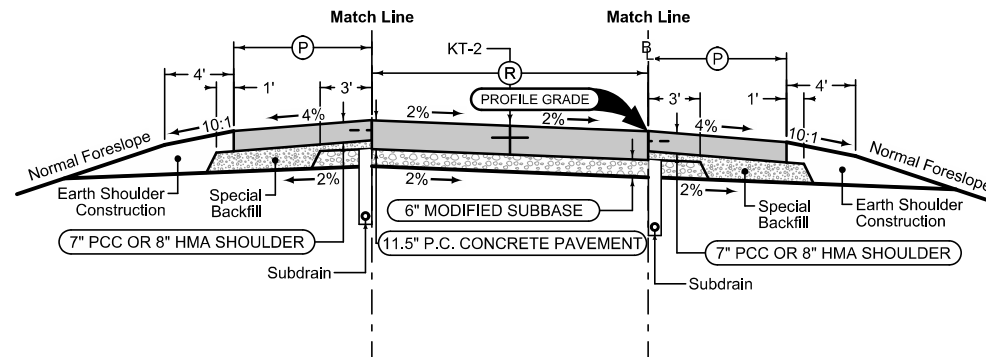
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

① Refer to project plan and cross sections for specific location of foreslope change.

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

2_P_ALT_ 10-19-10		
STATION TO STATION		(P) Feet
2375+00.00	2389+71.19	4
3389+50.07	3409+50.00	4



Section shown in the direction of traffic.

Ramp Jointing:
 Transverse joints: CD at 20' spacing.

BEGIN STATION	END STATION	(R) Feet
2375+00.00	2389+71.19	24
3389+50.07	3409+50.00	24

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

2_P_ALT_ 10-19-10		
STATION TO STATION		(P) Feet
2375+00.00	2389+71.19	6
3389+50.07	3390+36.87	Varies
3390+36.87	3409+50.00	6

Paved Shoulder Alternates

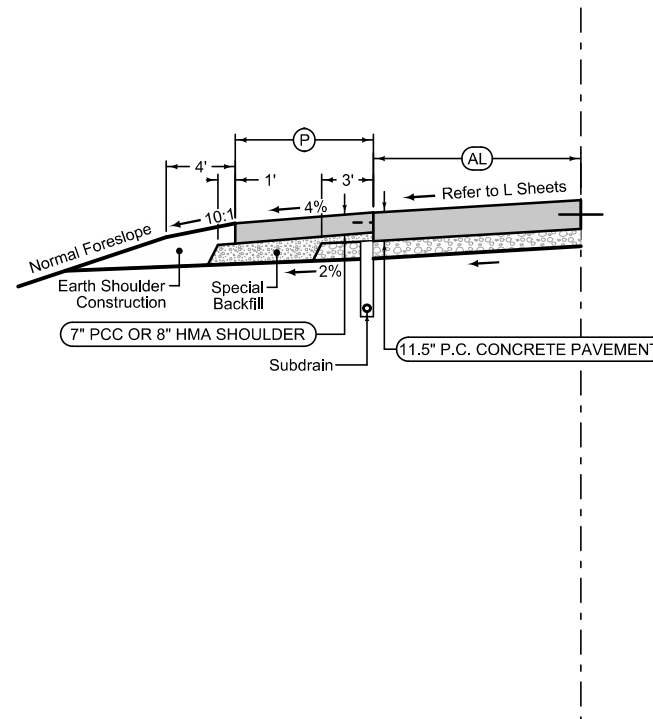
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

2_P_ALT_ 10-19-10		
STATION TO STATION		(P) Feet
2375+00.00	2389+71.19	4

Auxiliary Lane

Longitudinal joint: L-2 or KT-2
 Transverse joint: Match Mainline

2_AuxLane_PCC_ 10-19-10		
STATION TO STATION		(AL) Feet
2385+50.00	2386+70.00	0-12
2386+70.00	2389+71.19	12



See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

GRAND AVE. - RAMPS

Curbed Shoulder

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

Single pour: L-2
Staged: KT-2
Transverse: C at 15' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3377+75	3400+00	2.5	(1)
(1) - Refer to Typical 6131 for Curb Type.			

Curbed Shoulder

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

Single pour: L-2
Staged: KT-2
Transverse: C at 15' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3377+75	3400+00	2.5	(1)
(1) - Refer to Typical 6131 for Curb Type.			

Auxiliary Lane

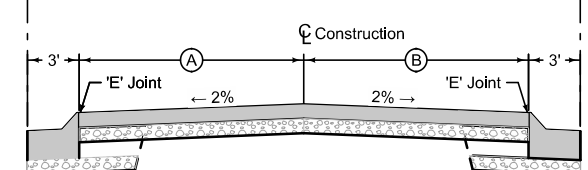
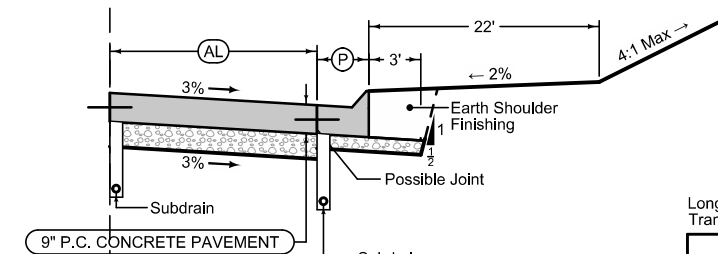
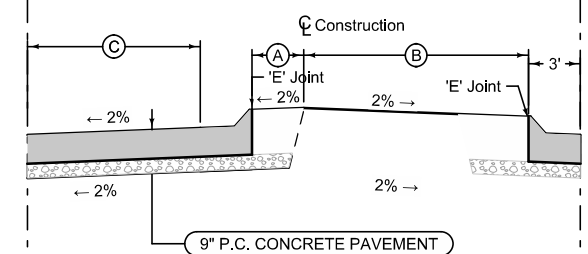
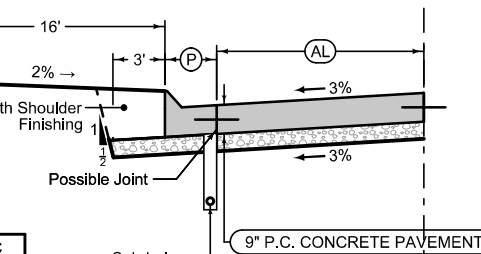
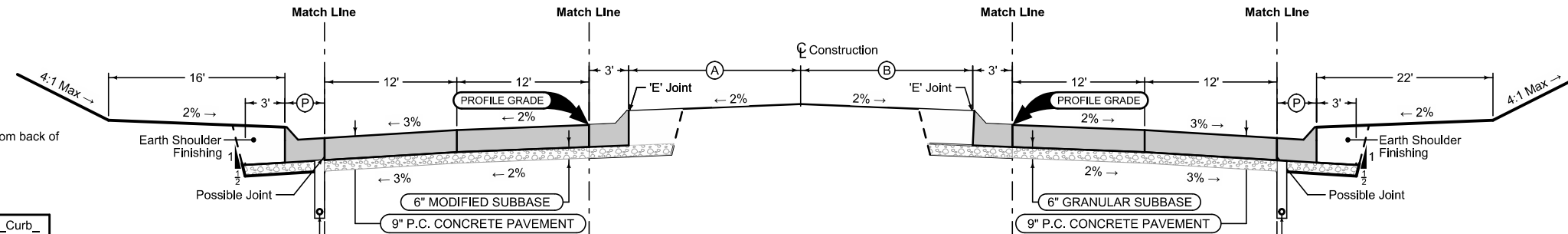
Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
	3377+75	3400+00	12

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
	3377+75	3400+00	12



Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION
3377+75	3400+00

4DP_Raised_Crowned_10-18-11

BEGIN STATION	END STATION	(A) Feet	(B) Feet
3377+75	3400+00	--	--

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION
3377+75	3400+00

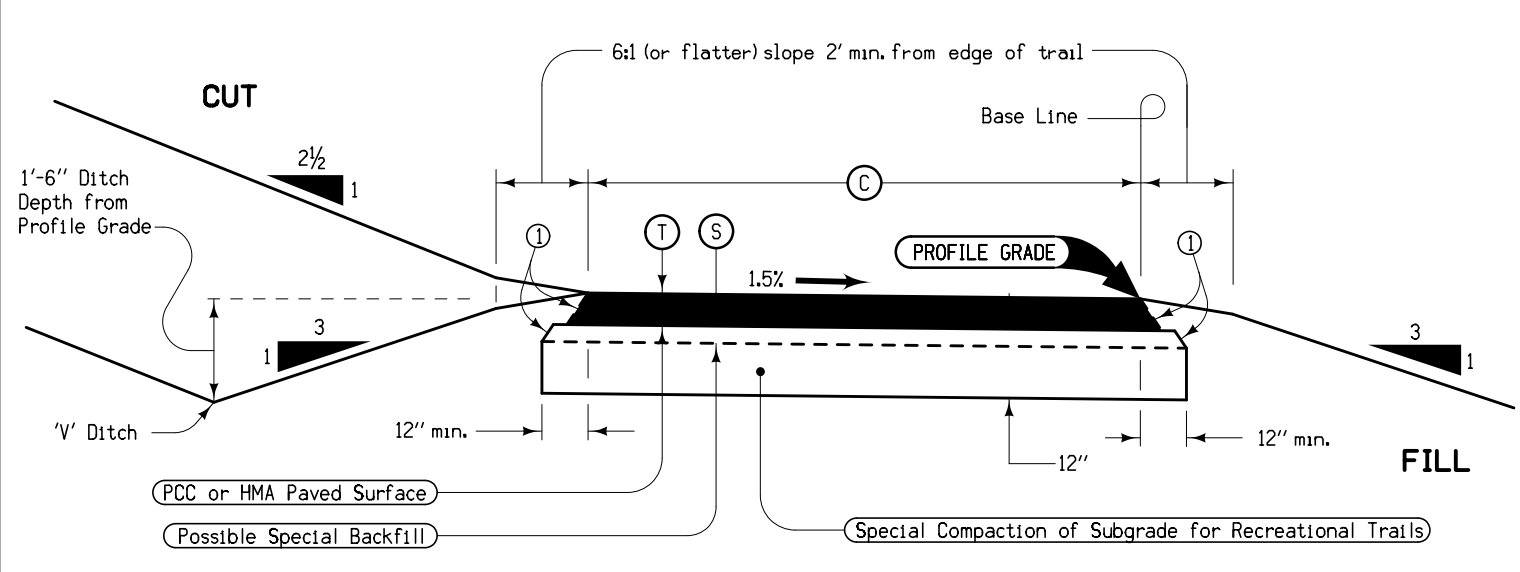
BEGIN STATION	END STATION	(A) Feet	(B) Feet	(C) Feet
3377+75	3400+00	12	12	12

4DP_Raised_Crowned_Paved MODIFIED

BEGIN STATION	END STATION	(A) Feet	(B) Feet
3377+75	3400+00	--	--

See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.

GRAND AVENUE

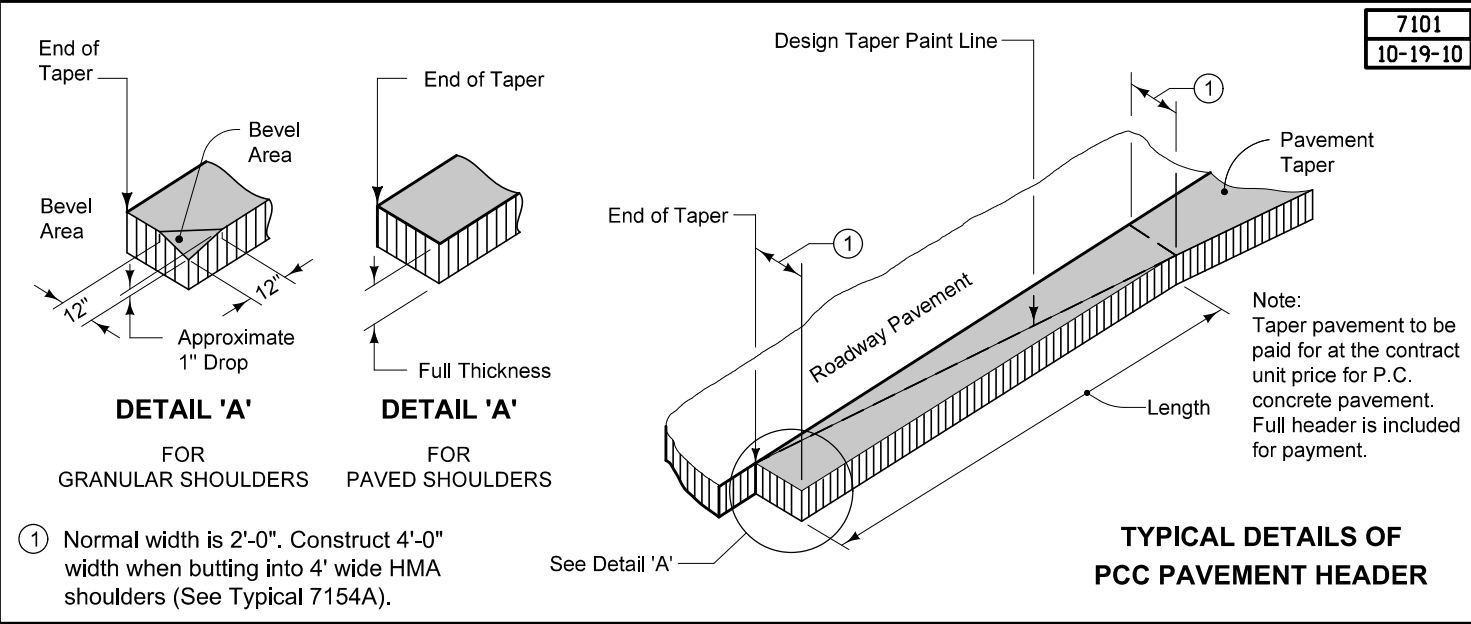


PAVEMENT THICKNESS		
Pavement Type	Trail Width	
	(C)	(T)
PCC	8'	4"
	10' or greater	5"
HMA	8'	5"
	10' or greater	6"

Notes:
Bid item is "Recreational Trail".
① Nominal 1:1 slope (HMA only)

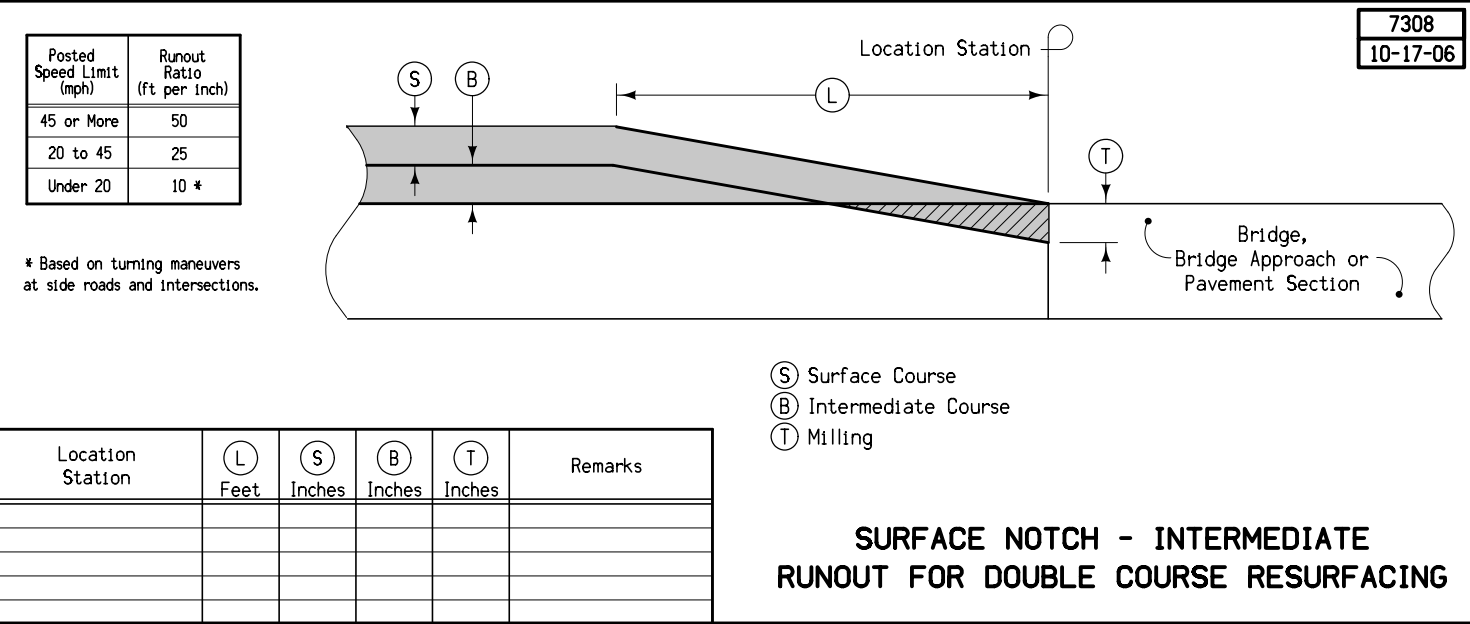
STATION TO STATION	PAVEMENT TYPE PCC, HMA, or option	PAVEMENT THICKNESS		'V' DITCH	
		(C) Feet	(S) Inches	Left	Right

**TYPICAL CROSS SECTION
RECREATIONAL TRAIL
PAVED SURFACE**



7101
10-19-10

**TYPICAL DETAILS OF
PCC PAVEMENT HEADER**



7308
10-17-06

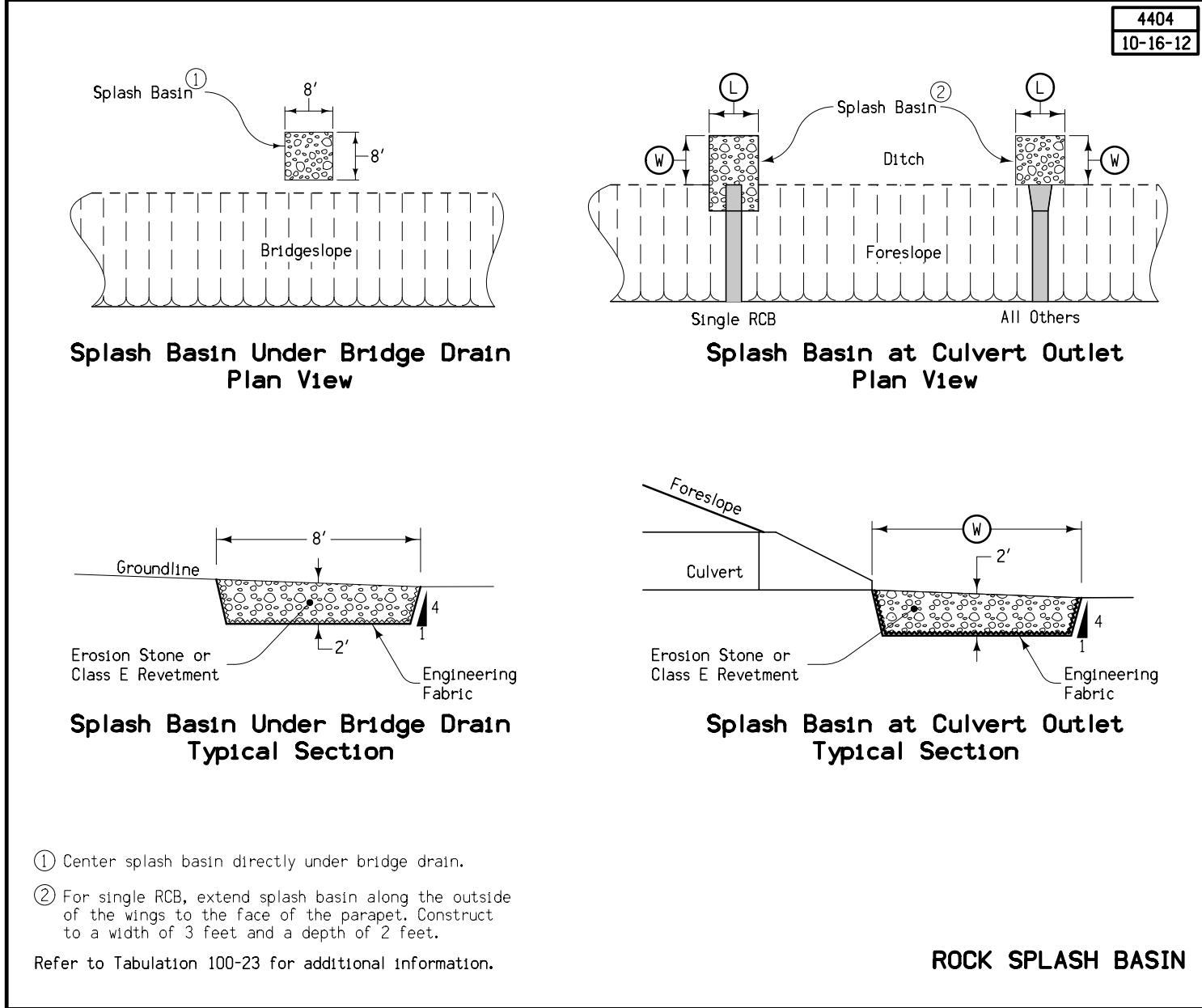
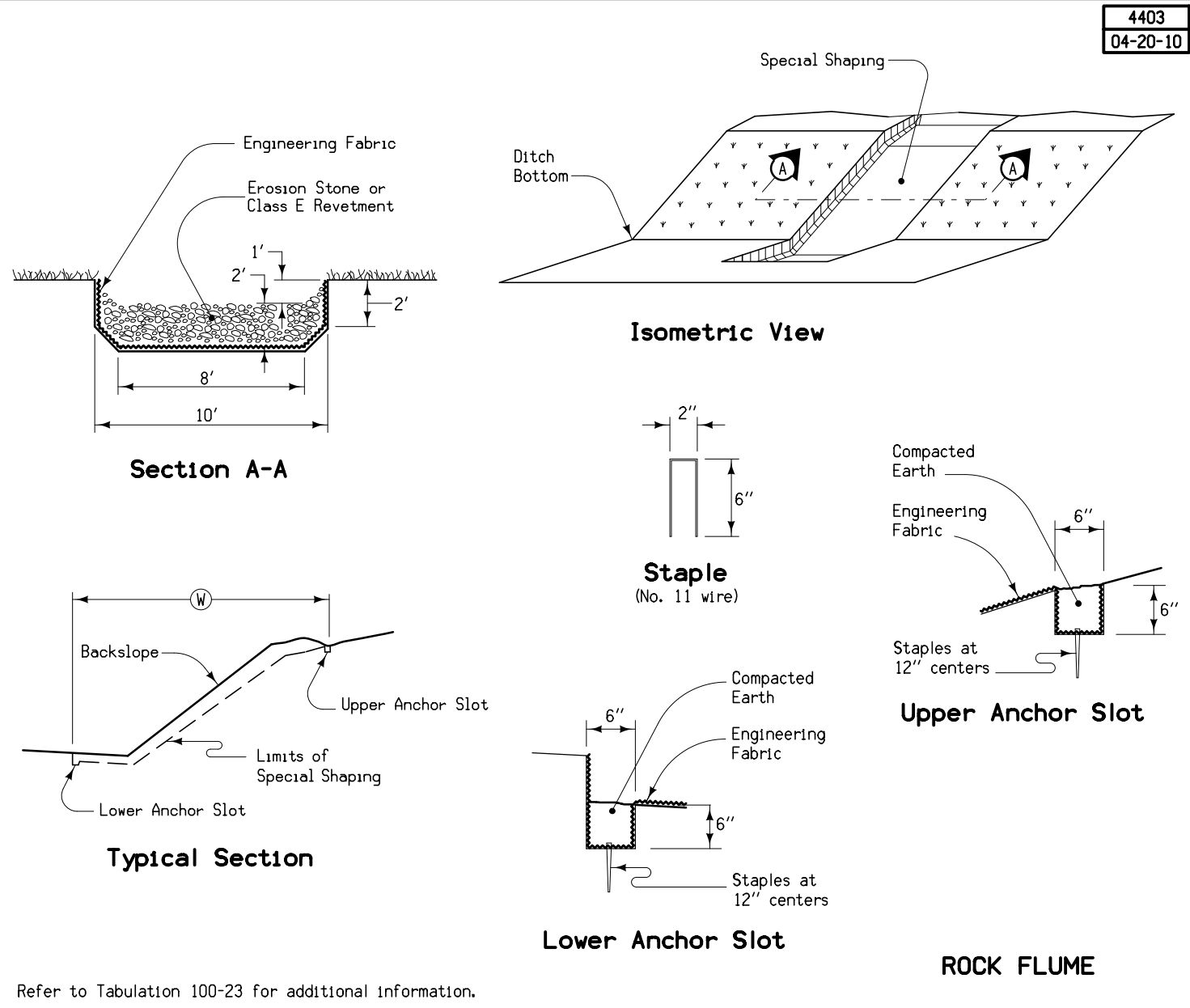
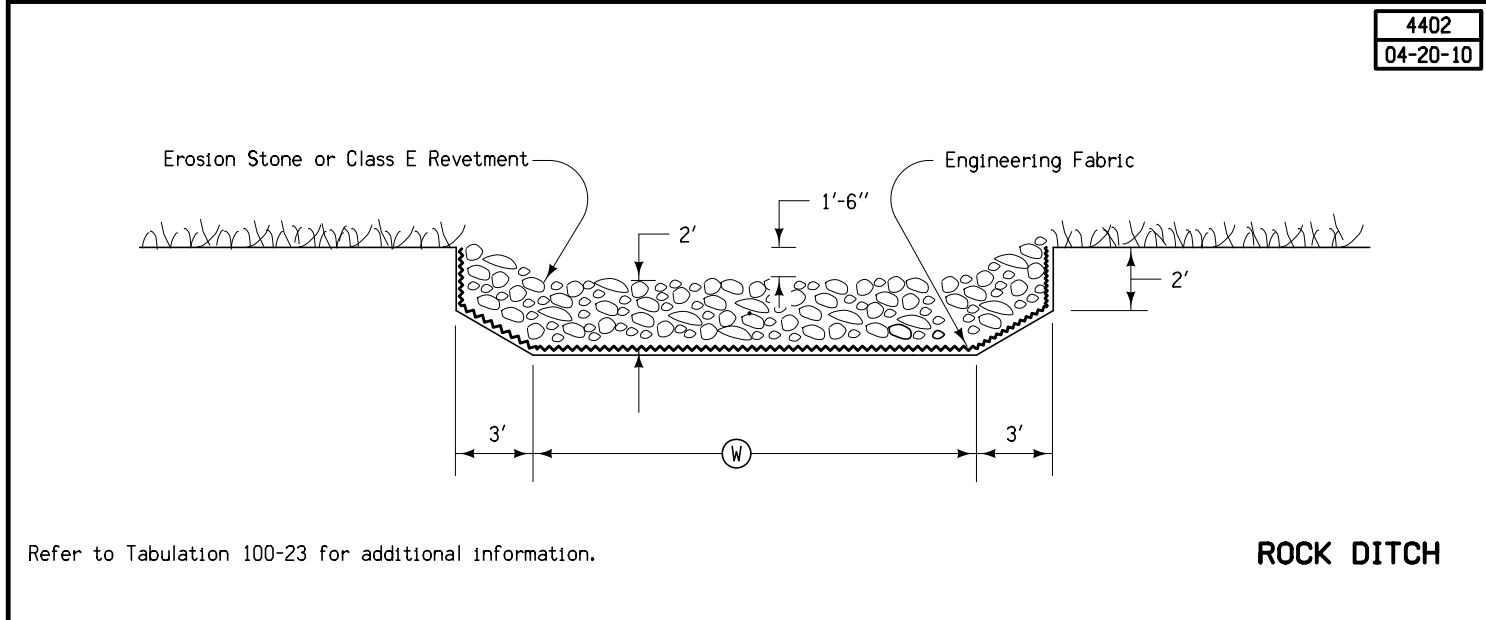
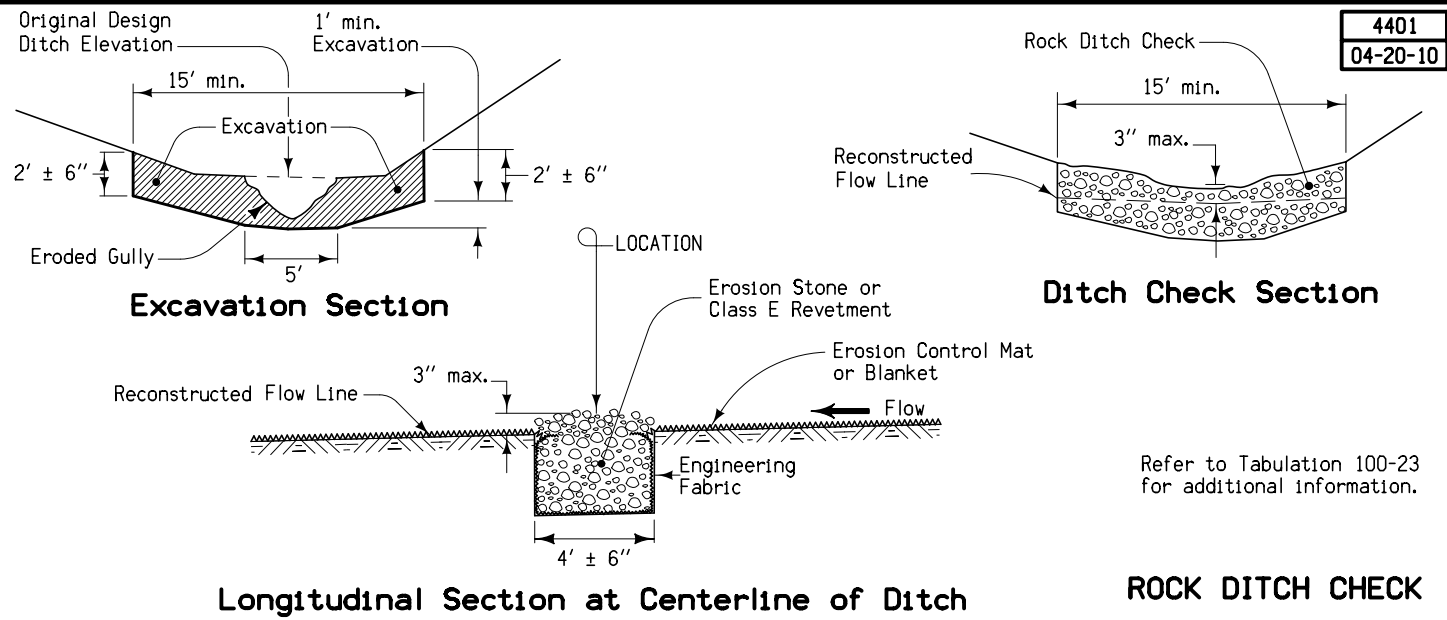
**SURFACE NOTCH - INTERMEDIATE
RUNOUT FOR DOUBLE COURSE RESURFACING**

Posted Speed Limit (mph)	Runout Ratio (ft. per inch)
45 or More	50
20 to 45	25
Under 20	10 *

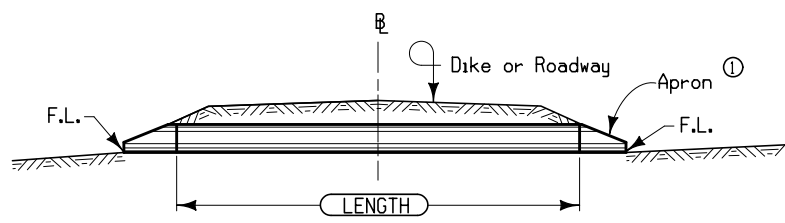
* Based on turning maneuvers at side roads and intersections.

Location Station	(L) Feet	(S) Inches	(B) Inches	(T) Inches	Remarks

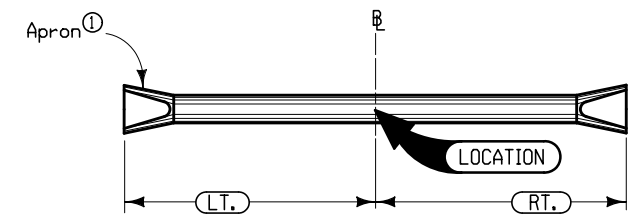
(S) Surface Course
(B) Intermediate Course
(T) Milling



1101
04-30-02



SECTION

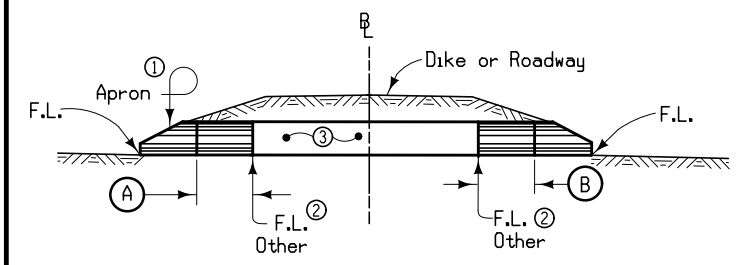


PLAN

Notes:
 CL shall be CL of roadway, dike, survey, or other; as detailed on plans.
 Skew angle is the angle which one end of the pipe is ahead (by stationing) of line perpendicular to the CL (example skew Rt. ahead 30°).
 Refer to tabular listing and other plans for additional information.
 ① See Standard Road Plan RF-3 For Conc. or RF-5 for Metal.

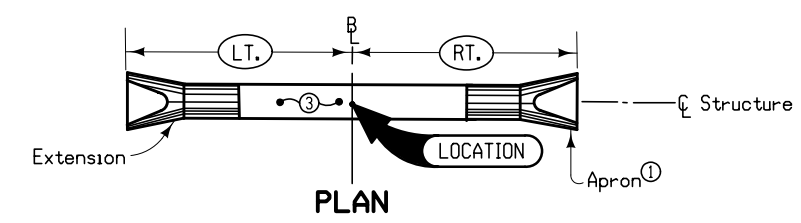
PIPE CULVERT

1301
10-03-00



SECTION

A+B = Length

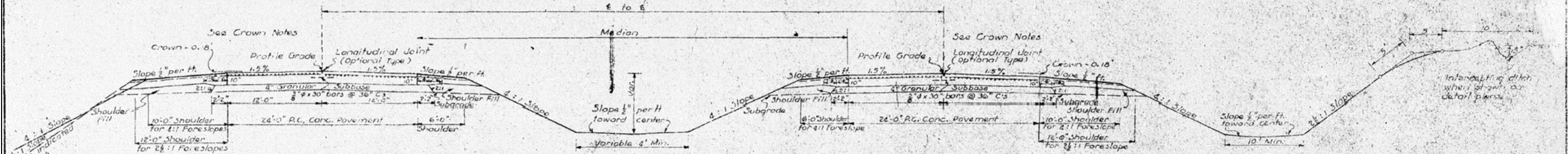


PLAN

Notes:
 CL shall be CL of roadway, dike, survey, or other; as detailed on plans.
 Extension shall be on line of existing structure to Lt., Rt. or both as specified. Adaptors may be required, see Standard Road Plan RF-2.
 Refer to tabular listing and other plans for additional information.
 ① See Standard Road Plan RF-3 for concrete, RF-5 for metal.
 ② Optional type "D" section only when specified in tabulation.
 ③ Existing structure.

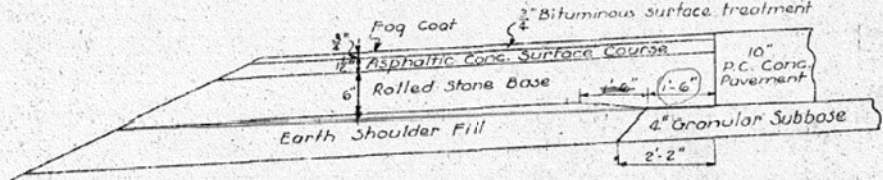
PIPE EXTENSION

TYPICAL CROSS SECTION



Crown Notes:
 On full width construction a maximum parabolic crown in the center six feet will be permitted, with the peak of the crown located on E. The maximum deviation below profile grade elevation shall be 1/8 inch.

SHOULDER DETAIL



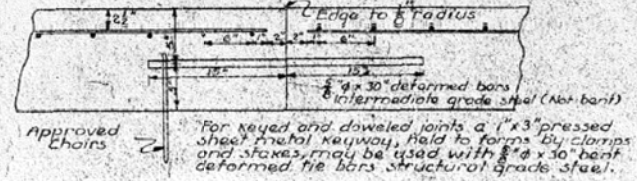
5/8 inch rolled stone base. Design weight 150 lbs. per cu. ft.
 Prime foreslope on rolled stone base and adjacent 1-ft. of shoulder fill. Rate of application 0.30 gal. per sq. yd.
 Prime rolled stone base, foreslope and adjacent 1-ft. of shoulder fill. Rate of application 0.20 gal. per sq. yd.
 1 1/2 inch type A asphaltic concrete surface course. Design weight 145 lbs. per cu. ft.
 Binder bitumen. Rate of application 0.3 gal. per sq. yd.
 3/4 inch cover aggregate. Rate of application 30 lbs. per sq. yd.
 Fog coat. Rate of application 0.01 gal. per sq. yd.

JOINT DETAILS

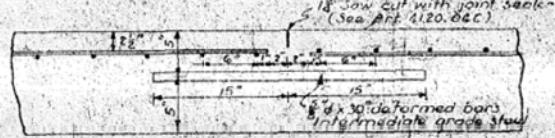
Note:
 The contractor may use 12' pavement units with a doweled longitudinal joint using 10" x 8" forms with keyway, or drilled for dowels, or 24' pavement units with a sawed longitudinal joint, dowels supported on chairs, and using 10" x 10" forms. See optional joints below.

(Other joint details may be submitted for approval.)

DOWELED OR KEYED AND DOWELED LONGITUDINAL JOINT



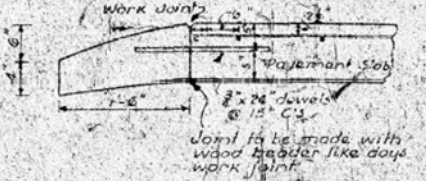
SAWED LONGITUDINAL JOINT



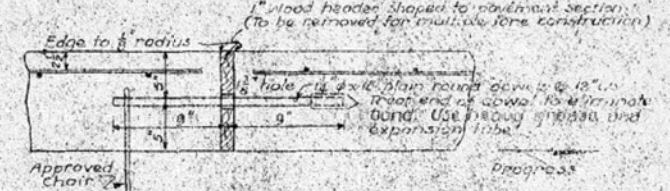
EXPANSION TUBE DETAIL



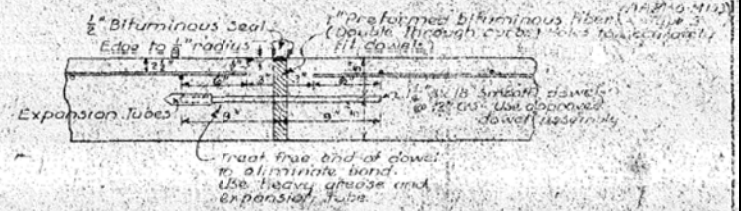
DETAILS OF CONCRETE HEADER



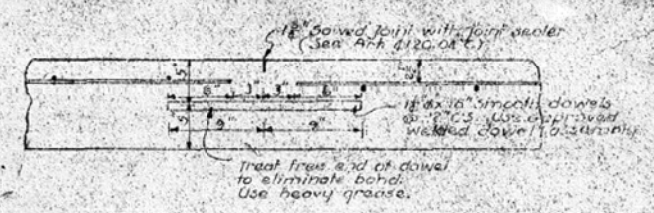
DAYS WORK OR EMERGENCY JOINT



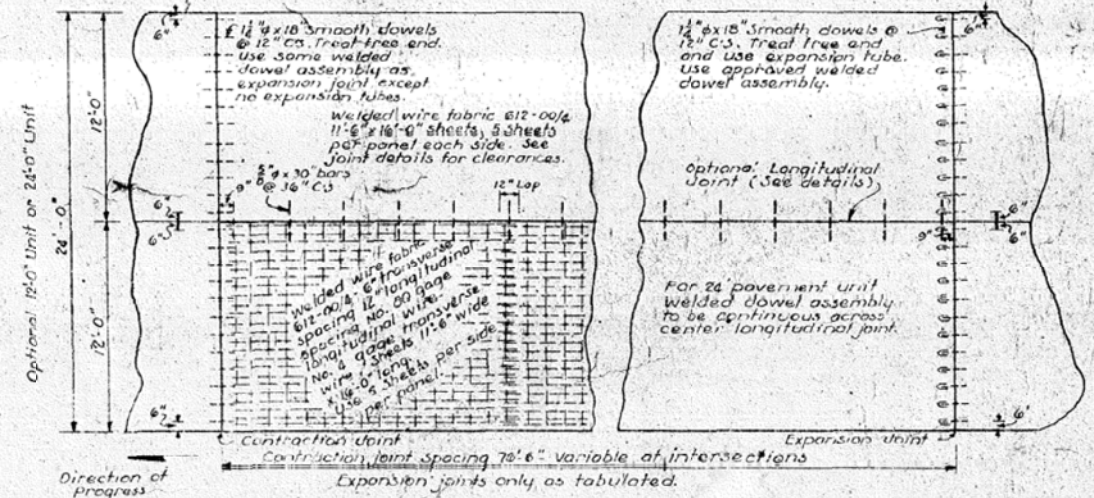
EXPANSION JOINT



CONTRACTION JOINT

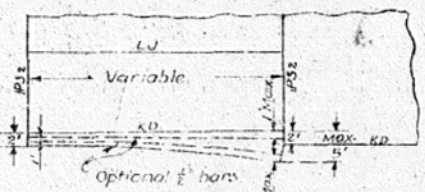


REINFORCING PLAN



Welded wire mats to be supported on a bed of concrete struck off from the forms with a steel shed template and providing a minimum cover of 2 1/2 inches of concrete. The use of mesh supporting sleds or devices which require dumping concrete through the mesh will not be permitted. Reinforcement shall be included in the unit or be bid for concrete pavement. Final work lap may be poured one half width or full width of the contractor's option, using corresponding optional joints and crowns.

DETAILS FOR WIRE MESH LAP



Contractor may at his option use 2 1/2 inch bars in place of wire mesh for box out areas. 2 1/2 inch bars to be placed not more than 3 inch from top of pavement slab.

TYPICAL SECTION, PLAN AND JOINT DETAILS

100-1D
10-18-05

PROJECT DESCRIPTION

This Project involves the reconstruction of the Southbound Lanes of Interstate 35 from the Raccoon River North to the West Mixmaster through the City of West Des Moines. The West half of the Grand Avenue interchange and Grand Avenue under I-35 will also be reconstructed as part of this project.

The City of West Des Moines will require a special use permit and approval of haul roads associated with any construction staging or temporary PCC plant sites, etc. associated with this project. In a previous project the proposed haul route on Grand Ave. from IA 28 to I-35 was denied a permit. No additional compensation for additional out of distance hauling of materials will be allowed as a result of said special use permit.

100-1A
07-15-97

**ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)**

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-0425070	SPECIAL BACKFILL	TON		
2	2102-2625000	EMBANKMENT-IN-PLACE	CY		
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY		
4	2102-2712015	EXCAVATION, CLASS 12, BOULDERS OR ROCK FRAGMENTS	CY		
5	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	32391	
6	2107-0875100	COMPACTION WITH MOISTURE CONTROL	CY		
7	2111-8174100	GRANULAR SUBBASE	SY		
8	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY		
9	2115-0100000	MODIFIED SUBBASE	CY		
10	2123-7450020	SHOULDER FINISHING, EARTH	STA		
11	2214-5145150	PAVEMENT SCARIFICATION	SY		
12	2301-1004115	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 DURABILITY, 11.5 IN.	SY	82199.7	
13	2301-6911722	PORTLAND CEMENT PAVEMENT SAMPLES	LS	1	
14	2301-9090000	QUALITY MANAGEMENT - CONCRETE (QM-C)	CY		
15	2303-0043502	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-2	TON		
16	2303-0143503	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3	SY		
17	2303-0246422	ASPHALT BINDER, PG 64-22	TON		
18	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1	
19	2304-0100000	DETOUR PAVEMENT	SY		
20	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON		
21	2401-6745650	REMOVAL OF EXISTING STRUCTURES	LS	1	
22	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	2	
23	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF	112.5	
24	2502-6745952	REMOVAL OF SUBDRAIN	LF		
25	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF		
26	2502-8220193	SUBDRAIN OUTLET (RF-19C)	EACH		
27	2502-8220196	SUBDRAIN OUTLET, RF-19E	EACH		
28	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.	LF	104	
29	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	96	
30	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	721.8	
31	2505-4008300	STEEL BEAM GUARDRAIL	LF	2175	
32	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL	EACH	8	
33	2506-4984000	FLOWABLE MORTAR	CY	76.4	
34	2507-3250005	ENGINEERING FABRIC	SY	676.8	
35	2507-6800061	REVTMENT, CLASS E	TON	264.2	
36	2507-8029000	EROSION STONE	TON	263.4	
37	2510-6745850	REMOVAL OF PAVEMENT	SY	113795	
38	2511-0302500	RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 5 IN.	SY		
39	2511-0302600	RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 6 IN.	SY		
40	2511-0310100	SPECIAL COMPACTION OF SUBGRADE FOR RECREATIONAL TRAIL	STA		
41	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	SY		
42	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY		
43	2511-7528101	DETECTABLE WARNINGS	SF		
44	2513-0001000	CONCRETE BARRIER, BA-100	LF	17556	
45	2513-0001081	CONCRETE BARRIER, TAPERED END, BA-108	EACH		
46	2518-6910000	SAFETY CLOSURE	EACH		
47	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	765.23	
48	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH		
49	2527-9263180	PAVEMENT MARKINGS REMOVED	STA		
50	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	48417	
51	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE	EACH		
52	2528-8445110	TRAFFIC CONTROL	LS	1	
53	2528-8445113	FLAGGERS	EACH		
54	2528-9290004	CHANGEABLE MESSAGE SIGNS, PORTABLE	CDAY		
55	2533-4980005	MOBILIZATION	LS	1	
56	2551-0000110	TEMP CRASH CUSHION	EACH		
57	2601-2634100	MULCHING	ACRE		
58	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE		
59	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN)	ACRE		
60	2602-0000020	SILT FENCE	LF	14600	
61	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	7104	

100-1A
07-15-97

**ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)**

Item No.	Item Code	Item	Unit	Total	As Built Qty.
62	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF		
63	2602-0000306	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 6 IN. DIA.	LF		
64	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF		
65	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF		
66	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH		
67	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH		
68	2102-0425070	Alternative AA - Option 1 SPECIAL BACKFILL	TON	2362	
69	2122-5190007	PAVED SHOULDER, P.C. CONCRETE, 7 IN.	SY	3559	
70	2102-0425070	Alternative AA - Option 2 SPECIAL BACKFILL	TON	2136	
71	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN.	SY	3559	
72	2301-9090100	Alternative BB - Option 1 PCC PAVING 3-D MACHINE CONTROL	LS	1	
73	2526-8285000	CONSTRUCTION SURVEY	LS	1	
74	2526-8286000	GLOBAL POSITIONING SYSTEM (GPS) MACHINE CONTROL GRADING	LS	1	
75	2526-8285000	Alternative BB - Option 2 CONSTRUCTION SURVEY	LS	1	

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-0425070	SPECIAL BACKFILL Refer to I-35 Typical & Typical SS-1. ----- Existing HMA and PCC from Pavement removal may be used on the as special backfill.
2	2102-2625000	EMBANKMENT-IN-PLACE Refer to Tab 108-30.
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW Includes XXXXXX cu. yds. Of suitable material to be used in the roadway fill. ----- Refer to "I" sheets. ----- Overhaul will not be measured or paid for, but shall be considered incidental to roadway excavation on this project. ----- Includes XXXXXX cu. yds. of Class 10 to be wasted, as per Article 1106.07 of the current specifications.
4	2102-2712015	EXCAVATION, CLASS 12, BOULDERS OR ROCK FRAGMENTS A. Refer to Tab. 103-7. B. Dispose of excess material according to Article 1106.07 of the current specifications.
5	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD Refer to Tab. 103-4
6	2107-0875100	COMPACTION WITH MOISTURE CONTROL Refer to Tab. 103-6 ----- Cubic yards shown on the contract documents as determined by the template fill volume. Shrinkage will not be included in the moisture control quantity.
7	2111-8174100	GRANULAR SUBBASE Refer to I-35 and Grand Ave. Typical.
8	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID Refer to typical on sheet B.1
9	2115-0100000	MODIFIED SUBBASE Refer to Ramp Typical.
10	2123-7450020	SHOULDER FINISHING, EARTH Requires XXXXX cu. Yds. Of material. No payment for overhaul allowed for this material. Material is available from Borrow. Refer to "R" sheets. At least 4' of topsoil placed will be placed in areas of earth shoulder finishing.
11	2214-5145150	PAVEMENT SCARIFICATION

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	For areas of resurfacing on Grand Avenue and existing ramps at Mills Civic Parkway.
12	2301-1004115	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 DURABILITY, 11.5 IN. Refer to Typical for Interstate 35 and Grand Avenue Ramps.
13	2301-6911722	PORTLAND CEMENT PAVEMENT SAMPLES
14	2301-9090000	QUALITY MANAGEMENT - CONCRETE (QM-C) Refer to Typical. Includes XXXX CY of 11.5' pavement and XXXX CY of 9' pavement
15	2303-0043502	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-2 For resurfacing ramp tapers and running out of surface on the ramps at Mills Civic Parkway.
16	2303-0143503	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3 For resurfacing on Grand Avenue to match existing grade and new constructions
17	2303-0246422	ASPHALT BINDER, PG 64-22
18	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES
19	2304-0100000	DETOUR PAVEMENT Refer to Typical SS. Alternatives are 10.5' HMA (as per section 2304.02 B.2 of Standard Specification) or 8' PCC (as per section 2304.02.A.1). Quantities are based on the PCC Alternative.
20	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE For surfacing entrances off Grand Avenue after resurfacing.
-	2401-6745650	REMOVAL OF EXISTING STRUCTURES Refer to Tab. 110-2 for locations & details.
21	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.
22	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA. Refer to Tab. 104-3
23	2502-6745952	REMOVAL OF SUBDRAIN Refer to C.17 for removal of existing subdrains. Method of Measurement: the length of subdrain removed will be measured to the nearest lineal foot. Basis of Payment: The contractor will be paid the contract unit price for each lineal foot of subdrain removed.
24	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.
25	2502-8220193	SUBDRAIN OUTLET (RF-19C)
26	2502-8220196	SUBDRAIN OUTLET, RF-19E Refer to Tab. 104-9 for locations & details.
27	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN. For bedding and backfill purposes under Primary roads, use material complying with Article 4120.04 (Class A Crushed Stone) of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A.
28	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN. Refer to Tab. 110-14 for locations & details.
29	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab. 110-7A.
30	2505-4008300	STEEL BEAM GUARDRAIL
31	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL Refer to Tabs 108-8A & 108-8C.
32	2506-4984000	FLOWABLE MORTAR For fill and abandon culvert. Refer to Tab. 110-9 and Typical 4315. Silt inside existing culverts need not be removed prior to placing flowable mortar
33	2507-3250005	ENGINEERING FABRIC Refer to Tab. 100-23. Engineering fabric shall be material as specified for embankment erosion control, Article 4196.01C. Material shall be measured in sq. yds. Of actual area covered. Refer to details. The tabulation includes estimated locations for placement of "Engineering Fabric" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 30% additional quantity for other locations of erosion.
34	2507-6800061	REVTMENT, CLASS E Refer to Tab. 100-23.
35	2507-8029000	EROSION STONE

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	Refer to Tab. 100-23.
-	-	The tabulation includes estimated locations for placement of "Erosion Stone" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 30% additional quantity for other locations of erosions.
36	2510-6745850	REMOVAL OF PAVEMENT Refer to Tabs. 110-1 and 102-5
37	2511-0302500	RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 5 IN.
38	2511-0302600	RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 6 IN.
39	2511-0310100	SPECIAL COMPACTION OF SUBGRADE FOR RECREATIONAL TRAIL
40	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.
41	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.
42	2511-7528101	DETECTABLE WARNINGS Refer to Tab. 113-1.
43	2513-0001000	CONCRETE BARRIER, BA-100
44	2513-0001081	CONCRETE BARRIER, TAPERED END, BA-108 Refer to Tab. 108-18
45	2518-6910000	SAFETY CLOSURE Refer to tab. 108-13A
46	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
47	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED
48	2527-9263180	PAVEMENT MARKINGS REMOVED Refer to Tab 108-22 for locations & details.
50	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE Refer to J sheets and Tab. 108-33.
51	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE Refer to Tab. 108-27.
52	2528-8445110	TRAFFIC CONTROL Refer to Traffic Control Plan.
53	2528-8445113	FLAGGERS
54	2528-9290004	CHANGEABLE MESSAGE SIGNS, PORTABLE
55	2533-4980005	MOBILIZATION
56	2551-0000110	TEMP CRASH CUSHION Refer to Tab 108-30
57	2601-2634100	MULCHING Mulch: Rate--1 1/2 tons of dry cereal straw per acre. All mulch is to be consolidated into the soil with the mulch stabilizer. Mulch shall be Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations.
58	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING Included for all rural disturbed areas. This item may be deleted if permanent seeding is accomplished by May 31
-	-	Seed Mixture: Spring--March 1 to May 20 Oats 2 bu. per acre Grain Rye 25 lbs. per acre Red Clover 5 lbs. per acre Timothy 5 lbs. per acre
-	-	Summer--May 21 to July 20 Oats 3 bu. per acre Grain Rye 35 lbs. per acre Red Clover 5 lbs. per acre Timothy 5 lbs. per acre
-	-	Fall--July 21 to September 30 Oats 2 bu. per acre Grain Rye 35 lbs. per acre Red Clover 5 lbs. per acre Timothy 5 lbs. per acre
-	-	Fertilizer: Rate-450 lbs. of 13-13-13 or equivalent commercial fertilizer per acre.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
59	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN) Included for all urban areas. Seed Mixture: (Urban) Spring--March 1 to May 20 Annual Ryegrass 65 lbs. per acre Bluegrass, Ky. (Park) 25 lbs per acre Perennial Ryegrass 25 lbs per acre Summer--May 21 to July 20 Annual Ryegrass 85 lbs. per acre Bluegrass, Ky. (Park) 25 lbs per acre Perennial Ryegrass 25 lbs per acre Fall--July 21 to September 30 Annual Ryegrass 65 lbs. per acre Bluegrass, Ky. (Park) 25 lbs per acre Perennial Ryegrass 25 lbs per acre Fertilizer: Rate-450 lbs. of 13-13-13 or equivalent commercial fertilizer per acre.
60	2602-0000020	SILT FENCE Refer to Tab. 100-17. The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
61	2602-0000030	SILT FENCE FOR DITCH CHECKS Refer to Tab 100-18 The tabulation includes estimated locations for placement of "Silt Fence for Ditch Checks" to address erosion to be encountered during constructions. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 50% additional quantity for field adjustments and replacements.
62	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK This item is included for clean-out and repair of the silt fence and silt fence for ditch checks during the grading project.
63	2602-0000306	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 6 IN. DIA.
64	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.
65	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA. These items are included for temporary perimeter sediment control and water velocity reduction on slopes. Approximate Locations: Critical perimeter and culvert intakes.
66	2602-0010010	MOBILIZATIONS, EROSION CONTROL
67	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL Refer to Tab 100-11 Alternative AA - Option 1
68	2102-0425070	SPECIAL BACKFILL Refer to Tab. 112-9. ----- Refer to Ramp Typical. ----- Existing HMA and PCC from Pavement removal may be used on the project as special backfill.
69	2122-5190007	PAVED SHOULDER, P.C. CONCRETE, 7 IN. Refer to Tab. 112-9 and ramp Typical. Alternative AA - Option 2
70	2102-0425070	SPECIAL BACKFILL Refer to Tab. 112-9. ----- Refer to Ramp Typical. ----- Existing HMA and PCC from Pavement removal may be used on the project as special backfill.
71	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN. Refer to Tab. 112-9 and ramp Typical. Alternative BB - Option 1
72	2301-9090100	PCC PAVING 3-D MACHINE CONTROL
73	2526-8285000	CONSTRUCTION SURVEY

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	--
74	2526-8286000	GLOBAL POSITIONING SYSTEM (GPS) MACHINE CONTROL GRADING
-	-	--
-	-	Alternative BB - Option 2
75	2526-8285000	CONSTRUCTION SURVEY
-	-	--

STANDARD ROAD PLANS

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

BA-200	10-18-11	Steel Beam Guardrail Components
BA-202	10-18-11	Steel Beam Guardrail Bolted End Anchor
BA-203	10-18-11	Steel Beam Guardrail W-Beam End Anchor
BA-205	10-18-11	Steel Beam Guardrail End Terminal
BA-401	04-16-13	Temporary Barrier Rail (Precast Concrete)
BA-500	04-20-10	Temporary Crash Cushions Sand Barrel
EC-201	04-20-10	Silt Fence
EC-204	10-16-12	Perimeter and Slope Sediment Control Devices
EW-102	10-15-13	Allowable Placement of Unsuuitable Soil in Embankments
EW-110	10-15-13	Ditch Blocks and Dikes
EW-301	04-19-11	Guardrail Grading
PM-110	04-16-13	Line Types
PM-111	10-16-12	Symbols and Legends
PM-120	10-15-13	Stop Lines and Islands
PM-310	04-16-13	Entrance and Exit Ramps
PM-561	04-19-11	Divided Multi-Lane Roadway with Right Turn Lanes
PM-562	04-19-11	Divided Multi-Lane Roadway with Left Turn Lanes
PM-760	04-19-11	Divided Multi-Lane Roadway Median
PV-101	10-15-13	Joints
PV-102	04-16-13	PCC Curb Details
PV-202	04-16-13	Hot Mix Asphalt Resurfacing
PV-303	04-19-11	Superelevation Details Ramps
PV-305	04-17-12	Superelevation Details Six Lane Roadway Closed Median
PV-411	10-18-11	Acceleration Taper for 16' Entrance Ramp
RF-2	10-18-11	Construction of Type "C" Concrete Adaptors for Pipe Culvert Connections
RF-14	04-16-13	Connected Pipe Joints
RF-19C	10-16-12	Subdrains (Longitudinal)
RF-19E	10-16-12	Outlets for Longitudinal, Transverse and Backslope Subdrains
RF-26	10-16-12	Pipe Apron Guard
RF-30A	10-19-10	Culvert (Bedding and Backfill)
RF-30B	10-19-10	Pipe Culvert (Cover and Camber)
RF-30C	04-16-13	Pipe Culvert (Installation Details)
RF-31	03-28-95	Depth of Cover Tables for Concrete Pipe
RM-48	10-16-12	Temporary Floodlighting
SI-881	10-15-13	Special Signs for Workzones
SW-101	04-21-09	Trench Bedding and Backfill Zones
SW-102	04-21-09	Rigid Gravity Pipe Trench Bedding
SW-503	10-16-12	Single Grate Intake with Manhole
SW-603	10-15-13	Castings for Grate Intakes
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61	10-16-12	Two-Lane, Two-Way Operation
TC-402	10-15-13	Shoulder Closure (Multi-Lane)
TC-417	04-16-13	Ramp Closure
TC-420	10-15-13	Lane Closure at Ramps
TC-422	10-16-12	Closure of Two Adjacent Lanes on Divided Highway
TC-433	04-16-13	Pavement Marking Operations
TC-451	04-16-13	Temporary Road Closure on Divided Highway
TC-601	10-18-11	Pedestrian Detour

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281-1	SECTION 404 PERMIT AND CONDITIONS	C.6

POLLUTION PREVENTION PLAN

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

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and

implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

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

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

B. Contractor/Subcontractor:

1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Submit a detailed schedule according to Article 2602 of the Specifications and any additional plan notes.
3. Install and maintain appropriate controls.
4. Supervise and implement good housekeeping practices.
5. Conduct joint required inspections of the site with inspection staff.
6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.

C. RCE/Inspector:

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

II. PROJECT SITE DESCRIPTION

- A. This Pollution Prevention Plan (PPP) is for the construction of the northbound lanes of a 6 lane divided Interstate Roadway.
- B. This PPP covers approximately 108.9 acres with an estimated 57.5 acres being disturbed. The portion of the PPP covered by this contract has 57.5 acres disturbed.

C. The PPP is located in an area of 1 soil association (Clarion-Nicollete-Webster).

The estimated average SCS runoff curve number for this PPP after completion will be 67.

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

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

E. The base site map is amended by contract modifications and progress payments of completed erosion control work.**F. Runoff from this work will flow into the Raccoon River.****III. CONTROLS****A. The contractor's work plan and sequence of operations specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.****B. Preserve vegetation in areas not needed for construction.****C. Section 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures.**

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

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

- 1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
- 2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
- 3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
- 4) Stabilization measures to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.

b. Structural Practices

- 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- 2) Structural items to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.

c. Storm Water Management

- 1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will

POLLUTION PREVENTION PLAN

occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS

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

- 1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
- 2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
- 3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
- 4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
- 5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
- 6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
- 7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
- 8) Vehicle and Equipment Fueling and Maintenance - 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.
- 9) Litter Management - Ensure employees properly dispose of litter.

3. APPROVED STATE OR LOCAL PLANS

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

IV. MAINTENANCE PROCEDURES

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

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

1. Date of the inspection.
 2. Summary of the scope of the inspection.
 3. Name and qualifications of the personnel making the inspection.
 4. Rainfall amount.
 5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 6. Major observations related to the implementation of the PPP.
 7. Identify corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.**

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials.

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 - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.
- C. IDR - Inspector's Daily Report - this contains the inspector's daily diary and 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.
- E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

213-2
10-18-11

**BORROW
(REMOVAL AND REPLACEMENT)**

Regarding removal and replacement of topsoil in borrow areas:

Quantities estimated for topsoil are calculated on the basis of a uniform removal of topsoil to a depth of 12 inches. Upon completion of excavation work, uniformly spread the removed topsoil over the borrow area to a minimum depth of 8 inches.

232-9
10-18-11

INDIANA BAT

Cut down all trees included in Clearing and Grubbing after September 15 and before April 15. These trees may be inhabited by the Indiana Bat (*Myotis sodalists*), a State and Federal listed endangered species. Removing a tree between April 15 and September 15 being used by an Indiana Bat constitutes a "taking" of a protected species, which is punishable by law.

254-1
10-02-01

INCIDENT MANAGEMENT

An incident management plan, provided by the District Office, will be discussed at the pre-construction conference.

262-5
10-18-05

**UTILITIES
(POINT 25 PROJECT)**

This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

281-1
10-18-11

SECTION 404 PERMIT AND CONDITIONS

Construct this project according to the requirements of U.S. Army Corps of Engineers _____, Permit No. _____. A copy of this permit is available from the Iowa DOT Office of Contracts upon request. The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

223-8
10-18-11

**WIDENING AND RESURFACING
(BASE WIDENING)**

The base widening on the project has been designed to accommodate the HMA option. If the PCC option is used, "on-the-site" grading and adjustment may be required as approved by the Engineer. The Contractor is responsible for providing additional suitable Class 10 borrow made necessary by the use of this option.

232-11
Modified

**EROSION CONTROL
(STABILIZING CROP SEEDING)**

Following the completion of work in a disturbed area, seed the area with a stabilizing crop, fertilize, and mulch as follows:

SEEDING:
Seed Mixture (Rural)
Spring - March 1 to May 20
Oats 2 bu. per acre
Grain Rye 25 lbs. per acre
Red Clover 5 lbs. per acre
Timothy 5 lbs. per acre

Summer - May 21 to July 20
Oats 3 bu. per acre
Grain Rye 35 lbs. per acre
Red Clover 5 lbs. per acre
Timothy 5 lbs. per acre

Fall - July 21 to September 30
Oats 2 bu. per acre
Grain Rye 35 lbs. per acre
Red Clover 5 lbs. per acre
Timothy 5 lbs. per acre

FERTILIZER:
450 lbs. of 13-13-13 (or equivalent) commercial fertilizer per acre.

MULCH:
70 lbs. of dry cereal straw per 1000 sq. ft. Consolidate all mulch into the soil with a mulch stabilizer. Scarify to a 3 in. depth and mulch areas disturbed but not seeded with stabilizing crop by September 30.

Preparing the seedbed and furnishing and applying seed, fertilizer, and mulch is incidental to mobilization and will not be paid for separately.

Use Certified Noxious Weed Seed Free Mulch as determined by the Iowa Crop Improvement Association or adjacent state's Crop Improvement Association.

100-11
08-01-08

TABULATION OF EROSION CONTROL DETAILS

Location		Over-Seeding and Fertilizing	Seeding and Fertilizing	Mulching	Special Ditch Control		Sod	Crown-Vetch Seeding	Seeding Special Areas	Ditch Reshaping	Mowing
Begin Station	End Station				Wood Excelsior Mat						
		ACRE	ACRE	ACRE	SQ		SQ	ACRE	ACRE	STA	ACRE

100-23
10-19-10

ROCK DITCH CHECKS/DITCHES/FLUMES/SPLASH BASINS/SLOPE PROTECTION

Refer to Typical 4401, 4402, 4403, 4404, and 4405

Location				Type						Material			Remarks	
Road Identification	Station	Side Lt./Rt.	Mandatory* Location (yes or no)	Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection	L FT	W FT	Erosion Stone TON	Class E Revetment TON		Eng. Fabric SY
I-35	1366+52	Rt.	Yes				X		10.0	10.0	12.2		15.6	
	1382+50	Rt.	Yes				X		8.5	10.0	10.4		13.2	
	1392+40	Rt.	Yes				X		10.5	10.0	12.8		16.3	
	1416+00	Rt.	Yes			X			169.4	10.0		203.2	263.5	
	1424+75	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1428+00	Rt.	Yes				X		9.0	10.0	11.0		14.0	
	1429+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1476+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1482+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1484+75	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1493+50	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1496+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1522+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1547+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
	1550+00	Rt.	Yes				X		11.6	10.0	14.2		18.0	
RAMP B	2375+77	Rt.	Yes				X		11.6	10.0	14.2		18.0	
bTOTALS:											202.6	203.2	520.6	
+30%											60.8	61.0	156.2	
TOTALS:											263.4	264.2	676.8	

100-17
04-20-10

TABULATION OF SILT FENCES

Refer to EC-201

Location		Side	Length LF	Remarks
Begin Station	End Station			
1367+00.00	1374+00.00	RT	780.0	I-35
1374+00.00	1375+00.00	RT	240.0	I-35
1382+50.00	1387+50.00	RT	1120.0	I-35
1392+25.00	1393+50.00	RT	435.0	I-35
1393+50.00	1399+50.00	RT	1320.0	I-35
1399+50.00	1401+50.00	RT	220.0	I-35
1406+50.00	1412+25.00	RT	1270.0	I-35
1412+25.00	1413+25.00	RT	120.0	I-35
1416+50.00	1416+75.00	RT	90.0	I-35
1416+75.00	1421+50.00	RT	1605.0	I-35
1421+50.00	1424+25.00	RT	630.0	I-35
1424+25.00	1428+00.00	RT	415.0	I-35
1430+50.00	1442+00.00	RT	1270.0	I-35
1468+75.00	1471+25.00	RT	290.0	I-35
1485+50.00	1486+25.00	RT	95.0	I-35
1486+25.00	1491+00.00	RT	1070.0	I-35
1491+00.00	1493+50.00	RT	290.0	I-35
1494+25.00	1498+25.00	RT	440.0	I-35
1498+25.00	1506+00.00	RT	1710.0	I-35
1506+00.00	1509+50.00	RT	1170.0	I-35
1509+50.00	1521+00.00	RT	2540.0	I-35
1521+00.00	1528+75.00	RT	895.0	I-35
1544+50.00	1547+25.00	RT	315.0	I-35
1547+25.00	1549+00.00	RT	390.0	I-35
1549+00.00	1550+00.00	RT	120.0	I-35
2375+00.00	2379+67.00	RT	527.0	RAMP B
2381+29.00	2388+73.00	RT	824.0	RAMP B
2387+28.00	2388+87.00	RT	179.0	RAMP B
2381+85.00	2389+39.00	LT	834.0	RAMP B
3396+00.00	3397+30.00	LT	150.0	RAMP C
3398+00.00	3399+00.00	RT	120.0	RAMP C
Subtotal:			21474.0	
+25% =			5368.5	
Total:			26842.5	

100-18
04-20-10

TABULATION OF SILT FENCES
FOR DITCH CHECKS

Refer to EC-201

Location Station	Side	Length LF	Remarks
I-35			
1364+00.00	RT	30.0	
1365+50.00	RT	30.0	
1383+00.00	RT	109.0	
1383+75.00	RT	165.0	
1384+50.00	RT	220.0	
1385+25.00	RT	264.0	
1386+00.00	RT	297.0	
1386+75.00	RT	319.0	
1387+50.00	RT	342.0	
1392+75.00	RT	28.0	
1393+50.00	RT	28.0	
1394+25.00	RT	28.0	
1395+00.00	RT	28.0	
1395+75.00	RT	28.0	
1396+50.00	RT	28.0	
1397+25.00	RT	28.0	
1398+00.00	RT	28.0	
1398+75.00	RT	28.0	
1399+50.00	RT	28.0	
1400+25.00	RT	28.0	
1401+00.00	RT	28.0	
1401+75.00	RT	28.0	
1402+50.00	RT	28.0	
1403+25.00	RT	28.0	
1407+00.00	RT	28.0	
1407+75.00	RT	28.0	
1408+50.00	RT	28.0	
1409+25.00	RT	28.0	
1410+00.00	RT	28.0	
1410+75.00	RT	28.0	
1411+50.00	RT	28.0	
1412+25.00	RT	28.0	
1413+00.00	RT	28.0	
1413+75.00	RT	28.0	
1414+50.00	RT	28.0	
1415+25.00	RT	28.0	
1417+25.00	RT	28.0	
1417+65.00	RT	28.0	
1418+05.00	RT	28.0	
1418+45.00	RT	28.0	
1418+85.00	RT	28.0	
1419+25.00	RT	28.0	
1419+65.00	RT	28.0	
1420+05.00	RT	28.0	
1420+45.00	RT	28.0	
1420+85.00	RT	28.0	
1421+25.00	RT	28.0	
1421+65.00	RT	28.0	
1422+05.00	RT	28.0	
1422+45.00	RT	28.0	
1422+85.00	RT	28.0	
1423+25.00	RT	28.0	
1423+65.00	RT	28.0	
1424+05.00	RT	28.0	
1424+45.00	RT	28.0	
1424+85.00	RT	28.0	
1425+25.00	RT	28.0	
1425+65.00	RT	28.0	
1426+05.00	RT	28.0	
1426+45.00	RT	28.0	
1426+85.00	RT	28.0	
1427+25.00	RT	28.0	
1427+65.00	RT	28.0	
1428+05.00	RT	28.0	
1428+45.00	RT	28.0	
1428+85.00	RT	28.0	
1429+25.00	RT	28.0	
1429+65.00	RT	28.0	
1430+05.00	RT	28.0	
1431+55.00	RT	28.0	
1433+05.00	RT	28.0	
1434+55.00	RT	28.0	
1436+05.00	RT	28.0	
1437+55.00	RT	28.0	
1438+30.00	RT	28.0	
1443+00.00	RT	28.0	
1444+50.00	RT	28.0	

100-18
04-20-10

TABULATION OF SILT FENCES
FOR DITCH CHECKS

Refer to EC-201

Location Station	Side	Length LF	Remarks
1434+55.00	RT	28.0	
1436+05.00	RT	28.0	
1437+55.00	RT	28.0	
1438+30.00	RT	28.0	
1443+00.00	RT	28.0	
1444+50.00	RT	28.0	
1446+00.00	RT	28.0	
1447+50.00	RT	28.0	
1449+00.00	RT	28.0	
1450+50.00	RT	28.0	
1452+00.00	RT	28.0	
1453+50.00	RT	28.0	
1458+00.00	RT	28.0	
1459+50.00	RT	28.0	
1461+00.00	RT	28.0	
1462+50.00	RT	28.0	
1464+00.00	RT	28.0	
1465+50.00	RT	28.0	
1467+00.00	RT	28.0	
1481+50.00	RT	28.0	
1483+00.00	RT	28.0	
1484+50.00	RT	28.0	
1486+00.00	RT	28.0	
1487+50.00	RT	28.0	
1489+00.00	RT	28.0	
1490+50.00	RT	28.0	
1492+00.00	RT	28.0	
1492+75.00	RT	28.0	
1493+50.00	RT	28.0	
1494+25.00	RT	28.0	
1495+00.00	RT	28.0	
1495+75.00	RT	28.0	
1497+25.00	RT	28.0	
1498+75.00	RT	28.0	
1500+25.00	RT	28.0	
1501+75.00	RT	28.0	
1503+25.00	RT	28.0	
1504+75.00	RT	28.0	
1506+25.00	RT	28.0	
1507+75.00	RT	28.0	
1509+25.00	RT	28.0	
1509+75.00	RT	28.0	
1515+00.00	RT	28.0	
1515+75.00	RT	28.0	
1516+50.00	RT	28.0	
1517+25.00	RT	28.0	
1518+00.00	RT	28.0	
1518+75.00	RT	28.0	
1519+50.00	RT	28.0	
1520+25.00	RT	28.0	
1521+00.00	RT	28.0	
1521+75.00	RT	28.0	
1522+50.00	RT	28.0	
1523+25.00	RT	28.0	
1524+00.00	RT	28.0	
1524+75.00	RT	28.0	
1525+50.00	RT	28.0	
1526+25.00	RT	28.0	
1527+00.00	RT	28.0	
1527+75.00	RT	28.0	
1528+50.00	RT	28.0	
1529+25.00	RT	28.0	
1530+00.00	RT	28.0	
1530+75.00	RT	28.0	
1532+25.00	RT	28.0	
1533+75.00	RT	28.0	
RAMP C			
3391+00.00	LT	28.0	
3391+75.00	LT	28.0	
3392+50.00	LT	28.0	
3393+25.00	LT	28.0	
3394+00.00	LT	28.0	
3394+75.00	LT	28.0	
3395+50.00	LT	28.0	
3396+25.00	LT	28.0	
3397+00.00	LT	28.0	
3397+75.00	LT	28.0	
3398+50.00	LT	28.0	

100-18
04-20-10

TABULATION OF SILT FENCES
FOR DITCH CHECKS

Refer to EC-201

Location Station	Side	Length LF	Remarks
3399+25.00	LT	28.0	
3400+00.00	LT	28.0	
3400+75.00	LT	28.0	
3395+25.00	RT	28.0	
3396+00.00	RT	28.0	
3396+75.00	RT	28.0	
3397+50.00	RT	28.0	
3398+25.00	RT	28.0	
3399+00.00	RT	28.0	
3399+75.00	RT	28.0	
3400+50.00	RT	28.0	
3401+25.00	RT	28.0	
3402+00.00	RT	28.0	
3402+75.00	RT	28.0	
3403+50.00	RT	28.0	
3404+25.00	RT	28.0	
3405+00.00	RT	28.0	
3405+75.00	RT	28.0	
3406+50.00	RT	28.0	
3407+25.00	RT	28.0	
3408+00.00	RT	28.0	
3408+75.00	RT	28.0	
GRAND AVENUE			
3390+66.68	LT	28.0	
3392+17.00	LT	28.0	
Subtotal:		6340.0	
+50% =		3170.0	
Total:		9510.0	

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks		
	County	Route	Dir. of Travel	Begin Milepost	End Milepost				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type		Durability Class	Type
1	77	POLK	I-035	NORTH	67.89	72.14	2007																
							1986	IMN-035-2(335)61--0E-91	HMA	2													
							1958	IR-35-2(191)67--12-77	AAC	1.5	AAC	3											
2	77	POLK	I-035	NORTH	72.14	72.69	1992	I-IG-35-2(10)68	PCC	10	GSB	4				COMMERCE	GRAVEL	2					
							1992	IR-35-2(240)74	PCC	12	GSB	9				AMES MINE	C.LST.	I					
3	77	POLK	I-035	SOUTH	67.89	72.14	1986	IR-35-2(191)67--12-77	AAC	1.5	AAC	3											
							1958	I-IG-35-2(10)68	PCC	10	GSB	4				COMMERCE	GRAVEL	2					
4	77	POLK	I-035	SOUTH	72.14	72.69	1992	IR-35-2(240)74	PCC	12	GSB	9				AMES MINE	C.LST.	I					

110-1
04-16-13

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area		Saw Cut*	Remarks
				SY	LF		
1364+03.94	1374+99.21	RT	Comb.	5841.4	1095.0		
1374+99.21	1379+14.51	RT	Comb.	2214.9	415.0		
1381+08.51	1388+44.14	RT	Comb.	3923.3	736.0		
1391+31.16	1406+04.14	RT	Comb.	7855.9	1473.0		
1406+04.14	1409+49.01	RT	Comb.	1379.5	345.0		
		RT	Comb.	266.5			
1409+49.01	1438+18.28	RT	Comb.	21041.3	2869.0		
1438+18.28	1442+98.91	RT	Comb.	1922.5	481.0		
			Comb.	74.6			
1442+98.91	1468+60.46	RT	Comb.	13661.6	2562.0		
1468+60.46	1493+78.63	RT	Comb.	10352.5	2518.0		
1493+78.63	1510+42.02	RT	Comb.	11089.3	1663.0		
1514+82.10	1545+65.97	RT	Comb.	20559.1	3084.0		
1545+65.97	1550+52.00	RT	Comb.	1296.1	486.0		
1390+47.69	1393+09.38	NE Loop	Comb.	3493.0	905.0		
1387+34.42	1389+14.11	SE Loop	Comb.	3782.0	912.0		
1380+78.56	1387+93.43	S Ramp	Comb.	5041.7	1358.0		
1389+16.51	1404+18.34	N Ramp	Comb.	6340.0	1725.0		
				120135.2	22627.0		

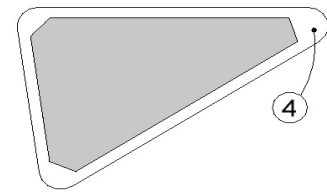
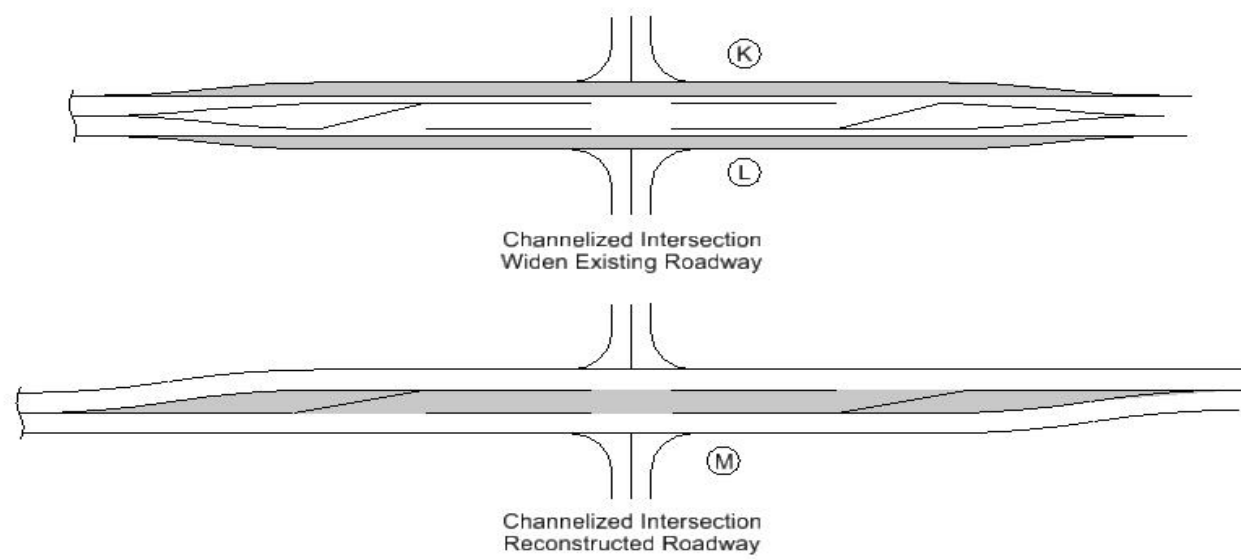
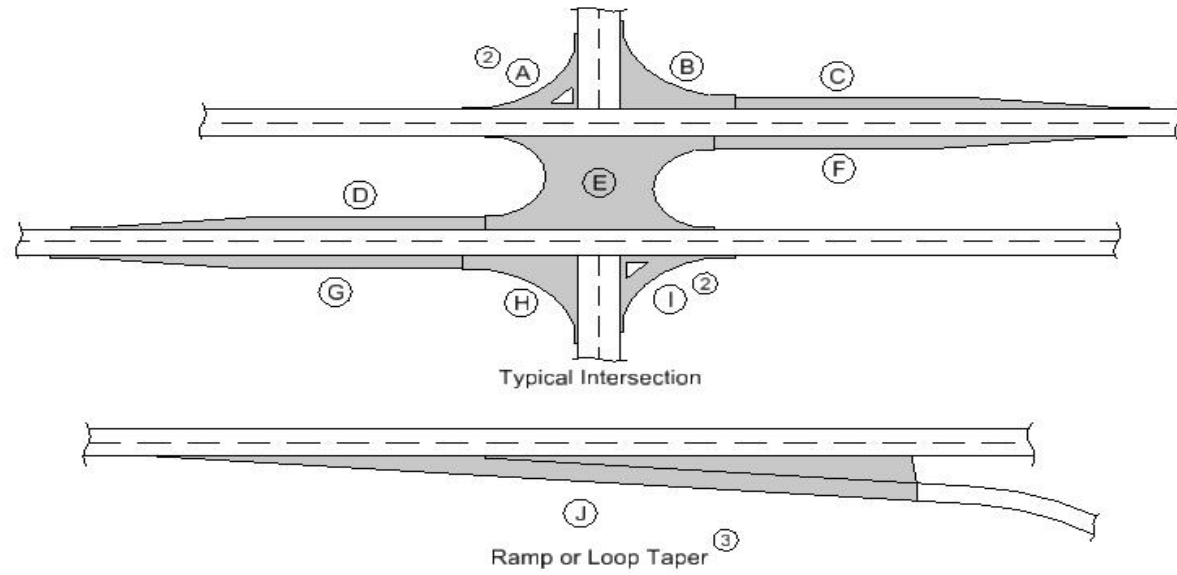
100-26
08-01-08

INCIDENTAL ITEMS

Special or unique items where method of measurement / basis of payment is not indicated in the specifications or other contract documents.

No.	Incidental Item	Quantity	Incidental To		Remarks
			Item Code	Item	
1	CAMBER	0.11 FT	2416-1180024	CULVERT, CONC. ROAD PIPE, 24 IN. DIA., RF-30B	
2	APRON GUARD	2 EA	2416-0100024	APRONS, CONC., 24 IN. DIA., RF-26	
3	SAW CUT	22627.0 LF	2510-6745850	REMOVAL OF PAVEMENT	

TABULATION OF PAVEMENT



Paved Island

- ① Quantity includes Pavement Header.
- ② Does not include Island area.
- ③ Refer to PV-410, PV-411, PV-412, and PV-414.
- ④ Curb area included in areas A and I. Refer to PV-020.

Road Identification	Location		Width FT	Length FT	Area SY	Area ①											Total Area By Pavement Thickness		Paved Island		Granular Subbase SY	Remarks		
	Station to Station					Area ②											SY		Area	Curb				
						A	B	C	D	E	F	G	H	I	J	K	L	M	9 IN	11 1/2 IN			SY	TYPE
Interstate 35	1364+03.94	1366+50.00	48.0	246.1	1312.3													2370.1			3764.4			
	1366+50.00	1375+01.35	24.0	851.4	2270.3																2554.1			
	1375+01.52	1378+40.05	48.0	338.5	1805.5																1918.3			
	1381+91.41	1387+73.06	48.0	581.6	3102.1																3296.0			
	1392+06.45	1409+50.00	48.0	1743.5	9298.9													293.1			10173.2			
	1409+50.00	1416+50.00	66.0	700.0	5133.3																5366.7			
	1416+50.00	1419+50.00	63.0	300.0	2100.0																2200.0			
	1419+50.00	1438+23.58	60.0	1873.6	#####																13115.1			
	1438+23.58	1443+04.55	37.0	481.0	1977.3																1977.3			
	1438+23.58	1439+33.13	9.0	109.6	109.6																146.1			
	1443+04.55	1468+65.68	48.0	2561.1	#####																14513.1			
	1468+65.68	1493+83.86	37.0	2518.2	#####																10352.5			
	1493+83.86	1509+69.01	60.0	1585.2	#####																11096.1			
	1515+66.40	1545+75.00	60.0	3008.6	#####																21060.2			
	1545+75.00	1550+62.56	24.0	487.6	1300.2																1462.7			
1550+62.56	1552+04.79	8.5	142.2	134.3																181.7				
Ramp B	2375+00.00	2378+20.00	24.0	320.0	853.3															1066.7	Modified Subbase Used			
	2381+30.00	2385+50.00	24.0	420.0	1120.0															1400.0				
	2385+50.00	2386+70.00	30.0	120.0	400.0															480.0				
	2386+70.00	2389+71.19	36.0	301.2	1204.8															1405.6				
	2389+00.00	2389+71.19		71.2																76.4				
Ramp C	3389+54.73	3409+50.00	24.0	1995.3	5320.7															6650.9	Modified Subbase Used			
	3389+54.73	3390+00.00		45.3																55.1				
Grand Ave	3394+86.73	3397+50.00	12.0	263.3	351.0															438.8				
											Totals:		351.0	107717.8			114750.8	Right Turn Lane						

100-27
10-20-09

PAVEMENT SMOOTHNESS + PCC TEXTURE

Road Identification	Begin Station	End Station	Proposed Posted Speed			Remarks
			35 or less	40 - 45	over 45	
Interstate 35	1364+03.94	1550+62.56			X	
Ramp B	2375+00.00	2389+71.19			X	
Ramp C	3389+54.73	3409+50.00			X	

SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② Bid Item
- ③ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ④ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 140, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Road Identification	Direction Of Traffic	Location			Quantities																Remarks	
		Station to Station	Side	P Width FT	G Width FT	L Length FT	Class 13 Excavation Widening		HMA Base Widening		Hot Mix Asphalt		Paved Shoulder	Reinforced Paved Shoulder	Special Backfill		Modified Subbase	Granular Shoulder		Earth Shoulder Construction		
							CY	TON/STA	TON	TON/STA	SY	SY	TON	TON/STA	CY	TON	TON/STA	STA	CY			
7" PCC Option																						
Ramp B	NB	2375+00.00	2378+20.00	LT	4.0		320.0					142.2		97.209	30.378				3.2	196.7	7" PCC Option	
	NB	2375+01.00	2378+20.00	RT	6.0		319.0					212.7		158.335	49.635				3.2	196.1	7" PCC Option	
	NB	2381+30.00	2389+71.19	LT	4.0		845.0					375.6		256.693	30.378				8.5	519.5	7" PCC Option	
	NB	2381+30.00	2389+71.09	RT	6.0		916.0					610.7		454.656	49.635				9.2	563.2	7" PCC Option	
Ramp C																						
	NB	3389+70.00	3406+07.67	LT	4.0		1637.7					727.9		497.490	30.378				16.4	1006.9	7" PCC Option	
	NB	3390+02.27	3390+36.87	RT	9.0		34.6					34.6		24.261	70.120				0.3	21.3	7" PCC Option	
	NB	3390+36.87	3409+50.00	RT	6.0		1913.1					1275.4		949.580	49.635				19.1	1176.2	7" PCC Option	
PCC Option																						
Totals:											3379.0		2438.225						59.9	3679.9		
8" HMA Option																						
Ramp B	NB	2375+00.00	2378+20.00	LT	4.0		320.0					142.2		80.817	25.255				3.2	197.9	8" HMA Option	
	NB	2375+01.00	2378+20.00	RT	6.0		319.0					212.7		131.635	41.265				3.2	197.3	8" HMA Option	
	NB	2381+30.00	2389+71.19	LT	4.0		845.0					375.6		213.407	25.255				8.5	522.6	8" HMA Option	
	NB	2381+30.00	2389+71.09	RT	6.0		916.0					610.7		377.987	41.265				9.2	566.6	8" HMA Option	
Ramp C																						
	NB	3389+70.00	3406+07.67	LT	4.0		1637.7					727.9		413.598	25.255				16.4	1012.9	8" HMA Option	
	NB	3390+02.27	3390+36.87	RT	9.0		34.6					34.6		21.986	63.545				0.3	21.4	8" HMA Option	
	NB	3390+36.87	3409+50.00	RT	6.0		1913.1					1275.4		789.453	41.265				19.1	1183.3	8" HMA Option	
HMA Option																						
Totals:											3379.0		2028.885						59.9	3702.1		

CRASH CUSHIONS

- * Bid Item
- ① Lane(s) to which the installation is adjacent.
- ② Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500

No.	Direction of Traffic	Location Station	Side	Obstacle Width FT	Crash Cushion (Select One)*					Sand Barrel Details ②					Earthwork*		Spare Parts Kit (Select One)*		Obstacle Description	Remarks			
					Temporary	Temporary Redirective	Temporary Severe Use	Permanent	Permanent Severe Use	V Length FT	W Length FT	X Length FT	Y Length FT	Z Length FT	Excavation Class 10 CY	Embankment in Place CY	Permanent EACH	Permanent Severe Use EACH					
																					FT	FT	FT
1	NB	1368+60.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 1		
2	NB	1362+85.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 2, 3		
3	NB	1440+06.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 2		
4	NB	1467+91.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 2		
5	WB	3387+50.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 2		
6	EB	3403+10.00	LT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 2		
7	NB	1428+61.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 3		
8	NB	1467+91.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 3		
9	NB	1482+00.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 3		
10	NB	1362+58.00	RT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 4		
11	NB	1547+75.00	LT	1.88	X						0.00	24.25	5.25	3.25	12.00					TBR	STAGE 4		
Totals																					0.0		

TEMPORARY FLOODLIGHTING LUMINAIRES

No.	Location Station	Offset	Number Lumin.	Remarks
1	1355+00.00	60	1	
2	1435+00.00	60	1	
3	1441+00.00	60	1	
4	1469+50.00	60	1	
5	1478+00.00	60	1	
6	1545+00.00	60	1	
7	1555+00.00	60	1	
Total:			7	

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
1363+50.00	1		STAGE 2 & 3
3389+95.00		1	STAGE 2 & 3 - RAMP C
2389+25.00		1	STAGE 3 - RAMP B
Totals:		1	2

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE END POST

Refer to BA-200, BA-201, BA-202, BA-205, BA-250, SI-172, SI-173 and SI-211.

① See Standards for list of materials.

Location Station			Layout Lengths				Delineators and Object Markers				Bid Items ①					Remarks			
			VT1	VF	VT2	ET Terminal	Type	Delineator		Object Marker		End Anchor Bolted	Barrier Transition Section	Steel Beam Guardrail	End Terminal				
								White	Type 1	Type 2	Type 3				Standard		Flared for Cable Connection	Adapter	
											OM-3L								OM-3R
No.	Station	Offset	LF	LF	LF	LF	No.	No.	No.	No.	Type	No.	LF	No.	No.	No.			
1	1378+92.22	65.62	40.625	75.00							1		87.5	1					
2	1388+29.19	65.6	40.625	75.00							1		87.5	1					
3	1510+23.77	77.63	40.625	12.50	1400.00						1		1425.0	1					
4	2378+85.28	-32.92	28.125	50.00							1		50.0	1					
5	2378+88.01	6.13	28.125	100.00							1		100.0	1		Field Bend Steel Beam Guardrail			

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301

① Lane(s) to which the installation is adjacent.

Location				Foreslope at Guardrail	Dimensions (Feet)									Earthwork		Remarks
No.	Direction of Traffic	Station	Side		X1	Y1	X2	Y2	X3	Y3	X4	Y4	Z	Excavation Class 10	Embankment In Place	
1	NB	1378+92.22	RT	6:1	41.7	5.0	116.3	12.9					166.3	14.9	76.0	(1)
2	NB	1388+29.19	RT	6:1	41.7	5.0	116.3	12.2					166.3	13.9	72.0	(1)
6	NB	1422+12.87	RT	6:1	37.5	6.7	112.1	14.2					162.8	16.3	81.0	(1)
7	NB	1453+87.88	RT	6:1	12.5	6.7	87.1	14.2					137.8	16.3	81.0	(1)
3	NB	1510+23.77	RT	6:1	41.7	5.4	54.1	6.6	1454.1	6.6	1504.7	8.6	54.0			(1)
8	NB	1520+87.88	RT	6:1	12.5	6.7	87.1	14.2					137.8	16.3	81.0	(1)
4	NB	2378+85.28	LT	6:1	29.2	12.1	91.3	13.3					129.0	14.1	72.0	(1)
5	NB	2378+88.01	RT	6:1	29.2	7.3	127.4	19.3					177.7	19.3	92.0	(1)

(1) - Included in the Template Quantities. See T Sheets.

STEEL BEAM GUARDRAIL FOR SIDE OBSTACLE (ONE-WAY PROTECTION)

① Lane(s) to which the obstacle is adjacent.

② See Standards for list of materials.

Refer to BA-200, BA-201, BA-203, BA-205, BA-206, BA-252, SI-172, SI-173, and SI-211

Location				Layout Lengths						Delineators and Object Markers				Bid Items ②				Remarks								
No.	Direction of Traffic	Side	Station	Offset	O _L	D ₀	Approach Side (A)			Trailing Side			Culvert Spanning	Type	Delineator		Object Marker		Steel Beam Guardrail	W-Beam End Anchor	End Terminal		Adapter			
							O= Outside M= Median	ET Terminal	VT2 _A	VF _A	VT1 _A	VT1 _T			EA	9.375'	Type 1				Type 2	Type 3		Standard	Flared for Cable Connection	
																						OM-3L				OM-3R
FT	FT	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	No.	No.	No.	No.	LF	No.	No.	No.	No.						
6	NB	O	1422+12.87	79	41.8	14.0													125.0		1	1		RCB Extension		
7	NB	O	1453+87.88	67	18.0	14.0													100.0		1	1				
8	NB	O	1520+87.88	79	18.0	14.0													100.0		1	1				

TEMPORARY BARRIER RAIL

Refer to BA-400 and BA-401

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

No.	Station to Station		Length LF	(Select One)		Anchored* (Y/N)	Remarks
				Steel BA-400	Concrete BA-401		
1	1363+35.00	1546+98.00	18363.0		X	No	STAGE 1 - ATTACH MODULAR GLARE SCREEN
2	1368+60.00	1432+95.00	6435.0		X	No	STAGE 1
3	1432+95.00	1441+25.00	830.0		X	Yes	STAGE 1
4	1442+00.00	1468+47.00	2647.0		X	No	STAGE 1
5	1468+47.00	1481+50.00	1303.0		X	Yes	STAGE 1
6	1482+00.00	1539+90.00	5790.0		X	No	STAGE 1
7	1539+90.00	1545+75.00	585.0		X	Yes	STAGE 1
8	1362+85.00	1368+60.00	575.0		X	No	STAGE 2
9	1432+95.00	1441+25.00	830.0		X	No	STAGE 2, MOVE EXISTING TBR FROM STAGE 1
10	1441+25.00	1443+05.00	180.0		X	No	STAGE 2
11	1440+06.00	1443+30.00	324.0		X	No	STAGE 2
12	1440+06.00	1442+00.00	194.0		X	No	STAGE 2
13	1450+85.00	1460+33.00	948.0		X	No	STAGE 2, MOVE EXISTING TBR FROM STAGE 1
14	1468+47.00	1470+00.00	153.0		X	No	STAGE 2, MOVE EXISTING TBR FROM STAGE 1
15	1467+91.00	1470+00.00	209.0		X	No	STAGE 2
16	1470+00.00	1481+50.00	1150.0		X	No	STAGE 2, MOVE EXISTING TBR FROM STAGE 1
17	1481+50.00	1482+00.00	50.0		X	No	STAGE 2, MOVE EXISTING TBR FROM STAGE 1
18	1539+90.00	1545+75.00	585.0		X	No	STAGE 2
19	1545+75.00	1552+25.00	650.0				
20	3387+50.00	3404+10.00	1660.0		X	No	STAGE 2, GRAND AVE
21	3388+15.00	3403+10.00	1495.0		X	No	STAGE 2, GRAND AVE
22	1420+15.00	1426+98.00	683.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
23	1428+61.00	1443+30.00	1469.0		X	No	STAGE 3
24	1433+60.00	1440+06.00	646.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
25	1467+91.00	1481+50.00	1359.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
26	1470+00.00	1481+50.00	1150.0		X	No	STAGE 3
27	1482+00.00	1498+97.00	1697.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
28	1521+25.00	1539+05.00	1780.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
29	1521+25.00	1546+00.00	2475.0		X	No	STAGE 3, MOVE EXISTING TBR FROM STAGE 2
30	1521+25.00	1533+00.00	1175.0		X	No	STAGE 3
31	1362+58.00	1547+25.00	18467.0		X	No	STAGE 4, MOVE EXISTING TBR FROM STAGE 3
32	1363+08.00	1547+75.00	18467.0		X	No	STAGE 4, MOVE EXISTING TBR FROM STAGE 3
Total:			94324.0				

(1) 44,562.5 LF of TBR that is the property of the Iowa DOT from the IM-035-2(364)67--13-77 project and may be used for the construction of this project.

108-33
04-16-13

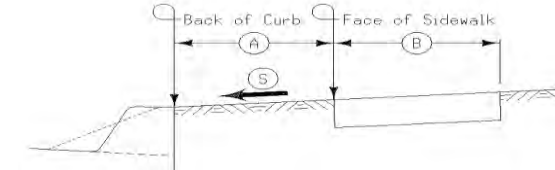
REMOVAL OF EXISTING STRUCTURES

110-2
04-16-13

Location	Description	Remarks
Ramp B 2386+49.51 2385+90; 132.62 Rt	10'x10'x151.3' RCB Sanitary Manhole	Remove two aprons Contractor varify removal
Ramp C 3392+56.89	10'x10'x140.16' RCB	Remove two aprons
Grand Ave 3394+60.00	10'x10'x171.12' RCB	Abandonment

SIDEWALKS

See MI-220 and S Sheets



Road Identification	Station to Station	Side	A	B	S	4" PCC Sidewalk	6" PCC Sidewalk	_" PCC Sidewalk	Detectable Warnings	Remarks
			FT	FT	%	SY	SY	SY	SF	

113-1
04-16-13

REMOVAL OF STEEL BEAM GUARDRAIL

110-7A
04-17-12

- ① Lane(s) to which the installation is adjacent.
- ② Includes length of End Terminals and End Anchors.

No.	Direction of Traffic	Location		Side	Removal of Guardrail
		Station to Station	LF		
1	N	1377+92.39	1379+16.59	RT	124.8
2	N	1380+80.90	1382+15.64	RT	139.0
3	N	1387+80.95	1388+55.49	RT	75.5
4	N	1437+64.13	1439+17.46	RT	153.5
6	N	1449+08.23	1450+58.67	RT	151.0
7	N	1520+79.58	1521+59.50	RT	78.2
8	E	3393+00	3395+00.00	RT	200.0
Totals:					921.8

EMBANKMENT WITH MOISTURE CONTROL

103-6
04-19-11

Moisture content shall be within the limits of minus 2 and plus 2 percentage points of Optimum Moisture Content for maximum density within the area described and listed below.

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

Moisture Control is also required on all select subgrade treatments.

Proposed Subgrade Treatment:
Quantity:

CONCRETE BARRIER

See BA-100, BA-101, BA-102, and BA-103

108-18
10-18-11

No.	Begin Station	End Station	Side	Barrier Type		Transition Section Detail Sheet	Footing Length	Remarks	Expansion Joints		
				Standard Road Plan	Length LF				Station	Side	Remarks
1	1363+35.00		Both	BA-100	#####						
2					0.0						
3					0.0						
4					0.0						
5					0.0						
6					0.0						
7					0.0						

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

* Not a bid item

Location/Description	Sanitary or Storm Sewer	Abandonment, Plug Only or Abandonment, Plug and Fill or Removal	Length of Pipe		Fill Material*	Remarks
			≤ 36 inch diameter	> 36 inch diameter	Flowable Mortar or CLSM	
			LF	LF	CY	
I-35 Mainline						
1382+50.00	Storm Sewer	Removal	53			Remove and install let down
1392+50.00	Storm Sewer	Removal	6			Remove and install let down
1400+50.00	Storm Sewer	Removal	32			Remove and install let down
1482+00.00	Storm Sewer	Removal	6			Remove and install Apron
1484+75.00	Storm Sewer	Removal	6			Remove and install Apron
1391+57.2	Storm Sewer	Abandonment, Plug Only				
Ramp B						
2382+98.64	Storm Sewer	Removal	145			Remove attached pipe plus two aprons
2385+62.34; 150.22 rt to 2386+63.00; 98.05 rt	Sanitary Sewer	Removal	150			Contractor varify pipe removal
2388+22.99	Storm Sewer	Removal	114			Remove attached pipe plus two aprons
2389+04.00	Storm Sewer	Removal	80			Remove attached pipe plus two aprons
Ramp C						
3391+36.01	Storm Sewer	Removal	91			Remove attached pipe plus two aprons
Grand Ave						
3381+30.00						
3393+00	Storm Sewer	Removal	6			Remove and install at new slope
		Total	689			

TABULATION OF SPREADING TOPSOIL



Perform this work according to Section 2105. Prior to placing topsoil on any cohesive soil, scarify the area to be covered to a minimum depth of 3 inches.

Appropriate adjustments have been made in the template quantities to reflect the placement of topsoil on foreslope, backslope and ditch bottom as detailed hereon.

Placement Description							Remarks	Topsoil Excavation Available From			Remarks
Area	Quantity	Location		Side	Slope	⊙		Amount Reserved	Station to Station		
No.	CY	Station to Station		L. or R.	B. or F.	IN		CY			
1	1205.6	1364+03.94	1378+40.00	R	Both	8.0		2979.0	1364+03.94	1378+40.00	NB Mainline: 12'' topsoil removal
2	2455.9	1381+91.41	1387+73.06	R	Both	8.0		3869.0	1381+91.41	1387+73.06	
3	2379.3	1392+06.45	1406+03.00	R	Both	8.0		3817.0	1392+06.45	1406+03.00	
4	7381.2	1406+03.00	1443+03.63	R	Both	8.0		14988.0	1406+03.00	1443+03.63	
5	645.8	1443+03.63	1468+67.75	R	Both	8.0		1835.0	1443+03.63	1468+67.75	
6	6123.6	1468+67.75	1509+69.02	R	Both	8.0		10228.0	1468+67.75	1509+69.02	
7	4163.9	1515+66.40	1552+04.79	R	Both	8.0		9477.0	1515+66.40	1552+04.79	
8	4389.0	2375+00.00	2389+71.09	Both	Both	8.0		8963.0	2375+00.00	2389+71.09	Ramp B: 12'' topsoil removal
9	4301.0	3389+54.73	3406+08.26	Both	Both	8.0		9470.0	3389+54.73	3406+08.26	Ramp C: 12'' topsoil removal
10	1406.0	+00.00	8+32.84	Both	Both	8.0		2397.0	+00.00	8+32.84	Rec Trail: 12'' topsoil removal
11	461.0	9+71.18	15+00.00	Both	Both	8.0		836.0	9+71.18	15+00.00	
12	1005.0	1+00.00	5+07.63	Both	Both	8.0		1508.0	1+00.00	5+07.63	Channel: 12'' topsoil removal
13	2624.5	7+99.44	13+52.21	Both	Both	8.0		3936.0	7+99.44	13+52.21	
Total:	38541.5							74303.0			

103-1
10-19-10

EMBANKMENT WITH MOISTURE AND DENSITY CONTROL

Moisture content shall be within the limits of minus 2 and plus 2 percentage points of optimum for maximum density within the area described and listed below.

Location		Lane	Depth FT	Compact		Remarks
Station to Station				FT	CY	
						All Backfill Material within the full limits of the Reinforced Steepened Slope. The required compaction is 95% Standard Proctor. See Embankment With Moisture Control tab for other areas.

103-7
08-01-08

SHRINKAGE DATA

Material	%	Remarks
TOPSOIL	40%	
REMAINDER PROJECT CUT	30%	
		20 Cu. Yds. BOULDERS

103-6
04-19-11

EMBANKMENT WITH MOISTURE CONTROL

Moisture content shall be within the limits of minus 2 and plus 2 percentage points of Optimum Moisture Content for maximum density within the area described and listed below.

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

See Moisture And Density Tab 103-1 at left for the Reinforced Steepened Slope (RSS).

104-9-RSS
Modified

REINFORCED STEEPENED SLOPE (RSS) SUBDRAIN FOR CHIMNEY DRAINS

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

Line No.	Road or Lane Ident.	Location		Side	Longitudinal Subdrain (RF-19C)						Subdrain Outlet			Porous* Backfill CY	Class "A" Crushed Stone CY	Remarks		
		Station to Station	Depth D		Shoulder		Backslope		Bridge Berm ①		RF-19C, RF-19E, or RF-19F							
					Size IN	Length FT	Size IN	Length FT	Size IN	Type	Length FT	Station	Size IN				Standard Road Plan and Type	
1	RSS	1497+25.00	1509+25.00	LT	66.0	4.0	1271.0						1497+25.00	6.0	RF-19F,A	196.1		
													1501+25.00	6.0	RF-19F,A			INSTALL USING TEE
													1505+25.00	6.0	RF-19F,A			INSTALL USING TEE
													1509+25.00	6.0	RF-19F,A			
Totals							1271.0		0.0					4		196.1	0.0	

NOTE: ALL REINFORCED STEEPENED SLOPE SUBDRAINS FOR THE CHIMNEY DRAINS ARE SIMILAR TO RF-19A TYPE1 INSTALLATION (SEE THE Q SHEETS FOR MORE INFORMATION).

NOTE

SEE CS.3 FOR NECESSARY ACTION WITH EXISTING LONGITUDINAL SUBDRAIN AND OUTLETS.

104-9
10-15-13


LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

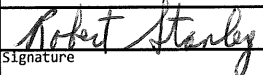
Line No.	Road or Lane Ident.	Location		Side	Longitudinal Subdrain (RF-19C)						Subdrain Outlet			Porous* Backfill CY	Class "A" Crushed Stone CY	Remarks		
		Station to Station	Depth D		Shoulder		Backslope		Bridge Berm ①		RF-19C, RF-19E, or RF-19F							
					Size IN	Length FT	Size IN	Length FT	Size IN	Type	Length FT	Station	Size IN				Standard Road Plan and Type	
1	NBL	1364+04.00	1367+00.00	RT	42.0	4.0	336.0						1364+04.00	6.0	RF-19E	31.1	0.2	
													1367+00.00	6.0	RF-19E		0.2	
2	NBL	1367+00.00	1370+00.00	RT	42.0	4.0	340.0						1367+00.00	6.0	RF-19E	31.5	0.2	
													1370+00.00	6.0	RF-19E		0.2	
3	NBL	1370+00.00	1375+00.00	RT	42.0	4.0	540.0						1370+00.00	6.0	RF-19E	50.0	0.2	
													1375+00.00	6.0	RF-19E		0.2	
4	NBL	1375+00.00	1378+40.00	RT	42.0	4.0	380.0						1375+00.00	6.0	RF-19E	35.2	0.2	INSTALL PRIOR TO PAVING RAMP
													1378+40.00	6.0	RF-19E		0.2	
5	NBL	1381+91.50	1387+73.00	RT	42.0	4.0	621.5						1381+91.50	6.0	RF-19E	57.5	0.2	
													1387+73.00	6.0	RF-19E		0.2	
6	NBL	1392+06.00	1397+00.00	RT	42.0	4.0	534.0						1392+06.00	6.0	RF-19E	49.4	0.2	
													1397+00.00	6.0	RF-19E		0.2	
7	NBL	1397+00.00	1402+00.00	RT	42.0	4.0	540.0						1397+00.00	6.0	RF-19E	50.0	0.2	
													1402+00.00	6.0	RF-19E		0.2	
8	NBL	1402+00.00	1407+00.00	RT	42.0	4.0	520.0						1402+00.00	6.0	RF-19E	48.1	0.2	CAP AT 1407+00
9	NBL	1407+00.00	1412+00.00	RT	42.0	4.0	540.0						1407+00.00	6.0	RF-19E	50.0	0.2	FOLLOW RAMP BACK TO MAINLINE
													1412+00.00	6.0	RF-19E		0.2	
10	NBL	1412+00.00	1416+00.00	RT	42.0	4.0	440.0						1412+00.00	6.0	RF-19E	40.7	0.2	
													1416+00.00	6.0	RF-19E		0.2	
11	NBL	1416+00.00	1421+00.00	RT	42.0	4.0	540.0						1416+00.00	6.0	RF-19E	50.0	0.2	
													1421+00.00	6.0	RF-19E		0.2	
12	NBL	1421+00.00	1426+00.00	RT	42.0	4.0	540.0						1421+00.00	6.0	RF-19E	50.0	0.2	
													1426+00.00	6.0	RF-19E		0.2	
13	NBL	1426+00.00	1431+00.00	RT	42.0	4.0	540.0						1426+00.00	6.0	RF-19E	50.0	0.2	
													1431+00.00	6.0	RF-19E		0.2	
14	NBL	1431+00.00	1436+00.00	RT	42.0	4.0	540.0						1431+00.00	6.0	RF-19E	50.0	0.2	
													1436+00.00	6.0	RF-19E		0.2	
15	NBL	1436+00.00	1441+00.00	RT	42.0	4.0	540.0						1436+00.00	6.0	RF-19E	50.0	0.2	FOLLOW RAMP
													1441+00.00	6.0	RF-19E		0.2	
16	NBL	1441+00.00	1443+03.60	RT	42.0	4.0	243.6						1441+00.00	6.0	RF-19E	22.6	0.2	FOLLOWING RAMP

GEOTECHNICAL DESIGN



Robert L. Stanley
08468

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


 Signature

7-23-13
 Date

Robert L. Stanley
 Printed or Typed Name
 My license renewal date is December 31, 2014

Pages or sheets covered by this seal: CS.1-CS.3, Q.1-Q.4

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

Line No.	Road or Lane Ident.	Location Station to Station		Side	Longitudinal Subdrain (RF-19C)							Subdrain Outlet			Porous* Backfill CY	Class "A"* Crushed Stone CY	Remarks	
					Depth D	Shoulder		Backslope		Bridge Berm ①			RF-19C, RF-19E, or RF-19F					
						Size IN	Length FT	Size IN	Length FT	Size IN	Type	Length FT	Station	Size IN				Standard Road Plan and Type
17	NBL	1443+56.00	1447+00.00	RT	24.0	4.0	366.0						1443+03.60	6.0	RF-19E	16.9	0.2	OUTLET TO DITCH INTAKE
													1443+56.00	6.0	RF-19C		0.2	
													1447+00.00	6.0	RF-19E		0.2	
18	NBL	1447+00.00	1452+00.00	RT	42.0	4.0	540.0						1447+00.00	6.0	RF-19E	50.0	0.2	
													1452+00.00	6.0	RF-19E		0.2	
													1452+00.00	6.0	RF-19E	50.0	0.2	
19	NBL	1452+00.00	1457+00.00	RT	42.0	4.0	540.0						1452+00.00	6.0	RF-19E	50.0	0.2	
													1457+00.00	6.0	RF-19E		0.2	
20	NBL	1457+00.00	1462+00.00	RT	42.0	4.0	540.0						1457+00.00	6.0	RF-19E	50.0	0.2	
													1462+00.00	6.0	RF-19E		0.2	
21	NBL	1462+00.00	1468+53.00	RT	24.0	4.0	675.0						1462+00.00	6.0	RF-19E	31.3	0.2	
													1468+53.00	6.0	RF-19C		0.2	OUTLET TO DITCH INTAKE
22	NBL	1468+67.00	1474+00.00	RT	42.0	4.0	573.0						1468+67.00	6.0	RF-19E	53.1	0.2	FOLLOWING RAMP
													1474+00.00	6.0	RF-19E		0.2	
23	NBL	1474+00.00	1479+00.00	RT	42.0	4.0	540.0						1474+00.00	6.0	RF-19E	50.0	0.2	
													1479+00.00	6.0	RF-19E		0.2	
24	NBL	1479+00.00	1484+00.00	RT	42.0	4.0	540.0						1479+00.00	6.0	RF-19E	50.0	0.2	
													1484+00.00	6.0	RF-19E		0.2	
25	NBL	1484+00.00	1489+00.00	RT	42.0	4.0	540.0						1484+00.00	6.0	RF-19E	50.0	0.2	
													1489+00.00	6.0	RF-19E		0.2	
26	NBL	1489+00.00	1494+00.00	RT	42.0	4.0	540.0						1489+00.00	6.0	RF-19E	50.0	0.2	
													1494+00.00	6.0	RF-19E		0.2	
27	NBL	1494+00.00	1499+00.00	RT	24.0	4.0	540.0						1494+00.00	6.0	RF-19E	25.0	0.2	
													1499+00.00	6.0	RF-19E		0.2	
28	NBL	1499+00.00	1504+00.00	RT	24.0	4.0	540.0						1499+00.00	6.0	RF-19E	25.0	0.2	
													1504+00.00	6.0	RF-19E		0.2	
29	NBL	1504+00.00	1509+69.00	RT	24.0	4.0	609.0						1504+00.00	6.0	RF-19E	28.2	0.2	
													1509+69.00	6.0	RF-19E		0.2	
30	NBL	1515+66.40	1520+00.00	RT	42.0	4.0	473.6						1515+66.40	6.0	RF-19E	43.9	0.2	
													1520+00.00	6.0	RF-19E		0.2	
31	NBL	1520+00.00	1525+00.00	RT	42.0	4.0	540.0						1520+00.00	6.0	RF-19E	50.0	0.2	
													1525+00.00	6.0	RF-19E		0.2	
32	NBL	1525+00.00	1530+00.00	RT	42.0	4.0	540.0						1525+00.00	6.0	RF-19E	50.0	0.2	
													1530+00.00	6.0	RF-19E		0.2	
33	NBL	1530+00.00	1535+00.00	RT	42.0	4.0	540.0						1530+00.00	6.0	RF-19E	50.0	0.2	
													1535+00.00	6.0	RF-19E		0.2	
34	NBL	1535+00.00	1540+00.00	RT	42.0	4.0	540.0						1535+00.00	6.0	RF-19E	50.0	0.2	
													1540+00.00	6.0	RF-19E		0.2	
35	NBL	1540+00.00	1545+00.00	RT	42.0	4.0	540.0						1540+00.00	6.0	RF-19E	50.0	0.2	
													1545+00.00	6.0	RF-19E		0.2	
36	NBL	1545+00.00	1550+62.50	RT	42.0	4.0	602.5						1545+00.00	6.0	RF-19E	55.8	0.2	
													1550+62.50	6.0	RF-19E		0.2	
37	NBL	2375+00.00	2378+24.00	RT	42.0	4.0	364.0						2375+00.00	6.0	RF-19E	33.7	0.2	RAMP B
													2378+24.00	6.0	RF-19E		0.2	
38	NBL	2381+38.00	2383+00.00	RT	42.0	4.0	202.0						2381+38.00	6.0	RF-19E	18.7	0.2	RAMP B
													2383+00.00	6.0	RF-19E		0.2	
39	NBL	2383+00.00	2386+00.00	LT	42.0	4.0	340.0						2383+00.00	6.0	RF-19E	31.5	0.2	RAMP B
													2386+00.00	6.0	RF-19E		0.2	
40	NBL	2386+00.00	2388+80.00	LT	42.0	4.0	320.0						2386+00.00	6.0	RF-19E	29.6	0.2	RAMP B
													2388+80.00	6.0	RF-19E		0.2	
41	NBL	3390+00.00	3392+00.00	RT	42.0	4.0	240.0						3390+00.00	6.0	RF-19E	22.2	0.2	RAMP C
													3392+00.00	6.0	RF-19E		0.2	
42	NBL	3392+00.00	3397+00.00	RT	42.0	4.0	540.0						3392+00.00	6.0	RF-19E	50.0	0.2	RAMP C
													3397+00.00	6.0	RF-19E		0.2	
43	NBL	3397+00.00	3402+00.00	RT	42.0	4.0	540.0						3397+00.00	6.0	RF-19E	50.0	0.2	RAMP C
													3402+00.00	6.0	RF-19E		0.2	
44	NBL	3402+00.00	3407+00.00	RT	42.0	4.0	540.0						3402+00.00	6.0	RF-19E	50.0	0.2	RAMP C
													3407+00.00	6.0	RF-19E		0.2	
Totals							21680.2	0.0						87	1881.0	17.4		
NOTE: ALL LONGITUDINAL SUBDRAINS ARE TYPE 7 WITH PCC OR TYPE 8 WITH HMA (ACC) UNLESS OTHERWISE NOTED IN REMARKS COLUMN.																		
NOTE: ALL LONGITUDINAL SUBDRAINS MAY BE ADJUSTED IN FIELD AS NECESSARY.																		

TABULATION OF LONGITUDINAL SUBDRAIN Shoulder and Backslope

104-9
4/1/86

*Not a bid item

Line No.	Road or Lane Ident.	LOCATION			LONGITUDINAL SUBDRAIN				C M P SUBDRAIN OUTLET		Porous Backfill Cu. Yds.	Class "A" Crushed Stone Cu. Yds.	REMARKS
		Station to Station	Side	Depth (D) inches	SHOULDER Refer to RF-19C		BACKSLOPE Refer to Soils Sheets		Station	Size			
					Size	Lin. Ft.	Size	Lin. Ft.					
1	NBL	75+00	85+00	Rt.	4B	4"	1025		85+00	6"	113	0.2	
2		85+00	93+00				975		93+00		91	0.2	Along Ramp
3		91+00	100+25				926		100+25		105	0.2	
4		101+00	107+00				632		107+00		69	0.2	Along Ramp
5		107+00	117+00				882		107+00		113	0.2	
6		124+00	127+50				274		127+50		41	0.2	
7		127+50	138+00				1074		127+50		135	0.2	
8	Ramp	1+00	12+15				1115		12+00		124	0.2	S East Ramp - B1
9	NBL	143+50	147+00				369		143+50		41	0.2	
10		154+00	159+50				522		154+00		63	0.2	
11	Ramp	7+00	14+25				736		7+00		83	0.2	NE Ramp - D1
12	NBL	160+05	164+00				420		160+05		46	0.2	Along Ramp
13		164+05	176+40				1260		164+05		139	0.2	
14		176+45	188+60				1230		176+45		136	0.2	
15		188+65	200+00				1136		188+65		128	0.2	
16		200+05	215+45				1433		200+05		175	0.2	
21A		281+00	287+00				623		215+45			0.2	
17		223+75	229+00				572		229+00		61	0.2	
18		244+00	245+50				175		245+50		19	0.2	
19		245+55	257+00				1182		257+00		129	0.2	
20		257+00	271+50				1408		257+00		162	0.2	
21		275+25	281+00				592		275+25		132	0.2	
22		287+00	307+00				2110		287+00		259	0.2	
22A		307+00	310+00				222		310+00			0.2	Along Ramp
23	SBL	311+00	300+00	Rt.	4B	4"	1195		311+00	6"	124	0.2	
25		300+00	275+45				2308		300+00		168	0.2	
									275+30		105	0.2	
26		271+80	258+00				1401		258+00		155	0.2	
27		258+00	255+95				226		258+00		25	0.2	
28		255+90	245+00				1111		255+90		123	0.2	
29		245+00	233+05				1217		245+00		134	0.2	
30		233+00	223+05				1010		233+00		112	0.2	
31		223+05	215+50				769		223+00		85	0.2	
32		215+45	208+88				668		215+45		175	0.2	
32A		208+88	200+00				827		200+05			0.2	
33		200+00	188+00				1242		188+00		135	0.2	
34		188+00	180+00				824		188+00		91	0.2	
35		171+00	166+05				518		166+05		57	0.2	
36		166+00	158+00				854		158+00		91	0.2	Along Ramp
37		159+00	154+50				468		154+50		52	0.2	
38	Loop	10+00	0+00	Lt.			1018		10+00		113	0.2	S.W. Loop - Ramp A2
39		10+50	4+00				604		4+00		74	0.2	S.E. Loop - Ramp B2
40		9+00	0+00				926		9+00		102	0.2	N.E. Loop - Ramp D2
41		11+00	2+50				855		2+50		96	0.2	N.W. Loop - Ramp C2
42	SBL	146+50	143+50	Rt.			321		143+50		36	0.2	
43		139+50	127+50				1258		127+50		135	0.2	
44		127+50	124+56				318		127+50		41	0.2	
45		117+00	108+00				927		108+00		102	0.2	
46		108+00	103+00				520		103+00		58	0.2	Along Ramp
47		101+00	88+00				1323		101+00		146	0.2	
48		87+00	73+00				1425		87+00		157	0.2	
32B		200+78	200+05				100						

THIS TAB IS FROM AS-BUILT PLANS.

ALL EXISTING LONGITUDINAL SUBDRAINS AND OUTLETS ARE TO BE REMOVED IN THEIR ENTIRETY AND THE NEW LONGITUDINAL SUBDRAINS TABULATED ON THE PREVIOUS C SHEETS ARE TO BE INSTALLED.

IF REMOVAL OF EXISTING LONGITUDINAL SUBDRAINS AND OUTLETS WITHIN THE PROJECT LIMITS RESULTS IN ONLY PARTIAL REMOVAL OF AN EXISTING LONGITUDINAL SUBDRAIN AND OUTLET, A NEW OUTLET SHALL BE ADDED TO THE UNDISTURBED PORTION OF THE EXISTING LONGITUDINAL SUBDRAIN AT THE CUT-OFF POINT.

OLD AS-BUILT STATIONING 180+00 = CURRENT PROJECT STATIONING 1419+56.5

GEOTECHNICAL DESIGN

I hereby certify that this plan was prepared under my supervision and that geotechnical decisions with regard to the design were made by me or by other duly Qualified Professional Geologists under the laws of the State of Iowa.

Name: *Edward C. Quaker*
Date: 4/11/86

POLK COUNTY

PROJECT NUMBER
1R-35-2(19)67--12-77

STATE: IOWA
FHW Region: 7
FISCAL YEAR: 7
SHEET NO: 3B
TOTAL SHEETS: 8

SURVEY SYMBOLS

- IN Storm Sewer Intake
- FW Wire Fence
- INB Storm Sewer Beehive Intake
- PR Electric Riser Pole
- GP Guard Post (Less Than 4 Posts)
- SL Speed Limit Sign
- SI Sign
- Til Tile Line
- GDL Guard Rail Steel
- LUM Luminaire
- UE Utility Elevation
- WV Water Valve
- GPR Guard Post (4 or More Posts)
- FP Filler Pipe
- OUT Tile Outlet
- MIS Miscellaneous
- PPA Power Pole Co. 1
- AST Above Ground Storage Tank
- LP L.P. Tank
- FLG Flag Poles
- WHD Water Hydrant
- WEL Well
- MH Utility Access (Manhole)
- TPD Telephone Pedestal
- MM Mile Marker Post
- FCL Chain Link and Security Fence
- EB Electrical Box
- TV Satellite TV Dish
- UB Utility Box
- UST Underground Tank
- GV Gas Valve
- WHU WHU RV Water Hook Up
- SEP Septic Tank
- FHD Fire Hydrants
- FWD Wood Fence
- RET Retaining Walls
- D Centerline Draw or Stream (Down)
- BNK Stream Bank
- RIP Rip-Rap
- EW Edge of Water
- DU Centerline Draw or Stream (Up)
- ENT Centerline BL of Entrance
- ENU Edge Unpaved Entrance & Parking
- EG Edge of Gravel Road
- SNP Unpaved Shoulder
- DIK Centerline of Dike or Dam
- F02 FOB Underground Fiber Optic Co. 2
- T1 TLA Underground Telephone Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- F0 FOA Underground Fiber Optic Co. 1
- W WLA Underground Water Line Co. 1
- St.S.2 STB Storm Sewer Line Co. 2
- San. SAA Sanitary Sewer Line Co. 1
- E2 ELB Underground Electric Line Co. 2
- TV TVA Underground TV Cable Co. 1
- F03 FOC Underground Fiber Optic Co. 3

UTILITY LEGEND

- MID-AMERICAN ENERGY
- MID-AMERICAN ENERGY
- WARREN COUNTY RURAL WATER
- WEST DES MOINES PUBLIC WORKS
- DES MOINES WATER
- STATE OF IOWA
- MID-AMERICAN ENERGY
- GLENN OAKS OWNERS ASSOC.
- CITY OF WEST DES MOINES
- U.S. WEST
- DES MOINES WATERWORKS
- SPRINT
- WEST DES MOINES PUBLIC WORKS
- GLENN OAKS OWNERS ASSOC.
- ATT
- MEDIACOM FIBER OPTICS
- HICKORY TECH
- MID-AMERICAN ENERGY
- KINDER MORGAN ENERGY PARTNERS
- BP NORTH-AMERICA (1-800-948-6482)
- MID-AMERICAN ENERGY
- CITY OF WEST DES MOINES
- STATE OF IOWA
- CITY OF WEST DES MOINES
- U.S. WEST
- MEDIACOM

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

AT&T TRANSMISSION
 PJ McDermott
 816-275-4014
 pjmcdermott@att.com

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 816-836-6096
 wpekarek@buckeye.com

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 515-252-6497
 echeikes@midamerican.com

CENTURY LINK
 Steve Parker
 515-265-0968
 Steven.Parker4@centurylink.com

SPRINT NEXTEL
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 651-772-6714
 dan.j.hilliard@sprint.com

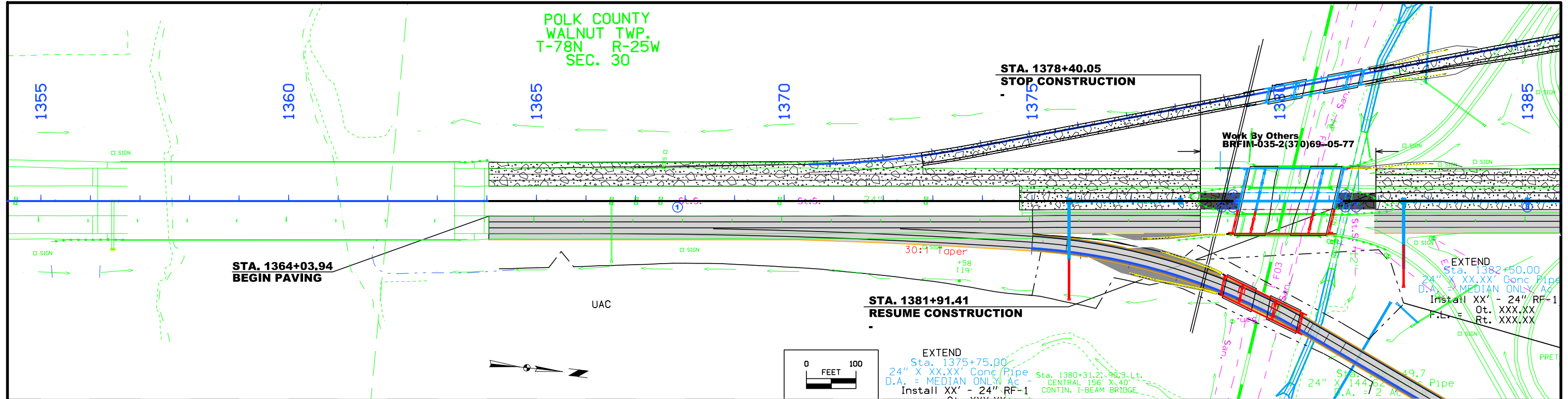
MEDIACOM
 Paul May
 515-246-2252
 pmay@mediacomcc.com

CITY OF WEST DES MOINES
 Bret Hodne
 515-222-3480
 bret.hodne@wdm.iowa.gov

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

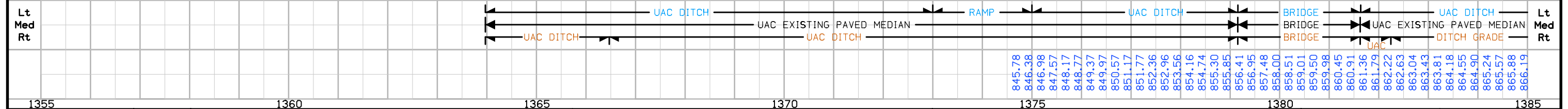
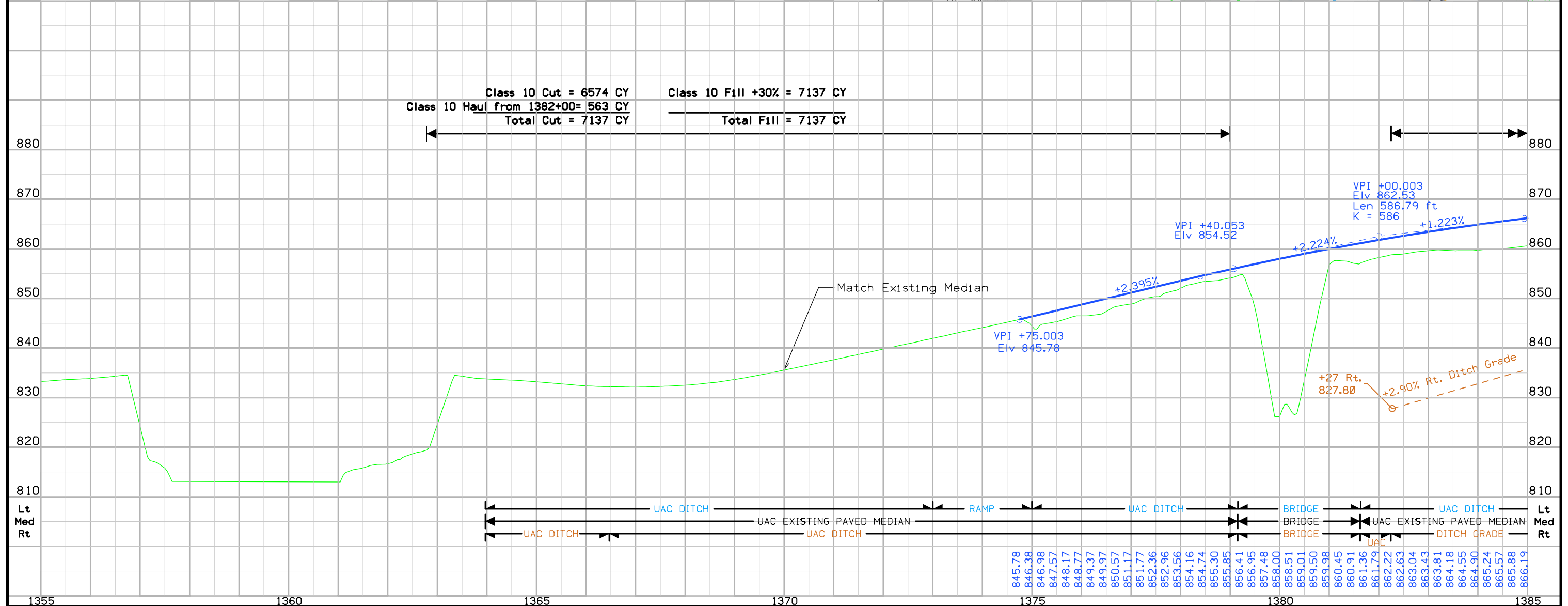
(COVERS SHEET SERIES D, E, F, & K)

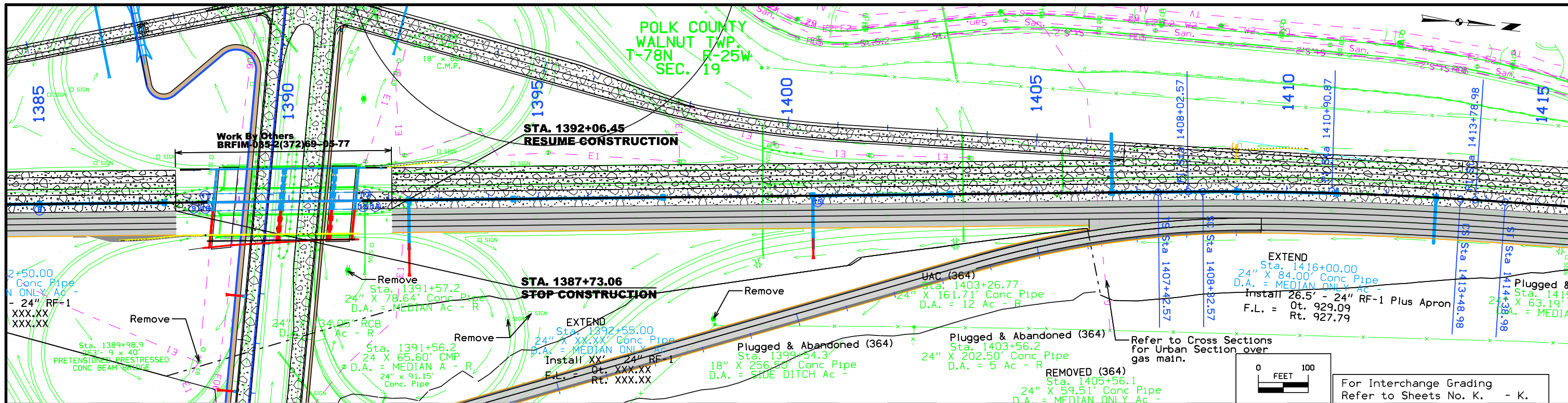
POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 30



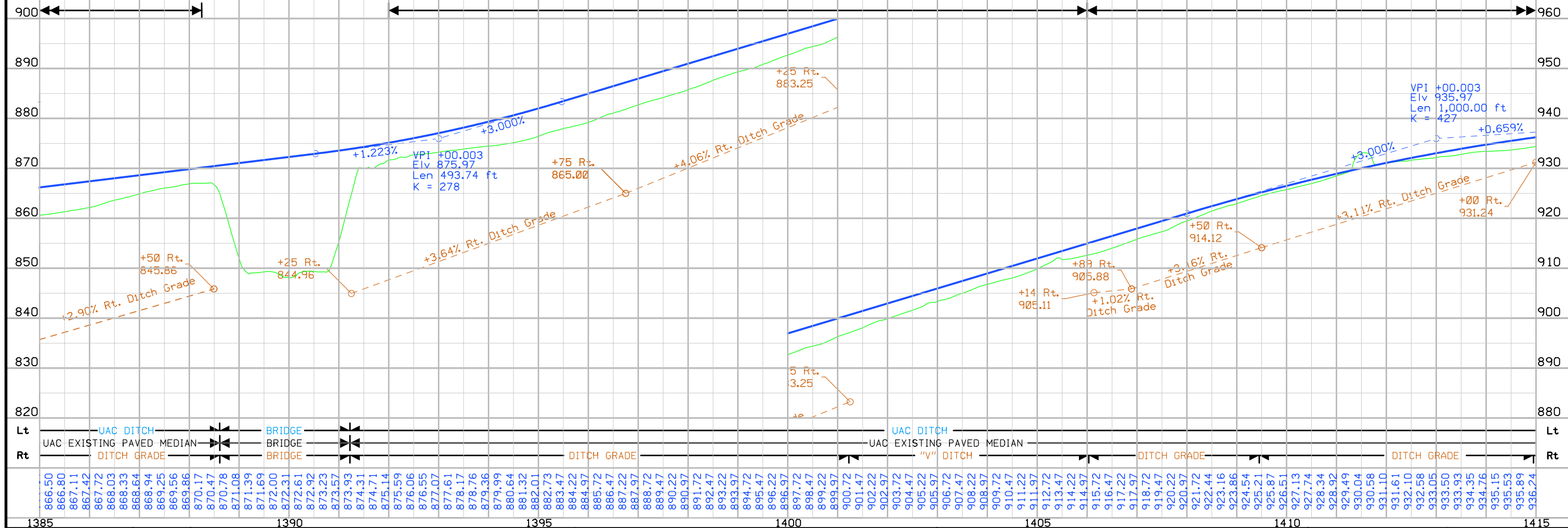
Class 10 Cut = 6574 CY
Class 10 Haul from 1382+00= 563 CY
Total Cut = 7137 CY

Class 10 Fill +30% = 7137 CY
Total Fill = 7137 CY



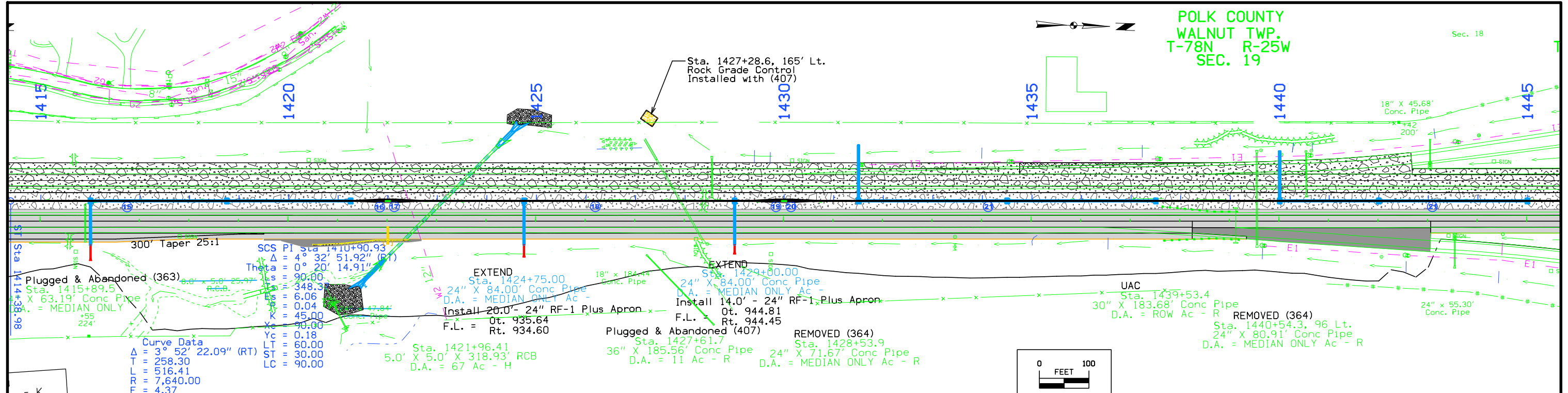


Class 10 Fill +30% = 6113 CY	Class 10 Haul to 1370+00= 563 CY	Class 10 Cut = 35610 CY	Class 10 Fill +30% = 2202 CY
Class 10 Cut = 38196 CY	Class 10 Haul to Ramp B = 22466 CY	Waste = 9054 CY	Waste = 33408 CY
Total Cut = 38196 CY	Total Fill = 38196 CY	Total Cut = 35610 CY	Total Fill = 35610 CY



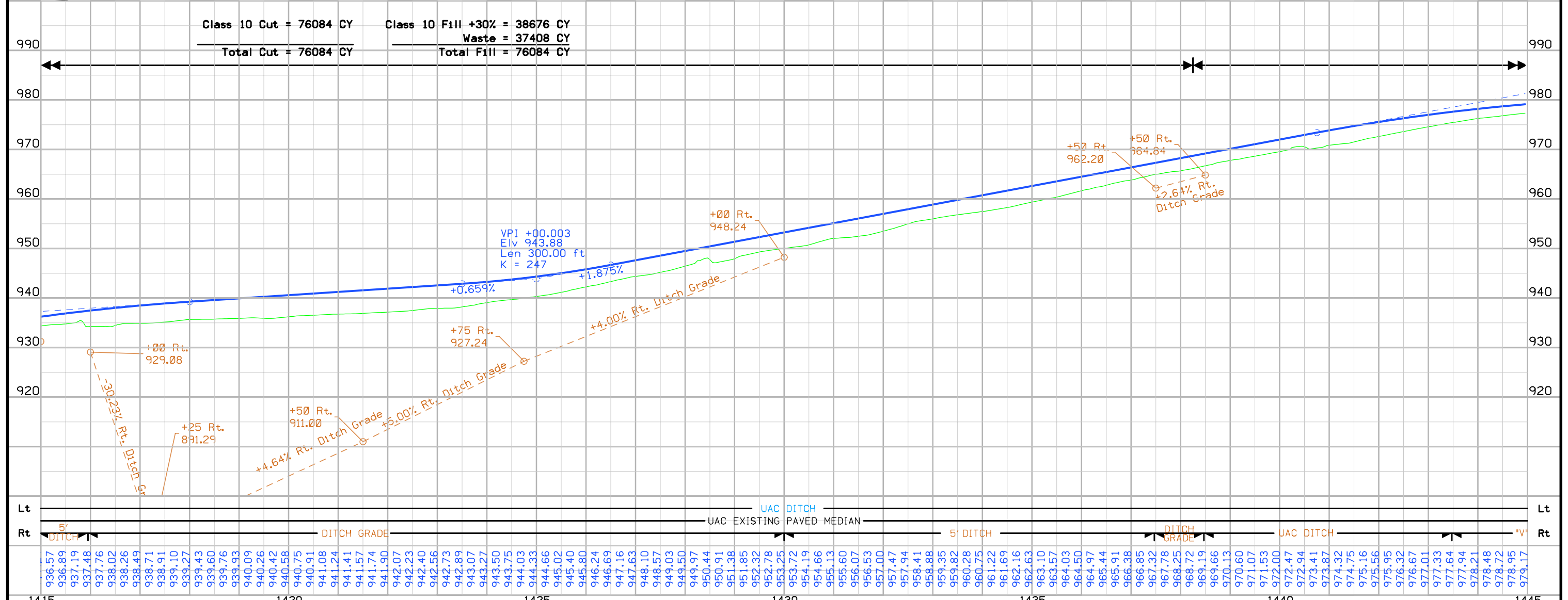
POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 19

Sec. 18



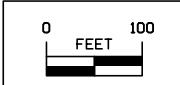
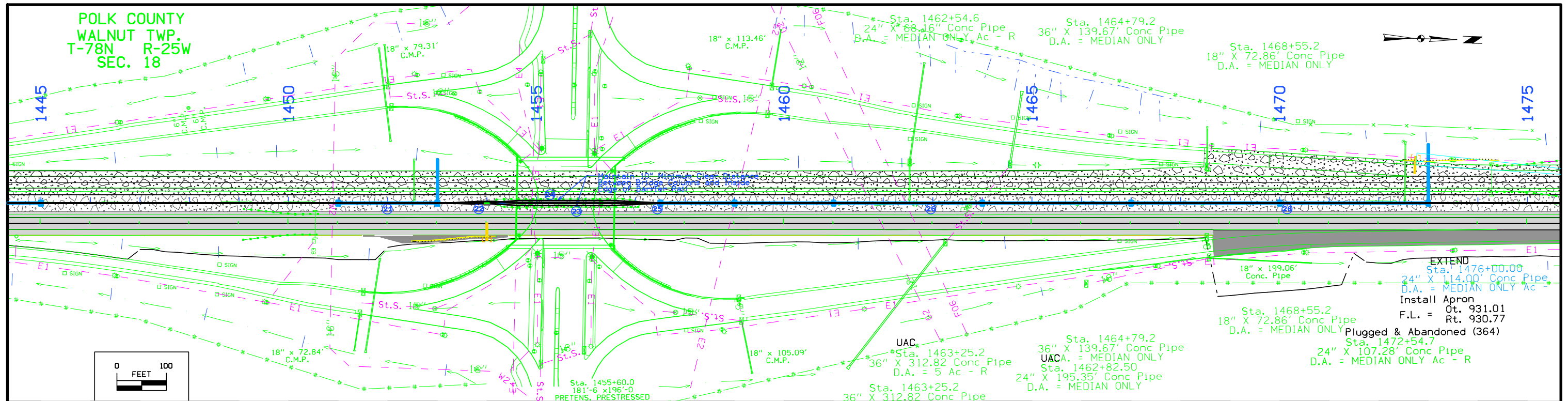
Curve Data
 $\Delta = 3^\circ 52' 22.09''$ (RT)
 $T = 258.30$
 $L = 516.41$
 $PC = 1415+89.5$
 $PT = 1418+41.49$
 $EA = 4.37$

Class 10 Cut = 76084 CY
 Class 10 Fill +30% = 38676 CY
 Waste = 37408 CY
 Total Cut = 76084 CY
 Total Fill = 76084 CY

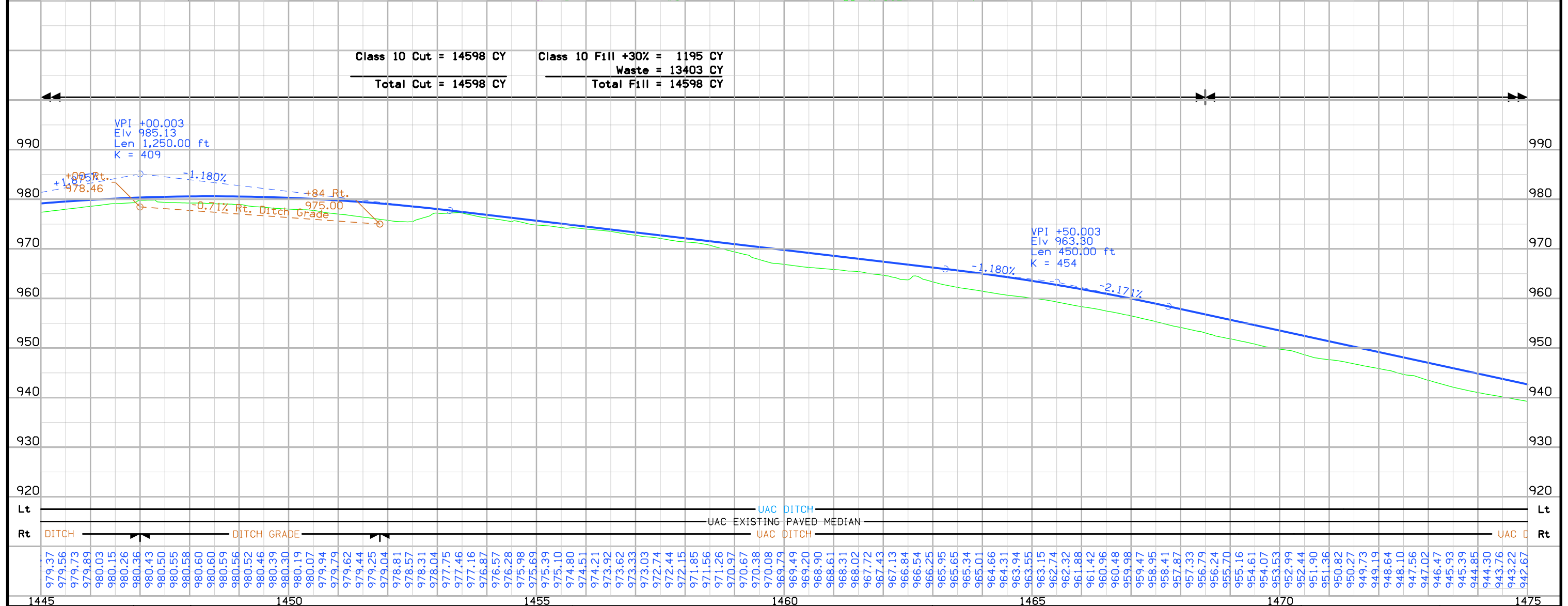


1415	1420	1425	1430	1435	1440	1445
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POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 18

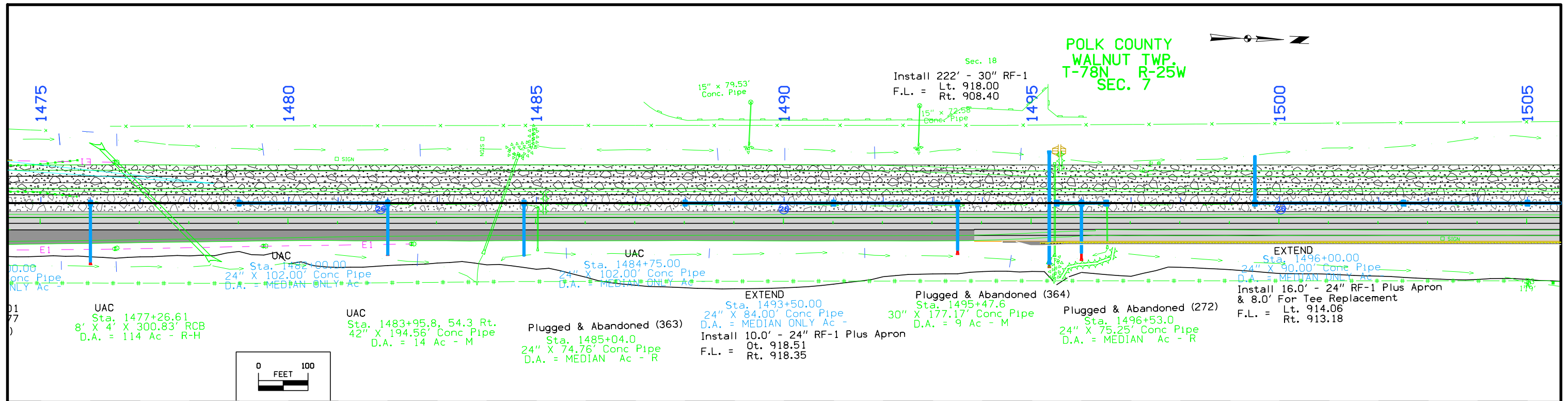
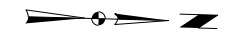


Class 10 Cut = 14598 CY Class 10 Fill +30% = 1195 CY
 Waste = 13403 CY
 Total Cut = 14598 CY Total Fill = 14598 CY

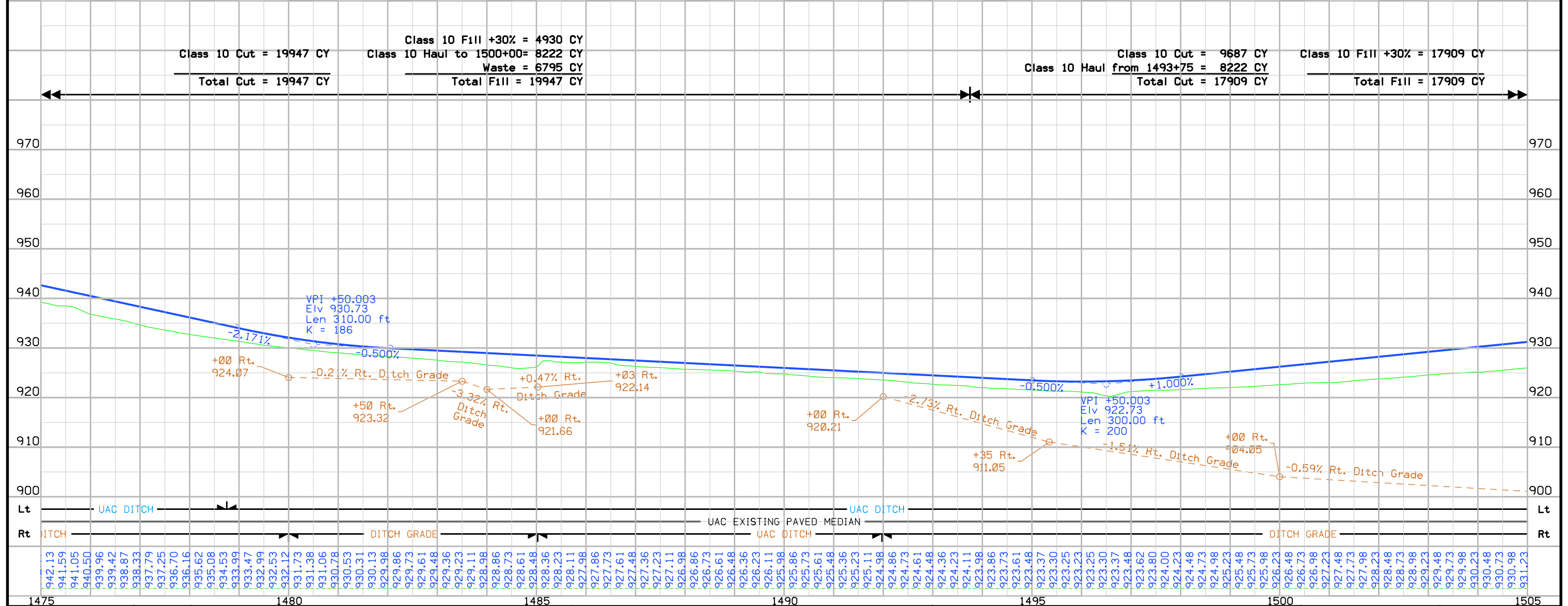


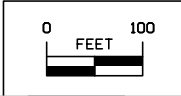
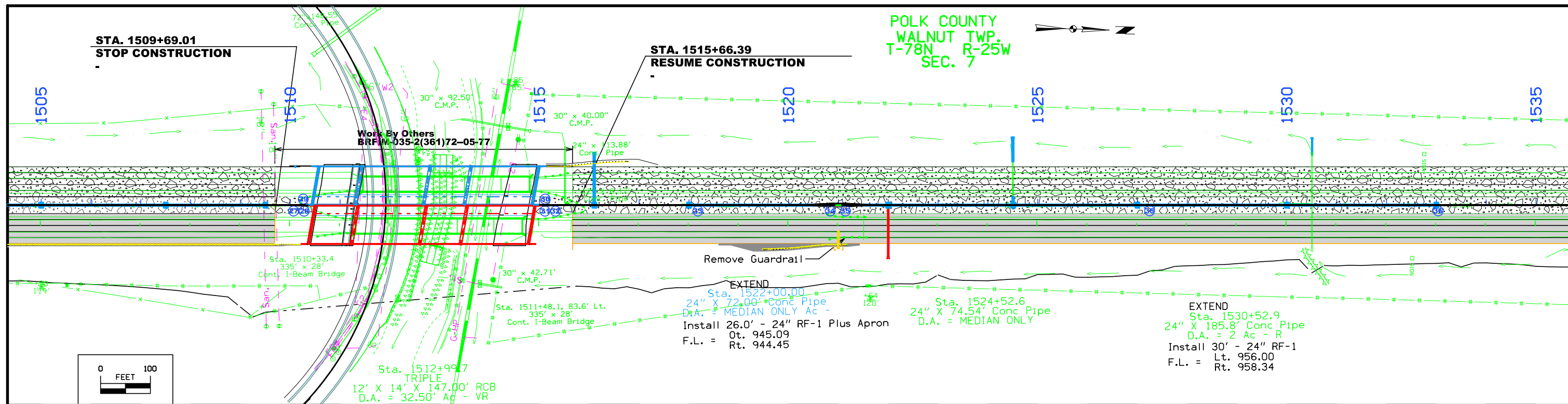
Station	1445	1450	1455	1460	1465	1470	1475
Rt	979.37	979.56	979.73	979.89	980.03	980.15	980.26
Rt	980.36	980.43	980.50	980.55	980.58	980.60	980.60
Rt	980.60	980.59	980.56	980.52	980.46	980.39	980.30
Rt	980.19	980.07	979.94	979.79	979.62	979.44	979.25
Rt	979.04	978.81	978.57	978.31	978.04	977.75	977.46
Rt	977.16	976.87	976.57	976.28	975.98	975.69	975.39
Rt	975.10	974.80	974.51	974.21	973.92	973.62	973.33
Rt	973.03	972.74	972.44	972.15	971.85	971.56	971.26
Rt	970.97	970.67	970.38	970.08	969.79	969.49	969.20
Rt	968.90	968.61	968.31	968.02	967.72	967.43	967.13
Rt	966.84	966.54	966.25	965.95	965.65	965.34	965.01
Rt	964.66	964.31	963.94	963.55	963.15	962.74	962.32
Rt	961.88	961.42	960.96	960.48	959.98	959.47	958.95
Rt	958.41	957.87	957.33	956.79	956.24	955.70	955.16
Rt	954.61	954.07	953.53	952.99	952.44	951.90	951.36
Rt	950.82	950.27	949.73	949.19	948.64	948.10	947.56
Rt	947.02	946.47	945.93	945.39	944.85	944.30	943.76
Rt	943.22	942.67					

POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 7

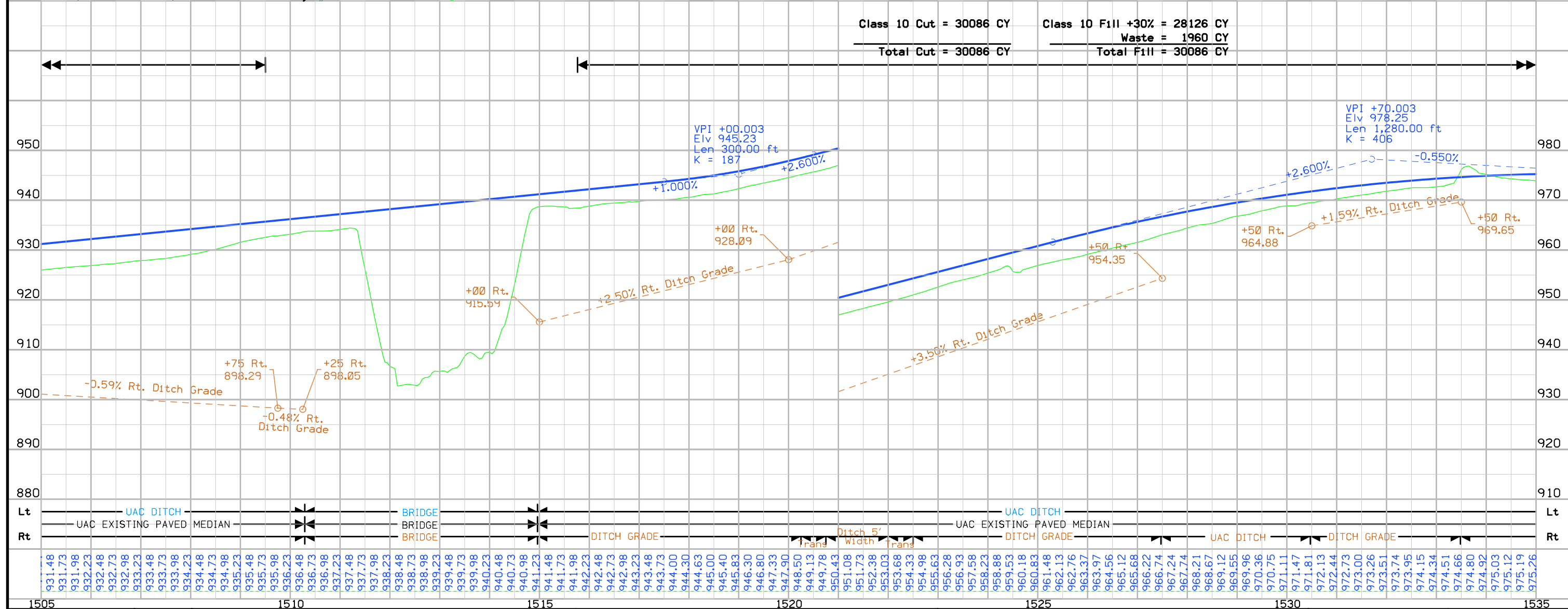


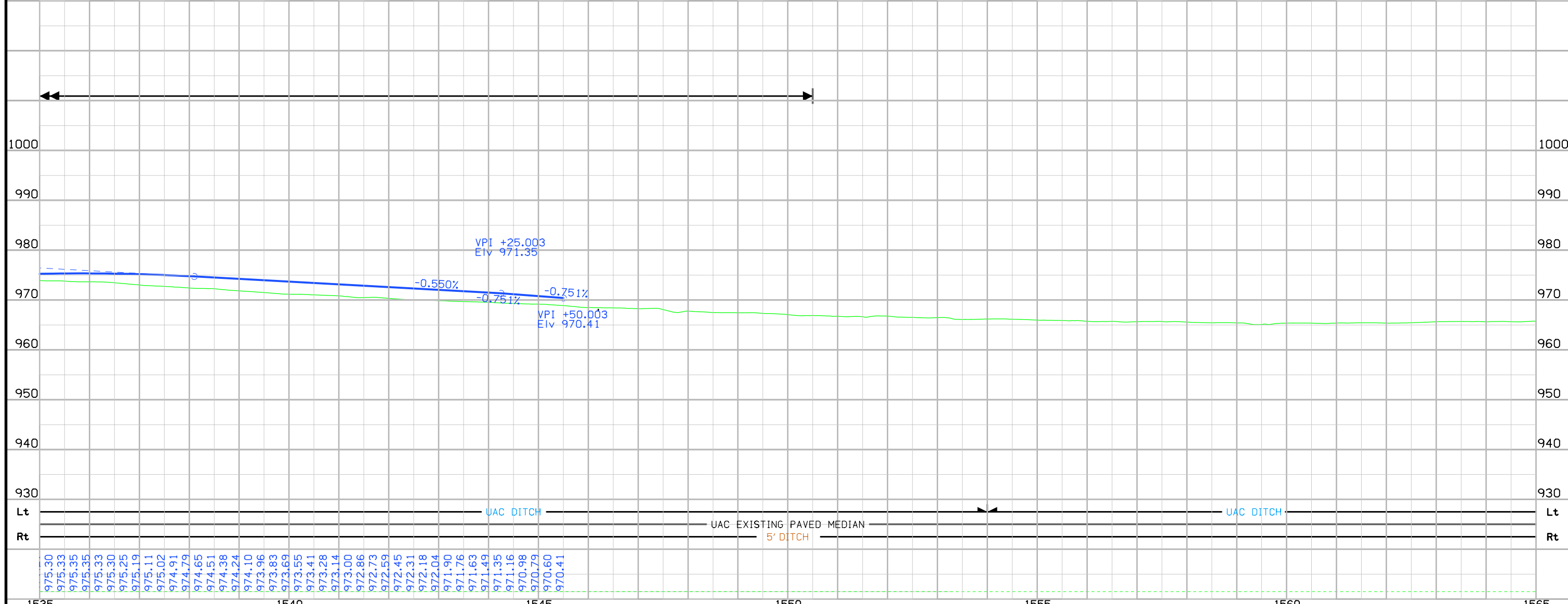
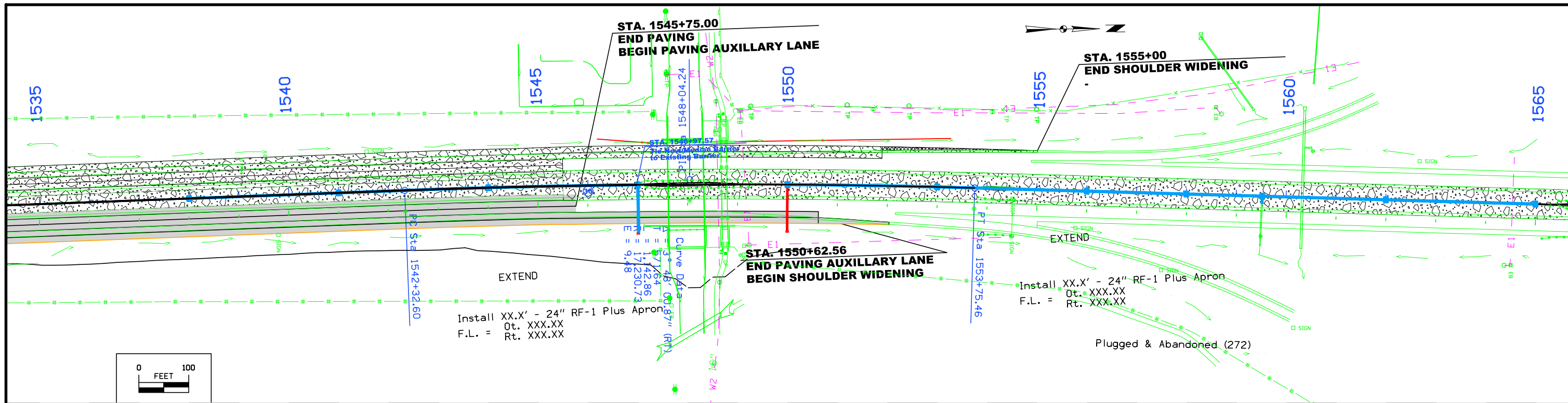
Class 10 Cut = 19947 CY	Class 10 Haul to 1500+00= 8222 CY	Class 10 Cut = 9687 CY	Class 10 Fill +30% = 17909 CY
Total Cut = 19947 CY	Waste = 6795 CY	Class 10 Haul from 1493+75 = 8222 CY	Total Fill = 17909 CY
	Total Fill = 19947 CY	Total Cut = 17909 CY	



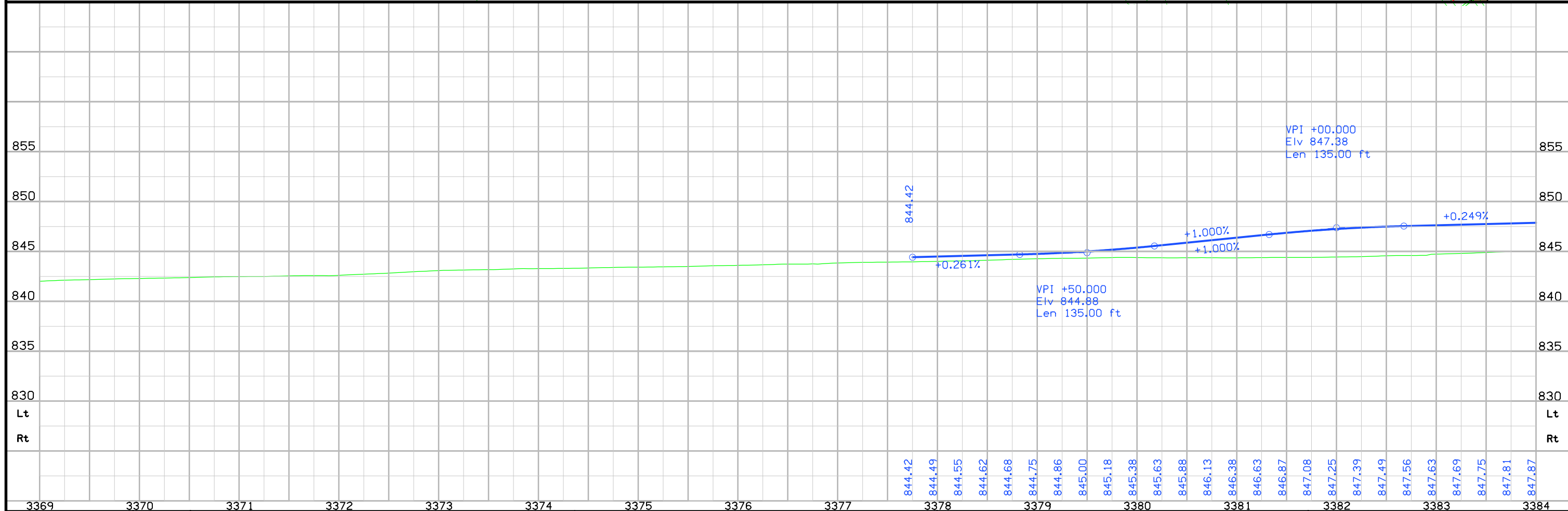
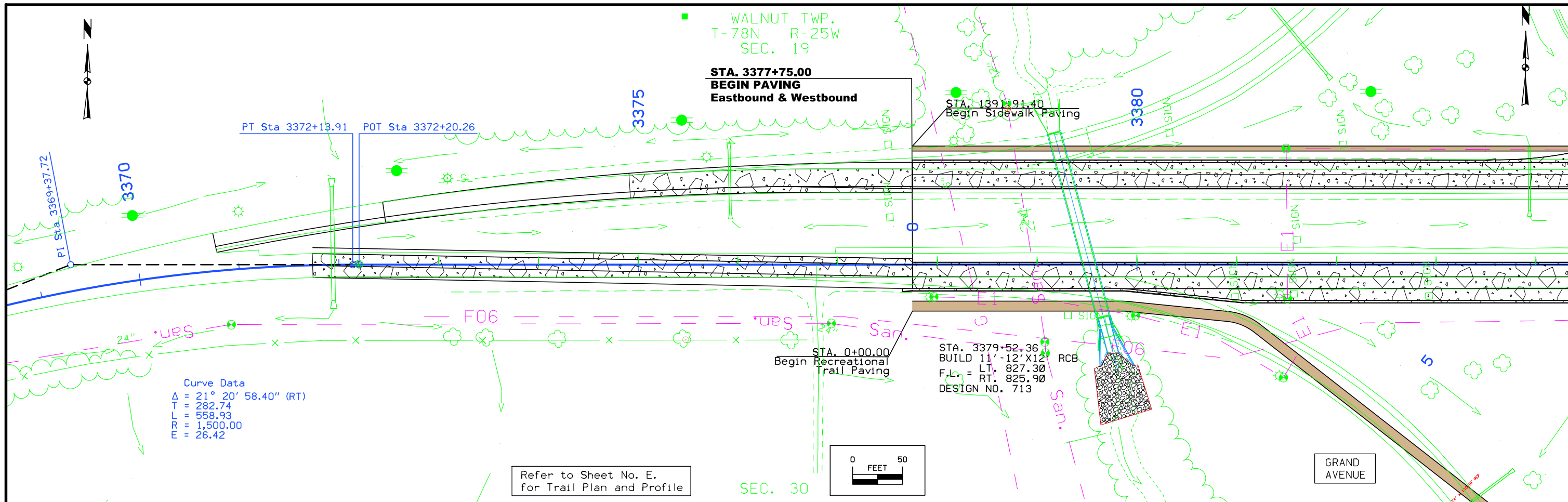


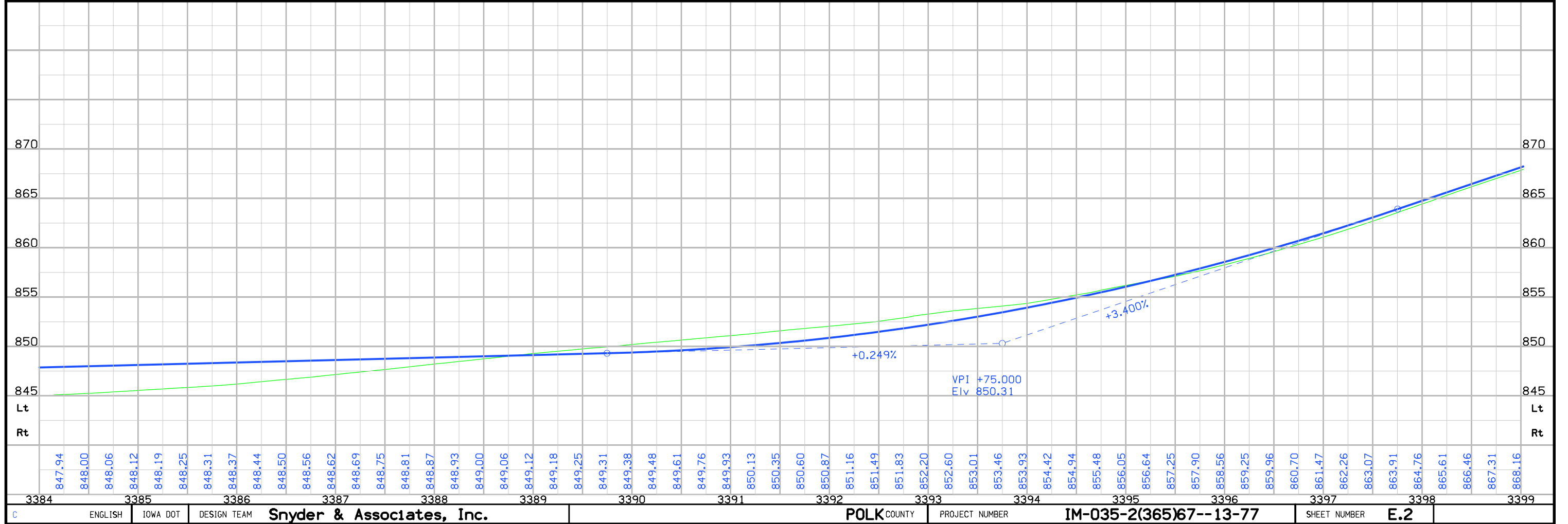
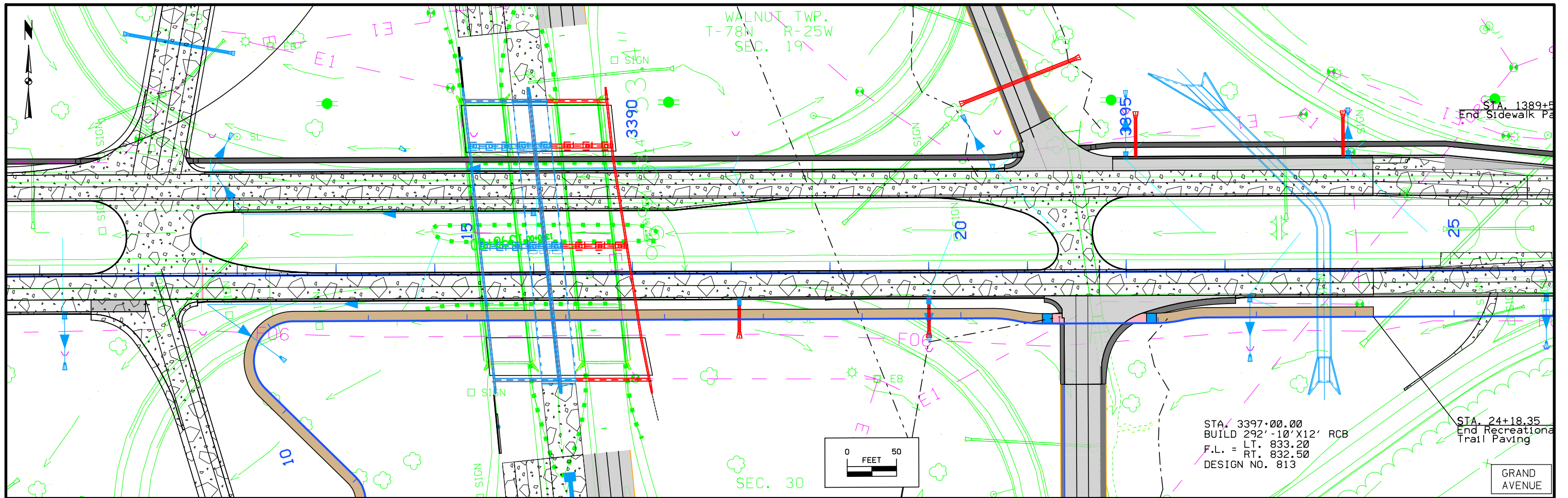
Class 10 Cut = 30086 CY Class 10 Fill +30% = 28126 CY
 Waste = 1960 CY
 Total Cut = 30086 CY Total Fill = 30086 CY

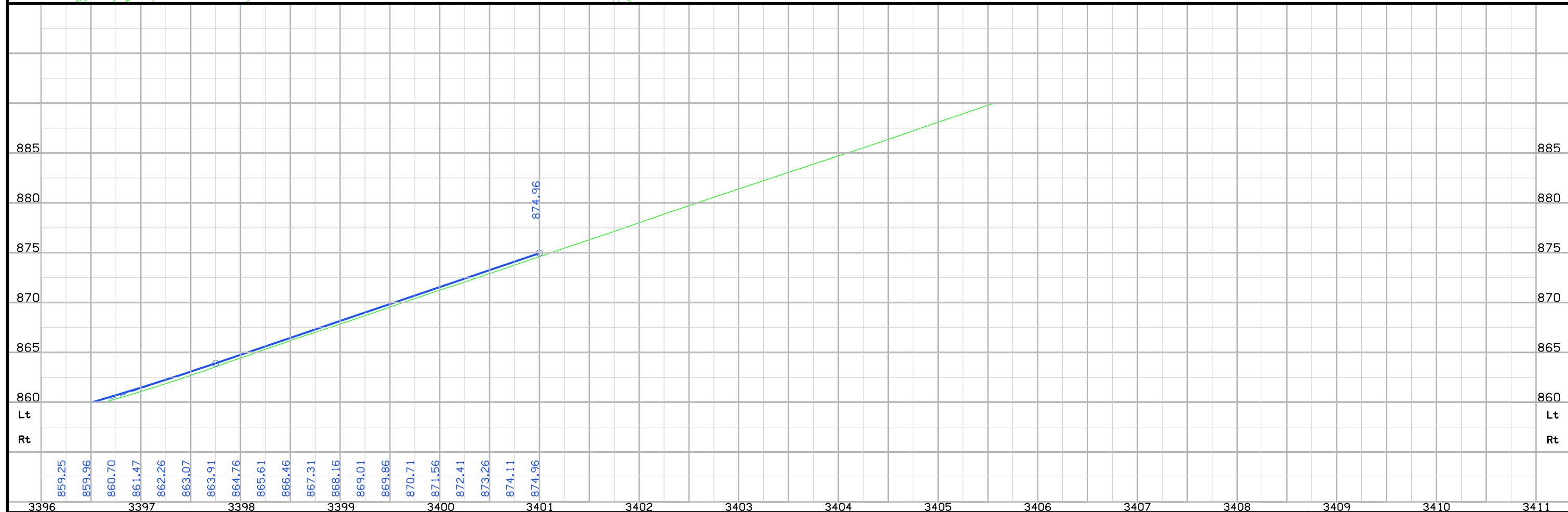
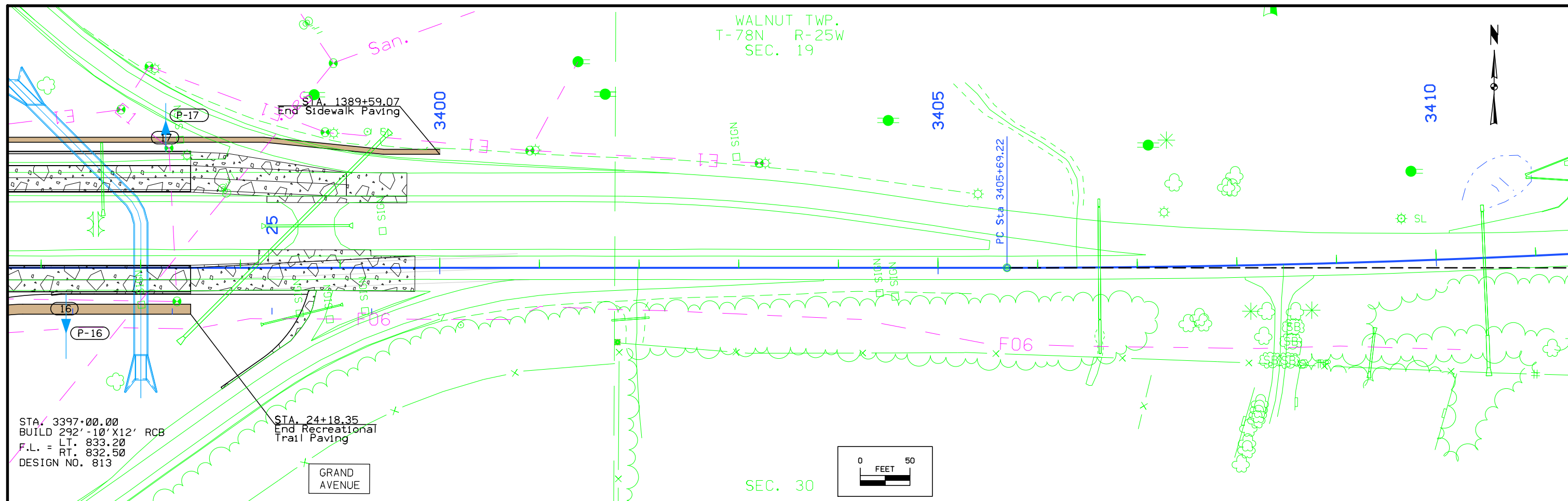


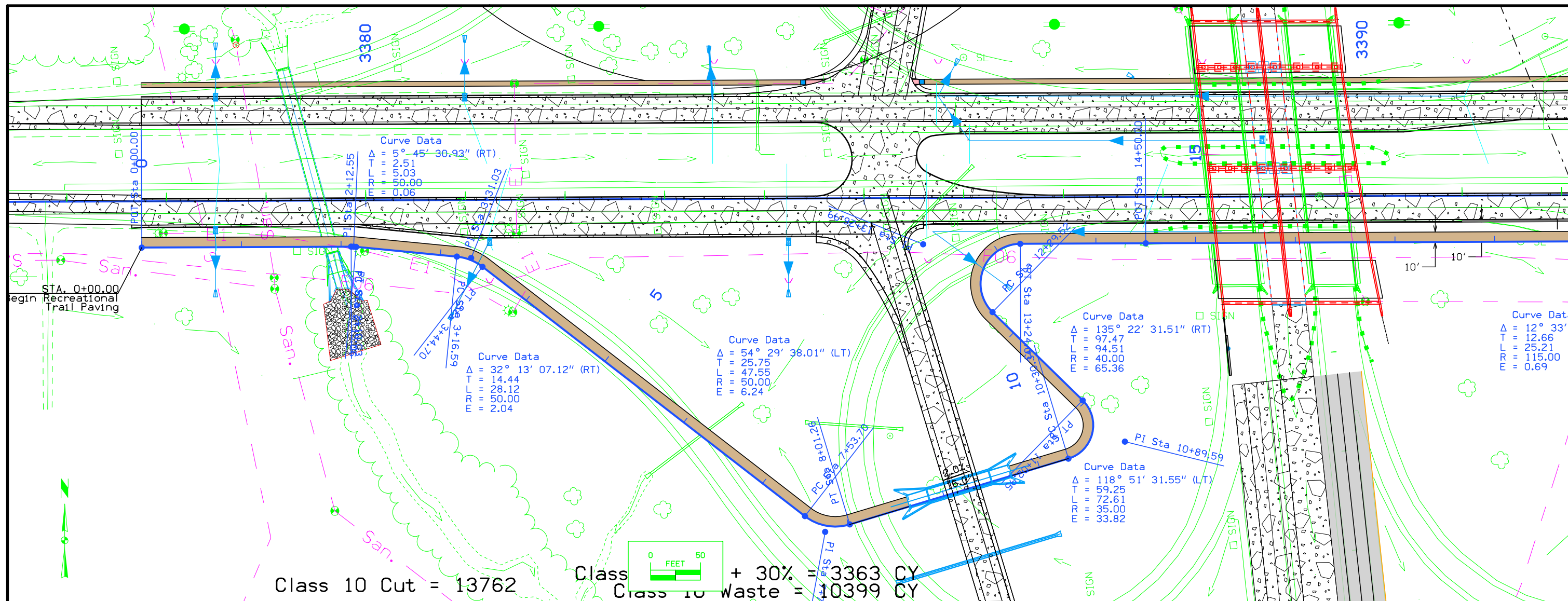


1535	1540	1545	1550	1555	1560	1565
975.30	975.33	975.35	975.35	975.35	975.30	975.25
975.19	975.11	975.02	974.91	974.79	974.65	974.51
974.51	974.38	974.24	974.10	973.96	973.83	973.69
973.69	973.55	973.41	973.28	973.14	973.00	972.86
972.86	972.73	972.59	972.45	972.31	972.18	972.04
972.04	971.90	971.76	971.63	971.49	971.35	971.16
971.16	971.08	970.98	970.79	970.60	970.41	







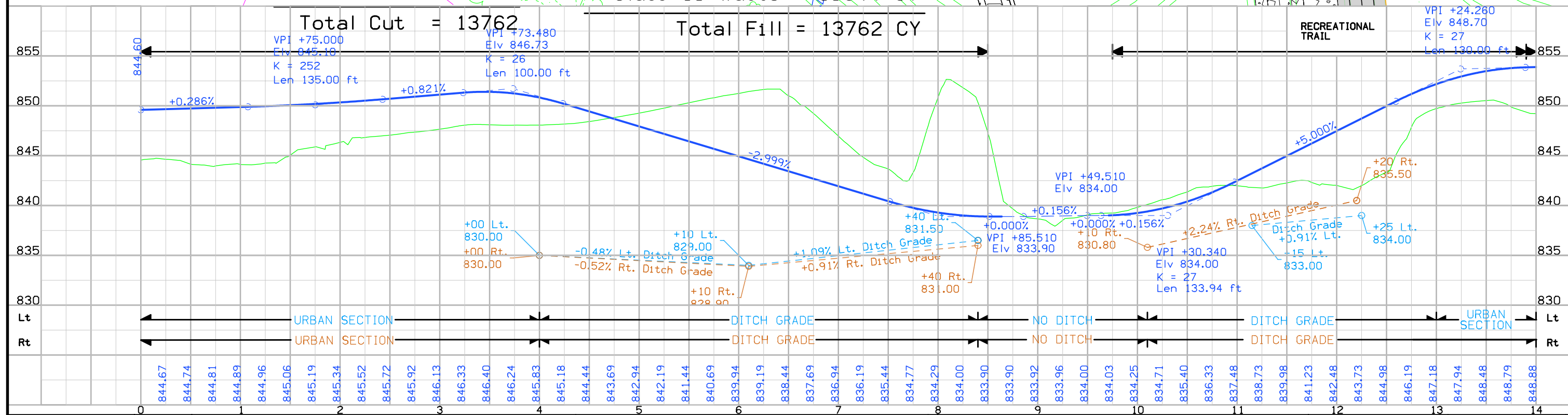


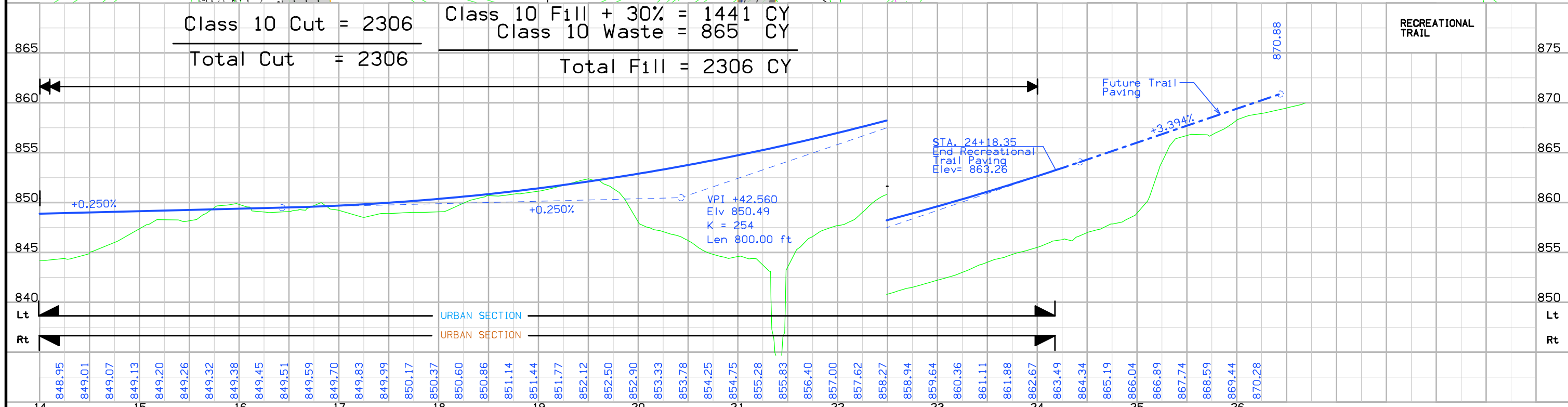
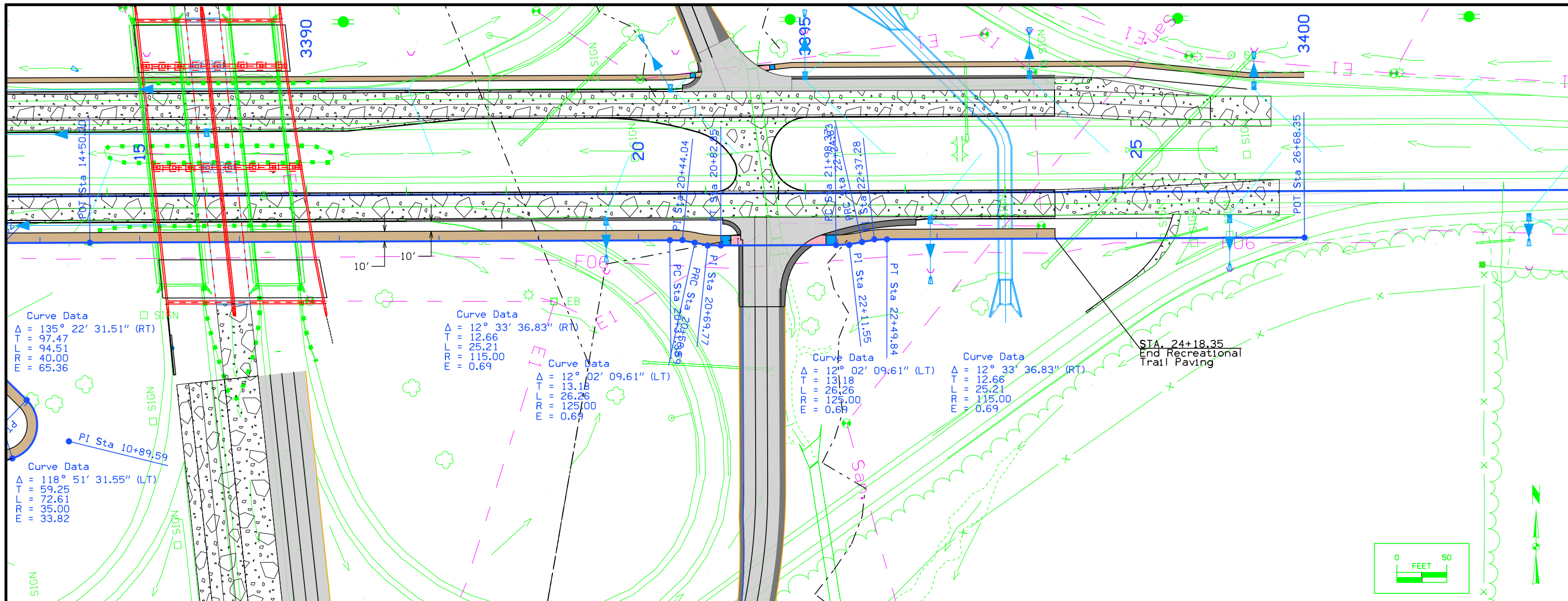
Class 10 Cut = 13762

Class 10 Waste = 10399 CY
 + 30% = 3363 CY

Total Cut = 13762

Total Fill = 13762 CY





Class 10 Cut = 2306	Class 10 Fill + 30% = 1441 CY
	Class 10 Waste = 865 CY
Total Cut = 2306	Total Fill = 2306 CY

General Information

The GPS Network along this project was collected by IDOT Preliminary Survey Crews. Information about that network can be found in the 0412gpspoints.doc file included with this survey in NAD83 (1996) Project Coordinates.

The mainline alignment of this survey is a retrace of the as-built plans Proj. No. I-853(10) 1959 PCC Paving Plan and The IN-ING 853-(8) AB plans (centerline of N. B. Lanes). Stationing was obtained at PI Sta. 1281+39.80 (G080) and backed up To the BOP then carried ahead to the EOP.

This survey intersects a 2000 Warren Co. Road G-14 intersection survey, a Dave Guge 1997 survey at Grand Avenue, and the I-235 survey. Equations to the common points to both this survey and the older surveys can be found below in the Horizontal Datum.

The mainline alignment for this project is a retrace of the as-built alignment. Station equations to all as-built PI points are in the Horizontal datum information.

Vertical Datum

This survey is relative to NAVD88 vertical datum. A three wire bench level run was run throughout this project. I-35 benches were established. The first run originated at BM # 500 a Posted code "A" Vertical Order BM Stamped L 116 1935(PID# MH0304)in St. Charles. A Circuit was ran from St. Charles easterly to I-35, northerly to Grand Ave., easterly to Commerce to BM# 625,a 1st order USGS stamped Q-155 1950.PID#MH0433. The second bench circuit began at BM# 625 in Commerce and went northerly along 50th St., westerly along I-235,southerly along I-35 And easterly along Grand Ave. returning to BM # 625 in Commerce. Additional Bench circuits were also completed at County road G-14, Grand Ave. and I-35 between I-235 and University Ave. Benches were established along all Bench Runs.

Vertical Equations to the Project Datum Bench Marks and Benches along this Survey are as Follows:

BM # 568 This Survey EL. = 908.545
 =BM # 501 John Adams 2000 survey EL. = 908.420
 Project #IM-35-2(276)65--13-91

BM # 569 This Survey EL. = 938.180
 =BM # 502 From John Adams 2000 Survey EL. = 938.001
 Project # IM-35-2(276)65--13-91

BM # 570 This Survey EL. = 930.732
 =BM # 503 From John Adams 2000 Survey EL. = 930.561
 Project # IM-35-2(276)65--13-91

BM # 571 This Survey EL. = 944.242
 =BM # 504 From John Adams 2000 Survey EL. = 944.035
 Project #IM-35-2(276)65--13-91

BM # 573 This Survey EL. = 984.976
 =BM# 505 From John Adams 2000 Survey EL. = 984.691
 Project #IM-35-2(276)65--13-91

BM # 626 This Survey EL. = 963.367
 =BM # 510 From John Adams 2000 Survey EL. = 963.154
 Project # IM-35-2(276)65--13-91

BM # 572 This Survey EL. = 973.820
 =BM # 512 From John Adams 2000 Survey EL. = 973.556
 Project # IM-35-2(276)65--13-91

BM # 627 This Survey EL. = 962.757
 =BM # 509 From John Adams 2000 Survey EL. = 962.540
 Project # IM-35-2(276)65--13-91

BM # 574 This Survey EL. = 963.489
 =BM # 506 From John Adams 2000 Survey EL. = 963.225
 Project # IM-35-2(276)65--13-91

BM # 575 This Survey EL. = 963.181
 =BM # 511 From John Adams 2000 Survey EL. = 962.930
 Project # IM-35-2(276)65--13-91

BM # 576 This Survey EL. = 982.679
 =BM # 507 From John Adams 2000 Survey EL. = 982.398
 Project # IM-35-2(276)65--13-91

BM # 577 This Survey EL. = 963.460
 =BM # 508 From John Adams 2000 Survey EL. = 963.233
 Project # IM-35-2(276)65--13-91

BM # 585 This Survey EL. = 957.644
 =BM # 629 From Dave Guge 1997 Survey EL. = 957.311
 Project # NHS-6-5(36)-19-77

BM # 586 This Survey EL. = 944.995
 =BM # 628 From Dave Guge 1997 Survey EL. = 945.792
 Project # NHS-6-5(36)-19-77

BM # 596 This Survey EL. = 858.431
 =BM # 603 From Dave Guge 1997 Survey EL. = 858.384
 Project # NHS-6-5(36)-19-77
 =BM # 5 From Joe Feller 1985 Survey EL. = 858.41
 Project # IR-35-2(19)67-12-77

BM # 634 This Survey EL. = 847.613
 =BM# 627 From Dave Guge 1997 Survey EL. = 847.508
 Project # NHS-6-5(36)-19-77

BM # 598 This Survey EL. = 872.129
 =BM # 604 From Dave Guge 1997 Survey EL. = 872.029
 Project # NHS-6-5(36)-19-77
 =BM # 6 From Joe Feller 1985 Survey EL. = 871.981
 Project # IR-35-2(19)67-12-77

BM # 633 This Survey EL. = 856.102
 =BM # 626 From Dave Guge 1997 Survey EL. = 855.960
 Project # NHS-6-5(36)-19-77

BM # 632 This Survey EL. = 841.673
 =BM # 606 From Dave Guge 1997 Survey EL. = 841.576
 Project # NHS-6-5(36)-19-77
 =BM # 5 From Joe Feller 1985 Survey EL. = 841.54
 Project # IR-35-2(19)67-12-77

BM # 599 This Survey EL. = 895.643
 =BM # 605 From Dave Guge 1997 Survey EL. = 895.533
 Project # NHS-6-5(36)-19-77
 =BM # 8 From Joe Feller 1985 Survey EL. = 895.51
 Project # IR-35-2(19)67-12-77

BM # 620 This Survey EL. = 987.086
 =BM # 501 From Carlson 1996 Survey EL. = 987.065
 Project # IM-235-2(241)73-13-77

Horizontal Datum

The mainline alignment of this survey is a retrace of the as-built plans Proj. No. I-853(10) 1959 PCC Paving Plan and The IN-ING 853-(8) AB plans (centerline of N. B. Lanes). Stationing was obtained at PI Sta. 1281+39.80 (G080) and backed up To the BOP then carried ahead to the EOP.

Side Road "A"(G-14)is a Retrace of the 2000 Adams survey. Stationing was established at POT # 107(see Equation)

Side Road "B"(Grand Ave.)is a Retrace of the P-934-0(6)-30-77 1989 AB Plan Stationing was established at CN # 119(see Equation)

Mainline (I-35) Equations

BOP POT Sta. 1135+92.30 this survey(CP#100)
 =BOP POT Sta. 1135+87.54 IM-35-2(276)65-13-91 2000 Adams Survey

POT Sta. 1172+97.92 This Mainline Survey(POT#107)
 =POT Sta. 2172+97.92 This Co. Road G-14 Survey
 =POT Sta. 1172+93.14 IM-35-2(276)65-13-91 2000 Adams Mainline Survey
 =POT Sta. 2172+85.10 IM-35-2(276)65-13-91 2000 Adams Co. Road G-14 Survey
 =POT Sta. 172+85.1 PCC Paving Plan Proj.# I-853(10)

PI Sta. 1196+49.34 This Survey(PI#101)
 =PI Sta. 1196+44.50 IM-35-2(276)65-13-91 2000 Adams Mainline Survey
 =PI Sta. 1196+45.5 PCC Paving Plan Proj.# I-853(10)

PI Sta. 1281+39.80 This Survey(PI#80)
 =PI Sta. 1281+39.80 PCC Paving Plan Proj.# I-853(10)

PI Sta. 1321+90.58 This Survey(PI#81)
 =PI Sta. 3282+32.48 NHS-5-5(36)-19-77 1997 Guge Survey

POT Sta. 1380+07.34 This Survey(CN117)Inters. I-35 & RR tracks
 =POT Sta. 140+50.8 IN-ING-853-(8) AB Plan

POT Sta. 1389+57.01 This Mainline Survey(CN#119)
 =POT Sta. 3389+57.01 This Grand Ave. Survey
 =Pot Sta. 150+00.0 F.Proj.# IN-ING-853(8) AB Plan

POT Sta. 1402+03.99 This Survey(POT#103)
 =POT Sta. 3362+46.14 NHS-5-5(36)-19-77 1997 Guge Survey

PI Sta. 1410+94.03 This Survey(PI#113)
 =PI Sta. 171+42.4 IN-ING-853-(8) AB Plan

PI Sta. 1548+04.27 This Survey(PI#114)
 =PI Sta. 308+52.8 IN-ING-853-(8) AB Plan

Side Road "A"(Co.Road G-14) Equations

PI Sta. 2144+06.46 This Survey(PI#109)
 =PI Sta. 2143+93.71 IM-35-2(276)65-13-91 2000 Adams Survey
 =PI Sta. 513+59.7 Warren Co. Plan RS-7577(6)-69-91

POT Sta. 2162+97.70 This Survey(CP#110)
 =POT Sta. 2162+84.96 IM-35-2(276)65-13-91 2000 Adams Survey
 =PI Sta. 532+50.1 Warren Co. Plan RS-7577(6)-69-91

POT Sta. 1172+97.92 This Mainline Survey(POT#107)
 =POT Sta. 2172+97.92 This Co. Road G-14 Survey
 =POT Sta. 1172+93.14 IM-35-2(276)65-13-91 2000 Adams Mainline Survey
 =POT Sta. 2172+85.10 IM-35-2(276)65-13-91 2000 Adams Co. Road G-14 Survey
 =POT Sta. 172+85.1 PCC Paving Plan Proj.# I-853(10)

PI Sta. 2182+12.73 This Survey(PI#111)
 =PI Sta. 2181+99.99 IM-35-2(276)65-13-91 2000 Adams Survey
 =PI Sta. 64+22.3 Warren Co. Plan RS-7577(6)-69-91

PI Sta. 2199+68.47 This Survey(PI#112)
 =PI Sta. 2199+55.73 IM-35-2(276)65-13-91 2000 Adams Survey
 =PI Sta. 81+78.4 Warren Co. Plan RS-7577(6)-69-91

DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

Side Road "B"(Grand Ave.)Equations

PI Sta. 3413+21.1 This Survey(PI#122)
=PI Sta. 1315+21.1 F. Proj.# 340(12) AB Plan

POT Sta. 3441+05.31 This Survey(CP#124)
=POT Sta. 1343+13.7 F. Proj.# 340(12) AB Plan

POT Sta. 1389+57.01 This Mainline Survey(CN#119)
=POT Sta. 3389+57.01 This Grand Ave. Survey
=Pot Sta. 150+00.0 F.Proj.# IN-ING-853(8) AB Plan

Equations are as follows:

Point # G011 This Survey (Local Project Coord.-Feet)
yc=540450.94, xc=1562391.17, zc =965.09 (G.P.S. HT)
=Point #XXXX from assumed District Control Survey (no known coordinates)

Point # G012 This Survey (Local Project Coord.-Feet)
yc=540451.05, xc=1563820.56, zc =981.64 (G.P.S. HT)
=Point # 303 Adams Warren Co. G-14 Survey (Feet)
yc=503693.36, xc=500108.22, zc =not set

Point # G013 This Survey (Local Project Coord.-Feet)
yc=540453.91, xc=1565137.32, zc =970.62 (G.P.S. HT)
=Point # 320 Adams Warren Co. G-14 Survey (Feet)
yc=503702.392, xc=501424.988, zc =not set

Note: This GPS survey between G012 & G013 distance of 1316.763' Azimuth
89*52'32.0" (Local Project Coordinate-feet) = Adams G14 Survey between
303 & 320 distance of 1316.799' Azimuth 89*36'25.2"

Point # G030 This Survey (Local Project Coord.-Feet)
yc=580048.97, xc=1565679.42, zc =987.22 (G.P.S. HT)
=Point # G014 Polk Co. 1235 Survey (Feet)
yc=580043.725, xc=1565675.966, zc =not set
=Point # G014 Polk Co. 1235 Survey (Metric)
yc=176797.681, xc=477218.989, zc=not set

Point # 7701 This Survey (Local Project Coord.-Feet)
yc=553644.27, xc=1564267.18, zc =939.17 (G.P.S. HT)
=Point # 7701 Polk Co. 1235 Survey (Feet)
yc=553639.35, xc=1564263.70, zc =not set
=Point # 7701 Polk Co. 1235 Survey (Metric)
yc=168749.610, xc=476788.529, zc=not set

Note: This GPS survey between 7701 & G030 distance of 26442.439' Azimuth
3*03'41.5" (Local Project Coordinate-feet) = Stensland Survey between
7710 & G014 distance of 26442.122' Azimuth 3*03'41.8"

Point # 7701 This Survey (Local Project Coord.-Feet)
yc=553644.27, xc=1564267.18, zc =939.17 (G.P.S. HT)
=Point # G409 Adams Polk Co. IA 5 Survey (Feet)
yc=553641.59, xc=1564264.41, zc =not set
=Point # G409 Adams Polk Co. IA 5 Survey (Metric)
yc=168750.293, xc=476788.746, zc=not set

Point # G022 This Survey (Local Project Coord.-Feet)
yc=561622.53, xc=1564039.34, zc =841.71 (G.P.S. HT)
=Point # 722 Guge Polk Co. I35 Survey (Feet)
yc=561619.75, xc=1564036.26, zc =not set
=Point # 722 Guge Polk Co. I35 Survey (Metric)
yc=171182.041, xc=476719.205, zc =not set

Point # G023 This Survey (Local Project Coord.-Feet)
yc=561637.70, xc=1565600.92, zc =850.91 (G.P.S. HT)
=Point # 719 Guge Polk Co. I35 Survey (Feet)
yc=561635.00, xc=1565597.93, zc =not set
=Point # 719 Guge Polk Co. I35 Survey (Metric)
yc=171186.691, xc=477195.204, zc =not set

Note: This GPS survey between 7701 & G022 distance of 7981.51' Azimuth
358*21'51.2" (Local Project Coordinate-feet) = Adams & Guge Survey
between 409 & 722 distance of 7981.42' Azimuth 358*21'43"

Note: This GPS survey between 7701 & G023 distance of 8103.94' Azimuth
9*28'22.1" (Local Project Coordinate-feet) = Adams & Guge Survey between

409 & 719 distance of 8103.88' Azimuth 9*28'16.6"

Note: This GPS survey between G022 & G023 distance of 1561.65' Azimuth
89*26'36.3" (Local Project Coordinate-feet) = Adams & Guge Survey
between 722 & 719 distance of 1561.75' Azimuth 89*26'25.1"

BENCHMARKS		ELEVATION	
No.	Sta.		
No. 568	Sta. 1143+56.772	61.08 Rt.	FD "X" INLET HDWL 4.0 X 5.0 R.C.B. =BM 501 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =908.420----- 908.545
No. 569	Sta. 1157+04.463	73.30 Rt.	FD "X" EAST CONC SIGN POST BASE =BM 502 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =938.001----- 938.180
No. 570	Sta. 1158+65.578	174.79 Rt.	FD\IHC BM ON INLET HDWL 5.0 X 7.0 R.C.B. =BM 503 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =930.561----- 930.732
No. 571	Sta. 1167+22.461	101.59 Rt.	FD "X" ON INLET 24" RCP UNDER NB OFF-RAMP EXIT 65 =BM 504 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =944.035----- 944.242
No. 574	Sta. 1173+57.190	45.07 Rt.	FD X INLET 24"CIRC.RCP =BM# 506 ELEV.963.225(E) IM-35-2(276)65--13-91 2000 ADAMS SURVEY----- 963.489
No. 576	Sta. 1181+02.610	119.12 Rt.	FD RR SPK SW SIDE P.POLE =BM# 507 ELEV.982.398(E) IM-35-2(276)65--13-91 2000 ADAMS SURVEY----- 982.679
No. 577	Sta. 1187+58.262	68.10 Rt.	FD X INLET 42"RCP =BM# 508 ELEV.963.233(E) IM-35-2(276)65--13-91 2000 ADAMS SURVEY----- 963.460
No. 578	Sta. 1207+04.872	57.72 Rt.	CUT X W SIDE CO SIGN BASE SIGN SAYS WDM 8 MILES----- 963.032
No. 579	Sta. 1221+66.178	95.49 Lt.	FD IHC W. INLET HDWL6X5RCB----- 969.162
No. 580	Sta. 1234+04.309	28.01 Lt.	CUT"X" ON COLLAR OF 4.0' CIR. MED GD. INTAKE +-35' BACK OF DELINEATOR POST 66.25----- 978.479
No. 581	Sta. 1252+24.082	69.44 Rt.	FD "X" ON S.E. HANDRAIL BRIDGE OVERPASS #9166.6----- 1008.168
No. 582	Sta. 1252+54.420	135.89 Lt.	CUT"X" ON N.W. WING BRIDGE OVERPASS #9166.6----- 1006.448
No. 583	Sta. 1266+01.014	30.45 Lt.	FD"X" N. EDGE CO INTAKE IN MEDIAN BM # 583 ELEV. 976.766(E) THIS SURVEY =BM# 630 ELEV. 297.608(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY----- 976.766
No. 584	Sta. 1268+50.391	56.65 Rt.	FD"X" E.OUTLET FLUME HDWL 36" RCP----- 963.703
No. 585	Sta. 1282+02.269	31.72 Lt.	FD "X" N. EDGE CO. INTAKE IN MEDIAN BM # 585 ELEV. 957.644(E) THIS SURVEY =BM# 629 ELEV. 291.789(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY----- 957.644
No. 586	Sta. 1288+05.204	147.47 Lt.	FD."X"N.HDWL.42"CIR.RCP BM # 586 ELEV. 944.995(E) THIS SURVEY =BM# 628 ELEV. 288.278(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY----- 944.995
No. 587	Sta. 1290+75.448	42.40 Rt.	FD."X"E.OUTLET 54"CIR.RCP----- 932.043

No. 641	Sta. 1300+94.167	1148.99 Lt.	SET\RR SPK N SIDE P.POLE 3RD POLE WEST OF INTERS. MAFFITT LAKE RD & MAFFITT LAKE DR----- 931.671
No. 588	Sta. 1303+27.005	61.07 Rt.	FD "X" E. OUTLET FLUME HDWL 42" RCP----- 887.501
No. 589	Sta. 1308+96.255	165.28 Rt.	FD.DOT BUTTON INLET HDWL 6' X 5' RCB----- 875.478
No. 590	Sta. 1312+05.184	128.65 Lt.	CUT"X"NE.COR.CONC.EB.BASE----- 883.189
No. 591	Sta. 1324+84.869	39.40 Lt.	CUT"V"N.END CO.INCASEMENT 18"CMP SAFETY SLOPE APRON----- 852.687
No. 592	Sta. 1333+95.591	27.02 Rt.	CUT"X"SW.COR.CONC. PAD NEAR JUNCT.NB I35&IA5RAMP----- 834.504
No. 593	Sta. 1356+68.106	37.22 Rt.	FD."DOT" BUTTON S.E. COR. HDRL.RACCOON RIVER BRIDGE----- 837.242
No. 594	Sta. 1363+50.641	37.70 Rt.	CUT"X"N.E.HNDRL.N.B.I-35 OVER RACCOON RIVER----- 837.209
No. 595	Sta. 1379+56.463	112.76 Lt.	CUT"X"S.W.ELEPHANT EAR OF S.B.I-35 BRIDGE OVER R.R.----- 858.731
No. 596	Sta. 1380+98.179	19.90 Lt.	FD."X"N.W.WING N.B. I-35 BRIDGE OVER R.R. BM # 596 ELEV. 858.431(E) THIS SURVEY =BM# 603 ELEV. 261.636(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY =BM # 5 ELEV. 858.41(E) IR-35-2(19)67--12-77 1985 FELLER SURVEY----- 858.431
No. 597	Sta. 1388+56.773	30.48 Rt.	CUT"X"S.E.WING N.B. I-35 BRIDGE OVER GRANDE AVE.----- 868.689
No. 630	Sta. 1390+81.036	2599.13 Lt.	CUT"X"NE.BOLT FHD.IN NE. QUAD INTERS.OF GRAND AVE. & BOONEVILLE RD.----- 841.649
No. 598	Sta. 1391+46.673	61.14 Lt.	FD."X"N.E.COR. N.E. WING OF S.B. I-35 BRIDGE OVER GRAND AVE. BM # 598 ELEV. 872.129(E) THIS SURVEY =BM# 604 ELEV. 265.795(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY =BM # 6 ELEV. 871.981(E) IR-35-2(19)67--12-77 1985 FELLER SURVEY----- 872.129
No. 631	Sta. 1392+05.683	1948.66 Lt.	SET RR.SP.K.S.SIDE P.POLE JUST WEST OF END OF DIVIDED 4 LANE ROAD----- 842.220
No. 599	Sta. 1399+68.959	62.09 Lt.	FD."X"E. SIDE OF E. OVRHD CONC. SIGN BASE OVER S.B. LANE I-35 AT GRAND AVE. OFF RAMP BM # 599 ELEV. 895.643(E) THIS SURVEY =BM# 605 ELEV. 272.959(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY =BM # 8 ELEV. 895.51(E) IR-35-2(19)67--12-77 1985 FELLER SURVEY----- 895.643

DETAILS OF REFERENCE INFORMATION

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No. 600 Sta. 1403+73.676 112.07 Lt. CUT "X" E.SIDE OF CONC. LUM POLE BASE W.SIDE OF I-35----- 908.495

No. 601 Sta. 1411+73.348 43.19 Lt. CUT "X" INLET 18" RCP MEDIAN CROSS-OVER PIPE----- 932.333

No. 602 Sta. 1415+90.555 30.26 Lt. FD "X" INLET 21" RCP MEDIAN DRAIN----- 935.413

No. 603 Sta. 1431+54.057 113.65 Lt. CUT "X" E.SIDE OF CONC LUM POLE BASE----- 955.888

No. 604 Sta. 1439+12.917 41.91 Rt. CUT "X" W.SIDE OF E. CONC OVRHD SIGN BASE AT BEGINNING OF NB OFF-RAMP FOR MILLS CIVIC PARKWAY----- 971.469

No. 605 Sta. 1450+54.901 28.55 Rt. CUT "X" ON W.SIDE OF E. CONC OVRHD. SIGN BASE SIGN IS THE AUTO CHANGE MESSAGE SIGN----- 981.793

No. 606 Sta. 1462+56.334 122.06 Lt. CUT "X" NE COR OF 4.0X3.7 CONC INTAKE COVER ON W.SIDE I-35 BETWEEN RAMP & SB LANES----- 965.311

No. 607 Sta. 1474+29.564 56.24 Lt. CUT "X" E.SIDE OF EAST CONC OVERHEAD SIGN BASE AT BEGINNING SB OFF-RAMP FOR MILLS CIVIC PARKWAY----- 945.147

No. 608 Sta. 1482+54.566 39.51 Rt. CUT "X" W.SIDE OF CONC LUM POLE BASE OPP. APARTMENT COMPLEXES----- 928.720

No. 609 Sta. 1496+53.464 33.22 Lt. CUT "X" INLET APRON 24" RCP MEDIAN PIPE----- 921.761

No. 610 Sta. 1511+25.765 20.43 Rt. CUT "X" SE COR WING NB BRIDGE I-35 OVER----- 937.064

No. 611 Sta. 1514+74.369 19.97 Lt. CUT "X" NW COR WING NB BRIDGE I-35 OVER----- 939.878

No. 612 Sta. 1514+83.106 99.63 Lt. FD "X" NW COR ELEPHANT EAR OF SB BRIDGE I-35 OVER----- 942.647

No. 613 Sta. 1521+52.380 22.65 Lt. CUT "X" W.SIDE OF W.CONC OVERHEAD SIGN BASE----- 952.271

No. 614 Sta. 1532+53.077 60.89 Rt. CUT "X" W.SIDE OF W.CONC SIGN BASE STATE FAIR GROUNDS EXIT 72A SIGN----- 968.915

No. 615 Sta. 1547+31.383 93.23 Rt. SET RR SPK W SIDE P.POLE 40' SOUTH OF BRIDGE OVERPASS----- 980.906

No. 616 Sta. 1549+24.457 77.63 Rt. CUT "X" W.SIDE OF LUM. POLE BASE----- 974.477

No. 617 Sta. 1554+51.094 22.67 Lt. CUT "X" W.SIDE OF WEST OVERHEAD SIGN BASE----- 968.400

No. 618 Sta. 1564+54.321 80.37 Rt. CUT "X" NW COR CONC ELECTRICAL BOX PAD----- 960.534

No. 619 Sta. 1566+59.477 107.46 Lt. CUT "X" NW END OF CONC BARRIER WALL W.SIDE I-35 80/35 NB RAMP BRIDGE----- 969.767

No. 620 Sta. 1575+42.811 85.21 Rt. FD IHC BM WING, SE COR OF THE E.BOUND I-235 BRG OVER I-35 =BM#501 ELEV. 987.065(E) FROM 1996 CARLSON IM-235-2(241)73--13-77 SURVEY----- 987.086

No. 635 Sta. 1576+74.401 171.84 Lt. FD."SQ."NW.COR.WHLGD.WB. I235 BRIDGE OVER I35----- 989.017

No. 636 Sta. 1584+91.096 40.98 Rt. FD."X"ON W.BOLT SIGN BASE N.OF I235 ON E.SH.I35/I80 NB.+/-200'BACK OVERPASS FOR WESTOWN PARKWAY----- 961.628

No. 640 Sta. 1588+80.749 666.49 Rt. CUT"X"ON E.CONC.OVRHD.SGN BASE ON EB.I80 TO NB.I35/I80 ON RAMP----- 956.349

No. 637 Sta. 1591+49.642 61.61 Lt. CUT"X"ON E.CONC.OVRHD.SGN BASE IN MEDIAN I35/I80 +/-300'N.OF OVERPASS FOR WESTOWN PARKWAY----- 951.966

No. 638 Sta. 1597+98.403 315.52 Rt. FD.IHC BM NW.HNDRL.NB.I35 OFF RAMP FOR UNIVERSITYAV----- 961.178

No. 639 Sta. 1605+38.432 31.07 Lt. CUT"X"ON CONC.MED.WALLI35 +/-50'S.OF OVERPASS FOR UNIVERSITY AVE.----- 935.597

No. 627 Sta. 2159+46.574 49.41 Lt. FD\RR SPK S SIDE P.POLE 3RD POLE WEST OF SB I-35 OFF-RAMP N.SIDE G-14 =BM 509 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =962.540----- 962.757

No. 626 Sta. 2165+91.143 24.91 Lt. FD "X" SW COR CONC ISLAND ON TOP OF CURB =BM 510 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =963.154----- 963.367

No. 573 Sta. 2173+67.588 12.58 Rt. FD "X" SE WING WALL G14 OVERPASS BRIDGE OF I-35 =BM 505 FROM JOHN ADAMS 2000 SURVEY PROJECT # IM-35-2(276)65--13-91 ELEV. =984.691----- 984.976

No. 575 Sta. 2179+56.793 279.44 Lt. FD RR SPK W SIDE P.POLE =BM# 511 ELEV.962.930(E) IM-35-2(276)65--13-91 2000 ADAMS SURVEY----- 963.181

No. 572 Sta. 2183+96.887 39.81 Lt. FD RR SPK S SIDE P.POLE =BM# 512 ELEV.973.556(E) IM-35-2(276)65--13-91 2000 ADAMS SURVEY----- 973.820

No. 632 Sta. 3379+17.077 132.17 Lt. FD.IHC INLET HDWL12X12RCB ON W.SIDE OF SB.I35 TO WB.GRAND AVE. ON-RAMP BM # 632 ELEV. 841.673(E) THIS SURVEY =BM# 606 ELEV. 256.513(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY =BM # 5 ELEV. 841.54(E) P-934-0(3)--30-77 1985 FELLER SURVEY----- 841.673

No. 633 Sta. 3386+92.160 172.60 Lt. FD.RR.SPK.S.SIDE P.POLE BETWEEN SB.I-35 BRIDGE & WB.GRAND TO SB.I-35 RAMP BM # 633 ELEV. 856.102(E) THIS SURVEY =BM# 626 ELEV. 260.897(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY----- 856.102

No. 634 Sta. 3394+46.868 125.07 Lt. FD.IHC INLET HDWL10X12RCB N.SIDE OF GRAND BETWEEN WB.GRAND TO NB.I-35 RAMP& NB.I-35 TO WB.GRAND RAMP BM # 634 ELEV. 847.613(E) THIS SURVEY =BM# 627 ELEV.258.321(M) NHS-6-5(36)--19-77 1997 GUGE SURVEY----- 847.613

No. 621 Sta. 3398+93.042 134.24 Lt. CUT X SW COR CO LUM POLE BASE N OF GRAND AVE AT CROSSOVER APPROX 600 FT N NE OF I-35----- 864.525

No. 622 Sta. 3409+77.691 88.87 Lt. SET RR SPK S SIDE P POLE N SIDE OF GRAND AVE 150'W OF FIRE STATION ENTRANCE----- 900.206

No. 623 Sta. 3417+48.352 57.49 Rt. FD X SE BOLT F HYDRANT AT SE QUAD GRAND AVE AND S 50TH ST.----- 908.420

MISCELLANEOUS LOCATIONS

No. 500 ***** USGS STAMPED L116 1935 PID#MH0304 MADISON COUNTY/IOWA USGS QUAD-ST CHARLES 1983 A USC&GS STANDARD AZIMUTH DISK STAMPED L116 1935 WAS FOUND AT THE INTERS. OF CO.RD. R-35 & SYCAMORE ST. IN ST CHARLES THE DISK IS 40'WEST OF CL CO.RD.R-34,36'SO.OF CL SYCAMORE ST,6'NE OF APPLE TREE,23'SO. OF PO.POLE NAVD88 ELEV.=1066.33(E)----- 1066.330

No. 501 ***** CUT X TOP BOLT FIRE HYDRN----- 1067.731

No. 502 ***** SET RR SPK S.SIDE P.POLE----- 1045.629

No. 503 ***** SET RR SPK S.SIDE P.POLE----- 1048.917

No. 504 ***** FD IHC SW.WING BRIDGE----- 1045.769

No. 505 ***** FD IHC INLET 6X5 RCB----- 961.278

No. 506 ***** CUT X E.SIDE CONC SGN BSE----- 942.587

No. 507 ***** SET 60D SW SIDE COR POST----- 962.981

No. 508 ***** CUT X 24" RCP OUTLET HDWL----- 922.046

No. 509 ***** CUT X CONC UMBRELLA INTKE----- 859.814

No. 511 ***** FD IHC SW COR WING BRIDGE----- 865.309

No. 510 ***** FD X SW COR WING BRIDGE----- 865.323

No. 512 ***** FD IHC NE COR WING BRIDGE----- 877.706

No. 513 ***** CUT X NW COR WING BRIDGE----- 877.207

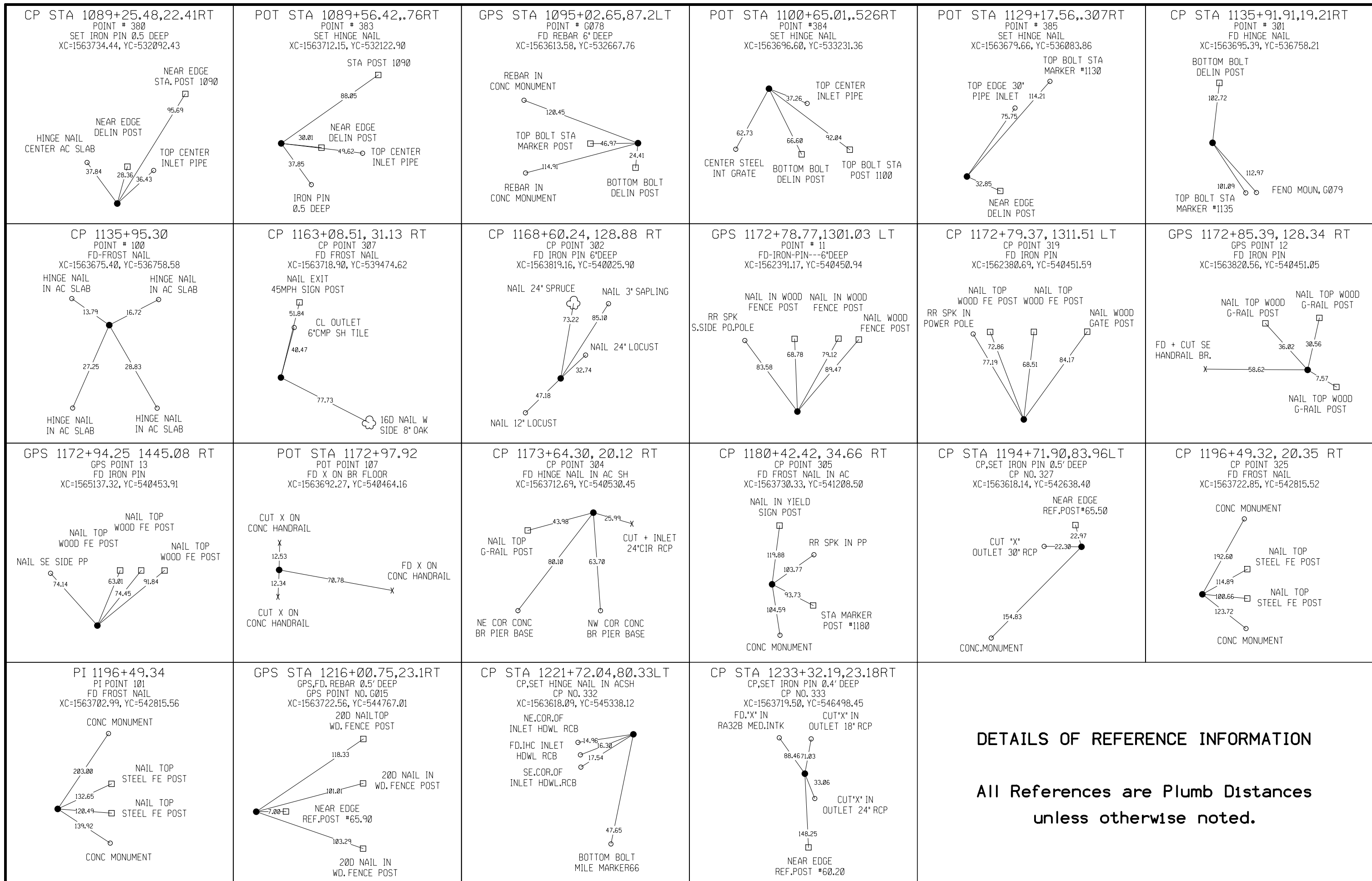
No. 515 ***** CUT X SW COR WING BRIDGE----- 889.044

No. 514 ***** CUT X SE COR WING BRIDGE----- 888.595

No. 517 ***** CUT X NE COR WING BRIDGE----- 889.385

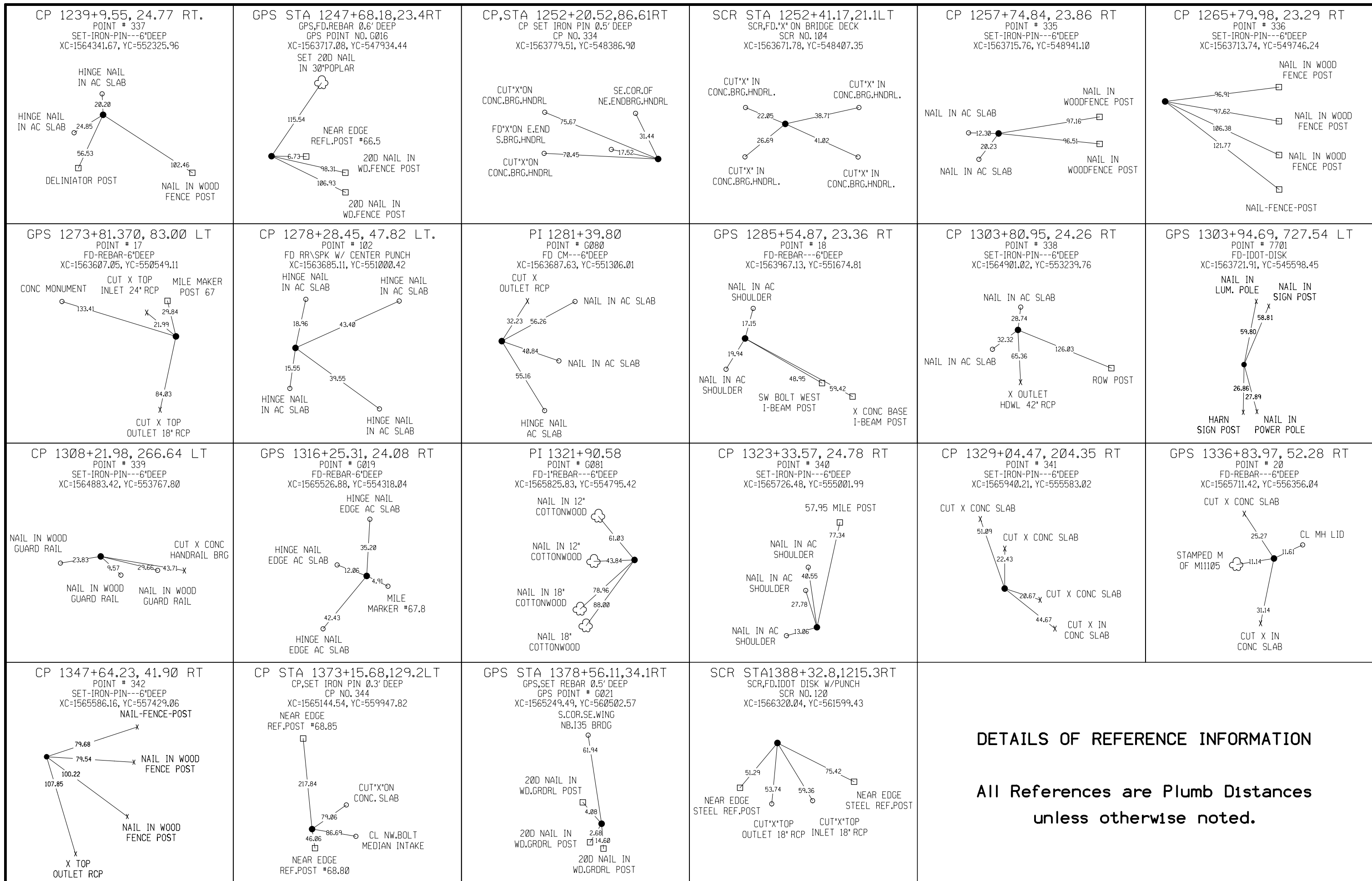
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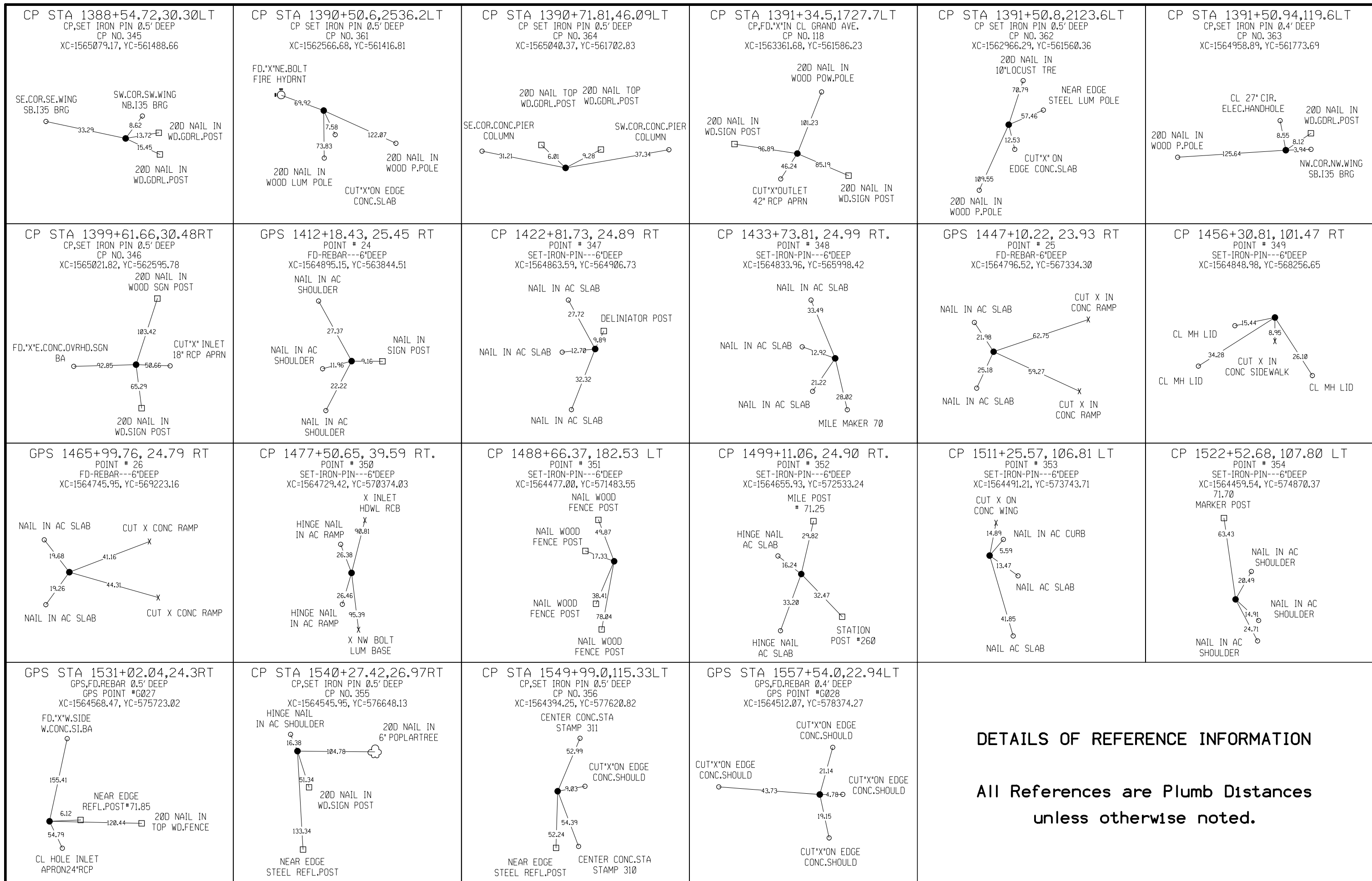


DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

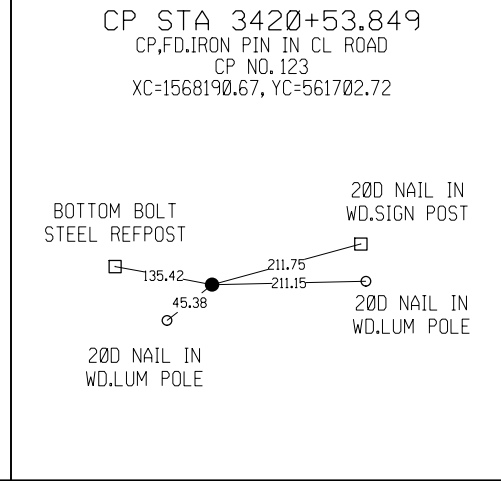
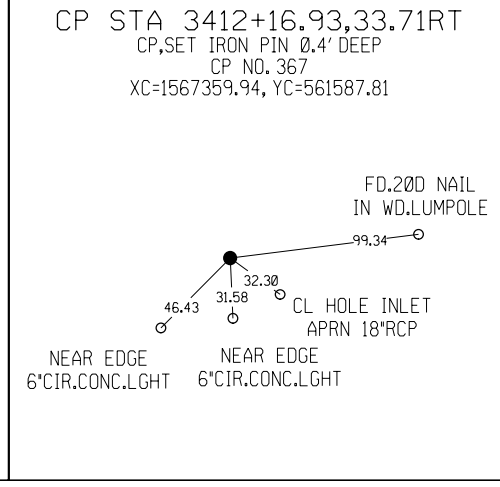
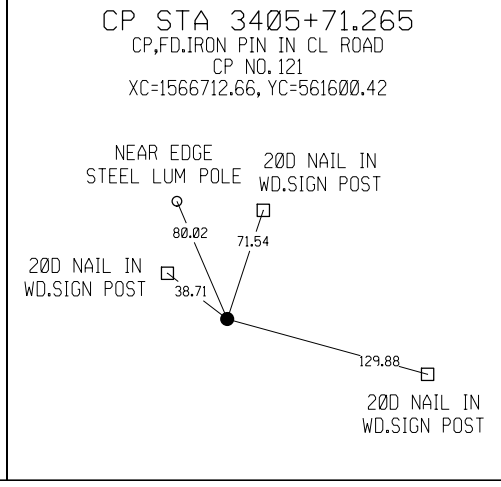
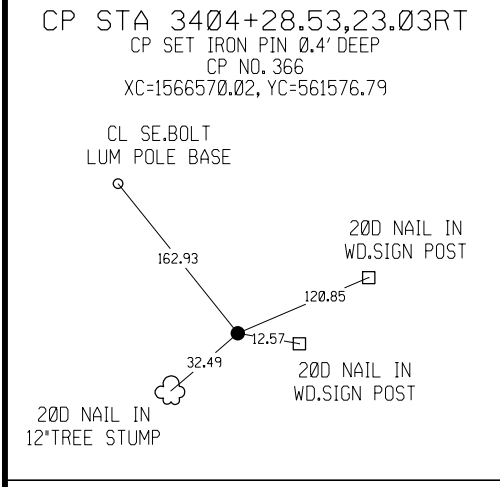
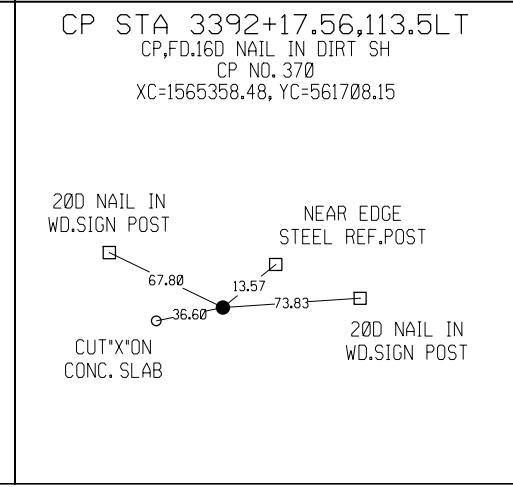
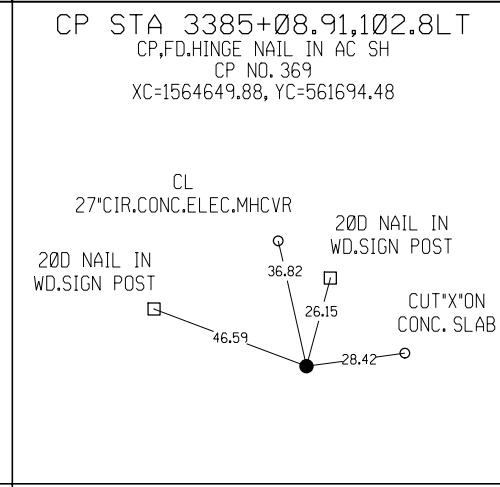
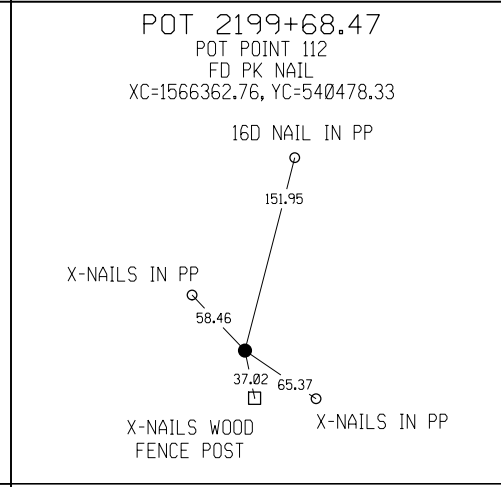
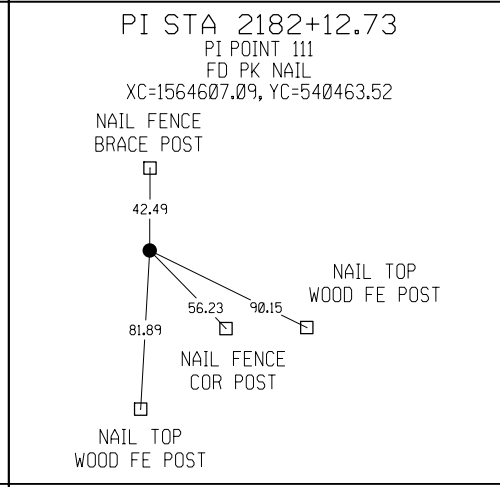
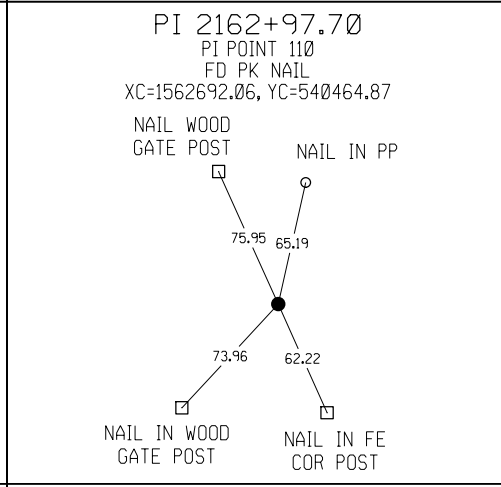
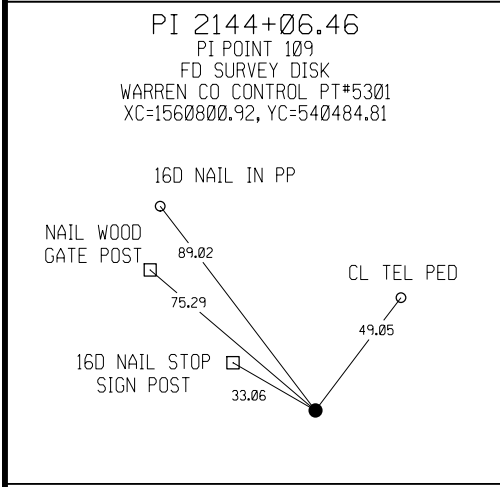
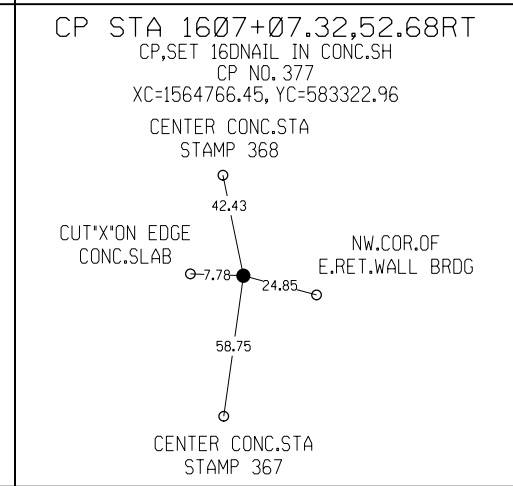
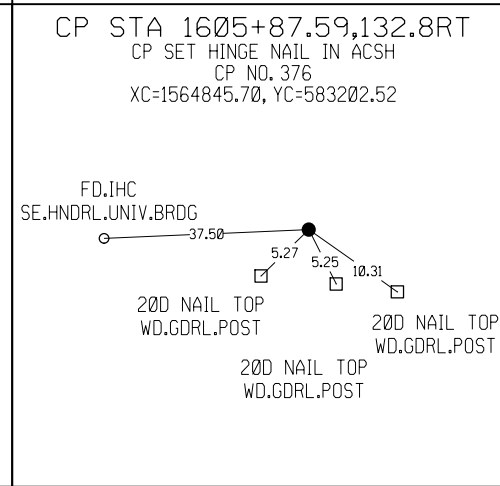
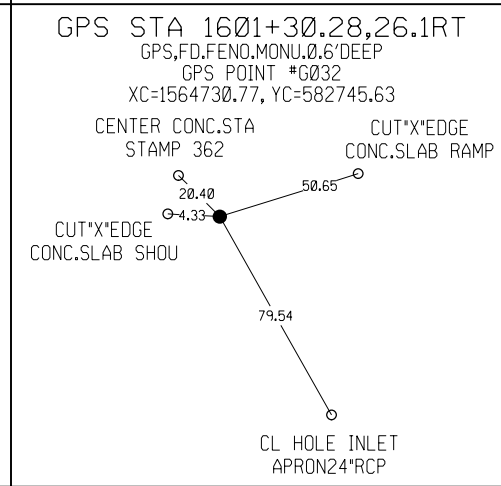
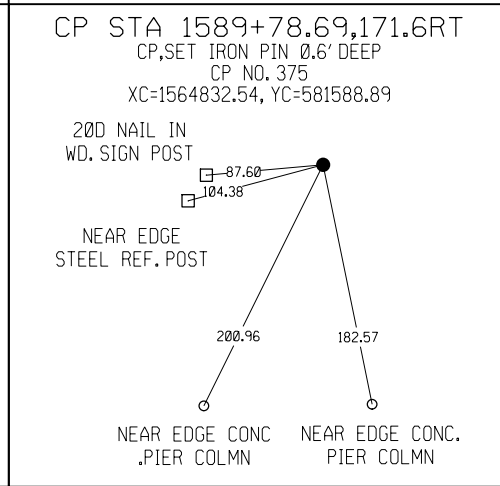
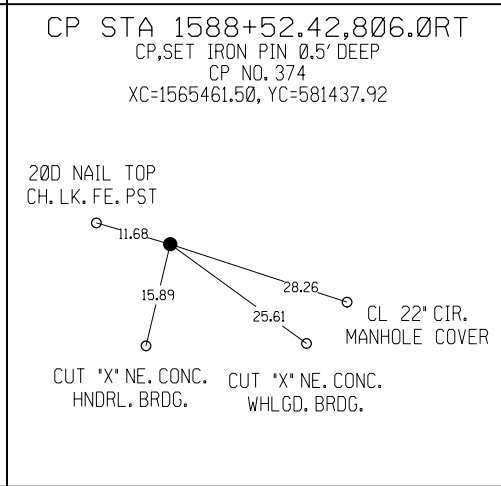
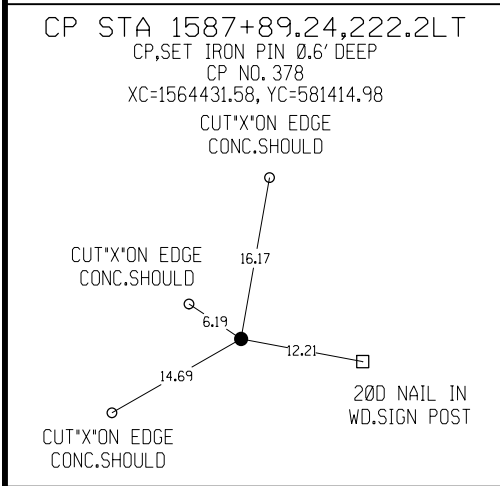
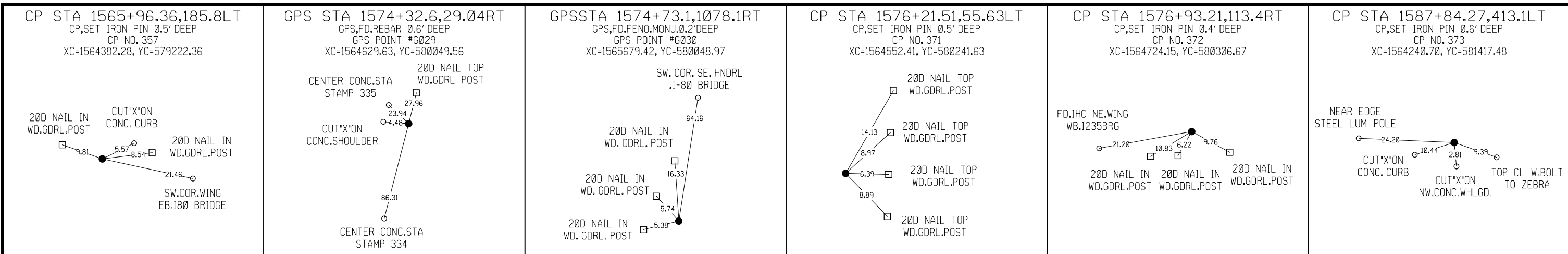


DETAILS OF REFERENCE INFORMATION
All References are Plumb Distances
unless otherwise noted.



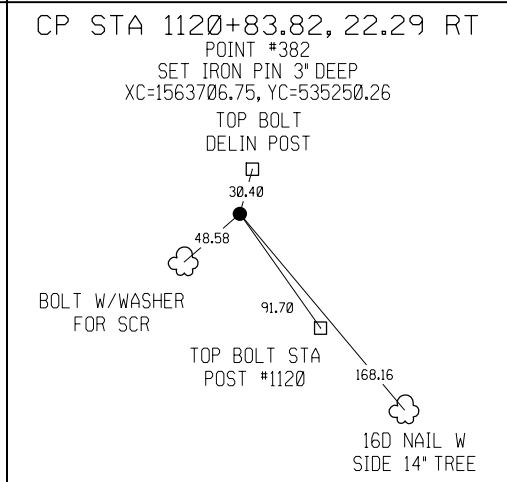
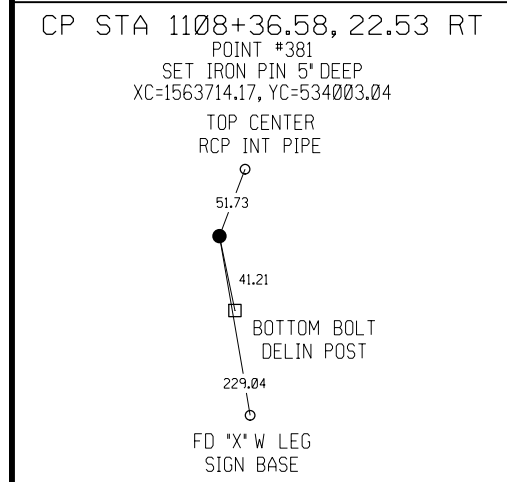
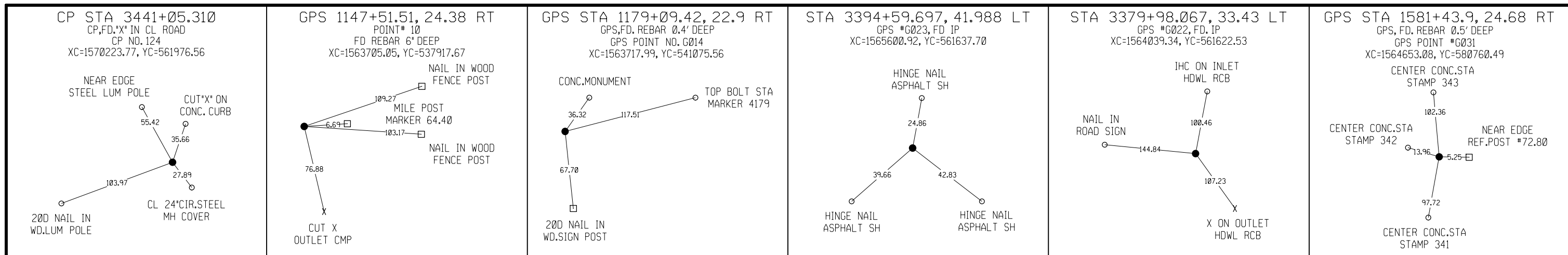
DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.



DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.



DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
CL3507	I-35	1290+25.00	552,098.34	1,564,137.96															
CLCUIR04	I-35				1311+37.14	553,899.26	1,565,241.51	1313+87.14	554,114.40	1,565,368.79	1321+76.67	554,785.62	1,565,784.64	1328+99.44	555,570.31	1,565,696.77	1331+49.44	555,819.25	1,565,674.04
CLCUIR01	I-35				1407+42.57	563,369.27	1,564,866.17	1408+32.57	563,458.78	1,564,856.77	1410+90.93	563,715.66	1,564,829.11	1413+48.98	563,973.94	1,564,822.25	1414+38.98	564,063.90	1,564,819.62
CLCUIR02	I-35							1542+32.60	576,852.78	1,564,471.38	1548+04.24	577,424.21	1,564,455.82	1553+75.46	577,995.41	1,564,478.17			
CLCUIR03	I-35							1598+78.21	582,494.72	1,564,654.20	1602+48.28	582,864.50	1,564,668.66	1606+18.27	583,234.56	1,564,671.16			
CL3505	I-35	1627+32.57	585,348.81	1,564,685.44															
GRAND01	I-35	3366+02.64	561,461.69	1,562,761.02															
GRAND01	I-35							3366+54.98	561,480.95	1,562,809.68	3369+37.72	561,585.00	1,563,072.59	3372+13.91	561,586.20	1,563,355.33			
7	I-35	3372+20.26	561,586.23	1,563,361.68															
CUR6	I-35							3405+69.22	561,600.41	1,566,710.61	3413+13.08	561,603.56	1,567,454.47	3420+54.86	561,702.86	1,568,191.67			
8	I-35	3441+05.31	561,976.56	1,570,223.77															
RAMPB2								2375+00.00	560,155.22	1,565,305.62	2377+94.92	560,449.90	1,565,293.82	2380+79.25	560,718.78	1,565,414.98			
RAMPB3								2384+29.25	561,037.88	1,565,558.77	2385+68.85	561,165.16	1,565,616.13	2387+04.19	561,304.77	1,565,615.54			
RAMPB5		2389+95.19	561,595.77	1,565,614.31															
RAMPC1		3388+40.12	561,595.77	1,565,614.31															
RAMPC1								3403+71.49	563,020.95	1,565,053.99	3406+62.78	563,292.04	1,564,947.41	3409+50.00	563,582.27	1,564,922.58			
RT01		0+00.00	561,542.08	1,563,916.61															
RECTRAIL-1								2+10.03	561,542.97	1,564,126.64	2+12.55	561,542.98	1,564,129.16	2+15.06	561,542.74	1,564,131.66			
RECTRAIL-2								3+16.59	561,532.98	1,564,232.72	3+31.03	561,531.59	1,564,247.09	3+44.70	561,522.75	1,564,258.51			
RECTRAIL-3								7+53.70	561,272.44	1,564,581.97	7+79.45	561,256.68	1,564,602.34	8+01.26	561,264.11	1,564,626.99			
RECTRAIL-4								10+30.34	561,330.16	1,564,846.35	10+89.59	561,347.25	1,564,903.08	11+02.95	561,388.69	1,564,860.73			
RECTRAIL-5								12+29.52	561,477.22	1,564,770.27	13+26.99	561,545.40	1,564,700.61	13+24.03	561,545.81	1,564,798.08			
RT02		14+50.00	561,546.34	1,564,924.04															
RECTRAIL-6								20+31.38	561,548.81	1,565,505.42	20+44.04	561,548.92	1,565,518.07	20+56.59	561,546.28	1,565,530.45			
RECTRAIL-7								20+56.59	561,546.28	1,565,530.45	20+69.77	561,543.53	1,565,543.34	20+82.85	561,543.52	1,565,556.52			
RT03		20+92.86	561,543.57	1,565,566.53															
RT04		21+04.86	561,543.62	1,565,578.53															
RT05		21+65.15	561,543.87	1,565,638.82															
RECTRAIL-8								21+98.37	561,544.01	1,565,672.04	22+11.55	561,544.13	1,565,685.21	22+24.63	561,546.99	1,565,698.08			
RECTRAIL-9								22+24.63	561,546.99	1,565,698.08	22+37.28	561,549.73	1,565,710.43	22+49.84	561,549.73	1,565,723.09			
RT06		24+18.35	561,550.44	1,565,891.60															
RT07		26+68.35	561,551.50	1,566,141.59															

FOR INFO ONLY

SUPERELEVATION DATA

See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius FT	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e %	L FT	x FT														
I-35	CLCUR01	2685	6.0	379	158	PV-305	1308+50.14	1308+81.74	1310+08.14	1311+34.54	1311+66.14	1313+87.14	1313+87.14			1311+97.64	1313+23.97		
							1334+36.44	1334+04.84	1332+78.44	1331+52.04	1331+20.44	1328+99.44	1328+99.44			1330+88.94	1329+62.61		
I-35	CLCUR01	7640	2.9	186	158	PV-305	1403+98.57	1404+30.17	1405+56.57	1406+82.97	1407+14.57	1407+42.57		1407+42.57					
							1416+92.98	1416+61.38	1415+34.98	1414+08.58	1413+76.98	1413+48.98		1413+48.98					
I-35	CLCUR02	17230	NC	0	0	PV-305	1542+32.60	1542+32.60	1542+32.60	1542+32.60	1542+32.60	1542+32.60	1542+32.60						
							1553+75.46	1553+75.46	1553+75.46	1553+75.46	1553+75.46	1553+75.46	1553+75.46						
I-35	CLCUR03	22876	NC	0	0	PV-305	1598+78.21	1598+78.21	1598+78.21	1598+78.21	1598+78.21	1598+78.21	1598+78.21						
							1606+18.27	1606+18.27	1606+18.27	1606+18.27	1606+18.27	1606+18.27	1606+18.27						
RAMP B	RAMPB1	1250	6.0	230	77	PV-303	2374+16.00		2375+00.00	2375+69.00						2374+92.33	2374+92.33		
							2382+32.25		2381+45.25	2380+79.25						2381+55.92	2381+55.92		
RAMP B	RAMPB2	643	6.0	200	67	PV-303	2382+32.25	2382+89.25	2384+29.25	2384+89.25						2384+22.58	2384+22.58		
							2389+11.19	2388+44.19	2387+04.19	2386+44.19						2387+10.86	2387+10.86		
RAMP C	RAMPC1	2000	5.4	216	80	PV-303	3403+00.29		3403+71.49	3404+36.29						3403+80.29	3403+80.29		
							3410+21.20		3409+50.00	3408+85.20						3409+41.20	3409+41.20		

PARCEL CHECK BY PROJ UPDATED 02/17/10 10:20

PAGE: 1

AND: 2

R2360003 PARCEL CHECK LIST BY PROJECT NUMBER

COUNTY : POLK

PROJECT NO. :IMN-035-2(338)67--0E-77

PIN: 96-77-035010-00

CONSTRUCTION NO.:IMN-035-2(314)67--0E-77

ASSIGNED TO: SJD

DESCRIPTION : I-35 From Warren Co. Line N. to I-80 & 235

PARCEL	KEY	OWNER	TYPE	R/W W.D OR EASE.	BORROW W.D OR EASE.	HOUSE OR OTHER	COMMERCIAL	OCC ENVIRONMENTAL CONCERNS
0001	25393	LOUNSBURY PROPERTY, INC.	FEE STATE OF IOWA	32,235.00	WD SQFT			
0001 R	25380	IOWA INTERSTATE RAILROAD	FEE STATE OF IOWA	112,296.00	EASE SQFT			
0002	25381	LOUNSBURY PARTNERSHIP	FEE STATE OF IOWA	6,534.00	WD SQFT			
0003	25382	ANDY J. LOUNSBURY	FEE STATE OF IOWA					
		BEN L. LOUNSBURY	FEE	5,227.00	WD SQFT			
0004	25383	LLOYD E. CLARKE	FEE STATE OF IOWA	133,730.00	WD SQFT			
0005	25384	GLEN OAKS COUNTRY CLUB	FEE STATE OF IOWA	19,630.00	WD SQFT			
0006	25385	BERNIECE BOONE LIVING TRUST	FEE STATE OF IOWA	48,352.00	WD SQFT			
0007	25386	WHISPER ROCK, L.C.	FEE STATE OF IOWA	1,572.00	WD SQFT			
0013	25392	PARCEL R. DELETED						
		SFI LTD. PARTNERSHIP 38	FEE					
0013 R	25450	UNION PACIFIC RAILROAD	FEE STATE OF IOWA	50,875.00	EASE SQFT			
STATE OF IOWA				163,171.00	EASEMENT SQFT			

PARCEL CHECK BY PROJ UPDATED 02/17/10 10:20

PAGE: 3

R2360003 PARCEL CHECK LIST BY PROJECT NUMBER

COUNTY : POLK

PROJECT NO. :IMN-035-2(338)67--0E-77

PIN: 96-77-035010-00

CONSTRUCTION NO.:IMN-035-2(314)67--0E-77

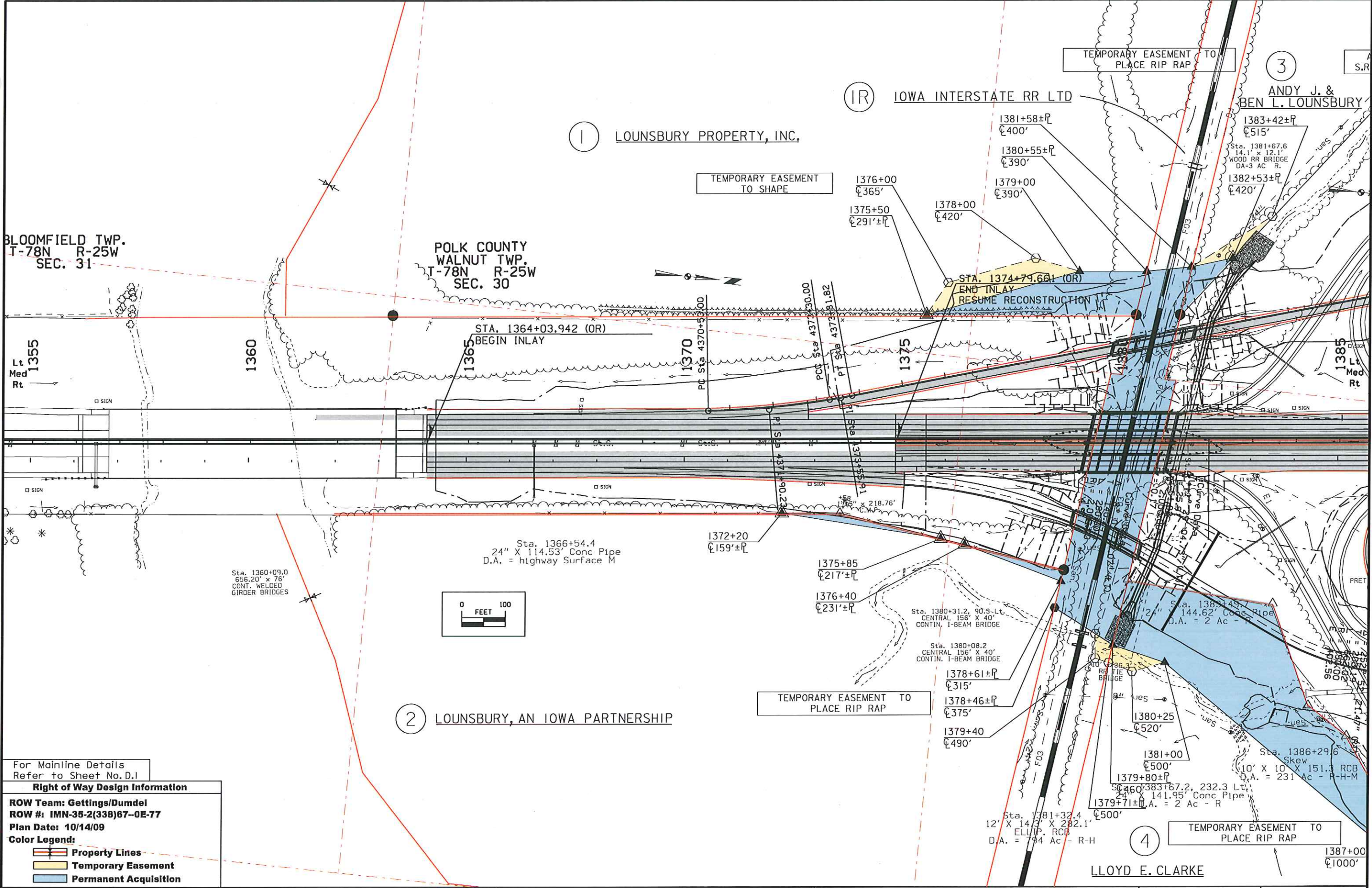
ASSIGNED TO: SJD

DESCRIPTION : I-35 From Warren Co. Line N. to I-80 & 235

PARCEL	KEY	OWNER	TYPE	R/W W.D OR EASE.	BORROW W.D OR EASE.	HOUSE OR OTHER	COMMERCIAL	OCC ENVIRONMENTAL CONCERNS
--------	-----	-------	------	------------------	---------------------	----------------	------------	----------------------------

247,280.00 WARRANTY DEED SQFT

9 TOTAL PARCELS ON PROJECT



BLOOMFIELD TWP.
T-78N R-25W
SEC. 31

POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 30

① LOUNSBURY PROPERTY, INC.

② IOWA INTERSTATE RR LTD

③ ANDY J. &
BEN L. LOUNSBURY

② LOUNSBURY, AN IOWA PARTNERSHIP

④ LLOYD E. CLARKE

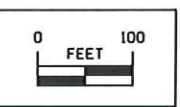
For Mainline Details
Refer to Sheet No.D.1

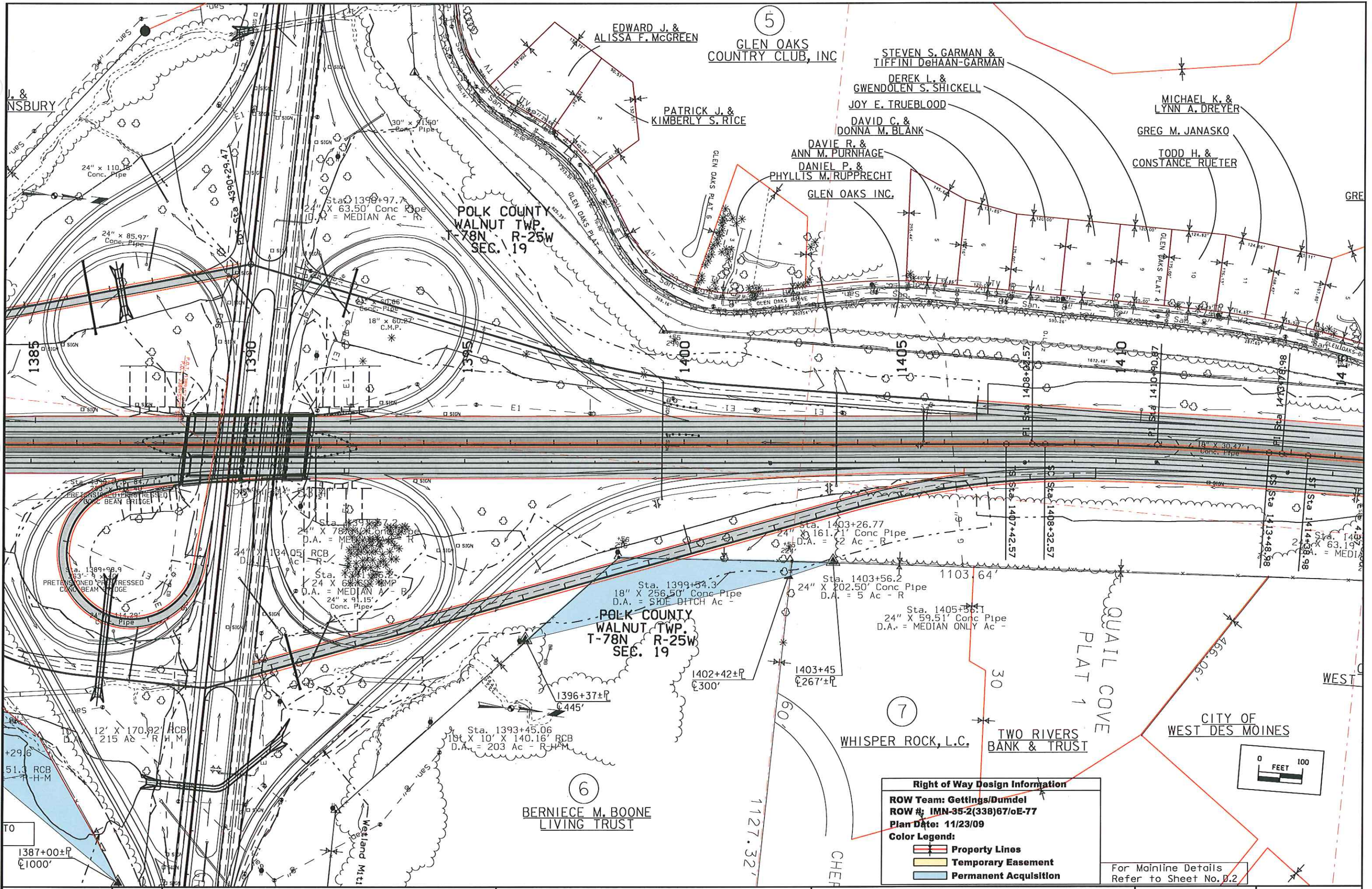
Right of Way Design Information

ROW Team: Gettings/Dumdei
ROW #: IMN-35-2(338)67--0E-77
Plan Date: 10/14/09

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition





5
 GLEN OAKS
 COUNTRY CLUB, INC

STEVEN S. GARMAN &
 TIFFINI DeHAAN-GARMAN

DEREK L. &
 GWENDOLEN S. SHICKELL

JOY E. TRUEBLOOD

DAVID C. &
 DONNA M. BLANK

DAVIE R. &
 ANN M. PURNHAGE
 DANIEL P. &
 PHYLLIS M. RUPPRECHT
 GLEN OAKS INC.

MICHAEL K. &
 LYNN A. DREYER

GREG M. JANASKO

TODD H. &
 CONSTANCE RUETER

POLK COUNTY
 WALNUT TWP.
 T-78N R-25W
 SEC. 19

EDWARD J. &
 ALISSA F. MCGREEN

PATRICK J. &
 KIMBERLY S. RICE

POLK COUNTY
 WALNUT TWP.
 T-78N R-25W
 SEC. 19

6
 BERNIECE M. BOONE
 LIVING TRUST

7
 WHISPER ROCK, L.C.

TWO RIVERS
 BANK & TRUST

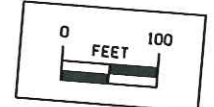
CITY OF
 WEST DES MOINES

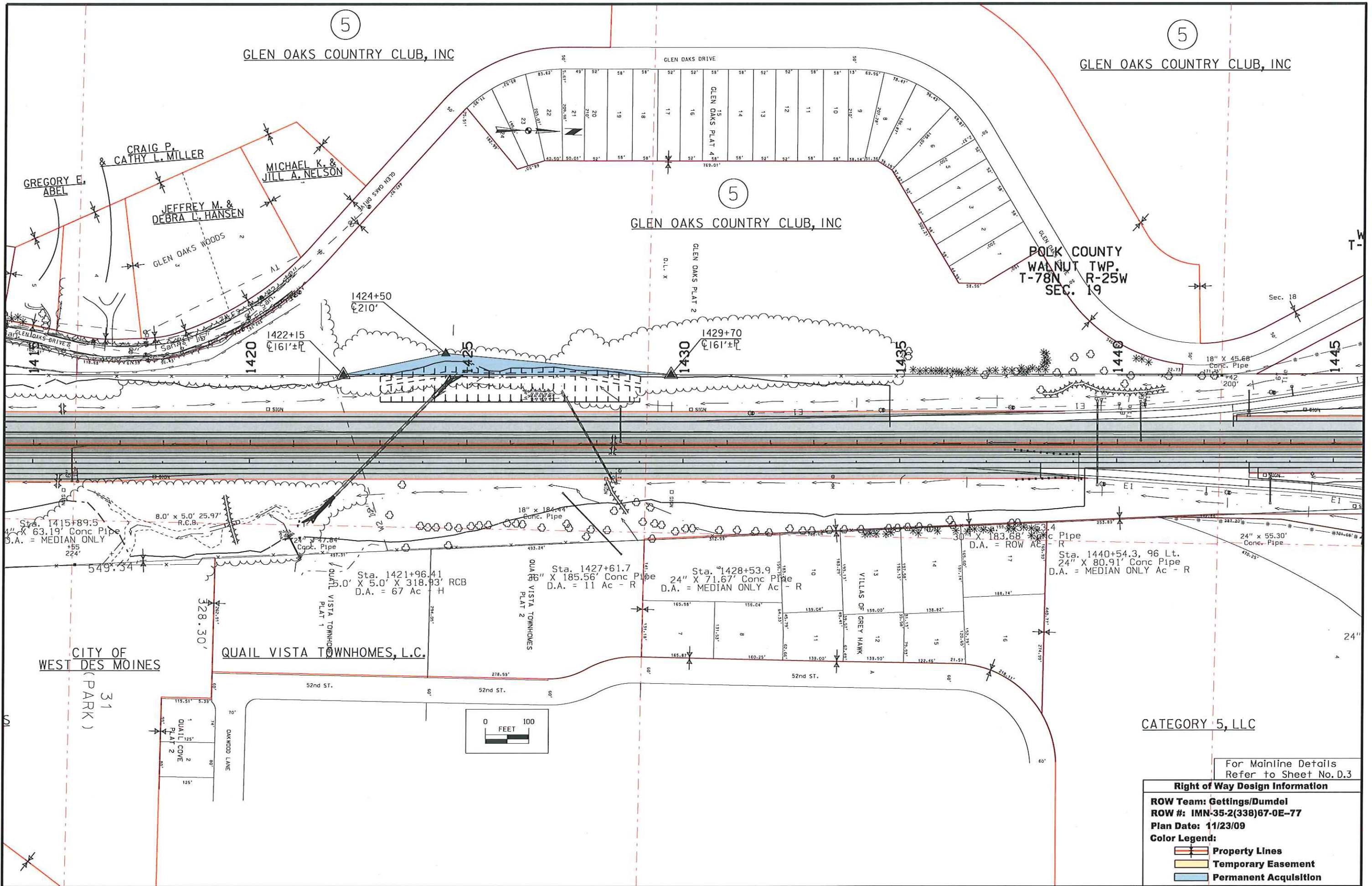
Right of Way Design Information

ROW Team: Gettings/Dumdel
 ROW #: IMN-35-2(338)67/OE-77
 Plan Date: 11/23/09
 Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

For Mainline Details
 Refer to Sheet No. D.2





5
GLEN OAKS COUNTRY CLUB, INC

5
GLEN OAKS COUNTRY CLUB, INC

5
GLEN OAKS COUNTRY CLUB, INC

POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 19

CITY OF
WEST DES MOINES
(PARK)
31

QUAIL VISTA TOWNHOMES, L.C.

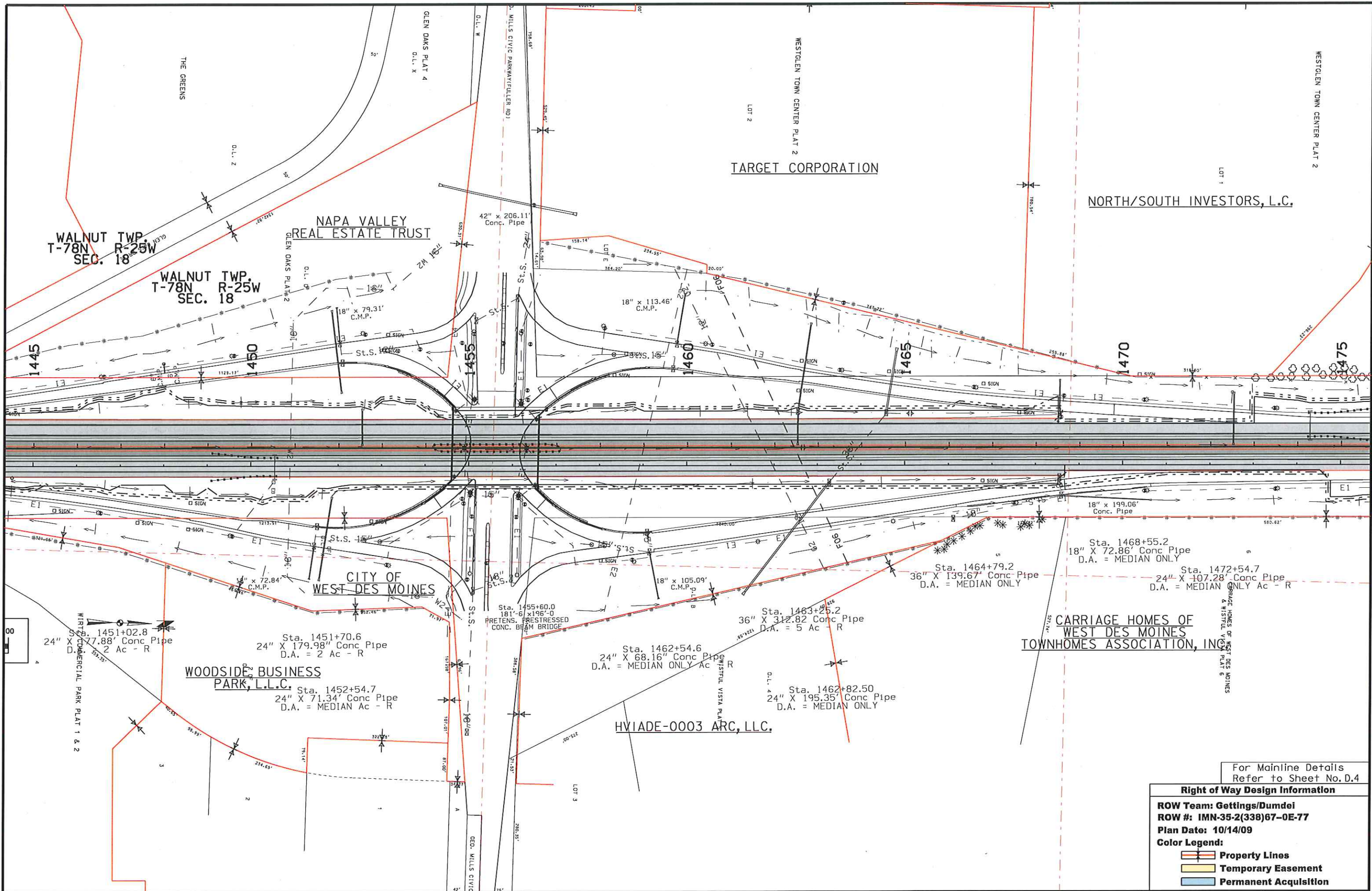
QUAIL VISTA TOWNHOMES
PLAT 2

VILLAS OF GREY HAWK

CATEGORY 5, LLC

For Mainline Details
Refer to Sheet No. D.3

Right of Way Design Information	
ROW Team:	Gettings/Dumdel
ROW #:	IMN-35-2(338)67-0E-77
Plan Date:	11/23/09
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



NORTH/SOUTH INVESTORS, L.C.

TARGET CORPORATION

NAPA VALLEY REAL ESTATE TRUST

WALNUT TWP. T-78N R-25W SEC. 18

WALNUT TWP. T-78N R-25W SEC. 18

CITY OF WEST DES MOINES

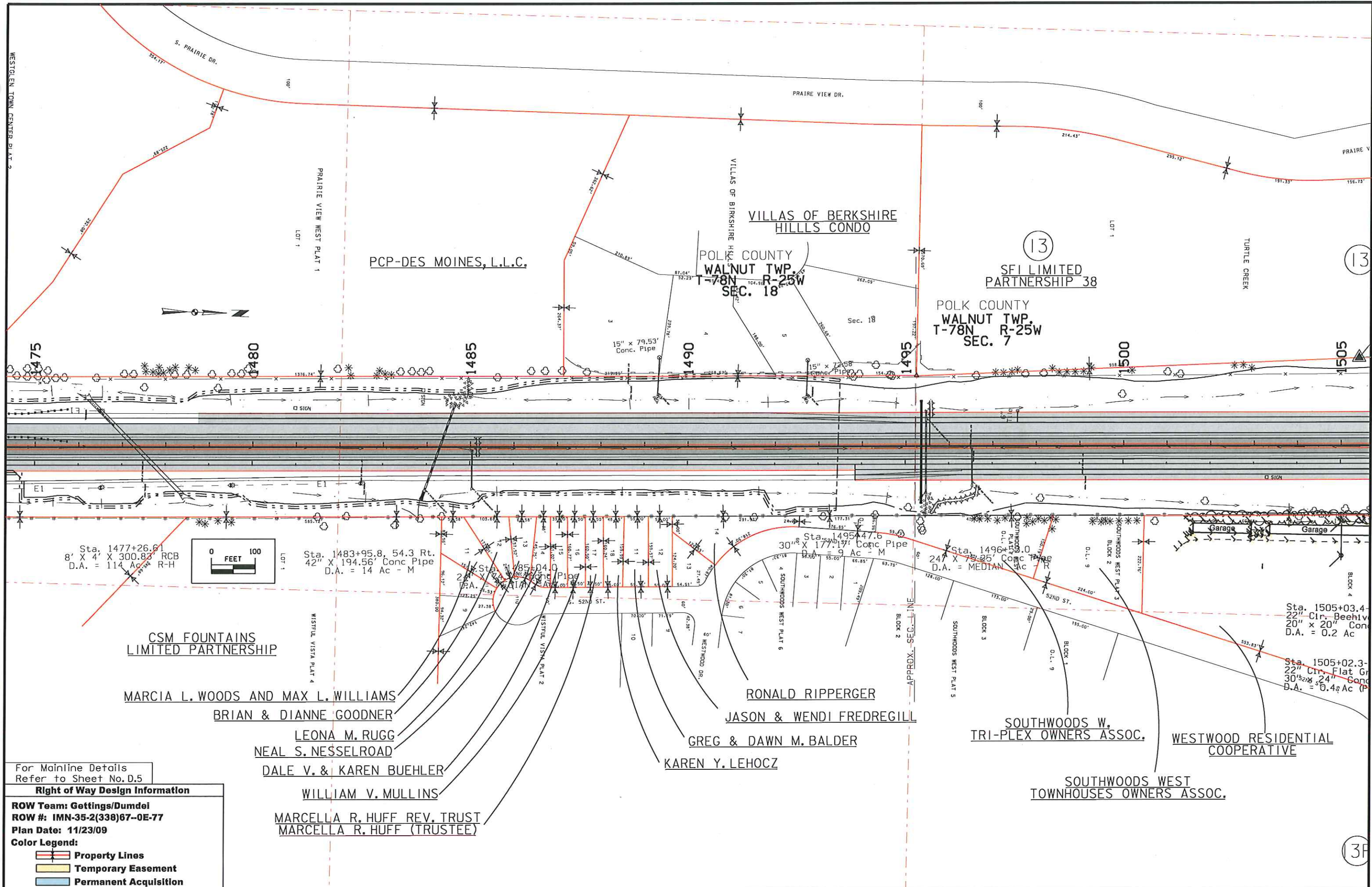
WOODSIDE BUSINESS PARK, L.L.C.


HVIAD-0003 ARC, LLC.

CARRIAGE HOMES OF WEST DES MOINES TOWNHOMES ASSOCIATION, INC.

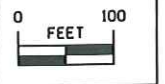
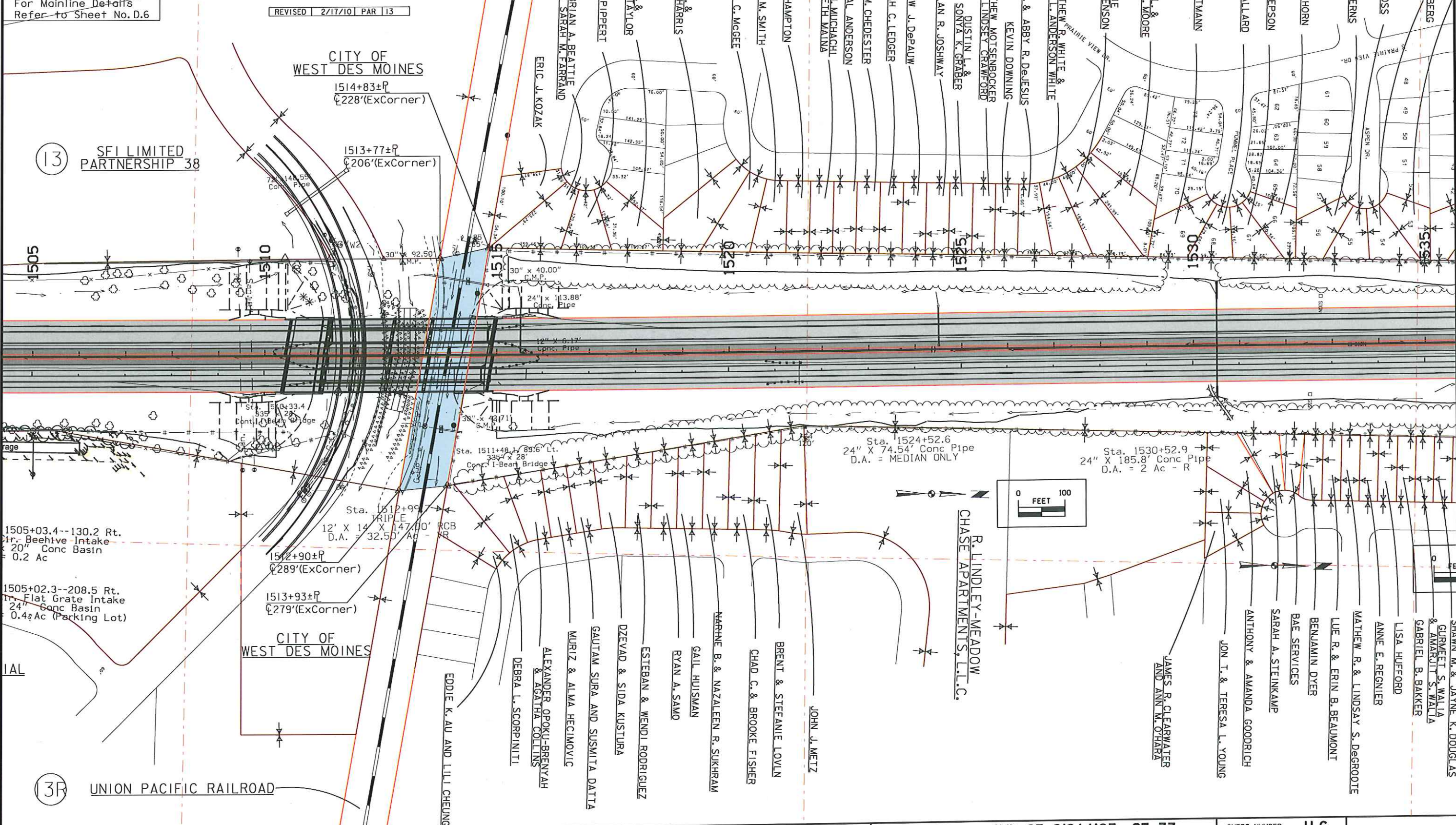
For Mainline Details Refer to Sheet No. D.4

Right of Way Design Information	
ROW Team:	Gettings/Dumdei
ROW #:	IMN-35-2(338)67-0E-77
Plan Date:	10/14/09
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Right of Way Design Information
ROW Team: Gettings/Dumdei
ROW #: IMN-35-2(338)67-0E-77
Plan Date: 2/17/10
Color Legend:

 For Mainline Details Refer to Sheet No. D.6

REVISED 2/17/10 PAR 13



TRAFFIC CONTROL PLAN

Unless absolutely necessary, or as specified in the staging plans, traffic lanes are intended to be a minimum width of 12'. Any traffic lane width changes require the engineer's approval.

Traffic control on this project shall be in accordance with the standard road plans shown in Tabulation 105-4 and the specific layouts shown in the plans. For additional complementary information, refer to Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and the current standard specifications and supplemental specifications.

The contractor shall coordinate traffic control with Iowa DOT projects listed in Tabulation 111-01, and other projects in the area.

The contractor shall notify the resident construction engineer, Polk County, and the City of West Des Moines two (2) weeks prior to temporary road closures and changes in traffic patterns during construction.

The contractor shall be responsible for furnishing, installing, maintaining, and removing the signage for the temporary detour.

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 truck hauling material to and from the work area shall display a 16" x 48" retro reflective sign with the legend "DO NOT FOLLOW INTO THE WORK AREA". The sign shall be orange with black lettering (4" height) and be comprised of Type VII sheeting.

The Engineer may require modifications to the pavement marking details shown. Conflicting permanent edge lines, centerlines, or lane lines shall be removed. Where applicable, permanent edge lines, centerlines, and lane lines shall be placed before the roadway is returned to normal traffic. The current Standard Specifications and supplemental specifications shall apply.

The contractor shall maintain clean pavement in and out of the work area at all times.

Refer to Tab. 108-26A for traffic control specifics.

1. Interstate 35
 - No lane closures will be allowed on I-35 from 6:00 AM to 7:00 PM Sundays thru Thursdays; all day on Fridays, Saturday, Holidays, or during the dates listed on Tabulation 102-15 at any time.
 - Temporary single lane closures may be allowed on I-35 during "off-peak" travel periods, which is defined as daily from 7:00 PM to 6:00 AM from Sundays thru Fridays, however the time, length, and duration of each lane closures shall be approved by the resident construction engineer. The Iowa DOT reserves the right to modify these restrictions to accommodate specific contractor activities, unforeseen traffic conditions and special events.
2. Grand Avenue
 - A minimum of 1 lane of traffic in each direction will be maintained at all times, except for bridge removal and bridge replacement operations.
 - During the bridge removal period, the detour will be in place for approximately 4 nights (9:00 PM to 6 AM only)
 - During the bridge replacement period, the detour will be in place for approximately 5 nights (midnight to 5 AM only).
 - Detours will only be in effect from Sunday night through Friday morning.
 - Refer to sheet J.XX for detour route
3. EP True Parkway
 - A minimum of 1 lane of traffic in each direction will be maintained at all times, except for bridge removal and bridge replacement operations.
 - During the bridge removal period, the detour will be in place for approximately 4 nights (9:00 PM to 6 AM only)
 - During the bridge replacement period, the detour will be in place for approximately 5 nights (midnight to 5 AM only).
 - Detours will only be in effect from Sunday night through Friday morning.
 - Refer to sheet J.XX for detour route
 - The reinforced box culvert adjacent to EP True Parkway shall be fenced off to prevent any equipment from crossing. No additional loads may be applied to this culvert.
 - Sidewalk and Recreational Trail at EP True Parkway will remain open to pedestrians during construction.
4. Union Pacific Railroad track at EP True Parkway
 - Due to low volume on the UPRR, the track can be taken out of service except for times when UP is using the track. Approximately 1 train per week is run through the project area. The contractor shall be notified with reasonable advance of the times in which the track will be placed in service. All equipment and materials must be outside the railroad clearzone when the line is in service or flaggers will be required. The contractor shall notify Union Pacific at least 15 days in advance to occupy and use the UP right-of-way. Refer to Developmental Specification 12008 - Construction Work on Railroad Right-of-Way with A+ for Bidding Railroad Flaggers (Union Pacific Railroad).
5. Mid-American Overhead Lines at EP True Parkway
 - The contractor shall note that the two overhead electric transmission lines in the northerly portion of the proposed bridge construction area are continuously energized. The conductors on these electric lines are bare and un-insulated and contact with these electric lines can cause serious injury or death. All people involved with any construction, maintenance, or similar activities within the vicinity of these electric lines must be aware and remain aware of the hazards of working around these electric lines, including maintaining proper safety clearances from these electric lines. De-energizing the two overhead electric transmission lines in the northerly portion of the proposed bridge construction area will be allowable only for bridge beam installation work directly under these two electric lines, subject to the following restrictions:
 - * Electric line outage requests for the two electric transmission lines shall be limited to only two night-time line outages to install all bridge beams required to be placed under these two electric lines.
 - * Each of these two night-time line outages shall be scheduled with MidAmerican Energy Company by the Contractor at least 14 calendar days in advance.
 - * Each of these two night-time outages shall be only scheduled between 10:00 PM and 6:00 AM.
 - * Approval by MidAmerican Energy Company of each of these two night-time line outages is subject to weather and electric system requirements as solely determined by MidAmerican Energy Company.

STAGING NOTES

Interstate 35 is a high volume roadway. Construction activity in the area will disrupt traffic on Interstate 35, Grand Avenue, EP True Parkway, and other local roadways. Therefore, it is advisable to adopt a construction sequence that directs activities in an orderly manner and minimizes disruptions to traffic patterns as much as practical.

It is not the intent of the sequence of construction to confine the contactors' activities to the areas of suggested stages alone. It is understood that some of the various steps may occur simultaneously. Therefore, the contractor may conduct several operations concurrently on the project, provided that traffic is maintained and that these operations do not conflict with the staging operations indicated herein.

It is recognized that as the various activities related to construction progress, certain situations may arise which will preclude adhering to the original construction sequence or which, in the opinion of the contractor, should result in more efficient staging operations. Should the contractor desire to deviate from the original plan, they shall submit a written alternate plan to the Resident Construction Engineer for approval.

GENERAL NOTES:

1. Access to properties along Grand Avenue shall be maintained at all times.
2. The contractor shall coordinate traffic control with Iowa DOT projects listed in Tabulation 111-01, and other projects in the area.
3. In the construction staging notes, "off-peak" refers to construction activities that are required to be performed during off-peak travel periods on Interstate 35, as defined in the Traffic Control Plan.

Stage 1 - Traffic**I-35**

- Maintain all lanes of traffic, including Northbound, Southbound, and ramps, in the existing lanes.
- A shoulder closure with TBR (which includes modular glare screens) is installed on the existing Southbound lanes. Utilize Standard Road Plan TC-402 when installing TBR.
- A shoulder closure with anchored TBR is installed on the existing Northbound lanes between Sta. 1432+95.00 to Sta. 1442+00.00, Sta. 1468+47.00 to Sta. 1482+00.00, and Sta. 1539+90.00 to Sta. 1547+00.00. Utilize Standard Road Plan TC-402 when installing TBR.

Grand Ave.

- Maintain all lanes of traffic, both Eastbound and Westbound, in the existing lanes.
- Maintain all on and off ramps.

Stage 1 - Construction**I-35**

- Install temporary traffic control required in Stage 1 construction.
- Install temporary barrier rail (TBR) along the existing Southbound I-35 left shoulder as shown in the plans.
- Install TBR, drums, channelizers, and temporary crash cushions along existing NB I-35 left shoulder as shown in the plans.
- Grade and pave the "gap" between the existing Northbound lanes and the existing paved median between Sta. 1434+00.00 to Sta. 1441+00.00, Sta. 1469+50.00 to Sta. 1481+25.00, and Sta. 1541+00.00 to Sta. 1545+50.00.
- Install temporary pavement markings in the existing median as shown in the J-sheets for Stage 2 Northbound traffic.

Grand Ave.

- None.

Stage 2 - Traffic**I-35**

- Maintain all lanes of Southbound traffic in existing lanes, except between Sta. 1450+85 to Sta. 1460+33, where a temporary lane shift will be utilized so that the temporary Northbound lanes can avoid the existing median bridge pier at Mills Civic Parkway.
- Reduce Northbound traffic to two lanes prior to the Grand Avenue Interchange. Utilize Standard Road Plan TC-421.
- At the south end of the project, shift Northbound traffic to the existing paved median. Maintain Northbound traffic in paved median except between Sta. 1450+85 to Sta. 1460+33, where a lane shift will be utilized in order to avoid the existing median bridge pier at Mills Civic Parkway. At the north end of the project, shift Northbound traffic back to the existing northbound lanes.
- Northbound on and off ramps at Mills Civic Parkway and the off ramp at the I-235 Interchange shall be maintained. Refer to J-sheets for staged layouts. Refer to Standard Road Plan TC-416 and TC-420.
- Close Northbound on and off ramps at Grand Avenue. Refer to J-sheets for detour routes and signage.
- Maintain existing Southbound ramps at Grand Avenue, Mills Civic Parkway, and I-235 Interchanges.

Grand Ave.

- Shift Eastbound and Westbound traffic into the inside lane. Utilize Standard Road Plan TC-421.
- Grand Avenue traffic shall be maintained at all times, except when a detour is required during bridge removal and replacement periods. Refer to J-sheets for detour route and signage.
- Maintain existing Southbound on and off ramps to I-35.
- Close Northbound off and on ramps to I-35 (Ramps B & C). Refer to Standard Road Plan TC-252, Situation 4. Refer to J-sheets for detour route and signage.

Stage 2 - Construction**I-35**

- Install temporary traffic control required in Stage 2 construction.
- Maintain existing Stage 1 TBR along the existing SB I-35 left shoulder, except between Sta. 1450+85 to Sta. 1460+33, where the TBR will be shifted in order for Northbound traffic to avoid Mills Civic Parkway median bridge pier.
- Install TBR, drums, channelizers, and temporary crash cushions along Northbound lanes as shown in the plans.
- Install temporary pavement markings and remove conflicting existing pavement markings
- Remove existing pavement, grade, and pave all Northbound lanes as shown in the J-sheets.
- Remove existing pavement, grade, and pave Northbound on and off ramps at Grand Avenue.
- Install new culverts and extend, remove, or plug existing culverts.
- Install temporary erosion control measured for work completed.

Grand Ave.

- Install temporary traffic control required in Stage 2 construction.
- Remove existing pavement, grade, and pave Northbound on and off ramps.

Stage 3 - Traffic

STAGING NOTES

I-35
 - Maintain Stage 2 Southbound traffic layout.
 - Maintain Stage 2 Northbound traffic layout.
 - Northbound on and off ramps at Mills Civic Parkway and the off ramp at the I-235 Interchange shall be maintained. Refer to J-sheets for Stage 3 layouts. Refer to Standard Road Plan TC-416 and TC-420.
 - Maintain closures of the Northbound on and off ramps at Grand Avenue. Refer to J-sheets for detour routes and signage.
 - Maintain existing Southbound ramps at Grand Avenue, Mills Civic Parkway, and I-235 Interchange.

Grand Ave.
 - Open all lanes to traffic.
 - Grand Avenue traffic shall be maintained at all times, except when a detour is required during bridge removal and replacement periods. Refer to J-sheets for detour route and signage.
 - Maintain existing Southbound on and off ramps to I-35.
 - Maintain closure of Northbound on and off ramps to I-35 (Ramps B & C). Refer to Standard Road Plan TC-252, Situation 4. Refer to J-sheets for detour route and signage.

Stage 3 - Construction
 I-35
 - Install temporary traffic control required in Stage 3 construction.
 - Maintain existing Stage 2 TBR along the existing SB I-35 left shoulder, except between Sta. 1450+85 to Sta. 1460+33, where the TBR will be shifted in order for Northbound traffic to avoid Mills Civic Parkway median bridge pier.
 - Maintain existing Stage 2 TBR for Northbound lanes except for locations that are will need to be adjusted. At these locations, install TBR, drums, channelizers, and temporary crash cushions along Northbound lanes as shown in the plans.
 - Install temporary pavement markings and remove conflicting pavement markings.
 - Remove remaining existing pavement, grade, and pave all remaining Northbound lanes as shown in the J-sheets.

Grand Ave.
 - None.

Stage 4 - Traffic
 I-35
 - Maintain all lanes of Southbound traffic in existing lanes, including shifting the Southbound lanes back into the existing lanes between Sta. 1450+85 to Sta. 1460+33.
 - Shift Northbound traffic to new Northbound lanes and open all Northbound lanes to traffic.
 - Open on and off ramps at Grand Avenue, Mills Civic Parkway, and I-235 Interchange. Remove all detour routes and signage.
 - Maintain all Southbound ramps at Grand Avenue, Mills Civic Parkway, and I-235 Interchanges.

Grand Avenue
 - Maintain all lanes open to traffic
 - Open all ramps to traffic and remove all detour routes and signage.

Stage 4 - Construction
 I-35
 - Install temporary traffic control required in Stage 4 construction.
 - Install TBR, drums, channelizers, and temporary crash cushions along Northbound and Southbound lanes as shown in the plans.
 - Install permanent pavement markings and remove conflicting pavement markings.
 - Install permanent median barrier.

Grand Ave.
 - None.

Stage 5 - Traffic
 I-35
 - Open all Northbound lanes, all Southbound lanes, and all ramps to traffic.

Grand Ave.
 - Open all Westbound lanes, all Eastbound lanes, and all ramps to traffic.

Stage 5 - Construction
 I-35
 - Remove all TBR, crash cushions, drums, and construction traffic control devices and signs.

Grand Ave.
 - None.

PEDESTRIAN PATH CLOSURES

*Assumes 6 foot wide barricade.
 Closures may need to be removed and re-established.

Refer to TC-601.

Location	Side	Type III	Remarks
		Barricades* No.	
EP True Parkway - Trail	Lt	2	
EP True Parkway - Trail	Lt	2	
EP True Parkway - Sidewalk	Rt	1	
EP True Parkway - Sidewalk	Rt	1	

TABULATION OF SPECIAL EVENTS

Event	Location	Date
Principal Charity Classic	Wakonda GC DSM	TBD
World Pork Expo	Iowa State Fair Grounds - Des Moines, IA	June 4-6, 2014
Iowa State Fair	Iowa State Fair Grounds - Des Moines, IA	August 7-17, 2014
Hy-Vee Triathlon	Des Moines	TBD

COORDINATED OPERATIONS










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

Project	Type of Work
IM-035-2(385)69--13-77	BRIDGE NEW-PPCB
BRFIM-035-2(361)72--05-77	BRIDGE REPLACEMENT-PPCB
BRFIM-035-2(372)69--05-77	BRIDGE REPLACEMENT-PPCB
IM-035-2(385)69--13-77	BRIDGE NEW-PPCB
BRFIM-035-2(370)69--05-77	BRIDGE REPLACEMENT-PPCB
IM-035-2(412)69--13-77	RCB CULVERT NEW - SINGLE BOX

**CROSS SECTION VIEW COLOR LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

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



















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

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White

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

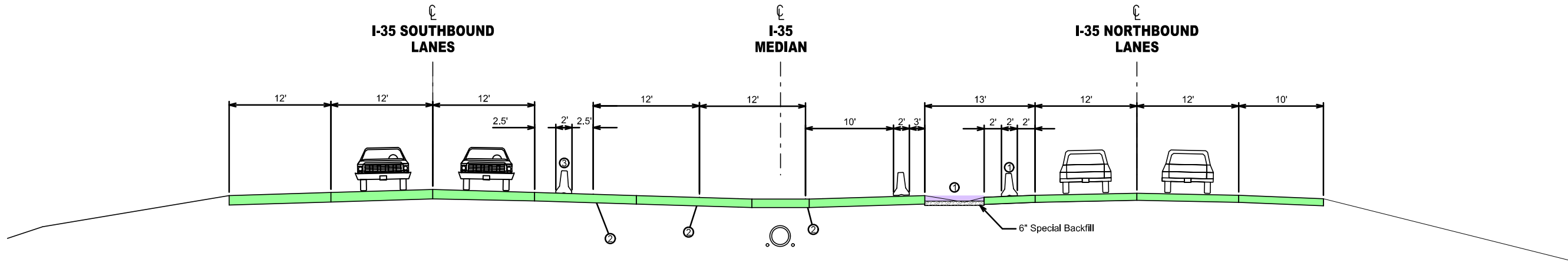
**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

	Channelizing Device		Crash Cushion
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure

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

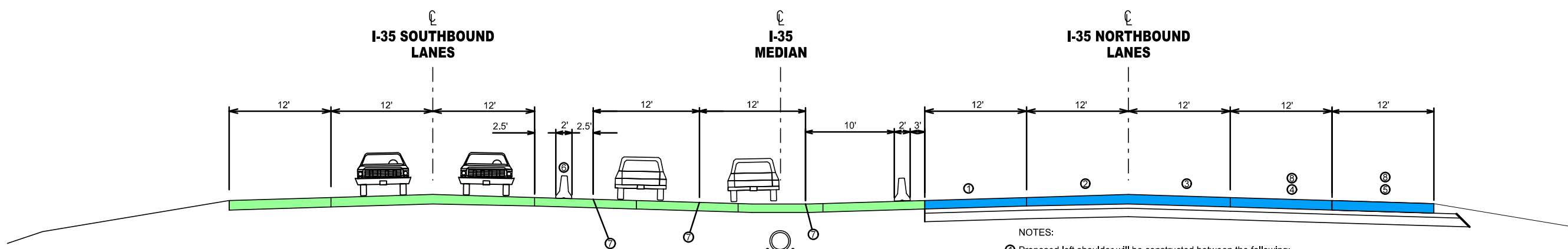
**TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET**

(COVERS SHEET SERIES J)



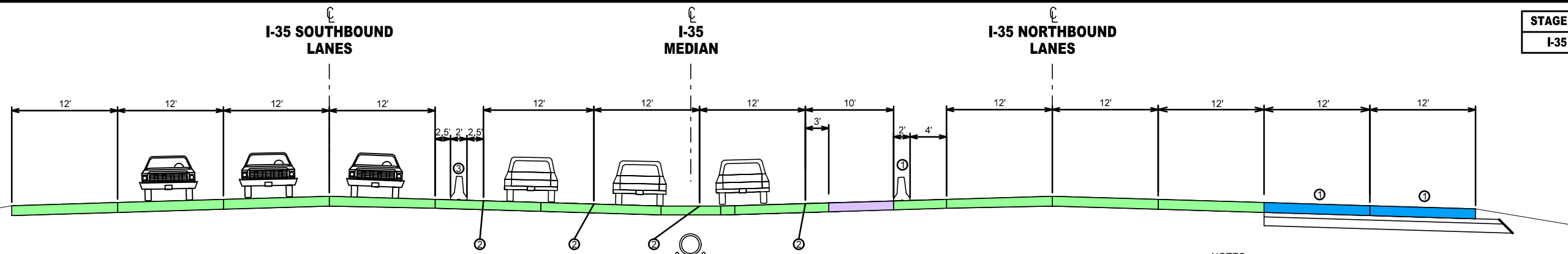
- NOTES:
- ① Temporary pavement and shifted TBR will be constructed between the following:
 - A) Sta. 1434+00.00 to Sta. 1441+00.00
 - B) Sta. 1469+50.00 to Sta. 1481+25.00
 - C) Sta. 1541+00.00 to Sta. 1545+50.00
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR

RELOCATED BARRIER RAIL AND PAVE TEMPORARY PAVEMENT
Traffic in Existing Southbound Lanes and Existing Northbound Lanes



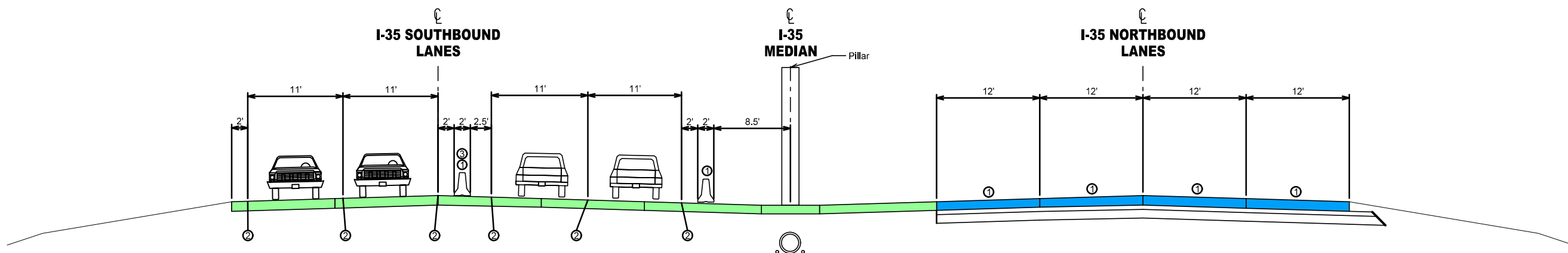
- NOTES:
- ① Proposed left shoulder will be constructed between the following:
 - A) Sta. 1375+00.83 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1541+00.00
 - ② Proposed left lane will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1545+75.00
 - ③ Proposed right lane will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1545+75.00
 - ④ Proposed Aux. Lane will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1375+00.00
 - B) Sta. 1406+00.00 to Sta. 1434+00.00
 - C) Sta. 1493+83.85 to Sta. 1509+69.02
 - D) Sta. 1515+66.40 to Sta. 1550+62.56
 - ⑤ Proposed right shoulder will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1443+04.55 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1493+83.85 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1552+05.00
 - ⑥ Use Modular Screen on TBR
 - ⑦ Temporary pavement markings
 - ⑧ HMA Overlay
 - A) Sta. 1481+25.00 to Sta. 1493+83.35

NORTHBOUND CONSTRUCTION
Traffic in Existing Southbound Lanes and Existing Median



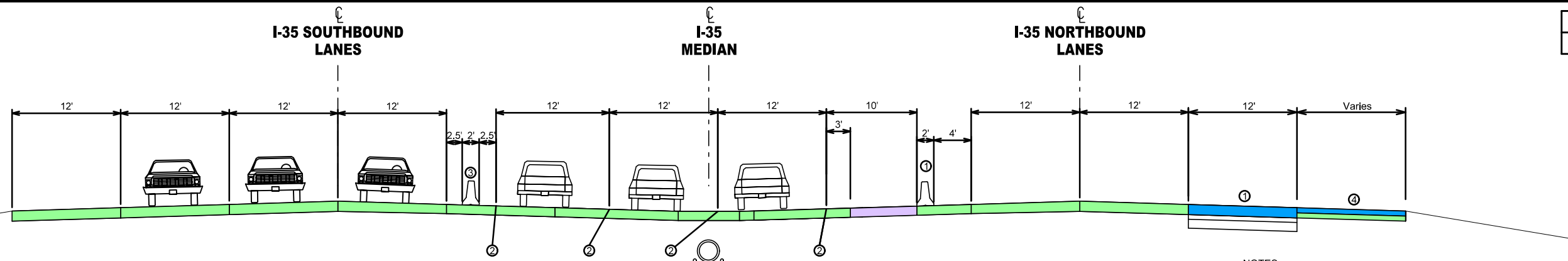
RELOCATED BARRIER RAIL AND NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes and Existing Median

- NOTES:
- ① Proposed pavement and shifted TBR will be constructed between the following:
A) Sta. 1434+00.00 to Sta. 1438+23.58
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR



RELOCATED BARRIER RAIL AND NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes

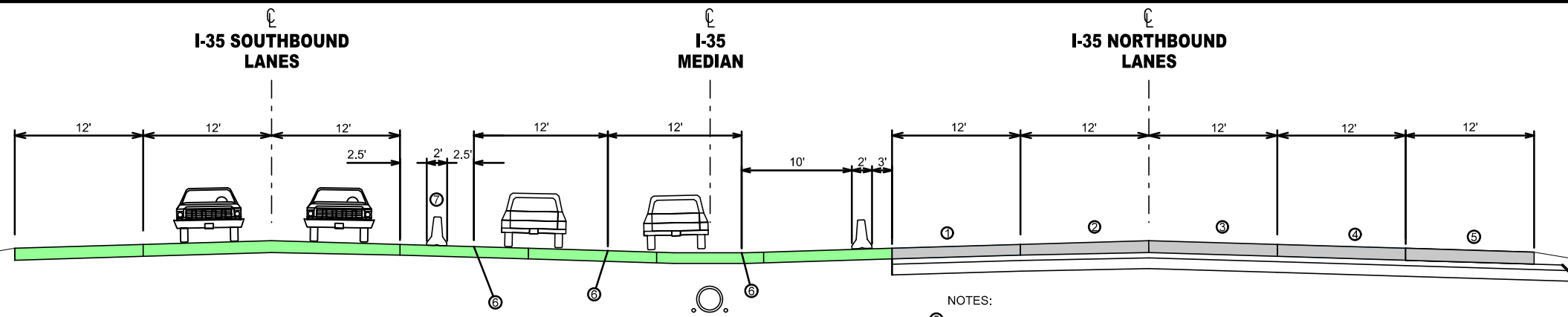
- NOTES:
- ① Proposed pavement and shifted TBR will be constructed between the following:
A) Sta. 1450+10.00 to Sta. 1461+08.00
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR



RELOCATED BARRIER RAIL AND NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes and Existing Median

- NOTES:
- ① Proposed pavement and shifted TBR will be constructed between the following:
A) Sta. 1473+00.00 to Sta. 1481+25.00
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR
 - ④ HMA Overlay

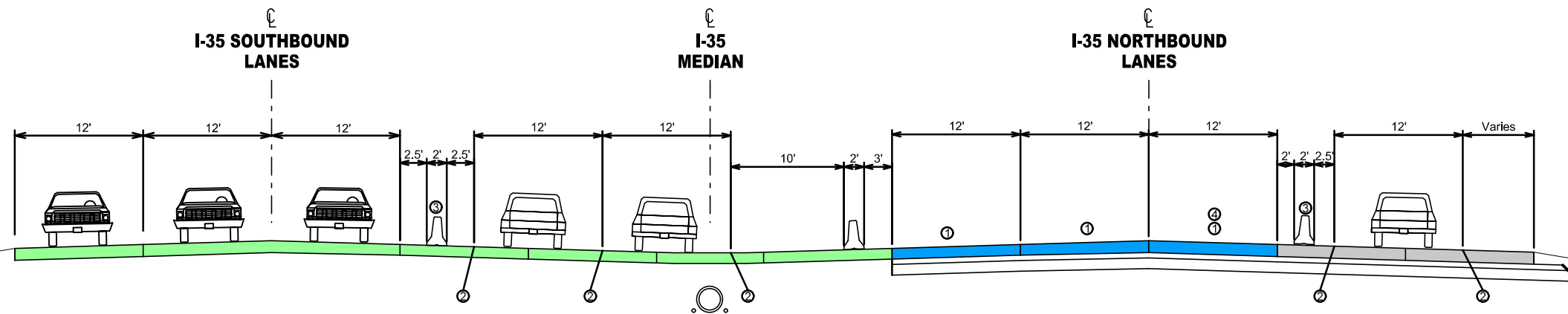
- NOTES:
- ① Proposed left shoulder will be constructed between the following:
 - A) Sta. 1375+00.83 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1541+00.00
 - ② Proposed left lane will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1545+75.00
 - ③ Proposed right lane will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1442+00.00 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1481+25.00 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1545+75.00
 - Proposed Aux. Lane
 - A) Sta. 1364+05.00 to Sta. 1375+00.00
 - B) Sta. 1406+00.00 to Sta. 1434+00.00
 - C) Sta. 1493+83.85 to Sta. 1509+69.02
 - D) Sta. 1515+66.40 to Sta. 1550+62.56



NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes
and Existing Median

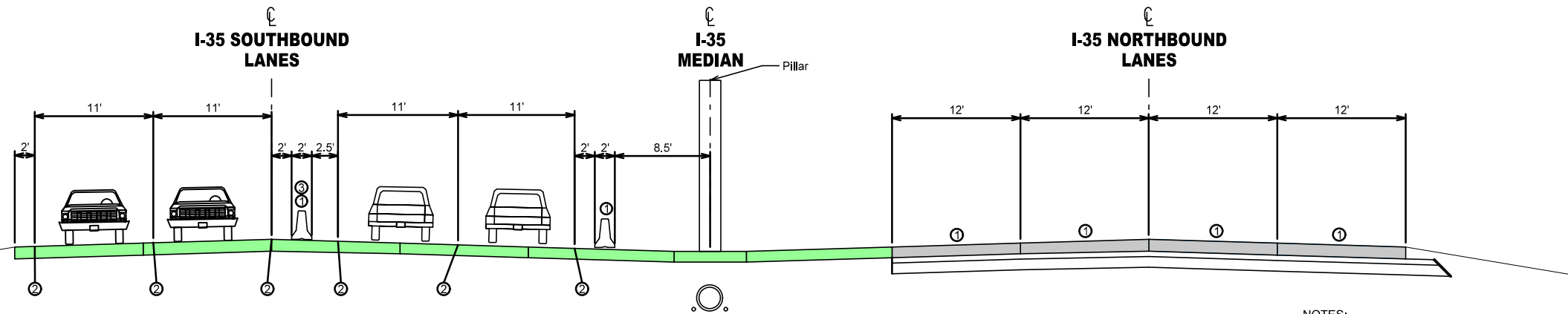
- NOTES:
- ⑤ Proposed right shoulder will be constructed between the following:
 - A) Sta. 1364+05.00 to Sta. 1378+40.05
 - B) Sta. 1381+91.41 to Sta. 1387+73.06
 - C) Sta. 1392+06.45 to Sta. 1434+00.00
 - D) Sta. 1443+04.55 to Sta. 1450+10.00
 - E) Sta. 1461+08.00 to Sta. 1468+66.00
 - F) Sta. 1493+83.85 to Sta. 1509+69.02
 - G) Sta. 1515+66.40 to Sta. 1552+05.00

- ⑥ Temporary pavement markings
- ⑦ Use Modular Screen on TBR



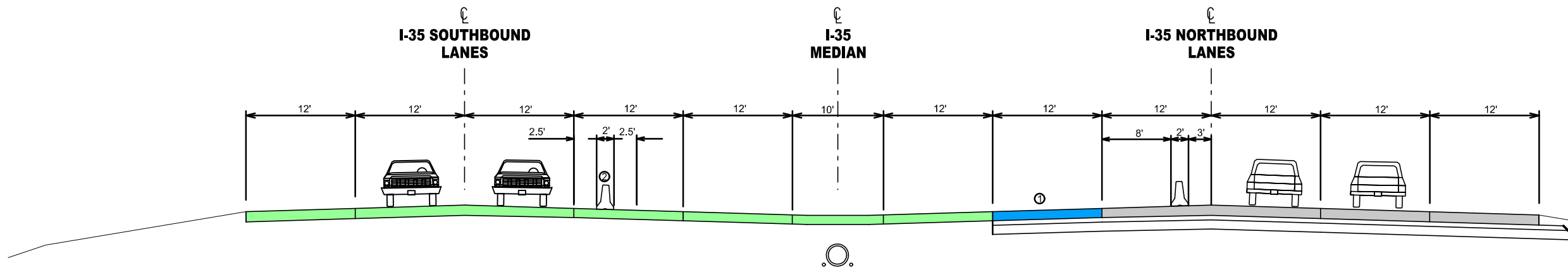
NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes, Existing Median,
and New Northbound Outside Lane

- NOTES:
- ① Proposed pavement will be constructed between the following:
 - A) Sta. 1434+00.00 to Sta. 1442+00.00
 - B) Sta. 1468+66.00 to Sta. 1481+25.00
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR
 - ④ From Sta. 1473+00.00 to Sta. 1481+25.00, lane was previously constructed in Stage 2. See Stage 2d cross section.



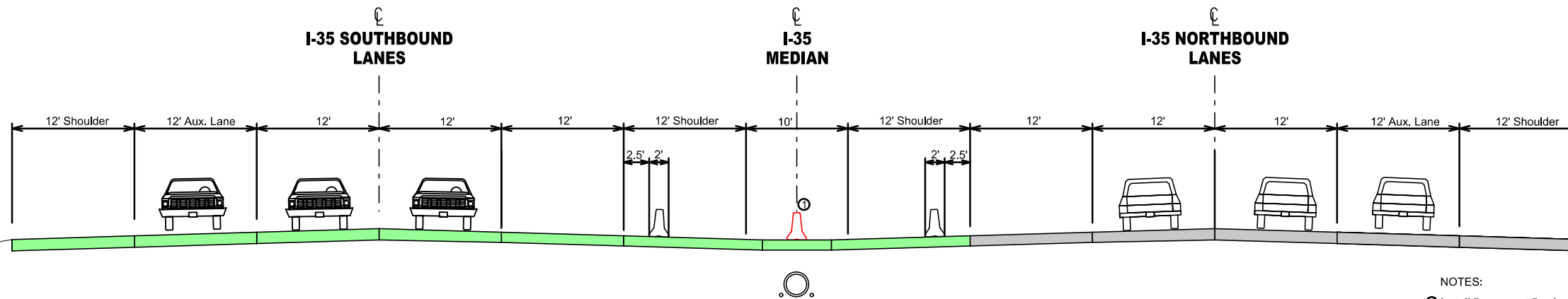
RELOCATED BARRIER RAIL AND NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes

- NOTES:
- ① Pavement Previously constructed and shifted TBR was constructed between the following:
 - A) Sta. 1450+10.00 to Sta. 1461+08.00
 - ② Temporary pavement markings
 - ③ Use Modular Screen on TBR



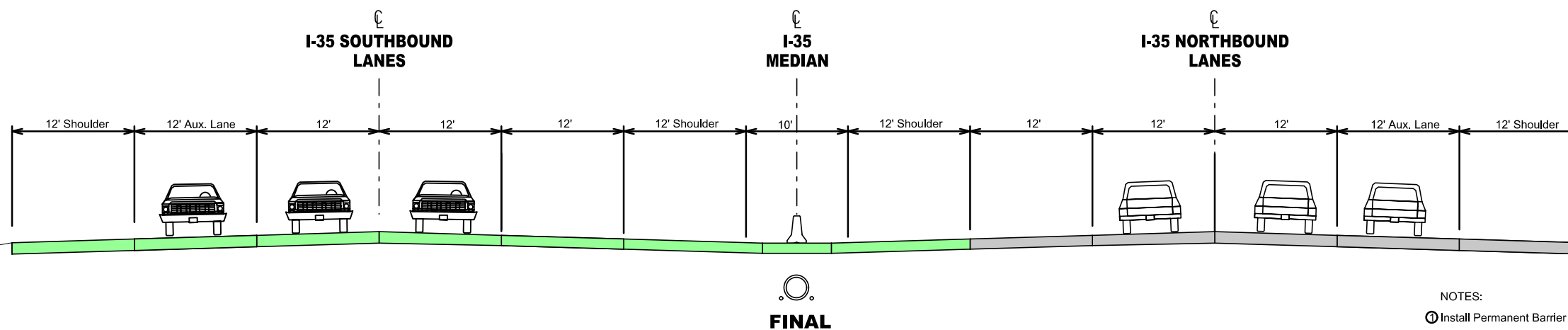
NORTHBOUND CONSTRUCTION
Traffic in New Southbound Lanes and
New Northbound Outside Lanes

- NOTES:
 ① Proposed pavement will be constructed between the following:
 A) Sta. 1541+00.00 to Sta. 1545+75.00
 ② Use Modular Screen on TBR



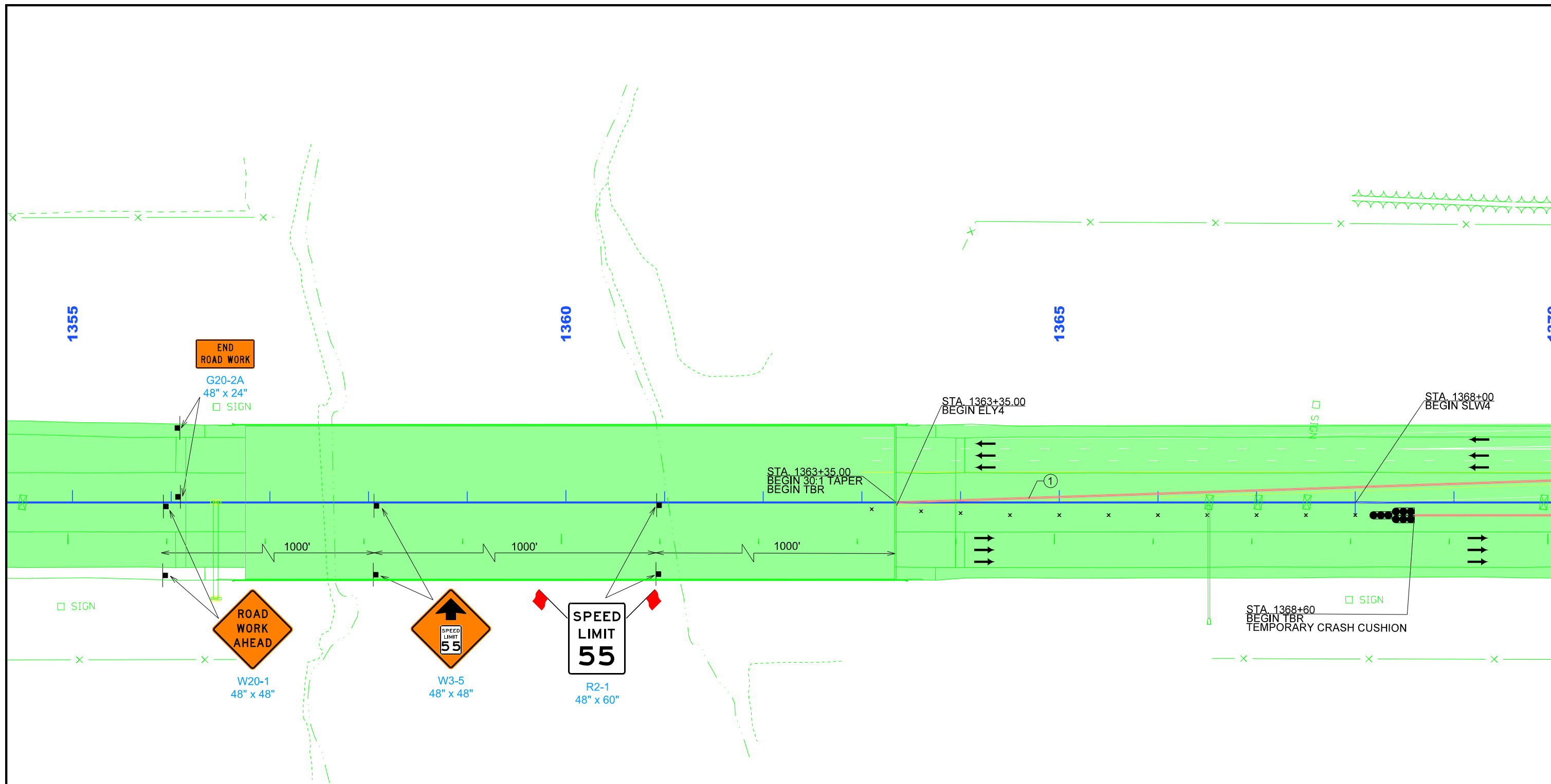
PERMANENT BARRIER RAIL CONSTRUCTION
Traffic in New Lanes

- NOTES:
 ① Install Permanent Barrier Rail From Sta. 1363+35.00 to Sta. 1546+97.00



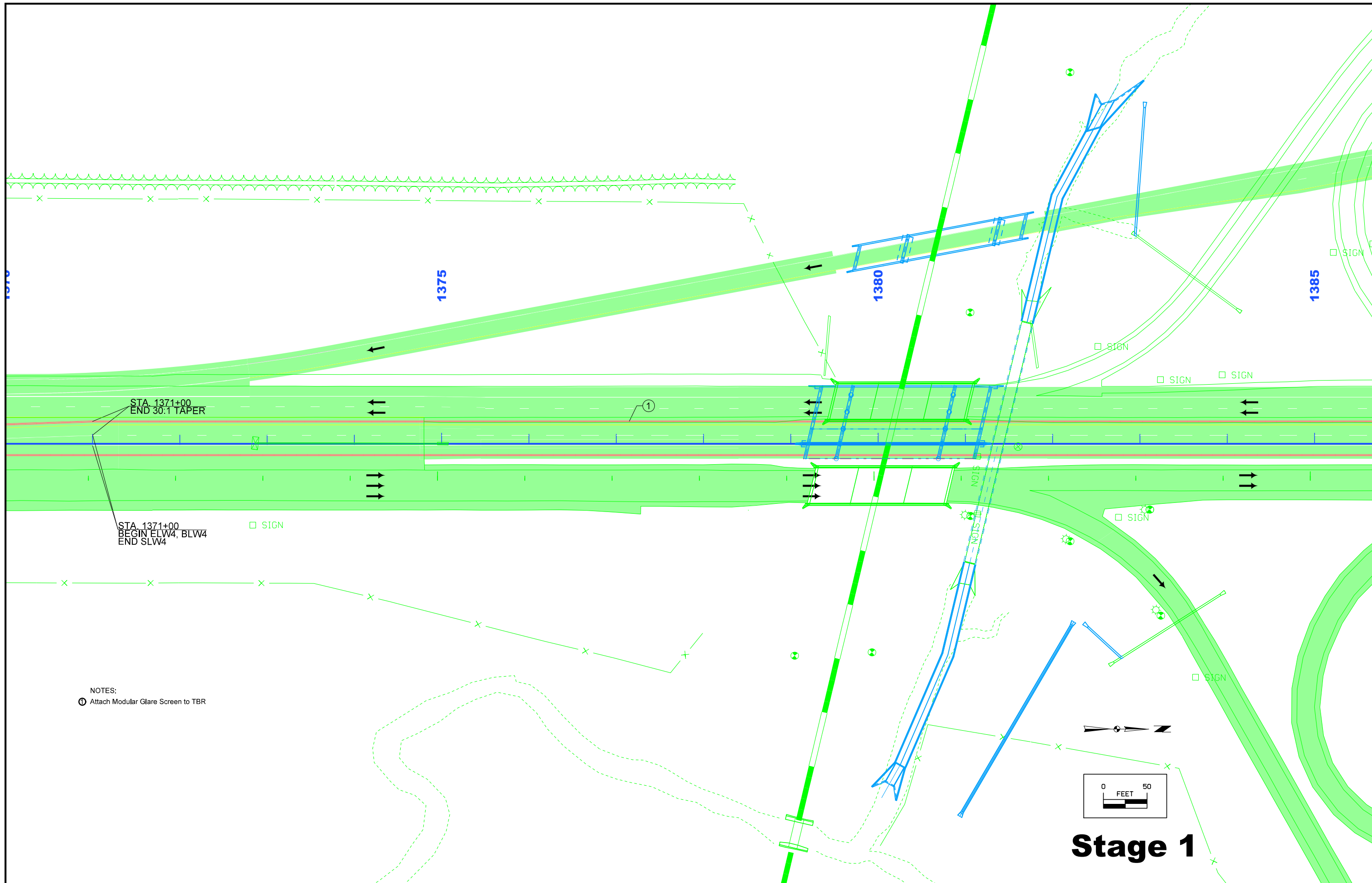
FINAL

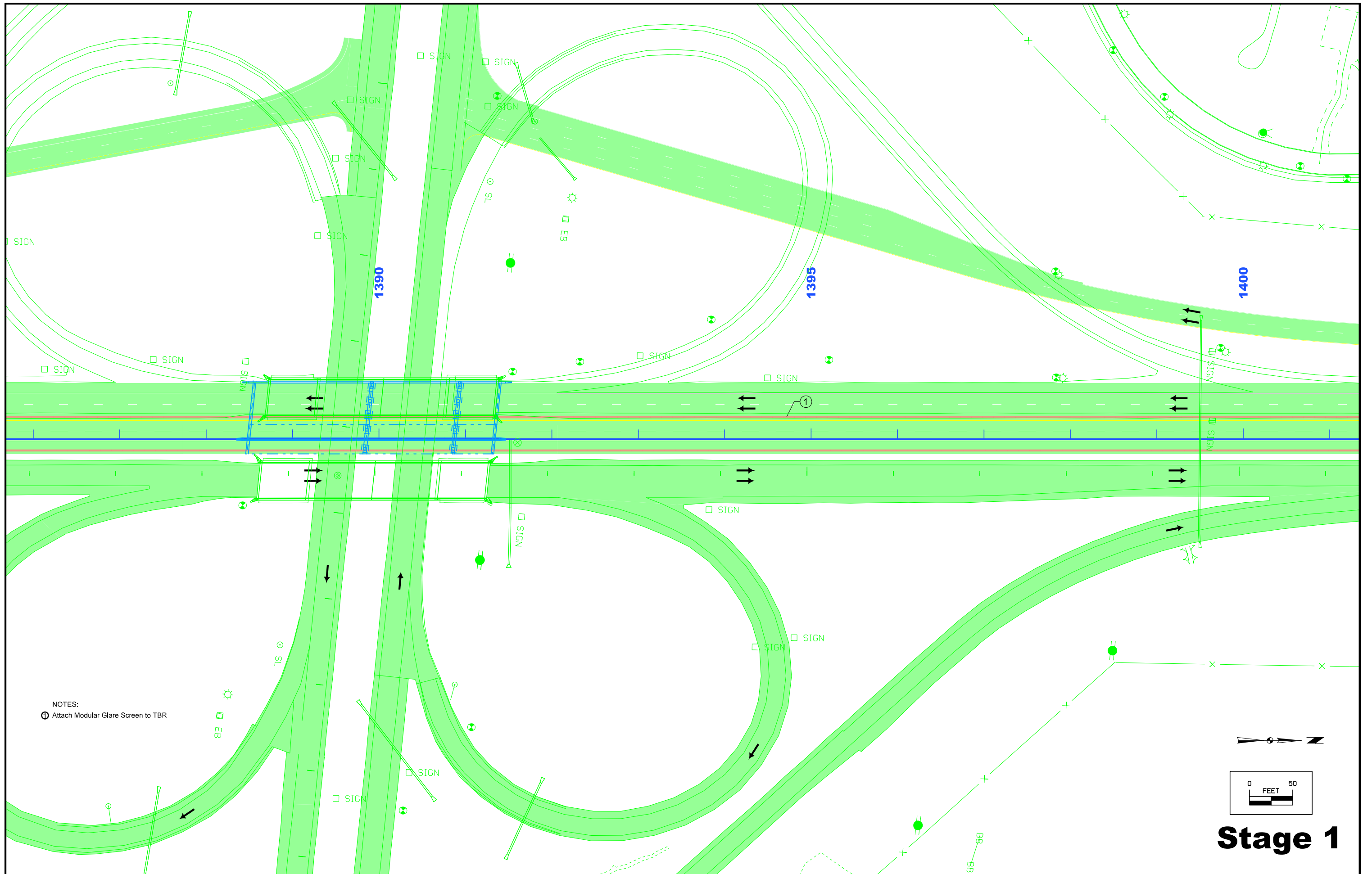
- NOTES:
 ① Install Permanent Barrier Rail



NOTES:
 ① Attach Modular Glare Screen to TBR

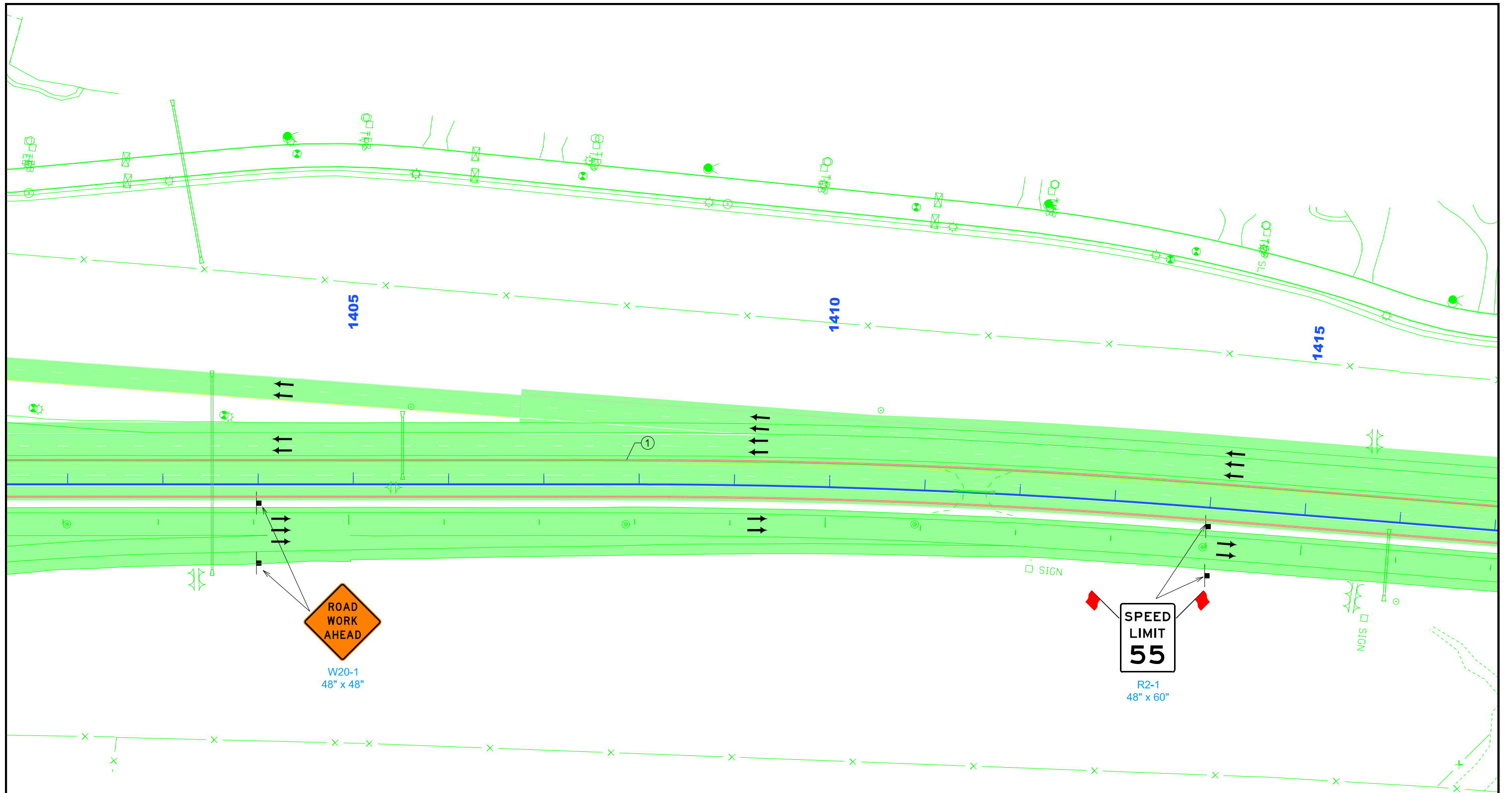
Stage 1



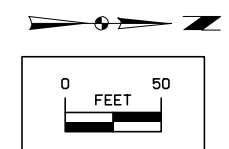


NOTES:
 ① Attach Modular Glare Screen to TBR

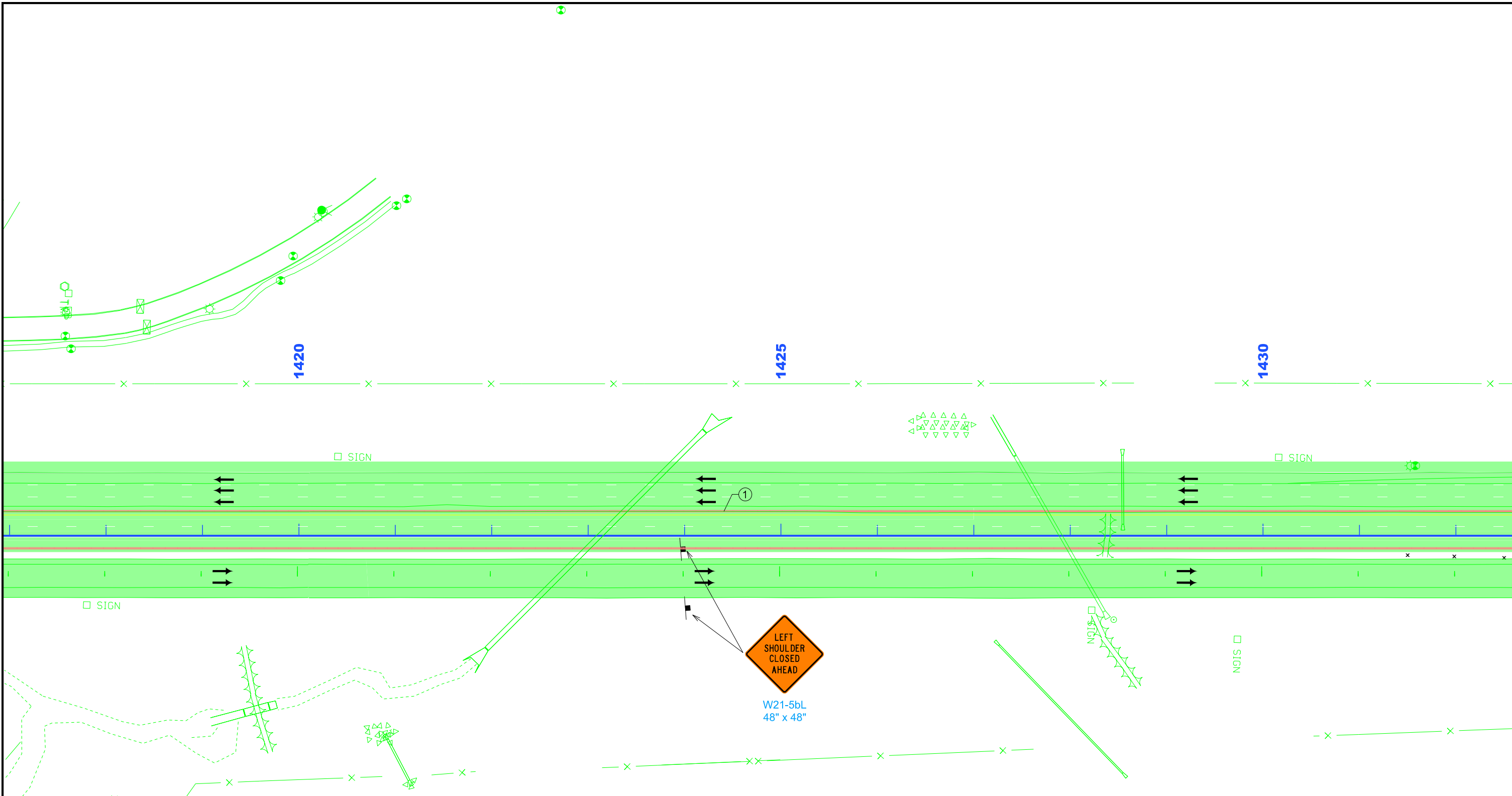
Stage 1



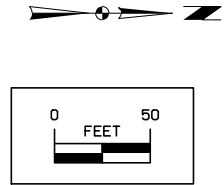
NOTES:
 ① Attach Moldular Glare Screen to TBR



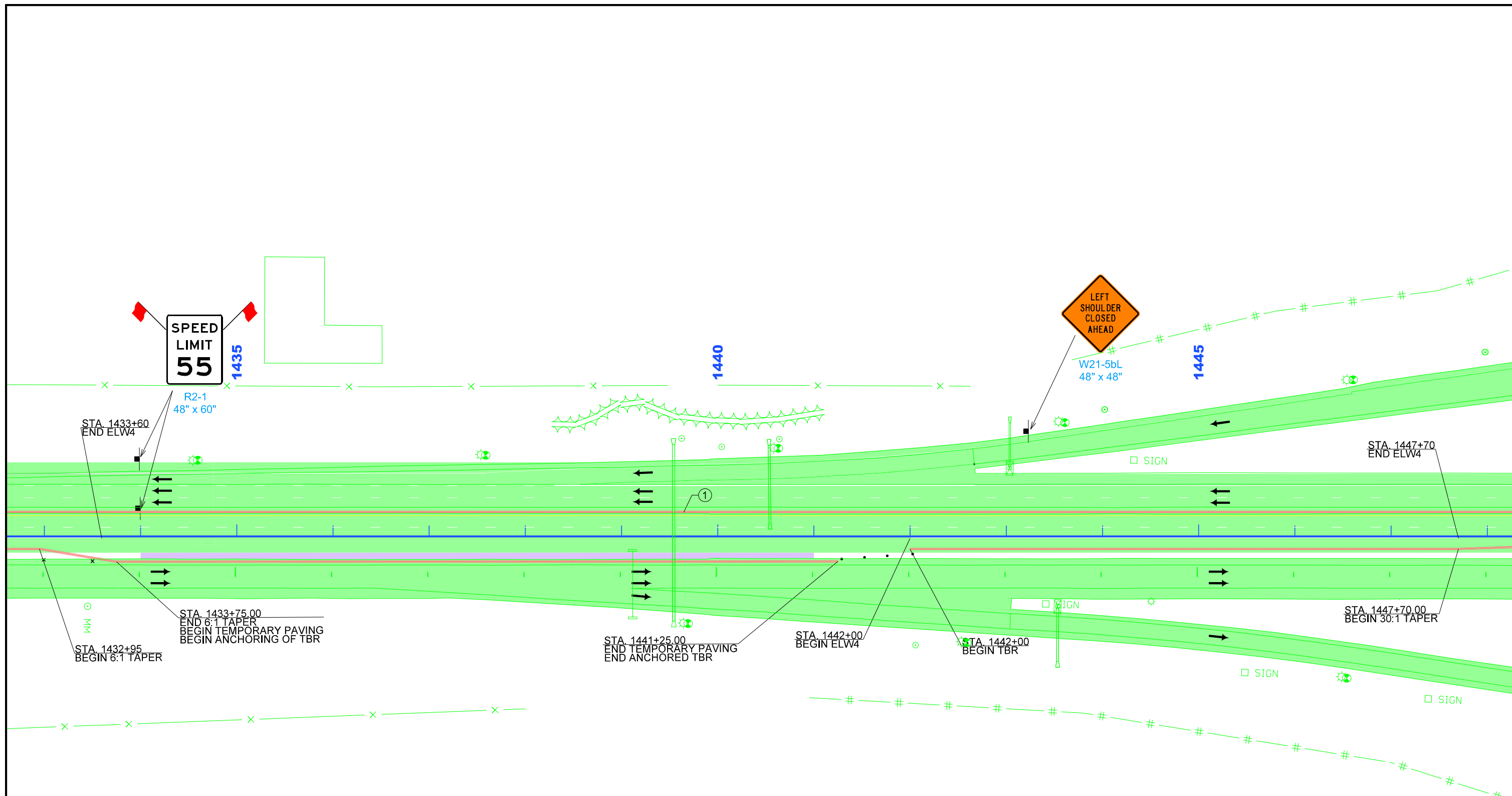
Stage 1



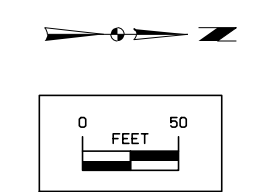
NOTES:
 ① Attach Modular Glare Screen to TBR



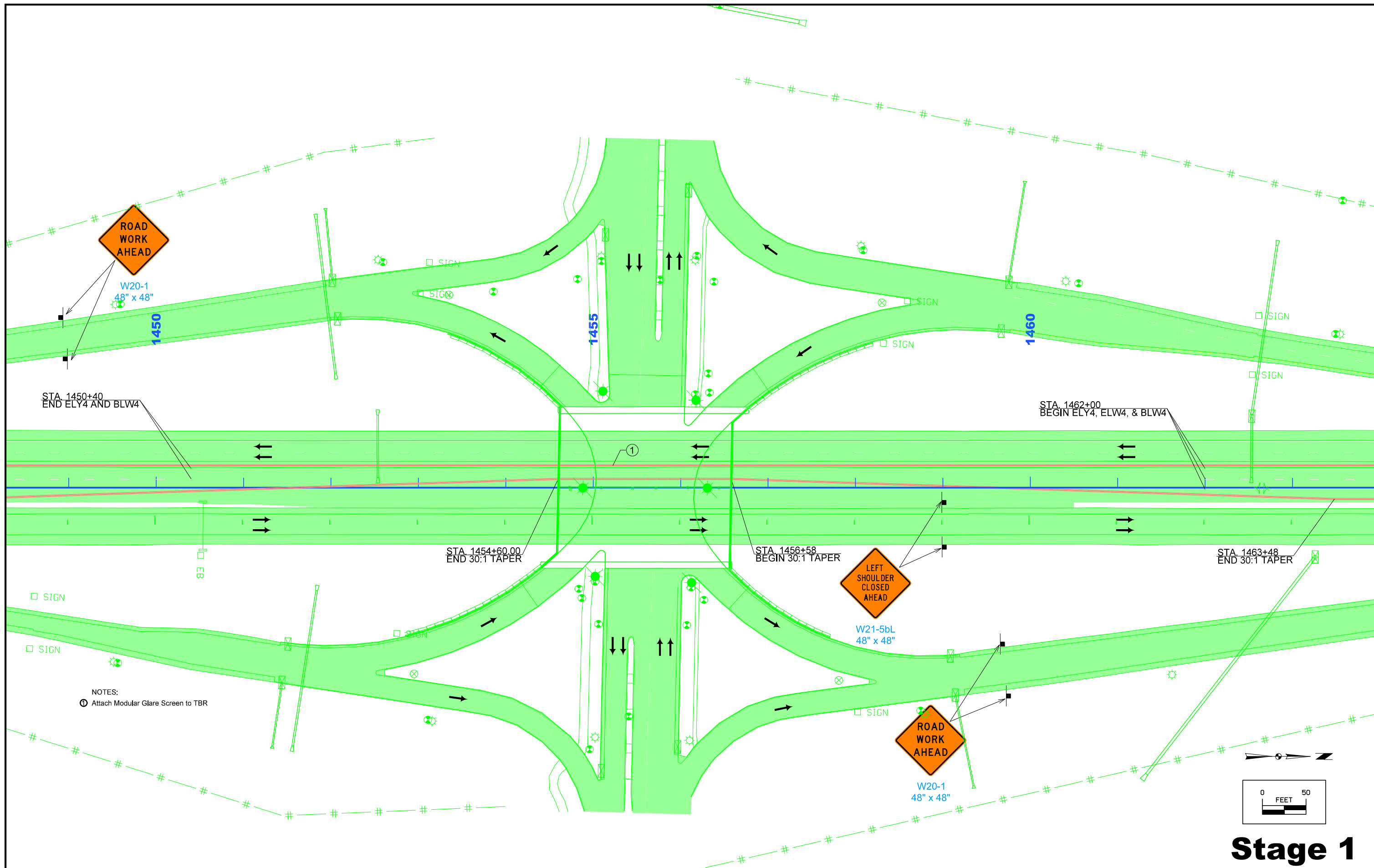
Stage 1



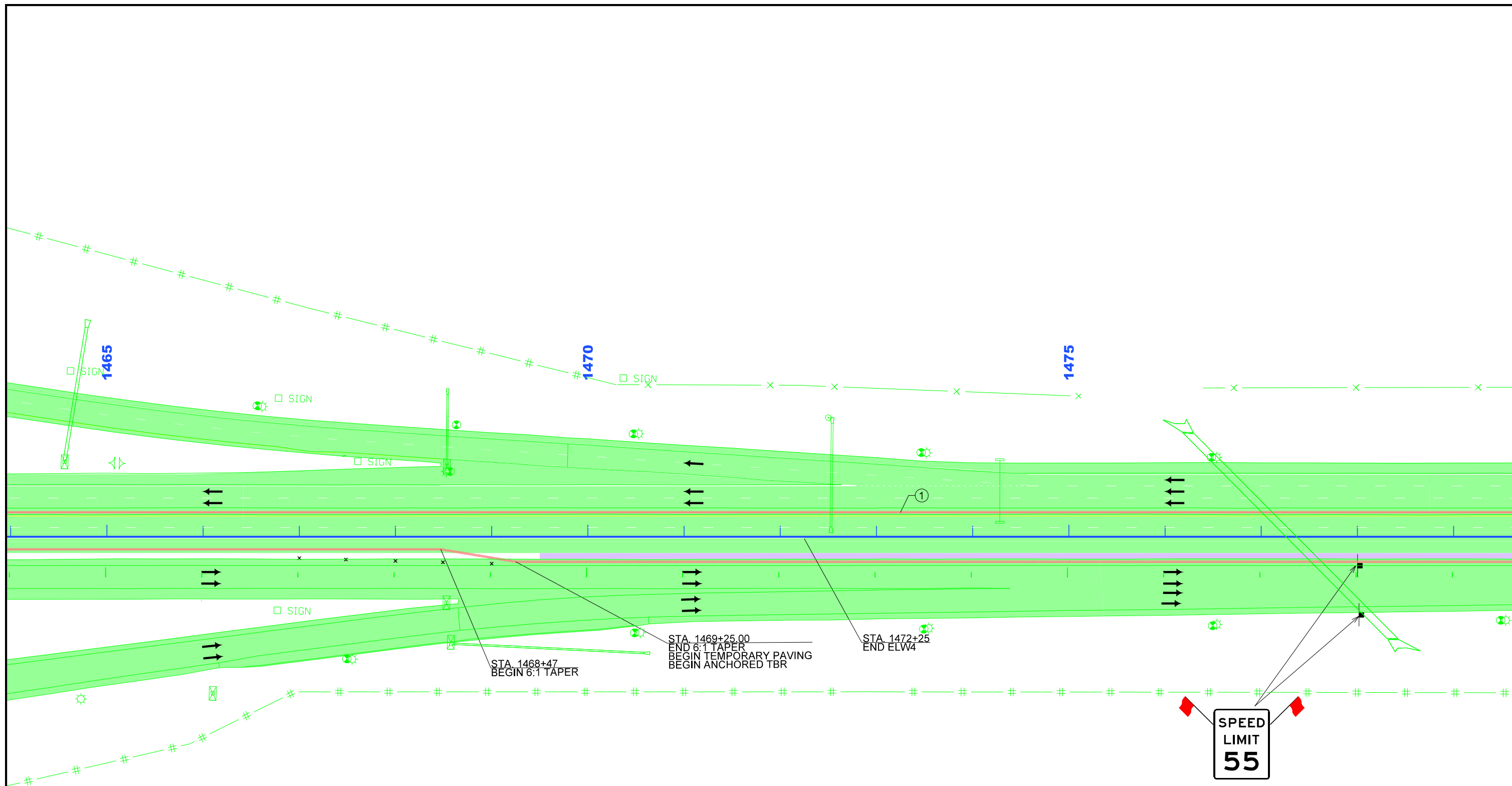
NOTES:
 Ⓞ Attach Modular Glare Screen to TBR



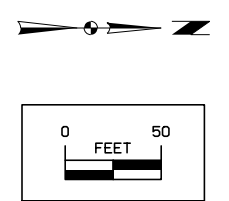
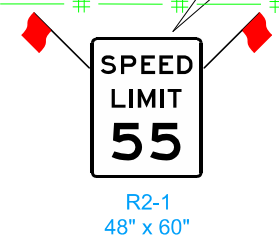
Stage 1



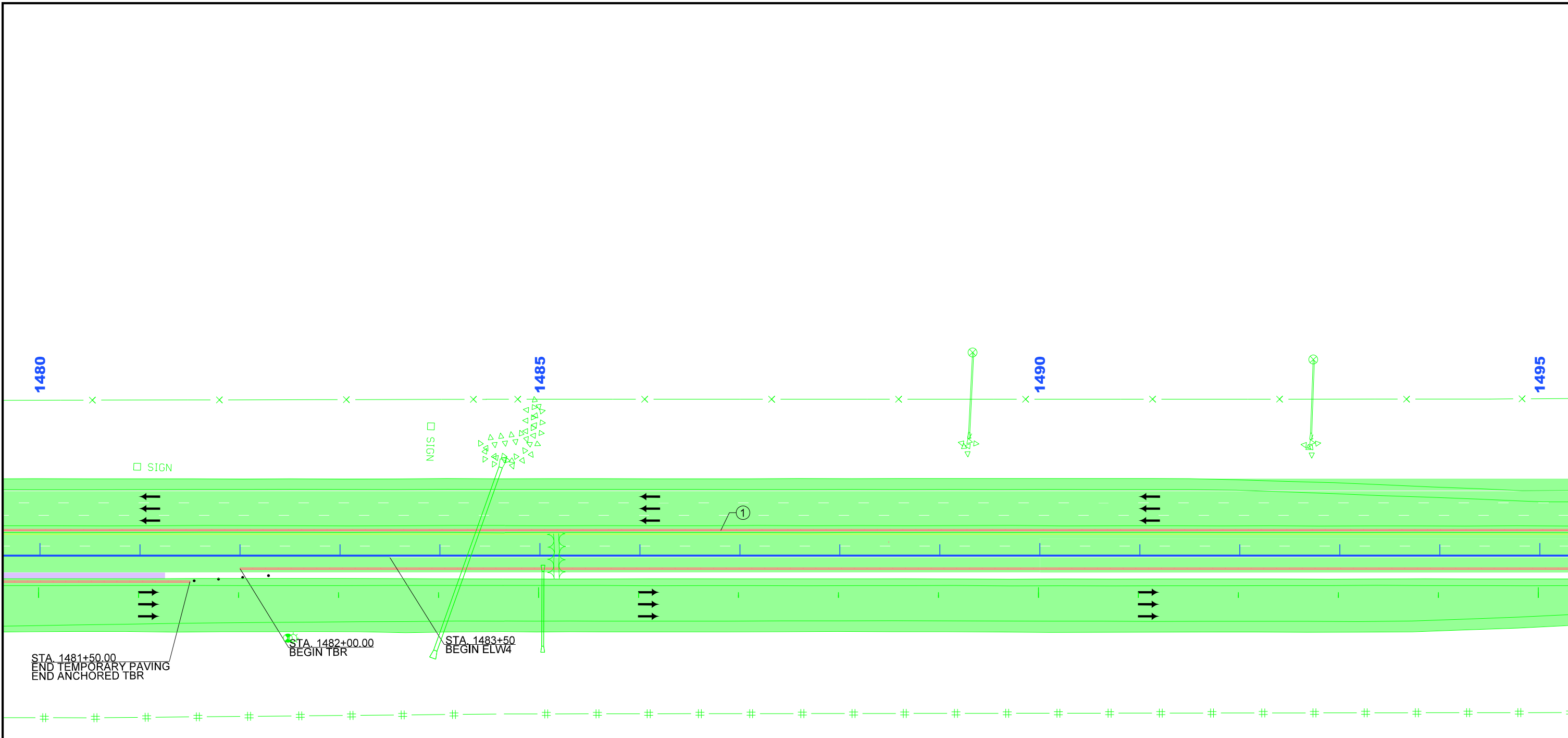
Stage 1



NOTES:
 ① Attach Modular Glare Screen to TBR



Stage 1



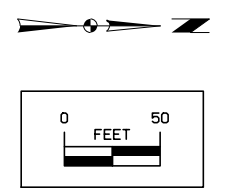
STA 1481+50.00
 END TEMPORARY PAVING
 END ANCHORED TBR

STA 1482+00.00
 BEGIN TBR

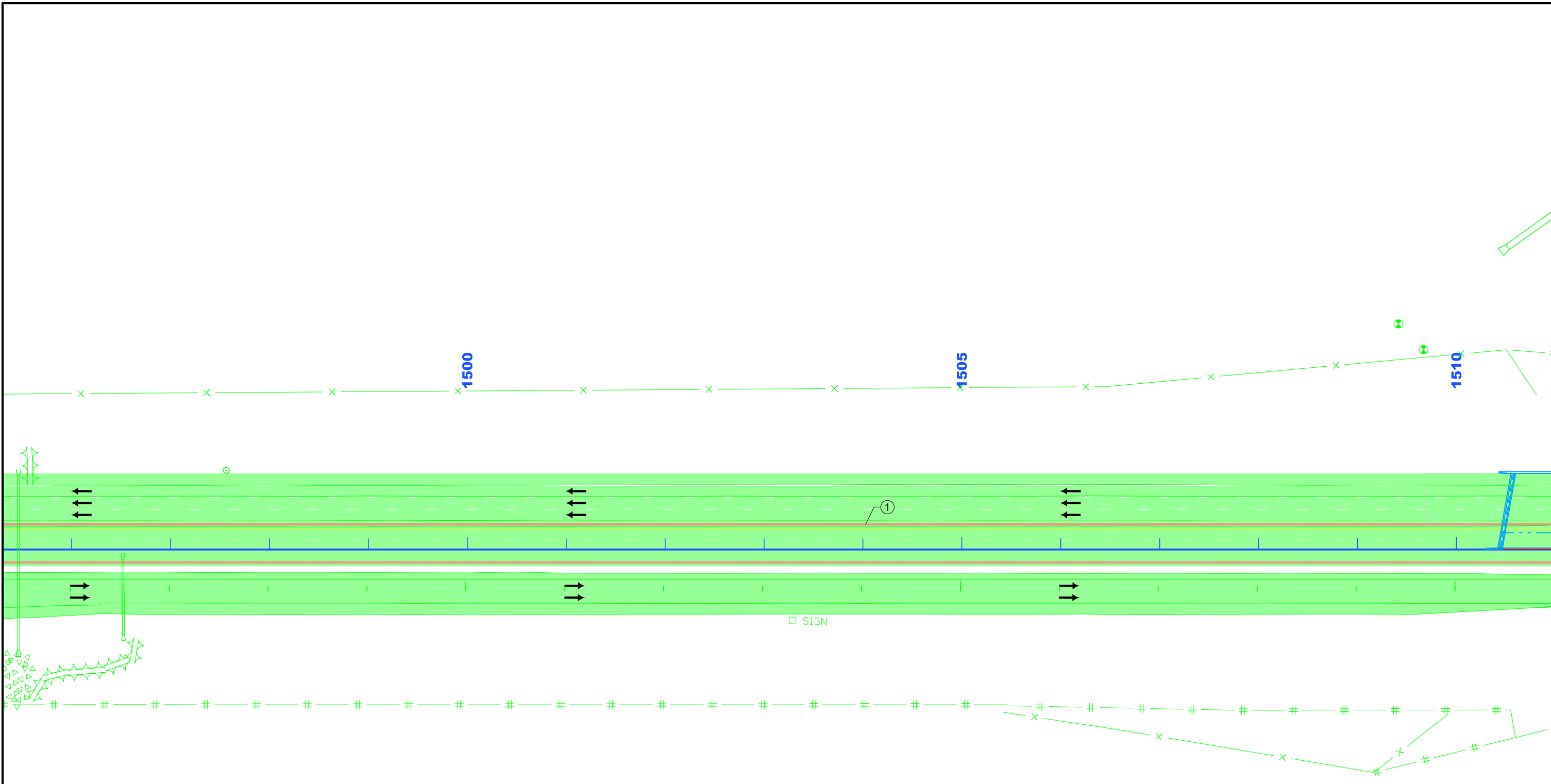
STA 1483+50
 BEGIN ELW4

NOTES:

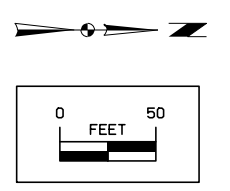
- ① Attach Modular Glare Screen to TBR



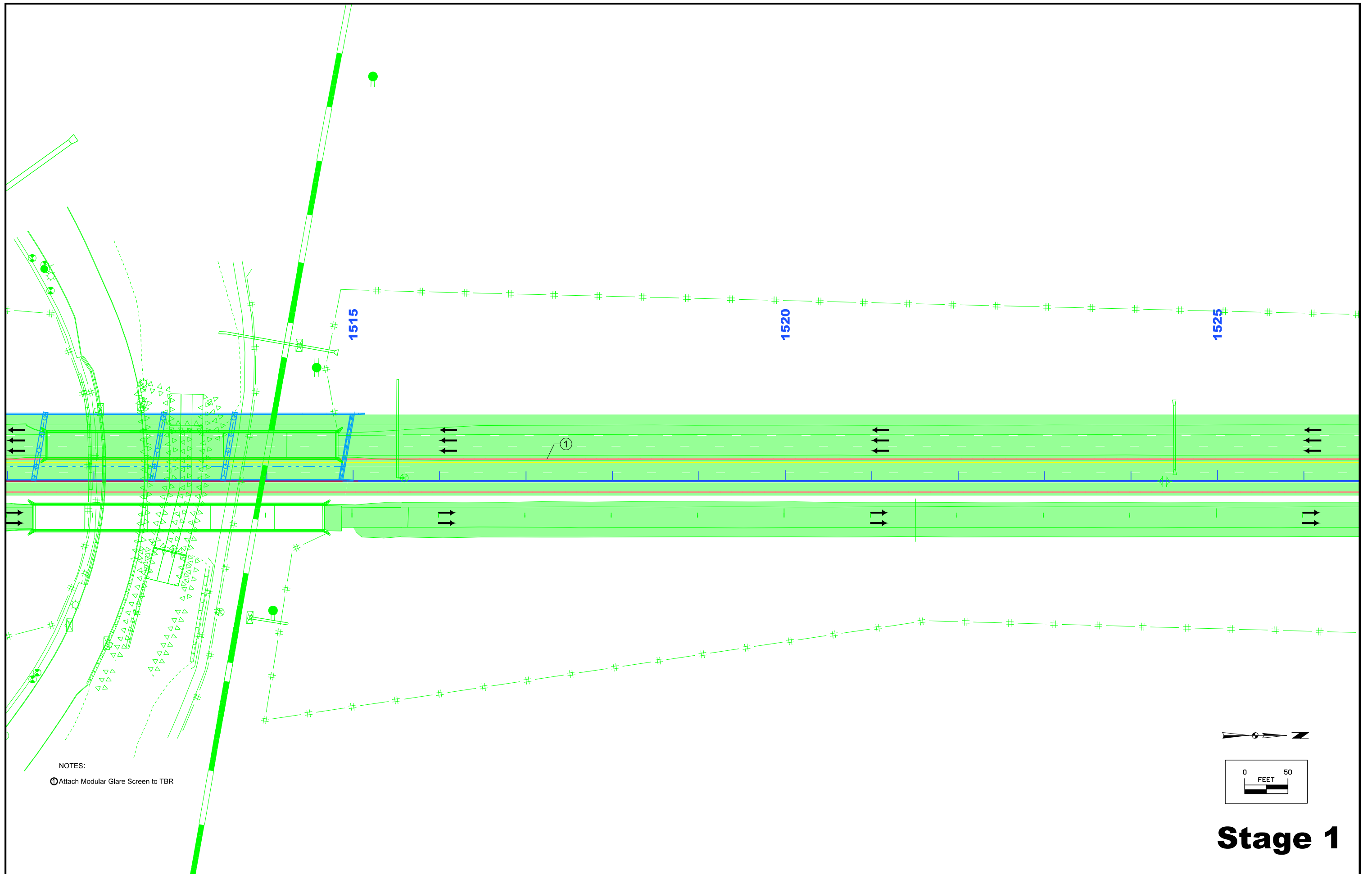
Stage 1



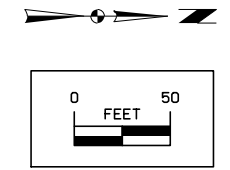
NOTES:
 ① Attach Modular Glare Screen to TBR



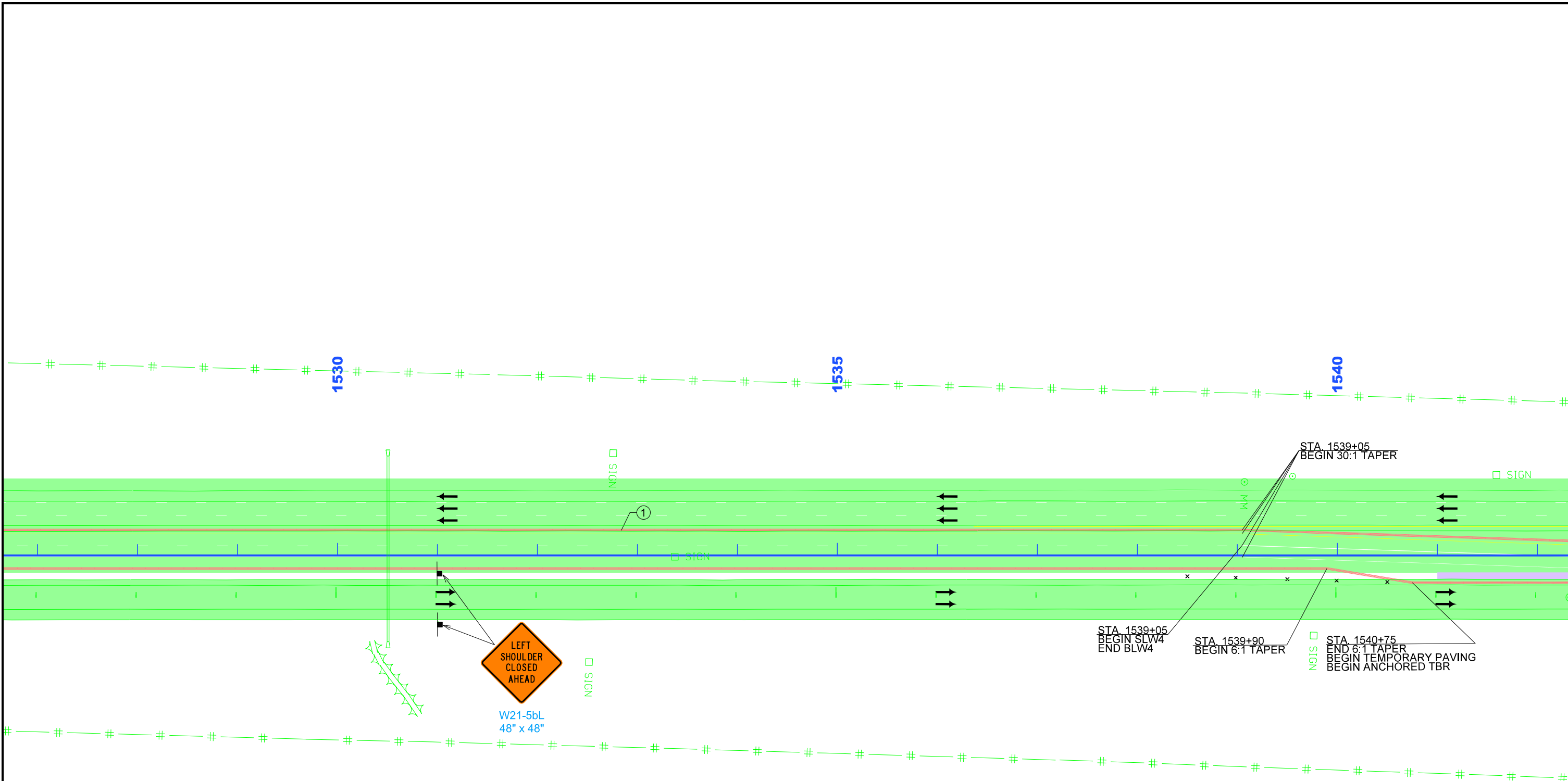
Stage 1



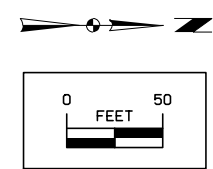
NOTES:
 ① Attach Modular Glare Screen to TBR



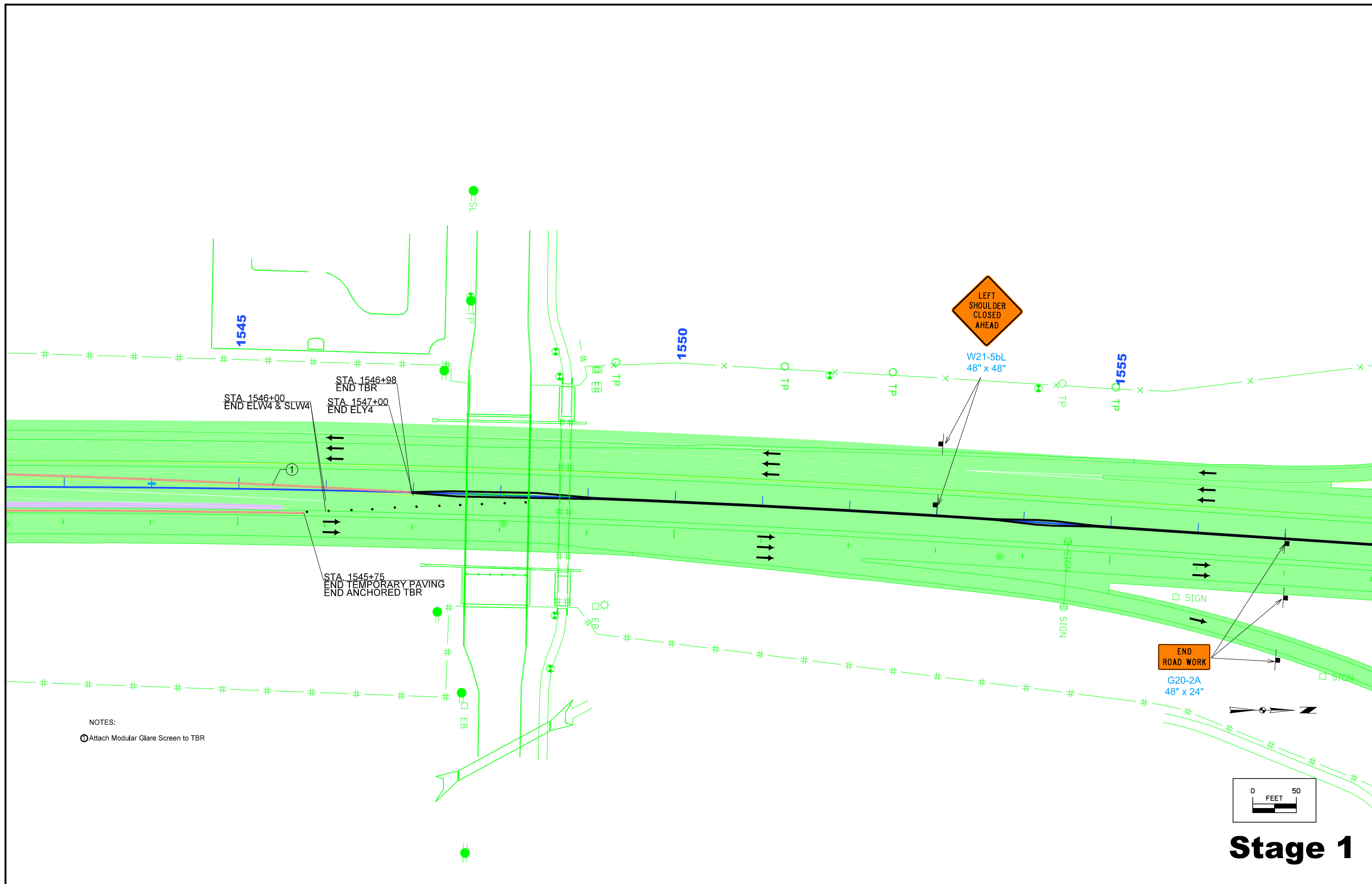
Stage 1



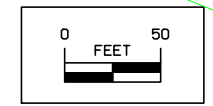
NOTES:
 Ⓞ Attach Modular Glare Screen to TBR



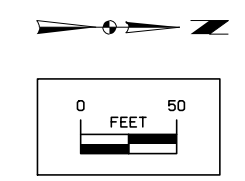
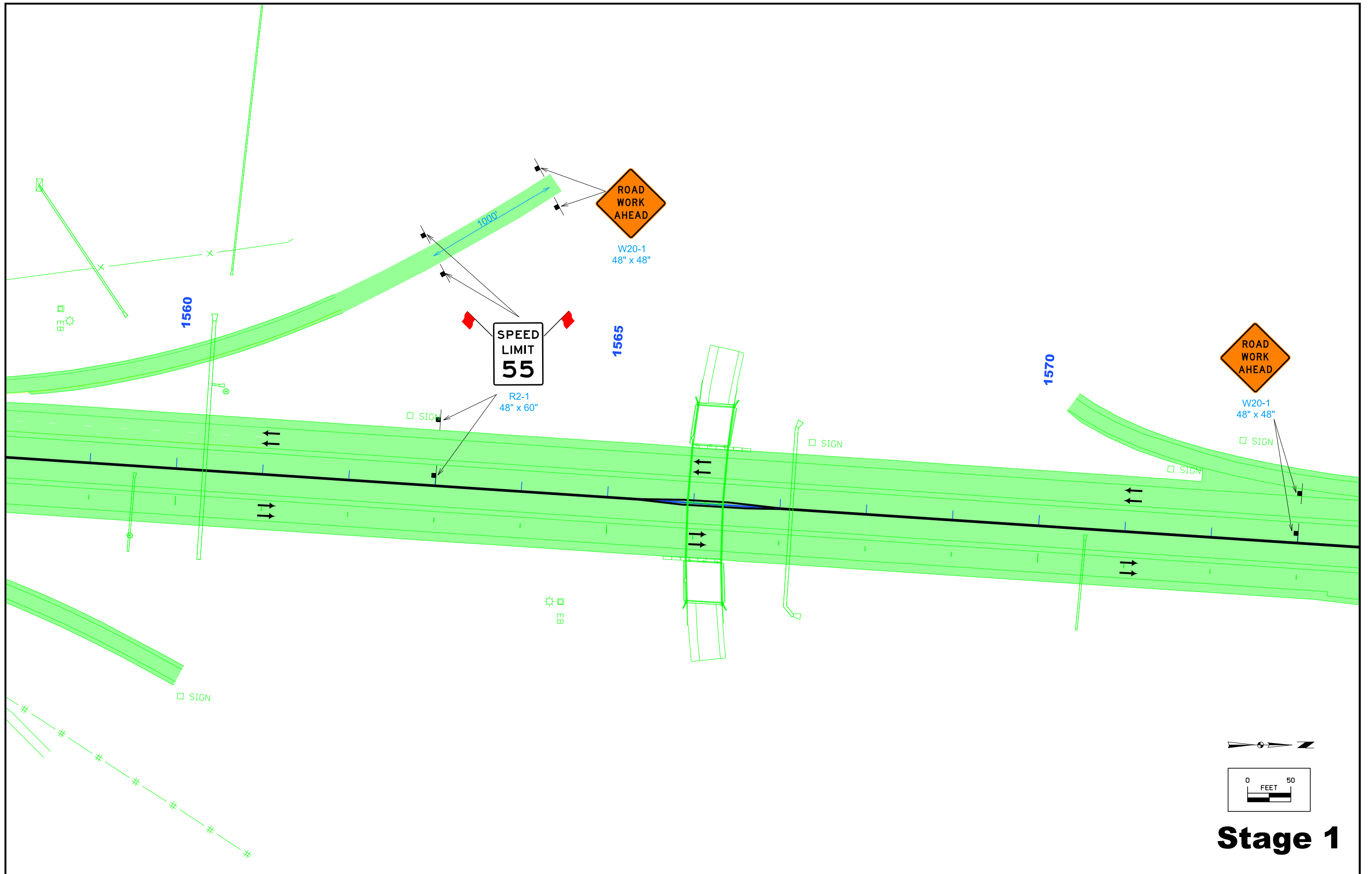
Stage 1



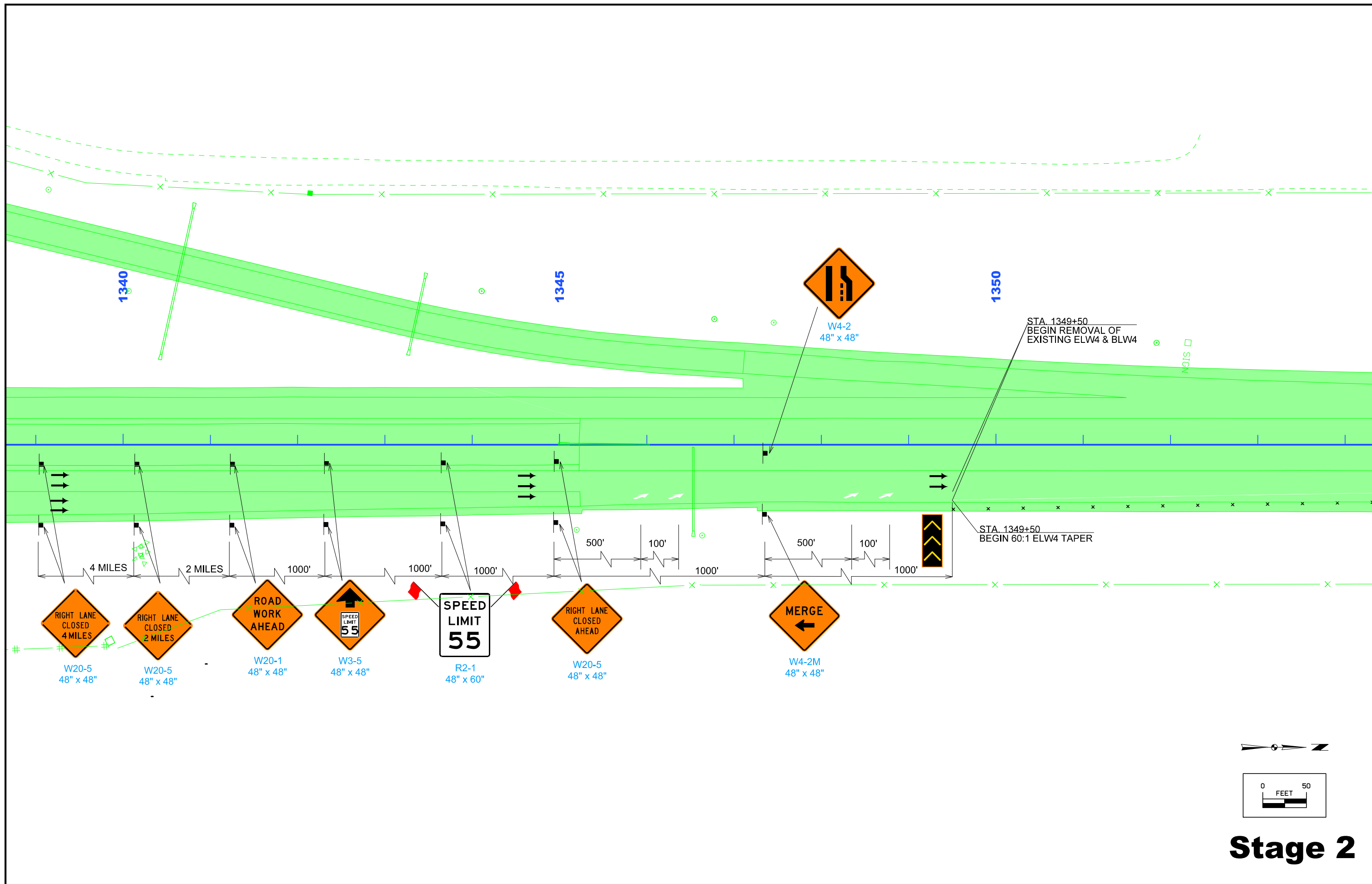
NOTES:
 ⊕ Attach Modular Glare Screen to TBR



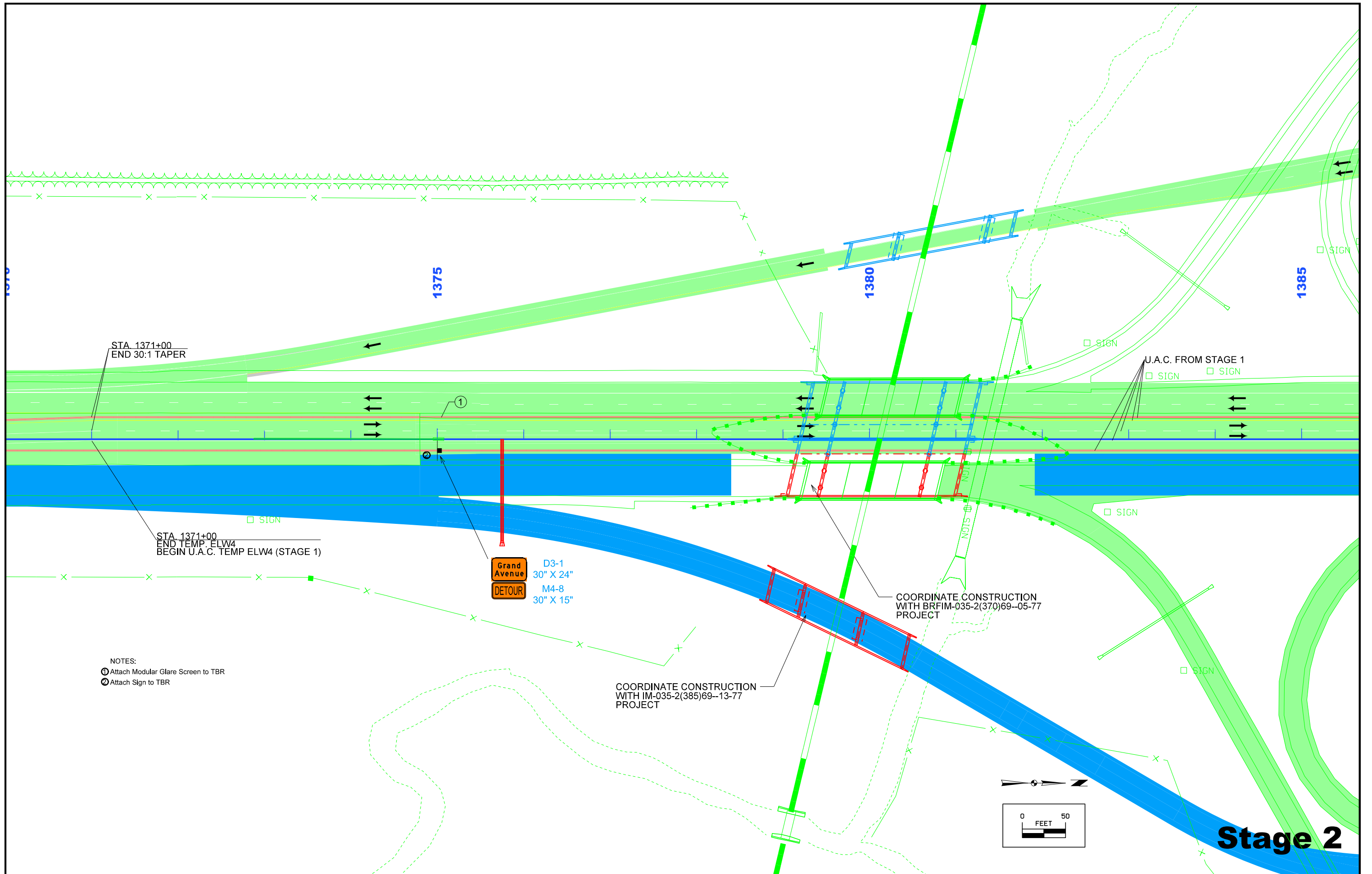
Stage 1



Stage 1



Stage 2



STA. 1371+00
END 30:1 TAPER

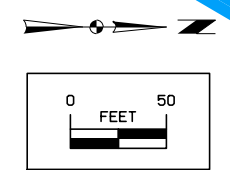
STA. 1371+00
END TEMP. ELW4
BEGIN U.A.C. TEMP ELW4 (STAGE 1)

Grand Avenue
DETOUR
D3-1
30" X 24"
M4-8
30" X 15"

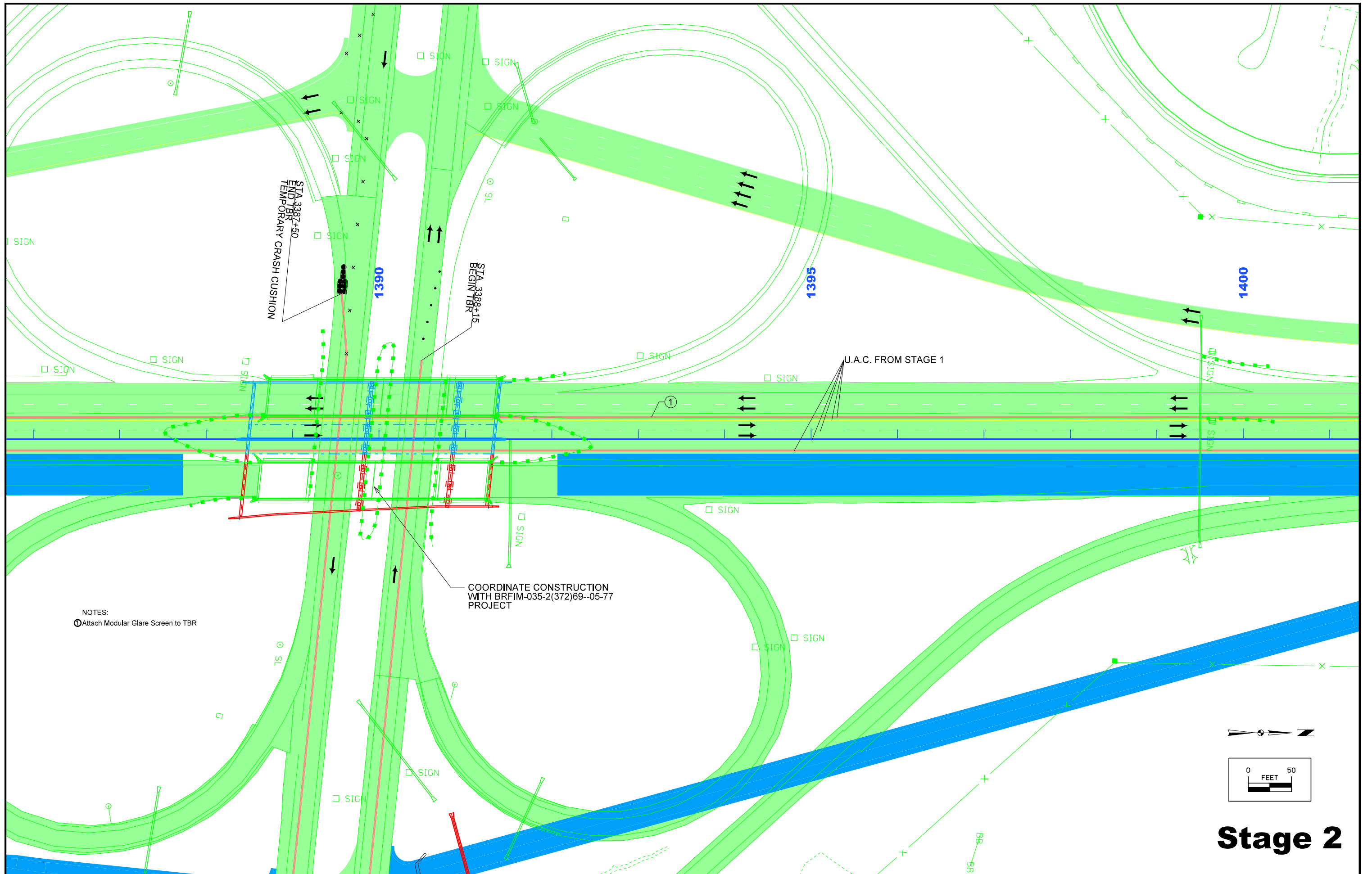
COORDINATE CONSTRUCTION
WITH BRFIM-035-2(370)69--05-77
PROJECT

COORDINATE CONSTRUCTION
WITH IM-035-2(385)69--13-77
PROJECT

NOTES:
① Attach Modular Glare Screen to TBR
② Attach Sign to TBR

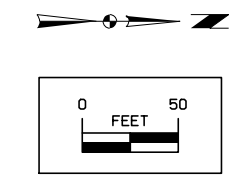


Stage 2

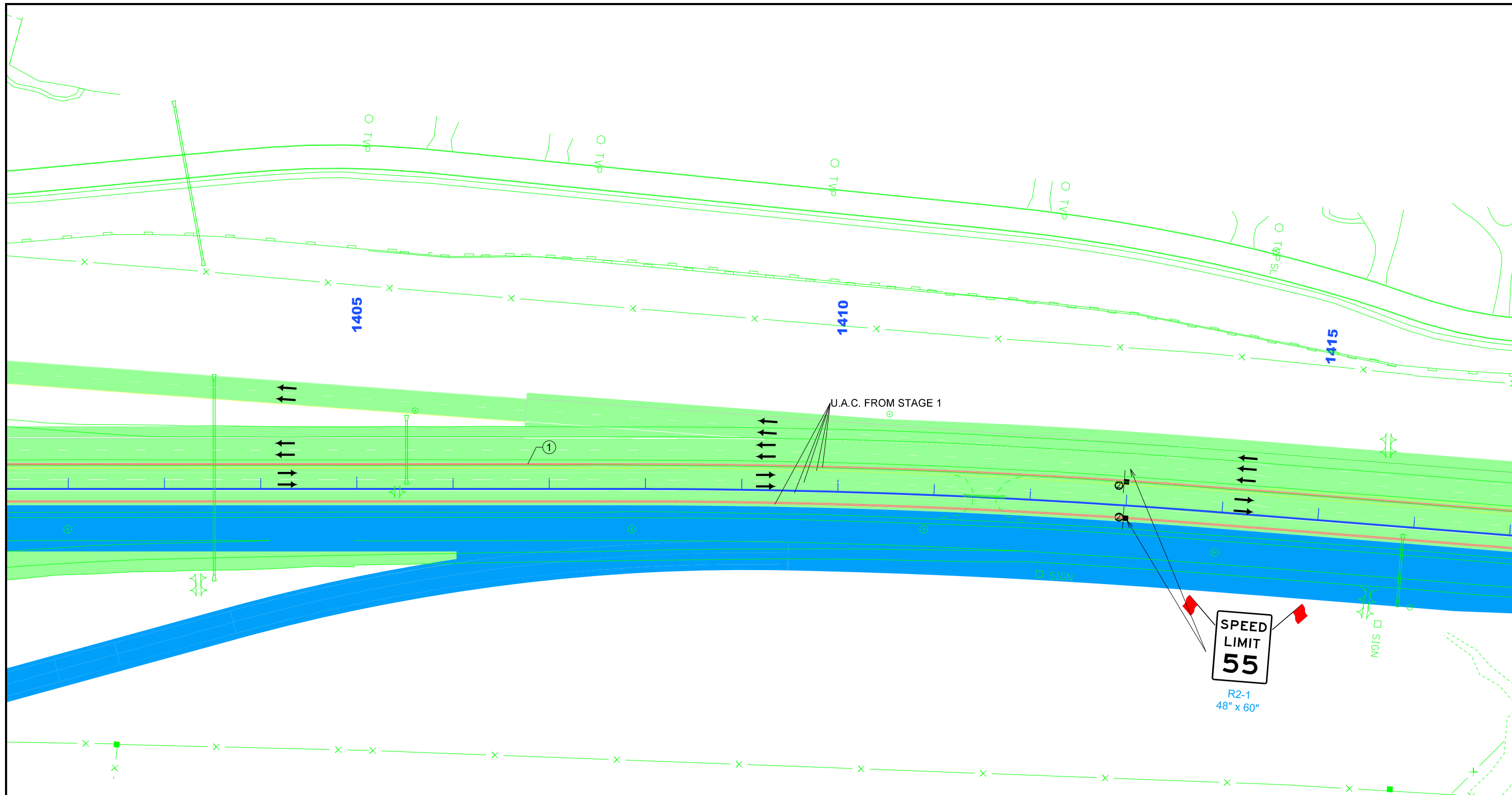


NOTES:
 ⓪ Attach Modular Glare Screen to TBR

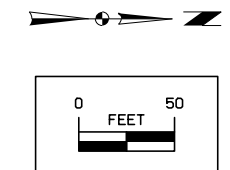
COORDINATE CONSTRUCTION
 WITH BR-FIM-035-2(372)69--05-77
 PROJECT



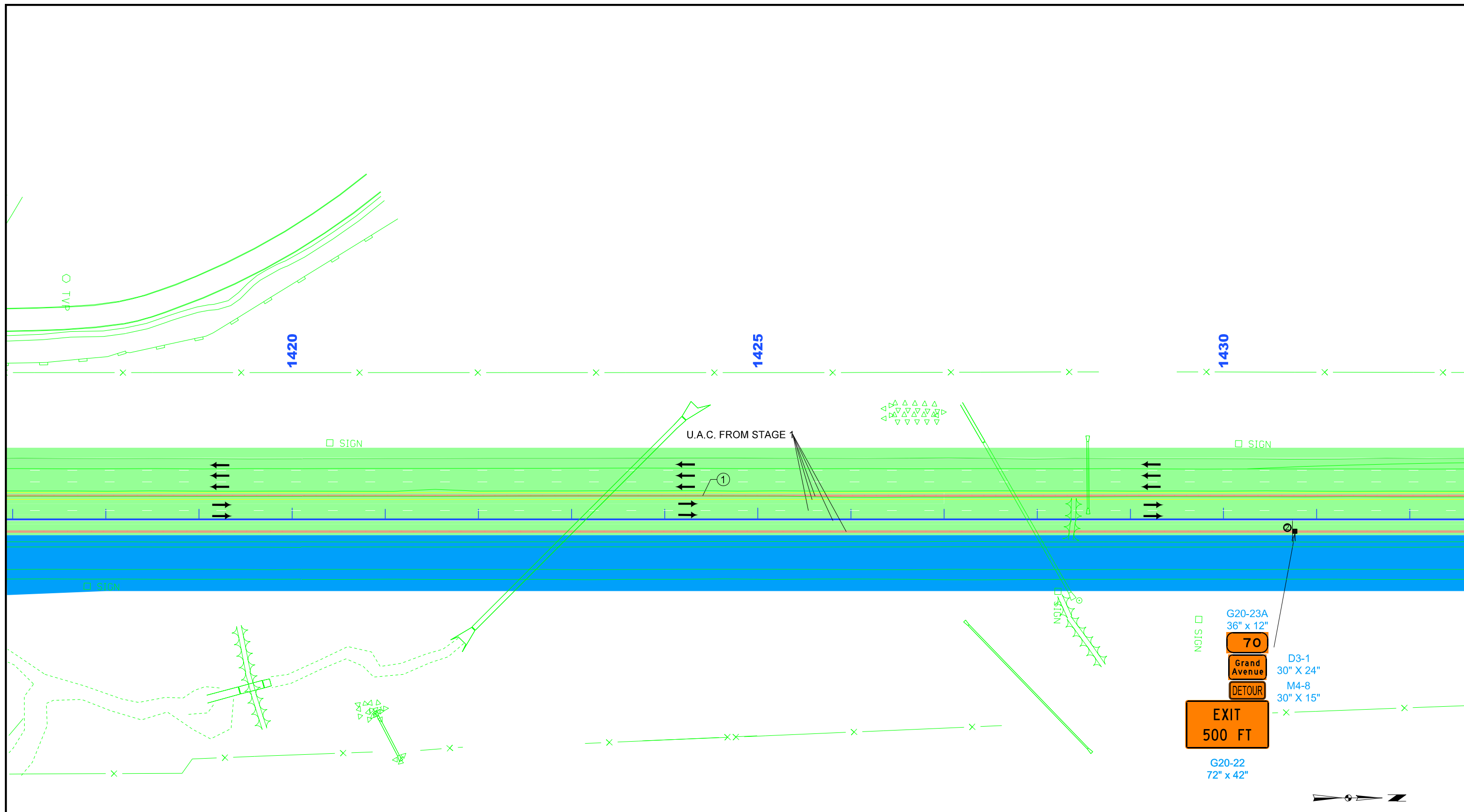
Stage 2



- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Slgn to TBR

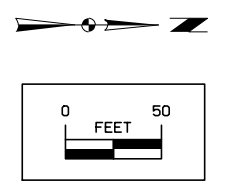


Stage 2

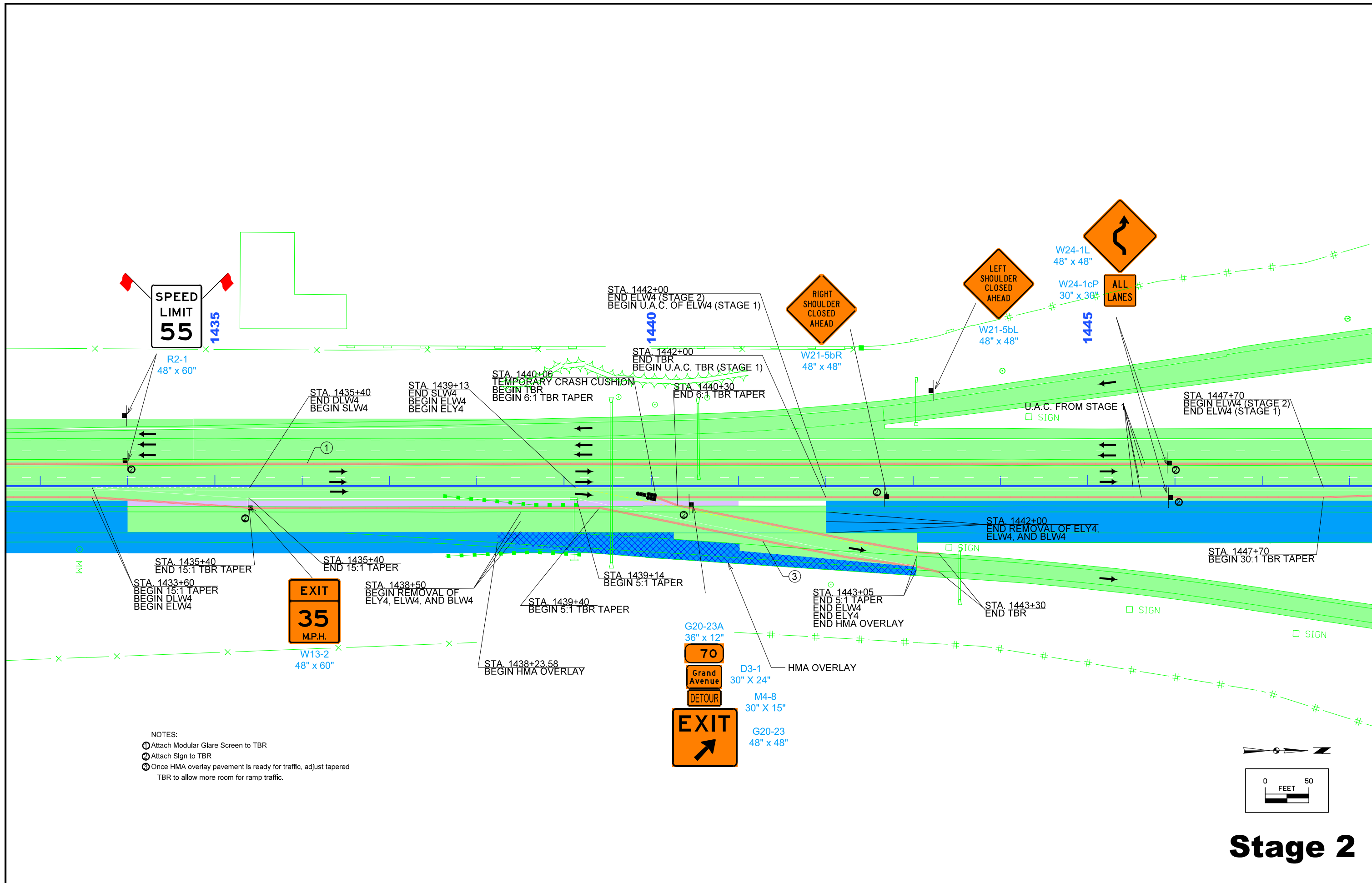


- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR

G20-23A
 36" x 12"
70
 Grand
 Avenue
 DETOUR
 D3-1
 30" X 24"
 M4-8
 30" X 15"
 EXIT
 500 FT
 G20-22
 72" x 42"

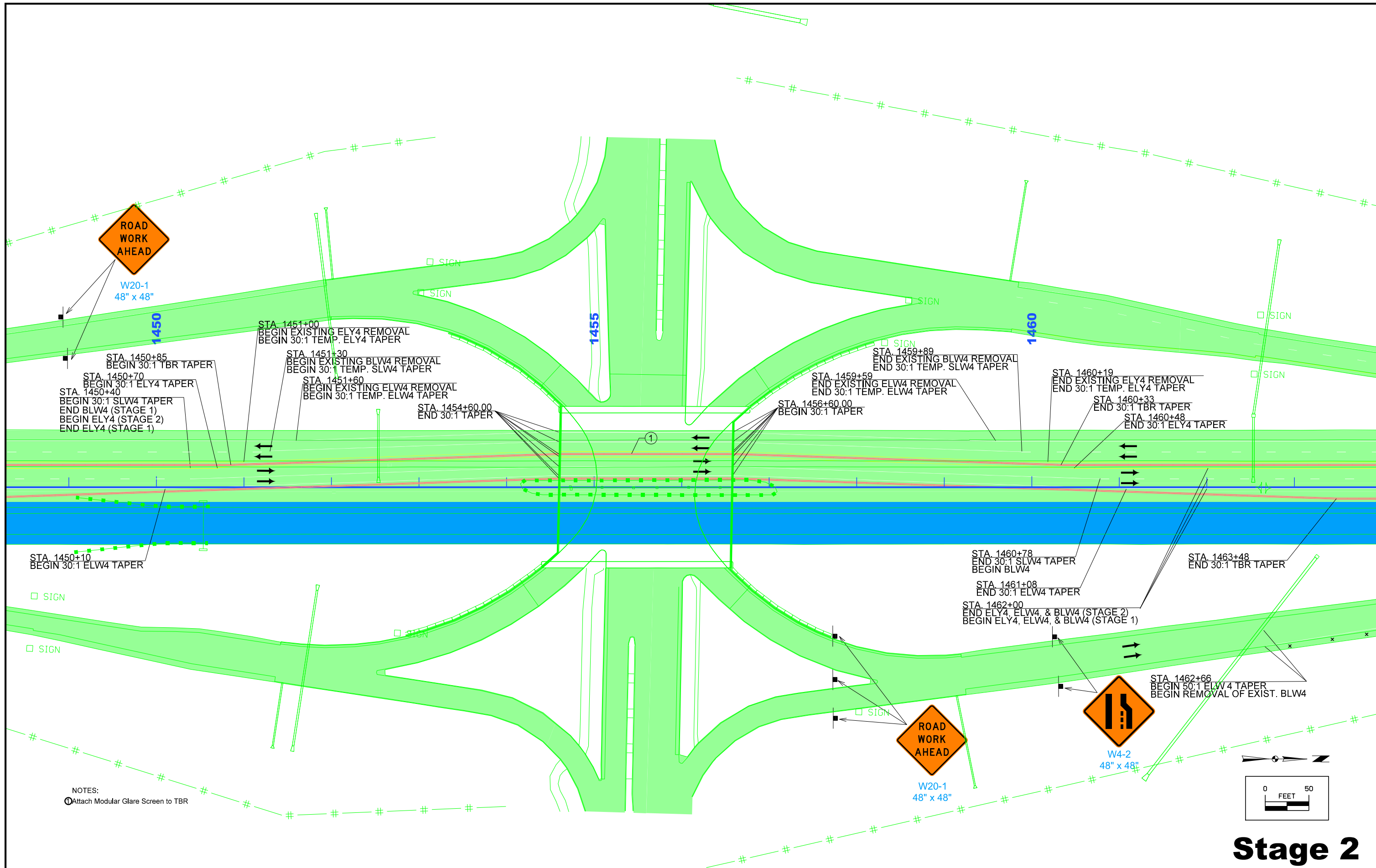


Stage 2

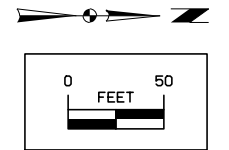


- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR
 - ③ Once HMA overlay pavement is ready for traffic, adjust tapered TBR to allow more room for ramp traffic.

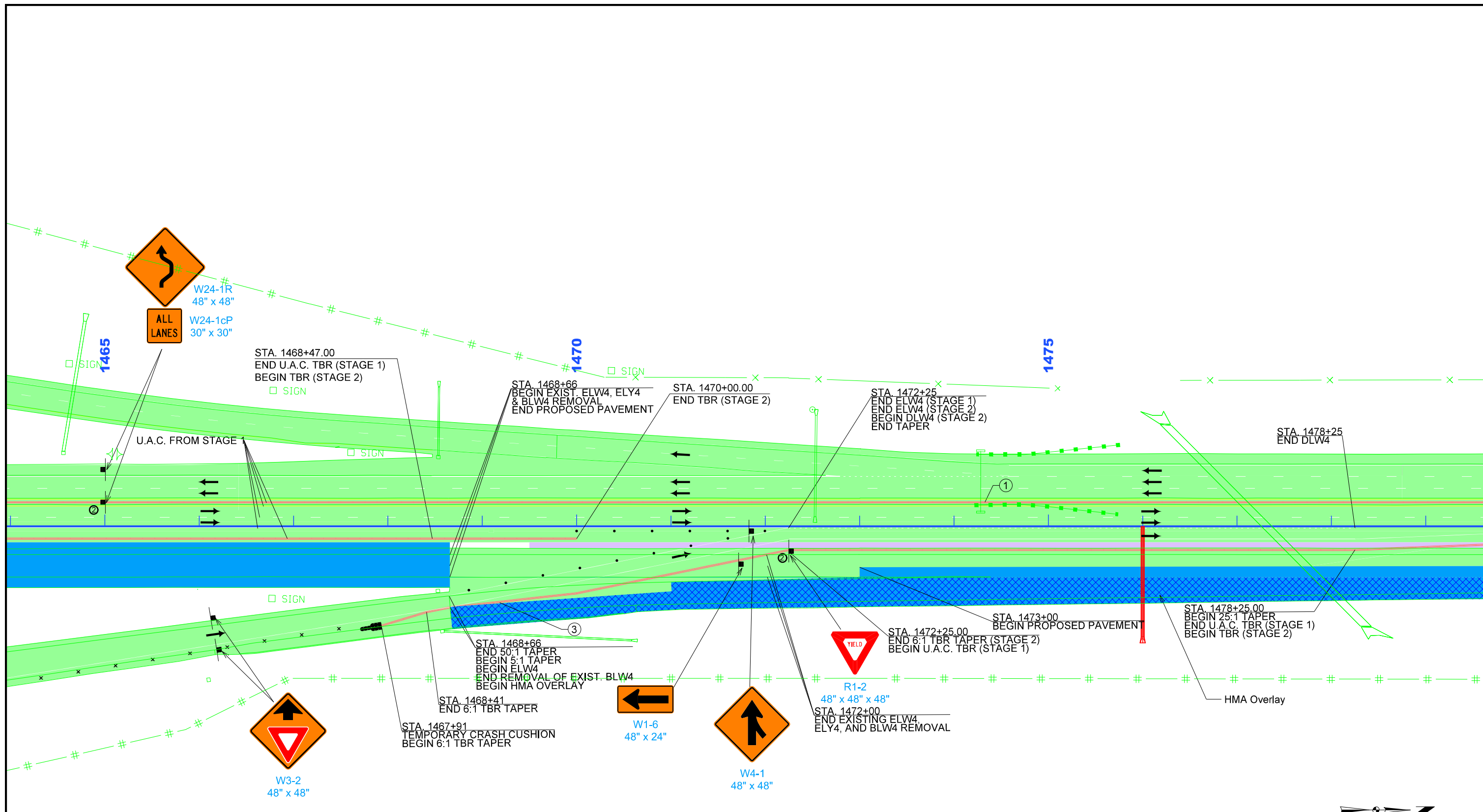
Stage 2



NOTES:
 ① Attach Modular Glare Screen to TBR



Stage 2



W24-1R
48" x 48"
ALL LANES
W24-1cP
30" x 30"

STA. 1468+47.00
END U.A.C. TBR (STAGE 1)
BEGIN TBR (STAGE 2)

STA. 1468+66
BEGIN EXIST. ELW4, ELY4
& BLW4 REMOVAL
END PROPOSED PAVEMENT

STA. 1470+00.00
END TBR (STAGE 2)

STA. 1472+25
END ELW4 (STAGE 1)
END ELW4 (STAGE 2)
BEGIN DLW4 (STAGE 2)
END TAPER

STA. 1478+25
END DLW4

U.A.C. FROM STAGE

STA. 1473+00
BEGIN PROPOSED PAVEMENT

STA. 1478+25.00
BEGIN 25:1 TAPER
END U.A.C. TBR (STAGE 1)
BEGIN TBR (STAGE 2)

STA. 1468+66
END 50:1 TAPER
BEGIN 5:1 TAPER
BEGIN ELW4
END REMOVAL OF EXIST. BLW4
BEGIN HMA OVERLAY

STA. 1472+25.00
END 6:1 TBR TAPER (STAGE 2)
BEGIN U.A.C. TBR (STAGE 1)

STA. 1468+41
END 6:1 TBR TAPER

STA. 1467+91
TEMPORARY CRASH CUSHION
BEGIN 6:1 TBR TAPER

W1-6
48" x 24"

R1-2
48" x 48" x 48"

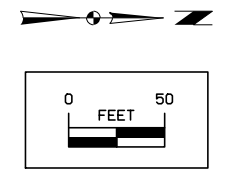
STA. 1472+00
END EXISTING ELW4,
ELY4, AND BLW4 REMOVAL

HMA Overlay

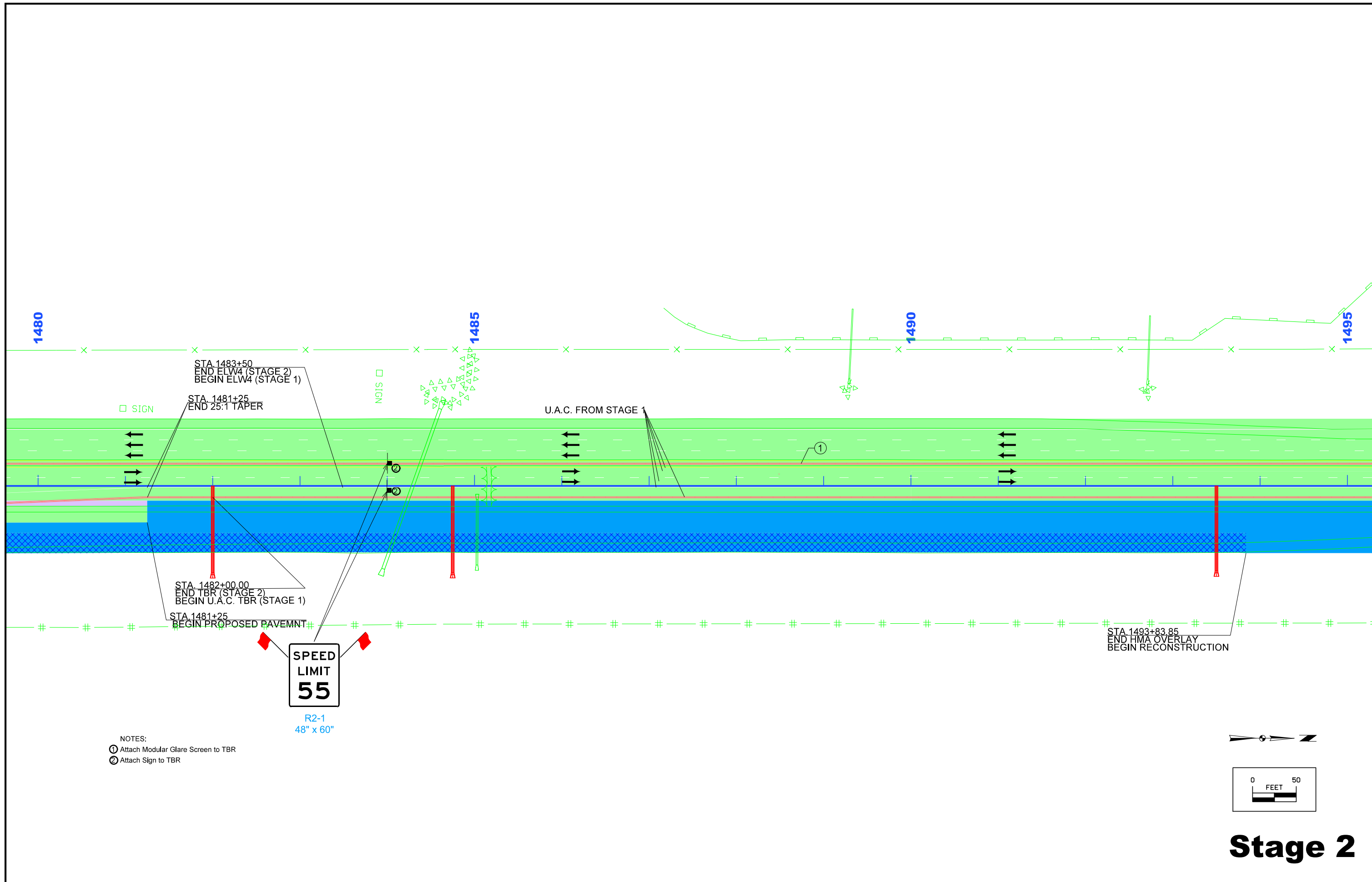
W3-2
48" x 48"

W4-1
48" x 48"

- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR
 - ③ Once HMA overlay pavement is ready for traffic, adjust tapered TBR to allow more room for ramp traffic.



Stage 2



1500

1505

1510

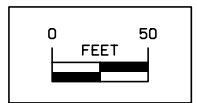
U.A.C. FROM STAGE 1

①

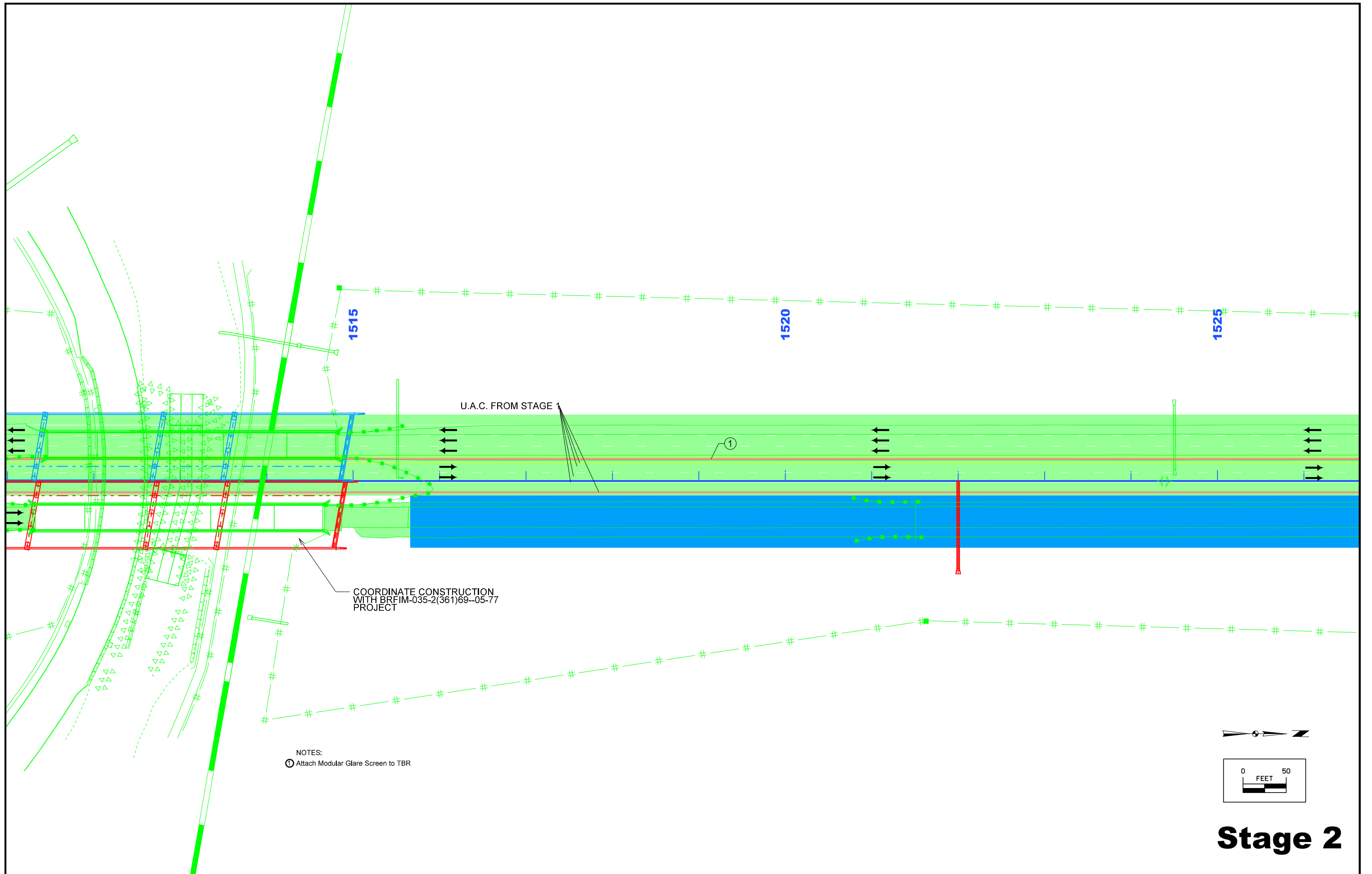
□ SIGN

COORDINATE CONSTRUCTION WITH BRFIM-035-2(361)69--05-77 PROJECT

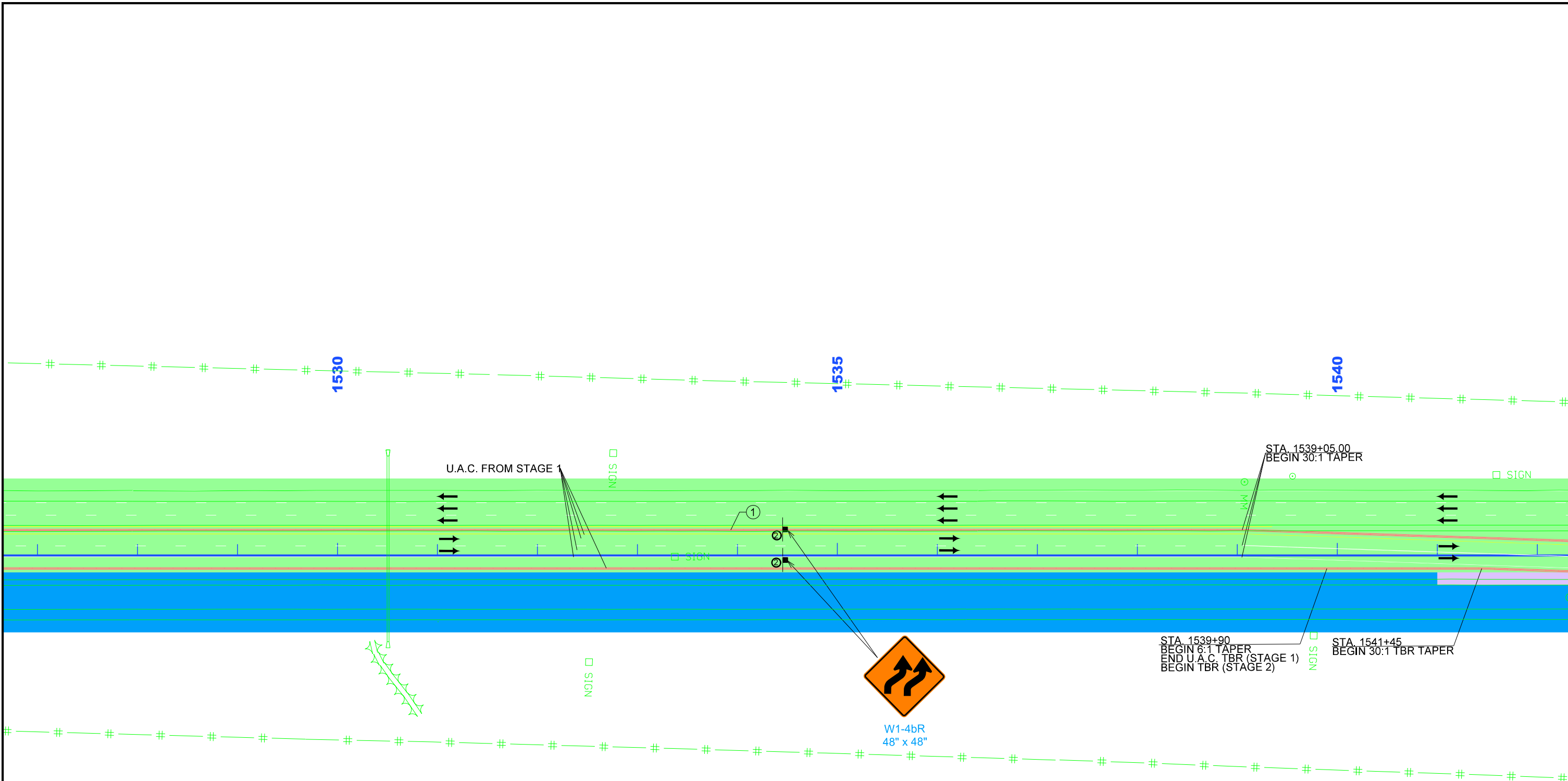
NOTES:
① Attach Modular Screen to TBR



Stage 2



Stage 2



1530

1535

1540

U.A.C. FROM STAGE 1

STA. 1539+05.00
BEGIN 30:1 TAPER

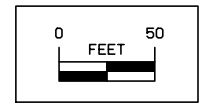
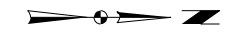
STA. 1539+90
BEGIN 6:1 TAPER
END U.A.C. TBR (STAGE 1)
BEGIN TBR (STAGE 2)

STA. 1541+45
BEGIN 30:1 TBR TAPER

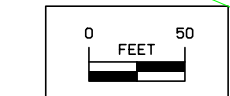
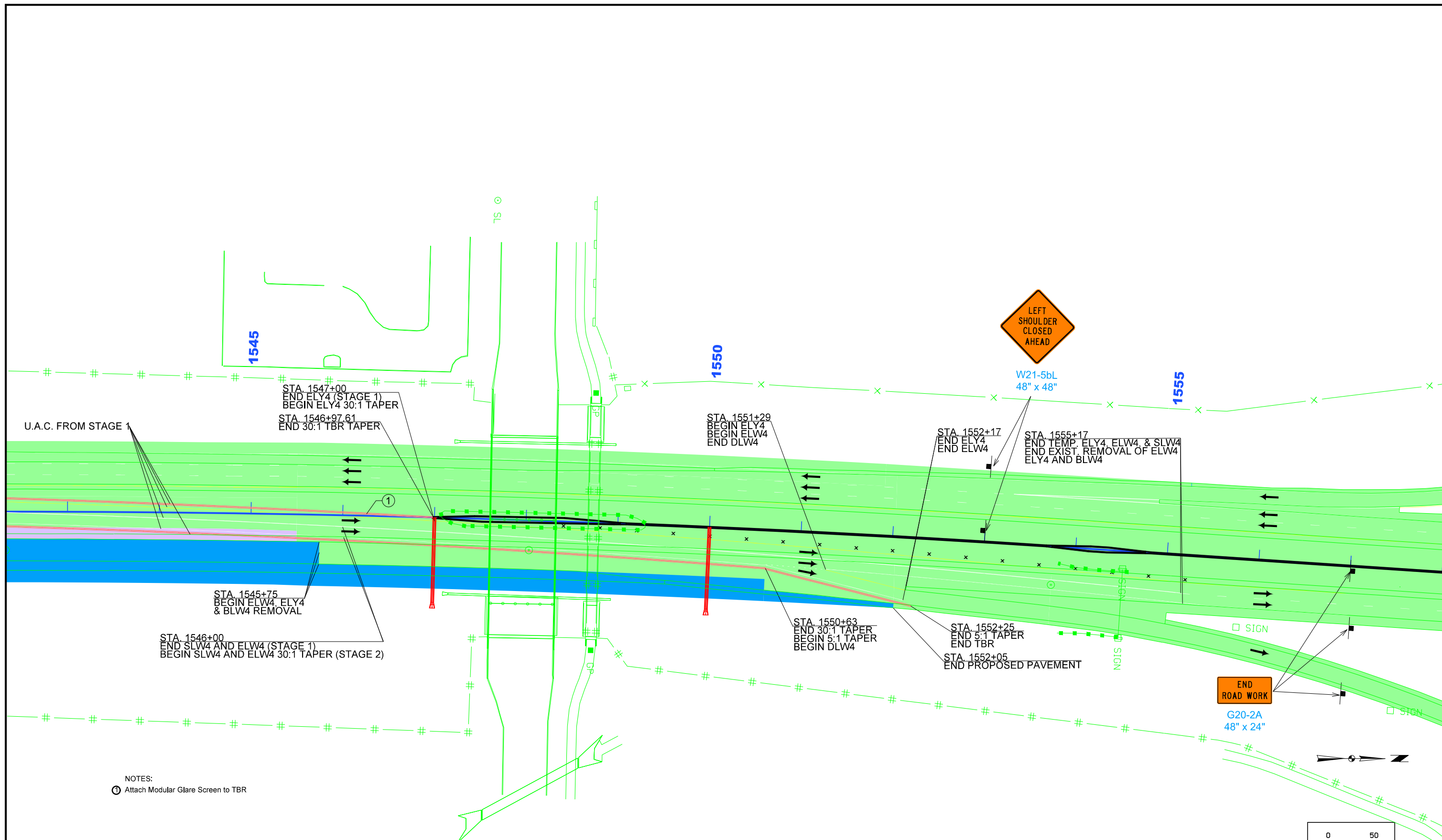


W1-4bR
48" x 48"

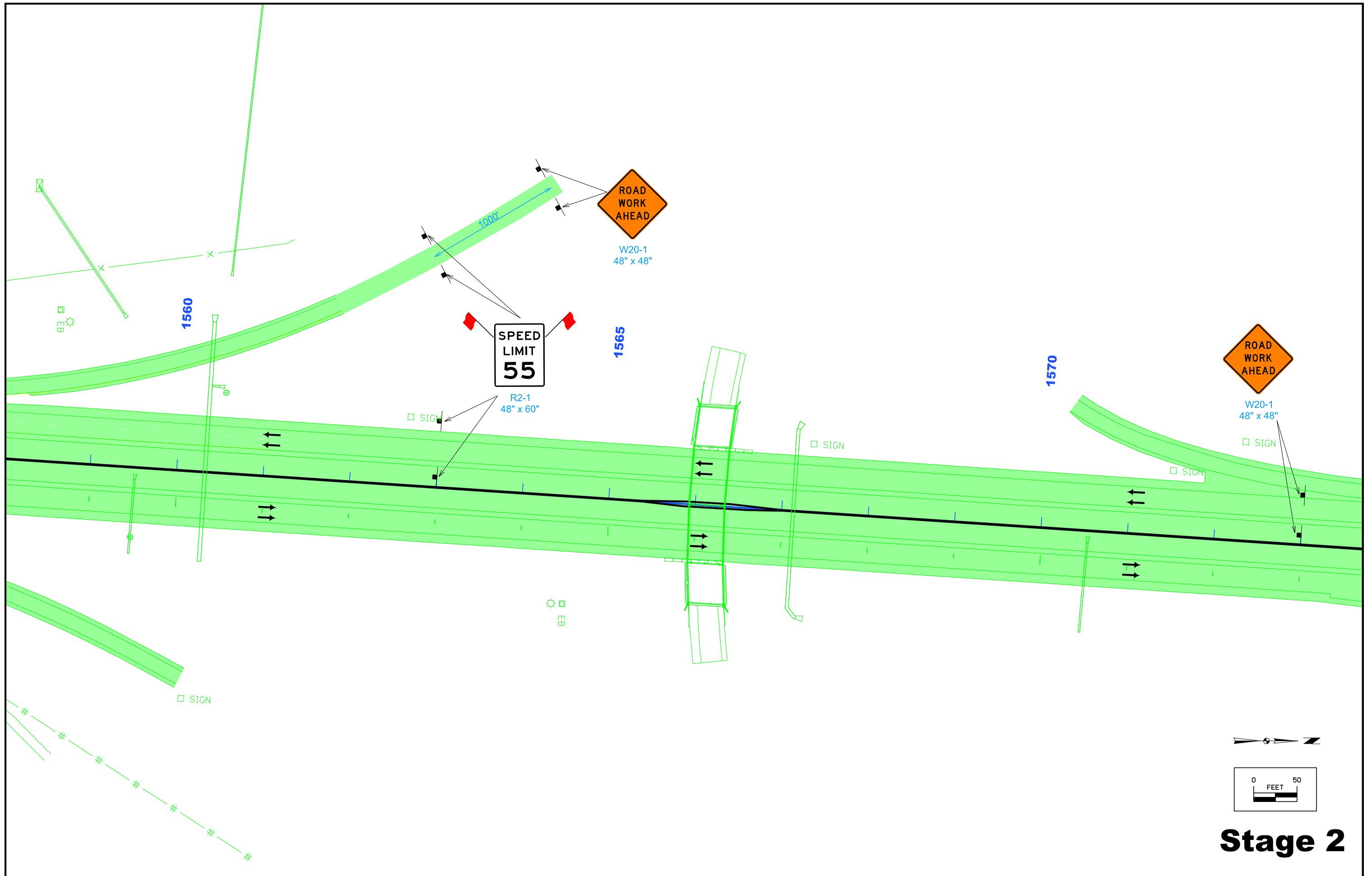
- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR



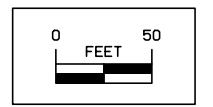
Stage 2

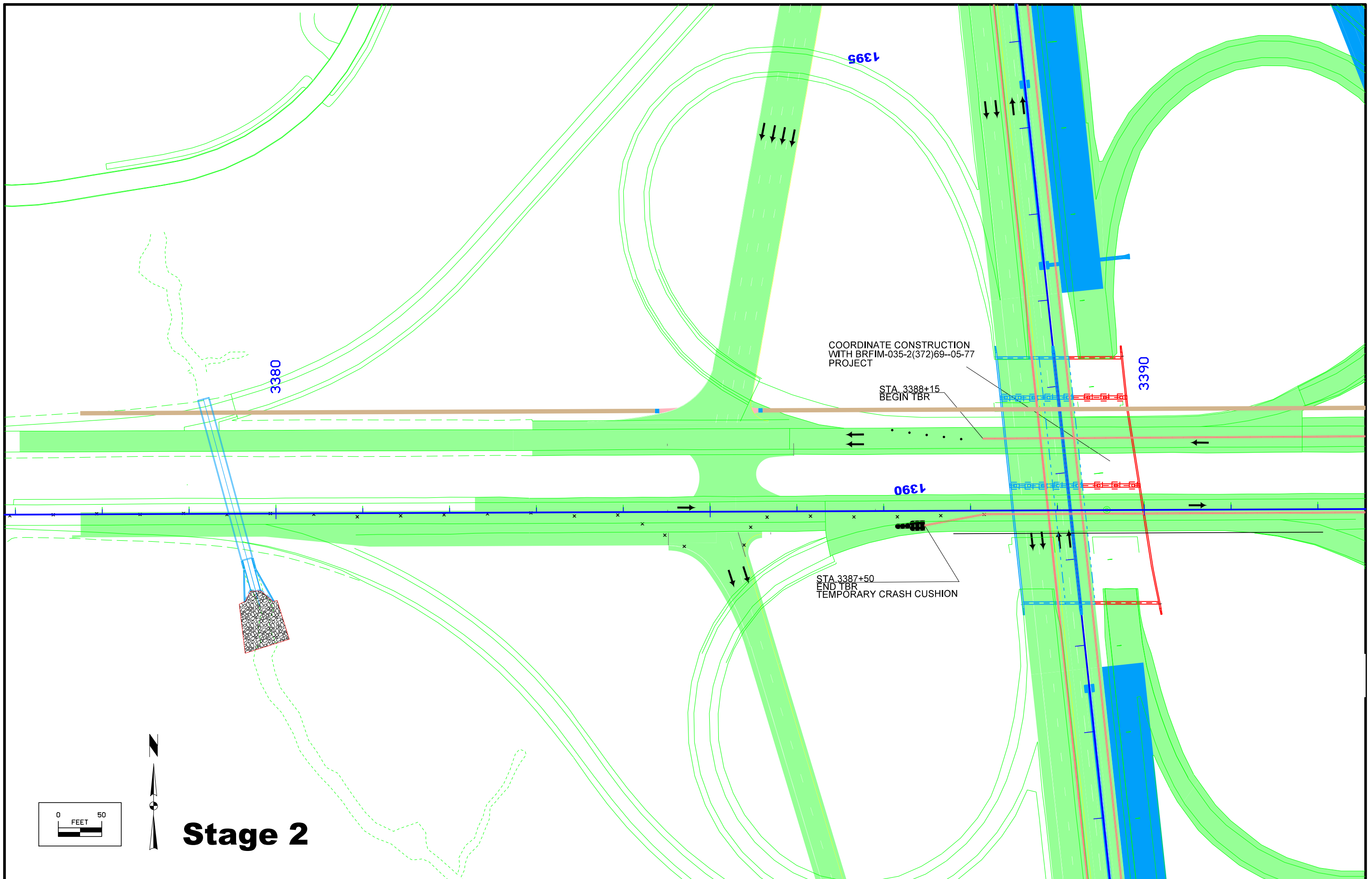


Stage 2

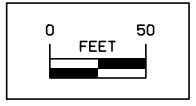


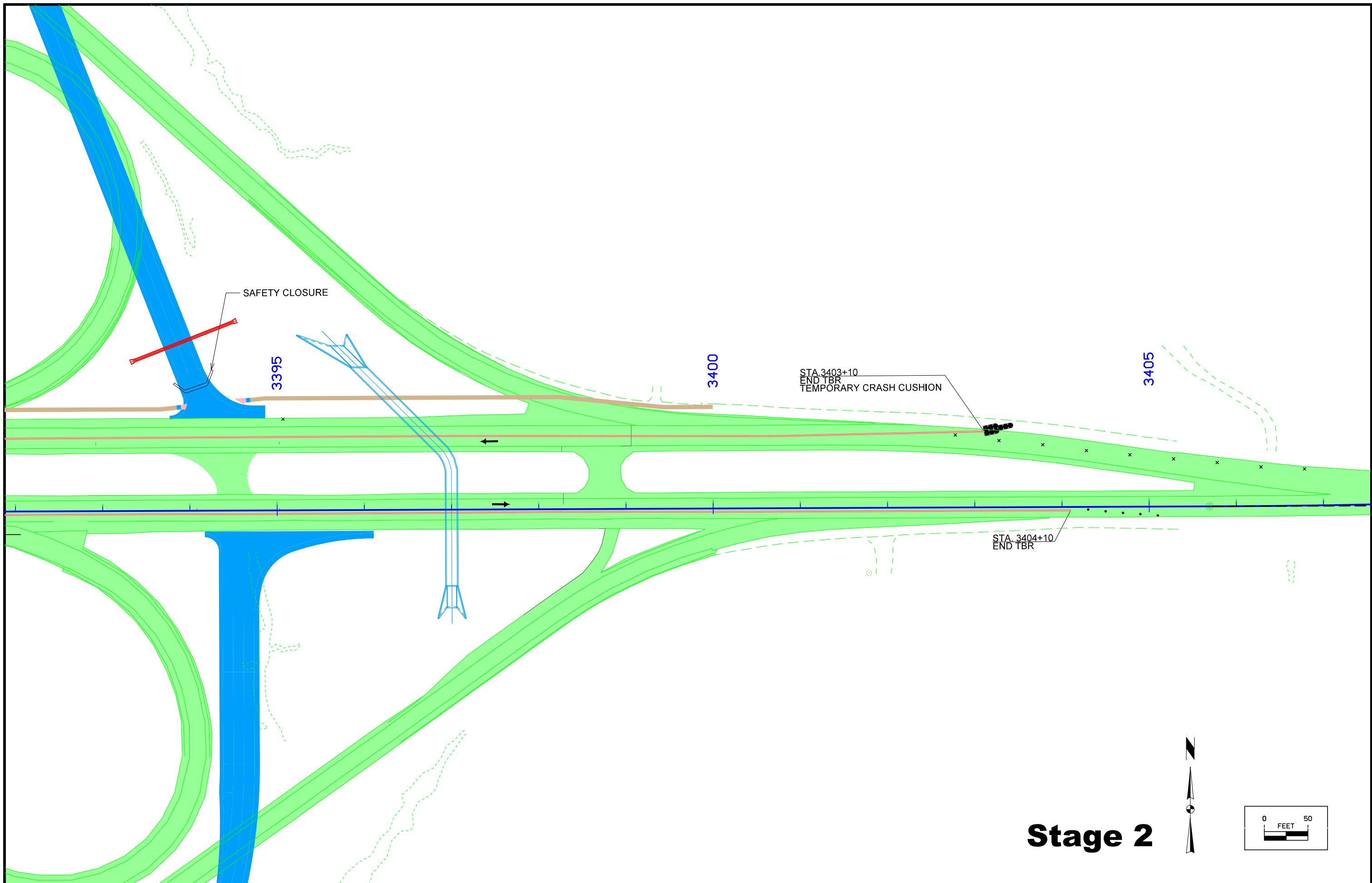
Stage 2



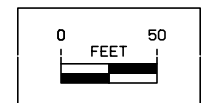


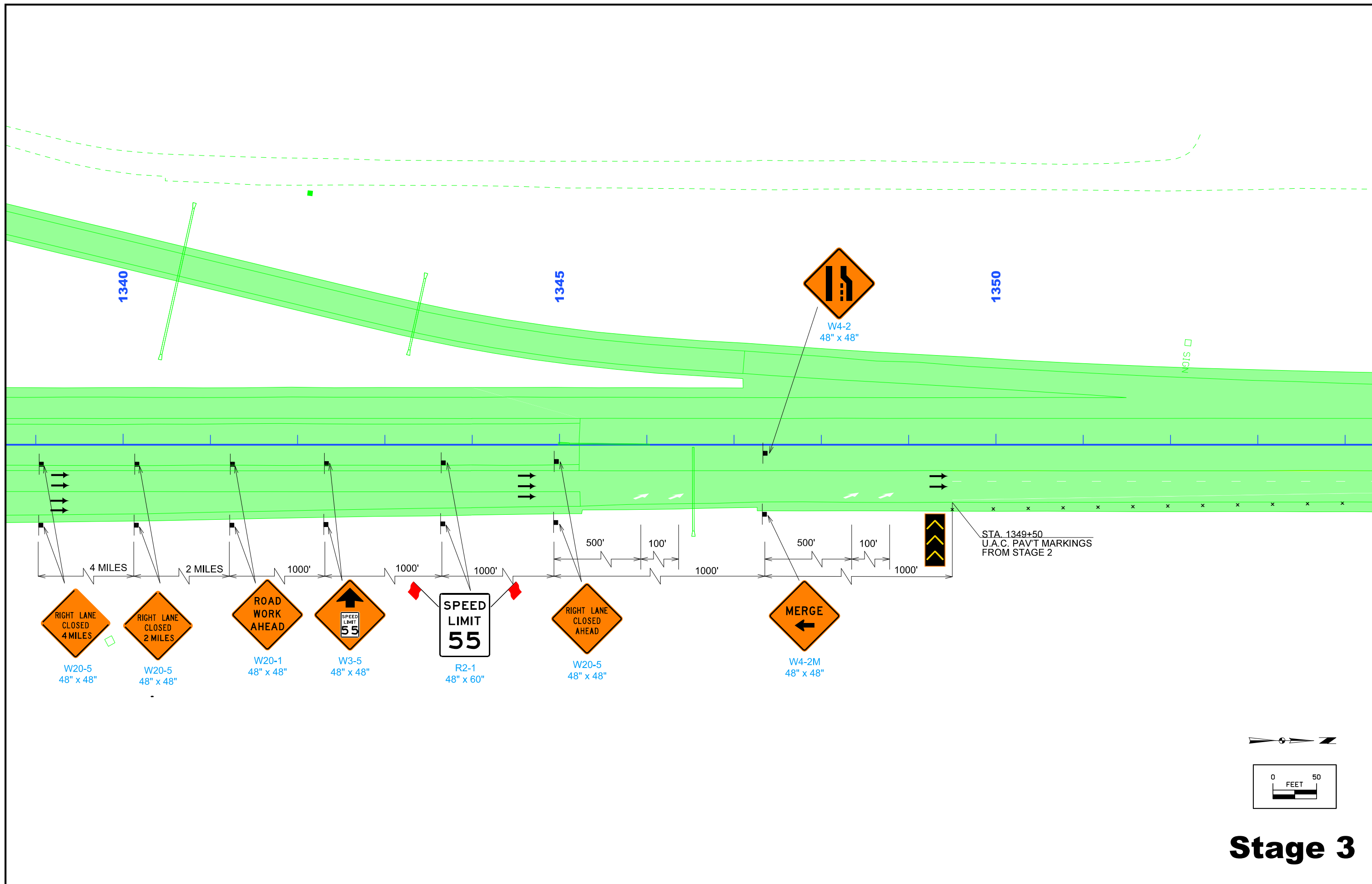
Stage 2



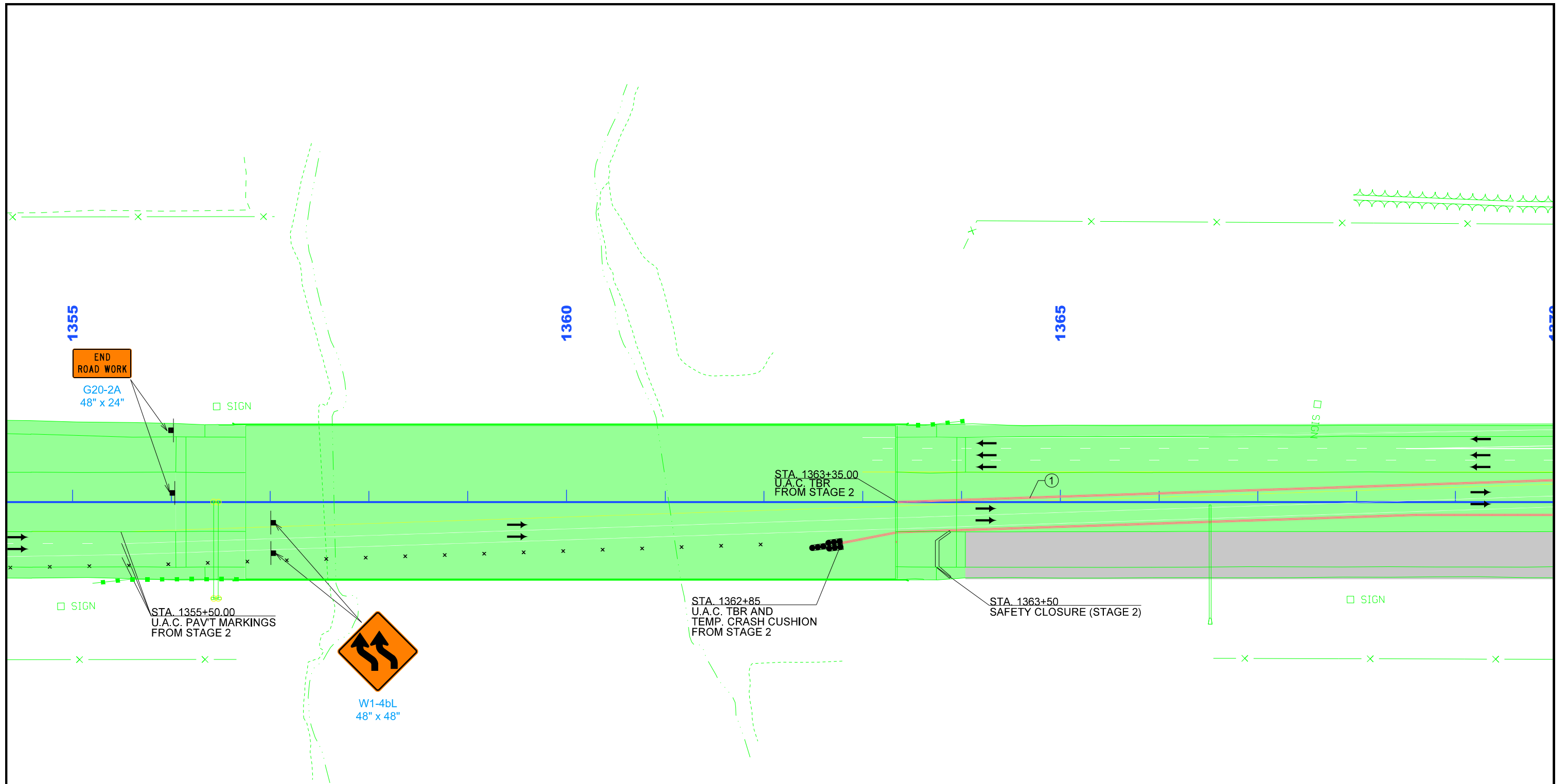


Stage 2

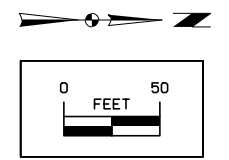




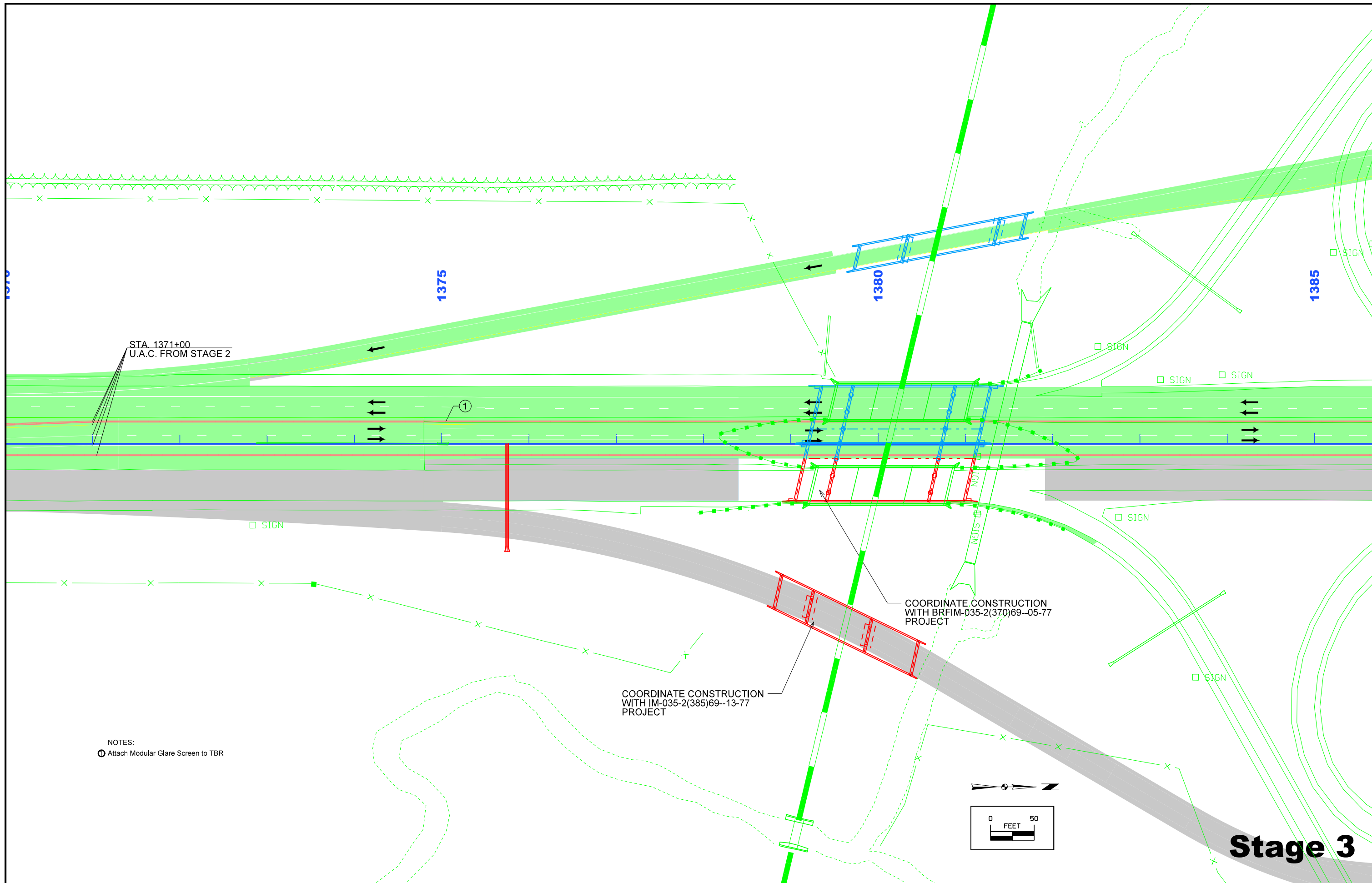
Stage 3



NOTES:
 ① Attach Modular Glare Screen to TBR



Stage 3



STA. 1371+00
U.A.C. FROM STAGE 2

1375

1380

1385

□ SIGN

□ SIGN

□ SIGN

□ SIGN

□ SIGN

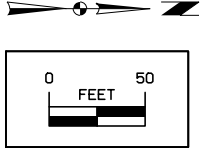
□ SIGN

□ SIGN

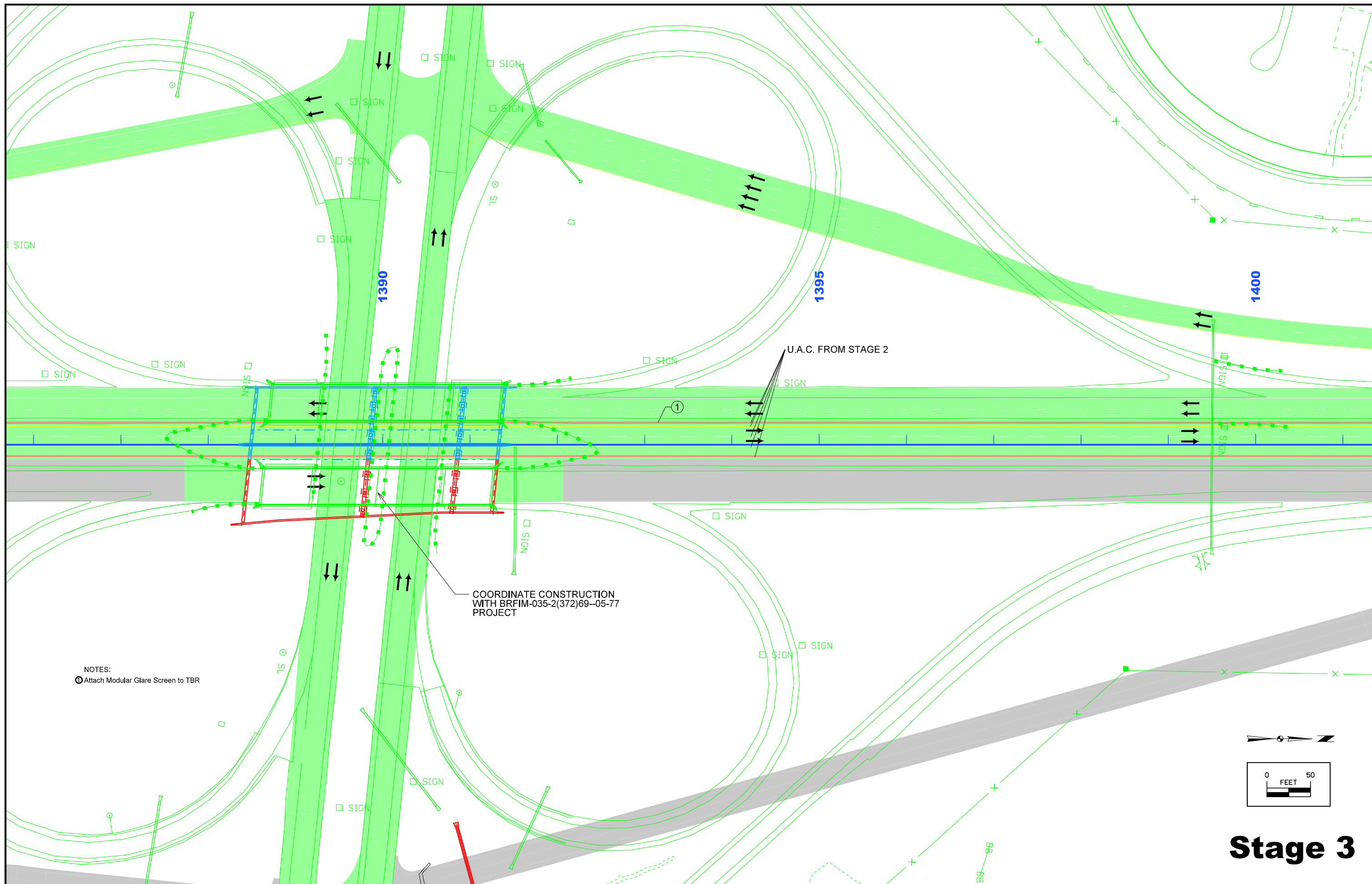
COORDINATE CONSTRUCTION
WITH BRFIM-035-2(370)69--05-77
PROJECT

COORDINATE CONSTRUCTION
WITH IM-035-2(385)69--13-77
PROJECT

NOTES:
① Attach Modular Glare Screen to TBR



Stage 3

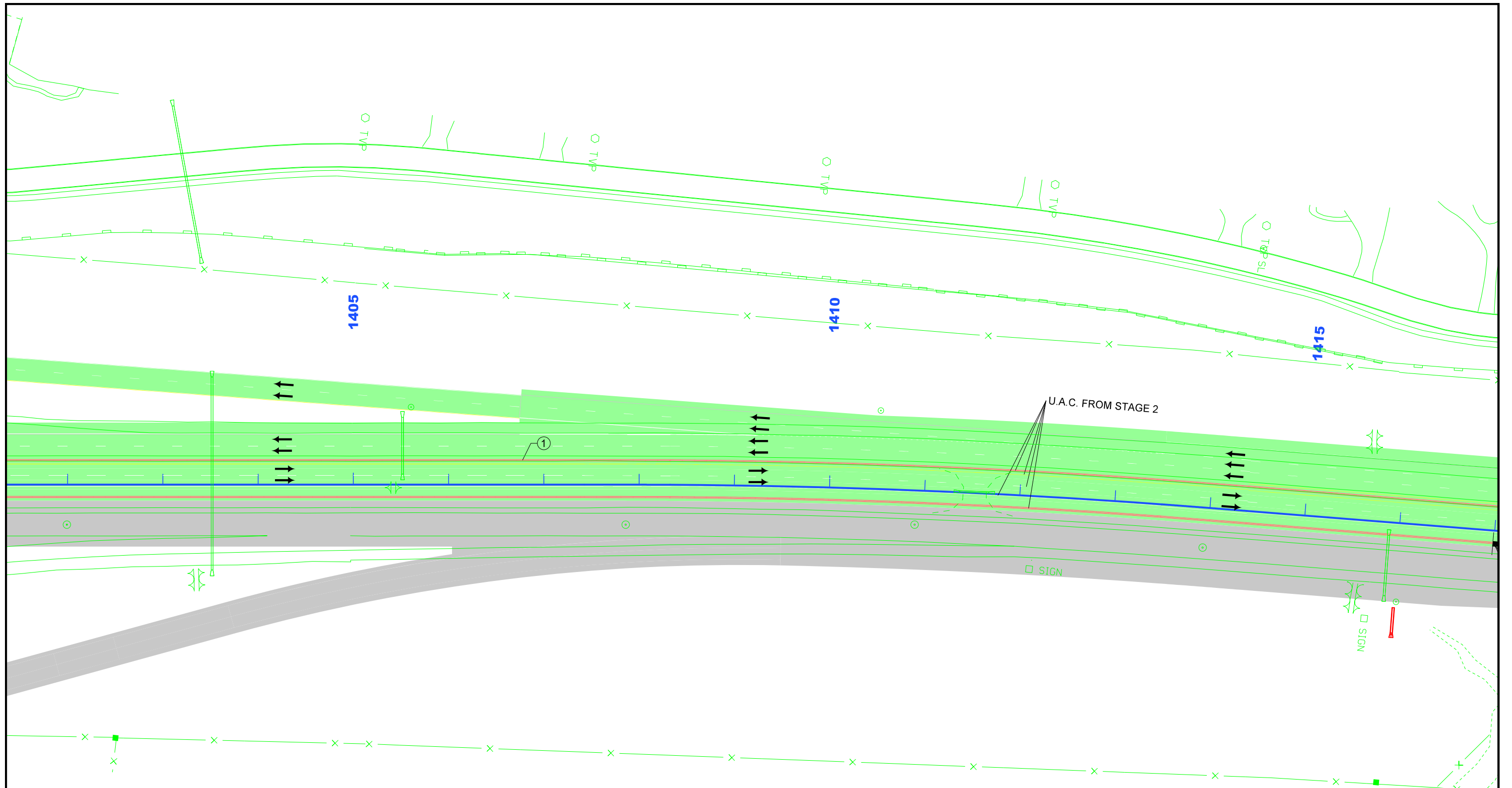


NOTES:
 Ⓣ Attach Modular Glare Screen to TBR

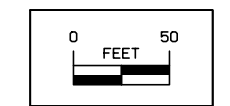
COORDINATE CONSTRUCTION
 WITH BRFIM-035-2(372)69--05-77
 PROJECT

U.A.C. FROM STAGE 2

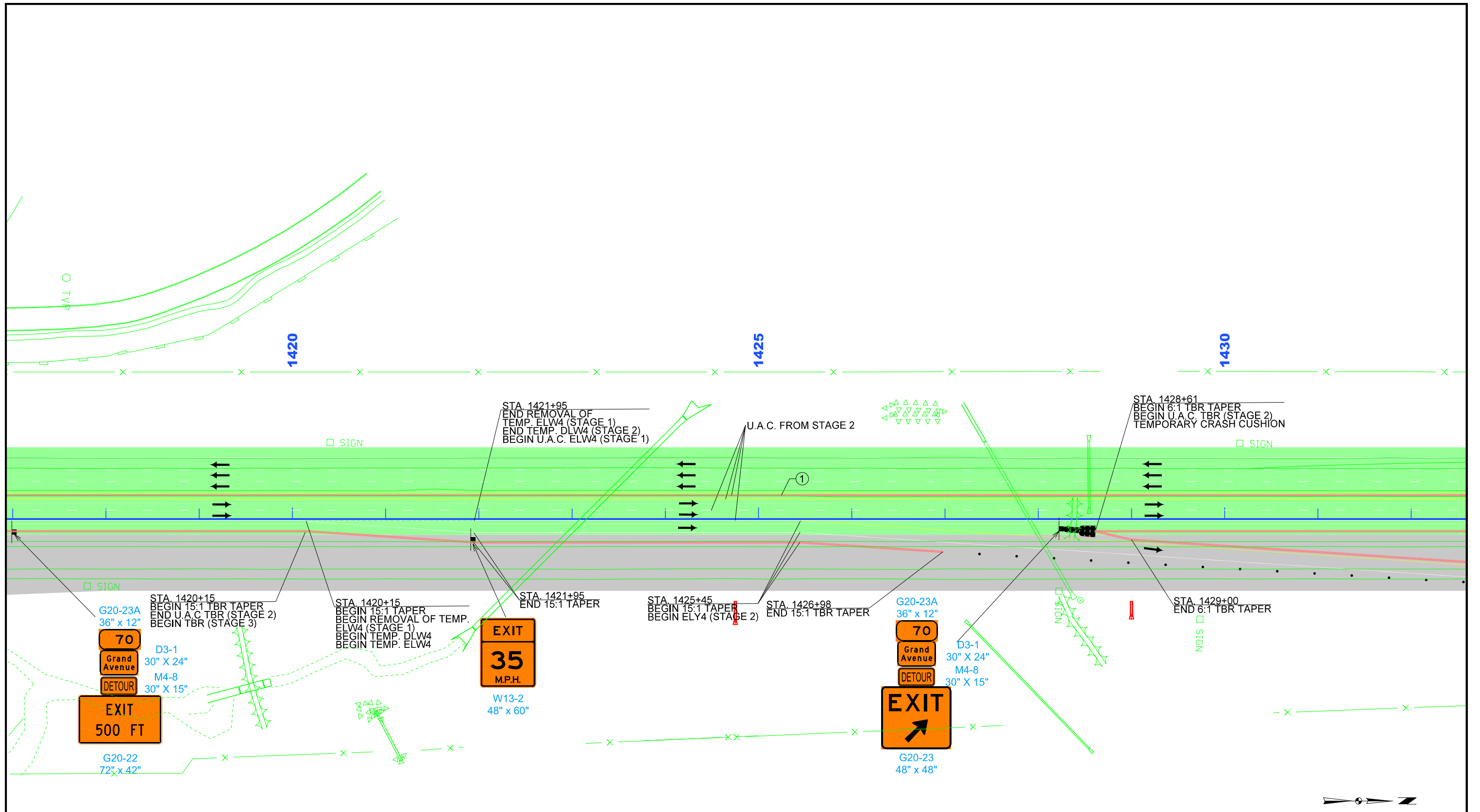
Stage 3



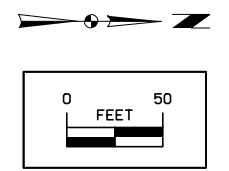
NOTES:
 Ⓣ Attach Modular Glare Screen to TBR



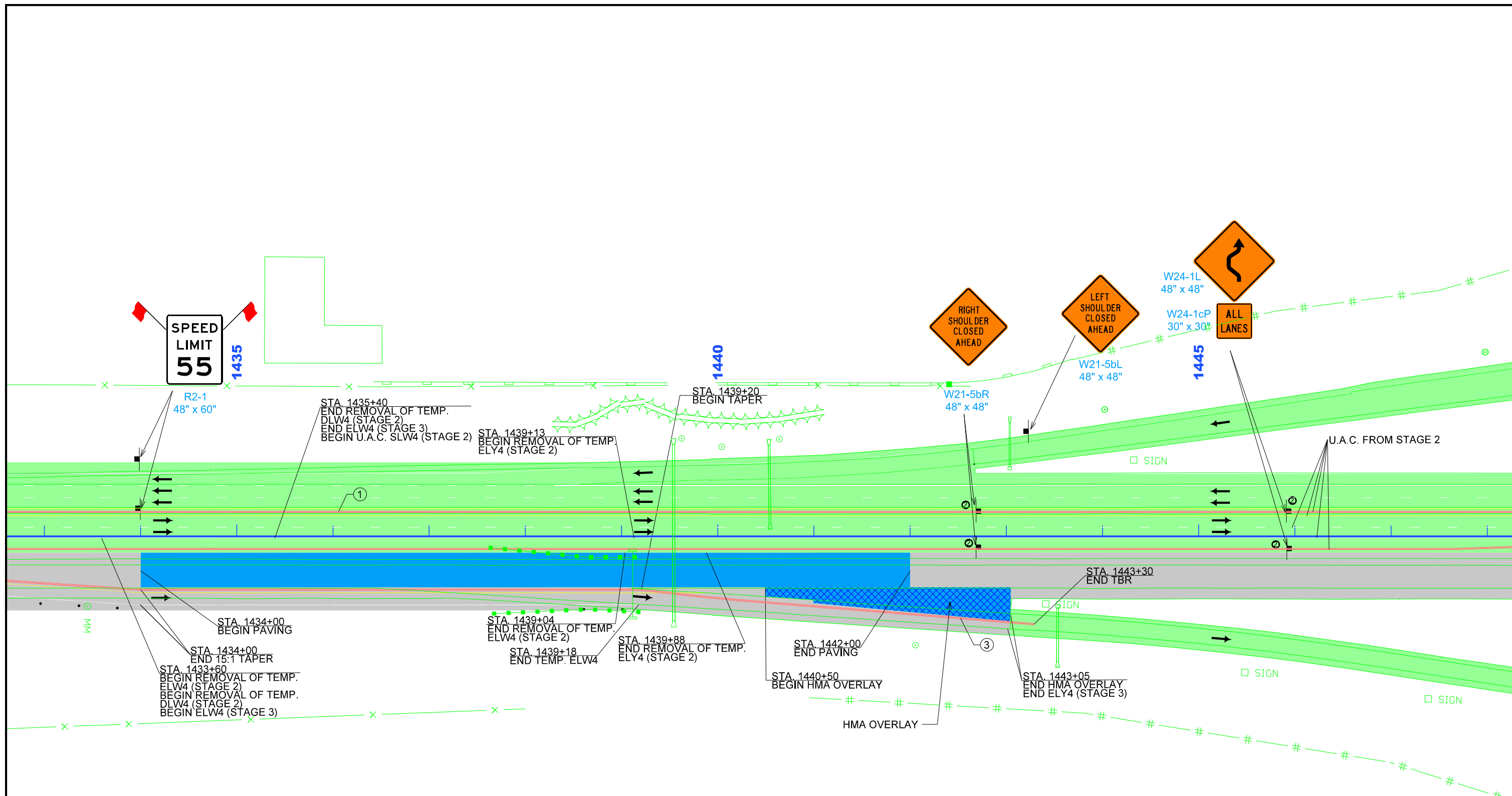
Stage 3



NOTES:
 ① Attach Modular Glare Screen to TBR

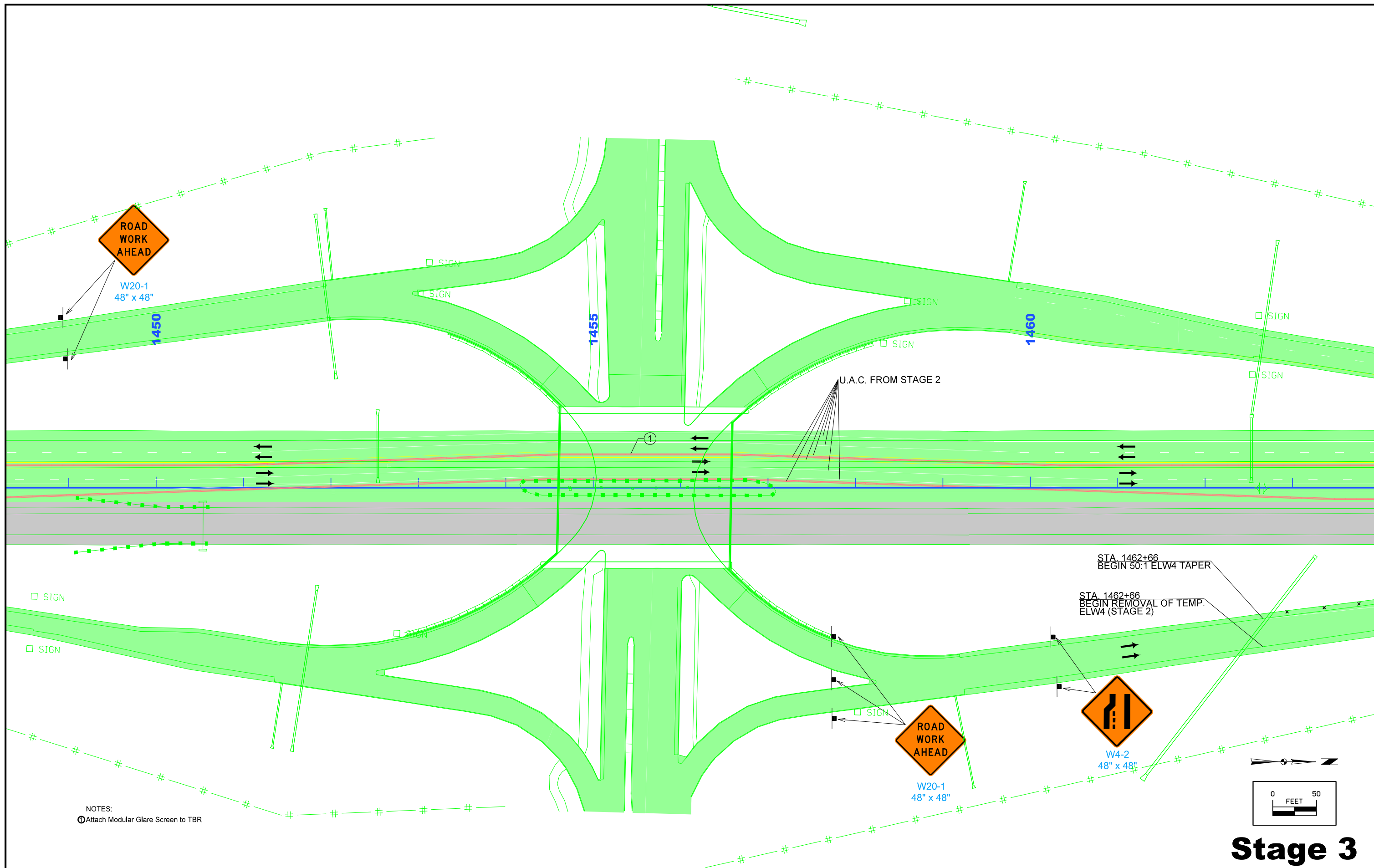


Stage 3



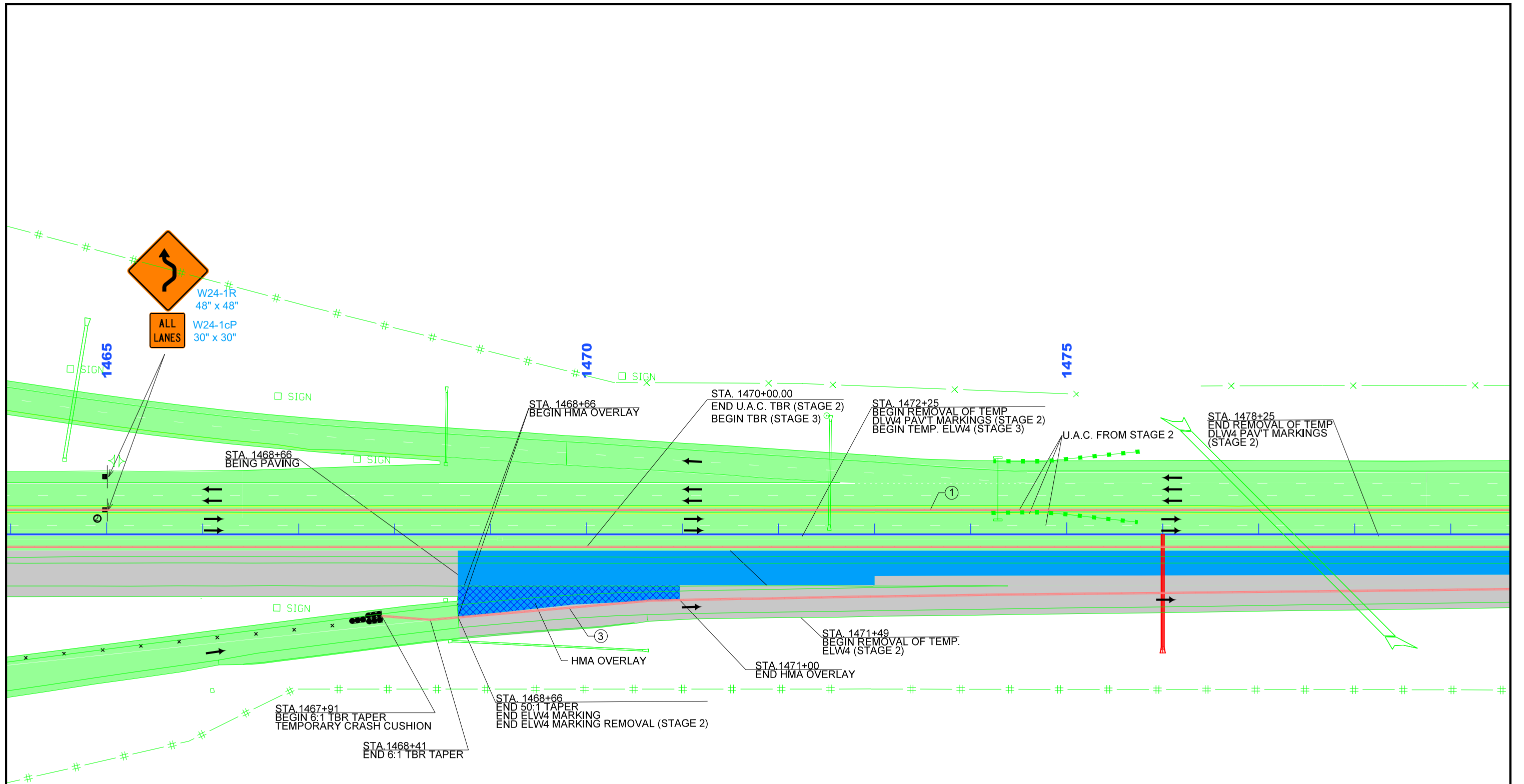
- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR
 - ③ Once HMA overlay pavement is ready for traffic, adjust tapered TBR to allow more room for ramp traffic.

Stage 3

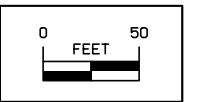


NOTES:
 ① Attach Modular Glare Screen to TBR

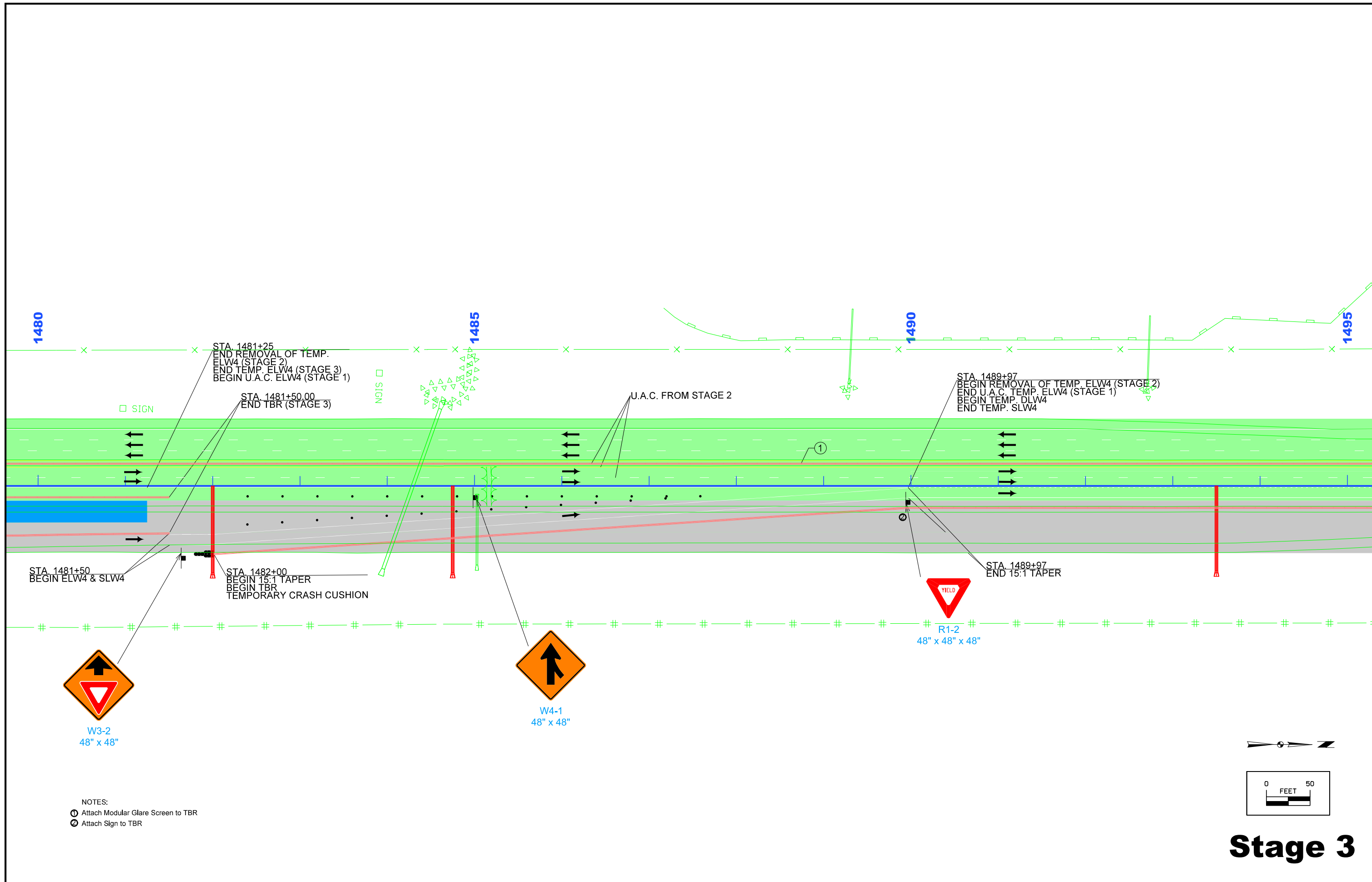
Stage 3



- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR
 - ③ Once HMA overlay pavement is ready for traffic, adjust tapered TBR to allow more room for ramp traffic.

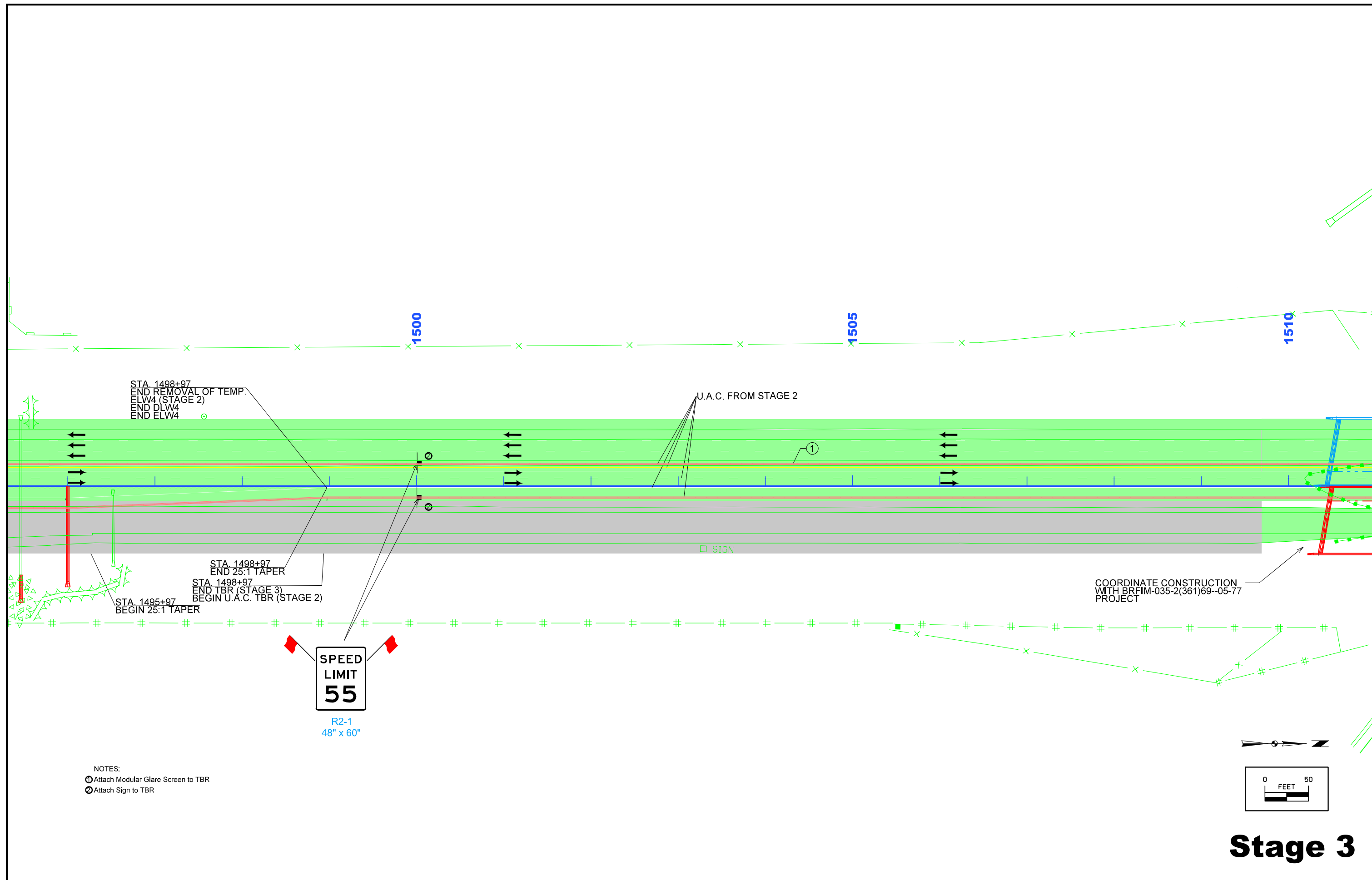


Stage 3



- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR

Stage 3



STA. 1498+97
 END REMOVAL OF TEMP.
 ELW4 (STAGE 2)
 END DLW4
 END ELW4

U.A.C. FROM STAGE 2

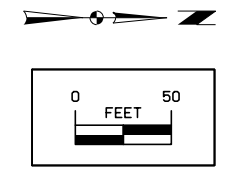
STA. 1498+97
 END 25:1 TAPER
 STA. 1498+97
 END TBR (STAGE 3)
 STA. 1495+97
 BEGIN U.A.C. TBR (STAGE 2)
 BEGIN 25:1 TAPER

COORDINATE CONSTRUCTION
 WITH BRM-035-2(361)69--05-77
 PROJECT

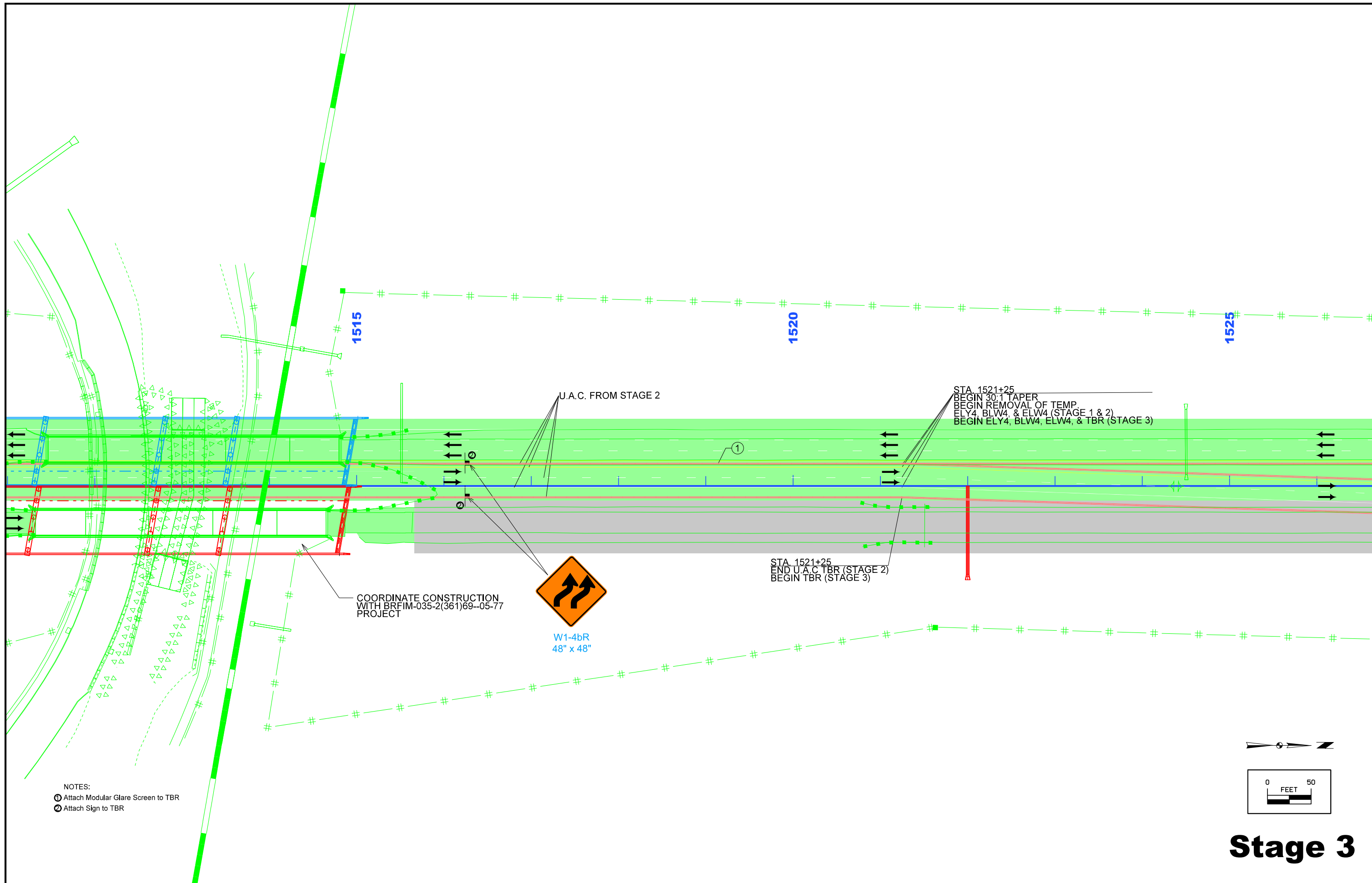
SPEED
 LIMIT
 55

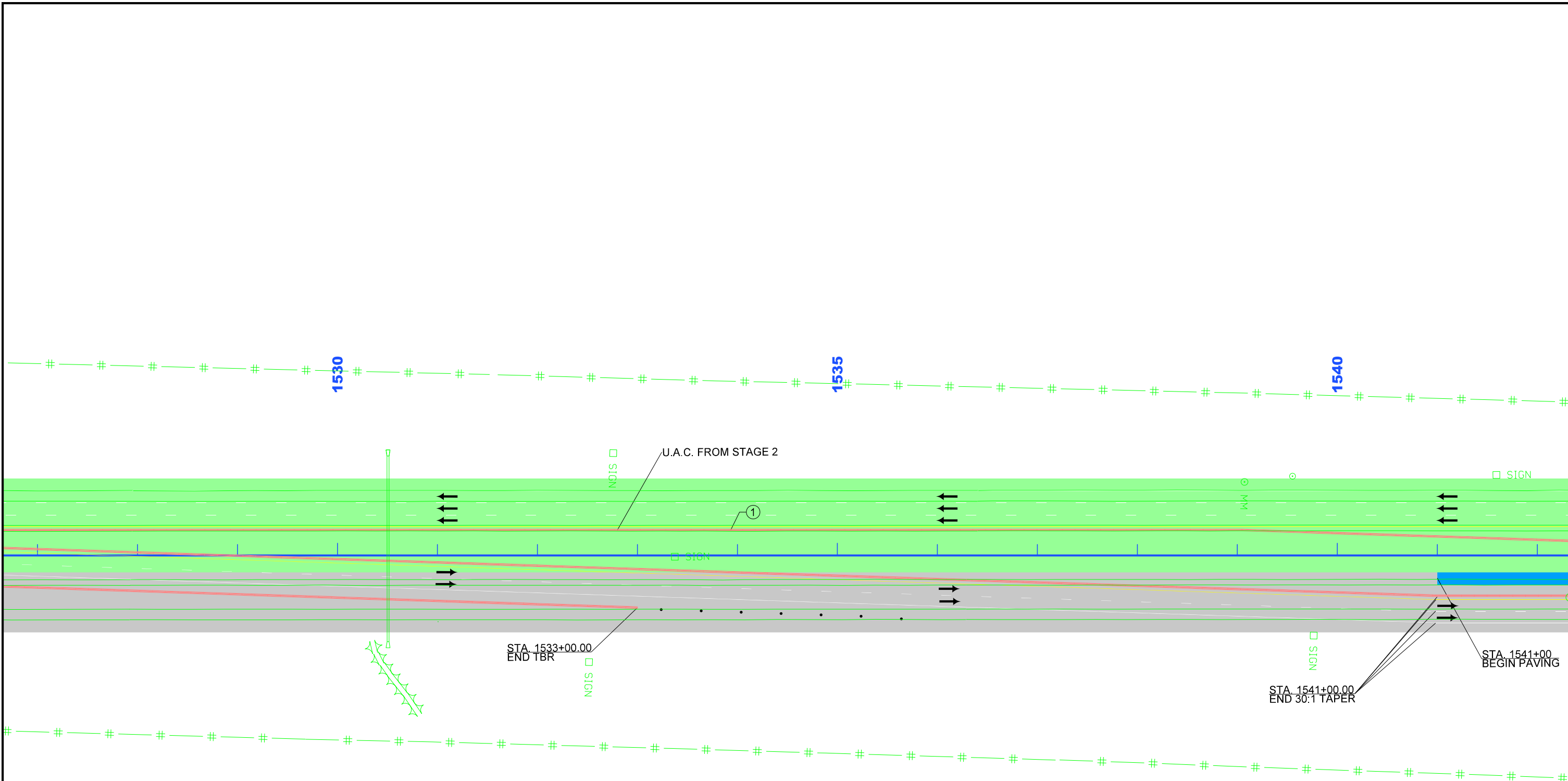
R2-1
 48" x 60"

- NOTES:
- ① Attach Modular Glare Screen to TBR
 - ② Attach Sign to TBR

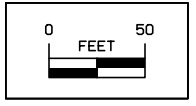


Stage 3

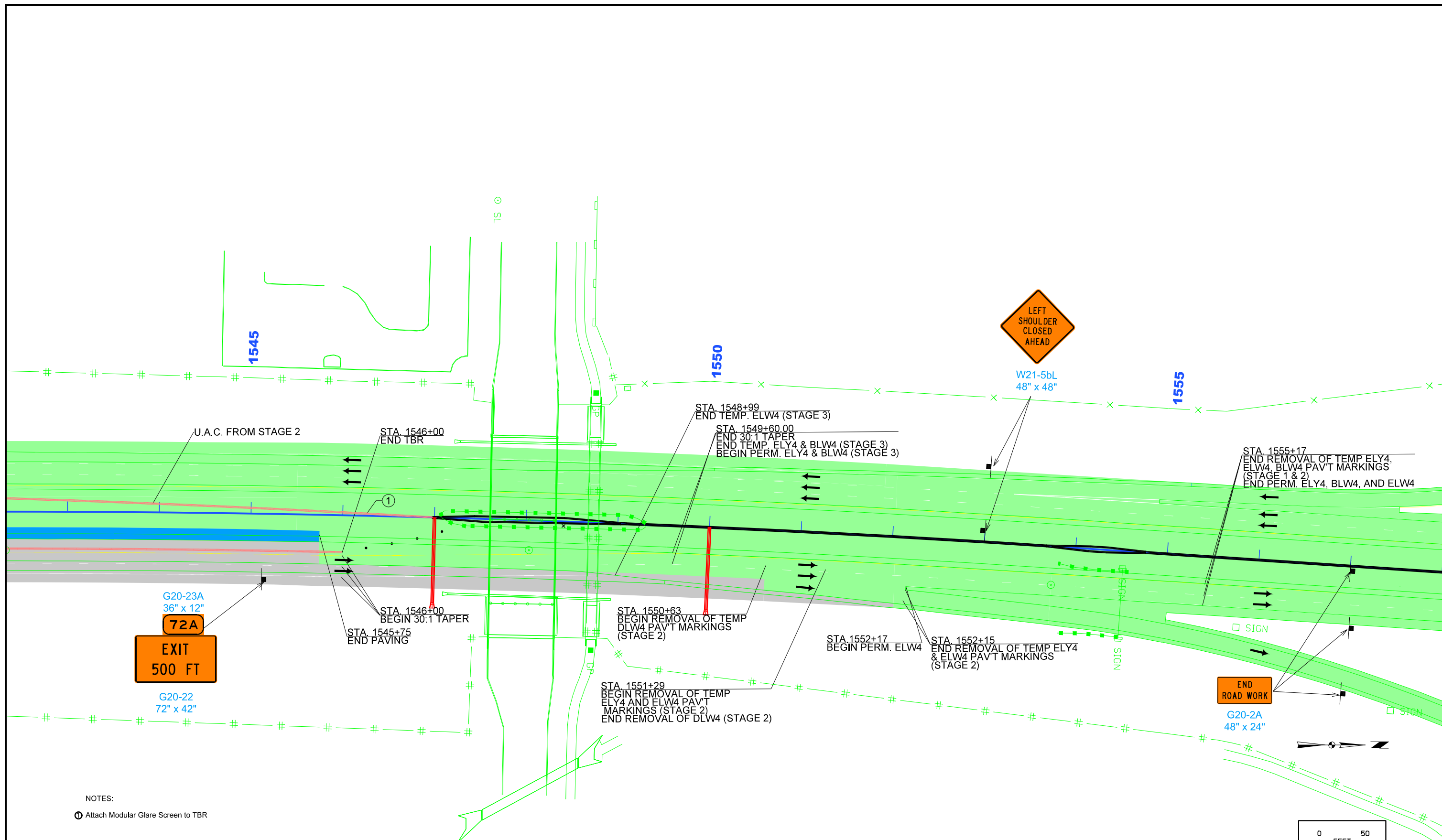




NOTES:
 ① Attach Modular Glare Screen to TBR

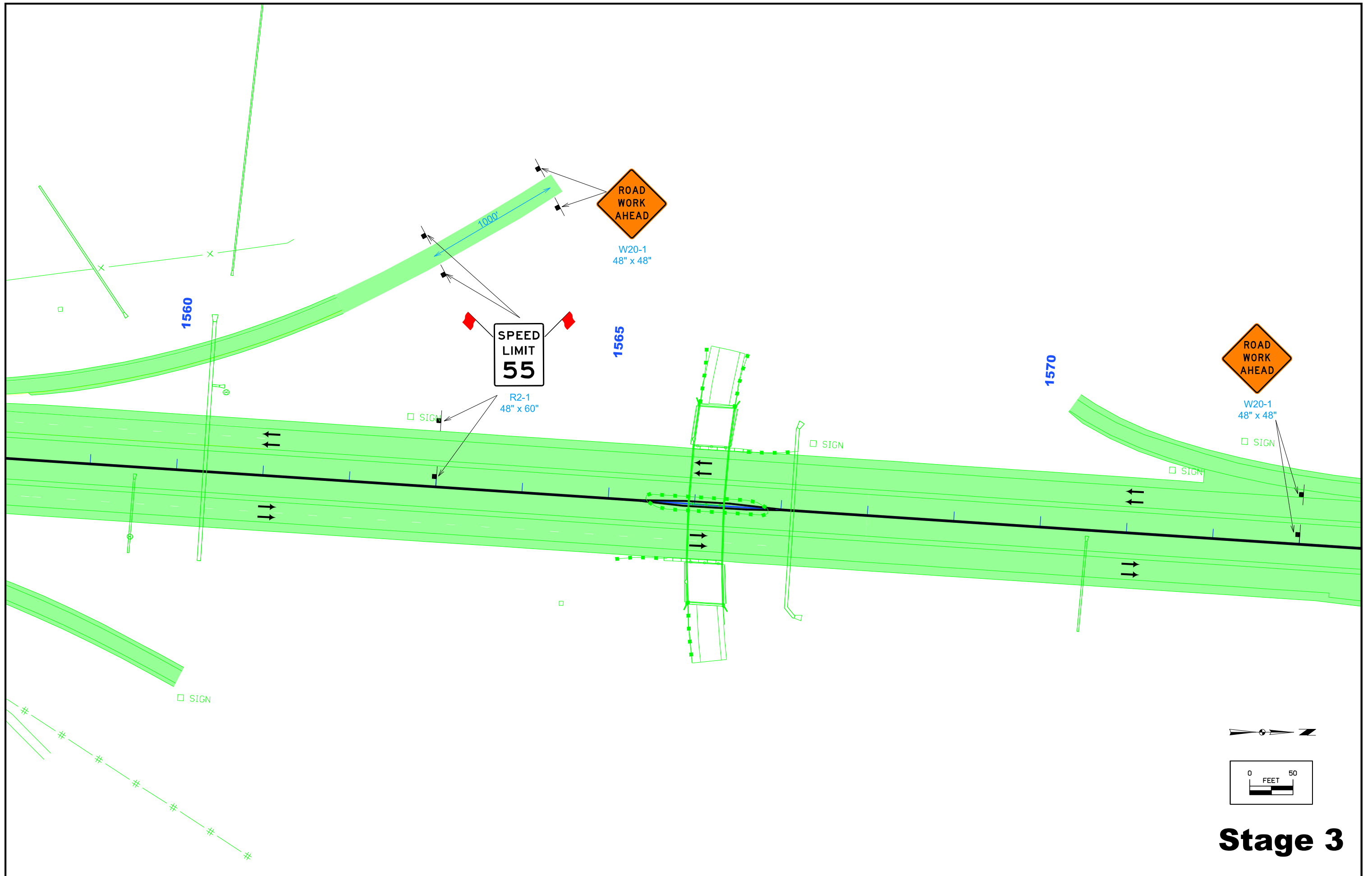


Stage 3

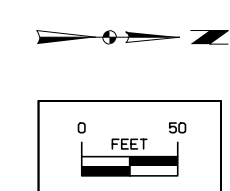


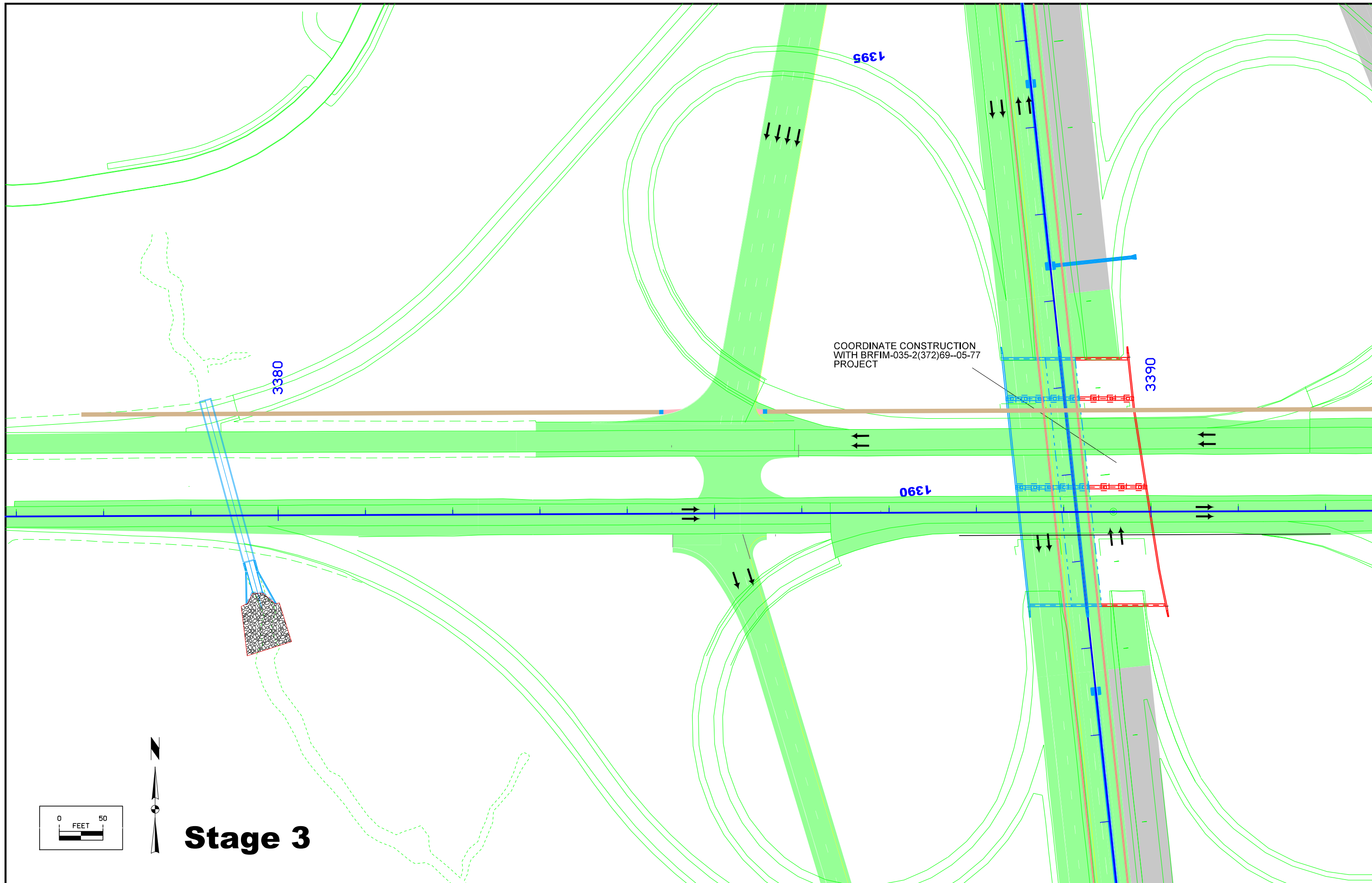
NOTES:
 ① Attach Modular Glare Screen to TBR

Stage 3



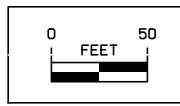
Stage 3

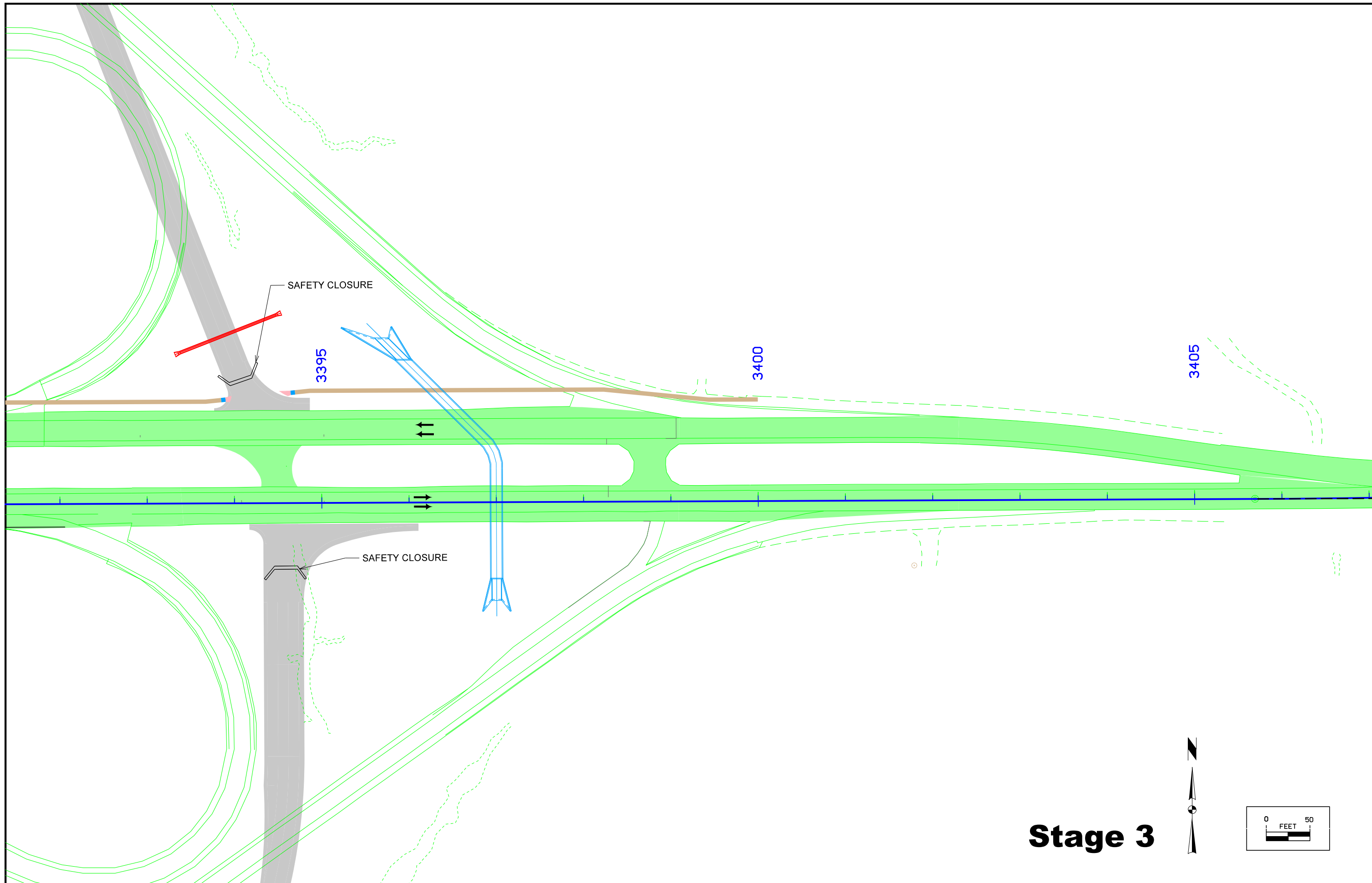




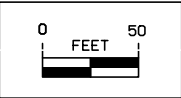
Stage 3

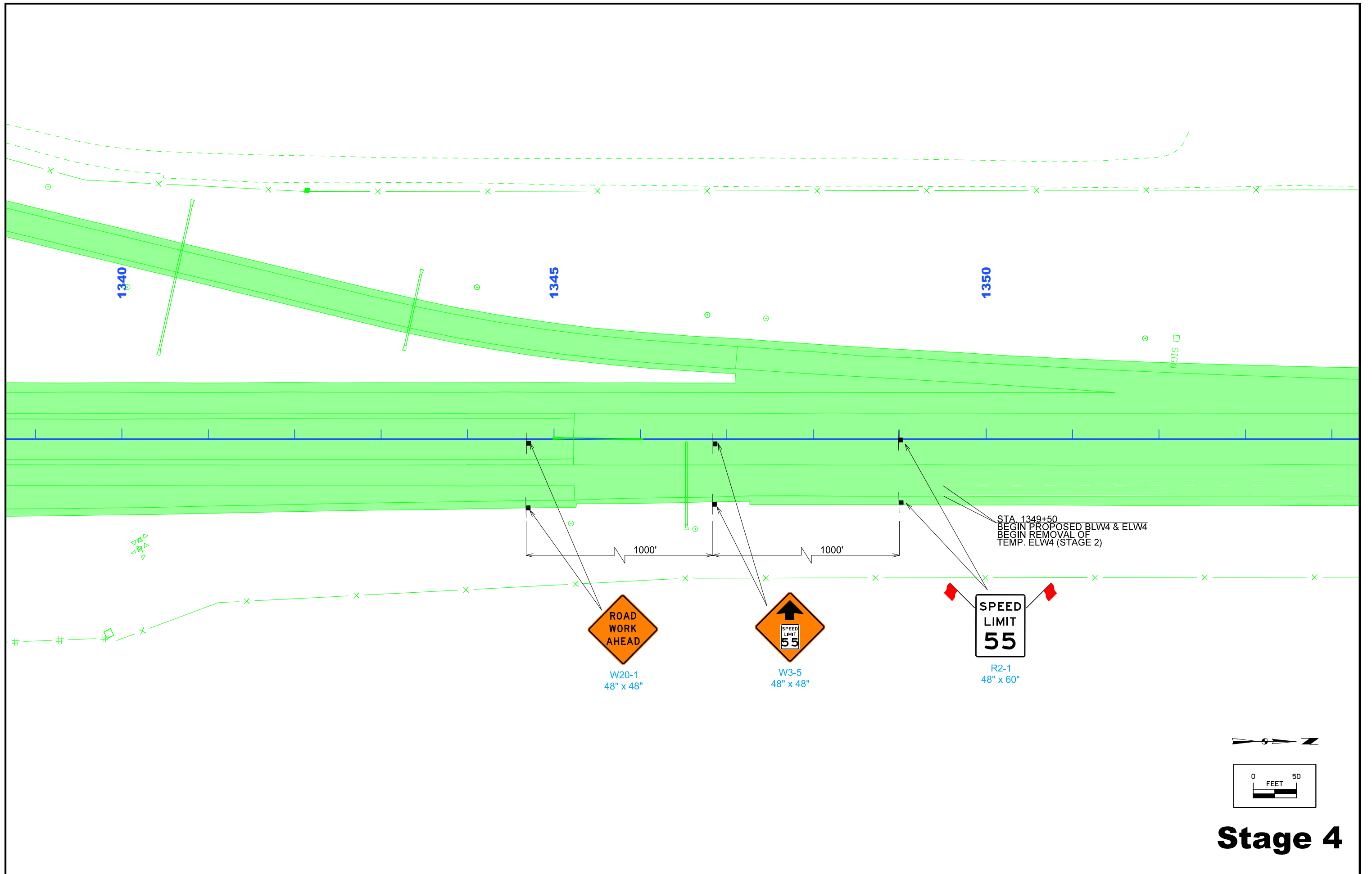
COORDINATE CONSTRUCTION
WITH BRFIM-035-2(372)69--05-77
PROJECT

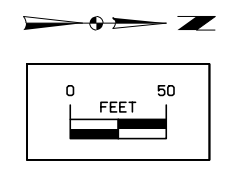
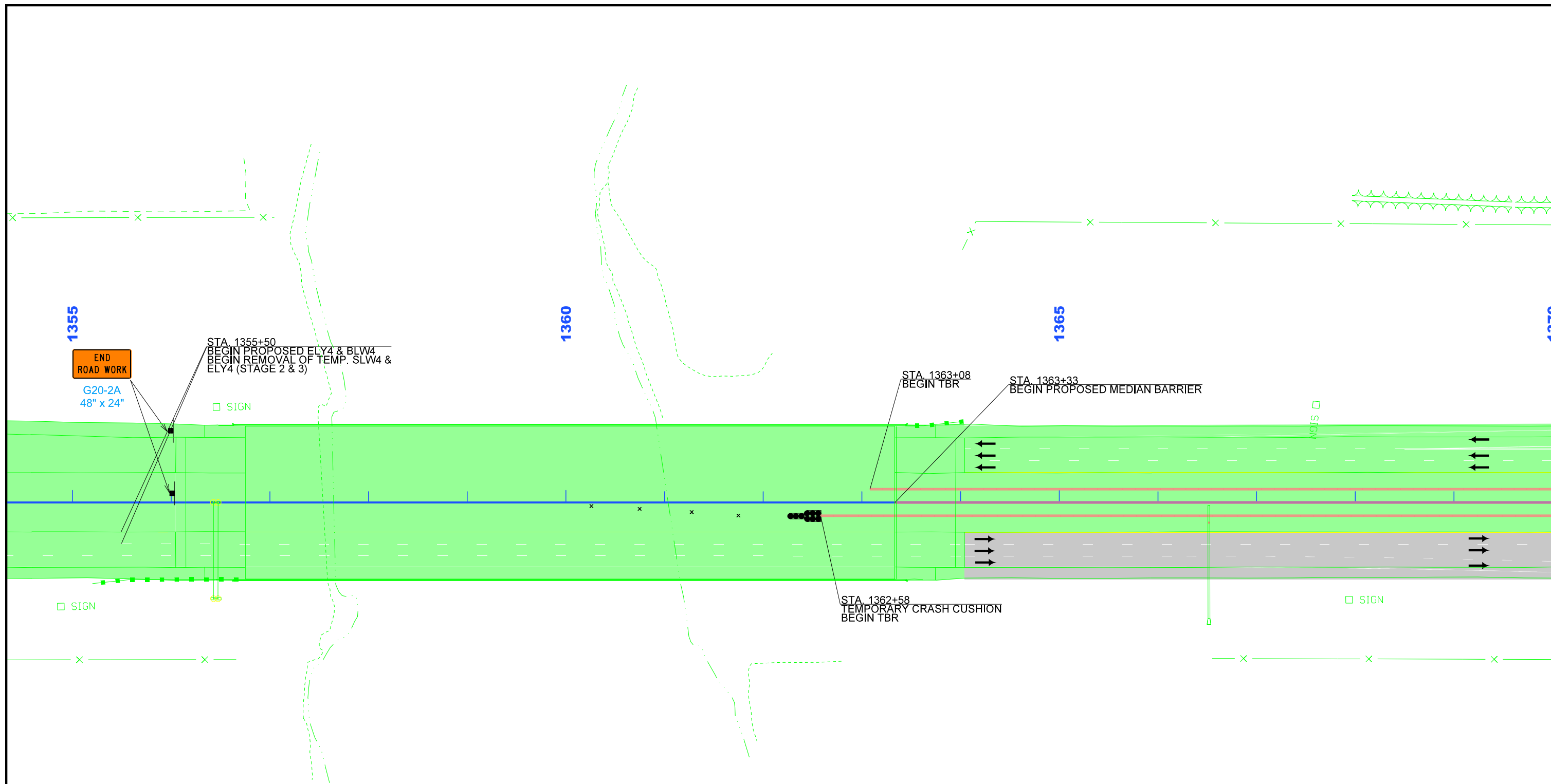




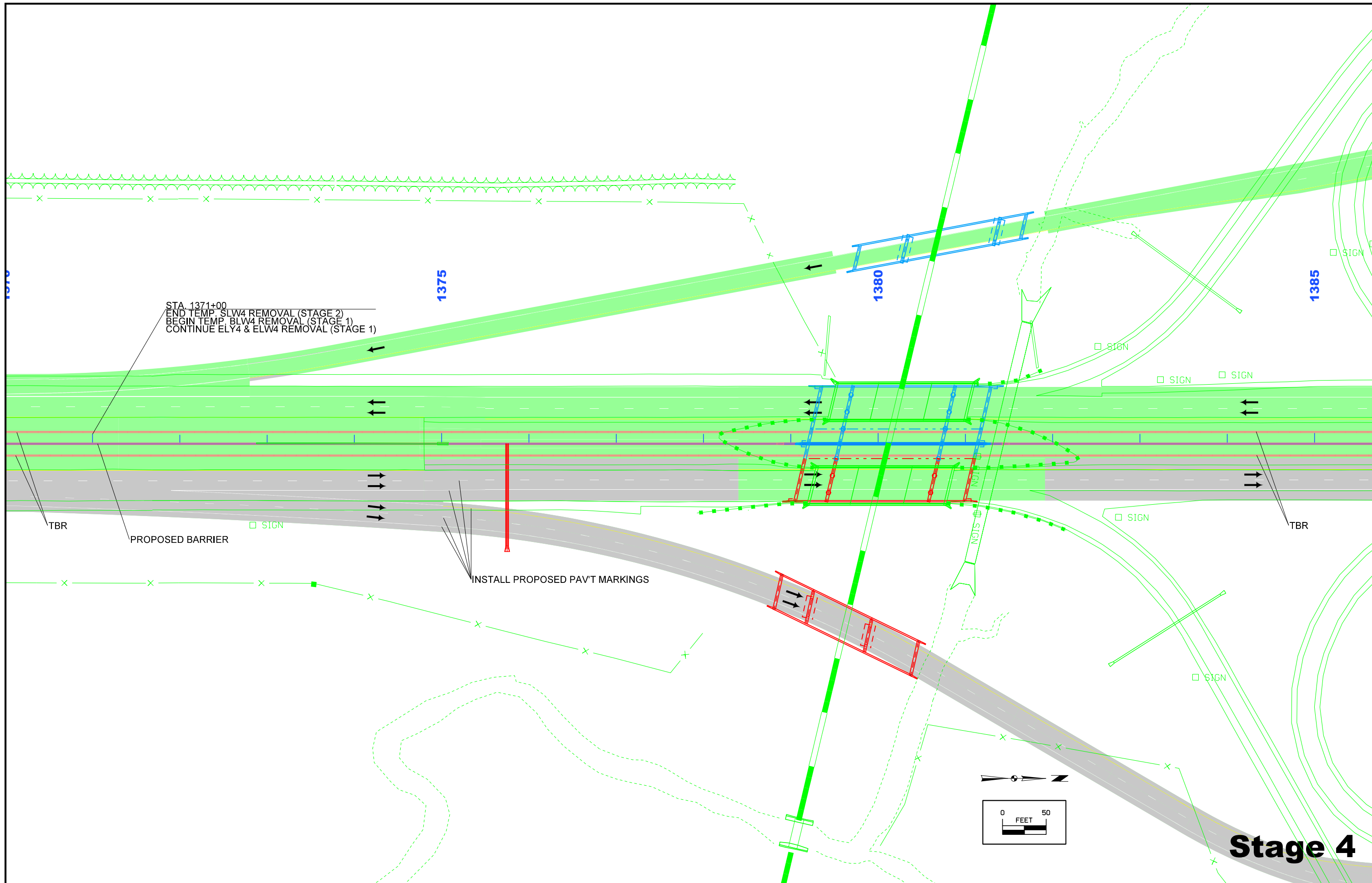
Stage 3

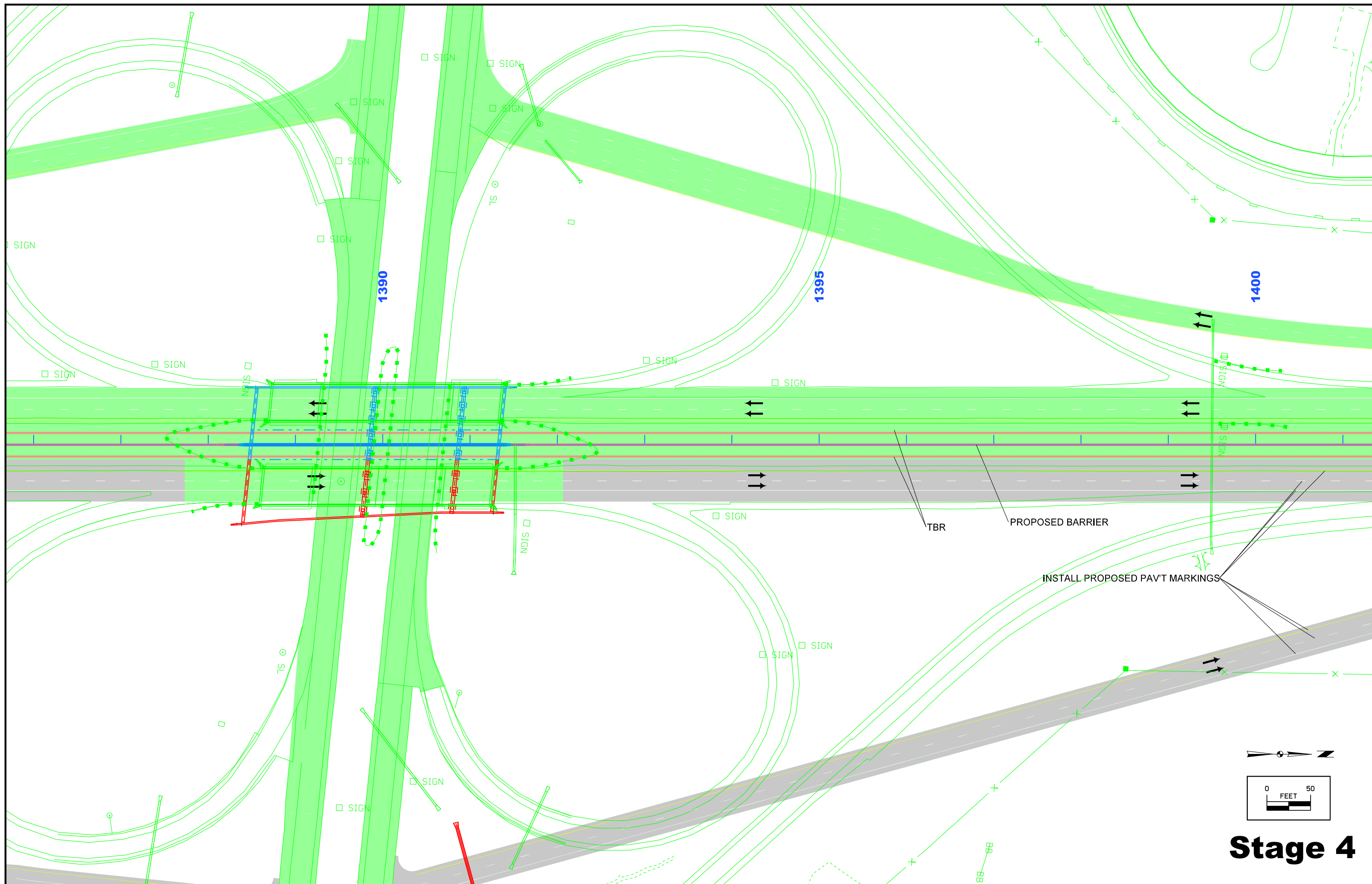




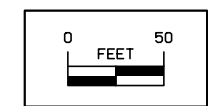
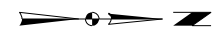
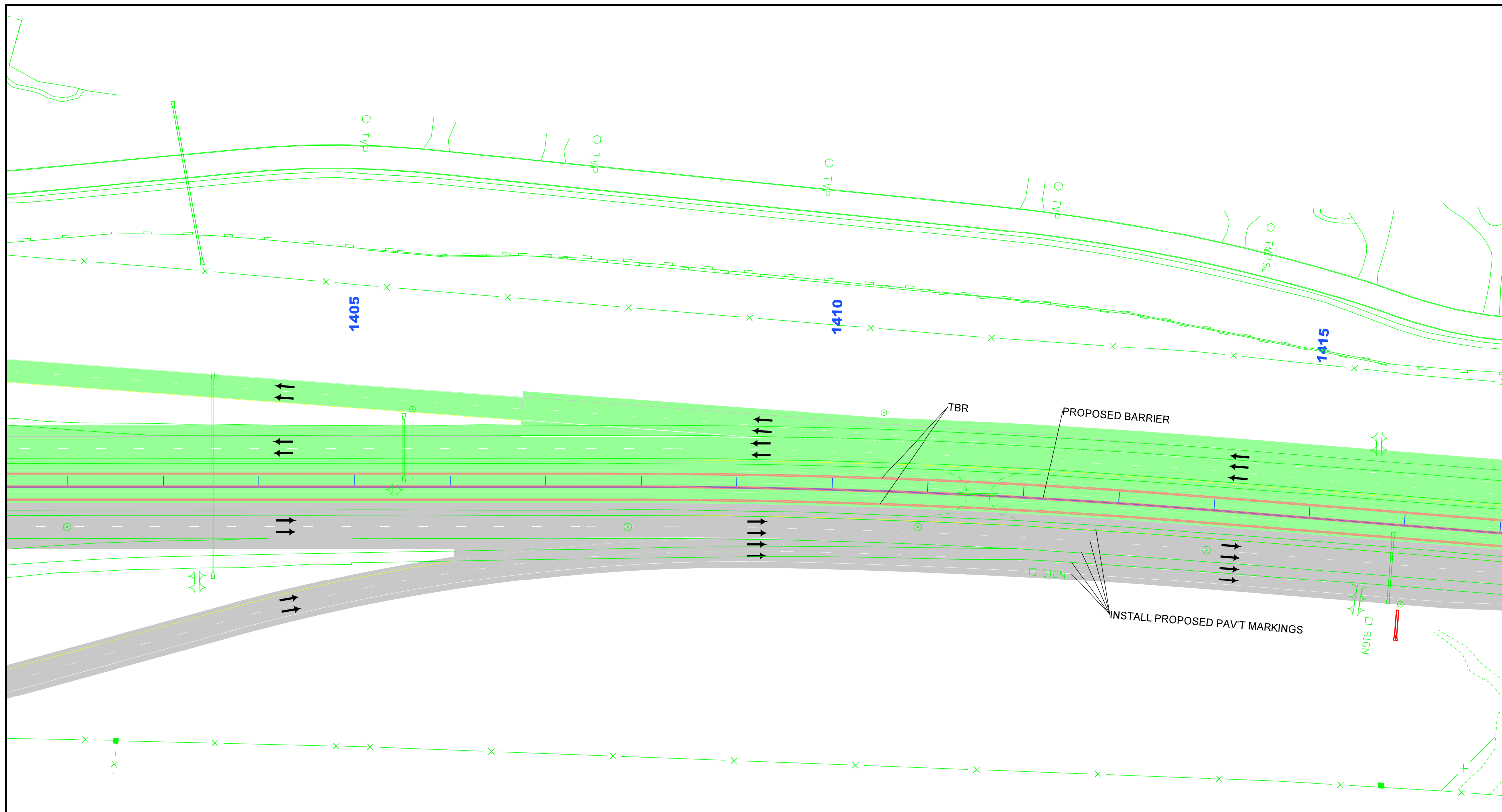


Stage 4

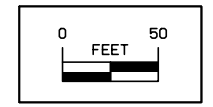
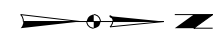
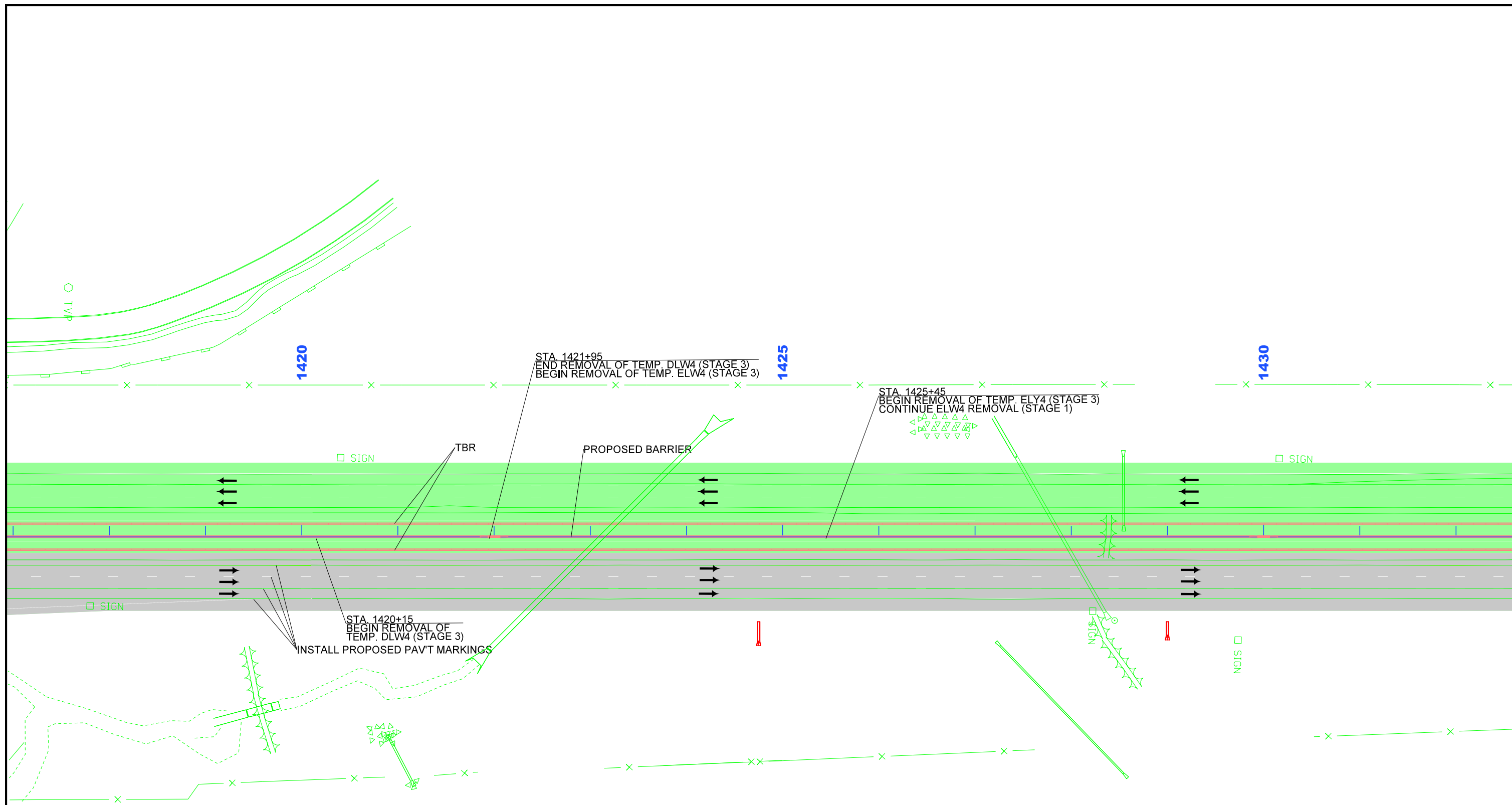




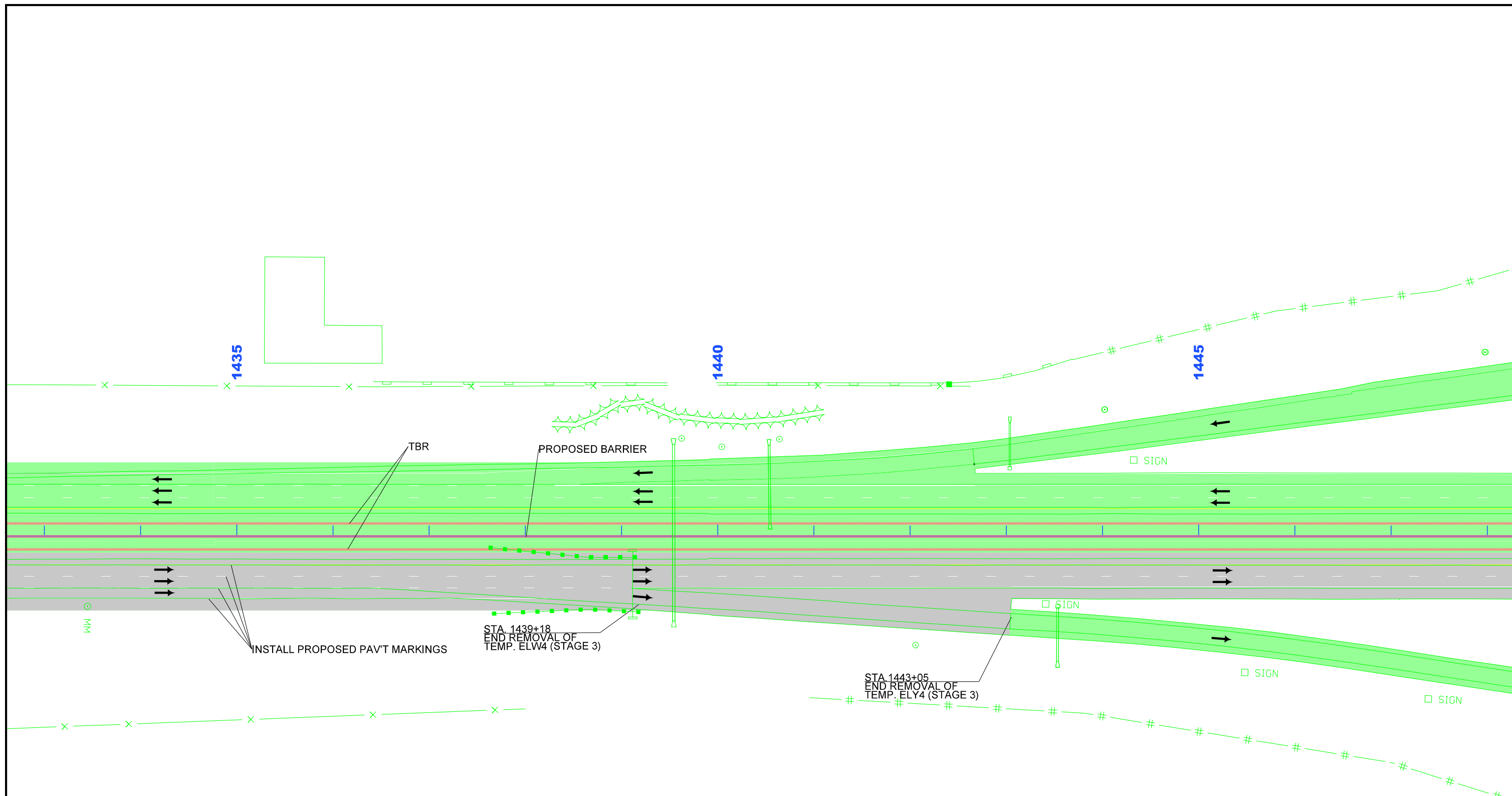
Stage 4



Stage 4



Stage 4



1435

1440

1445

TBR

PROPOSED BARRIER

SIGN

INSTALL PROPOSED PAVT MARKINGS

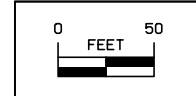
STA. 1439+18
END REMOVAL OF
TEMP. ELW4 (STAGE 3)

STA. 1443+05
END REMOVAL OF
TEMP. ELY4 (STAGE 3)

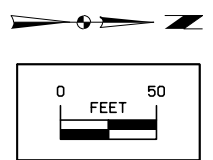
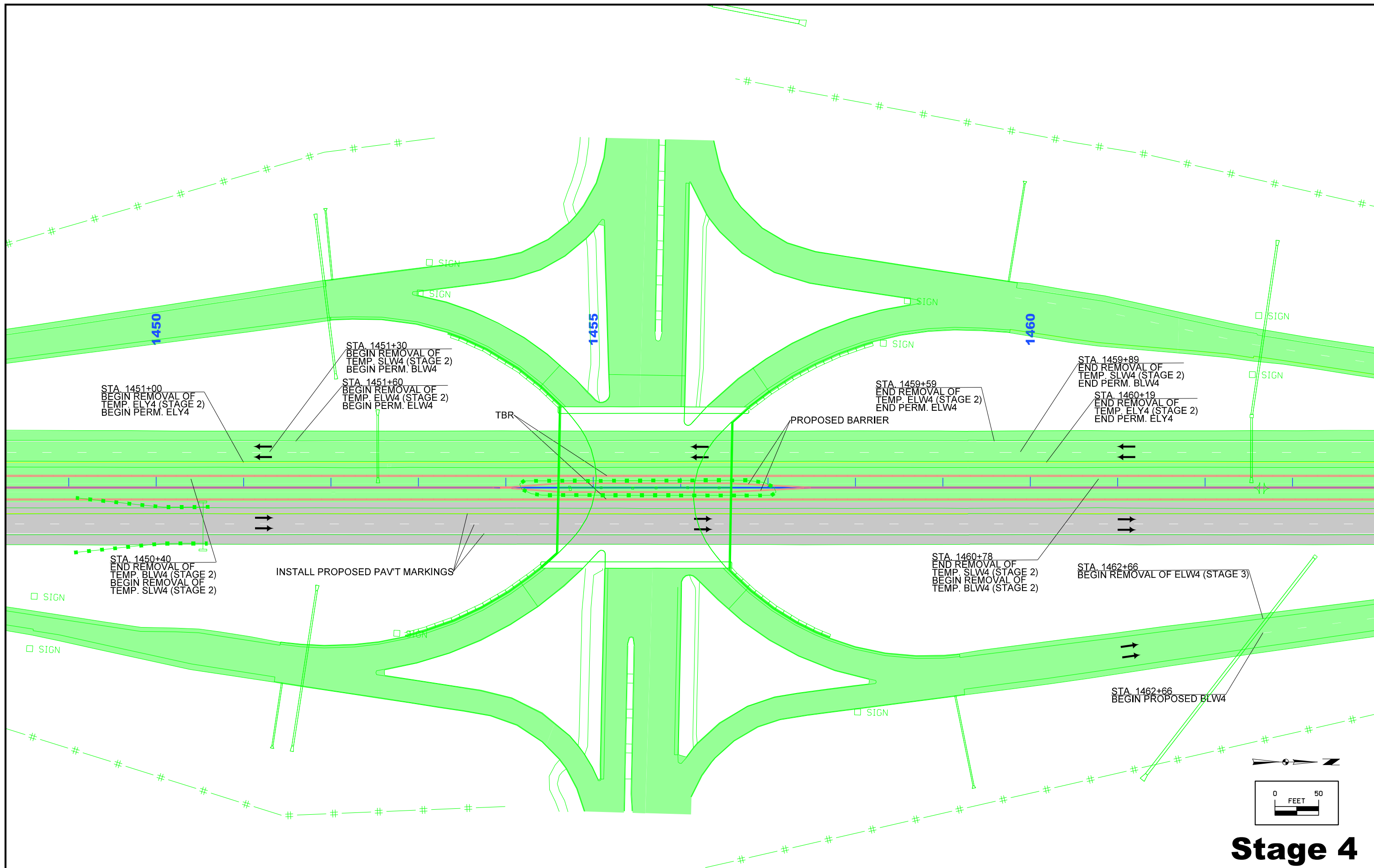
SIGN

SIGN

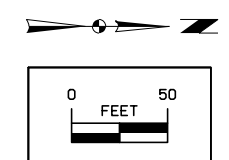
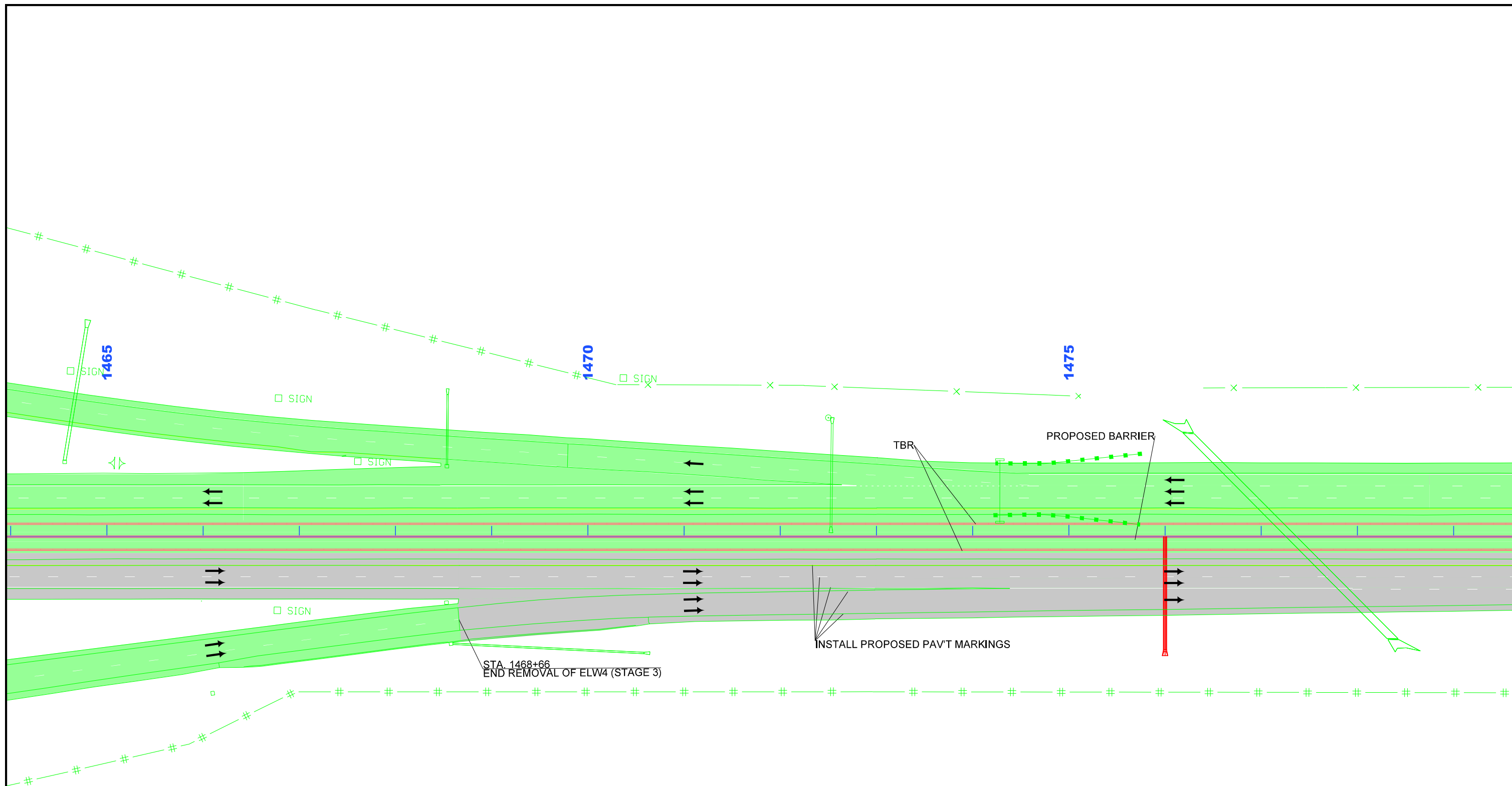
SIGN



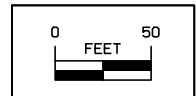
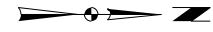
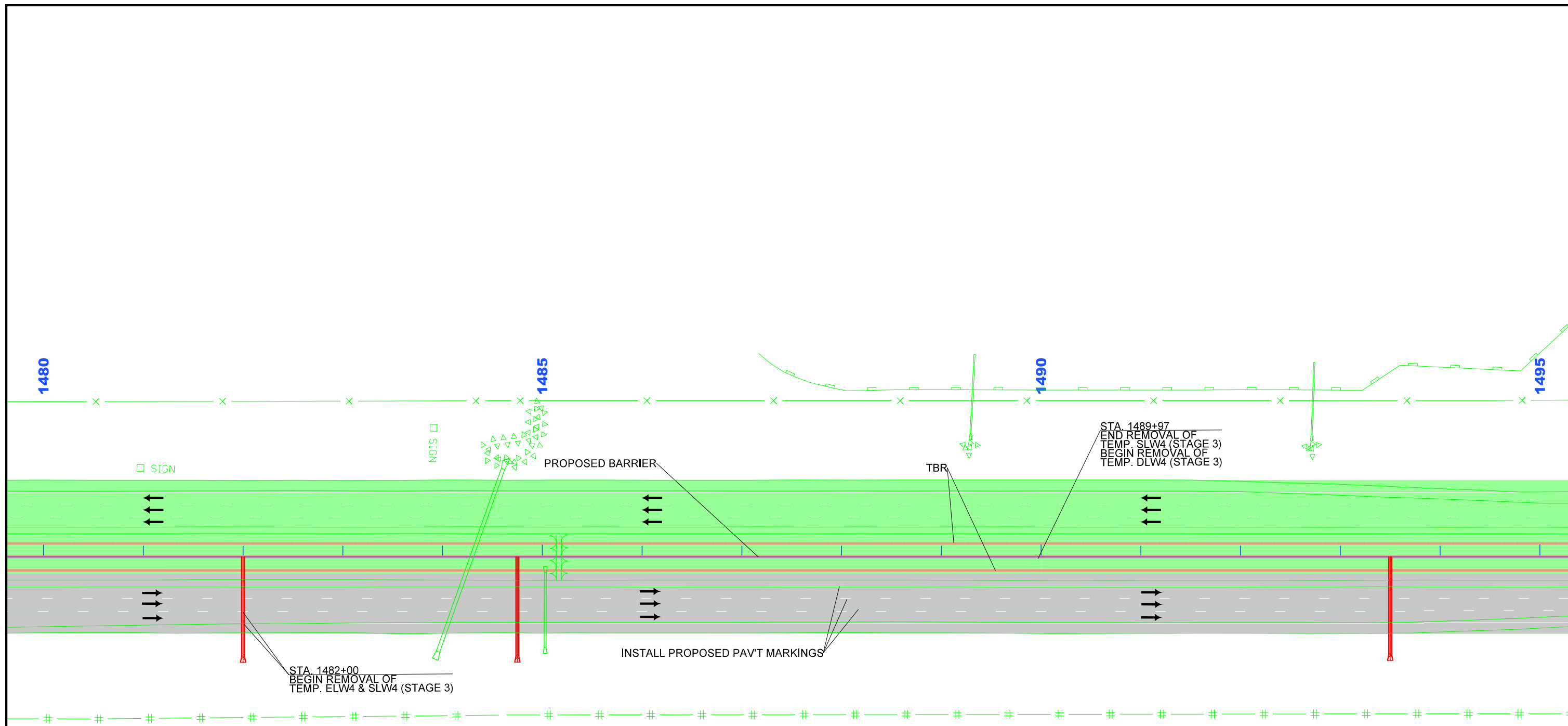
Stage 4



Stage 4



Stage 4



Stage 4

1500

1505

1510

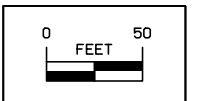
STA. 1498+97
END REMOVAL OF
TEMP. DLW4 (STAGE 3)

PROPOSED BARRIER

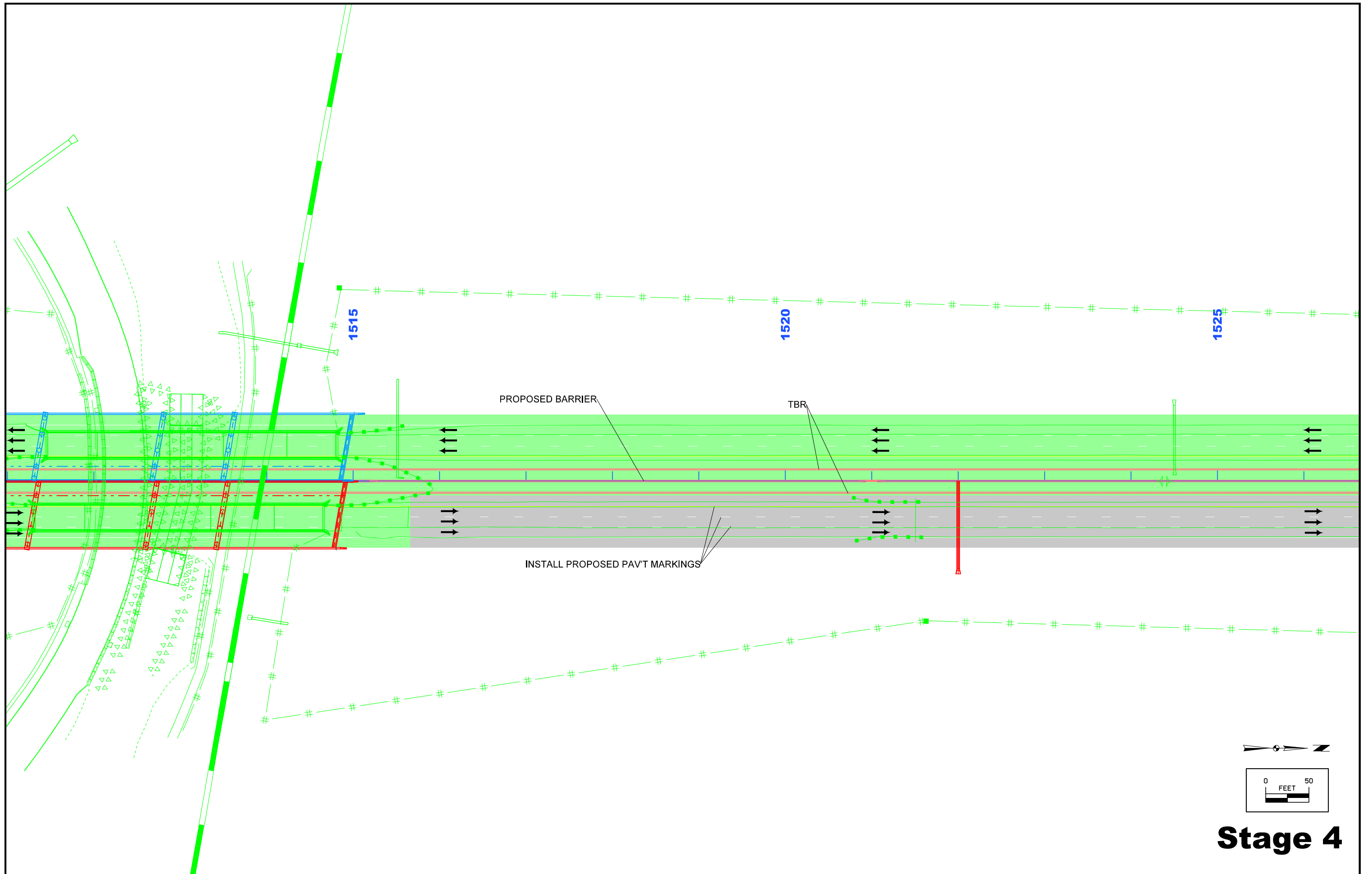
TBR

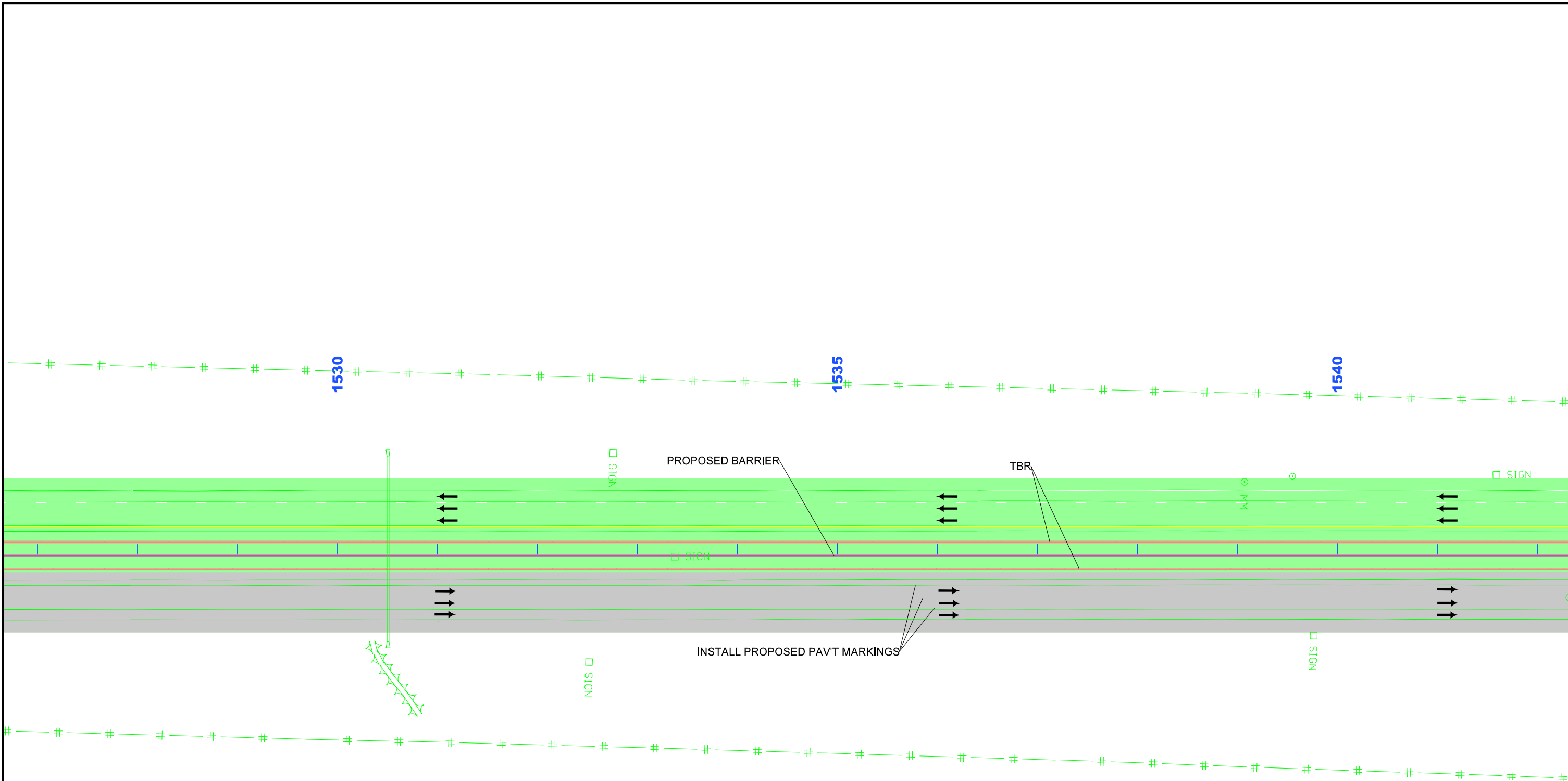
SIGN

INSTALL PROPOSED PAV'T MARKINGS

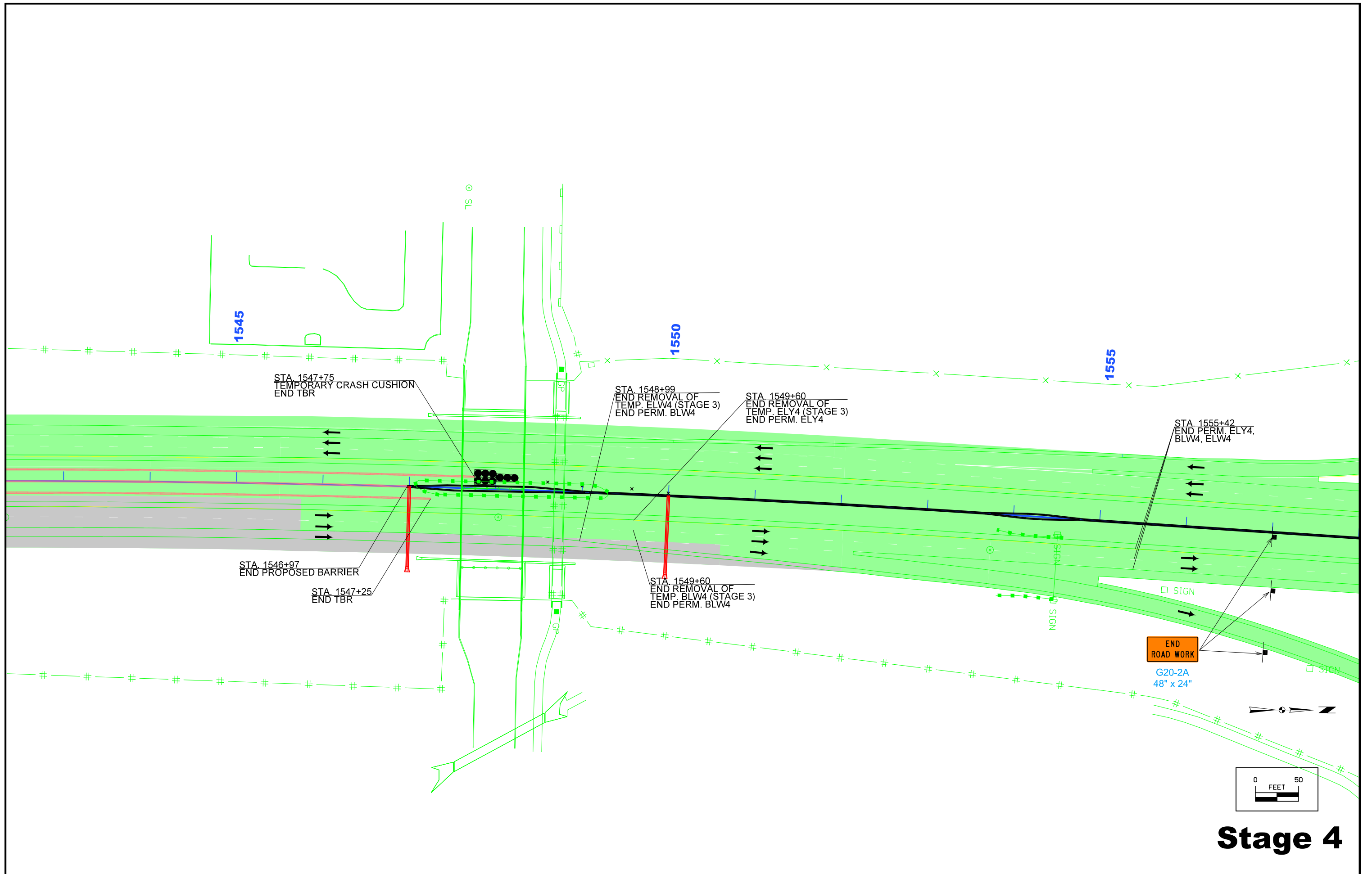


Stage 4

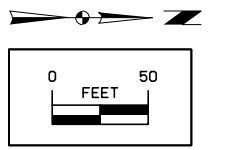
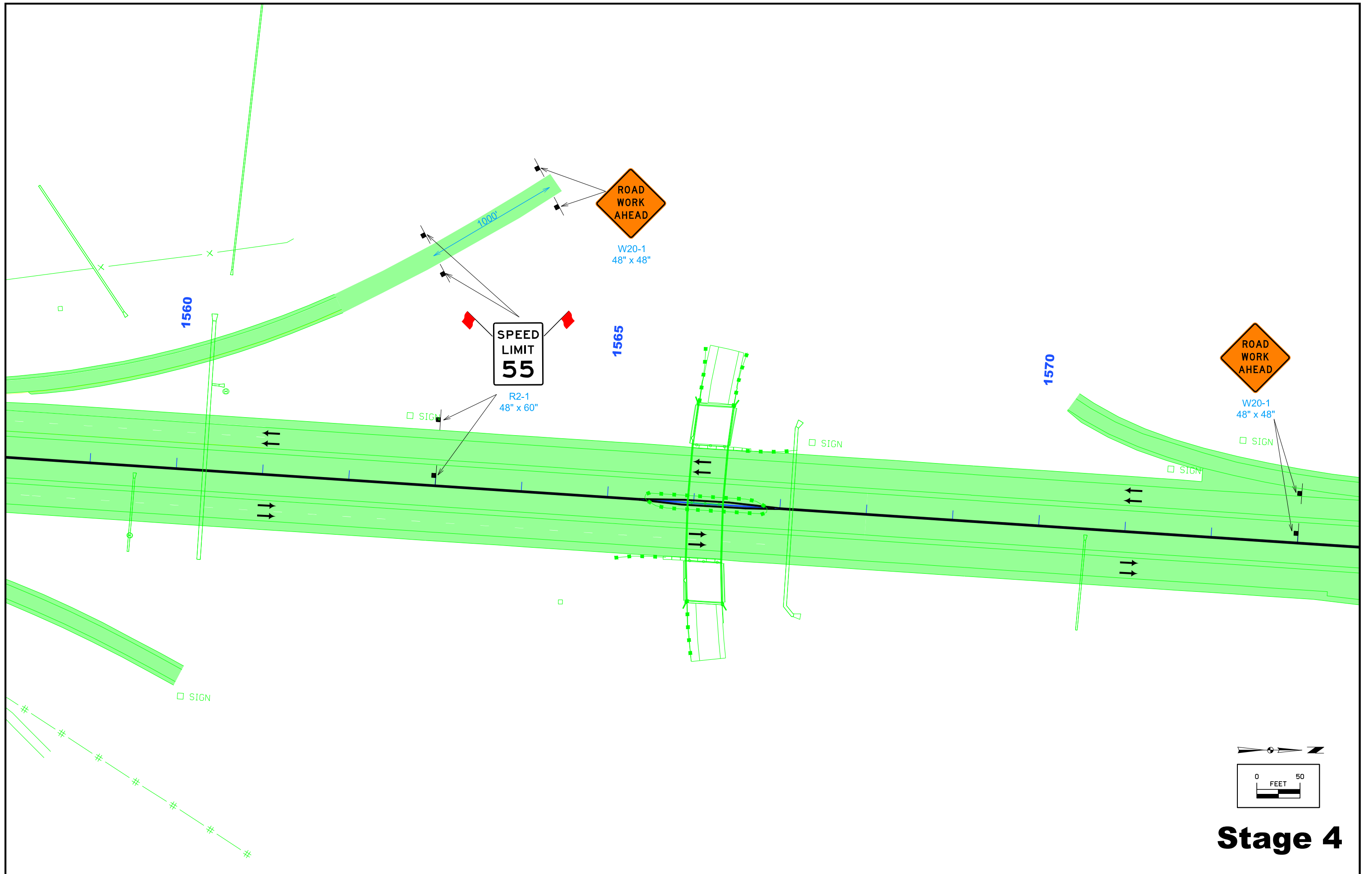




Stage 4



Stage 4



Stage 4

Detour Notes

As part of the removal and replacement for EP True Parkway, the roadway will be closed and a detour will be used. The detour will be in place for 4 nights during the removal of the existing bridge from 9:00 PM to 6:00 AM. This same detour will be used for 5 nights from 12:00 AM to 5:00 AM for beam replacement. The detour may only be used from Sunday night through Friday morning.

Refer to Traffic Control Plan for additional information.

Detour Route:

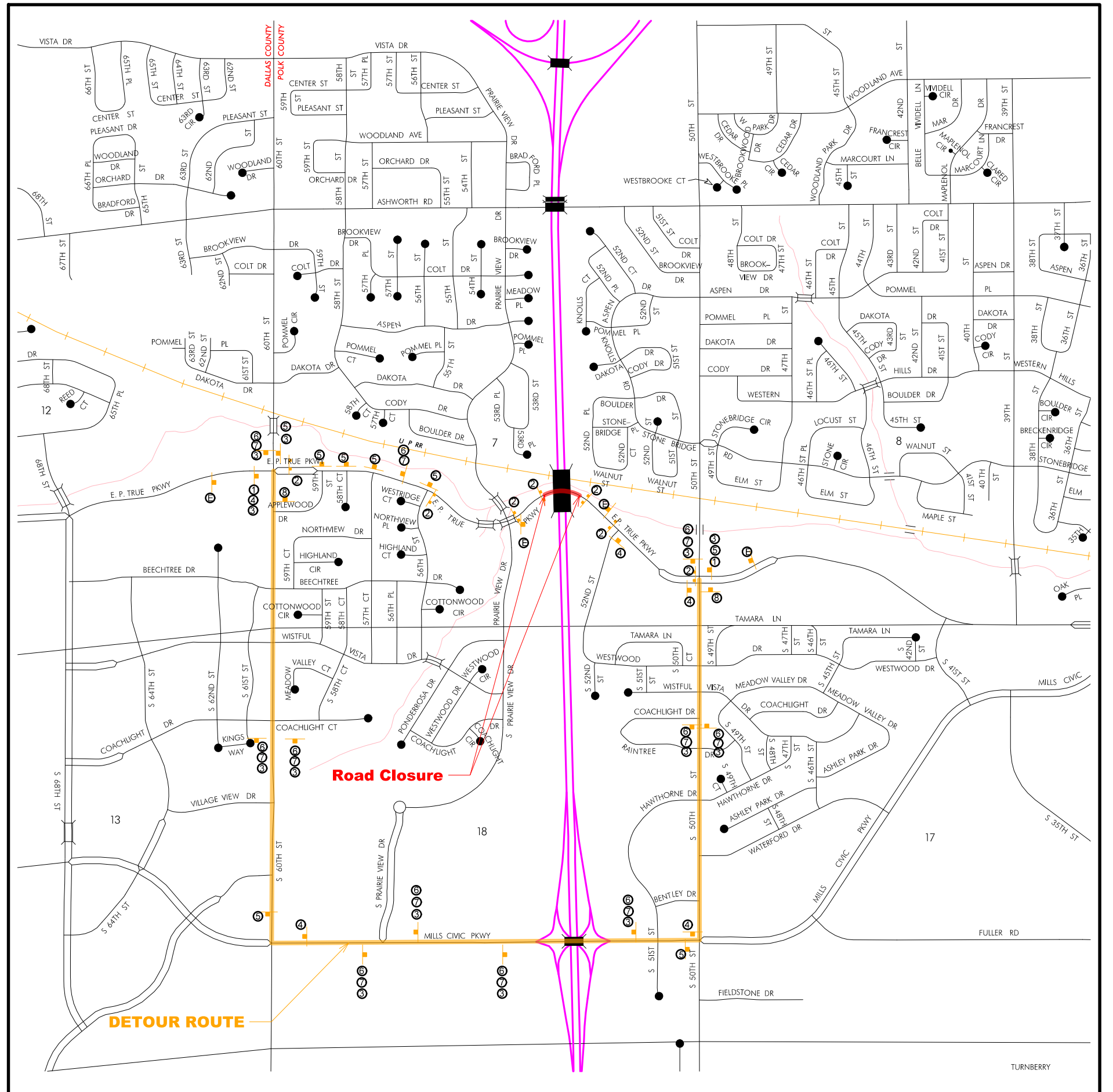
The detour route for EP True will be from EP True Parkway to S. 50th Street to George Mills Civic Parkway to S. 60th Street back to EP True Parkway.

The bid item for Traffic Control will be considered full compensation for installing, covering, and uncovering signs required for the detour. It is the contractor's responsibility to set up, cover, uncover, and maintain all signs along the detour routes.

SIGN TABULATION

No.	Sign & Type	Quantity	Size
①	Road Closed Ahead (W20-3)	2	(48"x48")
②	Road Closed to Thru Traffic - Type III Barricade (R11-4)	7	(60"x30")
③	EP True. (D3-1)	12	(30"x12")
④	Detour → (M4-9)	5	(30"x24")
⑤	Detour ← (M4-9)	8	(30"x24")
⑥	Detour (M4-8)	11	(24"x12")
⑦	↑ (M6-3)	11	(21"x15")
⑧	End Detour (M4-8a)	2	(24"x18")
⑨	Changeable Message Board	4	

**EASTBOUND AND WESTBOUND
EP TRUE PARKWAY DETOUR
DURING BRIDGE REMOVAL AND REPLACEMENT**



Detour Notes

As part of the bridge removal and replacement for Grand Avenue, the roadway will be closed and a detour will be used. The detour will be in place for 4 nights during the removal of the existing bridge from 9:00 PM to 6:00 AM. This same detour will be used for during beam setting operations for the new bridge. The detour will be used for 5 nights from 12:00 AM to 5:00 AM for beam replacement. The detour may only be used from Sunday night through Friday morning.

Refer to Traffic Control Plan for additional information.

Detour Route:

The detour route for eastbound Grand Avenue will begin at Raccoon River Drive and proceed westbound on Grand Ave. then north on S. Jordan Creek Parkway then east on George Mills Civic Parkway to S. 50th Street then back to Grand Avenue.

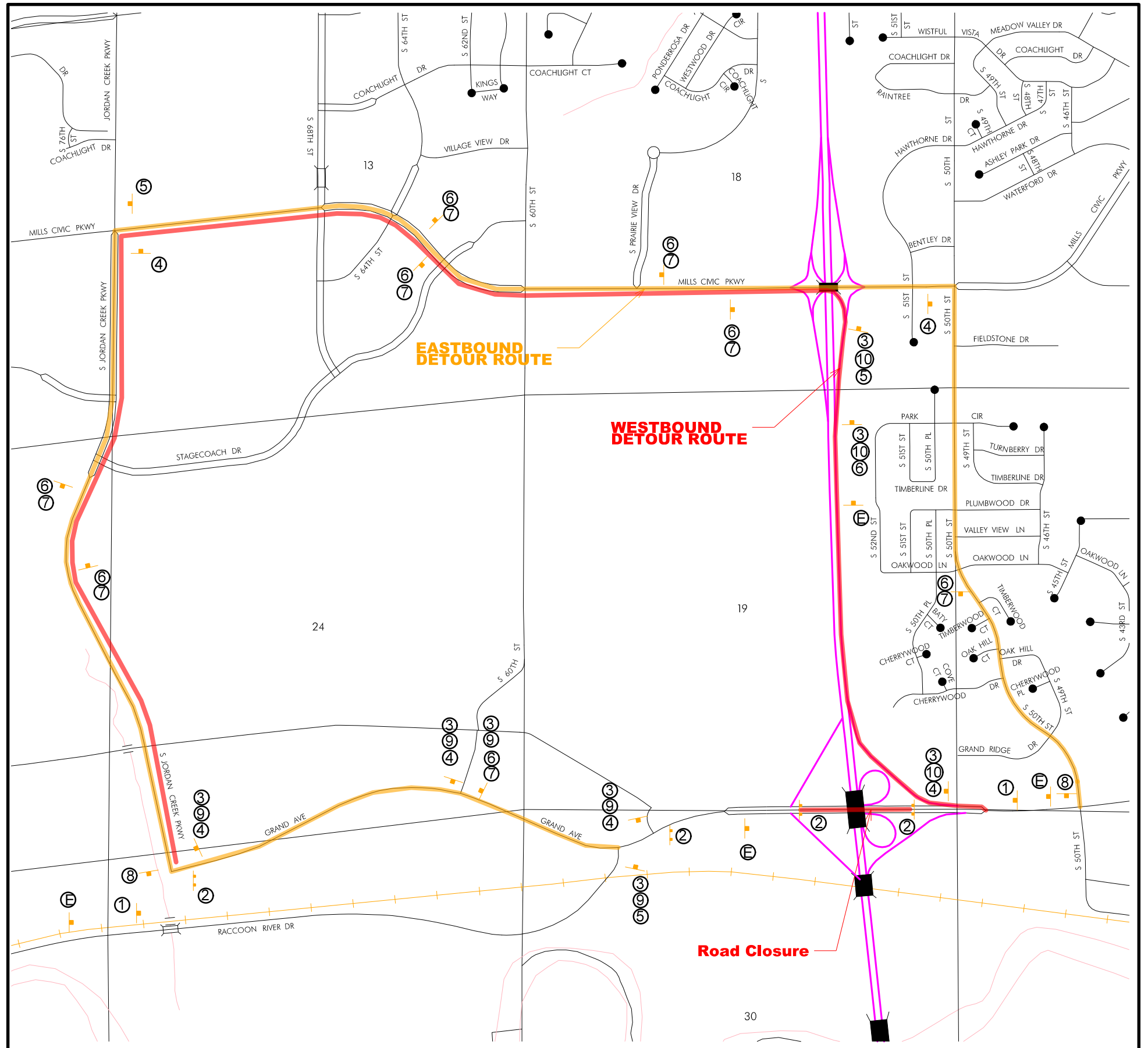
The detour route for westbound Grand Avenue will begin at the I-35 Grand Avenue Interchange and proceed north on I-35 to George Mills Civic Parkway then west to S. Jordan Creek Parkway then south back to Grand Avenue.

The bid item for Traffic Control will be considered full compensation for installing, covering, and uncovering signs required for the detour. It is the contractor's responsibility to set up, cover, uncover, and maintain all signs along the detour routes.

SIGN TABULATION

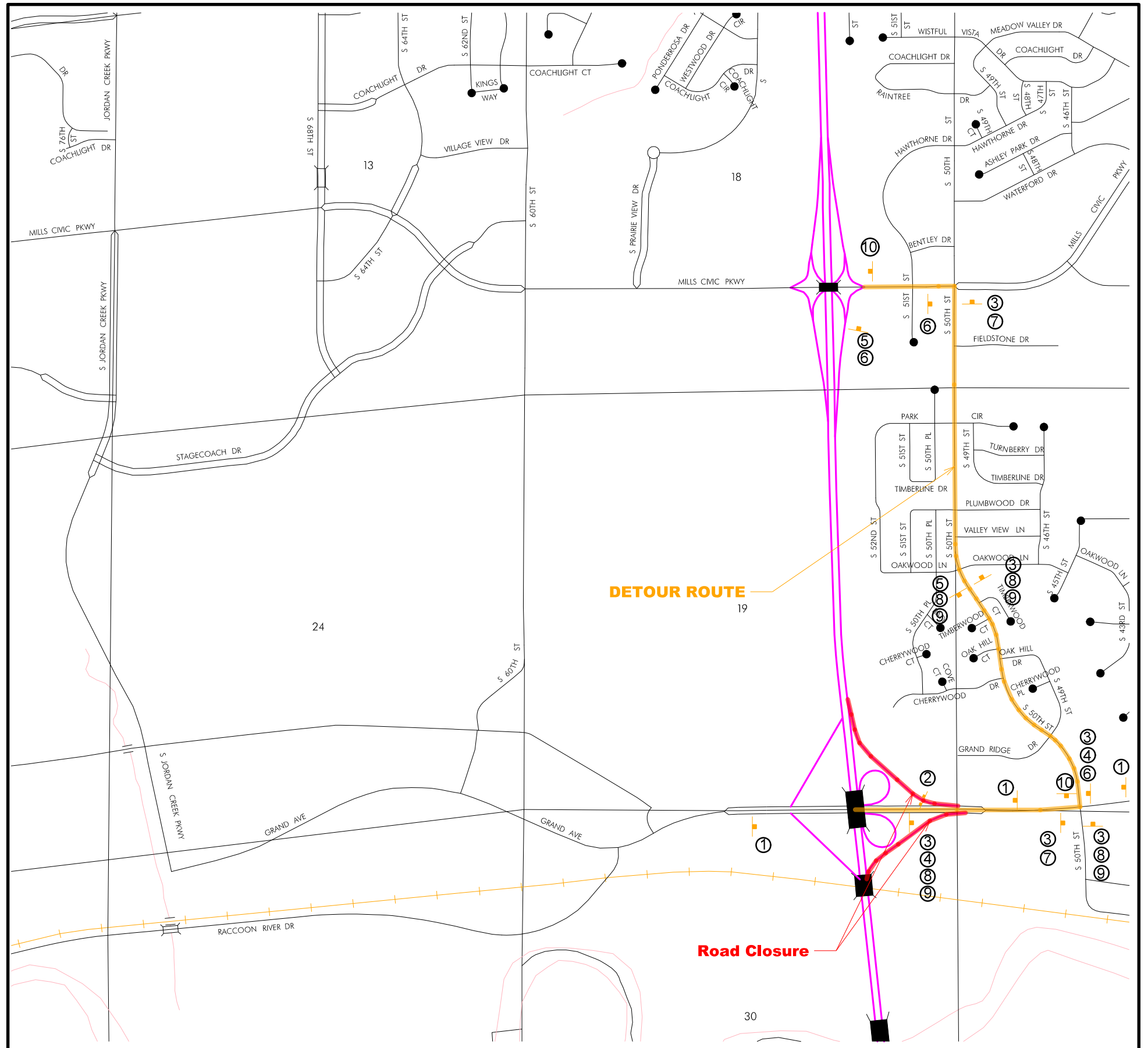
No.	Sign & Type	Quantity	Size
①	Road Closed Ahead (W20-3)	2	(48"x48")
②	Road Closed to Thru Traffic - Type III Barricade (R11-4)	4	(60"x30")
③	Grand Ave. (D3-1)	8	(30"x12")
④	Detour → (M4-9)	6	(30"x24")
⑤	Detour ← (M4-9)	3	(30"x24")
⑥	Detour (M4-8)	9	(24"x12")
⑦	↑ (M6-3)	8	(21"x15")
⑧	End Detour (M4-8a)	2	(24"x18")
⑨	Eastbound	5	
⑩	Westbound	3	
E	Changeable Message Board	4	

EASTBOUND GRAND AVENUE AND WESTBOUND GRAND AVENUE DETOUR DURING I-35 BRIDGE REMOVAL & REPLACEMENT



SIGN TABULATION			
No.	Sign & Type	Quantity	Size
①	Road Work Ahead (W20-1)	3	(48"x48")
②	Road Closed to Thru Traffic - Type III Barricade (R11-4)	1	(60"x30")
③	I-35 Northbound (D3-1)	6	(30"x24")
④	Road Closed (D3-1)	2	(30"x24")
⑤	Grand Ave. (D3-1)	2	(30"x12")
⑥	Detour → (M4-9)	3	(30"x24")
⑦	Detour ← (M4-9)	2	(30"x24")
⑧	Detour (M4-8)	4	(24"x12")
⑨	↑ (M6-3)	4	(21"x15")
⑩	End Detour (M4-8a)	2	(24"x18")

**NORTHBOUND I-35 TO
WESTBOUND AND EASTBOUND GRAND AVE.
AND
WESTBOUND AND EASTBOUND GRAND AVE. TO
NORTHBOUND I-35 DETOUR**



POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 30



1360

1365

1370

4375

1375

Ramp D

4380

4385

1385

1380

4390

400' Right Turn Lane
10:1 Taper

1390

30:1 Taper

2375

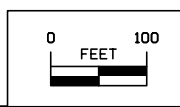
Ramp B

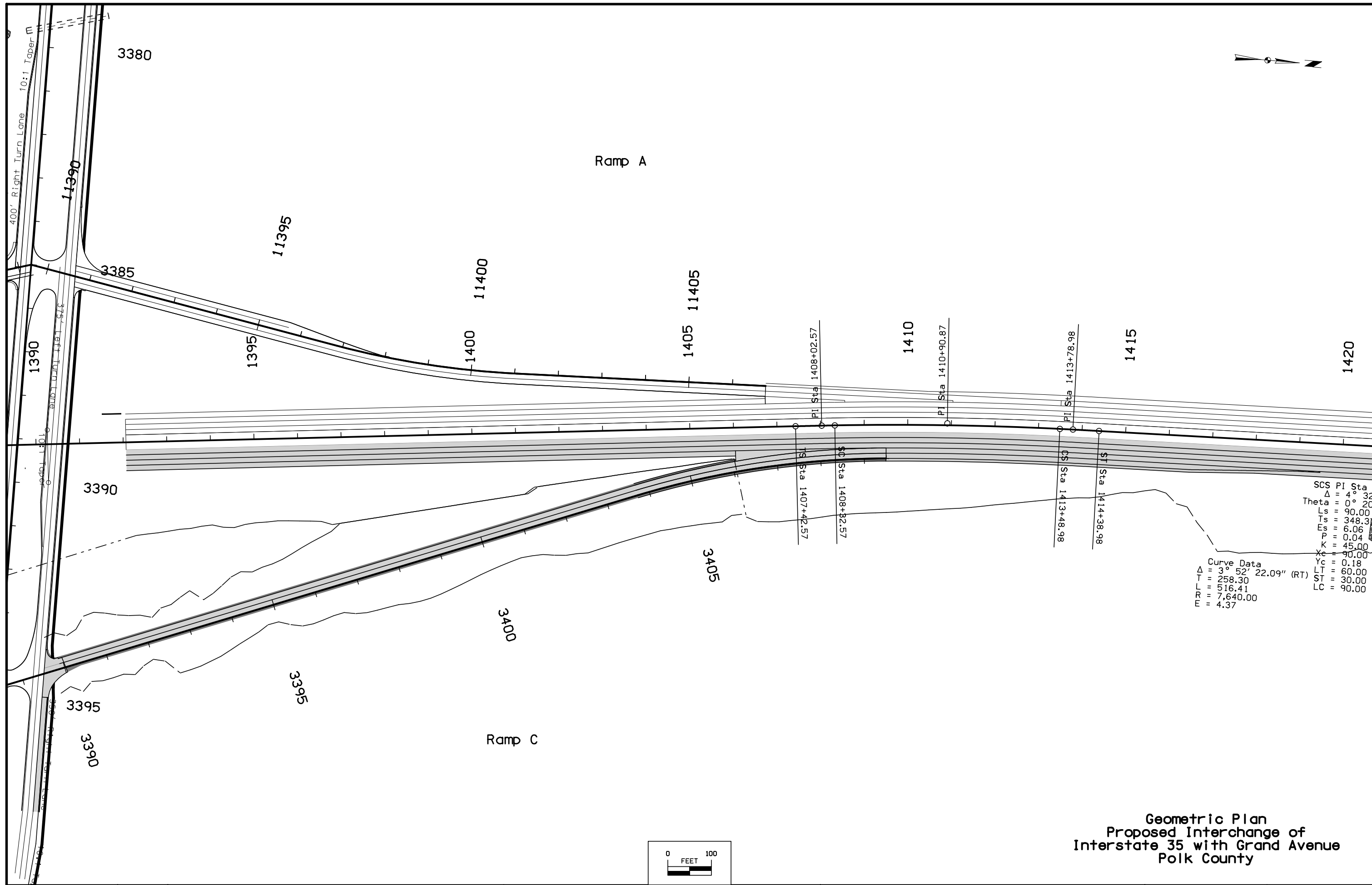
2380

10:1 Taper
300' Left Turn Lane

2385

Geometric Plan
Proposed Interchange of
Interstate 35 with Grand Avenue
Polk County

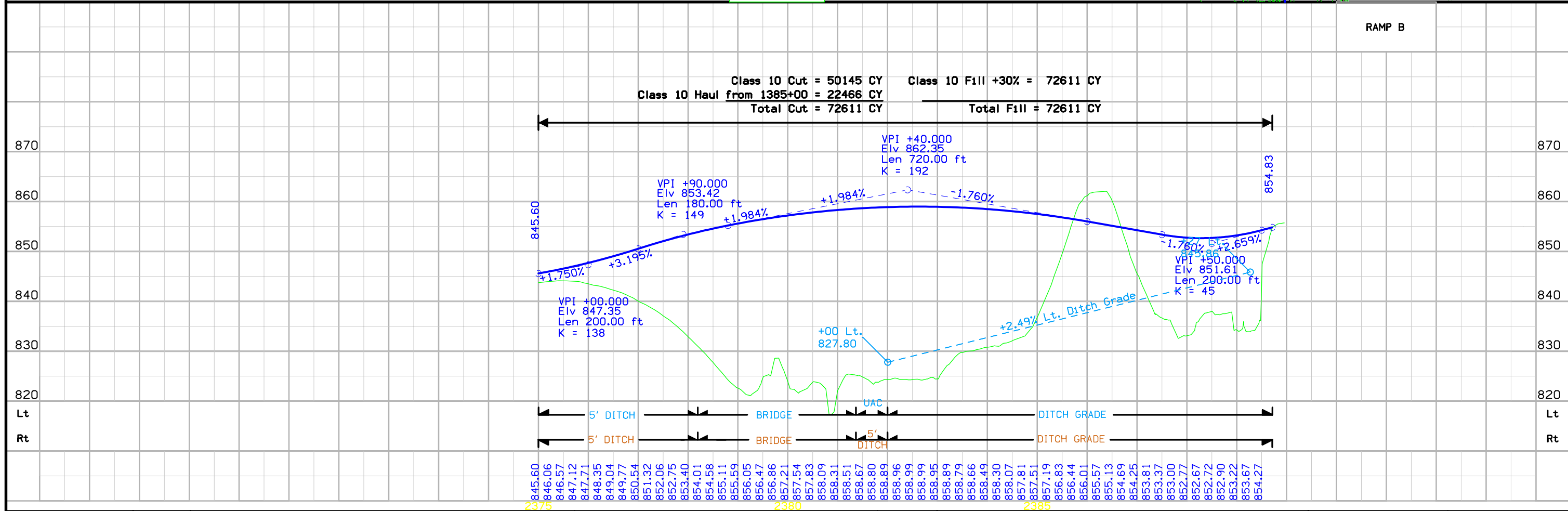
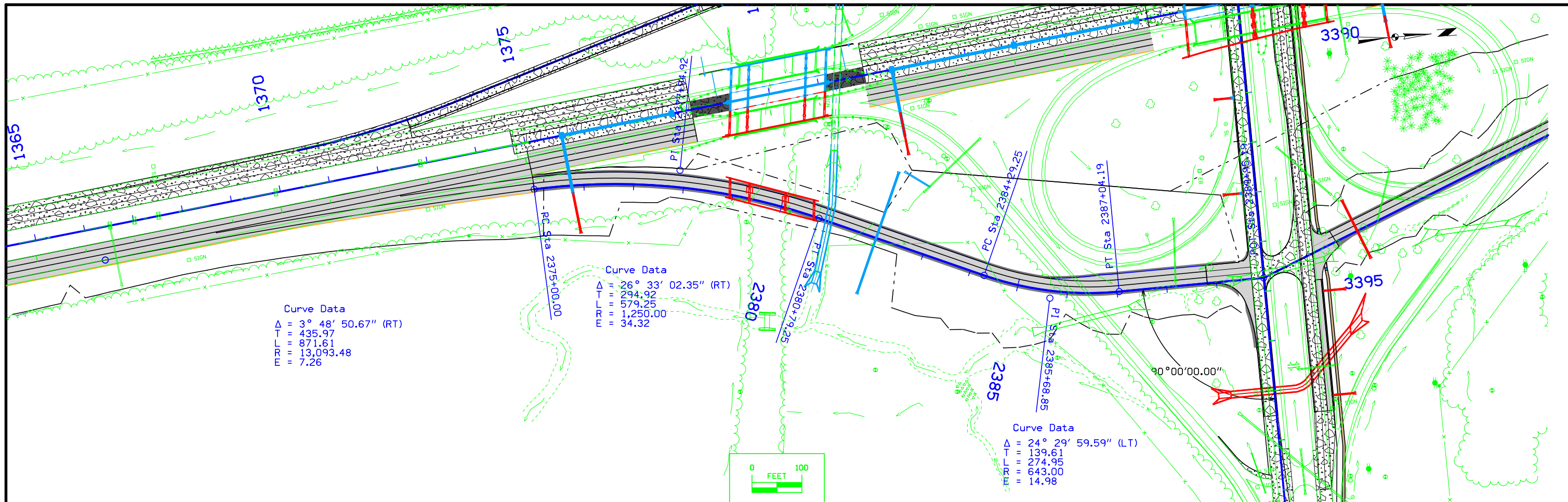


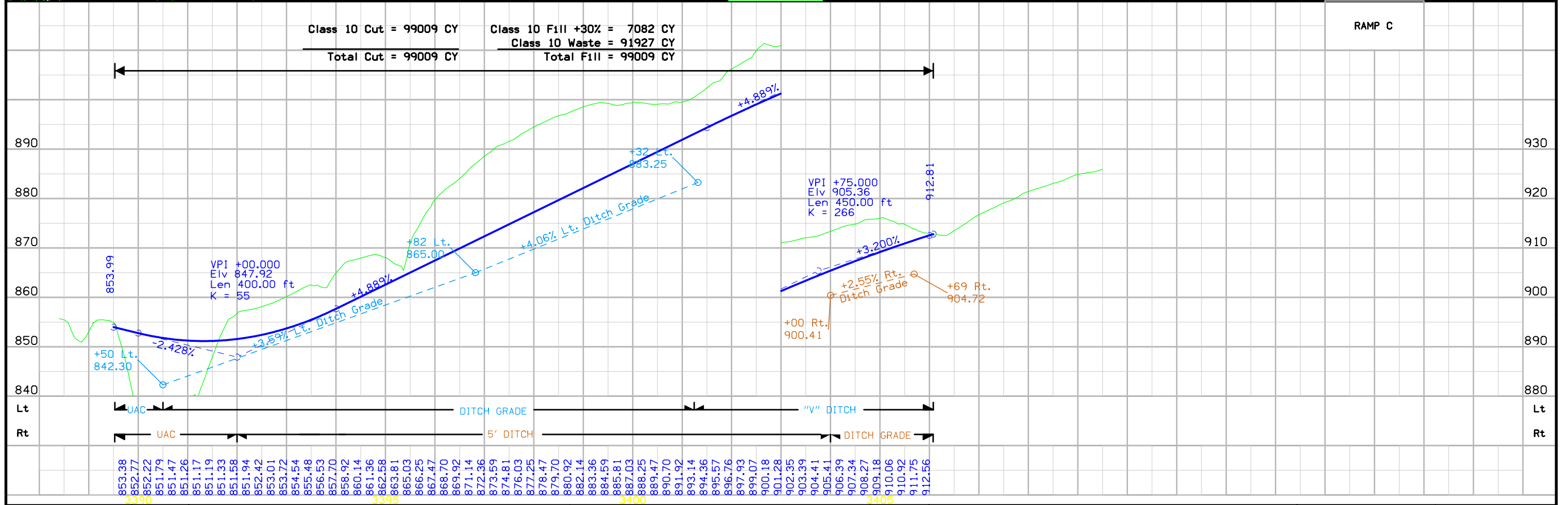
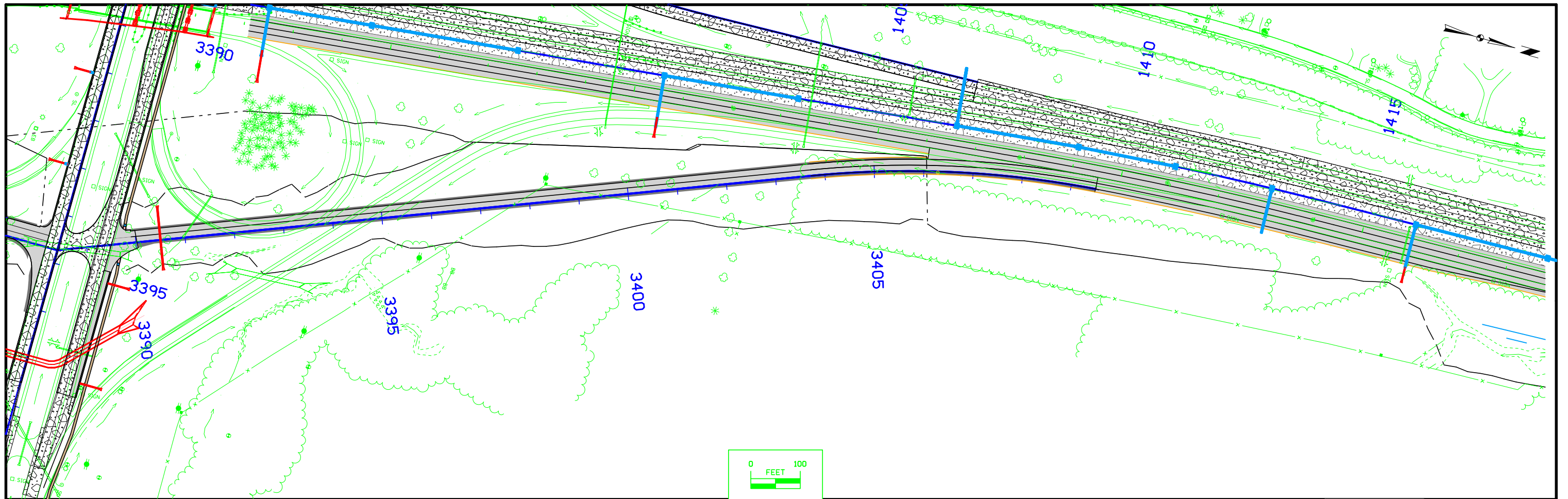


SCS PI Sta
 $\Delta = 4^{\circ} 32'$
 Theta = $0^{\circ} 20'$
 Ls = 90.00
 Ts = 348.3
 Es = 6.06
 P = 0.04
 K = 45.00
 Xc = 90.00
 Yc = 0.18
 LT = 60.00
 ST = 30.00
 LC = 90.00

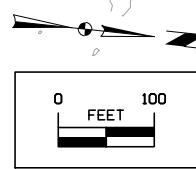
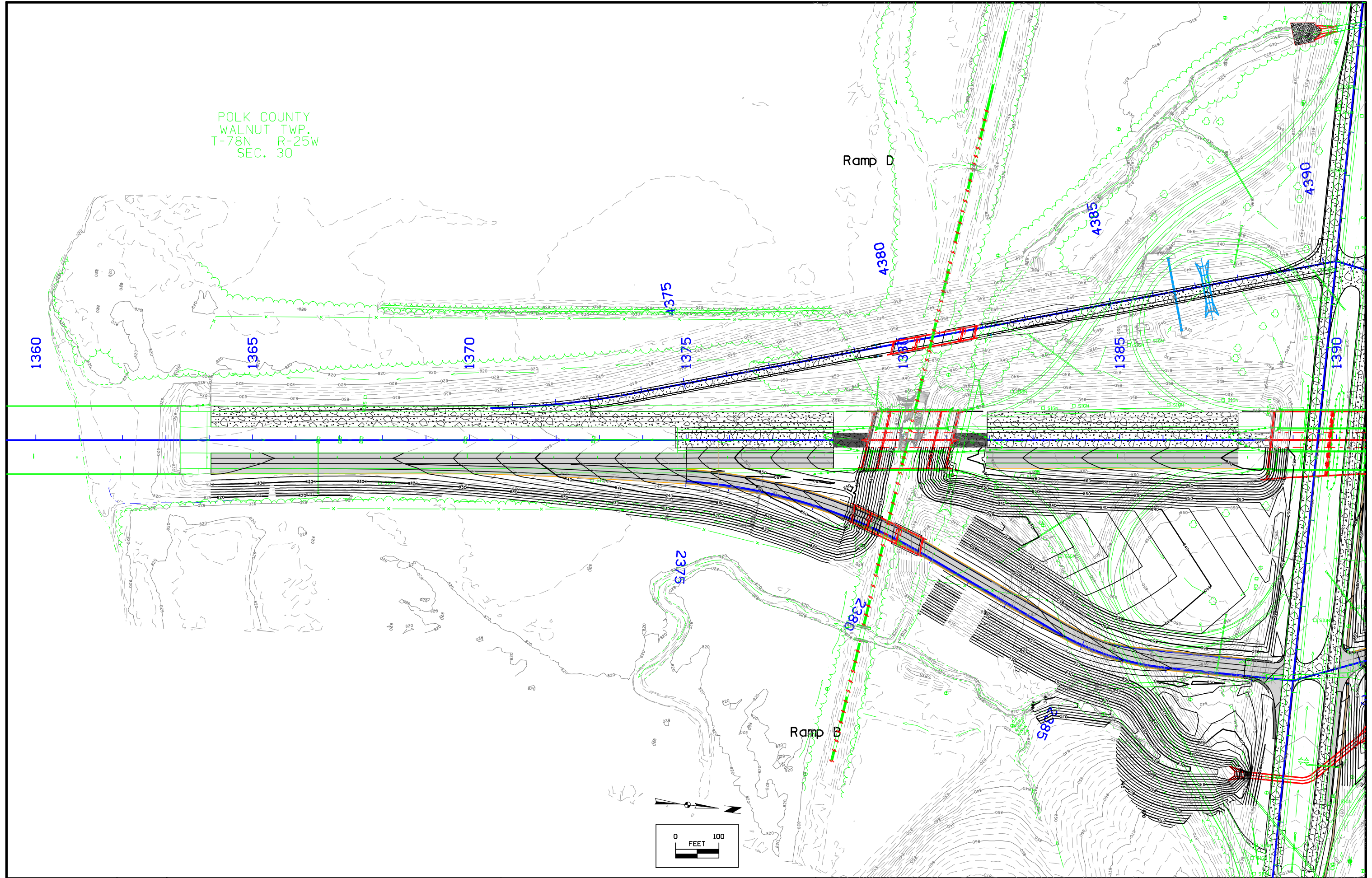
Curve Data
 $\Delta = 3^{\circ} 52' 22.09''$ (RT)
 T = 258.30
 L = 516.41
 R = 7,640.00
 E = 4.37

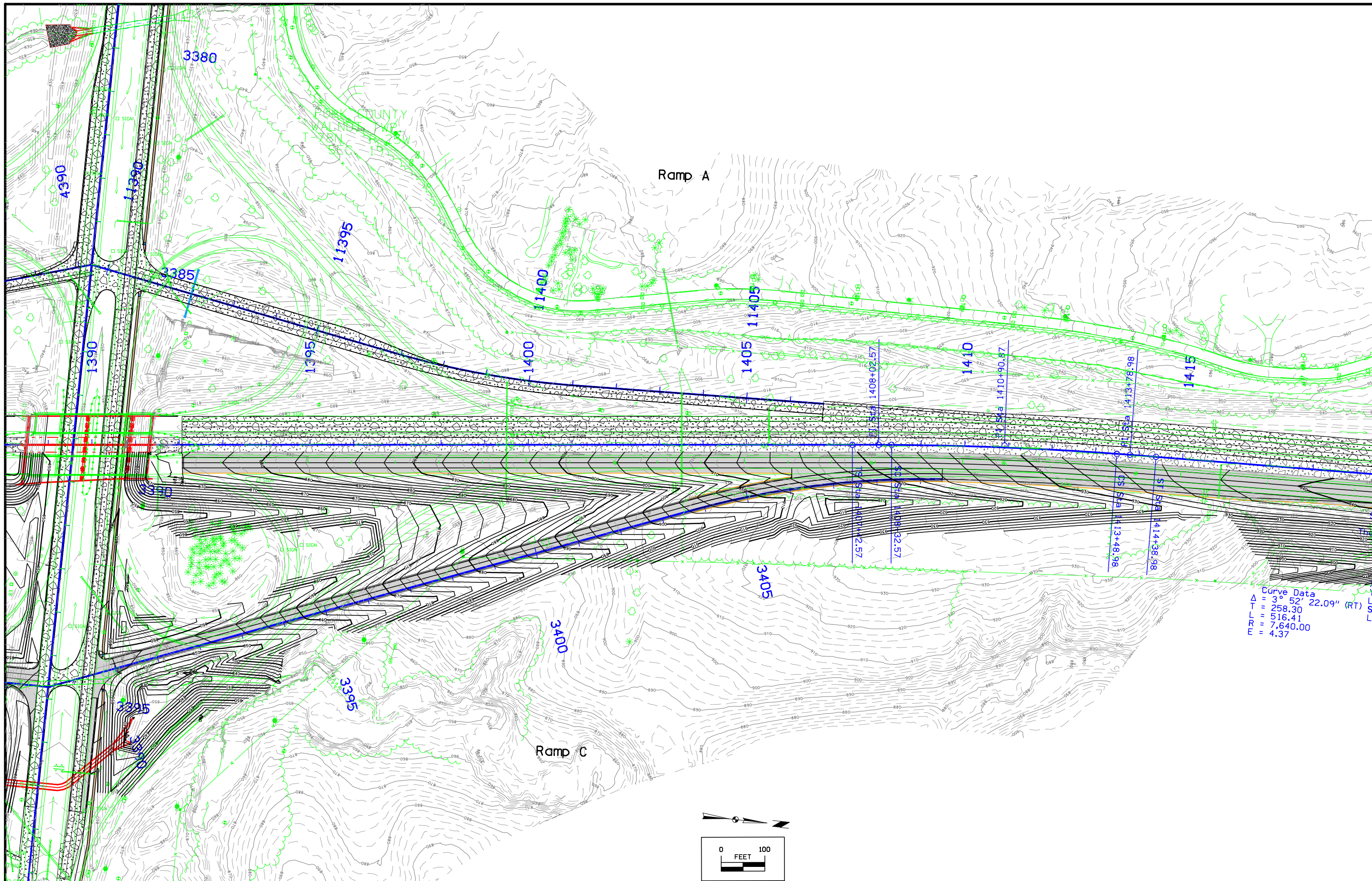
Geometric Plan
 Proposed Interchange of
 Interstate 35 with Grand Avenue
 Polk County





POLK COUNTY
WALNUT TWP.
T-78N R-25W
SEC. 30





1367

1368

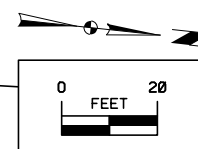
1369

1370

1371

1372

MATCH EXISTING MEDIAN PAVEMENT



RAMP B TAPER GEOMETRICS

1367

1368

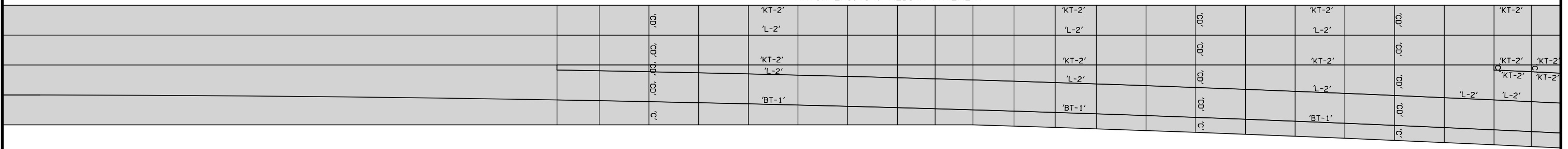
1369

1370

1371

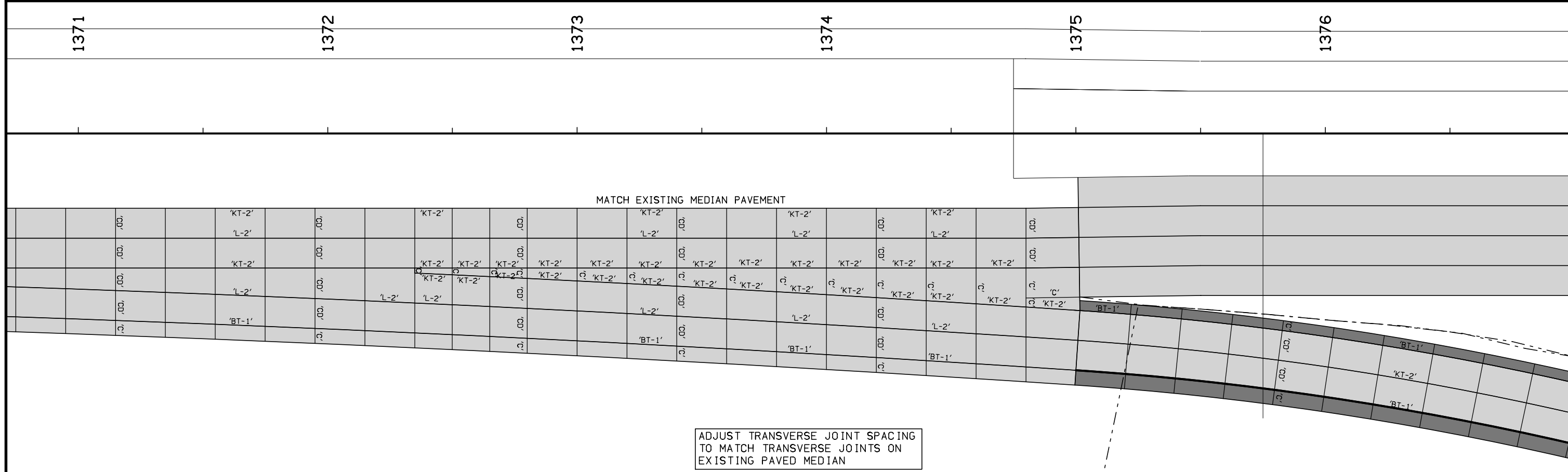
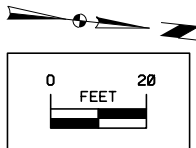
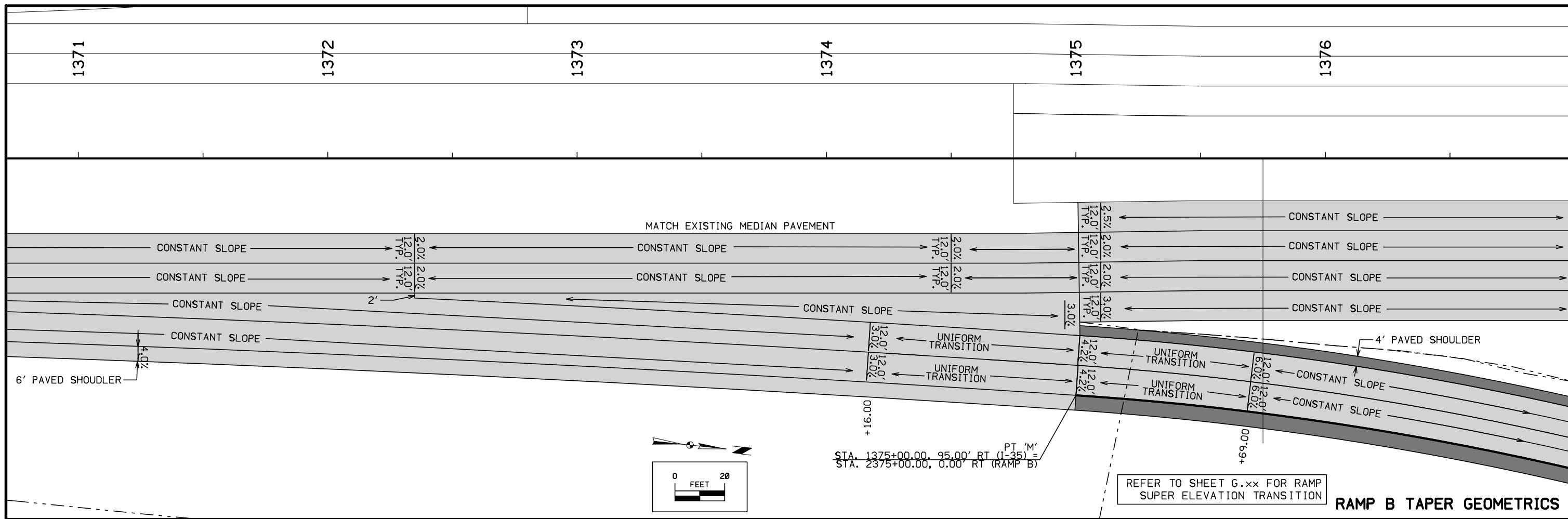
1372

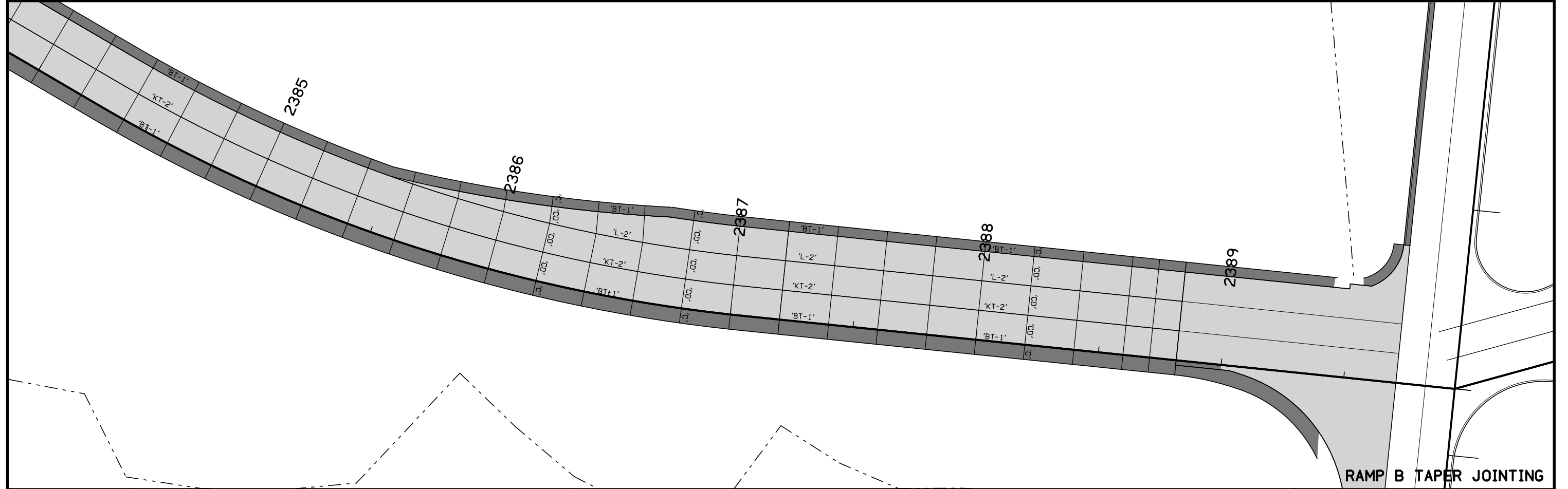
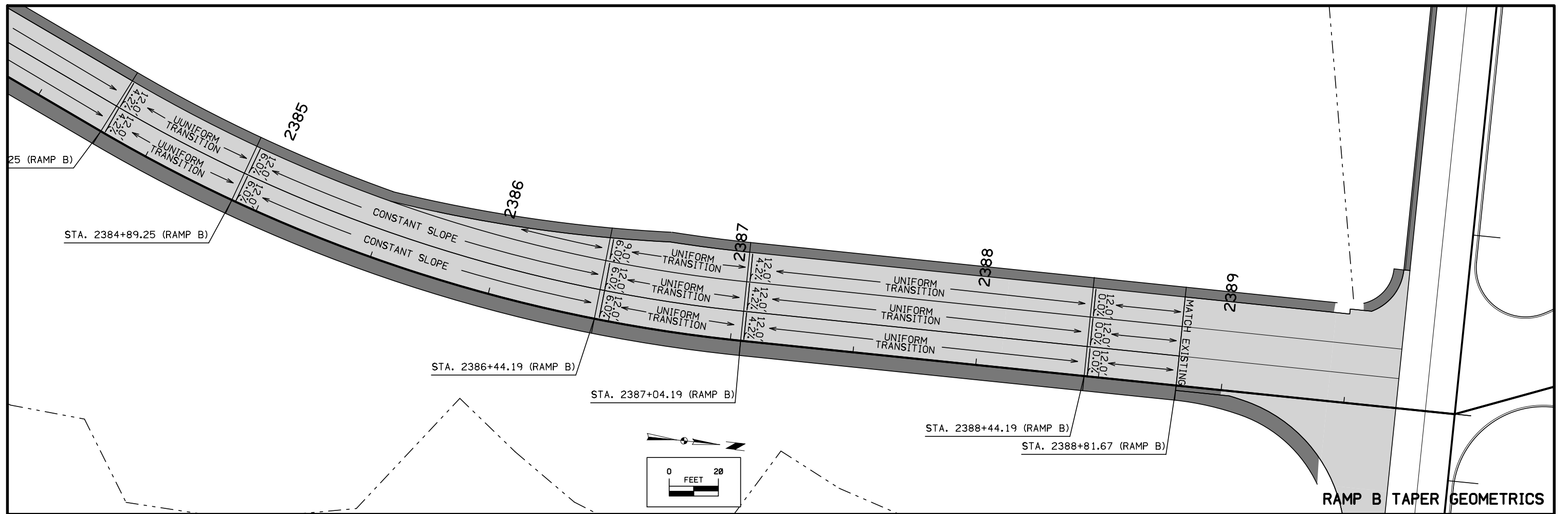
MATCH EXISTING MEDIAN PAVEMENT

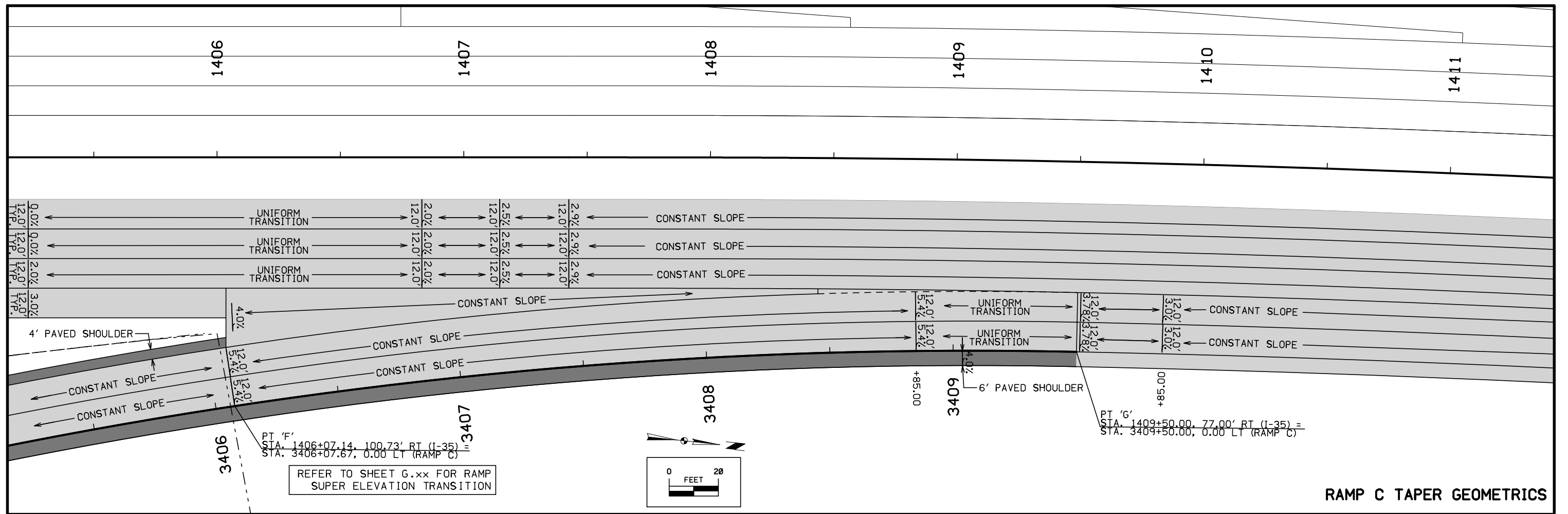


ADJUST TRANSVERSE JOINT SPACING TO MATCH TRANSVERSE JOINTS ON EXISTING PAVED MEDIAN

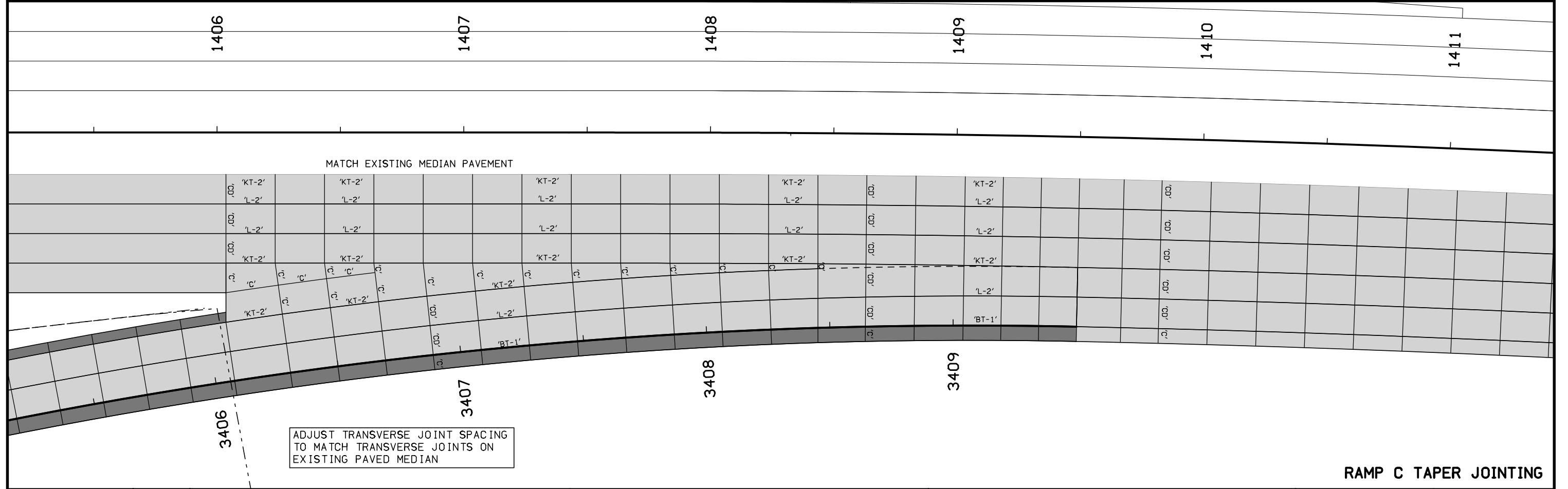
RAMP B TAPER JOINTING



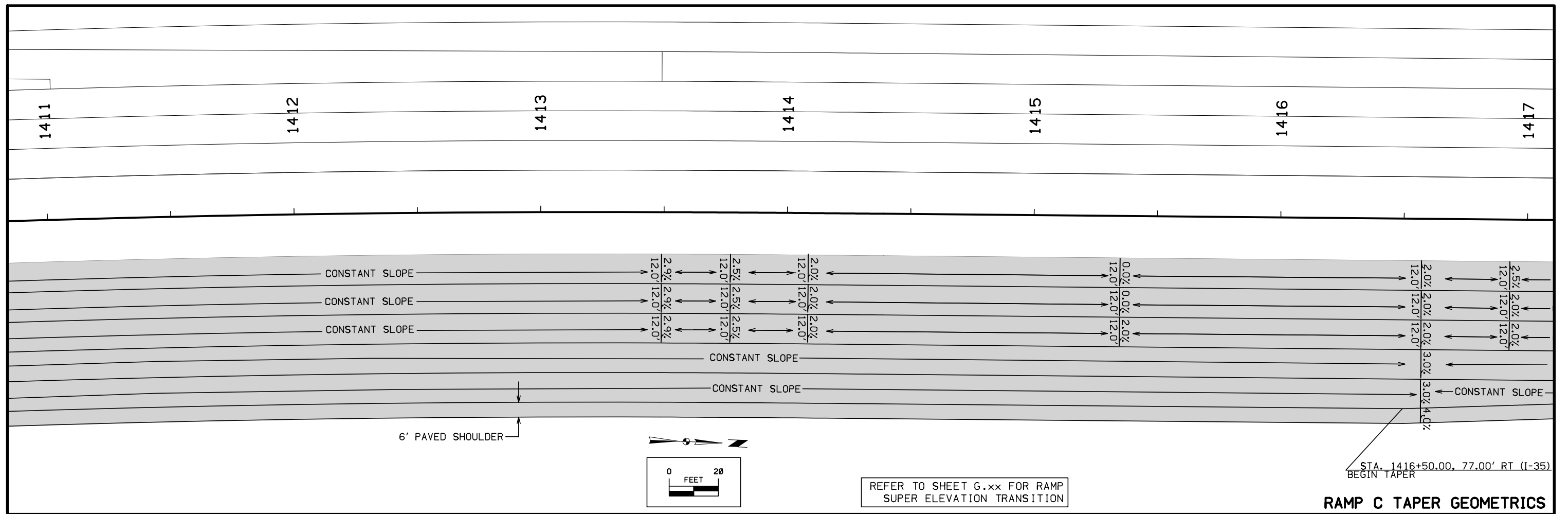




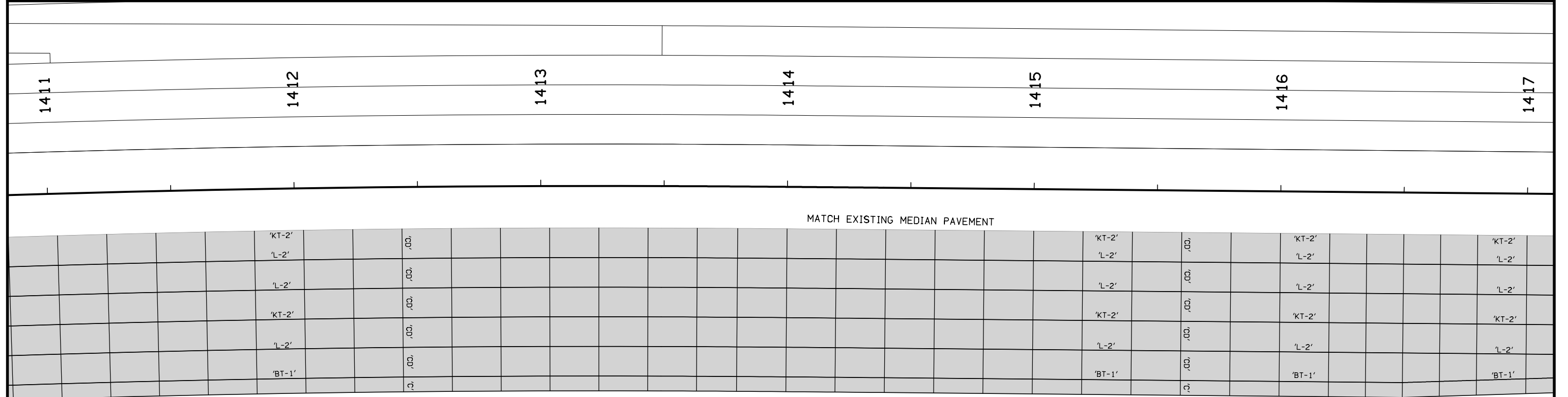
RAMP C TAPER GEOMETRICS



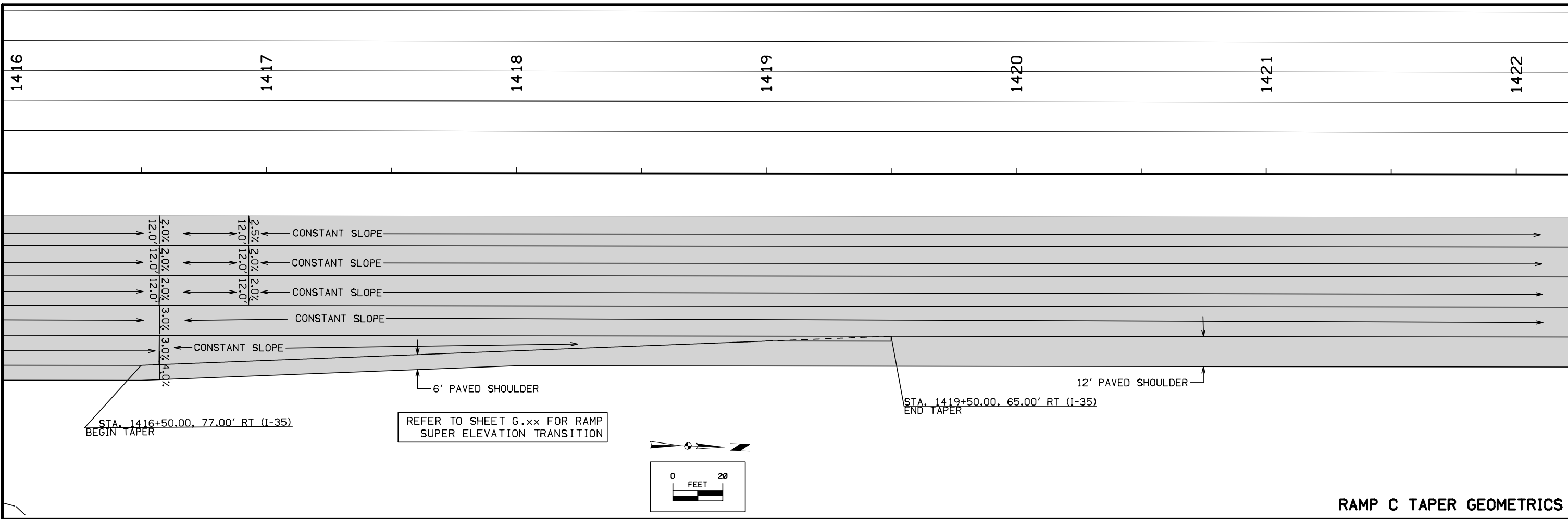
RAMP C TAPER JOINTING



RAMP C TAPER GEOMETRICS



RAMP C TAPER JOINTING



RAMP C TAPER GEOMETRICS

MATCH EXISTING MEDIAN PAVEMENT

'KT-2'				'KT-2'	.00,		.00,	'KT-2'	.00,	.00,	.00,	.00,	.00,	'KT-2'	.00,		.00,		'KT-2'
'L-2'				'L-2'	.00,		.00,	'L-2'	.00,	.00,	.00,	.00,	.00,	'L-2'	.00,		.00,		'L-2'
'L-2'				'L-2'	.00,		.00,	'L-2'	.00,	.00,	.00,	.00,	.00,	'L-2'	.00,		.00,		'L-2'
'KT-2'				'KT-2'	.00,		.00,	'KT-2'	.00,	.00,	.00,	.00,	.00,	'KT-2'	.00,		.00,		'KT-2'
'L-2'				'L-2'	.00,		.00,	'L-2'	.00,	.00,	.00,	.00,	.00,	'L-2'	.00,		.00,		'L-2'
'BT-1'				'BT-1'	.00,		.00,	'BT-1'	.00,					'BT-1'	.00,				'BT-1'

ADJUST TRANSVERSE JOINT SPACING TO MATCH TRANSVERSE JOINTS ON EXISTING PAVED MEDIAN

RAMP C TAPER JOINTING

STORM SEWER

* Bid Item
** For SW-545

For bedding and backfill purposes under Primary roads, use material complying with Article 4120.04 (Class A Crushed Stone) of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class I materials).

INTAKES AND UTILITY ACCESSES						PIPES													
						Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.													
No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade	Bottom Well	Extension Length**	Notes	Line Number	Intake/Utility Access No.		Class 'D'	Pipe Diameter	Bid* Length	Design Length	Slope %	Flow Lines			Pipe Profile Sheet No.	Notes
			Elev.	Elev.	FT			From	To						Inlet Elevation	Outlet Elevation	Other Elevation		
1	1375+75, 117.5' RT	1501				PIPE WAS CONSTRUCTED AS P-1 (363)	P-1	P-1 (363)	CMP	2000D	24	14	14	3.9965		838.468	839.034		NOTE 1
	1375+75, 131.5' RT	1501				PIPE WAS CONSTRUCTED AS P-1 (363)		P-1	OUTLET	2000D	24	64	64	VARIES		820.9	838.468		
2	1382+50 89' RT	1501				PIPE WAS CONSTRUCTED AS P-3 (363)	P-2	P-3 (363)	OUTLET	2000D	24	86	86	VARIES		829.7	854.04		NOTE 2
3	1392+50 87.5' RT	1501				PIPE WAS CONSTRUCTED AS P-6 (363)	P-3	P-6 (363)	OUTLET	2000D	24	65	65	VARIES		850.182	868.009		NOTE 3
4	1400+50, 86.0' RT	1501				PIPE WAS CONSTRUCTED AS P-9 (363)	P-4	P-9 (363)	OUTLET	2000D	24	38	38	VARIES		881.278	890.14		NOTE 4
5	1416+00, 87.5' RT	1301				PIPE WAS CONSTRUCTED AS P-15 (363)	P-5	P-15 (363)	OUTLET	2000D	24	28	28	3.9964	-	927.728	929.088		NOTE 5
6	1424+75, 87.5' RT	1501				PIPE WAS CONSTRUCTED AS P-18 (363)	P-6	P-18 (363)	CMP	2000D	24	14	14	3.9976	-	935.077	935.637		NOTE 6
	1424+75, 101.5 RT	1501						P-6	OUTLET	2000D	24	30	30	VARIES		927.874	935.077		
7	1429+00, 87.5' RT	1301				PIPE WAS CONSTRUCTED AS P-19 (363)	P-7	P-19 (363)	OUTLET	2000D	24	14	14	1.7929	-	944.451	944.81		NOTE 7
8	1476+00, 117.5' RT	1301				PIPE WAS CONSTRUCTED AS P-42 (363)	P-8	P-24 (363)	OUTLET	2000D	24	-	-	4	-	930.771	931.011		NOTE 8
9	1482+00, 99.5' RT	1301				PIPE WAS CONSTRUCTED AS P-38 (363)	P-9	P-38 (363)	OUTLET	2000D	24	-	-	1	-	923.892	923.952		NOTE 9
10	1484+75, 99.5' RT	1301				PIPE WAS CONSTRUCTED AS P-39 (363)	P-10	P-39 (363)	OUTLET	2000D	24	-	-	1	-	922.596	922.656		NOTE 10
11	1493+50, 87.5' RT	1301				PIPE WAS CONSTRUCTED AS P-42 (272)	P-11	P-42 (272)	OUTLET	2000D	24	10	10	1	-	918.349	918.509		NOTE 11
12	1496+00, 93.5' RT	1301				PIPE WAS CONSTRUCTED AS P-44 (272)	P-12	P-44 (272)	OUTLET	2000D	24	16	16	4	-	913.183	914.063		NOTE 12
13	1522+00, 75.5' RT	1501				PIPE WAS CONSTRUCTED AS P-54 (272)	P-13	P-54 (272)	OUTLET	2000D	24	16	16	2	-	946.488	946.807		NOTE 13
	1522+00, 99.5' RT	1501						P-13	OUTLET	2000D	24	46	46	VAIRES		935.432	946.488		
14	1547+00 75.5' RT	1301				PIPE WAS CONSTRUCTED AS P-62 (272)	P-14	P-62 (272)	OUTLET	2000D	30	21	21	0.5	-	963.809	963.951		NOTE 14
15	1550+00 75.5' RT	1301				PIPE WAS CONSTRUCTED AS P-63 (272)	P-15	P-63 (272)	OUTLET	2000D	24	20	20	0.2	-	963.231	963.283		NOTE 15
	Ramp C																		
16	3390+50	1301				CONSTRUCTED UNDER RAMP C	P-16	OUTLET	OUTLET	2000D	24	118	118	4.851	842.3	836			NOTE 16
	Grand Ave																		
17	3381+30	1501				PIPE WAS CONSTRUCTED AS P-4 (364)	P-17	P-4 (364)	OUTLET	2000D	24	44	44	VARIES		828.43	837.654		NOTE 17
18	3385+83							P-7 (364)											NOTE 18
19	3387+58							P-9 (364)											NOTE 19
20	3391+08	1301				PIPE WAS CONSTRUCTED AS P-11 (364)	P-20	P-11 (364)	OUTLET	2000D	24	33	27	0.5		844.615	844.78		NOTE 20
21	3393+00	1301				PIPE WAS CONSTRUCTED AS P-13 (364)	P-21	I-13	OUTLET	2000D	24	39	33	7.5		844.105	847.03		NOTE 21
22	3395+10	SW-503	855.26	850.26		NOT BUILT IN 364	P-22	I-15	OUTLET	2000D	24	39	33	4.33		850.75	849.32		NOTE 22
23	3396+33							P-16 (364)											NOTE 23
24	3397+20	SW-503	861.07	856.07		NOT BUILT IN 364	P-23	I-17	OUTLET	2000D	24	49	43	10.3		856.57	851.585		NOTE 24
NOTES																			
1	TWO 15° CMP ELBOWS, A=14', B=52', C=2', E=10', L=3.5'																		
2	53' OF RCP REMOVED. TWO 15° CMP ELBOWS, A=0', B=76', C=2', E=8', L=3.5'																		
3	6' OF RCP REMOVED. TWO 15° CMP ELBOWS, A=0', B=55', C=2', E=8', L=3.5'																		
4	32' OF RCP REMOVED. TWO 15° CMP ELBOWS, A=0', B=26', C=2', E=10', L=3.5'																		
5	28.0' EXTENSION PLUS APRON																		
6	TWO 15° CMP ELBOWS, A=14', B=20', C=2', E=8', L=3.5'																		
7	14' EXTENSION PLUS APRON																		
8	APRON ONLY																		
9	6' OF RCP REMOVED. REPLACE WITH 24'' ARPON																		
10	6' OF RCP REMOVED. REPLACE WITH 24'' ARPON																		
11	10' EXTENSION PLUS APRON																		
12	16' EXTENSION PLUS APRON AND 8' SECTION FOR MEDIAN DRAIN REPLACEMENT																		
13	TWO 15° CMP ELBOWS, A=16', B=34', C=2', E=10', L=3.5'																		
14	21' EXTENSION PLUS ARPON																		
15	20' Extension Plus Apron																		
16	118' PLUS TWO APRONS																		
17	21' OF RCP REMOVED. TWO 15° CMP ELBOWS, A=0', B=29', C=2', E=12.5', L=3.5'																		
18	MAY NEED TO BE ADJUSTED TO REC TRAIL GRADING																		
19	MAY NEED TO BE ADJUSTED TO REC TRAIL GRADING																		
20	UN-COVER AND UN-PLUG EXISTING. INSTALL 27' PLUS APRON.																		
21	UN-COVER AND REMOVE EXISTING 6' AND REPLACE 33' PLUS APRON																		
22	33' STORM SEWER PLUS APRON. MAY NEED TO BE ADJUSTED TO CHANNEL GRADING																		
23	MAY NEED TO BE ADJUSTED TO CHANNEL GRADING																		
24	43' STORM SEWER PLUS APRON																		

SURVEY SYMBOLS

UTILITY LEGEND




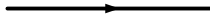
PLAN VIEW COLOR LEGEND OF STORM SEWER SHEETS

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

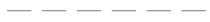



PROFILE VIEW COLOR LEGEND OF STORM SEWER SHEETS





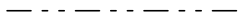



LINEWORK	Design Color No.	Description
Gray, Dark	(112)	Existing Ground Line Profile and Existing Utilities Information
Black	(17)	Proposed Pipes and Intakes

PLAN VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS









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

PROFILE VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

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

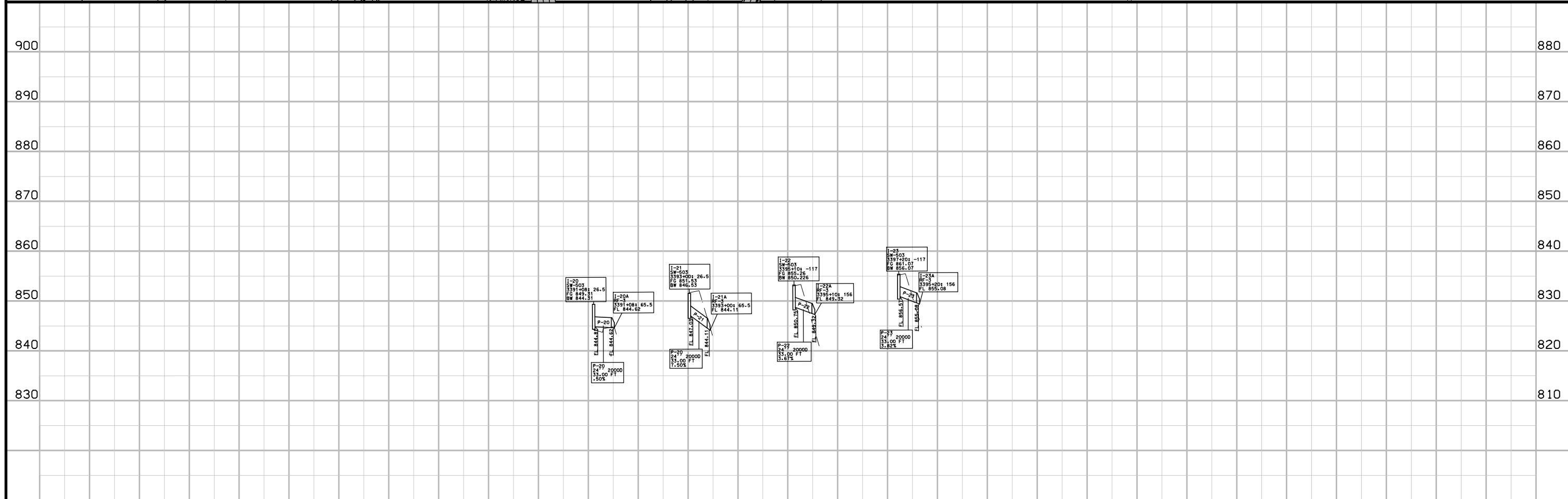
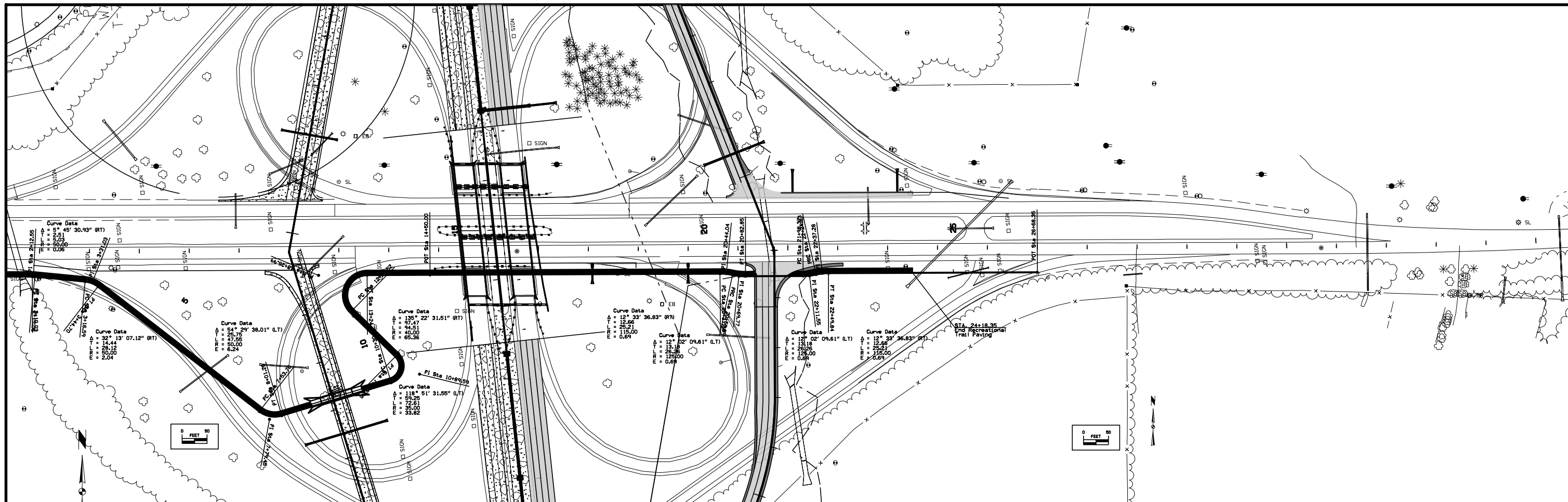
-  Reference Point
-  Station
-  Section Corner
-  Ground Line Intercept
-  Saw Cut
-  Guardrail
-  Clearing & Grubbing Area
-  Pavement Removal

RIGHT-OF-WAY LEGEND

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

**STORM SEWER
LEGEND AND SYMBOL
INFORMATION SHEET**

(COVERS SHEET SERIES M)



3380	3385	3390	3395	3400	3405	3410
C	ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER M.3
						REVISED

SURVEY SYMBOLS

- CP Control Point
- FW Wire Fence
- TLNL Tree Line Left
- BLD Building or Foundation
- D Centerline Draw or Stream (Down)
- DU Centerline Draw or Stream (Up)
- CON Concrete or A/C Slab
- CU Back of Curb
- GU Gutter In Front of Curb
- EP Edge of Paved Roads (ML or SR)
- ENT Centerline BL of Entrance
- St.S. STA Storm Sewer Line Co. 1
- BL Topo Breakline
- INB Storm Sewer Beehive Intake

UTILITY LEGEND

UTILITY LEGEND

NOTE: Sounding and test boring data shown in the plans were accumulated for designing and estimating purposes. Their appearance on the plans does not constitute a guarantee that conditions other than those indicated will be encountered. Details and notes shown elsewhere shall be used for roadway and structure construction.

PLAN VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Topographic Features and Labels
Purple (Halo)	(15)	Backslope Drains
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation

PROFILE VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design Color No.	Description
Blue	(1)	Proposed Alignment, Stationing, and Alignment Annotation
Green	(2)	Existing Ground Line Profile
Green, Med	(227)	Class 10 Topsoil
Green, M.Light	(226)	Unsuitable A Topsoil
Green, Light	(225)	Unsuitable B Topsoil
Green, V.Light	(224)	Unsuitable C Topsoil
Orange	(6)	Loam
Brown, Dark	(238)	Class 10
Brown, Med	(237)	Sand
Red	(3)	Unsuitable A
Pink, Dark	(13)	Unsuitable B
Pink	(11)	Unsuitable C
Red	(3)	Shale
Red	(3)	Waste
Gray, Light	(48)	Broken and Weathered Rock
Gray, Med	(80)	Rock
Gray, V.Dark	(128)	Boulders

PATTERN AND SYMBOL LEGEND OF SOILS SHEETS

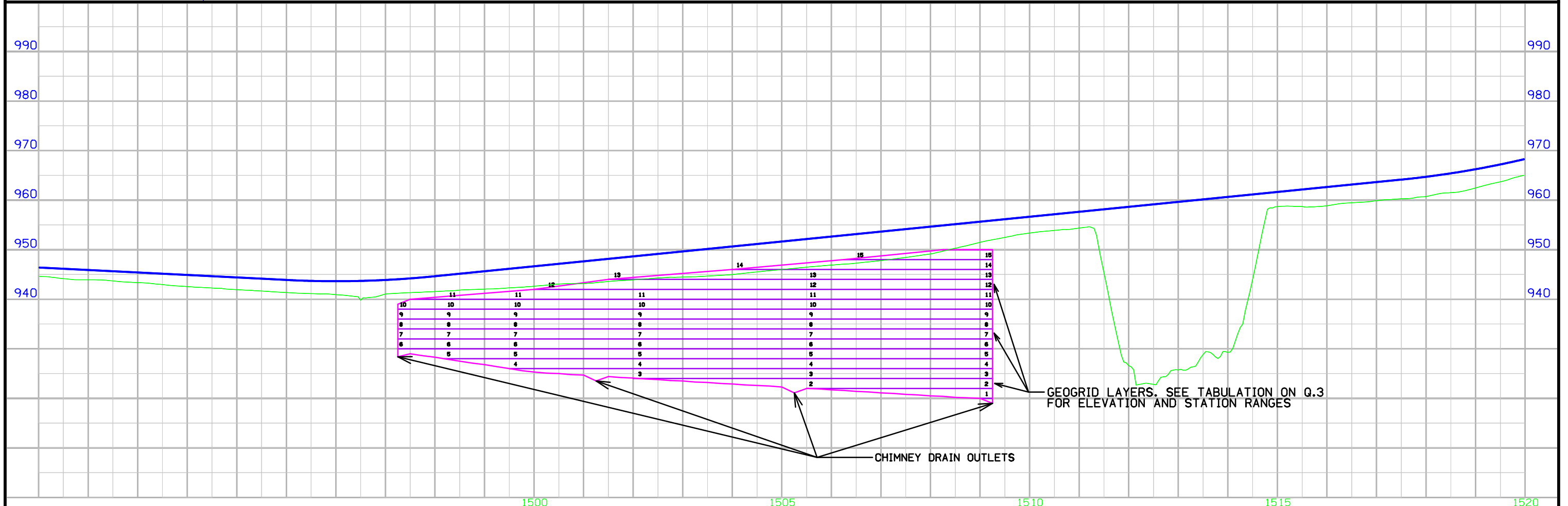
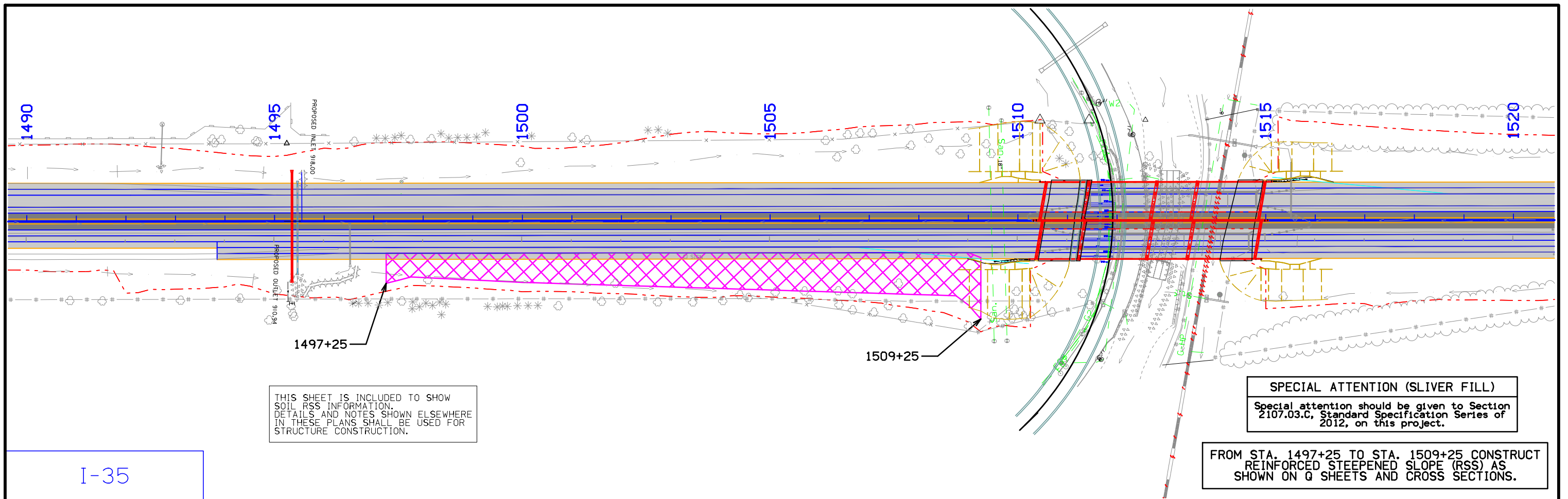
Soils Book No.	Date(s) Drilled	Symbol	Description
			Water
			Dry
			Sample
			Plugged
			Moisture
			Shelby
			Blow Count
			Dens. Core
			Treatment
			Sand Blanket
			Soil Remediation Area
			Select Soil
			Select Sand
			Shale
			Broken and Weathered Rock
			Rock
			Sandstone
			Unsuitable A Topsoil
			Unsuitable B Topsoil
			Unsuitable C Topsoil
			Unsuitable A
			Unsuitable B
			Unsuitable C
			Sandy Soil
			Boulders

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

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



SOILS LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES Q & R)

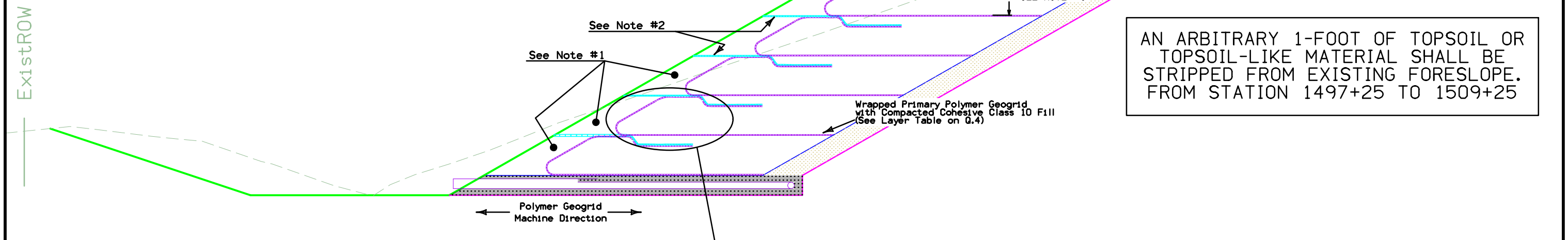


RSS Layer	Lower Elevation	Reinforced Width Into Slope (feet)	I-35 Stationing Left *Start Station	End Station
1	900	15	1506+25	1509+25
2	902	15	1504+00	1509+25
3	904	15	1501+50	1509+25
4	906	15	1500+00	1509+25
5	908	15	1497+50	1509+25
6	910	15	1497+25	1509+25
7	912	15	1497+25	1509+25
8	914	15	1497+25	1509+25
9	916	15	1497+25	1509+25
10	918	15	1497+25	1509+25
11	920	15	1498+18	1509+25
12	922	15	1499+50	1509+25
13	924	15	1502+00	1509+25
14	926	15	1505+50	1509+25
15	928	15	1509+00	1509+25

Not To Scale

Polymer Geogrid Legend
 Primary Polymer Geogrid 
 Secondary Polymer Geogrid 

* STATION RANGES ARE APPROXIMATE. BASED ON STRAIGHT LINE ESTIMATE.



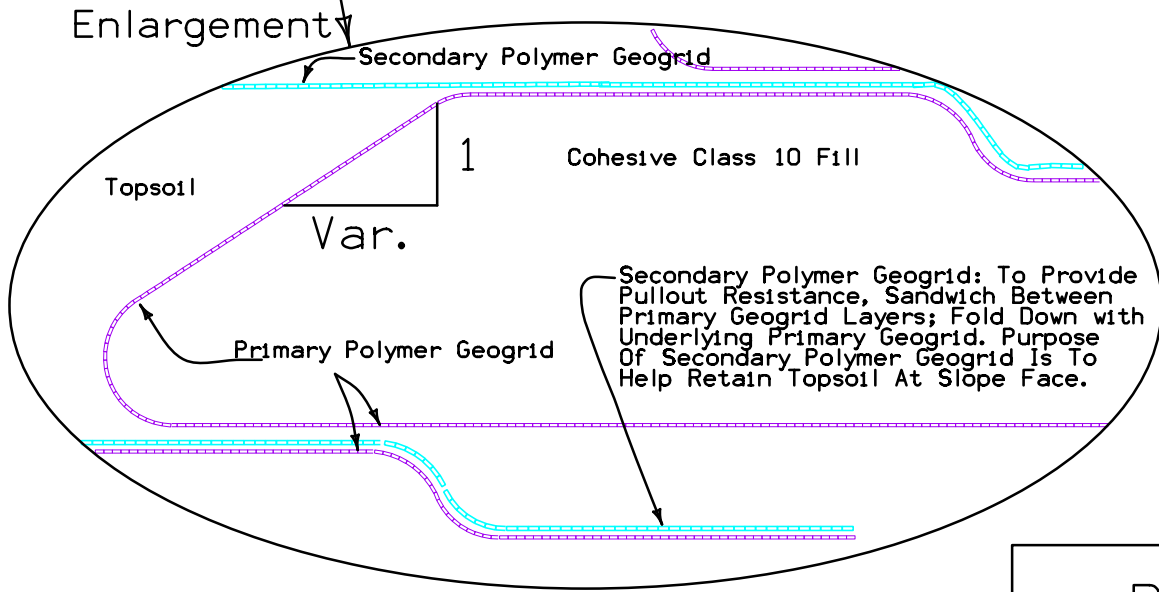
See Seeding Bid Items For Appropriate Seed Mixture And Fertilizer.

The Polymer Grid Shall Have The Following Properties:
 Maximum 2-Inch Aperture (both directions)
 Minimum 0.5 Inch Aperture (both directions)
 Minimum Ultimate Tensile Strength At 5% Strain = 2000 LB/FT.

NOTE #1: PLACE A MINIMUM OF ONE FOOT (MEASURED PERPENDICULAR TO SLOPE FACE) OF CONTRACTOR-PROVIDED TOPSOIL COVER OVER THE PRIMARY POLYMER GEOGRID SHAPE, SEED, FERTILIZE, AND PLACE TURF REINFORCED MAT OVER TOPSOIL.

NOTE #2: SECONDARY POLYMER GEOGRID: INSTALL BY SANDWICHING BETWEEN PRIMARY POLYMER GEOGRID LAYERS DURING PLACEMENT OF PRIMARY POLYMER GEOGRID. ONCE TOPSOIL IS PLACED, TRIM ANY EXCESS SECONDARY POLYMER GEOGRID AT THE SLOPE FACE AS NEEDED TO ACHIEVE A SMOOTH SLOPE FACE.

NOTE #3: MAXIMUM DISTANCE BETWEEN BOTH PRIMARY AND/OR SECONDARY POLYMER GEOGRID LAYERS SHALL BE 2 FOOT.



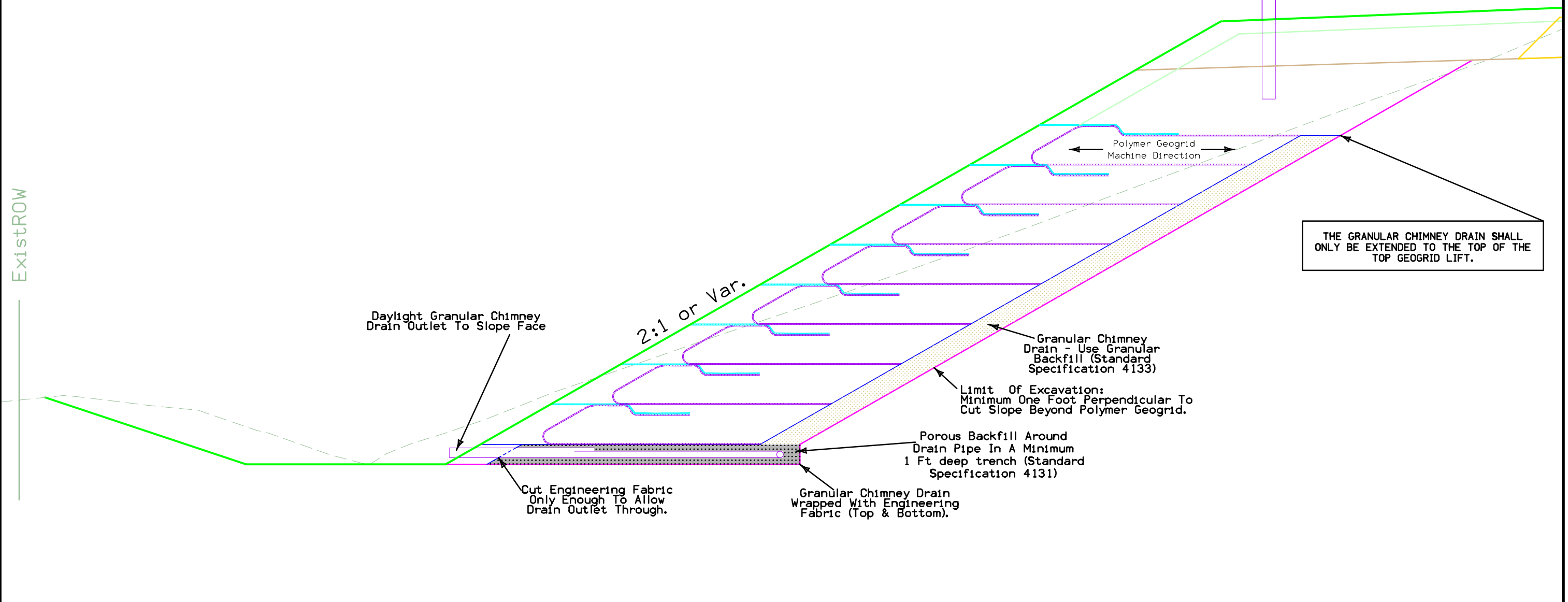
Fill Material Shall Be Suitable Cohesive Class 10, Except As Noted And Be Compacted To 95% Standard Proctor.

Reinforced Steepened Slope (RSS) Details

Not To Scale

Granular Chimney Drains Are Required. Use Perforated Drain Pipe, RF-19A, Type 1 Installation. Provide 1 Percent Positive Slope To Outlets On Foreslope Or Ditches. Use RF-19F, Type A Installation For Outlets. Elevation of Bottom of Chimney Drain and Pipe May Vary As Needed. Consult With Engineer If Difficulties Arise Establishing Drainage Grades.

Polymer Geogrid Legend
 Primary Polymer Geogrid
 Secondary Polymer Geogrid



QUANTITIES FOR RSS (Sq. Yds**)

POLYMER GEOGRID	ENGINEERING FABRIC-GRANULAR CHIMNEY DRAIN
59,203	15,480

**Quantities are neat line estimates and assume a maximum of 2 feet of sidelap between adjacent rolls (minimum 1 foot sidelap required).

QUANTITIES FOR RSS (TONS)

GRANULAR BACKFILL	POROUS BACKFILL
3,494	231

Granular Chimney Drain Outlet Locations

Station	Offset
1497+25	RT
1501+25	RT
1505+25	RT
1509+25	RT

Granular Chimney Drain Details

SURVEY SYMBOLS

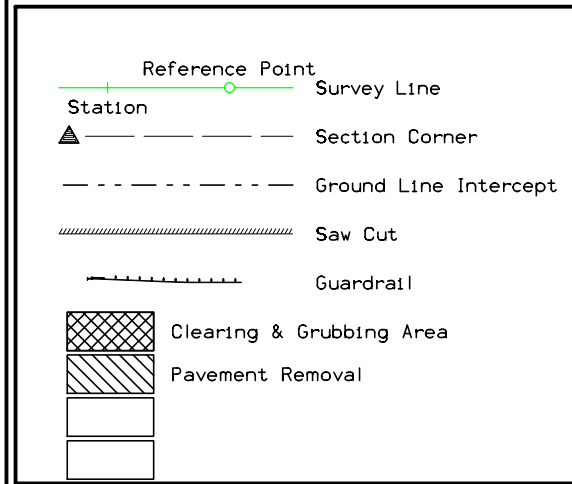
- IN Storm Sewer Intake
- FW Wire Fence
- INB Storm Sewer Beehive Intake
- PR Electric Riser Pole
- GP Guard Post (Less Than 4 Posts)
- SL Speed Limit Sign
- SI Sign
- Til Tile Line
- GDL Guard Rail Steel
- LUM Luminaire
- UE Utility Elevation
- WV Water Valve
- GPR Guard Post (4 or More Posts)
- FP Filler Pipe
- OUT Tile Outlet
- MIS Miscellaneous
- PPA Power Pole Co. 1
- AST Above Ground Storage Tank
- LP L.P. Tank
- FLG Flag Poles
- WHD Water Hydrant
- WEL Well
- MH Utility Access (Manhole)
- TPD Telephone Pedestal
- MM Mile Marker Post
- FCL Chain Link and Security Fence
- EB Electrical Box
- TV Satellite TV Dish
- UB Utility Box
- UST Underground Tank
- GV Gas Valve
- WHU RV Water Hook Up
- SEP Septic Tank
- FHD Fire Hydrants
- FWD Wood Fence
- RET Retaining Walls
- D Centerline Draw or Stream (Down)
- BNK Stream Bank
- RIP Rip-Rap
- EW Edge of Water
- DU Centerline Draw or Stream (Up)
- ENT Centerline BL of Entrance
- ENU Edge Unpaved Entrance & Parking
- EG Edge of Gravel Road
- SNP Unpaved Shoulder
- DIK Centerline of Dike or Dam
- F02 FOB Underground Fiber Optic Co. 2
- T1 TLA Underground Telephone Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- F0 FOA Underground Fiber Optic Co. 1
- W WLA Underground Water Line Co. 1
- St.S.2 STB Storm Sewer Line Co. 2
- San. SAA Sanitary Sewer Line Co. 1
- E2 ELB Underground Electric Line Co. 2
- TV TVA Underground TV Cable Co. 1
- F03 FOC Underground Fiber Optic Co. 3

UTILITY LEGEND

- MID-AMERICAN ENERGY
- MID-AMERICAN ENERGY
- WARREN COUNTY RURAL WATER
- WEST DES MOINES PUBLIC WORKS
- DES MOINES WATER
- STATE OF IOWA
- MID-AMERICAN ENERGY
- GLENN OAKS OWNERS ASSOC.
- CITY OF WEST DES MOINES
- U.S. WEST
- DES MOINES WATERWORKS
- SPRINT
- WEST DES MOINES PUBLIC WORKS
- GLENN OAKS OWNERS ASSOC.
- ATT
- MEDIACOM FIBER OPTICS
- HICKORY TECH
- MID-AMERICAN ENERGY
- KINDER MORGAN ENERGY PARTNERS
- BP NORTH-AMERICA (1-800-948-6482)
- MID-AMERICAN ENERGY
- CITY OF WEST DES MOINES
- STATE OF IOWA
- CITY OF WEST DES MOINES
- U.S. WEST
- MEDIACOM

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

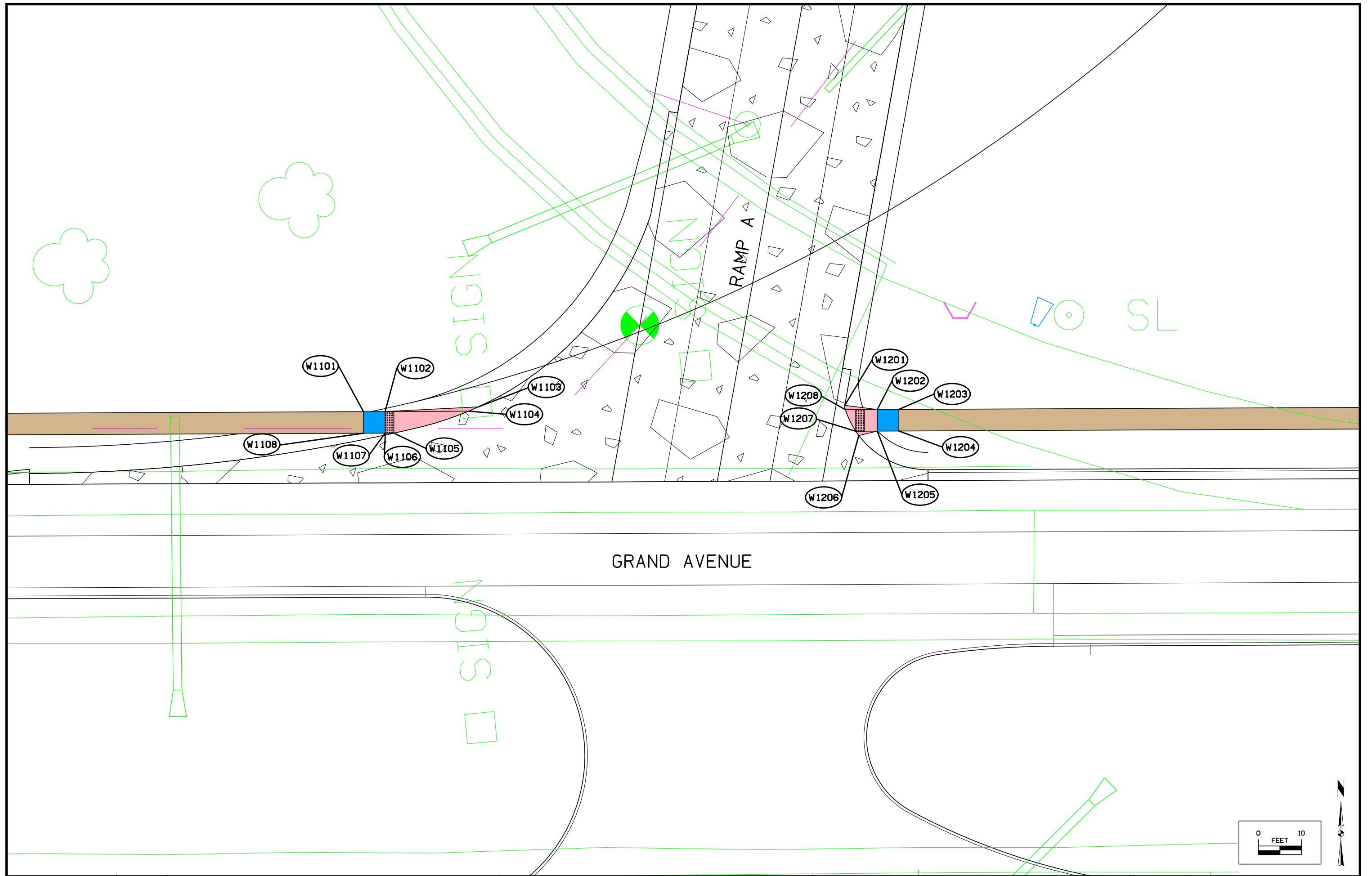


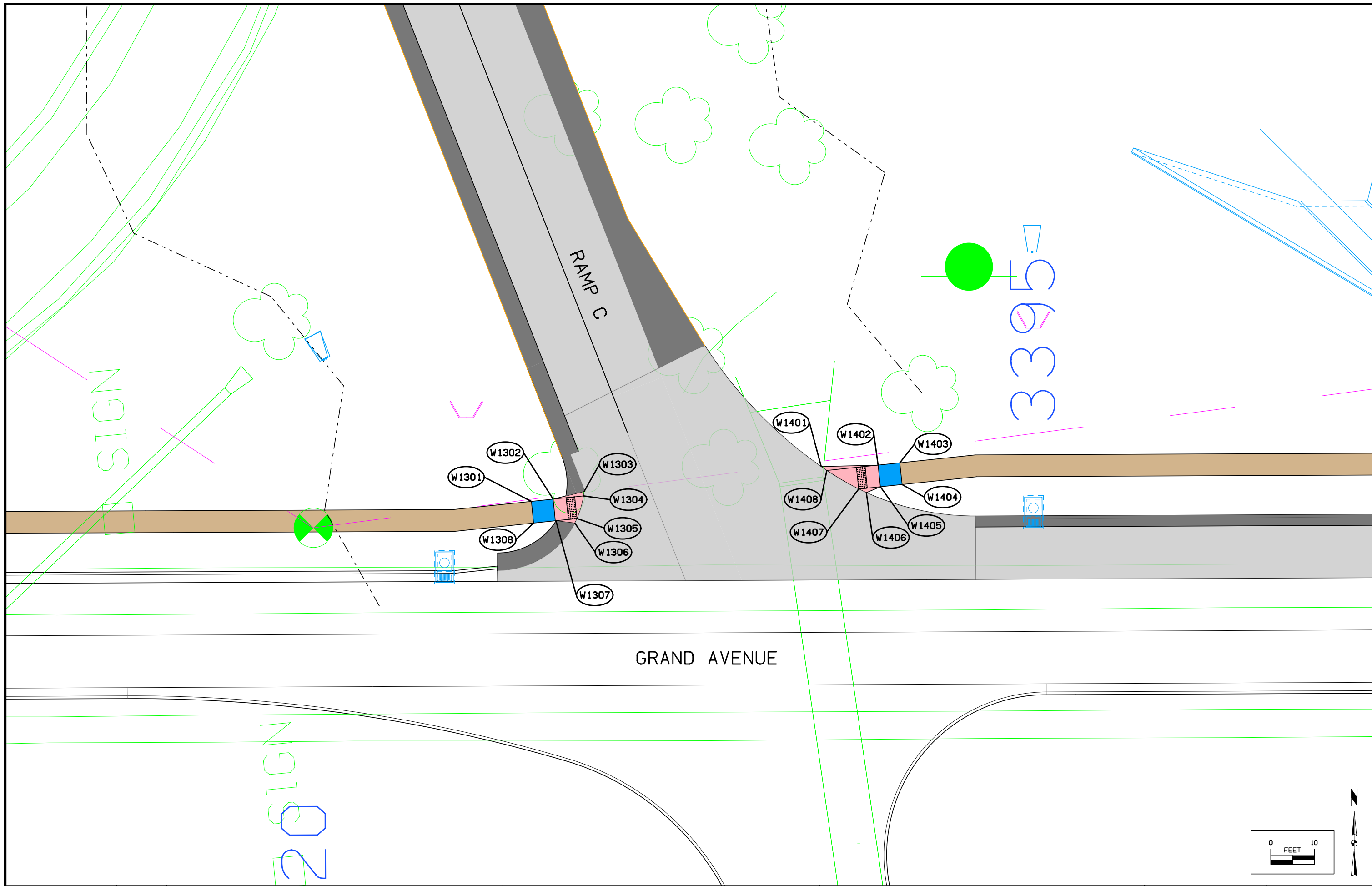
RIGHT-OF-WAY LEGEND

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

SIDEWALK LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES S)



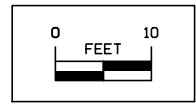


SIGN
2

GRAND AVENUE

- W1501
- W1502
- W1503
- W1504
- W1510
- W1505
- W1506
- W1507
- W1508
- W1509
- W1601
- W1602
- W1603
- W1604
- W1605
- W1606
- W1607
- W1608

RAMP B



SIDEWALK COMPLIANCE

See S Sheets

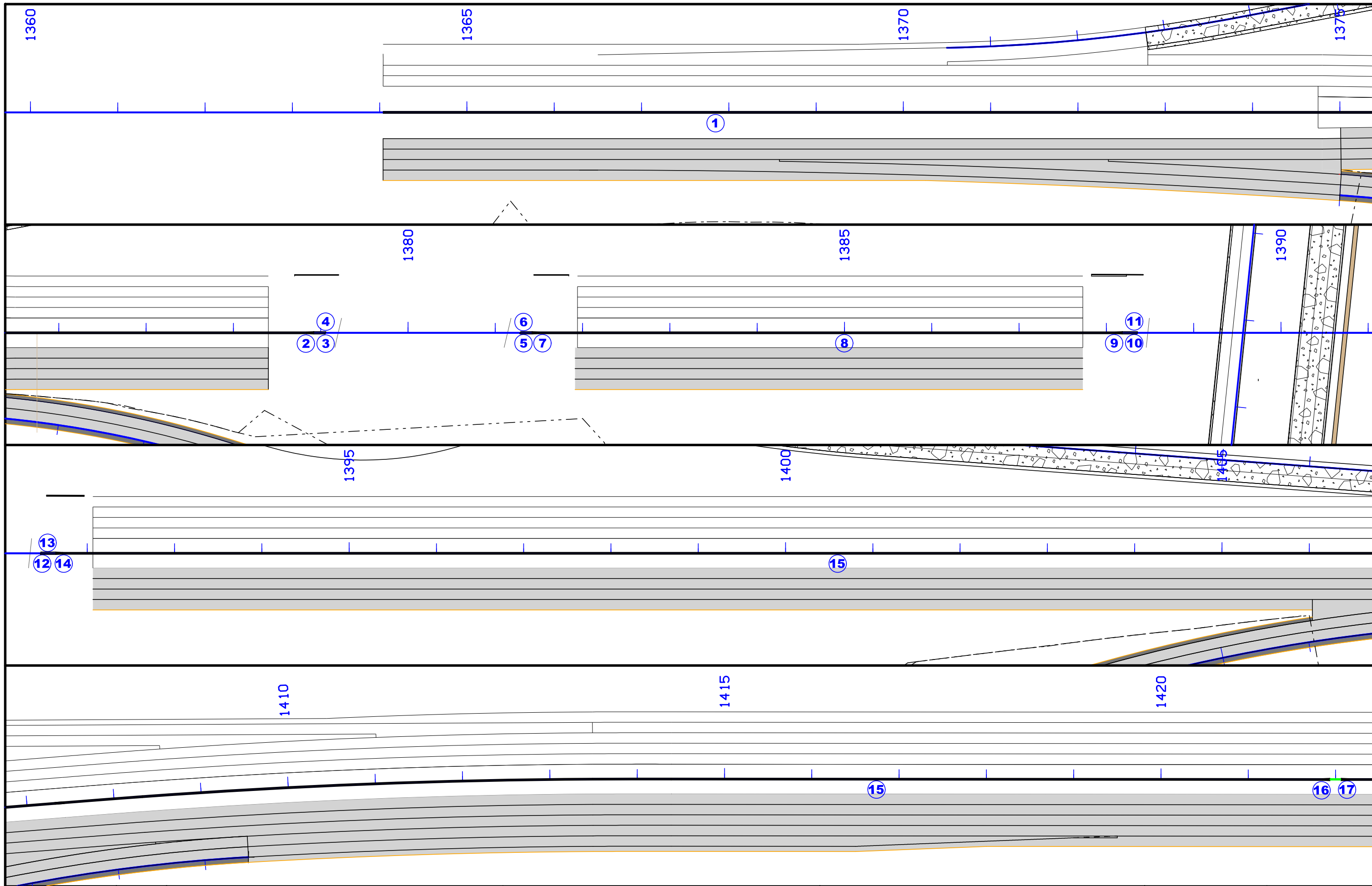
* Does not include curb
 ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

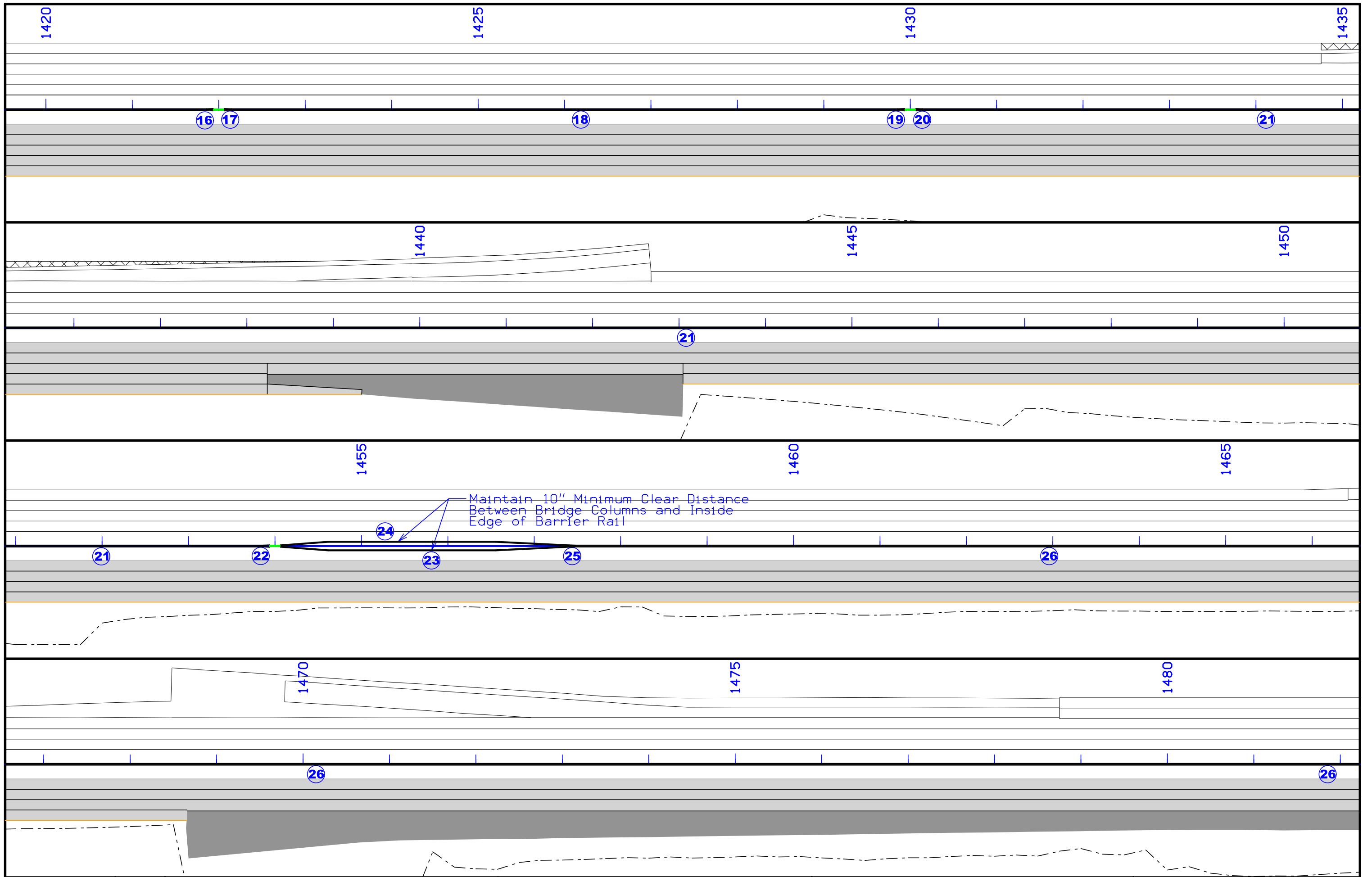
Point to Point	Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES				
										Point	Station	Offset	Elevation	
		FT	FT	%	Pos. or Neg.		%							
W1101	W1102	Landing/Turning Space	5.00	0.02	0.5%	0.1% to 2.0%					W1101	3384+36.87	-119.00	847.15
W1102	W1104	Ramp Running Slope	19.31	-0.29	-1.5%	0.5% to 8.3%					W1102	3384+41.87	-119.00	847.17
W1101	W1108	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1103	3384+63.49	-120.00	846.86
W1108	W1107	Landing/Turning Space	5.00	0.02	0.5%	0.1% to 2.0%					W1104	3384+61.18	-119.00	846.89
W1107	W1105	Ramp Running Slope	2.00	-0.06	-3.0%	0.5% to 8.3%					W1105	3384+43.87	-114.00	847.04
W1102	W1107	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1106	3384+41.87	-113.57	847.05
W1103	W1104	Ramp Cross Slope	2.52	0.03	1.0%	0.1% to 2.0%					W1107	3384+41.87	-114.00	847.10
W1104	W1105	Ramp Cross Slope	18.05	0.15	0.8%	0.1% to 2.0%					W1108	3384+36.87	-114.00	847.07
W1105	W1106	Ramp Cross Slope	2.05	0.01	0.7%	0.1% to 2.0%								
W1208	W1202	Ramp Running Slope	7.38	0.33	4.5%	0.5% to 8.3%					W1201	3385+48.36	-120.00	847.44
W1202	W1203	Landing/Turning Space	5.00	0.08	1.5%	0.1% to 2.0%					W1202	3385+55.87	-119.00	847.78
W1207	W1205	Ramp Running Slope	5.00	0.18	3.6%	0.5% to 8.3%					W1203	3385+60.87	-119.00	847.86
W1205	W1204	Landing/Turning Space	5.00	0.08	1.5%	0.1% to 2.0%					W1204	3385+60.87	-114.00	847.78
W1203	W1204	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1205	3385+55.87	-114.00	847.71
W1202	W1205	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1206	3385+51.58	-113.00	847.55
W1201	W1208	Ramp Cross Slope	0.86	0.01	1.6%	0.1% to 2.0%	Yes				W1207	3385+50.87	-114.00	847.53
W1208	W1207	Ramp Cross Slope	5.55	0.08	1.4%	0.1% to 2.0%					W1208	3385+50.87	-119.00	847.45
W1207	W1206	Ramp Cross Slope	1.22	0.02	1.4%	0.1% to 2.0%								
W1301	W1302	Landing/Turning Space	5.00	0.02	0.5%	0.1% to 2.0%					W1301	3393+84.97	-120.79	853.05
W1302	W1304	Ramp Running Slope	7.04	0.04	0.6%	0.5% to 8.3%					W1302	3393+89.94	-121.29	853.08
W1308	W1307	Landing/Turning Space	5.00	0.02	0.5%	0.1% to 2.0%					W1303	3393+89.94	-123.01	853.13
W1307	W1305	Ramp Running Slope	5.00	0.06	1.3%	0.5% to 8.3%					W1304	3393+96.94	-121.99	853.12
W1301	W1308	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1305	3393+95.42	-116.81	853.06
W1302	W1307	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1306	3393+94.91	-115.75	853.05
W1303	W1304	Ramp Cross Slope	1.03	-0.01	-1.2%	0.1% to 2.0%					W1307	3393+90.44	-116.31	853.00
W1304	W1305	Ramp Cross Slope	5.41	-0.05	-1.0%	0.1% to 2.0%					W1308	3393+85.47	-115.81	852.98
W1305	W1306	Ramp Cross Slope	1.17	-0.01	-0.9%	0.1% to 2.0%								
W1408	W1402	Ramp Running Slope	11.82	0.16	1.3%	0.5% to 8.3%					W1401	3394+51.43	-128.46	854.27
W1407	W1405	Ramp Running Slope	5.00	0.41	8.2%	0.5% to 8.3%	Yes				W1402	3394+64.46	-128.76	854.37
W1402	W1403	Landing/Turning Space	5.00	0.08	1.5%	0.1% to 2.0%					W1403	3394+69.43	-129.26	854.45
W1405	W1404	Landing/Turning Space	5.00	0.08	1.5%	0.1% to 2.0%					W1404	3394+69.93	-124.29	854.37
W1402	W1405	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1405	3394+64.96	-123.79	854.30
W1403	W1404	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					W1406	3394+61.72	-122.46	853.82
W1401	W1408	Ramp Cross Slope	1.54	-0.05	-3.3%	0.1% to 4.3%			Slope required to match existing conditions		W1407	3394+59.98	-122.46	853.89
W1408	W1407	Ramp Cross Slope	8.47	-0.33	-3.9%	0.1% to 4.9%			Slope required to match existing conditions		W1408	3394+52.69	-127.58	854.22
W1407	W1406	Ramp Cross Slope	1.93	-0.07	-3.8%	0.1% to 4.8%			Slope required to match existing conditions					
W1501	W1502	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1501	20+82.81	-10.00	852.95
W1502	W1504	Ramp Running Slope	10.00	0.78	7.8%	0.5% to 8.3%	Yes				W1502	20+92.86	-10.00	853.10
W1509	W1508	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1503	21+02.86	-11.00	853.90
W1508	W1506	Ramp Running Slope	12.00	0.54	4.5%	0.5% to 8.3%					W1504	21+02.86	-10.00	853.89
W1501	W1509	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1505	21+04.86	-5.50	853.84
W1502	W1508	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1506	21+04.86	0.00	853.79
W1503	W1504	Ramp Cross Slope	1.00	-0.01	-1.0%	0.1% to 2.0%					W1507	21+04.86	1.00	853.78
W1504	W1510	Ramp Cross Slope	4.50	-0.06	-1.4%	0.1% to 2.0%					W1508	20+92.86	0.00	853.25
W1510	W1505	Ramp Running Slope	2.00	0.02	1.0%	0.5% to 8.3%					W1509	20+82.86	0.00	853.10
W1505	W1506	Ramp Cross Slope	5.50	-0.05	-0.9%	0.1% to 2.0%					W1510	20+82.86	-5.50	853.82
W1506	W1507	Ramp Cross Slope	1.00	-0.01	-0.8%	0.1% to 2.0%								
W1608	W1602	Ramp Running Slope	5.00	0.30	6.0%	0.5% to 8.3%					W1601	21+86.40	-11.00	855.36
W1607	W1605	Ramp Running Slope	23.21	1.25	5.4%	0.5% to 8.3%					W1602	21+88.36	-10.00	855.58
W1602	W1603	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1603	21+98.41	-10.00	855.73
W1605	W1604	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1604	21+98.36	0.00	855.88
W1602	W1605	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1605	21+88.36	0.00	855.73
W1603	W1604	Landing/Turning Space	10.00	0.15	1.5%	0.1% to 2.0%					W1606	21+63.94	1.00	854.42
W1601	W1608	Ramp Cross Slope	2.81	-0.08	-2.8%	0.1% to 3.8%			Slope required to match existing conditions		W1607	21+65.15	0.00	854.48
W1608	W1607	Ramp Cross Slope	20.88	-0.80	-3.8%	0.1% to 4.8%			Slope required to match existing conditions		W1608	21+83.36	-10.00	855.28
W1607	W1606	Ramp Cross Slope	1.57	-0.06	-3.7%	0.1% to 4.7%			Slope required to match existing conditions					

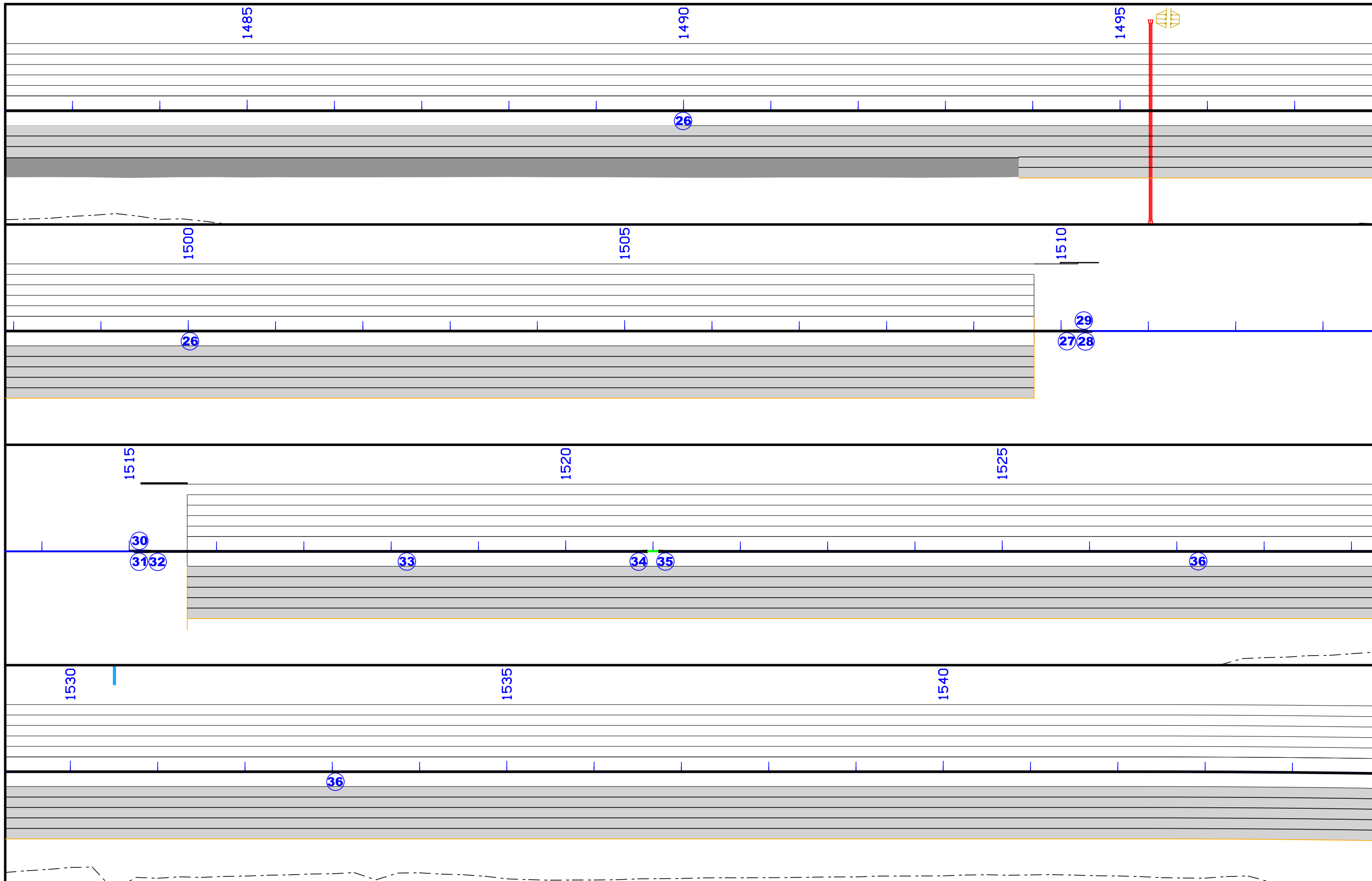
CONCRETE BARRIER

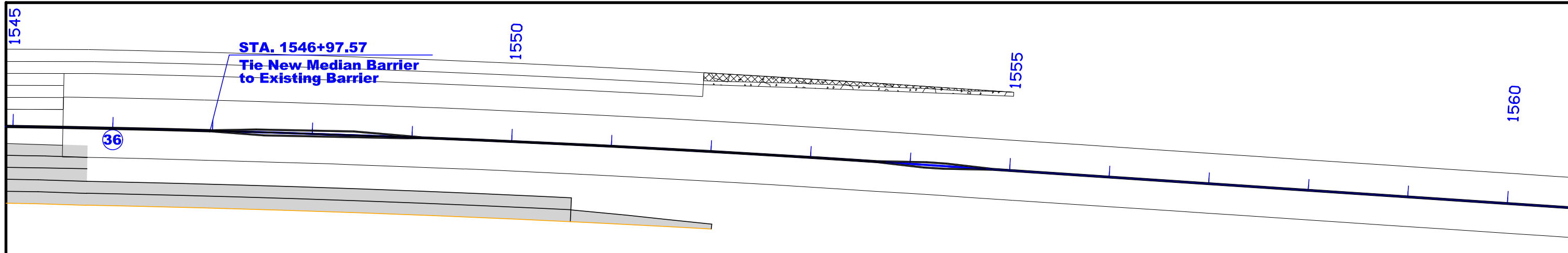
See BA-100, BA-101, BA-102, and BA-103

No.	Begin Station	End Station	Side	Barrier Type		Transition Section		Footing		Remarks	Expansion Joints		
				Standard Road Plan	Length	Detail Sheet	L	Length	Station		Side	Remarks	
													LF
1	1364+03.94	1378+83.94	Median	BA-100	1480.0								
2	1378+83.94	1378+91.94	Median			U.11	8.0						
3	1378+91.94	1379+05.16	Median-Rt	BA-102	13.2								
4	1378+91.94	1379+05.89	Median-Lt	BA-102	14.0								
5	1381+28.21	1381+42.16	Median-Rt	BA-102	14.0								
6	1381+28.94	1381+42.16	Median-Lt	BA-102	13.2								
7	1381+42.16	1381+50.16	Median			U.11	8.0						
8	1381+50.16	1388+10.16	Median	BA-100	660.0								
9	1388+10.16	1388+18.16	Median			U.11	8.0						
10	1388+18.16	1388+35.38	Median-Rt	BA-102	17.2								
11	1388+18.16	1388+35.71	Median-Lt	BA-102	17.6								
12	1391+46.40	1391+63.95	Median-Rt	BA-102	17.6								
13	1391+46.73	1391+63.95	Median-Lt	BA-102	17.2								
14	1391+63.95	1391+71.95	Median			U.11	8.0						
15	1391+71.95	1421+85.58	Median	BA-100	3013.6								
16	1421+85.58	1421+93.58	Median			U.11	8.0						
17	1422+06.42	1422+14.42	Median			U.11	8.0						
18	1422+14.42	1429+85.58	Median	BA-100	771.2								
19	1429+85.58	1429+93.58	Median			U.11	8.0						
20	1430+06.42	1430+14.42	Median			U.11	8.0						
21	1430+14.42	1453+85.58	Median	BA-100	2371.2								
22	1453+85.58	1453+93.58	Median			U.11	8.0						
23	1454+06.42	1457+40.36	Median-Rt	BA-102	334.2								
24	1454+06.42	1457+40.36	Median-Lt	BA-102	334.2								
25	1457+40.36	1457+48.36	Median			U.11	8.0						
26	1457+48.36	1510+08.00	Median	BA-100	5259.6								
27	1510+08.00	1510+16.00	Median			U.11	8.0						
28	1510+16.00	1510+35.40	Median-Rt	BA-102	19.4								
29	1510+16.00	1510+29.94	Median-Lt	BA-102	13.9								
30	1515+00.00	1515+19.41	Median-Lt	BA-102	19.4								
31	1515+05.48	1515+19.41	Median-Rt	BA-102	13.9								
32	1515+19.41	1515+27.41	Median			U.11	8.0						
33	1515+27.41	1520+85.58	Median	BA-100	558.2								
34	1520+85.58	1520+93.58	Median			U.11	8.0						
35	1521+06.42	1521+14.42	Median			U.11	8.0						
36	1521+14.42	1546+97.57	Median	BA-100	2583.2					Tie New Median Barrier to Existing Barrier			
					Total	17555.7							
											* Refer to Standard Road Plan SW-547 for Locations Where Concrete Barrier Crosses Stormwater Intakes		



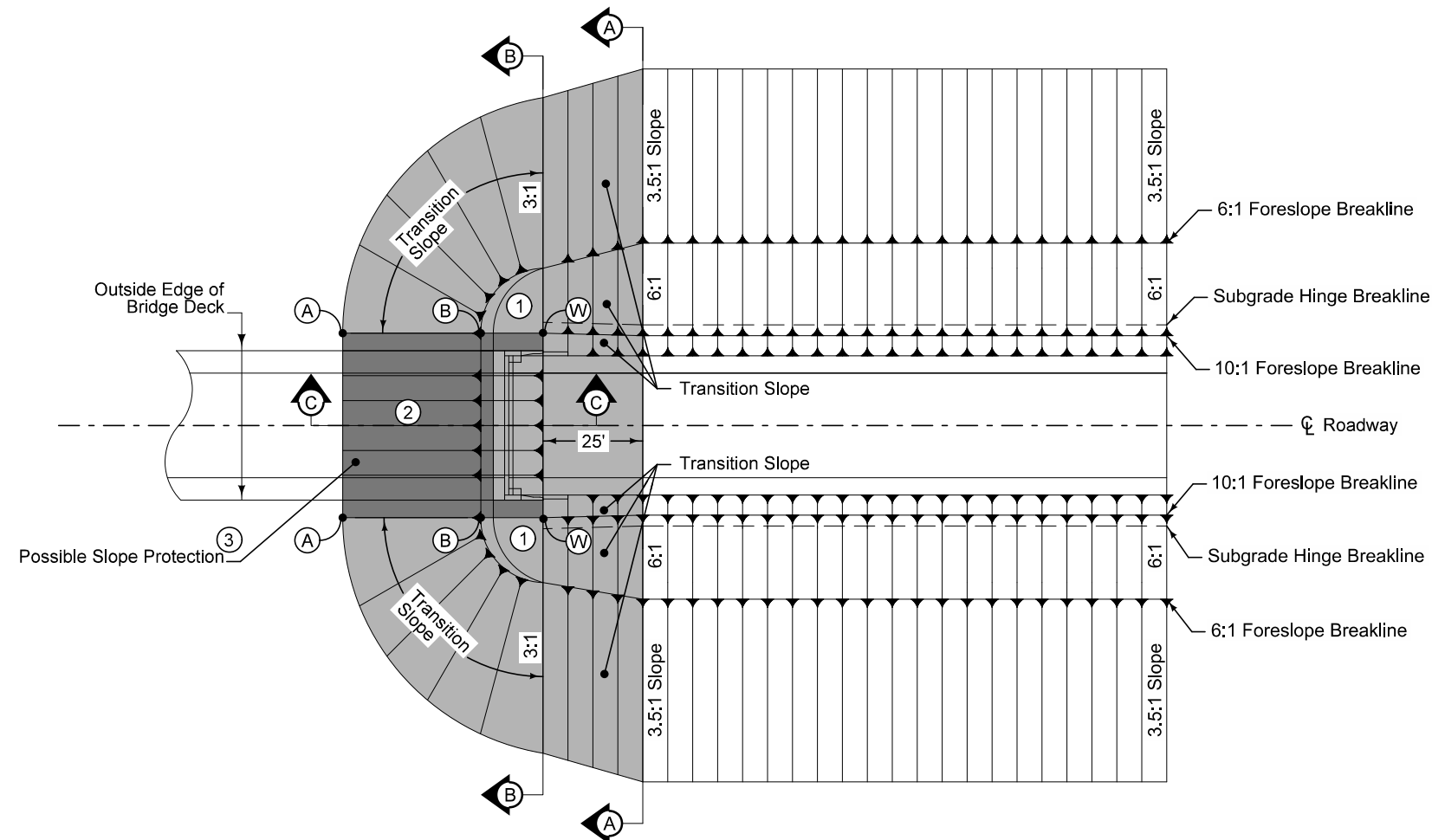






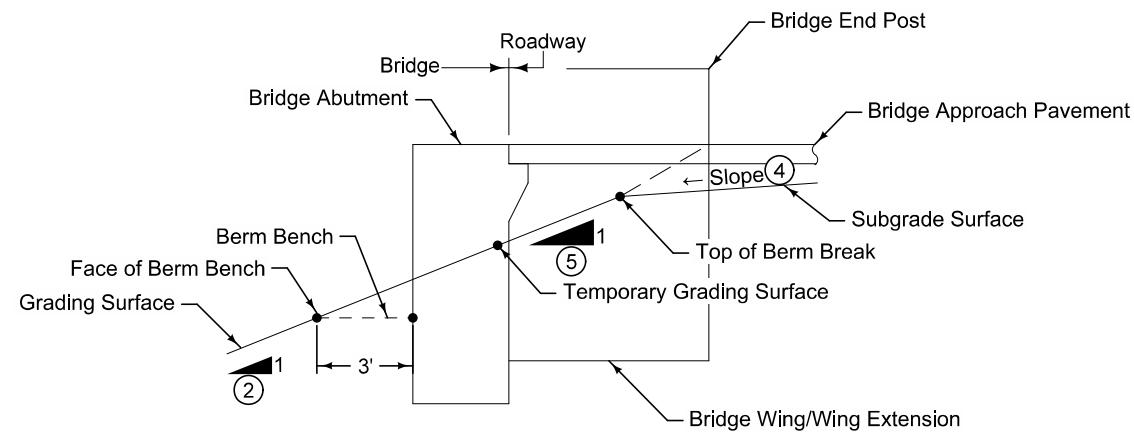
Grading surface:
Refer to berm slope location table in project plans
for locations of A, B, W and possible other points.

- ① Variable slope.
- ② Bridge Berm slope may vary and is determined by the A and B points. Slope is normally 2.5:1 or flatter.
- ③ Refer to contract documents for limits of the slope protection.



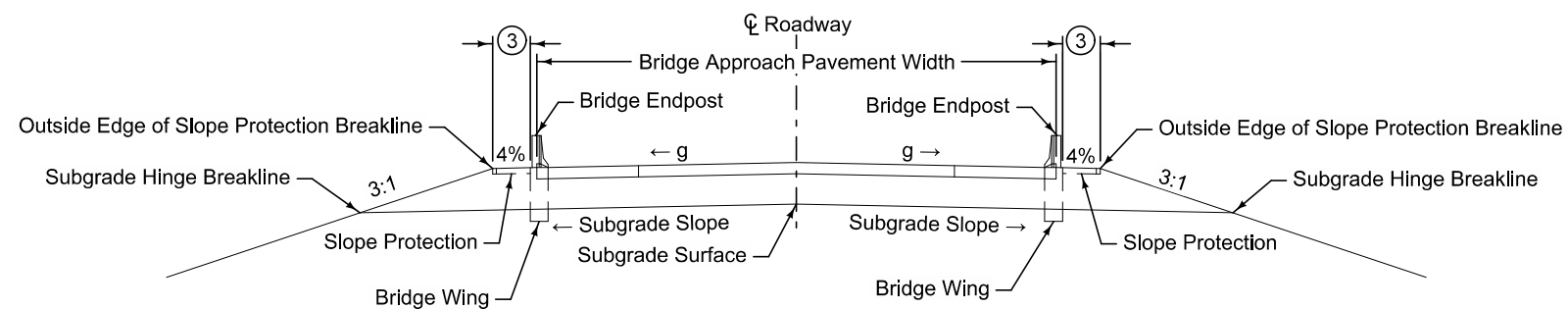
**PLAN VIEW OF BRIDGE BERM
(BARNROOF FORESLOPE)**

MODIFIED	REVISION	
	2	04-17-12
STANDARD ROAD PLAN	EW-201	
	SHEET 1 of 3	
REVISIONS: 1. Modified temporary grading surface in Section C-C.		
APPROVED BY DESIGN METHODS ENGINEER		
BRIDGE BERM GRADING WITHOUT RECOVERABLE SLOPE (BARNROOF SECTION)		

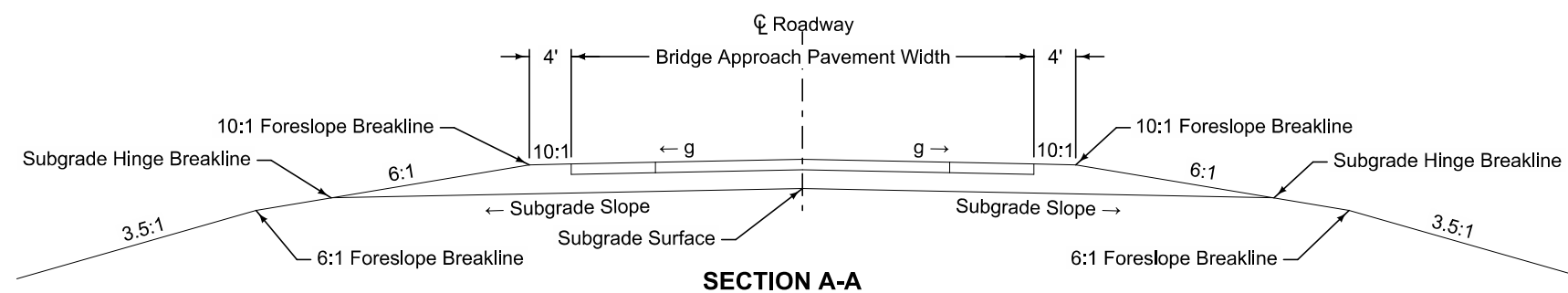


SECTION C-C

- ② Bridge Berm slope may vary and is determined by the A and B points.
- ③ Refer to contract documents for limits of the slope protection.
- ④ Refer to RK series for longitudinal subgrade slope.
- ⑤ Temporary grading slope.
- g = Pavement cross slope.

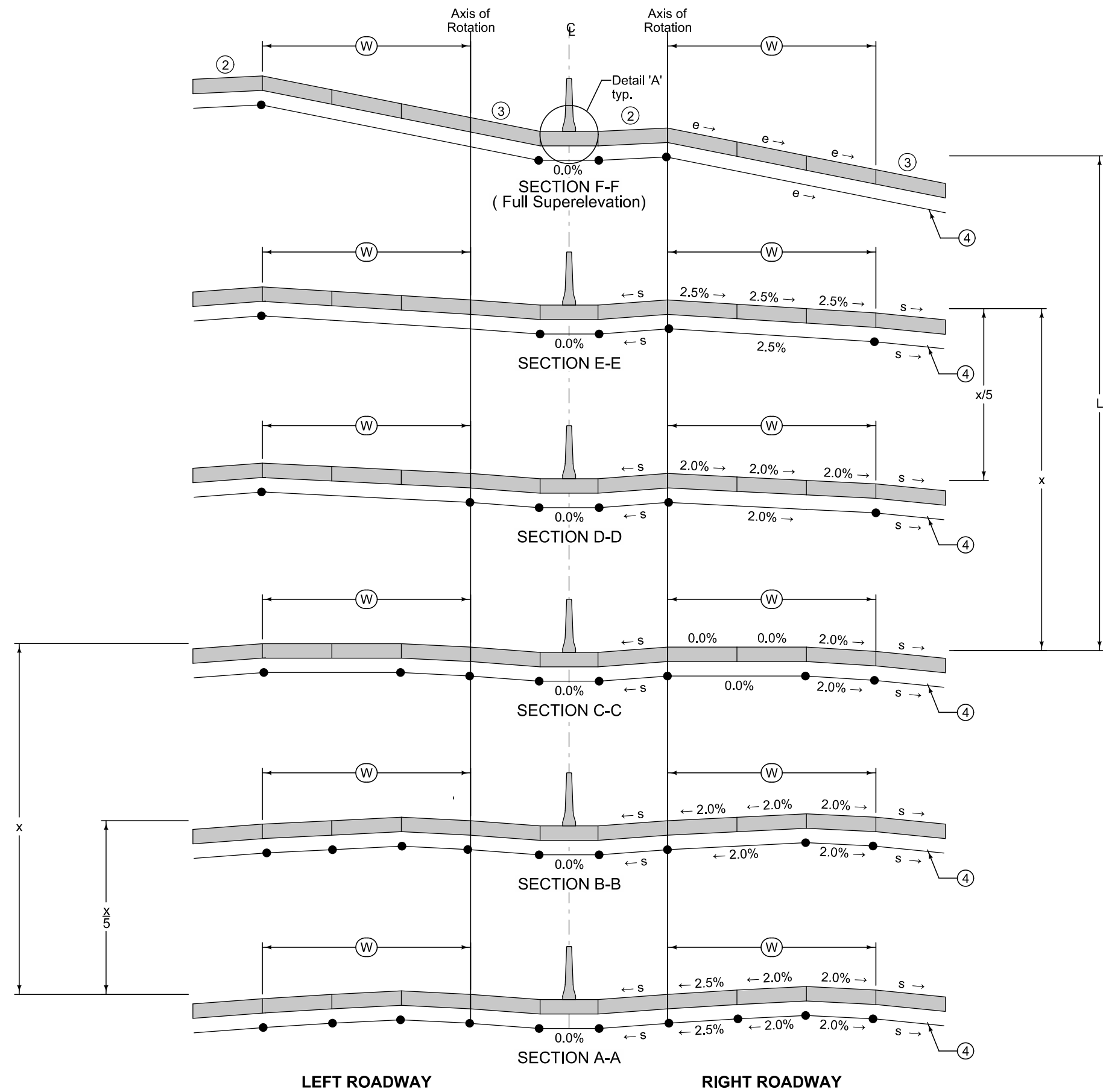


SECTION B-B

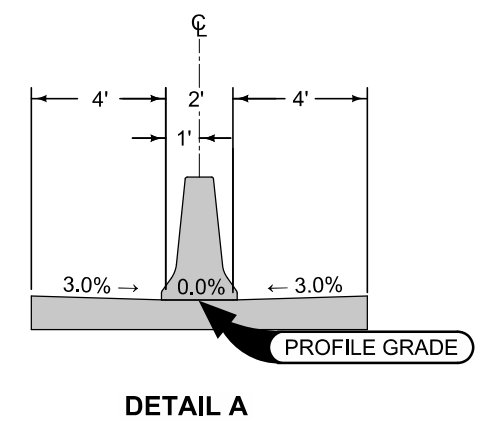


SECTION A-A

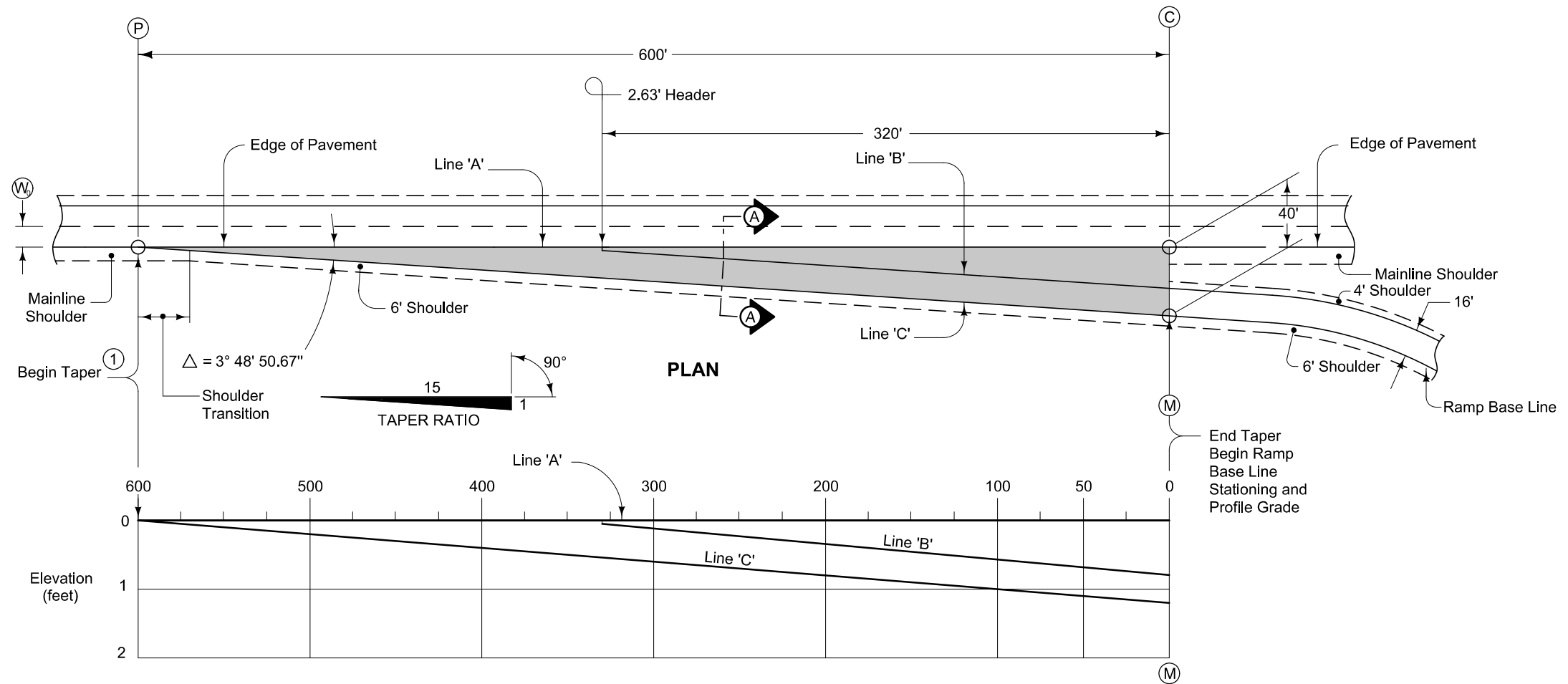
MODIFIED	REVISION	
	2	04-17-12
STANDARD ROAD PLAN	EW-201	
SHEET 2 of 3		
REVISIONS: 1. Modified temporary grading surface in Section C-C.		
APPROVED BY DESIGN METHODS ENGINEER		
BRIDGE BERM GRADING WITHOUT RECOVERABLE SLOPE (BARNROOF SECTION)		



- ② High Side Shoulder: Maintain normal shoulder cross slope (s) until the cross slope break with the adjacent pavement reaches 8.0%, then slope the shoulder at the same rate as the adjacent pavement maintaining an 8% cross slope breakover.
- ③ Low Side Shoulder: Maintain normal shoulder cross slope (s) until the adjacent pavement slope equals s, then slope the shoulder at the same cross slope as the adjacent pavement.
- ④ Subgrade Surface: Subgrade surface cross slope parallel to pavement surface cross slope.



MODIFIED	REVISION	
	2	04-17-12
STANDARD ROAD PLAN		PV-305
		SHEET 2 of 4
<small>REVISIONS: 1. Modified Right Roadway to match typical section.</small>		
<small>APPROVED BY DESIGN METHODS ENGINEER</small>		
SUPERELEVATION DETAILS		
SIX LANE ROADWAY		
CLOSED MEDIAN		

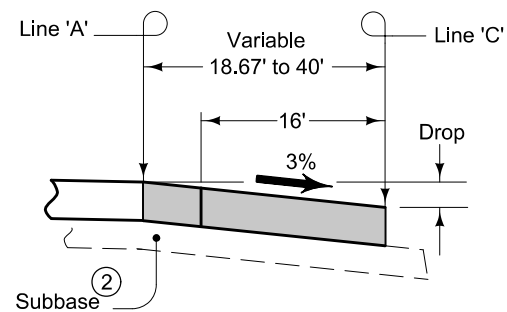


NOTE: The algebraic difference between profile grade for Ramp Base Line at (M) and relative profile grade of Mainline at (C) is 0.2%.

PROFILE

TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER																									
DISTANCE (Ft.)	600	575	550	525	500	475	450	425	400	375	350	320	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	0	1.67	3.33	5.00	6.67	8.33	10.00	11.67	13.33	15.00	16.67	18.67	20.00	21.67	23.33	25.00	26.67	28.33	30.00	31.67	33.33	35.00	36.67	38.33	40.00
DROP (Ft.)	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.56	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20

NOTE: The elevations at edge of taper from BEGIN TAPER to POINT 'M' are established by a constant 3% slope across the appropriate taper widths based on the Taper Ratio of 15:1. Drop = (0.03) x (Offset).



SECTION A-A

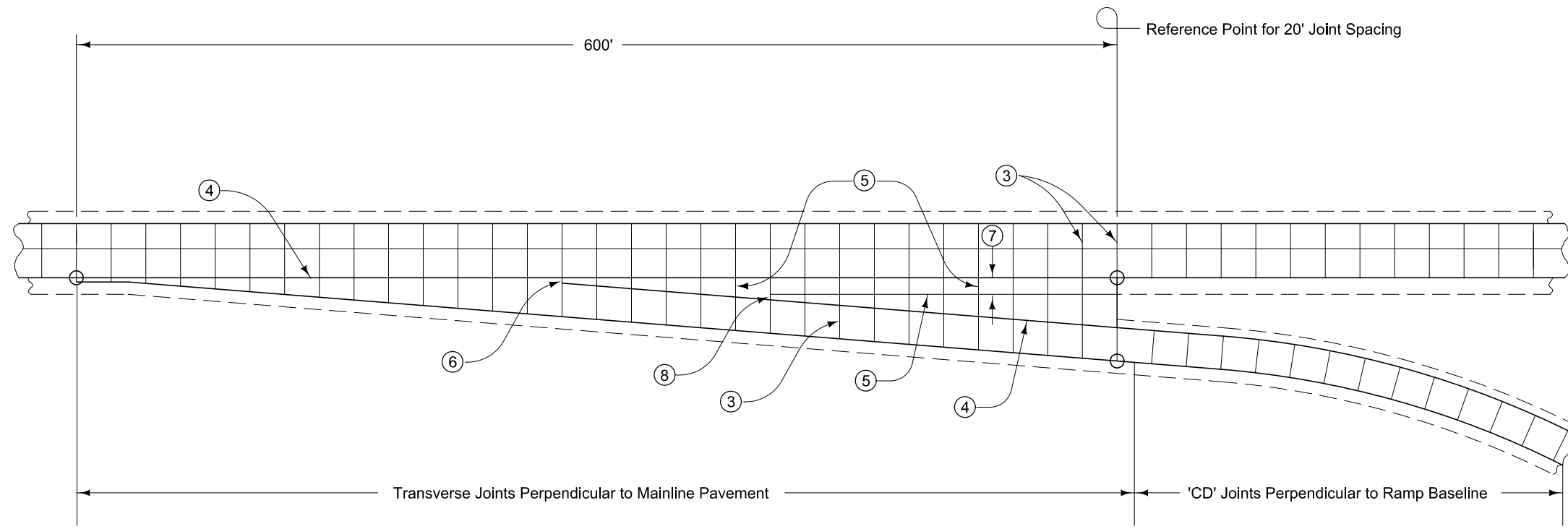
TABLE OF SHOULDER TRANSITION LENGTHS			
W ₀	Shoulder Width beyond Edge of Mainline Pavement		
		8'	10'
12'	NA	60'	90'
14'	30'	60'	NA

NOTE: W₀ is the width of the outside lane to the Edge of Pavement.

Construct ramp exit pavement the same thickness as mainline pavement.
 Ramp exit pavement shown by shaded area is 1334 square yards.
 For joint details, see PV-101.

- ① For header construction details at the beginning of taper, see Typical 7101 or Typical 7102.
- ② Construct subbase for ramp exit pavement the same thickness as mainline subbase.

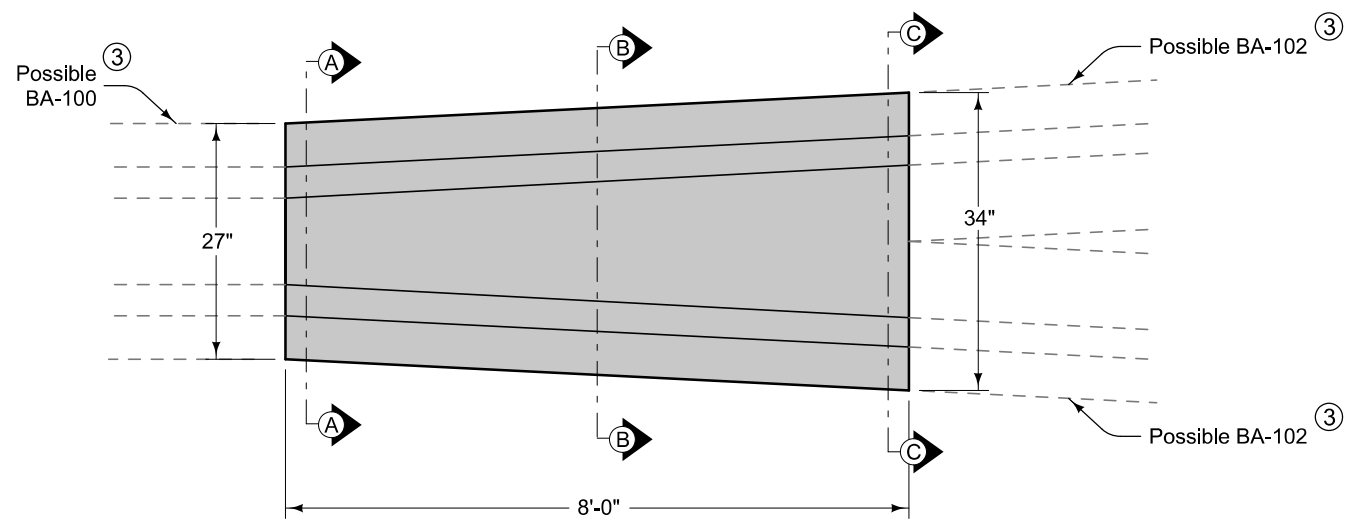
MODIFIED STANDARD ROAD PLAN	REVISION	
	2	10-18-11
	PV-410	
SHEET 1 of 2		
APPROVED BY DESIGN METHODS ENGINEER		
DECELERATION TAPER FOR 16' EXIT RAMP		



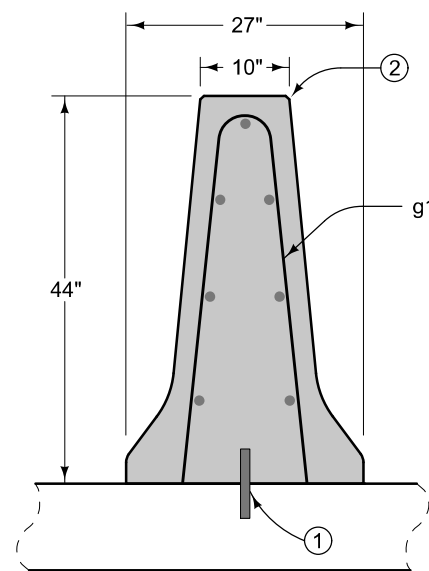
- ③ 'CD' Joints at 20' spacing.
- ④ 'BT-2' joint for existing pavement or 'KT-2' for new pavement .
- ⑤ 'C' Joint.
- ⑥ 'B' Joint. 2' minimum. 4' maximum.
- ⑦ 10' minimum or equal to mainline shoulder width.
- ⑧ 'B' or 'C' Joint. 2' minimum. 4' maximum.

16' EXIT RAMP

MODIFIED STANDARD ROAD PLAN	REVISION	
	2	10-18-11
PV-410		SHEET 2 of 2
REVISIONS: See Detail and circle notes 7 and 8.		
APPROVED BY DESIGN METHODS ENGINEER		
DECELERATION TAPER FOR 16' EXIT RAMP		



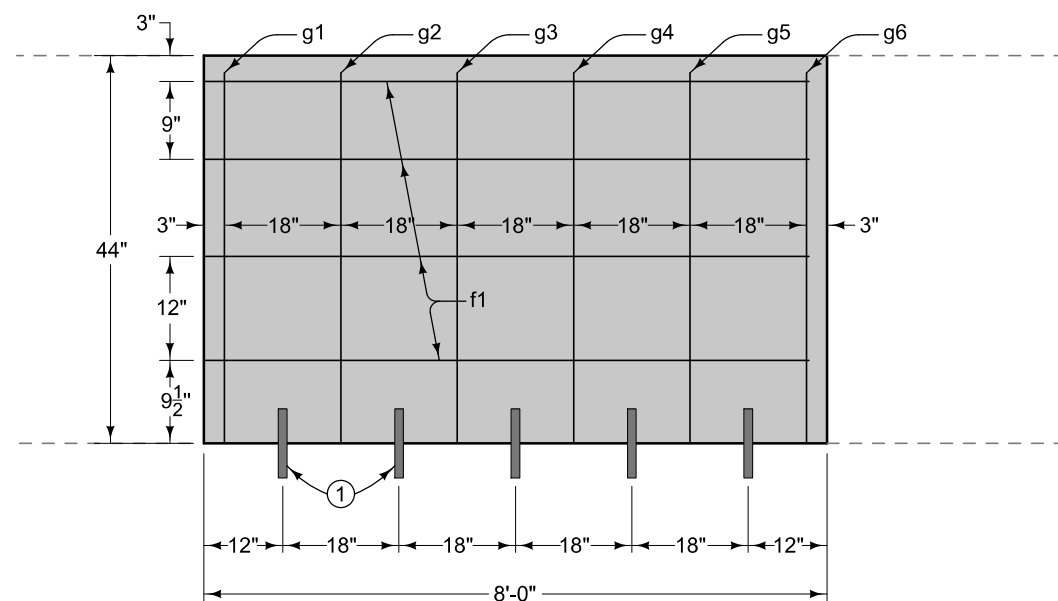
PLAN



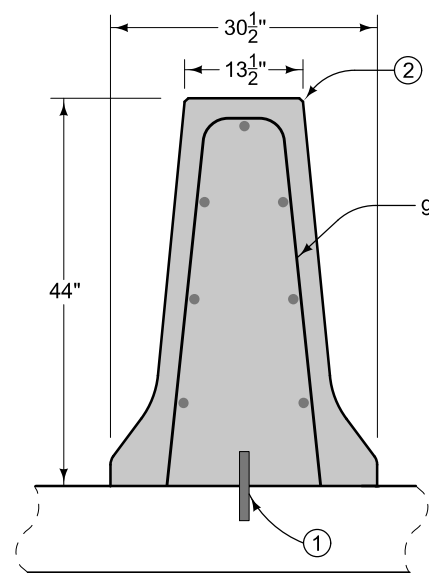
SECTION A-A

Use epoxy-coated grade 60 reinforcing bars. Provide 2 inches minimum cover. Anchor barrier reinforcement to prevent movement. Secure each section at the front, back, and at 3'-6" minimum intervals using a method approved by the Engineer.

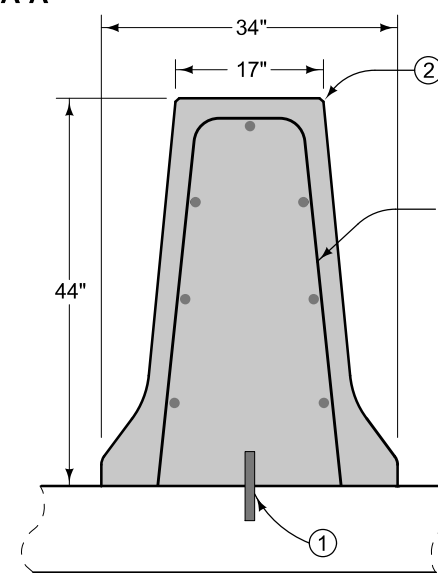
- ① Use 1 inch diameter deformed dowel bars of sufficient length to ensure 6 inch minimum embedment in barrier and supporting surface. Install bars either in supporting surface when placed or in drilled holes using polymer grout complying with Materials I.M. 491.11 or hydraulic cement grout complying with Materials I.M. 491.13.
- ② Fillet all exposed corners with a $\frac{3}{4}$ inch dressed and beveled strip.
- ③ Provide 18 inch overlap of reinforcing steel between sections.



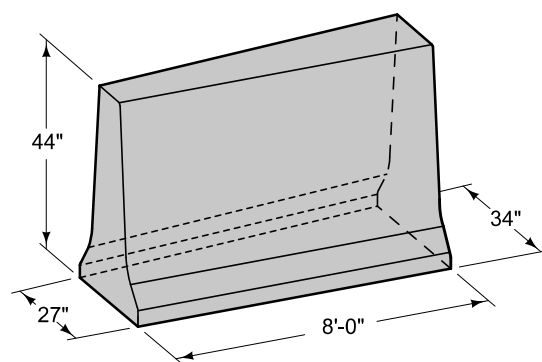
ELEVATION



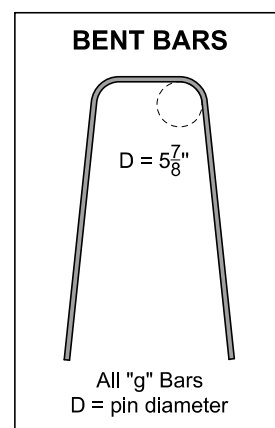
SECTION B-B



SECTION C-C



ISOMETRIC



REINFORCING BAR LIST Per Section (6'-0")				
Mark	Size	Number of Bars	Length	Weight (lbs.)
f1	5	7	69"	42
g1	5	1	87"	8
g2	5	1	88"	8
g3	5	1	89"	8
g4	5	1	90"	8
g5	5	1	92"	8
g6	5	1	94"	8

Possible Contract Item:
Concrete Barrier, BA-101

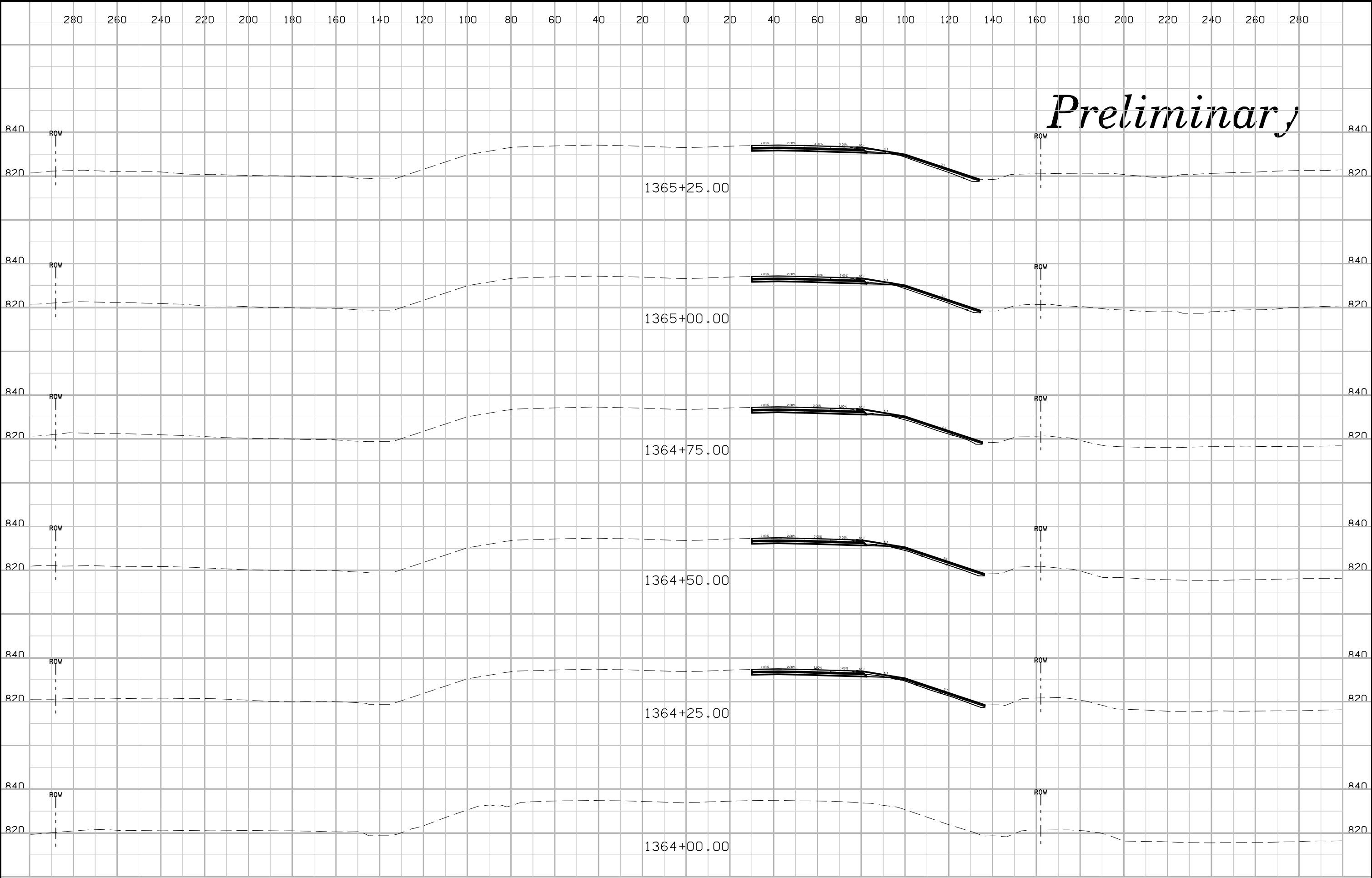
Possible Tabulation:
108-18

MODIFIED	REVISION	
	New	04-20-10
STANDARD ROAD PLAN		BA-101
		SHEET 1 of 1

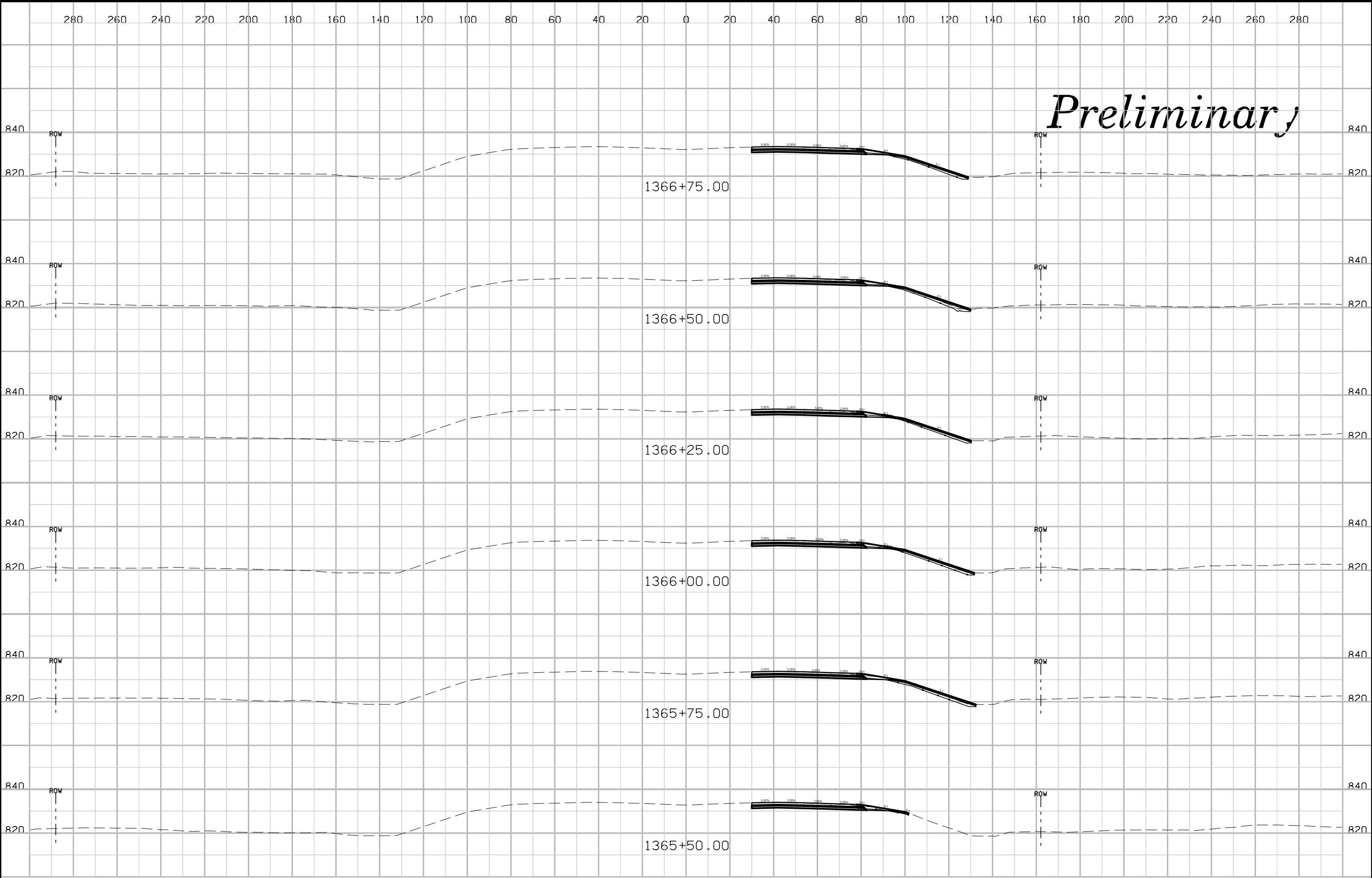
REVISIONS: Replaces RE-44B.
APPROVED BY DESIGN METHODS ENGINEER

**44" CONCRETE MEDIAN BARRIER
WIDTH TRANSITION**

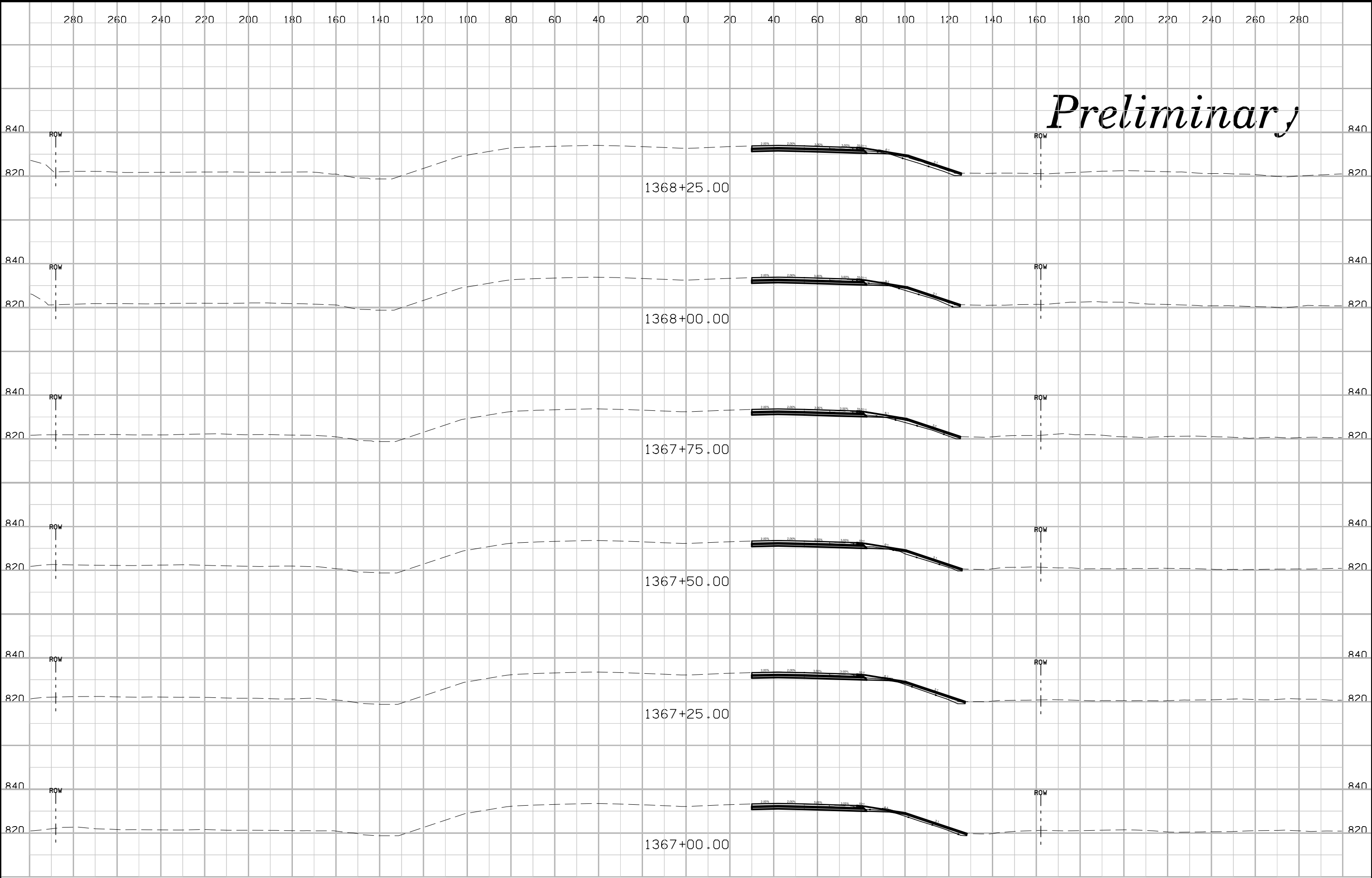
Preliminary

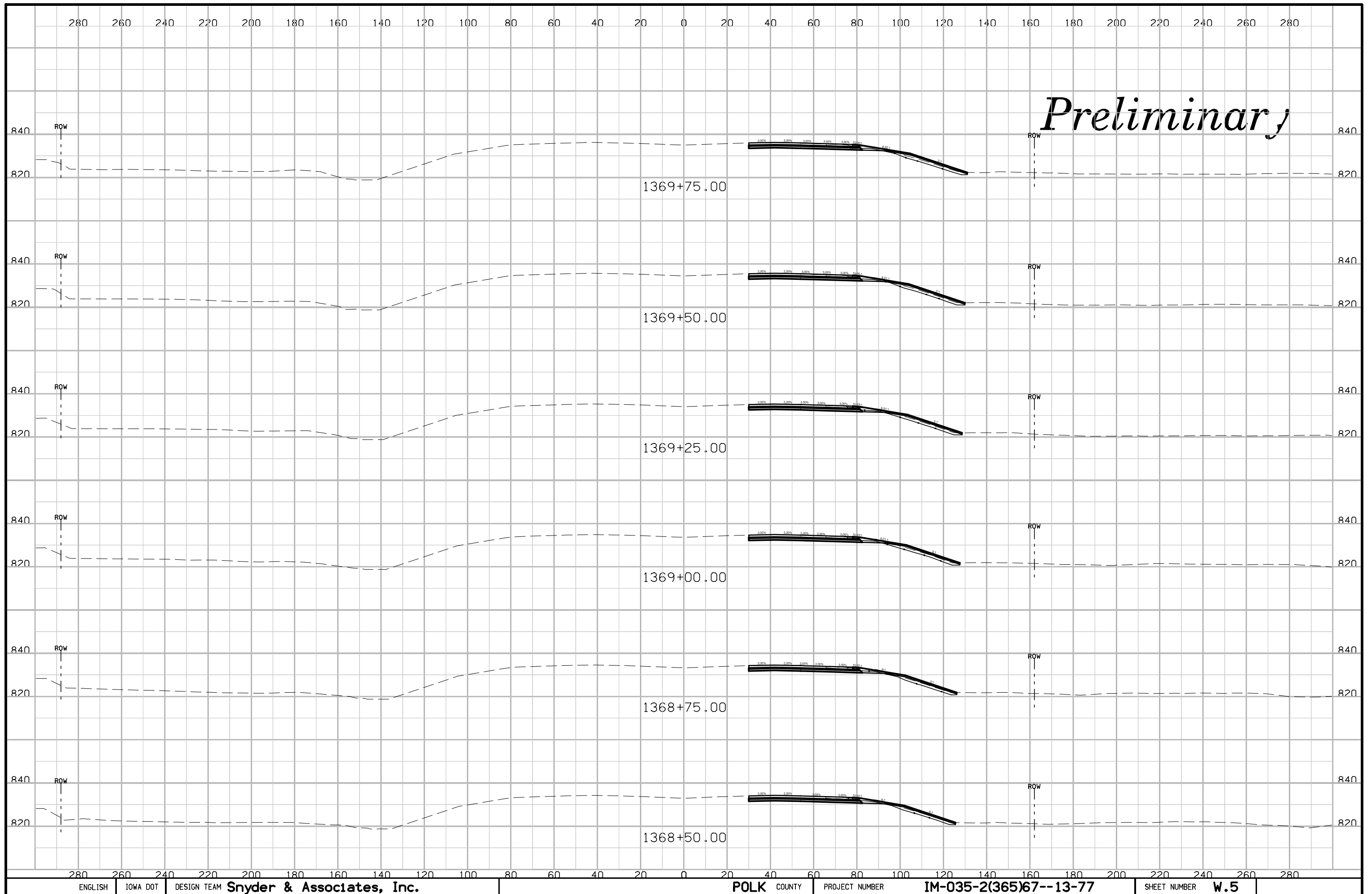


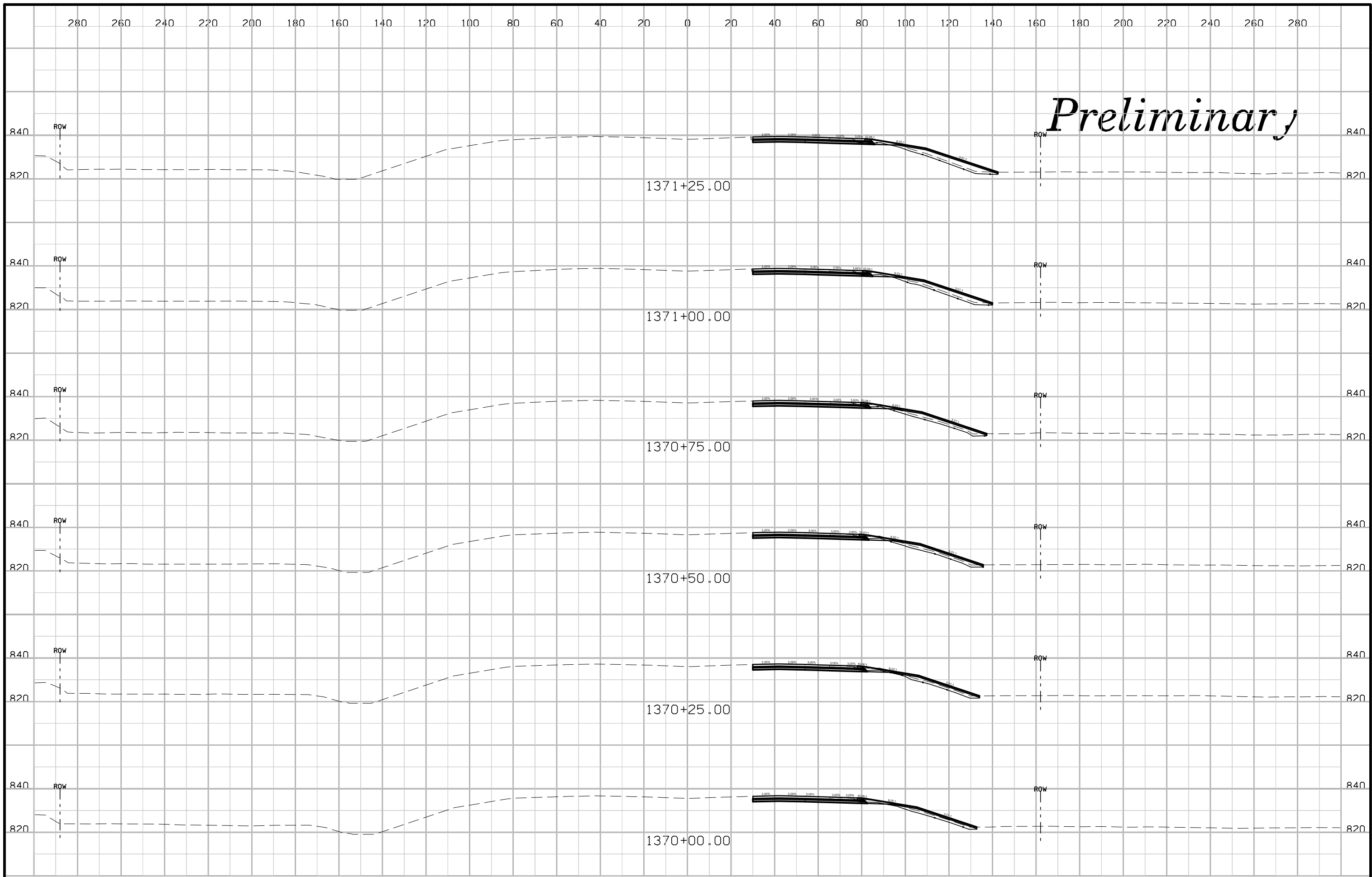
Preliminary



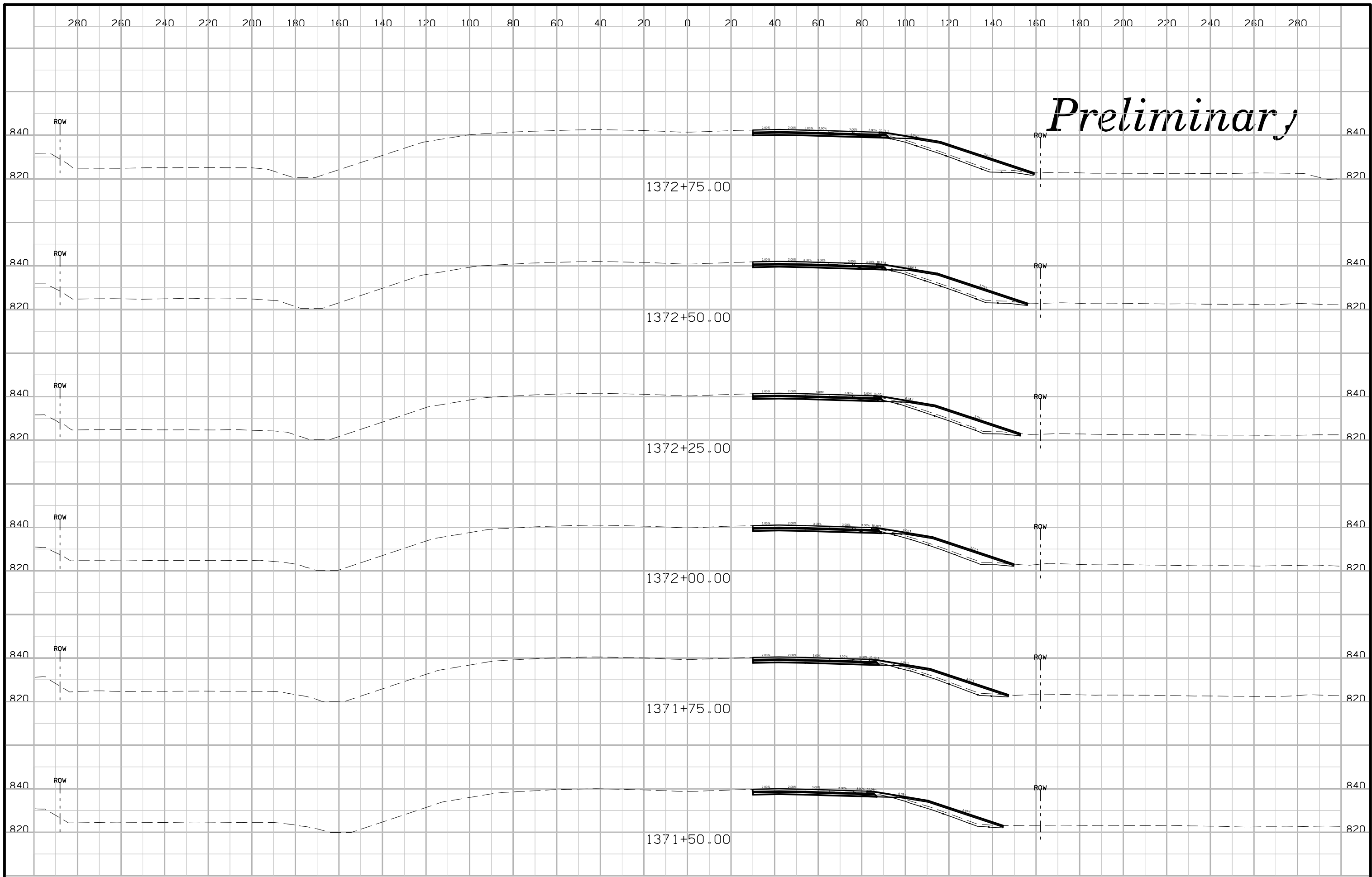
Preliminary





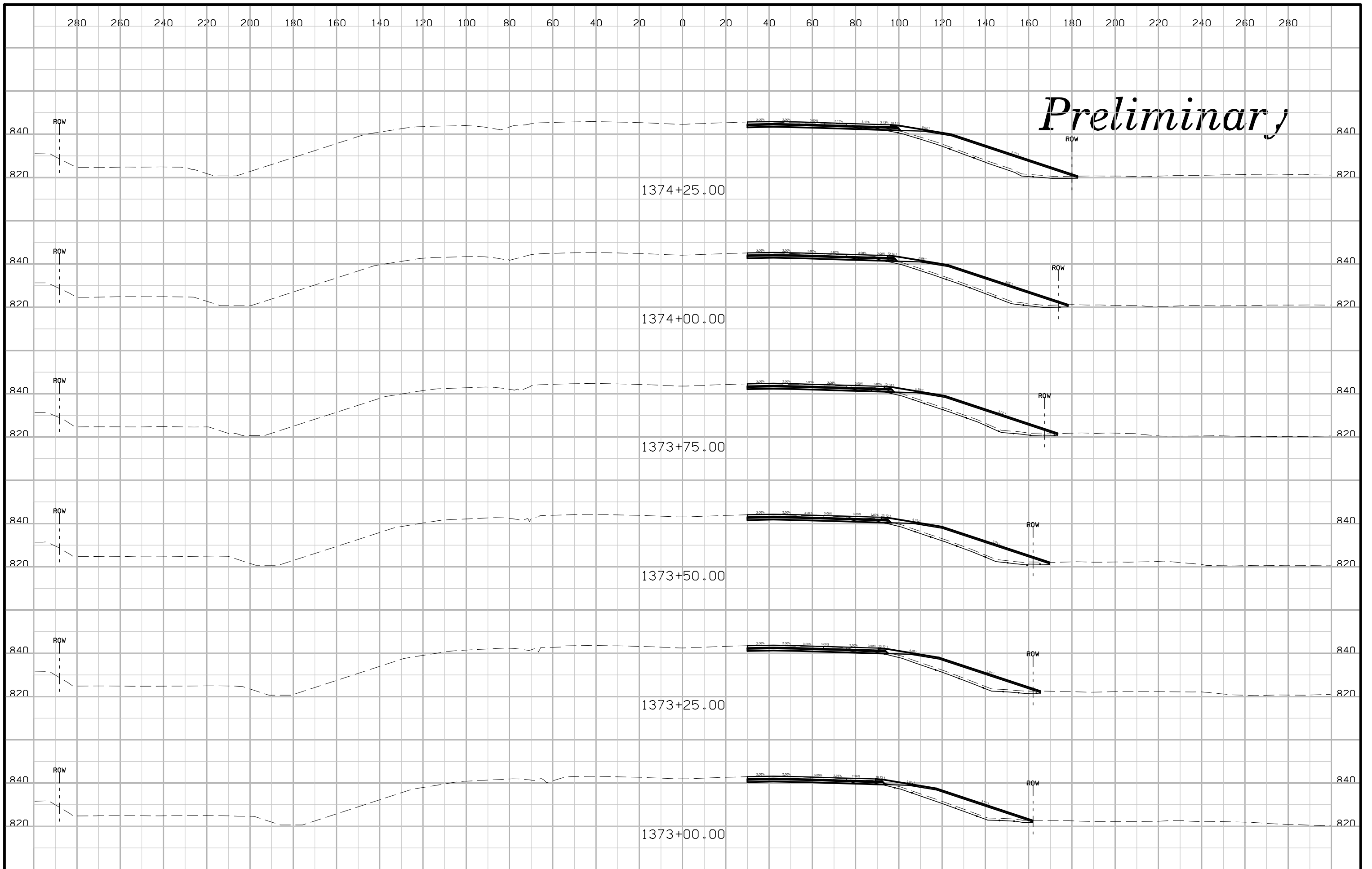


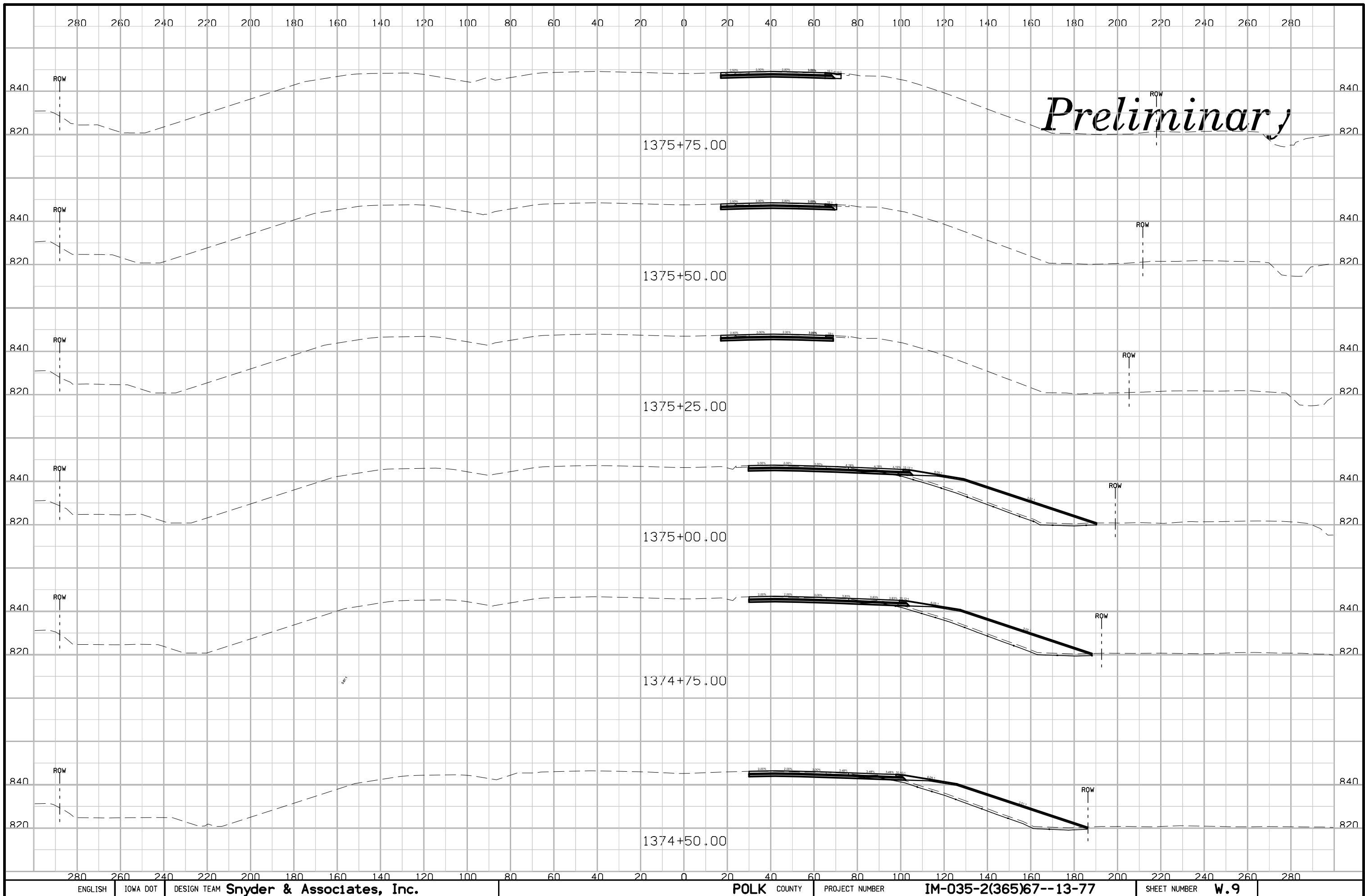
Preliminary



Preliminary

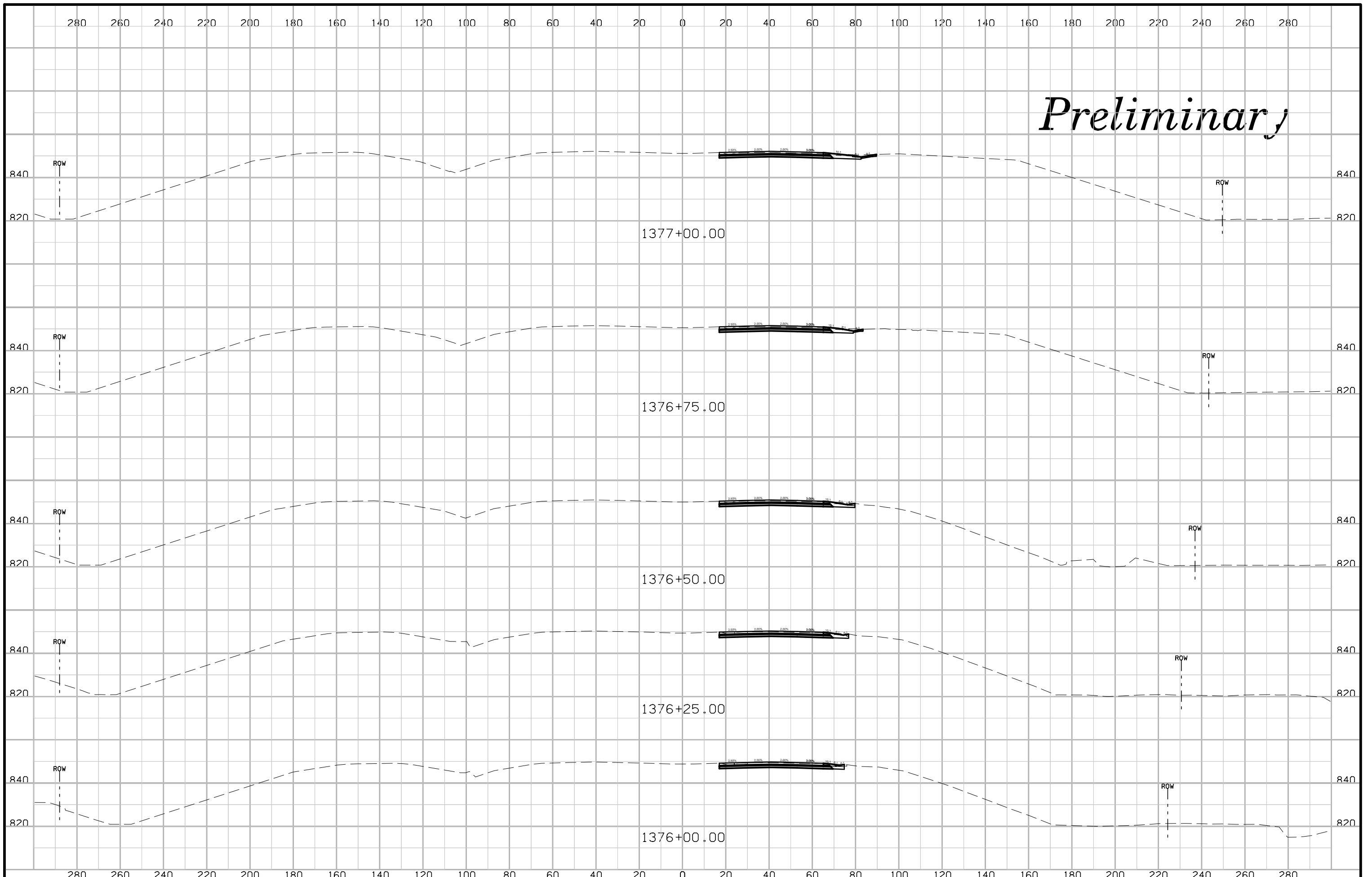
Preliminary

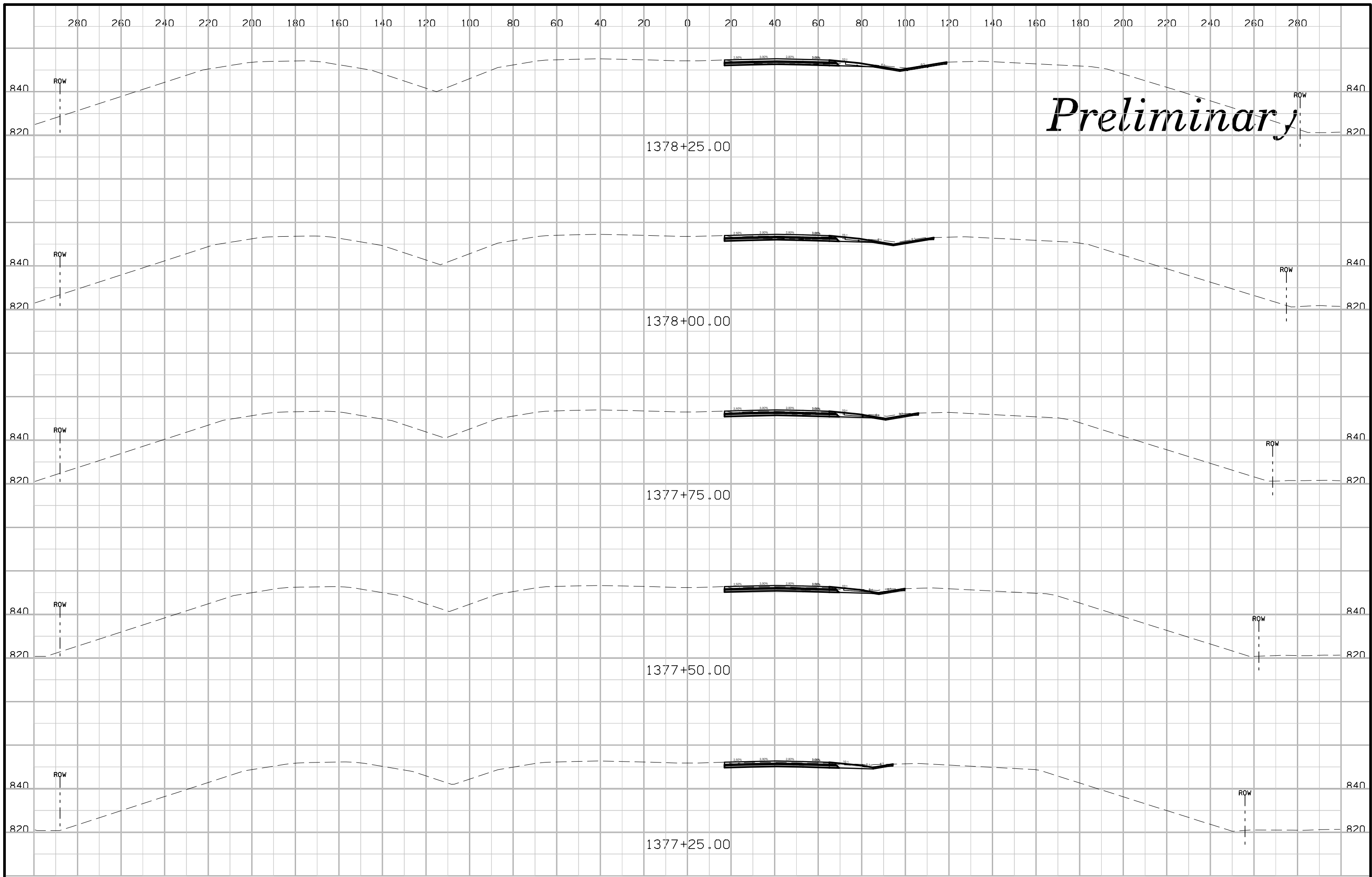




Preliminary

Preliminary





Preliminary

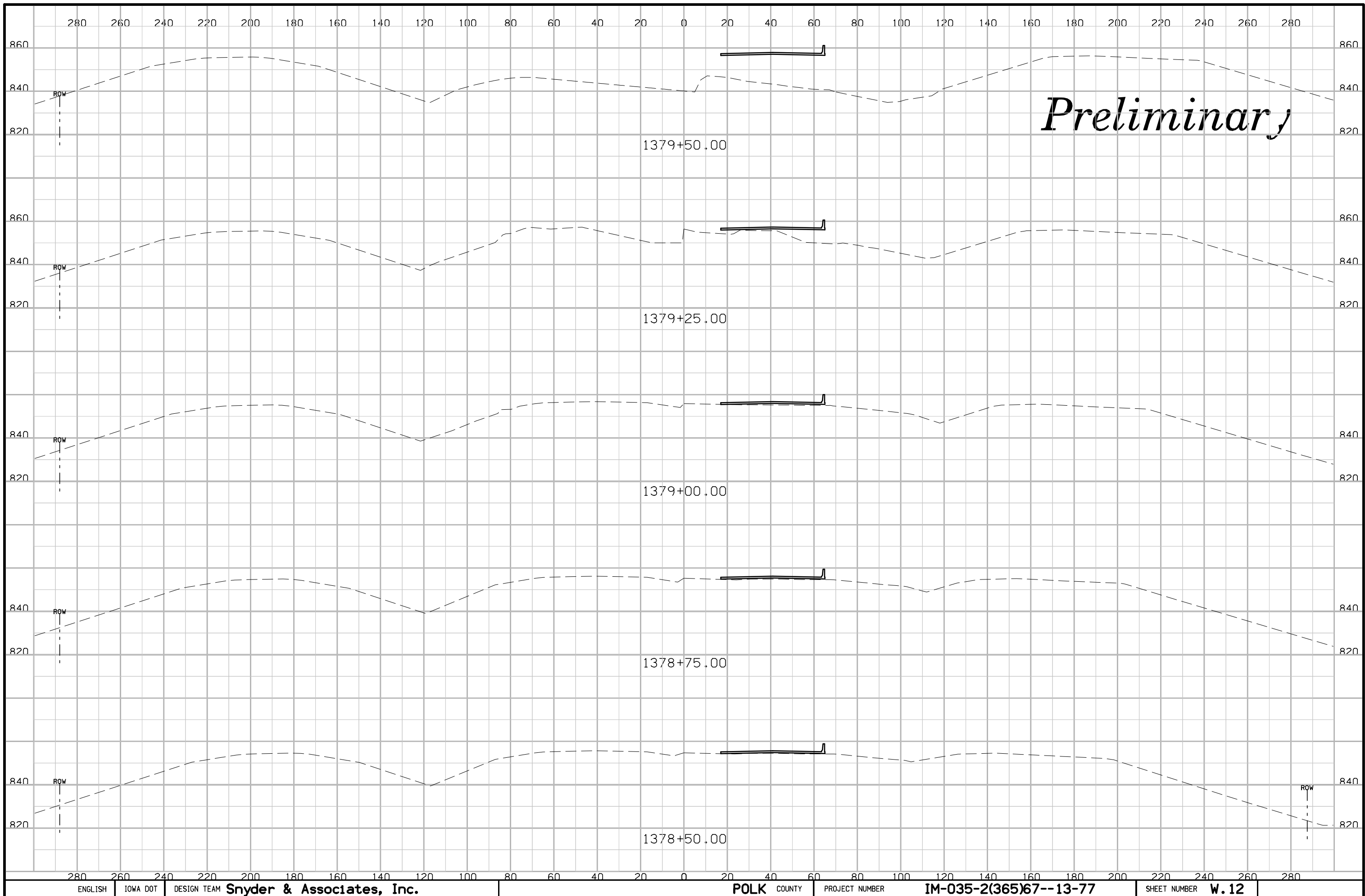
1378+25.00

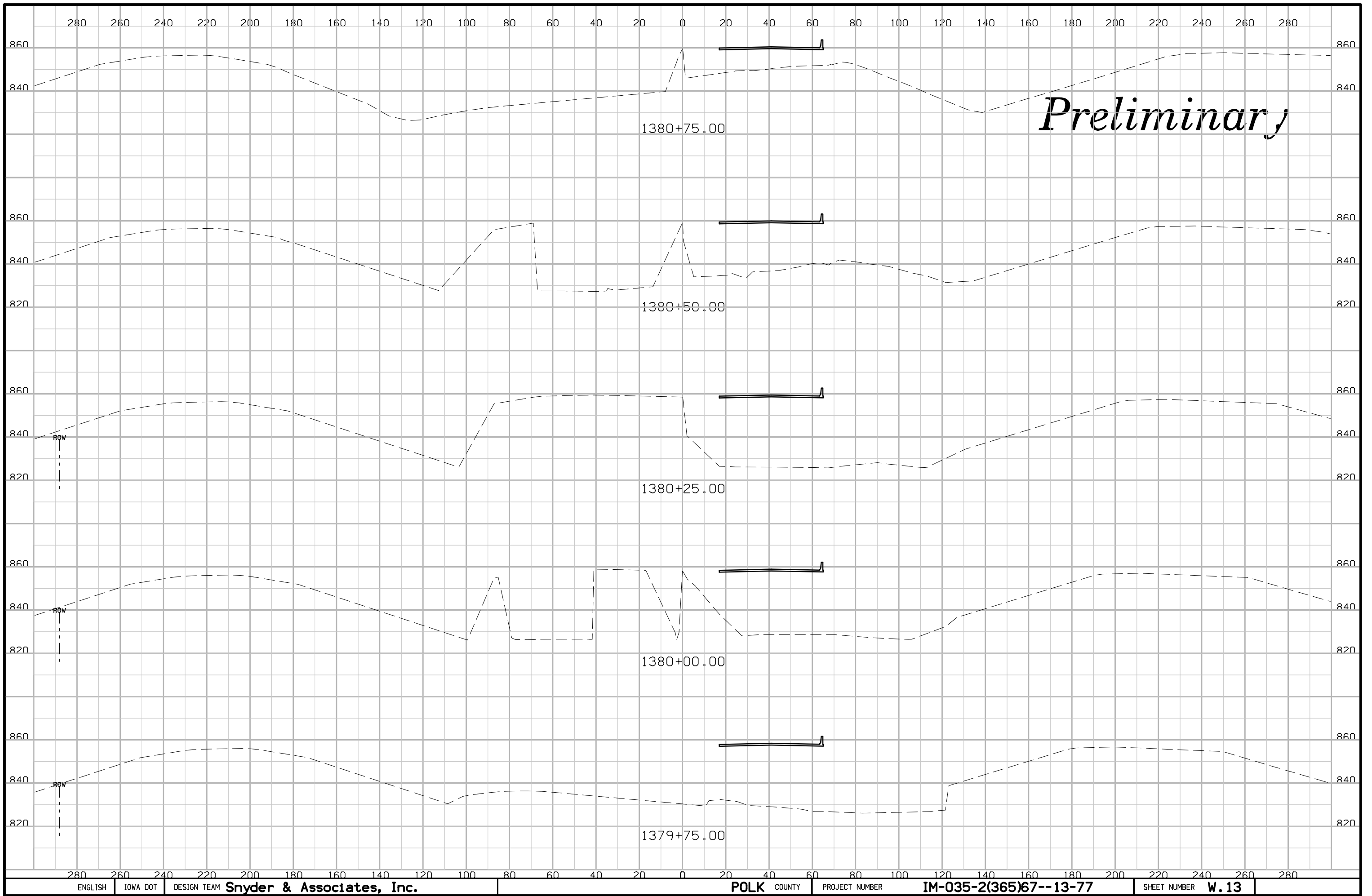
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1377+75.00

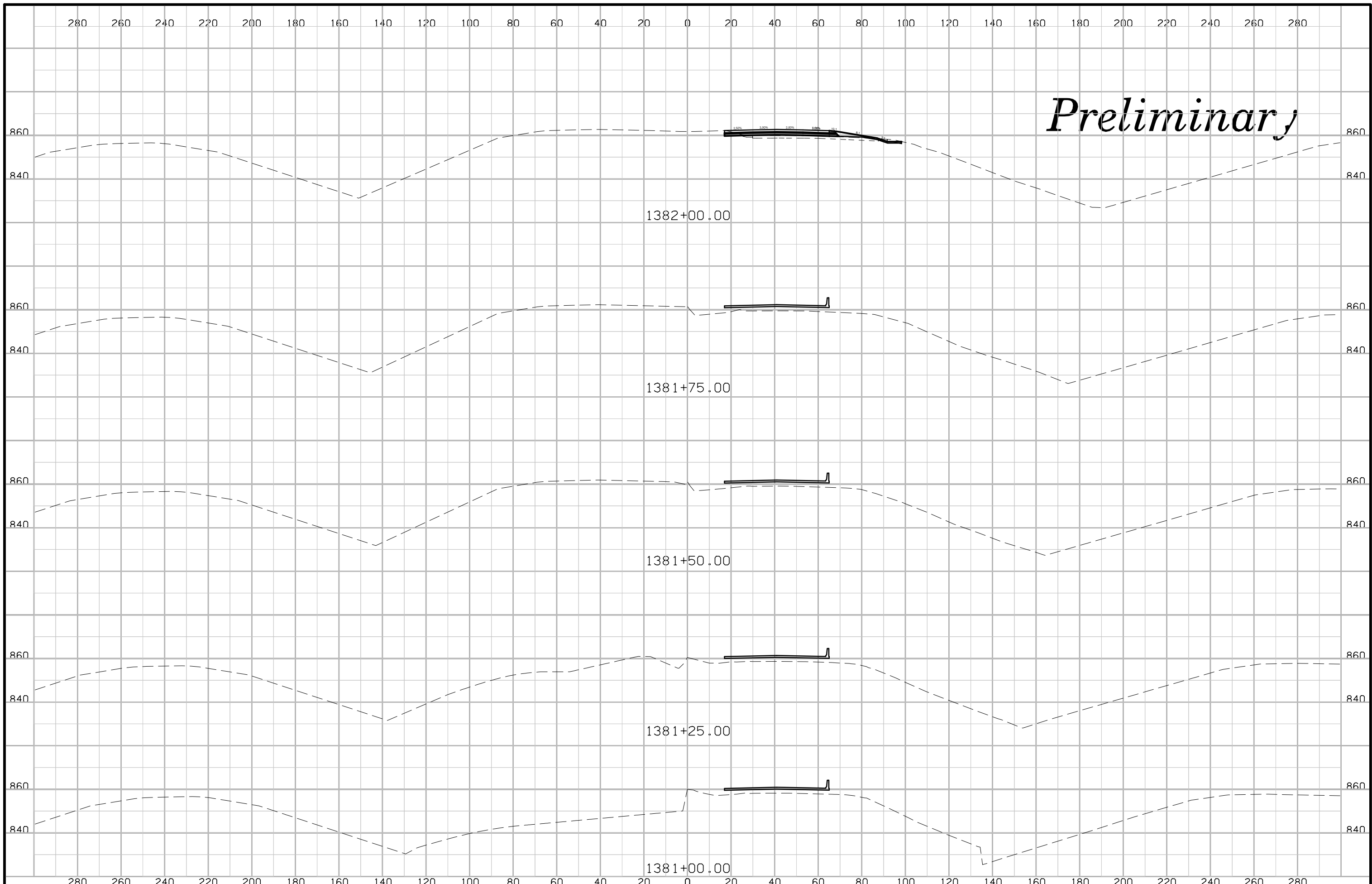
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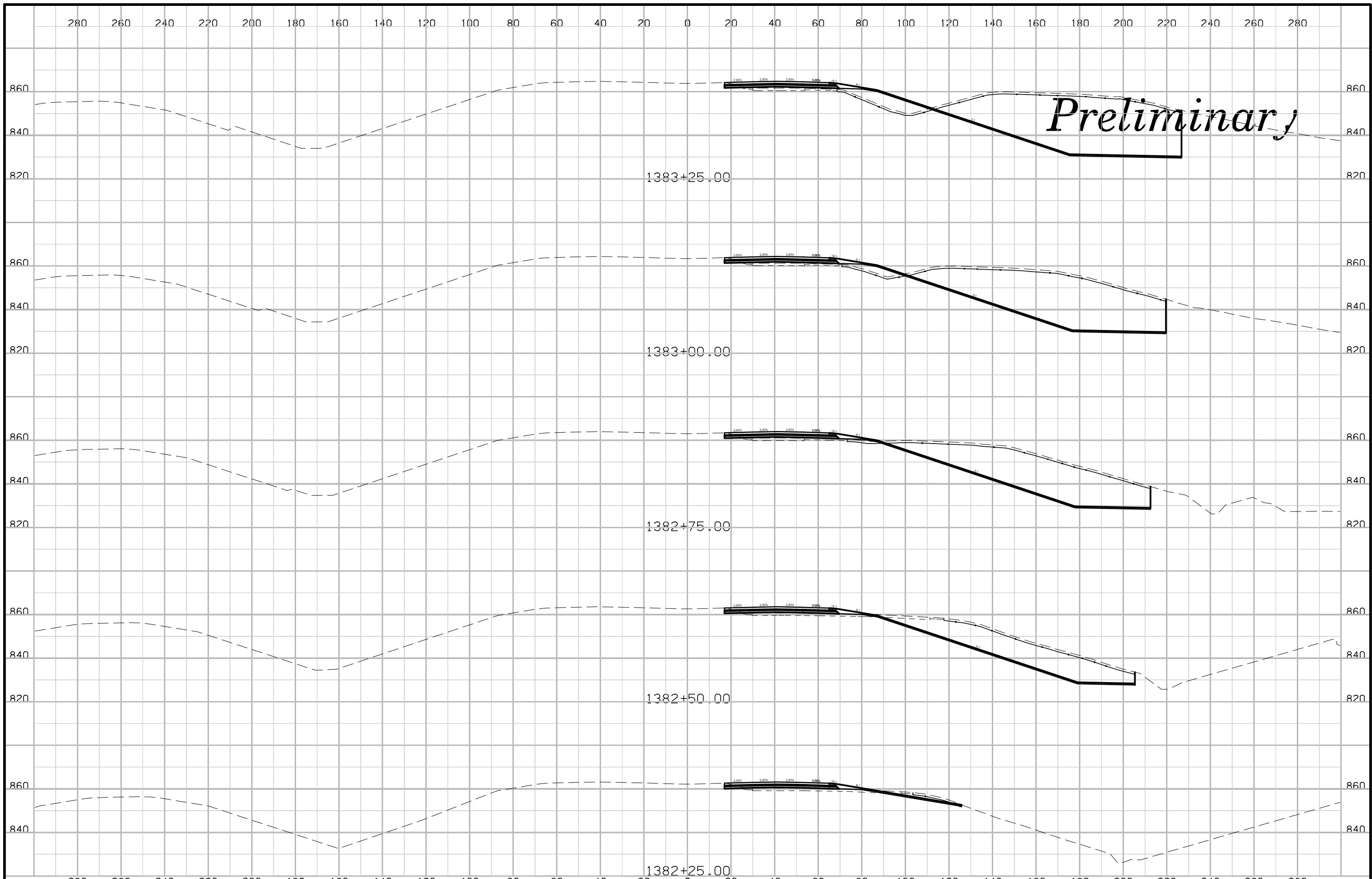
1377+25.00





Preliminary





Preliminary

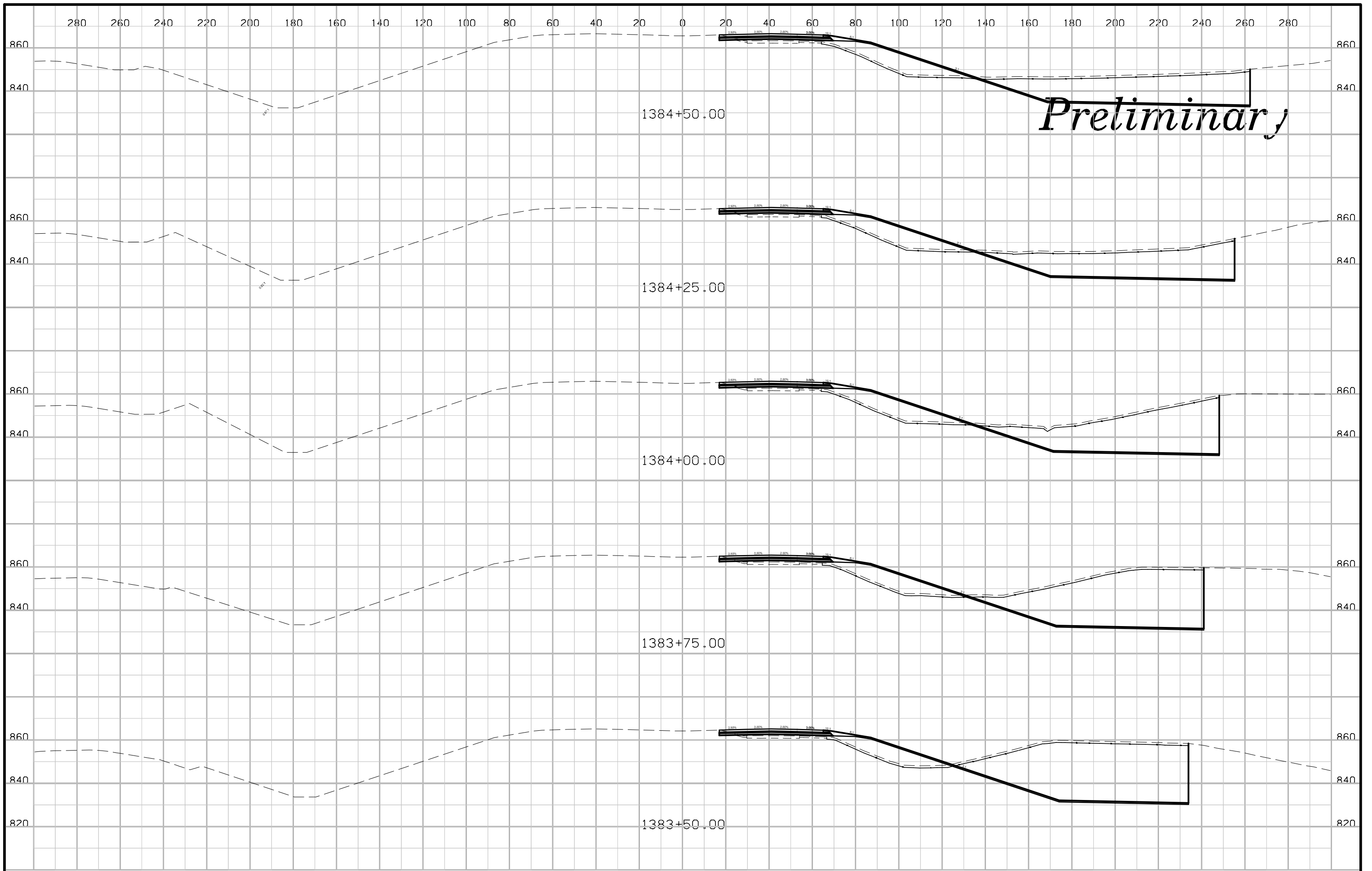
1383+25.00

1383+00.00

1382+75.00

1382+50.00

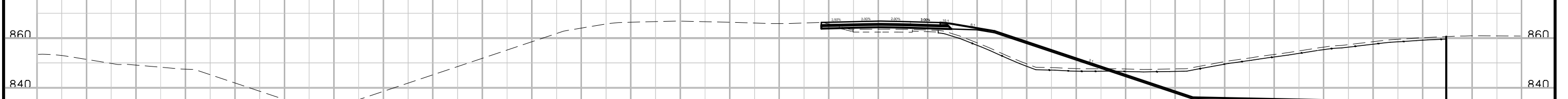
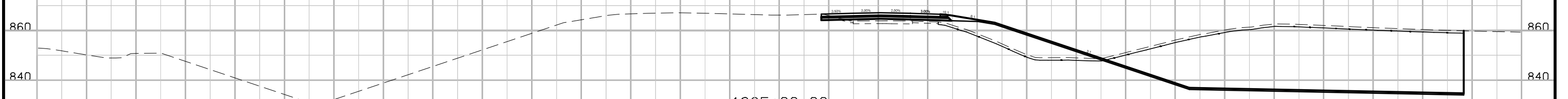
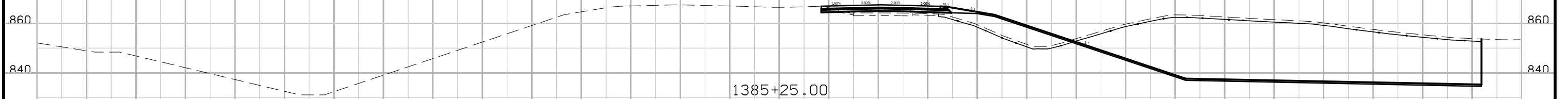
1382+25.00



Preliminary

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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH IOWA DOT

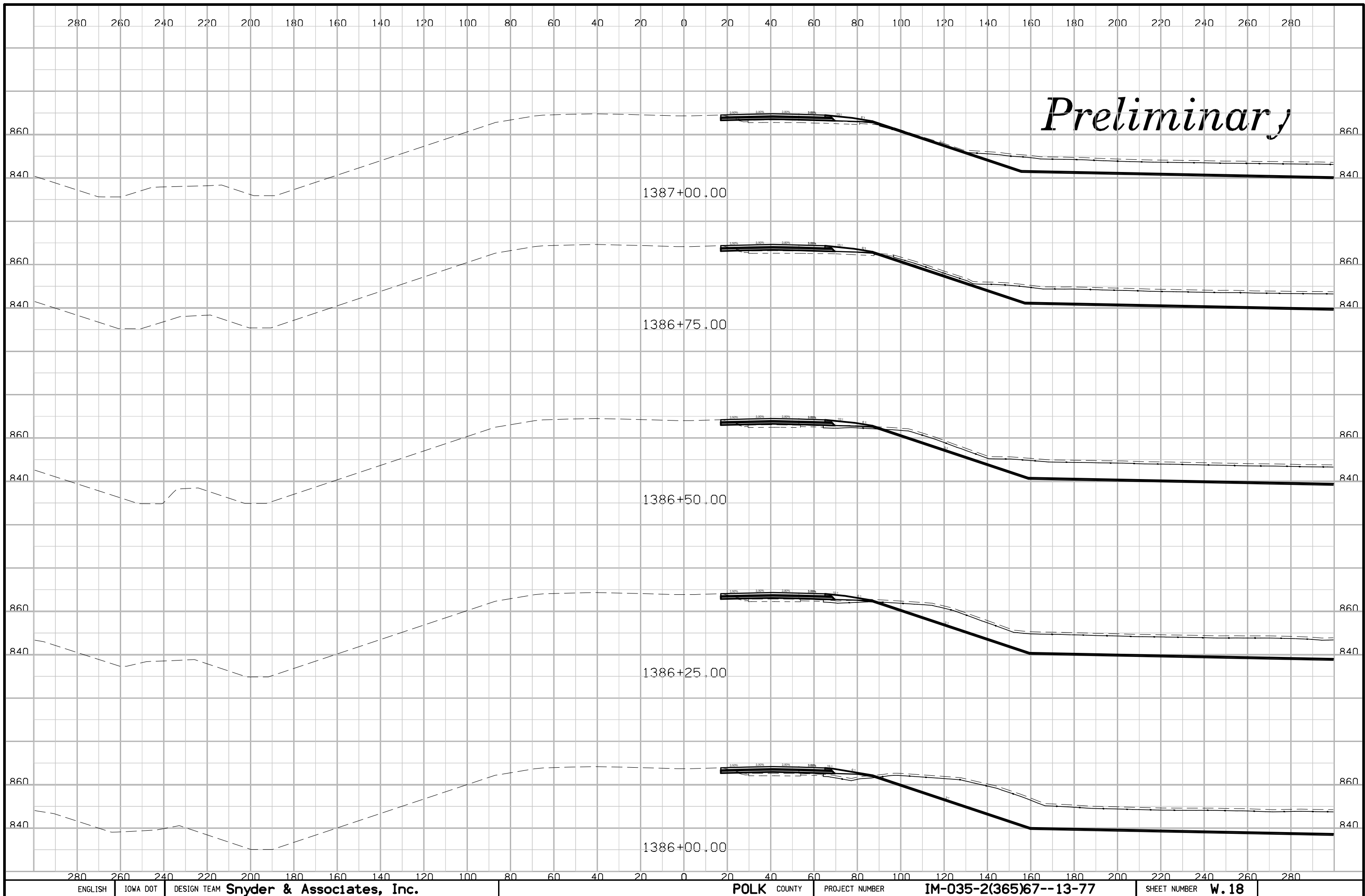
DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.17**



Preliminary

1387+00.00

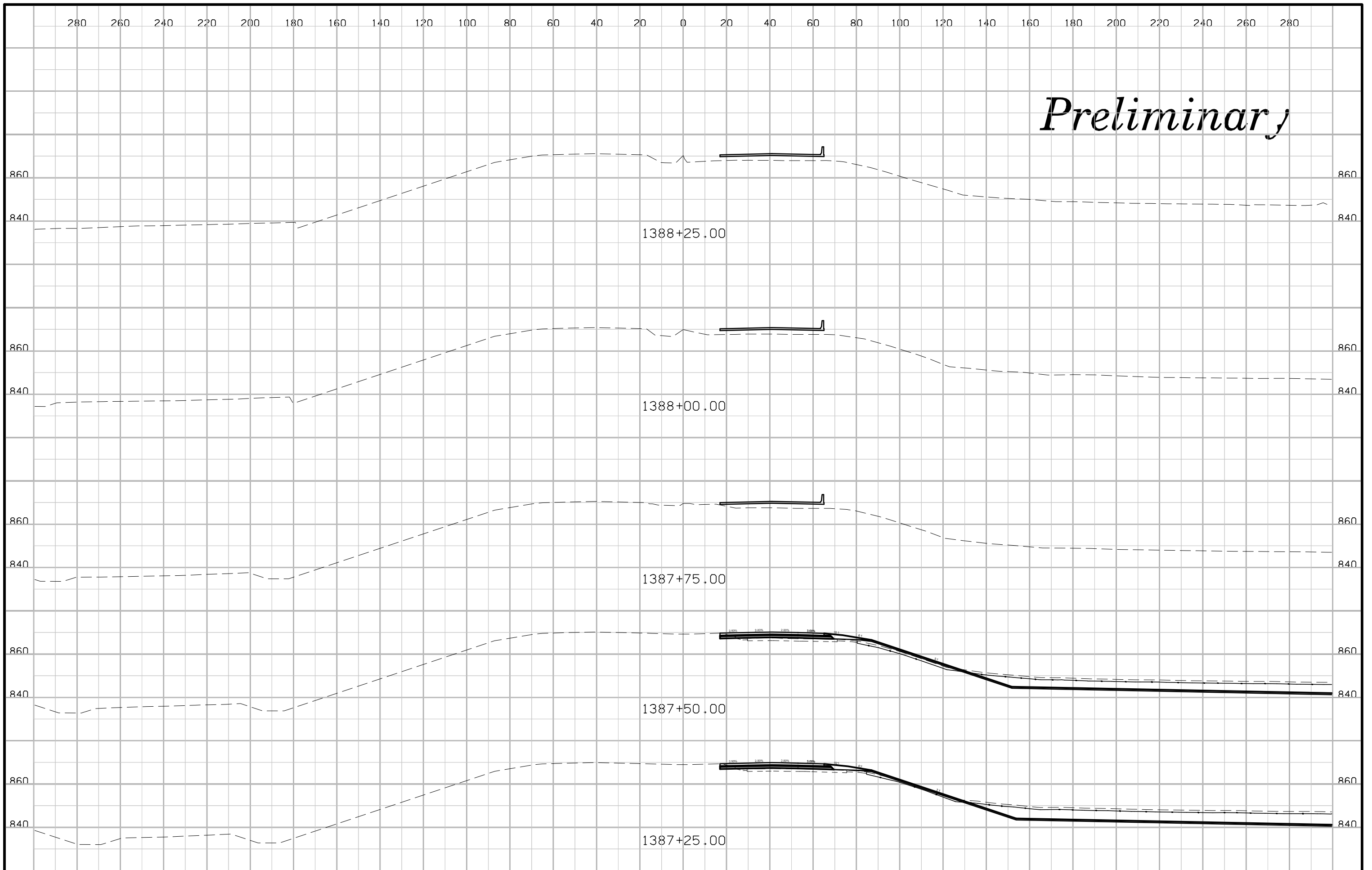
1386+75.00

1386+50.00

1386+25.00

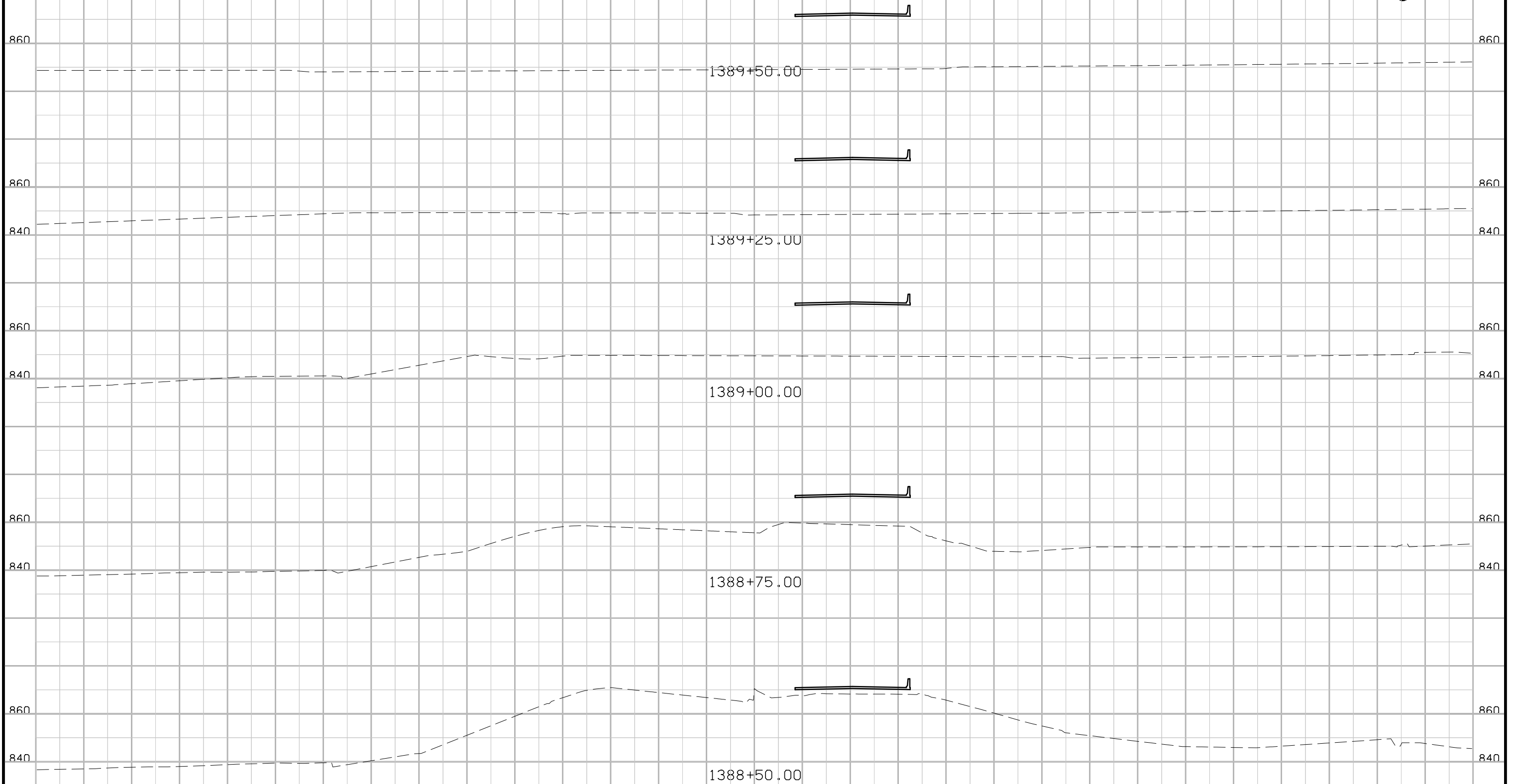
1386+00.00

Preliminary



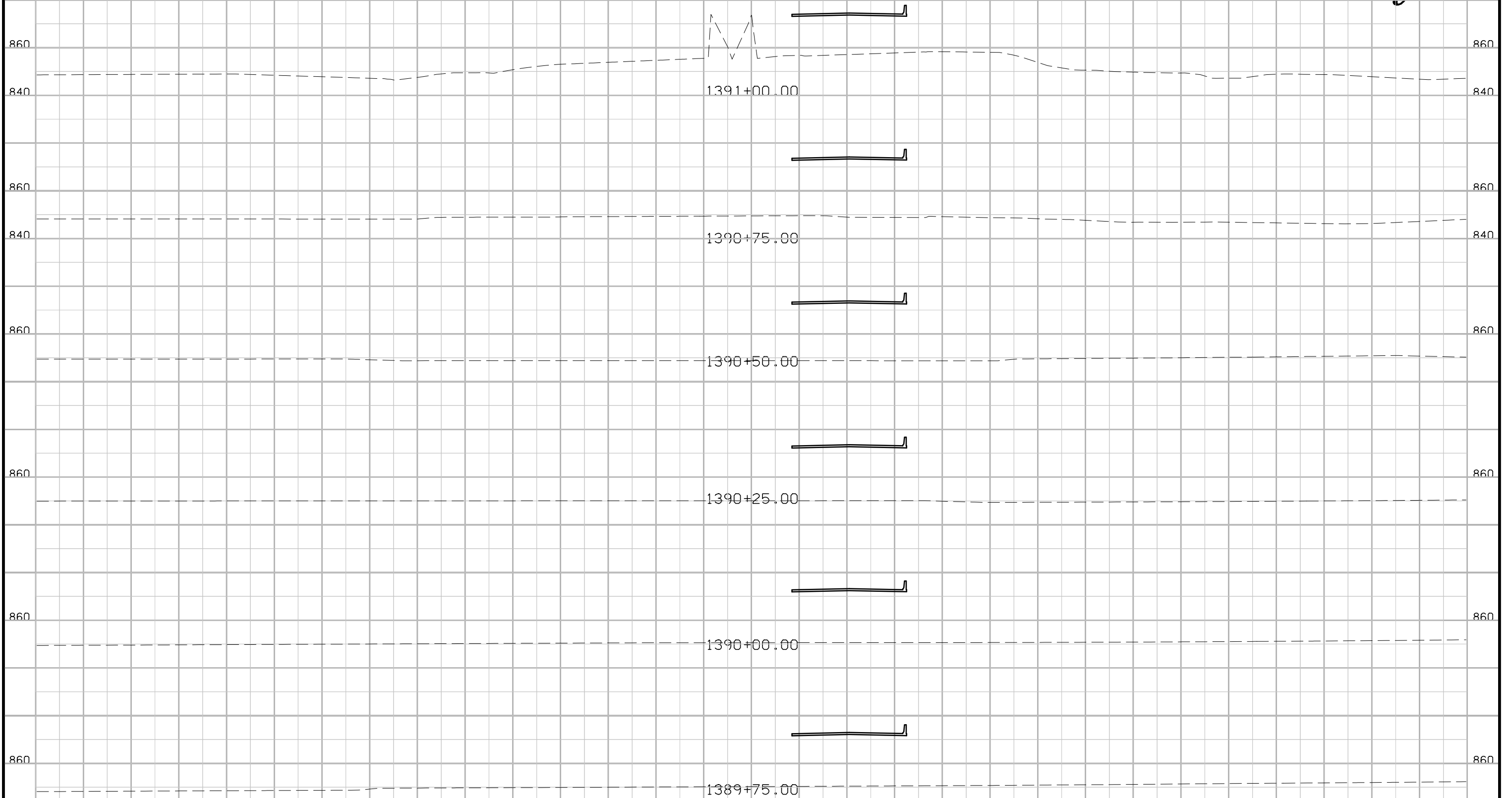
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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

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ENGLISH IOWA DOT

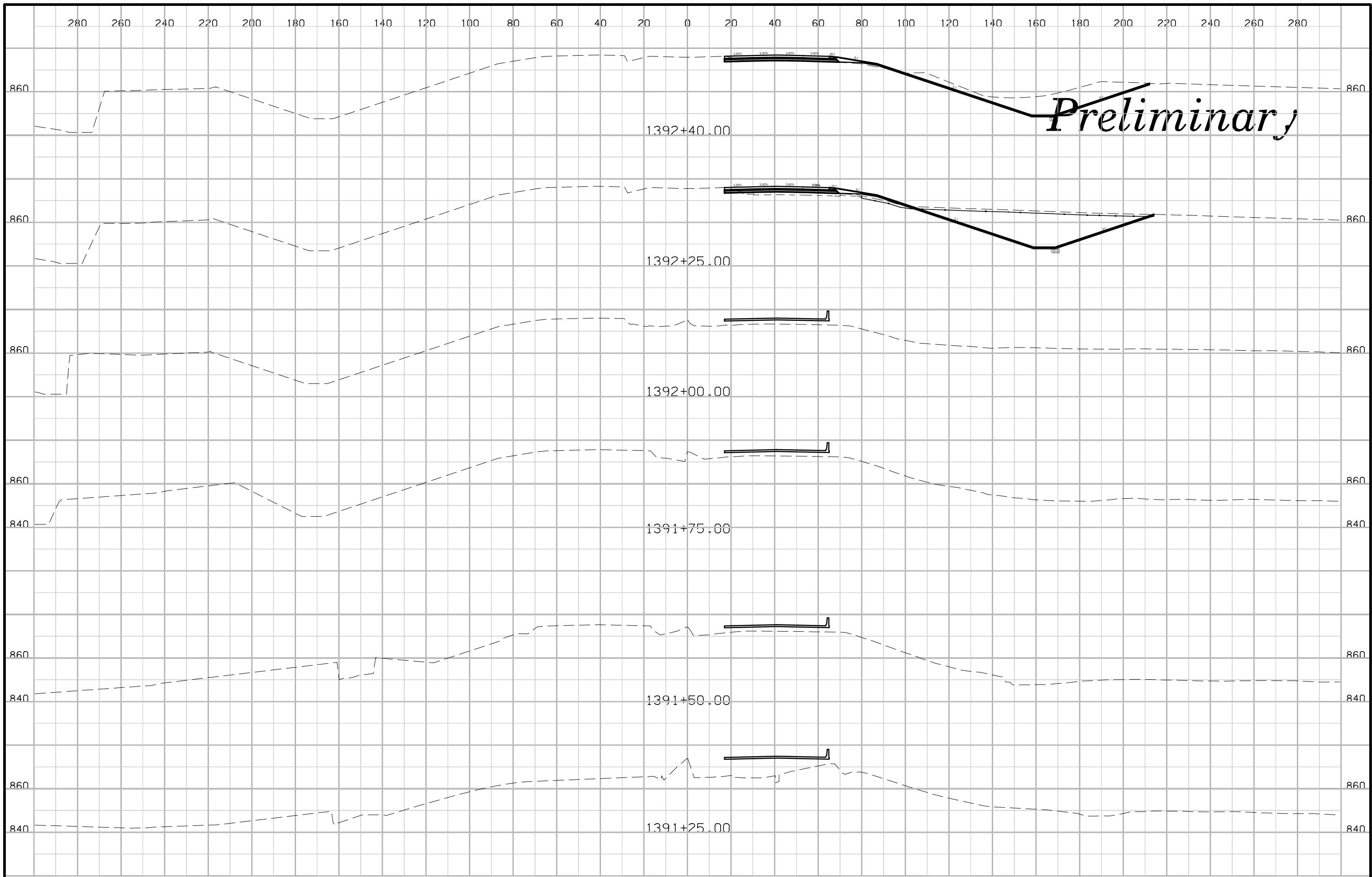
DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.21**



Preliminary

1392+40.00

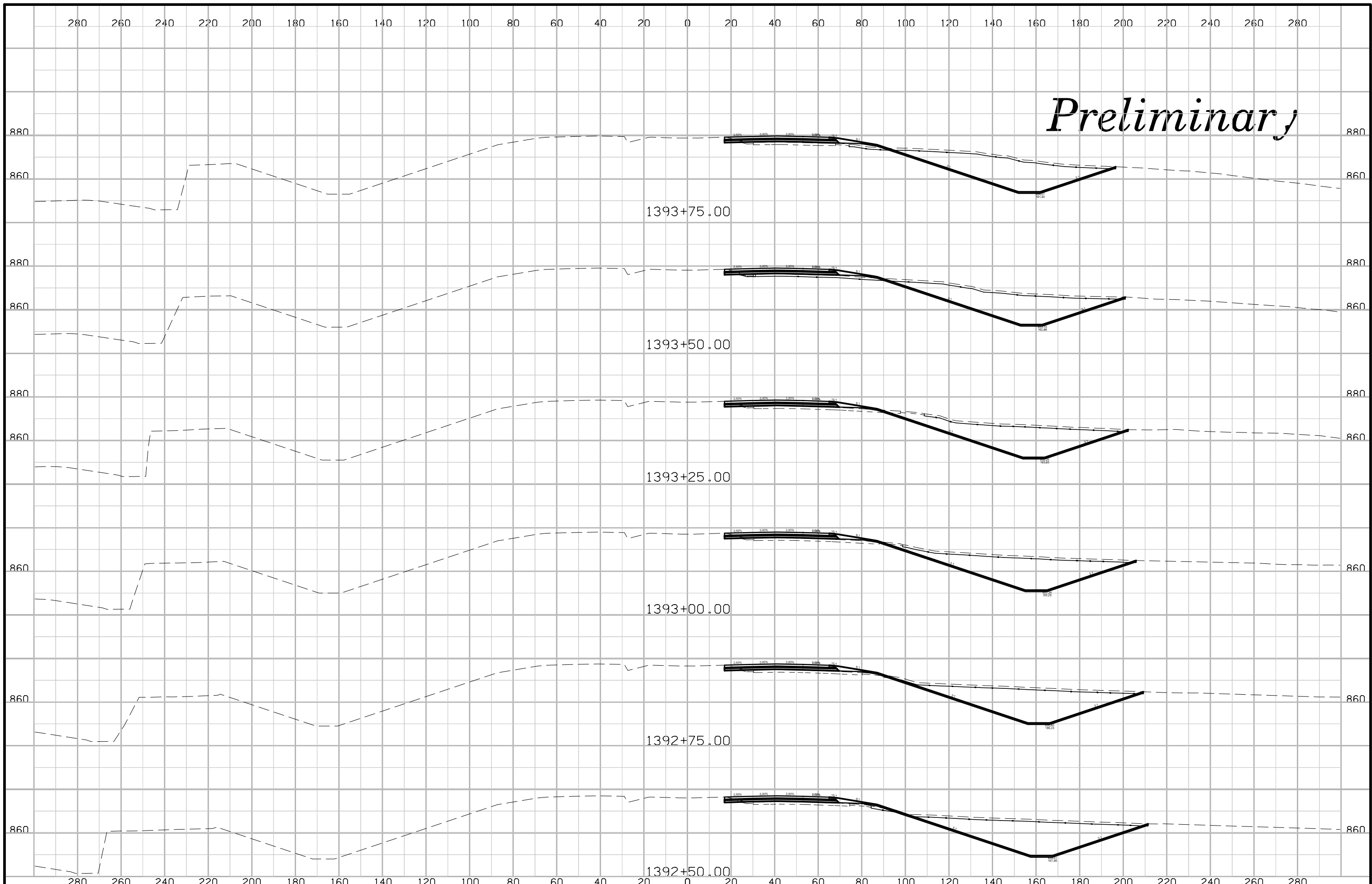
1392+25.00

1392+00.00

1391+75.00

1391+50.00

1391+25.00



Preliminary

1393+75.00

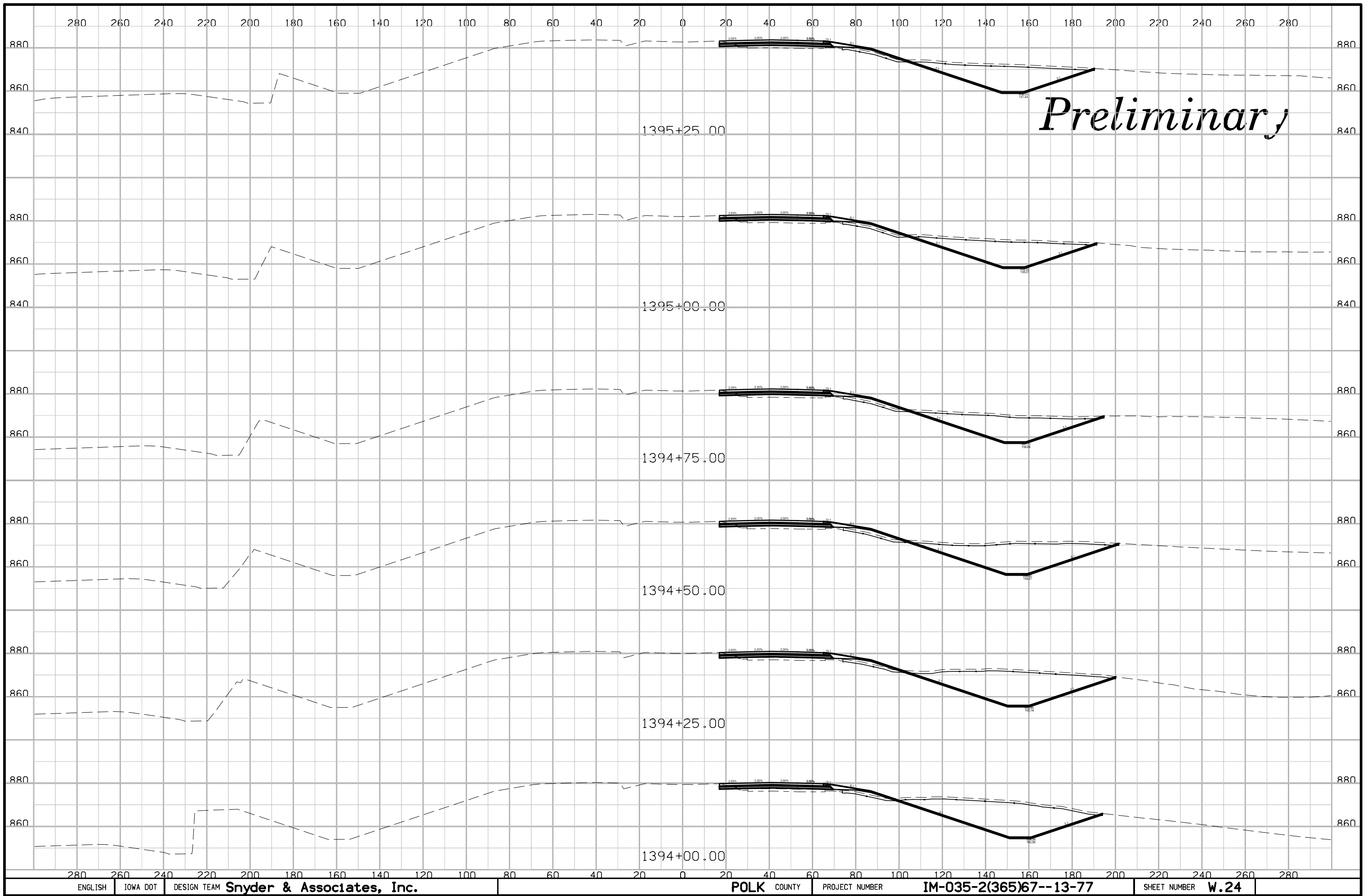
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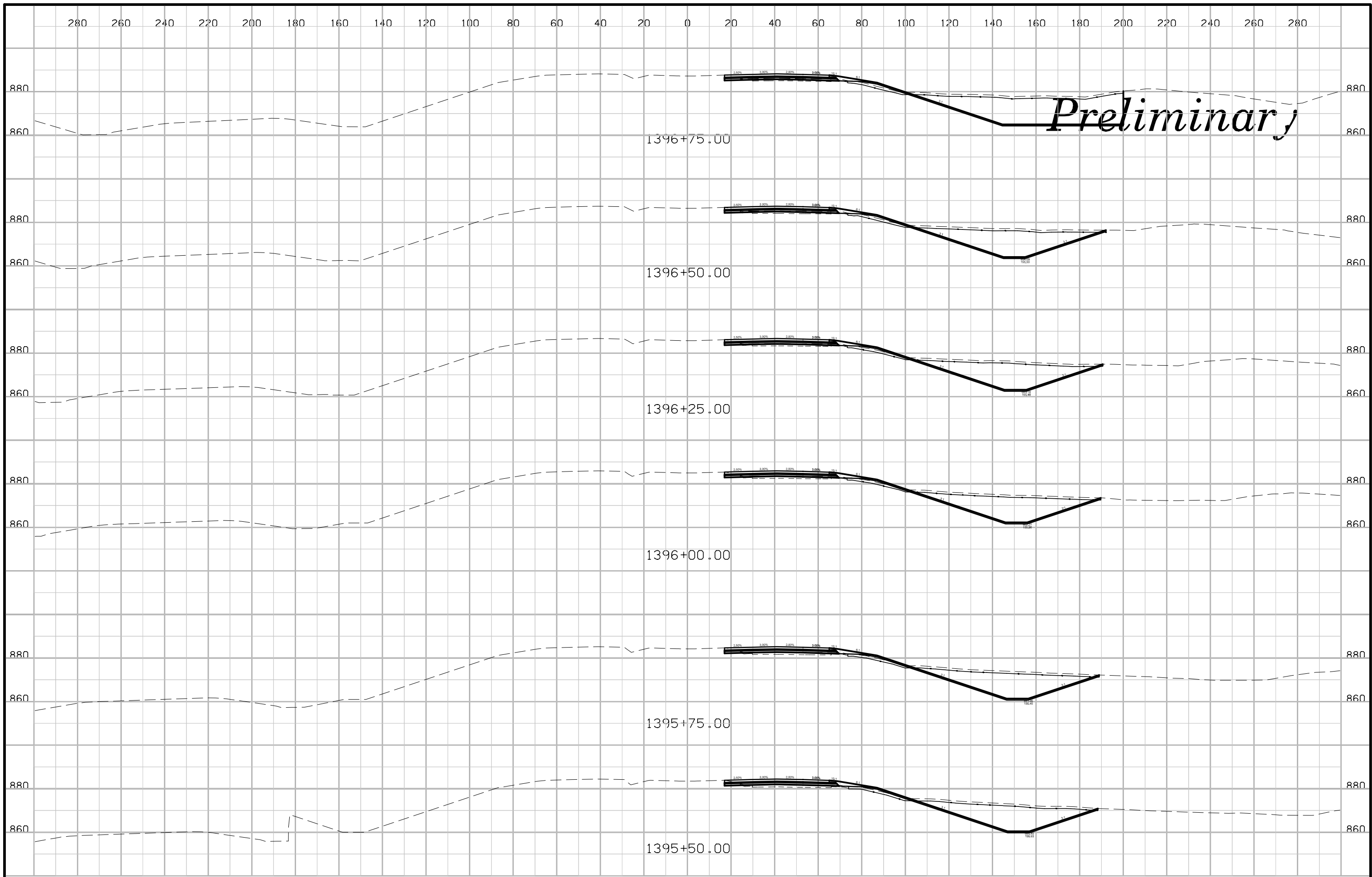
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1393+00.00

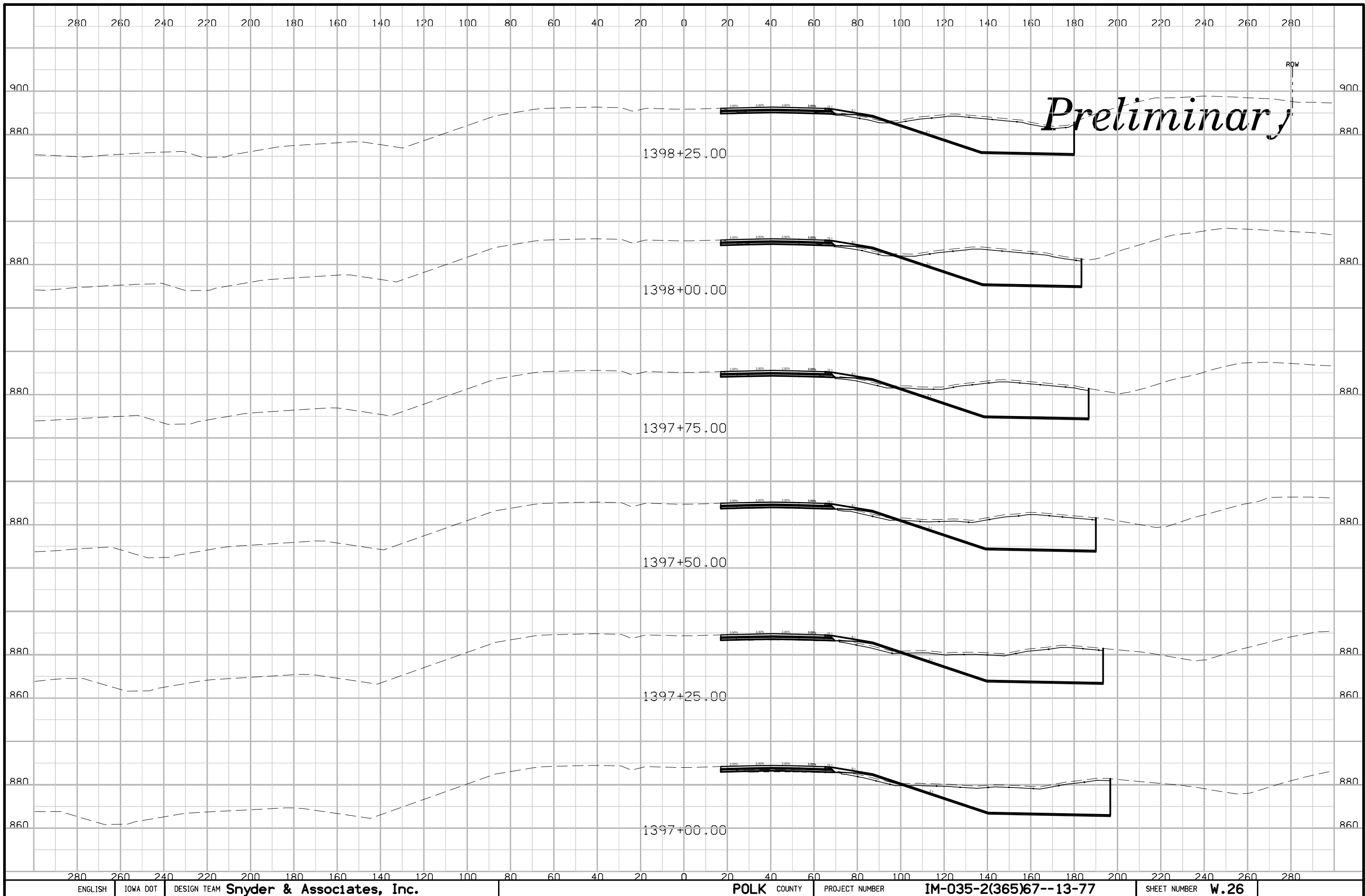
1392+75.00

1392+50.00





Preliminary



Preliminary

1398+25.00

1398+00.00

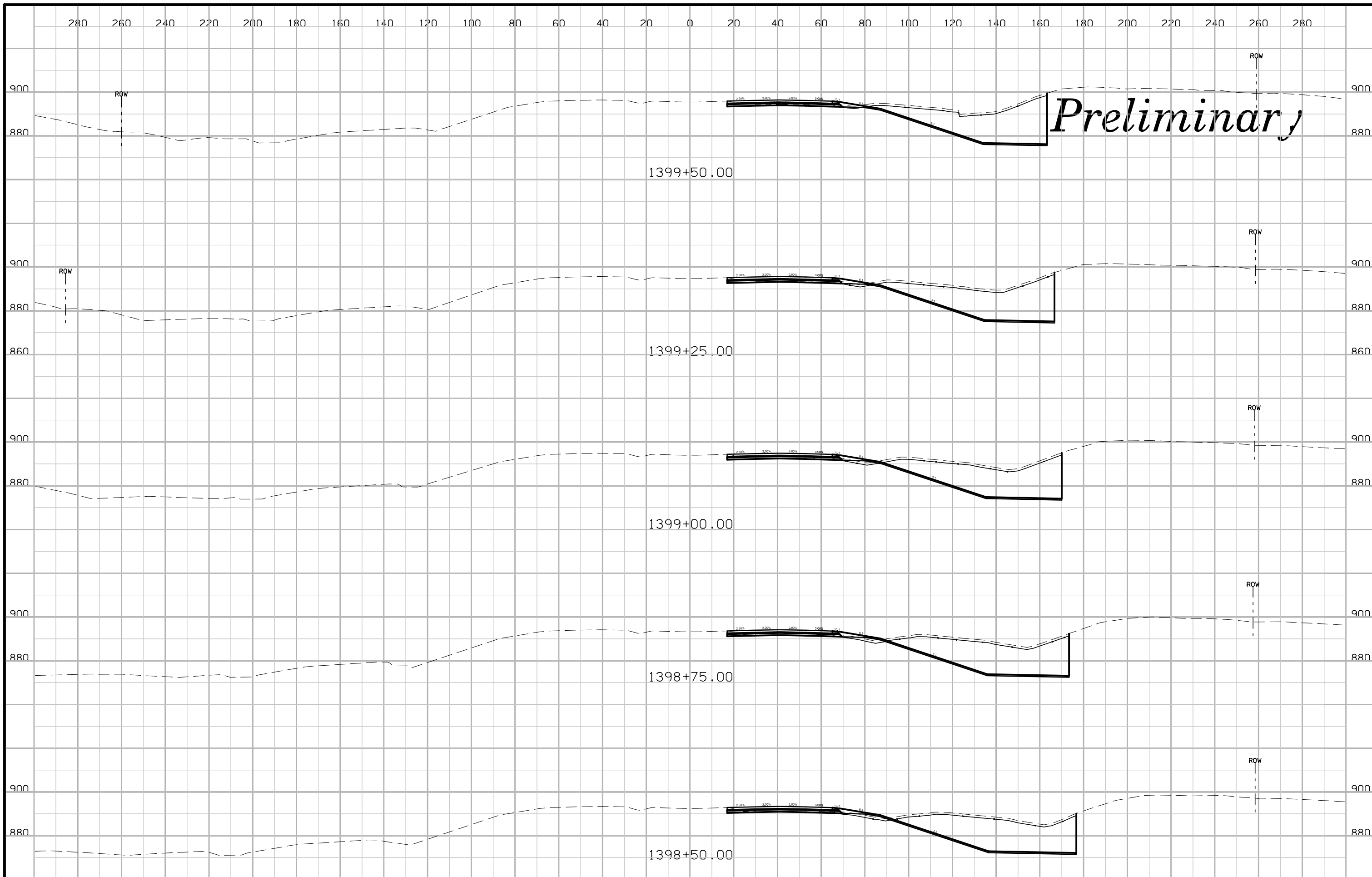
1397+75.00

1397+50.00

1397+25.00

1397+00.00

ROW



Preliminary

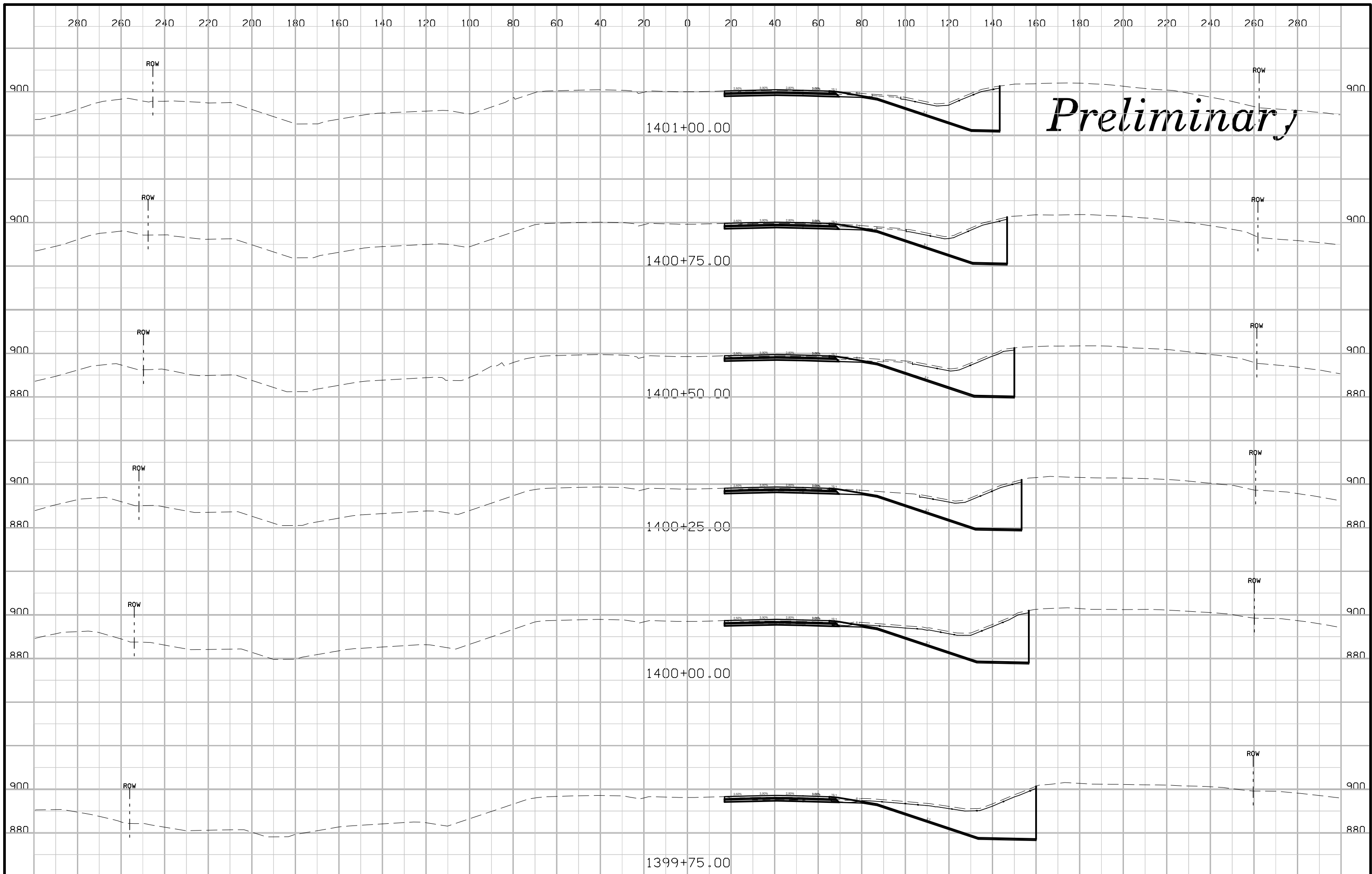
1399+50.00

1399+25.00

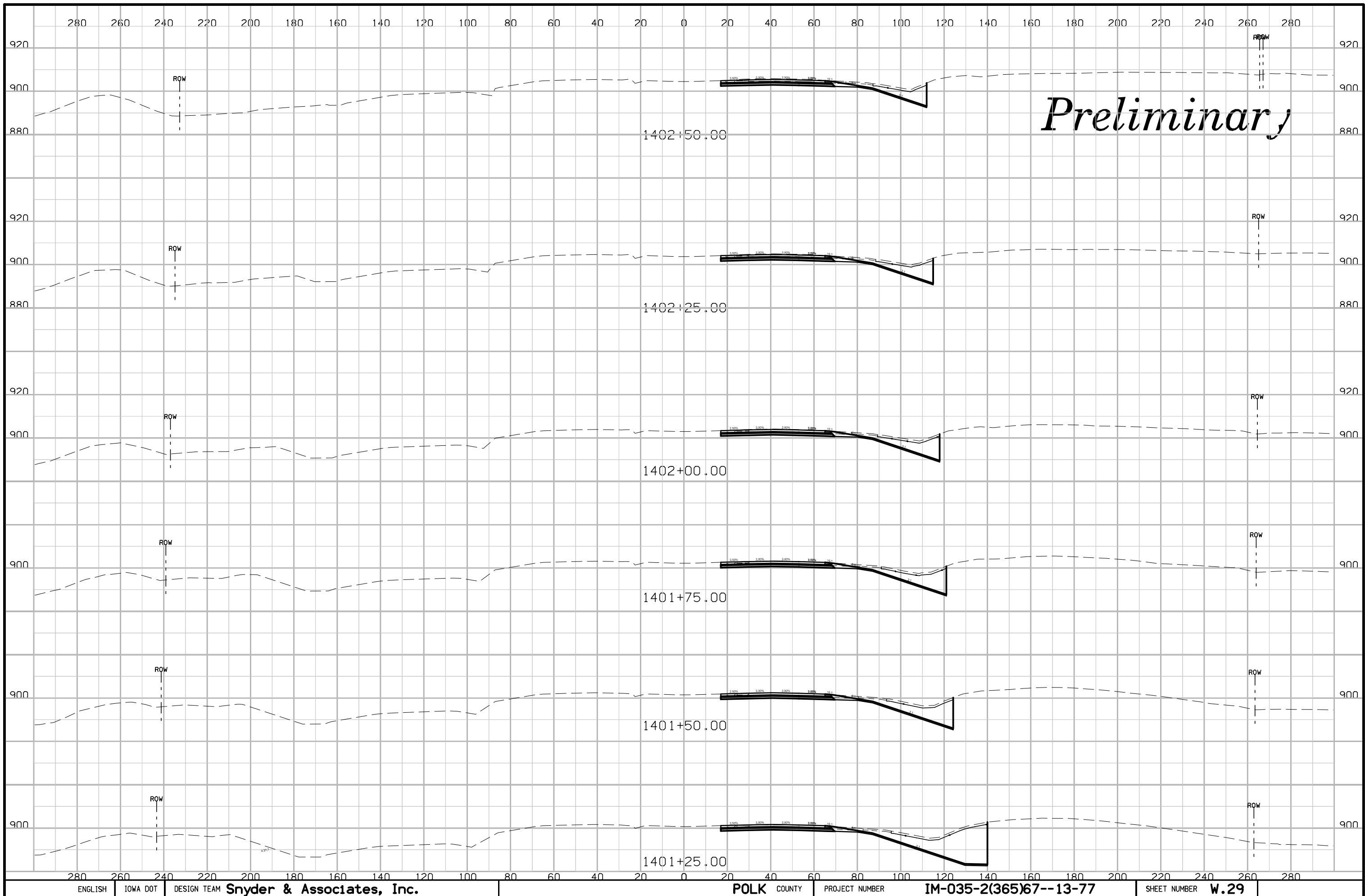
1399+00.00

1398+75.00

1398+50.00



Preliminary



Preliminary

1402+50.00

1402+25.00

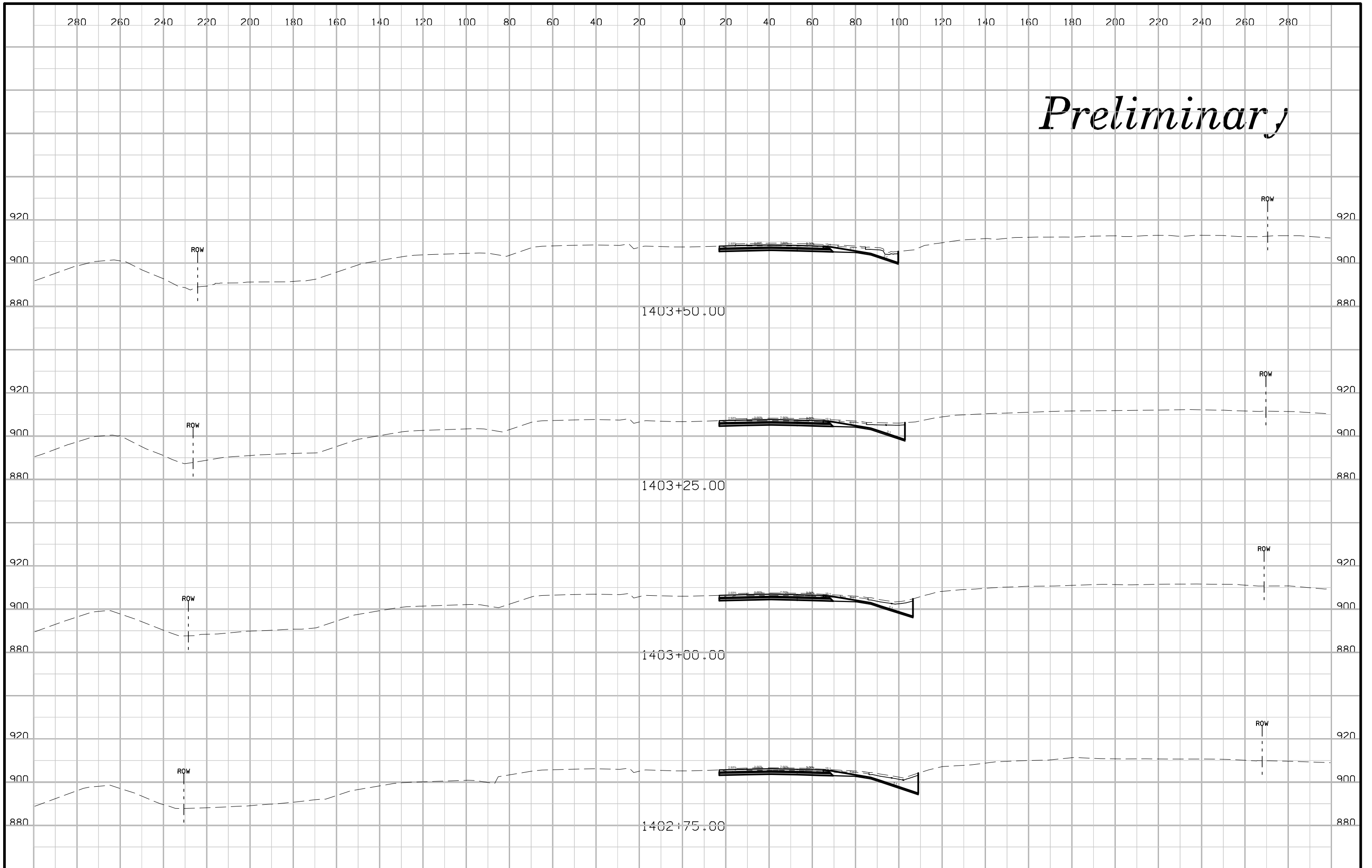
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1401+75.00

1401+50.00

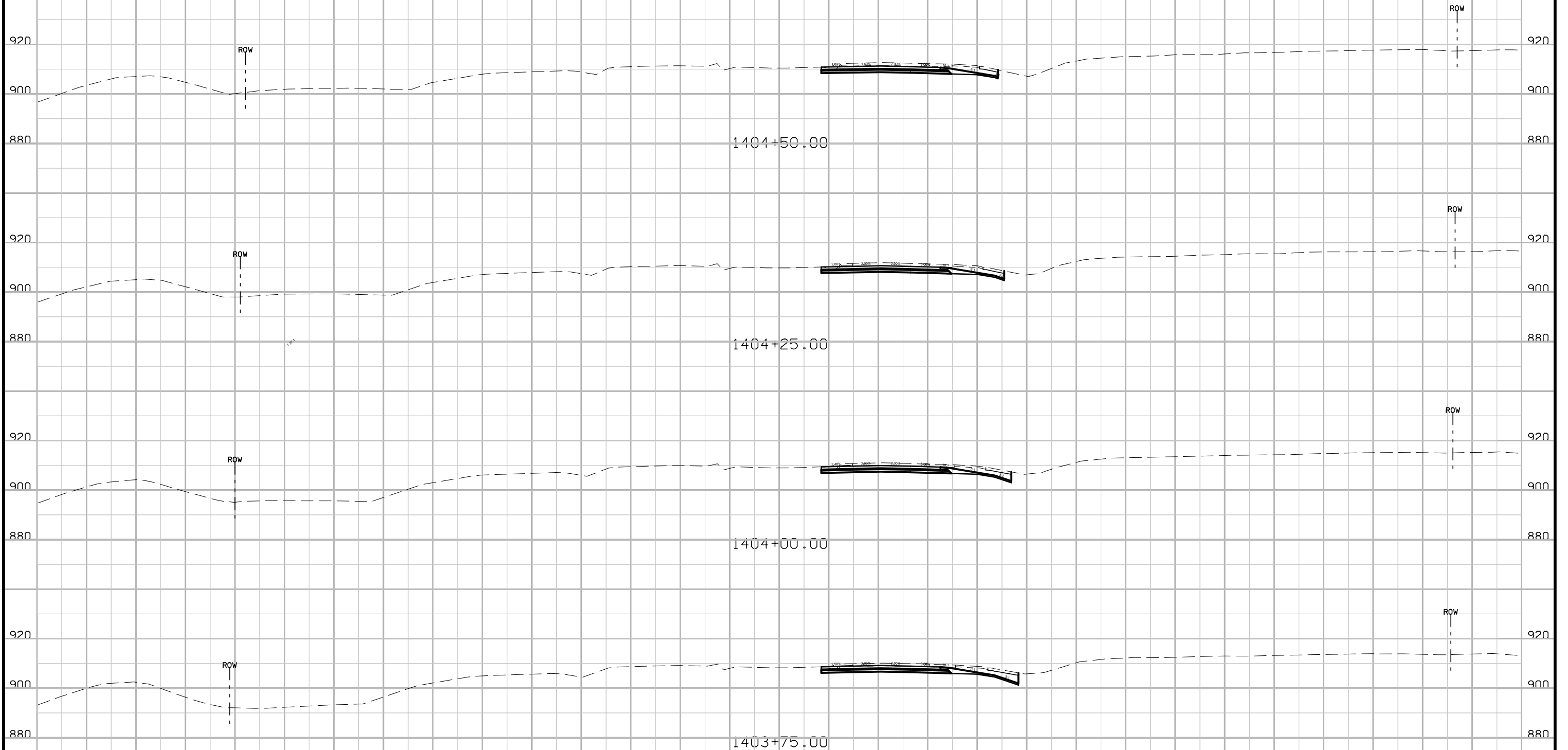
1401+25.00

Preliminary



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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

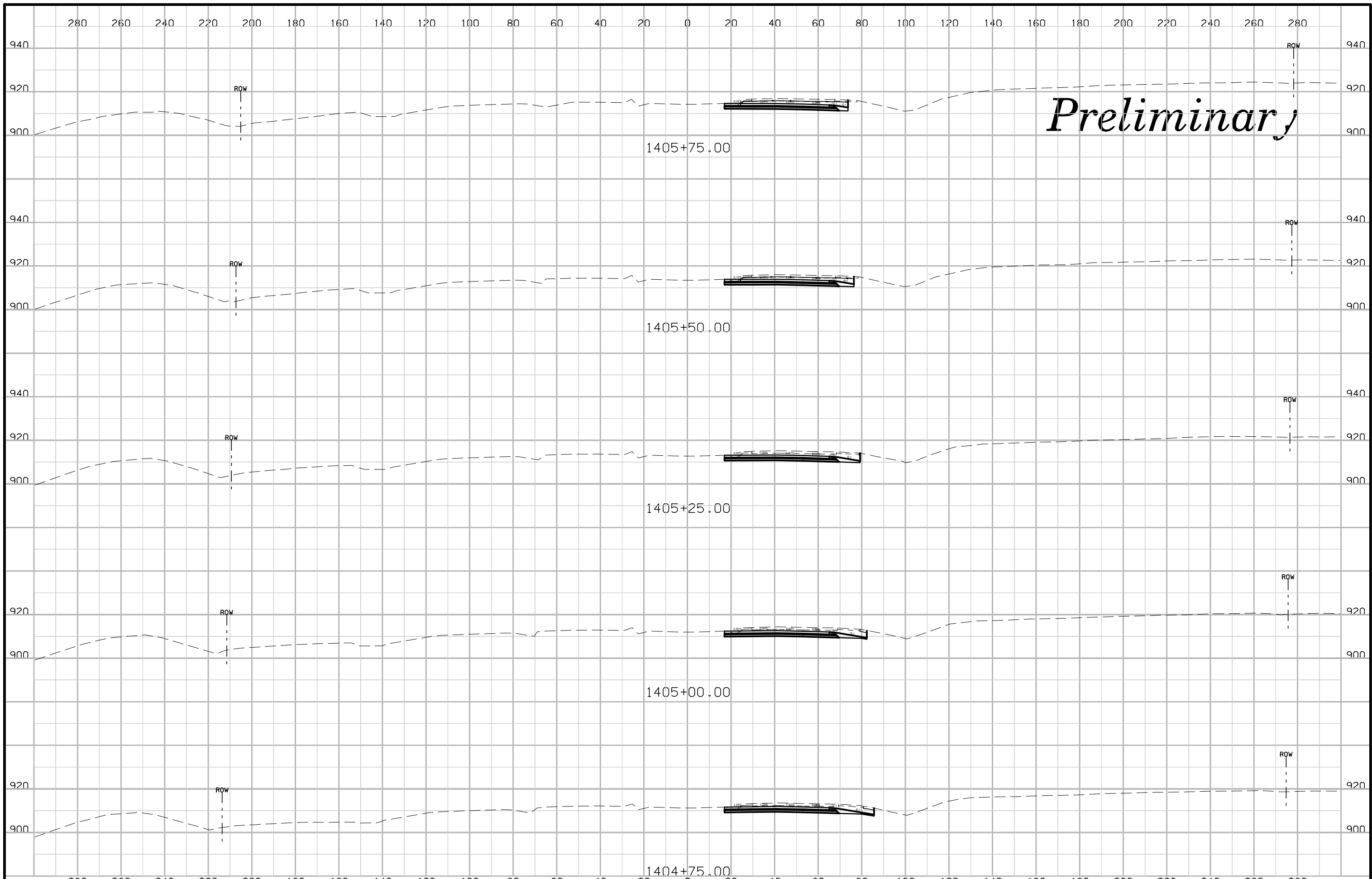
ENGLISH IOWA DOT DESIGN TEAM **Snyder & Associates, Inc.**

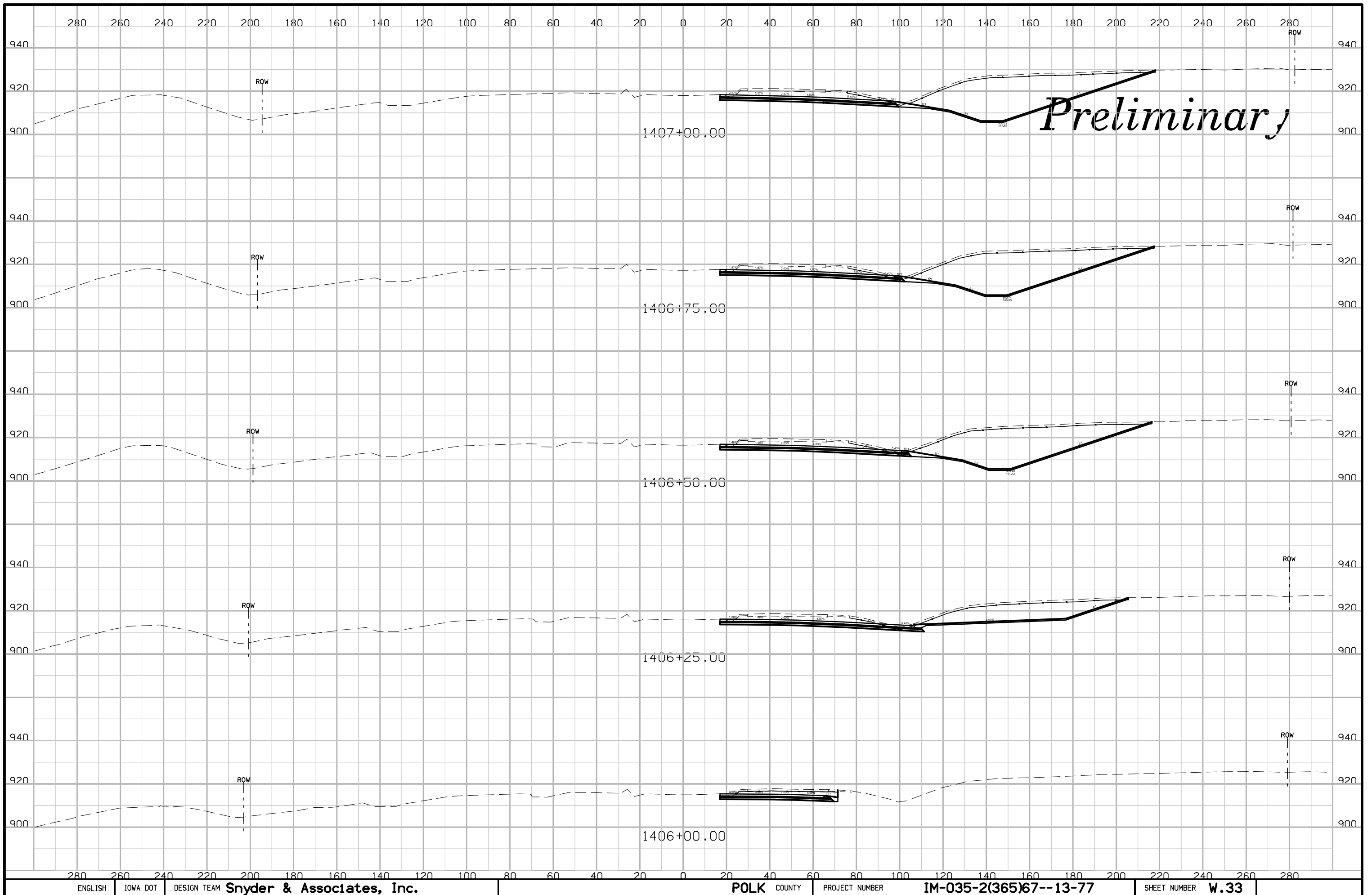
POLK COUNTY

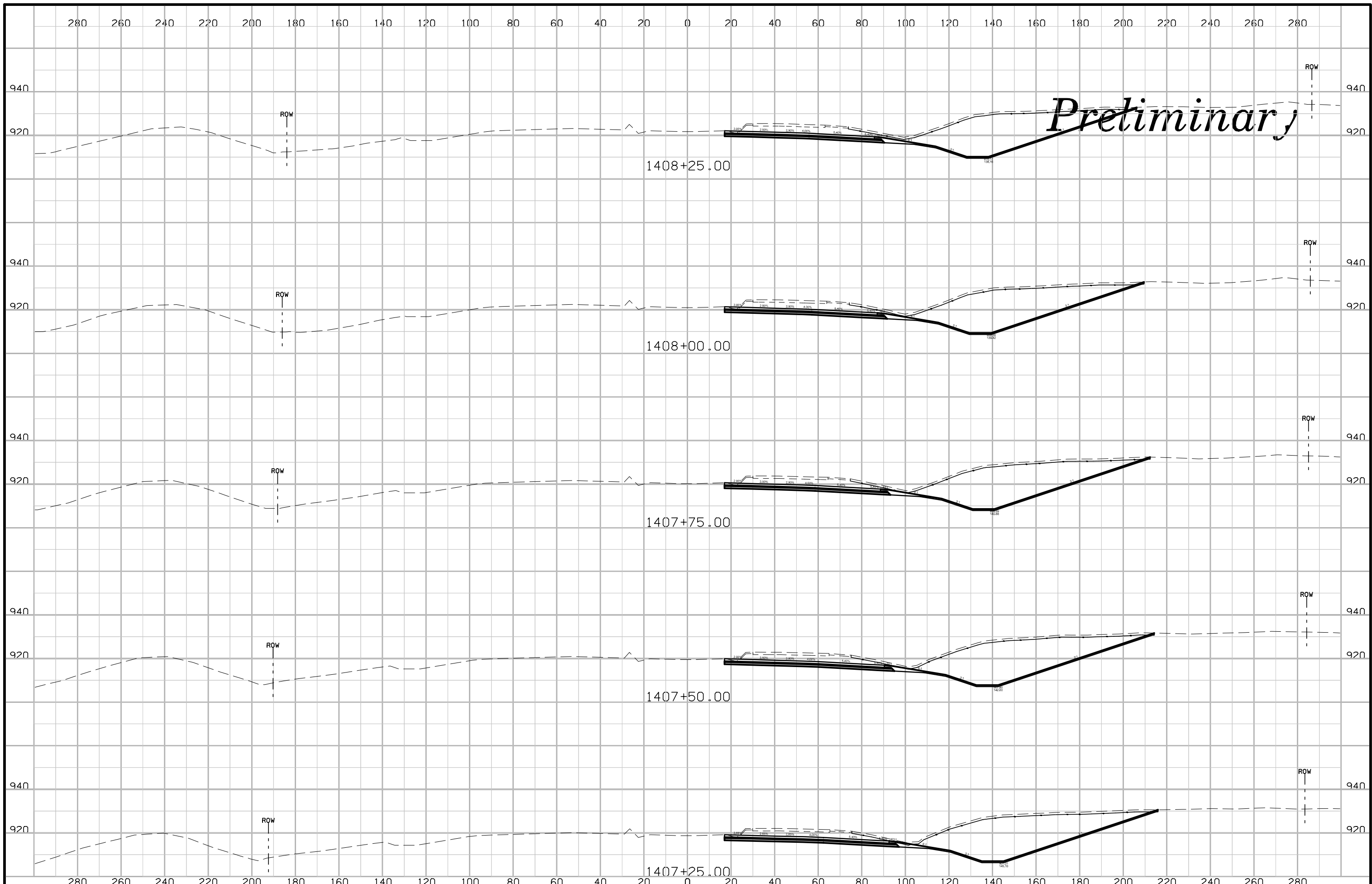
PROJECT NUMBER

IM-035-2(365)67--13-77

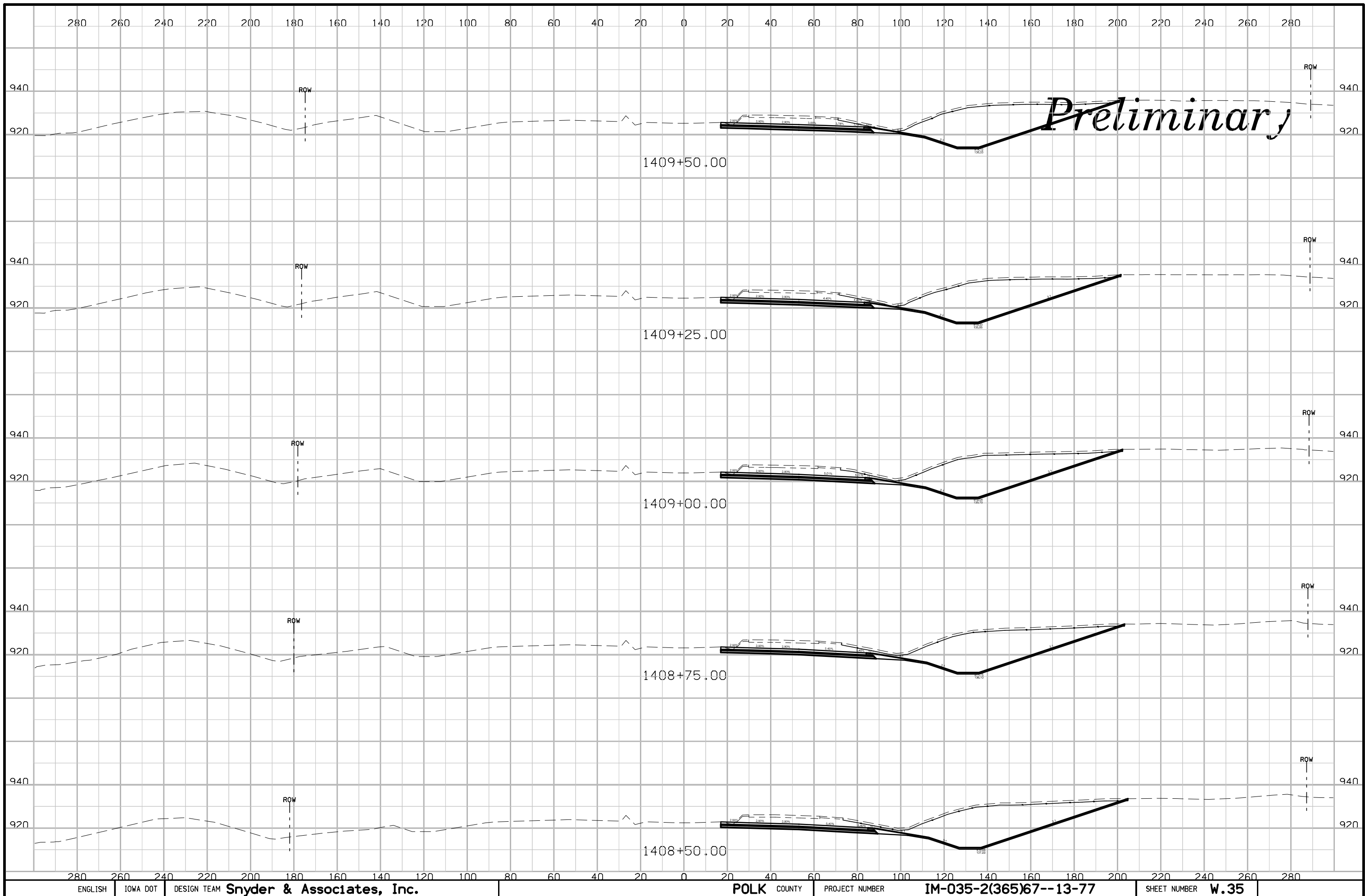
SHEET NUMBER **W.31**

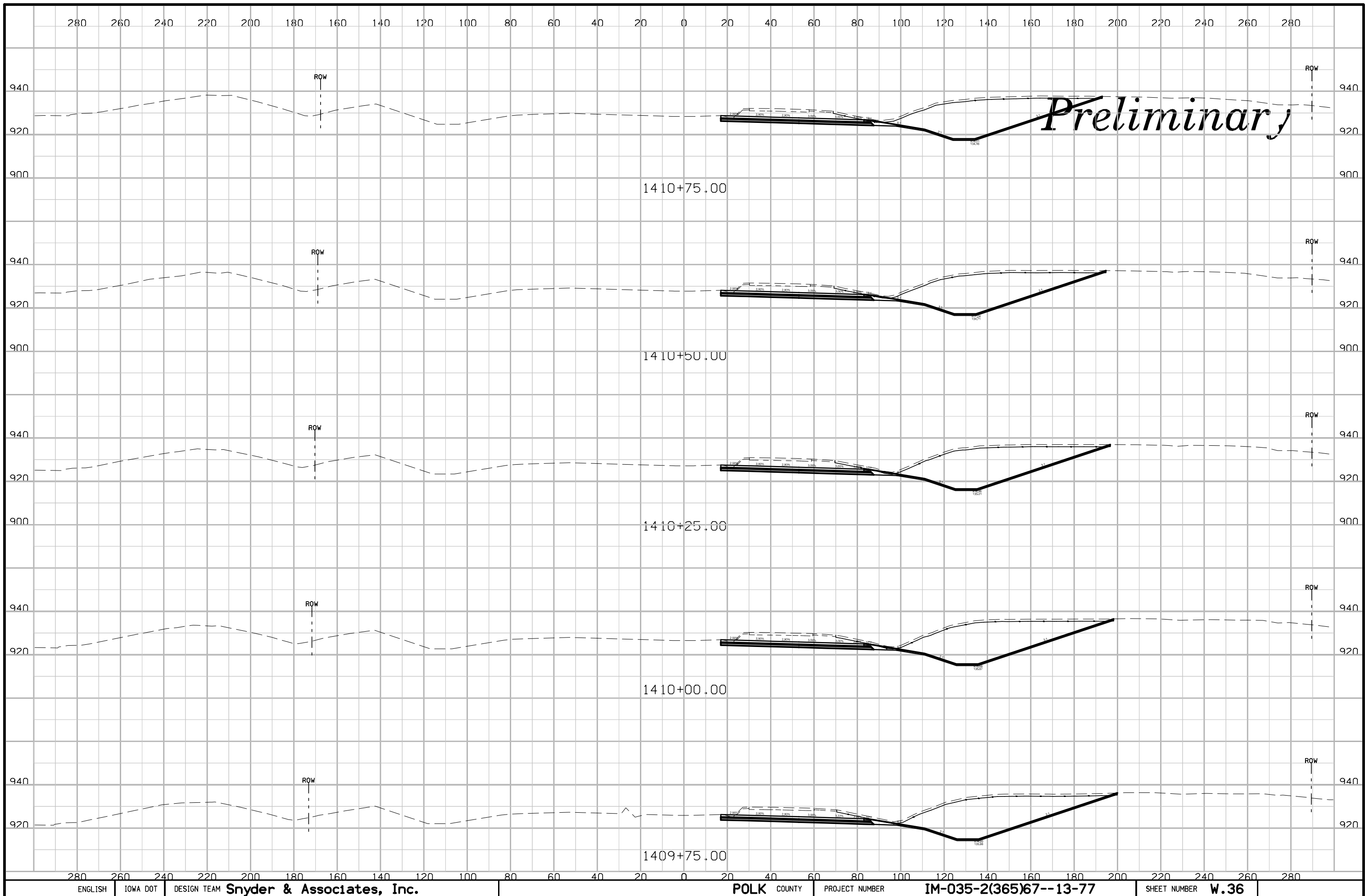


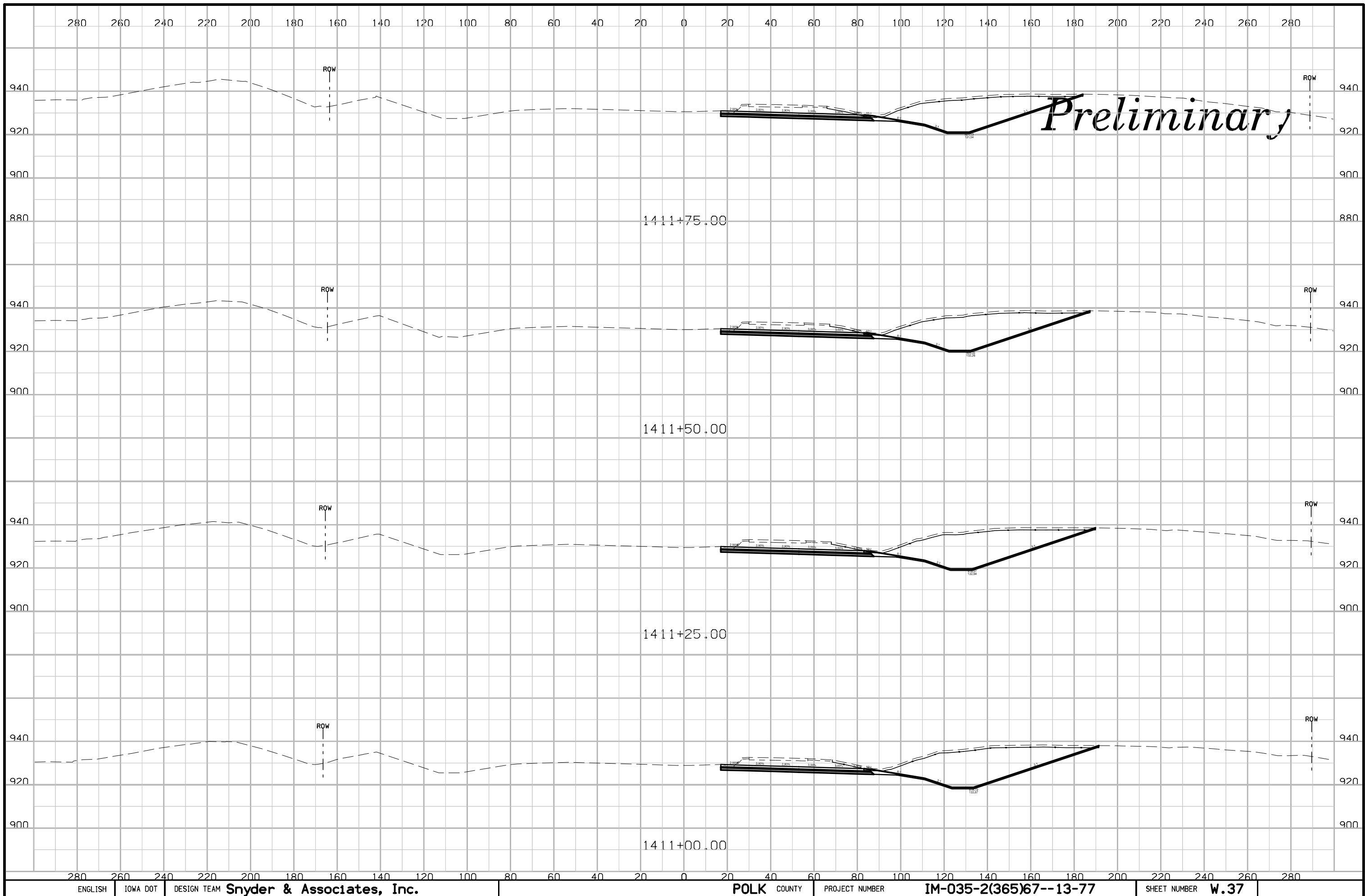




Preliminary

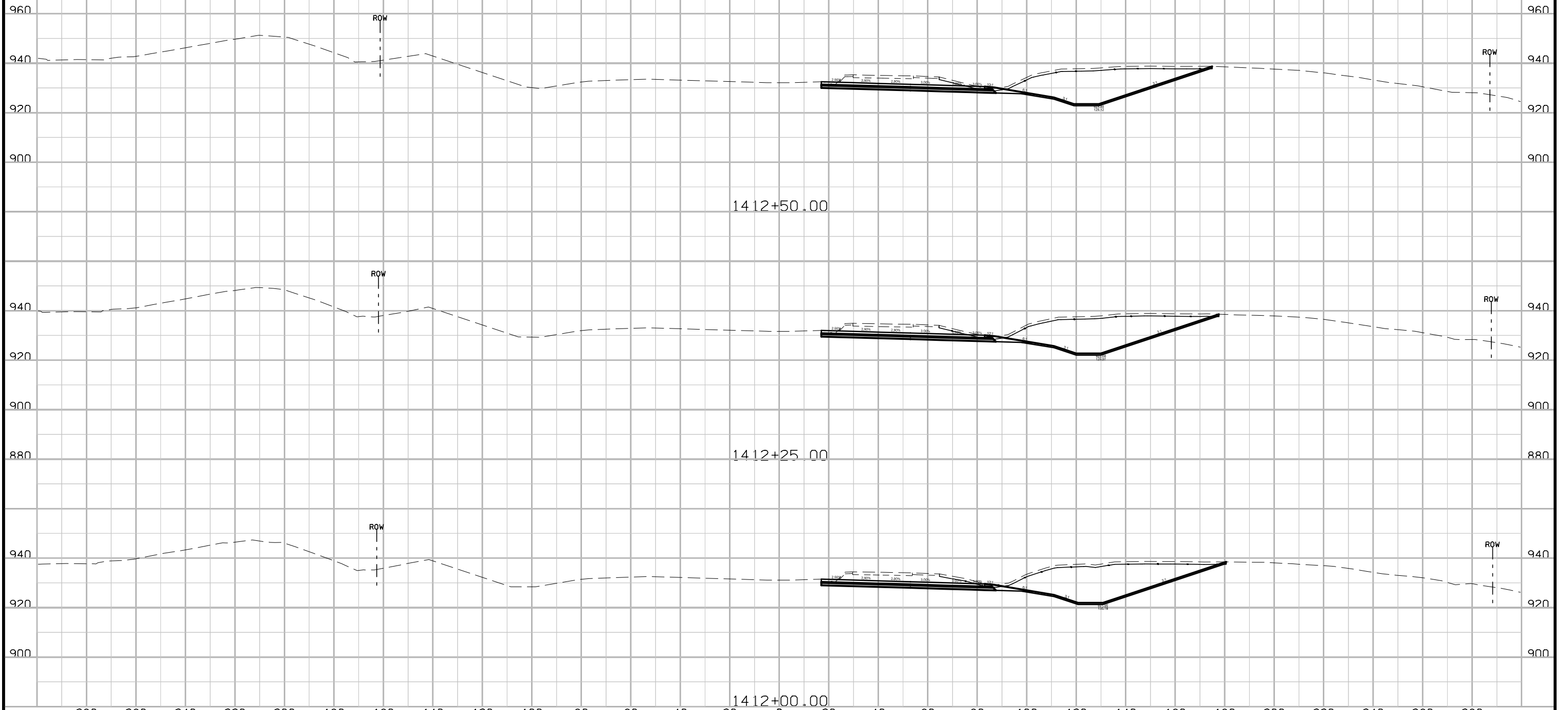






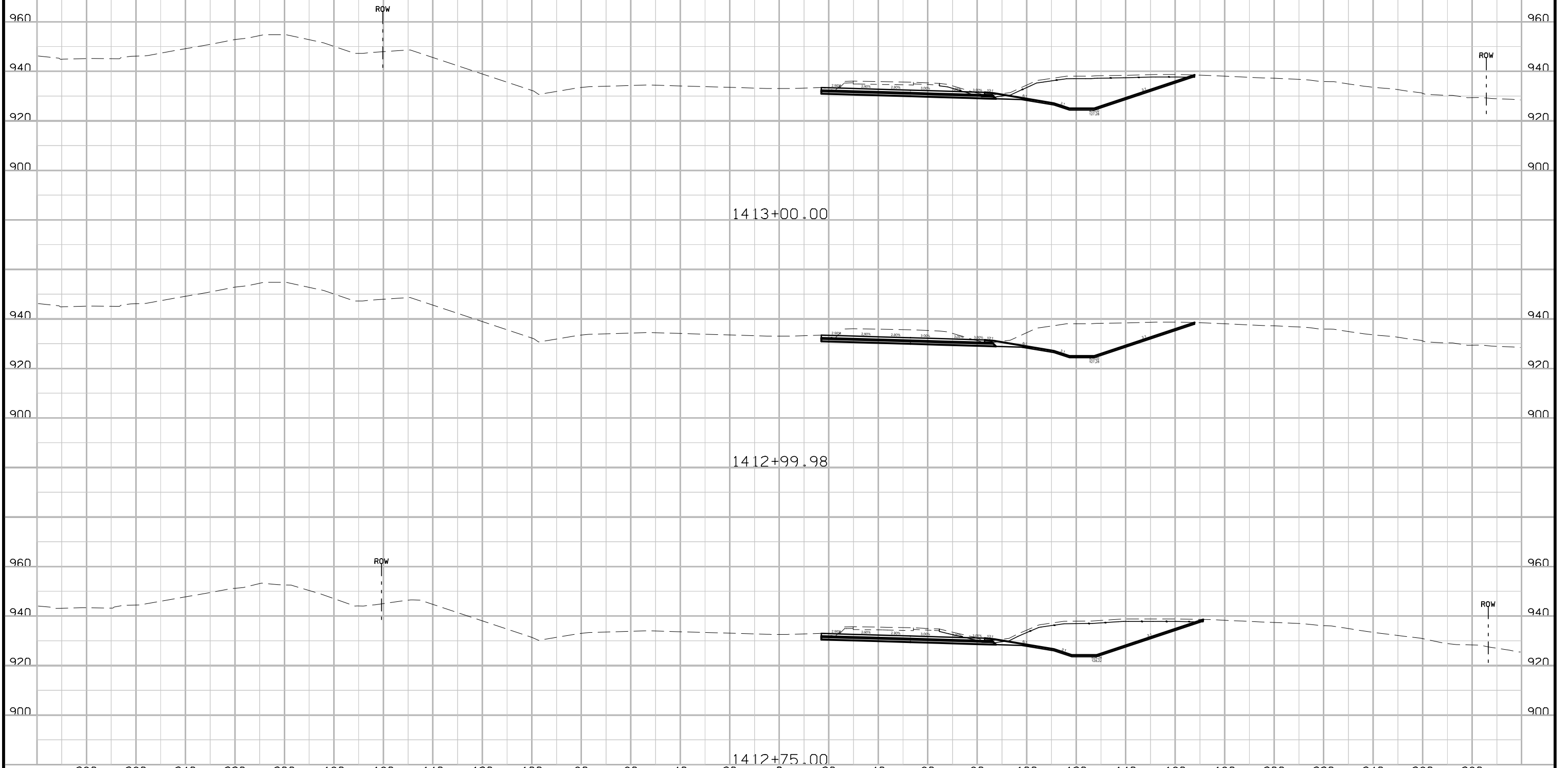
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Preliminary

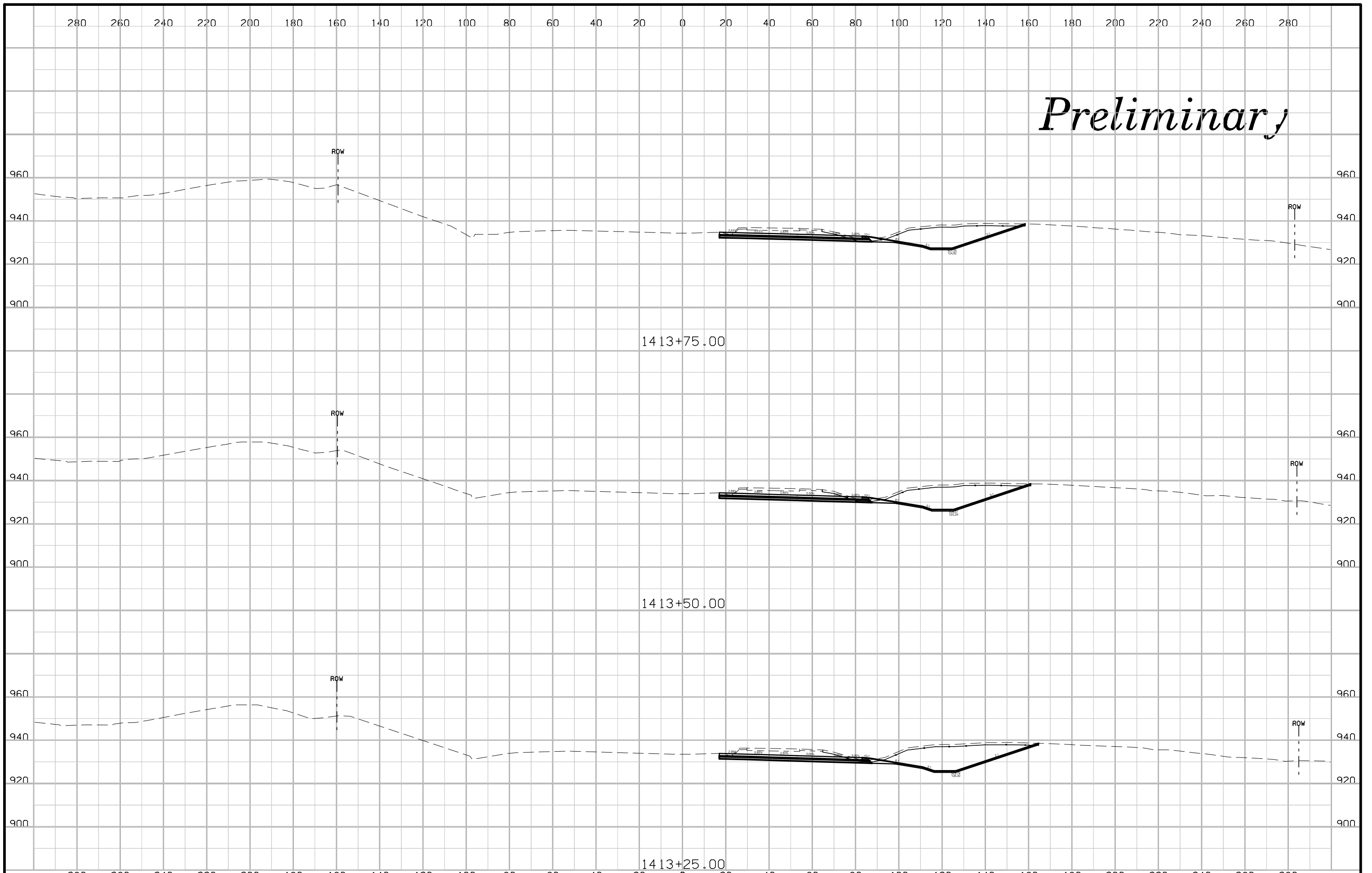


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Preliminary

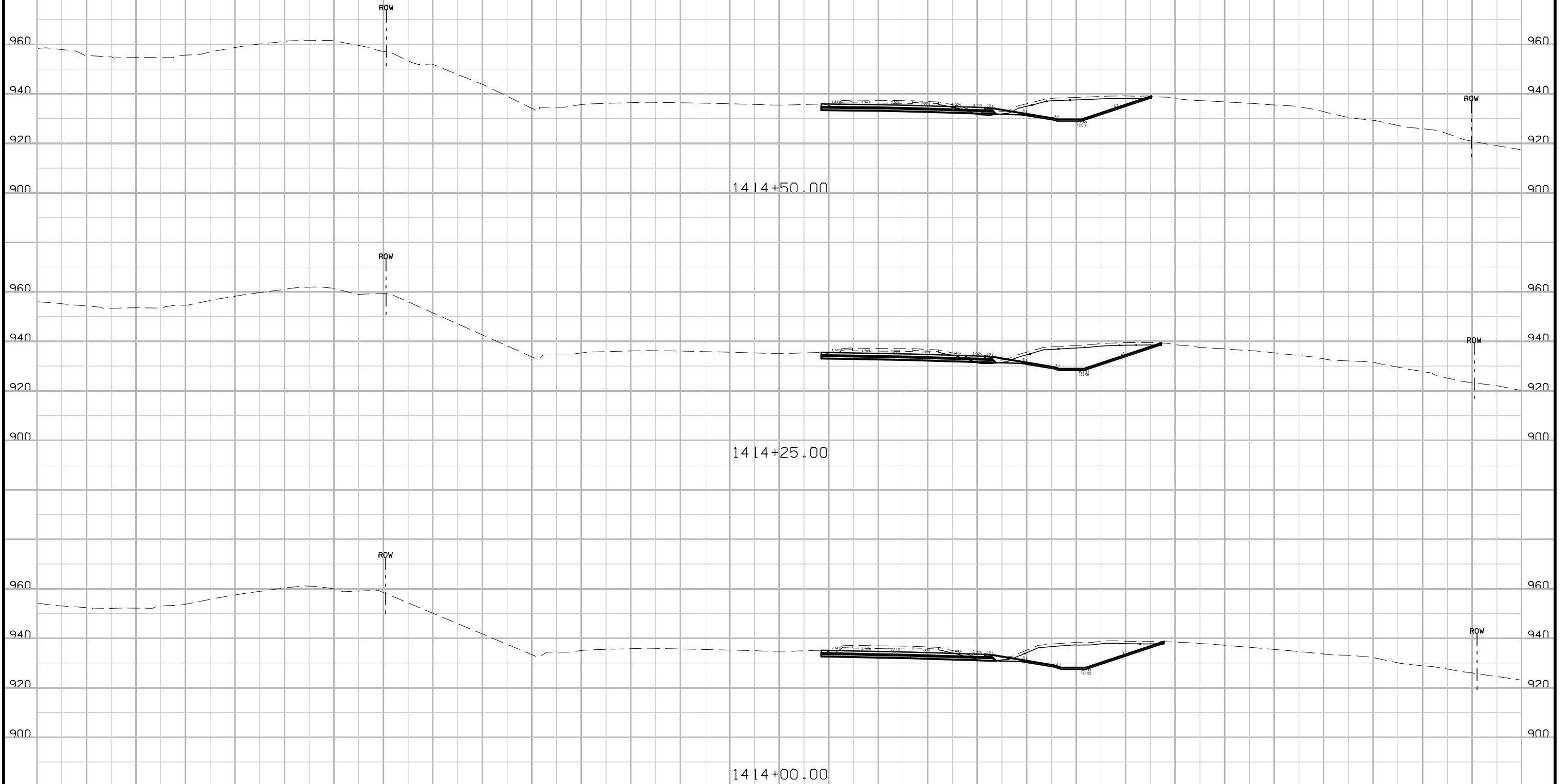


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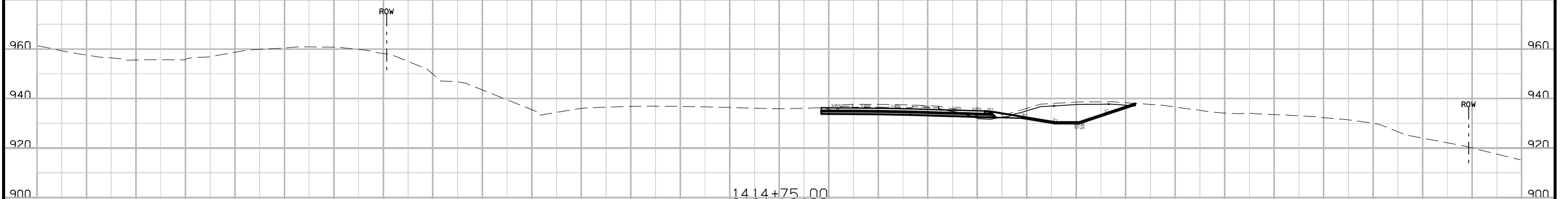
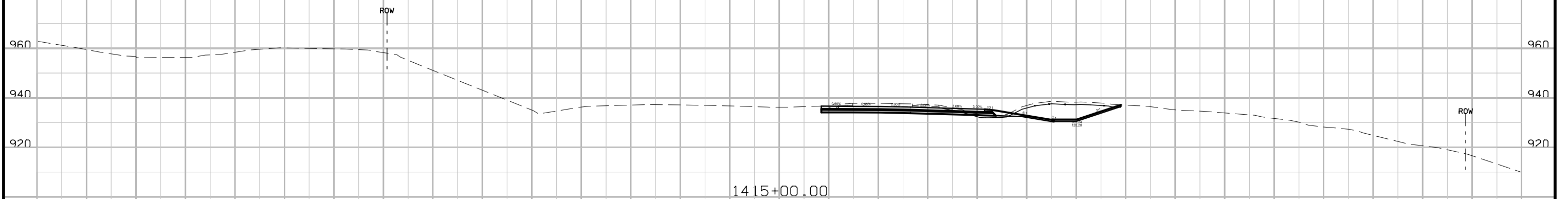
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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

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ENGLISH IOWA DOT

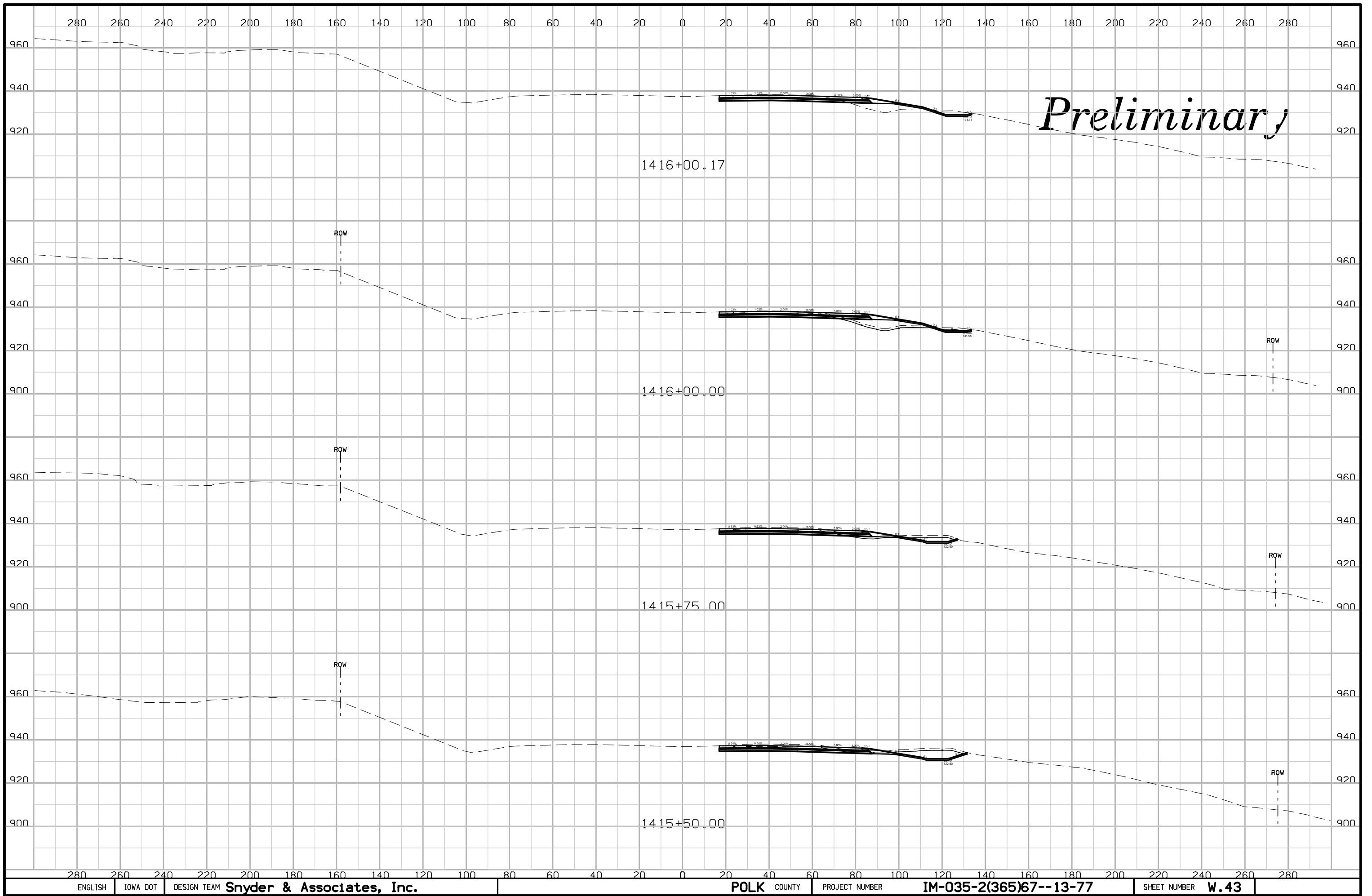
DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.42**



Preliminary

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1416+00.00

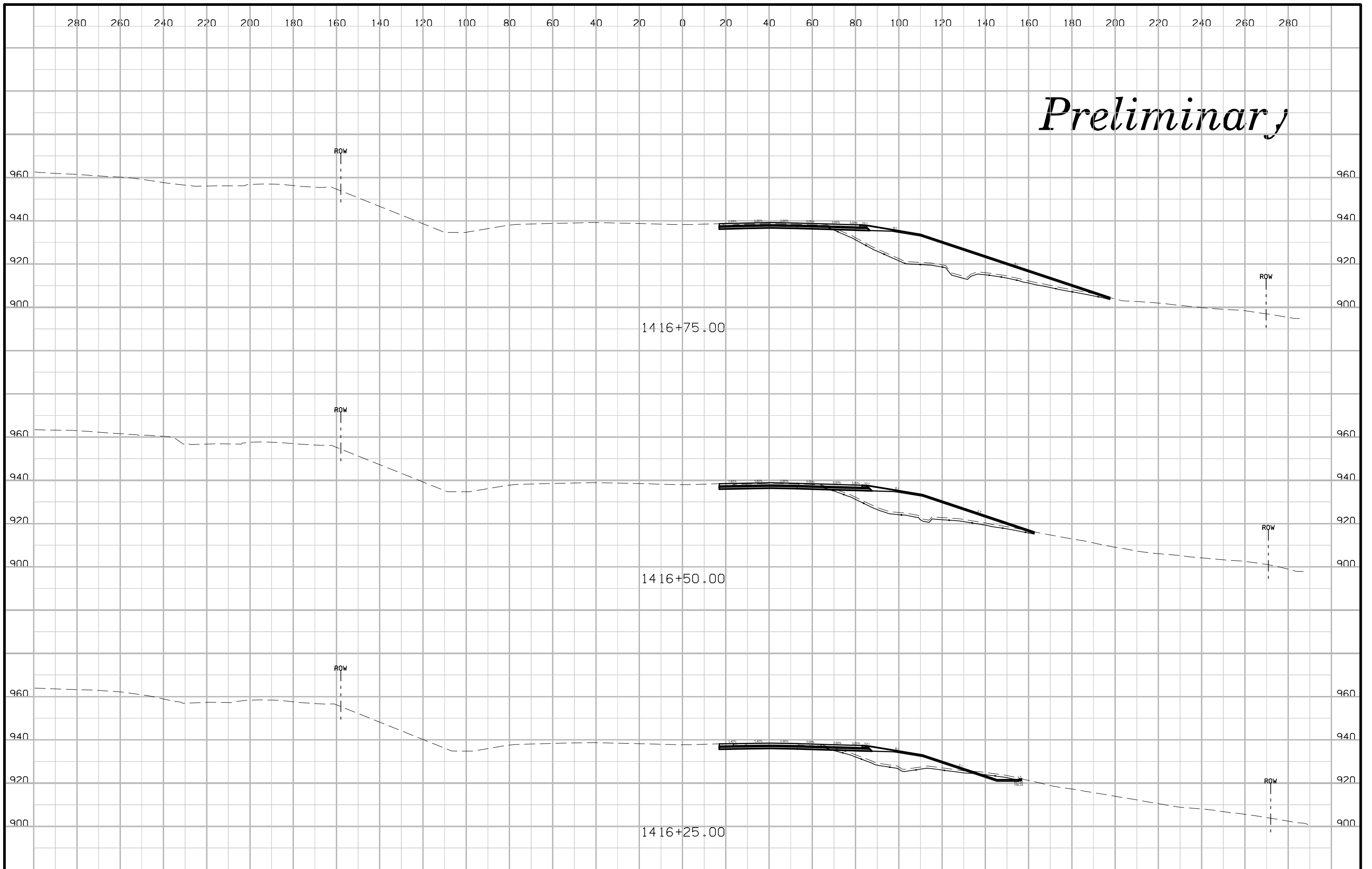
1415+75.00

1415+50.00

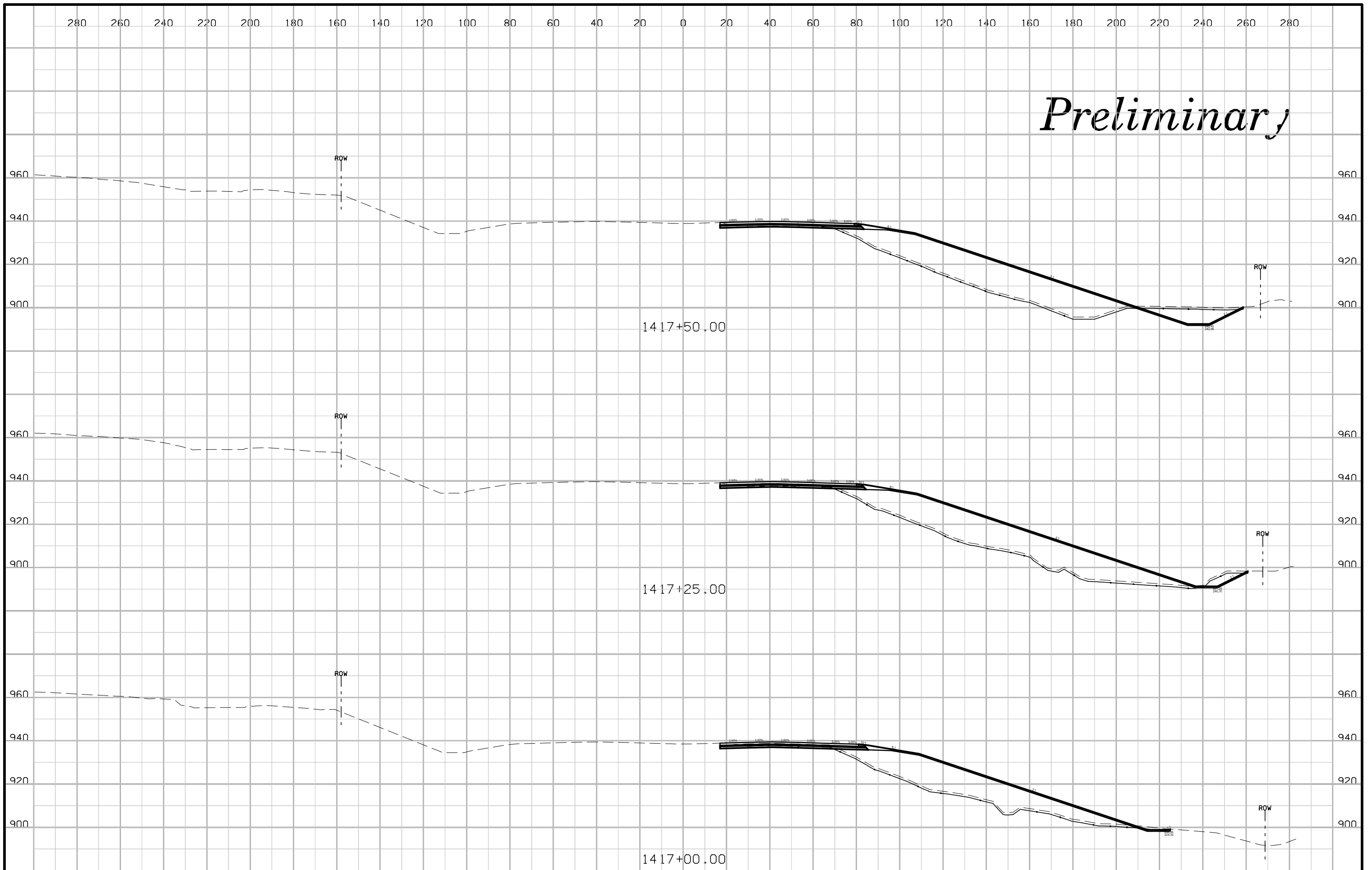
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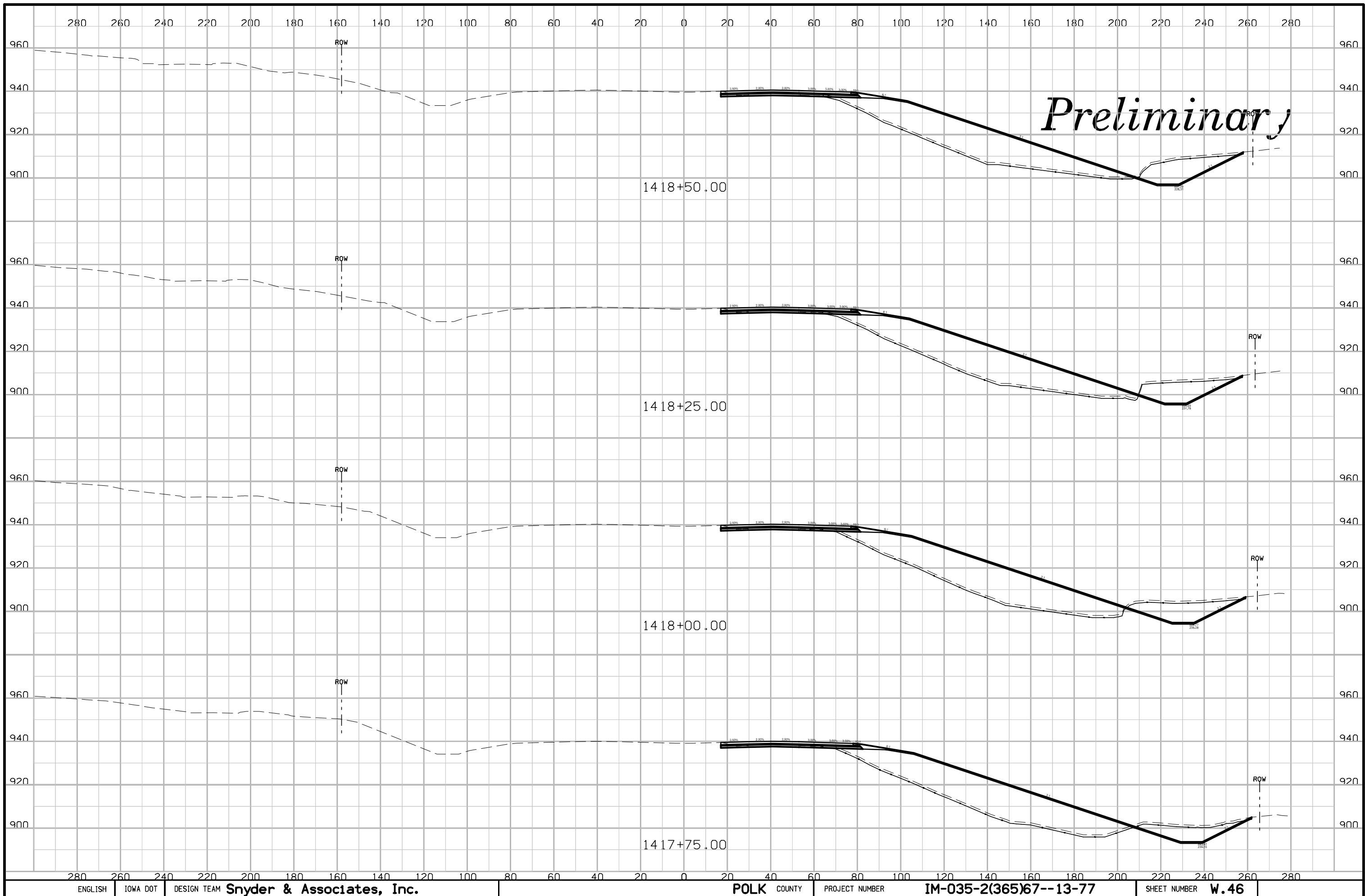
ENGLISH IOWA DOT DESIGN TEAM **Snyder & Associates, Inc.** POLK COUNTY PROJECT NUMBER **IM-035-2(365)67--13-77** SHEET NUMBER **W.43**

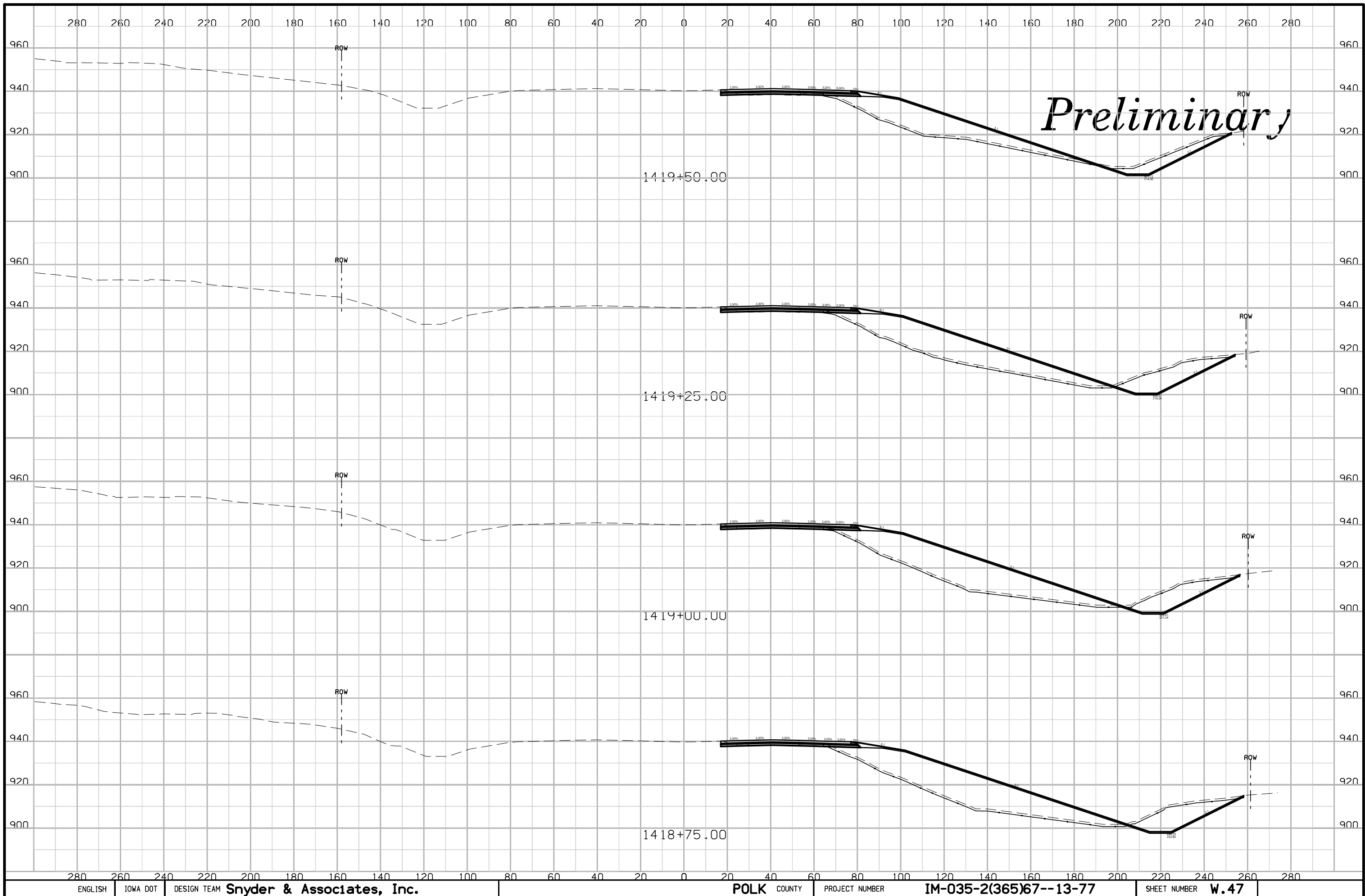
Preliminary

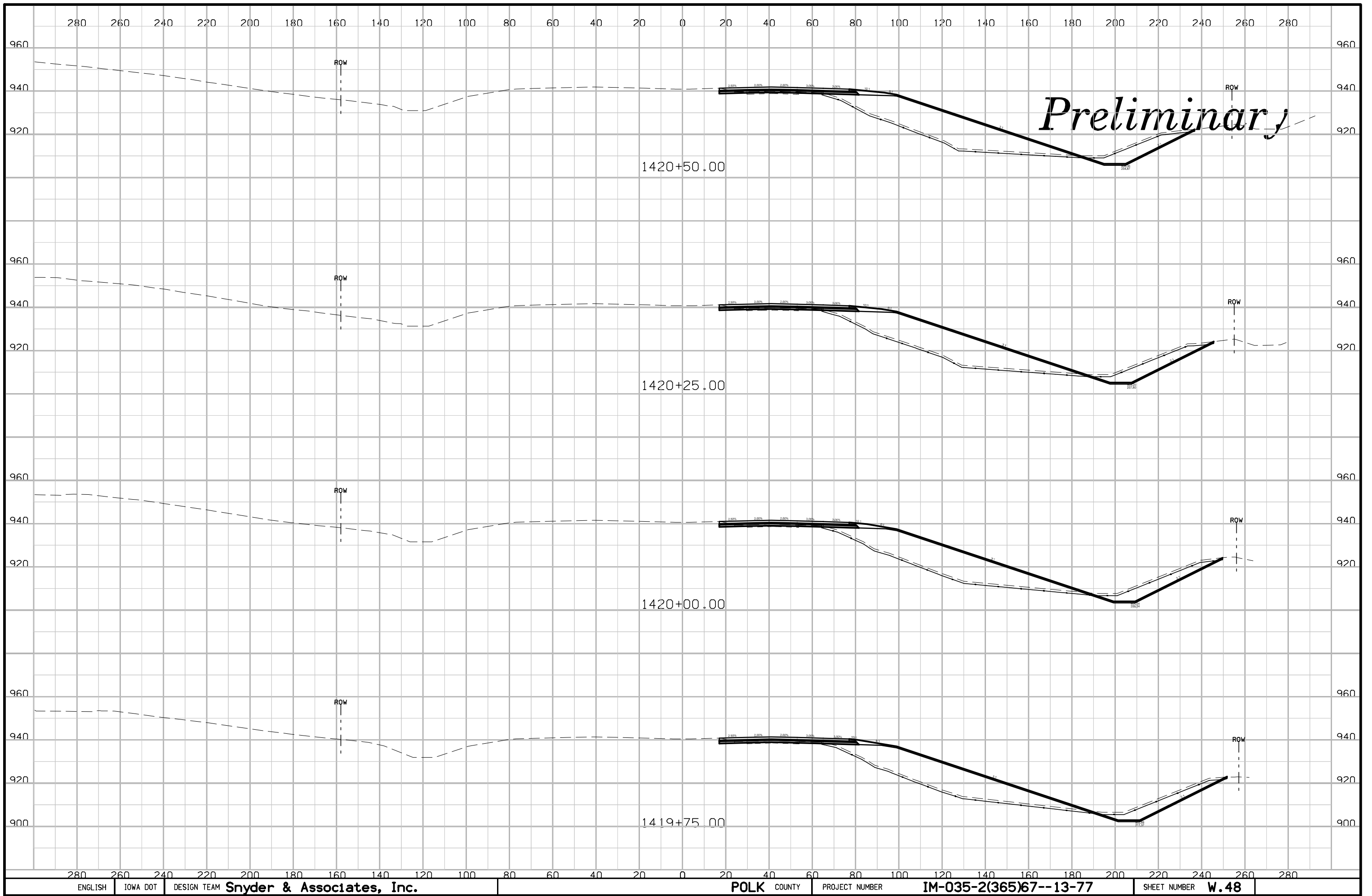


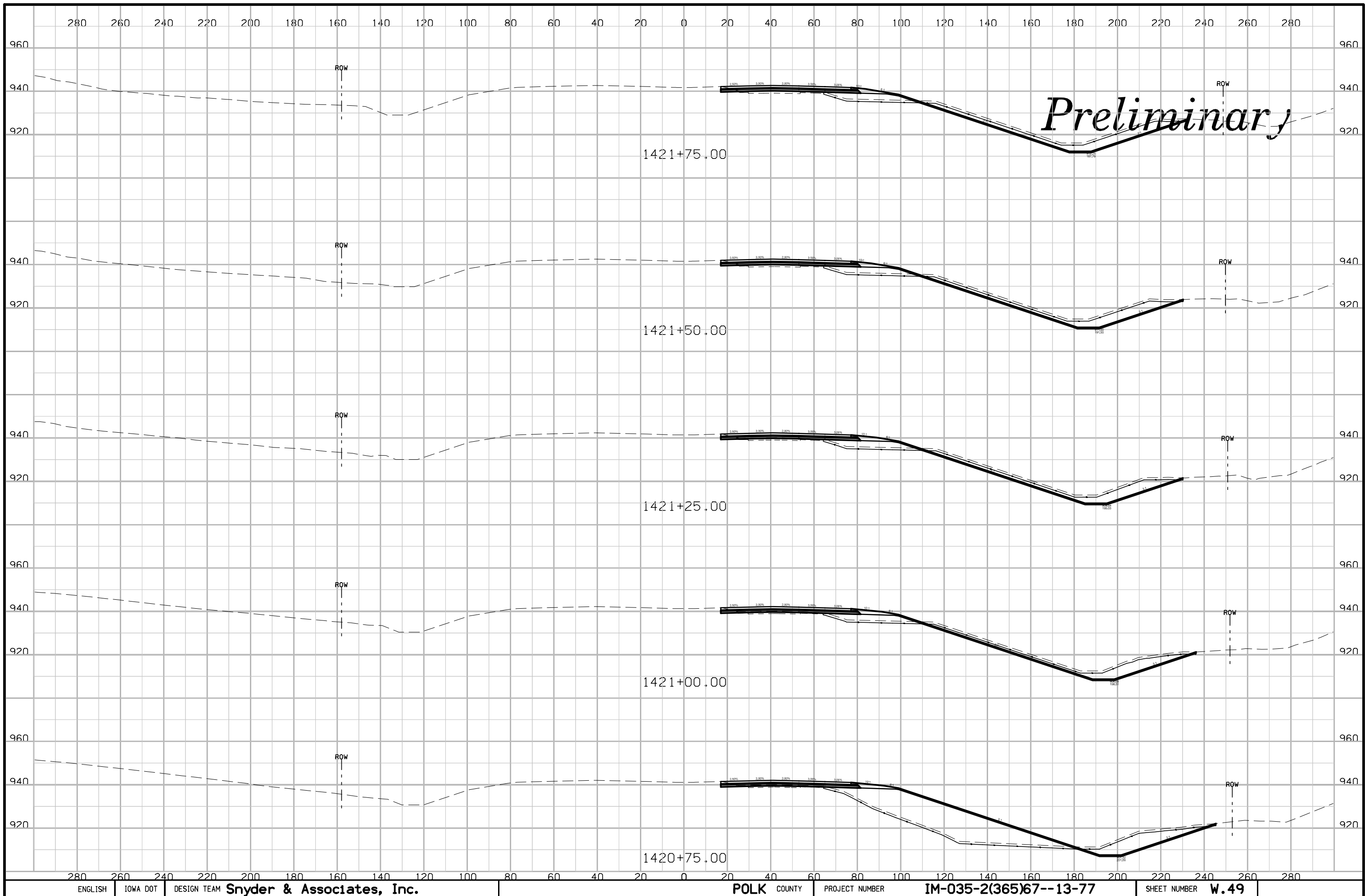
Preliminary











Preliminary

1421+75.00

1421+50.00

1421+25.00

1421+00.00

1420+75.00

ENGLISH

IOWA DOT

DESIGN TEAM **Snyder & Associates, Inc.**

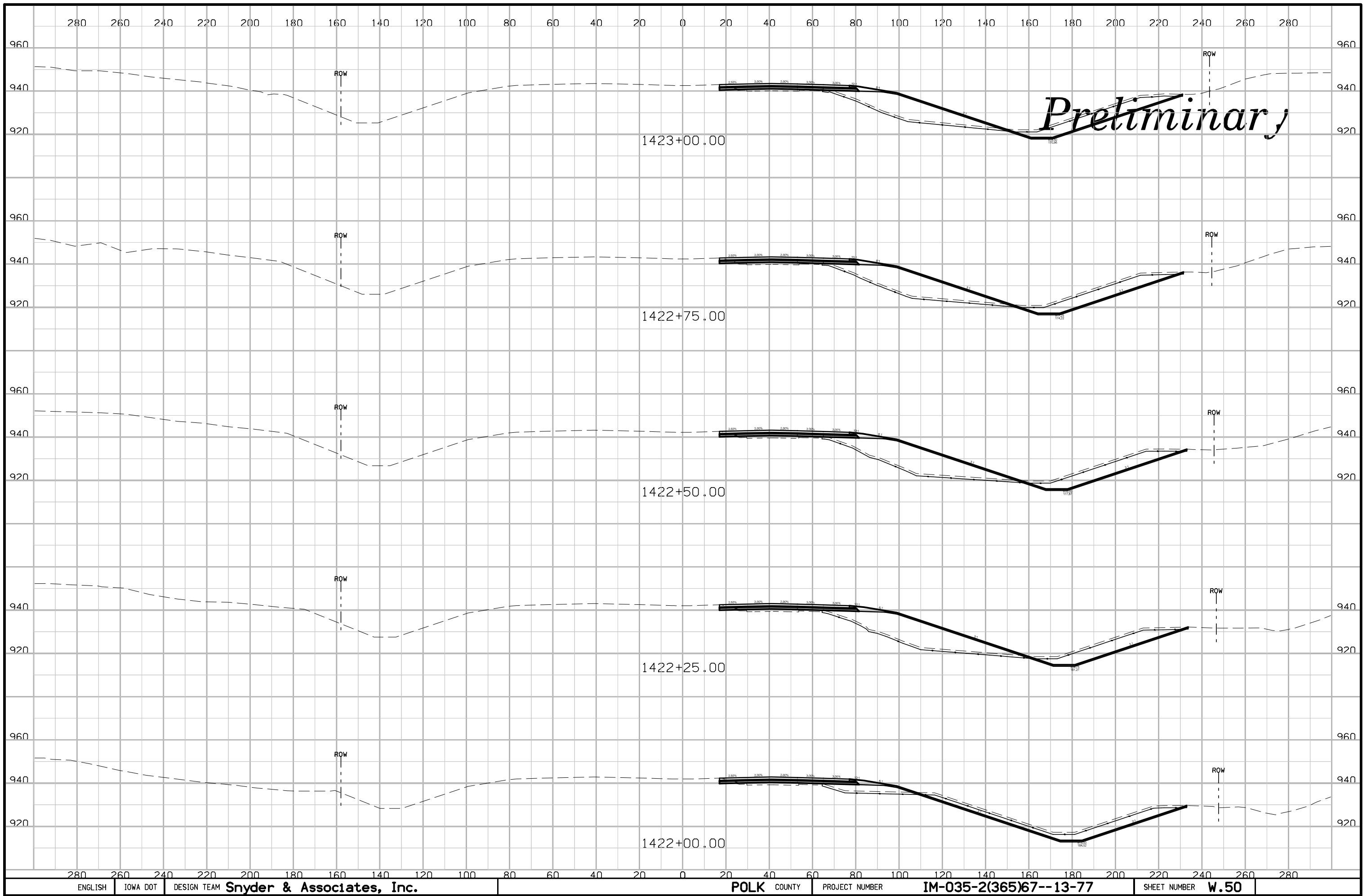
POLK COUNTY

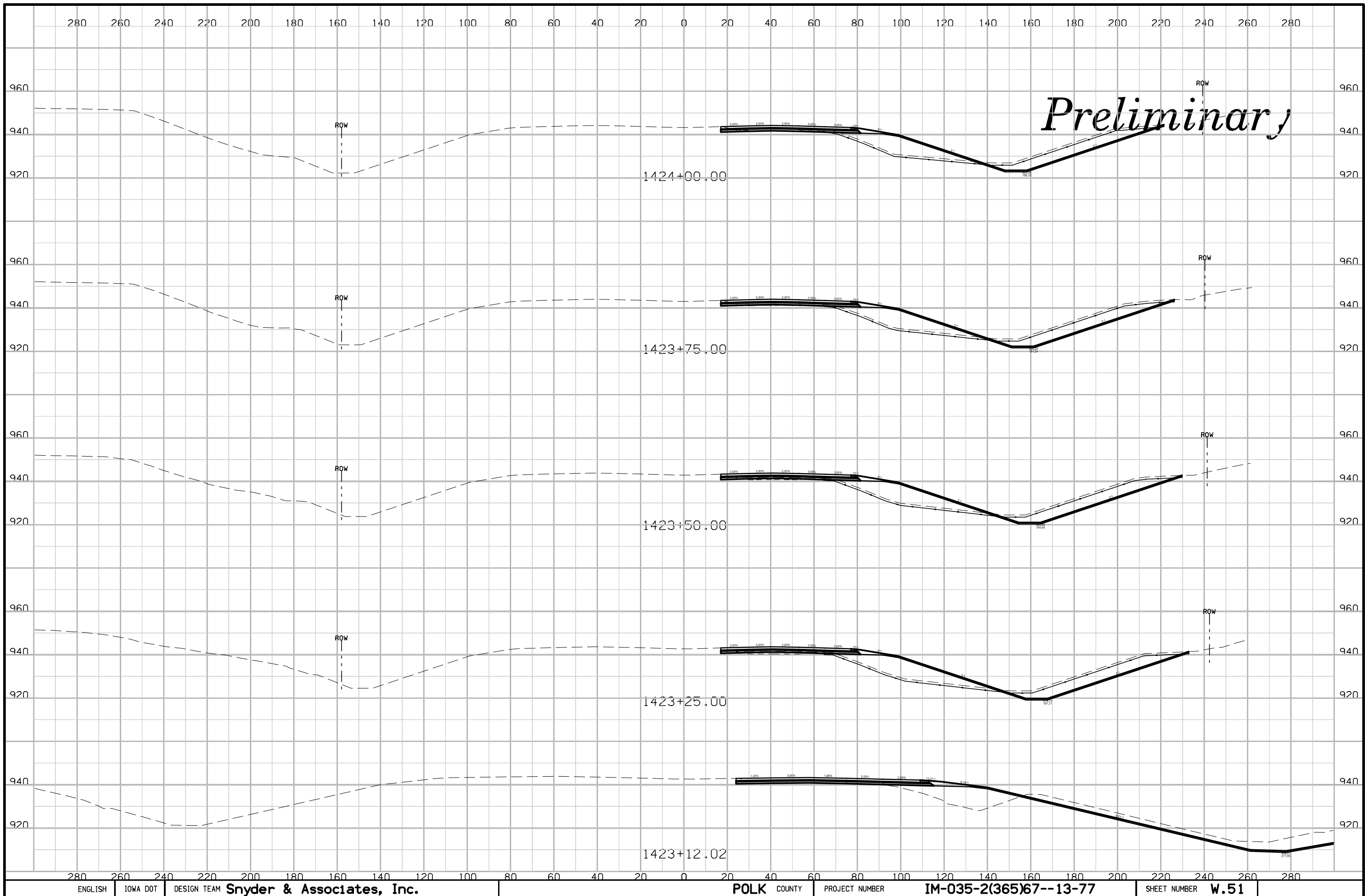
PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER

W.49





Preliminary

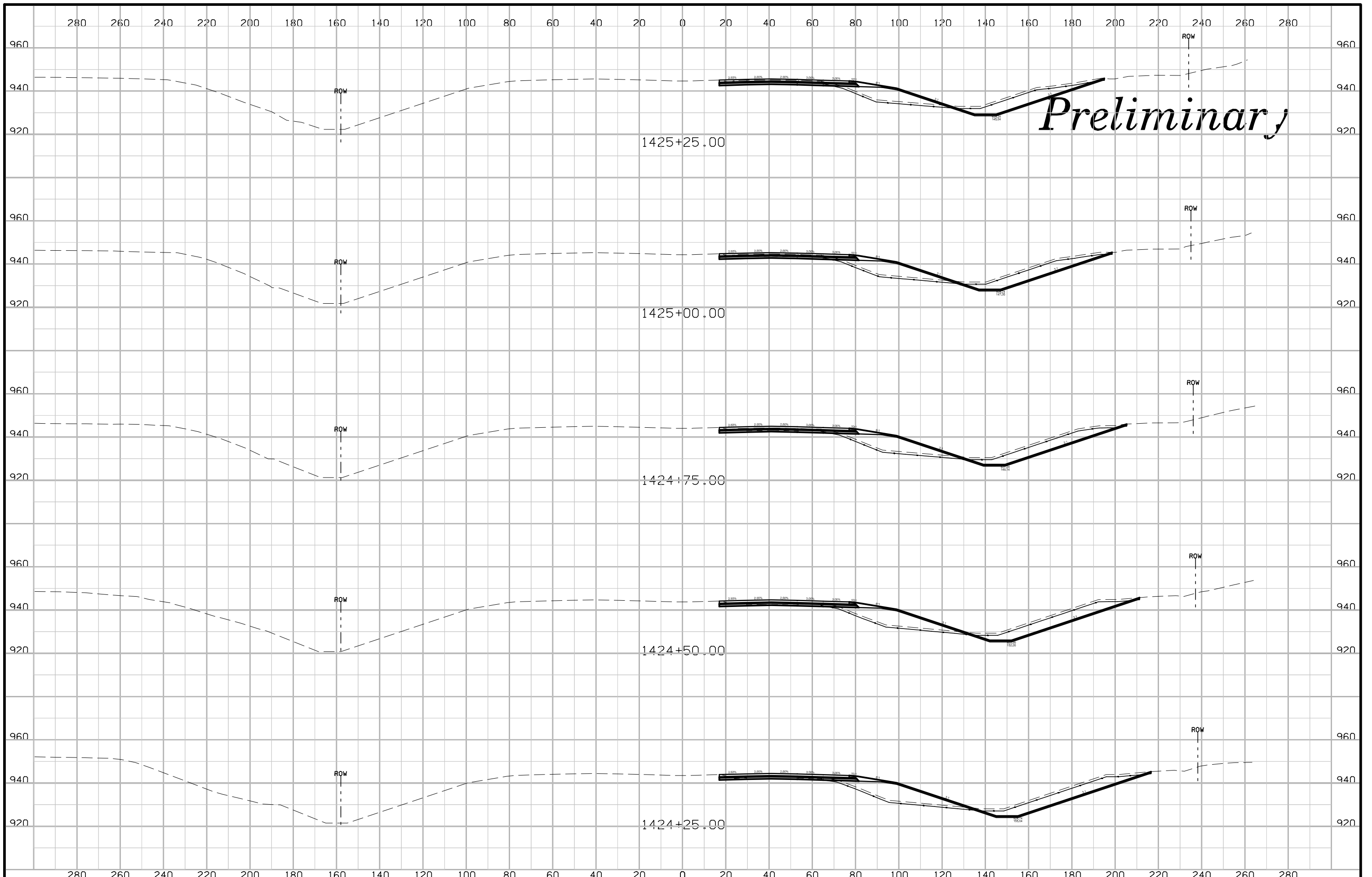
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1423+75.00

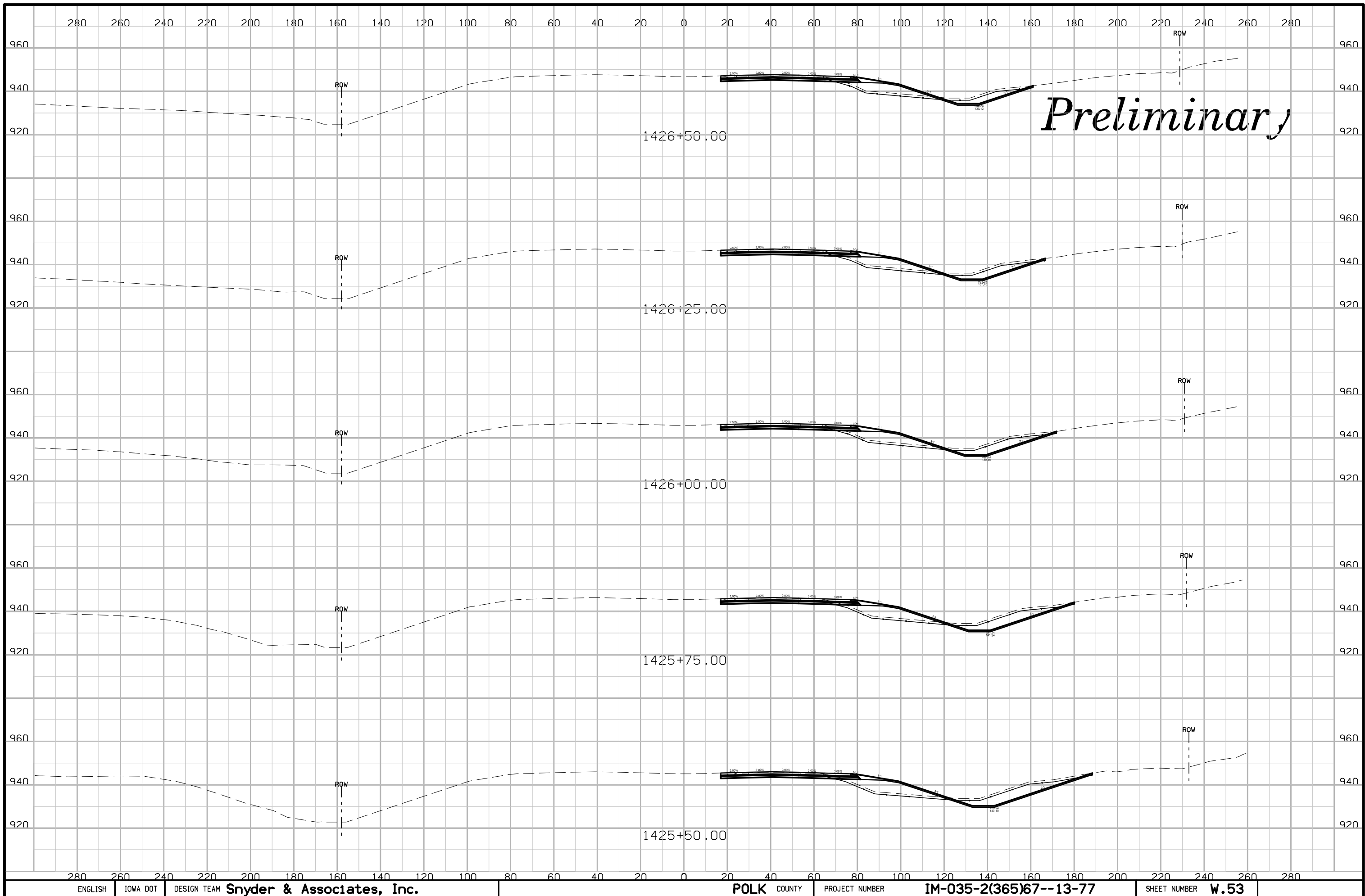
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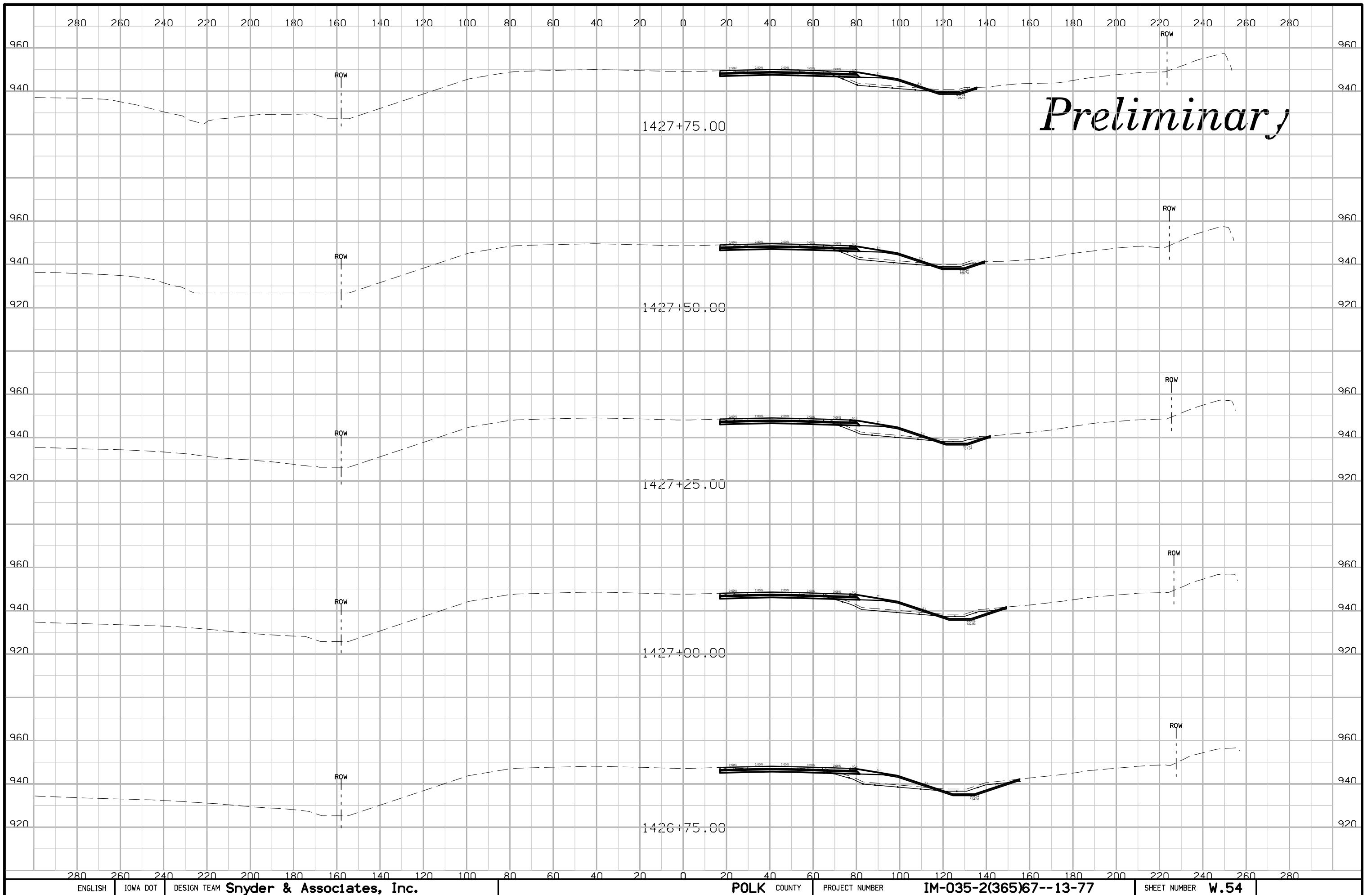
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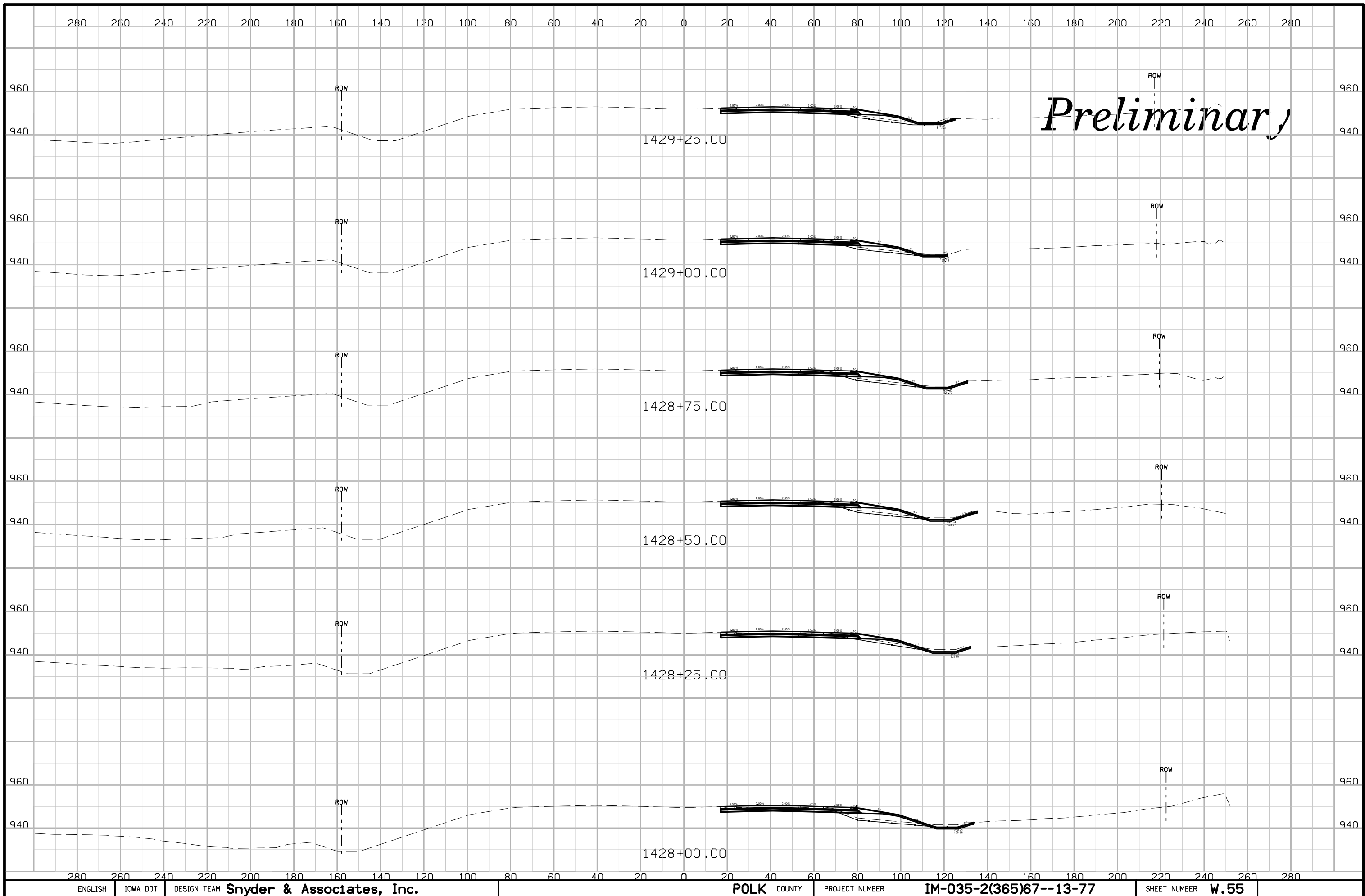
1423+12.02



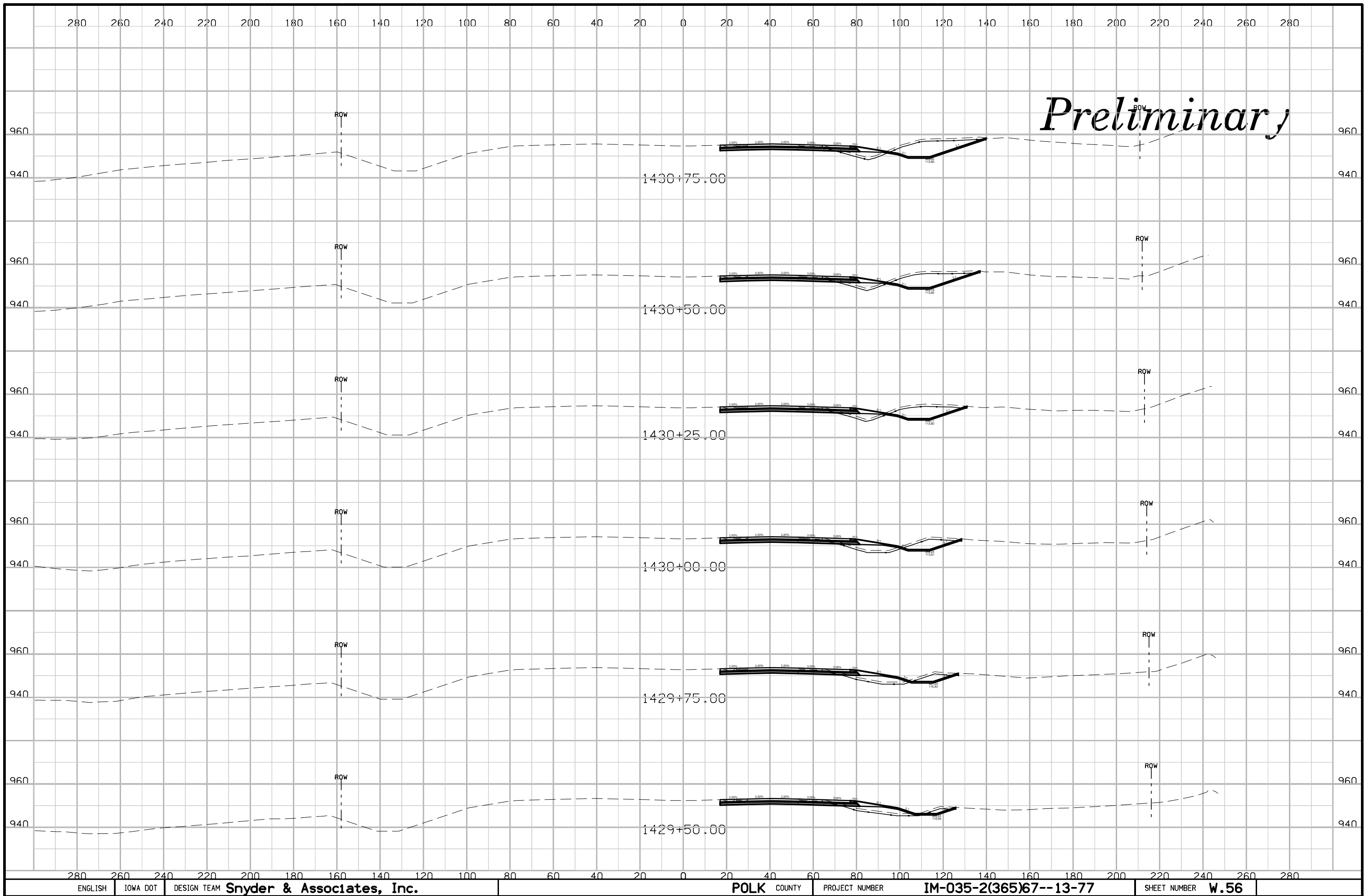
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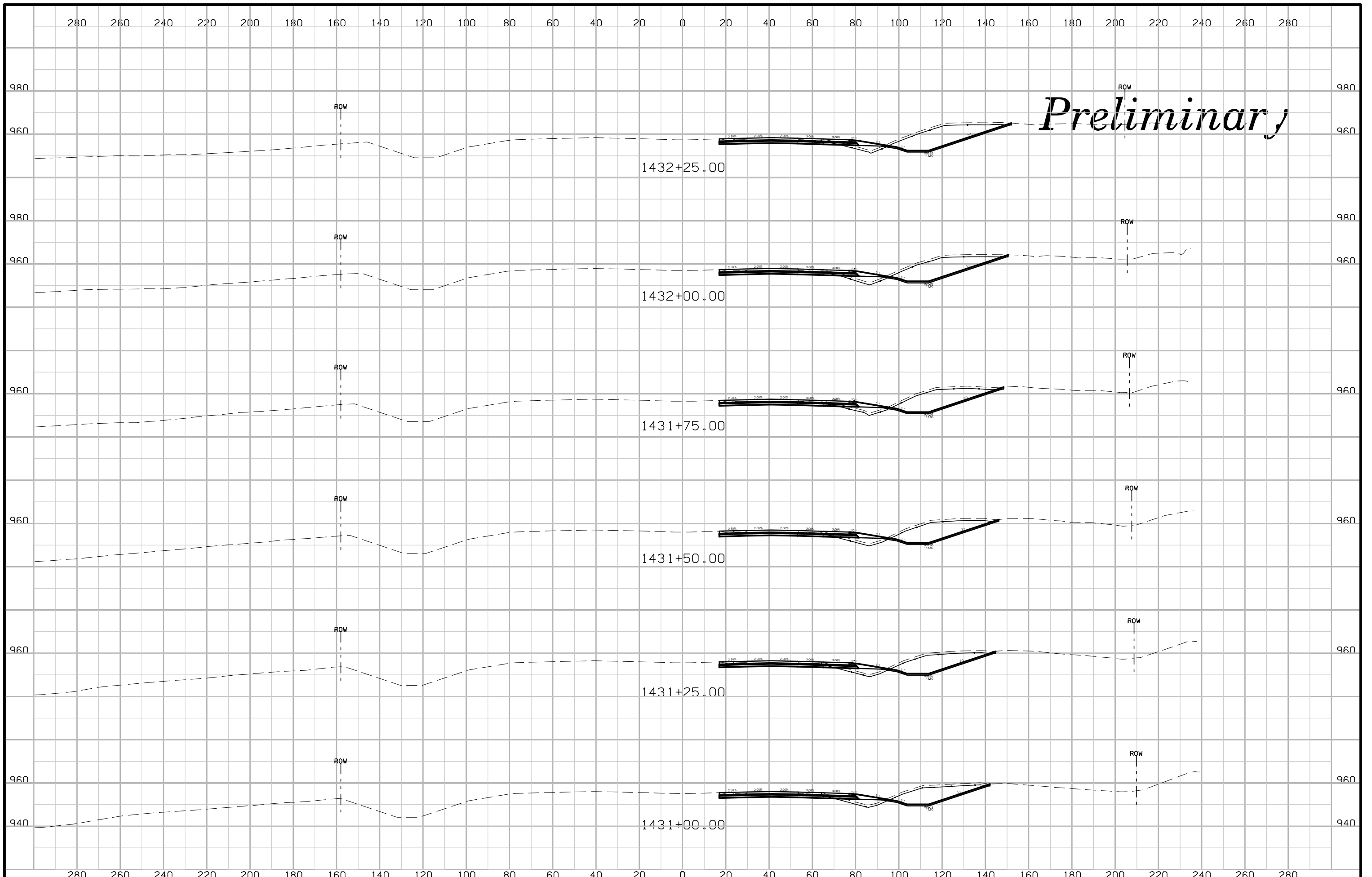






Preliminary





Preliminary

1432+25.00

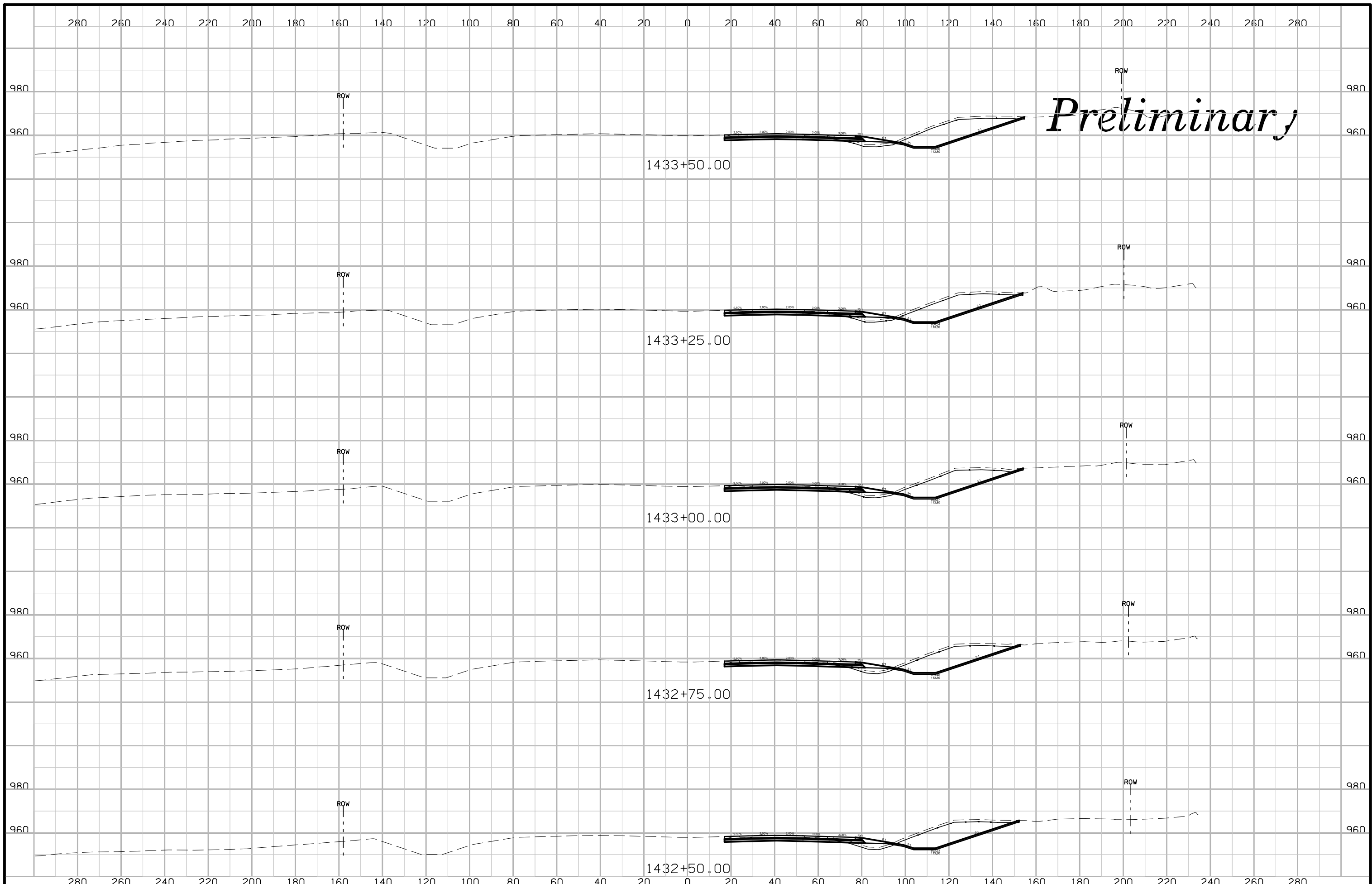
1432+00.00

1431+75.00

1431+50.00

1431+25.00

1431+00.00



Preliminary

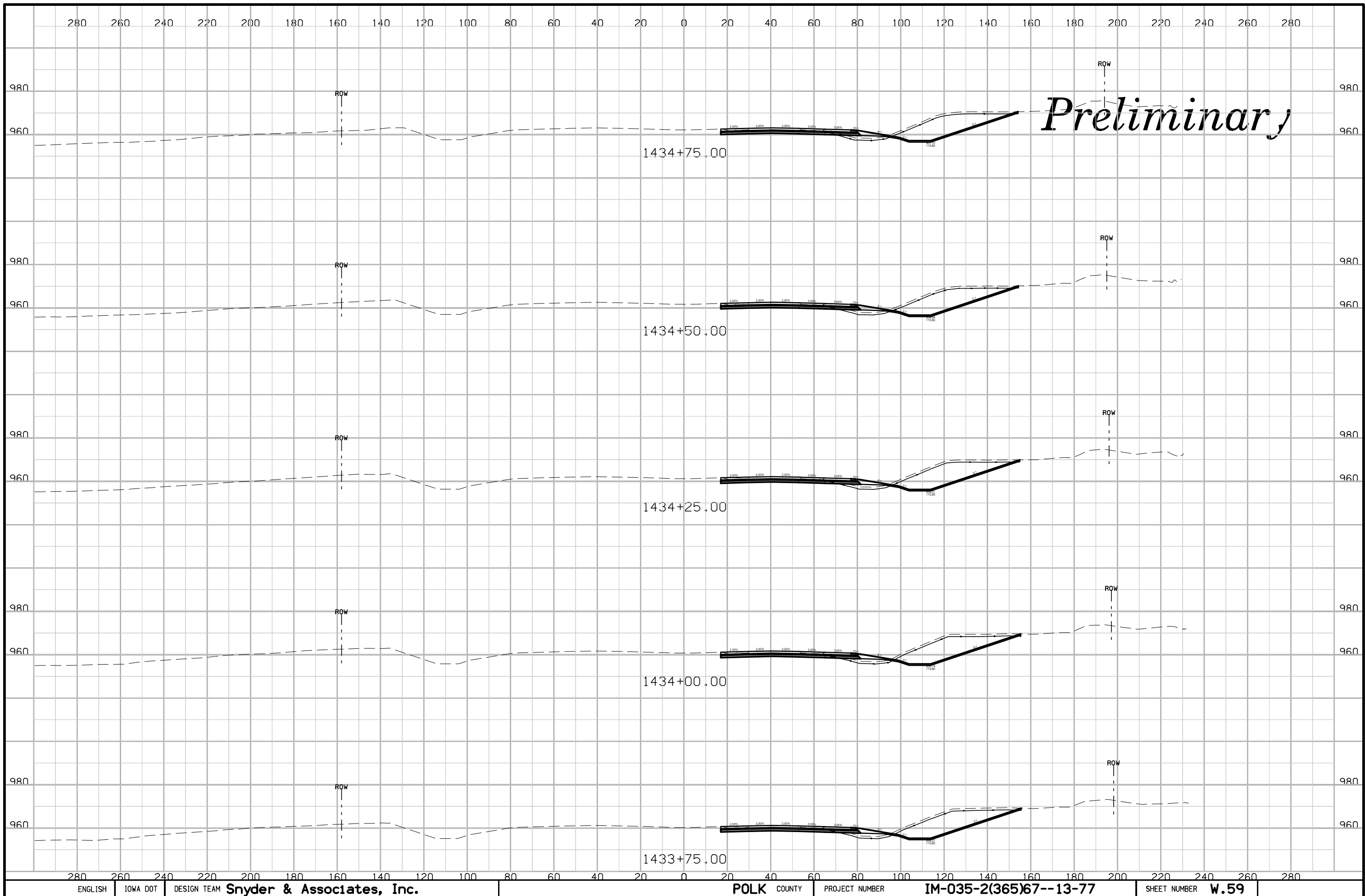
1433+50.00

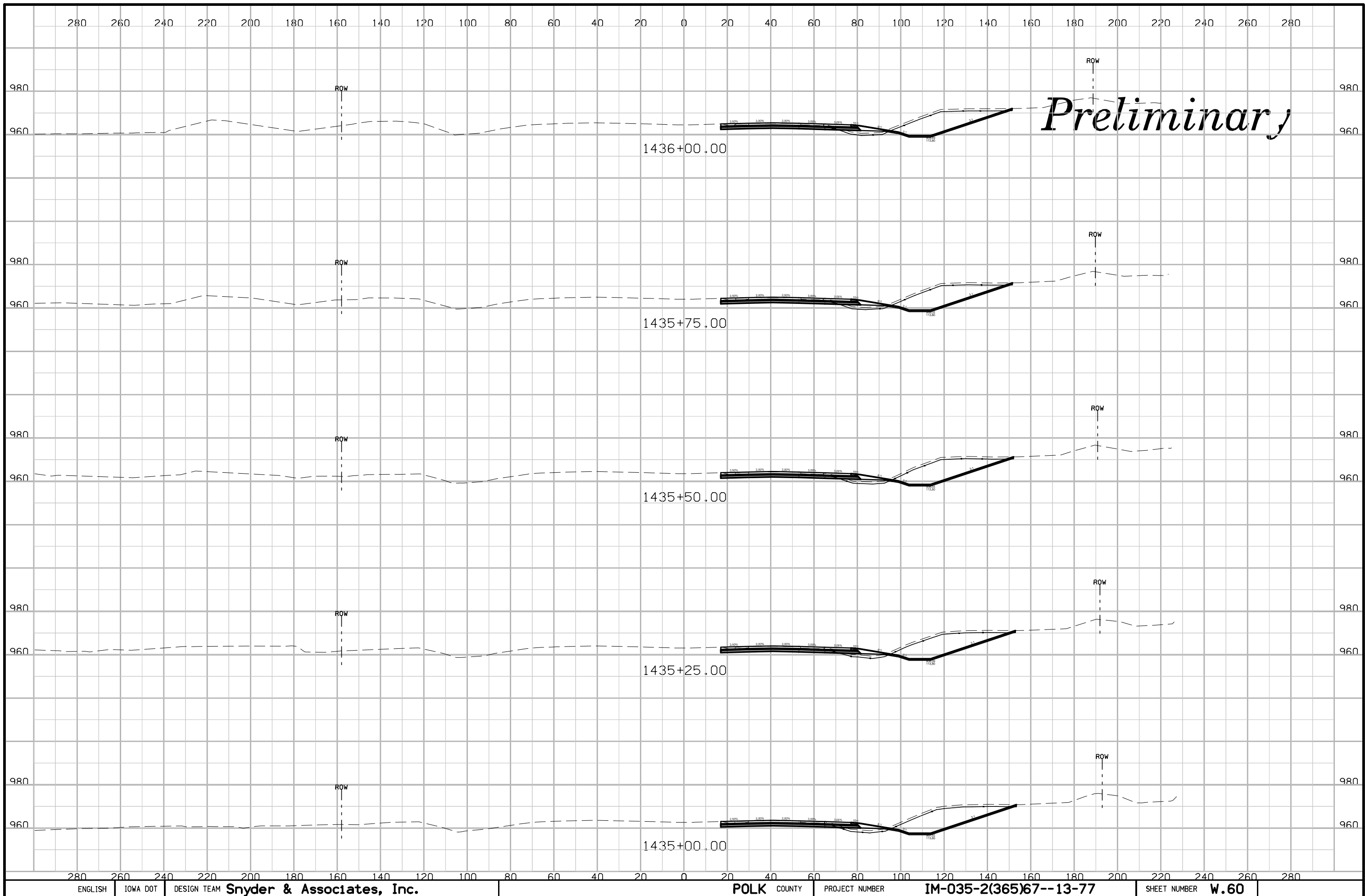
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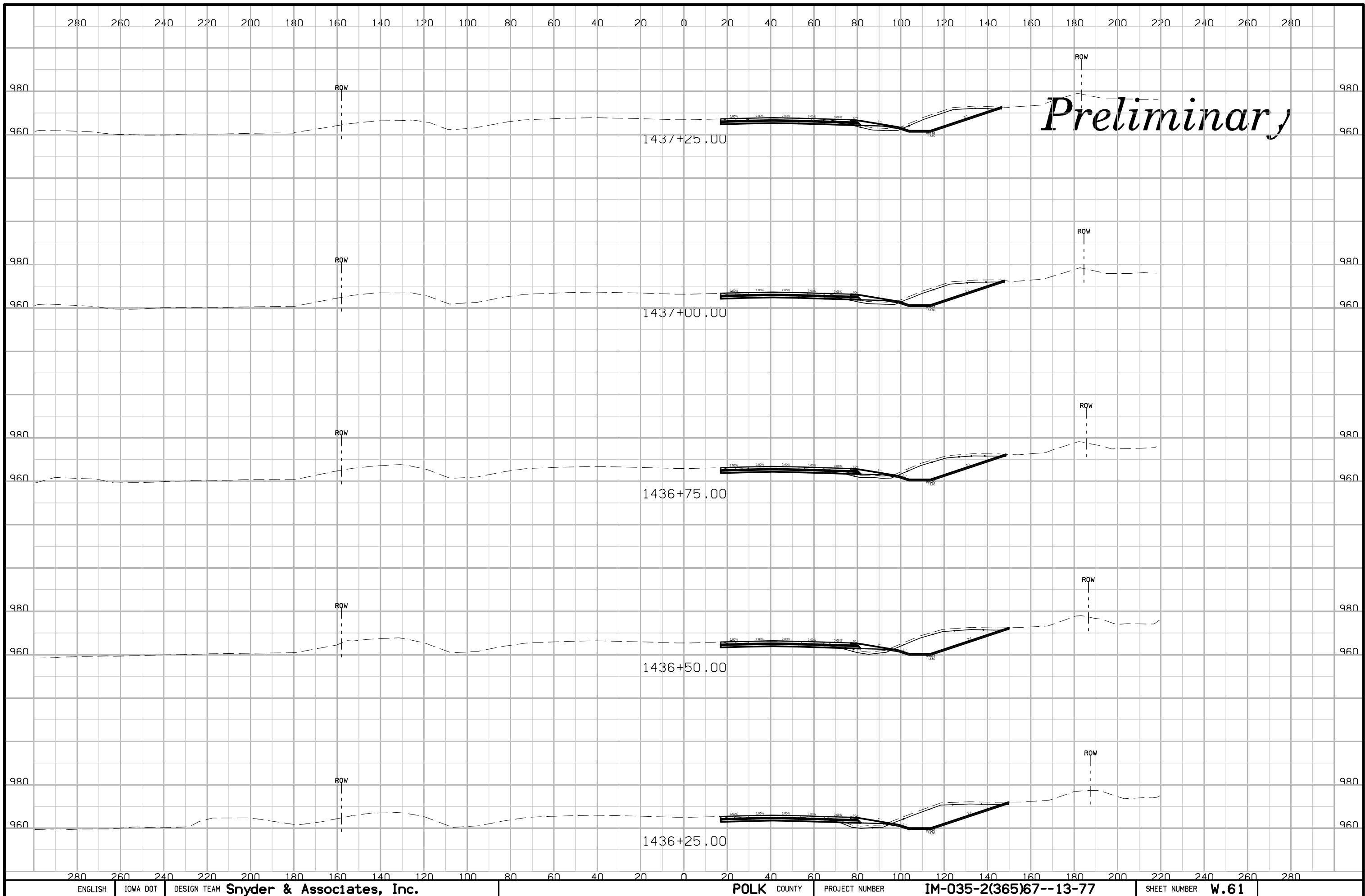
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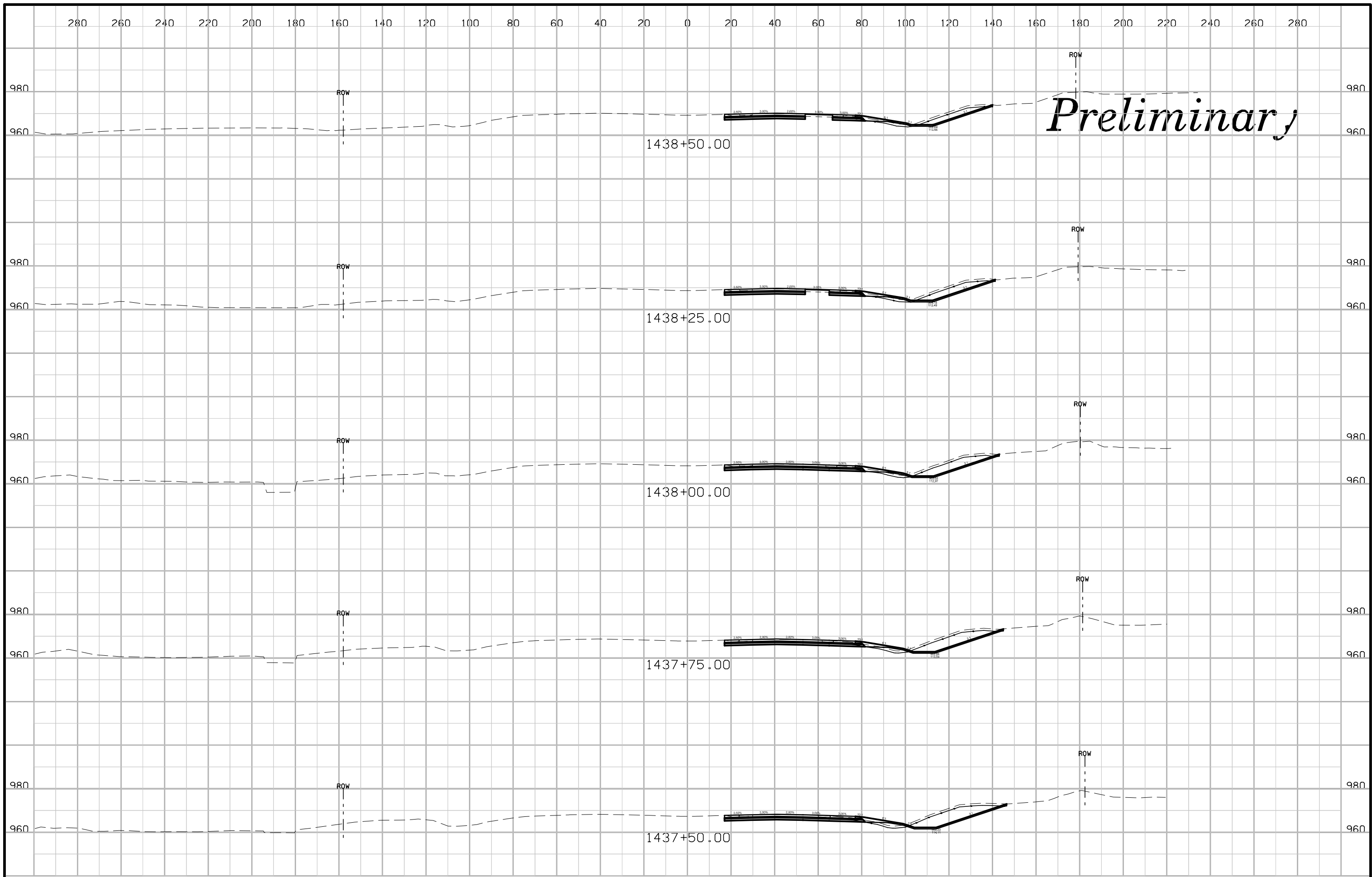
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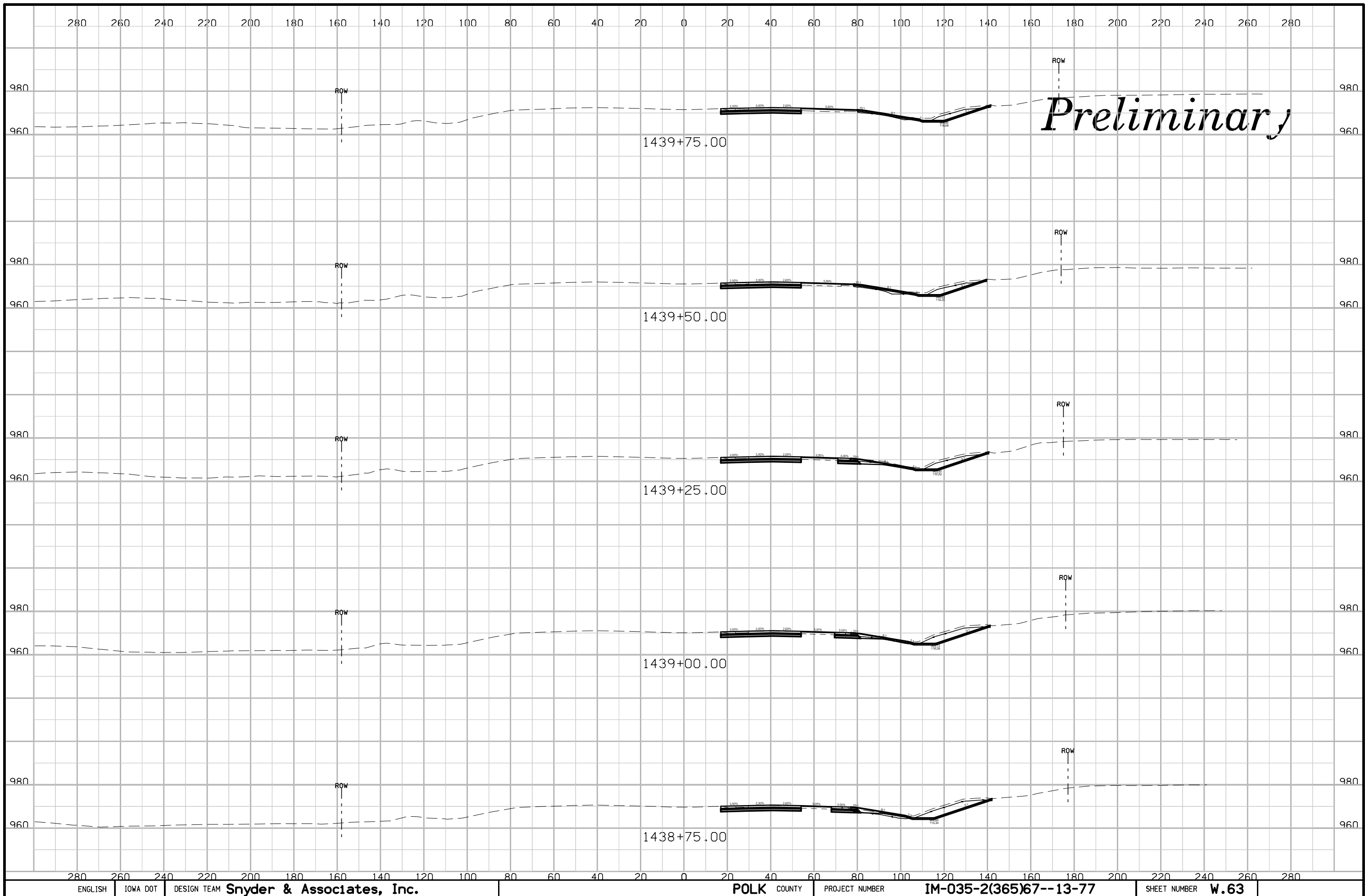
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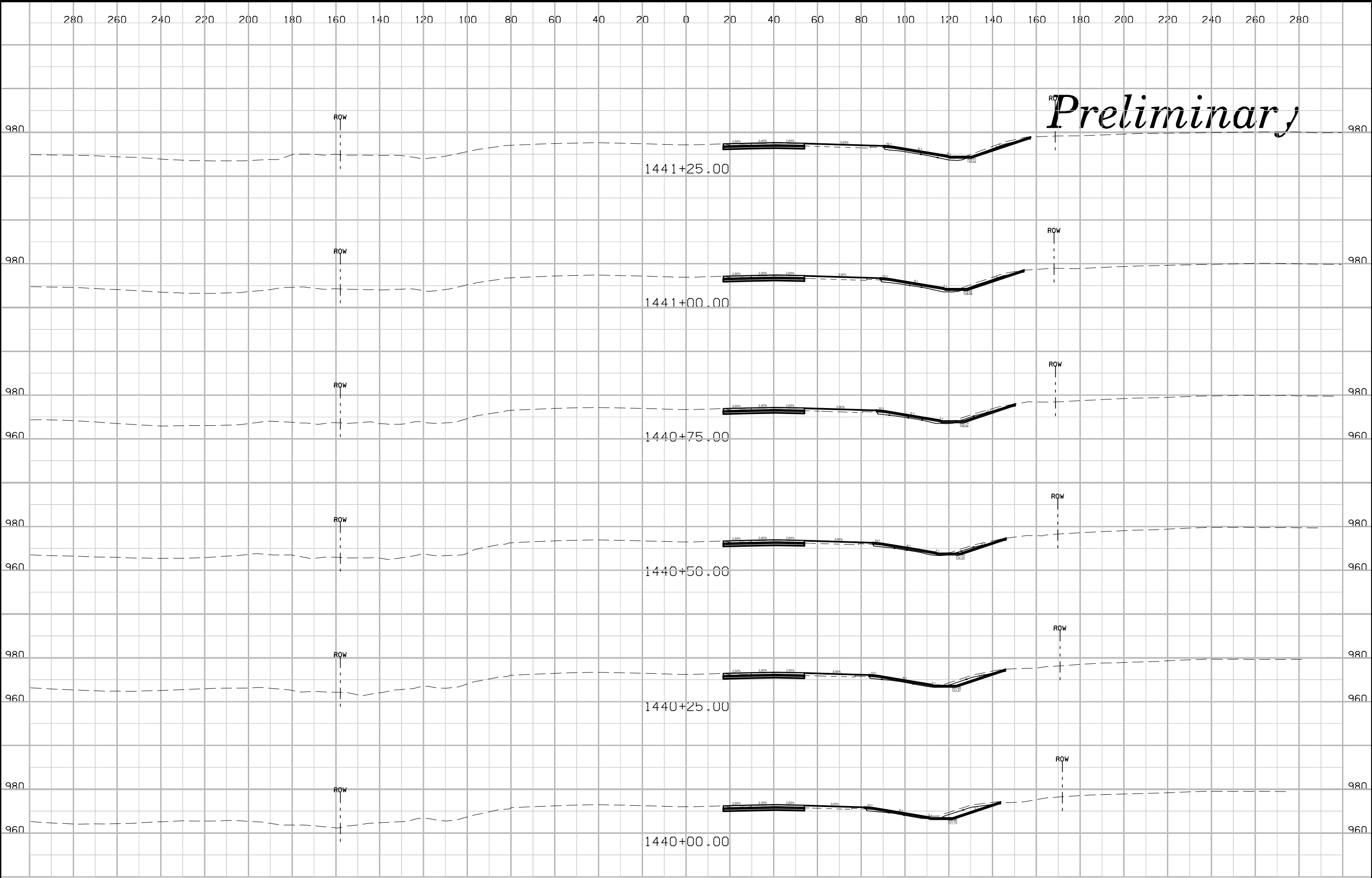






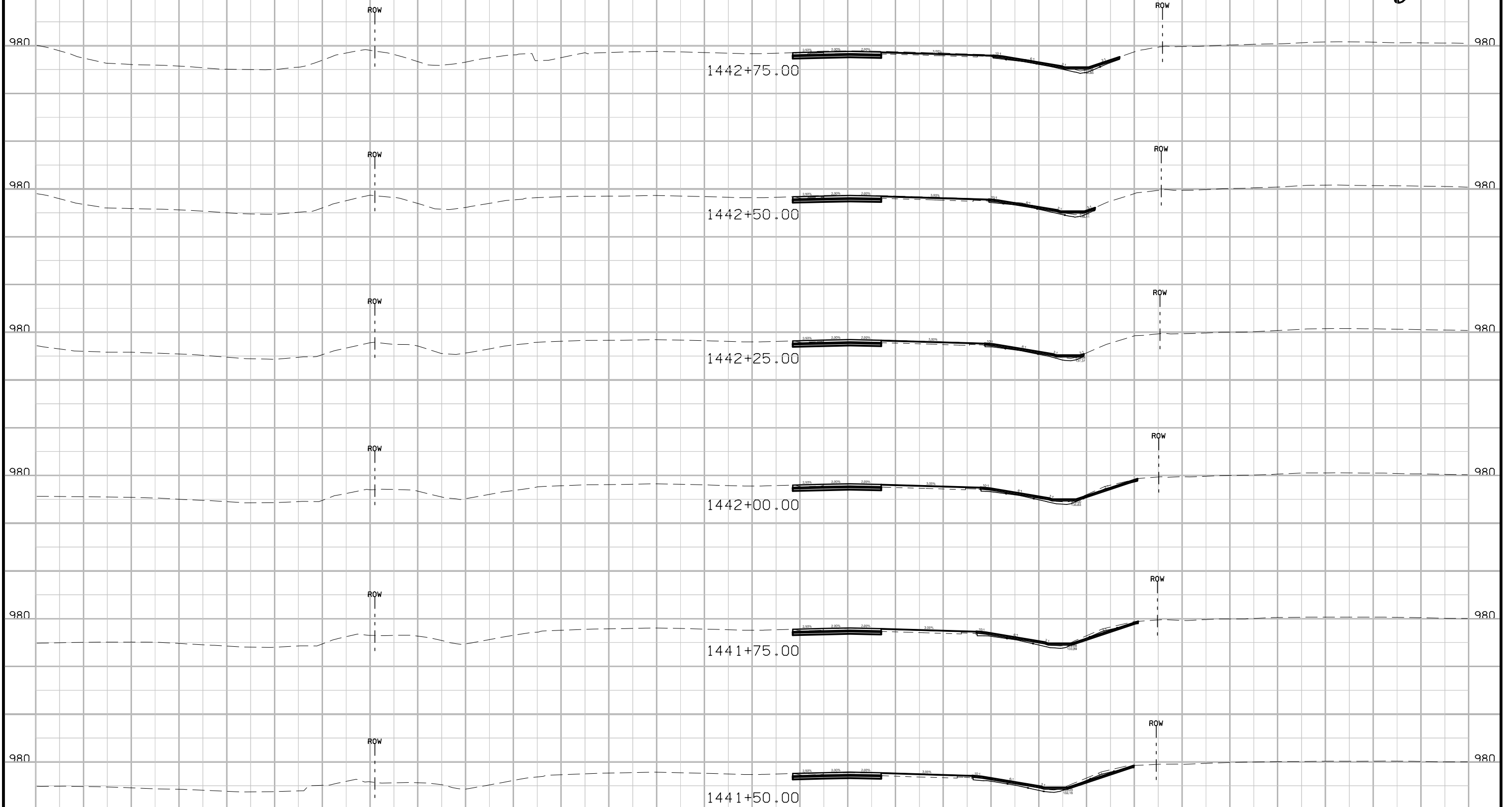


Preliminary



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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

PROJECT NUMBER

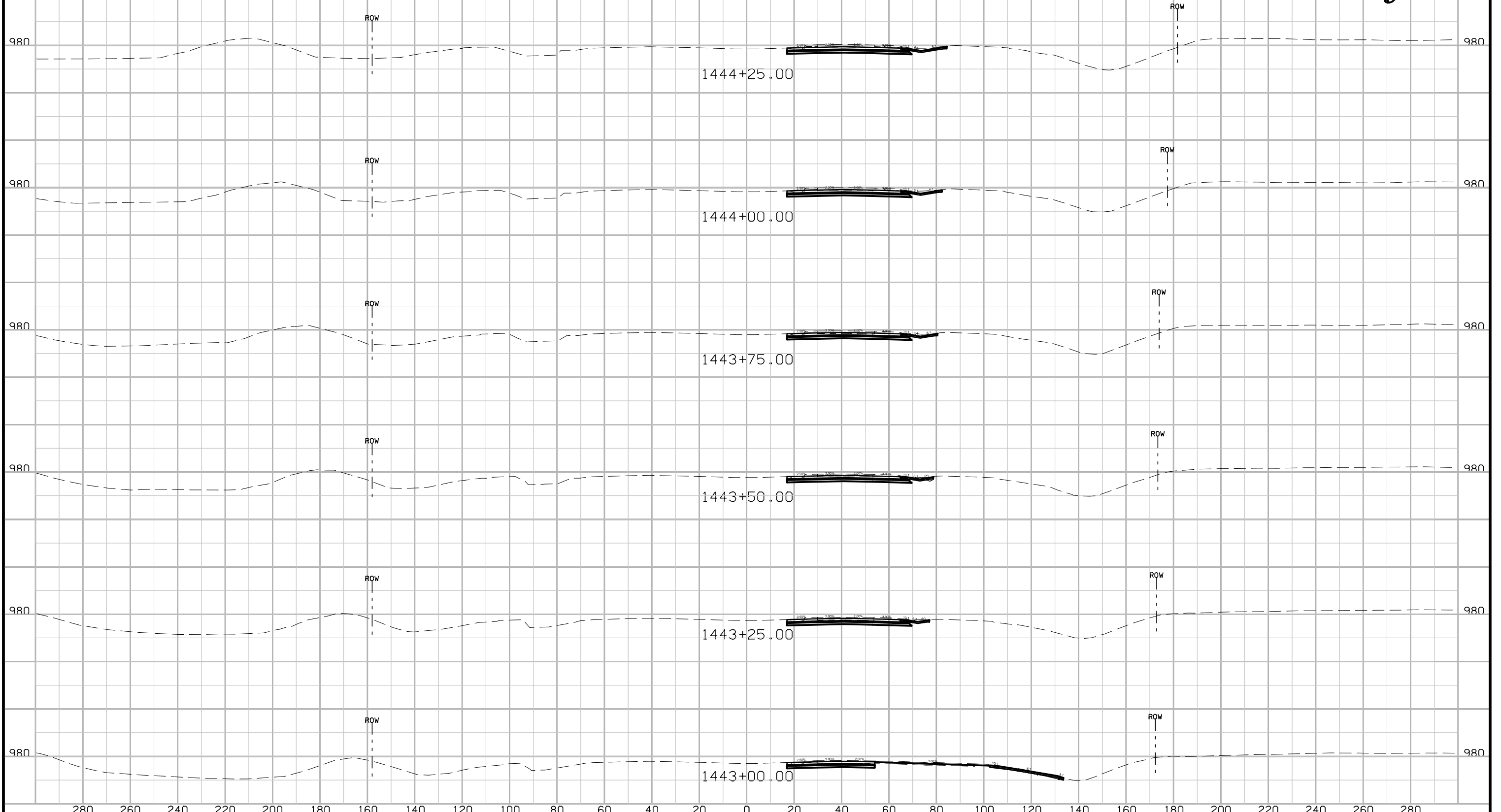
IM-035-2(365)67--13-77

SHEET NUMBER

W.65

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Preliminary



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ENGLISH IOWA DOT

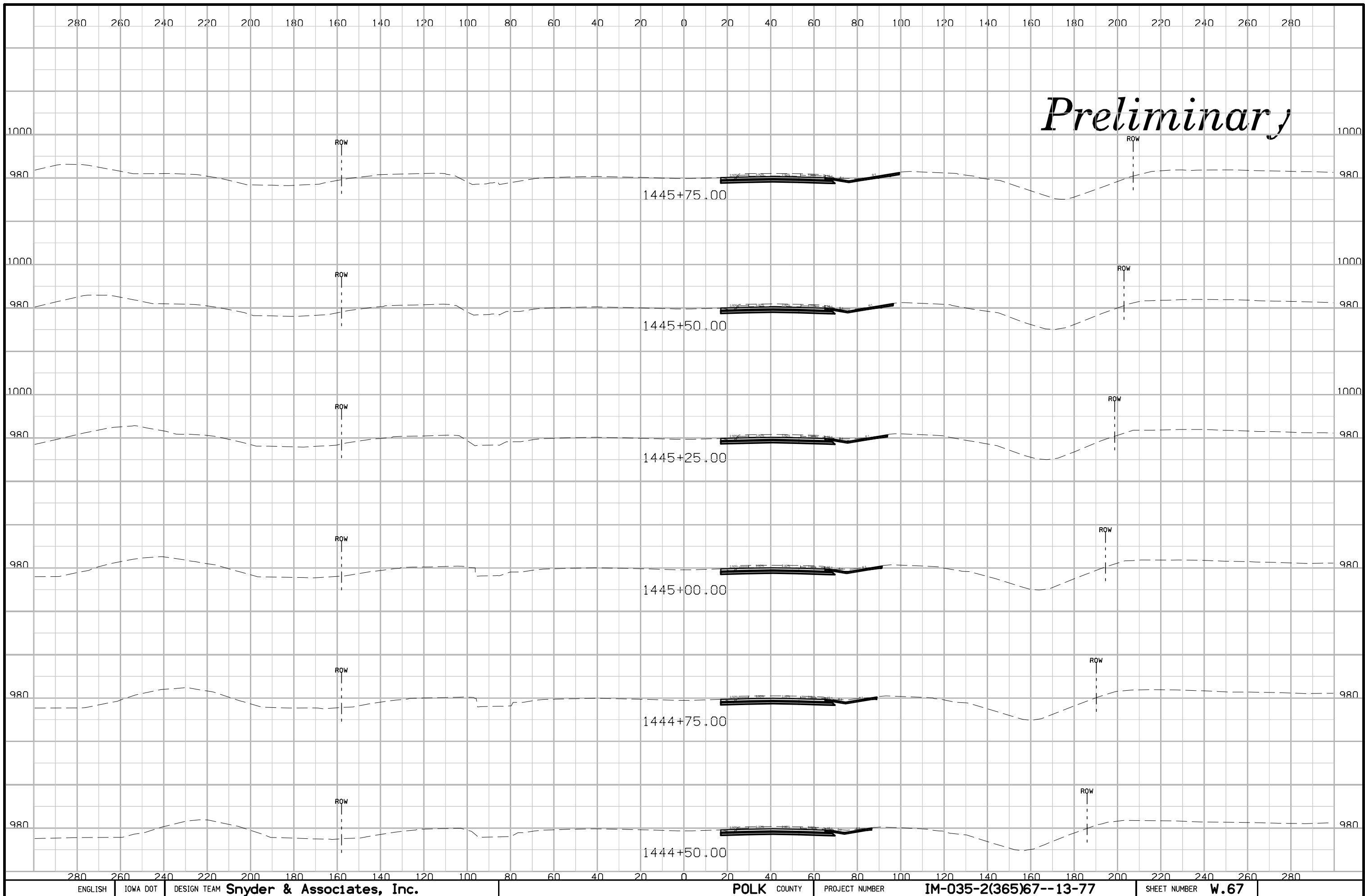
DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.66**



Preliminary

1445+75.00

1445+50.00

1445+25.00

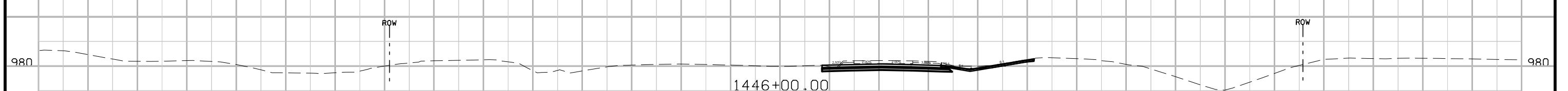
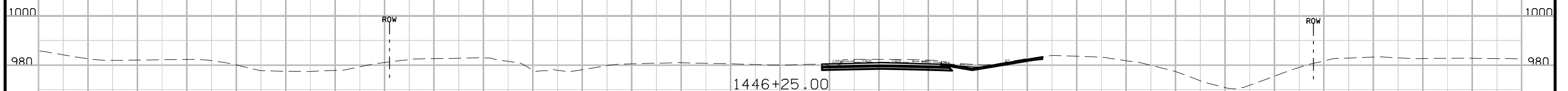
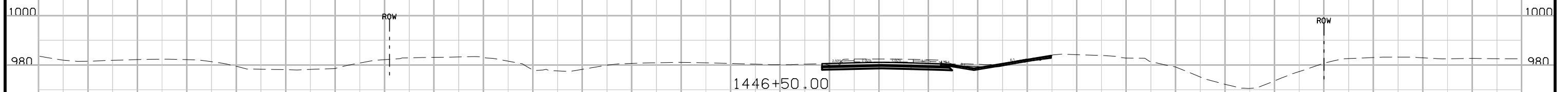
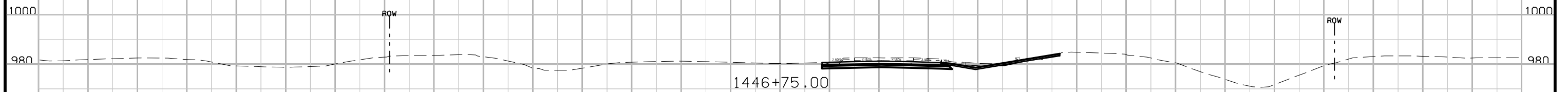
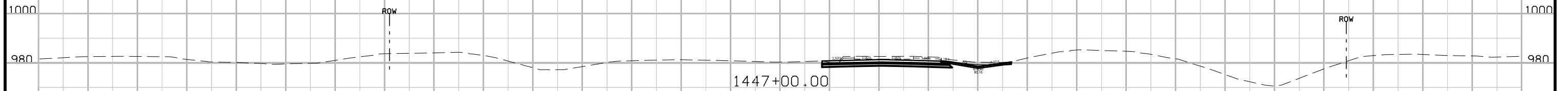
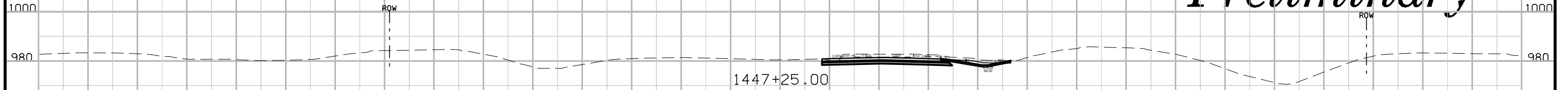
1445+00.00

1444+75.00

1444+50.00

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH IOWA DOT

DESIGN TEAM **Snyder & Associates, Inc.**

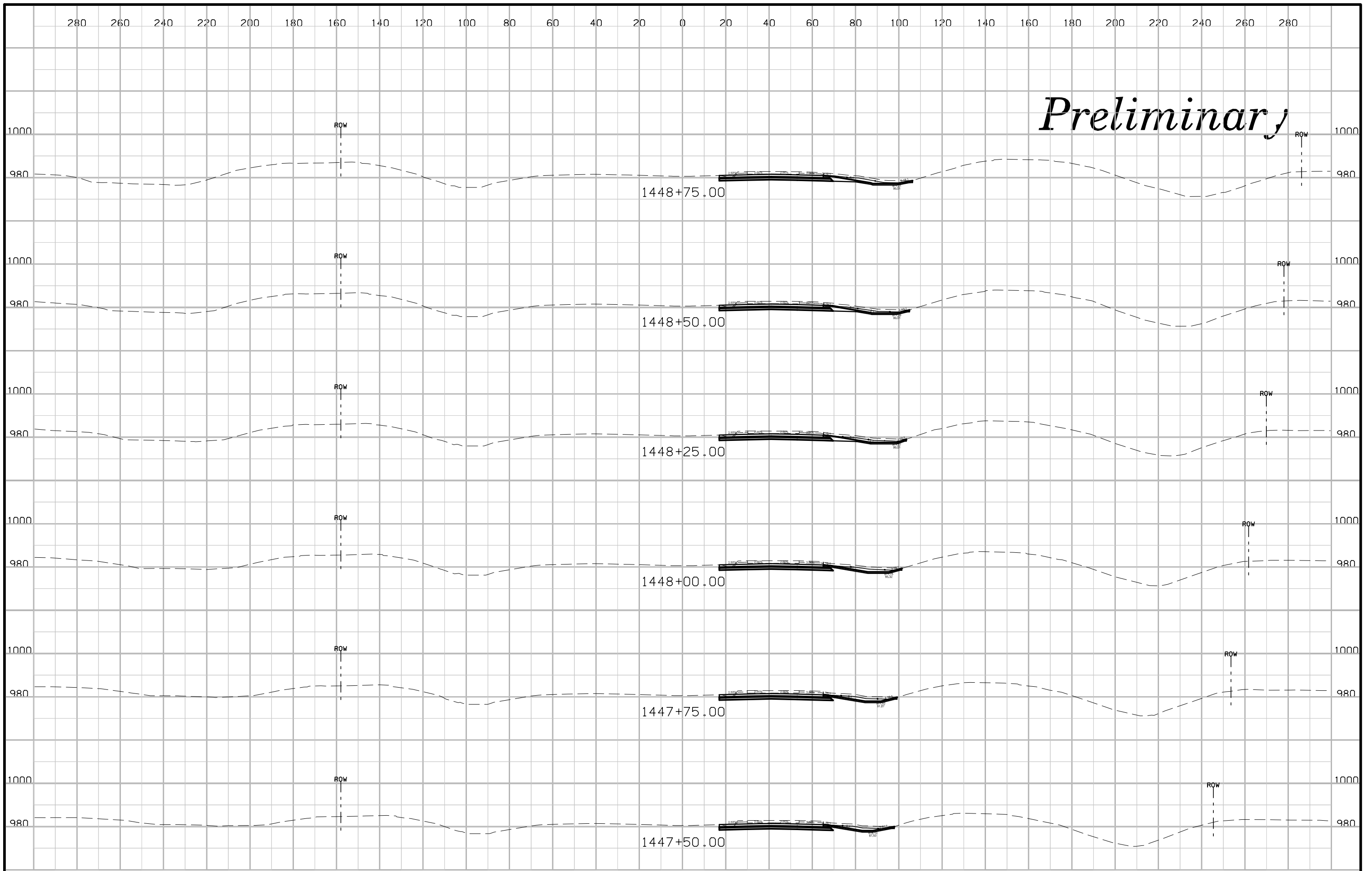
POLK COUNTY

PROJECT NUMBER

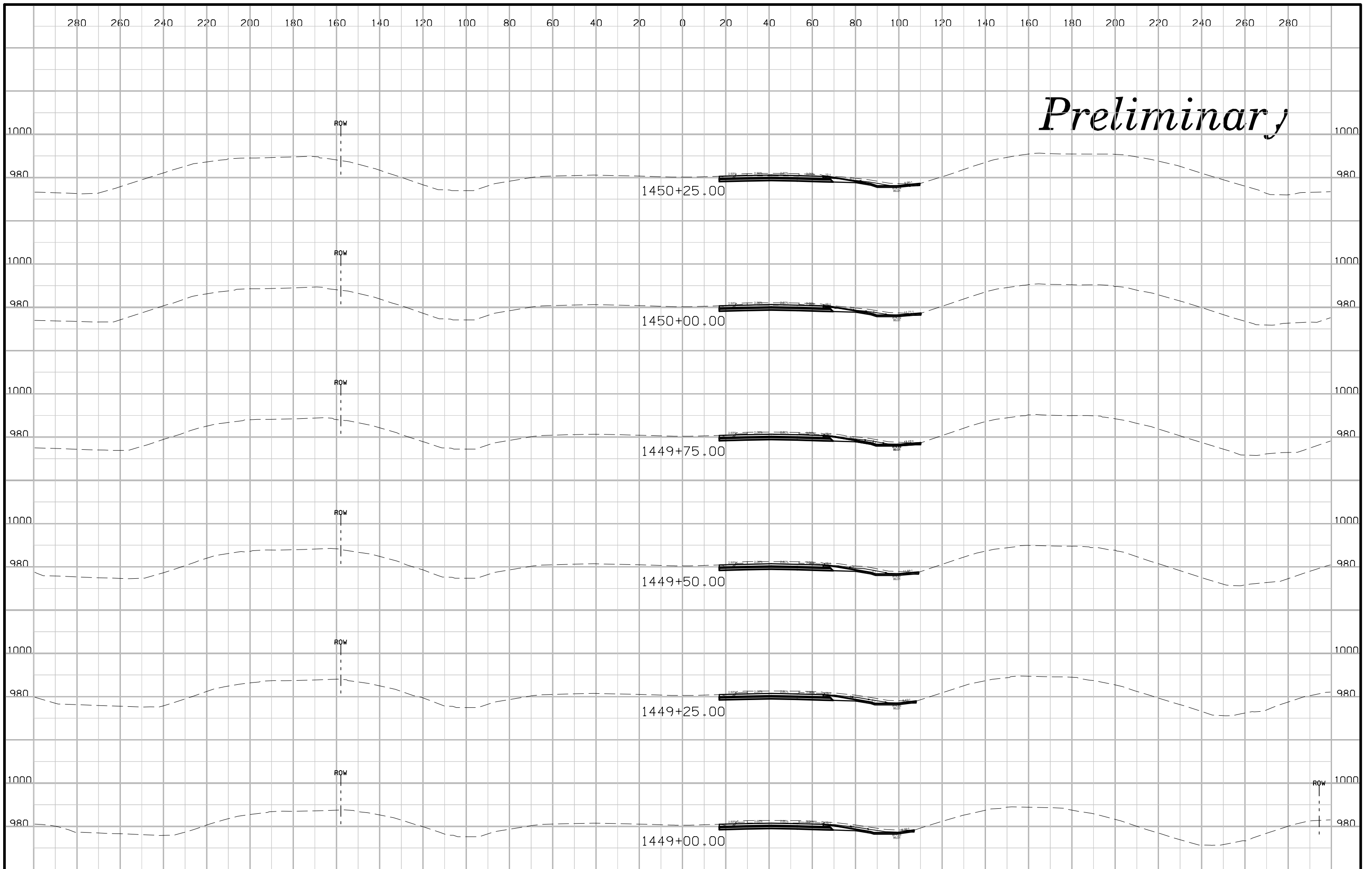
IM-035-2(365)67--13-77

SHEET NUMBER **W.68**

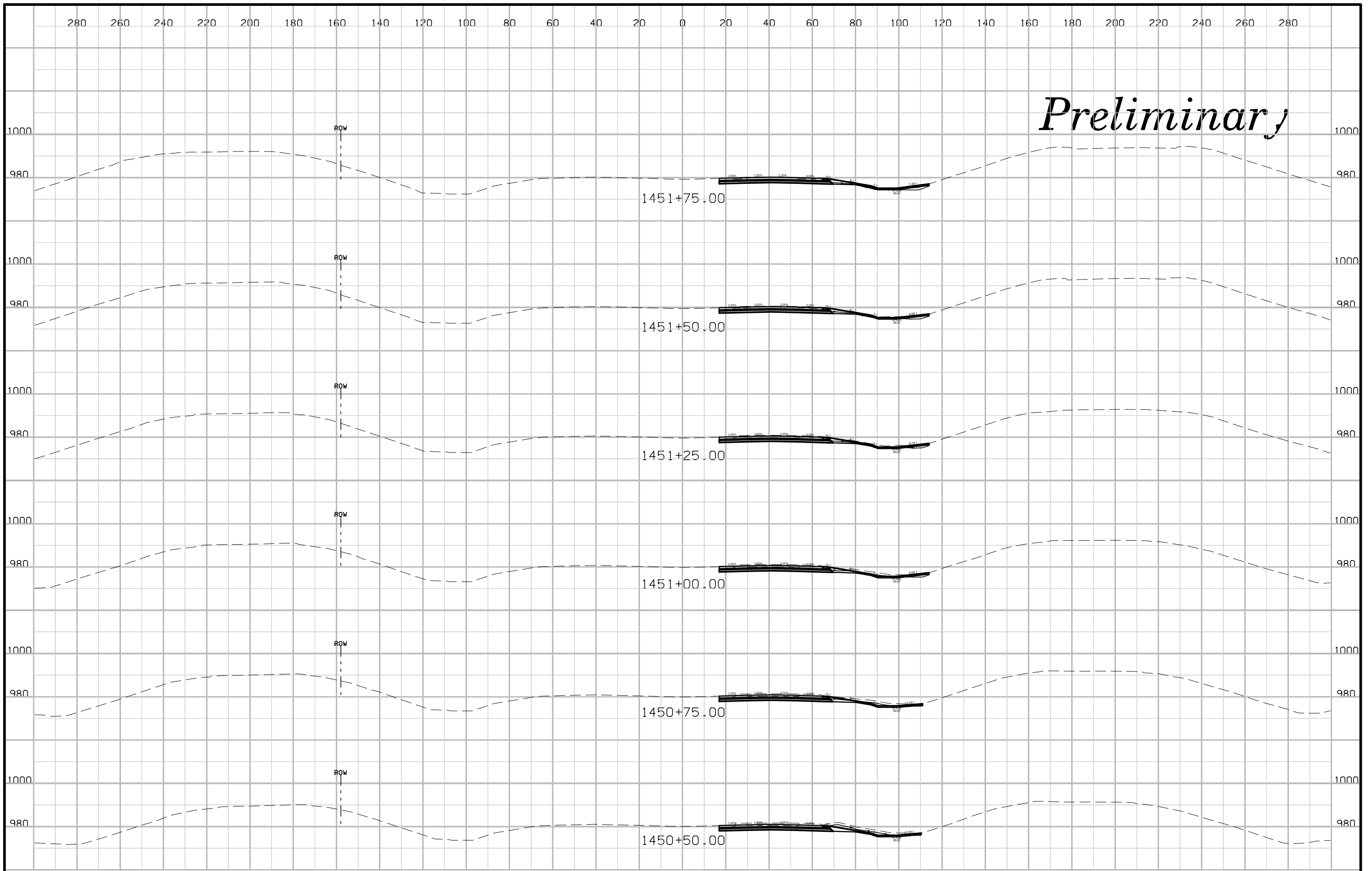
Preliminary

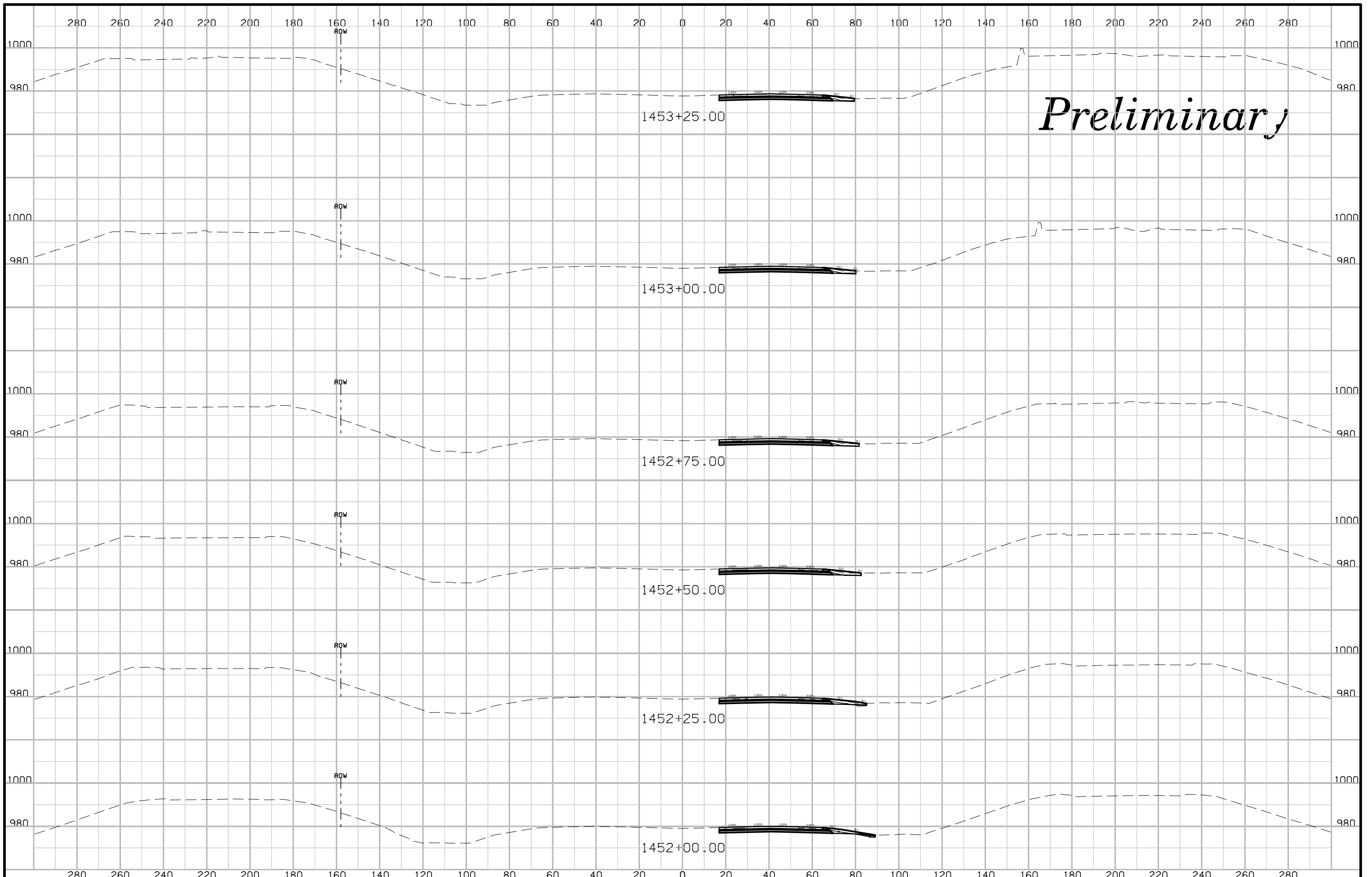


Preliminary

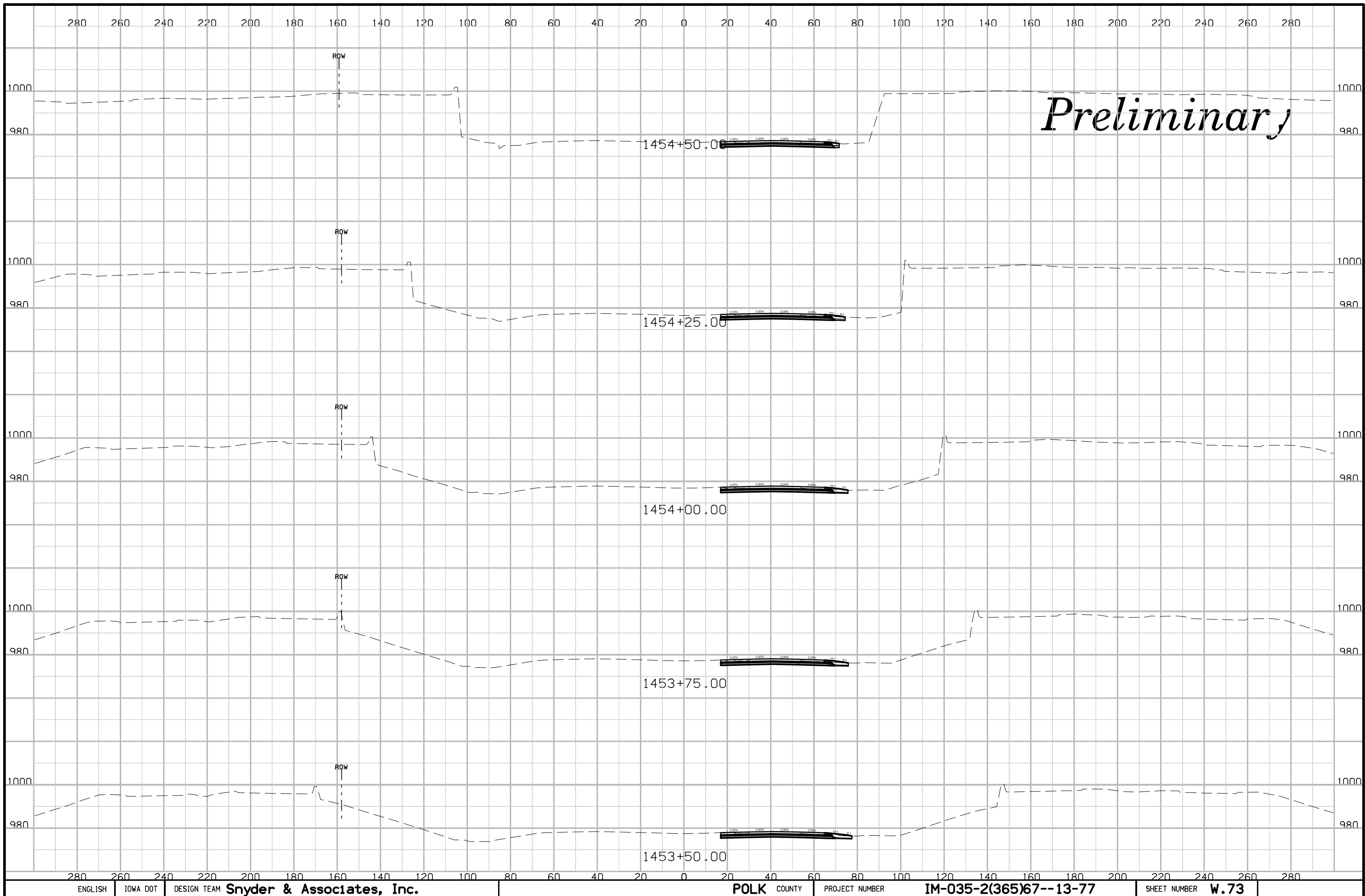


Preliminary



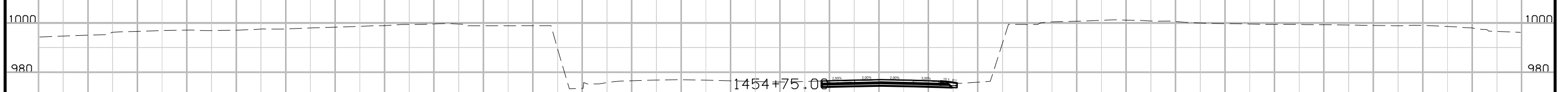
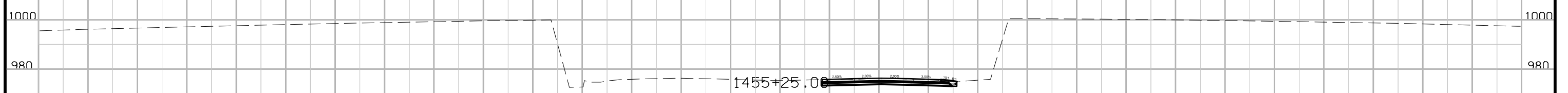
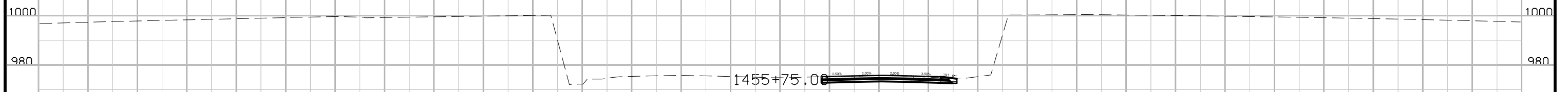


Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

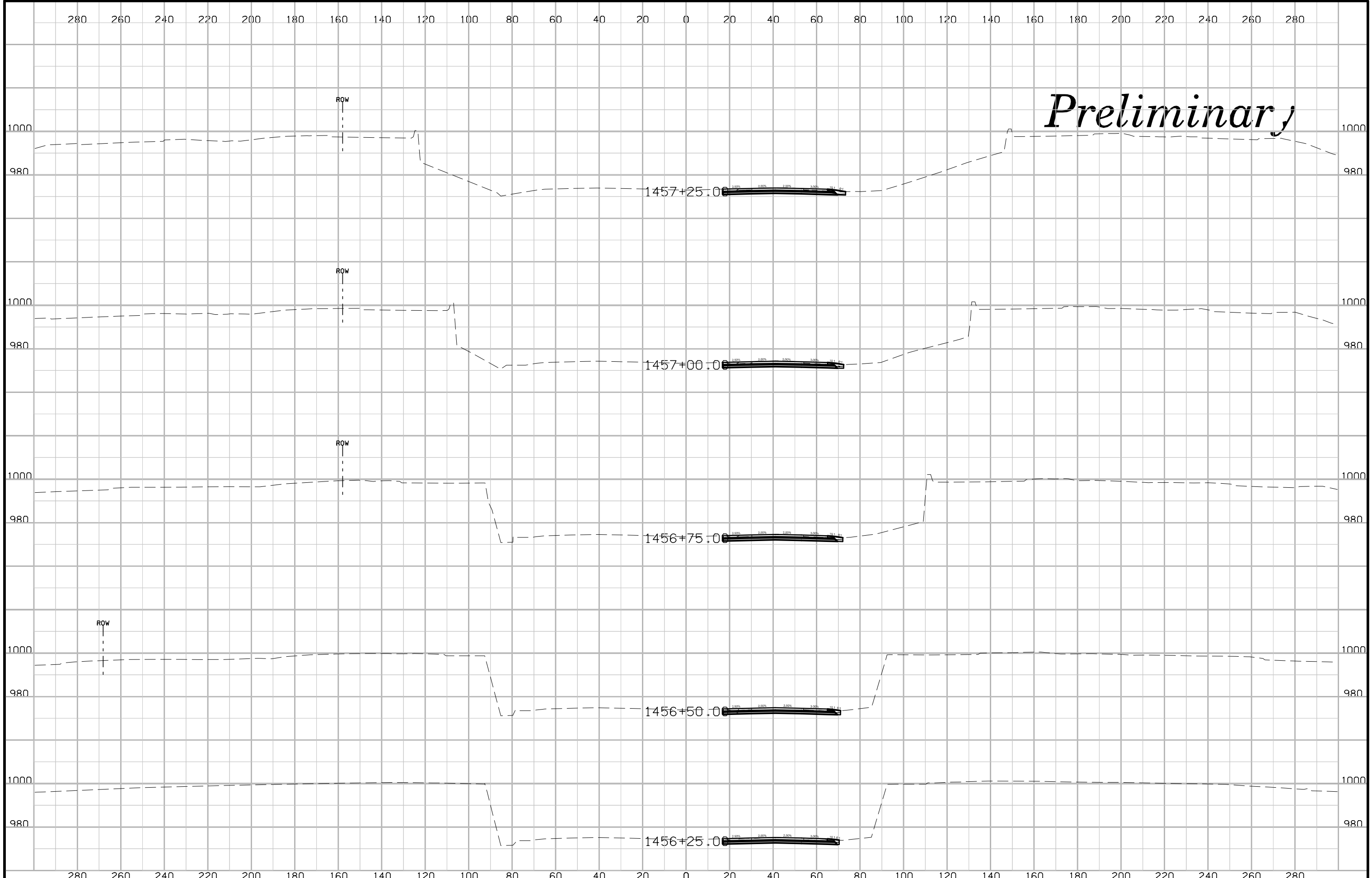
PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER

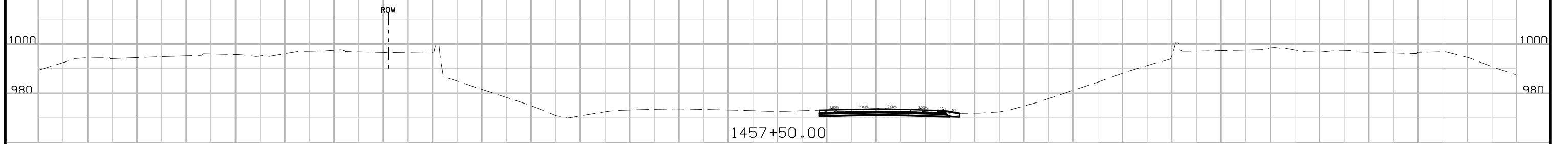
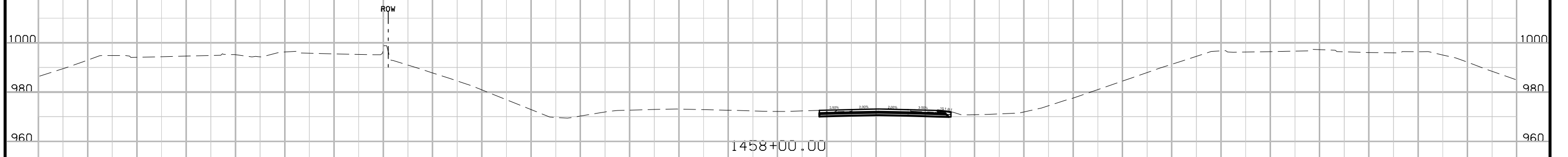
W.74

Preliminary



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Preliminary



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ENGLISH IOWA DOT

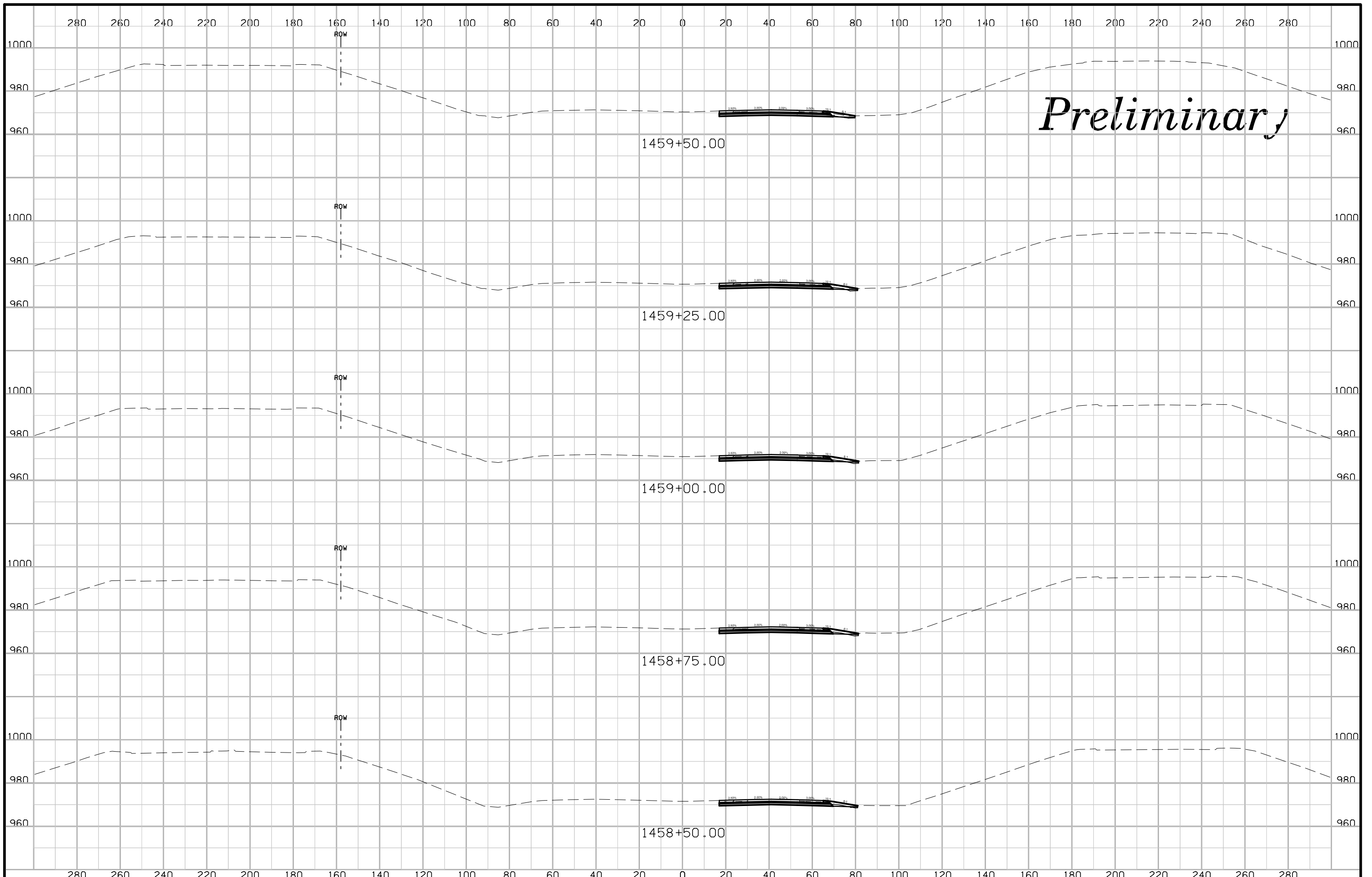
DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.76**



Preliminary

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1459+25.00

1459+00.00

1458+75.00

1458+50.00

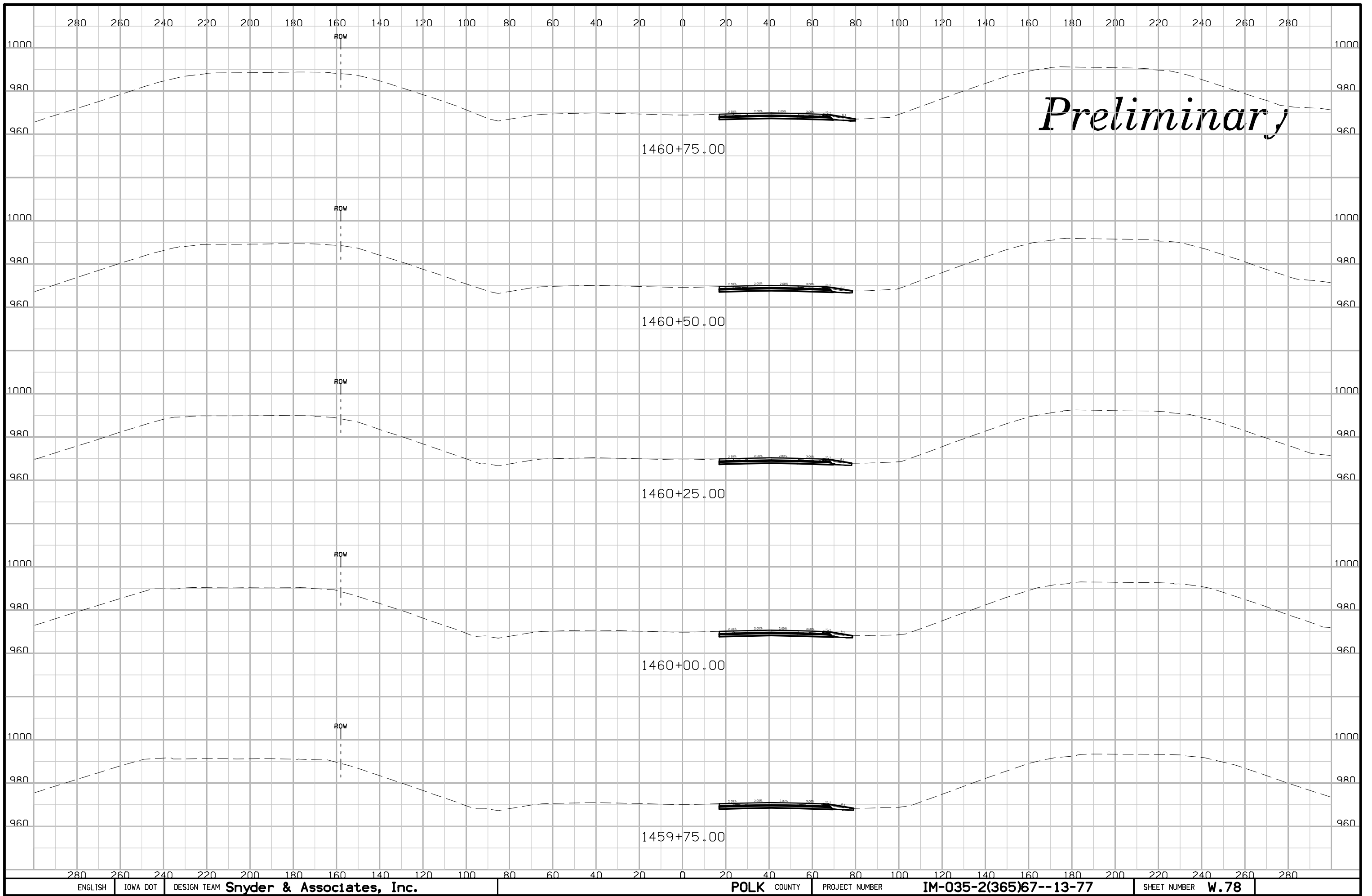
ROW

ROW

ROW

ROW

ROW



Preliminary

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1460+50.00

1460+25.00

1460+00.00

1459+75.00

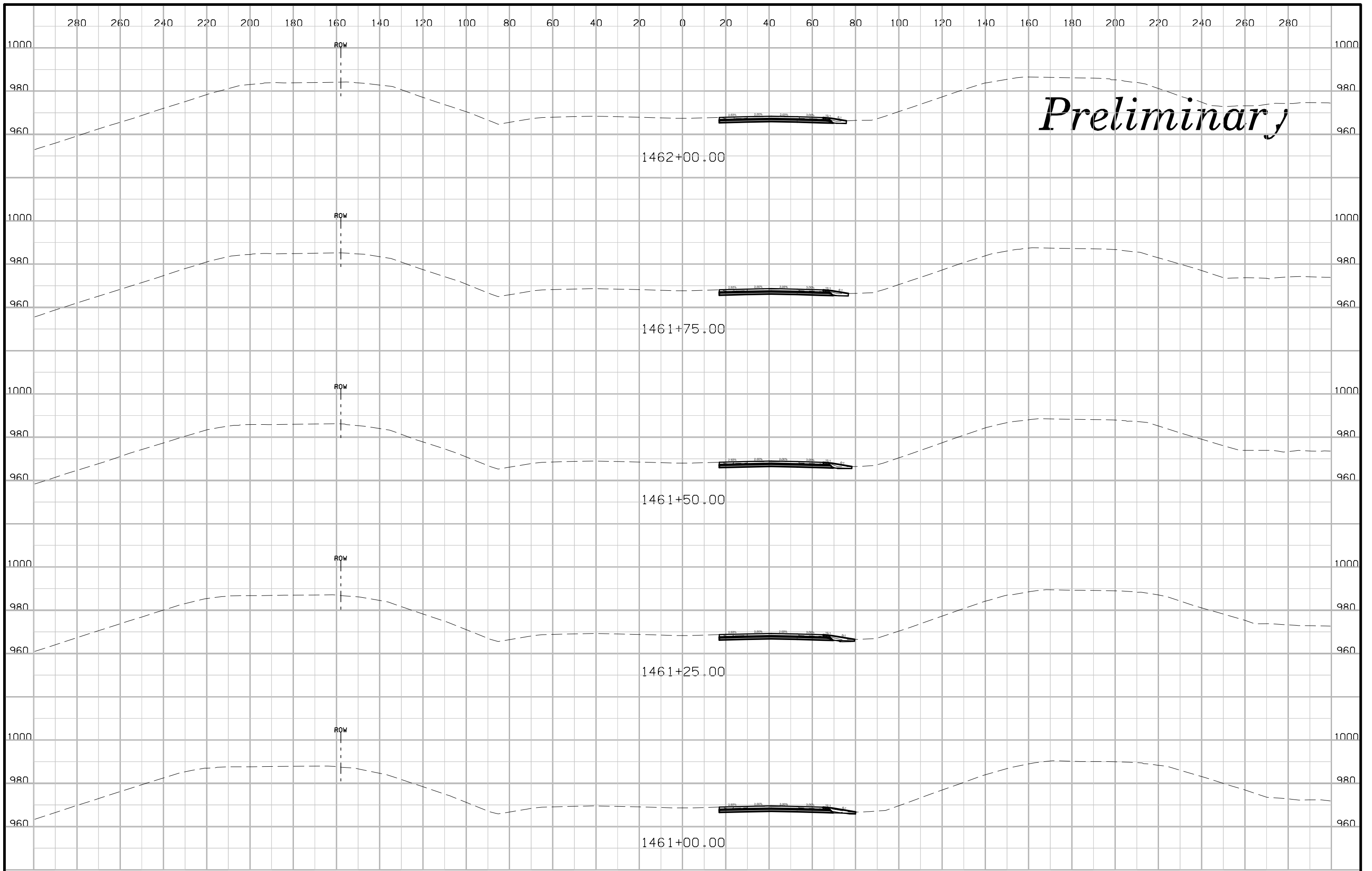
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ROW

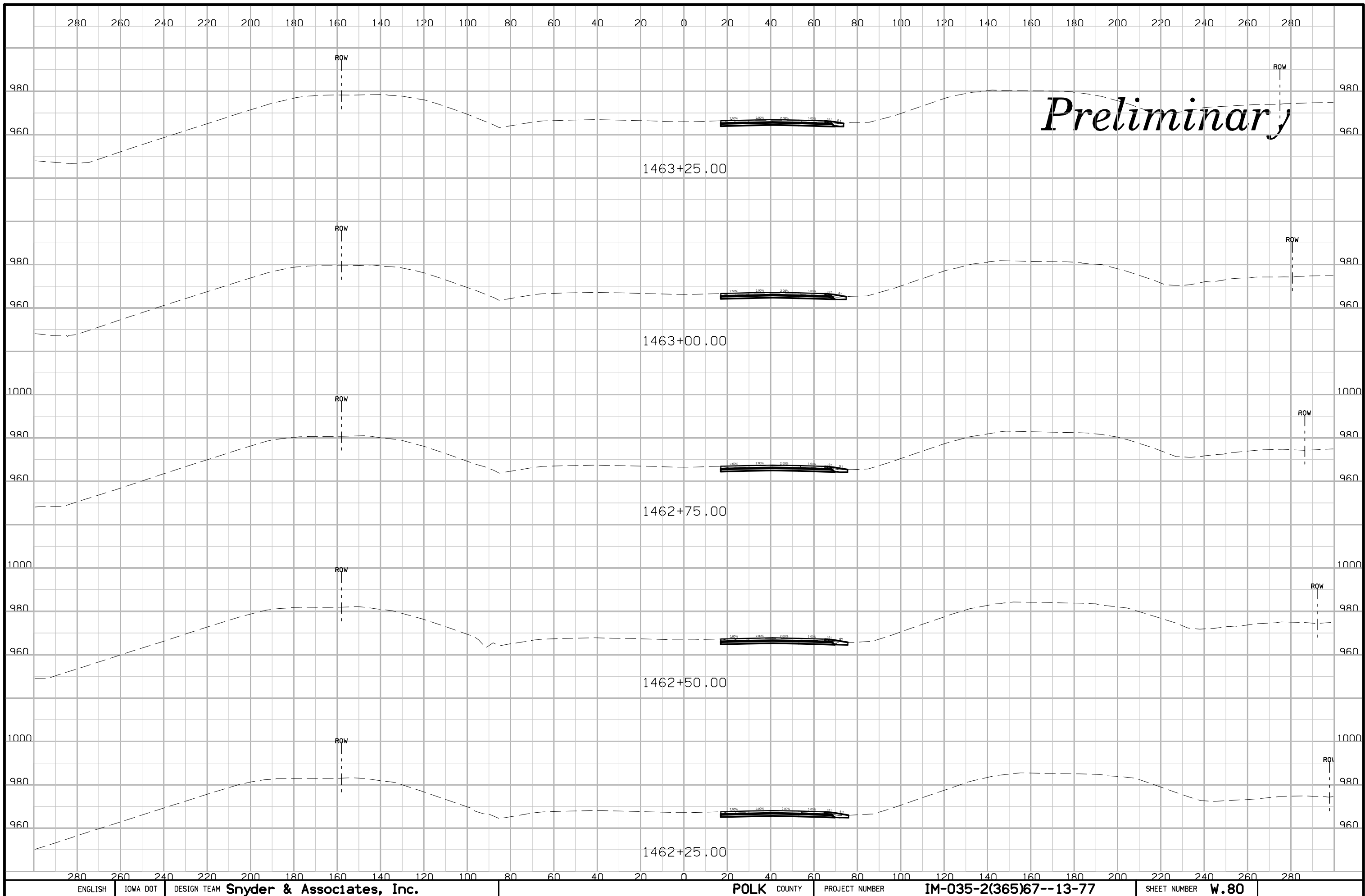
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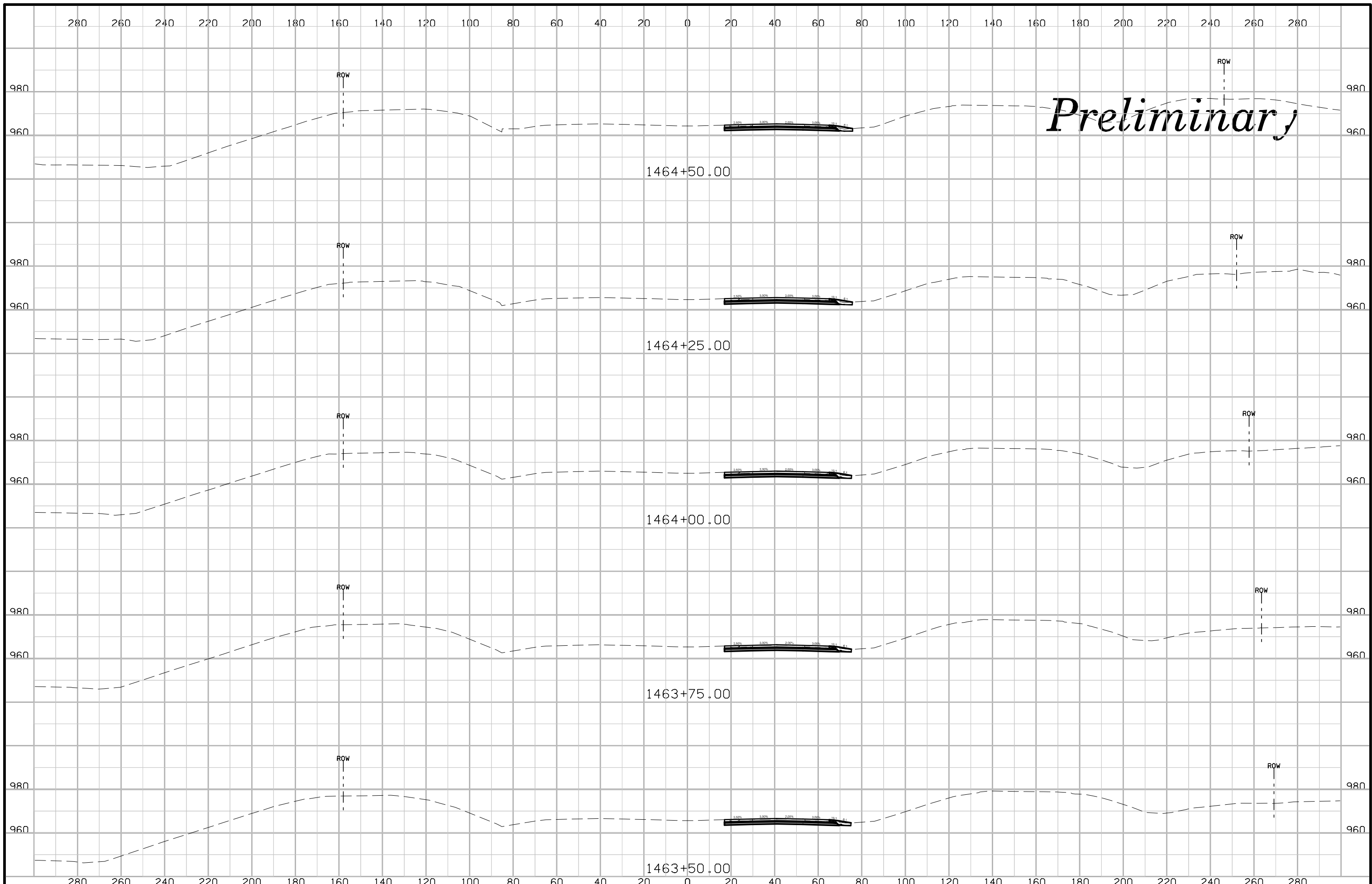
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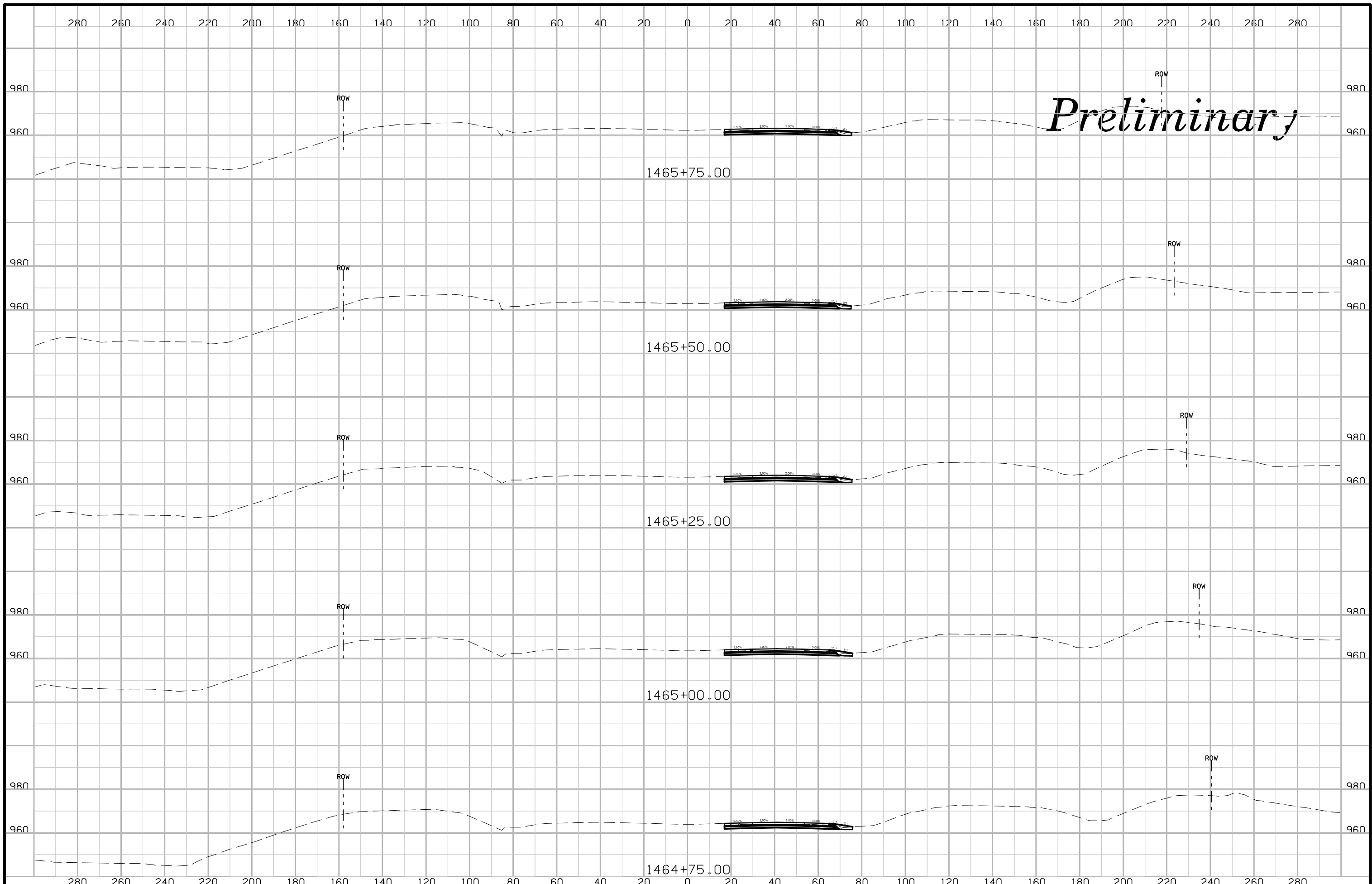
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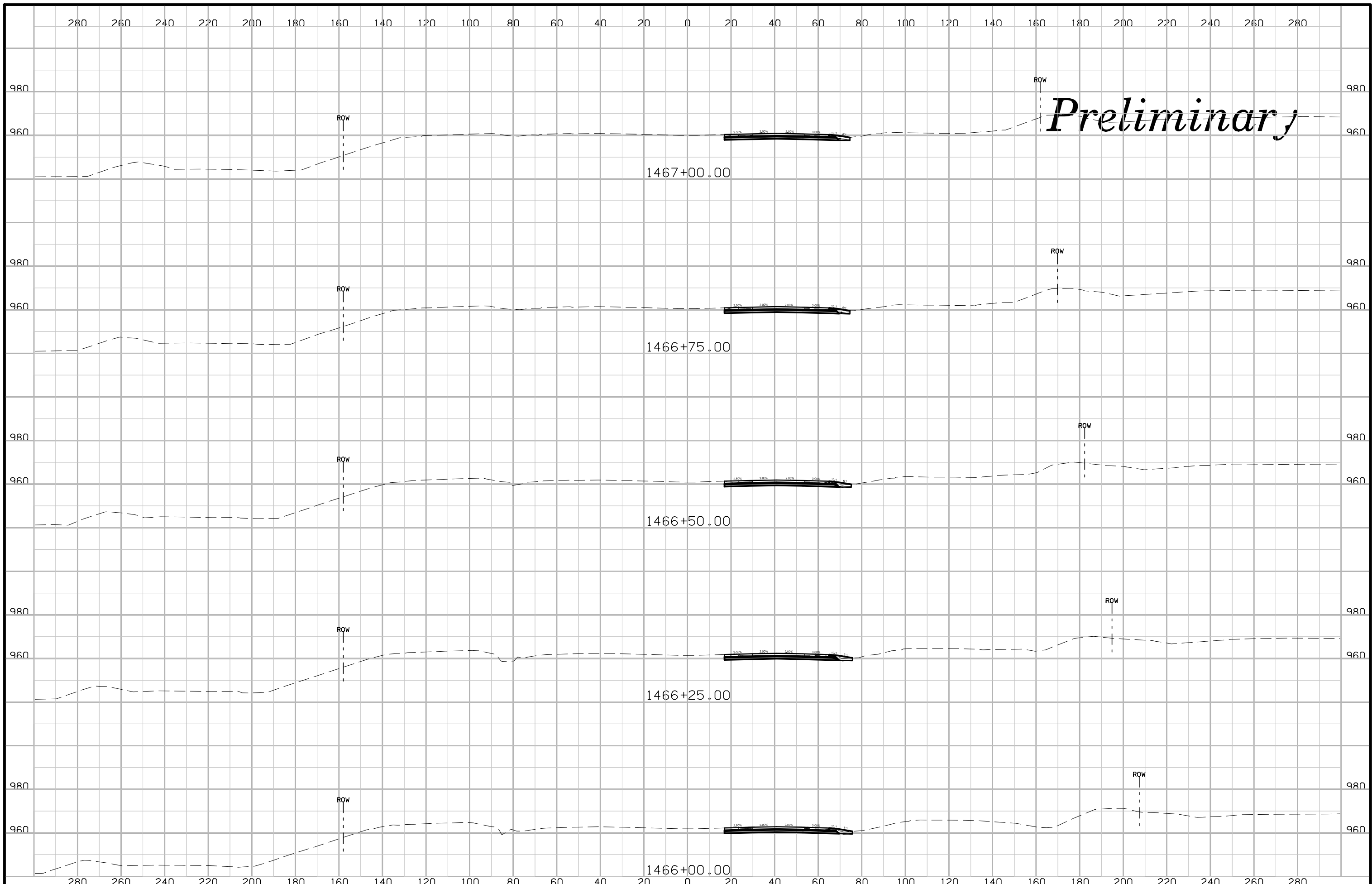
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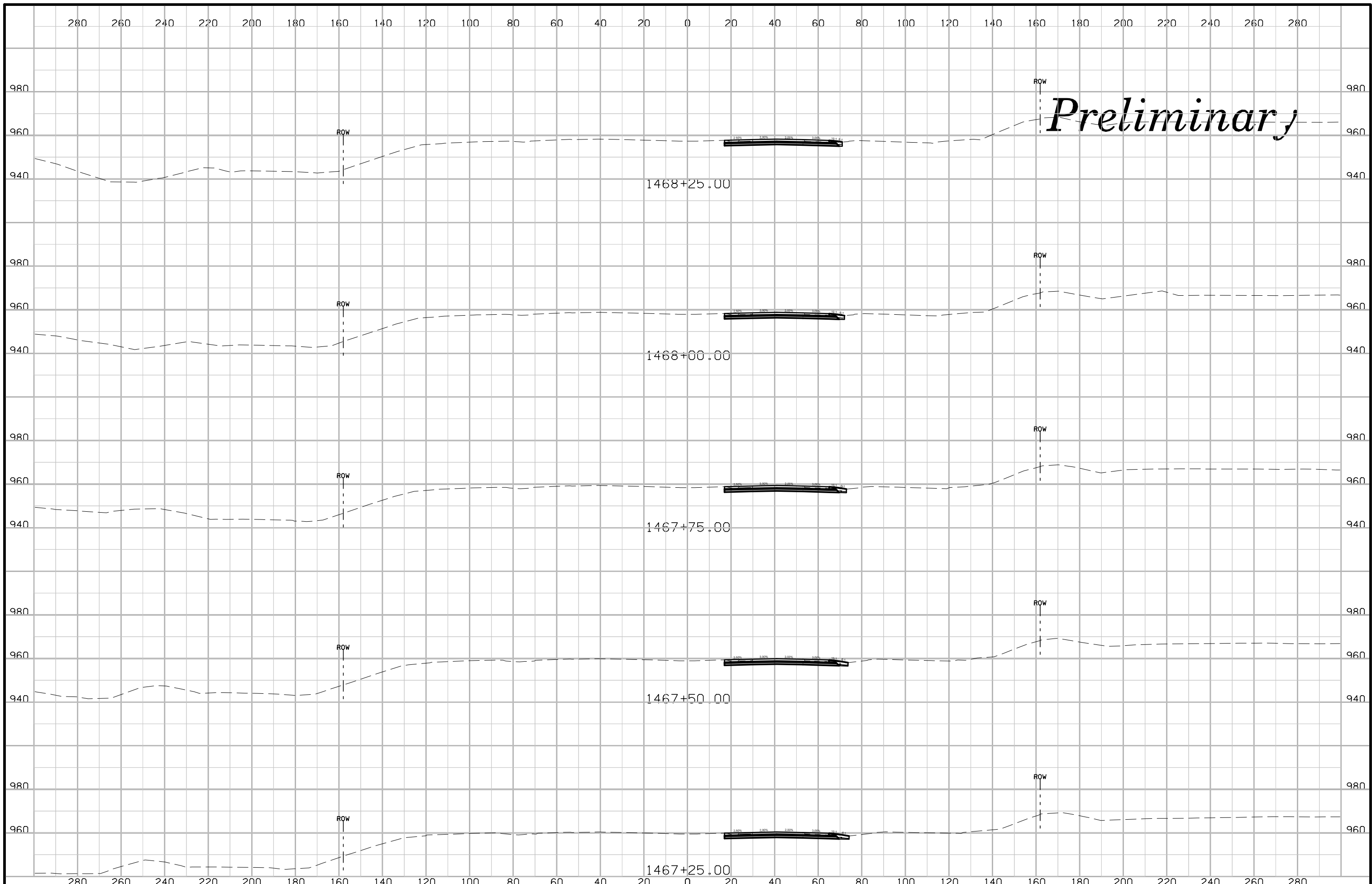






Preliminary





Preliminary

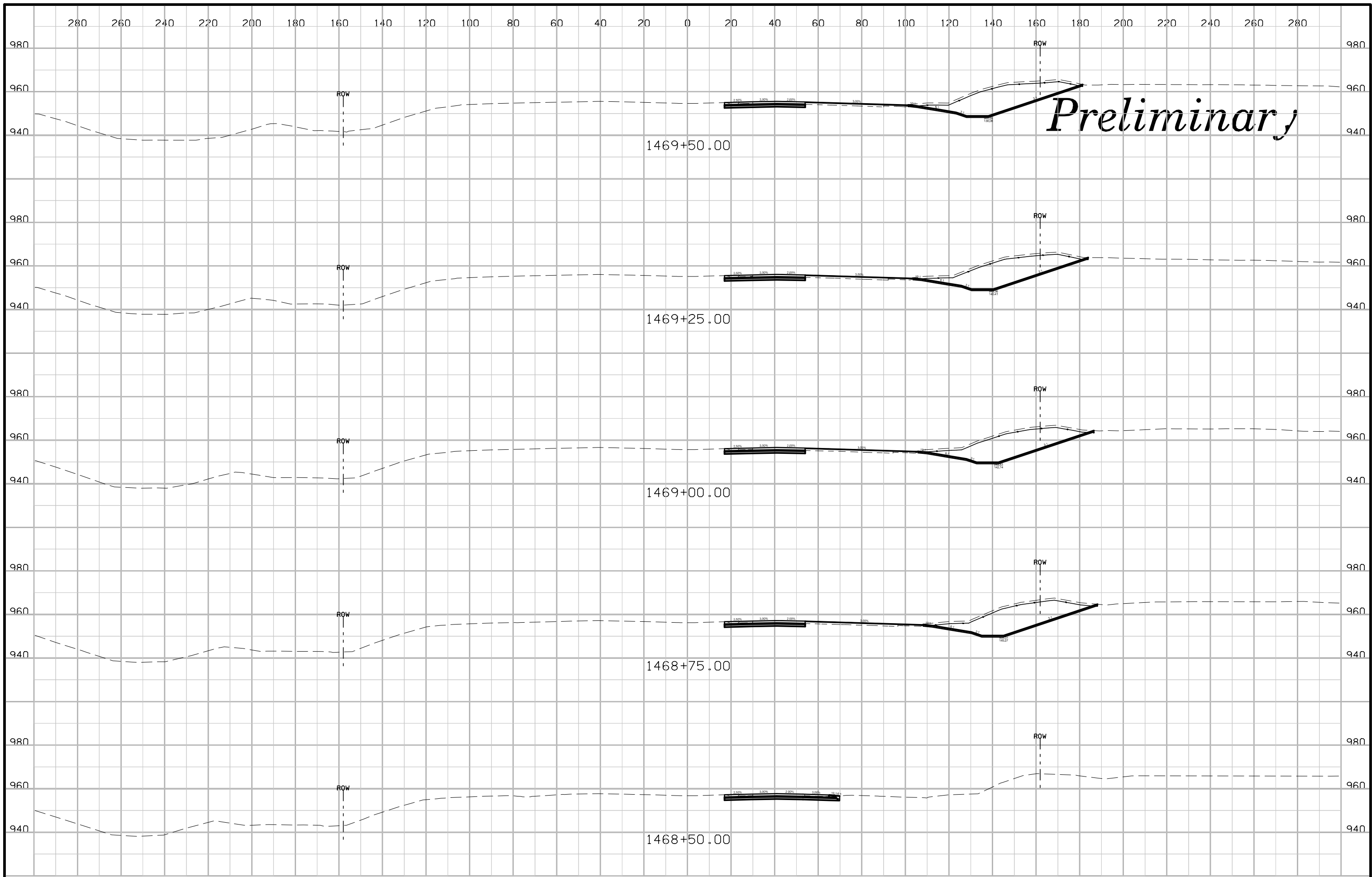
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1468+00.00

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1467+50.00

1467+25.00



Preliminary

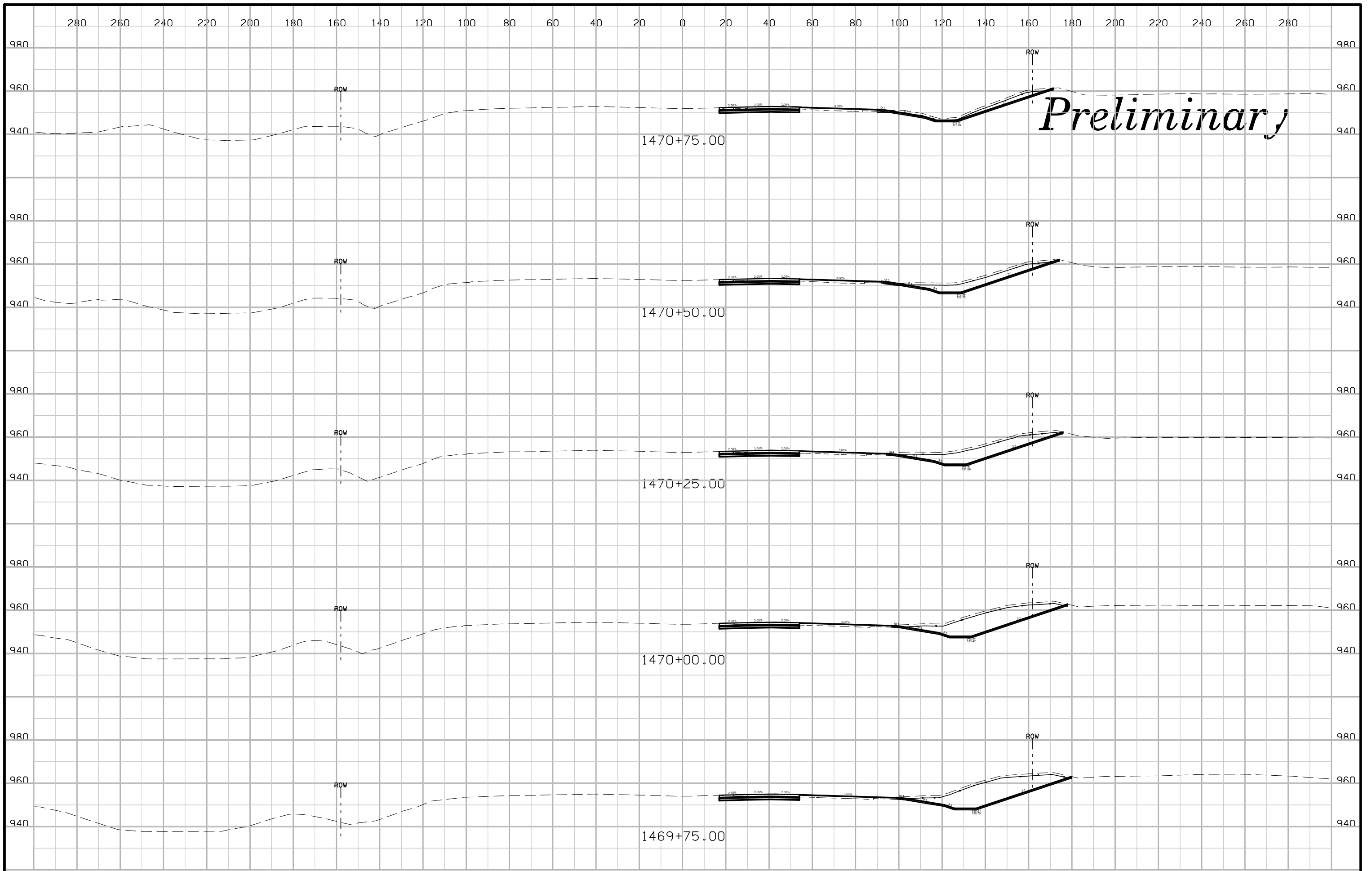
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1469+25.00

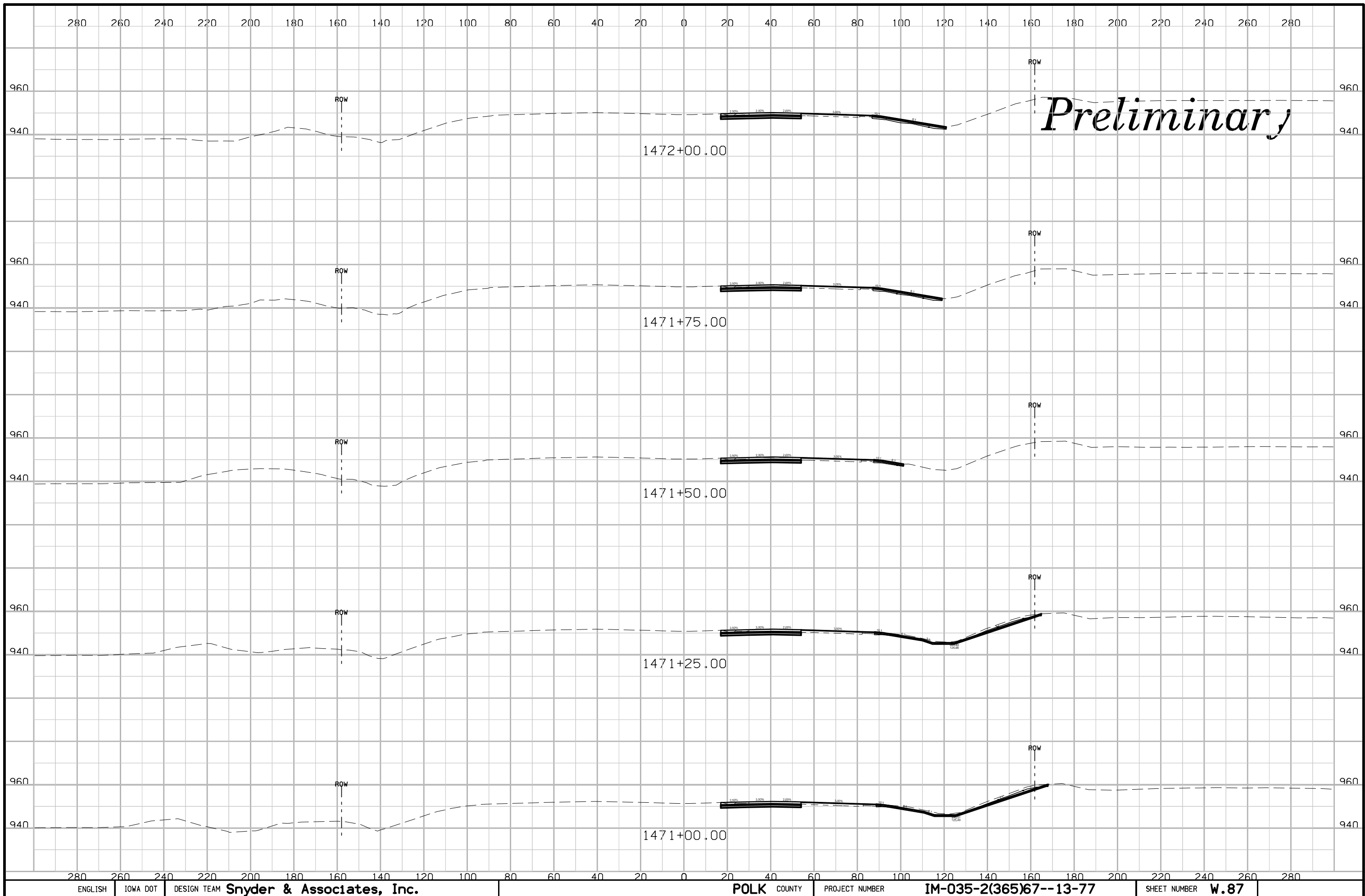
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1468+75.00

1468+50.00



Preliminary



Preliminary

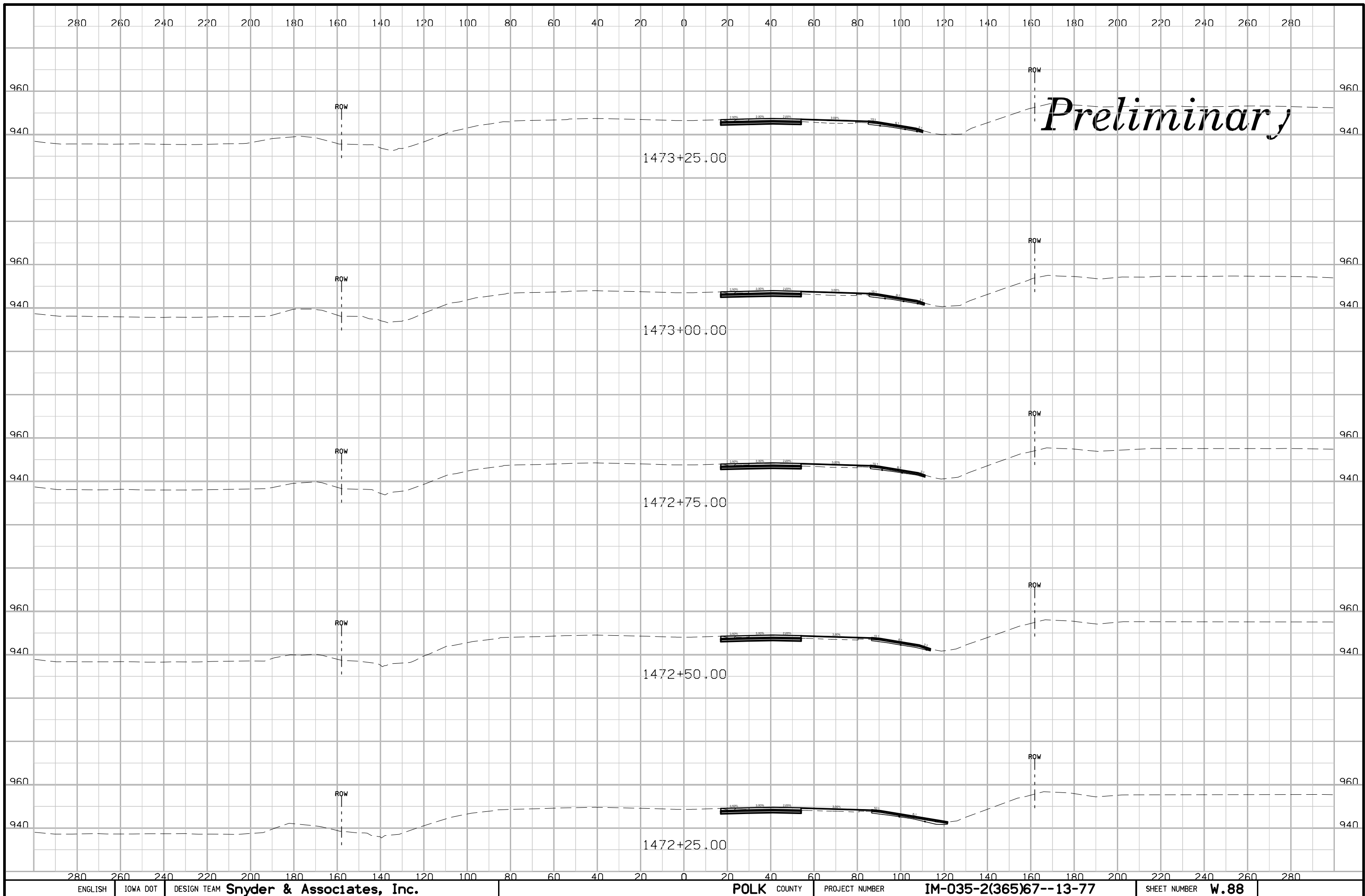
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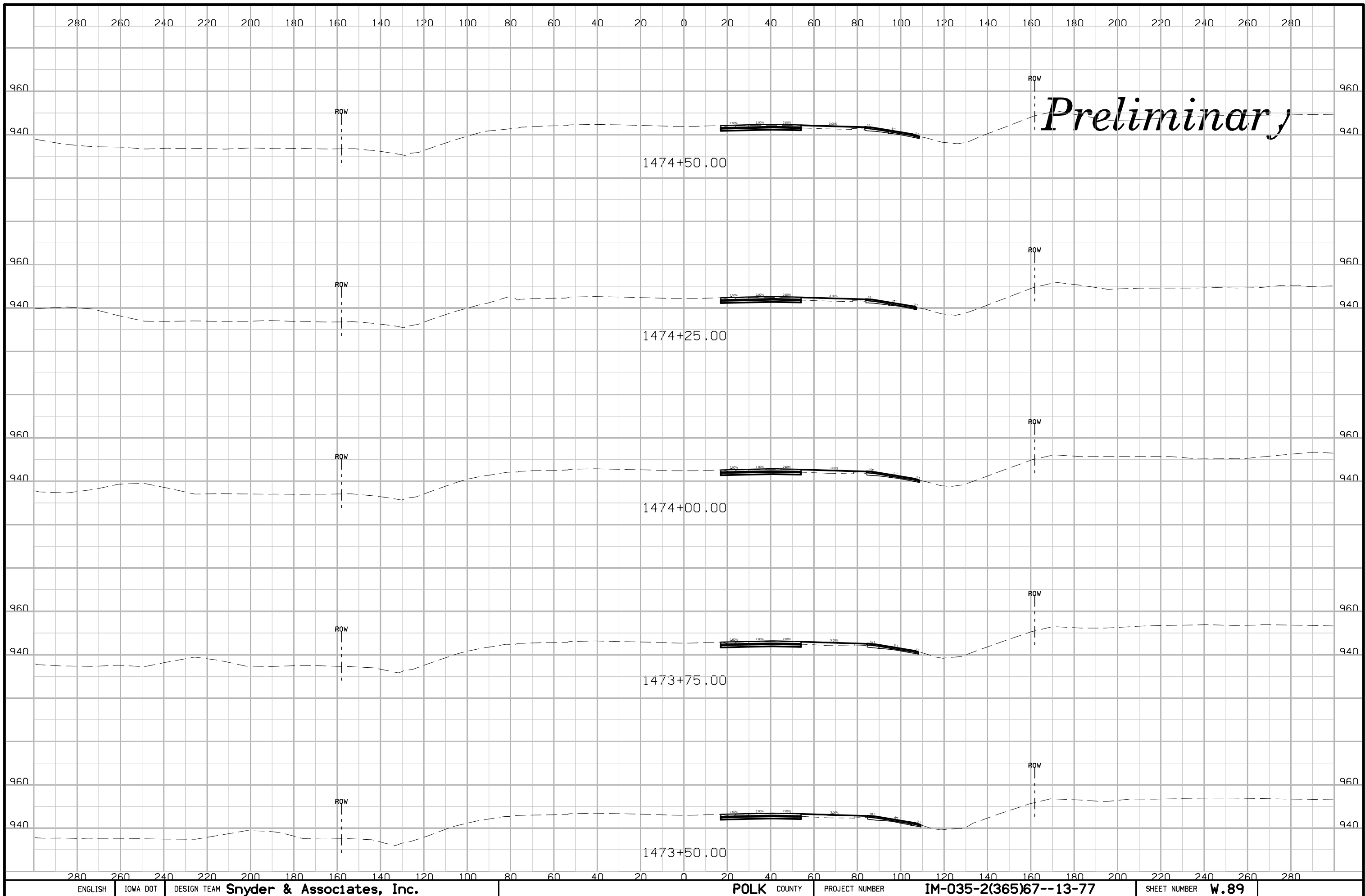
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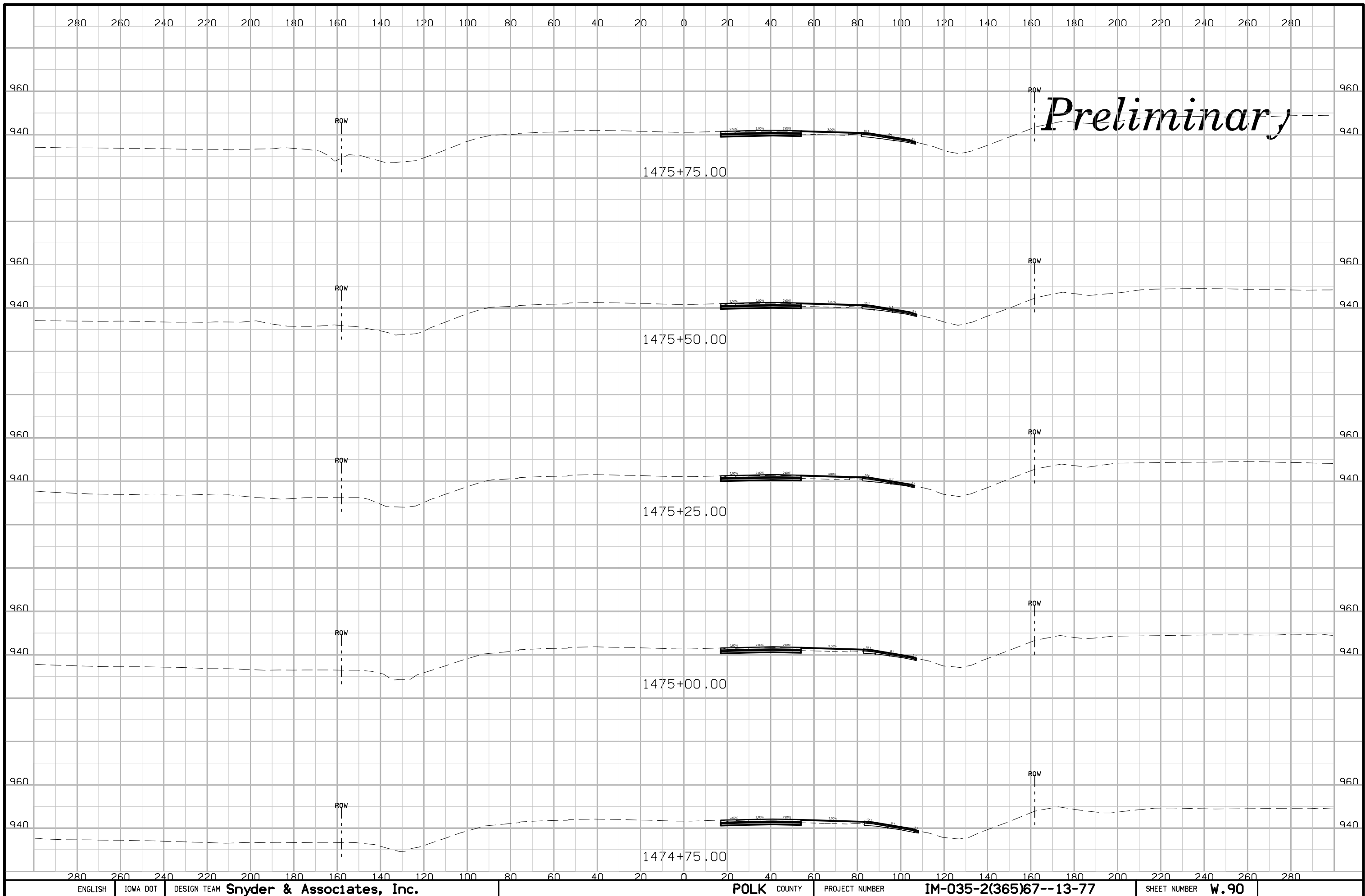
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1471+00.00





Preliminary



Preliminary

1475+75.00

1475+50.00

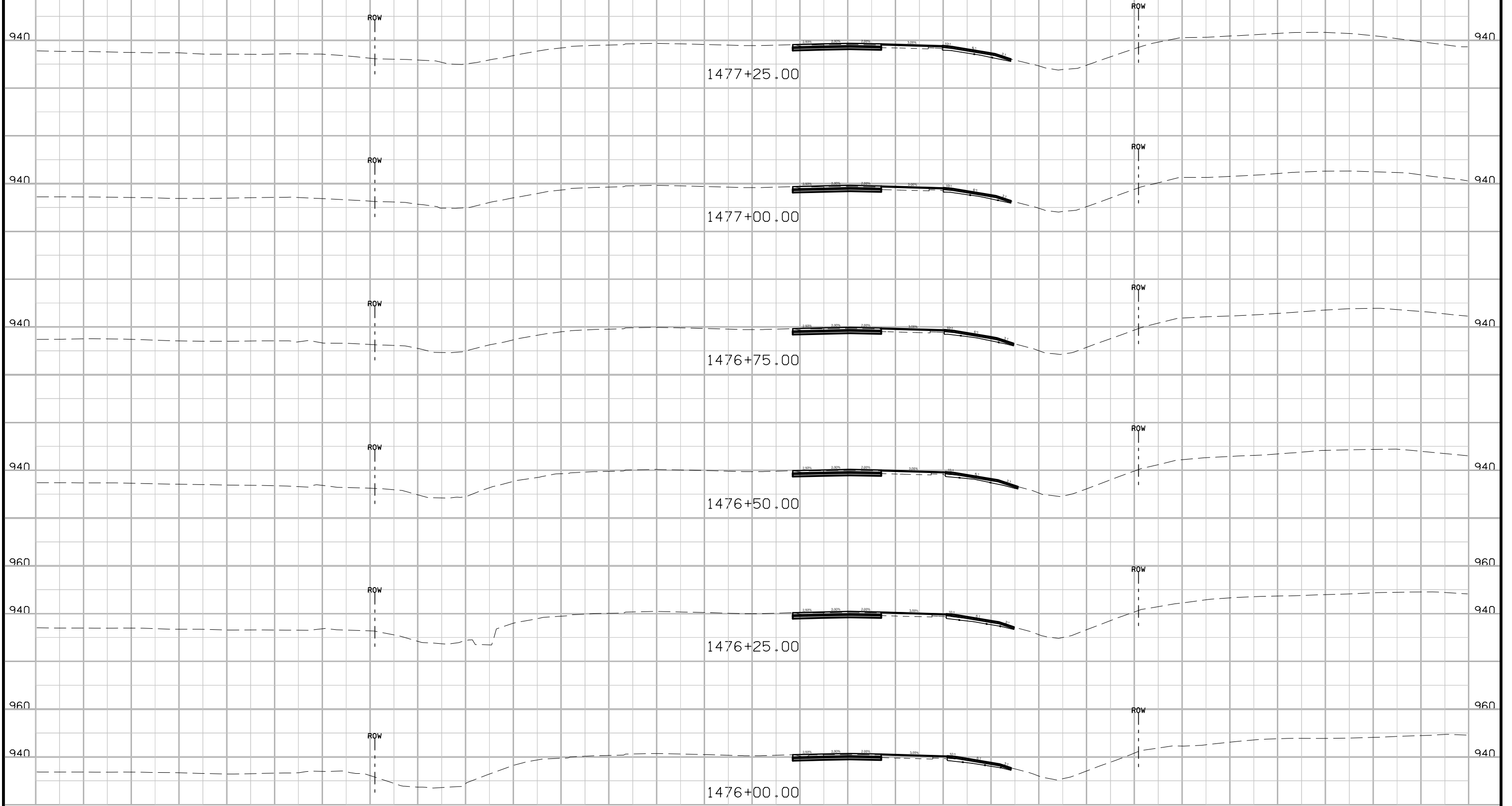
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1475+00.00

1474+75.00

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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

PROJECT NUMBER

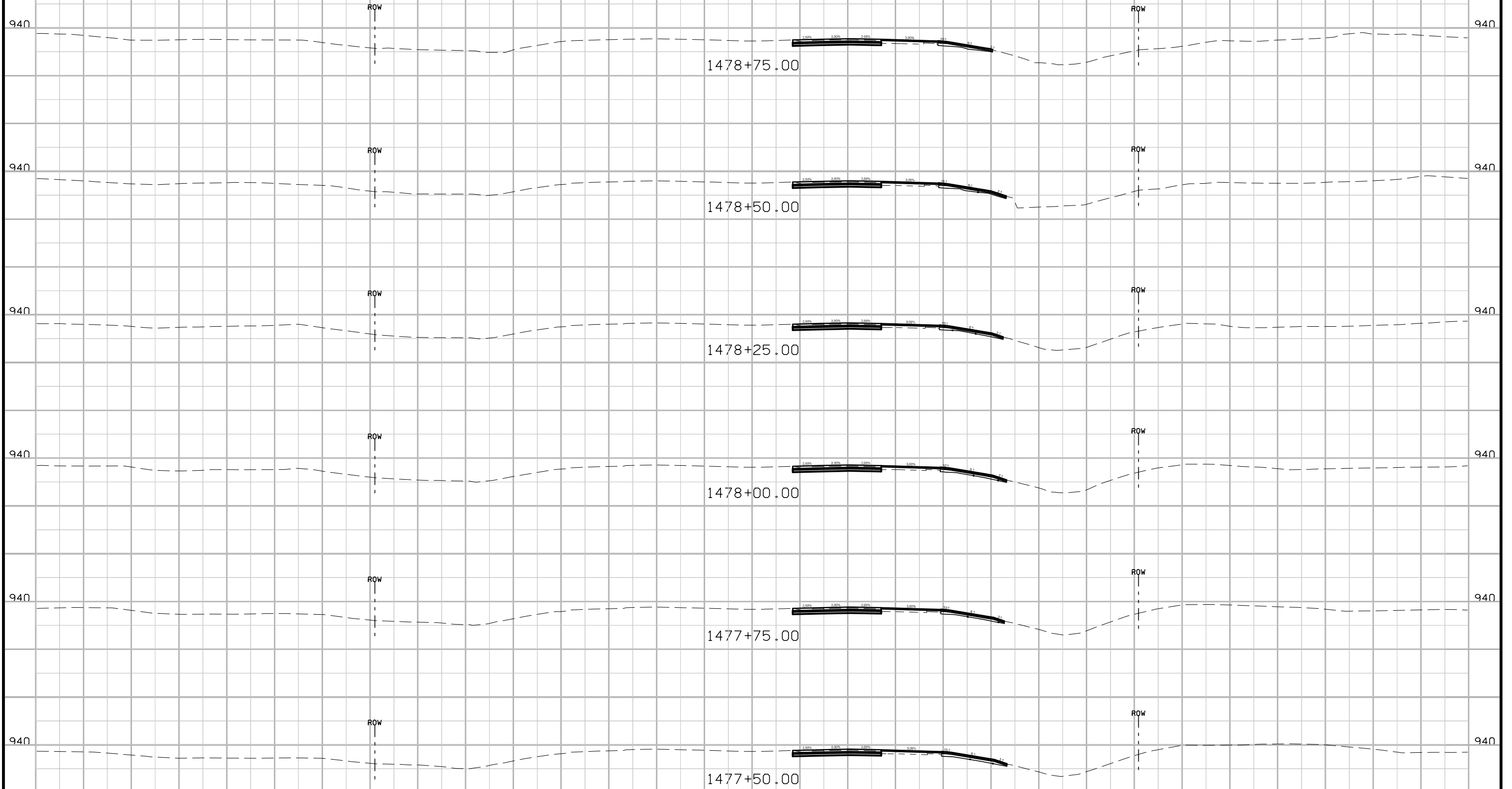
IM-035-2(365)67--13-77

SHEET NUMBER

W.91

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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

PROJECT NUMBER

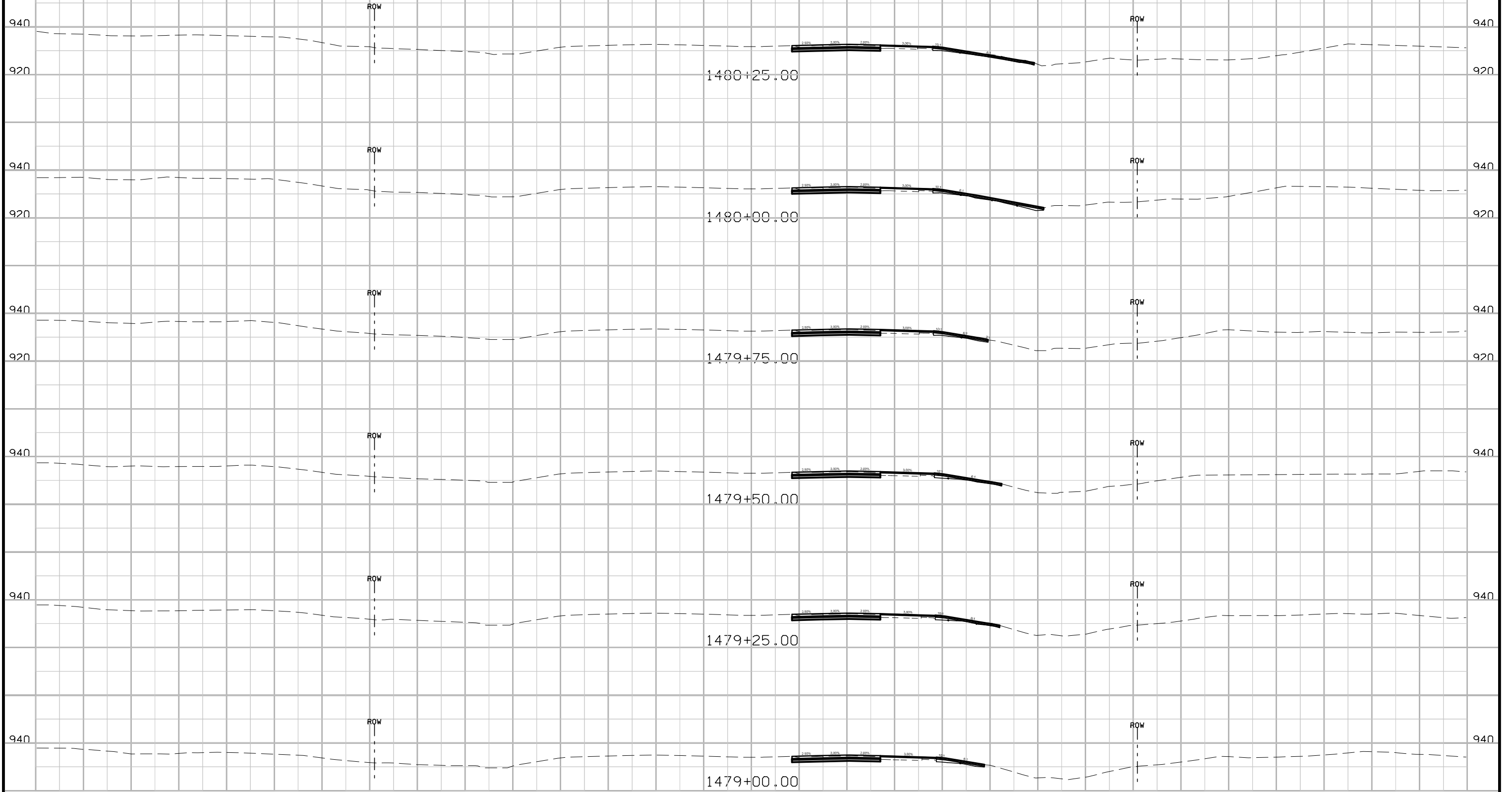
IM-035-2(365)67--13-77

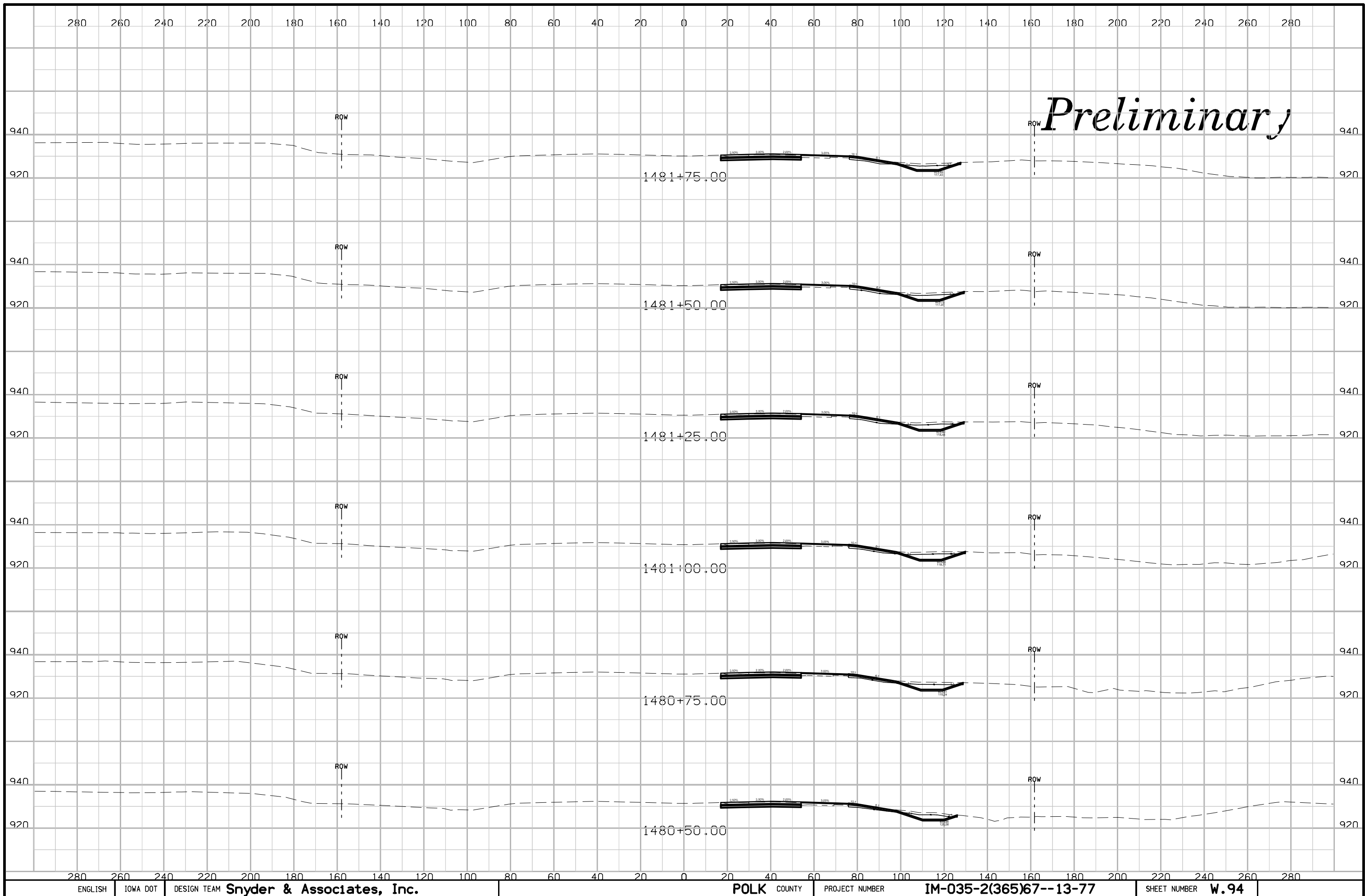
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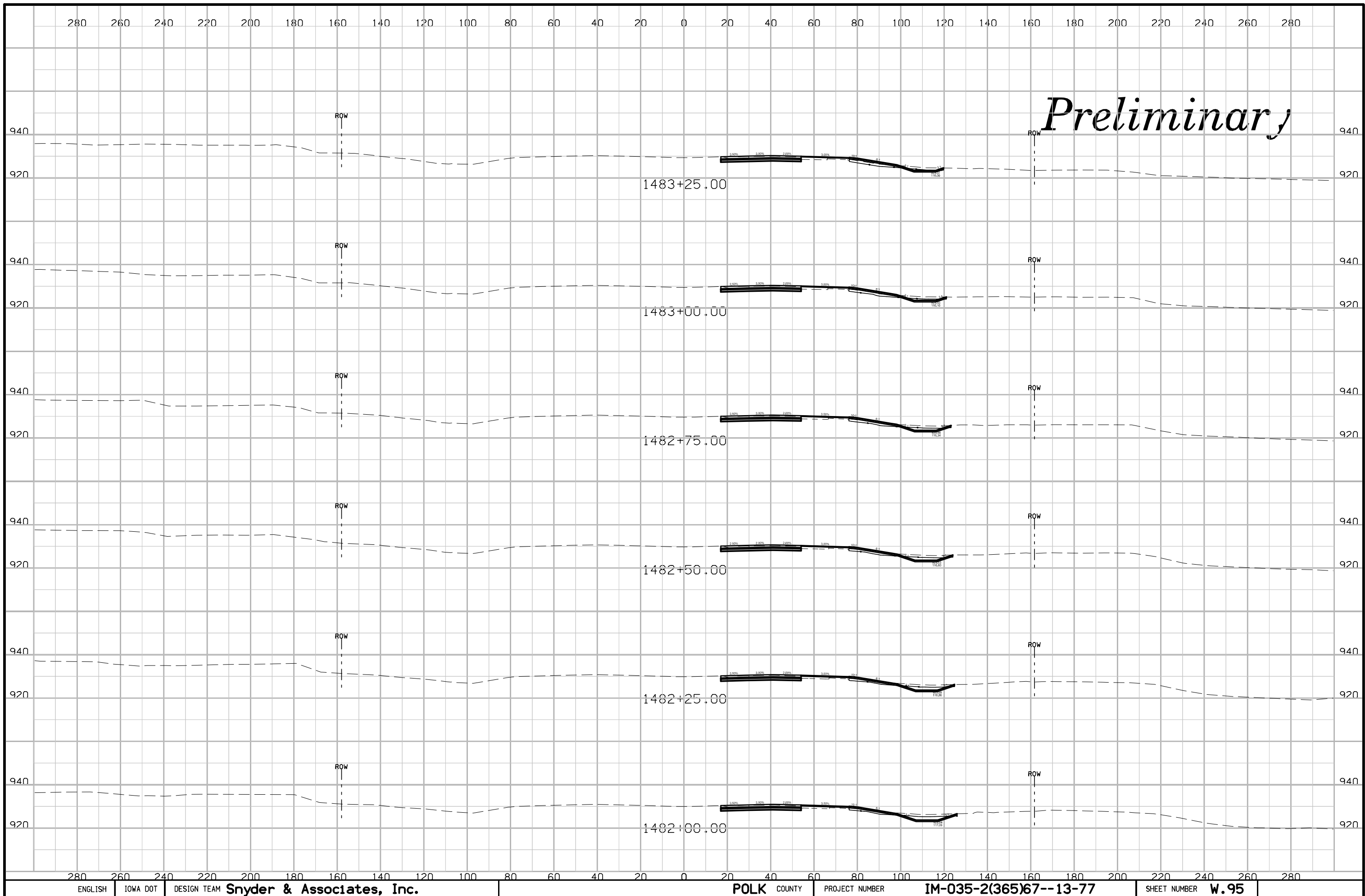
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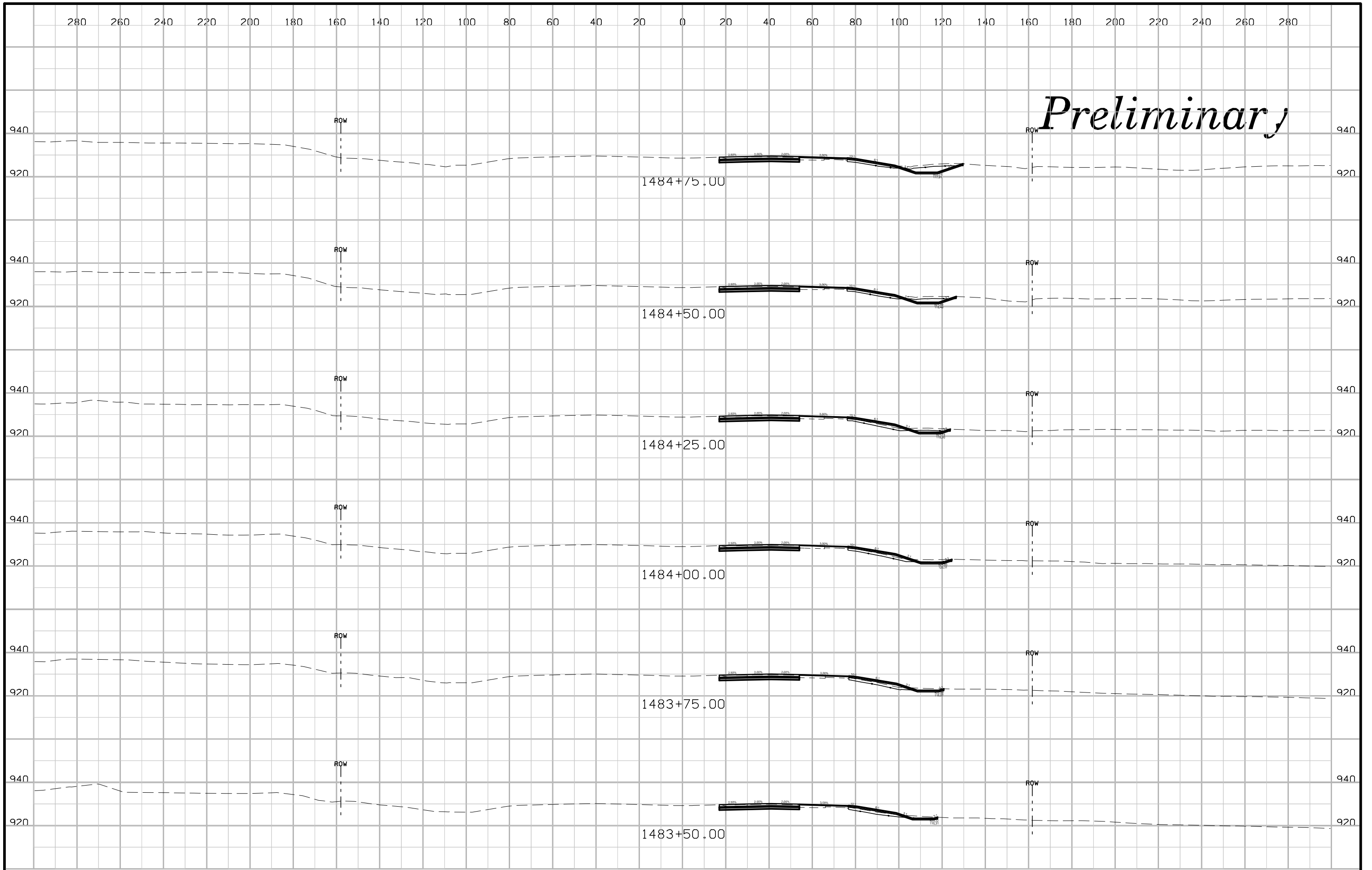
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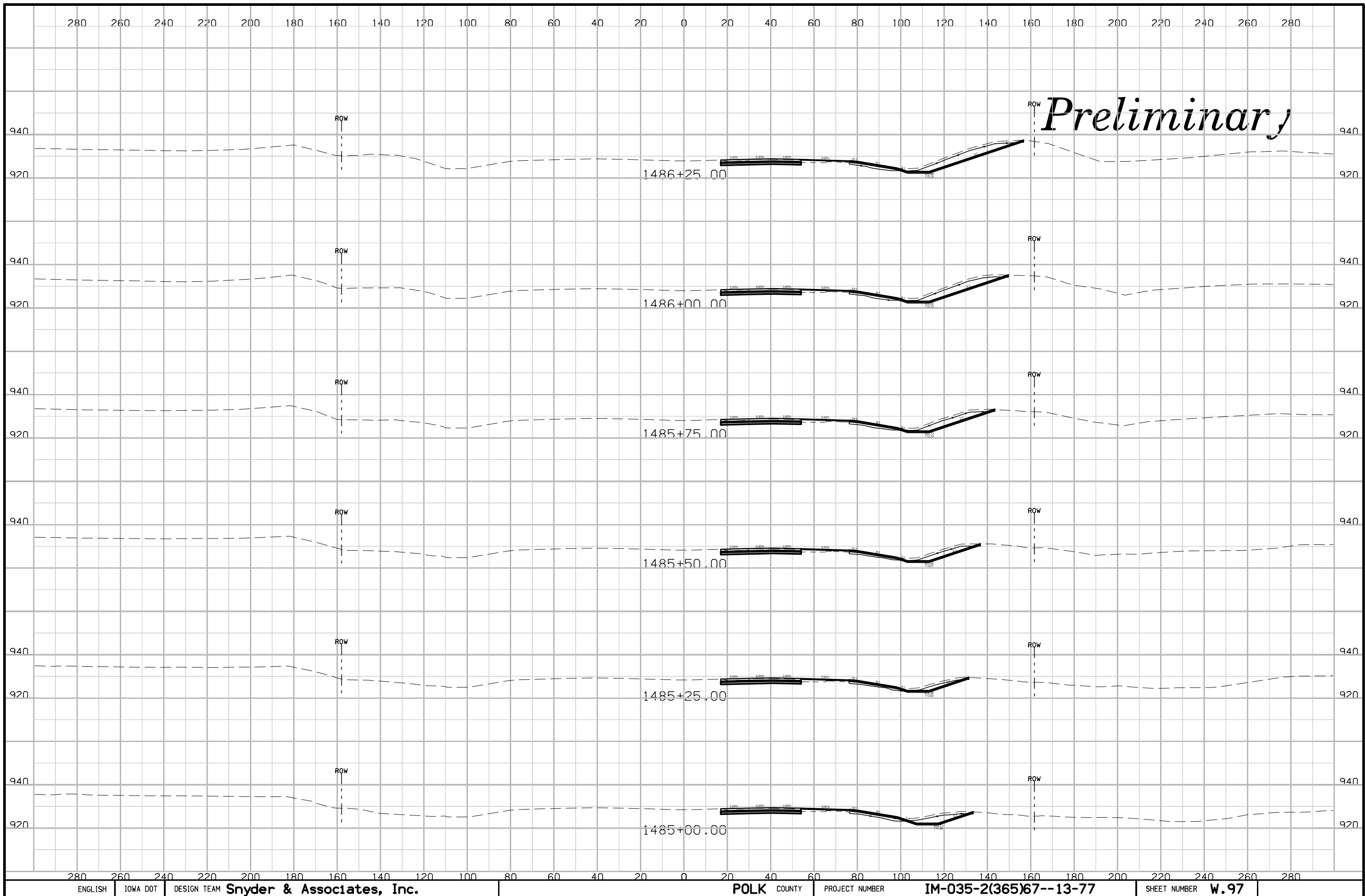




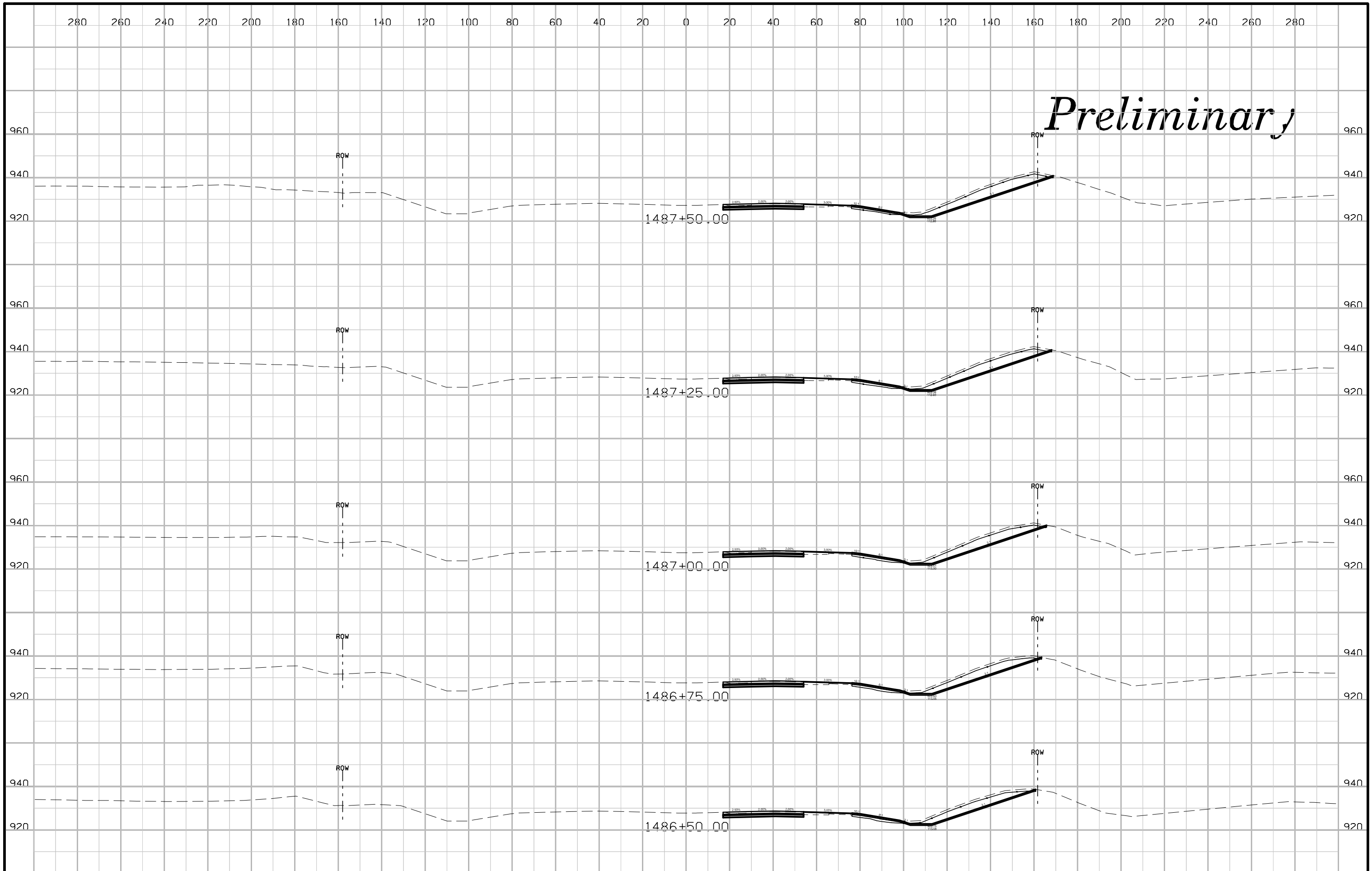


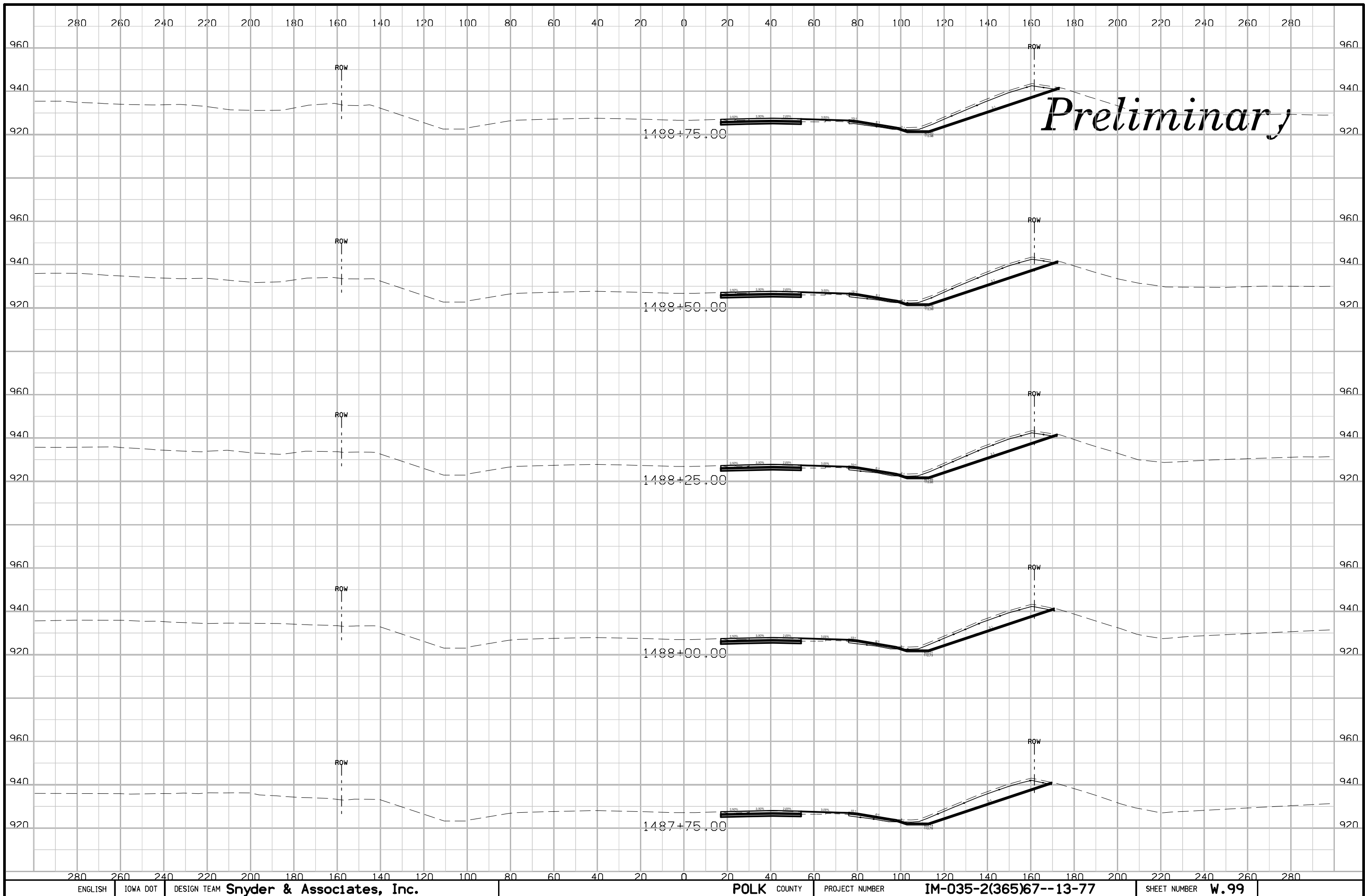
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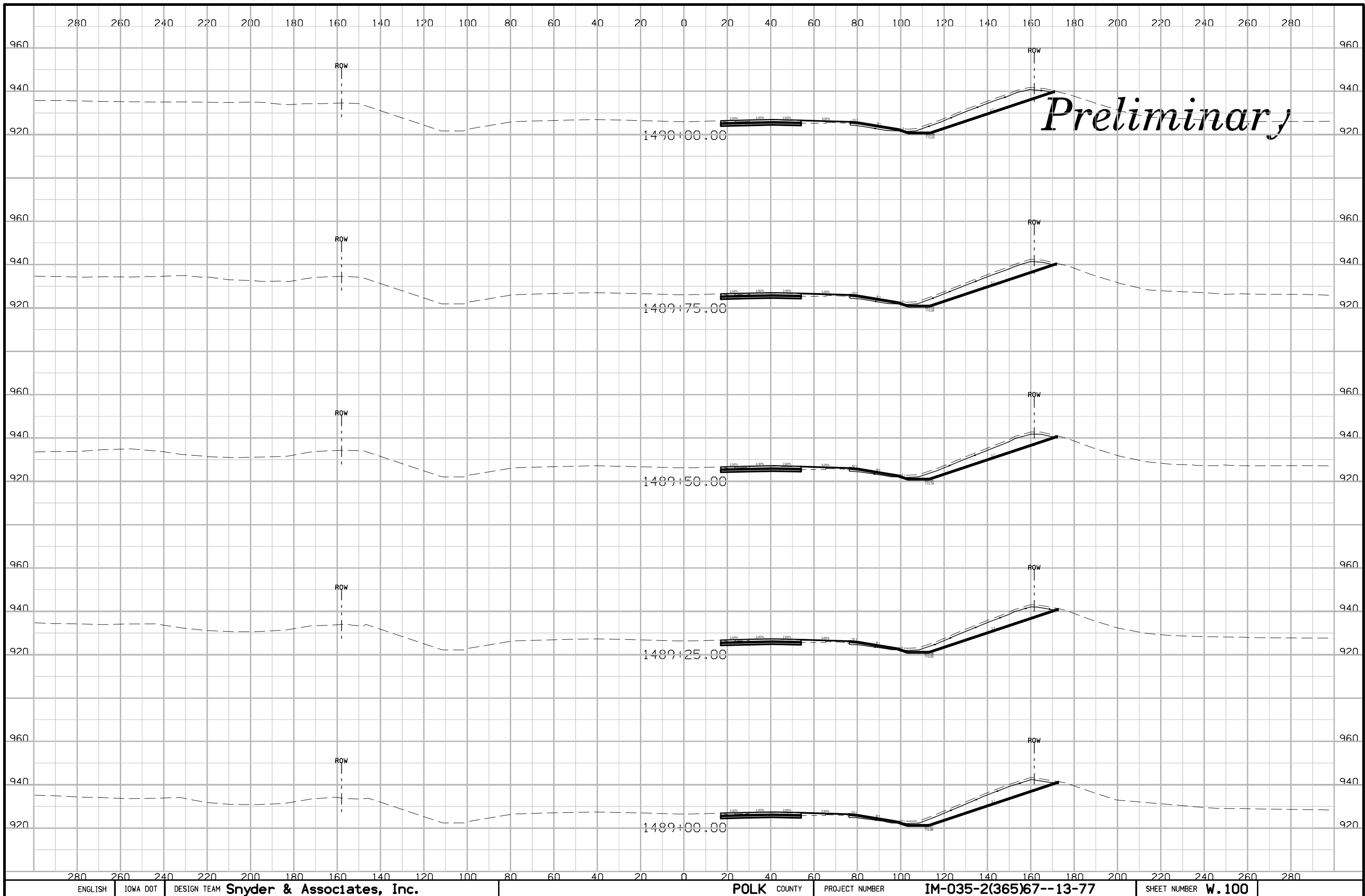


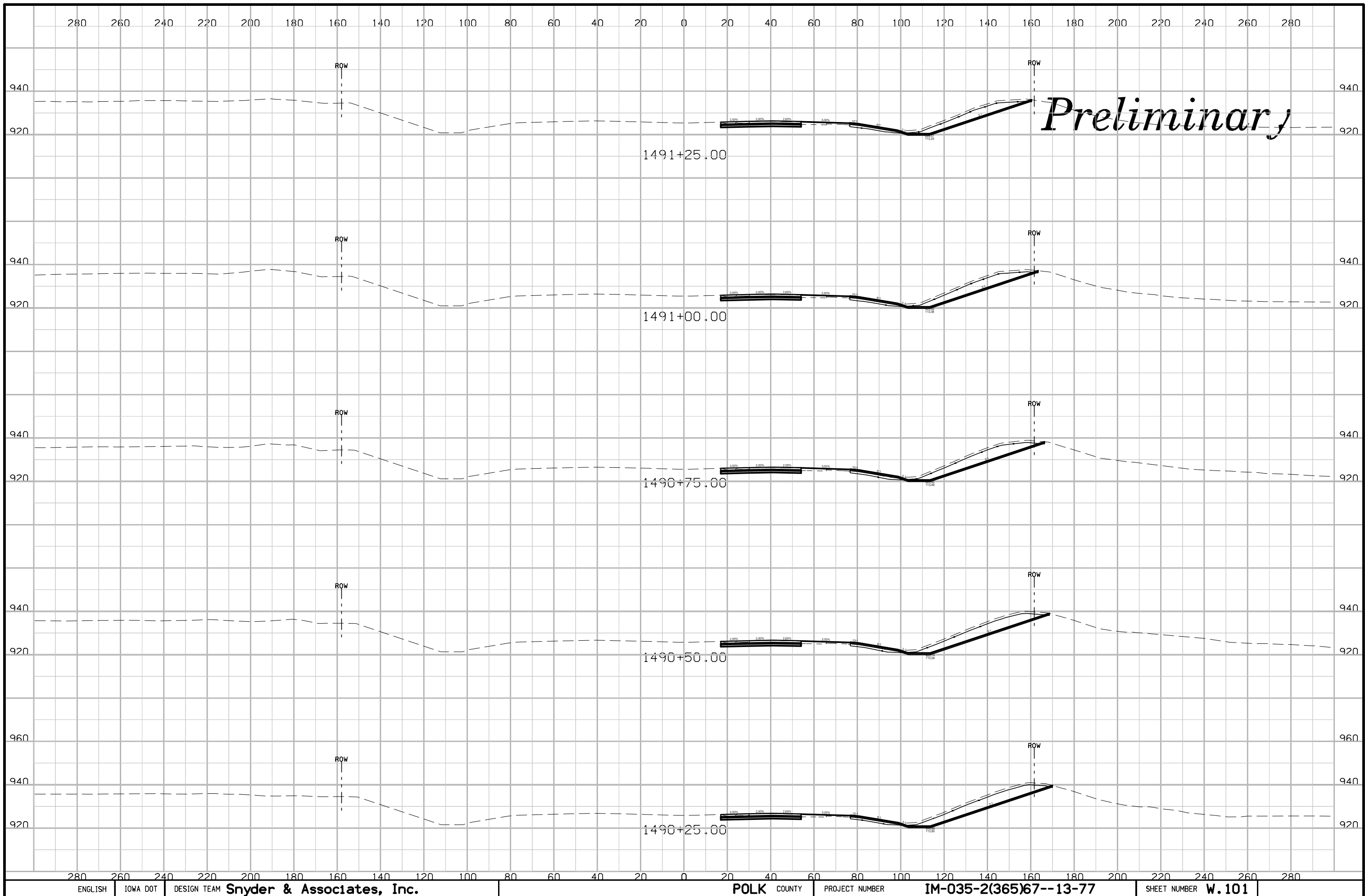


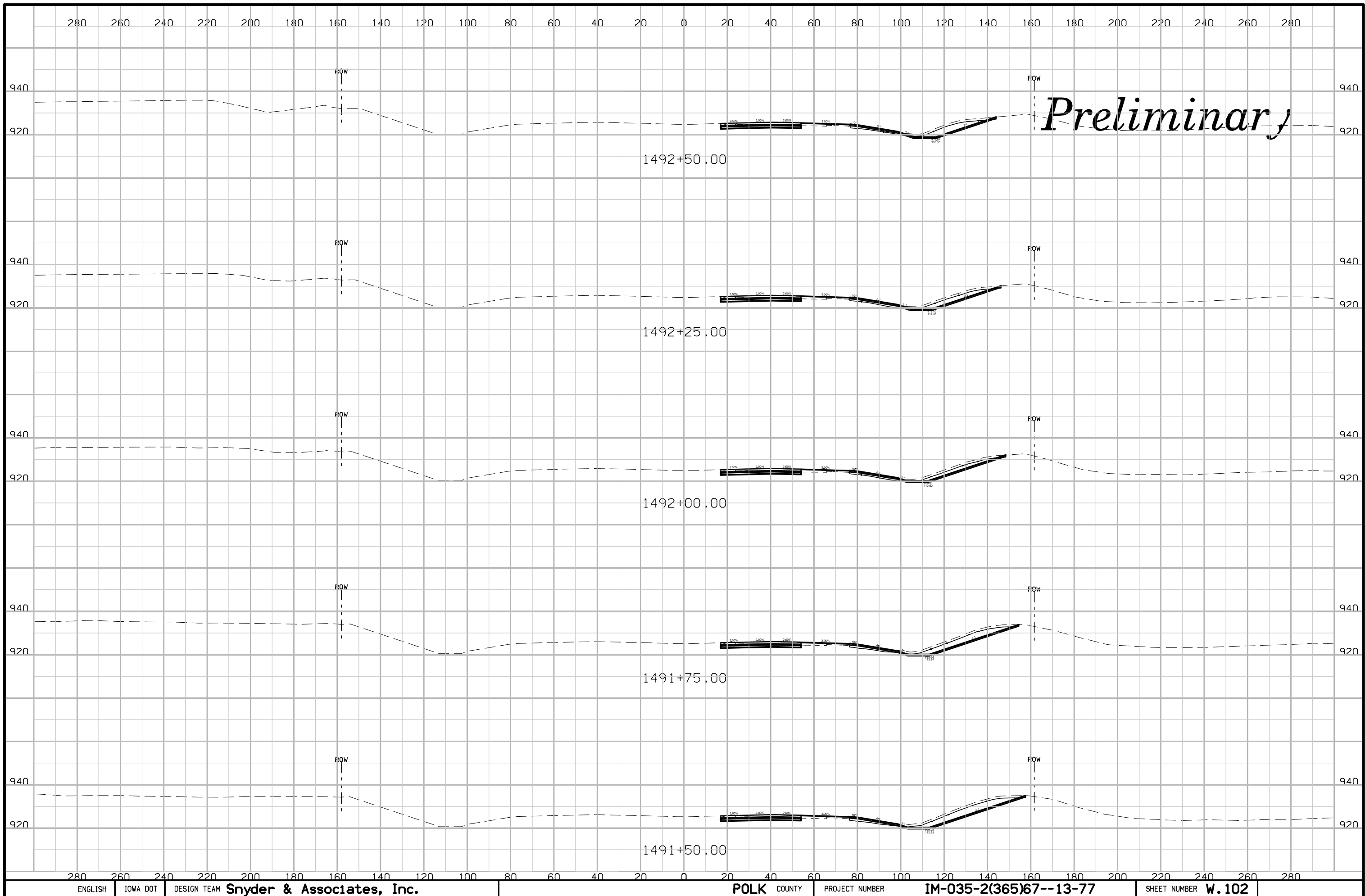
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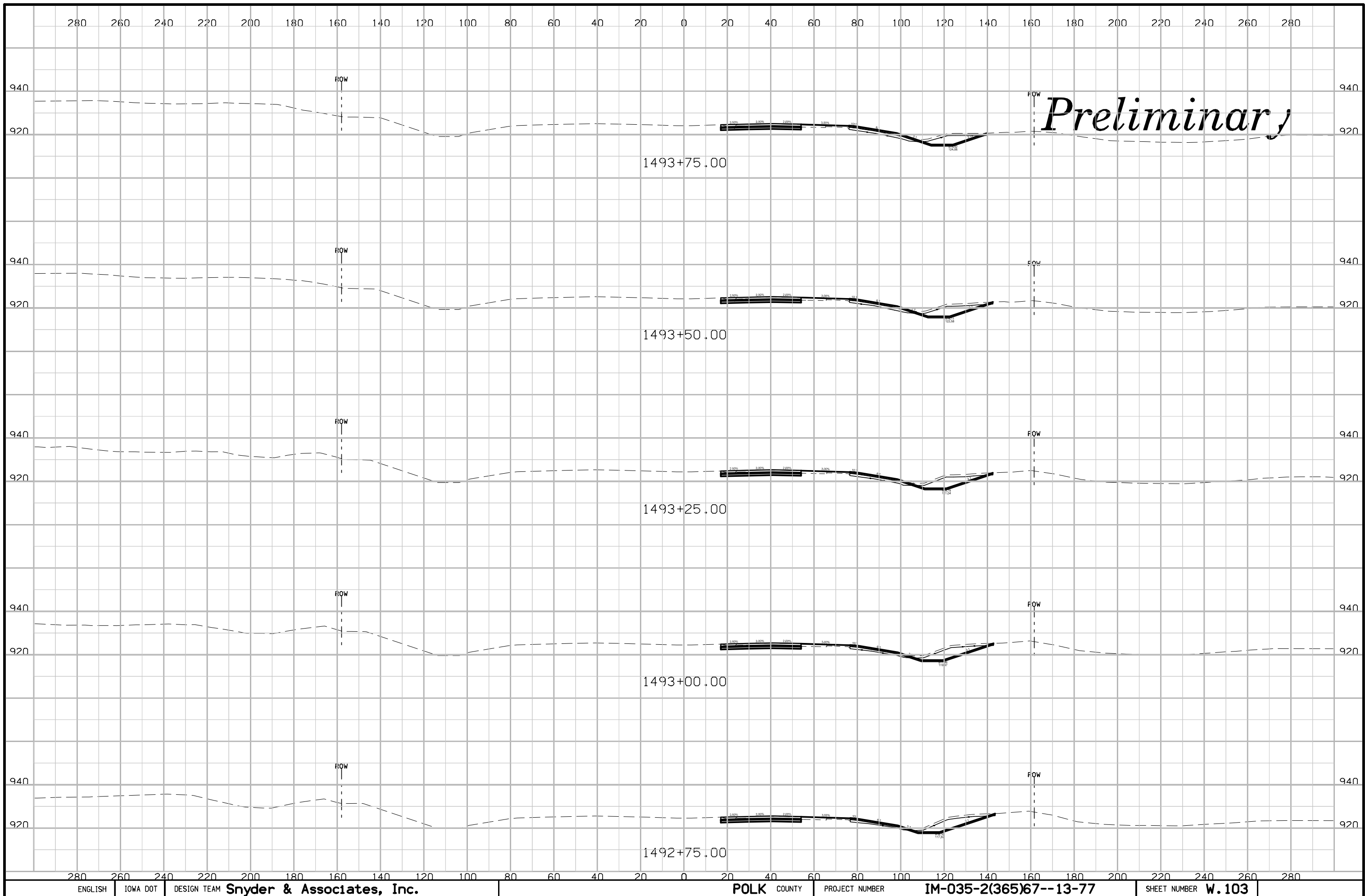






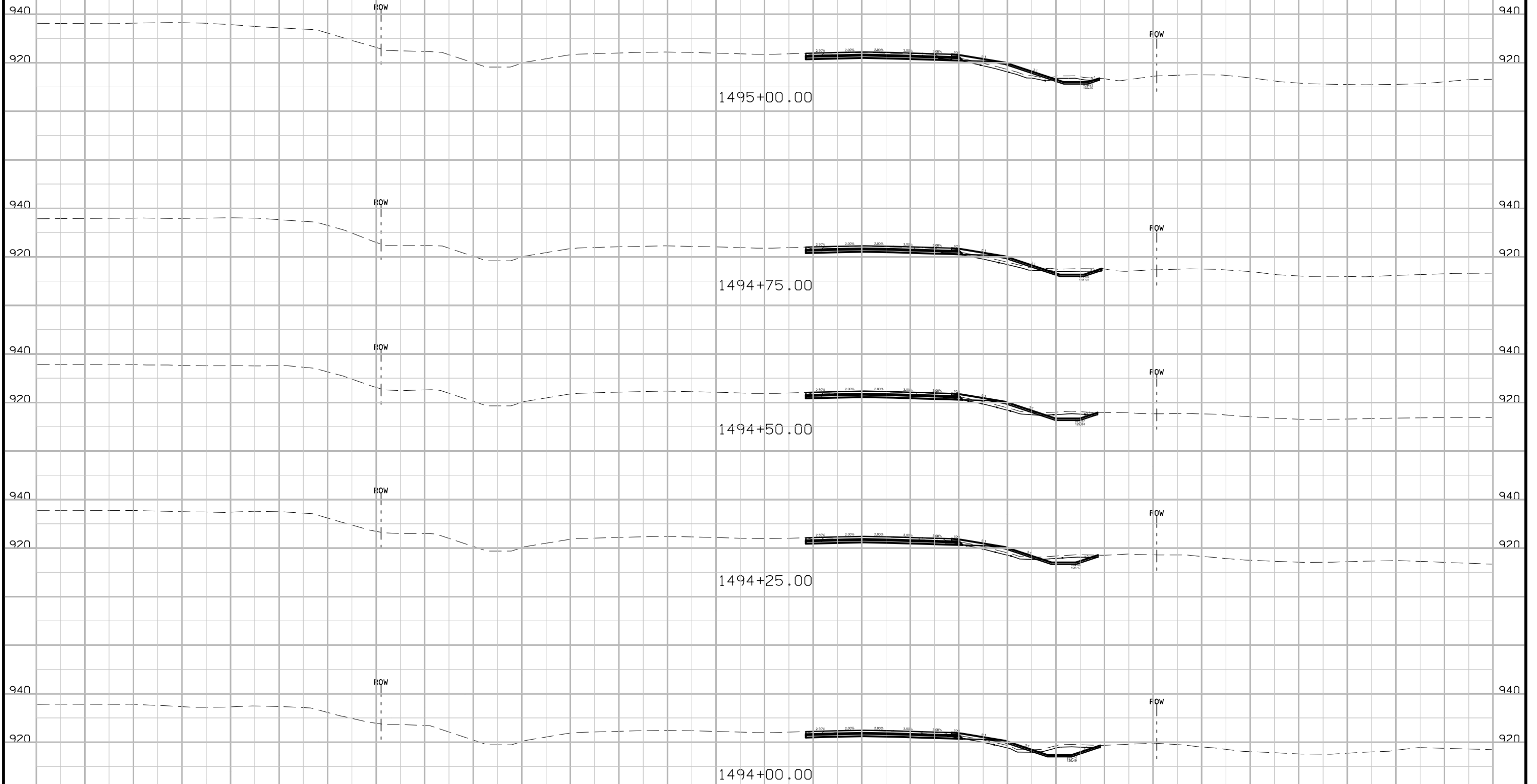






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Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH IOWA DOT

DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

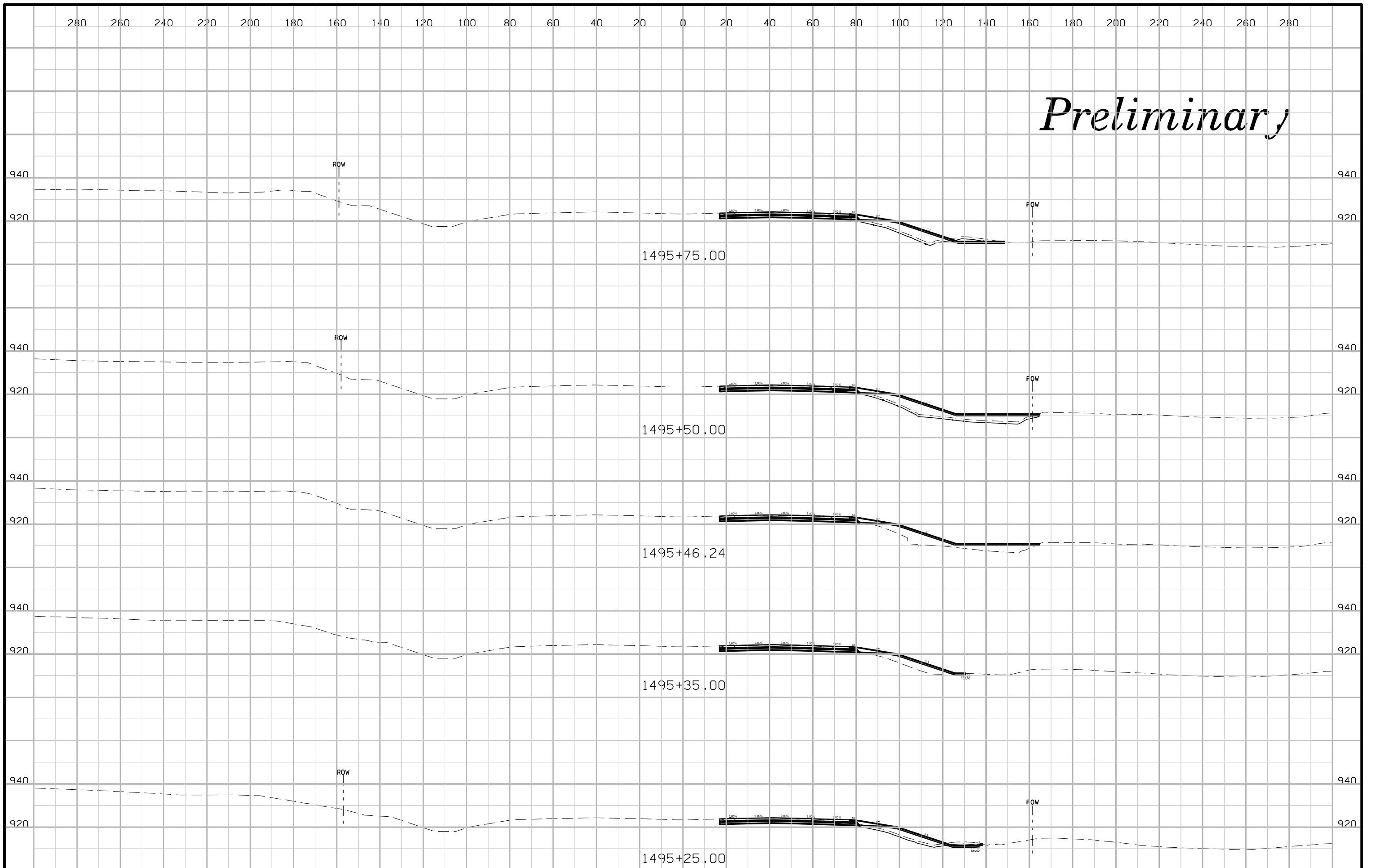
SHEET NUMBER **W.104**

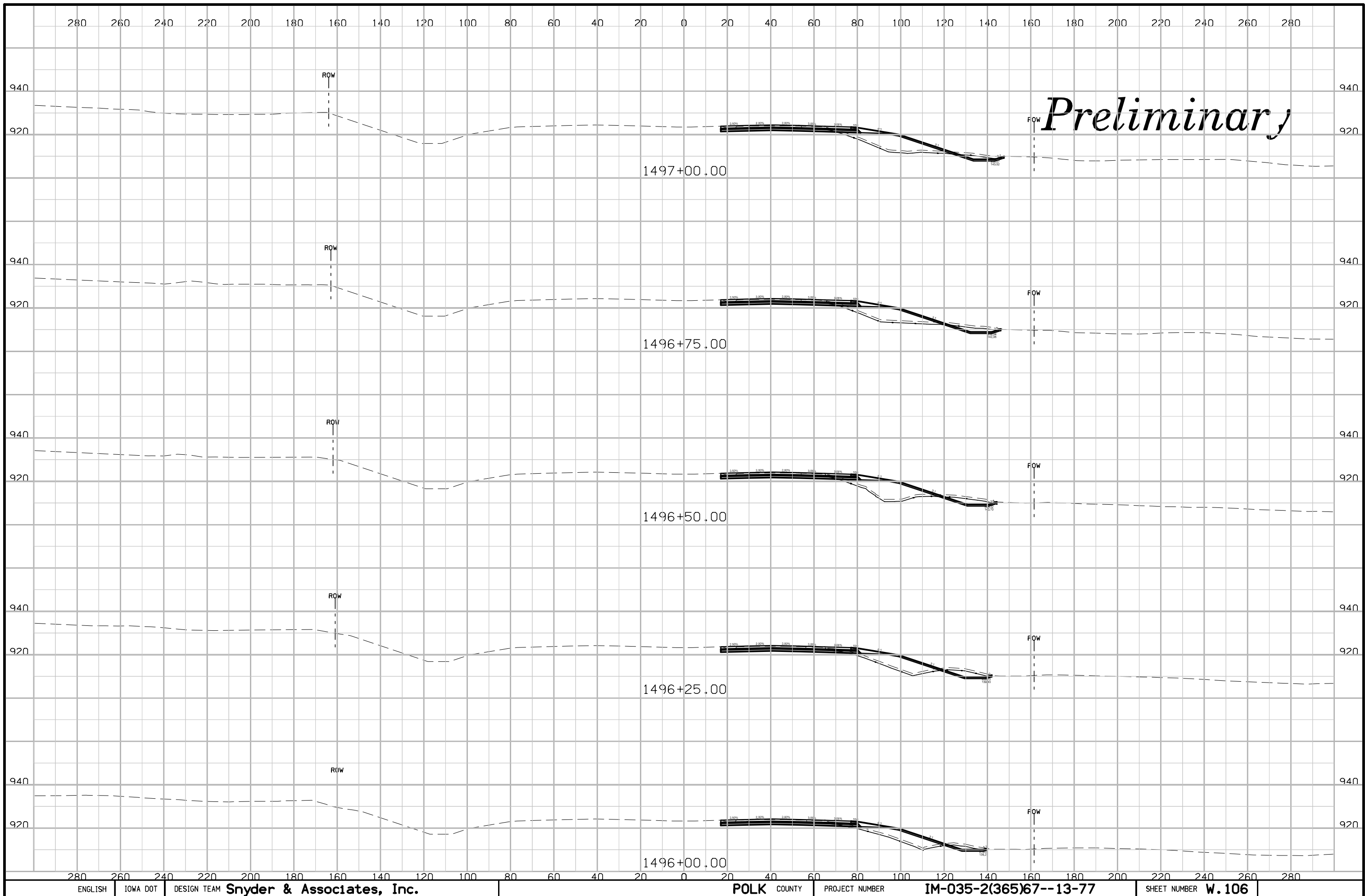
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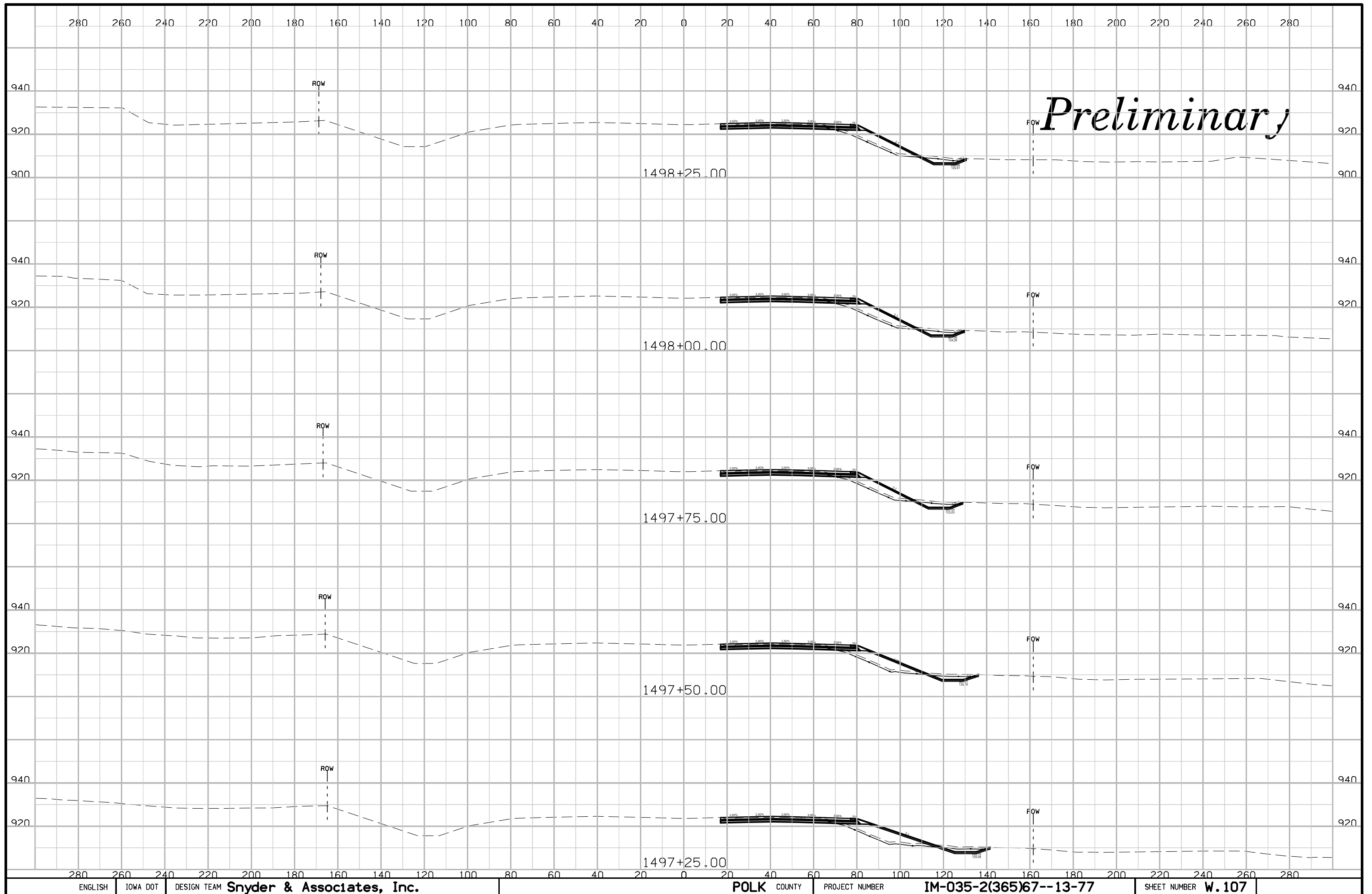
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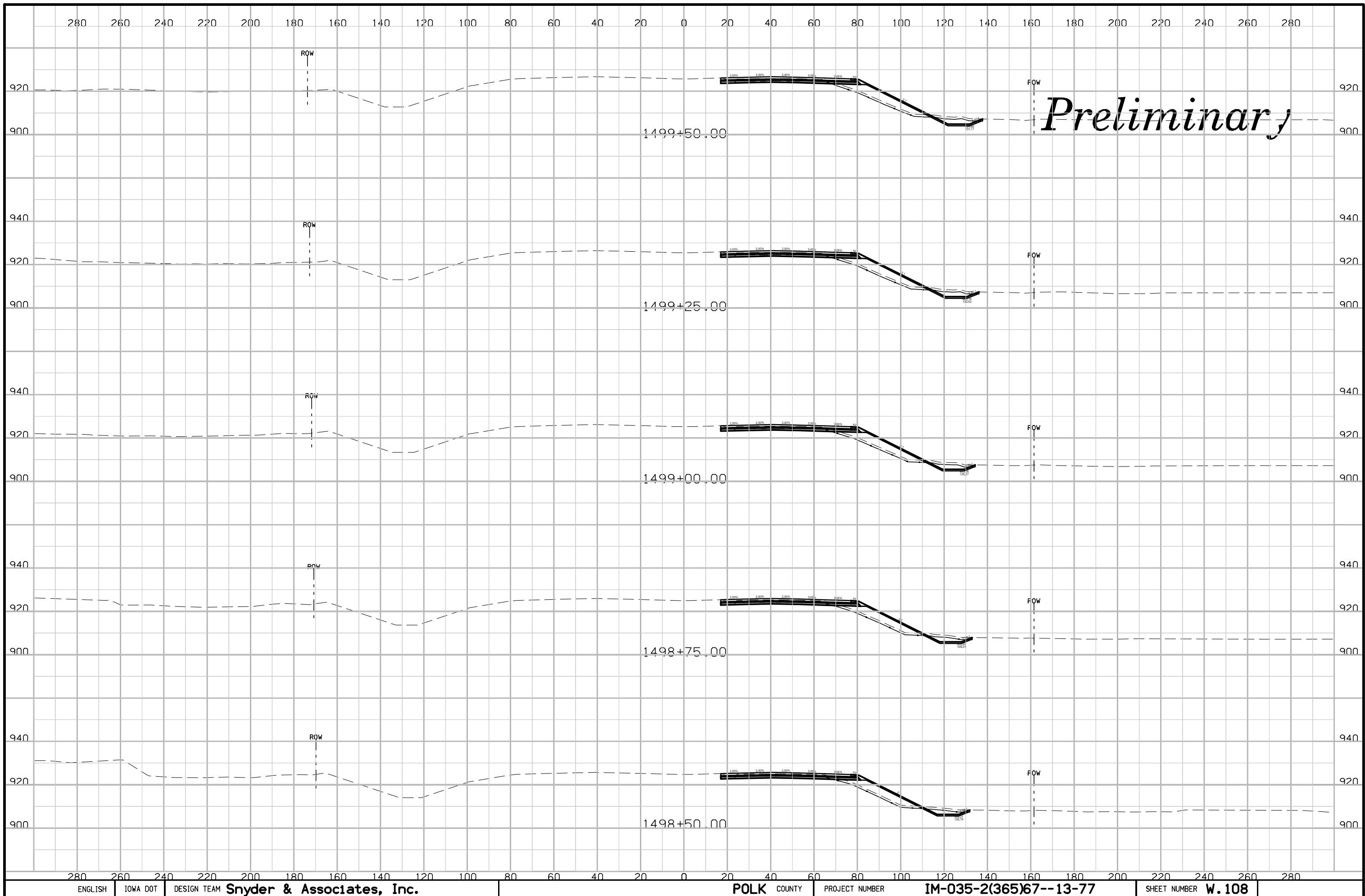
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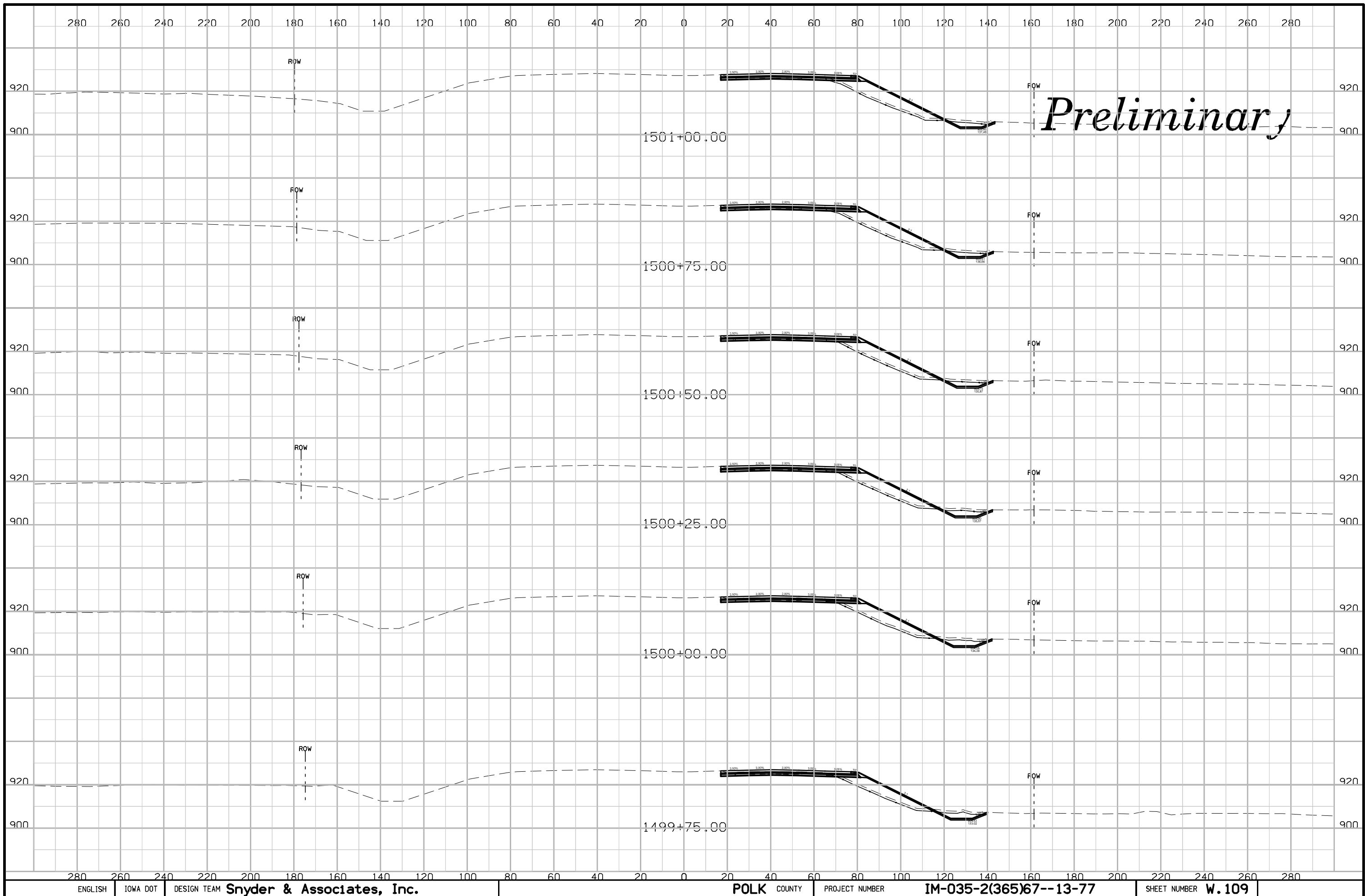


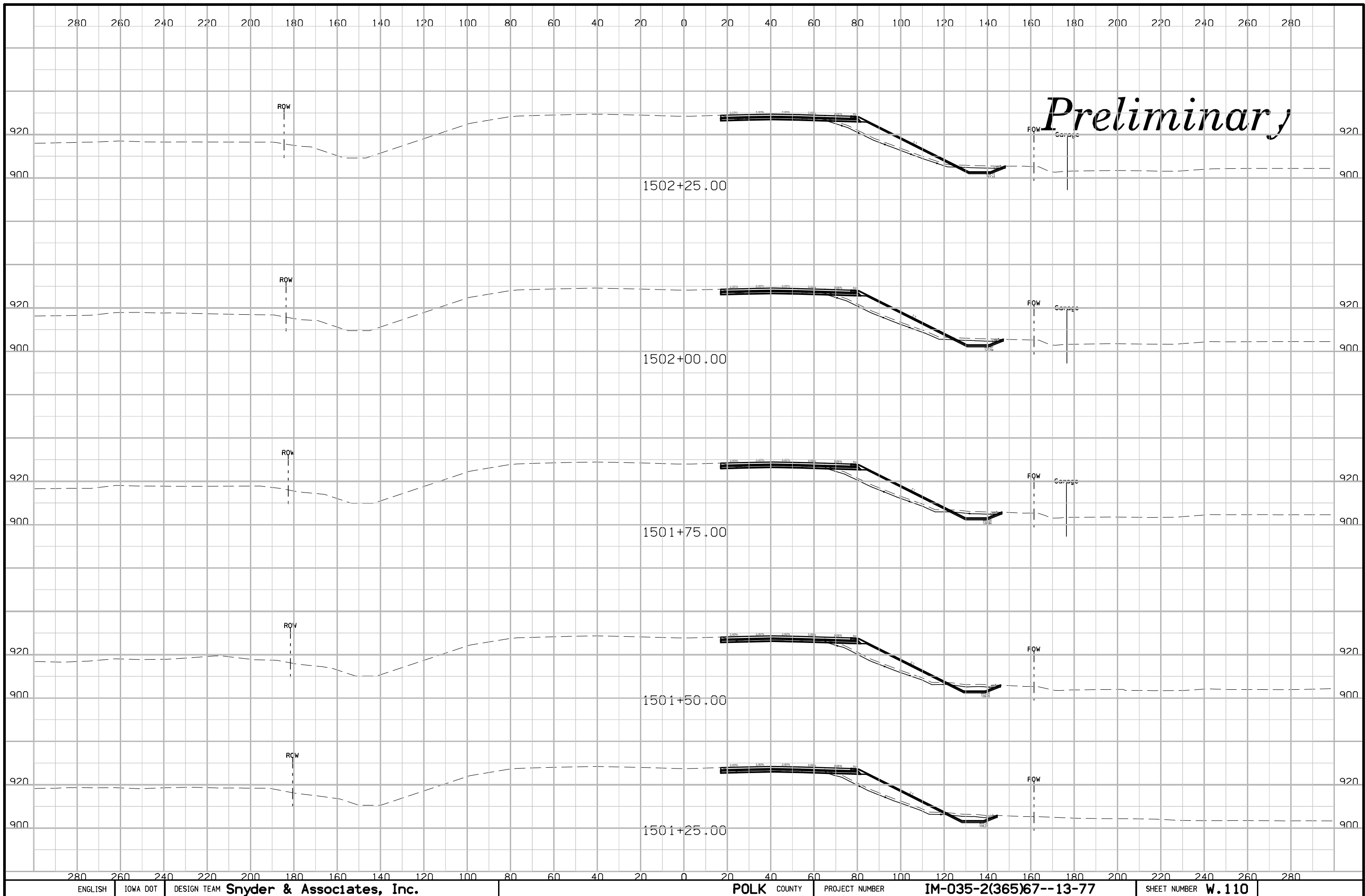


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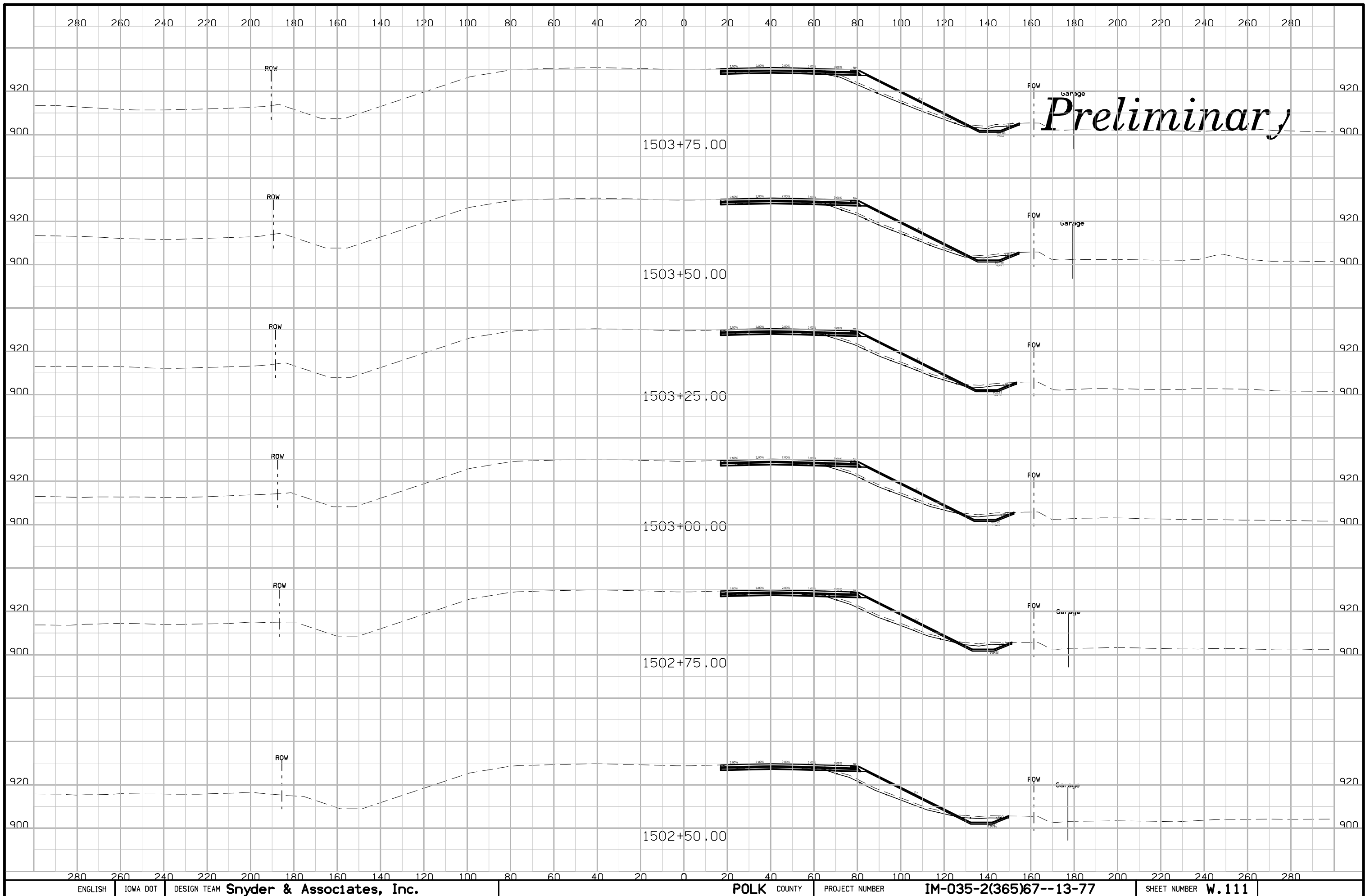


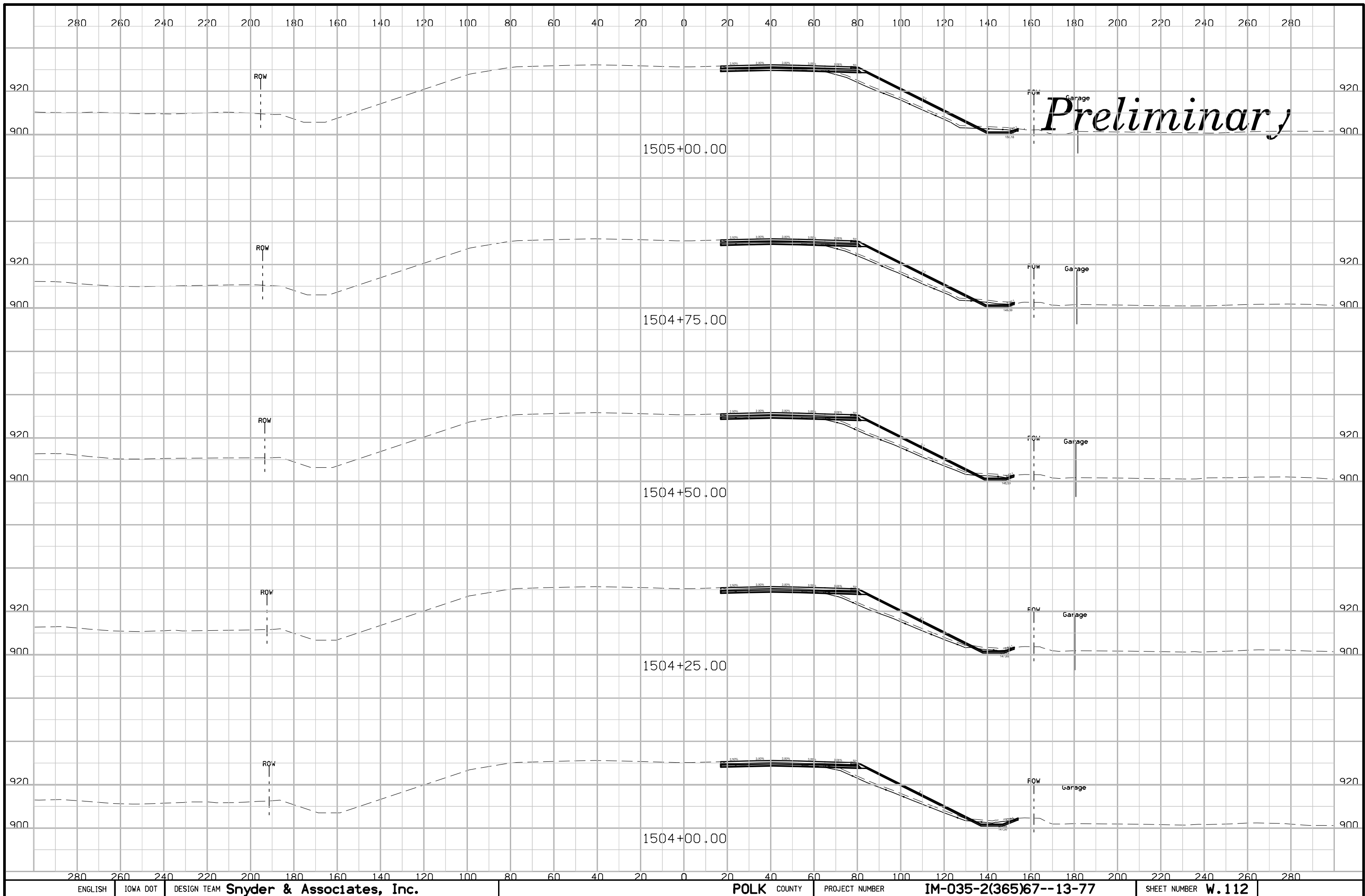
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Preliminary





Preliminary

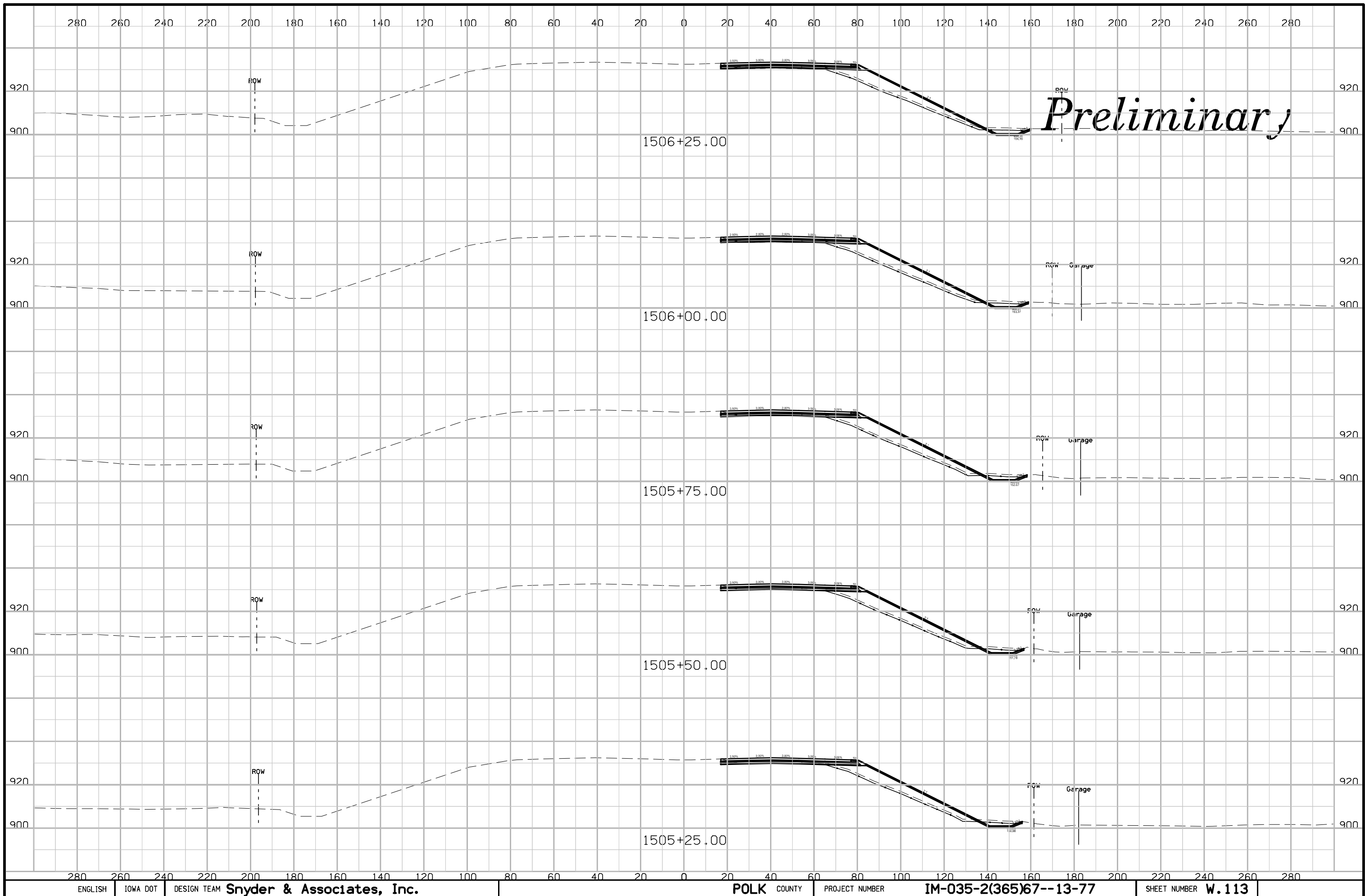
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1504+50.00

1504+25.00

1504+00.00



Preliminary

1506+25.00

1506+00.00

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1505+50.00

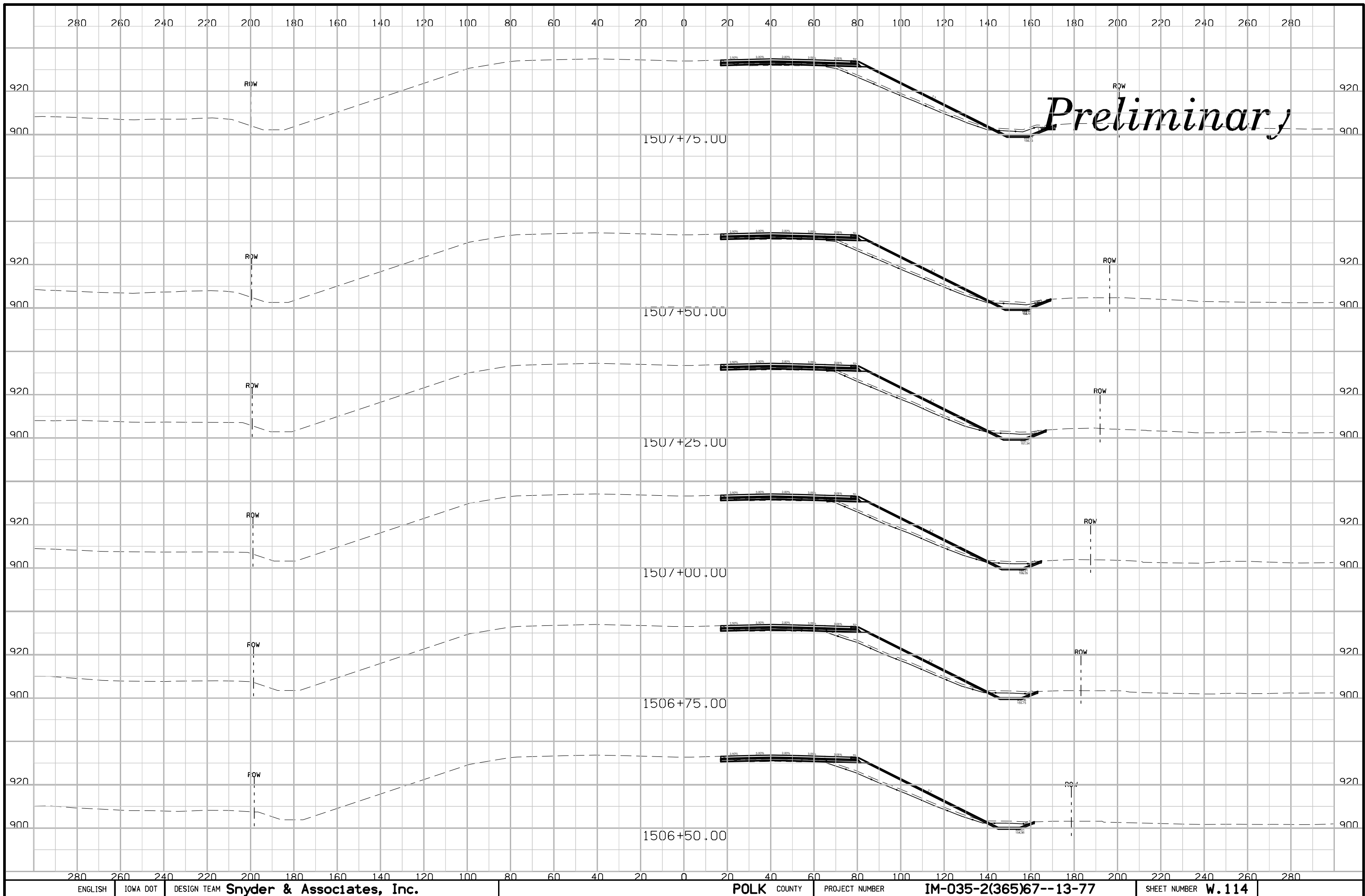
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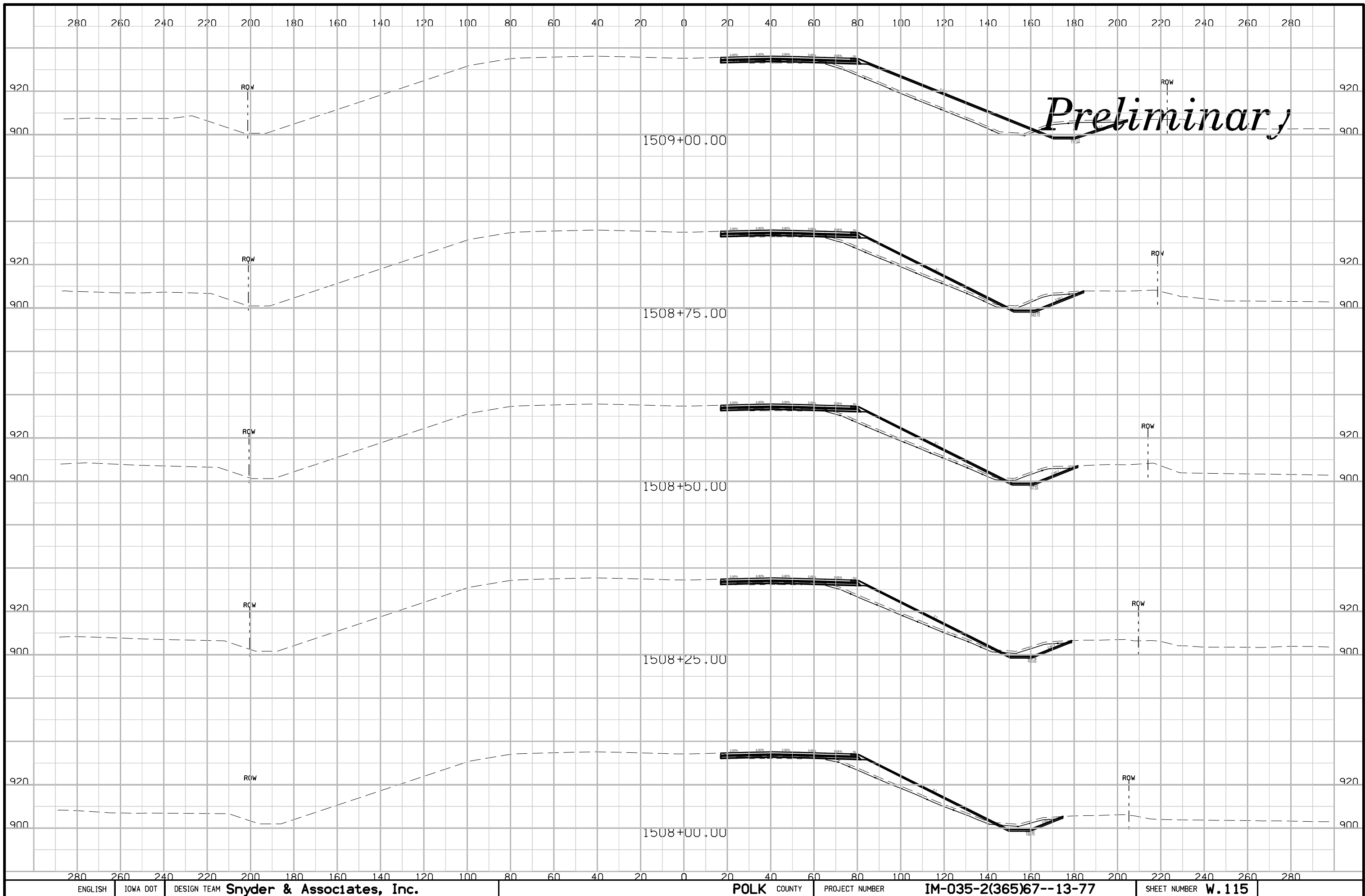
Garage

Garage

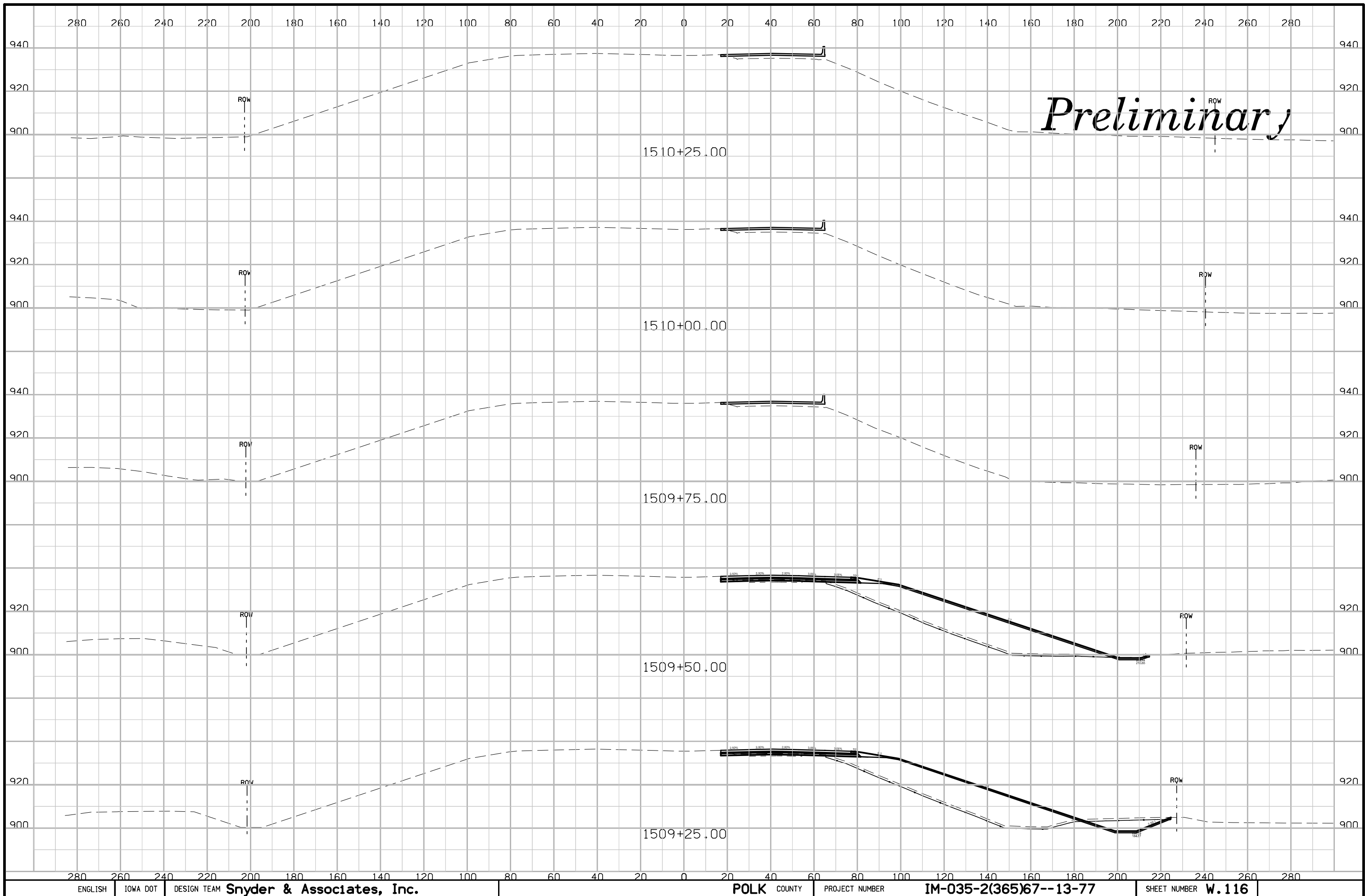
Garage

Garage





Preliminary



Preliminary

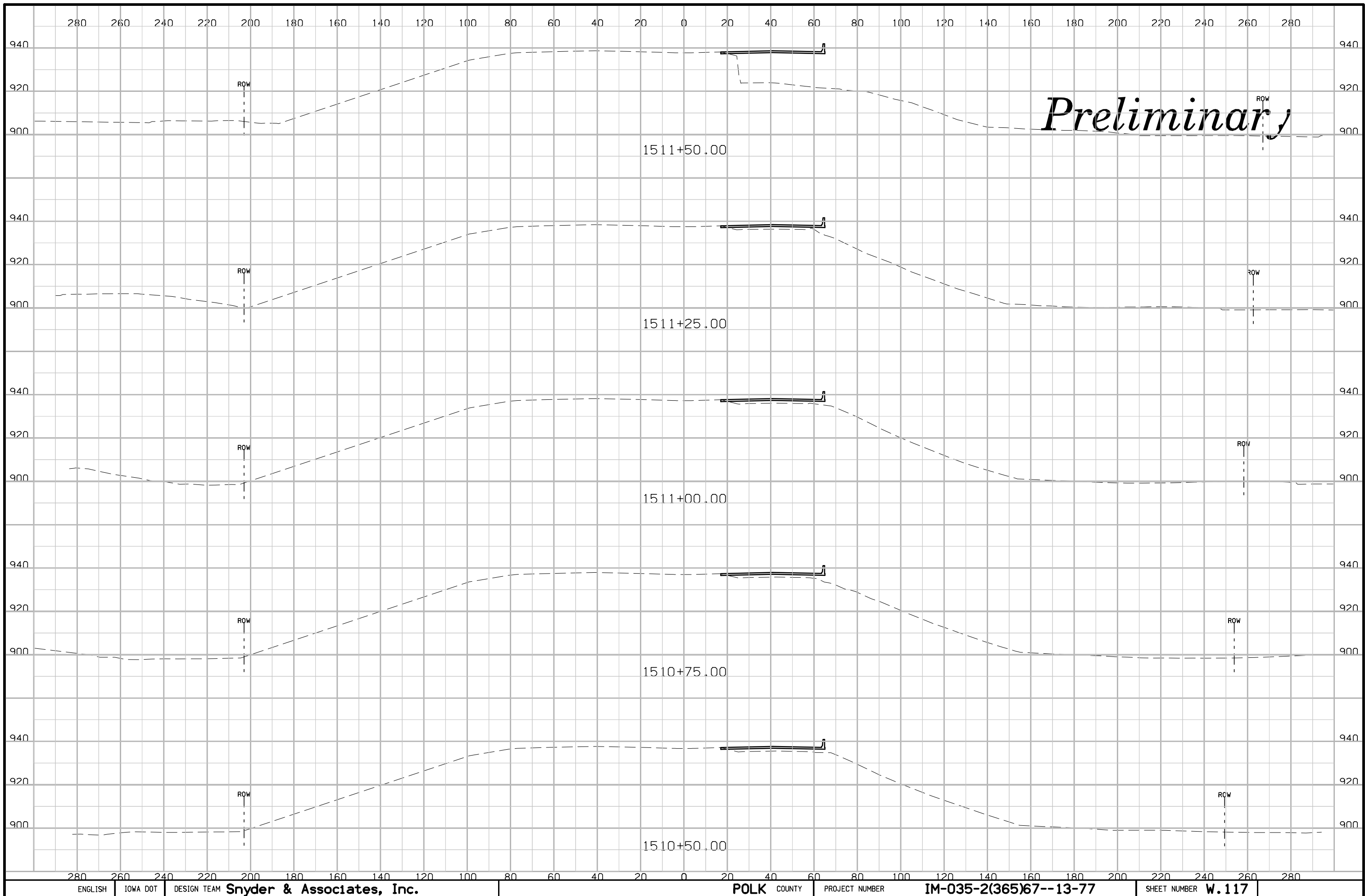
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1510+00.00

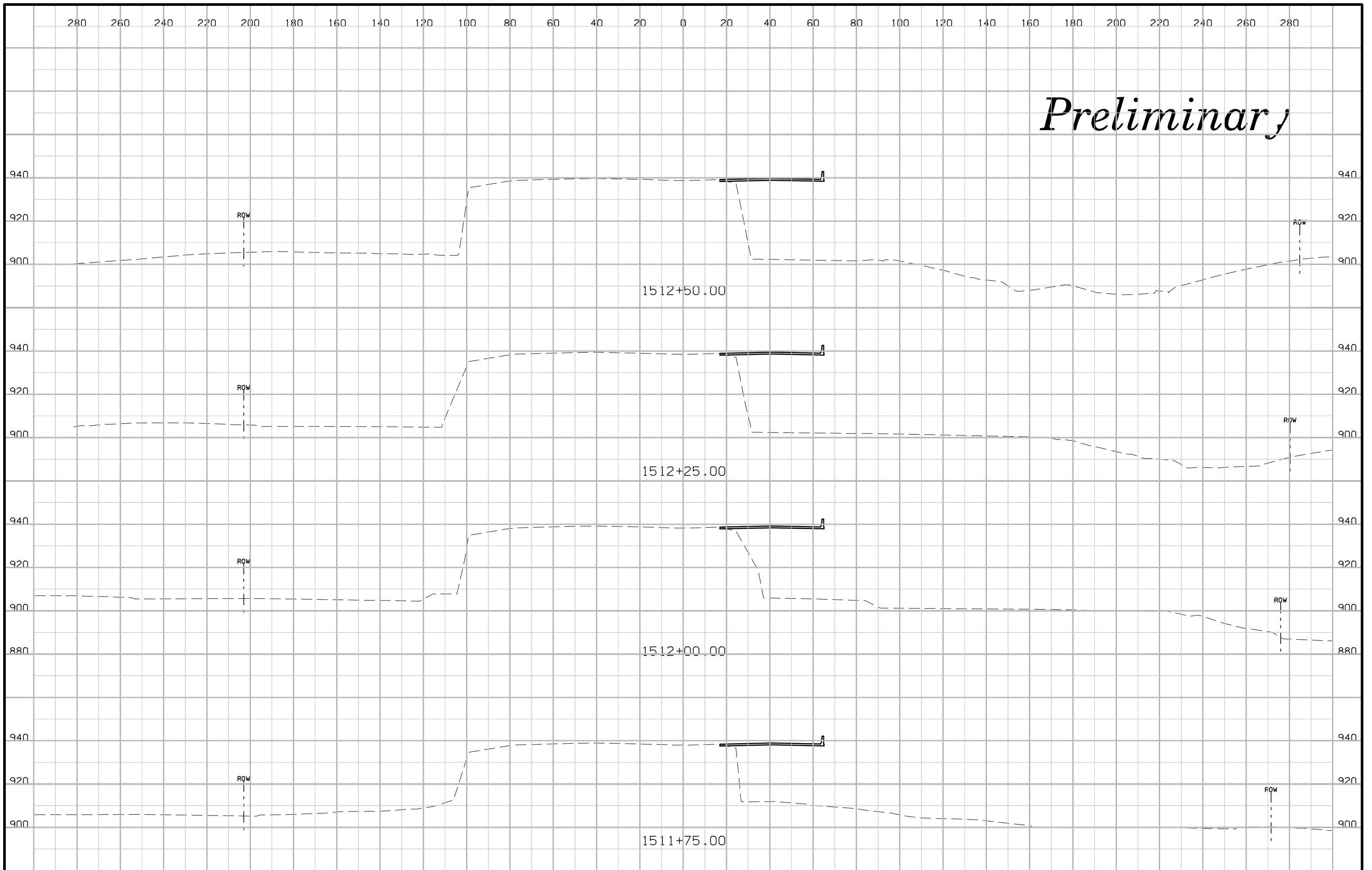
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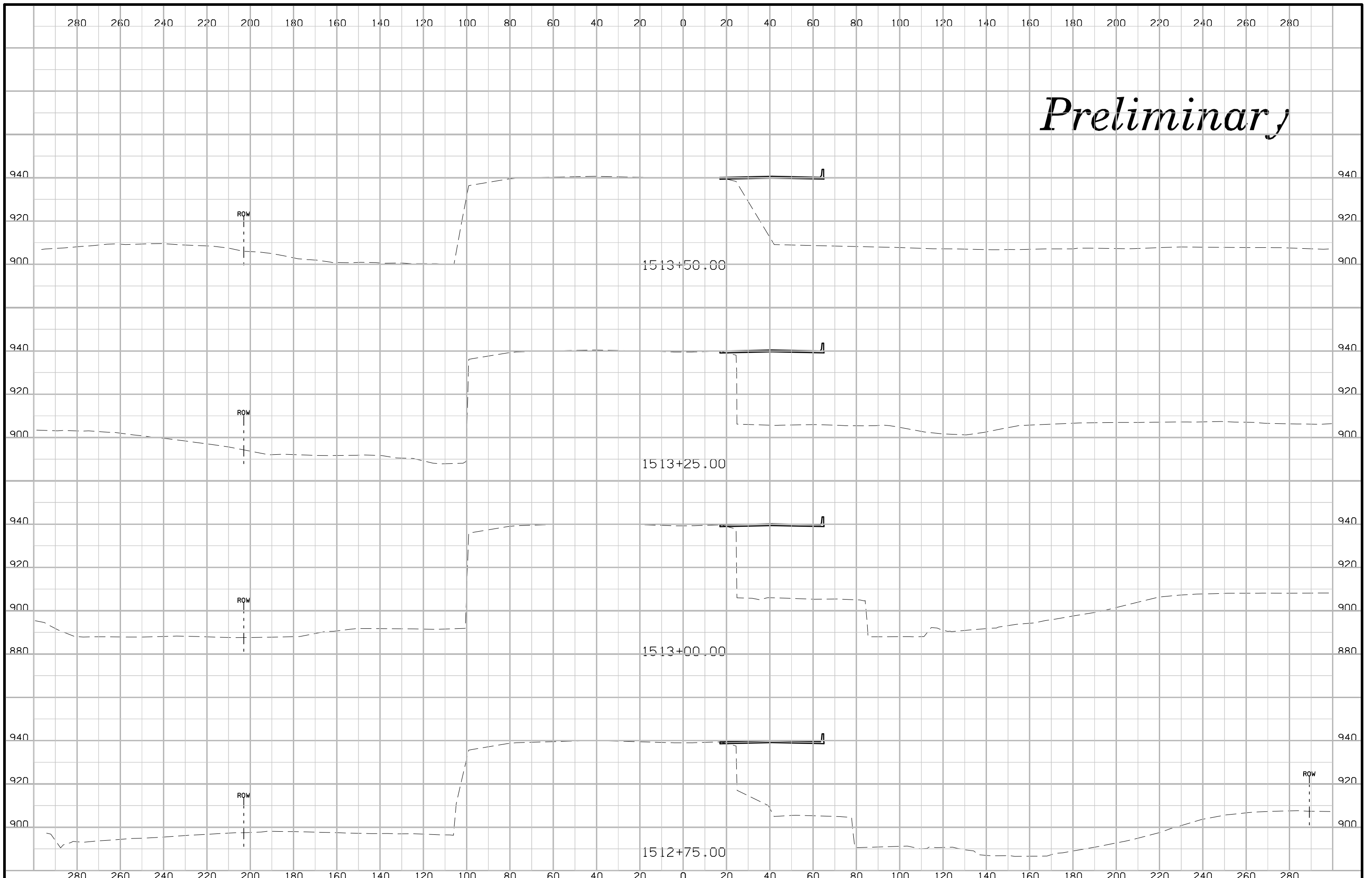
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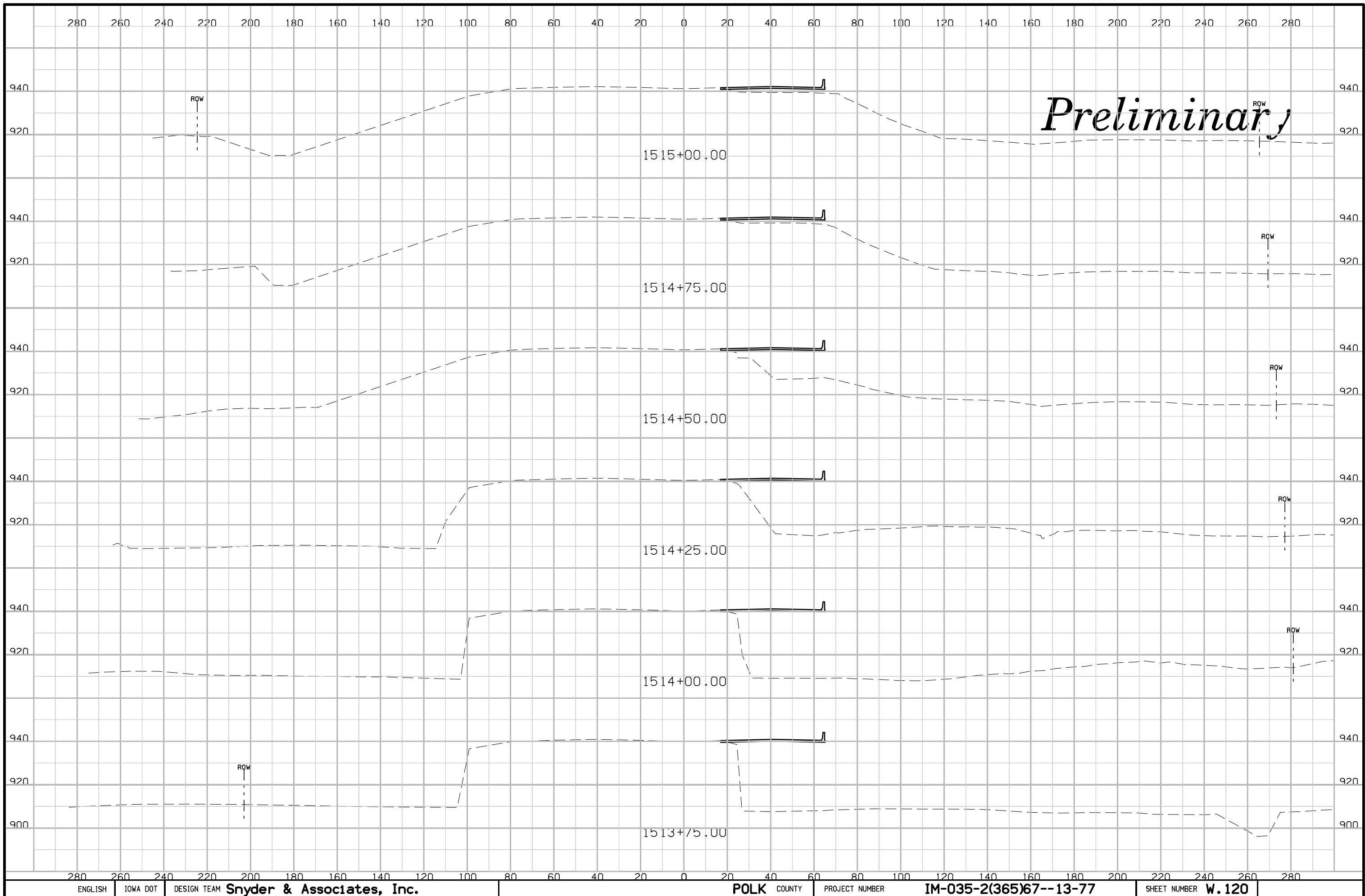


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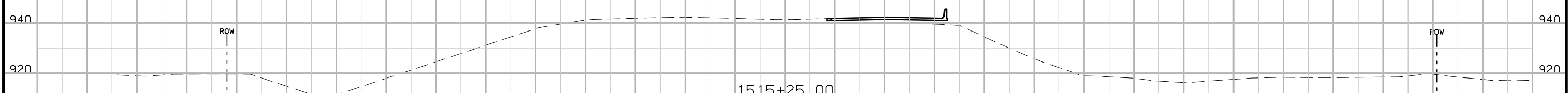
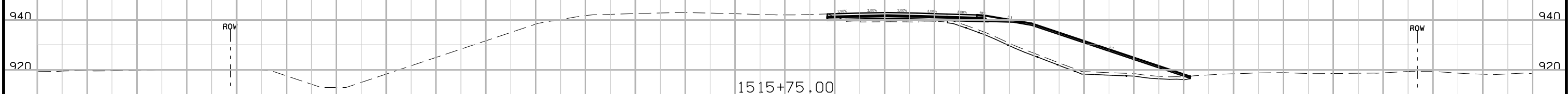
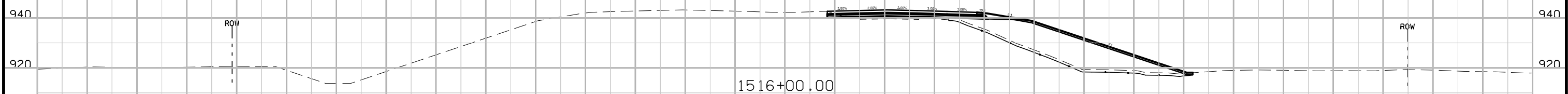
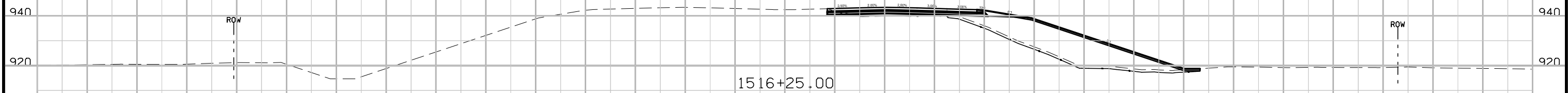
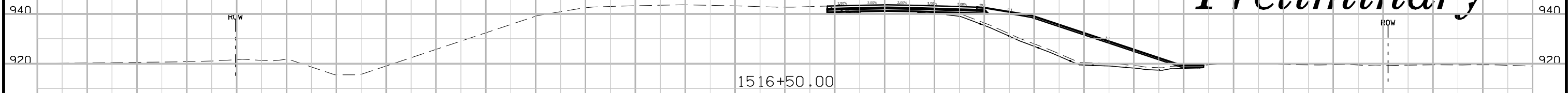
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280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

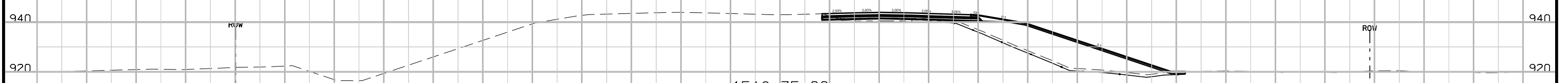
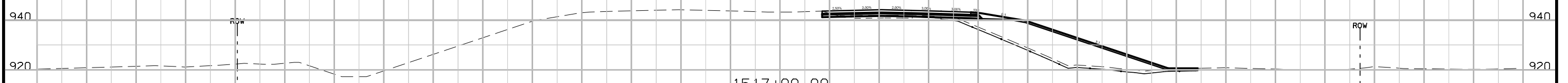
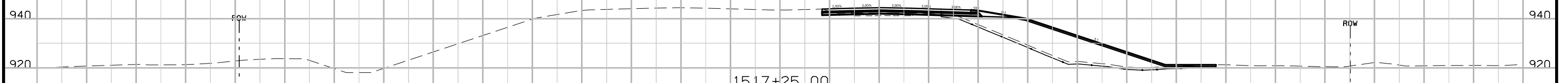
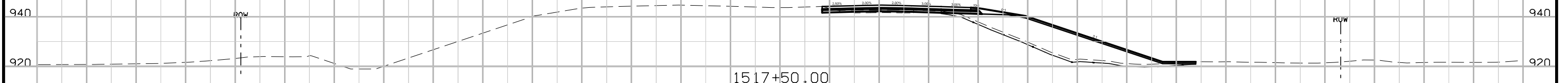
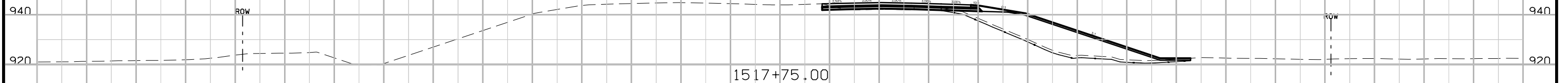
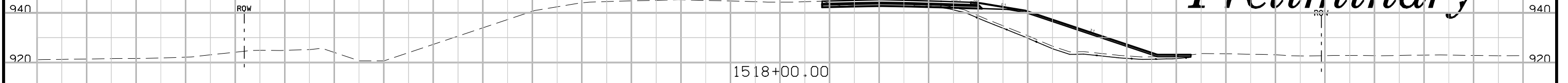
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280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

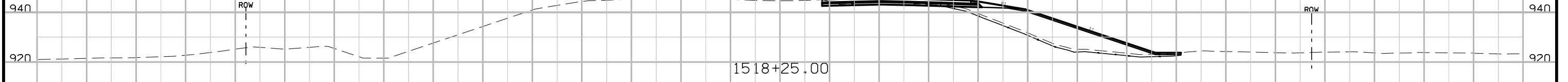
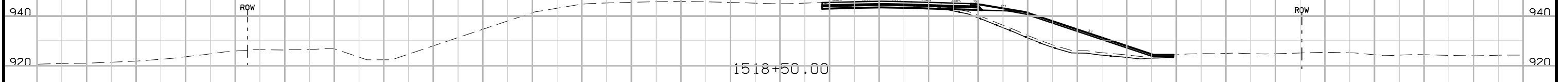
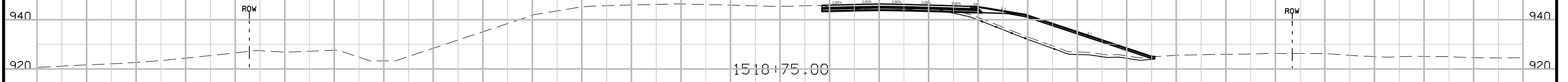
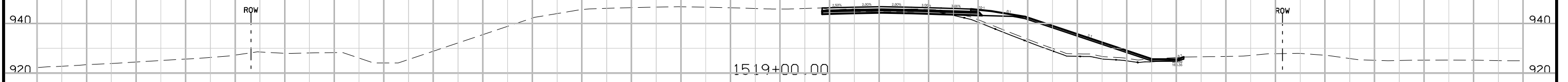
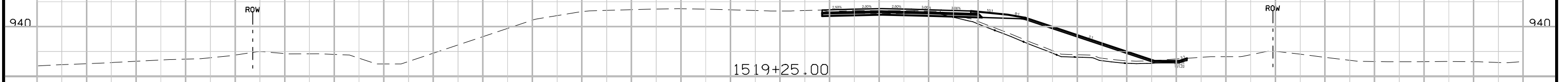
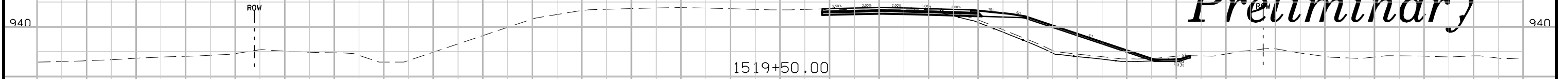
PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.122**

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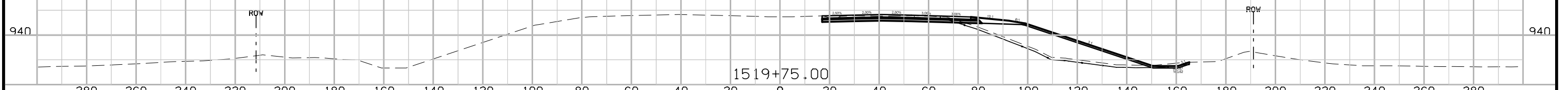
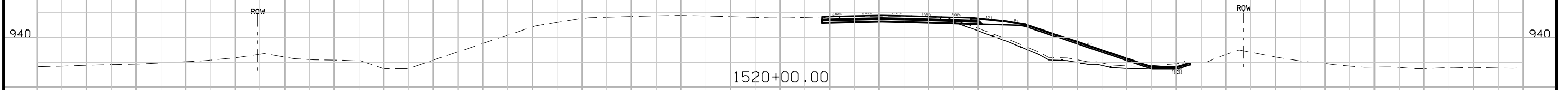
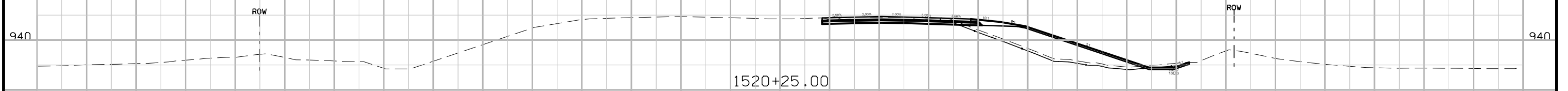
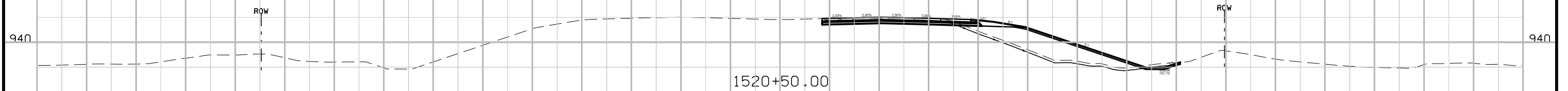
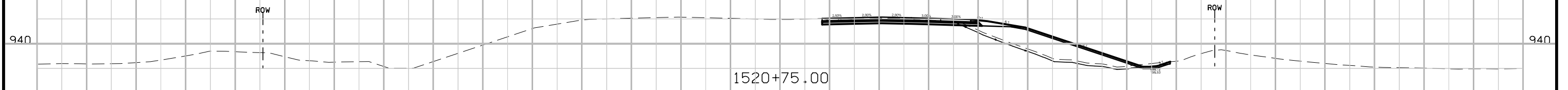
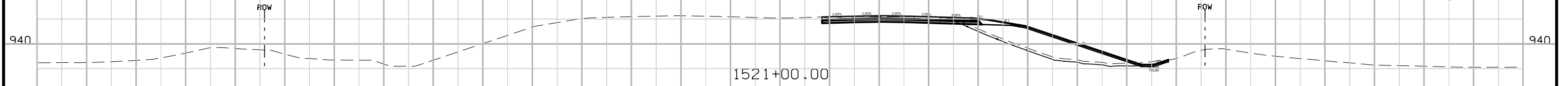
Preliminary



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Preliminary



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ENGLISH IOWA DOT

DESIGN TEAM **Snyder & Associates, Inc.**

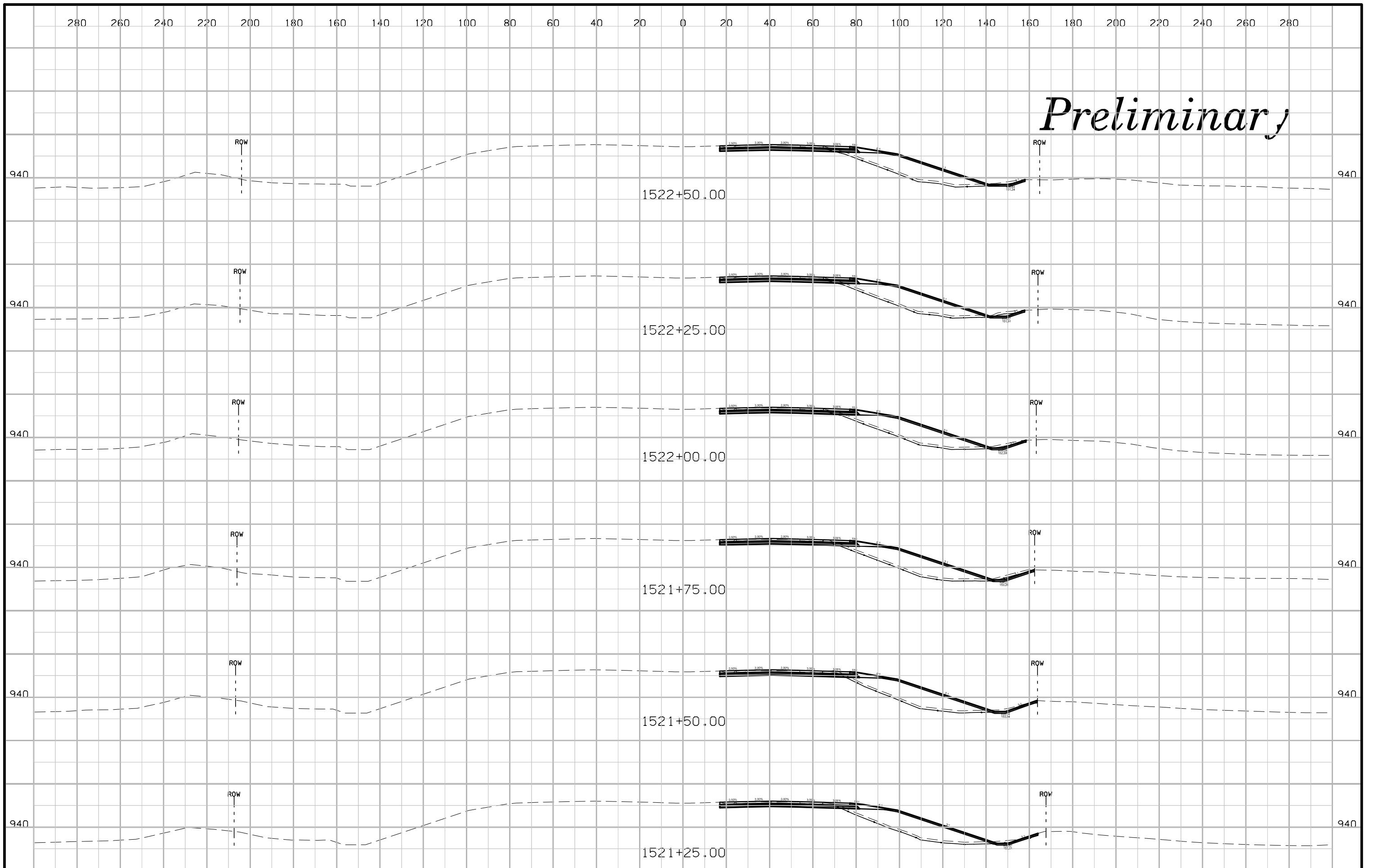
POLK COUNTY

PROJECT NUMBER

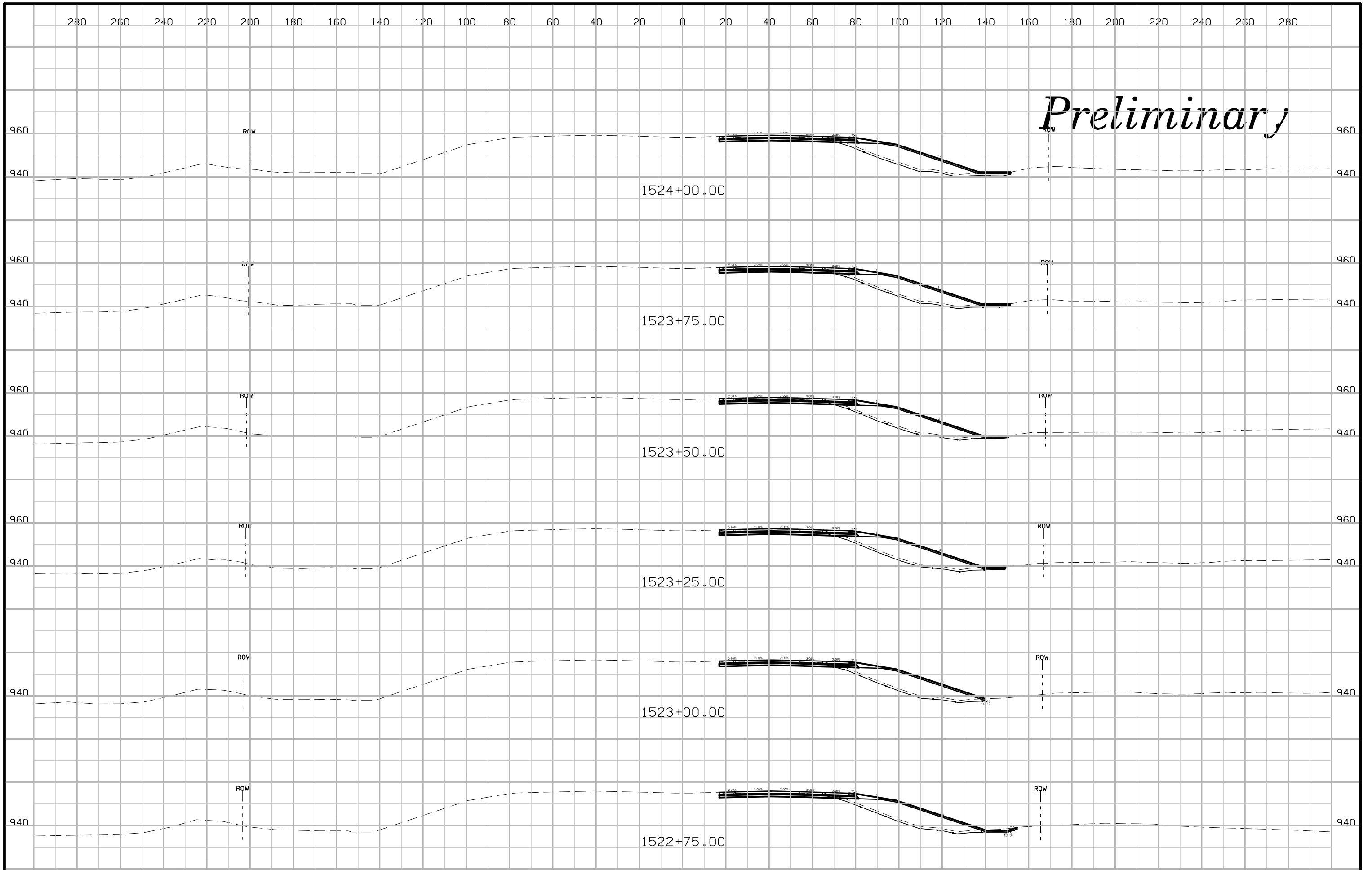
IM-035-2(365)67--13-77

SHEET NUMBER **W.124**

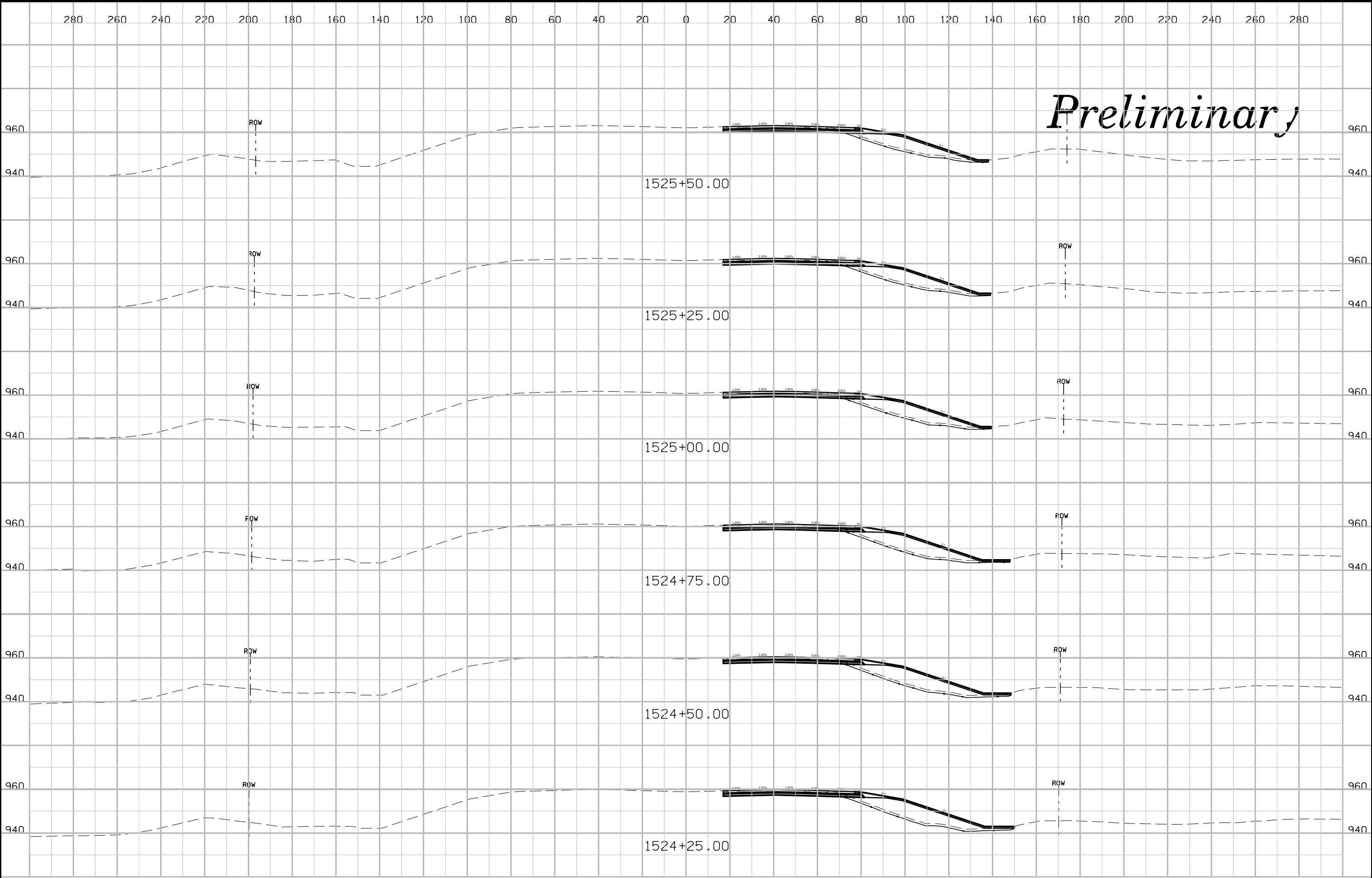
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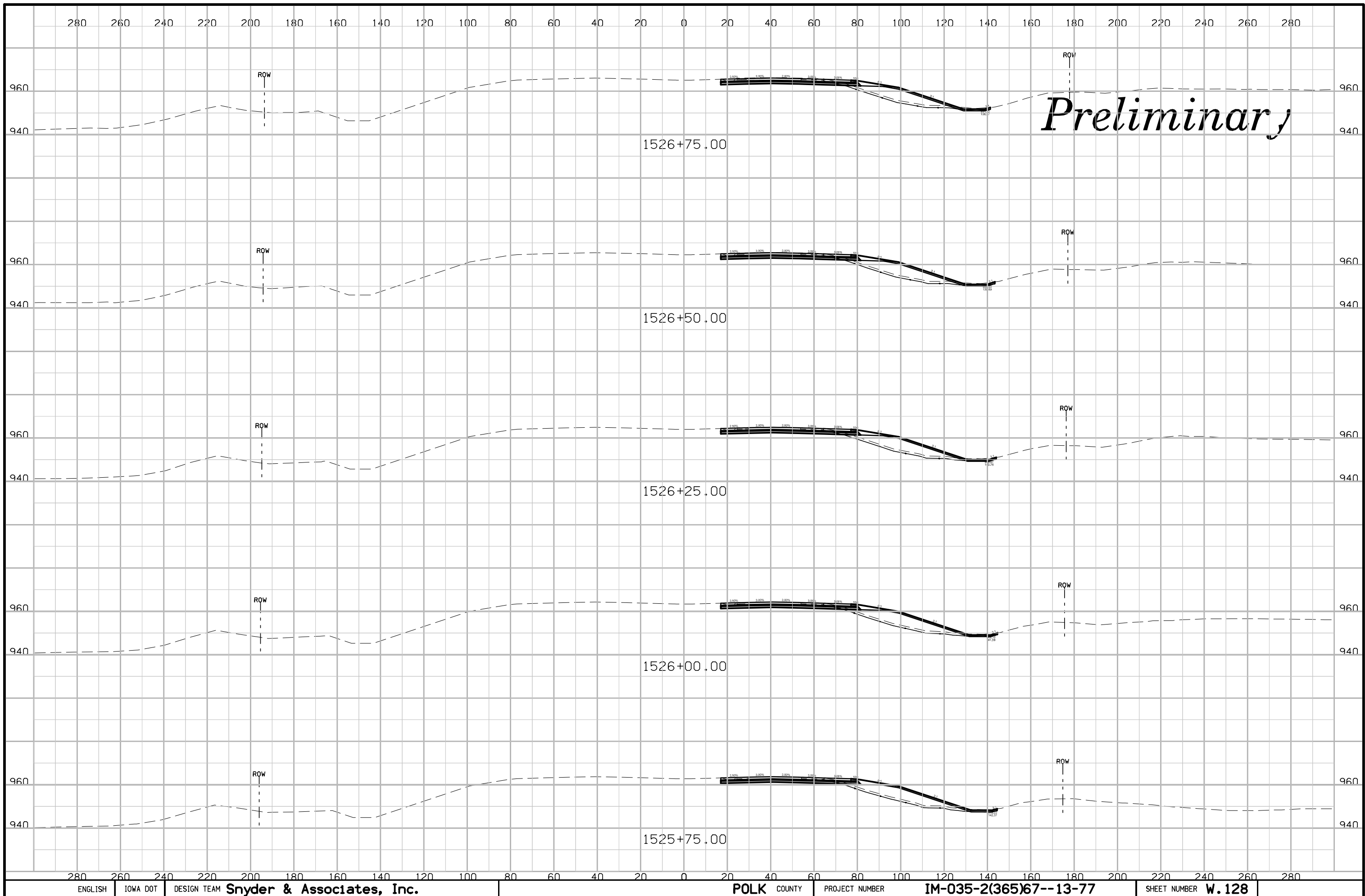


Preliminary



Preliminary





Preliminary

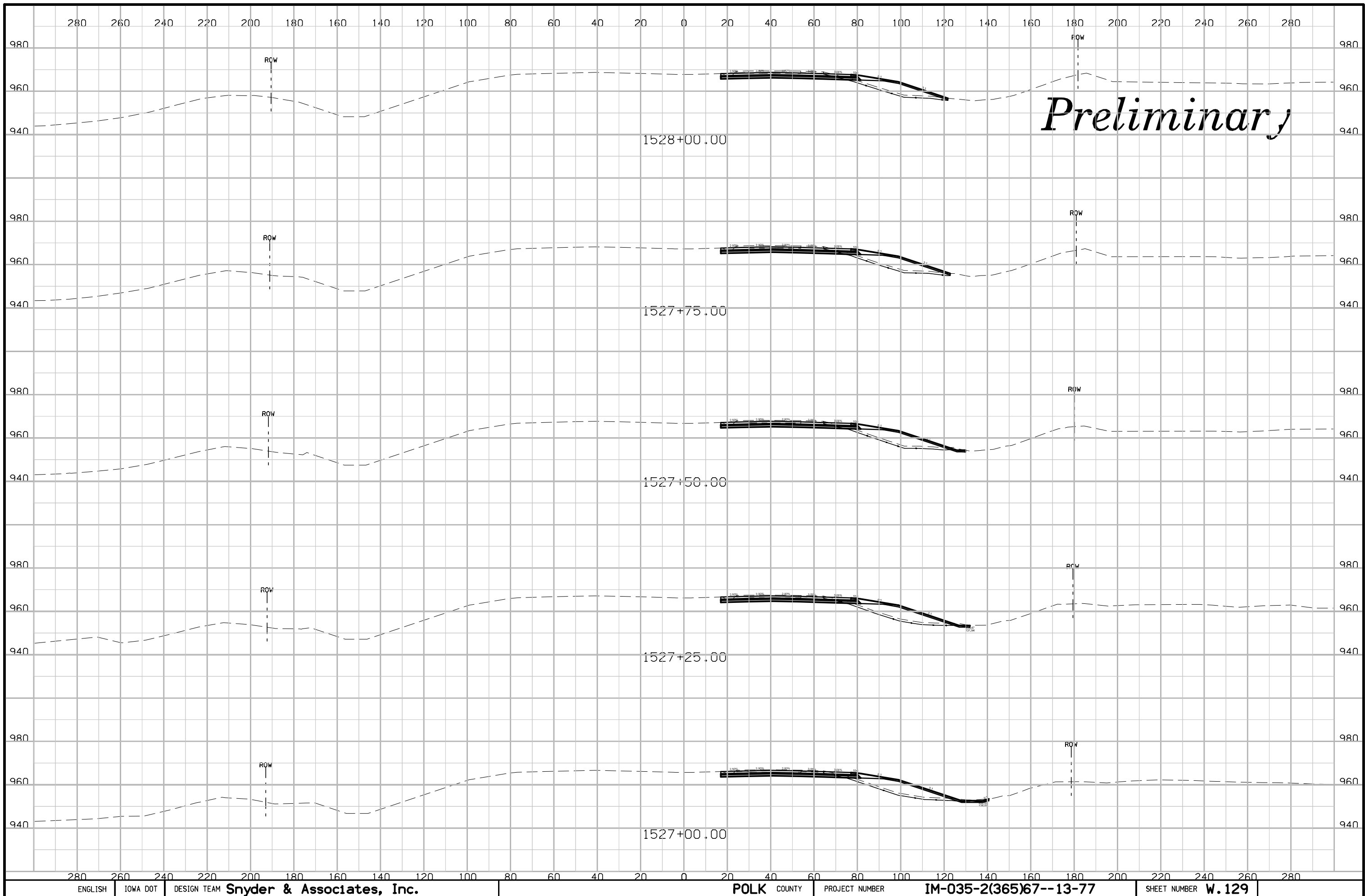
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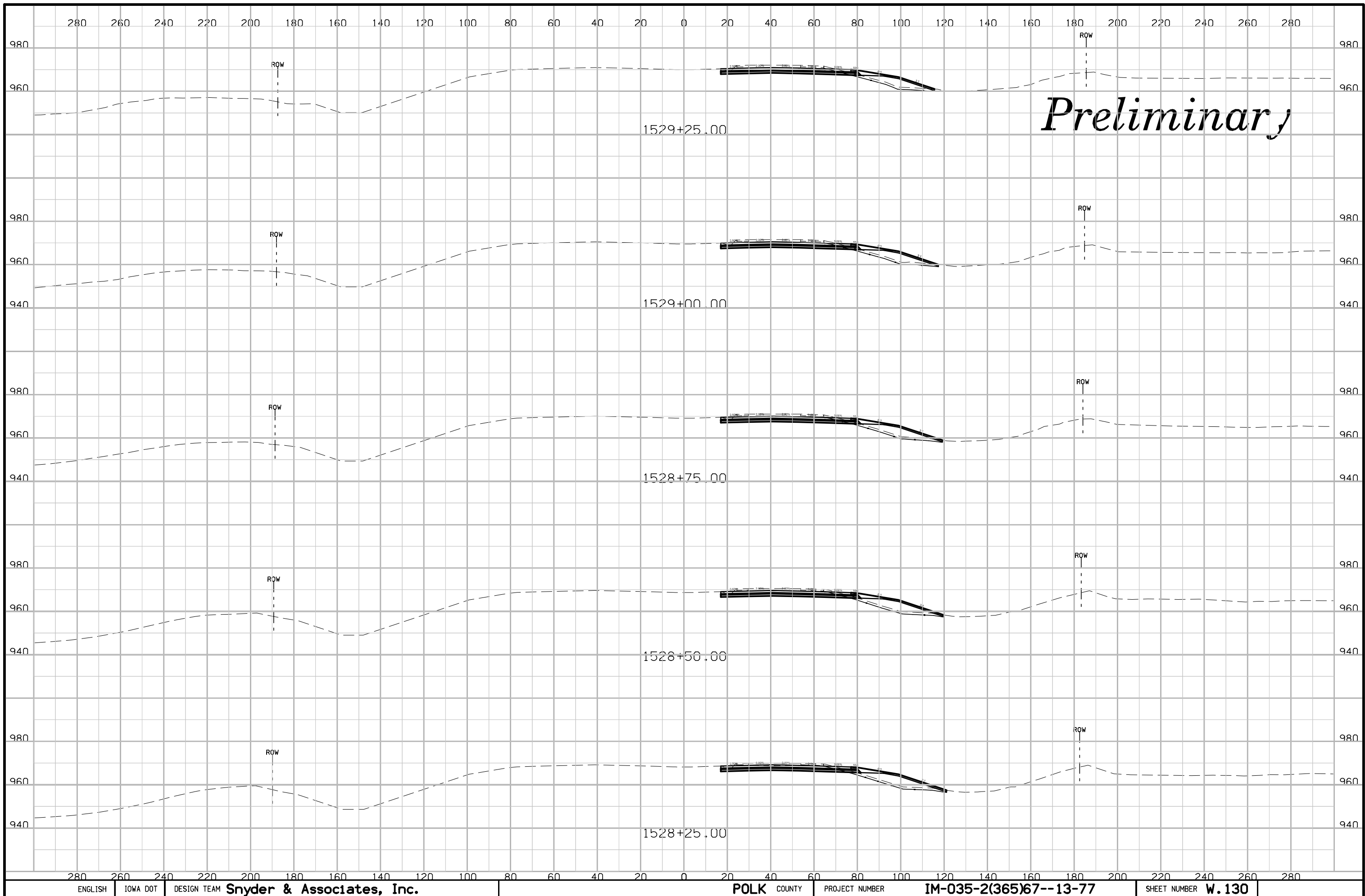
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1526+25.00

1526+00.00

1525+75.00





Preliminary

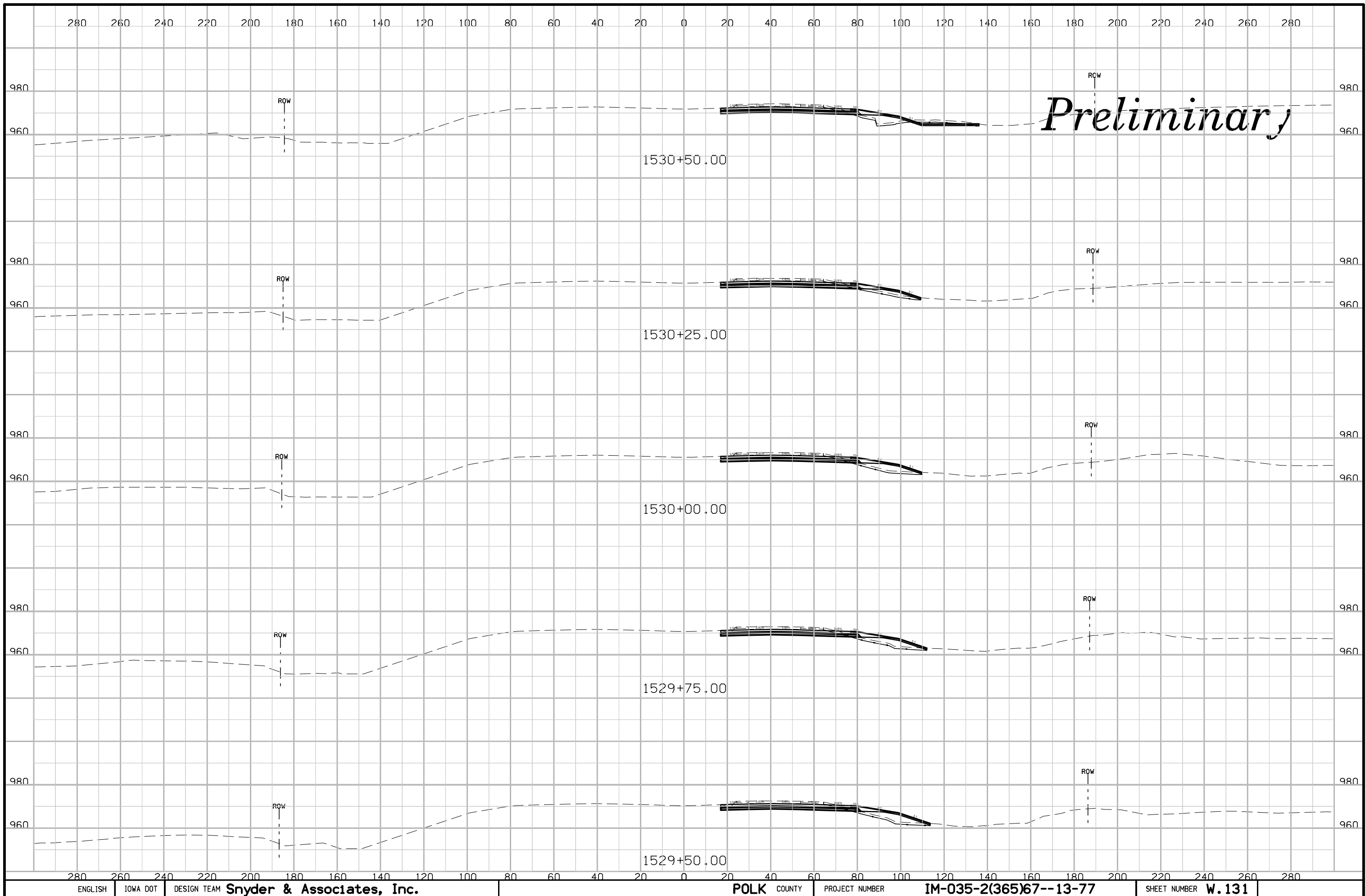
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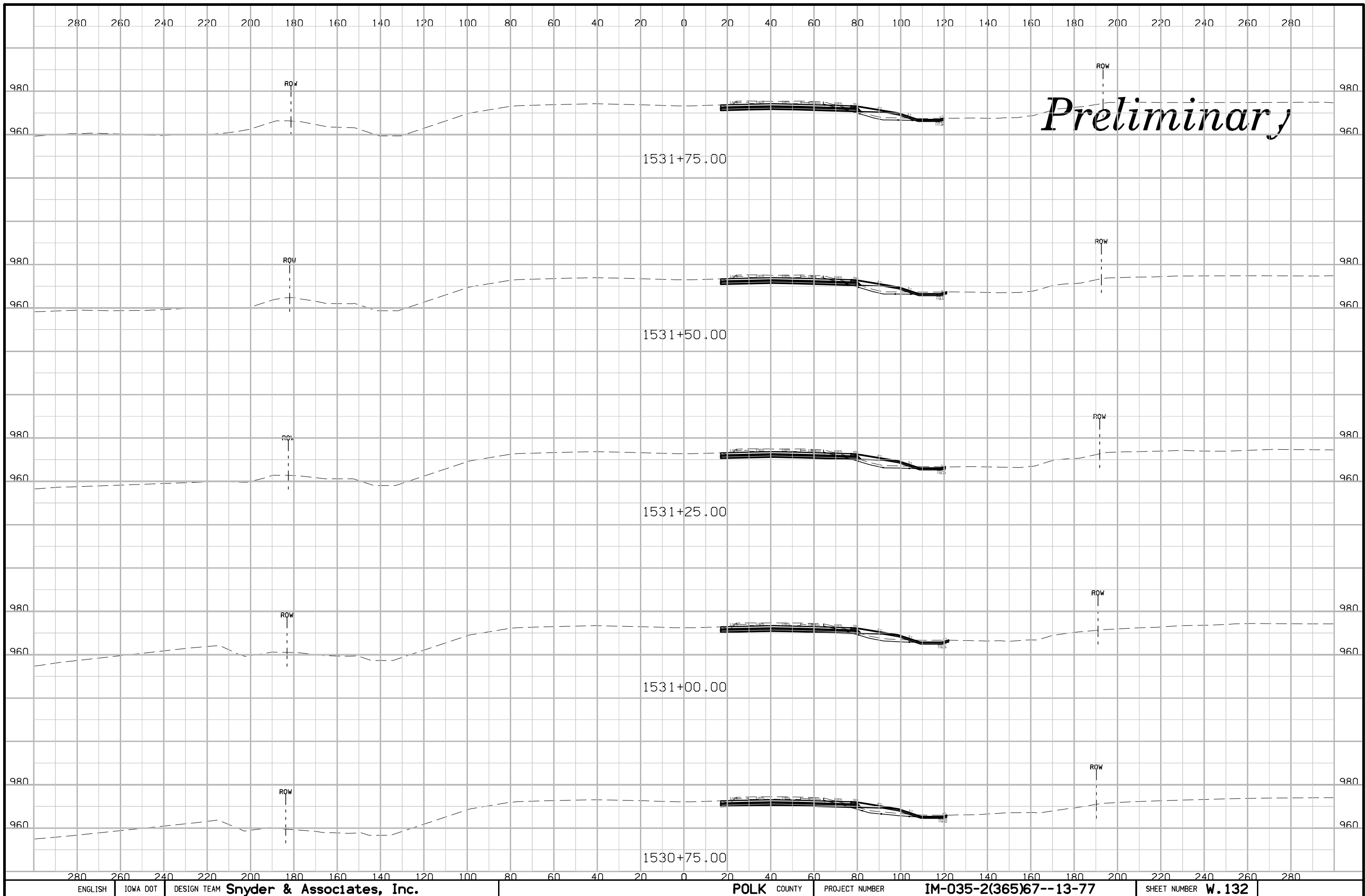
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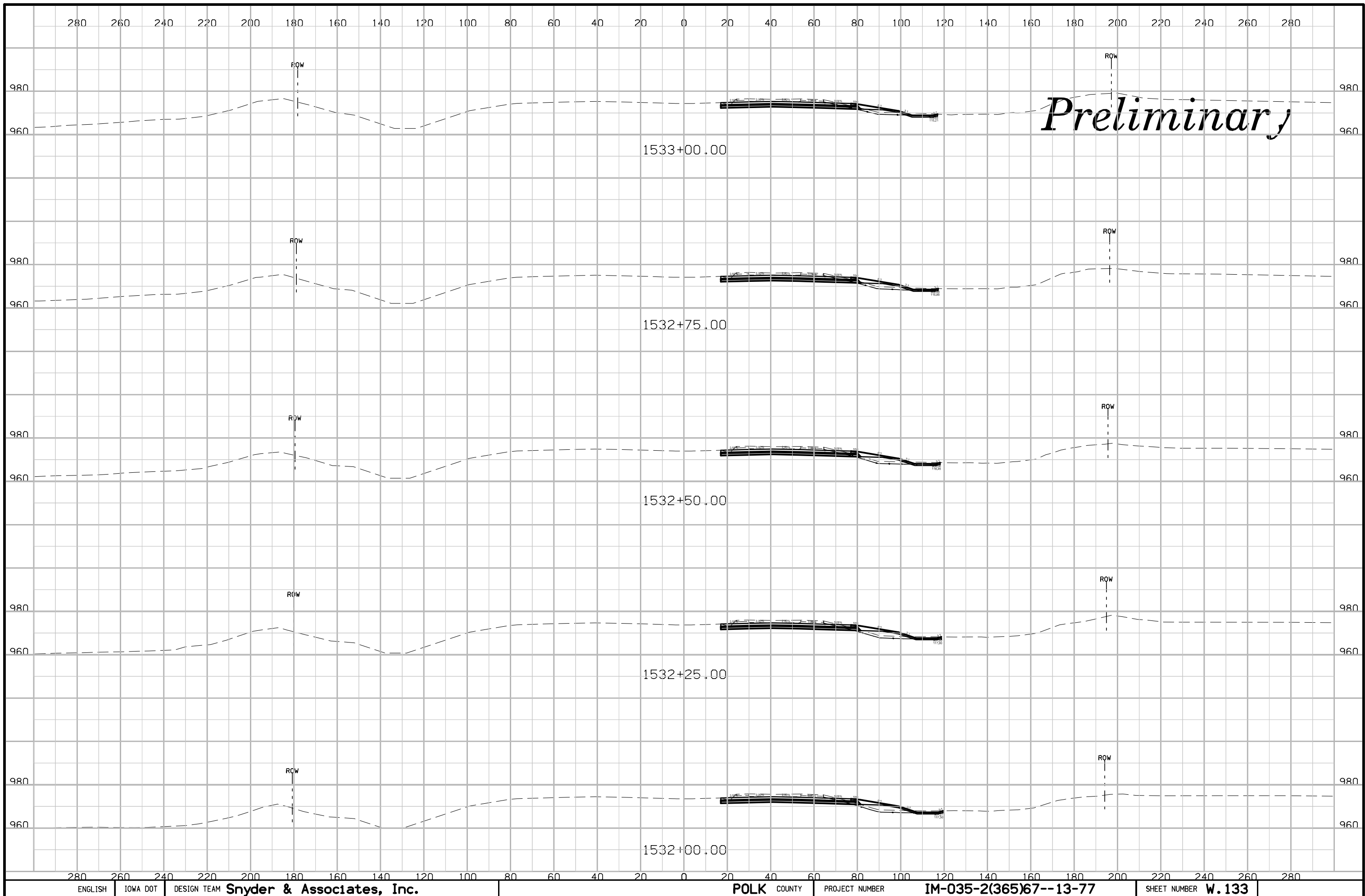
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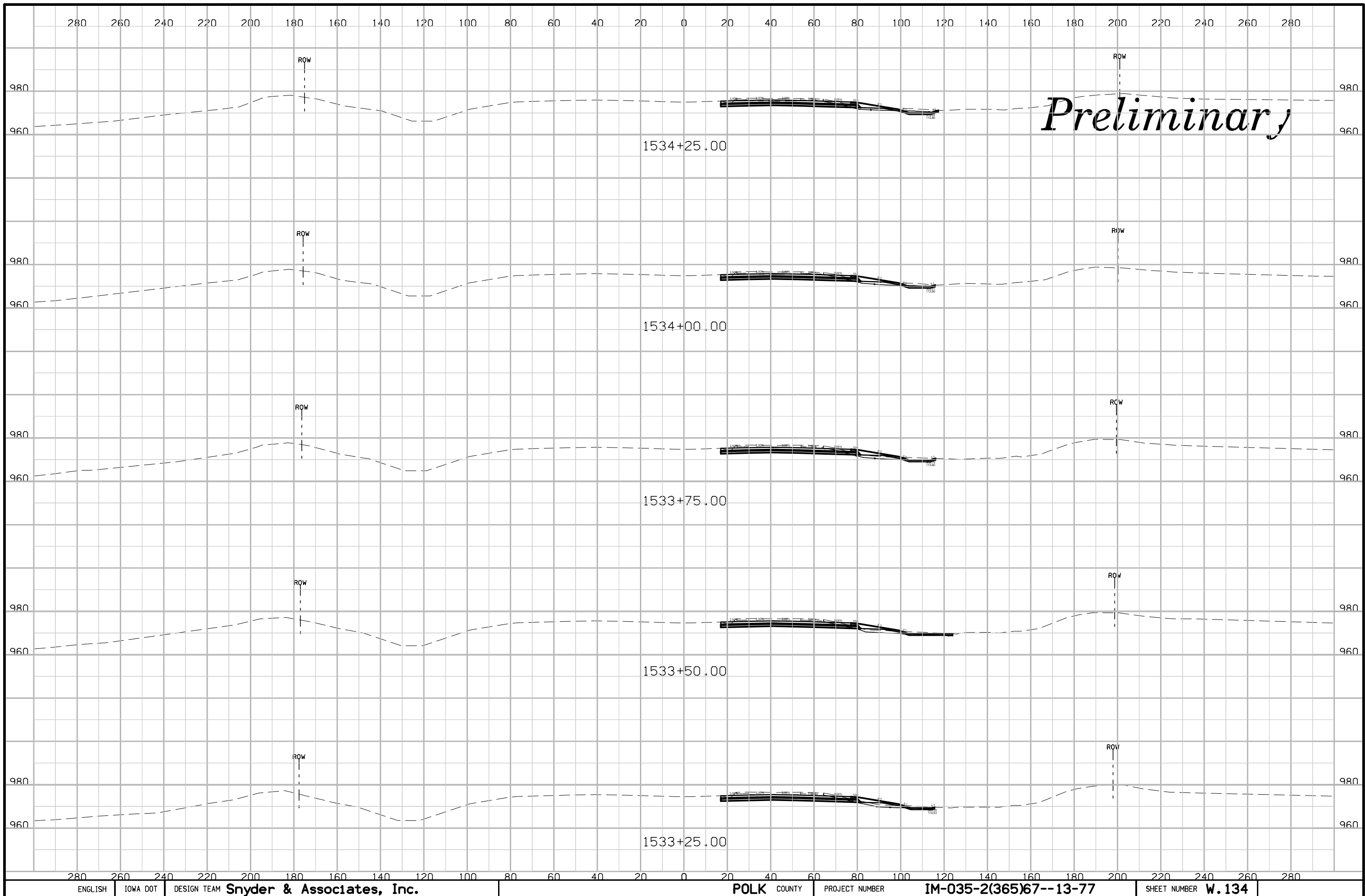
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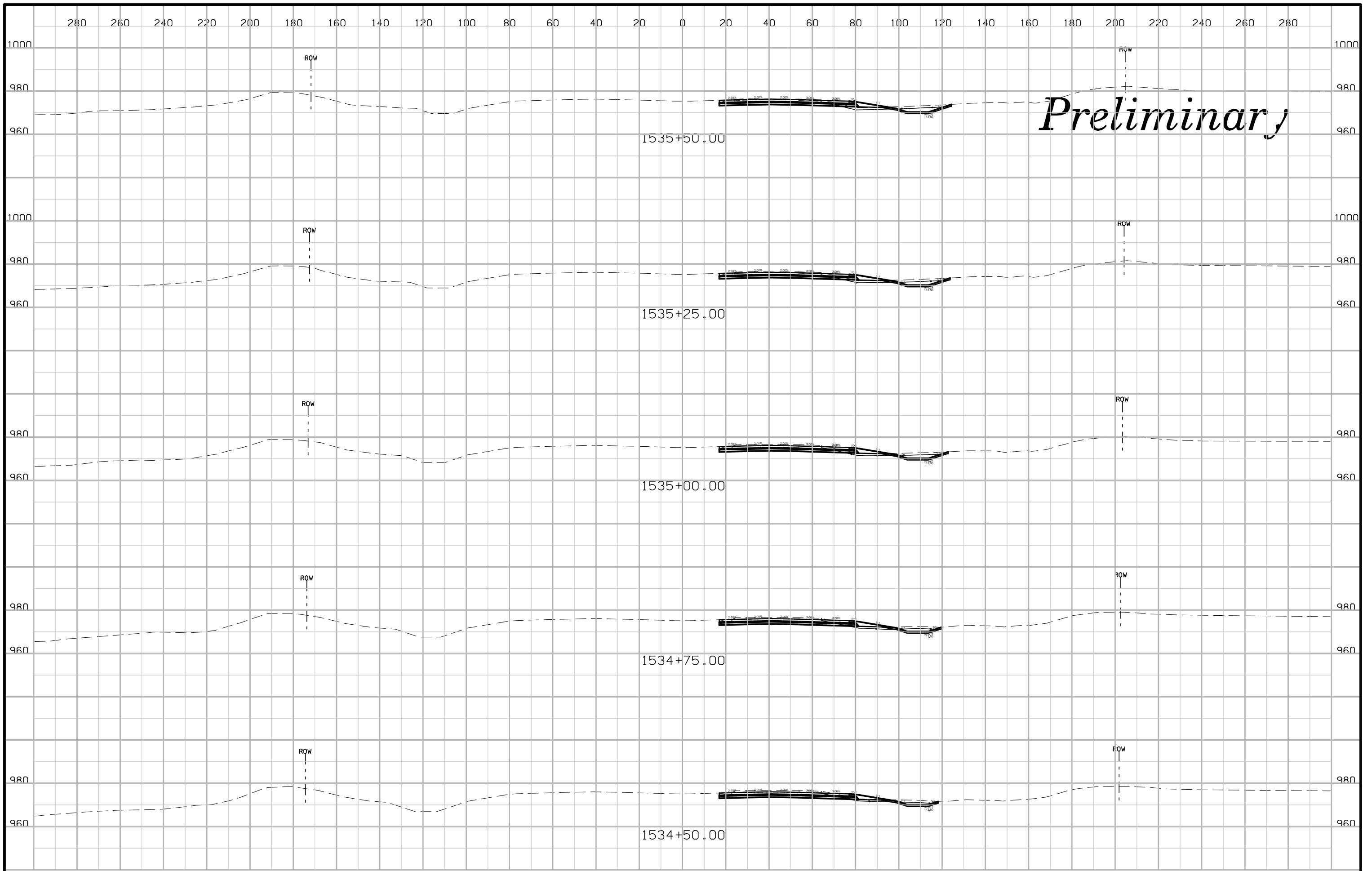






Preliminary





Preliminary

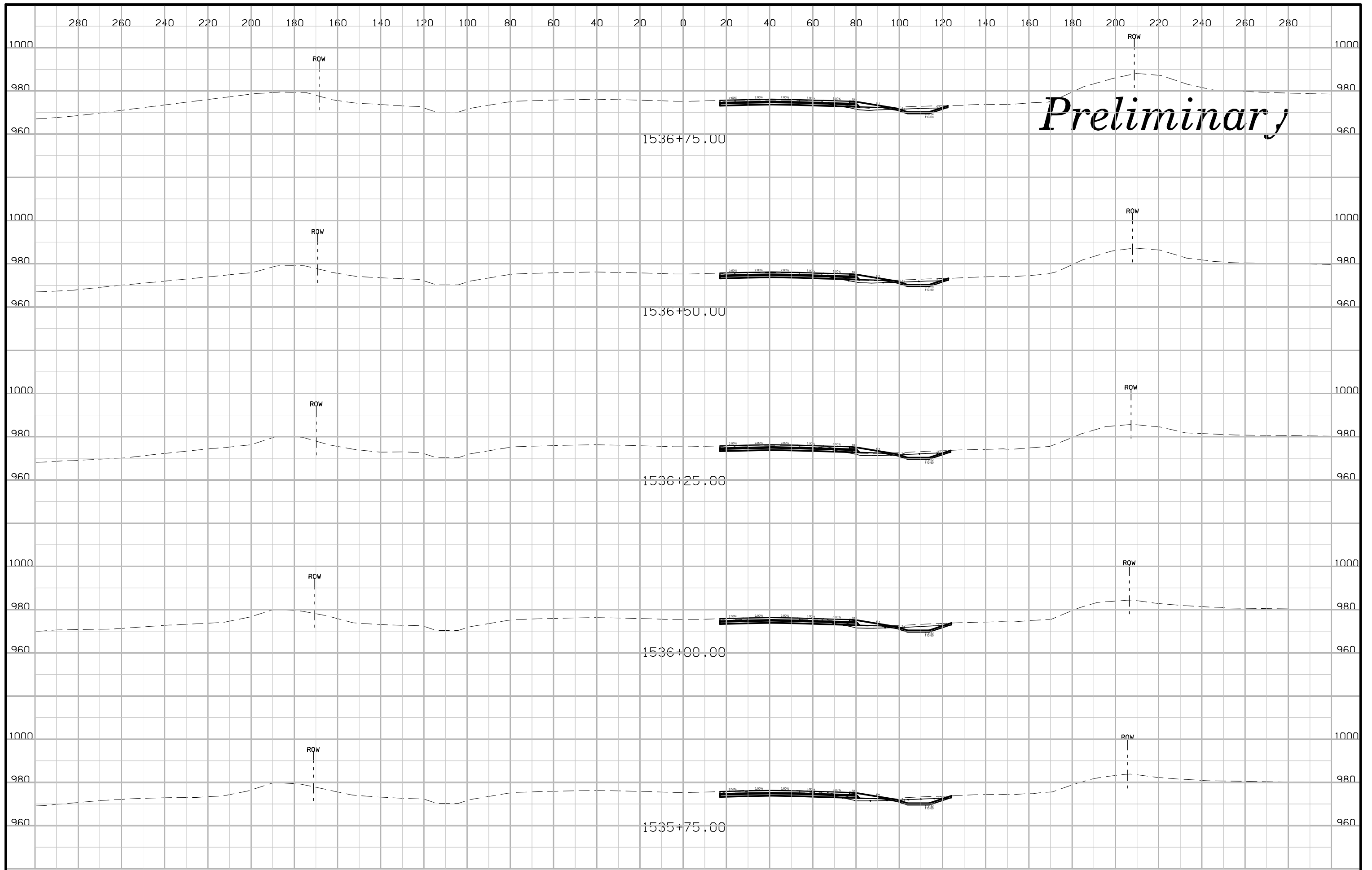
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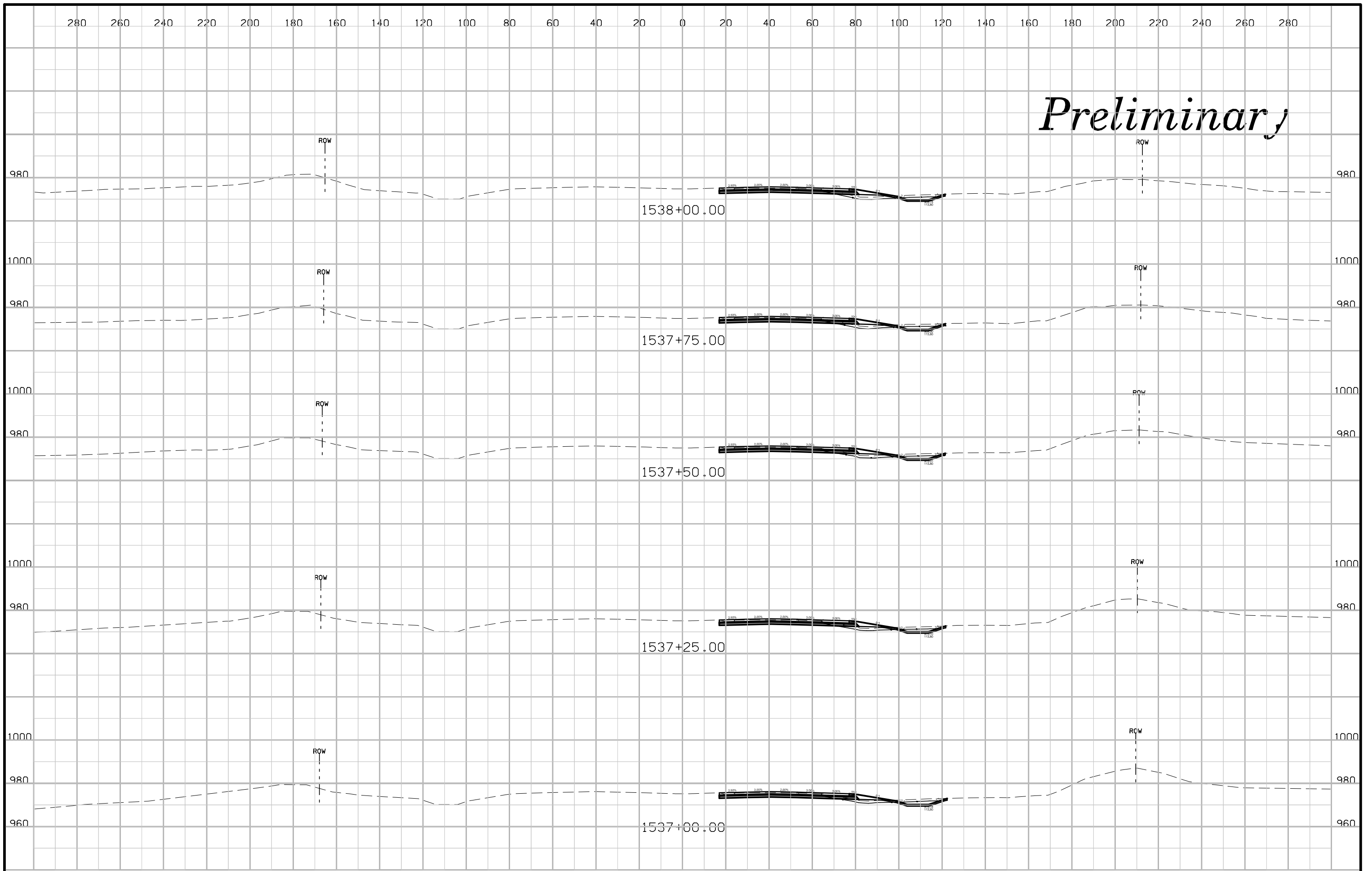
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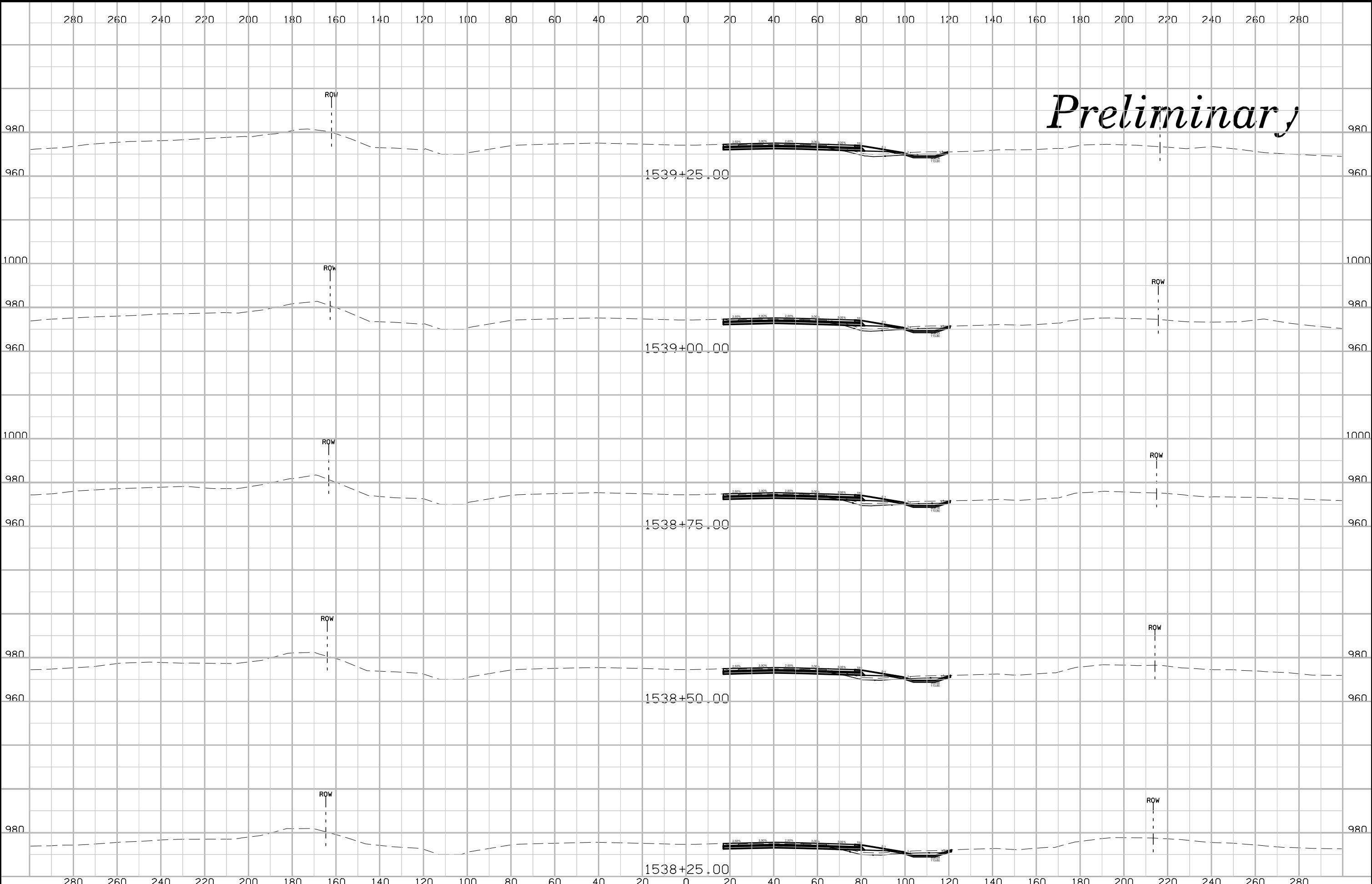


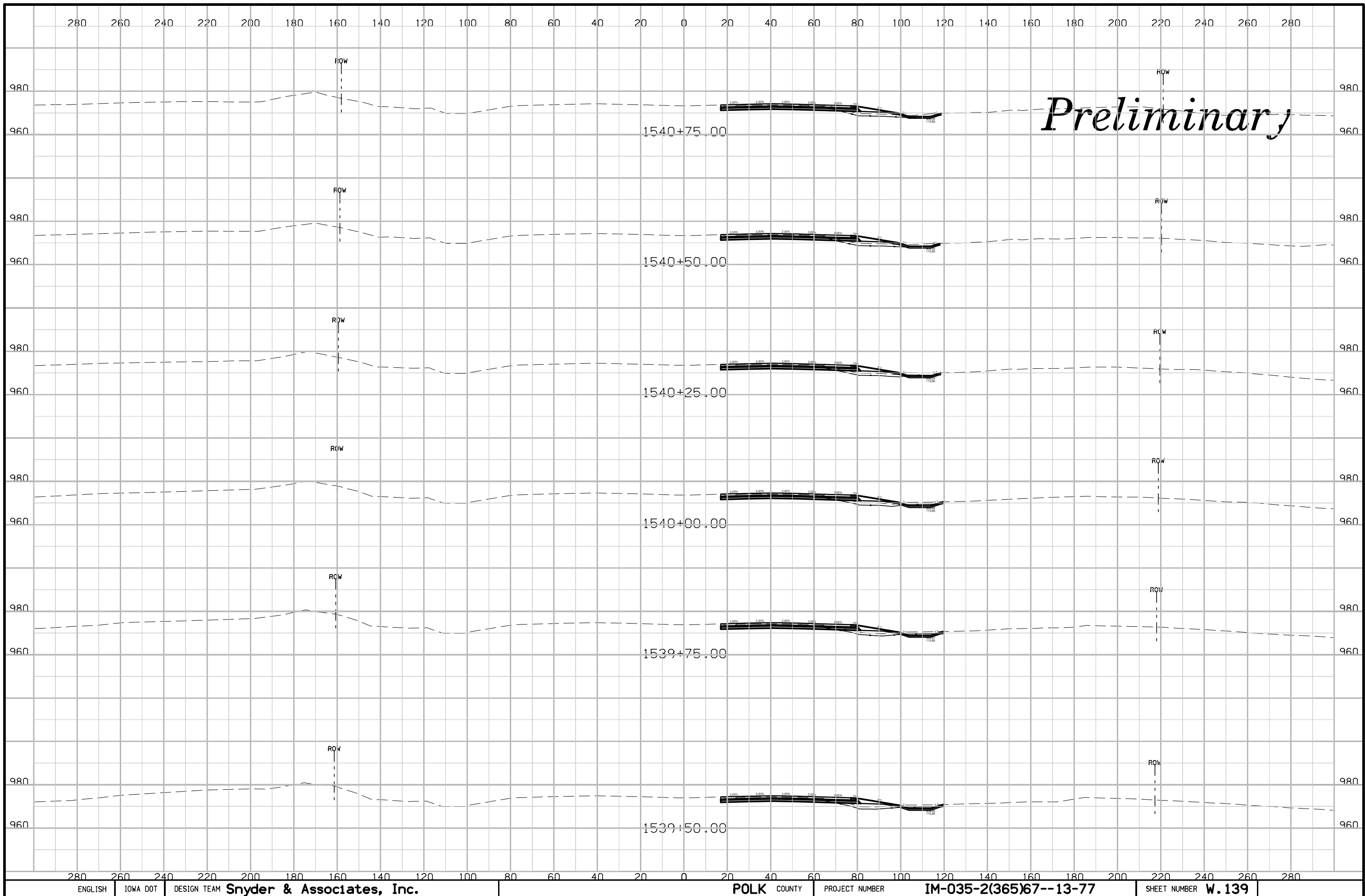
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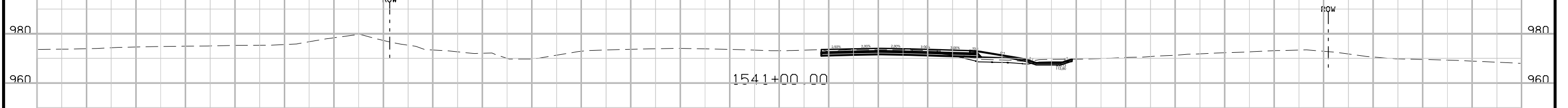
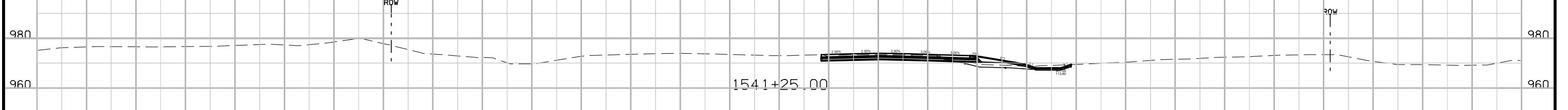
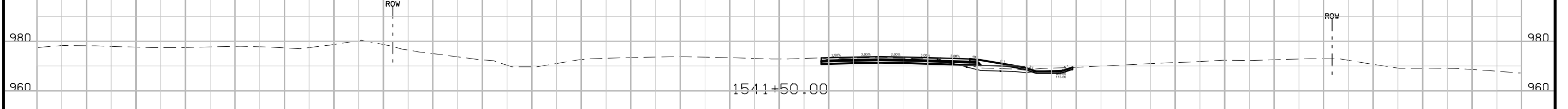
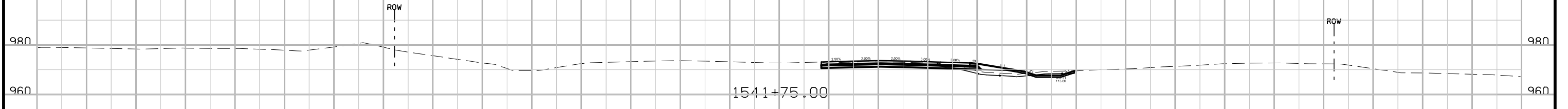
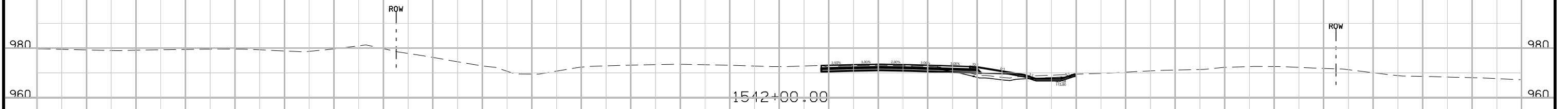
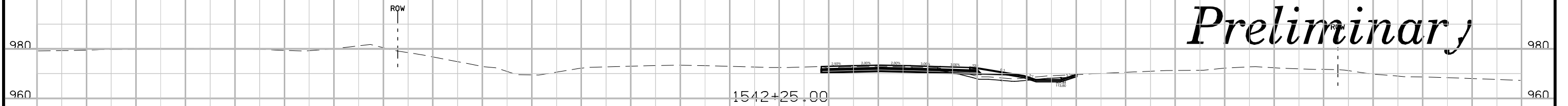




Preliminary

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

Preliminary



280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH

IOWA DOT

DESIGN TEAM

Snyder & Associates, Inc.

POLK COUNTY

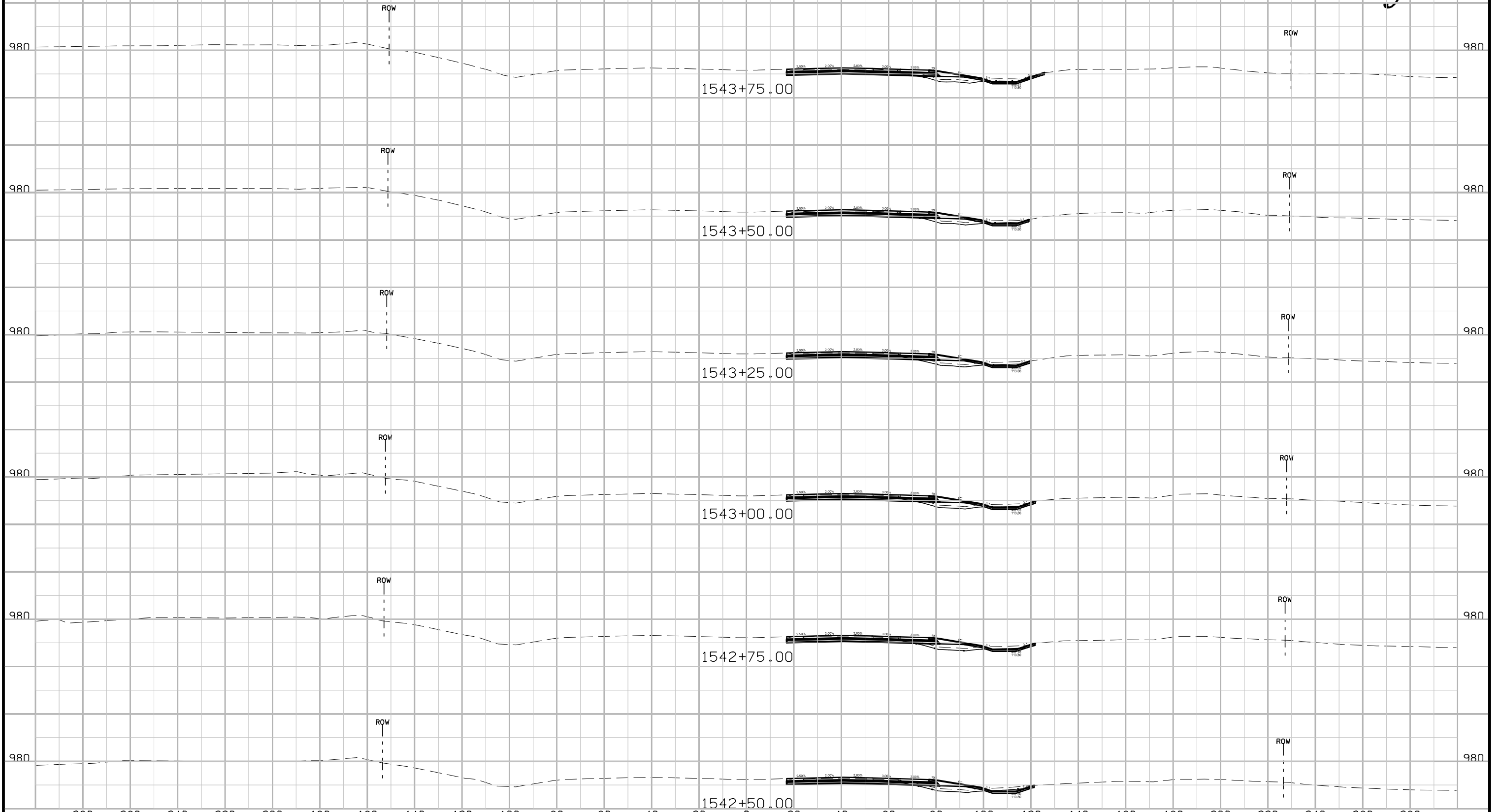
PROJECT NUMBER

IM-035-2(365)67--13-77

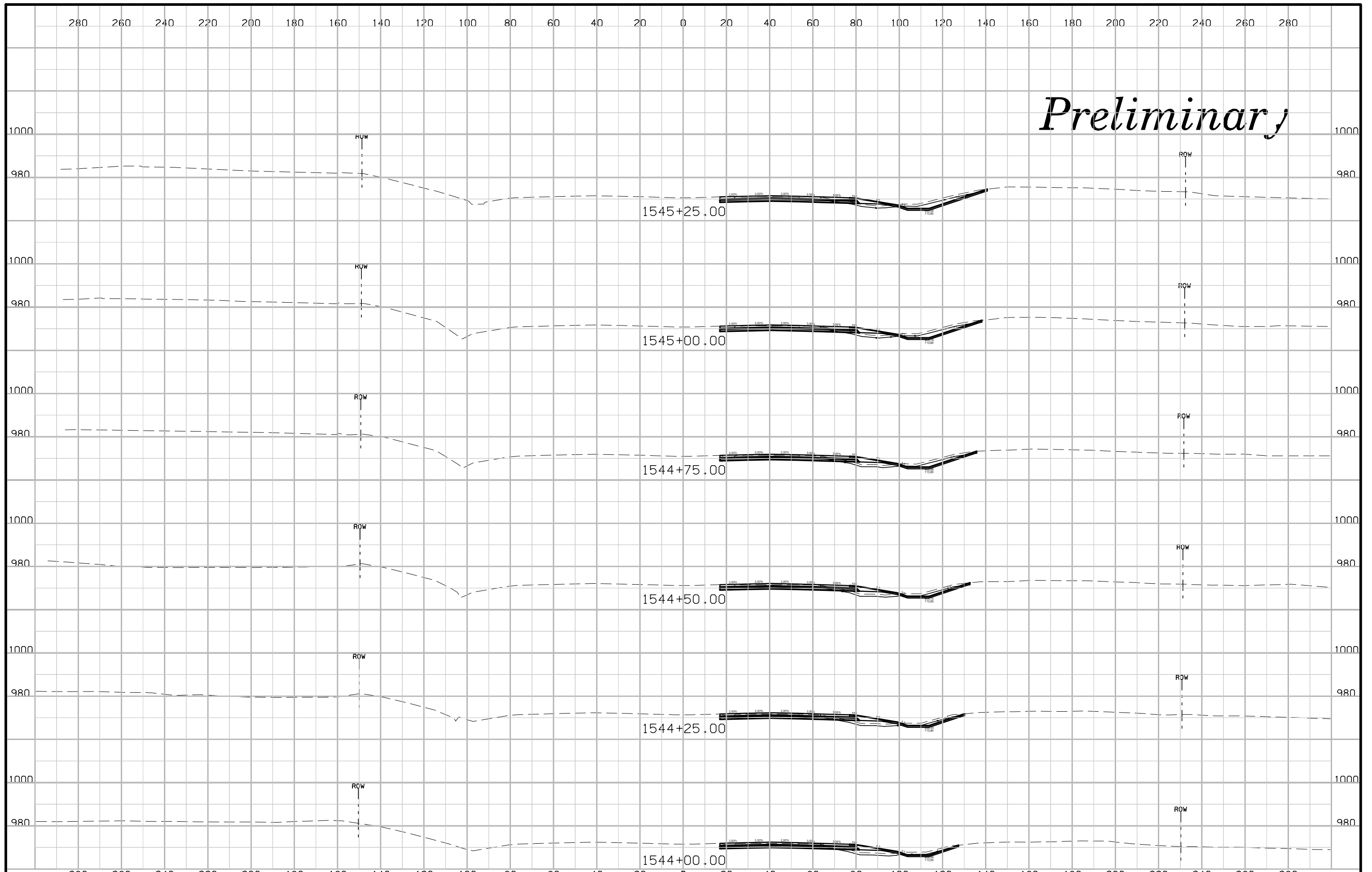
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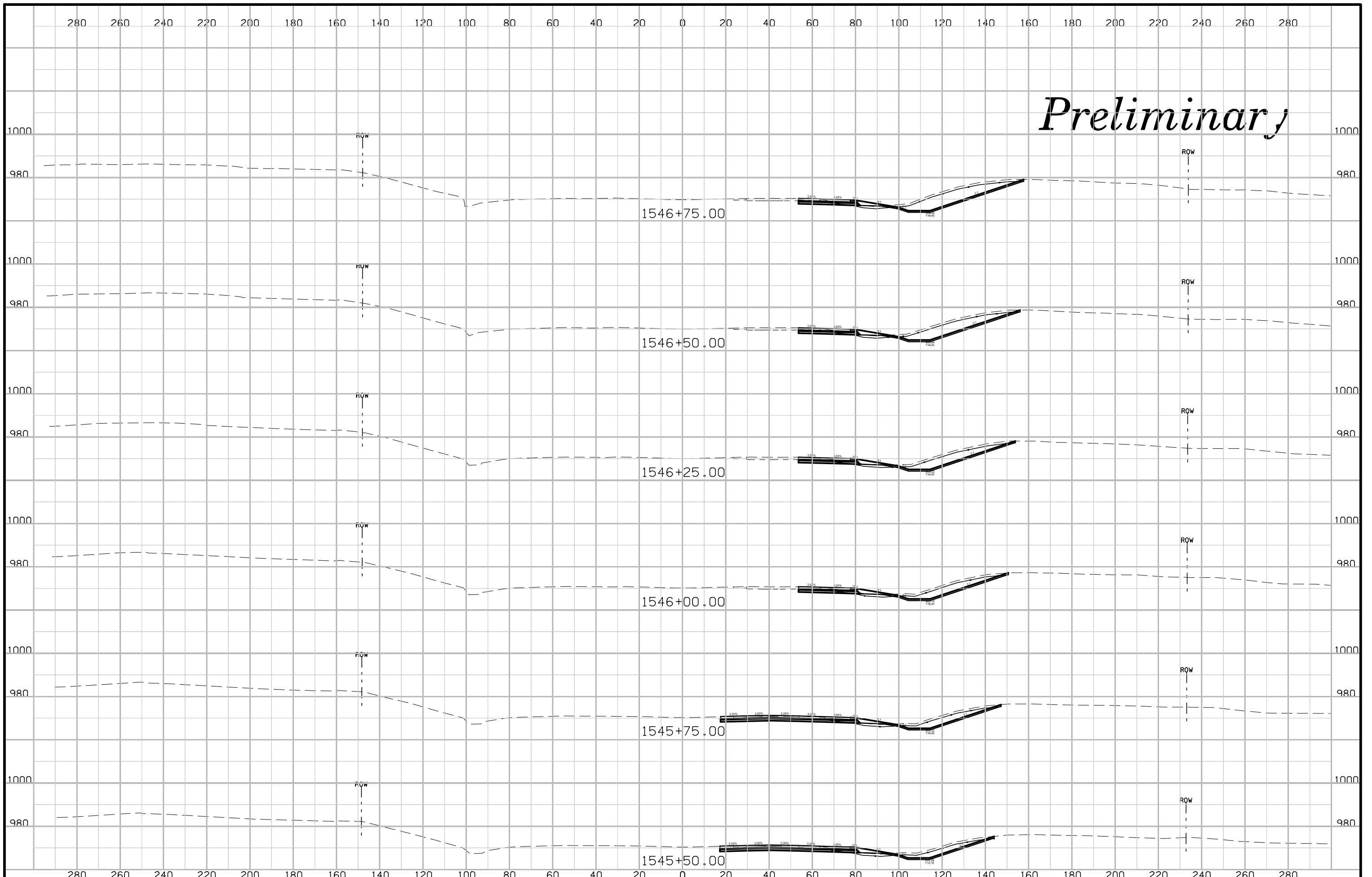
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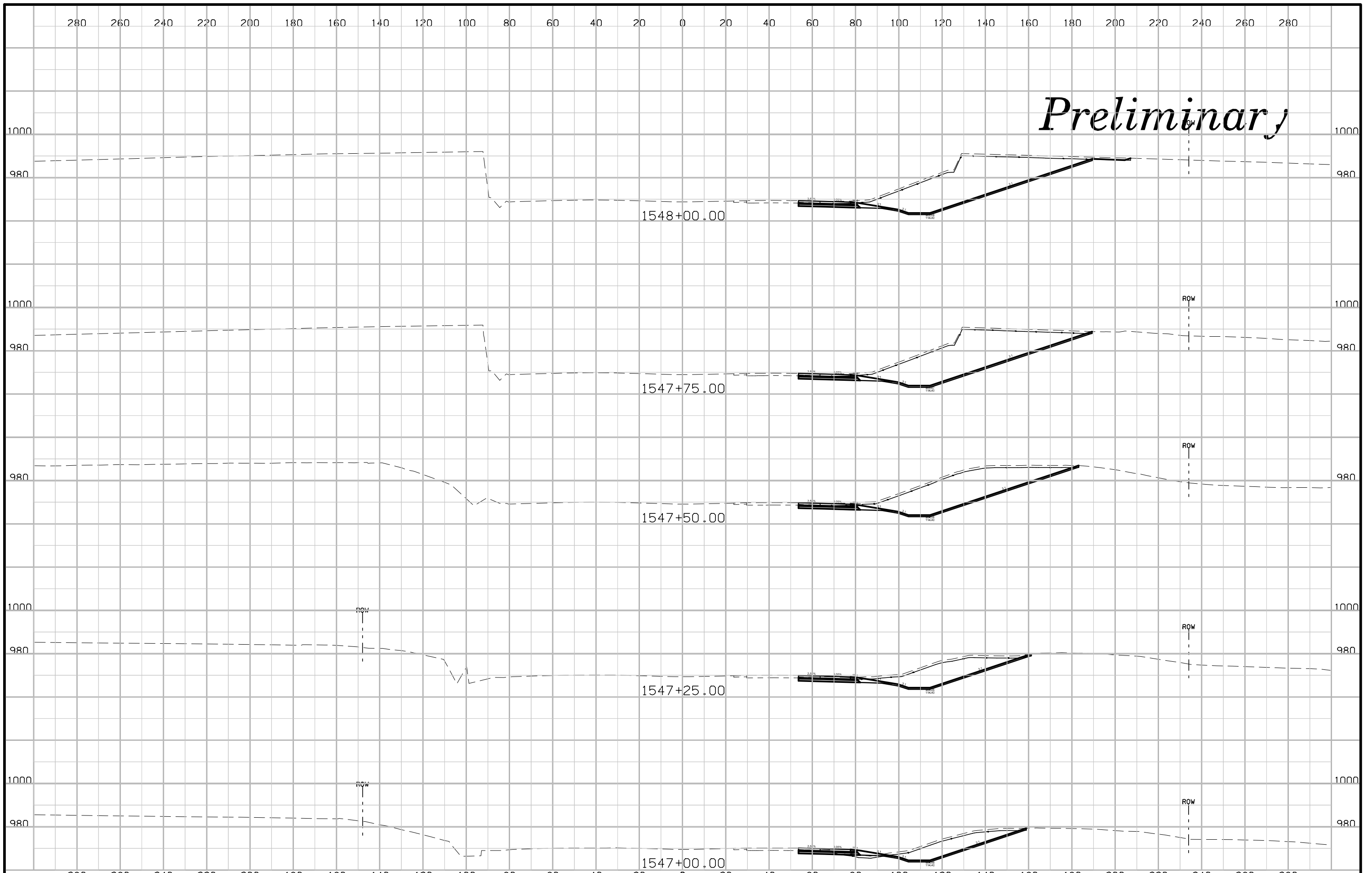
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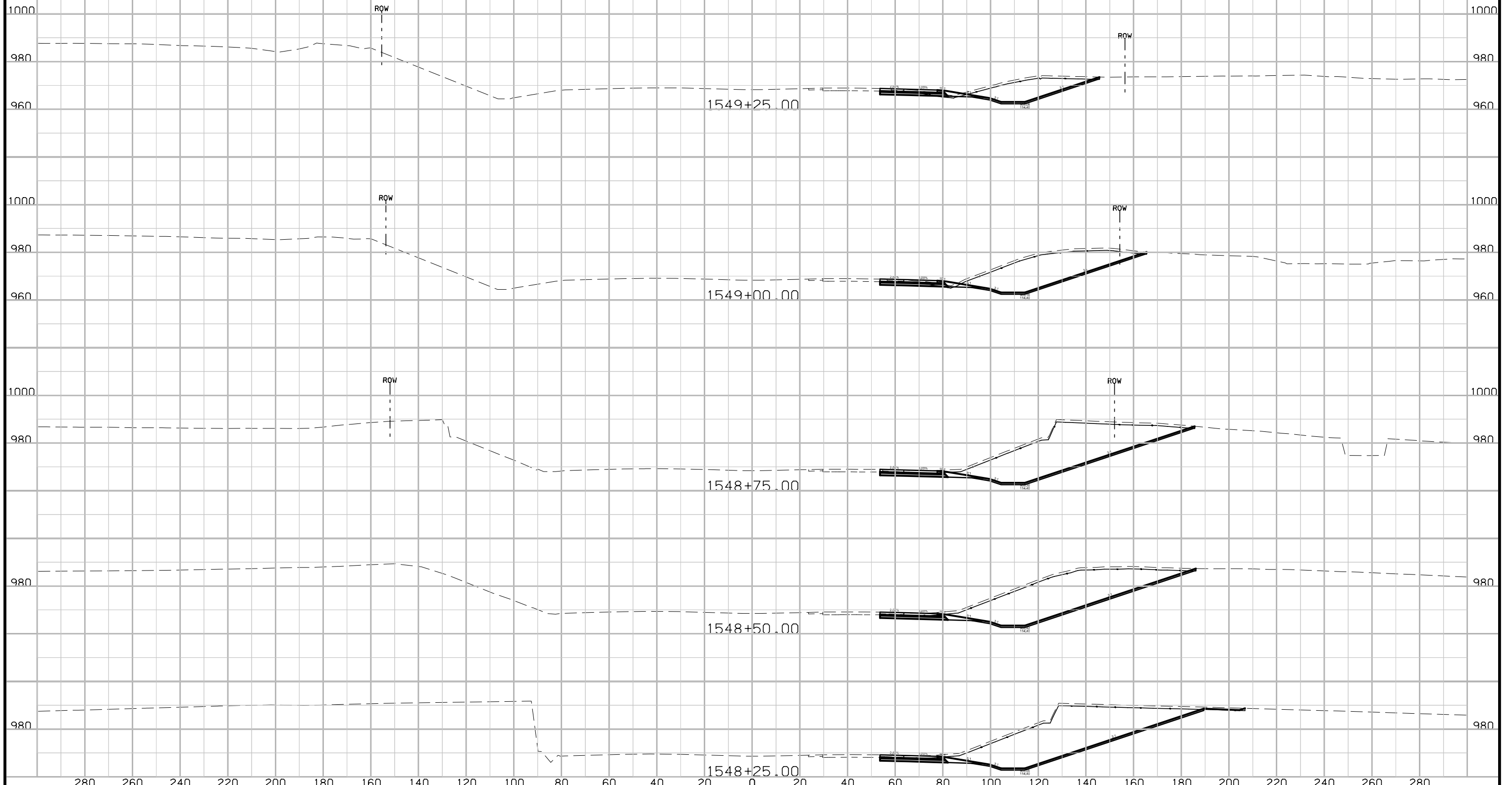


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Preliminary



ENGLISH

IOWA DOT

DESIGN TEAM

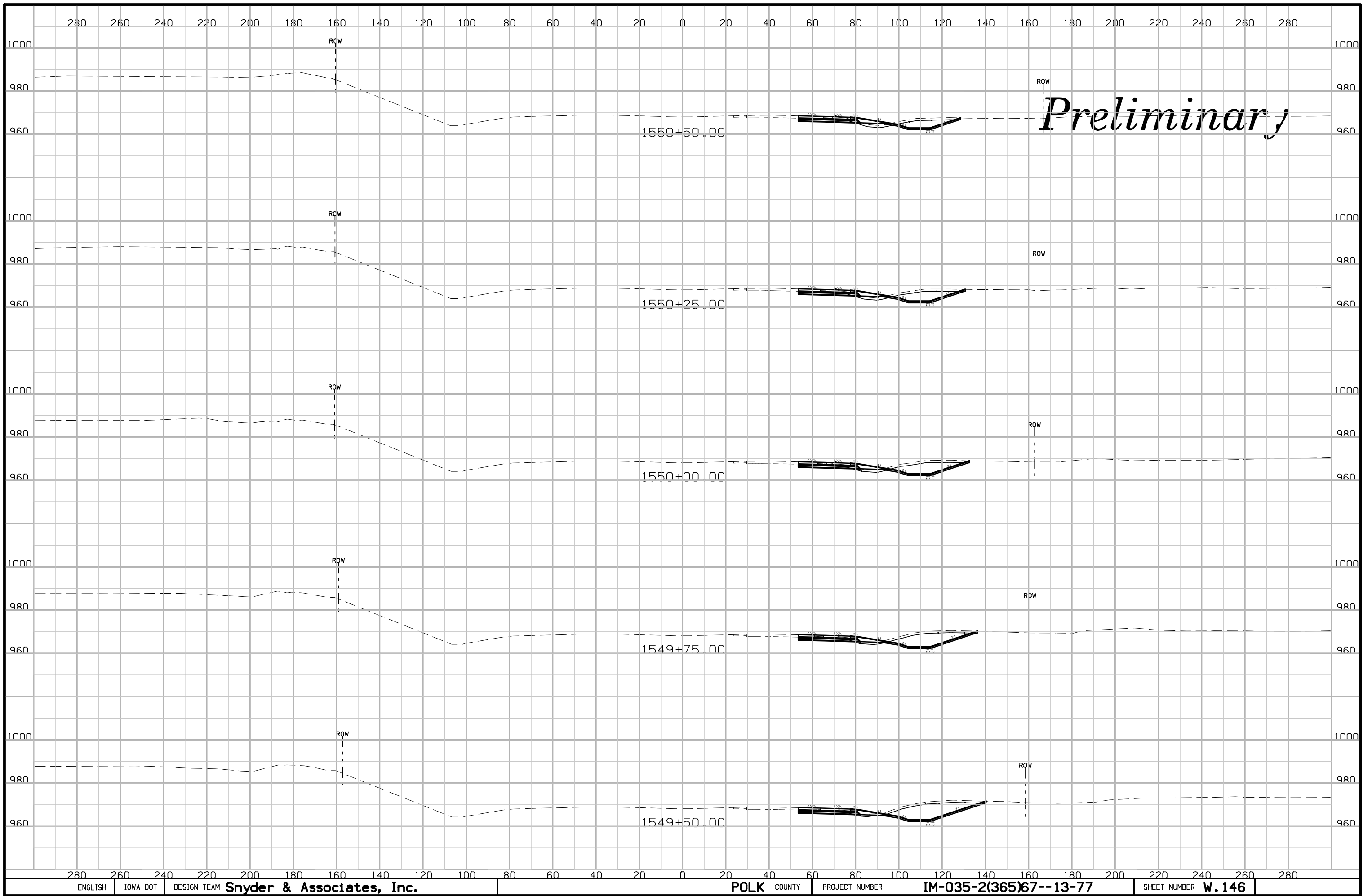
Snyder & Associates, Inc.

POLK COUNTY

PROJECT NUMBER

IM-035-2(365)67--13-77

SHEET NUMBER **W.145**



Preliminary

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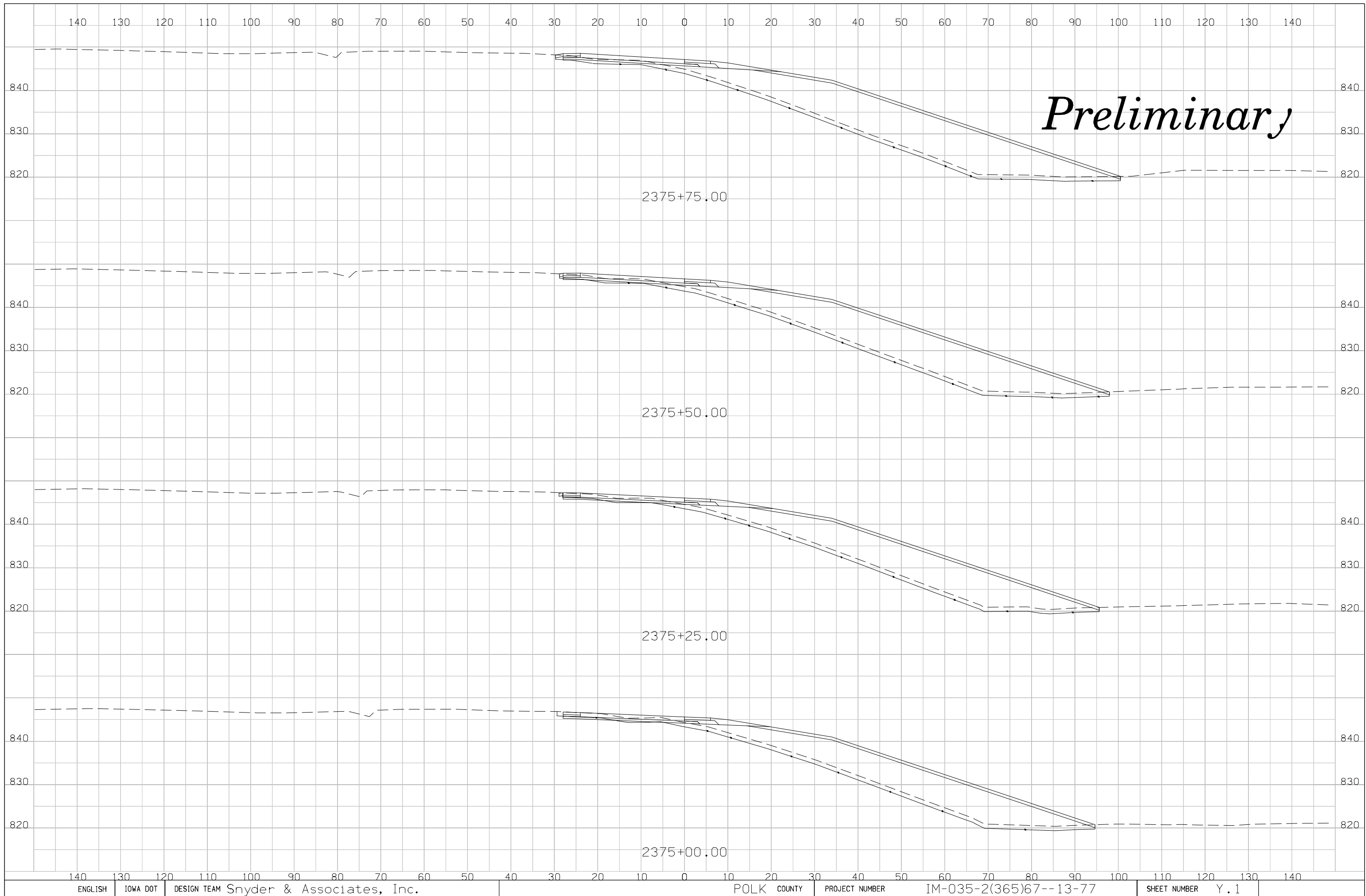


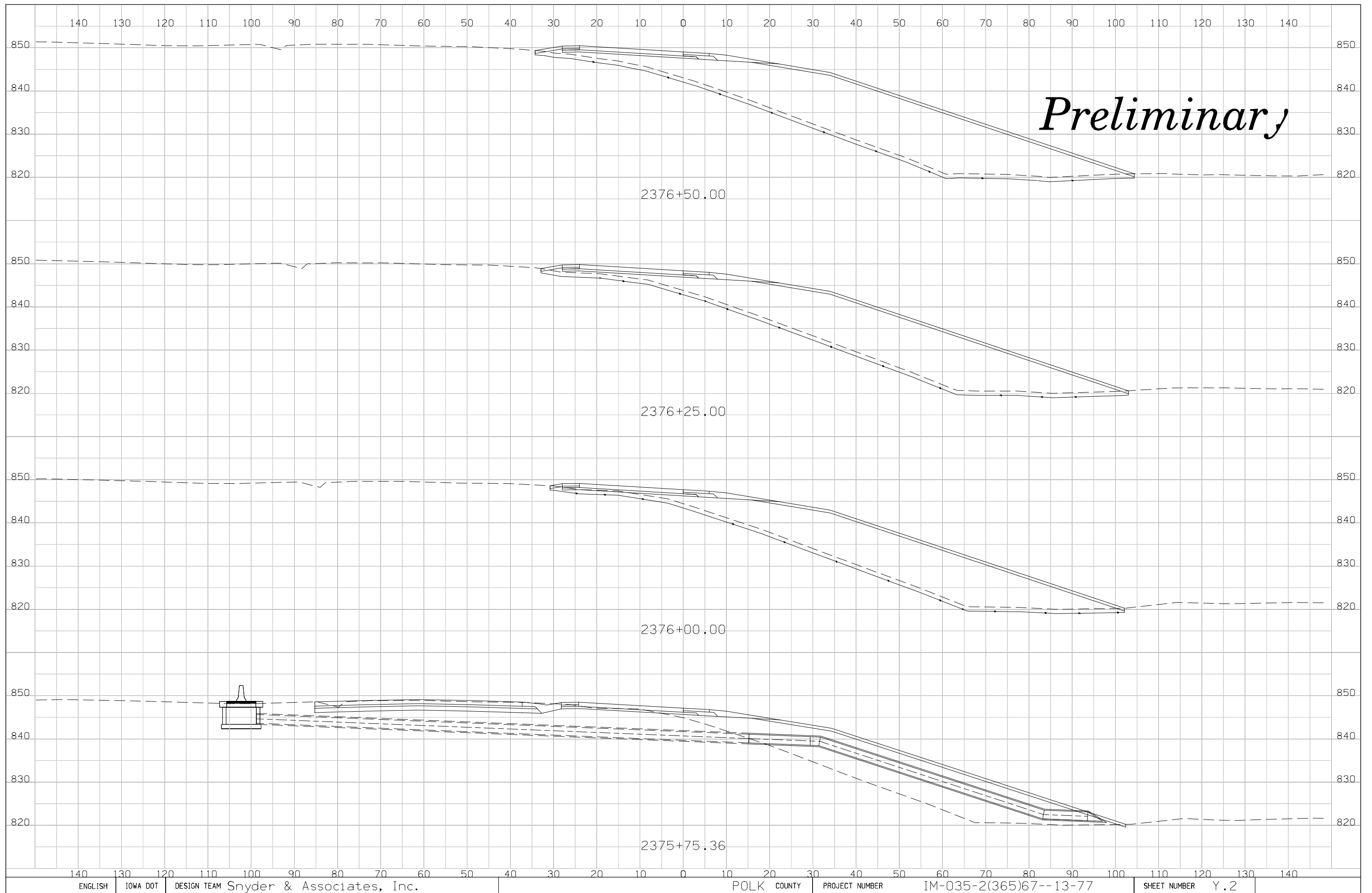
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ENGLISH IOWA DOT DESIGN TEAM **Snyder & Associates, Inc.**

POLK COUNTY PROJECT NUMBER **IM-035-2(365)67--13-77**

SHEET NUMBER **W.147**





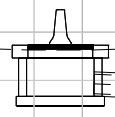
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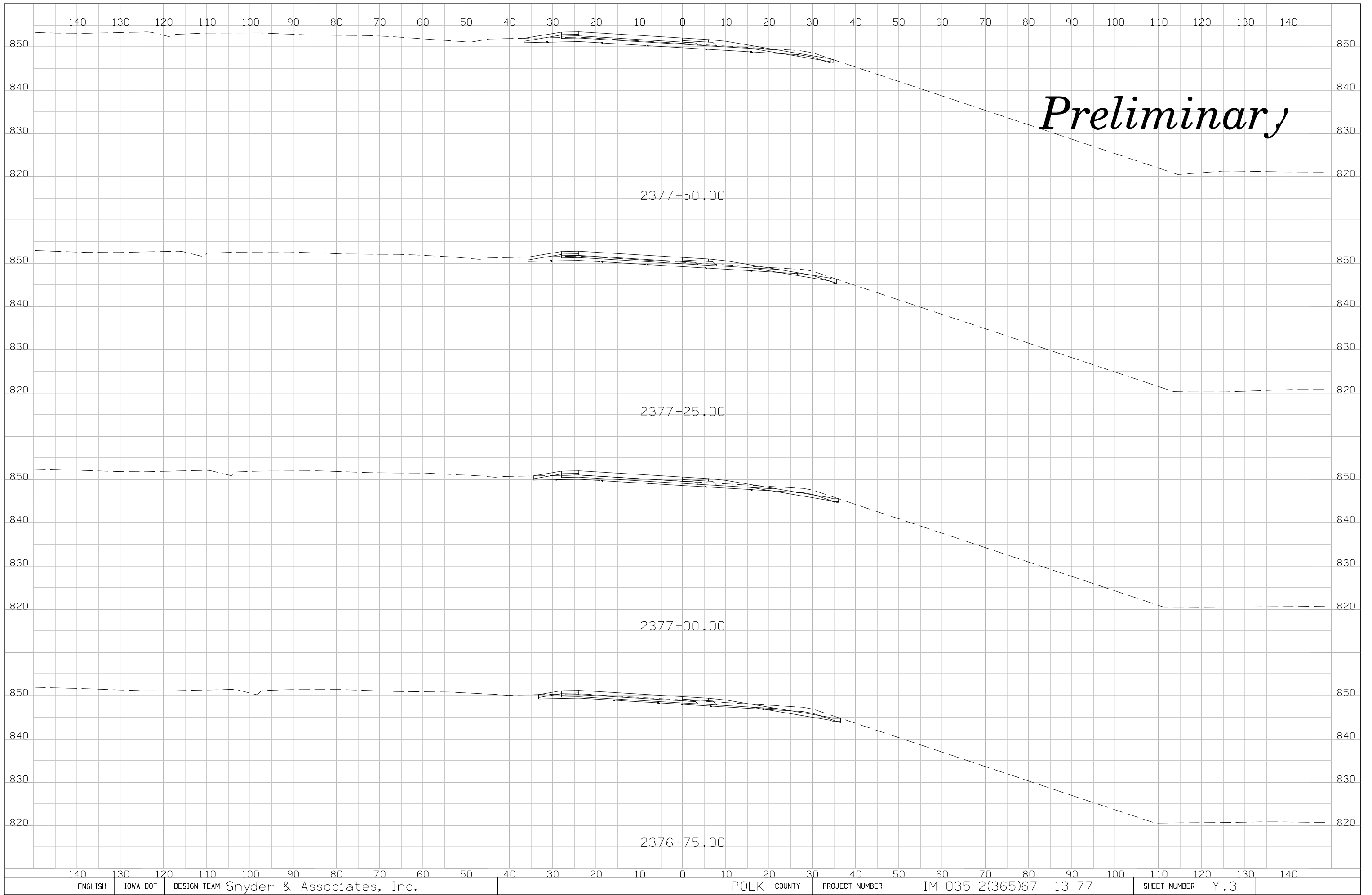
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2376+25.00

2376+00.00

2375+75.36





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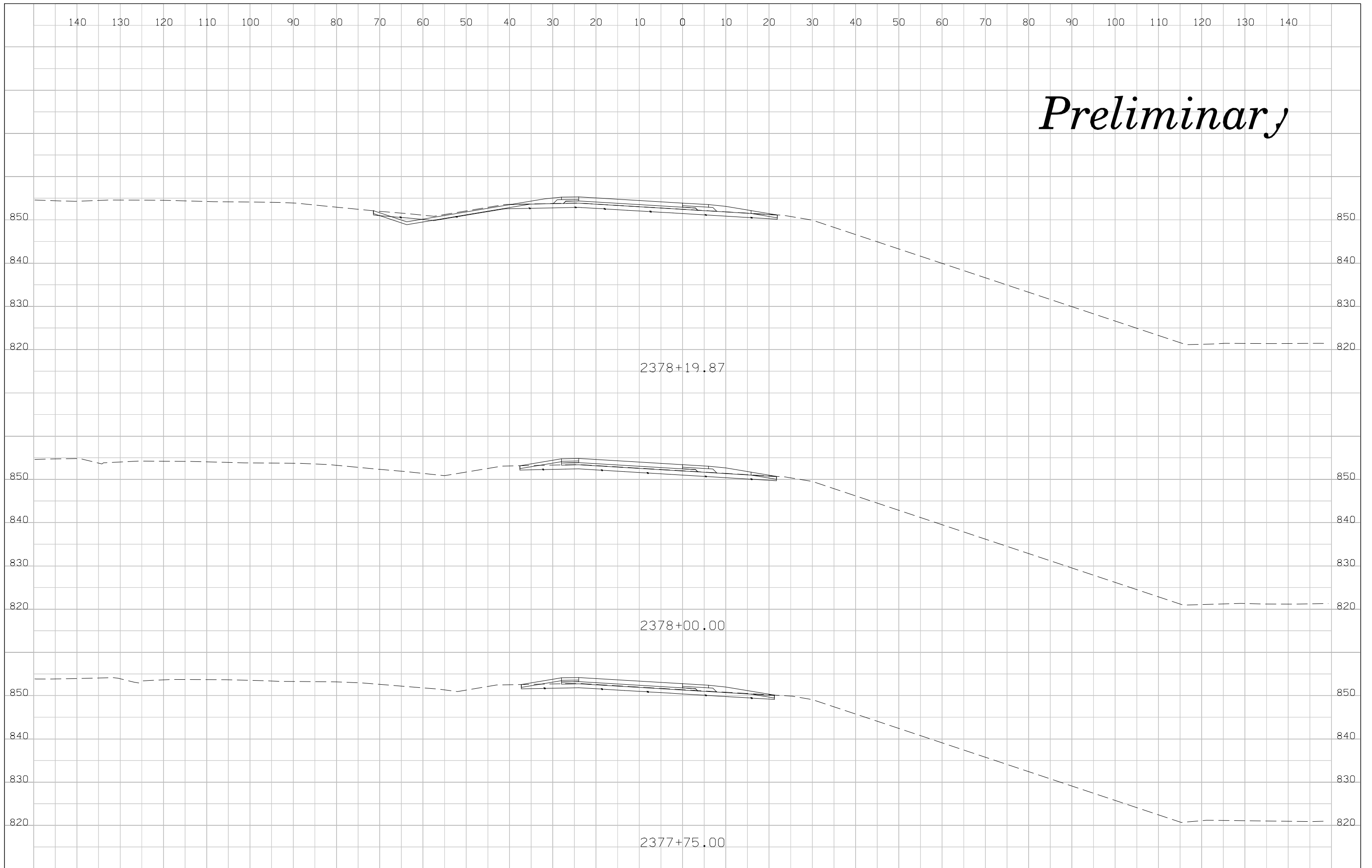
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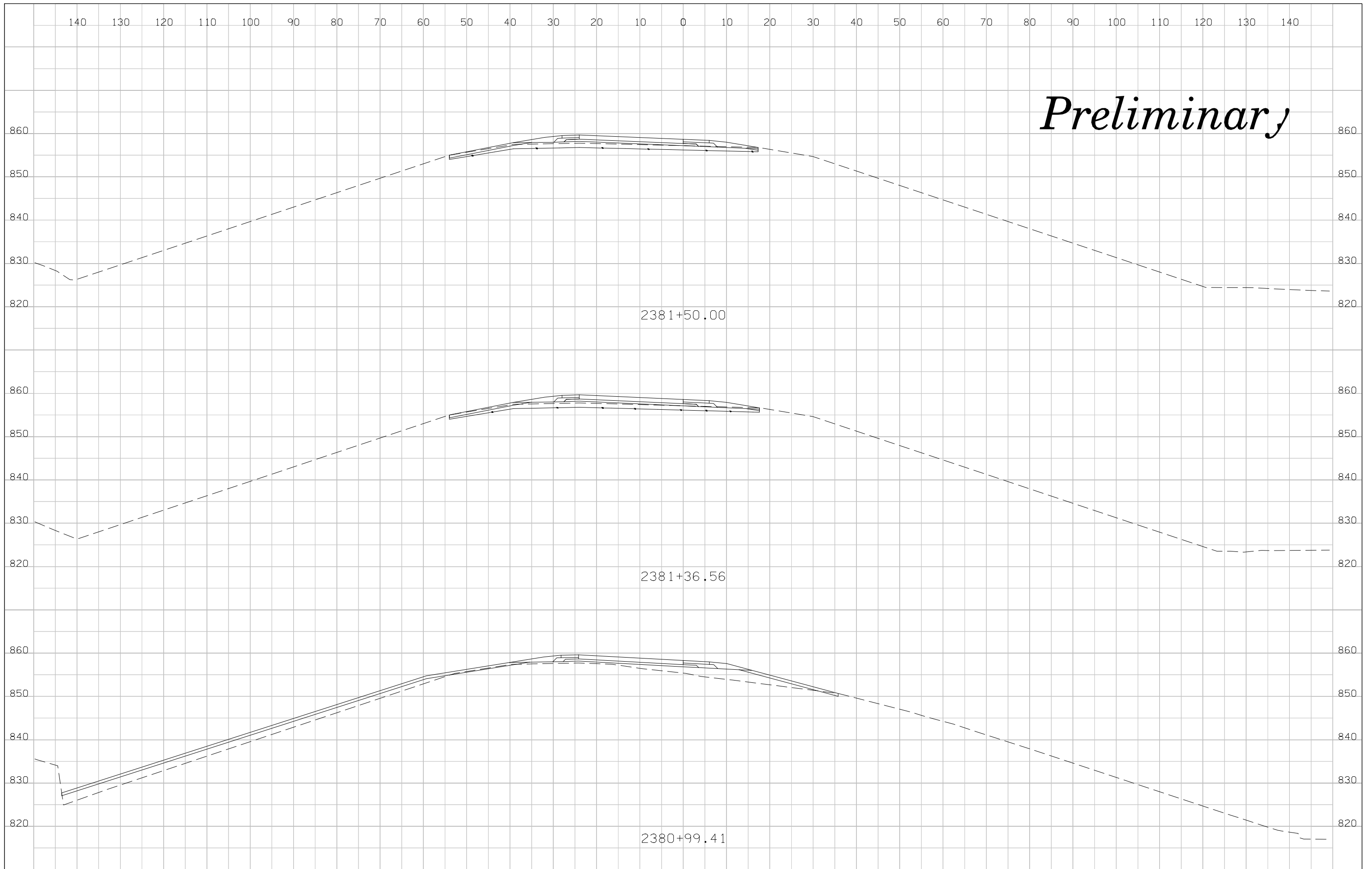
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2376+75.00

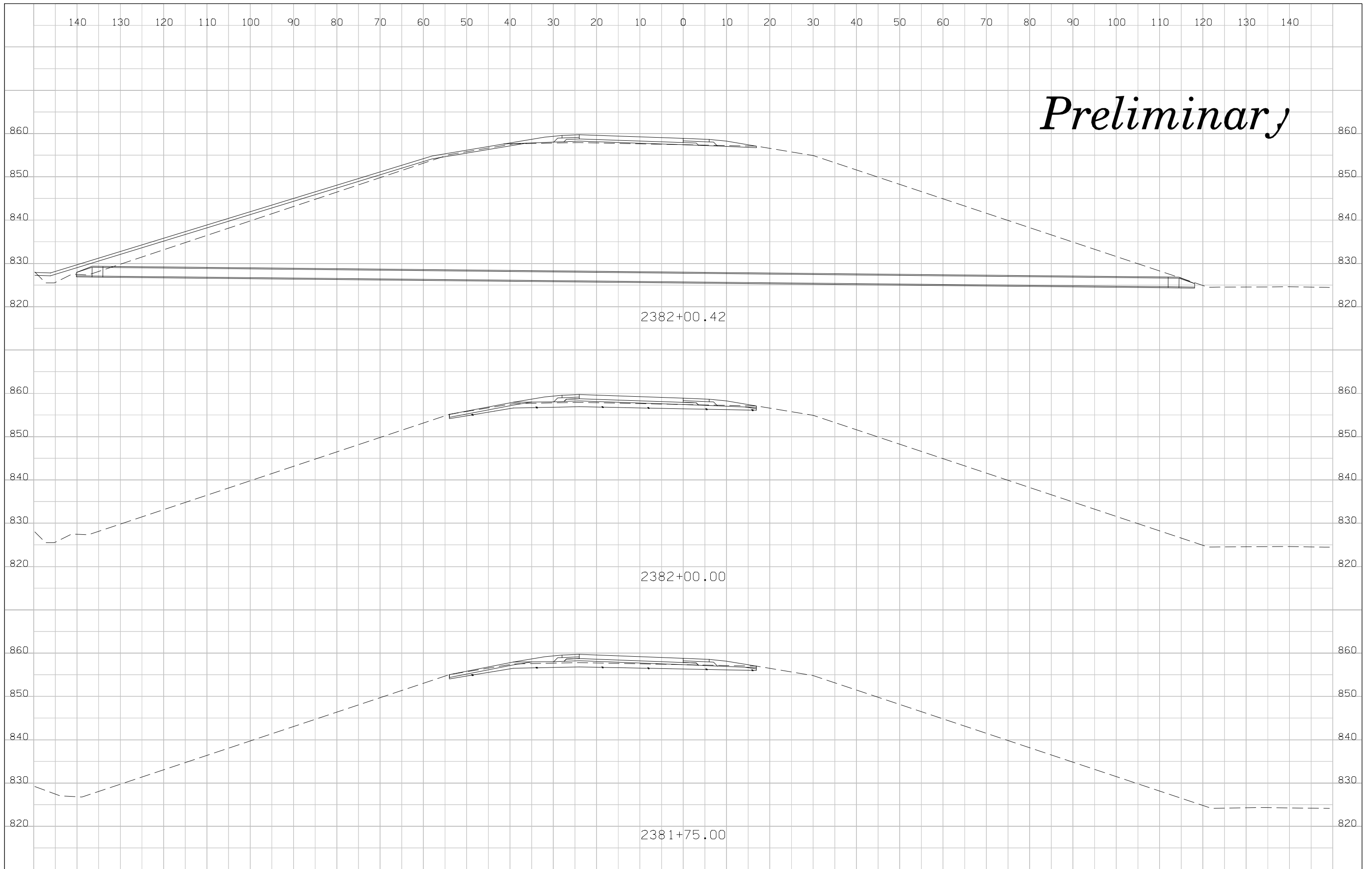
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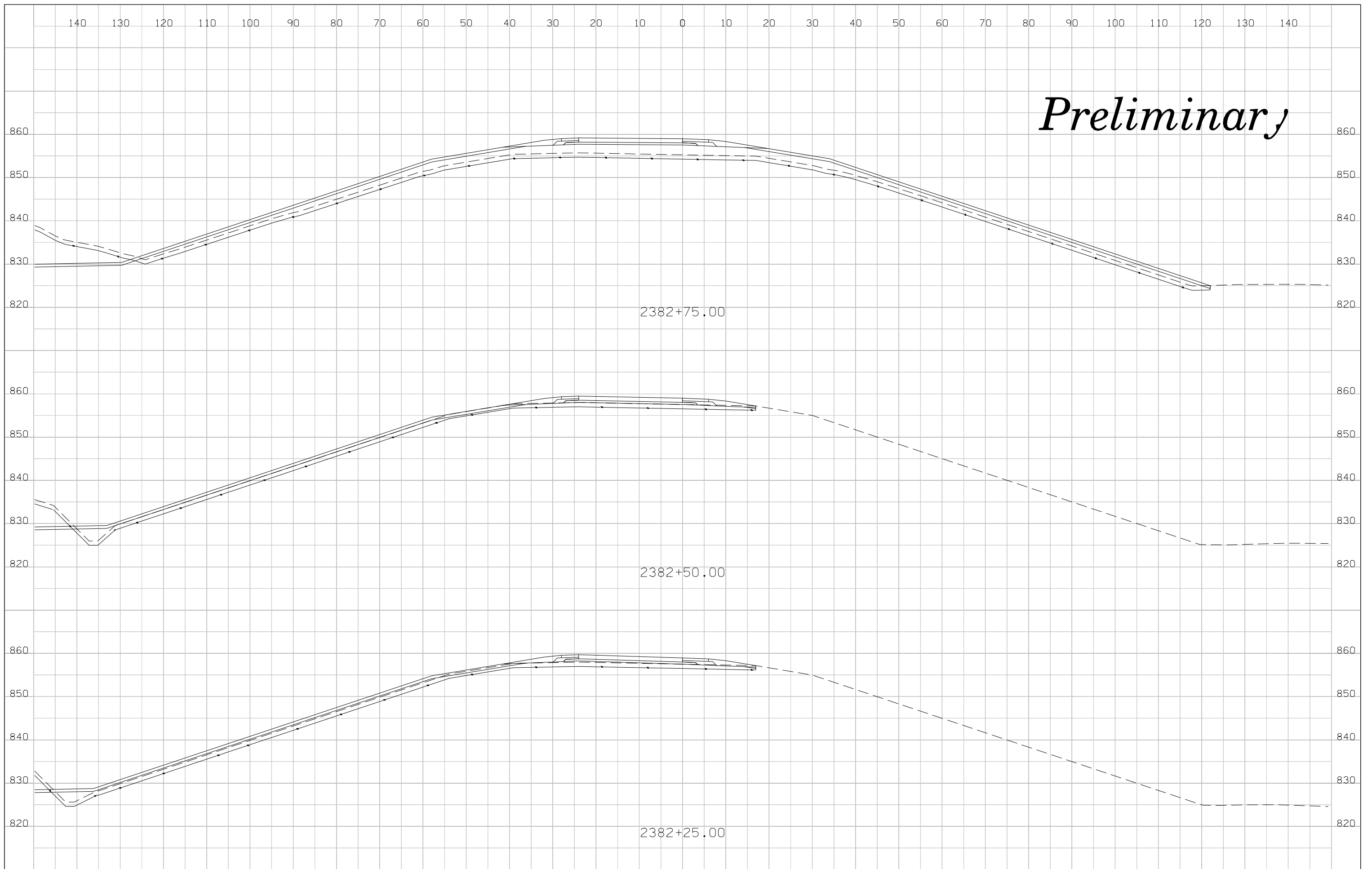
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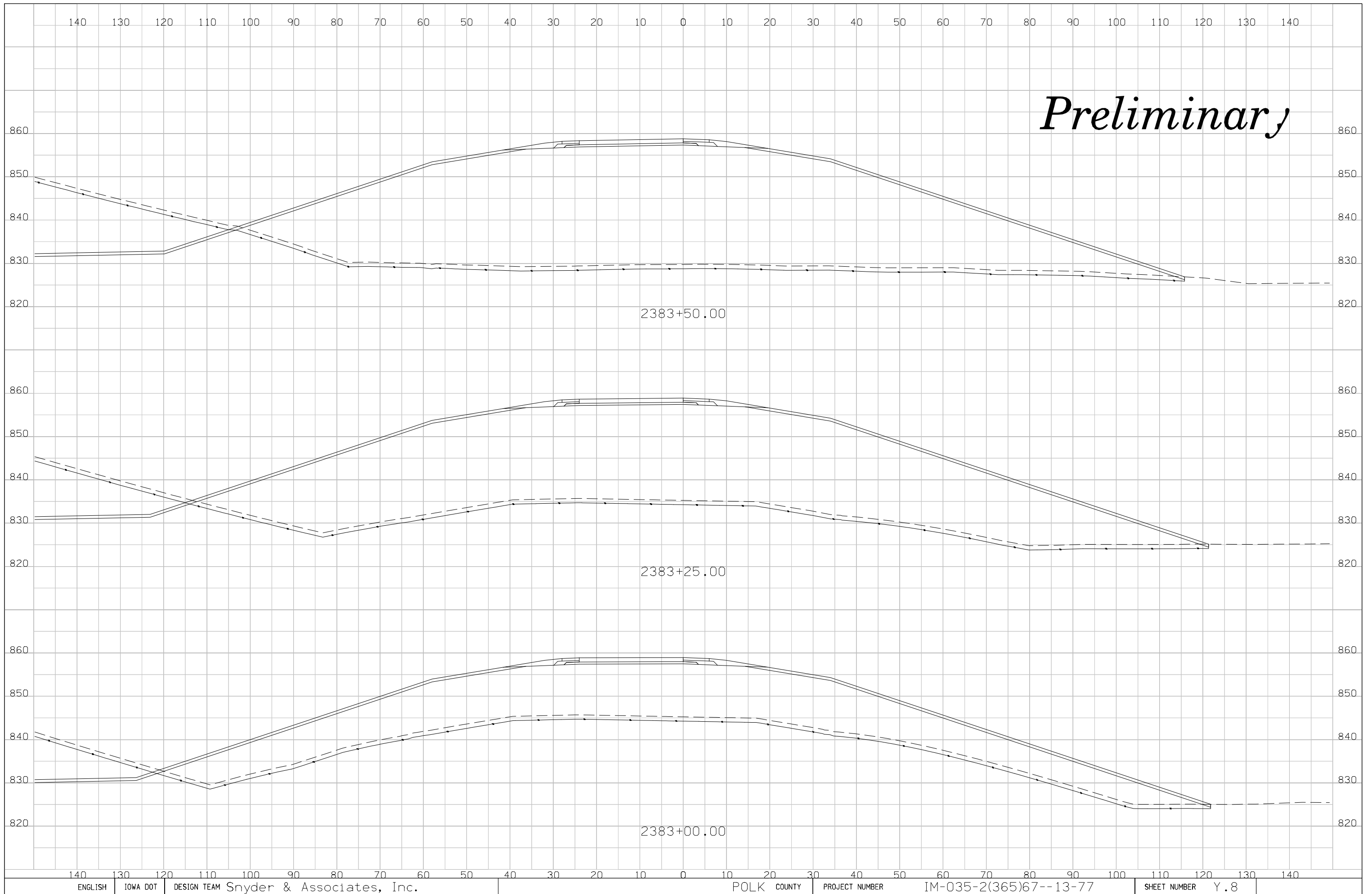
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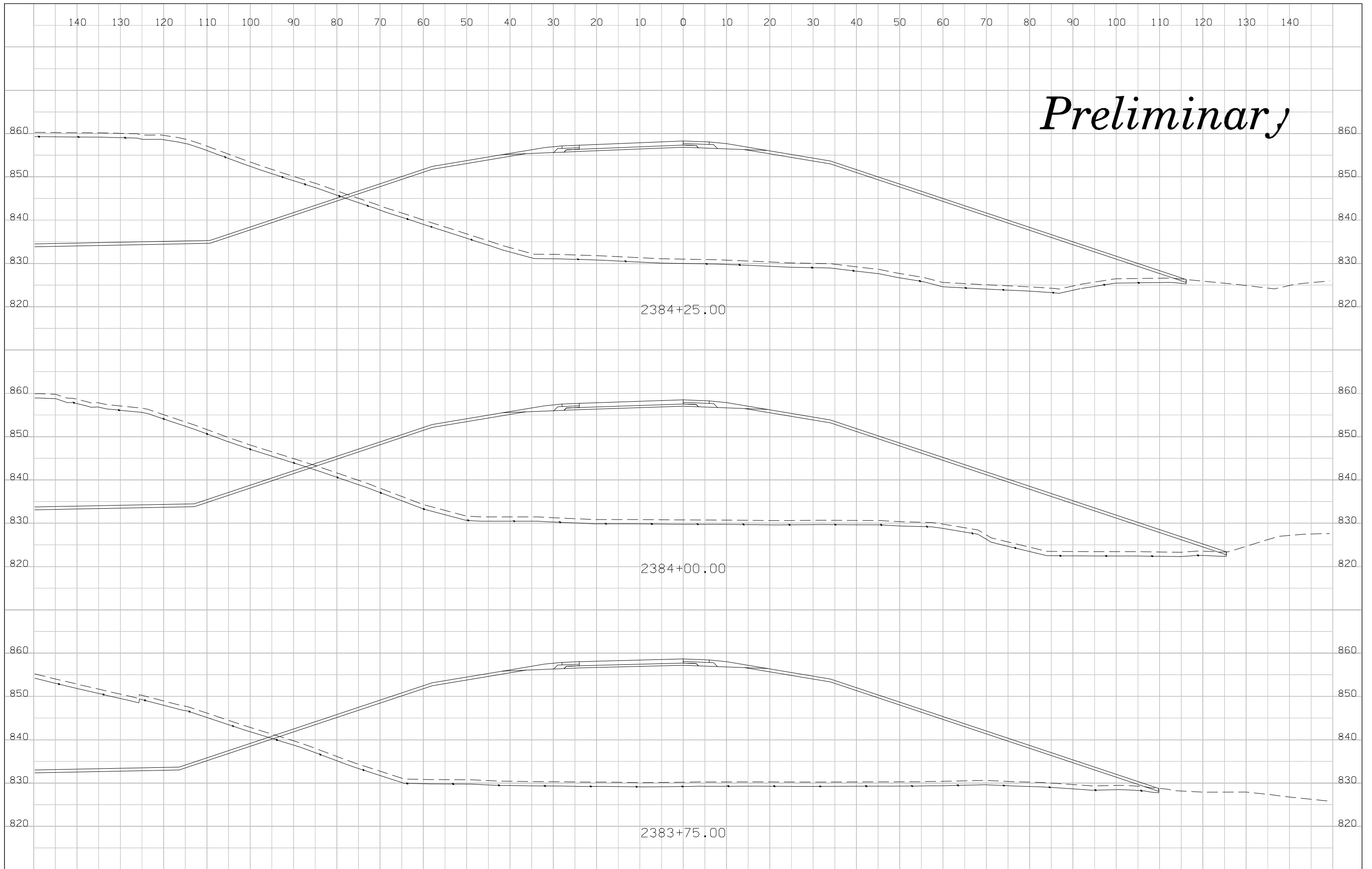
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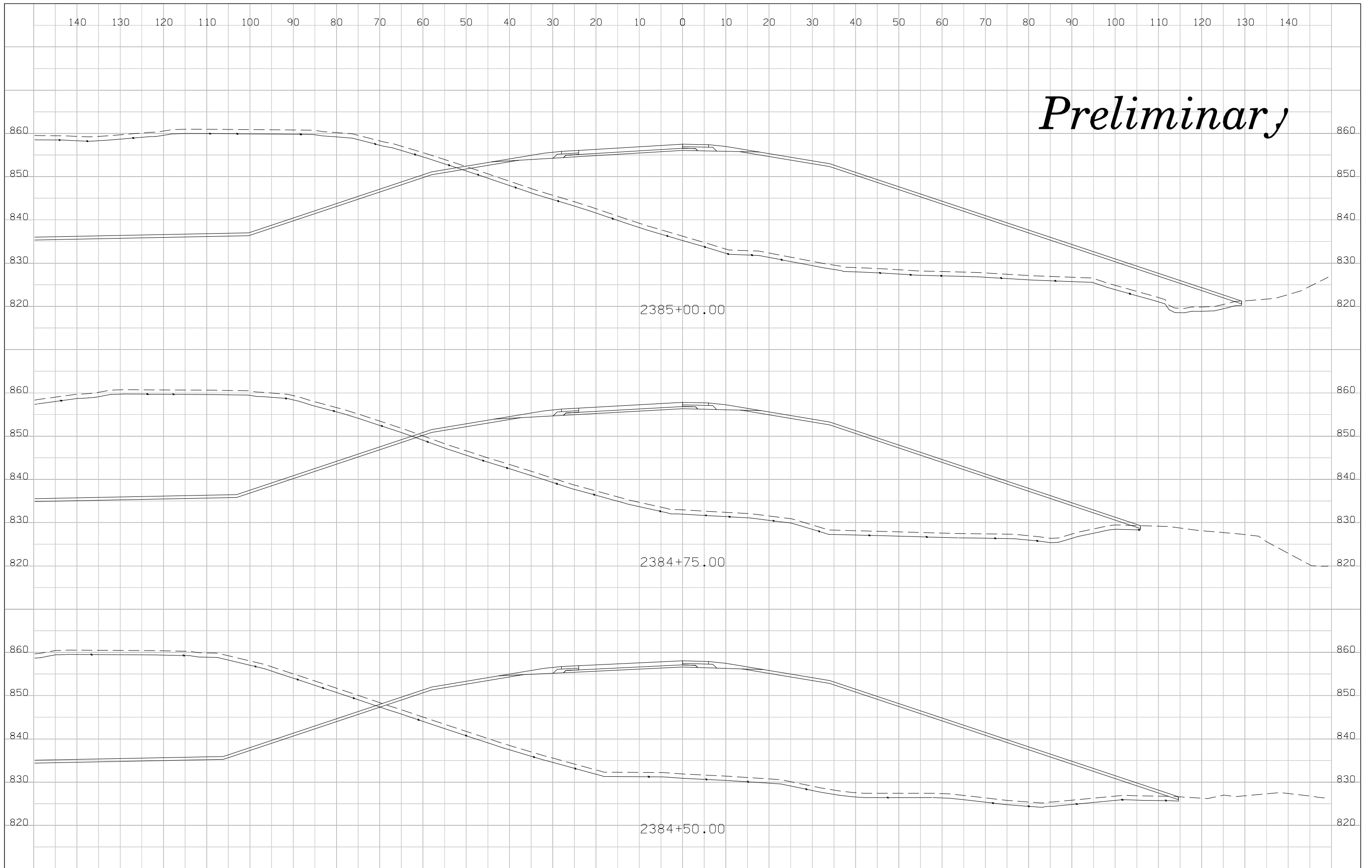
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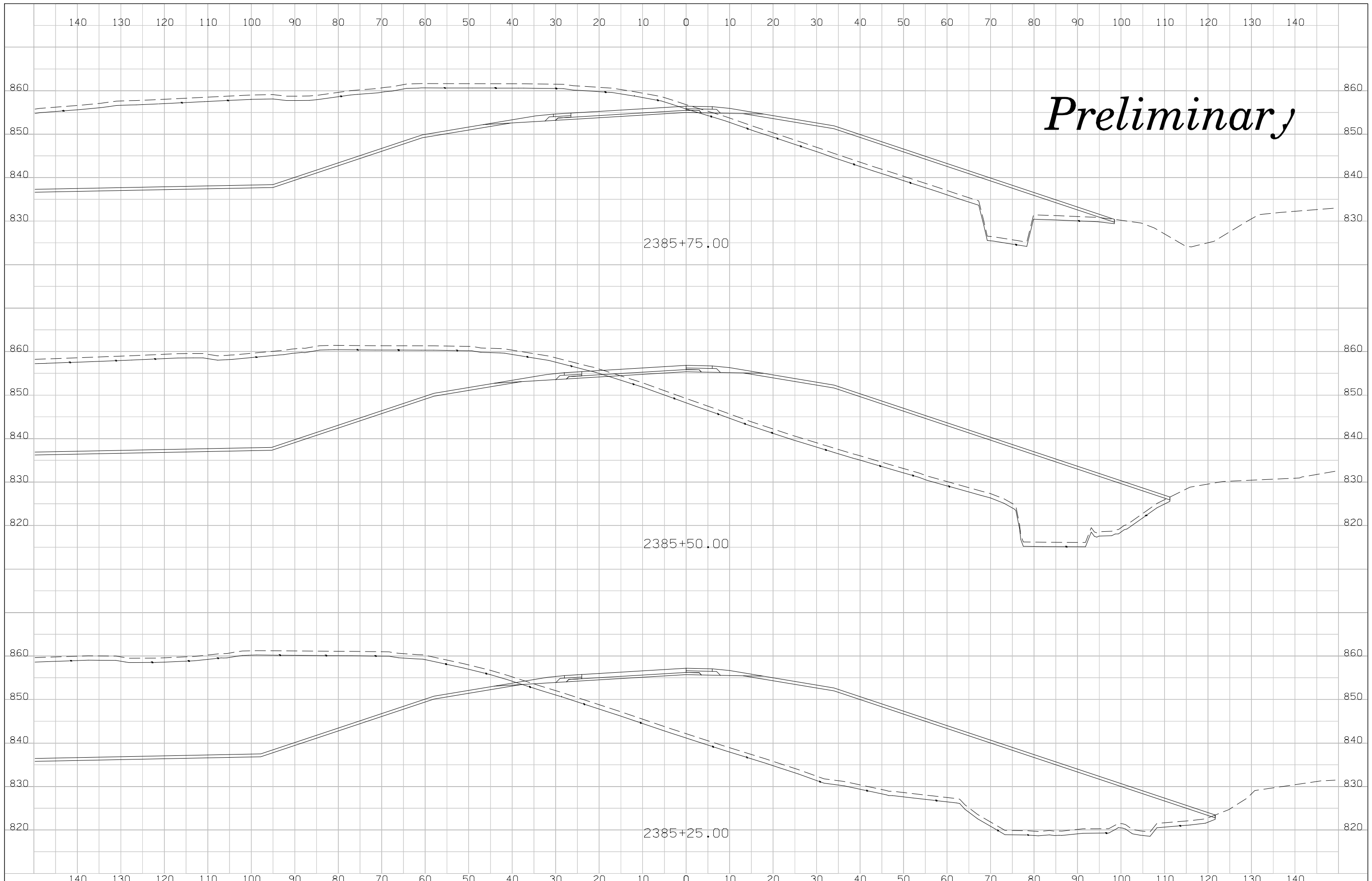


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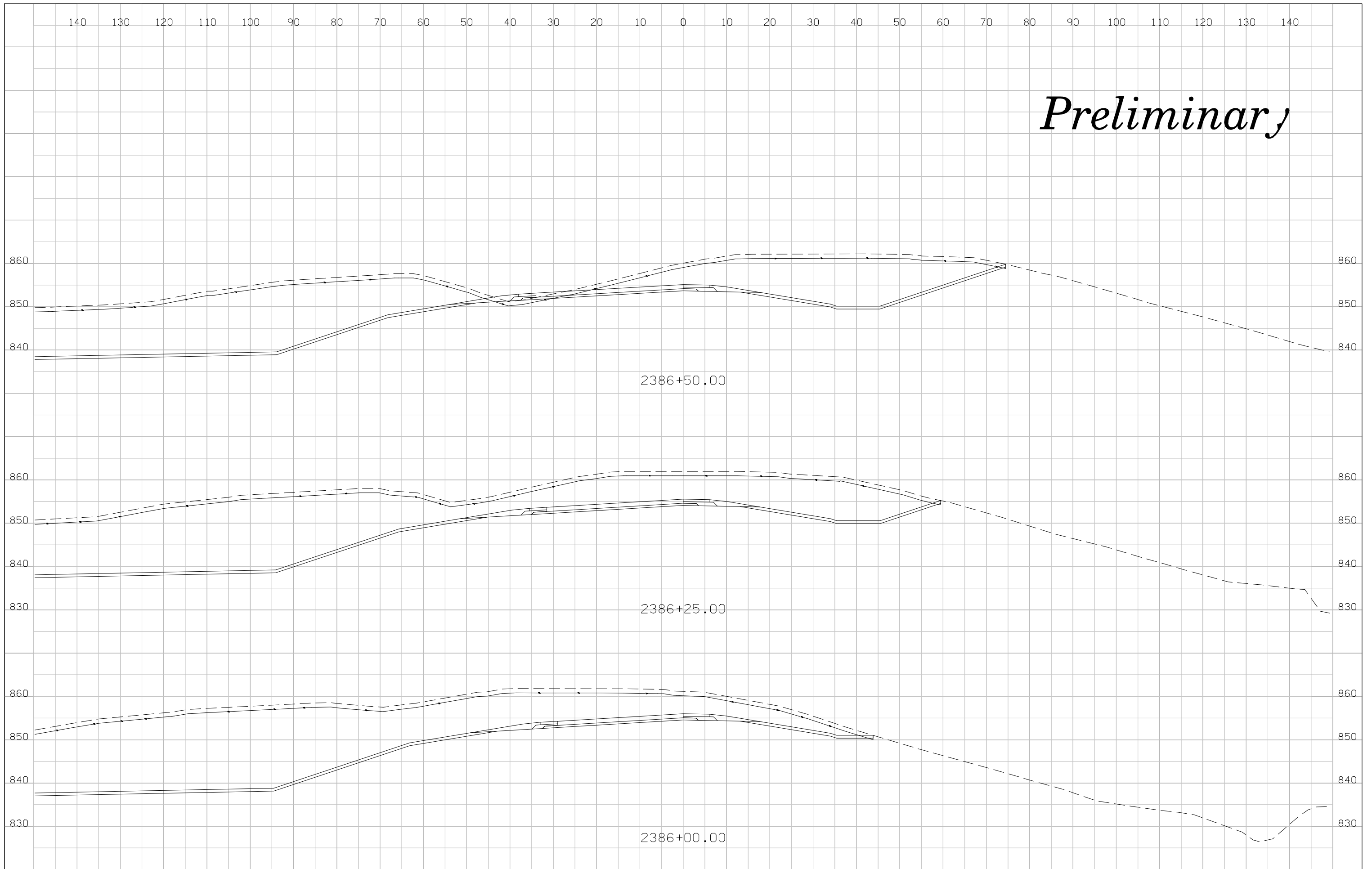
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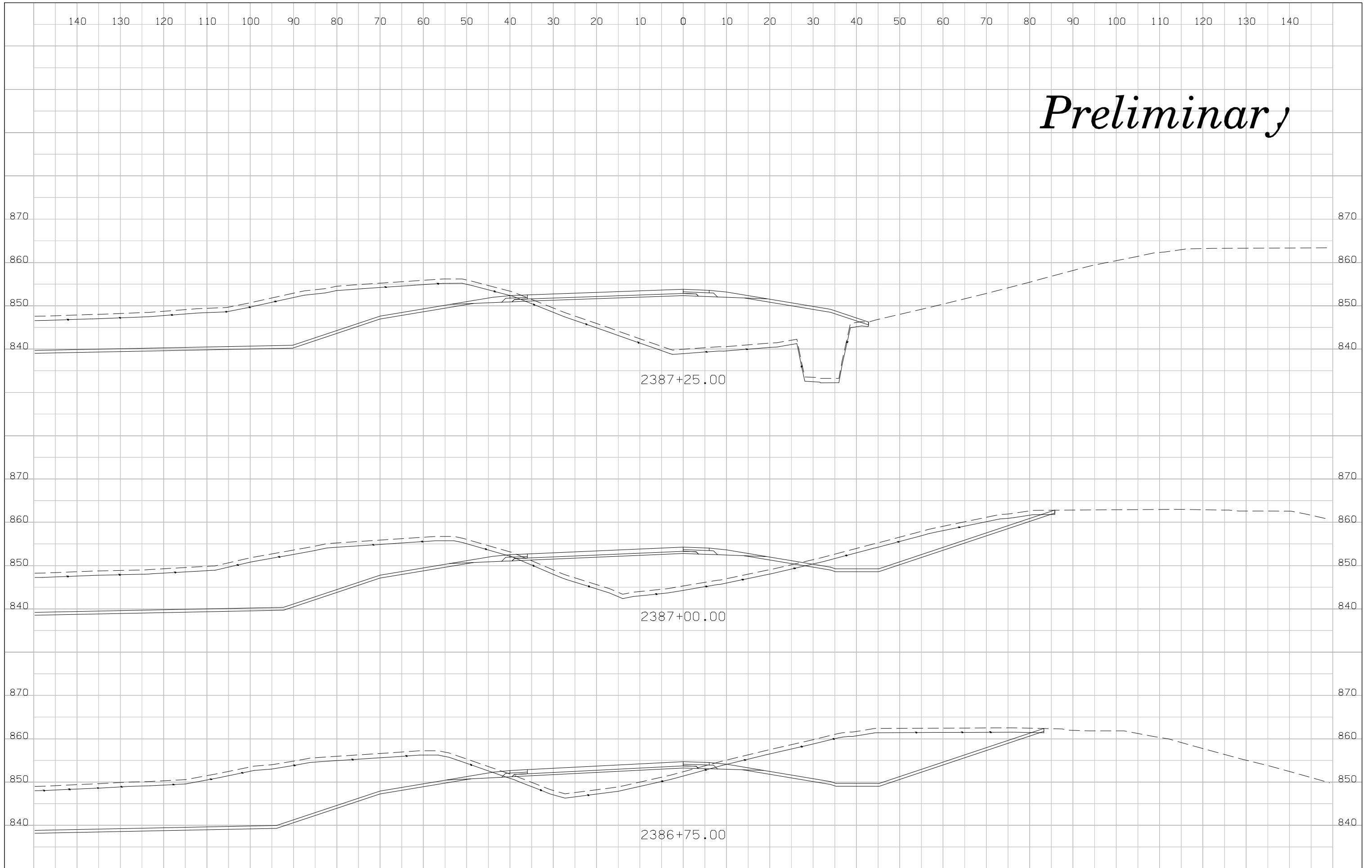
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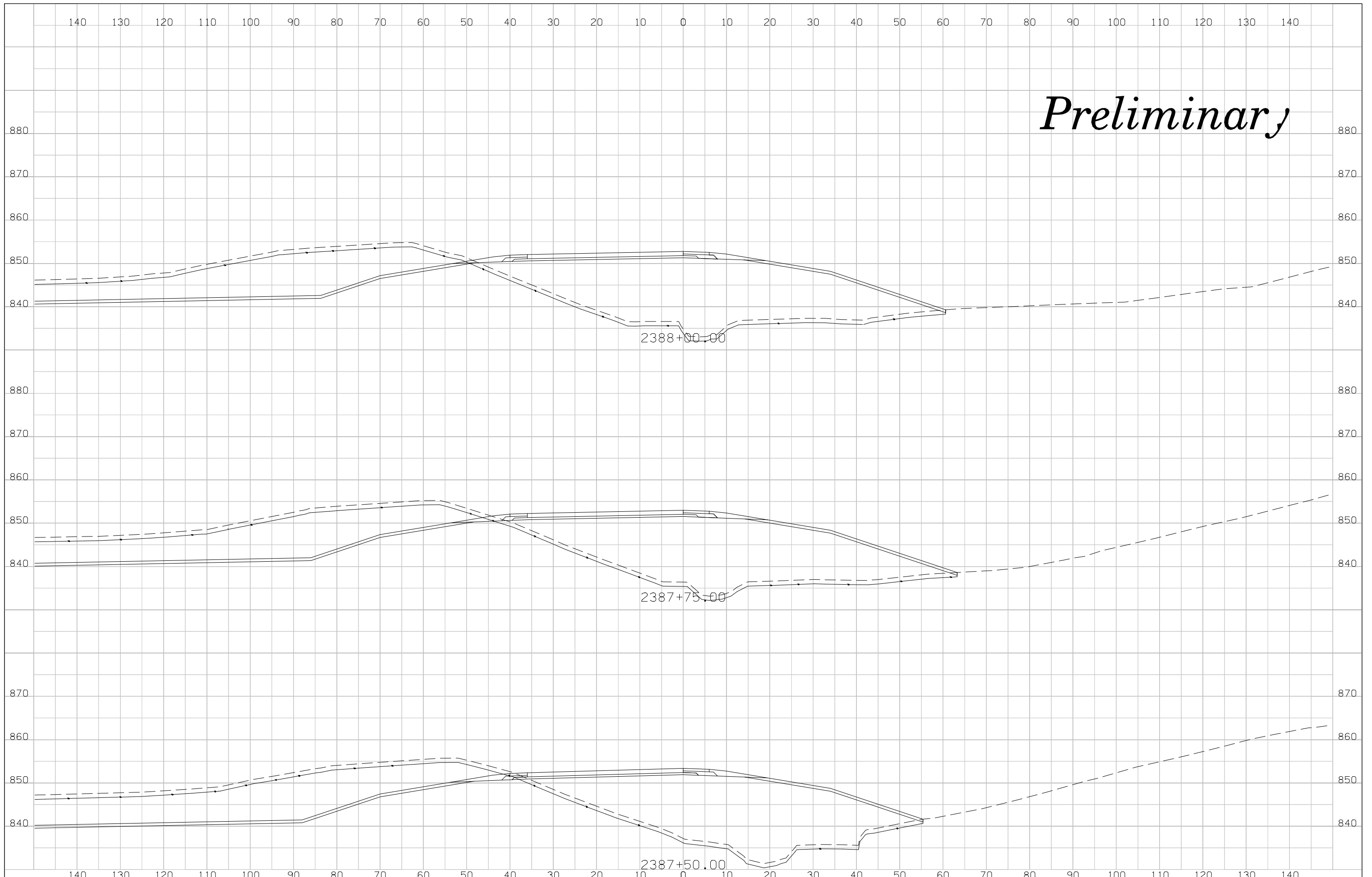
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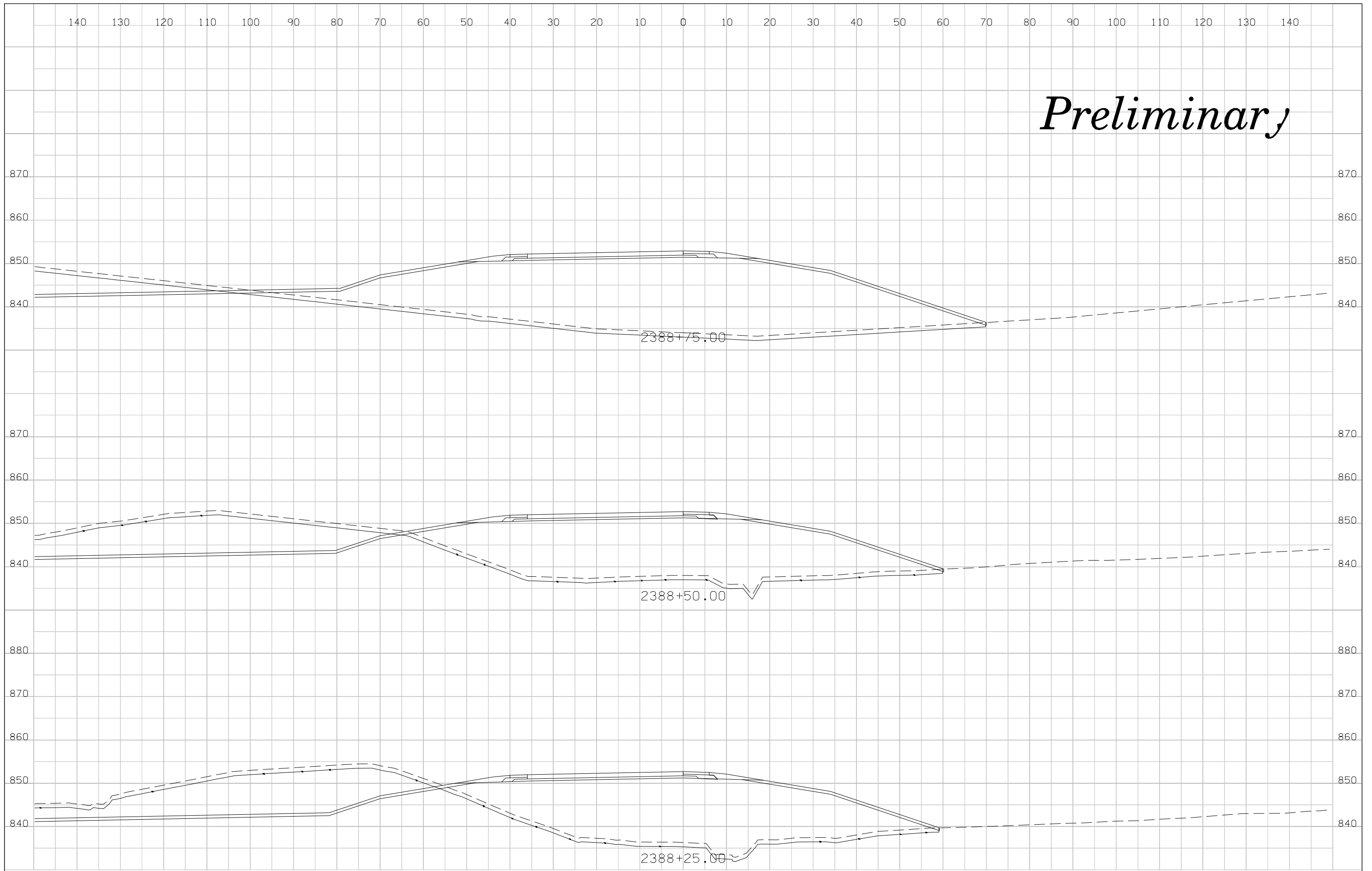
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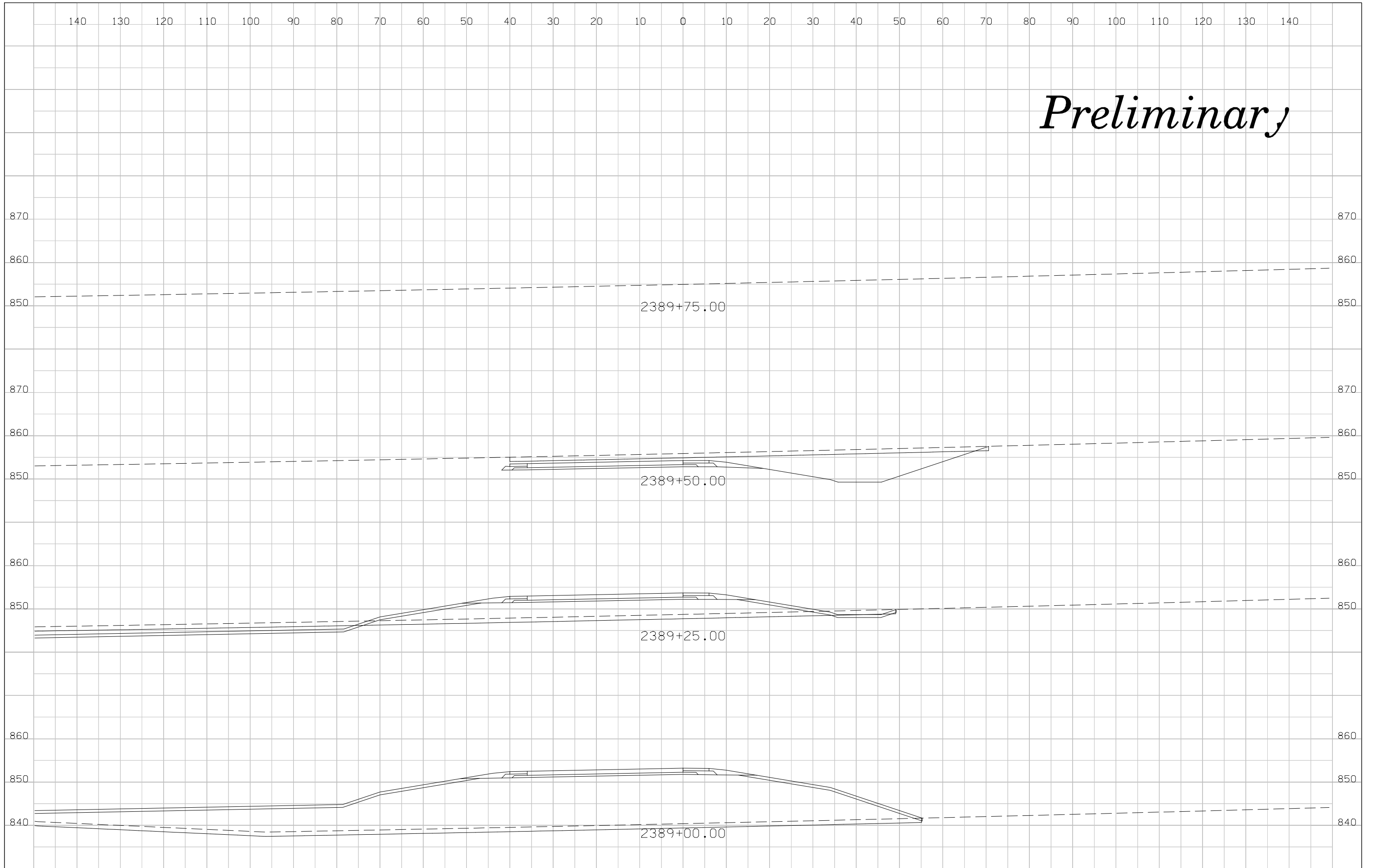
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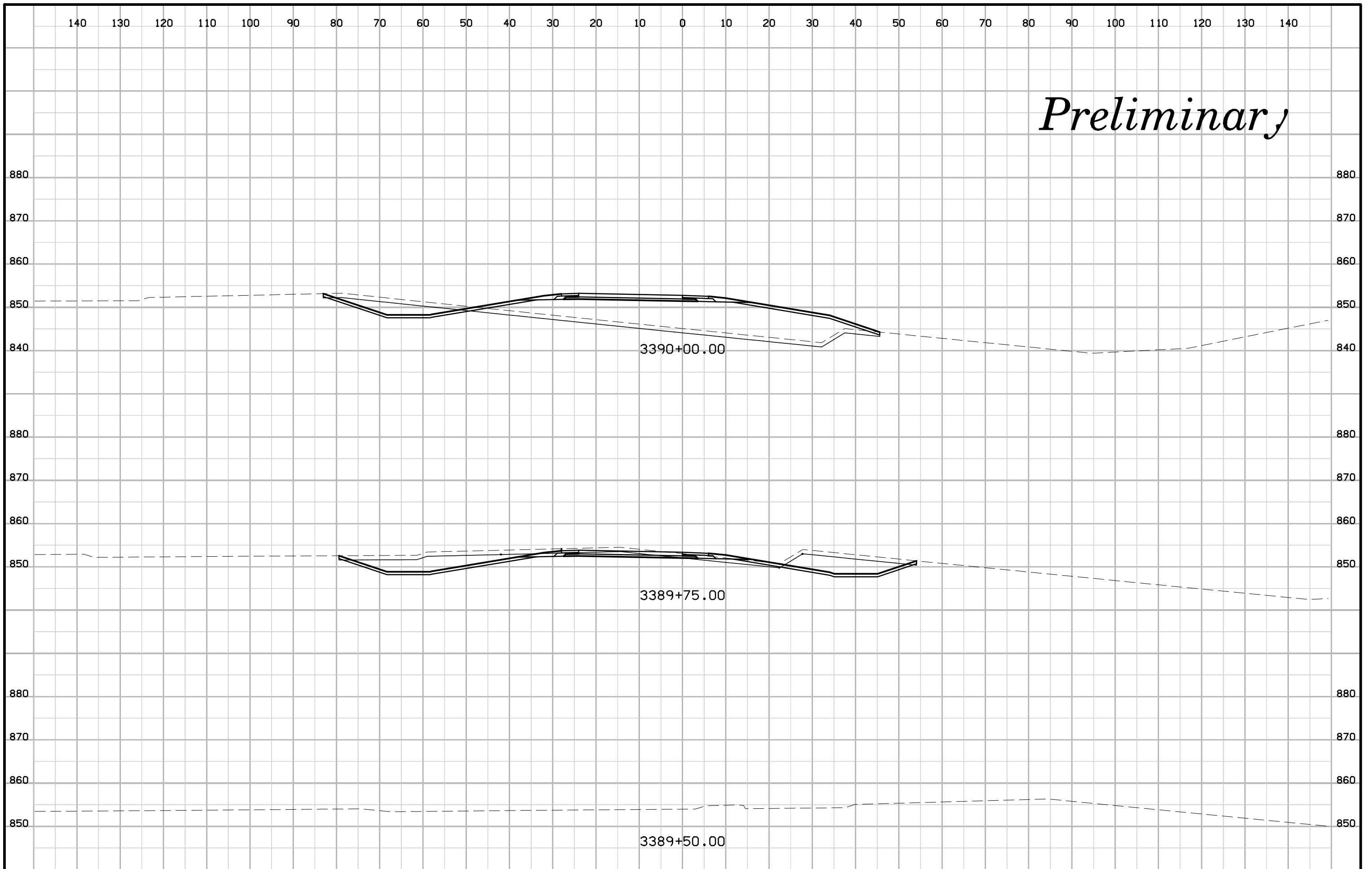
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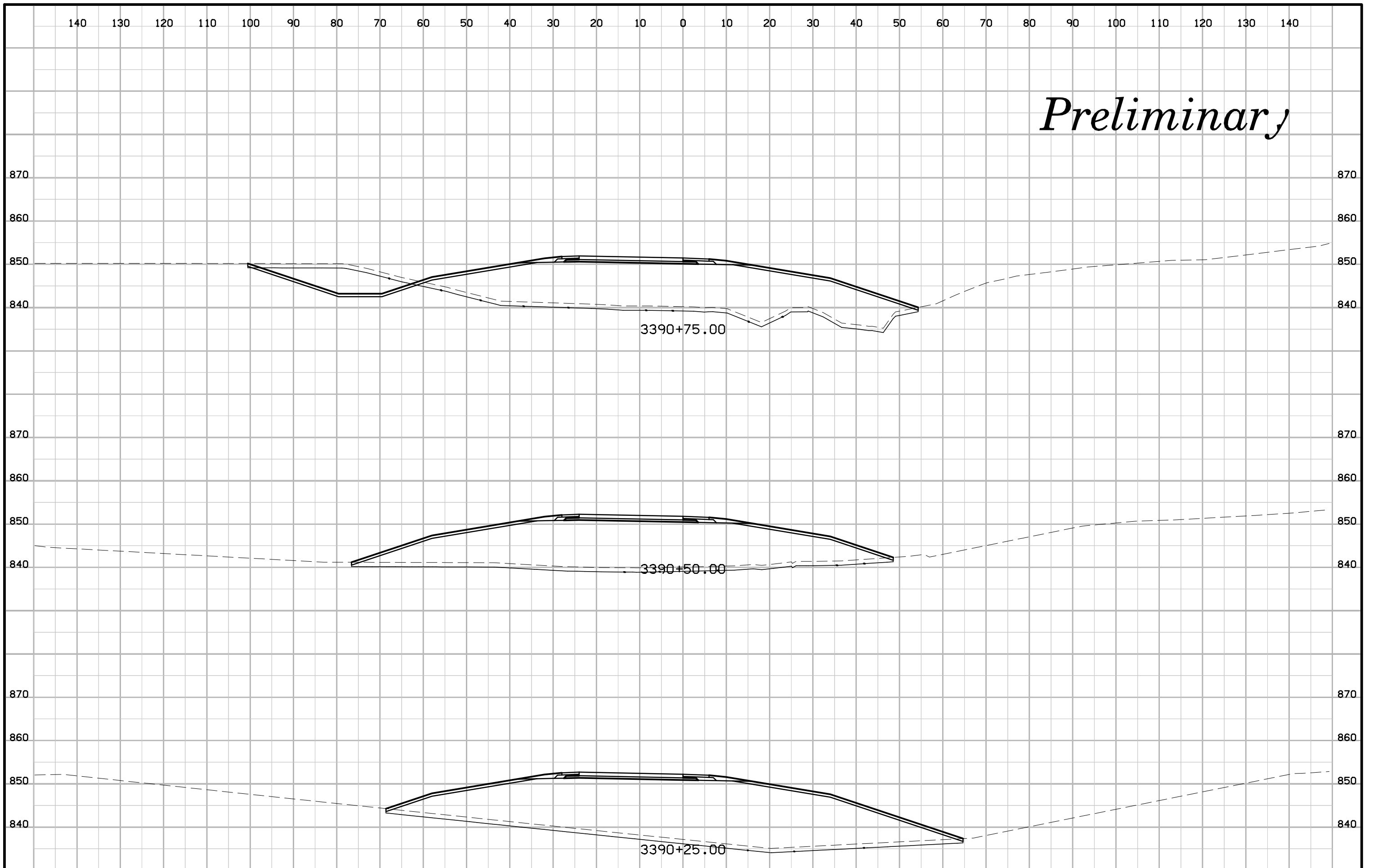
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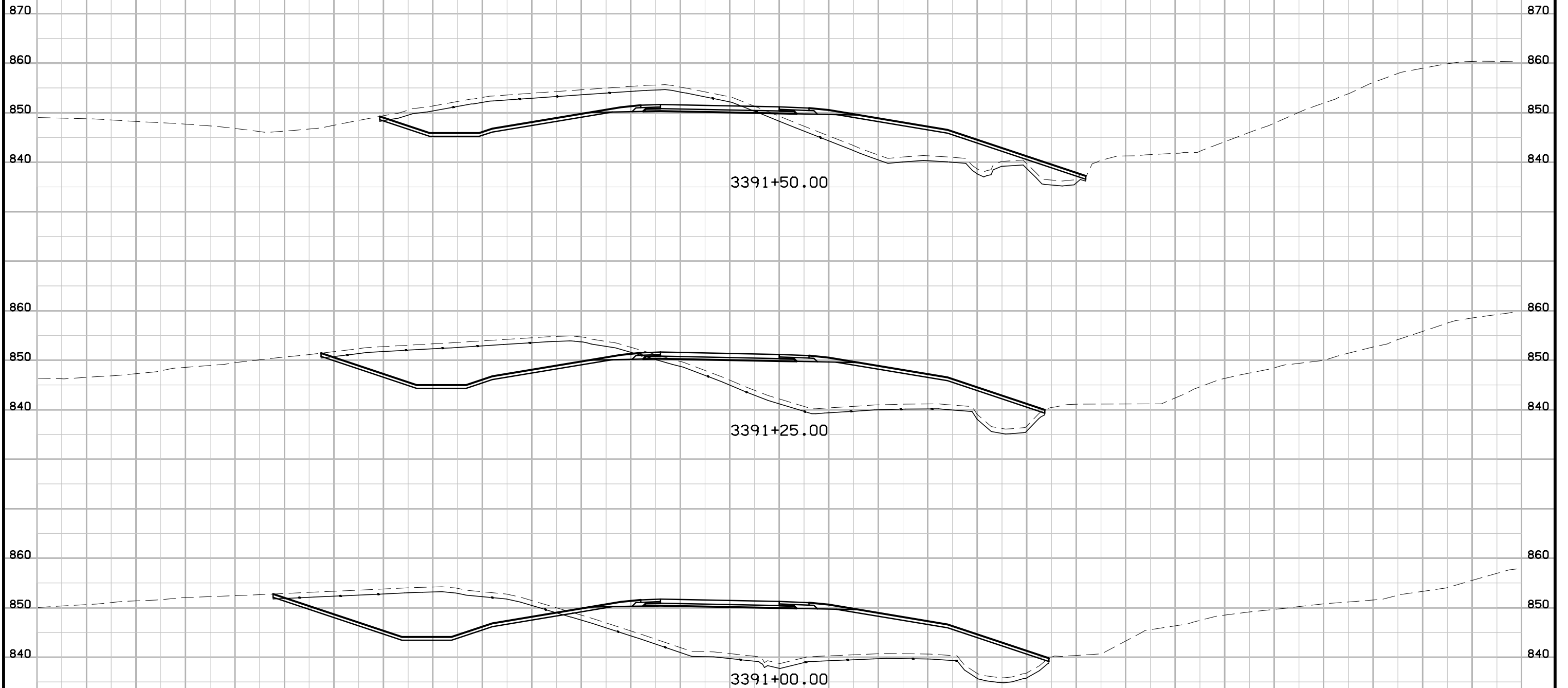


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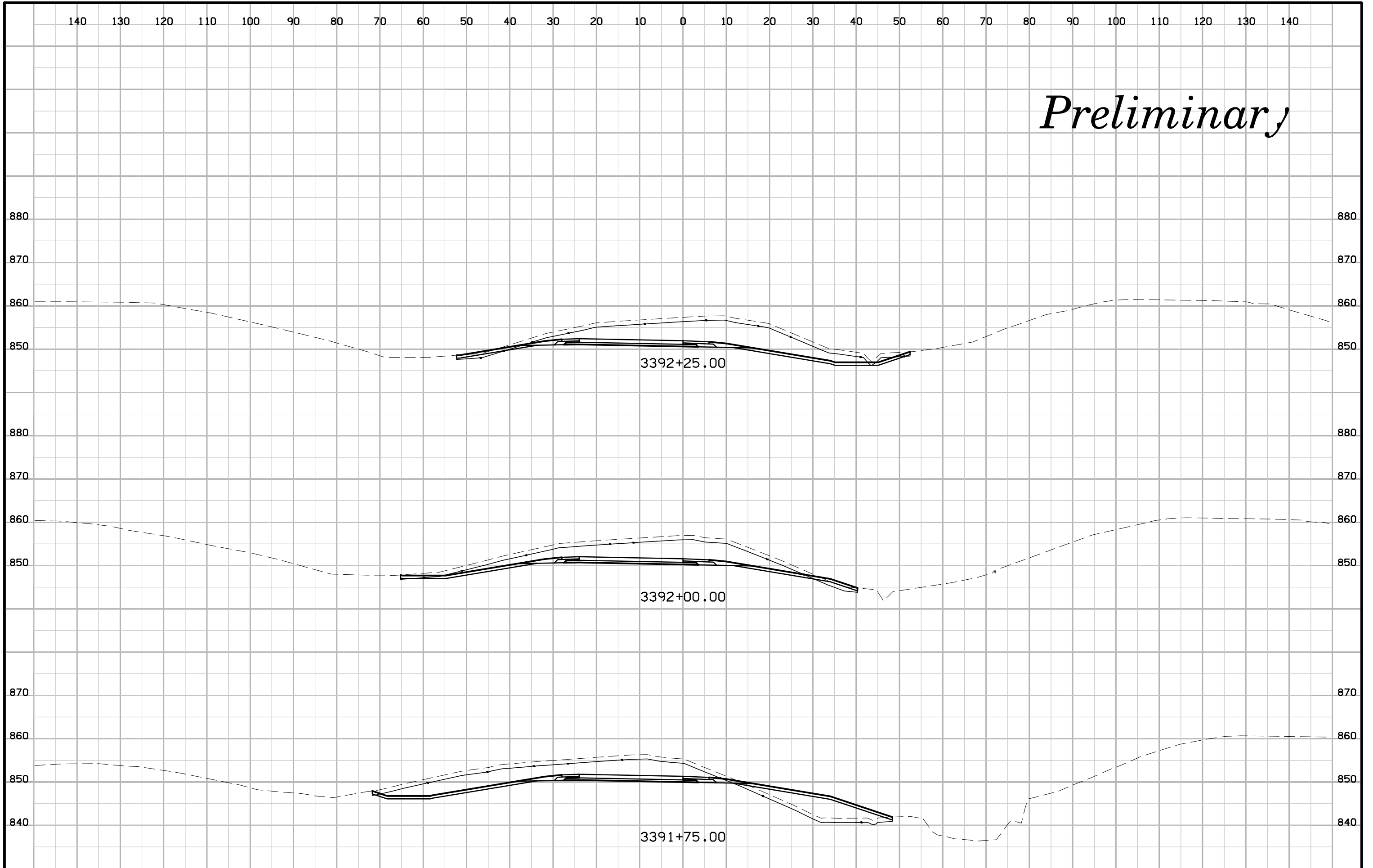


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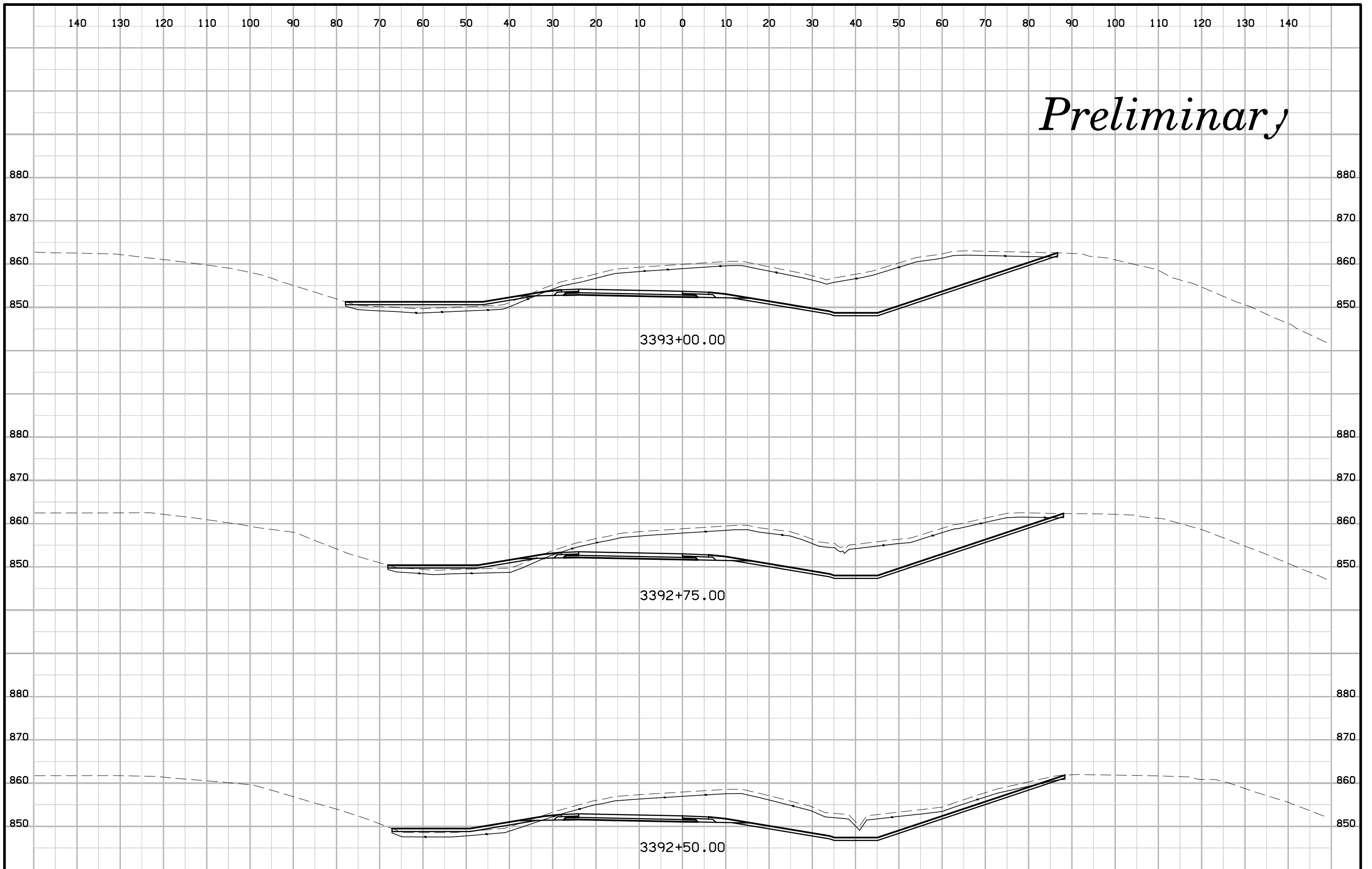
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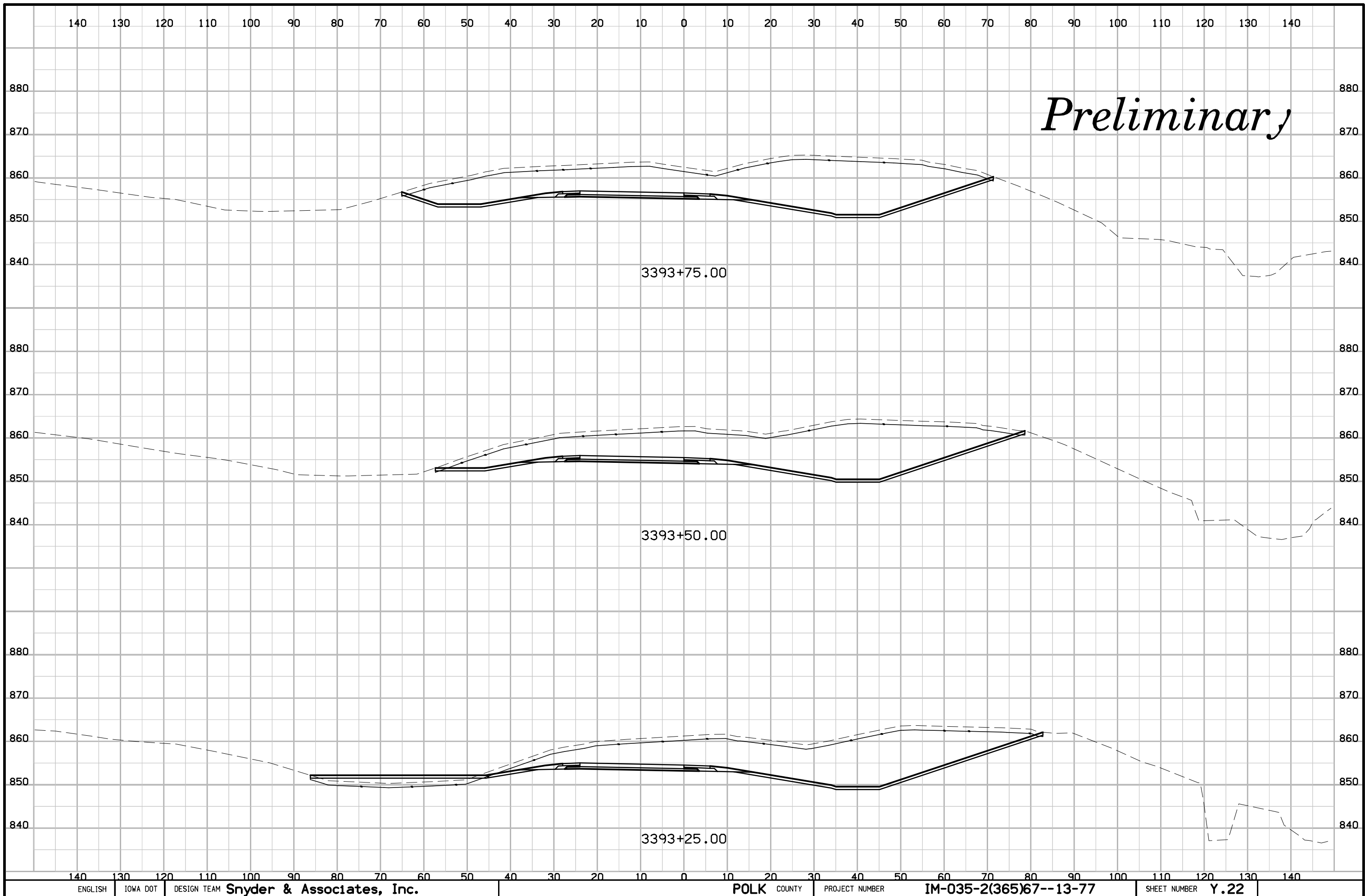


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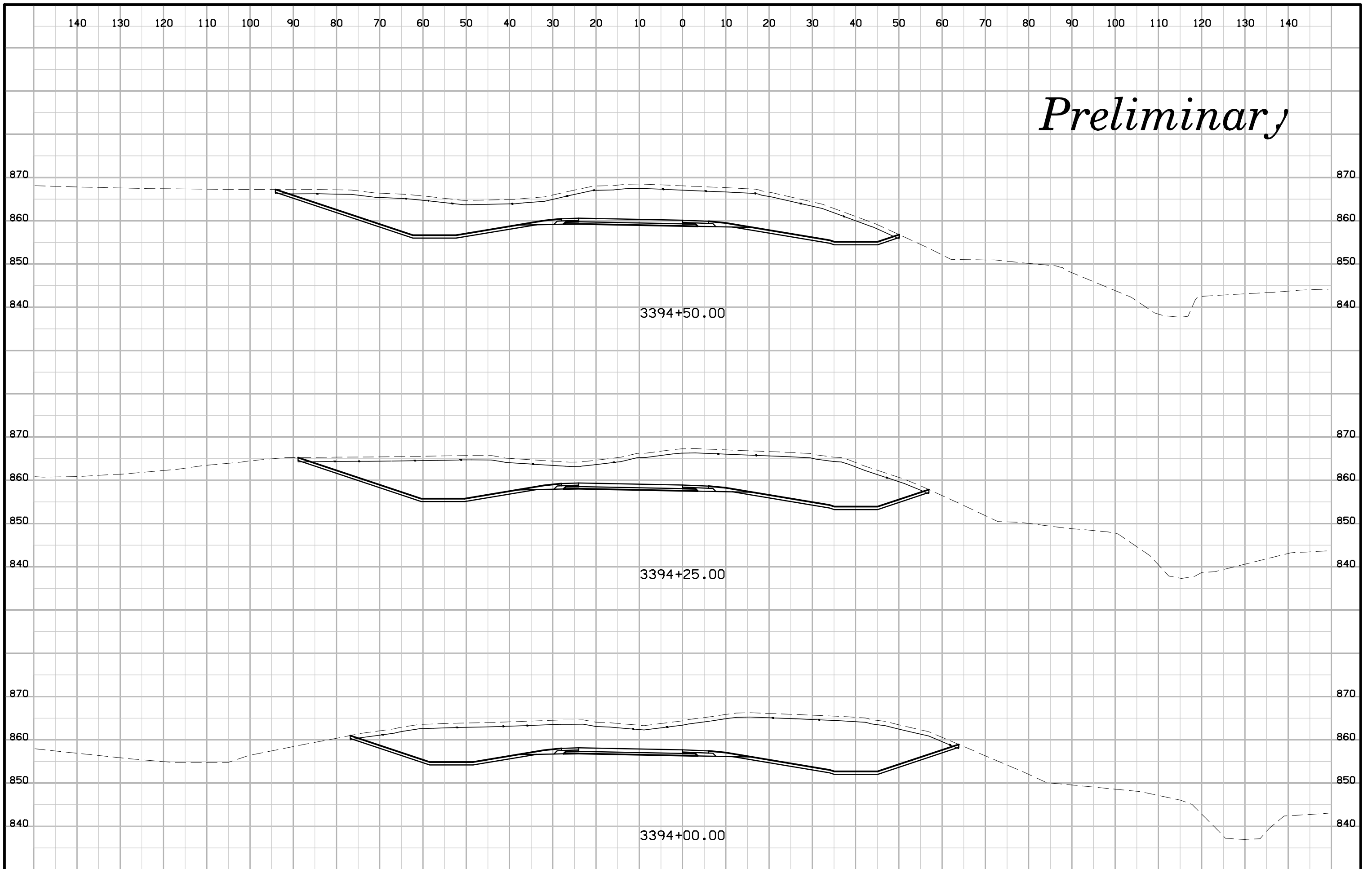
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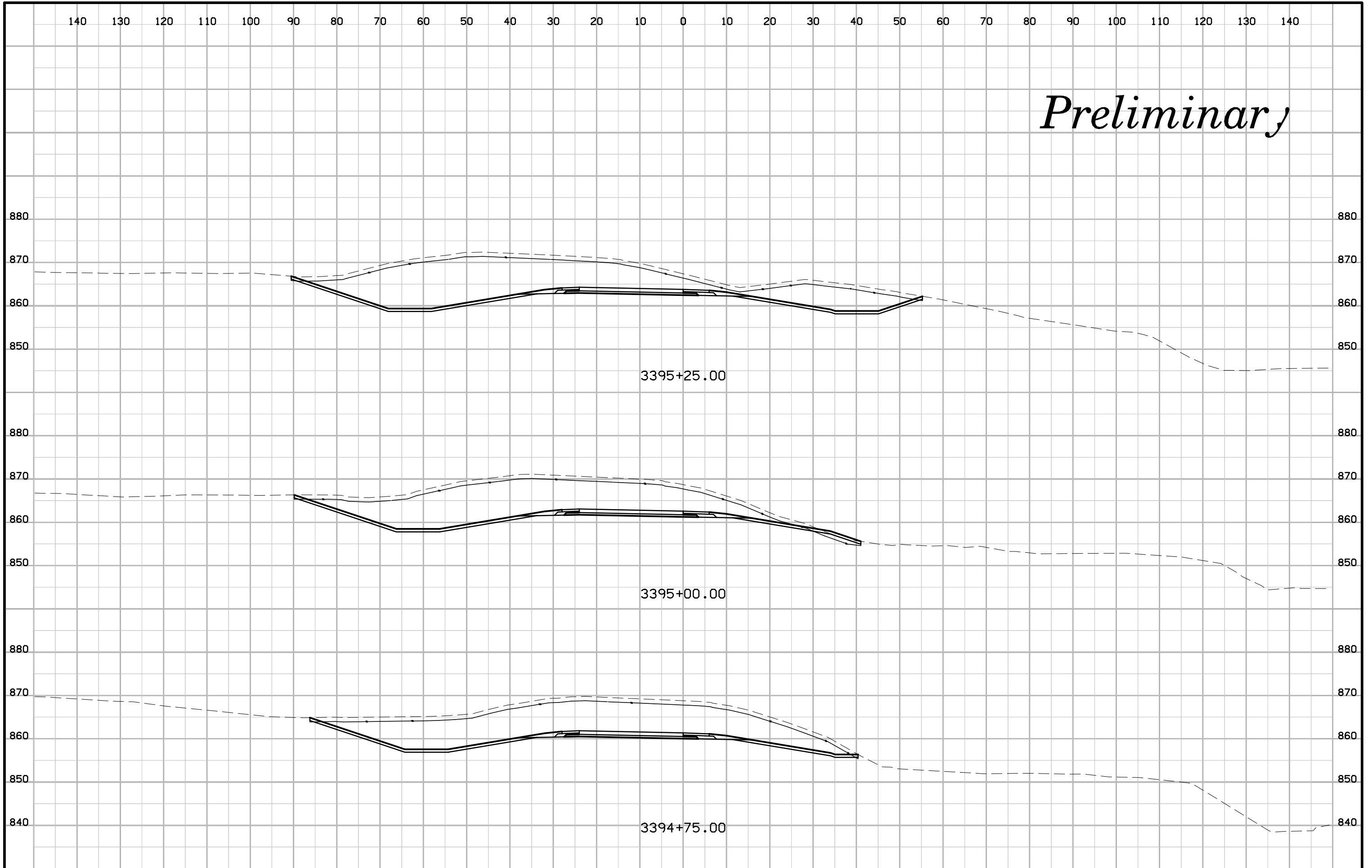
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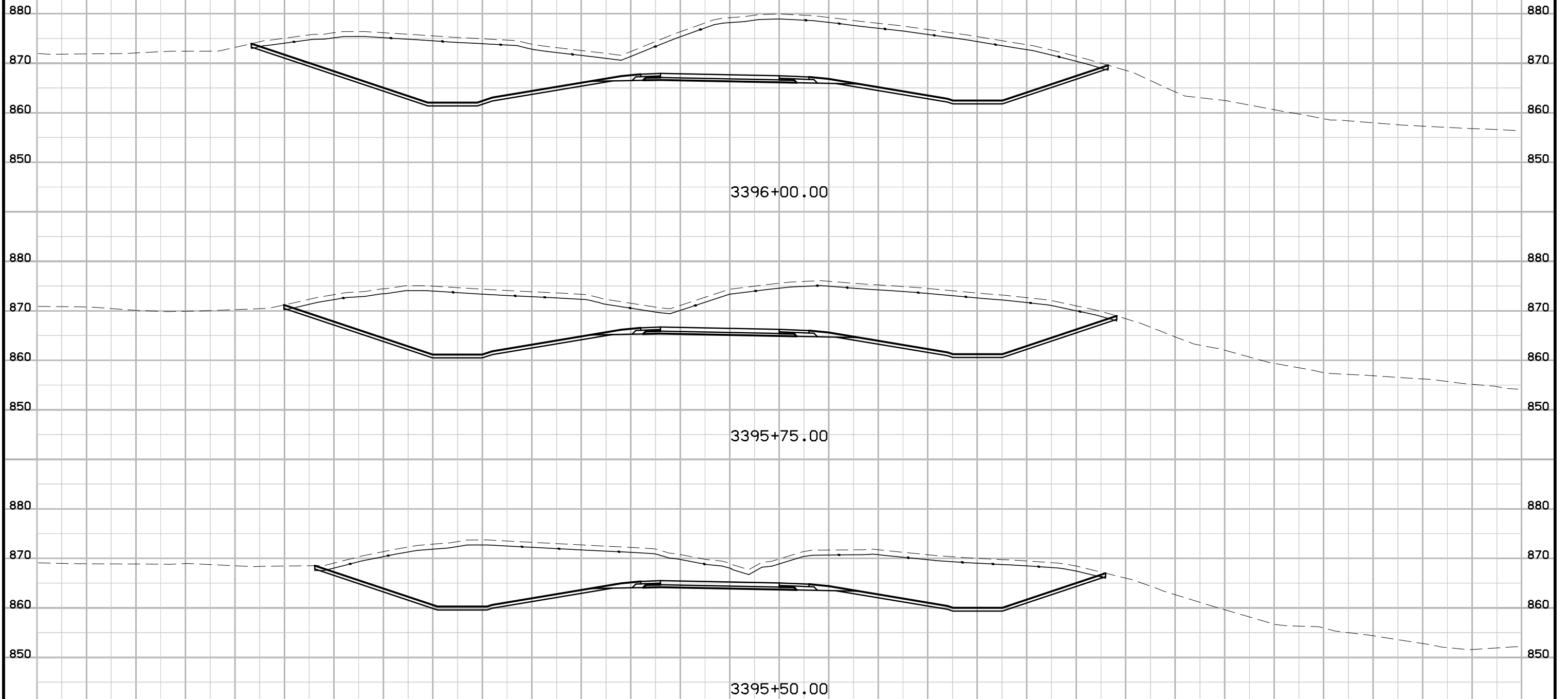


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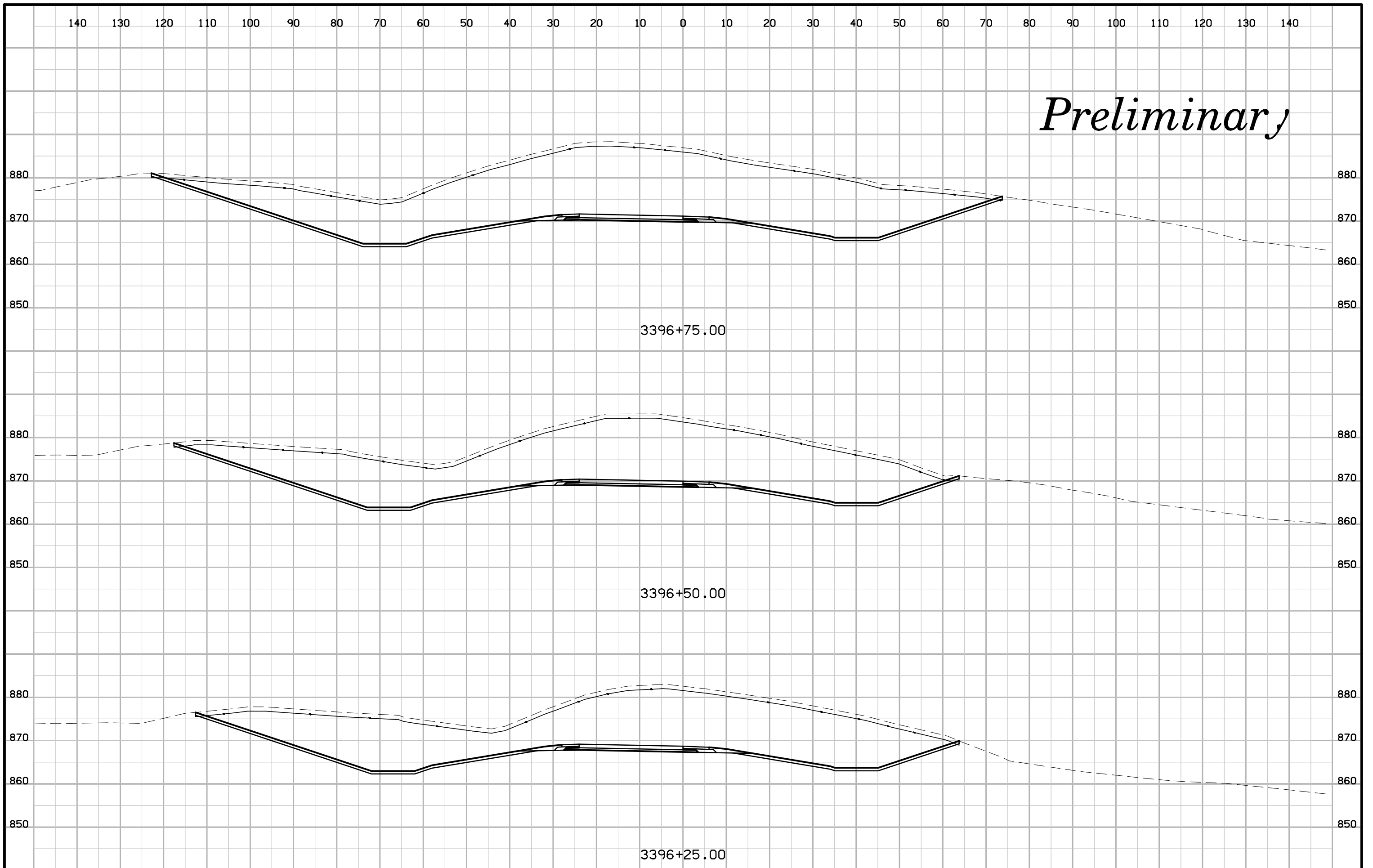


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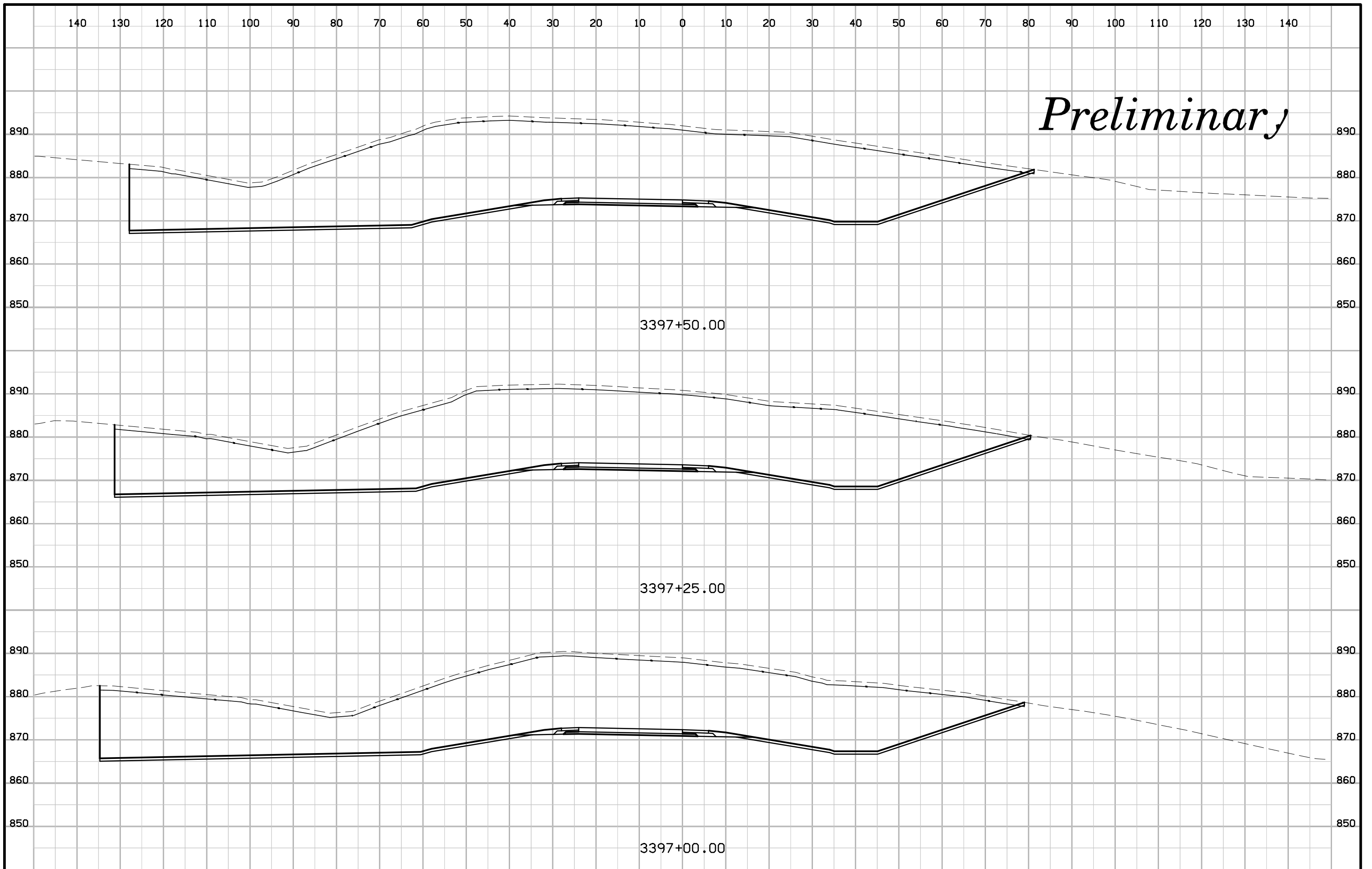
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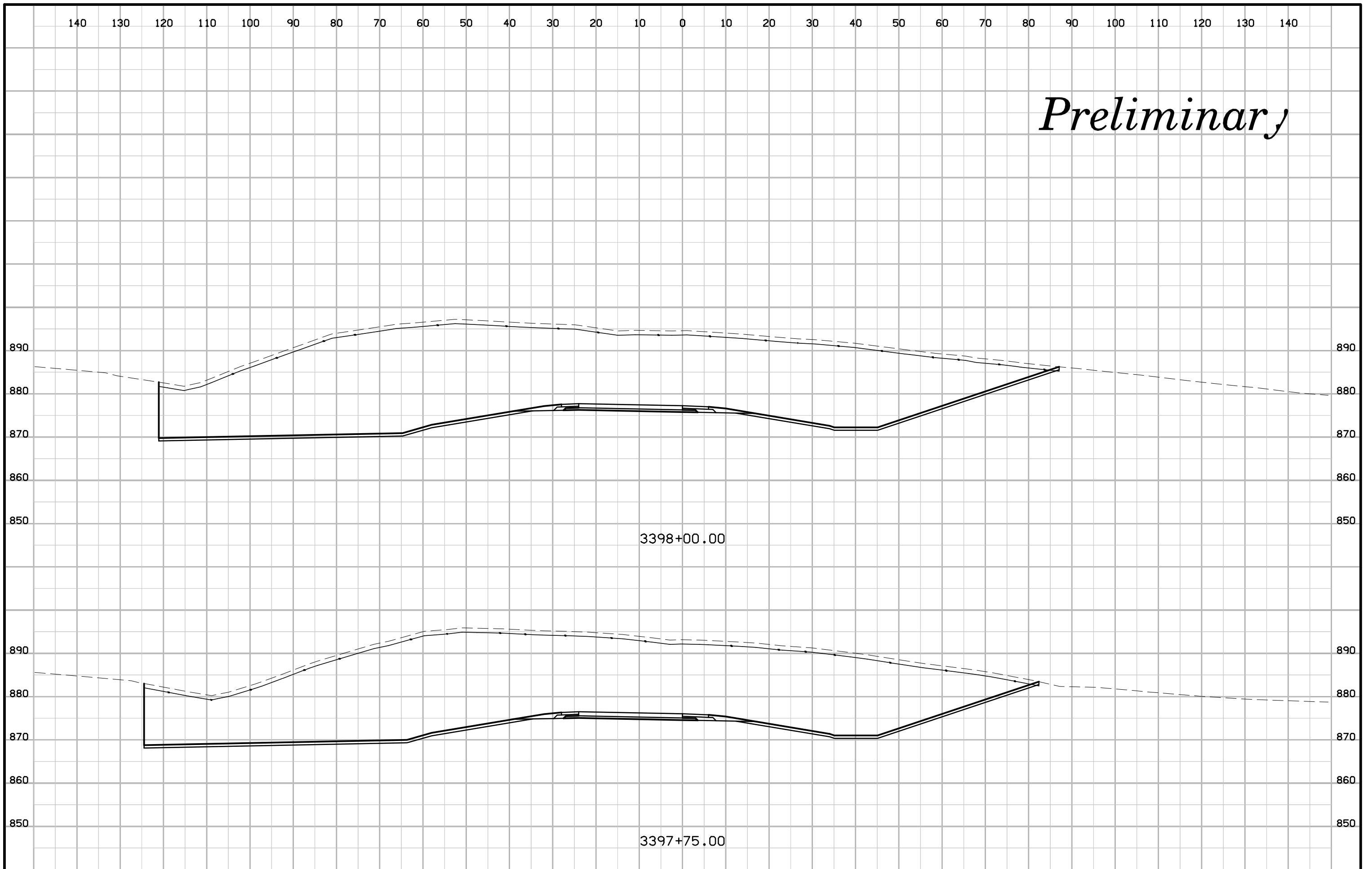
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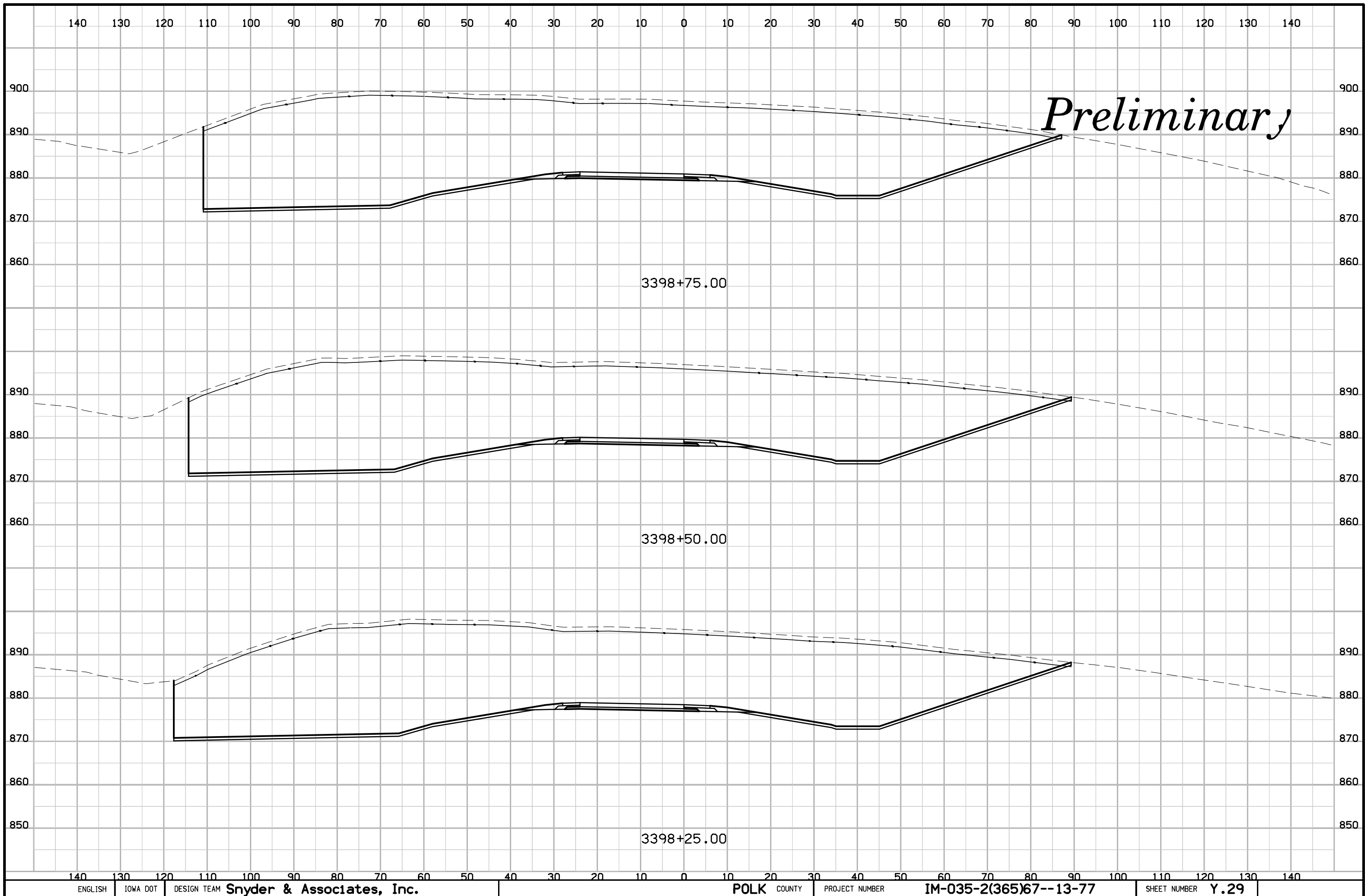


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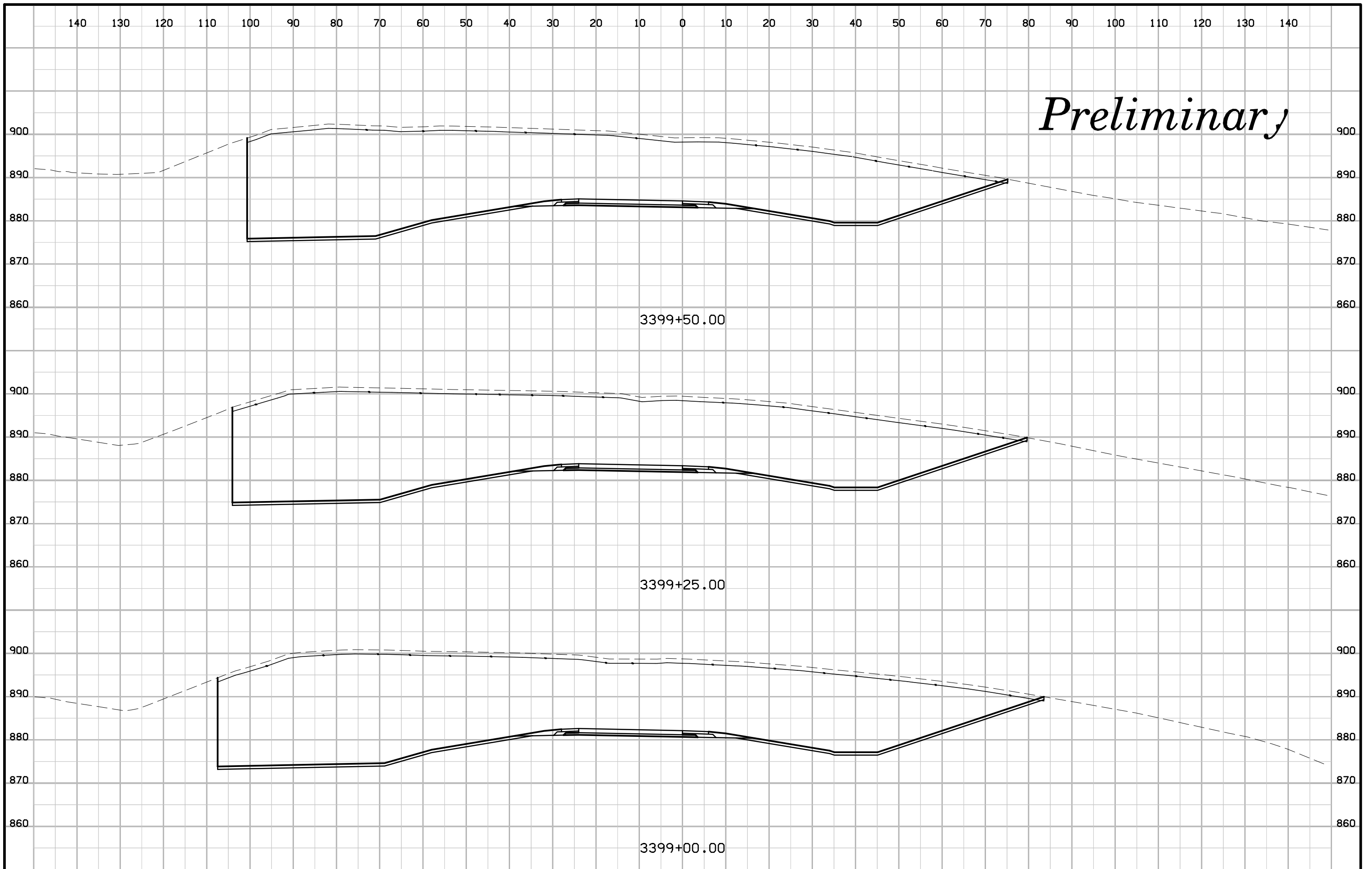


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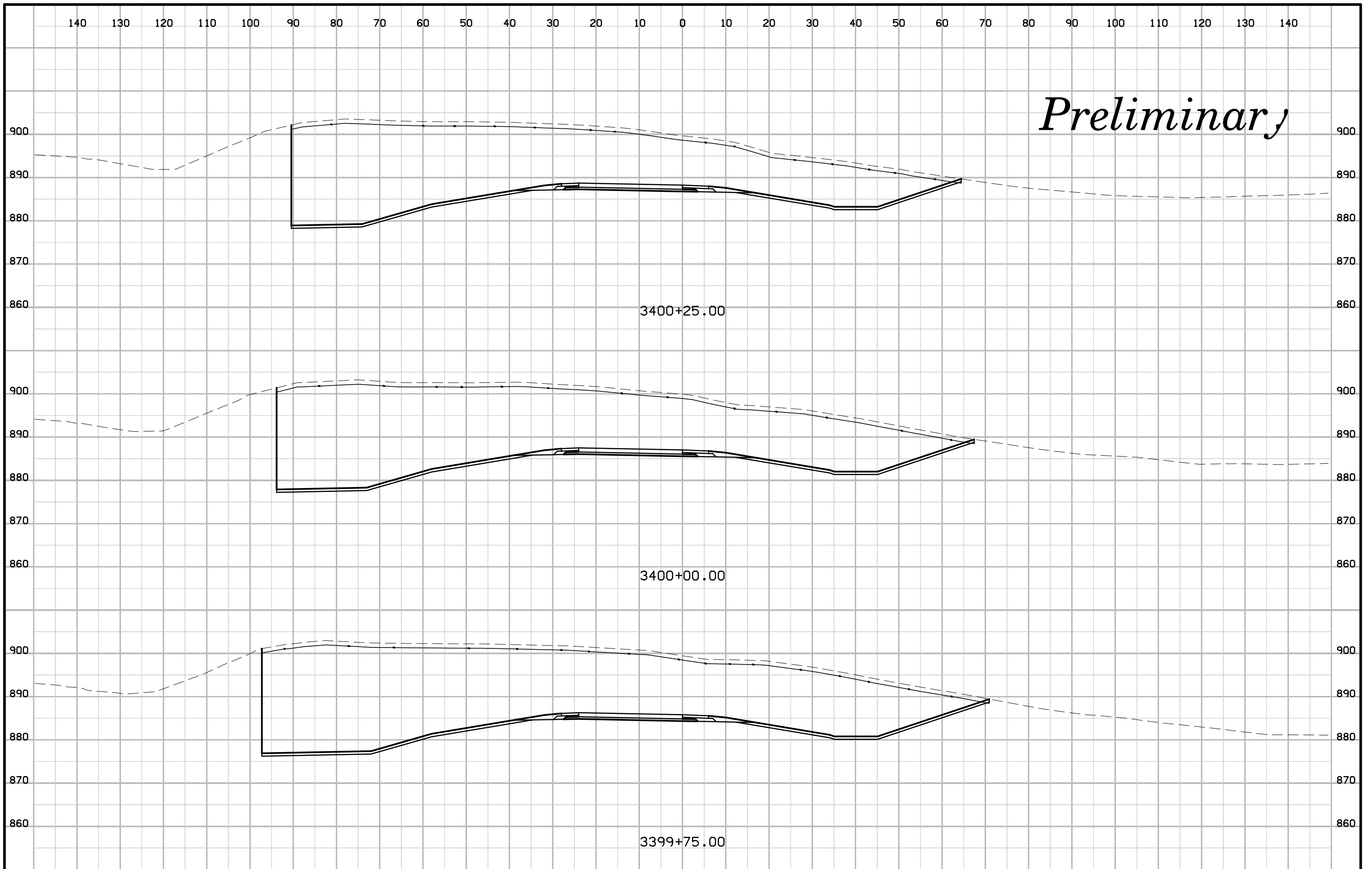




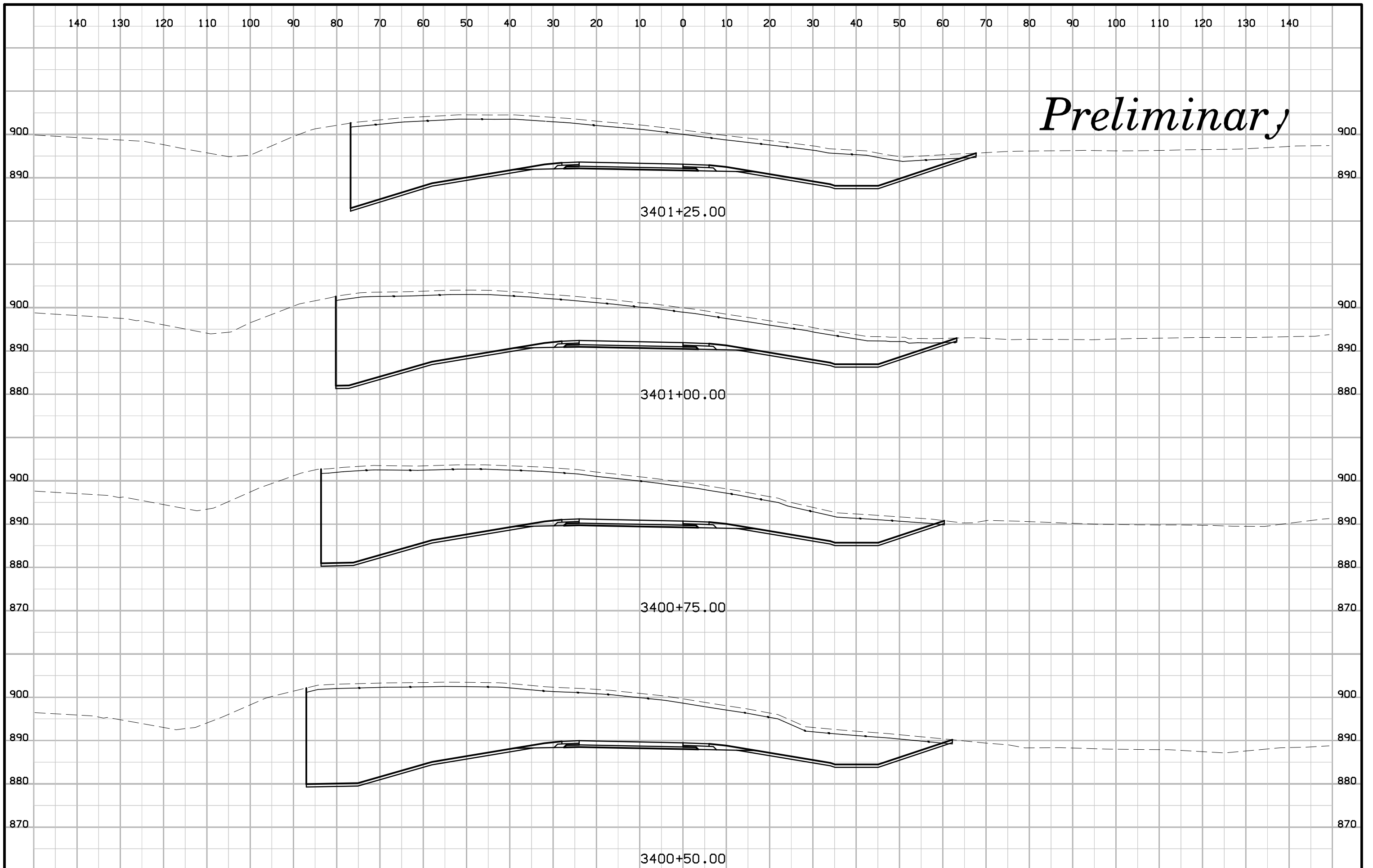
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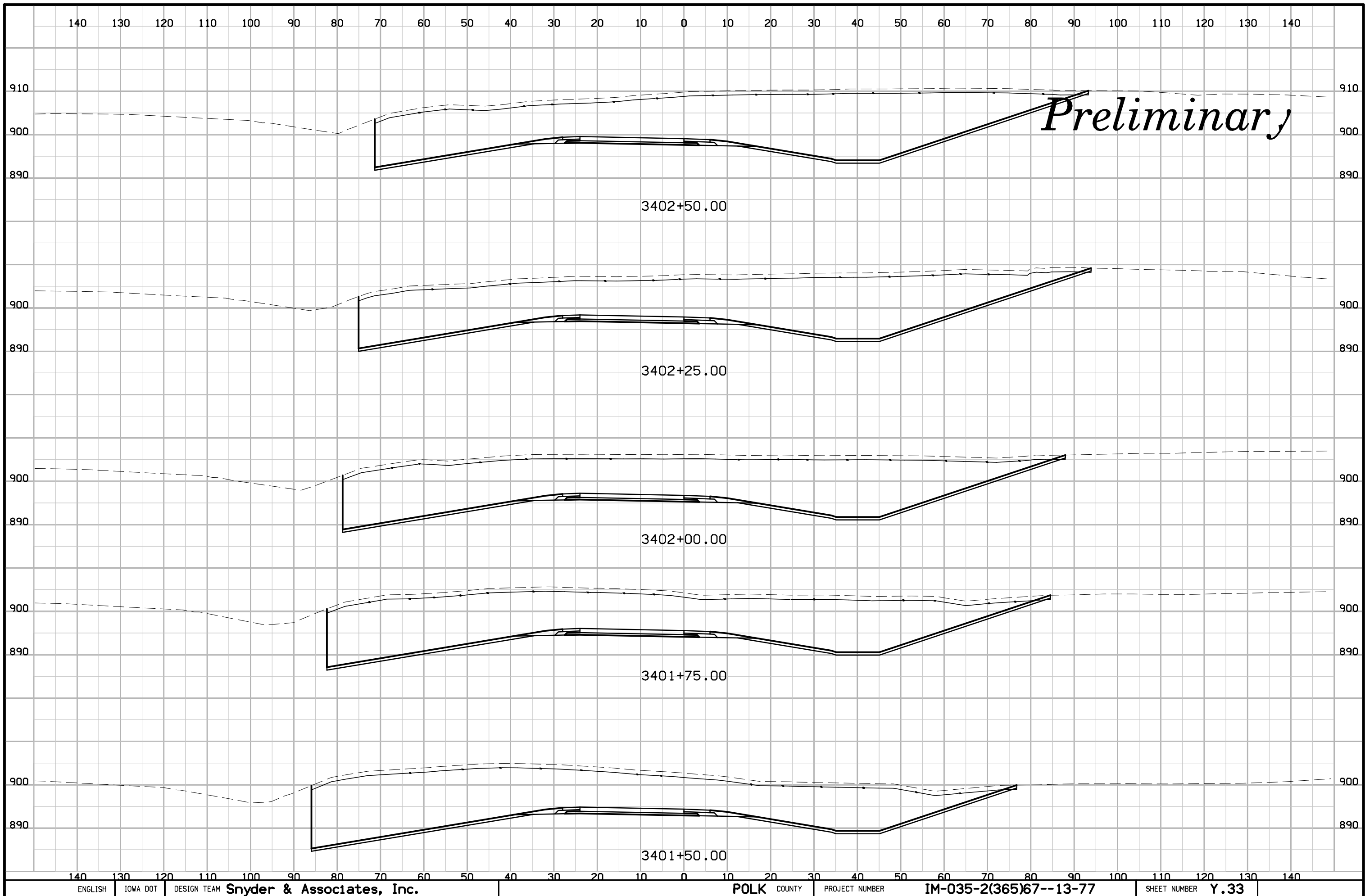


Preliminary



Preliminary





Preliminary

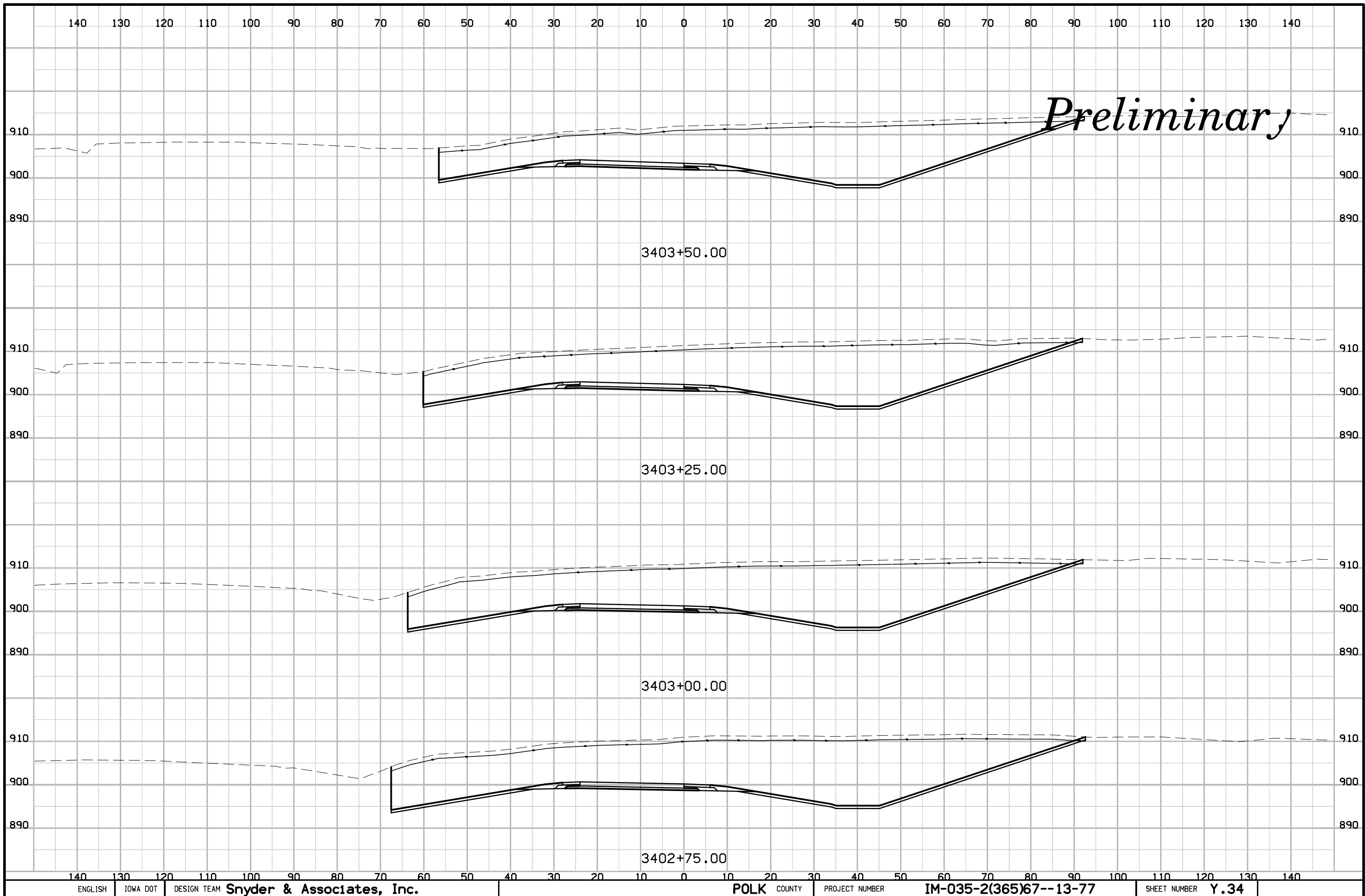
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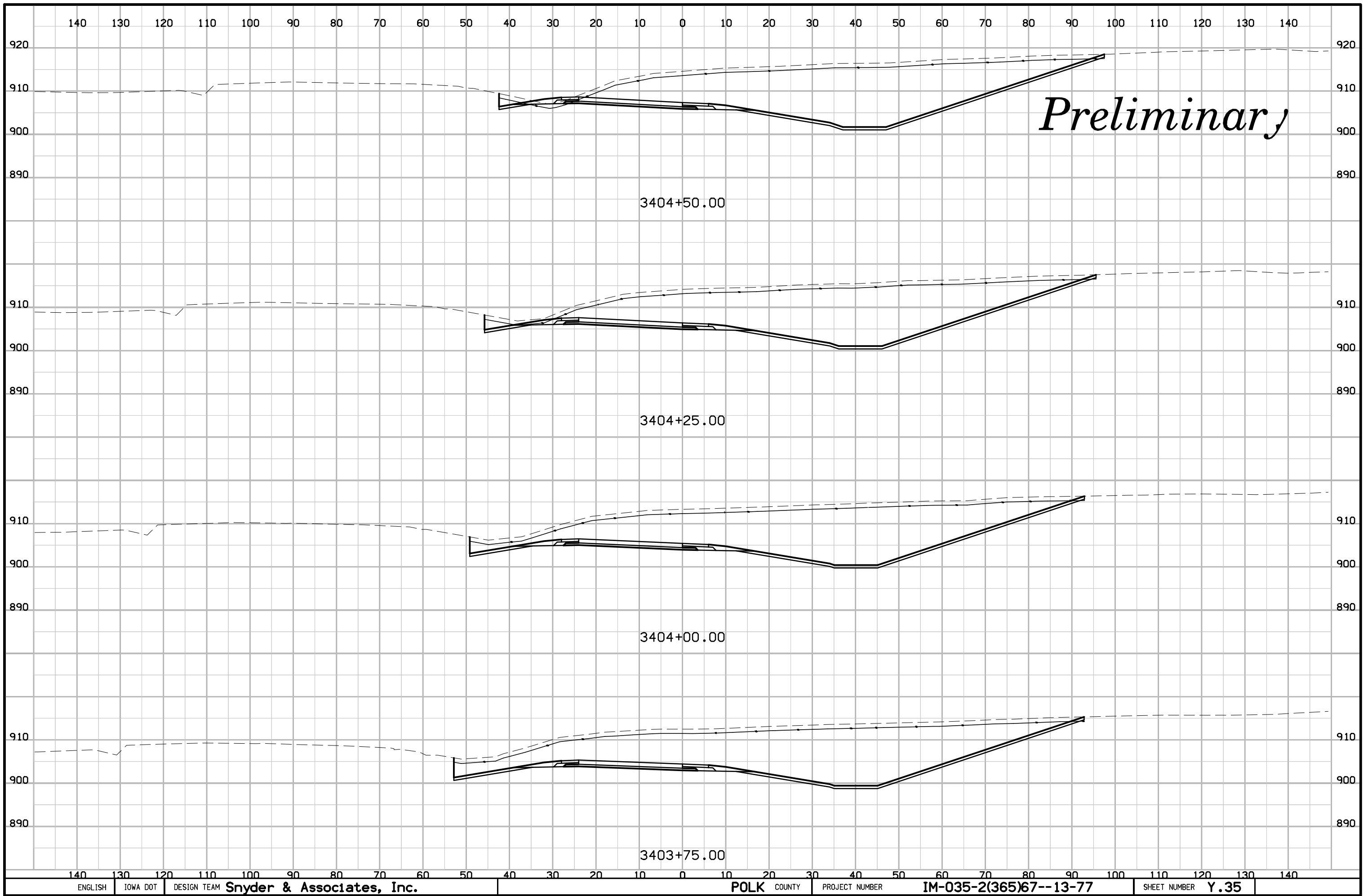
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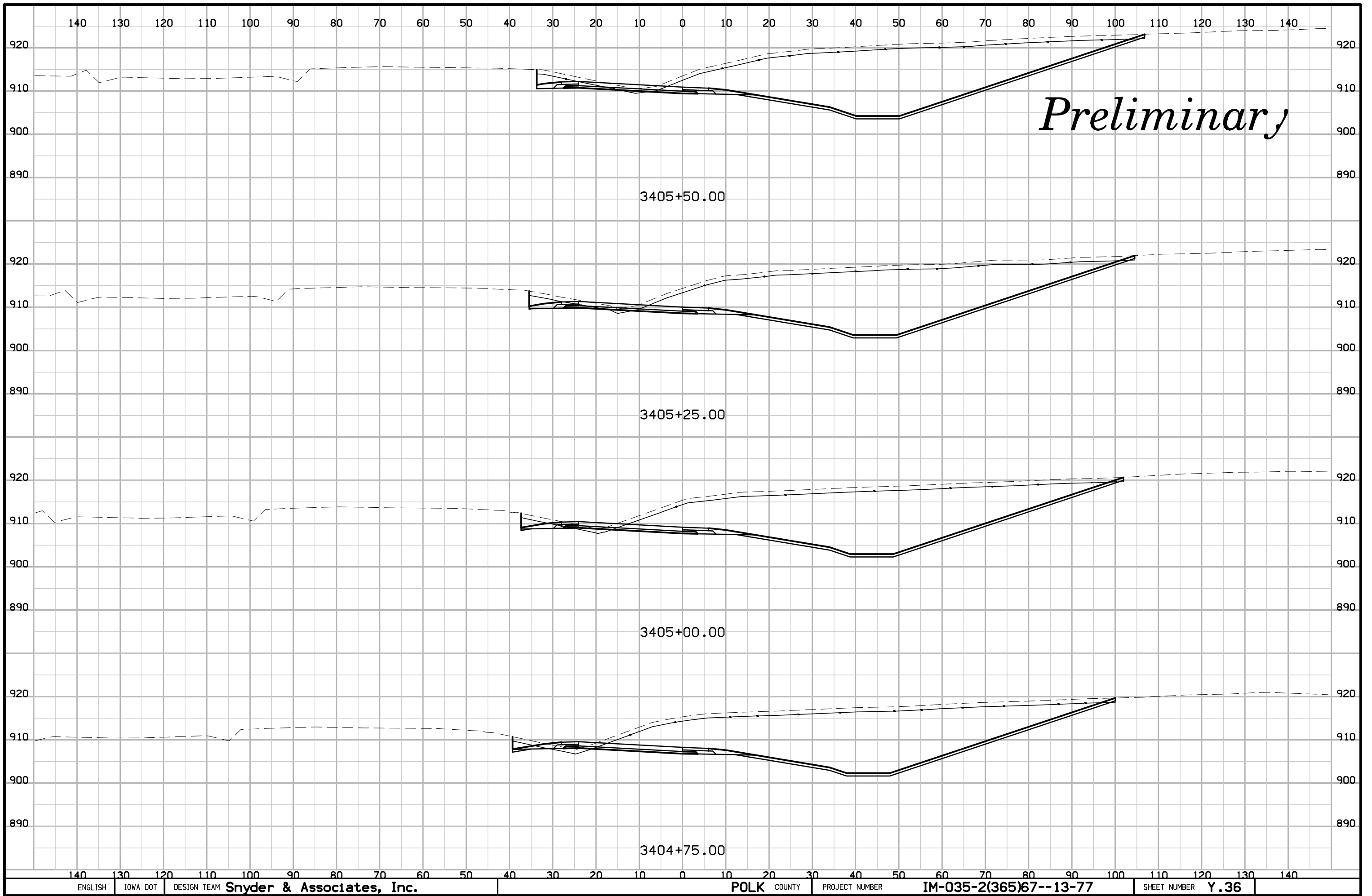
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3401+75.00

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Preliminary

3405+50.00

3405+25.00

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Preliminary

