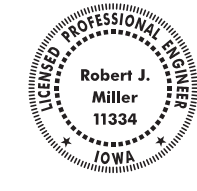
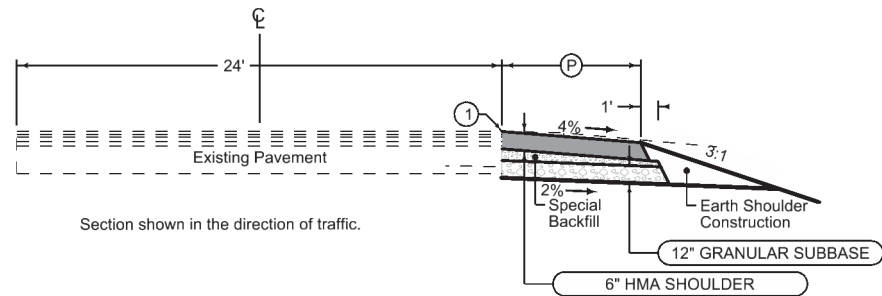


INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 7	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.1	Estimate Reference Information
C.2	Standard Road Plans
C.2	Index of Tabulations
C.3 - 4	Pollution Prevention Plan
C.5 - 9	Tabulations (beg. with tab. of incidentals if needed)
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 7	US-30 Plan Sheets and Profile Sheets
F Sheets	Detour or Temporary Pavement Sheets
* F.1 - 2	Detour Plan and Profile Sheets
G Sheets	Survey Sheets
G.1 - 2	Reference Ties and Bench Marks
G.3	Horizontal Control Tab. and Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.3 - 9	Staging and Traffic Control Sheets Stage 2
T Sheets	Earthwork Quantity Sheets
* T.1A - 1B	Earthwork Typical Sheets
T.2 - 7	Earthwork Quantity Sheets
T.8	Earthwork Totals and Summary
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 17	Mainline Cross Sections
X Sheets	East Crossover Cross Sections
X.1 - 6	East Crossover Sections
Y Sheets	West Crossover Cross Sections
Y.1 - 6	West Crossover Sections
	* Color Plan Sheets

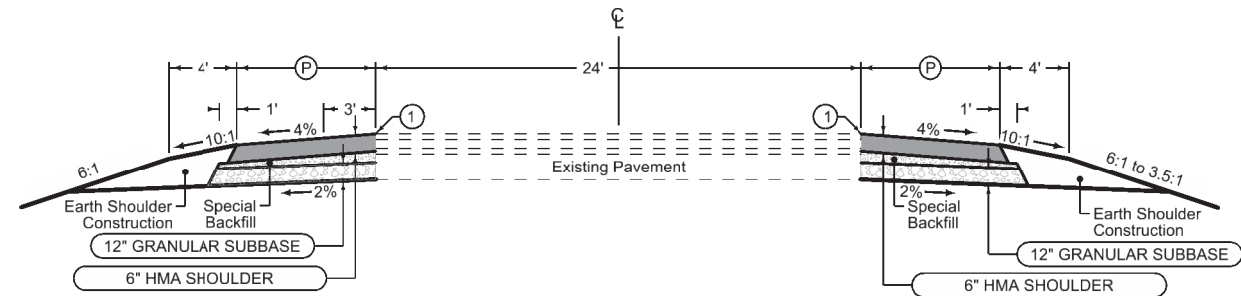
NOT FINAL PLANS

ROADWAY DESIGN	
	<p>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.</p> <p>Signature: <u>Robert J. Miller</u> Date: _____</p> <p>Printed or Typed Name: _____</p> <p>My license renewal date is December 31, 2019</p> <p>Pages or sheets covered by this seal: <u>A.1, C.1-C.4, D.1-D.2, G.1-G.4, J.1-J.3, S.1-S.3, T.1-T.3, U.1-U.2, W.1-W.6</u></p>



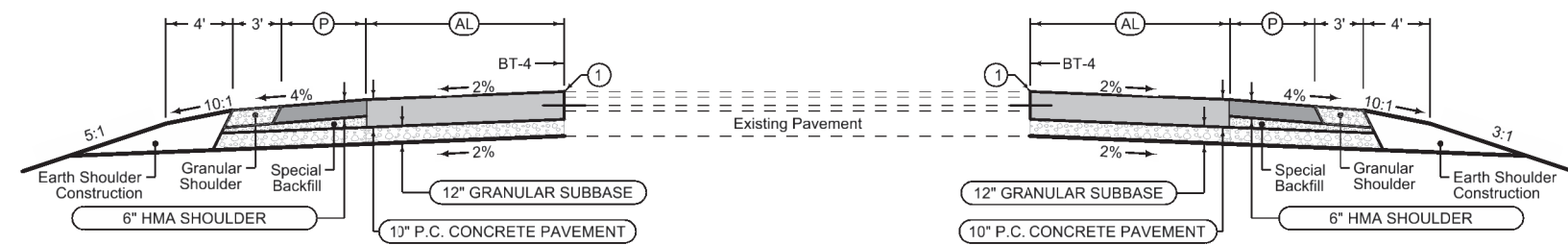
Direction of Travel	BEGIN	END	(P) Feet
WB	Knapp Rd.	250' West of Knapp Rd.	10

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	398+10.24	395+25.32	7.6-9.2



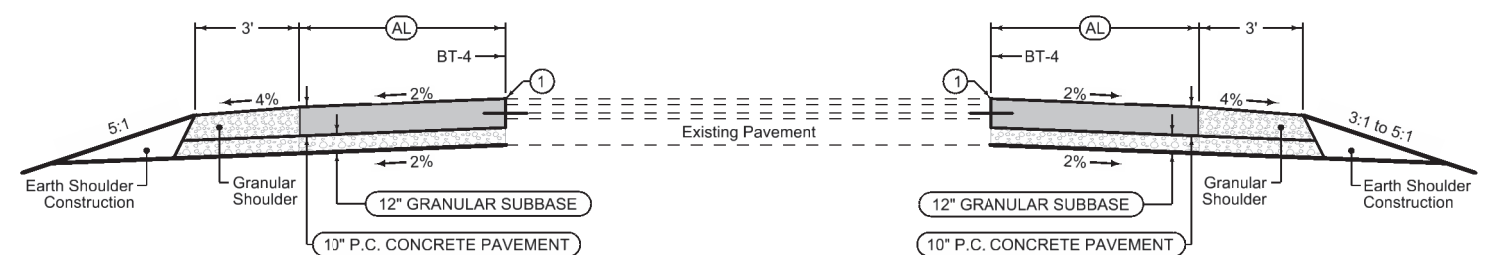
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	396+85.10	395+12.52	10.4-12

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
WB	383+41.58	381+39.40	4-11.6	1.3-3.6



Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
WB	383+30.09	382+27.75	8-9.9	1.6-3.9

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	381+39.40	379+06.80	4-12
WB	374+70.81	367+76.63	0-12



Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	382+27.75	375+65.66	2-12

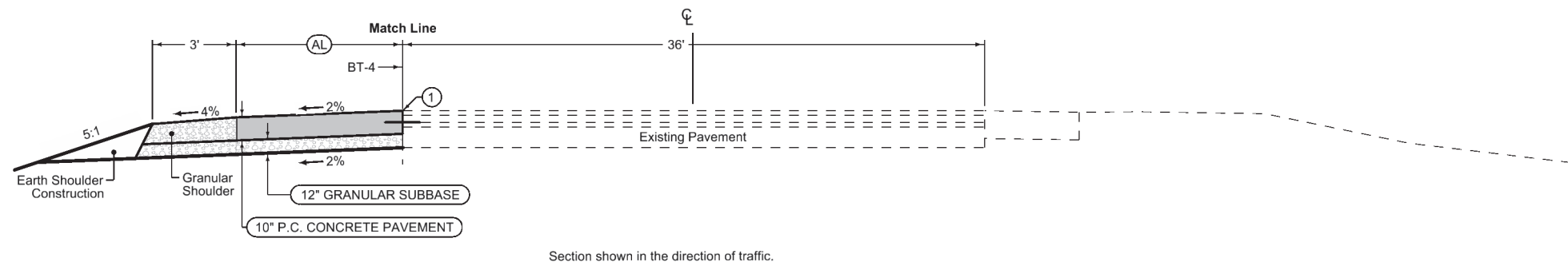
① Match existing pavement.

NOT FINAL PLANS

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

WESTBOUND US-30

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	374+70.81	367+76.63	0-12



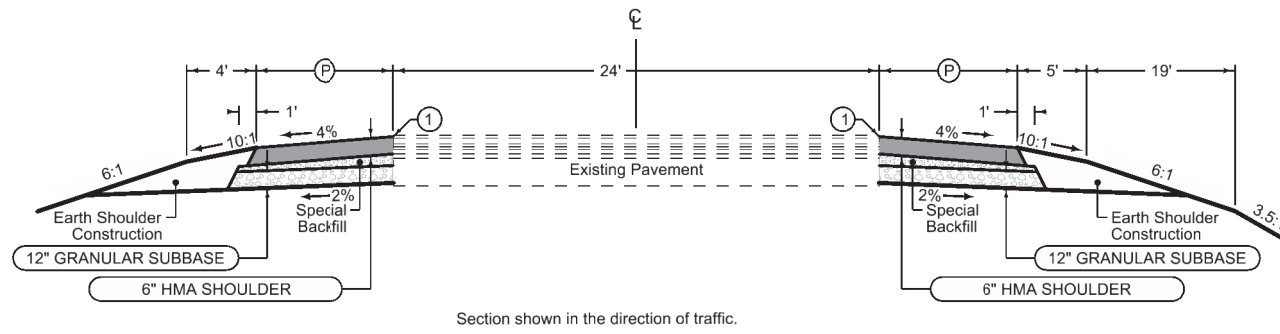
① Match existing pavement.

NOT FINAL PLANS

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

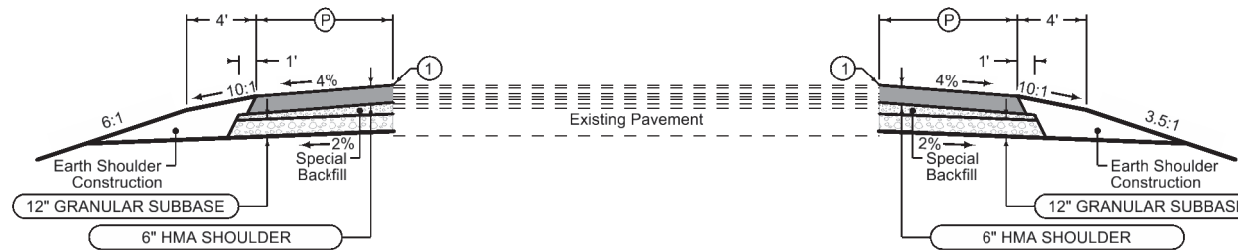
WESTBOUND US-30

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	380+43.72	380+70.99	6



Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	380+81.07	381+08.48	10

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	380+70.99	382+42.82	7.6-9.2



Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	381+08.48	382+42.82	11.6-13.2

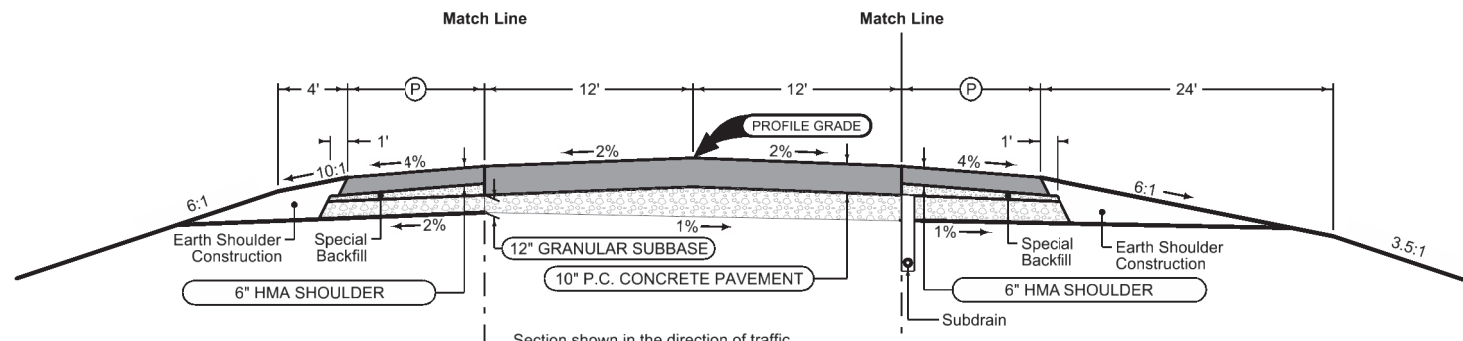
① Match existing pavement.

NOT FINAL PLANS

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

EASTBOUND US-30

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	382+42.82	383+00.91	7.6

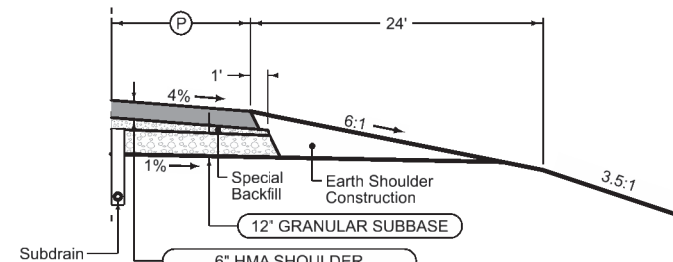
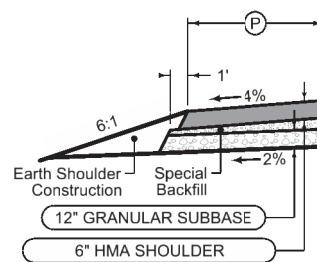


Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	382+42.82	383+00.91	11.6

Section shown in the direction of traffic.
 Mainline Jointing:
 Transverse joints: CD at 17' spacing
 Longitudinal joint: L-2

Direction of Travel	BEGIN STATION	END STATION
EB	382+42.82	383+00.91
EB	395+78.41	396+71.70

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	395+78.41	396+71.70	6

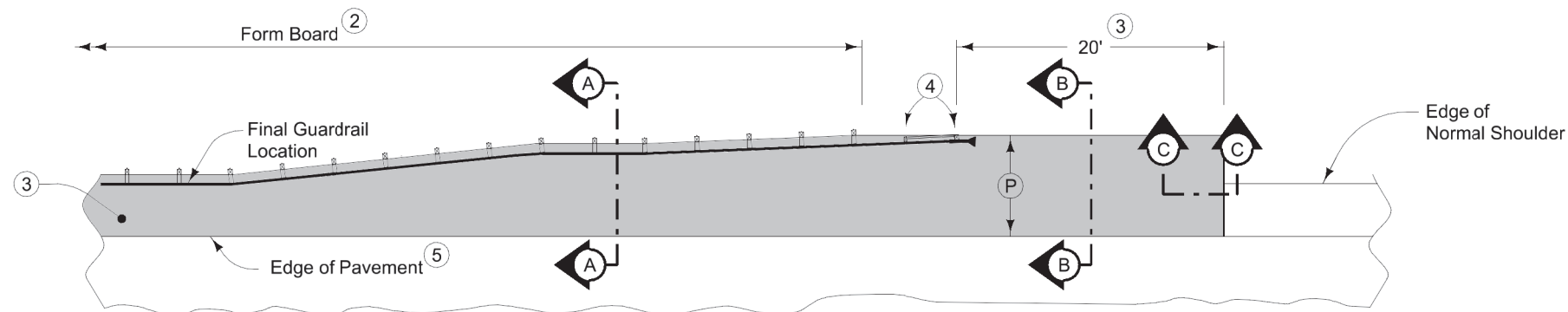


Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	395+78.41	396+71.70	10

NOT FINAL PLANS

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

EASTBOUND US-30



PLAN VIEW

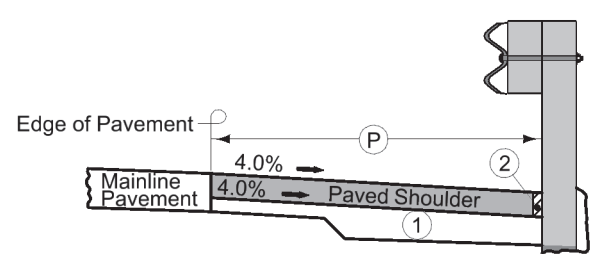
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

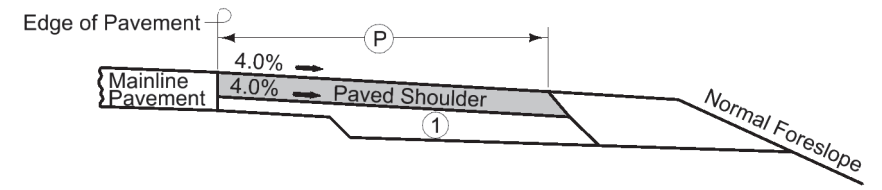
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

- ① For subgrade treatment, refer to other details in the plan.
- ② PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown. Refer to note 4 for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ⑤ 'KT-1 joint for PCC shoulder. 'B' joint for HMA shoulder.

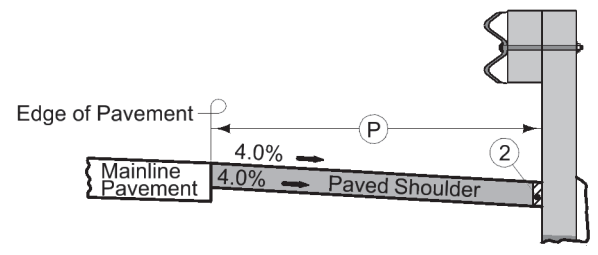


Section A-A

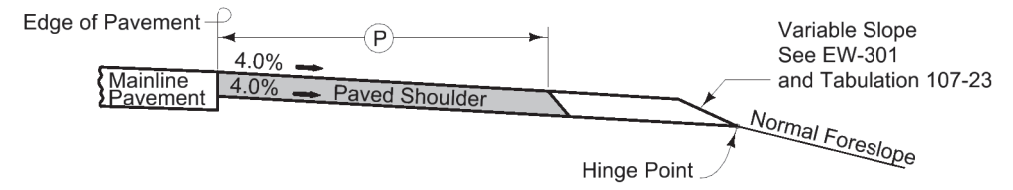


Section B-B

NEW CONSTRUCTION

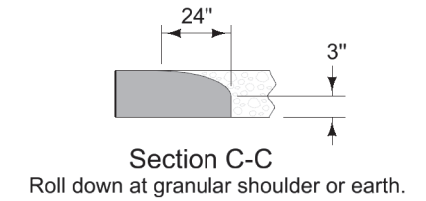


Section A-A



Section B-B

EXISTING SHOULDER

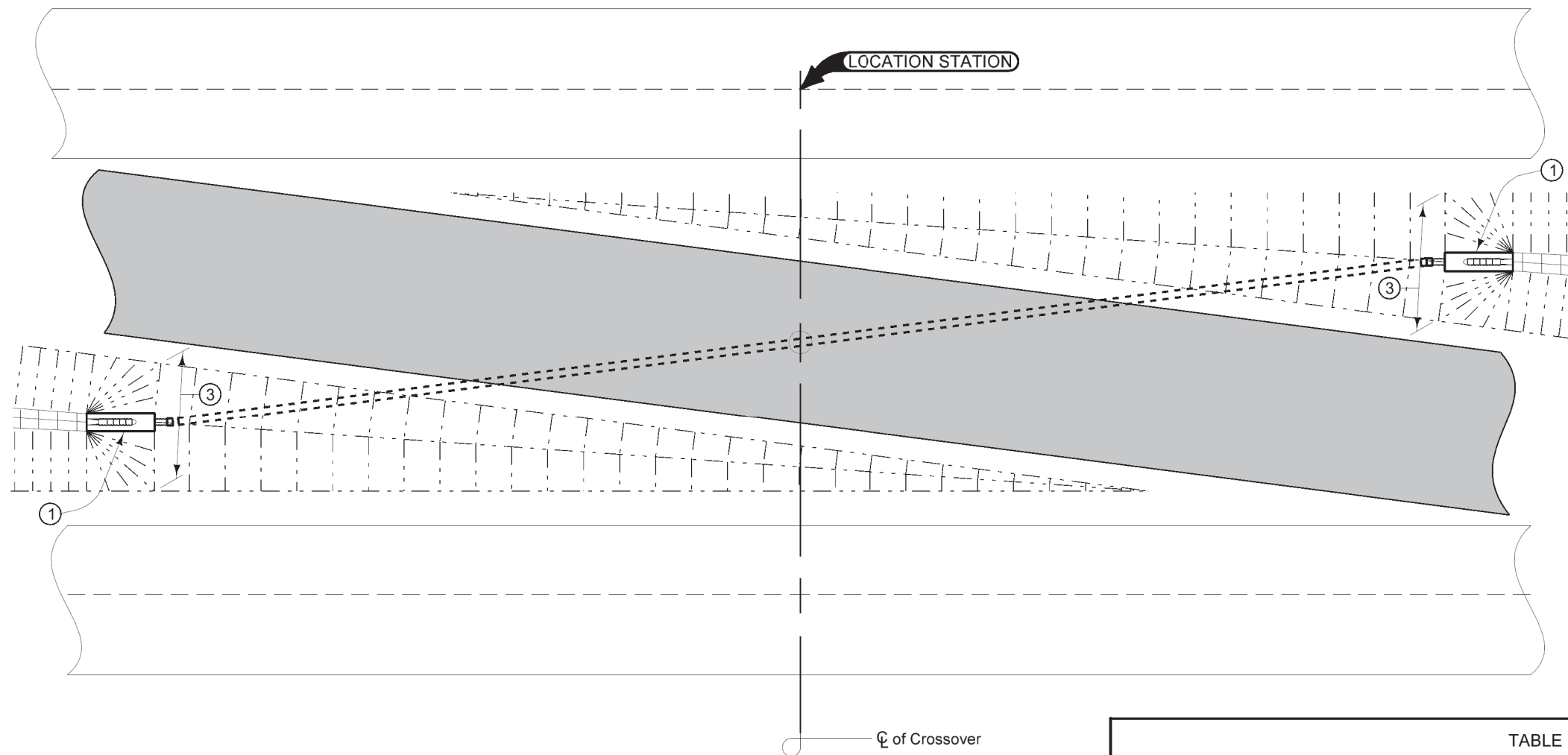


Section C-C

Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL

NOT FINAL PLANS



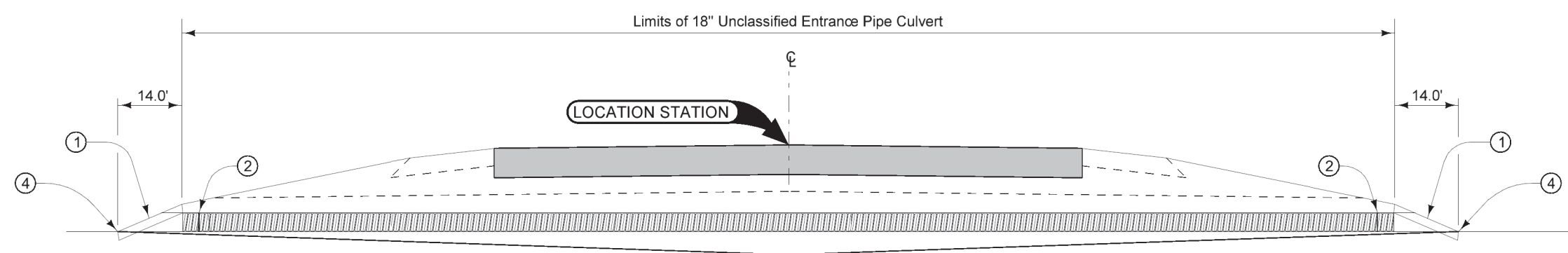
PLAN VIEW

- ① Beveled pipe and guard. See Standard Road Plan DR-212.
- ② Requires approximately 7 degree elbow.
- ③ Place the top edge of beveled pipe and guard at a point where the distance between the edges of the shoulders are approximately 22 feet apart.
- ④ Median ditch flow line.

TABLE OF QUANTITIES										
Standard Road Plan No.	PV-501	PV-502	PV-504	PV-505	PV-507	PV-508	PV-510	PV-511	PV-513	PV-514
Median Width	50.0'	50.0'	64.0'	64.0'	68.24'	68.24'	82.0'	82.0'	100.0'	100.0'
Crossover Pavement Width	16.0'	28.0'	16.0'	28.0'	16.0'	28.0'	16.0'	28.0'	16.0'	28.0'
Bid Item										
18" dia. Unclassified Entrance Pipe Culvert	250'	344'	112'	196'	82'	162'	56'	74'	148'	88'

Possible Contract Items:
 Beveled Pipe and Guard.
 Culvert, Unclassified Entrance Pipe, 18" Dia.
 Embankment-In-Place
 Excavation, Class 10, Roadway and Borrow
 Special Backfill

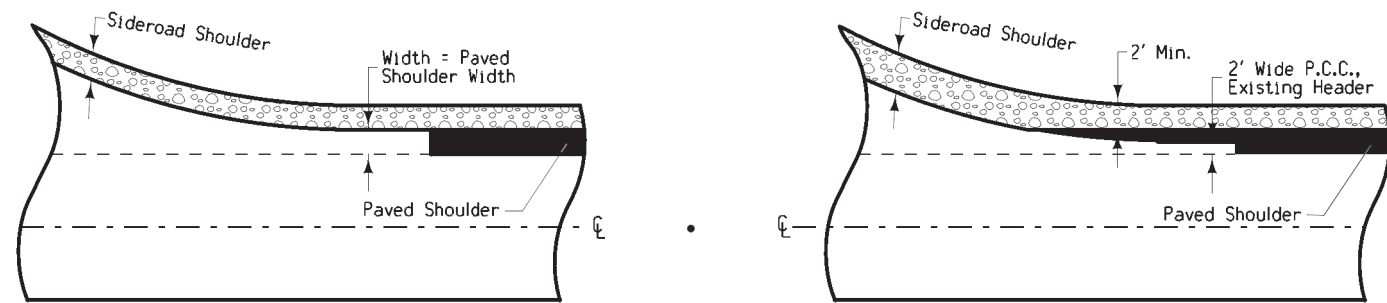
Possible Tabulation:
 112-8



LONGITUDINAL SECTION AT PIPE CENTERLINE

NOT FINAL PLANS

7154B
10-20-09

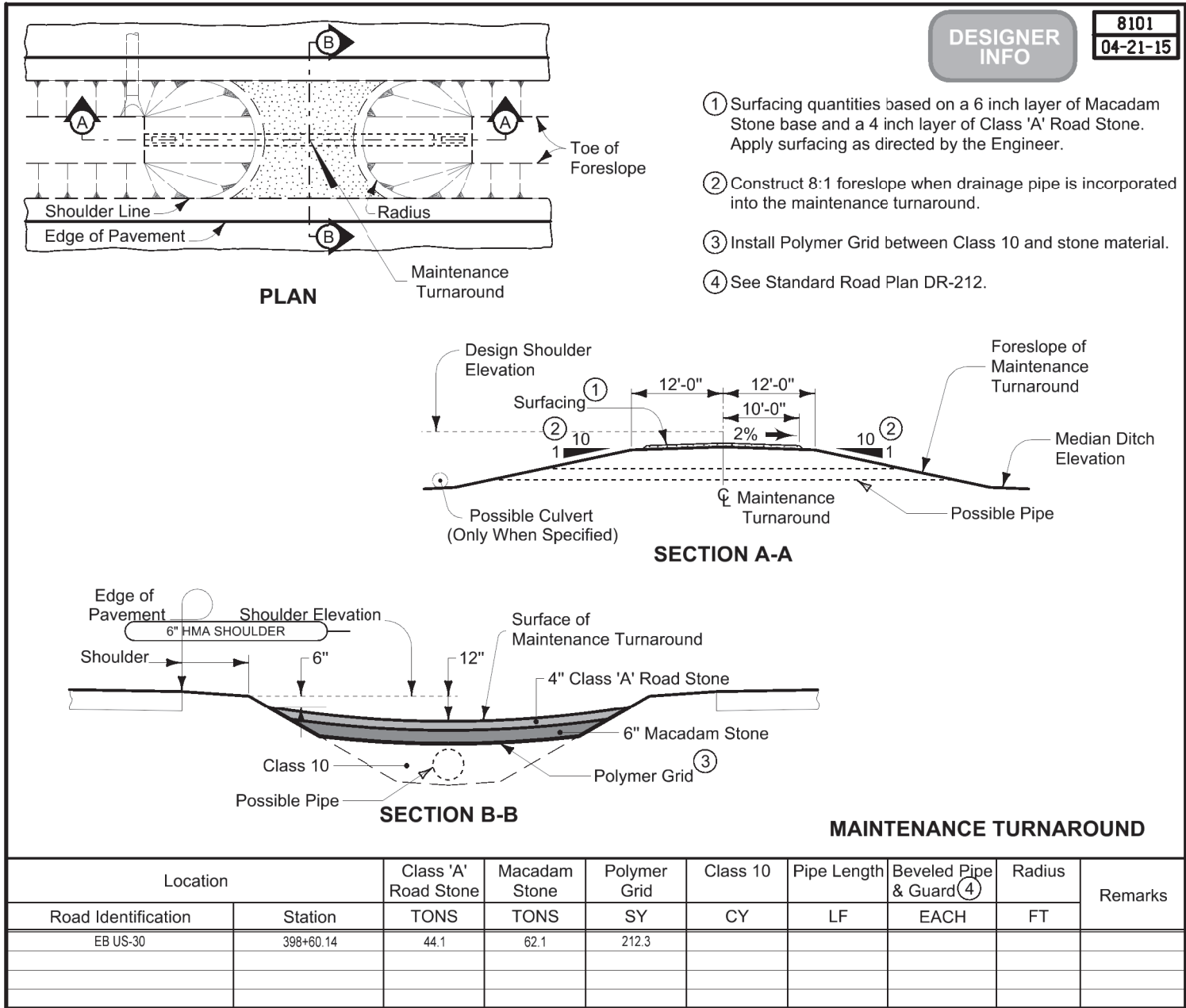


With Newly Constructed Returns

At UAC Returns

**PAVED SHOULDER
DETAIL AT RETURNS**

NOT FINAL PLANS



NOT FINAL PLANS

100-1D
10-18-05

PROJECT DESCRIPTION

This project involves the replacement of the U.S. 30, eastbound bridge over the Cedar River (Maint No.5758.9R030) 0.5 miles west of the east junction of U.S. 151.

100-0A
10-28-97

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

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-0425070	SPECIAL BACKFILL	TON	1915.6	
2	2102-2625001	EMBANKMENT IN PLACE, CONTRACTOR FURNISHED	CY	1148	
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	14722	
4	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	1348	
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	1509	
6	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	5633	
7	2111-8174100	GRANULAR SUBBASE	SY	3496.8	
8	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	1045	
9	2122-5190501	PAVED SHOULDER, PCC (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN)	SY	179.6	
10	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.	SY	1576.2	
11	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	33.4	
12	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	46.3	
13	2213-8201100	BASE WIDENING, 10 IN. HOT MIX ASPHALT MIXTURE	SY	15.3	
14	2301-0690203	BRIDGE APPROACH, BR-203	SY	653.3	
15	2301-1004100	STANDARD OR SLIP FORM PCC PAVEMENT, 10 IN.	SY	2573.9	
16	2301-4875006	MEDIAN, P.C. CONCRETE, 6"	SY	12	
17	2303-1252343	ASPHALT BINDER, PG 52-34S, STANDARD TRAFFIC	TON	0.5	
18	2304-0100000	DETOUR PAVEMENT	SY	3420	
19	2401-6745065	REMOVAL OF BRIDGE END DRAIN	EACH	1	
20	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE	SY	5263.6	
21	2416-0101036	REMOVE AND REINSTALL CONC. PIPE APRONS LESS THAN OR EQUAL TO 36 IN.	EACH	2	
22	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN.	LF	9	
23	2417-5895024	BEVELED PIPE AND GUARD, 24 IN.	EACH	3	
24	2422-1723024	CULVERT, UNCLASSIFIED ROADWAY PIPE, 24 IN. DIA.	LF	516	
25	2435-0140160	MANHOLE, STORM SEWER, SW-401, 60 IN.	EACH	1	
26	2503-0500402	BRIDGE END DRAIN, DR-402	EACH	5	
27	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	1076	
28	2505-4008300	STEEL BEAM GUARDRAIL	LF	650	
29	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	6	
30	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	6	
31	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	6	
32	2506-4984000	FLOWABLE MORTAR	CY	187.4	
33	2507-3250005	ENGINEERING FABRIC	SY	242.2	
34	2507-8029000	EROSION STONE	TON	1.7	
35	2510-6745850	REMOVAL OF PAVEMENT	SY	6312.5	
36	2512-1725156	CURB AND GUTTER, P.C. CONCRETE, 1.5 FT	LF	47	
37	2518-6910000	SAFETY CLOSURE	EACH	6	
38	2528-8445110	TRAFFIC CONTROL	LS	1	
39	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS	1	
40	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE	LF	400	

NOT FINAL PLANS

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-0425070	SPECIAL BACKFILL Refer to Tab. 112-9 on Sheet C.7 and Tab. 112-8 on Sheet C.11
2	2102-2625001	EMBANKMENT IN PLACE, CONTRACTOR FURNISHED 1.3 swell factor applied
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW
4	2102-2710090	EXCAVATION, CLASS 10, WASTE
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD
6	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD Refer to Tab. 107-28 on Sheet T.9 for Earthwork Quantities
7	2111-8174100	GRANULAR SUBBASE Refer to Tab. 100-24 on Sheet C.6 and Sheet B.1-B.4 for details.
8	2121-7425010	GRANULAR SHOULDERS, TYPE A Refer to Tab. 112-9 on Sheet C.7, Tab. 112-8 on Sheet C.11 and Sheet B.1-B.2 for details.
9	2122-5190501	PAVED SHOULDER, PCC (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN) Refer to Tab. 104-8A on Sheet C.11.
10	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.
11	2123-7450000	SHOULDER CONSTRUCTION, EARTH
12	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING Refer to Tab. 112-9 on Sheet C.7 and Sheets B.1-B.4 for details.
13	2213-8201100	BASE WIDENING, 10 IN. HOT MIX ASPHALT MIXTURE Refer to Tab. 100-25 on Sheet C.8.
14	2301-0690203	BRIDGE APPROACH, BR-203 Refer to Tab. 112-6 on Sheet C.7.
15	2301-1004100	STANDARD OR SLIP FORM PCC PAVEMENT, 10 IN. Refer to Tab. 100-24 on Sheet C.6.
16	2301-4875006	MEDIAN, P.C. CONCRETE, 6" Refer to Tab. 112-4 on Sheet C.6.
17	2303-1252343	ASPHALT BINDER, PG 52-34S, STANDARD TRAFFIC Refer to Tab. 100-25 on Sheet C.8.
18	2304-0100000	DETOUR PAVEMENT Refer to Tab. 112-8 on Sheet C.11.
19	2401-6745065	REMOVAL OF BRIDGE END DRAIN Includes 1 Bridge End Drain removal on northeast corner of WB US-30 bridge
20	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE Refer to Tab. 100-28 on Sheet C.11
21	2416-0101036	REMOVE AND REINSTALL CONC. PIPE APRONS LESS THAN OR EQUAL TO 36 IN. Refer to Tab. 104-3 and Tab. 112-8 on Sheet C.11
22	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. Refer to Tab. 104-3 on Sheet C.11
23	2417-5895024	BEVELED PIPE AND GUARD, 24 IN.
24	2422-1723024	CULVERT, UNCLASSIFIED ROADWAY PIPE, 24 IN. DIA. Refer to Tab. 112-8 on Sheet C.11.
25	2435-0140160	MANHOLE, STORM SEWER, SW-401, 60 IN. Includes manhole A1 for use in extending of 24" culvert at east cross over. Remove manhole when cross over is removed.
26	2503-0500402	BRIDGE END DRAIN, DR-402 Refer to Tab. 104-8A on Sheet C.11
27	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab. 110-7A on Sheet C.9.
28	2505-4008300	STEEL BEAM GUARDRAIL
29	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201
30	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
31	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205 Refer to Tab. 108-8A on Sheet C.9 and Typical 7156 on Sheet B.5 for details.
32	2506-4984000	FLOWABLE MORTAR Refer to Tab. 110-9 on Sheet C.9.
33	2507-3250005	ENGINEERING FABRIC
34	2507-8029000	EROSION STONE Refer to Tab. 100-23 on Sheet C.11.
35	2510-6745850	REMOVAL OF PAVEMENT

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
36	2512-1725156	CURB AND GUTTER, P.C. CONCRETE, 1.5 FT Refer to Tab. 112-4 on Sheet C.6.
37	2518-6910000	SAFETY CLOSURE Refer to Tab. 108-13A on Sheet C.11
38	2528-8445110	TRAFFIC CONTROL Refer to Tab. .. On Sheet J.1
39	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS Refer to Tab. 110-13 on Sheet C.12.
40	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE Includes 100 FT entrance SW, 100 FT entrance NW, 100 FT entrance SE, and 100 FT entrance NE.

NOT FINAL PLANS

INDEX OF TABULATIONS

111-25
10-18-11

Tabulation	Tabulation Title	Sheet No.
C Sheets		
100-0A	ESTIMATED ROADWAY QUANTITIES (1 DIVISION PROJECT)	C.1
100-4A	ESTIMATE REFERENCE INFORMATION	C.2
100-1D	PROJECT DESCRIPTION	C.1
105-4	STANDARD ROAD PLANS	C.3
107-23	GRADING FOR GUARDRAIL INSTALLATIONS	C.9
100-17	TABULATION OF SILT FENCES	C.10
100-18	SILT FENCES FOR DITCH CHECKS	C.10
100-19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	C.10
100-23	ROCK EROSION CONTROL	C.11
100-24	PCC PAVEMENT	C.6
100-25	HMA PAVEMENT	C.8
100-28	LONGITUDINAL GROOVING	C.11
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102-5	EXISTING PAVEMENT	C.12
104-3	DRAINAGE STRUCTURE BY ROAD CONTRACTOR	C.11
104-8A	SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN	C.11
108-8A	STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION	C.9
108-13A	SAFETY CLOSURES	C.11
108-22	PAVEMENT MARKING LINE TYPES	C.13
108-35	TEMPORARY LANE SEPARATOR SYSTEM	C.12
110-1	REMOVAL OF PAVEMENT	C.12
110-2	REMOVAL OF EXISTING STRUCTURES	C.12
110-7A	REMOVAL OF STEEL BEAM GUARDRAIL	C.9
110-9	CULVERT ABANDONMENT	C.9
110-12	POLLUTION PREVENTION PLAN	C.4 - C.5
110-13	DELIVERY AND STOCKPILING	C.12
111-25	INDEX OF TABULATIONS	C.3
112-4	CURBS AND RAISED ISLANDS	C.6
112-6	BRIDGE APPROACH SECTION	C.7
112-8	MEDIAN CROSSEOVERS	C.11
112-9	SHOULDERS	C.7

STANDARD ROAD PLANS

105-4
10-18-11

The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
BA-200	04-16-19	Steel Beam Guardrail Components
BA-201	04-18-17	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-205	04-19-16	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BR-203	10-17-17	Double Reinforced 12" Approach
BR-211	10-17-17	Bridge Approach (Abutting PCC or Composite Pavement)
DR-102	04-21-15	Pipe Culvert (Cover and Camber)
DR-205	10-16-18	Concrete Apron with End Wall
DR-402	04-17-18	Rock Flume for Bridge End Drain
EC-201	10-16-18	Silt Fence
EC-204	04-18-17	Perimeter and Slope Sediment Control Devices
EC-301	10-18-16	Rock Erosion Control (REC)
EC-303	04-16-19	Stabilized Construction Entrance
EC-502	04-21-15	Seeding in Rural Areas
EW-101	10-17-17	Embankment and Rebuilding Embankments
EW-102	10-20-15	Allowable Placement of Unsuitable Soil in Embankments
EW-103	10-20-15	Embankment Subgrade Treatment, Moisture Density Control and Special Compaction
EW-301	10-20-15	Guardrail Grading
PM-110	10-16-18	Line Types
PV-20	10-21-14	Paved Islands
PV-101	04-16-19	Joints
PV-102	10-18-16	PCC Curb Details
PV-105	10-21-14	PCC Pavement Widening
PV-121	04-21-15	Jointing PCC Pavement Widening
PV-512	04-21-15	Median Crossover (100' Median)
PV-513	04-15-14	Median Crossover (100' Median) 16' Wide 1 Lane
SI-173	04-19-16	Object Markers
SI-211	10-18-16	Object Marker and Delineator Placement with Guardrail
SW-401	04-17-18	Circular Storm Sewer Manhole
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61	04-16-19	Two-Lane, Two-way Operation
TC-402	04-21-15	Work Within 15 ft of Traveled Way
TC-418	04-16-19	Lane Closure on Divided Highway

NOT FINAL PLANS

POLLUTION PREVENTION PLAN

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

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

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

I. ROLES AND RESPONSIBILITIES

- A. Designer:
 1. Prepares Base PPP included in the project plan.
 2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
 3. Is signature authority on the Base PPP.
- B. Contractor:
 1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
 3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
 4. Installs and maintains appropriate controls. This work may be subcontracted.
 5. Supervises and implements good housekeeping practices.
 6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
 7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
- C. Subcontractors:
 1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if responsible for sediment or erosion controls or involved in land disturbing activities. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Implement good housekeeping practices.
- D. RCE/Project Engineer:
 1. Is Project Storm Water Manager.
 2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.
 3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
 4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
 5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
 6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
 7. Is familiar with the Project PPP and storm water site map.
 8. On projects where DOT is Contracting Authority, is responsible for monitoring inspection reports on a monthly basis, to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.
 9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
 10. Is signature authority on Notice of Discontinuation.
- E. Inspector:
 1. Updates 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. Maintains an up-to-date record that identifies contractors and subcontractors as co-permittees.
 3. Makes these plans available to the DNR upon their request.
 4. Conducts joint required inspections of the site with the contractor/subcontractor.
 5. Completes an inspection report after each inspection.
 6. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

- A. This Pollution Prevention Plan (PPP) is for the construction of a *Describe Type of Facility*.
- B. This PPP covers approximately *Provide # Of Acres* acres with an estimated *Provide # of Acres* acres being disturbed. The portion of the PPP covered by this contract has *Provide # of Acres* acres disturbed.
- C. The PPP is located in an area of *Provide # of Types Of Soil Association* soil association (*Provide Soil Association Type or* *Types*). The estimated weighted average runoff coefficient number for this PPP after completion will be *Provide runoff coefficient Number*.
- D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.
- E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries.
- F. Runoff from this work will flow into *List Outlets for Runoff*.

POLLUTION PREVENTION PLAN

III. CONTROLS

- A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
 - B. Preserve vegetation in areas not needed for construction.
 - C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries 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 of the Standard Specifications.
1. EROSION AND SEDIMENT CONTROLS
 - a. Stabilization Practices
 - 1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
 - 2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
 - a) Permanently ceased on any portion of the site, or
 - b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
 - 3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
 - 4) Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map (when included), Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets.
 - 5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
 - 6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.
 - b. Structural Practices
 - 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
 - 2) Structural practices to be used for this project are located in the storm water site map (when included), Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C sheets, 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 or are referenced in the Standard Road Plans Tabulation (105-4) located in the C sheets.
 - c. Storm Water Management
 - 1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map (when included) and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.
 2. OTHER CONTROLS
 - 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 chemical spill and leak prevention and response procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
 - 6) Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
 - 7) Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
 - 8) Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
 - 9) Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
 - 10) Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.
 3. APPROVED STATE OR LOCAL PLANS
 During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The Contractor is required to maintain all temporary cleaning, repairing, or replacing them throughout the project including 50% of their capacity.

NOT FINAL PLANS

POLLUTION PREVENTION PLAN

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the Contractor and the Contracting Authority at least once every seven calendar days. Storm water monitoring inspections will include:
 - 1. Date of the inspection.
 - 2. Summary of the scope of the inspection.
 - 3. Name and qualifications of the personnel making the inspection.
 - 5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 - 6. Major observations related to the implementation of the PPP.
 - 7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

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

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

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

VIII. DEFINITIONS

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

CERTIFICATION STATEMENT

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

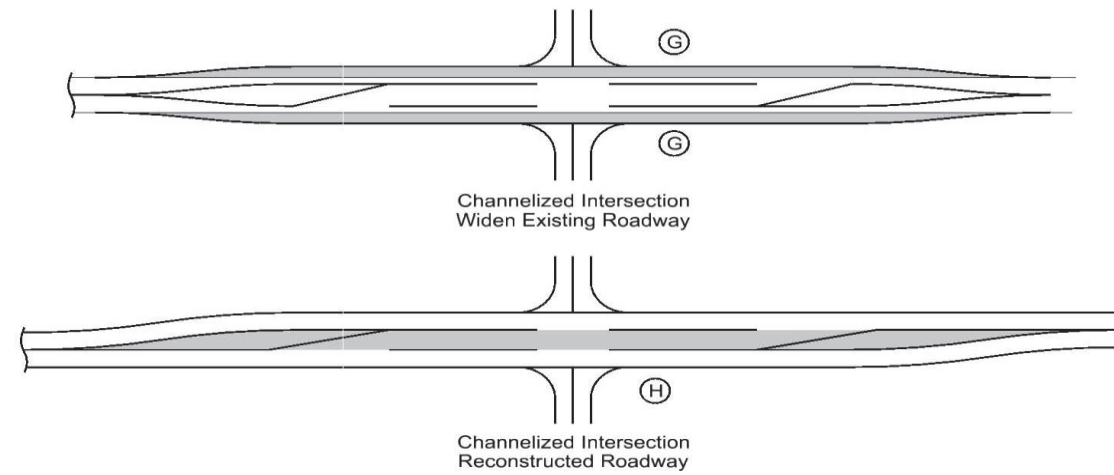
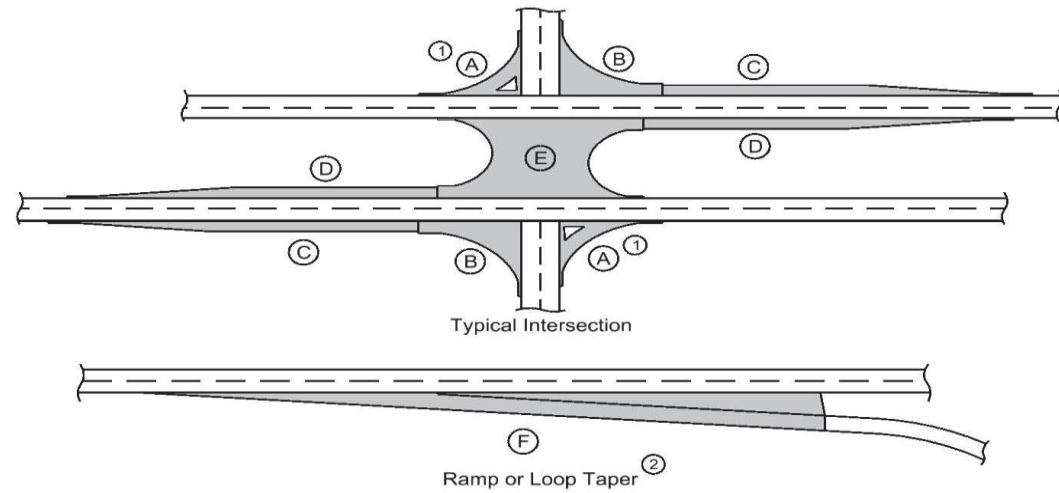
Signature

Printed or Typed Name

Signature

NOT FINAL PLANS

PCC PAVEMENT



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

Road Identification	Location		Mainline			Area ③								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks			
	Direction of Travel	Station to Station	Width	Length	Area	A ①	B	C	D	E	F ②	G	H	SY						TONS	CY	SY
			FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	10 IN	10% IN							
WB US-30	WB	367+76.63	374+70.81	12.0	694.2	925.6									802.4			1134.3				
WB US-30	WB	375+65.66	383+30.09	12.0	764.4	1019.2		118.9							987.2			1370.4				
WB US-30	WB	379+06.80	383+41.58	12.0	434.8	579.7							380.6				588.4					
EB US-30	EB	382+42.82	383+00.91	24.0	58.1	154.9			380.6						154.9			154.9				
EB US-30	EB	395+78.41	396+71.70	24.0	93.3	248.8									248.8			248.8				
Total													2573.9			3496.8						

112-4
10-21-14

CURBS AND RAISED ISLANDS

Refer to PV-20, PV-102, and 6000s Detail Series.

① Bid Item

Point No.	Station	Offset	Island Interior	Curb and Gutter		Remarks	
			Area ① SY	Curb Type	Gutter Width FT		Length ① LF
1	375+25.00	26.65' LT	12.0	4" Sloped PCC	1.5	47.0	Westbound US-30
Total			12.0			47.0	

253-1
10-18-11

MEDIAN CROSSOVER

The Contractor is prohibited from using any established or other type median crossover on this project unless specifically designated for the Contractor's use by this plan.

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.

NOT FINAL PLANS

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

Road Identification		Location			Quantities															Remarks									
		① Direction Of Traffic	Station to Station	Side	P Width FT	G Width FT	L Length FT	Class 13 Excavation CY ②	Hot Mix Asphalt		Binder TONS	Paved Shoulder SY ②	Reinforced Paved Shoulder SY ②	Special Backfill				Modified Subbase CY ②	Granular Shoulder		Earth Shoulder Construction Alternates								
									TON	TON/STA				HMA Alternate		PCC Alternate			TON ②		TON/STA	STA ②	HMA CY ④	PCC CY ④					
								TON ②	TON/STA	TON ②	TON/STA		TON ②	TON/STA															
WB US-30	WB	395+31.62	397+59.34	RT	6.0		227.7			51.7	22.7	3.1	151.8			31.0	13.6					2.3	28.3			Note 1			
WB US-30	WB	367+76.63	374+70.81	RT		3.0	694.2															131.9	19.0	6.9		78.9			
WB US-30	WB	375+65.66	382+27.75	LT		3.0	662.1															125.8	19.0	6.6		28.7			
WB US-30	WB	379+06.80	381+39.40	RT		3.0	232.6															44.2	19.0	2.3		26.4			
WB US-30	WB	381+39.40	381+64.09	RT	2.1 to 3.1	3.0	24.7		2.6	10.4	0.2	7.1			2.1	8.4					3.4	13.8	0.2	3.2					
WB US-30	WB	381+64.09	382+08.87	RT	3.1 to 1.3	3.0	44.8		4.0	8.9	0.2	10.9			3.1	7.0					6.2	13.8	0.4	5.6					
WB US-30	WB	382+08.87	382+71.29	RT	1.3	3.0	62.4		3.5	5.6	0.2	9.0			3.9	6.3					8.6	13.8	0.6	9.6					
WB US-30	WB	382+71.29	383+30.12	RT	1.3 to 3.6	3.0	58.8		5.8	9.8	0.3	16.0			4.9	8.2					8.1	13.8	0.6	18.1					
WB US-30	WB	383+30.12	383+41.58	RT	3.6	3.0	11.5		1.6	14.1	0.1	4.6			1.2	10.3					1.6	13.8	0.1	2.2					
WB US-30	WB	383+41.58	383+48.78	RT	1.6	3.0	7.2		0.5	6.7	0.0	1.3			0.6	8.4					1.0	13.8	0.1	1.4					
WB US-30	WB	382+27.75	382+57.64	LT	3.4 to 3.9	3.0	29.9		4.2	14.2	0.3	12.1			3.1	10.5					4.0	13.4	0.3	2.0					
WB US-30	WB	382+57.64	382+97.50	LT	3.9 to 3	3.0	39.9		5.4	13.4	0.3	15.3			3.3	8.4					5.3	13.4	0.4	2.4					
WB US-30	WB	382+97.50	383+30.09	LT	3 to 3.6	3.0	32.6		4.2	12.9	0.3	11.9			3.1	9.4					4.4	13.4	0.3	2.0					
WB US-30	WB	383+30.09	383+37.51	LT	1.6	3.0	7.4		0.5	6.7	0.0	1.3			0.6	8.1					1.0	13.4	0.1	0.4					
EB US-30	EB	380+43.72	380+70.99	LT	6.0		27.3		6.2	22.7	0.4	18.2			3.7	13.7							0.3						
EB US-30	EB	380+70.99	381+01.05	LT	9.2		30.1		10.3	34.4	0.6	30.8			5.1	17.1							0.3	1.6					
EB US-30	EB	381+01.05	381+40.90	LT	9.2 to 7.6		39.8		12.5	31.4	0.8	37.2			6.5	16.3							0.4	2.7					
EB US-30	EB	381+40.90	383+10.91	LT	7.6		170.0		48.6	28.6	2.9	144.0			26.4	15.6							1.7	23.8					
EB US-30	EB	380+81.07	381+08.48	RT	10.0		27.4		10.2	37.2	0.6	30.5			4.7	17.2							0.3	4.4					
EB US-30	EB	381+08.48	381+38.29	RT	13.2		29.8		5.8	19.4	0.3	43.8			5.8	19.4							0.3	3.9					
EB US-30	EB	381+38.29	381+78.40	RT	13.2 to 11.6		40.1		18.4	45.9	1.1	55.3			7.7	19.1							0.4	5.2					
EB US-30	EB	381+78.40	383+10.91	RT	11.6		132.5		57.1	43.1	3.4	170.8			24.7	18.6							1.3	13.3					
WB US-30	WB	395+12.52	396+14.97	LT	10.4		102.5		39.8	38.8	2.4	118.9			18.4	18.0							1.0	12.0					
EB US-30	EB	395+48.41	396+71.70	LT	6.0		123.3		28.0	22.7	1.7	82.2			16.8	13.6							1.2	15.3					
EB US-30	EB	395+48.41	396+71.70	RT	10.0		123.3		45.9	37.2	2.8	137.0			21.8	17.7							1.2	10.6					
WB US-30	WB	396+14.97	396+55.03	LT	10.4 to 12		40.1		16.6	41.5	1.0	49.9			7.4	18.5							0.4	5.4					
WB US-30	WB	396+55.03	396+85.10	LT	12.0		30.1		13.4	44.4	0.8	40.1			5.7	19.1							0.3	4.0					
WB US-30	WB	395+25.32	397+40.33	RT	7.6		215.0		61.5	28.6	3.7	182.2			33.4	15.6							2.2	34.2					
WB US-30	WB	397+40.33	397+80.18	RT	7.6 to 9.2		39.8		12.5	31.4	0.8	37.2			6.5	16.3							0.4	6.3					
WB US-30	WB	397+80.18	398+10.24	RT	9.2		30.1		10.6	35.1	0.6	30.8			5.1	17.1							0.3	4.7					
WB US-30	WB	250' WofKnapp	Knapp Rd.	LT	10.0	3.0	250.0	46.3	93.0	37.2	5.6	277.8									59.5	23.8	2.5			Note 2			
Notes:							Total	46.3				1728.0			256.6			405.0			35.7								
1. Temporary Shoulder for use when East Crossover is in use.																													
2. Begin shoulder at west return of Knapp Rd. and end shoulder 250' west of west return of Knapp Rd.																													

BRIDGE APPROACH SECTION

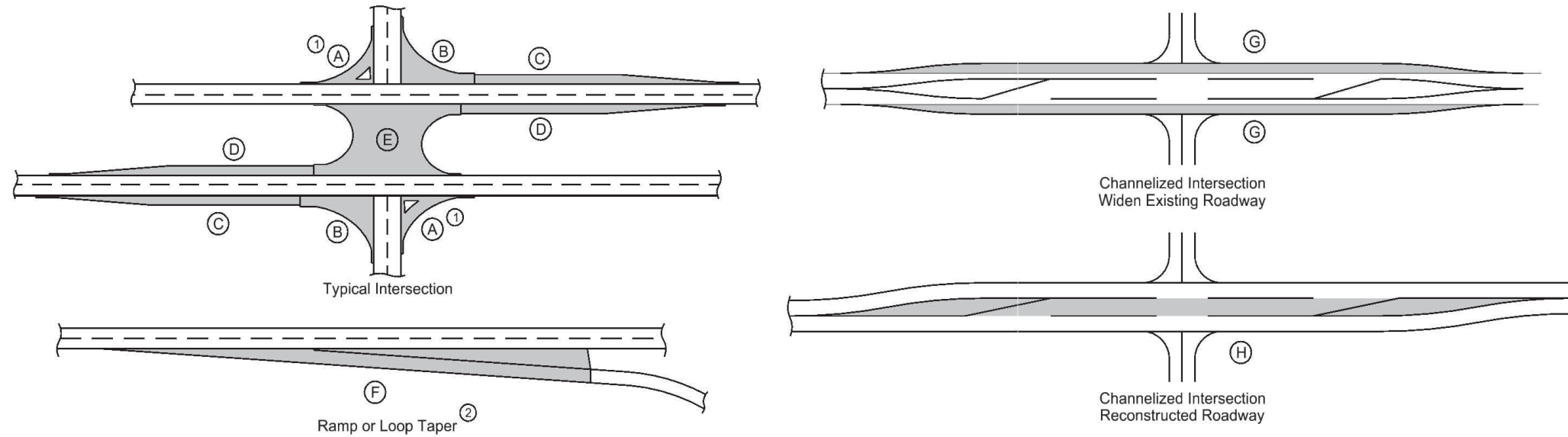
Refer to the BR Series.

* Not a bid item

Bridge Station		Location		Approach Pavement					Standard Road Plans BR Series			Subdrain						Remarks			
End	Skew Ahead	Degrees	T Thickness Inches	Pay Length FT	Non-Reinf. Pavement Area SY	Single-Reinf. Pavement Area SY	Double-Reinf. Pavement Area SY	Approach	Fixed or Movable Abutment	Abutting Pavement	Perforated Subdrain 4"	Subdrain Outlet		Porous Backfill CY	Class 'A' Crushed Stone Backfill CY	Modified Subbase TON	Polymer Grid SY		Special Backfill TON		
												Left	Right							STA	Side
												Left	Right							TON	SY
389+39.66	WEST		12.0	70.0	26.7	53.4	144.8	BR-203	Fixed	BR-211	47.3	383+10.91	RT	1.4	236.0	240.6					
389+49.82	EAST		12.0	70.0	26.7	53.4	144.8	BR-203	Fixed	BR-211	26.0	395+68.41	RT	0.8	236.0	245.0					
Subtotals					96.2	192.4	364.7														
Total Approach Area							653.3														

NOT FINAL PLANS

HMA PAVEMENT



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

Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 147, a base course unit weight (lbs/cf) of 145, and a special backfill unit weight (lbs/cf) of 140.

Location				Mainline			Area ③								Hot Mix Asphalt Pavement										Remarks												
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A ①	B	C	D	E	F ②	G	H	Bid Items						Pavement Scarification																
															Surface			Binder				Special Backfill	Modified Subbase	Granular Subbase													
		FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS				TONS	CY	SY	SY									
US-30	WB	375+23.43	375+42.18				15.3																				Note 1										
Total																																					
Note: 1. Replace existing raised island with 10" asphalt base during detour.																																					

NOT FINAL PLANS

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

- ① Lane(s) to which the obstacle is adjacent.
- ② Not a bid item. Incidental to guardrail installation.

No.	Direction of Traffic	Location		Layout Lengths					Long-Span System		Delineators and Object Markers ②						Bid Items								Remarks						
		Side	Station	Offset	BA-250, BA-260, LS-630, or LS-635				STATION	TYPE	SI-211	Delineator SI-172	Object Marker SI-173			Bolted End Anchor	Post Adapter	Steel Beam Guardrail	Barrier Transition Section	BA-250 or LS-630				BA-260 or LS-635							
					VT1	VF	VT2	ET					Type 1	Type 2	Type 3					End Terminal				Barrier Transition Section		End Terminal					
					BA-211								White	OM2-2	OM3-L					OM3-R	BA-202	BA-210	BA-200	BA-201		Tangent	Flared	Tangent	Flared	BA-221	BA-225
					FT	LF	LF	LF					LF	EACH	EACH					EACH	EACH	EACH	EACH	EACH		EACH	EACH	EACH	EACH	EACH	EACH
1	EB	O	383+55.91	22.6	178.125					3			1	1	A	1		137.5	1	1											
2	EB	M	383+55.91	18.6	215.625					3			1	1	A	1		175.0	1	1											
3	EB	M	383+48.78	18.8	78.125	62.50				3			1	1	A	1		100.0	1	1											
4	WB	O	383+37.51	22.8	40.625					3			1	1	A	1		0.0	1	1							Temporary				
5	WB	O	395+12.50	27.8	215.625					3			1	1	A	1		175.0	1	1							Temporary				
6	EB	M	395+25.32	18.8	103.125					3			1	1	A	1		62.5	1	1											
Total												6	6			6		650.0	6	6											

GRADING FOR GUARDRAIL INSTALLATIONS

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

Refer to EW-301

No.	Direction of Traffic	Location		Foreslope at Guardrail	Dimensions (Feet)								Earthwork		Remarks				
		Station	Side		X1	Y1	X2	Y2	X3	Y3	X4	Y4	Z	Excavation Class 10		Embankment In Place			
					CY	CY													
1	EB	383+55.91	RT										177.5	5.0	227.3	7.0	47.6		
2	EB	383+55.91	LT										215.0	5.0	264.8	7.0	47.4		
3	EB	383+48.78	RT										39.9	5.0	89.8	7.0	135.9		
4	WB	383+37.51	LT		77.5	5.0	140.0	7.5								189.4	11.5		Temporary
5	WB	395+12.50	LT										102.5	5.0	152.3	7.3	193.5		
6	EB	395+25.32	RT										215.0	5.0	264.8	7.0	308.4		

REMOVAL OF STEEL BEAM GUARDRAIL

- 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 ②
		Station to Station	LF		
Existing Guardrail on US-30					
1	EB	382+03.92	383+92.57	MED	356.4
2	EB	383+18.90	383+92.86	RT	75.3
3	WB	395+17.70	395+88.68	LT	71.7
4	WB	395+28.40	395+37.93	MED	292.3
Temporary Guardrail for EB US-30					
5	WB	381+59.00	383+48.78	MED	189.8
6	WB	382+47.00	383+37.50	LT	90.5
Total					1076.0

CULVERT ABANDONMENT

Refer to Details 4315 and 4316

* Not a bid item

Location Station	Description	Fill Material		4" Perforated Subdrain*	Remarks
		Flowable Mortar	Granular Backfill*		
		CY	TON		
377+40.00	4' x 5.5' RCB Cattle Pass	187.4	0.3	16.0	
Total		187.4			

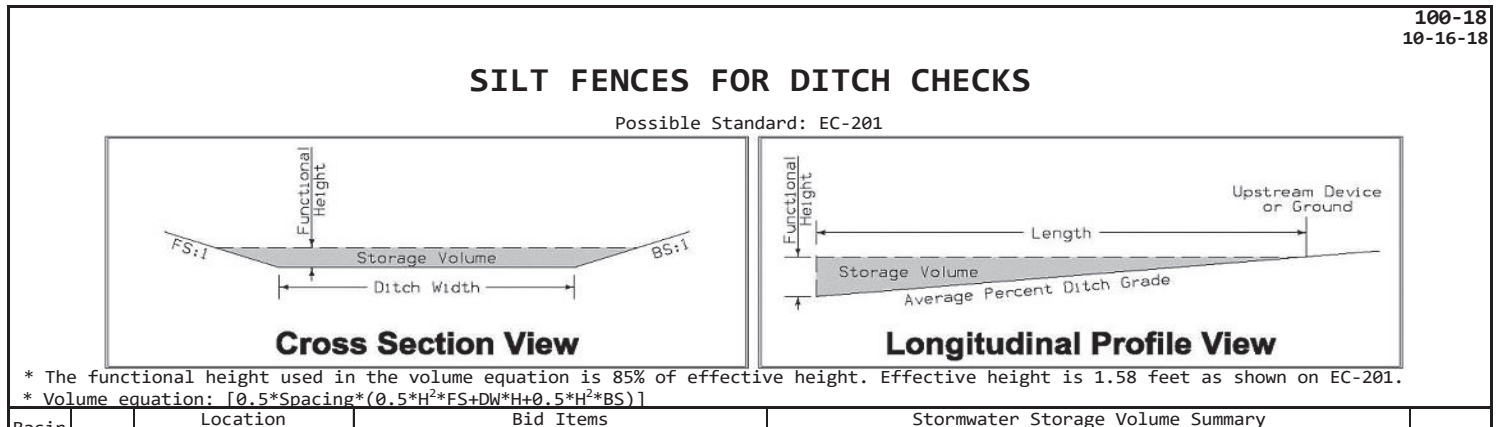
NOT FINAL PLANS

100-17
04-20-10

TABULATION OF SILT FENCES

Refer to EC-201

Location			Length	Remarks
Begin Station	End Station	Side	LF	



100-19
04-19-16

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Possible Standards: EC-204

Location			Length of Installation			Remarks
Begin Station	End Station	Side	9 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks	
		Station	Side	Installation LF	Maintenance LF	Removal LF	Foreslope FS:1	Backslope BS:1	Ditch Width FT	Avg. % Slope Ditch Grade	Volume* CF		

100-34
10-17-17

STORMWATER DRAINAGE BASIN AND STORAGE

Refer to EC Standards and 570s Details.
Summary of Stormwater Storage

Basin No.	Drainage Basin Location		Discharge Point	Total Disturbed Area	Disturbed Area with Storage Provided	Disturbed Area without Storage Provided	Best Management Practice	Total Storage Volume Provided	Total Storage Volume Required	Storage Volume Met?	Remarks
	Station to Station	Side									

232-3A
04-16-19

EROSION CONTROL (RURAL SEEDING)

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

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

NOT FINAL PLANS

112-8
04-15-14

MEDIAN CROSSOVERS

Refer to PV-500 Series.

* Not a bid item

Road Ident.	Location Station	Standard Road Plan	Detour Pavement	Special Backfill	Granular Shoulder	Embankment in Place	Class 10 Excavation	Class 13 Excavation	Removal of Pavement	Saw Cut*	24" Unclassified Roadway Pipe	36" CMP Slotted Drain/6" Grate	Beveled Pipe and Guard	Remarks
		No.	SY	TON	TON	CY	CY	CY	SY	LF	LF	LF	No.	
West Crossover	356+69.40	PV-513	1710.0	845.0	320.0				341.2	16.0	308.0		2	For Earthwork Quantities, see T Sheets (1)
East Crossover	403+35.83	PV-513	1710.0	845.0	320.0				461.3	16.0	208.0		1	
Total			3420.0	1690.0	640.0				802.5		516.0		3	

Notes: (1) Remove concrete pipe apron from existing pipe and install Circular Storm Sewer Manhole. Connect 24" Unclassified Roadway Pipe. Reinstall concrete pipe apron following removal of crossover.

100-28
10-19-10

LONGITUDINAL GROOVING

Location	Total SY	Remarks
West Approach	310.8	
Bridge	4667.1	
East Approach	285.7	
Total	5263.6	

104-3
10-17-17

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

Length of unclassified pipe calculated is based on using Corrugated Metal Pipe.
* Not a bid item

① Diameter or equivalent diameter
② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
③ Backfill according to DR-101

Drainage Area	Location	Type	Size ①	Kind Of Pipe ②	Length New Const. LF	Bedding Class	Design Cover (H) FT	Camber* (DR-102) FT	Apron No.	Apron Guard* (DR-213) No.	Elbow* (DR-141) No.	Diaphragm* (DR-501) No.	Tee Section* (DR-142) No.	"D" Section* (DR-141) No.	Reducer* No.	Type 'C' Connections* (DR-122) No.	Connected Pipe Joint* (DR-121) Type	4" Perforated Subdrain* FT	Flow Line Elevations				Dimensions Lin. Ft.				Skew Ahead Degrees		Dike			Class 20 CY	Flowable Mortar CY	Floodable* Backfill (A) CY	Porous* Backfill (B) CY	Flooded Backfill (A+B) CY	Remarks				
																			Lt.	Rt.	Other	Other	Total Lt.	Extensions Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.							Rt.	Lt.	Rt.	Location Station
ACRE			IN						IN	OUT									Lt.	Rt.	Other	Other	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.											
MED	373+96.44	1301	24"	RCP	9		2.0	0.08											729.92	735.10	734.41																			(1)	

Notes: (1) Remove and Reinstall Concrete Pipe Apron

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
353+25.00	1		
374+50.00	1		
376+50.00	1		
380+00.00		1	
398+00.00		1	
405+00.00	1		
Subtotals	4	2	
Total	6		

104-8A
10-17-17

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

Refer to Standard Road Plan DR-401 and DR-402

Bridge Station	Bridge Corner	Distance DI-1 or DI-2 FT	Bid Items			PCC Paved Shoulder			Scour Protection (DR-401)			Rock Flume (DR-402)			Remarks																										
			PCC Paved Shoulder SY	Bridge End Drain TYPE	Panels Required A B C or D	Polymer Grid SY	Modified Subbase TONS	Special Ditch Control, Wood Excelsior Mat SQ	Turf Reinforced Mat (TRM), Type 2 SQ	Transition Mat EC-105 SF	Macadam Stone Base TONS	Engineering Fabric SY	Erosion Stone TONS																												
														FT		SY	TYPE	A B C or D	SY	TONS	EC-101 SQ	EC-104 SQ	EC-105 SF	TONS	SY	TONS															
389+49.82	NW	36.7	33.9	DR-402	D	42.8	44.5																																		
389+49.82	SW	36.7	51.7	DR-402	C	60.6	63.0																																		
389+49.82	NE	16.7	17.0	DR-402	B	21.4	22.3																																		
389+49.82	SE	16.7	25.9	DR-402	A	30.2	31.5																																		
387+82.00	NE	35.9	51.1	DR-402	B	60.9	63.3																																		Ex. bridge
Total			179.6	5																																					

252-1
10-16-12

TEMPORARY CROSSINGS AND DETOURS

Blading, shaping, and other work in preparation for maintaining temporary crossings or detours is incidental to other work. Furnish and spread additional granular surfacing needed for temporary crossings or detours during construction at the contract price.

100-23
04-17-18

ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

Road Identification	Begin Station	End Station	Side	L W	Rock Erosion Control (REC)					Material Bid Quantities			Remarks																														
					Type 1	Type 2	Type 3	Type 4	Type 5	Eng. Fabric SY	Class E Revetment TON	Erosion Stone TON																															
														Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection																									
EB US-30	383+17.16	384+25.60	LT	108.44	16																																						
Total																																											

NOT FINAL PLANS

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	
WB US-30						
367+76.00	374+71.00	RT	Asphalt	308.9	695.0	
375+23.61	375+42.18	LT	Concrete	15.3	51.0	Island
375+65.00	379+00.00	LT	Asphalt	372.2	335.0	
379+00.00	383+30.00	LT	Asphalt	238.9	430.0	
379+06.00	383+42.00	RT	Asphalt	145.3	436.0	
395+12.00	396+85.00	LT	Asphalt	192.2	172.0	
395+25.00	398+10.00	RT	Asphalt	126.7	285.0	Remove for temporary pavement placement
EB US-30						
380+43.00	382+42.82	LT	Asphalt	88.8	200.0	
380+81.00	382+42.82	RT	Asphalt	107.9	162.0	
382+42.82	383+97.91	LT & RT	Asphalt	568.7	24.0	
395+33.47	395+76.00	LT & RT	Asphalt	137.0		
395+76.00	396+71.70	LT & RT	Asphalt	361.5	24.0	
West Crossover						
395+31.62	397+59.34	RT	Asphalt	151.8		Temporary pavement
+00.00	14+65.03	LT	Asphalt	1754.9	710.0	
East Crossover						
+00.00	10+98.30	RT	Asphalt	1091.7	683.0	
			Total	5510.0		

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
4+11.81, East Crossover	circular storm sewer manhole	Remove manhole when crossover is removed

108-35
04-17-12

TEMPORARY LANE SEPARATOR SYSTEM

Station to Station		Length	Remarks
		LF	
360+43.43	401+21.81	4078	

110-13
04-20-10

DELIVERY AND STOCKPILING

Item Description	Quantity	Units	Delivery Location	Contact Name & Number	Remarks
Temporary Guardrail on west side of WB US-30 bridge	280.3	LF	Maintenance Garage		salvage

NOT FINAL PLANS

102-5
04-18-17

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks		
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type		Durability Class	Type
	Linn	US 30	East	253.66	259.33	2019		NHSX-030-7(197)--3H-57	HMA	1					MIL	1	Cedar Rapids	C. Lst.					
						1994		NHS-30-7(90)--19-57	HMA	2	HMA	3					Cedar Rapids	C. Lst.					
						1979		FN-30-7(54)--21-57	HMA	2							Cedar Rapids	C. Lst.					
						1965		FN-887	HMA	1.5	HMA	1.5						Cedar Rapids	C. Lst.				
						1953		F-887(2)	PCC	9.5							Cedar Rapids	Gravel	2				
	Linn	US 30	East	259.33	262.6	2019		NHSX-030-7(197)--3H-57	HMA	1					MIL	1	Cedar Rapids	C. Lst.					
						1994		NHS-30-7(90)--19-57	HMA	2	HMA	2			MIL	1	Cedar Rapids	C. Lst.					
						1984		FN-30-7(69)--2G-57	HMA	1	HMA	1					Onion Grove	C. Lst.					
						1965		FN-887	HMA	1.5	HMA	1.5						Cedar Rapids	C. Lst.				
						1953		F-887(2)	PCC	9.5							Cedar Rapids	Gravel	2				
	Linn	US 30	West	253.55	259.33	2019		NHSX-030-7(197)--3H-57	HMA	2					MIL	2	Cedar Rapids	C. Lst.					
						1996		NHSN-30-7(102)--2R-57	HMA	2	HMA	3					Cedar Rapids	C. Lst.					
						1976		RF-30-7(1)--35-57	PCC	9	PCB	4					Cedar Rapids	Dolom.	3I	& RF-30-7(8)			
	Linn	US 30	West	259.33	259.82	2019		NHSX-030-7(197)--3H-57	HMA	2					MIL	2	Onion Grove	C. Lst.					
						1984		FR-30-7(69)--2G-57	HMA	1	HMA	1						Cedar Rapids	C. Lst.				
						1965		FN-887	HMA	1.5	HMA	1.5						Cedar Rapids	C. Lst.				
						1953		F-887(2)	PCC	9.5							Cedar Rapids	Gravel	2				

PAVEMENT MARKING LINE TYPES

See PM-110

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

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

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

BCY4: Broken Centerline (Yellow) @ 0.25
ELY4: Edge Line Left (Yellow) @ 1.00

DCY4: Double Centerline (Yellow) @ 2.00

NPY4: No Passing Zone Line (Yellow) @ 1.25

BLW4: Broken Lane Line (White) @ 0.25

ELW4: Edge Line Right (White) @ 1.00

Location			Length by Line Type (Unfactored)																	Remarks				
Road ID	Station to Station	Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4												
				L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA		

NOT FINAL PLANS

SIGNING NOTES

The following tolerances will be allowed on all signs:

Accumulation error of not greater than +/-0.50" per line of copy, not greater than +/-0.50" for spacing between lines of copy, and the margin between lines of copy and the inside edge of the sign border.

The following tolerances will be allowed on each letter or numeral:

nominal height	variation in height	variation in width
4" thru 12"	-1/8" to +3/8"	-1/4" to +1/4"
over 12"	-1/8" to +3/8"	-3/8" to +3/8"

Type B signs can be separated into two categories:

- Major Guide Signs.
- Minor Guide Signs.

Major Guide Signs include the advance and exit direction guide signs for an interchange or intersection.

Minor Guide Signs include all other guide signs such as NEXT EXIT signs, supplemental guide signs, logo signs, exit gore signs, post-interchange mileage signs, ramp destination signs, and ramp logo signs for an interchange, as well as destination signs along sideroads.

Type A signs are not separated into categories, but special consideration should be given to regulatory signs.

Do not remove Type B signs until replacement signs have been installed. If construction activities require the removal of a sign, the existing sign may be relocated to temporary posts, or a temporary plywood sign may be installed to replace the existing sign.

Existing non-regulatory Type A signs are NOT required to remain in place until installation of replacement signs. Existing regulatory Type A signs, particularly Stop signs, should not be removed until replacement signs are installed. This guideline may not apply if the traffic control plans have sufficient temporary signing.

Apply the following during the replacement or modification of signs:

- No more than one of the major guide signs for each direction of travel at an interchange out of service at any one time.
- No major guide sign out of service for more than 8 hours.
- No minor guide out of service for more than 24 hours.

Remove existing signs and posts within 24 hours following the installation of a new replacement sign.

In any case where the plans call for a new sign and posts to be installed at the same station location and offset as an existing sign, install the new posts at a minimum of either 5 ft ahead or behind the existing sign installation. Whenever posts for a replacement sign are erected directly in front of an existing sign, install the new replacement sign and remove the existing sign installation within 24 hours of the time that the new posts are erected.

Where signs are located behind guardrail, locate the near edge of the sign a minimum of 3 ft behind the guardrail posts. The Engineer may approve reducing this distance to a minimum of 1 ft where field conditions warrant.

Unless noted otherwise, leave auxiliary panels, such as exit number panels, in place or reattach to the sign using the existing mounting hardware. Also, when replacing an existing logo sign with a new logo sign, remove the business logo panel(s) from the existing sign and attach to the new sign as directed by the Engineer. Do not damage the auxiliary or logo panels when removing and reattaching them. This work is incidental to other work and no separate payment will be made.

The following notes apply to the corresponding sign installations

SIGNING NOTES

shown on the plan sheets and listed in the tabulations.

- IB INSTALL NEW TYPE B SIGN
- IA INSTALL NEW TYPE A SIGN

Install new signs at the location identified in the plans.

For installation of new signs on existing posts:

- if the new sign is taller than the existing sign, furnish the necessary hardware to extend the sign above the posts. Refer to Standard Road Plan SI-132.
- if the new sign is shorter than the existing sign:
 - for wood posts and perforated square tube posts, install the sign at the proper height and cut off the excess post length.
 - for steel posts, install the sign at the top of the posts.

For installation of new signs on an existing sign support structure, refer to note (L).

Payment for installing Type A signs or Type B signs includes furnishing hardware for mounting, extending signs above existing posts, and cutting off wood posts.

- MS MODIFY EXISTING SIGN

Modify the copy on the existing sign as shown in the plans.

Deliver existing copy which is removed to a DOT storage area within 50 mi, as designated by the Engineer.

Install the new copy as needed to make sign modifications.

Payment for Modification of Existing Sign includes removal of existing copy and installation of new copy.

- MB INSTALL SPECIAL MOUNTING BRACKET

Install special mounting brackets at the locations identified in the plans. Refer to Tabulations 190-10, 190-51, and/or 190-65.

- PW INSTALL NEW WOOD POSTS
- PB INSTALL NEW BREAKAWAY STEEL POSTS AND FOOTING
- PP INSTALL NEW PERFORATED SQUARE TUBE POSTS AND ANCHORS

Install new wood posts, breakaway steel posts and footings, or perforated square tube posts and anchors at the locations indicated in the plans. Refer to Tabulations 190-51 and 190-50 for post size and footing information.

If note (RR) accompanies (PW), (PB), or (PP), install an existing sign on the new posts.

- RR REMOVE AND REINSTALL SIGN:

Do not remove existing major Type B guide signs on posts until the new posts are installed. Promptly remove sign and install at the new location.

Existing major Type B guide signs on overhead support structures, minor Type B guide signs, plywood signs, and Type A signs may be removed and stored. Transport the signs to a DOT storage area within 50 mi, as designated by the Engineer. Transport the signs back to the job site when ready for installation at the new location.

Replace signs damaged by the Contractor's activities at no additional cost to the Contracting Authority.

Payment for Remove and Reinstall Sign includes sign removal, delivery to the DOT storage area (if applicable), and reinstallation.

- RA REMOVE TYPE A SIGN ASSEMBLY
- RB REMOVE TYPE B SIGN ASSEMBLY

Type A Sign Assembly consists of one or more signs installed on one or more wood posts, either directly mounted to the post or mounted to the post with special sign mounting brackets.

Type B Sign Assembly consists of the main sign, all auxiliary

SIGNING NOTES

signs and brackets, and the wood or steel posts.

Unless stated otherwise in the plans, remove all posts with the signs and brackets.

Remove each sign assembly identified in the plans. Sign posts removed become the property of the Contractor. All other materials removed remain the property of the DOT.

Disassemble each sign assembly removed before delivering to the DOT. For Type A sign assemblies, unbolt all signs, special mounting brackets, and posts from each other. For Type B assemblies, unbolt all extruded aluminum panels, brackets, and posts from each other. Do not damage the disassembled materials.

Place backfill in holes remaining from the removal of wood posts and restore to the normal surrounding conditions.

Deliver the removed signs, special sign mounting brackets, and extruded aluminum panels to a DOT storage area within 50 mi, as designated by the Engineer.

The concrete footings for steel posts are not considered part of the sign assembly. Refer to note RF for concrete footing removal.

Payment for Removal of Type A Sign Assembly or Removal of Type B Sign Assembly includes sign assembly removal and disassembly, post removal (if applicable), delivery to the DOT storage area, placing backfill in holes, and restoration of the surrounding conditions.

- RF REMOVE EXISTING CONCRETE FOOTING FOR STEEL POST

Remove existing concrete footings to a depth of 1 ft below ground. Place backfill in holes remaining from removal and restore to the normal surrounding conditions. This work is incidental to other work and no separate payment will be made.

- RS REMOVE EXISTING TYPE B SIGN SUPPORT STRUCTURE

The following are considered Type B Sign Support Structures:

- Overhead sign truss and foundation,
- Cantilevered sign truss and foundation, or
- Bridge mounted brackets.

For removal purposes, wood and steel post are not considered Type B Support Structures.

Unless stated otherwise in the plans, existing overhead trusses, cantilevered trusses, and bridge brackets which are removed become the property of the Contractor. If stated in the plans, deliver overhead trusses, cantilevered trusses, and bridge brackets to a DOT storage area within 50 mi, as designated by the Engineer.

Payment for Removal of Sign Support Structure and Foundation includes sign support structure removal, delivery to the DOT storage area (if applicable), and restoration of the surrounding conditions.

- L MODIFY SIGN SUPPORT ANGLES NEEDED TO INSTALL SIGNS ON EXISTING SIGN SUPPORTS STRUCTURES

Refer to the sign support structure details for information on the required angle brackets.

Provided all specifications are met, the existing sign support angles may be reused. Install existing sign support angles to be reused only on the sign support structure from which they were removed.

Sign support angles removed and not reused become the property of the Contractor.

When reusing the existing sign support angles with a shorter replacement sign, the sign support angles may need to be trimmed. Refer to the sign support details to determine if and where to trim the sign support angles.

Do not use existing fasteners. Use new stainless steel bolts and nuts to install the existing or new sign support angles to the sign support structure.

Removal of existing sign support angles is incidental to removal of the sign.

SIGNING NOTES

Reinstalling and/or modifying existing sign support angles; furnishing and installing new sign support angles (if required); and furnishing and installing new fasteners is incidental to work associated with Type B signs.

SIGN INSTALLATION QUALITY CONTROL NOTES

Post lengths have been derived from the proposed grading cross sections. Field verify post lengths.

Slight differences between the design template and the actual conditions should be expected. These variations should be resolved by doing some localized shaping and grading. Obtain material needed to meet the site requirements of SI-113 from the footing excavation and/or the area immediately adjacent to the footing. Ensure reshaping work does not substantially change foreslopes or the drainage in the vicinity of the sign.

Significant differences between the design template and the actual field conditions need to be resolved in this manner:

Survey the location and draw the actual template on the cross section. Recalculate each post length and compare to the maximum allowable leg length. If all of the maximum leg lengths are less than or equal to the maximum allowable leg length, then the proposed post design will be sufficient. If any leg is greater than the maximum allowable leg length, then submit the cross section with the actual template drawn (including offsets and elevation from the survey shown) to the Engineer. The Engineer may forward this information on to the design Engineer in order to complete a new post design.


Install the footings, stub posts, and posts according to the following tolerances:

- elevation difference from the edge of pavement to the bottom of the sign within 6 inches of the dimension shown.
- elevation difference of less than 2 inches between the top of the highest post and the lowest post at a site.

Footing construction is the controlling activity that substantially affects the quality of the site installation. Verify the elevation difference between the stubs is exactly the same as the elevation difference between the post lengths. If the Engineer requests, submit documentation detailing the site field shots in order to verify site installation.



SURVEY SYMBOLS

-  U.S. Highway Symbol
-  Iowa Highway Symbol
-  Evergreen Tree
-  Deciduous Tree
-  Timber
-  Stump
-  Swamp
-  Revetment (Rip Rap)
-  Wire Fence
-  Earth Dam or Dike (Existing)
-  Tile Outlet
-  Edge of Water
-  Existing Drainage
-  Luminaire
-  TVP Television Pedestal
-  Power Pole
-  Power Riser Pole
-  Electrical Highline Tower (Metal or Concrete)
-  Existing Fiber Optics Telephone Line
-  Existing Power Line
-  Fiber Optic Hand Hole

UTILITY OWNERS

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SOUTH SLOPE COOPERATIVE TELEPH
 Brian Frese
 319-227-7111
 brian@southslope.com

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.		
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.	
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
-  Rock Flume

RIGHT-OF-WAY LEGEND

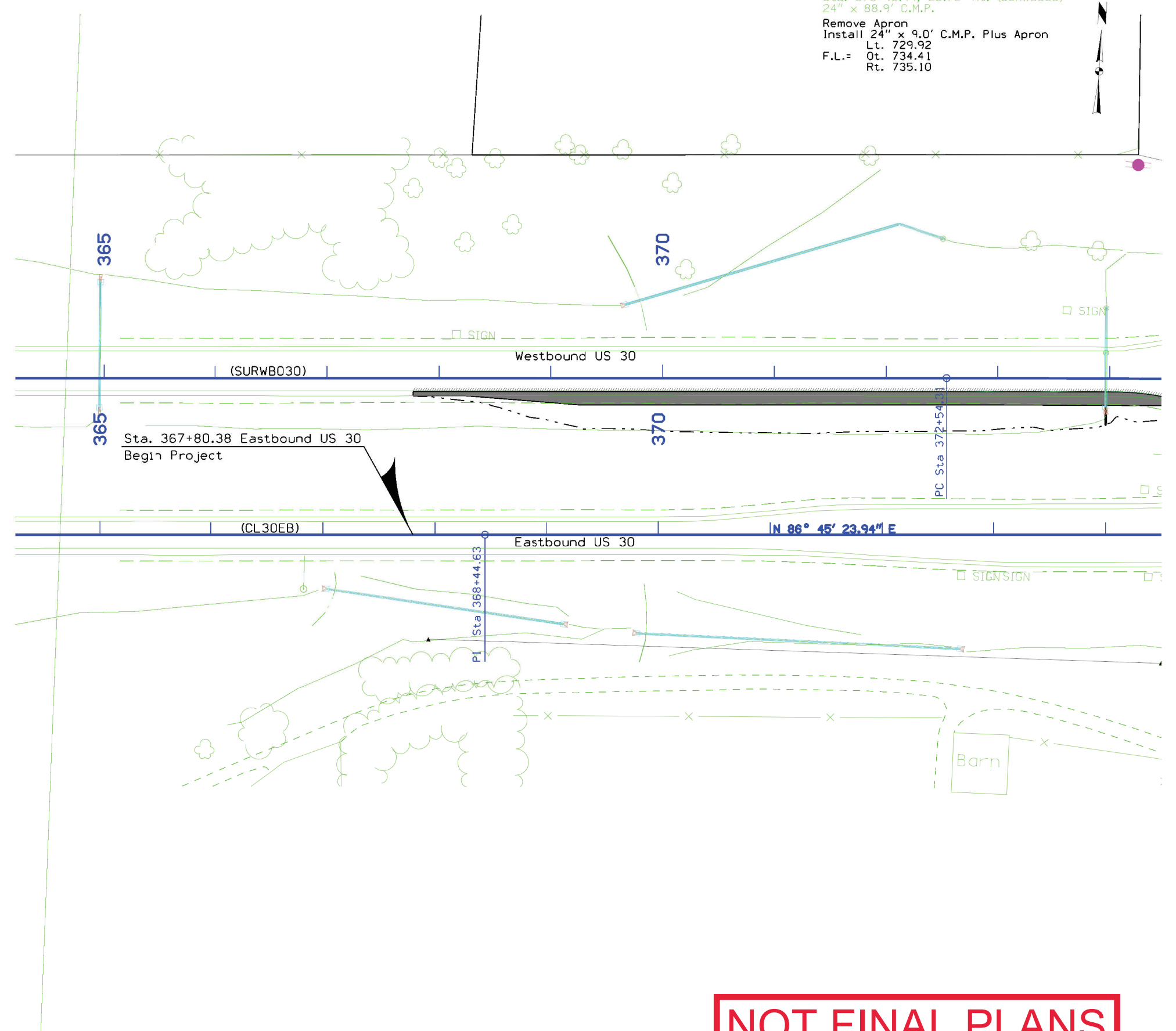
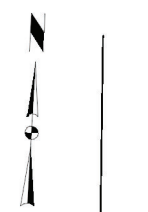
-  Proposed Right-of-Way
-  Existing Right of Way
-  Existing and Proposed Right-of-Way
-  Easement and Existing Right-of-Way
-  Easement (Temporary)
-  Easement
-  Access Control
-  Property Line

NOT FINAL PLANS

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

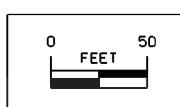
(COVERS SHEET SERIES D, E, F, & K)

Sta. 373+96.44, 25.72' Rt. (SURWB030)
 24" x 88.9' C.M.P.
 Remove Apron
 Install 24" x 9.0' C.M.P. Plus Apron
 Lt. 729.92
 Ot. 734.41
 Rt. 735.10



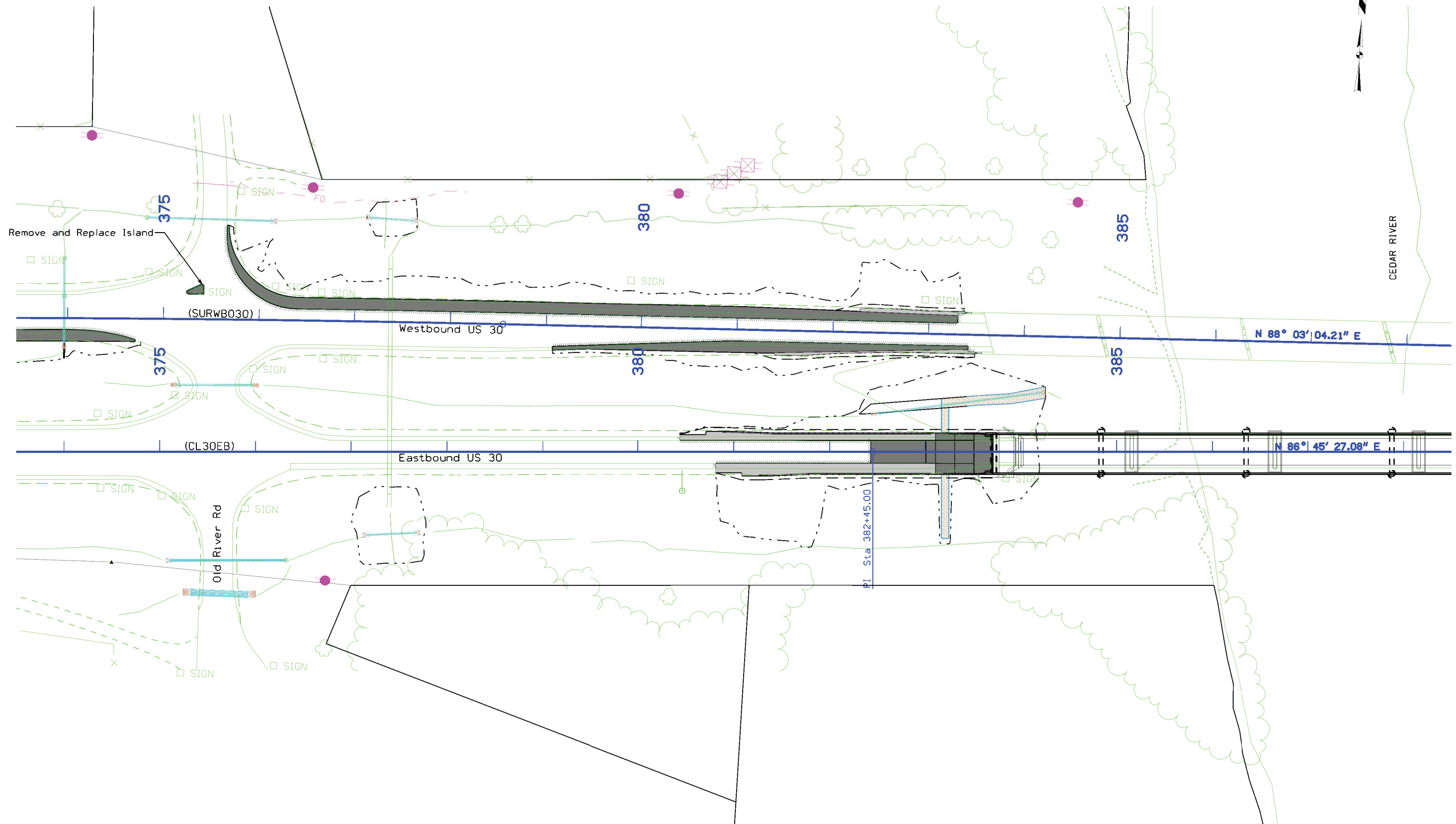
Sta. 367+80.38 Eastbound US 30
 Begin Project

NOT FINAL PLANS



(ABANDON)
Sta. 377+40 CL30EB
4' x 5.5' x 234' R.C.B. (Cattle Pass)

(REMOVE)
Sta. 377+42, 243.46' Lt. CL30EB
24" x 46.43' C.M.P.



(SURWB030)

Westbound US 30

N 88° 03' 04.21" E

(CL30EB)

Eastbound US 30

N 86° 45' 27.08" E

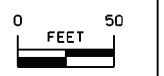
Old River Rd

PI Sta 382+45.00

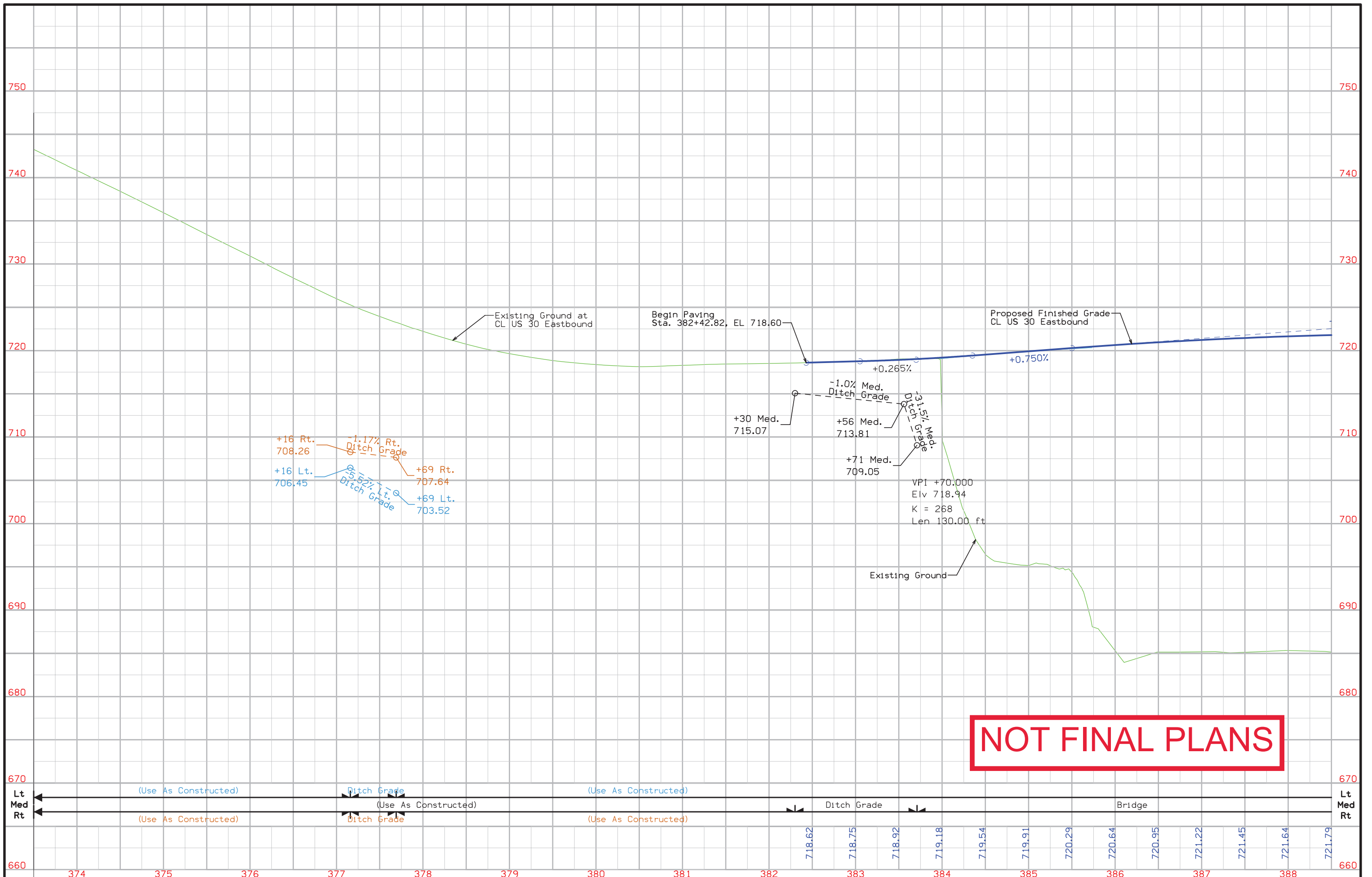
NOT FINAL PLANS

(REMOVE)
Sta. 377+42, 86' Rt. CL30EB
Remove 24" x 52.21' C.M.P.
with Aprons

(REMOVE)
Sta. 382+50, 40.0' Lt. CL30EB
Remove 24" x 172' C.M.P.
with Aprons

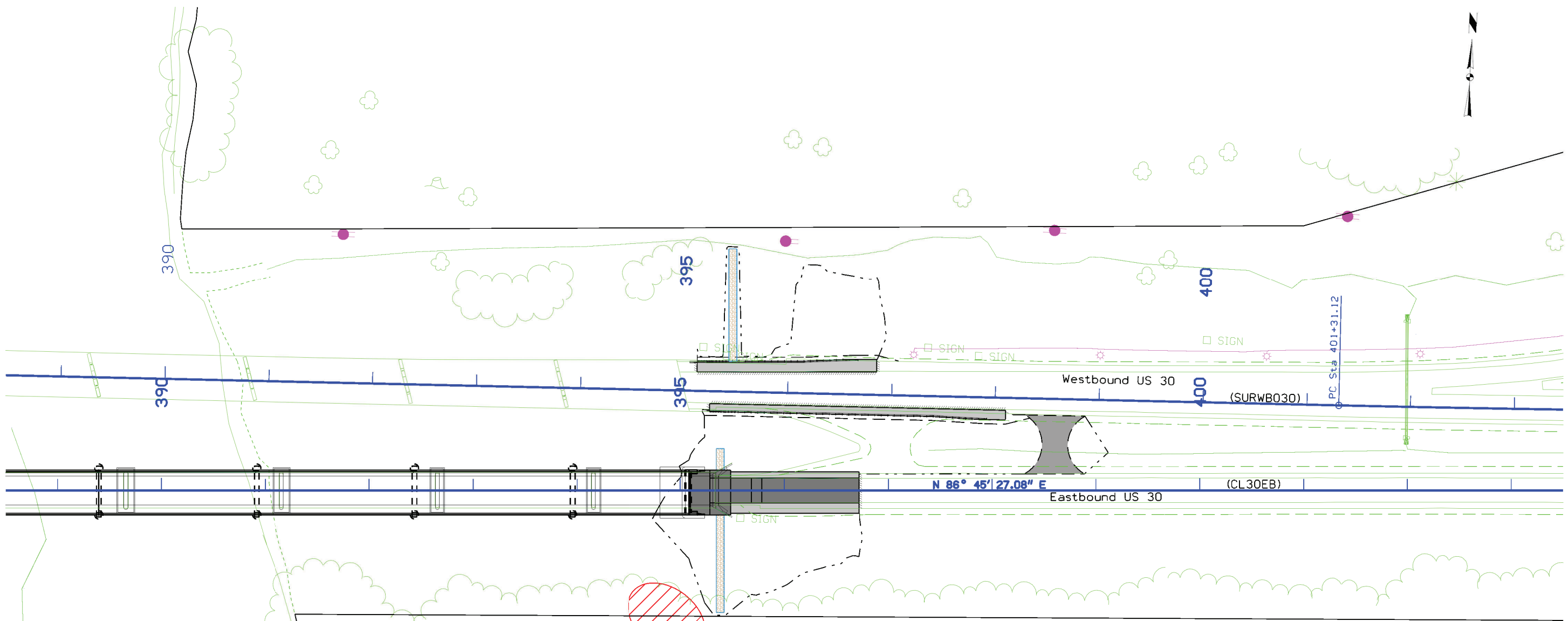


For Bridge Replacement Details,
Refer to Bridge Sheets

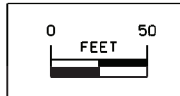


NOT FINAL PLANS

(U.A.C.)
 Sta. 387+82 SURWB030
 1,134.0' X 40' Continuous
 Welded Girder Bridge



(REMOVE)
 Sta. 389+65.66 CL30EB
 1,134' X 28' Continuous
 Deck Girder Bridge
 Sta. 389+49.82 CL30EB
 1,134' X 40'
 Prestressed Pretensioned
 Concrete Bridge

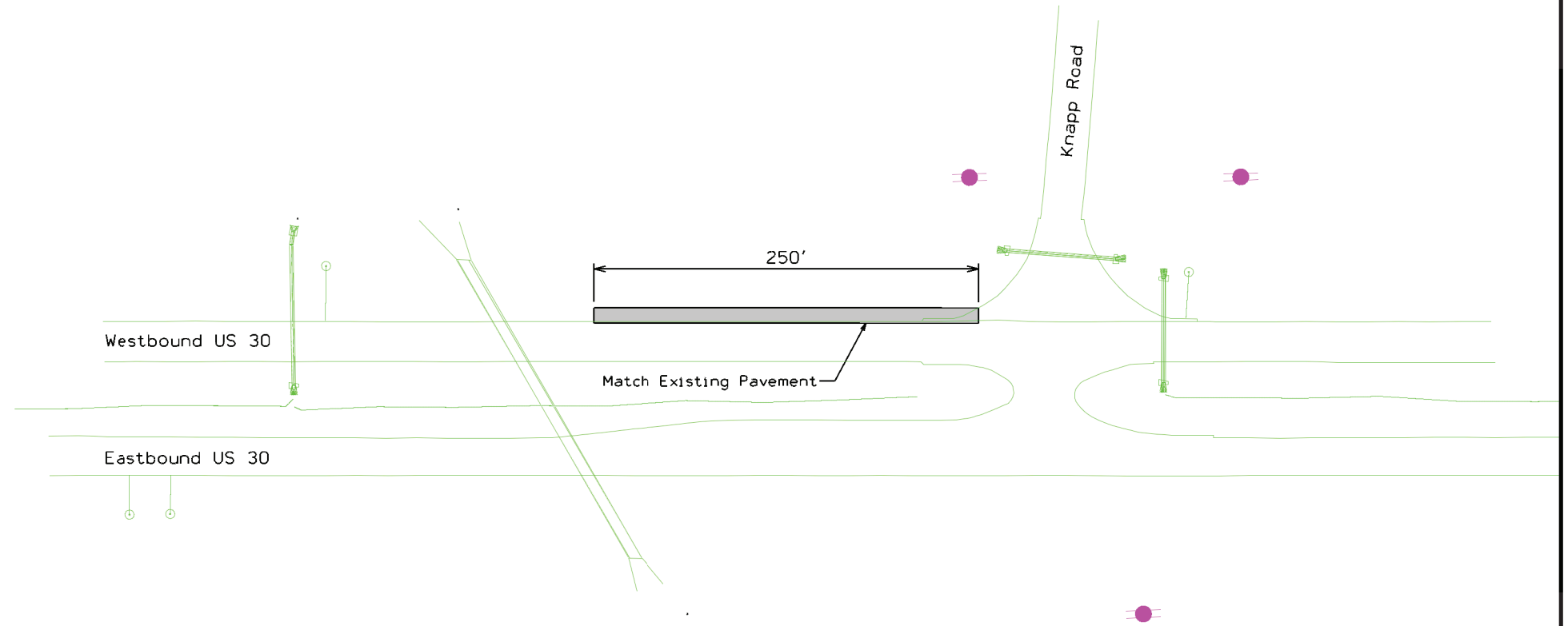


Sta. 398+60.14 CL30EB
 Maintenance Turnaround

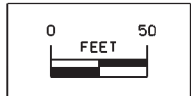
NOT FINAL PLANS

For Bridge Replacement Details,
 Refer to Bridge Sheets

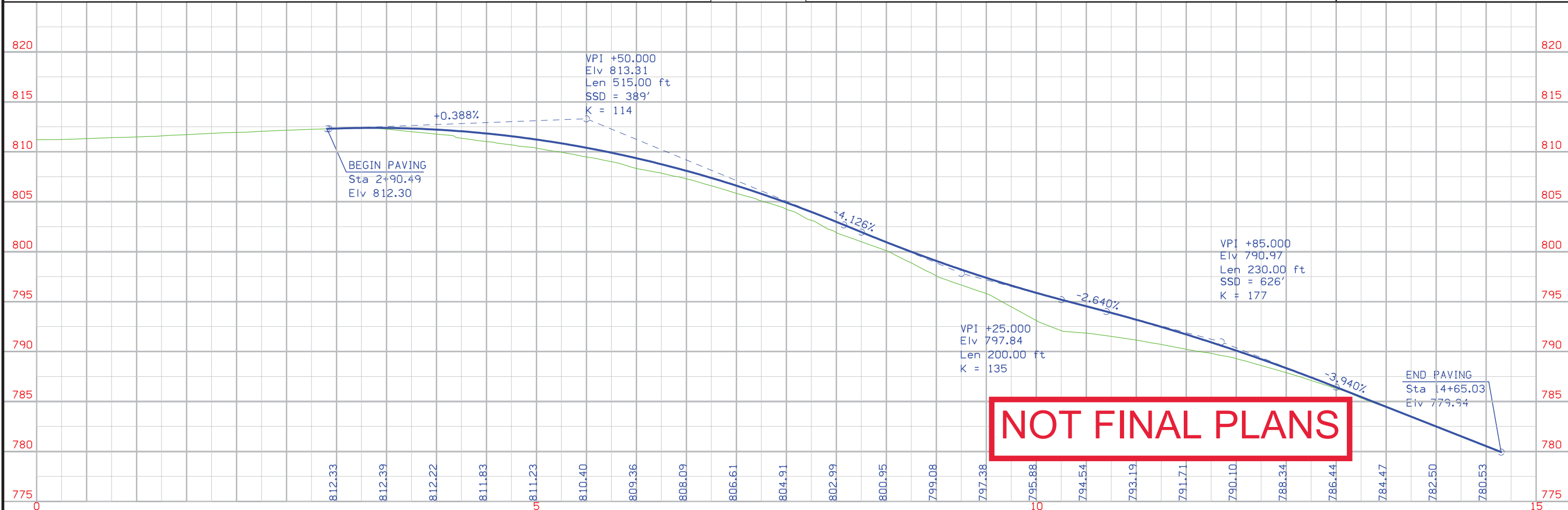
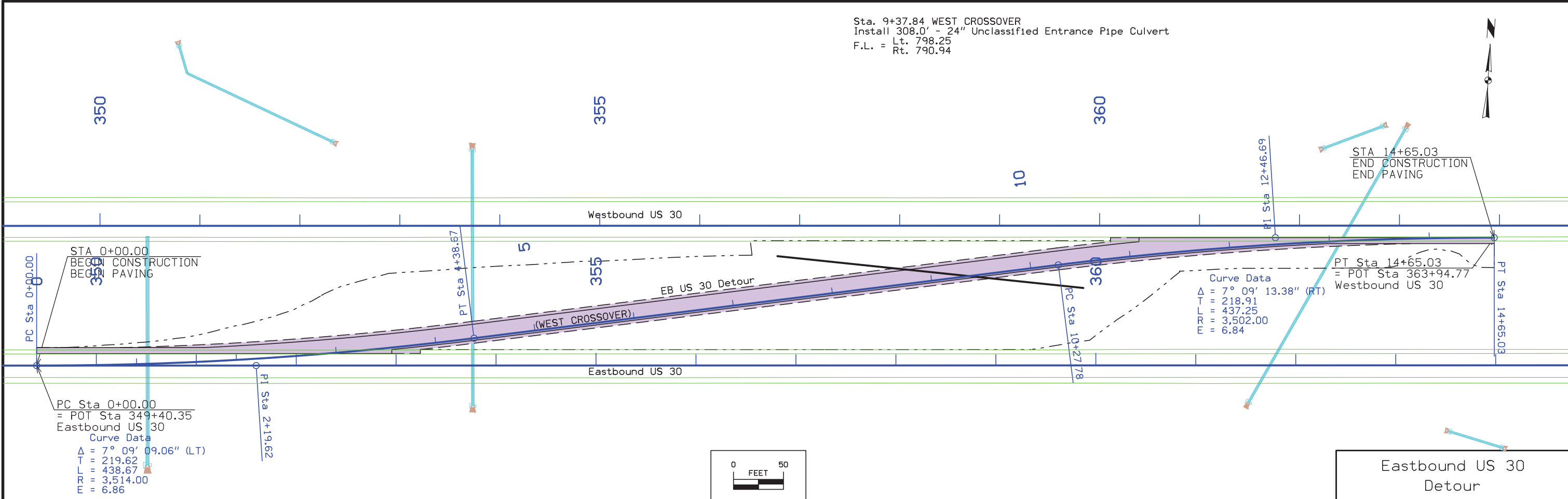




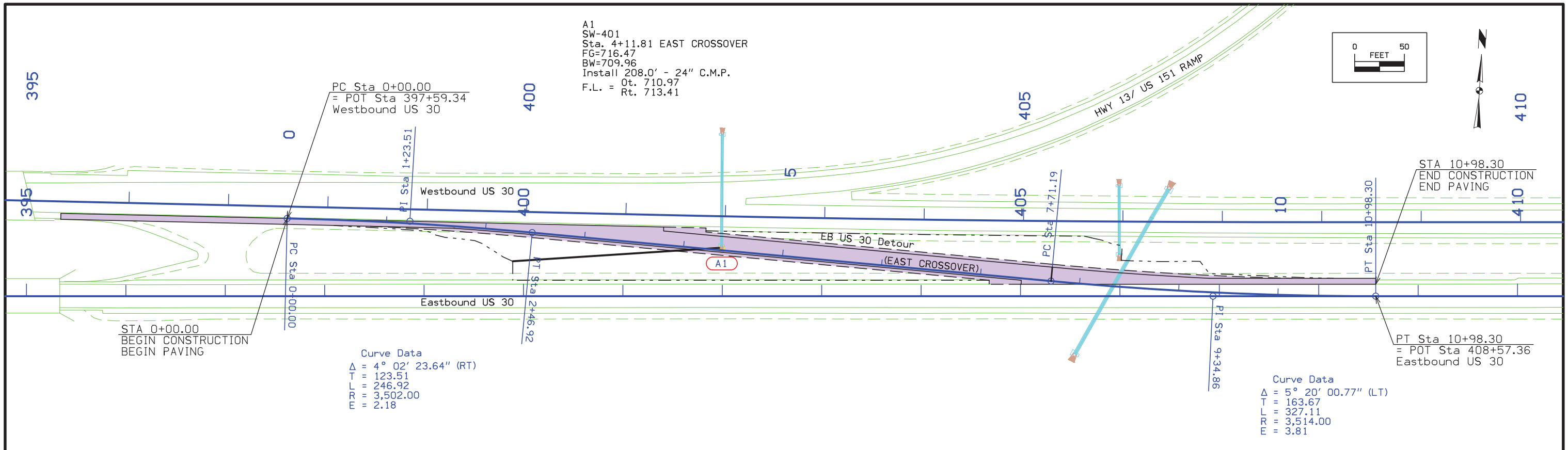
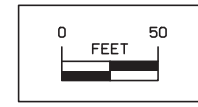
NOT FINAL PLANS



Sta. 9+37.84 WEST CROSSOVER
 Install 308.0' - 24" Unclassified Entrance Pipe Culvert
 F.L. = Lt. 798.25
 Rt. 790.94



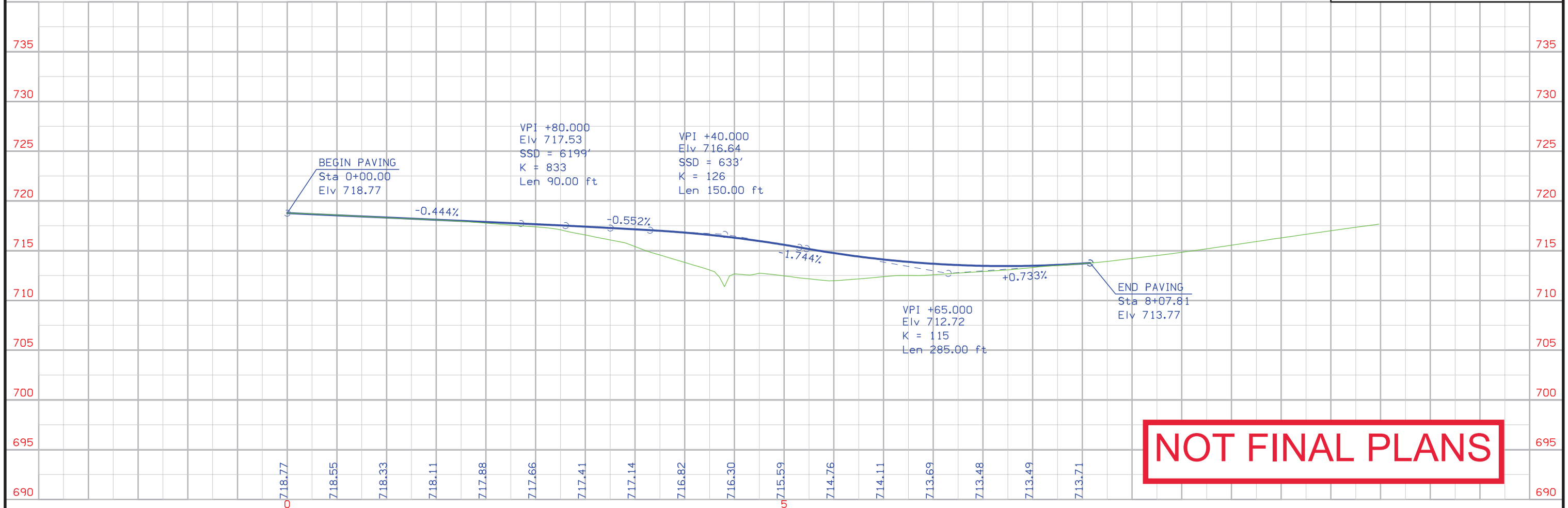
A1
 SW-401
 Sta. 4+11.81 EAST CROSSOVER
 FG=716.47
 BW=709.96
 Install 208.0' - 24" C.M.P.
 F.L. = Ot. 710.97
 F.L. = Rt. 713.41



Curve Data
 $\Delta = 4^\circ 02' 23.64''$ (RT)
 T = 123.51
 L = 246.92
 R = 3,502.00
 E = 2.18

Curve Data
 $\Delta = 5^\circ 20' 00.77''$ (LT)
 T = 163.67
 L = 327.11
 R = 3,514.00
 E = 3.81

Eastbound US 30
 Detour



NOT FINAL PLANS

Survey Information

2017-07-20
 BRF-030-7(182)--38-57
 NAD83(2011) (EPOCH2010.00)
 IaRTN 2013 Adjustment
 IaRCS ZONE 10 US Feet
 NAVD88 (Computed using Geoid12B)
 Design Survey Office

Vertical Control

Point	North	East	Elevation	Description
321,	8033630.679,	20530416.940,	722.659,	FENO SET FENO MONUMENT
322,	8034138.474,	20533527.240,	726.916,	FENO SET FENO MONUMENT
323,	8034183.720,	20533960.030,	741.934,	CP 1/2 INCH REBAR ENCASED IN CONC MONU LEANING EAST
324,	8033702.091,	20538443.200,	717.637,	FENO SET FENO MONUMENT

Project Summary

Linn County BRF-030-7(182)--38-57 Cedar River 0.5 mi W of E Jct US 151 (EB) Project name: US 30 static.ttp
 Surveyor: Jonathan Miranda
 Comment: GPS network adjustment Marion Iartn position was held fixed for the network solution.
 Linear unit: USFeet Projection: IaRCS Zone 10 Geoid: g2012bu3 Adjustment Summary

Adjustment type: Plane + Height, Minimal constraint Confidence level: 95 %
 Number of adjusted points: 9 Number of plane control points: 1 Number of used GPS vectors: 63
 Number of rejected GPS vectors by plane: 2
 A posteriori plane UWE: 0.9543276 , Bounds: (0.865455 , 1.134309) Number of height control points: 1
 A posteriori height UWE: 0.8752673 , Bounds: (0.8134049 , 1.186162)

GPS Observation Residuals

Name dN (USft)

CP321-CP323 553.038 dE (USft)
 3543.087 dHt (USft) Horz RMS (USft) Vert RMS (USft)
 19.243 0.002 0.004
 CP321-IAAN65125.999 80836.896 132.234 0.035 0.061
 CP321-IACI -78363.237 -14734.374 112.928 0.027 0.047
 CP321-IAIN 189055.811 -88973.254 276.379 0.064 0.106
 CP321-IAMN 38169.575 1616.461 138.294 0.013 0.023
 CP321-IATA 16363.624 -271029.229 198.638 0.073 0.122
 CP322-CP323 45.248 432.797 15.015 0.002 0.003
 CP322-IAAN64618.177 77726.603 127.900 0.037 0.057
 CP322-IACI -78871.035 -17844.651 108.846 0.028 0.047
 CP322-IAIN 188548.001 -92083.528 271.988 0.067 0.105
 CP322-IAMN 37661.744 -1493.839 134.042 0.014 0.022
 CP322-IATA 15855.799 -274139.498 194.504 0.076 0.121

CP323-CP324 -481.629 4483.174 -24.343 0.003 0.004
 CP323-IAAN64572.931 77293.854 112.937 0.036 0.058
 CP323-IAAN64572.925 77293.802 112.888 0.035 0.058
 CP323-IAAN64572.964 77293.803 113.011 0.034 0.059
 CP323-IACI -78916.273 -18277.461 93.695 0.028 0.047
 CP323-IACI -78916.287 -18277.447 93.833 0.028 0.047
 CP323-IACI -78916.286 -18277.389 93.867 0.029 0.047
 CP323-IAIN 188502.797 -92516.330 257.129 0.064 0.107
 CP323-IAIN 188502.747 -92516.319 256.984 0.065 0.106
 CP323-IAIN 188502.708 -92516.198 257.041 0.073 0.102
 CP323-IAMN 37616.541 -1926.634 119.056 0.013 0.022
 CP323-IAMN 37616.491 -1926.637 119.030 0.013 0.022
 CP323-IAMN 37616.511 -1926.575 118.998 0.014 0.022
 CP323-IATA 15810.548 -274572.294 179.505 0.074 0.122
 CP323-IATA 15810.550 -274572.220 179.498 0.076 0.120
 CP323-IATA 15810.613 -274572.322 179.410 0.075 0.121
 CP324-IAAN65054.557 72810.672 137.284 0.035 0.056
 CP324-IACI -78434.654 -22760.577 118.206 0.029 0.047
 CP324-IAIN 188984.344 -96999.414 281.402 0.067 0.106
 CP324-IAMN 38098.140 -6409.756 143.344 0.014 0.023
 CP324-IATA 16292.185 -279055.403 203.839 0.077 0.121

IAAN-IACI -143489.228-95571.262 -19.265 0.057 0.098
 IAAN-IACI -143489.199-95571.249 -19.113 0.056 0.098
 IAAN-IACI -143489.209-95571.250 -19.077 0.058 0.097
 IAAN-IAIN 123929.830 -169810.136 144.163 0.063 0.108
 IAAN-IAIN 123929.825 -169810.125 144.065 0.065 0.107
 IAAN-IAIN 123929.802 -169810.105 144.129 0.061 0.109
 IAAN-IAMN -26956.426 -79220.437 6.125 0.029 0.048
 IAAN-IAMN -26956.414 -79220.431 6.072 0.029 0.048
 IAAN-IAMN -26956.414 -79220.438 6.050 0.028 0.049
 IAAN-IATA -48762.378 -351866.103 66.568 0.086 0.137
 IAAN-IATA -48762.374 -351866.073 66.545 0.083 0.139
 IAAN-IATA -48762.369 -351866.114 66.423 0.082 0.140
 IACI-IAIN 267419.046 -74238.876 163.422 0.075 0.122
 IACI-IAIN 267419.033 -74238.873 163.143 0.074 0.122
 IACI-IAIN 267419.013 -74238.862 163.191 0.072 0.124
 IACI-IAMN 116532.808 16350.821 25.333 0.040 0.068
 IACI-IAMN 116532.783 16350.807 25.202 0.041 0.068

IACI-IAMN 116532.785 16350.818 25.189 0.040 0.068
 IACI-IATA 94726.855 -256294.856 85.698 0.072 0.122
 IACI-IATA 94726.831 -256294.854 85.640 0.074 0.121
 IACI-IATA 94726.839 -256294.828 85.636 0.072 0.123
 IAIN-IAMN -150886.240 90589.699 -138.107 0.058 0.098
 IAIN-IAMN -150886.214 90589.673 -138.062 0.056 0.100
 IAIN-IAMN -150886.254 90589.684 -137.927 0.059 0.098
 IAIN-IATA -172692.201 -182055.979 -77.505 0.071 0.117
 IAIN-IATA -172692.196 -182055.979 -77.726 0.071 0.116
 IAIN-IATA -172692.166 -182055.967 -77.564 0.068 0.118
 IAMN-IATA -21805.954 -272645.678 60.378 0.072 0.122
 IAMN-IATA -21805.954 -272645.660 60.434 0.074 0.121
 IAMN-IATA -21805.960 -272645.639 60.487 0.073 0.122

Control Points

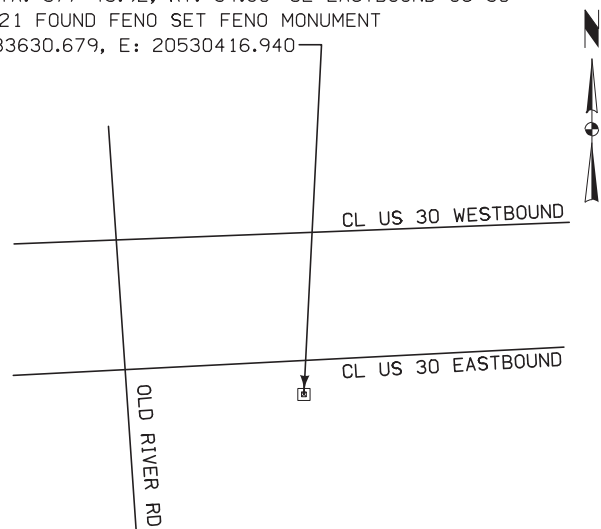
Name Grid Northing (USft) Grid Easting (USft) Elevation (USft) Code
 IAMN 8071800.231 20532033.431 860.432

Adjusted Points

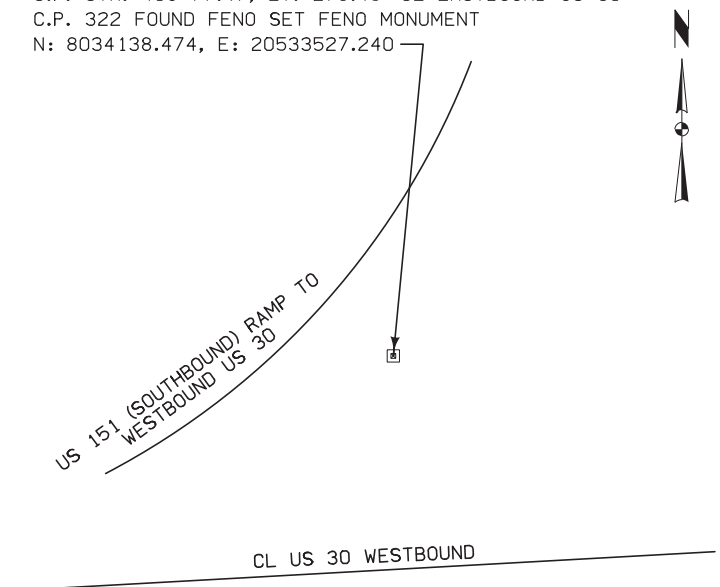
Name Grid Northing (USft) Grid Easting (USft) Elevation (USft) Code
 CP321 8033630.675 20530416.962 722.658 CP
 CP322 8034138.470 20533527.253 726.916 CP
 CP323 8034183.716 20533960.047 741.934 CP
 CP324 8033702.087 20538443.214 717.637 CP

NOT FINAL PLANS

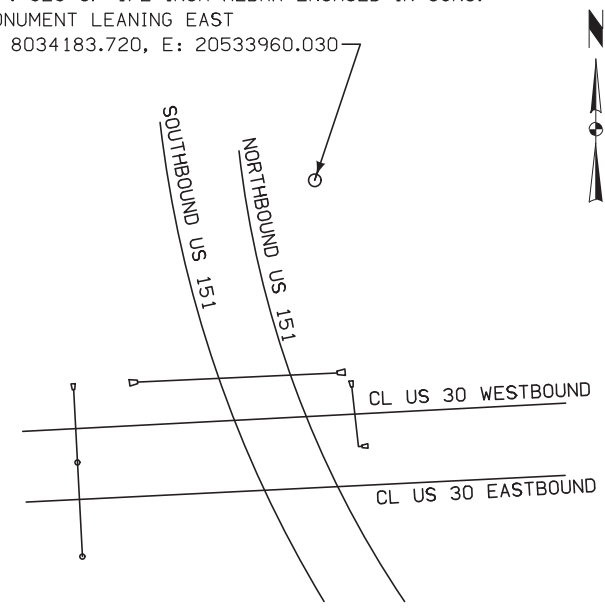
C.P. STA. 377+43.92, RT. 34.60' CL EASTBOUND US 30
C.P. 321 FOUND FENO SET FENO MONUMENT
N: 8033630.679, E: 20530416.940



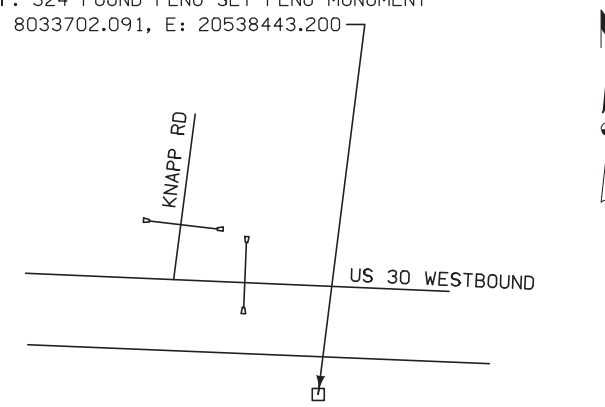
C.P. STA. 408+77.97, LT. 276.45' CL EASTBOUND US 30
C.P. 322 FOUND FENO SET FENO MONUMENT
N: 8034138.474, E: 20533527.240



C.P. 323 CP 1/2 INCH REBAR ENCASED IN CONC.
MONUMENT LEANING EAST
N: 8034183.720, E: 20533960.030



C.P. 324 FOUND FENO SET FENO MONUMENT
N: 8033702.091, E: 20538443.200



NOT FINAL PLANS

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)
CL30EB																			
CLEB01	EASTBOUND US 30	339+78.50	8,033,451.80	20,526,655.61															
CLEB02	EASTBOUND US 30	357+28.99	8,033,551.07	20,528,403.28															
CLEB03	EASTBOUND US 30	368+44.63	8,033,614.35	20,529,517.13															
CLEB06	EASTBOUND US 30	382+45.00	8,033,693.58	20,530,915.26															
CLEB05	EASTBOUND US 30	412+28.99	8,033,862.36	20,533,894.47															
SURWB030																			
WB3	WESTBOUND US 30	339+74.75	8,033,591.58	20,526,647.68															
C2	WESTBOUND US 30							372+54.31	8,033,777.48	20,529,921.97	375+54.60	8,033,794.50	20,530,221.76	378+54.85	8,033,804.72	20,530,521.87			
C3	WESTBOUND US 30							401+31.12	8,033,882.12	20,532,796.83	404+55.31	8,033,893.15	20,533,120.83	407+79.47	8,033,911.49	20,533,444.50			
WB2	WESTBOUND US 30	411+96.95	8,033,935.10	20,533,861.31															
WEST CROSSOVER																			
WEST_CR_1	WEST CROSSOVER							0+00.00	8,033,506.35	20,527,615.92	2+19.62	8,033,518.80	20,527,835.19	4+38.67	8,033,558.46	20,528,051.20			
WEST_CR_4	WEST CROSSOVER							10+27.78	8,033,664.84	20,528,630.62	12+46.69	8,033,704.37	20,528,845.93	14+65.03	8,033,716.78	20,529,064.49			
EAST CROSSOVER																			
EAST_CR_1	EAST CROSSOVER							0+00.00	8,033,857.49	20,532,425.67	1+23.51	8,033,861.69	20,532,549.11	2+46.92	8,033,857.18	20,532,672.54			
EAST_CR_4	EAST CROSSOVER							7+71.19	8,033,838.05	20,533,196.45	9+34.86	8,033,832.08	20,533,360.02	10+98.30	8,033,841.34	20,533,523.43			

NOT FINAL PLANS

108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. Traffic will be maintained on US 30 at all times.
2. Traffic control on this project shall be in accordance with Standard Road Plans. For additional complementary information, refer to Part 6 of the Manual on Uniform Traffic Control Devices and the current Standard and Supplemental Specifications.
3. Left-turn access to and from Old River Road will be prohibited due to the use of a temporary lane separator system (TLSS). The TLSS needs to be extended from the west crossover, running the length of the work zone through the east crossover. In this area, the TLSS supercedes the centerline delineation shown in TC-61. Signage will be installed to guide traffic to the U-turn maneuvers past the project limits.

111-01
04-17-12

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
None provided	

108-26A
08-01-08

STAGING NOTES

Pre-Stage 1
Pave westbound outside shoulders using TC-402 & TC-418:
 -Between Old River Road and westbound bridge
 -Between Knapp Road and approximately 250 feet west of Knapp Road
 Construct median modifications using TC-418:
 -East and west crossovers
 -Right-turn lane for eastbound traffic traveling in westbound lanes at Old River Road
 -Extension of existing westbound left-turn lane at Old River Road

Stage 1
Traffic will be maintained in its existing configuration.
Install the drilled shafts on the outsides of the existing eastbound bridge.

Stage 2
Close the eastbound US 30 bridge by using TC-61.
Eastbound traffic shifts to and from the inside westbound lane via the use of median crossovers.
Implement detour signing for left-turning movements to and from Old River Road. See Sheet J.6.
Remove the eastbound bridge and construct the new bridge pier caps, beams and decking.

Stage 3
Return traffic to normal operation.
Remove median crossovers.
Use TC-418 when removing the crossovers.

102-15
08-01-08

TABULATION OF SPECIAL EVENTS










Event	Location	Date
None provided		

NOT FINAL PLANS

**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
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

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

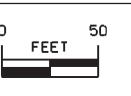
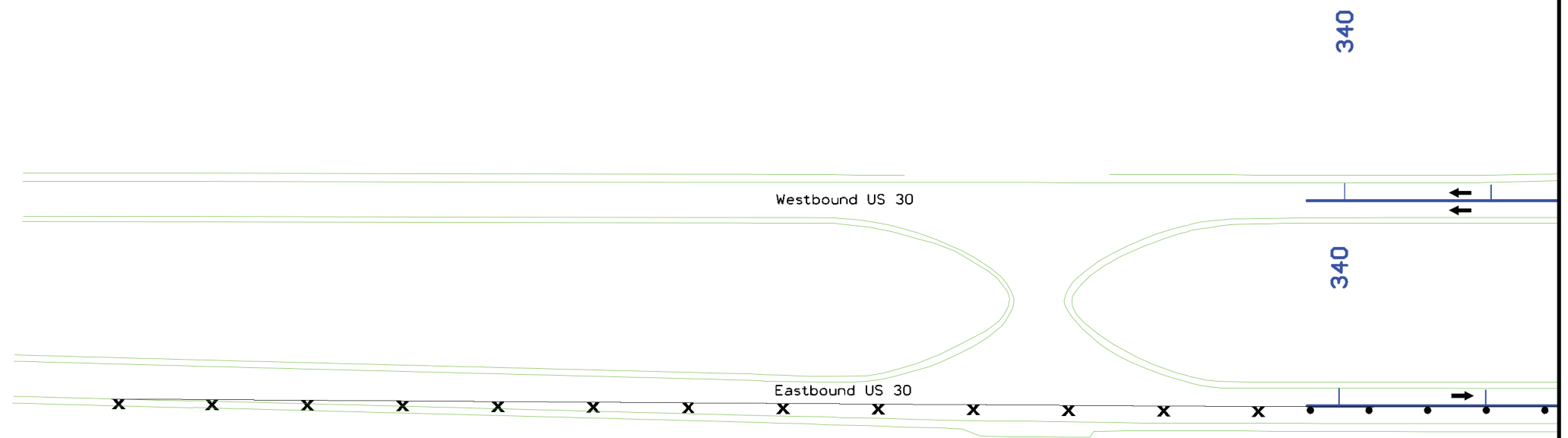
**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

●	Channelizing Device		Crash Cushion (Temp or Perm)
✕	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
	Sand Barrel Layout		Lane Identification

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

TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET
(COVERS SHEET SERIES J)

NOT FINAL PLANS



NOT FINAL PLANS



345

350

355

345

350

355

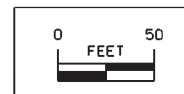
Westbound US 30

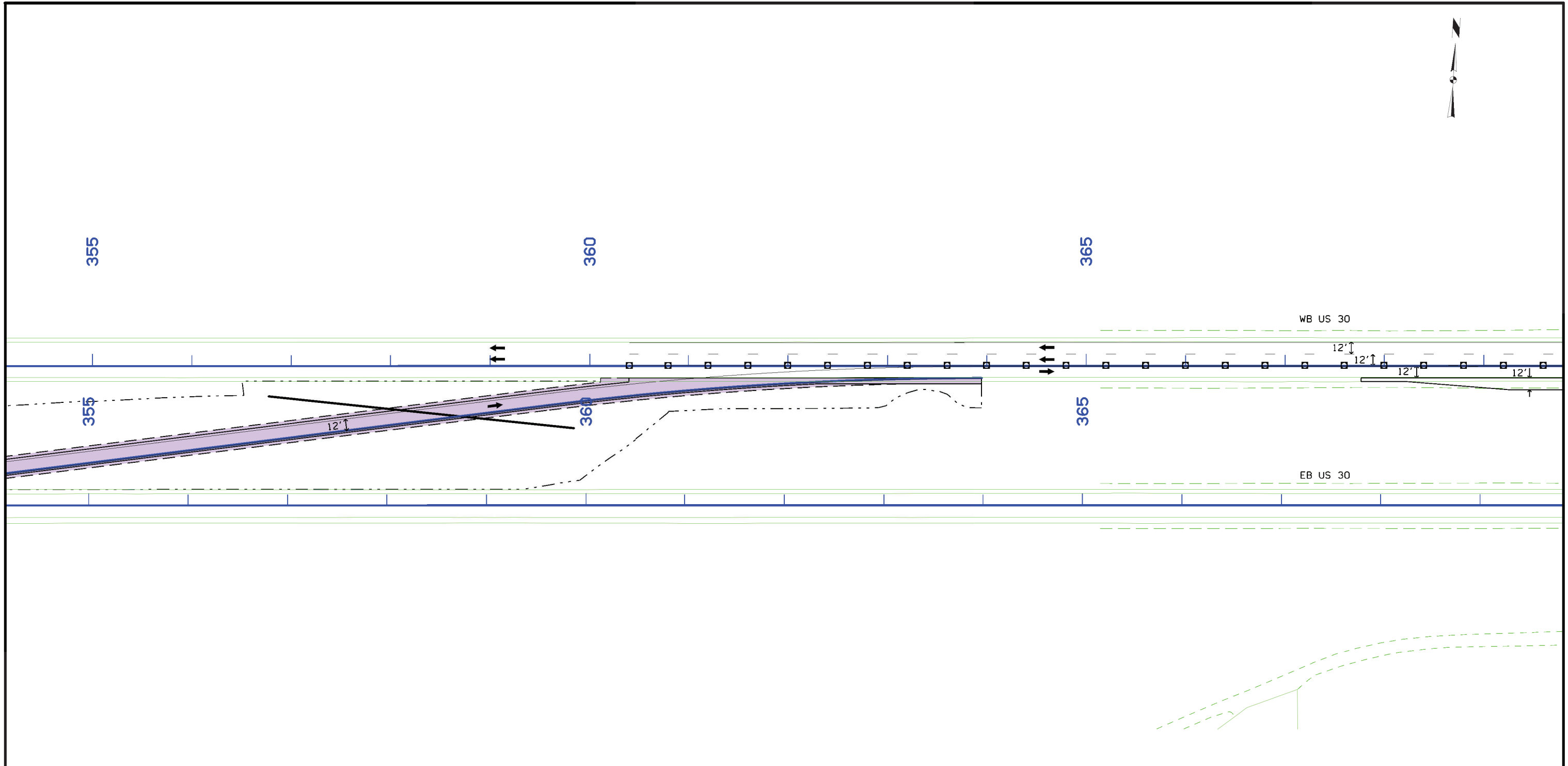
Eastbound US 30

TYPE III BARRICADES

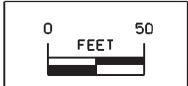
REFER TO TC-61

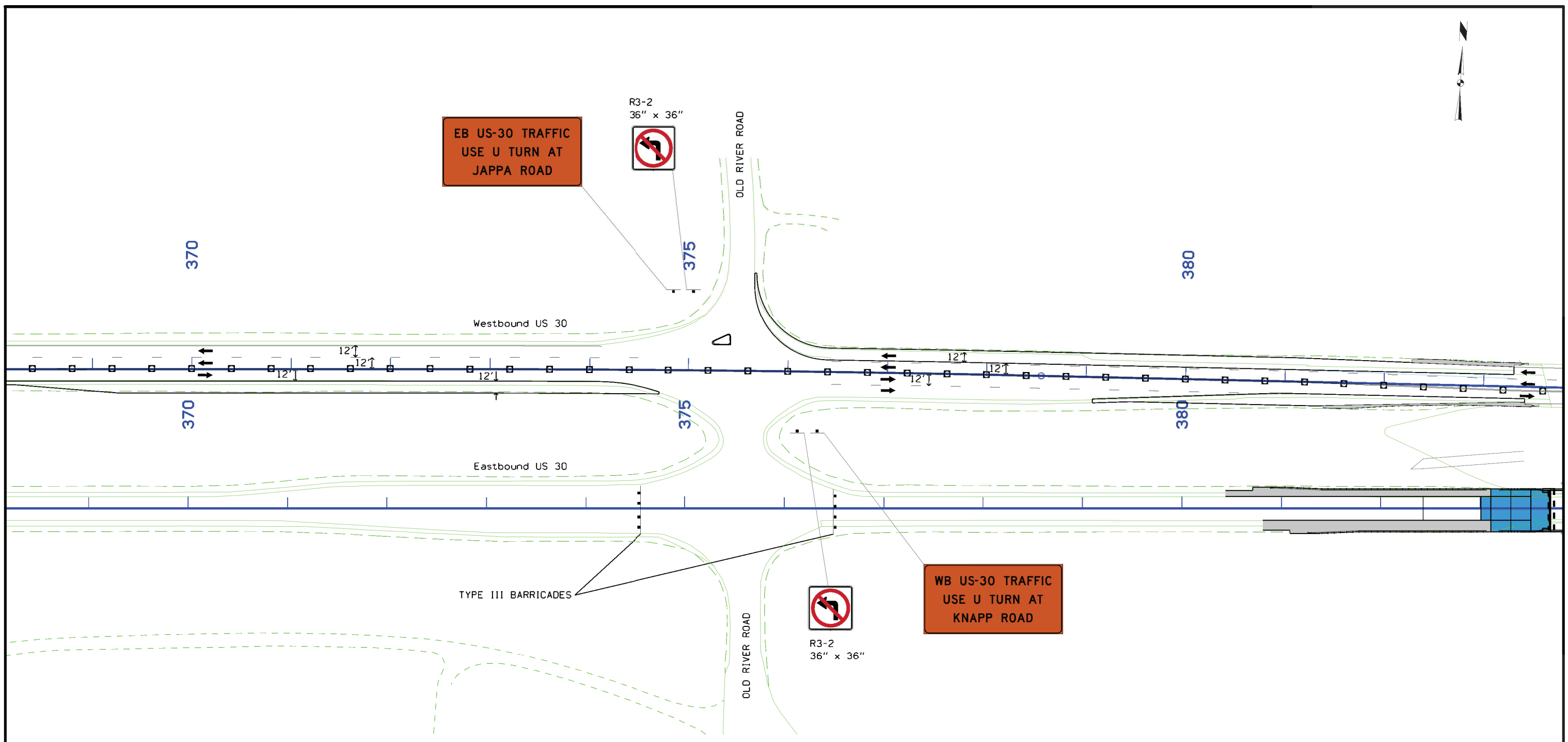
NOT FINAL PLANS





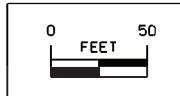
NOT FINAL PLANS

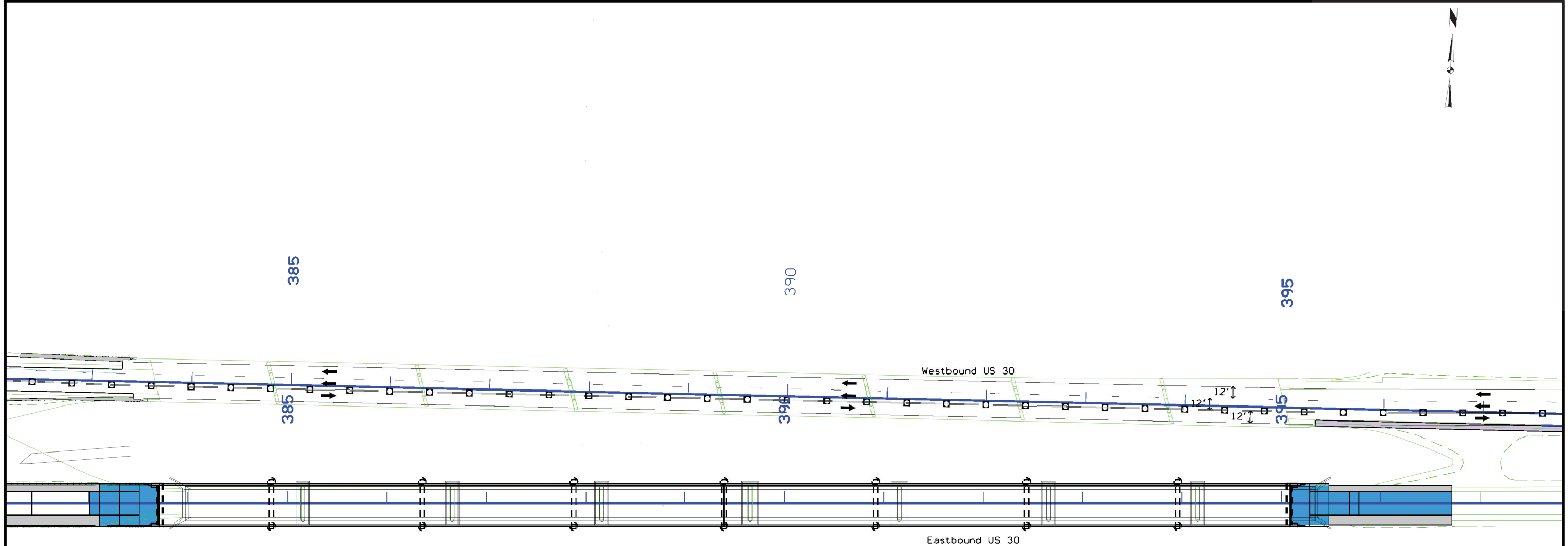




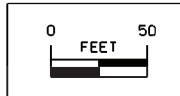
REFER TO TC-61

NOT FINAL PLANS

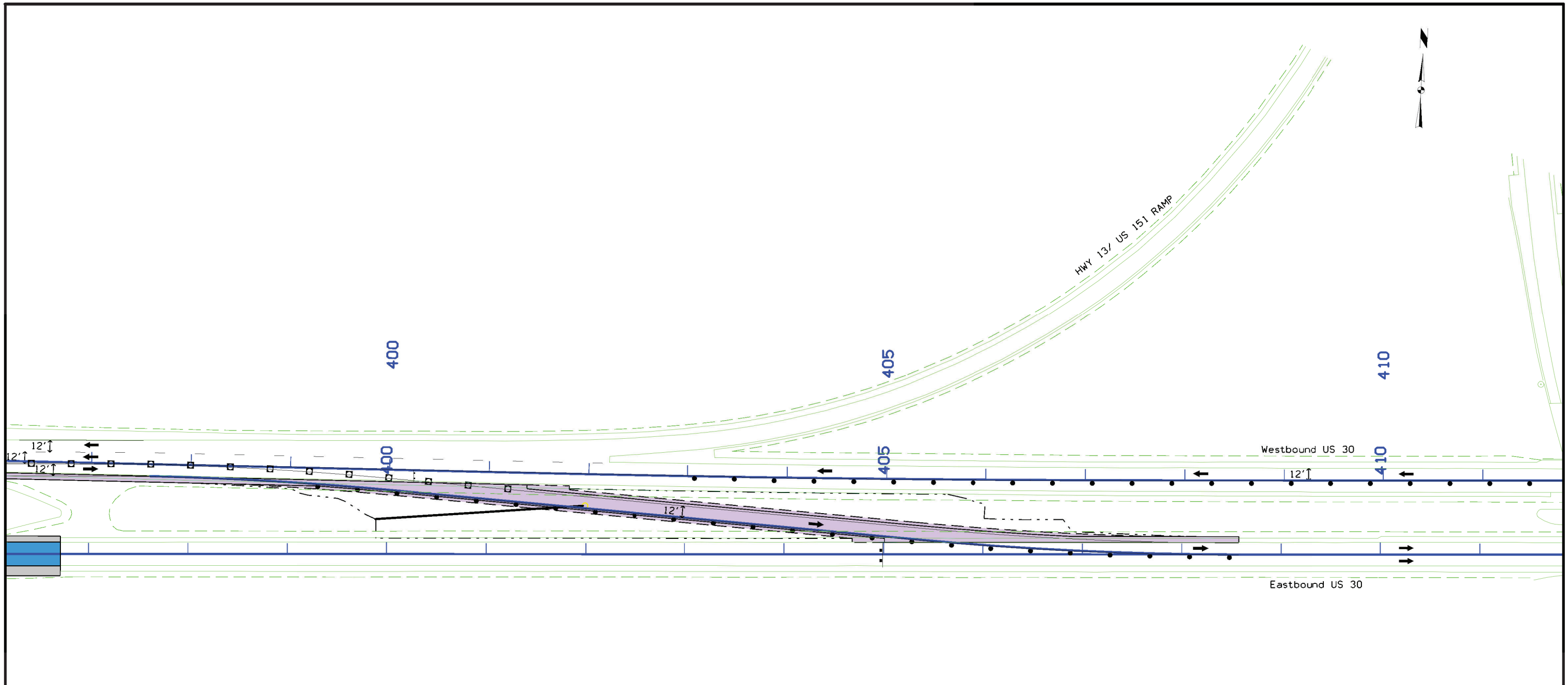




REFER TO TC-61

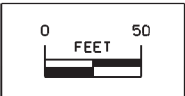


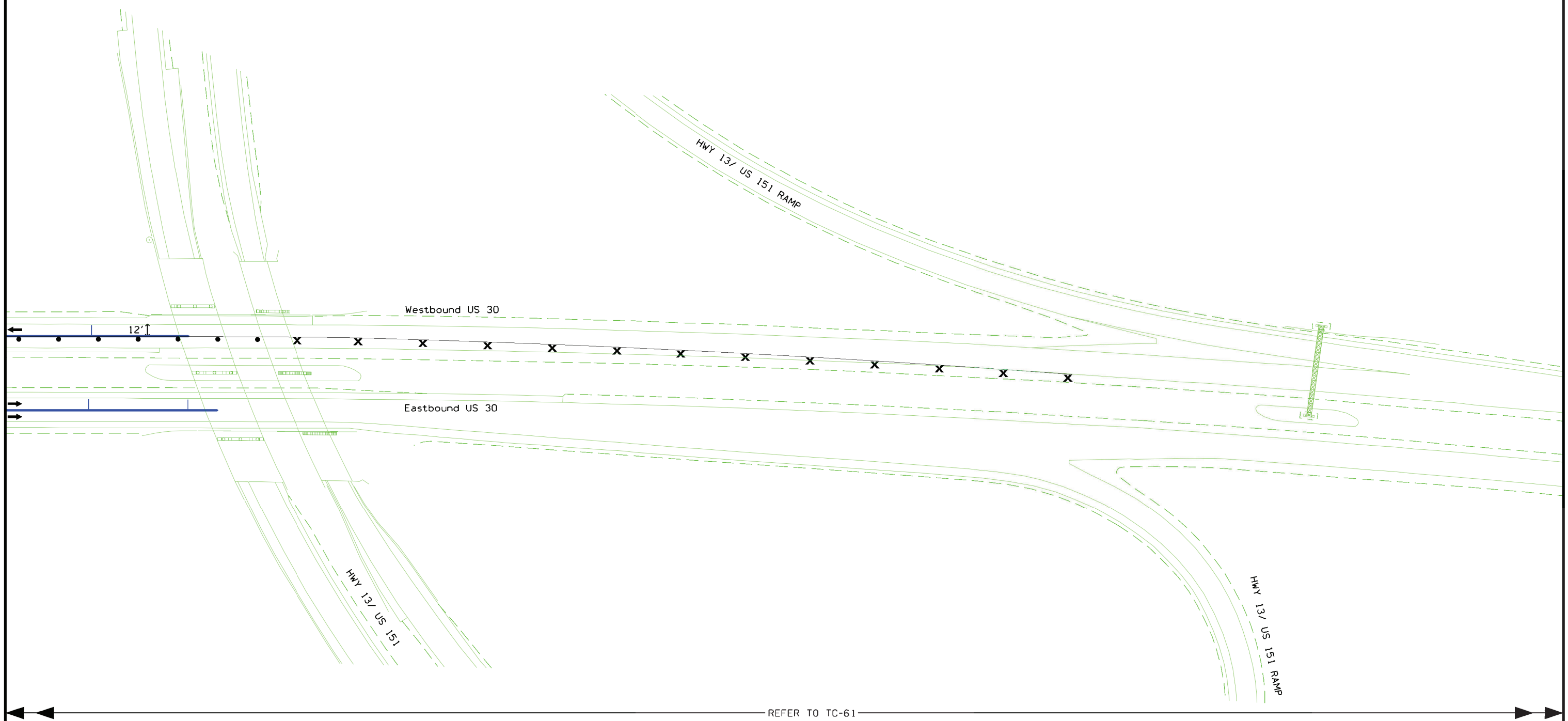
NOT FINAL PLANS



REFER TO TC-61

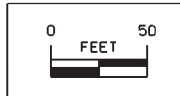
NOT FINAL PLANS

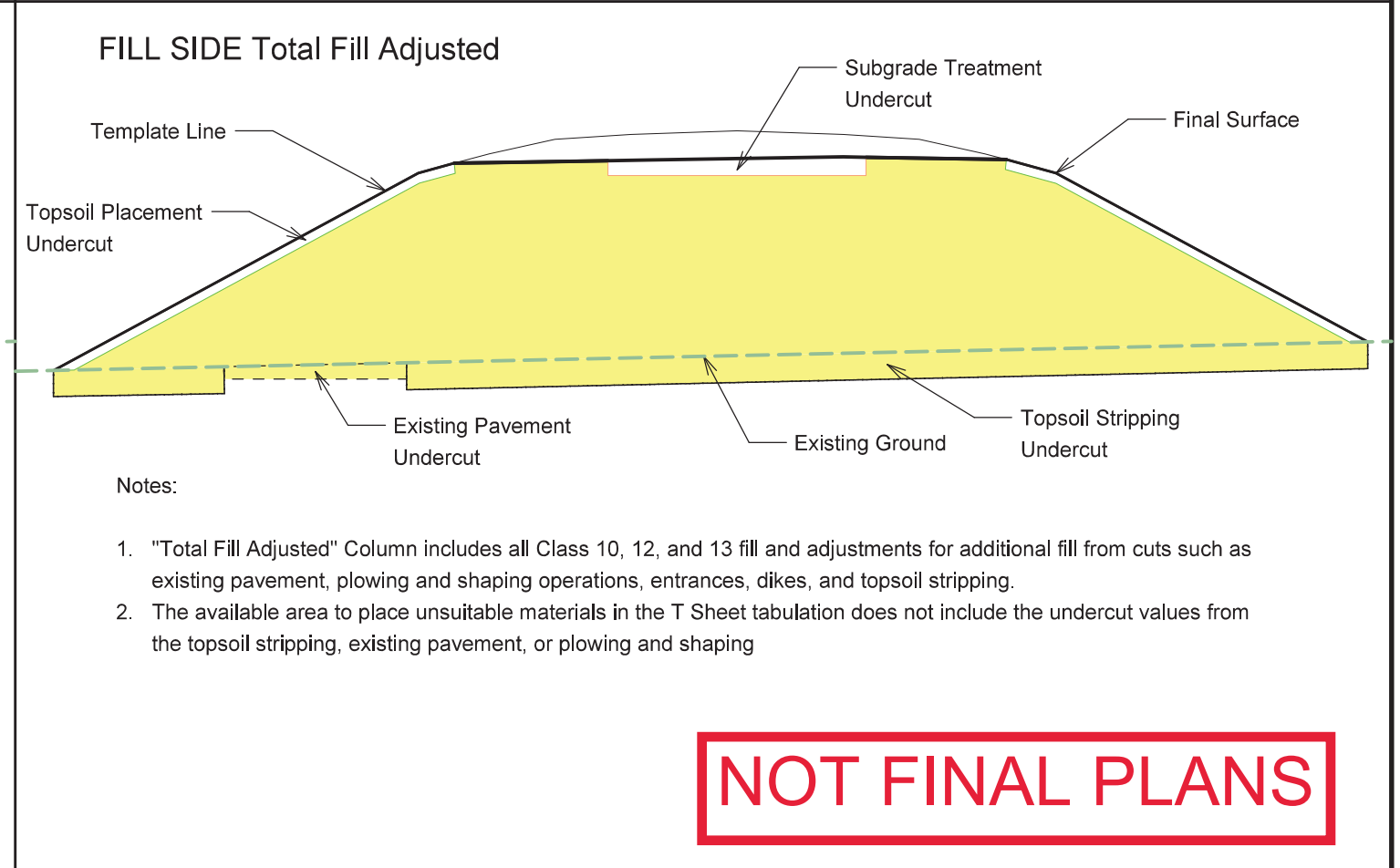
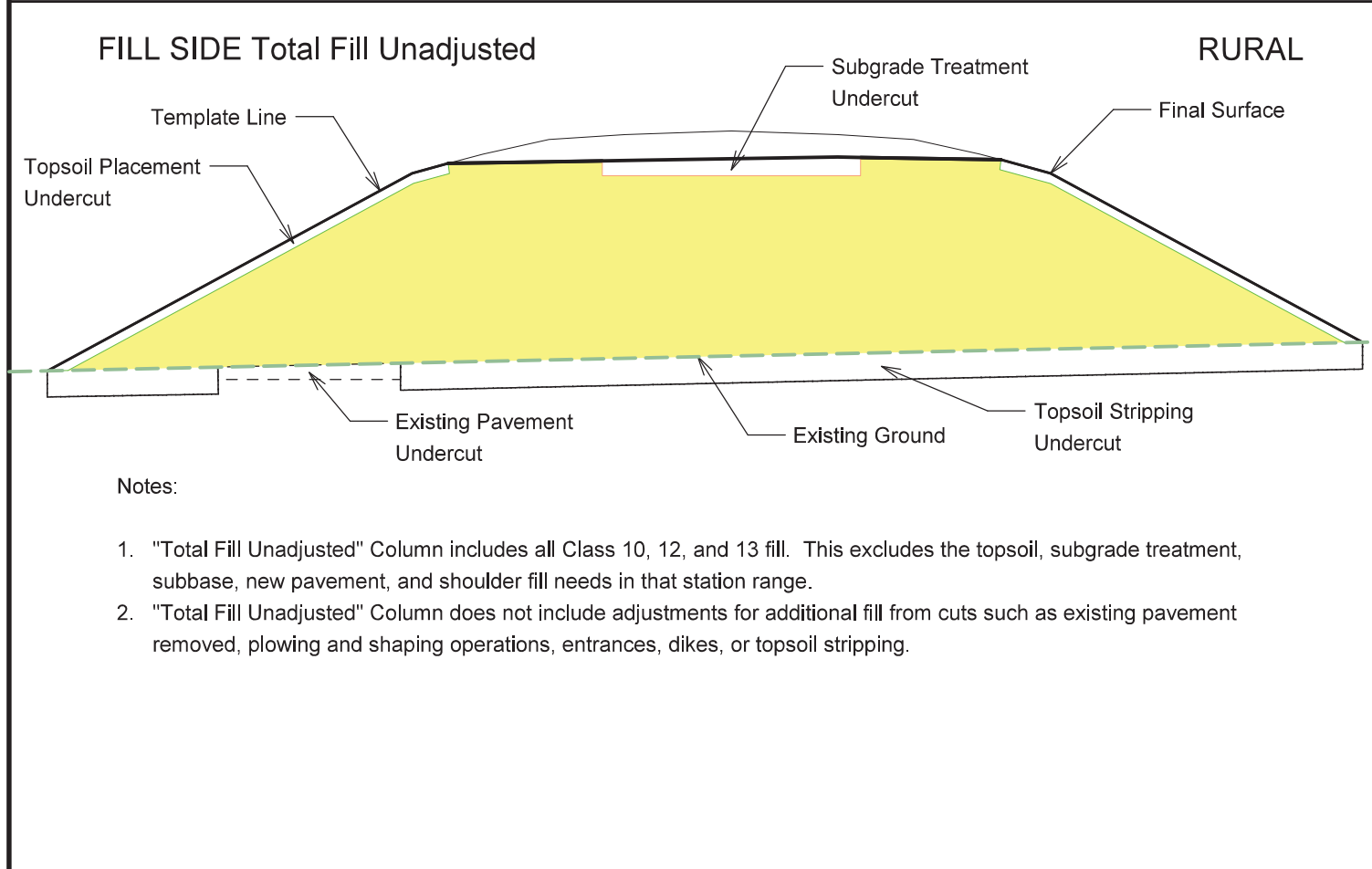
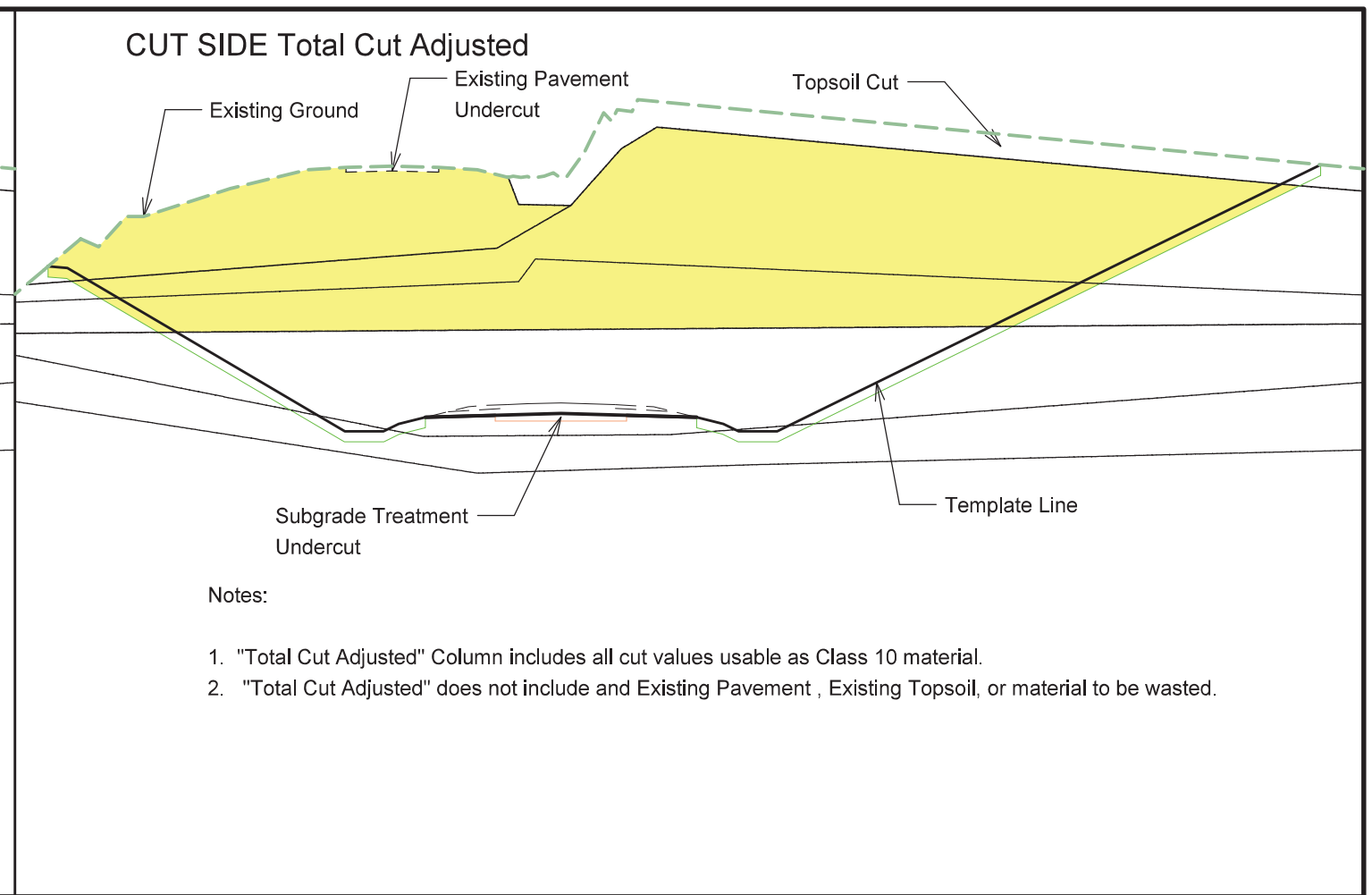
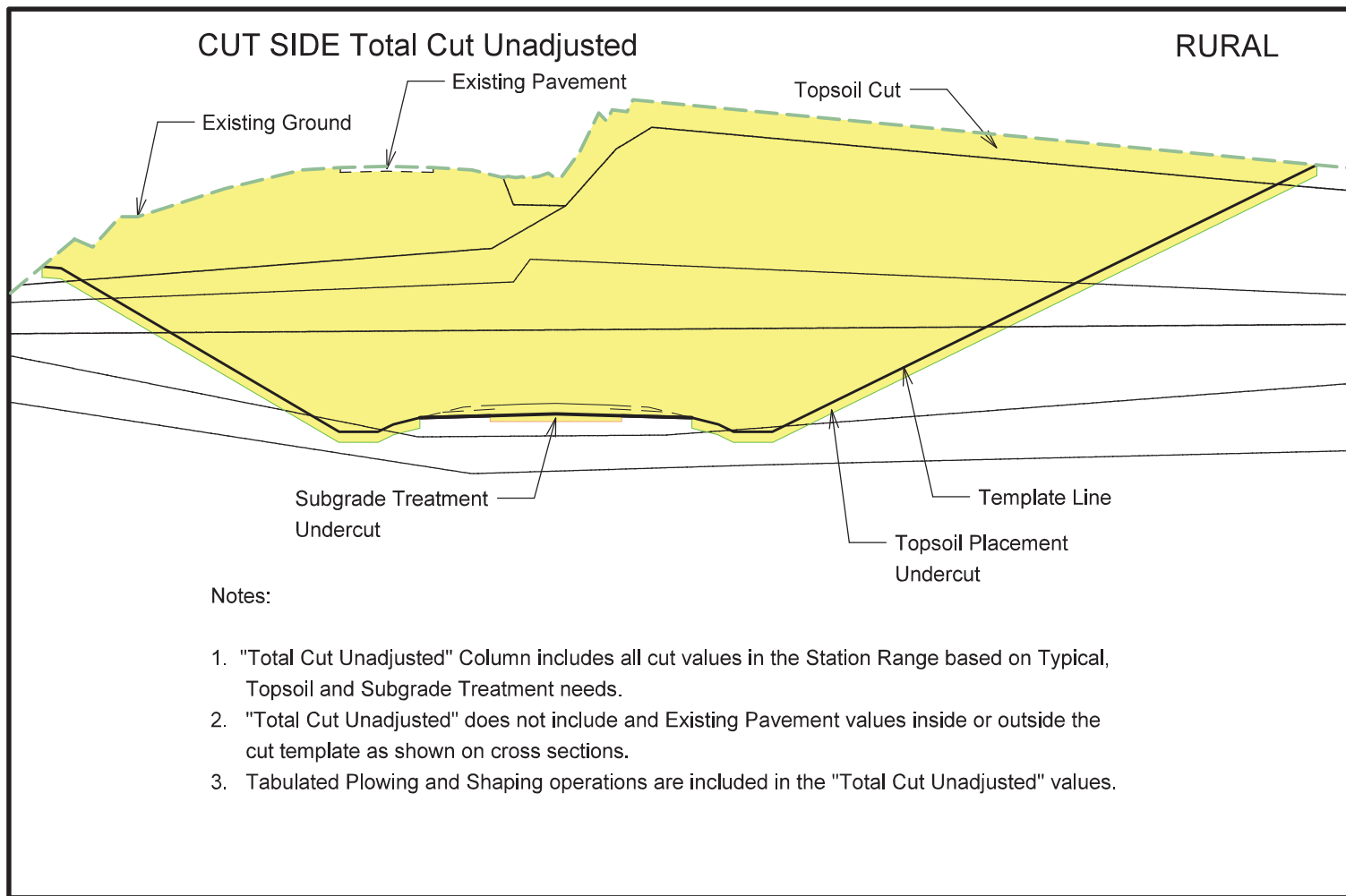




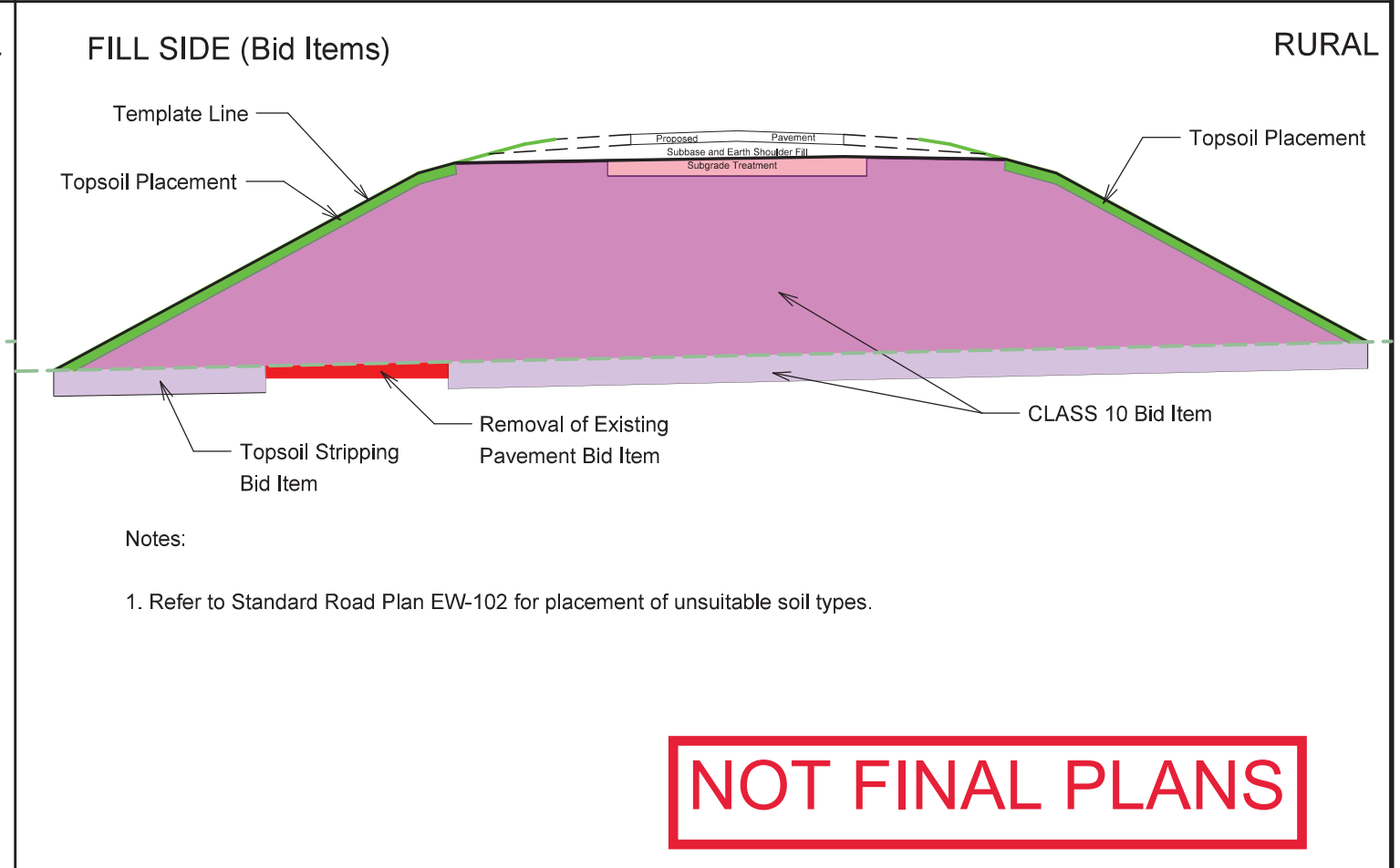
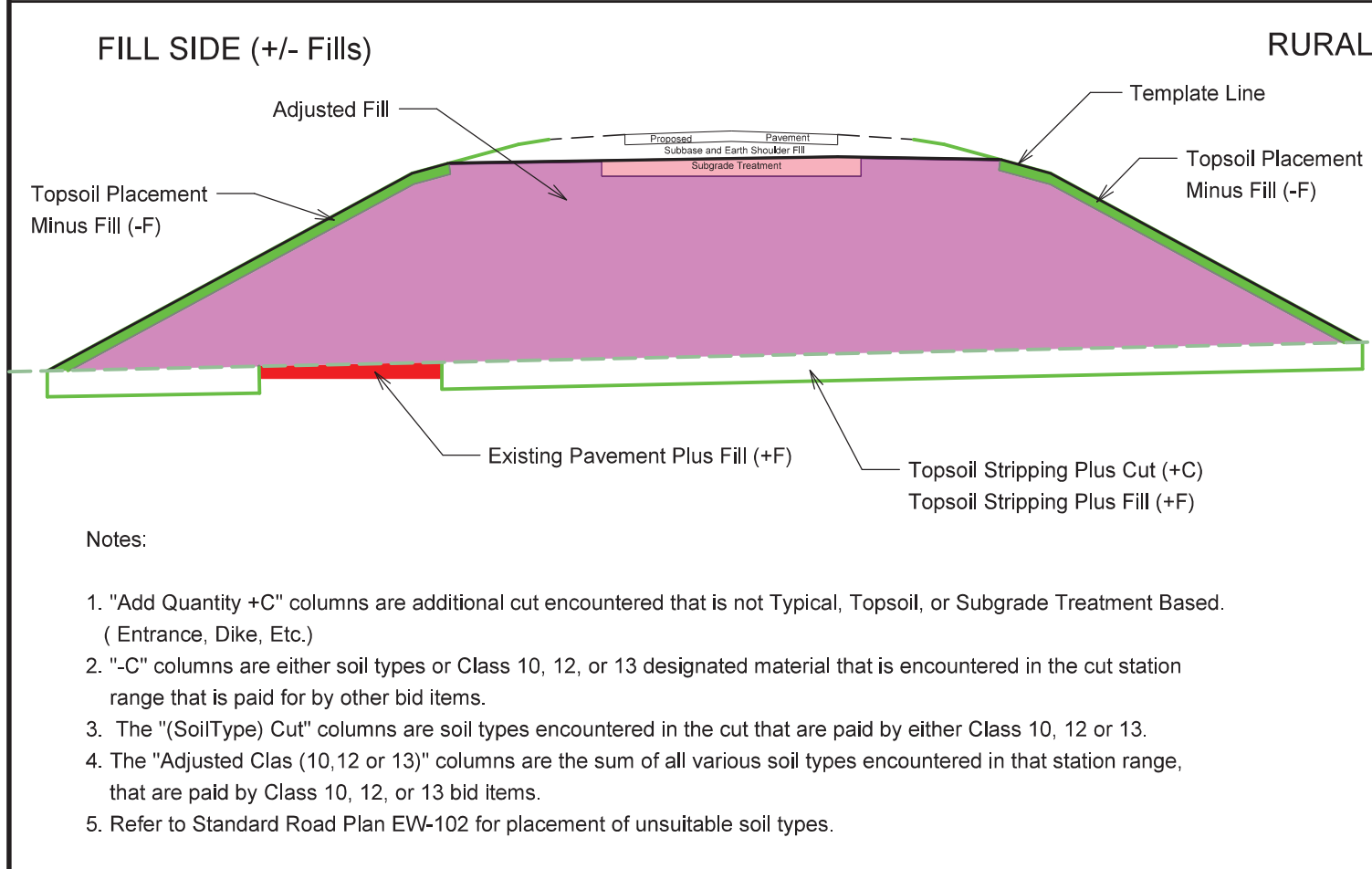
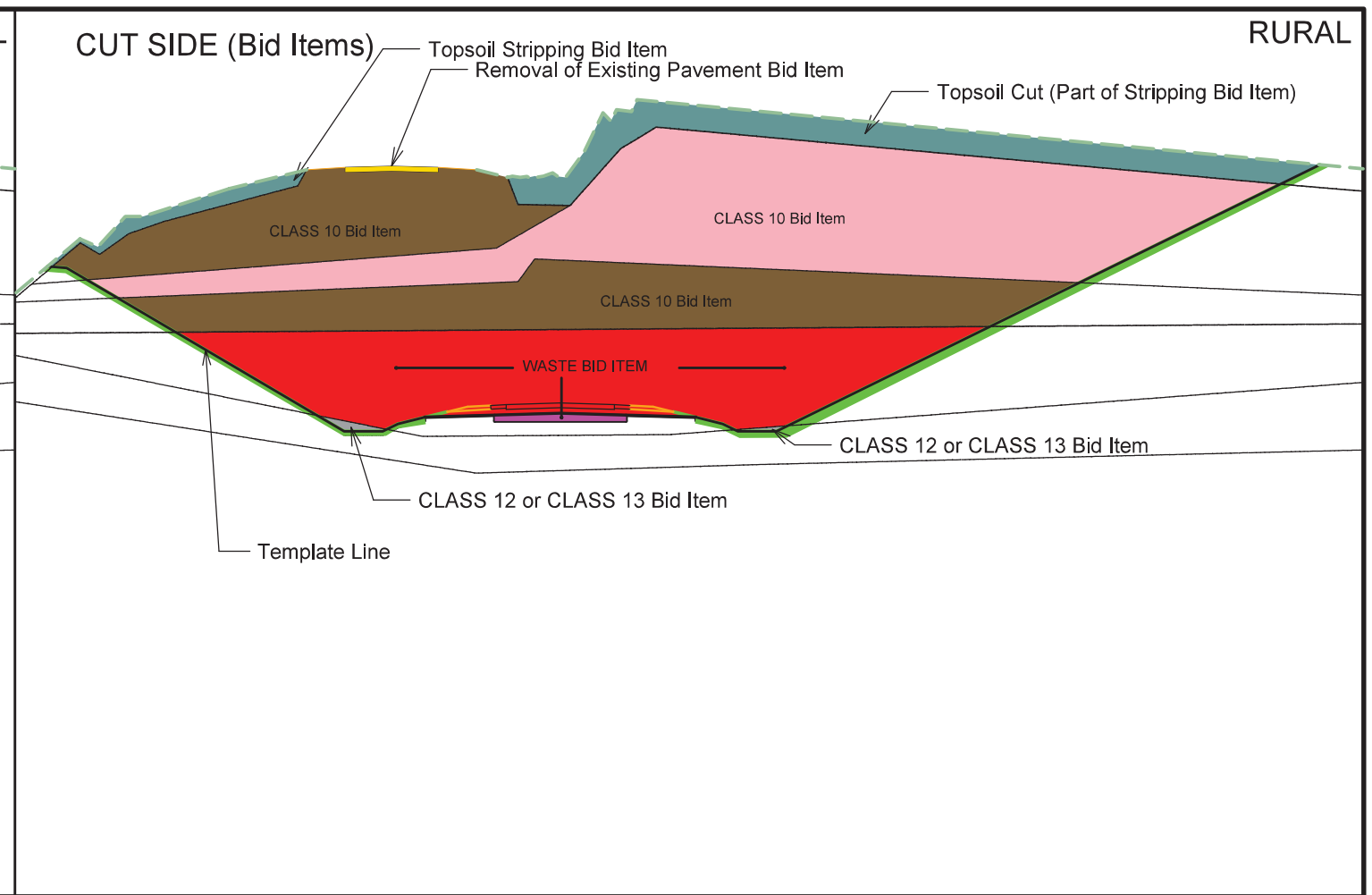
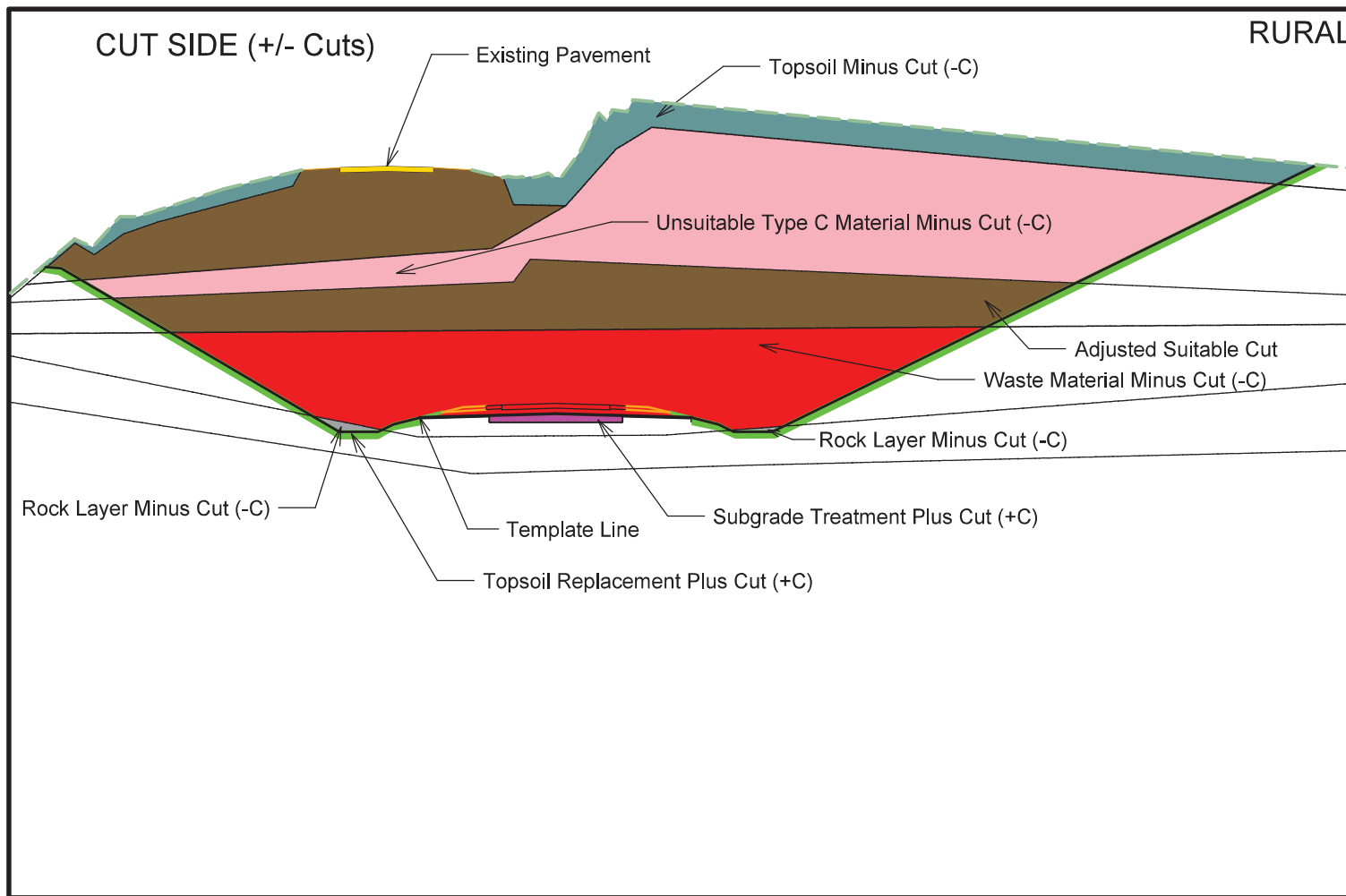
REFER TO TC-61

NOT FINAL PLANS





NOT FINAL PLANS



NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]							
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Stage 1																							
WX01																							
+01.00	12	9	3	9	0	3	7	10	13	-4	0	0	3	0	0	3							
+50.00	17	12	5	12	0	5	7	12	16	-4	0	0	5	2	3	2							
1+00.00	26	17	9	17	0	9	6	15	20	-3	0	0	9	5	7	2							
1+50.00	35	18	17	18	0	17	6	23	30	-12	0	0	17	11	15	2							
2+00.00	46	17	29	17	3	29	6	38	49	-32	0	0	29	20	28	1							
2+50.00	61	16	45	16	21	45	6	72	94	-78	0	0	45	33	46	-1							
3+00.00	80	18	62	18	51	62	7	120	156	-138	0	0	62	46	64	-3							
3+50.00	86	15	71	15	89	71	3	163	212	-197	0	0	71	52	73	-2							
4+00.00	79	7	72	7	144	72		216	281	-274	0	0	72	51	71	1							
4+50.00	87	14	73	14	189	73		262	341	-327	0	0	73	52	73	0							
5+00.00	110	32	78	32	202	78		280	364	-332	0	0	78	57	80	-2							
5+50.00	129	50	79	50	200	79		279	363	-313	0	0	79	58	81	-2							
6+00.00	162	80	82	80	185	82		267	347	-267	0	0	82	61	85	-4							
6+50.00	208	123	85	123	163	85		248	322	-199	0	0	85	64	90	-5							
7+00.00	299	205	94	205	123	94		217	282	-77	0	0	94	73	102	-8							
7+50.00	358	256	102	256	113	102		215	280	-24	0	0	102	81	113	-11							
8+00.00	377	275	102	275	130	102		232	302	-27	0	0	102	81	113	-11							
8+50.00	425	322	103	322	110	103		213	277	45	0	0	103	82	115	-12							
9+00.00	476	373	103	373	86	103		189	246	127	0	0	103	83	116	-13							
9+50.00	488	386	102	386	70	102		172	224	162	0	0	102	81	113	-11							
10+00.00	455	358	97	358	58	97		155	202	157	0	0	97	76	106	-10							
10+50.00	312	235	77	235	46	77	1	124	161	74	0	0	77	57	80	-3							
11+00.00	112	67	45	67	41	45	5	91	118	-51	0	0	45	28	39	6							
11+50.00	37	10	27	10	28	27	7	62	81	-71	0	0	27	14	20	7							
12+00.00	36	11	25	11	12	25	7	44	57	-46	0	0	25	16	22	3							
12+50.00	35	10	25	10	8	25	7	40	52	-42	0	0	25	19	27	-2							
13+00.00	38	13	25	13	4	25	7	36	47	-34	0	0	25	21	29	-4							
13+50.00	32	16	16	16	0	16	7	23	30	-14	0	0	16	13	18	-2							
14+00.00	36	20	16	20	0	16	7	23	30	-10	0	0	16	14	20	-4							
14+50.00	14	7	7	7	0	7	2	9	12	-5	0	0	7	7	10	-3							
14+65.03																							
WX01																							
Totals:	4,668	2,992	1,676	2,992	2,076	1,676	98	3,850	5,005	-2,013	0	0	1,676	1,258	1,761	-85							

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]						
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
WBUS30																						
367+76.63	21	19	2	19	0	2	2	4	5	14	0	0	2	5	7	-5						
368+00.00	49	42	7	42	0	7	5	12	16	26	0	0	7	9	13	-6						
368+50.00	59	48	11	48	0	11	5	16	21	27	0	0	11	10	14	-3						
369+00.00	70	52	18	52	0	18	5	23	30	22	0	0	18	14	20	-2						
369+50.00	74	52	22	52	0	22	5	27	35	17	0	0	22	17	24	-2						
370+00.00	73	50	23	50	1	23	5	29	38	12	0	0	23	19	27	-4						
371+00.00	71	47	24	47	4	24	5	33	43	4	0	0	24	20	28	-4						
371+50.00	73	49	24	49	3	24	5	32	42	7	0	0	24	20	28	-4						
372+00.00	73	49	24	49	3	24	5	32	42	7	0	0	24	19	27	-3						
372+50.00	71	48	23	48	4	23	5	32	42	6	0	0	23	19	27	-4						
373+00.00	69	49	22	49	2	22	5	29	38	11	0	0	22	18	25	-3						
373+50.00	69	48	21	48	1	21	5	27	35	13	0	0	21	17	24	-3						
374+00.00	64	45	19	45	5	19	5	29	38	7	0	0	19	15	21	-2						
374+50.00	58	42	16	42	4	16	41	61	79	-37	0	0	16	10	14	2						
375+00.00	21	21	0	21	0	0	0	0	0	21	0	0	0	4	6	-6						
375+50.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
376+00.00	47	29	18	29	4	18	0	22	29	0	0	0	18	18	25	-7						
376+50.00	80	57	23	57	4	23	14	41	53	4	0	0	23	22	31	-8						
377+00.00	67	55	12	55	0	12	14	26	34	21	0	0	12	10	14	-2						
377+50.00	177	141	36	141	0	36	13	49	64	77	0	0	36	34	48	-12						
378+00.00	179	140	39	140	1	39	13	53	69	71	0	0	39	37	52	-13						
378+50.00	72	54	18	54	0	18	13	31	40	14	0	0	18	16	22	-4						
379+00.00	69	54	15	54	0	15	11	26	34	20	0	0	15	13	18	-3						
379+50.00	95	77	18	77	0	18	11	29	38	39	0	0	18	18	25	-7						
380+00.00	122	102	20	102	0	20	12	32	42	60	0	0	20	20	28	-8						
380+50.00	125	106	19	106	0	19	12	31	40	66	0	0	19	19	27	-8						
381+00.00	134	111	23	111	0	23	13	36	47	64	0	0	23	21	29	-6						
381+50.00	138	111	27	111	0	27	11	38	49	62	0	0	27	25	35	-8						
382+00.00	128	106	22	106	0	22	10	32	42	64	0	0	22	21	29	-7						
382+50.00	143	107	36	107	9	36	10	55	72	36	0	0	36	36	50	-14						
383+00.00	163	112	51	112	12	51	10	73	95	17	0	0	51	49	69	-18						
383+41.58	96	72	24	72	2	24	8	34	44	28	0	0	24	21	29	-5						
395+12.72	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0						
395+50.00	80	66	14	66	0	14	10	24	31	35	0	0	14	14	20	-6						
396+00.00	172	142	30	142	0	30	18	48	62	80	0	0	30	30	42	-12						
396+50.00	198	144	54	144	91	54	20	165	215	-71	0	0	54	62	87	-33						
397+00.00	187	99	88	99	91	88	12	191	248	-149	0	0	88	53	74	14						
397+50.00	63	63	0	63	0	0	4	4	5	58	0	0	0	13	18	-18						
398+00.00	62	52	10	52	0	10	4	14	18	34	0	0	10	11	15	-5						
398+50.00	78	53	25	53	12	25	5	42	55	-2	0	0	25	5	7	18						
399+00.00	62	31	31	31	22	31	6	59	77	-46	0	0	31	11	15	16						
WBUS30																						
Totals:	3,655	2,746	909	2,746	275	909	357	1,541	2,004	743	0	0	909	795	1,113	-204						

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]						
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
EX01																						
+01.00	35	31	4	31	0	4	6	10	13	18	0	0	4	8	11	-7						
+50.00	36	31	5	31	0	5	6	11	14	17	0	0	5	8	11	-6						
1+00.00	37	31	6	31	0	6	6	12	16	15	0	0	6	8	11	-5						
1+50.00	42	33	9	33	0	9	6	15	20	14	0	0	9	9	13	-4						
2+00.00	65	41	24	41	5	24	6	35	46	-5	0	0	24	25	35	-11						
2+50.00	80	44	36	44	37	36	6	79	103	-59	0	0	36	37	52	-16						
3+00.00	71	36	35	36	89	35	6	130	169	-133	0	0	35	33	46	-11						
3+50.00	64	30	34	30	124	34	6	164	213	-183	0	0	34	27	38	-4						
4+00.00	57	24	33	24	125	33	3	161	209	-185	0	0	33	21	29	4						
4+50.00	58	25	33	25	91	33		124	161	-136	0	0	33	18	25	8						
5+00.00	64	32	32	32	51	32		83	108	-76	0	0	32	18	25	7						
5+50.00	72	41	31	41	24	31		55	72	-31	0	0	31	20	28	3						
6+00.00	85	54	31	54	5	31		36	47	7	0	0	31	22	31	0						
6+50.00	101	71	30	71	0	30		30	39	32	0	0	30	21	29	1						
7+00.00	116	87	29	87	0	29	4	33	43	44	0	0	29	23	32	-3						
7+50.00	127	98	29	98	0	29	8	37	48	50	0	0	29	26	36	-7						
8+00.00	87	66	21	66	1	21	8	30	39	27	0	0	21	19	27	-6						
8+50.00	45	33	12	33	1	12	8	21	27	6	0	0	12	10	14	-2						
9+00.00	41	33	8	33	0	8	8	16	21	12	0	0	8	9	13	-5						
9+50.00	36	31	5	31	0	5	8	13	17	14	0	0	5	8	11	-6						
10+00.00	34	30	4	30	0	4	8	12	16	14	0	0	4	8	11	-7						
10+50.00	36	31	5	31	0	5	8	13	17	14	0	0	5	10	14	-9						
10+98.30																						
EX01 Totals:	1,389	933	456	933	553	456	111	1,120	1,456	-523	0	0	456	388	544	-88						

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]							
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Stage 2																							
EBUS30																							
377+11.96	355	307	48	307	0	48		48	62	245	0	0	48	48	67	-19							
377+50.00	198	170	28	170	0	28		28	36	134	0	0	28	28	39	-11							
377+71.34	3	2	1	2	0	1		1	1	1	0	0	1	1	1	0							
380+43.74	3	3	0	3	0			1	1	1	0	0	0	0	0	0							
380+50.00	34	32	2	32	0	2		7	9	12	0	0	2	1	1	1							
380+81.08	42	32	10	32	4	10		7	21	27	0	0	10	11	15	-5							
381+00.00	147	88	59	88	47	59		17	123	160	0	0	59	60	84	-25							
381+50.00	135	90	45	90	38	45		17	100	130	0	0	45	46	64	-19							
382+00.00	166	135	31	135	0	31		15	46	60	0	0	31	33	46	-15							
382+42.82	47	40	7	40	0	7		8	15	20	0	0	7	7	10	-3							
382+50.00	457	402	55	402	0	55		88	143	186	0	0	55	56	78	-23							
383+00.00	551	478	73	478	0	73		85	158	205	0	0	73	64	90	-17							
383+50.00	390	351	39	351	0	39		34	73	95	0	0	39	32	45	-6							
383+70.91	2	2	0	2	0			64	64	83	0	0	0	0	0	0							
384+00.00	0	0	0	0	0				0	0	0	0	0	0	0	0							
384+19.41	0	0	0	0	0				0	0	0	0	0	0	0	0							
394+73.35	0	0	0	0	0				0	0	0	0	0	0	0	0							
395+00.00	1	0	1	0	4	1		5	7	-7	0	0	1	0	0	1							
395+08.42	171	103	68	103	359	68		427	555	-452	0	0	68	46	64	4							
395+50.00	346	259	87	259	21	87		78	186	242	0	0	87	80	112	-25							
396+00.00	361	276	85	276	32	85		81	198	257	0	0	85	89	125	-40							
396+50.00	148	119	29	119	7	29		36	72	94	0	0	29	33	46	-17							
396+71.70																							
EBUS30																							
Totals:	3,557	2,889	668	2,889	512	668	538	1,718	2,233	656	0	0	668	635	889	-221							

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]							
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Stage 3																							
WX02																							
+01.00	2	2	0	2	0		0	0	2	0	0	0	2	3	-3								
+50.00	7	7	0	7	0		0	0	7	0	0	0	6	8	-8								
1+00.00	16	12	4	12	0	4	1	5	7	0	0	4	9	13	-9								
1+50.00	39	27	12	27	0	12	4	16	21	0	0	12	17	24	-12								
2+00.00	74	54	20	54	0	20	8	28	36	0	0	20	28	39	-19								
2+50.00	140	107	33	107	0	33	14	47	61	0	0	33	44	62	-29								
3+00.00	222	175	47	175	0	47	20	67	87	0	0	47	62	87	-40								
3+50.00	281	230	51	230	0	51	24	75	98	0	0	51	69	97	-46								
4+00.00	340	290	50	290	0	50	25	75	98	0	0	50	70	98	-48								
4+50.00	391	340	51	340	1	51	25	77	100	0	0	51	73	102	-51								
5+00.00	402	348	54	348	4	54	25	83	108	0	0	54	78	109	-55								
5+50.00	395	341	54	341	12	54	25	91	118	0	0	54	79	111	-57								
6+00.00	553	497	56	497	29	56	25	110	143	0	0	56	82	115	-59								
6+50.00	526	466	60	466	56	60	25	141	183	0	0	60	85	119	-59								
7+00.00	299	230	69	230	104	69	25	198	257	0	0	69	94	132	-63								
7+50.00	291	214	77	214	134	77	25	236	307	0	0	77	102	143	-66								
8+00.00	318	241	77	241	157	77	25	259	337	0	0	77	102	143	-66								
8+50.00	300	222	78	222	200	78	25	303	394	0	0	78	103	144	-66								
9+00.00	265	187	78	187	492	78	25	595	774	0	0	78	103	144	-66								
9+50.00	238	162	76	162	500	76	25	601	781	0	0	76	102	143	-67								
10+00.00	215	144	71	144	227	71	25	323	420	0	0	71	97	136	-65								
10+50.00	173	121	52	121	136	52	25	213	277	0	0	52	77	108	-56								
11+00.00	131	108	23	108	26	23	22	71	92	0	0	23	45	63	-40								
11+50.00	95	86	9	86	0	9	16	25	33	0	0	9	26	36	-27								
12+00.00	75	64	11	64	0	11	10	21	27	0	0	11	25	35	-24								
12+50.00	71	57	14	57	0	14	5	19	25	0	0	14	25	35	-21								
13+00.00	65	49	16	49	0	16	1	17	22	0	0	16	24	34	-18								
13+50.00	34	26	8	26	0	8		8	10	0	0	8	16	22	-14								
14+00.00	32	23	9	23	0	9		9	12	0	0	9	17	24	-15								
14+50.00	16	11	5	11	0	5		5	7	0	0	5	8	11	-6								
14+65.03																							
WX02																							
Totals:	6,006	4,841	1,165	4,841	2,078	1,165	475	3,718	4,833	8	0	0	1,165	1,670	2,338	-1,173							

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]						
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
EX02																						
+01.00	11	3	8	3	0	8	8	10	-7	0	0	8	8	11	-3							
+50.00	12	4	8	4	0	8	8	10	-6	0	0	8	8	11	-3							
1+00.00	17	9	8	9	0	8	9	12	-3	0	0	8	10	14	-6							
1+50.00	28	18	10	18	0	10	4	14	18	0	0	10	15	21	-11							
2+00.00	81	56	25	56	0	25	8	33	43	0	0	25	33	46	-21							
2+50.00	160	122	38	122	0	38	13	51	66	0	0	38	48	67	-29							
3+00.00	221	188	33	188	0	33	19	52	68	0	0	33	47	66	-33							
3+50.00	257	230	27	230	0	27	23	50	65	0	0	27	44	62	-35							
4+00.00	248	228	20	228	0	20	25	45	59	0	0	20	40	56	-36							
4+50.00	200	186	14	186	1	14	25	40	52	0	0	14	39	55	-41							
5+00.00	155	140	15	140	4	15	25	44	57	0	0	15	39	55	-40							
5+50.00	131	112	19	112	7	19	25	51	66	0	0	19	41	57	-38							
6+00.00	108	87	21	87	10	21	25	56	73	0	0	21	43	60	-39							
6+50.00	88	67	21	67	12	21	25	58	75	0	0	21	43	60	-39							
7+00.00	77	54	23	54	17	23	24	64	83	0	0	23	42	59	-36							
7+50.00	73	46	27	46	23	27	20	70	91	0	0	27	41	57	-30							
8+00.00	59	40	19	40	13	19	13	45	59	0	0	19	30	42	-23							
8+50.00	41	31	10	31	0	10	8	18	23	0	0	10	18	25	-15							
9+00.00	28	19	9	19	0	9	4	13	17	0	0	9	14	20	-11							
9+50.00	18	10	8	10	0	8	1	9	12	0	0	8	11	15	-7							
10+00.00	16	8	8	8	0	8		8	10	0	0	8	11	15	-7							
10+50.00	18	8	10	8	0	10		10	13	0	0	10	13	18	-8							
10+98.30																						
EX02 Totals:	2,047	1,666	381	1,666	87	381	288	756	983	684	0	0	381	638	894	-513						

NOT FINAL PLANS

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]							
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Summary:																							
Stage 1																							
WX01	4,668	2,992	1,676	2,992	2,076	1,676	98	3,850	5,005	-2,013	0	0	1,676	1,258	1,762	-86							
WBUS30	3,655	2,746	909	2,746	275	909	357	1,541	2,004	743	0	0	909	795	1,113	-204							
EX01	1,389	933	456	933	553	456	111	1,120	1,456	-523	0	0	456	388	544	-88							
Stage 1 Subtotals:	9,712	6,671	3,041	6,671	2,904	3,041	566	6,511	8,465	-1,793	0	0	3,041	2,441	3,419	-378							
Stage 2																							
EBUS30	3,557	2,889	668	2,889	512	668	538	1,718	2,234	656	0	0	668	635	889	-221							
Stage 2 Subtotals:	3,557	2,889	668	2,889	512	668	538	1,718	2,234	656	0	0	668	635	889	-221							
Stage 3																							
WX02	6,006	4,841	1,165	4,841	2,078	1,165	475	3,718	4,834	8	0	0	1,165	1,670	2,338	-1,173							
EX02	2,047	1,666	381	1,666	87	381	288	756	983	684	0	0	381	638	894	-513							
Stage 3 Subtotals:	8,053	6,507	1,546	6,507	2,165	1,546	763	4,474	5,817	692	0	0	1,546	2,308	3,232	-1,686							
Project Totals:	21,322	16,067	5,255	16,067	5,581	5,255	1,867	12,703	16,516	-445	0	0	5,255	5,384	7,540	-2,285							
Excavation, Class 10, Roadway & Borrow																							
Stage 1:			6,671	[4]																			
Stage 2:			2,234	[9]																			
Stage 3:			5,817	[9]																			
Total			14,722																				
Excavation, Class 10, Waste																							
Stage 1:			0	[10]																			
Stage 2:			656	[10]																			
Stage 3:			692	[10]																			
Total			1,348																				
Embankment in Place, Contractor Furnished																							
Stage 1:		1493 / 1.3 =	1148	[10] / 1.3																			
Stage 2:		0 / 1.3 =	0	[10] / 1.3																			
Stage 3:		0 / 1.3 =	0	[10] / 1.3																			
Total			1,148																				
Topsoil, Strip, Salvage & Spread																							
Stage 1:			3,419	[15]																			
Stage 2:			668	[13]																			
Stage 3:			1,546	[13]																			
Total			5,633																				
Topsoil, Furnish and Spread																							
Stage 1:			0 / 1.4 =	0	[16] / 1.4																		
Stage 2:			427 / 1.4 =	305	[16] / 1.4																		
Stage 3:			1686 / 1.4 =	1204	[16] / 1.4																		
Total			1,509																				

NOT FINAL PLANS

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

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

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- Topsoil (Class 10)
- Slope Dressing Only
- Class 10 Materials
- Select Loams And Clay-Loams
- Select Sand
- Unsuitable Type A Disposal
- Unsuitable Type B Disposal
- Unsuitable Type C Disposal
- Shale
- Waste
- Broken and Weathered Rock
- Solid Rock
- Boulders

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

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

SYMBOL LEGEND OF CROSS SECTION SHEETS

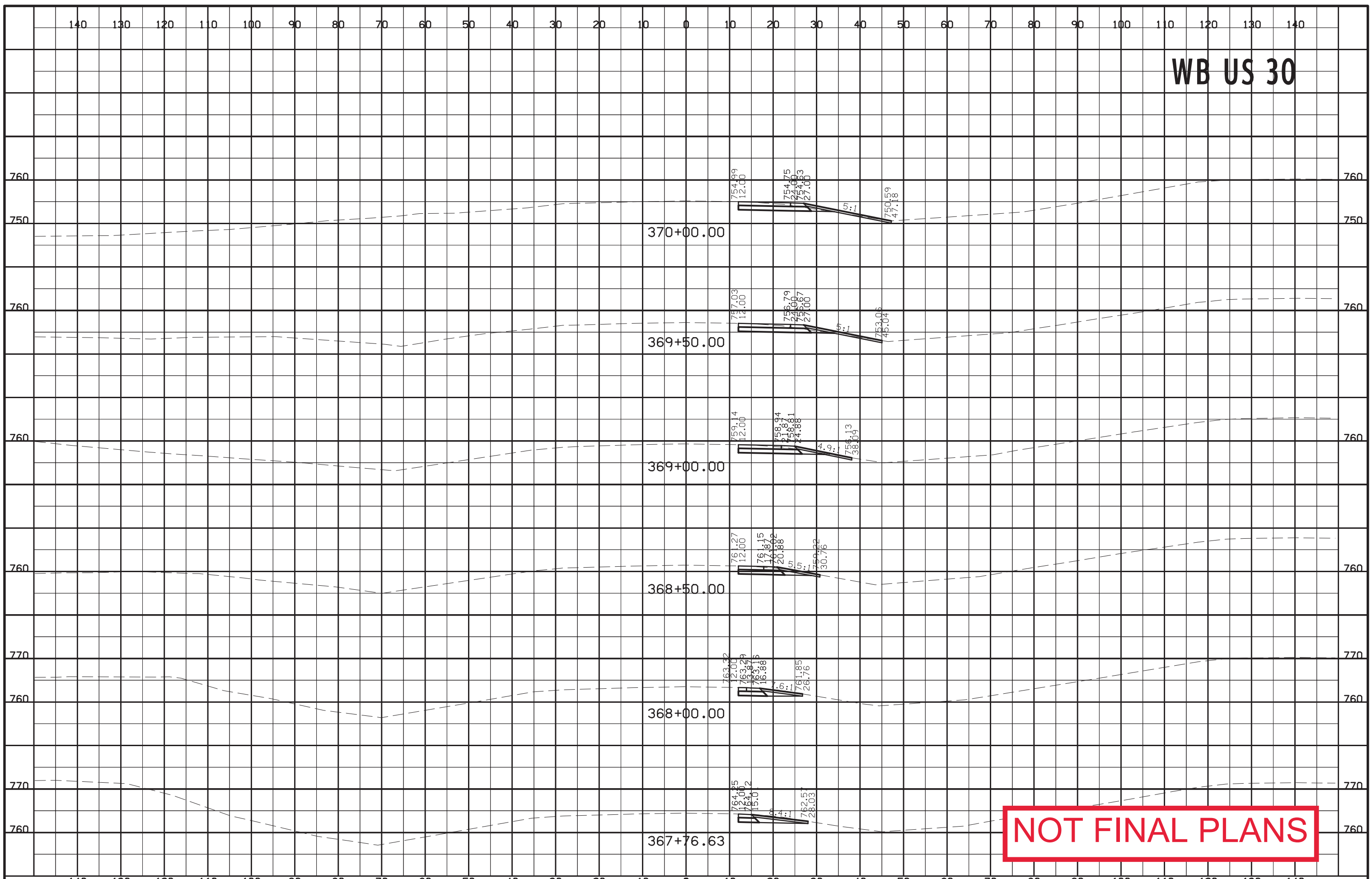
- Existing ROW
|
Existing Right-of-Way Limit
- Proposed ROW
|
Proposed Right-of-Way Limit
- Temporary ROW
|
Temporary Right-of-Way Limit

CROSS SECTIONS

NOT FINAL PLANS

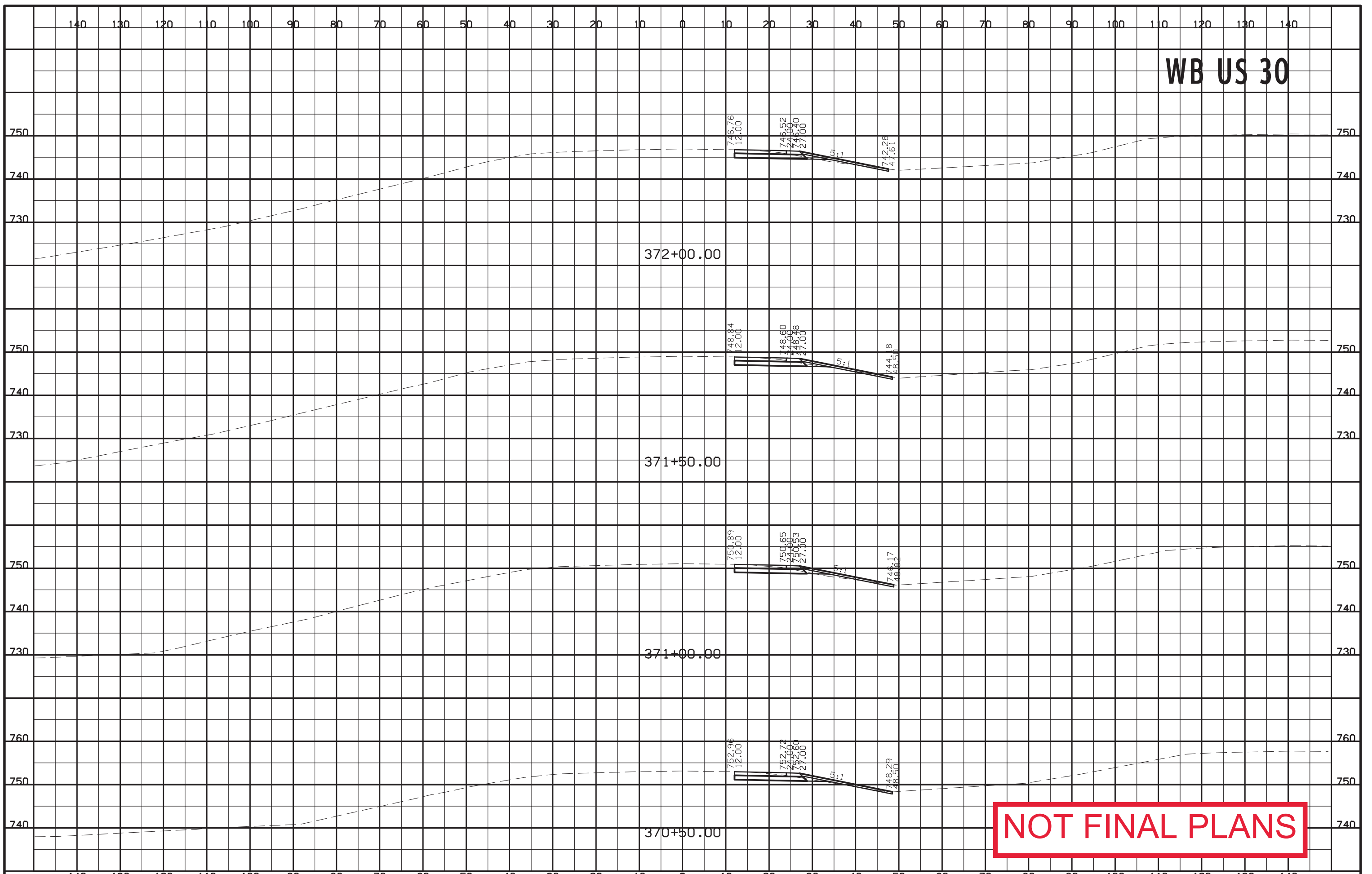
(COVERS SHEET SERIES W)

WB US 30

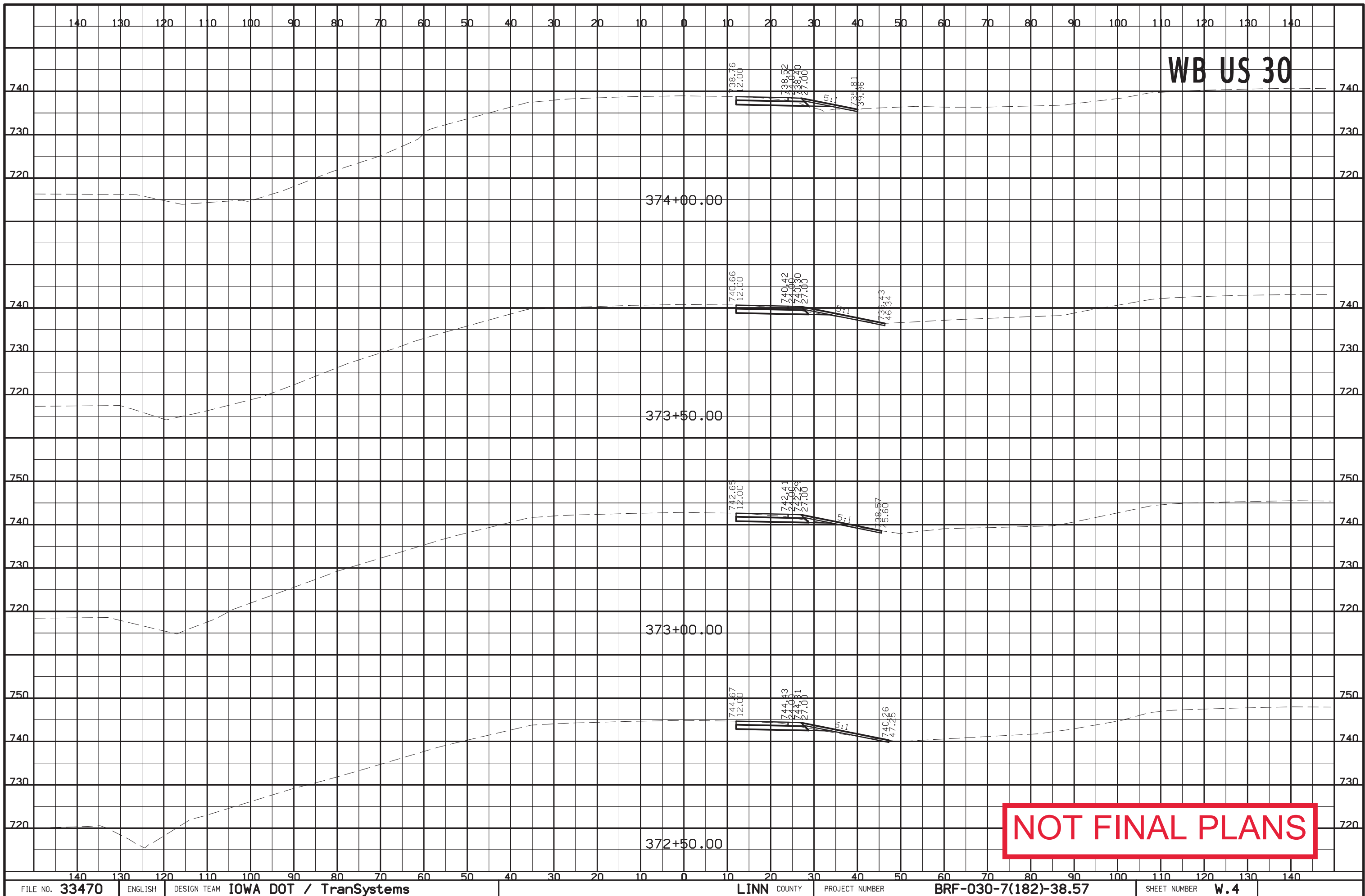


NOT FINAL PLANS

WB US 30



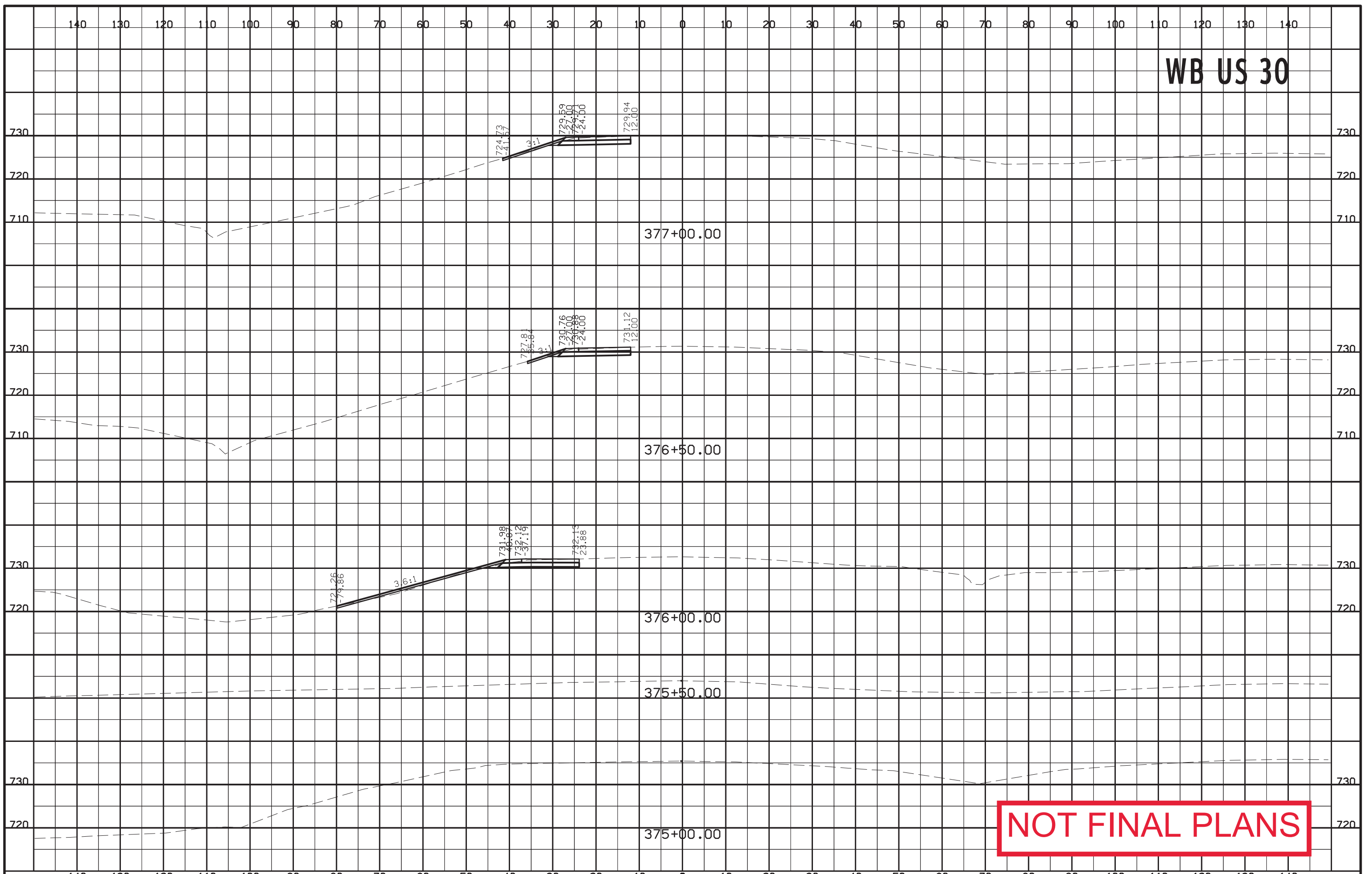
NOT FINAL PLANS



WB US 30

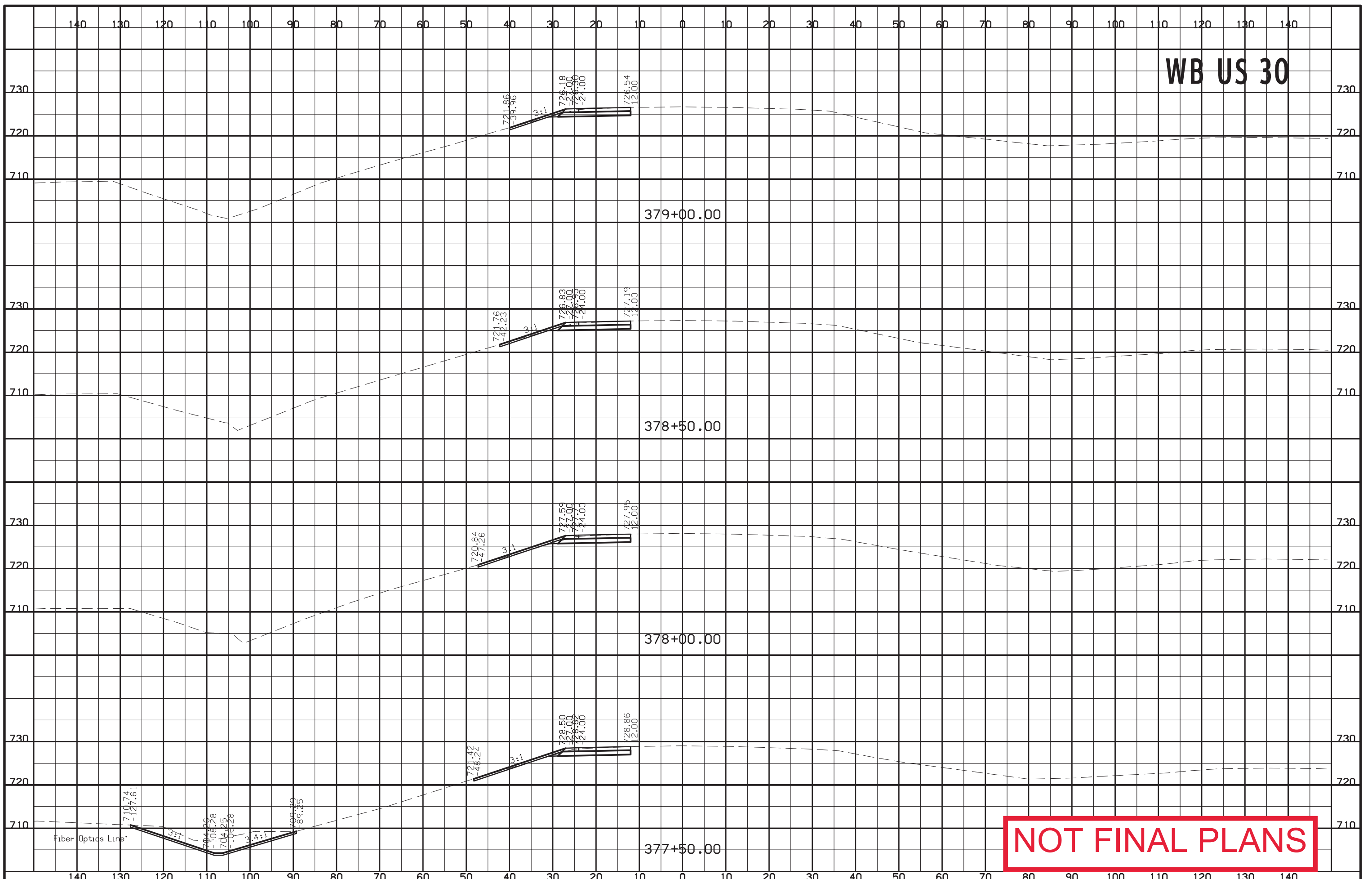
NOT FINAL PLANS

WB US 30



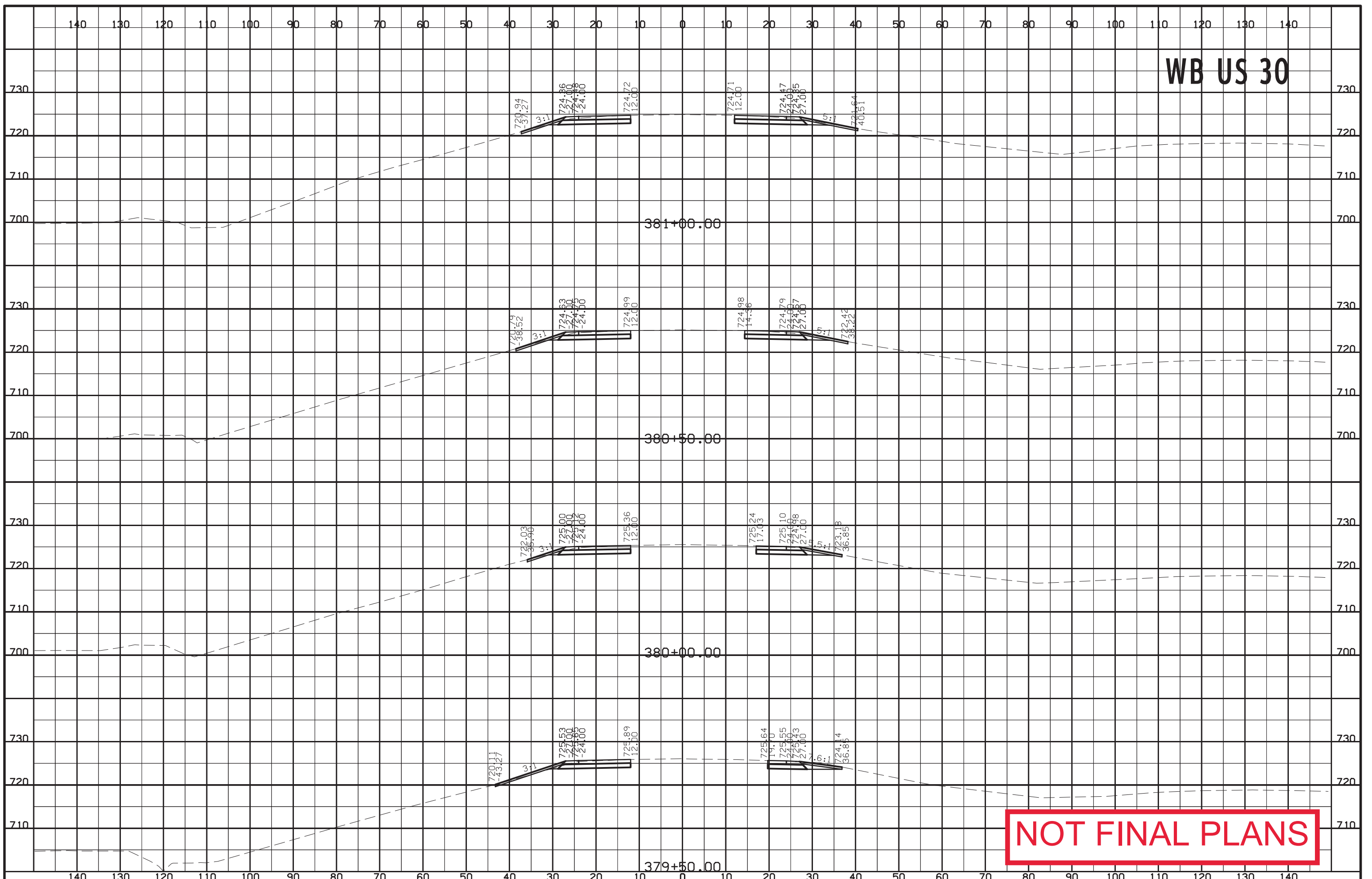
NOT FINAL PLANS

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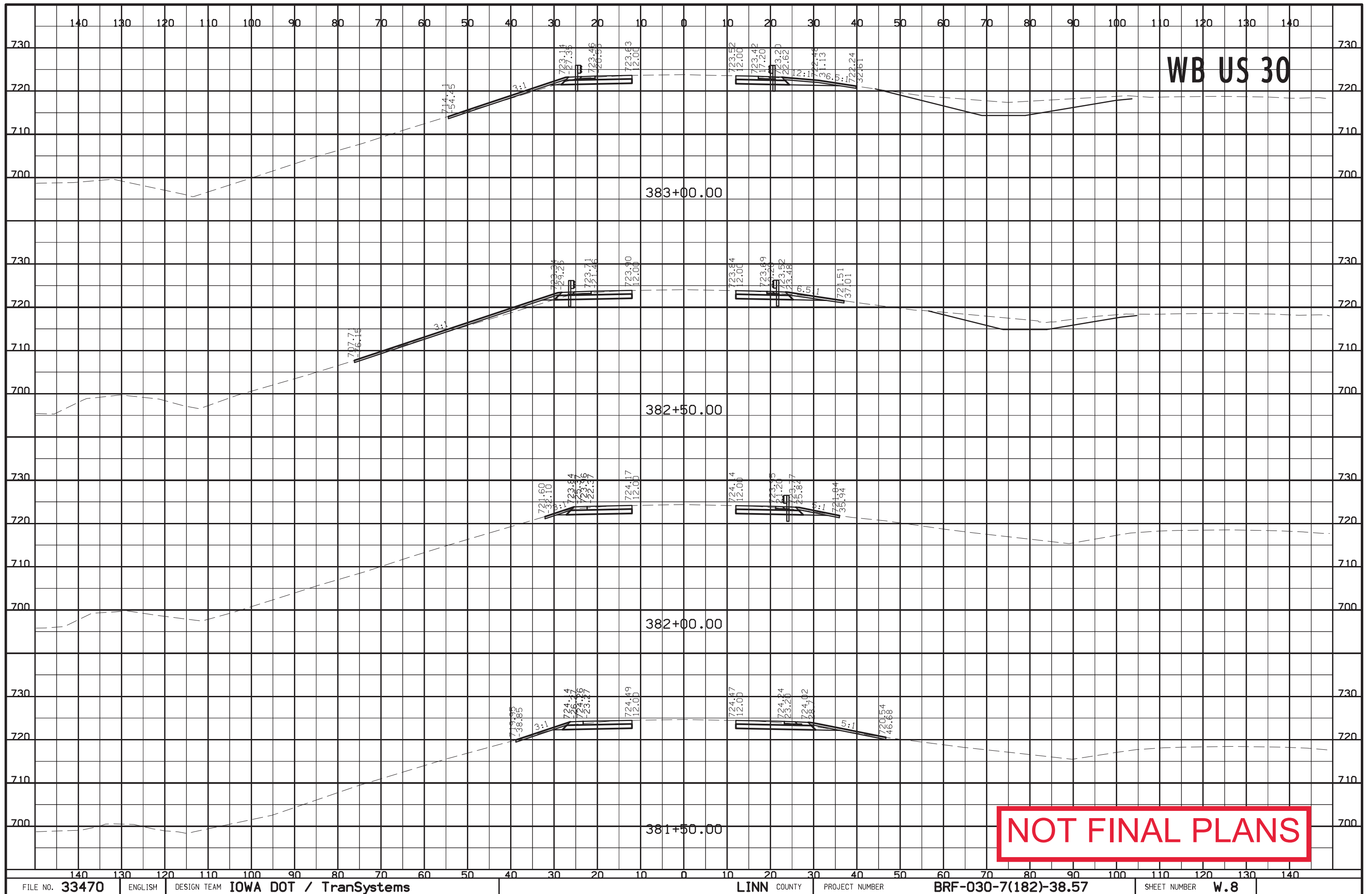


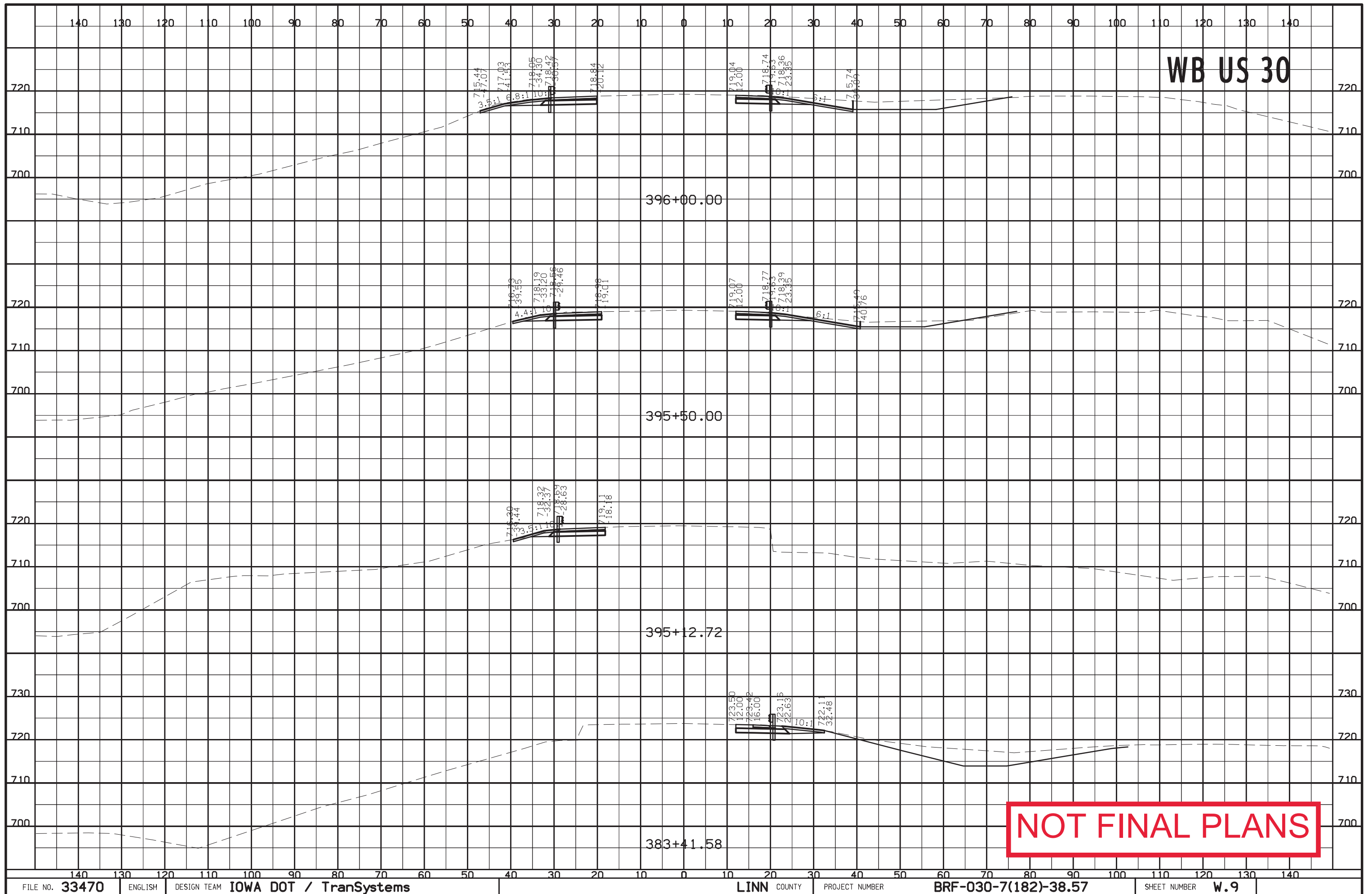
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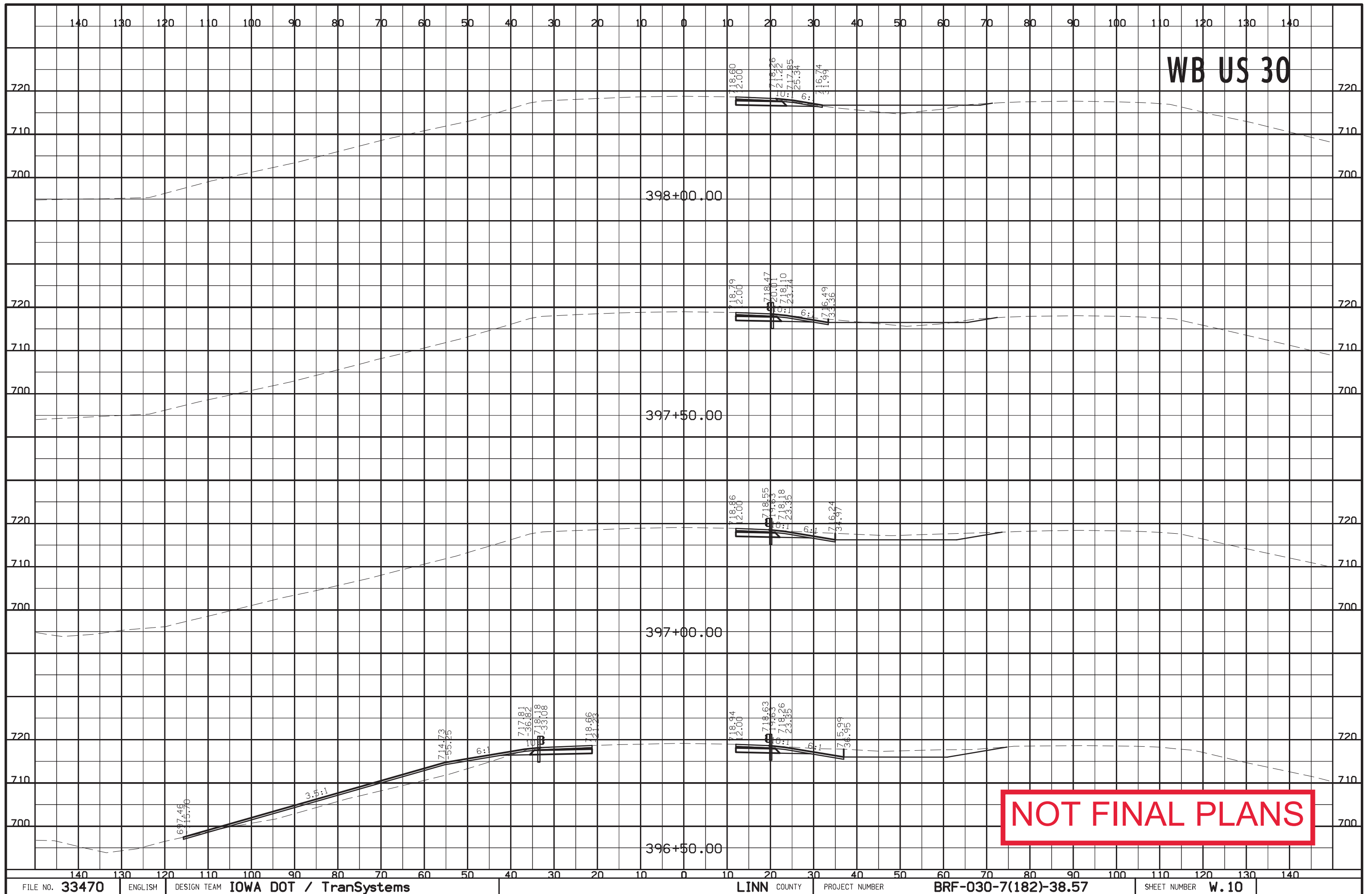
WB US 30



NOT FINAL PLANS



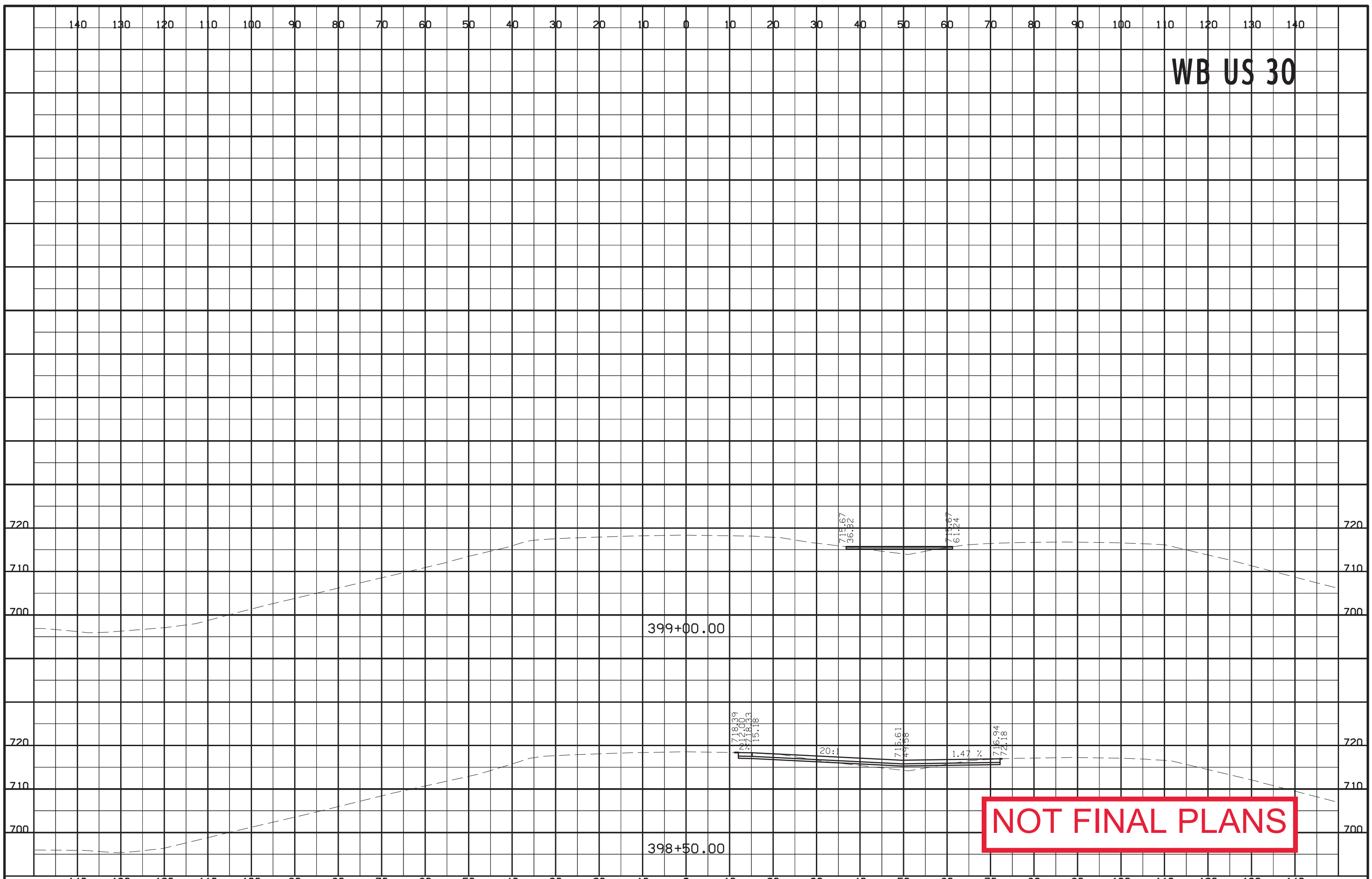




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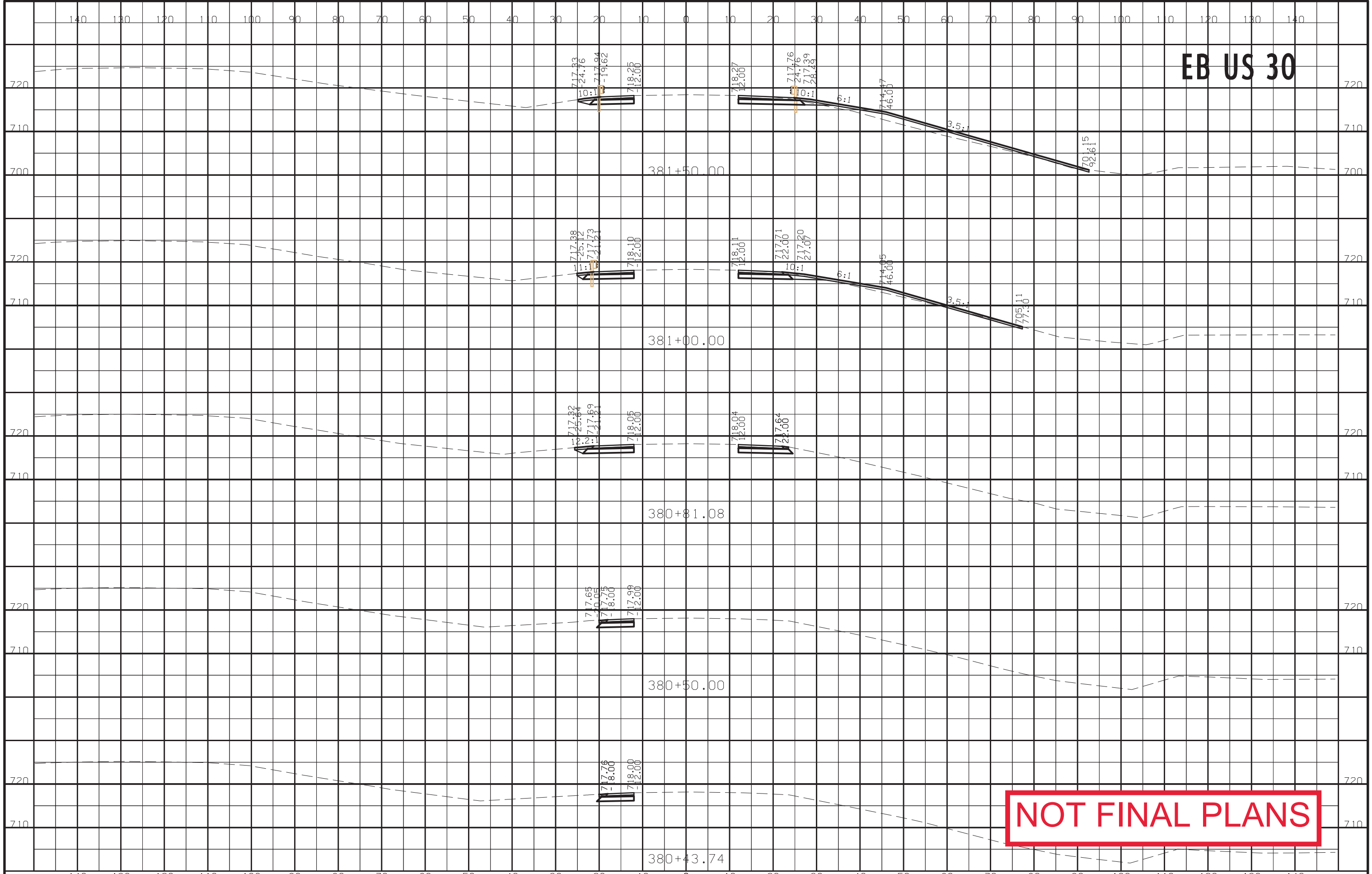
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WB US 30



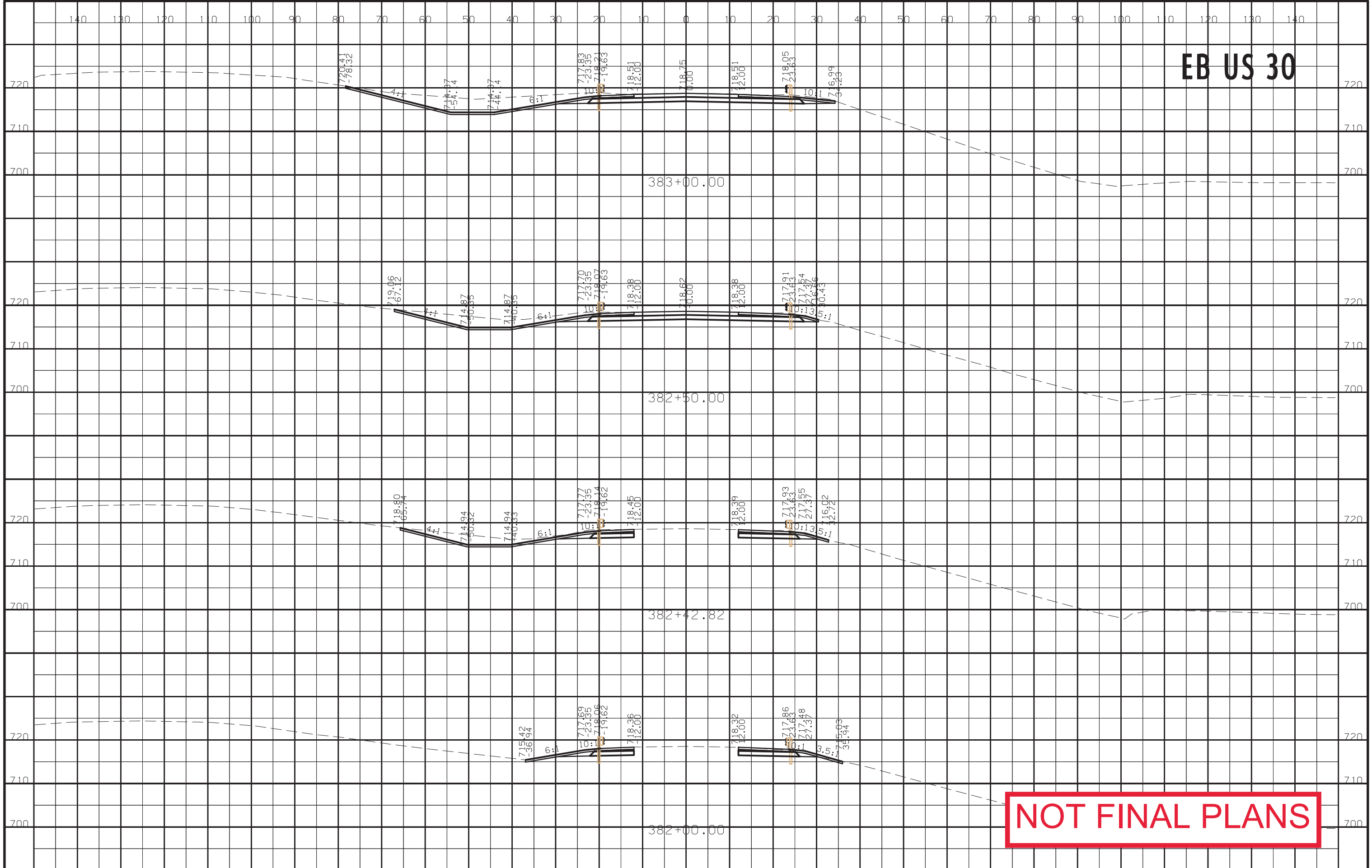
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EB US 30



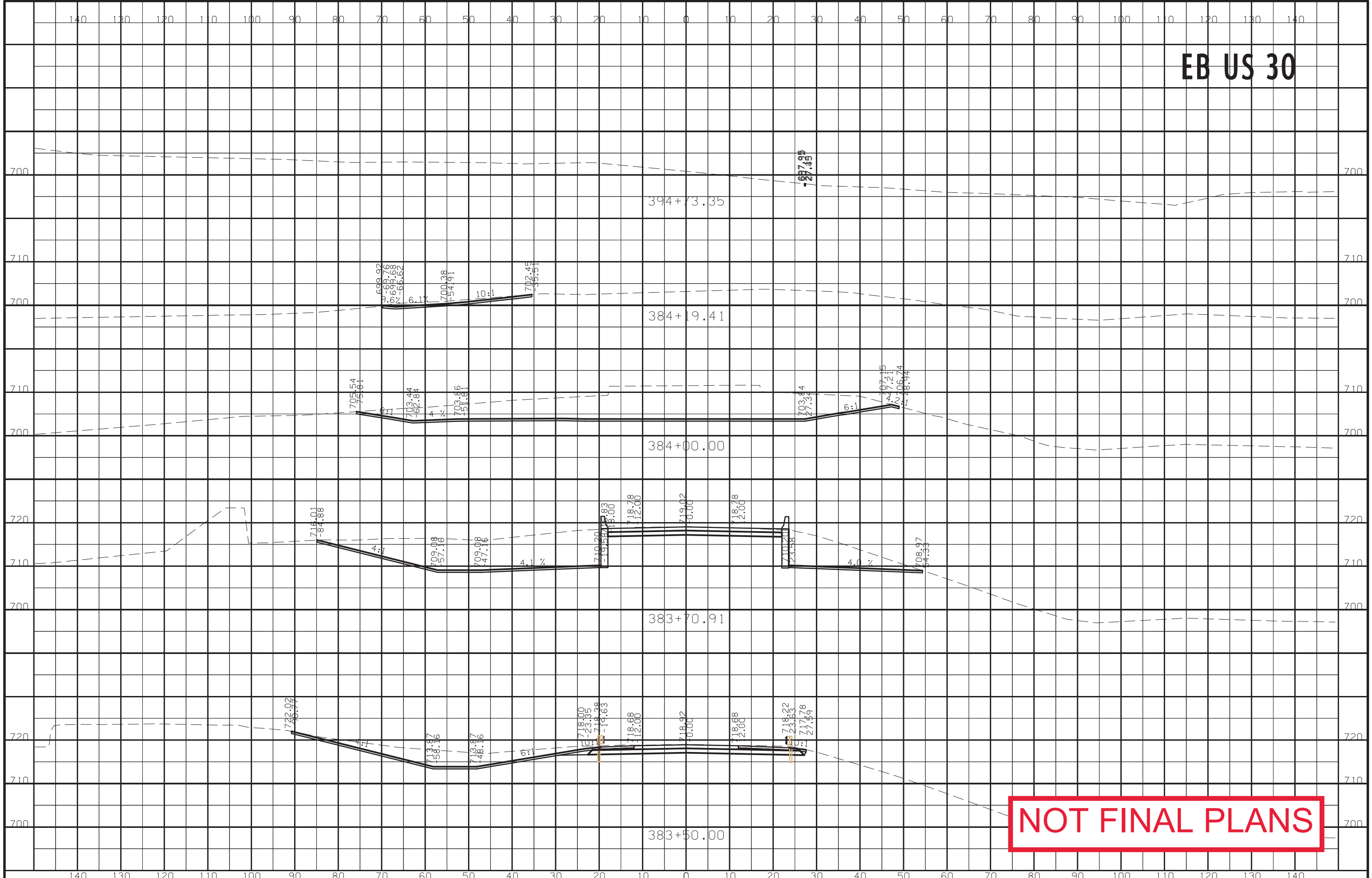
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EB US 30



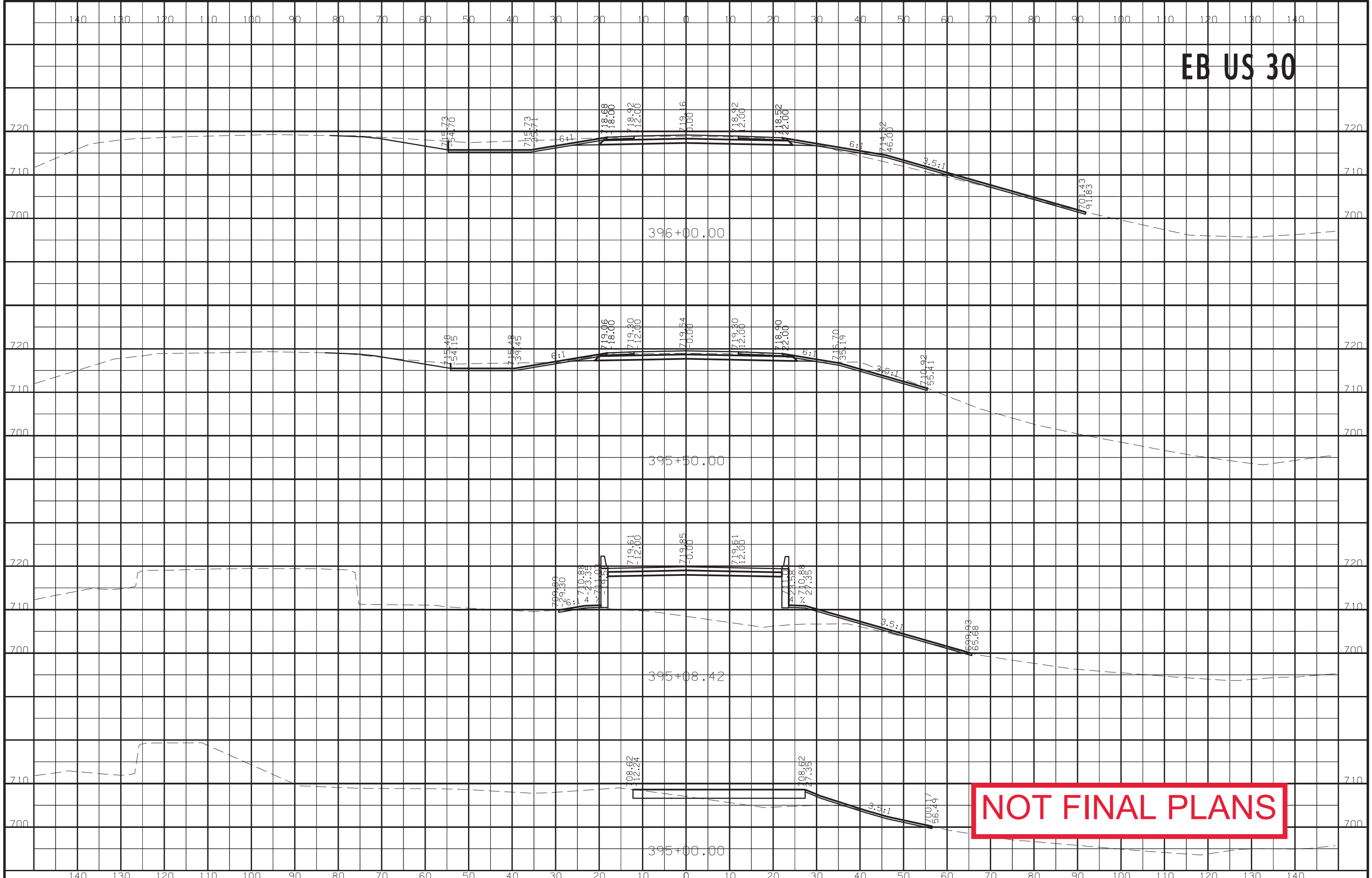
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EB US 30



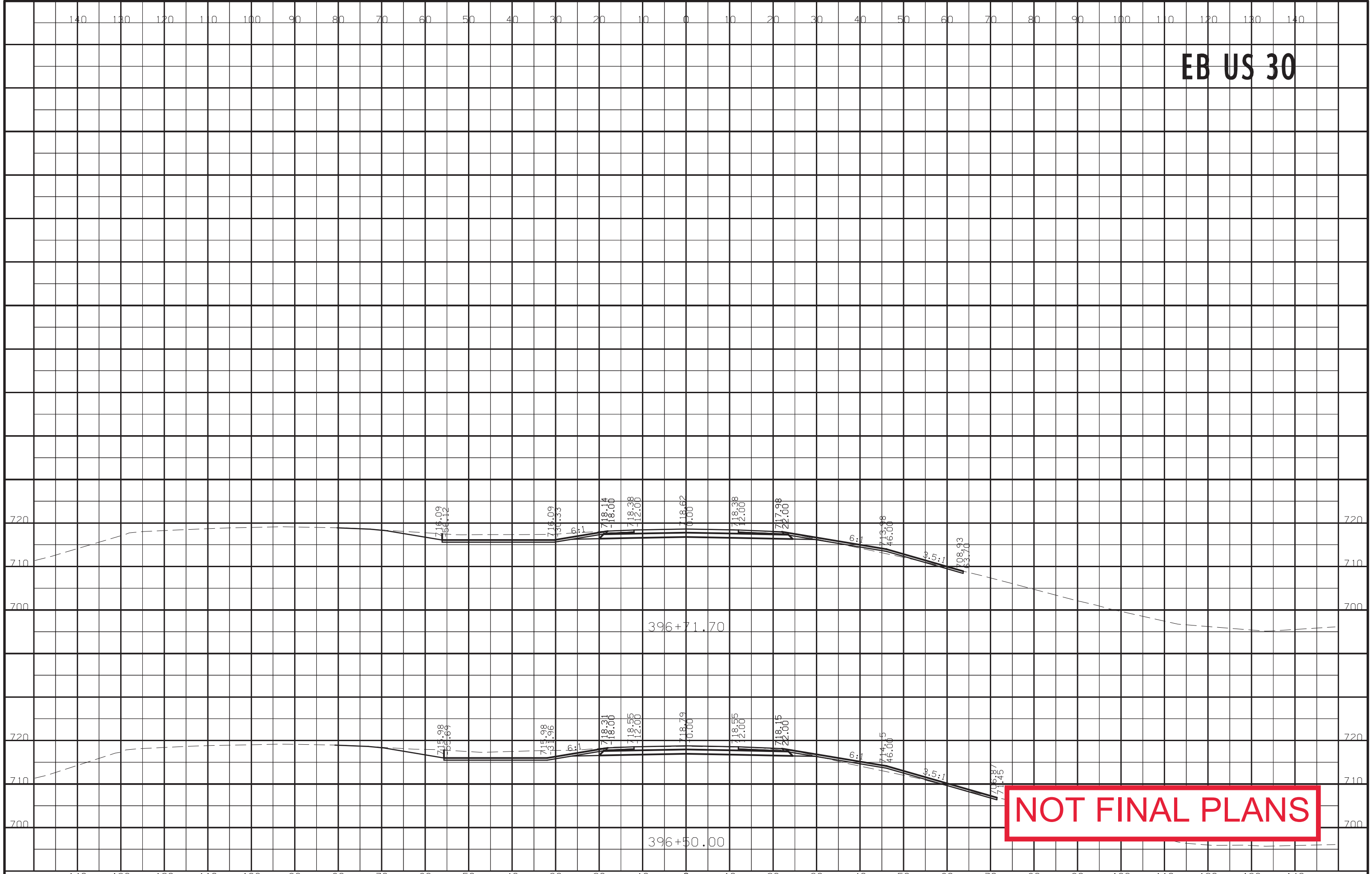
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EB US 30



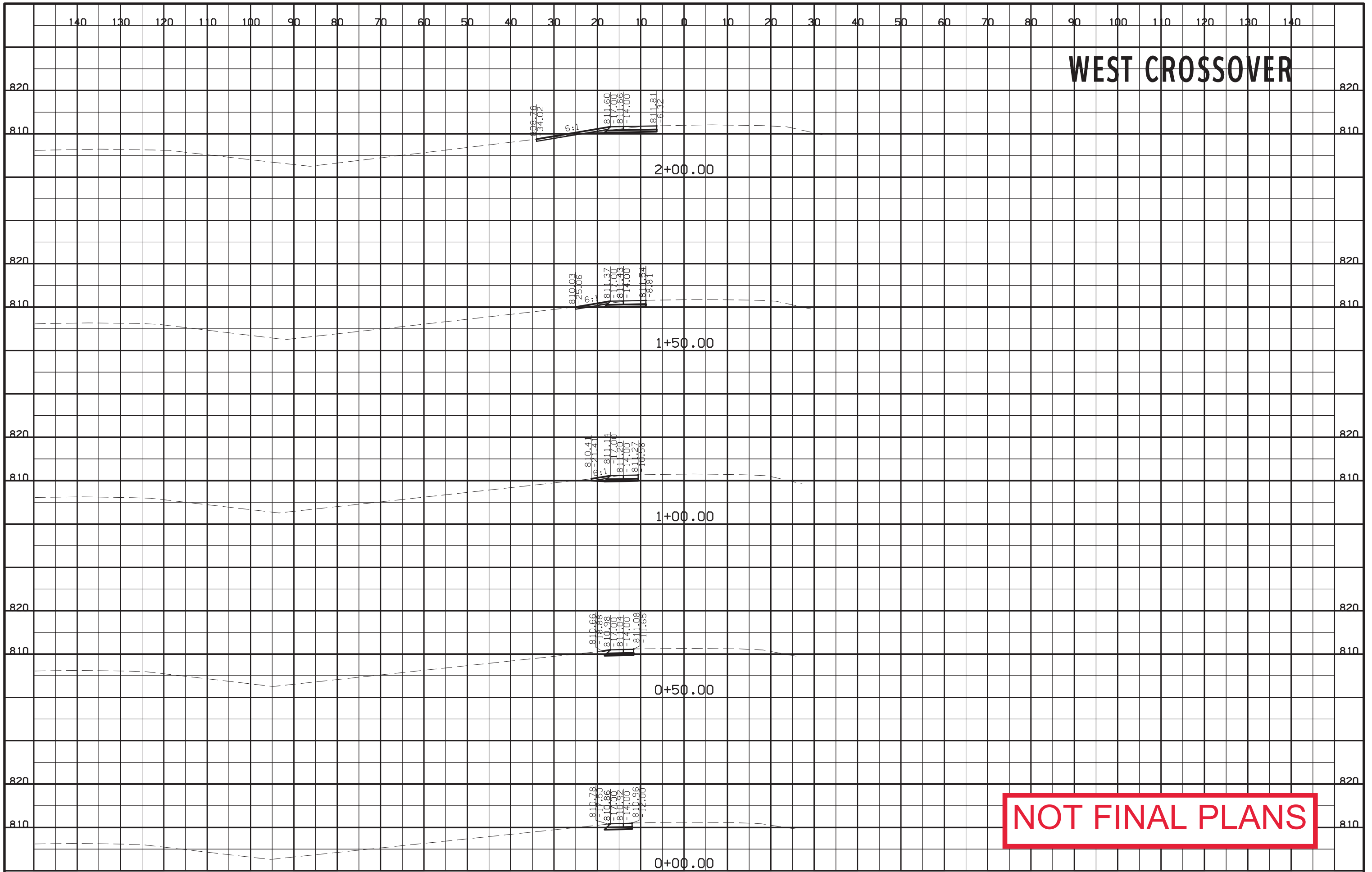
NOT FINAL PLANS

EB US 30



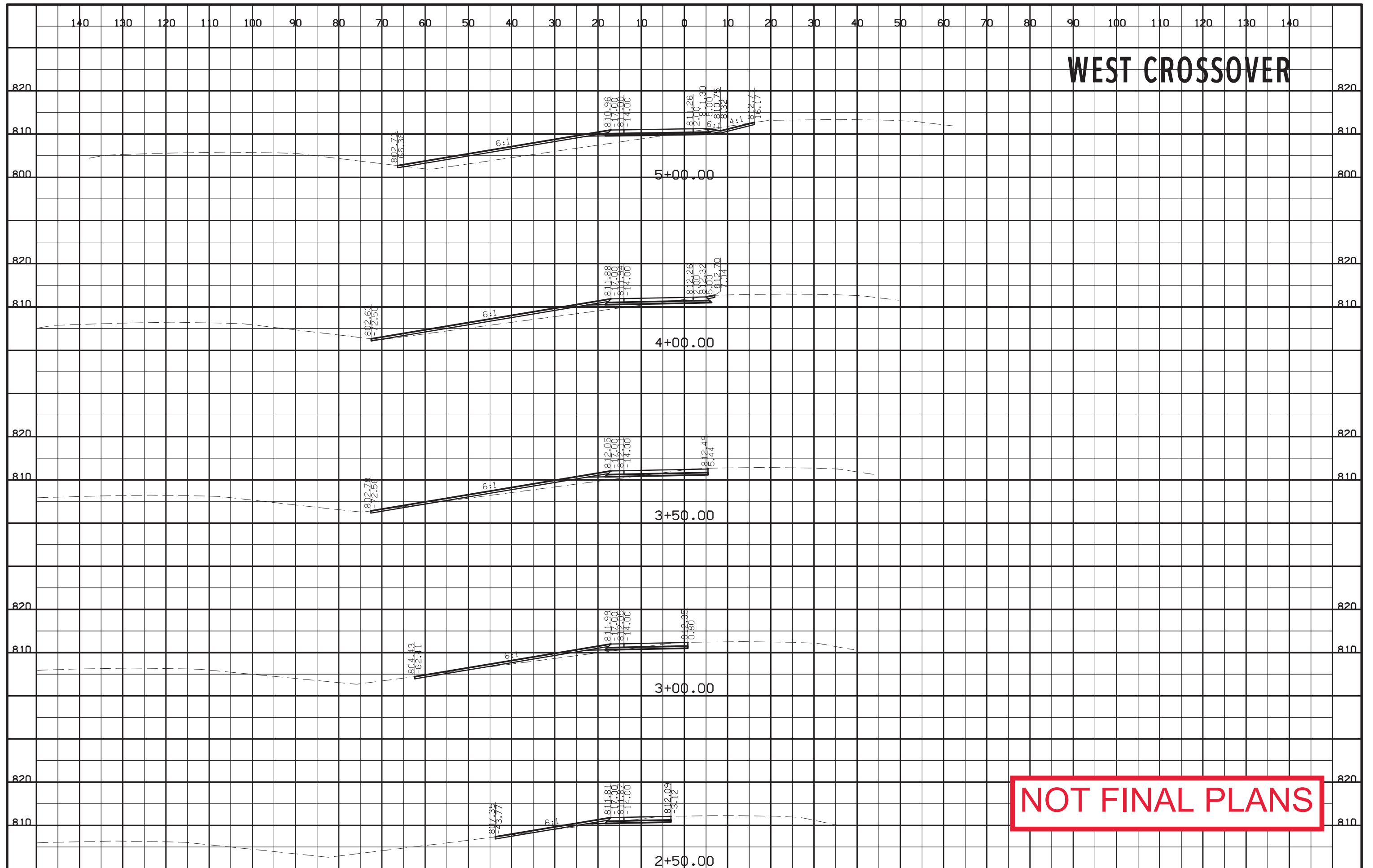
NOT FINAL PLANS

WEST CROSSOVER



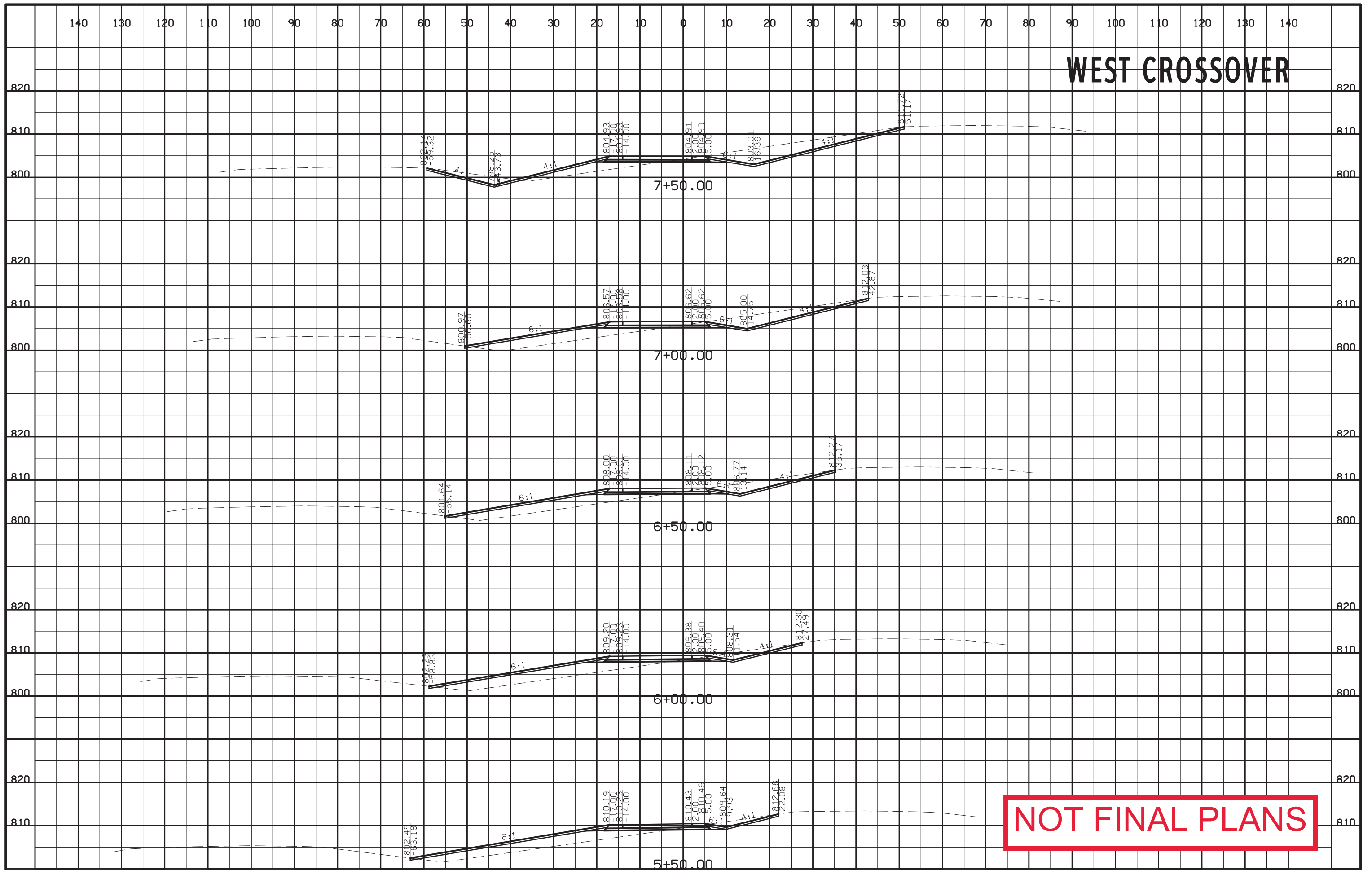
NOT FINAL PLANS

WEST CROSSOVER



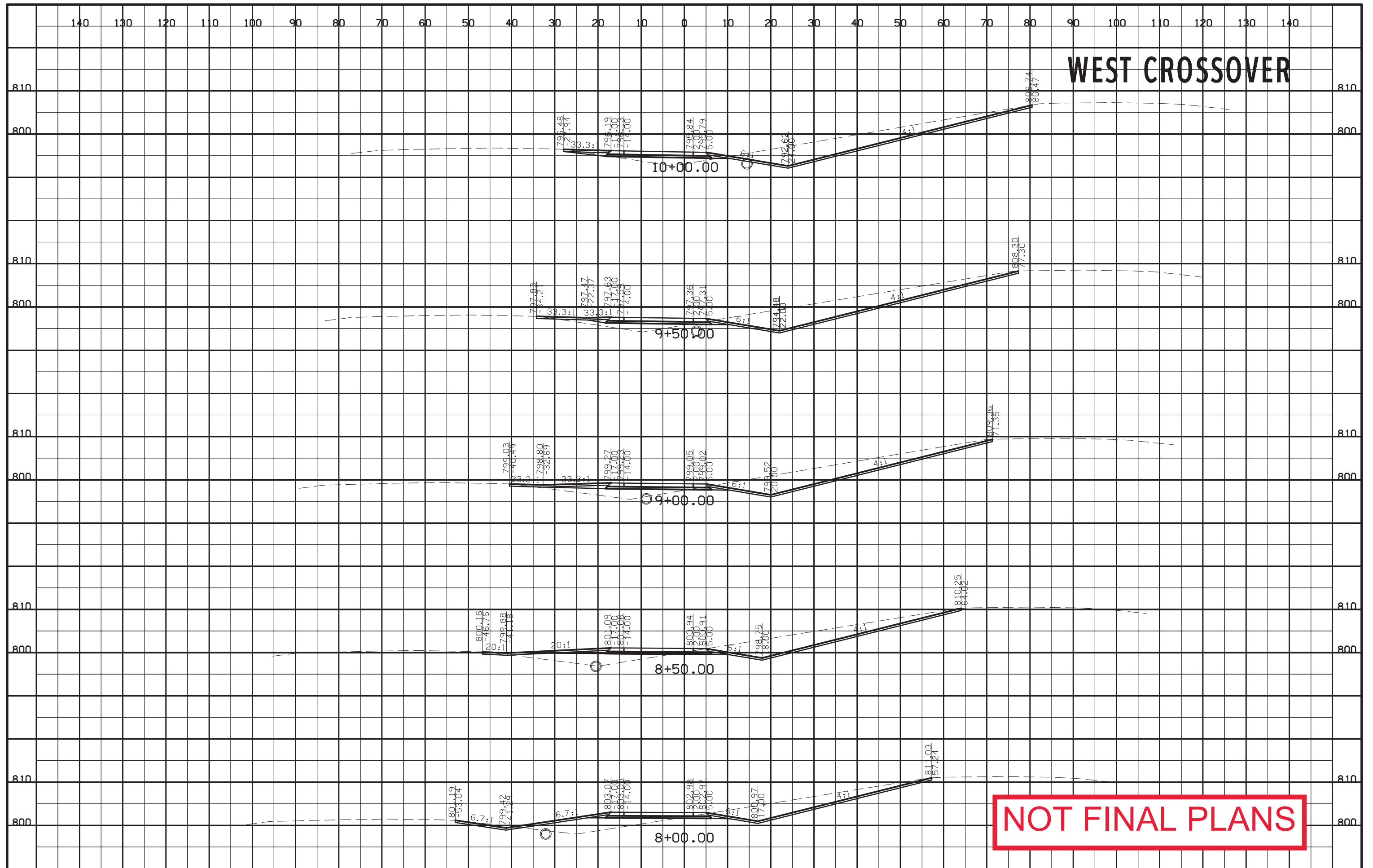
NOT FINAL PLANS

WEST CROSSOVER



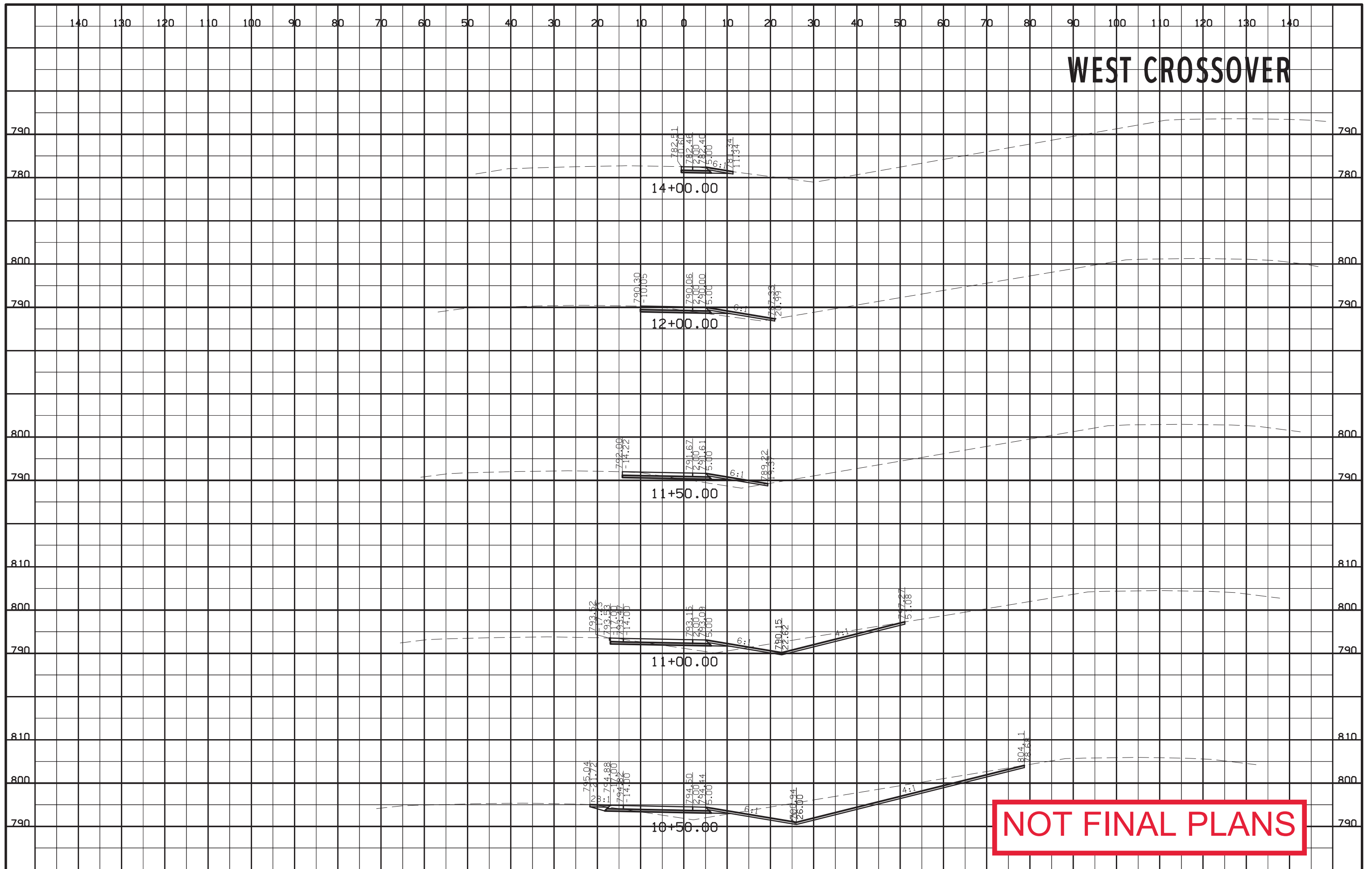
NOT FINAL PLANS

WEST CROSSOVER



NOT FINAL PLANS

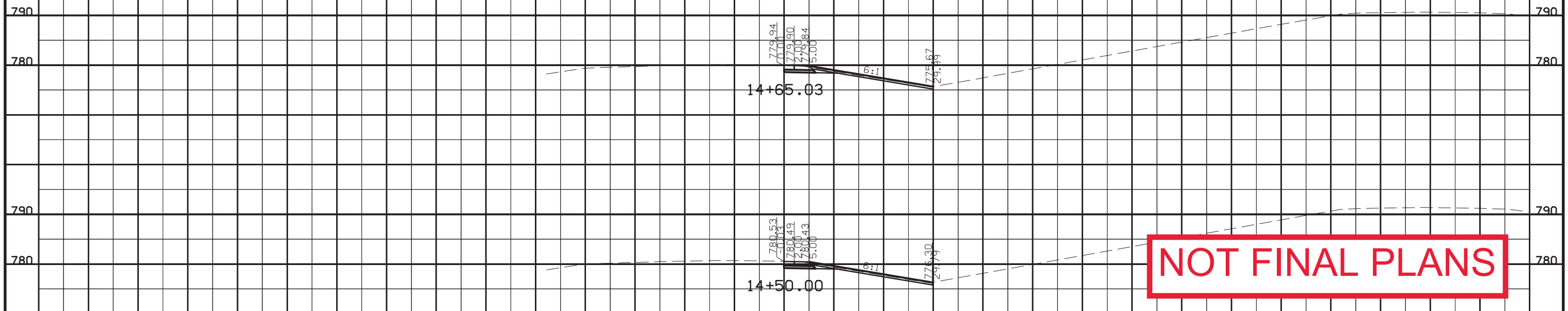
WEST CROSSOVER



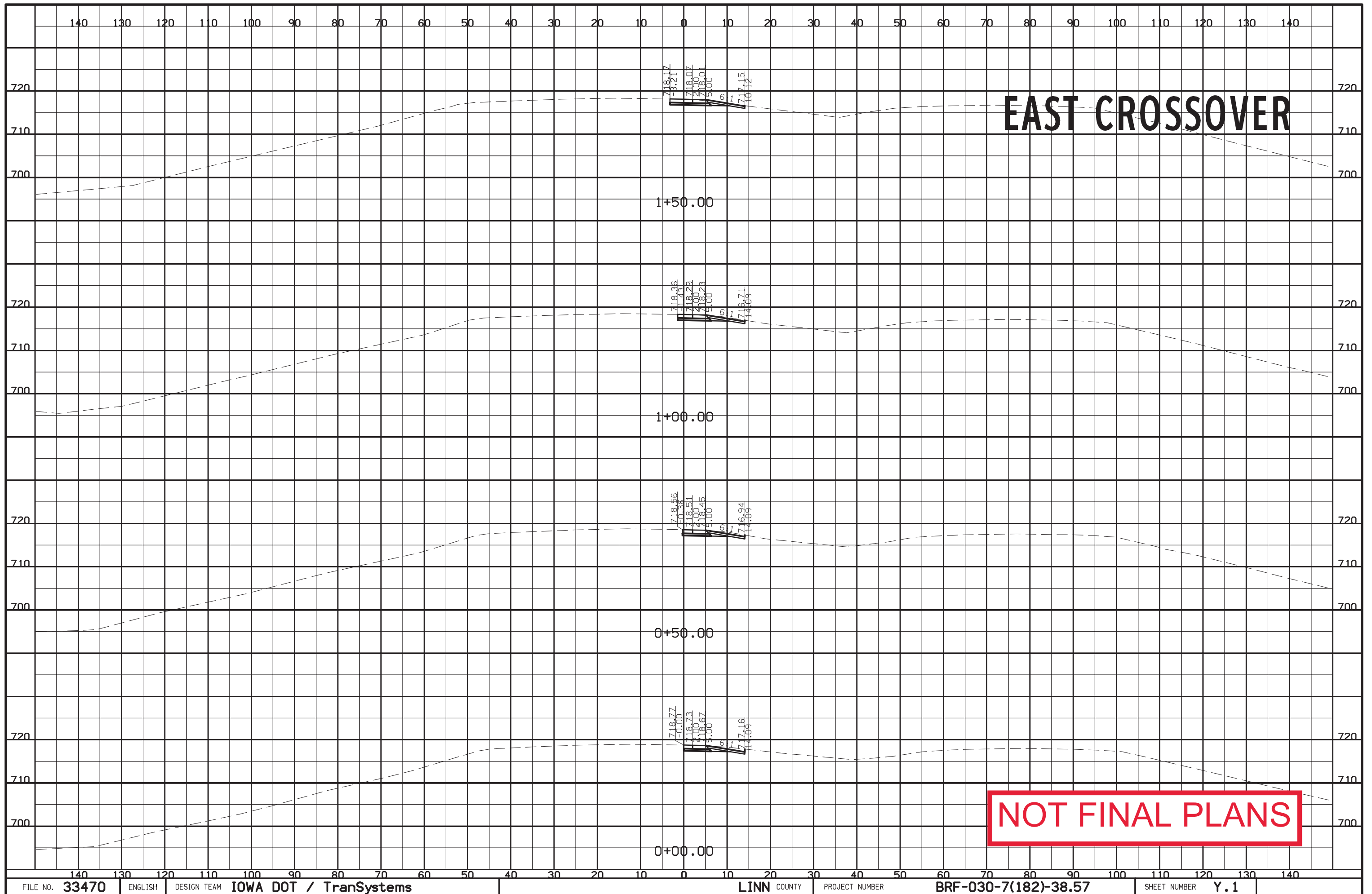
NOT FINAL PLANS

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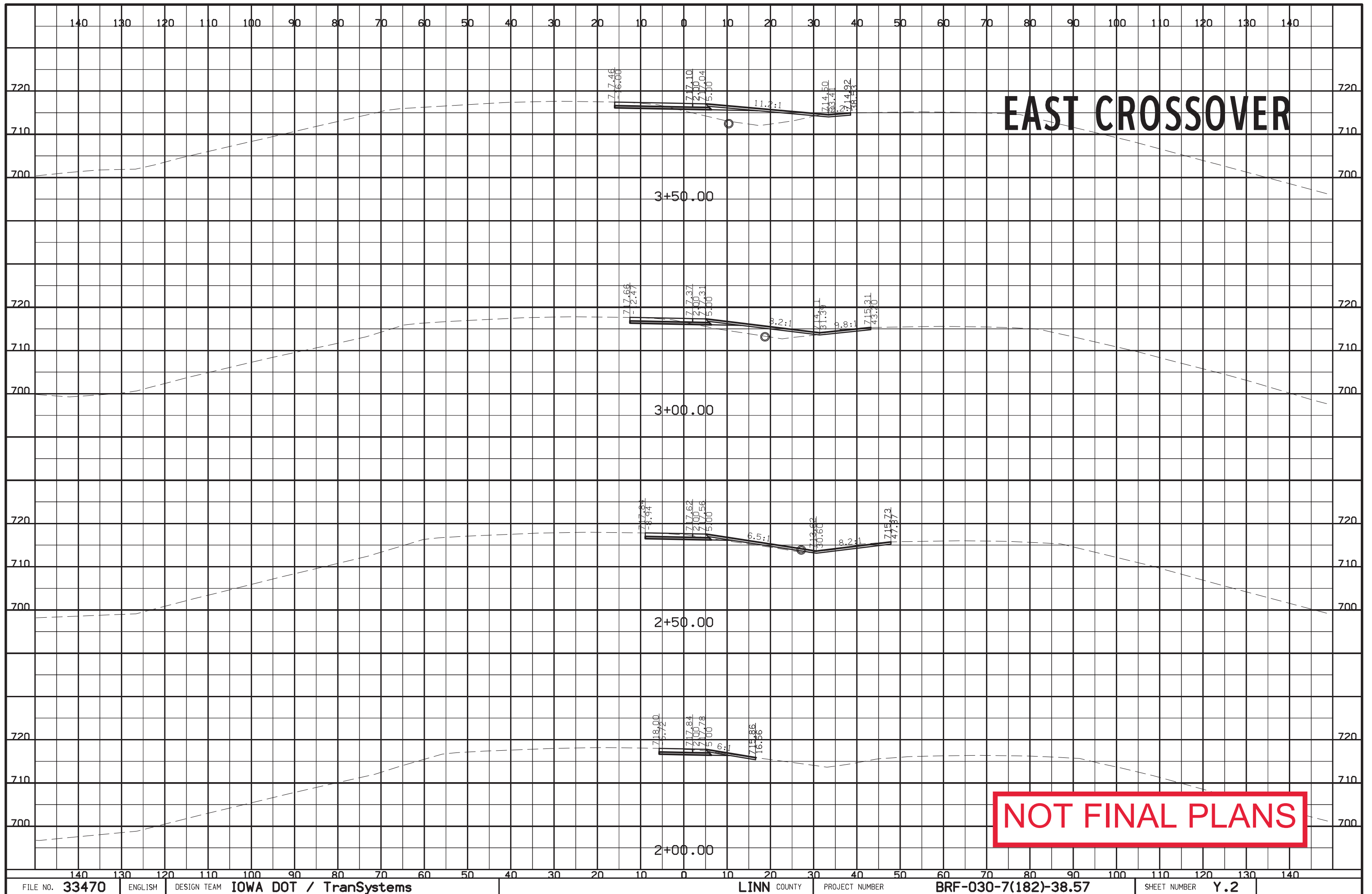
WEST CROSSOVER



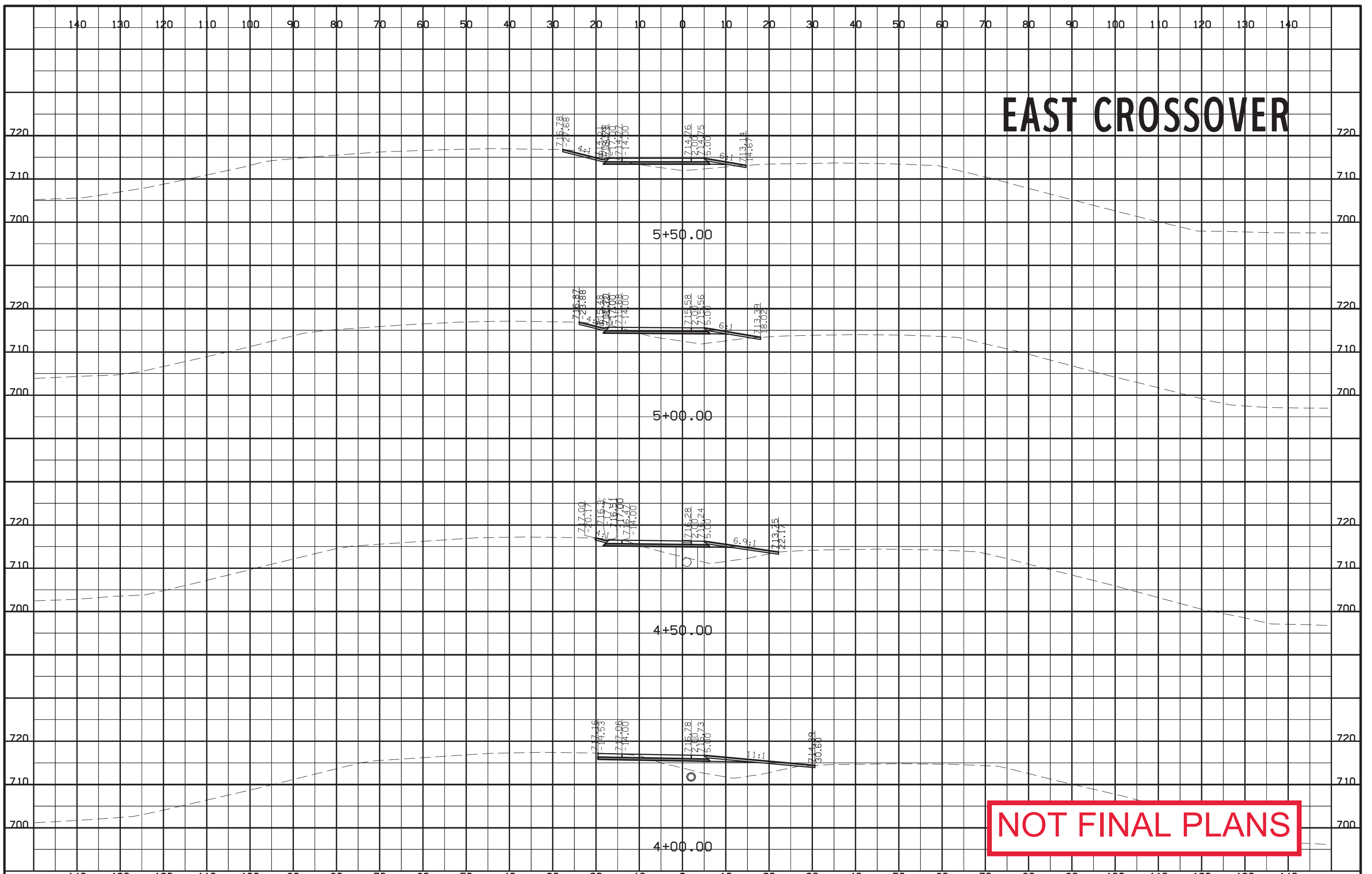
NOT FINAL PLANS



NOT FINAL PLANS



EAST CROSSOVER



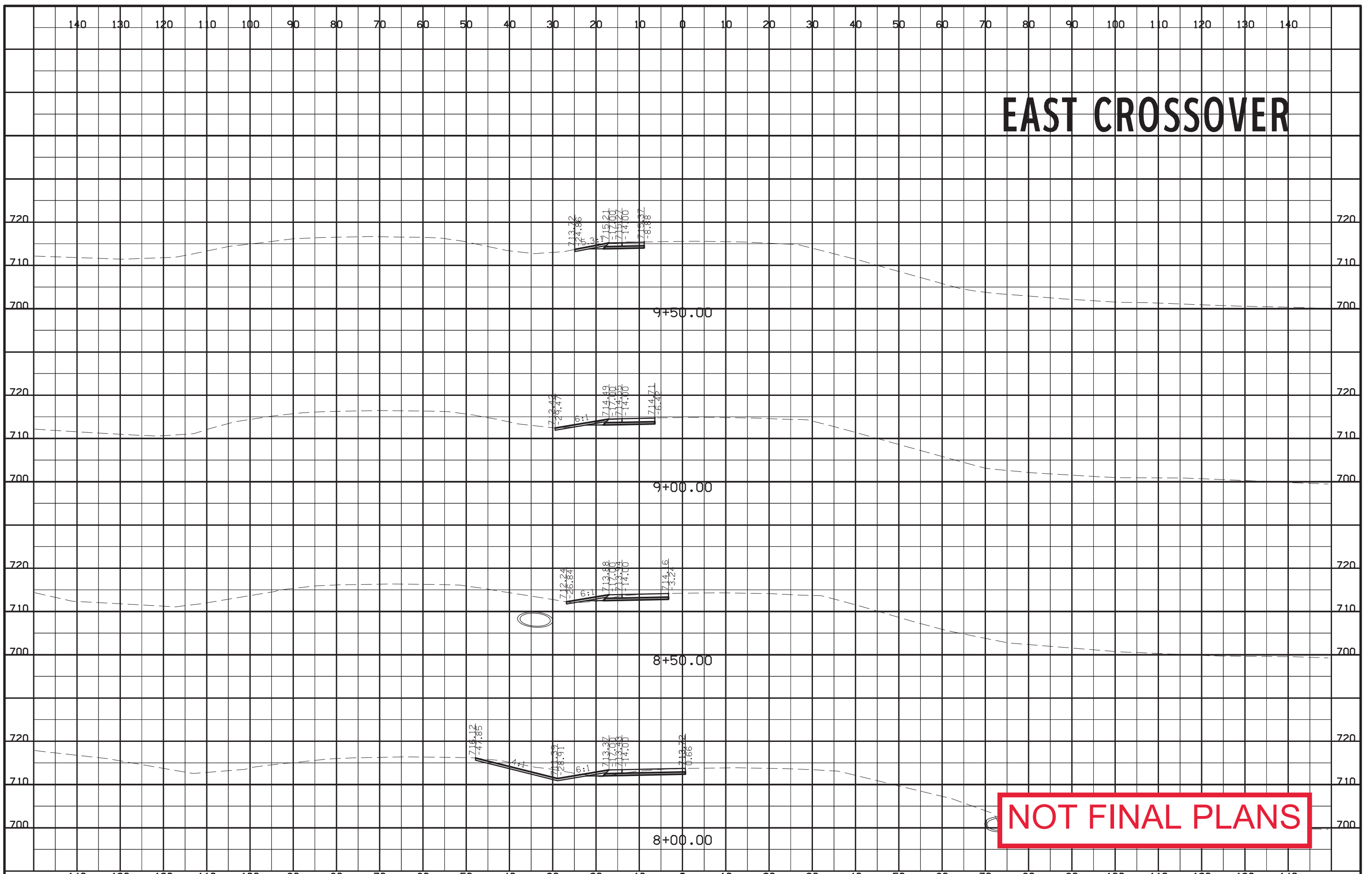
NOT FINAL PLANS

EAST CROSSOVER



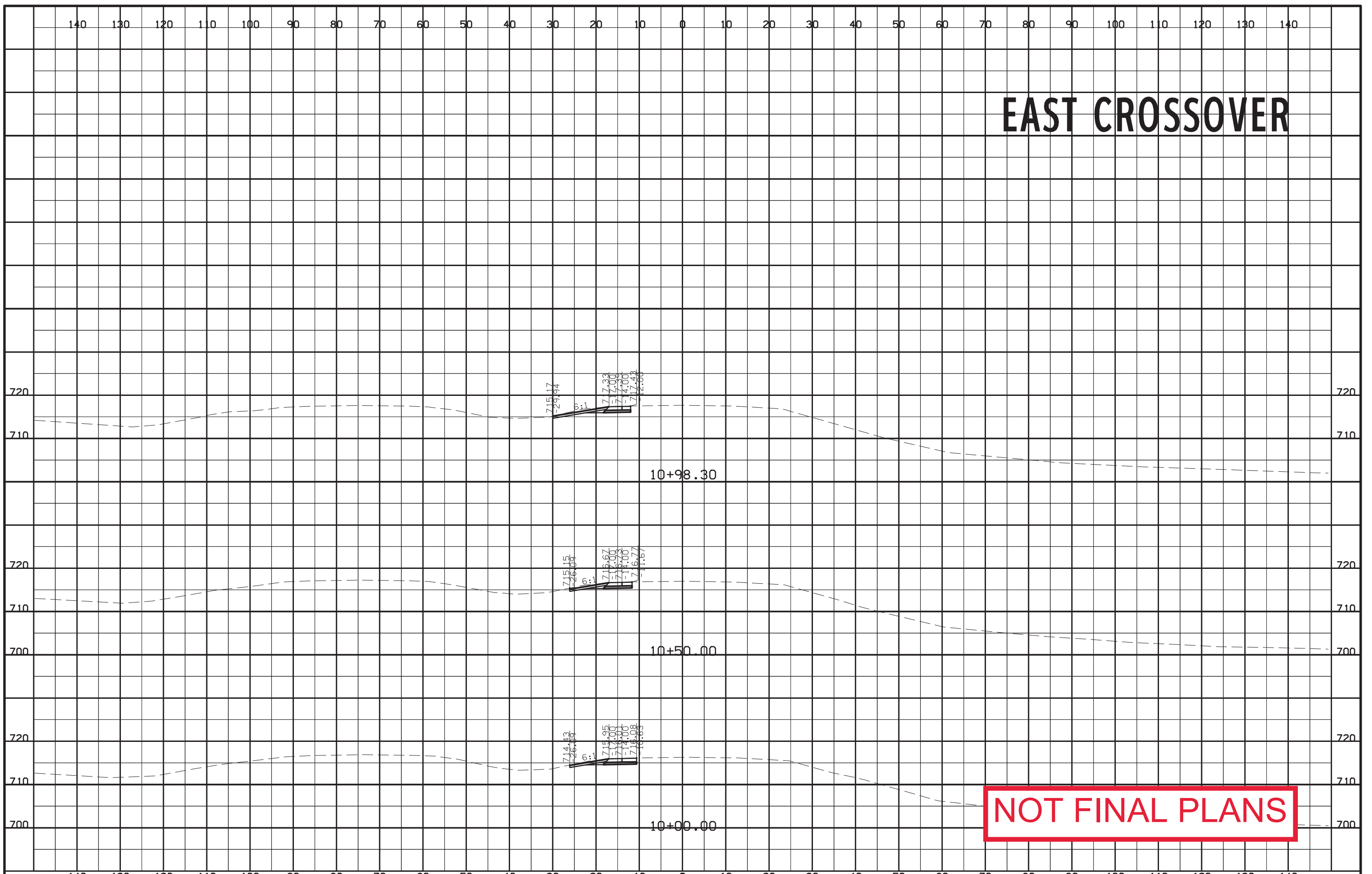
NOT FINAL PLANS

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